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POINT 2011: ENDF/B-VII.1 Beta3 Temperature Dependent Cross Section Library

by
Dermott E. Cullen
University of California
Lawrence Livermore National Laboratory
P.O.Box 808/L-198
Livermore, CA 94550

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Overview

This report is one in the series of "POINT" reports that over the years have presented temperature dependent cross sections for the then current version of ENDF/B. In each case I have used my personal computer at home and publicly available data and codes
:

1) publicly available nuclear data (the current ENDF/B data, available on-line at the National Nuclear Data Center, Brookhaven National Laboratory http://www.nndc.bnl.gov/) and,
2) publicly available computer codes (the current PREPRO codes, available on-line at the Nuclear Data Section, IAEA, Vienna, Austria http://www-nds.iaea.or.at/ndspub/endf/prepro/) and,
3) My own personal computer located in my home.

I have used these in combination to produce the temperature dependent cross sections used in applications and presented in this report. I should mention that today anyone with a personal computer can produce these results.

Introduction

POINT 2011: ENDF/B-VII.1 beta3

The latest **ENDF/B-VII.1 beta3** data library was recently and is now freely available through the National Nuclear Data Center (NNDC), Brookhaven National Laboratory. This release completely supersedes all preceding releases of ENDF/B.

Individual files and/or the complete tarball can also be downloaded from:
http://www.nndc.bnl.gov/x4/beta3/

The **beta3** release is very similar to the **beta2** release, with the same 418 evaluations; there is some differences (usually minor) only in the following evaluations,

Different in beta2 and beta3

2-He-3	28-Ni-62	63-Eu-153	79-Au-197
4-Be-9	42-Mo-92	73-Ta-180	92-U -233
6-C -Nat	42-Mo-95	73-Ta-181	92-U -236
8-O -16	43-Tc-99	74-W -180	92-U -237
11-Na-23	47-Ag-109	74-W -182	92-U -238
17-Cl-35	50-Sn-115	74-W -184	92-U -239
23-V -51	54-Xe-124	74-W -186	94-Pu-238
24-Cr-52	55-Cs-133	75-Re-185	94-Pu-241
27-Co-58	60-Nd-145	75-Re-187	

At the Wiki page https://ndclx4.bnl.gov/gf/project/endf/wiki/, you will find:
- 'Beta3 vs VII.0' - list of differences between the current beta3 release and ENDF/B-VII.0
- 'Beta3 vs Beta2' - list of differences between the current beta3 release and the previous beta2

In addition, a short file ENDF-B-VII.1beta3-release-notes.pdf is provided.

POINT 2011: ENDF/B-VII.1 beta3 versus beta2

The remainder of this report is merely a copy of POINT2011 beta2 report.

WARNING: The final ENDF/B-VII.1 will not be distributed until about the end of 2011; this will give us time to test the present VII.1 beta2 library. Throughout the remainder of this report I will refer to VII.1, as shorthand in actually referring to VI.1 beta2 – I can only hope this does not result in any confusion.

As distributed the ENDF/B-VII.1 data includes cross sections represented in the form of a combination of resonance parameters and/or tabulated energy dependent cross sections, nominally at 0 Kelvin temperature.

For use in our applications the ENDF/B-VII.1 library has been processed into cross sections at eight neutron reactor like temperatures, between 0 and 2100 Kelvin, in steps of 300 Kelvin (the exception being 293.6 Kelvin, for exact room temperature at 20 Celsius). It has also been processed to five astrophysics like temperatures, 1, 10, 100 eV, 1 and 10 keV. For reference purposes, 300 Kelvin is approximately 1/40 eV, so that 1 eV is approximately 12,000 Kelvin. At each temperature the cross sections are tabulated and linearly interpolable in energy.

All results are in the computer independent ENDF-6 character format [R2], which allows the data to be easily transported between computers. In its processed form the POINT 2011 library is approximately 16 gigabyte in size and is distributed on one compressed DVDs (see, below for the details of the contents of each DVD).

POINT 2011: ENDF/B-VII.1 beta2

ENDF/B-VII.1 beta2 (I will refer to it as VII.1) which was recently released by CSEWG, includes 418 evaluations, compared to the earlier VII.0 which included 393 evaluations. Of the 418 evaluations in VII.1, 391 are evaluations for the same materials as in VII.0, and 27 are new evaluations. Two VII.0 evaluation for naturally occurring elemental mixtures that were included in VII.0, namely, **23-V – Nat** and **30-Zn-Nat**, have been dropped and replaced by isotopic evaluations in VII.1.

For use in applications it is obviously useful to know what has and has not changed between the older ENDF/B-VII.0 and newer VII.1 data libraries; below is a summary. Based on my character-by-character comparisons of VII.1 and VII.0 for all MF=1 through 6 data (data that can directly affect neutron transport), I have found (see Appendix D for details),

New evaluation…….. 27
Identical……. 153
Modified……. 238
Total……418

New evaluations in VII.1, not in VII.0 (27 Evaluations); note isotopes of V and Zn

23-V -50	30-Zn-68	91-Pa-230	97-Bk-245	99-Es-251
23-V -51	30-Zn-70	92-U -230	97-Bk-246	99-Es-252
30-Zn-64	73-Ta-180	92-U -231	97-Bk-247	99-Es-254m
30-Zn-65	74-W -180	93-Np-234	97-Bk-248	
30-Zn-66	90-Th-231	95-Am-240	98-Cf-246	
30-Zn-67	91-Pa-229	96-Cm-240	98-Cf-248	

Evaluations that are Identical in VII.0 and VII.1 (153 Evaluations)

1-H -2	28-Ni-59	39-Y -90	49-In-113	54-Xe-128	63-Eu-151
2-He-3	31-Ga-71	39-Y -91	49-In-115	54-Xe-129	63-Eu-154
3-Li-7	32-Ge-70	40-Zr-95	50-Sn-112	54-Xe-132	63-Eu-155
5-B -10	32-Ge-72	41-Nb-94	50-Sn-114	54-Xe-133	63-Eu-156
5-B -11	32-Ge-73	41-Nb-95	50-Sn-116	54-Xe-135	65-Tb-159
6-C -Nat	32-Ge-74	42-Mo-98	50-Sn-117	54-Xe-136	66-Dy-161
7-N -15	32-Ge-76	42-Mo-99	50-Sn-118	55-Cs-134	68-Er-162
8-O -17	34-Se-74	42-Mo-100	50-Sn-119	55-Cs-135	68-Er-164
12-Mg-24	34-Se-76	44-Ru-96	50-Sn-120	55-Cs-136	68-Er-167
12-Mg-25	34-Se-77	44-Ru-98	50-Sn-122	55-Cs-137	68-Er-168
12-Mg-26	34-Se-78	44-Ru-99	50-Sn-123	56-Ba-130	71-Lu-175
13-Al-27	34-Se-79	44-Ru-102	50-Sn-124	56-Ba-132	71-Lu-176
14-Si-28	34-Se-80	44-Ru-103	50-Sn-126	56-Ba-134	73-Ta-182
18-Ar-36	34-Se-82	44-Ru-104	51-Sb-121	56-Ba-135	79-Au-197
18-Ar-38	35-Br-79	44-Ru-105	51-Sb-124	56-Ba-136	82-Pb-204
19-K -40	35-Br-81	44-Ru-106	51-Sb-125	56-Ba-138	83-Bi-209
20-Ca-40	36-Kr-80	45-Rh-105	52-Te-120	56-Ba-140	88-Ra-223
20-Ca-42	36-Kr-82	46-Pd-102	52-Te-122	57-La-138	88-Ra-224
20-Ca-43	36-Kr-83	46-Pd-104	52-Te-123	58-Ce-142	88-Ra-225
20-Ca-44	36-Kr-84	46-Pd-105	52-Te-125	58-Ce-144	88-Ra-226
20-Ca-46	37-Rb-85	46-Pd-106	52-Te-127m	59-Pr-141	94-Pu-241
20-Ca-48	38-Sr-86	46-Pd-107	52-Te-128	59-Pr-142	94-Pu-243
26-Fe-58	38-Sr-87	46-Pd-108	52-Te-129m	59-Pr-143	95-Am-243
27-Co-58	38-Sr-88	46-Pd-110	52-Te-130	61-Pm-148m	
27-Co-58m	38-Sr-89	47-Ag-107	53-I -129	62-Sm-151	
27-Co-59	38-Sr-90	47-Ag-110m	53-I -131	62-Sm-152	

Evaluations Modified between VII.0 and VII.1 (238 Evaluations)

1-H -1	28-Ni-62	48-Cd-116	61-Pm-151	74-W -186	93-Np-237
1-H -3	28-Ni-64	50-Sn-113	62-Sm-144	75-Re-185	93-Np-238
2-He-4	29-Cu-63	50-Sn-115	62-Sm-147	75-Re-187	93-Np-239
3-Li-6	29-Cu-65	50-Sn-125	62-Sm-148	77-Ir-191	94-Pu-236
4-Be-7	31-Ga-69	51-Sb-123	62-Sm-149	77-Ir-193	94-Pu-237
4-Be-9	33-As-74	51-Sb-126	62-Sm-150	80-Hg-196	94-Pu-238
7-N -14	33-As-75	52-Te-124	62-Sm-153	80-Hg-198	94-Pu-239
8-O -16	36-Kr-78	52-Te-126	62-Sm-154	80-Hg-199	94-Pu-240
9-F -19	36-Kr-85	52-Te-132	63-Eu-152	80-Hg-200	94-Pu-242
11-Na-22	36-Kr-86	53-I -127	63-Eu-153	80-Hg-201	94-Pu-244
11-Na-23	37-Rb-86	53-I -130	63-Eu-157	80-Hg-202	94-Pu-246
14-Si-29	37-Rb-87	53-I -135	64-Gd-152	80-Hg-204	95-Am-241
14-Si-30	38-Sr-84	54-Xe-123	64-Gd-153	82-Pb-206	95-Am-242
15-P -31	39-Y -89	54-Xe-124	64-Gd-154	82-Pb-207	95-Am-242m
16-S -32	40-Zr-90	54-Xe-126	64-Gd-155	82-Pb-208	95-Am-244
16-S -33	40-Zr-91	54-Xe-130	64-Gd-156	89-Ac-225	95-Am-244m
16-S -34	40-Zr-92	54-Xe-131	64-Gd-157	89-Ac-226	96-Cm-241
16-S -36	40-Zr-93	54-Xe-134	64-Gd-158	89-Ac-227	96-Cm-242
17-Cl-35	40-Zr-94	55-Cs-133	64-Gd-160	90-Th-227	96-Cm-243
17-Cl-37	40-Zr-96	56-Ba-133	65-Tb-160	90-Th-228	96-Cm-244
18-Ar-40	41-Nb-93	56-Ba-137	66-Dy-156	90-Th-229	96-Cm-245
19-K -39	42-Mo-92	57-La-139	66-Dy-158	90-Th-230	96-Cm-246
19-K -41	42-Mo-94	57-La-140	66-Dy-160	90-Th-232	96-Cm-247
21-Sc-45	42-Mo-95	58-Ce-136	66-Dy-162	90-Th-233	96-Cm-248
22-Ti-46	42-Mo-96	58-Ce-138	66-Dy-163	90-Th-234	96-Cm-249
22-Ti-47	42-Mo-97	58-Ce-139	66-Dy-164	91-Pa-231	96-Cm-250
22-Ti-48	43-Tc-99	58-Ce-140	67-Ho-165	91-Pa-232	97-Bk-249
22-Ti-49	44-Ru-100	58-Ce-141	67-Ho-166m	91-Pa-233	97-Bk-250
22-Ti-50	44-Ru-101	58-Ce-143	68-Er-166	92-U -232	98-Cf-249
24-Cr-50	45-Rh-103	60-Nd-142	68-Er-170	92-U -233	98-Cf-250
24-Cr-52	47-Ag-109	60-Nd-143	72-Hf-174	92-U -234	98-Cf-251
24-Cr-53	47-Ag-111	60-Nd-144	72-Hf-176	92-U -235	98-Cf-252
24-Cr-54	48-Cd-106	60-Nd-145	72-Hf-177	92-U -236	98-Cf-253
25-Mn-55	48-Cd-108	60-Nd-146	72-Hf-178	92-U -237	98-Cf-254
26-Fe-54	48-Cd-110	60-Nd-147	72-Hf-179	92-U -238	99-Es-253
26-Fe-56	48-Cd-111	60-Nd-148	72-Hf-180	92-U -239	99-Es-254
26-Fe-57	48-Cd-112	60-Nd-150	73-Ta-181	92-U -240	99-Es-255
28-Ni-58	48-Cd-113	61-Pm-147	74-W -182	92-U -241	100-Fm-255
28-Ni-60	48-Cd-114	61-Pm-148	74-W -183	93-Np-235	
28-Ni-61	48-Cd-115m	61-Pm-149	74-W -184	93-Np-236	

For details of VII.1 versus VII.0 see the below tables in Appendices B and D.

PREPRO 2010 Codes

In addition to the changes in the ENDF/B-VII.1 evaluations, it should be noted that between the last version of this report, where the PREPRO 2007 codes were used, and the current version, where the PREPRO 2010 codes were used, there have been major improvements in the ENDF/B Pre-processing codes (PREPRO). The major improvements were both in terms of improving the basic methods used by the codes and in terms of incorporating the latest ENDF-6 Formats and Procedures used by the current evaluations. The result is more accurate cross section data throughout the POINT 2011 library.

WARNING – due to recent changes in ENDF-6 Formats and Procedures only the latest version of the ENDF/B Pre-processing codes, namely PREPRO 2010, can be used to accurately process all current ENDF/B-VII evaluations. If you fail to heed this warning and you use any earlier versions of these codes the results will be inaccurate.

The PREPRO 2010 codes run on virtually any computer, and will soon be available FREE on-line from the Nuclear Data Section, IAEA, Vienna, Austria, website at,

http://www-nds.iaea.or.at/ndspub/endf/prepro/

Data Processing

As distributed the original evaluated data includes cross sections represented in the form of a combination of resonance parameters and/or tabulated energy dependent cross sections, nominally at 0 Kelvin temperature. For use in applications, this data has been processed using the 2010 version of the ENDF/B Pre-processing codes (PREPRO 2010) to produce temperature dependent, linearly interpolable in energy, tabulated cross sections, in the ENDF-6 format.

For use in applications this library has been processed into the form of temperature dependent cross sections at eight neutron reactor like temperatures, between 0 and 2100 Kelvin, in steps of 300 Kelvin (the exception being 293.6 Kelvin, for exact room temperature at 20 Celsius). It has also been processed to five astrophysics like temperatures, 1, 10, 100 eV, 1 and 10 keV. For reference purposes, 300 Kelvin is approximately 1/40 eV, so that 1 eV is approximately 12,000 Kelvin. At each temperature the cross sections are tabulated and linearly interpolable in energy.

The steps required and codes used to produce room temperature, linearly interpolable tabulated cross sections, in the ENDF-6 format, are described below (the name of each code in given in parenthesis; for details of each code see reference [R3]).

Here are the steps, and PREPRO 2010 codes, used to process the data, in the order in which the codes were used.

1) Linearly interpolable, tabulated cross sections (**LINEAR**)
2) Including the resonance contribution (**RECENT**)
3) Doppler broaden all cross sections to temperature (**SIGMA1**)
4) Check data, define redundant cross sections by summation (**FIXUP**)
5) Update evaluation dictionary in MF/MT=1/451 (**DICTIN**)

For the "cold" (0 Kelvin) data steps 1), 2) and 4), 5) were used (no Doppler broadening). For the data at other temperatures, after steps 1) and 2), the data was Doppler broadened to each temperature using step 3), and the results were then made consistent with the ENDF/B formats and conventions using steps 4) and 5), to produce the final distributed data.

The result is linearly interpolable in energy, tabulated, temperature dependent cross sections, in the ENDF-6 format, ready to be used in applications.

Note - this processing only involved the energy dependent neutron cross sections. All other data in the evaluations, e.g., angular and energy distributions, was not affected by this processing, and is identical in all versions of the final results, i.e., it is the same in all of the directories, ORIGINAL, as well as K0 through K2100, and 1ev through 10kev, on the DVDs.

Accuracy of Results

Each of the codes described above that was used to process data to obtain tabulated, linearly interpolable in energy cross sections, processed the data to within a user defined accuracy, or allowable uncertainty. The ENDF/B Pre-processing codes (PREPRO 2010) are self-documenting, in the sense that the ENDF/B formatted output data that each code produces includes comments at the beginning of each evaluation defining the accuracy to which the cross sections were calculated. The combination of comments added by all of the codes defines the sequence and accuracy used by all of them. The accuracy is the same for all evaluations. Therefore, for exact details of the accuracy of the data, see the comments at the beginning of any evaluation. For use in POINT 2011 all cross sections were reconstructed to within an accuracy of 0.01% in the thermal range, and 0.1 % at all other energies and temperatures; this is beyond the accuracy to which this data in known, so that I assume that the data processing does not add any significant additional error to the inherent error of the data.

Contents of the Library

This library **contains** all of the evaluations in the ENDF/B-VI.1 general purpose library. A table in the appendix summarizes the contents of the ENDF/B-VII.1 general purpose library. This library contains evaluations for 418 materials (isotopes or naturally occurring elemental mixtures of isotopes).

This library **does not contain** data from special purpose ENDF/B-VII libraries, such as fission products, thermal scattering, photon interaction data. To obtain any of these special purpose libraries contact the National Nuclear Data Center, Brookhaven National Laboratory,

ENDF@bnlnd2.dne.bnl.gov

In the POINT 2011 library each evaluation is stored as a separate file. The following table defines each material and the corresponding filename. The entire library is in the computer independent ENDF-6 character format, which allows the data to be easily transported between computers. The entire library requires approximately 16 gigabyte of storage and is distributed on one DVD compressed; see below for details of the DVD.

This library contains data for some metastable materials, which are indicated by an "M" at the end of their descriptions.

The majority of these evaluations are complete, in the sense that they include all cross sections over the energy range 10^{-5} eV to at least 20 MeV. See the appendix for a list of all evaluations, plus a separate list of incomplete evaluations; there are now only a few.

The DVD single is compressed; when uncompressed you will find a single directory named POINT2011 containing fifteen (15) sub-directories,

DOCUMENT - A copy of this report in MSWord and PDF formats.
ORIGINAL - The original ENDF/B data before it was processed.
K0 - 0 Kelvin cross sections
K293.6 - 293.6 Kelvin cross sections
K600 - 600 Kelvin cross sections
K900 - 900 Kelvin cross sections
K1200 - 1200 Kelvin cross sections
K1500 - 1500 Kelvin cross sections
K1800 - 1800 Kelvin cross sections
K2100 - 2100 Kelvin cross sections
1eV - 1 eV cross sections
10eV - 10 eV cross sections
100eV - 100 eV cross sections
1keV - 1 keV cross sections
10keV - 10 keV cross sections

With the exception of DOCUMENT, each of these directories contains 419 files, one file for each of the 418 evaluation, plus one HTML file to allow interactive data retrieval. Each file is a complete ENDF/B "tape" [R2], including a starting "tape" identification line, and ending with a "tape" end line [R2]. In this form, each file can be used by a wide variety of available computer codes that treat data in the ENDF/B format, e.g., all of the PREPRO codes.

Requesting POINT 2011 Data

Please do not contact the author of this report to request this data; I do not have the resources necessary to directly respond to requests for this data. This data has been distributed and is Internationally available from nuclear data/code centers throughout the World,

1) Within the United States: contact the National Nuclear Data Center, Brookhaven National Laboratory, Mike Herman at, services@bnlnd2.dne.bnl.gov

2) Within Western Europe: contact the OECD Nuclear Energy Agency/ Data Bank (NEA/DB), Paris, France, programs@nea.fr

3) Otherwise: contact the Nuclear Data Section, International Atomic Energy Agency, Vienna, Austria, Alberto Mengoni at, A.Mengoni@iaea.org

Installation and Use of POINT 2011

I recommend that you,

1) Copy the single file from the POINT 2011 DVD to your computer,
2) Uncompress and un-tar the file; then delete the compressed and tar files.
3) You should then have one directory named POINT2011 containing all of the data
4) To random access the data execute (double click) POINT2011.htm.

The main POINT2011 directory will contain the fifteen (15) sub-directories, described above. These POINT 2011 directories include HTML routines to allow interactive retrieval of the data. The result will be a directory of about 16 gigabytes. To put that in perspective, today it costs less than $0.10 U.S. to purchase, install, and maintain on-line one gigabyte of disk storage. Therefore the cost of maintaining this 16 gigabyte library on-line is trivial.

Acknowledgments

I thank **Said Mughabghab** for his detailed explanation of the use of his newly published resonance parameters [R4] in ENDF/B-VII.0 evaluations. I thank **Ramon E. Arcilla, Jr.**, of the National Nuclear Data Center (NNDC), Brookhaven National Laboratory, for supplying the original ENDF/B-VII.0, used in this project. I thank **Liam Costello**, of the Nuclear Data Section, International Atomic Energy Agency, for supplying the ENDF/B Pre-processing codes, PREPRO 2010, used in this project. I thank **Nancy Larsen, Bob MacFarlane**, **Maurice Greene**, and **Mike Dunn**, for their comparison of their cross section processing codes (SAMMY, NJOY and AMPX) against the PREPRO codes. These comparisons have led to significant improvements in the accuracy and reliability of the results produced by all four codes (SAMMY, NJOY, AMPX, PREPRO). I thank **Andre Trkov, Skip Kahler, Robert MacFarlane, Mike Herman** and **Dave Heinrichs** for proofreading the draft of this report and making many helpful corrections and improvements, which I incorporated in the final report.

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Appendix A: Contents of ENDF/B-VII.1 (27 new + 391 old = 418 total evaluations)

1-H - 1	28-Ni- 62	44-Ru-101	54-Xe-131	64-Gd-160	91-Pa-232
1-H - 2	28-Ni- 64	44-Ru-102	54-Xe-132	65-Tb-159	91-Pa-233
1-H - 3	29-Cu- 63	44-Ru-103	54-Xe-133	65-Tb-160	**92-U -230**
2-He- 3	29-Cu- 65	44-Ru-104	54-Xe-134	**66-Dy-156**	**92-U -231**
2-He- 4	**30-Zn-64**	44-Ru-105	54-Xe-135	**66-Dy-158**	92-U -232
3-Li- 6	**30-Zn-65**	44-Ru-106	54-Xe-136	66-Dy-160	92-U -233
3-Li- 7	**30-Zn-66**	45-Rh-103	55-Cs-133	66-Dy-161	92-U -234
4-Be- 7	**30-Zn-67**	45-Rh-105	55-Cs-134	66-Dy-162	92-U -235
4-Be- 9	**30-Zn-68**	46-Pd-102	55-Cs-135	66-Dy-163	92-U -236
5-B - 10	**30-Zn-70**	46-Pd-104	55-Cs-136	66-Dy-164	92-U -237
5-B - 11	**31-Ga- 69**	46-Pd-105	55-Cs-137	67-Ho-165	92-U -238
6-C -Nat	**31-Ga- 71**	46-Pd-106	**56-Ba-130**	**67-Ho-166m**	**92-U -239**
7-N - 14	**32-Ge- 70**	46-Pd-107	**56-Ba-132**	**68-Er-162**	**92-U -240**
7-N - 15	32-Ge- 72	46-Pd-108	**56-Ba-133**	**68-Er-164**	**92-U -241**
8-O - 16	32-Ge- 73	46-Pd-110	56-Ba-134	68-Er-166	**93-Np-234**
8-O - 17	32-Ge- 74	47-Ag-107	56-Ba-135	68-Er-167	**93-Np-235**
9-F - 19	32-Ge- 76	47-Ag-109	56-Ba-136	**68-Er-168**	93-Np-236
11-Na- 22	**33-As- 74**	**47-Ag-110m**	56-Ba-137	**68-Er-170**	93-Np-237
11-Na- 23	33-As- 75	47-Ag-111	56-Ba-138	71-Lu-175	93-Np-238
12-Mg- 24	34-Se- 74	48-Cd-106	56-Ba-140	71-Lu-176	93-Np-239
12-Mg- 25	34-Se- 76	48-Cd-108	**57-La-138**	72-Hf-174	94-Pu-236
12-Mg- 26	34-Se- 77	48-Cd-110	57-La-139	72-Hf-176	94-Pu-237
13-Al- 27	34-Se- 78	48-Cd-111	57-La-140	72-Hf-177	94-Pu-238
14-Si- 28	**34-Se- 79**	48-Cd-112	**58-Ce-136**	72-Hf-178	94-Pu-239
14-Si- 29	34-Se- 80	48-Cd-113	**58-Ce-138**	72-Hf-179	94-Pu-240
14-Si- 30	34-Se- 82	48-Cd-114	**58-Ce-139**	72-Hf-180	94-Pu-241
15-P - 31	35-Br- 79	48-Cd-115m	58-Ce-140	**73-Ta-180**	94-Pu-242
16-S - 32	35-Br- 81	48-Cd-116	58-Ce-141	73-Ta-181	94-Pu-243
16-S - 33	36-Kr- 78	49-In-113	58-Ce-142	73-Ta-182	94-Pu-244
16-S - 34	36-Kr- 80	49-In-115	58-Ce-143	**74-W -180**	**94-Pu-246**
16-S - 36	36-Kr- 82	50-Sn-112	58-Ce-144	74-W -182	**95-Am-240**
17-Cl- 35	36-Kr- 83	**50-Sn-113**	59-Pr-141	74-W -183	95-Am-241
17-Cl- 37	36-Kr- 84	50-Sn-114	59-Pr-142	74-W -184	95-Am-242
18-Ar- 36	36-Kr- 85	50-Sn-115	59-Pr-143	74-W -186	95-Am-242m
18-Ar- 38	36-Kr- 86	50-Sn-116	60-Nd-142	75-Re-185	95-Am-243
18-Ar- 40	37-Rb- 85	50-Sn-117	60-Nd-143	75-Re-187	**95-Am-244**
19-K - 39	37-Rb- 86	50-Sn-118	60-Nd-144	77-Ir-191	**95-Am-244m**
19-K - 40	37-Rb- 87	50-Sn-119	60-Nd-145	77-Ir-193	**96-Cm-240**
19-K - 41	38-Sr- 84	50-Sn-120	60-Nd-146	79-Au-197	96-Cm-241
20-Ca- 40	38-Sr- 86	50-Sn-122	60-Nd-147	**80-Hg-196**	96-Cm-242
20-Ca- 42	38-Sr- 87	50-Sn-123	60-Nd-148m	**80-Hg-198**	96-Cm-243
20-Ca- 43	38-Sr- 88	50-Sn-124	60-Nd-150	**80-Hg-199**	96-Cm-244
20-Ca- 44	38-Sr- 89	50-Sn-125	61-Pm-147	**80-Hg-200**	96-Cm-245
20-Ca- 46	38-Sr- 90	50-Sn-126	61-Pm-148	**80-Hg-201**	96-Cm-246
20-Ca- 48	39-Y - 89	51-Sb-121	61-Pm-148	**80-Hg-202**	96-Cm-247
21-Sc- 45	39-Y - 90	51-Sb-123	61-Pm-149	**80-Hg-204**	96-Cm-248
22-Ti- 46	39-Y - 91	51-Sb-124	61-Pm-151	**82-Pb-204**	**96-Cm-249**
22-Ti- 47	40-Zr- 90	51-Sb-125	62-Sm-144	82-Pb-206	**96-Cm-250**
22-Ti- 48	40-Zr- 91	51-Sb-126	62-Sm-147	82-Pb-207	**97-Bk-245**
22-Ti- 49	40-Zr- 92	52-Te-120	62-Sm-148	82-Pb-208	**97-Bk-246**
22-Ti- 50	40-Zr- 93	52-Te-122	62-Sm-149	83-Bi-209	**97-Bk-247**
23-V -50	40-Zr- 94	52-Te-123	62-Sm-150	**88-Ra-223**	**97-Bk-248**
23-V -51	40-Zr- 95	52-Te-124	62-Sm-151	**88-Ra-224**	97-Bk-249
24-Cr- 50	40-Zr- 96	52-Te-125	62-Sm-152	**88-Ra-225**	**97-Bk-250**
24-Cr- 52	41-Nb- 93	52-Te-126	62-Sm-153	**88-Ra-226**	**98-Cf-246**
24-Cr- 53	41-Nb- 94	52-Te-127m	62-Sm-154	**89-Ac-225**	**98-Cf-248**
24-Cr- 54	41-Nb- 95	52-Te-128	63-Eu-151	**89-Ac-226**	98-Cf-249
25-Mn- 55	42-Mo- 92	52-Te-129m	63-Eu-152	**89-Ac-227**	98-Cf-250
26-Fe- 54	42-Mo- 94	52-Te-130	63-Eu-153	**90-Th-227**	98-Cf-251
26-Fe- 56	42-Mo- 95	52-Te-132	63-Eu-154	**90-Th-228**	98-Cf-252
26-Fe- 57	42-Mo- 96	53-I -127	63-Eu-155	**90-Th-229**	98-Cf-253
26-Fe- 58	42-Mo- 97	53-I -129	63-Eu-156	90-Th-230	**98-Cf-254**
27-Co- 58	42-Mo- 98	53-I -130	63-Eu-157	**90-Th-231**	**99-Es-251**
27-Co- 58m	42-Mo- 99	53-I -131	64-Gd-152	90-Th-232	**99-Es-252**
27-Co- 59	42-Mo-100	53-I -135	**64-Gd-153**	**90-Th-233**	99-Es-253
28-Ni- 58	43-Tc- 99	**54-Xe-123**	64-Gd-154	**90-Th-234**	**99-Es-254**
28-Ni- 58m	44-Ru- 96	54-Xe-124	64-Gd-155	**91-Pa-229**	**99-Es-254m**
28-Ni- 60	44-Ru- 98	54-Xe-126	64-Gd-156	**91-Pa-230**	**99-Es-255**
28-Ni- 61	44-Ru- 99	54-Xe-128	64-Gd-157	91-Pa-231	**100-Fm-255**
	44-Ru-100	54-Xe-129	64-Gd-158		
		54-Xe-130			

Appendix B: Contents of ENDF/B-VII.0 (78 new + 315 old = 393 total evaluations)

1-H - 1	28-Ni- 60	44-Ru-100	**54-Xe-123**	63-Eu-155	**90-Th-227**
1-H - 2	28-Ni- 61	44-Ru-101	54-Xe-124	63-Eu-156	**90-Th-228**
1-H - 3	28-Ni- 62	44-Ru-102	54-Xe-126	63-Eu-157	**90-Th-229**
2-He- 3	28-Ni- 64	44-Ru-103	54-Xe-128	64-Gd-152	90-Th-230
2-He- 4	29-Cu- 63	44-Ru-104	54-Xe-129	**64-Gd-153**	90-Th-232
3-Li- 6	29-Cu- 65	44-Ru-105	54-Xe-130	64-Gd-154	**90-Th-233**
3-Li- 7	**30-Zn-Nat**	44-Ru-106	54-Xe-131	64-Gd-155	**90-Th-234**
4-Be- 7	**31-Ga- 69**	45-Rh-103	54-Xe-132	64-Gd-156	91-Pa-231
4-Be- 9	**31-Ga- 71**	45-Rh-105	54-Xe-133	64-Gd-157	91-Pa-232
5-B - 10	**32-Ge- 70**	46-Pd-102	54-Xe-134	64-Gd-158	91-Pa-233
5-B - 11	32-Ge- 72	46-Pd-104	54-Xe-135	64-Gd-160	92-U -232
6-C -Nat	32-Ge- 73	46-Pd-105	54-Xe-136	65-Tb-159	92-U -233
7-N - 14	32-Ge- 74	46-Pd-106	55-Cs-133	65-Tb-160	92-U -234
7-N - 15	32-Ge- 76	46-Pd-107	55-Cs-134	**66-Dy-156**	92-U -235
8-O - 16	**33-As- 74**	46-Pd-108	55-Cs-135	**66-Dy-158**	92-U -236
8-O - 17	33-As- 75	46-Pd-110	55-Cs-136	66-Dy-160	92-U -237
9-F - 19	34-Se- 74	47-Ag-107	55-Cs-137	66-Dy-161	92-U -238
11-Na- 22	34-Se- 76	47-Ag-109	**56-Ba-130**	66-Dy-162	**92-U -239**
11-Na- 23	34-Se- 77	**47-Ag-110m**	**56-Ba-132**	66-Dy-163	**92-U -240**
12-Mg- 24	34-Se- 78	47-Ag-111	**56-Ba-133**	66-Dy-164	**92-U -241**
12-Mg- 25	**34-Se- 79**	48-Cd-106	56-Ba-134	67-Ho-165	**93-Np-235**
12-Mg- 26	34-Se- 80	48-Cd-108	56-Ba-135	**67-Ho-166m**	93-Np-236
13-Al- 27	34-Se- 82	48-Cd-110	56-Ba-136	**68-Er-162**	93-Np-237
14-Si- 28	35-Br- 79	48-Cd-111	56-Ba-137	**68-Er-164**	93-Np-238
14-Si- 29	35-Br- 81	48-Cd-112	56-Ba-138	68-Er-166	93-Np-239
14-Si- 30	36-Kr- 78	48-Cd-113	56-Ba-140	68-Er-167	94-Pu-236
15-P - 31	36-Kr- 80	48-Cd-114	**57-La-138**	**68-Er-168**	94-Pu-237
16-S - 32	36-Kr- 82	48-Cd-115m	57-La-139	**68-Er-170**	94-Pu-238
16-S - 33	36-Kr- 83	48-Cd-116	57-La-140	71-Lu-175	94-Pu-239
16-S - 34	36-Kr- 84	49-In-113	**58-Ce-136**	71-Lu-176	94-Pu-240
16-S - 36	36-Kr- 85	49-In-115	**58-Ce-138**	72-Hf-174	94-Pu-241
17-Cl- 35	36-Kr- 86	50-Sn-112	**58-Ce-139**	72-Hf-176	94-Pu-242
17-Cl- 37	37-Rb- 85	**50-Sn-113**	58-Ce-140	72-Hf-177	94-Pu-243
18-Ar- 36	37-Rb- 86	50-Sn-114	58-Ce-141	72-Hf-178	94-Pu-244
18-Ar- 38	37-Rb- 87	50-Sn-115	58-Ce-142	72-Hf-179	**94-Pu-246**
18-Ar- 40	38-Sr- 84	50-Sn-116	58-Ce-143	72-Hf-180	95-Am-241
19-K - 39	38-Sr- 86	50-Sn-117	58-Ce-144	73-Ta-181	95-Am-242
19-K - 40	38-Sr- 87	50-Sn-118	59-Pr-141	73-Ta-182	95-Am-242m
19-K - 41	38-Sr- 88	50-Sn-119	59-Pr-142	74-W -182	95-Am-243
20-Ca- 40	38-Sr- 89	50-Sn-120	59-Pr-143	74-W -183	**95-Am-244**
20-Ca- 42	38-Sr- 90	50-Sn-122	60-Nd-142	74-W -184	**95-Am-244m**
20-Ca- 43	39-Y - 89	50-Sn-123	60-Nd-143	74-W -186	96-Cm-241
20-Ca- 44	39-Y - 90	50-Sn-124	60-Nd-144	75-Re-185	96-Cm-242
20-Ca- 46	39-Y - 91	50-Sn-125	60-Nd-145	75-Re-187	96-Cm-243
20-Ca- 48	40-Zr- 90	50-Sn-126	60-Nd-146	77-Ir-191	96-Cm-244
21-Sc- 45	40-Zr- 91	51-Sb-121	60-Nd-147	77-Ir-193	96-Cm-245
22-Ti- 46	40-Zr- 92	51-Sb-123	60-Nd-148m	79-Au-197	96-Cm-246
22-Ti- 47	40-Zr- 93	51-Sb-124	60-Nd-150	**80-Hg-196**	96-Cm-247
22-Ti- 48	40-Zr- 94	51-Sb-125	61-Pm-147	**80-Hg-198**	96-Cm-248
22-Ti- 49	40-Zr- 95	51-Sb-126	61-Pm-148	**80-Hg-199**	**96-Cm-249**
22-Ti- 50	40-Zr- 96	52-Te-120	61-Pm-148	**80-Hg-200**	**96-Cm-250**
23-V -Nat	41-Nb- 93	52-Te-122	61-Pm-149	**80-Hg-201**	97-Bk-249
24-Cr- 50	41-Nb- 94	52-Te-123	61-Pm-151	**80-Hg-202**	**97-Bk-250**
24-Cr- 52	41-Nb- 95	52-Te-124	62-Sm-144	**80-Hg-204**	98-Cf-249
24-Cr- 53	42-Mo- 92	52-Te-125	62-Sm-147	**82-Pb-204**	98-Cf-250
24-Cr- 54	42-Mo- 94	52-Te-126	62-Sm-148	82-Pb-206	98-Cf-251
25-Mn- 55	42-Mo- 95	52-Te-127m	62-Sm-149	82-Pb-207	98-Cf-252
26-Fe- 54	42-Mo- 96	52-Te-128	62-Sm-150	82-Pb-208	98-Cf-253
26-Fe- 56	42-Mo- 97	52-Te-129m	62-Sm-151	83-Bi-209	**98-Cf-254**
26-Fe- 57	42-Mo- 98	52-Te-130	62-Sm-152	**88-Ra-223**	99-Es-253
26-Fe- 58	42-Mo- 99	52-Te-132	62-Sm-153	**88-Ra-224**	**99-Es-254**
27-Co- 58	42-Mo-100	53-I -127	62-Sm-154	**88-Ra-225**	**99-Es-255**
27-Co- 58m	43-Tc- 99	53-I -129	63-Eu-151	**88-Ra-226**	**100-Fm-255**
27-Co- 59	44-Ru- 96	53-I -130	63-Eu-152	**89-Ac-225**	
28-Ni- 58	44-Ru- 98	53-I -131	63-Eu-153	**89-Ac-226**	
28-Ni- 58m	44-Ru- 99	53-I -135	63-Eu-154	**89-Ac-227**	

Appendix C: Elemental vs. Isotopic Evaluations

Successive versions of ENDF/B have replaced elemental evaluations by isotopic evaluations. Between ENDF/B-VI and VII 13 elemental evaluations were deleted, i.e., included in ENDF/B-VI, but not included in ENDF/B-VII, with VII.0 only including elemental evaluations for three elements: **6-C**, **23-V**, and **30-Zn**. Between VII.0 and VII.1 2 elemental evaluations were deleted (**23-V**, and **30-Zn**), and replaced by isotopic evaluations, leaving only **6-C: 6-C-12** 98.93%/ **6-C-13** 1.07% missing

All of these isotopes in VII.1 are complete, in the sense that they include major cross sections (elastic, capture, inelastic) over the energy range 10^{-5} eV up to at least 20 MeV.

WARNING: Be aware that evaluating isotopes is difficult and the quality of minor isotopes may be poor. To my knowledge as yet the summing these isotopes to define equivalent elemental evaluations has not been verified against experimental measurements.

Elemental Evaluations Replaced by Isotopic evaluations in VII.1 (23 new, 19 old)

Element	Isotope	Element	Isotope	Element	Isotope
12-Mg-Nat	12-Mg- 24	22-Ti-Nat	22-Ti- 46	42-Mo-Nat	42-Mo- 92
	12-Mg- 25		22-Ti- 47		42-Mo- 94
	12-Mg- 26		22-Ti- 48		42-Mo- 95
14-Si-Nat	14-Si- 28		**22-Ti- 49**		42-Mo- 96
	14-Si- 29		22-Ti- 50		42-Mo- 97
	14-Si- 30	23-V –Nat	**23-V - 50**		42-Mo- 98
16-S -Nat	16-S - 32		**23-V – 51**		42-Mo- 99
	16-S - 33	**30-Zn-Nat**	**30-Zn- 64**		42-Mo-100
	16-S - 34		**30-Zn- 65**	49-In-Nat	49-In-113
	16-S - 36		**30-Zn- 66**		49-In-115
17-Cl-Nat	17-Cl- 35		**30-Zn- 67**	72-Hf-Nat	72-Hf-174
	17-Cl- 37		**30-Zn- 68**		72-Hf-176
19-K -Nat	**19-K - 39**		**30-Zn- 70**		72-Hf-177
	19-K - 40	31-Ga-Nat	**31-Ga- 69**		72-Hf-178
	19-K - 41		**31-Ga- 71**		72-Hf-179
20-Ca-Nat	**20-Ca- 40**	40-Zr-Nat	40-Zr- 90		72-Hf-180
	20-Ca- 42		40-Zr- 91	74-W -Nat	74-W -182
	20-Ca- 43		40-Zr- 92		74-W -183
	20-Ca- 44		40-Zr- 93		74-W -184
	20-Ca- 46		40-Zr- 94		74-W -186
	20-Ca- 48		40-Zr- 95		
			40-Zr- 96		

Appendix D: Completeness of VII.1

Here I present the results of simple tests to see how complete VII.1 is. The results presented here should not be interpreted as indicating **ERRORS**, but rather as **WARNINGS**, that we should check the indicated data; in many cases I judge the data to be o.k. **4-Be-7 is a partial evaluations that failed almost all tests, and should never have been included in a ENDF/B general purpose library.** Here I checked,

1) MT=2, 102, 18, 4, 16 (elastic, capture, fission, inelastic, n,2n).
2) MF=3, 4, 5 ,6 (cross sections, angular, energy, double differential)

For these test I assume,

1) Every evaluation includes MT=2, 102, 4 and 16; this is obviously not true for some light isotopes, but for completeness they are included here, i.e., this is merely to inform users. **Of the heavier isotopes only 28-Ni-59 appears to be a problem with no inelastic data.**
2) All cross sections are positive (>0) above their threshold up to at least 20 MeV. This is not true for some reactions which do not extend up to at least 20 MeV, particularly high energy capture, which is o.k. There are also a number of cases where the elastic is negative due to the resonance contribution.
3) No isotopes with Z<90 include MT=18 (fission). **This test found the obvious ERROR in 43-Tc-99, which has positive fission widths = NONSENSE!!!** It also flagged isotopes of 88Ra and 89-Ac, which are questionable.
4) I included many more completeness tests, but these were the only ones that failed.

Evaluation	MT=2	MT=102	MT=18	MT=4	MT=16	
	3 4 5 6	3 4 5 6	3 4 5 6	3 4 5 6	3 4 5 6	Explanation
1-H -1	X X	X X				No MT=4,16
1-H -2	X X	X			X X	No MT=4
1-H -3	X X				X X X	No MT=4
2-He-3	X X	X				No MT=4,16
2-He-4	X X					No MT=4,16
3-Li-6	X X	X		X X		No MT=16
4-Be-7	+ X					**MT=2 not >0,No MT=4,16**
4-Be-9	X X	X			X X	No MT=4
5-B -10	X X	+		X X		MT=102 not >0,No MT=16
6-C -Nat	X X	X		X X X		No MT=16
18-Ar-40	+ X	X		X X X	X X X	MT=2 not >0
20-Ca-40	+ X	X X		X X	X X	MT=2 not >0
21-Sc-45	X X	+		X X X	X X X	MT=102 not >0
24-Cr-50	+ X	X		X X	X X	MT=2 not >0
26-Fe-56	+ X	X		X X X	X X	MT=2 not >0
27-Co-58	X X	+		X X X	X X X	MT=102 not >0
28-Ni-59	X X	X			X X X	**no MT=4**
28-Ni-61	+ X	X		X X	X X	MT=2 not >0
41-Nb-93	+ X	X		X X X	X X X	MT=2 not >0
43-Tc-99	X X	X X	?	X X X	X X	**MT=18 Z<90**
48-Cd-108	X X	+		X X X	X X X	MT=102 not >0
48-Cd-110	X X	+		X X X	X X X	MT=102 not >0
48-Cd-112	X X	+		X X X	X X X	MT=102 not >0
48-Cd-116	X X	+		X X X	X X X	MT=102 not >0
54-Xe-130	X X	+		+ X X	X X X	MT=102,4 not >0
64-Gd-152	+ X	X X		X X X	X X	MT=2 not >0
66-Dy-160	+ X	X X		X X X	X X	MT=2 not >0
82-Pb-207	+ X	X X		X X	X X	MT=2 not >0
88-Ra-223	X X	X	? ? ?	X X X	X X X	MT=18 Z<90
88-Ra-226	X X	X	? ? ?	X X X	X X X	MT=18 Z<90
89-Ac-225	X X	X X	? ? ?	X X	X X	MT=18 Z<90
89-Ac-226	X X	X X	? ? ?	X X	X X	MT=18 Z<90
89-Ac-227	X X	X X	? ? ?	X X	X X	MT=18 Z<90
92-U -239	X X	X	+ X X	X X X	X X	MT=18 not >0
92-U -240	+ X	X	X X X	X X X	X X	MT=2 not >0

To see the improvements in VII.1 vs. VII.0, the below tables shows the results from running exactly the same tests on VII.0, here without the annotation explaining what's wrong in each case; hopefully from the above table you can figure this out. By comparing the above and below tables you can see the improvements in VII.1 compare to VII.0.

Evaluation	MT=2	MT=102	MT=18	MT=4	MT=16
	3 4 5 6	3 4 5 6	3 4 5 6	3 4 5 6	3 4 5 6
1-H -1	X X	X X			
1-H -2	X X	X			X X
1-H -3	X X				X X X
2-He-3	X X	X			
2-He-4	X X				
3-Li-6	X X	X		X X	
4-Be-7	+ X				
4-Be-9	X X	X			X X
5-B -10	X X	+		X X	
6-C -Nat	X X	X		X X X	
18-Ar-40	+ X	X		X X X	X X X
20-Ca-40	+ X	X X		X X	X X
21-Sc-45	X X	+		X X X	X X X
26-Fe-56	+ X	X		X X X	X X
27-Co-58	X X	+		X X X	X X X
28-Ni-59	X X	X			X X X
28-Ni-61	+ X	X		X X	X X
33-As-74	X X	X X		? ?	X X
39-Y -90	X X	X X		? ?	X X
41-Nb-93	+ X	X		X X X	X X X
48-Cd-108	X X	+		X X X	X X X
48-Cd-110	X X	+		X X X	X X X
48-Cd-112	X X	+		X X X	X X X
48-Cd-116	X X	+		X X X	X X X
54-Xe-130	X X	+		+ X X	X X X
64-Gd-152	+ X	X X		X X X	X X
66-Dy-160	+ X	X X		X X X	X X
82-Pb-207	+ X	X X		X X	X X
88-Ra-223	X X	X	? ? ?	X X X	X X X
88-Ra-226	X X	X	? ? ?	X X X	X X X
89-Ac-227	X X	X	? ? ?	X X X	X X X
90-Th-228	X X	X	+ X X	X X X	X X X
90-Th-230	+ X	X	X X X	X X X	X X X
91-Pa-231	X X	X X	X X	? ?	X X
91-Pa-233	X X	X X	X X	? ?	X X
92-U -240	+ X	X	X X X	X X X	X X
94-Pu-237	X X	X	X X X	+ X X	X X X
94-Pu-238	+ X	X	X X X	+ X X	X X X
94-Pu-242	+ X	X	X X X	X X X	X X X
94-Pu-244	+ X	X	X X X	X X X	X X X
95-Am-242m	X X	X	X X X	+ X X	X X
96-Cm-241	X X	+	X X X	+ X X	X X X
96-Cm-242	+ X	X	+ X X	+ X X	X X X
96-Cm-248	+ X	X	X X X	+ X X	X X X
98-Cf-250	+ X	X	X X X	X X X	X X X
98-Cf-252	+ X	X	X X X	X X X	X X X
98-Cf-253	X X	+	+ X X		
99-Es-253	X X	+			

Appendix E: Summary of $<\nu(E)>$ for all fissile/fertile isotopes in ENDF/B-VII.1

For applications involving fission (F) I require both prompt and delayed neutrons per fission. In the ENDF/B format the evaluator can optionally include: Total (T), Delayed (D) and/or Prompt (P); given any two of these three we can uniquely define the third. Below is a summary of all fissile/fertile materials in ENDF/B-VII.1, indicating the neutrons per fission data included for each isotope. This table indicates each evaluation that includes,

F = Fission cross section (MF/MT=3/18)
T = Total $<\nu(E)>$ (MF/MT=1/452)
D = Delayed $<\nu(E)>$ (MF/MT=1/455)
P = Prompt $<\nu(E)>$ (MF/MT=1/456)

This table indicates VII.1 is in much better shape than VII.0, where more evaluations only included total (T) $<\nu(E)>$. **There is one glaring ERROR: 43-Tc-99 which is obviously non-fissile/fertile, but includes fission widths.** In addition there are three evaluations that only include total (T) $<\nu(E)>$: 88-Ra-233, 88-Ra-226, and 94-Pu-243. It is also questionable whether or not 88-Ra and 89-Ac should be identified as fissile/fertile.

Summary of all fissile/fertile isotopes in ENDF/B-VII.1 $<\nu(E)>$ (86 evaluations)

43-Tc-99	**F**	92-U -240	F T D P	96-Cm-244	F T D P
88-Ra-223	**F T**	92-U -241	F T D P	96-Cm-245	F T D P
88-Ra-226	**F T**	93-Np-234	F T D P	96-Cm-246	F T D P
89-Ac-225	F T D P	93-Np-235	F T D P	96-Cm-247	F T D P
89-Ac-226	F T D P	93-Np-236	F T D P	96-Cm-248	F T D P
89-Ac-227	F T D P	93-Np-237	F T D P	96-Cm-249	F T D P
90-Th-227	F T D P	93-Np-238	F T D P	96-Cm-250	F T D P
90-Th-228	F T D P	93-Np-239	F T D P	97-Bk-245	F T D P
90-Th-229	F T D P	94-Pu-236	F T D P	97-Bk-246	F T D P
90-Th-230	F T D P	94-Pu-237	F T D P	97-Bk-247	F T D P
90-Th-231	F T D P	94-Pu-238	F T D P	97-Bk-248	F T D P
90-Th-232	F T D P	94-Pu-239	F T D P	97-Bk-249	F T D P
90-Th-233	F T D P	94-Pu-240	F T D P	97-Bk-250	F T D P
90-Th-234	F T D P	94-Pu-241	F T D P	98-Cf-246	F T D P
91-Pa-229	F T D P	94-Pu-242	F T D P	98-Cf-248	F T D P
91-Pa-230	F T D P	**94-Pu-243**	**F T**	98-Cf-249	F T D P
91-Pa-231	F T D P	94-Pu-244	F T D P	98-Cf-250	F T D P
91-Pa-232	F T D P	94-Pu-246	F T D P	98-Cf-251	F T D P
91-Pa-233	F T D P	95-Am-240	F T D P	98-Cf-252	F T D P
92-U -230	F T D P	95-Am-241	F T D P	98-Cf-253	F T D P
92-U -231	F T D P	95-Am-242	F T D P	98-Cf-254	F T D P
92-U -232	F T D P	95-Am-242m	F T D P	99-Es-251	F T D P
92-U -233	F T D P	95-Am-243	F T D P	99-Es-252	F T D P
92-U -234	F T D P	95-Am-244	F T D P	99-Es-253	F T D P
92-U -235	F T D P	95-Am-244m	F T D P	99-Es-254	F T D P
92-U -236	F T D P	96-Cm-240	F T D P	99-Es-254m	F T D P
92-U -237	F T D P	96-Cm-241	F T D P	99-Es-255	F T D P
92-U -238	F T D P	96-Cm-242	F T D P	100-Fm-255	F T D P
92-U -239	F T D P	96-Cm-243	F T D P		

Summary of all fissile/fertile isotopes in ENDF/B-VII.0 $<\nu(E)>$ (65 evaluations)

Comparing the above table for VII.1 and the below table for VII.0 we can see that the $<\nu(E)>$ data is much improved, but VII.1 still has the same three deficiencies that we found in VII.0, namely evaluations that only include total (T) $<\nu(E)>$: 88-Ra-233, 88-Ra-226, and 94-Pu-243.

88-Ra-223	**F T**			92-U -241	F T D P			**96-Cm-241**	**F T**		
88-Ra-226	**F T**			93-Np-235	F T D P			96-Cm-242	F T D P		
89-Ac-227	**F T**			93-Np-236	F T D P			96-Cm-243	F T D P		
90-Th-227	F T D P			93-Np-237	F T D P			96-Cm-244	F T D P		
90-Th-228	F T D P			93-Np-238	F T D P			96-Cm-245	F T D P		
90-Th-229	F T D P			**93-Np-239**	**F T**			96-Cm-246	F T D P		
90-Th-230	**F T**			94-Pu-236	F T D P			96-Cm-247	F T D P		
90-Th-232	F T D P			**94-Pu-237**	**F T**			**96-Cm-248**	**F T**		
90-Th-233	F T D P			94-Pu-238	F T D P			96-Cm-249	F T D P		
90-Th-234	F T D P			94-Pu-239	F T D P			96-Cm-250	F T D P		
91-Pa-231	F T D P			94-Pu-240	F T D P			97-Bk-249	F T D P		
91-Pa-232	F T D P			94-Pu-241	F T D P			97-Bk-250	F T D P		
91-Pa-233	F T D P			94-Pu-242	F T D P			98-Cf-249	F T D P		
92-U -232	F T D P			**94-Pu-243**	**F T**			**98-Cf-250**	**F T**		
92-U -233	F T D P			**94-Pu-244**	**F T**			98-Cf-251	F T D P		
92-U -234	F T D P			94-Pu-246	F T D P			98-Cf-252	F T		
92-U -235	F T D P			95-Am-241	F T D P			**98-Cf-253**	**F T**		
92-U -236	F T D P			95-Am-242	F T D P			98-Cf-254	F T D P		
92-U -237	F T D P			95-Am-242m	F T D P			99-Es-254	F T D P		
92-U -238	F T D P			95-Am-243	F T D P			99-Es-255	F T D P		
92-U -239	F T D P			95-Am-244	F T D P			100-Fm-255	F T D P		
92-U -240	F T D P			95-Am-244m	F T D P						

Appendix F: An Initial Comparison of VII.1 versus VII.0

So far I have only had time to check the major cross sections (MT=1, 2, 18, 102; total, elastic, fission and capture) for completeness: defined 10^{-5} eV up to at least 20 MeV. WARNING: Many evaluations have cross sections above 20 MeV, but capture (MT=102) only up to 20 MeV, so there is a discontinuity at 20 MeV. For purposes of the below table this is not considered to be ERROR and as such is not indicated in this table, but users should be aware of this if you use the data above 20 MeV. The following table only includes those evaluations for which I "saw" problems; all other evaluations a judge to be o.k.

For the 238 Evaluations where I found "differences", these differences may or may not be in the major cross sections that I have "seen. For details of which sections (that is which MF/MT) I found differences see the appendix D.

I used the PREPRO graphics codes EVALPLOT and COMPLOT to view ALL 418 evaluations in VII.1; for details of the following summary you can use these codes to "see" the cross sections.

For compactness in the below tables I use the following shorthand,

1) "Up to" means up to this % difference between VII.0 and VII.1
2) "BIG" or "ENORMOUS" means BIG or ENORMOUS Differences
3) "Reg. region" means Res. Region; "Unresolved" mean unresolved Reg. region
4) "Horrible" means no resonances; can probably be improved using Mughabghab's resonance parameters [R4].
5) "VII.0 BETTER" means VII.1 includes no or few resonances, while VII.0 includes many resonances and certainly appears to be physically BETTER

New Evaluations in VII.1, not in VII.0 (27 Evaluations)

Most of these were adopted from JENDL-4. The isotopes of V and Zn look o.k. The others are very crude; that's the bad news. The good news is that they are all minor isotopes which generally will have little effect on our applications.

Identical in VII.0 and VII.1 (153 Evaluations)

5-B -10	MT=102(n,g)=0 above 1 MeV	50-Sn-123	Very crude; only unres.
20-Ca-46	No resonances	50-Sn-126	Very crude; only unres.
27-Co-58	Very crude; weird capture	51-Sb-124	Very crude; only unres.
27-Co-58m	Very crude; weird capture	51-Sb-125	Very crude; only unres.
34-Se-79	Very crude; only unres.	52-Te-120	Very crude; only unres.
36-Kr-82	Very crude	52-Te-127m	Very crude; only unres.
36-Kr-83	Very crude	52-Te-129m	Very crude; only unres.
38-Sr-89	Very crude	53-I -131	Very crude; only unres.
38-Sr-90	Very crude	54-Xe-133	Very crude; only unres.
39-Y -91	Very crude; only unres.	55-Cs-136	Very crude; only unres.
40-Zr-95	Very crude; only unres.	55-Cs-137	Very crude; only unres.
41-Nb-95	Crude	56-Ba-132	Crude
42-Mo-98	Very crude; only unres.	58-Ce-144	Very crude; only unres.
42-Mo-99	Very crude; only unres.	59-Pr-143	Crude
44-Ru-96	Very crude; only unres.	63-Eu-156	Very crude; only unres.
44-Ru-98	Very crude; only unres.	88-Ra-223	Very crude; no resonances
44-Ru-105	Very crude; no resonances	88-Ra-224	Very crude; no resonances
44-Ru-106	Very crude; only unres.	88-Ra-225	Very crude; no resonances
45-Rh-105	Very crude		

Different in VII.0 and VII.1 (238 Evaluations)

2-He-4	Up to 2%
3-Li-6	Uo to 18% at low Energy
4-Be-9	Up to 8%
8-O -16	BIG in Res. region
9-F -19	BIG in Res. region
11-Na-23	BIG in Res. region
15-P -31	Up to 18% Capture
17-Cl-35	BIG in Res. region
17-Cl-37	BIG in Res. region
19-K -39	ENOORMOUS in Res. region
19-K -41	ENOORMOUS in Res. region
22-Ti-46	ENOORMOUS in Res. region
22-Ti-47	ENOORMOUS in Res. region
22-Ti-48	ENOORMOUS in Res. region
22-Ti-49	ENOORMOUS in Res. region
22-Ti-50	ENOORMOUS in Res. region
24-Cr-50	ENOORMOUS in Res. region
24-Cr-52	ENOORMOUS in Res. region
24-Cr-53	ENOORMOUS in Res. region
24-Cr-54	ENOORMOUS in Res. region
25-Mn-55	ENOORMOUS in Res. region
28-Ni-58	ENOORMOUS in Res. region
28-Ni-60	ENOORMOUS in Res. region
28-Ni-61	ENOORMOUS in Res. region
28-Ni-62	ENOORMOUS in Res. region
28-Ni-64	ENOORMOUS in Res. region
33-As-74	Crude
33-As-75	Up to 11%
36-Kr-78	Up to 83%
39-Y -89	Much Smaller Res. region
40-Zr-90	Smaller Res. region
40-Zr-91	BIG in Res. region
42-Mo-95	Differences in Res. region
43-Tc-99	Differences in Res. region
45-Rh-103	Differences in Res. region
47-Ag-109	ENOORMOUS in Res. region
48-Cd-106	ENOORMOUS in Res. region
48-Cd-108	ENOORMOUS in Res. region
48-Cd-110	ENOORMOUS in Res. region
48-Cd-111	ENOORMOUS in Res. region
48-Cd-112	ENOORMOUS in Res. region
48-Cd-113	Smaller Res. region
48-Cd-114	ENOORMOUS in Res. region
48-Cd-116	BIG in Res. region
53-I -135	Very crude; no Res. region
54-Xe-123	HORRIBLE; nonphysical
54-Xe-124	Up to 50%
54-Xe-130	MT=102(n,g) = 0 above 11 MeV
55-Cs-133	ENOORMOUS in Res. region
60-Nd-145	ENOORMOUS in Res. region
61-Pm-148	Crude; only unresolved
61-Pm-149	Crude; only unresolved
62-Sm-153	Up to 10% at low energy
64-Gd-157	Up to 16%
72-Hf-174	ENOORMOUS in Res. region
72-Hf-176	BIG in Res. region
72-Hf-177	ENOORMOUS in Res. region
72-Hf-178	BIG in Res. region
72-Hf-179	ENOORMOUS in Res. region
72-Hf-180	Smaller Res. region
73-Ta-181	Up to 62%
74-W -182	ENOORMOUS in Res. Region
74-W -183	Larger Res. region
74-W -184	Larger Res. region
74-W -186	Larger Res. region
75-Re-185	ENOORMOUS in Res. region
75-Re-187	ENOORMOUS in Res. region
77-Ir-193	Very crude
80-Hg-202	Very crude
80-Hg-204	VERY crude
89-Ac-225	HORRIBLE
89-Ac-226	HORRIBLE
89-Ac-227	HORRIBLE
90-Th-227	HORRIBLE
90-Th-228	BIG; (n,f)=0, 2 to 400 keV
90-Th-229	ENOORMOUS in Res. region
90-Th-230	ENOORMOUS in Res. region
90-Th-232	Up to 2% in unresolved
90-Th-233	HORRIBLE
90-Th-234	HORRIBLE
91-Pa-232	BIG in Res. region
92-U -232	BIG in Res. region
92-U -235	Up to 9%
92-U -237	ENOORMOUS in Res. Region
92-U -239	ENOORMOUS in Res. region
93-Np-235	HORRIBLE
93-Np-236	ENOORMOUS in Res. region
93-Np-237	Up to 13% at low energy
93-Np-238	ENOORMOUS in Res. region
93-Np-239	HORRIBLE
94-Pu-236	Up to 150% in unresolved
94-Pu-237	HORRIBLE
94-Pu-238	ENOORMOUS in Res. region
94-Pu-239	Up to 1% in unresolved
94-Pu-240	ENOORMOUS in Res. capture?
94-Pu-242	ENOORMOUS in Res. region
94-Pu-244	ENOORMOUS in Res. region
94-Pu-246	HORRIBLE
95-Am-241	BIG in Res. region
95-Am-244	HORRIBLE
95-Am-244m	HORRIBLE
96-Cm-241	HORRIBLE
96-Cm-242	BIG in Res. region
96-Cm-243	ENOORMOUS in Res. region
96-Cm-244	ENOORMOUS in Res. region
96-Cm-245	BIG in Res. region
96-Cm-246	ENOORMOUS in Res. region
96-Cm-247	ENOORMOUS in Res. region
96-Cm-248	Smaller resolved region
96-Cm-249	HORRIBLE; **VII.0 BETTER**
96-Cm-250	ENOORMOUS in Res. region
97-Bk-249	BIG in Res. region
97-Bk-250	HORRIBLE; **VII.0 BETTER**
98-Cf-249	Larger Res. region
98-Cf-250	Smaller res.: **VII.0 BETTER**
98-Cf-251	Smaller res.: **VII.0 BETTER**
98-Cf-252	ENOORMOUS
98-Cf-253	HORRIBLE; VII.0 incomplete
98-Cf-254	HORRIBLE
99-Es-253	Smaller res.: **VII.0 BETTER**
99-Es-254	HORRIBLE
99-Es-255	HORRIBLE
100-Fm-255	HORRIBLE

Appendix G: Earlier Versions of ENDF/B

POINT 2009: ENDF/B-VII.0

ENDF/B-VII.0 was released by CSEWG in November 2006 and is to be frozen for three years until November 2009. As such the Original data included in **POINT 2009** [R1a] is identical to that included in the earlier release **POINT 2007** [R1b]. However, the processed, temperature dependent results may differ because of improvements in the PREPRO ENDF/B Preprocessing Codes, particularly with regard to accuracy, and correct interpretation of the ENDF/B rules as defined by the ENDF/B formats and procedures manual, ENDF-102.

POINT 2007: ENDF/B-VI.8

The version of ENDF/B, preceding ENDF/B-VII.0, namely ENDFV/B-VI, Release 8, contained 328 evaluations [R2]; of the evaluations 13 elemental evaluations are not included in ENDF/B-VII.0 (these have been replaced by isotopic evaluations).

ENDF/B-VII.0 includes 315 evaluations from ENDF/B-VI and 78 evaluations for new isotopes, for a total of 393 evaluations in ENDF/B-VII.0. The contents of ENDF/B-VII.0 are defined in the Appendix A. The appendix includes a variety of what I hope are useful summaries of the VII.0, including,

1) Contents of ENDF/B-VII.0 (78 new + 315 old = 393 total evaluations)
2) Elemental Evaluations Replaced by Isotopic evaluations (16 new, 19 old)
3) New Evaluations for ENDF/B-VII.0 (78 new)
4) Summary of $< \nu(E) >$ for all 65 fissile/fertile isotopes in ENDF/B-VII.0
5) Completeness of ENDF/B-VII.0 Evaluations
6) Same Evaluations in ENDF/B-VI and VII (315)

Deficiencies and Proposed Updates

ENDF/B-VII.0 was released by CSEWG in November 2006 and is to be frozen for three years until November 2009. All recognized ENDF/B-VII.0 deficiencies and proposed updates can be viewed at,

http://www.nndc.bnl.gov/exfor/4web/VII.0-deficiencies.html

These data will be reviewed by CSEWG and these data will serve as the basis for the next version of ENDF/B, namely ENDF/B-VII.1.

New Evaluations for ENDF/B-VII.0 (78 new)

After six versions of ENDF/B over almost 40 years, most of the important isotopes have already been evaluated and included in earlier versions of ENDF/B. The new ENDF/B-VII evaluations were difficult to do, since usually there is little experimental data for rarer isotopes. Most of the new evaluations are complete in the sense that they include major cross sections from 10^{-5} eV to 20 MeV. The except is 4-Be-7 which only extends up to 8.1 MeV, and only includes elastic and charged particle reactions; this is a theoretical evaluation that should not have been included in ENDF/B-VII.0. Many of the other evaluations are pretty bad; better than nothing, but crude, so **CAVEAT EMPTOR!**

The below table includes a list of all 78 new evaluations. If there are no comments, I judge the evaluation to be o.k.

78 New Evaluations

Material	Comments
4-Be- 7	Useless partial
11-Na- 22	Crude
12-Mg- 25	
12-Mg- 26	
16-S - 33	
16-S - 34	
16-S - 36	Crude
18-Ar- 36	Crude
18-Ar- 38	Crude
19-K - 39	
19-K - 40	Very crude
20-Ca- 40	o.k. to 20 MeV
20-Ca- 42	"
20-Ca- 43	"
20-Ca- 44	"
20-Ca- 46	Very crude
20-Ca- 48	o.k. to 20 MeV
22-Ti- 49	
27-Co- 58	Very crude
27-Co- 58M	Very crude
30-Zn-Nat	Check (n,alpha)
31-Ga- 69	
31-Ga- 71	
32-Ge- 70	
33-As- 74	
34-Se- 79	Crude
47-Ag-110M	(n,n') down to 3 eV?
50-Sn-113	Resonance gap
54-Xe-123	Very crude
56-Ba-130	
56-Ba-132	Crude
56-Ba-133	
57-La-138	
58-Ce-136	
58-Ce-138	
58-Ce-139	
64-Gd-153	
66-Dy-156	
66-Dy-158	

Material	Comments
67-Ho-166M	Crude
68-Er-162	
68-Er-164	
68-Er-168	
68-Er-170	
80-Hg-196	Crude
80-Hg-198	Crude, check capture
80-Hg-199	
80-Hg-200	
80-Hg-201	
80-Hg-202	Crude, check capture
80-Hg-204	Very crude
82-Pb-204	
88-Ra-223	Very crude
88-Ra-224	Very crude
88-Ra-225	Very crude
88-Ra-226	
89-Ac-225	Very crude
89-Ac-226	Very crude
89-Ac-227	Very crude
90-Th-227	Very crude
90-Th-228	Rubbish
90-Th-229	(n,n') down to 100 eV
90-Th-233	Very crude
90-Th-234	Rubbish
92-U -239	Weird resonances
92-U -240	
92-U -241	Weird resonances
93-Np-235	Very crude
94-Pu-246	Very crude
95-Am-244	Very crude
95-Am-244M	Very crude
96-Cm-249	
96-Cm-250	Crude
97-Bk-250	Weird resonances
98-Cf-254	Very crude
99-Es-254	Very crude
99-Es-255	Very crude
100-Fm-255	Very crude

Completeness of ENDF/B-VII.0 Evaluations

For ENDF/B-VI.8, I judged that only about half of the 328 evaluations were complete and physically acceptable enough to be used in neutron transport calculations. In contrast in ENDF/B-VII.0, only a few evaluations are incomplete (10^{-5} eV to 20 MeV) or physically unacceptable (negative cross sections). Below is a summary (no comment = o.k.)

Material				Comments
ZA001001	mt= 50	no inelastic		
ZA001002	mt= 50	no inelastic		
ZA001003	mt= 102	no capture		
ZA001003	mt= 50	no inelastic		
ZA002003	mt= 50	no inelastic		
ZA002004	mt= 102	no capture		
ZA002004	mt= 50	no inelastic		
ZA004007	mt= 2	cross section ends	8.1000D+06 eV	Incomplete only elastic
ZA004007	mt= 1	no total		up to 8.1 MeV
ZA004007	mt= 102	no capture		
ZA004007	mt= 50	no inelastic		
ZA004009	mt= 50	no inelastic		
ZA005010	mt= 102	cross section ends	5.0000D+05 eV	
ZA017035	mt= 2	cross section start	1.4519D-05 eV	Negative elastic
ZA018040	mt= 2	cross section <=0	9.7825D+05 eV	Negative elastic
ZA020040	mt= 2	cross section <=0	5.0000D+05 eV	Negative elastic
ZA021045	mt= 102	cross section ends	5.0000D+06 eV	
ZA026056	mt= 2	cross section <=0	1.1971D+06 eV	Negative elastic
ZA027058	mt= 102	cross section <=0	8.4925D+00 eV	Negative capture
ZA027058.M	mt= 51	level energy > 0	2.4900D+04 eV	
ZA028059	mt= 50	no inelastic		Incomplete
ZA028061	mt= 2	cross section <=0	7.4355D+05 eV	Negative elastic
ZA041093	mt= 2	cross section <=0	2.3344D+03 eV	Negative elastic
ZA047110.M	mt= 51	level energy > 0	1.1760D+05 eV	
ZA047110.M	mt= 52	level energy > 0	1.0660D+05 eV	
ZA048108	mt= 102	cross section ends	1.0000D+07 eV	
ZA048110	mt= 102	cross section ends	1.0000D+07 eV	
ZA048112	mt= 102	cross section ends	1.0000D+07 eV	
ZA048115.M	mt= 51	level energy > 0	1.8100D+05 eV	
ZA048116	mt= 102	cross section ends	1.0000D+07 eV	
ZA052127.M	mt= 51	level energy > 0	8.8260D+04 eV	
ZA052127.M	mt= 52	level energy > 0	2.7140D+04 eV	
ZA052129.M	mt= 51	level energy > 0	1.0550D+05 eV	
ZA054130	mt= 102	cross section ends	1.0000D+07 eV	
ZA061148.M	mt= 51	level energy > 0	1.3790D+05 eV	
ZA061148.M	mt= 52	level energy > 0	6.2200D+04 eV	
ZA064152	mt= 2	cross section <=0	3.3186D+01 eV	Negative elastic
ZA066160	mt= 2	cross section <=0	3.3293D+02 eV	Negative elastic
ZA067166.M	mt= 51	level energy > 0	5.9850D+03 eV	
ZA082207	mt= 2	cross section <=0	4.7500D+05 eV	Negative elastic
ZA090228	mt= 18	cross section <=0	3.0000D+03 eV	
ZA090230	mt= 2	cross section <=0	1.2856D+00 eV	Negative elastic
ZA092240	mt= 2	cross section <=0	2.2262D+00 eV	Negative elastic
ZA094238	mt= 2	cross section <=0	5.9743D+01 eV	Negative elastic
ZA094242	mt= 2	cross section <=0	2.2348D+00 eV	Negative elastic
ZA094244	mt= 2	cross section <=0	2.0770D+01 eV	Negative elastic
ZA095242.M	mt= 51	level energy > 0	4.8600D+04 eV	
ZA095242.M	mt= 52	level energy > 0	4.5000D+03 eV	
ZA095244.M	mt= 51	level energy > 0	8.8000D+04 eV	
ZA096241	mt= 102	cross section ends	4.0000D+06 eV	
ZA096242	mt= 2	cross section <=0	1.3448D+01 eV	Negative elastic
ZA096242	mt= 18	cross section <=0	2.7600D+02 eV	
ZA096248	mt= 2	cross section <=0	6.8142D+00 eV	Negative elastic
ZA098250	mt= 2	cross section <=0	1.4329D+01 eV	Negative elastic
ZA098252	mt= 2	cross section <=0	1.6674D+01 eV	Negative elastic
ZA098253	mt= 18	cross section ends	1.1000D+04 eV	Incomplete only to 11 keV
ZA098253	mt= 102	cross section ends	1.1000D+04 eV	
ZA098253	mt= 50	no inelastic		
ZA099253	mt= 102	cross section ends	1.1000D+04 eV	Incomplete only to 11 keV
ZA099253	mt= 50	no inelastic		

Same Evaluations in ENDF/B-VI and VII (315)

Above I stated that ENDF/B-VII.0 includes 315 evaluations from ENDF/B-VI. By this I mean that there are evaluations for the same 315 elements or isotopes in both VI and VII. The contents of these evaluations may be identical to ENDF/B-VI, or completely different. Below I provide a brief, one line summary comparing the contents of ENDF/B-VII.0 to VI.8. These summaries are based only on my comparing major cross sections (total, elastic, capture and fission) for the 315 same evaluations. For more details of any given evaluation the reader can use the COMPLOT code [R3] to "see" comparisons.

The intent here is to hopefully save users time and effort by telling them which evaluations have or have not changed. For example, many metals and fissile isotopes have not changed. There are also materials where the cross sections are what I call "similar", but which I mean similar resonance structure, but actual cross section values may be quite different.

1) Many single level Breit-Wigner (SLBW) resonances have been changed to multi-level (MLBW). In many case this eliminates negative elastic cross sections, and results in what I identify in the following table as "similar". WARNING – because of the use of non-physical average J values, switching from SLBW to MLBW does not always eliminate negative cross sections. WARNING – "similar" here means similar resonance structure; the actual energy dependent cross sections may be very different.
2) Many incomplete ENDF/B-VI evaluations have now been extended up to 20 MeV and are now complete in VII.0. Also the high energy range of many other evaluations were re-done using nuclear model code calculations; this has changed some high energy cross sections by 10 to 20%.
3) Many evaluations now include resonance parameters from the latest 2006 version of the atlas of nuclear resonances, BNL-325 [R4]; this has allowed many resonance regions to be extended to higher energies. However, in many cases no additional evaluation was performed to eliminate resonance gaps in the experimentally measured resonance parameters, and many isotopes do not included an unresolved resonance energy range.
4) I try to identify evaluations where the major cross sections differ substantially; roughly speaking my criteria was differences of at least ~ 1% .
5) I also compared <nu>, where smaller differences can be important. For the major fuel, U-233, U-235, and Pu-235, there have been minor ~ 0.5% changes in <nu> which may be reflected in calculated integral parameters, such as K-eff. Some minor fissile/fertile have changes in <nu> of 5 to 10%

315 Same Materials (1-H - 1 to 44-Ru- 99)

1-H - 1	Elastic 0.3% lower < 10 keV
1-H - 2	Same
1-H - 3	Elastic 30% higher < 1 MeV
2-He- 3	Same
2-He- 4	Same
3-Li- 6	Elastic 7% higher < 0.1 eV
3-Li- 7	Same
4-Be- 9	Elastic 10% different > 10 eV
5-B – 10	Elastic 8% higher ~ 100 keV
5-B – 11	Same
6-C –Nat	Same
7-N – 14	Same
7-N – 15	Same
8-O – 16	Elastic 7% higher 4 to 9 MeV
8-O – 17	Same
9-F – 19	Different resonances < 1 MeV
11-Na- 23	Same
12-Mg- 24	Same
13-Al- 27	Different resonances < 1 MeV
14-Si- 28	Same
14-Si- 29	Same
14-Si- 30	Same
15-P – 31	Same
16-S – 32	Different resonances
17-Cl- 35	Different – resonances > 200 keV
17-Cl- 37	Different – resonances > 200 keV
18-Ar- 40	Completely different
19-K – 41	Same
21-Sc- 45	Same
22-Ti- 46	Same
22-Ti- 47	Same
22-Ti- 48	Same
22-Ti- 50	Same
23-V –Nat	Same
24-Cr- 50	Same
24-Cr- 52	Same
24-Cr- 53	Same
24-Cr- 54	Same
25-Mn- 55	Same
26-Fe- 54	Same
26-Fe- 56	Same
26-Fe- 57	Same
26-Fe- 58	Same
27-Co- 59	Same
28-Ni- 58	Same
28-Ni- 59	Very narrow resonance differences
28-Ni- 60	Same
28-Ni- 61	Same
28-Ni- 62	Same
28-Ni- 64	Same
29-Cu- 63	Same
29-Cu- 65	Same
32-Ge- 72	New - completely different
32-Ge- 73	New - completely different
32-Ge- 74	New - completely different
32-Ge- 76	New - completely different
33-As- 75	New - resonances > 2 keV
34-Se- 74	Different
34-Se- 76	Different
34-Se- 77	Different
34-Se- 78	Different
34-Se- 80	Different
34-Se- 82	Different
35-Br- 79	Different
35-Br- 81	Different
36-Kr- 78	Different
36-Kr- 80	Different
36-Kr- 82	Different
36-Kr- 83	Different
36-Kr- 84	Different
36-Kr- 85	Different
36-Kr- 86	Different
37-Rb- 85	Different - fewer resonances
37-Rb- 86	Different
37-Rb- 87	Different - fewer resonances
38-Sr- 84	Different
38-Sr- 86	Different
38-Sr- 87	Different
38-Sr- 88	Different
38-Sr- 89	Different - both rubbish
38-Sr- 90	Different - both rubbish
39-Y – 89	Different
39-Y – 90	Different – old rubbish
39-Y – 91	Different - both rubbish
40-Zr- 90	Different – fewer resonances
40-Zr- 91	Different - similar resonances
40-Zr- 92	Different – fewer resonances
40-Zr- 93	Different – old rubbish
40-Zr- 94	Similar
40-Zr- 95	Different - both rubbish
40-Zr- 96	Similar
41-Nb- 93	Same
41-Nb- 94	Different - both rubbish
41-Nb- 95	Different - both rubbish
42-Mo- 92	Very different > 20 keV
42-Mo- 94	Very different > 6 keV
42-Mo- 95	Same < 2 keV – 40% higher energy
42-Mo- 96	Very different > 4 keV
42-Mo- 97	Different
42-Mo- 98	Different – old rubbish
42-Mo- 99	Different - both rubbish
42-Mo-100	Very different > 4 keV
43-Tc- 99	Very different > 1 keV
44-Ru- 96	Different - both rubbish
44-Ru- 98	Different - both rubbish
44-Ru- 99	Different > 100 eV

315 Same Materials (44-Ru- 100 to 61-Pm-148)

44-Ru-100	Old Rubbish – new poor	52-Te-126	More resonances > 6 keV
44-Ru-101	50% higher < 10 eV	52-Te-127M	Different - both rubbish
44-Ru-102	Similar	52-Te-128	More resonances > 3.5 keV
44-Ru-103	Old Rubbish – new poor	52-Te-129M	Different - both rubbish
44-Ru-104	Different > 1 keV	52-Te-130	Different
44-Ru-105	Similar - both rubbish	52-Te-132	Different - old rubbish
44-Ru-106	Similar - both rubbish	53-I -127	More resonances > 1 keV
45-Rh-103	Same < 4 keV – 40% higher energy	53-I -129	More resonances > 150 eV
45-Rh-105	Different - both rubbish	53-I -130	Different - old rubbish
46-Pd-102	Old rubbish – new poor	53-I -131	Different - both rubbish
46-Pd-104	Different – old rubbish	53-I -135	Different - both rubbish
46-Pd-105	Same < 2 keV – 20% higher energy	54-Xe-124	Similar
46-Pd-106	Different – old rubbish	54-Xe-126	Different resonances
46-Pd-107	Very similar	54-Xe-128	Similar
46-Pd-108	Different – old poor	54-Xe-129	Similar
46-Pd-110	Different - old rubbish	54-Xe-130	Similar
47-Ag-107	Different > 3 keV	54-Xe-131	Same
47-Ag-109	Similar < 5 keV - 7% > 100 keV	54-Xe-132	Different
47-Ag-111	New - old rubbish	54-Xe-133	Different - both rubbish
48-Cd-106	No resonances 600 eV - 3 keV	54-Xe-134	Different
48-Cd-108	No resonances 350 eV – 2.6 keV	54-Xe-135	Same - both rubbish > 10 eV
48-Cd-110	Similar	54-Xe-136	New - old rubbish
48-Cd-111	Different < 1 eV 60% lower	55-Cs-133	Same - 14% > 100 keV
48-Cd-112	Similar < 2 keV	55-Cs-134	Similar
48-Cd-113	Similar < 2 keV	55-Cs-135	Similar
48-Cd-114	Same	55-Cs-136	Different - new rubbish
48-Cd-115M	New - old rubbish	55-Cs-137	Similar - both rubbish
48-Cd-116	Similar	56-Ba-134	Similar < 10 keV
49-In-113	New resonances > 50 eV	56-Ba-135	Similar < 1 keV
49-In-115	Very different > 1 keV	56-Ba-136	Different
50-Sn-112	Similar	56-Ba-137	Different
50-Sn-114	Different - more resonances	56-Ba-138	Similar
50-Sn-115	Different – both poor	56-Ba-140	Different – old rubbish
50-Sn-116	New resonances > 2 keV	57-La-139	Different
50-Sn-117	Different	57-La-140	Different - old rubbish
50-Sn-118	Similar	58-Ce-140	Different - old rubbish
50-Sn-119	Different	58-Ce-141	Different - old rubbish
50-Sn-120	New resonances > 15 keV	58-Ce-142	Different - old rubbish
50-Sn-122	New resonances > 900 eV	58-Ce-143	Different - old rubbish
50-Sn-123	Different - both rubbish	58-Ce-144	Different - both rubbish
50-Sn-124	New resonances > 700 eV	59-Pr-141	Similar
50-Sn-125	New - old rubbish	59-Pr-142	Different - old rubbish
50-Sn-126	Different - both rubbish	59-Pr-143	Different - old rubbish
51-Sb-121	More resonances > 2.5 keV	60-Nd-142	Different
51-Sb-123	More resonances > 2.5 keV	60-Nd-143	Similar - 4% > 100 keV
51-Sb-124	Different - both rubbish	60-Nd-144	Different
51-Sb-125	Different - both rubbish	60-Nd-145	Similar - 5% > 100 keV
51-Sb-126	Different - old rubbish	60-Nd-146	Different
52-Te-120	Different - both rubbish	60-Nd-147	Different > 30 eV
52-Te-122	More resonances > 4 keV	60-Nd-148	Different
52-Te-123	More resonances > 500 eV	60-Nd-150	Different
52-Te-124	More resonances > 6 keV	61-Pm-147	No resonances > 100 eV
52-Te-125	More resonances > 1 keV	61-Pm-148	Different - both rubbish

315 Same Materials (61-Pm-148M to 99-Es-293)

61-Pm-148M	Similar - not great
61-Pm-149	Different - both rubbish
61-Pm-151	Different - old rubbish
62-Sm-144	Similar
62-Sm-147	Similar > 10 eV
62-Sm-148	Different - old rubbish
62-Sm-149	Very similar
62-Sm-150	Very similar
62-Sm-151	Same - 15% > 10 keV
62-Sm-152	Similar
62-Sm-153	Different - old rubbish
62-Sm-154	Different
63-Eu-151	Very similar
63-Eu-152	Same - 30% > 100 eV
63-Eu-153	Same - 16% > 100 eV
63-Eu-154	Different
63-Eu-155	Very similar
63-Eu-156	Different - both rubbish
63-Eu-157	Different - old rubbish
64-Gd-152	Different < 10 eV
64-Gd-154	Similar
64-Gd-155	Same - 20% > 200 eV
64-Gd-156	Different
64-Gd-157	Similar, same < 400 eV
64-Gd-158	Different
64-Gd-160	Different
65-Tb-159	Different > 100 eV
65-Tb-160	Different - old rubbish
66-Dy-160	Very similar
66-Dy-161	Similar
66-Dy-162	Similar < 5 keV
66-Dy-163	Similar
66-Dy-164	Similar < 7 keV
67-Ho-165	Different
68-Er-166	Similar < 2 keV
68-Er-167	Similar < 500 eV
71-Lu-175	Same
71-Lu-176	Same
72-Hf-174	Same
72-Hf-176	Same
72-Hf-177	Same
72-Hf-178	Same
72-Hf-179	Same
72-Hf-180	Same
73-Ta-181	Same
73-Ta-182	Same
74-W -182	Same
74-W -183	Same
74-W -184	Same
74-W -186	Same
75-Re-185	Same
75-Re-187	Same
77-Ir-191	Very similar
77-Ir-193	Similar
79-Au-197	Similar
82-Pb-206	Very similar
82-Pb-207	Very similar, 3% ~ 10 MeV
82-Pb-208	Very similar
83-Bi-209	Same
90-Th-230	Same
90-Th-232	Different resonances
91-Pa-231	Similar < 15 eV
91-Pa-232	Similar
91-Pa-233	Similar < 40 eV
92-U -232	Same < 200 eV
92-U -233	Similar to 60 eV
92-U -234	Similar
92-U -235	Same - 1% ~ 20 MeV
92-U -236	Same - 6% ~ 500 keV
92-U -237	Similar – weird resonances
92-U -238	Similar < 10 keV
93-Np-236	Same
93-Np-237	Similar < 150 eV
93-Np-238	Different - both rubbish
93-Np-239	Same - both rubbish
94-Pu-236	Same
94-Pu-237	Same
94-Pu-238	Same
94-Pu-239	Same
94-Pu-240	Same
94-Pu-241	Same
94-Pu-242	Same
94-Pu-243	Same
94-Pu-244	Same
95-Am-241	Same
95-Am-242	Different - old bad
95-Am-242M	Similar - 30% > 3.5 eV
95-Am-243	Same
96-Cm-241	Same
96-Cm-242	Same
96-Cm-243	Same
96-Cm-244	Similar < 500 eV
96-Cm-245	Same
96-Cm-246	Same
96-Cm-247	Different
96-Cm-248	Same – negative elastic
97-Bk-249	Same
98-Cf-249	Same
98-Cf-250	Same
98-Cf-251	Same
98-Cf-252	Same
98-Cf-253	Same – partial to 11 keV
99-Es-253	Same – partial to 11 keV

Appendix H: The Effects of Temperature and Doppler Broadening

For those readers who are not familiar with the effects of temperature and Doppler broadening on neutron cross sections and transport, for details I suggest that you read references [R5] and [R6], listed below. Here I will give a brief description of these effects. Users of neutron cross sections should be aware that there are several important effects of temperature and Doppler broadening,

1) There is the well known effect in the neutron resonance region, where as the temperature increases resonances become broader, hence the name Doppler broadening. Figure 1 below illustrates the effect of temperature on the U^{238} capture cross section for neutron reactor like temperatures, and figure 2 illustrates this effect for astrophysical like temperatures. These figures each contain four sub-figures, with each sub-figure comparing cross sections at two progressively higher temperatures. In both figure 1 and 2 each sub-figure shows exactly the same energy and cross section range. From these figures we can see that as temperature increases the peaks of the resonances become lower, and the minima between resonances become higher. At extremely high temperature the entire resonance structure disappears and the cross section approaches a simple 1/v shape (where v is the neutron speed). This temperature effect will have a very important effect on resonance self-shielding in any neutron transport calculation. You should note from these figures that due to the large resonance spacing in $U^{\mathbf{238}}$ the resonance structure can still be seen up to very high temperatures.

To understand the importance of considering temperature we should consider reaction rates, such as captures/second, in various systems. In optically thin systems (few mean free paths dimensions) the flux will be unshielded, and our reaction rates will be defined by a simple cross section average,

$$\text{Unshielded Capture} = \int_{E1}^{E2} [\Sigma c(E)\phi(E)]dE \quad = \text{capture cross section times neutron flux}$$

In optically thick systems (many mean free paths dimensions) the flux will be shielded (the flux is suppressed by the total cross section) and our reaction rates must include the effect of self-shielding on the cross section average,

$$\text{Shielded Capture} = \int_{E1}^{E2} [\Sigma c(E)\phi(E)/\Sigma t(E)]dE \quad = \text{including one over total cross section}$$

Consider for example the U238 capture cross section between 1 and 10 keV as shown in fig. 1 and 2. If we calculate the unshielded and shielded average capture cross section for the energy interval over the range of temperatures shown in figs. 1 and 2, we obtain the results shown below in table 1.

What we see from these results is that the unshielded average capture cross section is virtually independent of temperature, being about 1 barn over the entire temperature

range. In contrast the shielded average cross section varying by over a factor of three between the 0 K average (0.293 barns) and the 10 keV average (0.939 barns). **The point to learn from this is that without including the effect of self-shielding in multi-group calculations, temperature has very little effect on the average cross sections, which is quite simply wrong for optically thick systems.**

Table 1: Effect of Temperature on Average Cross Sections

Temp.	Unshielded (barns)	Shielded (barns)
0 K	0.996	0.293
293.6 K	0.966	0.526
600 K	0.996	0.576
1,200 K	0.996	0.630
12,000 K (1 eV)	0.996	0.799
10 eV	0.998	0.905
100 eV	1.000	0.933
1 keV	1.004	0.935
10 keV	1.007	0.939

2) Another, less well known, effect of Doppler broadening is at lower energies where as temperature increases the low energy constant scattering cross section increases and at very low energies approaches a simple 1/v shape (where v is the neutron speed); this effect is explained in detail in ref [R5]. Figure 3 illustrates the effect of temperature on the hydrogen total cross section. From this figure we can see that starting from a “cold” (0 Kelvin) cross section that is constant at about 20 barns, as temperature increases the cross section increases. Compared to the “cold” 20 barn cross section, at thermal energy the Doppler broadened cross section is about 30 barns, i.e., 50 % higher. Note also from this figure that this effect extends well above thermal energy. For example, at 293.6 Kelvin the thermal energy is 0.0253 eV, but we can see this effect up to about 1 eV; a factor of 400 higher in energy. From the lower half of figure 2 we can see that at very low energy the cross section approaches a simple 1/v shape (where v is the neutron speed) and the cross sections at various temperatures become proportional to one another. This effect on the cross sections at low energy is very important for thermal and low energy neutron systems.

