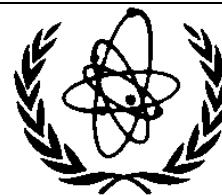


International Atomic Energy Agency

## Nuclear Data Services

DOCUMENTATION SERIES OF THE IAEA NUCLEAR DATA  
SECTION



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### **Generating an ACE-formatted photonuclear data library from IAEA/PD-2019 using ACEMAKER**

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## 1. Introduction

The IAEA evaluated photonuclear data library IAEA/PD-2019 was released by the Nuclear Data Section at IAEA on August 14, 2020 [1]. It contains evaluated photonuclear data for 219 materials with incident energies up to 140-200 MeV. The evaluations include cross-sections and emission spectra in ENDF-6 format [2].

The description of the IAEA/PD-2019 library and its preliminary processing has been described in Ref. [3]. The NJOY2016 [4] nuclear data processing system was preliminarily used to generate ACE-formatted files [5] as required for some Monte Carlo codes like MCNP [6].

Due to the new features used in some of the photonuclear evaluations from IAEAPD-2019, the NJOY2016 version applied to generate the ACE-formatted libraries shows several issues and limitations as was reported in Ref. [7]. More recent versions of the NJOY2016 system solved some of the reported issues, but not all of them.

In the meantime, the capability for processing photonuclear data was incorporated into the processing code system ACEMAKER [8], which is an open-source package freely distributed by the NDS/IAEA. Therefore, it was worthy to update the photonuclear ACE-formatted library available at the NDS/IAEA web site (<https://www-nds.iaea.org>) using ACEMAKER.

In this report, the photonuclear ACE-formatted library generated by ACEMAKER from the IAEA/PD-2019 library is described. Furthermore, the ACEMAKER photo-processing capabilities are shortly depicted and the main differences between the ACE-files created by ACEMAKER and NJOY2016 are commented.

## 2. Generating a continuous-energy photonuclear ACE-formatted file using ACEMAKER

### 2.1. ACEMAKER features for photonuclear data processing

The ACE-format for photonuclear transport data is well described in Ref. [5]. It includes a set of blocks to describe the cross-section data and another group of blocks to describe particle production cross sections, yields and angle-energy distributions of the outgoing particles.

Production cross sections for reactions products of interest (dosimetry/activation data) can be also listed in the cross-section block by using in general a modified MT number instead of the ENDF-6 MT. The modified MT number includes information on the level number of the state of the product formed by the photonuclear interaction. Production cross sections are not used for transport calculations, and they should be used only as tally multipliers in Monte Carlo simulations.

The module DOPHN from ACEMAKER creates ACE-formatted files from evaluated photonuclear data files in ENDF-6 format. It prepares all the data blocks required for cross sections, yields and energy-angles distributions. All angular distributions given on MF4, if any, and the two body reactions given by ENDF/LAW=2,3,4 on MF6 are converted to tabular probability and cumulative density functions.

Energy distributions given on MF5, if any, are also converted to tabular probability and cumulative density functions (ACE/LAW=4). Energy distributions for two-body reactions are described by kinematic using ACE/LAW=33. In this case, the following approximate formula is applied [9, 10],

$$E_{out}^{cm} = \left( \frac{M_T - m_p}{M_T} \right) (E_\gamma - Q_i) \quad (1)$$

where  $E_{out}^{cm}$  is the energy of the outgoing particle  $p$  in the center of mass system (CMS),  $M_T$  and  $m_p$  are the masses of the target nuclide and the outgoing particle correspondingly,  $E_\gamma$  is the photon incident energy and  $Q_i$  is the Q-value of reaction  $i$ .

Correlated angular-energy distribution given by ENDF/LAW=7 on MF6 is converted to energy-angle distribution ENDF/LAW=1 on MF6. The correlated ENDF/LAW=1 is transformed to ACE/LAW=44 if Kalbach-Mann formalism is used, and to ACE/LAW=61 if tabulated data or Legendre coefficients are given. The representations given by ENDF/LAW=5 or 6 should not be used for incident photons, therefore they are not expected.

If all energy-angle distributions are given, then the direct method is applied for estimating the KERMA (Kinetic Energy Released in Materials) factor for partial reaction  $i$  and material  $j$  at the incident energy  $E$ ,  $h_i^j(E)$ , using the expressions [4]

$$h_i^j(E) = \sum_k h_{i,k}^j(E) \quad (2)$$

$$h_{i,k}^j(E) = y_{i,k}^j(E) \cdot \bar{E}_{out,i,k}^j(E) \cdot \frac{\sigma_i^j(E)}{\sigma_t^j(E)} \quad (3)$$

where de summa is carried out over all charged particles including the recoil nucleus. The magnitude  $h_{i,k}^j(E)$  is the partial KERMA of the particle  $k$  for the reaction type  $i$  in the material  $j$ ,  $y_{i,k}^j(E)$  is the yield of the particle  $k$  for the reaction type  $i$  in the material  $j$ ,  $\bar{E}_{out,i,k}^j(E)$  is the average kinetic energy in the laboratory system (LAB) carried away for the outgoing particle  $k$  for the reaction type  $i$  in the material  $j$  and  $\frac{\sigma_i^j(E)}{\sigma_t^j(E)}$  is the ratio of the partial cross section  $i$  to the total cross section in the material  $j$ .

If the recoil data is not available, the energy balance method is applied [4]. In this case the KERMA factor of the recoil nucleus for the reaction  $i$  in the material  $j$ ,  $h_{i,rec}^j(E)$ , is calculated by

$$h_{i,rec}^j(E) = (E + Q_i^j) \cdot \frac{\sigma_i^j(E)}{\sigma_t^j(E)} - h_{i,n}^j(E) - h_{i,\gamma}^j(E) - \sum_{l \neq rec} h_{i,l}^j(E) \quad (4)$$

where  $Q_i^j$  is the Q-value of the partial reaction  $i$  in the material  $j$ ,  $h_{i,n}^j(E)$  and  $h_{i,\gamma}^j(E)$  are the KERMA factors for outgoing neutrons and photons of the partial reaction  $i$  in the material  $j$  respectively, and the rest of symbols have the same meaning as before. The summa in this case is carried out over the charged particles (protons, deuterons, tritons,  ${}^3_2\text{He}$  and alphas) and

excludes the recoil entity. The total KERMA factor and the KERMA factor for each outgoing particle are store on the ACE-formatted file.

Conversions from the center of mass system (CMS) to laboratory system (LAB) are performed applying relativistic kinematic [9,10]

$$p_{out}^{cm}c = \sqrt{E_{out}^{cm} \cdot (E_{out}^{cm} + 2m_p c^2)} \quad (5)$$

$$\beta = \frac{E_\gamma}{E_\gamma + M_T c^2} \quad (6)$$

$$E_{out}^{lab} = \frac{1}{\sqrt{1-\beta^2}} (E_{out}^{cm} + \beta \cdot p_{out}^{cm}c \cdot \mu_{out}^{cm}) + \left( \frac{1}{\sqrt{1-\beta^2}} - 1 \right) \cdot m_p c^2 \quad (7)$$

where,

$E_{out}^{cm}$  and  $E_{out}^{lab}$ : kinetic energy of the outgoing particle in the CMS and LAB respectively

$p_{out}^{cm}$ : outgoing particle momentum in the CMS

$m_p$  and  $M_T$ : Mass of outgoing particle and the target nucleus respectively

$E_\gamma$ : incident energy of the photon in the LAB system.

$c$ : light speed

$\mu_{out}^{cm}$ : cosine of the outgoing particle in the CM system

If require, Eq. (7) is applied to compute the average kinetic energy carried away by the outgoing particles and the recoil nucleus, which are needed for KERMA factors calculation.

Some evaluations in the IAEA/PD-2019 library describe the outgoing photon yields and distributions of discrete two-body reactions by means of ENDF files MF12 and MF14. ACEMAKER can process these files and the given gamma data are included in the corresponding ACE-formatted file.

For some actinides, the evaluators include delayed neutron spectra information for photofission. In these cases, ACEMAKER is able under user's request to include the delayed neutron spectra using multiple energy distribution laws for the photofission reaction (MT=18).

It is worthy to mention that the previous photonuclear evaluations were less detailed than the new ones included in the IAEA/PD-2019 photonuclear library. Therefore, some of the new features were not coded into the previous versions of MCNP. Consequently, the ACE-formatted files processed by ACEMAKER from the IAEA/PD-2019 library require the use of MCNP-6.3 or a latest version.

## 2.2. ACEMAKER calculational flow

The ACEMAKER driver program calls the following modules to produce a continuous-energy photonuclear ACE-formatted file for Monte Carlo calculations (Fig. 1):

FIG. 1: Main processing flow for photonuclear ACE-formatted files



- LINEAR: Linearize cross section data as required for the rest of the modules.
- LEGEND: Check and convert Legendre coefficients and tabulated distribution into linearly interpolable tables (MF4)
- SPECTRA: Convert model and general tabulated data into linearly interpolable spectra (MF5)
- SIXLIN: Convert and prepare linearly interpolable tabulated energy-angle distributions from ENDF-formatted file (MF6)
- GAMLIN: Convert and prepare linearly interpolable tabulated photon-production files (MF12, MF13, MF14)
- DOPHN: Prepare continuous energy photonuclear ACE-formatted files for Monte Carlo calculations.

The codes LINEAR, LEGEND and SPECTRA belong to the PREPRO-2019 [11] package. The modules SIXLIN, GAMLIN and DOPHN are part of the ACEMAKER package, which also includes the driver program ACEMAKER and the modules DOACE, DODOS and DOTSL.

The PREPRO-2019 modules are distributed with the ACEMAKER package because the current version of ACEMAKER (version 2.0) has been developed to work with the 2019 version of PREPRO. The use of a different version of PREPRO has not been verified yet in the framework of ACEMAKER package.

### 3. Generation of a photonuclear ACE-formatted library from IAEA/PD-2019 using ACEMAKER

The IAEA/PD-2019 library is described in Ref. [3]. The library contains 219 materials using six different representations in ENDF-6 format. Table 1 summarize the information. The representations 0, 3 and 5 are explicit, and the rest of representations are implicit, which means that all cross sections needed for transport calculations are included in the lumped cross section  $MT5=(\gamma,x)$ . For all fissionable materials, the fission cross section is explicitly given. Eight fissionable nuclides include also delayed neutron spectra in MF5/MT455. In the representation 5, the photon production data are provided in MF12 and MF14 for discrete two-body reactions. Production cross sections to be used as tallies are given in diverse ways for representations 2, 4 and 5 (see Table 1).

Table 1: Summary IAEA/PD-2019 photonuclear library

Representation (Format)	Evaluation Institution*	Number of materials	Comments
0	NFD	1	1-H-2: Reaction MT50 is used
1	JAEA, KAERI	166	Implicit representation (MT5). Fission cross section explicitly given for fissionable materials (MT=18). Delayed neutron spectra given for 8 actinides (MF5/MT455).
2	KAERI	30	Implicit representation (MT5). Production cross section given as: (MF6 yields) x (MF3 cross section).
3	CNDC (light)	4	Explicit representation
4	CNDC (medium)	11	Implicit representation (MT5). Particle production cross section given for: MF3/MT201,MT203,MT204,MT205,MT206 and MT207.
5	IFIN-HH, UB	7	Explicit representation. Production cross sections given on MF10 Photon production data for discrete two-body reactions given in MF12/MF14

\*NFD: Nippon Nuclear Fuel Development, JAEA: Japan Atomic Energy Agency, KAERI: Korea Atomic Energy Research Institute, CNDC: China Nuclear Data Center  
IFIN-HH: Horia Hulubei National Institute  
UB: University of Bucharest

### 3.1. Input options

Generic ACEMAKER input options are shown in Fig. 1 for processing the IAEA/PD-2019 photonuclear library. A detailed description about ACEMAKER input can be found in Ref. [8], but here a brief explanation is given for the sake of completeness:

- The first line provides the title of the case, and the rest of the lines are the pairs (keyword, entry value).
- ACE 3 denotes photonuclear data processing,
- ENDF specifies the full name of the ENDF-6 formatted evaluated nuclear data file. The symbol %ENDF\_FILE% represents a valid name (i.e., g\_1-H-2\_0128.endf),
- MAT 0 means the first material on the evaluated nuclear data file,
- SUFF .38 indicates that the suffix for the ZAID identifier in the ACE file will be .38,
- TOL 0.001 and YMIN 1.0E-30 specify that the linearization tolerance and the minimum value require for reconstruction and linearization will be 0.1% and 1.0E-30 respectively,



- DPRO 1 implies that production cross-section (activation/dosimetry) should be included in the ACE file for tally calculations if available,
- DNEU 1 means that delayed neutron spectra for photofission should be included if available, In this case, the energy-angle distribution is given by 1+N energy laws for MT18 (fission). The first law describes the prompt neutrons spectrum and the following N are the delayed neutron spectra. The total neutron yield includes prompt and delayed fission neutrons. The fraction of neutrons produced by each law represents the law probability.
- MCNP 0 indicates that MCNP format should be used for ZAID, instead of the extended MCNPX format,
- MON 0, PNDF 0 and KEEP 0 control the execution of ACEMAKER implying minimal printing and deletion of all intermediate files, including the final point-wise data file in ENDF format (PENDF),
- Keyword END denotes end of case.

Figure 1: Generic ACEMAKER input options for nuclear data processing

```

Processing IAEA/PD-2019 photonuclear data by ACEMAKER
ACE      3
ENDF     %ENDF_FILE%
MAT      0
SUFF     .38
TOL      0.001
YMIN     1.0E-30
DPRO     1
DNEU     1
MCNP     0
MON      0
PNDF     0
KEEP     0
END

```

If production data are not required DPRO should be set to 0 (DPRO 0). If delayed neutron spectra for photofission should not be included in the ACE file DNEU should be set to -1 (DNEU -1). DNEU 0 indicates that delayed neutron spectra should be included, but without any correction for converting the energy distribution from LAB to CM system if required [8]. Figure 2 shows the input data needed for processing U-235 without delayed neutron spectra

### 3.1. Description of the library

The ACE-formatted IAEA/PD-2019 library contains the photonuclear data files needed for Monte Carlo simulations using the code MCNP-6.3 or a latest version. The library is also useful for others Monte Carlo codes that can manage transport data in ACE-format. Besides the ACE-formatted file with extension \*.acef , the directory information required for XSDIR is also provided in a second file with extension \*.xsd. Information about the content of the ACE-formatted file is given in a third file with extension \*.txt. Table 2 summarizes the information about ACE-formatted files.

Figure 2: U-235 input options for nuclear data processing without delayed neutron data

```

Processing U-235 by ACEMAKER (no delayed neutron spectra)
ACE      3
ENDF    d:\pd2019\g_92-U-235_9228.endf
MAT      0
SUFF     .38
TOL      0.001
YMIN     1.0E-30
DPRO     0
DNEU     -1
MCNP     0
MON      0
PNDF     0
KEEP     0
END
    
```

Table 2: ACE-formatted IAEA/PD-2019 library summary

No.	Nuclide	ZAID	Filename[* .acef], [* .xsd], [* .txt]	E <sub>max</sub> [MeV]	Evaluation Institute	Notes
1	1-H-2	1002.38u	g 1-H-2 0128	140	NFD	
2	2-He-3	2003.38u	g 2-He-3 0225	140	JAEA	
3	3-Li-6	3006.38u	g 3-Li-6 0325	140	JAEA	
4	3-Li-7	3007.38u	g 3-Li-7 0328	140	JAEA	
5	4-Be-9	4009.38u	g 4-Be-9 0425	150	CNDC	
6	6-C-12	6012.38u	g 6-C-12 0625	150	CNDC	
7	6-C-13	6013.38u	g 6-C-13 0628	140	KAERI	
8	6-C-14	6014.38u	g 6-C-14 0631	200	KAERI	Production <sup>(36)</sup>
9	7-N-14	7014.38u	g 7-N-14 0725	150	CNDC	
10	7-N-15	7015.38u	g 7-N-15 0728	140	KAERI	
11	8-O-16	8016.38u	g 8-O-16 0825	150	CNDC	
12	8-O-17	8017.38u	g 8-O-17 0828	140	KAERI	
13	8-O-18	8018.38u	g 8-O-18 0831	140	KAERI	
14	9-F-19	9019.38u	g 9-F-19 0925	140	JAEA	
15	11-Na-23	11023.38u	g 11-Na-23 1125	140	KAERI	
16	12-Mg-24	12024.38u	g 12-Mg-24 1225	140	KAERI	
17	12-Mg-25	12025.38u	g 12-Mg-25 1228	140	KAERI	
18	12-Mg-26	12026.38u	g 12-Mg-26 1231	140	KAERI	
19	13-Al-27	13027.38u	g 13-Al-27 1325	200	CNDC	Production <sup>(3)</sup>
20	14-Si-27	14027.38u	g 14-Si-27 1422	140	KAERI	
21	14-Si-28	14028.38u	g 14-Si-28 1425	140	KAERI	
22	14-Si-29	14029.38u	g 14-Si-29 1428	140	KAERI	
23	14-Si-30	14030.38u	g 14-Si-30 1431	140	KAERI	
24	16-S-32	16032.38u	g 16-S-32 1625	140	KAERI	
25	16-S-33	16033.38u	g 16-S-33 1628	140	KAERI	

No.	Nuclide	ZAID	Filename[*].acef], [*].xsd], [*].txt]	Emax [MeV]	Evaluation Institute	Notes
26	16-S-34	16034.38u	g 16-S-34 1631	140	KAERI	
27	16-S-36	16036.38u	g 16-S-36 1637	140	KAERI	
28	17-Cl-35	17035.38u	g 17-Cl-35 1725	200	JAEA	
29	17-Cl-37	17037.38u	g 17-Cl-37 1731	200	JAEA	
30	18-Ar-36	18036.38u	g 18-Ar-36 1825	200	JAEA	
31	18-Ar-38	18038.38u	g 18-Ar-38 1831	200	JAEA	
32	18-Ar-40	18040.38u	g 18-Ar-40 1837	200	JAEA	
33	19-K-39	19039.38u	g 19-K-39 1925	200	JAEA	
34	19-K-40	19040.38u	g 19-K-40 1928	200	JAEA	
35	19-K-41	19041.38u	g 19-K-41 1931	200	JAEA	
36	20-Ca-40	20040.38u	g 20-Ca-40 2025	140	JAEA	
37	20-Ca-42	20042.38u	g 20-Ca-42 2031	140	KAERI	
38	20-Ca-43	20043.38u	g 20-Ca-43 2034	140	KAERI	
39	20-Ca-44	20044.38u	g 20-Ca-44 2037	140	JAEA	
40	20-Ca-46	20046.38u	g 20-Ca-46 2043	140	KAERI	
41	20-Ca-48	20048.38u	g 20-Ca-48 2049	140	JAEA	
42	21-Sc-45	21045.38u	g 21-Sc-45 2125	200	JAEA	
43	22-Ti-46	22046.38u	g 22-Ti-46 2225	200	JAEA	
44	22-Ti-47	22047.38u	g 22-Ti-47 2228	200	JAEA	
45	22-Ti-48	22048.38u	g 22-Ti-48 2231	200	JAEA	
46	22-Ti-49	22049.38u	g 22-Ti-49 2234	200	JAEA	
47	22-Ti-50	22050.38u	g 22-Ti-50 2250	200	JAEA	
48	23-V-50	23050.38u	g 23-V-50 2325	200	JAEA	
49	23-V-51	23051.38u	g 23-V-51 2328	200	JAEA	
50	24-Cr-50	24050.38u	g 24-Cr-50 2425	200	CNDC	Production <sup>(3)</sup>
51	24-Cr-52	24052.38u	g 24-Cr-52 2431	200	JAEA	
52	24-Cr-53	24053.38u	g 24-Cr-53 2434	200	CNDC	Production <sup>(3)</sup>
53	24-Cr-54	24054.38u	g 24-Cr-54 2437	200	CNDC	Production <sup>(3)</sup>
54	25-Mn-55	25055.38u	g 25-Mn-55 2525	200	JAEA	
55	26-Fe-54	26054.38u	g 26-Fe-54 2625	200	JAEA	
56	26-Fe-56	26056.38u	g 26-Fe-56 2625	200	JAEA	
57	26-Fe-57	26057.38u	g 26-Fe-57 2625	200	JAEA	
58	26-Fe-58	26058.38u	g 26-Fe-58 2625	200	JAEA	
59	27-Co-59	27059.38u	g 27-Co-59 2725	200	IFIN-HH,UB	Production <sup>(10)</sup>
60	28-Ni-58	28058.38u	g 28-Ni-58 2825	200	JAEA	
61	28-Ni-60	28060.38u	g 28-Ni-60 2831	200	JAEA	
62	28-Ni-61	28061.38u	g 28-Ni-61 2834	200	JAEA	
63	28-Ni-62	28062.38u	g 28-Ni-62 2837	200	JAEA	
64	28-Ni-64	28064.38u	g 28-Ni-64 2843	200	JAEA	
65	29-Cu-63	29063.38u	g 29-Cu-63 2925	200	JAEA	
66	29-Cu-65	29065.38u	g 29-Cu-65 2931	200	JAEA	
67	30-Zn-64	30064.38u	g 30-Zn-64 3025	200	KAERI	Production <sup>(36)</sup>
68	30-Zn-66	30066.38u	g 30-Zn-66 3031	200	JAEA	

No.	Nuclide	ZAID	Filename[*].acef], [*].xsd], [*].txt]	E <sub>max</sub> [MeV]	Evaluation Institute	Notes
69	30-Zn-67	30067.38u	g 30-Zn-67 3034	200	JAEA	
70	30-Zn-68	30068.38u	g 30-Zn-68 3037	200	JAEA	
71	30-Zn-70	30070.38u	g 30-Zn-70 3043	200	JAEA	
72	32-Ge-70	32070.38u	g 32-Ge-70 3225	200	JAEA	
73	32-Ge-72	32072.38u	g 32-Ge-72 3231	200	JAEA	
74	32-Ge-73	32073.38u	g 32-Ge-73 3234	200	JAEA	
75	32-Ge-74	32074.38u	g 32-Ge-74 3237	200	JAEA	
76	32-Ge-76	32076.38u	g 32-Ge-76 3243	200	JAEA	
77	33-As-75	33075.38u	g 33-As-75 3325	200	KAERI	Production <sup>(36)</sup>
78	34-Se-76	34076.38u	g 34-Se-76 3431	200	KAERI	Production <sup>(36)</sup>
79	34-Se-78	34078.38u	g 34-Se-78 3437	200	KAERI	Production <sup>(36)</sup>
80	34-Se-80	34080.38u	g 34-Se-80 3443	200	KAERI	Production <sup>(36)</sup>
81	34-Se-82	34082.38u	g 34-Se-82 3449	200	KAERI	Production <sup>(36)</sup>
82	38-Sr-84	38084.38u	g 38-Sr-84 3825	200	JAEA	
83	38-Sr-86	38086.38u	g 38-Sr-86 3831	200	JAEA	
84	38-Sr-87	38087.38u	g 38-Sr-87 3834	200	JAEA	
85	38-Sr-88	38088.38u	g 38-Sr-88 3837	200	JAEA	
86	38-Sr-90	38090.38u	g 38-Sr-90 3834	200	JAEA	
87	39-Y-89	39089.38u	g 39-Y-89 3925	200	IFIN-HH,UB	Production <sup>(10)</sup>
88	40-Zr-90	40090.38u	g 40-Zr-90 4025	200	CNDC	Production <sup>(3)</sup>
89	40-Zr-91	40091.38u	g 40-Zr-91 4028	200	KAERI	Production <sup>(36)</sup>
90	40-Zr-92	40092.38u	g 40-Zr-92 4031	200	JAEA	
91	40-Zr-93	40093.38u	g 40-Zr-93 4034	200	JAEA	
92	40-Zr-94	40094.38u	g 40-Zr-94 4037	200	KAERI	Production <sup>(36)</sup>
93	40-Zr-96	40096.38u	g 40-Zr-96 4043	200	JAEA	
94	41-Nb-93	41093.38u	g 41-Nb-93 4125	200	JAEA	
95	41-Nb-94	41094.38u	g 41-Nb-94 4128	200	JAEA	
96	42-Mo-92	42092.38u	g 42-Mo-92 4225	200	JAEA	
97	42-Mo-94	42094.38u	g 42-Mo-94 4231	200	JAEA	
98	42-Mo-95	42095.38u	g 42-Mo-95 4234	200	JAEA	
99	42-Mo-96	42096.38u	g 42-Mo-96 4237	200	JAEA	
100	42-Mo-97	42097.38u	g 42-Mo-97 4240	200	JAEA	
101	42-Mo-98	42098.38u	g 42-Mo-98 4243	200	JAEA	
102	42-Mo-100	42100.38u	g 42-Mo-100 4249	200	JAEA	
103	44-Ru-98	44098.38u	g 44-Ru-98 4431	200	JAEA	
104	45-Rh-103	45103.38u	g 45-Rh-103 4525	200	IFIN-HH,UB	Production <sup>(10)</sup>
105	46-Pd-102	46102.38u	g 46-Pd-102 4625	200	JAEA	
106	46-Pd-104	46104.38u	g 46-Pd-104 4631	200	JAEA	
107	46-Pd-105	46105.38u	g 46-Pd-105 4634	200	JAEA	
108	46-Pd-106	46106.38u	g 46-Pd-106 4637	200	JAEA	
109	46-Pd-107	46107.38u	g 46-Pd-107 4640	200	JAEA	
110	46-Pd-108	46108.38u	g 46-Pd-108 4643	200	JAEA	
111	46-Pd-110	46110.38u	g 46-Pd-110 4649	200	JAEA	

No.	Nuclide	ZAID	Filename[*].acef], [*].xsd], [*].txt]	Emax [MeV]	Evaluation Institute	Notes
112	47-Ag-107	47107.38u	g 47-Ag-107 4725	200	JAEA	
113	47-Ag-108	47108.38u	g 47-Ag-108 4728	200	JAEA	
114	47-Ag-109	47109.38u	g 47-Ag-109 4731	200	JAEA	
115	48-Cd-106	48106.38u	g 48-Cd-106 4825	200	JAEA	
116	48-Cd-108	48108.38u	g 48-Cd-108 4831	200	JAEA	
117	48-Cd-110	48110.38u	g 48-Cd-110 4837	200	JAEA	
118	48-Cd-111	48111.38u	g 48-Cd-111 4840	200	JAEA	
119	48-Cd-112	48112.38u	g 48-Cd-112 4843	200	JAEA	
120	48-Cd-113	48113.38u	g 48-Cd-113 4846	200	JAEA	
121	48-Cd-114	48114.38u	g 48-Cd-114 4849	200	JAEA	
122	48-Cd-116	48116.38u	g 48-Cd-116 4855	200	JAEA	
123	49-In-115	49115.38u	g 49-In-115 4931	200	KAERI	Production <sup>(36)</sup>
124	50-Sn-112	50112.38u	g 50-Sn-112 5025	200	JAEA	
125	50-Sn-114	50114.38u	g 50-Sn-114 5031	200	JAEA	
126	50-Sn-115	50115.38u	g 50-Sn-115 5034	200	JAEA	
127	50-Sn-116	50116.38u	g 50-Sn-116 5037	200	KAERI	Production <sup>(36)</sup>
128	50-Sn-117	50117.38u	g 50-Sn-117 5040	200	JAEA	
129	50-Sn-118	50118.38u	g 50-Sn-118 5043	200	CNDC	Production <sup>(3)</sup>
130	50-Sn-119	50119.38u	g 50-Sn-119 5046	200	JAEA	
131	50-Sn-120	50120.38u	g 50-Sn-120 5049	200	JAEA	
132	50-Sn-122	50122.38u	g 50-Sn-122 5055	200	JAEA	
133	50-Sn-124	50124.38u	g 50-Sn-124 5061	200	JAEA	
134	51-Sb-121	51121.38u	g 51-Sb-121 5125	200	JAEA	
135	51-Sb-123	51123.38u	g 51-Sb-123 5131	200	JAEA	
136	52-Te-120	52120.38u	g 52-Te-120 5225	200	JAEA	
137	52-Te-122	52122.38u	g 52-Te-122 5231	200	JAEA	
138	52-Te-123	52123.38u	g 52-Te-123 5234	200	JAEA	
139	52-Te-124	52124.38u	g 52-Te-124 5237	200	JAEA	
140	52-Te-125	52125.38u	g 52-Te-125 5240	200	JAEA	
141	52-Te-126	52126.38u	g 52-Te-126 5243	200	JAEA	
142	52-Te-128	52128.38u	g 52-Te-128 5249	200	JAEA	
143	52-Te-130	52130.38u	g 52-Te-130 5255	200	JAEA	
144	53-I-127	53127.38u	g 53-I-127 5325	200	JAEA	
145	53-I-129	53129.38u	g 53-I-129 5331	200	JAEA	
146	54-Xe-132	54132.38u	g 54-Xe-132 5449	200	JAEA	
147	55-Cs-133	55133.38u	g 55-Cs-133 5525	200	KAERI	Production <sup>(36)</sup>
148	55-Cs-135	55135.38u	g 55-Cs-135 5531	200	JAEA	
149	55-Cs-137	55137.38u	g 55-Cs-137 5537	200	JAEA	
150	56-Ba-138	56138.38u	g 56-Ba-138 5649	200	KAERI	Production <sup>(36)</sup>
151	57-La-139	57139.38u	g 57-La-139 5728	200	JAEA	
152	58-Ce-140	58140.38u	g 58-Ce-140 5837	200	KAERI	Production <sup>(36)</sup>
153	58-Ce-142	58142.38u	g 58-Ce-142 5843	200	KAERI	Production <sup>(36)</sup>
154	59-Pr-141	59141.38u	g 59-Pr-141 5925	200	JAEA	

No.	Nuclide	ZAID	Filename[*].acef], [*].xsd], [*].txt]	Emax [MeV]	Evaluation Institute	Notes
155	60-Nd-142	60142.38u	g 60-Nd-142 6025	200	KAERI	Production <sup>(36)</sup>
156	60-Nd-143	60143.38u	g 60-Nd-143 6028	200	KAERI	Production <sup>(36)</sup>
157	60-Nd-144	60144.38u	g 60-Nd-144 6031	200	KAERI	Production <sup>(36)</sup>
158	60-Nd-145	60145.38u	g 60-Nd-145 6034	200	KAERI	Production <sup>(36)</sup>
159	60-Nd-146	60146.38u	g 60-Nd-146 6037	200	KAERI	Production <sup>(36)</sup>
160	60-Nd-148	60148.38u	g 60-Nd-148 6043	200	KAERI	Production <sup>(36)</sup>
161	60-Nd-150	60150.38u	g 60-Nd-150 6049	200	KAERI	Production <sup>(36)</sup>
162	62-Sm-144	62144.38u	g 62-Sm-144 6225	200	JAEA	
163	62-Sm-147	62147.38u	g 62-Sm-147 6234	200	JAEA	
164	62-Sm-148	62148.38u	g 62-Sm-148 6237	200	JAEA	
165	62-Sm-149	62149.38u	g 62-Sm-149 6240	200	JAEA	
166	62-Sm-150	62150.38u	g 62-Sm-150 6243	200	JAEA	
167	62-Sm-151	62151.38u	g 62-Sm-151 6246	200	JAEA	
168	62-Sm-152	62152.38u	g 62-Sm-152 6249	200	JAEA	
169	62-Sm-154	62154.38u	g 62-Sm-154 6255	200	JAEA	
170	63-Eu-153	63153.38u	g 63-Eu-153 6331	200	KAERI	Production <sup>(36)</sup>
171	64-Gd-156	64156.38u	g 64-Gd-156 6437	200	JAEA	
172	64-Gd-157	64157.38u	g 64-Gd-157 6440	200	JAEA	
173	64-Gd-158	64158.38u	g 64-Gd-158 6443	200	JAEA	
174	64-Gd-160	64160.38u	g 64-Gd-160 6449	200	JAEA	
175	65-Tb-158	65158.38u	g 65-Tb-158 6522	200	JAEA	
176	65-Tb-159	65159.38u	g 65-Tb-159 6525	200	IFIN-HH,UB	Production <sup>(10)</sup>
177	66-Dy-162	66162.38u	g 66-Dy-162 6643	200	JAEA	
178	66-Dy-163	66163.38u	g 66-Dy-163 6643	200	JAEA	
179	67-Ho-165	67165.38u	g 67-Ho-165 6725	200	IFIN-HH,UB	Production <sup>(10)</sup>
180	68-Er-166	68166.38u	g 68-Er-166 6837	200	JAEA	
181	68-Er-170	68170.38u	g 68-Er-170 6849	200	JAEA	
182	69-Tm-169	69169.38u	g 69-Tm-169 6925	200	IFIN-HH,UB	Production <sup>(10)</sup>
183	71-Lu-175	71175.38u	g 71-Lu-175 7125	200	KAERI	Production <sup>(36)</sup>
184	72-Hf-174	72174.38u	g 72-Hf-174 7225	200	JAEA	
185	72-Hf-176	72176.38u	g 72-Hf-176 7231	200	JAEA	
186	72-Hf-177	72177.38u	g 72-Hf-177 7234	200	JAEA	
187	72-Hf-178	72178.38u	g 72-Hf-178 7237	200	JAEA	
188	72-Hf-179	72179.38u	g 72-Hf-179 7240	200	JAEA	
189	72-Hf-180	72180.38u	g 72-Hf-180 7243	200	JAEA	
190	73-Ta-181	73181.38u	g 73-Ta-181 7328	200	IFIN-HH,UB	Production <sup>(10)</sup>
191	74-W-180	74180.38u	g 74-W-180 7425	200	CNDC	Production <sup>(3)</sup>
192	74-W-182	74182.38u	g 74-W-182 7431	200	CNDC	Production <sup>(3)</sup>
193	74-W-183	74183.38u	g 74-W-183 7434	200	CNDC	Production <sup>(3)</sup>
194	74-W-184	74184.38u	g 74-W-184 7437	200	CNDC	Production <sup>(3)</sup>
195	74-W-186	74186.38u	g 74-W-186 7443	200	CNDC	Production <sup>(3)</sup>
196	75-Re-185	75185.38u	g 75-Re-185 7525	200	JAEA	
197	75-Re-187	75187.38u	g 75-Re-187 7531	200	JAEA	

No.	Nuclide	ZAID	Filename[*].acef], [*].xsd], [*].txt]	Emax [MeV]	Evaluation Institute	Notes
198	76-Os-186	76186.38u	g 76-Os-186 7631	200	KAERI	Production <sup>(36)</sup>
199	76-Os-188	76188.38u	g 76-Os-188 7637	200	KAERI	Production <sup>(36)</sup>
200	76-Os-189	76189.38u	g 76-Os-189 7640	200	KAERI	Production <sup>(36)</sup>
201	76-Os-190	76190.38u	g 76-Os-190 7643	200	KAERI	Production <sup>(36)</sup>
202	76-Os-192	76192.38u	g 76-Os-192 7649	200	KAERI	Production <sup>(36)</sup>
203	78-Pt-194	78194.38u	g 78-Pt-194 7837	200	JAEA	
204	79-Au-197	79197.38u	g 79-Au-197 7925	200	JAEA	
205	82-Pb-206	82206.38u	g 82-Pb-206 8231	200	JAEA	
206	82-Pb-207	82207.38u	g 82-Pb-207 8234	200	JAEA	
207	82-Pb-208	82208.38u	g 82-Pb-208 8237	200	JAEA	
208	83-Bi-209	83209.38u	g 83-Bi-209 8325	200	KAERI	Production <sup>(36)</sup>
209	88-Ra-226	88226.38u	g 88-Ra-226 8834	200	JAEA	
210	90-Th-232	90232.38u	g 90-Th-232 9040	200	JAEA	
211	92-U-233	92233.38u	g 92-U-233 9222	200	JAEA	Delayed <sup>(455)</sup>
212	92-U-234	92234.38u	g 92-U-234 9225	200	JAEA	Delayed <sup>(455)</sup>
213	92-U-235	92235.38u	g 92-U-235 9228	200	JAEA	Delayed <sup>(455)</sup>
214	92-U-236	92236.38u	g 92-U-236 9231	200	JAEA	Delayed <sup>(455)</sup>
215	92-U-238	92238.38u	g 92-U-238 9237	200	JAEA	Delayed <sup>(455)</sup>
216	93-Np-237	93237.38u	g 93-Np-237 9346	200	JAEA	Delayed <sup>(455)</sup>
217	94-Pu-238	94238.38u	g 94-Pu-238 9434	200	JAEA	
218	94-Pu-239	94239.38u	g 94-Pu-239 9437	200	JAEA	Delayed <sup>(455)</sup>
219	94-Pu-241	94241.38u	g 94-Pu-241 9443	200	JAEA	Delayed <sup>(455)</sup>

<sup>(3)</sup> Particle production cross sections given in MF3/MT201,203,204,205,206,207

<sup>(10)</sup> Production cross sections given in MF10

<sup>(36)</sup> Production cross sections given by MF6(yields) and MF3(cross sections)

<sup>(455)</sup> Delayed neutron spectra given in MF5/MT455

Appendix A presents a brief description of the ACE-formatted files generated from the IAEA/PD-2019 evaluated photonuclear library containing useful information for MCNP users.

For the 48 materials with production data available (see notes in Table 2) ACE-formatted files are provided with and without production data. Similarly, for the eight fissionable materials with delayed neutron data, two set of ACE-formatted files are available with and without delayed neutron spectra. Therefore, it is up to the final user the choice of the data files depending on whether production tallies and delayed neutron data are needed. It is also worth to mention that some Monte Carlo codes could not be able to correctly manage these files.

### 3.2. Differences between in the ACE-formatted files produced by ACEMAKER and NJOY2016

The differences between ACE-formatted files prepared by ACEMAKER/DOPHN and NJOY2016/ACEPN are due to slightly different processing features that were explained in item 2.1. In addition, some IAEA/PD-2019 evaluations show peculiarities and extensions that cannot be correctly interpreted by the current version of NJOY2016. Therefore, the following main differences can be listed:

1. The evaluations of 13-Al-27, 24-Cr-50, 24-Cr-53, 24-Cr-54, 40-Zr-90, 50-Sn-118, 74-W-180, 74-W-182, 74-W-183, 74-W-184 and 74-W-186 from CNDC include the redundant cross sections MT201, MT203, MT204, MT205, MT206 and MT207 for total neutron and charged particles production. These cross sections are not expected in an original evaluated nuclear data file, therefore NJOY2016 takes them as partial cross sections and adds them incorrectly to the calculated total cross section. ACEMAKER includes a logic segment to correctly treat these reactions if they exist. If the option DPRO is active, then these cross sections are included as production cross sections, which can be used as tally multiplier in the Monte Carlo simulations (Fig. 3).
2. The evaluations of 27-Co-59, 39-Y-89, 45-Rh-103, 65-Tb-169, 67-Ho-165, 69-Tm-169 and 73-Ta-181 from IFIN-HH,UB provide the photon production data in ENDF files MF12 and MF14 for the discrete two-body reactions. This information is normally supplied in the ENDF file MF6 for photonuclear libraries. Therefore, the current version of NJOY2016 is not prepared to process these files and the corresponding data are not included in the ACE-formatted file. ACEMAKER explores if files MF12 and MF14 are provided by evaluators and process them.
3. Forty-eight (48) evaluations in the IAEA/PD-2019 photonuclear library include production data for several products, which can be used as tally multipliers during Monte Carlo simulations. NJOY2016 does not process this information, hence it is not available in the ACE-formatted file. ACEMAKER processes these data and makes them available for Monte Carlo calculations (Appendix A)
4. The evaluations of the fissionable materials 92-U-233, 92-U-234, 92-U-235, 92-U-236, 92-U-238, 93-Np-237, 94-Pu-239 and 94-Pu-241 provide delayed neutron spectra in the ENDF file MF5/MT455. The current version of NJOY2016 ignore these data. ACEMAKER, upon user request ( $DNEU \geq 0$ ), can include the photofission delayed neutron data into the ACE-formatted file.
5. ACEMAKER uses relativistic conversion between the center of mass system and the laboratory reference framework. The code NJOY2016 does not apply any conversion. It produces differences in the calculation of the particle heating numbers and the KERMA factors (Fig. 4). The differences are small for materials with  $A > 20$ . For the lighter isotopes 1-H-2 and 2-He-3, the maximum deviations are lesser than 5 % at high incident energies.
6. The evaluation of 2-He-3 from JAEA uses implicit representation. It means that all cross-sections are lumped in MT5 and the energy-angle distributions for all outgoing particles are given in MF6/MT5. The ENDF/MF6/LAW=2 is used for the outgoing deuterons. This LAW should be used in the case of discrete two-body reactions with well-defined Q-value. For two-body reactions, the yields for the outgoing particle and the recoil nucleus are equal to one, but it is not the case for this lumped reaction. The NJOY2016 processing system expects that LAW=2 is always used for a two-body reaction, therefore it assumes that yields are equal to one for heating calculations. It causes the deuteron heating to be wrong (Fig. 5).
7. Due to a bug in the NJOY2016 code, if the ENDF/MF6/LAW=2 used for describing the energy-angle distribution of an outgoing particle, the KERMA factor is incorrectly computed because particle heating contributions are double-counted. This problem affects



the KERMA factors for 1-H-2, 2-He-3, 4-Be-9, 6-C-12, 7-N-12, 7-N-14, and 8-O-16 (Fig. 6).

8. The evaluation of 1-H-2 uses ENDF/MF6/LAW=4 to describe the recoil proton. This issue is also not detected by the current version of NJOY2016 code. This issue combined with the previous bug produce an overestimation of the KERMA value by a factor of almost five (Fig. 7).
9. The KERMA factor of 6-C-14, 27-Co-59, 39-Y-89, 45-Rh-103, 50-Sn-116, 56-Ba-138, 58-Ce-140, 60-Nd-142, 62-Sm-148, 63-Eu-153, 83-Bi-209, and 88-Ra-226 shows negatives values at low energies. It could be due to a wrong energy balance. ACEMAKER sets to zero these negative values. NJOY2016 keeps the negative KERMA factors. Therefore, the ACE-formatted files are different (Fig. 8).

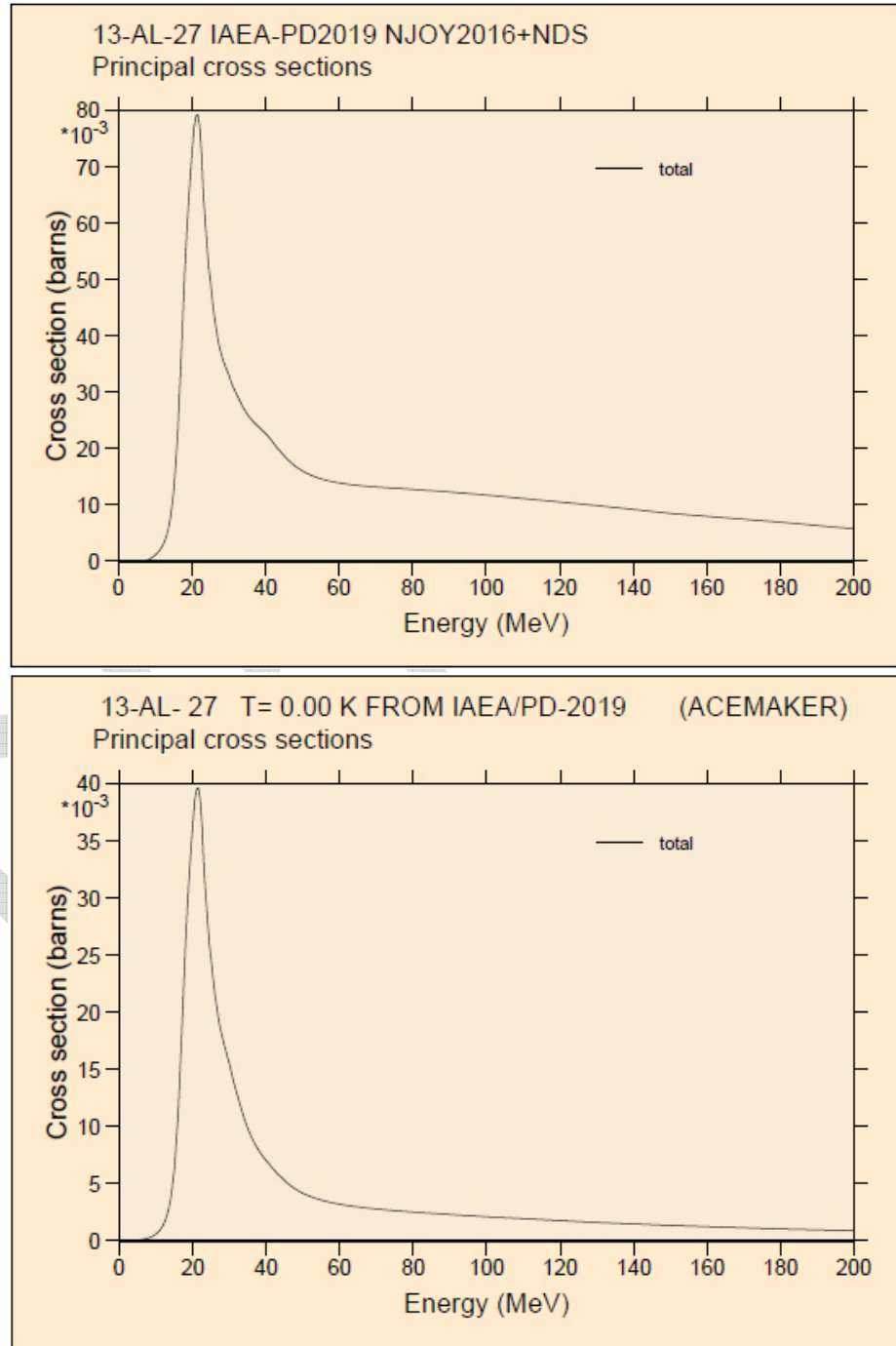
### 3.3. Comments on some evaluated nuclear data files

During the processing of the evaluated photonuclear data files from the IAEA/PD-2019 some issues were detected, which do not affect the processing itself, but it is worth to mention here:

1. The evaluation of 2-He-3 uses LAW=2 in MF6/MT5 for deuterons. MT=5 is not a two-body reaction, and the Q- value is not well defined. Therefore, the energy distribution could be incorrect.
2. The evaluation of 4-Be-9 considers the reactions MT=32, MT=35 and MT=41 as break-up reactions given the yields of the final products in the corresponding MF6 section. It is not a problem, but it could be useful to specify the break-up ways in MF1/MT451.
3. The total inelastic reaction MT=3 does not match the sum of the partials below 1.6 MeV for 6-C-12. It is not a problem, because all the non-redundant cross sections are not given below 1.6 MeV and the processing codes reconstruct redundant cross sections if they are needed.
4. The evaluation of 7-N-14 specifies MT=118 as the break-up reaction:  ${}^{14}_7\text{N}(\gamma,3d){}^8_4\text{Be} \rightarrow 2\alpha$ . This MT number is an extension of the ENDF-6/MT definitions. It can be managed by processing codes. The energy-angle distribution of MT=102 (radiative capture) is missing in MF6.
5. The evaluation of 13-Al-27 shows too small values of reaction Q-value compared to T threshold for reactions MF3/MT201,MT203,MT204,MT205,MT206 and MT207 ( $T/Q=10^6$ ).
6. The reaction MT=201(Total production of neutrons) for 50-Sn-118 shows a non-monotonic incident energy grid. One additional incorrect point is given with null incident energy above 200 MeV. It was corrected in the evaluated nuclear data file.
7. The evaluations of 67-Ho-165, 69-Tm-169 and 73-Ta-181 have an incorrect first incident energy point for the TAB1 yields of the two-body reactions given in MF6 if the Q-value is positive. It had no impact on the processing and was corrected in the evaluated files.
8. For 39-Y-89 the reaction MF3/MT73 is missing and for 69-Tm-169 the reactions. MF3/MT606, MT617, MT632, MT816 and MT830 are also missing. These reactions are ignored by ACEMAKER during the processing because it is assumed that they were removed due to their negligible value.

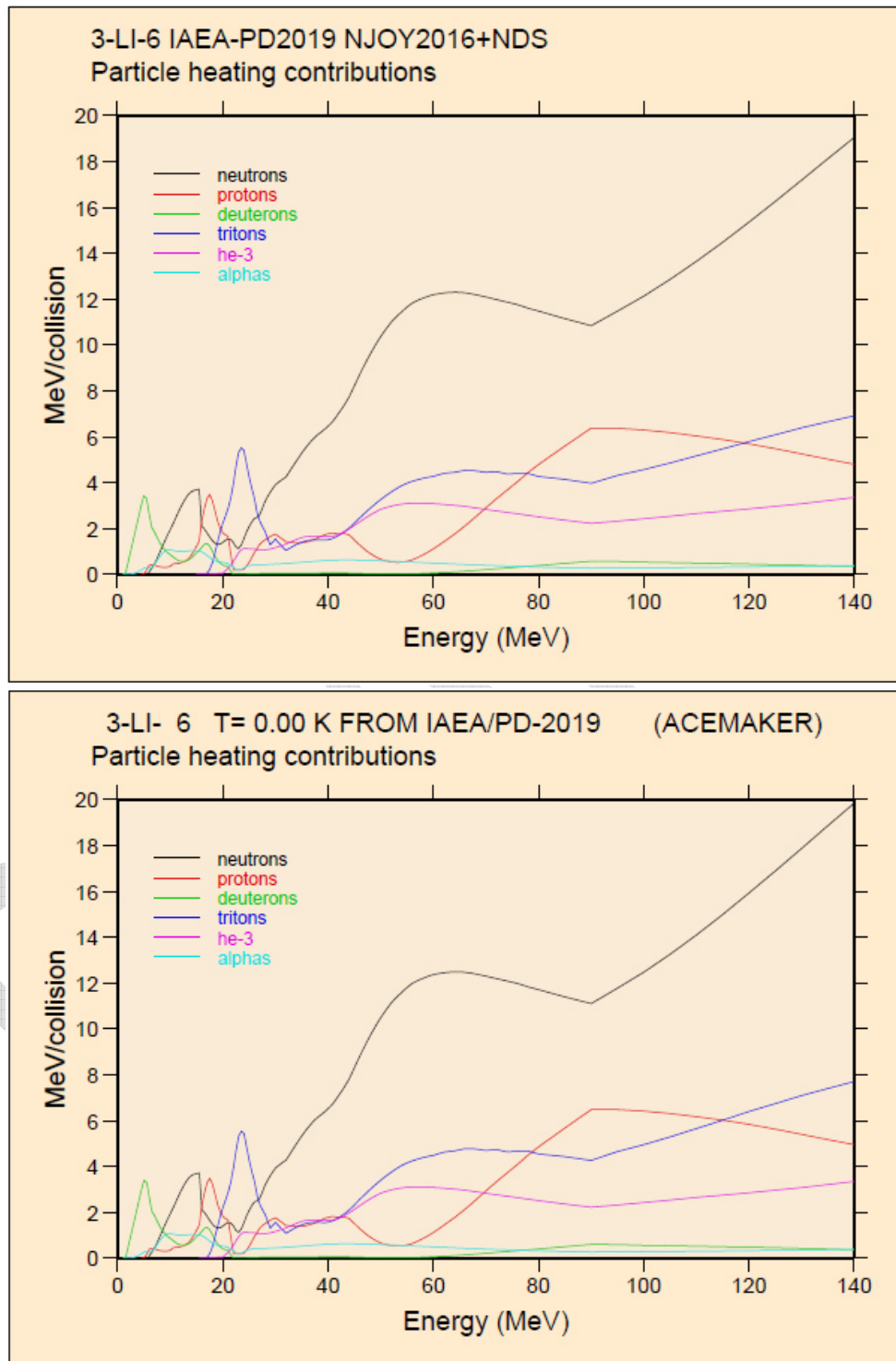
9. The energy-angle distributions of the tungsten isotopes (W-180,182,183,184,186) given in MF6 for the massive particles seem to be unrealistic. On the other hand, the yields for photon production given in MF6 are zero at all incident energies.

Figure 3. Doble-counting of MT201,203,204,205,206,207 in the total cross section



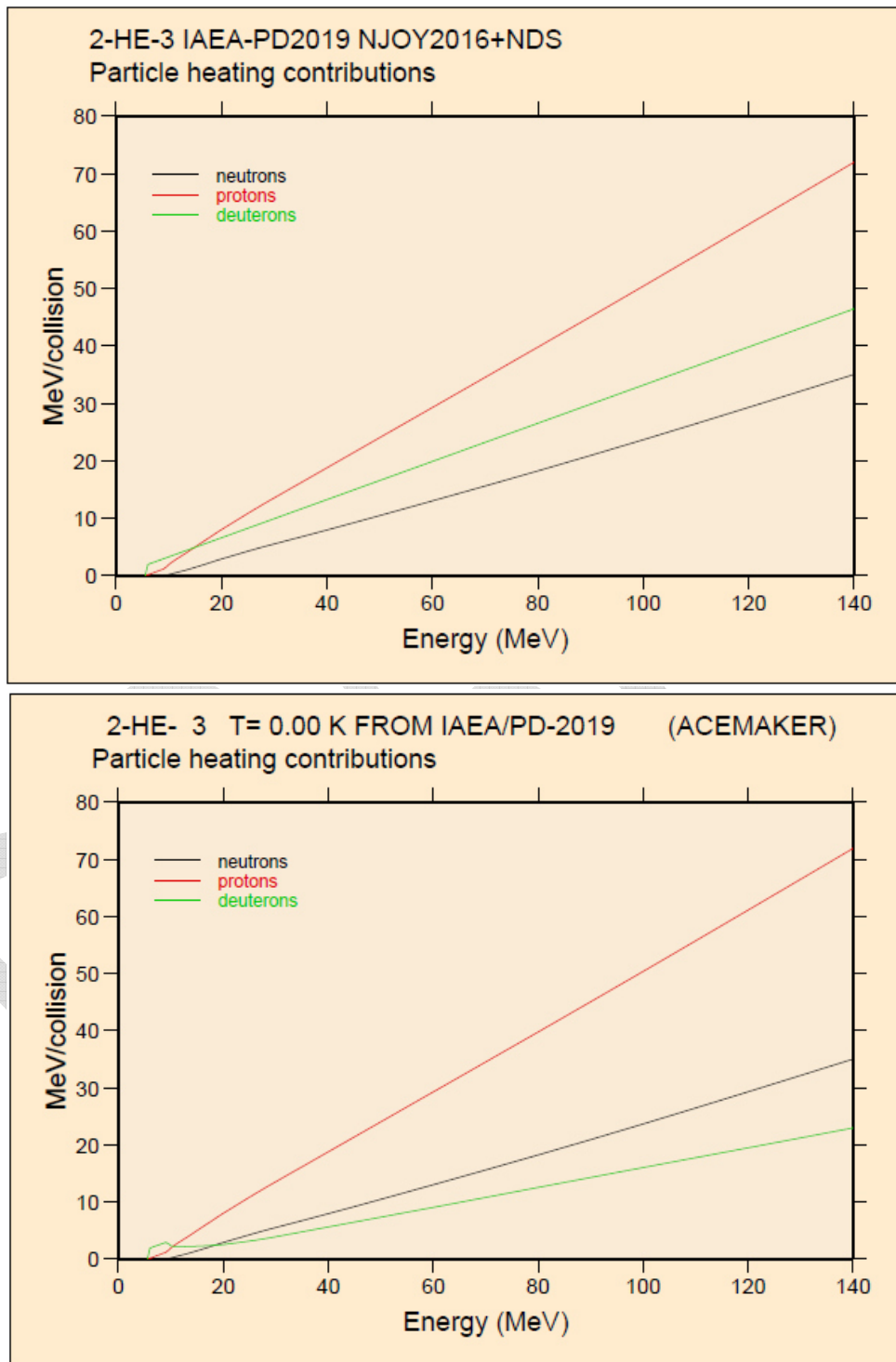
\*Upper: NJOY2016, Lower: ACEMAKER (Note the different scale of the Y axis)

Figure 4. Impact for applying relativistic kinematic conversion from CM to LAB system



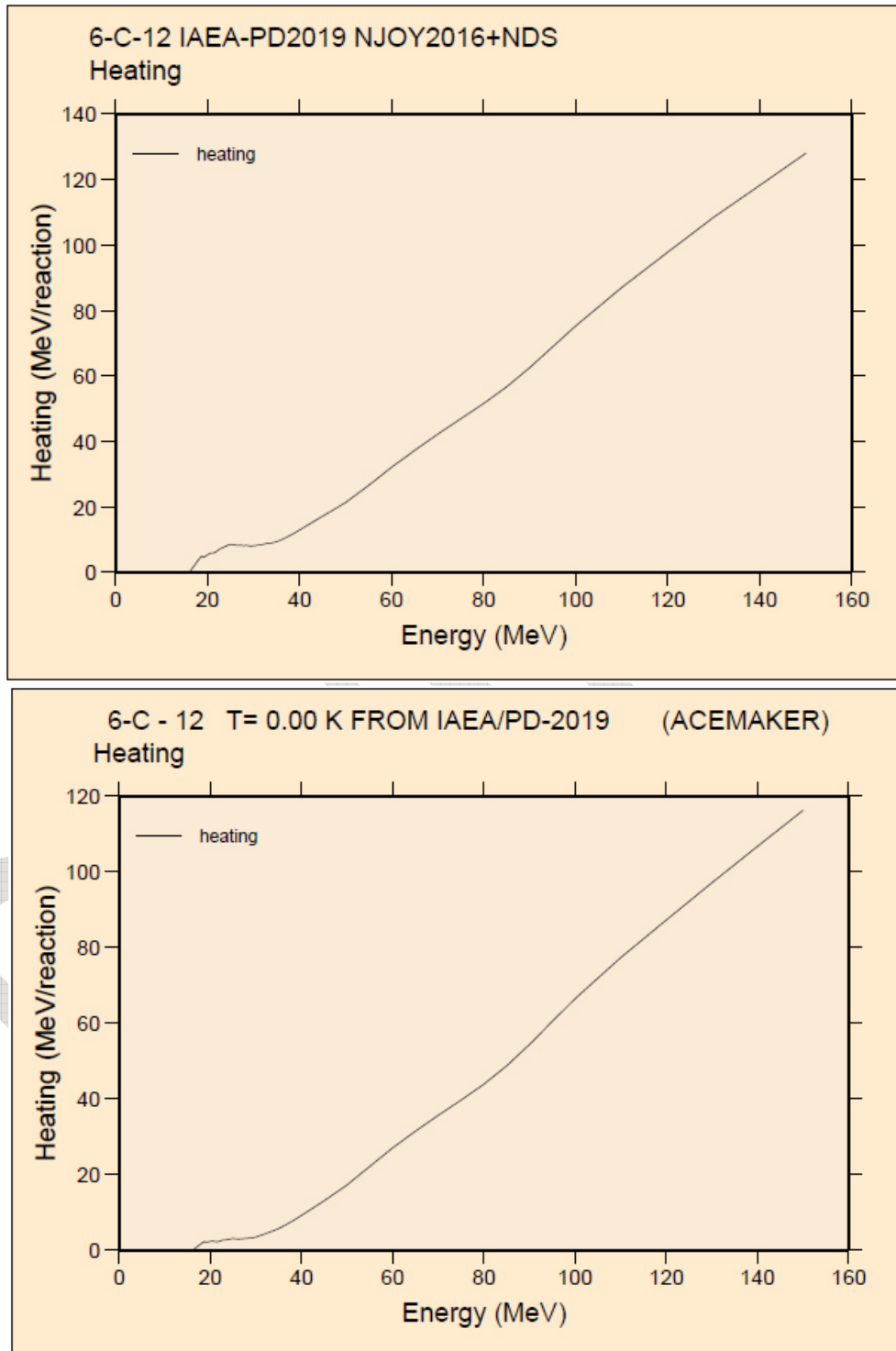
\*Upper: NJOY2016, Lower: ACEMAKER (Note differences at 200 MeV)

Figure 5. Problems with ENDF/MF6/LAW=2 given in MT5 (2-He-3)



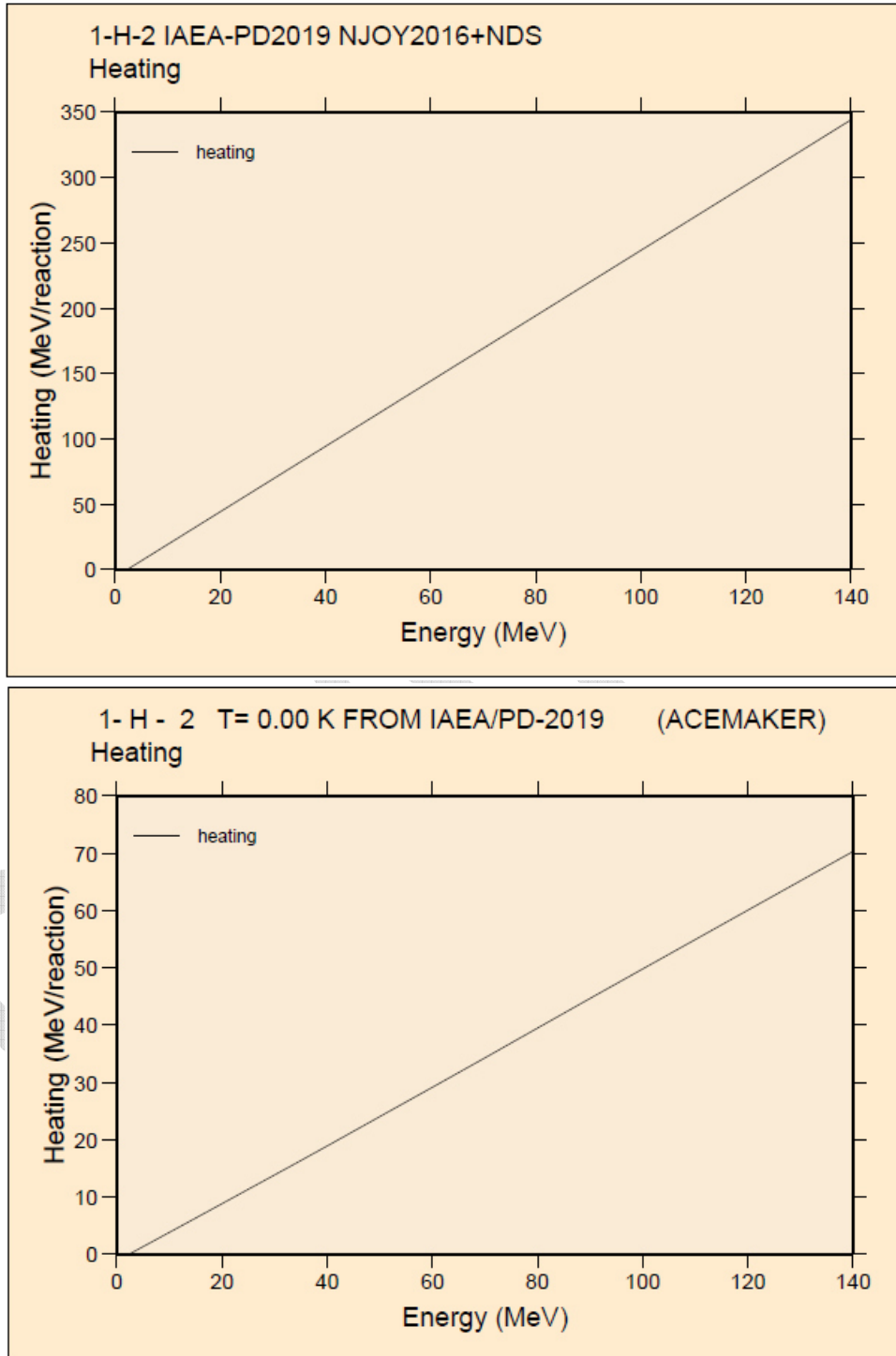
\*Upper: NJOY2016, Lower: ACEMAKER (Note differences in the deuteron heating)

Figure 6: Doble-counting of the particle heating contributions to the KERMA factor



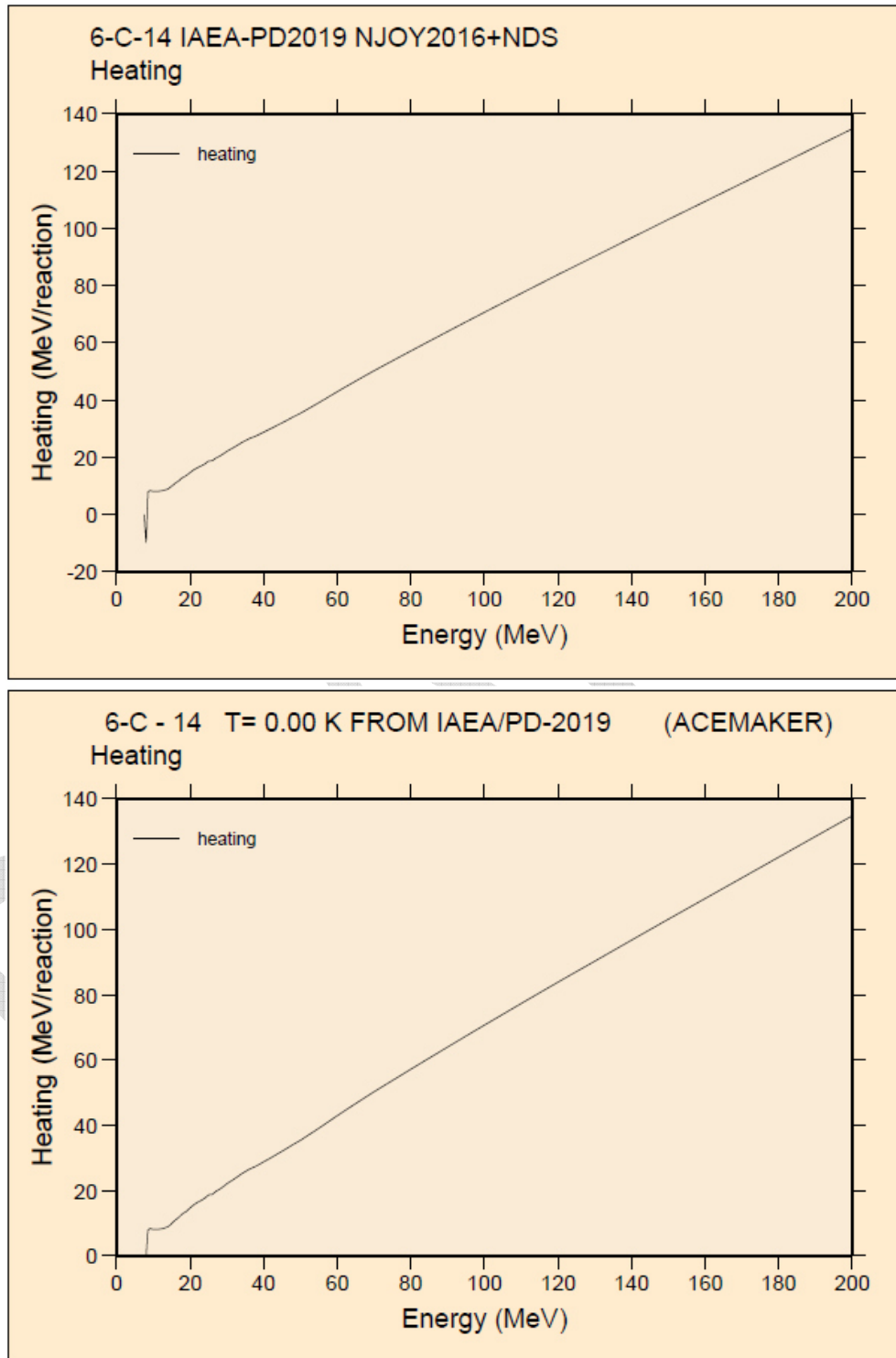
\*Upper: NJOY2016, Lower: ACEMAKER (Note the different scale of the Y axis)

Figure 7: Incorrect calculation of KERMA factor for the 1-H-2



\*Upper: NJOY2016, Lower: ACEMAKER (Note the different scale of the Y axis)

Figure 8. Treatment of negative KERMA factors



\*Upper: NJOY2016, Lower: ACEMAKER (Note negative heating values at lower energies)



## 4. Availability

The ACE-formatted library for Monte Carlo calculations generated from the IAEA/PD-2019 evaluated photonuclear library is available from the IAEA Nuclear Data Section web page <https://www-nds.iaea.org/photonuclear/>. An ACE-formatted library is provided including the production (activation/dosimetry) cross-sections and the photofission delayed neutron spectra. Alternately, a set of ACE-formatted files is also supplied excluding production cross sections and photofission delayed neutron data.

