



# **JANIS Book**

## **of deuteron-induced cross-sections**

Comparison of evaluated and experimental data from  
ENDF/B-VII.1, TENDL-2015 and EXFOR

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OECD NEA Data Bank

## Introduction

This document compares evaluated cross-sections below 200 MeV with corresponding experimental data from the EXFOR database for a number of evaluated libraries (Table 1), nuclear reactions and associated reaction products (Table 3). This document was produced using tools based on the NEA Java-based nuclear information software (JANIS) and associated databases; up-to-date plots are available from online JANIS Books [1].

Caveat: When studying plots, please take into account that the energy resolution of experimental data is not always comparable with the resolution of the evaluated data.

## Graphical comparison of nuclear data

Experimental data sets are identified by the year and first author of the main reference compiled in EXFOR. The colors give an indication on the publication year, from black/blue for the oldest data to orange/red for the most recent ones (Table 2). All experimental data are plotted on the graph but the legend will ignore all of them if there are more than 20 data sets.

Evaluated data are plotted with full lines for exclusive cross-sections explicitly defined by a MT number, whereas dashed lines indicate residual production cross-sections given in MT5. A star ‘\*’ after the name of the library indicates additional operations performed by JANIS, e.g. summation over the ground and metastable yields, reconstruction of residual production cross-sections over the whole energy range.

The data are plotted in log-log scale (on the left hand side) and lin-log scale (on the right hand side). The best representation depends on the Q value of the reaction and/or the magnitude of the variation in the cross-section values.

## Table of reactions and Q values

In order to identify individual contributions in residual production cross-sections, reactions leading to the same product are listed along with their associated Q values. The latter are calculated using mass excess from the NUBASE2012 evaluation of nuclear properties [2].

## Navigation in this document

The data are sorted by element, then by isotope and finally by reaction. In order to facilitate access to the information, two navigation modes are available in addition to the usual bookmark. At the top of each page, on the first row, the previous (<<) and next (>>) “Isotope links” allow the reader to move from one isotope to another while staying on the same MT reaction. On the second row, the “MT links” allow scanning all reactions of a given isotope. The latter navigation mode is actually similar to the use of the page up and page down keys.

## References

- [1] N. Soppera *et al.*, *Nuclear Data Sheets* 120(2014), 294. See also [www.oecd-nea.org/janis](http://www.oecd-nea.org/janis).
- [2] G. Audi *et al.*, *Chinese Physics C*, 36(12), 1157–1286, 2012.

Table 1: list of databases used in the inter-comparison

Library	Release date
ENDF/B-VII.1	December 2011
TENDL-2015	January 2016
EXFOR	March 2017

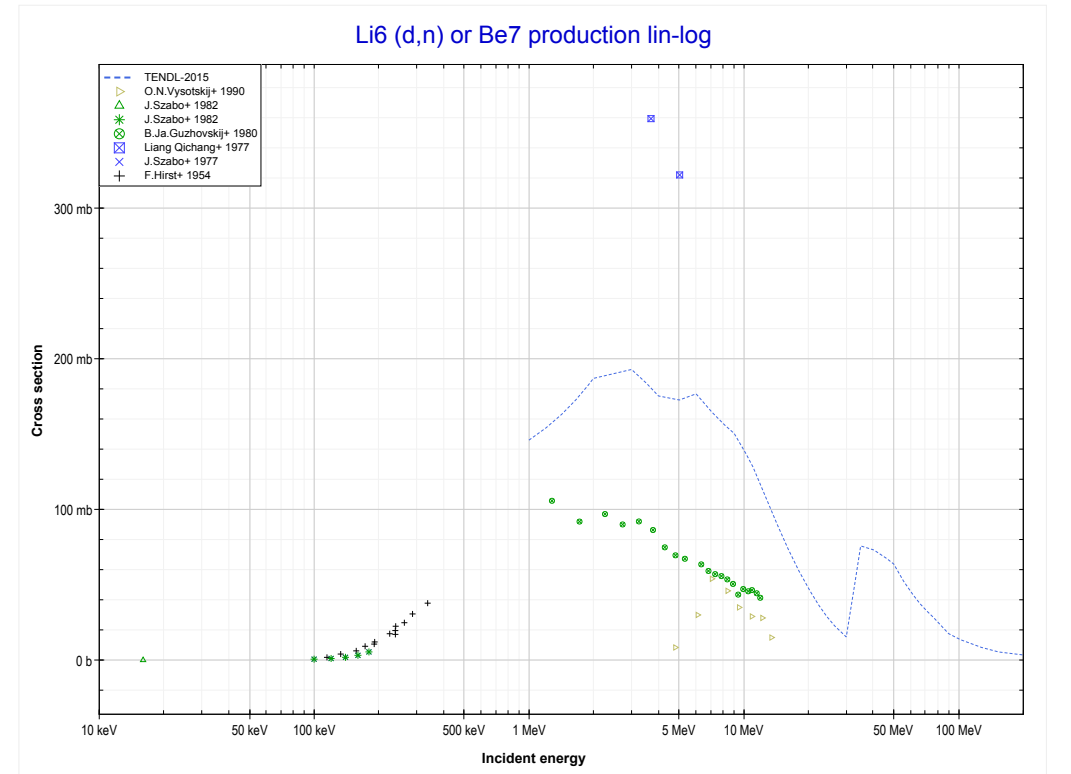
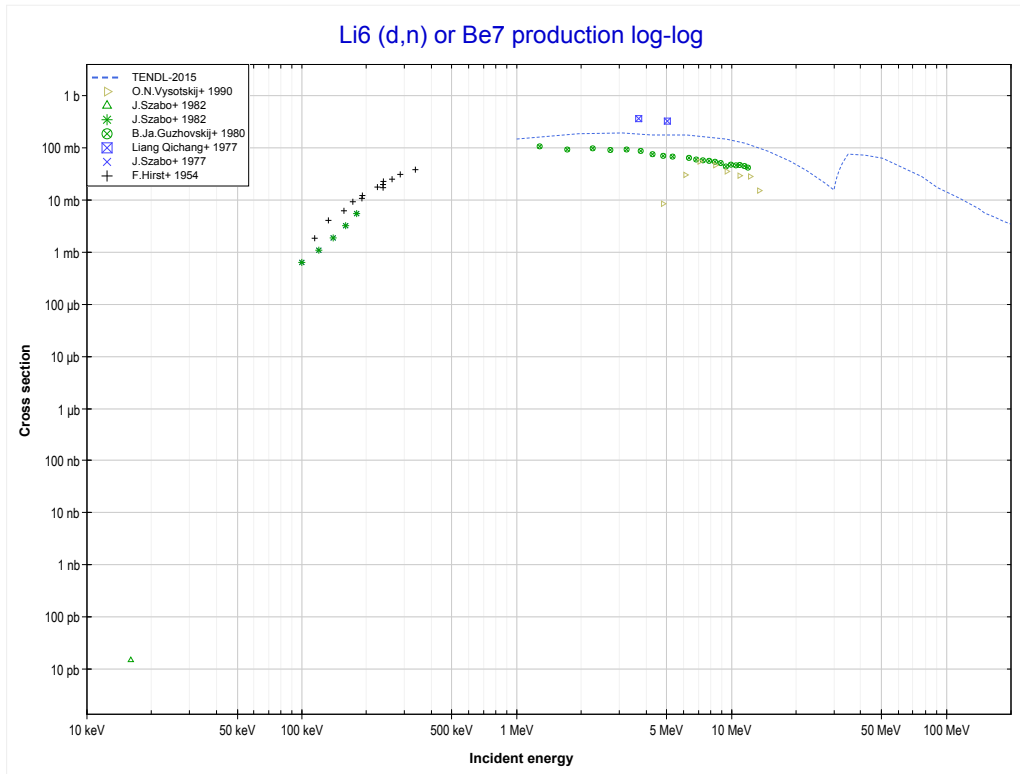
Table 2: experimental data sets color code

Color	Publication year
red	2005 ≤ year
orange	2000 ≤ year < 2005
light orange	1995 ≤ year < 2000
khaki	1990 ≤ year < 1995
light green	1985 ≤ year < 1990
green	1980 ≤ year < 1985
light blue	1970 ≤ year < 1980
dark blue	1960 ≤ year < 1970
black	year < 1960

Table 3: list of exclusive reactions used in the inter-comparison

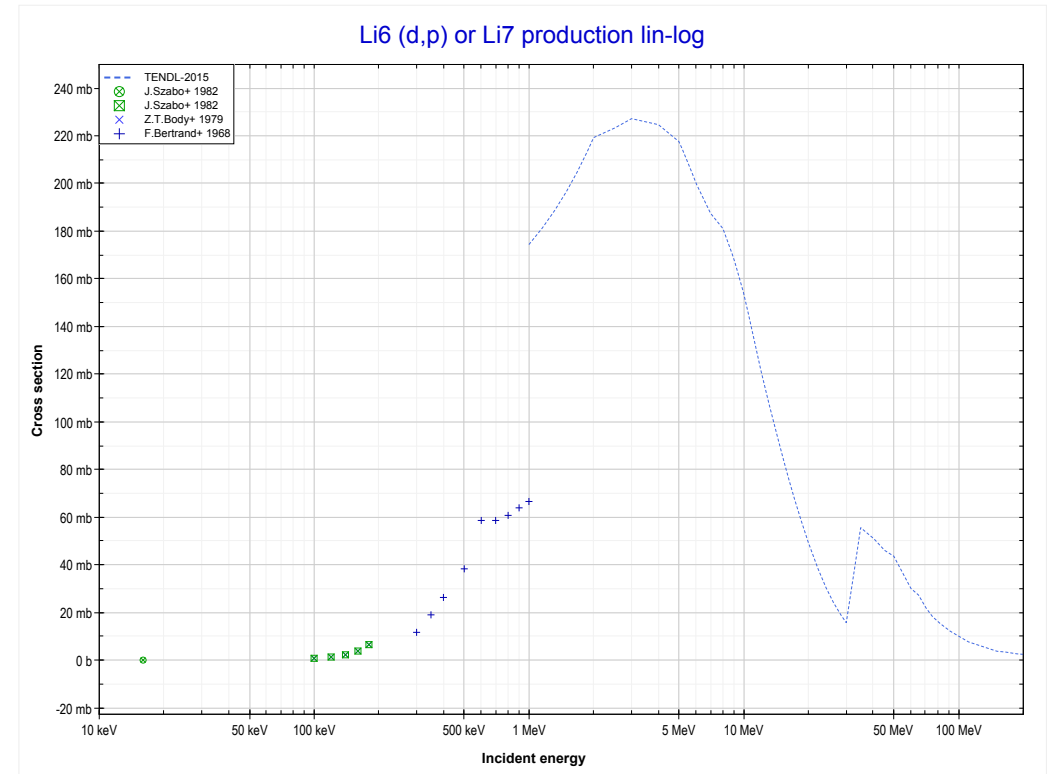
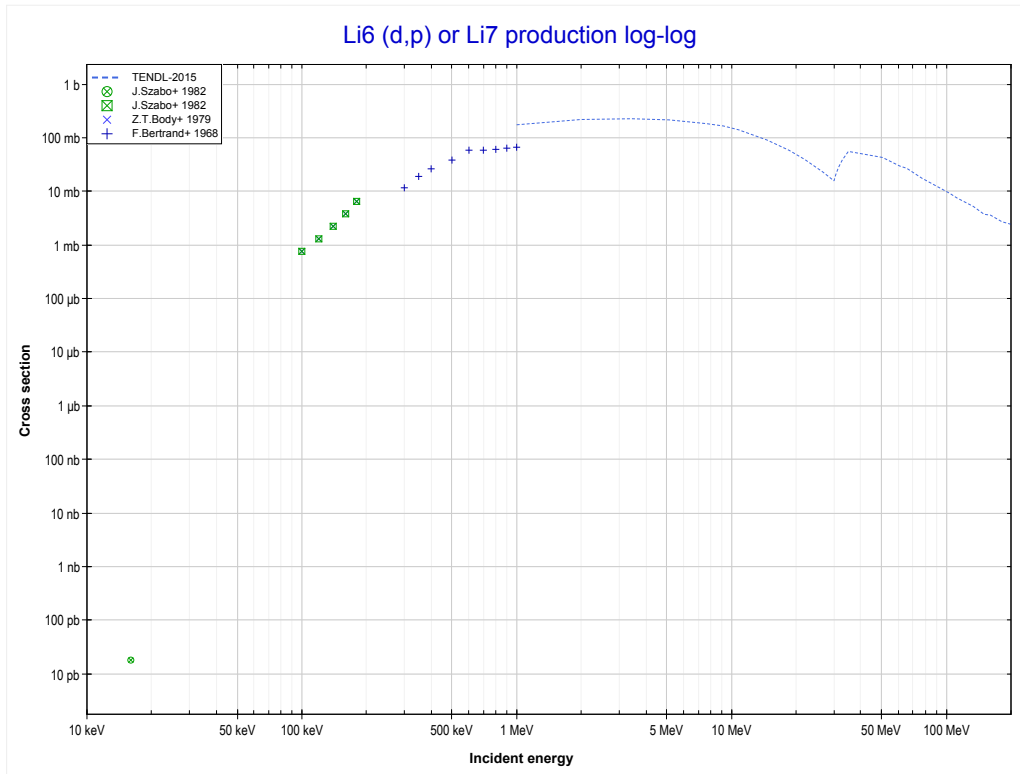
MT	Reaction	MT	Reaction	MT	Reaction	MT	Reaction
4	n	102	gamma	159	2n+p+a	181	3n+p+a
11	2n+d	103	p	160	7n	182	d+t
16	2n	104	d	161	8n	183	n+p+d
17	3n	105	t	162	5n+p	184	n+p+t
18	fission	106	h	163	6n+p	185	n+d+t
22	n+a	107	a	164	7n+p	186	n+p+h
23	n+3a	108	2a	165	4n+a	187	n+d+h
24	2n+a	109	3a	166	5n+a	188	n+t+h
25	3n+a	111	2p	167	6n+a	189	n+t+a
28	n+p	112	p+a	168	7n+a	190	2n+2p
29	n+2a	113	t+2a	169	4n+d	191	p+h
30	2n+2a	114	d+2a	170	5n+d	192	d+h
32	n+d	115	p+d	171	6n+d	193	h+a
33	n+t	116	p+t	172	3n+t	194	4n+2p
34	n+h	117	d+a	173	4n+t	195	4n+2a
35	n+d+2a	152	5n	174	5n+t	196	4n+p+a
36	n+t+2a	153	6n	175	6n+t	197	3p
37	4n	154	2n+t	176	2n+h	198	n+3p
41	2n+p	155	t+a	177	3n+h	199	3n+2p+a
42	3n+p	156	4n+p	178	4n+h	200	5n+2p
44	n+2p	157	3n+d	179	3n+2p		
45	n+p+a	158	n+d+a	180	3n+2a		

	<b>3-Li-6</b>	<a href="#">3-Li-7 &gt;&gt;</a>
	<b>MT4 (d,n) or MT5 (Be7 production)</b>	<a href="#">MT103 (d,p) &gt;&gt;</a>



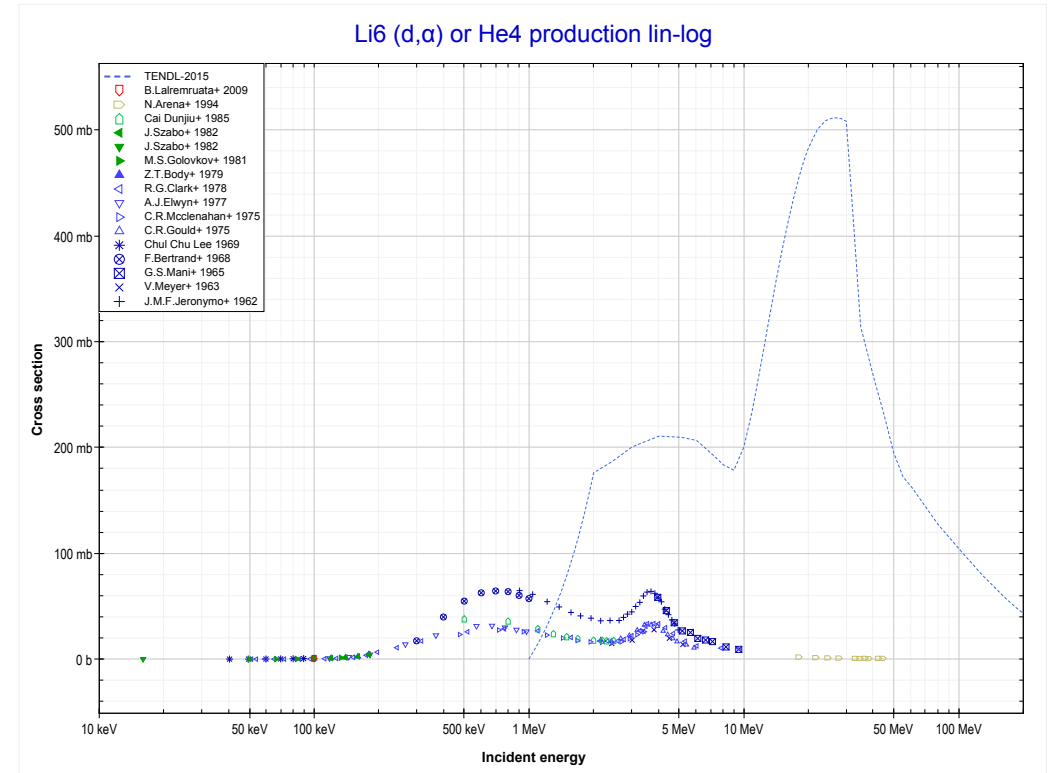
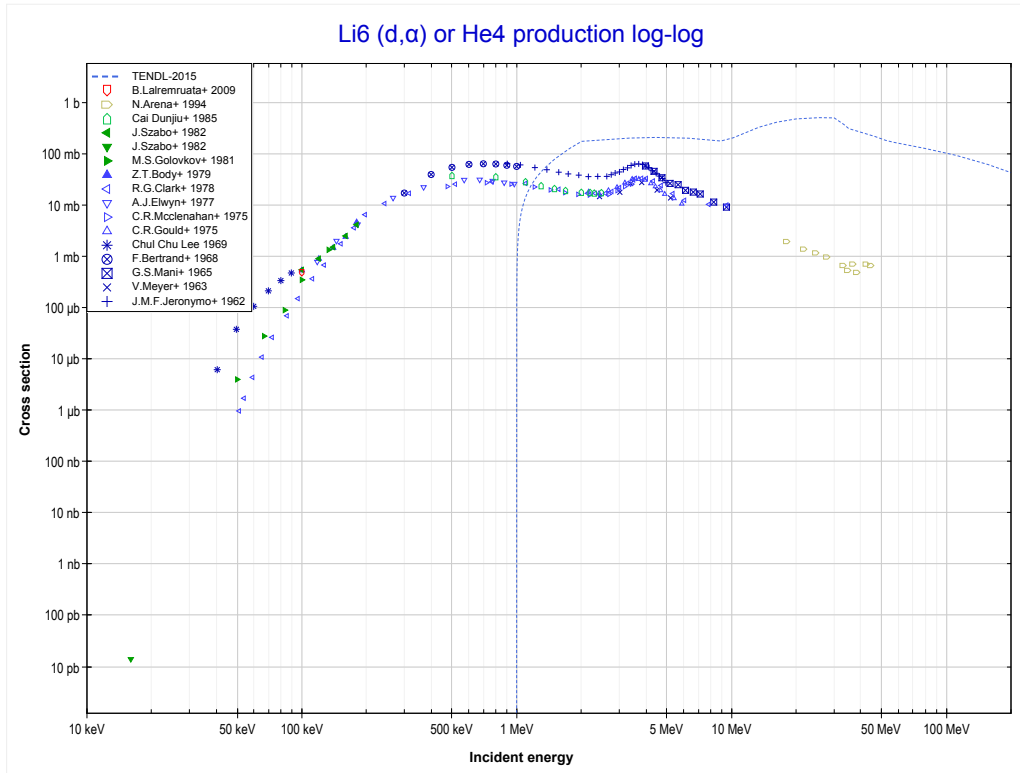
Reaction	Q-Value
Li6(d,n)Be7	3382.28 keV

	<b>3-Li-6</b>	<b>3-Li-7 &gt;&gt;</b>
<b>&lt;&lt; MT4 (d,n)</b>	<b>MT103 (d,p) or MT5 (Li7 production)</b>	<b>MT107 (d,<math>\alpha</math>) &gt;&gt;</b>



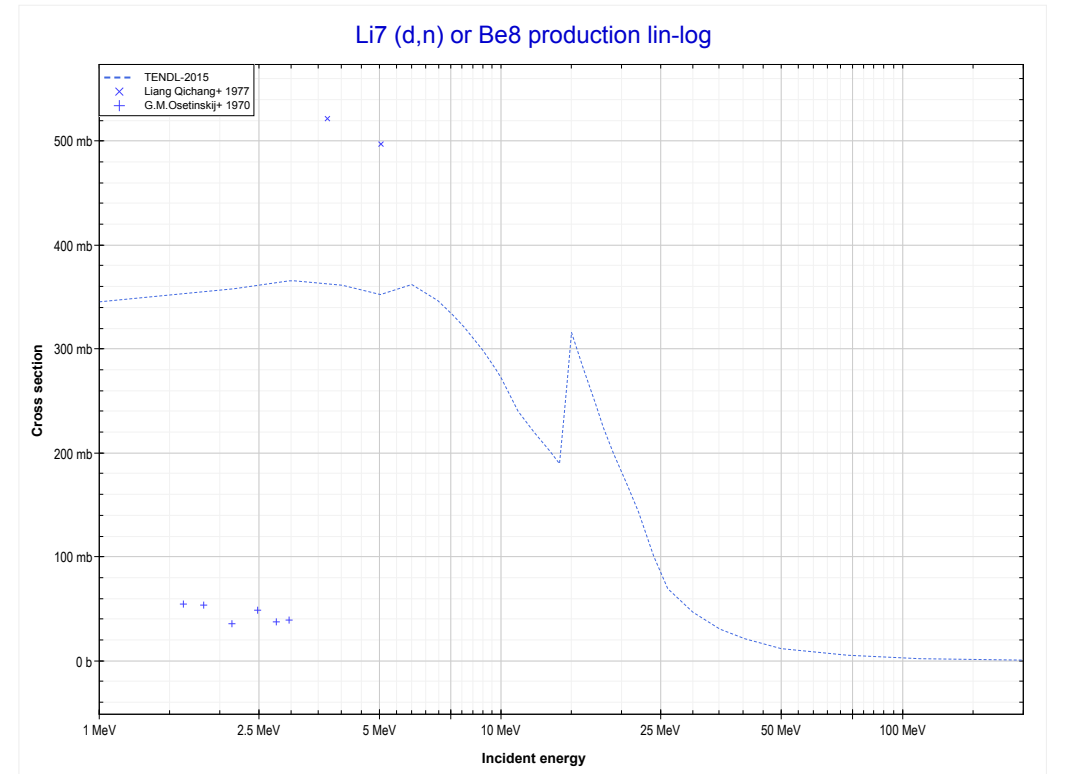
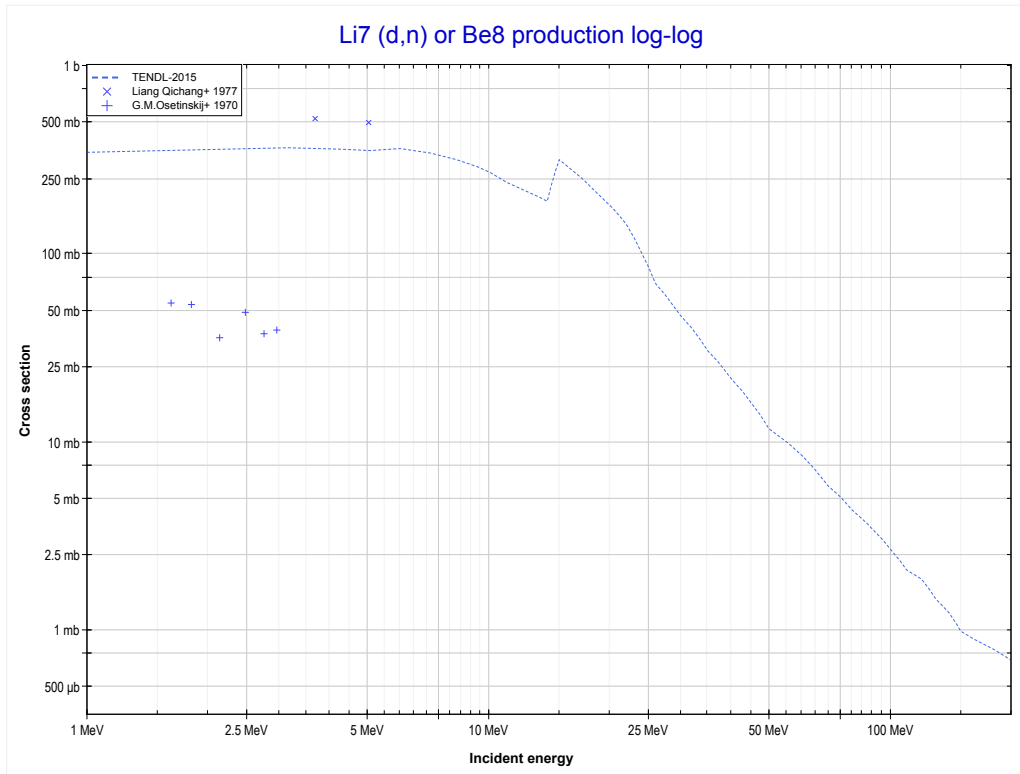
Reaction	Q-Value
Li6(d,p)Li7	5026.53 keV

	<b>3-Li-6</b>	4-Be-9 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (He4 production)</b>	3-Li-7 MT4 (d,n) >>



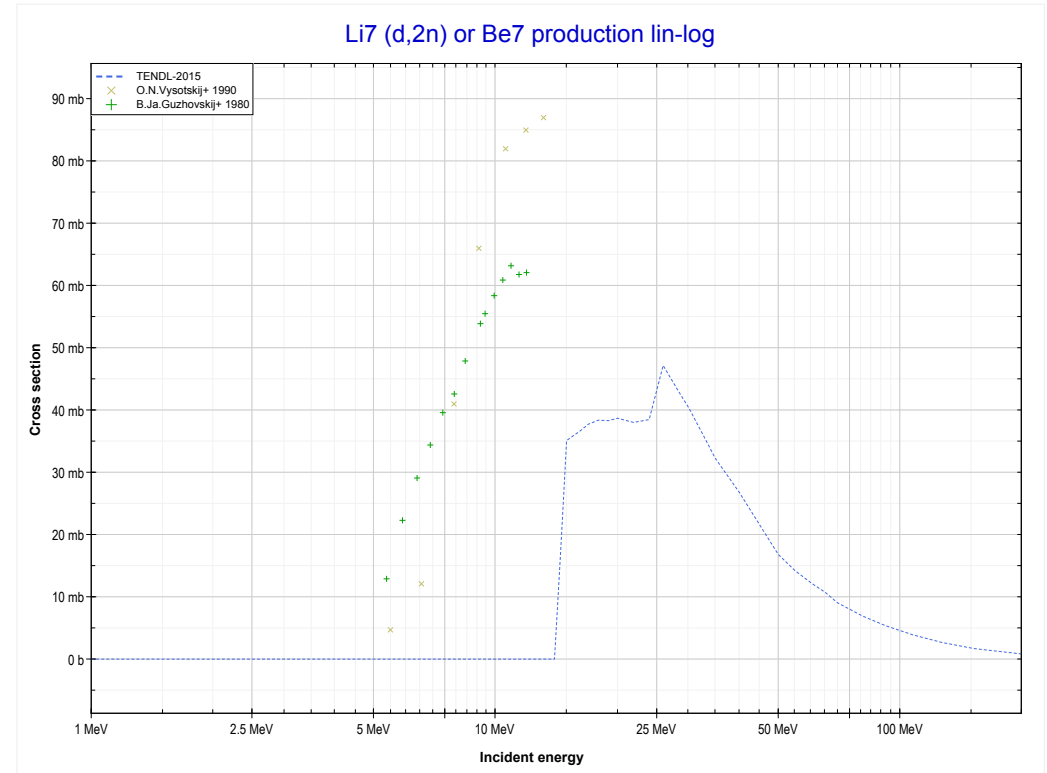
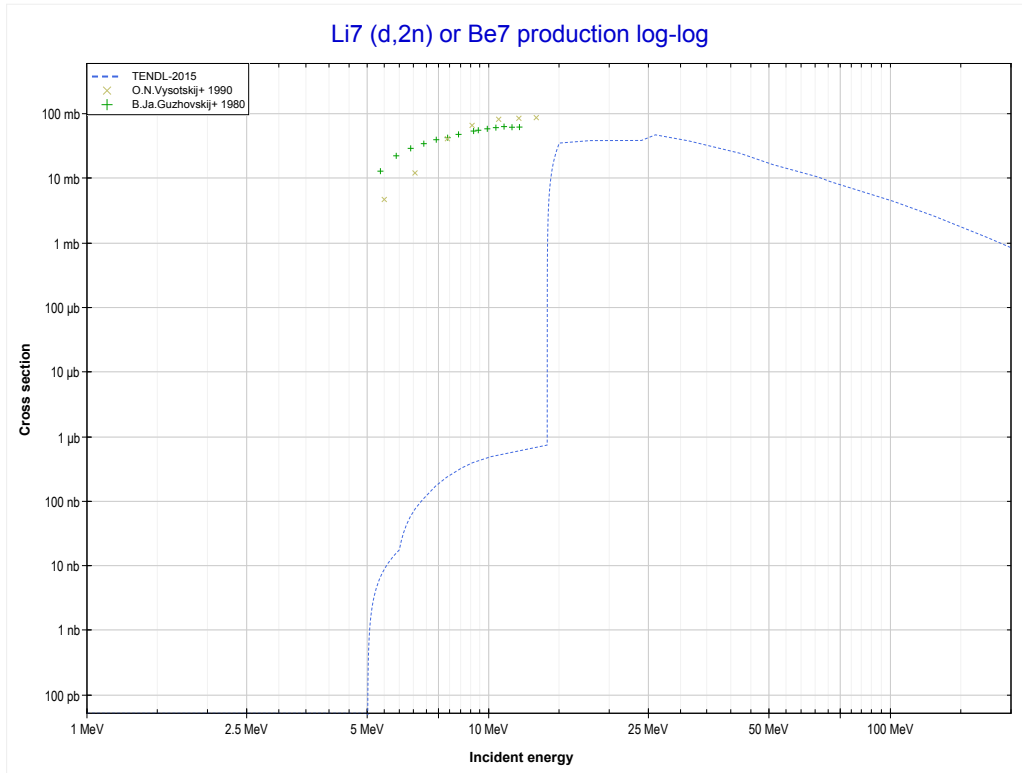
Reaction	Q-Value
Li6(d, $\alpha$ )He4	22372.77 keV
Li6(d,p+t)He4	2558.91 keV
Li6(d,n+He3)He4	1795.15 keV
Li6(d,2d)He4	-1473.76 keV
Li6(d,n+p+d)He4	-3698.32 keV
Li6(d,2n+2p)He4	-5922.89 keV

<< 3-Li-6	<b>3-Li-7</b>	5-B-10 >>
<< 3-Li-6 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (Be8 production)</b>	MT16 (d,2n) >>



Reaction	Q-Value
Li7(d,n)Be8	15029.84 keV

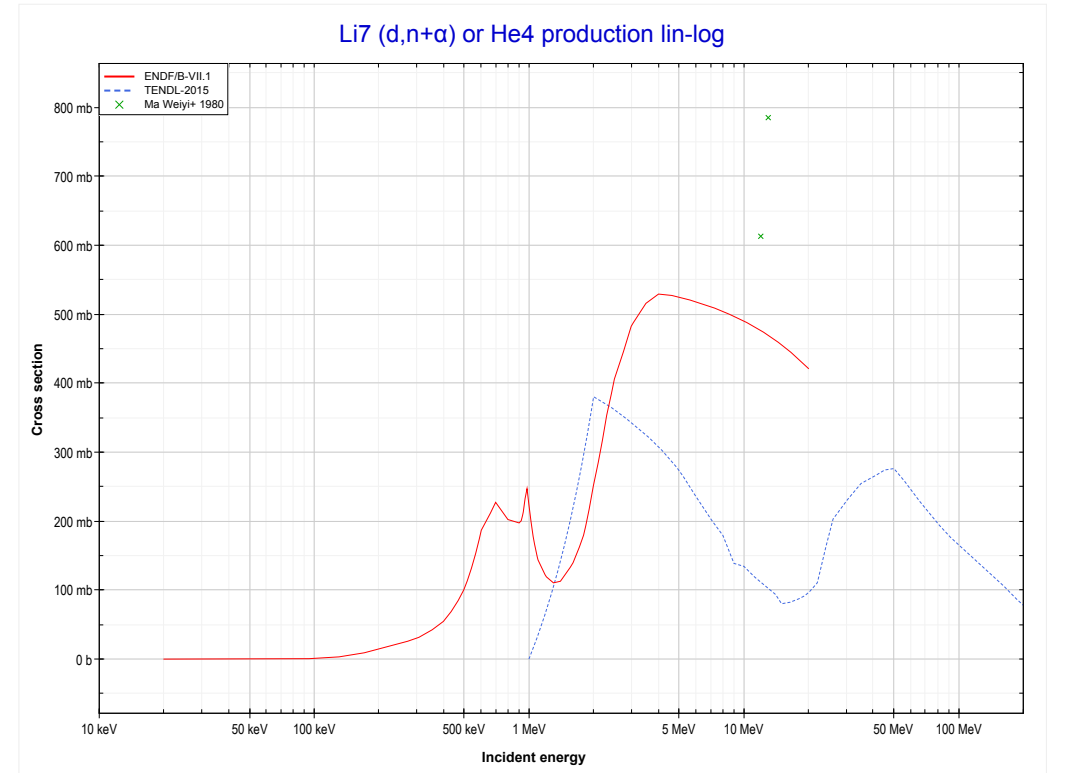
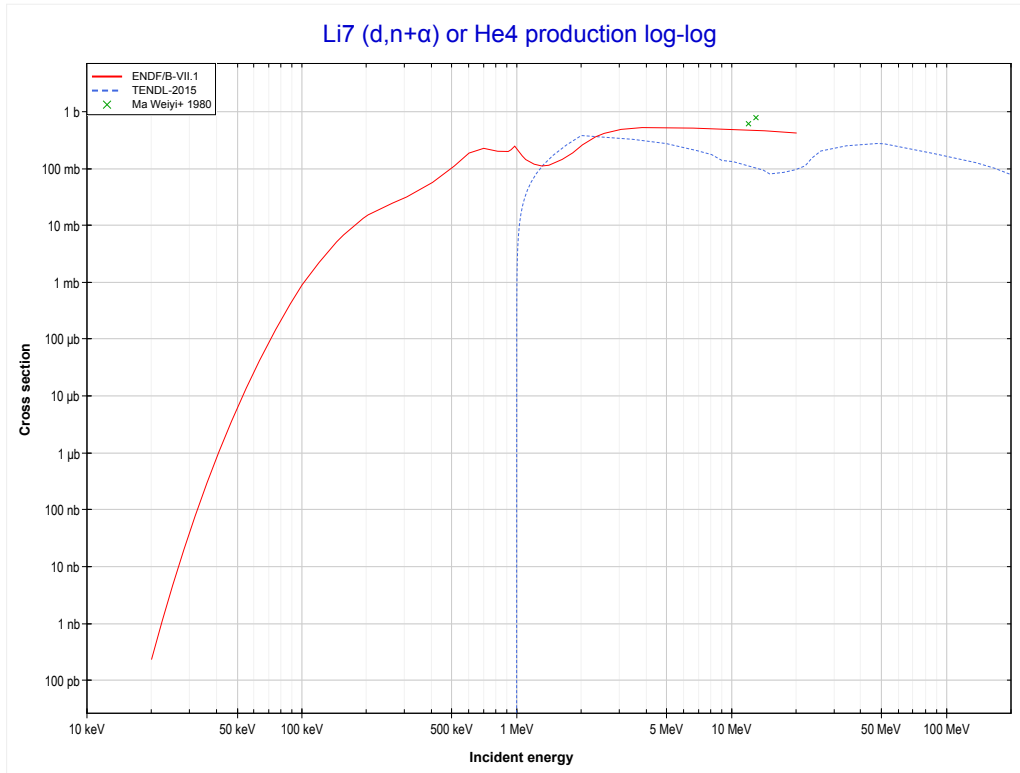
	<b>3-Li-7</b>	5-B-11 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Be7 production)</b>	MT22 (d,n+α) >>