3) Yet another important effect of temperature is that at lower energies neutrons do not slow down in energy as quickly and neutron scatter can even result in the upscatter of neutrons, i.e., when neutrons scatter they can gain, rather than lose, energy. This is a well known effect at low energies, where thermal scattering law data or a free gas model is used to model the interaction of neutrons with target atoms that are moving about with thermal motion. Figure 4 illustrates the effect of temperature on the neutron spectrum over a wide range of temperatures [R7]. This effect can also be important at higher energies, particularly near narrow resonances, where thermal motion of the target atoms can cause neutrons to slightly upscatter, but even slight upscatter can cause a neutron to scatter from below to above the energy of a very narrow resonance. See reference [R6], below for a routine designed to be used in conjunction with the SIGMA1 method of Doppler broadening [R5], to handle neutron thermal scattering. This routine [R6] is completely compatible for use with the cross sections included here, since these cross sections were Doppler broadened using the SIGMA1 method [R5]. The combination of

SIGMA1 [R5] Doppler broadened cross sections and THERMAL [R6] to handle thermal scattering, is currently used in the TART Monte Carlo transport code [R8].

Fig.1: Effect of Doppler Broadening on Resonance Cross Sections

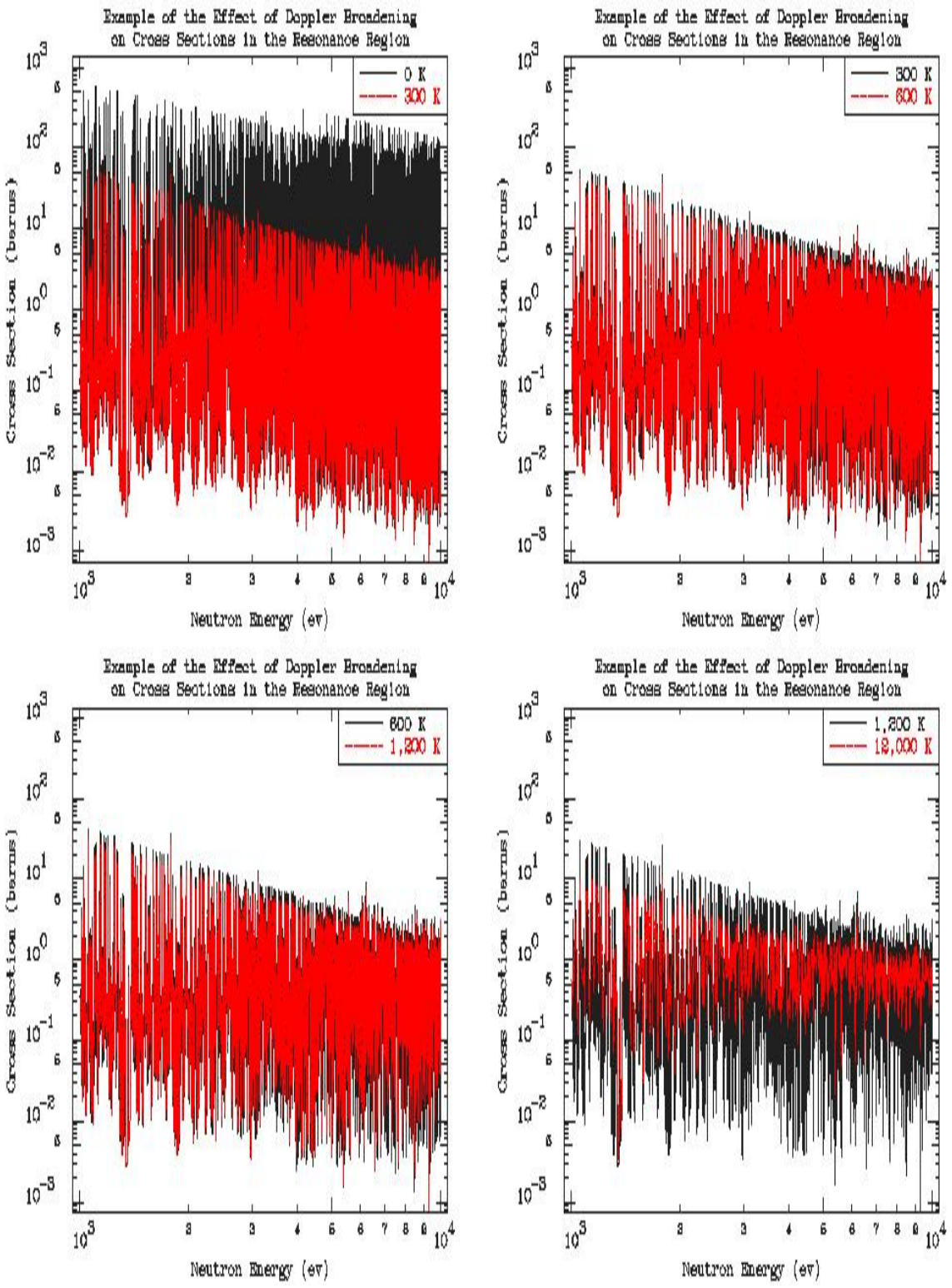


Fig.2: Effect of Doppler Broadening on Resonance Cross Sections

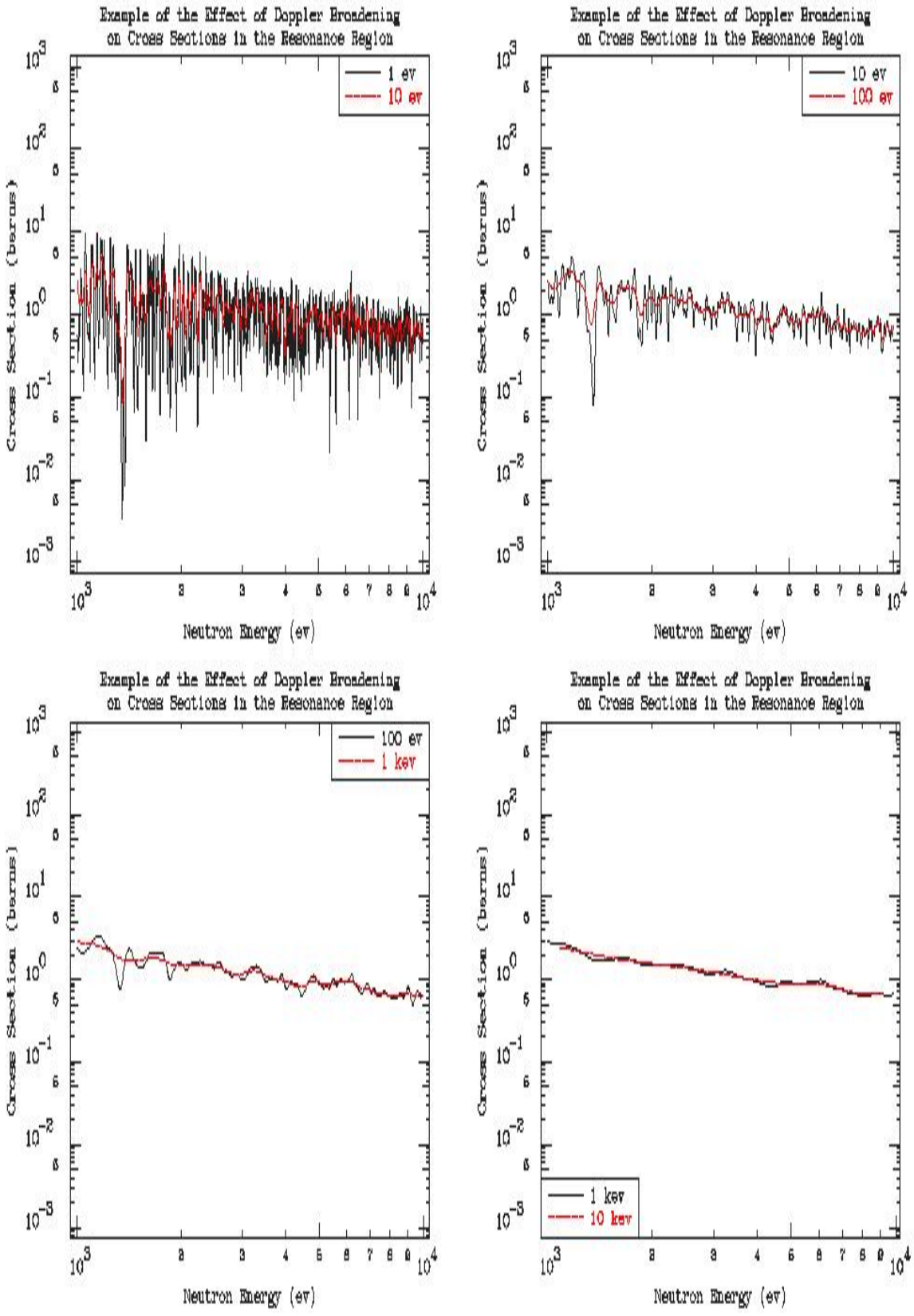


Fig.3: Effect of Doppler Broadening on Low Energy Cross Sections

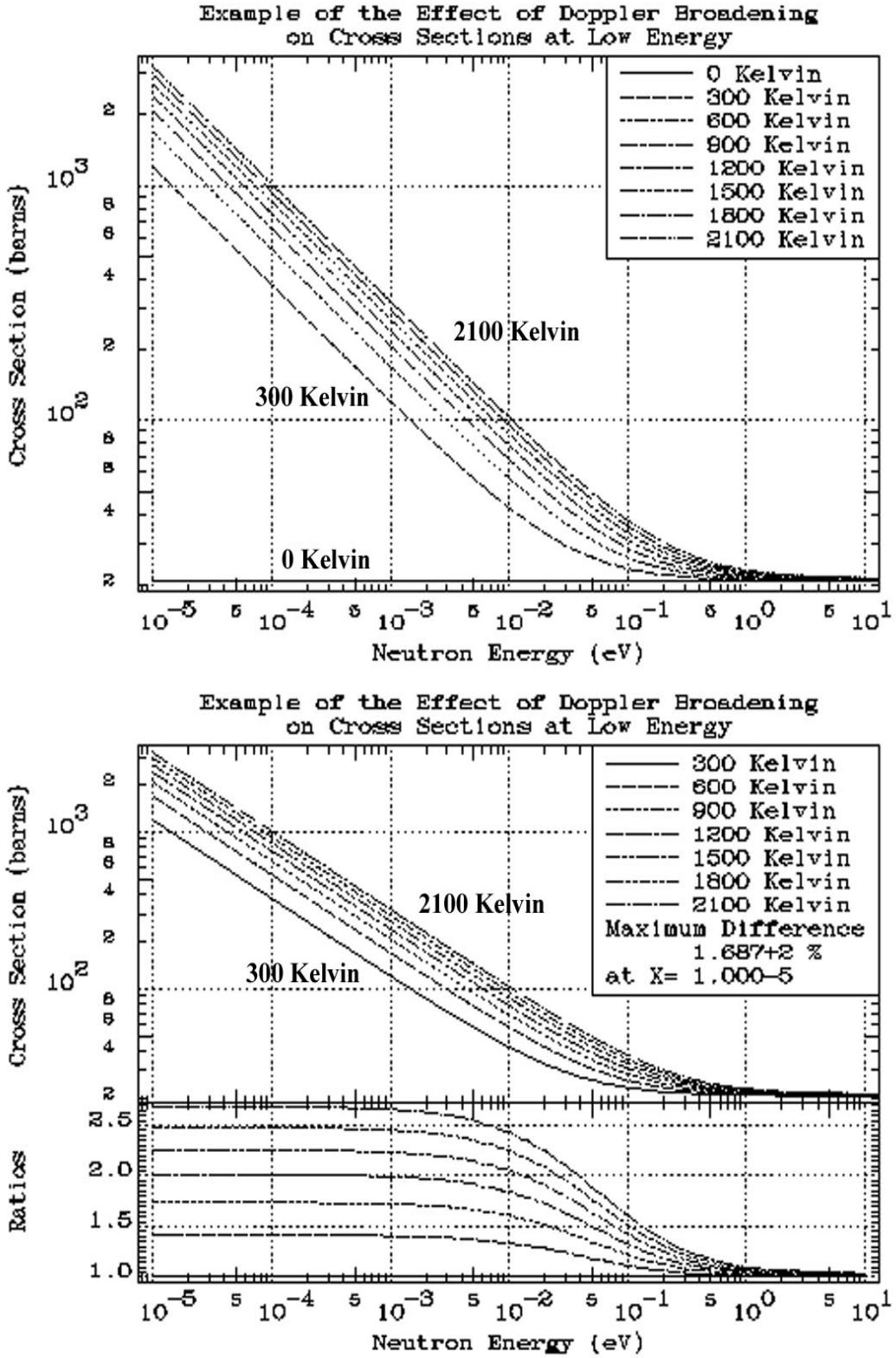
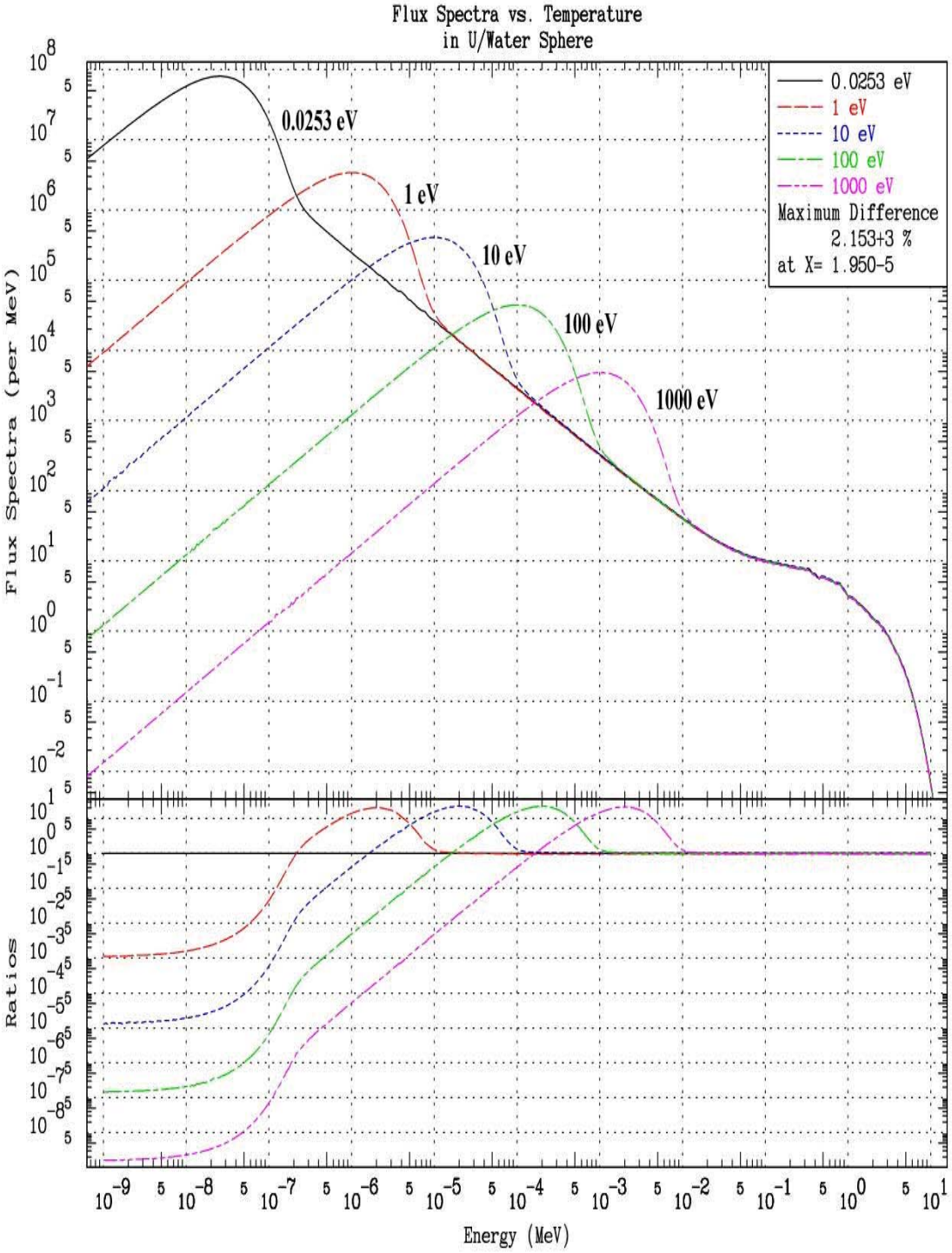


Fig.4: Effect of Doppler Broadening on Neutron Spectrum



Appendix I: MF/MT Differences between VII.1 and VII.0

I have crudely compared the entire contents of VII.1 and VII.0, character by character looking for differences between the two libraries. My comparisons are summarized below based on,

1) Ignoring Tape Labels (TPID)
2) Ignoring the comment section, MF/MT = 1/451.
3) I only compare MF=1 through 6; these can directly affect neutron transport
4) Ignoring the first line of each section (MF/MT); these may include minor differences, particularly in the atomic weight.
5) When I find differences in any section (MF/MT) I only list the first line
6) I identify ALL sections (MF/MT) that only appear in one library

Here I make no attempt to determine how important these differences may be; the following is intended solely to allow you to "see" which sections differ and allow you to look in more detail at the actual data to determine whether or not these differences may be important for YOUR APPLICATIONS.

```
  1-H -1
********************************************************************************
 0.000000+0 2.223300+6          0          2          1          2 125 6102
 0.000000+0 2.224631+6          0          2          1          2 125 6102
--------------------------------------------------------------------------------
  1-H -2
********************************************************************************
  1-H -3
********************************************************************************
 0.000000+0 0.000000+0          0          0          1        199 131 3  1
 0.000000+0 0.000000+0          0          0          1        132 131 3  1
--------------------------------------------------------------------------------
-6.257557+6-6.257557+6          0          0          1         81 131 3 16
-6.257557+6-6.257557+6          0          0          1         25 131 3 16
--------------------------------------------------------------------------------
  2-He-3
********************************************************************************
  2-He-4
********************************************************************************
 0.000000+0 0.000000+0          0          0          1        152 228 3  1
 0.000000+0 0.000000+0          0          0          1        257 228 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        152 228 3  2
 0.000000+0 0.000000+0          0          0          1        257 228 3  2
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        152 228 4  2
 0.000000+0 0.000000+0          0          0          1         46 228 4  2
--------------------------------------------------------------------------------
  3-Li-6
********************************************************************************
 0.000000+0 0.000000+0          0          0          2        353 325 3  1
 0.000000+0 0.000000+0          0          0          2        351 325 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        353 325 3  2
 0.000000+0 0.000000+0          0          0          1        351 325 3  2
--------------------------------------------------------------------------------
 7.250600+6 7.250600+6          0          0          2        353 325 3  3
 7.250600+6 7.250600+6          0          0          2        351 325 3  3
--------------------------------------------------------------------------------
 4.800000+6 7.135953-1 4.850000+6 7.168900-1 4.900000+6 7.200415-1 325 3  4
 4.800000+6 7.135953-1 4.850000+6 7.172290-1 4.900000+6 7.212533-1 325 3  4
--------------------------------------------------------------------------------
 4.800000+6 1.090888-1 4.850000+6 1.173795-1 4.900000+6 1.243773-1 325 3 58
 4.800000+6 1.090888-1 4.850000+6 1.177185-1 4.900000+6 1.255891-1 325 3 58
--------------------------------------------------------------------------------
 4.783800+6 4.783800+6          0          0          2        185 325 3105
 4.783800+6 4.783800+6          0          0          2        179 325 3105
```

```
--------------------------------------------------------------------------------
 8.228500-2 2.953700-2 1.424200-2 4.543600-3 9.996101-4 4.870900-5 325 4  2
 8.228500-2 2.953700-2 1.424200-2 4.543600-3 9.996100-4 4.870900-5 325 4  2
--------------------------------------------------------------------------------
  3-Li-7
********************************************************************************
  4-Be-7
********************************************************************************
 2.389000-3 1.026600-1 2.062300-2 9.809301-4                      419 6650
 2.389000-3 1.026600-1 2.062300-2 9.809300-4                      419 6650
--------------------------------------------------------------------------------
  4-Be-9
********************************************************************************
 0.000000+0 0.000000+0          0          0          1        222 425 3  1
 0.000000+0 0.000000+0          0          0          1        200 425 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        222 425 3  2
 0.000000+0 0.000000+0          0          0          1        200 425 3  2
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        222 425 3  3
 0.000000+0 0.000000+0          0          0          1        200 425 3  3
--------------------------------------------------------------------------------
-1.572800+6-1.572800+6          0          0          1         24 425 3 16
-1.572800+6-1.572800+6          0          0          1         23 425 3 16
--------------------------------------------------------------------------------
 6.812380+6 6.812380+6          0          0          1         12 425 3102
 6.812380+6 6.812380+6          0          0          1         69 425 3102
--------------------------------------------------------------------------------
-6.000000+5-6.000000+5          0          0          1         26 425 3107
-6.000000+5-6.000000+5          0          0          1         25 425 3107
--------------------------------------------------------------------------------
-6.000000+5-6.000000+5          0          0          1         26 425 3800
-6.000000+5-6.000000+5          0          0          1         25 425 3800
--------------------------------------------------------------------------------
  5-B -10
********************************************************************************
  5-B -11
********************************************************************************
  6-C -Nat
********************************************************************************
  7-N -14
********************************************************************************
 0.000000+0 0.000000+0          0          0          1       1560 725 3  1
 0.000000+0 0.000000+0          0          0          2       1274 725 3  1
--------------------------------------------------------------------------------
  7-N -15
********************************************************************************
  8-O -16
********************************************************************************
 0.000000+0 0.000000+0          0          0          1       2938 825 3  1
 0.000000+0 0.000000+0          0          0          1       2316 825 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       2938 825 3  2
 0.000000+0 0.000000+0          0          0          1       2316 825 3  2
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       2938 825 3  3
 0.000000+0 0.000000+0          0          0          1       2316 825 3  3
--------------------------------------------------------------------------------
-2.214300+6-2.214300+6          0          0          1       1674 825 3107
-2.214300+6-2.214300+6          0          0          3       1208 825 3107
--------------------------------------------------------------------------------
 1.800000+7 9.985144-4 1.810000+7 9.634100-4 1.820000+7 9.316549-4 825 3600
 1.800000+7 9.985143-4 1.810000+7 9.634100-4 1.820000+7 9.316549-4 825 3600
--------------------------------------------------------------------------------
 2.215000+7 8.553504-4 2.245000+7 9.769415-4 2.250000+7 9.960104-4 825 3658
 2.215000+7 8.553504-4 2.245000+7 9.769416-4 2.250000+7 9.960104-4 825 3658
--------------------------------------------------------------------------------
 2.500000+7 9.763200-4 2.515000+7 9.828137-4 2.545000+7 9.978088-4 825 3659
 2.500000+7 9.763200-4 2.515000+7 9.828136-4 2.545000+7 9.978088-4 825 3659
--------------------------------------------------------------------------------
 2.335000+7 8.956104-4 2.350000+7 9.915543-4 2.365000+7 1.073998-3 825 3705
 2.335000+7 8.956104-4 2.350000+7 9.915544-4 2.365000+7 1.073998-3 825 3705
--------------------------------------------------------------------------------
-2.214300+6-2.214300+6          0          0          1       1674 825 3800
-2.214300+6-2.214300+6          0          0          3       1208 825 3800
```

```
--------------------------------------------------------------------------------
-2.214300+6-5.305000+6          0          0          1        750 825 3801
-2.215600+6-5.305000+6          0          0          1        642 825 3801
--------------------------------------------------------------------------------
-2.214300+6-5.900100+6          0          0          1        500 825 3802
-2.215600+6-5.900100+6          0          0          1        477 825 3802
--------------------------------------------------------------------------------
-2.214300+6-6.069400+6          0          0          1        394 825 3803
-2.215600+6-6.069400+6          0          0          1        393 825 3803
--------------------------------------------------------------------------------
 0.000000+0 1.585751+1          0          2          0         10 825 4  2
 0.000000+0 1.585751+1          0          2          0          0 825 4  2
--------------------------------------------------------------------------------
 0.000000+0 2.354500+6          0          0          8          0 825 4800
 0.000000+0 2.355319+6          0          0          8          0 825 4800
--------------------------------------------------------------------------------
 2.445766+5 9.196546-7 4.198505-1 2.822038+5 9.828246-7 4.330448-1 825 6 16
 2.445766+5 9.196546-7 4.198505-1 2.822038+5 9.828247-7 4.330448-1 825 6 16
--------------------------------------------------------------------------------
 6.114947+5 9.738804-7 1.546142-4 7.055708+5 8.882155-7 1.546142-4 825 6 28
 6.114947+5 9.738805-7 1.546142-4 7.055708+5 8.882155-7 1.546142-4 825 6 28
--------------------------------------------------------------------------------
 1.977343+5 9.962476-7 2.306900+5 8.477150-7 2.636457+5 6.987413-7 825 6 32
 1.977343+5 9.962477-7 2.306900+5 8.477150-7 2.636457+5 6.987413-7 825 6 32
--------------------------------------------------------------------------------
 0.000000+0 1.015746-6 3.000000+5 2.223739-6 5.000000+5 9.867993-7 825 6 41
 0.000000+0 1.015746-6 3.000000+5 2.223739-6 5.000000+5 9.867992-7 825 6 41
--------------------------------------------------------------------------------
 3.823334+5 4.938590-7 0.000000+0 5.352667+5 9.883044-7 0.000000+0 825 6 45
 3.823334+5 4.938590-7 0.000000+0 5.352667+5 9.883043-7 0.000000+0 825 6 45
--------------------------------------------------------------------------------
 6.650000+6 3.40521-11 6.750000+6 1.84818-11 6.850000+6 9.553715-7 825 6 91
 6.650000+6 3.40521-11 6.750000+6 1.84818-11 6.850000+6 9.553716-7 825 6 91
--------------------------------------------------------------------------------
 9.141613+5 1.014379-6 1.066521+6 9.583486-7 1.218882+6 8.545213-7 825 6108
 9.141613+5 1.014379-6 1.066521+6 9.583485-7 1.218882+6 8.545213-7 825 6108
--------------------------------------------------------------------------------
 1.605800+6 9.760535-7 7.638345-4 1.758734+6 9.063894-7 1.025215-3 825 6112
 1.605800+6 9.760534-7 7.638345-4 1.758734+6 9.063894-7 1.025215-3 825 6112
--------------------------------------------------------------------------------
  8-O -17
********************************************************************************
  9-F -19
********************************************************************************
 1.000000-5 1.000000+6          1          7          0          1 925 2151
 1.000000-5 2.000000+7          0          0          0          0 925 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        541 925 3  1
 0.000000+0 0.000000+0          0          0          1       2083 925 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        475 925 3  2
 0.000000+0 0.000000+0          0          0          1       1024 925 3  2
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        384 925 3  3
 0.000000+0 0.000000+0          0          0          1       1824 925 3  3
--------------------------------------------------------------------------------
 0.000000+0-1.100000+5          0          0          1        158 925 3  4
 0.000000+0-1.099000+5          0          0          1        266 925 3  4
--------------------------------------------------------------------------------
 0.000000+0-1.100000+5          0          0          1         64 925 3 51
 0.000000+0-1.099000+5          0          0          1        133 925 3 51
--------------------------------------------------------------------------------
 0.000000+0-1.970000+5          0          0          1         44 925 3 52
 0.000000+0-1.970000+5          0          0          1         77 925 3 52
--------------------------------------------------------------------------------
 6.601370+6 6.601370+6          0          0          1        217 925 3102
 6.601300+6 6.601300+6          0          0          1       1651 925 3102
--------------------------------------------------------------------------------
 11-Na-22
********************************************************************************
 1.450000+2 3.500000+0 2.990000+1 2.890000+1 1.000000+0 0.000000+01122 2151
 1.450000+2 3.500000+0 1.439000+2 2.890000+1 1.000000+0 0.000000+01122 2151
--------------------------------------------------------------------------------
 11-Na-23
********************************************************************************
```

```
 1.000000-5 5.000000+5          1          2          0          01125 2151
 6.000000+2 5.000000+5          1          2          0          01125 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        7031125 3  1
 0.000000+0 0.000000+0          0          0          2       14071125 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       18151125 3  2
 0.000000+0 0.000000+0          0          0          1       14071125 3  2
-------------------------------------------------------------------------------
                                                              1125 3  3 Only in VII.0
 0.000000+0-4.399910+5          0          0          1       14011125 3  4
 0.000000+0-4.400000+5          0          0          1        3251125 3  4
-------------------------------------------------------------------------------
-1.241800+7-1.241800+7          0          0          1         111125 3 16
-1.241400+7-1.241400+7          0          0          1         121125 3 16
-------------------------------------------------------------------------------
                                                              1125 3 22 Only in VII.1
                                                              1125 3 28 Only in VII.1
 0.000000+0-4.399910+5          0          0          1       11651125 3 51
 0.000000+0-4.400000+5          0          0          1        1621125 3 51
-------------------------------------------------------------------------------
 0.000000+0-2.076010+6          0          0          1         941125 3 52
 0.000000+0-2.078000+6          0          0          1         471125 3 52
-------------------------------------------------------------------------------
 0.000000+0-2.390730+6          0          0          1        1071125 3 53
 0.000000+0-2.393000+6          0          0          1         461125 3 53
-------------------------------------------------------------------------------
 0.000000+0-2.639860+6          0          0          1         951125 3 54
 0.000000+0-2.640000+6          0          0          1         271125 3 54
-------------------------------------------------------------------------------
 0.000000+0-2.703500+6          0          0          1         911125 3 55
 0.000000+0-2.705000+6          0          0          1         201125 3 55
-------------------------------------------------------------------------------
 0.000000+0-2.982060+6          0          0          1         991125 3 56
 0.000000+0-2.983000+6          0          0          1         141125 3 56
-------------------------------------------------------------------------------
 0.000000+0-3.677600+6          0          0          1         811125 3 57
 0.000000+0-3.680000+6          0          0          1         161125 3 57
-------------------------------------------------------------------------------
 0.000000+0-3.848070+6          0          0          1         841125 3 58
 0.000000+0-3.880000+6          0          0          1         161125 3 58
-------------------------------------------------------------------------------
 0.000000+0-3.914240+6          0          0          1         811125 3 59
 0.000000+0-4.430000+6          0          0          1         121125 3 59
-------------------------------------------------------------------------------
 0.000000+0-4.429630+6          0          0          1         771125 3 60
 0.000000+0-4.770000+6          0          0          1         121125 3 60
-------------------------------------------------------------------------------
 0.000000+0-4.774610+6          0          0          1         731125 3 61
 0.000000+0-5.380000+6          0          0          1         121125 3 61
-------------------------------------------------------------------------------
 0.000000+0-5.378560+6          0          0          1         581125 3 62
 0.000000+0-5.530000+6          0          0          1         101125 3 62
-------------------------------------------------------------------------------
 0.000000+0-5.534000+6          0          0          1         621125 3 63
 0.000000+0-5.760000+6          0          0          1          81125 3 63
-------------------------------------------------------------------------------
 0.000000+0-5.741800+6          0          0          1         721125 3 64
 0.000000+0-5.955000+6          0          0          1          81125 3 64
-------------------------------------------------------------------------------
 0.000000+0-5.766030+6          0          0          1         711125 3 65
 0.000000+0-6.078500+6          0          0          1          91125 3 65
-------------------------------------------------------------------------------
 0.000000+0-5.778000+6          0          0          1         701125 3 66
 0.000000+0-6.270000+6          0          0          1         101125 3 66
-------------------------------------------------------------------------------
 0.000000+0-5.926800+6          0          0          1         641125 3 67
 0.000000+0-7.110000+6          0          0          1          81125 3 67
-------------------------------------------------------------------------------
 0.000000+0-5.964400+6          0          0          1         651125 3 68
 0.000000+0-7.790000+6          0          0          1         101125 3 68
-------------------------------------------------------------------------------
                                                              1125 3 69 Only in VII.1
                                                              1125 3 70 Only in VII.1
                                                              1125 3 71 Only in VII.1
```

```
                                                                 1125 3 72 Only in VII.1
                                                                 1125 3 73 Only in VII.1
                                                                 1125 3 74 Only in VII.1
                                                                 1125 3 75 Only in VII.1
                                                                 1125 3 76 Only in VII.1
                                                                 1125 3 77 Only in VII.1
                                                                 1125 3 78 Only in VII.1
                                                                 1125 3 79 Only in VII.1
                                                                 1125 3 80 Only in VII.1
                                                                 1125 3 81 Only in VII.1
                                                                 1125 3 82 Only in VII.1
                                                                 1125 3 83 Only in VII.1
                                                                 1125 3 84 Only in VII.1
                                                                 1125 3 85 Only in VII.1
                                                                 1125 3 86 Only in VII.1
                                                                 1125 3 87 Only in VII.1
                                                                 1125 3 88 Only in VII.1
                                                                 1125 3 89 Only in VII.1
 0.000000+0-5.367790+6          0          0          1        1111125 3 91
 0.000000+0-5.843600+6          0          0          1         601125 3 91
--------------------------------------------------------------------------------
 6.960000+6 6.960000+6          0          0          1       12031125 3102
 6.959490+6 6.959490+6          0          0          4         341125 3102
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1691125 3103
-3.597000+6-3.597000+6          0          0          1        1021125 3103
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1191125 3107
-3.866000+6-3.866000+6          0          0          1        1011125 3107
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4  2
 0.000000+0 2.279200+1          0          2          0          01125 4  2
--------------------------------------------------------------------------------
                                                                 1125 4 16 Only in VII.0
 0.000000+0 2.279230+1          0          2          0          01125 4 51
 0.000000+0 2.279200+1          1          2          0          01125 4 51
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 52
 0.000000+0 2.279200+1          1          2          0          01125 4 52
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 53
 0.000000+0 2.279200+1          1          2          0          01125 4 53
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 54
 0.000000+0 2.279200+1          1          2          0          01125 4 54
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 55
 0.000000+0 2.279200+1          1          2          0          01125 4 55
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 56
 0.000000+0 2.279200+1          1          2          0          01125 4 56
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 57
 0.000000+0 2.279200+1          1          2          0          01125 4 57
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 58
 0.000000+0 2.279200+1          1          2          0          01125 4 58
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 59
 0.000000+0 2.279200+1          1          2          0          01125 4 59
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 60
 0.000000+0 2.279200+1          1          2          0          01125 4 60
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 61
 0.000000+0 2.279200+1          1          2          0          01125 4 61
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 62
 0.000000+0 2.279200+1          1          2          0          01125 4 62
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 63
 0.000000+0 2.279200+1          1          2          0          01125 4 63
--------------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 64
 0.000000+0 2.279200+1          1          2          0          01125 4 64
```

```
---------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 65
 0.000000+0 2.279200+1          1          2          0          01125 4 65
---------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 66
 0.000000+0 2.279200+1          1          2          0          01125 4 66
---------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 67
 0.000000+0 2.279200+1          1          2          0          01125 4 67
---------------------------------------------------------------------------
 0.000000+0 2.279230+1          0          2          0          01125 4 68
 0.000000+0 2.279200+1          1          2          0          01125 4 68
---------------------------------------------------------------------------
                                                                  1125 4 69 Only in VII.1
                                                                  1125 4 70 Only in VII.1
                                                                  1125 4 71 Only in VII.1
                                                                  1125 4 72 Only in VII.1
                                                                  1125 4 73 Only in VII.1
                                                                  1125 4 74 Only in VII.1
                                                                  1125 4 75 Only in VII.1
                                                                  1125 4 76 Only in VII.1
                                                                  1125 4 77 Only in VII.1
                                                                  1125 4 78 Only in VII.1
                                                                  1125 4 79 Only in VII.1
                                                                  1125 4 80 Only in VII.1
                                                                  1125 4 81 Only in VII.1
                                                                  1125 4 82 Only in VII.1
                                                                  1125 4 83 Only in VII.1
                                                                  1125 4 84 Only in VII.1
                                                                  1125 4 85 Only in VII.1
                                                                  1125 4 86 Only in VII.1
                                                                  1125 4 87 Only in VII.1
                                                                  1125 4 88 Only in VII.1
                                                                  1125 4 89 Only in VII.1
                                                                  1125 4 91 Only in VII.0
                                                                  1125 5 16 Only in VII.0
                                                                  1125 5 91 Only in VII.0
                                                                  1125 6 16 Only in VII.1
                                                                  1125 6 22 Only in VII.1
                                                                  1125 6 28 Only in VII.1
                                                                  1125 6 91 Only in VII.1
                                                                  1125 6102 Only in VII.1
 12-Mg-24
***************************************************************************
 12-Mg-25
***************************************************************************
 12-Mg-26
***************************************************************************
 13-Al-27
***************************************************************************
 14-Si-28
***************************************************************************
 14-Si-29
***************************************************************************
 5.500000+7 2.388798-4 6.000000+7 9.815152-4 6.500000+7 1.757600-31428 6  5
 5.500000+7 2.388798-4 6.000000+7 9.815151-4 6.500000+7 1.757600-31428 6  5
---------------------------------------------------------------------------
 14-Si-30
***************************************************************************
 1.039306+6 9.737475-7 1.212524+6 7.251625-7 1.385742+6 1.730027-71431 6  5
 1.039306+6 9.737476-7 1.212524+6 7.251625-7 1.385742+6 1.730027-71431 6  5
---------------------------------------------------------------------------
 15-P -31
***************************************************************************
 0.000000+0 0.000000+0          0          0          1        5101525 3  1
 0.000000+0 0.000000+0          0          0          2        4051525 3  1
---------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        2861525 3  2
 0.000000+0 0.000000+0          0          0          1        2851525 3  2
---------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1641525 3  5
 0.000000+0 0.000000+0          0          0          1        1631525 3  5
---------------------------------------------------------------------------
 7.930000+6 7.930000+6          0          0          1        1951525 3102
 7.930000+6 7.930000+6          0          0          2         911525 3102
```

```
--------------------------------------------------------------------------------
 6.948146+5 8.370184-7 9.264195+5 9.708006-7 1.158024+6 9.552120-71525 6  5
 6.948146+5 8.370184-7 9.264195+5 9.708005-7 1.158024+6 9.552121-71525 6  5
--------------------------------------------------------------------------------
 16-S -32
********************************************************************************
 8.468570-2-9.955131-4-4.789310-2 2.259380-4 8.620540-3-1.526400-31625 4 56
 8.468570-2-9.955130-4-4.789310-2 2.259380-4 8.620540-3-1.526400-31625 4 56
--------------------------------------------------------------------------------
 16-S -33
********************************************************************************
 9.708079-7 8.318220-8 6.959210-9 4.43943-10                     1628 4  2
 9.708080-7 8.318220-8 6.959210-9 4.43943-10                     1628 4  2
--------------------------------------------------------------------------------
 16-S -34
********************************************************************************
          4          2         68          5                     1631 3  1
          3          2         68          5                     1631 3  1
--------------------------------------------------------------------------------
 2.993170-4 5.444440-5 6.873360-6 9.945539-7 1.306950-7 1.268380-81631 4  2
 2.993170-4 5.444440-5 6.873360-6 9.945540-7 1.306950-7 1.268380-81631 4  2
--------------------------------------------------------------------------------
 16-S -36
********************************************************************************
 1.340760+7 0.000000+0 1.500000+7 4.607200-5 1.600000+7 9.939451-41637 3 28
 1.340760+7 0.000000+0 1.500000+7 4.607200-5 1.600000+7 9.939450-41637 3 28
--------------------------------------------------------------------------------
 17-Cl-35
********************************************************************************
 1.000000-5 1.200000+6          1          7          0          01725 2151
 1.000000-5 1.200000+6          0          0          0          01725 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        2341725 3  1
 0.000000+0 0.000000+0          0          0          1      283511725 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        2311725 3  2
 0.000000+0 0.000000+0          0          0          1      200391725 3  2
--------------------------------------------------------------------------------
 8.579770+6 8.579770+6          0          0          2         561725 3102
 8.579770+6 8.579770+6          0          0          1      200391725 3102
--------------------------------------------------------------------------------
 6.152200+5 6.152200+5          0          0          1         801725 3103
 6.152200+5 6.152200+5          0          0          1       60311725 3103
--------------------------------------------------------------------------------
 9.382300+5 9.382300+5          0          0          1       24971725 3107
 9.382300+5 9.382300+5          0          0          1       86291725 3107
--------------------------------------------------------------------------------
 6.152200+5 6.152200+5          0          0          1         801725 3600
 6.152200+5 6.152200+5          0          0          1       54131725 3600
--------------------------------------------------------------------------------
 9.844741+5 0.000000+0 9.848862+5 3.38607-22 9.850922+5 4.70291-221725 3601
 9.844741+5 7.51750-23 9.848862+5 3.38607-22 9.850922+5 4.70291-221725 3601
--------------------------------------------------------------------------------
 1.415360+6 0.000000+0 1.750000+6 1.00000-20 1.769170+6 3.99756-211725 3602
 1.415360+6 1.00000-20 1.750000+6 1.00000-20 1.769170+6 3.99756-211725 3602
--------------------------------------------------------------------------------
 1.781940+6 0.000000+0 1.814008+6 1.47068-21 1.858577+6 3.51455-211725 3603
 1.781940+6 1.47064-21 1.814008+6 1.47068-21 1.858577+6 3.51455-211725 3603
--------------------------------------------------------------------------------
 2.162610+6 0.000000+0 2.274950+6 1.04658-20 2.390705+6 1.26266-201725 3604
 2.162610+6 1.00000-20 2.274950+6 1.04658-20 2.390705+6 1.26266-201725 3604
--------------------------------------------------------------------------------
 2.392856+6 0.000000+0 2.452838+6 5.68485-21 2.500000+6 1.00000-201725 3605
 2.392856+6 1.96717-22 2.452838+6 5.68485-21 2.500000+6 1.00000-201725 3605
--------------------------------------------------------------------------------
 2.886400+6 0.000000+0 3.000000+6 1.00000-20 3.026624+6 1.17666-201725 3606
 2.886400+6 4.81738-21 3.000000+6 1.00000-20 3.026624+6 1.17666-201725 3606
--------------------------------------------------------------------------------
 3.030230+6 0.000000+0 3.089353+6 2.69006-21 3.089354+6 2.69010-211725 3607
 3.030230+6 1.69472-21 3.089353+6 2.69006-21 3.089354+6 2.69010-211725 3607
--------------------------------------------------------------------------------
 3.067480+6 0.000000+0 3.089354+6 1.19845-21 3.139283+6 3.93400-211725 3608
 3.067480+6 1.19840-21 3.089354+6 1.19845-21 3.139283+6 3.93400-211725 3608
--------------------------------------------------------------------------------
 3.147730+6 0.000000+0 3.157392+6 9.44754-22 3.250000+6 1.00000-201725 3609
```

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 3.147730+6 9.44656-22 3.157392+6 9.44754-22 3.250000+6 1.00000-201725 3609
--------------------------------------------------------------------------------
 3.278600+6 0.000000+0 3.364815+6 3.89414-21 3.386421+6 4.87001-211725 3610
 3.278600+6 7.38837-22 3.364815+6 3.89414-21 3.386421+6 4.87001-211725 3610
--------------------------------------------------------------------------------
 3.294960+6 0.000000+0 3.386421+6 4.46075-21 3.500000+6 1.00000-201725 3611
 3.294960+6 3.40702-21 3.386421+6 4.46075-21 3.500000+6 1.00000-201725 3611
--------------------------------------------------------------------------------
 3.364810+6 0.000000+0 3.500000+6 1.00000-20 3.504738+6 1.03355-201725 3612
 3.364810+6 1.59825-21 3.500000+6 1.00000-20 3.504738+6 1.03355-201725 3612
--------------------------------------------------------------------------------
 3.386420+6 0.000000+0 3.504738+6 1.04000-20 3.510911+6 1.08711-201725 3613
 3.386420+6 1.00000-20 3.504738+6 1.04000-20 3.510911+6 1.08711-201725 3613
--------------------------------------------------------------------------------
 3.504740+6 0.000000+0 3.592190+6 3.56566-21 3.667295+6 6.62789-211725 3614
 3.504740+6 2.51690-22 3.592190+6 3.56566-21 3.667295+6 6.62789-211725 3614
--------------------------------------------------------------------------------
 3.510910+6 0.000000+0 3.667295+6 6.54083-21 3.677481+6 6.96686-211725 3615
 3.510910+6 3.39953-21 3.667295+6 6.54083-21 3.677481+6 6.96686-211725 3615
--------------------------------------------------------------------------------
 3.592190+6 0.000000+0 3.677481+6 5.40466-21 3.750000+6 1.00000-201725 3616
 3.592190+6 4.75920-21 3.677481+6 5.40466-21 3.750000+6 1.00000-201725 3616
--------------------------------------------------------------------------------
 3.667300+6 0.000000+0 3.750000+6 1.00000-20 3.792814+6 1.34818-201725 3617
 3.667300+6 1.23161-21 3.750000+6 1.00000-20 3.792814+6 1.34818-201725 3617
--------------------------------------------------------------------------------
 3.677480+6 0.000000+0 3.792814+6 1.39903-20 3.975949+6 1.00797-201725 3618
 3.677480+6 1.00000-20 3.792814+6 1.39903-20 3.975949+6 1.00797-201725 3618
--------------------------------------------------------------------------------
 3.792810+6 0.000000+0 4.000000+6 1.00000-20 4.031507+6 1.05071-201725 3619
 3.792810+6 8.83916-21 4.000000+6 1.00000-20 4.031507+6 1.05071-201725 3619
--------------------------------------------------------------------------------
 3.975950+6 0.000000+0 4.031507+6 1.64108-20 4.031508+6 1.64110-201725 3620
 3.975950+6 1.00000-20 4.031507+6 1.64108-20 4.031508+6 1.64110-201725 3620
--------------------------------------------------------------------------------
 4.074720+6 0.000000+0 4.081942+6 4.12088-22 4.116900+6 2.40652-211725 3621
 4.074720+6 4.12031-22 4.081942+6 4.12088-22 4.116900+6 2.40652-211725 3621
--------------------------------------------------------------------------------
 4.116900+6 0.000000+0 4.176287+6 4.46179-21 4.231947+6 8.64364-211725 3622
 4.116900+6 4.46172-21 4.176287+6 4.46179-21 4.231947+6 8.64364-211725 3622
--------------------------------------------------------------------------------
 4.345300+6 0.000000+0 4.473086+6 8.26020-21 4.473108+6 8.26162-211725 3623
 4.345300+6 4.28970-21 4.473086+6 8.26020-21 4.473108+6 8.26162-211725 3623
--------------------------------------------------------------------------------
 4.411660+6 0.000000+0 4.473108+6 6.95571-21 4.473109+6 6.95582-211725 3624
 4.411660+6 6.95322-21 4.473108+6 6.95571-21 4.473109+6 6.95582-211725 3624
--------------------------------------------------------------------------------
 4.473108+6 0.000000+0 4.473109+6 8.17449-24 4.500000+6 1.00000-201725 3625
 4.473108+6 7.80292-24 4.473109+6 8.17449-24 4.500000+6 1.00000-201725 3625
--------------------------------------------------------------------------------
 4.500660+6 0.000000+0 4.641611+6 5.65298-21 4.750000+6 1.00000-201725 3626
 4.500660+6 2.80588-21 4.641611+6 5.65298-21 4.750000+6 1.00000-201725 3626
--------------------------------------------------------------------------------
 4.570620+6 0.000000+0 4.750000+6 1.00000-20 4.757789+6 1.01042-201725 3627
 4.570620+6 3.95754-21 4.750000+6 1.00000-20 4.757789+6 1.01042-201725 3627
--------------------------------------------------------------------------------
 4.641610+6 0.000000+0 4.757789+6 1.01671-20 4.757790+6 1.01671-201725 3628
 4.641610+6 1.00000-20 4.757789+6 1.01671-20 4.757790+6 1.01671-201725 3628
--------------------------------------------------------------------------------
 4.265400+6 0.000000+0 4.293833+6 1.21198-21 4.298410+6 1.40708-211725 3650
 4.265400+6 1.21194-21 4.293833+6 1.21198-21 4.298410+6 1.40708-211725 3650
--------------------------------------------------------------------------------
 6.454060+6 0.000000+0 6.554151+6 1.661158-6 6.554153+6 1.661219-61725 3651
 6.454060+6 1.00000-20 6.554151+6 1.661158-6 6.554153+6 1.661219-61725 3651
--------------------------------------------------------------------------------
 7.663880+6 0.000000+0 7.927969+6 7.85699-21 8.000000+6 1.00000-201725 3652
 7.663880+6 7.85693-21 7.927969+6 7.85699-21 8.000000+6 1.00000-201725 3652
--------------------------------------------------------------------------------
 8.292500+6 0.000000+0 8.498168+6 9.91171-21 8.500000+6 1.00000-201725 3653
 8.292500+6 7.92345-21 8.498168+6 9.91171-21 8.500000+6 1.00000-201725 3653
--------------------------------------------------------------------------------
 8.456910+6 0.000000+0 8.500000+6 1.00000-20 9.000000+6 8.224970-91725 3654
 8.456910+6 9.57482-21 8.500000+6 1.00000-20 9.000000+6 8.224970-91725 3654
--------------------------------------------------------------------------------
 8.500000+6 0.000000+0 9.000000+6 1.00000-20 9.021439+6 1.691144-91725 3655
```

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 8.500000+6 1.00000-20 9.000000+6 1.00000-20 9.021439+6 1.691144-91725 3655
--------------------------------------------------------------------------------
 9.021440+6 0.000000+0 9.281839+6 5.44131-21 9.295729+6 5.73156-211725 3656
 9.021440+6 1.39527-21 9.281839+6 5.44131-21 9.295729+6 5.73156-211725 3656
--------------------------------------------------------------------------------
 9.088210+6 0.000000+0 9.295729+6 5.03943-21 9.500000+6 1.00000-201725 3657
 9.088210+6 4.70212-21 9.295729+6 5.03943-21 9.500000+6 1.00000-201725 3657
--------------------------------------------------------------------------------
 9.281840+6 0.000000+0 9.500000+6 1.00000-20 9.574061+6 9.515951-91725 3658
 9.281840+6 6.36686-22 9.500000+6 1.00000-20 9.574061+6 9.515951-91725 3658
--------------------------------------------------------------------------------
 9.295730+6 0.000000+0 9.574061+6 5.998988-9 9.643170+6 1.159686-81725 3659
 9.295730+6 1.00000-20 9.574061+6 5.998988-9 9.643170+6 1.159686-81725 3659
--------------------------------------------------------------------------------
 9.643170+6 0.000000+0 9.802641+6 4.46910-21 1.000000+7 1.00000-201725 3660
 9.643170+6 2.62380-21 9.802641+6 4.46910-21 1.000000+7 1.00000-201725 3660
--------------------------------------------------------------------------------
 9.736800+6 0.000000+0 1.000000+7 1.00000-20 1.010924+7 8.371287-91725 3661
 9.736800+6 2.50170-21 1.000000+7 1.00000-20 1.010924+7 8.371287-91725 3661
--------------------------------------------------------------------------------
 9.802640+6 0.000000+0 1.010924+7 4.132211-9 1.011850+7 4.792677-91725 3662
 9.802640+6 1.00000-20 1.010924+7 4.132211-9 1.011850+7 4.792677-91725 3662
--------------------------------------------------------------------------------
 1.011850+7 0.000000+0 1.018434+7 1.92190-21 1.028208+7 4.42318-211725 3663
 1.011850+7 2.36974-22 1.018434+7 1.92190-21 1.028208+7 4.42318-211725 3663
--------------------------------------------------------------------------------
 1.011850+7 0.000000+0 1.028208+7 4.28781-21 1.043126+7 8.19817-211725 3664
 1.011850+7 1.72582-21 1.028208+7 4.28781-21 1.043126+7 8.19817-211725 3664
--------------------------------------------------------------------------------
 1.018430+7 0.000000+0 1.043126+7 7.82234-21 1.043924+7 8.07514-211725 3665
 1.018430+7 3.09637-21 1.043126+7 7.82234-21 1.043924+7 8.07514-211725 3665
--------------------------------------------------------------------------------
 1.028210+7 0.000000+0 1.043924+7 7.21182-21 1.050000+7 1.00000-201725 3666
 1.028210+7 6.84563-21 1.043924+7 7.21182-21 1.050000+7 1.00000-201725 3666
--------------------------------------------------------------------------------
 1.043924+7 0.000000+0 1.050000+7 1.00000-20 1.056193+7 3.00686-101725 3667
 1.043924+7 1.15961-21 1.050000+7 1.00000-20 1.056193+7 3.00686-101725 3667
--------------------------------------------------------------------------------
 1.061700+7 0.000000+0 1.069671+7 2.08182-21 1.079342+7 4.60669-211725 3669
 1.061700+7 2.05493-21 1.069671+7 2.08182-21 1.079342+7 4.60669-211725 3669
--------------------------------------------------------------------------------
 1.093230+7 0.000000+0 1.100000+7 1.00000-20 1.109590+7 2.68349-101725 3674
 1.093230+7 8.05584-21 1.100000+7 1.00000-20 1.109590+7 2.68349-101725 3674
--------------------------------------------------------------------------------
 1.098680+7 0.000000+0 1.109590+7 1.43718-10 1.114117+7 2.92924-101725 3675
 1.098680+7 1.00000-20 1.109590+7 1.43718-10 1.114117+7 2.92924-101725 3675
--------------------------------------------------------------------------------
 1.114630+7 0.000000+0 1.120187+7 1.57087-21 1.120188+7 1.57115-211725 3678
 1.114630+7 1.19257-21 1.120187+7 1.57087-21 1.120188+7 1.57115-211725 3678
--------------------------------------------------------------------------------
 1.118850+7 0.000000+0 1.120188+7 4.29842-22 1.127893+7 2.90328-211725 3679
 1.118850+7 4.29521-22 1.120188+7 4.29842-22 1.127893+7 2.90328-211725 3679
--------------------------------------------------------------------------------
 9.574060+6 0.000000+0 9.736795+6 3.82058-21 9.802641+6 5.36649-211725 3700
 9.574060+6 1.62249-21 9.736795+6 3.82058-21 9.802641+6 5.36649-211725 3700
--------------------------------------------------------------------------------
 1.159710+7 0.000000+0 1.200000+7 1.00000-20 1.250000+7 1.034580-61725 3702
 1.159710+7 8.83997-21 1.200000+7 1.00000-20 1.250000+7 1.034580-61725 3702
--------------------------------------------------------------------------------
 1.195330+7 0.000000+0 1.250000+7 2.312910-9 1.252314+7 3.096308-91725 3703
 1.195330+7 1.00000-20 1.250000+7 2.312910-9 1.252314+7 3.096308-91725 3703
--------------------------------------------------------------------------------
 1.252130+7 0.000000+0 1.262829+7 2.20505-21 1.288684+7 7.62698-211725 3704
 1.252130+7 1.45200-21 1.262829+7 2.20505-21 1.288684+7 7.62698-211725 3704
--------------------------------------------------------------------------------
 1.259240+7 0.000000+0 1.288684+7 7.22388-21 1.300000+7 1.00000-201725 3705
 1.259240+7 8.80968-22 1.288684+7 7.22388-21 1.300000+7 1.00000-201725 3705
--------------------------------------------------------------------------------
 1.262830+7 0.000000+0 1.300000+7 1.00000-20 1.300979+7 7.39572-101725 3706
 1.262830+7 6.95569-21 1.300000+7 1.00000-20 1.300979+7 7.39572-101725 3706
--------------------------------------------------------------------------------
 1.288680+7 0.000000+0 1.300979+7 8.35392-11 1.350000+7 4.266560-91725 3707
 1.288680+7 1.00000-20 1.300979+7 8.35392-11 1.350000+7 4.266560-91725 3707
--------------------------------------------------------------------------------
 1.351620+7 0.000000+0 1.373841+7 4.59324-21 1.374397+7 4.70816-211725 3708
```

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 1.351620+7 2.19028-21 1.373841+7 4.59324-21 1.374397+7 4.70816-211725 3708
--------------------------------------------------------------------------------
 1.362220+7 0.000000+0 1.374397+7 3.22403-21 1.378615+7 4.34035-211725 3709
 1.362220+7 3.07688-21 1.374397+7 3.22403-21 1.378615+7 4.34035-211725 3709
--------------------------------------------------------------------------------
 1.374397+7 0.000000+0 1.378615+7 1.82499-21 1.383728+7 3.77958-211725 3710
 1.374397+7 2.12546-22 1.378615+7 1.82499-21 1.383728+7 3.77958-211725 3710
--------------------------------------------------------------------------------
 1.374400+7 0.000000+0 1.383728+7 3.64449-21 1.390591+7 6.32504-211725 3711
 1.374400+7 1.64746-21 1.383728+7 3.64449-21 1.390591+7 6.32504-211725 3711
--------------------------------------------------------------------------------
 1.378610+7 0.000000+0 1.390591+7 5.60019-21 1.400000+7 1.00000-201725 3712
 1.378610+7 2.39093-21 1.390591+7 5.60019-21 1.400000+7 1.00000-201725 3712
--------------------------------------------------------------------------------
 1.383730+7 0.000000+0 1.400000+7 1.00000-20 1.407515+7 1.06164-101725 3713
 1.383730+7 4.21767-21 1.400000+7 1.00000-20 1.407515+7 1.06164-101725 3713
--------------------------------------------------------------------------------
 1.390590+7 0.000000+0 1.407515+7 4.65921-11 1.412618+7 1.22145-101725 3714
 1.390590+7 1.00000-20 1.407515+7 4.65921-11 1.412618+7 1.22145-101725 3714
--------------------------------------------------------------------------------
 1.407520+7 0.000000+0 1.443988+7 8.58491-21 1.445696+7 8.98694-211725 3715
 1.407520+7 1.20113-21 1.443988+7 8.58491-21 1.445696+7 8.98694-211725 3715
--------------------------------------------------------------------------------
 1.412620+7 0.000000+0 1.445696+7 8.84864-21 1.450000+7 1.00000-201725 3716
 1.412620+7 8.39174-21 1.445696+7 8.84864-21 1.450000+7 1.00000-201725 3716
--------------------------------------------------------------------------------
 1.443990+7 0.000000+0 1.450000+7 1.00000-20 1.458011+7 9.81345-111725 3717
 1.443990+7 2.84098-21 1.450000+7 1.00000-20 1.458011+7 9.81345-111725 3717
--------------------------------------------------------------------------------
 1.458010+7 0.000000+0 1.465861+7 1.86954-21 1.490039+7 7.62771-211725 3719
 1.458010+7 1.30606-21 1.465861+7 1.86954-21 1.490039+7 7.62771-211725 3719
--------------------------------------------------------------------------------
 1.463490+7 0.000000+0 1.490039+7 7.27133-21 1.493331+7 8.17313-211725 3720
 1.463490+7 6.48130-22 1.490039+7 7.27133-21 1.493331+7 8.17313-211725 3720
--------------------------------------------------------------------------------
 1.465860+7 0.000000+0 1.493331+7 8.04652-21 1.499916+7 9.97539-211725 3721
 1.465860+7 7.08222-21 1.493331+7 8.04652-21 1.499916+7 9.97539-211725 3721
--------------------------------------------------------------------------------
 1.490040+7 0.000000+0 1.499916+7 9.91567-21 1.500000+7 1.00000-201725 3722
 1.490040+7 3.30489-21 1.499916+7 9.91567-21 1.500000+7 1.00000-201725 3722
--------------------------------------------------------------------------------
 1.493330+7 0.000000+0 1.500000+7 1.00000-20 1.500842+7 3.00967-131725 3723
 1.493330+7 9.87404-21 1.500000+7 1.00000-20 1.500842+7 3.00967-131725 3723
--------------------------------------------------------------------------------
 1.500000+7 0.000000+0 1.500842+7 1.06872-19 1.506501+7 5.94785-191725 3724
 1.500000+7 1.00000-20 1.500842+7 1.06872-19 1.506501+7 5.94785-191725 3724
--------------------------------------------------------------------------------
 1.500840+7 0.000000+0 1.507529+7 1.36031-21 1.512468+7 2.36503-211725 3725
 1.500840+7 1.15119-21 1.507529+7 1.36031-21 1.512468+7 2.36503-211725 3725
--------------------------------------------------------------------------------
 1.507530+7 0.000000+0 1.520709+7 3.10329-21 1.533250+7 6.05613-211725 3727
 1.507530+7 1.16291-21 1.520709+7 3.10329-21 1.533250+7 6.05613-211725 3727
--------------------------------------------------------------------------------
 1.512470+7 0.000000+0 1.533250+7 5.53714-21 1.533251+7 5.53741-211725 3728
 1.512470+7 2.19573-21 1.533250+7 5.53714-21 1.533251+7 5.53741-211725 3728
--------------------------------------------------------------------------------
 1.520710+7 0.000000+0 1.533251+7 4.28186-21 1.550000+7 1.00000-201725 3729
 1.520710+7 4.28152-21 1.533251+7 4.28186-21 1.550000+7 1.00000-201725 3729
--------------------------------------------------------------------------------
 9.382300+5 9.382300+5          0          0          1       24871725 3800
 9.382300+5 9.382300+5          0          0          1       86191725 3800
--------------------------------------------------------------------------------
 9.382300+5 8.601300+5          0          0          1        8761725 3801
 9.382300+5 8.601300+5          0          0          1       86191725 3801
--------------------------------------------------------------------------------
 9.382300+5 4.252300+5          0          0          1        3091725 3802
 9.382300+5 4.252300+5          0          0          1       86191725 3802
--------------------------------------------------------------------------------
 9.382300+5-2.114700+5          0          0          1        6311725 3803
 9.382300+5-2.114700+5          0          0          1       52241725 3803
--------------------------------------------------------------------------------
 9.382300+5-3.849700+5          0          0          1        8781725 3804
 9.382300+5-3.849700+5          0          0          1       38901725 3804
--------------------------------------------------------------------------------
 9.382300+5-8.162700+5          0          0          1        8291725 3805
```

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 9.382300+5-8.162700+5          0          0          1       14051725 3805
--------------------------------------------------------------------------------
 1.275330+6 0.000000+0 1.317611+6 1.88210-21 1.328825+6 2.38122-211725 3806
 1.275330+6 1.09824-21 1.317611+6 1.88210-21 1.328825+6 2.38122-211725 3806
--------------------------------------------------------------------------------
 1.317610+6 0.000000+0 1.400000+6 4.51721-21 1.415360+6 5.35937-211725 3807
 1.317610+6 6.14840-22 1.400000+6 4.51721-21 1.415360+6 5.35937-211725 3807
--------------------------------------------------------------------------------
 1.328820+6 0.000000+0 1.415360+6 5.05532-21 1.500000+6 1.00000-201725 3808
 1.328820+6 4.15799-21 1.415360+6 5.05532-21 1.500000+6 1.00000-201725 3808
--------------------------------------------------------------------------------
 1.769170+6 0.000000+0 1.814007+6 1.94240-21 1.814008+6 1.94245-211725 3809
 1.769170+6 5.53053-22 1.814007+6 1.94240-21 1.814008+6 1.94245-211725 3809
--------------------------------------------------------------------------------
 1.858580+6 0.000000+0 2.126180+6 1.00000-20 2.162610+6 1.00000-201725 3810
 1.858580+6 1.00000-20 2.126180+6 1.00000-20 2.162610+6 1.00000-201725 3810
--------------------------------------------------------------------------------
 2.126180+6 0.000000+0 2.250000+6 1.00000-20 2.274950+6 1.00000-201725 3811
 2.126180+6 2.94212-21 2.250000+6 1.00000-20 2.274950+6 1.00000-201725 3811
--------------------------------------------------------------------------------
 2.274950+6 0.000000+0 2.392856+6 5.23910-21 2.452838+6 7.90438-211725 3812
 2.274950+6 5.14352-21 2.392856+6 5.23910-21 2.452838+6 7.90438-211725 3812
--------------------------------------------------------------------------------
 2.392860+6 0.000000+0 2.500000+6 1.00000-20 2.577019+6 1.00000-201725 3813
 2.392860+6 5.59826-21 2.500000+6 1.00000-20 2.577019+6 1.00000-201725 3813
--------------------------------------------------------------------------------
 2.452840+6 0.000000+0 2.577019+6 1.00000-20 2.579077+6 1.00000-201725 3814
 2.452840+6 1.00000-20 2.577019+6 1.00000-20 2.579077+6 1.00000-201725 3814
--------------------------------------------------------------------------------
 2.579077+6 0.000000+0 2.721911+6 8.37618-21 2.721912+6 8.37624-211725 3815
 2.579077+6 1.18973-22 2.721911+6 8.37618-21 2.721912+6 8.37624-211725 3815
--------------------------------------------------------------------------------
 2.579080+6 0.000000+0 2.721912+6 8.35668-21 2.750000+6 1.00000-201725 3816
 2.579080+6 8.35662-21 2.721912+6 8.35668-21 2.750000+6 1.00000-201725 3816
--------------------------------------------------------------------------------
 2.941130+6 0.000000+0 3.026624+6 1.00000-20 3.030235+6 1.00000-201725 3817
 2.941130+6 1.00000-20 3.026624+6 1.00000-20 3.030235+6 1.00000-201725 3817
--------------------------------------------------------------------------------
 3.026620+6 0.000000+0 3.067479+6 1.82895-21 3.089353+6 2.80821-211725 3818
 3.026620+6 1.61612-22 3.067479+6 1.82895-21 3.089353+6 2.80821-211725 3818
--------------------------------------------------------------------------------
 3.139280+6 0.000000+0 3.157391+6 1.63552-21 3.157392+6 1.63561-211725 3819
 3.139280+6 7.62797-22 3.157391+6 1.63552-21 3.157392+6 1.63561-211725 3819
--------------------------------------------------------------------------------
 17-Cl-37
********************************************************************************
 1.703700+4 1.000000+0          0          1          1          01731 2151
 1.703700+4 1.000000+0          0          0          1          01731 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        2121731 3  1
 0.000000+0 0.000000+0          0          0          1      125841731 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1811731 3  2
 0.000000+0 0.000000+0          0          0          1      125561731 3  2
--------------------------------------------------------------------------------
 1.285228+7 1.096897-3 1.300000+7 1.021640-3 1.308003+7 9.934485-41731 3 66
 1.285228+7 1.096897-3 1.300000+7 1.021640-3 1.308003+7 9.934486-41731 3 66
--------------------------------------------------------------------------------
 6.107830+6 6.107830+6          0          0          2        1841731 3102
 6.107830+6 6.107830+6          0          0          1      125561731 3102
--------------------------------------------------------------------------------
 1.357498+7 9.766011-4 1.371859+7 1.105391-3 1.375578+7 1.138743-31731 3652
 1.357498+7 9.766012-4 1.371859+7 1.105391-3 1.375578+7 1.138743-31731 3652
--------------------------------------------------------------------------------
 18-Ar-36
********************************************************************************
 18-Ar-38
********************************************************************************
 18-Ar-40
********************************************************************************
 1.700000+7 2.082740-6 1.800000+7 9.694151-7 1.900000+7 4.672320-71837 3 72
 1.700000+7 2.082740-6 1.800000+7 9.694150-7 1.900000+7 4.672320-71837 3 72
--------------------------------------------------------------------------------
 5.002670-3 9.847870-4 1.103430-4 1.318250-5 9.725391-7 2.816520-81837 4  2
 5.002670-3 9.847870-4 1.103430-4 1.318250-5 9.725390-7 2.816520-81837 4  2
```

```
--------------------------------------------------------------------------------
 0.000000+0-9.588121-7 0.000000+0-1.087560-8                     1837 4 72
 0.000000+0-9.588120-7 0.000000+0-1.087560-8                     1837 4 72
--------------------------------------------------------------------------------
 19-K -39
********************************************************************************
 1.903900+4 1.000000+0          0          1          1          01925 2151
 1.903900+4 1.000000+0          0          0          1          01925 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         581925 3  1
 0.000000+0 0.000000+0          0          0          1         581925 3  1
--------------------------------------------------------------------------------
         13          2         58          5                     1925 3  2
          4          2         58          5                     1925 3  2
--------------------------------------------------------------------------------
          3          5         34          2                     1925 3102
          4          2         34          5                     1925 3102
--------------------------------------------------------------------------------
 9.970699-7 3.162270-5 1.661970-6 1.022760-7                     1925 4  2
 9.970700-7 3.162270-5 1.661970-6 1.022760-7                     1925 4  2
--------------------------------------------------------------------------------
 19-K -40
********************************************************************************
 19-K -41
********************************************************************************
 1.904100+4 1.000000+0          0          1          1          01931 2151
 1.904100+4 1.000000+0          0          0          1          01931 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          3         501931 3  1
 0.000000+0 0.000000+0          0          0          2         501931 3  1
--------------------------------------------------------------------------------
 1.000000-5 1.00000-20 2.530000-2 1.00000-20 1.250000+5 1.00000-201931 3  2
 1.000000-5 0.000000+0 2.530000-2 0.000000+0 1.250000+5 0.000000+01931 3  2
--------------------------------------------------------------------------------
 7.534990+6 7.534990+6          0          0          3         281931 3102
 7.534990+6 7.534990+6          0          0          2         281931 3102
--------------------------------------------------------------------------------
 20-Ca-40
********************************************************************************
 20-Ca-42
********************************************************************************
 20-Ca-43
********************************************************************************
 20-Ca-44
********************************************************************************
 20-Ca-46
********************************************************************************
 20-Ca-48
********************************************************************************
 21-Sc-45
********************************************************************************
 0.000000+0 4.456790+1          1          1          0          02125 4 16
 0.000000+0 4.456790+1          1          2          0          02125 4 16
--------------------------------------------------------------------------------
 0.000000+0 4.456790+1          1          1          0          02125 4 22
 0.000000+0 4.456790+1          1          2          0          02125 4 22
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          1          0          02125 4 28
 0.000000+0 0.000000+0          1          2          0          02125 4 28
--------------------------------------------------------------------------------
 0.000000+0 4.456790+1          1          1          0          02125 4 91
 0.000000+0 4.456790+1          1          2          0          02125 4 91
--------------------------------------------------------------------------------
 22-Ti-46
********************************************************************************
 1.000000-5 3.632800+5          1          2          0          02225 2151
 1.000000-5 3.000000+5          1          2          0          02225 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         902225 3  1
 0.000000+0 0.000000+0          0          0          2         942225 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         902225 3  2
 0.000000+0 0.000000+0          0          0          2         942225 3  2
--------------------------------------------------------------------------------
-1.319680+7-1.319680+7          0          0          1          82225 3 16
```

```
-1.319680+7-1.319680+7          0          0          1         152225 3 16
--------------------------------------------------------------------------------
-8.012630+6-8.012630+6          0          0          1         122225 3 22
-8.012630+6-8.012630+6          0          0          1         132225 3 22
--------------------------------------------------------------------------------
 1.057910+7 0.000000+0 1.100000+7 3.176939-7 1.200000+7 1.775608-22225 3 28
 1.057910+7 0.000000+0 1.100000+7 1.717070-7 1.200000+7 1.032680-22225 3 28
--------------------------------------------------------------------------------
 8.877400+6 8.877400+6          0          0          2         532225 3102
 8.877400+6 8.877400+6          0          0          2         482225 3102
--------------------------------------------------------------------------------
-1.584930+6-1.584930+6          0          0          1         202225 3103
-1.584930+6-1.584930+6          0          0          1         242225 3103
--------------------------------------------------------------------------------
-8.004980+4-8.004980+4          0          0          1         212225 3107
-8.004980+4-8.004980+4          0          0          1         172225 3107
--------------------------------------------------------------------------------
                                                               2225 3203 Only in VII.0
                                                               2225 3207 Only in VII.0
 0.000000+0 0.000000+0          0          0          1         342225 4  2
 0.000000+0 0.000000+0          0          0          1         322225 4  2
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1          82225 6 16
 0.000000+0 0.000000+0          1          1          1          92225 6 16
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         132225 6 22
 0.000000+0 0.000000+0          1          1          1         132225 6 22
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         112225 6 28
 0.000000+0 0.000000+0          1          1          1         122225 6 28
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         202225 6 91
 0.000000+0 0.000000+0          1          1          1         192225 6 91
--------------------------------------------------------------------------------
                                                               2225 6102 Only in VII.1
                                                               2225 6203 Only in VII.0
                                                               2225 6207 Only in VII.0
 22-Ti-47
********************************************************************************
 1.000000-5 7.490000+4          1          2          0          02228 2151
 1.000000-5 1.000000+5          1          2          0          02228 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1072228 3  1
 0.000000+0 0.000000+0          0          0          1        2612228 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1072228 3  2
 0.000000+0 0.000000+0          0          0          1        2612228 3  2
--------------------------------------------------------------------------------
 9.065750+6 0.000000+0 1.000000+7 4.767451-2 1.100000+7 1.850226-12228 3 16
 9.065750+6 0.000000+0 1.000000+7 1.768780-2 1.100000+7 7.307480-22228 3 16
--------------------------------------------------------------------------------
-8.955130+6-8.955130+6          0          0          1         112228 3 22
-8.955130+6-8.955130+6          0          0          1         122228 3 22
--------------------------------------------------------------------------------
-1.046000+7-1.046000+7          0          0          1         112228 3 28
-1.046000+7-1.046000+7          0          0          1         192228 3 28
--------------------------------------------------------------------------------
 1.162740+7 1.162740+7          0          0          2         592228 3102
 1.162740+7 1.162740+7          0          0          2         482228 3102
--------------------------------------------------------------------------------
 1.823000+5 1.823000+5          0          0          1         242228 3103
 1.823000+5 1.823000+5          0          0          1        2042228 3103
--------------------------------------------------------------------------------
 2.181150+6 2.181150+6          0          0          1         242228 3107
 2.181150+6 2.181150+6          0          0          1         202228 3107
--------------------------------------------------------------------------------
                                                               2228 3203 Only in VII.0
                                                               2228 3207 Only in VII.0
 0.000000+0 0.000000+0          0          0          1         342228 4  2
 0.000000+0 0.000000+0          0          0          1         322228 4  2
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         122228 6 16
 0.000000+0 0.000000+0          1          1          1         132228 6 16
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         122228 6 22
```

```
 0.000000+0 0.000000+0          1          1          1         122228 6 22
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         112228 6 28
 0.000000+0 0.000000+0          1          1          1         122228 6 28
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         232228 6 91
 0.000000+0 0.000000+0          1          1          1         202228 6 91
--------------------------------------------------------------------------------
                                                                  2228 6102 Only in VII.1
                                                                  2228 6203 Only in VII.0
                                                                  2228 6207 Only in VII.0
 22-Ti-48
********************************************************************************
 1.000000-5 4.000000+5          1          3          0          12231 2151
 1.000000-5 3.000000+5          1          2          0          02231 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        5182231 3  1
 0.000000+0 0.000000+0          0          0          1        8582231 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        5182231 3  2
 0.000000+0 0.000000+0          0          0          1        8582231 3  2
--------------------------------------------------------------------------------
 1.187260+7 0.000000+0 1.200000+7 5.325255-3 1.300000+7 1.580709-12231 3 16
 1.187260+7 0.000000+0 1.200000+7 2.476760-2 1.300000+7 2.058710-12231 3 16
--------------------------------------------------------------------------------
 9.645590+6 0.000000+0 1.100000+7 0.000000+0 1.200000+7 8.322658-82231 3 22
 9.645590+6 0.000000+0 1.100000+7 0.000000+0 1.200000+7 5.506480-82231 3 22
--------------------------------------------------------------------------------
-1.144500+7-1.144500+7          0          0          1         102231 3 28
-1.144500+7-1.144500+7          0          0          1         702231 3 28
--------------------------------------------------------------------------------
 8.142400+6 8.142400+6          0          0          2         522231 3102
 8.142400+6 8.142400+6          0          0          2         562231 3102
--------------------------------------------------------------------------------
-3.208100+6-3.208100+6          0          0          1         182231 3103
-3.208100+6-3.208100+6          0          0          1         342231 3103
--------------------------------------------------------------------------------
-2.031400+6-2.031400+6          0          0          1         182231 3107
-2.031400+6-2.031400+6          0          0          1         152231 3107
--------------------------------------------------------------------------------
                                                                  2231 3203 Only in VII.0
                                                                  2231 3207 Only in VII.0
 0.000000+0 4.753610+1          0          2          0          02231 4  2
 0.000000+0 4.755600+1          0          2          0          02231 4  2
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 51
 0.000000+0 4.755600+1          0          2          0          02231 4 51
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 52
 0.000000+0 4.755600+1          0          2          0          02231 4 52
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 53
 0.000000+0 4.755600+1          0          2          0          02231 4 53
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 54
 0.000000+0 4.755600+1          0          2          0          02231 4 54
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 55
 0.000000+0 4.755600+1          0          2          0          02231 4 55
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 56
 0.000000+0 4.755600+1          0          2          0          02231 4 56
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 57
 0.000000+0 4.755600+1          0          2          0          02231 4 57
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 58
 0.000000+0 4.755600+1          0          2          0          02231 4 58
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 59
 0.000000+0 4.755600+1          0          2          0          02231 4 59
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 60
 0.000000+0 4.755600+1          0          2          0          02231 4 60
--------------------------------------------------------------------------------
```

```
 0.000000+0 4.753610+1          0          2          0          02231 4 61
 0.000000+0 4.755600+1          0          2          0          02231 4 61
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 62
 0.000000+0 4.755600+1          0          2          0          02231 4 62
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 63
 0.000000+0 4.755600+1          0          2          0          02231 4 63
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 64
 0.000000+0 4.755600+1          0          2          0          02231 4 64
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 65
 0.000000+0 4.755600+1          0          2          0          02231 4 65
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 66
 0.000000+0 4.755600+1          0          2          0          02231 4 66
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 67
 0.000000+0 4.755600+1          0          2          0          02231 4 67
--------------------------------------------------------------------------------
 0.000000+0 4.753610+1          0          2          0          02231 4 68
 0.000000+0 4.755600+1          0          2          0          02231 4 68
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         102231 6 16
 0.000000+0 0.000000+0          1          1          1         102231 6 16
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         122231 6 22
 0.000000+0 0.000000+0          1          1          1         112231 6 22
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         102231 6 28
 0.000000+0 0.000000+0          1          1          1         112231 6 28
--------------------------------------------------------------------------------
 3.933030+6 1.000000+0 2.000000+7 1.000000+0                     2231 6 91
 3.933000+6 1.000000+0 2.000000+7 1.000000+0                     2231 6 91
--------------------------------------------------------------------------------
                                                                 2231 6102 Only in VII.1
                                                                 2231 6203 Only in VII.0
                                                                 2231 6207 Only in VII.0
 22-Ti-49
********************************************************************************
 1.000000-5 2.411000+5          1          2          0          02234 2151
 1.000000-5 1.800000+5          1          2          0          02234 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1012234 3  1
 0.000000+0 0.000000+0          0          0          2        1012234 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1012234 3  2
 0.000000+0 0.000000+0          0          0          2        1012234 3  2
--------------------------------------------------------------------------------
 8.311200+6 0.000000+0 9.000000+6 2.522955-2 1.000000+7 1.304847-12234 3 16
 8.311200+6 0.000000+0 9.000000+6 3.723230-2 1.000000+7 1.794180-12234 3 16
--------------------------------------------------------------------------------
-1.017590+7-1.017590+7          0          0          1         102234 3 22
-1.017590+7-1.017590+7          0          0          1         112234 3 22
--------------------------------------------------------------------------------
 1.158540+7 0.000000+0 1.200000+7 0.000000+0 1.300000+7 1.299876-52234 3 28
 1.158540+7 0.000000+0 1.200000+7 3.06662-10 1.300000+7 2.153490-52234 3 28
--------------------------------------------------------------------------------
 1.093940+7 1.093940+7          0          0          2         562234 3102
 1.093940+7 1.093940+7          0          0          2         532234 3102
--------------------------------------------------------------------------------
-1.222830+6-1.222830+6          0          0          1         202234 3103
-1.222830+6-1.222830+6          0          0          1         242234 3103
--------------------------------------------------------------------------------
 2.274500+5 2.274500+5          0          0          1         212234 3107
 2.274500+5 2.274500+5          0          0          1         182234 3107
--------------------------------------------------------------------------------
                                                                 2234 3203 Only in VII.0
                                                                 2234 3207 Only in VII.0
 0.000000+0 0.000000+0          0          0          1         342234 4  2
 0.000000+0 0.000000+0          0          0          1         322234 4  2
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         132234 6 16
 0.000000+0 0.000000+0          1          1          1         142234 6 16
```

```
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         112234 6 22
 0.000000+0 0.000000+0          1          1          1         112234 6 22
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         102234 6 28
 0.000000+0 0.000000+0          1          1          1         112234 6 28
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         222234 6 91
 0.000000+0 0.000000+0          1          1          1         192234 6 91
--------------------------------------------------------------------------------
                                                                  2234 6102 Only in VII.1
                                                                  2234 6203 Only in VII.0
                                                                  2234 6207 Only in VII.0
 22-Ti-50
********************************************************************************
 1.000000-5 5.870000+5          1          2          0          02237 2151
 1.000000-5 3.000000+5          1          2          0          02237 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         892237 3  1
 0.000000+0 0.000000+0          0          0          2         842237 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         892237 3  2
 0.000000+0 0.000000+0          0          0          2         842237 3  2
--------------------------------------------------------------------------------
 1.116910+7 0.000000+0 1.200000+7 1.764727-1 1.300000+7 4.603925-12237 3 16
 1.116910+7 0.000000+0 1.200000+7 1.955230-1 1.300000+7 5.547300-12237 3 16
--------------------------------------------------------------------------------
 1.947700+7 0.000000+0 2.000000+7 3.319470-4                   2237 3 17
 1.947700+7 0.000000+0 2.000000+7 6.717050-4                   2237 3 17
--------------------------------------------------------------------------------
-1.072050+7-1.072050+7          0          0          1          92237 3 22
-1.072050+7-1.072050+7          0          0          1         102237 3 22
--------------------------------------------------------------------------------
 1.241660+7 0.000000+0 1.300000+7 1.829911-9 1.400000+7 1.751005-52237 3 28
 1.241660+7 0.000000+0 1.300000+7 1.782720-8 1.400000+7 5.651110-52237 3 28
--------------------------------------------------------------------------------
 6.372390+6 6.372390+6          0          0          2         492237 3102
 6.372390+6 6.372390+6          0          0          2         442237 3102
--------------------------------------------------------------------------------
 6.229450+6 0.000000+0 7.000000+6 2.027457-8 8.000000+6 5.260026-52237 3103
 6.229450+6 0.000000+0 7.000000+6 1.791940-8 8.000000+6 3.483430-52237 3103
--------------------------------------------------------------------------------
 3.513400+6 0.000000+0 5.000000+6 9.379901-9 6.000000+6 1.919951-82237 3107
 3.513400+6 0.000000+0 5.000000+6 0.000000+0 6.000000+6 1.018160-92237 3107
--------------------------------------------------------------------------------
                                                                  2237 3203 Only in VII.0
                                                                  2237 3207 Only in VII.0
 0.000000+0 0.000000+0          0          0          1         342237 4  2
 0.000000+0 0.000000+0          0          0          1         322237 4  2
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         102237 6 16
 0.000000+0 0.000000+0          1          1          1         112237 6 16
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1          22237 6 17
 0.000000+0 0.000000+0          1          1          1          32237 6 17
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         112237 6 22
 0.000000+0 0.000000+0          1          1          1         102237 6 22
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1          92237 6 28
 0.000000+0 0.000000+0          1          1          1         102237 6 28
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          1          2          1         182237 6 91
 0.000000+0 0.000000+0          1          1          1         182237 6 91
--------------------------------------------------------------------------------
                                                                  2237 6102 Only in VII.1
                                                                  2237 6203 Only in VII.0
                                                                  2237 6207 Only in VII.0
 23-V -50     Evaluation Only in VII.1
********************************************************************************
 23-V -51     Evaluation Only in VII.1
********************************************************************************
 24-Cr-50
********************************************************************************
 1.000000-5 7.830000+5          1          3          0          12425 2151
```

```
 1.000000-5 7.920000+5          1          3          0          12425 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       13702425 3  1
 0.000000+0 0.000000+0          0          0          1       23762425 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       13702425 3  2
 0.000000+0 0.000000+0          0          0          1       23762425 3  2
--------------------------------------------------------------------------------
 1.326254+7 0.000000+0 1.368000+7 1.730000-3 1.378000+7 4.210000-32425 3 16
 1.326300+7 0.000000+0 1.368000+7 1.730000-3 1.378000+7 4.210000-32425 3 16
--------------------------------------------------------------------------------
 8.732870+6 0.000000+0 1.200000+7 3.669300-6 1.300000+7 9.631700-52425 3 22
 8.732900+6 0.000000+0 1.200000+7 3.669300-6 1.300000+7 9.631700-52425 3 22
--------------------------------------------------------------------------------
 9.783671+6 0.000000+0 1.100000+7 7.727000-4 1.200000+7 6.708700-22425 3 28
 9.783700+6 0.000000+0 1.100000+7 7.727000-4 1.200000+7 6.708700-22425 3 28
--------------------------------------------------------------------------------
 1.918987+6 0.000000+0 2.000000+6 1.467900-2 2.250000+6 5.297700-22425 3 52
 1.919000+6 0.000000+0 2.000000+6 1.467900-2 2.250000+6 5.297700-22425 3 52
--------------------------------------------------------------------------------
 2.984071+6 0.000000+0 3.000000+6 7.559700-2 3.500000+6 1.753400-12425 3 53
 2.984100+6 0.000000+0 3.000000+6 7.559700-2 3.500000+6 1.753400-12425 3 53
--------------------------------------------------------------------------------
 3.227897+6 0.000000+0 3.500000+6 9.140000-4 4.000000+6 6.573400-32425 3 55
 3.227900+6 0.000000+0 3.500000+6 9.140000-4 4.000000+6 6.573400-32425 3 55
--------------------------------------------------------------------------------
 1.000000-5 0.000000+0 7.830000+5 0.000000+0 7.830000+5 2.638544-32425 3102
 1.000000-5 0.000000+0 3.250000+5 0.000000+0 3.250000+5 4.600000-32425 3102
--------------------------------------------------------------------------------
 2.614760+5 0.000000+0 1.000000+6 3.717400-8 1.250000+6 2.449900-62425 3103
 2.614800+5 0.000000+0 1.000000+6 3.717400-8 1.250000+6 2.449900-62425 3103
--------------------------------------------------------------------------------
 1.326254+7 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02425 6 16
 1.326300+7 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02425 6 16
--------------------------------------------------------------------------------
 8.732870+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 22
 8.732900+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 22
--------------------------------------------------------------------------------
 9.783671+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 28
 9.783700+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 28
--------------------------------------------------------------------------------
 1.918987+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 52
 1.919000+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 52
--------------------------------------------------------------------------------
 2.984071+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 53
 2.984100+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 53
--------------------------------------------------------------------------------
 3.227897+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 55
 3.227900+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6 55
--------------------------------------------------------------------------------
 2.614760+5 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6103
 2.614800+5 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02425 6103
--------------------------------------------------------------------------------
 24-Cr-52
********************************************************************************
 1.000000-5 1.430000+6          1          3          0          12431 2151
 1.000000-5 9.800000+5          1          3          0          12431 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       22382431 3  1
 0.000000+0 0.000000+0          0          0          1       45962431 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       22382431 3  2
 0.000000+0 0.000000+0          0          0          1       45962431 3  2
--------------------------------------------------------------------------------
 1.227279+7 0.000000+0 1.275000+7 4.000000-2 1.300000+7 7.900000-22431 3 16
 1.227300+7 0.000000+0 1.275000+7 4.000000-2 1.300000+7 7.900000-22431 3 16
--------------------------------------------------------------------------------
 2.821754+6 0.000000+0 3.000000+6 3.489500-2 3.500000+6 8.986300-22431 3 54
 2.821800+6 0.000000+0 3.000000+6 3.489500-2 3.500000+6 8.986300-22431 3 54
--------------------------------------------------------------------------------
 3.022580+6 0.000000+0 3.500000+6 1.704900-1 4.000000+6 1.800400-12431 3 55
 3.022600+6 0.000000+0 3.500000+6 1.704900-1 4.000000+6 1.800400-12431 3 55
--------------------------------------------------------------------------------
 3.174473+6 0.000000+0 3.500000+6 1.739000-3 4.000000+6 7.636700-32431 3 56
 3.174500+6 0.000000+0 3.500000+6 1.739000-3 4.000000+6 7.636700-32431 3 56
```

```
 3.771853+6 0.000000+0 4.000000+6 1.002100-1 4.500000+6 3.294100-12431 3 91
 3.771900+6 0.000000+0 4.000000+6 1.002100-1 4.500000+6 3.294100-12431 3 91
 7.939230+6 7.939230+6          0          0          1         192431 3102
 7.939230+6 7.939230+6          0          0          1         232431 3102
 1.233498+6 0.000000+0 4.000000+6 3.055500-8 4.500000+6 9.065400-72431 3107
 1.233500+6 0.000000+0 4.000000+6 3.055500-8 4.500000+6 9.065400-72431 3107
 1.227279+7 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02431 6 16
 1.227300+7 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02431 6 16
 2.821754+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6 54
 2.821800+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6 54
 3.022580+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6 55
 3.022600+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6 55
 3.174473+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6 56
 3.174500+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6 56
 3.771853+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6 91
 3.771900+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6 91
 1.233498+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6107
 1.233500+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02431 6107
 24-Cr-53
 1.000000-5 5.640000+5          1          3          0          12434 2151
 1.000000-5 2.000000+5          1          3          0          12434 2151
 0.000000+0 0.000000+0          0          0          1       21592434 3  1
 0.000000+0 0.000000+0          0          0          1       49842434 3  1
 0.000000+0 0.000000+0          0          0          1       21592434 3  2
 0.000000+0 0.000000+0          0          0          1       49842434 3  2
 5.747457+5 0.000000+0 8.000000+5 1.887400-1 9.000000+5 2.202000-12434 3  4
 5.747500+5 0.000000+0 8.000000+5 1.887400-1 9.000000+5 2.202000-12434 3  4
 8.091279+6 0.000000+0 8.500000+6 2.209300-2 9.000000+6 7.986500-22434 3 16
 8.091300+6 0.000000+0 8.500000+6 2.209300-2 9.000000+6 7.986500-22434 3 16
 5.747457+5 0.000000+0 8.000000+5 1.887400-1 9.000000+5 2.202000-12434 3 51
 5.747500+5 0.000000+0 8.000000+5 1.887400-1 9.000000+5 2.202000-12434 3 51
 1.025167+6 0.000000+0 1.250000+6 3.308700-1 1.500000+6 3.732200-12434 3 52
 1.025200+6 0.000000+0 1.250000+6 3.308700-1 1.500000+6 3.732200-12434 3 52
 1.314578+6 0.000000+0 1.500000+6 2.245800-1 1.750000+6 2.452500-12434 3 53
 1.314600+6 0.000000+0 1.500000+6 2.245800-1 1.750000+6 2.452500-12434 3 53
 1.566284+6 0.000000+0 1.750000+6 1.419600-1 2.000000+6 1.776100-12434 3 54
 1.566300+6 0.000000+0 1.750000+6 1.419600-1 2.000000+6 1.776100-12434 3 54
 2.213383+6 0.000000+0 2.250000+6 5.217400-3 2.500000+6 1.492300-22434 3 56
 2.213400+6 0.000000+0 2.250000+6 5.217400-3 2.500000+6 1.492300-22434 3 56
 2.720871+6 0.000000+0 2.750000+6 1.508000-2 3.000000+6 2.672900-22434 3 61
 2.720900+6 0.000000+0 2.750000+6 1.508000-2 3.000000+6 2.672900-22434 3 61
 2.757557+6 0.000000+0 3.000000+6 9.002700-3 3.500000+6 2.059200-22434 3 62
 2.757600+6 0.000000+0 3.000000+6 9.002700-3 3.500000+6 2.059200-22434 3 62
 2.758576+6 0.000000+0 3.000000+6 4.534000-2 3.500000+6 5.911100-22434 3 63
 2.758600+6 0.000000+0 3.000000+6 4.534000-2 3.500000+6 5.911100-22434 3 63
 9.719090+6 9.719090+6          0          0          1         252434 3102
 9.719090+6 9.719090+6          0          0          1         292434 3102
 2.690299+6 0.000000+0 3.500000+6 1.794900-7 4.000000+6 2.886900-52434 3103
 2.690300+6 0.000000+0 3.500000+6 1.794900-7 4.000000+6 2.886900-52434 3103
```