## 5. Final comments and recommendations

The processing of photonuclear data has been implemented in the package code ACEMAKER. The IAEA/PD-2019 photonuclear library has been successfully processed and the corresponding ACE-formatted files are freely available at the IAEA Nuclear Data Section web page <https://www-nds.iaea.org/photonuclear/>.

The ACE-formatted files generated by ACEMAKER and by the current version of NJOY2016 were compared. The differences were explained and are documented in this report.

It is recommended to use the ACE-formatted files generated by ACEMAKER for Monte Carlo simulations where photonuclear data play a relevant role.

The verification and validation process as part of the quality assurance program of the IAEA/NDS products will be continued considering the feedback from evaluators and final users.

## 6. References

- [1] Kawano T., et al. “IAEA Photonuclear Data Library 2019”. Nuclear Data Sheets, Volume 163, January 2020, pp. 109-162.
- [2] Trkov, A., Hernan M., Brown, D.A., “ENDF-6 Formats Manual Data Formats and Procedures for the Evaluated Nuclear Data Files ENDF/B-VI, ENDF/B-VII and ENDF/B-VIII”, BNL-203218-2018-INRE Rev.215, National Nuclear Data Center, Brookhaven National Laboratory, Upton NY, USA, February 1, 2018.
- [3] Kawada, H., Sublet, J-Ch., Okumura, S., Kawano, T., “Processing the Evaluated Photonuclear Data Library (IAEA/PD-2019)”, IAEA-NDS-0232, IAEA, Vienna, Austria, August 2020.
- [4] MacFarlane, R.E., Muir, D.W., Boicourt, R.M., Kahler, A.C., Colin J. L., Haeck, W., “The NJOY Nuclear Data Processing System, Version 2016”, LA-UR-17-20093, Los Alamos National Laboratory, NM, USA, Updated for NJOY2016.53, November 7, 2019.
- [5] MCNP – “A General Monte Carlo N-Particle Transport Code, Version 5, Volume III: Developer’s guide, X-5 Monte Carlo Team”, LA-CP-03-0284, Los Alamos National Laboratory, NM, USA, April 24, 2003, (Revised 02/01/2008).
- [6] Werner, C. J.(editor), “MCNP User Manual – Code versión 6.2”. LA-UR-17-29981, Los Alamos National Laboratory, NM, USA, October, 2017.
- [7] Lopez, Aldama, D., Capote, Noy, R. “Processing Evaluated Photonuclear Data for Actinides from the IAEA/PD-2019 Library”, INDC(NDS)-0832, IAEA, Vienna, Austria, August 2021.
- [8] Lopez Aldama, D., Trkov, A., “ACEMAKER-2.0: A code package to produce ACE-



- formatted files for MCNP calculations”, IAEA-NDS-223, Vienna, Austria, 2022.
- [9] Caro, E., “Relativistic kinematics for photoneutron production in Monte Carlo Transport calculations”, *Ann. Nucl. En.* **96** (2016) 170-175.
- [10] Fynan, D.A., “Photoneutron reaction kinematics and error of commonly used approximations”, *Nucl. Inst. Meth. Phys. Res.* **A977** (2020) 164271.
- [11] Cullen, D.E., “PREPRO 2019: 2019 ENDF/B-VIII Pre-processing codes”, IAEA NDS-229 Rev.20, IAEA, Vienna, Austria, 2019.

DRAFT

## Appendix A

Symbols used in the tables:

T: Temperature  
Z: atomic number  
A: mass number  
ZAID: Identification number for MCNP =  $(1000*Z+A).38u$   
MAT: ENDF-6 material number  
ZA: ENDF-6 ZA number =  $(1000*Z+A)$   
AWR: Atomic weight ratio (relative to neutron mass)  
STA: Target nucleus stability flag (0 = stable, 1 = unstable)  
ELIS: Excitation energy of the target nucleus relative to 0.0 ground state in MeV  
LIS: State number of the target nucleus  
LISO: Isomeric state number of the target nucleus ( $LIS \geq LISO$ )  
MT: ENDF-6 reaction identification number  
NTOTR: Total number of partial reactions given in the ACE-formatted file (Number of partials MTs)  
NTRAN: Total number of partial reactions involved in transport calculation  
NPROD: Total number of partial reactions for production tallies  
NE: Number of incident energy points in the common energy grid  
EMAX: Maximum incident energy in MeV  
FMn: Tally multiplier identification for MCNP  
Q: Reaction Q-value in MeV  
T: Reaction threshold or effective threshold in MeV  
LMF: ENDF file number (3, 6, or 10) in which the multiplicity or the cross section for this reaction will be found on the evaluated nuclear data file  
ZAP: ZA number of the product or outgoing particle  
LFS: Level number of the state (including ground and all levels) of the product designated by ZAP formed due to this reaction  
NR: Number of partial reactions that produce the particle p designated by ZAP  
Tp: Threshold or effective threshold for producing particle p designated by ZAP in MeV

ZAP of the main outgoing particles  
ZAP= 1 for neutrons  
ZAP= 0 for photons  
ZAP=1001 for protons  
ZAP=1002 for deuterons  
ZAP=1003 for tritons  
ZAP=2003 for He-3 particles  
ZAP=2004 for  $\alpha$  particles

For production cross sections used as tallies, the MT number required for the tally multipliers FMn are the FMn/MT identifiers given in the tables below for each material (ZAID).

Transport cross section are the first NTRAN reactions. For the set of files without production/dosimetry cross section NPROD=0 and the production cross sections are not included.

-----  
1- H - 2 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 1002.38u MAT= 128 ZA= 1002  
AWR= 1.996800 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 77 EMAX= 140.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 50 -2.224000 2.224000 3 50  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 2.224000  
2 1001 9 1 2.224000  
-----

-----  
2-He- 3 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 2003.38u MAT= 225 ZA= 2003  
AWR= 2.989030 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 42 EMAX= 140.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 5.493500 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 9.000000  
2 1001 9 1 5.493500  
3 1002 31 1 5.493500  
-----

-----  
3-Li- 6 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 3006.38u MAT= 325 ZA= 3006  
AWR= 5.963450 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 173 EMAX= 140.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 5.666400  
2 1001 9 1 4.594000  
3 1002 31 1 1.000000  
4 1003 32 1 15.500000  
5 2003 33 1 15.500000  
6 2004 34 1 1.000000  
-----

-----  
3-Li- 7 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 3007.38u MAT= 328 ZA= 3007  
AWR= 6.955730 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 171 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 2.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.250400  
 2 1001 9 1 9.975000  
 3 1002 31 1 9.500000  
 4 1003 32 1 2.000000  
 5 2003 33 1 25.500000  
 6 2004 34 1 2.000000

-----

-----

4-Be- 9 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 4009.38u MAT= 425 ZA= 4009  
 AWR= 8.934780 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 18 NTRAN= 18 NPROD= 0 NE= 228 EMAX= 150.000 MeV

i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 16 -20.563000 20.588000 3 16  
 2 24 -22.160000 22.189000 3 24  
 3 28 -18.920000 18.941000 3 28  
 4 29 -1.572000 1.572100 3 29  
 5 32 -23.945000 23.979000 3 32  
 6 33 -21.387000 21.414000 3 33  
 7 35 -25.420000 25.458000 3 35  
 8 41 -27.644000 27.690000 3 41  
 9 115 -26.670000 26.712000 3 115  
 10 117 -19.163000 19.185000 3 117  
 11 600 -16.887000 16.904000 3 600  
 12 601 -17.868000 17.887000 3 601  
 13 650 -16.696000 16.713000 3 650  
 14 651 -17.174000 17.191000 3 651  
 15 700 -17.688000 17.707000 3 700  
 16 701 -21.251000 21.278000 3 701  
 17 750 -21.176000 21.203000 3 750  
 18 751 -22.973000 23.004000 3 751

p ZAP IP NR Tp [MeV]  
 1 1 1 7 1.572100  
 2 1001 9 6 16.904000  
 3 1002 31 7 16.713000  
 4 1003 32 5 17.707000  
 5 2003 33 3 21.203000  
 6 2004 34 6 1.572100

-----

-----

6-C - 12 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 6012.38u MAT= 625 ZA= 6012

AWR= 11.896910 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----  
NTOTR= 32 NTRAN= 32 NPROD= 0 NE= 105 EMAX= 150.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	22	-26.263000	26.712000	3	22		
2	28	-27.410000	27.444000	3	28		
3	34	-27.852000	27.887000	3	34		
4	50	-18.721000	18.737000	3	50		
5	51	-20.721000	20.740000	3	51		
6	52	-23.040000	23.064000	3	52		
7	53	-23.525000	23.550000	3	53		
8	54	-25.060000	25.088000	3	54		
9	55	-25.199000	25.228000	3	55		
10	56	-25.626000	25.655000	3	56		
11	57	-26.121000	26.152000	3	57		
12	111	-27.185000	27.500000	3	111		
13	112	-24.620000	25.000000	3	112		
14	114	-31.122000	31.165000	3	114		
15	115	-31.772000	32.000000	3	115		
16	116	-27.089000	27.500000	3	116		
17	117	-29.645000	30.000000	3	117		
18	600	-15.957000	16.000000	3	600		
19	601	-18.082000	18.096000	3	601		
20	602	-20.402000	20.588000	3	602		
21	603	-20.977000	21.203000	3	603		
22	604	-22.699000	22.722000	3	604		
23	605	-22.749000	22.772000	3	605		
24	606	-23.243000	23.408000	3	606		
25	607	-23.935000	24.000000	3	607		
26	608	-24.517000	24.750000	3	608		
27	650	-25.186000	25.250000	3	650		
28	651	-25.904000	26.000000	3	651		
29	652	-26.926000	27.000000	3	652		
30	653	-27.340000	27.500000	3	653		
31	654	-28.773000	29.000000	3	654		
32	750	-26.278000	26.712000	3	750		

p	ZAP	IP	NR	TP [MeV]
1	1	1	11	18.737000
2	1001	9	14	16.000000
3	1002	31	8	25.250000
4	1003	32	1	27.500000
5	2003	33	2	26.712000
6	2004	34	6	25.000000

-----  
6-C - 13 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 6013.38u MAT= 628 ZA= 6013

AWR= 12.891650 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----  
NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 79 EMAX= 140.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
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1 5 0.000000 4.946300 3 5

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	4.946300
2	0	2	1	4.946300
3	1001	9	1	17.533500
4	1002	31	1	19.000000
5	1003	32	1	24.000000
6	2004	34	1	11.000000

6-C - 14 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 6014.38u MAT= 631 ZA= 6014  
AWR= 13.882950 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 29 NTRAN= 1 NPROD= 28 NE= 75 EMAX= 200.000 MeV

i	Fm/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	7.500000	3	5		
2	50000001	0.000000	8.000000	6	5	1	0
3	50001001	0.000000	20.000000	6	5	1001	0
4	50001002	0.000000	23.000000	6	5	1002	0
5	50001003	0.000000	20.000000	6	5	1003	0
6	50002003	0.000000	32.000000	6	5	2003	0
7	50002004	0.000000	12.000000	6	5	2004	0
8	50003006	0.000000	40.000000	6	5	3006	0
9	50003007	0.000000	30.000000	6	5	3007	0
10	50003008	0.000000	36.000000	6	5	3008	0
11	50003009	0.000000	32.000000	6	5	3009	0
12	50003010	0.000000	70.000000	6	5	3010	0
13	50004007	0.000000	44.000000	6	5	4007	0
14	50004008	0.000000	27.000000	6	5	4008	0
15	50004009	0.000000	20.000000	6	5	4009	0
16	50004010	0.000000	12.500000	6	5	4010	0
17	50004011	0.000000	32.000000	6	5	4011	0
18	50004012	0.000000	40.000000	6	5	4012	0
19	50005008	0.000000	80.000000	6	5	5008	0
20	50005009	0.000000	46.000000	6	5	5009	0
21	50005010	0.000000	32.000000	6	5	5010	0
22	50005011	0.000000	20.000000	6	5	5011	0
23	50005012	0.000000	23.000000	6	5	5012	0
24	50005013	0.000000	20.000000	6	5	5013	0
25	50006010	0.000000	64.000000	6	5	6010	0
26	50006011	0.000000	32.000000	6	5	6011	0
27	50006012	0.000000	17.500000	6	5	6012	0
28	50006013	0.000000	8.000000	6	5	6013	0
29	50006014	0.000000	7.500000	6	5	6014	0

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	8.000000
2	0	2	1	7.500000
3	1001	9	1	20.000000
4	1002	31	1	23.000000

```

5 1003 32 1 20.000000
6 2003 33 1 32.000000
7 2004 34 1 12.000000

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7-N - 14 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)
ZAID= 7014.38u MAT= 725 ZA= 7014
AWR= 13.882780 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0
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NTOTR= 48 NTRAN= 48 NPROD= 0 NE= 199 EMAX= 150.000 MeV
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS
1 16 -30.617000 31.464000 3 16
2 23 -19.772000 20.752000 3 23
3 28 -12.497000 12.503000 3 28
4 32 -28.994000 29.329000 3 32
5 34 -32.189000 32.229000 3 34
6 35 -37.684000 39.000000 3 35
7 36 -35.459000 36.000000 3 36
8 44 -28.454000 29.675000 3 44
9 50 -10.553000 10.557000 3 50
10 102 0.000000 9.172010 3 102
11 108 -16.070000 17.202000 3 108
12 109 -29.399000 30.000000 3 109
13 111 -25.084000 26.256000 3 111
14 112 -18.197000 19.000000 3 112
15 113 -31.868000 33.000000 3 113
16 114 -17.548000 18.055000 3 114
17 115 -26.230000 27.084000 3 115
18 116 -31.426000 31.464000 3 116
19 117 -30.279000 30.653000 3 117
20 118 -41.395000 43.000000 3 118
21 600 -7.551000 7.553200 3 600
22 601 -10.640000 10.645000 3 601
23 602 -11.236000 11.410000 3 602
24 603 -11.405000 11.616000 3 603
25 650 -10.273000 10.277000 3 650
26 651 -14.712000 14.852000 3 651
27 700 -22.737000 23.003000 3 700
28 701 -24.737000 25.108000 3 701
29 702 -27.056000 27.084000 3 702
30 703 -27.541000 27.570000 3 703
31 704 -29.076000 29.432000 3 704
32 705 -29.215000 29.500000 3 705
33 706 -29.642000 30.000000 3 706
34 707 -30.237000 30.653000 3 707
35 750 -20.736000 21.134000 3 750
36 751 -22.861000 23.003000 3 751
37 752 -25.181000 25.500000 3 752
38 753 -25.756000 26.256000 3 753
39 754 -27.479000 28.000000 3 754
40 755 -27.528000 28.063000 3 755
41 756 -28.022000 28.500000 3 756

```

42	757	-28.714000	29.248000	3 757
43	758	-29.296000	29.675000	3 758
44	800	-11.611000	12.503000	3 800
45	801	-12.329000	13.250000	3 801
46	802	-13.351000	14.200000	3 802
47	803	-13.765000	14.720000	3 803
48	804	-15.198000	16.080000	3 804

p	ZAP	IP	NR	TP [MeV]
1	1	1	8	10.557000
2	1001	9	11	7.553200
3	1002	31	16	10.277000
4	1003	32	3	30.653000
5	2003	33	12	21.134000
6	2004	34	13	12.503000

7-N - 15 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 7015.38u MAT= 728 ZA= 7015  
 AWR= 14.871250 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 81 EMAX= 140.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	10.960000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.960000
2	0	2	1	10.960000
3	1001	9	1	10.960000
4	1002	31	1	16.500000
5	1003	32	1	15.000000
6	2004	34	1	11.500000

8-O - 16 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 8016.38u MAT= 825 ZA= 8016  
 AWR= 15.853160 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 57 NTRAN= 57 NPROD= 0 NE= 192 EMAX= 150.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	16	-28.885000	29.000000	3	16		
2	22	-25.882000	25.905000	3	22		
3	23	-35.014000	37.000000	3	23		
4	28	-22.960000	23.136000	3	28		
5	29	-33.427000	35.055000	3	29		
6	32	-34.537000	36.000000	3	32		
7	34	-27.739000	27.791000	3	34		
8	41	-33.513000	34.284000	3	41		
9	50	-15.663000	15.671000	3	50		
10	51	-20.846000	20.861000	3	51		



11	52	-20.904000	20.919000	3	52
12	53	-21.839000	21.855000	3	53
13	54	-22.456000	22.473000	3	54
14	55	-22.522000	22.539000	3	55
15	56	-22.939000	22.957000	3	56
16	109	-14.437000	15.671000	3	109
17	111	-22.335000	22.846000	3	111
18	112	-23.118000	26.451000	3	112
19	113	-34.245000	35.055000	3	113
20	114	-31.009000	31.041000	3	114
21	115	-28.287000	29.000000	3	115
22	116	-26.976000	27.791000	3	116
23	117	-32.347000	33.000000	3	117
24	600	-12.127000	12.132000	3	600
25	601	-17.397000	17.500000	3	601
26	602	-17.426000	17.500000	3	602
27	603	-18.451000	18.500000	3	603
28	604	-19.282000	19.500000	3	604
29	605	-19.428000	19.707000	3	605
30	606	-19.694000	19.707000	3	606
31	607	-20.440000	20.750000	3	607
32	608	-20.698000	21.000000	3	608
33	609	-21.177000	21.500000	3	609
34	610	-21.279000	21.500000	3	610
35	611	-21.282000	21.500000	3	611
36	612	-21.349000	21.500000	3	612
37	613	-21.887000	22.210000	3	613
38	614	-21.956000	22.210000	3	614
39	615	-22.052000	22.352000	3	615
40	616	-22.193000	22.500000	3	616
41	650	-20.736000	21.000000	3	650
42	651	-23.049000	23.136000	3	651
43	652	-24.684000	25.000000	3	652
44	653	-25.651000	26.000000	3	653
45	654	-25.842000	26.000000	3	654
46	655	-26.427000	26.671000	3	655
47	656	-26.570000	26.671000	3	656
48	657	-26.940000	27.207000	3	657
49	658	-27.182000	27.500000	3	658
50	659	-27.765000	28.000000	3	659
51	700	-25.032000	25.053000	3	700
52	750	-22.793000	24.000000	3	750
53	751	-25.882000	27.000000	3	751
54	752	-26.478000	27.500000	3	752
55	753	-26.647000	27.791000	3	753
56	800	-7.161000	7.162700	3	800
57	801	-11.600000	12.132000	3	801

p	ZAP	IP	NR	Tp [MeV]
1	1	1	15	15.671000
2	1001	9	25	12.132000
3	1002	31	14	21.000000
4	1003	32	2	27.791000
5	2003	33	6	24.000000

8-O - 17 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 8017.38u MAT= 828 ZA= 8017  
 AWR= 16.853100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 86 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 4.500000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 4.500000  
 2 0 2 1 4.500000  
 3 1001 9 1 14.000000  
 4 1002 31 1 14.500000  
 5 1003 32 1 19.000000  
 6 2004 34 1 6.359000

8-O - 18 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 8018.38u MAT= 831 ZA= 8018  
 AWR= 17.844540 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 95 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 6.230000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.044500  
 2 0 2 1 6.230000  
 3 1001 9 1 15.942200  
 4 1002 31 1 20.000000  
 5 1003 32 1 16.000000  
 6 2004 34 1 6.230000

9-F - 19 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 9019.38u MAT= 925 ZA= 9019  
 AWR= 18.835000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 267 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 4.012200 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 10.431000  
 2 1001 9 1 7.994100

3	1002	31	1	13.814000
4	1003	32	1	11.699000
5	2003	33	1	22.100000
6	2004	34	1	4.012200

-----

11-Na- 23 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 11023.38u MAT=1125 ZA= 11023  
 AWR= 22.792280 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 71 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 8.794100 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 12.418500  
 2 0 2 1 8.794100  
 3 1001 9 1 9.000000  
 4 1002 31 1 17.500000  
 5 1003 32 1 18.000000  
 6 2004 34 1 11.000000

-----

12-Mg- 24 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 12024.38u MAT=1225 ZA= 12024  
 AWR= 23.779000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 79 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 9.310600 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 16.531200  
 2 0 2 1 9.310600  
 3 1001 9 1 12.000000  
 4 1002 31 1 23.000000  
 5 1003 32 1 27.000000  
 6 2004 34 1 9.310600

-----

12-Mg- 25 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 12025.38u MAT=1228 ZA= 12025  
 AWR= 24.771200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 87 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 7.330700 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.330700
2	0	2	1	7.330700
3	1001	9	1	12.500000
4	1002	31	1	17.000000
5	1003	32	1	23.500000
6	2004	34	1	10.500000

-----

12-Mg- 26 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 12026.38u MAT=1231 ZA= 12026  
 AWR= 25.759390 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 81 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 10.611800 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.092700
2	0	2	1	10.611800
3	1001	9	1	14.142800
4	1002	31	1	22.000000
5	1003	32	1	22.000000
6	2004	34	1	11.500000

-----

13-Al- 27 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 13027.38u MAT=1325 ZA= 13027  
 AWR= 26.750000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 7 NTRAN= 1 NPROD= 6 NE= 102 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 2.000000 3 5  
 2 201 -0.000013 13.058700 3 201  
 3 203 -0.000008 8.272700 3 203  
 4 204 -0.000017 17.141300 3 204  
 5 205 -0.000018 19.000000 3 205  
 6 206 -0.000024 25.000000 3 206  
 7 207 -0.000010 11.000000 3 207

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	13.000000
2	0	2	1	2.000000
3	1001	9	1	8.000000
4	1002	31	1	17.000000
5	1003	32	1	18.500000
6	2003	33	1	24.500000
7	2004	34	1	11.000000

-----

-----  
14-Si- 27 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 14027.38u MAT=1422 ZA= 14027  
AWR= 26.754870 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 80 EMAX= 140.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 7.464000 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 13.311800  
2 0 2 1 7.464000  
3 1001 9 1 8.000000  
4 1002 31 1 17.000000  
5 1003 32 1 27.280300  
6 2004 34 1 11.000000  
-----

-----  
14-Si- 28 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 14028.38u MAT=1425 ZA= 14028  
AWR= 27.736590 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 81 EMAX= 140.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 9.984300 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 17.178900  
2 0 2 1 9.984300  
3 1001 9 1 12.000000  
4 1002 31 1 24.000000  
5 1003 32 1 28.000000  
6 2004 34 1 9.984300  
-----

-----  
14-Si- 29 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 14029.38u MAT=1428 ZA= 14029  
AWR= 28.727560 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 71 EMAX= 140.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 8.473900 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 8.473900  
2 0 2 1 8.473900  
3 1001 9 1 12.333400  
4 1002 31 1 18.000000  
5 1003 32 1 25.000000  
-----

6 2004 34 1 12.000000

14-Si- 30 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 14030.38u MAT=1431 ZA= 14030  
AWR= 29.716280 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 68 EMAX= 140.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 10.609600 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 10.609600  
2 0 2 1 10.609600  
3 1001 9 1 14.000000  
4 1002 31 1 21.000000  
5 1003 32 1 22.500000  
6 2004 34 1 12.000000

16-S - 32 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 16032.38u MAT=1625 ZA= 16032  
AWR= 31.697410 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 72 EMAX= 140.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 6.948400 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 15.042300  
2 0 2 1 6.948400  
3 1001 9 1 9.500000  
4 1002 31 1 19.500000  
5 1003 32 1 24.014400  
6 2004 34 1 6.948400

16-S - 33 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 16033.38u MAT=1628 ZA= 16033  
AWR= 32.688220 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 72 EMAX= 140.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 7.116100 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 8.641600  
2 0 2 1 7.116100

3	1001	9	1	10.000000
4	1002	31	1	15.281300
5	1003	32	1	22.000000
6	2004	34	1	8.000000

-----  
16-S - 34 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 16034.38u MAT=1631 ZA= 16034  
AWR= 33.676060 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR=	1	NTRAN=	1	NPROD=	0	NE=	71	EMAX=	140.000 MeV
i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS		
1	5	0.000000	7.923700	3	5				
p	ZAP	IP	NR	TP [MeV]					
1	1	1	1	11.417100					
2	0	2	1	7.923700					
3	1001	9	1	11.000000					
4	1002	31	1	19.000000					
5	1003	32	1	21.000000					
6	2004	34	1	10.000000					

-----  
16-S - 36 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 16036.38u MAT=1637 ZA= 16036  
AWR= 35.658100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR=	1	NTRAN=	1	NPROD=	0	NE=	71	EMAX=	140.000 MeV
i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS		
1	5	0.000000	9.008100	3	5				
p	ZAP	IP	NR	TP [MeV]					
1	1	1	1	9.888700					
2	0	2	1	9.008100					
3	1001	9	1	13.095400					
4	1002	31	1	19.500000					
5	1003	32	1	19.500000					
6	2004	34	1	10.000000					

-----  
17-Cl- 35 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 17035.38u MAT=1725 ZA= 17035  
AWR= 34.668450 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR=	1	NTRAN=	1	NPROD=	0	NE=	94	EMAX=	200.000 MeV
i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS		
1	5	0.000000	1.000000	3	5				

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	12.644760
2	0	2	1	1.000000
3	1001	9	1	6.370814
4	1002	31	1	15.563400
5	1003	32	1	17.947800
6	2003	33	1	19.639870
7	2004	34	1	6.997903

-----  
 17-Cl- 37 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 17037.38u MAT=1731 ZA= 17037  
 AWR= 36.648350 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.310850
2	0	2	1	1.000000
3	1001	9	1	8.386378
4	1002	31	1	16.051050
5	1003	32	1	16.779660
6	2003	33	1	22.144060
7	2004	34	1	7.849108

-----  
 18-Ar- 36 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 18036.38u MAT=1825 ZA= 18036  
 AWR= 35.658570 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	15.255570
2	0	2	1	1.000000
3	1001	9	1	8.506983
4	1002	31	1	18.927180
5	1003	32	1	24.178010
6	2003	33	1	18.576900
7	2004	34	1	6.640922

-----  
 18-Ar- 38 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 18038.38u MAT=1831 ZA= 18038  
 -----



AWR= 37.636610 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.838470
2	0	2	1	1.000000
3	1001	9	1	10.242250
4	1002	31	1	18.328540
5	1003	32	1	20.651100
6	2003	33	1	20.799830
7	2004	34	1	7.208052

18-Ar- 40 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 18040.38u MAT=1837 ZA= 18040

AWR= 39.619090 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.869022
2	0	2	1	1.000000
3	1001	9	1	12.528660
4	1002	31	1	18.377510
5	1003	32	1	18.228170
6	2003	33	1	23.074700
7	2004	34	1	6.800679

19-K - 39 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 19039.38u MAT=1925 ZA= 19039

AWR= 38.628990 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	13.077750
2	0	2	1	1.000000
3	1001	9	1	6.381340
4	1002	31	1	15.995250
5	1003	32	1	18.525460
6	2003	33	1	19.216400
7	2004	34	1	7.218578

-----  
 19-K - 40 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 19040.38u MAT=1928 ZA= 19040  
 AWR= 39.620690 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.799619  
 2 0 2 1 1.000000  
 3 1001 9 1 7.582273  
 4 1002 31 1 11.956390  
 5 1003 32 1 17.537640  
 6 2003 33 1 16.705170  
 7 2004 34 1 6.438403  
 -----

-----  
 19-K - 41 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 19041.38u MAT=1931 ZA= 19041  
 AWR= 40.609940 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 10.095370  
 2 0 2 1 1.000000  
 3 1001 9 1 7.808619  
 4 1002 31 1 15.453080  
 5 1003 32 1 15.794530  
 6 2003 33 1 20.692660  
 7 2004 34 1 6.222921  
 -----

-----  
 20-Ca- 40 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 20040.38u MAT=2025 ZA= 20040  
 AWR= 39.619000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 244 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 8.329000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 15.641000  
 -----

2	1001	9	1	8.329000
3	1002	31	1	19.181000
4	1003	32	1	24.996000
5	2003	33	1	18.830000
6	2004	34	1	8.329000

-----

20-Ca- 42 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 20042.38u MAT=2031 ZA= 20042  
 AWR= 41.598170 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 71 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 6.256800 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 11.480900  
 2 0 2 1 6.256800  
 3 1001 9 1 11.000000  
 4 1002 31 1 19.000000  
 5 1003 32 1 20.500000  
 6 2004 34 1 6.256800

-----

20-Ca- 43 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 20043.38u MAT=2034 ZA= 20043  
 AWR= 42.589730 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 71 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 7.592500 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.933000  
 2 0 2 1 7.592500  
 3 1001 9 1 11.000000  
 4 1002 31 1 17.000000  
 5 1003 32 1 20.500000  
 6 2004 34 1 9.000000

-----

20-Ca- 44 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 20044.38u MAT=2037 ZA= 20044  
 AWR= 43.578000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 264 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 8.854100 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.131000
2	1001	9	1	12.166000
3	1002	31	1	19.583000
4	1003	32	1	20.859000
5	2003	33	1	23.333000
6	2004	34	1	8.854100

-----

20-Ca- 46 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 20046.38u MAT=2043 ZA= 20046  
 AWR= 45.558920 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 68 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 10.399300 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.399300
2	0	2	1	10.399300
3	1001	9	1	14.000000
4	1002	31	1	21.500000
5	1003	32	1	22.500000
6	2004	34	1	13.000000

-----

20-Ca- 48 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 20048.38u MAT=2049 ZA= 20048  
 AWR= 47.541000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 269 EMAX= 140.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 9.944400 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.944400
2	1001	9	1	15.807000
3	1002	31	1	21.932000
4	1003	32	1	22.554000
5	2003	33	1	29.427000
6	2004	34	1	14.378000

-----

21-Sc- 45 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 21045.38u MAT=2125 ZA= 21045  
 AWR= 44.569710 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 11.327230  
 2 0 2 1 1.000000  
 3 1001 9 1 6.892192  
 4 1002 31 1 15.798800  
 5 1003 32 1 17.474460  
 6 2003 33 1 20.981090  
 7 2004 34 1 7.937268

22-Ti- 46 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 22046.38u MAT=2225 ZA= 22046  
 AWR= 45.557870 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 104 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 13.189280  
 2 0 2 1 1.000000  
 3 1001 9 1 10.344870  
 4 1002 31 1 19.447540  
 5 1003 32 1 22.889510  
 6 2003 33 1 20.650190  
 7 2004 34 1 8.005470

22-Ti- 47 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 22047.38u MAT=2228 ZA= 22047  
 AWR= 46.548420 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.880882  
 2 0 2 1 1.000000  
 3 1001 9 1 10.465120  
 4 1002 31 1 17.001190  
 5 1003 32 1 22.071190  
 6 2003 33 1 18.399910  
 7 2004 34 1 8.953458

-----  
 22-Ti- 48 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 22048.38u MAT=2231 ZA= 22048  
 AWR= 47.536050 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 11.626660  
 2 0 2 1 1.000000  
 3 1001 9 1 11.445080  
 4 1002 31 1 19.867210  
 5 1003 32 1 22.370620  
 6 2003 33 1 22.611750  
 7 2004 34 1 9.448950  
 -----

-----  
 22-Ti- 49 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 22049.38u MAT=2234 ZA= 22049  
 AWR= 48.527380 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 93 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.142395  
 2 0 2 1 1.000000  
 3 1001 9 1 11.348920  
 4 1002 31 1 17.362910  
 5 1003 32 1 21.752380  
 6 2003 33 1 20.355640  
 7 2004 34 1 10.500000  
 -----

-----  
 22-Ti- 50 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 22050.38u MAT=2237 ZA= 22050  
 AWR= 49.515740 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 10.939190  
 2 0 2 1 1.000000  
 3 1001 9 1 12.159370  
 -----

4	1002	31	1	20.063540
5	1003	32	1	22.044870
6	2003	33	1	24.018460
7	2004	34	1	10.717210

-----

23-V - 50 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 23050.38u MAT=2325 ZA= 23050  
 AWR= 49.518090 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 9.333399  
 2 0 2 1 1.000000  
 3 1001 9 1 7.949197  
 4 1002 31 1 13.867030  
 5 1003 32 1 19.236460  
 6 2003 33 1 19.818640  
 7 2004 34 1 9.887710

-----

23-V - 51 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 23051.38u MAT=2328 ZA= 23051  
 AWR= 50.506320 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 93 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 11.051150  
 2 0 2 1 1.000000  
 3 1001 9 1 8.061153  
 4 1002 31 1 16.775780  
 5 1003 32 1 18.660940  
 6 2003 33 1 23.000000  
 7 2004 34 1 10.292160

-----

24-Cr- 50 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 24050.38u MAT=2425 ZA= 24050  
 AWR= 49.517000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 7 NTRAN= 1 NPROD= 6 NE= 102 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS

1	5	0.000000	0.999000	3	5
2	201	-13.001000	13.000900	3	201
3	203	-9.590700	9.590740	3	203
4	204	-18.920000	20.000000	3	204
5	205	-23.203000	24.800000	3	205
6	206	-20.258000	23.600000	3	206
7	207	-8.556800	9.000000	3	207

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	12.800000
2	1001	9	1	9.000000
3	1002	31	1	19.600000
4	1003	32	1	24.400000
5	2003	33	1	23.200000
6	2004	34	1	9.000000

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24-Cr- 52 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 24052.38u MAT=2431 ZA= 24052  
 AWR= 51.494310 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	12.039160
2	0	2	1	1.000000
3	1001	9	1	10.504370
4	1002	31	1	19.330950
5	1003	32	1	22.407120
6	2003	33	1	21.786670
7	2004	34	1	9.351449

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24-Cr- 53 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 24053.38u MAT=2434 ZA= 24053  
 AWR= 52.486000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 7 NTRAN= 1 NPROD= 6 NE= 101 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	0.999000	3	5		
2	201	-7.939200	7.939230	3	201		
3	203	-11.132000	12.000000	3	203		
4	204	-16.219000	17.200000	3	204		
5	205	-21.013000	22.400000	3	205		
6	206	-18.787000	22.800000	3	206		
7	207	-9.148300	12.000000	3	207		

p	ZAP	IP	NR	TP [MeV]
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1	1	1	1	7.000000
2	1001	9	1	11.600000
3	1002	31	1	17.200000
4	1003	32	1	22.000000
5	2003	33	1	22.000000
6	2004	34	1	11.300000

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 24-Cr- 54 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 24054.38u MAT=2437 ZA= 24054  
 AWR= 53.476000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR=	7	NTRAN=	1	NPROD=	6	NE=	101	EMAX=	200.000 MeV
i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS		
1	5	0.000000	0.999000	3	5				
2	201	-9.719300	9.719290	3	201				
3	203	-12.372000	13.200000	3	203				
4	204	-18.627000	19.600000	3	204				
5	205	-19.681000	21.200000	3	205				
6	206	-22.135000	26.400000	3	206				
7	207	-7.928100	9.000000	3	207				

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.000000
2	1001	9	1	12.800000
3	1002	31	1	19.600000
4	1003	32	1	20.400000
5	2003	33	1	25.600000
6	2004	34	1	9.000000

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 25-Mn- 55 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 25055.38u MAT=2525 ZA= 25055  
 AWR= 54.466100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR=	1	NTRAN=	1	NPROD=	0	NE=	94	EMAX=	200.000 MeV
i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS		
1	5	0.000000	1.000000	3	5				
p	ZAP	IP	NR	TP [MeV]					
1	1	1	1	10.226100					
2	0	2	1	1.000000					
3	1001	9	1	8.066619					
4	1002	31	1	15.561140					
5	1003	32	1	17.242980					
6	2003	33	1	21.199860					
7	2004	34	1	7.933487					

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26-Fe- 54 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 26054.38u MAT=2625 ZA= 26054  
AWR= 53.476240 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 93 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	13.378290
2	0	2	1	1.000000
3	1001	9	1	8.853355
4	1002	31	1	19.000000
5	1003	32	1	22.960430
6	2003	33	1	19.734320
7	2004	34	1	8.417344

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26-Fe- 56 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 26056.38u MAT=2631 ZA= 26056  
AWR= 55.454430 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 93 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.197100
2	0	2	1	1.000000
3	1001	9	1	10.183640
4	1002	31	1	18.185170
5	1003	32	1	20.866780
6	2003	33	1	20.251300
7	2004	34	1	8.000000

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26-Fe- 57 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 26057.38u MAT=2634 ZA= 26057  
AWR= 56.446290 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.646074
2	0	2	1	1.000000
3	1001	9	1	10.559270
4	1002	31	1	15.605150

5	1003	32	1	19.574020
6	2003	33	1	18.178290
7	2004	34	1	7.319756

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26-Fe- 58 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 26058.38u MAT=2637 ZA= 26058  
 AWR= 57.435600 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 93 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.044590
2	0	2	1	1.000000
3	1001	9	1	11.957830
4	1002	31	1	18.379300
5	1003	32	1	19.392510
6	2003	33	1	21.976620
7	2004	34	1	8.000000

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27-Co- 59 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 27059.38u MAT=2725 ZA= 27059  
 AWR= 58.426930 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 247 NTRAN= 143 NPROD= 104 NE= 250 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	-7.320000	13.500000	3	5		
2	11	-27.770370	35.000000	3	11		
3	16	-19.026000	19.026000	3	16		
4	17	-30.402000	30.402000	3	17		
5	22	-17.169000	19.750000	3	22		
6	28	-17.408000	18.500000	3	28		
7	32	-22.830000	24.000000	3	32		
8	33	-27.770000	29.000000	3	33		
9	34	-27.520000	30.000000	3	34		
10	41	-25.054000	26.500000	3	41		
11	42	-36.251000	38.000000	3	42		
12	44	-27.967000	30.000000	3	44		
13	50	-10.454430	10.454430	3	50		
14	51	-10.479380	10.479380	3	51		
15	52	-10.507580	10.507580	3	52		
16	53	-10.566190	10.566190	3	53		
17	54	-10.820090	10.820090	3	54		
18	55	-10.828360	10.828360	3	55		
19	56	-10.911930	10.911930	3	56		
20	57	-11.340060	11.340060	3	57		
21	58	-11.494550	11.494550	3	58		

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22	59	-11.498690	11.498690	3	59
23	60	-11.504620	11.504620	3	60
24	61	-11.529930	11.529930	3	61
25	62	-11.587430	11.587430	3	62
26	63	-11.639060	11.639060	3	63
27	64	-11.690980	11.690980	3	64
28	65	-11.805940	11.805940	3	65
29	66	-11.807900	11.807900	3	66
30	67	-11.823430	11.823430	3	67
31	68	-11.831310	11.831310	3	68
32	69	-11.872550	11.872550	3	69
33	70	-11.878430	11.878430	3	70
34	71	-11.879030	11.879030	3	71
35	72	-11.889330	11.889330	3	72
36	73	-11.967750	11.967750	3	73
37	74	-11.977000	11.977000	3	74
38	75	-11.978830	11.978830	3	75
39	76	-12.003240	12.003240	3	76
40	77	-12.009170	12.009170	3	77
41	78	-12.060050	12.060050	3	78
42	79	-12.124330	12.124330	3	79
43	80	-12.183670	12.183670	3	80
44	81	-12.194930	12.194930	3	81
45	82	-12.203780	12.203780	3	82
46	83	-12.211630	12.211630	3	83
47	84	-12.232430	12.232430	3	84
48	85	-12.267730	12.267730	3	85
49	86	-12.282430	12.282430	3	86
50	87	-12.297430	12.297430	3	87
51	88	-12.320230	12.320230	3	88
52	89	-12.322130	12.322130	3	89
53	91	-12.321700	12.321700	3	91
54	102	0.000000	5.000000	3	102
55	104	-15.184000	16.250000	3	104
56	105	-16.573000	17.750000	3	105
57	106	-20.249000	22.500000	3	106
58	111	-19.317000	21.500000	3	111
59	112	-15.010000	18.500000	3	112
60	115	-25.743000	28.000000	3	115
61	116	-26.757000	29.000000	3	116
62	600	-7.364030	8.500000	3	600
63	601	-8.174796	9.250000	3	601
64	602	-9.038761	10.250000	3	602
65	603	-9.440550	10.500000	3	603
66	604	-9.497925	10.750000	3	604
67	605	-9.621980	10.750000	3	605
68	606	-9.964427	11.000000	3	606
69	607	-10.146170	11.250000	3	607
70	608	-10.228750	11.500000	3	608
71	609	-10.240370	11.500000	3	609
72	610	-10.334030	11.500000	3	610
73	611	-10.447720	11.500000	3	611
74	612	-10.498030	11.500000	3	612
75	613	-10.597290	11.750000	3	613

76	614	-10.608000	11.750000	3 614
77	615	-10.753030	11.750000	3 615
78	616	-10.813730	12.000000	3 616
79	617	-10.902000	12.000000	3 617
80	618	-10.907030	12.000000	3 618
81	619	-10.960930	12.000000	3 619
82	620	-10.993630	12.000000	3 620
83	621	-11.118230	12.250000	3 621
84	622	-11.153520	12.250000	3 622
85	623	-11.218030	12.250000	3 623
86	624	-11.224930	12.250000	3 624
87	625	-11.244130	12.500000	3 625
88	626	-11.250430	12.500000	3 626
89	627	-11.265650	12.500000	3 627
90	628	-11.374830	12.500000	3 628
91	629	-11.379040	12.500000	3 629
92	630	-11.452520	12.500000	3 630
93	631	-11.503270	12.500000	3 631
94	632	-11.522030	12.500000	3 632
95	633	-11.578670	12.500000	3 633
96	634	-11.594030	12.500000	3 634
97	635	-11.601030	12.500000	3 635
98	636	-11.661830	12.500000	3 636
99	637	-11.676950	12.500000	3 637
100	638	-11.686530	12.500000	3 638
101	639	-11.704030	12.500000	3 639
102	649	-11.704000	11.704000	3 649
103	800	-6.942930	9.500000	3 800
104	801	-7.068879	9.500000	3 801
105	802	-7.927190	10.250000	3 802
106	803	-8.232030	10.500000	3 803
107	804	-8.235040	10.500000	3 804
108	805	-8.235930	10.500000	3 805
109	806	-8.471280	10.750000	3 806
110	807	-8.827020	11.250000	3 807
111	808	-8.958130	11.500000	3 808
112	809	-9.141360	11.500000	3 809
113	810	-9.157930	11.500000	3 810
114	811	-9.195390	11.500000	3 811
115	812	-9.209740	11.500000	3 812
116	813	-9.223930	11.750000	3 813
117	814	-9.254380	11.750000	3 814
118	815	-9.308760	11.750000	3 815
119	816	-9.322930	11.750000	3 816
120	817	-9.341330	11.750000	3 817
121	818	-9.369450	11.750000	3 818
122	819	-9.506090	12.000000	3 819
123	820	-9.524930	12.000000	3 820
124	821	-9.564630	12.000000	3 821
125	822	-9.637530	12.000000	3 822
126	823	-9.670240	12.000000	3 823
127	824	-9.683930	12.000000	3 824
128	825	-9.695630	12.000000	3 825
129	826	-9.765030	12.250000	3 826

130	827	-9.766590	12.250000	3	827		
131	828	-9.771370	12.250000	3	828		
132	829	-9.816210	12.250000	3	829		
133	830	-9.867930	12.250000	3	830		
134	831	-9.896350	12.250000	3	831		
135	832	-9.919110	12.250000	3	832		
136	833	-9.926930	12.250000	3	833		
137	834	-9.934700	12.250000	3	834		
138	835	-9.948750	12.250000	3	835		
139	836	-9.970930	12.250000	3	836		
140	837	-9.978850	12.250000	3	837		
141	838	-9.980290	12.250000	3	838		
142	839	-9.982830	12.500000	3	839		
143	849	-9.982900	13.250000	3	849		
144	10004	-10.454430	10.500000	10	4	27058	0
145	11004	-10.479380	10.500000	10	4	27058	1
146	50016033	-86.926880	120.000000	10	5	16033	0
147	50016034	-75.509460	100.000000	10	5	16034	0
148	50016035	-68.524020	100.000000	10	5	16035	0
149	50016036	-58.634590	80.000000	10	5	16036	0
150	50016037	-60.588490	90.000000	10	5	16037	0
151	50016038	-54.776680	90.000000	10	5	16038	0
152	50016039	-70.983070	100.000000	10	5	16039	0
153	50017035	-77.620370	120.000000	10	5	17035	0
154	50017036	-69.040940	100.000000	10	5	17036	0
155	50017037	-58.729510	90.000000	10	5	17037	0
156	50017038	-52.622080	80.000000	10	5	17038	0
157	50017039	-44.547650	70.000000	10	5	17039	0
158	50017040	-59.297040	90.000000	10	5	17040	0
159	50017041	-59.162780	90.000000	10	5	17041	0
160	50017042	-74.021170	100.000000	10	5	17042	0
161	50018036	-88.929380	120.000000	10	5	18036	0
162	50018037	-80.139950	100.000000	10	5	18037	0
163	50018038	-68.301520	90.000000	10	5	18038	0
164	50018039	-61.703090	80.000000	10	5	18039	0
165	50018040	-51.833660	70.000000	10	5	18040	0
166	50018041	-51.992560	80.000000	10	5	18041	0
167	50018042	-44.790750	70.000000	10	5	18042	0
168	50018043	-59.741140	80.000000	10	5	18043	0
169	50018044	-59.103880	90.000000	10	5	18044	0
170	50018045	-74.153260	100.000000	10	5	18045	0
171	50019038	-83.478860	120.000000	10	5	19038	0
172	50019039	-70.402440	100.000000	10	5	19039	0
173	50019040	-62.603010	90.000000	10	5	19040	0
174	50019041	-52.507580	80.000000	10	5	19041	0
175	50019042	-44.974150	60.000000	10	5	19042	0
176	50019043	-35.330720	55.000000	10	5	19043	0
177	50019044	-48.620110	70.000000	10	5	19044	0
178	50019045	-47.468850	70.000000	10	5	19045	0
179	50019046	-61.164240	80.000000	10	5	19046	0
180	50019047	-60.532980	90.000000	10	5	19047	0
181	50020039	-97.529880	120.000000	10	5	20039	0
182	50020040	-81.888450	100.000000	10	5	20040	0
183	50020041	-73.526020	90.000000	10	5	20041	0

184	50020042	-62.044590	80.000000	10	5	20042	0
185	50020043	-54.112160	70.000000	10	5	20043	0
186	50020044	-42.979730	60.000000	10	5	20044	0
187	50020045	-41.821630	60.000000	10	5	20045	0
188	50020046	-33.652820	50.000000	10	5	20046	0
189	50020047	-46.954210	60.000000	10	5	20047	0
190	50020048	-44.725950	60.000000	10	5	20048	0
191	50020049	-60.157340	80.000000	10	5	20049	0
192	50021041	-89.285370	120.000000	10	5	21041	0
193	50021042	-77.734940	100.000000	10	5	21042	0
194	50021043	-65.596510	90.000000	10	5	21043	0
195	50021044	-55.897080	80.000000	10	5	21044	0
196	50021045	-44.572650	60.000000	10	5	21045	0
197	50021048	-37.512180	50.000000	10	5	21048	0
198	50021049	-35.099920	50.000000	10	5	21049	0
199	50021050	-49.620310	60.000000	10	5	21050	0
200	50021051	-50.586050	70.000000	10	5	21051	0
201	50022043	-93.060950	120.000000	10	5	22043	0
202	50022044	-76.761520	90.000000	10	5	22044	0
203	50022045	-67.231090	80.000000	10	5	22045	0
204	50022046	-54.041660	60.000000	10	5	22046	0
205	50022050	-22.936890	32.000000	10	5	22050	0
206	50022051	-37.142280	45.000000	10	5	22051	0
207	50022052	-37.052020	45.000000	10	5	22052	0
208	50022053	-52.197410	60.000000	10	5	22053	0
209	50023045	-83.628440	100.000000	10	5	23045	0
210	50023046	-70.357010	90.000000	10	5	23046	0
211	50023047	-57.355580	70.000000	10	5	23047	0
212	50023048	-46.813150	55.000000	10	5	23048	0
213	50023052	-28.143250	35.000000	10	5	23052	0
214	50023053	-27.381990	35.000000	10	5	23053	0
215	50023054	-41.846380	50.000000	10	5	23054	0
216	50024046	-98.556450	120.000000	10	5	24046	0
217	50024047	-85.404020	100.000000	10	5	24047	0
218	50024048	-69.069580	80.000000	10	5	24048	0
219	50024049	-58.488160	60.000000	10	5	24049	0
220	50024050	-45.487730	50.000000	10	5	24050	0
221	50024051	-36.225300	41.000000	10	5	24051	0
222	50024052	-24.185870	28.000000	10	5	24052	0
223	50024055	-29.341350	34.000000	10	5	24055	0
224	50025048	-92.151940	120.000000	10	5	25048	0
225	50025049	-75.466500	90.000000	10	5	25049	0
226	50025050	-62.385080	70.000000	10	5	25050	0
227	50025051	-48.697650	55.000000	10	5	25051	0
228	50025055	-15.606000	16.250000	10	5	25055	0
229	50026051	-77.314090	80.000000	10	5	26051	0
230	50026052	-61.130660	61.130660	10	5	26052	0
231	50026053	-20.044000	55.000000	10	5	26053	0
232	50026054	-18.042000	39.000000	10	5	26054	0
233	50027054	-54.576150	55.000000	10	5	27054	0
234	10022	-17.169000	37.000000	10	22	25054	0
235	10023	-35.811220	50.000000	10	23	21046	0
236	10024	-26.107000	29.000000	10	24	25053	0
237	10025	-26.785000	42.000000	10	25	25052	0

238	10029	-25.927290	34.000000	10	29	23050	0
239	10030	-35.260720	44.000000	10	30	23049	0
240	10035	-33.536800	43.000000	10	35	22048	0
241	10036	-45.163230	55.000000	10	36	22047	0
242	10037	-40.484000	41.000000	10	37	27055	0
243	10045	-7.320000	27.000000	10	45	24053	0
244	10108	-14.876860	21.000000	10	108	23051	0
245	10109	-25.166790	39.000000	10	109	21047	0
246	10112	-15.010000	38.000000	10	112	24054	0
247	10114	-31.651700	43.000000	10	114	22049	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	53	10.454430
2	0	2	139	5.000000
3	1001	9	50	8.500000
4	1002	31	5	13.500000
5	1003	32	4	13.500000
6	2003	33	3	13.500000
7	2004	34	44	9.500000

-----

28-Ni- 58 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 28058.38u MAT=2825 ZA= 28058  
 AWR= 57.437650 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 93 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	12.216230
2	0	2	1	1.000000
3	1001	9	1	8.172151
4	1002	31	1	17.324060
5	1003	32	1	21.148670
6	2003	33	1	18.000000
7	2004	34	1	6.399160

-----

28-Ni- 60 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 28060.38u MAT=2831 ZA= 28060  
 AWR= 59.415950 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.387730
2	0	2	1	1.000000



3	1001	9	1	9.532380
4	1002	31	1	17.761680
5	1003	32	1	20.077360
6	2003	33	1	19.222500
7	2004	34	1	6.290952

-----

28-Ni- 61 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 28061.38u MAT=2834 ZA= 28061  
 AWR= 60.407630 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.820104  
 2 0 2 1 1.000000  
 3 1001 9 1 9.860567  
 4 1002 31 1 15.127920  
 5 1003 32 1 19.324560  
 6 2003 33 1 17.500000  
 7 2004 34 1 7.000000

-----

28-Ni- 62 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 28062.38u MAT=2837 ZA= 28062  
 AWR= 61.396350 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 93 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 10.595740  
 2 0 2 1 1.000000  
 3 1001 9 1 11.137230  
 4 1002 31 1 18.231740  
 5 1003 32 1 19.466420  
 6 2003 33 1 21.012740  
 7 2004 34 1 7.500000

-----

28-Ni- 64 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 28064.38u MAT=2843 ZA= 28064  
 AWR= 63.378790 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 93 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.657463
2	0	2	1	1.000000
3	1001	9	1	12.536450
4	1002	31	1	18.810360
5	1003	32	1	19.150660
6	2003	33	1	23.109640
7	2004	34	1	8.500000

-----

29-Cu- 63 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 29063.38u MAT=2925 ZA= 29063  
 AWR= 62.389000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.863640
2	0	2	1	1.000000
3	1001	9	1	6.122400
4	1002	31	1	14.493570
5	1003	32	1	16.056440
6	2003	33	1	18.860660
7	2004	34	1	5.774959

-----

29-Cu- 65 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 29065.38u MAT=2931 ZA= 29065  
 AWR= 64.370030 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.910432
2	0	2	1	1.000000
3	1001	9	1	7.453710
4	1002	31	1	14.886610
5	1003	32	1	15.467150
6	2003	33	1	20.770600
7	2004	34	1	6.790510