Reaction	Q-Value
Li7(d,2n)Be7	-3868.81 keV

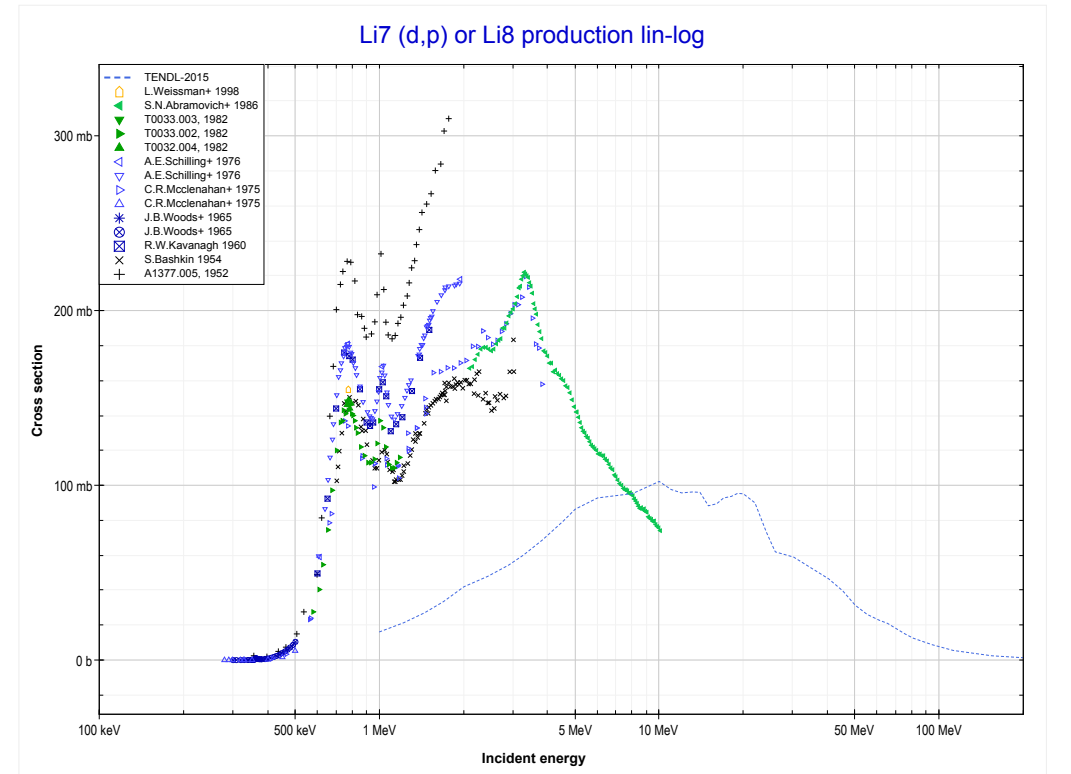
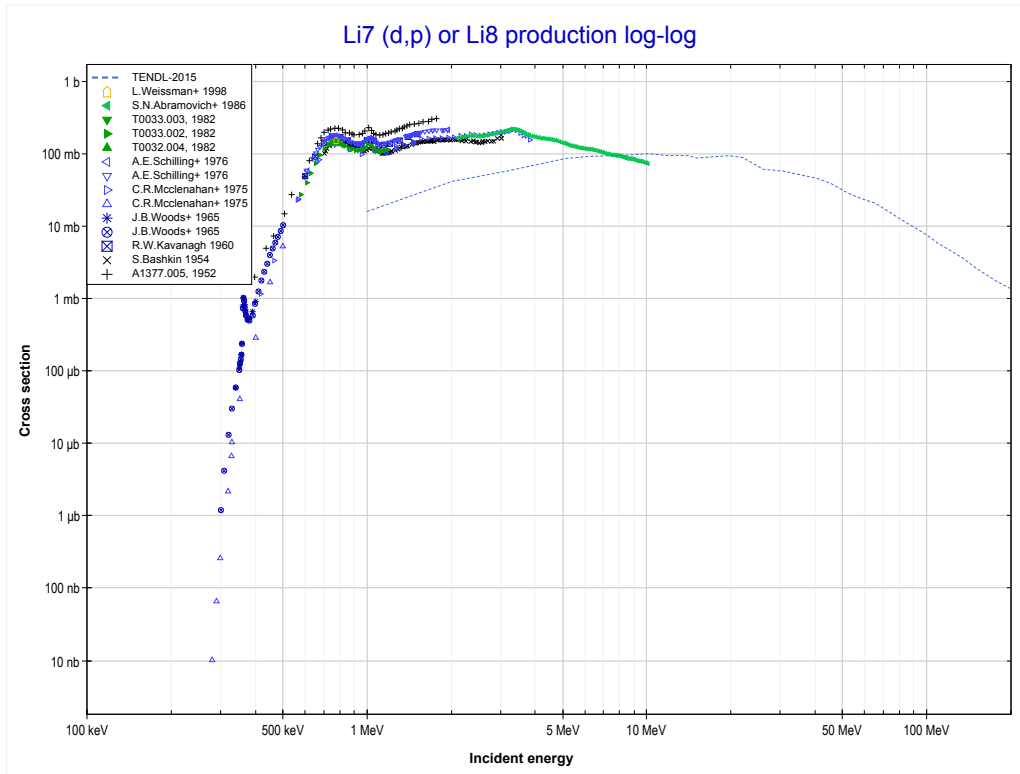


	<b>3-Li-7</b>	7-N-14 >>
<< MT16 (d,2n)	<b>MT22 (d,n+α) or MT5 (He4 production)</b>	MT103 (d,p) >>



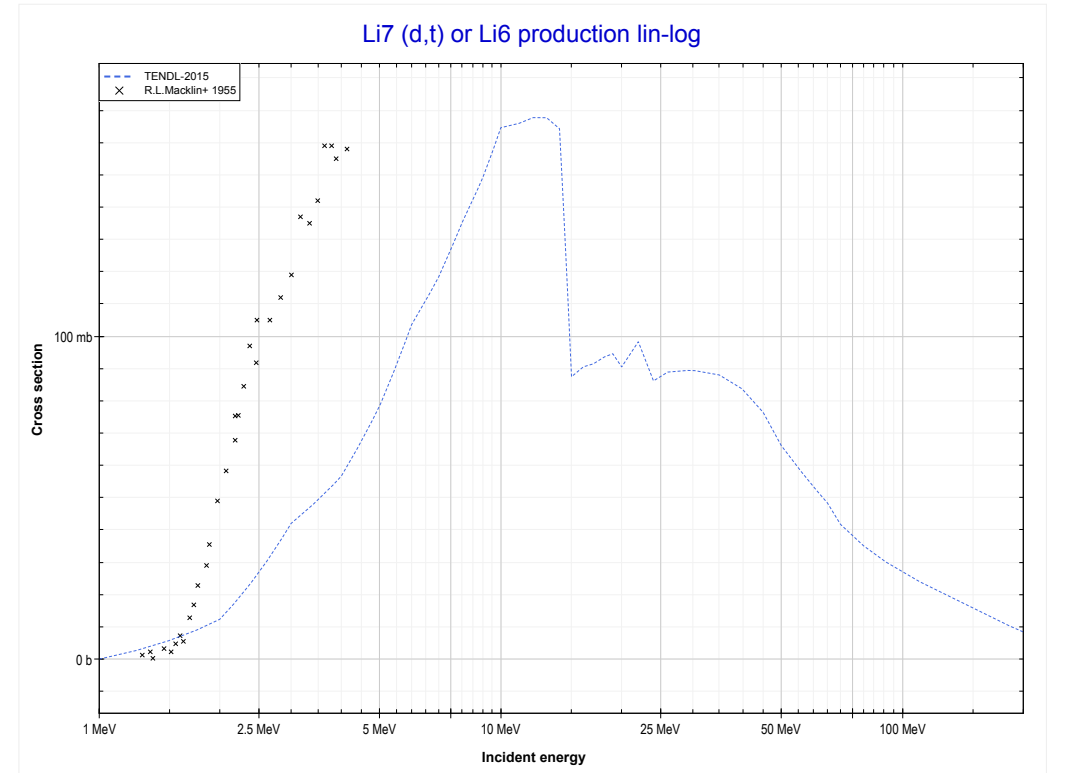
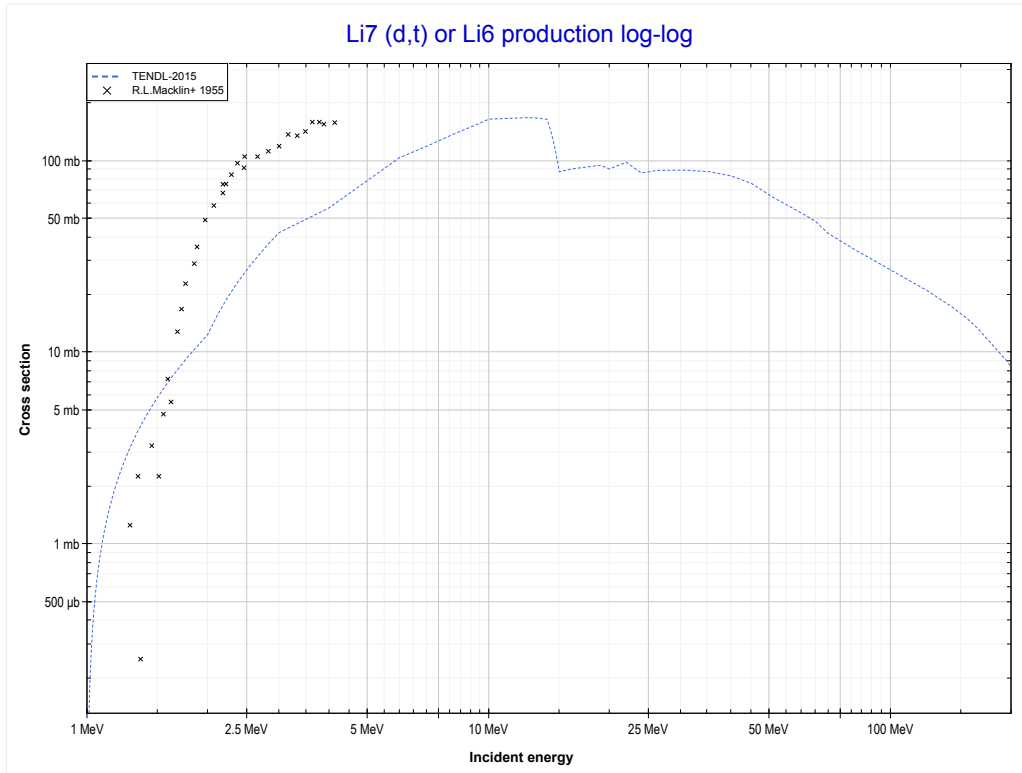
Reaction	Q-Value
Li7(d,n+α)He4	15121.68 keV
Li7(d,d+t)He4	-2467.62 keV
Li7(d,n+p+t)He4	-4692.18 keV
Li7(d,2n+He3)He4	-5455.94 keV
Li7(d,n+2d)He4	-8724.85 keV
Li7(d,2n+p+d)He4	-10949.42 keV
Li7(d,3n+2p)He4	-13173.98 keV

<< 3-Li-6	<b>3-Li-7</b>	4-Be-9 >>
<< MT22 (d,n+α)	<b>MT103 (d,p) or MT5 (Li8 production)</b>	MT105 (d,t) >>



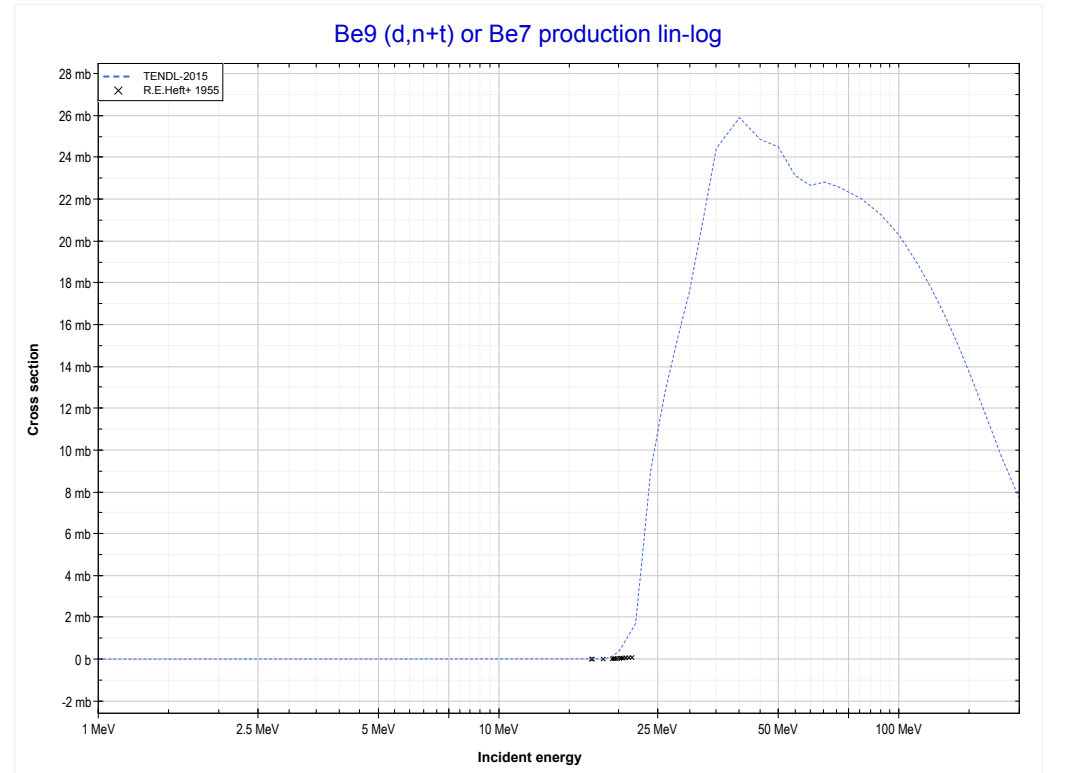
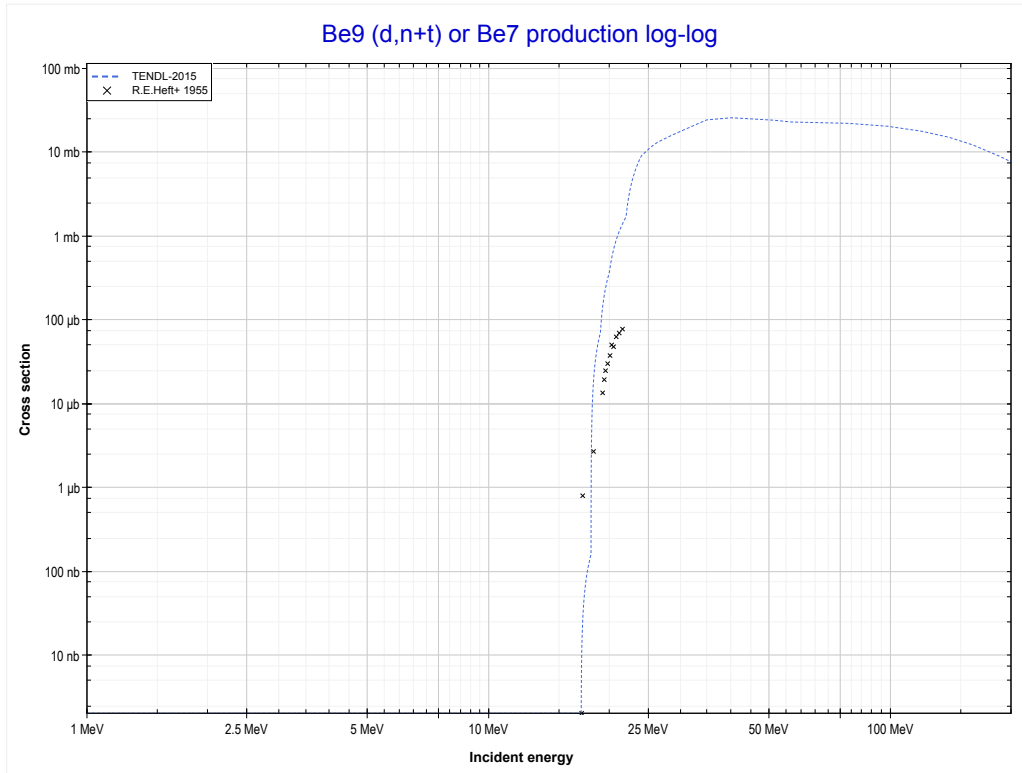
Reaction	Q-Value
Li7(d,p)Li8	-191.94 keV

	<b>3-Li-7</b>	4-Be-9 >>
<< MT103 (d,p)	<b>MT105 (d,t) or MT5 (Li6 production)</b>	4-Be-9 MT33 (d,n+t) >>



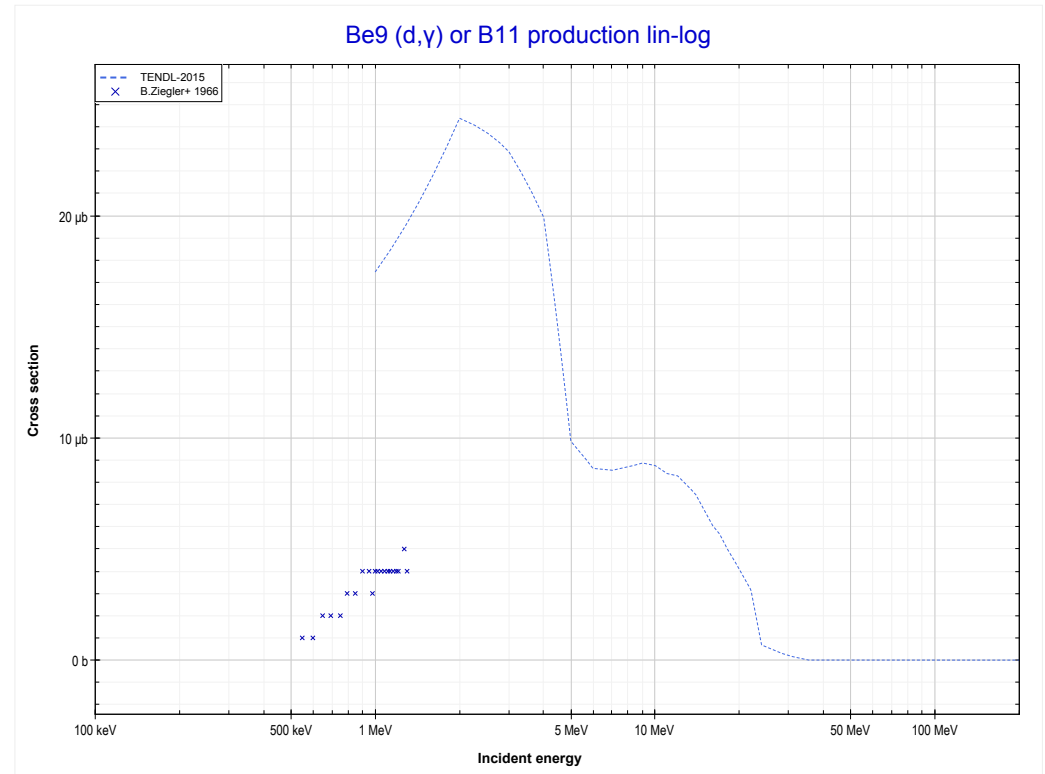
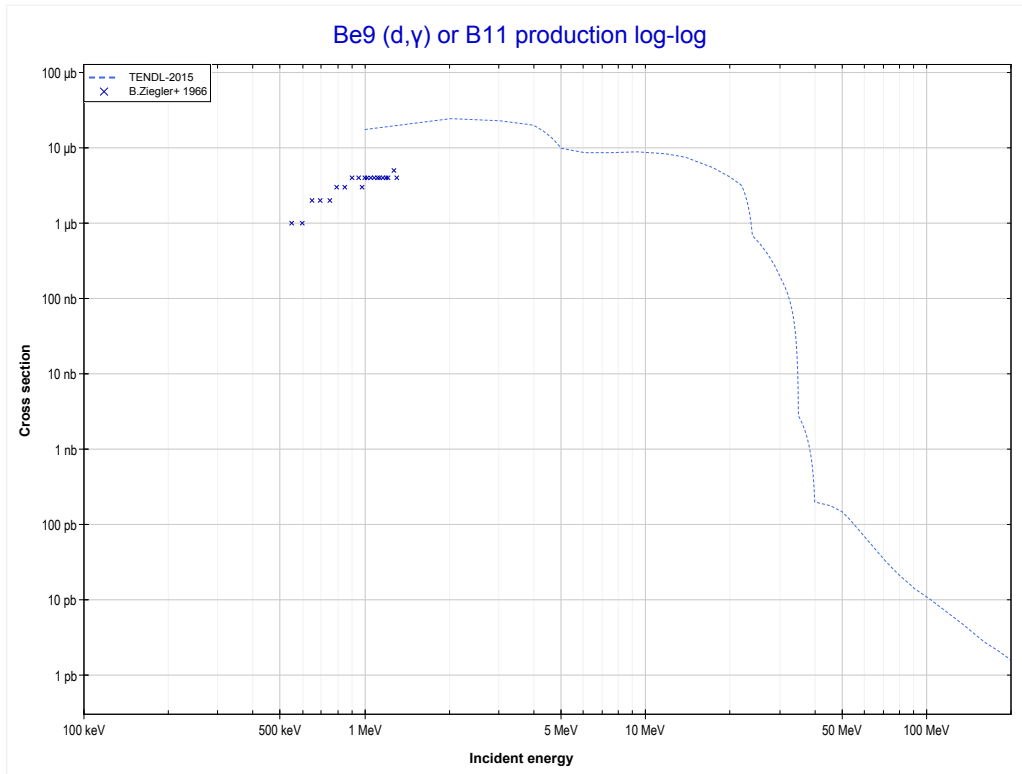
Reaction	Q-Value
Li7(d,t)Li6	-993.86 keV
Li7(d,n+d)Li6	-7251.09 keV
Li7(d,2n+p)Li6	-9475.66 keV

	<b>4-Be-9</b>	23-V-51 >>
<< 3-Li-7 MT105 (d,t)	<b>MT33 (d,n+t) or MT5 (Be7 production)</b>	MT102 (d,y) >>



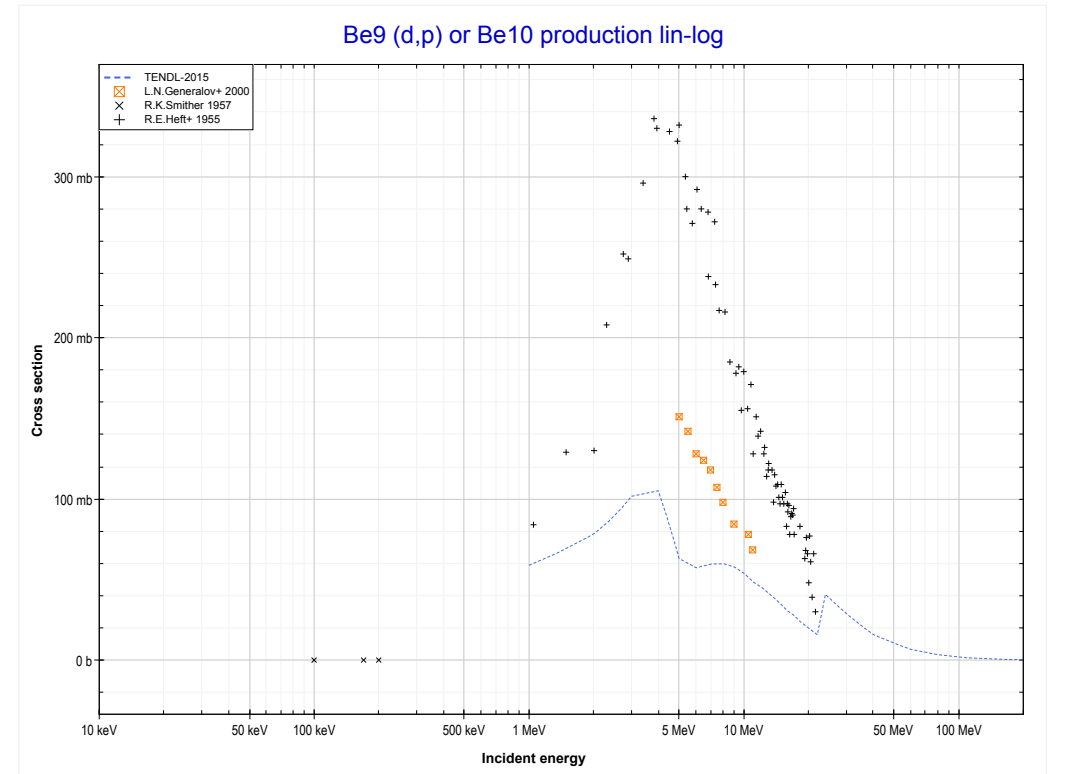
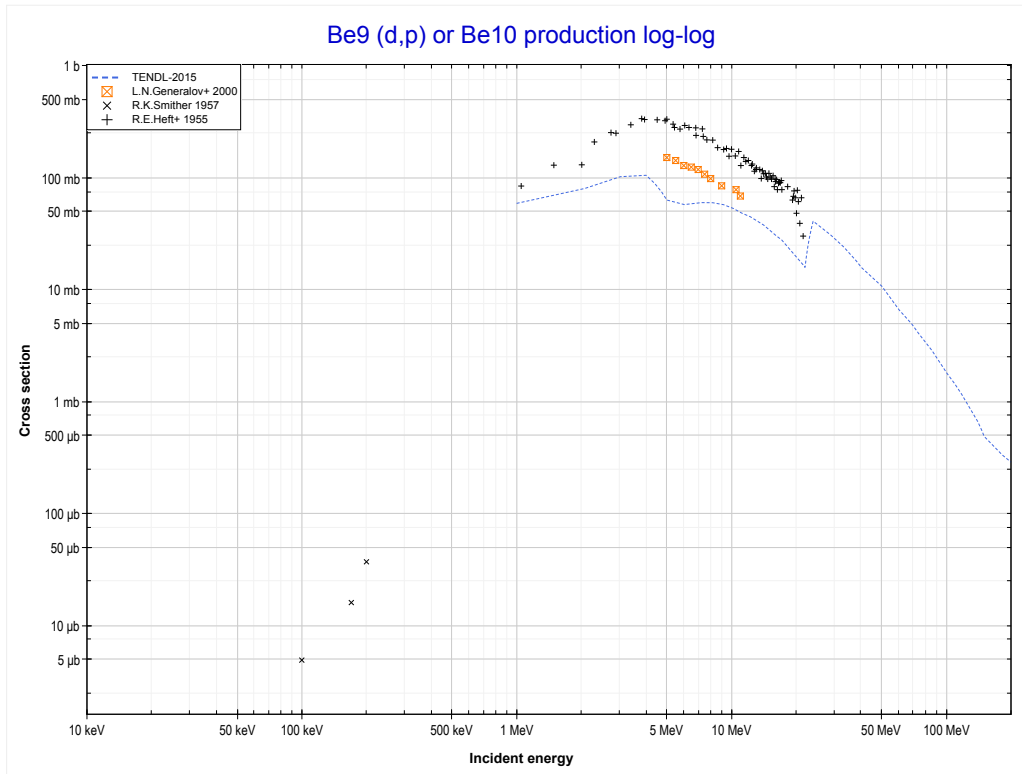
Reaction	Q-Value
Be9(d,n+t)Be7	-14305.95 keV
Be9(d,2n+d)Be7	-20563.18 keV
Be9(d,3n+p)Be7	-22787.75 keV

	<b>4-Be-9</b>	14-Si-30 >>
<< MT33 (d,n+t)	<b>MT102 (d,<math>\gamma</math>) or MT5 (B11 production)</b>	MT103 (d,p) >>



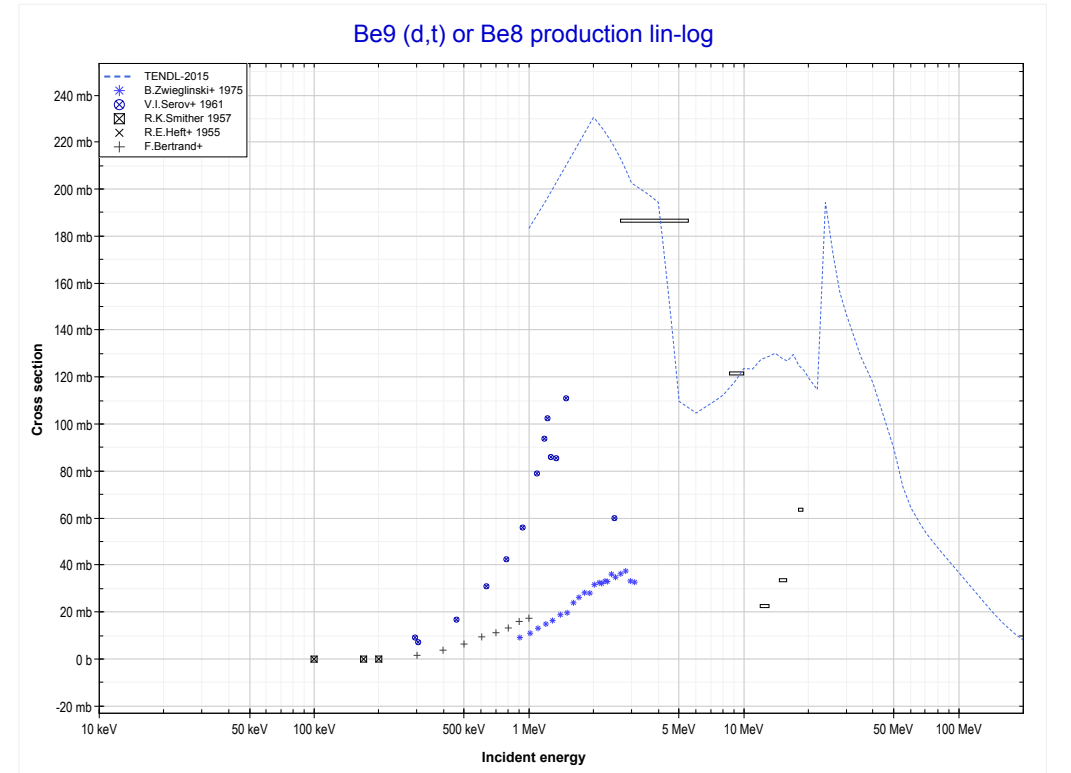
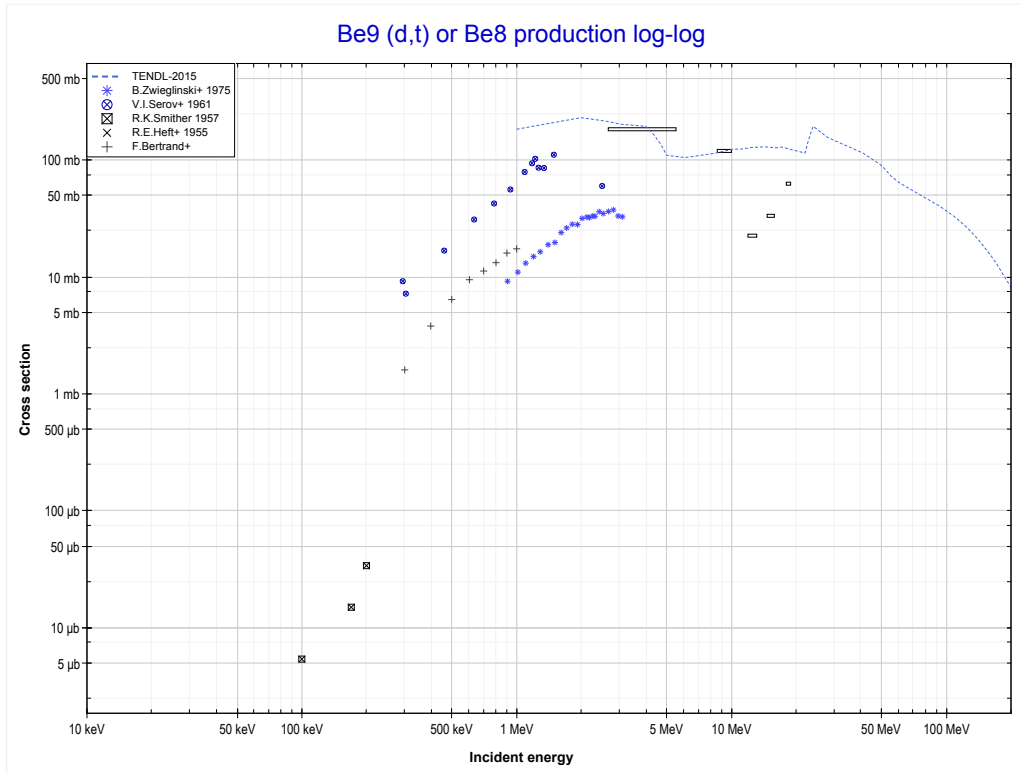
Reaction	Q-Value
Be9(d, $\gamma$ )B11	15816.27 keV

<< 3-Li-7	<b>4-Be-9</b>	5-B-11 >>
<< MT102 (d,y)	<b>MT103 (d,p) or MT5 (Be10 production)</b>	MT105 (d,t) >>



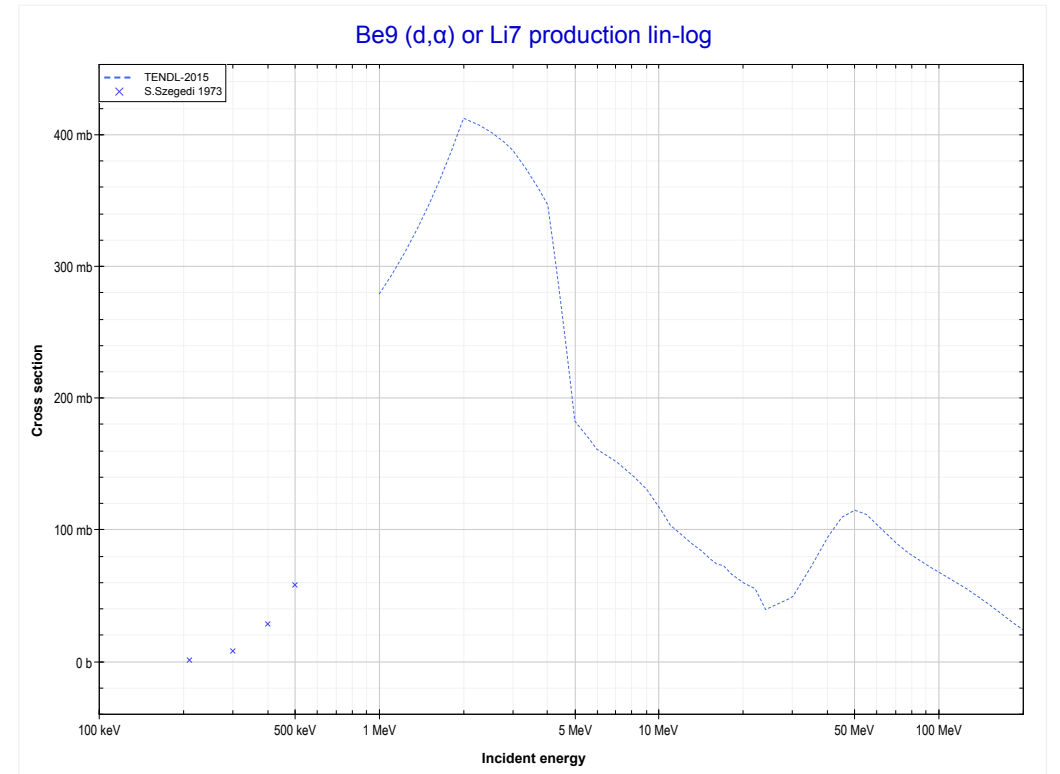
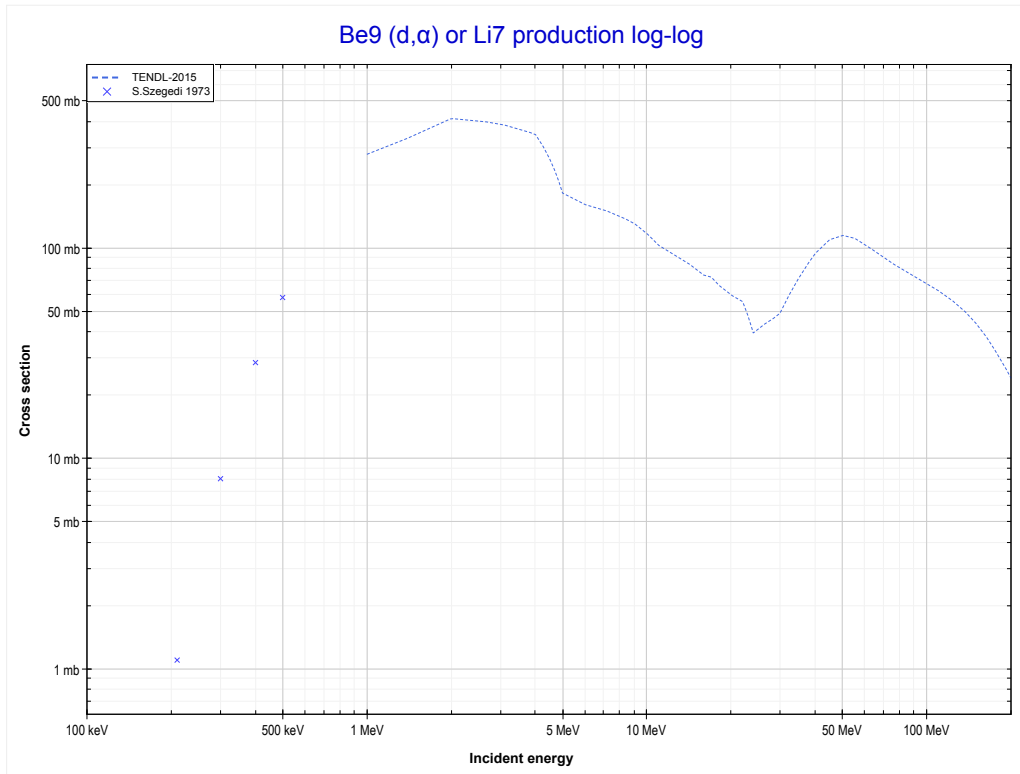
Reaction	Q-Value
Be9(d,p)Be10	4587.71 keV

<< 3-Li-7	<b>4-Be-9</b>	9-F-19 >>
<< MT103 (d,p)	<b>MT105 (d,t) or MT5 (Be8 production)</b>	MT107 (d, $\alpha$ ) >>



Reaction	Q-Value
Be9(d,t)Be8	4592.70 keV
Be9(d,n+d)Be8	-1664.54 keV
Be9(d,2n+p)Be8	-3889.10 keV