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 8.091279+6 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02434 6 16
 8.091300+6 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02434 6 16
--------------------------------------------------------------------------
 5.747457+5 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 51
 5.747500+5 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 51
--------------------------------------------------------------------------
 1.025167+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 52
 1.025200+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 52
--------------------------------------------------------------------------
 1.314578+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 53
 1.314600+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 53
--------------------------------------------------------------------------
 1.566284+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 54
 1.566300+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 54
--------------------------------------------------------------------------
 2.213383+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 56
 2.213400+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 56
--------------------------------------------------------------------------
 2.720871+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 61
 2.720900+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 61
--------------------------------------------------------------------------
 2.757557+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 62
 2.757600+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 62
--------------------------------------------------------------------------
 2.758576+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 63
 2.758600+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6 63
--------------------------------------------------------------------------
 2.690299+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6103
 2.690300+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02434 6103
--------------------------------------------------------------------------
 24-Cr-54
**************************************************************************
 1.000000-5 8.340000+5          1          3          0          12437 2151
 1.000000-5 9.000000+5          1          3          0          12437 2151
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       16032437 3  1
 0.000000+0 0.000000+0          0          0          1       26442437 3  1
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       16022437 3  2
 0.000000+0 0.000000+0          0          0          1       26442437 3  2
--------------------------------------------------------------------------
 2.668994+6 0.000000+0 2.750000+6 1.290400-1 3.000000+6 1.927700-12437 3 53
 2.669000+6 0.000000+0 2.750000+6 1.290400-1 3.000000+6 1.927700-12437 3 53
--------------------------------------------------------------------------
 3.131484+6 0.000000+0 3.500000+6 1.368100-1 4.000000+6 4.029500-12437 3 91
 3.131500+6 0.000000+0 3.500000+6 1.368100-1 4.000000+6 4.029500-12437 3 91
--------------------------------------------------------------------------
 6.246350+6 6.246350+6          0          0          1         792437 3102
 6.246350+6 6.246350+6          0          0          1         182437 3102
--------------------------------------------------------------------------
 2.668994+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02437 6 53
 2.669000+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02437 6 53
--------------------------------------------------------------------------
 3.131484+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02437 6 91
 3.131500+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02437 6 91
--------------------------------------------------------------------------
 25-Mn-55
**************************************************************************
 2.505500+4 1.000000+0          0          0          2          02525 2151
 2.505500+4 1.000000+0          0          0          1          02525 2151
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       2242525 3  1
 0.000000+0 0.000000+0          0          0          1       7322525 3  1
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        842525 3  2
 0.000000+0 0.000000+0          0          0          1       7322525 3  2
--------------------------------------------------------------------------
                                                              2525 3  3 Only in VII.0
 0.000000+0-1.259500+5          0          0          1       1212525 3  4
 0.000000+0-1.260000+5          0          0          1        672525 3  4
--------------------------------------------------------------------------
                                                              2525 3  5 Only in VII.1
-1.022600+7-1.022600+7          0          0          1        382525 3 16
-1.022700+7-1.022700+7          0          0          1        122525 3 16
--------------------------------------------------------------------------
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				2525 3 17 Only in VII.1
				2525 3 22 Only in VII.0
				2525 3 28 Only in VII.0
				2525 3 37 Only in VII.1
0.000000+0-1.259500+5	0	0	1	822525 3 51
0.000000+0-1.260000+5	0	0	1	382525 3 51
0.000000+0-9.842600+5	0	0	1	672525 3 52
0.000000+0-9.840000+5	0	0	1	342525 3 52
0.000000+0-1.289100+6	0	0	1	632525 3 53
0.000000+0-1.290000+6	0	0	1	332525 3 53
0.000000+0-1.292120+6	0	0	1	632525 3 54
0.000000+0-1.292000+6	0	0	1	332525 3 54
0.000000+0-1.293000+6	0	0	1	632525 3 55
0.000000+0-1.293000+6	0	0	1	332525 3 55
0.000000+0-1.528360+6	0	0	1	612525 3 56
0.000000+0-1.528000+6	0	0	1	322525 3 56
0.000000+0-1.884080+6	0	0	1	572525 3 57
0.000000+0-1.884000+6	0	0	1	312525 3 57
0.000000+0-2.015200+6	0	0	1	562525 3 58
0.000000+0-2.015000+6	0	0	1	302525 3 58
0.000000+0-2.198430+6	0	0	1	562525 3 59
0.000000+0-2.198000+6	0	0	1	302525 3 59
0.000000+0-2.215000+6	0	0	1	552525 3 60
0.000000+0-2.215000+6	0	0	1	292525 3 60
0.000000+0-2.252450+6	0	0	1	552525 3 61
0.000000+0-2.252000+6	0	0	1	292525 3 61
0.000000+0-2.266890+6	0	0	1	552525 3 62
0.000000+0-2.267000+6	0	0	1	292525 3 62
0.000000+0-2.281000+6	0	0	1	552525 3 63
0.000000+0-2.312000+6	0	0	1	292525 3 63
0.000000+0-2.311450+6	0	0	1	552525 3 64
0.000000+0-2.366000+6	0	0	1	292525 3 64
0.000000+0-2.365800+6	0	0	1	542525 3 65
0.000000+0-2.398000+6	0	0	1	292525 3 65
0.000000+0-2.380000+6	0	0	1	542525 3 66
0.000000+0-2.427000+6	0	0	1	292525 3 66
0.000000+0-2.398410+6	0	0	1	542525 3 67
0.000000+0-2.563000+6	0	0	1	282525 3 67
0.000000+0-2.426530+6	0	0	1	542525 3 68
0.000000+0-2.727000+6	0	0	1	272525 3 68
0.000000+0-2.563150+6	0	0	1	532525 3 69
0.000000+0-2.753000+6	0	0	1	272525 3 69
0.000000+0-2.582000+6	0	0	1	532525 3 70
0.000000+0-2.822000+6	0	0	1	272525 3 70
0.000000+0-2.621700+6	0	0	1	532525 3 71
0.000000+0-2.824000+6	0	0	1	272525 3 71
0.000000+0-2.694600+6	0	0	1	532525 3 72
0.000000+0-2.873000+6	0	0	1	272525 3 72
0.000000+0-2.727310+6	0	0	1	522525 3 73
0.000000+0-2.954000+6	0	0	1	262525 3 73
0.000000+0-2.741000+6	0	0	1	522525 3 74
0.000000+0-2.976000+6	0	0	1	262525 3 74

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-------------------------------------------------------------------------------
 0.000000+0-2.752690+6          0          0          1         522525 3 75
 0.000000+0-2.992000+6          0          0          1         262525 3 75
-------------------------------------------------------------------------------
 0.000000+0-2.822100+6          0          0          1         522525 3 76
 0.000000+0-3.006000+6          0          0          1         262525 3 76
-------------------------------------------------------------------------------
 0.000000+0-2.823650+6          0          0          1         522525 3 77
 0.000000+0-3.036000+6          0          0          1         262525 3 77
-------------------------------------------------------------------------------
 0.000000+0-2.828440+6          0          0          1         522525 3 78
 0.000000+0-3.038000+6          0          0          1         262525 3 78
-------------------------------------------------------------------------------
 0.000000+0-2.873280+6          0          0          1         512525 3 79
 0.000000+0-3.040000+6          0          0          1         262525 3 79
-------------------------------------------------------------------------------
                                                              2525 3 80 Only in VII.1
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                                                              2525 3 89 Only in VII.1
 0.000000+0-2.916450+6          0          0          1         512525 3 91
 0.000000+0-3.046000+6          0          0          1         262525 3 91
-------------------------------------------------------------------------------
 7.271001+6 7.271001+6          0          0          1        1092525 3102
 7.270550+6 7.270550+6          0          0          2        1642525 3102
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                                                              2525 3103 Only in VII.0
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                                                                    2525 3831 Only in VII.1
 0.000000+0 5.446610+1          0          2          0         582525 4  2
 0.000000+0 5.446610+1          0          2          0          02525 4  2
-------------------------------------------------------------------------------
                                                                    2525 4 51 Only in VII.1
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2525 4828 Only in VII.1
2525 4829 Only in VII.1
2525 4830 Only in VII.1
2525 4831 Only in VII.1
2525 6 5 Only in VII.1
 1.041375+7 2.000000+0 6.000000+7 2.000000+0 2525 6 16
 1.041480+7 2.000000+0 2.000000+7 2.000000+0 2525 6 16

2525 6 17 Only in VII.1
2525 6 22 Only in VII.0
2525 6 28 Only in VII.0
2525 6 37 Only in VII.1
2525 6 51 Only in VII.0
2525 6 52 Only in VII.0
2525 6 53 Only in VII.0
2525 6 54 Only in VII.0
2525 6 55 Only in VII.0
2525 6 56 Only in VII.0
2525 6 57 Only in VII.0

```
                                                                      2525 6 58 Only in VII.0
                                                                      2525 6 59 Only in VII.0
                                                                      2525 6 60 Only in VII.0
                                                                      2525 6 61 Only in VII.0
                                                                      2525 6 62 Only in VII.0
                                                                      2525 6 63 Only in VII.0
                                                                      2525 6 64 Only in VII.0
                                                                      2525 6 65 Only in VII.0
                                                                      2525 6 66 Only in VII.0
                                                                      2525 6 67 Only in VII.0
                                                                      2525 6 68 Only in VII.0
                                                                      2525 6 69 Only in VII.0
                                                                      2525 6 70 Only in VII.0
                                                                      2525 6 71 Only in VII.0
                                                                      2525 6 72 Only in VII.0
                                                                      2525 6 73 Only in VII.0
                                                                      2525 6 74 Only in VII.0
                                                                      2525 6 75 Only in VII.0
                                                                      2525 6 76 Only in VII.0
                                                                      2525 6 77 Only in VII.0
                                                                      2525 6 78 Only in VII.0
                                                                      2525 6 79 Only in VII.0
 2.969996+6 1.000000+0 6.000000+7 1.000000+0                          2525 6 91
 3.101920+6 1.000000+0 2.000000+7 1.000000+0                          2525 6 91
-------------------------------------------------------------------------------
                                                                      2525 6102 Only in VII.1
                                                                      2525 6103 Only in VII.0
                                                                      2525 6107 Only in VII.0
                                                                      2525 6649 Only in VII.1
 26-Fe-54
*******************************************************************************
 1.100000+8 9.798536-7 1.200000+8 3.297172-6 1.300000+8 1.032103-52625 6  5
 1.100000+8 9.798535-7 1.200000+8 3.297172-6 1.300000+8 1.032103-52625 6  5
-------------------------------------------------------------------------------
 26-Fe-56
*******************************************************************************
 9.427423+5 9.717345-7 1.099866+6 9.837624-7 1.256990+6 1.005964-62631 6  5
 9.427423+5 9.717345-7 1.099866+6 9.837625-7 1.256990+6 1.005964-62631 6  5
-------------------------------------------------------------------------------
 26-Fe-57
*******************************************************************************
 9.500000+7 1.740117-7 1.000000+8 9.926825-7 1.100000+8 1.216903-52634 6  5
 9.500000+7 1.740117-7 1.000000+8 9.926826-7 1.100000+8 1.216903-52634 6  5
-------------------------------------------------------------------------------
 26-Fe-58
*******************************************************************************
 27-Co-58
*******************************************************************************
 27-Co-58m
*******************************************************************************
 27-Co-59
*******************************************************************************
 28-Ni-58
*******************************************************************************
 0.000000+0 6.303500-1          1          0          3          42825 2151
 0.000000+0 6.400000-1          1          0          3          32825 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2       56692825 3  1
 0.000000+0 0.000000+0          0          0          1       55792825 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       55802825 3  2
 0.000000+0 0.000000+0          0          0          1       55792825 3  2
-------------------------------------------------------------------------------
 8.999510+6 8.999510+6          0          0          1        2272825 3  3
 0.000000+0 0.000000+0          0          0          1        2262825 3  3
-------------------------------------------------------------------------------
 6.509400+6 0.000000+0 1.000000+7 1.388940-7 1.100000+7 1.685530-52825 3 22
 6.509400+6 0.000000+0 1.000000+7 8.394700-8 1.100000+7 2.235000-52825 3 22
-------------------------------------------------------------------------------
 8.999510+6 8.999510+6          0          0          2        1182825 3102
 8.999510+6 8.999510+6          0          0          1         252825 3102
-------------------------------------------------------------------------------
 1.000000-5 0.000000+0 5.000000+5 0.000000+0 8.000000+5 6.045380-62825 3107
 1.000000-5 0.000000+0 5.000000+5 0.000000+0 8.000000+5 1.149200-52825 3107
-------------------------------------------------------------------------------
```

```
                                                                      2825 3112 Only in VII.1
 0.000000+0 1.000000-5          0          0          2          02825 4  2
 0.000000+0 1.000000-5          0          0          1          02825 4  2
-----------------------------------------------------------------------------
 1.000000-5 0.000000+0 2.000000+7 0.000000+0 2.000001+7 1.022532-12825 6  5
 1.000000-5 0.000000+0 2.000000+7 0.000000+0 2.000001+7 9.758364-22825 6  5
-----------------------------------------------------------------------------
 28-Ni-59
*****************************************************************************
 28-Ni-60
*****************************************************************************
 1.000000-5 8.000000+5          1          3          0          12831 2151
 1.000000-5 4.500000+5          1          3          0          12831 2151
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          3       10742831 3  1
 0.000000+0 0.000000+0          0          0          1       17282831 3  1
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       10382831 3  2
 0.000000+0 0.000000+0          0          0          1       17282831 3  2
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          3        2572831 3  3
 0.000000+0 0.000000+0          0          0          1        2242831 3  3
-----------------------------------------------------------------------------
 7.820050+6 7.820050+6          0          0          3         592831 3102
 7.820050+6 7.820050+6          0          0          1         262831 3102
-----------------------------------------------------------------------------
 0.000000+0 6.792087-8 6.028654+5 9.995852-7 1.205731+6 5.773278-72831 6  5
 0.000000+0 6.792087-8 6.028654+5 9.995851-7 1.205731+6 5.773278-72831 6  5
-----------------------------------------------------------------------------
 28-Ni-61
*****************************************************************************
 1.000000-5 5.700000+4          1          2          0          02834 2151
 1.000000-5 7.000000+4          1          3          0          12834 2151
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       36492834 3  1
 0.000000+0 0.000000+0          0          0          1       27082834 3  1
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       36492834 3  2
 0.000000+0 0.000000+0          0          0          1       27082834 3  2
-----------------------------------------------------------------------------
 7.949758+6 0.000000+0 8.000000+6 2.804500-4 8.500000+6 2.665100-22834 3 16
 7.949800+6 0.000000+0 8.000000+6 2.804500-4 8.500000+6 2.665100-22834 3 16
-----------------------------------------------------------------------------
 6.668595+5 0.000000+0 8.000000+5 7.857700-2 9.000000+5 9.850700-22834 3 53
 6.668600+5 0.000000+0 8.000000+5 7.857700-2 9.000000+5 9.850700-22834 3 53
-----------------------------------------------------------------------------
 9.240477+5 0.000000+0 1.000000+6 1.228000-1 1.250000+6 1.701600-12834 3 54
 9.240500+5 0.000000+0 1.000000+6 1.228000-1 1.250000+6 1.701600-12834 3 54
-----------------------------------------------------------------------------
 1.479086+6 0.000000+0 1.500000+6 3.028500-3 1.750000+6 9.293100-22834 3 91
 1.479100+6 0.000000+0 1.500000+6 3.028500-3 1.750000+6 9.293100-22834 3 91
-----------------------------------------------------------------------------
 1.059733+7 1.059733+7          0          0          1        9672834 3102
 1.059733+7 1.059733+7          0          0          1         252834 3102
-----------------------------------------------------------------------------
 9.442466+6 0.000000+0 1.200000+7 2.80400-10 1.300000+7 9.923000-82834 3111
 9.442500+6 0.000000+0 1.200000+7 2.80400-10 1.300000+7 9.923000-82834 3111
-----------------------------------------------------------------------------
 7.949758+6 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02834 6 16
 7.949800+6 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02834 6 16
-----------------------------------------------------------------------------
 6.668595+5 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02834 6 53
 6.668600+5 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02834 6 53
-----------------------------------------------------------------------------
 9.240477+5 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02834 6 54
 9.240500+5 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02834 6 54
-----------------------------------------------------------------------------
 1.479086+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02834 6 91
 1.479100+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02834 6 91
-----------------------------------------------------------------------------
 28-Ni-62
*****************************************************************************
 2.806200+4 1.000000+0          0          0          2          02837 2151
 2.806200+4 1.000000+0          0          0          1          02837 2151
-----------------------------------------------------------------------------
```

```
 0.000000+0 0.000000+0          0          0          1       17092837 3  1
 0.000000+0 0.000000+0          0          0          1       26782837 3  1
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       17092837 3  2
 0.000000+0 0.000000+0          0          0          1       26722837 3  2
-----------------------------------------------------------------------------
 1.077062+7 0.000000+0 1.100000+7 1.768800-2 1.200000+7 2.885200-12837 3 16
 1.077100+7 0.000000+0 1.100000+7 1.768800-2 1.200000+7 2.885200-12837 3 16
-----------------------------------------------------------------------------
 2.082374+6 0.000000+0 2.250000+6 5.961000-2 2.500000+6 8.846500-22837 3 52
 2.082400+6 0.000000+0 2.250000+6 5.961000-2 2.500000+6 8.846500-22837 3 52
-----------------------------------------------------------------------------
 2.339494+6 0.000000+0 2.500000+6 1.573900-1 2.750000+6 2.293500-12837 3 53
 2.339500+6 0.000000+0 2.500000+6 1.573900-1 2.750000+6 2.293500-12837 3 53
-----------------------------------------------------------------------------
 2.938088+6 0.000000+0 3.000000+6 1.328700-2 3.500000+6 2.940900-12837 3 91
 2.938100+6 0.000000+0 3.000000+6 1.328700-2 3.500000+6 2.940900-12837 3 91
-----------------------------------------------------------------------------
 6.837910+6 6.837910+6          0          0          1         202837 3102
 6.837910+6 6.837910+6          0          0          1         312837 3102
-----------------------------------------------------------------------------
 1.077062+7 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02837 6 16
 1.077100+7 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02837 6 16
-----------------------------------------------------------------------------
 2.082374+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02837 6 52
 2.082400+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02837 6 52
-----------------------------------------------------------------------------
 2.339494+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02837 6 53
 2.339500+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02837 6 53
-----------------------------------------------------------------------------
 2.938088+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02837 6 91
 2.938100+6 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02837 6 91
-----------------------------------------------------------------------------
 28-Ni-64
*****************************************************************************
 1.000000-5 5.530000+5          1          2          0          02843 2151
 1.000000-5 6.000000+5          1          3          0          12843 2151
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       36862843 3  1
 0.000000+0 0.000000+0          0          0          1       26722843 3  1
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1       36862843 3  2
 0.000000+0 0.000000+0          0          0          1       26692843 3  2
-----------------------------------------------------------------------------
 9.809369+6 0.000000+0 1.000000+7 1.378500-2 1.100000+7 3.419200-12843 3 16
 9.809400+6 0.000000+0 1.000000+7 1.378500-2 1.100000+7 3.419200-12843 3 16
-----------------------------------------------------------------------------
 1.273379+7 0.000000+0 1.450000+7 1.634200-7 1.600000+7 1.041900-42843 3 28
 1.273400+7 0.000000+0 1.450000+7 1.634200-7 1.600000+7 1.041900-42843 3 28
-----------------------------------------------------------------------------
 6.098061+6 6.098061+6          0          0          1       10432843 3102
 6.098060+6 6.098060+6          0          0          1         292843 3102
-----------------------------------------------------------------------------
 9.809369+6 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02843 6 16
 9.809400+6 2.000000+0 2.000000+7 2.000000+0 1.500000+8 2.000000+02843 6 16
-----------------------------------------------------------------------------
 1.273379+7 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02843 6 28
 1.273400+7 1.000000+0 2.000000+7 1.000000+0 1.500000+8 1.000000+02843 6 28
-----------------------------------------------------------------------------
 29-Cu-63
*****************************************************************************
 9.945868+5 9.704225-7 1.326116+6 4.663644-7 1.657645+6 5.521164-82925 6  5
 9.945868+5 9.704226-7 1.326116+6 4.663644-7 1.657645+6 5.521164-82925 6  5
-----------------------------------------------------------------------------
 29-Cu-65
*****************************************************************************
 8.500000+7 1.585006-7 9.000000+7 4.848931-7 9.500000+7 9.802407-72931 6  5
 8.500000+7 1.585006-7 9.000000+7 4.848931-7 9.500000+7 9.802406-72931 6  5
-----------------------------------------------------------------------------
 30-Zn-64     Evaluation Only in VII.1
*****************************************************************************
 30-Zn-65     Evaluation Only in VII.1
*****************************************************************************
 30-Zn-66     Evaluation Only in VII.1
*****************************************************************************
```

```
 30-Zn-67     Evaluation Only in VII.1
********************************************************************************
 30-Zn-68     Evaluation Only in VII.1
********************************************************************************
 30-Zn-70     Evaluation Only in VII.1
********************************************************************************
 31-Ga-69
********************************************************************************
 4.217550+4 6.501760-7 7.499980+4 9.919059-7 1.333700+5 1.343100-63125 5 16
 4.217550+4 6.501760-7 7.499980+4 9.919060-7 1.333700+5 1.343100-63125 5 16
--------------------------------------------------------------------------------
 31-Ga-71
********************************************************************************
 32-Ge-70
********************************************************************************
 32-Ge-72
********************************************************************************
 32-Ge-73
********************************************************************************
 32-Ge-74
********************************************************************************
 32-Ge-76
********************************************************************************
 33-As-74
********************************************************************************
 4.722000+5 9.637509-7 5.115000+5 8.248400-7 5.509000+5 6.368940-73322 6 24
 4.722000+5 9.637510-7 5.115000+5 8.248400-7 5.509000+5 6.368940-73322 6 24
--------------------------------------------------------------------------------
 0.000000+0 6.84999-11 2.285300+5 8.106520-7 4.570600+5 9.950149-73322 6 28
 0.000000+0 6.84999-11 2.285300+5 8.106520-7 4.570600+5 9.950150-73322 6 28
--------------------------------------------------------------------------------
 4.299200+5 8.611010-7 5.22227-15 5.374000+5 9.642559-7-9.98162-163322 6 91
 4.299200+5 8.611010-7 5.22227-15 5.374000+5 9.642560-7-9.98162-163322 6 91
--------------------------------------------------------------------------------
 3.915100+6 8.177800-7 4.000210+6 8.962840-7 4.085320+6 9.982909-73322 6849
 3.915100+6 8.177800-7 4.000210+6 8.962840-7 4.085320+6 9.982910-73322 6849
--------------------------------------------------------------------------------
 33-As-75
********************************************************************************
 0.000000+0 0.000000+0          0          0          1         953325 3  1
 0.000000+0 0.000000+0          0          0          1         333325 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         953325 3  2
 0.000000+0 0.000000+0          0          0          1         363325 3  2
--------------------------------------------------------------------------------
 0.000000+0-1.986060+5          0          0          1         843325 3  4
 0.000000+0-6.837941+5          0          0          1         893325 3  4
--------------------------------------------------------------------------------
-1.024325+7-1.024325+7          0          0          1         173325 3 16
-1.024300+7-1.024300+7          0          0          1         113325 3 16
--------------------------------------------------------------------------------
-1.821801+7-1.821801+7          0          0          1          33325 3 17
-1.821800+7-1.821800+7          0          0          1          23325 3 17
--------------------------------------------------------------------------------
-5.319528+6-5.319528+6          0          0          1         223325 3 22
-5.320000+6-5.320000+6          0          0          1         123325 3 22
--------------------------------------------------------------------------------
                                                                  3325 3 24 Only in VII.0
-6.898432+6-6.898432+6          0          0          1         233325 3 28
-6.899000+6-6.899000+6          0          0          1         143325 3 28
--------------------------------------------------------------------------------
                                                                  3325 3 41 Only in VII.0
 0.000000+0-1.986060+5          0          0          1         543325 3 51
 0.000000+0-1.986100+5          0          0          1        1073325 3 51
--------------------------------------------------------------------------------
 0.000000+0-2.646580+5          0          0          1         533325 3 52
 0.000000+0-2.646600+5          0          0          1        1063325 3 52
--------------------------------------------------------------------------------
 0.000000+0-2.795430+5          0          0          1         533325 3 53
 0.000000+0-2.795400+5          0          0          1        1053325 3 53
--------------------------------------------------------------------------------
 0.000000+0-3.039240+5          0          0          1         523325 3 54
 0.000000+0-3.039200+5          0          0          1        1033325 3 54
--------------------------------------------------------------------------------
 0.000000+0-4.006580+5          0          0          1         503325 3 55
```

```
 0.000000+0-4.006600+5          0          0          1        1003325 3 55
-------------------------------------------------------------------------------
 0.000000+0-4.687500+5          0          0          1         493325 3 56
 0.000000+0-4.686000+5          0          0          1         983325 3 56
-------------------------------------------------------------------------------
 0.000000+0-5.723700+5          0          0          1         483325 3 57
 0.000000+0-5.722200+5          0          0          1         953325 3 57
-------------------------------------------------------------------------------
 0.000000+0-5.850000+5          0          0          1         483325 3 58
 0.000000+0-5.850000+5          0          0          1         943325 3 58
-------------------------------------------------------------------------------
 0.000000+0-6.176900+5          0          0          1         473325 3 59
 0.000000+0-6.177000+5          0          0          1         913325 3 59
-------------------------------------------------------------------------------
 0.000000+0-8.216600+5          0          0          1         453325 3 60
 0.000000+0-8.215600+5          0          0          1         853325 3 60
-------------------------------------------------------------------------------
 0.000000+0-8.598000+5          0          0          1         453325 3 61
 0.000000+0-8.599000+5          0          0          1         833325 3 61
-------------------------------------------------------------------------------
 0.000000+0-8.650000+5          0          0          1         453325 3 62
 0.000000+0-8.648000+5          0          0          1         823325 3 62
-------------------------------------------------------------------------------
 0.000000+0-8.864000+5          0          0          1         453325 3 63
 0.000000+0-8.860000+5          0          0          1         813325 3 63
-------------------------------------------------------------------------------
 0.000000+0-1.043400+6          0          0          1         433325 3 64
 0.000000+0-1.041800+6          0          0          1         763325 3 64
-------------------------------------------------------------------------------
 0.000000+0-1.063300+6          0          0          1         433325 3 65
 0.000000+0-1.064300+6          0          0          1         743325 3 65
-------------------------------------------------------------------------------
 0.000000+0-1.074500+6          0          0          1         433325 3 66
 0.000000+0-1.075600+6          0          0          1         723325 3 66
-------------------------------------------------------------------------------
 0.000000+0-1.080800+6          0          0          1         433325 3 67
 0.000000+0-1.080400+6          0          0          1         713325 3 67
-------------------------------------------------------------------------------
 0.000000+0-1.096300+6          0          0          1         423325 3 68
 0.000000+0-1.095500+6          0          0          1         693325 3 68
-------------------------------------------------------------------------------
 0.000000+0-1.100200+6          0          0          1         423325 3 69
 0.000000+0-1.101000+6          0          0          1         683325 3 69
-------------------------------------------------------------------------------
 0.000000+0-1.126700+6          0          0          1         423325 3 70
 0.000000+0-1.127700+6          0          0          1         673325 3 70
-------------------------------------------------------------------------------
 0.000000+0-1.128900+6          0          0          1         423325 3 71
 0.000000+0-1.128000+6          0          0          1         663325 3 71
-------------------------------------------------------------------------------
 0.000000+0-1.172000+6          0          0          1         423325 3 72
 0.000000+0-1.171600+6          0          0          1         643325 3 72
-------------------------------------------------------------------------------
 0.000000+0-1.203600+6          0          0          1         413325 3 73
 0.000000+0-1.204500+6          0          0          1         623325 3 73
-------------------------------------------------------------------------------
 0.000000+0-1.264000+6          0          0          1         413325 3 74
 0.000000+0-1.263100+6          0          0          1         603325 3 74
-------------------------------------------------------------------------------
 0.000000+0-1.302300+6          0          0          1         403325 3 75
 0.000000+0-1.301200+6          0          0          1         563325 3 75
-------------------------------------------------------------------------------
 0.000000+0-1.309400+6          0          0          1         403325 3 76
 0.000000+0-1.309000+6          0          0          1         553325 3 76
-------------------------------------------------------------------------------
 0.000000+0-1.349300+6          0          0          1         403325 3 77
 0.000000+0-1.349300+6          0          0          1         543325 3 77
-------------------------------------------------------------------------------
 0.000000+0-1.370800+6          0          0          1         403325 3 78
 0.000000+0-1.370000+6          0          0          1         533325 3 78
-------------------------------------------------------------------------------
 0.000000+0-1.420200+6          0          0          1         393325 3 79
 0.000000+0-1.419800+6          0          0          1         513325 3 79
-------------------------------------------------------------------------------
 0.000000+0-1.430500+6          0          0          1         393325 3 80
```

```
 0.000000+0-1.430300+6          0          0          1         503325 3 80
-------------------------------------------------------------------------------
 0.000000+0-1.431500+6          0          0          1         393325 3 91
 0.000000+0-6.837941+5          0          0          1         893325 3 91
-------------------------------------------------------------------------------
 7.329602+6 7.329602+6          0          0          1         593325 3102
 7.329000+6 7.329000+6          0          0          1         373325 3102
-------------------------------------------------------------------------------
                                                                  3325 3103 Only in VII.1
                                                                  3325 3107 Only in VII.1
-3.931172+5-3.931172+5          0          0          1         463325 3600
-3.940000+5-3.940000+5          0          0          1         333325 3600
-------------------------------------------------------------------------------
-3.931172+5-4.550072+5          0          0          1         453325 3601
-3.940000+5-4.558900+5          0          0          1         333325 3601
-------------------------------------------------------------------------------
-3.931172+5-5.328072+5          0          0          1         443325 3602
-3.940000+5-5.336900+5          0          0          1         333325 3602
-------------------------------------------------------------------------------
-3.931172+5-5.852972+5          0          0          1         443325 3603
-3.940000+5-5.862200+5          0          0          1         323325 3603
-------------------------------------------------------------------------------
-3.931172+5-5.930072+5          0          0          1         443325 3604
-3.940000+5-5.938900+5          0          0          1         323325 3604
-------------------------------------------------------------------------------
-3.931172+5-6.462172+5          0          0          1         433325 3605
-3.940000+5-6.471000+5          0          0          1         323325 3605
-------------------------------------------------------------------------------
-3.931172+5-7.099672+5          0          0          1         433325 3606
-3.940000+5-7.107900+5          0          0          1         313325 3606
-------------------------------------------------------------------------------
-3.931172+5-8.501672+5          0          0          1         413325 3607
-3.940000+5-8.510500+5          0          0          1         313325 3607
-------------------------------------------------------------------------------
-3.931172+5-9.678072+5          0          0          1         403325 3608
-3.940000+5-9.686700+5          0          0          1         313325 3608
-------------------------------------------------------------------------------
-3.931172+5-9.775272+5          0          0          1         403325 3609
-3.940000+5-9.784500+5          0          0          1         313325 3609
-------------------------------------------------------------------------------
-3.931172+5-1.044117+6          0          0          1         393325 3610
-3.940000+5-1.045000+6          0          0          1         313325 3610
-------------------------------------------------------------------------------
-3.931172+5-1.066767+6          0          0          1         393325 3611
-3.940000+5-1.067670+6          0          0          1         313325 3611
-------------------------------------------------------------------------------
-3.931172+5-1.155217+6          0          0          1         383325 3612
-3.940000+5-1.156240+6          0          0          1         313325 3612
-------------------------------------------------------------------------------
-3.931172+5-1.278577+6          0          0          1         373325 3613
-3.940000+5-1.279460+6          0          0          1         313325 3613
-------------------------------------------------------------------------------
-3.931172+5-1.294417+6          0          0          1         373325 3614
-3.940000+5-1.295300+6          0          0          1         313325 3614
-------------------------------------------------------------------------------
-3.931172+5-1.340317+6          0          0          1         363325 3615
-3.940000+5-1.381000+6          0          0          1         313325 3615
-------------------------------------------------------------------------------
-3.931172+5-1.379917+6          0          0          1         363325 3616
-3.940000+5-1.456200+6          0          0          1         313325 3616
-------------------------------------------------------------------------------
-3.931172+5-1.455317+6          0          0          1         353325 3617
-3.940000+5-1.474600+6          0          0          1         313325 3617
-------------------------------------------------------------------------------
-3.931172+5-1.473717+6          0          0          1         353325 3618
-3.940000+5-1.521800+6          0          0          1         313325 3618
-------------------------------------------------------------------------------
-3.931172+5-1.521117+6          0          0          1         343325 3619
-3.940000+5-1.530880+6          0          0          1         313325 3619
-------------------------------------------------------------------------------
-3.931172+5-1.530017+6          0          0          1         343325 3620
-3.940000+5-1.584000+6          0          0          1         313325 3620
-------------------------------------------------------------------------------
-3.931172+5-1.583117+6          0          0          1         343325 3621
-3.940000+5-1.634720+6          0          0          1         203325 3621
```

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-------------------------------------------------------------------------------
-3.931172+5-1.616017+6          0          0          1         343325 3622
-3.940000+5-1.651000+6          0          0          1         203325 3622
-------------------------------------------------------------------------------
-3.931172+5-1.633847+6          0          0          1         333325 3623
-3.940000+5-1.729200+6          0          0          1         203325 3623
-------------------------------------------------------------------------------
-3.931172+5-1.650117+6          0          0          1         333325 3624
-3.940000+5-1.788410+6          0          0          1         203325 3624
-------------------------------------------------------------------------------
                                                                  3325 3625 Only in VII.0
                                                                  3325 3626 Only in VII.0
                                                                  3325 3627 Only in VII.0
                                                                  3325 3628 Only in VII.0
                                                                  3325 3629 Only in VII.0
                                                                  3325 3630 Only in VII.0
                                                                  3325 3631 Only in VII.0
                                                                  3325 3632 Only in VII.0
                                                                  3325 3633 Only in VII.0
                                                                  3325 3634 Only in VII.0
                                                                  3325 3635 Only in VII.0
                                                                  3325 3636 Only in VII.0
                                                                  3325 3637 Only in VII.0
                                                                  3325 3638 Only in VII.0
                                                                  3325 3639 Only in VII.0
-3.931172+5-1.651117+6          0          0          1         333325 3649
-3.940000+5-2.397927+6          0          0          1         203325 3649
-------------------------------------------------------------------------------
 1.201572+6 1.201572+6          0          0          1         463325 3800
 1.201000+6 1.201000+6          0          0          1         243325 3800
-------------------------------------------------------------------------------
 1.201572+6 1.185132+6          0          0          1         463325 3801
 1.201000+6 1.184560+6          0          0          1         243325 3801
-------------------------------------------------------------------------------
 1.201572+6 1.081912+6          0          0          1         463325 3802
 1.201000+6 1.081340+6          0          0          1         233325 3802
-------------------------------------------------------------------------------
 1.201572+6 1.072782+6          0          0          1         463325 3803
 1.201000+6 1.072210+6          0          0          1         233325 3803
-------------------------------------------------------------------------------
 1.201572+6 1.040042+6          0          0          1         453325 3804
 1.201000+6 1.039470+6          0          0          1         223325 3804
-------------------------------------------------------------------------------
 1.201572+6 1.036062+6          0          0          1         453325 3805
 1.201000+6 1.035490+6          0          0          1         223325 3805
-------------------------------------------------------------------------------
 1.201572+6 1.003632+6          0          0          1         453325 3806
 1.201000+6 1.003060+6          0          0          1         223325 3806
-------------------------------------------------------------------------------
 1.201572+6 9.931223+5          0          0          1         453325 3807
 1.201000+6 9.925500+5          0          0          1         223325 3807
-------------------------------------------------------------------------------
 1.201572+6 9.727123+5          0          0          1         453325 3808
 1.201000+6 9.721400+5          0          0          1         223325 3808
-------------------------------------------------------------------------------
 1.201572+6 9.526323+5          0          0          1         443325 3809
 1.201000+6 9.520600+5          0          0          1         223325 3809
-------------------------------------------------------------------------------
                                                                  3325 3810 Only in VII.0
                                                                  3325 3811 Only in VII.0
                                                                  3325 3812 Only in VII.0
                                                                  3325 3813 Only in VII.0
                                                                  3325 3814 Only in VII.0
                                                                  3325 3815 Only in VII.0
                                                                  3325 3816 Only in VII.0
                                                                  3325 3817 Only in VII.0
                                                                  3325 3818 Only in VII.0
                                                                  3325 3819 Only in VII.0
                                                                  3325 3820 Only in VII.0
                                                                  3325 3821 Only in VII.0
                                                                  3325 3822 Only in VII.0
                                                                  3325 3823 Only in VII.0
                                                                  3325 3824 Only in VII.0
                                                                  3325 3825 Only in VII.0
                                                                  3325 3826 Only in VII.0
```

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                                                                  3325 3827 Only in VII.0
                                                                  3325 3828 Only in VII.0
                                                                  3325 3829 Only in VII.0
                                                                  3325 3830 Only in VII.0
                                                                  3325 3831 Only in VII.0
                                                                  3325 3832 Only in VII.0
                                                                  3325 3833 Only in VII.0
                                                                  3325 3834 Only in VII.0
                                                                  3325 3835 Only in VII.0
                                                                  3325 3836 Only in VII.0
                                                                  3325 3837 Only in VII.0
                                                                  3325 3838 Only in VII.0
                                                                  3325 3839 Only in VII.0
 1.201572+6 9.516323+5          0          0          1         443325 3849
 1.201000+6-1.973432+6          0          0          1         213325 3849
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0                                             3325 4  2
 1.313800-2 0.000000+0                                             3325 4  2
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         333325 4 51
 0.000000+0 0.000000+0          0          0          1         323325 4 51
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         333325 4 52
 0.000000+0 0.000000+0          0          0          1         323325 4 52
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         333325 4 53
 0.000000+0 0.000000+0          0          0          1         323325 4 53
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         323325 4 54
 0.000000+0 0.000000+0          0          0          1         313325 4 54
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         313325 4 55
 0.000000+0 0.000000+0          0          0          1         303325 4 55
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         313325 4 56
 0.000000+0 0.000000+0          0          0          1         303325 4 56
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         303325 4 57
 0.000000+0 0.000000+0          0          0          1         293325 4 57
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         303325 4 58
 0.000000+0 0.000000+0          0          0          1         293325 4 58
-------------------------------------------------------------------------------
 0.000000+0 6.260059+5          0          0          2          03325 4 59
 0.000000+0 6.260160+5          0          0          2          03325 4 59
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         273325 4 60
 0.000000+0 0.000000+0          0          0          1         283325 4 60
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         273325 4 61
 0.000000+0 0.000000+0          0          0          1         283325 4 61
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         273325 4 62
 0.000000+0 0.000000+0          0          0          1         283325 4 62
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         273325 4 63
 0.000000+0 0.000000+0          0          0          1         283325 4 63
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         253325 4 64
 0.000000+0 0.000000+0          0          0          1         263325 4 64
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         253325 4 65
 0.000000+0 0.000000+0          0          0          1         263325 4 65
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         253325 4 66
 0.000000+0 0.000000+0          0          0          1         263325 4 66
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         253325 4 67
 0.000000+0 0.000000+0          0          0          1         263325 4 67
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         243325 4 68
 0.000000+0 0.000000+0          0          0          1         253325 4 68
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         243325 4 69
 0.000000+0 0.000000+0          0          0          1         253325 4 69
```

```
 0.000000+0 0.000000+0          0          0          1         243325 4 70
 0.000000+0 0.000000+0          0          0          1         253325 4 70
 0.000000+0 0.000000+0          0          0          1         243325 4 71
 0.000000+0 0.000000+0          0          0          1         253325 4 71
 0.000000+0 0.000000+0          0          0          1         243325 4 72
 0.000000+0 0.000000+0          0          0          1         253325 4 72
 0.000000+0 0.000000+0          0          0          1         233325 4 73
 0.000000+0 0.000000+0          0          0          1         243325 4 73
 0.000000+0 0.000000+0          0          0          1         233325 4 74
 0.000000+0 0.000000+0          0          0          1         243325 4 74
 0.000000+0 1.319833+6          0          0          2          03325 4 75
 0.000000+0 1.318718+6          0          0          2          03325 4 75
 0.000000+0 1.327028+6          0          0          2          03325 4 76
 0.000000+0 1.326620+6          0          0          2          03325 4 76
 0.000000+0 1.367466+6          0          0          2          03325 4 77
 0.000000+0 1.367465+6          0          0          2          03325 4 77
 0.000000+0 1.389255+6          0          0          2          03325 4 78
 0.000000+0 1.388440+6          0          0          2          03325 4 78
 0.000000+0 0.000000+0          0          0          1         223325 4 79
 0.000000+0 0.000000+0          0          0          1         233325 4 79
 0.000000+0 0.000000+0          0          0          1         223325 4 80
 0.000000+0 0.000000+0          0          0          1         233325 4 80
 0.000000+0 0.000000+0          0          0          1         283325 4600
 0.000000+0 0.000000+0          0          0          1         223325 4600
 0.000000+0 0.000000+0          0          0          1         273325 4601
 0.000000+0 0.000000+0          0          0          1         223325 4601
 0.000000+0 0.000000+0          0          0          1         263325 4602
 0.000000+0 0.000000+0          0          0          1         223325 4602
 0.000000+0 0.000000+0          0          0          1         263325 4603
 0.000000+0 0.000000+0          0          0          1         223325 4603
 0.000000+0 0.000000+0          0          0          1         263325 4604
 0.000000+0 0.000000+0          0          0          1         223325 4604
 0.000000+0 0.000000+0          0          0          1         253325 4605
 0.000000+0 0.000000+0          0          0          1         223325 4605
 0.000000+0 0.000000+0          0          0          1         253325 4606
 0.000000+0 0.000000+0          0          0          1         223325 4606
 0.000000+0 0.000000+0          0          0          1         233325 4607
 0.000000+0 0.000000+0          0          0          1         223325 4607
 0.000000+0 0.000000+0          0          0          1         233325 4608
 0.000000+0 0.000000+0          0          0          1         223325 4608
 0.000000+0 0.000000+0          0          0          1         233325 4609
 0.000000+0 0.000000+0          0          0          1         223325 4609
 0.000000+0 1.058174+6          0          0          2          03325 4610
 0.000000+0 1.059069+6          0          0          2          03325 4610
 0.000000+0 1.081129+6          0          0          2          03325 4611
 0.000000+0 1.082044+6          0          0          2          03325 4611
 0.000000+0 1.170770+6          0          0          2          03325 4612
 0.000000+0 1.171806+6          0          0          2          03325 4612
 0.000000+0 0.000000+0          0          0          1         213325 4613
 0.000000+0 0.000000+0          0          0          1         223325 4613
```

```
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         213325 4614
 0.000000+0 0.000000+0          0          0          1         223325 4614
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         213325 4615
 0.000000+0 0.000000+0          0          0          1         223325 4615
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         213325 4616
 0.000000+0 0.000000+0          0          0          1         223325 4616
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         203325 4617
 0.000000+0 0.000000+0          0          0          1         223325 4617
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         203325 4618
 0.000000+0 0.000000+0          0          0          1         223325 4618
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         203325 4619
 0.000000+0 0.000000+0          0          0          1         223325 4619
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         203325 4620
 0.000000+0 0.000000+0          0          0          1         223325 4620
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         203325 4621
 0.000000+0 0.000000+0          0          0          1         223325 4621
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         193325 4622
 0.000000+0 0.000000+0          0          0          1         223325 4622
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         193325 4623
 0.000000+0 0.000000+0          0          0          1         213325 4623
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         193325 4624
 0.000000+0 0.000000+0          0          0          1         213325 4624
-------------------------------------------------------------------------------
                                                             3325 4625 Only in VII.0
                                                             3325 4626 Only in VII.0
                                                             3325 4627 Only in VII.0
                                                             3325 4628 Only in VII.0
                                                             3325 4629 Only in VII.0
                                                             3325 4630 Only in VII.0
                                                             3325 4631 Only in VII.0
                                                             3325 4632 Only in VII.0
                                                             3325 4633 Only in VII.0
                                                             3325 4634 Only in VII.0
                                                             3325 4635 Only in VII.0
                                                             3325 4636 Only in VII.0
                                                             3325 4637 Only in VII.0
                                                             3325 4638 Only in VII.0
                                                             3325 4639 Only in VII.0
 0.000000+0 0.000000+0          0          0          1         253325 4800
 0.000000+0 0.000000+0          0          0          1         213325 4800
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         253325 4801
 0.000000+0 0.000000+0          0          0          1         213325 4801
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         243325 4802
 0.000000+0 0.000000+0          0          0          1         213325 4802
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         243325 4803
 0.000000+0 0.000000+0          0          0          1         213325 4803
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         243325 4804
 0.000000+0 0.000000+0          0          0          1         213325 4804
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         243325 4805
 0.000000+0 0.000000+0          0          0          1         213325 4805
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         233325 4806
 0.000000+0 0.000000+0          0          0          1         213325 4806
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         233325 4807
 0.000000+0 0.000000+0          0          0          1         213325 4807
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         233325 4808
 0.000000+0 0.000000+0          0          0          1         213325 4808
```

```
------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         233325 4809
 0.000000+0 0.000000+0          0          0          1         213325 4809
------------------------------------------------------------------------
                                                                 3325 4810 Only in VII.0
                                                                 3325 4811 Only in VII.0
                                                                 3325 4812 Only in VII.0
                                                                 3325 4813 Only in VII.0
                                                                 3325 4814 Only in VII.0
                                                                 3325 4815 Only in VII.0
                                                                 3325 4816 Only in VII.0
                                                                 3325 4817 Only in VII.0
                                                                 3325 4818 Only in VII.0
                                                                 3325 4819 Only in VII.0
                                                                 3325 4820 Only in VII.0
                                                                 3325 4821 Only in VII.0
                                                                 3325 4822 Only in VII.0
                                                                 3325 4823 Only in VII.0
                                                                 3325 4824 Only in VII.0
                                                                 3325 4825 Only in VII.0
                                                                 3325 4826 Only in VII.0
                                                                 3325 4827 Only in VII.0
                                                                 3325 4828 Only in VII.0
                                                                 3325 4829 Only in VII.0
                                                                 3325 4830 Only in VII.0
                                                                 3325 4831 Only in VII.0
                                                                 3325 4832 Only in VII.0
                                                                 3325 4833 Only in VII.0
                                                                 3325 4834 Only in VII.0
                                                                 3325 4835 Only in VII.0
                                                                 3325 4836 Only in VII.0
                                                                 3325 4837 Only in VII.0
                                                                 3325 4838 Only in VII.0
                                                                 3325 4839 Only in VII.0
 1.038116+7 2.000000+0 2.000000+7 2.000000+0                     3325 6 16
 1.038090+7 2.000000+0 2.000000+7 2.000000+0                     3325 6 16
------------------------------------------------------------------------
 1.846328+7 3.000000+0 2.000000+7 3.000000+0                     3325 6 17
 1.846327+7 3.000000+0 2.000000+7 3.000000+0                     3325 6 17
------------------------------------------------------------------------
 5.391144+6 1.000000+0 2.000000+7 1.000000+0                     3325 6 22
 5.391620+6 1.000000+0 2.000000+7 1.000000+0                     3325 6 22
------------------------------------------------------------------------
                                                                 3325 6 24 Only in VII.0
 6.991305+6 1.000000+0 2.000000+7 1.000000+0                     3325 6 28
 6.991880+6 1.000000+0 2.000000+7 1.000000+0                     3325 6 28
------------------------------------------------------------------------
                                                                 3325 6 41 Only in VII.0
 1.450772+6 1.000000+0 2.000000+7 1.000000+0                     3325 6 91
 6.930000+5 1.000000+0 2.000000+7 1.000000+0                     3325 6 91
------------------------------------------------------------------------
 1.673346+6 1.000000+0 2.000000+7 1.000000+0                     3325 6649
 2.430210+6 1.000000+0 2.000000+7 1.000000+0                     3325 6649
------------------------------------------------------------------------
 1.000000-5 1.000000+0 2.000000+7 1.000000+0                     3325 6849
 2.000000+6 1.000000+0 2.000000+7 1.000000+0                     3325 6849
------------------------------------------------------------------------
 34-Se-74
************************************************************************
 34-Se-76
************************************************************************
 34-Se-77
************************************************************************
 34-Se-78
************************************************************************
 34-Se-79
************************************************************************
 34-Se-80
************************************************************************
 34-Se-82
************************************************************************
 35-Br-79
************************************************************************
 35-Br-81
************************************************************************
```

36-Kr-78

```
**************************************************************************
 0.000000+0 0.000000+0          0          0          1        1033625 3  1
 0.000000+0 0.000000+0          0          0          2         863625 3  1
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1033625 3  2
 0.000000+0 0.000000+0          0          0          2         863625 3  2
--------------------------------------------------------------------------
                                                                3625 3  4 Only in VII.0
-1.208160+7-1.208160+7          0          0          1         413625 3 16
-1.199010+7-1.199010+7          0          0          1         113625 3 16
--------------------------------------------------------------------------
-4.391908+6-4.391908+6          0          0          1         573625 3 22
-4.359190+6-4.359190+6          0          0          2         253625 3 22
--------------------------------------------------------------------------
-8.233784+6-8.233784+6          0          0          1         553625 3 28
-8.202130+6-8.202130+6          0          0          2         173625 3 28
--------------------------------------------------------------------------
 0.000000+0-4.550400+5          0          0          1         993625 3 51
 0.000000+0-4.549990+5          0          0          1         533625 3 51
--------------------------------------------------------------------------
 0.000000+0-1.017180+6          0          0          1         963625 3 52
 0.000000+0-1.017200+6          0          0          1         473625 3 52
--------------------------------------------------------------------------
 0.000000+0-1.119470+6          0          0          1         963625 3 53
 0.000000+0-1.119500+6          0          0          1         463625 3 53
--------------------------------------------------------------------------
 0.000000+0-1.147920+6          0          0          1         963625 3 54
 0.000000+0-1.147900+6          0          0          1         453625 3 54
--------------------------------------------------------------------------
 0.000000+0-1.564760+6          0          0          1         943625 3 55
 0.000000+0-1.564700+6          0          0          1         423625 3 55
--------------------------------------------------------------------------
 0.000000+0-1.653900+6          0          0          1         933625 3 56
 0.000000+0-1.653800+6          0          0          1         413625 3 56
--------------------------------------------------------------------------
 0.000000+0-1.755860+6          0          0          1         933625 3 57
 0.000000+0-1.755900+6          0          0          1         393625 3 57
--------------------------------------------------------------------------
 0.000000+0-1.772930+6          0          0          1         933625 3 58
 0.000000+0-1.772900+6          0          0          1         383625 3 58
--------------------------------------------------------------------------
 0.000000+0-1.872900+6          0          0          1         923625 3 59
 0.000000+0-1.872900+6          0          0          1         373625 3 59
--------------------------------------------------------------------------
 0.000000+0-1.977820+6          0          0          1         913625 3 60
 0.000000+0-1.977800+6          0          0          1         353625 3 60
--------------------------------------------------------------------------
 0.000000+0-2.007420+6          0          0          1         913625 3 61
 0.000000+0-2.007500+6          0          0          1         343625 3 61
--------------------------------------------------------------------------
 0.000000+0-2.234200+6          0          0          1         903625 3 62
 0.000000+0-2.234100+6          0          0          1         333625 3 62
--------------------------------------------------------------------------
 0.000000+0-2.240690+6          0          0          1         903625 3 63
 0.000000+0-2.240700+6          0          0          1         323625 3 63
--------------------------------------------------------------------------
 0.000000+0-2.299780+6          0          0          1         903625 3 64
 0.000000+0-2.299800+6          0          0          1         313625 3 64
--------------------------------------------------------------------------
 0.000000+0-2.399030+6          0          0          1         893625 3 65
 0.000000+0-2.399000+6          0          0          1         303625 3 65
--------------------------------------------------------------------------
 0.000000+0-2.413440+6          0          0          1         893625 3 66
 0.000000+0-2.413400+6          0          0          1         293625 3 66
--------------------------------------------------------------------------
 0.000000+0-2.443370+6          0          0          1         893625 3 67
 0.000000+0-2.443400+6          0          0          1         283625 3 67
--------------------------------------------------------------------------
 0.000000+0-2.471900+6          0          0          1         893625 3 68
 0.000000+0-2.471800+6          0          0          1         273625 3 68
--------------------------------------------------------------------------
 0.000000+0-2.508020+6          0          0          1         893625 3 69
 0.000000+0-2.508000+6          0          0          1         263625 3 69
--------------------------------------------------------------------------
```

```
 0.000000+0-2.573350+6          0          0          1         883625 3 70
 0.000000+0-2.573300+6          0          0          1         253625 3 70
-------------------------------------------------------------------------------
                                                                3625 3 71 Only in VII.0
                                                                3625 3 72 Only in VII.0
                                                                3625 3 73 Only in VII.0
                                                                3625 3 74 Only in VII.0
                                                                3625 3 75 Only in VII.0
                                                                3625 3 76 Only in VII.0
                                                                3625 3 77 Only in VII.0
                                                                3625 3 78 Only in VII.0
                                                                3625 3 79 Only in VII.0
 0.000000+0-3.948882+5          0          0          1         993625 3 91
 0.000000+0-2.999400+6          0          0          1         143625 3 91
-------------------------------------------------------------------------------
 8.334326+6 8.334326+6          0          0          1        1033625 3102
 8.360390+6 8.360390+6          0          0          2         693625 3102
-------------------------------------------------------------------------------
 5.492151+4 5.492151+4          0          0          1        1163625 3103
 9.046720+4 9.046720+4          0          0          2         323625 3103
-------------------------------------------------------------------------------
                                                                3625 3104 Only in VII.0
                                                                3625 3105 Only in VII.0
                                                                3625 3106 Only in VII.0
 3.635692+6 3.635692+6          0          0          1        1163625 3107
 3.673200+6 3.673200+6          0          0          2         323625 3107
-------------------------------------------------------------------------------
-6.086758+6-6.086758+6          0          0          1         573625 3111
-6.055080+6-6.055080+6          0          0          2         203625 3111
-------------------------------------------------------------------------------
                                                                3625 3112 Only in VII.1
 0.000000+0 7.725099+1          0          2          0          03625 4  2
 0.000000+0 7.725100+1          0          2          0          03625 4  2
-------------------------------------------------------------------------------
                                                                3625 4 16 Only in VII.0
                                                                3625 4 22 Only in VII.0
                                                                3625 4 28 Only in VII.0
 0.000000+0 7.725099+1          0          2          0          03625 4 51
 0.000000+0 7.725100+1          0          2          0          03625 4 51
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 52
 0.000000+0 7.725100+1          0          2          0          03625 4 52
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 53
 0.000000+0 7.725100+1          0          2          0          03625 4 53
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 54
 0.000000+0 7.725100+1          0          2          0          03625 4 54
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 55
 0.000000+0 7.725100+1          0          2          0          03625 4 55
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 56
 0.000000+0 7.725100+1          0          2          0          03625 4 56
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 57
 0.000000+0 7.725100+1          0          2          0          03625 4 57
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 58
 0.000000+0 7.725100+1          0          2          0          03625 4 58
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 59
 0.000000+0 7.725100+1          0          2          0          03625 4 59
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 60
 0.000000+0 7.725100+1          0          2          0          03625 4 60
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 61
 0.000000+0 7.725100+1          0          2          0          03625 4 61
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 62
 0.000000+0 7.725100+1          0          2          0          03625 4 62
-------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 63
 0.000000+0 7.725100+1          0          2          0          03625 4 63
```

```
--------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 64
 0.000000+0 7.725100+1          0          2          0          03625 4 64
--------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 65
 0.000000+0 7.725100+1          0          2          0          03625 4 65
--------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 66
 0.000000+0 7.725100+1          0          2          0          03625 4 66
--------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 67
 0.000000+0 7.725100+1          0          2          0          03625 4 67
--------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 68
 0.000000+0 7.725100+1          0          2          0          03625 4 68
--------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 69
 0.000000+0 7.725100+1          0          2          0          03625 4 69
--------------------------------------------------------------------------------
 0.000000+0 7.725099+1          0          2          0          03625 4 70
 0.000000+0 7.725100+1          0          2          0          03625 4 70
--------------------------------------------------------------------------------
                                                                  3625 4 71 Only in VII.0
                                                                  3625 4 72 Only in VII.0
                                                                  3625 4 73 Only in VII.0
                                                                  3625 4 74 Only in VII.0
                                                                  3625 4 75 Only in VII.0
                                                                  3625 4 76 Only in VII.0
                                                                  3625 4 77 Only in VII.0
                                                                  3625 4 78 Only in VII.0
                                                                  3625 4 79 Only in VII.0
                                                                  3625 4 91 Only in VII.0
                                                                  3625 5 16 Only in VII.0
                                                                  3625 5 22 Only in VII.0
                                                                  3625 5 28 Only in VII.0
                                                                  3625 5 91 Only in VII.0
                                                                  3625 6 16 Only in VII.1
                                                                  3625 6 22 Only in VII.1
                                                                  3625 6 28 Only in VII.1
                                                                  3625 6 91 Only in VII.1
                                                                  3625 6103 Only in VII.1
                                                                  3625 6107 Only in VII.1
                                                                  3625 6111 Only in VII.1
                                                                  3625 6112 Only in VII.1
 36-Kr-80
********************************************************************************
 36-Kr-82
********************************************************************************
 36-Kr-83
********************************************************************************
 36-Kr-84
********************************************************************************
 36-Kr-85
********************************************************************************
 4.062800+5 9.830489-7 1.70875-14 6.094200+5 4.184170-7-4.12103-133646 6 22
 4.062800+5 9.830490-7 1.70875-14 6.094200+5 4.184170-7-4.12103-133646 6 22
--------------------------------------------------------------------------------
 2.983730-8 4.024000-9 3.457650+6 9.605239-7 4.420200-8 6.034690-93646 6649
 2.983730-8 4.024000-9 3.457650+6 9.605240-7 4.420200-8 6.034690-93646 6649
--------------------------------------------------------------------------------
 6.385710+6 1.471380-6 6.534210+6 9.563699-7 6.682720+6 4.95074-123646 6849
 6.385710+6 1.471380-6 6.534210+6 9.563700-7 6.682720+6 4.95074-123646 6849
--------------------------------------------------------------------------------
 36-Kr-86
********************************************************************************
 2.274390+6 1.688790-3 2.377190+6 1.157120-3 2.765090+6 9.803399-43649 3102
 2.274390+6 1.688790-3 2.377190+6 1.157120-3 2.765090+6 9.803400-43649 3102
--------------------------------------------------------------------------------
 37-Rb-85
********************************************************************************
 37-Rb-86
********************************************************************************
 1.150000+2 2.500000+0 5.500000-1 3.000000-1 2.500000-1 0.000000+03728 2151
 1.150000+2 2.500000+0 5.000000-1 3.000000-1 2.500000-1 0.000000+03728 2151
--------------------------------------------------------------------------------
```

```
 6.055000+5 1.962200-6 6.392000+5 9.709109-7 6.728000+5 3.258410-73728 6 22
 6.055000+5 1.962200-6 6.392000+5 9.709110-7 6.728000+5 3.258410-73728 6 22
--------------------------------------------------------------------------
-5.00491-11 0.000000+0 1.997800+5 9.599351-7-6.83934-11 0.000000+03728 6 91
-5.00491-11 0.000000+0 1.997800+5 9.599350-7-6.83934-11 0.000000+03728 6 91
--------------------------------------------------------------------------
 1.156000+5 2.192000-6 1.348000+5 9.925481-7 1.541000+5 4.349620-73728 6649
 1.156000+5 2.192000-6 1.348000+5 9.925480-7 1.541000+5 4.349620-73728 6649
--------------------------------------------------------------------------
 37-Rb-87
**************************************************************************
          3          2                                          3731 5 17
          1          2                                          3731 5 17
--------------------------------------------------------------------------
 38-Sr-84
**************************************************************************
 2.378030+6 9.795079-7 1.67042-11 2.481420+6 1.357160-6 3.96379-113825 6649
 2.378030+6 9.795080-7 1.67042-11 2.481420+6 1.357160-6 3.96379-113825 6649
--------------------------------------------------------------------------
 38-Sr-86
**************************************************************************
 38-Sr-87
**************************************************************************
 38-Sr-88
**************************************************************************
 38-Sr-89
**************************************************************************
 38-Sr-90
**************************************************************************
 39-Y -89
**************************************************************************
 1.000000-5 4.500000+4          1          2          0          03925 2151
 1.000000-5 4.100000+5          1          2          0          03925 2151
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        7333925 3  1
 0.000000+0 0.000000+0          0          0          1        2763925 3  1
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        7333925 3  2
 0.000000+0 0.000000+0          0          0          1        4023925 3  2
--------------------------------------------------------------------------
 0.000000+0-9.089600+5          0          0          1         783925 3  4
 0.000000+0 0.000000+0          0          0          1         803925 3  4
--------------------------------------------------------------------------
 1.160670+7 0.000000+0 1.200000+7 7.250379-2 1.250000+7 2.733047-13925 3 16
 1.160620+7 0.000000+0 1.200000+7 7.250400-2 1.250000+7 2.733100-13925 3 16
--------------------------------------------------------------------------
 9.192724+5 0.000000+0 1.000000+6 5.901300-2 1.100000+6 8.690040-23925 3 51
 9.192724+5 0.000000+0 1.000000+6 5.353590-2 1.100000+6 8.167970-23925 3 51
--------------------------------------------------------------------------
 0.000000+0-4.022800+6          0          0          1         333925 3 91
 0.000000+0-9.788940+5          0          0          1         943925 3 91
--------------------------------------------------------------------------
 6.857000+6 6.857000+6          0          0          1         603925 3102
 6.857000+6 6.857000+6          0          0          1         553925 3102
--------------------------------------------------------------------------
-7.130000+5-7.130000+5          0          0          1         803925 3103
 0.000000+0 0.000000+0          0          0          1         813925 3103
--------------------------------------------------------------------------
 6.910000+5 6.910000+5          0          0          1         713925 3107
 0.000000+0 0.000000+0          0          0          1         713925 3107
--------------------------------------------------------------------------
 8.366300+5 6.638400-8 1.115510+6 9.745301-7 1.394380+6 1.573250-73925 6 28
 8.366300+5 6.638400-8 1.115510+6 9.745300-7 1.394380+6 1.573250-73925 6 28
--------------------------------------------------------------------------
 4.068440+6 1.000000+0 2.000000+7 1.000000+0                     3925 6 91
 9.899999+5 1.000000+0 2.000000+7 1.000000+0                     3925 6 91
--------------------------------------------------------------------------
 39-Y -90
**************************************************************************
 39-Y -91
**************************************************************************
 40-Zr-90
**************************************************************************
 1.000000-5 5.350000+4          1          2          0          04025 2151
 1.000000-5 6.000000+4          1          2          0          04025 2151
```

```
 0.000000+0 0.000000+0          0          0          1         364025 3  1
 0.000000+0 0.000000+0          0          0          1         404025 3  1
 0.000000+0 0.000000+0          0          0          1        1104025 3  2
 0.000000+0 0.000000+0          0          0          1        1134025 3  2
 0.000000+0 0.000000+0          0          0          1         494025 3  4
 0.000000+0 0.000000+0          0          0          1         504025 3  4
 1.500000+7 8.468020-2 1.600000+7 1.053760-1 1.700000+7 1.181900-14025 3 28
 1.500000+7 8.468020-2 1.600000+7 1.113760-1 1.700000+7 1.181900-14025 3 28
 7.194000+6 7.194000+6          0          0          1         444025 3102
 7.194000+6 7.194000+6          0          0          1         484025 3102
 0.000000+0 0.000000+0          0          0          1         484025 3103
 0.000000+0 0.000000+0          0          0          1         494025 3103
 0.000000+0 0.000000+0          0          0          1         684025 3107
 0.000000+0 0.000000+0          0          0          1         694025 3107
 1.756000+6 1.756000+6          0          0          1         354025 3800
 1.756000+6 1.756000+6          0          0          1         364025 3800
 1.756000+6 1.367470+6          0          0          1         334025 3801
 1.756000+6 1.367470+6          0          0          1         344025 3801
 1.756000+6 8.826600+5          0          0          1         314025 3802
 1.756000+6 8.826600+5          0          0          1         324025 3802
 1.756000+6 5.275800+5          0          0          1         304025 3803
 1.756000+6 5.275800+5          0          0          1         314025 3803
 1.756000+6 5.020600+5          0          0          1         304025 3804
 1.756000+6 5.020600+5          0          0          1         314025 3804
 1.756000+6 1.600000+4          0          0          1         264025 3805
 1.756000+6 1.600000+4          0          0          1         274025 3805
 1.756000+6 1.400000+4          0          0          1         264025 3806
 1.756000+6 1.400000+4          0          0          1         274025 3806
 1.286999+6 9.330550-1 1.300000+6 9.423740-1 1.500000+6 9.279840-14025 6 91
 1.286999+6 1.376280+0 1.300000+6 1.007370+0 1.500000+6 1.002450+04025 6 91
 4.000000+5 1.296860+0 5.000000+5 1.389520+0 7.000000+5 1.718870+04025 6102
 4.000000+5 1.296860+0 5.000000+5 1.385600+0 7.000000+5 1.718870+04028 6102
 2.897000+5 1.731810-7 3.091000+5 4.356770-7 3.284000+5 9.836129-74025 6849
 2.897000+5 1.731810-7 3.091000+5 4.356770-7 3.284000+5 9.836130-74025 6849
 40-Zr-91
*******************************************************************************
-1.180000+3 2.000000+0 6.126350+1 6.112440+1 1.391000-1 0.000000+04028 2151
-1.179500+3 2.000000+0 3.200600+1 3.187200+1 1.340000-1 0.000000+04028 2151
 1.400000+7 1.002000-3 1.500000+7 9.841440-4 1.600000+7 9.831639-44028 3102
 1.400000+7 1.002000-3 1.500000+7 9.841440-4 1.600000+7 9.831640-44028 3102
-9.861481-7-1.904180-7                                                 4028 4 63
-9.861480-7-1.904180-7                                                 4028 4 63
 40-Zr-92
*******************************************************************************
 2.303200-2 9.185300-3 5.515400-3 2.502100-3 9.807301-4 3.522600-44031 4 51
 2.303200-2 9.185300-3 5.515400-3 2.502100-3 9.807300-4 3.522600-44031 4 51
 40-Zr-93
*******************************************************************************
 1.500000+7 9.786889-4 1.600000+7 9.747370-4 1.700000+7 9.851620-44034 3102
 1.500000+7 9.786890-4 1.600000+7 9.747370-4 1.700000+7 9.851620-44034 3102
 0.000000+0 9.826761-4 0.000000+0-6.126880-3 0.000000+0-3.234990-44034 4 60
 0.000000+0 9.826760-4 0.000000+0-6.126880-3 0.000000+0-3.234990-44034 4 60
```

```
--------------------------------------------------------------------------------
 40-Zr-94
********************************************************************************
 0.000000+0-3.804930-3 0.000000+0-9.915431-4 0.000000+0-5.042840-54037 4 58
 0.000000+0-3.804930-3 0.000000+0-9.915430-4 0.000000+0-5.042840-54037 4 58
--------------------------------------------------------------------------------
 40-Zr-95
********************************************************************************
 40-Zr-96
********************************************************************************
 1.200000+7 7.883900-4 1.300000+7 9.838491-4 1.400000+7 1.000530-34043 3102
 1.200000+7 7.883900-4 1.300000+7 9.838490-4 1.400000+7 1.000530-34043 3102
--------------------------------------------------------------------------------
 2.500000+5 9.543199-7 1.863010-9 2.201160-8 6.49679-11 8.22708-104043 6 17
 2.500000+5 9.543200-7 1.863010-9 2.201160-8 6.49679-11 8.22708-104043 6 17
--------------------------------------------------------------------------------
 6.120150+6 2.234700-7 9.999660-1 6.609760+6 2.919190-7 0.999998+04043 6204
 6.120150+6 2.234700-7 9.999660-1 6.609760+6 2.919190-7 0.999998+14043 6204
--------------------------------------------------------------------------------
 41-Nb-93
********************************************************************************
 1.667793+6 9.613437-7 2.223723+6 2.242543-7 2.779654+6 5.367876-84125 6  5
 1.667793+6 9.613438-7 2.223723+6 2.242543-7 2.779654+6 5.367876-84125 6  5
--------------------------------------------------------------------------------
 41-Nb-94
********************************************************************************
 41-Nb-95
********************************************************************************
 42-Mo-92
********************************************************************************
 1.700000+7 9.789560-4 1.800000+7 9.955449-4 1.900000+7 1.023700-34225 3102
 1.700000+7 9.789560-4 1.800000+7 9.955450-4 1.900000+7 1.023700-34225 3102
--------------------------------------------------------------------------------
 42-Mo-94
********************************************************************************
 4.976340+4 9.733971-7 2.903960-9 2.188130-8 9.95301-11 8.05128-104231 6 28
 4.976340+4 9.733970-7 2.903960-9 2.188130-8 9.95301-11 8.05128-104231 6 28
--------------------------------------------------------------------------------
 42-Mo-95
********************************************************************************
 9.409060+1 0.000000+0          0          0        138         234234 2151
 9.409060+1 0.000000+0          0          0        126         214234 2151
--------------------------------------------------------------------------------
 2.100000+5 1.215620-6 2.333000+5 9.537119-7 2.566000+5 7.355840-74234 6 91
 2.100000+5 1.215620-6 2.333000+5 9.537120-7 2.566000+5 7.355840-74234 6 91
--------------------------------------------------------------------------------
 42-Mo-96
********************************************************************************
 9.957409-7 1.388850-7 2.117540-8 3.11672-10 2.166470-9-1.620620-94237 4 51
 9.957410-7 1.388850-7 2.117540-8 3.11672-10 2.166470-9-1.620620-94237 4 51
--------------------------------------------------------------------------------
 0.000000+0-5.083260-2 0.000000+0 4.312350-3 0.000000+0 9.864341-44237 4 63
 0.000000+0-5.083260-2 0.000000+0 4.312350-3 0.000000+0 9.864340-44237 4 63
--------------------------------------------------------------------------------
 1.250000+5 9.860109-7 1.934130-9 2.238020-8 6.67227-11 8.28345-104237 6 22
 1.250000+5 9.860110-7 1.934130-9 2.238020-8 6.67227-11 8.28345-104237 6 22
--------------------------------------------------------------------------------
 42-Mo-97
********************************************************************************
 1.250000+5 9.780561-7 2.001600-9 2.219960-8 6.90503-11 8.21662-104240 6 22
 1.250000+5 9.780560-7 2.001600-9 2.219960-8 6.90503-11 8.21662-104240 6 22
--------------------------------------------------------------------------------
 1.573730+7 1.558500-8 0.999998+0 1.600180+7 0.000000+0 0.000000+04240 6203
 1.573730+7 1.558500-8 0.999998+1 1.600180+7 0.000000+0 0.000000+04240 6203
--------------------------------------------------------------------------------
 42-Mo-98
********************************************************************************
 42-Mo-99
********************************************************************************
 42-Mo-100
********************************************************************************
 43-Tc-99
********************************************************************************
-3.651000+1 5.000000+0 2.207000-1 8.370000-2 1.372000-1 0.000000+04325 2151
-3.162000+1 5.000000+0 2.044570-1 6.745660-2 1.370000-1 0.000000+04325 2151
```

```
--------------------------------------------------------------------------------
 1.000000-5 0.000000+0 1.403400+5 0.000000+0 1.403400+5 9.730000+04325 3  1
 1.000000-5 0.000000+0 1.419400+5 0.000000+0 1.419400+5 9.772220+04325 3  1
--------------------------------------------------------------------------------
 1.000000-5 0.000000+0 1.000000+3 0.000000+0 1.403400+5 0.000000+04325 3  2
 1.000000-5 0.000000+0 1.000000+3 0.000000+0 1.419400+5 0.000000+04325 3  2
--------------------------------------------------------------------------------
 1.000000-5 0.000000+0 1.419430+5 0.000000+0 1.441350+5 3.283800-24325 3  4
 1.000000-5 0.000000+0 1.419430+5 0.000000+0 1.441350+5 3.278451-24325 3  4
--------------------------------------------------------------------------------
 1.000000-5 0.000000+0 1.403400+5 0.000000+0 1.403400+5 3.775000-14325 3102
 1.000000-5 0.000000+0 1.419400+5 0.000000+0 1.419400+5 3.728027-14325 3102
--------------------------------------------------------------------------------
 1.250000+7 9.006665-8 1.300000+7 6.412880-8 1.350000+7 4.819890-84325 3600
 1.250000+7 9.006650-8 1.300000+7 6.412880-8 1.350000+7 4.819890-84325 3600
--------------------------------------------------------------------------------
 1.285950+6 0.000000+0 2.700000+6 0.000000+0 3.000000+6 4.531839-94325 3649
 1.285950+6 0.000000+0 2.700000+6 0.000000+0 3.000000+6 4.531840-94325 3649
--------------------------------------------------------------------------------
 1.100000+6 3.790880-9 1.200000+6 5.302141-9 1.500000+6 1.215270-84325 3800
 1.100000+6 3.790880-9 1.200000+6 5.302140-9 1.500000+6 1.215270-84325 3800
--------------------------------------------------------------------------------
 2.200000+6 1.204650-9 2.500000+6 3.619270-9 2.700000+6 7.048959-94325 3849
 2.200000+6 1.204650-9 2.500000+6 3.619270-9 2.700000+6 7.048960-94325 3849
--------------------------------------------------------------------------------
 7.870360-3 2.869160-3 9.769161-4 2.199540-4 1.753830-4-1.040000-44325 4 55
 7.870360-3 2.869160-3 9.769160-4 2.199540-4 1.753830-4-1.040000-44325 4 55
--------------------------------------------------------------------------------
 7.870360-3 2.869160-3 9.769161-4 2.199540-4 1.753830-4-1.040000-44325 4 56
 7.870360-3 2.869160-3 9.769160-4 2.199540-4 1.753830-4-1.040000-44325 4 56
--------------------------------------------------------------------------------
 3.642160-1 1.684870-1 9.847831-4-2.282160-2-5.735480-2-2.582740-24325 4 66
 3.642160-1 1.684870-1 9.847830-4-2.282160-2-5.735480-2-2.582740-24325 4 66
--------------------------------------------------------------------------------
 2.391800-3 9.968519-4 4.718870-4 1.512340-4 2.900290-7-1.282850-44325 4 67
 2.391800-3 9.968520-4 4.718870-4 1.512340-4 2.900290-7-1.282850-44325 4 67
--------------------------------------------------------------------------------
 2.391800-3 9.968519-4 4.718870-4 1.512340-4 2.900290-7-1.282850-44325 4 68
 2.391800-3 9.968520-4 4.718870-4 1.512340-4 2.900290-7-1.282850-44325 4 68
--------------------------------------------------------------------------------
 2.391800-3 9.968519-4 4.718870-4 1.512340-4 2.900290-7-1.282850-44325 4 69
 2.391800-3 9.968520-4 4.718870-4 1.512340-4 2.900290-7-1.282850-44325 4 69
--------------------------------------------------------------------------------
 2.391800-3 9.968519-4 4.718870-4 1.512340-4 2.900290-7-1.282850-44325 4 70
 2.391800-3 9.968520-4 4.718870-4 1.512340-4 2.900290-7-1.282850-44325 4 70
--------------------------------------------------------------------------------
 2.116000+5 4.797110-6 2.351000+5 9.931360-7 3.057000+5 9.902139-74325 6 24
 2.116000+5 4.797110-6 2.351000+5 9.931360-7 3.057000+5 9.902140-74325 6 24
--------------------------------------------------------------------------------
 1.222000+5 9.923029-7 1.357000+5 8.051440-7 1.493000+5 6.635360-74325 6 91
 1.222000+5 9.923030-7 1.357000+5 8.051440-7 1.493000+5 6.635360-74325 6 91
--------------------------------------------------------------------------------
 3.080460+6 8.308710-7 2.186810-9 3.190470+6 9.954171-7 3.188430-94325 6649
 3.080460+6 8.308710-7 2.186810-9 3.190470+6 9.954170-7 3.188430-94325 6649
--------------------------------------------------------------------------------
 44-Ru-96
********************************************************************************
 44-Ru-98
********************************************************************************
 44-Ru-99
********************************************************************************
 44-Ru-100
********************************************************************************
 0.000000+0 0.000000+0 1.250000+5 9.539619-7 2.500000+5 1.186470-64437 5 28
 0.000000+0 0.000000+0 1.250000+5 9.539620-7 2.500000+5 1.186470-64437 5 28
--------------------------------------------------------------------------------
 44-Ru-101
********************************************************************************
 4.398390+6 1.789160-6 4.607840+6 1.752640-6 4.817290+6 9.928229-74440 6 24
 4.398390+6 1.789160-6 4.607840+6 1.752640-6 4.817290+6 9.928230-74440 6 24
--------------------------------------------------------------------------------
 3.690600+5 9.832530-7 1.77209-14 4.613300+5 9.689981-7-1.22967-144440 6 91
 3.690600+5 9.832530-7 1.77209-14 4.613300+5 9.689980-7-1.22967-144440 6 91
--------------------------------------------------------------------------------
 44-Ru-102
```

```
********************************************************************************
 44-Ru-103
********************************************************************************
 44-Ru-104
********************************************************************************
 44-Ru-105
********************************************************************************
 44-Ru-106
********************************************************************************
 45-Rh-103
********************************************************************************
 1.000000-5 4.170000+3          1          2          0          04525 2151
 1.000000-5 4.115900+3          1          2          0          04525 2151
--------------------------------------------------------------------------------
 1.763140-9 0.000000+0 5.046500+5 9.697829-7 1.013070-9 0.000000+04525 6 24
 1.763140-9 0.000000+0 5.046500+5 9.697830-7 1.013070-9 0.000000+04525 6 24
--------------------------------------------------------------------------------
 45-Rh-105
********************************************************************************
 46-Pd-102
********************************************************************************
 46-Pd-104
********************************************************************************
 46-Pd-105
********************************************************************************
 46-Pd-106
********************************************************************************
 46-Pd-107
********************************************************************************
 46-Pd-108
********************************************************************************
 46-Pd-110
********************************************************************************
 47-Ag-107
********************************************************************************
 47-Ag-109
********************************************************************************
 1.000000-5 7.000000+3          1          2          0          04731 2151
 1.000000-5 4.996300+3          1          2          0          04731 2151
--------------------------------------------------------------------------------
 0.000000+0 7.234050-7-1.81388-15 1.547000+5 9.654379-7 6.41865-114731 6 28
 0.000000+0 7.234050-7-1.81388-15 1.547000+5 9.654380-7 6.41865-114731 6 28
--------------------------------------------------------------------------------
 47-Ag-110m
********************************************************************************
 47-Ag-111
********************************************************************************
 3.388300+5 9.868839-7 1.83989-10 0.000000+0 0.000000+0 0.000000+04737 6 91
 3.388300+5 9.868840-7 1.83989-10 0.000000+0 0.000000+0 0.000000+04737 6 91
--------------------------------------------------------------------------------
 48-Cd-106
********************************************************************************
 1.000000-5 6.000000+3          1          3          0          14825 2151
 1.000000-5 6.000000+3          1          2          0          04825 2151
--------------------------------------------------------------------------------
 48-Cd-108
********************************************************************************
 1.000000-5 6.000000+3          1          3          0          14831 2151
 1.000000-5 6.000000+3          1          2          0          04831 2151
--------------------------------------------------------------------------------
 48-Cd-110
********************************************************************************
 1.000000-5 7.000000+3          1          3          0          14837 2151
 1.000000-5 7.000000+3          1          2          0          04837 2151
--------------------------------------------------------------------------------
 48-Cd-111
********************************************************************************
 1.000000-5 2.300000+3          1          3          0          14840 2151
 1.000000-5 2.300000+3          1          2          0          04840 2151
--------------------------------------------------------------------------------
 48-Cd-112
********************************************************************************
 1.000000-5 1.150000+4          1          3          0          14843 2151
 1.000000-5 1.150000+4          1          2          0          04843 2151
--------------------------------------------------------------------------------
```

```
 48-Cd-113
*****************************************************************************
 1.000000-5 5.000000+3          1          2          0          04846 2151
 1.000000-5 1.100000+4          1          2          0          04846 2151
-----------------------------------------------------------------------------
 48-Cd-114
*****************************************************************************
 1.000000-5 8.000000+3          1          3          0          14849 2151
 1.000000-5 8.000000+3          1          2          0          04849 2151
-----------------------------------------------------------------------------
 48-Cd-115m
*****************************************************************************
 6.000000+4 9.465630-6 8.000000+4 9.557371-7 1.000000+5 2.308270-74853 6 28
 6.000000+4 9.465630-6 8.000000+4 9.557370-7 1.000000+5 2.308270-74853 6 28
-----------------------------------------------------------------------------
 48-Cd-116
*****************************************************************************
 1.000000-5 9.500000+3          1          3          0          14855 2151
 1.000000-5 9.500000+3          1          2          0          04855 2151
-----------------------------------------------------------------------------
 49-In-113
*****************************************************************************
 49-In-115
*****************************************************************************
 50-Sn-112
*****************************************************************************
 50-Sn-113
*****************************************************************************
 0.000000+0 9.556099-7 2.14353-14 1.918100+5 1.218530-6 4.76731-115028 6 22
 0.000000+0 9.556100-7 2.14353-14 1.918100+5 1.218530-6 4.76731-115028 6 22
-----------------------------------------------------------------------------
 1.560000+5 9.624069-7 1.820000+5 1.223840-6 2.080000+5 1.436140-65028 6 24
 1.560000+5 9.624070-7 1.820000+5 1.223840-6 2.080000+5 1.436140-65028 6 24
-----------------------------------------------------------------------------
 0.000000+0 2.315400+5 9.632651-7 1.81886-11 0.000000+0 0.000000+05028 6 28
 0.000000+0 2.315400+5 9.632650-7 1.81886-11 0.000000+0 0.000000+05028 6 28
-----------------------------------------------------------------------------
 1.120000+5 1.638990-6 1.307000+5 9.884139-7 1.493000+5 7.349770-75028 6649
 1.120000+5 1.638990-6 1.307000+5 9.884140-7 1.493000+5 7.349770-75028 6649
-----------------------------------------------------------------------------
 50-Sn-114
*****************************************************************************
 50-Sn-115
*****************************************************************************
-8.000000+0 1.000000+0 1.488000-1 2.818000-2 1.200000-1 0.000000+05034 2151
-8.000000+0 1.000000+0 2.830000-2 2.818000-2 1.200000-1 0.000000+05034 2151
-----------------------------------------------------------------------------
 50-Sn-116
*****************************************************************************
 50-Sn-117
*****************************************************************************
 50-Sn-118
*****************************************************************************
 50-Sn-119
*****************************************************************************
 50-Sn-120
*****************************************************************************
 50-Sn-122
*****************************************************************************
 50-Sn-123
*****************************************************************************
 50-Sn-124
*****************************************************************************
 50-Sn-125
*****************************************************************************
 2.772000+4 5.790200+0 2.772210+4 5.790200+0 5.000000+4 5.710300+05064 3  2
 2.772000+4 5.700144+0 2.772210+4 5.700138+0 5.000000+4 5.634612+05064 3  2
-----------------------------------------------------------------------------
 5.779296+6 2.968810-2 7.000000+6 2.968810-2 8.000000+6 4.122850-15064 6 16
 5.779296+6 1.565300+5 7.000000+6 2.968810-2 8.000000+6 4.122850-15064 6 16
-----------------------------------------------------------------------------
 2.980000+5 9.913761-7 3.193000+5 6.513250-7 3.405000+5 2.226920-75064 6 24
 2.980000+5 9.913760-7 3.193000+5 6.513250-7 3.405000+5 2.226920-75064 6 24
-----------------------------------------------------------------------------
 50-Sn-126
```

```
********************************************************************************
 51-Sb-121
********************************************************************************
 51-Sb-123
********************************************************************************
 1.699400-3 1.174500-3 9.025000-5 1.310500-5 9.965401-7 8.173400-85131 4  2
 1.699400-3 1.174500-3 9.025000-5 1.310500-5 9.965400-7 8.173400-85131 4  2
--------------------------------------------------------------------------------
 51-Sb-124
********************************************************************************
 51-Sb-125
********************************************************************************
 51-Sb-126
********************************************************************************
 1.672470-6 5.28093-10 0.000000+0 0.000000+0 4.935400+5 9.619459-75140 6 41
 1.672470-6 5.28093-10 0.000000+0 0.000000+0 4.935400+5 9.619460-75140 6 41
--------------------------------------------------------------------------------
 52-Te-120
********************************************************************************
 52-Te-122
********************************************************************************
 52-Te-123
********************************************************************************
 52-Te-124
********************************************************************************
-3.633000+1 5.000000-1 2.743000-1 2.194000-1 5.490000-2 0.000000+05237 2151
-3.633000+1 5.000000-1 2.248900-1 2.194000-1 5.490000-2 0.000000+05237 2151
--------------------------------------------------------------------------------
 52-Te-125
********************************************************************************
 52-Te-126
********************************************************************************
-1.090000+2 5.000000-1 1.997000-1 1.437000-1 5.600000-2 0.000000+05243 2151
-1.090000+2 5.000000-1 1.997000-2 1.437000-1 5.600000-2 0.000000+05243 2151
--------------------------------------------------------------------------------
 52-Te-127m
********************************************************************************
 52-Te-128
********************************************************************************
 52-Te-129m
********************************************************************************
 52-Te-130
********************************************************************************
 52-Te-132
********************************************************************************
-4.704000+6-4.704000+6          0          0          1         235261 3103
 0.000000+0 0.000000+0          0          0          1         235261 3103
--------------------------------------------------------------------------------
 1.066000+6 1.066000+6          0          0          1         215261 3107
 0.000000+0 0.000000+0          0          0          1         215261 3107
--------------------------------------------------------------------------------
 4.008100+5 1.104580-6 2.41308-10 6.012100+5 9.541041-7 2.04105-105261 6 17
 4.008100+5 1.104580-6 2.41308-10 6.012100+5 9.541040-7 2.04105-105261 6 17
--------------------------------------------------------------------------------
 1.521500+5 9.590379-7 4.82950-10 2.282200+5 1.194870-6 6.02462-105261 6 91
 1.521500+5 9.590380-7 4.82950-10 2.282200+5 1.194870-6 6.02462-105261 6 91
--------------------------------------------------------------------------------
 2.787000+5 9.721909-7 2.927000+5 1.692580-6 3.066000+5 2.794120-65261 6849
 2.787000+5 9.721910-7 2.927000+5 1.692580-6 3.066000+5 2.794120-65261 6849
--------------------------------------------------------------------------------
 53-I -127
********************************************************************************
 1.100000+7 1.060470-3 1.150000+7 9.981469-4 1.200000+7 9.401270-45325 3 63
 1.100000+7 1.060470-3 1.150000+7 9.981470-4 1.200000+7 9.401270-45325 3 63
--------------------------------------------------------------------------------
 53-I -129
********************************************************************************
 53-I -130
********************************************************************************
 6.220000+4 9.613181-7 1.451000+5 7.852600-7 1.866000+5 7.303480-75334 6 22
 6.220000+4 9.613180-7 1.451000+5 7.852600-7 1.866000+5 7.303480-75334 6 22
--------------------------------------------------------------------------------
 6.004400+5 1.008290-6 2.53208-15 7.719900+5 9.821809-7 1.43484-145334 6 91
 6.004400+5 1.008290-6 2.53208-15 7.719900+5 9.821810-7 1.43484-145334 6 91
--------------------------------------------------------------------------------
```

```
 53-I -131
********************************************************************************
 53-I -135
********************************************************************************
 1.400000+7 6.642400-4 1.418100+7 7.731100-4 1.450000+7 9.973201-45349 3103
 1.400000+7 6.642400-4 1.418100+7 7.731100-4 1.450000+7 9.973200-45349 3103
--------------------------------------------------------------------------------
 54-Xe-123
********************************************************************************
 0.000000+0 0.000000+0          0          0          1        1165422 3  1
 0.000000+0 0.000000+0          0          0          2        1435422 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1165422 3  2
 0.000000+0 0.000000+0          0          0          2        1435422 3  2
--------------------------------------------------------------------------------
                                                                5422 3  4 Only in VII.0
-7.964868+6-7.964868+6          0          0          1         625422 3 16
-8.279800+6-8.279800+6          0          0          1         345422 3 16
--------------------------------------------------------------------------------
-1.891841+7-1.891841+7          0          0          1          75422 3 17
-1.889100+7-1.889100+7          0          0          1          55422 3 17
--------------------------------------------------------------------------------
-4.890242+5-4.890242+5          0          0          1         665422 3 22
-5.013600+5-5.013600+5          0          0          1         295422 3 22
--------------------------------------------------------------------------------
-6.457495+6-6.457495+6          0          0          1         595422 3 28
-6.474700+6-6.474700+6          0          0          1         305422 3 28
--------------------------------------------------------------------------------
                                                                5422 3 41 Only in VII.1
 0.000000+0-9.730000+4          0          0          1        1025422 3 51
 0.000000+0-9.730000+4          0          0          1         825422 3 51
--------------------------------------------------------------------------------
 0.000000+0-1.805900+5          0          0          1        1015422 3 52
 0.000000+0-1.806000+5          0          0          1         765422 3 52
--------------------------------------------------------------------------------
 0.000000+0-1.851800+5          0          0          1        1015422 3 53
 0.000000+0-1.852000+5          0          0          1         755422 3 53
--------------------------------------------------------------------------------
 0.000000+0-2.062400+5          0          0          1        1005422 3 54
 0.000000+0-2.063000+5          0          0          1         745422 3 54
--------------------------------------------------------------------------------
 0.000000+0-2.519000+5          0          0          1        1005422 3 55
 0.000000+0-2.519000+5          0          0          1         735422 3 55
--------------------------------------------------------------------------------
 0.000000+0-2.631400+5          0          0          1        1005422 3 56
 0.000000+0-2.633000+5          0          0          1         725422 3 56
--------------------------------------------------------------------------------
 0.000000+0-3.069900+5          0          0          1        1005422 3 57
 0.000000+0-3.070000+5          0          0          1         715422 3 57
--------------------------------------------------------------------------------
 0.000000+0-4.374400+5          0          0          1         995422 3 58
 0.000000+0-4.374000+5          0          0          1         695422 3 58
--------------------------------------------------------------------------------
 0.000000+0-4.424100+5          0          0          1         995422 3 59
 0.000000+0-4.424000+5          0          0          1         685422 3 59
--------------------------------------------------------------------------------
 0.000000+0-4.669800+5          0          0          1         995422 3 60
 0.000000+0-4.669000+5          0          0          1         675422 3 60
--------------------------------------------------------------------------------
 0.000000+0-5.183700+5          0          0          1         995422 3 61
 0.000000+0-5.183000+5          0          0          1         655422 3 61
--------------------------------------------------------------------------------
 0.000000+0-5.675400+5          0          0          1         995422 3 62
 0.000000+0-5.856000+5          0          0          1         645422 3 62
--------------------------------------------------------------------------------
 0.000000+0-5.856300+5          0          0          1         995422 3 63
 0.000000+0-5.967000+5          0          0          1         635422 3 63
--------------------------------------------------------------------------------
 0.000000+0-5.966500+5          0          0          1         985422 3 64
 0.000000+0-6.111000+5          0          0          1         625422 3 64
--------------------------------------------------------------------------------
 0.000000+0-6.110900+5          0          0          1         985422 3 65
 0.000000+0-6.620000+5          0          0          1         615422 3 65
--------------------------------------------------------------------------------
 0.000000+0-6.141100+5          0          0          1         985422 3 66
```