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-----  
 30-Zn- 64 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 30064.38u MAT=3025 ZA= 30064  
 AWR= 63.379960 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 113 NTRAN= 1 NPROD= 112 NE= 88 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	11.500000	6	5	1	0
3	50001001	0.000000	8.500000	6	5	1001	0
4	50001002	0.000000	17.000000	6	5	1002	0
5	50001003	0.000000	20.000000	6	5	1003	0
6	50002003	0.000000	19.500000	6	5	2003	0
7	50002004	0.000000	7.000000	6	5	2004	0
8	50020038	0.000000	160.000000	6	5	20038	0
9	50020039	0.000000	140.000000	6	5	20039	0
10	50020040	0.000000	130.000000	6	5	20040	0
11	50020041	0.000000	130.000000	6	5	20041	0
12	50020042	0.000000	130.000000	6	5	20042	0
13	50020043	0.000000	130.000000	6	5	20043	0
14	50020044	0.000000	130.000000	6	5	20044	0
15	50020045	0.000000	140.000000	6	5	20045	0
16	50020046	0.000000	140.000000	6	5	20046	0
17	50021040	0.000000	160.000000	6	5	21040	0
18	50021041	0.000000	140.000000	6	5	21041	0
19	50021042	0.000000	130.000000	6	5	21042	0
20	52021042	0.000000	130.000000	6	5	21042	2
21	50021043	0.000000	120.000000	6	5	21043	0
22	50021044	0.000000	120.000000	6	5	21044	0
23	54021044	0.000000	120.000000	6	5	21044	4
24	50021045	0.000000	120.000000	6	5	21045	0
25	50021046	0.000000	130.000000	6	5	21046	0
26	52021046	0.000000	130.000000	6	5	21046	2
27	50021047	0.000000	130.000000	6	5	21047	0
28	50021048	0.000000	130.000000	6	5	21048	0
29	50022042	0.000000	160.000000	6	5	22042	0
30	50022043	0.000000	140.000000	6	5	22043	0
31	50022044	0.000000	120.000000	6	5	22044	0
32	50022045	0.000000	120.000000	6	5	22045	0
33	50022046	0.000000	110.000000	6	5	22046	0
34	50022047	0.000000	110.000000	6	5	22047	0
35	50022048	0.000000	110.000000	6	5	22048	0
36	64022048	0.000000	110.000000	6	5	22048	14
37	50022049	0.000000	120.000000	6	5	22049	0
38	50022050	0.000000	140.000000	6	5	22050	0
39	50023044	0.000000	140.000000	6	5	23044	0
40	50023045	0.000000	130.000000	6	5	23045	0
41	50023046	0.000000	120.000000	6	5	23046	0
42	50023047	0.000000	110.000000	6	5	23047	0
43	50023048	0.000000	100.000000	6	5	23048	0
44	50023049	0.000000	100.000000	6	5	23049	0
45	50023050	0.000000	100.000000	6	5	23050	0
46	50023051	0.000000	110.000000	6	5	23051	0
47	50023052	0.000000	120.000000	6	5	23052	0

48	50024047	0.000000	130.000000	6	5	24047	0
49	50024048	0.000000	110.000000	6	5	24048	0
50	50024049	0.000000	100.000000	6	5	24049	0
51	50024050	0.000000	90.000000	6	5	24050	0
52	50024051	0.000000	85.000000	6	5	24051	0
53	50024052	0.000000	76.000000	6	5	24052	0
54	50024053	0.000000	90.000000	6	5	24053	0
55	50024054	0.000000	100.000000	6	5	24054	0
56	50024055	0.000000	100.000000	6	5	24055	0
57	50025049	0.000000	120.000000	6	5	25049	0
58	50025050	0.000000	100.000000	6	5	25050	0
59	51025050	0.000000	100.000000	6	5	25050	1
60	50025051	0.000000	90.000000	6	5	25051	0
61	50025052	0.000000	76.000000	6	5	25052	0
62	51025052	0.000000	76.000000	6	5	25052	1
63	50025053	0.000000	62.000000	6	5	25053	0
64	50025054	0.000000	54.000000	6	5	25054	0
65	50025055	0.000000	72.000000	6	5	25055	0
66	50025056	0.000000	68.000000	6	5	25056	0
67	50025057	0.000000	90.000000	6	5	25057	0
68	50025058	0.000000	90.000000	6	5	25058	0
69	51025058	0.000000	90.000000	6	5	25058	1
70	50026051	0.000000	130.000000	6	5	26051	0
71	50026052	0.000000	95.000000	6	5	26052	0
72	60026052	0.000000	95.000000	6	5	26052	10
73	50026053	0.000000	66.000000	6	5	26053	0
74	72026053	0.000000	66.000000	6	5	26053	22
75	50026054	0.000000	50.000000	6	5	26054	0
76	50026055	0.000000	38.000000	6	5	26055	0
77	50026056	0.000000	52.000000	6	5	26056	0
78	50026057	0.000000	46.000000	6	5	26057	0
79	50026058	0.000000	36.000000	6	5	26058	0
80	50026059	0.000000	64.000000	6	5	26059	0
81	50027053	0.000000	110.000000	6	5	27053	0
82	50027054	0.000000	85.000000	6	5	27054	0
83	51027054	0.000000	85.000000	6	5	27054	1
84	50027055	0.000000	66.000000	6	5	27055	0
85	50027056	0.000000	54.000000	6	5	27056	0
86	50027057	0.000000	42.000000	6	5	27057	0
87	50027058	0.000000	32.000000	6	5	27058	0
88	51027058	0.000000	32.000000	6	5	27058	1
89	50027059	0.000000	21.000000	6	5	27059	0
90	50027060	0.000000	46.000000	6	5	27060	0
91	51027060	0.000000	46.000000	6	5	27060	1
92	50027061	0.000000	56.000000	6	5	27061	0
93	50028055	0.000000	110.000000	6	5	28055	0
94	50028056	0.000000	60.000000	6	5	28056	0
95	50028057	0.000000	44.000000	6	5	28057	0
96	50028058	0.000000	29.000000	6	5	28058	0
97	50028059	0.000000	19.000000	6	5	28059	0
98	50028060	0.000000	7.500000	6	5	28060	0
99	50028061	0.000000	27.000000	6	5	28061	0
100	50028062	0.000000	17.000000	6	5	28062	0
101	50029057	0.000000	180.000000	6	5	29057	0

102	50029058	0.000000	72.000000	6	5	29058	0
103	50029059	0.000000	52.000000	6	5	29059	0
104	50029060	0.000000	38.000000	6	5	29060	0
105	50029061	0.000000	25.000000	6	5	29061	0
106	50029062	0.000000	19.000000	6	5	29062	0
107	50029063	0.000000	8.500000	6	5	29063	0
108	50030059	0.000000	110.000000	6	5	30059	0
109	50030060	0.000000	50.000000	6	5	30060	0
110	50030061	0.000000	34.000000	6	5	30061	0
111	50030062	0.000000	20.000000	6	5	30062	0
112	50030063	0.000000	11.500000	6	5	30063	0
113	50030064	0.000000	1.000000	6	5	30064	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.500000
2	0	2	1	1.000000
3	1001	9	1	8.500000
4	1002	31	1	17.000000
5	1003	32	1	20.000000
6	2003	33	1	19.500000
7	2004	34	1	7.000000

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30-Zn- 66 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 30066.38u MAT=3031 ZA= 30066  
 AWR= 65.359700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 95 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.058460
2	0	2	1	1.000000
3	1001	9	1	8.924471
4	1002	31	1	16.610340
5	1003	32	1	18.269220
6	2003	33	1	18.317600
7	2004	34	1	5.000000

-----

30-Zn- 67 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 30067.38u MAT=3034 ZA= 30067  
 AWR= 66.352190 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
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1	1	1	1	7.052470
2	0	2	1	1.000000
3	1001	9	1	8.911012
4	1002	31	1	13.752370
5	1003	32	1	17.405580
6	2003	33	1	15.712610
7	2004	34	1	4.792454

-----

30-Zn- 68 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 30068.38u MAT=3037 ZA= 30068  
 AWR= 67.341340 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 95 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 10.198100  
 2 0 2 1 1.000000  
 3 1001 9 1 9.976550  
 4 1002 31 1 16.884540  
 5 1003 32 1 17.693240  
 6 2003 33 1 19.812620  
 7 2004 34 1 5.750000

-----

30-Zn- 70 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 30070.38u MAT=3043 ZA= 30070  
 AWR= 69.324630 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 93 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 9.218207  
 2 0 2 1 1.000000  
 3 1001 9 1 11.117490  
 4 1002 31 1 17.133420  
 5 1003 32 1 17.195030  
 6 2003 33 1 20.753270  
 7 2004 34 1 6.500000

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32-Ge- 70 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 32070.38u MAT=3225 ZA= 32070  
 AWR= 69.323570 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 11.532530  
 2 0 2 1 1.000000  
 3 1001 9 1 8.523038  
 4 1002 31 1 16.611610  
 5 1003 32 1 18.632640  
 6 2003 33 1 18.000000  
 7 2004 34 1 4.500000

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-----

32-Ge- 72 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 32072.38u MAT=3231 ZA= 32072  
 AWR= 71.304230 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 10.750720  
 2 0 2 1 1.000000  
 3 1001 9 1 9.735736  
 4 1002 31 1 16.811480  
 5 1003 32 1 18.207900  
 6 2003 33 1 19.500000  
 7 2004 34 1 5.500000

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-----

32-Ge- 73 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 32073.38u MAT=3234 ZA= 32073  
 AWR= 72.297010 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 6.782940  
 2 0 2 1 1.000000  
 3 1001 9 1 9.998201  
 4 1002 31 1 14.294110  
 5 1003 32 1 17.337190  
 6 2003 33 1 17.000000  
 7 2004 34 1 6.000000

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-----  
 32-Ge- 74 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 32074.38u MAT=3237 ZA= 32074  
 AWR= 73.286160 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 10.196240  
 2 0 2 1 1.000000  
 3 1001 9 1 11.012080  
 4 1002 31 1 17.969870  
 5 1003 32 1 18.233120  
 6 2003 33 1 21.024880  
 7 2004 34 1 6.282623  
 -----

-----  
 32-Ge- 76 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 32076.38u MAT=3243 ZA= 32076  
 AWR= 75.269200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 9.427241  
 2 0 2 1 1.000000  
 3 1001 9 1 12.037280  
 4 1002 31 1 18.298990  
 5 1003 32 1 18.463360  
 6 2003 33 1 23.000000  
 7 2004 34 1 8.000000  
 -----

-----  
 33-As- 75 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 33075.38u MAT=3325 ZA= 33075  
 AWR= 74.277980 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 118 NTRAN= 1 NPROD= 117 NE= 89 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 50000001 0.000000 10.000000 6 5 1 0  
 3 50001001 0.000000 7.500000 6 5 1001 0  
 4 50001002 0.000000 15.500000 6 5 1002 0  
 5 50001003 0.000000 16.500000 6 5 1003 0  
 -----



6	50002003	0.000000	22.000000	6	5	2003	0
7	50002004	0.000000	9.000000	6	5	2004	0
8	50023046	0.000000	150.000000	6	5	23046	0
9	50023047	0.000000	140.000000	6	5	23047	0
10	50023048	0.000000	130.000000	6	5	23048	0
11	50023049	0.000000	130.000000	6	5	23049	0
12	50023050	0.000000	130.000000	6	5	23050	0
13	50023051	0.000000	130.000000	6	5	23051	0
14	50023052	0.000000	130.000000	6	5	23052	0
15	50023053	0.000000	130.000000	6	5	23053	0
16	50024048	0.000000	140.000000	6	5	24048	0
17	50024049	0.000000	130.000000	6	5	24049	0
18	50024050	0.000000	130.000000	6	5	24050	0
19	50024051	0.000000	130.000000	6	5	24051	0
20	50024052	0.000000	130.000000	6	5	24052	0
21	50024053	0.000000	130.000000	6	5	24053	0
22	50024054	0.000000	130.000000	6	5	24054	0
23	50024055	0.000000	130.000000	6	5	24055	0
24	50025050	0.000000	150.000000	6	5	25050	0
25	51025050	0.000000	150.000000	6	5	25050	1
26	50025051	0.000000	130.000000	6	5	25051	0
27	50025052	0.000000	120.000000	6	5	25052	0
28	51025052	0.000000	120.000000	6	5	25052	1
29	50025053	0.000000	120.000000	6	5	25053	0
30	50025054	0.000000	120.000000	6	5	25054	0
31	50025055	0.000000	120.000000	6	5	25055	0
32	50025056	0.000000	120.000000	6	5	25056	0
33	50025057	0.000000	120.000000	6	5	25057	0
34	50026052	0.000000	140.000000	6	5	26052	0
35	60026052	0.000000	140.000000	6	5	26052	10
36	50026053	0.000000	130.000000	6	5	26053	0
37	72026053	0.000000	130.000000	6	5	26053	22
38	50026054	0.000000	120.000000	6	5	26054	0
39	50026055	0.000000	120.000000	6	5	26055	0
40	50026056	0.000000	110.000000	6	5	26056	0
41	50026057	0.000000	110.000000	6	5	26057	0
42	50026058	0.000000	110.000000	6	5	26058	0
43	50026059	0.000000	110.000000	6	5	26059	0
44	50026060	0.000000	120.000000	6	5	26060	0
45	50027054	0.000000	150.000000	6	5	27054	0
46	51027054	0.000000	150.000000	6	5	27054	1
47	50027055	0.000000	120.000000	6	5	27055	0
48	50027056	0.000000	110.000000	6	5	27056	0
49	50027057	0.000000	110.000000	6	5	27057	0
50	50027058	0.000000	100.000000	6	5	27058	0
51	51027058	0.000000	100.000000	6	5	27058	1
52	50027059	0.000000	100.000000	6	5	27059	0
53	50027060	0.000000	100.000000	6	5	27060	0
54	51027060	0.000000	100.000000	6	5	27060	1
55	50027061	0.000000	100.000000	6	5	27061	0
56	50027062	0.000000	100.000000	6	5	27062	0
57	51027062	0.000000	100.000000	6	5	27062	1
58	50028057	0.000000	120.000000	6	5	28057	0
59	50028058	0.000000	100.000000	6	5	28058	0

60	50028059	0.000000	95.000000	6	5	28059	0
61	50028060	0.000000	85.000000	6	5	28060	0
62	50028061	0.000000	80.000000	6	5	28061	0
63	50028062	0.000000	76.000000	6	5	28062	0
64	50028063	0.000000	78.000000	6	5	28063	0
65	50028064	0.000000	78.000000	6	5	28064	0
66	50028065	0.000000	78.000000	6	5	28065	0
67	50029059	0.000000	110.000000	6	5	29059	0
68	50029060	0.000000	100.000000	6	5	29060	0
69	50029061	0.000000	80.000000	6	5	29061	0
70	50029062	0.000000	74.000000	6	5	29062	0
71	50029063	0.000000	66.000000	6	5	29063	0
72	50029064	0.000000	56.000000	6	5	29064	0
73	50029065	0.000000	46.000000	6	5	29065	0
74	50029066	0.000000	38.000000	6	5	29066	0
75	50029067	0.000000	34.000000	6	5	29067	0
76	50029068	0.000000	66.000000	6	5	29068	0
77	53029068	0.000000	66.000000	6	5	29068	3
78	50030061	0.000000	110.000000	6	5	30061	0
79	50030062	0.000000	95.000000	6	5	30062	0
80	50030063	0.000000	80.000000	6	5	30063	0
81	50030064	0.000000	72.000000	6	5	30064	0
82	50030065	0.000000	62.000000	6	5	30065	0
83	50030066	0.000000	50.000000	6	5	30066	0
84	50030067	0.000000	46.000000	6	5	30067	0
85	50030068	0.000000	40.000000	6	5	30068	0
86	50030069	0.000000	34.000000	6	5	30069	0
87	51030069	0.000000	34.000000	6	5	30069	1
88	50030070	0.000000	28.000000	6	5	30070	0
89	50030071	0.000000	78.000000	6	5	30071	0
90	51030071	0.000000	78.000000	6	5	30071	1
91	50031063	0.000000	100.000000	6	5	31063	0
92	50031064	0.000000	95.000000	6	5	31064	0
93	50031065	0.000000	74.000000	6	5	31065	0
94	50031066	0.000000	62.000000	6	5	31066	0
95	50031067	0.000000	48.000000	6	5	31067	0
96	50031068	0.000000	40.000000	6	5	31068	0
97	50031069	0.000000	29.000000	6	5	31069	0
98	50031070	0.000000	20.000000	6	5	31070	0
99	50031071	0.000000	10.500000	6	5	31071	0
100	50031072	0.000000	38.000000	6	5	31072	0
101	50031073	0.000000	32.000000	6	5	31073	0
102	50032066	0.000000	85.000000	6	5	32066	0
103	50032067	0.000000	74.000000	6	5	32067	0
104	50032068	0.000000	58.000000	6	5	32068	0
105	50032069	0.000000	50.000000	6	5	32069	0
106	50032070	0.000000	38.000000	6	5	32070	0
107	50032071	0.000000	30.000000	6	5	32071	0
108	50032072	0.000000	21.000000	6	5	32072	0
109	50032073	0.000000	18.500000	6	5	32073	0
110	50032074	0.000000	8.000000	6	5	32074	0
111	50033068	0.000000	150.000000	6	5	33068	0
112	50033069	0.000000	68.000000	6	5	33069	0
113	50033070	0.000000	50.000000	6	5	33070	0

114	50033071	0.000000	36.000000	6	5	33071	0
115	50033072	0.000000	29.000000	6	5	33072	0
116	50033073	0.000000	18.000000	6	5	33073	0
117	50033074	0.000000	10.000000	6	5	33074	0
118	50033075	0.000000	1.000000	6	5	33075	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.000000
2	0	2	1	1.000000
3	1001	9	1	7.500000
4	1002	31	1	15.500000
5	1003	32	1	16.500000
6	2003	33	1	22.000000
7	2004	34	1	9.000000

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34-Se- 76 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 34076.38u MAT=3431 ZA= 34076  
 AWR= 75.267040 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 117 NTRAN= 1 NPROD= 116 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	11.000000	6	5	1	0
3	50001001	0.000000	10.000000	6	5	1001	0
4	50001002	0.000000	18.500000	6	5	1002	0
5	50001003	0.000000	20.000000	6	5	1003	0
6	50002003	0.000000	22.000000	6	5	2003	0
7	50002004	0.000000	9.000000	6	5	2004	0
8	50024048	0.000000	140.000000	6	5	24048	0
9	50024049	0.000000	130.000000	6	5	24049	0
10	50024050	0.000000	130.000000	6	5	24050	0
11	50024051	0.000000	120.000000	6	5	24051	0
12	50024052	0.000000	120.000000	6	5	24052	0
13	50024053	0.000000	130.000000	6	5	24053	0
14	50024054	0.000000	130.000000	6	5	24054	0
15	50024055	0.000000	130.000000	6	5	24055	0
16	50025049	0.000000	150.000000	6	5	25049	0
17	50025050	0.000000	130.000000	6	5	25050	0
18	51025050	0.000000	130.000000	6	5	25050	1
19	50025051	0.000000	120.000000	6	5	25051	0
20	50025052	0.000000	120.000000	6	5	25052	0
21	51025052	0.000000	120.000000	6	5	25052	1
22	50025053	0.000000	120.000000	6	5	25053	0
23	50025054	0.000000	120.000000	6	5	25054	0
24	50025055	0.000000	120.000000	6	5	25055	0
25	50025056	0.000000	120.000000	6	5	25056	0
26	50025057	0.000000	120.000000	6	5	25057	0
27	50026052	0.000000	130.000000	6	5	26052	0
28	60026052	0.000000	130.000000	6	5	26052	10
29	50026053	0.000000	120.000000	6	5	26053	0
30	72026053	0.000000	120.000000	6	5	26053	22

31	50026054	0.000000	120.000000	6	5	26054	0
32	50026055	0.000000	110.000000	6	5	26055	0
33	50026056	0.000000	110.000000	6	5	26056	0
34	50026057	0.000000	110.000000	6	5	26057	0
35	50026058	0.000000	110.000000	6	5	26058	0
36	50026059	0.000000	110.000000	6	5	26059	0
37	50027054	0.000000	130.000000	6	5	27054	0
38	51027054	0.000000	130.000000	6	5	27054	1
39	50027055	0.000000	120.000000	6	5	27055	0
40	50027056	0.000000	110.000000	6	5	27056	0
41	50027057	0.000000	110.000000	6	5	27057	0
42	50027058	0.000000	100.000000	6	5	27058	0
43	51027058	0.000000	100.000000	6	5	27058	1
44	50027059	0.000000	100.000000	6	5	27059	0
45	50027060	0.000000	100.000000	6	5	27060	0
46	51027060	0.000000	100.000000	6	5	27060	1
47	50027061	0.000000	110.000000	6	5	27061	0
48	50027062	0.000000	110.000000	6	5	27062	0
49	51027062	0.000000	110.000000	6	5	27062	1
50	50028056	0.000000	130.000000	6	5	28056	0
51	50028057	0.000000	110.000000	6	5	28057	0
52	50028058	0.000000	100.000000	6	5	28058	0
53	50028059	0.000000	100.000000	6	5	28059	0
54	50028060	0.000000	90.000000	6	5	28060	0
55	50028061	0.000000	90.000000	6	5	28061	0
56	50028062	0.000000	95.000000	6	5	28062	0
57	50028063	0.000000	95.000000	6	5	28063	0
58	50028064	0.000000	100.000000	6	5	28064	0
59	50029059	0.000000	110.000000	6	5	29059	0
60	50029060	0.000000	100.000000	6	5	29060	0
61	50029061	0.000000	90.000000	6	5	29061	0
62	50029062	0.000000	85.000000	6	5	29062	0
63	50029063	0.000000	78.000000	6	5	29063	0
64	50029064	0.000000	74.000000	6	5	29064	0
65	50029065	0.000000	68.000000	6	5	29065	0
66	50029066	0.000000	85.000000	6	5	29066	0
67	50029067	0.000000	90.000000	6	5	29067	0
68	50030060	0.000000	130.000000	6	5	30060	0
69	50030061	0.000000	110.000000	6	5	30061	0
70	50030062	0.000000	95.000000	6	5	30062	0
71	50030063	0.000000	80.000000	6	5	30063	0
72	50030064	0.000000	66.000000	6	5	30064	0
73	50030065	0.000000	58.000000	6	5	30065	0
74	50030066	0.000000	44.000000	6	5	30066	0
75	50030067	0.000000	42.000000	6	5	30067	0
76	50030068	0.000000	56.000000	6	5	30068	0
77	50030069	0.000000	64.000000	6	5	30069	0
78	51030069	0.000000	64.000000	6	5	30069	1
79	50030070	0.000000	80.000000	6	5	30070	0
80	50031063	0.000000	100.000000	6	5	31063	0
81	50031064	0.000000	90.000000	6	5	31064	0
82	50031065	0.000000	80.000000	6	5	31065	0
83	50031066	0.000000	72.000000	6	5	31066	0
84	50031067	0.000000	60.000000	6	5	31067	0

85	50031068	0.000000	54.000000	6	5	31068	0
86	50031069	0.000000	42.000000	6	5	31069	0
87	50031070	0.000000	38.000000	6	5	31070	0
88	50031071	0.000000	28.000000	6	5	31071	0
89	50031072	0.000000	60.000000	6	5	31072	0
90	50031073	0.000000	80.000000	6	5	31073	0
91	50032065	0.000000	100.000000	6	5	32065	0
92	50032066	0.000000	85.000000	6	5	32066	0
93	50032067	0.000000	66.000000	6	5	32067	0
94	50032068	0.000000	52.000000	6	5	32068	0
95	50032069	0.000000	42.000000	6	5	32069	0
96	50032070	0.000000	30.000000	6	5	32070	0
97	50032071	0.000000	22.000000	6	5	32071	0
98	50032072	0.000000	9.500000	6	5	32072	0
99	50032073	0.000000	34.000000	6	5	32073	0
100	50032074	0.000000	21.000000	6	5	32074	0
101	50033067	0.000000	100.000000	6	5	33067	0
102	50033068	0.000000	80.000000	6	5	33068	0
103	50033069	0.000000	70.000000	6	5	33069	0
104	50033070	0.000000	60.000000	6	5	33070	0
105	50033071	0.000000	46.000000	6	5	33071	0
106	50033072	0.000000	40.000000	6	5	33072	0
107	50033073	0.000000	29.000000	6	5	33073	0
108	50033074	0.000000	21.000000	6	5	33074	0
109	50033075	0.000000	10.500000	6	5	33075	0
110	50034070	0.000000	90.000000	6	5	34070	0
111	50034071	0.000000	54.000000	6	5	34071	0
112	50034072	0.000000	40.000000	6	5	34072	0
113	50034073	0.000000	30.000000	6	5	34073	0
114	51034073	0.000000	30.000000	6	5	34073	1
115	50034074	0.000000	19.000000	6	5	34074	0
116	50034075	0.000000	11.000000	6	5	34075	0
117	50034076	0.000000	1.000000	6	5	34076	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.000000
2	0	2	1	1.000000
3	1001	9	1	10.000000
4	1002	31	1	18.500000
5	1003	32	1	20.000000
6	2003	33	1	22.000000
7	2004	34	1	9.000000

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34-Se- 78 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 34078.38u MAT=3437 ZA= 34078  
 AWR= 77.247970 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 118 NTRAN= 1 NPROD= 117 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	10.000000	6	5	1	0

3	50001001	0.000000	11.000000	6	5	1001	0
4	50001002	0.000000	19.000000	6	5	1002	0
5	50001003	0.000000	20.000000	6	5	1003	0
6	50002003	0.000000	23.000000	6	5	2003	0
7	50002004	0.000000	10.000000	6	5	2004	0
8	50024048	0.000000	150.000000	6	5	24048	0
9	50024049	0.000000	140.000000	6	5	24049	0
10	50024050	0.000000	130.000000	6	5	24050	0
11	50024051	0.000000	130.000000	6	5	24051	0
12	50024052	0.000000	130.000000	6	5	24052	0
13	50024053	0.000000	130.000000	6	5	24053	0
14	50024054	0.000000	130.000000	6	5	24054	0
15	50024055	0.000000	130.000000	6	5	24055	0
16	50025050	0.000000	140.000000	6	5	25050	0
17	51025050	0.000000	140.000000	6	5	25050	1
18	50025051	0.000000	130.000000	6	5	25051	0
19	50025052	0.000000	130.000000	6	5	25052	0
20	51025052	0.000000	130.000000	6	5	25052	1
21	50025053	0.000000	120.000000	6	5	25053	0
22	50025054	0.000000	120.000000	6	5	25054	0
23	50025055	0.000000	120.000000	6	5	25055	0
24	50025056	0.000000	120.000000	6	5	25056	0
25	50025057	0.000000	120.000000	6	5	25057	0
26	50026053	0.000000	130.000000	6	5	26053	0
27	72026053	0.000000	130.000000	6	5	26053	22
28	50026054	0.000000	120.000000	6	5	26054	0
29	50026055	0.000000	120.000000	6	5	26055	0
30	50026056	0.000000	120.000000	6	5	26056	0
31	50026057	0.000000	120.000000	6	5	26057	0
32	50026058	0.000000	120.000000	6	5	26058	0
33	50026059	0.000000	120.000000	6	5	26059	0
34	50027054	0.000000	140.000000	6	5	27054	0
35	51027054	0.000000	140.000000	6	5	27054	1
36	50027055	0.000000	120.000000	6	5	27055	0
37	50027056	0.000000	120.000000	6	5	27056	0
38	50027057	0.000000	110.000000	6	5	27057	0
39	50027058	0.000000	110.000000	6	5	27058	0
40	51027058	0.000000	110.000000	6	5	27058	1
41	50027059	0.000000	110.000000	6	5	27059	0
42	50027060	0.000000	110.000000	6	5	27060	0
43	51027060	0.000000	110.000000	6	5	27060	1
44	50027061	0.000000	110.000000	6	5	27061	0
45	50027062	0.000000	110.000000	6	5	27062	0
46	51027062	0.000000	110.000000	6	5	27062	1
47	50028057	0.000000	120.000000	6	5	28057	0
48	50028058	0.000000	110.000000	6	5	28058	0
49	50028059	0.000000	110.000000	6	5	28059	0
50	50028060	0.000000	100.000000	6	5	28060	0
51	50028061	0.000000	100.000000	6	5	28061	0
52	50028062	0.000000	100.000000	6	5	28062	0
53	50028063	0.000000	100.000000	6	5	28063	0
54	50028064	0.000000	100.000000	6	5	28064	0
55	50028065	0.000000	100.000000	6	5	28065	0
56	50029059	0.000000	120.000000	6	5	29059	0

57	50029060	0.000000	110.000000	6	5	29060	0
58	50029061	0.000000	100.000000	6	5	29061	0
59	50029062	0.000000	95.000000	6	5	29062	0
60	50029063	0.000000	90.000000	6	5	29063	0
61	50029064	0.000000	85.000000	6	5	29064	0
62	50029065	0.000000	80.000000	6	5	29065	0
63	50029066	0.000000	80.000000	6	5	29066	0
64	50029067	0.000000	80.000000	6	5	29067	0
65	50030061	0.000000	120.000000	6	5	30061	0
66	50030062	0.000000	100.000000	6	5	30062	0
67	50030063	0.000000	90.000000	6	5	30063	0
68	50030064	0.000000	85.000000	6	5	30064	0
69	50030065	0.000000	76.000000	6	5	30065	0
70	50030066	0.000000	64.000000	6	5	30066	0
71	50030067	0.000000	60.000000	6	5	30067	0
72	50030068	0.000000	52.000000	6	5	30068	0
73	50030069	0.000000	52.000000	6	5	30069	0
74	51030069	0.000000	52.000000	6	5	30069	1
75	50030070	0.000000	72.000000	6	5	30070	0
76	50031063	0.000000	120.000000	6	5	31063	0
77	50031064	0.000000	100.000000	6	5	31064	0
78	50031065	0.000000	90.000000	6	5	31065	0
79	50031066	0.000000	80.000000	6	5	31066	0
80	50031067	0.000000	74.000000	6	5	31067	0
81	50031068	0.000000	68.000000	6	5	31068	0
82	50031069	0.000000	60.000000	6	5	31069	0
83	50031070	0.000000	54.000000	6	5	31070	0
84	50031071	0.000000	48.000000	6	5	31071	0
85	50031072	0.000000	44.000000	6	5	31072	0
86	50031073	0.000000	58.000000	6	5	31073	0
87	50032066	0.000000	95.000000	6	5	32066	0
88	50032067	0.000000	80.000000	6	5	32067	0
89	50032068	0.000000	70.000000	6	5	32068	0
90	50032069	0.000000	60.000000	6	5	32069	0
91	50032070	0.000000	48.000000	6	5	32070	0
92	50032071	0.000000	42.000000	6	5	32071	0
93	50032072	0.000000	30.000000	6	5	32072	0
94	50032073	0.000000	23.000000	6	5	32073	0
95	50032074	0.000000	12.500000	6	5	32074	0
96	50032075	0.000000	38.000000	6	5	32075	0
97	52032075	0.000000	38.000000	6	5	32075	2
98	50032076	0.000000	38.000000	6	5	32076	0
99	50033068	0.000000	95.000000	6	5	33068	0
100	50033069	0.000000	80.000000	6	5	33069	0
101	50033070	0.000000	72.000000	6	5	33070	0
102	50033071	0.000000	62.000000	6	5	33071	0
103	50033072	0.000000	54.000000	6	5	33072	0
104	50033073	0.000000	44.000000	6	5	33073	0
105	50033074	0.000000	38.000000	6	5	33074	0
106	50033075	0.000000	29.000000	6	5	33075	0
107	50033076	0.000000	22.000000	6	5	33076	0
108	50033077	0.000000	12.000000	6	5	33077	0
109	50034071	0.000000	85.000000	6	5	34071	0
110	50034072	0.000000	58.000000	6	5	34072	0

111	50034073	0.000000	48.000000	6	5	34073	0
112	51034073	0.000000	48.000000	6	5	34073	1
113	50034074	0.000000	36.000000	6	5	34074	0
114	50034075	0.000000	29.000000	6	5	34075	0
115	50034076	0.000000	17.500000	6	5	34076	0
116	50034077	0.000000	10.000000	6	5	34077	0
117	51034077	0.000000	10.500000	6	5	34077	1
118	50034078	0.000000	1.000000	6	5	34078	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.000000
2	0	2	1	1.000000
3	1001	9	1	11.000000
4	1002	31	1	19.000000
5	1003	32	1	20.000000
6	2003	33	1	23.000000
7	2004	34	1	10.000000

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34-Se- 80 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 34080.38u MAT=3443 ZA= 34080  
 AWR= 79.230000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 119 NTRAN= 1 NPROD= 118 NE= 89 EMAX= 200.000 MeV

i	FmN/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	9.500000	6	5	1	0
3	50001001	0.000000	12.000000	6	5	1001	0
4	50001002	0.000000	19.000000	6	5	1002	0
5	50001003	0.000000	20.000000	6	5	1003	0
6	50002003	0.000000	25.000000	6	5	2003	0
7	50002004	0.000000	10.500000	6	5	2004	0
8	50024050	0.000000	150.000000	6	5	24050	0
9	50024051	0.000000	140.000000	6	5	24051	0
10	50024052	0.000000	140.000000	6	5	24052	0
11	50024053	0.000000	150.000000	6	5	24053	0
12	50024054	0.000000	150.000000	6	5	24054	0
13	50025051	0.000000	150.000000	6	5	25051	0
14	50025052	0.000000	140.000000	6	5	25052	0
15	51025052	0.000000	140.000000	6	5	25052	1
16	50025053	0.000000	140.000000	6	5	25053	0
17	50025054	0.000000	140.000000	6	5	25054	0
18	50025055	0.000000	140.000000	6	5	25055	0
19	50025056	0.000000	140.000000	6	5	25056	0
20	50026053	0.000000	140.000000	6	5	26053	0
21	72026053	0.000000	140.000000	6	5	26053	22
22	50026054	0.000000	140.000000	6	5	26054	0
23	50026055	0.000000	130.000000	6	5	26055	0
24	50026056	0.000000	130.000000	6	5	26056	0
25	50026057	0.000000	130.000000	6	5	26057	0
26	50026058	0.000000	130.000000	6	5	26058	0
27	50027054	0.000000	150.000000	6	5	27054	0



28	51027054	0.000000	150.000000	6	5	27054	1
29	50027055	0.000000	140.000000	6	5	27055	0
30	50027056	0.000000	130.000000	6	5	27056	0
31	50027057	0.000000	120.000000	6	5	27057	0
32	50027058	0.000000	120.000000	6	5	27058	0
33	51027058	0.000000	120.000000	6	5	27058	1
34	50027059	0.000000	120.000000	6	5	27059	0
35	50027060	0.000000	120.000000	6	5	27060	0
36	51027060	0.000000	120.000000	6	5	27060	1
37	50027061	0.000000	120.000000	6	5	27061	0
38	50028057	0.000000	140.000000	6	5	28057	0
39	50028058	0.000000	120.000000	6	5	28058	0
40	50028059	0.000000	120.000000	6	5	28059	0
41	50028060	0.000000	110.000000	6	5	28060	0
42	50028061	0.000000	110.000000	6	5	28061	0
43	50028062	0.000000	110.000000	6	5	28062	0
44	50028063	0.000000	110.000000	6	5	28063	0
45	50028064	0.000000	110.000000	6	5	28064	0
46	50029059	0.000000	130.000000	6	5	29059	0
47	50029060	0.000000	120.000000	6	5	29060	0
48	50029061	0.000000	110.000000	6	5	29061	0
49	50029062	0.000000	100.000000	6	5	29062	0
50	50029063	0.000000	100.000000	6	5	29063	0
51	50029064	0.000000	95.000000	6	5	29064	0
52	50029065	0.000000	95.000000	6	5	29065	0
53	50029066	0.000000	95.000000	6	5	29066	0
54	50029067	0.000000	95.000000	6	5	29067	0
55	50030061	0.000000	130.000000	6	5	30061	0
56	50030062	0.000000	110.000000	6	5	30062	0
57	50030063	0.000000	100.000000	6	5	30063	0
58	50030064	0.000000	90.000000	6	5	30064	0
59	50030065	0.000000	85.000000	6	5	30065	0
60	50030066	0.000000	78.000000	6	5	30066	0
61	50030067	0.000000	74.000000	6	5	30067	0
62	50030068	0.000000	66.000000	6	5	30068	0
63	50030069	0.000000	60.000000	6	5	30069	0
64	51030069	0.000000	60.000000	6	5	30069	1
65	50030070	0.000000	56.000000	6	5	30070	0
66	50031063	0.000000	130.000000	6	5	31063	0
67	50031064	0.000000	120.000000	6	5	31064	0
68	50031065	0.000000	100.000000	6	5	31065	0
69	50031066	0.000000	90.000000	6	5	31066	0
70	50031067	0.000000	85.000000	6	5	31067	0
71	50031068	0.000000	80.000000	6	5	31068	0
72	50031069	0.000000	74.000000	6	5	31069	0
73	50031070	0.000000	68.000000	6	5	31070	0
74	50031071	0.000000	62.000000	6	5	31071	0
75	50031072	0.000000	56.000000	6	5	31072	0
76	50031073	0.000000	50.000000	6	5	31073	0
77	50031074	0.000000	44.000000	6	5	31074	0
78	52031074	0.000000	44.000000	6	5	31074	2
79	50031075	0.000000	44.000000	6	5	31075	0
80	50032066	0.000000	100.000000	6	5	32066	0
81	50032067	0.000000	90.000000	6	5	32067	0

82	50032068	0.000000	80.000000	6	5	32068	0
83	50032069	0.000000	72.000000	6	5	32069	0
84	50032070	0.000000	64.000000	6	5	32070	0
85	50032071	0.000000	56.000000	6	5	32071	0
86	50032072	0.000000	48.000000	6	5	32072	0
87	50032073	0.000000	40.000000	6	5	32073	0
88	50032074	0.000000	30.000000	6	5	32074	0
89	50032075	0.000000	23.000000	6	5	32075	0
90	52032075	0.000000	23.000000	6	5	32075	2
91	50032076	0.000000	14.000000	6	5	32076	0
92	50032077	0.000000	42.000000	6	5	32077	0
93	51032077	0.000000	42.000000	6	5	32077	1
94	50032078	0.000000	42.000000	6	5	32078	0
95	50033068	0.000000	110.000000	6	5	33068	0
96	50033069	0.000000	95.000000	6	5	33069	0
97	50033070	0.000000	85.000000	6	5	33070	0
98	50033071	0.000000	78.000000	6	5	33071	0
99	50033072	0.000000	68.000000	6	5	33072	0
100	50033073	0.000000	58.000000	6	5	33073	0
101	50033074	0.000000	50.000000	6	5	33074	0
102	50033075	0.000000	40.000000	6	5	33075	0
103	50033076	0.000000	32.000000	6	5	33076	0
104	50033077	0.000000	28.000000	6	5	33077	0
105	50033078	0.000000	22.000000	6	5	33078	0
106	50033079	0.000000	13.500000	6	5	33079	0
107	50034071	0.000000	95.000000	6	5	34071	0
108	50034072	0.000000	78.000000	6	5	34072	0
109	50034073	0.000000	68.000000	6	5	34073	0
110	51034073	0.000000	68.000000	6	5	34073	1
111	50034074	0.000000	54.000000	6	5	34074	0
112	50034075	0.000000	46.000000	6	5	34075	0
113	50034076	0.000000	34.000000	6	5	34076	0
114	50034077	0.000000	27.000000	6	5	34077	0
115	51034077	0.000000	27.000000	6	5	34077	1
116	50034078	0.000000	16.500000	6	5	34078	0
117	50034079	0.000000	9.500000	6	5	34079	0
118	51034079	0.000000	10.000000	6	5	34079	1
119	50034080	0.000000	1.000000	6	5	34080	0

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	9.500000
2	0	2	1	1.000000
3	1001	9	1	12.000000
4	1002	31	1	19.000000
5	1003	32	1	20.000000
6	2003	33	1	25.000000
7	2004	34	1	10.500000

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34-Se- 82 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 34082.38u MAT=3449 ZA= 34082  
 AWR= 81.213000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 120 NTRAN= 1 NPROD= 119 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	9.000000	6	5	1	0
3	50001001	0.000000	13.000000	6	5	1001	0
4	50001002	0.000000	19.500000	6	5	1002	0
5	50001003	0.000000	20.000000	6	5	1003	0
6	50002003	0.000000	26.000000	6	5	2003	0
7	50002004	0.000000	12.000000	6	5	2004	0
8	50024052	0.000000	150.000000	6	5	24052	0
9	50024053	0.000000	150.000000	6	5	24053	0
10	50024054	0.000000	150.000000	6	5	24054	0
11	50025053	0.000000	140.000000	6	5	25053	0
12	50025054	0.000000	140.000000	6	5	25054	0
13	50025055	0.000000	140.000000	6	5	25055	0
14	50025056	0.000000	140.000000	6	5	25056	0
15	50025057	0.000000	140.000000	6	5	25057	0
16	50026054	0.000000	140.000000	6	5	26054	0
17	50026055	0.000000	140.000000	6	5	26055	0
18	50026056	0.000000	130.000000	6	5	26056	0
19	50026057	0.000000	130.000000	6	5	26057	0
20	50026058	0.000000	130.000000	6	5	26058	0
21	50026059	0.000000	130.000000	6	5	26059	0
22	50027055	0.000000	150.000000	6	5	27055	0
23	50027056	0.000000	140.000000	6	5	27056	0
24	50027057	0.000000	130.000000	6	5	27057	0
25	50027058	0.000000	130.000000	6	5	27058	0
26	51027058	0.000000	130.000000	6	5	27058	1
27	50027059	0.000000	120.000000	6	5	27059	0
28	50027060	0.000000	120.000000	6	5	27060	0
29	51027060	0.000000	120.000000	6	5	27060	1
30	50027061	0.000000	120.000000	6	5	27061	0
31	50027062	0.000000	120.000000	6	5	27062	0
32	51027062	0.000000	120.000000	6	5	27062	1
33	50028058	0.000000	140.000000	6	5	28058	0
34	50028059	0.000000	130.000000	6	5	28059	0
35	50028060	0.000000	120.000000	6	5	28060	0
36	50028061	0.000000	120.000000	6	5	28061	0
37	50028062	0.000000	110.000000	6	5	28062	0
38	50028063	0.000000	110.000000	6	5	28063	0
39	50028064	0.000000	110.000000	6	5	28064	0
40	50028065	0.000000	110.000000	6	5	28065	0
41	50029059	0.000000	150.000000	6	5	29059	0
42	50029060	0.000000	130.000000	6	5	29060	0
43	50029061	0.000000	120.000000	6	5	29061	0
44	50029062	0.000000	110.000000	6	5	29062	0
45	50029063	0.000000	100.000000	6	5	29063	0
46	50029064	0.000000	100.000000	6	5	29064	0
47	50029065	0.000000	95.000000	6	5	29065	0
48	50029066	0.000000	95.000000	6	5	29066	0
49	50029067	0.000000	95.000000	6	5	29067	0
50	50030062	0.000000	130.000000	6	5	30062	0
51	50030063	0.000000	120.000000	6	5	30063	0

52	50030064	0.000000	100.000000	6	5	30064	0
53	50030065	0.000000	95.000000	6	5	30065	0
54	50030066	0.000000	90.000000	6	5	30066	0
55	50030067	0.000000	85.000000	6	5	30067	0
56	50030068	0.000000	80.000000	6	5	30068	0
57	50030069	0.000000	76.000000	6	5	30069	0
58	51030069	0.000000	76.000000	6	5	30069	1
59	50030070	0.000000	68.000000	6	5	30070	0
60	50030071	0.000000	62.000000	6	5	30071	0
61	51030071	0.000000	62.000000	6	5	30071	1
62	50031064	0.000000	130.000000	6	5	31064	0
63	50031065	0.000000	110.000000	6	5	31065	0
64	50031066	0.000000	100.000000	6	5	31066	0
65	50031067	0.000000	95.000000	6	5	31067	0
66	50031068	0.000000	90.000000	6	5	31068	0
67	50031069	0.000000	85.000000	6	5	31069	0
68	50031070	0.000000	80.000000	6	5	31070	0
69	50031071	0.000000	74.000000	6	5	31071	0
70	50031072	0.000000	68.000000	6	5	31072	0
71	50031073	0.000000	62.000000	6	5	31073	0
72	50031074	0.000000	58.000000	6	5	31074	0
73	52031074	0.000000	58.000000	6	5	31074	2
74	50031075	0.000000	52.000000	6	5	31075	0
75	50031076	0.000000	48.000000	6	5	31076	0
76	50032066	0.000000	120.000000	6	5	32066	0
77	50032067	0.000000	110.000000	6	5	32067	0
78	50032068	0.000000	95.000000	6	5	32068	0
79	50032069	0.000000	85.000000	6	5	32069	0
80	50032070	0.000000	78.000000	6	5	32070	0
81	50032071	0.000000	72.000000	6	5	32071	0
82	50032072	0.000000	62.000000	6	5	32072	0
83	50032073	0.000000	56.000000	6	5	32073	0
84	50032074	0.000000	48.000000	6	5	32074	0
85	50032075	0.000000	40.000000	6	5	32075	0
86	52032075	0.000000	40.000000	6	5	32075	2
87	50032076	0.000000	30.000000	6	5	32076	0
88	50032077	0.000000	23.000000	6	5	32077	0
89	51032077	0.000000	23.000000	6	5	32077	1
90	50032078	0.000000	14.000000	6	5	32078	0
91	50032079	0.000000	46.000000	6	5	32079	0
92	51032079	0.000000	46.000000	6	5	32079	1
93	50033069	0.000000	110.000000	6	5	33069	0
94	50033070	0.000000	100.000000	6	5	33070	0
95	50033071	0.000000	90.000000	6	5	33071	0
96	50033072	0.000000	80.000000	6	5	33072	0
97	50033073	0.000000	74.000000	6	5	33073	0
98	50033074	0.000000	66.000000	6	5	33074	0
99	50033075	0.000000	56.000000	6	5	33075	0
100	50033076	0.000000	48.000000	6	5	33076	0
101	50033077	0.000000	38.000000	6	5	33077	0
102	50033078	0.000000	32.000000	6	5	33078	0
103	50033079	0.000000	27.000000	6	5	33079	0
104	50033080	0.000000	22.000000	6	5	33080	0
105	50033081	0.000000	14.000000	6	5	33081	0

106	50034072	0.000000	100.000000	6	5	34072	0
107	50034073	0.000000	85.000000	6	5	34073	0
108	51034073	0.000000	85.000000	6	5	34073	1
109	50034074	0.000000	72.000000	6	5	34074	0
110	50034075	0.000000	62.000000	6	5	34075	0
111	50034076	0.000000	52.000000	6	5	34076	0
112	50034077	0.000000	44.000000	6	5	34077	0
113	51034077	0.000000	44.000000	6	5	34077	1
114	50034078	0.000000	32.000000	6	5	34078	0
115	50034079	0.000000	26.000000	6	5	34079	0
116	51034079	0.000000	26.000000	6	5	34079	1
117	50034080	0.000000	15.500000	6	5	34080	0
118	50034081	0.000000	9.000000	6	5	34081	0
119	51034081	0.000000	9.000000	6	5	34081	1
120	50034082	0.000000	1.000000	6	5	34082	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.000000
2	0	2	1	1.000000
3	1001	9	1	13.000000
4	1002	31	1	19.500000
5	1003	32	1	20.000000
6	2003	33	1	26.000000
7	2004	34	1	12.000000

38-Sr- 84 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 38084.38u MAT=3825 ZA= 38084  
 AWR= 83.192560 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.923280
2	0	2	1	1.000000
3	1001	9	1	8.867911
4	1002	31	1	17.597490
5	1003	32	1	20.142710
6	2003	33	1	18.500000
7	2004	34	1	6.000000

38-Sr- 86 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 38086.38u MAT=3831 ZA= 38086  
 AWR= 85.171260 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS

1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.491130
2	0	2	1	1.000000
3	1001	9	1	9.644729
4	1002	31	1	17.899850
5	1003	32	1	20.402270
6	2003	33	1	20.000000
7	2004	34	1	7.000000

38-Sr- 87 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 38087.38u MAT=3834 ZA= 38087  
AWR= 86.162290 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.428294
2	0	2	1	1.000000
3	1001	9	1	9.422044
4	1002	31	1	15.848460
5	1003	32	1	20.070910
6	2003	33	1	18.000000
7	2004	34	1	8.000000

38-Sr- 88 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 38088.38u MAT=3837 ZA= 38088  
AWR= 87.150460 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.112870
2	0	2	1	1.000000
3	1001	9	1	10.612800
4	1002	31	1	18.310350
5	1003	32	1	21.000000
6	2003	33	1	22.000000
7	2004	34	1	8.500000

38-Sr- 90 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 38090.38u MAT=3843 ZA= 38090  
 AWR= 89.135380 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.810427  
 2 0 2 1 1.000000  
 3 1001 9 1 11.524710  
 4 1002 31 1 16.474850  
 5 1003 32 1 16.300150  
 6 2003 33 1 21.000000  
 7 2004 34 1 6.000000

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39-Y - 89 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 39089.38u MAT=3925 ZA= 39089  
 AWR= 88.142100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 254 NTRAN= 130 NPROD= 124 NE= 229 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 -7.321000 14.200000 3 5  
 2 11 -29.620370 37.400000 3 11  
 3 16 -20.827000 20.827000 3 16  
 4 17 -32.633000 32.633000 3 17  
 5 22 -18.448000 21.400000 3 22  
 6 28 -18.184000 19.600000 3 28  
 7 32 -24.387000 26.000000 3 32  
 8 33 -29.620000 31.000000 3 33  
 9 34 -28.536000 31.000000 3 34  
 10 41 -26.611000 28.000000 3 41  
 11 42 -38.101000 39.000000 3 42  
 12 44 -27.604000 30.000000 3 44  
 13 50 -11.476430 11.476430 3 50  
 14 51 -11.708360 11.708360 3 51  
 15 52 -11.869290 11.869290 3 52  
 16 53 -12.150980 12.150980 3 53  
 17 54 -12.183150 12.183150 3 54  
 18 55 -12.183430 12.183430 3 55  
 19 56 -12.188430 12.188430 3 56  
 20 57 -12.191590 12.191590 3 57  
 21 58 -12.242830 12.242830 3 58  
 22 59 -12.319610 12.319610 3 59  
 23 60 -12.461260 12.461260 3 60  
 24 61 -12.564640 12.564640 3 61  
 25 62 -12.605560 12.605560 3 62  
 26 63 -12.691430 12.691430 3 63  
 27 64 -12.697690 12.697690 3 64  
 28 65 -12.710430 12.710430 3 65

29	66	-12.738430	12.738430	3	66
30	67	-12.751730	12.751730	3	67
31	68	-12.760380	12.760380	3	68
32	69	-12.791430	12.791430	3	69
33	70	-12.796570	12.796570	3	70
34	71	-12.938030	12.938030	3	71
35	72	-12.951430	12.951430	3	72
36	74	-13.047230	13.047230	3	74
37	75	-13.051860	13.051860	3	75
38	76	-13.072330	13.072330	3	76
39	77	-13.179160	13.179160	3	77
40	78	-13.210430	13.210430	3	78
41	79	-13.237430	13.237430	3	79
42	80	-13.308430	13.308430	3	80
43	81	-13.357430	13.357430	3	81
44	82	-13.381430	13.381430	3	82
45	83	-13.426430	13.426430	3	83
46	84	-13.447430	13.447430	3	84
47	91	-13.447000	13.447000	3	91
48	102	0.000000	5.000000	3	102
49	104	-15.960000	17.000000	3	104
50	105	-18.130000	19.400000	3	105
51	106	-19.886000	22.400000	3	106
52	111	-17.685000	20.400000	3	111
53	112	-14.985000	19.200000	3	112
54	115	-25.380000	28.000000	3	115
55	116	-27.773000	30.000000	3	116
56	600	-7.071030	8.500000	3	600
57	601	-8.907117	10.000000	3	601
58	602	-9.805164	11.000000	3	602
59	603	-10.223030	11.500000	3	603
60	604	-10.289540	11.500000	3	604
61	605	-10.449130	11.500000	3	605
62	606	-10.557590	12.000000	3	606
63	607	-10.593970	12.000000	3	607
64	608	-10.655810	12.000000	3	608
65	609	-10.706150	12.000000	3	609
66	610	-11.023670	12.000000	3	610
67	611	-11.064030	12.000000	3	611
68	612	-11.090670	12.000000	3	612
69	613	-11.106630	12.500000	3	613
70	614	-11.110100	12.500000	3	614
71	615	-11.241460	12.500000	3	615
72	616	-11.242030	12.500000	3	616
73	617	-11.295130	12.500000	3	617
74	618	-11.297630	12.500000	3	618
75	619	-11.298270	12.500000	3	619
76	620	-11.339760	12.500000	3	620
77	621	-11.370680	12.500000	3	621
78	622	-11.426030	12.500000	3	622
79	623	-11.438920	12.500000	3	623
80	624	-11.484990	12.500000	3	624
81	625	-11.511820	12.500000	3	625
82	626	-11.523050	12.500000	3	626



83	627	-11.556030	12.500000	3	627		
84	628	-11.585060	13.000000	3	628		
85	629	-11.585570	13.000000	3	629		
86	630	-11.592420	13.000000	3	630		
87	631	-11.627030	13.000000	3	631		
88	632	-11.684830	13.000000	3	632		
89	633	-11.703030	13.000000	3	633		
90	634	-11.716030	13.000000	3	634		
91	635	-11.758360	13.000000	3	635		
92	636	-11.813590	13.000000	3	636		
93	637	-11.842630	13.000000	3	637		
94	638	-11.869030	13.000000	3	638		
95	639	-11.872330	13.000000	3	639		
96	649	-11.872300	11.872300	3	649		
97	800	-7.958930	10.500000	3	800		
98	801	-8.110091	10.500000	3	801		
99	802	-8.239916	11.000000	3	802		
100	803	-8.472938	11.000000	3	803		
101	804	-8.690752	11.500000	3	804		
102	805	-8.827910	11.500000	3	805		
103	806	-8.844750	11.500000	3	806		
104	807	-8.878630	11.500000	3	807		
105	808	-8.878640	11.500000	3	808		
106	809	-8.909880	11.500000	3	809		
107	810	-9.133930	12.000000	3	810		
108	811	-9.134460	12.000000	3	811		
109	812	-9.252300	12.000000	3	812		
110	813	-9.254870	12.000000	3	813		
111	814	-9.343140	12.000000	3	814		
112	815	-9.403990	12.000000	3	815		
113	816	-9.408140	12.000000	3	816		
114	817	-9.455220	12.000000	3	817		
115	818	-9.590390	12.000000	3	818		
116	819	-9.627560	12.500000	3	819		
117	820	-9.706730	12.500000	3	820		
118	821	-9.745860	12.500000	3	821		
119	822	-9.751210	12.500000	3	822		
120	823	-9.761130	12.500000	3	823		
121	824	-9.811550	12.500000	3	824		
122	825	-9.849930	12.500000	3	825		
123	826	-9.888630	12.500000	3	826		
124	827	-9.908960	12.500000	3	827		
125	828	-9.958830	12.500000	3	828		
126	829	-9.987040	12.500000	3	829		
127	830	-9.998430	12.500000	3	830		
128	831	-10.011930	12.500000	3	831		
129	832	-10.046530	12.500000	3	832		
130	849	-10.046600	14.000000	3	849		
131	50026061	-66.355950	120.000000	10	5	26061	0
132	50026062	-58.303520	120.000000	10	5	26062	0
133	50027062	-65.037870	120.000000	10	5	27062	0
134	50027063	-56.557440	100.000000	10	5	27063	0
135	50027064	-50.534010	100.000000	10	5	27064	0
136	50027065	-43.087580	90.000000	10	5	27065	0

137	50028063	-73.481880	120.000000	10	5	28063	0
138	50028064	-63.823450	100.000000	10	5	28064	0
139	50028065	-57.725020	100.000000	10	5	28065	0
140	50028066	-48.747590	90.000000	10	5	28066	0
141	50028067	-49.220490	90.000000	10	5	28067	0
142	50028068	-43.629680	90.000000	10	5	28068	0
143	50029064	-74.762800	120.000000	10	5	29064	0
144	50029065	-64.852370	100.000000	10	5	29065	0
145	50029066	-57.786940	100.000000	10	5	29066	0
146	50029067	-48.669510	90.000000	10	5	29067	0
147	50029068	-42.356080	80.000000	10	5	29068	0
148	50029069	-34.086650	70.000000	10	5	29069	0
149	50029070	-49.373040	90.000000	10	5	29070	0
150	50029071	-49.215780	90.000000	10	5	29071	0
151	50030065	-86.800810	120.000000	10	5	30065	0
152	50030066	-75.741380	120.000000	10	5	30066	0
153	50030067	-68.688950	100.000000	10	5	30067	0
154	50030068	-58.490520	90.000000	10	5	30068	0
155	50030069	-52.008090	90.000000	10	5	30069	0
156	50030070	-42.792660	80.000000	10	5	30070	0
157	50030071	-43.215560	80.000000	10	5	30071	0
158	50030072	-36.562750	70.000000	10	5	30072	0
159	50030073	-51.787140	90.000000	10	5	30073	0
160	50030074	-51.134880	90.000000	10	5	30074	0
161	50031066	-90.180740	140.000000	10	5	31066	0
162	50031067	-78.953300	120.000000	10	5	31067	0
163	50031068	-70.675870	100.000000	10	5	31068	0
164	50031069	-60.366440	90.000000	10	5	31069	0
165	50031070	-52.711010	80.000000	10	5	31070	0
166	50031071	-43.407580	70.000000	10	5	31071	0
167	50031072	-36.886150	60.000000	10	5	31072	0
168	50031073	-27.697720	55.000000	10	5	31073	0
169	50031074	-41.854110	70.000000	10	5	31074	0
170	50031075	-41.090850	70.000000	10	5	31075	0
171	50031076	-55.858240	80.000000	10	5	31076	0
172	50031077	-55.833980	90.000000	10	5	31077	0
173	50032068	-91.378310	120.000000	10	5	32068	0
174	50032069	-83.189880	120.000000	10	5	32069	0
175	50032070	-71.652450	100.000000	10	5	32070	0
176	50032071	-64.236020	90.000000	10	5	32071	0
177	50032072	-53.483590	80.000000	10	5	32072	0
178	50032073	-46.701160	70.000000	10	5	32073	0
179	50032074	-36.504730	60.000000	10	5	32074	0
180	50032075	-36.256630	60.000000	10	5	32075	0
181	50032076	-29.052820	50.000000	10	5	32076	0
182	50032077	-43.558210	60.000000	10	5	32077	0
183	50032078	-42.556950	70.000000	10	5	32078	0
184	50032079	-57.437340	80.000000	10	5	32079	0
185	50033069	-96.467230	140.000000	10	5	33069	0
186	50033070	-87.136800	120.000000	10	5	33070	0
187	50033071	-75.513370	100.000000	10	5	33071	0
188	50033072	-67.104940	90.000000	10	5	33072	0
189	50033073	-56.306510	80.000000	10	5	33073	0
190	50033074	-48.331080	70.000000	10	5	33074	0

191	50033075	-38.087650	60.000000	10	5	33075	0
192	50033078	-34.667180	55.000000	10	5	33078	0
193	50033079	-33.493920	55.000000	10	5	33079	0
194	50033080	-47.518310	60.000000	10	5	33080	0
195	50033081	-46.750050	70.000000	10	5	33081	0
196	50033082	-61.466440	80.000000	10	5	33082	0
197	50034071	-100.537800	120.000000	10	5	34071	0
198	50034072	-88.036380	100.000000	10	5	34072	0
199	50034073	-79.642950	100.000000	10	5	34073	0
200	50034074	-67.574520	80.000000	10	5	34074	0
201	50034075	-59.547090	80.000000	10	5	34075	0
202	50034076	-48.392660	60.000000	10	5	34076	0
203	50034080	-22.081890	37.000000	10	5	34080	0
204	50034081	-35.958280	50.000000	10	5	34081	0
205	50034082	-34.401020	50.000000	10	5	34082	0
206	50034083	-49.160410	60.000000	10	5	34083	0
207	50035073	-93.590300	120.000000	10	5	35073	0
208	50035074	-83.745870	100.000000	10	5	35074	0
209	50035075	-71.841440	90.000000	10	5	35075	0
210	50035076	-62.620010	80.000000	10	5	35076	0
211	50035077	-51.603580	60.000000	10	5	35077	0
212	50035078	-43.314150	55.000000	10	5	35078	0
213	50035082	-27.562250	39.000000	10	5	35082	0
214	50035083	-25.695990	37.000000	10	5	35083	0
215	50035084	-39.435380	50.000000	10	5	35084	0
216	50035085	-38.247120	50.000000	10	5	35085	0
217	50036075	-97.334880	100.000000	10	5	36075	0
218	50036076	-84.526450	100.000000	10	5	36076	0
219	50036077	-75.263020	80.000000	10	5	36077	0
220	50036078	-63.202590	70.000000	10	5	36078	0
221	50036079	-54.849160	60.000000	10	5	36079	0
222	50036080	-43.326730	50.000000	10	5	36080	0
223	50036081	-35.454300	43.000000	10	5	36081	0
224	50036082	-24.487870	31.000000	10	5	36082	0
225	50036085	-28.441350	36.000000	10	5	36085	0
226	50037077	-89.872370	100.000000	10	5	37077	0
227	50037078	-79.690940	90.000000	10	5	37078	0
228	50037079	-67.758500	70.000000	10	5	37079	0
229	50037080	-58.311080	60.000000	10	5	37080	0
230	50037081	-46.956650	50.000000	10	5	37081	0
231	50037085	-15.846000	15.846000	10	5	37085	0
232	50038079	-93.674950	100.000000	10	5	38079	0
233	50038080	-80.775520	90.000000	10	5	38080	0
234	50038081	-71.482100	71.482100	10	5	38081	0
235	50038082	-58.928660	60.000000	10	5	38082	0
236	50038083	-17.435000	50.000000	10	5	38083	0
237	50038084	-17.323000	40.000000	10	5	38084	0
238	50039082	-76.009010	80.000000	10	5	39082	0
239	50039083	-63.802580	63.802580	10	5	39083	0
240	50039084	-53.901150	55.000000	10	5	39084	0
241	10022	-18.448000	42.000000	10	22	37084	0
242	10023	-30.758220	50.000000	10	23	33076	0
243	10024	-27.196000	30.000000	10	24	37083	0
244	10025	-26.345000	42.000000	10	25	37082	0