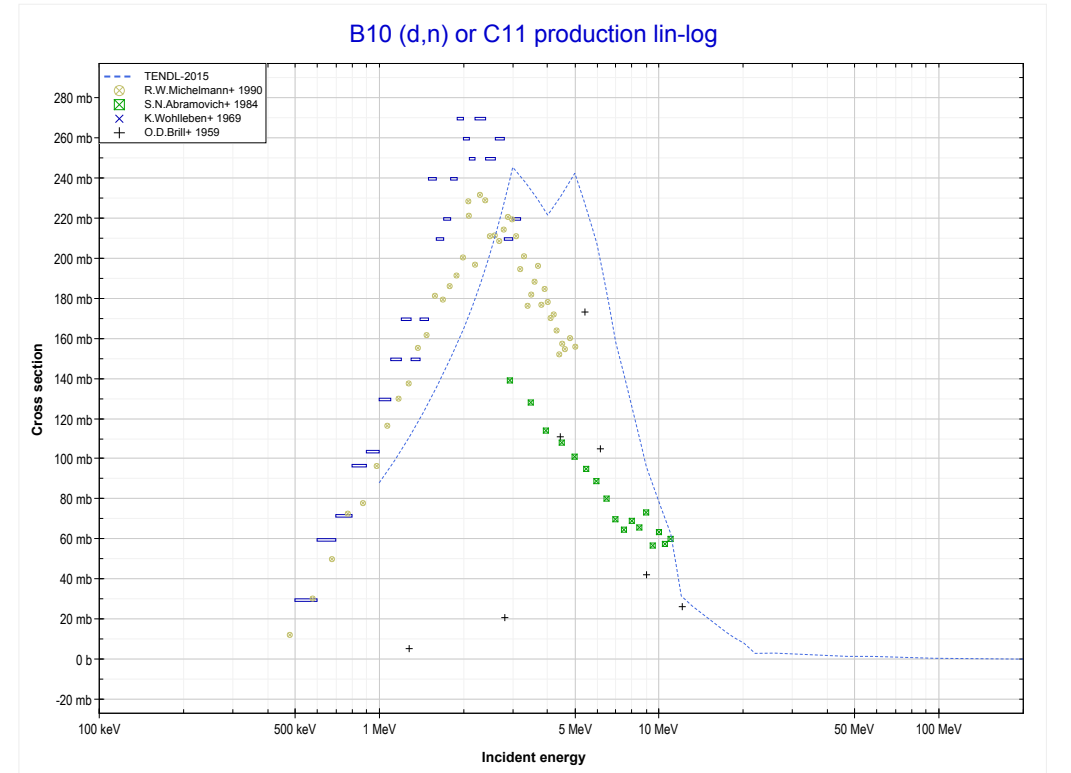
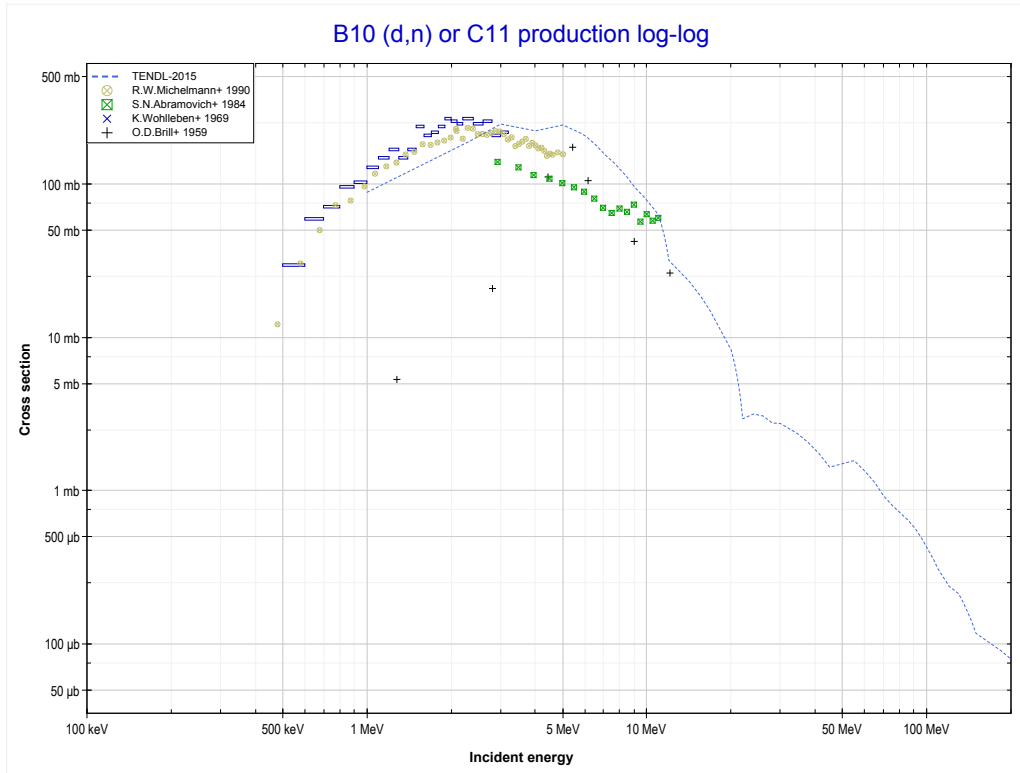
<< 3-Li-6	<b>4-Be-9</b>	6-C-12 >>
<< MT105 (d,t)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Li7 production)</b>	5-B-10 MT4 (d,n) >>



Reaction	Q-Value
Be9(d, $\alpha$ )Li7	7152.15 keV
Be9(d,p+t)Li7	-12661.71 keV
Be9(d,n+He3)Li7	-13425.47 keV
Be9(d,2d)Li7	-16694.38 keV
Be9(d,n+p+d)Li7	-18918.94 keV
Be9(d,2n+2p)Li7	-21143.51 keV

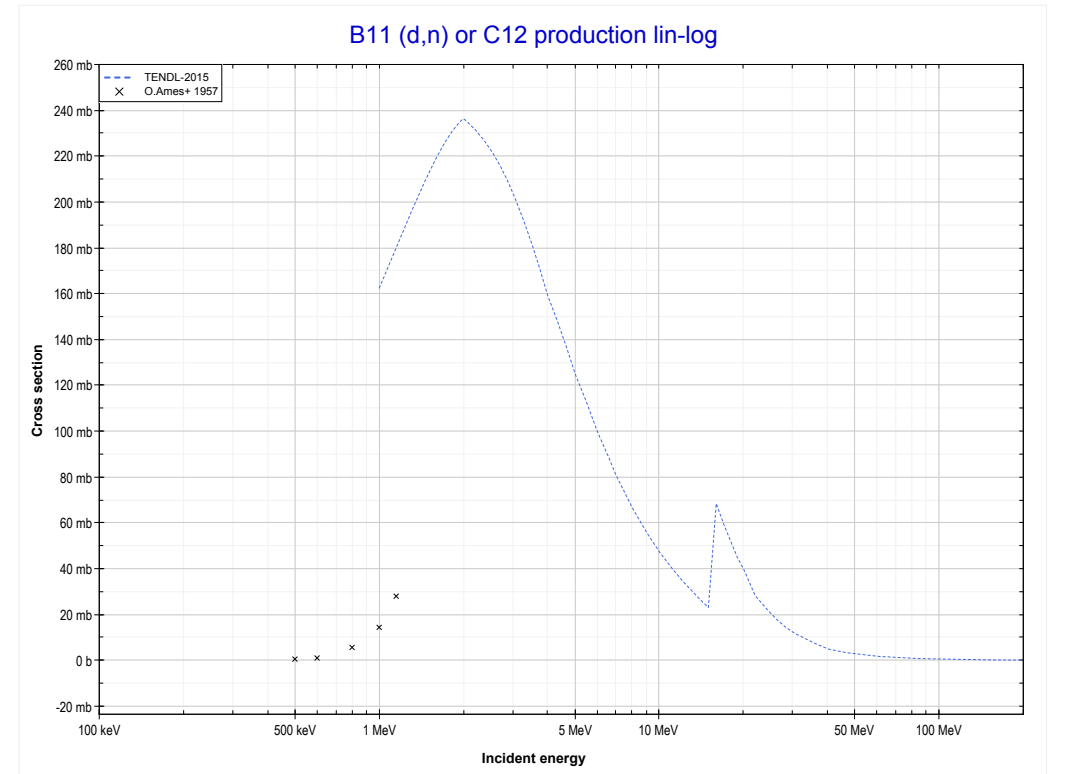
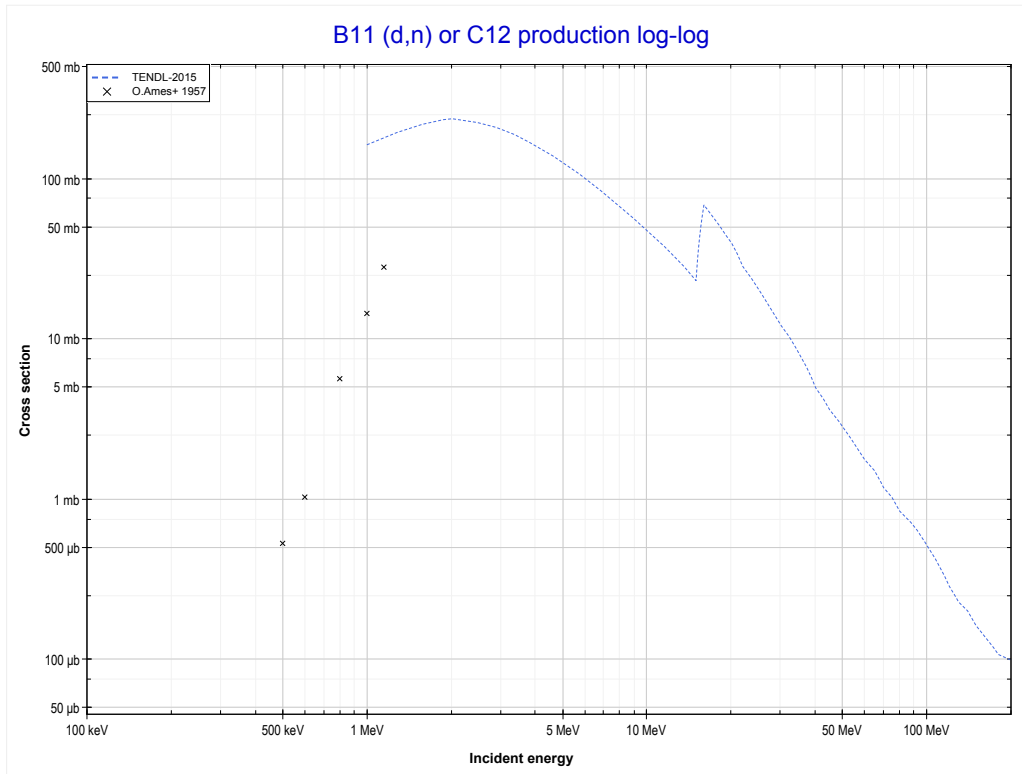


<< 3-Li-7	<b>5-B-10</b>	5-B-11 >>
<< 4-Be-9 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (C11 production)</b>	5-B-11 MT4 (d,n) >>



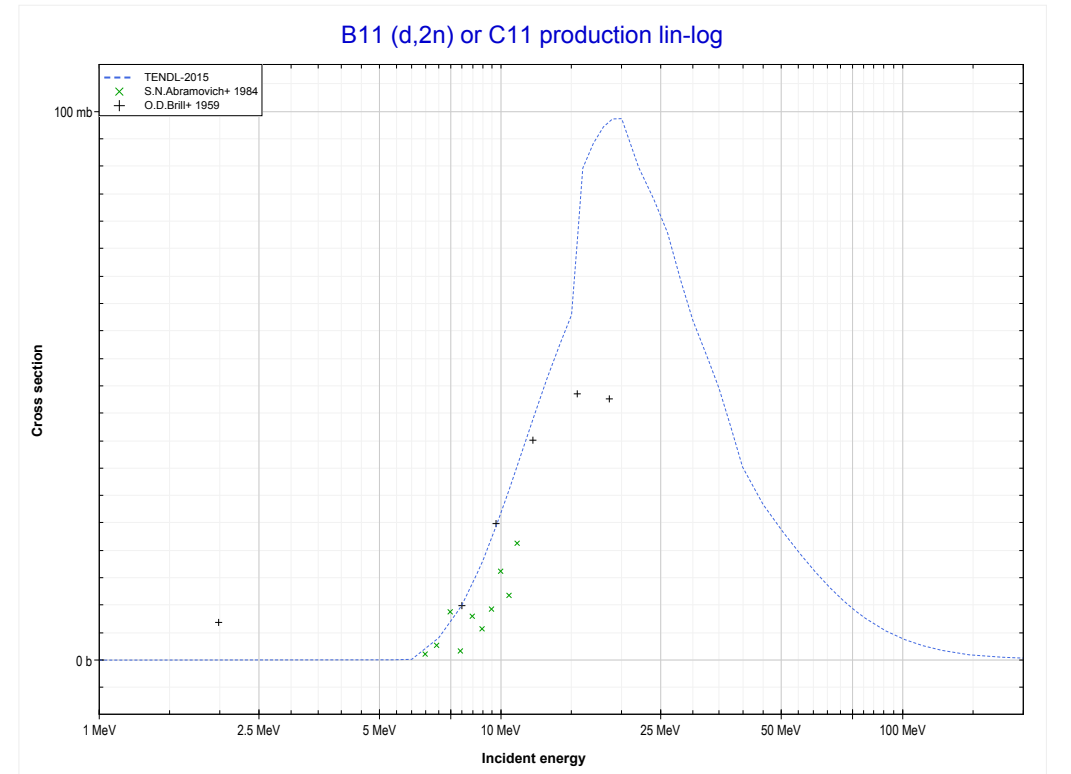
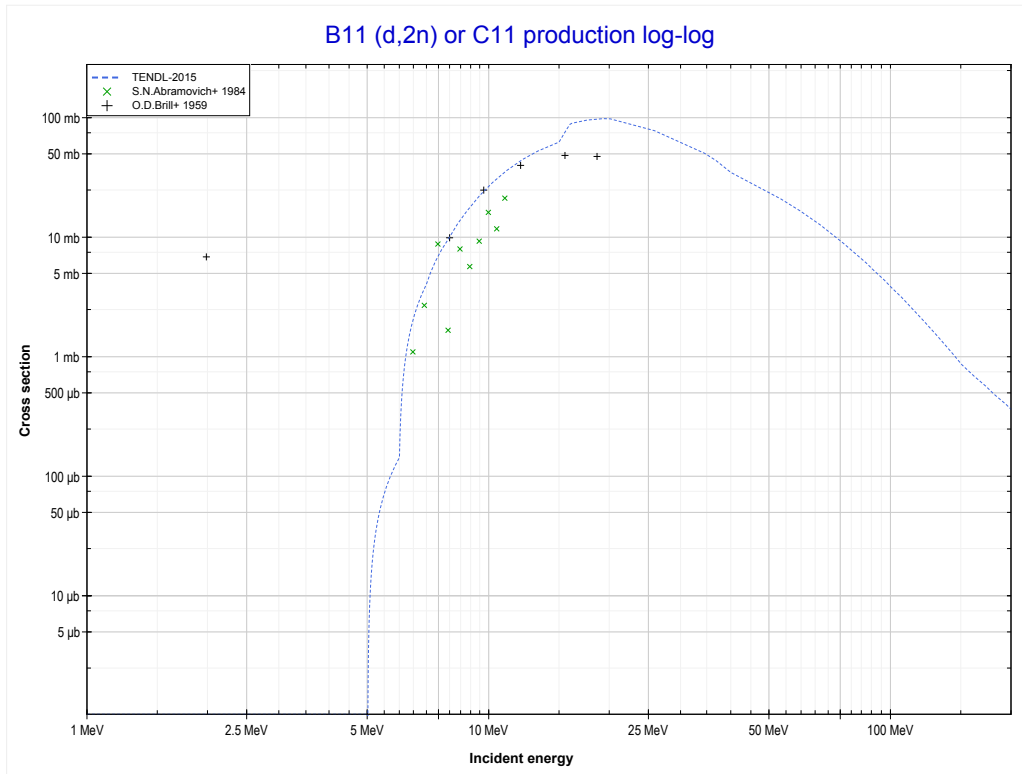
Reaction	Q-Value
B10(d,n)C11	6464.80 keV

<< 5-B-10	<b>5-B-11</b>	6-C-12 >>
<< 5-B-10 MT4 (d,n)	<b>MT4 (d,n) or MT5 (C12 production)</b>	MT16 (d,2n) >>



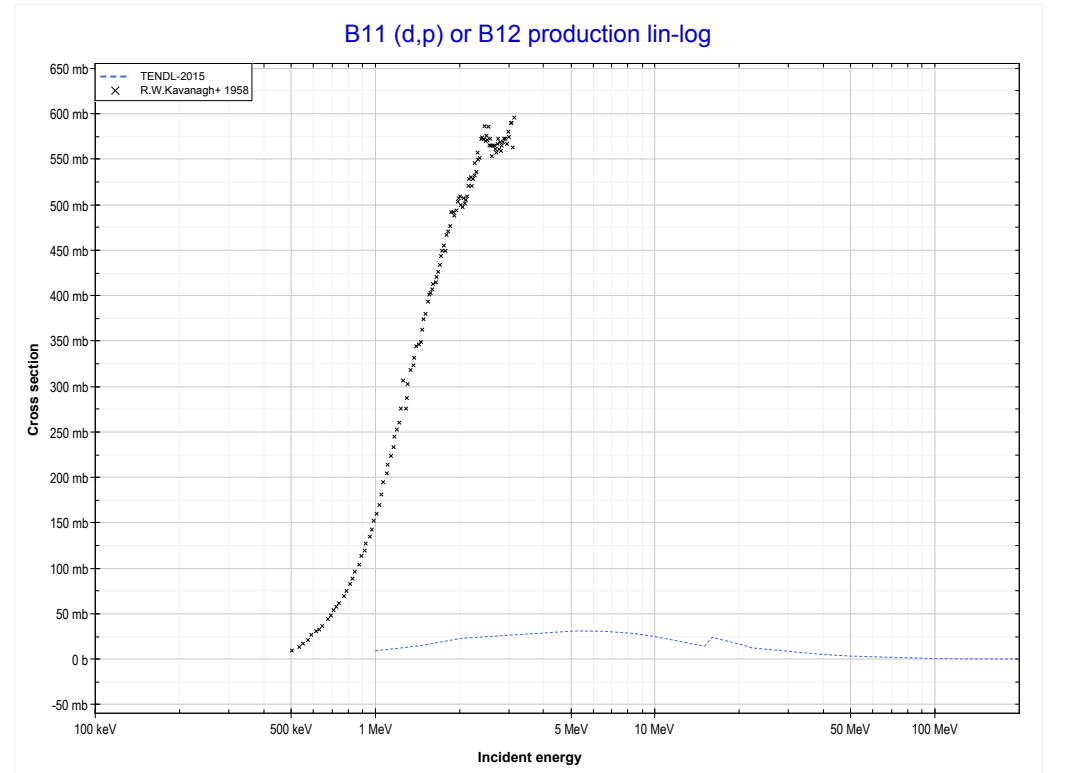
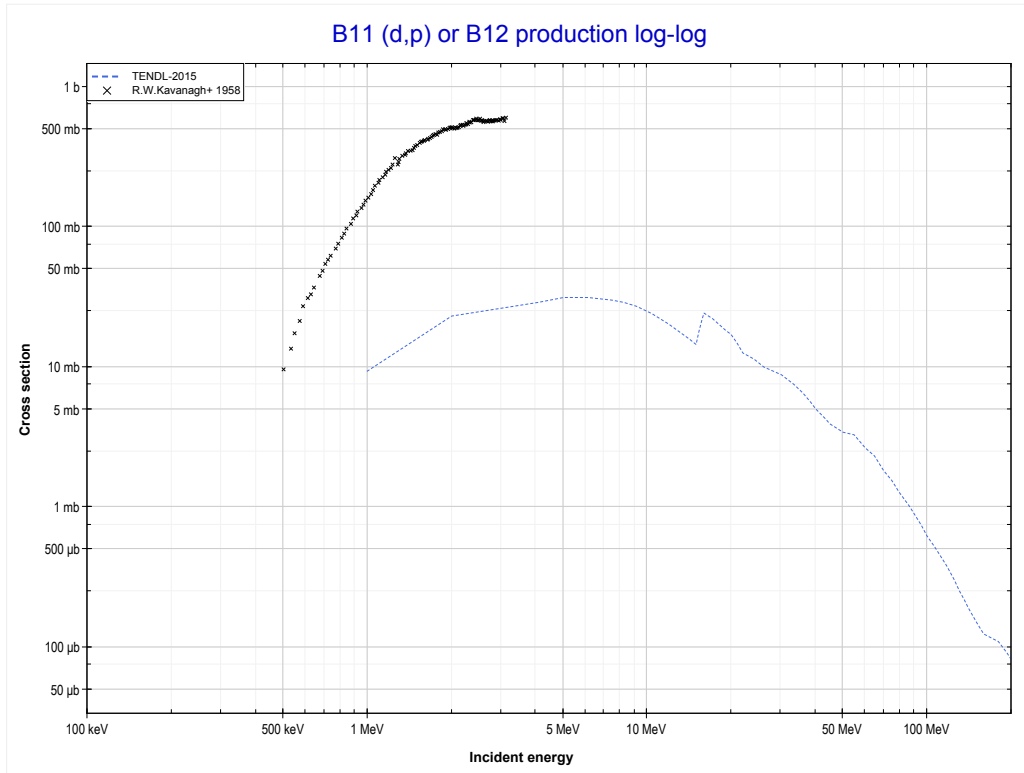
Reaction	Q-Value
B11(d,n)C12	13732.30 keV

<< 3-Li-7	<b>5-B-11</b>	20-Ca-48 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (C11 production)</b>	MT103 (d,p) >>



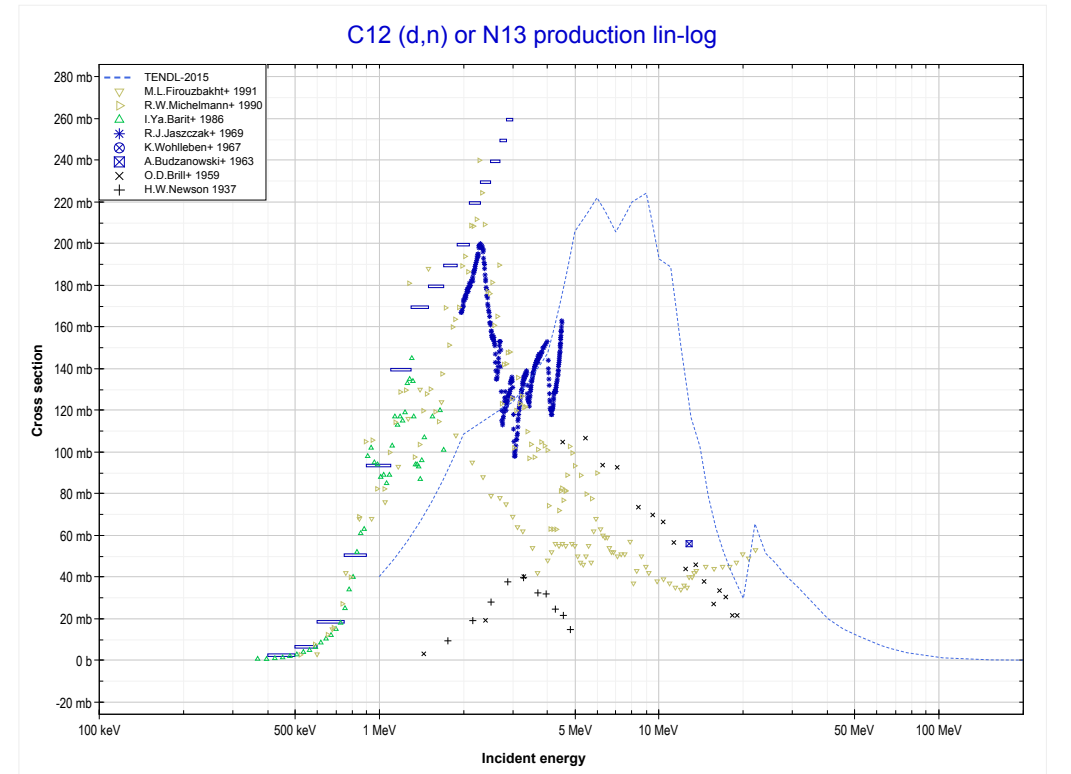
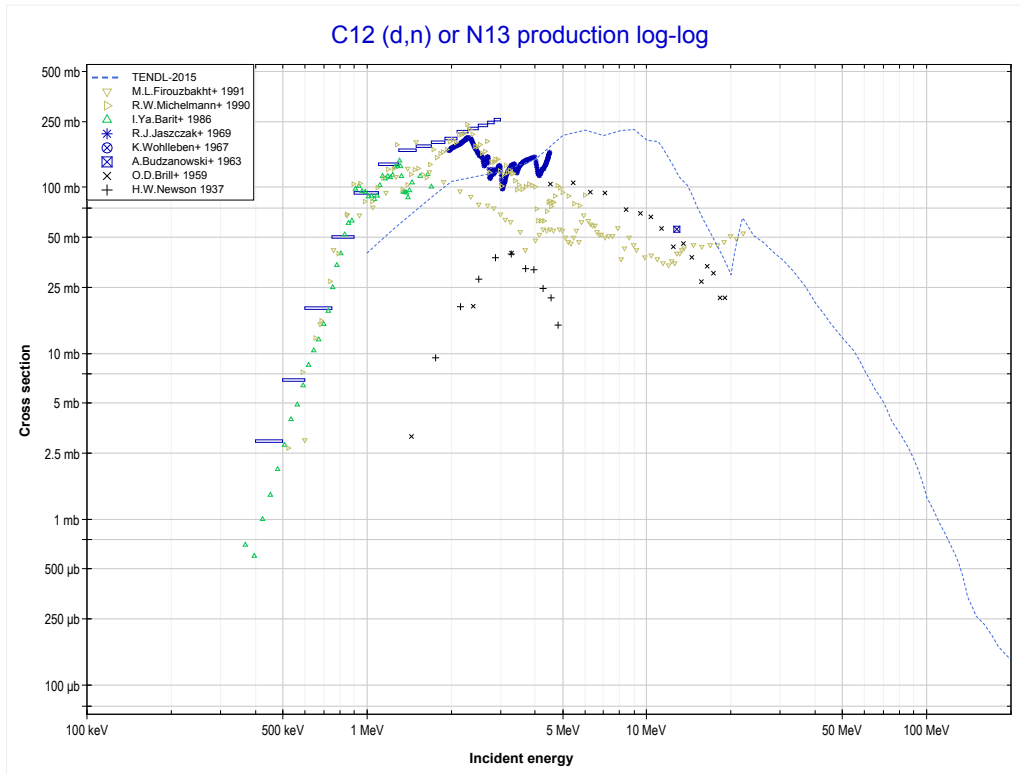
Reaction	Q-Value
B11(d,2n)C11	-4989.31 keV

<< 4-Be-9	<b>5-B-11</b>	6-C-12 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (B12 production)</b>	6-C-12 MT4 (d,n) >>



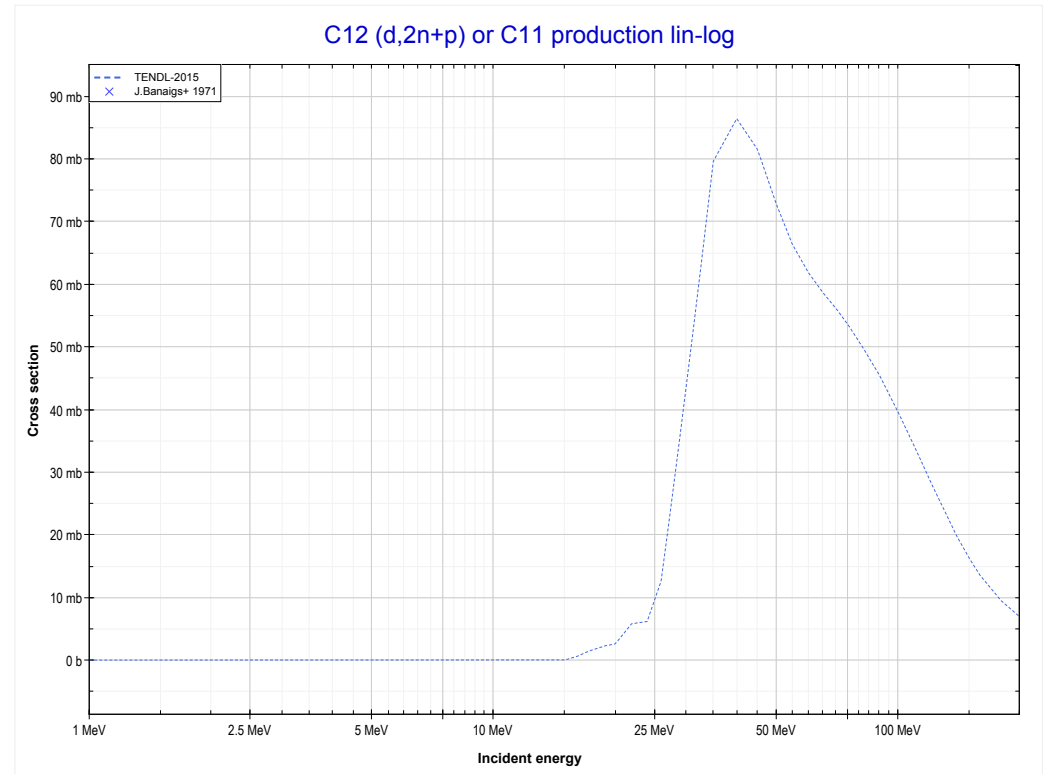
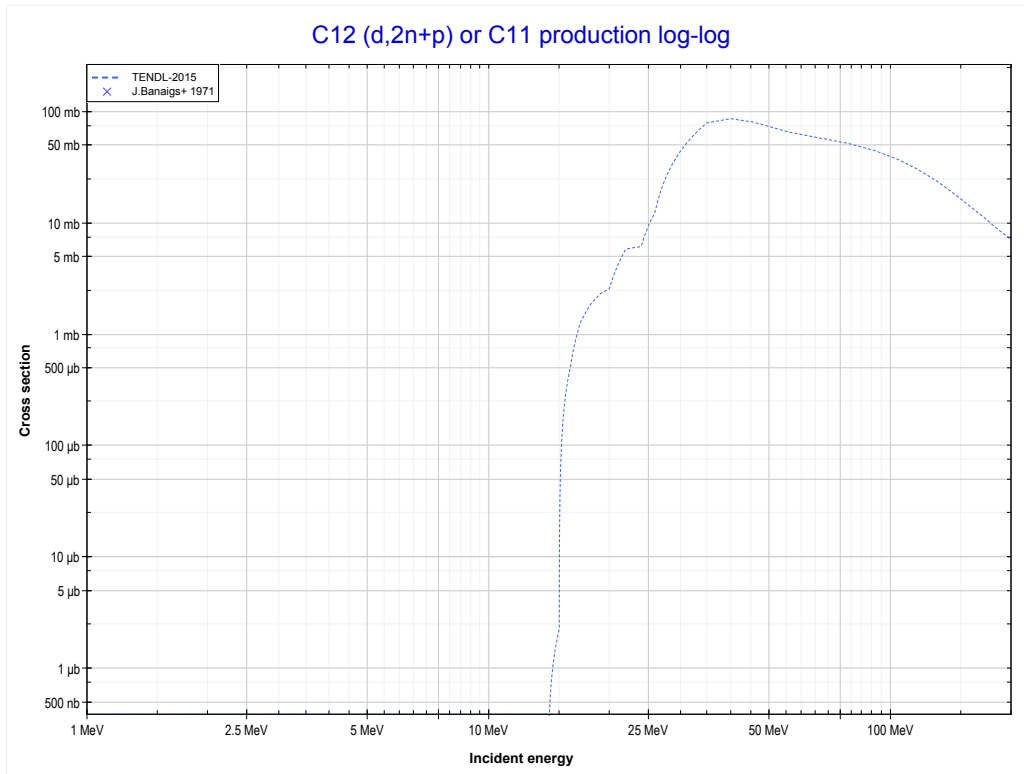
Reaction	Q-Value
B11(d,p)B12	1145.25 keV

<< 5-B-11	<b>6-C-12</b>	6-C-13 >>
<< 5-B-11 MT103 (d,p)	<b>MT4 (d,n) or MT5 (N13 production)</b>	MT41 (d,2n+p) >>



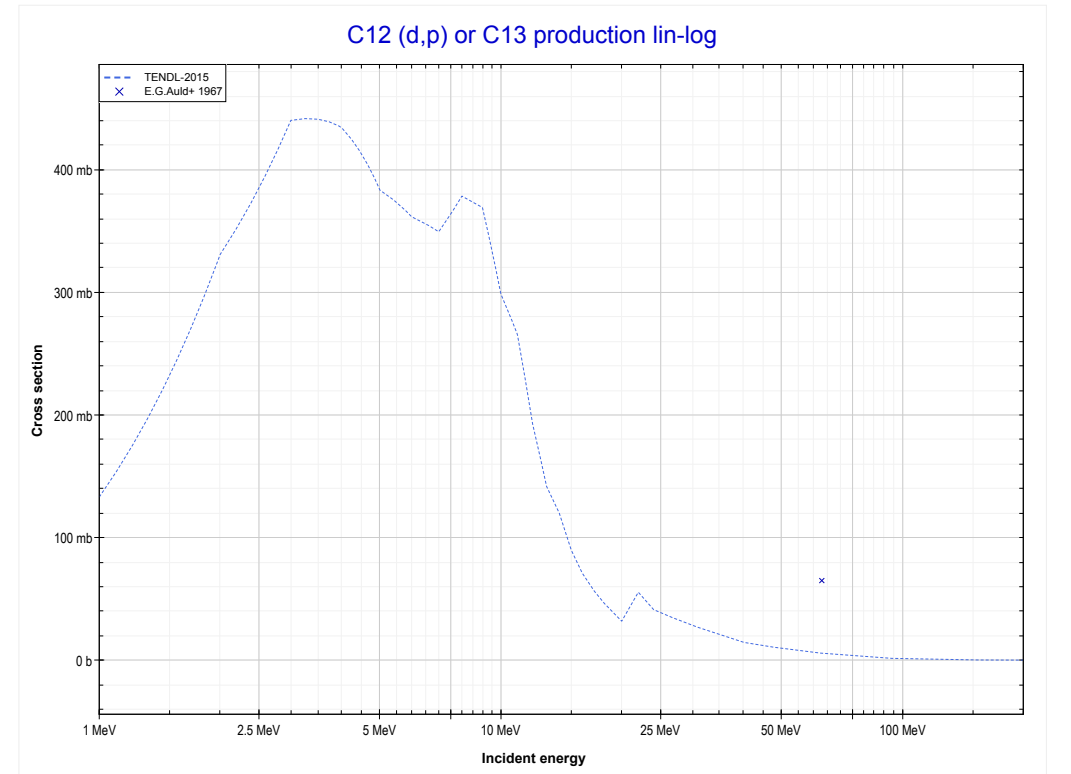
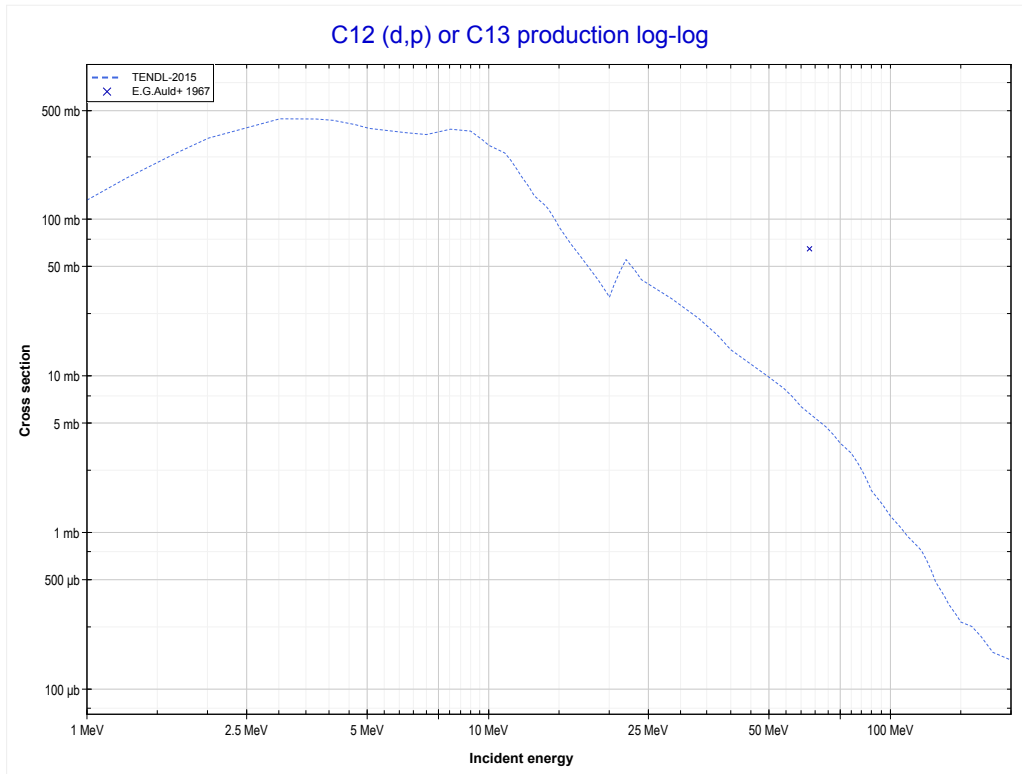
Reaction	Q-Value
C12(d,n)N13	-281.08 keV

	<b>6-C-12</b>	<b>28-Ni-58 &gt;&gt;</b>
<b>&lt;&lt; MT4 (d,n)</b>	<b>MT41 (d,2n+p) or MT5 (C11 production)</b>	<b>MT103 (d,p) &gt;&gt;</b>