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 0.000000+0-6.938000+5          0          0          1         605422 3 66
-------------------------------------------------------------------------------
 0.000000+0-6.620300+5          0          0          1          985422 3 67
 0.000000+0-7.191000+5          0          0          1          595422 3 67
-------------------------------------------------------------------------------
                                                                  5422 3 68 Only in VII.1
                                                                  5422 3 69 Only in VII.1
                                                                  5422 3 70 Only in VII.1
 0.000000+0-9.918602+4          0          0          1        1015422 3 91
 0.000000+0-7.191000+5          0          0          1         595422 3 91
-------------------------------------------------------------------------------
 1.048287+7 1.048287+7          0          0          1        1165422 3102
 1.047200+7 1.047200+7          0          0          2        1435422 3102
-------------------------------------------------------------------------------
 3.477108+6 3.477108+6          0          0          1        1165422 3103
 3.461200+6 3.461200+6          0          0          2        1425422 3103
-------------------------------------------------------------------------------
                                                                  5422 3104 Only in VII.0
                                                                  5422 3105 Only in VII.0
                                                                  5422 3106 Only in VII.0
 9.802437+6 9.802437+6          0          0          1        1165422 3107
 9.773700+6 9.773700+6          0          0          2        1425422 3107
-------------------------------------------------------------------------------
-1.441148+6-1.441148+6          0          0          1         715422 3111
-1.457900+6-1.457900+6          0          0          1         305422 3111
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4  2
 0.000000+0 1.218500+2          0          2          0          05422 4  2
-------------------------------------------------------------------------------
                                                                  5422 4 16 Only in VII.0
                                                                  5422 4 17 Only in VII.0
                                                                  5422 4 22 Only in VII.0
                                                                  5422 4 28 Only in VII.0
 0.000000+0 1.218526+2          0          2          0          05422 4 51
 0.000000+0 1.218500+2          0          2          0          05422 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 52
 0.000000+0 1.218500+2          0          2          0          05422 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 53
 0.000000+0 1.218500+2          0          2          0          05422 4 53
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 54
 0.000000+0 1.218500+2          0          2          0          05422 4 54
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 55
 0.000000+0 1.218500+2          0          2          0          05422 4 55
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 56
 0.000000+0 1.218500+2          0          2          0          05422 4 56
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 57
 0.000000+0 1.218500+2          0          2          0          05422 4 57
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 58
 0.000000+0 1.218500+2          0          2          0          05422 4 58
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 59
 0.000000+0 1.218500+2          0          2          0          05422 4 59
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 60
 0.000000+0 1.218500+2          0          2          0          05422 4 60
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 61
 0.000000+0 1.218500+2          0          2          0          05422 4 61
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 62
 0.000000+0 1.218500+2          0          2          0          05422 4 62
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 63
 0.000000+0 1.218500+2          0          2          0          05422 4 63
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 64
 0.000000+0 1.218500+2          0          2          0          05422 4 64
-------------------------------------------------------------------------------
```

```
 0.000000+0 1.218526+2          0          2          0          05422 4 65
 0.000000+0 1.218500+2          0          2          0          05422 4 65
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 66
 0.000000+0 1.218500+2          0          2          0          05422 4 66
-------------------------------------------------------------------------------
 0.000000+0 1.218526+2          0          2          0          05422 4 67
 0.000000+0 1.218500+2          0          2          0          05422 4 67
-------------------------------------------------------------------------------
                                                                  5422 4 68 Only in VII.1
                                                                  5422 4 69 Only in VII.1
                                                                  5422 4 70 Only in VII.1
                                                                  5422 4 91 Only in VII.0
                                                                  5422 5 16 Only in VII.0
                                                                  5422 5 17 Only in VII.0
                                                                  5422 5 22 Only in VII.0
                                                                  5422 5 28 Only in VII.0
                                                                  5422 5 91 Only in VII.0
                                                                  5422 6 16 Only in VII.1
                                                                  5422 6 17 Only in VII.1
                                                                  5422 6 22 Only in VII.1
                                                                  5422 6 28 Only in VII.1
                                                                  5422 6 41 Only in VII.1
                                                                  5422 6 91 Only in VII.1
                                                                  5422 6103 Only in VII.1
                                                                  5422 6107 Only in VII.1
                                                                  5422 6111 Only in VII.1
 54-Xe-124
*******************************************************************************
 0.000000+0 0.000000+0          0          0          1        1035425 3  1
 0.000000+0 0.000000+0          0          0          1         845425 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1035425 3  2
 0.000000+0 0.000000+0          0          0          1         845425 3  2
-------------------------------------------------------------------------------
                                                                   5425 3  4 Only in VII.0
-1.048287+7-1.048287+7          0          0          1         495425 3 16
-1.047200+7-1.047200+7          0          0          1         325425 3 16
-------------------------------------------------------------------------------
-1.844774+7-1.844774+7          0          0          1          95425 3 17
-1.875100+7-1.875100+7          0          0          1          65425 3 17
-------------------------------------------------------------------------------
-6.804314+5-6.804314+5          0          0          1         655425 3 22
-6.979000+5-6.979000+5          0          0          1         385425 3 22
-------------------------------------------------------------------------------
-7.005761+6-7.005761+6          0          0          1         575425 3 28
-7.010300+6-7.010300+6          0          0          1         365425 3 28
-------------------------------------------------------------------------------
 0.000000+0-3.541400+5          0          0          1        1005425 3 51
 0.000000+0-3.541000+5          0          0          1         775425 3 51
-------------------------------------------------------------------------------
 0.000000+0-8.466100+5          0          0          1         975425 3 52
 0.000000+0-8.466000+5          0          0          1         705425 3 52
-------------------------------------------------------------------------------
 0.000000+0-8.790300+5          0          0          1         975425 3 53
 0.000000+0-8.790000+5          0          0          1         685425 3 53
-------------------------------------------------------------------------------
 0.000000+0-1.248040+6          0          0          1         955425 3 54
 0.000000+0-1.248000+6          0          0          1         665425 3 54
-------------------------------------------------------------------------------
 0.000000+0-1.268950+6          0          0          1         955425 3 55
 0.000000+0-1.268900+6          0          0          1         655425 3 55
-------------------------------------------------------------------------------
 0.000000+0-1.438050+6          0          0          1         945425 3 56
 0.000000+0-1.438100+6          0          0          1         645425 3 56
-------------------------------------------------------------------------------
 0.000000+0-1.548780+6          0          0          1         945425 3 57
 0.000000+0-1.548800+6          0          0          1         635425 3 57
-------------------------------------------------------------------------------
 0.000000+0-1.628690+6          0          0          1         935425 3 58
 0.000000+0-1.628700+6          0          0          1         625425 3 58
-------------------------------------------------------------------------------
 0.000000+0-1.690020+6          0          0          1         935425 3 59
 0.000000+0-1.690000+6          0          0          1         615425 3 59
-------------------------------------------------------------------------------
```

```
 0.000000+0-1.837330+6          0          0          1         925425 3 60
 0.000000+0-1.837300+6          0          0          1         605425 3 60
--------------------------------------------------------------------------------
 0.000000+0-1.978590+6          0          0          1         925425 3 61
 0.000000+0-1.978600+6          0          0          1         595425 3 61
--------------------------------------------------------------------------------
 0.000000+0-2.144170+6          0          0          1         915425 3 62
 0.000000+0-2.144200+6          0          0          1         585425 3 62
--------------------------------------------------------------------------------
 0.000000+0-2.205470+6          0          0          1         905425 3 63
 0.000000+0-2.205500+6          0          0          1         575425 3 63
--------------------------------------------------------------------------------
                                                                 5425 3 64 Only in VII.1
                                                                 5425 3 65 Only in VII.1
                                                                 5425 3 66 Only in VII.1
                                                                 5425 3 67 Only in VII.1
                                                                 5425 3 68 Only in VII.1
                                                                 5425 3 69 Only in VII.1
                                                                 5425 3 70 Only in VII.1
 0.000000+0-3.967701+5          0          0          1         995425 3 91
 0.000000+0-2.205500+6          0          0          1         575425 3 91
--------------------------------------------------------------------------------
 7.603278+6 7.603278+6          0          0          1        1035425 3102
 7.603600+6 7.603600+6          0          0          1         845425 3102
--------------------------------------------------------------------------------
 4.872037+5 4.872037+5          0          0          1        1165425 3103
 6.285160+5 6.285160+5          0          0          1         625425 3103
--------------------------------------------------------------------------------
                                                                 5425 3104 Only in VII.0
                                                                 5425 3105 Only in VII.0
                                                                 5425 3106 Only in VII.0
 6.537449+6 6.537449+6          0          0          1        1165425 3107
 6.538700+6 6.538700+6          0          0          1         665425 3107
--------------------------------------------------------------------------------
                                                                 5425 3111 Only in VII.0
 0.000000+0 1.228415+2          0          2          0          05425 4  2
 0.000000+0 1.228400+2          0          2          0          05425 4  2
--------------------------------------------------------------------------------
                                                                 5425 4 16 Only in VII.0
                                                                 5425 4 17 Only in VII.0
                                                                 5425 4 22 Only in VII.0
                                                                 5425 4 28 Only in VII.0
 0.000000+0 1.228415+2          0          2          0          05425 4 51
 0.000000+0 1.228400+2          0          2          0          05425 4 51
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 52
 0.000000+0 1.228400+2          0          2          0          05425 4 52
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 53
 0.000000+0 1.228400+2          0          2          0          05425 4 53
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 54
 0.000000+0 1.228400+2          0          2          0          05425 4 54
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 55
 0.000000+0 1.228400+2          0          2          0          05425 4 55
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 56
 0.000000+0 1.228400+2          0          2          0          05425 4 56
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 57
 0.000000+0 1.228400+2          0          2          0          05425 4 57
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 58
 0.000000+0 1.228400+2          0          2          0          05425 4 58
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 59
 0.000000+0 1.228400+2          0          2          0          05425 4 59
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 60
 0.000000+0 1.228400+2          0          2          0          05425 4 60
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 61
 0.000000+0 1.228400+2          0          2          0          05425 4 61
--------------------------------------------------------------------------------
```

```
 0.000000+0 1.228415+2          0          2          0          05425 4 62
 0.000000+0 1.228400+2          0          2          0          05425 4 62
--------------------------------------------------------------------------------
 0.000000+0 1.228415+2          0          2          0          05425 4 63
 0.000000+0 1.228400+2          0          2          0          05425 4 63
--------------------------------------------------------------------------------
                                                                  5425 4 64 Only in VII.1
                                                                  5425 4 65 Only in VII.1
                                                                  5425 4 66 Only in VII.1
                                                                  5425 4 67 Only in VII.1
                                                                  5425 4 68 Only in VII.1
                                                                  5425 4 69 Only in VII.1
                                                                  5425 4 70 Only in VII.1
                                                                  5425 4 91 Only in VII.0
                                                                  5425 5 16 Only in VII.0
                                                                  5425 5 17 Only in VII.0
                                                                  5425 5 22 Only in VII.0
                                                                  5425 5 28 Only in VII.0
                                                                  5425 5 91 Only in VII.0
                                                                  5425 6 16 Only in VII.1
                                                                  5425 6 17 Only in VII.1
                                                                  5425 6 22 Only in VII.1
                                                                  5425 6 28 Only in VII.1
                                                                  5425 6 91 Only in VII.1
                                                                  5425 6103 Only in VII.1
                                                                  5425 6107 Only in VII.1
 54-Xe-126
********************************************************************************
 9.797740-4 9.794621-4 3.059650-5 3.432840-6 1.104380-7 1.640590-95431 4  2
 9.797740-4 9.794620-4 3.059650-5 3.432840-6 1.104380-7 1.640590-95431 4  2
--------------------------------------------------------------------------------
 54-Xe-128
********************************************************************************
 54-Xe-129
********************************************************************************
 54-Xe-130
********************************************************************************
-9.645501-7-1.118900-6                                             5443 4  2
-9.645500-7-1.118900-6                                             5443 4  2
--------------------------------------------------------------------------------
 54-Xe-131
********************************************************************************
 4.578500+5 9.976030-7 8.76563-10 6.867700+5 9.921361-7 9.12219-105446 6 24
 4.578500+5 9.976030-7 8.76563-10 6.867700+5 9.921360-7 9.12219-105446 6 24
--------------------------------------------------------------------------------
 54-Xe-132
********************************************************************************
 54-Xe-133
********************************************************************************
 54-Xe-134
********************************************************************************
 1.075000+7 9.935501-4 1.100000+7 9.273100-4 1.150000+7 8.144600-45455 3 61
 1.075000+7 9.935500-4 1.100000+7 9.273100-4 1.150000+7 8.144600-45455 3 61
--------------------------------------------------------------------------------
 54-Xe-135
********************************************************************************
 54-Xe-136
********************************************************************************
 55-Cs-133
********************************************************************************
 1.000000-5 4.000000+3          1          2          0          05525 2151
 1.000000-5 3.989300+3          1          2          0          05525 2151
--------------------------------------------------------------------------------
 55-Cs-134
********************************************************************************
 55-Cs-135
********************************************************************************
 55-Cs-136
********************************************************************************
 55-Cs-137
********************************************************************************
 56-Ba-130
********************************************************************************
 56-Ba-132
********************************************************************************
```

```
 56-Ba-133
********************************************************************************
-9.831761-4 0.000000+0                                                  5634 4 51
-9.831760-4 0.000000+0                                                  5634 4 51
--------------------------------------------------------------------------------
 5.444400+5 9.815529-7 2.03305-10 8.166700+5 4.819580-7 1.29712-105634 6 41
 5.444400+5 9.815530-7 2.03305-10 8.166700+5 4.819580-7 1.29712-105634 6 41
--------------------------------------------------------------------------------
 4.971800+5 9.789539-7 5.800500+5 1.498750-6 6.629100+5 2.041350-65634 6 91
 4.971800+5 9.789540-7 5.800500+5 1.498750-6 6.629100+5 2.041350-65634 6 91
--------------------------------------------------------------------------------
 56-Ba-134
********************************************************************************
 56-Ba-135
********************************************************************************
 56-Ba-136
********************************************************************************
 56-Ba-137
********************************************************************************
 8.485280+6 1.024070-3 9.000000+6 1.030470-3 1.000000+7 9.989931-45646 3102
 8.485280+6 1.024070-3 9.000000+6 1.030470-3 1.000000+7 9.989930-45646 3102
--------------------------------------------------------------------------------
 56-Ba-138
********************************************************************************
 56-Ba-140
********************************************************************************
 57-La-138
********************************************************************************
 57-La-139
********************************************************************************
 1.450000+7 9.960500-4 1.475000+7 9.932599-4 1.500000+7 9.904701-45728 3102
 1.450000+7 9.960500-4 1.475000+7 9.932600-4 1.500000+7 9.904700-45728 3102
--------------------------------------------------------------------------------
 6.503900-4 9.969299-4 6.318900-5 9.014300-6 7.826100-7 7.331300-85728 4  2
 6.503900-4 9.969300-4 6.318900-5 9.014300-6 7.826100-7 7.331300-85728 4  2
--------------------------------------------------------------------------------
 57-La-140
********************************************************************************
 0.000000+0 8.793070-6 1.257400+5 2.251900-6 2.514900+5 9.708471-75731 6 22
 0.000000+0 8.793070-6 1.257400+5 2.251900-6 2.514900+5 9.708470-75731 6 22
--------------------------------------------------------------------------------
 58-Ce-136
********************************************************************************
 1.381000+5 9.997379-7 1.496000+5 1.390230-6 1.611000+5 1.506460-65825 6 22
 1.381000+5 9.997380-7 1.496000+5 1.390230-6 1.611000+5 1.506460-65825 6 22
--------------------------------------------------------------------------------
 58-Ce-138
********************************************************************************
-1.950180-6 9.758051-7 4.866210-6 6.953170-6 1.012650-5 1.208540-55831 4 51
-1.950180-6 9.758050-7 4.866210-6 6.953170-6 1.012650-5 1.208540-55831 4 51
--------------------------------------------------------------------------------
 4.630460+6 9.749619-7 2.045380-9 4.815680+6 9.996750-7 2.801350-95831 6 28
 4.630460+6 9.749620-7 2.045380-9 4.815680+6 9.996750-7 2.801350-95831 6 28
--------------------------------------------------------------------------------
 6.381600+5 1.198730-6 7.445200+5 9.779779-7 8.508800+5 7.797550-75831 6649
 6.381600+5 1.198730-6 7.445200+5 9.779780-7 8.508800+5 7.797550-75831 6649
--------------------------------------------------------------------------------
 58-Ce-139
********************************************************************************
 6.262330-3 1.963680-3 5.131870-3 2.447670-3 9.897019-4 4.556340-45834 4 55
 6.262330-3 1.963680-3 5.131870-3 2.447670-3 9.897020-4 4.556340-45834 4 55
--------------------------------------------------------------------------------
 6.263150-3 1.963700-3 5.132310-3 2.448080-3 9.896239-4 4.555990-45834 4 56
 6.263150-3 1.963700-3 5.132310-3 2.448080-3 9.896240-4 4.555990-45834 4 56
--------------------------------------------------------------------------------
 7.397900+5 1.960720-7 9.863800+5 9.698661-7 1.232980+6 7.660690-75834 6 16
 7.397900+5 1.960720-7 9.863800+5 9.698660-7 1.232980+6 7.660690-75834 6 16
--------------------------------------------------------------------------------
 1.097000+5 2.235010-6 1.280000+5 9.777521-7 1.462000+5 7.189340-75834 6 28
 1.097000+5 2.235010-6 1.280000+5 9.777520-7 1.462000+5 7.189340-75834 6 28
--------------------------------------------------------------------------------
 0.000000+0 9.724901-7-6.29609-15 7.716000+4 2.552690-6 3.48698-145834 6 91
 0.000000+0 9.724900-7-6.29609-15 7.716000+4 2.552690-6 3.48698-145834 6 91
--------------------------------------------------------------------------------
 2.571000+5 9.632751-7 2.769000+5 7.239150-7 2.966000+5 5.127830-75834 6649
```

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 2.571000+5 9.632750-7 2.769000+5 7.239150-7 2.966000+5 5.127830-75834 6649
--------------------------------------------------------------------------------
 58-Ce-140
********************************************************************************
 0.000000+0-3.467580-4 0.000000+0-2.728410-4 0.000000+0-9.874479-75837 4 54
 0.000000+0-3.467580-4 0.000000+0-2.728410-4 0.000000+0-9.874480-75837 4 54
--------------------------------------------------------------------------------
 0.000000+0-2.620740-3 0.000000+0-2.434110-3 0.000000+0-9.838321-45837 4 64
 0.000000+0-2.620740-3 0.000000+0-2.434110-3 0.000000+0-9.838320-45837 4 64
--------------------------------------------------------------------------------
 58-Ce-141
********************************************************************************
 3.350000+2 3.000000+0 1.082857+0 9.828570-1 1.000000-1 0.000000+05840 2151
 3.350000+2 3.000000+0 1.082857-1 9.828570-1 1.000000-1 0.000000+05840 2151
--------------------------------------------------------------------------------
 58-Ce-142
********************************************************************************
 58-Ce-143
********************************************************************************
 1.116000+5 9.947699-7 1.302000+5 4.184300-7 1.488000+5 1.838510-75846 6 17
 1.116000+5 9.947700-7 1.302000+5 4.184300-7 1.488000+5 1.838510-75846 6 17
--------------------------------------------------------------------------------
 3.706700+5 9.943529-7-6.41340-15 4.324500+5 7.258800-7 6.80303-165846 6 91
 3.706700+5 9.943530-7-6.41340-15 4.324500+5 7.258800-7 6.80303-165846 6 91
--------------------------------------------------------------------------------
 58-Ce-144
********************************************************************************
 59-Pr-141
********************************************************************************
 59-Pr-142
********************************************************************************
 59-Pr-143
********************************************************************************
 60-Nd-142
********************************************************************************
 2.524000+5 1.119510-6 2.692000+5 9.952799-7 2.861000+5 8.584830-76025 6 28
 2.524000+5 1.119510-6 2.692000+5 9.952800-7 2.861000+5 8.584830-76025 6 28
--------------------------------------------------------------------------------
 5.420500+5 9.837599-7 1.47261-14 6.022800+5 9.721490-7 1.09859-156025 6 91
 5.420500+5 9.837600-7 1.47261-14 6.022800+5 9.721490-7 1.09859-156025 6 91
--------------------------------------------------------------------------------
 60-Nd-143
********************************************************************************
 4.025000+5 1.764290-6 4.217000+5 1.285330-6 4.409000+5 9.555461-76028 6 24
 4.025000+5 1.764290-6 4.217000+5 1.285330-6 4.409000+5 9.555460-76028 6 24
--------------------------------------------------------------------------------
 4.955900+5 9.764721-7-7.28759-15 5.575400+5 7.706030-7-1.47853-146028 6 91
 4.955900+5 9.764720-7-7.28759-15 5.575400+5 7.706030-7-1.47853-146028 6 91
--------------------------------------------------------------------------------
 60-Nd-144
********************************************************************************
 9.830000+4 1.169130-6 1.147000+5 9.809841-7 1.311000+5 9.029900-76031 6 16
 9.830000+4 1.169130-6 1.147000+5 9.809840-7 1.311000+5 9.029900-76031 6 16
--------------------------------------------------------------------------------
 5.341900+5 1.096380-6 5.90557-15 5.935400+5 9.928279-7-2.91084-156031 6 91
 5.341900+5 1.096380-6 5.90557-15 5.935400+5 9.928280-7-2.91084-156031 6 91
--------------------------------------------------------------------------------
 60-Nd-145
********************************************************************************
 1.000000-5 3.180000+3          1          2          0          06034 2151
 1.000000-5 3.978500+3          1          2          0          06034 2151
--------------------------------------------------------------------------------
 8.670000+4 1.255370-6 1.011000+5 9.997181-7 1.156000+5 9.244610-76034 6 28
 8.670000+4 1.255370-6 1.011000+5 9.997180-7 1.156000+5 9.244610-76034 6 28
--------------------------------------------------------------------------------
 60-Nd-146
********************************************************************************
 5.164600+6 9.600529-7 1.192980-7 1.426010-8 5.304190+6 5.431390-76037 6649
 5.164600+6 9.600530-7 1.192980-7 1.426010-8 5.304190+6 5.431390-76037 6649
--------------------------------------------------------------------------------
 60-Nd-147
********************************************************************************
 1.590000+5 6.903340-7 1.767000+5 9.769331-7 1.943000+5 1.334220-66040 6 24
 1.590000+5 6.903340-7 1.767000+5 9.769330-7 1.943000+5 1.334220-66040 6 24
--------------------------------------------------------------------------------
```

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 1.934300+5 9.956231-7 2.579000+5 4.762690-7 3.223800+5 9.574110-76040 6 91
 1.934300+5 9.956230-7 2.579000+5 4.762690-7 3.223800+5 9.574110-76040 6 91
--------------------------------------------------------------------------
 60-Nd-148
**************************************************************************
 0.000000+0 0.000000+0 2.436600+5 9.670611-7 1.69996-15 0.000000+06043 6 28
 0.000000+0 0.000000+0 2.436600+5 9.670610-7 1.69996-15 0.000000+06043 6 28
--------------------------------------------------------------------------
 60-Nd-150
**************************************************************************
 3.760000+4 2.151810-6 4.180000+4 9.814599-7 4.590000+4 6.656880-86049 6 91
 3.760000+4 2.151810-6 4.180000+4 9.814600-7 4.590000+4 6.656880-86049 6 91
--------------------------------------------------------------------------
 61-Pm-147
**************************************************************************
 1.400000+7 9.981249-4 1.401780+7 1.013990-3 1.450000+7 1.534330-36149 3104
 1.400000+7 9.981250-4 1.401780+7 1.013990-3 1.450000+7 1.534330-36149 3104
--------------------------------------------------------------------------
 0.000000+0 0.000000+0 1.250000+5 6.941960-7 2.500000+5 9.796699-76149 5 17
 0.000000+0 0.000000+0 1.250000+5 6.941960-7 2.500000+5 9.796700-76149 5 17
--------------------------------------------------------------------------
 0.000000+0 0.000000+0 1.250000+5 1.109710-6 2.500000+5 9.825191-76149 5 28
 0.000000+0 0.000000+0 1.250000+5 1.109710-6 2.500000+5 9.825190-76149 5 28
--------------------------------------------------------------------------
 61-Pm-148
**************************************************************************
 2.614140-1 1.039110-1-2.615020-3 1.228630-3 2.107490-7 9.610141-76152 4  2
 2.614140-1 1.039110-1-2.615020-3 1.228630-3 2.107490-7 9.610140-76152 4  2
--------------------------------------------------------------------------
 61-Pm-148m
**************************************************************************
 61-Pm-149
**************************************************************************
 3.750000+5 1.226010-6 5.000000+5 9.639421-7 6.250000+5 6.479650-76155 5 22
 3.750000+5 1.226010-6 5.000000+5 9.639420-7 6.250000+5 6.479650-76155 5 22
--------------------------------------------------------------------------
 61-Pm-151
**************************************************************************
 9.760000+4 8.708460-8 1.058000+5 7.305680-7 1.139000+5 9.586749-76161 6 22
 9.760000+4 8.708460-8 1.058000+5 7.305680-7 1.139000+5 9.586750-76161 6 22
--------------------------------------------------------------------------
 3.121300+5 1.785190-6 1.066960-9 4.682000+5 9.803711-7 5.53040-106161 6 28
 3.121300+5 1.785190-6 1.066960-9 4.682000+5 9.803710-7 5.53040-106161 6 28
--------------------------------------------------------------------------
 62-Sm-144
**************************************************************************
 9.326400+5 1.019010-6 1.98448-14 1.017420+6 9.668159-7 2.62158-146225 6 91
 9.326400+5 1.019010-6 1.98448-14 1.017420+6 9.668160-7 2.62158-146225 6 91
--------------------------------------------------------------------------
 62-Sm-147
**************************************************************************
 2.890000+4 2.436680-6 3.850000+4 9.675711-7 4.810000+4 6.937650-76234 6 91
 2.890000+4 2.436680-6 3.850000+4 9.675710-7 4.810000+4 6.937650-76234 6 91
--------------------------------------------------------------------------
 62-Sm-148
**************************************************************************
-4.355610-4 1.254870-3 1.365730-3-9.981419-4                     6237 4 58
-4.355610-4 1.254870-3 1.365730-3-9.981420-4                     6237 4 58
--------------------------------------------------------------------------
 8.420000+4 9.921411-7 1.123000+5 2.335650-7 1.404000+5 1.816470-76237 6 16
 8.420000+4 9.921410-7 1.123000+5 2.335650-7 1.404000+5 1.816470-76237 6 16
--------------------------------------------------------------------------
 2.783000+5 5.799850-6 3.092000+5 1.121050-6 3.401000+5 9.865259-76237 6 24
 2.783000+5 5.799850-6 3.092000+5 1.121050-6 3.401000+5 9.865260-76237 6 24
--------------------------------------------------------------------------
 2.399000+5 9.893701-7 2.665000+5 7.521800-7 2.932000+5 5.615800-76237 6 91
 2.399000+5 9.893700-7 2.665000+5 7.521800-7 2.932000+5 5.615800-76237 6 91
--------------------------------------------------------------------------
 62-Sm-149
**************************************************************************
 0.000000+0 0.000000+0 0.000000+0 0.000000+0 4.489000+5 9.801551-76240 6 28
 0.000000+0 0.000000+0 0.000000+0 0.000000+0 4.489000+5 9.801550-76240 6 28
--------------------------------------------------------------------------
 5.340000+4 1.096830-5 7.120000+4 3.664950-6 8.900000+4 9.671641-76240 6 41
 5.340000+4 1.096830-5 7.120000+4 3.664950-6 8.900000+4 9.671640-76240 6 41
```

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--------------------------------------------------------------------------------
 1.716000+5 1.810990-6 1.859000+5 1.543600-6 2.145000+5 9.899341-76240 6 91
 1.716000+5 1.810990-6 1.859000+5 1.543600-6 2.145000+5 9.899340-76240 6 91
--------------------------------------------------------------------------------
 0.000000+0 5.29382-10 2.159500+5 7.557770-7 4.319000+5 9.618579-76240 6649
 0.000000+0 5.29382-10 2.159500+5 7.557770-7 4.319000+5 9.618580-76240 6649
--------------------------------------------------------------------------------
 62-Sm-150
********************************************************************************
 1.095000+5 9.737749-7 1.217000+5 9.680350-7 1.338000+5 9.527930-76243 6 24
 1.095000+5 9.737750-7 1.217000+5 9.680350-7 1.338000+5 9.527930-76243 6 24
--------------------------------------------------------------------------------
 62-Sm-151
********************************************************************************
 62-Sm-152
********************************************************************************
 62-Sm-153
********************************************************************************
 1.752000+5 1.950450-6 1.898000+5 1.437260-6 2.044000+5 9.934211-76252 6649
 1.752000+5 1.950450-6 1.898000+5 1.437260-6 2.044000+5 9.934210-76252 6649
--------------------------------------------------------------------------------
 62-Sm-154
********************************************************************************
 3.917340-2-1.222060-5 6.054040-3-9.783501-4-1.690800-3 0.000000+06255 4 51
 3.917340-2-1.222060-5 6.054040-3-9.783500-4-1.690800-3 0.000000+06255 4 51
--------------------------------------------------------------------------------
 4.903300+5 9.790421-7-2.03340-14 0.000000+0 0.000000+0 0.000000+06255 6 28
 4.903300+5 9.790420-7-2.03340-14 0.000000+0 0.000000+0 0.000000+06255 6 28
--------------------------------------------------------------------------------
 63-Eu-151
********************************************************************************
 63-Eu-152
********************************************************************************
 3.000000+4 4.485900+0 0.000000+0 9.868901-4 1.600000-1 0.000000+06328 2151
 3.000000+4 4.485900+0 0.000000+0 9.868900-4 1.600000-1 0.000000+06328 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0 1.250000+5 8.612070-7 2.500000+5 9.608571-76328 5 22
 0.000000+0 0.000000+0 1.250000+5 8.612070-7 2.500000+5 9.608570-76328 5 22
--------------------------------------------------------------------------------
 63-Eu-153
********************************************************************************
 1.000000-5 9.800000+1          1          2          0          06331 2151
 1.000000-5 9.780000+1          1          2          0          06331 2151
--------------------------------------------------------------------------------
 63-Eu-154
********************************************************************************
 63-Eu-155
********************************************************************************
 63-Eu-156
********************************************************************************
 63-Eu-157
********************************************************************************
 0.000000+0 3.928740-7 1.88371-15 1.979100+5 9.999439-7 7.67853-116343 6 17
 0.000000+0 3.928740-7 1.88371-15 1.979100+5 9.999440-7 7.67853-116343 6 17
--------------------------------------------------------------------------------
 9.616861-7 1.12027-12 0.000000+0 0.000000+0 0.000000+0 0.000000+06343 6 22
 9.616860-7 1.12027-12 0.000000+0 0.000000+0 0.000000+0 0.000000+06343 6 22
--------------------------------------------------------------------------------
 3.388400+5 9.788751-7 4.93520-15 4.235500+5 1.030820-6 2.59098-146343 6 91
 3.388400+5 9.788750-7 4.93520-15 4.235500+5 1.030820-6 2.59098-146343 6 91
--------------------------------------------------------------------------------
 64-Gd-152
********************************************************************************
-7.876750-3-9.995539-4 1.040880-2 2.924590-3 7.830270-3 3.961980-36425 4 54
-7.876750-3-9.995540-4 1.040880-2 2.924590-3 7.830270-3 3.961980-36425 4 54
--------------------------------------------------------------------------------
 64-Gd-153
********************************************************************************
 4.873700+5 9.887279-7 9.00119-10 7.310500+5 3.597220-7 3.75925-106428 6 24
 4.873700+5 9.887280-7 9.00119-10 7.310500+5 3.597220-7 3.75925-106428 6 24
--------------------------------------------------------------------------------
 2.811750+6 9.716611-7 5.69256-14 3.124170+6 1.488850-6-1.75920-146428 6 41
 2.811750+6 9.716610-7 5.69256-14 3.124170+6 1.488850-6-1.75920-146428 6 41
--------------------------------------------------------------------------------
 64-Gd-154
```

```
********************************************************************************
 2.208000+5 9.884239-7 2.392000+5 5.819140-7 2.576000+5 2.719030-76431 6649
 2.208000+5 9.884240-7 2.392000+5 5.819140-7 2.576000+5 2.719030-76431 6649
--------------------------------------------------------------------------------
 64-Gd-155
********************************************************************************
 7.800000+6 9.573019-7 8.000000+6 7.043740-7 8.500000+6 3.348030-76434 3 65
 7.800000+6 9.573020-7 8.000000+6 7.043740-7 8.500000+6 3.348030-76434 3 65
--------------------------------------------------------------------------------
 0.000000+0 1.781480-7 2.81344-16 3.128500+5 9.964861-7 2.01016-106434 6 17
 0.000000+0 1.781480-7 2.81344-16 3.128500+5 9.964860-7 2.01016-106434 6 17
--------------------------------------------------------------------------------
 3.010000+4 2.194460-6 4.010000+4 1.167070-6 5.010000+4 9.776099-76434 6 91
 3.010000+4 2.194460-6 4.010000+4 1.167070-6 5.010000+4 9.776100-76434 6 91
--------------------------------------------------------------------------------
 64-Gd-156
********************************************************************************
 2.797430-1 6.646970-2 2.183240-2-2.341120-2-9.774721-4-2.186820-26437 4 52
 2.797430-1 6.646970-2 2.183240-2-2.341120-2-9.774720-4-2.186820-26437 4 52
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0 2.886200+5 9.770509-7 2.72855-11 0.000000+06437 6 22
 0.000000+0 0.000000+0 2.886200+5 9.770510-7 2.72855-11 0.000000+06437 6 22
--------------------------------------------------------------------------------
 6.299500+5 1.010650-6-1.20581-14 7.349400+5 9.655849-7-9.68713-156437 6 91
 6.299500+5 1.010650-6-1.20581-14 7.349400+5 9.655850-7-9.68713-156437 6 91
--------------------------------------------------------------------------------
 64-Gd-157
********************************************************************************
 3.140000-2 2.000000+0 4.374700-4 1.060000-1 0.000000+0 0.000000+06440 2151
 3.140000-2 2.000000+0 4.704000-4 1.060000-1 0.000000+0 0.000000+06440 2151
--------------------------------------------------------------------------------
 1.000000+1-1.207630-8 1.258925+1-2.217340-8 1.584893+1-9.657271-76440 3  2
 1.000000+1-1.207630-8 1.258925+1-2.217340-8 1.584893+1-9.657270-76440 3  2
--------------------------------------------------------------------------------
 1.000000+1 1.207630-8 1.258925+1 2.217340-8 1.584893+1 9.657271-76440 3107
 1.000000+1 1.207630-8 1.258925+1 2.217340-8 1.584893+1 9.657270-76440 3107
--------------------------------------------------------------------------------
 2.634620-3 9.927161-4                                                 6440 4 51
 2.634620-3 9.927160-4                                                 6440 4 51
--------------------------------------------------------------------------------
 2.481000+5 9.532600-7 2.605000+5 9.563699-7 2.729000+5 9.018220-76440 6 22
 2.481000+5 9.532600-7 2.605000+5 9.563700-7 2.729000+5 9.018220-76440 6 22
--------------------------------------------------------------------------------
 2.089700+5 8.995850-7 2.52282-14 3.134600+5 9.966679-7 7.84240-156440 6 91
 2.089700+5 8.995850-7 2.52282-14 3.134600+5 9.966680-7 7.84240-156440 6 91
--------------------------------------------------------------------------------
 64-Gd-158
********************************************************************************
 0.000000+0 1.375310-7-6.82073-16 2.919600+5 9.871781-7 2.53966-116443 6 24
 0.000000+0 1.375310-7-6.82073-16 2.919600+5 9.871780-7 2.53966-116443 6 24
--------------------------------------------------------------------------------
 4.148340+6 9.867661-7 4.056630-9 4.307890+6 1.114760-6 5.234410-96443 6649
 4.148340+6 9.867660-7 4.056630-9 4.307890+6 1.114760-6 5.234410-96443 6649
--------------------------------------------------------------------------------
 64-Gd-160
********************************************************************************
 2.501840+6 1.014900-6-1.15336-14 2.814570+6 9.656829-7 1.24388-146449 6 41
 2.501840+6 1.014900-6-1.15336-14 2.814570+6 9.656830-7 1.24388-146449 6 41
--------------------------------------------------------------------------------
 0.000000+0 9.829261-7-5.00844-15 7.852000+4 3.309290-6 6.88051-146449 6 91
 0.000000+0 9.829260-7-5.00844-15 7.852000+4 3.309290-6 6.88051-146449 6 91
--------------------------------------------------------------------------------
 65-Tb-159
********************************************************************************
 65-Tb-160
********************************************************************************
 1.111000+5 9.710041-7 1.204000+5 1.115700-6 1.481000+5 1.119500-66528 6 22
 1.111000+5 9.710040-7 1.204000+5 1.115700-6 1.481000+5 1.119500-66528 6 22
--------------------------------------------------------------------------------
 66-Dy-156
********************************************************************************
 4.466700+5 9.593369-7 9.06644-12 0.000000+0 0.000000+0 0.000000+06625 6 28
 4.466700+5 9.593370-7 9.06644-12 0.000000+0 0.000000+0 0.000000+06625 6 28
--------------------------------------------------------------------------------
 66-Dy-158
```

```
********************************************************************************
 9.887361-4 0.000000+0                                                  6631 4 58
 9.887360-4 0.000000+0                                                  6631 4 58
--------------------------------------------------------------------------------
 66-Dy-160
********************************************************************************
 5.554200+5 1.004710-6 2.39768-15 6.479900+5 9.620099-7-2.03041-146637 6 91
 5.554200+5 1.004710-6 2.39768-15 6.479900+5 9.620100-7-2.03041-146637 6 91
--------------------------------------------------------------------------------
 66-Dy-161
********************************************************************************
 66-Dy-162
********************************************************************************
 3.883300+5 9.572771-7-1.67215-14 4.530600+5 6.368730-7 1.70717-146643 6 91
 3.883300+5 9.572770-7-1.67215-14 4.530600+5 6.368730-7 1.70717-146643 6 91
--------------------------------------------------------------------------------
 0.000000+0 4.072990-7 2.066600+5 9.390560-7 4.133200+5 9.901941-76643 6649
 0.000000+0 4.072990-7 2.066600+5 9.390560-7 4.133200+5 9.901940-76643 6649
--------------------------------------------------------------------------------
 66-Dy-163
********************************************************************************
 2.969800+5 1.351860-6 4.30625-11 4.454700+5 9.733139-7 4.55079-116646 6 22
 2.969800+5 1.351860-6 4.30625-11 4.454700+5 9.733140-7 4.55079-116646 6 22
--------------------------------------------------------------------------------
 0.000000+0 4.219390-8 2.197000+5 6.891320-7 4.394000+5 9.608131-76646 6 91
 0.000000+0 4.219390-8 2.197000+5 6.891320-7 4.394000+5 9.608130-76646 6 91
--------------------------------------------------------------------------------
 66-Dy-164
********************************************************************************
 2.077060-1 1.112350-1 3.778870-2 1.241820-2 3.120290-2-9.935719-46649 4 52
 2.077060-1 1.112350-1 3.778870-2 1.241820-2 3.120290-2-9.935720-46649 4 52
--------------------------------------------------------------------------------
 9.826639-4-7.577080-4                                                  6649 4 65
 9.826640-4-7.577080-4                                                  6649 4 65
--------------------------------------------------------------------------------
 4.266560-8 5.071220-9 5.158900+6 9.720829-7 7.208380-8 8.717750-96649 6 28
 4.266560-8 5.071220-9 5.158900+6 9.720830-7 7.208380-8 8.717750-96649 6 28
--------------------------------------------------------------------------------
 1.332800+6 1.108250-6 1.402950+6 1.087710-6 1.473090+6 9.750401-76649 6 91
 1.332800+6 1.108250-6 1.402950+6 1.087710-6 1.473090+6 9.750400-76649 6 91
--------------------------------------------------------------------------------
 5.024340+6 8.251370-7 1.298440-7 1.551920-8 5.167890+6 9.578119-76649 6649
 5.024340+6 8.251370-7 1.298440-7 1.551920-8 5.167890+6 9.578120-76649 6649
--------------------------------------------------------------------------------
 67-Ho-165
********************************************************************************
 4.000000+6 2.519800-3 4.500000+6 1.507400-3 5.000000+6 9.903701-46725 3 63
 4.000000+6 2.519800-3 4.500000+6 1.507400-3 5.000000+6 9.903700-46725 3 63
--------------------------------------------------------------------------------
 67-Ho-166m
********************************************************************************
 3.298000+5 1.524700-6 3.448000+5 9.997819-7 3.598000+5 6.569480-76729 6 24
 3.298000+5 1.524700-6 3.448000+5 9.997820-7 3.598000+5 6.569480-76729 6 24
--------------------------------------------------------------------------------
 4.947600+5 9.738091-7 7.17351-12 7.421400+5 4.006520-7 5.37691-126729 6 41
 4.947600+5 9.738090-7 7.17351-12 7.421400+5 4.006520-7 5.37691-126729 6 41
--------------------------------------------------------------------------------
 68-Er-162
********************************************************************************
 68-Er-164
********************************************************************************
 68-Er-166
********************************************************************************
 2.500000+6 1.448530-3 3.000000+6 9.930501-4 4.000000+6 5.475800-46837 3 74
 2.500000+6 1.448530-3 3.000000+6 9.930500-4 4.000000+6 5.475800-46837 3 74
--------------------------------------------------------------------------------
 68-Er-167
********************************************************************************
 68-Er-168
********************************************************************************
 68-Er-170
********************************************************************************
 6.102360+2 9.730589-7 9.671590+2 1.530850-6 1.532840+3 2.398020-66849 5 22
 6.102360+2 9.730590-7 9.671590+2 1.530850-6 1.532840+3 2.398020-66849 5 22
--------------------------------------------------------------------------------
```

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 71-Lu-175
*******************************************************************************
 71-Lu-176
*******************************************************************************
 72-Hf-174
*******************************************************************************
 1.000000-5 1.680000+2          1          2          0          07225 2151
 1.000000-5 2.300000+2          1          2          0          07225 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1657225 3  1
 0.000000+0 0.000000+0          0          0          1        1347225 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1657225 3  2
 0.000000+0 0.000000+0          0          0          1        1347225 3  2
-------------------------------------------------------------------------------
 0.000000+0-9.099990+4          0          0          1         467225 3  4
 0.000000+0-9.320000+4          0          0          1        1227225 3  4
-------------------------------------------------------------------------------
-8.581680+6-8.581680+6          0          0          1         137225 3 16
-8.570000+6-8.570000+6          0          0          1         157225 3 16
-------------------------------------------------------------------------------
                                                                 7225 3 17 Only in VII.1
 0.000000+0-9.099990+4          0          0          1         467225 3 51
 0.000000+0-9.320000+4          0          0          1         357225 3 51
-------------------------------------------------------------------------------
 0.000000+0-2.975000+5          0          0          1         447225 3 52
 0.000000+0-3.070000+5          0          0          1         277225 3 52
-------------------------------------------------------------------------------
 0.000000+0-6.083990+5          0          0          1         257225 3 53
 0.000000+0-6.320000+5          0          0          1         177225 3 53
-------------------------------------------------------------------------------
                                                                 7225 3 54 Only in VII.1
                                                                 7225 3 55 Only in VII.1
                                                                 7225 3 56 Only in VII.1
                                                                 7225 3 57 Only in VII.1
                                                                 7225 3 58 Only in VII.1
                                                                 7225 3 59 Only in VII.1
                                                                 7225 3 60 Only in VII.1
                                                                 7225 3 61 Only in VII.1
                                                                 7225 3 62 Only in VII.1
                                                                 7225 3 63 Only in VII.1
                                                                 7225 3 64 Only in VII.1
                                                                 7225 3 65 Only in VII.1
                                                                 7225 3 66 Only in VII.1
                                                                 7225 3 67 Only in VII.1
                                                                 7225 3 68 Only in VII.1
 0.000000+0-1.648700+6          0          0          1         217225 3 91
 0.000000+0-9.320000+4          0          0          1        1017225 3 91
-------------------------------------------------------------------------------
 6.789690+6 6.789690+6          0          0          2         327225 3102
 6.824200+6 6.824200+6          0          0          2         907225 3102
-------------------------------------------------------------------------------
                                                                 7225 3103 Only in VII.0
 0.000000+0 1.724460+2          0          2          0          07225 4  2
 0.000000+0 1.769540+2          0          2          0          07225 4  2
-------------------------------------------------------------------------------
 0.000000+0 1.724460+2          1          1          0          07225 4 16
 0.000000+0 1.769540+2          1          1          0          07225 4 16
-------------------------------------------------------------------------------
                                                                 7225 4 17 Only in VII.1
 0.000000+0 1.724460+2          0          2          0          07225 4 51
 0.000000+0 1.769540+2          1          2          0          07225 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.724460+2          0          2          0          07225 4 52
 0.000000+0 1.769540+2          1          2          0          07225 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.724460+2          0          2          0          07225 4 53
 0.000000+0 1.769540+2          1          2          0          07225 4 53
-------------------------------------------------------------------------------
                                                                 7225 4 54 Only in VII.1
                                                                 7225 4 55 Only in VII.1
                                                                 7225 4 56 Only in VII.1
                                                                 7225 4 57 Only in VII.1
                                                                 7225 4 58 Only in VII.1
                                                                 7225 4 59 Only in VII.1
```

```
                                                                    7225 4 60 Only in VII.1
                                                                    7225 4 61 Only in VII.1
                                                                    7225 4 62 Only in VII.1
                                                                    7225 4 63 Only in VII.1
                                                                    7225 4 64 Only in VII.1
                                                                    7225 4 65 Only in VII.1
                                                                    7225 4 66 Only in VII.1
                                                                    7225 4 67 Only in VII.1
                                                                    7225 4 68 Only in VII.1
 0.000000+0 1.724460+2          1          1          0          07225 4 91
 0.000000+0 1.769540+2          1          1          0          07225 4 91
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          1          1          27225 5 16
 8.620000+6 0.000000+0          0          9          1          27225 5 16
--------------------------------------------------------------------------------
                                                                    7225 5 17 Only in VII.1
 0.000000+0 0.000000+0          0          1          1          27225 5 91
 6.500000+5 0.000000+0          0          9          1          47225 5 91
--------------------------------------------------------------------------------
 72-Hf-176
********************************************************************************
 1.000000-5 7.000000+2          1          2          0           07231 2151
 1.000000-5 1.080000+3          1          2          0           07231 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1677231 3  1
 0.000000+0 0.000000+0          0          0          1        1277231 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1677231 3  2
 0.000000+0 0.000000+0          0          0          1        1277231 3  2
--------------------------------------------------------------------------------
 0.000000+0-8.829990+4          0          0          1         517231 3  4
 0.000000+0-9.320000+4          0          0          1         897231 3  4
--------------------------------------------------------------------------------
-8.088680+6-8.088680+6          0          0          1         137231 3 16
-8.090000+6-8.090000+6          0          0          1         177231 3 16
--------------------------------------------------------------------------------
                                                                    7231 3 17 Only in VII.1
 0.000000+0-8.829990+4          0          0          1         517231 3 51
 0.000000+0-9.320000+4          0          0          1         357231 3 51
--------------------------------------------------------------------------------
 0.000000+0-2.902000+5          0          0          1         277231 3 52
 0.000000+0-3.070000+5          0          0          1         277231 3 52
--------------------------------------------------------------------------------
 0.000000+0-5.969990+5          0          0          1         257231 3 53
 0.000000+0-6.320000+5          0          0          1         177231 3 53
--------------------------------------------------------------------------------
                                                                    7231 3 54 Only in VII.1
                                                                    7231 3 55 Only in VII.1
                                                                    7231 3 56 Only in VII.1
                                                                    7231 3 57 Only in VII.1
                                                                    7231 3 58 Only in VII.1
                                                                    7231 3 59 Only in VII.1
                                                                    7231 3 60 Only in VII.1
                                                                    7231 3 61 Only in VII.1
                                                                    7231 3 62 Only in VII.1
                                                                    7231 3 63 Only in VII.1
                                                                    7231 3 64 Only in VII.1
                                                                    7231 3 65 Only in VII.1
                                                                    7231 3 66 Only in VII.1
                                                                    7231 3 67 Only in VII.1
                                                                    7231 3 68 Only in VII.1
                                                                    7231 3 69 Only in VII.1
                                                                    7231 3 70 Only in VII.1
                                                                    7231 3 71 Only in VII.1
                                                                    7231 3 72 Only in VII.1
                                                                    7231 3 73 Only in VII.1
 0.000000+0-1.840000+6          0          0          1         207231 3 91
 0.000000+0-9.320000+4          0          0          1         687231 3 91
--------------------------------------------------------------------------------
 6.383690+6 6.383690+6          0          0          2         327231 3102
 6.404550+6 6.404550+6          0          0          2         907231 3102
--------------------------------------------------------------------------------
-4.065290+5-4.065290+5          0          0          1         217231 3103
-2.397000+5-2.397000+5          0          0          1         437231 3103
--------------------------------------------------------------------------------
```

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                                                                    7231 3107 Only in VII.1
 0.000000+0 1.744290+2          0          2          0          07231 4  2
 0.000000+0 1.769540+2          0          2          0          07231 4  2
-------------------------------------------------------------------------------
 0.000000+0 1.744290+2          1          1          0          07231 4 16
 0.000000+0 1.769540+2          1          1          0          07231 4 16
-------------------------------------------------------------------------------
                                                                    7231 4 17 Only in VII.1
 0.000000+0 1.744290+2          0          2          0          07231 4 51
 0.000000+0 1.769540+2          1          2          0          07231 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.744290+2          0          2          0          07231 4 52
 0.000000+0 1.769540+2          1          2          0          07231 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.744290+2          0          2          0          07231 4 53
 0.000000+0 1.769540+2          1          2          0          07231 4 53
-------------------------------------------------------------------------------
                                                                    7231 4 54 Only in VII.1
                                                                    7231 4 55 Only in VII.1
                                                                    7231 4 56 Only in VII.1
                                                                    7231 4 57 Only in VII.1
                                                                    7231 4 58 Only in VII.1
                                                                    7231 4 59 Only in VII.1
                                                                    7231 4 60 Only in VII.1
                                                                    7231 4 61 Only in VII.1
                                                                    7231 4 62 Only in VII.1
                                                                    7231 4 63 Only in VII.1
                                                                    7231 4 64 Only in VII.1
                                                                    7231 4 65 Only in VII.1
                                                                    7231 4 66 Only in VII.1
                                                                    7231 4 67 Only in VII.1
                                                                    7231 4 68 Only in VII.1
                                                                    7231 4 69 Only in VII.1
                                                                    7231 4 70 Only in VII.1
                                                                    7231 4 71 Only in VII.1
                                                                    7231 4 72 Only in VII.1
                                                                    7231 4 73 Only in VII.1
 0.000000+0 1.744290+2          1          1          0          07231 4 91
 0.000000+0 1.769540+2          1          1          0          07231 4 91
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          1          1          27231 5 16
 8.130000+6 0.000000+0          0          9          1          27231 5 16
-------------------------------------------------------------------------------
                                                                    7231 5 17 Only in VII.1
 0.000000+0 0.000000+0          0          1          1          27231 5 91
 6.500000+5 0.000000+0          0          9          1          47231 5 91
-------------------------------------------------------------------------------
 72-Hf-177
*******************************************************************************
 1.000000-5 5.100000+2          1          2          0          07234 2151
 1.000000-5 7.000000+2          1          2          0          07234 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1647234 3  1
 0.000000+0 0.000000+0          0          0          1        1227234 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1647234 3  2
 0.000000+0 0.000000+0          0          0          1        1227234 3  2
-------------------------------------------------------------------------------
 0.000000+0-1.130000+5          0          0          1         437234 3  4
 0.000000+0-9.320000+4          0          0          1         867234 3  4
-------------------------------------------------------------------------------
-6.380680+6-6.380680+6          0          0          1         157234 3 16
-6.380000+6-6.380000+6          0          0          1         157234 3 16
-------------------------------------------------------------------------------
                                                                    7234 3 17 Only in VII.1
 0.000000+0-1.130000+5          0          0          1         437234 3 51
 0.000000+0-1.130000+5          0          0          1         267234 3 51
-------------------------------------------------------------------------------
 0.000000+0-2.497000+5          0          0          1         427234 3 52
 0.000000+0-2.506000+5          0          0          1         267234 3 52
-------------------------------------------------------------------------------
 0.000000+0-3.213000+5          0          0          1         407234 3 53
 0.000000+0-3.210000+5          0          0          1         277234 3 53
-------------------------------------------------------------------------------
 0.000000+0-4.094990+5          0          0          1         397234 3 54
```

```
 0.000000+0-3.850000+5          0          0          1         237234 3 54
-------------------------------------------------------------------------------
 0.000000+0-4.266990+5          0          0          1         387234 3 55
 0.000000+0-4.090000+5          0          0          1         217234 3 55
-------------------------------------------------------------------------------
 0.000000+0-5.080990+5          0          0          1         367234 3 56
 0.000000+0-4.266000+5          0          0          1         217234 3 56
-------------------------------------------------------------------------------
 0.000000+0-5.551990+5          0          0          1         357234 3 57
 0.000000+0-5.090000+5          0          0          1         217234 3 57
-------------------------------------------------------------------------------
 0.000000+0-5.912990+5          0          0          1         257234 3 58
 0.000000+0-5.550000+5          0          0          1         197234 3 58
-------------------------------------------------------------------------------
 0.000000+0-6.043990+5          0          0          1         337234 3 59
 0.000000+0-5.910000+5          0          0          1         197234 3 59
-------------------------------------------------------------------------------
 0.000000+0-7.084990+5          0          0          1         247234 3 60
 0.000000+0-6.320000+5          0          0          1         177234 3 60
-------------------------------------------------------------------------------
                                                                  7234 3 61 Only in VII.1
                                                                  7234 3 62 Only in VII.1
                                                                  7234 3 63 Only in VII.1
                                                                  7234 3 64 Only in VII.1
                                                                  7234 3 65 Only in VII.1
                                                                  7234 3 66 Only in VII.1
 0.000000+0-9.479990+5          0          0          1         247234 3 91
 0.000000+0-9.320000+4          0          0          1         657234 3 91
-------------------------------------------------------------------------------
 7.626690+6 7.626690+6          0          0          2         327234 3102
 7.669860+6 7.669860+6          0          0          2         897234 3102
-------------------------------------------------------------------------------
 2.854700+5 2.854700+5          0          0          1         207234 3103
 3.199260+5 3.199260+5          0          0          1         407234 3103
-------------------------------------------------------------------------------
                                                                  7234 3107 Only in VII.1
 0.000000+0 1.754200+2          0          2          0          07234 4  2
 0.000000+0 1.769540+2          0          2          0          07234 4  2
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          1          1          0          07234 4 16
 0.000000+0 1.769540+2          1          1          0          07234 4 16
-------------------------------------------------------------------------------
                                                                  7234 4 17 Only in VII.1
 0.000000+0 1.754200+2          0          2          0          07234 4 51
 0.000000+0 1.769540+2          1          2          0          07234 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          0          2          0          07234 4 52
 0.000000+0 1.769540+2          1          2          0          07234 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          0          2          0          07234 4 53
 0.000000+0 1.769540+2          1          2          0          07234 4 53
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          0          2          0          07234 4 54
 0.000000+0 1.769540+2          1          2          0          07234 4 54
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          0          2          0          07234 4 55
 0.000000+0 1.769540+2          1          2          0          07234 4 55
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          0          2          0          07234 4 56
 0.000000+0 1.769540+2          1          2          0          07234 4 56
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          0          2          0          07234 4 57
 0.000000+0 1.769540+2          1          2          0          07234 4 57
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          0          2          0          07234 4 58
 0.000000+0 1.769540+2          1          2          0          07234 4 58
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          0          2          0          07234 4 59
 0.000000+0 1.769540+2          1          2          0          07234 4 59
-------------------------------------------------------------------------------
 0.000000+0 1.754200+2          0          2          0          07234 4 60
 0.000000+0 1.769540+2          1          2          0          07234 4 60
-------------------------------------------------------------------------------
                                                                  7234 4 61 Only in VII.1
                                                                  7234 4 62 Only in VII.1
```

```
                                                                 7234 4 63 Only in VII.1
                                                                 7234 4 64 Only in VII.1
                                                                 7234 4 65 Only in VII.1
                                                                 7234 4 66 Only in VII.1
 0.000000+0 1.754200+2          1          1          0          07234 4 91
 0.000000+0 1.769540+2          1          1          0          07234 4 91
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          1          1          27234 5 16
 6.420000+6 0.000000+0          0          9          1          27234 5 16
-----------------------------------------------------------------------------
                                                                 7234 5 17 Only in VII.1
 0.000000+0 0.000000+0          0          1          1          27234 5 91
 6.500000+5 0.000000+0          0          9          1          47234 5 91
-----------------------------------------------------------------------------
 72-Hf-178
*****************************************************************************
 1.000000-5 1.600000+3          1          2          0          07237 2151
 1.000000-5 2.100000+3          1          2          0          07237 2151
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1717237 3  1
 0.000000+0 0.000000+0          0          0          1        1197237 3  1
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1717237 3  2
 0.000000+0 0.000000+0          0          0          1        1197237 3  2
-----------------------------------------------------------------------------
 0.000000+0-9.319990+4          0          0          1         497237 3  4
 0.000000+0-9.320000+4          0          0          1         867237 3  4
-----------------------------------------------------------------------------
-7.625680+6-7.625680+6          0          0          1         147237 3 16
-7.630000+6-7.630000+6          0          0          1         167237 3 16
-----------------------------------------------------------------------------
                                                                 7237 3 17 Only in VII.1
 0.000000+0-9.319990+4          0          0          1         497237 3 51
 0.000000+0-9.320000+4          0          0          1         357237 3 51
-----------------------------------------------------------------------------
 0.000000+0-3.066000+5          0          0          1         467237 3 52
 0.000000+0-3.070000+5          0          0          1         277237 3 52
-----------------------------------------------------------------------------
 0.000000+0-6.321990+5          0          0          1         257237 3 53
 0.000000+0-6.320000+5          0          0          1         177237 3 53
-----------------------------------------------------------------------------
                                                                 7237 3 54 Only in VII.1
                                                                 7237 3 55 Only in VII.1
                                                                 7237 3 56 Only in VII.1
                                                                 7237 3 57 Only in VII.1
                                                                 7237 3 58 Only in VII.1
                                                                 7237 3 59 Only in VII.1
                                                                 7237 3 60 Only in VII.1
                                                                 7237 3 61 Only in VII.1
                                                                 7237 3 62 Only in VII.1
                                                                 7237 3 63 Only in VII.1
                                                                 7237 3 64 Only in VII.1
                                                                 7237 3 65 Only in VII.1
                                                                 7237 3 66 Only in VII.1
                                                                 7237 3 67 Only in VII.1
                                                                 7237 3 68 Only in VII.1
                                                                 7237 3 69 Only in VII.1
                                                                 7237 3 70 Only in VII.1
                                                                 7237 3 71 Only in VII.1
 0.000000+0-1.640000+6          0          0          1         217237 3 91
 0.000000+0-9.320000+4          0          0          1         657237 3 91
-----------------------------------------------------------------------------
 6.099690+6 6.099690+6          0          0          2         327237 3102
 6.115730+6 6.115730+6          0          0          2         907237 3102
-----------------------------------------------------------------------------
-1.469530+6-1.469530+6          0          0          1         207237 3103
-1.470000+6-1.470000+6          0          0          1         337237 3103
-----------------------------------------------------------------------------
                                                                 7237 3107 Only in VII.1
 0.000000+0 1.764110+2          0          2          0          07237 4  2
 0.000000+0 1.769540+2          0          2          0          07237 4  2
-----------------------------------------------------------------------------
 0.000000+0 1.764110+2          1          1          0          07237 4 16
 0.000000+0 1.769540+2          1          1          0          07237 4 16
-----------------------------------------------------------------------------
```

```
                                                                    7237 4 17 Only in VII.1
 0.000000+0 1.764110+2          0          2          0          07237 4 51
 0.000000+0 1.769540+2          1          2          0          07237 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.764110+2          0          2          0          07237 4 52
 0.000000+0 1.769540+2          1          2          0          07237 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.764110+2          0          2          0          07237 4 53
 0.000000+0 1.769540+2          1          2          0          07237 4 53
-------------------------------------------------------------------------------
                                                                    7237 4 54 Only in VII.1
                                                                    7237 4 55 Only in VII.1
                                                                    7237 4 56 Only in VII.1
                                                                    7237 4 57 Only in VII.1
                                                                    7237 4 58 Only in VII.1
                                                                    7237 4 59 Only in VII.1
                                                                    7237 4 60 Only in VII.1
                                                                    7237 4 61 Only in VII.1
                                                                    7237 4 62 Only in VII.1
                                                                    7237 4 63 Only in VII.1
                                                                    7237 4 64 Only in VII.1
                                                                    7237 4 65 Only in VII.1
                                                                    7237 4 66 Only in VII.1
                                                                    7237 4 67 Only in VII.1
                                                                    7237 4 68 Only in VII.1
                                                                    7237 4 69 Only in VII.1
                                                                    7237 4 70 Only in VII.1
                                                                    7237 4 71 Only in VII.1
 0.000000+0 1.764110+2          1          1          0          07237 4 91
 0.000000+0 1.769540+2          1          1          0          07237 4 91
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          1          1          27237 5 16
 7.670000+6 0.000000+0          0          9          1          27237 5 16
-------------------------------------------------------------------------------
                                                                    7237 5 17 Only in VII.1
 0.000000+0 0.000000+0          0          1          1          27237 5 91
 6.500000+5 0.000000+0          0          9          1          47237 5 91
-------------------------------------------------------------------------------
 72-Hf-179
*******************************************************************************
 1.000000-5 5.100000+2          1          2          0          07240 2151
 1.000000-5 4.500000+2          1          2          0          07240 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1627240 3  1
 0.000000+0 0.000000+0          0          0          1        1127240 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1627240 3  2
 0.000000+0 0.000000+0          0          0          1        1127240 3  2
-------------------------------------------------------------------------------
 0.000000+0-1.227000+5          0          0          1         397240 3  4
 0.000000+0-9.320000+4          0          0          1         867240 3  4
-------------------------------------------------------------------------------
-6.099680+6-6.099680+6          0          0          1         157240 3 16
-6.100000+6-6.100000+6          0          0          1         127240 3 16
-------------------------------------------------------------------------------
                                                                    7240 3 17 Only in VII.1
 0.000000+0-1.227000+5          0          0          1         397240 3 51
 0.000000+0-1.130000+5          0          0          1         267240 3 51
-------------------------------------------------------------------------------
 0.000000+0-2.143000+5          0          0          1         387240 3 52
 0.000000+0-2.506000+5          0          0          1         267240 3 52
-------------------------------------------------------------------------------
 0.000000+0-2.688000+5          0          0          1         377240 3 53
 0.000000+0-3.070000+5          0          0          1         277240 3 53
-------------------------------------------------------------------------------
 0.000000+0-3.377000+5          0          0          1         357240 3 54
 0.000000+0-3.850000+5          0          0          1         237240 3 54
-------------------------------------------------------------------------------
                                                                    7240 3 55 Only in VII.1
                                                                    7240 3 56 Only in VII.1
                                                                    7240 3 57 Only in VII.1
                                                                    7240 3 58 Only in VII.1
                                                                    7240 3 59 Only in VII.1
                                                                    7240 3 60 Only in VII.1
                                                                    7240 3 61 Only in VII.1
```

```
                                                                    7240 3 62 Only in VII.1
 0.000000+0-1.070000+6          0          0          1         237240 3 91
 0.000000+0-9.320000+4          0          0          1         657240 3 91
--------------------------------------------------------------------------------
 7.388690+6 7.388690+6          0          0          2         327240 3102
 7.180000+6 7.180000+6          0          0          2         877240 3102
--------------------------------------------------------------------------------
-5.675290+5-5.675290+5          0          0          1         207240 3103
-5.700000+5-5.700000+5          0          0          1         307240 3103
--------------------------------------------------------------------------------
                                                                    7240 3107 Only in VII.1
 0.000000+0 1.774130+2          0          2          0          07240 4  2
 0.000000+0 1.769540+2          0          2          0          07240 4  2
--------------------------------------------------------------------------------
 0.000000+0 1.774130+2          1          1          0          07240 4 16
 0.000000+0 1.769540+2          1          1          0          07240 4 16
--------------------------------------------------------------------------------
                                                                    7240 4 17 Only in VII.1
 0.000000+0 1.774130+2          0          2          0          07240 4 51
 0.000000+0 1.769540+2          1          2          0          07240 4 51
--------------------------------------------------------------------------------
 0.000000+0 1.774130+2          0          2          0          07240 4 52
 0.000000+0 1.769540+2          1          2          0          07240 4 52
--------------------------------------------------------------------------------
 0.000000+0 1.774130+2          0          2          0          07240 4 53
 0.000000+0 1.769540+2          1          2          0          07240 4 53
--------------------------------------------------------------------------------
 0.000000+0 1.774130+2          0          2          0          07240 4 54
 0.000000+0 1.769540+2          1          2          0          07240 4 54
--------------------------------------------------------------------------------
                                                                    7240 4 55 Only in VII.1
                                                                    7240 4 56 Only in VII.1
                                                                    7240 4 57 Only in VII.1
                                                                    7240 4 58 Only in VII.1
                                                                    7240 4 59 Only in VII.1
                                                                    7240 4 60 Only in VII.1
                                                                    7240 4 61 Only in VII.1
                                                                    7240 4 62 Only in VII.1
 0.000000+0 1.774130+2          1          1          0          07240 4 91
 0.000000+0 1.769540+2          1          1          0          07240 4 91
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          1          1          27240 5 16
 6.130000+6 0.000000+0          0          9          1          27240 5 16
--------------------------------------------------------------------------------
                                                                    7240 5 17 Only in VII.1
 0.000000+0 0.000000+0          0          1          1          27240 5 91
 6.500000+5 0.000000+0          0          9          1          47240 5 91
--------------------------------------------------------------------------------
 72-Hf-180
********************************************************************************
 1.000000-5 4.992000+3          1          2          0          07243 2151
 1.000000-5 1.000000+4          1          2          0          07243 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1677243 3  1
 0.000000+0 0.000000+0          0          0          1        1117243 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1677243 3  2
 0.000000+0 0.000000+0          0          0          1        1117243 3  2
--------------------------------------------------------------------------------
 0.000000+0-9.329990+4          0          0          1         397243 3  4
 0.000000+0-9.320000+4          0          0          1         897243 3  4
--------------------------------------------------------------------------------
-7.387680+6-7.387680+6          0          0          1         147243 3 16
-7.390000+6-7.390000+6          0          0          1         187243 3 16
--------------------------------------------------------------------------------
                                                                    7243 3 17 Only in VII.1
 0.000000+0-9.329990+4          0          0          1         397243 3 51
 0.000000+0-9.320000+4          0          0          1         357243 3 51
--------------------------------------------------------------------------------
 0.000000+0-3.086000+5          0          0          1         367243 3 52
 0.000000+0-3.070000+5          0          0          1         277243 3 52
--------------------------------------------------------------------------------
 0.000000+0-6.408990+5          0          0          1         257243 3 53
 0.000000+0-6.320000+5          0          0          1         177243 3 53
--------------------------------------------------------------------------------
```

```
                                                                 7243 3 54 Only in VII.1
                                                                 7243 3 55 Only in VII.1
                                                                 7243 3 56 Only in VII.1
                                                                 7243 3 57 Only in VII.1
                                                                 7243 3 58 Only in VII.1
                                                                 7243 3 59 Only in VII.1
                                                                 7243 3 60 Only in VII.1
                                                                 7243 3 61 Only in VII.1
 0.000000+0-1.607600+6          0          0          1         217243 3 91
 0.000000+0-9.320000+4          0          0          1         657243 3 91
--------------------------------------------------------------------------------
 5.695690+6 5.695690+6          0          0          2         327243 3102
 5.654020+6 5.654020+6          0          0          2         927243 3102
--------------------------------------------------------------------------------
-2.513530+6-2.513530+6          0          0          1         187243 3103
-2.520000+6-2.520000+6          0          0          1         257243 3103
--------------------------------------------------------------------------------
                                                                 7243 3107 Only in VII.1
 0.000000+0 1.784040+2          0          2          0          07243 4  2
 0.000000+0 1.769540+2          0          2          0          07243 4  2
--------------------------------------------------------------------------------
 0.000000+0 1.784040+2          1          1          0          07243 4 16
 0.000000+0 1.769540+2          1          1          0          07243 4 16
--------------------------------------------------------------------------------
                                                                 7243 4 17 Only in VII.1
 0.000000+0 1.784040+2          0          2          0          07243 4 51
 0.000000+0 1.769540+2          1          2          0          07243 4 51
--------------------------------------------------------------------------------
 0.000000+0 1.784040+2          0          2          0          07243 4 52
 0.000000+0 1.769540+2          1          2          0          07243 4 52
--------------------------------------------------------------------------------
 0.000000+0 1.784040+2          0          2          0          07243 4 53
 0.000000+0 1.769540+2          1          2          0          07243 4 53
--------------------------------------------------------------------------------
                                                                 7243 4 54 Only in VII.1
                                                                 7243 4 55 Only in VII.1
                                                                 7243 4 56 Only in VII.1
                                                                 7243 4 57 Only in VII.1
                                                                 7243 4 58 Only in VII.1
                                                                 7243 4 59 Only in VII.1
                                                                 7243 4 60 Only in VII.1
                                                                 7243 4 61 Only in VII.1
 0.000000+0 1.784040+2          1          1          0          07243 4 91
 0.000000+0 1.769540+2          1          1          0          07243 4 91
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          1          1          27243 5 16
 7.430000+6 0.000000+0          0          9          1          27243 5 16
--------------------------------------------------------------------------------
                                                                 7243 5 17 Only in VII.1
 0.000000+0 0.000000+0          0          1          1          27243 5 91
 6.500000+5 0.000000+0          0          9          1          47243 5 91
--------------------------------------------------------------------------------
 73-Ta-180    Evaluation Only in VII.1
********************************************************************************
 73-Ta-181
********************************************************************************
 0.000000+0 0.000000+0          0          0          1        1067328 3  1
 0.000000+0 0.000000+0          0          0          1         837328 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1067328 3  2
 0.000000+0 0.000000+0          0          0          1         387328 3  2
--------------------------------------------------------------------------------
                                                                 7328 3  4 Only in VII.0
-7.576757+6-7.576757+6          0          0          1         647328 3 16
-7.630000+6-7.630000+6          0          0          1         177328 3 16
--------------------------------------------------------------------------------
-1.421796+7-1.421796+7          0          0          1         307328 3 17
-1.422000+7-1.422000+7          0          0          1          77328 3 17
--------------------------------------------------------------------------------
                                                                 7328 3 22 Only in VII.1
                                                                 7328 3 28 Only in VII.1
 0.000000+0-6.238000+3          0          0          1        1057328 3 51
 0.000000+0-6.200000+3          0          0          1         127328 3 51
--------------------------------------------------------------------------------
 0.000000+0-1.362660+5          0          0          1        1017328 3 52
```

```
 0.000000+0-1.361000+5          0          0          1         127328 3 52
-------------------------------------------------------------------------------
 0.000000+0-1.585500+5          0          0          1        1017328 3 53
 0.000000+0-1.586000+5          0          0          1         127328 3 53
-------------------------------------------------------------------------------
 0.000000+0-3.016200+5          0          0          1        1007328 3 54
 0.000000+0-3.015000+5          0          0          1         107328 3 54
-------------------------------------------------------------------------------
 0.000000+0-3.375400+5          0          0          1        1007328 3 55
 0.000000+0-3.375000+5          0          0          1         107328 3 55
-------------------------------------------------------------------------------
 0.000000+0-4.821820+5          0          0          1         997328 3 56
 0.000000+0-4.822000+5          0          0          1         107328 3 56
-------------------------------------------------------------------------------
 0.000000+0-4.951900+5          0          0          1         997328 3 57
 0.000000+0-4.950000+5          0          0          1         107328 3 57
-------------------------------------------------------------------------------
 0.000000+0-5.425100+5          0          0          1         997328 3 58
 0.000000+0-6.200000+5          0          0          1         107328 3 58
-------------------------------------------------------------------------------
 0.000000+0-6.152100+5          0          0          1         987328 3 59
 0.000000+0-7.200000+5          0          0          1          97328 3 59
-------------------------------------------------------------------------------
 0.000000+0-6.190500+5          0          0          1         987328 3 60
 0.000000+0-9.250000+5          0          0          1          77328 3 60
-------------------------------------------------------------------------------
                                                                  7328 3 61 Only in VII.1
                                                                  7328 3 62 Only in VII.1
                                                                  7328 3 63 Only in VII.1
                                                                  7328 3 64 Only in VII.1
                                                                  7328 3 65 Only in VII.1
                                                                  7328 3 66 Only in VII.1
                                                                  7328 3 67 Only in VII.1
                                                                  7328 3 68 Only in VII.1
                                                                  7328 3 69 Only in VII.1
                                                                  7328 3 70 Only in VII.1
 0.000000+0-1.392239+6          0          0          1         947328 3 91
 0.000000+0-1.193000+6          0          0          1         147328 3 91
-------------------------------------------------------------------------------
 6.062936+6 6.062936+6          0          0          1        1067328 3102
 6.070000+6 6.070000+6          0          0          1         377328 3102
-------------------------------------------------------------------------------
-2.474042+5-2.474042+5          0          0          1         857328 3103
-2.387000+5-2.387000+5          0          0          1          67328 3103
-------------------------------------------------------------------------------
                                                                  7328 3104 Only in VII.1
                                                                  7328 3105 Only in VII.1
                                                                  7328 3107 Only in VII.1
 0.000000+0 1.793936+2          0          2          0          07328 4  2
 0.000000+0 1.794000+2          0          2          0          07328 4  2
-------------------------------------------------------------------------------
                                                                  7328 4 16 Only in VII.0
                                                                  7328 4 17 Only in VII.0
 0.000000+0 1.793936+2          0          2          0          07328 4 51
 0.000000+0 1.794000+2          0          2          0          07328 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.793936+2          0          2          0          07328 4 52
 0.000000+0 1.794000+2          0          2          0          07328 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.793936+2          0          2          0          07328 4 53
 0.000000+0 1.794000+2          0          2          0          07328 4 53
-------------------------------------------------------------------------------
 0.000000+0 1.793936+2          0          2          0          07328 4 54
 0.000000+0 1.794000+2          0          2          0          07328 4 54
-------------------------------------------------------------------------------
 0.000000+0 1.793936+2          0          2          0          07328 4 55
 0.000000+0 1.794000+2          0          2          0          07328 4 55
-------------------------------------------------------------------------------
 0.000000+0 1.793936+2          0          2          0          07328 4 56
 0.000000+0 1.794000+2          0          2          0          07328 4 56
-------------------------------------------------------------------------------
 0.000000+0 1.793936+2          0          2          0          07328 4 57
 0.000000+0 1.794000+2          0          2          0          07328 4 57
-------------------------------------------------------------------------------
 0.000000+0 1.793936+2          0          2          0          07328 4 58
```

```
 0.000000+0 1.794000+2          0          2          0          07328 4 58
--------------------------------------------------------------------------------
 0.000000+0 1.793936+2          0          2          0          07328 4 59
 0.000000+0 1.794000+2          0          2          0          07328 4 59
--------------------------------------------------------------------------------
 0.000000+0 1.793936+2          0          2          0          07328 4 60
 0.000000+0 1.794000+2          0          2          0          07328 4 60
--------------------------------------------------------------------------------
                                                                  7328 4 61 Only in VII.1
                                                                  7328 4 62 Only in VII.1
                                                                  7328 4 63 Only in VII.1
                                                                  7328 4 64 Only in VII.1
                                                                  7328 4 65 Only in VII.1
                                                                  7328 4 66 Only in VII.1
                                                                  7328 4 67 Only in VII.1
                                                                  7328 4 68 Only in VII.1
                                                                  7328 4 69 Only in VII.1
                                                                  7328 4 70 Only in VII.1
                                                                  7328 4 91 Only in VII.0
                                                                  7328 5 16 Only in VII.0
                                                                  7328 5 17 Only in VII.0
                                                                  7328 5 91 Only in VII.0
                                                                  7328 6 16 Only in VII.1
                                                                  7328 6 17 Only in VII.1
                                                                  7328 6 22 Only in VII.1
                                                                  7328 6 28 Only in VII.1
                                                                  7328 6 91 Only in VII.1
                                                                  7328 6103 Only in VII.1
                                                                  7328 6104 Only in VII.1
                                                                  7328 6105 Only in VII.1
                                                                  7328 6107 Only in VII.1
 73-Ta-182
********************************************************************************
 74-W -180    Evaluation Only in VII.1
********************************************************************************
 74-W -182
********************************************************************************
 1.000000-5 4.500000+3          1          3          0           17431 2151
 1.000000-5 4.500000+3          1          2          0           07431 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         1797431 3  1
 0.000000+0 0.000000+0          0          0          2         3957431 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         1277431 3  2
 0.000000+0 0.000000+0          0          0          1         3897431 3  2
--------------------------------------------------------------------------------
 0.000000+0-1.001100+5          0          0          1         1107431 3  4
 0.000000+0-1.000500+5          0          0          1          827431 3  4
--------------------------------------------------------------------------------
 9.679000+6 9.679000+6          0          0          1          497431 3  5
 0.000000+0 0.000000+0          0          0          1         1577431 3  5
--------------------------------------------------------------------------------
-8.064000+6-8.064000+6          0          0          1          437431 3 16
-8.062400+6-8.062400+6          0          0          1          277431 3 16
--------------------------------------------------------------------------------
-1.474500+7-1.474500+7          0          0          1          267431 3 17
-1.474700+7-1.474700+7          0          0          1          147431 3 17
--------------------------------------------------------------------------------
-7.094000+6-7.094000+6          0          0          1          377431 3 28
-7.092000+6-7.092000+6          0          0          1          217431 3 28
--------------------------------------------------------------------------------
                                                                  7431 3 37 Only in VII.1
                                                                  7431 3 41 Only in VII.1
 0.000000+0-1.001100+5          0          0          1         1017431 3 51
 0.000000+0-1.000500+5          0          0          1          827431 3 51
--------------------------------------------------------------------------------
 0.000000+0-3.294300+5          0          0          1          877431 3 52
 0.000000+0-3.289800+5          0          0          1          787431 3 52
--------------------------------------------------------------------------------
 0.000000+0-6.805000+5          0          0          1          757431 3 53
 0.000000+0-6.800300+5          0          0          1          477431 3 53
--------------------------------------------------------------------------------
 0.000000+0-1.135810+6          0          0          1          677431 3 54
 0.000000+0-1.135700+6          0          0          1          427431 3 54
--------------------------------------------------------------------------------
```

```
 0.000000+0-1.144400+6          0          0          1         667431 3 55
 0.000000+0-1.144500+6          0          0          1         417431 3 55
-------------------------------------------------------------------------------
 0.000000+0-1.221410+6          0          0          1         657431 3 56
 0.000000+0-1.222200+6          0          0          1         397431 3 56
-------------------------------------------------------------------------------
 0.000000+0-1.257420+6          0          0          1         647431 3 57
 0.000000+0-1.258000+6          0          0          1         387431 3 57
-------------------------------------------------------------------------------
 0.000000+0-1.289160+6          0          0          1         647431 3 58
 0.000000+0-1.288900+6          0          0          1         377431 3 58
-------------------------------------------------------------------------------
 0.000000+0-1.331130+6          0          0          1         637431 3 59
 0.000000+0-1.330600+6          0          0          1         367431 3 59
-------------------------------------------------------------------------------
                                                              7431 3 60 Only in VII.0
                                                              7431 3 61 Only in VII.0
                                                              7431 3 62 Only in VII.0
                                                              7431 3 63 Only in VII.0
                                                              7431 3 64 Only in VII.0
                                                              7431 3 65 Only in VII.0
                                                              7431 3 66 Only in VII.0
                                                              7431 3 67 Only in VII.0
                                                              7431 3 68 Only in VII.0
                                                              7431 3 69 Only in VII.0
 0.000000+0-6.399520+5          0          0          1         767431 3 91
 0.000000+0-2.983500+5          0          0          1         797431 3 91
-------------------------------------------------------------------------------
 6.191000+6 6.191000+6          0          0          1        1277431 3102
 6.190740+6 6.190740+6          0          0          2         867431 3102
-------------------------------------------------------------------------------
                                                              7431 3103 Only in VII.0
                                                              7431 3107 Only in VII.0
                                                              7431 3600 Only in VII.1
                                                              7431 3601 Only in VII.1
                                                              7431 3602 Only in VII.1
                                                              7431 3603 Only in VII.1
                                                              7431 3604 Only in VII.1
                                                              7431 3605 Only in VII.1
                                                              7431 3606 Only in VII.1
                                                              7431 3607 Only in VII.1
                                                              7431 3608 Only in VII.1
                                                              7431 3609 Only in VII.1
                                                              7431 3610 Only in VII.1
                                                              7431 3611 Only in VII.1
                                                              7431 3612 Only in VII.1
                                                              7431 3613 Only in VII.1
                                                              7431 3614 Only in VII.1
                                                              7431 3615 Only in VII.1
                                                              7431 3616 Only in VII.1
                                                              7431 3617 Only in VII.1
                                                              7431 3618 Only in VII.1
                                                              7431 3619 Only in VII.1
                                                              7431 3620 Only in VII.1
                                                              7431 3621 Only in VII.1
                                                              7431 3622 Only in VII.1
                                                              7431 3623 Only in VII.1
                                                              7431 3624 Only in VII.1
                                                              7431 3625 Only in VII.1
                                                              7431 3626 Only in VII.1
                                                              7431 3627 Only in VII.1
                                                              7431 3628 Only in VII.1
                                                              7431 3629 Only in VII.1
                                                              7431 3649 Only in VII.1
                                                              7431 3800 Only in VII.1
                                                              7431 3801 Only in VII.1
                                                              7431 3802 Only in VII.1
                                                              7431 3803 Only in VII.1
                                                              7431 3804 Only in VII.1
                                                              7431 3805 Only in VII.1
                                                              7431 3806 Only in VII.1
                                                              7431 3849 Only in VII.1
 0.000000+0 1.803850+2          0          2          0         617431 4  2
 0.000000+0 1.803900+2          0          2          0          07431 4  2
-------------------------------------------------------------------------------
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					7431 4 16 Only in VII.0
					7431 4 17 Only in VII.0
					7431 4 28 Only in VII.0
0.000000+0	1.803850+2	0	2	0	07431 4 51
0.000000+0	1.803900+2	0	2	0	07431 4 51
0.000000+0	1.803850+2	0	2	0	07431 4 52
0.000000+0	1.803900+2	0	2	0	07431 4 52
0.000000+0	1.803850+2	0	2	0	07431 4 53
0.000000+0	1.803900+2	0	2	0	07431 4 53
0.000000+0	1.803850+2	0	2	0	07431 4 54
0.000000+0	1.803900+2	0	2	0	07431 4 54
0.000000+0	1.803850+2	0	2	0	07431 4 55
0.000000+0	1.803900+2	0	2	0	07431 4 55
0.000000+0	1.803850+2	0	2	0	07431 4 56
0.000000+0	1.803900+2	0	2	0	07431 4 56
0.000000+0	1.803850+2	0	2	0	07431 4 57
0.000000+0	1.803900+2	0	2	0	07431 4 57
0.000000+0	1.803850+2	0	2	0	07431 4 58
0.000000+0	1.803900+2	0	2	0	07431 4 58
0.000000+0	1.803850+2	0	2	0	07431 4 59
0.000000+0	1.803900+2	0	2	0	07431 4 59
					7431 4 60 Only in VII.0
					7431 4 61 Only in VII.0
					7431 4 62 Only in VII.0
					7431 4 63 Only in VII.0
					7431 4 64 Only in VII.0
					7431 4 65 Only in VII.0
					7431 4 66 Only in VII.0
					7431 4 67 Only in VII.0
					7431 4 68 Only in VII.0
					7431 4 69 Only in VII.0
					7431 4 91 Only in VII.0
					7431 4600 Only in VII.1
					7431 4601 Only in VII.1
					7431 4602 Only in VII.1
					7431 4603 Only in VII.1
					7431 4604 Only in VII.1
					7431 4605 Only in VII.1
					7431 4606 Only in VII.1
					7431 4607 Only in VII.1
					7431 4608 Only in VII.1
					7431 4609 Only in VII.1
					7431 4610 Only in VII.1
					7431 4611 Only in VII.1
					7431 4612 Only in VII.1
					7431 4613 Only in VII.1
					7431 4614 Only in VII.1
					7431 4615 Only in VII.1
					7431 4616 Only in VII.1
					7431 4617 Only in VII.1
					7431 4618 Only in VII.1
					7431 4619 Only in VII.1
					7431 4620 Only in VII.1
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					7431 4623 Only in VII.1
					7431 4624 Only in VII.1
					7431 4625 Only in VII.1
					7431 4626 Only in VII.1
					7431 4627 Only in VII.1
					7431 4628 Only in VII.1
					7431 4629 Only in VII.1
					7431 4800 Only in VII.1
					7431 4801 Only in VII.1
					7431 4802 Only in VII.1
					7431 4803 Only in VII.1

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                                                                    7431 4804 Only in VII.1
                                                                    7431 4805 Only in VII.1
                                                                    7431 4806 Only in VII.1
                                                                    7431 5 16 Only in VII.0
                                                                    7431 5 17 Only in VII.0
                                                                    7431 5 28 Only in VII.0
                                                                    7431 5 91 Only in VII.0
 1.000000+0 1.000000+0          0          1          1         487431 6  5
 1.000000+0 1.000000+0          0          1          1         277431 6  5
--------------------------------------------------------------------------------
                                                                    7431 6 16 Only in VII.1
                                                                    7431 6 17 Only in VII.1
                                                                    7431 6 28 Only in VII.1
                                                                    7431 6 37 Only in VII.1
                                                                    7431 6 41 Only in VII.1
                                                                    7431 6 91 Only in VII.1
                                                                    7431 6102 Only in VII.1
                                                                    7431 6649 Only in VII.1
                                                                    7431 6849 Only in VII.1
 74-W -183
********************************************************************************
 1.000000-5 2.200000+3          1          3          0          17434 2151
 1.000000-5 7.650000+2          1          2          0          07434 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1627434 3  1
 0.000000+0 0.000000+0          0          0          1        2927434 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1247434 3  2
 0.000000+0 0.000000+0          0          0          1        2927434 3  2
--------------------------------------------------------------------------------
 0.000000+0-4.648000+4          0          0          1        1107434 3  4
 0.000000+0-4.700100+4          0          0          1         897434 3  4
--------------------------------------------------------------------------------
 1.035200+7 1.035200+7          0          0          1         497434 3  5
 0.000000+0 0.000000+0          0          0          1        1577434 3  5
--------------------------------------------------------------------------------
-6.191000+6-6.191000+6          0          0          1         467434 3 16
-6.190400+6-6.190400+6          0          0          1         327434 3 16
--------------------------------------------------------------------------------
-1.425500+7-1.425500+7          0          0          1         287434 3 17
-1.425300+7-1.425300+7          0          0          1         157434 3 17
--------------------------------------------------------------------------------
-7.222000+6-7.222000+6          0          0          1         397434 3 28
-7.219000+6-7.219000+6          0          0          1         217434 3 28
--------------------------------------------------------------------------------
                                                                    7434 3 37 Only in VII.1
                                                                    7434 3 41 Only in VII.1
 0.000000+0-4.648000+4          0          0          1        1007434 3 51
 0.000000+0-4.700100+4          0          0          1         897434 3 51
--------------------------------------------------------------------------------
 0.000000+0-9.908000+4          0          0          1         927434 3 52
 0.000000+0-9.900400+4          0          0          1         847434 3 52
--------------------------------------------------------------------------------
 0.000000+0-2.070100+5          0          0          1         837434 3 53
 0.000000+0-2.069600+5          0          0          1         807434 3 53
--------------------------------------------------------------------------------
 0.000000+0-2.088100+5          0          0          1         837434 3 54
 0.000000+0-2.090500+5          0          0          1         527434 3 54
--------------------------------------------------------------------------------
 0.000000+0-2.917200+5          0          0          1         807434 3 55
 0.000000+0-2.919900+5          0          0          1         517434 3 55
--------------------------------------------------------------------------------
 0.000000+0-3.089500+5          0          0          1         797434 3 56
 0.000000+0-3.090000+5          0          0          1         767434 3 56
--------------------------------------------------------------------------------
 0.000000+0-3.094900+5          0          0          1         797434 3 57
 0.000000+0-3.094900+5          0          0          1         487434 3 57
--------------------------------------------------------------------------------
 0.000000+0-4.120900+5          0          0          1         767434 3 58
 0.000000+0-4.120300+5          0          0          1         467434 3 58
--------------------------------------------------------------------------------
 0.000000+0-4.530700+5          0          0          1         747434 3 59
 0.000000+0-4.530000+5          0          0          1         457434 3 59
--------------------------------------------------------------------------------
 0.000000+0-4.754000+5          0          0          1         747434 3 60
```