245	10029	-24.734290	36.000000	10	29	35080	0
246	10030	-32.626720	44.000000	10	30	35079	0
247	10035	-30.475800	45.000000	10	35	34078	0
248	10036	-40.974230	55.000000	10	36	34077	0
249	10037	-42.138000	42.138000	10	37	39085	0
250	10045	-7.321000	31.000000	10	45	36083	0
251	10108	-14.577860	24.500000	10	108	35081	0
252	10109	-21.060790	42.000000	10	109	33077	0
253	10112	-14.985000	41.000000	10	112	36084	0
254	10114	-29.770700	45.000000	10	114	34079	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	36	11.476430
2	0	2	125	5.000000
3	1001	9	50	8.500000
4	1002	31	5	14.200000
5	1003	32	4	14.200000
6	2003	33	3	14.200000
7	2004	34	37	10.500000

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 40-Zr- 90 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 40090.38u MAT=4025 ZA= 40090  
 AWR= 89.132000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.999000	3	5		
2	201	-11.971000	11.970700	3	201		
3	203	-8.356500	9.000000	3	203		
4	204	-17.612000	19.500000	3	204		
5	205	-20.706000	24.500000	3	205		
6	206	-18.827000	27.500000	3	206		
7	207	-6.677100	11.000000	3	207		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	11.970000
2	0	2	1	1.999000
3	1001	9	1	9.000000
4	1002	31	1	19.000000
5	1003	32	1	23.500000
6	2003	33	1	25.000000
7	2004	34	1	10.500000

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 40-Zr- 91 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 40091.38u MAT=4028 ZA= 40091  
 AWR= 90.124730 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 137 NTRAN= 1 NPROD= 136 NE= 88 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.000000	6	5	1	0
3	50001001	0.000000	9.500000	6	5	1001	0
4	50001002	0.000000	14.500000	6	5	1002	0
5	50001003	0.000000	20.000000	6	5	1003	0
6	50002003	0.000000	19.000000	6	5	2003	0
7	50002004	0.000000	10.000000	6	5	2004	0
8	50030061	0.000000	150.000000	6	5	30061	0
9	50030062	0.000000	140.000000	6	5	30062	0
10	50030063	0.000000	130.000000	6	5	30063	0
11	50030064	0.000000	130.000000	6	5	30064	0
12	50030065	0.000000	130.000000	6	5	30065	0
13	50030066	0.000000	130.000000	6	5	30066	0
14	50031063	0.000000	140.000000	6	5	31063	0
15	50031064	0.000000	130.000000	6	5	31064	0
16	50031065	0.000000	130.000000	6	5	31065	0
17	50031066	0.000000	120.000000	6	5	31066	0
18	50031067	0.000000	120.000000	6	5	31067	0
19	50031068	0.000000	120.000000	6	5	31068	0
20	50031069	0.000000	120.000000	6	5	31069	0
21	50032066	0.000000	130.000000	6	5	32066	0
22	50032067	0.000000	120.000000	6	5	32067	0
23	50032068	0.000000	120.000000	6	5	32068	0
24	50032069	0.000000	120.000000	6	5	32069	0
25	50032070	0.000000	120.000000	6	5	32070	0
26	50032071	0.000000	120.000000	6	5	32071	0
27	50033068	0.000000	130.000000	6	5	33068	0
28	50033069	0.000000	120.000000	6	5	33069	0
29	50033070	0.000000	110.000000	6	5	33070	0
30	50033071	0.000000	110.000000	6	5	33071	0
31	50033072	0.000000	110.000000	6	5	33072	0
32	50033073	0.000000	110.000000	6	5	33073	0
33	50033074	0.000000	110.000000	6	5	33074	0
34	50034070	0.000000	130.000000	6	5	34070	0
35	50034071	0.000000	120.000000	6	5	34071	0
36	50034072	0.000000	110.000000	6	5	34072	0
37	50034073	0.000000	110.000000	6	5	34073	0
38	51034073	0.000000	110.000000	6	5	34073	1
39	50034074	0.000000	110.000000	6	5	34074	0
40	50034075	0.000000	110.000000	6	5	34075	0
41	50034076	0.000000	110.000000	6	5	34076	0
42	50034077	0.000000	110.000000	6	5	34077	0
43	51034077	0.000000	110.000000	6	5	34077	1
44	50034078	0.000000	100.000000	6	5	34078	0
45	50035071	0.000000	140.000000	6	5	35071	0
46	50035072	0.000000	120.000000	6	5	35072	0
47	51035072	0.000000	120.000000	6	5	35072	1
48	50035073	0.000000	110.000000	6	5	35073	0
49	50035074	0.000000	110.000000	6	5	35074	0
50	52035074	0.000000	110.000000	6	5	35074	2
51	50035075	0.000000	100.000000	6	5	35075	0
52	50035076	0.000000	100.000000	6	5	35076	0
53	52035076	0.000000	100.000000	6	5	35076	2

54	50035077	0.000000	100.000000	6	5	35077	0
55	51035077	0.000000	100.000000	6	5	35077	1
56	50035078	0.000000	100.000000	6	5	35078	0
57	50035079	0.000000	100.000000	6	5	35079	0
58	51035079	0.000000	100.000000	6	5	35079	1
59	50035080	0.000000	100.000000	6	5	35080	0
60	52035080	0.000000	100.000000	6	5	35080	2
61	50035081	0.000000	100.000000	6	5	35081	0
62	50036074	0.000000	130.000000	6	5	36074	0
63	50036075	0.000000	110.000000	6	5	36075	0
64	50036076	0.000000	100.000000	6	5	36076	0
65	50036077	0.000000	95.000000	6	5	36077	0
66	50036078	0.000000	80.000000	6	5	36078	0
67	50036079	0.000000	76.000000	6	5	36079	0
68	51036079	0.000000	76.000000	6	5	36079	1
69	50036080	0.000000	70.000000	6	5	36080	0
70	50036081	0.000000	70.000000	6	5	36081	0
71	52036081	0.000000	70.000000	6	5	36081	2
72	50036082	0.000000	74.000000	6	5	36082	0
73	50036083	0.000000	74.000000	6	5	36083	0
74	52036083	0.000000	74.000000	6	5	36083	2
75	50036084	0.000000	72.000000	6	5	36084	0
76	50037076	0.000000	120.000000	6	5	37076	0
77	50037077	0.000000	100.000000	6	5	37077	0
78	50037078	0.000000	95.000000	6	5	37078	0
79	53037078	0.000000	95.000000	6	5	37078	3
80	50037079	0.000000	90.000000	6	5	37079	0
81	50037080	0.000000	80.000000	6	5	37080	0
82	50037081	0.000000	74.000000	6	5	37081	0
83	51037081	0.000000	74.000000	6	5	37081	1
84	50037082	0.000000	68.000000	6	5	37082	0
85	51037082	0.000000	68.000000	6	5	37082	1
86	50037083	0.000000	58.000000	6	5	37083	0
87	50037084	0.000000	52.000000	6	5	37084	0
88	52037084	0.000000	52.000000	6	5	37084	2
89	50037085	0.000000	50.000000	6	5	37085	0
90	50037086	0.000000	58.000000	6	5	37086	0
91	52037086	0.000000	58.000000	6	5	37086	2
92	50037087	0.000000	70.000000	6	5	37087	0
93	50038079	0.000000	100.000000	6	5	38079	0
94	50038080	0.000000	80.000000	6	5	38080	0
95	50038081	0.000000	76.000000	6	5	38081	0
96	50038082	0.000000	64.000000	6	5	38082	0
97	50038083	0.000000	56.000000	6	5	38083	0
98	52038083	0.000000	56.000000	6	5	38083	2
99	50038084	0.000000	44.000000	6	5	38084	0
100	50038085	0.000000	34.000000	6	5	38085	0
101	52038085	0.000000	34.000000	6	5	38085	2
102	50038086	0.000000	22.000000	6	5	38086	0
103	50038087	0.000000	12.500000	6	5	38087	0
104	51038087	0.000000	12.500000	6	5	38087	1
105	50038088	0.000000	29.000000	6	5	38088	0
106	50038089	0.000000	38.000000	6	5	38089	0
107	50039080	0.000000	110.000000	6	5	39080	0

108	51039080	0.000000	110.000000	6	5	39080	1
109	50039081	0.000000	100.000000	6	5	39081	0
110	50039082	0.000000	90.000000	6	5	39082	0
111	50039083	0.000000	80.000000	6	5	39083	0
112	51039083	0.000000	80.000000	6	5	39083	1
113	50039084	0.000000	68.000000	6	5	39084	0
114	52039084	0.000000	68.000000	6	5	39084	2
115	50039085	0.000000	56.000000	6	5	39085	0
116	51039085	0.000000	56.000000	6	5	39085	1
117	50039086	0.000000	46.000000	6	5	39086	0
118	52039086	0.000000	46.000000	6	5	39086	2
119	50039087	0.000000	36.000000	6	5	39087	0
120	51039087	0.000000	36.000000	6	5	39087	1
121	50039088	0.000000	29.000000	6	5	39088	0
122	50039089	0.000000	16.500000	6	5	39089	0
123	51039089	0.000000	16.500000	6	5	39089	1
124	50039090	0.000000	11.000000	6	5	39090	0
125	52039090	0.000000	11.000000	6	5	39090	2
126	50040083	0.000000	95.000000	6	5	40083	0
127	50040084	0.000000	74.000000	6	5	40084	0
128	50040085	0.000000	64.000000	6	5	40085	0
129	52040085	0.000000	64.000000	6	5	40085	2
130	50040086	0.000000	50.000000	6	5	40086	0
131	50040087	0.000000	40.000000	6	5	40087	0
132	52040087	0.000000	40.000000	6	5	40087	2
133	50040088	0.000000	28.000000	6	5	40088	0
134	50040089	0.000000	19.000000	6	5	40089	0
135	51040089	0.000000	19.500000	6	5	40089	1
136	50040090	0.000000	7.000000	6	5	40090	0
137	50040091	0.000000	1.500000	6	5	40091	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.000000
2	0	2	1	1.000000
3	1001	9	1	9.500000
4	1002	31	1	14.500000
5	1003	32	1	20.000000
6	2003	33	1	19.000000
7	2004	34	1	10.000000

40-Zr- 92 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 40092.38u MAT=4031 ZA= 40092  
 AWR= 91.115530 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.634779
2	0	2	1	1.000000

3	1001	9	1	9.396704
4	1002	31	1	15.100690
5	1003	32	1	16.000000
6	2003	33	1	18.000000
7	2004	34	1	2.962326

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40-Zr- 93 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 40093.38u MAT=4034 ZA= 40093  
 AWR= 92.108360 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	6.734321
2	0	2	1	1.000000
3	1001	9	1	9.594511
4	1002	31	1	13.906460
5	1003	32	1	15.577780
6	2003	33	1	17.000000
7	2004	34	1	4.000000

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40-Zr- 94 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 40094.38u MAT=4037 ZA= 40094  
 AWR= 93.099620 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 139 NTRAN= 1 NPROD= 138 NE= 88 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	8.000000	6	5	1	0
3	50001001	0.000000	11.500000	6	5	1001	0
4	50001002	0.000000	17.000000	6	5	1002	0
5	50001003	0.000000	17.500000	6	5	1003	0
6	50002003	0.000000	23.000000	6	5	2003	0
7	50002004	0.000000	8.500000	6	5	2004	0
8	50030064	0.000000	140.000000	6	5	30064	0
9	50030065	0.000000	130.000000	6	5	30065	0
10	50030066	0.000000	130.000000	6	5	30066	0
11	50031065	0.000000	140.000000	6	5	31065	0
12	50031066	0.000000	130.000000	6	5	31066	0
13	50031067	0.000000	130.000000	6	5	31067	0
14	50031068	0.000000	130.000000	6	5	31068	0
15	50031069	0.000000	130.000000	6	5	31069	0
16	50032066	0.000000	140.000000	6	5	32066	0
17	50032067	0.000000	130.000000	6	5	32067	0
18	50032068	0.000000	120.000000	6	5	32068	0
19	50032069	0.000000	120.000000	6	5	32069	0



20	50032070	0.000000	120.000000	6	5	32070	0
21	50032071	0.000000	120.000000	6	5	32071	0
22	50033068	0.000000	140.000000	6	5	33068	0
23	50033069	0.000000	130.000000	6	5	33069	0
24	50033070	0.000000	120.000000	6	5	33070	0
25	50033071	0.000000	120.000000	6	5	33071	0
26	50033072	0.000000	110.000000	6	5	33072	0
27	50033073	0.000000	110.000000	6	5	33073	0
28	50033074	0.000000	110.000000	6	5	33074	0
29	50033075	0.000000	110.000000	6	5	33075	0
30	50034071	0.000000	130.000000	6	5	34071	0
31	50034072	0.000000	120.000000	6	5	34072	0
32	50034073	0.000000	110.000000	6	5	34073	0
33	51034073	0.000000	110.000000	6	5	34073	1
34	50034074	0.000000	110.000000	6	5	34074	0
35	50034075	0.000000	100.000000	6	5	34075	0
36	50034076	0.000000	100.000000	6	5	34076	0
37	50034077	0.000000	100.000000	6	5	34077	0
38	51034077	0.000000	100.000000	6	5	34077	1
39	50034078	0.000000	90.000000	6	5	34078	0
40	50034079	0.000000	85.000000	6	5	34079	0
41	51034079	0.000000	85.000000	6	5	34079	1
42	50035073	0.000000	130.000000	6	5	35073	0
43	50035074	0.000000	120.000000	6	5	35074	0
44	52035074	0.000000	120.000000	6	5	35074	2
45	50035075	0.000000	110.000000	6	5	35075	0
46	50035076	0.000000	100.000000	6	5	35076	0
47	52035076	0.000000	100.000000	6	5	35076	2
48	50035077	0.000000	95.000000	6	5	35077	0
49	51035077	0.000000	95.000000	6	5	35077	1
50	50035078	0.000000	90.000000	6	5	35078	0
51	50035079	0.000000	85.000000	6	5	35079	0
52	51035079	0.000000	85.000000	6	5	35079	1
53	50035080	0.000000	85.000000	6	5	35080	0
54	52035080	0.000000	85.000000	6	5	35080	2
55	50035081	0.000000	80.000000	6	5	35081	0
56	50035082	0.000000	76.000000	6	5	35082	0
57	51035082	0.000000	76.000000	6	5	35082	1
58	50035083	0.000000	76.000000	6	5	35083	0
59	50036075	0.000000	130.000000	6	5	36075	0
60	50036076	0.000000	110.000000	6	5	36076	0
61	50036077	0.000000	100.000000	6	5	36077	0
62	50036078	0.000000	90.000000	6	5	36078	0
63	50036079	0.000000	85.000000	6	5	36079	0
64	51036079	0.000000	85.000000	6	5	36079	1
65	50036080	0.000000	80.000000	6	5	36080	0
66	50036081	0.000000	74.000000	6	5	36081	0
67	52036081	0.000000	74.000000	6	5	36081	2
68	50036082	0.000000	66.000000	6	5	36082	0
69	50036083	0.000000	58.000000	6	5	36083	0
70	52036083	0.000000	58.000000	6	5	36083	2
71	50036084	0.000000	52.000000	6	5	36084	0
72	50036085	0.000000	50.000000	6	5	36085	0
73	51036085	0.000000	50.000000	6	5	36085	1

74	50036086	0.000000	50.000000	6	5	36086	0
75	50037078	0.000000	120.000000	6	5	37078	0
76	53037078	0.000000	120.000000	6	5	37078	3
77	50037079	0.000000	100.000000	6	5	37079	0
78	50037080	0.000000	95.000000	6	5	37080	0
79	50037081	0.000000	90.000000	6	5	37081	0
80	51037081	0.000000	90.000000	6	5	37081	1
81	50037082	0.000000	80.000000	6	5	37082	0
82	51037082	0.000000	80.000000	6	5	37082	1
83	50037083	0.000000	76.000000	6	5	37083	0
84	50037084	0.000000	68.000000	6	5	37084	0
85	52037084	0.000000	68.000000	6	5	37084	2
86	50037085	0.000000	60.000000	6	5	37085	0
87	50037086	0.000000	54.000000	6	5	37086	0
88	52037086	0.000000	54.000000	6	5	37086	2
89	50037087	0.000000	46.000000	6	5	37087	0
90	50037088	0.000000	40.000000	6	5	37088	0
91	50038080	0.000000	110.000000	6	5	38080	0
92	50038081	0.000000	100.000000	6	5	38081	0
93	50038082	0.000000	85.000000	6	5	38082	0
94	50038083	0.000000	78.000000	6	5	38083	0
95	52038083	0.000000	78.000000	6	5	38083	2
96	50038084	0.000000	68.000000	6	5	38084	0
97	50038085	0.000000	60.000000	6	5	38085	0
98	52038085	0.000000	60.000000	6	5	38085	2
99	50038086	0.000000	48.000000	6	5	38086	0
100	50038087	0.000000	40.000000	6	5	38087	0
101	51038087	0.000000	40.000000	6	5	38087	1
102	50038088	0.000000	27.000000	6	5	38088	0
103	50038089	0.000000	19.500000	6	5	38089	0
104	50038090	0.000000	11.000000	6	5	38090	0
105	50038091	0.000000	38.000000	6	5	38091	0
106	50039082	0.000000	110.000000	6	5	39082	0
107	50039083	0.000000	100.000000	6	5	39083	0
108	51039083	0.000000	100.000000	6	5	39083	1
109	50039084	0.000000	95.000000	6	5	39084	0
110	52039084	0.000000	95.000000	6	5	39084	2
111	50039085	0.000000	80.000000	6	5	39085	0
112	51039085	0.000000	80.000000	6	5	39085	1
113	50039086	0.000000	74.000000	6	5	39086	0
114	52039086	0.000000	74.000000	6	5	39086	2
115	50039087	0.000000	62.000000	6	5	39087	0
116	51039087	0.000000	62.000000	6	5	39087	1
117	50039088	0.000000	52.000000	6	5	39088	0
118	50039089	0.000000	40.000000	6	5	39089	0
119	51039089	0.000000	40.000000	6	5	39089	1
120	50039090	0.000000	32.000000	6	5	39090	0
121	52039090	0.000000	32.000000	6	5	39090	2
122	50039091	0.000000	27.000000	6	5	39091	0
123	51039091	0.000000	27.000000	6	5	39091	1
124	50039092	0.000000	20.000000	6	5	39092	0
125	50039093	0.000000	13.500000	6	5	39093	0
126	50040084	0.000000	100.000000	6	5	40084	0
127	50040085	0.000000	90.000000	6	5	40085	0

128	52040085	0.000000	90.000000	6	5	40085	2
129	50040086	0.000000	76.000000	6	5	40086	0
130	50040087	0.000000	66.000000	6	5	40087	0
131	52040087	0.000000	66.000000	6	5	40087	2
132	50040088	0.000000	52.000000	6	5	40088	0
133	50040089	0.000000	42.000000	6	5	40089	0
134	51040089	0.000000	42.000000	6	5	40089	1
135	50040090	0.000000	30.000000	6	5	40090	0
136	50040091	0.000000	23.000000	6	5	40091	0
137	50040092	0.000000	14.500000	6	5	40092	0
138	50040093	0.000000	8.000000	6	5	40093	0
139	50040094	0.000000	1.000000	6	5	40094	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.000000
2	0	2	1	1.000000
3	1001	9	1	11.500000
4	1002	31	1	17.000000
5	1003	32	1	17.500000
6	2003	33	1	23.000000
7	2004	34	1	8.500000

40-Zr- 96 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 40096.38u MAT=4043 ZA= 40096  
 AWR= 95.084380 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.850223
2	0	2	1	1.000000
3	1001	9	1	11.518970
4	1002	31	1	16.223100
5	1003	32	1	16.500000
6	2003	33	1	21.000000
7	2004	34	1	6.000000

41-Nb- 93 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 41093.38u MAT=4125 ZA= 41093  
 AWR= 92.108260 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
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1	1	1	1	8.830863
2	0	2	1	1.000000
3	1001	9	1	6.042781
4	1002	31	1	12.452990
5	1003	32	1	13.390110
6	2003	33	1	16.500000
7	2004	34	1	3.000000

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41-Nb- 94 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 41094.38u MAT=4128 ZA= 41094  
 AWR= 93.100570 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.227541  
 2 0 2 1 1.000000  
 3 1001 9 1 6.536001  
 4 1002 31 1 11.500000  
 5 1003 32 1 13.423310  
 6 2003 33 1 16.500000  
 7 2004 34 1 3.500000

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42-Mo- 92 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 42092.38u MAT=4225 ZA= 42092  
 AWR= 91.117280 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 12.671070  
 2 0 2 1 1.000000  
 3 1001 9 1 7.459546  
 4 1002 31 1 17.500000  
 5 1003 32 1 21.133180  
 6 2003 33 1 17.500000  
 7 2004 34 1 6.500000

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42-Mo- 94 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 42094.38u MAT=4231 ZA= 42094  
 AWR= 93.098390 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 9.678313  
 2 0 2 1 1.000000  
 3 1001 9 1 8.490198  
 4 1002 31 1 15.096490  
 5 1003 32 1 17.000000  
 6 2003 33 1 16.000000  
 7 2004 34 1 2.066446

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42-Mo- 95 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 42095.38u MAT=4234 ZA= 42095  
 AWR= 94.090550 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.369110  
 2 0 2 1 1.000000  
 3 1001 9 1 8.631767  
 4 1002 31 1 13.634740  
 5 1003 32 1 16.500000  
 6 2003 33 1 15.000000  
 7 2004 34 1 3.000000

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42-Mo- 96 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 42096.38u MAT=4237 ZA= 42096  
 AWR= 95.080810 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 9.154335  
 2 0 2 1 1.000000  
 3 1001 9 1 9.297589  
 4 1002 31 1 15.561540  
 5 1003 32 1 16.531850  
 6 2003 33 1 17.500000  
 7 2004 34 1 3.500000

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 42-Mo- 97 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 42097.38u MAT=4240 ZA= 42097  
 AWR= 96.073550 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 6.821132  
 2 0 2 1 1.000000  
 3 1001 9 1 9.230846  
 4 1002 31 1 13.894150  
 5 1003 32 1 16.500000  
 6 2003 33 1 16.000000  
 7 2004 34 1 3.500000  
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 42-Mo- 98 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 42098.38u MAT=4243 ZA= 42098  
 AWR= 97.064350 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.642598  
 2 0 2 1 1.000000  
 3 1001 9 1 9.799167  
 4 1002 31 1 15.648880  
 5 1003 32 1 16.500000  
 6 2003 33 1 18.500000  
 7 2004 34 1 4.000000  
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-----  
 42-Mo-100 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 42100.38u MAT=4249 ZA= 42100  
 AWR= 99.049210 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.294244  
 2 0 2 1 1.000000  
 -----

3	1001	9	1	11.146650
4	1002	31	1	15.804150
5	1003	32	1	15.537060
6	2003	33	1	19.000000
7	2004	34	1	4.000000

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44-Ru- 98 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 44098.38u MAT=4431 ZA= 44098  
 AWR= 97.064230 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.175620
2	0	2	1	1.000000
3	1001	9	1	8.289405
4	1002	31	1	15.538950
5	1003	32	1	17.500000
6	2003	33	1	16.500000
7	2004	34	1	3.000000

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45-Rh-103 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 45103.38u MAT=4525 ZA= 45103  
 AWR= 102.021500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 260 NTRAN= 130 NPROD= 130 NE= 197 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	-2.834000	6.600000	3	5		
2	11	-23.426370	31.000000	3	11		
3	16	-16.756000	16.756000	3	16		
4	17	-26.646000	26.646000	3	17		
5	22	-12.090000	15.000000	3	22		
6	28	-15.432000	17.000000	3	28		
7	32	-20.010000	21.500000	3	32		
8	33	-23.426000	25.000000	3	33		
9	34	-23.701000	26.500000	3	34		
10	41	-22.234000	23.500000	3	41		
11	42	-31.907000	33.000000	3	42		
12	44	-24.655000	27.500000	3	44		
13	50	-9.318430	9.318430	3	50		
14	51	-9.360370	9.360370	3	51		
15	52	-9.394430	9.394430	3	52		
16	53	-9.423646	9.423646	3	53		
17	54	-9.442181	9.442181	3	54		
18	55	-9.459160	9.459160	3	55		
19	56	-9.472890	9.472890	3	56		

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20	57	-9.474924	9.474924	3	57
21	58	-9.497110	9.497110	3	58
22	59	-9.525305	9.525305	3	59
23	60	-9.527170	9.527170	3	60
24	61	-9.560700	9.560700	3	61
25	62	-9.578000	9.578000	3	62
26	63	-9.582270	9.582270	3	63
27	64	-9.609970	9.609970	3	64
28	65	-9.615720	9.615720	3	65
29	66	-9.620650	9.620650	3	66
30	67	-9.624320	9.624320	3	67
31	68	-9.664200	9.664200	3	68
32	69	-9.677530	9.677530	3	69
33	70	-9.678040	9.678040	3	70
34	71	-9.683230	9.683230	3	71
35	72	-9.697040	9.697040	3	72
36	73	-9.698430	9.698430	3	73
37	74	-9.717820	9.717820	3	74
38	75	-9.728340	9.728340	3	75
39	76	-9.745950	9.745950	3	76
40	77	-9.749910	9.749910	3	77
41	78	-9.767790	9.767790	3	78
42	79	-9.769030	9.769030	3	79
43	80	-9.792770	9.792770	3	80
44	81	-9.795280	9.795280	3	81
45	82	-9.809430	9.809430	3	82
46	83	-9.843530	9.843530	3	83
47	84	-9.860570	9.860570	3	84
48	85	-9.861980	9.861980	3	85
49	86	-9.864320	9.864320	3	86
50	87	-9.888080	9.888080	3	87
51	88	-9.894360	9.894360	3	88
52	89	-9.917370	9.917370	3	89
53	91	-9.916940	10.000000	3	91
54	102	0.000000	5.000000	3	102
55	104	-13.208000	14.500000	3	104
56	105	-13.753000	15.000000	3	105
57	106	-16.937000	19.750000	3	106
58	111	-16.264000	19.500000	3	111
59	112	-9.624000	14.250000	3	112
60	115	-22.431000	26.000000	3	115
61	116	-22.938000	26.500000	3	116
62	600	-6.213030	7.500000	3	600
63	601	-6.688126	8.000000	3	601
64	602	-7.156720	8.500000	3	602
65	603	-7.316077	8.750000	3	603
66	604	-7.319460	8.750000	3	604
67	605	-7.734630	9.000000	3	605
68	606	-7.793590	9.000000	3	606
69	607	-7.816400	9.250000	3	607
70	608	-8.012110	9.500000	3	608
71	609	-8.050280	9.500000	3	609
72	610	-8.086280	9.500000	3	610
73	611	-8.181040	9.500000	3	611



74	612	-8.249760	9.500000	3 612
75	613	-8.256423	9.500000	3 613
76	614	-8.365770	9.750000	3 614
77	615	-8.403030	9.750000	3 615
78	616	-8.432060	9.750000	3 616
79	617	-8.453810	9.750000	3 617
80	618	-8.474120	10.000000	3 618
81	619	-8.515730	10.000000	3 619
82	620	-8.580330	10.000000	3 620
83	621	-8.586080	10.000000	3 621
84	622	-8.598730	10.000000	3 622
85	623	-8.633030	10.000000	3 623
86	624	-8.654830	10.000000	3 624
87	625	-8.673030	10.000000	3 625
88	626	-8.680419	10.000000	3 626
89	649	-8.680389	8.680389	3 649
90	800	-3.123930	6.000000	3 800
91	801	-3.264441	6.250000	3 801
92	802	-3.266613	6.250000	3 802
93	803	-3.305024	6.250000	3 803
94	804	-3.633026	6.600000	3 804
95	805	-3.658360	6.600000	3 805
96	806	-3.660820	6.600000	3 806
97	807	-3.736300	6.750000	3 807
98	808	-3.749460	6.750000	3 808
99	809	-3.776700	6.750000	3 809
100	810	-3.795408	6.750000	3 810
101	811	-3.843340	6.750000	3 811
102	812	-3.850700	6.750000	3 812
103	813	-3.863143	6.750000	3 813
104	814	-3.885711	6.750000	3 814
105	815	-3.885880	6.750000	3 815
106	816	-4.008189	7.000000	3 816
107	817	-4.044509	7.000000	3 817
108	818	-4.110100	7.000000	3 818
109	819	-4.127998	7.000000	3 819
110	820	-4.141390	7.000000	3 820
111	821	-4.143690	7.000000	3 821
112	822	-4.196160	7.000000	3 822
113	823	-4.205390	7.000000	3 823
114	824	-4.251330	7.250000	3 824
115	825	-4.253035	7.250000	3 825
116	826	-4.258970	7.250000	3 826
117	827	-4.265784	7.250000	3 827
118	828	-4.273360	7.250000	3 828
119	829	-4.295980	7.250000	3 829
120	830	-4.300410	7.250000	3 830
121	831	-4.322820	7.250000	3 831
122	832	-4.327390	7.250000	3 832
123	833	-4.328930	7.250000	3 833
124	834	-4.331190	7.250000	3 834
125	835	-4.367710	7.250000	3 835
126	836	-4.392620	7.250000	3 836
127	837	-4.430210	7.250000	3 837

128	838	-4.433040	7.250000	3	838		
129	839	-4.444660	7.500000	3	839		
130	849	-4.444730	6.250000	3	849		
131	10004	-9.318430	9.318430	10	4	45102	0
132	11004	-9.459160	9.459160	10	4	45102	1
133	50034076	-72.130310	140.000000	10	5	34076	0
134	50034077	-64.711880	120.000000	10	5	34077	0
135	50034078	-54.213450	100.000000	10	5	34078	0
136	50034079	-47.251020	100.000000	10	5	34079	0
137	50034080	-37.337590	90.000000	10	5	34080	0
138	50034081	-36.893490	90.000000	10	5	34081	0
139	50034082	-29.842680	80.000000	10	5	34082	0
140	50034083	-44.602070	100.000000	10	5	34083	0
141	50034084	-43.638810	100.000000	10	5	34084	0
142	50035077	-75.341230	140.000000	10	5	35077	0
143	50035078	-67.051800	120.000000	10	5	35078	0
144	50035079	-56.364370	100.000000	10	5	35079	0
145	50035080	-48.471940	100.000000	10	5	35080	0
146	50035081	-38.315510	90.000000	10	5	35081	0
147	50035082	-30.722080	80.000000	10	5	35082	0
148	50035083	-21.137650	70.000000	10	5	35083	0
149	50035084	-34.877040	80.000000	10	5	35084	0
150	50035085	-33.688780	80.000000	10	5	35085	0
151	50035086	-49.166170	100.000000	10	5	35086	0
152	50036079	-78.586810	140.000000	10	5	36079	0
153	50036080	-67.064380	120.000000	10	5	36080	0
154	50036081	-59.191950	100.000000	10	5	36081	0
155	50036082	-48.225520	90.000000	10	5	36082	0
156	50036083	-40.761090	80.000000	10	5	36083	0
157	50036084	-30.240660	70.000000	10	5	36084	0
158	50036085	-29.376560	70.000000	10	5	36085	0
159	50036086	-21.744750	60.000000	10	5	36086	0
160	50036087	-36.807140	80.000000	10	5	36087	0
161	50036088	-37.471880	80.000000	10	5	36088	0
162	50037080	-82.048730	140.000000	10	5	37080	0
163	50037081	-70.694300	120.000000	10	5	37081	0
164	50037082	-61.889870	100.000000	10	5	37082	0
165	50037083	-50.934440	90.000000	10	5	37083	0
166	50037084	-42.186010	80.000000	10	5	37084	0
167	50037085	-31.696580	70.000000	10	5	37085	0
168	50037086	-23.046150	60.000000	10	5	37086	0
169	50037087	-13.126720	45.000000	10	5	37087	0
170	50037088	-27.622110	60.000000	10	5	37088	0
171	50037089	-28.163850	60.000000	10	5	37089	0
172	50037090	-43.026240	80.000000	10	5	37090	0
173	50037091	-44.279980	90.000000	10	5	37091	0
174	50038082	-82.666310	120.000000	10	5	38082	0
175	50038083	-73.806880	120.000000	10	5	38083	0
176	50038084	-61.888450	100.000000	10	5	38084	0
177	50038085	-53.358020	90.000000	10	5	38085	0
178	50038086	-41.867590	70.000000	10	5	38086	0
179	50038087	-33.440160	60.000000	10	5	38087	0
180	50038088	-22.326730	50.000000	10	5	38088	0
181	50038089	-22.225630	50.000000	10	5	38089	0

182	50038090	-16.643820	45.000000	10	5	38090	0
183	50038091	-31.453210	60.000000	10	5	38091	0
184	50038092	-31.863950	60.000000	10	5	38092	0
185	50039083	-87.540230	120.000000	10	5	39083	0
186	50039084	-77.638800	120.000000	10	5	39084	0
187	50039085	-65.877370	100.000000	10	5	39085	0
188	50039086	-56.371940	90.000000	10	5	39086	0
189	50039087	-44.565510	70.000000	10	5	39087	0
190	50039088	-35.214080	60.000000	10	5	39088	0
191	50039089	-23.737650	45.000000	10	5	39089	0
192	50039092	-22.988180	45.000000	10	5	39092	0
193	50039093	-23.225920	45.000000	10	5	39093	0
194	50039094	-37.606310	60.000000	10	5	39094	0
195	50039095	-38.399050	70.000000	10	5	39095	0
196	50040085	-91.166810	120.000000	10	5	40085	0
197	50040086	-78.445380	100.000000	10	5	40086	0
198	50040087	-68.830940	100.000000	10	5	40087	0
199	50040088	-56.483520	80.000000	10	5	40088	0
200	50040089	-47.167090	70.000000	10	5	40089	0
201	50040090	-35.196660	55.000000	10	5	40090	0
202	50040094	-12.894890	29.000000	10	5	40094	0
203	50040095	-27.009280	45.000000	10	5	40095	0
204	50040096	-26.873020	45.000000	10	5	40096	0
205	50040097	-41.871410	60.000000	10	5	40097	0
206	50041086	-95.687730	140.000000	10	5	41086	0
207	50041087	-83.260300	100.000000	10	5	41087	0
208	50041088	-73.297860	100.000000	10	5	41088	0
209	50041089	-60.722440	80.000000	10	5	41089	0
210	50041090	-50.572010	70.000000	10	5	41090	0
211	50041091	-38.519580	50.000000	10	5	41091	0
212	50041092	-30.637150	45.000000	10	5	41092	0
213	50041096	-19.774250	32.000000	10	5	41096	0
214	50041097	-19.417990	31.000000	10	5	41097	0
215	50041098	-34.005380	45.000000	10	5	41098	0
216	50042088	-97.267310	120.000000	10	5	42088	0
217	50042089	-86.893880	100.000000	10	5	42089	0
218	50042090	-73.657450	100.000000	10	5	42090	0
219	50042091	-63.550020	80.000000	10	5	42091	0
220	50042092	-50.877590	60.000000	10	5	42092	0
221	50042093	-42.807160	55.000000	10	5	42093	0
222	50042094	-33.129730	44.000000	10	5	42094	0
223	50042095	-25.760300	35.000000	10	5	42095	0
224	50042096	-16.605870	24.500000	10	5	42096	0
225	50042099	-24.276350	32.000000	10	5	42099	0
226	50043089	-103.668200	140.000000	10	5	43089	0
227	50043090	-91.882800	120.000000	10	5	43090	0
228	50043091	-79.034370	100.000000	10	5	43091	0
229	50043092	-68.011940	80.000000	10	5	43092	0
230	50043093	-55.272510	60.000000	10	5	43093	0
231	50043094	-46.649080	50.000000	10	5	43094	0
232	50043095	-36.715650	41.000000	10	5	43095	0
233	50043099	-13.763000	13.763000	10	5	43099	0
234	50044092	-93.135380	120.000000	10	5	44092	0
235	50044093	-82.205940	100.000000	10	5	44093	0

236	50044094	-68.832520	80.000000	10	5	44094	0
237	50044095	-59.879090	60.000000	10	5	44095	0
238	50044096	-49.185660	50.000000	10	5	44096	0
239	50044097	-14.427000	45.000000	10	5	44097	0
240	50044098	-14.134000	33.000000	10	5	44098	0
241	50045095	-74.253440	80.000000	10	5	45095	0
242	50045096	-64.896010	70.000000	10	5	45096	0
243	50045097	-53.861580	55.000000	10	5	45097	0
244	50045098	-45.212150	45.212150	10	5	45098	0
245	10022	-12.090000	35.000000	10	22	43098	0
246	10023	-16.880220	39.000000	10	23	39090	0
247	10024	-19.368000	22.500000	10	24	43097	0
248	10025	-18.952000	33.000000	10	25	43096	0
249	10029	-14.578290	26.500000	10	29	41094	0
250	10030	-21.805720	35.000000	10	30	41093	0
251	10035	-19.366800	37.000000	10	35	40092	0
252	10036	-28.002230	45.000000	10	36	40091	0
253	10037	-34.732000	35.000000	10	37	45099	0
254	10045	-2.834000	23.500000	10	45	42097	0
255	10107	-13.763000	13.763000	10	107	43099	0
256	11107	-13.905680	13.905680	10	107	43099	1
257	10108	-6.089860	16.250000	10	108	41095	0
258	10109	-8.950790	30.000000	10	109	39091	0
259	10112	-9.624000	37.000000	10	112	42098	0
260	10114	-18.890700	34.000000	10	114	40093	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	53	6.600000
2	0	2	126	5.000000
3	1001	9	37	6.600000
4	1002	31	5	6.600000
5	1003	32	4	6.600000
6	2003	33	3	6.600000
7	2004	34	44	6.000000

46-Pd-102 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 46102.38u MAT=4625 ZA= 46102  
 AWR= 101.030200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.542360
2	0	2	1	1.000000
3	1001	9	1	7.779726
4	1002	31	1	15.447770
5	1003	32	1	17.271680
6	2003	33	1	16.000000
7	2004	34	1	3.000000

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46-Pd-104 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 46104.38u MAT=4631 ZA= 46104  
AWR= 103.011400 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 10.009230  
2 0 2 1 1.000000  
3 1001 9 1 8.652368  
4 1002 31 1 16.000000  
5 1003 32 1 16.932500  
6 2003 33 1 17.500000  
7 2004 34 1 3.500000  
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-----  
46-Pd-105 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 46105.38u MAT=4634 ZA= 46105  
AWR= 104.003900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 7.094100  
2 0 2 1 1.000000  
3 1001 9 1 8.747511  
4 1002 31 1 13.521900  
5 1003 32 1 17.000000  
6 2003 33 1 15.500000  
7 2004 34 1 4.000000  
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-----  
46-Pd-106 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 46106.38u MAT=4637 ZA= 46106  
AWR= 104.993700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 9.560956  
-----

2	0	2	1	1.000000
3	1001	9	1	9.345255
4	1002	31	1	16.083900
5	1003	32	1	16.825630
6	2003	33	1	18.500000
7	2004	34	1	4.000000

-----

46-Pd-107 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 46107.38u MAT=4640 ZA= 46107  
 AWR= 105.986800 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 6.536429  
 2 0 2 1 1.000000  
 3 1001 9 1 9.298983  
 4 1002 31 1 13.657120  
 5 1003 32 1 16.363100  
 6 2003 33 1 16.500000  
 7 2004 34 1 4.500000

-----

46-Pd-108 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 46108.38u MAT=4643 ZA= 46108  
 AWR= 106.976900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 9.222884  
 2 0 2 1 1.000000  
 3 1001 9 1 9.949474  
 4 1002 31 1 16.297300  
 5 1003 32 1 17.000000  
 6 2003 33 1 19.500000  
 7 2004 34 1 5.000000

-----

46-Pd-110 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 46110.38u MAT=4649 ZA= 46110  
 AWR= 108.961000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 8.795746  
2 0 2 1 1.000000  
3 1001 9 1 10.620420  
4 1002 31 1 16.434910  
5 1003 32 1 16.417010  
6 2003 33 1 20.000000  
7 2004 34 1 5.500000

-----  
47-Ag-107 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 47107.38u MAT=4725 ZA= 47107  
AWR= 105.986700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----  
NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 9.535604  
2 0 2 1 1.000000  
3 1001 9 1 5.788114  
4 1002 31 1 13.124500  
5 1003 32 1 13.961370  
6 2003 33 1 17.500000  
7 2004 34 1 4.000000

-----  
47-Ag-108 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 47108.38u MAT=4728 ZA= 47108  
AWR= 106.979000 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----  
NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 7.271410  
2 0 2 1 1.000000  
3 1001 9 1 6.523095  
4 1002 31 1 10.834960  
5 1003 32 1 14.500000  
6 2003 33 1 16.000000  
7 2004 34 1 4.000000

-----  
47-Ag-109 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 47109.38u MAT=4731 ZA= 47109  
AWR= 107.969200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 9.183980  
2 0 2 1 1.000000  
3 1001 9 1 6.484191  
4 1002 31 1 13.482510  
5 1003 32 1 14.000000  
6 2003 33 1 18.500000  
7 2004 34 1 4.500000  
-----

-----  
48-Cd-106 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 48106.38u MAT=4825 ZA= 48106  
AWR= 104.996700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 10.869620  
2 0 2 1 1.000000  
3 1001 9 1 7.350273  
4 1002 31 1 15.151410  
5 1003 32 1 17.500000  
6 2003 33 1 15.500000  
7 2004 34 1 1.653883  
-----

-----  
48-Cd-108 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 48108.38u MAT=4831 ZA= 48108  
AWR= 106.977200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 10.333470  
2 0 2 1 1.000000  
3 1001 9 1 8.134715  
-----



4	1002	31	1	15.445750
5	1003	32	1	17.500000
6	2003	33	1	17.000000
7	2004	34	1	3.500000

-----

48-Cd-110 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 48110.38u MAT=4837 ZA= 48110  
 AWR= 108.958900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 9.914965  
 2 0 2 1 1.000000  
 3 1001 9 1 8.917514  
 4 1002 31 1 15.876930  
 5 1003 32 1 16.891110  
 6 2003 33 1 18.000000  
 7 2004 34 1 4.000000

-----

48-Cd-111 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 48111.38u MAT=4840 ZA= 48111  
 AWR= 109.951500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 6.975595  
 2 0 2 1 1.000000  
 3 1001 9 1 9.083916  
 4 1002 31 1 14.000000  
 5 1003 32 1 17.000000  
 6 2003 33 1 15.500000  
 7 2004 34 1 4.500000

-----

48-Cd-112 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 48112.38u MAT=4843 ZA= 48112  
 AWR= 110.941500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS

1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.393929
2	0	2	1	1.000000
3	1001	9	1	9.648383
4	1002	31	1	16.500000
5	1003	32	1	16.805240
6	2003	33	1	19.000000
7	2004	34	1	4.500000

48-Cd-113 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 48113.38u MAT=4846 ZA= 48113  
AWR= 111.934500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	6.539742
2	0	2	1	1.000000
3	1001	9	1	9.748537
4	1002	31	1	13.963560
5	1003	32	1	17.000000
6	2003	33	1	17.000000
7	2004	34	1	5.000000

48-Cd-114 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 48114.38u MAT=4849 ZA= 48114  
AWR= 112.924900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.042965
2	0	2	1	1.000000
3	1001	9	1	10.277080
4	1002	31	1	16.566940
5	1003	32	1	17.000000
6	2003	33	1	20.000000
7	2004	34	1	5.000000

48-Cd-116 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 48116.38u MAT=4855 ZA= 48116  
 AWR= 114.909100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

---

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.699318  
 2 0 2 1 1.000000  
 3 1001 9 1 11.018800  
 4 1002 31 1 16.917400  
 5 1003 32 1 17.000000  
 6 2003 33 1 21.000000  
 7 2004 34 1 6.000000

---

49-In-115 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 49115.38u MAT=4931 ZA= 49115  
 AWR= 113.916800 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 167 NTRAN= 1 NPROD= 166 NE= 88 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 50000001 0.000000 9.000000 6 5 1 0  
 3 50001001 0.000000 8.500000 6 5 1001 0  
 4 50001002 0.000000 15.000000 6 5 1002 0  
 5 50001003 0.000000 16.500000 6 5 1003 0  
 6 50002003 0.000000 23.000000 6 5 2003 0  
 7 50002004 0.000000 9.500000 6 5 2004 0  
 8 50039085 0.000000 130.000000 6 5 39085 0  
 9 51039085 0.000000 130.000000 6 5 39085 1  
 10 50039086 0.000000 130.000000 6 5 39086 0  
 11 52039086 0.000000 130.000000 6 5 39086 2  
 12 50039087 0.000000 130.000000 6 5 39087 0  
 13 51039087 0.000000 130.000000 6 5 39087 1  
 14 50039088 0.000000 130.000000 6 5 39088 0  
 15 50040086 0.000000 130.000000 6 5 40086 0  
 16 50040087 0.000000 120.000000 6 5 40087 0  
 17 52040087 0.000000 120.000000 6 5 40087 2  
 18 50040088 0.000000 120.000000 6 5 40088 0  
 19 50040089 0.000000 120.000000 6 5 40089 0  
 20 51040089 0.000000 120.000000 6 5 40089 1  
 21 50041087 0.000000 130.000000 6 5 41087 0  
 22 51041087 0.000000 130.000000 6 5 41087 1  
 23 50041088 0.000000 120.000000 6 5 41088 0  
 24 51041088 0.000000 120.000000 6 5 41088 1  
 25 50041089 0.000000 120.000000 6 5 41089 0  
 26 51041089 0.000000 120.000000 6 5 41089 1  
 27 50041090 0.000000 120.000000 6 5 41090 0  
 28 52041090 0.000000 120.000000 6 5 41090 2

29	50041091	0.000000	120.000000	6	5	41091	0
30	51041091	0.000000	120.000000	6	5	41091	1
31	50042088	0.000000	140.000000	6	5	42088	0
32	50042089	0.000000	130.000000	6	5	42089	0
33	50042090	0.000000	120.000000	6	5	42090	0
34	50042091	0.000000	110.000000	6	5	42091	0
35	51042091	0.000000	110.000000	6	5	42091	1
36	50042092	0.000000	110.000000	6	5	42092	0
37	50042093	0.000000	120.000000	6	5	42093	0
38	66042093	0.000000	120.000000	6	5	42093	16
39	50042094	0.000000	120.000000	6	5	42094	0
40	50043090	0.000000	130.000000	6	5	43090	0
41	54043090	0.000000	130.000000	6	5	43090	4
42	56043090	0.000000	130.000000	6	5	43090	6
43	50043091	0.000000	120.000000	6	5	43091	0
44	51043091	0.000000	120.000000	6	5	43091	1
45	50043092	0.000000	110.000000	6	5	43092	0
46	50043093	0.000000	110.000000	6	5	43093	0
47	51043093	0.000000	110.000000	6	5	43093	1
48	50043094	0.000000	110.000000	6	5	43094	0
49	51043094	0.000000	110.000000	6	5	43094	1
50	50043095	0.000000	110.000000	6	5	43095	0
51	51043095	0.000000	110.000000	6	5	43095	1
52	50043096	0.000000	110.000000	6	5	43096	0
53	51043096	0.000000	110.000000	6	5	43096	1
54	50044092	0.000000	170.000000	6	5	44092	0
55	50044093	0.000000	120.000000	6	5	44093	0
56	51044093	0.000000	120.000000	6	5	44093	1
57	50044094	0.000000	110.000000	6	5	44094	0
58	50044095	0.000000	110.000000	6	5	44095	0
59	50044096	0.000000	110.000000	6	5	44096	0
60	50044097	0.000000	110.000000	6	5	44097	0
61	50044098	0.000000	110.000000	6	5	44098	0
62	50045094	0.000000	130.000000	6	5	45094	0
63	52045094	0.000000	130.000000	6	5	45094	2
64	50045095	0.000000	110.000000	6	5	45095	0
65	51045095	0.000000	110.000000	6	5	45095	1
66	50045096	0.000000	100.000000	6	5	45096	0
67	51045096	0.000000	100.000000	6	5	45096	1
68	50045097	0.000000	100.000000	6	5	45097	0
69	51045097	0.000000	100.000000	6	5	45097	1
70	50045098	0.000000	100.000000	6	5	45098	0
71	53045098	0.000000	100.000000	6	5	45098	3
72	50045099	0.000000	100.000000	6	5	45099	0
73	51045099	0.000000	100.000000	6	5	45099	1
74	50045100	0.000000	95.000000	6	5	45100	0
75	54045100	0.000000	95.000000	6	5	45100	4
76	50045101	0.000000	95.000000	6	5	45101	0
77	51045101	0.000000	95.000000	6	5	45101	1
78	50045102	0.000000	95.000000	6	5	45102	0
79	55045102	0.000000	95.000000	6	5	45102	5
80	50046096	0.000000	140.000000	6	5	46096	0
81	50046097	0.000000	120.000000	6	5	46097	0
82	50046098	0.000000	110.000000	6	5	46098	0

83	50046099	0.000000	100.000000	6	5	46099	0
84	50046100	0.000000	95.000000	6	5	46100	0
85	50046101	0.000000	90.000000	6	5	46101	0
86	50046102	0.000000	85.000000	6	5	46102	0
87	50046103	0.000000	80.000000	6	5	46103	0
88	50046104	0.000000	74.000000	6	5	46104	0
89	50046105	0.000000	66.000000	6	5	46105	0
90	50046106	0.000000	58.000000	6	5	46106	0
91	50046107	0.000000	50.000000	6	5	46107	0
92	52046107	0.000000	50.000000	6	5	46107	2
93	50046108	0.000000	44.000000	6	5	46108	0
94	50046109	0.000000	42.000000	6	5	46109	0
95	52046109	0.000000	42.000000	6	5	46109	2
96	50047098	0.000000	130.000000	6	5	47098	0
97	50047099	0.000000	110.000000	6	5	47099	0
98	52047099	0.000000	110.000000	6	5	47099	2
99	50047100	0.000000	100.000000	6	5	47100	0
100	51047100	0.000000	100.000000	6	5	47100	1
101	50047101	0.000000	95.000000	6	5	47101	0
102	52047101	0.000000	95.000000	6	5	47101	2
103	50047102	0.000000	85.000000	6	5	47102	0
104	51047102	0.000000	85.000000	6	5	47102	1
105	50047103	0.000000	80.000000	6	5	47103	0
106	52047103	0.000000	80.000000	6	5	47103	2
107	50047104	0.000000	74.000000	6	5	47104	0
108	51047104	0.000000	74.000000	6	5	47104	1
109	50047105	0.000000	62.000000	6	5	47105	0
110	51047105	0.000000	62.000000	6	5	47105	1
111	50047106	0.000000	56.000000	6	5	47106	0
112	51047106	0.000000	56.000000	6	5	47106	1
113	50047107	0.000000	46.000000	6	5	47107	0
114	51047107	0.000000	46.000000	6	5	47107	1
115	50047108	0.000000	36.000000	6	5	47108	0
116	52047108	0.000000	36.000000	6	5	47108	2
117	50047109	0.000000	29.000000	6	5	47109	0
118	51047109	0.000000	29.000000	6	5	47109	1
119	50047110	0.000000	21.000000	6	5	47110	0
120	52047110	0.000000	21.000000	6	5	47110	2
121	50047111	0.000000	13.500000	6	5	47111	0
122	51047111	0.000000	13.500000	6	5	47111	1
123	50047112	0.000000	38.000000	6	5	47112	0
124	50047113	0.000000	44.000000	6	5	47113	0
125	51047113	0.000000	44.000000	6	5	47113	1
126	50048101	0.000000	120.000000	6	5	48101	0
127	50048102	0.000000	100.000000	6	5	48102	0
128	50048103	0.000000	95.000000	6	5	48103	0
129	50048104	0.000000	85.000000	6	5	48104	0
130	50048105	0.000000	80.000000	6	5	48105	0
131	50048106	0.000000	74.000000	6	5	48106	0
132	50048107	0.000000	66.000000	6	5	48107	0
133	50048108	0.000000	56.000000	6	5	48108	0
134	50048109	0.000000	48.000000	6	5	48109	0
135	50048110	0.000000	40.000000	6	5	48110	0
136	50048111	0.000000	32.000000	6	5	48111	0

137	53048111	0.000000	32.000000	6	5	48111	3
138	50048112	0.000000	25.000000	6	5	48112	0
139	50048113	0.000000	18.500000	6	5	48113	0
140	51048113	0.000000	18.500000	6	5	48113	1
141	50048114	0.000000	10.500000	6	5	48114	0
142	50049103	0.000000	180.000000	6	5	49103	0
143	51049103	0.000000	180.000000	6	5	49103	1
144	50049104	0.000000	110.000000	6	5	49104	0
145	53049104	0.000000	110.000000	6	5	49104	3
146	50049105	0.000000	95.000000	6	5	49105	0
147	51049105	0.000000	95.000000	6	5	49105	1
148	50049106	0.000000	85.000000	6	5	49106	0
149	51049106	0.000000	85.000000	6	5	49106	1
150	50049107	0.000000	72.000000	6	5	49107	0
151	51049107	0.000000	72.000000	6	5	49107	1
152	50049108	0.000000	62.000000	6	5	49108	0
153	51049108	0.000000	62.000000	6	5	49108	1
154	50049109	0.000000	52.000000	6	5	49109	0
155	51049109	0.000000	52.000000	6	5	49109	1
156	50049110	0.000000	42.000000	6	5	49110	0
157	51049110	0.000000	42.000000	6	5	49110	1
158	50049111	0.000000	32.000000	6	5	49111	0
159	51049111	0.000000	32.000000	6	5	49111	1
160	50049112	0.000000	25.000000	6	5	49112	0
161	51049112	0.000000	25.000000	6	5	49112	1
162	50049113	0.000000	16.000000	6	5	49113	0
163	51049113	0.000000	16.500000	6	5	49113	1
164	50049114	0.000000	9.000000	6	5	49114	0
165	51049114	0.000000	9.000000	6	5	49114	1
166	50049115	0.000000	1.000000	6	5	49115	0
167	51049115	0.000000	1.000000	6	5	49115	1

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	9.000000
2	0	2	1	1.000000
3	1001	9	1	8.500000
4	1002	31	1	15.000000
5	1003	32	1	16.500000
6	2003	33	1	23.000000
7	2004	34	1	9.500000

50-Sn-112 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 50112.38u MAT=5025 ZA= 50112  
 AWR= 110.943500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	10.787790

2	0	2	1	1.000000
3	1001	9	1	7.551984
4	1002	31	1	15.320810
5	1003	32	1	17.500000
6	2003	33	1	16.000000
7	2004	34	1	1.827558

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50-Sn-114 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 50114.38u MAT=5031 ZA= 50114  
 AWR= 112.924300 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 10.302910  
 2 0 2 1 1.000000  
 3 1001 9 1 8.481577  
 4 1002 31 1 16.000000  
 5 1003 32 1 17.500000  
 6 2003 33 1 17.500000  
 7 2004 34 1 4.000000

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50-Sn-115 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 50115.38u MAT=5034 ZA= 50115  
 AWR= 113.916300 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.545429  
 2 0 2 1 1.000000  
 3 1001 9 1 8.753005  
 4 1002 31 1 13.802440  
 5 1003 32 1 17.500000  
 6 2003 33 1 15.500000  
 7 2004 34 1 4.500000

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50-Sn-116 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 50116.38u MAT=5037 ZA= 50116  
 AWR= 114.906100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 161 NTRAN= 1 NPROD= 160 NE= 87 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.500000	3	5		
2	50000001	0.000000	9.500000	6	5	1	0
3	50001001	0.000000	11.000000	6	5	1001	0
4	50001002	0.000000	17.500000	6	5	1002	0
5	50001003	0.000000	19.500000	6	5	1003	0
6	50002003	0.000000	23.000000	6	5	2003	0
7	50002004	0.000000	9.000000	6	5	2004	0
8	50040086	0.000000	130.000000	6	5	40086	0
9	50040087	0.000000	130.000000	6	5	40087	0
10	52040087	0.000000	130.000000	6	5	40087	2
11	50040088	0.000000	130.000000	6	5	40088	0
12	50040089	0.000000	130.000000	6	5	40089	0
13	51040089	0.000000	130.000000	6	5	40089	1
14	50041087	0.000000	130.000000	6	5	41087	0
15	51041087	0.000000	130.000000	6	5	41087	1
16	50041088	0.000000	130.000000	6	5	41088	0
17	51041088	0.000000	130.000000	6	5	41088	1
18	50041089	0.000000	120.000000	6	5	41089	0
19	51041089	0.000000	120.000000	6	5	41089	1
20	50041090	0.000000	120.000000	6	5	41090	0
21	52041090	0.000000	120.000000	6	5	41090	2
22	50041091	0.000000	120.000000	6	5	41091	0
23	51041091	0.000000	120.000000	6	5	41091	1
24	50042088	0.000000	130.000000	6	5	42088	0
25	50042089	0.000000	130.000000	6	5	42089	0
26	50042090	0.000000	120.000000	6	5	42090	0
27	50042091	0.000000	120.000000	6	5	42091	0
28	51042091	0.000000	120.000000	6	5	42091	1
29	50042092	0.000000	110.000000	6	5	42092	0
30	50042093	0.000000	120.000000	6	5	42093	0
31	66042093	0.000000	120.000000	6	5	42093	16
32	50043090	0.000000	130.000000	6	5	43090	0
33	54043090	0.000000	130.000000	6	5	43090	4
34	56043090	0.000000	130.000000	6	5	43090	6
35	50043091	0.000000	120.000000	6	5	43091	0
36	51043091	0.000000	120.000000	6	5	43091	1
37	50043092	0.000000	110.000000	6	5	43092	0
38	50043093	0.000000	110.000000	6	5	43093	0
39	51043093	0.000000	110.000000	6	5	43093	1
40	50043094	0.000000	110.000000	6	5	43094	0
41	51043094	0.000000	110.000000	6	5	43094	1
42	50043095	0.000000	110.000000	6	5	43095	0
43	51043095	0.000000	110.000000	6	5	43095	1
44	50043096	0.000000	110.000000	6	5	43096	0
45	51043096	0.000000	110.000000	6	5	43096	1
46	50044092	0.000000	130.000000	6	5	44092	0
47	50044093	0.000000	120.000000	6	5	44093	0
48	51044093	0.000000	120.000000	6	5	44093	1
49	50044094	0.000000	110.000000	6	5	44094	0
50	50044095	0.000000	110.000000	6	5	44095	0
51	50044096	0.000000	110.000000	6	5	44096	0
52	50044097	0.000000	110.000000	6	5	44097	0



53	50044098	0.000000	110.000000	6	5	44098	0
54	50045094	0.000000	130.000000	6	5	45094	0
55	52045094	0.000000	130.000000	6	5	45094	2
56	50045095	0.000000	110.000000	6	5	45095	0
57	51045095	0.000000	110.000000	6	5	45095	1
58	50045096	0.000000	110.000000	6	5	45096	0
59	51045096	0.000000	110.000000	6	5	45096	1
60	50045097	0.000000	100.000000	6	5	45097	0
61	51045097	0.000000	100.000000	6	5	45097	1
62	50045098	0.000000	100.000000	6	5	45098	0
63	53045098	0.000000	100.000000	6	5	45098	3
64	50045099	0.000000	100.000000	6	5	45099	0
65	51045099	0.000000	100.000000	6	5	45099	1
66	50045100	0.000000	100.000000	6	5	45100	0
67	54045100	0.000000	100.000000	6	5	45100	4
68	50045101	0.000000	100.000000	6	5	45101	0
69	51045101	0.000000	100.000000	6	5	45101	1
70	50046096	0.000000	140.000000	6	5	46096	0
71	50046097	0.000000	110.000000	6	5	46097	0
72	50046098	0.000000	110.000000	6	5	46098	0
73	50046099	0.000000	100.000000	6	5	46099	0
74	50046100	0.000000	95.000000	6	5	46100	0
75	50046101	0.000000	90.000000	6	5	46101	0
76	50046102	0.000000	85.000000	6	5	46102	0
77	50046103	0.000000	78.000000	6	5	46103	0
78	50046104	0.000000	76.000000	6	5	46104	0
79	50046105	0.000000	76.000000	6	5	46105	0
80	50046106	0.000000	85.000000	6	5	46106	0
81	50047098	0.000000	130.000000	6	5	47098	0
82	50047099	0.000000	110.000000	6	5	47099	0
83	52047099	0.000000	110.000000	6	5	47099	2
84	50047100	0.000000	100.000000	6	5	47100	0
85	51047100	0.000000	100.000000	6	5	47100	1
86	50047101	0.000000	95.000000	6	5	47101	0
87	52047101	0.000000	95.000000	6	5	47101	2
88	50047102	0.000000	90.000000	6	5	47102	0
89	51047102	0.000000	90.000000	6	5	47102	1
90	50047103	0.000000	85.000000	6	5	47103	0
91	52047103	0.000000	85.000000	6	5	47103	2
92	50047104	0.000000	80.000000	6	5	47104	0
93	51047104	0.000000	80.000000	6	5	47104	1
94	50047105	0.000000	74.000000	6	5	47105	0
95	51047105	0.000000	74.000000	6	5	47105	1
96	50047106	0.000000	70.000000	6	5	47106	0
97	51047106	0.000000	70.000000	6	5	47106	1
98	50047107	0.000000	62.000000	6	5	47107	0
99	51047107	0.000000	62.000000	6	5	47107	1
100	50047108	0.000000	56.000000	6	5	47108	0
101	52047108	0.000000	56.000000	6	5	47108	2
102	50047109	0.000000	48.000000	6	5	47109	0
103	51047109	0.000000	48.000000	6	5	47109	1
104	50047110	0.000000	42.000000	6	5	47110	0
105	52047110	0.000000	42.000000	6	5	47110	2
106	50047111	0.000000	42.000000	6	5	47111	0