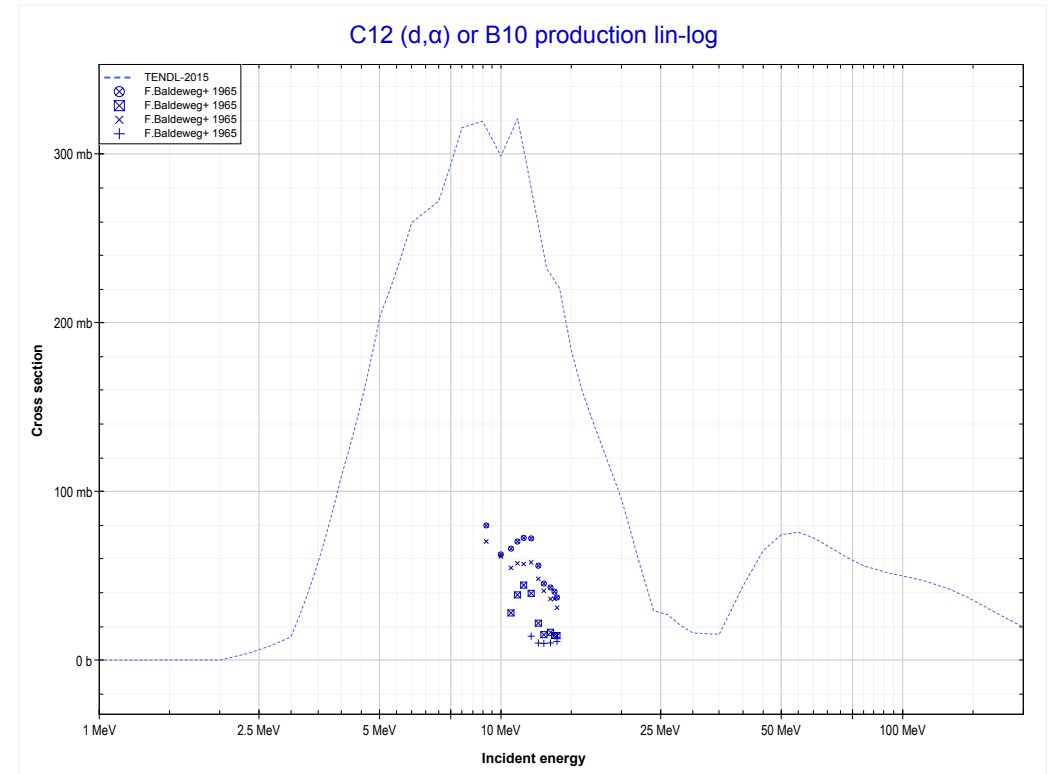
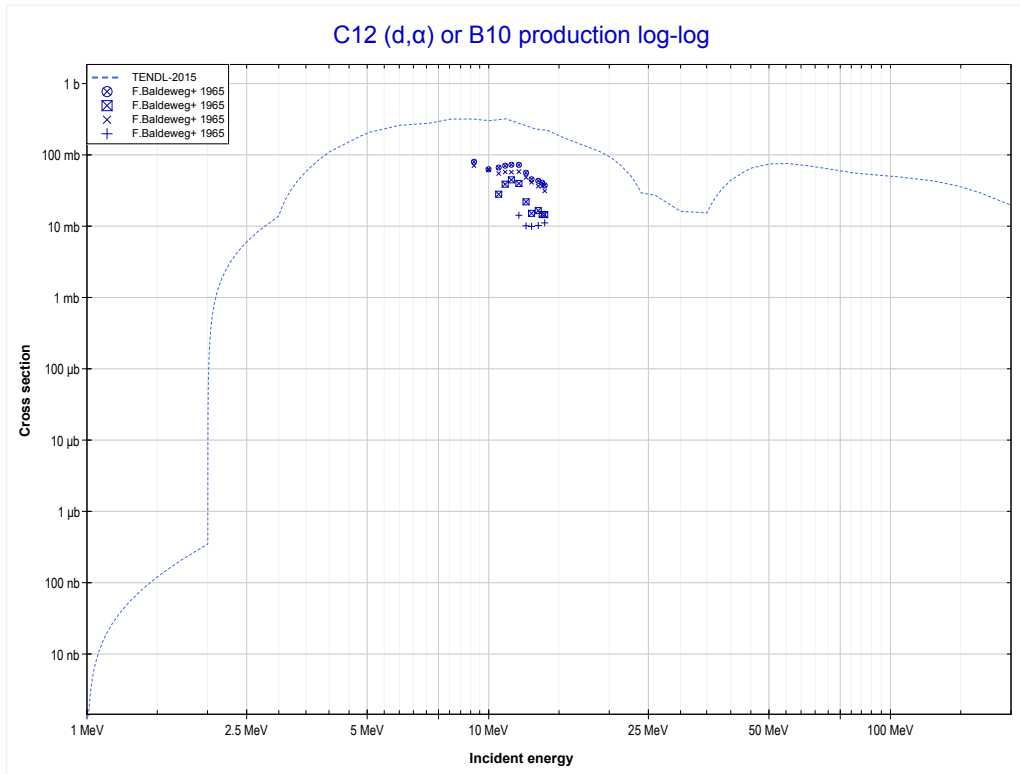
Reaction	Q-Value
C12(d,t)C11	-12464.38 keV
C12(d,n+d)C11	-18721.62 keV
C12(d,2n+p)C11	-20946.18 keV

<< 5-B-11	<b>6-C-12</b>	6-C-13 >>
<< MT41 (d,2n+p)	<b>MT103 (d,p) or MT5 (C13 production)</b>	MT107 (d, $\alpha$ ) >>



Reaction	Q-Value
C12(d,p)C13	2721.74 keV

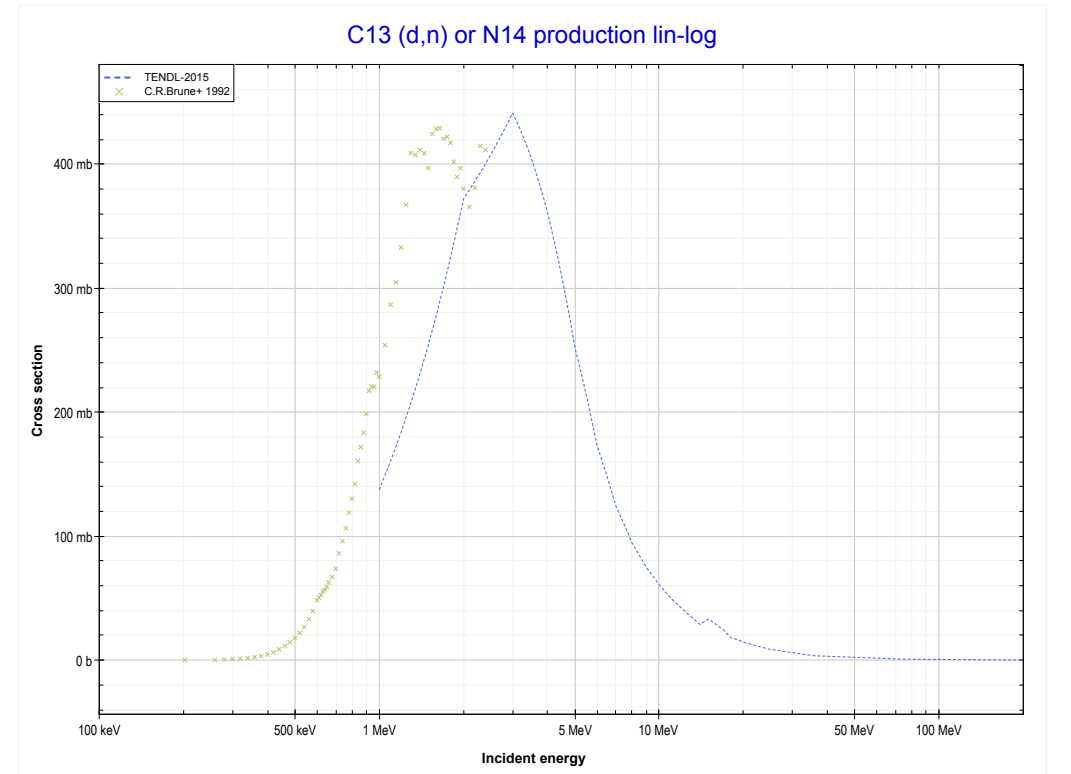
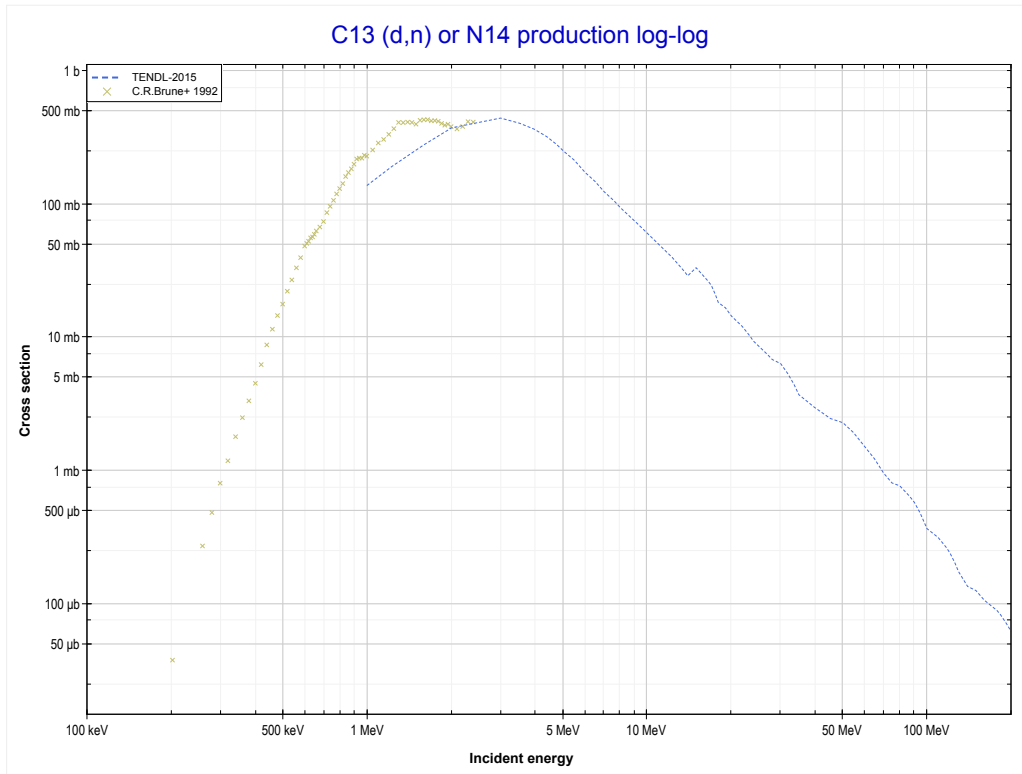
<< 4-Be-9	<b>6-C-12</b>	8-O-16 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (B10 production)</b>	6-C-13 MT4 (d,n) >>



Reaction	Q-Value
C12(d, $\alpha$ )B10	-1339.89 keV
C12(d,p+t)B10	-21153.75 keV
C12(d,n+He3)B10	-21917.51 keV
C12(d,2d)B10	-25186.42 keV
C12(d,n+p+d)B10	-27410.99 keV
C12(d,2n+2p)B10	-29635.55 keV

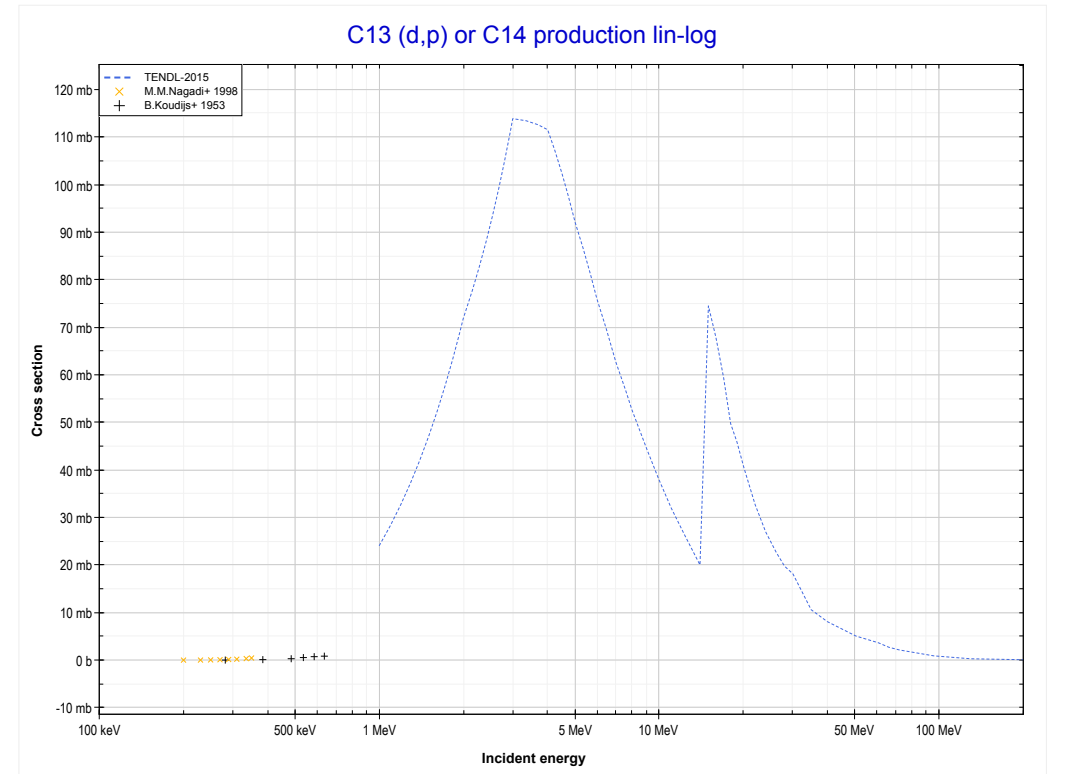
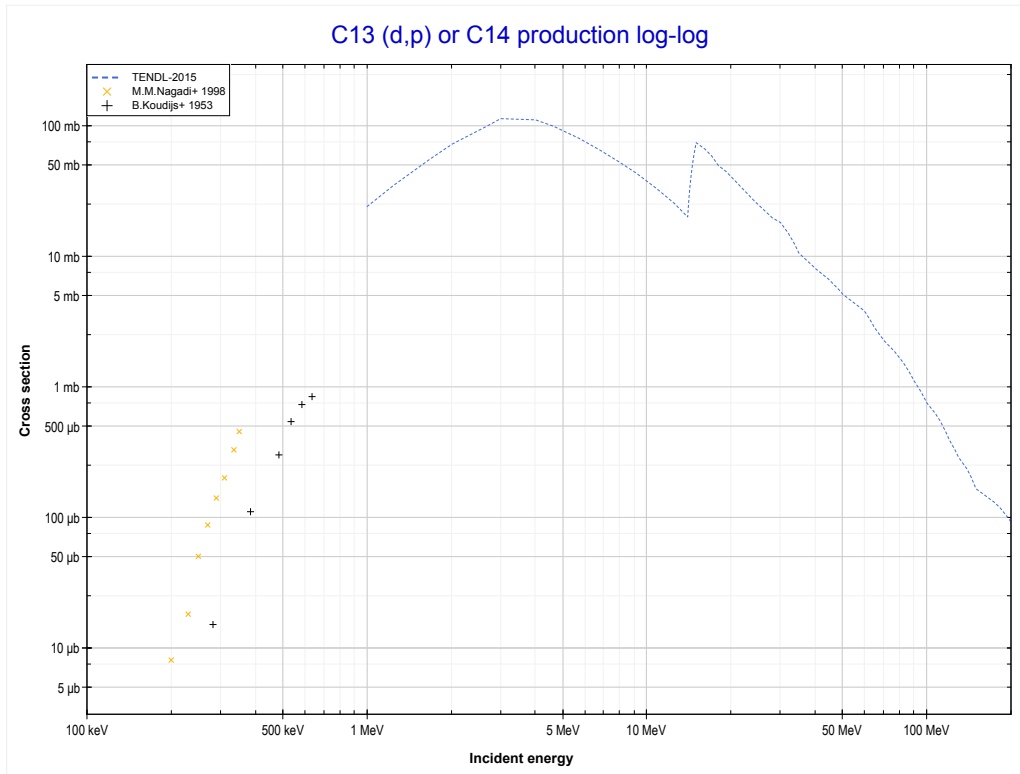


<< 6-C-12	<b>6-C-13</b>	6-C-14 >>
<< 6-C-12 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (N14 production)</b>	MT103 (d,p) >>



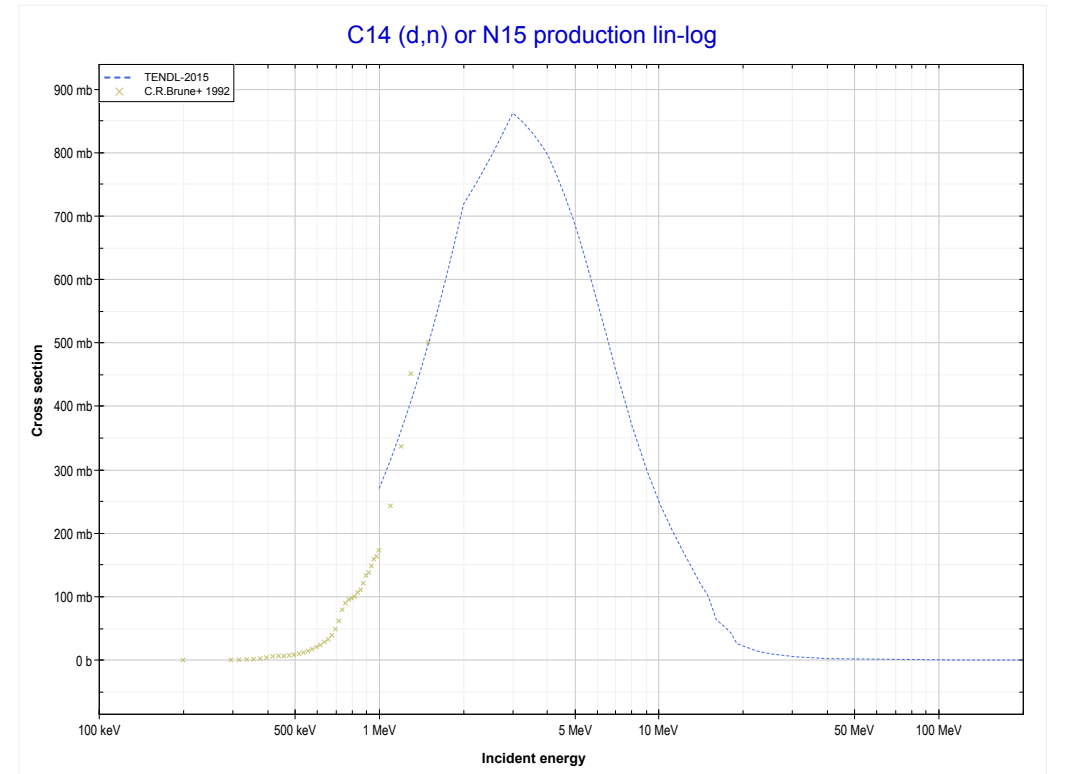
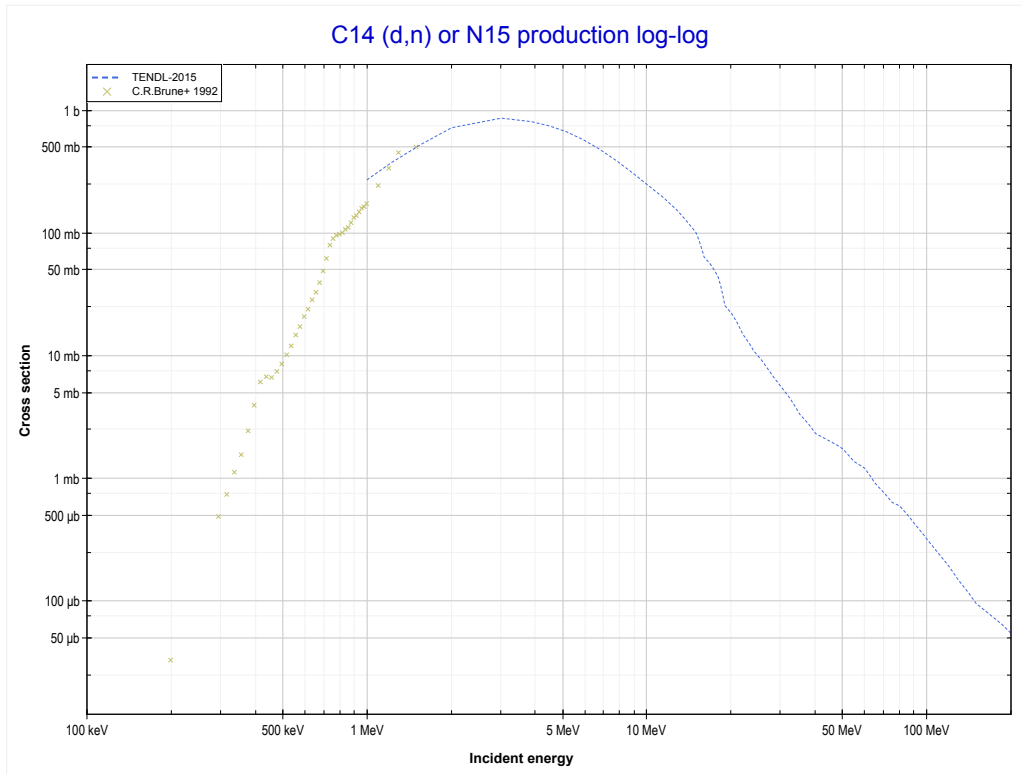
Reaction	Q-Value
C13(d,n)N14	5326.00 keV

<< 6-C-12	<b>6-C-13</b>	7-N-15 >>
<< MT4 (d,n)	<b>MT103 (d,p) or MT5 (C14 production)</b>	6-C-14 MT4 (d,n) >>



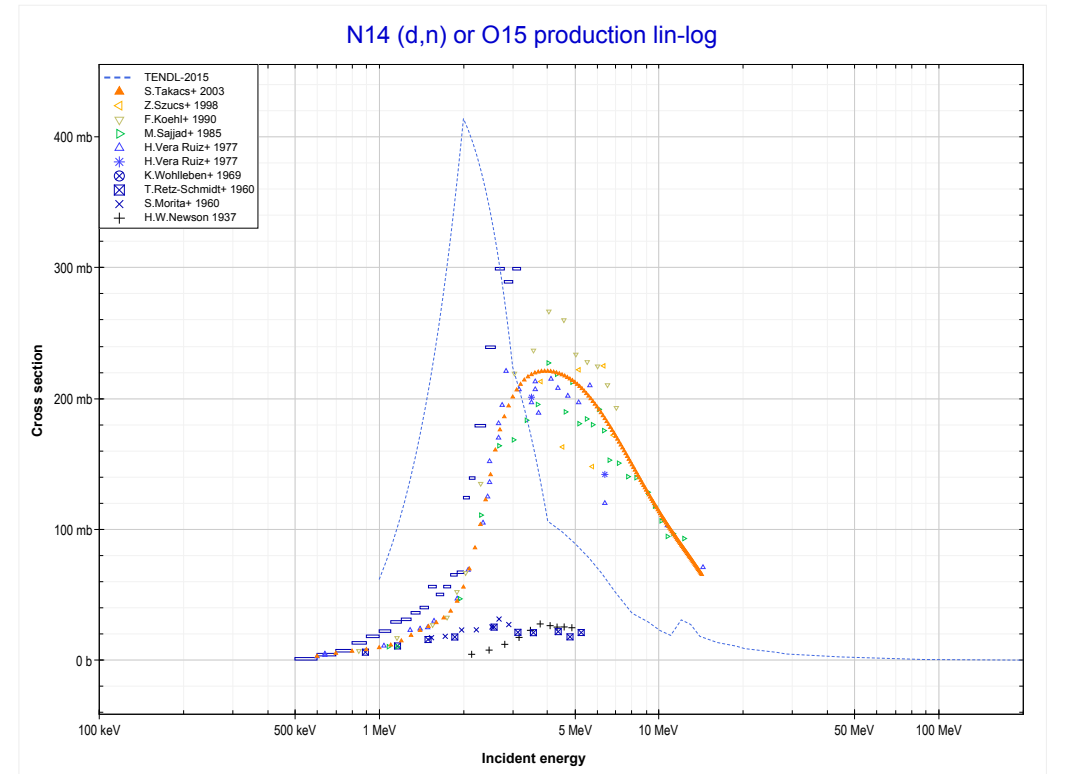
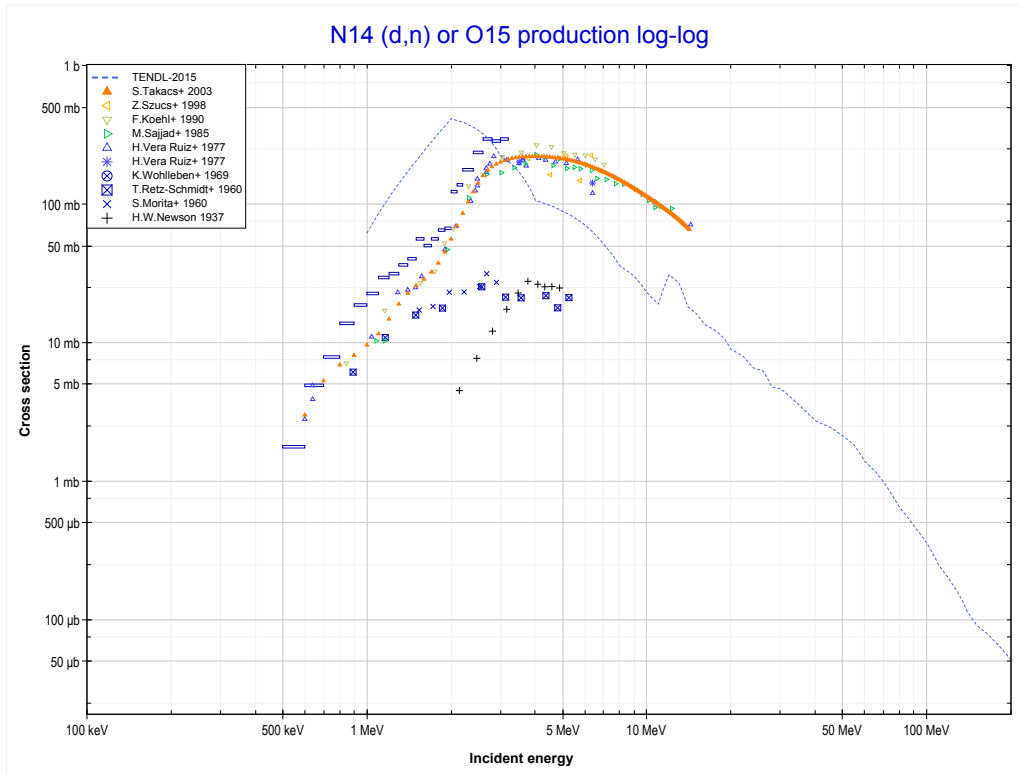
Reaction	Q-Value
C13(d,p)C14	5951.87 keV

<< 6-C-13	<b>6-C-14</b>	7-N-14 >>
<< 6-C-13 MT103 (d,p)	<b>MT4 (d,n) or MT5 (N15 production)</b>	7-N-14 MT4 (d,n) >>



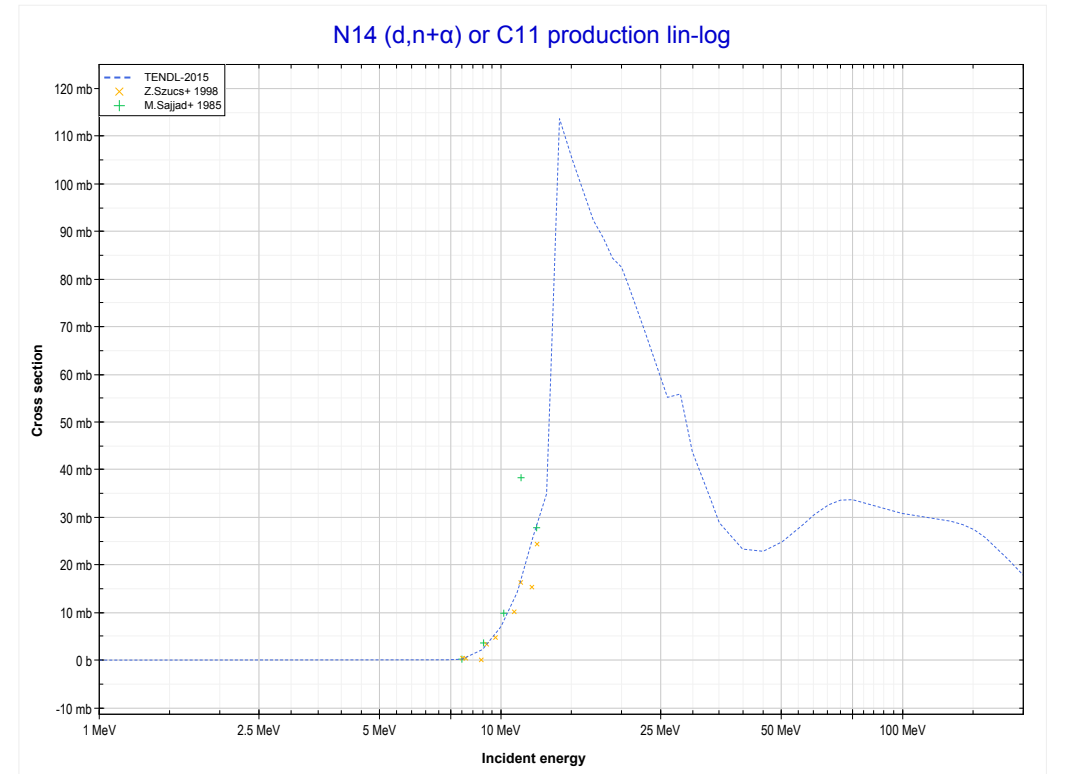
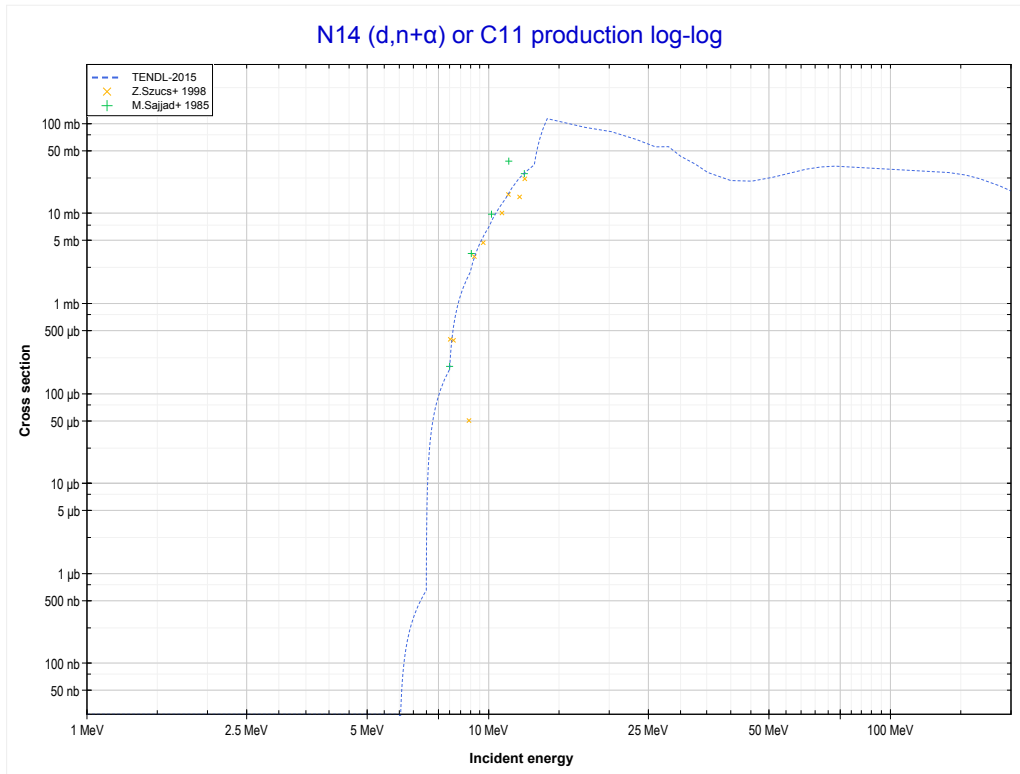
Reaction	Q-Value
C14(d,n)N15	7982.86 keV

<< 6-C-14	<b>7-N-14</b>	8-O-16 >>
<< 6-C-14 MT4 (d,n)	<b>MT4 (d,n) or MT5 (O15 production)</b>	MT22 (d,n+α) >>



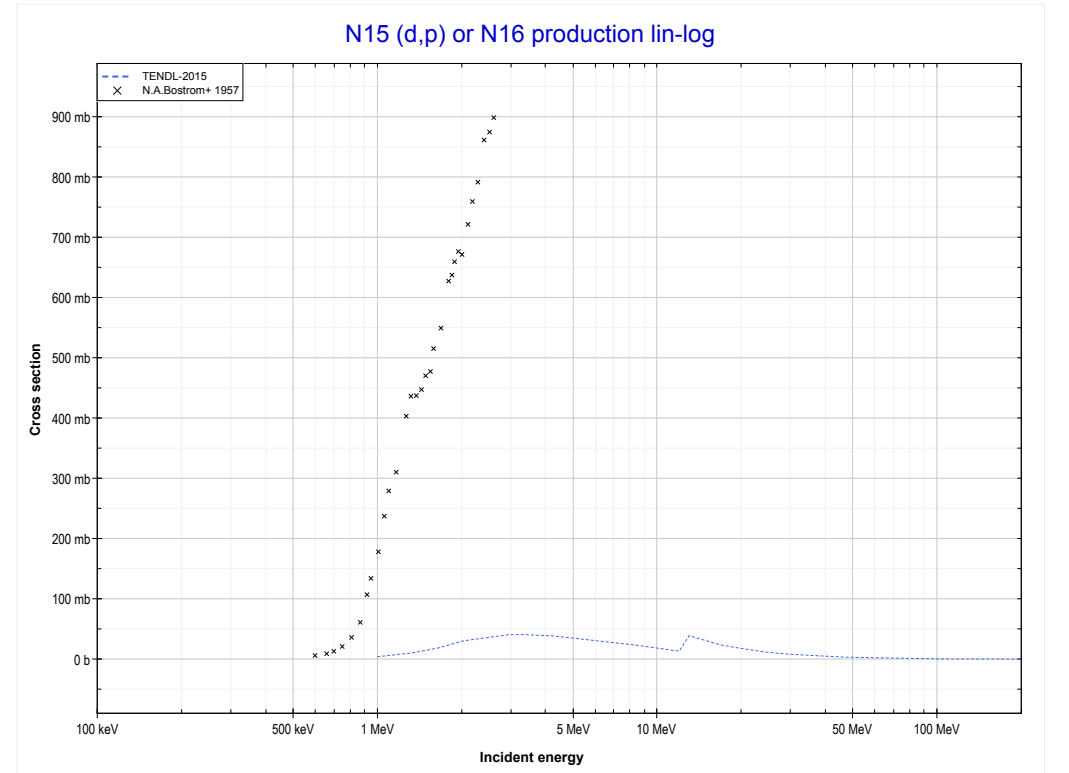
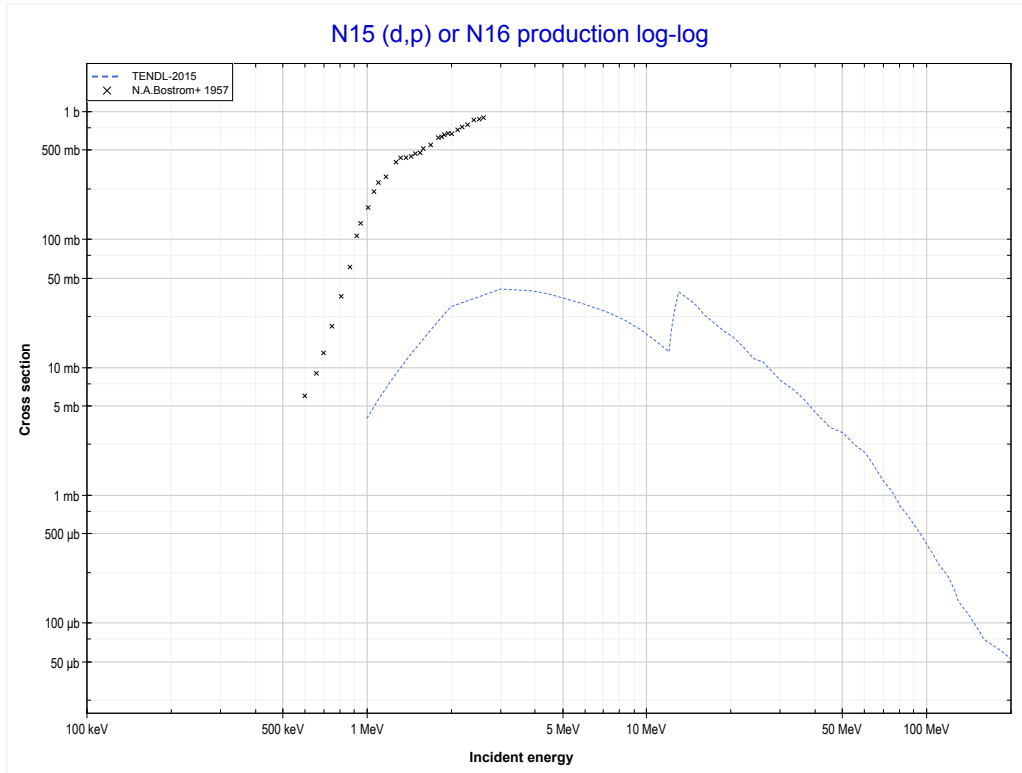
<b>Reaction</b>	<b>Q-Value</b>
N14(d,n)O15	5072.22 keV

<< 3-Li-7	<b>7-N-14</b>	22-Ti-47 >>
<< MT4 (d,n)	<b>MT22 (d,n+α) or MT5 (C11 production)</b>	7-N-15 MT103 (d,p) >>