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 0.000000+0-4.870100+5          0          0          1         447434 3 60
-------------------------------------------------------------------------------
 0.000000+0-4.870000+5          0          0          1         747434 3 61
 0.000000+0-5.540500+5          0          0          1         427434 3 61
-------------------------------------------------------------------------------
                                                                 7434 3 62 Only in VII.0
                                                                 7434 3 63 Only in VII.0
                                                                 7434 3 64 Only in VII.0
 0.000000+0-4.870000+5          0          0          1         747434 3 91
 0.000000+0-7.400200+5          0          0          1         647434 3 91
-------------------------------------------------------------------------------
 7.411000+6 7.411000+6          0          0          1        1277434 3102
 7.411800+6 7.411800+6          0          0          1         917434 3102
-------------------------------------------------------------------------------
                                                                 7434 3103 Only in VII.0
                                                                 7434 3107 Only in VII.0
                                                                 7434 3600 Only in VII.1
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                                                                 7434 3614 Only in VII.1
                                                                 7434 3649 Only in VII.1
                                                                 7434 3800 Only in VII.1
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                                                                 7434 3808 Only in VII.1
                                                                 7434 3809 Only in VII.1
                                                                 7434 3810 Only in VII.1
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                                                                 7434 3812 Only in VII.1
                                                                 7434 3813 Only in VII.1
                                                                 7434 3814 Only in VII.1
                                                                 7434 3815 Only in VII.1
                                                                 7434 3816 Only in VII.1
                                                                 7434 3817 Only in VII.1
                                                                 7434 3818 Only in VII.1
                                                                 7434 3819 Only in VII.1
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                                                                 7434 3822 Only in VII.1
                                                                 7434 3823 Only in VII.1
                                                                 7434 3824 Only in VII.1
                                                                 7434 3849 Only in VII.1
 0.000000+0 1.813790+2          0          2          0         627434 4  2
 0.000000+0 1.813800+2          0          2          0          07434 4  2
-------------------------------------------------------------------------------
                                                                 7434 4 16 Only in VII.0
                                                                 7434 4 17 Only in VII.0
                                                                 7434 4 28 Only in VII.0
 0.000000+0 1.813790+2          0          2          0          07434 4 51
 0.000000+0 1.813800+2          0          2          0          07434 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 52
 0.000000+0 1.813800+2          0          2          0          07434 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 53
 0.000000+0 1.813800+2          0          2          0          07434 4 53
-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 54
 0.000000+0 1.813800+2          0          2          0          07434 4 54
```

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-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 55
 0.000000+0 1.813800+2          0          2          0          07434 4 55
-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 56
 0.000000+0 1.813800+2          0          2          0          07434 4 56
-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 57
 0.000000+0 1.813800+2          0          2          0          07434 4 57
-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 58
 0.000000+0 1.813800+2          0          2          0          07434 4 58
-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 59
 0.000000+0 1.813800+2          0          2          0          07434 4 59
-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 60
 0.000000+0 1.813800+2          0          2          0          07434 4 60
-------------------------------------------------------------------------------
 0.000000+0 1.813790+2          0          2          0          07434 4 61
 0.000000+0 1.813800+2          0          2          0          07434 4 61
-------------------------------------------------------------------------------
                                                                  7434 4 62 Only in VII.0
                                                                  7434 4 63 Only in VII.0
                                                                  7434 4 64 Only in VII.0
                                                                  7434 4 91 Only in VII.0
                                                                  7434 4600 Only in VII.1
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                                                                  7434 4604 Only in VII.1
                                                                  7434 4605 Only in VII.1
                                                                  7434 4606 Only in VII.1
                                                                  7434 4607 Only in VII.1
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                                                                  7434 4609 Only in VII.1
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                                                                  7434 4613 Only in VII.1
                                                                  7434 4614 Only in VII.1
                                                                  7434 4800 Only in VII.1
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                                                                  7434 4802 Only in VII.1
                                                                  7434 4803 Only in VII.1
                                                                  7434 4804 Only in VII.1
                                                                  7434 4805 Only in VII.1
                                                                  7434 4806 Only in VII.1
                                                                  7434 4807 Only in VII.1
                                                                  7434 4808 Only in VII.1
                                                                  7434 4809 Only in VII.1
                                                                  7434 4810 Only in VII.1
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                                                                  7434 4813 Only in VII.1
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                                                                  7434 4815 Only in VII.1
                                                                  7434 4816 Only in VII.1
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                                                                  7434 4818 Only in VII.1
                                                                  7434 4819 Only in VII.1
                                                                  7434 4820 Only in VII.1
                                                                  7434 4821 Only in VII.1
                                                                  7434 4822 Only in VII.1
                                                                  7434 4823 Only in VII.1
                                                                  7434 4824 Only in VII.1
                                                                  7434 5 16 Only in VII.0
                                                                  7434 5 17 Only in VII.0
                                                                  7434 5 28 Only in VII.0
                                                                  7434 5 91 Only in VII.0
 1.000000+0 1.000000+0          0          1          1         477434 6  5
 1.000000+0 1.000000+0          0          1          1         277434 6  5
-------------------------------------------------------------------------------
                                                                  7434 6 16 Only in VII.1
                                                                  7434 6 17 Only in VII.1
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                                                                  7434 6 28 Only in VII.1
                                                                  7434 6 37 Only in VII.1
                                                                  7434 6 41 Only in VII.1
                                                                  7434 6 91 Only in VII.1
                                                                  7434 6102 Only in VII.1
                                                                  7434 6649 Only in VII.1
                                                                  7434 6849 Only in VII.1
 74-W -184
*********************************************************************************
 1.000000-5 4.000000+3          1          3          0          17437 2151
 1.000000-5 2.650000+3          1          2          0          07437 2151
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1337437 3  1
 0.000000+0 0.000000+0          0          0          2        3927437 3  1
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1207437 3  2
 0.000000+0 0.000000+0          0          0          1        3867437 3  2
---------------------------------------------------------------------------------
 0.000000+0-1.112100+5          0          0          1         987437 3  4
 0.000000+0-1.111900+5          0          0          1         817437 3  4
---------------------------------------------------------------------------------
 8.508000+6 8.508000+6          0          0          1         457437 3  5
 0.000000+0 0.000000+0          0          0          1        1557437 3  5
---------------------------------------------------------------------------------
-7.411000+6-7.411000+6          0          0          1         427437 3 16
-7.411400+6-7.411400+6          0          0          1         297437 3 16
---------------------------------------------------------------------------------
-1.360200+7-1.360200+7          0          0          1         277437 3 17
-1.360200+7-1.360200+7          0          0          1         167437 3 17
---------------------------------------------------------------------------------
-7.699000+6-7.699000+6          0          0          1         357437 3 28
-7.700000+6-7.700000+6          0          0          1         197437 3 28
---------------------------------------------------------------------------------
                                                                  7437 3 37 Only in VII.1
                                                                  7437 3 41 Only in VII.1
 0.000000+0-1.112100+5          0          0          1         927437 3 51
 0.000000+0-1.111900+5          0          0          1         807437 3 51
---------------------------------------------------------------------------------
 0.000000+0-3.640600+5          0          0          1         797437 3 52
 0.000000+0-3.640500+5          0          0          1         777437 3 52
---------------------------------------------------------------------------------
 0.000000+0-7.483100+5          0          0          1         687437 3 53
 0.000000+0-7.483300+5          0          0          1         457437 3 53
---------------------------------------------------------------------------------
 0.000000+0-9.032800+5          0          0          1         667437 3 54
 0.000000+0-9.032900+5          0          0          1         427437 3 54
---------------------------------------------------------------------------------
 0.000000+0-1.002480+6          0          0          1         647437 3 55
 0.000000+0-1.002500+6          0          0          1         407437 3 55
---------------------------------------------------------------------------------
 0.000000+0-1.005970+6          0          0          1         647437 3 56
 0.000000+0-1.006500+6          0          0          1         397437 3 56
---------------------------------------------------------------------------------
                                                                  7437 3 57 Only in VII.0
                                                                  7437 3 58 Only in VII.0
                                                                  7437 3 59 Only in VII.0
                                                                  7437 3 60 Only in VII.0
                                                                  7437 3 61 Only in VII.0
                                                                  7437 3 62 Only in VII.0
                                                                  7437 3 63 Only in VII.0
                                                                  7437 3 64 Only in VII.0
                                                                  7437 3 65 Only in VII.0
                                                                  7437 3 66 Only in VII.0
                                                                  7437 3 67 Only in VII.0
                                                                  7437 3 68 Only in VII.0
 0.000000+0-6.892210+5          0          0          1         707437 3 91
 0.000000+0-4.972700+5          0          0          1         757437 3 91
---------------------------------------------------------------------------------
 5.753000+6 5.753000+6          0          0          1        1207437 3102
 5.753780+6 5.753780+6          0          0          2         877437 3102
---------------------------------------------------------------------------------
                                                                  7437 3103 Only in VII.0
                                                                  7437 3107 Only in VII.0
                                                                  7437 3600 Only in VII.1
                                                                  7437 3649 Only in VII.1
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                                                                 7437 3800 Only in VII.1
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                                                                 7437 3802 Only in VII.1
                                                                 7437 3803 Only in VII.1
                                                                 7437 3804 Only in VII.1
                                                                 7437 3805 Only in VII.1
                                                                 7437 3806 Only in VII.1
                                                                 7437 3807 Only in VII.1
                                                                 7437 3849 Only in VII.1
 0.000000+0 1.823710+2          0          2          0         617437 4  2
 0.000000+0 1.823700+2          0          2          0          07437 4  2
-------------------------------------------------------------------------------
                                                                 7437 4 16 Only in VII.0
                                                                 7437 4 17 Only in VII.0
                                                                 7437 4 28 Only in VII.0
 0.000000+0 1.823710+2          0          2          0          07437 4 51
 0.000000+0 1.823700+2          0          2          0          07437 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.823710+2          0          2          0          07437 4 52
 0.000000+0 1.823700+2          0          2          0          07437 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.823710+2          0          2          0          07437 4 53
 0.000000+0 1.823700+2          0          2          0          07437 4 53
-------------------------------------------------------------------------------
 0.000000+0 1.823710+2          0          2          0          07437 4 54
 0.000000+0 1.823700+2          0          2          0          07437 4 54
-------------------------------------------------------------------------------
 0.000000+0 1.823710+2          0          2          0          07437 4 55
 0.000000+0 1.823700+2          0          2          0          07437 4 55
-------------------------------------------------------------------------------
 0.000000+0 1.823710+2          0          2          0          07437 4 56
 0.000000+0 1.823700+2          0          2          0          07437 4 56
-------------------------------------------------------------------------------
                                                                 7437 4 57 Only in VII.0
                                                                 7437 4 58 Only in VII.0
                                                                 7437 4 59 Only in VII.0
                                                                 7437 4 60 Only in VII.0
                                                                 7437 4 61 Only in VII.0
                                                                 7437 4 62 Only in VII.0
                                                                 7437 4 63 Only in VII.0
                                                                 7437 4 64 Only in VII.0
                                                                 7437 4 65 Only in VII.0
                                                                 7437 4 66 Only in VII.0
                                                                 7437 4 67 Only in VII.0
                                                                 7437 4 68 Only in VII.0
                                                                 7437 4 91 Only in VII.0
                                                                 7437 4600 Only in VII.1
                                                                 7437 4800 Only in VII.1
                                                                 7437 4801 Only in VII.1
                                                                 7437 4802 Only in VII.1
                                                                 7437 4803 Only in VII.1
                                                                 7437 4804 Only in VII.1
                                                                 7437 4805 Only in VII.1
                                                                 7437 4806 Only in VII.1
                                                                 7437 4807 Only in VII.1
                                                                 7437 5 16 Only in VII.0
                                                                 7437 5 17 Only in VII.0
                                                                 7437 5 28 Only in VII.0
                                                                 7437 5 91 Only in VII.0
 1.000000+0 1.000000+0          0          1          1         457437 6  5
 1.000000+0 1.000000+0          0          1          1         277437 6  5
-------------------------------------------------------------------------------
                                                                 7437 6 16 Only in VII.1
                                                                 7437 6 17 Only in VII.1
                                                                 7437 6 28 Only in VII.1
                                                                 7437 6 37 Only in VII.1
                                                                 7437 6 41 Only in VII.1
                                                                 7437 6 91 Only in VII.1
                                                                 7437 6102 Only in VII.1
                                                                 7437 6649 Only in VII.1
                                                                 7437 6849 Only in VII.1
 74-W -186
*******************************************************************************
 1.000000-5 8.500000+3          1          3          0          17443 2151
 1.000000-5 3.200000+3          1          2          0          07443 2151
```

```
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1337443 3  1
 0.000000+0 0.000000+0          0          0          2        3927443 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1157443 3  2
 0.000000+0 0.000000+0          0          0          1        3867443 3  2
-------------------------------------------------------------------------------
 0.000000+0-1.225800+5          0          0          1        1007443 3  4
 0.000000+0-1.223400+5          0          0          1         817443 3  4
-------------------------------------------------------------------------------
 7.126000+6 7.126000+6          0          0          1         527443 3  5
 0.000000+0 0.000000+0          0          0          1        1547443 3  5
-------------------------------------------------------------------------------
-7.194000+6-7.194000+6          0          0          1         417443 3 16
-7.199500+6-7.199500+6          0          0          1         307443 3 16
-------------------------------------------------------------------------------
-1.294700+7-1.294700+7          0          0          1         287443 3 17
-1.295400+7-1.295400+7          0          0          1         177443 3 17
-------------------------------------------------------------------------------
-8.404000+6-8.404000+6          0          0          1         347443 3 28
-8.427000+6-8.427000+6          0          0          1         187443 3 28
-------------------------------------------------------------------------------
                                                             7443 3 37 Only in VII.1
                                                             7443 3 41 Only in VII.1
 0.000000+0-1.225800+5          0          0          1         897443 3 51
 0.000000+0-1.223400+5          0          0          1         817443 3 51
-------------------------------------------------------------------------------
 0.000000+0-3.965500+5          0          0          1         787443 3 52
 0.000000+0-3.965500+5          0          0          1         777443 3 52
-------------------------------------------------------------------------------
 0.000000+0-7.378600+5          0          0          1         687443 3 53
 0.000000+0-7.375300+5          0          0          1         457443 3 53
-------------------------------------------------------------------------------
 0.000000+0-8.086100+5          0          0          1         677443 3 54
 0.000000+0-8.085500+5          0          0          1         437443 3 54
-------------------------------------------------------------------------------
 0.000000+0-8.620800+5          0          0          1         667443 3 55
 0.000000+0-8.618700+5          0          0          1         427443 3 55
-------------------------------------------------------------------------------
 0.000000+0-8.820000+5          0          0          1         667443 3 56
 0.000000+0-8.820600+5          0          0          1         417443 3 56
-------------------------------------------------------------------------------
 0.000000+0-9.527400+5          0          0          1         657443 3 57
 0.000000+0-9.524800+5          0          0          1         397443 3 57
-------------------------------------------------------------------------------
 0.000000+0-1.006670+6          0          0          1         647443 3 58
 0.000000+0-1.005600+6          0          0          1         377443 3 58
-------------------------------------------------------------------------------
 0.000000+0-1.014890+6          0          0          1         647443 3 59
 0.000000+0-1.015500+6          0          0          1         367443 3 59
-------------------------------------------------------------------------------
 0.000000+0-1.030700+6          0          0          1         647443 3 60
 0.000000+0-1.031500+6          0          0          1         357443 3 60
-------------------------------------------------------------------------------
 0.000000+0-1.045330+6          0          0          1         647443 3 61
 0.000000+0-1.045400+6          0          0          1         347443 3 61
-------------------------------------------------------------------------------
                                                             7443 3 62 Only in VII.0
                                                             7443 3 63 Only in VII.0
                                                             7443 3 64 Only in VII.0
                                                             7443 3 65 Only in VII.0
                                                             7443 3 66 Only in VII.0
                                                             7443 3 67 Only in VII.0
                                                             7443 3 68 Only in VII.0
 0.000000+0-6.892610+5          0          0          1         697443 3 91
 0.000000+0-2.983800+5          0          0          1         787443 3 91
-------------------------------------------------------------------------------
 5.467000+6 5.467000+6          0          0          1        1157443 3102
 5.466750+6 5.466750+6          0          0          2         877443 3102
-------------------------------------------------------------------------------
                                                             7443 3103 Only in VII.0
                                                             7443 3107 Only in VII.0
                                                             7443 3600 Only in VII.1
                                                             7443 3649 Only in VII.1
                                                             7443 3800 Only in VII.1
```

```
                                                                    7443 3849 Only in VII.1
 0.000000+0 1.843570+2          0          2          0         617443 4  2
 0.000000+0 1.843600+2          0          2          0          07443 4  2
-------------------------------------------------------------------------------
                                                                    7443 4 16 Only in VII.0
                                                                    7443 4 17 Only in VII.0
                                                                    7443 4 28 Only in VII.0
 0.000000+0 1.843570+2          0          2          0          07443 4 51
 0.000000+0 1.843600+2          0          2          0          07443 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 52
 0.000000+0 1.843600+2          0          2          0          07443 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 53
 0.000000+0 1.843600+2          0          2          0          07443 4 53
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 54
 0.000000+0 1.843600+2          0          2          0          07443 4 54
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 55
 0.000000+0 1.843600+2          0          2          0          07443 4 55
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 56
 0.000000+0 1.843600+2          0          2          0          07443 4 56
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 57
 0.000000+0 1.843600+2          0          2          0          07443 4 57
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 58
 0.000000+0 1.843600+2          0          2          0          07443 4 58
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 59
 0.000000+0 1.843600+2          0          2          0          07443 4 59
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 60
 0.000000+0 1.843600+2          0          2          0          07443 4 60
-------------------------------------------------------------------------------
 0.000000+0 1.843570+2          0          2          0          07443 4 61
 0.000000+0 1.843600+2          0          2          0          07443 4 61
-------------------------------------------------------------------------------
                                                                    7443 4 62 Only in VII.0
                                                                    7443 4 63 Only in VII.0
                                                                    7443 4 64 Only in VII.0
                                                                    7443 4 65 Only in VII.0
                                                                    7443 4 66 Only in VII.0
                                                                    7443 4 67 Only in VII.0
                                                                    7443 4 68 Only in VII.0
                                                                    7443 4 91 Only in VII.0
                                                                    7443 4600 Only in VII.1
                                                                    7443 4800 Only in VII.1
                                                                    7443 5 16 Only in VII.0
                                                                    7443 5 17 Only in VII.0
                                                                    7443 5 28 Only in VII.0
                                                                    7443 5 91 Only in VII.0
 1.000000+0 1.000000+0          0          1          1         437443 6  5
 1.000000+0 1.000000+0          0          1          1         277443 6  5
-------------------------------------------------------------------------------
                                                                    7443 6 16 Only in VII.1
                                                                    7443 6 17 Only in VII.1
                                                                    7443 6 28 Only in VII.1
                                                                    7443 6 37 Only in VII.1
                                                                    7443 6 41 Only in VII.1
                                                                    7443 6 91 Only in VII.1
                                                                    7443 6102 Only in VII.1
                                                                    7443 6649 Only in VII.1
                                                                    7443 6849 Only in VII.1
 75-Re-185
*******************************************************************************
 0.000000+0 0.000000+0          0          0          1        1077525 3  1
 0.000000+0 0.000000+0          0          0          3        1147525 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1077525 3  2
 0.000000+0 0.000000+0          0          0          3        1147525 3  2
-------------------------------------------------------------------------------
                                                                    7525 3  4 Only in VII.0
```

```
-7.666838+6-7.666838+6          0          0          1         647525 3 16
-7.677380+6-7.677380+6          0          0          1         277525 3 16
-------------------------------------------------------------------------------
-1.415376+7-1.415376+7          0          0          1         317525 3 17
-1.415576+7-1.415576+7          0          0          1         137525 3 17
-------------------------------------------------------------------------------
                                                               7525 3 22 Only in VII.1
                                                               7525 3 28 Only in VII.1
 0.000000+0-1.253580+5          0          0          1        1017525 3 51
 0.000000+0-1.254000+5          0          0          1         587525 3 51
-------------------------------------------------------------------------------
 0.000000+0-2.841000+5          0          0          1        1007525 3 52
 0.000000+0-2.841000+5          0          0          1         557525 3 52
-------------------------------------------------------------------------------
 0.000000+0-3.682000+5          0          0          1        1007525 3 53
 0.000000+0-3.682000+5          0          0          1         537525 3 53
-------------------------------------------------------------------------------
 0.000000+0-4.756000+5          0          0          1         997525 3 54
 0.000000+0-4.756000+5          0          0          1         517525 3 54
-------------------------------------------------------------------------------
 0.000000+0-5.469000+5          0          0          1         997525 3 55
 0.000000+0-5.469000+5          0          0          1         497525 3 55
-------------------------------------------------------------------------------
 0.000000+0-6.461190+5          0          0          1         987525 3 56
 0.000000+0-6.461000+5          0          0          1         477525 3 56
-------------------------------------------------------------------------------
 0.000000+0-6.970000+5          0          0          1         987525 3 57
 0.000000+0-6.970000+5          0          0          1         457525 3 57
-------------------------------------------------------------------------------
 0.000000+0-7.174320+5          0          0          1         987525 3 58
 0.000000+0-7.174000+5          0          0          1         447525 3 58
-------------------------------------------------------------------------------
 0.000000+0-7.574000+5          0          0          1         987525 3 59
 0.000000+0-7.574000+5          0          0          1         437525 3 59
-------------------------------------------------------------------------------
                                                               7525 3 60 Only in VII.1
                                                               7525 3 61 Only in VII.1
                                                               7525 3 62 Only in VII.1
                                                               7525 3 63 Only in VII.1
                                                               7525 3 64 Only in VII.1
                                                               7525 3 65 Only in VII.1
                                                               7525 3 66 Only in VII.1
                                                               7525 3 67 Only in VII.1
                                                               7525 3 68 Only in VII.1
                                                               7525 3 69 Only in VII.1
                                                               7525 3 70 Only in VII.1
 0.000000+0-9.945760+5          0          0          1         967525 3 91
 0.000000+0-7.574000+5          0          0          1         437525 3 91
-------------------------------------------------------------------------------
 6.179358+6 6.179358+6          0          0          1        1077525 3102
 6.178000+6 6.178000+6          0          0          3         727525 3102
-------------------------------------------------------------------------------
                                                               7525 3103 Only in VII.1
                                                               7525 3104 Only in VII.1
                                                               7525 3105 Only in VII.1
                                                               7525 3107 Only in VII.1
 0.000000+0 1.833641+2          0          2          0          07525 4  2
 0.000000+0 1.833640+2          0          2          0          07525 4  2
-------------------------------------------------------------------------------
                                                               7525 4 16 Only in VII.0
                                                               7525 4 17 Only in VII.0
 0.000000+0 1.833641+2          0          2          0          07525 4 51
 0.000000+0 1.833640+2          0          2          0          07525 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.833641+2          0          2          0          07525 4 52
 0.000000+0 1.833640+2          0          2          0          07525 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.833641+2          0          2          0          07525 4 53
 0.000000+0 1.833640+2          0          2          0          07525 4 53
-------------------------------------------------------------------------------
 0.000000+0 1.833641+2          0          2          0          07525 4 54
 0.000000+0 1.833640+2          0          2          0          07525 4 54
-------------------------------------------------------------------------------
 0.000000+0 1.833641+2          0          2          0          07525 4 55
 0.000000+0 1.833640+2          0          2          0          07525 4 55
```

```
-------------------------------------------------------------------------------
 0.000000+0 1.833641+2          0          2          0          07525 4 56
 0.000000+0 1.833640+2          0          2          0          07525 4 56
-------------------------------------------------------------------------------
 0.000000+0 1.833641+2          0          2          0          07525 4 57
 0.000000+0 1.833640+2          0          2          0          07525 4 57
-------------------------------------------------------------------------------
 0.000000+0 1.833641+2          0          2          0          07525 4 58
 0.000000+0 1.833640+2          0          2          0          07525 4 58
-------------------------------------------------------------------------------
 0.000000+0 1.833641+2          0          2          0          07525 4 59
 0.000000+0 1.833640+2          0          2          0          07525 4 59
-------------------------------------------------------------------------------
                                                                  7525 4 60 Only in VII.1
                                                                  7525 4 61 Only in VII.1
                                                                  7525 4 62 Only in VII.1
                                                                  7525 4 63 Only in VII.1
                                                                  7525 4 64 Only in VII.1
                                                                  7525 4 65 Only in VII.1
                                                                  7525 4 66 Only in VII.1
                                                                  7525 4 67 Only in VII.1
                                                                  7525 4 68 Only in VII.1
                                                                  7525 4 69 Only in VII.1
                                                                  7525 4 70 Only in VII.1
                                                                  7525 4 91 Only in VII.0
                                                                  7525 5 16 Only in VII.0
                                                                  7525 5 17 Only in VII.0
                                                                  7525 5 91 Only in VII.0
                                                                  7525 6 16 Only in VII.1
                                                                  7525 6 17 Only in VII.1
                                                                  7525 6 22 Only in VII.1
                                                                  7525 6 28 Only in VII.1
                                                                  7525 6 91 Only in VII.1
                                                                  7525 6103 Only in VII.1
                                                                  7525 6104 Only in VII.1
                                                                  7525 6105 Only in VII.1
                                                                  7525 6107 Only in VII.1
 75-Re-187
*******************************************************************************
 0.000000+0 0.000000+0          0          0          1        1077531 3  1
 0.000000+0 0.000000+0          0          0          3        1217531 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1077531 3  2
 0.000000+0 0.000000+0          0          0          3        1217531 3  2
-------------------------------------------------------------------------------
                                                                  7531 3  4 Only in VII.0
-7.356838+6-7.356838+6          0          0          1         667531 3 16
-7.360380+6-7.360380+6          0          0          1         287531 3 16
-------------------------------------------------------------------------------
-1.353620+7-1.353620+7          0          0          1         337531 3 17
-1.353876+7-1.353876+7          0          0          1         147531 3 17
-------------------------------------------------------------------------------
                                                                  7531 3 22 Only in VII.1
                                                                  7531 3 28 Only in VII.1
 0.000000+0-1.342430+5          0          0          1        1017531 3 51
 0.000000+0-1.342000+5          0          0          1         657531 3 51
-------------------------------------------------------------------------------
 0.000000+0-2.062440+5          0          0          1        1007531 3 52
 0.000000+0-2.062000+5          0          0          1         627531 3 52
-------------------------------------------------------------------------------
 0.000000+0-3.031300+5          0          0          1        1007531 3 53
 0.000000+0-3.027000+5          0          0          1         607531 3 53
-------------------------------------------------------------------------------
 0.000000+0-3.900000+5          0          0          1        1007531 3 54
 0.000000+0-3.900000+5          0          0          1         597531 3 54
-------------------------------------------------------------------------------
 0.000000+0-5.117660+5          0          0          1         997531 3 55
 0.000000+0-5.090000+5          0          0          1         567531 3 55
-------------------------------------------------------------------------------
 0.000000+0-5.819900+5          0          0          1         997531 3 56
 0.000000+0-5.116000+5          0          0          1         557531 3 56
-------------------------------------------------------------------------------
 0.000000+0-5.891360+5          0          0          1         997531 3 57
 0.000000+0-5.890000+5          0          0          1         547531 3 57
-------------------------------------------------------------------------------
```

```
 0.000000+0-6.183620+5          0          0          1         987531 3 58
 0.000000+0-6.183000+5          0          0          1         527531 3 58
-------------------------------------------------------------------------------
 0.000000+0-6.255130+5          0          0          1         987531 3 59
 0.000000+0-6.255000+5          0          0          1         517531 3 59
-------------------------------------------------------------------------------
 0.000000+0-6.472300+5          0          0          1         987531 3 60
 0.000000+0-6.473000+5          0          0          1         507531 3 60
-------------------------------------------------------------------------------
 0.000000+0-6.857750+5          0          0          1         987531 3 61
 0.000000+0-6.857000+5          0          0          1         497531 3 61
-------------------------------------------------------------------------------
 0.000000+0-7.187300+5          0          0          1         987531 3 62
 0.000000+0-7.430000+5          0          0          1         477531 3 62
-------------------------------------------------------------------------------
 0.000000+0-7.430000+5          0          0          1         987531 3 63
 0.000000+0-7.710000+5          0          0          1         467531 3 63
-------------------------------------------------------------------------------
 0.000000+0-7.678000+5          0          0          1         987531 3 64
 0.000000+0-7.729000+5          0          0          1         457531 3 64
-------------------------------------------------------------------------------
 0.000000+0-7.729000+5          0          0          1         987531 3 65
 0.000000+0-8.166000+5          0          0          1         437531 3 65
-------------------------------------------------------------------------------
 0.000000+0-8.165640+5          0          0          1         977531 3 66
 0.000000+0-8.266000+5          0          0          1         427531 3 66
-------------------------------------------------------------------------------
                                                              7531 3 67 Only in VII.1
                                                              7531 3 68 Only in VII.1
                                                              7531 3 69 Only in VII.1
                                                              7531 3 70 Only in VII.1
 0.000000+0-7.957070+5          0          0          1         977531 3 91
 0.000000+0-8.266000+5          0          0          1         427531 3 91
-------------------------------------------------------------------------------
 5.871753+6 5.871753+6          0          0          1        1077531 3102
 5.873000+6 5.873000+6          0          0          3         727531 3102
-------------------------------------------------------------------------------
                                                              7531 3103 Only in VII.1
                                                              7531 3104 Only in VII.1
                                                              7531 3105 Only in VII.1
                                                              7531 3107 Only in VII.1
 0.000000+0 1.853497+2          0          2          0          07531 4  2
 0.000000+0 1.853500+2          0          2          0          07531 4  2
-------------------------------------------------------------------------------
                                                              7531 4 16 Only in VII.0
                                                              7531 4 17 Only in VII.0
 0.000000+0 1.853497+2          0          2          0          07531 4 51
 0.000000+0 1.853500+2          0          2          0          07531 4 51
-------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 52
 0.000000+0 1.853500+2          0          2          0          07531 4 52
-------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 53
 0.000000+0 1.853500+2          0          2          0          07531 4 53
-------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 54
 0.000000+0 1.853500+2          0          2          0          07531 4 54
-------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 55
 0.000000+0 1.853500+2          0          2          0          07531 4 55
-------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 56
 0.000000+0 1.853500+2          0          2          0          07531 4 56
-------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 57
 0.000000+0 1.853500+2          0          2          0          07531 4 57
-------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 58
 0.000000+0 1.853500+2          0          2          0          07531 4 58
-------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 59
 0.000000+0 1.853500+2          0          2          0          07531 4 59
-------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 60
 0.000000+0 1.853500+2          0          2          0          07531 4 60
```

```
--------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 61
 0.000000+0 1.853500+2          0          2          0          07531 4 61
--------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 62
 0.000000+0 1.853500+2          0          2          0          07531 4 62
--------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 63
 0.000000+0 1.853500+2          0          2          0          07531 4 63
--------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 64
 0.000000+0 1.853500+2          0          2          0          07531 4 64
--------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 65
 0.000000+0 1.853500+2          0          2          0          07531 4 65
--------------------------------------------------------------------------------
 0.000000+0 1.853497+2          0          2          0          07531 4 66
 0.000000+0 1.853500+2          0          2          0          07531 4 66
--------------------------------------------------------------------------------
                                                                  7531 4 67 Only in VII.1
                                                                  7531 4 68 Only in VII.1
                                                                  7531 4 69 Only in VII.1
                                                                  7531 4 70 Only in VII.1
                                                                  7531 4 91 Only in VII.0
                                                                  7531 5 16 Only in VII.0
                                                                  7531 5 17 Only in VII.0
                                                                  7531 5 91 Only in VII.0
                                                                  7531 6 16 Only in VII.1
                                                                  7531 6 17 Only in VII.1
                                                                  7531 6 22 Only in VII.1
                                                                  7531 6 28 Only in VII.1
                                                                  7531 6 91 Only in VII.1
                                                                  7531 6103 Only in VII.1
                                                                  7531 6104 Only in VII.1
                                                                  7531 6105 Only in VII.1
                                                                  7531 6107 Only in VII.1
 77-Ir-191
********************************************************************************
-9.835711-4-6.465490-3 2.787750-3 7.048050-3-6.516570-3-7.813980-37725 4 58
-9.835710-4-6.465490-3 2.787750-3 7.048050-3-6.516570-3-7.813980-37725 4 58
--------------------------------------------------------------------------------
 0.000000+0 9.612251-7 6.20970-15 2.176700+5 1.571530-6 2.86127-157725 6 28
 0.000000+0 9.612250-7 6.20970-15 2.176700+5 1.571530-6 2.86127-157725 6 28
--------------------------------------------------------------------------------
 77-Ir-193
********************************************************************************
 7.610600+5 1.072220-6-1.35833-14 8.562000+5 9.571741-7 1.01228-147731 6 91
 7.610600+5 1.072220-6-1.35833-14 8.562000+5 9.571740-7 1.01228-147731 6 91
--------------------------------------------------------------------------------
 79-Au-197
********************************************************************************
 80-Hg-196
********************************************************************************
-9.945219-1 9.772202-4-9.902681-1 5.801228-4-9.848078-1 3.966870-48025 4  2
-9.945219-1 9.772203-4-9.902681-1 5.801228-4-9.848078-1 3.966870-48025 4  2
--------------------------------------------------------------------------------
 0.000000+0 1.232180-1 0.000000+0 2.334700-2 0.000000+0 9.927941-48025 4 69
 0.000000+0 1.232180-1 0.000000+0 2.334700-2 0.000000+0 9.927940-48025 4 69
--------------------------------------------------------------------------------
 0.000000+0 9.813569-7 1.000500+6 2.710970-8 1.667500+6 1.01014-108025 5 22
 0.000000+0 9.813570-7 1.000500+6 2.710970-8 1.667500+6 1.01014-108025 5 22
--------------------------------------------------------------------------------
 5.618709+6 9.75584-41 6.243010+6 0.000000+0                       8025 6  5
 5.618709+6 9.75589-41 6.243010+6 0.000000+0                       8025 6  5
--------------------------------------------------------------------------------
 80-Hg-198
********************************************************************************
-4.067366-1 9.941901-7-3.746066-1 1.925906-6-3.420201-1 2.481473-68031 4  2
-4.067366-1 9.941902-7-3.746066-1 1.925906-6-3.420201-1 2.481473-68031 4  2
--------------------------------------------------------------------------------
 2.487337+6 8.52358-13 1.687000-4 3.482272+6 7.48192-11 9.867999-48031 6  5
 2.487337+6 8.52358-13 1.687000-4 3.482272+6 7.48192-11 9.868000-48031 6  5
--------------------------------------------------------------------------------
 80-Hg-199
********************************************************************************
```

```
 1.000000-5 9.594100-7 2.530000-2 9.592970-7 1.000000+0 9.549969-78034 3107
 1.000000-5 9.594100-7 2.530000-2 9.592970-7 1.000000+0 9.549970-78034 3107
-------------------------------------------------------------------------------
-8.090170-1 9.943413-4-7.880108-1 9.978116-4-7.660444-1 1.053366-38034 4  2
-8.090170-1 9.943413-4-7.880108-1 9.978115-4-7.660444-1 1.053366-38034 4  2
-------------------------------------------------------------------------------
 0.000000+0-5.750460-4 0.000000+0-9.832371-4 0.000000+0-3.217170-48034 4 63
 0.000000+0-5.750460-4 0.000000+0-9.832370-4 0.000000+0-3.217170-48034 4 63
-------------------------------------------------------------------------------
 7.337642+7 5.62668-40 0.000000+0                                 8034 6  5
 7.337642+7 5.62667-40 0.000000+0                                 8034 6  5
-------------------------------------------------------------------------------
 80-Hg-200
*******************************************************************************
 1.045285-1 7.703236-4 1.391731-1 8.803268-4 1.736482-1 9.843440-48037 4  2
 1.045285-1 7.703236-4 1.391731-1 8.803268-4 1.736482-1 9.843441-48037 4  2
-------------------------------------------------------------------------------
 0.000000+0 9.968051-7 1.000500+6 8.373070-9 1.322600+6 0.000000+08037 5 17
 0.000000+0 9.968050-7 1.000500+6 8.373070-9 1.322600+6 0.000000+08037 5 17
-------------------------------------------------------------------------------
 0.000000+0 9.869721-7 1.000500+6 1.879220-8 1.667500+6 0.000000+08037 5 22
 0.000000+0 9.869720-7 1.000500+6 1.879220-8 1.667500+6 0.000000+08037 5 22
-------------------------------------------------------------------------------
 7.338202+7 6.91148-41 0.000000+0                                 8037 6  5
 7.338202+7 6.91150-41 0.000000+0                                 8037 6  5
-------------------------------------------------------------------------------
 80-Hg-201
*******************************************************************************
 6.000000+6 9.823859-4 8.000000+6 5.203440-5 1.000000+7 1.688600-68040 3 59
 6.000000+6 9.823860-4 8.000000+6 5.203440-5 1.000000+7 1.688600-68040 3 59
-------------------------------------------------------------------------------
 3.090170-1 9.983974-4 3.420201-1 1.322084-3 3.746066-1 1.767220-38040 4  2
 3.090170-1 9.983973-4 3.420201-1 1.322084-3 3.746066-1 1.767220-38040 4  2
-------------------------------------------------------------------------------
 3.373420-3-9.918601-4-1.074490-4-9.875390-5-4.109810-7-1.801250-58040 4 52
 3.373420-3-9.918600-4-1.074490-4-9.875390-5-4.109810-7-1.801250-58040 4 52
-------------------------------------------------------------------------------
 1.079586+8 1.12104-44 0.000000+0                                 8040 6  5
 1.079586+8 1.11010-44 0.000000+0                                 8040 6  5
-------------------------------------------------------------------------------
 80-Hg-202
*******************************************************************************
-4.067366-1 2.353293-7-3.746066-1 9.943838-7-3.420201-1 1.954334-68043 4  2
-4.067366-1 2.353293-7-3.746066-1 9.943837-7-3.420201-1 1.954334-68043 4  2
-------------------------------------------------------------------------------
 9.929599-4-1.072450-3-5.161110-5-5.923050-5-7.322550-6-3.003070-68043 4 55
 9.929600-4-1.072450-3-5.161110-5-5.923050-5-7.322550-6-3.003070-68043 4 55
-------------------------------------------------------------------------------
 0.000000+0 9.704989-7 1.000500+6 3.711510-8 1.667500+6 5.257050-98043 5 22
 0.000000+0 9.704990-7 1.000500+6 3.711510-8 1.667500+6 5.257050-98043 5 22
-------------------------------------------------------------------------------
 4.301815+6 2.59989-40 4.779794+6 0.000000+0                      8043 6  5
 4.301815+6 2.59988-40 4.779794+6 0.000000+0                      8043 6  5
-------------------------------------------------------------------------------
 80-Hg-204
*******************************************************************************
 1.045285-1 7.703236-4 1.391731-1 8.803268-4 1.736482-1 9.843440-48049 4  2
 1.045285-1 7.703236-4 1.391731-1 8.803268-4 1.736482-1 9.843441-48049 4  2
-------------------------------------------------------------------------------
-5.841320-6-5.859780-7 9.922099-7-1.779000-7 2.601100-9 2.109980-98049 4 68
-5.841320-6-5.859780-7 9.922100-7-1.779000-7 2.601100-9 2.109980-98049 4 68
-------------------------------------------------------------------------------
 9.204521+7 9.98397-41 0.000000+0                                 8049 6  5
 9.204521+7 9.98395-41 0.000000+0                                 8049 6  5
-------------------------------------------------------------------------------
 82-Pb-204
*******************************************************************************
 82-Pb-206
*******************************************************************************
 0.000000+0 1.000000-4          0          0          2          08231 4  2
 0.000000+0 1.000000-5          0          0          2          08231 4  2
-------------------------------------------------------------------------------
 82-Pb-207
*******************************************************************************
 0.000000+0 1.000000-4          0          0          2          08234 4  2
```

```
 0.000000+0 1.000000-5          0          0          2          08234 4  2
--------------------------------------------------------------------------------
 82-Pb-208
********************************************************************************
 5.811660+6 0.000000+0 6.164421+6 5.06070-17 7.166301+6 3.09160-168237 3104
 5.811660+6 0.000000+0 6.164422+6 5.06070-13 7.166298+6 1.34258-118237 3104
--------------------------------------------------------------------------------
 5.811660+6 0.000000+0 8.750000+6 4.21530-16 9.000000+6 1.17090-128237 3650
 5.811660+6 0.000000+0 8.750000+6 4.21532-12 9.000000+6 1.170860-88237 3650
--------------------------------------------------------------------------------
 6.164422+6 0.000000+0 8.750000+6 2.96330-16 9.000000+6 1.50400-158237 3651
 6.164422+6 0.000000+0 8.750000+6 2.96332-11 9.000000+6 1.50404-108237 3651
--------------------------------------------------------------------------------
 7.166298+6 0.000000+0 8.750000+6 1.00000-26 9.000000+6 1.00000-268237 3652
 7.166298+6 0.000000+0 8.750000+6 1.00000-20 9.000000+6 1.00000-208237 3652
--------------------------------------------------------------------------------
 5.877853-1 9.921344-4 6.156615-1 1.314650-3 6.427876-1 1.896842-38237 4  2
 5.877853-1 9.921345-4 6.156615-1 1.314650-3 6.427876-1 1.896842-38237 4  2
--------------------------------------------------------------------------------
 1.305878+8 9.909987-9 0.000000+0                                 8237 6  5
 1.305878+8 9.80592-51 0.000000+0                                 8237 6  5
--------------------------------------------------------------------------------
 2.487934+5 9.650335-7 1.123846-2 3.483107+5 1.054284-6 1.458150-28237 6 16
 2.487934+5 9.650334-7 1.123846-2 3.483107+5 1.054284-6 1.458150-28237 6 16
--------------------------------------------------------------------------------
 9.454148+4 8.903161-7 3.868335-2 1.094691+5 9.907588-7 3.941522-28237 6 22
 9.454148+4 8.903161-7 3.868335-2 1.094691+5 9.907589-7 3.941522-28237 6 22
--------------------------------------------------------------------------------
 4.478281+5 9.669297-7 2.086118-2 5.473454+5 9.309394-7 2.275852-28237 6 24
 4.478281+5 9.669298-7 2.086118-2 5.473454+5 9.309394-7 2.275852-28237 6 24
--------------------------------------------------------------------------------
 0.000000+0 1.388497-6 3.000000+5 4.990476-7 5.000000+5 9.775860-78237 6 33
 0.000000+0 1.388497-6 3.000000+5 4.990476-7 5.000000+5 9.775859-78237 6 33
--------------------------------------------------------------------------------
 2.587451+5 9.807123-7 1.193717-2 2.985521+5 1.038554-6 1.242066-28237 6 41
 2.587451+5 9.807124-7 1.193717-2 2.985521+5 1.038554-6 1.242066-28237 6 41
--------------------------------------------------------------------------------
 2.487934+5 7.809822-7 5.648501-2 3.483107+5 9.584739-7 5.913704-28237 6 91
 2.487934+5 7.809822-7 5.648501-2 3.483107+5 9.584740-7 5.913704-28237 6 91
--------------------------------------------------------------------------------
 3.500000+5 4.019961-7 4.500000+5 9.726637-7 5.500000+5 8.244782-78237 6649
 3.500000+5 4.019961-7 4.500000+5 9.726636-7 5.500000+5 8.244782-78237 6649
--------------------------------------------------------------------------------
 8.328073+6 8.675260-7 7.647492-1 8.426630+6 9.747999-7 7.757668-18237 6749
 8.328073+6 8.675260-7 7.647492-1 8.426630+6 9.748000-7 7.757668-18237 6749
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0 0.000000+0 4.806178+6 7.08020-41 0.000000+08237 6849
 0.000000+0 0.000000+0 0.000000+0 4.806178+6 7.08015-41 0.000000+08237 6849
--------------------------------------------------------------------------------
 83-Bi-209
********************************************************************************
 88-Ra-223
********************************************************************************
 88-Ra-224
********************************************************************************
 88-Ra-225
********************************************************************************
 88-Ra-226
********************************************************************************
 89-Ac-225
********************************************************************************
                                                          8925 1452 Only in VII.1
                                                          8925 1455 Only in VII.1
                                                          8925 1456 Only in VII.1
 1.000000-5 4.500000-1          0          0          0          08925 2151
 1.000000-5 6.000000-1          0          0          0          08925 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1198925 3  1
 0.000000+0 0.000000+0          0          0          2         948925 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1078925 3  2
 0.000000+0 0.000000+0          0          0          2         388925 3  2
--------------------------------------------------------------------------------
 0.000000+0-2.994000+4          0          0          1         828925 3  4
 0.000000+0-3.999990+4          0          0          1         278925 3  4
```

```
-------------------------------------------------------------------------
-6.667820+6-6.667820+6          0          0          1         288925 3 16
-6.664690+6-6.664690+6          0          0          1         138925 3 16
-------------------------------------------------------------------------
-1.233080+7-1.233080+7          0          0          1         168925 3 17
-1.234240+7-1.234240+7          0          0          1          88925 3 17
-------------------------------------------------------------------------
                                                                8925 3 18 Only in VII.1
                                                                8925 3 19 Only in VII.1
                                                                8925 3 20 Only in VII.1
                                                                8925 3 21 Only in VII.1
-1.919720+7-1.919720+7          0          0          1          28925 3 37
-1.920610+7-1.920610+7          0          0          1          28925 3 37
-------------------------------------------------------------------------
                                                                8925 3 38 Only in VII.1
 0.000000+0-2.994000+4          0          0          1         808925 3 51
 0.000000+0-3.999990+4          0          0          1         278925 3 51
-------------------------------------------------------------------------
                                                                8925 3 52 Only in VII.1
                                                                8925 3 53 Only in VII.1
                                                                8925 3 54 Only in VII.1
                                                                8925 3 55 Only in VII.1
                                                                8925 3 56 Only in VII.1
                                                                8925 3 57 Only in VII.1
                                                                8925 3 58 Only in VII.1
                                                                8925 3 59 Only in VII.1
                                                                8925 3 60 Only in VII.1
                                                                8925 3 61 Only in VII.1
                                                                8925 3 62 Only in VII.1
                                                                8925 3 63 Only in VII.1
                                                                8925 3 64 Only in VII.1
 0.000000+0-1.032260+5          0          0          1         748925 3 91
 0.000000+0-6.469990+4          0          0          1         268925 3 91
-------------------------------------------------------------------------
 5.399320+6 5.399320+6          0          0          1        1078925 3102
 5.383690+6 5.383690+6          0          0          1         388925 3102
-------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1048925 4  2
 0.000000+0 0.000000+0          0          0          1         368925 4  2
-------------------------------------------------------------------------
                                                                8925 4 16 Only in VII.0
                                                                8925 4 17 Only in VII.0
                                                                8925 4 18 Only in VII.1
                                                                8925 4 37 Only in VII.0
                                                                8925 4 51 Only in VII.0
                                                                8925 4 91 Only in VII.0
                                                                8925 5 16 Only in VII.0
                                                                8925 5 17 Only in VII.0
                                                                8925 5 18 Only in VII.1
                                                                8925 5 37 Only in VII.0
                                                                8925 5 91 Only in VII.0
                                                                8925 6 16 Only in VII.1
                                                                8925 6 17 Only in VII.1
                                                                8925 6 37 Only in VII.1
                                                                8925 6 51 Only in VII.1
                                                                8925 6 52 Only in VII.1
                                                                8925 6 53 Only in VII.1
                                                                8925 6 54 Only in VII.1
                                                                8925 6 55 Only in VII.1
                                                                8925 6 56 Only in VII.1
                                                                8925 6 57 Only in VII.1
                                                                8925 6 58 Only in VII.1
                                                                8925 6 59 Only in VII.1
                                                                8925 6 60 Only in VII.1
                                                                8925 6 61 Only in VII.1
                                                                8925 6 62 Only in VII.1
                                                                8925 6 63 Only in VII.1
                                                                8925 6 64 Only in VII.1
                                                                8925 6 91 Only in VII.1
                                                                8925 6102 Only in VII.1
 89-Ac-226
*************************************************************************
                                                                8928 1452 Only in VII.1
                                                                8928 1455 Only in VII.1
                                                                8928 1456 Only in VII.1
```

```
 1.000000-5 3.000000-1          0          0          0          08928 2151
 1.000000-5 4.000000-1          0          0          0          08928 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1118928 3  1
 0.000000+0 0.000000+0          0          0          2         918928 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1118928 3  2
 0.000000+0 0.000000+0          0          0          2         378928 3  2
-------------------------------------------------------------------------------
 0.000000+0-5.100000+3          0          0          1         788928 3  4
 0.000000+0-2.900000+5          0          0          1         238928 3  4
-------------------------------------------------------------------------------
-5.399320+6-5.399320+6          0          0          1         308928 3 16
-5.396690+6-5.396690+6          0          0          1         148928 3 16
-------------------------------------------------------------------------------
-1.206710+7-1.206710+7          0          0          1         178928 3 17
-1.206140+7-1.206140+7          0          0          1          88928 3 17
-------------------------------------------------------------------------------
                                                                  8928 3 18 Only in VII.1
                                                                  8928 3 19 Only in VII.1
                                                                  8928 3 20 Only in VII.1
                                                                  8928 3 21 Only in VII.1
-1.773020+7-1.773020+7          0          0          1          58928 3 37
-1.773910+7-1.773910+7          0          0          1          38928 3 37
-------------------------------------------------------------------------------
                                                                  8928 3 38 Only in VII.1
                                                                  8928 3 51 Only in VII.1
                                                                  8928 3 52 Only in VII.1
                                                                  8928 3 53 Only in VII.1
                                                                  8928 3 54 Only in VII.1
                                                                  8928 3 55 Only in VII.1
                                                                  8928 3 56 Only in VII.1
                                                                  8928 3 57 Only in VII.1
 0.000000+0-1.104910+5          0          0          1         648928 3 91
 0.000000+0-2.900000+5          0          0          1         238928 3 91
-------------------------------------------------------------------------------
 6.530590+6 6.530590+6          0          0          1        1008928 3102
 6.527690+6 6.527690+6          0          0          1         378928 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         978928 4  2
 0.000000+0 0.000000+0          0          0          1         368928 4  2
-------------------------------------------------------------------------------
                                                                  8928 4 16 Only in VII.0
                                                                  8928 4 17 Only in VII.0
                                                                  8928 4 18 Only in VII.1
                                                                  8928 4 37 Only in VII.0
                                                                  8928 4 91 Only in VII.0
                                                                  8928 5 16 Only in VII.0
                                                                  8928 5 17 Only in VII.0
                                                                  8928 5 18 Only in VII.1
                                                                  8928 5 37 Only in VII.0
                                                                  8928 5 91 Only in VII.0
                                                                  8928 6 16 Only in VII.1
                                                                  8928 6 17 Only in VII.1
                                                                  8928 6 37 Only in VII.1
                                                                  8928 6 51 Only in VII.1
                                                                  8928 6 52 Only in VII.1
                                                                  8928 6 53 Only in VII.1
                                                                  8928 6 54 Only in VII.1
                                                                  8928 6 55 Only in VII.1
                                                                  8928 6 56 Only in VII.1
                                                                  8928 6 57 Only in VII.1
                                                                  8928 6 91 Only in VII.1
                                                                  8928 6102 Only in VII.1
 89-Ac-227
*******************************************************************************
 0.000000+0 0.000000+0          0          0          1          58931 1452
 0.000000+0 0.000000+0          0          0          2          08931 1452
-------------------------------------------------------------------------------
                                                                  8931 1455 Only in VII.1
                                                                  8931 1456 Only in VII.1
 1.000000-5 6.000000-1          0          0          0          08931 2151
 1.000000-5 3.600000+1          0          0          0          08931 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1278931 3  1
```

```
 0.000000+0 0.000000+0          0          0          2        1008931 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1268931 3  2
 0.000000+0 0.000000+0          0          0          2         478931 3  2
--------------------------------------------------------------------------------
 0.000000+0-2.737000+4          0          0          1         908931 3  4
 0.000000+0-2.740000+4          0          0          1         408931 3  4
--------------------------------------------------------------------------------
-6.530590+6-6.530590+6          0          0          1         288931 3 16
-6.522690+6-6.522690+6          0          0          1         128931 3 16
--------------------------------------------------------------------------------
-1.192990+7-1.192990+7          0          0          1         178931 3 17
-1.191940+7-1.191940+7          0          0          1          78931 3 17
--------------------------------------------------------------------------------
 1.790000+8 1.790000+8          0          0          1         768931 3 18
 1.999990+8 1.999990+8          0          0          1         348931 3 18
--------------------------------------------------------------------------------
                                                                 8931 3 19 Only in VII.1
                                                                 8931 3 20 Only in VII.1
                                                                 8931 3 21 Only in VII.1
-1.859770+7-1.859770+7          0          0          1          38931 3 37
-1.858410+7-1.858410+7          0          0          1          28931 3 37
--------------------------------------------------------------------------------
                                                                 8931 3 38 Only in VII.1
 0.000000+0-2.737000+4          0          0          1         878931 3 51
 0.000000+0-2.740000+4          0          0          1         408931 3 51
--------------------------------------------------------------------------------
 0.000000+0-2.998000+4          0          0          1         858931 3 52
 0.000000+0-3.000000+4          0          0          1         398931 3 52
--------------------------------------------------------------------------------
 0.000000+0-4.635000+4          0          0          1         848931 3 53
 0.000000+0-4.639990+4          0          0          1         378931 3 53
--------------------------------------------------------------------------------
 0.000000+0-7.414000+4          0          0          1         818931 3 54
 0.000000+0-7.409990+4          0          0          1         368931 3 54
--------------------------------------------------------------------------------
 0.000000+0-8.455000+4          0          0          1         808931 3 55
 0.000000+0-8.459990+4          0          0          1         348931 3 55
--------------------------------------------------------------------------------
 0.000000+0-1.099400+5          0          0          1         788931 3 56
 0.000000+0-1.100000+5          0          0          1         328931 3 56
--------------------------------------------------------------------------------
 0.000000+0-1.268600+5          0          0          1         768931 3 57
 0.000000+0-1.269000+5          0          0          1         318931 3 57
--------------------------------------------------------------------------------
 0.000000+0-1.480000+5          0          0          1         748931 3 58
 0.000000+0-1.874000+5          0          0          1         308931 3 58
--------------------------------------------------------------------------------
 0.000000+0-1.600000+5          0          0          1         738931 3 59
 0.000000+0-2.109000+5          0          0          1         288931 3 59
--------------------------------------------------------------------------------
                                                                 8931 3 60 Only in VII.1
                                                                 8931 3 61 Only in VII.1
                                                                 8931 3 62 Only in VII.1
                                                                 8931 3 63 Only in VII.1
                                                                 8931 3 64 Only in VII.1
                                                                 8931 3 65 Only in VII.1
                                                                 8931 3 66 Only in VII.1
                                                                 8931 3 67 Only in VII.1
                                                                 8931 3 68 Only in VII.1
                                                                 8931 3 69 Only in VII.1
                                                                 8931 3 70 Only in VII.1
 0.000000+0-1.056820+5          0          0          1         798931 3 91
 0.000000+0-2.730000+5          0          0          1         278931 3 91
--------------------------------------------------------------------------------
 5.026280+6 5.026280+6          0          0          1        1138931 3102
 5.035690+6 5.035690+6          0          0          1         478931 3102
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1108931 4  2
 0.000000+0 0.000000+0          0          0          1         478931 4  2
--------------------------------------------------------------------------------
                                                                 8931 4 16 Only in VII.0
                                                                 8931 4 17 Only in VII.0
 0.000000+0 2.250770+2          1          1          0          08931 4 18
 0.000000+0 2.250770+2          0          1          0          08931 4 18
```

```
---------------------------------------------------------------------------
                                                          8931 4 37 Only in VII.0
                                                          8931 4 51 Only in VII.0
                                                          8931 4 52 Only in VII.0
                                                          8931 4 53 Only in VII.0
                                                          8931 4 54 Only in VII.0
                                                          8931 4 55 Only in VII.0
                                                          8931 4 56 Only in VII.0
                                                          8931 4 57 Only in VII.0
                                                          8931 4 58 Only in VII.0
                                                          8931 4 59 Only in VII.0
                                                          8931 4 91 Only in VII.0
                                                          8931 5 16 Only in VII.0
                                                          8931 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          28931 5 18
-2.000000+7 0.000000+0          0          7          1          28931 5 18
---------------------------------------------------------------------------
                                                          8931 5 37 Only in VII.0
                                                          8931 5 91 Only in VII.0
                                                          8931 6 16 Only in VII.1
                                                          8931 6 17 Only in VII.1
                                                          8931 6 37 Only in VII.1
                                                          8931 6 51 Only in VII.1
                                                          8931 6 52 Only in VII.1
                                                          8931 6 53 Only in VII.1
                                                          8931 6 54 Only in VII.1
                                                          8931 6 55 Only in VII.1
                                                          8931 6 56 Only in VII.1
                                                          8931 6 57 Only in VII.1
                                                          8931 6 58 Only in VII.1
                                                          8931 6 59 Only in VII.1
                                                          8931 6 60 Only in VII.1
                                                          8931 6 61 Only in VII.1
                                                          8931 6 62 Only in VII.1
                                                          8931 6 63 Only in VII.1
                                                          8931 6 64 Only in VII.1
                                                          8931 6 65 Only in VII.1
                                                          8931 6 66 Only in VII.1
                                                          8931 6 67 Only in VII.1
                                                          8931 6 68 Only in VII.1
                                                          8931 6 69 Only in VII.1
                                                          8931 6 70 Only in VII.1
                                                          8931 6 91 Only in VII.1
                                                          8931 6102 Only in VII.1
 90-Th-227
***************************************************************************
                                                          9025 1458 Only in VII.1
 1.000000-5 6.500000-1          0          0          0          09025 2151
 1.000000-5 4.500000-1          0          0          0          09025 2151
---------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1139025 3  1
 0.000000+0 0.000000+0          0          0          2         929025 3  1
---------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1129025 3  2
 0.000000+0 0.000000+0          0          0          2         379025 3  2
---------------------------------------------------------------------------
 0.000000+0-9.290000+3          0          0          1         829025 3  4
 0.000000+0-2.450000+4          0          0          1         279025 3  4
---------------------------------------------------------------------------
-5.462200+6-5.462200+6          0          0          1         309025 3 16
-5.454390+6-5.454390+6          0          0          1         149025 3 16
---------------------------------------------------------------------------
-1.264670+7-1.264670+7          0          0          1         169025 3 17
-1.264010+7-1.264010+7          0          0          1          89025 3 17
---------------------------------------------------------------------------
 1.822860+8 1.822860+8          0          0          1        1059025 3 18
 1.999990+8 1.999990+8          0          0          1         349025 3 18
---------------------------------------------------------------------------
                                                          9025 3 19 Only in VII.1
                                                          9025 3 20 Only in VII.1
                                                          9025 3 21 Only in VII.1
-1.840410+7-1.840410+7          0          0          1          49025 3 37
-1.840180+7-1.840180+7          0          0          1          29025 3 37
---------------------------------------------------------------------------
                                                          9025 3 38 Only in VII.1
```

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                                                                    9025 3 51 Only in VII.1
                                                                    9025 3 52 Only in VII.1
                                                                    9025 3 53 Only in VII.1
                                                                    9025 3 54 Only in VII.1
                                                                    9025 3 55 Only in VII.1
                                                                    9025 3 56 Only in VII.1
                                                                    9025 3 57 Only in VII.1
                                                                    9025 3 58 Only in VII.1
                                                                    9025 3 59 Only in VII.1
                                                                    9025 3 60 Only in VII.1
                                                                    9025 3 61 Only in VII.1
                                                                    9025 3 62 Only in VII.1
                                                                    9025 3 63 Only in VII.1
                                                                    9025 3 64 Only in VII.1
 0.000000+0-1.104890+5          0          0          1         689025 3 91
 0.000000+0-2.450000+4          0          0          1         279025 3 91
-------------------------------------------------------------------------------
 7.105300+6 7.105300+6          0          0          1        1059025 3102
 7.128690+6 7.128690+6          0          0          1         379025 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1029025 4  2
 0.000000+0 0.000000+0          0          0          1         359025 4  2
-------------------------------------------------------------------------------
                                                                    9025 4 16 Only in VII.0
                                                                    9025 4 17 Only in VII.0
 0.000000+0 2.250770+2          1          1          0          09025 4 18
 0.000000+0 2.250770+2          0          1          0          09025 4 18
-------------------------------------------------------------------------------
                                                                    9025 4 37 Only in VII.0
                                                                    9025 4 91 Only in VII.0
                                                                    9025 5 16 Only in VII.0
                                                                    9025 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29025 5 18
-2.000000+7 0.000000+0          0          7          1          29025 5 18
-------------------------------------------------------------------------------
                                                                    9025 5 37 Only in VII.0
                                                                    9025 5 91 Only in VII.0
                                                                    9025 5455 Only in VII.1
                                                                    9025 6 16 Only in VII.1
                                                                    9025 6 17 Only in VII.1
                                                                    9025 6 37 Only in VII.1
                                                                    9025 6 51 Only in VII.1
                                                                    9025 6 52 Only in VII.1
                                                                    9025 6 53 Only in VII.1
                                                                    9025 6 54 Only in VII.1
                                                                    9025 6 55 Only in VII.1
                                                                    9025 6 56 Only in VII.1
                                                                    9025 6 57 Only in VII.1
                                                                    9025 6 58 Only in VII.1
                                                                    9025 6 59 Only in VII.1
                                                                    9025 6 60 Only in VII.1
                                                                    9025 6 61 Only in VII.1
                                                                    9025 6 62 Only in VII.1
                                                                    9025 6 63 Only in VII.1
                                                                    9025 6 64 Only in VII.1
                                                                    9025 6 91 Only in VII.1
                                                                    9025 6102 Only in VII.1
 90-Th-228
*******************************************************************************
 0.000000+0 0.000000+0          0          0          1          59028 1452
 0.000000+0 0.000000+0          0          0          1          79028 1452
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          59028 1455
 0.000000+0 0.000000+0          0          0          1          49028 1455
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          29028 1456
 0.000000+0 0.000000+0          0          0          1          79028 1456
-------------------------------------------------------------------------------
 9.022800+4 1.000000+0          0          0          2          09028 2151
 9.022800+4 1.000000+0          0          0          1          09028 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1219028 3  1
 0.000000+0 0.000000+0          0          0          2         909028 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1209028 3  2
```

```
 0.000000+0 0.000000+0          0          0          2         519028 3  2
-------------------------------------------------------------------------------
 0.000000+0-5.775900+4          0          0          1         939028 3  4
 0.000000+0-5.759990+4          0          0          1         359028 3  4
-------------------------------------------------------------------------------
-7.105300+6-7.105300+6          0          0          1         279028 3 16
-7.119980+6-7.119980+6          0          0          1         109028 3 16
-------------------------------------------------------------------------------
-1.256750+7-1.256750+7          0          0          1         169028 3 17
-1.257440+7-1.257440+7          0          0          1          69028 3 17
-------------------------------------------------------------------------------
 1.840000+8 1.840000+8          0          0          1         949028 3 18
 1.849990+8 1.849990+8          0          0          2         319028 3 18
-------------------------------------------------------------------------------
                                                              9028 3 19 Only in VII.1
                                                              9028 3 20 Only in VII.1
                                                              9028 3 21 Only in VII.1
                                                              9028 3 38 Only in VII.1
 0.000000+0-5.775900+4          0          0          1         929028 3 51
 0.000000+0-5.759990+4          0          0          1         239028 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.868230+5          0          0          1         869028 3 52
 0.000000+0-1.869000+5          0          0          1         199028 3 52
-------------------------------------------------------------------------------
 0.000000+0-3.280030+5          0          0          1         829028 3 53
 0.000000+0-3.280000+5          0          0          1         179028 3 53
-------------------------------------------------------------------------------
 0.000000+0-3.781790+5          0          0          1         819028 3 54
 0.000000+0-3.960990+5          0          0          1         179028 3 54
-------------------------------------------------------------------------------
 0.000000+0-3.960780+5          0          0          1         809028 3 55
 0.000000+0-5.192990+5          0          0          1         169028 3 55
-------------------------------------------------------------------------------
 0.000000+0-5.191920+5          0          0          1         779028 3 56
 0.000000+0-8.316990+5          0          0          1         149028 3 56
-------------------------------------------------------------------------------
 0.000000+0-6.225000+5          0          0          1         759028 3 57
 0.000000+0-8.745990+5          0          0          1         149028 3 57
-------------------------------------------------------------------------------
 0.000000+0-6.956000+5          0          0          1         749028 3 58
 0.000000+0-9.440990+5          0          0          1         149028 3 58
-------------------------------------------------------------------------------
 0.000000+0-8.318230+5          0          0          1         719028 3 59
 0.000000+0-9.519990+5          0          0          1         149028 3 59
-------------------------------------------------------------------------------
 0.000000+0-8.744730+5          0          0          1         709028 3 60
 0.000000+0-9.687980+5          0          0          1         149028 3 60
-------------------------------------------------------------------------------
 0.000000+0-9.118000+5          0          0          1         689028 3 61
 0.000000+0-1.016000+6          0          0          1         139028 3 61
-------------------------------------------------------------------------------
 0.000000+0-9.208000+5          0          0          1         679028 3 62
 0.000000+0-1.022400+6          0          0          1         139028 3 62
-------------------------------------------------------------------------------
                                                              9028 3 63 Only in VII.1
                                                              9028 3 64 Only in VII.1
                                                              9028 3 65 Only in VII.1
                                                              9028 3 66 Only in VII.1
                                                              9028 3 67 Only in VII.1
                                                              9028 3 68 Only in VII.1
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                                                              9028 3 70 Only in VII.1
                                                              9028 3 71 Only in VII.1
                                                              9028 3 72 Only in VII.1
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                                                              9028 3 74 Only in VII.1
                                                              9028 3 75 Only in VII.1
                                                              9028 3 76 Only in VII.1
                                                              9028 3 77 Only in VII.1
                                                              9028 3 78 Only in VII.1
                                                              9028 3 79 Only in VII.1
 0.000000+0-1.104870+5          0          0          1         909028 3 91
 0.000000+0-1.025000+6          0          0          1         139028 3 91
-------------------------------------------------------------------------------
 5.256990+6 5.256990+6          0          0          2        1149028 3102
```

```
 5.248790+6 5.248790+6          0          0          2         509028 3102
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1179028 4  2
 0.000000+0 0.000000+0          0          0          1         309028 4  2
-----------------------------------------------------------------------------
                                                                 9028 4 16 Only in VII.0
                                                                 9028 4 17 Only in VII.0
 0.000000+0 2.260700+2          1          1          0          09028 4 18
 0.000000+0 2.260700+2          0          1          0          09028 4 18
-----------------------------------------------------------------------------
                                                                 9028 4 51 Only in VII.0
                                                                 9028 4 52 Only in VII.0
                                                                 9028 4 53 Only in VII.0
                                                                 9028 4 54 Only in VII.0
                                                                 9028 4 55 Only in VII.0
                                                                 9028 4 56 Only in VII.0
                                                                 9028 4 57 Only in VII.0
                                                                 9028 4 58 Only in VII.0
                                                                 9028 4 59 Only in VII.0
                                                                 9028 4 60 Only in VII.0
                                                                 9028 4 61 Only in VII.0
                                                                 9028 4 62 Only in VII.0
                                                                 9028 4 91 Only in VII.0
                                                                 9028 5 16 Only in VII.0
                                                                 9028 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29028 5 18
-2.000000+7 0.000000+0          0          7          1          29028 5 18
-----------------------------------------------------------------------------
                                                                 9028 5 91 Only in VII.0
                                                                 9028 6 16 Only in VII.1
                                                                 9028 6 17 Only in VII.1
                                                                 9028 6 51 Only in VII.1
                                                                 9028 6 52 Only in VII.1
                                                                 9028 6 53 Only in VII.1
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                                                                 9028 6 70 Only in VII.1
                                                                 9028 6 71 Only in VII.1
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                                                                 9028 6 73 Only in VII.1
                                                                 9028 6 74 Only in VII.1
                                                                 9028 6 75 Only in VII.1
                                                                 9028 6 76 Only in VII.1
                                                                 9028 6 77 Only in VII.1
                                                                 9028 6 78 Only in VII.1
                                                                 9028 6 79 Only in VII.1
                                                                 9028 6 91 Only in VII.1
                                                                 9028 6102 Only in VII.1
 90-Th-229
*****************************************************************************
 1.000000-5 2.166210+0 2.530000-2 2.166210+0 6.500000+6 3.025210+09031 1452
 1.000000-5 2.087200+0 2.530000-2 2.087200+0 5.000000+6 2.557200+09031 1452
-----------------------------------------------------------------------------
 1.000000-5 1.621000-2 2.530000-2 1.621000-2 6.500000+6 1.621000-29031 1455
 1.000000-5 1.621000-2 2.530000-2 1.621000-2 5.000000+6 1.621000-29031 1455
-----------------------------------------------------------------------------
 1.000000-5 2.150000+0 2.000000+7 4.793000+0                      9031 1456
 1.000000-5 2.071000+0 2.000000+7 3.951000+0                      9031 1456
-----------------------------------------------------------------------------
                                                                  9031 1458 Only in VII.1
 9.022900+4 1.000000+0          0          0          2          09031 2151
```

```
 9.022900+4 1.000000+0          0          0          1          09031 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1269031 3  1
 0.000000+0 0.000000+0          0          0          2         519031 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1269031 3  2
 0.000000+0 0.000000+0          0          0          2         409031 3  2
-------------------------------------------------------------------------------
 0.000000+0-1.000000+1          0          0          1        1169031 3  4
 0.000000+0-1.000000+2          0          0          1         349031 3  4
-------------------------------------------------------------------------------
-5.256990+6-5.256990+6          0          0          1         319031 3 16
-5.248790+6-5.248790+6          0          0          1         149031 3 16
-------------------------------------------------------------------------------
-1.236230+7-1.236230+7          0          0          1         169031 3 17
-1.236880+7-1.236880+7          0          0          1          89031 3 17
-------------------------------------------------------------------------------
 1.838110+8 1.838110+8          0          0          2        1169031 3 18
 1.999990+8 1.999990+8          0          0          2         329031 3 18
-------------------------------------------------------------------------------
                                                                 9031 3 19 Only in VII.1
                                                                 9031 3 20 Only in VII.1
                                                                 9031 3 21 Only in VII.1
-1.782450+7-1.782450+7          0          0          1          59031 3 37
-1.782320+7-1.782320+7          0          0          1          39031 3 37
-------------------------------------------------------------------------------
                                                                 9031 3 38 Only in VII.1
 0.000000+0-1.000000+1          0          0          1        1119031 3 51
 0.000000+0-1.000000+2          0          0          1         349031 3 51
-------------------------------------------------------------------------------
 0.000000+0-2.100000+4          0          0          1         949031 3 52
 0.000000+0-2.000000+4          0          0          1         309031 3 52
-------------------------------------------------------------------------------
 0.000000+0-2.919000+4          0          0          1         939031 3 53
 0.000000+0-2.920000+4          0          0          1         299031 3 53
-------------------------------------------------------------------------------
 0.000000+0-4.244000+4          0          0          1         919031 3 54
 0.000000+0-4.249990+4          0          0          1         279031 3 54
-------------------------------------------------------------------------------
                                                                 9031 3 55 Only in VII.1
                                                                 9031 3 56 Only in VII.1
                                                                 9031 3 57 Only in VII.1
                                                                 9031 3 58 Only in VII.1
                                                                 9031 3 59 Only in VII.1
                                                                 9031 3 60 Only in VII.1
                                                                 9031 3 61 Only in VII.1
                                                                 9031 3 62 Only in VII.1
                                                                 9031 3 63 Only in VII.1
                                                                 9031 3 64 Only in VII.1
                                                                 9031 3 65 Only in VII.1
                                                                 9031 3 66 Only in VII.1
                                                                 9031 3 67 Only in VII.1
                                                                 9031 3 68 Only in VII.1
                                                                 9031 3 69 Only in VII.1
                                                                 9031 3 70 Only in VII.1
                                                                 9031 3 71 Only in VII.1
                                                                 9031 3 72 Only in VII.1
                                                                 9031 3 73 Only in VII.1
                                                                 9031 3 74 Only in VII.1
                                                                 9031 3 75 Only in VII.1
                                                                 9031 3 76 Only in VII.1
                                                                 9031 3 77 Only in VII.1
                                                                 9031 3 78 Only in VII.1
                                                                 9031 3 79 Only in VII.1
                                                                 9031 3 80 Only in VII.1
 0.000000+0-1.104840+5          0          0          1         849031 3 91
 0.000000+0-6.699990+4          0          0          1         269031 3 91
-------------------------------------------------------------------------------
 6.793860+6 6.793860+6          0          0          2        1169031 3102
 6.789690+6 6.789690+6          0          0          2         409031 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1189031 4  2
 0.000000+0 0.000000+0          0          0          1         389031 4  2
-------------------------------------------------------------------------------
                                                                 9031 4 16 Only in VII.0
```

```
                                                                    9031 4 17 Only in VII.0
 0.000000+0 2.270640+2          1          1          0          09031 4 18
 0.000000+0 2.270640+2          0          1          0          09031 4 18
-----------------------------------------------------------------------------
                                                                    9031 4 37 Only in VII.0
                                                                    9031 4 51 Only in VII.0
                                                                    9031 4 52 Only in VII.0
                                                                    9031 4 53 Only in VII.0
                                                                    9031 4 54 Only in VII.0
                                                                    9031 4 91 Only in VII.0
                                                                    9031 5 16 Only in VII.0
                                                                    9031 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29031 5 18
-2.000000+7 0.000000+0          0          7          1          29031 5 18
-----------------------------------------------------------------------------
                                                                    9031 5 37 Only in VII.0
                                                                    9031 5 91 Only in VII.0
                                                                    9031 5455 Only in VII.1
                                                                    9031 6 16 Only in VII.1
                                                                    9031 6 17 Only in VII.1
                                                                    9031 6 37 Only in VII.1
                                                                    9031 6 51 Only in VII.1
                                                                    9031 6 52 Only in VII.1
                                                                    9031 6 53 Only in VII.1
                                                                    9031 6 54 Only in VII.1
                                                                    9031 6 55 Only in VII.1
                                                                    9031 6 56 Only in VII.1
                                                                    9031 6 57 Only in VII.1
                                                                    9031 6 58 Only in VII.1
                                                                    9031 6 59 Only in VII.1
                                                                    9031 6 60 Only in VII.1
                                                                    9031 6 61 Only in VII.1
                                                                    9031 6 62 Only in VII.1
                                                                    9031 6 63 Only in VII.1
                                                                    9031 6 64 Only in VII.1
                                                                    9031 6 65 Only in VII.1
                                                                    9031 6 66 Only in VII.1
                                                                    9031 6 67 Only in VII.1
                                                                    9031 6 68 Only in VII.1
                                                                    9031 6 69 Only in VII.1
                                                                    9031 6 70 Only in VII.1
                                                                    9031 6 71 Only in VII.1
                                                                    9031 6 72 Only in VII.1
                                                                    9031 6 73 Only in VII.1
                                                                    9031 6 74 Only in VII.1
                                                                    9031 6 75 Only in VII.1
                                                                    9031 6 76 Only in VII.1
                                                                    9031 6 77 Only in VII.1
                                                                    9031 6 78 Only in VII.1
                                                                    9031 6 79 Only in VII.1
                                                                    9031 6 80 Only in VII.1
                                                                    9031 6 91 Only in VII.1
                                                                    9031 6102 Only in VII.1
 90-Th-230
*****************************************************************************
 0.000000+0 0.000000+0          0          0          1          59034 1452
 0.000000+0 0.000000+0          0          0          2          09034 1452
-----------------------------------------------------------------------------
                                                                    9034 1455 Only in VII.1
                                                                    9034 1456 Only in VII.1
                                                                    9034 1458 Only in VII.0
 9.023000+4 1.000000+0          0          0          2          09034 2151
 9.023000+4 1.000000+0          0          0          1          09034 2151
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1509034 3  1
 0.000000+0 0.000000+0          0          0          1         509034 3  1
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1489034 3  2
 0.000000+0 0.000000+0          0          0          1         449034 3  2
-----------------------------------------------------------------------------
 0.000000+0-5.320000+4          0          0          1         739034 3  4
 0.000000+0-5.276900+4          0          0          1         379034 3  4
-----------------------------------------------------------------------------
-6.793860+6-6.793860+6          0          0          1         289034 3 16
-6.791100+6-6.791100+6          0          0          1          89034 3 16
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-------------------------------------------------------------------------------
-1.205080+7-1.205080+7          0          0          1         179034 3 17
-1.204000+7-1.204000+7          0          0          1          59034 3 17
-------------------------------------------------------------------------------
 1.837000+8 1.837000+8          0          0          1        1269034 3 18
 1.905965+8 1.905965+8          0          0          1         489034 3 18
-------------------------------------------------------------------------------
                                                              9034 3 19 Only in VII.1
                                                              9034 3 20 Only in VII.1
                                                              9034 3 21 Only in VII.1
                                                              9034 3 37 Only in VII.1
                                                              9034 3 38 Only in VII.1
 0.000000+0-5.320000+4          0          0          1         729034 3 51
 0.000000+0-5.276900+4          0          0          1         319034 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.741000+5          0          0          1         669034 3 52
 0.000000+0-1.732400+5          0          0          1         299034 3 52
-------------------------------------------------------------------------------
 0.000000+0-3.566000+5          0          0          1         629034 3 53
 0.000000+0-3.554400+5          0          0          1         269034 3 53
-------------------------------------------------------------------------------
 0.000000+0-5.081600+5          0          0          1         599034 3 54
 0.000000+0-5.047900+5          0          0          1         249034 3 54
-------------------------------------------------------------------------------
 0.000000+0-5.717700+5          0          0          1         589034 3 55
 0.000000+0-5.695000+5          0          0          1         239034 3 55
-------------------------------------------------------------------------------
 0.000000+0-5.941000+5          0          0          1         579034 3 56
 0.000000+0-6.302400+5          0          0          1         229034 3 56
-------------------------------------------------------------------------------
 0.000000+0-6.349000+5          0          0          1         559034 3 57
 0.000000+0-6.740400+5          0          0          1         219034 3 57
-------------------------------------------------------------------------------
 0.000000+0-6.776000+5          0          0          1         549034 3 58
 0.000000+0-6.790200+5          0          0          1         209034 3 58
-------------------------------------------------------------------------------
 0.000000+0-6.867000+5          0          0          1         539034 3 59
 0.000000+0-7.676300+5          0          0          1         189034 3 59
-------------------------------------------------------------------------------
                                                              9034 3 60 Only in VII.0
                                                              9034 3 61 Only in VII.0
                                                              9034 3 62 Only in VII.0
                                                              9034 3 63 Only in VII.0
                                                              9034 3 64 Only in VII.0
                                                              9034 3 65 Only in VII.0
                                                              9034 3 66 Only in VII.0
                                                              9034 3 67 Only in VII.0
 0.000000+0-1.104820+5          0          0          1         709034 3 91
 0.000000+0-9.956300+5          0          0          1         159034 3 91
-------------------------------------------------------------------------------
 5.118020+6 5.118020+6          0          0          2         869034 3102
 5.120500+6 5.120500+6          0          0          1         449034 3102
-------------------------------------------------------------------------------
 0.000000+0 2.280570+2          0          2          0          09034 4  2
 0.000000+0 2.280600+2          0          2          0          09034 4  2
-------------------------------------------------------------------------------
                                                              9034 4 16 Only in VII.0
                                                              9034 4 17 Only in VII.0
 0.000000+0 2.280570+2          1          1          0          09034 4 18
 0.000000+0 2.280600+2          1          1          0          09034 4 18
-------------------------------------------------------------------------------
                                                              9034 4 51 Only in VII.0
                                                              9034 4 52 Only in VII.0
                                                              9034 4 53 Only in VII.0
                                                              9034 4 54 Only in VII.0
                                                              9034 4 55 Only in VII.0
                                                              9034 4 56 Only in VII.0
                                                              9034 4 57 Only in VII.0
                                                              9034 4 58 Only in VII.0
                                                              9034 4 59 Only in VII.0
                                                              9034 4 60 Only in VII.0
                                                              9034 4 61 Only in VII.0
                                                              9034 4 62 Only in VII.0
                                                              9034 4 63 Only in VII.0
                                                              9034 4 64 Only in VII.0
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                                                                  9034 4 65 Only in VII.0
                                                                  9034 4 66 Only in VII.0
                                                                  9034 4 67 Only in VII.0
                                                                  9034 4 91 Only in VII.0
                                                                  9034 5 16 Only in VII.0
                                                                  9034 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29034 5 18
-3.000000+7 0.000000+0          0          7          1          29034 5 18
--------------------------------------------------------------------------------
                                                                  9034 5 91 Only in VII.0
                                                                  9034 6 16 Only in VII.1
                                                                  9034 6 17 Only in VII.1
                                                                  9034 6 37 Only in VII.1
                                                                  9034 6 51 Only in VII.1
                                                                  9034 6 52 Only in VII.1
                                                                  9034 6 53 Only in VII.1
                                                                  9034 6 54 Only in VII.1
                                                                  9034 6 55 Only in VII.1
                                                                  9034 6 56 Only in VII.1
                                                                  9034 6 57 Only in VII.1
                                                                  9034 6 58 Only in VII.1
                                                                  9034 6 59 Only in VII.1
                                                                  9034 6 91 Only in VII.1
                                                                  9034 6102 Only in VII.1
 90-Th-231    Evaluation Only in VII.1
********************************************************************************
 90-Th-232
********************************************************************************
 6.183369+2 5.000000-1 4.948537-3 2.743675-2 0.000000+0 0.000000+09040 2151
 6.183368+2 5.000000-1 4.948537-3 2.743675-2 0.000000+0 0.000000+09040 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        2129040 3  1
 0.000000+0 0.000000+0          0          0          1        1649040 3  1
--------------------------------------------------------------------------------
 1.000000-5 0.000000+0 4.000000+3 0.000000+0 4.000000+3 1.702340+19040 3  2
 1.000000-5 0.000000+0 4.000000+3 0.000000+0 4.000000+3 1.672600+19040 3  2
--------------------------------------------------------------------------------
 4.958461+4 0.000000+0 5.000000+4 7.318200-3 5.100000+4 2.336200-29040 3  4
 4.958460+4 0.000000+0 5.000000+4 7.386080-3 5.100000+4 2.363990-29040 3  4
--------------------------------------------------------------------------------
-3.922000+6-3.922000+6          0          0          1         289040 3  5
 1.407000+6 1.407000+6          0          0          1         379040 3  5
--------------------------------------------------------------------------------
 6.464980+6 0.000000+0 6.800000+6 7.644680-2 7.000000+6 2.498850-19040 3 16
 6.464980+6 0.000000+0 6.800000+6 7.657270-2 7.000000+6 2.504650-19040 3 16
--------------------------------------------------------------------------------
 1.160520+7 0.000000+0 1.180000+7 5.045210-5 1.200000+7 8.974550-49040 3 17
 1.160520+7 0.000000+0 1.180000+7 5.063780-5 1.200000+7 9.011270-49040 3 17
--------------------------------------------------------------------------------
 1.000000-5 0.000000+0 4.000000+3 0.000000+0 4.000000+3 3.799060-69040 3 18
 1.000000-5 0.000000+0 4.000000+3 0.000000+0 4.000000+3 3.772000-69040 3 18
--------------------------------------------------------------------------------
 4.083000+6 4.083000+6          0          0          1         559040 3 22
 4.083000+6 4.083000+6          0          0          1         579040 3 22
--------------------------------------------------------------------------------
 2.233670+6 0.000000+0 1.180000+7 0.000000+0 1.200000+7 3.57113-149040 3 24
 2.233668+6 0.000000+0 1.180000+7 0.000000+0 1.200000+7 3.56136-149040 3 24
--------------------------------------------------------------------------------
 7.788710+6 0.000000+0 1.050000+7 0.000000+0 1.100000+7 9.11725-159040 3 28
 7.788710+6 0.000000+0 1.050000+7 0.000000+0 1.100000+7 9.09976-159040 3 28
--------------------------------------------------------------------------------
 1.353160+7 0.000000+0 1.650000+7 0.000000+0 1.700000+7 7.13681-159040 3 41
 1.353157+7 0.000000+0 1.650000+7 0.000000+0 1.700000+7 7.08939-159040 3 41
--------------------------------------------------------------------------------
 4.958460+4 0.000000+0 5.000000+4 7.318190-3 5.100000+4 2.336200-29040 3 51
 4.958460+4 0.000000+0 5.000000+4 7.386080-3 5.100000+4 2.363990-29040 3 51
--------------------------------------------------------------------------------
 1.628250+5 0.000000+0 1.750000+5 8.498980-4 1.900000+5 1.791470-39040 3 52
 1.628247+5 0.000000+0 1.750000+5 8.603450-4 1.900000+5 1.833970-39040 3 52
--------------------------------------------------------------------------------
 3.346480+5 0.000000+0 3.500000+5 2.733700-6 4.000000+5 2.029220-59040 3 53
 3.346480+5 0.000000+0 3.500000+5 2.782700-6 4.000000+5 2.067350-59040 3 53
--------------------------------------------------------------------------------
 5.593210+5 0.000000+0 6.000000+5 9.044940-9 6.500000+5 8.480210-89040 3 54
 5.593208+5 0.000000+0 6.000000+5 9.260080-9 6.500000+5 8.695160-89040 3 54
```