107	51047111	0.000000	42.000000	6	5	47111	1
108	50048101	0.000000	110.000000	6	5	48101	0
109	50048102	0.000000	95.000000	6	5	48102	0
110	50048103	0.000000	85.000000	6	5	48103	0
111	50048104	0.000000	80.000000	6	5	48104	0
112	50048105	0.000000	72.000000	6	5	48105	0
113	50048106	0.000000	64.000000	6	5	48106	0
114	50048107	0.000000	58.000000	6	5	48107	0
115	50048108	0.000000	48.000000	6	5	48108	0
116	50048109	0.000000	40.000000	6	5	48109	0
117	50048110	0.000000	30.000000	6	5	48110	0
118	50048111	0.000000	22.000000	6	5	48111	0
119	53048111	0.000000	22.000000	6	5	48111	3
120	50048112	0.000000	12.000000	6	5	48112	0
121	50048113	0.000000	36.000000	6	5	48113	0
122	51048113	0.000000	36.000000	6	5	48113	1
123	50048114	0.000000	34.000000	6	5	48114	0
124	50049103	0.000000	120.000000	6	5	49103	0
125	51049103	0.000000	120.000000	6	5	49103	1
126	50049104	0.000000	100.000000	6	5	49104	0
127	53049104	0.000000	100.000000	6	5	49104	3
128	50049105	0.000000	95.000000	6	5	49105	0
129	51049105	0.000000	95.000000	6	5	49105	1
130	50049106	0.000000	85.000000	6	5	49106	0
131	51049106	0.000000	85.000000	6	5	49106	1
132	50049107	0.000000	80.000000	6	5	49107	0
133	51049107	0.000000	80.000000	6	5	49107	1
134	50049108	0.000000	72.000000	6	5	49108	0
135	51049108	0.000000	72.000000	6	5	49108	1
136	50049109	0.000000	62.000000	6	5	49109	0
137	51049109	0.000000	62.000000	6	5	49109	1
138	50049110	0.000000	54.000000	6	5	49110	0
139	51049110	0.000000	54.000000	6	5	49110	1
140	50049111	0.000000	46.000000	6	5	49111	0
141	51049111	0.000000	46.000000	6	5	49111	1
142	50049112	0.000000	38.000000	6	5	49112	0
143	51049112	0.000000	38.000000	6	5	49112	1
144	50049113	0.000000	29.000000	6	5	49113	0
145	51049113	0.000000	29.000000	6	5	49113	1
146	50049114	0.000000	21.000000	6	5	49114	0
147	51049114	0.000000	21.000000	6	5	49114	1
148	50049115	0.000000	12.500000	6	5	49115	0
149	51049115	0.000000	12.500000	6	5	49115	1
150	50050106	0.000000	95.000000	6	5	50106	0
151	50050107	0.000000	85.000000	6	5	50107	0
152	50050108	0.000000	74.000000	6	5	50108	0
153	50050109	0.000000	64.000000	6	5	50109	0
154	50050110	0.000000	54.000000	6	5	50110	0
155	50050111	0.000000	44.000000	6	5	50111	0
156	50050112	0.000000	34.000000	6	5	50112	0
157	50050113	0.000000	27.000000	6	5	50113	0
158	51050113	0.000000	27.000000	6	5	50113	1
159	50050114	0.000000	17.000000	6	5	50114	0
160	50050115	0.000000	9.500000	6	5	50115	0

161 50050116 0.000000 1.500000 6 5 50116 0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.500000
2	0	2	1	1.500000
3	1001	9	1	11.000000
4	1002	31	1	17.500000
5	1003	32	1	19.500000
6	2003	33	1	23.000000
7	2004	34	1	9.000000

50-Sn-117 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 50117.38u MAT=5040 ZA= 50117  
AWR= 115.898700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS

1	5	0.000000	1.000000	3	5		
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p	ZAP	IP	NR	TP [MeV]
1	1	1	1	6.943098
2	0	2	1	1.000000
3	1001	9	1	9.436973
4	1002	31	1	13.997130
5	1003	32	1	17.000000
6	2003	33	1	16.500000
7	2004	34	1	5.000000

50-Sn-118 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 50118.38u MAT=5043 ZA= 50118  
AWR= 116.890000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 7 NTRAN= 1 NPROD= 6 NE= 101 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS

1	5	0.000000	1.999000	3	5		
2	201	-9.326200	9.326200	3	201		
3	203	-9.997800	12.350000	3	203		
4	204	-16.538000	20.450000	3	204		
5	205	-17.065000	23.150000	3	205		
6	206	-18.494000	29.450000	3	206		
7	207	-4.057800	10.100000	3	207		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.200000
2	0	2	1	1.999000
3	1001	9	1	11.900000
4	1002	31	1	20.000000
5	1003	32	1	22.250000

6 2003 33 1 28.100000  
7 2004 34 1 10.100000

-----  
50-Sn-119 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 50119.38u MAT=5046 ZA= 50119  
AWR= 117.881900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 6.483486  
2 0 2 1 1.000000  
3 1001 9 1 10.125780  
4 1002 31 1 14.500000  
5 1003 32 1 17.000000  
6 2003 33 1 17.500000  
7 2004 34 1 5.500000  
-----

-----  
50-Sn-120 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 50120.38u MAT=5049 ZA= 50120  
AWR= 118.872200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 9.104664  
2 0 2 1 1.000000  
3 1001 9 1 10.688060  
4 1002 31 1 17.005880  
5 1003 32 1 17.500000  
6 2003 33 1 21.000000  
7 2004 34 1 6.000000  
-----

-----  
50-Sn-122 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 50122.38u MAT=5055 ZA= 50122  
AWR= 120.856200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.815385
2	0	2	1	1.000000
3	1001	9	1	11.394330
4	1002	31	1	17.348690
5	1003	32	1	17.500000
6	2003	33	1	22.000000
7	2004	34	1	7.000000

-----

50-Sn-124 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 50124.38u MAT=5061 ZA= 50124  
 AWR= 122.840900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.489329
2	0	2	1	1.000000
3	1001	9	1	12.092810
4	1002	31	1	17.797170
5	1003	32	1	17.348030
6	2003	33	1	23.000000
7	2004	34	1	8.000000

-----

51-Sb-121 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 51121.38u MAT=5125 ZA= 51121  
 AWR= 119.865200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.253877
2	0	2	1	1.000000
3	1001	9	1	5.790923
4	1002	31	1	13.000000
5	1003	32	1	12.897280
6	2003	33	1	18.500000
7	2004	34	1	4.500000

-----

51-Sb-123 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 51123.38u MAT=5131 ZA= 51123

AWR= 121.848400 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----  
NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.960016
2	0	2	1	1.000000
3	1001	9	1	6.571707
4	1002	31	1	13.500000
5	1003	32	1	13.500000
6	2003	33	1	20.000000
7	2004	34	1	5.000000

-----  
52-Te-120 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 52120.38u MAT=5225 ZA= 52120

AWR= 118.874000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----  
NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.258120
2	0	2	1	1.000000
3	1001	9	1	7.182778
4	1002	31	1	14.507500
5	1003	32	1	16.000000
6	2003	33	1	15.000000
7	2004	34	1	1.000000

-----  
52-Te-122 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 52122.38u MAT=5231 ZA= 52122

AWR= 120.855800 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----  
NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.840275
2	0	2	1	1.000000
3	1001	9	1	8.003110
4	1002	31	1	15.032420
5	1003	32	1	16.000000
6	2003	33	1	16.500000
7	2004	34	1	1.086523

-----  
52-Te-123 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 52123.38u MAT=5234 ZA= 52123  
AWR= 121.848500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 6.929013  
2 0 2 1 1.000000  
3 1001 9 1 8.125757  
4 1002 31 1 13.000000  
5 1003 32 1 16.000000  
6 2003 33 1 14.000000  
7 2004 34 1 3.000000  
-----

-----  
52-Te-124 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 52124.38u MAT=5237 ZA= 52124  
AWR= 122.838400 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 92 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 9.424482  
2 0 2 1 1.000000  
3 1001 9 1 8.590223  
4 1002 31 1 15.325670  
5 1003 32 1 15.874810  
6 2003 33 1 17.500000  
7 2004 34 1 3.000000  
-----

-----  
52-Te-125 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 52125.38u MAT=5240 ZA= 52125  
AWR= 123.831400 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 6.568970  
-----

2	0	2	1	1.000000
3	1001	9	1	8.691697
4	1002	31	1	12.934630
5	1003	32	1	16.000000
6	2003	33	1	15.500000
7	2004	34	1	3.500000

-----

52-Te-126 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 52126.38u MAT=5243 ZA= 52126  
 AWR= 124.821700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 9.113691  
 2 0 2 1 1.000000  
 3 1001 9 1 9.098045  
 4 1002 31 1 15.580820  
 5 1003 32 1 16.000000  
 6 2003 33 1 18.500000  
 7 2004 34 1 4.000000

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52-Te-128 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 52128.38u MAT=5249 ZA= 52128  
 AWR= 126.805700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.783355  
 2 0 2 1 1.000000  
 3 1001 9 1 9.583210  
 4 1002 31 1 16.000000  
 5 1003 32 1 16.000000  
 6 2003 33 1 19.500000  
 7 2004 34 1 4.500000

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52-Te-130 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 52130.38u MAT=5255 ZA= 52130  
 AWR= 128.790300 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 8.419459  
2 0 2 1 1.000000  
3 1001 9 1 10.012610  
4 1002 31 1 15.858380  
5 1003 32 1 16.000000  
6 2003 33 1 20.000000  
7 2004 34 1 5.000000

53-I -127 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 53127.38u MAT=5325 ZA= 53127  
AWR= 125.814300 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 9.143908  
2 0 2 1 1.000000  
3 1001 9 1 6.207532  
4 1002 31 1 13.500000  
5 1003 32 1 13.408400  
6 2003 33 1 17.500000  
7 2004 34 1 3.500000

53-I -129 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 53129.38u MAT=5331 ZA= 53129  
AWR= 127.797600 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 8.839718  
2 0 2 1 1.000000  
3 1001 9 1 6.802380  
4 1002 31 1 13.361170  
5 1003 32 1 14.000000  
6 2003 33 1 18.500000  
7 2004 34 1 4.000000

-----  
 54-Xe-132 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 54132.38u MAT=5449 ZA= 54132  
 AWR= 130.771000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
  
 p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.936721  
 2 0 2 1 1.000000  
 3 1001 9 1 9.125222  
 4 1002 31 1 15.478550  
 5 1003 32 1 16.000000  
 6 2003 33 1 18.500000  
 7 2004 34 1 4.000000  
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 55-Cs-133 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 55133.38u MAT=5525 ZA= 55133  
 AWR= 131.763700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 140 NTRAN= 1 NPROD= 139 NE= 89 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 50000001 0.000000 8.500000 6 5 1 0  
 3 50001001 0.000000 7.500000 6 5 1001 0  
 4 50001002 0.000000 14.500000 6 5 1002 0  
 5 50001003 0.000000 15.500000 6 5 1003 0  
 6 50002003 0.000000 22.000000 6 5 2003 0  
 7 50002004 0.000000 8.500000 6 5 2004 0  
 8 50046104 0.000000 120.000000 6 5 46104 0  
 9 50046105 0.000000 120.000000 6 5 46105 0  
 10 50046106 0.000000 120.000000 6 5 46106 0  
 11 50047105 0.000000 120.000000 6 5 47105 0  
 12 51047105 0.000000 120.000000 6 5 47105 1  
 13 50047106 0.000000 120.000000 6 5 47106 0  
 14 51047106 0.000000 120.000000 6 5 47106 1  
 15 50047107 0.000000 120.000000 6 5 47107 0  
 16 51047107 0.000000 120.000000 6 5 47107 1  
 17 50048106 0.000000 120.000000 6 5 48106 0  
 18 50048107 0.000000 110.000000 6 5 48107 0  
 19 50048108 0.000000 110.000000 6 5 48108 0  
 20 50048109 0.000000 110.000000 6 5 48109 0  
 21 50048110 0.000000 110.000000 6 5 48110 0  
 22 50049107 0.000000 120.000000 6 5 49107 0  
 23 51049107 0.000000 120.000000 6 5 49107 1  
 24 50049108 0.000000 120.000000 6 5 49108 0  
 25 51049108 0.000000 120.000000 6 5 49108 1  
 26 50049109 0.000000 110.000000 6 5 49109 0  
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27	51049109	0.000000	110.000000	6	5	49109	1
28	50049110	0.000000	110.000000	6	5	49110	0
29	51049110	0.000000	110.000000	6	5	49110	1
30	50049111	0.000000	110.000000	6	5	49111	0
31	51049111	0.000000	110.000000	6	5	49111	1
32	50049112	0.000000	110.000000	6	5	49112	0
33	51049112	0.000000	110.000000	6	5	49112	1
34	50050108	0.000000	140.000000	6	5	50108	0
35	50050109	0.000000	130.000000	6	5	50109	0
36	50050110	0.000000	120.000000	6	5	50110	0
37	50050111	0.000000	120.000000	6	5	50111	0
38	50050112	0.000000	110.000000	6	5	50112	0
39	50050113	0.000000	110.000000	6	5	50113	0
40	51050113	0.000000	110.000000	6	5	50113	1
41	50050114	0.000000	110.000000	6	5	50114	0
42	50051110	0.000000	130.000000	6	5	51110	0
43	50051111	0.000000	120.000000	6	5	51111	0
44	50051112	0.000000	110.000000	6	5	51112	0
45	50051113	0.000000	110.000000	6	5	51113	0
46	50051114	0.000000	100.000000	6	5	51114	0
47	50051115	0.000000	100.000000	6	5	51115	0
48	50051116	0.000000	100.000000	6	5	51116	0
49	53051116	0.000000	100.000000	6	5	51116	3
50	50051117	0.000000	100.000000	6	5	51117	0
51	50051118	0.000000	100.000000	6	5	51118	0
52	57051118	0.000000	100.000000	6	5	51118	7
53	50051119	0.000000	100.000000	6	5	51119	0
54	50052112	0.000000	150.000000	6	5	52112	0
55	50052113	0.000000	130.000000	6	5	52113	0
56	50052114	0.000000	120.000000	6	5	52114	0
57	50052115	0.000000	110.000000	6	5	52115	0
58	51052115	0.000000	110.000000	6	5	52115	1
59	50052116	0.000000	100.000000	6	5	52116	0
60	50052117	0.000000	100.000000	6	5	52117	0
61	50052118	0.000000	95.000000	6	5	52118	0
62	50052119	0.000000	90.000000	6	5	52119	0
63	52052119	0.000000	90.000000	6	5	52119	2
64	50052120	0.000000	85.000000	6	5	52120	0
65	50052121	0.000000	80.000000	6	5	52121	0
66	52052121	0.000000	80.000000	6	5	52121	2
67	50052122	0.000000	76.000000	6	5	52122	0
68	50052123	0.000000	68.000000	6	5	52123	0
69	52052123	0.000000	68.000000	6	5	52123	2
70	50052124	0.000000	62.000000	6	5	52124	0
71	50052125	0.000000	56.000000	6	5	52125	0
72	52052125	0.000000	56.000000	6	5	52125	2
73	50052126	0.000000	50.000000	6	5	52126	0
74	50052127	0.000000	50.000000	6	5	52127	0
75	52052127	0.000000	50.000000	6	5	52127	2
76	50053114	0.000000	140.000000	6	5	53114	0
77	53053114	0.000000	140.000000	6	5	53114	3
78	50053115	0.000000	120.000000	6	5	53115	0
79	50053116	0.000000	110.000000	6	5	53116	0
80	50053117	0.000000	100.000000	6	5	53117	0

81	50053118	0.000000	100.000000	6	5	53118	0
82	54053118	0.000000	100.000000	6	5	53118	4
83	50053119	0.000000	90.000000	6	5	53119	0
84	50053120	0.000000	85.000000	6	5	53120	0
85	63053120	0.000000	85.000000	6	5	53120	13
86	50053121	0.000000	80.000000	6	5	53121	0
87	50053122	0.000000	76.000000	6	5	53122	0
88	50053123	0.000000	66.000000	6	5	53123	0
89	50053124	0.000000	58.000000	6	5	53124	0
90	50053125	0.000000	48.000000	6	5	53125	0
91	50053126	0.000000	40.000000	6	5	53126	0
92	50053127	0.000000	29.000000	6	5	53127	0
93	50053128	0.000000	22.000000	6	5	53128	0
94	50053129	0.000000	13.000000	6	5	53129	0
95	50053130	0.000000	40.000000	6	5	53130	0
96	51053130	0.000000	40.000000	6	5	53130	1
97	50053131	0.000000	40.000000	6	5	53131	0
98	50054116	0.000000	160.000000	6	5	54116	0
99	50054117	0.000000	140.000000	6	5	54117	0
100	50054118	0.000000	120.000000	6	5	54118	0
101	50054119	0.000000	110.000000	6	5	54119	0
102	50054120	0.000000	100.000000	6	5	54120	0
103	50054121	0.000000	90.000000	6	5	54121	0
104	50054122	0.000000	85.000000	6	5	54122	0
105	50054123	0.000000	80.000000	6	5	54123	0
106	50054124	0.000000	72.000000	6	5	54124	0
107	50054125	0.000000	68.000000	6	5	54125	0
108	52054125	0.000000	68.000000	6	5	54125	2
109	50054126	0.000000	56.000000	6	5	54126	0
110	50054127	0.000000	50.000000	6	5	54127	0
111	52054127	0.000000	50.000000	6	5	54127	2
112	50054128	0.000000	42.000000	6	5	54128	0
113	50054129	0.000000	34.000000	6	5	54129	0
114	52054129	0.000000	34.000000	6	5	54129	2
115	50054130	0.000000	25.000000	6	5	54130	0
116	50054131	0.000000	18.500000	6	5	54131	0
117	52054131	0.000000	18.500000	6	5	54131	2
118	50054132	0.000000	10.000000	6	5	54132	0
119	50055119	0.000000	140.000000	6	5	55119	0
120	51055119	0.000000	140.000000	6	5	55119	1
121	50055120	0.000000	120.000000	6	5	55120	0
122	55055120	0.000000	120.000000	6	5	55120	5
123	50055121	0.000000	110.000000	6	5	55121	0
124	51055121	0.000000	110.000000	6	5	55121	1
125	50055122	0.000000	100.000000	6	5	55122	0
126	58055122	0.000000	100.000000	6	5	55122	8
127	50055123	0.000000	90.000000	6	5	55123	0
128	55055123	0.000000	90.000000	6	5	55123	5
129	50055124	0.000000	80.000000	6	5	55124	0
130	75055124	0.000000	80.000000	6	5	55124	25
131	50055125	0.000000	72.000000	6	5	55125	0
132	50055126	0.000000	62.000000	6	5	55126	0
133	50055127	0.000000	50.000000	6	5	55127	0
134	50055128	0.000000	42.000000	6	5	55128	0

135	50055129	0.000000	32.000000	6	5	55129	0
136	50055130	0.000000	25.000000	6	5	55130	0
137	54055130	0.000000	25.000000	6	5	55130	4
138	50055131	0.000000	16.000000	6	5	55131	0
139	50055132	0.000000	8.500000	6	5	55132	0
140	50055133	0.000000	1.000000	6	5	55133	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.500000
2	0	2	1	1.000000
3	1001	9	1	7.500000
4	1002	31	1	14.500000
5	1003	32	1	15.500000
6	2003	33	1	22.000000
7	2004	34	1	8.500000

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55-Cs-135 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 55135.38u MAT=5531 ZA= 55135  
 AWR= 133.747100 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.761806
2	0	2	1	1.000000
3	1001	9	1	6.744792
4	1002	31	1	13.500000
5	1003	32	1	13.500000
6	2003	33	1	18.500000
7	2004	34	1	4.000000

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55-Cs-137 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 55137.38u MAT=5537 ZA= 55137  
 AWR= 135.731000 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.278226
2	0	2	1	1.000000
3	1001	9	1	7.405418
4	1002	31	1	13.500000
5	1003	32	1	14.000000
6	2003	33	1	19.000000

56-Ba-138 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 56138.38u MAT=5649 ZA= 56138  
 AWR= 136.720600 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 142 NTRAN= 1 NPROD= 141 NE= 87 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.500000	3	5		
2	50000001	0.000000	8.500000	6	5	1	0
3	50001001	0.000000	11.000000	6	5	1001	0
4	50001002	0.000000	17.000000	6	5	1002	0
5	50001003	0.000000	18.500000	6	5	1003	0
6	50002003	0.000000	23.000000	6	5	2003	0
7	50002004	0.000000	8.500000	6	5	2004	0
8	50048110	0.000000	130.000000	6	5	48110	0
9	50049111	0.000000	120.000000	6	5	49111	0
10	51049111	0.000000	120.000000	6	5	49111	1
11	50049112	0.000000	120.000000	6	5	49112	0
12	51049112	0.000000	120.000000	6	5	49112	1
13	50050112	0.000000	120.000000	6	5	50112	0
14	50050113	0.000000	120.000000	6	5	50113	0
15	51050113	0.000000	120.000000	6	5	50113	1
16	50050114	0.000000	120.000000	6	5	50114	0
17	50050115	0.000000	120.000000	6	5	50115	0
18	50051113	0.000000	130.000000	6	5	51113	0
19	50051114	0.000000	120.000000	6	5	51114	0
20	50051115	0.000000	120.000000	6	5	51115	0
21	50051116	0.000000	110.000000	6	5	51116	0
22	53051116	0.000000	110.000000	6	5	51116	3
23	50051117	0.000000	110.000000	6	5	51117	0
24	50051118	0.000000	110.000000	6	5	51118	0
25	57051118	0.000000	110.000000	6	5	51118	7
26	50052114	0.000000	140.000000	6	5	52114	0
27	50052115	0.000000	130.000000	6	5	52115	0
28	51052115	0.000000	130.000000	6	5	52115	1
29	50052116	0.000000	120.000000	6	5	52116	0
30	50052117	0.000000	110.000000	6	5	52117	0
31	50052118	0.000000	100.000000	6	5	52118	0
32	50052119	0.000000	100.000000	6	5	52119	0
33	52052119	0.000000	100.000000	6	5	52119	2
34	50052120	0.000000	100.000000	6	5	52120	0
35	50052121	0.000000	100.000000	6	5	52121	0
36	52052121	0.000000	100.000000	6	5	52121	2
37	50052122	0.000000	95.000000	6	5	52122	0
38	50052123	0.000000	95.000000	6	5	52123	0
39	52052123	0.000000	95.000000	6	5	52123	2
40	50052124	0.000000	95.000000	6	5	52124	0
41	50052125	0.000000	90.000000	6	5	52125	0
42	52052125	0.000000	90.000000	6	5	52125	2
43	50052126	0.000000	90.000000	6	5	52126	0

44	50053115	0.000000	160.000000	6	5	53115	0
45	50053116	0.000000	150.000000	6	5	53116	0
46	50053117	0.000000	140.000000	6	5	53117	0
47	50053118	0.000000	130.000000	6	5	53118	0
48	54053118	0.000000	130.000000	6	5	53118	4
49	50053119	0.000000	110.000000	6	5	53119	0
50	50053120	0.000000	110.000000	6	5	53120	0
51	63053120	0.000000	110.000000	6	5	53120	13
52	50053121	0.000000	100.000000	6	5	53121	0
53	50053122	0.000000	95.000000	6	5	53122	0
54	50053123	0.000000	90.000000	6	5	53123	0
55	50053124	0.000000	90.000000	6	5	53124	0
56	50053125	0.000000	85.000000	6	5	53125	0
57	50053126	0.000000	80.000000	6	5	53126	0
58	50053127	0.000000	76.000000	6	5	53127	0
59	50053128	0.000000	72.000000	6	5	53128	0
60	50053129	0.000000	72.000000	6	5	53129	0
61	50053130	0.000000	72.000000	6	5	53130	0
62	51053130	0.000000	72.000000	6	5	53130	1
63	50053131	0.000000	72.000000	6	5	53131	0
64	50054117	0.000000	170.000000	6	5	54117	0
65	50054118	0.000000	140.000000	6	5	54118	0
66	50054119	0.000000	130.000000	6	5	54119	0
67	50054120	0.000000	120.000000	6	5	54120	0
68	50054121	0.000000	110.000000	6	5	54121	0
69	50054122	0.000000	100.000000	6	5	54122	0
70	50054123	0.000000	95.000000	6	5	54123	0
71	50054124	0.000000	85.000000	6	5	54124	0
72	50054125	0.000000	80.000000	6	5	54125	0
73	52054125	0.000000	80.000000	6	5	54125	2
74	50054126	0.000000	74.000000	6	5	54126	0
75	50054127	0.000000	68.000000	6	5	54127	0
76	52054127	0.000000	68.000000	6	5	54127	2
77	50054128	0.000000	62.000000	6	5	54128	0
78	50054129	0.000000	56.000000	6	5	54129	0
79	52054129	0.000000	56.000000	6	5	54129	2
80	50054130	0.000000	48.000000	6	5	54130	0
81	50054131	0.000000	40.000000	6	5	54131	0
82	52054131	0.000000	40.000000	6	5	54131	2
83	50054132	0.000000	32.000000	6	5	54132	0
84	50054133	0.000000	25.000000	6	5	54133	0
85	51054133	0.000000	25.000000	6	5	54133	1
86	50054134	0.000000	13.000000	6	5	54134	0
87	50054135	0.000000	44.000000	6	5	54135	0
88	52054135	0.000000	44.000000	6	5	54135	2
89	50054136	0.000000	42.000000	6	5	54136	0
90	50055119	0.000000	170.000000	6	5	55119	0
91	51055119	0.000000	170.000000	6	5	55119	1
92	50055120	0.000000	150.000000	6	5	55120	0
93	55055120	0.000000	150.000000	6	5	55120	5
94	50055121	0.000000	140.000000	6	5	55121	0
95	51055121	0.000000	140.000000	6	5	55121	1
96	50055122	0.000000	130.000000	6	5	55122	0
97	58055122	0.000000	130.000000	6	5	55122	8

98	50055123	0.000000	110.000000	6	5	55123	0
99	55055123	0.000000	110.000000	6	5	55123	5
100	50055124	0.000000	110.000000	6	5	55124	0
101	75055124	0.000000	110.000000	6	5	55124	25
102	50055125	0.000000	100.000000	6	5	55125	0
103	50055126	0.000000	90.000000	6	5	55126	0
104	50055127	0.000000	80.000000	6	5	55127	0
105	50055128	0.000000	76.000000	6	5	55128	0
106	50055129	0.000000	68.000000	6	5	55129	0
107	50055130	0.000000	64.000000	6	5	55130	0
108	54055130	0.000000	64.000000	6	5	55130	4
109	50055131	0.000000	56.000000	6	5	55131	0
110	50055132	0.000000	50.000000	6	5	55132	0
111	50055133	0.000000	42.000000	6	5	55133	0
112	50055134	0.000000	36.000000	6	5	55134	0
113	53055134	0.000000	36.000000	6	5	55134	3
114	50055135	0.000000	29.000000	6	5	55135	0
115	60055135	0.000000	29.000000	6	5	55135	10
116	50055136	0.000000	21.000000	6	5	55136	0
117	51055136	0.000000	21.000000	6	5	55136	1
118	50055137	0.000000	13.000000	6	5	55137	0
119	50056121	0.000000	180.000000	6	5	56121	0
120	50056122	0.000000	140.000000	6	5	56122	0
121	50056123	0.000000	130.000000	6	5	56123	0
122	50056124	0.000000	120.000000	6	5	56124	0
123	50056125	0.000000	110.000000	6	5	56125	0
124	50056126	0.000000	100.000000	6	5	56126	0
125	50056127	0.000000	95.000000	6	5	56127	0
126	52056127	0.000000	95.000000	6	5	56127	2
127	50056128	0.000000	85.000000	6	5	56128	0
128	50056129	0.000000	76.000000	6	5	56129	0
129	51056129	0.000000	76.000000	6	5	56129	1
130	50056130	0.000000	66.000000	6	5	56130	0
131	50056131	0.000000	58.000000	6	5	56131	0
132	52056131	0.000000	58.000000	6	5	56131	2
133	50056132	0.000000	48.000000	6	5	56132	0
134	50056133	0.000000	40.000000	6	5	56133	0
135	52056133	0.000000	40.000000	6	5	56133	2
136	50056134	0.000000	30.000000	6	5	56134	0
137	50056135	0.000000	24.000000	6	5	56135	0
138	52056135	0.000000	24.000000	6	5	56135	2
139	50056136	0.000000	15.500000	6	5	56136	0
140	50056137	0.000000	8.500000	6	5	56137	0
141	52056137	0.000000	9.000000	6	5	56137	2
142	50056138	0.000000	1.500000	6	5	56138	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.500000
2	0	2	1	1.500000
3	1001	9	1	11.000000
4	1002	31	1	17.000000
5	1003	32	1	18.500000
6	2003	33	1	23.000000
7	2004	34	1	8.500000



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 57-La-139 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 57139.38u MAT=5728 ZA= 57139  
 AWR= 137.713100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 89 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.778349  
 2 0 2 1 1.000000  
 3 1001 9 1 6.500000  
 4 1002 31 1 13.000000  
 5 1003 32 1 14.000000  
 6 2003 33 1 17.500000  
 7 2004 34 1 3.500000  
 -----

-----  
 58-Ce-140 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 58140.38u MAT=5837 ZA= 58140  
 AWR= 138.703600 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 138 NTRAN= 1 NPROD= 137 NE= 87 EMAX= 200.000 MeV

i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.500000 3 5  
 2 50000001 0.000000 9.000000 6 5 1 0  
 3 50001001 0.000000 10.000000 6 5 1001 0  
 4 50001002 0.000000 16.000000 6 5 1002 0  
 5 50001003 0.000000 18.500000 6 5 1003 0  
 6 50002003 0.000000 22.000000 6 5 2003 0  
 7 50002004 0.000000 8.000000 6 5 2004 0  
 8 50049111 0.000000 130.000000 6 5 49111 0  
 9 51049111 0.000000 130.000000 6 5 49111 1  
 10 50050112 0.000000 130.000000 6 5 50112 0  
 11 50050113 0.000000 130.000000 6 5 50113 0  
 12 51050113 0.000000 130.000000 6 5 50113 1  
 13 50051113 0.000000 120.000000 6 5 51113 0  
 14 50051114 0.000000 120.000000 6 5 51114 0  
 15 50051115 0.000000 110.000000 6 5 51115 0  
 16 50052114 0.000000 130.000000 6 5 52114 0  
 17 50052115 0.000000 120.000000 6 5 52115 0  
 18 51052115 0.000000 120.000000 6 5 52115 1  
 19 50052116 0.000000 110.000000 6 5 52116 0  
 20 50052117 0.000000 110.000000 6 5 52117 0  
 21 50052118 0.000000 110.000000 6 5 52118 0  
 22 50053115 0.000000 140.000000 6 5 53115 0  
 23 50053116 0.000000 130.000000 6 5 53116 0  
 24 50053117 0.000000 120.000000 6 5 53117 0  
 -----

25	50053118	0.000000	110.000000	6	5	53118	0
26	54053118	0.000000	110.000000	6	5	53118	4
27	50053119	0.000000	110.000000	6	5	53119	0
28	50053120	0.000000	100.000000	6	5	53120	0
29	63053120	0.000000	100.000000	6	5	53120	13
30	50053121	0.000000	100.000000	6	5	53121	0
31	50054116	0.000000	150.000000	6	5	54116	0
32	50054117	0.000000	140.000000	6	5	54117	0
33	50054118	0.000000	130.000000	6	5	54118	0
34	50054119	0.000000	120.000000	6	5	54119	0
35	50054120	0.000000	110.000000	6	5	54120	0
36	50054121	0.000000	100.000000	6	5	54121	0
37	50054122	0.000000	100.000000	6	5	54122	0
38	50054123	0.000000	95.000000	6	5	54123	0
39	50054124	0.000000	95.000000	6	5	54124	0
40	50054126	0.000000	78.000000	6	5	54126	0
41	50054128	0.000000	68.000000	6	5	54128	0
42	50055118	0.000000	160.000000	6	5	55118	0
43	51055118	0.000000	160.000000	6	5	55118	1
44	50055119	0.000000	140.000000	6	5	55119	0
45	51055119	0.000000	140.000000	6	5	55119	1
46	50055120	0.000000	130.000000	6	5	55120	0
47	55055120	0.000000	130.000000	6	5	55120	5
48	50055121	0.000000	120.000000	6	5	55121	0
49	51055121	0.000000	120.000000	6	5	55121	1
50	50055122	0.000000	110.000000	6	5	55122	0
51	58055122	0.000000	110.000000	6	5	55122	8
52	50055123	0.000000	100.000000	6	5	55123	0
53	55055123	0.000000	100.000000	6	5	55123	5
54	50055124	0.000000	100.000000	6	5	55124	0
55	75055124	0.000000	100.000000	6	5	55124	25
56	50055125	0.000000	90.000000	6	5	55125	0
57	50055126	0.000000	85.000000	6	5	55126	0
58	50055127	0.000000	80.000000	6	5	55127	0
59	50055128	0.000000	78.000000	6	5	55128	0
60	50055129	0.000000	72.000000	6	5	55129	0
61	50055130	0.000000	68.000000	6	5	55130	0
62	54055130	0.000000	68.000000	6	5	55130	4
63	50055131	0.000000	62.000000	6	5	55131	0
64	50055132	0.000000	58.000000	6	5	55132	0
65	50055133	0.000000	56.000000	6	5	55133	0
66	50055134	0.000000	56.000000	6	5	55134	0
67	53055134	0.000000	56.000000	6	5	55134	3
68	50056119	0.000000	190.000000	6	5	56119	0
69	50056120	0.000000	160.000000	6	5	56120	0
70	50056121	0.000000	140.000000	6	5	56121	0
71	50056122	0.000000	120.000000	6	5	56122	0
72	50056123	0.000000	120.000000	6	5	56123	0
73	50056124	0.000000	110.000000	6	5	56124	0
74	50056125	0.000000	100.000000	6	5	56125	0
75	50056126	0.000000	85.000000	6	5	56126	0
76	50056127	0.000000	80.000000	6	5	56127	0
77	52056127	0.000000	80.000000	6	5	56127	2
78	50056128	0.000000	72.000000	6	5	56128	0

79	50056129	0.000000	66.000000	6	5	56129	0
80	51056129	0.000000	66.000000	6	5	56129	1
81	50056130	0.000000	60.000000	6	5	56130	0
82	50056131	0.000000	54.000000	6	5	56131	0
83	52056131	0.000000	54.000000	6	5	56131	2
84	50056132	0.000000	46.000000	6	5	56132	0
85	50056133	0.000000	38.000000	6	5	56133	0
86	52056133	0.000000	38.000000	6	5	56133	2
87	50056134	0.000000	30.000000	6	5	56134	0
88	50056135	0.000000	22.000000	6	5	56135	0
89	52056135	0.000000	22.000000	6	5	56135	2
90	50056136	0.000000	11.000000	6	5	56136	0
91	50056137	0.000000	44.000000	6	5	56137	0
92	52056137	0.000000	44.000000	6	5	56137	2
93	50056138	0.000000	40.000000	6	5	56138	0
94	50057122	0.000000	160.000000	6	5	57122	0
95	50057123	0.000000	150.000000	6	5	57123	0
96	50057124	0.000000	130.000000	6	5	57124	0
97	51057124	0.000000	130.000000	6	5	57124	1
98	50057125	0.000000	120.000000	6	5	57125	0
99	50057126	0.000000	110.000000	6	5	57126	0
100	51057126	0.000000	110.000000	6	5	57126	1
101	50057127	0.000000	100.000000	6	5	57127	0
102	51057127	0.000000	100.000000	6	5	57127	1
103	50057128	0.000000	95.000000	6	5	57128	0
104	56057128	0.000000	95.000000	6	5	57128	6
105	50057129	0.000000	85.000000	6	5	57129	0
106	50057130	0.000000	78.000000	6	5	57130	0
107	50057131	0.000000	70.000000	6	5	57131	0
108	50057132	0.000000	64.000000	6	5	57132	0
109	54057132	0.000000	64.000000	6	5	57132	4
110	50057133	0.000000	56.000000	6	5	57133	0
111	50057134	0.000000	48.000000	6	5	57134	0
112	50057135	0.000000	40.000000	6	5	57135	0
113	50057136	0.000000	36.000000	6	5	57136	0
114	50057137	0.000000	28.000000	6	5	57137	0
115	50057138	0.000000	21.000000	6	5	57138	0
116	50057139	0.000000	11.500000	6	5	57139	0
117	50058125	0.000000	150.000000	6	5	58125	0
118	50058126	0.000000	130.000000	6	5	58126	0
119	50058127	0.000000	120.000000	6	5	58127	0
120	51058127	0.000000	120.000000	6	5	58127	1
121	50058128	0.000000	110.000000	6	5	58128	0
122	50058129	0.000000	100.000000	6	5	58129	0
123	50058130	0.000000	95.000000	6	5	58130	0
124	50058131	0.000000	85.000000	6	5	58131	0
125	51058131	0.000000	85.000000	6	5	58131	1
126	50058132	0.000000	72.000000	6	5	58132	0
127	50058133	0.000000	62.000000	6	5	58133	0
128	51058133	0.000000	62.000000	6	5	58133	1
129	50058134	0.000000	52.000000	6	5	58134	0
130	50058135	0.000000	44.000000	6	5	58135	0
131	54058135	0.000000	44.000000	6	5	58135	4
132	50058136	0.000000	32.000000	6	5	58136	0

133	50058137	0.000000	26.000000	6	5	58137	0
134	52058137	0.000000	26.000000	6	5	58137	2
135	50058138	0.000000	16.500000	6	5	58138	0
136	50058139	0.000000	9.000000	6	5	58139	0
137	52058139	0.000000	9.500000	6	5	58139	2
138	50058140	0.000000	1.500000	6	5	58140	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.000000
2	0	2	1	1.500000
3	1001	9	1	10.000000
4	1002	31	1	16.000000
5	1003	32	1	18.500000
6	2003	33	1	22.000000
7	2004	34	1	8.000000

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58-Ce-142 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 58142.38u MAT=5843 ZA= 58142  
 AWR= 140.690200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 141 NTRAN= 1 NPROD= 140 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.000000	6	5	1	0
3	50001001	0.000000	10.500000	6	5	1001	0
4	50001002	0.000000	15.000000	6	5	1002	0
5	50001003	0.000000	15.000000	6	5	1003	0
6	50002003	0.000000	21.000000	6	5	2003	0
7	50002004	0.000000	5.000000	6	5	2004	0
8	50050114	0.000000	120.000000	6	5	50114	0
9	50051115	0.000000	110.000000	6	5	51115	0
10	50051116	0.000000	110.000000	6	5	51116	0
11	53051116	0.000000	110.000000	6	5	51116	3
12	50052116	0.000000	120.000000	6	5	52116	0
13	50052117	0.000000	110.000000	6	5	52117	0
14	50052118	0.000000	110.000000	6	5	52118	0
15	50052119	0.000000	110.000000	6	5	52119	0
16	52052119	0.000000	110.000000	6	5	52119	2
17	50052120	0.000000	110.000000	6	5	52120	0
18	50053117	0.000000	130.000000	6	5	53117	0
19	50053118	0.000000	130.000000	6	5	53118	0
20	54053118	0.000000	130.000000	6	5	53118	4
21	50053119	0.000000	110.000000	6	5	53119	0
22	50053120	0.000000	110.000000	6	5	53120	0
23	63053120	0.000000	110.000000	6	5	53120	13
24	50053121	0.000000	100.000000	6	5	53121	0
25	50053122	0.000000	100.000000	6	5	53122	0
26	50054118	0.000000	140.000000	6	5	54118	0
27	50054119	0.000000	130.000000	6	5	54119	0
28	50054120	0.000000	120.000000	6	5	54120	0
29	50054121	0.000000	110.000000	6	5	54121	0

30	50054122	0.000000	100.000000	6	5	54122	0
31	50054123	0.000000	100.000000	6	5	54123	0
32	50054124	0.000000	100.000000	6	5	54124	0
33	50054125	0.000000	95.000000	6	5	54125	0
34	52054125	0.000000	95.000000	6	5	54125	2
35	50054126	0.000000	90.000000	6	5	54126	0
36	50054127	0.000000	90.000000	6	5	54127	0
37	52054127	0.000000	90.000000	6	5	54127	2
38	50054128	0.000000	90.000000	6	5	54128	0
39	50054129	0.000000	85.000000	6	5	54129	0
40	52054129	0.000000	85.000000	6	5	54129	2
41	50054130	0.000000	85.000000	6	5	54130	0
42	50054131	0.000000	85.000000	6	5	54131	0
43	52054131	0.000000	85.000000	6	5	54131	2
44	50054132	0.000000	85.000000	6	5	54132	0
45	50055119	0.000000	160.000000	6	5	55119	0
46	51055119	0.000000	160.000000	6	5	55119	1
47	50055120	0.000000	150.000000	6	5	55120	0
48	55055120	0.000000	150.000000	6	5	55120	5
49	50055121	0.000000	130.000000	6	5	55121	0
50	51055121	0.000000	130.000000	6	5	55121	1
51	50055122	0.000000	120.000000	6	5	55122	0
52	58055122	0.000000	120.000000	6	5	55122	8
53	50055123	0.000000	110.000000	6	5	55123	0
54	55055123	0.000000	110.000000	6	5	55123	5
55	50055124	0.000000	110.000000	6	5	55124	0
56	75055124	0.000000	110.000000	6	5	55124	25
57	50055125	0.000000	100.000000	6	5	55125	0
58	50055126	0.000000	95.000000	6	5	55126	0
59	50055127	0.000000	85.000000	6	5	55127	0
60	50055128	0.000000	85.000000	6	5	55128	0
61	50055129	0.000000	78.000000	6	5	55129	0
62	50055130	0.000000	74.000000	6	5	55130	0
63	54055130	0.000000	74.000000	6	5	55130	4
64	50055131	0.000000	70.000000	6	5	55131	0
65	50055132	0.000000	70.000000	6	5	55132	0
66	50055133	0.000000	66.000000	6	5	55133	0
67	50055134	0.000000	62.000000	6	5	55134	0
68	53055134	0.000000	62.000000	6	5	55134	3
69	50055135	0.000000	60.000000	6	5	55135	0
70	60055135	0.000000	60.000000	6	5	55135	10
71	50056121	0.000000	150.000000	6	5	56121	0
72	50056122	0.000000	140.000000	6	5	56122	0
73	50056123	0.000000	130.000000	6	5	56123	0
74	50056124	0.000000	120.000000	6	5	56124	0
75	50056125	0.000000	110.000000	6	5	56125	0
76	50056126	0.000000	100.000000	6	5	56126	0
77	50056127	0.000000	90.000000	6	5	56127	0
78	52056127	0.000000	90.000000	6	5	56127	2
79	50056128	0.000000	85.000000	6	5	56128	0
80	50056129	0.000000	78.000000	6	5	56129	0
81	51056129	0.000000	78.000000	6	5	56129	1
82	50056130	0.000000	72.000000	6	5	56130	0
83	50056131	0.000000	68.000000	6	5	56131	0

84	52056131	0.000000	68.000000	6	5	56131	2
85	50056132	0.000000	60.000000	6	5	56132	0
86	50056133	0.000000	54.000000	6	5	56133	0
87	52056133	0.000000	54.000000	6	5	56133	2
88	50056134	0.000000	44.000000	6	5	56134	0
89	50056135	0.000000	38.000000	6	5	56135	0
90	52056135	0.000000	38.000000	6	5	56135	2
91	50056136	0.000000	28.000000	6	5	56136	0
92	50056137	0.000000	17.000000	6	5	56137	0
93	52056137	0.000000	17.000000	6	5	56137	2
94	50056138	0.000000	1.000000	6	5	56138	0
95	50056139	0.000000	44.000000	6	5	56139	0
96	50057123	0.000000	160.000000	6	5	57123	0
97	50057124	0.000000	150.000000	6	5	57124	0
98	51057124	0.000000	150.000000	6	5	57124	1
99	50057125	0.000000	130.000000	6	5	57125	0
100	50057126	0.000000	120.000000	6	5	57126	0
101	51057126	0.000000	130.000000	6	5	57126	1
102	50057127	0.000000	110.000000	6	5	57127	0
103	51057127	0.000000	110.000000	6	5	57127	1
104	50057128	0.000000	100.000000	6	5	57128	0
105	56057128	0.000000	100.000000	6	5	57128	6
106	50057129	0.000000	95.000000	6	5	57129	0
107	50057130	0.000000	90.000000	6	5	57130	0
108	50057131	0.000000	80.000000	6	5	57131	0
109	50057132	0.000000	72.000000	6	5	57132	0
110	54057132	0.000000	72.000000	6	5	57132	4
111	50057133	0.000000	66.000000	6	5	57133	0
112	50057134	0.000000	60.000000	6	5	57134	0
113	50057135	0.000000	56.000000	6	5	57135	0
114	50057136	0.000000	48.000000	6	5	57136	0
115	50057137	0.000000	40.000000	6	5	57137	0
116	50057138	0.000000	32.000000	6	5	57138	0
117	50057139	0.000000	25.000000	6	5	57139	0
118	50057140	0.000000	19.500000	6	5	57140	0
119	50057141	0.000000	14.500000	6	5	57141	0
120	50058127	0.000000	130.000000	6	5	58127	0
121	51058127	0.000000	130.000000	6	5	58127	1
122	50058128	0.000000	120.000000	6	5	58128	0
123	50058129	0.000000	110.000000	6	5	58129	0
124	50058130	0.000000	100.000000	6	5	58130	0
125	50058131	0.000000	90.000000	6	5	58131	0
126	51058131	0.000000	90.000000	6	5	58131	1
127	50058132	0.000000	80.000000	6	5	58132	0
128	50058133	0.000000	74.000000	6	5	58133	0
129	51058133	0.000000	74.000000	6	5	58133	1
130	50058134	0.000000	64.000000	6	5	58134	0
131	50058135	0.000000	56.000000	6	5	58135	0
132	54058135	0.000000	56.000000	6	5	58135	4
133	50058136	0.000000	46.000000	6	5	58136	0
134	50058137	0.000000	38.000000	6	5	58137	0
135	52058137	0.000000	38.000000	6	5	58137	2
136	50058138	0.000000	29.000000	6	5	58138	0
137	50058139	0.000000	21.000000	6	5	58139	0

138	52058139	0.000000	22.000000	6	5	58139	2
139	50058140	0.000000	12.500000	6	5	58140	0
140	50058141	0.000000	7.000000	6	5	58141	0
141	50058142	0.000000	1.000000	6	5	58142	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.000000
2	0	2	1	1.000000
3	1001	9	1	10.500000
4	1002	31	1	15.000000
5	1003	32	1	15.000000
6	2003	33	1	21.000000
7	2004	34	1	5.000000

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59-Pr-141 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 59141.38u MAT=5925 ZA= 59141  
 AWR= 139.697200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.398872
2	0	2	1	1.000000
3	1001	9	1	5.228526
4	1002	31	1	12.500000
5	1003	32	1	14.000000
6	2003	33	1	16.000000
7	2004	34	1	3.000000

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60-Nd-142 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 60142.38u MAT=6025 ZA= 60142  
 AWR= 140.688700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 137 NTRAN= 1 NPROD= 136 NE= 87 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.500000 3 5  
 2 50000001 0.000000 9.500000 6 5 1 0  
 3 50001001 0.000000 9.000000 6 5 1001 0  
 4 50001002 0.000000 16.000000 6 5 1002 0  
 5 50001003 0.000000 19.000000 6 5 1003 0  
 6 50002003 0.000000 20.000000 6 5 2003 0  
 7 50002004 0.000000 7.500000 6 5 2004 0  
 8 50050112 0.000000 130.000000 6 5 50112 0  
 9 50051113 0.000000 130.000000 6 5 51113 0  
 10 50051114 0.000000 130.000000 6 5 51114 0  
 11 50051115 0.000000 130.000000 6 5 51115 0

12	50052114	0.000000	130.000000	6	5	52114	0
13	50052115	0.000000	120.000000	6	5	52115	0
14	51052115	0.000000	120.000000	6	5	52115	1
15	50052116	0.000000	120.000000	6	5	52116	0
16	50052117	0.000000	120.000000	6	5	52117	0
17	50053115	0.000000	130.000000	6	5	53115	0
18	50053116	0.000000	120.000000	6	5	53116	0
19	50053117	0.000000	120.000000	6	5	53117	0
20	50053118	0.000000	120.000000	6	5	53118	0
21	54053118	0.000000	120.000000	6	5	53118	4
22	50053119	0.000000	120.000000	6	5	53119	0
23	50054116	0.000000	140.000000	6	5	54116	0
24	50054117	0.000000	130.000000	6	5	54117	0
25	50054118	0.000000	120.000000	6	5	54118	0
26	50054119	0.000000	120.000000	6	5	54119	0
27	50054120	0.000000	120.000000	6	5	54120	0
28	50054121	0.000000	120.000000	6	5	54121	0
29	50054122	0.000000	120.000000	6	5	54122	0
30	50055118	0.000000	150.000000	6	5	55118	0
31	51055118	0.000000	150.000000	6	5	55118	1
32	50055119	0.000000	130.000000	6	5	55119	0
33	51055119	0.000000	130.000000	6	5	55119	1
34	50055120	0.000000	120.000000	6	5	55120	0
35	55055120	0.000000	120.000000	6	5	55120	5
36	50055121	0.000000	110.000000	6	5	55121	0
37	51055121	0.000000	110.000000	6	5	55121	1
38	50055122	0.000000	110.000000	6	5	55122	0
39	58055122	0.000000	110.000000	6	5	55122	8
40	50055123	0.000000	110.000000	6	5	55123	0
41	55055123	0.000000	110.000000	6	5	55123	5
42	50055124	0.000000	110.000000	6	5	55124	0
43	75055124	0.000000	110.000000	6	5	55124	25
44	50055125	0.000000	110.000000	6	5	55125	0
45	50056119	0.000000	190.000000	6	5	56119	0
46	50056120	0.000000	150.000000	6	5	56120	0
47	50056121	0.000000	130.000000	6	5	56121	0
48	50056122	0.000000	120.000000	6	5	56122	0
49	50056123	0.000000	110.000000	6	5	56123	0
50	50056124	0.000000	110.000000	6	5	56124	0
51	50056125	0.000000	100.000000	6	5	56125	0
52	50056126	0.000000	95.000000	6	5	56126	0
53	50056127	0.000000	90.000000	6	5	56127	0
54	52056127	0.000000	90.000000	6	5	56127	2
55	50056128	0.000000	90.000000	6	5	56128	0
56	50056129	0.000000	90.000000	6	5	56129	0
57	51056129	0.000000	90.000000	6	5	56129	1
58	50057122	0.000000	150.000000	6	5	57122	0
59	50057123	0.000000	130.000000	6	5	57123	0
60	50057124	0.000000	120.000000	6	5	57124	0
61	51057124	0.000000	120.000000	6	5	57124	1
62	50057125	0.000000	110.000000	6	5	57125	0
63	50057126	0.000000	100.000000	6	5	57126	0
64	51057126	0.000000	100.000000	6	5	57126	1
65	50057127	0.000000	95.000000	6	5	57127	0



66	51057127	0.000000	95.000000	6	5	57127	1
67	50057128	0.000000	90.000000	6	5	57128	0
68	56057128	0.000000	90.000000	6	5	57128	6
69	50057129	0.000000	85.000000	6	5	57129	0
70	50057130	0.000000	80.000000	6	5	57130	0
71	50057131	0.000000	78.000000	6	5	57131	0
72	50057132	0.000000	72.000000	6	5	57132	0
73	54057132	0.000000	72.000000	6	5	57132	4
74	50057133	0.000000	66.000000	6	5	57133	0
75	50057134	0.000000	60.000000	6	5	57134	0
76	50057135	0.000000	52.000000	6	5	57135	0
77	50057136	0.000000	50.000000	6	5	57136	0
78	50057137	0.000000	50.000000	6	5	57137	0
79	50058125	0.000000	130.000000	6	5	58125	0
80	50058126	0.000000	110.000000	6	5	58126	0
81	50058127	0.000000	100.000000	6	5	58127	0
82	51058127	0.000000	100.000000	6	5	58127	1
83	50058128	0.000000	95.000000	6	5	58128	0
84	50058129	0.000000	85.000000	6	5	58129	0
85	50058130	0.000000	80.000000	6	5	58130	0
86	50058131	0.000000	74.000000	6	5	58131	0
87	51058131	0.000000	74.000000	6	5	58131	1
88	50058132	0.000000	68.000000	6	5	58132	0
89	50058133	0.000000	60.000000	6	5	58133	0
90	51058133	0.000000	60.000000	6	5	58133	1
91	50058134	0.000000	48.000000	6	5	58134	0
92	50058135	0.000000	40.000000	6	5	58135	0
93	54058135	0.000000	40.000000	6	5	58135	4
94	50058136	0.000000	30.000000	6	5	58136	0
95	50058137	0.000000	21.000000	6	5	58137	0
96	52058137	0.000000	21.000000	6	5	58137	2
97	50058138	0.000000	9.000000	6	5	58138	0
98	50058139	0.000000	38.000000	6	5	58139	0
99	52058139	0.000000	38.000000	6	5	58139	2
100	50058140	0.000000	32.000000	6	5	58140	0
101	50059127	0.000000	140.000000	6	5	59127	0
102	50059128	0.000000	120.000000	6	5	59128	0
103	50059129	0.000000	110.000000	6	5	59129	0
104	50059130	0.000000	100.000000	6	5	59130	0
105	50059131	0.000000	95.000000	6	5	59131	0
106	52059131	0.000000	95.000000	6	5	59131	2
107	50059132	0.000000	85.000000	6	5	59132	0
108	50059133	0.000000	80.000000	6	5	59133	0
109	53059133	0.000000	80.000000	6	5	59133	3
110	50059134	0.000000	70.000000	6	5	59134	0
111	51059134	0.000000	70.000000	6	5	59134	1
112	50059135	0.000000	64.000000	6	5	59135	0
113	50059136	0.000000	56.000000	6	5	59136	0
114	50059137	0.000000	46.000000	6	5	59137	0
115	50059138	0.000000	38.000000	6	5	59138	0
116	55059138	0.000000	38.000000	6	5	59138	5
117	50059139	0.000000	28.000000	6	5	59139	0
118	50059140	0.000000	20.000000	6	5	59140	0
119	50059141	0.000000	10.000000	6	5	59141	0

120	50060129	0.000000	130.000000	6	5	60129	0
121	50060130	0.000000	110.000000	6	5	60130	0
122	50060131	0.000000	100.000000	6	5	60131	0
123	50060132	0.000000	95.000000	6	5	60132	0
124	50060133	0.000000	85.000000	6	5	60133	0
125	51060133	0.000000	85.000000	6	5	60133	1
126	50060134	0.000000	74.000000	6	5	60134	0
127	50060135	0.000000	66.000000	6	5	60135	0
128	50060136	0.000000	54.000000	6	5	60136	0
129	50060137	0.000000	46.000000	6	5	60137	0
130	54060137	0.000000	46.000000	6	5	60137	4
131	50060138	0.000000	36.000000	6	5	60138	0
132	50060139	0.000000	28.000000	6	5	60139	0
133	52060139	0.000000	28.000000	6	5	60139	2
134	50060140	0.000000	17.500000	6	5	60140	0
135	50060141	0.000000	9.500000	6	5	60141	0
136	52060141	0.000000	10.500000	6	5	60141	2
137	50060142	0.000000	1.500000	6	5	60142	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	9.500000
2	0	2	1	1.500000
3	1001	9	1	9.000000
4	1002	31	1	16.000000
5	1003	32	1	19.000000
6	2003	33	1	20.000000
7	2004	34	1	7.500000

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60-Nd-143 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 60143.38u MAT=6028 ZA= 60143  
 AWR= 141.682200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 140 NTRAN= 1 NPROD= 139 NE= 88 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	6.000000	6	5	1	0
3	50001001	0.000000	9.000000	6	5	1001	0
4	50001002	0.000000	13.500000	6	5	1002	0
5	50001003	0.000000	16.500000	6	5	1003	0
6	50002003	0.000000	18.000000	6	5	2003	0
7	50002004	0.000000	6.500000	6	5	2004	0
8	50050113	0.000000	130.000000	6	5	50113	0
9	51050113	0.000000	130.000000	6	5	50113	1
10	50051114	0.000000	120.000000	6	5	51114	0
11	50051115	0.000000	120.000000	6	5	51115	0
12	50052115	0.000000	120.000000	6	5	52115	0
13	51052115	0.000000	120.000000	6	5	52115	1
14	50052116	0.000000	120.000000	6	5	52116	0
15	50052117	0.000000	120.000000	6	5	52117	0
16	50053116	0.000000	120.000000	6	5	53116	0
17	50053117	0.000000	120.000000	6	5	53117	0

18	50053118	0.000000	120.000000	6	5	53118	0
19	54053118	0.000000	120.000000	6	5	53118	4
20	50053119	0.000000	120.000000	6	5	53119	0
21	50053120	0.000000	120.000000	6	5	53120	0
22	63053120	0.000000	120.000000	6	5	53120	13
23	50054117	0.000000	130.000000	6	5	54117	0
24	50054118	0.000000	120.000000	6	5	54118	0
25	50054119	0.000000	110.000000	6	5	54119	0
26	50054120	0.000000	110.000000	6	5	54120	0
27	50054121	0.000000	110.000000	6	5	54121	0
28	50054122	0.000000	110.000000	6	5	54122	0
29	50055118	0.000000	150.000000	6	5	55118	0
30	51055118	0.000000	150.000000	6	5	55118	1
31	50055119	0.000000	140.000000	6	5	55119	0
32	51055119	0.000000	140.000000	6	5	55119	1
33	50055120	0.000000	120.000000	6	5	55120	0
34	55055120	0.000000	120.000000	6	5	55120	5
35	50055121	0.000000	110.000000	6	5	55121	0
36	51055121	0.000000	110.000000	6	5	55121	1
37	50055122	0.000000	110.000000	6	5	55122	0
38	58055122	0.000000	110.000000	6	5	55122	8
39	50055123	0.000000	110.000000	6	5	55123	0
40	55055123	0.000000	110.000000	6	5	55123	5
41	50055124	0.000000	110.000000	6	5	55124	0
42	75055124	0.000000	110.000000	6	5	55124	25
43	50055125	0.000000	110.000000	6	5	55125	0
44	50056120	0.000000	150.000000	6	5	56120	0
45	50056121	0.000000	130.000000	6	5	56121	0
46	50056122	0.000000	120.000000	6	5	56122	0
47	50056123	0.000000	110.000000	6	5	56123	0
48	50056124	0.000000	100.000000	6	5	56124	0
49	50056125	0.000000	100.000000	6	5	56125	0
50	50056126	0.000000	100.000000	6	5	56126	0
51	50056127	0.000000	95.000000	6	5	56127	0
52	52056127	0.000000	95.000000	6	5	56127	2
53	50056128	0.000000	95.000000	6	5	56128	0
54	50056129	0.000000	95.000000	6	5	56129	0
55	51056129	0.000000	95.000000	6	5	56129	1
56	50057122	0.000000	150.000000	6	5	57122	0
57	50057123	0.000000	140.000000	6	5	57123	0
58	50057124	0.000000	130.000000	6	5	57124	0
59	51057124	0.000000	130.000000	6	5	57124	1
60	50057125	0.000000	110.000000	6	5	57125	0
61	50057126	0.000000	100.000000	6	5	57126	0
62	51057126	0.000000	100.000000	6	5	57126	1
63	50057127	0.000000	100.000000	6	5	57127	0
64	51057127	0.000000	100.000000	6	5	57127	1
65	50057128	0.000000	90.000000	6	5	57128	0
66	56057128	0.000000	90.000000	6	5	57128	6
67	50057129	0.000000	80.000000	6	5	57129	0
68	50057130	0.000000	78.000000	6	5	57130	0
69	50057131	0.000000	74.000000	6	5	57131	0
70	50057132	0.000000	74.000000	6	5	57132	0
71	54057132	0.000000	74.000000	6	5	57132	4