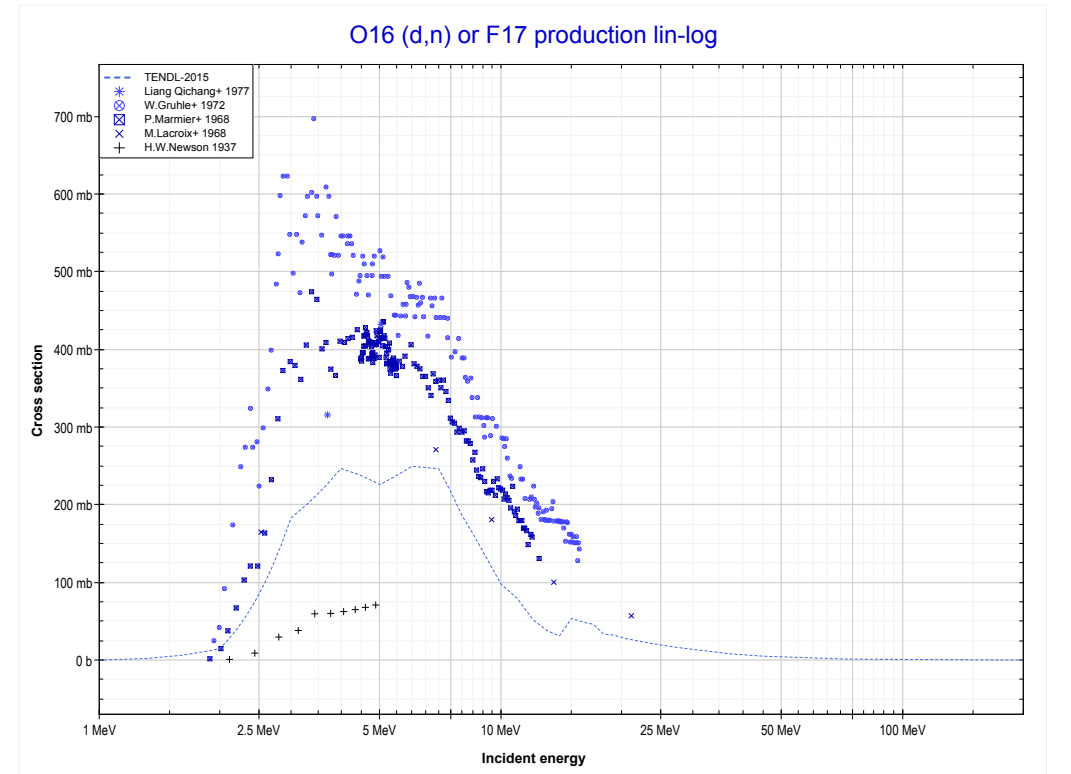
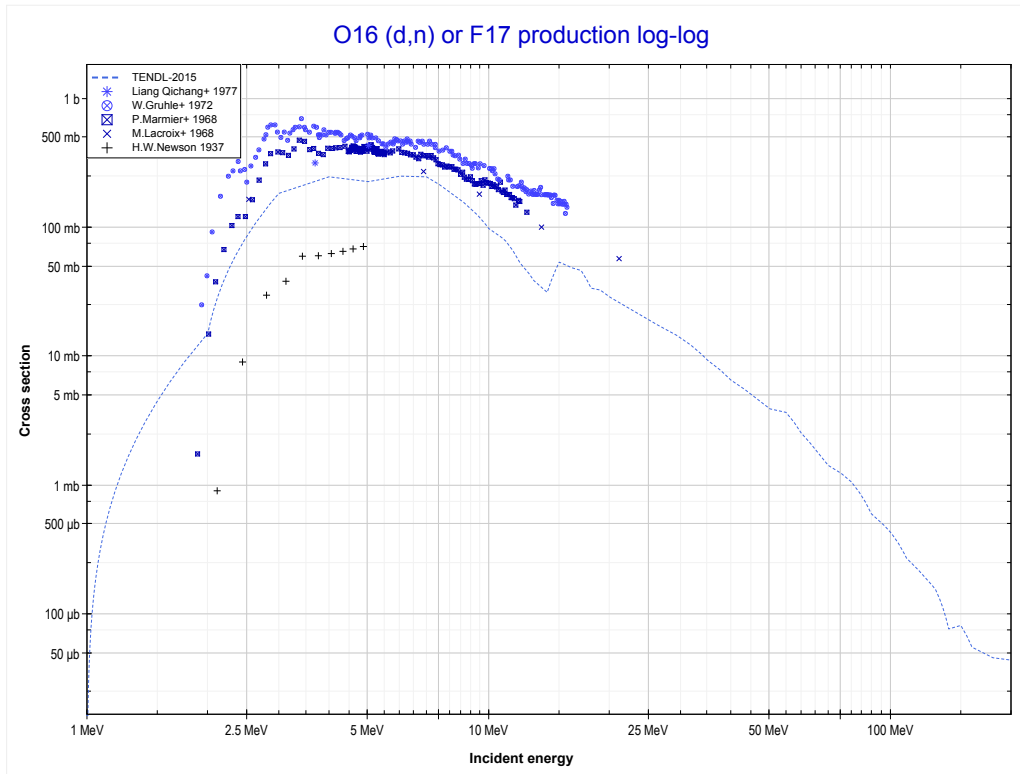
Reaction	Q-Value
N14(d,n+α)C11	-5147.39 keV
N14(d,d+t)C11	-22736.69 keV
N14(d,n+p+t)C11	-24961.26 keV
N14(d,2n+He3)C11	-25725.01 keV
N14(d,n+2d)C11	-28993.92 keV
N14(d,2n+p+d)C11	-31218.49 keV
N14(d,3n+2p)C11	-33443.05 keV

<< 6-C-13	<b>7-N-15</b>	8-O-18 >>
<< 7-N-14 MT22 (d,n+ $\alpha$ )	<b>MT103 (d,p) or MT5 (N16 production)</b>	8-O-16 MT4 (d,n) >>



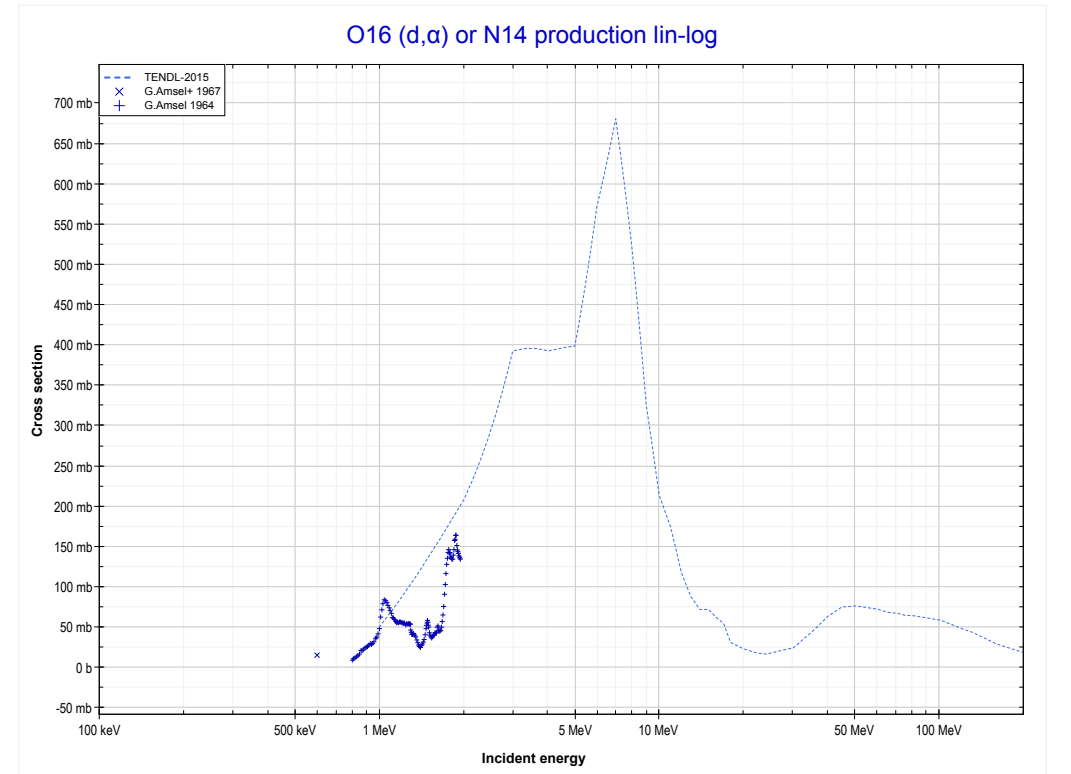
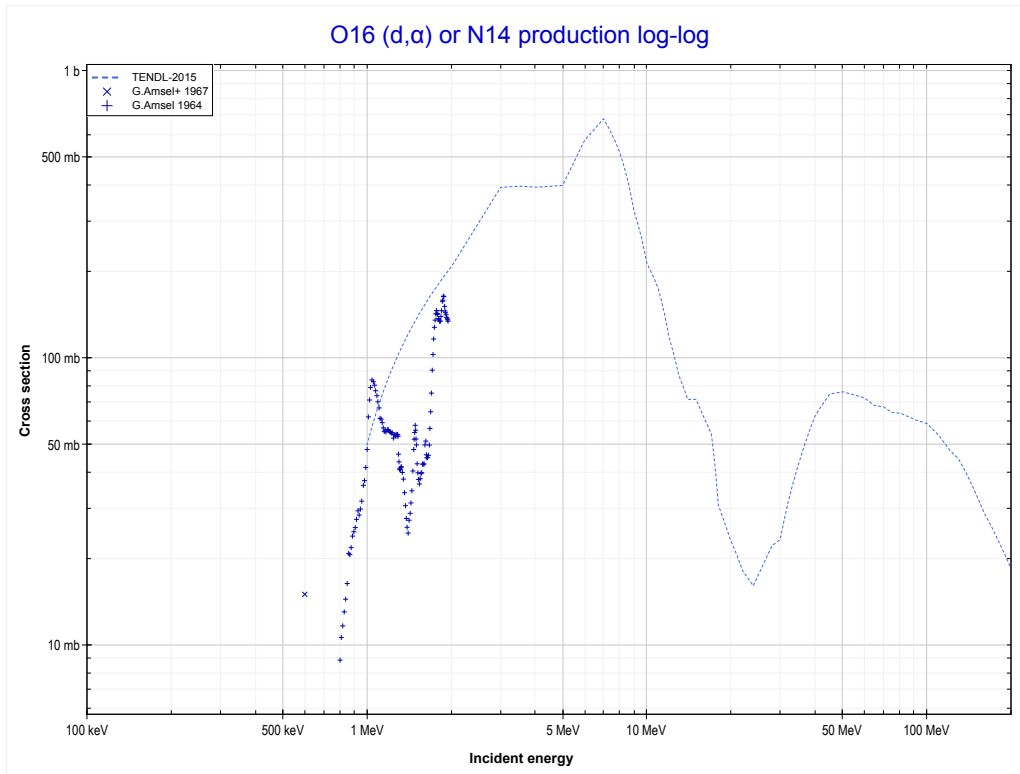
Reaction	Q-Value
N15(d,p)N16	264.29 keV

<< 7-N-14	<b>8-O-16</b>	10-Ne-20 >>
<< 7-N-15 MT103 (d,p)	<b>MT4 (d,n) or MT5 (F17 production)</b>	MT107 (d, $\alpha$ ) >>



Reaction	Q-Value
O16(d,n)F17	-1624.30 keV

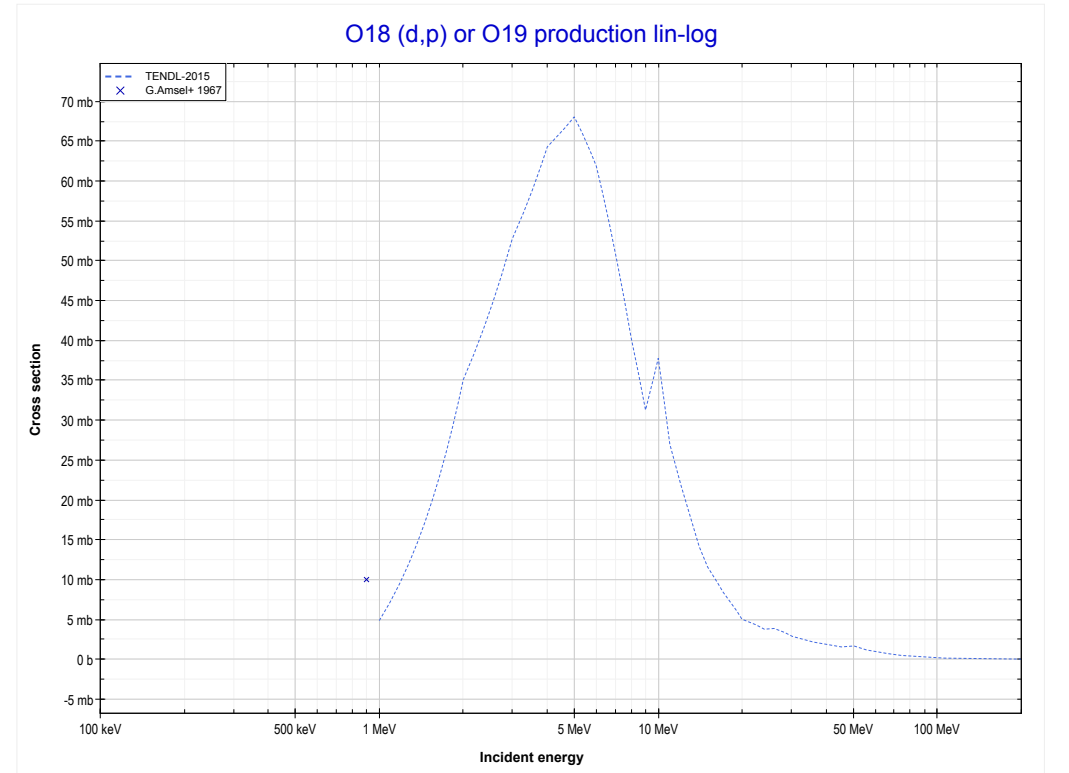
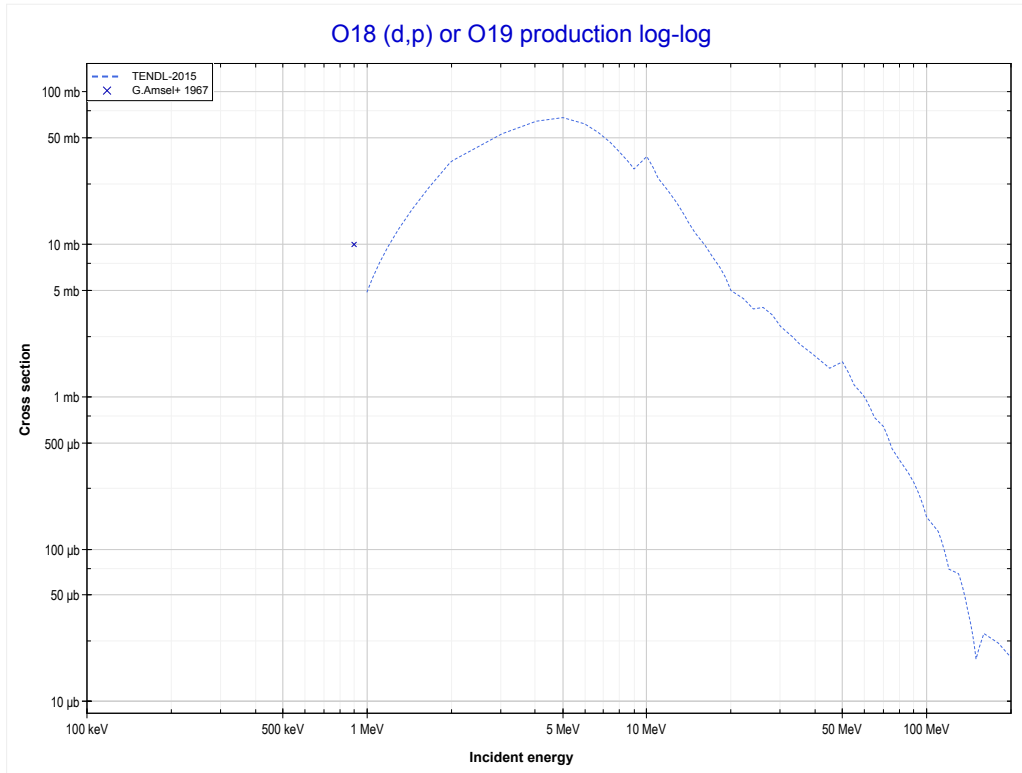
<< 6-C-12	<b>8-O-16</b>	8-O-18 >>
<< MT4 (d,n)	<b>MT107 (d,<math>\alpha</math>) or MT5 (N14 production)</b>	8-O-18 MT103 (d,p) >>



Reaction	Q-Value
O16(d, $\alpha$ )N14	3110.39 keV
O16(d,p+t)N14	-16703.47 keV
O16(d,n+He3)N14	-17467.23 keV
O16(d,2d)N14	-20736.14 keV
O16(d,n+p+d)N14	-22960.71 keV
O16(d,2n+2p)N14	-25185.27 keV

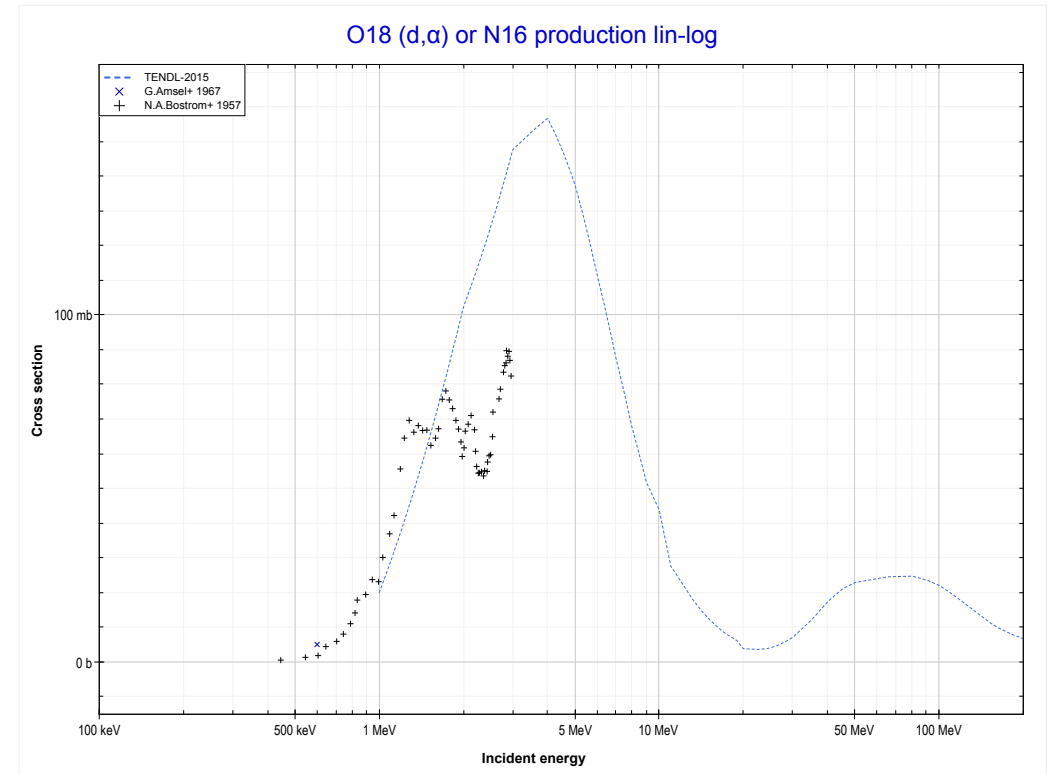
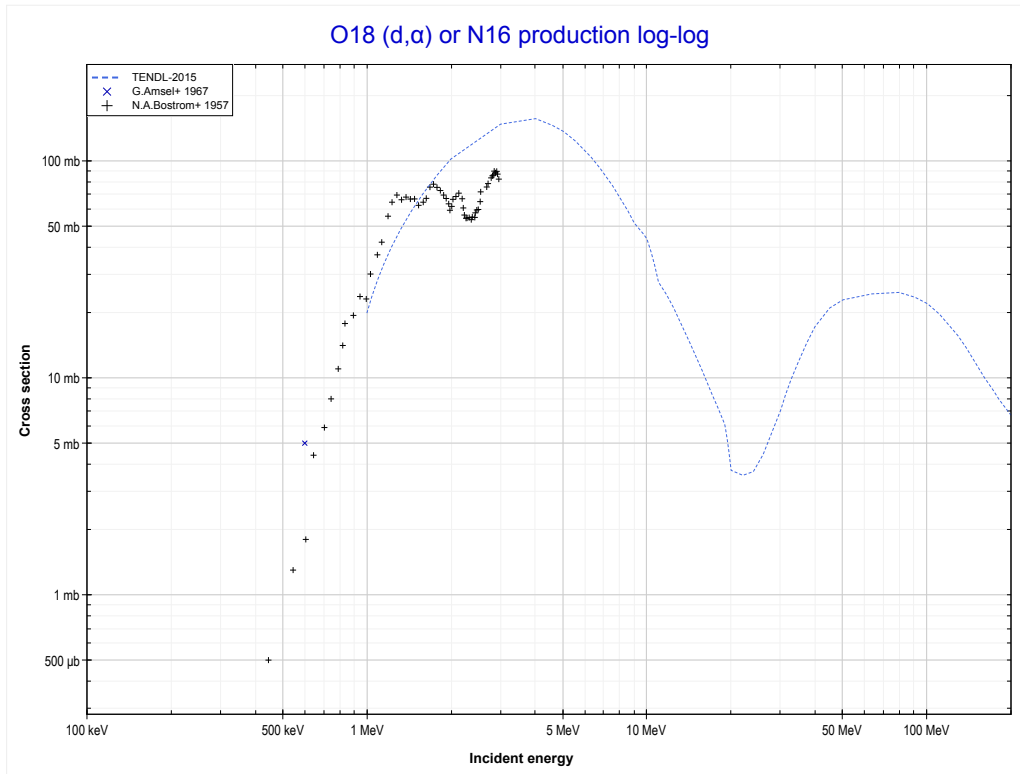


<< 7-N-15	<b>8-O-18</b>	10-Ne-22 >>
<< 8-O-16 MT107 (d, $\alpha$ )	<b>MT103 (d,p) or MT5 (O19 production)</b>	MT107 (d, $\alpha$ ) >>



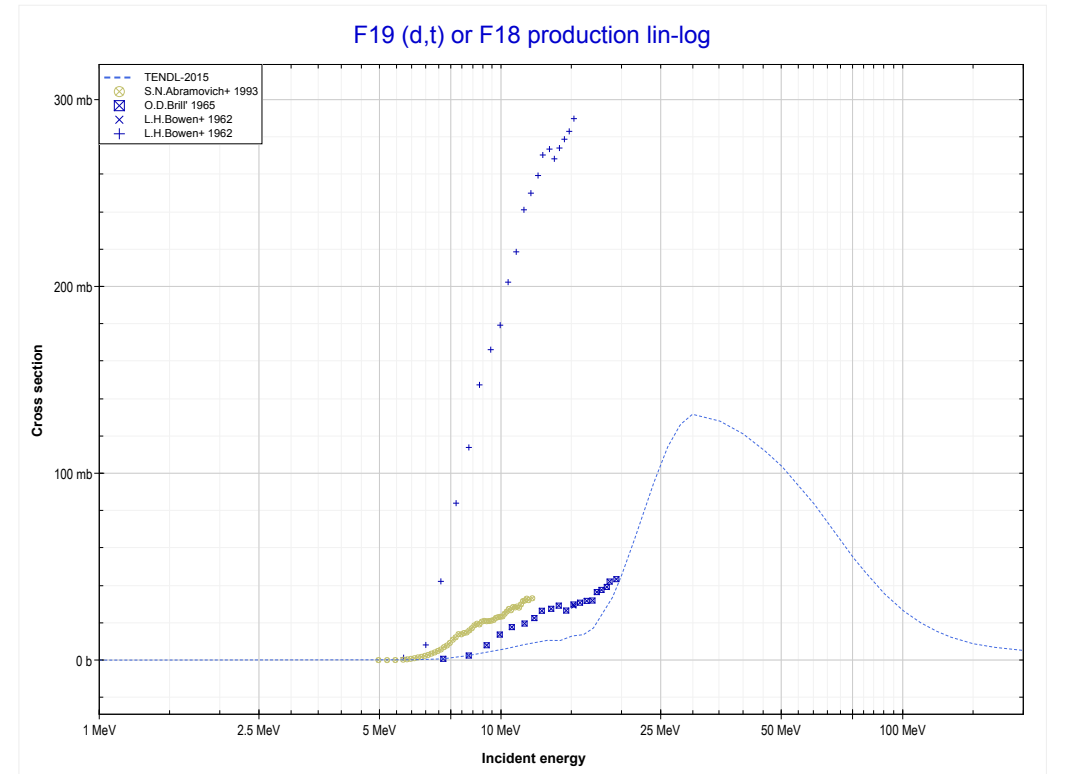
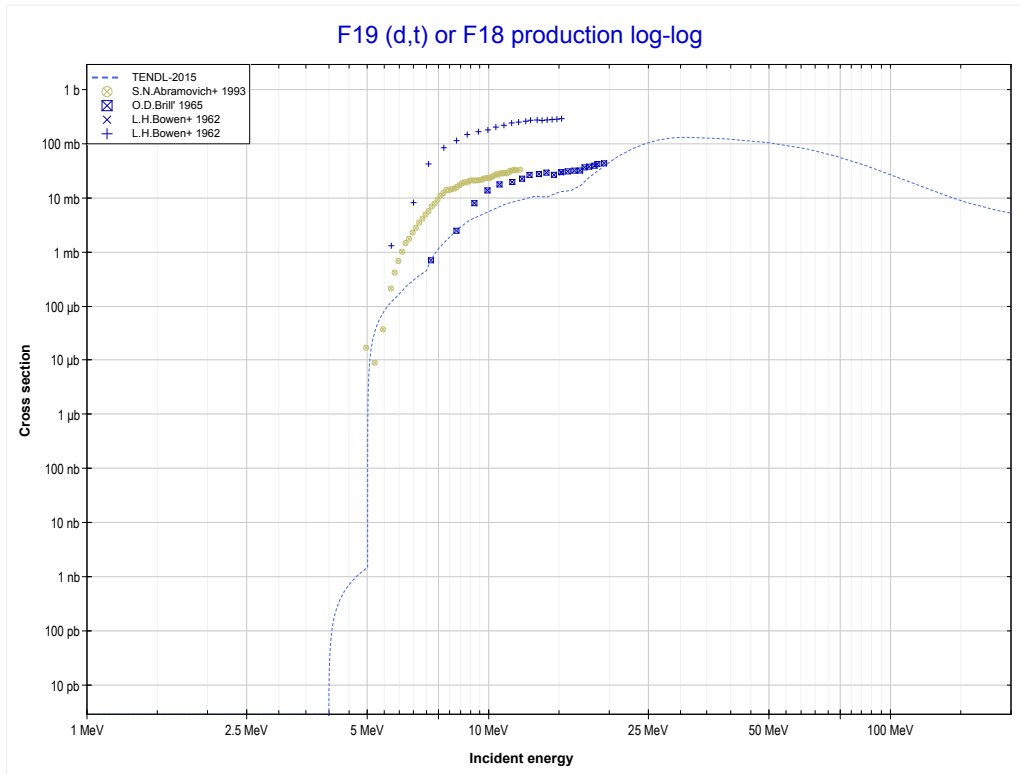
Reaction	Q-Value
O18(d,p)O19	1731.04 keV

<< 8-O-16	<b>8-O-18</b>	10-Ne-20 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (N16 production)</b>	9-F-19 MT105 (d,t) >>



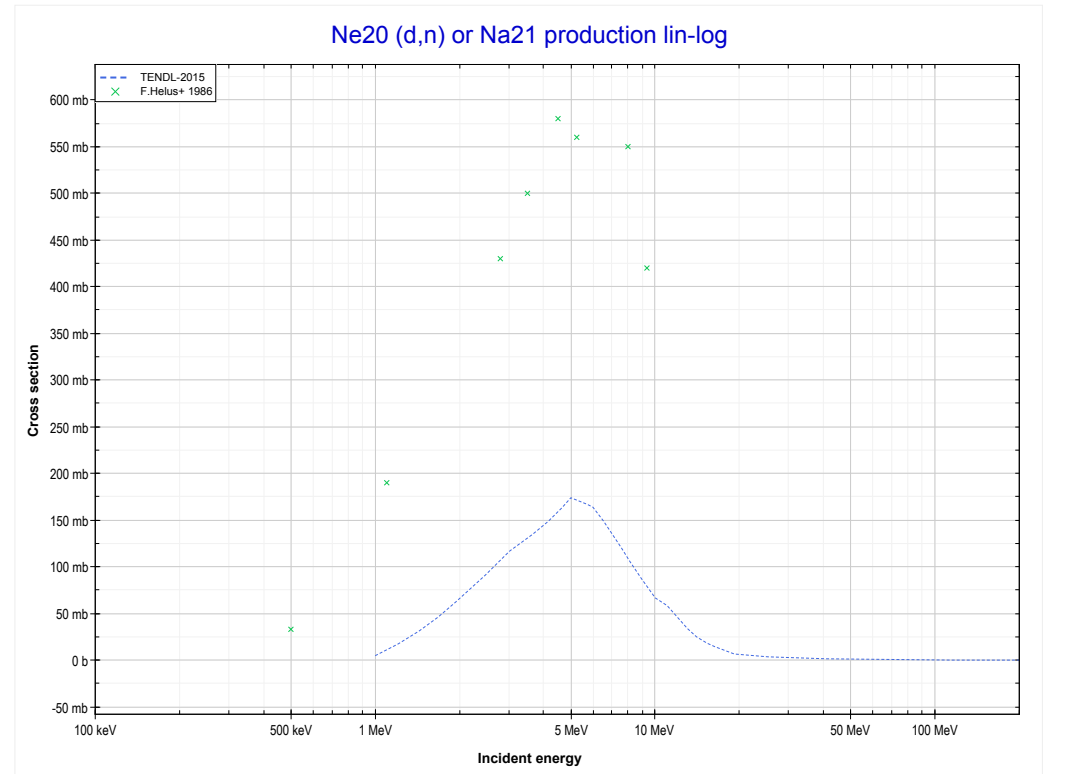
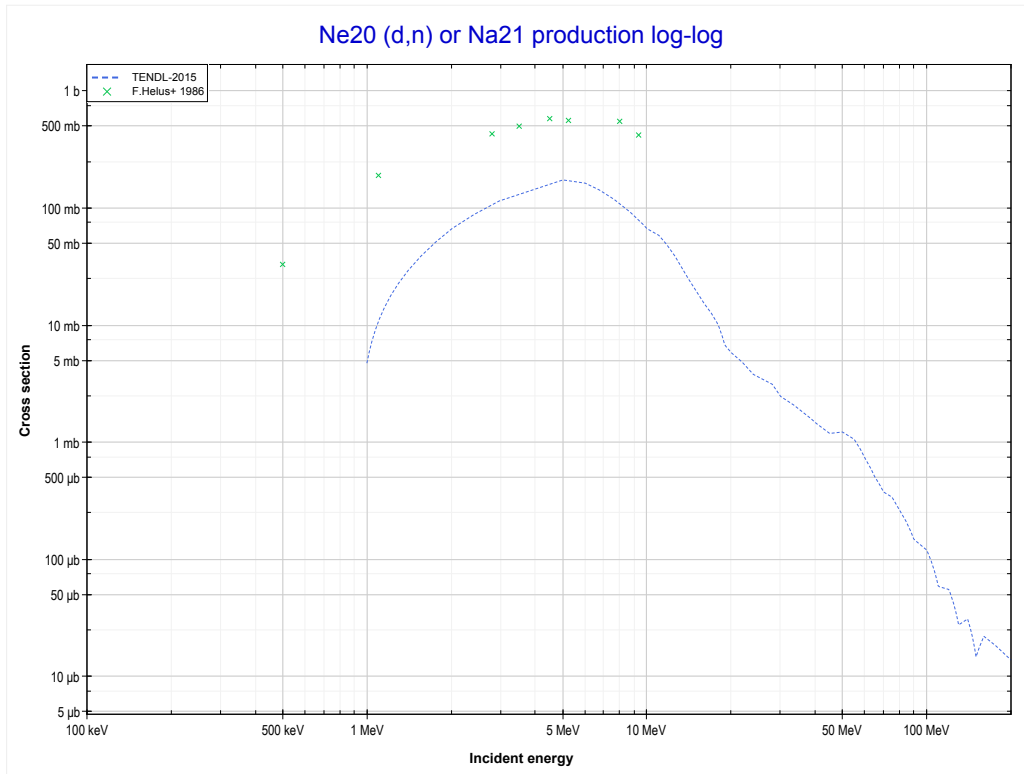
Reaction	Q-Value
O18(d, $\alpha$ )N16	4244.09 keV
O18(d,p+t)N16	-15569.77 keV
O18(d,n+He3)N16	-16333.53 keV
O18(d,2d)N16	-19602.44 keV
O18(d,n+p+d)N16	-21827.00 keV
O18(d,2n+2p)N16	-24051.57 keV

<< 4-Be-9	<b>9-F-19</b>	11-Na-23 >>
<< 8-O-18 MT107 (d, $\alpha$ )	<b>MT105 (d,t) or MT5 (F18 production)</b>	10-Ne-20 MT4 (d,n) >>



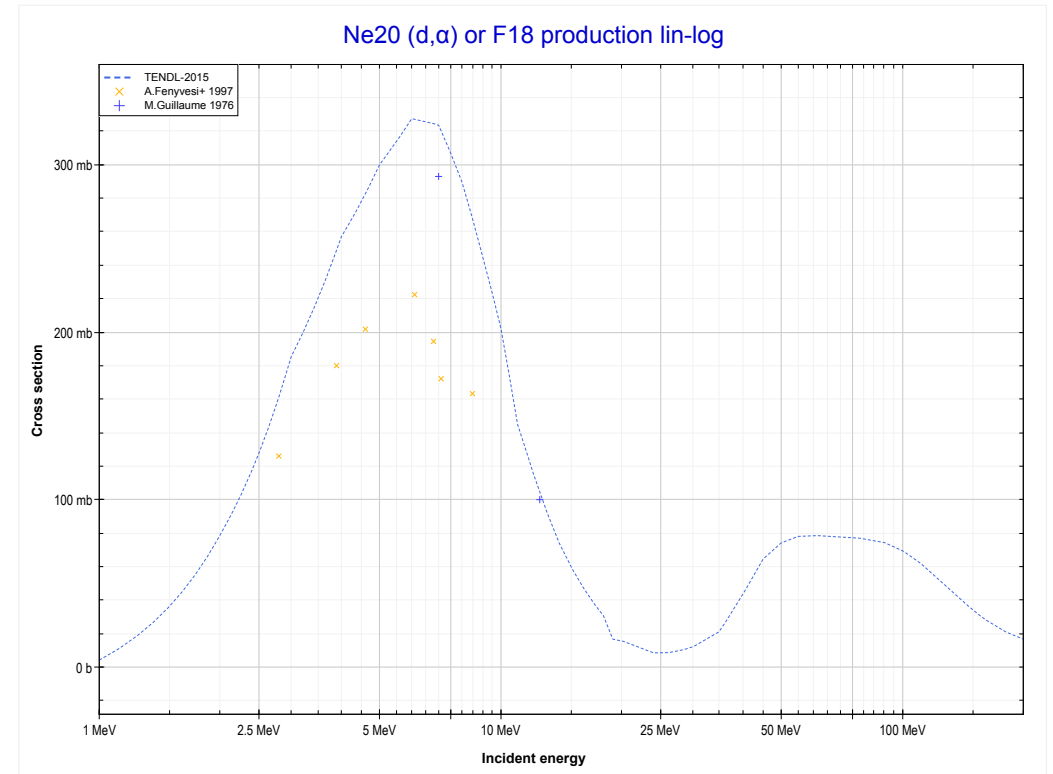
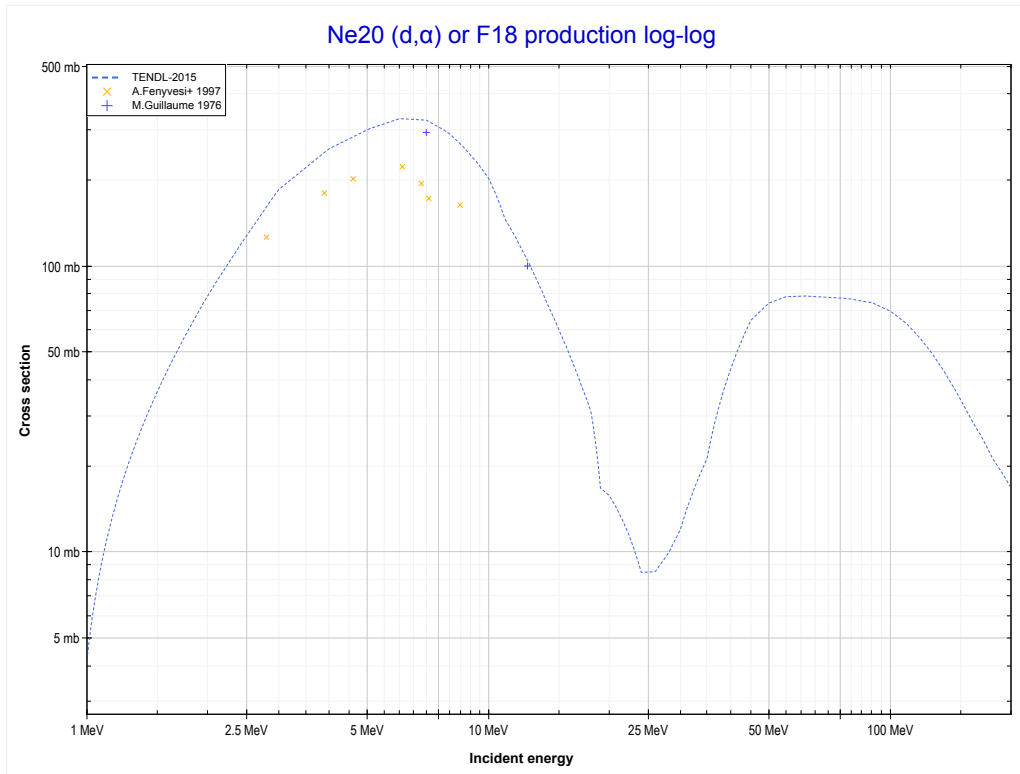
Reaction	Q-Value
F19(d,t)F18	-4174.63 keV
F19(d,n+d)F18	-10431.86 keV
F19(d,2n+p)F18	-12656.43 keV

<< 8-O-16	<b>10-Ne-20</b>	20-Ca-42 >>
<< 9-F-19 MT105 (d,t)	<b>MT4 (d,n) or MT5 (Na21 production)</b>	MT107 (d, $\alpha$ ) >>