```
 7.173550+5 0.000000+0 7.500000+5 6.583260-2 8.000000+5 1.409790-19040 3 55
 7.173548+5 0.000000+0 7.500000+5 6.778220-2 8.000000+5 1.454040-19040 3 55
 7.335250+5 0.000000+0 7.500000+5 1.543450-2 8.000000+5 5.042140-29040 3 56
 7.335248+5 0.000000+0 7.500000+5 1.589160-2 8.000000+5 5.200400-29040 3 56
 7.774650+5 0.000000+0 8.000000+5 3.588850-2 8.500000+5 9.115350-29040 3 57
 7.774650+5 0.000000+0 8.000000+5 3.701490-2 8.500000+5 9.391070-29040 3 57
 7.777660+5 0.000000+0 8.000000+5 1.855330-2 8.500000+5 5.739300-29040 3 58
 7.777660+5 0.000000+0 8.000000+5 1.913560-2 8.500000+5 5.912900-29040 3 58
 7.887140+5 0.000000+0 8.000000+5 1.831790-2 8.500000+5 7.752570-29040 3 59
 7.887137+5 0.000000+0 8.000000+5 1.889290-2 8.500000+5 7.987070-29040 3 59
 8.305950+5 0.000000+0 8.500000+5 1.81384-12 9.000000+5 2.53617-119040 3 60
 8.305949+5 0.000000+0 8.500000+5 1.86871-12 9.000000+5 2.61000-119040 3 60
 8.332060+5 0.000000+0 8.500000+5 1.332910-2 9.000000+5 4.327230-29040 3 61
 8.332060+5 0.000000+0 8.500000+5 1.343450-2 9.000000+5 4.392670-29040 3 61
 8.767950+5 0.000000+0 9.000000+5 3.743860-3 9.500000+5 1.313100-29040 3 62
 8.767949+5 0.000000+0 9.000000+5 3.800480-3 9.500000+5 1.342570-29040 3 62
 8.874410+5 0.000000+0 9.000000+5 3.304620-4 9.500000+5 1.846150-39040 3 63
 8.874410+5 0.000000+0 9.000000+5 3.354600-4 9.500000+5 1.887580-39040 3 63
 8.939690+5 0.000000+0 9.000000+5 9.781640-4 9.500000+5 9.459290-39040 3 64
 8.939690+5 0.000000+0 9.000000+5 9.929570-4 9.500000+5 9.671550-39040 3 64
 9.645750+5 0.000000+0 1.000000+6 1.943140-3 1.100000+6 8.906040-39040 3 65
 9.645748+5 0.000000+0 1.000000+6 2.001170-3 1.100000+6 9.153900-39040 3 65
 1.027550+6 0.000000+0 1.100000+6 1.413200-4 1.140000+6 2.819320-49040 3 66
 1.027547+6 0.000000+0 1.100000+6 1.452530-4 1.140000+6 2.895500-49040 3 66
 1.047430+6 0.000000+0 1.100000+6 6.402250-6 1.140000+6 1.577030-59040 3 67
 1.047430+6 0.000000+0 1.100000+6 6.580430-6 1.140000+6 1.619640-59040 3 67
 1.054460+6 0.000000+0 1.100000+6 7.354120-5 1.140000+6 1.853980-49040 3 68
 1.054460+6 0.000000+0 1.100000+6 7.558790-5 1.140000+6 1.904080-49040 3 68
 1.058180+6 0.000000+0 1.100000+6 2.561420-2 1.140000+6 4.485470-29040 3 69
 1.058180+6 0.000000+0 1.100000+6 2.632710-2 1.140000+6 4.606670-29040 3 69
 1.077560+6 0.000000+0 1.100000+6 1.378810-2 1.140000+6 3.384090-29040 3 70
 1.077560+6 0.000000+0 1.100000+6 1.417180-2 1.140000+6 3.475530-29040 3 70
 1.082180+6 0.000000+0 1.100000+6 1.178520-2 1.140000+6 3.411610-29040 3 71
 1.082180+6 0.000000+0 1.100000+6 1.179450-2 1.140000+6 3.435660-29040 3 71
 1.083390+6 0.000000+0 1.100000+6 5.212090-3 1.140000+6 1.537540-29040 3 72
 1.083389+6 0.000000+0 1.100000+6 5.216220-3 1.140000+6 1.548380-29040 3 72
 1.099160+6 0.000000+0 1.140000+6 1.404360-2 1.200000+6 3.359360-29040 3 73
 1.099157+6 0.000000+0 1.140000+6 1.414260-2 1.200000+6 3.415070-29040 3 73
 1.110510+6 0.000000+0 1.140000+6 9.924710-3 1.200000+6 2.912470-29040 3 74
 1.110507+6 0.000000+0 1.140000+6 9.994670-3 1.200000+6 2.960770-29040 3 74
 1.126680+6 0.000000+0 1.140000+6 7.354170-3 1.200000+6 3.333500-29040 3 75
 1.126676+6 0.000000+0 1.140000+6 7.406010-3 1.200000+6 3.388780-29040 3 75
 1.142040+6 0.000000+0 1.200000+6 2.33345-15 1.240000+6 4.53263-149040 3 76
 1.142040+6 0.000000+0 1.200000+6 2.37215-15 1.240000+6 4.63707-149040 3 76
 1.148270+6 0.000000+0 1.200000+6 7.563760-3 1.240000+6 1.272770-29040 3 77
 1.148270+6 0.000000+0 1.200000+6 7.689200-3 1.240000+6 1.302100-29040 3 77
 1.150980+6 0.000000+0 1.200000+6 3.201620-5 1.240000+6 7.383080-59040 3 78
 1.150980+6 0.000000+0 1.200000+6 3.254710-5 1.240000+6 7.553190-59040 3 78
 1.153290+6 0.000000+0 1.200000+6 5.075240-3 1.240000+6 1.035690-29040 3 79
 1.153290+6 0.000000+0 1.200000+6 5.159410-3 1.240000+6 1.059550-29040 3 79
```

```
 1.187640+6 0.000000+0 1.200000+6 3.529490-3 1.240000+6 1.392280-29040 3 80
 1.187640+6 0.000000+0 1.200000+6 3.588020-3 1.240000+6 1.424360-29040 3 80
--------------------------------------------------------------------------
 1.214160+6 0.000000+0 1.240000+6 4.402680-4 1.300000+6 1.807960-39040 3 81
 1.214155+6 0.000000+0 1.240000+6 4.504120-4 1.300000+6 1.853300-39040 3 81
--------------------------------------------------------------------------
 1.223400+6 0.000000+0 1.240000+6 2.089070-3 1.300000+6 8.719840-39040 3 82
 1.223395+6 0.000000+0 1.240000+6 2.137200-3 1.300000+6 8.938490-39040 3 82
--------------------------------------------------------------------------
 1.227410+6 0.000000+0 1.240000+6 2.333640-8 1.300000+6 2.587150-79040 3 83
 1.227410+6 0.000000+0 1.240000+6 2.387410-8 1.300000+6 2.652020-79040 3 83
--------------------------------------------------------------------------
 1.255030+6 0.000000+0 1.300000+6 9.404840-9 1.350000+6 3.456270-89040 3 84
 1.255030+6 0.000000+0 1.300000+6 9.640670-9 1.350000+6 3.538530-89040 3 84
--------------------------------------------------------------------------
 1.264170+6 0.000000+0 1.300000+6 6.976220-8 1.350000+6 3.951400-79040 3 85
 1.264170+6 0.000000+0 1.300000+6 7.151150-8 1.350000+6 4.045450-79040 3 85
--------------------------------------------------------------------------
 1.298820+6 0.000000+0 1.350000+6 1.591810-2 1.400000+6 3.065440-29040 3 86
 1.298820+6 0.000000+0 1.350000+6 1.629700-2 1.400000+6 3.134500-29040 3 86
--------------------------------------------------------------------------
 1.335180+6 0.000000+0 1.350000+6 2.174600-5 1.400000+6 1.257640-49040 3 87
 1.335179+6 0.000000+0 1.350000+6 2.226360-5 1.400000+6 1.285970-49040 3 87
--------------------------------------------------------------------------
 1.375960+6 0.000000+0 1.400000+6 3.589470-5 1.460000+6 1.800960-49040 3 88
 1.375955+6 0.000000+0 1.400000+6 3.670340-5 1.460000+6 1.838790-49040 3 88
--------------------------------------------------------------------------
 1.393230+6 0.000000+0 1.400000+6 1.004570-5 1.460000+6 1.306480-49040 3 89
 1.393230+6 0.000000+0 1.400000+6 1.027200-5 1.460000+6 1.333920-49040 3 89
--------------------------------------------------------------------------
 4.455000+5 0.000000+0 4.500000+5 6.248020-5 5.000000+5 1.126060-49040 3 91
 4.455000+5 0.000000+0 4.500000+5 6.266010-5 5.000000+5 1.132450-49040 3 91
--------------------------------------------------------------------------
 1.000000-5 0.000000+0 4.000000+3 0.000000+0 4.000000+3 1.321810+09040 3102
 1.000000-5 0.000000+0 4.000000+3 0.000000+0 4.000000+3 1.183070+09040 3102
--------------------------------------------------------------------------
                                                          9040 3112 Only in VII.1
 2.930680+6 0.000000+0 5.750000+6 0.000000+0 6.100000+6 4.71082-159040 3600
 2.930680+6 0.000000+0 5.750000+6 0.000000+0 6.100000+6 4.71161-159040 3600
--------------------------------------------------------------------------
 2.930680+6 0.000000+0 5.750000+6 0.000000+0 6.100000+6 1.30887-149040 3649
 2.930680+6 0.000000+0 5.750000+6 0.000000+0 6.100000+6 1.30909-149040 3649
--------------------------------------------------------------------------
 8.655000+6 8.655000+6          0          0          1         889040 3800
 8.655000+6 8.655000+6          0          0          1         909040 3800
--------------------------------------------------------------------------
 8.655000+6 8.655000+6          0          0          1         889040 3849
 8.655000+6 8.655000+6          0          0          1         909040 3849
--------------------------------------------------------------------------
 0.000000+0 2.300450+2          0          2          0         639040 4  2
 0.000000+0 2.300450+2          0          2          0          09040 4  2
--------------------------------------------------------------------------
 4.568890-2-2.344780-2-1.309000-2 3.095110-3                       9040 4 51
 4.568900-2-2.344780-2-1.309000-2 3.095110-3                       9040 4 51
--------------------------------------------------------------------------
 8.267510-2-5.956630-3-4.941050-3 0.000000+0                       9040 4 52
 8.267510-2-5.956640-3-4.941050-3 0.000000+0                       9040 4 52
--------------------------------------------------------------------------
 1.476250-1 4.981510-2-8.510160-5-5.778520-3                       9040 4 53
 1.476250-1 4.981510-2-8.510150-5-5.778520-3                       9040 4 53
--------------------------------------------------------------------------
-8.171520-3 5.121470-3                                             9040 4 54
-8.171520-3 5.121460-3                                             9040 4 54
--------------------------------------------------------------------------
-5.059820-4 0.000000+0                                             9040 4 55
-5.059810-4 0.000000+0                                             9040 4 55
--------------------------------------------------------------------------
 3.238360-3 1.158240-1 1.685290-2 2.429430-2-7.915440-3 1.449480-29040 4 56
 3.238360-3 1.158240-1 1.685290-2 2.429430-2-7.915430-3 1.449480-29040 4 56
--------------------------------------------------------------------------
 7.595890-4-5.990100-3                                             9040 4 57
 7.595880-4-5.990100-3                                             9040 4 57
--------------------------------------------------------------------------
 1.350790-2-3.003530-2 5.954940-3-1.323090-3-1.076770-2-7.610340-39040 4 58
```

```
 1.350790-2-3.003530-2 5.954940-3-1.323100-3-1.076770-2-7.610340-39040 4 58
-------------------------------------------------------------------------
 1.184360-3-9.779560-3                                                9040 4 59
 1.184350-3-9.779560-3                                                9040 4 59
-------------------------------------------------------------------------
 7.533390-2 5.531870-2 9.012700-3 6.807230-3                          9040 4 60
 7.533390-2 5.531870-2 9.012700-3 6.807240-3                          9040 4 60
-------------------------------------------------------------------------
 0.000000+0 1.460000+6          0          0          2          09040 4 61
 0.000000+0 1.460000+6          0          0          4          09040 4 61
-------------------------------------------------------------------------
 4.825920-3-5.206790-3                                                9040 4 62
 4.825910-3-5.206790-3                                                9040 4 62
-------------------------------------------------------------------------
 1.252290-1-5.696520-2-5.036810-2-2.823130-2 3.883600-2 1.844040-29040 4 63
 1.252290-1-5.696510-2-5.036810-2-2.823130-2 3.883600-2 1.844040-29040 4 63
-------------------------------------------------------------------------
 7.042480-3-9.374870-3                                                9040 4 64
 7.042480-3-9.374880-3                                                9040 4 64
-------------------------------------------------------------------------
 6.769090-5 0.000000+0                                                9040 4 65
 6.769100-5 0.000000+0                                                9040 4 65
-------------------------------------------------------------------------
 4.861360-3 2.710600-2                                                9040 4 66
 4.861370-3 2.710600-2                                                9040 4 66
-------------------------------------------------------------------------
 6.774260-3-2.907910-3                                                9040 4 67
 6.774250-3-2.907910-3                                                9040 4 67
-------------------------------------------------------------------------
-1.677550-2-1.668900-2-6.685080-3 4.344190-3 8.708010-3 5.338730-39040 4 68
-1.677550-2-1.668900-2-6.685080-3 4.344190-3 8.708020-3 5.338730-39040 4 68
-------------------------------------------------------------------------
 2.024350-3-5.427170-3 1.340080-4-2.934870-3                          9040 4 69
 2.024350-3-5.427160-3 1.340080-4-2.934870-3                          9040 4 69
-------------------------------------------------------------------------
-2.902990-4-4.326680-3                                                9040 4 70
-2.902990-4-4.326670-3                                                9040 4 70
-------------------------------------------------------------------------
-1.559130-3 0.000000+0                                                9040 4 71
-1.561090-3 9.737440-4                                                9040 4 71
-------------------------------------------------------------------------
-4.566690-3 5.850230-2 4.516240-3 7.688270-3                          9040 4 72
-4.566690-3 5.850230-2 4.516240-3 7.688260-3                          9040 4 72
-------------------------------------------------------------------------
 4.119500-5 0.000000+0                                                9040 4 73
 4.119510-5 0.000000+0                                                9040 4 73
-------------------------------------------------------------------------
 6.422540-5 0.000000+0                                                9040 4 74
 6.422550-5 0.000000+0                                                9040 4 74
-------------------------------------------------------------------------
 3.033360-3-7.117950-3-4.955550-4-3.675450-3                          9040 4 75
 3.033370-3-7.117950-3-4.955550-4-3.675450-3                          9040 4 75
-------------------------------------------------------------------------
 1.185630-3 1.077470-2-2.390630-3 0.000000+0                          9040 4 76
 1.185630-3 1.077470-2-2.390620-3 0.000000+0                          9040 4 76
-------------------------------------------------------------------------
-8.721690-4 0.000000+0                                                9040 4 77
-8.721700-4 0.000000+0                                                9040 4 77
-------------------------------------------------------------------------
 1.211150-5 0.000000+0                                                9040 4 78
 1.211160-5 0.000000+0                                                9040 4 78
-------------------------------------------------------------------------
 7.464020-3-1.062350-2                                                9040 4 79
 7.464010-3-1.062350-2                                                9040 4 79
-------------------------------------------------------------------------
 6.177120-5 0.000000+0                                                9040 4 80
 6.177110-5 0.000000+0                                                9040 4 80
-------------------------------------------------------------------------
 4.590910-3 0.000000+0                                                9040 4 81
 4.590900-3 0.000000+0                                                9040 4 81
-------------------------------------------------------------------------
-1.538360-3 0.000000+0                                                9040 4 82
-1.535790-3-1.293490-3                                                9040 4 82
-------------------------------------------------------------------------
-9.820031-4 4.221780-3                                                9040 4 83
```

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-9.820030-4 4.221780-3                                                  9040 4 83
--------------------------------------------------------------------------------
-2.687500-3 2.572610-3                                                  9040 4 84
-2.687490-3 2.572610-3                                                  9040 4 84
--------------------------------------------------------------------------------
 8.060270-4 4.116630-2                                                  9040 4 85
 8.060260-4 4.116630-2                                                  9040 4 85
--------------------------------------------------------------------------------
 1.603630-3-3.329860-3 7.245740-4-2.406090-3                            9040 4 86
 1.603630-3-3.329860-3 7.245750-4-2.406090-3                            9040 4 86
--------------------------------------------------------------------------------
 2.922510-2 6.769290-2 9.805710-4 0.000000+0                            9040 4 87
 2.922510-2 6.769300-2 9.805710-4 0.000000+0                            9040 4 87
--------------------------------------------------------------------------------
 2.335830-2 7.113720-2                                                  9040 4 88
 2.335830-2 7.113710-2                                                  9040 4 88
--------------------------------------------------------------------------------
 1.040360-4 2.754770-2                                                  9040 4 89
 1.040350-4 2.754770-2                                                  9040 4 89
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         579040 4800
 0.000000+0 0.000000+0          0          0          1         589040 4800
--------------------------------------------------------------------------------
 1.000000+0 1.000000+0          0          1          1         289040 6  5
 1.000000+0 1.000000+0          0          1          1         369040 6  5
--------------------------------------------------------------------------------
 0.000000+0 4.360180-7 2.09301-10 0.000000+0 7.748000+4 1.461780-69040 6 16
 0.000000+0 4.360170-7 2.09301-10 0.000000+0 7.748000+4 1.461780-69040 6 16
--------------------------------------------------------------------------------
 0.000000+0 3.567370-6 7.17859-10 1.090800+5 5.343040-6 2.191220-99040 6 17
 0.000000+0 3.567370-6 7.17859-10 1.090800+5 5.343030-6 2.191220-99040 6 17
--------------------------------------------------------------------------------
 1.000000-5 0.000000+0 1.000000+3 0.000000+0 4.000000+6 2.020750-79040 6 18
 1.000000-5-5.550760-6 1.000000+3-5.550760-6 4.000000+6 2.020750-79040 6 18
--------------------------------------------------------------------------------
 1.000000+0 1.000000+0          0          1          1          29040 6 22
 1.000000+0 1.000000+0          0          1          1          39040 6 22
--------------------------------------------------------------------------------
 0.000000+0 2.783420-7 8.83523-11 1.157300+5 1.658490-6 1.106590-99040 6 24
 0.000000+0 2.783420-7 8.83523-11 1.157300+5 1.658490-6 1.106580-99040 6 24
--------------------------------------------------------------------------------
 0.000000+0 1.547120-8 2.069240-9 1.517680-9-2.89150-10 4.36544-119040 6 28
 0.000000+0 1.547120-8 2.069240-9 1.517680-9-2.89150-10 4.36545-119040 6 28
--------------------------------------------------------------------------------
 7.54496-13 0.000000+0 2.458550+6 6.88917-11 5.07155-13 0.000000+09040 6 41
 7.54496-13 0.000000+0 2.458550+6 6.88916-11 5.07155-13 0.000000+09040 6 41
--------------------------------------------------------------------------------
 1.628400+5 2.516450-6 7.45269-14 1.954100+5 1.644040-6 0.000000+09040 6 91
 1.628400+5 2.516450-6 7.45268-14 1.954100+5 1.644040-6 0.000000+09040 6 91
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          1          1        1689040 6102
 0.000000+0 0.000000+0          0          1          1        1699040 6102
--------------------------------------------------------------------------------
                                                                 9040 6112 Only in VII.1
 2.58106-10 2.25961-11 2.944230+6 9.292310-9 5.30952-10 4.68650-119040 6649
 2.58106-10 2.25961-11 2.944230+6 9.292310-9 5.30952-10 4.68649-119040 6649
--------------------------------------------------------------------------------
 2.004000+3 3.967130+0          0          1          1          29040 6849
 2.004000+3 3.967130+0          0          1          1          39040 6849
--------------------------------------------------------------------------------
 90-Th-233
********************************************************************************
 0.000000+0 0.000000+0          0          0          1          59043 1452
 0.000000+0 0.000000+0          0          0          1         109043 1452
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          59043 1455
 0.000000+0 0.000000+0          0          0          1          49043 1455
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          29043 1456
 0.000000+0 0.000000+0          0          0          1          99043 1456
--------------------------------------------------------------------------------
 1.000000-5 1.900000+0          0          0          0          09043 2151
 1.000000-5 2.000000+2          0          0          0          09043 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1199043 3  1
```

```
 0.000000+0 0.000000+0          0          0          1         889043 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1189043 3  2
 0.000000+0 0.000000+0          0          0          2         449043 3  2
-------------------------------------------------------------------------------
 0.000000+0-6.040000+3          0          0          1         899043 3  4
 0.000000+0-1.687000+4          0          0          1         419043 3  4
-------------------------------------------------------------------------------
-4.786390+6-4.786390+6          0          0          1         329043 3 16
-4.786590+6-4.786590+6          0          0          1         159043 3 16
-------------------------------------------------------------------------------
-1.122670+7-1.122670+7          0          0          1         189043 3 17
-1.122330+7-1.122330+7          0          0          1          89043 3 17
-------------------------------------------------------------------------------
 1.909000+8 1.909000+8          0          0          1        1109043 3 18
 1.849990+8 1.849990+8          0          0          1         569043 3 18
-------------------------------------------------------------------------------
                                                             9043 3 19 Only in VII.1
                                                             9043 3 20 Only in VII.1
                                                             9043 3 21 Only in VII.1
                                                             9043 3 37 Only in VII.1
                                                             9043 3 38 Only in VII.1
 0.000000+0-6.040000+3          0          0          1         889043 3 51
 0.000000+0-1.687000+4          0          0          1         269043 3 51
-------------------------------------------------------------------------------
 0.000000+0-6.060000+3          0          0          1         879043 3 52
 0.000000+0-5.455990+4          0          0          1         239043 3 52
-------------------------------------------------------------------------------
 0.000000+0-1.686000+4          0          0          1         849043 3 53
 0.000000+0-9.362990+4          0          0          1         219043 3 53
-------------------------------------------------------------------------------
 0.000000+0-5.038000+4          0          0          1         809043 3 54
 0.000000+0-3.712090+5          0          0          1         179043 3 54
-------------------------------------------------------------------------------
 0.000000+0-5.454600+4          0          0          1         799043 3 55
 0.000000+0-5.395780+5          0          0          1         169043 3 55
-------------------------------------------------------------------------------
 0.000000+0-9.362000+4          0          0          1         779043 3 56
 0.000000+0-5.839290+5          0          0          1         169043 3 56
-------------------------------------------------------------------------------
 0.000000+0-1.073400+5          0          0          1         759043 3 57
 0.000000+0-6.114990+5          0          0          1         159043 3 57
-------------------------------------------------------------------------------
 0.000000+0-1.441000+5          0          0          1         729043 3 58
 0.000000+0-6.290190+5          0          0          1         159043 3 58
-------------------------------------------------------------------------------
 0.000000+0-1.580000+5          0          0          1         719043 3 59
 0.000000+0-6.821990+5          0          0          1         159043 3 59
-------------------------------------------------------------------------------
 0.000000+0-1.780000+5          0          0          1         699043 3 60
 0.000000+0-7.134990+5          0          0          1         159043 3 60
-------------------------------------------------------------------------------
 0.000000+0-2.200000+5          0          0          1         679043 3 61
 0.000000+0-7.217990+5          0          0          1         159043 3 61
-------------------------------------------------------------------------------
 0.000000+0-2.523000+5          0          0          1         659043 3 62
 0.000000+0-7.694990+5          0          0          1         159043 3 62
-------------------------------------------------------------------------------
 0.000000+0-2.622400+5          0          0          1         649043 3 63
 0.000000+0-8.144980+5          0          0          1         149043 3 63
-------------------------------------------------------------------------------
 0.000000+0-2.794000+5          0          0          1         639043 3 64
 0.000000+0-8.913990+5          0          0          1         149043 3 64
-------------------------------------------------------------------------------
 0.000000+0-3.095000+5          0          0          1         619043 3 65
 0.000000+0-9.475980+5          0          0          1         149043 3 65
-------------------------------------------------------------------------------
                                                             9043 3 66 Only in VII.1
                                                             9043 3 67 Only in VII.1
                                                             9043 3 68 Only in VII.1
                                                             9043 3 69 Only in VII.1
                                                             9043 3 70 Only in VII.1
 0.000000+0-1.043520+5          0          0          1         769043 3 91
 0.000000+0-9.499990+5          0          0          1         149043 3 91
-------------------------------------------------------------------------------
```

```
 6.190270+6 6.190270+6          0          0          1        1109043 3102
 6.191990+6 6.191990+6          0          0          1         439043 3102
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1089043 4  2
 0.000000+0 0.000000+0          0          0          1         309043 4  2
-----------------------------------------------------------------------------
                                                                  9043 4 16 Only in VII.0
                                                                  9043 4 17 Only in VII.0
 0.000000+0 2.310400+2          1          1          0          09043 4 18
 0.000000+0 2.310400+2          0          1          0          09043 4 18
-----------------------------------------------------------------------------
                                                                  9043 4 51 Only in VII.0
                                                                  9043 4 52 Only in VII.0
                                                                  9043 4 53 Only in VII.0
                                                                  9043 4 54 Only in VII.0
                                                                  9043 4 55 Only in VII.0
                                                                  9043 4 56 Only in VII.0
                                                                  9043 4 57 Only in VII.0
                                                                  9043 4 58 Only in VII.0
                                                                  9043 4 59 Only in VII.0
                                                                  9043 4 60 Only in VII.0
                                                                  9043 4 61 Only in VII.0
                                                                  9043 4 62 Only in VII.0
                                                                  9043 4 63 Only in VII.0
                                                                  9043 4 64 Only in VII.0
                                                                  9043 4 65 Only in VII.0
                                                                  9043 4 91 Only in VII.0
                                                                  9043 5 16 Only in VII.0
                                                                  9043 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29043 5 18
-2.000000+7 0.000000+0          0          7          1          29043 5 18
-----------------------------------------------------------------------------
                                                                  9043 5 91 Only in VII.0
                                                                  9043 6 16 Only in VII.1
                                                                  9043 6 17 Only in VII.1
                                                                  9043 6 37 Only in VII.1
                                                                  9043 6 51 Only in VII.1
                                                                  9043 6 52 Only in VII.1
                                                                  9043 6 53 Only in VII.1
                                                                  9043 6 54 Only in VII.1
                                                                  9043 6 55 Only in VII.1
                                                                  9043 6 56 Only in VII.1
                                                                  9043 6 57 Only in VII.1
                                                                  9043 6 58 Only in VII.1
                                                                  9043 6 59 Only in VII.1
                                                                  9043 6 60 Only in VII.1
                                                                  9043 6 61 Only in VII.1
                                                                  9043 6 62 Only in VII.1
                                                                  9043 6 63 Only in VII.1
                                                                  9043 6 64 Only in VII.1
                                                                  9043 6 65 Only in VII.1
                                                                  9043 6 66 Only in VII.1
                                                                  9043 6 67 Only in VII.1
                                                                  9043 6 68 Only in VII.1
                                                                  9043 6 69 Only in VII.1
                                                                  9043 6 70 Only in VII.1
                                                                  9043 6 91 Only in VII.1
                                                                  9043 6102 Only in VII.1
 90-Th-234
*****************************************************************************
 0.000000+0 0.000000+0          0          0          1          49046 1452
 0.000000+0 0.000000+0          0          0          1         119046 1452
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          49046 1455
 0.000000+0 0.000000+0          0          0          1          69046 1455
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          49046 1456
 0.000000+0 0.000000+0          0          0          1         119046 1456
-----------------------------------------------------------------------------
 1.000000-5 2.000000+1          0          0          0          09046 2151
 1.000000-5 1.500000+1          0          0          0          09046 2151
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1119046 3  1
 0.000000+0 0.000000+0          0          0          1         929046 3  1
-----------------------------------------------------------------------------
```

```
 0.000000+0 0.000000+0          0          0          1        1029046 3  2
 0.000000+0 0.000000+0          0          0          1         509046 3  2
-------------------------------------------------------------------------------
 0.000000+0-4.955000+4          0          0          1         699046 3  4
 0.000000+0-4.799990+4          0          0          1         409046 3  4
-------------------------------------------------------------------------------
-6.190270+6-6.190270+6          0          0          1         299046 3 16
-6.191990+6-6.191990+6          0          0          1         149046 3 16
-------------------------------------------------------------------------------
-1.097670+7-1.097670+7          0          0          1         199046 3 17
-1.097860+7-1.097860+7          0          0          1          99046 3 17
-------------------------------------------------------------------------------
 1.895000+8 1.895000+8          0          0          1         929046 3 18
 1.849990+8 1.849990+8          0          0          1         229046 3 18
-------------------------------------------------------------------------------
                                                                 9046 3 19 Only in VII.1
                                                                 9046 3 20 Only in VII.1
                                                                 9046 3 21 Only in VII.1
                                                                 9046 3 37 Only in VII.1
                                                                 9046 3 38 Only in VII.1
 0.000000+0-4.955000+4          0          0          1         689046 3 51
 0.000000+0-4.799990+4          0          0          1         239046 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.630000+5          0          0          1         629046 3 52
 0.000000+0-1.600000+5          0          0          1         199046 3 52
-------------------------------------------------------------------------------
 0.000000+0-3.365000+5          0          0          1         579046 3 53
 0.000000+0-3.360000+5          0          0          1         179046 3 53
-------------------------------------------------------------------------------
 0.000000+0-5.648000+5          0          0          1         549046 3 54
 0.000000+0-5.759990+5          0          0          1         159046 3 54
-------------------------------------------------------------------------------
                                                                 9046 3 55 Only in VII.0
                                                                 9046 3 56 Only in VII.0
                                                                 9046 3 57 Only in VII.0
                                                                 9046 3 58 Only in VII.0
                                                                 9046 3 59 Only in VII.0
                                                                 9046 3 60 Only in VII.0
                                                                 9046 3 61 Only in VII.0
                                                                 9046 3 62 Only in VII.0
                                                                 9046 3 63 Only in VII.0
                                                                 9046 3 64 Only in VII.0
                                                                 9046 3 65 Only in VII.0
                                                                 9046 3 66 Only in VII.0
                                                                 9046 3 67 Only in VII.0
 0.000000+0-1.104740+5          0          0          1         659046 3 91
 0.000000+0-1.060000+6          0          0          1         139046 3 91
-------------------------------------------------------------------------------
 4.430250+6 4.430250+6          0          0          1         889046 3102
 4.533690+6 4.533690+6          0          0          1         519046 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         929046 4  2
 0.000000+0 0.000000+0          0          0          1         309046 4  2
-------------------------------------------------------------------------------
                                                                 9046 4 16 Only in VII.0
                                                                 9046 4 17 Only in VII.0
 0.000000+0 2.320330+2          1          1          0          09046 4 18
 0.000000+0 2.320330+2          0          1          0          09046 4 18
-------------------------------------------------------------------------------
                                                                 9046 4 51 Only in VII.0
                                                                 9046 4 52 Only in VII.0
                                                                 9046 4 53 Only in VII.0
                                                                 9046 4 54 Only in VII.0
                                                                 9046 4 55 Only in VII.0
                                                                 9046 4 56 Only in VII.0
                                                                 9046 4 57 Only in VII.0
                                                                 9046 4 58 Only in VII.0
                                                                 9046 4 59 Only in VII.0
                                                                 9046 4 60 Only in VII.0
                                                                 9046 4 61 Only in VII.0
                                                                 9046 4 62 Only in VII.0
                                                                 9046 4 63 Only in VII.0
                                                                 9046 4 64 Only in VII.0
                                                                 9046 4 65 Only in VII.0
                                                                 9046 4 66 Only in VII.0
```

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                                                                    9046 4 67 Only in VII.0
                                                                    9046 4 91 Only in VII.0
                                                                    9046 5 16 Only in VII.0
                                                                    9046 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29046 5 18
-2.000000+7 0.000000+0          0          7          1          29046 5 18
-----------------------------------------------------------------------------
                                                                    9046 5 91 Only in VII.0
                                                                    9046 6 16 Only in VII.1
                                                                    9046 6 17 Only in VII.1
                                                                    9046 6 37 Only in VII.1
                                                                    9046 6 51 Only in VII.1
                                                                    9046 6 52 Only in VII.1
                                                                    9046 6 53 Only in VII.1
                                                                    9046 6 54 Only in VII.1
                                                                    9046 6 91 Only in VII.1
                                                                    9046 6102 Only in VII.1
 91-Pa-229    Evaluation Only in VII.1
*****************************************************************************
 91-Pa-230    Evaluation Only in VII.1
*****************************************************************************
 91-Pa-231
*****************************************************************************
 4.120000+0 2.000000+0 7.088000-5 3.360000-2-9.897770-7 0.000000+09131 2151
 4.120000+0 2.000000+0 7.088000-5 3.360000-2-9.897771-7 0.000000+09131 2151
-----------------------------------------------------------------------------
 4.585260-3 2.345720-3 9.917259-4 0.000000+0                     9131 4 52
 4.585260-3 2.345720-3 9.917260-4 0.000000+0                     9131 4 52
-----------------------------------------------------------------------------
 5.100000+4 4.688810-6 6.380000+4 2.161330-6 7.660000+4 9.667521-79131 6  5
 5.100000+4 4.688810-6 6.380000+4 2.161330-6 7.660000+4 9.667520-79131 6  5
-----------------------------------------------------------------------------
 4.125100+5 9.751481-7 5.500100+5 5.853110-7 6.875100+5 4.654650-79131 6649
 4.125100+5 9.751480-7 5.500100+5 5.853110-7 6.875100+5 4.654650-79131 6649
-----------------------------------------------------------------------------
 91-Pa-232
*****************************************************************************
 0.000000+0 0.000000+0          0          0          1         179134 1452
 0.000000+0 0.000000+0          0          0          1          59134 1452
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          09134 1455
 0.000000+0 0.000000+0          0          0          6          09134 1455
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          29134 1456
 0.000000+0 0.000000+0          0          0          1          59134 1456
-----------------------------------------------------------------------------
 9.123200+4 1.000000+0          0          0          2          09134 2151
 9.123200+4 1.000000+0          0          1          1          09134 2151
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         909134 3  1
 0.000000+0 0.000000+0          0          0          2         569134 3  1
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         909134 3  2
 0.000000+0 0.000000+0          0          0          2         499134 3  2
-----------------------------------------------------------------------------
 0.000000+0-6.000000+4          0          0          1         659134 3  4
 0.000000+0-4.999990+4          0          0          1         369134 3  4
-----------------------------------------------------------------------------
-5.549200+6-5.549200+6          0          0          1         309134 3 16
-5.560790+6-5.560790+6          0          0          1         169134 3 16
-----------------------------------------------------------------------------
-1.236930+7-1.236930+7          0          0          1         169134 3 17
-1.237490+7-1.237490+7          0          0          1          99134 3 17
-----------------------------------------------------------------------------
 1.895000+8 1.895000+8          0          0          2         859134 3 18
 1.999990+8 1.999990+8          0          0          2         489134 3 18
-----------------------------------------------------------------------------
                                                                    9134 3 19 Only in VII.1
                                                                    9134 3 20 Only in VII.1
                                                                    9134 3 21 Only in VII.1
-1.816410+7-1.816410+7          0          0          1          49134 3 37
-1.816810+7-1.816810+7          0          0          1          39134 3 37
-----------------------------------------------------------------------------
                                                                    9134 3 38 Only in VII.1
                                                                    9134 3 51 Only in VII.1
```

```
 0.000000+0-1.104780+5          0          0          1         629134 3 91
 0.000000+0-4.999990+4          0          0          1         369134 3 91
--------------------------------------------------------------------------
 6.529060+6 6.529060+6          0          0          2         859134 3102
 6.516690+6 6.516690+6          0          0          2         499134 3102
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         899134 4  2
 0.000000+0 0.000000+0          0          0          1         529134 4  2
--------------------------------------------------------------------------
                                                                 9134 4 16 Only in VII.0
                                                                 9134 4 17 Only in VII.0
 0.000000+0 2.300450+2          1          1          0          09134 4 18
 0.000000+0 2.300450+2          0          1          0          09134 4 18
--------------------------------------------------------------------------
                                                                 9134 4 37 Only in VII.0
                                                                 9134 4 91 Only in VII.0
                                                                 9134 5 16 Only in VII.0
                                                                 9134 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29134 5 18
-2.000000+7 0.000000+0          0          7          1          29134 5 18
--------------------------------------------------------------------------
                                                                 9134 5 37 Only in VII.0
                                                                 9134 5 91 Only in VII.0
                                                                 9134 6 16 Only in VII.1
                                                                 9134 6 17 Only in VII.1
                                                                 9134 6 37 Only in VII.1
                                                                 9134 6 51 Only in VII.1
                                                                 9134 6 91 Only in VII.1
                                                                 9134 6102 Only in VII.1
 91-Pa-233
**************************************************************************
 1.112000+5 1.616910-6 1.297000+5 9.695329-7 1.482000+5 5.795140-79137 6  5
 1.112000+5 1.616910-6 1.297000+5 9.695330-7 1.482000+5 5.795140-79137 6  5
--------------------------------------------------------------------------
 7.310000+4 1.606190-6 7.610000+4 1.449460-6 8.220000+4 9.576941-79137 6 91
 7.310000+4 1.606190-6 7.610000+4 1.449460-6 8.220000+4 9.576940-79137 6 91
--------------------------------------------------------------------------
 92-U -230    Evaluation Only in VII.1
**************************************************************************
 92-U -231    Evaluation Only in VII.1
**************************************************************************
 92-U -232
**************************************************************************
 0.000000+0 0.000000+0          0          0          1          49219 1452
 0.000000+0 0.000000+0          0          0          1          59219 1452
--------------------------------------------------------------------------
 1.280000-2 3.500000-2 1.073000-1 2.557000-1 6.626000-1 2.025400+09219 1455
 1.247732-2 3.229539-2 1.009784-1 2.801023-1 1.264485+0 1.046279+19219 1455
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          29219 1456
 0.000000+0 0.000000+0          0          0          1          59219 1456
--------------------------------------------------------------------------
                                                                  9219 1458 Only in VII.1
 9.223200+4 1.000000+0          0          0          2          09219 2151
 9.223200+4 1.000000+0          0          1          2          09219 2151
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        4489219 3  1
 0.000000+0 0.000000+0          0          0          1        4529219 3  1
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1099219 3  2
 0.000000+0 0.000000+0          0          0          1        4529219 3  2
--------------------------------------------------------------------------
                                                                  9219 3  3 Only in VII.0
 0.000000+0-4.757200+4          0          0          1         829219 3  4
 0.000000+0-4.760000+4          0          0          1        2559219 3  4
--------------------------------------------------------------------------
-7.267950+6-7.267950+6          0          0          1         279219 3 16
-7.264400+6-7.264400+6          0          0          1         749219 3 16
--------------------------------------------------------------------------
-1.314660+7-1.314660+7          0          0          1         159219 3 17
-1.315580+7-1.315580+7          0          0          1         509219 3 17
--------------------------------------------------------------------------
 1.845840+8 1.845840+8          0          0          2        3439219 3 18
 1.889990+8 1.889990+8          0          0          1        3739219 3 18
--------------------------------------------------------------------------
```

```
 1.845840+8 1.845840+8          0          0          2        3369219 3 19
 1.889990+8 1.889990+8          0          0          1        3739219 3 19
--------------------------------------------------------------------------------
 1.845840+8 1.845840+8          0          0          1         419219 3 20
 1.889990+8 1.889990+8          0          0          1        2879219 3 20
--------------------------------------------------------------------------------
 1.845840+8 1.845840+8          0          0          1         189219 3 21
 1.889990+8 1.889990+8          0          0          1        1429219 3 21
--------------------------------------------------------------------------------
                                                                 9219 3 37 Only in VII.0
 1.845840+8 1.845840+8          0          0          1         109219 3 38
 1.889990+8 1.889990+8          0          0          1         879219 3 38
--------------------------------------------------------------------------------
 0.000000+0-4.757200+4          0          0          1         819219 3 51
 0.000000+0-4.760000+4          0          0          1        2559219 3 51
--------------------------------------------------------------------------------
 0.000000+0-1.565700+5          0          0          1         759219 3 52
 0.000000+0-1.566000+5          0          0          1        2459219 3 52
--------------------------------------------------------------------------------
 0.000000+0-3.226000+5          0          0          1         709219 3 53
 0.000000+0-3.223000+5          0          0          1        2349219 3 53
--------------------------------------------------------------------------------
 0.000000+0-5.410000+5          0          0          1         679219 3 54
 0.000000+0-5.407000+5          0          0          1        2209219 3 54
--------------------------------------------------------------------------------
 0.000000+0-5.631940+5          0          0          1         669219 3 55
 0.000000+0-5.632000+5          0          0          1        2179219 3 55
--------------------------------------------------------------------------------
 0.000000+0-6.289670+5          0          0          1         649219 3 56
 0.000000+0-6.290000+5          0          0          1        2139219 3 56
--------------------------------------------------------------------------------
 0.000000+0-6.912100+5          0          0          1         639219 3 57
 0.000000+0-6.911000+5          0          0          1        2089219 3 57
--------------------------------------------------------------------------------
 0.000000+0-7.345600+5          0          0          1         619219 3 58
 0.000000+0-7.346000+5          0          0          1        2059219 3 58
--------------------------------------------------------------------------------
 0.000000+0-7.469000+5          0          0          1         609219 3 59
 0.000000+0-8.055000+5          0          0          1        1999219 3 59
--------------------------------------------------------------------------------
 0.000000+0-8.058000+5          0          0          1         589219 3 60
 0.000000+0-8.330000+5          0          0          1        1979219 3 60
--------------------------------------------------------------------------------
 0.000000+0-8.330700+5          0          0          1         579219 3 61
 0.000000+0-8.668000+5          0          0          1        1939219 3 61
--------------------------------------------------------------------------------
 0.000000+0-8.667920+5          0          0          1         569219 3 62
 0.000000+0-9.114000+5          0          0          1        1909219 3 62
--------------------------------------------------------------------------------
 0.000000+0-9.114200+5          0          0          1         549219 3 63
 0.000000+0-9.707000+5          0          0          1        1859219 3 63
--------------------------------------------------------------------------------
 0.000000+0-9.151000+5          0          0          1         539219 3 64
 0.000000+0-9.852000+5          0          0          1        1839219 3 64
--------------------------------------------------------------------------------
 0.000000+0-9.706800+5          0          0          1         529219 3 65
 0.000000+0-1.016900+6          0          0          1        1809219 3 65
--------------------------------------------------------------------------------
 0.000000+0-9.848000+5          0          0          1         519219 3 66
 0.000000+0-1.050900+6          0          0          1        1769219 3 66
--------------------------------------------------------------------------------
 0.000000+0-1.016850+6          0          0          1         499219 3 67
 0.000000+0-1.097200+6          0          0          1        1729219 3 67
--------------------------------------------------------------------------------
                                                                 9219 3 68 Only in VII.0
                                                                 9219 3 69 Only in VII.0
                                                                 9219 3 70 Only in VII.0
                                                                 9219 3 71 Only in VII.0
                                                                 9219 3 72 Only in VII.0
                                                                 9219 3 73 Only in VII.0
                                                                 9219 3 74 Only in VII.0
                                                                 9219 3 75 Only in VII.0
                                                                 9219 3 76 Only in VII.0
                                                                 9219 3 77 Only in VII.0
                                                                 9219 3 78 Only in VII.0
```

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                                                                    9219 3 79 Only in VII.0
                                                                    9219 3 80 Only in VII.0
                                                                    9219 3 81 Only in VII.0
                                                                    9219 3 82 Only in VII.0
                                                                    9219 3 83 Only in VII.0
                                                                    9219 3 84 Only in VII.0
                                                                    9219 3 85 Only in VII.0
                                                                    9219 3 86 Only in VII.0
                                                                    9219 3 87 Only in VII.0
                                                                    9219 3 88 Only in VII.0
                                                                    9219 3 89 Only in VII.0
                                                                    9219 3 90 Only in VII.0
 0.000000+0-1.104780+5          0          0          1         789219 3 91
 0.000000+0-1.050000+6          0          0          1        1779219 3 91
-------------------------------------------------------------------------------
 5.762090+6 5.762090+6          0          0          2         969219 3102
 5.743400+6 5.743400+6          0          0          1        2359219 3102
-------------------------------------------------------------------------------
 0.000000+0 2.300440+2          0          2          0          09219 4  2
 0.000000+0 2.300438+2          0          2          0          09219 4  2
-------------------------------------------------------------------------------
 0.000000+0 2.300440+2          1          1          0          09219 4 18
 0.000000+0 2.320304+2          1          1          0          09219 4 18
-------------------------------------------------------------------------------
                                                                    9219 4 19 Only in VII.0
                                                                    9219 4 20 Only in VII.0
                                                                    9219 4 21 Only in VII.0
                                                                    9219 4 38 Only in VII.0
                                                                    9219 4 51 Only in VII.0
                                                                    9219 4 52 Only in VII.0
                                                                    9219 4 53 Only in VII.0
                                                                    9219 4 54 Only in VII.0
                                                                    9219 4 55 Only in VII.0
                                                                    9219 4 56 Only in VII.0
                                                                    9219 4 57 Only in VII.0
                                                                    9219 4 58 Only in VII.0
                                                                    9219 4 59 Only in VII.0
                                                                    9219 4 60 Only in VII.0
                                                                    9219 4 61 Only in VII.0
                                                                    9219 4 62 Only in VII.0
                                                                    9219 4 63 Only in VII.0
                                                                    9219 4 64 Only in VII.0
                                                                    9219 4 65 Only in VII.0
                                                                    9219 4 66 Only in VII.0
                                                                    9219 4 67 Only in VII.0
                                                                    9219 4 68 Only in VII.0
                                                                    9219 4 69 Only in VII.0
                                                                    9219 4 70 Only in VII.0
                                                                    9219 4 71 Only in VII.0
                                                                    9219 4 72 Only in VII.0
                                                                    9219 4 73 Only in VII.0
                                                                    9219 4 74 Only in VII.0
                                                                    9219 4 75 Only in VII.0
                                                                    9219 4 76 Only in VII.0
                                                                    9219 4 77 Only in VII.0
                                                                    9219 4 78 Only in VII.0
                                                                    9219 4 79 Only in VII.0
                                                                    9219 4 80 Only in VII.0
                                                                    9219 4 81 Only in VII.0
                                                                    9219 4 82 Only in VII.0
                                                                    9219 4 83 Only in VII.0
                                                                    9219 4 84 Only in VII.0
                                                                    9219 4 85 Only in VII.0
                                                                    9219 4 86 Only in VII.0
                                                                    9219 4 87 Only in VII.0
                                                                    9219 4 88 Only in VII.0
                                                                    9219 4 89 Only in VII.0
                                                                    9219 4 90 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29219 5 18
-3.000000+7 0.000000+0          0          7          1          29219 5 18
-------------------------------------------------------------------------------
                                                                    9219 5 19 Only in VII.0
                                                                    9219 5 20 Only in VII.0
                                                                    9219 5 21 Only in VII.0
                                                                    9219 5 38 Only in VII.0
```

```
                                                                      9219 5455 Only in VII.1
 7.299540+6 2.000000+0 2.000000+7 2.000000+0                          9219 6 16
 7.295958+6 2.000000+0 3.000000+7 2.000000+0                          9219 6 16
-------------------------------------------------------------------------------
 1.320380+7 3.000000+0 2.000000+7 3.000000+0                          9219 6 17
 1.321295+7 3.000000+0 3.000000+7 3.000000+0                          9219 6 17
-------------------------------------------------------------------------------
                                                                      9219 6 37 Only in VII.0
                                                                      9219 6 51 Only in VII.1
                                                                      9219 6 52 Only in VII.1
                                                                      9219 6 53 Only in VII.1
                                                                      9219 6 54 Only in VII.1
                                                                      9219 6 55 Only in VII.1
                                                                      9219 6 56 Only in VII.1
                                                                      9219 6 57 Only in VII.1
                                                                      9219 6 58 Only in VII.1
                                                                      9219 6 59 Only in VII.1
                                                                      9219 6 60 Only in VII.1
                                                                      9219 6 61 Only in VII.1
                                                                      9219 6 62 Only in VII.1
                                                                      9219 6 63 Only in VII.1
                                                                      9219 6 64 Only in VII.1
                                                                      9219 6 65 Only in VII.1
                                                                      9219 6 66 Only in VII.1
                                                                      9219 6 67 Only in VII.1
 1.109580+5 1.000000+0 2.000000+7 1.000000+0                          9219 6 91
 1.054564+6 1.000000+0 3.000000+7 1.000000+0                          9219 6 91
-------------------------------------------------------------------------------
                                                                      9219 6102 Only in VII.1
 92-U -233
*******************************************************************************
 1.291100-2 3.473800-2 1.192800-1 2.861700-1 7.877000-1 2.441700+09222 1455
 1.247938-2 3.227449-2 1.046448-1 2.941518-1 1.242443+0 1.022323+19222 1455
-------------------------------------------------------------------------------
 4.200000+6 9.615540-7 4.300000+6 1.850741-6 4.400000+6 2.801157-69222 3 20
 4.200000+6 9.615539-7 4.300000+6 1.850741-6 4.400000+6 2.801157-69222 3 20
-------------------------------------------------------------------------------
 0.000000+0 1.287773-3 0.000000+0 9.999553-4 0.000000+0 5.004197-49222 4 73
 0.000000+0 1.287773-3 0.000000+0 9.999554-4 0.000000+0 5.004197-49222 4 73
-------------------------------------------------------------------------------
 0.000000+0 3.919730-2 0.000000+0-2.338696-3 0.000000+0-9.921961-49222 4 76
 0.000000+0 3.919730-2 0.000000+0-2.338696-3 0.000000+0-9.921962-49222 4 76
-------------------------------------------------------------------------------
 0.000000+0-9.948215-4 0.000000+0-4.482757-4 0.000000+0-2.057007-49222 4 81
 0.000000+0-9.948216-4 0.000000+0-4.482757-4 0.000000+0-2.057007-49222 4 81
-------------------------------------------------------------------------------
 1.000000-5 8.593243-2 2.000000+7 8.593243-2                          9222 5455
 1.000000-5 8.675847-2 3.000000+7 8.675847-2                          9222 5455
-------------------------------------------------------------------------------
 0.000000+0 9.976307-7 6.845140-3 7.467678+3 1.815699-6 6.914244-39222 6 17
 0.000000+0 9.976306-7 6.845140-3 7.467678+3 1.815699-6 6.914244-39222 6 17
-------------------------------------------------------------------------------
 92-U -234
*******************************************************************************
 1.308200-2 3.368400-2 1.209500-1 2.951700-1 8.136300-1 2.572100+09225 1455
 1.248240-2 3.129530-2 1.074630-1 3.032230-1 1.288730+0 1.044220+19225 1455
-------------------------------------------------------------------------------
 2.274000+1 5.000000-1 2.603050-2 1.800000-5 2.600000-2 1.250000-59225 2151
 2.274000+1 5.000000-1 2.603000-2 1.800000-5 2.600000-2 1.250000-59225 2151
-------------------------------------------------------------------------------
 1.480000+6 9.509682-4 1.500000+6 9.861999-4 1.520000+6 1.021398-39225 3 54
 1.480000+6 9.509682-4 1.500000+6 9.862000-4 1.520000+6 1.021398-39225 3 54
-------------------------------------------------------------------------------
 2.650000+7 1.033863-3 2.700000+7 1.015322-3 2.750000+7 9.977483-49225 3 61
 2.650000+7 1.033863-3 2.700000+7 1.015322-3 2.750000+7 9.977484-49225 3 61
-------------------------------------------------------------------------------
 2.750000+7 9.977483-4 2.800000+7 9.812100-4 2.850000+7 9.658632-49225 3 62
 2.750000+7 9.977484-4 2.800000+7 9.812100-4 2.850000+7 9.658632-49225 3 62
-------------------------------------------------------------------------------
 2.750000+7 9.977483-4 2.800000+7 9.812100-4 2.850000+7 9.658632-49225 3 64
 2.750000+7 9.977484-4 2.800000+7 9.812100-4 2.850000+7 9.658632-49225 3 64
-------------------------------------------------------------------------------
 9.866999-4-1.580000-4-1.986000-4 0.000000+0                          9225 4 52
 9.867000-4-1.580000-4-1.986000-4 0.000000+0                          9225 4 52
-------------------------------------------------------------------------------
```

```
 1.207000-1-1.111000-2-1.818000-2-5.383000-3 4.023000-3-9.861001-49225 4 53
 1.207000-1-1.111000-2-1.818000-2-5.383000-3 4.023000-3-9.861000-49225 4 53
--------------------------------------------------------------------------
 7.499000-2 3.372000-3 1.095000-4 9.945001-7 1.877000-6 8.917000-69225 4 60
 7.499000-2 3.372000-3 1.095000-4 9.945000-7 1.877000-6 8.917000-69225 4 60
--------------------------------------------------------------------------
 9.860001-4 1.355000-2 1.144000-6-1.119000-2 2.608000-6-6.958000-49225 4 71
 9.860000-4 1.355000-2 1.144000-6-1.119000-2 2.608000-6-6.958000-49225 4 71
--------------------------------------------------------------------------
 6.692000-4 3.344000-3 9.712001-7 2.593000-6-7.279000-8-3.602000-89225 4 76
 6.692000-4 3.344000-3 9.712000-7 2.593000-6-7.279000-8-3.602000-89225 4 76
--------------------------------------------------------------------------
 1.000000-5 5.496524-2 2.000000+7 5.496524-2                    9225 5455
 1.000000-5 5.623233-2 3.000000+7 5.623233-2                    9225 5455
--------------------------------------------------------------------------
 5.476398+4 9.822145-8 9.865809-4 6.472107+4 1.060994-7 1.004135-39225 6 16
 5.476398+4 9.822145-8 9.865808-4 6.472107+4 1.060994-7 1.004135-39225 6 16
--------------------------------------------------------------------------
 2.364808+4 9.724685-7 1.222921-1 2.738199+4 1.035056-6 1.415931-19225 6 91
 2.364808+4 9.724684-7 1.222921-1 2.738199+4 1.035056-6 1.415931-19225 6 91
--------------------------------------------------------------------------
 92-U -235
**************************************************************************
 1.333600-2 3.273900-2 1.207800-1 3.027800-1 8.494900-1 2.853000+09228 1455
 1.249056-2 3.182406-2 1.093753-1 3.169898-1 1.353983+0 8.636377+09228 1455
--------------------------------------------------------------------------
 1.830000+2 1.673394-3 1.840000+2 1.823250-3 1.850000+2 9.815576-49228 1460
 1.830000+2 1.673394-3 1.840000+2 1.823250-3 1.850000+2 9.815577-49228 1460
--------------------------------------------------------------------------
 6.911070+2 4.000000+0 9.916601-4 4.319600-2-2.550100-2-2.599400-29228 2151
 6.911070+2 4.000000+0 9.916600-4 4.319600-2-2.550100-2-2.599400-29228 2151
--------------------------------------------------------------------------
 1.000000-5 0.000000+0 7.712958+1 0.000000+0 2.250000+3 0.000000+09228 3 19
 1.000000-5 2.19639-43 7.712958+1 0.000000+0 2.250000+3 0.000000+09228 3 19
--------------------------------------------------------------------------
-2.123213-2-5.575145-2 4.503431-2-4.007026-2 8.664596-4 9.875596-49228 4 76
-2.123213-2-5.575145-2 4.503431-2-4.007026-2 8.664596-4 9.875595-49228 4 76
--------------------------------------------------------------------------
-5.501023-6-5.653619-6-9.676723-7-1.311852-7-1.349319-8-1.592145-99228 4 80
-5.501023-6-5.653619-6-9.676724-7-1.311852-7-1.349319-8-1.592145-99228 4 80
--------------------------------------------------------------------------
-1.130429-2-9.546876-3-9.897758-4 1.520279-2 1.188212-2 4.399529-39228 4 89
-1.130429-2-9.546876-3-9.897757-4 1.520279-2 1.188212-2 4.399529-39228 4 89
--------------------------------------------------------------------------
 0.000000+0 1.000000-5          0          0          1        6439228 5 18
 0.000000+0 1.000000-5          0          0          1        5639228 5 18
--------------------------------------------------------------------------
 1.000000-5 3.500755-2 2.000000+7 3.500755-2                      9228 5455
 1.000000-5 3.197266-2 2.000000+7 3.197266-2                      9228 5455
--------------------------------------------------------------------------
 92-U -236
**************************************************************************
 1.338000-2 3.215500-2 1.201500-1 3.112900-1 8.793600-1 2.840500+09231 1455
 1.248999-2 3.068560-2 1.091980-1 3.224705-1 1.378583+0 1.021014+19231 1455
--------------------------------------------------------------------------
 6.556000+2 5.000000-1 1.164570-1 9.310700-2 2.300000-2 3.500000-49231 2151
 6.556000+2 5.000000-1 1.164600-1 9.310700-2 2.300000-2 3.500000-49231 2151
--------------------------------------------------------------------------
 1.500000+3 1.568000-2 4.539315+4 8.692747-3 4.750000+4 8.357362-39231 3  2
 1.500000+3 2.120000-2 4.539315+4 1.175295-2 4.750000+4 1.129949-29231 3  2
--------------------------------------------------------------------------
 1.944900+8 1.944900+8          0          0          1        3069231 3  3
 5.125900+6 5.125900+6          0          0          1        3079231 3  3
--------------------------------------------------------------------------
 1.000000+5 3.776200-3 1.200000+5 3.200000-3 1.500000+5 2.600000-39231 3 18
 1.000000+5 2.168180-3 1.200000+5 2.138383-3 1.500000+5 2.126137-39231 3 18
--------------------------------------------------------------------------
 1.000000+5 3.776200-3 1.200000+5 3.200000-3 1.500000+5 2.600000-39231 3 19
 1.000000+5 2.168180-3 1.200000+5 2.138383-3 1.500000+5 2.126137-39231 3 19
--------------------------------------------------------------------------
 4.600000+6 9.847264-4 4.700000+6 2.035577-3 4.800000+6 3.477558-39231 3 20
 4.600000+6 9.847263-4 4.700000+6 2.035577-3 4.800000+6 3.477558-39231 3 20
--------------------------------------------------------------------------
 1.900000+7 1.022200-3 1.920000+7 1.009736-3 1.940000+7 9.977208-49231 3 69
 1.900000+7 1.022200-3 1.920000+7 1.009736-3 1.940000+7 9.977207-49231 3 69
```

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 1.500000+3 6.072000-2 9.500000+4 3.082233-3 1.000000+5 0.000000+09231 3102
 1.500000+3 5.520000-2 9.500000+4 2.802030-3 1.000000+5 0.000000+09231 3102
-9.135455-1 9.527130-4-8.987940-1 9.749775-4-8.829476-1 9.781579-49231 4  2
-9.135455-1 9.527130-4-8.987940-1 9.749775-4-8.829476-1 9.781578-49231 4  2
 4.373092-6 9.695495-7 1.079881-7 8.610352-9 9.32573-10 7.31001-119231 4 51
 4.373092-6 9.695496-7 1.079881-7 8.610352-9 9.32573-10 7.31001-119231 4 51
 0.000000+0-3.930517-2 0.000000+0 9.808810-4 0.000000+0 1.002357-39231 4 68
 0.000000+0-3.930517-2 0.000000+0 9.808811-4 0.000000+0 1.002357-39231 4 68
 6.692000-4 3.344000-3 9.712001-7 2.593000-6-7.279000-8-3.602000-89231 4 76
 6.692000-4 3.344000-3 9.712000-7 2.593000-6-7.279000-8-3.602000-89231 4 76
 1.000000-5 3.015174-2 2.000000+7 3.015174-2                     9231 5455
 1.000000-5 2.556350-2 3.000000+7 2.556350-2                     9231 5455
 1.244681+6 1.730693-7 8.023971-4 1.344256+6 1.515773-7 9.862575-49231 6 16
 1.244681+6 1.730693-7 8.023971-4 1.344256+6 1.515773-7 9.862574-49231 6 16
 92-U -237
*******************************************************************************
 1.376200-2 3.159100-2 1.210700-1 3.162200-1 9.073100-1 3.036800+09234 1455
 1.249577-2 3.037978-2 1.068975-1 3.240317-1 1.334253+0 9.544175+09234 1455
 1.000000-5 2.000000+2          1          2          0          09234 2151
 1.000000-5 1.025000+2          1          1          0          09234 2151
 0.000000+0 0.000000+0          0          0          1        1179234 3  1
 0.000000+0 0.000000+0          0          0          3        1509234 3  1
 0.000000+0 0.000000+0          0          0          1        1179234 3  2
 0.000000+0 0.000000+0          0          0          1        1509234 3  2
 0.000000+0 0.000000+0          0          0          1        1179234 3  3
 0.000000+0 0.000000+0          0          0          3        1509234 3  3
 1.800000+8 1.800000+8          0          0          1         829234 3 18
 1.800000+8 1.800000+8          0          0          3        1059234 3 18
 6.153800+6 6.153800+6          0          0          1         679234 3102
 6.153800+6 6.153800+6          0          0          3         919234 3102
 7.662000-2 3.530000-3 1.148000-4 5.537000-6 9.747999-7-2.788000-69234 4 54
 7.662000-2 3.530000-3 1.148000-4 5.537000-6 9.748000-7-2.788000-69234 4 54
 1.000000-5 1.784102-2 2.000000+7 1.784102-2                      9234 5455
 1.000000-5 1.522158-2 3.000000+7 1.522158-2                      9234 5455
 1.692797+6 9.693127-8 6.088917-4 1.891950+6 7.382647-8 9.935336-49234 6 16
 1.692797+6 9.693127-8 6.088917-4 1.891950+6 7.382647-8 9.935337-49234 6 16
 1.493644+5 9.130957-7 2.062296-3 1.692797+5 9.685172-7 2.159910-39234 6 37
 1.493644+5 9.130957-7 2.062296-3 1.692797+5 9.685171-7 2.159910-39234 6 37
 2.117647+4 1.265218-6 2.205882+4 9.540925-7 2.294118+4 6.900423-79234 6 91
 2.117647+4 1.265218-6 2.205882+4 9.540924-7 2.294118+4 6.900423-79234 6 91
 92-U -238
*******************************************************************************
 1.363000-2 3.133400-2 1.233400-1 3.237300-1 9.059700-1 3.048700+09237 1455
 1.249423-2 3.025520-2 1.159376-1 3.414764-1 1.318630+0 9.979027+09237 1455
 1.450000+6 7.478600-4 1.500000+6 8.679900-4 1.550000+6 9.893799-49237 3 62
 1.450000+6 7.478600-4 1.500000+6 8.679900-4 1.550000+6 9.893800-49237 3 62
 0.000000+0 1.000000-5          0          0          2          09237 4  2
 0.000000+0 1.000000-5          0          0          1          09237 4  2
 7.499000-2 3.372000-3 1.095000-4 9.945001-7 1.877000-6 8.917000-69237 4 65
 7.499000-2 3.372000-3 1.095000-4 9.945000-7 1.877000-6 8.917000-69237 4 65
 9.860001-4 1.355000-2 1.144000-6-1.119000-2 2.608000-6-6.958000-49237 4 71
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```
 9.860000-4 1.355000-2 1.144000-6-1.119000-2 2.608000-6-6.958000-49237 4 71
--------------------------------------------------------------------------------
-2.123213-2-5.575145-2 4.503431-2-4.007026-2 8.664596-4 9.875596-49237 4 76
-2.123213-2-5.575145-2 4.503431-2-4.007026-2 8.664596-4 9.875595-49237 4 76
--------------------------------------------------------------------------------
-5.501023-6-5.653619-6-9.676723-7-1.311852-7-1.349319-8-1.592145-99237 4 80
-5.501023-6-5.653619-6-9.676724-7-1.311852-7-1.349319-8-1.592145-99237 4 80
--------------------------------------------------------------------------------
-1.130429-2-9.546876-3-9.897758-4 1.520279-2 1.188212-2 4.399529-39237 4 89
-1.130429-2-9.546876-3-9.897757-4 1.520279-2 1.188212-2 4.399529-39237 4 89
--------------------------------------------------------------------------------
 1.000000-5 1.393795-2 2.000000+7 1.393795-2                    9237 5455
 1.000000-5 1.034128-2 3.000000+7 1.034128-2                    9237 5455
--------------------------------------------------------------------------------
 2.489452+5 9.729187-7 6.176682-3 3.485232+5 9.581910-7 8.405816-39237 6 17
 2.489452+5 9.729186-7 6.176682-3 3.485232+5 9.581910-7 8.405816-39237 6 17
--------------------------------------------------------------------------------
 5.601266+5 9.995942-7 7.343512-4 5.850212+5 9.759401-7 7.577155-49237 6 91
 5.601266+5 9.995943-7 7.343512-4 5.850212+5 9.759401-7 7.577155-49237 6 91
--------------------------------------------------------------------------------
 92-U -239
********************************************************************************
 9.223900+4 1.000000+0          0          0          2          09240 2151
 9.223900+4 1.000000+0          0          1          2          09240 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         629240 3  1
 0.000000+0 0.000000+0          0          0          1        1789240 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         889240 3  2
 0.000000+0 0.000000+0          0          0          1        1789240 3  2
--------------------------------------------------------------------------------
 4.826662+6 0.000000+0 5.000000+6 2.972386-2 5.250000+6 3.402231-19240 3 16
 4.826577+6 0.000000+0 5.000000+6 3.024480-2 5.250000+6 3.462489-19240 3 16
--------------------------------------------------------------------------------
-1.095900+7-1.095900+7          0          0          1         329240 3 17
-1.095930+7-1.095930+7          0          0          1         329240 3 17
--------------------------------------------------------------------------------
 1.800000+8 1.800000+8          0          0          1         819240 3 18
 1.800000+8 1.800000+8          0          0          1        1539240 3 18
--------------------------------------------------------------------------------
 1.615427+7 0.000000+0 1.650000+7 1.051617-7 1.700000+7 3.818450-49240 3 37
 1.615387+7 0.000000+0 1.650000+7 8.474438-8 1.700000+7 2.994790-49240 3 37
--------------------------------------------------------------------------------
 4.267932+4 0.000000+0 4.500000+4 9.896425-2 5.000000+4 1.573151-19240 3 51
 4.267932+4 0.000000+0 4.500000+4 8.618800-2 5.000000+4 1.381900-19240 3 51
--------------------------------------------------------------------------------
 9.901603+4 0.000000+0 1.000000+5 2.575827-3 1.200000+5 4.041081-29240 3 52
 9.901603+4 0.000000+0 1.000000+5 2.374600-3 1.200000+5 3.802200-29240 3 52
--------------------------------------------------------------------------------
 1.343646+5 0.000000+0 1.400000+5 5.328146-3 1.464152+5 1.114856-29240 3 53
 1.343646+5 0.000000+0 1.400000+5 5.131689-3 1.464152+5 1.081951-29240 3 53
--------------------------------------------------------------------------------
 1.464152+5 0.000000+0 1.600000+5 4.278952-2 1.800000+5 8.360855-29240 3 54
 1.464152+5 0.000000+0 1.600000+5 4.221600-2 1.800000+5 8.414698-29240 3 54
--------------------------------------------------------------------------------
 1.948186+5 0.000000+0 2.000000+5 3.544345-2 2.200000+5 9.038837-29240 3 55
 1.948186+5 0.000000+0 2.000000+5 3.614500-2 2.200000+5 9.293400-29240 3 55
--------------------------------------------------------------------------------
 2.232380+5 0.000000+0 2.272548+5 1.131306-2 2.400000+5 4.192452-29240 3 56
 2.232380+5 0.000000+0 2.272548+5 1.166036-2 2.400000+5 4.334412-29240 3 56
--------------------------------------------------------------------------------
 2.272548+5 0.000000+0 2.400000+5 1.314223-2 2.500000+5 2.255282-29240 3 57
 2.272548+5 0.000000+0 2.400000+5 1.358724-2 2.500000+5 2.336583-29240 3 57
--------------------------------------------------------------------------------
 2.938346+5 0.000000+0 3.000000+5 2.225977-2 3.030734+5 2.731991-29240 3 58
 2.938346+5 0.000000+0 3.000000+5 2.314400-2 3.030734+5 2.840629-29240 3 58
--------------------------------------------------------------------------------
 3.030734+5 0.000000+0 3.090987+5 2.545629-3 3.200000+5 5.857252-39240 3 59
 3.030734+5 0.000000+0 3.090987+5 2.645680-3 3.200000+5 6.082700-39240 3 59
--------------------------------------------------------------------------------
 3.090987+5 0.000000+0 3.200000+5 8.739802-3 3.400000+5 2.074665-29240 3 60
 3.090987+5 0.000000+0 3.200000+5 9.076200-3 3.400000+5 2.147720-29240 3 60
--------------------------------------------------------------------------------
 3.742726+5 0.000000+0 3.800000+5 7.343651-4 4.000000+5 3.488479-39240 3 61
 3.742726+5 0.000000+0 3.800000+5 7.535392-4 4.000000+5 3.559900-39240 3 61
```

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 4.318143+5 0.000000+0 4.500000+5 1.715085-5 5.000000+5 6.709235-59240 3 62
 4.318143+5 0.000000+0 4.500000+5 1.723309-5 5.000000+5 6.669588-59240 3 62
 5.523207+5 0.000000+0 6.000000+5 9.121577-5 6.527198+5 1.637260-49240 3 63
 5.523207+5 0.000000+0 6.000000+5 9.025440-5 6.527198+5 1.616393-49240 3 63
 6.527198+5 0.000000+0 7.000000+5 2.679465-4 7.732489+5 7.882143-49240 3 64
 6.527198+5 0.000000+0 7.000000+5 2.640802-4 7.732489+5 7.758656-49240 3 64
 7.732489+5 0.000000+0 8.000000+5 1.093671-4 9.000000+5 6.766953-49240 3 65
 7.732489+5 0.000000+0 8.000000+5 1.076151-4 9.000000+5 6.655269-49240 3 65
 9.037975+5 0.000000+0 1.000000+6 4.376700-4 1.066983+6 7.479008-49240 3 66
 9.037975+5 0.000000+0 1.000000+6 4.306732-4 1.066983+6 7.369347-49240 3 66
 1.066983+6 0.000000+0 1.174937+6 8.839994-4 1.200000+6 1.059683-39240 3 67
 1.066983+6 0.000000+0 1.174937+6 8.728328-4 1.200000+6 1.046763-39240 3 67
 1.174937+6 0.000000+0 1.200000+6 1.930001-4 1.255274+6 5.698038-49240 3 68
 1.174937+6 0.000000+0 1.200000+6 1.906468-4 1.255274+6 5.636577-49240 3 68
 1.255274+6 0.000000+0 1.400000+6 1.711642-2 1.446076+6 2.011775-29240 3 69
 1.255274+6 0.000000+0 1.400000+6 1.692496-2 1.446076+6 1.989316-29240 3 69
 1.446076+6 0.000000+0 1.500000+6 8.210142-4 1.596709+6 2.107060-39240 3 70
 1.446076+6 0.000000+0 1.500000+6 8.119760-4 1.596709+6 2.084306-39240 3 70
 1.596709+6 0.000000+0 1.600000+6 3.078136-5 1.757384+6 1.231788-39240 3 71
 1.596709+6 0.000000+0 1.600000+6 3.044924-5 1.757384+6 1.218887-39240 3 71
 1.757384+6 0.000000+0 1.800000+6 4.734083-4 1.857806+6 9.982595-49240 3 72
 1.757384+6 0.000000+0 1.800000+6 4.685027-4 1.857806+6 9.880444-49240 3 72
 1.857806+6 0.000000+0 1.958228+6 7.914640-4 2.000000+6 1.000294-39240 3 73
 1.857806+6 0.000000+0 1.958228+6 7.835112-4 2.000000+6 9.903130-49240 3 73
 1.958228+6 0.000000+0 2.000000+6 4.182199-4 2.159072+6 1.755398-39240 3 74
 1.958228+6 0.000000+0 2.000000+6 4.140471-4 2.159072+6 1.742684-39240 3 74
 2.159072+6 0.000000+0 2.309705+6 2.278092-3 2.400084+6 3.204483-39240 3 75
 2.159072+6 0.000000+0 2.309705+6 2.270274-3 2.400084+6 3.200884-39240 3 75
 2.309705+6 0.000000+0 2.400084+6 1.876465-3 2.500000+6 3.296627-39240 3 76
 2.309705+6 0.000000+0 2.400084+6 1.874357-3 2.500000+6 3.301327-39240 3 76
 2.400084+6 0.000000+0 2.500000+6 1.487389-4 2.503318+6 1.533397-49240 3 77
 2.400084+6 0.000000+0 2.500000+6 1.489507-4 2.503318+6 1.535757-49240 3 77
 2.503318+6 0.000000+0 2.952405+6 1.003608-2 3.000000+6 1.034094-29240 3 78
 2.503318+6 0.000000+0 2.952405+6 1.010698-2 3.000000+6 1.041341-29240 3 78
 2.952405+6 0.000000+0 3.000000+6 1.350909-3 3.202456+6 5.838520-39240 3 79
 2.952405+6 0.000000+0 3.000000+6 1.360376-3 3.202456+6 5.885106-39240 3 79
 3.202456+6 0.000000+0 3.402295+6 4.570861-3 3.500000+6 5.595721-39240 3 80
 3.202456+6 0.000000+0 3.402295+6 4.611640-3 3.500000+6 5.648280-39240 3 80
 3.402295+6 0.000000+0 3.500000+6 1.646956-3 3.552928+6 2.432630-39240 3 81
 3.402295+6 0.000000+0 3.500000+6 1.662425-3 3.552928+6 2.455744-39240 3 81
 3.552928+6 0.000000+0 3.652346+6 7.133156-4 3.752768+6 1.279391-39240 3 82
 3.552928+6 0.000000+0 3.652346+6 7.203417-4 3.752768+6 1.293028-39240 3 82
 3.652346+6 0.000000+0 3.752768+6 8.359367-4 3.853190+6 1.440079-39240 3 83
 3.652346+6 0.000000+0 3.752768+6 8.448473-4 3.853190+6 1.456610-39240 3 83
 3.752768+6 0.000000+0 3.853190+6 8.651377-4 3.925494+6 1.283678-39240 3 84
 3.752768+6 0.000000+0 3.853190+6 8.750694-4 3.925494+6 1.299176-39240 3 84
 3.853190+6 0.000000+0 3.925494+6 4.188816-4 4.000000+6 6.845223-49240 3 85
 3.853190+6 0.000000+0 3.925494+6 4.239386-4 4.000000+6 6.932080-49240 3 85
 3.925494+6 0.000000+0 4.000000+6 3.598984-4 4.500000+6 1.950303-39240 3 86
 3.925494+6 0.000000+0 4.000000+6 3.644647-4 4.500000+6 1.977604-39240 3 86
```

```
 3.742726+5 0.000000+0 3.800000+5 4.859082-4 4.000000+5 9.941239-39240 3 91
 3.742726+5 0.000000+0 3.800000+5 4.985948-4 4.000000+5 1.014477-29240 3 91
 5.930800+6 5.930800+6          0          0          1         969240 3102
 5.930800+6 5.930800+6          0          0          1        1539240 3102
 92-U -240
 1.078221+7 0.000000+0 1.080000+7 1.64512-42 1.100000+7 1.622900-49243 3 17
 1.078221+7 0.000000+0 1.080000+7 1.64581-42 1.100000+7 1.622900-49243 3 17
 4.200000+6 9.727297-4 4.300000+6 9.878624-4 4.400000+6 1.002633-39243 3 57
 4.200000+6 9.727297-4 4.300000+6 9.878623-4 4.400000+6 1.002633-39243 3 57
 1.133858-2 3.681401-3 9.783953-4 2.340624-4 5.143415-5 9.969714-69243 4  2
 1.133858-2 3.681401-3 9.783954-4 2.340624-4 5.143415-5 9.969714-69243 4  2
 0.000000+0 6.217255-3 0.000000+0 9.988066-4 0.000000+0 5.987687-69243 4 55
 0.000000+0 6.217255-3 0.000000+0 9.988065-4 0.000000+0 5.987687-69243 4 55
 0.000000+0-9.857893-7 0.000000+0-2.835380-8 0.000000+0-1.350161-99243 4 57
 0.000000+0-9.857892-7 0.000000+0-2.835380-8 0.000000+0-1.350161-99243 4 57
 0.000000+0 9.794074-7 0.000000+0 2.172264-8 0.000000+0 2.660714-99243 4 63
 0.000000+0 9.794075-7 0.000000+0 2.172264-8 0.000000+0 2.660714-99243 4 63
 0.000000+0 4.563329-5 0.000000+0 9.566922-7 0.000000+0-2.855296-69243 4 70
 0.000000+0 4.563329-5 0.000000+0 9.566923-7 0.000000+0-2.855296-69243 4 70
 6.692000-4 3.344000-3 9.712001-7 2.593000-6-7.279000-8-3.602000-89243 4 76
 6.692000-4 3.344000-3 9.712000-7 2.593000-6-7.279000-8-3.602000-89243 4 76
 7.095188+5 1.098172-6 9.027065-3 7.344141+5 9.899715-7 4.951523-29243 6 91
 7.095188+5 1.098172-6 9.027065-3 7.344141+5 9.899714-7 4.951523-29243 6 91
 92-U -241
 9.866999-4-1.066000-3-4.006000-7 0.000000+0                    9246 4 51
 9.867000-4-1.066000-3-4.006000-7 0.000000+0                    9246 4 51
-2.123213-2-5.575145-2 4.503431-2-4.007026-2 8.664596-4 9.875596-49246 4 63
-2.123213-2-5.575145-2 4.503431-2-4.007026-2 8.664596-4 9.875595-49246 4 63
-5.501023-6-5.653619-6-9.676723-7-1.311852-7-1.349319-8-1.592145-99246 4 67
-5.501023-6-5.653619-6-9.676724-7-1.311852-7-1.349319-8-1.592145-99246 4 67
-1.130429-2-9.546876-3-9.897758-4 1.520279-2 1.188212-2 4.399529-39246 4 76
-1.130429-2-9.546876-3-9.897757-4 1.520279-2 1.188212-2 4.399529-39246 4 76
 5.477082+4 9.578685-7 7.681016-5 6.472916+4 1.034695-6 7.958543-59246 6 91
 5.477082+4 9.578684-7 7.681016-5 6.472916+4 1.034695-6 7.958543-59246 6 91
 93-Np-234    Evaluation Only in VII.1
 93-Np-235
 0.000000+0 0.000000+0          0          0          1         179340 1452
 0.000000+0 0.000000+0          0          0          1          49340 1452
 0.000000+0 0.000000+0          0          0          1         179340 1455
 0.000000+0 0.000000+0          0          0          1          49340 1455
 1.000000-5 2.632300+0 2.000000+7 5.430500+0                    9340 1456
 1.000000-5 2.659000+0 2.000000+7 5.259000+0                    9340 1456
 1.000000-5 2.000000-1          0          0          0          09340 2151
 1.000000-5 4.000000-1          0          0          0          09340 2151
 0.000000+0 0.000000+0          0          0          1        1049340 3  1
 0.000000+0 0.000000+0          0          0          1        1239340 3  1
 0.000000+0 0.000000+0          0          0          1         989340 3  2
 0.000000+0 0.000000+0          0          0          1        1169340 3  2
```

```
         72          2                                          9340 3  4
         72          3                                          9340 3  4
-------------------------------------------------------------------------------
-6.983120+6-6.983120+6          0          0          1         279340 3 16
-6.983400+6-6.983400+6          0          0          1         259340 3 16
-------------------------------------------------------------------------------
-1.304750+7-1.304750+7          0          0          1         159340 3 17
-1.310470+7-1.310470+7          0          0          1         149340 3 17
-------------------------------------------------------------------------------
 1.937000+8 1.937000+8          0          0          1         989340 3 18
 2.000000+8 2.000000+8          0          0          1         519340 3 18
-------------------------------------------------------------------------------
                                                                 9340 3 19 Only in VII.1
                                                                 9340 3 20 Only in VII.1
                                                                 9340 3 21 Only in VII.1
                                                                 9340 3 38 Only in VII.1
 0.000000+0-3.423000+4          0          0          1         719340 3 51
 0.000000+0-3.423000+4          0          0          1         499340 3 51
-------------------------------------------------------------------------------
 0.000000+0-4.910000+4          0          0          1         709340 3 52
 0.000000+0-4.910000+4          0          0          1         469340 3 52
-------------------------------------------------------------------------------
 0.000000+0-7.910000+4          0          0          1         679340 3 53
 0.000000+0-7.910000+4          0          0          1         469340 3 53
-------------------------------------------------------------------------------
 0.000000+0-9.160000+4          0          0          1         669340 3 54
 0.000000+0-9.160000+4          0          0          1         429340 3 54
-------------------------------------------------------------------------------
 0.000000+0-1.330000+5          0          0          1         639340 3 55
 0.000000+0-1.330000+5          0          0          1         429340 3 55
-------------------------------------------------------------------------------
 0.000000+0-1.468000+5          0          0          1         619340 3 56
 0.000000+0-1.468000+5          0          0          1         399340 3 56
-------------------------------------------------------------------------------
 0.000000+0-2.000000+5          0          0          1         589340 3 57
 0.000000+0-2.000000+5          0          0          1         399340 3 57
-------------------------------------------------------------------------------
                                                                 9340 3 58 Only in VII.0
                                                                 9340 3 59 Only in VII.0
                                                                 9340 3 60 Only in VII.0
                                                                 9340 3 61 Only in VII.0
                                                                 9340 3 62 Only in VII.0
                                                                 9340 3 63 Only in VII.0
                                                                 9340 3 64 Only in VII.0
                                                                 9340 3 65 Only in VII.0
                                                                 9340 3 66 Only in VII.0
 0.000000+0-1.104720+5          0          0          1         659340 3 91
 0.000000+0-7.500000+5          0          0          1         429340 3 91
-------------------------------------------------------------------------------
 5.736680+6 5.736680+6          0          0          1         989340 3102
 5.739430+6 5.739430+6          0          0          1         789340 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         959340 4  2
 0.000000+0 0.000000+0          0          0          1         169340 4  2
-------------------------------------------------------------------------------
                                                                 9340 4 16 Only in VII.0
                                                                 9340 4 17 Only in VII.0
                                                                 9340 4 51 Only in VII.0
                                                                 9340 4 52 Only in VII.0
                                                                 9340 4 53 Only in VII.0
                                                                 9340 4 54 Only in VII.0
                                                                 9340 4 55 Only in VII.0
                                                                 9340 4 56 Only in VII.0
                                                                 9340 4 57 Only in VII.0
                                                                 9340 4 58 Only in VII.0
                                                                 9340 4 59 Only in VII.0
                                                                 9340 4 60 Only in VII.0
                                                                 9340 4 61 Only in VII.0
                                                                 9340 4 62 Only in VII.0
                                                                 9340 4 63 Only in VII.0
                                                                 9340 4 64 Only in VII.0
                                                                 9340 4 65 Only in VII.0
                                                                 9340 4 66 Only in VII.0
                                                                 9340 4 91 Only in VII.0
                                                                 9340 5 16 Only in VII.0
```

```
                                                                 9340 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29340 5 18
-2.000000+8 0.000000+0          0          7          1          29340 5 18
--------------------------------------------------------------------------------
                                                                 9340 5 91 Only in VII.0
                                                                 9340 6 16 Only in VII.1
                                                                 9340 6 17 Only in VII.1
                                                                 9340 6 51 Only in VII.1
                                                                 9340 6 52 Only in VII.1
                                                                 9340 6 53 Only in VII.1
                                                                 9340 6 54 Only in VII.1
                                                                 9340 6 55 Only in VII.1
                                                                 9340 6 56 Only in VII.1
                                                                 9340 6 57 Only in VII.1
                                                                 9340 6 91 Only in VII.1
                                                                 9340 6102 Only in VII.1
 93-Np-236
********************************************************************************
 0.000000+0 0.000000+0          0          0          1         179343 1452
 0.000000+0 0.000000+0          0          0          1          49343 1452
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         179343 1455
 0.000000+0 0.000000+0          0          0          1          49343 1455
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          29343 1456
 0.000000+0 0.000000+0          0          0          1          49343 1456
--------------------------------------------------------------------------------
 9.323600+4 1.000000+0          0          1          2          09343 2151
 9.323600+4 1.000000+0          0          0          1          09343 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         949343 3  1
 0.000000+0 0.000000+0          0          0          2         829343 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         909343 3  2
 0.000000+0 0.000000+0          0          0          2         809343 3  2
--------------------------------------------------------------------------------
 0.000000+0-5.600000+4          0          0          1         709343 3  4
 0.000000+0-5.999990+4          0          0          1         349343 3  4
--------------------------------------------------------------------------------
-5.736680+6-5.736680+6          0          0          1         309343 3 16
-5.729790+6-5.729790+6          0          0          1         269343 3 16
--------------------------------------------------------------------------------
-1.271980+7-1.271980+7          0          0          1         159343 3 17
-1.270900+7-1.270900+7          0          0          1         149343 3 17
--------------------------------------------------------------------------------
 1.950000+8 1.950000+8          0          0          2         909343 3 18
 1.999990+8 1.999990+8          0          0          2         439343 3 18
--------------------------------------------------------------------------------
                                                                  9343 3 19 Only in VII.1
                                                                  9343 3 20 Only in VII.1
                                                                  9343 3 21 Only in VII.1
                                                                  9343 3 37 Only in VII.1
                                                                  9343 3 38 Only in VII.1
 0.000000+0-5.600000+4          0          0          1         699343 3 51
 0.000000+0-5.999990+4          0          0          1         349343 3 51
--------------------------------------------------------------------------------
 0.000000+0-6.000000+4          0          0          1         689343 3 52
 0.000000+0-2.310000+5          0          0          1         299343 3 52
--------------------------------------------------------------------------------
 0.000000+0-7.600000+4          0          0          1         669343 3 53
 0.000000+0-2.730000+5          0          0          1         279343 3 53
--------------------------------------------------------------------------------
 0.000000+0-1.000000+5          0          0          1         649343 3 54
 0.000000+0-3.240000+5          0          0          1         259343 3 54
--------------------------------------------------------------------------------
                                                                  9343 3 55 Only in VII.1
                                                                  9343 3 56 Only in VII.1
 0.000000+0-1.106850+5          0          0          1         649343 3 91
 0.000000+0-3.699990+5          0          0          1         249343 3 91
--------------------------------------------------------------------------------
 6.577350+6 6.577350+6          0          0          2         909343 3102
 6.573350+6 6.573350+6          0          0          2         609343 3102
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         949343 4  2
 0.000000+0 0.000000+0          0          0          1         519343 4  2
```

```
--------------------------------------------------------------------------
                                                          9343 4 16 Only in VII.0
                                                          9343 4 17 Only in VII.0
 0.000000+0 2.340190+2          1          1          0          09343 4 18
 0.000000+0 2.340190+2          0          1          0          09343 4 18
--------------------------------------------------------------------------
                                                          9343 4 51 Only in VII.0
                                                          9343 4 52 Only in VII.0
                                                          9343 4 53 Only in VII.0
                                                          9343 4 54 Only in VII.0
                                                          9343 4 91 Only in VII.0
                                                          9343 5 16 Only in VII.0
                                                          9343 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29343 5 18
-2.000000+7 0.000000+0          0          7          1          29343 5 18
--------------------------------------------------------------------------
                                                          9343 5 91 Only in VII.0
                                                          9343 6 16 Only in VII.1
                                                          9343 6 17 Only in VII.1
                                                          9343 6 37 Only in VII.1
                                                          9343 6 51 Only in VII.1
                                                          9343 6 52 Only in VII.1
                                                          9343 6 53 Only in VII.1
                                                          9343 6 54 Only in VII.1
                                                          9343 6 55 Only in VII.1
                                                          9343 6 56 Only in VII.1
                                                          9343 6 91 Only in VII.1
                                                          9343 6102 Only in VII.1
 93-Np-237
**************************************************************************
 1.325200-2 3.160300-2 1.167900-1 3.006500-1 8.666900-1 2.760000+09346 1455
 1.248610-2 3.077587-2 1.065464-1 3.139911-1 1.334211+0 1.050869+19346 1455
--------------------------------------------------------------------------
-3.495500+0 3.000000+0 4.548000-2 5.480000-3 4.000000-2 0.000000+09346 2151
-3.490000+0 3.000000+0 4.217590-2 2.175900-3 4.000000-2 0.000000+09346 2151
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        3469346 3  1
 0.000000+0 0.000000+0          0          0          1        3419346 3  1
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        3469346 3  2
 0.000000+0 0.000000+0          0          0          1        3419346 3  2
--------------------------------------------------------------------------
 6.600000+6 3.155373+0 6.608000+6 3.155472+0 6.700000+6 3.158127+09346 3  3
 6.600000+6 3.155373+0 6.601049+6 3.155386+0 6.678377+6 3.162286+09346 3  3
--------------------------------------------------------------------------
-6.580000+6-6.580000+6          0          0          1         239346 3 16
-6.573080+6-6.573080+6          0          0          1         619346 3 16
--------------------------------------------------------------------------
-1.232000+7-1.232000+7          0          0          1         129346 3 17
-1.231370+7-1.231370+7          0          0          1         329346 3 17
--------------------------------------------------------------------------
 1.000000-5 3.998307-2 2.000000+7 3.998307-2                      9346 5455
 1.000000-5 3.184407-2 2.000000+7 3.184407-2                      9346 5455
--------------------------------------------------------------------------
 93-Np-238
**************************************************************************
 0.000000+0 0.000000+0          0          0          1         179349 1452
 0.000000+0 0.000000+0          0          0          1          49349 1452
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         179349 1455
 0.000000+0 0.000000+0          0          0          1          49349 1455
--------------------------------------------------------------------------
 1.000000-5 2.470000+0 2.000000+7 5.384000+0                      9349 1456
 1.000000-5 2.500000+0 2.000000+7 5.460000+0                      9349 1456
--------------------------------------------------------------------------
                                                          9349 1458 Only in VII.1
 9.323800+4 1.000000+0          0          0          2          09349 2151
 9.323800+4 1.000000+0          0          0          1          09349 2151
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1289349 3  1
 0.000000+0 0.000000+0          0          0          1        1059349 3  1
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1229349 3  2
 0.000000+0 0.000000+0          0          0          1        1059349 3  2
--------------------------------------------------------------------------
```

```
 0.000000+0-2.642700+4          0          0          1        1039349 3  4
 0.000000+0-2.643000+4          0          0          1         619349 3  4
-------------------------------------------------------------------------------
-5.488320+6-5.488320+6          0          0          1         309349 3 16
-6.568390+6-6.568390+6          0          0          1         279349 3 16
-------------------------------------------------------------------------------
-1.206570+7-1.206570+7          0          0          1         179349 3 17
-1.231100+7-1.231100+7          0          0          1         159349 3 17
-------------------------------------------------------------------------------
 1.995530+8 1.995530+8          0          0          2        1229349 3 18
 1.999990+8 1.999990+8          0          0          1         409349 3 18
-------------------------------------------------------------------------------
                                                             9349 3 19 Only in VII.1
                                                             9349 3 20 Only in VII.1
                                                             9349 3 21 Only in VII.1
                                                             9349 3 37 Only in VII.1
                                                             9349 3 38 Only in VII.1
 0.000000+0-2.642700+4          0          0          1        1009349 3 51
 0.000000+0-2.643000+4          0          0          1         619349 3 51
-------------------------------------------------------------------------------
 0.000000+0-6.233000+4          0          0          1         979349 3 52
 0.000000+0-6.221990+4          0          0          1         589349 3 52
-------------------------------------------------------------------------------
 0.000000+0-8.667400+4          0          0          1         959349 3 53
 0.000000+0-8.664990+4          0          0          1         569349 3 53
-------------------------------------------------------------------------------
 0.000000+0-1.061550+5          0          0          1         939349 3 54
 0.000000+0-1.062600+5          0          0          1         549349 3 54
-------------------------------------------------------------------------------
 0.000000+0-1.216450+5          0          0          1         919349 3 55
 0.000000+0-1.217600+5          0          0          1         539349 3 55
-------------------------------------------------------------------------------
 0.000000+0-1.360450+5          0          0          1         909349 3 56
 0.000000+0-1.360100+5          0          0          1         529349 3 56
-------------------------------------------------------------------------------
 0.000000+0-1.616850+5          0          0          1         889349 3 57
 0.000000+0-1.657700+5          0          0          1         509349 3 57
-------------------------------------------------------------------------------
 0.000000+0-1.655320+5          0          0          1         879349 3 58
 0.000000+0-1.791500+5          0          0          1         499349 3 58
-------------------------------------------------------------------------------
 0.000000+0-1.791540+5          0          0          1         859349 3 59
 0.000000+0-1.828600+5          0          0          1         489349 3 59
-------------------------------------------------------------------------------
 0.000000+0-1.828770+5          0          0          1         849349 3 60
 0.000000+0-2.154800+5          0          0          1         469349 3 60
-------------------------------------------------------------------------------
 0.000000+0-2.155220+5          0          0          1         829349 3 61
 0.000000+0-2.212000+5          0          0          1         459349 3 61
-------------------------------------------------------------------------------
 0.000000+0-2.179490+5          0          0          1         819349 3 62
 0.000000+0-2.328000+5          0          0          1         449349 3 62
-------------------------------------------------------------------------------
 0.000000+0-2.187000+5          0          0          1         809349 3 63
 0.000000+0-2.587000+5          0          0          1         429349 3 63
-------------------------------------------------------------------------------
 0.000000+0-2.328280+5          0          0          1         799349 3 64
 0.000000+0-2.755800+5          0          0          1         419349 3 64
-------------------------------------------------------------------------------
 0.000000+0-2.439590+5          0          0          1         789349 3 65
 0.000000+0-2.860000+5          0          0          1         409349 3 65
-------------------------------------------------------------------------------
 0.000000+0-2.464000+5          0          0          1         779349 3 66
 0.000000+0-2.983000+5          0          0          1         399349 3 66
-------------------------------------------------------------------------------
 0.000000+0-2.503300+5          0          0          1         759349 3 67
 0.000000+0-3.009100+5          0          0          1         379349 3 67
-------------------------------------------------------------------------------
 0.000000+0-2.503900+5          0          0          1         749349 3 68
 0.000000+0-3.286000+5          0          0          1         369349 3 68
-------------------------------------------------------------------------------
 0.000000+0-2.588530+5          0          0          1         739349 3 69
 0.000000+0-3.325000+5          0          0          1         359349 3 69
-------------------------------------------------------------------------------
 0.000000+0-2.755190+5          0          0          1         729349 3 70
```

```
 0.000000+0-3.423800+5          0          0          1         349349 3 70
-------------------------------------------------------------------------------
 0.000000+0-2.776410+5          0          0          1         719349 3 71
 0.000000+0-3.501000+5          0          0          1         339349 3 71
-------------------------------------------------------------------------------
 0.000000+0-2.858000+5          0          0          1         709349 3 72
 0.000000+0-3.684090+5          0          0          1         329349 3 72
-------------------------------------------------------------------------------
 0.000000+0-2.970300+5          0          0          1         699349 3 73
 0.000000+0-3.740990+5          0          0          1         319349 3 73
-------------------------------------------------------------------------------
 0.000000+0-2.983680+5          0          0          1         689349 3 74
 0.000000+0-4.084990+5          0          0          1         309349 3 74
-------------------------------------------------------------------------------
 0.000000+0-2.992300+5          0          0          1         669349 3 75
 0.000000+0-4.312990+5          0          0          1         299349 3 75
-------------------------------------------------------------------------------
 0.000000+0-2.997880+5          0          0          1         659349 3 76
 0.000000+0-4.403990+5          0          0          1         289349 3 76
-------------------------------------------------------------------------------
 0.000000+0-3.006800+5          0          0          1         649349 3 77
 0.000000+0-4.562990+5          0          0          1         279349 3 77
-------------------------------------------------------------------------------
 0.000000+0-3.007430+5          0          0          1         639349 3 78
 0.000000+0-4.625990+5          0          0          1         269349 3 78
-------------------------------------------------------------------------------
 0.000000+0-3.054000+5          0          0          1         629349 3 79
 0.000000+0-5.241990+5          0          0          1         249349 3 79
-------------------------------------------------------------------------------
                                                             9349 3 80 Only in VII.1
                                                             9349 3 81 Only in VII.1
                                                             9349 3 82 Only in VII.1
                                                             9349 3 83 Only in VII.1
                                                             9349 3 84 Only in VII.1
                                                             9349 3 85 Only in VII.1
 0.000000+0-1.037400+5          0          0          1         949349 3 91
 0.000000+0-5.279990+5          0          0          1         239349 3 91
-------------------------------------------------------------------------------
 6.215200+6 6.215200+6          0          0          2        1229349 3102
 6.216360+6 6.216360+6          0          0          1         919349 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1239349 4  2
 0.000000+0 0.000000+0          0          0          1         769349 4  2
-------------------------------------------------------------------------------
                                                             9349 4 16 Only in VII.0
                                                             9349 4 17 Only in VII.0
 0.000000+0 2.360060+2          1          1          0          09349 4 18
 0.000000+0 2.360060+2          0          1          0          09349 4 18
-------------------------------------------------------------------------------
                                                             9349 4 51 Only in VII.0
                                                             9349 4 52 Only in VII.0
                                                             9349 4 53 Only in VII.0
                                                             9349 4 54 Only in VII.0
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                                                             9349 4 66 Only in VII.0
                                                             9349 4 67 Only in VII.0
                                                             9349 4 68 Only in VII.0
                                                             9349 4 69 Only in VII.0
                                                             9349 4 70 Only in VII.0
                                                             9349 4 71 Only in VII.0
                                                             9349 4 72 Only in VII.0
                                                             9349 4 73 Only in VII.0
                                                             9349 4 74 Only in VII.0
                                                             9349 4 75 Only in VII.0
                                                             9349 4 76 Only in VII.0
```