72	50057133	0.000000	70.000000	6	5	57133	0
73	50057134	0.000000	64.000000	6	5	57134	0
74	50057135	0.000000	60.000000	6	5	57135	0
75	50057136	0.000000	60.000000	6	5	57136	0
76	50057137	0.000000	60.000000	6	5	57137	0
77	50057138	0.000000	60.000000	6	5	57138	0
78	50058125	0.000000	130.000000	6	5	58125	0
79	50058126	0.000000	120.000000	6	5	58126	0
80	50058127	0.000000	110.000000	6	5	58127	0
81	51058127	0.000000	110.000000	6	5	58127	1
82	50058128	0.000000	100.000000	6	5	58128	0
83	50058129	0.000000	95.000000	6	5	58129	0
84	50058130	0.000000	85.000000	6	5	58130	0
85	50058131	0.000000	76.000000	6	5	58131	0
86	51058131	0.000000	76.000000	6	5	58131	1
87	50058132	0.000000	70.000000	6	5	58132	0
88	50058133	0.000000	64.000000	6	5	58133	0
89	51058133	0.000000	64.000000	6	5	58133	1
90	50058134	0.000000	54.000000	6	5	58134	0
91	50058135	0.000000	46.000000	6	5	58135	0
92	54058135	0.000000	46.000000	6	5	58135	4
93	50058136	0.000000	36.000000	6	5	58136	0
94	50058137	0.000000	26.000000	6	5	58137	0
95	52058137	0.000000	26.000000	6	5	58137	2
96	50058138	0.000000	17.000000	6	5	58138	0
97	50058139	0.000000	6.500000	6	5	58139	0
98	52058139	0.000000	7.500000	6	5	58139	2
99	50058140	0.000000	38.000000	6	5	58140	0
100	50058141	0.000000	38.000000	6	5	58141	0
101	50059127	0.000000	140.000000	6	5	59127	0
102	50059128	0.000000	130.000000	6	5	59128	0
103	50059129	0.000000	110.000000	6	5	59129	0
104	50059130	0.000000	100.000000	6	5	59130	0
105	50059131	0.000000	95.000000	6	5	59131	0
106	52059131	0.000000	95.000000	6	5	59131	2
107	50059132	0.000000	90.000000	6	5	59132	0
108	50059133	0.000000	78.000000	6	5	59133	0
109	53059133	0.000000	78.000000	6	5	59133	3
110	50059134	0.000000	72.000000	6	5	59134	0
111	51059134	0.000000	72.000000	6	5	59134	1
112	50059135	0.000000	66.000000	6	5	59135	0
113	50059136	0.000000	58.000000	6	5	59136	0
114	50059137	0.000000	50.000000	6	5	59137	0
115	50059138	0.000000	44.000000	6	5	59138	0
116	55059138	0.000000	44.000000	6	5	59138	5
117	50059139	0.000000	34.000000	6	5	59139	0
118	50059140	0.000000	26.000000	6	5	59140	0
119	50059141	0.000000	16.500000	6	5	59141	0
120	50059142	0.000000	11.500000	6	5	59142	0
121	51059142	0.000000	11.500000	6	5	59142	1
122	50060129	0.000000	130.000000	6	5	60129	0
123	50060130	0.000000	120.000000	6	5	60130	0
124	50060131	0.000000	110.000000	6	5	60131	0
125	50060132	0.000000	100.000000	6	5	60132	0

126	50060133	0.000000	90.000000	6	5	60133	0
127	51060133	0.000000	90.000000	6	5	60133	1
128	50060134	0.000000	80.000000	6	5	60134	0
129	50060135	0.000000	72.000000	6	5	60135	0
130	50060136	0.000000	60.000000	6	5	60136	0
131	50060137	0.000000	52.000000	6	5	60137	0
132	54060137	0.000000	52.000000	6	5	60137	4
133	50060138	0.000000	42.000000	6	5	60138	0
134	50060139	0.000000	34.000000	6	5	60139	0
135	52060139	0.000000	34.000000	6	5	60139	2
136	50060140	0.000000	24.000000	6	5	60140	0
137	50060141	0.000000	15.500000	6	5	60141	0
138	52060141	0.000000	16.500000	6	5	60141	2
139	50060142	0.000000	6.000000	6	5	60142	0
140	50060143	0.000000	1.000000	6	5	60143	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	6.000000
2	0	2	1	1.000000
3	1001	9	1	9.000000
4	1002	31	1	13.500000
5	1003	32	1	16.500000
6	2003	33	1	18.000000
7	2004	34	1	6.500000

60-Nd-144 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 60144.38u MAT=6031 ZA= 60144  
 AWR= 142.673800 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 138 NTRAN= 1 NPROD= 137 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.500000	6	5	1	0
3	50001001	0.000000	9.500000	6	5	1001	0
4	50001002	0.000000	14.500000	6	5	1002	0
5	50001003	0.000000	15.500000	6	5	1003	0
6	50002003	0.000000	20.000000	6	5	2003	0
7	50002004	0.000000	4.500000	6	5	2004	0
8	50051115	0.000000	120.000000	6	5	51115	0
9	50051116	0.000000	120.000000	6	5	51116	0
10	53051116	0.000000	120.000000	6	5	51116	3
11	50052116	0.000000	120.000000	6	5	52116	0
12	50052117	0.000000	120.000000	6	5	52117	0
13	50053117	0.000000	120.000000	6	5	53117	0
14	50053118	0.000000	120.000000	6	5	53118	0
15	54053118	0.000000	120.000000	6	5	53118	4
16	50053119	0.000000	120.000000	6	5	53119	0
17	50053120	0.000000	120.000000	6	5	53120	0
18	63053120	0.000000	120.000000	6	5	53120	13
19	50054118	0.000000	130.000000	6	5	54118	0
20	50054119	0.000000	120.000000	6	5	54119	0

21	50054120	0.000000	120.000000	6	5	54120	0
22	50054121	0.000000	120.000000	6	5	54121	0
23	50054122	0.000000	120.000000	6	5	54122	0
24	50054123	0.000000	120.000000	6	5	54123	0
25	50055119	0.000000	140.000000	6	5	55119	0
26	51055119	0.000000	140.000000	6	5	55119	1
27	50055120	0.000000	130.000000	6	5	55120	0
28	55055120	0.000000	130.000000	6	5	55120	5
29	50055121	0.000000	120.000000	6	5	55121	0
30	51055121	0.000000	120.000000	6	5	55121	1
31	50055122	0.000000	110.000000	6	5	55122	0
32	58055122	0.000000	110.000000	6	5	55122	8
33	50055123	0.000000	110.000000	6	5	55123	0
34	55055123	0.000000	110.000000	6	5	55123	5
35	50055124	0.000000	110.000000	6	5	55124	0
36	75055124	0.000000	110.000000	6	5	55124	25
37	50055125	0.000000	110.000000	6	5	55125	0
38	50055126	0.000000	110.000000	6	5	55126	0
39	50056120	0.000000	160.000000	6	5	56120	0
40	50056121	0.000000	140.000000	6	5	56121	0
41	50056122	0.000000	130.000000	6	5	56122	0
42	50056123	0.000000	120.000000	6	5	56123	0
43	50056124	0.000000	110.000000	6	5	56124	0
44	50056125	0.000000	110.000000	6	5	56125	0
45	50056126	0.000000	110.000000	6	5	56126	0
46	50056127	0.000000	100.000000	6	5	56127	0
47	52056127	0.000000	100.000000	6	5	56127	2
48	50056128	0.000000	100.000000	6	5	56128	0
49	50056129	0.000000	100.000000	6	5	56129	0
50	51056129	0.000000	100.000000	6	5	56129	1
51	50057122	0.000000	160.000000	6	5	57122	0
52	50057123	0.000000	150.000000	6	5	57123	0
53	50057124	0.000000	130.000000	6	5	57124	0
54	51057124	0.000000	130.000000	6	5	57124	1
55	50057125	0.000000	120.000000	6	5	57125	0
56	50057126	0.000000	110.000000	6	5	57126	0
57	51057126	0.000000	110.000000	6	5	57126	1
58	50057127	0.000000	100.000000	6	5	57127	0
59	51057127	0.000000	100.000000	6	5	57127	1
60	50057128	0.000000	100.000000	6	5	57128	0
61	56057128	0.000000	100.000000	6	5	57128	6
62	50057129	0.000000	95.000000	6	5	57129	0
63	50057130	0.000000	90.000000	6	5	57130	0
64	50057131	0.000000	85.000000	6	5	57131	0
65	50057132	0.000000	80.000000	6	5	57132	0
66	54057132	0.000000	80.000000	6	5	57132	4
67	50057133	0.000000	78.000000	6	5	57133	0
68	50057134	0.000000	72.000000	6	5	57134	0
69	50057135	0.000000	68.000000	6	5	57135	0
70	50057136	0.000000	68.000000	6	5	57136	0
71	50057137	0.000000	68.000000	6	5	57137	0
72	50057138	0.000000	68.000000	6	5	57138	0
73	50057139	0.000000	85.000000	6	5	57139	0
74	50058125	0.000000	140.000000	6	5	58125	0

75	50058126	0.000000	130.000000	6	5	58126	0
76	50058127	0.000000	120.000000	6	5	58127	0
77	51058127	0.000000	120.000000	6	5	58127	1
78	50058128	0.000000	110.000000	6	5	58128	0
79	50058129	0.000000	100.000000	6	5	58129	0
80	50058130	0.000000	90.000000	6	5	58130	0
81	50058131	0.000000	85.000000	6	5	58131	0
82	51058131	0.000000	85.000000	6	5	58131	1
83	50058132	0.000000	78.000000	6	5	58132	0
84	50058133	0.000000	74.000000	6	5	58133	0
85	51058133	0.000000	74.000000	6	5	58133	1
86	50058134	0.000000	64.000000	6	5	58134	0
87	50058135	0.000000	56.000000	6	5	58135	0
88	54058135	0.000000	56.000000	6	5	58135	4
89	50058136	0.000000	46.000000	6	5	58136	0
90	50058137	0.000000	38.000000	6	5	58137	0
91	52058137	0.000000	38.000000	6	5	58137	2
92	50058138	0.000000	27.000000	6	5	58138	0
93	50058139	0.000000	17.500000	6	5	58139	0
94	52058139	0.000000	17.500000	6	5	58139	2
95	50058140	0.000000	1.000000	6	5	58140	0
96	50058141	0.000000	40.000000	6	5	58141	0
97	50058142	0.000000	38.000000	6	5	58142	0
98	50059127	0.000000	160.000000	6	5	59127	0
99	50059128	0.000000	140.000000	6	5	59128	0
100	50059129	0.000000	130.000000	6	5	59129	0
101	50059130	0.000000	110.000000	6	5	59130	0
102	50059131	0.000000	100.000000	6	5	59131	0
103	52059131	0.000000	100.000000	6	5	59131	2
104	50059132	0.000000	95.000000	6	5	59132	0
105	50059133	0.000000	90.000000	6	5	59133	0
106	53059133	0.000000	90.000000	6	5	59133	3
107	50059134	0.000000	80.000000	6	5	59134	0
108	51059134	0.000000	80.000000	6	5	59134	1
109	50059135	0.000000	74.000000	6	5	59135	0
110	50059136	0.000000	68.000000	6	5	59136	0
111	50059137	0.000000	60.000000	6	5	59137	0
112	50059138	0.000000	52.000000	6	5	59138	0
113	55059138	0.000000	52.000000	6	5	59138	5
114	50059139	0.000000	42.000000	6	5	59139	0
115	50059140	0.000000	34.000000	6	5	59140	0
116	50059141	0.000000	25.000000	6	5	59141	0
117	50059142	0.000000	19.000000	6	5	59142	0
118	51059142	0.000000	19.000000	6	5	59142	1
119	50059143	0.000000	12.000000	6	5	59143	0
120	50060130	0.000000	130.000000	6	5	60130	0
121	50060131	0.000000	120.000000	6	5	60131	0
122	50060132	0.000000	110.000000	6	5	60132	0
123	50060133	0.000000	100.000000	6	5	60133	0
124	51060133	0.000000	100.000000	6	5	60133	1
125	50060134	0.000000	90.000000	6	5	60134	0
126	50060135	0.000000	80.000000	6	5	60135	0
127	50060136	0.000000	70.000000	6	5	60136	0
128	50060137	0.000000	60.000000	6	5	60137	0

129	54060137	0.000000	60.000000	6	5	60137	4
130	50060138	0.000000	50.000000	6	5	60138	0
131	50060139	0.000000	42.000000	6	5	60139	0
132	52060139	0.000000	42.000000	6	5	60139	2
133	50060140	0.000000	30.000000	6	5	60140	0
134	50060141	0.000000	23.000000	6	5	60141	0
135	52060141	0.000000	24.000000	6	5	60141	2
136	50060142	0.000000	13.500000	6	5	60142	0
137	50060143	0.000000	7.500000	6	5	60143	0
138	50060144	0.000000	1.000000	6	5	60144	0

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	7.500000
2	0	2	1	1.000000
3	1001	9	1	9.500000
4	1002	31	1	14.500000
5	1003	32	1	15.500000
6	2003	33	1	20.000000
7	2004	34	1	4.500000

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 60-Nd-145 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 60145.38u MAT=6034 ZA= 60145  
 AWR= 143.667700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 138 NTRAN= 1 NPROD= 137 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	5.500000	6	5	1	0
3	50001001	0.000000	9.500000	6	5	1001	0
4	50001002	0.000000	13.500000	6	5	1002	0
5	50001003	0.000000	15.000000	6	5	1003	0
6	50002003	0.000000	18.000000	6	5	2003	0
7	50002004	0.000000	5.000000	6	5	2004	0
8	50051116	0.000000	130.000000	6	5	51116	0
9	53051116	0.000000	130.000000	6	5	51116	3
10	50052117	0.000000	130.000000	6	5	52117	0
11	50052118	0.000000	120.000000	6	5	52118	0
12	50053118	0.000000	120.000000	6	5	53118	0
13	54053118	0.000000	120.000000	6	5	53118	4
14	50053119	0.000000	120.000000	6	5	53119	0
15	50053120	0.000000	120.000000	6	5	53120	0
16	63053120	0.000000	120.000000	6	5	53120	13
17	50053121	0.000000	120.000000	6	5	53121	0
18	50054119	0.000000	130.000000	6	5	54119	0
19	50054120	0.000000	120.000000	6	5	54120	0
20	50054121	0.000000	120.000000	6	5	54121	0
21	50054122	0.000000	120.000000	6	5	54122	0
22	50054123	0.000000	120.000000	6	5	54123	0
23	50055120	0.000000	140.000000	6	5	55120	0
24	55055120	0.000000	140.000000	6	5	55120	5
25	50055121	0.000000	130.000000	6	5	55121	0



26	51055121	0.000000	130.000000	6	5	55121	1
27	50055122	0.000000	120.000000	6	5	55122	0
28	58055122	0.000000	120.000000	6	5	55122	8
29	50055123	0.000000	120.000000	6	5	55123	0
30	55055123	0.000000	120.000000	6	5	55123	5
31	50055124	0.000000	120.000000	6	5	55124	0
32	75055124	0.000000	120.000000	6	5	55124	25
33	50055125	0.000000	120.000000	6	5	55125	0
34	50055126	0.000000	120.000000	6	5	55126	0
35	50056121	0.000000	140.000000	6	5	56121	0
36	50056122	0.000000	130.000000	6	5	56122	0
37	50056123	0.000000	120.000000	6	5	56123	0
38	50056124	0.000000	120.000000	6	5	56124	0
39	50056125	0.000000	110.000000	6	5	56125	0
40	50056126	0.000000	110.000000	6	5	56126	0
41	50056127	0.000000	110.000000	6	5	56127	0
42	52056127	0.000000	110.000000	6	5	56127	2
43	50056128	0.000000	100.000000	6	5	56128	0
44	50056129	0.000000	110.000000	6	5	56129	0
45	51056129	0.000000	110.000000	6	5	56129	1
46	50057122	0.000000	170.000000	6	5	57122	0
47	50057123	0.000000	150.000000	6	5	57123	0
48	50057124	0.000000	140.000000	6	5	57124	0
49	51057124	0.000000	140.000000	6	5	57124	1
50	50057125	0.000000	130.000000	6	5	57125	0
51	50057126	0.000000	120.000000	6	5	57126	0
52	51057126	0.000000	120.000000	6	5	57126	1
53	50057127	0.000000	110.000000	6	5	57127	0
54	51057127	0.000000	110.000000	6	5	57127	1
55	50057128	0.000000	100.000000	6	5	57128	0
56	56057128	0.000000	100.000000	6	5	57128	6
57	50057129	0.000000	95.000000	6	5	57129	0
58	50057130	0.000000	95.000000	6	5	57130	0
59	50057131	0.000000	90.000000	6	5	57131	0
60	50057132	0.000000	85.000000	6	5	57132	0
61	54057132	0.000000	85.000000	6	5	57132	4
62	50057133	0.000000	80.000000	6	5	57133	0
63	50057134	0.000000	78.000000	6	5	57134	0
64	50057135	0.000000	76.000000	6	5	57135	0
65	50057136	0.000000	76.000000	6	5	57136	0
66	50057137	0.000000	76.000000	6	5	57137	0
67	50057138	0.000000	76.000000	6	5	57138	0
68	50057139	0.000000	95.000000	6	5	57139	0
69	50057140	0.000000	95.000000	6	5	57140	0
70	50058125	0.000000	150.000000	6	5	58125	0
71	50058126	0.000000	130.000000	6	5	58126	0
72	50058127	0.000000	120.000000	6	5	58127	0
73	51058127	0.000000	120.000000	6	5	58127	1
74	50058128	0.000000	110.000000	6	5	58128	0
75	50058129	0.000000	110.000000	6	5	58129	0
76	50058130	0.000000	100.000000	6	5	58130	0
77	50058131	0.000000	90.000000	6	5	58131	0
78	51058131	0.000000	90.000000	6	5	58131	1
79	50058132	0.000000	80.000000	6	5	58132	0

80	50058133	0.000000	76.000000	6	5	58133	0
81	51058133	0.000000	76.000000	6	5	58133	1
82	50058134	0.000000	70.000000	6	5	58134	0
83	50058135	0.000000	62.000000	6	5	58135	0
84	54058135	0.000000	62.000000	6	5	58135	4
85	50058136	0.000000	52.000000	6	5	58136	0
86	50058137	0.000000	44.000000	6	5	58137	0
87	52058137	0.000000	44.000000	6	5	58137	2
88	50058138	0.000000	34.000000	6	5	58138	0
89	50058139	0.000000	24.000000	6	5	58139	0
90	52058139	0.000000	24.000000	6	5	58139	2
91	50058140	0.000000	12.000000	6	5	58140	0
92	50058141	0.000000	1.000000	6	5	58141	0
93	50058142	0.000000	40.000000	6	5	58142	0
94	50058143	0.000000	40.000000	6	5	58143	0
95	50059127	0.000000	170.000000	6	5	59127	0
96	50059128	0.000000	140.000000	6	5	59128	0
97	50059129	0.000000	130.000000	6	5	59129	0
98	50059130	0.000000	120.000000	6	5	59130	0
99	50059131	0.000000	110.000000	6	5	59131	0
100	52059131	0.000000	110.000000	6	5	59131	2
101	50059132	0.000000	100.000000	6	5	59132	0
102	50059133	0.000000	90.000000	6	5	59133	0
103	53059133	0.000000	90.000000	6	5	59133	3
104	50059134	0.000000	85.000000	6	5	59134	0
105	51059134	0.000000	85.000000	6	5	59134	1
106	50059135	0.000000	76.000000	6	5	59135	0
107	50059136	0.000000	70.000000	6	5	59136	0
108	50059137	0.000000	62.000000	6	5	59137	0
109	50059138	0.000000	56.000000	6	5	59138	0
110	55059138	0.000000	56.000000	6	5	59138	5
111	50059139	0.000000	48.000000	6	5	59139	0
112	50059140	0.000000	38.000000	6	5	59140	0
113	50059141	0.000000	30.000000	6	5	59141	0
114	50059142	0.000000	25.000000	6	5	59142	0
115	51059142	0.000000	25.000000	6	5	59142	1
116	50059143	0.000000	17.500000	6	5	59143	0
117	50059144	0.000000	13.000000	6	5	59144	0
118	51059144	0.000000	13.000000	6	5	59144	1
119	50060130	0.000000	140.000000	6	5	60130	0
120	50060131	0.000000	120.000000	6	5	60131	0
121	50060132	0.000000	110.000000	6	5	60132	0
122	50060133	0.000000	100.000000	6	5	60133	0
123	51060133	0.000000	100.000000	6	5	60133	1
124	50060134	0.000000	95.000000	6	5	60134	0
125	50060135	0.000000	85.000000	6	5	60135	0
126	50060136	0.000000	76.000000	6	5	60136	0
127	50060137	0.000000	66.000000	6	5	60137	0
128	54060137	0.000000	66.000000	6	5	60137	4
129	50060138	0.000000	56.000000	6	5	60138	0
130	50060139	0.000000	48.000000	6	5	60139	0
131	52060139	0.000000	48.000000	6	5	60139	2
132	50060140	0.000000	38.000000	6	5	60140	0
133	50060141	0.000000	29.000000	6	5	60141	0

134	52060141	0.000000	30.000000	6	5	60141	2
135	50060142	0.000000	19.500000	6	5	60142	0
136	50060143	0.000000	13.500000	6	5	60143	0
137	50060144	0.000000	5.500000	6	5	60144	0
138	50060145	0.000000	1.000000	6	5	60145	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	5.500000
2	0	2	1	1.000000
3	1001	9	1	9.500000
4	1002	31	1	13.500000
5	1003	32	1	15.000000
6	2003	33	1	18.000000
7	2004	34	1	5.000000

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60-Nd-146 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 60146.38u MAT=6037 ZA= 60146  
 AWR= 144.659700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 137 NTRAN= 1 NPROD= 136 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.500000	6	5	1	0
3	50001001	0.000000	10.000000	6	5	1001	0
4	50001002	0.000000	15.000000	6	5	1002	0
5	50001003	0.000000	15.000000	6	5	1003	0
6	50002003	0.000000	21.000000	6	5	2003	0
7	50002004	0.000000	4.500000	6	5	2004	0
8	50052118	0.000000	120.000000	6	5	52118	0
9	50052119	0.000000	120.000000	6	5	52119	0
10	52052119	0.000000	120.000000	6	5	52119	2
11	50053119	0.000000	120.000000	6	5	53119	0
12	50053120	0.000000	110.000000	6	5	53120	0
13	63053120	0.000000	110.000000	6	5	53120	13
14	50053121	0.000000	110.000000	6	5	53121	0
15	50053122	0.000000	110.000000	6	5	53122	0
16	50054120	0.000000	120.000000	6	5	54120	0
17	50054121	0.000000	120.000000	6	5	54121	0
18	50054122	0.000000	110.000000	6	5	54122	0
19	50054123	0.000000	110.000000	6	5	54123	0
20	50054124	0.000000	110.000000	6	5	54124	0
21	50055121	0.000000	130.000000	6	5	55121	0
22	51055121	0.000000	130.000000	6	5	55121	1
23	50055122	0.000000	120.000000	6	5	55122	0
24	58055122	0.000000	120.000000	6	5	55122	8
25	50055123	0.000000	120.000000	6	5	55123	0
26	55055123	0.000000	120.000000	6	5	55123	5
27	50055124	0.000000	110.000000	6	5	55124	0
28	75055124	0.000000	110.000000	6	5	55124	25
29	50055125	0.000000	110.000000	6	5	55125	0
30	50055126	0.000000	110.000000	6	5	55126	0

31	50055127	0.000000	110.000000	6	5	55127	0
32	50056122	0.000000	140.000000	6	5	56122	0
33	50056123	0.000000	130.000000	6	5	56123	0
34	50056124	0.000000	120.000000	6	5	56124	0
35	50056125	0.000000	110.000000	6	5	56125	0
36	50056126	0.000000	110.000000	6	5	56126	0
37	50056127	0.000000	110.000000	6	5	56127	0
38	52056127	0.000000	110.000000	6	5	56127	2
39	50056128	0.000000	100.000000	6	5	56128	0
40	50056129	0.000000	100.000000	6	5	56129	0
41	51056129	0.000000	100.000000	6	5	56129	1
42	50056130	0.000000	100.000000	6	5	56130	0
43	50056131	0.000000	100.000000	6	5	56131	0
44	52056131	0.000000	100.000000	6	5	56131	2
45	50056132	0.000000	100.000000	6	5	56132	0
46	50057123	0.000000	160.000000	6	5	57123	0
47	50057124	0.000000	150.000000	6	5	57124	0
48	51057124	0.000000	150.000000	6	5	57124	1
49	50057125	0.000000	130.000000	6	5	57125	0
50	50057126	0.000000	120.000000	6	5	57126	0
51	51057126	0.000000	120.000000	6	5	57126	1
52	50057127	0.000000	110.000000	6	5	57127	0
53	51057127	0.000000	110.000000	6	5	57127	1
54	50057128	0.000000	110.000000	6	5	57128	0
55	56057128	0.000000	110.000000	6	5	57128	6
56	50057129	0.000000	100.000000	6	5	57129	0
57	50057130	0.000000	95.000000	6	5	57130	0
58	50057131	0.000000	90.000000	6	5	57131	0
59	50057132	0.000000	85.000000	6	5	57132	0
60	54057132	0.000000	85.000000	6	5	57132	4
61	50057133	0.000000	80.000000	6	5	57133	0
62	50057134	0.000000	78.000000	6	5	57134	0
63	50057135	0.000000	74.000000	6	5	57135	0
64	50057136	0.000000	68.000000	6	5	57136	0
65	50057137	0.000000	62.000000	6	5	57137	0
66	50057138	0.000000	56.000000	6	5	57138	0
67	50057139	0.000000	56.000000	6	5	57139	0
68	50057140	0.000000	56.000000	6	5	57140	0
69	50058126	0.000000	150.000000	6	5	58126	0
70	50058127	0.000000	130.000000	6	5	58127	0
71	51058127	0.000000	130.000000	6	5	58127	1
72	50058128	0.000000	120.000000	6	5	58128	0
73	50058129	0.000000	110.000000	6	5	58129	0
74	50058130	0.000000	100.000000	6	5	58130	0
75	50058131	0.000000	95.000000	6	5	58131	0
76	51058131	0.000000	95.000000	6	5	58131	1
77	50058132	0.000000	85.000000	6	5	58132	0
78	50058133	0.000000	80.000000	6	5	58133	0
79	51058133	0.000000	80.000000	6	5	58133	1
80	50058134	0.000000	74.000000	6	5	58134	0
81	50058135	0.000000	68.000000	6	5	58135	0
82	54058135	0.000000	68.000000	6	5	58135	4
83	50058136	0.000000	58.000000	6	5	58136	0
84	50058137	0.000000	52.000000	6	5	58137	0

85	52058137	0.000000	52.000000	6	5	58137	2
86	50058138	0.000000	42.000000	6	5	58138	0
87	50058139	0.000000	32.000000	6	5	58139	0
88	52058139	0.000000	32.000000	6	5	58139	2
89	50058140	0.000000	20.000000	6	5	58140	0
90	50058141	0.000000	16.000000	6	5	58141	0
91	50058142	0.000000	1.000000	6	5	58142	0
92	50058143	0.000000	42.000000	6	5	58143	0
93	50058144	0.000000	40.000000	6	5	58144	0
94	50059128	0.000000	160.000000	6	5	59128	0
95	50059129	0.000000	140.000000	6	5	59129	0
96	50059130	0.000000	130.000000	6	5	59130	0
97	50059131	0.000000	110.000000	6	5	59131	0
98	52059131	0.000000	110.000000	6	5	59131	2
99	50059132	0.000000	110.000000	6	5	59132	0
100	50059133	0.000000	95.000000	6	5	59133	0
101	53059133	0.000000	95.000000	6	5	59133	3
102	50059134	0.000000	90.000000	6	5	59134	0
103	51059134	0.000000	90.000000	6	5	59134	1
104	50059135	0.000000	80.000000	6	5	59135	0
105	50059136	0.000000	76.000000	6	5	59136	0
106	50059137	0.000000	68.000000	6	5	59137	0
107	50059138	0.000000	62.000000	6	5	59138	0
108	55059138	0.000000	62.000000	6	5	59138	5
109	50059139	0.000000	54.000000	6	5	59139	0
110	50059140	0.000000	46.000000	6	5	59140	0
111	50059141	0.000000	38.000000	6	5	59141	0
112	50059142	0.000000	32.000000	6	5	59142	0
113	51059142	0.000000	32.000000	6	5	59142	1
114	50059143	0.000000	26.000000	6	5	59143	0
115	50059144	0.000000	20.000000	6	5	59144	0
116	51059144	0.000000	20.000000	6	5	59144	1
117	50059145	0.000000	14.000000	6	5	59145	0
118	50060131	0.000000	140.000000	6	5	60131	0
119	50060132	0.000000	120.000000	6	5	60132	0
120	50060133	0.000000	110.000000	6	5	60133	0
121	51060133	0.000000	110.000000	6	5	60133	1
122	50060134	0.000000	100.000000	6	5	60134	0
123	50060135	0.000000	95.000000	6	5	60135	0
124	50060136	0.000000	85.000000	6	5	60136	0
125	50060137	0.000000	78.000000	6	5	60137	0
126	54060137	0.000000	78.000000	6	5	60137	4
127	50060138	0.000000	66.000000	6	5	60138	0
128	50060139	0.000000	58.000000	6	5	60139	0
129	52060139	0.000000	58.000000	6	5	60139	2
130	50060140	0.000000	46.000000	6	5	60140	0
131	50060141	0.000000	36.000000	6	5	60141	0
132	52060141	0.000000	36.000000	6	5	60141	2
133	50060142	0.000000	27.000000	6	5	60142	0
134	50060143	0.000000	21.000000	6	5	60143	0
135	50060144	0.000000	13.000000	6	5	60144	0
136	50060145	0.000000	7.500000	6	5	60145	0
137	50060146	0.000000	1.000000	6	5	60146	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.500000
2	0	2	1	1.000000
3	1001	9	1	10.000000
4	1002	31	1	15.000000
5	1003	32	1	15.000000
6	2003	33	1	21.000000
7	2004	34	1	4.500000

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60-Nd-148 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 60148.38u MAT=6043 ZA= 60148  
 AWR= 146.646200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 133 NTRAN= 1 NPROD= 132 NE= 89 EMAX= 200.000 MeV

i	FmN/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.000000	6	5	1	0
3	50001001	0.000000	10.500000	6	5	1001	0
4	50001002	0.000000	15.500000	6	5	1002	0
5	50001003	0.000000	15.000000	6	5	1003	0
6	50002003	0.000000	22.000000	6	5	2003	0
7	50002004	0.000000	5.000000	6	5	2004	0
8	50052120	0.000000	110.000000	6	5	52120	0
9	50053121	0.000000	110.000000	6	5	53121	0
10	50053122	0.000000	110.000000	6	5	53122	0
11	50054122	0.000000	110.000000	6	5	54122	0
12	50054123	0.000000	110.000000	6	5	54123	0
13	50054124	0.000000	100.000000	6	5	54124	0
14	50054125	0.000000	100.000000	6	5	54125	0
15	52054125	0.000000	100.000000	6	5	54125	2
16	50054126	0.000000	100.000000	6	5	54126	0
17	50054128	0.000000	100.000000	6	5	54128	0
18	50055123	0.000000	130.000000	6	5	55123	0
19	55055123	0.000000	130.000000	6	5	55123	5
20	50055124	0.000000	120.000000	6	5	55124	0
21	75055124	0.000000	120.000000	6	5	55124	25
22	50055125	0.000000	110.000000	6	5	55125	0
23	50055126	0.000000	100.000000	6	5	55126	0
24	50055127	0.000000	100.000000	6	5	55127	0
25	50056124	0.000000	130.000000	6	5	56124	0
26	50056125	0.000000	120.000000	6	5	56125	0
27	50056126	0.000000	110.000000	6	5	56126	0
28	50056127	0.000000	100.000000	6	5	56127	0
29	52056127	0.000000	100.000000	6	5	56127	2
30	50056128	0.000000	100.000000	6	5	56128	0
31	50056129	0.000000	100.000000	6	5	56129	0
32	51056129	0.000000	100.000000	6	5	56129	1
33	50056130	0.000000	100.000000	6	5	56130	0
34	50056131	0.000000	100.000000	6	5	56131	0
35	52056131	0.000000	100.000000	6	5	56131	2
36	50057125	0.000000	150.000000	6	5	57125	0

37	50057126	0.000000	140.000000	6	5	57126	0
38	51057126	0.000000	140.000000	6	5	57126	1
39	50057127	0.000000	130.000000	6	5	57127	0
40	51057127	0.000000	130.000000	6	5	57127	1
41	50057128	0.000000	120.000000	6	5	57128	0
42	56057128	0.000000	120.000000	6	5	57128	6
43	50057129	0.000000	110.000000	6	5	57129	0
44	50057130	0.000000	100.000000	6	5	57130	0
45	50057131	0.000000	90.000000	6	5	57131	0
46	50057132	0.000000	85.000000	6	5	57132	0
47	54057132	0.000000	85.000000	6	5	57132	4
48	50057133	0.000000	80.000000	6	5	57133	0
49	50057134	0.000000	80.000000	6	5	57134	0
50	50057135	0.000000	78.000000	6	5	57135	0
51	50057136	0.000000	74.000000	6	5	57136	0
52	50057137	0.000000	72.000000	6	5	57137	0
53	50057138	0.000000	72.000000	6	5	57138	0
54	50057139	0.000000	72.000000	6	5	57139	0
55	50057140	0.000000	72.000000	6	5	57140	0
56	50057141	0.000000	72.000000	6	5	57141	0
57	50058126	0.000000	150.000000	6	5	58126	0
58	50058127	0.000000	140.000000	6	5	58127	0
59	51058127	0.000000	140.000000	6	5	58127	1
60	50058128	0.000000	130.000000	6	5	58128	0
61	50058129	0.000000	120.000000	6	5	58129	0
62	50058130	0.000000	110.000000	6	5	58130	0
63	50058131	0.000000	100.000000	6	5	58131	0
64	51058131	0.000000	100.000000	6	5	58131	1
65	50058132	0.000000	90.000000	6	5	58132	0
66	50058133	0.000000	85.000000	6	5	58133	0
67	51058133	0.000000	85.000000	6	5	58133	1
68	50058134	0.000000	78.000000	6	5	58134	0
69	50058135	0.000000	72.000000	6	5	58135	0
70	54058135	0.000000	72.000000	6	5	58135	4
71	50058136	0.000000	64.000000	6	5	58136	0
72	50058137	0.000000	58.000000	6	5	58137	0
73	52058137	0.000000	58.000000	6	5	58137	2
74	50058138	0.000000	52.000000	6	5	58138	0
75	50058139	0.000000	46.000000	6	5	58139	0
76	52058139	0.000000	46.000000	6	5	58139	2
77	50058140	0.000000	36.000000	6	5	58140	0
78	50058141	0.000000	30.000000	6	5	58141	0
79	50058142	0.000000	23.000000	6	5	58142	0
80	50058143	0.000000	17.000000	6	5	58143	0
81	50058144	0.000000	1.000000	6	5	58144	0
82	50058145	0.000000	44.000000	6	5	58145	0
83	50058146	0.000000	44.000000	6	5	58146	0
84	50059127	0.000000	190.000000	6	5	59127	0
85	50059128	0.000000	170.000000	6	5	59128	0
86	50059129	0.000000	150.000000	6	5	59129	0
87	50059130	0.000000	140.000000	6	5	59130	0
88	50059131	0.000000	130.000000	6	5	59131	0
89	52059131	0.000000	130.000000	6	5	59131	2
90	50059132	0.000000	120.000000	6	5	59132	0

91	50059133	0.000000	110.000000	6	5	59133	0
92	53059133	0.000000	110.000000	6	5	59133	3
93	50059134	0.000000	100.000000	6	5	59134	0
94	51059134	0.000000	100.000000	6	5	59134	1
95	50059135	0.000000	90.000000	6	5	59135	0
96	50059136	0.000000	80.000000	6	5	59136	0
97	50059137	0.000000	74.000000	6	5	59137	0
98	50059138	0.000000	66.000000	6	5	59138	0
99	55059138	0.000000	66.000000	6	5	59138	5
100	50059139	0.000000	60.000000	6	5	59139	0
101	50059140	0.000000	54.000000	6	5	59140	0
102	50059141	0.000000	48.000000	6	5	59141	0
103	50059142	0.000000	42.000000	6	5	59142	0
104	51059142	0.000000	42.000000	6	5	59142	1
105	50059143	0.000000	36.000000	6	5	59143	0
106	50059144	0.000000	32.000000	6	5	59144	0
107	51059144	0.000000	32.000000	6	5	59144	1
108	50059145	0.000000	26.000000	6	5	59145	0
109	50059146	0.000000	21.000000	6	5	59146	0
110	50059147	0.000000	14.500000	6	5	59147	0
111	50060130	0.000000	160.000000	6	5	60130	0
112	50060131	0.000000	150.000000	6	5	60131	0
113	50060132	0.000000	130.000000	6	5	60132	0
114	50060133	0.000000	120.000000	6	5	60133	0
115	51060133	0.000000	120.000000	6	5	60133	1
116	50060134	0.000000	110.000000	6	5	60134	0
117	50060135	0.000000	100.000000	6	5	60135	0
118	50060136	0.000000	95.000000	6	5	60136	0
119	50060137	0.000000	85.000000	6	5	60137	0
120	54060137	0.000000	85.000000	6	5	60137	4
121	50060138	0.000000	76.000000	6	5	60138	0
122	50060139	0.000000	68.000000	6	5	60139	0
123	52060139	0.000000	68.000000	6	5	60139	2
124	50060140	0.000000	58.000000	6	5	60140	0
125	50060141	0.000000	50.000000	6	5	60141	0
126	52060141	0.000000	50.000000	6	5	60141	2
127	50060142	0.000000	40.000000	6	5	60142	0
128	50060143	0.000000	32.000000	6	5	60143	0
129	50060144	0.000000	25.000000	6	5	60144	0
130	50060145	0.000000	20.000000	6	5	60145	0
131	50060146	0.000000	12.500000	6	5	60146	0
132	50060147	0.000000	7.000000	6	5	60147	0
133	50060148	0.000000	1.000000	6	5	60148	0

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	7.000000
2	0	2	1	1.000000
3	1001	9	1	10.500000
4	1002	31	1	15.500000
5	1003	32	1	15.000000
6	2003	33	1	22.000000
7	2004	34	1	5.000000



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60-Nd-150 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 60150.38u MAT=6049 ZA= 60150  
AWR= 148.633000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 133 NTRAN= 1 NPROD= 132 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.000000	6	5	1	0
3	50001001	0.000000	11.000000	6	5	1001	0
4	50001002	0.000000	16.000000	6	5	1002	0
5	50001003	0.000000	15.500000	6	5	1003	0
6	50002003	0.000000	24.000000	6	5	2003	0
7	50002004	0.000000	6.000000	6	5	2004	0
8	50052122	0.000000	120.000000	6	5	52122	0
9	50052123	0.000000	120.000000	6	5	52123	0
10	52052123	0.000000	120.000000	6	5	52123	2
11	50053123	0.000000	120.000000	6	5	53123	0
12	50053124	0.000000	120.000000	6	5	53124	0
13	50054124	0.000000	120.000000	6	5	54124	0
14	50054125	0.000000	120.000000	6	5	54125	0
15	52054125	0.000000	120.000000	6	5	54125	2
16	50054126	0.000000	120.000000	6	5	54126	0
17	50054127	0.000000	120.000000	6	5	54127	0
18	52054127	0.000000	120.000000	6	5	54127	2
19	50054128	0.000000	120.000000	6	5	54128	0
20	50054129	0.000000	120.000000	6	5	54129	0
21	52054129	0.000000	120.000000	6	5	54129	2
22	50054130	0.000000	120.000000	6	5	54130	0
23	50055125	0.000000	120.000000	6	5	55125	0
24	50055126	0.000000	120.000000	6	5	55126	0
25	50055127	0.000000	120.000000	6	5	55127	0
26	50055128	0.000000	120.000000	6	5	55128	0
27	50056126	0.000000	120.000000	6	5	56126	0
28	50056127	0.000000	120.000000	6	5	56127	0
29	52056127	0.000000	120.000000	6	5	56127	2
30	50056128	0.000000	110.000000	6	5	56128	0
31	50056129	0.000000	110.000000	6	5	56129	0
32	51056129	0.000000	110.000000	6	5	56129	1
33	50056130	0.000000	110.000000	6	5	56130	0
34	50056131	0.000000	110.000000	6	5	56131	0
35	52056131	0.000000	110.000000	6	5	56131	2
36	50057127	0.000000	140.000000	6	5	57127	0
37	51057127	0.000000	140.000000	6	5	57127	1
38	50057128	0.000000	130.000000	6	5	57128	0
39	56057128	0.000000	130.000000	6	5	57128	6
40	50057129	0.000000	120.000000	6	5	57129	0
41	50057130	0.000000	110.000000	6	5	57130	0
42	50057131	0.000000	100.000000	6	5	57131	0
43	50057132	0.000000	100.000000	6	5	57132	0
44	54057132	0.000000	100.000000	6	5	57132	4
45	50057133	0.000000	95.000000	6	5	57133	0
46	50057134	0.000000	95.000000	6	5	57134	0

47	50057135	0.000000	90.000000	6	5	57135	0
48	50057136	0.000000	90.000000	6	5	57136	0
49	50057137	0.000000	90.000000	6	5	57137	0
50	50057138	0.000000	90.000000	6	5	57138	0
51	50057139	0.000000	90.000000	6	5	57139	0
52	50057140	0.000000	90.000000	6	5	57140	0
53	50057141	0.000000	90.000000	6	5	57141	0
54	50057142	0.000000	90.000000	6	5	57142	0
55	50057143	0.000000	100.000000	6	5	57143	0
56	50058128	0.000000	150.000000	6	5	58128	0
57	50058129	0.000000	140.000000	6	5	58129	0
58	50058130	0.000000	130.000000	6	5	58130	0
59	50058131	0.000000	120.000000	6	5	58131	0
60	51058131	0.000000	120.000000	6	5	58131	1
61	50058132	0.000000	110.000000	6	5	58132	0
62	50058133	0.000000	100.000000	6	5	58133	0
63	51058133	0.000000	100.000000	6	5	58133	1
64	50058134	0.000000	95.000000	6	5	58134	0
65	50058135	0.000000	85.000000	6	5	58135	0
66	54058135	0.000000	85.000000	6	5	58135	4
67	50058136	0.000000	80.000000	6	5	58136	0
68	50058137	0.000000	74.000000	6	5	58137	0
69	52058137	0.000000	74.000000	6	5	58137	2
70	50058138	0.000000	68.000000	6	5	58138	0
71	50058139	0.000000	62.000000	6	5	58139	0
72	52058139	0.000000	62.000000	6	5	58139	2
73	50058140	0.000000	52.000000	6	5	58140	0
74	50058141	0.000000	46.000000	6	5	58141	0
75	50058142	0.000000	40.000000	6	5	58142	0
76	50058143	0.000000	34.000000	6	5	58143	0
77	50058144	0.000000	28.000000	6	5	58144	0
78	50058145	0.000000	26.000000	6	5	58145	0
79	50058146	0.000000	50.000000	6	5	58146	0
80	50058147	0.000000	46.000000	6	5	58147	0
81	50058148	0.000000	44.000000	6	5	58148	0
82	50059129	0.000000	170.000000	6	5	59129	0
83	50059130	0.000000	150.000000	6	5	59130	0
84	50059131	0.000000	140.000000	6	5	59131	0
85	52059131	0.000000	140.000000	6	5	59131	2
86	50059132	0.000000	130.000000	6	5	59132	0
87	50059133	0.000000	120.000000	6	5	59133	0
88	53059133	0.000000	120.000000	6	5	59133	3
89	50059134	0.000000	110.000000	6	5	59134	0
90	51059134	0.000000	110.000000	6	5	59134	1
91	50059135	0.000000	100.000000	6	5	59135	0
92	50059136	0.000000	95.000000	6	5	59136	0
93	50059137	0.000000	85.000000	6	5	59137	0
94	50059138	0.000000	80.000000	6	5	59138	0
95	55059138	0.000000	80.000000	6	5	59138	5
96	50059139	0.000000	74.000000	6	5	59139	0
97	50059140	0.000000	68.000000	6	5	59140	0
98	50059141	0.000000	60.000000	6	5	59141	0
99	50059142	0.000000	56.000000	6	5	59142	0
100	51059142	0.000000	56.000000	6	5	59142	1

101	50059143	0.000000	50.000000	6	5	59143	0
102	50059144	0.000000	44.000000	6	5	59144	0
103	51059144	0.000000	44.000000	6	5	59144	1
104	50059145	0.000000	38.000000	6	5	59145	0
105	50059146	0.000000	32.000000	6	5	59146	0
106	50059147	0.000000	27.000000	6	5	59147	0
107	50059148	0.000000	21.000000	6	5	59148	0
108	51059148	0.000000	21.000000	6	5	59148	1
109	50059149	0.000000	15.500000	6	5	59149	0
110	50060131	0.000000	170.000000	6	5	60131	0
111	50060132	0.000000	150.000000	6	5	60132	0
112	50060133	0.000000	140.000000	6	5	60133	0
113	51060133	0.000000	140.000000	6	5	60133	1
114	50060134	0.000000	130.000000	6	5	60134	0
115	50060135	0.000000	120.000000	6	5	60135	0
116	50060136	0.000000	110.000000	6	5	60136	0
117	50060137	0.000000	100.000000	6	5	60137	0
118	54060137	0.000000	100.000000	6	5	60137	4
119	50060138	0.000000	90.000000	6	5	60138	0
120	50060139	0.000000	80.000000	6	5	60139	0
121	52060139	0.000000	80.000000	6	5	60139	2
122	50060140	0.000000	72.000000	6	5	60140	0
123	50060141	0.000000	64.000000	6	5	60141	0
124	52060141	0.000000	64.000000	6	5	60141	2
125	50060142	0.000000	52.000000	6	5	60142	0
126	50060143	0.000000	46.000000	6	5	60143	0
127	50060144	0.000000	38.000000	6	5	60144	0
128	50060145	0.000000	32.000000	6	5	60145	0
129	50060146	0.000000	25.000000	6	5	60146	0
130	50060147	0.000000	19.500000	6	5	60147	0
131	50060148	0.000000	12.000000	6	5	60148	0
132	50060149	0.000000	7.000000	6	5	60149	0
133	50060150	0.000000	1.000000	6	5	60150	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.000000
2	0	2	1	1.000000
3	1001	9	1	11.000000
4	1002	31	1	16.000000
5	1003	32	1	15.500000
6	2003	33	1	24.000000
7	2004	34	1	6.000000

62-Sm-144 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 62144.38u MAT=6225 ZA= 62144  
 AWR= 142.675700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	10.519700
2	0	2	1	1.000000
3	1001	9	1	6.500000
4	1002	31	1	13.959210
5	1003	32	1	17.000000
6	2003	33	1	14.000000
7	2004	34	1	1.000000

-----

62-Sm-147 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 62147.38u MAT=6234 ZA= 62147  
 AWR= 145.652800 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	5.500000
2	0	2	1	1.000000
3	1001	9	1	7.000000
4	1002	31	1	11.500000
5	1003	32	1	13.500000
6	2003	33	1	12.000000
7	2004	34	1	1.000000

-----

62-Sm-148 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 62148.38u MAT=6237 ZA= 62148  
 AWR= 146.644200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.500000
2	0	2	1	1.000000
3	1001	9	1	7.500000
4	1002	31	1	13.500000
5	1003	32	1	13.500000
6	2003	33	1	14.500000
7	2004	34	1	1.000000

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62-Sm-149 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 62149.38u MAT=6240 ZA= 62149

AWR= 147.637900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	5.500000
2	0	2	1	1.000000
3	1001	9	1	7.500000
4	1002	31	1	11.500000
5	1003	32	1	13.000000
6	2003	33	1	13.000000
7	2004	34	1	1.000000

62-Sm-150 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 62150.38u MAT=6243 ZA= 62150

AWR= 148.629400 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	7.500000
2	0	2	1	1.000000
3	1001	9	1	8.500000
4	1002	31	1	13.500000
5	1003	32	1	13.500000
6	2003	33	1	15.500000
7	2004	34	1	1.000000

62-Sm-151 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 62151.38u MAT=6246 ZA= 62151

AWR= 149.623500 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	5.596457
2	0	2	1	1.000000
3	1001	9	1	8.500000
4	1002	31	1	12.000000
5	1003	32	1	13.000000
6	2003	33	1	14.000000
7	2004	34	1	1.000000

-----  
 62-Sm-152 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 62152.38u MAT=6249 ZA= 62152  
 AWR= 150.614700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 89 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 8.000000  
 2 0 2 1 1.000000  
 3 1001 9 1 8.665511  
 4 1002 31 1 14.500000  
 5 1003 32 1 14.500000  
 6 2003 33 1 17.000000  
 7 2004 34 1 1.000000  
 -----

-----  
 62-Sm-154 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 62154.38u MAT=6255 ZA= 62154  
 AWR= 152.600000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.966807  
 2 0 2 1 1.000000  
 3 1001 9 1 9.096323  
 4 1002 31 1 14.336710  
 5 1003 32 1 14.500000  
 6 2003 33 1 18.500000  
 7 2004 34 1 3.000000  
 -----

-----  
 63-Eu-153 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 63153.38u MAT=6331 ZA= 63153  
 AWR= 151.607600 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 138 NTRAN= 1 NPROD= 137 NE= 89 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 50000001 0.000000 8.500000 6 5 1 0  
 3 50001001 0.000000 8.000000 6 5 1001 0  
 4 50001002 0.000000 13.500000 6 5 1002 0  
 -----

5	50001003	0.000000	14.000000	6	5	1003	0
6	50002003	0.000000	21.000000	6	5	2003	0
7	50002004	0.000000	7.000000	6	5	2004	0
8	50054124	0.000000	110.000000	6	5	54124	0
9	50054125	0.000000	110.000000	6	5	54125	0
10	52054125	0.000000	110.000000	6	5	54125	2
11	50054126	0.000000	110.000000	6	5	54126	0
12	50054128	0.000000	110.000000	6	5	54128	0
13	50056126	0.000000	110.000000	6	5	56126	0
14	50056127	0.000000	110.000000	6	5	56127	0
15	52056127	0.000000	110.000000	6	5	56127	2
16	50056128	0.000000	110.000000	6	5	56128	0
17	50057127	0.000000	110.000000	6	5	57127	0
18	51057127	0.000000	110.000000	6	5	57127	1
19	50057128	0.000000	110.000000	6	5	57128	0
20	56057128	0.000000	110.000000	6	5	57128	6
21	50057129	0.000000	100.000000	6	5	57129	0
22	50057130	0.000000	100.000000	6	5	57130	0
23	50057131	0.000000	100.000000	6	5	57131	0
24	50057132	0.000000	100.000000	6	5	57132	0
25	54057132	0.000000	100.000000	6	5	57132	4
26	50058128	0.000000	130.000000	6	5	58128	0
27	50058129	0.000000	120.000000	6	5	58129	0
28	50058130	0.000000	110.000000	6	5	58130	0
29	50058131	0.000000	100.000000	6	5	58131	0
30	51058131	0.000000	100.000000	6	5	58131	1
31	50058132	0.000000	100.000000	6	5	58132	0
32	50058133	0.000000	95.000000	6	5	58133	0
33	51058133	0.000000	95.000000	6	5	58133	1
34	50058134	0.000000	90.000000	6	5	58134	0
35	50058135	0.000000	90.000000	6	5	58135	0
36	54058135	0.000000	90.000000	6	5	58135	4
37	50059129	0.000000	140.000000	6	5	59129	0
38	50059130	0.000000	120.000000	6	5	59130	0
39	50059131	0.000000	110.000000	6	5	59131	0
40	52059131	0.000000	110.000000	6	5	59131	2
41	50059132	0.000000	100.000000	6	5	59132	0
42	50059133	0.000000	95.000000	6	5	59133	0
43	53059133	0.000000	95.000000	6	5	59133	3
44	50059134	0.000000	90.000000	6	5	59134	0
45	51059134	0.000000	90.000000	6	5	59134	1
46	50059135	0.000000	85.000000	6	5	59135	0
47	50059136	0.000000	80.000000	6	5	59136	0
48	50059137	0.000000	78.000000	6	5	59137	0
49	50059138	0.000000	78.000000	6	5	59138	0
50	55059138	0.000000	78.000000	6	5	59138	5
51	50059139	0.000000	78.000000	6	5	59139	0
52	50060130	0.000000	160.000000	6	5	60130	0
53	50060131	0.000000	150.000000	6	5	60131	0
54	50060132	0.000000	140.000000	6	5	60132	0
55	50060133	0.000000	120.000000	6	5	60133	0
56	51060133	0.000000	120.000000	6	5	60133	1
57	50060134	0.000000	110.000000	6	5	60134	0
58	50060135	0.000000	100.000000	6	5	60135	0

59	50060136	0.000000	95.000000	6	5	60136	0
60	50060137	0.000000	85.000000	6	5	60137	0
61	54060137	0.000000	85.000000	6	5	60137	4
62	50060138	0.000000	80.000000	6	5	60138	0
63	50060139	0.000000	80.000000	6	5	60139	0
64	52060139	0.000000	80.000000	6	5	60139	2
65	50060140	0.000000	74.000000	6	5	60140	0
66	50060141	0.000000	70.000000	6	5	60141	0
67	52060141	0.000000	70.000000	6	5	60141	2
68	50060142	0.000000	66.000000	6	5	60142	0
69	50060143	0.000000	62.000000	6	5	60143	0
70	50060144	0.000000	56.000000	6	5	60144	0
71	50060145	0.000000	54.000000	6	5	60145	0
72	50061133	0.000000	140.000000	6	5	61133	0
73	52061133	0.000000	140.000000	6	5	61133	2
74	50061134	0.000000	130.000000	6	5	61134	0
75	51061134	0.000000	130.000000	6	5	61134	1
76	50061135	0.000000	120.000000	6	5	61135	0
77	51061135	0.000000	120.000000	6	5	61135	1
78	50061136	0.000000	110.000000	6	5	61136	0
79	51061136	0.000000	110.000000	6	5	61136	1
80	50061137	0.000000	95.000000	6	5	61137	0
81	50061138	0.000000	90.000000	6	5	61138	0
82	51061138	0.000000	90.000000	6	5	61138	1
83	50061139	0.000000	80.000000	6	5	61139	0
84	50061140	0.000000	70.000000	6	5	61140	0
85	60061140	0.000000	70.000000	6	5	61140	10
86	50061141	0.000000	64.000000	6	5	61141	0
87	50061142	0.000000	56.000000	6	5	61142	0
88	50061143	0.000000	50.000000	6	5	61143	0
89	50061144	0.000000	46.000000	6	5	61144	0
90	50061145	0.000000	38.000000	6	5	61145	0
91	50061146	0.000000	32.000000	6	5	61146	0
92	50061147	0.000000	24.000000	6	5	61147	0
93	50061148	0.000000	19.500000	6	5	61148	0
94	53061148	0.000000	19.500000	6	5	61148	3
95	50061149	0.000000	1.000000	6	5	61149	0
96	50061150	0.000000	44.000000	6	5	61150	0
97	50062135	0.000000	150.000000	6	5	62135	0
98	50062136	0.000000	140.000000	6	5	62136	0
99	50062137	0.000000	130.000000	6	5	62137	0
100	50062138	0.000000	120.000000	6	5	62138	0
101	50062139	0.000000	100.000000	6	5	62139	0
102	54062139	0.000000	100.000000	6	5	62139	4
103	50062140	0.000000	95.000000	6	5	62140	0
104	50062141	0.000000	85.000000	6	5	62141	0
105	52062141	0.000000	85.000000	6	5	62141	2
106	50062142	0.000000	80.000000	6	5	62142	0
107	50062143	0.000000	74.000000	6	5	62143	0
108	52062143	0.000000	74.000000	6	5	62143	2
109	50062144	0.000000	66.000000	6	5	62144	0
110	50062145	0.000000	58.000000	6	5	62145	0
111	50062146	0.000000	52.000000	6	5	62146	0
112	50062147	0.000000	44.000000	6	5	62147	0



113	50062148	0.000000	38.000000	6	5	62148	0
114	50062149	0.000000	32.000000	6	5	62149	0
115	50062150	0.000000	25.000000	6	5	62150	0
116	50062151	0.000000	18.000000	6	5	62151	0
117	50062152	0.000000	11.500000	6	5	62152	0
118	50063138	0.000000	130.000000	6	5	63138	0
119	50063139	0.000000	120.000000	6	5	63139	0
120	50063140	0.000000	110.000000	6	5	63140	0
121	50063141	0.000000	100.000000	6	5	63141	0
122	51063141	0.000000	100.000000	6	5	63141	1
123	50063142	0.000000	90.000000	6	5	63142	0
124	59063142	0.000000	90.000000	6	5	63142	9
125	50063143	0.000000	80.000000	6	5	63143	0
126	50063144	0.000000	70.000000	6	5	63144	0
127	50063145	0.000000	60.000000	6	5	63145	0
128	50063146	0.000000	52.000000	6	5	63146	0
129	50063147	0.000000	44.000000	6	5	63147	0
130	50063148	0.000000	36.000000	6	5	63148	0
131	50063149	0.000000	29.000000	6	5	63149	0
132	50063150	0.000000	22.000000	6	5	63150	0
133	51063150	0.000000	22.000000	6	5	63150	1
134	50063151	0.000000	14.500000	6	5	63151	0
135	50063152	0.000000	8.500000	6	5	63152	0
136	51063152	0.000000	8.500000	6	5	63152	1
137	66063152	0.000000	8.500000	6	5	63152	16
138	50063153	0.000000	1.000000	6	5	63153	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.500000
2	0	2	1	1.000000
3	1001	9	1	8.000000
4	1002	31	1	13.500000
5	1003	32	1	14.000000
6	2003	33	1	21.000000
7	2004	34	1	7.000000

64-Gd-156 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 64156.38u MAT=6437 ZA= 64156  
 AWR= 154.582700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.536351
2	0	2	1	1.000000
3	1001	9	1	8.005793
4	1002	31	1	14.500000
5	1003	32	1	14.500000
6	2003	33	1	17.000000

7 2004 34 1 2.000000

64-Gd-157 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 64157.38u MAT=6440 ZA= 64157  
AWR= 155.575900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 6.359876  
2 0 2 1 1.000000  
3 1001 9 1 8.029896  
4 1002 31 1 12.500000  
5 1003 32 1 14.500000  
6 2003 33 1 15.000000  
7 2004 34 1 2.500000

64-Gd-158 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 64158.38u MAT=6443 ZA= 64158  
AWR= 156.567500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
1 1 1 1 7.937390  
2 0 2 1 1.000000  
3 1001 9 1 8.519609  
4 1002 31 1 14.000000  
5 1003 32 1 14.500000  
6 2003 33 1 17.500000  
7 2004 34 1 2.500000

64-Gd-160 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 64160.38u MAT=6449 ZA= 64160  
AWR= 158.553200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]

1	1	1	1	7.451622
2	0	2	1	1.000000
3	1001	9	1	9.500000
4	1002	31	1	13.822270
5	1003	32	1	14.000000
6	2003	33	1	18.000000
7	2004	34	1	3.000000

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65-Tb-158 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 65158.38u MAT=6522 ZA= 65158  
 AWR= 156.568800 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	6.778555
2	0	2	1	1.000000
3	1001	9	1	5.936166
4	1002	31	1	10.500000
5	1003	32	1	13.000000
6	2003	33	1	14.500000
7	2004	34	1	2.000000

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65-Tb-159 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 65159.38u MAT=6525 ZA= 65159  
 AWR= 157.560100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 232 NTRAN= 130 NPROD= 102 NE= 184 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	-0.992860	6.500000	3	5		
2	11	-20.483370	28.400000	3	11		
3	16	-14.910000	15.000000	3	16		
4	17	-23.654000	23.654000	3	17		
5	22	-8.290001	12.000000	3	22		
6	28	-14.068000	15.600000	3	28		
7	32	-18.204000	20.000000	3	32		
8	33	-20.483000	22.000000	3	33		
9	34	-20.716000	24.000000	3	34		
10	41	-20.428000	22.000000	3	41		
11	42	-28.964000	30.400000	3	42		
12	44	-22.097000	26.000000	3	44		
13	50	-8.133430	8.133430	3	50		
14	51	-8.188470	8.188470	3	51		
15	52	-8.213330	8.213330	3	52		
16	53	-8.243730	8.243730	3	53		
17	54	-8.248930	8.248930	3	54		