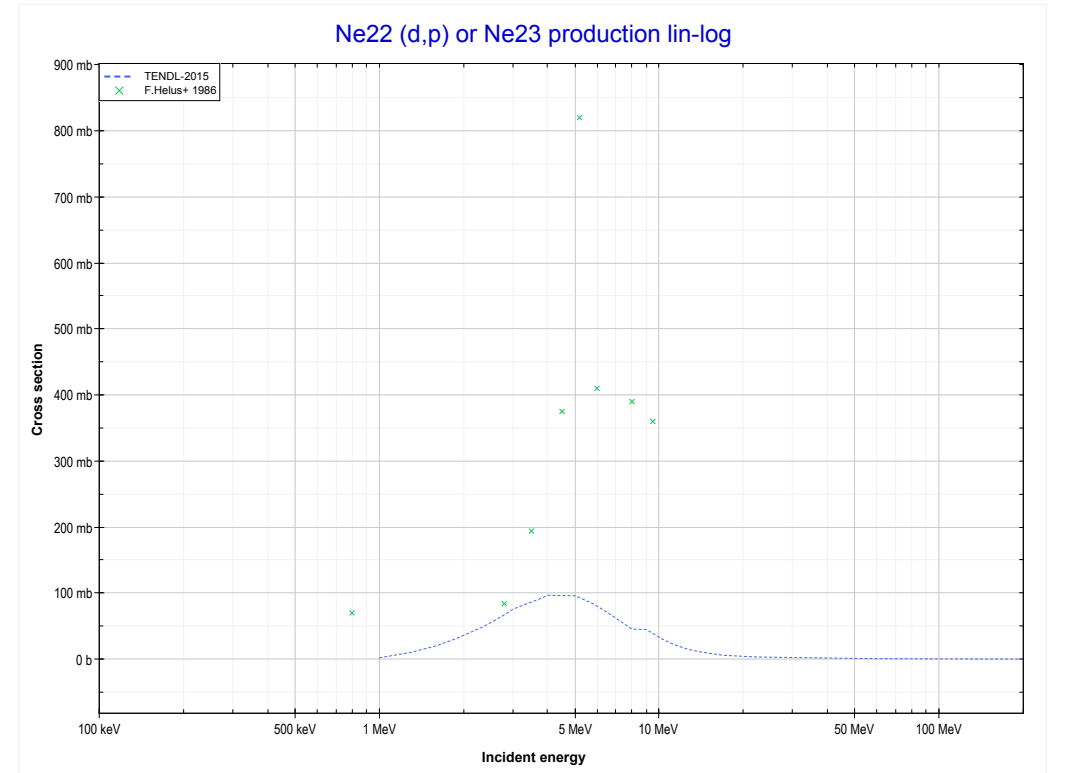
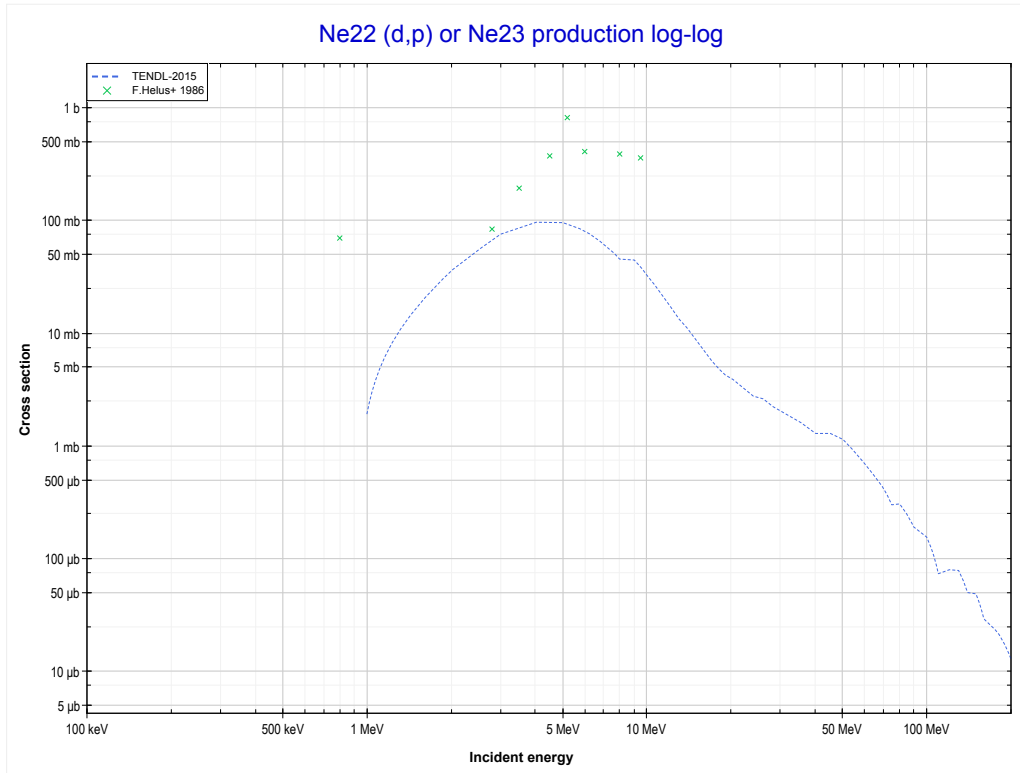
Reaction	Q-Value
Ne20(d,n)Na21	207.11 keV

<< 8-O-18	<b>10-Ne-20</b>	12-Mg-24 >>
<< MT4 (d,n)	<b>MT107 (d,<math>\alpha</math>) or MT5 (F18 production)</b>	10-Ne-22 MT103 (d,p) >>



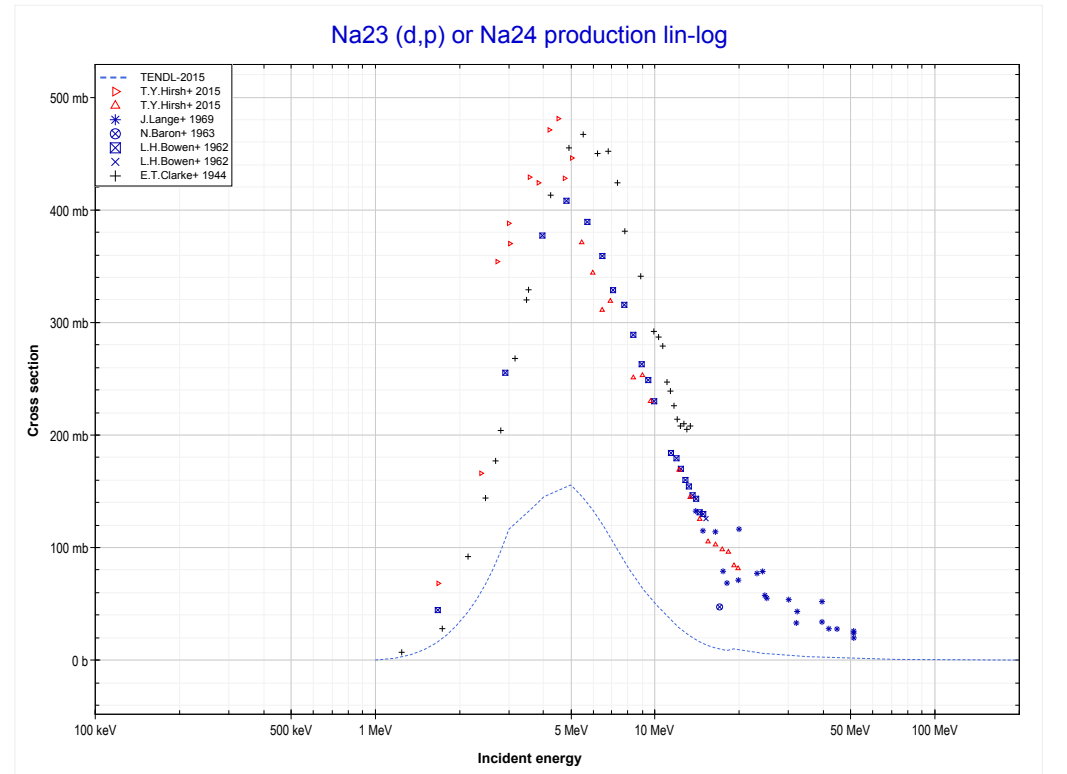
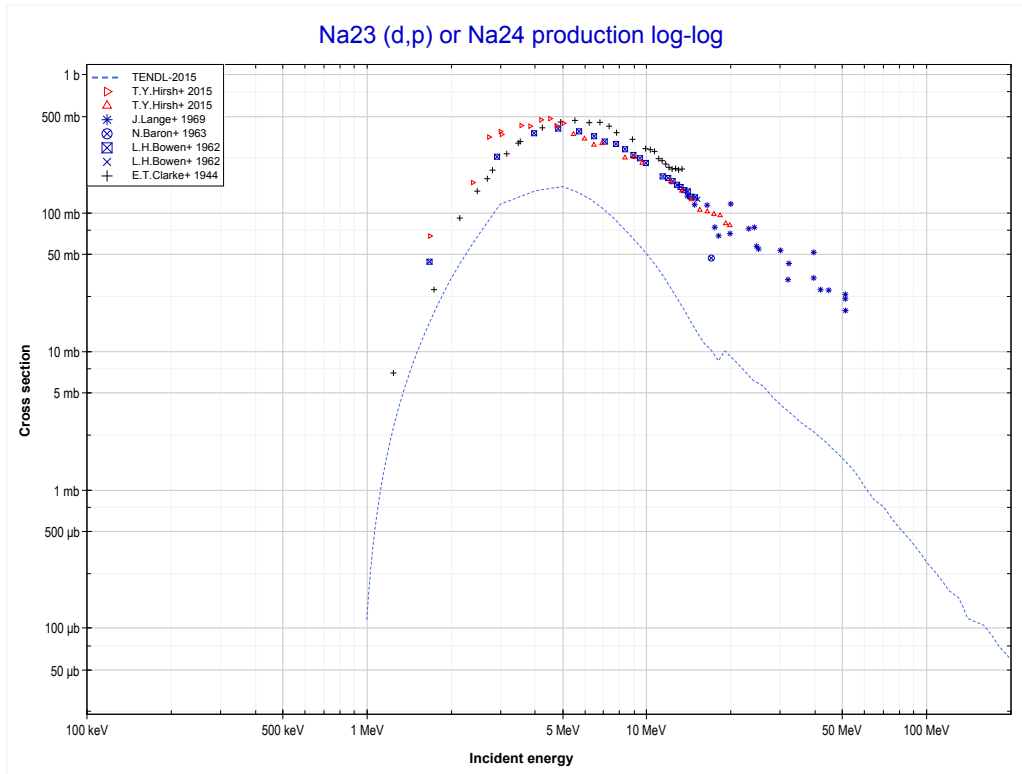
Reaction	Q-Value
Ne20(d, $\alpha$ )F18	2795.78 keV
Ne20(d,p+t)F18	-17018.09 keV
Ne20(d,n+He3)F18	-17781.84 keV
Ne20(d,2d)F18	-21050.75 keV
Ne20(d,n+p+d)F18	-23275.32 keV
Ne20(d,2n+2p)F18	-25499.88 keV

<< 8-O-18	<b>10-Ne-22</b>	11-Na-23 >>
<< 10-Ne-20 MT107 (d, $\alpha$ )	<b>MT103 (d,p) or MT5 (Ne23 production)</b>	11-Na-23 MT103 (d,p) >>



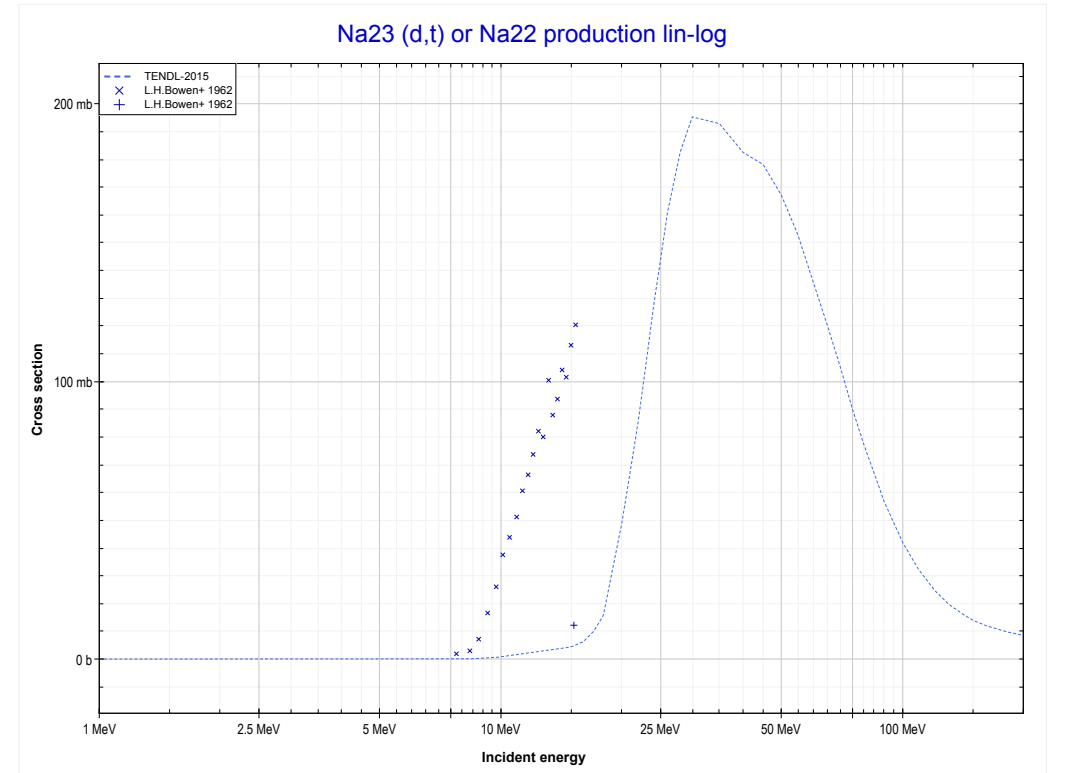
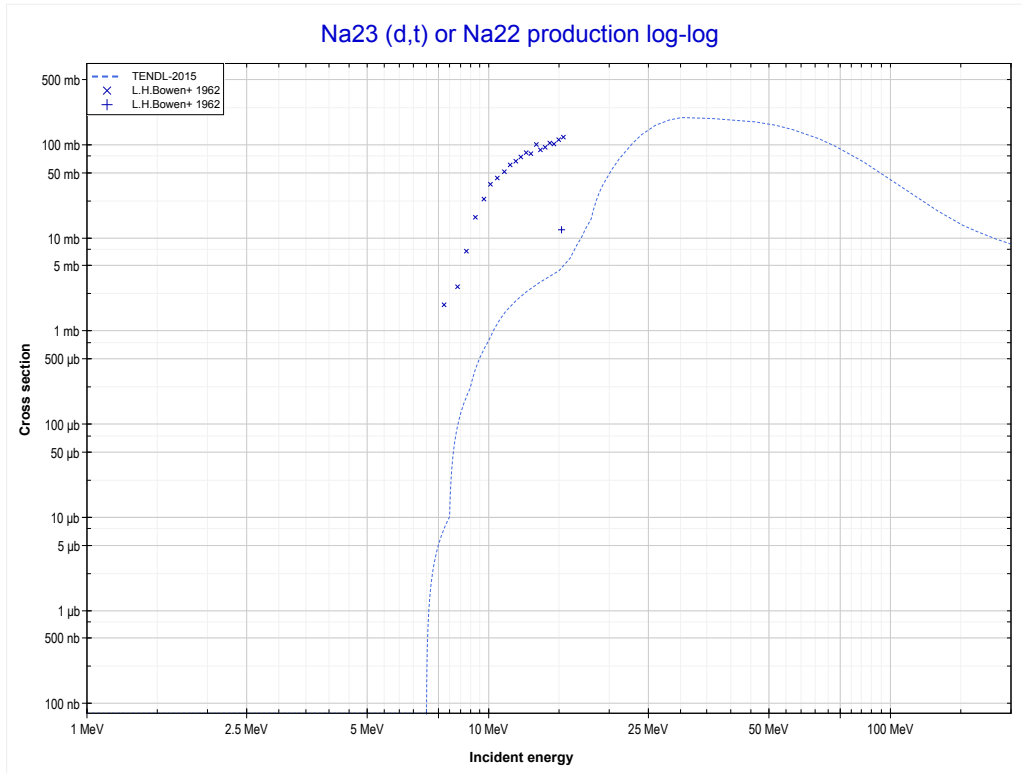
Reaction	Q-Value
Ne22(d,p)Ne23	2976.08 keV

<< 10-Ne-22	<b>11-Na-23</b>	12-Mg-24 >>
<< 10-Ne-22 MT103 (d,p)	<b>MT103 (d,p) or MT5 (Na24 production)</b>	MT105 (d,t) >>



Reaction	Q-Value
Na23(d,p)Na24	4734.86 keV

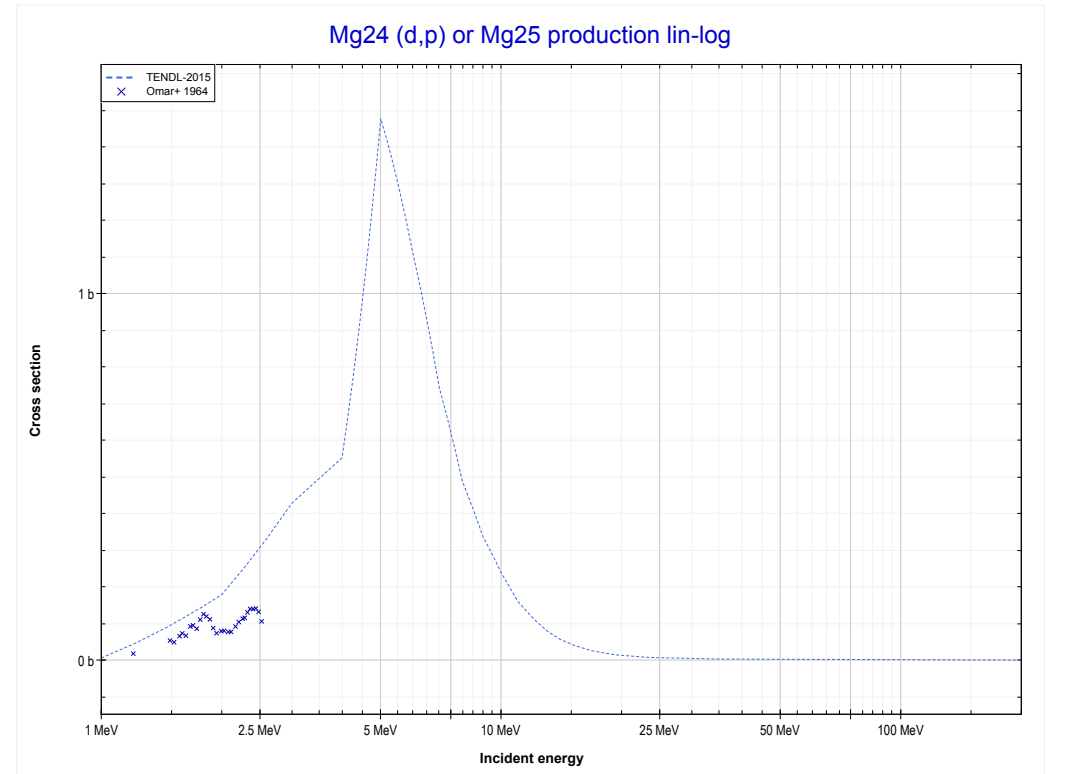
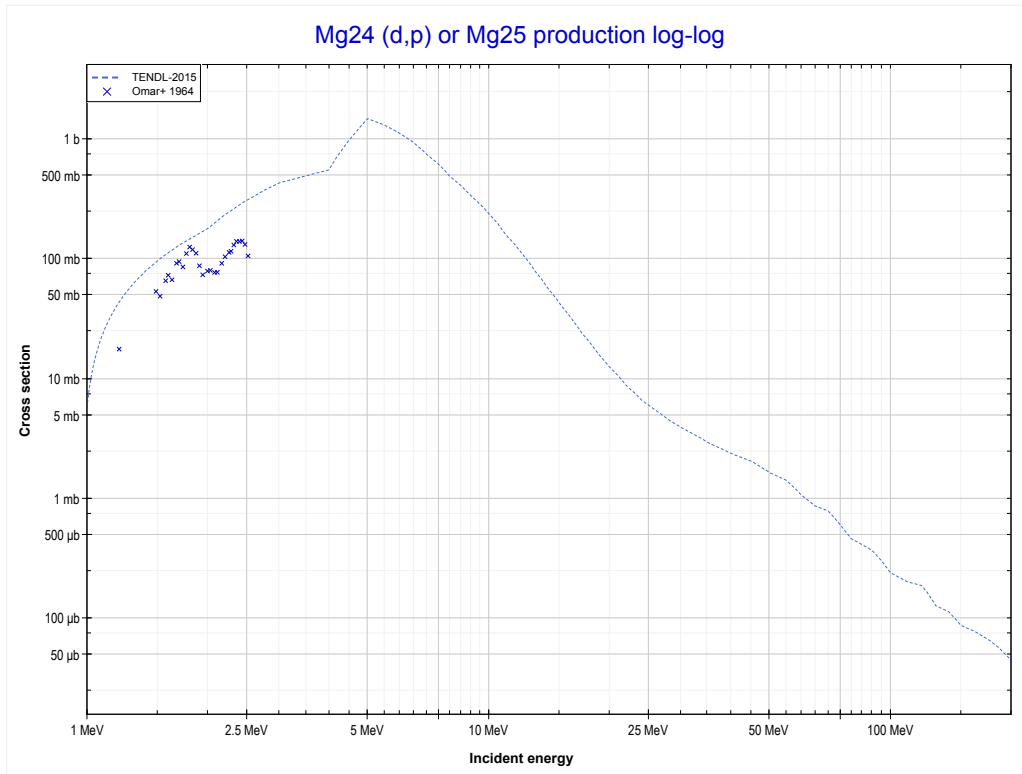
<< 9-F-19	<b>11-Na-23</b>	21-Sc-45 >>
<< MT103 (d,p)	<b>MT105 (d,t) or MT5 (Na22 production)</b>	12-Mg-24 MT103 (d,p) >>



Reaction	Q-Value
Na23(d,t)Na22	-6162.42 keV
Na23(d,n+d)Na22	-12419.65 keV
Na23(d,2n+p)Na22	-14644.22 keV

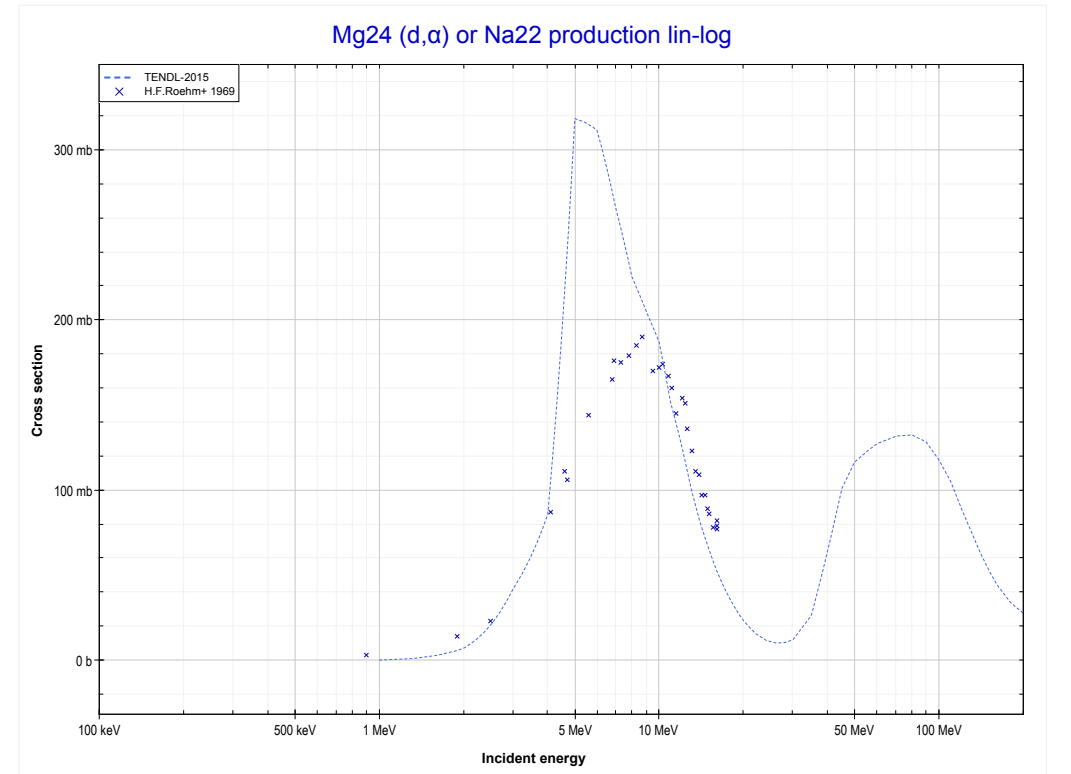
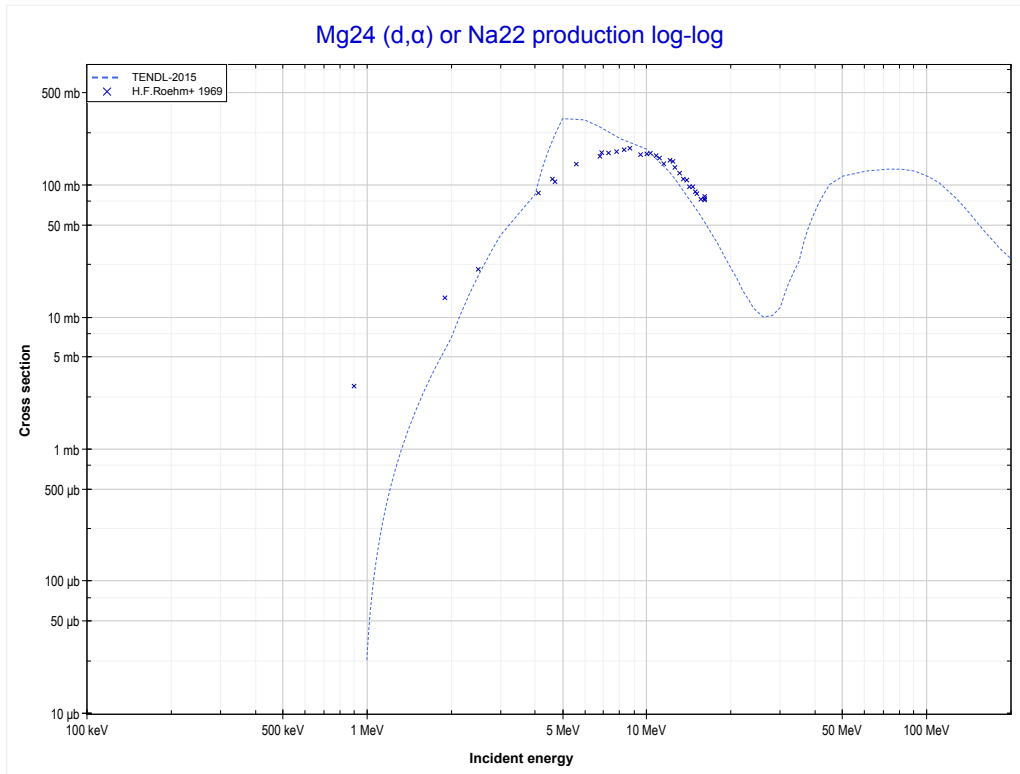


<< 11-Na-23	<b>12-Mg-24</b>	13-Al-27 >>
<< 11-Na-23 MT105 (d,t)	<b>MT103 (d,p) or MT5 (Mg25 production)</b>	MT107 (d, $\alpha$ ) >>



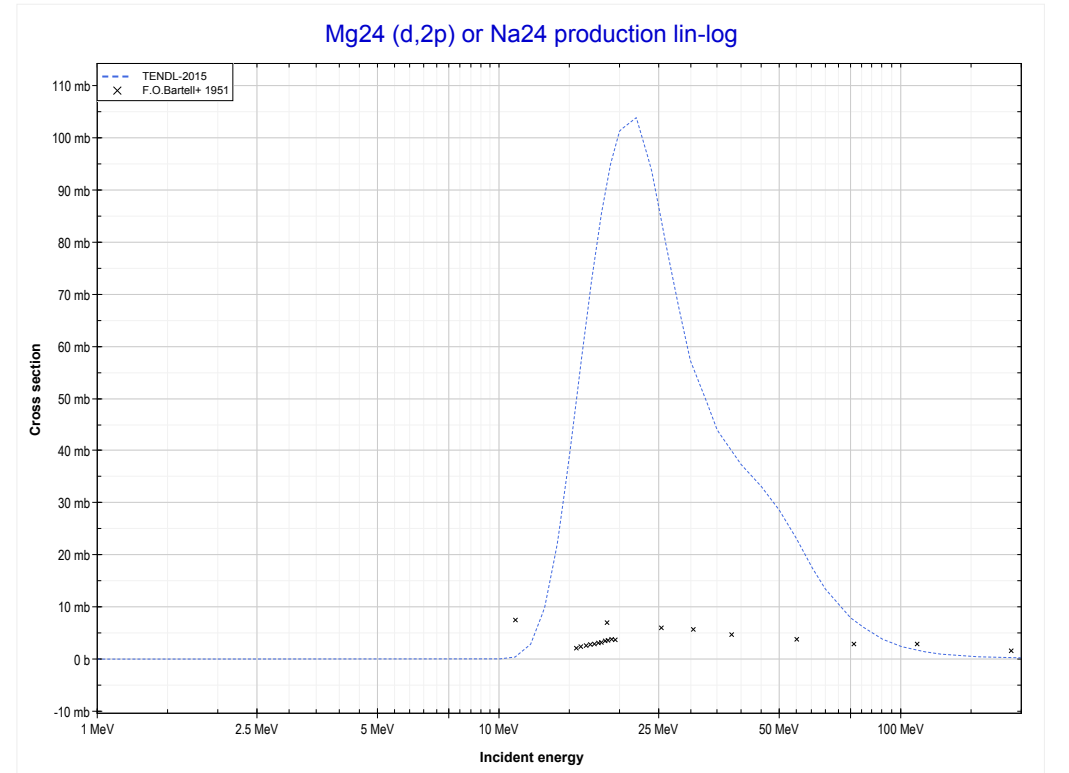
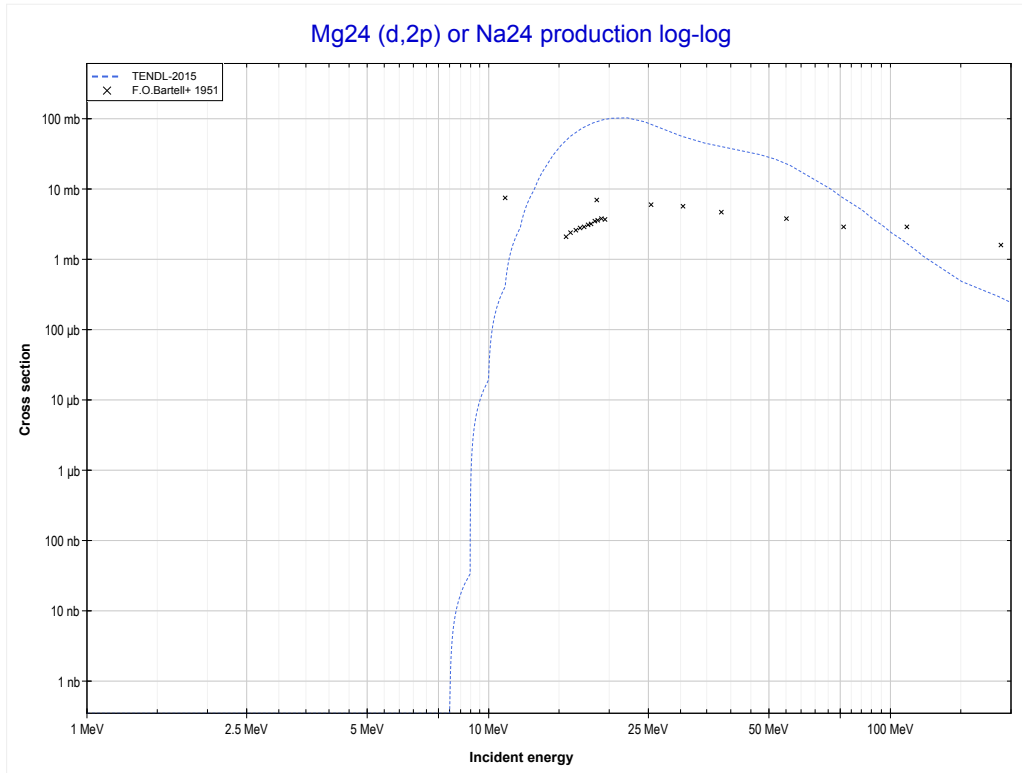
Reaction	Q-Value
Mg24(d,p)Mg25	5105.95 keV

<< 10-Ne-20	<b>12-Mg-24</b>	12-Mg-26 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Na22 production)</b>	MT111 (d,2p) >>



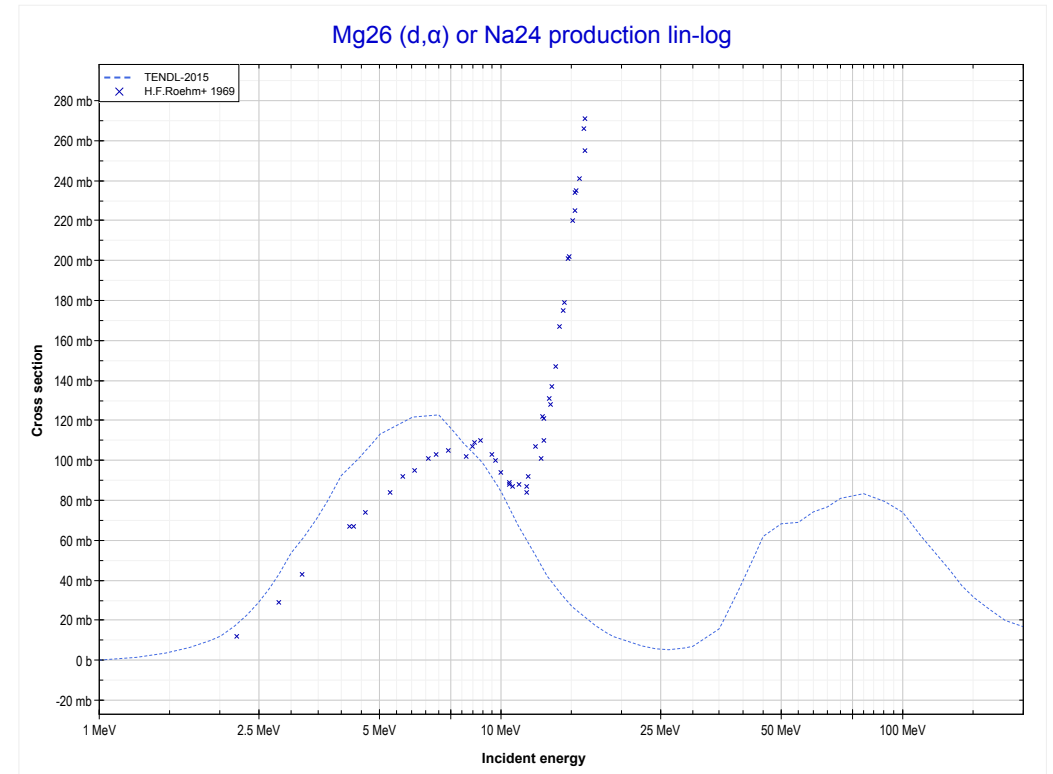
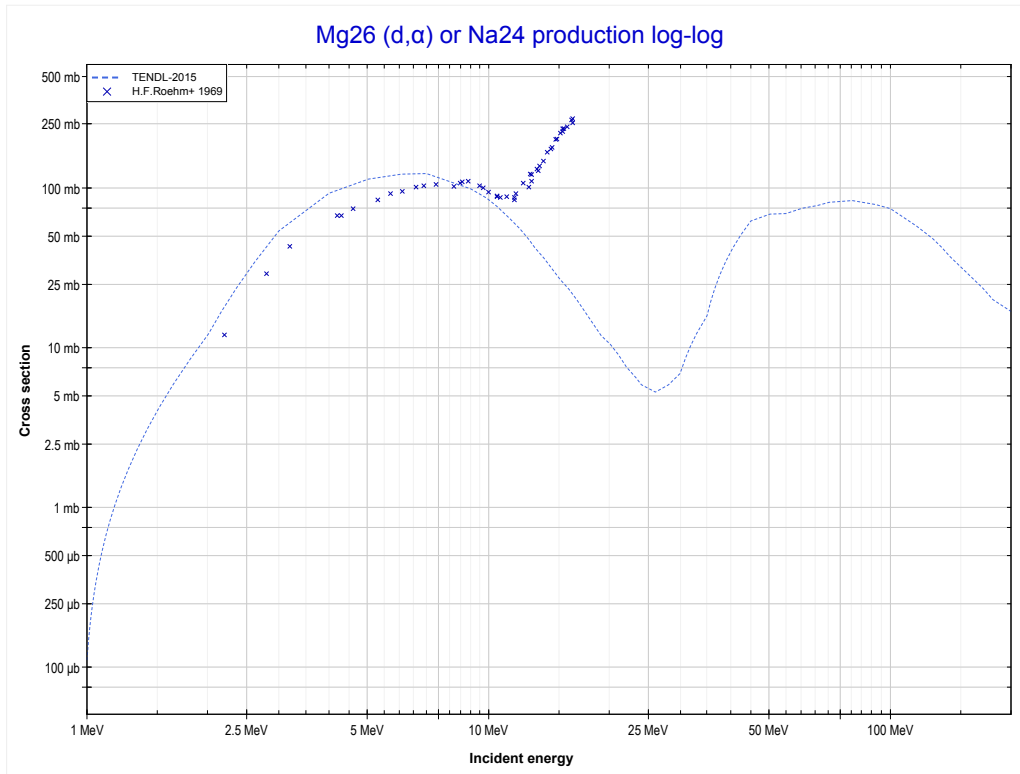
Reaction	Q-Value
Mg24(d, $\alpha$ )Na22	1958.76 keV
Mg24(d,p+t)Na22	-17855.10 keV
Mg24(d,n+He3)Na22	-18618.86 keV
Mg24(d,2d)Na22	-21887.77 keV
Mg24(d,n+p+d)Na22	-24112.34 keV
Mg24(d,2n+2p)Na22	-26336.90 keV

	<b>12-Mg-24</b>	<a href="#">13-Al-27 &gt;&gt;</a>
<a href="#">&lt;&lt; MT107 (d,<math>\alpha</math>)</a>	<b>MT111 (d,2p) or MT5 (Na24 production)</b>	<a href="#">12-Mg-26 MT107 (d,<math>\alpha</math>) &gt;&gt;</a>