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                                                                    9349 4 77 Only in VII.0
                                                                    9349 4 78 Only in VII.0
                                                                    9349 4 79 Only in VII.0
                                                                    9349 4 91 Only in VII.0
                                                                    9349 5 16 Only in VII.0
                                                                    9349 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29349 5 18
-2.000000+7 0.000000+0          0          7          1          29349 5 18
--------------------------------------------------------------------------
                                                                    9349 5 91 Only in VII.0
                                                                    9349 5455 Only in VII.1
                                                                    9349 6 16 Only in VII.1
                                                                    9349 6 17 Only in VII.1
                                                                    9349 6 37 Only in VII.1
                                                                    9349 6 51 Only in VII.1
                                                                    9349 6 52 Only in VII.1
                                                                    9349 6 53 Only in VII.1
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                                                                    9349 6 63 Only in VII.1
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                                                                    9349 6 68 Only in VII.1
                                                                    9349 6 69 Only in VII.1
                                                                    9349 6 70 Only in VII.1
                                                                    9349 6 71 Only in VII.1
                                                                    9349 6 72 Only in VII.1
                                                                    9349 6 73 Only in VII.1
                                                                    9349 6 74 Only in VII.1
                                                                    9349 6 75 Only in VII.1
                                                                    9349 6 76 Only in VII.1
                                                                    9349 6 77 Only in VII.1
                                                                    9349 6 78 Only in VII.1
                                                                    9349 6 79 Only in VII.1
                                                                    9349 6 80 Only in VII.1
                                                                    9349 6 81 Only in VII.1
                                                                    9349 6 82 Only in VII.1
                                                                    9349 6 83 Only in VII.1
                                                                    9349 6 84 Only in VII.1
                                                                    9349 6 85 Only in VII.1
                                                                    9349 6 91 Only in VII.1
                                                                    9349 6102 Only in VII.1
 93-Np-239
****************************************************************************
 0.000000+0 0.000000+0          0          0          1        1079352 1452
 0.000000+0 0.000000+0          0          0          2          09352 1452
----------------------------------------------------------------------------
                                                                    9352 1455 Only in VII.1
                                                                    9352 1456 Only in VII.1
 1.000000-5 4.000000-1          0          0          0          09352 2151
 1.000000-5 1.500000+7          0          0          0          09352 2151
----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1289352 3  1
 0.000000+0 0.000000+0          0          0          2        1409352 3  1
----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1119352 3  2
 0.000000+0 0.000000+0          0          0          2         549352 3  2
----------------------------------------------------------------------------
 0.000000+0-3.113100+4          0          0          1         869352 3  4
 0.000000+0-3.114000+4          0          0          1         449352 3  4
----------------------------------------------------------------------------
-6.215200+6-6.215200+6          0          0          1         299352 3 16
-6.227020+6-6.227020+6          0          0          1         199352 3 16
----------------------------------------------------------------------------
-1.170350+7-1.170350+7          0          0          1         189352 3 17
-1.170560+7-1.170560+7          0          0          1          99352 3 17
```

```
-------------------------------------------------------------------------
 1.968000+8 1.968000+8          0          0          1        1109352 3 18
 1.900000+8 1.900000+8          0          0          1         409352 3 18
-------------------------------------------------------------------------
                                                              9352 3 19 Only in VII.1
                                                              9352 3 20 Only in VII.1
                                                              9352 3 21 Only in VII.1
                                                              9352 3 37 Only in VII.1
                                                              9352 3 38 Only in VII.1
 0.000000+0-3.113100+4          0          0          1         849352 3 51
 0.000000+0-3.114000+4          0          0          1         369352 3 51
-------------------------------------------------------------------------
 0.000000+0-7.121000+4          0          0          1         819352 3 52
 0.000000+0-7.112000+4          0          0          1         329352 3 52
-------------------------------------------------------------------------
 0.000000+0-7.466400+4          0          0          1         809352 3 53
 0.000000+0-7.467000+4          0          0          1         329352 3 53
-------------------------------------------------------------------------
 0.000000+0-1.178400+5          0          0          1         789352 3 54
 0.000000+0-1.176590+5          0          0          1         299352 3 54
-------------------------------------------------------------------------
 0.000000+0-1.225000+5          0          0          1         769352 3 55
 0.000000+0-1.230000+5          0          0          1         299352 3 55
-------------------------------------------------------------------------
 0.000000+0-1.730200+5          0          0          1         739352 3 56
 0.000000+0-1.730500+5          0          0          1         289352 3 56
-------------------------------------------------------------------------
 0.000000+0-1.800000+5          0          0          1         729352 3 57
 0.000000+0-2.414000+5          0          0          1         279352 3 57
-------------------------------------------------------------------------
 0.000000+0-2.202000+5          0          0          1         709352 3 58
 0.000000+0-3.200000+5          0          0          1         259352 3 58
-------------------------------------------------------------------------
                                                              9352 3 59 Only in VII.1
                                                              9352 3 60 Only in VII.1
                                                              9352 3 61 Only in VII.1
                                                              9352 3 62 Only in VII.1
                                                              9352 3 63 Only in VII.1
                                                              9352 3 64 Only in VII.1
                                                              9352 3 65 Only in VII.1
                                                              9352 3 66 Only in VII.1
                                                              9352 3 67 Only in VII.1
                                                              9352 3 68 Only in VII.1
                                                              9352 3 69 Only in VII.1
                                                              9352 3 70 Only in VII.1
 0.000000+0-1.096290+5          0          0          1         799352 3 91
 0.000000+0-4.300000+5          0          0          1         249352 3 91
-------------------------------------------------------------------------
 5.068970+6 5.068970+6          0          0          1        1119352 3102
 5.168100+6 5.168100+6          0          0          1         929352 3102
-------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1089352 4  2
 0.000000+0 0.000000+0          0          0          1         519352 4  2
-------------------------------------------------------------------------
                                                              9352 4 16 Only in VII.0
                                                              9352 4 17 Only in VII.0
 0.000000+0 2.369990+2          1          1          0          09352 4 18
 0.000000+0 2.369990+2          0          1          0          09352 4 18
-------------------------------------------------------------------------
                                                              9352 4 51 Only in VII.0
                                                              9352 4 52 Only in VII.0
                                                              9352 4 53 Only in VII.0
                                                              9352 4 54 Only in VII.0
                                                              9352 4 55 Only in VII.0
                                                              9352 4 56 Only in VII.0
                                                              9352 4 57 Only in VII.0
                                                              9352 4 58 Only in VII.0
                                                              9352 4 91 Only in VII.0
                                                              9352 5 16 Only in VII.0
                                                              9352 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29352 5 18
-2.000000+7 0.000000+0          0          7          1          29352 5 18
-------------------------------------------------------------------------
                                                              9352 5 91 Only in VII.0
                                                              9352 6 16 Only in VII.1
```

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                                                                  9352 6 17 Only in VII.1
                                                                  9352 6 37 Only in VII.1
                                                                  9352 6 51 Only in VII.1
                                                                  9352 6 52 Only in VII.1
                                                                  9352 6 53 Only in VII.1
                                                                  9352 6 54 Only in VII.1
                                                                  9352 6 55 Only in VII.1
                                                                  9352 6 56 Only in VII.1
                                                                  9352 6 57 Only in VII.1
                                                                  9352 6 58 Only in VII.1
                                                                  9352 6 59 Only in VII.1
                                                                  9352 6 60 Only in VII.1
                                                                  9352 6 61 Only in VII.1
                                                                  9352 6 62 Only in VII.1
                                                                  9352 6 63 Only in VII.1
                                                                  9352 6 64 Only in VII.1
                                                                  9352 6 65 Only in VII.1
                                                                  9352 6 66 Only in VII.1
                                                                  9352 6 67 Only in VII.1
                                                                  9352 6 68 Only in VII.1
                                                                  9352 6 69 Only in VII.1
                                                                  9352 6 70 Only in VII.1
                                                                  9352 6 91 Only in VII.1
                                                                  9352 6102 Only in VII.1
 94-Pu-236
*********************************************************************************
 0.000000+0 0.000000+0          0          0          1         179428 1452
 0.000000+0 0.000000+0          0          0          1          59428 1452
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         179428 1455
 0.000000+0 0.000000+0          0          0          1          59428 1455
---------------------------------------------------------------------------------
 1.000000-5 2.905500+0 2.000000+7 5.716700+0                     9428 1456
 1.000000-5 2.811800+0 2.000000+7 5.531800+0                     9428 1456
---------------------------------------------------------------------------------
-1.270000+0 5.000000-1 4.440740-1 7.400000-5 4.400000-2 4.000000-19428 2151
-1.270000+0 5.000000-1 4.441000-1 1.000000-4 4.400000-2 4.000000-19428 2151
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1019428 3  1
 0.000000+0 0.000000+0          0          0          2         589428 3  1
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         859428 3  2
 0.000000+0 0.000000+0          0          0          2         589428 3  2
---------------------------------------------------------------------------------
 0.000000+0-4.463000+4          0          0          1         619428 3  4
 0.000000+0-4.463000+4          0          0          1         519428 3  4
---------------------------------------------------------------------------------
-7.352280+6-7.352280+6          0          0          1         259428 3 16
-7.357250+6-7.357250+6          0          0          1         169428 3 16
---------------------------------------------------------------------------------
-1.358950+7-1.358950+7          0          0          1         129428 3 17
-1.358720+7-1.358720+7          0          0          1          89428 3 17
---------------------------------------------------------------------------------
 1.950420+8 1.950420+8          0          0          2         979428 3 18
 1.950000+8 1.950000+8          0          0          2         519428 3 18
---------------------------------------------------------------------------------
                                                                  9428 3 19 Only in VII.1
                                                                  9428 3 20 Only in VII.1
                                                                  9428 3 21 Only in VII.1
                                                                  9428 3 38 Only in VII.1
 0.000000+0-4.463000+4          0          0          1         609428 3 51
 0.000000+0-4.463000+4          0          0          1         479428 3 51
---------------------------------------------------------------------------------
 0.000000+0-1.474500+5          0          0          1         559428 3 52
 0.000000+0-1.474500+5          0          0          1         419428 3 52
---------------------------------------------------------------------------------
 0.000000+0-3.058000+5          0          0          1         519428 3 53
 0.000000+0-3.058000+5          0          0          1         399428 3 53
---------------------------------------------------------------------------------
 0.000000+0-5.157000+5          0          0          1         489428 3 54
 0.000000+0-5.157000+5          0          0          1         379428 3 54
---------------------------------------------------------------------------------
                                                                  9428 3 55 Only in VII.1
 0.000000+0-1.154910+5          0          0          1         579428 3 91
 0.000000+0-6.400000+5          0          0          1         369428 3 91
```

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--------------------------------------------------------------------------------
 5.880730+6 5.880730+6          0          0          2         859428 3102
 5.877020+6 5.877020+6          0          0          2         519428 3102
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         799428 4  2
 0.000000+0 0.000000+0          0          0          1         579428 4  2
--------------------------------------------------------------------------------
                                                                 9428 4 16 Only in VII.0
                                                                 9428 4 17 Only in VII.0
 0.000000+0 2.340180+2          1          1          0          09428 4 18
 0.000000+0 2.340180+2          0          1          0          09428 4 18
--------------------------------------------------------------------------------
                                                                 9428 4 51 Only in VII.0
                                                                 9428 4 52 Only in VII.0
                                                                 9428 4 53 Only in VII.0
                                                                 9428 4 54 Only in VII.0
                                                                 9428 4 91 Only in VII.0
                                                                 9428 5 16 Only in VII.0
                                                                 9428 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29428 5 18
-2.000000+7 0.000000+0          0          7          1          29428 5 18
--------------------------------------------------------------------------------
                                                                 9428 5 91 Only in VII.0
                                                                 9428 6 16 Only in VII.1
                                                                 9428 6 17 Only in VII.1
                                                                 9428 6 51 Only in VII.1
                                                                 9428 6 52 Only in VII.1
                                                                 9428 6 53 Only in VII.1
                                                                 9428 6 54 Only in VII.1
                                                                 9428 6 55 Only in VII.1
                                                                 9428 6 91 Only in VII.1
                                                                 9428 6102 Only in VII.1
 94-Pu-237
********************************************************************************
 0.000000+0 0.000000+0          0          0          1          49431 1452
 0.000000+0 0.000000+0          0          0          2          09431 1452
--------------------------------------------------------------------------------
                                                                 9431 1455 Only in VII.1
                                                                 9431 1456 Only in VII.1
                                                                 9431 1458 Only in VII.0
 1.000000-5 3.000000-1          0          0          0          09431 2151
 0.000000+0 0.000000+0          0          0          0          09431 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1269431 3  1
 0.000000+0 0.000000+0          0          0          1        2419431 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1219431 3  2
 0.000000+0 0.000000+0          0          0          1         309431 3  2
--------------------------------------------------------------------------------
 0.000000+0-4.771000+4          0          0          1         979431 3  4
 0.000000+0-4.779700+4          0          0          1         559431 3  4
--------------------------------------------------------------------------------
-5.880730+6-5.880730+6          0          0          1         299431 3 16
-5.834200+6-5.834200+6          0          0          1         139431 3 16
--------------------------------------------------------------------------------
-1.323300+7-1.323300+7          0          0          1         149431 3 17
-1.322000+7-1.322000+7          0          0          1          49431 3 17
--------------------------------------------------------------------------------
 1.964240+8 1.964240+8          0          0          1        1219431 3 18
 1.959000+8 1.959000+8          0          0          1        1679431 3 18
--------------------------------------------------------------------------------
 1.964240+8 1.964240+8          0          0          1        1219431 3 19
 1.959000+8 1.959000+8          0          0          1        1679431 3 19
--------------------------------------------------------------------------------
 1.964240+8 1.964240+8          0          0          1         399431 3 20
 1.959000+8 1.959000+8          0          0          1          49431 3 20
--------------------------------------------------------------------------------
                                                                 9431 3 21 Only in VII.1
                                                                 9431 3 38 Only in VII.1
 0.000000+0-4.771000+4          0          0          1         949431 3 51
 0.000000+0-4.779700+4          0          0          1         219431 3 51
--------------------------------------------------------------------------------
 0.000000+0-1.060000+5          0          0          1         909431 3 52
 0.000000+0-1.025600+5          0          0          1         299431 3 52
--------------------------------------------------------------------------------
```

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 0.000000+0-1.455440+5          0          0          1         879431 3 53
 0.000000+0-1.453800+5          0          0          1         229431 3 53
-------------------------------------------------------------------------------
 0.000000+0-1.554500+5          0          0          1         869431 3 54
 0.000000+0-1.563300+5          0          0          1         299431 3 54
-------------------------------------------------------------------------------
 0.000000+0-1.750000+5          0          0          1         849431 3 55
 0.000000+0-1.702800+5          0          0          1         249431 3 55
-------------------------------------------------------------------------------
 0.000000+0-2.011800+5          0          0          1         829431 3 56
 0.000000+0-1.991500+5          0          0          1         279431 3 56
-------------------------------------------------------------------------------
 0.000000+0-2.242500+5          0          0          1         819431 3 57
 0.000000+0-2.280300+5          0          0          1         289431 3 57
-------------------------------------------------------------------------------
 0.000000+0-2.570000+5          0          0          1         799431 3 58
 0.000000+0-2.788100+5          0          0          1         229431 3 58
-------------------------------------------------------------------------------
 0.000000+0-2.802200+5          0          0          1         789431 3 59
 0.000000+0-3.096800+5          0          0          1         189431 3 59
-------------------------------------------------------------------------------
 0.000000+0-3.040000+5          0          0          1         769431 3 60
 0.000000+0-3.196400+5          0          0          1         169431 3 60
-------------------------------------------------------------------------------
                                                                 9431 3 61 Only in VII.1
                                                                 9431 3 62 Only in VII.1
                                                                 9431 3 63 Only in VII.1
                                                                 9431 3 64 Only in VII.1
                                                                 9431 3 65 Only in VII.1
                                                                 9431 3 66 Only in VII.1
                                                                 9431 3 67 Only in VII.1
                                                                 9431 3 68 Only in VII.1
                                                                 9431 3 69 Only in VII.1
                                                                 9431 3 70 Only in VII.1
                                                                 9431 3 71 Only in VII.1
                                                                 9431 3 72 Only in VII.1
                                                                 9431 3 73 Only in VII.1
                                                                 9431 3 74 Only in VII.1
                                                                 9431 3 75 Only in VII.1
                                                                 9431 3 76 Only in VII.1
                                                                 9431 3 77 Only in VII.1
                                                                 9431 3 78 Only in VII.1
                                                                 9431 3 79 Only in VII.1
                                                                 9431 3 80 Only in VII.1
 0.000000+0-1.036650+5          0          0          1         919431 3 91
 0.000000+0-3.196400+5          0          0          1         109431 3 91
-------------------------------------------------------------------------------
 6.999880+6 6.999880+6          0          0          1        1219431 3102
 6.998000+6 6.998000+6          0          0          1        1879431 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1189431 4  2
 0.000000+0 0.000000+0          0          0          1         199431 4  2
-------------------------------------------------------------------------------
                                                                 9431 4 16 Only in VII.0
                                                                 9431 4 17 Only in VII.0
                                                                 9431 4 19 Only in VII.0
                                                                 9431 4 20 Only in VII.0
                                                                 9431 4 51 Only in VII.0
                                                                 9431 4 52 Only in VII.0
                                                                 9431 4 53 Only in VII.0
                                                                 9431 4 54 Only in VII.0
                                                                 9431 4 55 Only in VII.0
                                                                 9431 4 56 Only in VII.0
                                                                 9431 4 57 Only in VII.0
                                                                 9431 4 58 Only in VII.0
                                                                 9431 4 59 Only in VII.0
                                                                 9431 4 60 Only in VII.0
                                                                 9431 4 91 Only in VII.0
                                                                 9431 5 16 Only in VII.0
                                                                 9431 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29431 5 18
-3.000000+7 0.000000+0          0          7          1          29431 5 18
-------------------------------------------------------------------------------
                                                                 9431 5 19 Only in VII.0
                                                                 9431 5 20 Only in VII.0
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                                                                  9431 5 91 Only in VII.0
                                                                  9431 6 16 Only in VII.1
                                                                  9431 6 17 Only in VII.1
                                                                  9431 6 51 Only in VII.1
                                                                  9431 6 52 Only in VII.1
                                                                  9431 6 53 Only in VII.1
                                                                  9431 6 54 Only in VII.1
                                                                  9431 6 55 Only in VII.1
                                                                  9431 6 56 Only in VII.1
                                                                  9431 6 57 Only in VII.1
                                                                  9431 6 58 Only in VII.1
                                                                  9431 6 59 Only in VII.1
                                                                  9431 6 60 Only in VII.1
                                                                  9431 6 61 Only in VII.1
                                                                  9431 6 62 Only in VII.1
                                                                  9431 6 63 Only in VII.1
                                                                  9431 6 64 Only in VII.1
                                                                  9431 6 65 Only in VII.1
                                                                  9431 6 66 Only in VII.1
                                                                  9431 6 67 Only in VII.1
                                                                  9431 6 68 Only in VII.1
                                                                  9431 6 69 Only in VII.1
                                                                  9431 6 70 Only in VII.1
                                                                  9431 6 71 Only in VII.1
                                                                  9431 6 72 Only in VII.1
                                                                  9431 6 73 Only in VII.1
                                                                  9431 6 74 Only in VII.1
                                                                  9431 6 75 Only in VII.1
                                                                  9431 6 76 Only in VII.1
                                                                  9431 6 77 Only in VII.1
                                                                  9431 6 78 Only in VII.1
                                                                  9431 6 79 Only in VII.1
                                                                  9431 6 80 Only in VII.1
                                                                  9431 6 91 Only in VII.1
                                                                  9431 6102 Only in VII.1
 94-Pu-238
*******************************************************************************
 0.000000+0 0.000000+0          0          0          1         229434 1452
 0.000000+0 0.000000+0          0          0          1          49434 1452
-------------------------------------------------------------------------------
 1.330000-2 3.120000-2 1.162000-1 2.888000-1 8.561000-1 2.713800+09434 1455
 1.332500-2 3.117100-2 1.161500-1 2.888400-1 8.561400-1 2.713800+09434 1455
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         219434 1456
 0.000000+0 0.000000+0          0          0          1          49434 1456
-------------------------------------------------------------------------------
                                                                  9434 1458 Only in VII.0
 9.423800+4 1.000000+0          0          0          2          09434 2151
 9.423800+4 1.000000+0          0          1          2          09434 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          3        3409434 3  1
 0.000000+0 0.000000+0          0          0          1        1089434 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        3409434 3  2
 0.000000+0 0.000000+0          0          0          1         389434 3  2
-------------------------------------------------------------------------------
                                                                  9434 3  3 Only in VII.1
 0.000000+0-4.410000+4          0          0          1        2049434 3  4
 0.000000+0-4.381400+4          0          0          1         909434 3  4
-------------------------------------------------------------------------------
-7.000511+6-7.000511+6          0          0          1         999434 3 16
-6.970500+6-6.970500+6          0          0          1          99434 3 16
-------------------------------------------------------------------------------
-1.287758+7-1.287758+7          0          0          1         519434 3 17
-1.285700+7-1.285700+7          0          0          1          49434 3 17
-------------------------------------------------------------------------------
 1.973800+8 1.973800+8          0          0          3        2329434 3 18
 1.973800+8 1.973800+8          0          0          1         389434 3 18
-------------------------------------------------------------------------------
                                                                  9434 3 19 Only in VII.0
                                                                  9434 3 20 Only in VII.0
                                                                  9434 3 37 Only in VII.1
 0.000000+0-4.410000+4          0          0          1        2049434 3 51
 0.000000+0-4.381400+4          0          0          1         399434 3 51
-------------------------------------------------------------------------------
```

```
 0.000000+0-1.460000+5          0          0          1        1979434 3 52
 0.000000+0-1.453800+5          0          0          1         319434 3 52
-------------------------------------------------------------------------------
 0.000000+0-3.034000+5          0          0          1        1929434 3 53
 0.000000+0-3.027200+5          0          0          1         329434 3 53
-------------------------------------------------------------------------------
 0.000000+0-5.134000+5          0          0          1        1889434 3 54
 0.000000+0-6.024500+5          0          0          1         269434 3 54
-------------------------------------------------------------------------------
 0.000000+0-6.052000+5          0          0          1         979434 3 55
 0.000000+0-6.582100+5          0          0          1         269434 3 55
-------------------------------------------------------------------------------
 0.000000+0-6.614000+5          0          0          1         969434 3 56
 0.000000+0-7.478300+5          0          0          1         249434 3 56
-------------------------------------------------------------------------------
 0.000000+0-7.632000+5          0          0          1         949434 3 57
 0.000000+0-9.380300+5          0          0          1         299434 3 57
-------------------------------------------------------------------------------
 0.000000+0-7.728000+5          0          0          1         939434 3 58
 0.000000+0-9.579400+5          0          0          1         239434 3 58
-------------------------------------------------------------------------------
 0.000000+0-9.415000+5          0          0          1         909434 3 59
 0.000000+0-9.798500+5          0          0          1         269434 3 59
-------------------------------------------------------------------------------
 0.000000+0-9.628000+5          0          0          1         899434 3 60
 0.000000+0-9.808400+5          0          0          1         239434 3 60
-------------------------------------------------------------------------------
 0.000000+0-9.681000+5          0          0          1         889434 3 61
 0.000000+0-9.828400+5          0          0          1         239434 3 61
-------------------------------------------------------------------------------
 0.000000+0-9.831000+5          0          0          1         879434 3 62
 0.000000+0-1.015700+6          0          0          1         249434 3 62
-------------------------------------------------------------------------------
 0.000000+0-9.855000+5          0          0          1         869434 3 63
 0.000000+0-1.021700+6          0          0          1         229434 3 63
-------------------------------------------------------------------------------
 0.000000+0-1.028600+6          0          0          1         849434 3 64
 0.000000+0-1.059500+6          0          0          1         189434 3 64
-------------------------------------------------------------------------------
 0.000000+0-1.069900+6          0          0          1         839434 3 65
 0.000000+0-1.065500+6          0          0          1         159434 3 65
-------------------------------------------------------------------------------
                                                             9434 3 66 Only in VII.1
                                                             9434 3 67 Only in VII.1
                                                             9434 3 68 Only in VII.1
                                                             9434 3 69 Only in VII.1
                                                             9434 3 70 Only in VII.1
                                                             9434 3 71 Only in VII.1
                                                             9434 3 72 Only in VII.1
                                                             9434 3 73 Only in VII.1
                                                             9434 3 74 Only in VII.1
                                                             9434 3 75 Only in VII.1
                                                             9434 3 76 Only in VII.1
                                                             9434 3 77 Only in VII.1
                                                             9434 3 78 Only in VII.1
                                                             9434 3 79 Only in VII.1
                                                             9434 3 80 Only in VII.1
                                                             9434 3 81 Only in VII.1
                                                             9434 3 82 Only in VII.1
                                                             9434 3 83 Only in VII.1
                                                             9434 3 84 Only in VII.1
                                                             9434 3 85 Only in VII.1
                                                             9434 3 86 Only in VII.1
                                                             9434 3 87 Only in VII.1
                                                             9434 3 88 Only in VII.1
 0.000000+0-1.170000+6          0          0          1        1669434 3 91
 0.000000+0-1.065500+6          0          0          1         179434 3 91
-------------------------------------------------------------------------------
 5.646600+6 5.646600+6          0          0          2        1029434 3102
 4.806000+6 4.806000+6          0          0          1         449434 3102
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4  2
 0.000000+0 2.360045+2          0          2          0          09434 4  2
-------------------------------------------------------------------------------
                                                             9434 4 16 Only in VII.0
```

```
                                                                    9434 4 17 Only in VII.0
                                                                    9434 4 18 Only in VII.0
                                                                    9434 4 19 Only in VII.0
                                                                    9434 4 20 Only in VII.0
 0.000000+0 2.360046+2          0          2          0          09434 4 51
 0.000000+0 2.360045+2          1          2          0          09434 4 51
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 52
 0.000000+0 2.360045+2          1          2          0          09434 4 52
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 53
 0.000000+0 2.360045+2          1          2          0          09434 4 53
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 54
 0.000000+0 2.360045+2          1          2          0          09434 4 54
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 55
 0.000000+0 2.360045+2          1          2          0          09434 4 55
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 56
 0.000000+0 2.360045+2          1          2          0          09434 4 56
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 57
 0.000000+0 2.360045+2          1          2          0          09434 4 57
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 58
 0.000000+0 2.360050+2          1          2          0          09434 4 58
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 59
 0.000000+0 2.360045+2          1          2          0          09434 4 59
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 60
 0.000000+0 2.360045+2          1          2          0          09434 4 60
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 61
 0.000000+0 2.360045+2          1          2          0          09434 4 61
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 62
 0.000000+0 2.360045+2          1          2          0          09434 4 62
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 63
 0.000000+0 2.360045+2          1          2          0          09434 4 63
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 64
 0.000000+0 2.360045+2          1          2          0          09434 4 64
-------------------------------------------------------------------------------
 0.000000+0 2.360046+2          0          2          0          09434 4 65
 0.000000+0 2.360045+2          1          2          0          09434 4 65
-------------------------------------------------------------------------------
                                                                    9434 4 66 Only in VII.1
                                                                    9434 4 67 Only in VII.1
                                                                    9434 4 68 Only in VII.1
                                                                    9434 4 69 Only in VII.1
                                                                    9434 4 70 Only in VII.1
                                                                    9434 4 71 Only in VII.1
                                                                    9434 4 72 Only in VII.1
                                                                    9434 4 73 Only in VII.1
                                                                    9434 4 74 Only in VII.1
                                                                    9434 4 75 Only in VII.1
                                                                    9434 4 76 Only in VII.1
                                                                    9434 4 77 Only in VII.1
                                                                    9434 4 78 Only in VII.1
                                                                    9434 4 79 Only in VII.1
                                                                    9434 4 80 Only in VII.1
                                                                    9434 4 81 Only in VII.1
                                                                    9434 4 82 Only in VII.1
                                                                    9434 4 83 Only in VII.1
                                                                    9434 4 84 Only in VII.1
                                                                    9434 4 85 Only in VII.1
                                                                    9434 4 86 Only in VII.1
                                                                    9434 4 87 Only in VII.1
                                                                    9434 4 88 Only in VII.1
                                                                    9434 4 91 Only in VII.0
                                                                    9434 5 16 Only in VII.0
                                                                    9434 5 17 Only in VII.0
```

```
 0.000000+0 0.000000+0          0          1          1          29434 5 18
-3.000000+7 0.000000+0          0          7          1          29434 5 18
----------------------------------------------------------------------------
                                                                   9434 5 19 Only in VII.0
                                                                   9434 5 20 Only in VII.0
                                                                   9434 5 91 Only in VII.0
 1.000000-5 3.767633-2 3.000000+7 3.767633-2                       9434 5455
 1.000000-5 3.767633-2 2.000000+7 3.767633-2                       9434 5455
----------------------------------------------------------------------------
                                                                   9434 6 16 Only in VII.1
                                                                   9434 6 17 Only in VII.1
                                                                   9434 6 37 Only in VII.1
                                                                   9434 6 91 Only in VII.1
 94-Pu-239
****************************************************************************
 1.327100-2 3.088100-2 1.133700-1 2.925000-1 8.574900-1 2.729700+09437 1455
 1.248110-2 2.994667-2 1.071553-1 3.176193-1 1.352380+0 1.069116+19437 1455
----------------------------------------------------------------------------
 1.500000+1 9.871809-4 1.600000+1 9.452257-4 1.700000+1 1.073559-39437 1460
 1.500000+1 9.871808-4 1.600000+1 9.452257-4 1.700000+1 1.073559-39437 1460
----------------------------------------------------------------------------
 3.000000+4 8.474100+0 0.000000+0 9.474000-4 4.070000-2 2.697000+09437 2151
 2.950000+4 8.474100+0 0.000000+0 9.474000-4 4.070000-2 2.697000+09437 2151
----------------------------------------------------------------------------
-2.123213-2-5.575145-2 4.503431-2-4.007026-2 8.664596-4 9.875596-49437 4 76
-2.123213-2-5.575145-2 4.503431-2-4.007026-2 8.664596-4 9.875595-49437 4 76
----------------------------------------------------------------------------
-5.501023-6-5.653619-6-9.676723-7-1.311852-7-1.349319-8-1.592145-99437 4 80
-5.501023-6-5.653619-6-9.676724-7-1.311852-7-1.349319-8-1.592145-99437 4 80
----------------------------------------------------------------------------
-1.130429-2-9.546876-3-9.897758-4 1.520279-2 1.188212-2 4.399529-39437 4 89
-1.130429-2-9.546876-3-9.897757-4 1.520279-2 1.188212-2 4.399529-39437 4 89
----------------------------------------------------------------------------
 0.000000+0 1.000000-5          0          0          1        6439437 5 18
 0.000000+0 1.000000-5          0          0          1        5639437 5 18
----------------------------------------------------------------------------
 1.000000-5 3.630564-2 2.000000+7 3.630564-2                         9437 5455
 1.000000-5 3.308424-2 2.000000+7 3.308424-2                         9437 5455
----------------------------------------------------------------------------
 94-Pu-240
****************************************************************************
 0.000000+0 0.000000+0          0          0          1         419440 1452
 0.000000+0 0.000000+0          0          0          1          59440 1452
----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          59440 1455
 0.000000+0 0.000000+0          0          0          1          49440 1455
----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         419440 1456
 0.000000+0 0.000000+0          0          0          1          59440 1456
----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        5589440 3  1
 0.000000+0 0.000000+0          0          0          1        1309440 3  1
----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        5499440 3  2
 0.000000+0 0.000000+0          0          0          1        1099440 3  2
----------------------------------------------------------------------------
                                                                    9440 3  3 Only in VII.1
 0.000000+0-4.280000+4          0          0          1        1989440 3  4
 0.000000+0-4.280000+4          0          0          1        1089440 3  4
----------------------------------------------------------------------------
-6.533530+6-6.533530+6          0          0          1         779440 3 16
-6.533500+6-6.533500+6          0          0          1         299440 3 16
----------------------------------------------------------------------------
-1.218010+7-1.218010+7          0          0          1         549440 3 17
-1.218900+7-1.218900+7          0          0          1         179440 3 17
----------------------------------------------------------------------------
 1.994700+8 1.994700+8          0          0          2        4859440 3 18
 1.994700+8 1.994700+8          0          0          1        1099440 3 18
----------------------------------------------------------------------------
 1.994700+8 1.994700+8          0          0          2        4859440 3 19
 1.994700+8 1.994700+8          0          0          1        1099440 3 19
----------------------------------------------------------------------------
 1.994700+8 1.994700+8          0          0          1         859440 3 20
 1.994700+8 1.994700+8          0          0          1         349440 3 20
----------------------------------------------------------------------------
```

```
 1.994700+8 1.994700+8          0          0          1         619440 3 21
 1.994700+8 1.994700+8          0          0          1         179440 3 21
-------------------------------------------------------------------------------
                                                              9440 3 37 Only in VII.1
                                                              9440 3 38 Only in VII.1
 0.000000+0-4.280000+4          0          0          1        1989440 3 51
 0.000000+0-4.280000+4          0          0          1        1059440 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.417000+5          0          0          1        1819440 3 52
 0.000000+0-1.417000+5          0          0          1         909440 3 52
-------------------------------------------------------------------------------
 0.000000+0-2.943000+5          0          0          1        1699440 3 53
 0.000000+0-2.940000+5          0          0          1         799440 3 53
-------------------------------------------------------------------------------
 0.000000+0-4.975000+5          0          0          1        1649440 3 54
 0.000000+0-4.980000+5          0          0          1         739440 3 54
-------------------------------------------------------------------------------
 0.000000+0-5.973000+5          0          0          1         889440 3 55
 0.000000+0-5.970000+5          0          0          1         489440 3 55
-------------------------------------------------------------------------------
 0.000000+0-6.489000+5          0          0          1         859440 3 56
 0.000000+0-6.490000+5          0          0          1         489440 3 56
-------------------------------------------------------------------------------
 0.000000+0-7.423000+5          0          0          1         839440 3 57
 0.000000+0-7.420000+5          0          0          1         469440 3 57
-------------------------------------------------------------------------------
 0.000000+0-7.478000+5          0          0          1         819440 3 58
 0.000000+0-8.607000+5          0          0          1         359440 3 58
-------------------------------------------------------------------------------
 0.000000+0-8.607000+5          0          0          1         789440 3 59
 0.000000+0-9.000000+5          0          0          1         329440 3 59
-------------------------------------------------------------------------------
 0.000000+0-9.003000+5          0          0          1         769440 3 60
 0.000000+0-9.380000+5          0          0          1         329440 3 60
-------------------------------------------------------------------------------
 0.000000+0-9.381000+5          0          0          1         759440 3 61
 0.000000+0-9.590000+5          0          0          1         329440 3 61
-------------------------------------------------------------------------------
 0.000000+0-9.588000+5          0          0          1         739440 3 62
 0.000000+0-9.930000+5          0          0          1         299440 3 62
-------------------------------------------------------------------------------
 0.000000+0-9.922000+5          0          0          1         729440 3 63
 0.000000+0-1.002000+6          0          0          1         309440 3 63
-------------------------------------------------------------------------------
 0.000000+0-1.001900+6          0          0          1         709440 3 64
 0.000000+0-1.031000+6          0          0          1         309440 3 64
-------------------------------------------------------------------------------
 0.000000+0-1.030500+6          0          0          1         699440 3 65
 0.000000+0-1.038000+6          0          0          1         309440 3 65
-------------------------------------------------------------------------------
 0.000000+0-1.037500+6          0          0          1         689440 3 66
 0.000000+0-1.076000+6          0          0          1         249440 3 66
-------------------------------------------------------------------------------
 0.000000+0-1.041800+6          0          0          1         679440 3 67
 0.000000+0-1.089700+6          0          0          1         249440 3 67
-------------------------------------------------------------------------------
 0.000000+0-1.076200+6          0          0          1         659440 3 68
 0.000000+0-1.116000+6          0          0          1         249440 3 68
-------------------------------------------------------------------------------
 0.000000+0-1.089500+6          0          0          1         649440 3 69
 0.000000+0-1.137500+6          0          0          1         249440 3 69
-------------------------------------------------------------------------------
                                                              9440 3 70 Only in VII.1
                                                              9440 3 71 Only in VII.1
                                                              9440 3 72 Only in VII.1
                                                              9440 3 73 Only in VII.1
                                                              9440 3 74 Only in VII.1
                                                              9440 3 75 Only in VII.1
                                                              9440 3 76 Only in VII.1
                                                              9440 3 77 Only in VII.1
                                                              9440 3 78 Only in VII.1
                                                              9440 3 79 Only in VII.1
                                                              9440 3 80 Only in VII.1
                                                              9440 3 81 Only in VII.1
                                                              9440 3 82 Only in VII.1
```

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                                                                 9440 3 83 Only in VII.1
                                                                 9440 3 84 Only in VII.1
                                                                 9440 3 85 Only in VII.1
                                                                 9440 3 86 Only in VII.1
                                                                 9440 3 87 Only in VII.1
                                                                 9440 3 88 Only in VII.1
                                                                 9440 3 89 Only in VII.1
                                                                 9440 3 90 Only in VII.1
 0.000000+0-1.131950+6          0          0          1        1349440 3 91
 0.000000+0-1.140000+6          0          0          1         539440 3 91
-------------------------------------------------------------------------------
 5.241520+6 5.241520+6          0          0          2        1109440 3102
 5.241000+6 5.241000+6          0          0          1        1159440 3102
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4  2
 0.000000+0 2.379920+2          0          2          0          09440 4  2
-------------------------------------------------------------------------------
                                                                 9440 4 16 Only in VII.0
                                                                 9440 4 17 Only in VII.0
 0.000000+0 2.379916+2          1          1          0          09440 4 18
 0.000000+0 2.379920+2          1          1          0          09440 4 18
-------------------------------------------------------------------------------
                                                                 9440 4 19 Only in VII.0
                                                                 9440 4 20 Only in VII.0
                                                                 9440 4 21 Only in VII.0
 0.000000+0 2.379916+2          0          2          0          09440 4 51
 0.000000+0 2.379920+2          0          2          0          09440 4 51
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 52
 0.000000+0 2.379920+2          0          2          0          09440 4 52
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 53
 0.000000+0 2.379920+2          0          2          0          09440 4 53
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 54
 0.000000+0 2.379920+2          1          2          0          09440 4 54
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 55
 0.000000+0 2.379920+2          1          2          0          09440 4 55
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 56
 0.000000+0 2.379920+2          1          2          0          09440 4 56
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 57
 0.000000+0 2.379920+2          1          2          0          09440 4 57
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 58
 0.000000+0 2.379920+2          1          2          0          09440 4 58
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 59
 0.000000+0 2.379920+2          1          2          0          09440 4 59
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 60
 0.000000+0 2.379920+2          1          2          0          09440 4 60
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 61
 0.000000+0 2.379920+2          1          2          0          09440 4 61
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 62
 0.000000+0 2.379920+2          1          2          0          09440 4 62
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 63
 0.000000+0 2.379920+2          1          2          0          09440 4 63
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 64
 0.000000+0 2.379920+2          1          2          0          09440 4 64
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 65
 0.000000+0 2.379920+2          1          2          0          09440 4 65
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 66
 0.000000+0 2.379920+2          1          2          0          09440 4 66
-------------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 67
 0.000000+0 2.379920+2          1          2          0          09440 4 67
```

```
--------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 68
 0.000000+0 2.379920+2          1          2          0          09440 4 68
--------------------------------------------------------------------------
 0.000000+0 2.379916+2          0          2          0          09440 4 69
 0.000000+0 2.379920+2          1          2          0          09440 4 69
--------------------------------------------------------------------------
                                                                  9440 4 70 Only in VII.1
                                                                  9440 4 71 Only in VII.1
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                                                                  9440 4 76 Only in VII.1
                                                                  9440 4 77 Only in VII.1
                                                                  9440 4 78 Only in VII.1
                                                                  9440 4 79 Only in VII.1
                                                                  9440 4 80 Only in VII.1
                                                                  9440 4 81 Only in VII.1
                                                                  9440 4 82 Only in VII.1
                                                                  9440 4 83 Only in VII.1
                                                                  9440 4 84 Only in VII.1
                                                                  9440 4 85 Only in VII.1
                                                                  9440 4 86 Only in VII.1
                                                                  9440 4 87 Only in VII.1
                                                                  9440 4 88 Only in VII.1
                                                                  9440 4 89 Only in VII.1
                                                                  9440 4 90 Only in VII.1
                                                                  9440 4 91 Only in VII.0
                                                                  9440 5 16 Only in VII.0
                                                                  9440 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29440 5 18
-3.000000+7 0.000000+0          0          7          1          29440 5 18
--------------------------------------------------------------------------
                                                                  9440 5 19 Only in VII.0
                                                                  9440 5 20 Only in VII.0
                                                                  9440 5 21 Only in VII.0
                                                                  9440 5 91 Only in VII.0
                                                                  9440 6 16 Only in VII.1
                                                                  9440 6 17 Only in VII.1
                                                                  9440 6 37 Only in VII.1
                                                                  9440 6 91 Only in VII.1
 94-Pu-241
**************************************************************************
 94-Pu-242
**************************************************************************
 0.000000+0 0.000000+0          0          0          1         179446 1452
 0.000000+0 0.000000+0          0          0          1          49446 1452
--------------------------------------------------------------------------
 1.360000-2 3.020000-2 1.154000-1 3.042000-1 8.272000-1 3.137200+09446 1455
 1.360300-2 3.023800-2 1.154300-1 3.041900-1 8.272100-1 3.137200+09446 1455
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          29446 1456
 0.000000+0 0.000000+0          0          0          1          49446 1456
--------------------------------------------------------------------------
 1.744870+8 0.000000+0 7.000000+6 0.000000+0 8.000000+3 0.000000+09446 1458
 1.740000+8 2.000000+6 6.760000+6 5.400000+5 1.000000+4 2.000000+39446 1458
--------------------------------------------------------------------------
 1.000000-5 1.000000+3          1          2          0          09446 2151
 1.000000-5 9.860000+2          1          1          0          09446 2151
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1199446 3  1
 0.000000+0 0.000000+0          0          0          1        1519446 3  1
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1199446 3  2
 0.000000+0 0.000000+0          0          0          1        1489446 3  2
--------------------------------------------------------------------------
 0.000000+0-4.454000+4          0          0          1         769446 3  4
 0.000000+0-4.454000+4          0          0          1        1399446 3  4
--------------------------------------------------------------------------
-6.309720+6-6.309720+6          0          0          1         289446 3 16
-6.300800+6-6.300800+6          0          0          1         529446 3 16
--------------------------------------------------------------------------
-1.155120+7-1.155120+7          0          0          1         169446 3 17
-1.154100+7-1.154100+7          0          0          1         259446 3 17
```

```
-------------------------------------------------------------------------------
 2.027780+8 2.027780+8          0          0          2        1119446 3 18
 2.015800+8 2.015800+8          0          0          1        1329446 3 18
-------------------------------------------------------------------------------
                                                              9446 3 19 Only in VII.1
                                                              9446 3 20 Only in VII.1
                                                              9446 3 21 Only in VII.1
                                                              9446 3 37 Only in VII.1
                                                              9446 3 38 Only in VII.1
 0.000000+0-4.454000+4          0          0          1         759446 3 51
 0.000000+0-4.454000+4          0          0          1        1399446 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.473000+5          0          0          1         709446 3 52
 0.000000+0-1.472000+5          0          0          1        1319446 3 52
-------------------------------------------------------------------------------
 0.000000+0-3.064000+5          0          0          1         669446 3 53
 0.000000+0-3.059000+5          0          0          1        1239446 3 53
-------------------------------------------------------------------------------
 0.000000+0-5.181000+5          0          0          1         639446 3 54
 0.000000+0-5.176000+5          0          0          1        1149446 3 54
-------------------------------------------------------------------------------
 0.000000+0-7.786000+5          0          0          1         609446 3 55
 0.000000+0-7.787000+5          0          0          1         769446 3 55
-------------------------------------------------------------------------------
 0.000000+0-7.804500+5          0          0          1         599446 3 56
 0.000000+0-7.803000+5          0          0          1         779446 3 56
-------------------------------------------------------------------------------
 0.000000+0-8.323000+5          0          0          1         579446 3 57
 0.000000+0-8.329000+5          0          0          1         759446 3 57
-------------------------------------------------------------------------------
 0.000000+0-8.650000+5          0          0          1         569446 3 58
 0.000000+0-8.650000+5          0          0          1         739446 3 58
-------------------------------------------------------------------------------
 0.000000+0-9.270000+5          0          0          1         549446 3 59
 0.000000+0-9.270000+5          0          0          1         719446 3 59
-------------------------------------------------------------------------------
 0.000000+0-9.560000+5          0          0          1         539446 3 60
 0.000000+0-9.560000+5          0          0          1         699446 3 60
-------------------------------------------------------------------------------
 0.000000+0-9.925000+5          0          0          1         529446 3 61
 0.000000+0-9.856000+5          0          0          1         689446 3 61
-------------------------------------------------------------------------------
 0.000000+0-1.019500+6          0          0          1         509446 3 62
 0.000000+0-9.950000+5          0          0          1         679446 3 62
-------------------------------------------------------------------------------
 0.000000+0-1.039200+6          0          0          1         499446 3 63
 0.000000+0-1.019000+6          0          0          1         659446 3 63
-------------------------------------------------------------------------------
 0.000000+0-1.064000+6          0          0          1         489446 3 64
 0.000000+0-1.040000+6          0          0          1         649446 3 64
-------------------------------------------------------------------------------
 0.000000+0-1.084400+6          0          0          1         479446 3 65
 0.000000+0-1.064000+6          0          0          1         629446 3 65
-------------------------------------------------------------------------------
 0.000000+0-1.092100+6          0          0          1         469446 3 66
 0.000000+0-1.087000+6          0          0          1         559446 3 66
-------------------------------------------------------------------------------
 0.000000+0-1.102000+6          0          0          1         459446 3 67
 0.000000+0-1.102000+6          0          0          1         599446 3 67
-------------------------------------------------------------------------------
 0.000000+0-1.122000+6          0          0          1         449446 3 68
 0.000000+0-1.122000+6          0          0          1         589446 3 68
-------------------------------------------------------------------------------
 0.000000+0-1.151000+6          0          0          1         439446 3 69
 0.000000+0-1.152000+6          0          0          1         569446 3 69
-------------------------------------------------------------------------------
                                                              9446 3 70 Only in VII.1
 0.000000+0-1.154790+5          0          0          1         729446 3 91
 0.000000+0-4.232400+5          0          0          1        1189446 3 91
-------------------------------------------------------------------------------
 5.034200+6 5.034200+6          0          0          2         869446 3102
 5.071000+6 5.071000+6          0          0          3        1329446 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         949446 4  2
 0.000000+0 0.000000+0          0          0          1         219446 4  2
```

```
---------------------------------------------------------------------------
                                                          9446 4 16 Only in VII.0
                                                          9446 4 17 Only in VII.0
                                                          9446 4 51 Only in VII.0
                                                          9446 4 52 Only in VII.0
                                                          9446 4 53 Only in VII.0
                                                          9446 4 54 Only in VII.0
                                                          9446 4 55 Only in VII.0
                                                          9446 4 56 Only in VII.0
                                                          9446 4 57 Only in VII.0
                                                          9446 4 58 Only in VII.0
                                                          9446 4 59 Only in VII.0
                                                          9446 4 60 Only in VII.0
                                                          9446 4 61 Only in VII.0
                                                          9446 4 62 Only in VII.0
                                                          9446 4 63 Only in VII.0
                                                          9446 4 64 Only in VII.0
                                                          9446 4 65 Only in VII.0
                                                          9446 4 66 Only in VII.0
                                                          9446 4 67 Only in VII.0
                                                          9446 4 68 Only in VII.0
                                                          9446 4 69 Only in VII.0
                                                          9446 4 91 Only in VII.0
                                                          9446 5 16 Only in VII.0
                                                          9446 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29446 5 18
-3.000000+7 0.000000+0          0          7          1          29446 5 18
---------------------------------------------------------------------------
                                                          9446 5 91 Only in VII.0
 0.000000+0 0.000000+0          0          0          1          29446 5455
 0.000000+0 0.000000+0         73         73          1          29446 5455
---------------------------------------------------------------------------
                                                          9446 6 16 Only in VII.1
                                                          9446 6 17 Only in VII.1
                                                          9446 6 37 Only in VII.1
                                                          9446 6 51 Only in VII.1
                                                          9446 6 52 Only in VII.1
                                                          9446 6 53 Only in VII.1
                                                          9446 6 54 Only in VII.1
                                                          9446 6 55 Only in VII.1
                                                          9446 6 56 Only in VII.1
                                                          9446 6 57 Only in VII.1
                                                          9446 6 58 Only in VII.1
                                                          9446 6 59 Only in VII.1
                                                          9446 6 60 Only in VII.1
                                                          9446 6 61 Only in VII.1
                                                          9446 6 62 Only in VII.1
                                                          9446 6 63 Only in VII.1
                                                          9446 6 64 Only in VII.1
                                                          9446 6 65 Only in VII.1
                                                          9446 6 66 Only in VII.1
                                                          9446 6 67 Only in VII.1
                                                          9446 6 68 Only in VII.1
                                                          9446 6 69 Only in VII.1
                                                          9446 6 70 Only in VII.1
                                                          9446 6 91 Only in VII.1
                                                          9446 6102 Only in VII.1
 94-Pu-243
***************************************************************************
 94-Pu-244
***************************************************************************
 0.000000+0 0.000000+0          0          0          1          49452 1452
 0.000000+0 0.000000+0          0          0          2          09452 1452
---------------------------------------------------------------------------
                                                          9452 1455 Only in VII.1
                                                          9452 1456 Only in VII.1
                                                          9452 1458 Only in VII.0
 1.000000-5 2.900000+2          1          2          0          09452 2151
 1.000000-5 2.492000+2          1          1          0          09452 2151
---------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1199452 3  1
 0.000000+0 0.000000+0          0          0          1         749452 3  1
---------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1199452 3  2
 0.000000+0 0.000000+0          0          0          1         349452 3  2
```

```
-------------------------------------------------------------------------------
 0.000000+0-4.420000+4          0          0          1         639452 3  4
 0.000000+0-4.381900+4          0          0          1         559452 3  4
-------------------------------------------------------------------------------
-6.021270+6-6.021270+6          0          0          1         289452 3 16
-5.993200+6-5.993200+6          0          0          1         109452 3 16
-------------------------------------------------------------------------------
-1.105550+7-1.105550+7          0          0          1         179452 3 17
-1.105500+7-1.105500+7          0          0          1          69452 3 17
-------------------------------------------------------------------------------
 2.042000+8 2.042000+8          0          0          2        1139452 3 18
 2.028500+8 2.028500+8          0          0          1         509452 3 18
-------------------------------------------------------------------------------
 2.042000+8 2.042000+8          0          0          2         859452 3 19
 2.028500+8 2.028500+8          0          0          1         429452 3 19
-------------------------------------------------------------------------------
 2.042000+8 2.042000+8          0          0          1         619452 3 20
 2.028500+8 2.028500+8          0          0          1         109452 3 20
-------------------------------------------------------------------------------
                                                              9452 3 21 Only in VII.1
-1.736520+7-1.736520+7          0          0          1          39452 3 37
-1.735630+7-1.735630+7          0          0          1          29452 3 37
-------------------------------------------------------------------------------
                                                              9452 3 38 Only in VII.1
 0.000000+0-4.420000+4          0          0          1         629452 3 51
 0.000000+0-4.381900+4          0          0          1         329452 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.550000+5          0          0          1         579452 3 52
 0.000000+0-1.424100+5          0          0          1         309452 3 52
-------------------------------------------------------------------------------
 0.000000+0-3.179000+5          0          0          1         539452 3 53
 0.000000+0-2.947800+5          0          0          1         259452 3 53
-------------------------------------------------------------------------------
 0.000000+0-5.350000+5          0          0          1         509452 3 54
 0.000000+0-5.975300+5          0          0          1         259452 3 54
-------------------------------------------------------------------------------
 0.000000+0-7.080000+5          0          0          1         479452 3 55
 0.000000+0-6.473200+5          0          0          1         199452 3 55
-------------------------------------------------------------------------------
                                                              9452 3 56 Only in VII.1
                                                              9452 3 57 Only in VII.1
 0.000000+0-1.154750+5          0          0          1         599452 3 91
 0.000000+0-6.473200+5          0          0          1         179452 3 91
-------------------------------------------------------------------------------
 4.770800+6 4.770800+6          0          0          2         779452 3102
 4.720000+6 4.720000+6          0          0          1         399452 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         819452 4  2
 0.000000+0 0.000000+0          0          0          1         199452 4  2
-------------------------------------------------------------------------------
                                                              9452 4 16 Only in VII.0
                                                              9452 4 17 Only in VII.0
                                                              9452 4 19 Only in VII.0
                                                              9452 4 20 Only in VII.0
                                                              9452 4 37 Only in VII.0
                                                              9452 4 51 Only in VII.0
                                                              9452 4 52 Only in VII.0
                                                              9452 4 53 Only in VII.0
                                                              9452 4 54 Only in VII.0
                                                              9452 4 55 Only in VII.0
                                                              9452 4 91 Only in VII.0
                                                              9452 5 16 Only in VII.0
                                                              9452 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29452 5 18
-3.000000+7 0.000000+0          0          7          1          29452 5 18
-------------------------------------------------------------------------------
                                                              9452 5 19 Only in VII.0
                                                              9452 5 20 Only in VII.0
                                                              9452 5 37 Only in VII.0
                                                              9452 5 91 Only in VII.0
                                                              9452 6 16 Only in VII.1
                                                              9452 6 17 Only in VII.1
                                                              9452 6 37 Only in VII.1
                                                              9452 6 51 Only in VII.1
                                                              9452 6 52 Only in VII.1
```

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                                                                    9452 6 53 Only in VII.1
                                                                    9452 6 54 Only in VII.1
                                                                    9452 6 55 Only in VII.1
                                                                    9452 6 56 Only in VII.1
                                                                    9452 6 57 Only in VII.1
                                                                    9452 6 91 Only in VII.1
                                                                    9452 6102 Only in VII.1
 94-Pu-246
*******************************************************************************
 1.000000-5 2.678200+0 4.000000+6 3.462200+0 7.000000+6 4.018200+09458 1452
 1.000000-5 3.038200+0 4.000000+6 3.822200+0 7.000000+6 4.378200+09458 1452
-------------------------------------------------------------------------------
 1.000000-5 2.580000+0 2.000000+7 6.500000+0                     9458 1456
 1.000000-5 2.940000+0 2.000000+7 6.860000+0                     9458 1456
-------------------------------------------------------------------------------
 1.000000-5 1.800000+1          0          0          0          09458 2151
 1.000000-5 6.000000-1          0          0          0          09458 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1049458 3  1
 0.000000+0 0.000000+0          0          0          1        1019458 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         959458 3  2
 0.000000+0 0.000000+0          0          0          2        1029458 3  2
-------------------------------------------------------------------------------
 0.000000+0-4.600000+4          0          0          1         679458 3  4
 0.000000+0-4.600000+4          0          0          1         589458 3  4
-------------------------------------------------------------------------------
-5.782200+6-5.782200+6          0          0          1         309458 3 16
-5.880400+6-5.880400+6          0          0          1         289458 3 16
-------------------------------------------------------------------------------
-1.055300+7-1.055300+7          0          0          1         199458 3 17
-1.057870+7-1.057870+7          0          0          1         199458 3 17
-------------------------------------------------------------------------------
 2.071000+8 2.071000+8          0          0          1         669458 3 18
 2.000000+8 2.000000+8          0          0          2         499458 3 18
-------------------------------------------------------------------------------
                                                                    9458 3 19 Only in VII.1
                                                                    9458 3 20 Only in VII.1
                                                                    9458 3 21 Only in VII.1
                                                                    9458 3 37 Only in VII.1
                                                                    9458 3 38 Only in VII.1
 0.000000+0-4.600000+4          0          0          1         669458 3 51
 0.000000+0-4.600000+4          0          0          1         369458 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.550000+5          0          0          1         619458 3 52
 0.000000+0-1.550000+5          0          0          1         309458 3 52
-------------------------------------------------------------------------------
                                                                    9458 3 53 Only in VII.1
                                                                    9458 3 54 Only in VII.1
                                                                    9458 3 55 Only in VII.1
                                                                    9458 3 56 Only in VII.1
                                                                    9458 3 57 Only in VII.1
                                                                    9458 3 58 Only in VII.1
                                                                    9458 3 59 Only in VII.1
 0.000000+0-1.154710+5          0          0          1         639458 3 91
 0.000000+0-3.000000+5          0          0          1         469458 3 91
-------------------------------------------------------------------------------
 4.470510+6 4.470510+6          0          0          1         879458 3102
 5.969640+6 5.969640+6          0          0          1         649458 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         909458 4  2
 0.000000+0 0.000000+0          0          0          1         189458 4  2
-------------------------------------------------------------------------------
                                                                    9458 4 16 Only in VII.0
                                                                    9458 4 17 Only in VII.0
                                                                    9458 4 51 Only in VII.0
                                                                    9458 4 52 Only in VII.0
                                                                    9458 4 91 Only in VII.0
                                                                    9458 5 16 Only in VII.0
                                                                    9458 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29458 5 18
-2.000000+8 0.000000+0          0          7          1          29458 5 18
-------------------------------------------------------------------------------
                                                                    9458 5 91 Only in VII.0
                                                                    9458 6 16 Only in VII.1
```

```
                                                                    9458 6 17 Only in VII.1
                                                                    9458 6 37 Only in VII.1
                                                                    9458 6 51 Only in VII.1
                                                                    9458 6 52 Only in VII.1
                                                                    9458 6 53 Only in VII.1
                                                                    9458 6 54 Only in VII.1
                                                                    9458 6 55 Only in VII.1
                                                                    9458 6 56 Only in VII.1
                                                                    9458 6 57 Only in VII.1
                                                                    9458 6 58 Only in VII.1
                                                                    9458 6 59 Only in VII.1
                                                                    9458 6 91 Only in VII.1
                                                                    9458 6102 Only in VII.1
 95-Am-240    Evaluation Only in VII.1
********************************************************************************
 95-Am-241
********************************************************************************
 9.524100+4 1.000000+0          0          1          2          09543 2151
 9.524101+4 1.000000+0          0          1          2          09543 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        3629543 3  1
 0.000000+0 0.000000+0          0          0          1        1799543 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        3629543 3  2
 0.000000+0 0.000000+0          0          0          1        1779543 3  2
--------------------------------------------------------------------------------
 1.586611+5 6.811654-1 2.000000+5 8.024741-1 2.067616+5 8.194659-19543 3  4
 1.586611+5 6.811654-1 2.000000+5 8.024741-1 2.067616+5 8.194658-19543 3  4
--------------------------------------------------------------------------------
 2.019601+8 2.019601+8          0          0          1        2529543 3 18
 2.019601+8 2.019601+8          0          0          1        1059543 3 18
--------------------------------------------------------------------------------
 5.539101+6 5.539101+6          0          0          2         819543 3102
 5.539101+6 5.539101+6          0          0          2         789543 3102
--------------------------------------------------------------------------------
 9.524100+4 2.389860+2          0          1          1          29543 6 91
 9.524101+4 2.389860+2          0          1          1          29543 6 91
--------------------------------------------------------------------------------
 95-Am-242
********************************************************************************
                                                                     9546 4 18 Only in VII.1
 1.000000+0 1.000000+0          0          1          1          29546 6 16
 1.000000+0 1.000000+0          0          1          1         379546 6 16
--------------------------------------------------------------------------------
 1.000000+0 1.000000+0          0          1          1          29546 6 17
 1.000000+0 1.000000+0          0          1          1         149546 6 17
--------------------------------------------------------------------------------
 95-Am-242m
********************************************************************************
 1.500000+4 0.000000+0 2.000000+4 0.000000+0 2.500000+4 2.003490-39547 3  4
 1.500000+4 0.000000+0 2.000000+4 0.000000+0 2.500000+4 1.903490-39547 3  4
--------------------------------------------------------------------------------
 2.000000+4 0.000000+0 2.500000+4 1.183308-4 3.000000+4 2.198553-59547 3 51
 2.000000+4 0.000000+0 2.500000+4 1.183308-4 3.000000+4 9.640164-59547 3 51
--------------------------------------------------------------------------------
 2.000000+4 0.000000+0 2.500000+4 1.216820-7 3.000000+4 2.000000-79547 3 52
 2.000000+4 0.000000+0 2.500000+4 2.585243-6 3.000000+4 1.440153-69547 3 52
--------------------------------------------------------------------------------
 2.000000+4 0.000000+0 2.500000+4 2.520574-3 3.000000+4 3.770214-39547 3 53
 2.000000+4 0.000000+0 2.500000+4 1.782574-3 3.000000+4 1.770214-39547 3 53
--------------------------------------------------------------------------------
 2.731335+4 0.000000+0 3.000000+4 6.992005-5 3.500000+4 2.056291-49547 3 54
 2.731335+4 0.000000+0 3.000000+4 9.992005-5 3.500000+4 1.056291-49547 3 54
--------------------------------------------------------------------------------
 1.000000+0 1.000000+0          0          1          1          29547 6 16
 1.000000+0 1.000000+0          0          1          1         229547 6 16
--------------------------------------------------------------------------------
 1.000000+0 1.000000+0          0          1          1          29547 6 17
 1.000000+0 1.000000+0          0          1          1         119547 6 17
--------------------------------------------------------------------------------
 95-Am-243
********************************************************************************
 95-Am-244
********************************************************************************
 4.093830-3 1.066980-3 2.371010-4 4.305140-5 7.526600-6 9.550751-79552 4  2
```

```
 4.093830-3 1.066980-3 2.371010-4 4.305140-5 7.526600-6 9.550750-79552 4  2
--------------------------------------------------------------------------------
 0.000000+0-9.927639-7                                                 9552 4 72
 0.000000+0-9.927640-7                                                 9552 4 72
--------------------------------------------------------------------------------
 0.000000+0-9.916261-7                                                 9552 4 73
 0.000000+0-9.916260-7                                                 9552 4 73
--------------------------------------------------------------------------------
 95-Am-244m
********************************************************************************
 2.095200+5 6.525000-4 2.357210+5 9.306930-4 2.400000+5 9.788109-49553 3 56
 2.095200+5 6.525000-4 2.357210+5 9.306930-4 2.400000+5 9.788110-49553 3 56
--------------------------------------------------------------------------------
 4.000000+6 1.061630-5 5.000000+6 9.887621-7 5.385400+6 4.192480-79553 3 69
 4.000000+6 1.061630-5 5.000000+6 9.887620-7 5.385400+6 4.192480-79553 3 69
--------------------------------------------------------------------------------
 4.093830-3 1.066980-3 2.371010-4 4.305140-5 7.526600-6 9.550751-79553 4  2
 4.093830-3 1.066980-3 2.371010-4 4.305140-5 7.526600-6 9.550750-79553 4  2
--------------------------------------------------------------------------------
 0.000000+0 9.977171-7 0.000000+0-2.207510-5 0.000000+0-8.782030-69553 4 63
 0.000000+0 9.977170-7 0.000000+0-2.207510-5 0.000000+0-8.782030-69553 4 63
--------------------------------------------------------------------------------
 96-Cm-240    Evaluation Only in VII.1
********************************************************************************
 96-Cm-241
********************************************************************************
 0.000000+0 0.000000+0          0          0          1          49628 1452
 0.000000+0 0.000000+0          0          0          2          09628 1452
--------------------------------------------------------------------------------
                                                                  9628 1455 Only in VII.1
                                                                  9628 1456 Only in VII.1
                                                                  9628 1458 Only in VII.0
 1.000000-5 1.100000+0          0          0          0          09628 2151
 0.000000+0 0.000000+0          0          0          0          09628 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1029628 3  1
 0.000000+0 0.000000+0          0          0          2         649628 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1019628 3  2
 0.000000+0 0.000000+0          0          0          2         249628 3  2
--------------------------------------------------------------------------------
 0.000000+0-5.500000+3          0          0          1         749628 3  4
 0.000000+0-1.593300+4          0          0          1         439628 3  4
--------------------------------------------------------------------------------
-6.093330+6-6.093330+6          0          0          1         299628 3 16
-6.044700+6-6.044700+6          0          0          1         129628 3 16
--------------------------------------------------------------------------------
-1.363120+7-1.363120+7          0          0          1         139628 3 17
-1.353000+7-1.353000+7          0          0          1          49628 3 17
--------------------------------------------------------------------------------
 2.020000+8 2.020000+8          0          0          1         959628 3 18
 2.023500+8 2.023500+8          0          0          2         389628 3 18
--------------------------------------------------------------------------------
 2.020000+8 2.020000+8          0          0          1         959628 3 19
 2.023500+8 2.023500+8          0          0          2         389628 3 19
--------------------------------------------------------------------------------
 2.020000+8 2.020000+8          0          0          1         389628 3 20
 2.023500+8 2.023500+8          0          0          1          29628 3 20
--------------------------------------------------------------------------------
                                                                  9628 3 21 Only in VII.1
                                                                  9628 3 38 Only in VII.1
 0.000000+0-5.500000+3          0          0          1         739628 3 51
 0.000000+0-1.593300+4          0          0          1         259628 3 51
--------------------------------------------------------------------------------
 0.000000+0-5.710000+4          0          0          1         679628 3 52
 0.000000+0-5.277900+4          0          0          1         269628 3 52
--------------------------------------------------------------------------------
 0.000000+0-8.100000+4          0          0          1         659628 3 53
 0.000000+0-1.035700+5          0          0          1         229628 3 53
--------------------------------------------------------------------------------
 0.000000+0-1.630000+5          0          0          1         619628 3 54
 0.000000+0-2.539400+5          0          0          1         149628 3 54
--------------------------------------------------------------------------------
 0.000000+0-1.104600+5          0          0          1         649628 3 91
 0.000000+0-2.539400+5          0          0          1         119628 3 91
```

```
--------------------------------------------------------------------------
 6.969520+6 6.969520+6          0          0          1         959628 3102
 6.968000+6 6.968000+6          0          0          2         399628 3102
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         939628 4  2
 0.000000+0 0.000000+0          0          0          1         199628 4  2
--------------------------------------------------------------------------
                                                                  9628 4 16 Only in VII.0
                                                                  9628 4 17 Only in VII.0
                                                                  9628 4 19 Only in VII.0
                                                                  9628 4 20 Only in VII.0
                                                                  9628 4 51 Only in VII.0
                                                                  9628 4 52 Only in VII.0
                                                                  9628 4 53 Only in VII.0
                                                                  9628 4 54 Only in VII.0
                                                                  9628 4 91 Only in VII.0
                                                                  9628 5 16 Only in VII.0
                                                                  9628 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29628 5 18
-3.000000+7 0.000000+0          0          7          1          29628 5 18
--------------------------------------------------------------------------
                                                                  9628 5 19 Only in VII.0
                                                                  9628 5 20 Only in VII.0
                                                                  9628 5 91 Only in VII.0
                                                                  9628 6 16 Only in VII.1
                                                                  9628 6 17 Only in VII.1
                                                                  9628 6 51 Only in VII.1
                                                                  9628 6 52 Only in VII.1
                                                                  9628 6 53 Only in VII.1
                                                                  9628 6 54 Only in VII.1
                                                                  9628 6 91 Only in VII.1
                                                                  9628 6102 Only in VII.1
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**************************************************************************
 0.000000+0 0.000000+0          0          0          1         179631 1452
 0.000000+0 0.000000+0          0          0          1          49631 1452
--------------------------------------------------------------------------
 1.300000-2 3.120000-2 1.129000-1 2.783000-1 8.710000-1 2.196900+09631 1455
 1.295600-2 3.124500-2 1.129100-1 2.783400-1 8.710400-1 2.196900+09631 1455
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          29631 1456
 0.000000+0 0.000000+0          0          0          1          49631 1456
--------------------------------------------------------------------------
 1.821130+8 0.000000+0 5.875000+6 0.000000+0 1.000000+3 0.000000+09631 1458
 1.862200+8 1.988700+6 5.200000+6 4.160000+5 5.000000+2 5.000000+29631 1458
--------------------------------------------------------------------------
 1.000000-5 2.750000+2          1          2          0           09631 2151
 1.000000-5 2.760000+2          1          1          0           09631 2151
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1039631 3  1
 0.000000+0 0.000000+0          0          0          1         549631 3  1
--------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1049631 3  2
 0.000000+0 0.000000+0          0          0          1         289631 3  2
--------------------------------------------------------------------------
 0.000000+0-4.213000+4          0          0          1         699631 3  4
 0.000000+0-4.182600+4          0          0          1         369631 3  4
--------------------------------------------------------------------------
-6.969520+6-6.969520+6          0          0          1         279631 3 16
-6.939100+6-6.939100+6          0          0          1         119631 3 16
--------------------------------------------------------------------------
-1.306280+7-1.306280+7          0          0          1         149631 3 17
-1.303800+7-1.303800+7          0          0          1          49631 3 17
--------------------------------------------------------------------------
 2.034610+8 2.034610+8          0          0          2         999631 3 18
 2.025500+8 2.025500+8          0          0          1         339631 3 18
--------------------------------------------------------------------------
 2.034610+8 2.034610+8          0          0          2         879631 3 19
 2.025500+8 2.025500+8          0          0          1         319631 3 19
--------------------------------------------------------------------------
 2.034610+8 2.034610+8          0          0          1         489631 3 20
 2.025500+8 2.025500+8          0          0          1          49631 3 20
--------------------------------------------------------------------------
                                                                  9631 3 21 Only in VII.1
                                                                  9631 3 38 Only in VII.1
```

```
 0.000000+0-4.213000+4          0          0          1         689631 3 51
 0.000000+0-4.182600+4          0          0          1         309631 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.370000+5          0          0          1         639631 3 52
 0.000000+0-1.384200+5          0          0          1         259631 3 52
-------------------------------------------------------------------------------
 0.000000+0-2.880000+5          0          0          1         589631 3 53
 0.000000+0-2.838200+5          0          0          1         149631 3 53
-------------------------------------------------------------------------------
 0.000000+0-1.095440+5          0          0          1         659631 3 91
 0.000000+0-2.838200+5          0          0          1         209631 3 91
-------------------------------------------------------------------------------
 5.692940+6 5.692940+6          0          0          2         839631 3102
 5.703000+6 5.703000+6          0          0          1         349631 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         929631 4  2
 0.000000+0 0.000000+0          0          0          1         199631 4  2
-------------------------------------------------------------------------------
                                                                  9631 4 16 Only in VII.0
                                                                  9631 4 17 Only in VII.0
                                                                  9631 4 19 Only in VII.0
                                                                  9631 4 20 Only in VII.0
                                                                  9631 4 51 Only in VII.0
                                                                  9631 4 52 Only in VII.0
                                                                  9631 4 53 Only in VII.0
                                                                  9631 4 91 Only in VII.0
                                                                  9631 5 16 Only in VII.0
                                                                  9631 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29631 5 18
-3.000000+7 0.000000+0          0          7          1          29631 5 18
-------------------------------------------------------------------------------
                                                                  9631 5 19 Only in VII.0
                                                                  9631 5 20 Only in VII.0
                                                                  9631 5 91 Only in VII.0
                                                                  9631 6 16 Only in VII.1
                                                                  9631 6 17 Only in VII.1
                                                                  9631 6 51 Only in VII.1
                                                                  9631 6 52 Only in VII.1
                                                                  9631 6 53 Only in VII.1
                                                                  9631 6 91 Only in VII.1
                                                                  9631 6102 Only in VII.1
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*******************************************************************************
                                                                  9634 1458 Only in VII.1
 1.000000-5 1.000000+2          1          2          0          09634 2151
 1.000000-5 1.000000+2          1          1          0          09634 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1139634 3  1
 0.000000+0 0.000000+0          0          0          1         679634 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1019634 3  2
 0.000000+0 0.000000+0          0          0          1         679634 3  2
-------------------------------------------------------------------------------
 0.000000+0-4.200000+4          0          0          1         669634 3  4
 0.000000+0-4.200000+4          0          0          1         659634 3  4
-------------------------------------------------------------------------------
-5.692940+6-5.692940+6          0          0          1         299634 3 16
-5.693710+6-5.693710+6          0          0          1         169634 3 16
-------------------------------------------------------------------------------
-1.266250+7-1.266250+7          0          0          1         149634 3 17
-1.266380+7-1.266380+7          0          0          1          89634 3 17
-------------------------------------------------------------------------------
 2.040240+8 2.040240+8          0          0          2        1089634 3 18
 2.000000+8 2.000000+8          0          0          1         679634 3 18
-------------------------------------------------------------------------------
 2.040240+8 2.040240+8          0          0          2         979634 3 19
 2.000000+8 2.000000+8          0          0          1         679634 3 19
-------------------------------------------------------------------------------
 2.040240+8 2.040240+8          0          0          1         469634 3 20
 2.000000+8 2.000000+8          0          0          1         179634 3 20
-------------------------------------------------------------------------------
 2.040240+8 2.040240+8          0          0          1         209634 3 21
 2.000000+8 2.000000+8          0          0          1         109634 3 21
-------------------------------------------------------------------------------
                                                                  9634 3 38 Only in VII.1
```

```
 0.000000+0-4.200000+4          0          0          1         649634 3 51
 0.000000+0-4.200000+4          0          0          1         659634 3 51
--------------------------------------------------------------------------------
 0.000000+0-8.740000+4          0          0          1         619634 3 52
 0.000000+0-8.740000+4          0          0          1         479634 3 52
--------------------------------------------------------------------------------
 0.000000+0-9.400000+4          0          0          1         609634 3 53
 0.000000+0-9.390000+4          0          0          1         609634 3 53
--------------------------------------------------------------------------------
 0.000000+0-9.400000+4          0          0          1         609634 3 54
 0.000000+0-9.400000+4          0          0          1         459634 3 54
--------------------------------------------------------------------------------
 0.000000+0-1.300000+5          0          0          1         579634 3 55
 0.000000+0-1.330000+5          0          0          1         439634 3 55
--------------------------------------------------------------------------------
 0.000000+0-1.530000+5          0          0          1         569634 3 56
 0.000000+0-1.400000+5          0          0          1         429634 3 56
--------------------------------------------------------------------------------
 0.000000+0-1.640000+5          0          0          1         559634 3 57
 0.000000+0-1.530000+5          0          0          1         549634 3 57
--------------------------------------------------------------------------------
 0.000000+0-1.870000+5          0          0          1         539634 3 58
 0.000000+0-1.580000+5          0          0          1         399634 3 58
--------------------------------------------------------------------------------
 0.000000+0-2.190000+5          0          0          1         519634 3 59
 0.000000+0-1.640000+5          0          0          1         389634 3 59
--------------------------------------------------------------------------------
 0.000000+0-2.280000+5          0          0          1         509634 3 60
 0.000000+0-2.190000+5          0          0          1         509634 3 60
--------------------------------------------------------------------------------
                                                                 9634 3 61 Only in VII.0
                                                                 9634 3 62 Only in VII.0
                                                                 9634 3 63 Only in VII.0
                                                                 9634 3 64 Only in VII.0
                                                                 9634 3 65 Only in VII.0
                                                                 9634 3 66 Only in VII.0
                                                                 9634 3 67 Only in VII.0
                                                                 9634 3 68 Only in VII.0
                                                                 9634 3 69 Only in VII.0
                                                                 9634 3 70 Only in VII.0
                                                                 9634 3 71 Only in VII.0
                                                                 9634 3 72 Only in VII.0
                                                                 9634 3 73 Only in VII.0
                                                                 9634 3 74 Only in VII.0
 0.000000+0-1.154770+5          0          0          1         599634 3 91
 0.000000+0-4.010000+5          0          0          1         319634 3 91
--------------------------------------------------------------------------------
 6.801260+6 6.801260+6          0          0          2         809634 3102
 6.799500+6 6.799500+6          0          0          1         529634 3102
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         799634 4  2
 0.000000+0 0.000000+0          0          0          1         179634 4  2
--------------------------------------------------------------------------------
                                                                 9634 4 16 Only in VII.0
                                                                 9634 4 17 Only in VII.0
                                                                 9634 4 19 Only in VII.0
                                                                 9634 4 20 Only in VII.0
                                                                 9634 4 21 Only in VII.0
                                                                 9634 4 51 Only in VII.0
                                                                 9634 4 52 Only in VII.0
                                                                 9634 4 53 Only in VII.0
                                                                 9634 4 54 Only in VII.0
                                                                 9634 4 55 Only in VII.0
                                                                 9634 4 56 Only in VII.0
                                                                 9634 4 57 Only in VII.0
                                                                 9634 4 58 Only in VII.0
                                                                 9634 4 59 Only in VII.0
                                                                 9634 4 60 Only in VII.0
                                                                 9634 4 61 Only in VII.0
                                                                 9634 4 62 Only in VII.0
                                                                 9634 4 63 Only in VII.0
                                                                 9634 4 64 Only in VII.0
                                                                 9634 4 65 Only in VII.0
                                                                 9634 4 66 Only in VII.0
                                                                 9634 4 67 Only in VII.0
```

```
                                                                 9634 4 68 Only in VII.0
                                                                 9634 4 69 Only in VII.0
                                                                 9634 4 70 Only in VII.0
                                                                 9634 4 71 Only in VII.0
                                                                 9634 4 72 Only in VII.0
                                                                 9634 4 73 Only in VII.0
                                                                 9634 4 74 Only in VII.0
                                                                 9634 4 91 Only in VII.0
                                                                 9634 5 16 Only in VII.0
                                                                 9634 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29634 5 18
-2.000000+7 0.000000+0          0          1          1          29634 5 18
--------------------------------------------------------------------------------
                                                                 9634 5 19 Only in VII.0
                                                                 9634 5 20 Only in VII.0
                                                                 9634 5 21 Only in VII.0
                                                                 9634 5 91 Only in VII.0
                                                                 9634 6 16 Only in VII.1
                                                                 9634 6 17 Only in VII.1
                                                                 9634 6 51 Only in VII.1
                                                                 9634 6 52 Only in VII.1
                                                                 9634 6 53 Only in VII.1
                                                                 9634 6 54 Only in VII.1
                                                                 9634 6 55 Only in VII.1
                                                                 9634 6 56 Only in VII.1
                                                                 9634 6 57 Only in VII.1
                                                                 9634 6 58 Only in VII.1
                                                                 9634 6 59 Only in VII.1
                                                                 9634 6 60 Only in VII.1
                                                                 9634 6 91 Only in VII.1
                                                                 9634 6102 Only in VII.1
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********************************************************************************
 0.000000+0 0.000000+0          0          0          1         179637 1452
 0.000000+0 0.000000+0          0          0          1          49637 1452
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         179637 1455
 0.000000+0 0.000000+0          0          0          1          49637 1455
--------------------------------------------------------------------------------
 1.000000-5 3.000000+0 2.000000+7 6.068800+0                      9637 1456
 1.000000-5 3.240000+0 2.000000+7 6.920000+0                      9637 1456
--------------------------------------------------------------------------------
                                                                  9637 1458 Only in VII.1
-6.650000+0 5.000000-1 4.760000-2 4.200000-3 3.700000-2 6.400000-39637 2151
-1.480000+0 5.000000-1 4.478500-2 8.500000-5 3.700000-2 7.700000-39637 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2          969637 3  1
 0.000000+0 0.000000+0          0          0          2         1109637 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2          949637 3  2
 0.000000+0 0.000000+0          0          0          2         1109637 3  2
--------------------------------------------------------------------------------
 0.000000+0-4.296500+4          0          0          1          679637 3  4
 0.000000+0-4.296500+4          0          0          1          549637 3  4
--------------------------------------------------------------------------------
-6.801260+6-6.801260+6          0          0          1          279637 3 16
-6.799400+6-6.799400+6          0          0          1          269637 3 16
--------------------------------------------------------------------------------
-1.249420+7-1.249420+7          0          0          1          149637 3 17
-1.249400+7-1.249400+7          0          0          1          169637 3 17
--------------------------------------------------------------------------------
 2.083760+8 2.083760+8          0          0          2          899637 3 18
 2.000000+8 2.000000+8          0          0          1          649637 3 18
--------------------------------------------------------------------------------
                                                                  9637 3 19 Only in VII.1
                                                                  9637 3 20 Only in VII.1
                                                                  9637 3 21 Only in VII.1
                                                                  9637 3 38 Only in VII.1
 0.000000+0-4.296500+4          0          0          1          669637 3 51
 0.000000+0-4.296500+4          0          0          1          509637 3 51
--------------------------------------------------------------------------------
 0.000000+0-1.423480+5          0          0          1          619637 3 52
 0.000000+0-1.423500+5          0          0          1          479637 3 52
--------------------------------------------------------------------------------
 0.000000+0-2.962110+5          0          0          1          589637 3 53
```

```
 0.000000+0-2.962100+5          0          0          1         419637 3 53
-------------------------------------------------------------------------------
 0.000000+0-5.017860+5          0          0          1         549637 3 54
 0.000000+0-5.017900+5          0          0          1         429637 3 54
-------------------------------------------------------------------------------
 0.000000+0-9.700000+5          0          0          1         499637 3 55
 0.000000+0-9.700000+5          0          0          1         259637 3 55
-------------------------------------------------------------------------------
 0.000000+0-9.849140+5          0          0          1         489637 3 56
 0.000000+0-9.849100+5          0          0          1         249637 3 56
-------------------------------------------------------------------------------
 0.000000+0-1.020760+6          0          0          1         469637 3 57
 0.000000+0-1.020800+6          0          0          1         229637 3 57
-------------------------------------------------------------------------------
 0.000000+0-1.038000+6          0          0          1         459637 3 58
 0.000000+0-1.038000+6          0          0          1         219637 3 58
-------------------------------------------------------------------------------
 0.000000+0-1.040190+6          0          0          1         449637 3 59
 0.000000+0-1.040200+6          0          0          1         209637 3 59
-------------------------------------------------------------------------------
                                                                  9637 3 60 Only in VII.1
                                                                  9637 3 61 Only in VII.1
 0.000000+0-1.154750+5          0          0          1         639637 3 91
 0.000000+0-1.084200+6          0          0          1         169637 3 91
-------------------------------------------------------------------------------
 5.520260+6 5.520260+6          0          0          2         779637 3102
 5.522430+6 5.522430+6          0          0          2         549637 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         809637 4  2
 0.000000+0 0.000000+0          0          0          1         539637 4  2
-------------------------------------------------------------------------------
                                                                  9637 4 16 Only in VII.0
                                                                  9637 4 17 Only in VII.0
                                                                  9637 4 51 Only in VII.0
                                                                  9637 4 52 Only in VII.0
                                                                  9637 4 53 Only in VII.0
                                                                  9637 4 54 Only in VII.0
                                                                  9637 4 55 Only in VII.0
                                                                  9637 4 56 Only in VII.0
                                                                  9637 4 57 Only in VII.0
                                                                  9637 4 58 Only in VII.0
                                                                  9637 4 59 Only in VII.0
                                                                  9637 4 91 Only in VII.0
                                                                  9637 5 16 Only in VII.0
                                                                  9637 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29637 5 18
-2.000000+7 0.000000+0          0          7          1          29637 5 18
-------------------------------------------------------------------------------
                                                                  9637 5 91 Only in VII.0
                                                                  9637 6 16 Only in VII.1
                                                                  9637 6 17 Only in VII.1
                                                                  9637 6 51 Only in VII.1
                                                                  9637 6 52 Only in VII.1
                                                                  9637 6 53 Only in VII.1
                                                                  9637 6 54 Only in VII.1
                                                                  9637 6 55 Only in VII.1
                                                                  9637 6 56 Only in VII.1
                                                                  9637 6 57 Only in VII.1
                                                                  9637 6 58 Only in VII.1
                                                                  9637 6 59 Only in VII.1
                                                                  9637 6 60 Only in VII.1
                                                                  9637 6 61 Only in VII.1
                                                                  9637 6 91 Only in VII.1
                                                                  9637 6102 Only in VII.1
 96-Cm-245
*******************************************************************************
 0.000000+0 0.000000+0          0          0          1         229640 1452
 0.000000+0 0.000000+0          0          0          1         179640 1452
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         179640 1455
 0.000000+0 0.000000+0          0          0          1          49640 1455
-------------------------------------------------------------------------------
                                                                  9640 1458 Only in VII.1
 3.500000+0 9.520000-1          0          0          1          09640 2151
 3.500000+0 9.520440-1          0          0          1          09640 2151
```

```
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1299640 3  1
 0.000000+0 0.000000+0          0          0          2         789640 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1199640 3  2
 0.000000+0 0.000000+0          0          0          2         789640 3  2
-------------------------------------------------------------------------------
 0.000000+0-5.481000+4          0          0          1         769640 3  4
 0.000000+0-5.473000+4          0          0          1         629640 3  4
-------------------------------------------------------------------------------
-5.520260+6-5.520260+6          0          0          1         299640 3 16
-5.520000+6-5.520000+6          0          0          1         189640 3 16
-------------------------------------------------------------------------------
-1.232150+7-1.232150+7          0          0          1         159640 3 17
-1.232000+7-1.232000+7          0          0          1         109640 3 17
-------------------------------------------------------------------------------
 2.052180+8 2.052180+8          0          0          2        1229640 3 18
 2.000000+8 2.000000+8          0          0          1         489640 3 18
-------------------------------------------------------------------------------
                                                             9640 3 19 Only in VII.1
                                                             9640 3 20 Only in VII.1
                                                             9640 3 21 Only in VII.1
                                                             9640 3 37 Only in VII.1
                                                             9640 3 38 Only in VII.1
 0.000000+0-5.481000+4          0          0          1         749640 3 51
 0.000000+0-5.473000+4          0          0          1         629640 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.216000+5          0          0          1         719640 3 52
 0.000000+0-1.214000+5          0          0          1         589640 3 52
-------------------------------------------------------------------------------
 0.000000+0-1.974000+5          0          0          1         689640 3 53
 0.000000+0-1.971000+5          0          0          1         569640 3 53
-------------------------------------------------------------------------------
 0.000000+0-2.528000+5          0          0          1         669640 3 54
 0.000000+0-2.528500+5          0          0          1         369640 3 54
-------------------------------------------------------------------------------
 0.000000+0-2.957200+5          0          0          1         659640 3 55
 0.000000+0-2.923000+5          0          0          1         529640 3 55
-------------------------------------------------------------------------------
 0.000000+0-3.506400+5          0          0          1         639640 3 56
 0.000000+0-2.958400+5          0          0          1         349640 3 56
-------------------------------------------------------------------------------
 0.000000+0-3.559000+5          0          0          1         629640 3 57
 0.000000+0-3.505000+5          0          0          1         319640 3 57
-------------------------------------------------------------------------------
 0.000000+0-3.614000+5          0          0          1         619640 3 58
 0.000000+0-3.559500+5          0          0          1         309640 3 58
-------------------------------------------------------------------------------
 0.000000+0-3.881800+5          0          0          1         609640 3 59
 0.000000+0-3.615000+5          0          0          1         299640 3 59
-------------------------------------------------------------------------------
 0.000000+0-4.166000+5          0          0          1         589640 3 60
 0.000000+0-3.879500+5          0          0          1         289640 3 60
-------------------------------------------------------------------------------
 0.000000+0-4.187000+5          0          0          1         579640 3 61
 0.000000+0-3.957000+5          0          0          1         449640 3 61
-------------------------------------------------------------------------------
 0.000000+0-4.310000+5          0          0          1         569640 3 62
 0.000000+0-4.170000+5          0          0          1         259640 3 62
-------------------------------------------------------------------------------
 0.000000+0-4.428400+5          0          0          1         559640 3 63
 0.000000+0-4.188000+5          0          0          1         249640 3 63
-------------------------------------------------------------------------------
 0.000000+0-4.980000+5          0          0          1         539640 3 64
 0.000000+0-4.310000+5          0          0          1         239640 3 64
-------------------------------------------------------------------------------
 0.000000+0-5.090000+5          0          0          1         529640 3 65
 0.000000+0-4.428000+5          0          0          1         229640 3 65
-------------------------------------------------------------------------------
 0.000000+0-5.320000+5          0          0          1         519640 3 66
 0.000000+0-4.980000+5          0          0          1         199640 3 66
-------------------------------------------------------------------------------
 0.000000+0-5.450000+5          0          0          1         509640 3 67
 0.000000+0-5.087000+5          0          0          1         189640 3 67
-------------------------------------------------------------------------------
```

```
                                                                    9640 3 68 Only in VII.1
                                                                    9640 3 69 Only in VII.1
                                                                    9640 3 70 Only in VII.1
 0.000000+0-1.115070+5          0          0          1         729640 3 91
 0.000000+0-5.110000+5          0          0          1         349640 3 91
-------------------------------------------------------------------------------
 6.457580+6 6.457580+6          0          0          2         919640 3102
 6.450000+6 6.450000+6          0          0          2         699640 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         899640 4  2
 0.000000+0 0.000000+0          0          0          1         219640 4  2
-------------------------------------------------------------------------------
                                                                    9640 4 16 Only in VII.0
                                                                    9640 4 17 Only in VII.0
                                                                    9640 4 51 Only in VII.0
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                                                                    9640 4 65 Only in VII.0
                                                                    9640 4 66 Only in VII.0
                                                                    9640 4 67 Only in VII.0
                                                                    9640 4 91 Only in VII.0
                                                                    9640 5 16 Only in VII.0
                                                                    9640 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          0          1         209640 5 18
 0.000000+0 0.000000+0          0          0          1         149640 5 18
-------------------------------------------------------------------------------
                                                                    9640 5 91 Only in VII.0
 1.000000-5 2.216223-2 2.000000+7 2.216223-2                        9640 5455
 1.000000-5 2.216220-2 2.000000+7 2.216220-2                        9640 5455
-------------------------------------------------------------------------------
                                                                    9640 6 16 Only in VII.1
                                                                    9640 6 17 Only in VII.1
                                                                    9640 6 37 Only in VII.1
                                                                    9640 6 51 Only in VII.1
                                                                    9640 6 52 Only in VII.1
                                                                    9640 6 53 Only in VII.1
                                                                    9640 6 54 Only in VII.1
                                                                    9640 6 55 Only in VII.1
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                                                                    9640 6 59 Only in VII.1
                                                                    9640 6 60 Only in VII.1
                                                                    9640 6 61 Only in VII.1
                                                                    9640 6 62 Only in VII.1
                                                                    9640 6 63 Only in VII.1
                                                                    9640 6 64 Only in VII.1
                                                                    9640 6 65 Only in VII.1
                                                                    9640 6 66 Only in VII.1
                                                                    9640 6 67 Only in VII.1
                                                                    9640 6 68 Only in VII.1
                                                                    9640 6 69 Only in VII.1
                                                                    9640 6 70 Only in VII.1
                                                                    9640 6 91 Only in VII.1
                                                                    9640 6102 Only in VII.1
 96-Cm-246
*******************************************************************************
 0.000000+0 0.000000+0          0          0          1          49643 1452
 0.000000+0 0.000000+0          0          0          1         159643 1452
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          09643 1455
 0.000000+0 0.000000+0          0          0          6          09643 1455
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          49643 1456
```

```
 0.000000+0 0.000000+0          0          0          1         159643 1456
--------------------------------------------------------------------------------
                                                                9643 1458 Only in VII.1
 0.000000+0 9.040000-1          0          0          1          09643 2151
 0.000000+0 9.042820-1          0          0          1          09643 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1719643 3  1
 0.000000+0 0.000000+0          0          0          2         759643 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1279643 3  2
 0.000000+0 0.000000+0          0          0          1         689643 3  2
--------------------------------------------------------------------------------
 0.000000+0-4.285100+4          0          0          1         889643 3  4
 0.000000+0-4.285200+4          0          0          1         669643 3  4
--------------------------------------------------------------------------------
-6.457580+6-6.457580+6          0          0          1         279643 3 16
-6.458000+6-6.458000+6          0          0          1         179643 3 16
--------------------------------------------------------------------------------
-1.197780+7-1.197780+7          0          0          1         159643 3 17
-1.197800+7-1.197800+7          0          0          1         109643 3 17
--------------------------------------------------------------------------------
 2.105300+8 2.105300+8          0          0          1        1659643 3 18
 2.000000+8 2.000000+8          0          0          2         759643 3 18
--------------------------------------------------------------------------------
 2.105300+8 2.105300+8          0          0          1        1569643 3 19
 2.000000+8 2.000000+8          0          0          2         759643 3 19
--------------------------------------------------------------------------------
 2.105300+8 2.105300+8          0          0          1         519643 3 20
 2.000000+8 2.000000+8          0          0          1         199643 3 20
--------------------------------------------------------------------------------
 2.105300+8 2.105300+8          0          0          1         239643 3 21
 2.000000+8 2.000000+8          0          0          1         129643 3 21
--------------------------------------------------------------------------------
                                                                9643 3 38 Only in VII.1
 0.000000+0-4.285100+4          0          0          1         859643 3 51
 0.000000+0-4.285200+4          0          0          1         669643 3 51
--------------------------------------------------------------------------------
 0.000000+0-1.420100+5          0          0          1         809643 3 52
 0.000000+0-1.420100+5          0          0          1         599643 3 52
--------------------------------------------------------------------------------
 0.000000+0-2.949000+5          0          0          1         779643 3 53
 0.000000+0-2.949000+5          0          0          1         579643 3 53
--------------------------------------------------------------------------------
 0.000000+0-4.998000+5          0          0          1         739643 3 54
 0.000000+0-5.004000+5          0          0          1         539643 3 54
--------------------------------------------------------------------------------
 0.000000+0-8.416800+5          0          0          1         699643 3 55
 0.000000+0-7.820700+5          0          0          1         349643 3 55
--------------------------------------------------------------------------------
 0.000000+0-8.764500+5          0          0          1         689643 3 56
 0.000000+0-8.416700+5          0          0          1         329643 3 56
--------------------------------------------------------------------------------
 0.000000+0-9.233100+5          0          0          1         669643 3 57
 0.000000+0-8.764300+5          0          0          1         319643 3 57
--------------------------------------------------------------------------------
 0.000000+0-9.810000+5          0          0          1         659643 3 58
 0.000000+0-9.233100+5          0          0          1         299643 3 58
--------------------------------------------------------------------------------
 0.000000+0-1.051100+6          0          0          1         639643 3 59
 0.000000+0-9.800000+5          0          0          1         289643 3 59
--------------------------------------------------------------------------------
 0.000000+0-1.059000+6          0          0          1         629643 3 60
 0.000000+0-1.051700+6          0          0          1         269643 3 60
--------------------------------------------------------------------------------
 0.000000+0-1.078850+6          0          0          1         619643 3 61
 0.000000+0-1.078850+6          0          0          1         259643 3 61
--------------------------------------------------------------------------------
 0.000000+0-1.104860+6          0          0          1         609643 3 62
 0.000000+0-1.104850+6          0          0          1         249643 3 62
--------------------------------------------------------------------------------
 0.000000+0-1.124280+6          0          0          1         599643 3 63
 0.000000+0-1.124270+6          0          0          1         239643 3 63
--------------------------------------------------------------------------------
 0.000000+0-1.128020+6          0          0          1         589643 3 64
 0.000000+0-1.128020+6          0          0          1         229643 3 64
```