18	55	-8.261730	8.261730	3	55
19	56	-8.300830	8.300830	3	56
20	57	-8.312330	8.312330	3	57
21	58	-8.341230	8.341230	3	58
22	59	-8.350730	8.350730	3	59
23	60	-8.375430	8.375430	3	60
24	61	-8.414030	8.414030	3	61
25	62	-8.431930	8.431930	3	62
26	63	-8.456030	8.456030	3	63
27	64	-8.457430	8.457430	3	64
28	65	-8.471530	8.471530	3	65
29	66	-8.493230	8.493230	3	66
30	67	-8.504630	8.504630	3	67
31	68	-8.514530	8.514530	3	68
32	69	-8.521830	8.521830	3	69
33	70	-8.539430	8.539430	3	70
34	71	-8.541530	8.541530	3	71
35	72	-8.552730	8.552730	3	72
36	73	-8.572430	8.572430	3	73
37	74	-8.577830	8.577830	3	74
38	75	-8.594330	8.594330	3	75
39	76	-8.603130	8.603130	3	76
40	77	-8.617430	8.617430	3	77
41	78	-8.620730	8.620730	3	78
42	79	-8.628830	8.628830	3	79
43	80	-8.639330	8.639330	3	80
44	81	-8.664430	8.664430	3	81
45	82	-8.669430	8.669430	3	82
46	83	-8.673430	8.673430	3	83
47	84	-8.689430	8.689430	3	84
48	85	-8.704430	8.704430	3	85
49	86	-8.720430	8.720430	3	86
50	87	-8.723430	8.723430	3	87
51	88	-8.734930	8.734930	3	88
52	89	-8.743530	8.743530	3	89
53	91	-8.743101	8.743101	3	91
54	102	0.000000	4.000000	3	102
55	104	-11.844000	13.400000	3	104
56	105	-11.947000	13.400000	3	105
57	106	-14.379000	17.600000	3	106
58	111	-14.649000	19.400000	3	111
59	112	-6.791000	12.400000	3	112
60	115	-19.873000	24.400000	3	115
61	116	-19.953000	24.400000	3	116
62	600	-6.131030	7.500000	3	600
63	601	-6.210543	7.500000	3	601
64	602	-6.392487	8.000000	3	602
65	603	-6.670051	8.000000	3	603
66	604	-7.035150	8.000000	3	604
67	605	-7.108175	8.000000	3	605
68	606	-7.154727	8.000000	3	606
69	607	-7.172668	8.000000	3	607
70	608	-7.289998	9.000000	3	608
71	609	-7.307509	9.000000	3	609

72	610	-7.318173	8.000000	3 610
73	611	-7.327195	8.000000	3 611
74	612	-7.390899	9.000000	3 612
75	613	-7.394544	9.000000	3 613
76	614	-7.396548	9.000000	3 614
77	615	-7.481030	9.000000	3 615
78	616	-7.489497	9.000000	3 616
79	617	-7.502968	9.000000	3 617
80	618	-7.511656	9.000000	3 618
81	619	-7.522030	9.000000	3 619
82	620	-7.533966	9.000000	3 620
83	621	-7.537730	9.000000	3 621
84	622	-7.545030	9.000000	3 622
85	623	-7.571030	9.000000	3 623
86	624	-7.583382	9.000000	3 624
87	625	-7.612451	9.000000	3 625
88	626	-7.630126	9.000000	3 626
89	649	-7.630096	8.000000	3 649
90	800	-0.138930	4.000000	3 800
91	801	-0.217568	4.000000	3 801
92	802	-0.243264	4.000000	3 802
93	803	-0.307939	4.000000	3 803
94	804	-0.318087	4.000000	3 804
95	805	-0.384707	4.000000	3 805
96	806	-0.393595	4.000000	3 806
97	807	-0.439618	4.000000	3 807
98	808	-0.446313	4.000000	3 808
99	809	-0.496099	4.000000	3 809
100	810	-0.530414	4.000000	3 810
101	811	-0.581956	4.000000	3 811
102	812	-0.626018	4.000000	3 812
103	813	-0.639936	4.000000	3 813
104	814	-0.743150	4.000000	3 814
105	815	-0.763150	4.000000	3 815
106	816	-0.766228	4.000000	3 816
107	817	-0.907358	4.000000	3 817
108	818	-0.920923	4.000000	3 818
109	819	-0.924150	4.000000	3 819
110	820	-0.940100	4.000000	3 820
111	821	-0.956599	4.000000	3 821
112	822	-1.015761	4.000000	3 822
113	823	-1.020619	4.000000	3 823
114	824	-1.050143	4.000000	3 824
115	825	-1.062078	4.000000	3 825
116	826	-1.083300	4.000000	3 826
117	827	-1.095280	4.000000	3 827
118	828	-1.106090	5.000000	3 828
119	829	-1.112922	4.000000	3 829
120	830	-1.116128	4.000000	3 830
121	831	-1.118404	4.000000	3 831
122	832	-1.121510	5.000000	3 832
123	833	-1.146239	5.000000	3 833
124	834	-1.146918	4.000000	3 834
125	835	-1.160930	4.000000	3 835

126	836	-1.192561	5.000000	3	836		
127	837	-1.193768	5.000000	3	837		
128	838	-1.203593	5.000000	3	838		
129	839	-1.207821	5.000000	3	839		
130	849	-1.207891	4.000000	3	849		
131	10004	-8.133430	8.133430	10	4	65158	0
132	11004	-8.243730	8.243730	10	4	65158	1
133	50054131	-48.557740	120.000000	10	5	54131	0
134	50054132	-39.622310	120.000000	10	5	54132	0
135	50054133	-33.182880	100.000000	10	5	54133	0
136	50054134	-24.635450	100.000000	10	5	54134	0
137	50054135	-18.252020	100.000000	10	5	54135	0
138	50055133	-42.019230	120.000000	10	5	55133	0
139	50055134	-35.127800	100.000000	10	5	55134	0
140	50055135	-26.365370	90.000000	10	5	55135	0
141	50055136	-19.536940	90.000000	10	5	55136	0
142	50055137	-11.258510	60.000000	10	5	55137	0
143	50056134	-53.665240	120.000000	10	5	56134	0
144	50056135	-46.692810	100.000000	10	5	56135	0
145	50056136	-37.585380	100.000000	10	5	56136	0
146	50056137	-30.678950	90.000000	10	5	56137	0
147	50056138	-22.067520	70.000000	10	5	56138	0
148	50056139	-17.344090	70.000000	10	5	56139	0
149	50056140	-10.915660	70.000000	10	5	56140	0
150	50056141	-12.647560	80.000000	10	5	56141	0
151	50057136	-49.719730	100.000000	10	5	57136	0
152	50057137	-40.543300	90.000000	10	5	57137	0
153	50057138	-33.069870	90.000000	10	5	57138	0
154	50057139	-24.291440	70.000000	10	5	57139	0
155	50057140	-19.130010	70.000000	10	5	57140	0
156	50057141	-12.441580	60.000000	10	5	57141	0
157	50057142	-7.274150	55.000000	10	5	57142	0
158	50057143	-1.050720	60.000000	10	5	57143	0
159	50058137	-62.361740	120.000000	10	5	58137	0
160	50058138	-52.621310	100.000000	10	5	58138	0
161	50058139	-45.165880	100.000000	10	5	58139	0
162	50058140	-35.964450	80.000000	10	5	58140	0
163	50058141	-30.536020	70.000000	10	5	58141	0
164	50058142	-23.366590	60.000000	10	5	58142	0
165	50058143	-18.222160	60.000000	10	5	58143	0
166	50058144	-11.325730	55.000000	10	5	58144	0
167	50058145	-12.850630	60.000000	10	5	58145	0
168	50059139	-56.559230	100.000000	10	5	59139	0
169	50059140	-48.616800	90.000000	10	5	59140	0
170	50059141	-39.219370	70.000000	10	5	59141	0
171	50059142	-33.376940	60.000000	10	5	59142	0
172	50059143	-26.024510	55.000000	10	5	59143	0
173	50059144	-20.271080	50.000000	10	5	59144	0
174	50059145	-13.323650	40.000000	10	5	59145	0
175	50060140	-69.436240	120.000000	10	5	60140	0
176	50060141	-61.638810	100.000000	10	5	60141	0
177	50060142	-51.810380	90.000000	10	5	60142	0
178	50060143	-45.686950	70.000000	10	5	60143	0
179	50060144	-37.870520	60.000000	10	5	60144	0

180	50060145	-32.114090	55.000000	10	5	60145	0
181	50060146	-24.548660	50.000000	10	5	60146	0
182	50060150	-7.986890	40.000000	10	5	60150	0
183	50061142	-65.948730	100.000000	10	5	61142	0
184	50061143	-55.993300	80.000000	10	5	61143	0
185	50061144	-49.465870	60.000000	10	5	61144	0
186	50061145	-41.541440	60.000000	10	5	61145	0
187	50061146	-35.285010	50.000000	10	5	61146	0
188	50061147	-27.625580	40.000000	10	5	61147	0
189	50061148	-21.728150	38.000000	10	5	61148	0
190	50061152	-15.630250	35.000000	10	5	61152	0
191	50062144	-69.512300	100.000000	10	5	62144	0
192	50062145	-62.754880	90.000000	10	5	62145	0
193	50062146	-54.339450	70.000000	10	5	62146	0
194	50062147	-47.998020	60.000000	10	5	62147	0
195	50062148	-39.855590	50.000000	10	5	62148	0
196	50062149	-33.984160	45.000000	10	5	62149	0
197	50062150	-25.998730	39.000000	10	5	62150	0
198	50062151	-20.402300	33.000000	10	5	62151	0
199	50062152	-12.143870	24.000000	10	5	62152	0
200	50062155	-21.561350	36.000000	10	5	62155	0
201	50063145	-74.679230	100.000000	10	5	63145	0
202	50063146	-67.481800	90.000000	10	5	63146	0
203	50063147	-58.983370	70.000000	10	5	63147	0
204	50063148	-52.227940	60.000000	10	5	63148	0
205	50063149	-43.944510	50.000000	10	5	63149	0
206	50063150	-37.523080	40.000000	10	5	63150	0
207	50063151	-29.589650	34.000000	10	5	63151	0
208	50063155	-12.142000	12.200000	10	5	63155	0
209	50064149	-65.853950	80.000000	10	5	64149	0
210	50064150	-57.148520	60.000000	10	5	64150	0
211	50064151	-50.650090	55.000000	10	5	64151	0
212	50064152	-42.060660	45.000000	10	5	64152	0
213	50064153	-12.158000	40.000000	10	5	64153	0
214	50064154	-12.008000	31.400000	10	5	64154	0
215	50065151	-62.479440	62.479440	10	5	65151	0
216	50065152	-55.315010	55.315010	10	5	65152	0
217	50065153	-46.646580	46.646580	10	5	65153	0
218	50065154	-39.745150	40.000000	10	5	65154	0
219	10022	-8.290001	36.000000	10	22	63154	0
220	10023	-8.122220	40.000000	10	23	59146	0
221	10024	-14.732000	18.800000	10	24	63153	0
222	10025	-14.538000	28.000000	10	25	63152	0
223	10029	-8.856290	26.400000	10	29	61150	0
224	10030	-14.458720	31.000000	10	30	61149	0
225	10035	-11.923800	40.000000	10	35	60148	0
226	10036	-19.257230	45.000000	10	36	60147	0
227	10037	-30.567000	30.567000	10	37	65155	0
228	10045	-12.533770	24.000000	10	45	62153	0
229	10108	-0.992860	17.600000	10	108	61151	0
230	10109	-1.345790	40.000000	10	109	59147	0
231	10112	-6.791000	40.000000	10	112	62154	0
232	10114	-13.142700	40.000000	10	114	60149	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	53	6.500000
2	0	2	126	4.000000
3	1001	9	37	6.500000
4	1002	31	5	6.500000
5	1003	32	4	6.500000
6	2003	33	3	6.500000
7	2004	34	44	4.000000

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66-Dy-162 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 66162.38u MAT=6643 ZA= 66162  
 AWR= 160.535800 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.196994
2	0	2	1	1.000000
3	1001	9	1	8.008860
4	1002	31	1	14.000000
5	1003	32	1	14.000000
6	2003	33	1	16.500000
7	2004	34	1	2.000000

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66-Dy-163 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 66163.38u MAT=6646 ZA= 66163  
 AWR= 161.529100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	6.271009
2	0	2	1	1.000000
3	1001	9	1	7.994183
4	1002	31	1	12.500000
5	1003	32	1	14.000000
6	2003	33	1	15.500000
7	2004	34	1	2.000000

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67-Ho-165 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 67165.38u MAT=6725 ZA= 67165



AWR= 163.513500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 183 NTRAN= 81 NPROD= 102 NE= 145 EMAX= 200.100 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	-0.243000	8.000000	3	5		
2	11	-19.863370	27.400000	3	11		
3	16	-14.662000	14.662000	3	16		
4	17	-23.070000	23.070000	3	17		
5	22	-7.557000	11.400000	3	22		
6	28	-13.877000	15.610000	3	28		
7	32	-17.924000	19.000000	3	32		
8	33	-19.863000	21.000000	3	33		
9	34	-20.437000	24.000000	3	34		
10	41	-20.148000	22.000000	3	41		
11	42	-28.344000	30.000000	3	42		
12	44	-21.872000	26.400000	3	44		
13	50	-7.988430	7.988430	3	50		
14	51	-8.025770	8.025770	3	51		
15	52	-8.082410	8.082410	3	52		
16	53	-8.128200	8.128200	3	53		
17	54	-8.154430	8.154430	3	54		
18	55	-8.177030	8.177030	3	55		
19	56	-8.179430	8.179430	3	56		
20	57	-8.192230	8.192230	3	57		
21	58	-8.222930	8.222930	3	58		
22	59	-8.249430	8.249430	3	59		
23	60	-8.263430	8.263430	3	60		
24	61	-8.282430	8.282430	3	61		
25	62	-8.285730	8.285730	3	62		
26	63	-8.306430	8.306430	3	63		
27	64	-8.331230	8.331230	3	64		
28	65	-8.355430	8.355430	3	65		
29	66	-8.382430	8.382430	3	66		
30	67	-8.409430	8.409430	3	67		
31	68	-8.418330	8.418330	3	68		
32	69	-8.441030	8.441030	3	69		
33	70	-8.474430	8.474430	3	70		
34	71	-8.487430	8.487430	3	71		
35	72	-8.546430	8.546430	3	72		
36	73	-8.569430	8.569430	3	73		
37	91	-8.569000	8.569000	3	91		
38	102	0.000000	5.000000	3	102		
39	104	-11.653000	13.100000	3	104		
40	105	-11.667000	13.100000	3	105		
41	106	-14.154000	17.600000	3	106		
42	111	-14.880000	19.000000	3	111		
43	112	-6.669000	12.400000	3	112		
44	115	-19.648000	24.000000	3	115		
45	116	-19.674000	24.000000	3	116		
46	600	-6.219030	8.000000	3	600		
47	601	-6.292422	7.000000	3	601		
48	602	-6.461261	8.000000	3	602		
49	603	-6.720352	8.400000	3	603		
50	604	-6.980850	8.400000	3	604		

51	605	-7.047220	8.400000	3	605		
52	606	-7.062710	9.000000	3	606		
53	607	-7.135030	8.400000	3	607		
54	608	-7.195920	8.400000	3	608		
55	609	-7.243670	8.400000	3	609		
56	610	-7.258330	8.400000	3	610		
57	611	-7.341800	9.000000	3	611		
58	612	-7.374780	9.000000	3	612		
59	613	-7.385030	9.000000	3	613		
60	614	-7.444170	9.000000	3	614		
61	615	-7.480330	9.400000	3	615		
62	616	-7.521630	9.400000	3	616		
63	649	-7.521600	8.400000	3	649		
64	800	0.140070	5.000000	3	800		
65	801	0.083781	5.000000	3	801		
66	802	0.006389	5.000000	3	802		
67	803	-0.090650	5.000000	3	803		
68	804	-0.174844	5.000000	3	804		
69	805	-0.254294	5.000000	3	805		
70	806	-0.277158	5.000000	3	806		
71	807	-0.340060	5.000000	3	807		
72	808	-0.348710	5.000000	3	808		
73	809	-0.358930	5.000000	3	809		
74	810	-0.379930	5.000000	3	810		
75	811	-0.417930	5.000000	3	811		
76	812	-0.443930	5.000000	3	812		
77	813	-0.445706	5.000000	3	813		
78	814	-0.461930	5.000000	3	814		
79	815	-0.497930	5.000000	3	815		
80	816	-0.557930	5.000000	3	816		
81	849	-0.558000	5.000000	3	849		
82	10004	-7.988430	8.000000	10	4	67164	0
83	11004	-8.128200	8.128200	10	4	67164	1
84	50056137	-44.611740	140.000000	10	5	56137	0
85	50056138	-36.000310	100.100000	10	5	56138	0
86	50057139	-38.224230	100.100000	10	5	57139	0
87	50057140	-33.062800	120.000000	10	5	57140	0
88	50057141	-26.374370	100.100000	10	5	57141	0
89	50057142	-21.206940	100.100000	10	5	57142	0
90	50058139	-59.098670	140.000000	10	5	58139	0
91	50058140	-49.897240	120.000000	10	5	58140	0
92	50058141	-44.468810	120.000000	10	5	58141	0
93	50058142	-37.299380	90.000000	10	5	58142	0
94	50058143	-32.154950	100.100000	10	5	58143	0
95	50058144	-25.258520	100.100000	10	5	58144	0
96	50058145	-20.526090	100.100000	10	5	58145	0
97	50059141	-53.152160	100.100000	10	5	59141	0
98	50059142	-47.309730	100.100000	10	5	59142	0
99	50059143	-39.957300	100.100000	10	5	59143	0
100	50059144	-34.203870	90.000000	10	5	59144	0
101	50059145	-27.256440	80.000000	10	5	59145	0
102	50059146	-22.055010	80.000000	10	5	59146	0
103	50059147	-15.278580	70.000000	10	5	59147	0
104	50059148	-10.192150	70.000000	10	5	59148	0

105	50060143	-59.619740	100.100000	10	5	60143	0
106	50060144	-51.803310	90.000000	10	5	60144	0
107	50060145	-46.046880	90.000000	10	5	60145	0
108	50060146	-38.481450	90.000000	10	5	60146	0
109	50060147	-33.190020	80.000000	10	5	60147	0
110	50060148	-25.856590	70.000000	10	5	60148	0
111	50060149	-20.818160	70.000000	10	5	60149	0
112	50060150	-13.437730	70.000000	10	5	60150	0
113	50060151	-14.360630	70.000000	10	5	60151	0
114	50061143	-69.926090	140.000000	10	5	61143	0
115	50061144	-63.398660	120.000000	10	5	61144	0
116	50061145	-55.474230	100.100000	10	5	61145	0
117	50061146	-49.217800	90.000000	10	5	61146	0
118	50061147	-41.558370	80.000000	10	5	61147	0
119	50061148	-35.660940	70.000000	10	5	61148	0
120	50061149	-28.391510	60.000000	10	5	61149	0
121	50061150	-22.789080	55.000000	10	5	61150	0
122	50061151	-14.925650	45.000000	10	5	61151	0
123	50062146	-68.272240	120.000000	10	5	62146	0
124	50062147	-61.930810	100.100000	10	5	62147	0
125	50062148	-53.788380	80.000000	10	5	62148	0
126	50062149	-47.916950	80.000000	10	5	62149	0
127	50062150	-39.931520	70.000000	10	5	62150	0
128	50062151	-34.335090	60.000000	10	5	62151	0
129	50062152	-26.076660	55.000000	10	5	62152	0
130	50062156	-7.673890	43.000000	10	5	62156	0
131	50063147	-72.916160	140.000000	10	5	63147	0
132	50063148	-66.160730	100.100000	10	5	63148	0
133	50063149	-57.877300	90.000000	10	5	63149	0
134	50063150	-51.455870	80.000000	10	5	63150	0
135	50063151	-43.522440	70.000000	10	5	63151	0
136	50063152	-37.216010	60.000000	10	5	63152	0
137	50063153	-28.665580	45.000000	10	5	63153	0
138	50063154	-22.223150	41.000000	10	5	63154	0
139	50063158	-15.048250	35.000000	10	5	63158	0
140	50064149	-79.786740	120.000000	10	5	64149	0
141	50064150	-71.081300	100.100000	10	5	64150	0
142	50064151	-64.582880	90.000000	10	5	64151	0
143	50064152	-55.993450	70.000000	10	5	64152	0
144	50064153	-49.746020	60.000000	10	5	64153	0
145	50064154	-40.851590	55.000000	10	5	64154	0
146	50064155	-34.416160	45.000000	10	5	64155	0
147	50064156	-25.879730	39.000000	10	5	64156	0
148	50064157	-19.519300	33.000000	10	5	64157	0
149	50064158	-11.581870	23.400000	10	5	64158	0
150	50064161	-21.611350	37.000000	10	5	64161	0
151	50065151	-76.412230	140.000000	10	5	65151	0
152	50065152	-69.247800	120.000000	10	5	65152	0
153	50065153	-60.579370	80.000000	10	5	65153	0
154	50065154	-53.677940	60.000000	10	5	65154	0
155	50065155	-44.501510	50.100000	10	5	65155	0
156	50065156	-37.588080	44.000000	10	5	65156	0
157	50065157	-28.843650	34.000000	10	5	65157	0
158	50065161	-12.054000	12.054000	10	5	65161	0

159	50066154	-74.028380	100.100000	10	5	66154	0
160	50066155	-67.192940	80.000000	10	5	66155	0
161	50066156	-57.751520	60.000000	10	5	66156	0
162	50066157	-50.782090	60.000000	10	5	66157	0
163	50066158	-41.725660	45.000000	10	5	66158	0
164	50066159	-11.823000	40.000000	10	5	66159	0
165	50066160	-11.655000	30.400000	10	5	66160	0
166	50067157	-62.586440	70.000000	10	5	67157	0
167	50067158	-55.220010	55.220010	10	5	67158	0
168	50067159	-45.996580	45.996580	10	5	67159	0
169	50067160	-38.872150	39.000000	10	5	67160	0
170	10022	-7.557000	35.000000	10	22	65160	0
171	10023	-8.985220	45.000000	10	23	61152	0
172	10024	-13.932000	18.000000	10	24	65159	0
173	10025	-13.657000	26.400000	10	25	65158	0
174	10029	-7.734290	25.410000	10	29	63156	0
175	10030	-14.071720	31.000000	10	30	63155	0
176	10035	-12.241800	45.000000	10	35	62154	0
177	10036	-20.209230	50.100000	10	36	62153	0
178	10037	-29.985000	29.985000	10	37	67161	0
179	10045	-0.243000	24.000000	10	45	64159	0
180	10108	-0.285860	18.000000	10	108	63157	0
181	10109	-1.493790	60.000000	10	109	61153	0
182	10112	-6.669000	42.000000	10	112	64160	0
183	10114	-12.691700	45.000000	10	114	62155	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	37	7.988430
2	0	2	77	5.000000
3	1001	9	27	7.000000
4	1002	31	5	8.000000
5	1003	32	4	8.000000
6	2003	33	3	8.000000
7	2004	34	21	5.000000

68-Er-166 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 68166.38u MAT=6837 ZA= 68166  
 AWR= 164.504900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.000000
2	0	2	1	1.000000
3	1001	9	1	7.500000
4	1002	31	1	13.500000
5	1003	32	1	14.000000
6	2003	33	1	15.500000
7	2004	34	1	1.000000

-----  
 68-Er-170 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 68170.38u MAT=6849 ZA= 68170  
 AWR= 168.475600 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p ZAP IP NR Tp [MeV]  
 1 1 1 1 7.256894  
 2 0 2 1 1.000000  
 3 1001 9 1 8.600475  
 4 1002 31 1 13.500000  
 5 1003 32 1 13.500000  
 6 2003 33 1 17.500000  
 7 2004 34 1 2.000000  
 -----

-----  
 69-Tm-169 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 69169.38u MAT=6925 ZA= 69169  
 AWR= 167.483000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 219 NTRAN= 136 NPROD= 83 NE= 191 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS

1 5 1.340140 5.000000 3 5  
 2 11 -19.772370 27.000000 3 11  
 3 16 -14.873000 14.873000 3 16  
 4 17 -23.600000 23.600000 3 17  
 5 22 -6.788000 10.400000 3 22  
 6 28 -13.343000 15.000000 3 28  
 7 32 -17.555000 19.000000 3 32  
 8 33 -19.772000 21.000000 3 33  
 9 34 -19.377000 23.000000 3 34  
 10 41 -19.779000 21.000000 3 41  
 11 42 -28.253000 30.000000 3 42  
 12 44 -20.851000 25.400000 3 44  
 13 50 -8.033430 8.033430 3 50  
 14 51 -8.036430 8.036430 3 51  
 15 52 -8.050430 8.050430 3 52  
 16 53 -8.074430 8.074430 3 53  
 17 54 -8.080430 8.080430 3 54  
 18 55 -8.097740 8.097740 3 55  
 19 56 -8.113430 8.113430 3 56  
 20 57 -8.145430 8.145430 3 57  
 21 58 -8.178180 8.178180 3 58  
 22 59 -8.181880 8.181880 3 59  
 23 60 -8.200430 8.200430 3 60  
 24 61 -8.212160 8.212160 3 61  
 -----

25	62	-8.218430	8.218430	3	62
26	63	-8.226710	8.226710	3	63
27	64	-8.232630	8.232630	3	64
28	65	-8.237080	8.237080	3	65
29	66	-8.237430	8.237430	3	66
30	67	-8.262500	8.262500	3	67
31	68	-8.263430	8.263430	3	68
32	69	-8.268430	8.268430	3	69
33	70	-8.275390	8.275390	3	70
34	71	-8.275530	8.275530	3	71
35	72	-8.280430	8.280430	3	72
36	73	-8.341130	8.341130	3	73
37	74	-8.346430	8.346430	3	74
38	75	-8.347490	8.347490	3	75
39	76	-8.358430	8.358430	3	76
40	77	-8.361190	8.361190	3	77
41	78	-8.371280	8.371280	3	78
42	79	-8.380430	8.380430	3	79
43	80	-8.382390	8.382390	3	80
44	81	-8.391430	8.391430	3	81
45	82	-8.399430	8.399430	3	82
46	83	-8.416430	8.416430	3	83
47	84	-8.425080	8.425080	3	84
48	85	-8.425480	8.425480	3	85
49	86	-8.426230	8.426230	3	86
50	87	-8.472430	8.472430	3	87
51	88	-8.475700	8.475700	3	88
52	89	-8.479770	8.479770	3	89
53	91	-8.479340	8.479340	3	91
54	102	0.000000	5.000000	3	102
55	104	-11.119000	12.600000	3	104
56	105	-11.298000	13.000000	3	105
57	106	-13.133000	16.600000	3	106
58	111	-13.567000	18.400000	3	111
59	112	-5.019000	11.000000	3	112
60	115	-18.627000	23.800000	3	115
61	116	-18.614000	23.800000	3	116
62	600	-5.572030	7.100000	3	600
63	601	-5.651834	7.100000	3	601
64	602	-5.836119	7.100000	3	602
65	603	-6.120777	8.000000	3	603
66	604	-6.393199	8.000000	3	604
67	605	-6.467825	8.000000	3	605
68	607	-6.566777	8.400000	3	607
69	608	-6.666068	8.600000	3	608
70	609	-6.689600	8.600000	3	609
71	610	-6.765055	8.600000	3	610
72	611	-6.789199	8.400000	3	611
73	612	-6.835935	8.600000	3	612
74	613	-6.838100	8.600000	3	613
75	614	-6.848302	8.400000	3	614
76	615	-6.883491	8.600000	3	615
77	616	-6.930929	8.600000	3	616
78	618	-6.975766	8.600000	3	618

79	619	-6.983126	8.600000	3 619
80	620	-6.994150	8.600000	3 620
81	621	-7.003496	8.600000	3 621
82	622	-7.004981	9.000000	3 622
83	623	-7.020986	9.000000	3 623
84	624	-7.065163	8.600000	3 624
85	625	-7.113586	9.000000	3 625
86	626	-7.113739	9.000000	3 626
87	627	-7.141483	8.600000	3 627
88	628	-7.146147	9.000000	3 628
89	629	-7.177880	9.000000	3 629
90	630	-7.187372	9.000000	3 630
91	631	-7.188836	9.000000	3 631
92	633	-7.201728	9.000000	3 633
93	634	-7.205493	9.000000	3 634
94	635	-7.225579	8.600000	3 635
95	636	-7.228304	9.000000	3 636
96	637	-7.280023	9.000000	3 637
97	638	-7.291209	9.000000	3 638
98	639	-7.308718	9.000000	3 639
99	649	-7.308688	8.000000	3 649
100	800	1.200070	5.000000	3 800
101	801	1.105370	5.000000	3 801
102	802	0.990266	5.000000	3 802
103	803	0.855170	5.000000	3 803
104	804	0.838395	5.000000	3 804
105	805	0.780526	5.000000	3 805
106	806	0.770682	5.000000	3 806
107	807	0.750811	5.000000	3 807
108	808	0.709023	5.000000	3 808
109	809	0.700670	5.000000	3 809
110	810	0.684594	5.000000	3 810
111	811	0.661059	5.000000	3 811
112	812	0.633270	5.000000	3 812
113	813	0.610270	5.000000	3 813
114	814	0.598470	5.000000	3 814
115	815	0.561570	5.000000	3 815
116	817	0.518870	5.000000	3 817
117	818	0.511270	5.000000	3 818
118	819	0.498070	5.000000	3 819
119	820	0.496270	5.000000	3 820
120	821	0.484740	5.000000	3 821
121	822	0.469170	5.000000	3 822
122	823	0.456070	5.000000	3 823
123	824	0.409270	5.000000	3 824
124	825	0.397770	5.000000	3 825
125	826	0.380270	5.000000	3 826
126	827	0.379960	5.000000	3 827
127	828	0.372870	5.000000	3 828
128	829	0.358270	5.000000	3 829
129	831	0.329170	5.000000	3 831
130	832	0.254370	5.000000	3 832
131	833	0.244470	5.000000	3 833
132	834	0.231370	5.000000	3 834

133	835	0.228170	5.000000	3	835		
134	836	0.213970	5.000000	3	836		
135	837	0.204980	5.000000	3	837		
136	849	0.202200	5.000000	3	849		
137	50059145	-26.056370	120.000000	10	5	59145	0
138	50060145	-44.846810	120.000000	10	5	60145	0
139	50060146	-37.281380	100.000000	10	5	60146	0
140	50060147	-31.989950	100.000000	10	5	60147	0
141	50060148	-24.656520	100.000000	10	5	60148	0
142	50060149	-19.618090	100.000000	10	5	60149	0
143	50061146	-48.017730	120.000000	10	5	61146	0
144	50061147	-40.358300	120.000000	10	5	61147	0
145	50061148	-34.460870	100.000000	10	5	61148	0
146	50061149	-27.191440	100.000000	10	5	61149	0
147	50061150	-21.589010	90.000000	10	5	61150	0
148	50061151	-13.725580	70.000000	10	5	61151	0
149	50061152	-7.785150	70.000000	10	5	61152	0
150	50061153	-0.293720	80.000000	10	5	61153	0
151	50062148	-52.588310	100.000000	10	5	62148	0
152	50062149	-46.716880	100.000000	10	5	62149	0
153	50062150	-38.731450	90.000000	10	5	62150	0
154	50062151	-33.135020	80.000000	10	5	62151	0
155	50062152	-24.876590	70.000000	10	5	62152	0
156	50062153	-19.009160	70.000000	10	5	62153	0
157	50062154	-11.041730	60.000000	10	5	62154	0
158	50062155	-11.491630	60.000000	10	5	62155	0
159	50063149	-56.677230	120.000000	10	5	63149	0
160	50063150	-50.255800	120.000000	10	5	63150	0
161	50063151	-42.322370	100.000000	10	5	63151	0
162	50063152	-36.015940	90.000000	10	5	63152	0
163	50063153	-27.465510	60.000000	10	5	63153	0
164	50063154	-21.023080	55.000000	10	5	63154	0
165	50063155	-12.871650	45.000000	10	5	63155	0
166	50063158	-13.848180	55.000000	10	5	63158	0
167	50064151	-63.382810	100.000000	10	5	64151	0
168	50064152	-54.793380	90.000000	10	5	64152	0
169	50064153	-48.545950	80.000000	10	5	64153	0
170	50064154	-39.651520	70.000000	10	5	64154	0
171	50064155	-33.216090	60.000000	10	5	64155	0
172	50064156	-24.679660	55.000000	10	5	64156	0
173	50064160	-5.468890	42.000000	10	5	64160	0
174	50064161	-20.411280	55.000000	10	5	64161	0
175	50065153	-59.379300	100.000000	10	5	65153	0
176	50065154	-52.477870	100.000000	10	5	65154	0
177	50065155	-43.301440	60.000000	10	5	65155	0
178	50065156	-36.388010	60.000000	10	5	65156	0
179	50065157	-27.643580	45.000000	10	5	65157	0
180	50065158	-20.866150	38.000000	10	5	65158	0
181	50065162	-12.954250	32.000000	10	5	65162	0
182	50065163	-13.679990	44.000000	10	5	65163	0
183	50066155	-65.992880	90.000000	10	5	66155	0
184	50066156	-56.551450	70.000000	10	5	66156	0
185	50066157	-49.582020	60.000000	10	5	66157	0
186	50066158	-40.525590	55.000000	10	5	66158	0



187	50066159	-33.694160	45.000000	10	5	66159	0
188	50066160	-25.117730	38.000000	10	5	66160	0
189	50066161	-18.663300	31.000000	10	5	66161	0
190	50066162	-10.466870	21.000000	10	5	66162	0
191	50066165	-19.881350	35.000000	10	5	66165	0
192	50067158	-54.019940	60.000000	10	5	67158	0
193	50067159	-44.796510	50.000000	10	5	67159	0
194	50067160	-37.672080	43.000000	10	5	67160	0
195	50067161	-28.786650	34.000000	10	5	67161	0
196	50067165	-11.528000	11.528000	10	5	67165	0
197	50068159	-68.161950	80.000000	10	5	68159	0
198	50068160	-58.597520	70.000000	10	5	68160	0
199	50068161	-51.386090	60.000000	10	5	68161	0
200	50068162	-42.171660	45.000000	10	5	68162	0
201	50068163	-11.668000	40.000000	10	5	68163	0
202	50068164	-11.548000	31.000000	10	5	68164	0
203	50069162	-56.276010	56.276010	10	5	69162	0
204	50069163	-46.972580	46.972580	10	5	69163	0
205	50069164	-39.649150	40.000000	10	5	69164	0
206	10022	-6.788000	35.000000	10	22	67164	0
207	10023	-6.534220	44.000000	10	23	63156	0
208	10024	-13.462000	17.800000	10	24	67163	0
209	10025	-13.143000	26.000000	10	25	67162	0
210	10029	-6.357290	23.800000	10	29	65160	0
211	10030	-12.732720	30.000000	10	30	65159	0
212	10035	-10.381800	43.000000	10	35	64158	0
213	10036	-18.319230	45.000000	10	36	64157	0
214	10037	-30.627000	30.627000	10	37	69165	0
215	10045	0.666000	21.000000	10	45	66163	0
216	10108	1.340140	15.000000	10	108	65161	0
217	10109	0.914210	45.000000	10	109	63157	0
218	10112	-5.019000	40.000000	10	112	66164	0
219	10114	-10.695700	41.000000	10	114	64159	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	53	5.000000
2	0	2	127	5.000000
3	1001	9	16	5.000000
4	1002	31	5	5.000000
5	1003	32	4	5.000000
6	2003	33	3	5.000000
7	2004	34	20	5.000000

71-Lu-175 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 71175.38u MAT=7125 ZA= 71175  
 AWR= 173.438000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 137 NTRAN= 1 NPROD= 136 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.500000	6	5	1	0

3	50001001	0.000000	8.000000	6	5	1001	0
4	50001002	0.000000	13.000000	6	5	1002	0
5	50001003	0.000000	14.000000	6	5	1003	0
6	50002003	0.000000	20.000000	6	5	2003	0
7	50002004	0.000000	6.000000	6	5	2004	0
8	50064148	0.000000	120.000000	6	5	64148	0
9	50064149	0.000000	120.000000	6	5	64149	0
10	50065149	0.000000	120.000000	6	5	65149	0
11	51065149	0.000000	120.000000	6	5	65149	1
12	50065150	0.000000	120.000000	6	5	65150	0
13	52065150	0.000000	120.000000	6	5	65150	2
14	50065151	0.000000	120.000000	6	5	65151	0
15	53065151	0.000000	120.000000	6	5	65151	3
16	50066150	0.000000	120.000000	6	5	66150	0
17	50066151	0.000000	120.000000	6	5	66151	0
18	50066152	0.000000	120.000000	6	5	66152	0
19	50066153	0.000000	120.000000	6	5	66153	0
20	50066154	0.000000	120.000000	6	5	66154	0
21	50066155	0.000000	120.000000	6	5	66155	0
22	50067151	0.000000	120.000000	6	5	67151	0
23	51067151	0.000000	120.000000	6	5	67151	1
24	50067152	0.000000	120.000000	6	5	67152	0
25	51067152	0.000000	120.000000	6	5	67152	1
26	50067153	0.000000	110.000000	6	5	67153	0
27	51067153	0.000000	110.000000	6	5	67153	1
28	50067154	0.000000	100.000000	6	5	67154	0
29	52067154	0.000000	100.000000	6	5	67154	2
30	50067155	0.000000	100.000000	6	5	67155	0
31	50067156	0.000000	100.000000	6	5	67156	0
32	51067156	0.000000	100.000000	6	5	67156	1
33	58067156	0.000000	100.000000	6	5	67156	8
34	50067157	0.000000	100.000000	6	5	67157	0
35	50068152	0.000000	140.000000	6	5	68152	0
36	50068153	0.000000	130.000000	6	5	68153	0
37	50068154	0.000000	120.000000	6	5	68154	0
38	50068155	0.000000	110.000000	6	5	68155	0
39	50068156	0.000000	100.000000	6	5	68156	0
40	50068157	0.000000	100.000000	6	5	68157	0
41	50068158	0.000000	90.000000	6	5	68158	0
42	50068159	0.000000	85.000000	6	5	68159	0
43	50068160	0.000000	85.000000	6	5	68160	0
44	50068161	0.000000	85.000000	6	5	68161	0
45	50068162	0.000000	80.000000	6	5	68162	0
46	50068163	0.000000	80.000000	6	5	68163	0
47	50068164	0.000000	78.000000	6	5	68164	0
48	50068165	0.000000	76.000000	6	5	68165	0
49	50068166	0.000000	76.000000	6	5	68166	0
50	50068167	0.000000	76.000000	6	5	68167	0
51	53068167	0.000000	76.000000	6	5	68167	3
52	50068168	0.000000	95.000000	6	5	68168	0
53	50068169	0.000000	95.000000	6	5	68169	0
54	50068170	0.000000	95.000000	6	5	68170	0
55	50069153	0.000000	150.000000	6	5	69153	0
56	51069153	0.000000	150.000000	6	5	69153	1

57	50069154	0.000000	140.000000	6	5	69154	0
58	52069154	0.000000	140.000000	6	5	69154	2
59	50069155	0.000000	130.000000	6	5	69155	0
60	51069155	0.000000	130.000000	6	5	69155	1
61	50069156	0.000000	120.000000	6	5	69156	0
62	50069157	0.000000	110.000000	6	5	69157	0
63	50069158	0.000000	100.000000	6	5	69158	0
64	52069158	0.000000	100.000000	6	5	69158	2
65	50069159	0.000000	95.000000	6	5	69159	0
66	50069160	0.000000	85.000000	6	5	69160	0
67	52069160	0.000000	85.000000	6	5	69160	2
68	50069161	0.000000	80.000000	6	5	69161	0
69	50069162	0.000000	74.000000	6	5	69162	0
70	54069162	0.000000	74.000000	6	5	69162	4
71	50069163	0.000000	66.000000	6	5	69163	0
72	50069164	0.000000	62.000000	6	5	69164	0
73	55069164	0.000000	62.000000	6	5	69164	5
74	50069165	0.000000	58.000000	6	5	69165	0
75	50069166	0.000000	52.000000	6	5	69166	0
76	50069167	0.000000	46.000000	6	5	69167	0
77	50069168	0.000000	42.000000	6	5	69168	0
78	50069169	0.000000	42.000000	6	5	69169	0
79	50069170	0.000000	42.000000	6	5	69170	0
80	50069171	0.000000	1.000000	6	5	69171	0
81	50069172	0.000000	44.000000	6	5	69172	0
82	50069173	0.000000	42.000000	6	5	69173	0
83	50070154	0.000000	190.000000	6	5	70154	0
84	50070155	0.000000	160.000000	6	5	70155	0
85	50070156	0.000000	140.000000	6	5	70156	0
86	50070157	0.000000	130.000000	6	5	70157	0
87	50070158	0.000000	120.000000	6	5	70158	0
88	50070159	0.000000	110.000000	6	5	70159	0
89	50070160	0.000000	100.000000	6	5	70160	0
90	50070161	0.000000	100.000000	6	5	70161	0
91	50070162	0.000000	90.000000	6	5	70162	0
92	50070163	0.000000	80.000000	6	5	70163	0
93	50070164	0.000000	76.000000	6	5	70164	0
94	50070165	0.000000	70.000000	6	5	70165	0
95	50070166	0.000000	66.000000	6	5	70166	0
96	50070167	0.000000	60.000000	6	5	70167	0
97	50070168	0.000000	54.000000	6	5	70168	0
98	50070169	0.000000	46.000000	6	5	70169	0
99	51070169	0.000000	46.000000	6	5	70169	1
100	50070170	0.000000	40.000000	6	5	70170	0
101	50070171	0.000000	32.000000	6	5	70171	0
102	50070172	0.000000	26.000000	6	5	70172	0
103	50070173	0.000000	17.500000	6	5	70173	0
104	50070174	0.000000	12.000000	6	5	70174	0
105	50071155	0.000000	180.000000	6	5	71155	0
106	50071156	0.000000	160.000000	6	5	71156	0
107	50071157	0.000000	150.000000	6	5	71157	0
108	51071157	0.000000	150.000000	6	5	71157	1
109	50071158	0.000000	140.000000	6	5	71158	0
110	50071159	0.000000	130.000000	6	5	71159	0

111	50071160	0.000000	120.000000	6	5	71160	0
112	51071160	0.000000	120.000000	6	5	71160	1
113	50071161	0.000000	110.000000	6	5	71161	0
114	50071162	0.000000	100.000000	6	5	71162	0
115	55071162	0.000000	100.000000	6	5	71162	5
116	57071162	0.000000	100.000000	6	5	71162	7
117	50071163	0.000000	95.000000	6	5	71163	0
118	50071164	0.000000	85.000000	6	5	71164	0
119	50071165	0.000000	78.000000	6	5	71165	0
120	50071166	0.000000	72.000000	6	5	71166	0
121	51071166	0.000000	72.000000	6	5	71166	1
122	52071166	0.000000	72.000000	6	5	71166	2
123	50071167	0.000000	62.000000	6	5	71167	0
124	51071167	0.000000	62.000000	6	5	71167	1
125	50071168	0.000000	54.000000	6	5	71168	0
126	51071168	0.000000	54.000000	6	5	71168	1
127	50071169	0.000000	44.000000	6	5	71169	0
128	51071169	0.000000	44.000000	6	5	71169	1
129	50071170	0.000000	38.000000	6	5	71170	0
130	50071171	0.000000	29.000000	6	5	71171	0
131	51071171	0.000000	29.000000	6	5	71171	1
132	50071172	0.000000	22.000000	6	5	71172	0
133	51071172	0.000000	22.000000	6	5	71172	1
134	50071173	0.000000	14.000000	6	5	71173	0
135	50071174	0.000000	7.500000	6	5	71174	0
136	53071174	0.000000	7.500000	6	5	71174	3
137	50071175	0.000000	1.000000	6	5	71175	0

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	7.500000
2	0	2	1	1.000000
3	1001	9	1	8.000000
4	1002	31	1	13.000000
5	1003	32	1	14.000000
6	2003	33	1	20.000000
7	2004	34	1	6.000000

72-Hf-174 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 72174.38u MAT=7225 ZA= 72174  
 AWR= 172.445800 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	8.500000
2	0	2	1	1.000000
3	1001	9	1	6.500000
4	1002	31	1	12.500000
5	1003	32	1	13.500000

6 2003 33 1 13.500000  
7 2004 34 1 1.000000

-----  
72-Hf-176 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 72176.38u MAT=7231 ZA= 72176  
AWR= 174.430000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 8.000000  
2 0 2 1 1.000000  
3 1001 9 1 7.000000  
4 1002 31 1 12.500000  
5 1003 32 1 13.500000  
6 2003 33 1 14.000000  
7 2004 34 1 1.000000  
-----

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72-Hf-177 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 72177.38u MAT=7234 ZA= 72177  
AWR= 175.423200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
  
p ZAP IP NR Tp [MeV]  
1 1 1 1 6.000000  
2 0 2 1 1.000000  
3 1001 9 1 7.000000  
4 1002 31 1 11.500000  
5 1003 32 1 13.000000  
6 2003 33 1 13.000000  
7 2004 34 1 1.000000  
-----

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72-Hf-178 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 72178.38u MAT=7237 ZA= 72178  
AWR= 176.415100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
-----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.500000
2	0	2	1	1.000000
3	1001	9	1	7.500000
4	1002	31	1	12.500000
5	1003	32	1	13.000000
6	2003	33	1	15.000000
7	2004	34	1	1.000000

-----  
 72-Hf-179 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 72179.38u MAT=7240 ZA= 72179  
 AWR= 177.408600 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 88 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	6.000000
2	0	2	1	1.000000
3	1001	9	1	7.500000
4	1002	31	1	11.500000
5	1003	32	1	13.000000
6	2003	33	1	14.500000
7	2004	34	1	1.000000

-----  
 72-Hf-180 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 72180.38u MAT=7243 ZA= 72180  
 AWR= 178.400700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 1 NTRAN= 1 NPROD= 0 NE= 89 EMAX= 200.000 MeV  
 i FmN/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.387758
2	0	2	1	1.000000
3	1001	9	1	8.000000
4	1002	31	1	13.000000
5	1003	32	1	13.000000
6	2003	33	1	16.000000
7	2004	34	1	1.000000

-----  
 73-Ta-181 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 73181.38u MAT=7328 ZA= 73181  
 -----

AWR= 179.393600 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 282 NTRAN= 143 NPROD= 139 NE= 203 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	3.091210	5.000000	3	5		
2	11	-18.572370	26.000000	3	11		
3	16	-14.221000	14.221000	3	16		
4	17	-22.121000	22.121000	3	17		
5	22	-5.546000	9.000000	3	22		
6	28	-13.328000	15.100000	3	28		
7	32	-17.203000	18.800000	3	32		
8	33	-18.572000	20.400000	3	33		
9	34	-19.051000	22.000000	3	34		
10	41	-19.427000	21.000000	3	41		
11	42	-27.053000	28.800000	3	42		
12	44	-20.744000	24.000000	3	44		
13	50	-7.577430	7.577430	3	50		
14	51	-7.617100	7.617100	3	51		
15	52	-7.654530	7.654530	3	52		
16	53	-7.685280	7.685280	3	53		
17	54	-7.688300	7.688300	3	54		
18	55	-7.707980	7.707980	3	55		
19	56	-7.748710	7.748710	3	56		
20	57	-7.755080	7.755080	3	57		
21	58	-7.762460	7.762460	3	58		
22	59	-7.811910	7.811910	3	59		
23	60	-7.835430	7.835430	3	60		
24	61	-7.857460	7.857460	3	61		
25	62	-7.888400	7.888400	3	62		
26	63	-7.895780	7.895780	3	63		
27	64	-7.897890	7.897890	3	64		
28	65	-7.934110	7.934110	3	65		
29	66	-7.948410	7.948410	3	66		
30	67	-7.951150	7.951150	3	67		
31	68	-7.993830	7.993830	3	68		
32	69	-7.997430	7.997430	3	69		
33	70	-8.001040	8.001040	3	70		
34	71	-8.003230	8.003230	3	71		
35	72	-8.025430	8.025430	3	72		
36	73	-8.040670	8.040670	3	73		
37	74	-8.055670	8.055670	3	74		
38	75	-8.082640	8.082640	3	75		
39	76	-8.092990	8.092990	3	76		
40	77	-8.097570	8.097570	3	77		
41	78	-8.121790	8.121790	3	78		
42	79	-8.125220	8.125220	3	79		
43	80	-8.125440	8.125440	3	80		
44	81	-8.126910	8.126910	3	81		
45	82	-8.137060	8.137060	3	82		
46	83	-8.149630	8.149630	3	83		
47	84	-8.151940	8.151940	3	84		
48	85	-8.153000	8.153000	3	85		
49	86	-8.171860	8.171860	3	86		
50	87	-8.172420	8.172420	3	87		

51	88	-8.177840	8.177840	3	88
52	89	-8.201700	8.201700	3	89
53	91	-8.201270	8.201270	3	91
54	102	0.000000	5.000000	3	102
55	104	-11.104000	12.600000	3	104
56	105	-10.946000	12.600000	3	105
57	106	-13.026000	16.800000	3	106
58	111	-13.952000	19.000000	3	111
59	112	-4.658000	10.000000	3	112
60	115	-18.520000	23.000000	3	115
61	116	-18.288000	23.000000	3	116
62	600	-5.940030	8.000000	3	600
63	601	-6.033354	7.000000	3	601
64	602	-6.248609	7.000000	3	602
65	603	-6.580888	8.000000	3	603
66	604	-7.023970	9.000000	3	604
67	605	-7.041930	9.000000	3	605
68	606	-7.047270	9.000000	3	606
69	607	-7.081530	9.000000	3	607
70	608	-7.103890	8.000000	3	608
71	609	-7.123350	8.000000	3	609
72	610	-7.132640	8.000000	3	610
73	611	-7.139690	8.000000	3	611
74	612	-7.200490	8.000000	3	612
75	613	-7.231070	8.000000	3	613
76	614	-7.240180	8.000000	3	614
77	615	-7.255730	9.000000	3	615
78	616	-7.294130	9.000000	3	616
79	617	-7.309510	9.000000	3	617
80	618	-7.314180	9.000000	3	618
81	619	-7.321340	9.000000	3	619
82	620	-7.325230	9.000000	3	620
83	621	-7.349230	9.000000	3	621
84	622	-7.349280	9.000000	3	622
85	623	-7.360630	9.000000	3	623
86	624	-7.369620	9.000000	3	624
87	625	-7.384030	9.000000	3	625
88	626	-7.412300	9.000000	3	626
89	627	-7.422440	9.000000	3	627
90	628	-7.424300	9.000000	3	628
91	629	-7.448030	9.000000	3	629
92	630	-7.465030	9.000000	3	630
93	631	-7.479070	9.000000	3	631
94	632	-7.496840	9.000000	3	632
95	633	-7.499050	9.000000	3	633
96	634	-7.537450	9.000000	3	634
97	635	-7.547580	9.000000	3	635
98	636	-7.549160	9.000000	3	636
99	637	-7.552330	9.000000	3	637
100	638	-7.552850	9.000000	3	638
101	639	-7.570430	9.000000	3	639
102	649	-7.570400	9.000000	3	649
103	800	1.526070	5.000000	3	800
104	801	1.404449	5.000000	3	801



105	802	1.375673	5.000000	3	802		
106	803	1.257285	5.000000	3	803		
107	804	1.237059	5.000000	3	804		
108	805	1.085428	5.000000	3	805		
109	806	1.074558	5.000000	3	806		
110	807	1.068089	5.000000	3	807		
111	808	0.973972	5.000000	3	808		
112	809	0.956363	5.000000	3	809		
113	810	0.952428	5.000000	3	810		
114	811	0.889867	5.000000	3	811		
115	812	0.888960	5.000000	3	812		
116	813	0.854121	5.000000	3	813		
117	814	0.816617	5.000000	3	814		
118	815	0.805250	5.000000	3	815		
119	816	0.765260	5.000000	3	816		
120	817	0.764370	5.000000	3	817		
121	818	0.730830	5.000000	3	818		
122	819	0.714618	5.000000	3	819		
123	820	0.709366	5.000000	3	820		
124	821	0.704120	5.000000	3	821		
125	822	0.694070	5.000000	3	822		
126	823	0.681162	5.000000	3	823		
127	824	0.671763	5.000000	3	824		
128	825	0.619330	5.000000	3	825		
129	826	0.569540	5.000000	3	826		
130	827	0.569376	5.000000	3	827		
131	828	0.568744	5.000000	3	828		
132	829	0.555895	5.000000	3	829		
133	830	0.545860	5.000000	3	830		
134	831	0.540760	5.000000	3	831		
135	832	0.506197	5.000000	3	832		
136	833	0.476870	5.000000	3	833		
137	834	0.476613	5.000000	3	834		
138	835	0.462870	5.000000	3	835		
139	836	0.453070	5.000000	3	836		
140	837	0.452433	5.000000	3	837		
141	838	0.437447	5.000000	3	838		
142	839	0.432366	5.000000	3	839		
143	849	-100.093700	100.093700	3	849		
144	10004	-7.577430	7.577430	10	4	73180	0
145	11004	-7.654530	7.654530	10	4	73180	1
146	50062153	-43.303740	140.000000	10	5	62153	0
147	50062154	-35.336310	121.000000	10	5	62154	0
148	50062155	-29.528880	100.000000	10	5	62155	0
149	50062156	-22.286450	100.000000	10	5	62156	0
150	50062157	-16.850020	100.000000	10	5	62157	0
151	50062158	-10.299590	100.000000	10	5	62158	0
152	50062159	-11.477490	100.000000	10	5	62159	0
153	50062160	-7.437680	100.000000	10	5	62160	0
154	50063154	-45.317660	121.000000	10	5	63154	0
155	50063155	-37.166230	121.000000	10	5	63155	0
156	50063156	-30.828800	100.000000	10	5	63156	0
157	50063157	-23.380370	100.000000	10	5	63157	0
158	50063158	-17.564940	90.000000	10	5	63158	0

159	50063159	-10.651510	80.000000	10	5	63159	0
160	50063160	-4.793080	70.000000	10	5	63160	0
161	50063161	1.211350	70.000000	10	5	63161	0
162	50063162	-14.425040	100.000000	10	5	63162	0
163	50064155	-57.510670	140.000000	10	5	64155	0
164	50064156	-48.974240	121.000000	10	5	64156	0
165	50064157	-42.613810	100.000000	10	5	64157	0
166	50064158	-34.676380	100.000000	10	5	64158	0
167	50064159	-28.732950	100.000000	10	5	64159	0
168	50064160	-21.281520	90.000000	10	5	64160	0
169	50064161	-15.646090	80.000000	10	5	64161	0
170	50064162	-8.799660	80.000000	10	5	64162	0
171	50064163	-9.788560	70.000000	10	5	64163	0
172	50064164	-5.683750	70.000000	10	5	64164	0
173	50065156	-60.682590	140.000000	10	5	65156	0
174	50065157	-51.938160	121.000000	10	5	65157	0
175	50065158	-45.160730	100.000000	10	5	65158	0
176	50065159	-37.027300	100.000000	10	5	65159	0
177	50065160	-30.651870	90.000000	10	5	65160	0
178	50065161	-22.954440	80.000000	10	5	65161	0
179	50065162	-16.671010	70.000000	10	5	65162	0
180	50065163	-9.678580	61.000000	10	5	65163	0
181	50065164	-4.125150	55.000000	10	5	65164	0
182	50065165	2.518280	55.000000	10	5	65165	0
183	50065166	-12.941110	70.000000	10	5	65166	0
184	50065167	-14.450850	70.000000	10	5	65167	0
185	50066156	-80.846030	121.000000	10	5	66156	0
186	50066157	-73.876600	140.000000	10	5	66157	0
187	50066158	-64.820170	121.000000	10	5	66158	0
188	50066159	-57.988740	100.000000	10	5	66159	0
189	50066160	-49.412310	100.000000	10	5	66160	0
190	50066161	-42.957880	90.000000	10	5	66161	0
191	50066162	-34.761450	80.000000	10	5	66162	0
192	50066163	-28.490020	80.000000	10	5	66163	0
193	50066164	-20.831590	70.000000	10	5	66164	0
194	50066165	-15.116160	61.000000	10	5	66165	0
195	50066166	-8.072730	61.000000	10	5	66166	0
196	50066167	-8.908630	55.000000	10	5	66167	0
197	50066168	-4.534820	55.000000	10	5	66168	0
198	50066169	-19.904210	70.000000	10	5	66169	0
199	50067159	-69.091090	121.000000	10	5	67159	0
200	50067160	-61.966660	121.000000	10	5	67160	0
201	50067161	-53.081230	100.000000	10	5	67161	0
202	50067162	-46.165800	90.000000	10	5	67162	0
203	50067163	-37.757370	80.000000	10	5	67163	0
204	50067164	-31.082940	70.000000	10	5	67164	0
205	50067165	-23.094510	61.000000	10	5	67165	0
206	50067166	-16.850080	55.000000	10	5	67166	0
207	50067167	-9.565650	45.000000	10	5	67167	0
208	50067170	-11.974180	55.000000	10	5	67170	0
209	50068160	-82.892100	100.000000	10	5	68160	0
210	50068161	-75.680670	121.000000	10	5	68161	0
211	50068162	-66.466240	100.000000	10	5	68162	0
212	50068163	-59.563810	90.000000	10	5	68163	0

213	50068164	-50.716380	80.000000	10	5	68164	0
214	50068165	-44.066950	70.000000	10	5	68165	0
215	50068166	-35.592520	61.000000	10	5	68166	0
216	50068167	-29.156090	55.000000	10	5	68167	0
217	50068168	-21.384660	50.000000	10	5	68168	0
218	50068172	-4.086890	37.000000	10	5	68172	0
219	50068173	-19.432280	55.000000	10	5	68173	0
220	50069161	-88.109020	140.000000	10	5	69161	0
221	50069162	-80.570580	121.000000	10	5	69162	0
222	50069163	-71.267160	100.000000	10	5	69163	0
223	50069164	-63.943730	100.000000	10	5	69164	0
224	50069165	-54.923300	80.000000	10	5	69165	0
225	50069166	-47.895870	70.000000	10	5	69166	0
226	50069167	-39.168440	61.000000	10	5	69167	0
227	50069168	-32.328010	55.000000	10	5	69168	0
228	50069169	-24.294580	45.000000	10	5	69169	0
229	50069170	-17.701150	39.000000	10	5	69170	0
230	50069174	-11.924250	30.700000	10	5	69174	0
231	50069175	-13.124990	39.000000	10	5	69175	0
232	50070163	-95.233600	121.000000	10	5	70163	0
233	50070164	-85.536170	100.000000	10	5	70164	0
234	50070165	-78.281740	100.000000	10	5	70165	0
235	50070166	-68.796310	90.000000	10	5	70166	0
236	50070167	-61.718880	80.000000	10	5	70167	0
237	50070168	-52.667450	70.000000	10	5	70168	0
238	50070169	-45.800020	61.000000	10	5	70169	0
239	50070170	-37.329590	50.000000	10	5	70170	0
240	50070171	-30.715160	44.000000	10	5	70171	0
241	50070172	-22.694730	34.400000	10	5	70172	0
242	50070173	-16.327300	28.400000	10	5	70173	0
243	50070174	-8.862870	20.000000	10	5	70174	0
244	50070177	-19.668350	36.000000	10	5	70177	0
245	50071165	-91.466090	140.000000	10	5	71165	0
246	50071166	-83.540660	121.000000	10	5	71166	0
247	50071167	-74.113220	100.000000	10	5	71167	0
248	50071168	-66.406800	90.000000	10	5	71168	0
249	50071169	-57.357370	80.000000	10	5	71169	0
250	50071170	-50.052940	70.000000	10	5	71170	0
251	50071171	-41.457510	55.000000	10	5	71171	0
252	50071172	-34.478080	50.000000	10	5	71172	0
253	50071173	-26.262650	39.000000	10	5	71173	0
254	50071177	-11.217000	11.217000	10	5	71177	0
255	50072167	-98.708670	121.000000	10	5	72167	0
256	50072168	-88.802240	100.000000	10	5	72168	0
257	50072169	-81.223810	100.000000	10	5	72169	0
258	50072170	-71.746380	80.000000	10	5	72170	0
259	50072171	-64.457950	70.000000	10	5	72171	0
260	50072172	-55.424520	61.000000	10	5	72172	0
261	50072173	-48.464090	55.000000	10	5	72173	0
262	50072174	-39.824660	45.000000	10	5	72174	0
263	50072175	-10.993000	39.000000	10	5	72175	0
264	50072176	-10.728000	30.200000	10	5	72176	0
265	10022	-5.546000	34.000000	10	22	71176	0
266	10023	-3.702220	42.000000	10	23	67168	0

267	10024	-11.834000	16.200000	10	24	71175	0
268	10025	-11.600000	24.000000	10	25	71174	0
269	10029	-3.978290	21.000000	10	29	69172	0
270	10030	-10.214720	29.300000	10	30	69171	0
271	10035	-8.122800	40.000000	10	35	68170	0
272	10036	-15.381230	45.000000	10	36	68169	0
273	10037	-29.001000	29.100000	10	37	73177	0
274	10045	1.806000	20.000000	10	45	70175	0
275	10103	-5.940030	7.000000	10	103	72180	0
276	11103	-7.081530	9.000000	10	103	72180	1
277	10107	-11.217000	11.217000	10	107	71177	0
278	11107	-12.187180	12.187180	10	107	71177	1
279	10108	2.971140	13.000000	10	108	69173	0
280	10109	3.091210	38.000000	10	109	67169	0
281	10112	-4.658000	41.000000	10	112	70176	0
282	10114	-8.697700	40.000000	10	114	68171	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	53	5.000000
2	0	2	139	5.000000
3	1001	9	50	5.000000
4	1002	31	5	5.000000
5	1003	32	4	5.000000
6	2003	33	3	5.000000
7	2004	34	44	5.000000