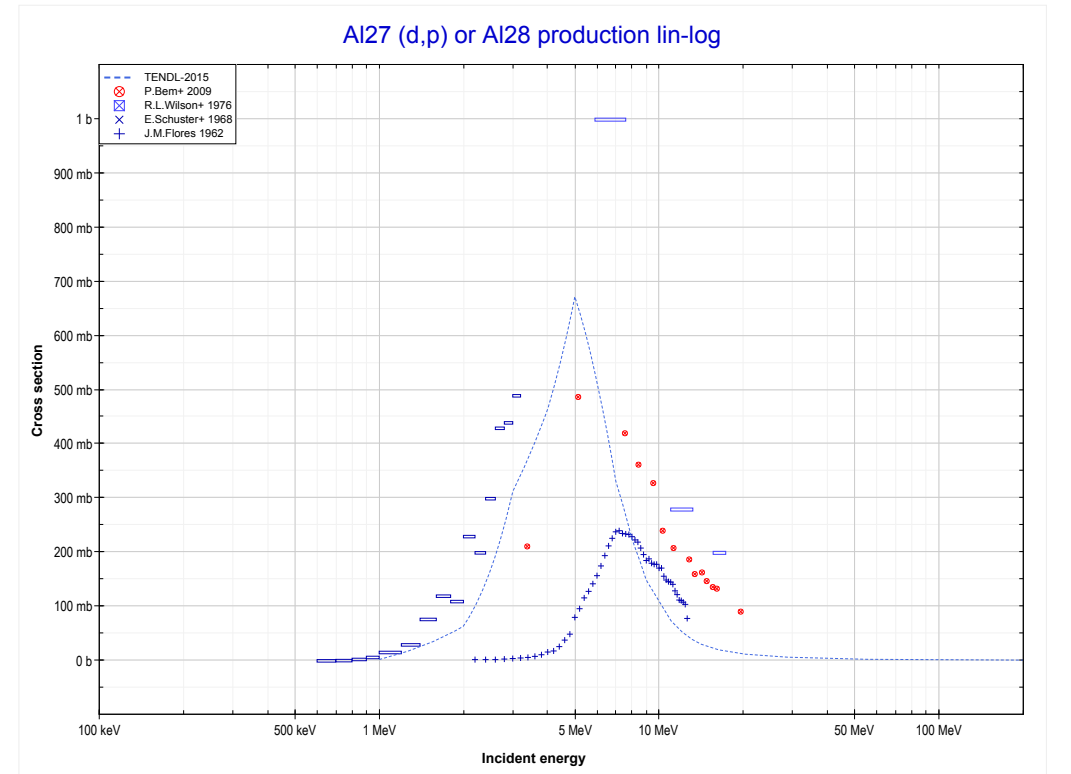
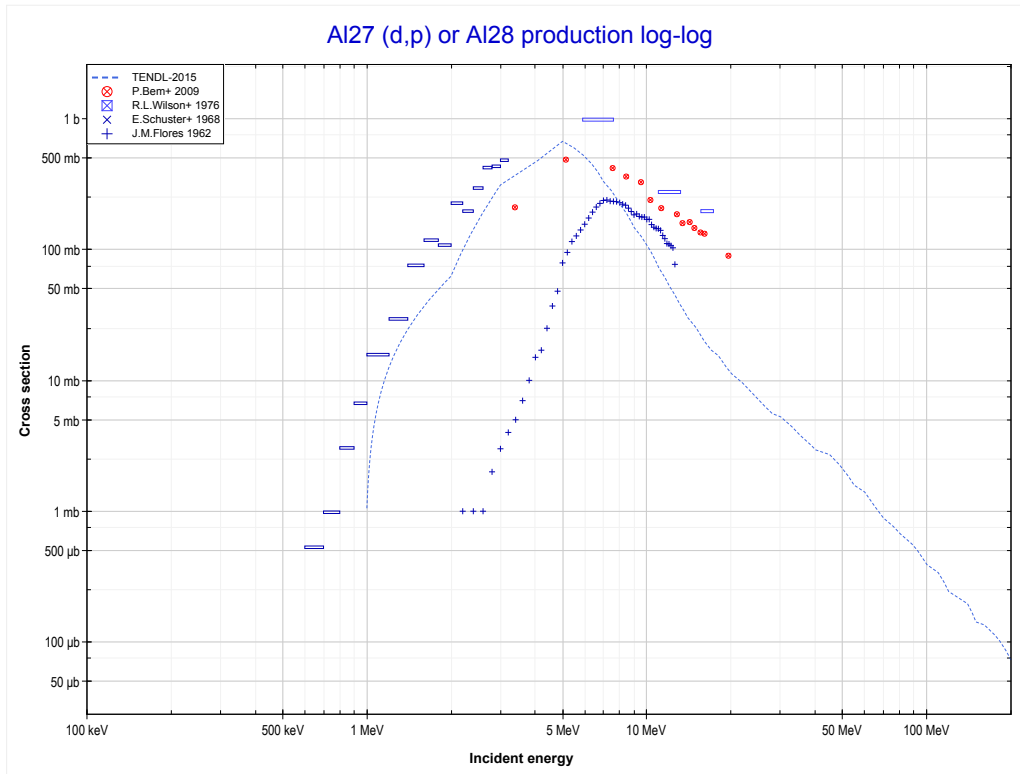
Reaction	Q-Value
Mg24(d,2p)Na24	-6957.83 keV

<< 12-Mg-24	<b>12-Mg-26</b>	16-S-32 >>
<< 12-Mg-24 MT111 (d,2p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Na24 production)</b>	13-Al-27 MT103 (d,p) >>



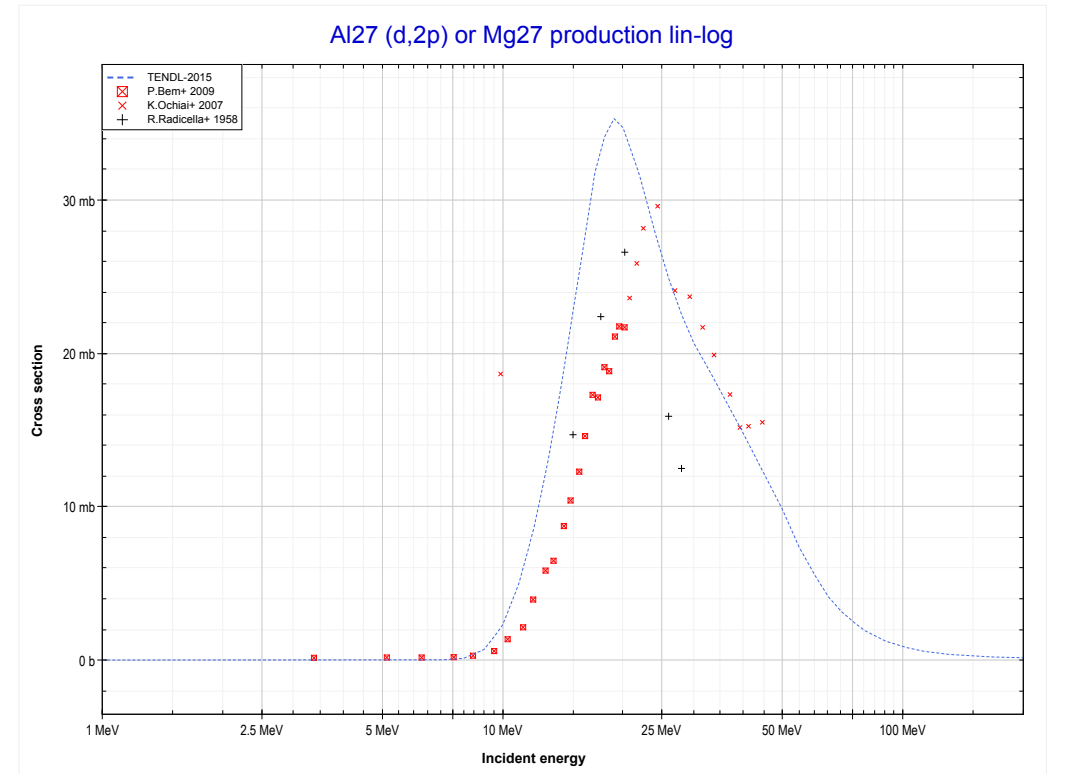
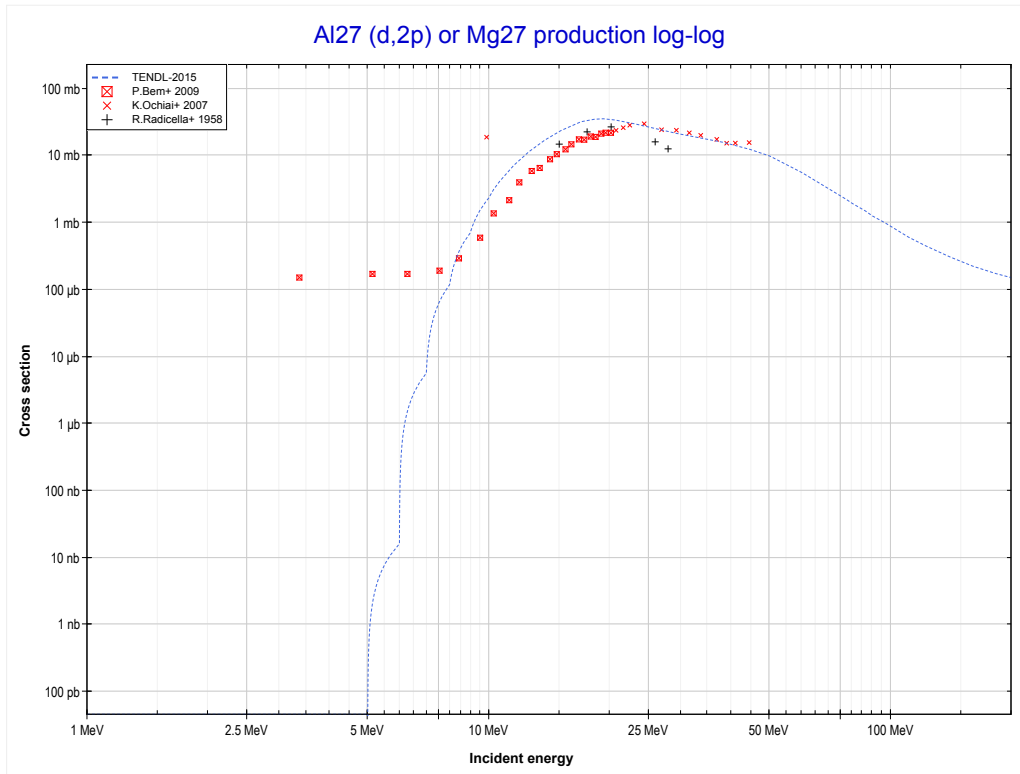
Reaction	Q-Value
Mg26(d, $\alpha$ )Na24	2914.22 keV
Mg26(d,p+t)Na24	-16899.64 keV
Mg26(d,n+He3)Na24	-17663.40 keV
Mg26(d,2d)Na24	-20932.31 keV
Mg26(d,n+p+d)Na24	-23156.87 keV
Mg26(d,2n+2p)Na24	-25381.44 keV

<< 12-Mg-24	<b>13-Al-27</b>	18-Ar-40 >>
<< 12-Mg-26 MT107 (d, $\alpha$ )	<b>MT103 (d,p) or MT5 (Al28 production)</b>	MT111 (d,2p) >>



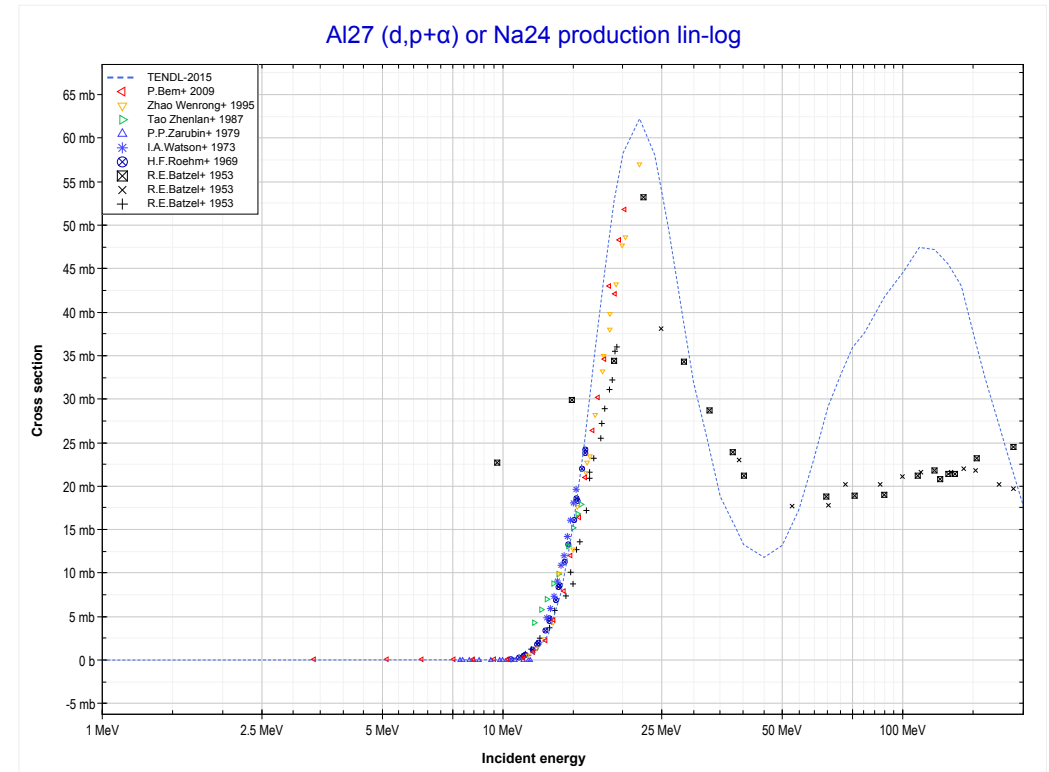
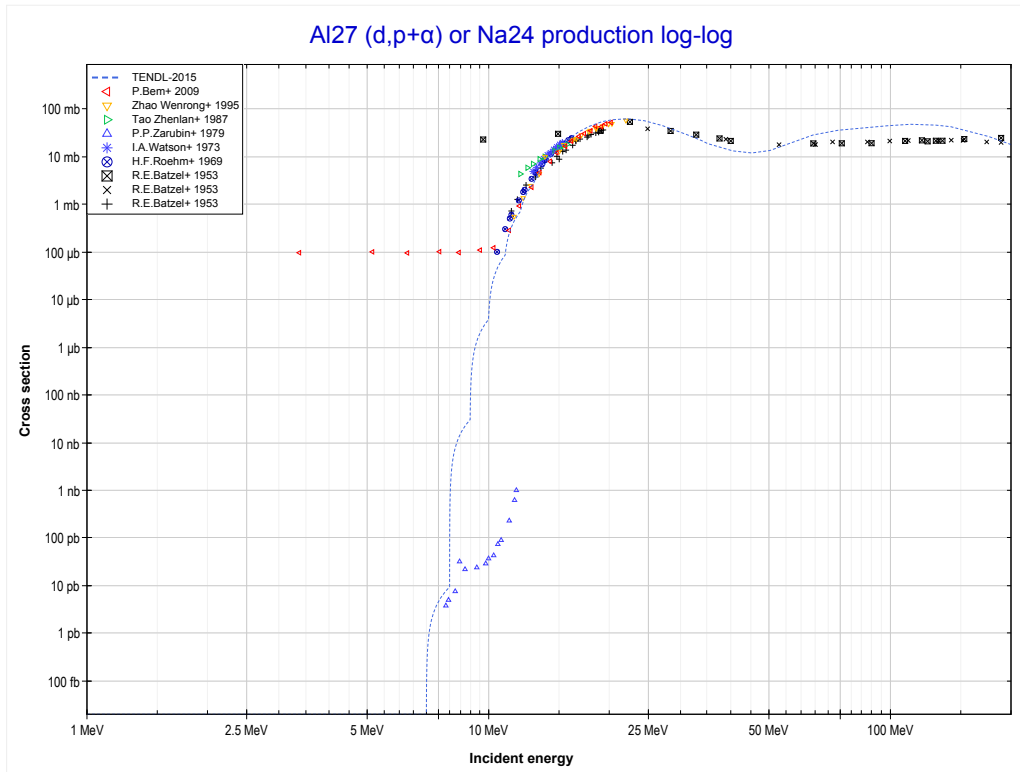
Reaction	Q-Value
Al27(d,p)Al28	5500.53 keV

<< 12-Mg-24	<b>13-Al-27</b>	16-S-32 >>
<< MT103 (d,p)	<b>MT111 (d,2p) or MT5 (Mg27 production)</b>	MT112 (d,p+α) >>



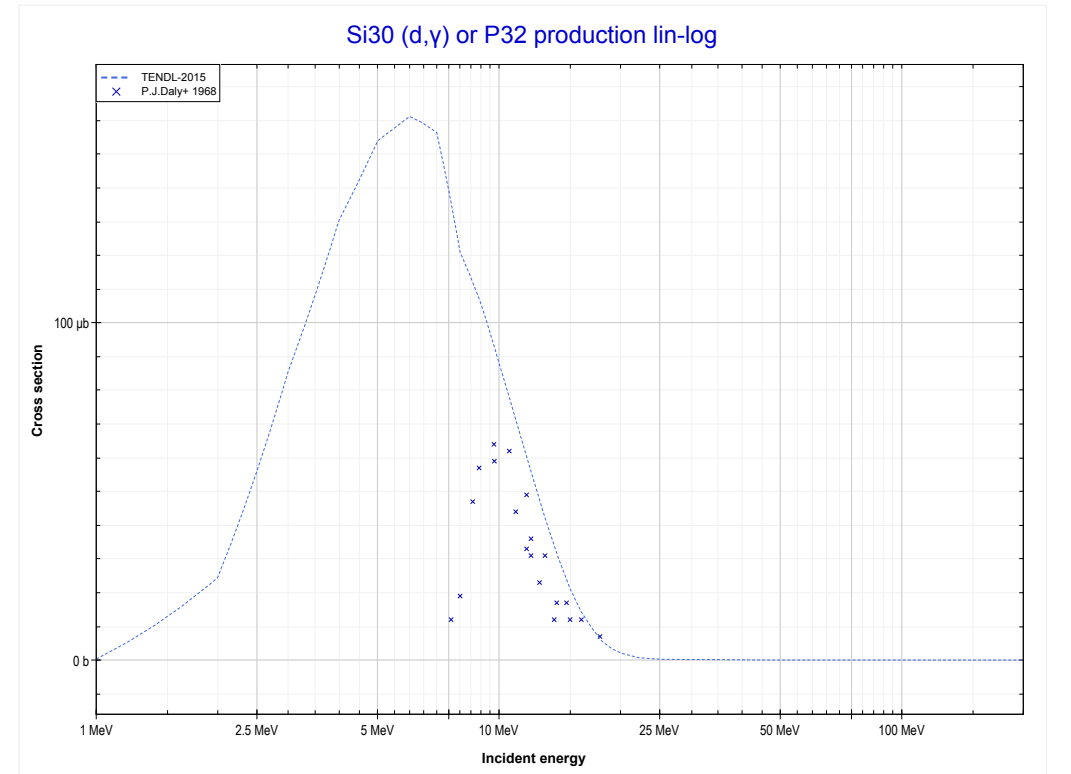
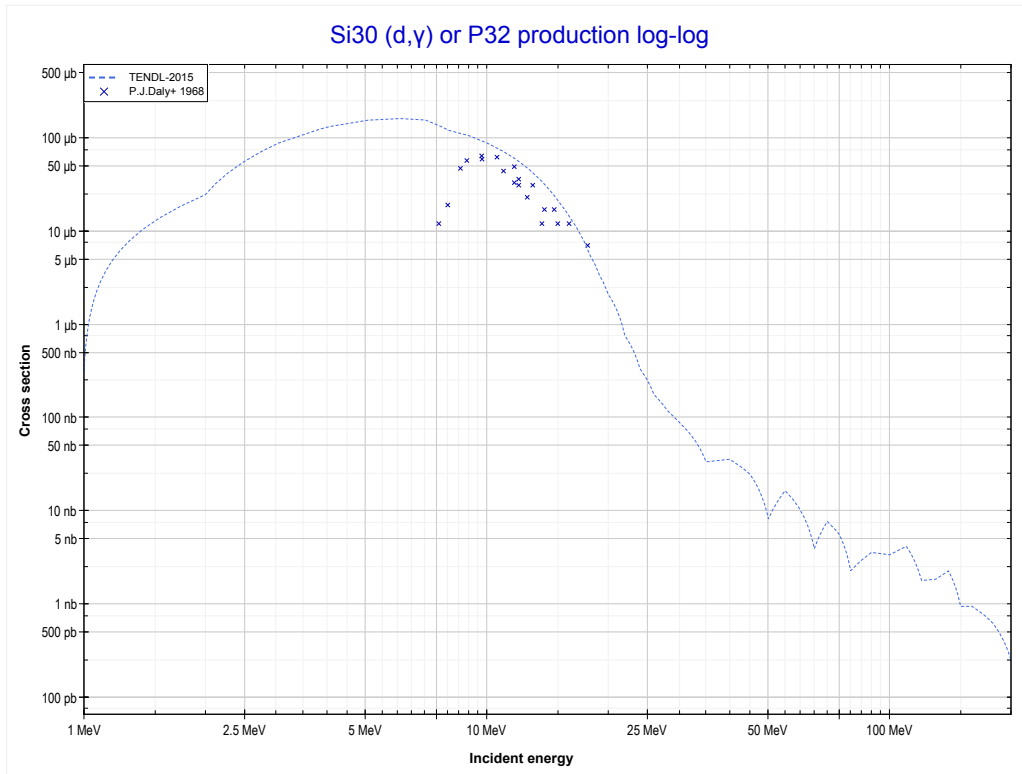
Reaction	Q-Value
Al27(d,2p)Mg27	-4052.36 keV

	<b>13-Al-27</b>	17-CI-35 >>
<< MT111 (d,2p)	<b>MT112 (d,p+α) or MT5 (Na24 production)</b>	14-Si-30 MT102 (d,γ) >>



Reaction	Q-Value
Al27(d,p+α)Na24	-5356.95 keV
Al27(d,d+He3)Na24	-23710.01 keV
Al27(d,2p+t)Na24	-25170.82 keV
Al27(d,n+p+He3)Na24	-25934.57 keV
Al27(d,p+2d)Na24	-29203.48 keV
Al27(d,n+2p+d)Na24	-31428.05 keV
Al27(d,2n+3p)Na24	-33652.61 keV

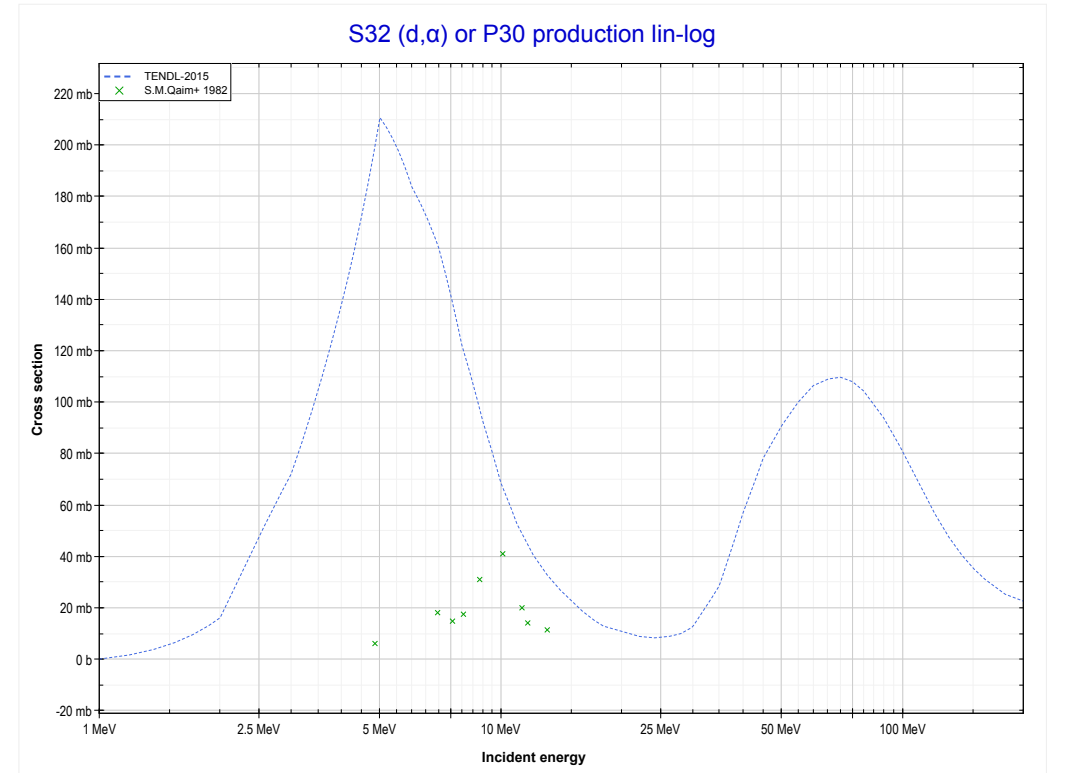
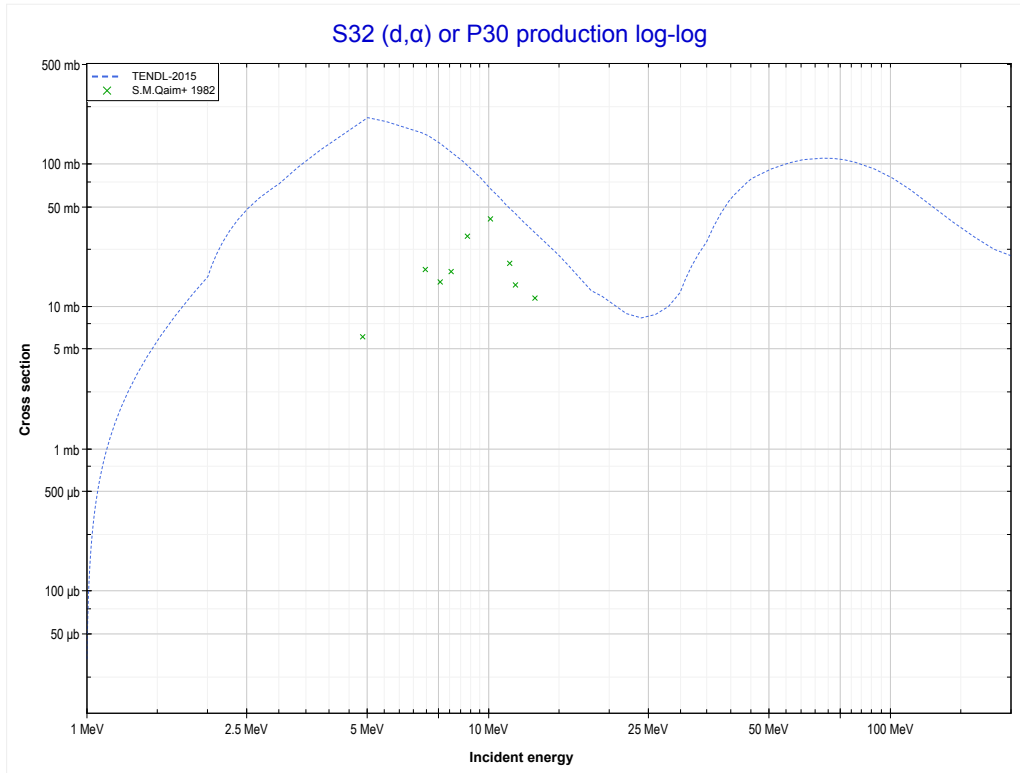
<< 4-Be-9	<b>14-Si-30</b>	24-Cr-54 >>
<< 13-Al-27 MT112 (d,p+α)	<b>MT102 (d,γ) or MT5 (P32 production)</b>	16-S-32 MT107 (d,α) >>



Reaction	Q-Value
Si30(d,γ)P32	13007.63 keV

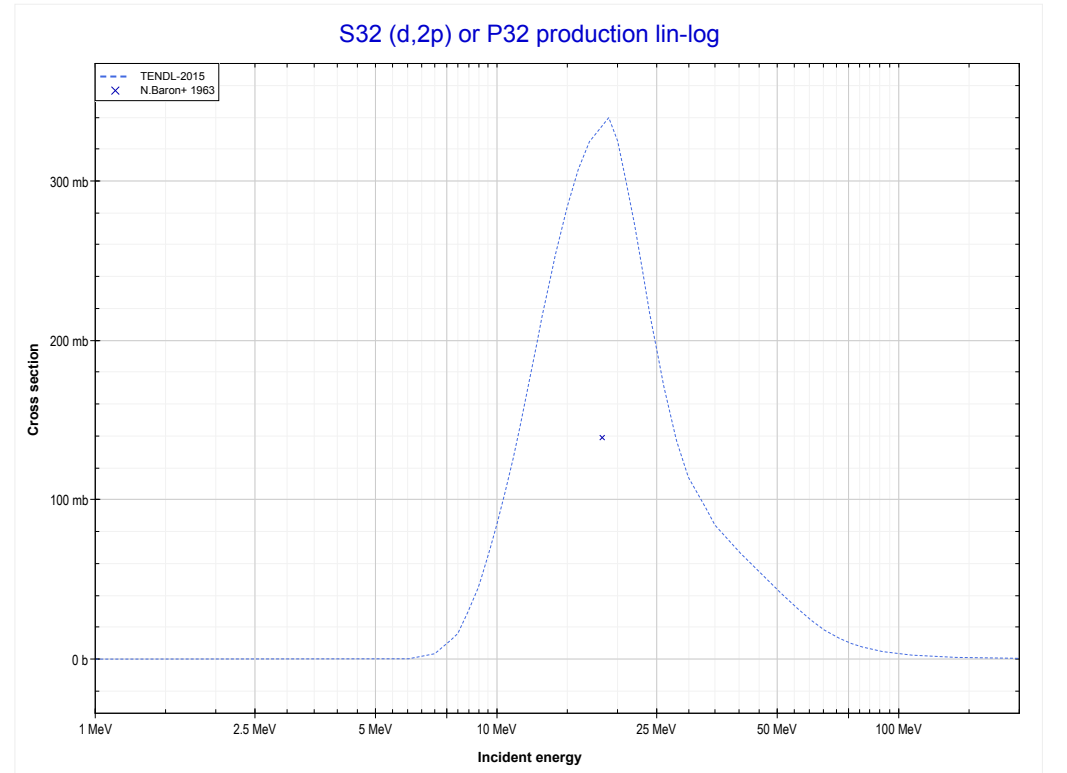
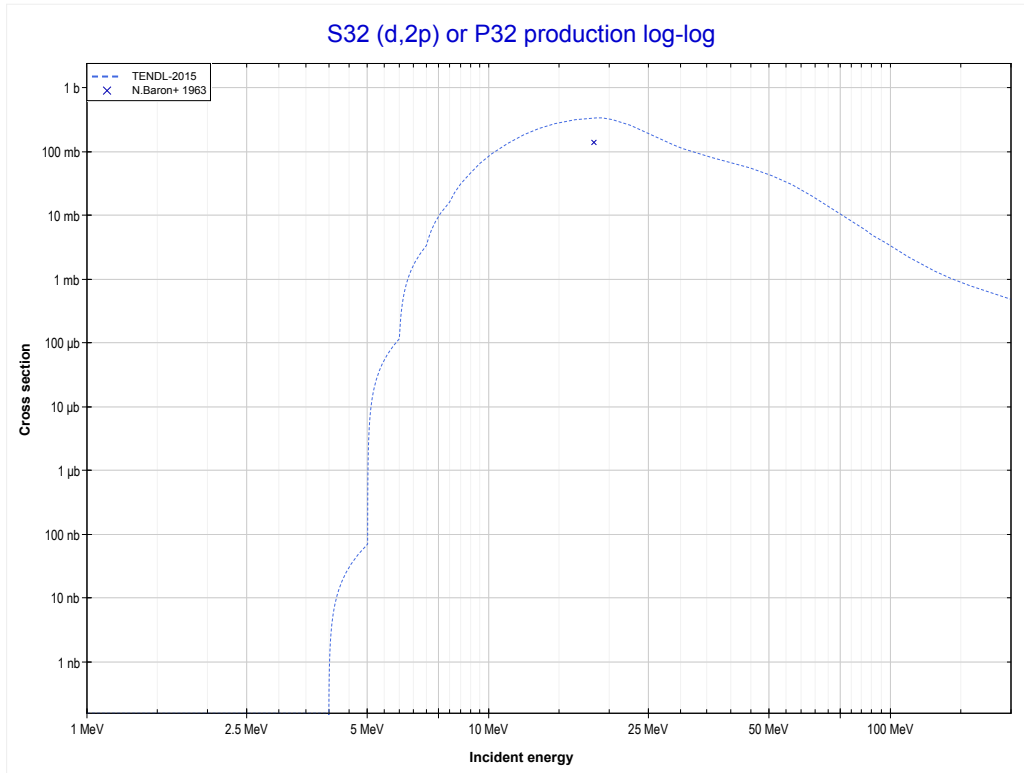


<< 12-Mg-26	<b>16-S-32</b>	16-S-34 >>
<< 14-Si-30 MT102 (d,y)	<b>MT107 (d,<math>\alpha</math>) or MT5 (P30 production)</b>	MT111 (d,2p) >>



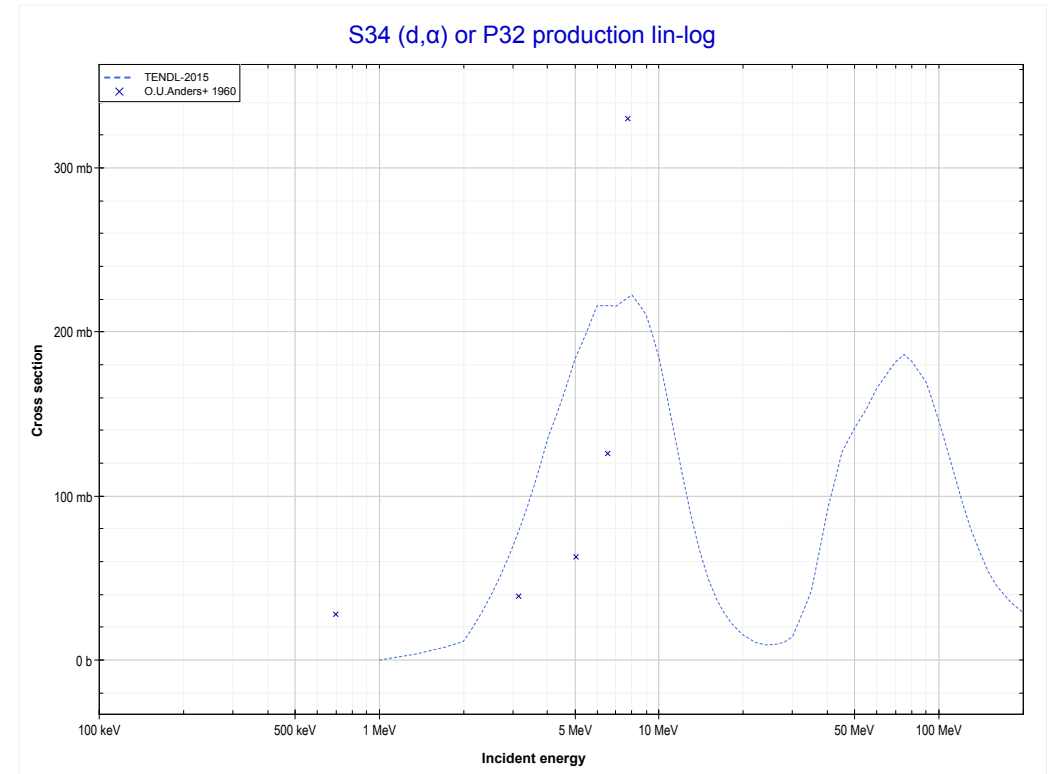
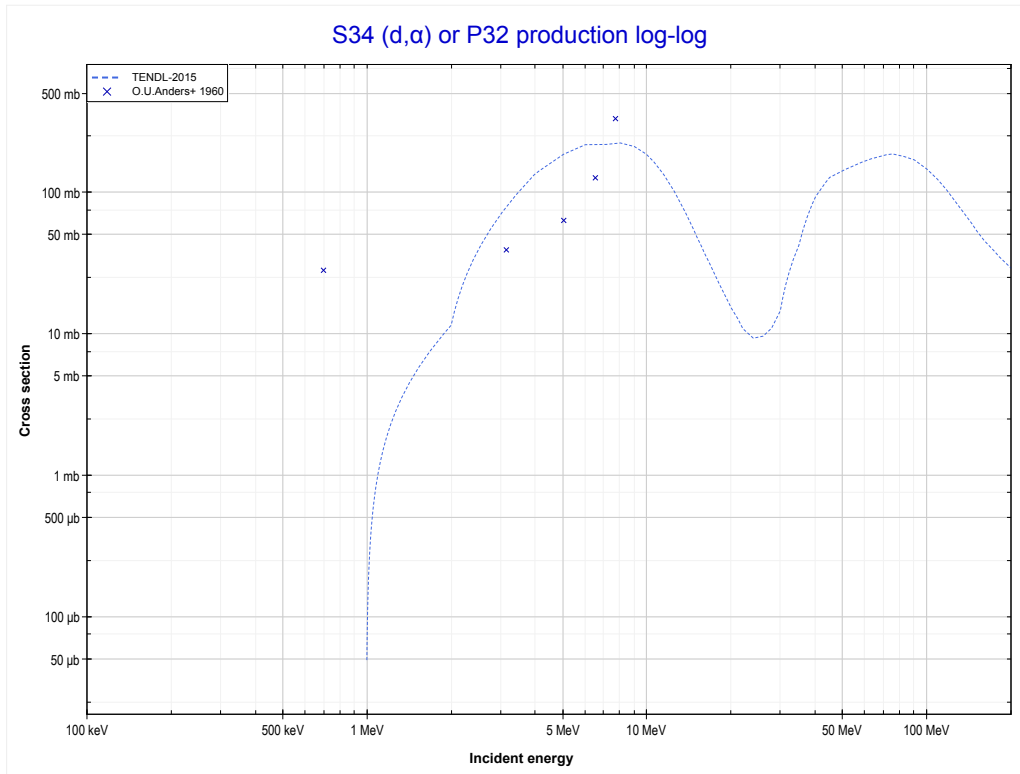
Reaction	Q-Value
S32(d, $\alpha$ )P30	4895.87 keV
S32(d,p+t)P30	-14917.99 keV
S32(d,n+He3)P30	-15681.74 keV
S32(d,2d)P30	-18950.66 keV
S32(d,n+p+d)P30	-21175.22 keV
S32(d,2n+2p)P30	-23399.79 keV

<< 13-Al-27	<b>16-S-32</b>	22-Ti-47 >>
<< MT107 (d, $\alpha$ )	<b>MT111 (d,2p) or MT5 (P32 production)</b>	16-S-34 MT107 (d, $\alpha$ ) >>