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-------------------------------------------------------------------------------
 0.000000+0-1.128800+6          0          0          1         579643 3 65
 0.000000+0-1.129400+6          0          0          1         219643 3 65
-------------------------------------------------------------------------------
 0.000000+0-1.165490+6          0          0          1         569643 3 66
 0.000000+0-1.165490+6          0          0          1         209643 3 66
-------------------------------------------------------------------------------
 0.000000+0-1.174740+6          0          0          1         559643 3 67
 0.000000+0-1.174740+6          0          0          1         199643 3 67
-------------------------------------------------------------------------------
 0.000000+0-1.178600+6          0          0          1         549643 3 68
 0.000000+0-1.179200+6          0          0          1         189643 3 68
-------------------------------------------------------------------------------
 0.000000+0-1.210530+6          0          0          1         539643 3 69
 0.000000+0-1.195900+6          0          0          1         169643 3 69
-------------------------------------------------------------------------------
 0.000000+0-1.219980+6          0          0          1         529643 3 70
 0.000000+0-1.210530+6          0          0          1         159643 3 70
-------------------------------------------------------------------------------
                                                                 9643 3 71 Only in VII.1
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                                                                 9643 3 76 Only in VII.1
                                                                 9643 3 77 Only in VII.1
                                                                 9643 3 78 Only in VII.1
                                                                 9643 3 79 Only in VII.1
                                                                 9643 3 80 Only in VII.1
 0.000000+0-1.145310+5          0          0          1         829643 3 91
 0.000000+0-1.220000+6          0          0          1         309643 3 91
-------------------------------------------------------------------------------
 5.155860+6 5.155860+6          0          0          2         999643 3102
 5.160000+6 5.160000+6          0          0          1         529643 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         999643 4  2
 0.000000+0 0.000000+0          0          0          1         219643 4  2
-------------------------------------------------------------------------------
                                                                 9643 4 16 Only in VII.0
                                                                 9643 4 17 Only in VII.0
                                                                 9643 4 19 Only in VII.0
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                                                                 9643 4 21 Only in VII.0
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                                                                 9643 4 68 Only in VII.0
                                                                 9643 4 69 Only in VII.0
                                                                 9643 4 70 Only in VII.0
                                                                 9643 4 91 Only in VII.0
                                                                 9643 5 16 Only in VII.0
                                                                 9643 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29643 5 18
-2.000000+7 0.000000+0          0          1          1          29643 5 18
-------------------------------------------------------------------------------
                                                                 9643 5 19 Only in VII.0
                                                                 9643 5 20 Only in VII.0
                                                                 9643 5 21 Only in VII.0
                                                                 9643 5 91 Only in VII.0
                                                                 9643 6 16 Only in VII.1
                                                                 9643 6 17 Only in VII.1
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                                                                  9643 6 51 Only in VII.1
                                                                  9643 6 52 Only in VII.1
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                                                                  9643 6 78 Only in VII.1
                                                                  9643 6 79 Only in VII.1
                                                                  9643 6 80 Only in VII.1
                                                                  9643 6 91 Only in VII.1
                                                                  9643 6102 Only in VII.1
 96-Cm-247
*********************************************************************************
 1.000000-5 6.000000+1          1          2          0          09646 2151
 1.000000-5 6.000000+1          1          1          0          09646 2151
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1709646 3  1
 0.000000+0 0.000000+0          0          0          2         939646 3  1
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1279646 3  2
 0.000000+0 0.000000+0          0          0          2         939646 3  2
---------------------------------------------------------------------------------
 0.000000+0-6.167000+4          0          0          1         839646 3  4
 0.000000+0-6.150000+4          0          0          1         479646 3  4
---------------------------------------------------------------------------------
-5.155860+6-5.155860+6          0          0          1         309646 3 16
-5.156400+6-5.156400+6          0          0          1         289646 3 16
---------------------------------------------------------------------------------
-1.161340+7-1.161340+7          0          0          1         169646 3 17
-1.160000+7-1.160000+7          0          0          1         179646 3 17
---------------------------------------------------------------------------------
 2.102440+8 2.102440+8          0          0          2        1439646 3 18
 2.000000+8 2.000000+8          0          0          2         479646 3 18
---------------------------------------------------------------------------------
                                                                  9646 3 19 Only in VII.1
                                                                  9646 3 20 Only in VII.1
                                                                  9646 3 21 Only in VII.1
                                                                  9646 3 37 Only in VII.1
                                                                  9646 3 38 Only in VII.1
 0.000000+0-6.167000+4          0          0          1         799646 3 51
 0.000000+0-6.150000+4          0          0          1         479646 3 51
---------------------------------------------------------------------------------
 0.000000+0-1.346500+5          0          0          1         759646 3 52
 0.000000+0-1.350000+5          0          0          1         449646 3 52
---------------------------------------------------------------------------------
 0.000000+0-2.190000+5          0          0          1         729646 3 53
 0.000000+0-2.170000+5          0          0          1         419646 3 53
---------------------------------------------------------------------------------
 0.000000+0-2.273800+5          0          0          1         719646 3 54
 0.000000+0-2.270000+5          0          0          1         299646 3 54
---------------------------------------------------------------------------------
 0.000000+0-2.658600+5          0          0          1         709646 3 55
 0.000000+0-2.660000+5          0          0          1         279646 3 55
---------------------------------------------------------------------------------
```

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 0.000000+0-2.854100+5          0          0          1         699646 3 56
 0.000000+0-2.850000+5          0          0          1         269646 3 56
-------------------------------------------------------------------------
                                                                9646 3 57 Only in VII.1
                                                                9646 3 58 Only in VII.1
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                                                                9646 3 67 Only in VII.1
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                                                                9646 3 72 Only in VII.1
                                                                9646 3 73 Only in VII.1
                                                                9646 3 74 Only in VII.1
                                                                9646 3 75 Only in VII.1
 0.000000+0-1.145320+5          0          0          1         779646 3 91
 0.000000+0-3.090000+5          0          0          1         209646 3 91
-------------------------------------------------------------------------
 6.213020+6 6.213020+6          0          0          2         989646 3102
 6.211430+6 6.211430+6          0          0          2         519646 3102
-------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         969646 4  2
 0.000000+0 0.000000+0          0          0          1         599646 4  2
-------------------------------------------------------------------------
                                                                9646 4 16 Only in VII.0
                                                                9646 4 17 Only in VII.0
                                                                9646 4 51 Only in VII.0
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                                                                9646 4 53 Only in VII.0
                                                                9646 4 54 Only in VII.0
                                                                9646 4 55 Only in VII.0
                                                                9646 4 56 Only in VII.0
                                                                9646 4 91 Only in VII.0
                                                                9646 5 16 Only in VII.0
                                                                9646 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29646 5 18
-2.000000+7 0.000000+0          0          7          1          29646 5 18
-------------------------------------------------------------------------
                                                                9646 5 91 Only in VII.0
                                                                9646 6 16 Only in VII.1
                                                                9646 6 17 Only in VII.1
                                                                9646 6 37 Only in VII.1
                                                                9646 6 51 Only in VII.1
                                                                9646 6 52 Only in VII.1
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                                                                9646 6 66 Only in VII.1
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                                                                9646 6 68 Only in VII.1
                                                                9646 6 69 Only in VII.1
                                                                9646 6 70 Only in VII.1
                                                                9646 6 71 Only in VII.1
                                                                9646 6 72 Only in VII.1
                                                                9646 6 73 Only in VII.1
                                                                9646 6 74 Only in VII.1
                                                                9646 6 75 Only in VII.1
                                                                9646 6 91 Only in VII.1
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                                                                      9646 6102 Only in VII.1
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*******************************************************************************
 0.000000+0 0.000000+0          0          0          1          49649 1452
 0.000000+0 0.000000+0          0          0          2          09649 1452
-------------------------------------------------------------------------------
                                                                      9649 1455 Only in VII.1
                                                                      9649 1456 Only in VII.1
 1.835470+8 0.000000+0 5.921000+6 0.000000+0 8.000000+3 0.000000+09649 1458
 1.836500+8 2.960500+6 5.200000+6 4.160000+5 5.000000+2 5.000000+29649 1458
-------------------------------------------------------------------------------
 1.000000-5 1.500000+3          1          2          0          09649 2151
 1.000000-5 2.400000+3          1          1          0          09649 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1209649 3  1
 0.000000+0 0.000000+0          0          0          1         849649 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1209649 3  2
 0.000000+0 0.000000+0          0          0          1         349649 3  2
-------------------------------------------------------------------------------
 0.000000+0-4.340000+4          0          0          1         729649 3  4
 0.000000+0-4.282600+4          0          0          1         639649 3  4
-------------------------------------------------------------------------------
-6.213020+6-6.213020+6          0          0          1         289649 3 16
-6.184900+6-6.184900+6          0          0          1         129649 3 16
-------------------------------------------------------------------------------
-1.136890+7-1.136890+7          0          0          1         179649 3 17
-1.136400+7-1.136400+7          0          0          1          69649 3 17
-------------------------------------------------------------------------------
 2.120060+8 2.120060+8          0          0          2        1129649 3 18
 2.087400+8 2.087400+8          0          0          1         359649 3 18
-------------------------------------------------------------------------------
 2.120060+8 2.120060+8          0          0          2         909649 3 19
 2.087400+8 2.087400+8          0          0          1         329649 3 19
-------------------------------------------------------------------------------
 2.120060+8 2.120060+8          0          0          1         559649 3 20
 2.087400+8 2.087400+8          0          0          1          59649 3 20
-------------------------------------------------------------------------------
                                                                      9649 3 21 Only in VII.1
-1.782650+7-1.782650+7          0          0          1          39649 3 37
-1.782000+7-1.782000+7          0          0          1          29649 3 37
-------------------------------------------------------------------------------
                                                                      9649 3 38 Only in VII.1
 0.000000+0-4.340000+4          0          0          1         699649 3 51
 0.000000+0-4.282600+4          0          0          1         329649 3 51
-------------------------------------------------------------------------------
 0.000000+0-1.436000+5          0          0          1         649649 3 52
 0.000000+0-1.434200+5          0          0          1         339649 3 52
-------------------------------------------------------------------------------
 0.000000+0-2.981000+5          0          0          1         619649 3 53
 0.000000+0-3.017700+5          0          0          1         249649 3 53
-------------------------------------------------------------------------------
 0.000000+0-5.050000+5          0          0          1         579649 3 54
 0.000000+0-1.043800+6          0          0          1         259649 3 54
-------------------------------------------------------------------------------
 0.000000+0-7.607000+5          0          0          1         549649 3 55
 0.000000+0-1.052700+6          0          0          1         219649 3 55
-------------------------------------------------------------------------------
 0.000000+0-1.049000+6          0          0          1         509649 3 56
 0.000000+0-1.087600+6          0          0          1         159649 3 56
-------------------------------------------------------------------------------
 0.000000+0-1.049000+6          0          0          1         509649 3 57
 0.000000+0-1.087610+6          0          0          1         159649 3 57
-------------------------------------------------------------------------------
                                                                      9649 3 58 Only in VII.1
                                                                      9649 3 59 Only in VII.1
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                                                                      9649 3 61 Only in VII.1
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                                                                      9649 3 63 Only in VII.1
                                                                      9649 3 64 Only in VII.1
                                                                      9649 3 65 Only in VII.1
 0.000000+0-1.145340+5          0          0          1         669649 3 91
 0.000000+0-1.087620+6          0          0          1         119649 3 91
-------------------------------------------------------------------------------
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```
 4.713370+6 4.713370+6          0          0          2         809649 3102
 4.713000+6 4.713000+6          0          0          1         389649 3102
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         849649 4  2
 0.000000+0 0.000000+0          0          0          1         239649 4  2
-----------------------------------------------------------------------------
                                                                  9649 4 16 Only in VII.0
                                                                  9649 4 17 Only in VII.0
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                                                                  9649 4 37 Only in VII.0
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                                                                  9649 4 56 Only in VII.0
                                                                  9649 4 57 Only in VII.0
                                                                  9649 4 91 Only in VII.0
                                                                  9649 5 16 Only in VII.0
                                                                  9649 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29649 5 18
-3.000000+7 0.000000+0          0          7          1          29649 5 18
-----------------------------------------------------------------------------
                                                                  9649 5 19 Only in VII.0
                                                                  9649 5 20 Only in VII.0
                                                                  9649 5 37 Only in VII.0
                                                                  9649 5 91 Only in VII.0
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                                                                  9649 6 65 Only in VII.1
                                                                  9649 6 91 Only in VII.1
                                                                  9649 6102 Only in VII.1
 96-Cm-249
*****************************************************************************
 9.624900+4 1.000000+0          0          0          1          09652 2151
 9.624900+4 1.000000+0          0          1          2          09652 2151
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1179652 3  1
 0.000000+0 0.000000+0          0          0          2         999652 3  1
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1089652 3  2
 0.000000+0 0.000000+0          0          0          2         999652 3  2
-----------------------------------------------------------------------------
 0.000000+0-2.622800+4          0          0          1         819652 3  4
 0.000000+0-2.623400+4          0          0          1         659652 3  4
-----------------------------------------------------------------------------
-4.713370+6-4.713370+6          0          0          1         329652 3 16
-4.713400+6-4.713400+6          0          0          1         309652 3 16
-----------------------------------------------------------------------------
-1.092640+7-1.092640+7          0          0          1         199652 3 17
-1.092480+7-1.092480+7          0          0          1         189652 3 17
-----------------------------------------------------------------------------
 2.130000+8 2.130000+8          0          0          1        1019652 3 18
 2.000000+8 2.000000+8          0          0          2         459652 3 18
-----------------------------------------------------------------------------
                                                                  9652 3 19 Only in VII.1
                                                                  9652 3 20 Only in VII.1
                                                                  9652 3 21 Only in VII.1
                                                                  9652 3 37 Only in VII.1
```

				9652 3 38	Only in VII.1
0.000000+0-2.622800+4	0	0	1	789652 3 51	
0.000000+0-2.623400+4	0	0	1	629652 3 51	
0.000000+0-4.820300+4	0	0	1	769652 3 52	
0.000000+0-4.820300+4	0	0	1	609652 3 52	
0.000000+0-4.875800+4	0	0	1	759652 3 53	
0.000000+0-4.874300+4	0	0	1	599652 3 53	
0.000000+0-1.100000+5	0	0	1	719652 3 54	
0.000000+0-1.090000+5	0	0	1	589652 3 54	
0.000000+0-1.101540+5	0	0	1	709652 3 55	
0.000000+0-1.101600+5	0	0	1	439652 3 55	
0.000000+0-1.460000+5	0	0	1	679652 3 56	
0.000000+0-1.460000+5	0	0	1	429652 3 56	
0.000000+0-2.080010+5	0	0	1	649652 3 57	
0.000000+0-2.079900+5	0	0	1	399652 3 57	
0.000000+0-2.200000+5	0	0	1	639652 3 58	
0.000000+0-2.200000+5	0	0	1	389652 3 58	
0.000000+0-2.420080+5	0	0	1	629652 3 59	
0.000000+0-2.420100+5	0	0	1	379652 3 59	
0.000000+0-2.421700+5	0	0	1	619652 3 60	
0.000000+0-2.889900+5	0	0	1	359652 3 60	
0.000000+0-2.890060+5	0	0	1	599652 3 61	
0.000000+0-3.000000+5	0	0	1	339652 3 61	
0.000000+0-3.000000+5	0	0	1	579652 3 62	
0.000000+0-3.500000+5	0	0	1	329652 3 62	
				9652 3 63	Only in VII.0
				9652 3 64	Only in VII.0
				9652 3 65	Only in VII.0
				9652 3 66	Only in VII.0
				9652 3 67	Only in VII.0
				9652 3 68	Only in VII.0
				9652 3 69	Only in VII.0
0.000000+0-1.047980+5	0	0	1	729652 3 91	
0.000000+0-6.880000+5	0	0	1	189652 3 91	
5.832430+6 5.832430+6	0	0	1	1019652 3102	
5.832430+6 5.832430+6	0	0	2	669652 3102	
0.000000+0 0.000000+0	0	0	1	1019652 4 2	
0.000000+0 0.000000+0	0	0	1	639652 4 2	
				9652 4 16	Only in VII.0
				9652 4 17	Only in VII.0
				9652 4 51	Only in VII.0
				9652 4 52	Only in VII.0
				9652 4 53	Only in VII.0
				9652 4 54	Only in VII.0
				9652 4 55	Only in VII.0
				9652 4 56	Only in VII.0
				9652 4 57	Only in VII.0
				9652 4 58	Only in VII.0
				9652 4 59	Only in VII.0
				9652 4 60	Only in VII.0
				9652 4 61	Only in VII.0
				9652 4 62	Only in VII.0
				9652 4 63	Only in VII.0
				9652 4 64	Only in VII.0
				9652 4 65	Only in VII.0
				9652 4 66	Only in VII.0
				9652 4 67	Only in VII.0
				9652 4 68	Only in VII.0
				9652 4 69	Only in VII.0
				9652 4 91	Only in VII.0

```
                                                                      9652 5 16 Only in VII.0
                                                                      9652 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29652 5 18
-2.000000+7 0.000000+0          0          7          1          29652 5 18
---------------------------------------------------------------------------
                                                                      9652 5 91 Only in VII.0
                                                                      9652 6 16 Only in VII.1
                                                                      9652 6 17 Only in VII.1
                                                                      9652 6 37 Only in VII.1
                                                                      9652 6 51 Only in VII.1
                                                                      9652 6 52 Only in VII.1
                                                                      9652 6 53 Only in VII.1
                                                                      9652 6 54 Only in VII.1
                                                                      9652 6 55 Only in VII.1
                                                                      9652 6 56 Only in VII.1
                                                                      9652 6 57 Only in VII.1
                                                                      9652 6 58 Only in VII.1
                                                                      9652 6 59 Only in VII.1
                                                                      9652 6 60 Only in VII.1
                                                                      9652 6 61 Only in VII.1
                                                                      9652 6 62 Only in VII.1
                                                                      9652 6 91 Only in VII.1
                                                                      9652 6102 Only in VII.1
 96-Cm-250
***************************************************************************
 1.000000-5 3.399900+0 2.530000-2 3.399900+0 5.000000+6 4.499900+09655 1452
 1.000000-5 3.399940+0 2.530000-2 3.399940+0 5.000000+6 4.499900+09655 1452
---------------------------------------------------------------------------
 2.479300+2 0.000000+0          0          0         42           79655 2151
 2.479300+2 0.000000+0          0          0         24           49655 2151
---------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2          849655 3  1
 0.000000+0 0.000000+0          0          0          2          999655 3  1
---------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2          849655 3  2
 0.000000+0 0.000000+0          0          0          2          949655 3  2
---------------------------------------------------------------------------
 0.000000+0-4.300000+4          0          0          1          619655 3  4
 0.000000+0-4.300000+4          0          0          1          439655 3  4
---------------------------------------------------------------------------
-5.832430+6-5.832430+6          0          0          1          299655 3 16
-5.829300+6-5.829300+6          0          0          1          289655 3 16
---------------------------------------------------------------------------
-1.054580+7-1.054580+7          0          0          1          189655 3 17
-1.054820+7-1.054820+7          0          0          1          199655 3 17
---------------------------------------------------------------------------
 2.130000+8 2.130000+8          0          0          2          769655 3 18
 2.000000+8 2.000000+8          0          0          2          499655 3 18
---------------------------------------------------------------------------
                                                                      9655 3 19 Only in VII.1
                                                                      9655 3 20 Only in VII.1
                                                                      9655 3 21 Only in VII.1
                                                                      9655 3 37 Only in VII.1
                                                                      9655 3 38 Only in VII.1
 0.000000+0-4.300000+4          0          0          1          609655 3 51
 0.000000+0-4.300000+4          0          0          1          439655 3 51
---------------------------------------------------------------------------
 0.000000+0-1.436000+5          0          0          1          559655 3 52
 0.000000+0-1.420000+5          0          0          1          399655 3 52
---------------------------------------------------------------------------
                                                                      9655 3 53 Only in VII.1
                                                                      9655 3 54 Only in VII.1
                                                                      9655 3 55 Only in VII.1
 0.000000+0-1.145380+5          0          0          1          579655 3 91
 0.000000+0-1.600000+5          0          0          1          219655 3 91
---------------------------------------------------------------------------
 4.412740+6 4.412740+6          0          0          2          769655 3102
 4.406430+6 4.406430+6          0          0          2          579655 3102
---------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          749655 4  2
 0.000000+0 0.000000+0          0          0          1          549655 4  2
---------------------------------------------------------------------------
                                                                      9655 4 16 Only in VII.0
                                                                      9655 4 17 Only in VII.0
                                                                      9655 4 51 Only in VII.0
```

```
                                                                    9655 4 52 Only in VII.0
                                                                    9655 4 91 Only in VII.0
                                                                    9655 5 16 Only in VII.0
                                                                    9655 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29655 5 18
-2.000000+7 0.000000+0          0          7          1          29655 5 18
--------------------------------------------------------------------------------
                                                                    9655 5 91 Only in VII.0
                                                                    9655 6 16 Only in VII.1
                                                                    9655 6 17 Only in VII.1
                                                                    9655 6 37 Only in VII.1
                                                                    9655 6 51 Only in VII.1
                                                                    9655 6 52 Only in VII.1
                                                                    9655 6 53 Only in VII.1
                                                                    9655 6 54 Only in VII.1
                                                                    9655 6 55 Only in VII.1
                                                                    9655 6 91 Only in VII.1
                                                                    9655 6102 Only in VII.1
 97-Bk-245    Evaluation Only in VII.1
********************************************************************************
 97-Bk-246    Evaluation Only in VII.1
********************************************************************************
 97-Bk-247    Evaluation Only in VII.1
********************************************************************************
 97-Bk-248    Evaluation Only in VII.1
********************************************************************************
 97-Bk-249
********************************************************************************
 0.000000+0 0.000000+0          0          0          1           49752 1452
 0.000000+0 0.000000+0          0          0          1          129752 1452
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1           29752 1456
 0.000000+0 0.000000+0          0          0          1          129752 1456
--------------------------------------------------------------------------------
 3.500000+0 7.738940-1          0          0          1           09752 2151
 3.500000+0 1.000000+0          0          0          1           09752 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         1029752 3  1
 0.000000+0 0.000000+0          0          0          1         2999752 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2          939752 3  2
 0.000000+0 0.000000+0          0          0          1          639752 3  2
--------------------------------------------------------------------------------
 0.000000+0-8.780000+3          0          0          1          799752 3  4
 0.000000+0-8.810000+3          0          0          1         2279752 3  4
--------------------------------------------------------------------------------
-6.301700+6-6.301700+6          0          0          1          299752 3 16
-6.213700+6-6.213700+6          0          0          1          189752 3 16
--------------------------------------------------------------------------------
-1.178360+7-1.178360+7          0          0          1          179752 3 17
-1.177900+7-1.177900+7          0          0          1          109752 3 17
--------------------------------------------------------------------------------
 2.130000+8 2.130000+8          0          0          2          939752 3 18
 2.000000+8 2.000000+8          0          0          1          979752 3 18
--------------------------------------------------------------------------------
                                                                     9752 3 19 Only in VII.1
                                                                     9752 3 20 Only in VII.1
                                                                     9752 3 21 Only in VII.1
                                                                     9752 3 37 Only in VII.1
                                                                     9752 3 38 Only in VII.1
 0.000000+0-8.780000+3          0          0          1          789752 3 51
 0.000000+0-8.810000+3          0          0          1          899752 3 51
--------------------------------------------------------------------------------
 0.000000+0-3.964000+4          0          0          1          749752 3 52
 0.000000+0-3.964000+4          0          0          1          829752 3 52
--------------------------------------------------------------------------------
 0.000000+0-4.179000+4          0          0          1          739752 3 53
 0.000000+0-4.179000+4          0          0          1          859752 3 53
--------------------------------------------------------------------------------
 0.000000+0-8.261000+4          0          0          1          709752 3 54
 0.000000+0-8.261000+4          0          0          1          749752 3 54
--------------------------------------------------------------------------------
 0.000000+0-9.374000+4          0          0          1          699752 3 55
 0.000000+0-9.374000+4          0          0          1          819752 3 55
--------------------------------------------------------------------------------
```

```
 0.000000+0-1.377300+5          0          0          1         669752 3 56
 0.000000+0-1.377100+5          0          0          1         719752 3 56
-------------------------------------------------------------------------------
 0.000000+0-1.558300+5          0          0          1         649752 3 57
 0.000000+0-1.558400+5          0          0          1         729752 3 57
-------------------------------------------------------------------------------
 0.000000+0-2.045700+5          0          0          1         619752 3 58
 0.000000+0-2.045500+5          0          0          1         679752 3 58
-------------------------------------------------------------------------------
 0.000000+0-2.292500+5          0          0          1         609752 3 59
 0.000000+0-2.293600+5          0          0          1         719752 3 59
-------------------------------------------------------------------------------
 0.000000+0-2.831500+5          0          0          1         589752 3 60
 0.000000+0-2.830000+5          0          0          1         669752 3 60
-------------------------------------------------------------------------------
                                                              9752 3 61 Only in VII.0
                                                              9752 3 62 Only in VII.0
                                                              9752 3 63 Only in VII.0
                                                              9752 3 64 Only in VII.0
                                                              9752 3 65 Only in VII.0
                                                              9752 3 66 Only in VII.0
                                                              9752 3 67 Only in VII.0
                                                              9752 3 68 Only in VII.0
 0.000000+0-1.104450+5          0          0          1         689752 3 91
 0.000000+0-5.190000+5          0          0          1         529752 3 91
-------------------------------------------------------------------------------
 4.969570+6 4.969570+6          0          0          2         939752 3102
 4.970000+6 4.970000+6          0          0          1        1239752 3102
-------------------------------------------------------------------------------
                                                              9752 3103 Only in VII.0
                                                              9752 3107 Only in VII.0
 0.000000+0 2.469350+2          0          2          0          09752 4  2
 0.000000+0 2.469400+2          0          2          0          09752 4  2
-------------------------------------------------------------------------------
                                                              9752 4 16 Only in VII.0
                                                              9752 4 17 Only in VII.0
 0.000000+0 2.469350+2          1          1          0          09752 4 18
 0.000000+0 2.469400+2          0          1          0          09752 4 18
-------------------------------------------------------------------------------
                                                              9752 4 51 Only in VII.0
                                                              9752 4 52 Only in VII.0
                                                              9752 4 53 Only in VII.0
                                                              9752 4 54 Only in VII.0
                                                              9752 4 55 Only in VII.0
                                                              9752 4 56 Only in VII.0
                                                              9752 4 57 Only in VII.0
                                                              9752 4 58 Only in VII.0
                                                              9752 4 59 Only in VII.0
                                                              9752 4 60 Only in VII.0
                                                              9752 4 61 Only in VII.0
                                                              9752 4 62 Only in VII.0
                                                              9752 4 63 Only in VII.0
                                                              9752 4 64 Only in VII.0
                                                              9752 4 65 Only in VII.0
                                                              9752 4 66 Only in VII.0
                                                              9752 4 67 Only in VII.0
                                                              9752 4 68 Only in VII.0
                                                              9752 4 91 Only in VII.0
                                                              9752 5 16 Only in VII.0
                                                              9752 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29752 5 18
-2.000000+7 0.000000+0          0          7          1          29752 5 18
-------------------------------------------------------------------------------
                                                              9752 5 91 Only in VII.0
                                                              9752 6 16 Only in VII.1
                                                              9752 6 17 Only in VII.1
                                                              9752 6 37 Only in VII.1
                                                              9752 6 51 Only in VII.1
                                                              9752 6 52 Only in VII.1
                                                              9752 6 53 Only in VII.1
                                                              9752 6 54 Only in VII.1
                                                              9752 6 55 Only in VII.1
                                                              9752 6 56 Only in VII.1
                                                              9752 6 57 Only in VII.1
                                                              9752 6 58 Only in VII.1
```

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                                                                    9752 6 59 Only in VII.1
                                                                    9752 6 60 Only in VII.1
                                                                    9752 6 91 Only in VII.1
                                                                    9752 6102 Only in VII.1
 97-Bk-250
*************************************************************************
 9.725000+4 1.000000+0          0          0          1          09755 2151
 9.725000+4 1.000000+0          0          1          2          09755 2151
-------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1209755 3  1
 0.000000+0 0.000000+0          0          0          2         669755 3  1
-------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1209755 3  2
 0.000000+0 0.000000+0          0          0          2         669755 3  2
-------------------------------------------------------------------------
 0.000000+0-3.447200+4          0          0          1         869755 3  4
 0.000000+0-3.400000+4          0          0          1         589755 3  4
-------------------------------------------------------------------------
-4.969570+6-4.969570+6          0          0          1         319755 3 16
-4.969690+6-4.969690+6          0          0          1         179755 3 16
-------------------------------------------------------------------------
-1.127130+7-1.127130+7          0          0          1         189755 3 17
-1.118340+7-1.118340+7          0          0          1         109755 3 17
-------------------------------------------------------------------------
 2.144000+8 2.144000+8          0          0          1        1129755 3 18
 1.899990+8 1.899990+8          0          0          2         449755 3 18
-------------------------------------------------------------------------
                                                                    9755 3 19 Only in VII.1
                                                                    9755 3 20 Only in VII.1
                                                                    9755 3 21 Only in VII.1
-1.675320+7-1.675320+7          0          0          1          79755 3 37
-1.674910+7-1.674910+7          0          0          1          59755 3 37
-------------------------------------------------------------------------
                                                                    9755 3 38 Only in VII.1
 0.000000+0-3.447200+4          0          0          1         859755 3 51
 0.000000+0-3.400000+4          0          0          1         589755 3 51
-------------------------------------------------------------------------
 0.000000+0-3.558700+4          0          0          1         849755 3 52
 0.000000+0-3.559990+4          0          0          1         579755 3 52
-------------------------------------------------------------------------
 0.000000+0-7.832600+4          0          0          1         819755 3 53
 0.000000+0-7.809990+4          0          0          1         549755 3 53
-------------------------------------------------------------------------
 0.000000+0-8.025800+4          0          0          1         809755 3 54
 0.000000+0-8.639990+4          0          0          1         529755 3 54
-------------------------------------------------------------------------
 0.000000+0-8.640000+4          0          0          1         799755 3 55
 0.000000+0-9.699990+4          0          0          1         519755 3 55
-------------------------------------------------------------------------
 0.000000+0-9.749300+4          0          0          1         789755 3 56
 0.000000+0-1.041000+5          0          0          1         499755 3 56
-------------------------------------------------------------------------
 0.000000+0-1.038280+5          0          0          1         769755 3 57
 0.000000+0-1.254000+5          0          0          1         489755 3 57
-------------------------------------------------------------------------
 0.000000+0-1.154420+5          0          0          1         759755 3 58
 0.000000+0-1.290000+5          0          0          1         479755 3 58
-------------------------------------------------------------------------
 0.000000+0-1.250070+5          0          0          1         739755 3 59
 0.000000+0-1.319000+5          0          0          1         469755 3 59
-------------------------------------------------------------------------
 0.000000+0-1.304920+5          0          0          1         729755 3 60
 0.000000+0-1.570000+5          0          0          1         449755 3 60
-------------------------------------------------------------------------
 0.000000+0-1.373200+5          0          0          1         719755 3 61
 0.000000+0-1.670000+5          0          0          1         439755 3 61
-------------------------------------------------------------------------
 0.000000+0-1.464720+5          0          0          1         699755 3 62
 0.000000+0-1.754000+5          0          0          1         429755 3 62
-------------------------------------------------------------------------
 0.000000+0-1.485950+5          0          0          1         689755 3 63
 0.000000+0-1.910000+5          0          0          1         419755 3 63
-------------------------------------------------------------------------
 0.000000+0-1.570000+5          0          0          1         679755 3 64
 0.000000+0-2.118000+5          0          0          1         399755 3 64
```

```
-------------------------------------------------------------------------------
 0.000000+0-1.573910+5          0          0          1         669755 3 65
 0.000000+0-2.370000+5          0          0          1         389755 3 65
-------------------------------------------------------------------------------
 0.000000+0-1.670890+5          0          0          1         659755 3 66
 0.000000+0-2.420000+5          0          0          1         339755 3 66
-------------------------------------------------------------------------------
 0.000000+0-1.751230+5          0          0          1         639755 3 67
 0.000000+0-2.480000+5          0          0          1         369755 3 67
-------------------------------------------------------------------------------
 0.000000+0-1.799900+5          0          0          1         629755 3 68
 0.000000+0-2.700000+5          0          0          1         349755 3 68
-------------------------------------------------------------------------------
                                                                 9755 3 69 Only in VII.1
                                                                 9755 3 70 Only in VII.1
 0.000000+0-1.025350+5          0          0          1         779755 3 91
 0.000000+0-2.960000+5          0          0          1         339755 3 91
-------------------------------------------------------------------------------
 5.795070+6 5.795070+6          0          0          1        1139755 3102
 8.649990+5 8.649990+5          0          0          2         629755 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1099755 4  2
 0.000000+0 0.000000+0          0          0          1         709755 4  2
-------------------------------------------------------------------------------
                                                                 9755 4 16 Only in VII.0
                                                                 9755 4 17 Only in VII.0
 0.000000+0 2.479300+2          1          1          0          09755 4 18
 0.000000+0 2.479300+2          0          1          0          09755 4 18
-------------------------------------------------------------------------------
                                                                 9755 4 37 Only in VII.0
                                                                 9755 4 51 Only in VII.0
                                                                 9755 4 52 Only in VII.0
                                                                 9755 4 53 Only in VII.0
                                                                 9755 4 54 Only in VII.0
                                                                 9755 4 55 Only in VII.0
                                                                 9755 4 56 Only in VII.0
                                                                 9755 4 57 Only in VII.0
                                                                 9755 4 58 Only in VII.0
                                                                 9755 4 59 Only in VII.0
                                                                 9755 4 60 Only in VII.0
                                                                 9755 4 61 Only in VII.0
                                                                 9755 4 62 Only in VII.0
                                                                 9755 4 63 Only in VII.0
                                                                 9755 4 64 Only in VII.0
                                                                 9755 4 65 Only in VII.0
                                                                 9755 4 66 Only in VII.0
                                                                 9755 4 67 Only in VII.0
                                                                 9755 4 68 Only in VII.0
                                                                 9755 4 91 Only in VII.0
                                                                 9755 5 16 Only in VII.0
                                                                 9755 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29755 5 18
-2.000000+7 0.000000+0          0          7          1          29755 5 18
-------------------------------------------------------------------------------
                                                                 9755 5 37 Only in VII.0
                                                                 9755 5 91 Only in VII.0
                                                                 9755 6 16 Only in VII.1
                                                                 9755 6 17 Only in VII.1
                                                                 9755 6 37 Only in VII.1
                                                                 9755 6 51 Only in VII.1
                                                                 9755 6 52 Only in VII.1
                                                                 9755 6 53 Only in VII.1
                                                                 9755 6 54 Only in VII.1
                                                                 9755 6 55 Only in VII.1
                                                                 9755 6 56 Only in VII.1
                                                                 9755 6 57 Only in VII.1
                                                                 9755 6 58 Only in VII.1
                                                                 9755 6 59 Only in VII.1
                                                                 9755 6 60 Only in VII.1
                                                                 9755 6 61 Only in VII.1
                                                                 9755 6 62 Only in VII.1
                                                                 9755 6 63 Only in VII.1
                                                                 9755 6 64 Only in VII.1
                                                                 9755 6 65 Only in VII.1
                                                                 9755 6 66 Only in VII.1
```

```
                                                                      9755 6 67 Only in VII.1
                                                                      9755 6 68 Only in VII.1
                                                                      9755 6 69 Only in VII.1
                                                                      9755 6 70 Only in VII.1
                                                                      9755 6 91 Only in VII.1
                                                                      9755 6102 Only in VII.1
 98-Cf-246    Evaluation Only in VII.1
********************************************************************************
 98-Cf-248    Evaluation Only in VII.1
********************************************************************************
 98-Cf-249
********************************************************************************
 0.000000+0 0.000000+0          0          0          1          49852 1452
 0.000000+0 0.000000+0          0          0          1         109852 1452
--------------------------------------------------------------------------------
 1.350000-2 2.940000-2 1.053000-1 2.930000-1 8.475000-1 2.469800+09852 1455
 1.351700-2 2.945000-2 1.053200-1 2.929800-1 8.474900-1 2.469800+09852 1455
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          49852 1456
 0.000000+0 0.000000+0          0          0          1          99852 1456
--------------------------------------------------------------------------------
                                                                       9852 1458 Only in VII.1
 4.500000+0 7.738940-1          0          0          1          09852 2151
 4.500000+0 1.000000+0          0          0          1          09852 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2       13529852 3  1
 0.000000+0 0.000000+0          0          0          2         699852 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1559852 3  2
 0.000000+0 0.000000+0          0          0          2         699852 3  2
--------------------------------------------------------------------------------
 0.000000+0-6.249000+4          0          0          1         819852 3  4
 0.000000+0-6.249000+4          0          0          1         629852 3  4
--------------------------------------------------------------------------------
-5.585460+6-5.585460+6          0          0          1         309852 3 16
-5.593100+6-5.593100+6          0          0          1         219852 3 16
--------------------------------------------------------------------------------
-1.255360+7-1.255360+7          0          0          1         169852 3 17
-1.257200+7-1.257200+7          0          0          1          99852 3 17
--------------------------------------------------------------------------------
 2.117300+8 2.117300+8          0          0          2       13479852 3 18
 2.000000+8 2.000000+8          0          0          2         699852 3 18
--------------------------------------------------------------------------------
                                                                      9852 3 19 Only in VII.1
                                                                      9852 3 20 Only in VII.1
                                                                      9852 3 21 Only in VII.1
                                                                      9852 3 37 Only in VII.1
                                                                      9852 3 38 Only in VII.1
 0.000000+0-6.249000+4          0          0          1         809852 3 51
 0.000000+0-6.249000+4          0          0          1         399852 3 51
--------------------------------------------------------------------------------
 0.000000+0-1.362000+5          0          0          1         769852 3 52
 0.000000+0-1.362000+5          0          0          1         339852 3 52
--------------------------------------------------------------------------------
 0.000000+0-1.449600+5          0          0          1         749852 3 53
 0.000000+0-1.449600+5          0          0          1         329852 3 53
--------------------------------------------------------------------------------
 0.000000+0-1.879400+5          0          0          1         729852 3 54
 0.000000+0-1.879400+5          0          0          1         299852 3 54
--------------------------------------------------------------------------------
 0.000000+0-2.200000+5          0          0          1         709852 3 55
 0.000000+0-2.200000+5          0          0          1         279852 3 55
--------------------------------------------------------------------------------
 0.000000+0-2.430700+5          0          0          1         699852 3 56
 0.000000+0-2.430700+5          0          0          1         269852 3 56
--------------------------------------------------------------------------------
 0.000000+0-3.150000+5          0          0          1         669852 3 57
 0.000000+0-3.150000+5          0          0          1         249852 3 57
--------------------------------------------------------------------------------
 0.000000+0-3.150000+5          0          0          1         669852 3 58
 0.000000+0-3.795200+5          0          0          1         229852 3 58
--------------------------------------------------------------------------------
 0.000000+0-3.795200+5          0          0          1         659852 3 59
 0.000000+0-3.840000+5          0          0          1         219852 3 59
--------------------------------------------------------------------------------
```

```
 0.000000+0-3.840000+5          0          0          1         649852 3 60
 0.000000+0-4.168000+5          0          0          1         199852 3 60
-------------------------------------------------------------------------------
 0.000000+0-4.168000+5          0          0          1         629852 3 61
 0.000000+0-4.375600+5          0          0          1         189852 3 61
-------------------------------------------------------------------------------
 0.000000+0-4.250000+5          0          0          1         619852 3 62
 0.000000+0-4.400000+5          0          0          1         179852 3 62
-------------------------------------------------------------------------------
 0.000000+0-4.375600+5          0          0          1         609852 3 63
 0.000000+0-4.429800+5          0          0          1         169852 3 63
-------------------------------------------------------------------------------
 0.000000+0-4.400000+5          0          0          1         599852 3 64
 0.000000+0-4.600000+5          0          0          1         159852 3 64
-------------------------------------------------------------------------------
 0.000000+0-4.429800+5          0          0          1         589852 3 65
 0.000000+0-5.007000+5          0          0          1         139852 3 65
-------------------------------------------------------------------------------
                                                                 9852 3 66 Only in VII.1
                                                                 9852 3 67 Only in VII.1
 0.000000+0-1.095560+5          0          0          1         789852 3 91
 0.000000+0-5.007000+5          0          0          1         369852 3 91
-------------------------------------------------------------------------------
 6.625150+6 6.625150+6          0          0          2         989852 3102
 6.623000+6 6.623000+6          0          0          2         699852 3102
-------------------------------------------------------------------------------
                                                                 9852 3103 Only in VII.0
                                                                 9852 3107 Only in VII.0
 0.000000+0 2.469350+2          0          2          0          09852 4  2
 0.000000+0 2.469400+2          0          2          0          09852 4  2
-------------------------------------------------------------------------------
                                                                 9852 4 16 Only in VII.0
                                                                 9852 4 17 Only in VII.0
 0.000000+0 2.469350+2          1          1          0          09852 4 18
 0.000000+0 2.469400+2          0          1          0          09852 4 18
-------------------------------------------------------------------------------
                                                                 9852 4 51 Only in VII.0
                                                                 9852 4 52 Only in VII.0
                                                                 9852 4 53 Only in VII.0
                                                                 9852 4 54 Only in VII.0
                                                                 9852 4 55 Only in VII.0
                                                                 9852 4 56 Only in VII.0
                                                                 9852 4 57 Only in VII.0
                                                                 9852 4 58 Only in VII.0
                                                                 9852 4 59 Only in VII.0
                                                                 9852 4 60 Only in VII.0
                                                                 9852 4 61 Only in VII.0
                                                                 9852 4 62 Only in VII.0
                                                                 9852 4 63 Only in VII.0
                                                                 9852 4 64 Only in VII.0
                                                                 9852 4 65 Only in VII.0
                                                                 9852 4 91 Only in VII.0
                                                                 9852 5 16 Only in VII.0
                                                                 9852 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29852 5 18
-2.000000+7 0.000000+0          0          7          1          29852 5 18
-------------------------------------------------------------------------------
                                                                 9852 5 91 Only in VII.0
                                                                 9852 6 16 Only in VII.1
                                                                 9852 6 17 Only in VII.1
                                                                 9852 6 37 Only in VII.1
                                                                 9852 6 51 Only in VII.1
                                                                 9852 6 52 Only in VII.1
                                                                 9852 6 53 Only in VII.1
                                                                 9852 6 54 Only in VII.1
                                                                 9852 6 55 Only in VII.1
                                                                 9852 6 56 Only in VII.1
                                                                 9852 6 57 Only in VII.1
                                                                 9852 6 58 Only in VII.1
                                                                 9852 6 59 Only in VII.1
                                                                 9852 6 60 Only in VII.1
                                                                 9852 6 61 Only in VII.1
                                                                 9852 6 62 Only in VII.1
                                                                 9852 6 63 Only in VII.1
                                                                 9852 6 64 Only in VII.1
```

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                                                                 9852 6 65 Only in VII.1
                                                                 9852 6 66 Only in VII.1
                                                                 9852 6 67 Only in VII.1
                                                                 9852 6 91 Only in VII.1
                                                                 9852 6102 Only in VII.1
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*********************************************************************************
 0.000000+0 0.000000+0          0          0          1          49855 1452
 0.000000+0 0.000000+0          0          0          1          59855 1452
---------------------------------------------------------------------------------
                                                                 9855 1455 Only in VII.1
                                                                 9855 1456 Only in VII.1
 9.825000+4 1.000000+0          0          1          2          09855 2151
 9.825000+4 1.000000+0          0          0          2          09855 2151
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         959855 3  1
 0.000000+0 0.000000+0          0          0          4        1709855 3  1
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         909855 3  2
 0.000000+0 0.000000+0          0          0          1         759855 3  2
---------------------------------------------------------------------------------
 0.000000+0-4.272200+4          0          0          1         709855 3  4
 0.000000+0-4.481900+4          0          0          1         209855 3  4
---------------------------------------------------------------------------------
-6.625150+6-6.625150+6          0          0          1         289855 3 16
-6.610000+6-6.610000+6          0          0          1         199855 3 16
---------------------------------------------------------------------------------
-1.221060+7-1.221060+7          0          0          1         169855 3 17
-1.221000+7-1.221000+7          0          0          1         129855 3 17
---------------------------------------------------------------------------------
 2.144000+8 2.144000+8          0          0          2         909855 3 18
 2.000000+8 2.000000+8          0          0          1         259855 3 18
---------------------------------------------------------------------------------
                                                                 9855 3 19 Only in VII.1
                                                                 9855 3 20 Only in VII.1
                                                                 9855 3 21 Only in VII.1
-1.917880+7-1.917880+7          0          0          1          29855 3 37
-1.859000+7-1.859000+7          0          0          1          59855 3 37
---------------------------------------------------------------------------------
                                                                 9855 3 38 Only in VII.1
                                                                 9855 3 51 Only in VII.1
                                                                 9855 3 52 Only in VII.1
                                                                 9855 3 53 Only in VII.1
                                                                 9855 3 54 Only in VII.1
 0.000000+0-1.095580+5          0          0          1         669855 3 91
 0.000000+0-4.481920+4          0          0          1         209855 3 91
---------------------------------------------------------------------------------
 5.108490+6 5.108490+6          0          0          2         909855 3102
 5.110000+6 5.110000+6          0          0          4         869855 3102
---------------------------------------------------------------------------------
 0.000000+0 2.479280+2          0          2          0          09855 4  2
 0.000000+0 2.478600+2          0          2          0          09855 4  2
---------------------------------------------------------------------------------
                                                                 9855 4 16 Only in VII.0
                                                                 9855 4 17 Only in VII.0
                                                                 9855 4 37 Only in VII.0
                                                                 9855 4 91 Only in VII.0
                                                                 9855 5 16 Only in VII.0
                                                                 9855 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29855 5 18
-3.000000+7 0.000000+0          0          7          1          29855 5 18
---------------------------------------------------------------------------------
                                                                 9855 5 37 Only in VII.0
                                                                 9855 5 91 Only in VII.0
                                                                 9855 6 16 Only in VII.1
                                                                 9855 6 17 Only in VII.1
                                                                 9855 6 37 Only in VII.1
                                                                 9855 6 51 Only in VII.1
                                                                 9855 6 52 Only in VII.1
                                                                 9855 6 53 Only in VII.1
                                                                 9855 6 54 Only in VII.1
                                                                 9855 6 91 Only in VII.1
                                                                 9855 6102 Only in VII.1
 98-Cf-251
*********************************************************************************
```

```
 0.000000+0 0.000000+0          0          0          1          49858 1452
 0.000000+0 0.000000+0          0          0          1          79858 1452
-------------------------------------------------------------------------------
 1.570000-2 2.880000-2 1.077000-1 3.246000-1 8.837000-1 2.631400+09858 1455
 1.569700-2 2.883000-2 1.076900-1 3.245800-1 8.837100-1 2.631400+09858 1455
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1          29858 1456
 0.000000+0 0.000000+0          0          0          1          79858 1456
-------------------------------------------------------------------------------
                                                                  9858 1458 Only in VII.1
 1.000000-5 5.000000+0          1          2          0          09858 2151
 1.000000-5 1.639000+2          1          1          0          09858 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1079858 3  1
 0.000000+0 0.000000+0          0          0          3        1889858 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1029858 3  2
 0.000000+0 0.000000+0          0          0          1         869858 3  2
-------------------------------------------------------------------------------
 0.000000+0-2.482500+4          0          0          1         829858 3  4
 0.000000+0-2.490000+4          0          0          1         199858 3  4
-------------------------------------------------------------------------------
-5.108490+6-5.108490+6          0          0          1         319858 3 16
-5.100000+6-5.100000+6          0          0          1         169858 3 16
-------------------------------------------------------------------------------
-1.173360+7-1.173360+7          0          0          1         179858 3 17
-1.173000+7-1.173000+7          0          0          1          89858 3 17
-------------------------------------------------------------------------------
 2.133860+8 2.133860+8          0          0          2        1029858 3 18
 2.000000+8 2.000000+8          0          0          3         509858 3 18
-------------------------------------------------------------------------------
                                                                   9858 3 19 Only in VII.1
                                                                   9858 3 20 Only in VII.1
                                                                   9858 3 21 Only in VII.1
-1.731910+7-1.731910+7          0          0          1          69858 3 37
-1.732000+7-1.732000+7          0          0          1          69858 3 37
-------------------------------------------------------------------------------
                                                                   9858 3 38 Only in VII.1
                                                                   9858 3 51 Only in VII.1
                                                                   9858 3 52 Only in VII.1
                                                                   9858 3 53 Only in VII.1
                                                                   9858 3 54 Only in VII.1
                                                                   9858 3 55 Only in VII.1
                                                                   9858 3 56 Only in VII.1
                                                                   9858 3 57 Only in VII.1
                                                                   9858 3 58 Only in VII.1
                                                                   9858 3 59 Only in VII.1
                                                                   9858 3 60 Only in VII.1
                                                                   9858 3 61 Only in VII.1
                                                                   9858 3 62 Only in VII.1
                                                                   9858 3 63 Only in VII.1
                                                                   9858 3 64 Only in VII.1
 0.000000+0-1.026650+5          0          0          1         759858 3 91
 0.000000+0-2.490000+4          0          0          1         199858 3 91
-------------------------------------------------------------------------------
 6.171950+6 6.171950+6          0          0          2        1029858 3102
 6.170000+6 6.170000+6          0          0          3         769858 3102
-------------------------------------------------------------------------------
 0.000000+0 2.489230+2          0          2          0          09858 4  2
 0.000000+0 2.488500+2          0          2          0          09858 4  2
-------------------------------------------------------------------------------
                                                                   9858 4 16 Only in VII.0
                                                                   9858 4 17 Only in VII.0
                                                                   9858 4 37 Only in VII.0
                                                                   9858 4 91 Only in VII.0
                                                                   9858 5 16 Only in VII.0
                                                                   9858 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29858 5 18
-3.000000+7 0.000000+0          0          7          1          29858 5 18
-------------------------------------------------------------------------------
                                                                   9858 5 37 Only in VII.0
                                                                   9858 5 91 Only in VII.0
                                                                   9858 6 16 Only in VII.1
                                                                   9858 6 17 Only in VII.1
                                                                   9858 6 37 Only in VII.1
```

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                                                                 9858 6 51 Only in VII.1
                                                                 9858 6 52 Only in VII.1
                                                                 9858 6 53 Only in VII.1
                                                                 9858 6 54 Only in VII.1
                                                                 9858 6 55 Only in VII.1
                                                                 9858 6 56 Only in VII.1
                                                                 9858 6 57 Only in VII.1
                                                                 9858 6 58 Only in VII.1
                                                                 9858 6 59 Only in VII.1
                                                                 9858 6 60 Only in VII.1
                                                                 9858 6 61 Only in VII.1
                                                                 9858 6 62 Only in VII.1
                                                                 9858 6 63 Only in VII.1
                                                                 9858 6 64 Only in VII.1
                                                                 9858 6 91 Only in VII.1
                                                                 9858 6102 Only in VII.1
 98-Cf-252
*********************************************************************************
 0.000000+0 0.000000+0          0          0          1          49861 1452
 0.000000+0 0.000000+0          0          0          1          89861 1452
---------------------------------------------------------------------------------
                                                                  9861 1455 Only in VII.1
                                                                  9861 1456 Only in VII.1
 1.000000-5 1.000000+3          1          2          0          09861 2151
 1.000000-5 3.665000+2          1          1          0          09861 2151
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         969861 3  1
 0.000000+0 0.000000+0          0          0          1         779861 3  1
---------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2         969861 3  2
 0.000000+0 0.000000+0          0          0          1         349861 3  2
---------------------------------------------------------------------------------
 0.000000+0-4.572000+4          0          0          1         769861 3  4
 0.000000+0-4.980070+4          0          0          1         279861 3  4
---------------------------------------------------------------------------------
-6.171950+6-6.171950+6          0          0          1         299861 3 16
-6.170000+6-6.170000+6          0          0          1         109861 3 16
---------------------------------------------------------------------------------
-1.128040+7-1.128040+7          0          0          1         189861 3 17
-1.128000+7-1.128000+7          0          0          1          99861 3 17
---------------------------------------------------------------------------------
 2.172000+8 2.172000+8          0          0          2         919861 3 18
 2.000000+8 2.000000+8          0          0          1         419861 3 18
---------------------------------------------------------------------------------
                                                                  9861 3 19 Only in VII.1
                                                                  9861 3 20 Only in VII.1
                                                                  9861 3 21 Only in VII.1
-1.790560+7-1.790560+7          0          0          1          59861 3 37
-1.790000+7-1.790000+7          0          0          1          39861 3 37
---------------------------------------------------------------------------------
                                                                  9861 3 38 Only in VII.1
                                                                  9861 3 51 Only in VII.1
                                                                  9861 3 52 Only in VII.1
                                                                  9861 3 53 Only in VII.1
                                                                  9861 3 54 Only in VII.1
                                                                  9861 3 55 Only in VII.1
                                                                  9861 3 56 Only in VII.1
                                                                  9861 3 57 Only in VII.1
                                                                  9861 3 58 Only in VII.1
                                                                  9861 3 59 Only in VII.1
                                                                  9861 3 60 Only in VII.1
 0.000000+0-1.104400+5          0          0          1         729861 3 91
 0.000000+0-4.980070+4          0          0          1         279861 3 91
---------------------------------------------------------------------------------
 4.804290+6 4.804290+6          0          0          2         869861 3102
 4.790000+6 4.790000+6          0          0          1         159861 3102
---------------------------------------------------------------------------------
 0.000000+0 2.499160+2          0          2          0          09861 4  2
 0.000000+0 2.498500+2          0          2          0          09861 4  2
---------------------------------------------------------------------------------
                                                                  9861 4 16 Only in VII.0
                                                                  9861 4 17 Only in VII.0
                                                                  9861 4 37 Only in VII.0
                                                                  9861 4 91 Only in VII.0
                                                                  9861 5 16 Only in VII.0
```

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                                                                    9861 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29861 5 18
-3.000000+7 0.000000+0          0          7          1          29861 5 18
-----------------------------------------------------------------------------
                                                                    9861 5 37 Only in VII.0
                                                                    9861 5 91 Only in VII.0
                                                                    9861 5455 Only in VII.1
                                                                    9861 6 16 Only in VII.1
                                                                    9861 6 17 Only in VII.1
                                                                    9861 6 37 Only in VII.1
                                                                    9861 6 51 Only in VII.1
                                                                    9861 6 52 Only in VII.1
                                                                    9861 6 53 Only in VII.1
                                                                    9861 6 54 Only in VII.1
                                                                    9861 6 55 Only in VII.1
                                                                    9861 6 56 Only in VII.1
                                                                    9861 6 57 Only in VII.1
                                                                    9861 6 58 Only in VII.1
                                                                    9861 6 59 Only in VII.1
                                                                    9861 6 60 Only in VII.1
                                                                    9861 6 91 Only in VII.1
                                                                    9861 6102 Only in VII.1
 98-Cf-253
*****************************************************************************
 0.000000+0 0.000000+0          0          0          1          49864 1452
 0.000000+0 0.000000+0          0          0          2          09864 1452
-----------------------------------------------------------------------------
                                                                    9864 1455 Only in VII.1
                                                                    9864 1456 Only in VII.1
 9.825300+4 1.000000+0          0          0          1          09864 2151
 9.825300+4 1.000000+0          0          1          2          09864 2151
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1089864 3  1
 0.000000+0 0.000000+0          0          0          1          79864 3  1
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1089864 3  2
 0.000000+0 0.000000+0          0          0          1          69864 3  2
-----------------------------------------------------------------------------
                                                                    9864 3  4 Only in VII.1
                                                                    9864 3 16 Only in VII.1
                                                                    9864 3 17 Only in VII.1
 2.185000+8 2.185000+8          0          0          1         989864 3 18
 2.000000+8 2.000000+8          0          0          1          79864 3 18
-----------------------------------------------------------------------------
                                                                    9864 3 19 Only in VII.1
                                                                    9864 3 20 Only in VII.1
                                                                    9864 3 21 Only in VII.1
                                                                    9864 3 37 Only in VII.1
                                                                    9864 3 38 Only in VII.1
                                                                    9864 3 51 Only in VII.1
                                                                    9864 3 52 Only in VII.1
                                                                    9864 3 53 Only in VII.1
                                                                    9864 3 54 Only in VII.1
                                                                    9864 3 55 Only in VII.1
                                                                    9864 3 56 Only in VII.1
                                                                    9864 3 91 Only in VII.1
 6.031560+6 6.031560+6          0          0          1         989864 3102
 5.980000+6 5.980000+6          0          0          1          79864 3102
-----------------------------------------------------------------------------
 0.000000+0 2.509110+2          0          2          0          09864 4  2
 0.000000+0 2.488500+2          0          2          0          09864 4  2
-----------------------------------------------------------------------------
 0.000000+0 2.509110+2          1          1          0          09864 4 18
 0.000000+0 2.509100+2          1          1          0          09864 4 18
-----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          1          1          29864 5 18
-2.000000+7 0.000000+0          0          7          1          29864 5 18
-----------------------------------------------------------------------------
                                                                    9864 6 16 Only in VII.1
                                                                    9864 6 17 Only in VII.1
                                                                    9864 6 37 Only in VII.1
                                                                    9864 6 51 Only in VII.1
                                                                    9864 6 52 Only in VII.1
                                                                    9864 6 53 Only in VII.1
                                                                    9864 6 54 Only in VII.1
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                                                                      9864 6 55 Only in VII.1
                                                                      9864 6 56 Only in VII.1
                                                                      9864 6 91 Only in VII.1
                                                                      9864 6102 Only in VII.1
 98-Cf-254
*******************************************************************************
 1.000000-5 1.300000+1          0          0          0          09867 2151
 1.000000-5 1.200000+2          0          0          0          09867 2151
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1069867 3  1
 0.000000+0 0.000000+0          0          0          1         689867 3  1
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         959867 3  2
 0.000000+0 0.000000+0          0          0          2         539867 3  2
-------------------------------------------------------------------------------
 0.000000+0-4.572000+4          0          0          1         709867 3  4
 0.000000+0-4.499990+4          0          0          1         409867 3  4
-------------------------------------------------------------------------------
-6.031560+6-6.031560+6          0          0          1         299867 3 16
-6.028690+6-6.028690+6          0          0          1         159867 3 16
-------------------------------------------------------------------------------
-1.083580+7-1.083580+7          0          0          1         199867 3 17
-1.083240+7-1.083240+7          0          0          1         119867 3 17
-------------------------------------------------------------------------------
 2.199000+8 2.199000+8          0          0          1         909867 3 18
 1.999990+8 1.999990+8          0          0          1         529867 3 18
-------------------------------------------------------------------------------
                                                                      9867 3 19 Only in VII.1
                                                                      9867 3 20 Only in VII.1
                                                                      9867 3 21 Only in VII.1
-1.700780+7-1.700780+7          0          0          1          79867 3 37
-1.700310+7-1.700310+7          0          0          1          49867 3 37
-------------------------------------------------------------------------------
                                                                      9867 3 38 Only in VII.1
 0.000000+0-4.572000+4          0          0          1         699867 3 51
 0.000000+0-4.499990+4          0          0          1         409867 3 51
-------------------------------------------------------------------------------
                                                                      9867 3 52 Only in VII.1
                                                                      9867 3 53 Only in VII.1
                                                                      9867 3 54 Only in VII.1
 0.000000+0-1.104370+5          0          0          1         669867 3 91
 0.000000+0-1.400000+5          0          0          1         369867 3 91
-------------------------------------------------------------------------------
 4.603080+6 4.603080+6          0          0          1         909867 3102
 4.449990+6 4.449990+6          0          0          1         539867 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         939867 4  2
 0.000000+0 0.000000+0          0          0          1         539867 4  2
-------------------------------------------------------------------------------
                                                                      9867 4 16 Only in VII.0
                                                                      9867 4 17 Only in VII.0
 0.000000+0 2.519050+2          1          1          0          09867 4 18
 0.000000+0 2.519050+2          0          1          0          09867 4 18
-------------------------------------------------------------------------------
                                                                      9867 4 37 Only in VII.0
                                                                      9867 4 51 Only in VII.0
                                                                      9867 4 91 Only in VII.0
                                                                      9867 5 16 Only in VII.0
                                                                      9867 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29867 5 18
-2.000000+7 0.000000+0          0          7          1          29867 5 18
-------------------------------------------------------------------------------
                                                                      9867 5 37 Only in VII.0
                                                                      9867 5 91 Only in VII.0
                                                                      9867 6 16 Only in VII.1
                                                                      9867 6 17 Only in VII.1
                                                                      9867 6 37 Only in VII.1
                                                                      9867 6 51 Only in VII.1
                                                                      9867 6 52 Only in VII.1
                                                                      9867 6 53 Only in VII.1
                                                                      9867 6 54 Only in VII.1
                                                                      9867 6 91 Only in VII.1
                                                                      9867 6102 Only in VII.1
 99-Es-251    Evaluation Only in VII.1
*******************************************************************************
```

```
 99-Es-252    Evaluation Only in VII.1
********************************************************************************
 99-Es-253
********************************************************************************
                                                                 9913 1452 Only in VII.1
                                                                 9913 1455 Only in VII.1
                                                                 9913 1456 Only in VII.1
 9.925300+4 1.000000+0          0          0          1          09913 2151
 9.925300+4 1.000000+0          0          0          2          09913 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1079913 3  1
 0.000000+0 0.000000+0          0          0          3         819913 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          2        1079913 3  2
 0.000000+0 0.000000+0          0          0          2         599913 3  2
--------------------------------------------------------------------------------
                                                                 9913 3  4 Only in VII.1
                                                                 9913 3 16 Only in VII.1
                                                                 9913 3 17 Only in VII.1
                                                                 9913 3 18 Only in VII.1
                                                                 9913 3 19 Only in VII.1
                                                                 9913 3 20 Only in VII.1
                                                                 9913 3 21 Only in VII.1
                                                                 9913 3 37 Only in VII.1
                                                                 9913 3 38 Only in VII.1
                                                                 9913 3 51 Only in VII.1
                                                                 9913 3 52 Only in VII.1
                                                                 9913 3 53 Only in VII.1
                                                                 9913 3 54 Only in VII.1
                                                                 9913 3 55 Only in VII.1
                                                                 9913 3 91 Only in VII.1
 5.093030+6 5.093030+6          0          0          1         969913 3102
 5.092000+6 5.092000+6          0          0          3         299913 3102
--------------------------------------------------------------------------------
 0.000000+0 2.509110+2          0          2          0          09913 4  2
 0.000000+0 2.488500+2          0          2          0          09913 4  2
--------------------------------------------------------------------------------
                                                                 9913 4 18 Only in VII.1
                                                                 9913 5 18 Only in VII.1
                                                                 9913 6 16 Only in VII.1
                                                                 9913 6 17 Only in VII.1
                                                                 9913 6 37 Only in VII.1
                                                                 9913 6 51 Only in VII.1
                                                                 9913 6 52 Only in VII.1
                                                                 9913 6 53 Only in VII.1
                                                                 9913 6 54 Only in VII.1
                                                                 9913 6 55 Only in VII.1
                                                                 9913 6 91 Only in VII.1
                                                                 9913 6102 Only in VII.1
 99-Es-254
********************************************************************************
                                                                 9914 1458 Only in VII.1
 1.000000-5 5.000000-1          0          0          0          09914 2151
 1.000000-5 5.000000+0          0          0          0          09914 2151
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1089914 3  1
 0.000000+0 0.000000+0          0          0          1         649914 3  1
--------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1089914 3  2
 0.000000+0 0.000000+0          0          0          2         539914 3  2
--------------------------------------------------------------------------------
 0.000000+0-8.010000+4          0          0          1         729914 3  4
 0.000000+0-7.799990+4          0          0          1         379914 3  4
--------------------------------------------------------------------------------
-5.093030+6-5.093030+6          0          0          1         319914 3 16
-5.092090+6-5.092090+6          0          0          1         169914 3 16
--------------------------------------------------------------------------------
-1.144460+7-1.144460+7          0          0          1         189914 3 17
-1.130140+7-1.130140+7          0          0          1         109914 3 17
--------------------------------------------------------------------------------
 2.223370+8 2.223370+8          0          0          1         999914 3 18
 1.999990+8 1.999990+8          0          0          1         519914 3 18
--------------------------------------------------------------------------------
                                                                 9914 3 19 Only in VII.1
                                                                 9914 3 20 Only in VII.1
```

```
                                                                 9914 3 21 Only in VII.1
-1.673420+7-1.673420+7          0          0          1          79914 3 37
-1.672610+7-1.672610+7          0          0          1          59914 3 37
----------------------------------------------------------------------------
                                                                 9914 3 38 Only in VII.1
 0.000000+0-8.010000+4          0          0          1         709914 3 51
 0.000000+0-7.799990+4          0          0          1         379914 3 51
----------------------------------------------------------------------------
                                                                 9914 3 52 Only in VII.1
                                                                 9914 3 53 Only in VII.1
                                                                 9914 3 54 Only in VII.1
                                                                 9914 3 55 Only in VII.1
                                                                 9914 3 56 Only in VII.1
                                                                 9914 3 57 Only in VII.1
 0.000000+0-1.077530+5          0          0          1         689914 3 91
 0.000000+0-5.029990+5          0          0          1         289914 3 91
----------------------------------------------------------------------------
 5.974430+6 5.974430+6          0          0          1         999914 3102
 5.982690+6 5.982690+6          0          0          1         539914 3102
----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         969914 4  2
 0.000000+0 0.000000+0          0          0          1         519914 4  2
----------------------------------------------------------------------------
                                                                 9914 4 16 Only in VII.0
                                                                 9914 4 17 Only in VII.0
 0.000000+0 2.519050+2          1          1          0          09914 4 18
 0.000000+0 2.519050+2          0          1          0          09914 4 18
----------------------------------------------------------------------------
                                                                 9914 4 37 Only in VII.0
                                                                 9914 4 51 Only in VII.0
                                                                 9914 4 91 Only in VII.0
                                                                 9914 5 16 Only in VII.0
                                                                 9914 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29914 5 18
-2.000000+7 0.000000+0          0          7          1          29914 5 18
----------------------------------------------------------------------------
                                                                 9914 5 37 Only in VII.0
                                                                 9914 5 91 Only in VII.0
                                                                 9914 5455 Only in VII.1
                                                                 9914 6 16 Only in VII.1
                                                                 9914 6 17 Only in VII.1
                                                                 9914 6 37 Only in VII.1
                                                                 9914 6 51 Only in VII.1
                                                                 9914 6 52 Only in VII.1
                                                                 9914 6 53 Only in VII.1
                                                                 9914 6 54 Only in VII.1
                                                                 9914 6 55 Only in VII.1
                                                                 9914 6 56 Only in VII.1
                                                                 9914 6 57 Only in VII.1
                                                                 9914 6 91 Only in VII.1
                                                                 9914 6102 Only in VII.1
 99-Es-254m   Evaluation Only in VII.1
****************************************************************************
 99-Es-255
****************************************************************************
 1.000000-5 2.500000-1          0          0          0           09916 2151
 1.000000-5 2.470000+0          0          0          0           09915 2151
----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1109916 3  1
 0.000000+0 0.000000+0          0          0          1         699915 3  1
----------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1069916 3  2
 0.000000+0 0.000000+0          0          0          2         579915 3  2
----------------------------------------------------------------------------
 0.000000+0-4.640000+4          0          0          1         689916 3  4
 0.000000+0-4.799990+4          0          0          1         429915 3  4
----------------------------------------------------------------------------
-5.974430+6-5.974430+6          0          0          1         299916 3 16
-5.983690+6-5.983690+6          0          0          1         159915 3 16
----------------------------------------------------------------------------
-1.106750+7-1.106750+7          0          0          1         199916 3 17
-1.107580+7-1.107580+7          0          0          1         109915 3 17
----------------------------------------------------------------------------
 2.213000+8 2.213000+8          0          0          1         929916 3 18
 1.999990+8 1.999990+8          0          0          1         549915 3 18
```

```
------------------------------------------------------------------------
                                                          9916 3 19 Only in VII.1
                                                          9916 3 20 Only in VII.1
                                                          9916 3 21 Only in VII.1
-1.741910+7-1.741910+7          0          0          1          69916 3 37
-1.728510+7-1.728510+7          0          0          1          49915 3 37
------------------------------------------------------------------------
                                                          9916 3 38 Only in VII.1
 0.000000+0-4.640000+4          0          0          1         679916 3 51
 0.000000+0-4.799990+4          0          0          1         429915 3 51
------------------------------------------------------------------------
 0.000000+0-8.000000+4          0          0          1         649916 3 52
 0.000000+0-4.999990+4          0          0          1         419915 3 52
------------------------------------------------------------------------
                                                          9915 3 53 Only in VII.0
 0.000000+0-1.104350+5          0          0          1         639916 3 91
 0.000000+0-4.999990+5          0          0          1         309915 3 91
------------------------------------------------------------------------
 4.974190+6 4.974190+6          0          0          1         949916 3102
 4.901690+6 4.901690+6          0          0          1         579915 3102
------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         919916 4  2
 0.000000+0 0.000000+0          0          0          1         559915 4  2
------------------------------------------------------------------------
                                                          9915 4 16 Only in VII.0
                                                          9915 4 17 Only in VII.0
 0.000000+0 2.528990+2          1          1          0          09916 4 18
 0.000000+0 2.528990+2          0          1          0          09915 4 18
------------------------------------------------------------------------
                                                          9915 4 37 Only in VII.0
                                                          9915 4 51 Only in VII.0
                                                          9915 4 52 Only in VII.0
                                                          9915 4 53 Only in VII.0
                                                          9915 4 91 Only in VII.0
                                                          9915 5 16 Only in VII.0
                                                          9915 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29916 5 18
-2.000000+7 0.000000+0          0          7          1          29915 5 18
------------------------------------------------------------------------
                                                          9915 5 37 Only in VII.0
                                                          9915 5 91 Only in VII.0
                                                          9916 6 16 Only in VII.1
                                                          9916 6 17 Only in VII.1
                                                          9916 6 37 Only in VII.1
                                                          9916 6 51 Only in VII.1
                                                          9916 6 52 Only in VII.1
                                                          9916 6 91 Only in VII.1
                                                          9916 6102 Only in VII.1
100-Fm-255
************************************************************************
 1.000000-5 4.002733+0 2.530000-2 4.002733+0 5.000000+6 5.252733+09936 1452
 1.000000-5 4.392400+0 2.530000-2 4.392400+0 5.000000+6 5.642400+09936 1452
------------------------------------------------------------------------
 1.000000-5 4.000000+0 2.000000+7 9.000000+0                    9936 1456
 1.000000-5 4.389700+0 2.000000+7 9.389700+0                    9936 1456
------------------------------------------------------------------------
                                                          9936 1458 Only in VII.1
 1.000000-5 4.500000-1          0          0          0          09936 2151
 1.000000-5 3.800000+0          0          0          0          09936 2151
------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1079936 3  1
 0.000000+0 0.000000+0          0          0          1         589936 3  1
------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1        1079936 3  2
 0.000000+0 0.000000+0          0          0          2         539936 3  2
------------------------------------------------------------------------
 0.000000+0-6.000000+4          0          0          1         729936 3  4
 0.000000+0-5.999990+4          0          0          1         379936 3  4
------------------------------------------------------------------------
-5.176250+6-5.176250+6          0          0          1         319936 3 16
-5.174690+6-5.174690+6          0          0          1         169936 3 16
------------------------------------------------------------------------
-1.169290+7-1.169290+7          0          0          1         189936 3 17
-1.169340+7-1.169340+7          0          0          1         109936 3 17
------------------------------------------------------------------------
```

```
 2.276190+8 2.276190+8          0          0          1        1009936 3 18
 1.999990+8 1.999990+8          0          0          1         519936 3 18
-------------------------------------------------------------------------------
                                                                 9936 3 19 Only in VII.1
                                                                 9936 3 20 Only in VII.1
                                                                 9936 3 21 Only in VII.1
-1.723210+7-1.723210+7          0          0          1          69936 3 37
-1.724110+7-1.724110+7          0          0          1          49936 3 37
-------------------------------------------------------------------------------
                                                                 9936 3 38 Only in VII.1
 0.000000+0-6.000000+4          0          0          1         719936 3 51
 0.000000+0-5.999990+4          0          0          1         379936 3 51
-------------------------------------------------------------------------------
                                                                 9936 3 52 Only in VII.1
                                                                 9936 3 53 Only in VII.1
                                                                 9936 3 54 Only in VII.1
                                                                 9936 3 55 Only in VII.1
                                                                 9936 3 56 Only in VII.1
                                                                 9936 3 57 Only in VII.1
 0.000000+0-1.104350+5          0          0          1         689936 3 91
 0.000000+0-9.399990+4          0          0          1         359936 3 91
-------------------------------------------------------------------------------
 6.384460+6 6.384460+6          0          0          1        1009936 3102
 6.386690+6 6.386690+6          0          0          1         539936 3102
-------------------------------------------------------------------------------
 0.000000+0 0.000000+0          0          0          1         969936 4  2
 0.000000+0 0.000000+0          0          0          1         519936 4  2
-------------------------------------------------------------------------------
                                                                 9936 4 16 Only in VII.0
                                                                 9936 4 17 Only in VII.0
 0.000000+0 2.528990+2          1          1          0          09936 4 18
 0.000000+0 2.528990+2          0          1          0          09936 4 18
-------------------------------------------------------------------------------
                                                                 9936 4 37 Only in VII.0
                                                                 9936 4 51 Only in VII.0
                                                                 9936 4 91 Only in VII.0
                                                                 9936 5 16 Only in VII.0
                                                                 9936 5 17 Only in VII.0
 0.000000+0 0.000000+0          0          1          1          29936 5 18
-2.000000+7 0.000000+0          0          7          1          29936 5 18
-------------------------------------------------------------------------------
                                                                 9936 5 37 Only in VII.0
                                                                 9936 5 91 Only in VII.0
                                                                 9936 5455 Only in VII.1
                                                                 9936 6 16 Only in VII.1
                                                                 9936 6 17 Only in VII.1
                                                                 9936 6 37 Only in VII.1
                                                                 9936 6 51 Only in VII.1
                                                                 9936 6 52 Only in VII.1
                                                                 9936 6 53 Only in VII.1
                                                                 9936 6 54 Only in VII.1
                                                                 9936 6 55 Only in VII.1
                                                                 9936 6 56 Only in VII.1
                                                                 9936 6 57 Only in VII.1
                                                                 9936 6 91 Only in VII.1
                                                                 9936 6102 Only in VII.1
=================(End)=========================================================
```