74-W -180 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 74180.38u MAT=7425 ZA= 74180  
 AWR= 178.400000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 6 NTRAN= 1 NPROD= 5 NE= 101 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.999000	3	5		
2	201	-8.412400	8.412420	3	201		
3	203	-6.570900	9.650000	3	203		
4	204	-12.253000	17.750000	3	204		
5	205	-12.871000	20.000000	3	205		
6	206	-11.687000	25.850000	3	206		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.300000
2	0	2	1	180.000000
3	1001	9	1	9.200000
4	1002	31	1	17.300000
5	1003	32	1	19.550000
6	2003	33	1	24.500000
7	2004	34	1	5.150000

74-W -182 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 74182.38u MAT=7431 ZA= 74182  
AWR= 180.390000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR=	6	NTRAN=	1	NPROD=	5	NE=	101	EMAX=	200.000 MeV
i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS		
1	5	0.000000	1.999000	3	5				
2	201	-8.065000	8.064980	3	201				
3	203	-7.095300	10.550000	3	203				
4	204	-12.447000	17.750000	3	204				
5	205	-12.835000	19.550000	3	205				
6	206	-12.706000	27.200000	3	206				

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.850000
2	0	2	1	180.000000
3	1001	9	1	10.100000
4	1002	31	1	17.300000
5	1003	32	1	19.100000
6	2003	33	1	31.250000
7	2004	34	1	6.050000

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74-W -183 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 74183.38u MAT=7434 ZA= 74183  
AWR= 181.380000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR=	6	NTRAN=	1	NPROD=	5	NE=	101	EMAX=	200.000 MeV
i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS		
1	5	0.000000	1.999000	3	5				
2	201	-6.190800	6.190840	3	201				
3	203	-7.222000	11.000000	3	203				
4	204	-11.062000	17.300000	3	204				
5	205	-12.380000	18.650000	3	205				
6	206	-11.510000	26.750000	3	206				

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	6.050000
2	0	2	1	180.000000
3	1001	9	1	10.550000
4	1002	31	1	16.850000
5	1003	32	1	18.200000
6	2003	33	1	30.800000
7	2004	34	1	6.500000

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74-W -184 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 74184.38u MAT=7437 ZA= 74184  
AWR= 182.370000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 6 NTRAN= 1 NPROD= 5 NE= 101 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.999000	3	5		
2	201	-7.411100	7.411080	3	201		
3	203	-7.698900	11.900000	3	203		
4	204	-12.408000	17.750000	3	204		
5	205	-12.215000	19.100000	3	205		
6	206	-13.224000	27.650000	3	206		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.400000
2	0	2	1	180.000000
3	1001	9	1	11.450000
4	1002	31	1	17.300000
5	1003	32	1	18.650000
6	2003	33	1	32.150000
7	2004	34	1	6.050000

74-W -186 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 74186.38u MAT=7443 ZA= 74186  
AWR= 184.360000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 6 NTRAN= 1 NPROD= 5 NE= 101 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.999000	3	5		
2	201	-7.193100	7.193110	3	201		
3	203	-8.401200	13.250000	3	203		
4	204	-12.806000	18.200000	3	204		
5	205	-12.166000	19.100000	3	205		
6	206	-14.156000	29.000000	3	206		

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	6.950000
2	0	2	1	180.000000
3	1001	9	1	12.800000
4	1002	31	1	17.750000
5	1003	32	1	18.650000
6	2003	33	1	33.050000
7	2004	34	1	6.950000

75-Re-185 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 75185.38u MAT=7525 ZA= 75185  
AWR= 183.364100 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	18	124.560000	23.000000	3	18		

p	ZAP	IP	NR	TP [MeV]
1	1	1	2	7.500000
2	0	2	1	1.000000
3	1001	9	1	5.402625
4	1002	31	1	11.000000
5	1003	32	1	11.500000
6	2003	33	1	14.500000
7	2004	34	1	1.000000

75-Re-187 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 75187.38u MAT=7531 ZA= 75187  
 AWR= 185.349700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 89 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 18 127.324000 23.000000 3 18

p	ZAP	IP	NR	TP [MeV]
1	1	1	2	7.000000
2	0	2	1	1.000000
3	1001	9	1	5.996921
4	1002	31	1	11.500000
5	1003	32	1	11.000000
6	2003	33	1	16.000000
7	2004	34	1	1.000000

76-Os-186 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 76186.38u MAT=7631 ZA= 76186  
 AWR= 184.356400 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 124 NTRAN= 1 NPROD= 123 NE= 89 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 50000001 0.000000 8.000000 6 5 1 0  
 3 50001001 0.000000 8.500000 6 5 1001 0  
 4 50001002 0.000000 14.000000 6 5 1002 0  
 5 50001003 0.000000 15.000000 6 5 1003 0  
 6 50002003 0.000000 18.500000 6 5 2003 0  
 7 50002004 0.000000 3.500000 6 5 2004 0  
 8 50069159 0.000000 110.000000 6 5 69159 0  
 9 50069160 0.000000 110.000000 6 5 69160 0  
 10 52069160 0.000000 110.000000 6 5 69160 2  
 11 50070160 0.000000 100.000000 6 5 70160 0  
 12 50070161 0.000000 100.000000 6 5 70161 0  
 13 50070162 0.000000 100.000000 6 5 70162 0  
 14 50070163 0.000000 100.000000 6 5 70163 0

15	50071161	0.000000	120.000000	6	5	71161	0
16	50071162	0.000000	110.000000	6	5	71162	0
17	55071162	0.000000	110.000000	6	5	71162	5
18	57071162	0.000000	110.000000	6	5	71162	7
19	50071163	0.000000	100.000000	6	5	71163	0
20	50071164	0.000000	100.000000	6	5	71164	0
21	50071165	0.000000	100.000000	6	5	71165	0
22	50071166	0.000000	100.000000	6	5	71166	0
23	51071166	0.000000	100.000000	6	5	71166	1
24	52071166	0.000000	100.000000	6	5	71166	2
25	50072162	0.000000	120.000000	6	5	72162	0
26	50072163	0.000000	120.000000	6	5	72163	0
27	50072164	0.000000	110.000000	6	5	72164	0
28	50072165	0.000000	100.000000	6	5	72165	0
29	50072166	0.000000	95.000000	6	5	72166	0
30	50072167	0.000000	85.000000	6	5	72167	0
31	50072168	0.000000	85.000000	6	5	72168	0
32	50072169	0.000000	85.000000	6	5	72169	0
33	50072170	0.000000	80.000000	6	5	72170	0
34	50073163	0.000000	140.000000	6	5	73163	0
35	50073164	0.000000	130.000000	6	5	73164	0
36	50073165	0.000000	120.000000	6	5	73165	0
37	50073166	0.000000	110.000000	6	5	73166	0
38	50073167	0.000000	100.000000	6	5	73167	0
39	50073168	0.000000	100.000000	6	5	73168	0
40	50073169	0.000000	90.000000	6	5	73169	0
41	50073170	0.000000	80.000000	6	5	73170	0
42	50073171	0.000000	76.000000	6	5	73171	0
43	50073172	0.000000	72.000000	6	5	73172	0
44	50073173	0.000000	72.000000	6	5	73173	0
45	50073174	0.000000	68.000000	6	5	73174	0
46	50073175	0.000000	64.000000	6	5	73175	0
47	50073176	0.000000	60.000000	6	5	73176	0
48	50073177	0.000000	56.000000	6	5	73177	0
49	50073178	0.000000	50.000000	6	5	73178	0
50	51073178	0.000000	50.000000	6	5	73178	1
51	50073179	0.000000	50.000000	6	5	73179	0
52	50073180	0.000000	50.000000	6	5	73180	0
53	52073180	0.000000	50.000000	6	5	73180	2
54	50074164	0.000000	150.000000	6	5	74164	0
55	50074165	0.000000	140.000000	6	5	74165	0
56	50074166	0.000000	130.000000	6	5	74166	0
57	50074167	0.000000	120.000000	6	5	74167	0
58	50074168	0.000000	110.000000	6	5	74168	0
59	50074169	0.000000	100.000000	6	5	74169	0
60	50074170	0.000000	95.000000	6	5	74170	0
61	50074171	0.000000	85.000000	6	5	74171	0
62	50074172	0.000000	76.000000	6	5	74172	0
63	50074173	0.000000	68.000000	6	5	74173	0
64	50074174	0.000000	58.000000	6	5	74174	0
65	50074175	0.000000	52.000000	6	5	74175	0
66	50074176	0.000000	48.000000	6	5	74176	0
67	50074177	0.000000	44.000000	6	5	74177	0
68	50074178	0.000000	38.000000	6	5	74178	0



69	50074179	0.000000	32.000000	6	5	74179	0
70	52074179	0.000000	32.000000	6	5	74179	2
71	50074180	0.000000	25.000000	6	5	74180	0
72	50074181	0.000000	16.500000	6	5	74181	0
73	50074182	0.000000	1.000000	6	5	74182	0
74	50074183	0.000000	42.000000	6	5	74183	0
75	57074183	0.000000	42.000000	6	5	74183	7
76	50074184	0.000000	40.000000	6	5	74184	0
77	50075165	0.000000	180.000000	6	5	75165	0
78	51075165	0.000000	180.000000	6	5	75165	1
79	50075166	0.000000	160.000000	6	5	75166	0
80	50075167	0.000000	150.000000	6	5	75167	0
81	52075167	0.000000	150.000000	6	5	75167	2
82	50075168	0.000000	140.000000	6	5	75168	0
83	50075169	0.000000	130.000000	6	5	75169	0
84	52075169	0.000000	130.000000	6	5	75169	2
85	50075170	0.000000	120.000000	6	5	75170	0
86	50075171	0.000000	110.000000	6	5	75171	0
87	50075172	0.000000	100.000000	6	5	75172	0
88	51075172	0.000000	100.000000	6	5	75172	1
89	50075173	0.000000	95.000000	6	5	75173	0
90	50075174	0.000000	85.000000	6	5	75174	0
91	50075175	0.000000	78.000000	6	5	75175	0
92	50075176	0.000000	70.000000	6	5	75176	0
93	50075177	0.000000	62.000000	6	5	75177	0
94	50075178	0.000000	58.000000	6	5	75178	0
95	50075179	0.000000	50.000000	6	5	75179	0
96	50075180	0.000000	44.000000	6	5	75180	0
97	50075181	0.000000	36.000000	6	5	75181	0
98	50075182	0.000000	32.000000	6	5	75182	0
99	52075182	0.000000	32.000000	6	5	75182	2
100	50075183	0.000000	25.000000	6	5	75183	0
101	50075184	0.000000	19.000000	6	5	75184	0
102	55075184	0.000000	19.000000	6	5	75184	5
103	50075185	0.000000	12.500000	6	5	75185	0
104	50076168	0.000000	160.000000	6	5	76168	0
105	50076169	0.000000	150.000000	6	5	76169	0
106	50076170	0.000000	140.000000	6	5	76170	0
107	50076171	0.000000	130.000000	6	5	76171	0
108	50076172	0.000000	110.000000	6	5	76172	0
109	50076173	0.000000	110.000000	6	5	76173	0
110	50076174	0.000000	100.000000	6	5	76174	0
111	50076175	0.000000	90.000000	6	5	76175	0
112	50076176	0.000000	80.000000	6	5	76176	0
113	50076177	0.000000	74.000000	6	5	76177	0
114	50076178	0.000000	64.000000	6	5	76178	0
115	50076179	0.000000	56.000000	6	5	76179	0
116	50076180	0.000000	46.000000	6	5	76180	0
117	50076181	0.000000	38.000000	6	5	76181	0
118	51076181	0.000000	38.000000	6	5	76181	1
119	50076182	0.000000	30.000000	6	5	76182	0
120	50076183	0.000000	23.000000	6	5	76183	0
121	52076183	0.000000	23.000000	6	5	76183	2
122	50076184	0.000000	14.500000	6	5	76184	0

123	50076185	0.000000	8.000000	6	5	76185	0
124	50076186	0.000000	1.000000	6	5	76186	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	8.000000
2	0	2	1	1.000000
3	1001	9	1	8.500000
4	1002	31	1	14.000000
5	1003	32	1	15.000000
6	2003	33	1	18.500000
7	2004	34	1	3.500000

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76-Os-188 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 76188.38u MAT=7637 ZA= 76188  
 AWR= 186.341200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 126 NTRAN= 1 NPROD= 125 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.500000	6	5	1	0
3	50001001	0.000000	9.000000	6	5	1001	0
4	50001002	0.000000	14.500000	6	5	1002	0
5	50001003	0.000000	15.500000	6	5	1003	0
6	50002003	0.000000	19.500000	6	5	2003	0
7	50002004	0.000000	4.000000	6	5	2004	0
8	50069161	0.000000	120.000000	6	5	69161	0
9	50070162	0.000000	120.000000	6	5	70162	0
10	50070163	0.000000	120.000000	6	5	70163	0
11	50070164	0.000000	120.000000	6	5	70164	0
12	50071163	0.000000	120.000000	6	5	71163	0
13	50071164	0.000000	110.000000	6	5	71164	0
14	50071165	0.000000	110.000000	6	5	71165	0
15	50071166	0.000000	110.000000	6	5	71166	0
16	51071166	0.000000	110.000000	6	5	71166	1
17	52071166	0.000000	110.000000	6	5	71166	2
18	50071167	0.000000	110.000000	6	5	71167	0
19	51071167	0.000000	110.000000	6	5	71167	1
20	50072164	0.000000	120.000000	6	5	72164	0
21	50072165	0.000000	110.000000	6	5	72165	0
22	50072166	0.000000	110.000000	6	5	72166	0
23	50072167	0.000000	110.000000	6	5	72167	0
24	50072168	0.000000	110.000000	6	5	72168	0
25	50072169	0.000000	110.000000	6	5	72169	0
26	50072170	0.000000	110.000000	6	5	72170	0
27	50072171	0.000000	110.000000	6	5	72171	0
28	51072171	0.000000	110.000000	6	5	72171	1
29	50072177	0.000000	150.000000	6	5	72177	0
30	60072177	0.000000	150.000000	6	5	72177	10
31	50073165	0.000000	140.000000	6	5	73165	0
32	50073166	0.000000	130.000000	6	5	73166	0
33	50073167	0.000000	120.000000	6	5	73167	0

34	50073168	0.000000	110.000000	6	5	73168	0
35	50073169	0.000000	100.000000	6	5	73169	0
36	50073170	0.000000	100.000000	6	5	73170	0
37	50073171	0.000000	95.000000	6	5	73171	0
38	50073172	0.000000	90.000000	6	5	73172	0
39	50073173	0.000000	85.000000	6	5	73173	0
40	50073174	0.000000	80.000000	6	5	73174	0
41	50073175	0.000000	78.000000	6	5	73175	0
42	50073176	0.000000	76.000000	6	5	73176	0
43	50073177	0.000000	76.000000	6	5	73177	0
44	50073178	0.000000	76.000000	6	5	73178	0
45	51073178	0.000000	76.000000	6	5	73178	1
46	50073179	0.000000	76.000000	6	5	73179	0
47	50073180	0.000000	76.000000	6	5	73180	0
48	52073180	0.000000	76.000000	6	5	73180	2
49	50073181	0.000000	76.000000	6	5	73181	0
50	50073182	0.000000	76.000000	6	5	73182	0
51	79073182	0.000000	76.000000	6	5	73182	29
52	50073183	0.000000	95.000000	6	5	73183	0
53	50073184	0.000000	95.000000	6	5	73184	0
54	50074166	0.000000	140.000000	6	5	74166	0
55	50074167	0.000000	140.000000	6	5	74167	0
56	50074168	0.000000	120.000000	6	5	74168	0
57	50074169	0.000000	120.000000	6	5	74169	0
58	50074170	0.000000	110.000000	6	5	74170	0
59	50074171	0.000000	100.000000	6	5	74171	0
60	50074172	0.000000	90.000000	6	5	74172	0
61	50074173	0.000000	85.000000	6	5	74173	0
62	50074174	0.000000	76.000000	6	5	74174	0
63	50074175	0.000000	68.000000	6	5	74175	0
64	50074176	0.000000	62.000000	6	5	74176	0
65	50074177	0.000000	58.000000	6	5	74177	0
66	50074178	0.000000	54.000000	6	5	74178	0
67	50074179	0.000000	48.000000	6	5	74179	0
68	52074179	0.000000	48.000000	6	5	74179	2
69	50074180	0.000000	42.000000	6	5	74180	0
70	50074181	0.000000	36.000000	6	5	74181	0
71	50074182	0.000000	30.000000	6	5	74182	0
72	50074183	0.000000	24.000000	6	5	74183	0
73	57074183	0.000000	24.000000	6	5	74183	7
74	50074184	0.000000	1.000000	6	5	74184	0
75	50074185	0.000000	44.000000	6	5	74185	0
76	56074185	0.000000	44.000000	6	5	74185	6
77	50074186	0.000000	42.000000	6	5	74186	0
78	50075167	0.000000	170.000000	6	5	75167	0
79	52075167	0.000000	170.000000	6	5	75167	2
80	50075168	0.000000	150.000000	6	5	75168	0
81	50075169	0.000000	140.000000	6	5	75169	0
82	52075169	0.000000	140.000000	6	5	75169	2
83	50075170	0.000000	130.000000	6	5	75170	0
84	50075171	0.000000	120.000000	6	5	75171	0
85	50075172	0.000000	120.000000	6	5	75172	0
86	51075172	0.000000	120.000000	6	5	75172	1
87	50075173	0.000000	110.000000	6	5	75173	0

88	50075174	0.000000	100.000000	6	5	75174	0
89	50075175	0.000000	90.000000	6	5	75175	0
90	50075176	0.000000	85.000000	6	5	75176	0
91	50075177	0.000000	78.000000	6	5	75177	0
92	50075178	0.000000	72.000000	6	5	75178	0
93	50075179	0.000000	66.000000	6	5	75179	0
94	50075180	0.000000	60.000000	6	5	75180	0
95	50075181	0.000000	52.000000	6	5	75181	0
96	50075182	0.000000	46.000000	6	5	75182	0
97	52075182	0.000000	46.000000	6	5	75182	2
98	50075183	0.000000	40.000000	6	5	75183	0
99	50075184	0.000000	34.000000	6	5	75184	0
100	55075184	0.000000	34.000000	6	5	75184	5
101	50075185	0.000000	28.000000	6	5	75185	0
102	50075186	0.000000	20.000000	6	5	75186	0
103	54075186	0.000000	20.000000	6	5	75186	4
104	50075187	0.000000	13.500000	6	5	75187	0
105	50076169	0.000000	170.000000	6	5	76169	0
106	50076170	0.000000	150.000000	6	5	76170	0
107	50076171	0.000000	140.000000	6	5	76171	0
108	50076172	0.000000	130.000000	6	5	76172	0
109	50076173	0.000000	120.000000	6	5	76173	0
110	50076174	0.000000	110.000000	6	5	76174	0
111	50076175	0.000000	100.000000	6	5	76175	0
112	50076176	0.000000	95.000000	6	5	76176	0
113	50076177	0.000000	85.000000	6	5	76177	0
114	50076178	0.000000	78.000000	6	5	76178	0
115	50076179	0.000000	70.000000	6	5	76179	0
116	50076180	0.000000	60.000000	6	5	76180	0
117	50076181	0.000000	54.000000	6	5	76181	0
118	51076181	0.000000	54.000000	6	5	76181	1
119	50076182	0.000000	44.000000	6	5	76182	0
120	50076183	0.000000	36.000000	6	5	76183	0
121	52076183	0.000000	38.000000	6	5	76183	2
122	50076184	0.000000	29.000000	6	5	76184	0
123	50076185	0.000000	22.000000	6	5	76185	0
124	50076186	0.000000	14.000000	6	5	76186	0
125	50076187	0.000000	7.500000	6	5	76187	0
126	50076188	0.000000	1.000000	6	5	76188	0

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	7.500000
2	0	2	1	1.000000
3	1001	9	1	9.000000
4	1002	31	1	14.500000
5	1003	32	1	15.500000
6	2003	33	1	19.500000
7	2004	34	1	4.000000

76-Os-189 T= 0.00 K from IAEA/PD-2019  
 ZAID= 76189.38u MAT=7640 ZA= 76189

(ACEMAKER)

AWR= 187.334900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 127 NTRAN= 1 NPROD= 126 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	5.500000	6	5	1	0
3	50001001	0.000000	9.000000	6	5	1001	0
4	50001002	0.000000	13.500000	6	5	1002	0
5	50001003	0.000000	15.000000	6	5	1003	0
6	50002003	0.000000	18.500000	6	5	2003	0
7	50002004	0.000000	6.000000	6	5	2004	0
8	50070163	0.000000	120.000000	6	5	70163	0
9	50070164	0.000000	120.000000	6	5	70164	0
10	50071164	0.000000	110.000000	6	5	71164	0
11	50071165	0.000000	110.000000	6	5	71165	0
12	50071166	0.000000	110.000000	6	5	71166	0
13	51071166	0.000000	110.000000	6	5	71166	1
14	52071166	0.000000	110.000000	6	5	71166	2
15	50071167	0.000000	110.000000	6	5	71167	0
16	51071167	0.000000	110.000000	6	5	71167	1
17	50071168	0.000000	100.000000	6	5	71168	0
18	51071168	0.000000	100.000000	6	5	71168	1
19	50072165	0.000000	120.000000	6	5	72165	0
20	50072166	0.000000	110.000000	6	5	72166	0
21	50072167	0.000000	100.000000	6	5	72167	0
22	50072168	0.000000	95.000000	6	5	72168	0
23	50072169	0.000000	90.000000	6	5	72169	0
24	50072170	0.000000	85.000000	6	5	72170	0
25	50072171	0.000000	85.000000	6	5	72171	0
26	51072171	0.000000	85.000000	6	5	72171	1
27	50072172	0.000000	85.000000	6	5	72172	0
28	50072173	0.000000	85.000000	6	5	72173	0
29	50072174	0.000000	85.000000	6	5	72174	0
30	50073166	0.000000	140.000000	6	5	73166	0
31	50073167	0.000000	120.000000	6	5	73167	0
32	50073168	0.000000	120.000000	6	5	73168	0
33	50073169	0.000000	110.000000	6	5	73169	0
34	50073170	0.000000	100.000000	6	5	73170	0
35	50073171	0.000000	95.000000	6	5	73171	0
36	50073172	0.000000	85.000000	6	5	73172	0
37	50073173	0.000000	80.000000	6	5	73173	0
38	50073174	0.000000	76.000000	6	5	73174	0
39	50073175	0.000000	72.000000	6	5	73175	0
40	50073176	0.000000	72.000000	6	5	73176	0
41	50073177	0.000000	70.000000	6	5	73177	0
42	50073178	0.000000	70.000000	6	5	73178	0
43	51073178	0.000000	70.000000	6	5	73178	1
44	50073179	0.000000	70.000000	6	5	73179	0
45	50073180	0.000000	70.000000	6	5	73180	0
46	52073180	0.000000	70.000000	6	5	73180	2
47	50073181	0.000000	70.000000	6	5	73181	0
48	50073182	0.000000	70.000000	6	5	73182	0
49	79073182	0.000000	70.000000	6	5	73182	29
50	50073183	0.000000	100.000000	6	5	73183	0

51	50073184	0.000000	100.000000	6	5	73184	0
52	50073185	0.000000	100.000000	6	5	73185	0
53	50074167	0.000000	140.000000	6	5	74167	0
54	50074168	0.000000	130.000000	6	5	74168	0
55	50074169	0.000000	120.000000	6	5	74169	0
56	50074170	0.000000	110.000000	6	5	74170	0
57	50074171	0.000000	100.000000	6	5	74171	0
58	50074172	0.000000	95.000000	6	5	74172	0
59	50074173	0.000000	85.000000	6	5	74173	0
60	50074174	0.000000	80.000000	6	5	74174	0
61	50074175	0.000000	72.000000	6	5	74175	0
62	50074176	0.000000	62.000000	6	5	74176	0
63	50074177	0.000000	56.000000	6	5	74177	0
64	50074178	0.000000	52.000000	6	5	74178	0
65	50074179	0.000000	50.000000	6	5	74179	0
66	52074179	0.000000	50.000000	6	5	74179	2
67	50074180	0.000000	44.000000	6	5	74180	0
68	50074181	0.000000	40.000000	6	5	74181	0
69	50074182	0.000000	32.000000	6	5	74182	0
70	50074183	0.000000	27.000000	6	5	74183	0
71	57074183	0.000000	27.000000	6	5	74183	7
72	50074184	0.000000	21.000000	6	5	74184	0
73	50074185	0.000000	7.500000	6	5	74185	0
74	56074185	0.000000	7.500000	6	5	74185	6
75	50074186	0.000000	44.000000	6	5	74186	0
76	50074187	0.000000	42.000000	6	5	74187	0
77	50075168	0.000000	160.000000	6	5	75168	0
78	50075169	0.000000	150.000000	6	5	75169	0
79	52075169	0.000000	150.000000	6	5	75169	2
80	50075170	0.000000	140.000000	6	5	75170	0
81	50075171	0.000000	130.000000	6	5	75171	0
82	50075172	0.000000	120.000000	6	5	75172	0
83	51075172	0.000000	120.000000	6	5	75172	1
84	50075173	0.000000	110.000000	6	5	75173	0
85	50075174	0.000000	100.000000	6	5	75174	0
86	50075175	0.000000	95.000000	6	5	75175	0
87	50075176	0.000000	90.000000	6	5	75176	0
88	50075177	0.000000	80.000000	6	5	75177	0
89	50075178	0.000000	72.000000	6	5	75178	0
90	50075179	0.000000	66.000000	6	5	75179	0
91	50075180	0.000000	62.000000	6	5	75180	0
92	50075181	0.000000	58.000000	6	5	75181	0
93	50075182	0.000000	52.000000	6	5	75182	0
94	52075182	0.000000	52.000000	6	5	75182	2
95	50075183	0.000000	44.000000	6	5	75183	0
96	50075184	0.000000	38.000000	6	5	75184	0
97	55075184	0.000000	38.000000	6	5	75184	5
98	50075185	0.000000	32.000000	6	5	75185	0
99	50075186	0.000000	28.000000	6	5	75186	0
100	54075186	0.000000	28.000000	6	5	75186	4
101	50075187	0.000000	19.000000	6	5	75187	0
102	50075188	0.000000	13.500000	6	5	75188	0
103	57075188	0.000000	13.500000	6	5	75188	7
104	50076169	0.000000	170.000000	6	5	76169	0

105	50076170	0.000000	160.000000	6	5	76170	0
106	50076171	0.000000	150.000000	6	5	76171	0
107	50076172	0.000000	140.000000	6	5	76172	0
108	50076173	0.000000	130.000000	6	5	76173	0
109	50076174	0.000000	120.000000	6	5	76174	0
110	50076175	0.000000	110.000000	6	5	76175	0
111	50076176	0.000000	100.000000	6	5	76176	0
112	50076177	0.000000	90.000000	6	5	76177	0
113	50076178	0.000000	80.000000	6	5	76178	0
114	50076179	0.000000	76.000000	6	5	76179	0
115	50076180	0.000000	66.000000	6	5	76180	0
116	50076181	0.000000	60.000000	6	5	76181	0
117	51076181	0.000000	60.000000	6	5	76181	1
118	50076182	0.000000	50.000000	6	5	76182	0
119	50076183	0.000000	42.000000	6	5	76183	0
120	52076183	0.000000	42.000000	6	5	76183	2
121	50076184	0.000000	34.000000	6	5	76184	0
122	50076185	0.000000	28.000000	6	5	76185	0
123	50076186	0.000000	20.000000	6	5	76186	0
124	50076187	0.000000	13.500000	6	5	76187	0
125	50076188	0.000000	5.500000	6	5	76188	0
126	50076189	0.000000	1.000000	6	5	76189	0
127	51076189	0.000000	1.000000	6	5	76189	1

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	5.500000
2	0	2	1	1.000000
3	1001	9	1	9.000000
4	1002	31	1	13.500000
5	1003	32	1	15.000000
6	2003	33	1	18.500000
7	2004	34	1	6.000000

76-Os-190 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 76190.38u MAT=7643 ZA= 76190  
 AWR= 188.326600 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 126 NTRAN= 1 NPROD= 125 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.500000	6	5	1	0
3	50001001	0.000000	10.000000	6	5	1001	0
4	50001002	0.000000	15.000000	6	5	1002	0
5	50001003	0.000000	15.500000	6	5	1003	0
6	50002003	0.000000	20.000000	6	5	2003	0
7	50002004	0.000000	4.500000	6	5	2004	0
8	50070164	0.000000	130.000000	6	5	70164	0
9	50070165	0.000000	130.000000	6	5	70165	0
10	50071165	0.000000	120.000000	6	5	71165	0
11	50071166	0.000000	110.000000	6	5	71166	0
12	51071166	0.000000	110.000000	6	5	71166	1

13	52071166	0.000000	110.000000	6	5	71166	2
14	50071167	0.000000	110.000000	6	5	71167	0
15	51071167	0.000000	110.000000	6	5	71167	1
16	50071168	0.000000	110.000000	6	5	71168	0
17	51071168	0.000000	110.000000	6	5	71168	1
18	50071169	0.000000	110.000000	6	5	71169	0
19	51071169	0.000000	110.000000	6	5	71169	1
20	50072166	0.000000	120.000000	6	5	72166	0
21	50072167	0.000000	110.000000	6	5	72167	0
22	50072168	0.000000	110.000000	6	5	72168	0
23	50072169	0.000000	110.000000	6	5	72169	0
24	50072170	0.000000	110.000000	6	5	72170	0
25	50072171	0.000000	110.000000	6	5	72171	0
26	51072171	0.000000	110.000000	6	5	72171	1
27	50072172	0.000000	110.000000	6	5	72172	0
28	50072173	0.000000	130.000000	6	5	72173	0
29	50073167	0.000000	130.000000	6	5	73167	0
30	50073168	0.000000	120.000000	6	5	73168	0
31	50073169	0.000000	110.000000	6	5	73169	0
32	50073170	0.000000	110.000000	6	5	73170	0
33	50073171	0.000000	100.000000	6	5	73171	0
34	50073172	0.000000	95.000000	6	5	73172	0
35	50073173	0.000000	90.000000	6	5	73173	0
36	50073174	0.000000	85.000000	6	5	73174	0
37	50073175	0.000000	80.000000	6	5	73175	0
38	50073176	0.000000	80.000000	6	5	73176	0
39	50073177	0.000000	76.000000	6	5	73177	0
40	50073178	0.000000	74.000000	6	5	73178	0
41	51073178	0.000000	74.000000	6	5	73178	1
42	50073179	0.000000	72.000000	6	5	73179	0
43	50073180	0.000000	70.000000	6	5	73180	0
44	52073180	0.000000	70.000000	6	5	73180	2
45	50073181	0.000000	68.000000	6	5	73181	0
46	50073182	0.000000	68.000000	6	5	73182	0
47	79073182	0.000000	68.000000	6	5	73182	29
48	50073183	0.000000	68.000000	6	5	73183	0
49	50073184	0.000000	100.000000	6	5	73184	0
50	50073185	0.000000	100.000000	6	5	73185	0
51	50073186	0.000000	100.000000	6	5	73186	0
52	50074168	0.000000	140.000000	6	5	74168	0
53	50074169	0.000000	130.000000	6	5	74169	0
54	50074170	0.000000	120.000000	6	5	74170	0
55	50074171	0.000000	110.000000	6	5	74171	0
56	50074172	0.000000	100.000000	6	5	74172	0
57	50074173	0.000000	95.000000	6	5	74173	0
58	50074174	0.000000	85.000000	6	5	74174	0
59	50074175	0.000000	80.000000	6	5	74175	0
60	50074176	0.000000	70.000000	6	5	74176	0
61	50074177	0.000000	64.000000	6	5	74177	0
62	50074178	0.000000	58.000000	6	5	74178	0
63	50074179	0.000000	56.000000	6	5	74179	0
64	52074179	0.000000	56.000000	6	5	74179	2
65	50074180	0.000000	52.000000	6	5	74180	0
66	50074181	0.000000	46.000000	6	5	74181	0



67	50074182	0.000000	40.000000	6	5	74182	0
68	50074183	0.000000	36.000000	6	5	74183	0
69	57074183	0.000000	36.000000	6	5	74183	7
70	50074184	0.000000	30.000000	6	5	74184	0
71	50074185	0.000000	29.000000	6	5	74185	0
72	56074185	0.000000	29.000000	6	5	74185	6
73	50074186	0.000000	1.000000	6	5	74186	0
74	50074187	0.000000	46.000000	6	5	74187	0
75	50074188	0.000000	44.000000	6	5	74188	0
76	50075169	0.000000	160.000000	6	5	75169	0
77	52075169	0.000000	160.000000	6	5	75169	2
78	50075170	0.000000	150.000000	6	5	75170	0
79	50075171	0.000000	140.000000	6	5	75171	0
80	50075172	0.000000	130.000000	6	5	75172	0
81	51075172	0.000000	130.000000	6	5	75172	1
82	50075173	0.000000	120.000000	6	5	75173	0
83	50075174	0.000000	110.000000	6	5	75174	0
84	50075175	0.000000	100.000000	6	5	75175	0
85	50075176	0.000000	95.000000	6	5	75176	0
86	50075177	0.000000	85.000000	6	5	75177	0
87	50075178	0.000000	80.000000	6	5	75178	0
88	50075179	0.000000	74.000000	6	5	75179	0
89	50075180	0.000000	68.000000	6	5	75180	0
90	50075181	0.000000	62.000000	6	5	75181	0
91	50075182	0.000000	56.000000	6	5	75182	0
92	52075182	0.000000	56.000000	6	5	75182	2
93	50075183	0.000000	50.000000	6	5	75183	0
94	50075184	0.000000	46.000000	6	5	75184	0
95	55075184	0.000000	46.000000	6	5	75184	5
96	50075185	0.000000	38.000000	6	5	75185	0
97	50075186	0.000000	34.000000	6	5	75186	0
98	54075186	0.000000	34.000000	6	5	75186	4
99	50075187	0.000000	28.000000	6	5	75187	0
100	50075188	0.000000	21.000000	6	5	75188	0
101	57075188	0.000000	21.000000	6	5	75188	7
102	50075189	0.000000	14.500000	6	5	75189	0
103	50076170	0.000000	170.000000	6	5	76170	0
104	50076171	0.000000	160.000000	6	5	76171	0
105	50076172	0.000000	140.000000	6	5	76172	0
106	50076173	0.000000	140.000000	6	5	76173	0
107	50076174	0.000000	120.000000	6	5	76174	0
108	50076175	0.000000	120.000000	6	5	76175	0
109	50076176	0.000000	100.000000	6	5	76176	0
110	50076177	0.000000	100.000000	6	5	76177	0
111	50076178	0.000000	90.000000	6	5	76178	0
112	50076179	0.000000	80.000000	6	5	76179	0
113	50076180	0.000000	74.000000	6	5	76180	0
114	50076181	0.000000	66.000000	6	5	76181	0
115	51076181	0.000000	66.000000	6	5	76181	1
116	50076182	0.000000	58.000000	6	5	76182	0
117	50076183	0.000000	50.000000	6	5	76183	0
118	52076183	0.000000	50.000000	6	5	76183	2
119	50076184	0.000000	42.000000	6	5	76184	0
120	50076185	0.000000	36.000000	6	5	76185	0

121	50076186	0.000000	28.000000	6	5	76186	0
122	50076187	0.000000	21.000000	6	5	76187	0
123	50076188	0.000000	13.500000	6	5	76188	0
124	50076189	0.000000	7.500000	6	5	76189	0
125	51076189	0.000000	7.500000	6	5	76189	1
126	50076190	0.000000	1.000000	6	5	76190	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.500000
2	0	2	1	1.000000
3	1001	9	1	10.000000
4	1002	31	1	15.000000
5	1003	32	1	15.500000
6	2003	33	1	20.000000
7	2004	34	1	4.500000

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76-Os-192 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 76192.38u MAT=7649 ZA= 76192  
 AWR= 190.312500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 125 NTRAN= 1 NPROD= 124 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.500000	6	5	1	0
3	50001001	0.000000	10.500000	6	5	1001	0
4	50001002	0.000000	15.500000	6	5	1002	0
5	50001003	0.000000	15.500000	6	5	1003	0
6	50002003	0.000000	22.000000	6	5	2003	0
7	50002004	0.000000	6.500000	6	5	2004	0
8	50069165	0.000000	110.000000	6	5	69165	0
9	50070166	0.000000	110.000000	6	5	70166	0
10	50070167	0.000000	110.000000	6	5	70167	0
11	50070168	0.000000	110.000000	6	5	70168	0
12	50071167	0.000000	110.000000	6	5	71167	0
13	51071167	0.000000	110.000000	6	5	71167	1
14	50071168	0.000000	100.000000	6	5	71168	0
15	51071168	0.000000	100.000000	6	5	71168	1
16	50071169	0.000000	100.000000	6	5	71169	0
17	51071169	0.000000	100.000000	6	5	71169	1
18	50071170	0.000000	100.000000	6	5	71170	0
19	50072168	0.000000	110.000000	6	5	72168	0
20	50072169	0.000000	100.000000	6	5	72169	0
21	50072170	0.000000	100.000000	6	5	72170	0
22	50072171	0.000000	100.000000	6	5	72171	0
23	51072171	0.000000	100.000000	6	5	72171	1
24	50072172	0.000000	100.000000	6	5	72172	0
25	50072173	0.000000	100.000000	6	5	72173	0
26	50072174	0.000000	100.000000	6	5	72174	0
27	50073169	0.000000	130.000000	6	5	73169	0
28	50073170	0.000000	120.000000	6	5	73170	0
29	50073171	0.000000	110.000000	6	5	73171	0

30	50073172	0.000000	100.000000	6	5	73172	0
31	50073173	0.000000	100.000000	6	5	73173	0
32	50073174	0.000000	95.000000	6	5	73174	0
33	50073175	0.000000	85.000000	6	5	73175	0
34	50073176	0.000000	80.000000	6	5	73176	0
35	50073177	0.000000	80.000000	6	5	73177	0
36	50073178	0.000000	78.000000	6	5	73178	0
37	51073178	0.000000	78.000000	6	5	73178	1
38	50073179	0.000000	78.000000	6	5	73179	0
39	50073180	0.000000	78.000000	6	5	73180	0
40	52073180	0.000000	78.000000	6	5	73180	2
41	50073181	0.000000	78.000000	6	5	73181	0
42	50073182	0.000000	78.000000	6	5	73182	0
43	79073182	0.000000	78.000000	6	5	73182	29
44	50073183	0.000000	78.000000	6	5	73183	0
45	50073184	0.000000	110.000000	6	5	73184	0
46	50073185	0.000000	110.000000	6	5	73185	0
47	50073186	0.000000	110.000000	6	5	73186	0
48	50073187	0.000000	110.000000	6	5	73187	0
49	50074170	0.000000	130.000000	6	5	74170	0
50	50074171	0.000000	120.000000	6	5	74171	0
51	50074172	0.000000	110.000000	6	5	74172	0
52	50074173	0.000000	110.000000	6	5	74173	0
53	50074174	0.000000	100.000000	6	5	74174	0
54	50074175	0.000000	90.000000	6	5	74175	0
55	50074176	0.000000	80.000000	6	5	74176	0
56	50074177	0.000000	76.000000	6	5	74177	0
57	50074178	0.000000	68.000000	6	5	74178	0
58	50074179	0.000000	62.000000	6	5	74179	0
59	52074179	0.000000	62.000000	6	5	74179	2
60	50074180	0.000000	56.000000	6	5	74180	0
61	50074181	0.000000	54.000000	6	5	74181	0
62	50074182	0.000000	50.000000	6	5	74182	0
63	50074183	0.000000	46.000000	6	5	74183	0
64	57074183	0.000000	46.000000	6	5	74183	7
65	50074184	0.000000	40.000000	6	5	74184	0
66	50074185	0.000000	36.000000	6	5	74185	0
67	56074185	0.000000	36.000000	6	5	74185	6
68	50074186	0.000000	32.000000	6	5	74186	0
69	50074187	0.000000	30.000000	6	5	74187	0
70	50074188	0.000000	1.000000	6	5	74188	0
71	50074189	0.000000	48.000000	6	5	74189	0
72	50074190	0.000000	46.000000	6	5	74190	0
73	50075171	0.000000	150.000000	6	5	75171	0
74	50075172	0.000000	140.000000	6	5	75172	0
75	51075172	0.000000	140.000000	6	5	75172	1
76	50075173	0.000000	130.000000	6	5	75173	0
77	50075174	0.000000	120.000000	6	5	75174	0
78	50075175	0.000000	110.000000	6	5	75175	0
79	50075176	0.000000	110.000000	6	5	75176	0
80	50075177	0.000000	100.000000	6	5	75177	0
81	50075178	0.000000	90.000000	6	5	75178	0
82	50075179	0.000000	85.000000	6	5	75179	0
83	50075180	0.000000	78.000000	6	5	75180	0

84	50075181	0.000000	72.000000	6	5	75181	0
85	50075182	0.000000	66.000000	6	5	75182	0
86	52075182	0.000000	66.000000	6	5	75182	2
87	50075183	0.000000	58.000000	6	5	75183	0
88	50075184	0.000000	54.000000	6	5	75184	0
89	55075184	0.000000	54.000000	6	5	75184	5
90	50075185	0.000000	48.000000	6	5	75185	0
91	50075186	0.000000	44.000000	6	5	75186	0
92	54075186	0.000000	44.000000	6	5	75186	4
93	50075187	0.000000	40.000000	6	5	75187	0
94	50075188	0.000000	34.000000	6	5	75188	0
95	57075188	0.000000	34.000000	6	5	75188	7
96	50075189	0.000000	29.000000	6	5	75189	0
97	50075190	0.000000	22.000000	6	5	75190	0
98	53075190	0.000000	22.000000	6	5	75190	3
99	50075191	0.000000	15.500000	6	5	75191	0
100	50076172	0.000000	160.000000	6	5	76172	0
101	50076173	0.000000	150.000000	6	5	76173	0
102	50076174	0.000000	140.000000	6	5	76174	0
103	50076175	0.000000	130.000000	6	5	76175	0
104	50076176	0.000000	120.000000	6	5	76176	0
105	50076177	0.000000	110.000000	6	5	76177	0
106	50076178	0.000000	100.000000	6	5	76178	0
107	50076179	0.000000	95.000000	6	5	76179	0
108	50076180	0.000000	85.000000	6	5	76180	0
109	50076181	0.000000	80.000000	6	5	76181	0
110	51076181	0.000000	80.000000	6	5	76181	1
111	50076182	0.000000	72.000000	6	5	76182	0
112	50076183	0.000000	64.000000	6	5	76183	0
113	52076183	0.000000	64.000000	6	5	76183	2
114	50076184	0.000000	56.000000	6	5	76184	0
115	50076185	0.000000	48.000000	6	5	76185	0
116	50076186	0.000000	40.000000	6	5	76186	0
117	50076187	0.000000	34.000000	6	5	76187	0
118	50076188	0.000000	27.000000	6	5	76188	0
119	50076189	0.000000	21.000000	6	5	76189	0
120	51076189	0.000000	21.000000	6	5	76189	1
121	50076190	0.000000	13.000000	6	5	76190	0
122	50076191	0.000000	7.500000	6	5	76191	0
123	51076191	0.000000	7.500000	6	5	76191	1
124	50076192	0.000000	1.000000	6	5	76192	0
125	80076192	0.000000	7.500000	6	5	76192	30

p	ZAP	IP	NR	Tp [MeV]
1	1	1	1	7.500000
2	0	2	1	1.000000
3	1001	9	1	10.500000
4	1002	31	1	15.500000
5	1003	32	1	15.500000
6	2003	33	1	22.000000
7	2004	34	1	6.500000

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 78-Pt-194 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 78194.38u MAT=7837 ZA= 78194  
 AWR= 192.296500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 91 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 18 136.998000 20.000000 3 18

p ZAP IP NR Tp [MeV]  
 1 1 1 2 8.000000  
 2 0 2 1 1.000000  
 3 1001 9 1 7.512806  
 4 1002 31 1 13.500000  
 5 1003 32 1 14.000000  
 6 2003 33 1 16.000000  
 7 2004 34 1 1.000000  
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 79-Au-197 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 79197.38u MAT=7925 ZA= 79197  
 AWR= 195.274500 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 88 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 18 141.144000 14.500000 3 18

p ZAP IP NR Tp [MeV]  
 1 1 1 2 8.000000  
 2 0 2 1 1.000000  
 3 1001 9 1 6.000000  
 4 1002 31 1 12.000000  
 5 1003 32 1 12.000000  
 6 2003 33 1 16.000000  
 7 2004 34 1 1.500000  
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-----  
 82-Pb-206 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 82206.38u MAT=8231 ZA= 82206  
 AWR= 204.205000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0  
 -----

NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 89 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 18 153.582000 18.500000 3 18

p ZAP IP NR Tp [MeV]  
 1 1 1 2 8.086662  
 -----

2	0	2	1	1.000000
3	1001	9	1	7.500000
4	1002	31	1	13.000000
5	1003	32	1	14.000000
6	2003	33	1	16.000000
7	2004	34	1	1.500000

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82-Pb-207 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 82207.38u MAT=8234 ZA= 82207  
 AWR= 205.197900 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 18 154.964000 18.500000 3 18

p ZAP IP NR Tp [MeV]  
 1 1 1 2 6.737780  
 2 0 2 1 1.000000  
 3 1001 9 1 7.487651  
 4 1002 31 1 12.500000  
 5 1003 32 1 14.000000  
 6 2003 33 1 15.000000  
 7 2004 34 1 2.500000

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82-Pb-208 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 82208.38u MAT=8237 ZA= 82208  
 AWR= 206.190000 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 90 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 18 156.346000 18.500000 3 18

p ZAP IP NR Tp [MeV]  
 1 1 1 2 7.367868  
 2 0 2 1 1.000000  
 3 1001 9 1 8.003118  
 4 1002 31 1 13.000000  
 5 1003 32 1 13.500000  
 6 2003 33 1 17.000000  
 7 2004 34 1 1.000000

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83-Bi-209 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 83209.38u MAT=8325 ZA= 83209

AWR= 207.185200 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

-----  
NTOTR= 155 NTRAN= 1 NPROD= 154 NE= 89 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	50000001	0.000000	7.000000	6	5	1	0
3	50001001	0.000000	7.000000	6	5	1001	0
4	50001002	0.000000	13.000000	6	5	1002	0
5	50001003	0.000000	14.000000	6	5	1003	0
6	50002003	0.000000	20.000000	6	5	2003	0
7	50002004	0.000000	5.500000	6	5	2004	0
8	50077183	0.000000	110.000000	6	5	77183	0
9	50077184	0.000000	110.000000	6	5	77184	0
10	50078184	0.000000	110.000000	6	5	78184	0
11	50078185	0.000000	110.000000	6	5	78185	0
12	52078185	0.000000	110.000000	6	5	78185	2
13	50078186	0.000000	110.000000	6	5	78186	0
14	50078187	0.000000	110.000000	6	5	78187	0
15	50078188	0.000000	110.000000	6	5	78188	0
16	50079185	0.000000	120.000000	6	5	79185	0
17	56079185	0.000000	120.000000	6	5	79185	6
18	50079186	0.000000	110.000000	6	5	79186	0
19	50079187	0.000000	110.000000	6	5	79187	0
20	52079187	0.000000	110.000000	6	5	79187	2
21	50079188	0.000000	100.000000	6	5	79188	0
22	50079189	0.000000	100.000000	6	5	79189	0
23	53079189	0.000000	100.000000	6	5	79189	3
24	50079190	0.000000	100.000000	6	5	79190	0
25	50079191	0.000000	90.000000	6	5	79191	0
26	50079192	0.000000	85.000000	6	5	79192	0
27	50079193	0.000000	85.000000	6	5	79193	0
28	54079193	0.000000	85.000000	6	5	79193	4
29	50079194	0.000000	85.000000	6	5	79194	0
30	50079195	0.000000	85.000000	6	5	79195	0
31	54079195	0.000000	85.000000	6	5	79195	4
32	50080186	0.000000	130.000000	6	5	80186	0
33	50080187	0.000000	130.000000	6	5	80187	0
34	51080187	0.000000	130.000000	6	5	80187	1
35	50080188	0.000000	120.000000	6	5	80188	0
36	50080189	0.000000	110.000000	6	5	80189	0
37	52080189	0.000000	110.000000	6	5	80189	2
38	50080190	0.000000	100.000000	6	5	80190	0
39	50080191	0.000000	95.000000	6	5	80191	0
40	53080191	0.000000	95.000000	6	5	80191	3
41	50080192	0.000000	90.000000	6	5	80192	0
42	50080193	0.000000	85.000000	6	5	80193	0
43	53080193	0.000000	85.000000	6	5	80193	3
44	50080194	0.000000	80.000000	6	5	80194	0
45	50080195	0.000000	80.000000	6	5	80195	0
46	53080195	0.000000	80.000000	6	5	80195	3
47	50080196	0.000000	78.000000	6	5	80196	0
48	50080197	0.000000	76.000000	6	5	80197	0
49	54080197	0.000000	76.000000	6	5	80197	4
50	50080198	0.000000	72.000000	6	5	80198	0

51	50080199	0.000000	66.000000	6	5	80199	0
52	57080199	0.000000	66.000000	6	5	80199	7
53	50080200	0.000000	62.000000	6	5	80200	0
54	50080201	0.000000	58.000000	6	5	80201	0
55	50080202	0.000000	54.000000	6	5	80202	0
56	50080203	0.000000	54.000000	6	5	80203	0
57	50080204	0.000000	54.000000	6	5	80204	0
58	50081187	0.000000	140.000000	6	5	81187	0
59	52081187	0.000000	140.000000	6	5	81187	2
60	50081188	0.000000	130.000000	6	5	81188	0
61	51081188	0.000000	130.000000	6	5	81188	1
62	50081189	0.000000	120.000000	6	5	81189	0
63	51081189	0.000000	120.000000	6	5	81189	1
64	50081190	0.000000	110.000000	6	5	81190	0
65	50081191	0.000000	100.000000	6	5	81191	0
66	52081191	0.000000	100.000000	6	5	81191	2
67	50081192	0.000000	100.000000	6	5	81192	0
68	51081192	0.000000	100.000000	6	5	81192	1
69	50081193	0.000000	90.000000	6	5	81193	0
70	52081193	0.000000	90.000000	6	5	81193	2
71	50081194	0.000000	80.000000	6	5	81194	0
72	55081194	0.000000	80.000000	6	5	81194	5
73	50081195	0.000000	76.000000	6	5	81195	0
74	52081195	0.000000	76.000000	6	5	81195	2
75	50081196	0.000000	70.000000	6	5	81196	0
76	56081196	0.000000	70.000000	6	5	81196	6
77	50081197	0.000000	66.000000	6	5	81197	0
78	50081198	0.000000	60.000000	6	5	81198	0
79	57081198	0.000000	60.000000	6	5	81198	7
80	50081199	0.000000	56.000000	6	5	81199	0
81	50081200	0.000000	48.000000	6	5	81200	0
82	50081201	0.000000	42.000000	6	5	81201	0
83	50081202	0.000000	34.000000	6	5	81202	0
84	50081203	0.000000	28.000000	6	5	81203	0
85	50081204	0.000000	19.000000	6	5	81204	0
86	50081205	0.000000	1.000000	6	5	81205	0
87	50081206	0.000000	44.000000	6	5	81206	0
88	55081206	0.000000	44.000000	6	5	81206	5
89	50081207	0.000000	42.000000	6	5	81207	0
90	52081207	0.000000	42.000000	6	5	81207	2
91	50082188	0.000000	160.000000	6	5	82188	0
92	50082189	0.000000	150.000000	6	5	82189	0
93	51082189	0.000000	150.000000	6	5	82189	1
94	50082190	0.000000	140.000000	6	5	82190	0
95	50082191	0.000000	130.000000	6	5	82191	0
96	51082191	0.000000	130.000000	6	5	82191	1
97	50082192	0.000000	120.000000	6	5	82192	0
98	50082193	0.000000	110.000000	6	5	82193	0
99	51082193	0.000000	110.000000	6	5	82193	1
100	50082194	0.000000	110.000000	6	5	82194	0
101	50082195	0.000000	100.000000	6	5	82195	0
102	52082195	0.000000	100.000000	6	5	82195	2
103	50082196	0.000000	95.000000	6	5	82196	0
104	50082197	0.000000	90.000000	6	5	82197	0



105	52082197	0.000000	90.000000	6	5	82197	2
106	50082198	0.000000	80.000000	6	5	82198	0
107	50082199	0.000000	74.000000	6	5	82199	0
108	51082199	0.000000	74.000000	6	5	82199	1
109	50082200	0.000000	70.000000	6	5	82200	0
110	50082201	0.000000	62.000000	6	5	82201	0
111	54082201	0.000000	62.000000	6	5	82201	4
112	50082202	0.000000	56.000000	6	5	82202	0
113	64082202	0.000000	56.000000	6	5	82202	14
114	50082203	0.000000	48.000000	6	5	82203	0
115	56082203	0.000000	48.000000	6	5	82203	6
116	50082204	0.000000	40.000000	6	5	82204	0
117	71082204	0.000000	40.000000	6	5	82204	21
118	50082205	0.000000	34.000000	6	5	82205	0
119	50082206	0.000000	25.000000	6	5	82206	0
120	50082207	0.000000	17.000000	6	5	82207	0
121	50082208	0.000000	12.000000	6	5	82208	0
122	50083189	0.000000	170.000000	6	5	83189	0
123	50083190	0.000000	160.000000	6	5	83190	0
124	51083190	0.000000	160.000000	6	5	83190	1
125	50083191	0.000000	150.000000	6	5	83191	0
126	50083192	0.000000	140.000000	6	5	83192	0
127	51083192	0.000000	140.000000	6	5	83192	1
128	50083193	0.000000	130.000000	6	5	83193	0
129	51083193	0.000000	130.000000	6	5	83193	1
130	50083194	0.000000	120.000000	6	5	83194	0
131	52083194	0.000000	120.000000	6	5	83194	2
132	53083194	0.000000	120.000000	6	5	83194	3
133	50083195	0.000000	110.000000	6	5	83195	0
134	51083195	0.000000	110.000000	6	5	83195	1
135	50083196	0.000000	100.000000	6	5	83196	0
136	53083196	0.000000	100.000000	6	5	83196	3
137	50083197	0.000000	95.000000	6	5	83197	0
138	51083197	0.000000	95.000000	6	5	83197	1
139	50083198	0.000000	85.000000	6	5	83198	0
140	53083198	0.000000	85.000000	6	5	83198	3
141	54083198	0.000000	85.000000	6	5	83198	4
142	50083199	0.000000	78.000000	6	5	83199	0
143	51083199	0.000000	78.000000	6	5	83199	1
144	50083200	0.000000	70.000000	6	5	83200	0
145	51083200	0.000000	70.000000	6	5	83200	1
146	50083201	0.000000	62.000000	6	5	83201	0
147	51083201	0.000000	62.000000	6	5	83201	1
148	50083202	0.000000	54.000000	6	5	83202	0
149	50083203	0.000000	46.000000	6	5	83203	0
150	50083204	0.000000	38.000000	6	5	83204	0
151	50083205	0.000000	29.000000	6	5	83205	0
152	50083206	0.000000	22.000000	6	5	83206	0
153	50083207	0.000000	14.000000	6	5	83207	0
154	50083208	0.000000	7.000000	6	5	83208	0
155	50083209	0.000000	1.000000	6	5	83209	0

p	ZAP	IP	NR	TP [MeV]
1	1	1	1	7.000000

2	0	2	1	1.000000
3	1001	9	1	7.000000
4	1002	31	1	13.000000
5	1003	32	1	14.000000
6	2003	33	1	20.000000
7	2004	34	1	5.500000

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88-Ra-226 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 88226.38u MAT=8834 ZA= 88226  
 AWR= 224.083700 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 88 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	18	181.222000	5.000000	3	18		

p	ZAP	IP	NR	Tp [MeV]
1	1	1	2	1.000000
2	0	2	1	1.000000
3	1001	9	1	8.000000
4	1002	31	1	12.000000
5	1003	32	1	10.500000
6	2003	33	1	15.000000
7	2004	34	1	1.000000

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90-Th-232 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 90232.38u MAT=9040 ZA= 90232  
 AWR= 230.044700 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 90 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	18	189.514000	3.000000	3	18		

p	ZAP	IP	NR	Tp [MeV]
1	1	1	2	1.000000
2	0	2	1	1.000000
3	1001	9	1	8.000000
4	1002	31	1	12.500000
5	1003	32	1	11.500000
6	2003	33	1	15.500000
7	2004	34	1	1.000000

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92-U -233 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 92233.38u MAT=9222 ZA= 92233

AWR= 231.037700 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 94 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
2 18 190.896000 2.000000 3 18

p ZAP IP NR Tp [MeV]  
1 1 1 2 1.000000  
2 0 2 1 1.000000  
3 1001 9 1 6.500000  
4 1002 31 1 10.500000  
5 1003 32 1 11.500000  
6 2003 33 1 12.000000  
7 2004 34 1 1.000000

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92-U -234 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 92234.38u MAT=9225 ZA= 92234  
AWR= 232.030400 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 98 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
2 18 192.278000 2.000000 3 18

p ZAP IP NR Tp [MeV]  
1 1 1 2 2.000000  
2 0 2 1 1.000000  
3 1001 9 1 7.000000  
4 1002 31 1 11.500000  
5 1003 32 1 11.500000  
6 2003 33 1 14.000000  
7 2004 34 1 1.000000

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92-U -235 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 92235.38u MAT=9228 ZA= 92235  
AWR= 233.024800 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 107 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
2 18 193.660000 2.500000 3 18

p ZAP IP NR Tp [MeV]  
1 1 1 2 1.000000  
2 0 2 1 1.000000  
3 1001 9 1 7.000000  
4 1002 31 1 10.500000

5 1003 32 1 11.000000  
6 2003 33 1 13.000000  
7 2004 34 1 1.000000

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92-U -236 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 92236.38u MAT=9231 ZA= 92236  
AWR= 234.017800 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 98 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
2 18 195.042000 1.500000 3 18

p ZAP IP NR Tp [MeV]  
1 1 1 2 1.000000  
2 0 2 1 1.000000  
3 1001 9 1 7.500000  
4 1002 31 1 12.000000  
5 1003 32 1 11.000000  
6 2003 33 1 14.500000  
7 2004 34 1 1.000000

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92-U -238 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 92238.38u MAT=9237 ZA= 92238  
AWR= 236.005800 STA= 0 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 108 EMAX= 200.000 MeV  
i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
1 5 0.000000 1.000000 3 5  
2 18 197.806000 1.000000 3 18

p ZAP IP NR Tp [MeV]  
1 1 1 2 1.000000  
2 0 2 1 1.000000  
3 1001 9 1 8.000000  
4 1002 31 1 12.000000  
5 1003 32 1 11.000000  
6 2003 33 1 15.500000  
7 2004 34 1 1.000000

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93-Np-237 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
ZAID= 93237.38u MAT=9346 ZA= 93237  
AWR= 235.011800 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 107 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	18	196.424000	2.500000	3	18		

p	ZAP	IP	NR	TP [MeV]
1	1	1	2	2.500000
2	0	2	1	1.000000
3	1001	9	1	5.250000
4	1002	31	1	10.000000
5	1003	32	1	9.500000
6	2003	33	1	13.500000
7	2004	34	1	1.000000

94-Pu-238 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 ZAID= 94238.38u MAT=9434 ZA= 94238  
 AWR= 236.004600 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 90 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	18	197.806000	1.500000	3	18		

p	ZAP	IP	NR	TP [MeV]
1	1	1	2	1.000000
2	0	2	1	1.000000
3	1001	9	1	6.500000
4	1002	31	1	11.000000
5	1003	32	1	11.000000
6	2003	33	1	13.000000
7	2004	34	1	1.000000

94-Pu-239 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)

ZAID= 94239.38u MAT=9437 ZA= 94239  
 AWR= 236.998600 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0

NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 107 EMAX= 200.000 MeV

i	FMn/MT	Q [MeV]	T [MeV]	LMF	MT	ZAP	LFS
1	5	0.000000	1.000000	3	5		
2	18	199.188000	2.000000	3	18		

p	ZAP	IP	NR	TP [MeV]
1	1	1	2	1.000000
2	0	2	1	1.000000
3	1001	9	1	6.500000
4	1002	31	1	10.000000
5	1003	32	1	11.000000
6	2003	33	1	12.000000
7	2004	34	1	1.000000

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 94-Pu-241 T= 0.00 K from IAEA/PD-2019 (ACEMAKER)  
 Z Aid= 94241.38u MAT=9443 ZA= 94241  
 AWR= 238.986100 STA= 1 ELIS= 0.000 MeV LIS= 0 LISO= 0  
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NTOTR= 2 NTRAN= 2 NPROD= 0 NE= 107 EMAX= 200.000 MeV  
 i FMn/MT Q [MeV] T [MeV] LMF MT ZAP LFS  
 1 5 0.000000 1.000000 3 5  
 2 18 201.952000 1.000000 3 18

p ZAP IP NR Tp [MeV]  
 1 1 1 2 1.000000  
 2 0 2 1 1.000000  
 3 1001 9 1 7.000000  
 4 1002 31 1 10.500000  
 5 1003 32 1 10.500000  
 6 2003 33 1 13.000000  
 7 2004 34 1 1.000000  
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