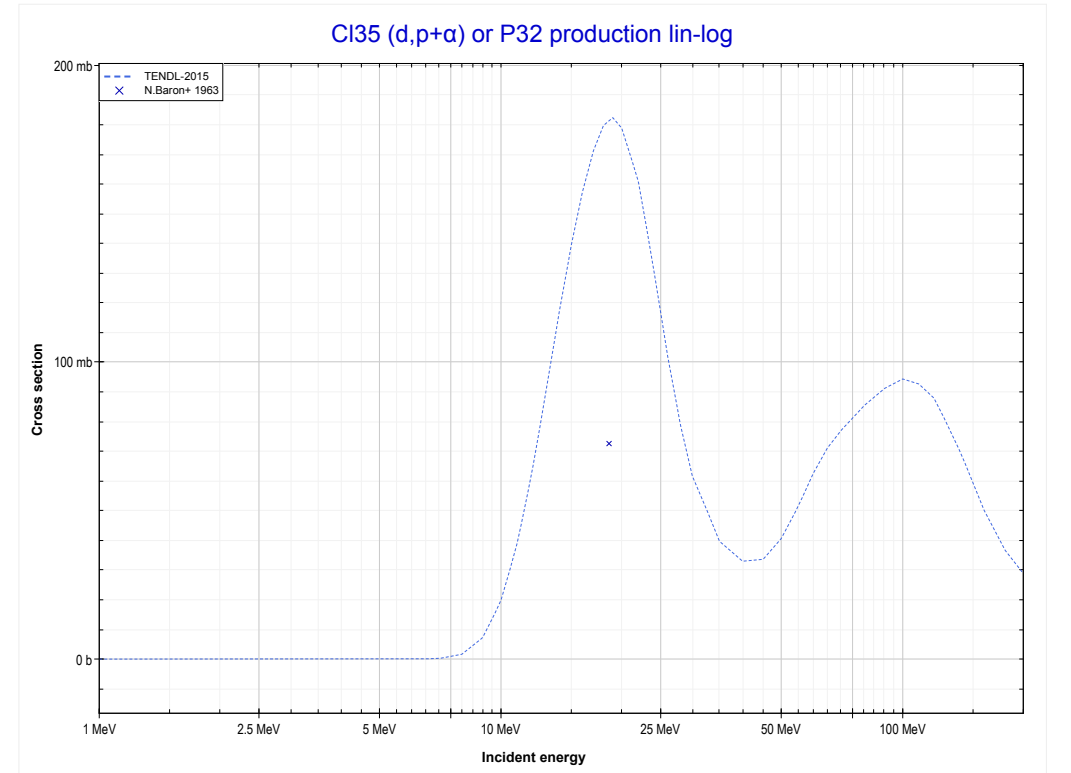
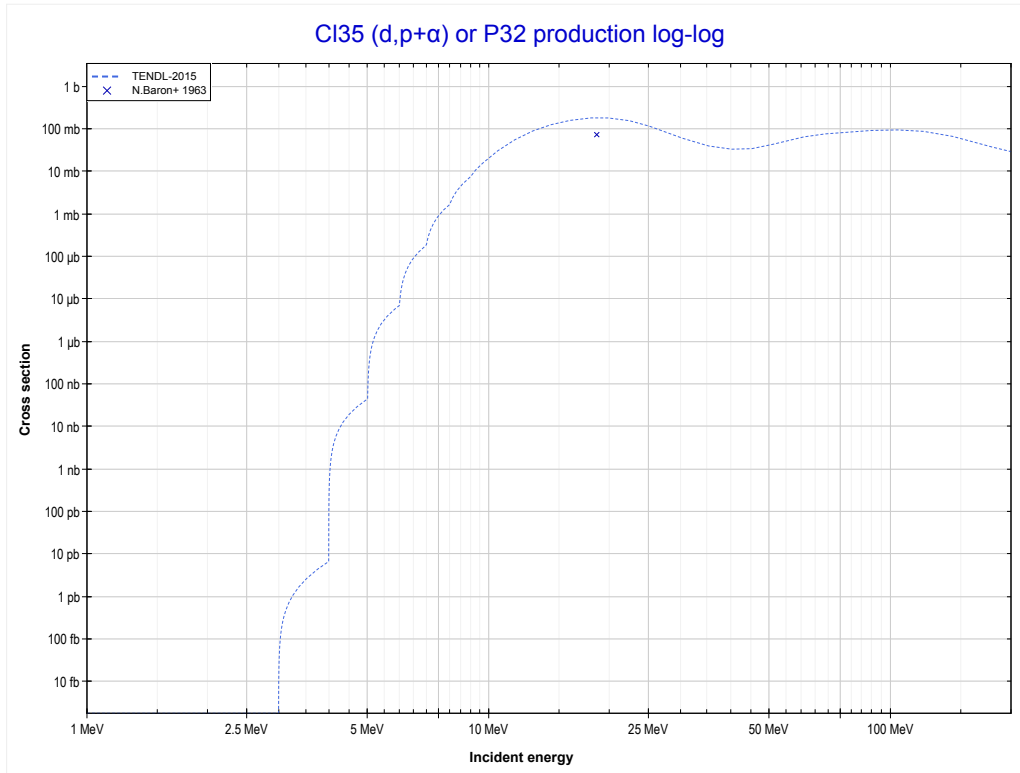
Reaction	Q-Value
S32(d,2p)P32	-3152.88 keV

<< 16-S-32	<b>16-S-34</b>	18-Ar-36 >>
<< 16-S-32 MT111 (d,2p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (P32 production)</b>	17-Cl-35 MT112 (d,p+ $\alpha$ ) >>



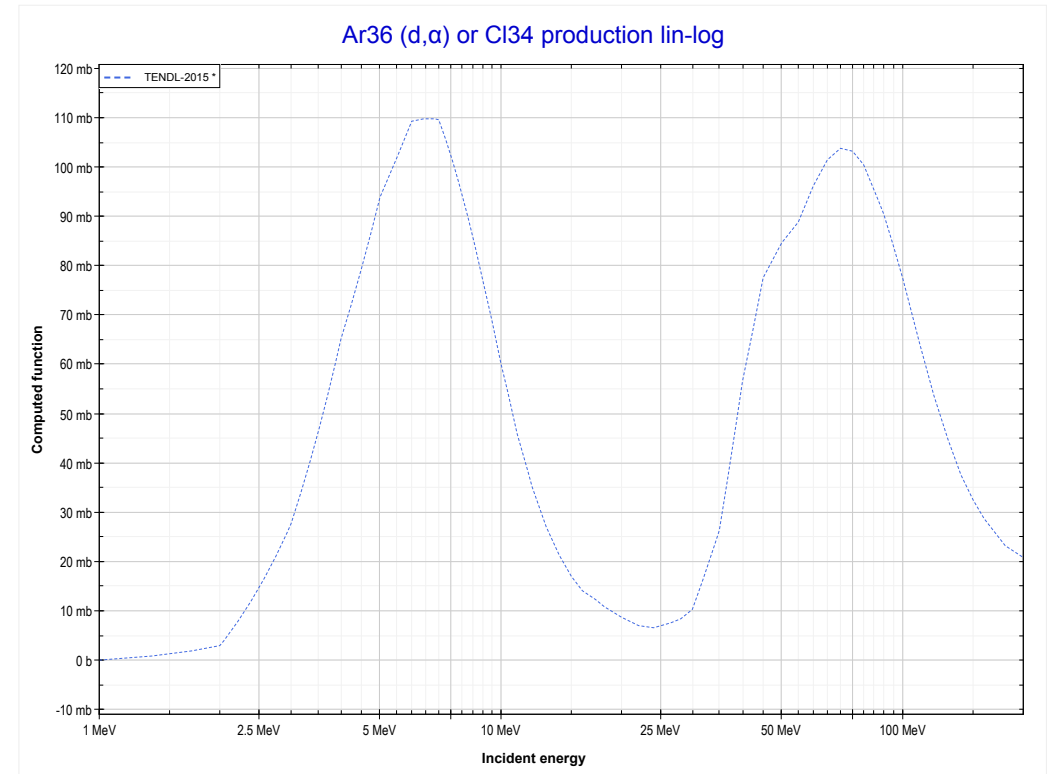
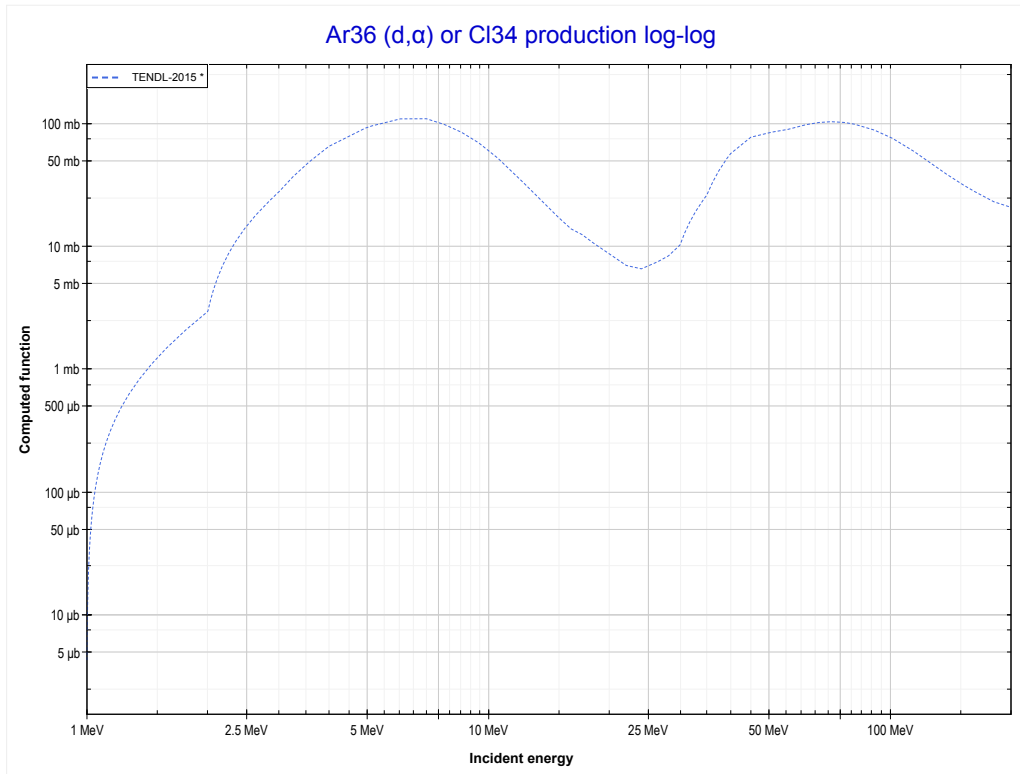
Reaction	Q-Value
S34(d, $\alpha$ )P32	5083.99 keV
S34(d,p+t)P32	-14729.87 keV
S34(d,n+He3)P32	-15493.63 keV
S34(d,2d)P32	-18762.54 keV
S34(d,n+p+d)P32	-20987.11 keV
S34(d,2n+2p)P32	-23211.67 keV

<< 13-Al-27	<b>17-Cl-35</b>	27-Co-59 >>
<< 16-S-34 MT107 (d, $\alpha$ )	<b>MT112 (d,p<math>\alpha</math>) or MT5 (P32 production)</b>	18-Ar-36 MT107 (d, $\alpha$ ) >>



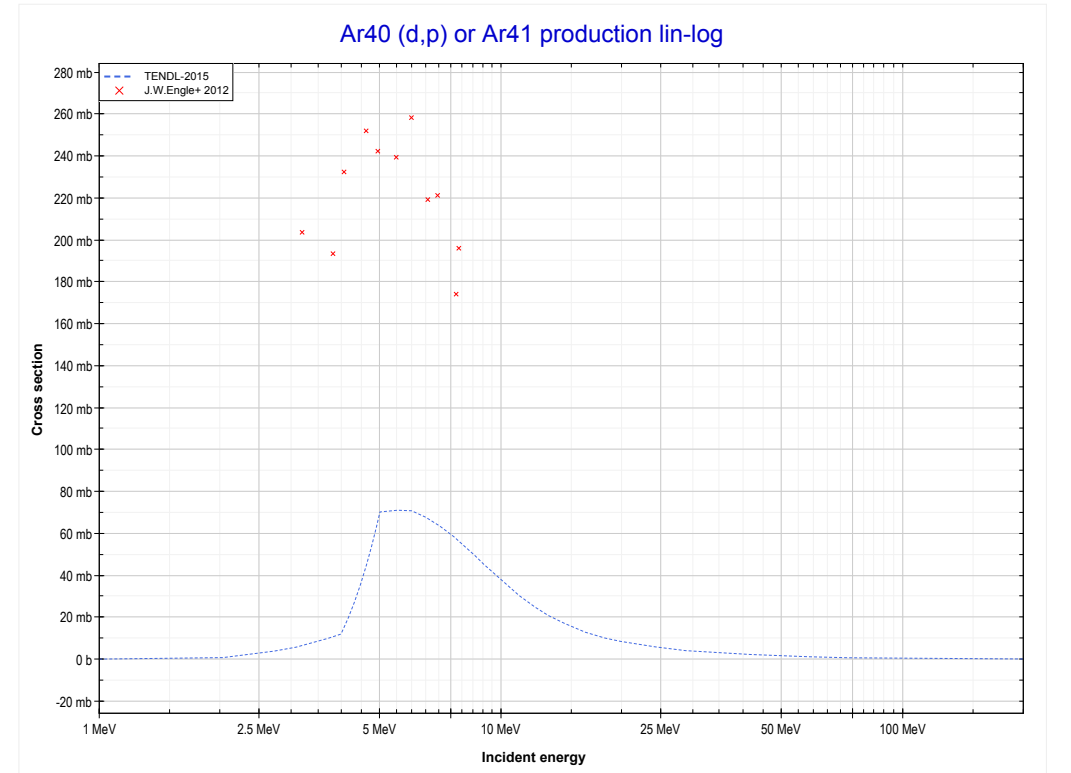
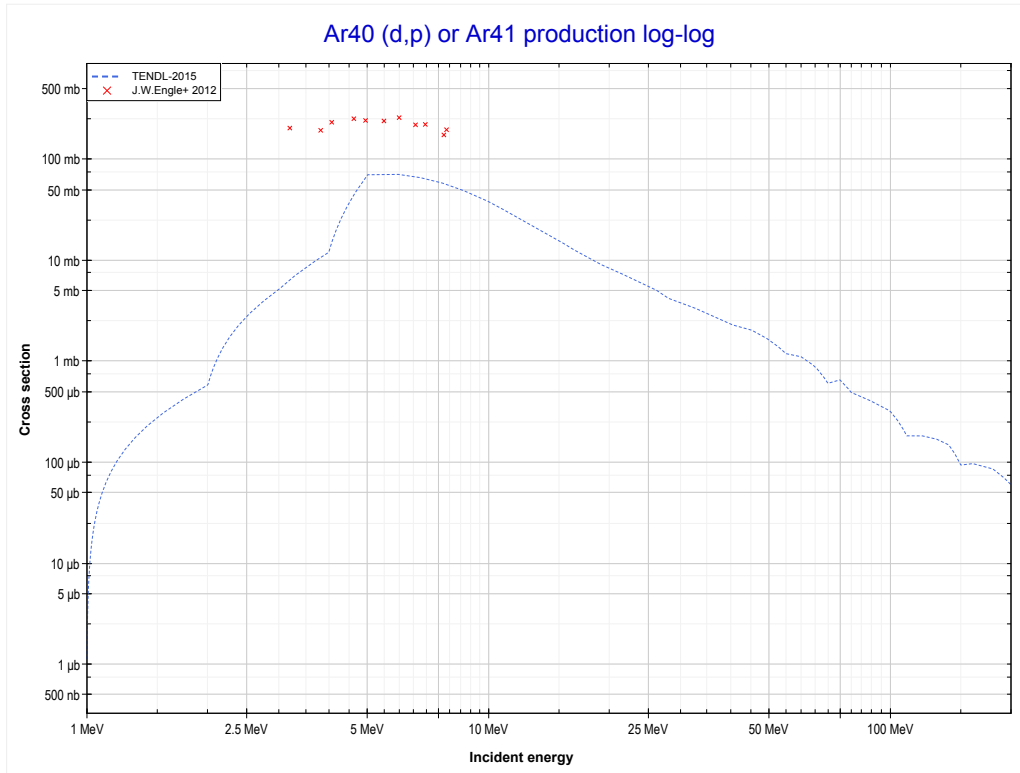
Reaction	Q-Value
Cl35(d,p $\alpha$ )P32	-1286.83 keV
Cl35(d,d+He3)P32	-19639.89 keV
Cl35(d,2p+t)P32	-21100.70 keV
Cl35(d,n+p+He3)P32	-21864.45 keV
Cl35(d,p+2d)P32	-25133.36 keV
Cl35(d,n+2p+d)P32	-27357.93 keV
Cl35(d,2n+3p)P32	-29582.49 keV

<< 16-S-34	<b>18-Ar-36</b>	18-Ar-40 >>
<< 17-Cl-35 MT112 (d,p+α)	<b>MT107 (d,α) or MT5 (Cl34 production)</b>	18-Ar-40 MT103 (d,p) >>



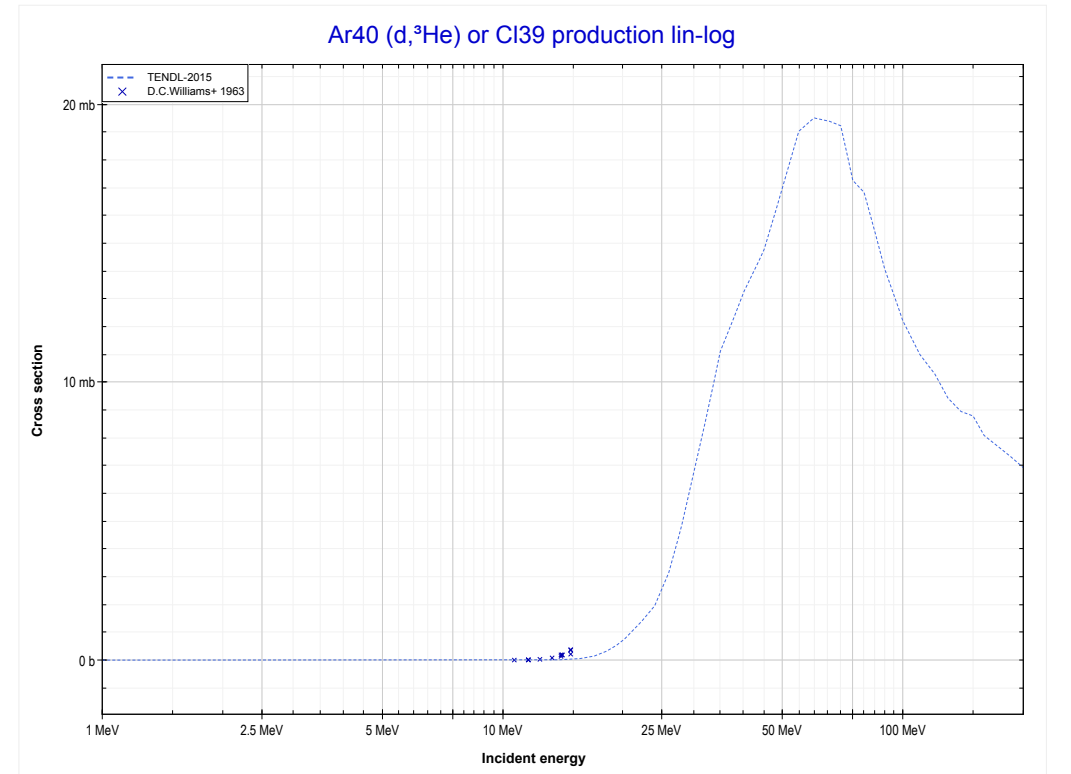
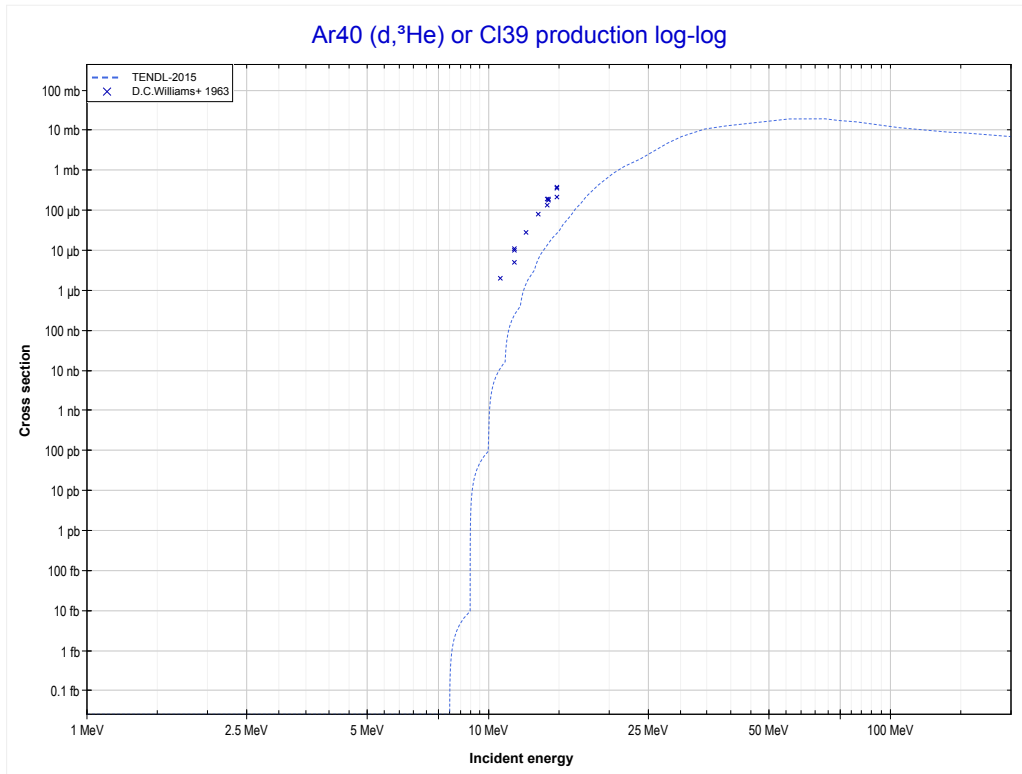
Reaction	Q-Value
Ar36(d,α)Cl34	4919.36 keV
Ar36(d,p+t)Cl34	-14894.50 keV
Ar36(d,n+He3)Cl34	-15658.26 keV
Ar36(d,2d)Cl34	-18927.17 keV
Ar36(d,n+p+d)Cl34	-21151.74 keV
Ar36(d,2n+2p)Cl34	-23376.30 keV

<< 13-AI-27	<b>18-Ar-40</b>	19-K-41 >>
<< 18-Ar-36 MT107 (d, $\alpha$ )	<b>MT103 (d,p) or MT5 (Ar41 production)</b>	MT106 (d, $^3\text{He}$ ) >>



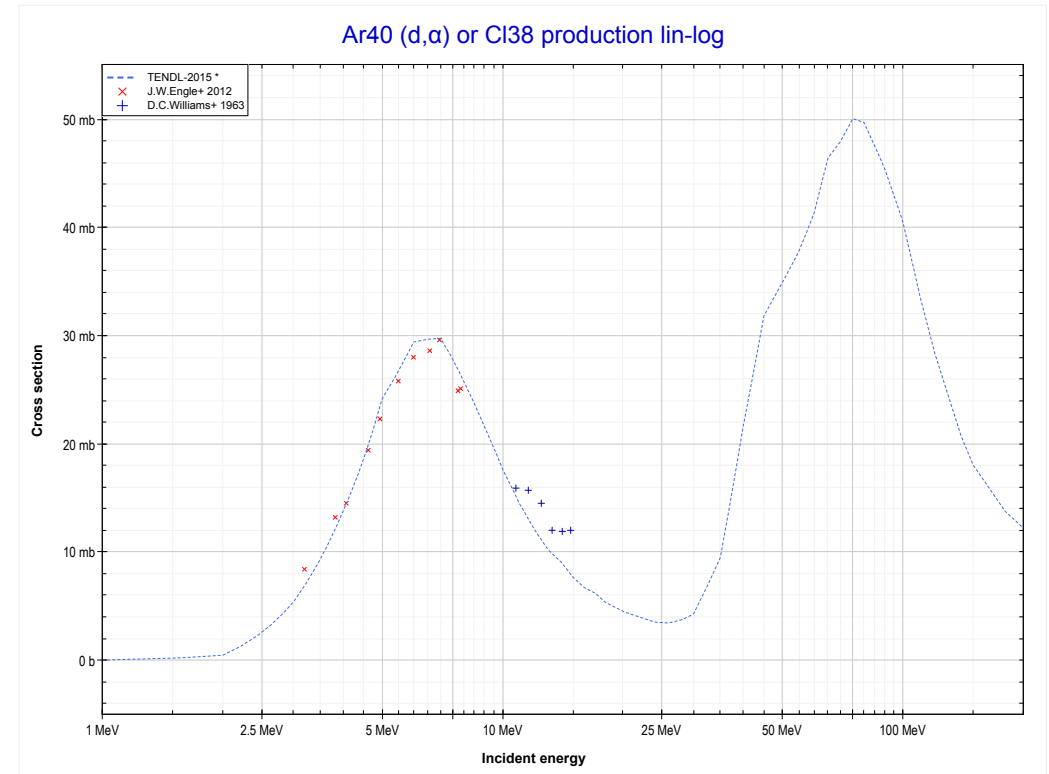
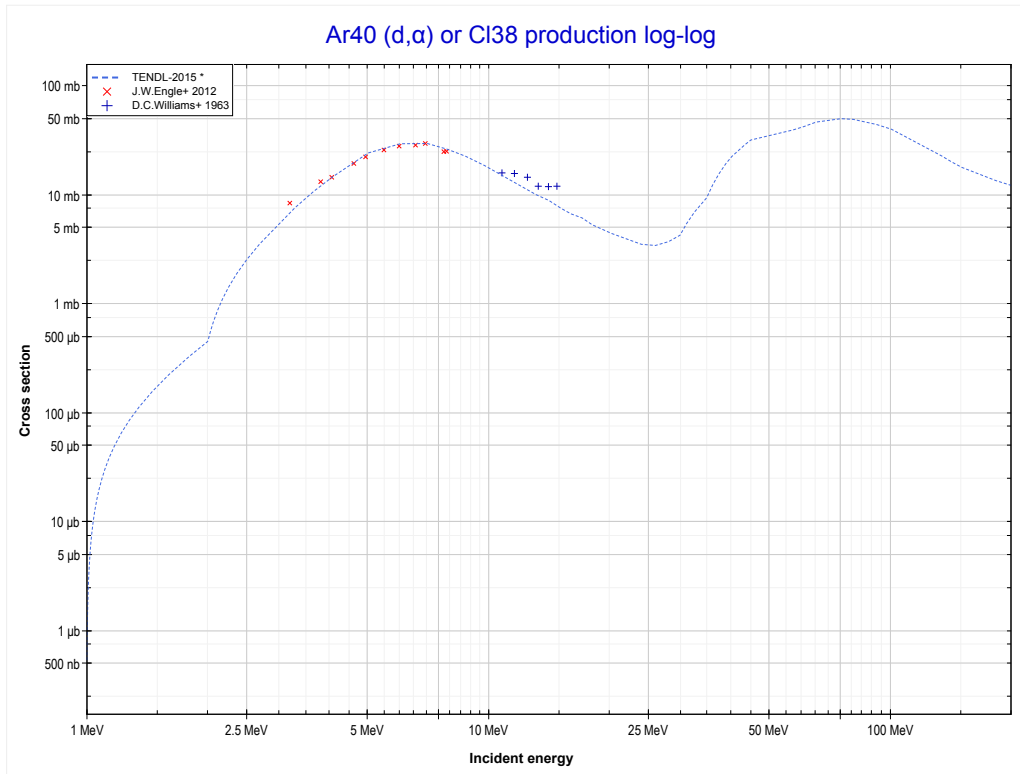
Reaction	Q-Value
Ar40(d,p)Ar41	3874.36 keV

	<b>18-Ar-40</b>	30-Zn-68 >>
<< MT103 (d,p)	<b>MT106 (d,<sup>3</sup>He) or MT5 (Cl39 production)</b>	MT107 (d,α) >>



Reaction	Q-Value
Ar40(d,He3)Cl39	-7035.19 keV
Ar40(d,p+d)Cl39	-12528.67 keV
Ar40(d,n+2p)Cl39	-14753.23 keV

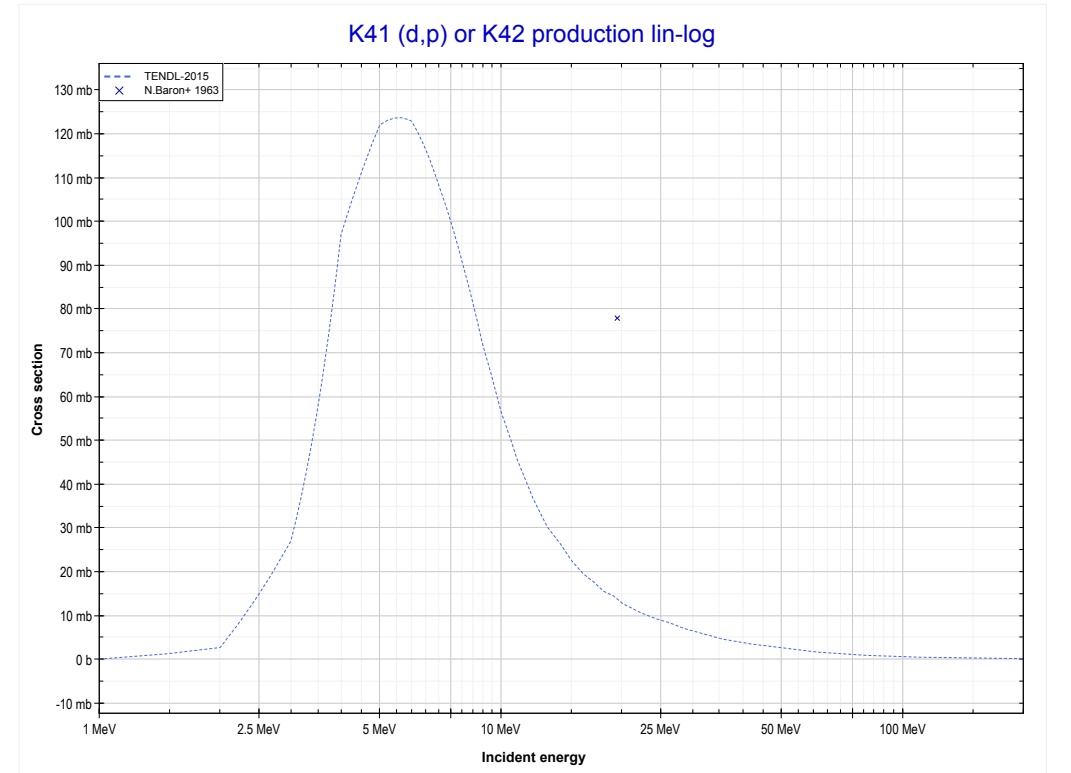
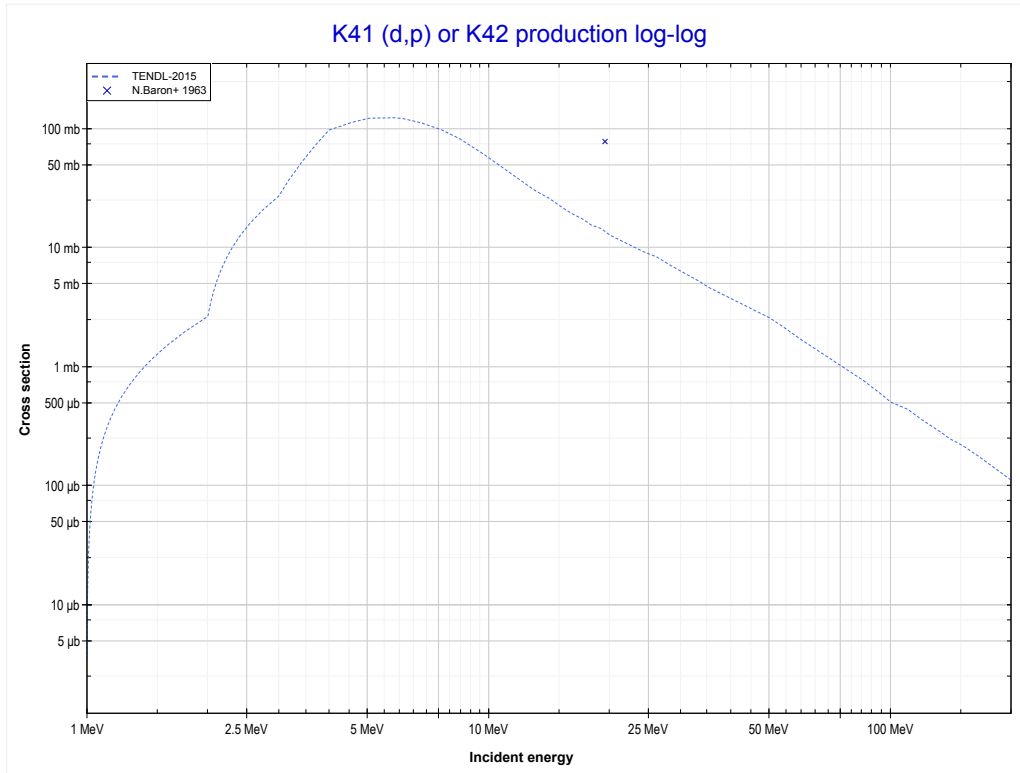
<< 18-Ar-36	<b>18-Ar-40</b>	20-Ca-40 >>
<< MT106 (d, <sup>3</sup> He)	<b>MT107 (d,α) or MT5 (Cl38 production)</b>	19-K-41 MT103 (d,p) >>



Reaction	Q-Value
Ar40(d,α)Cl38	5469.00 keV
Ar40(d,p+t)Cl38	-14344.86 keV
Ar40(d,n+He3)Cl38	-15108.62 keV
Ar40(d,2d)Cl38	-18377.53 keV
Ar40(d,n+p+d)Cl38	-20602.09 keV
Ar40(d,2n+2p)Cl38	-22826.66 keV

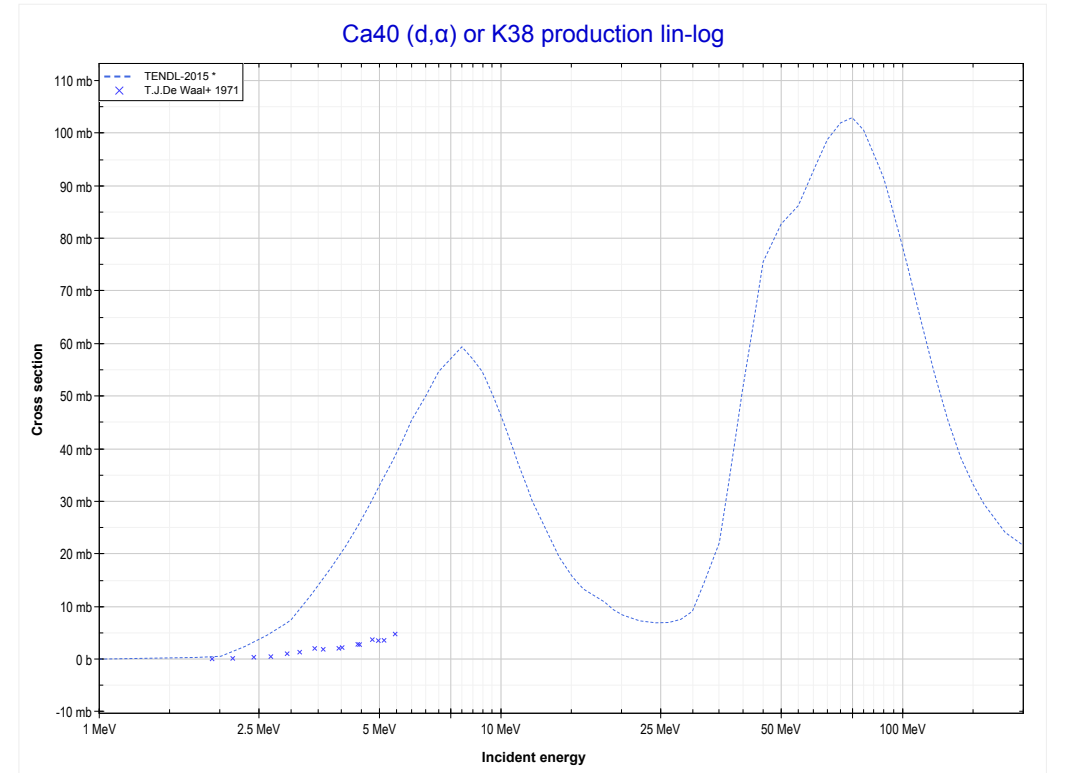
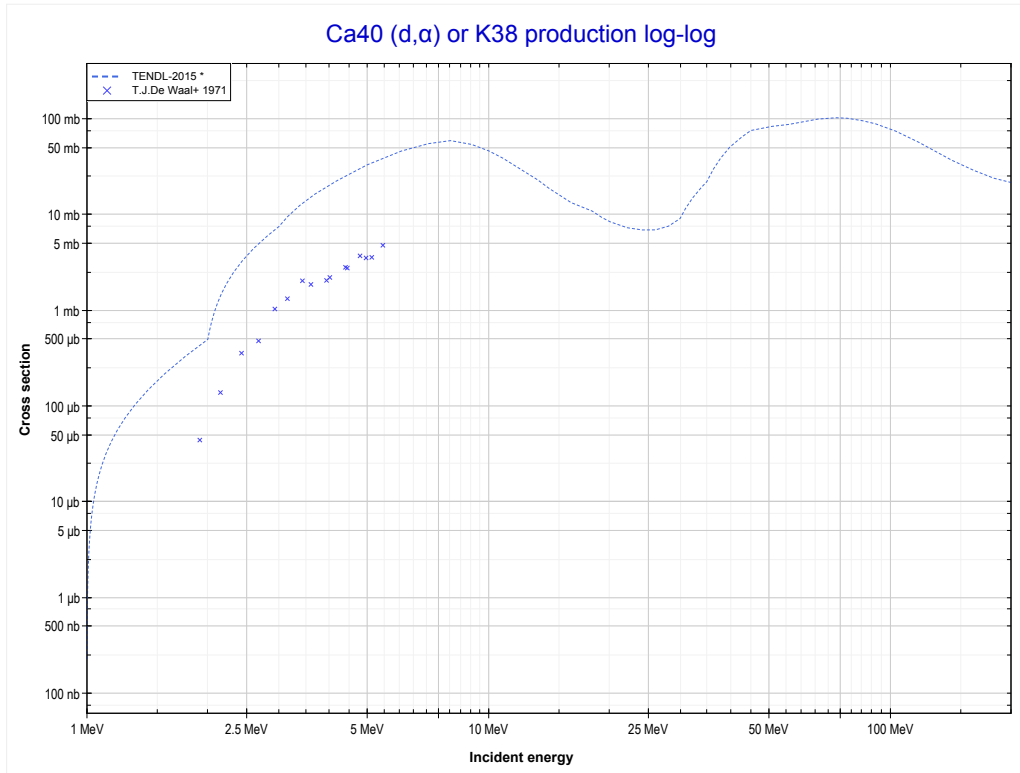


<< 18-Ar-40	<b>19-K-41</b>	20-Ca-48 >>
<< 18-Ar-40 MT107 (d, $\alpha$ )	<b>MT103 (d,p) or MT5 (K42 production)</b>	20-Ca-40 MT107 (d, $\alpha$ ) >>



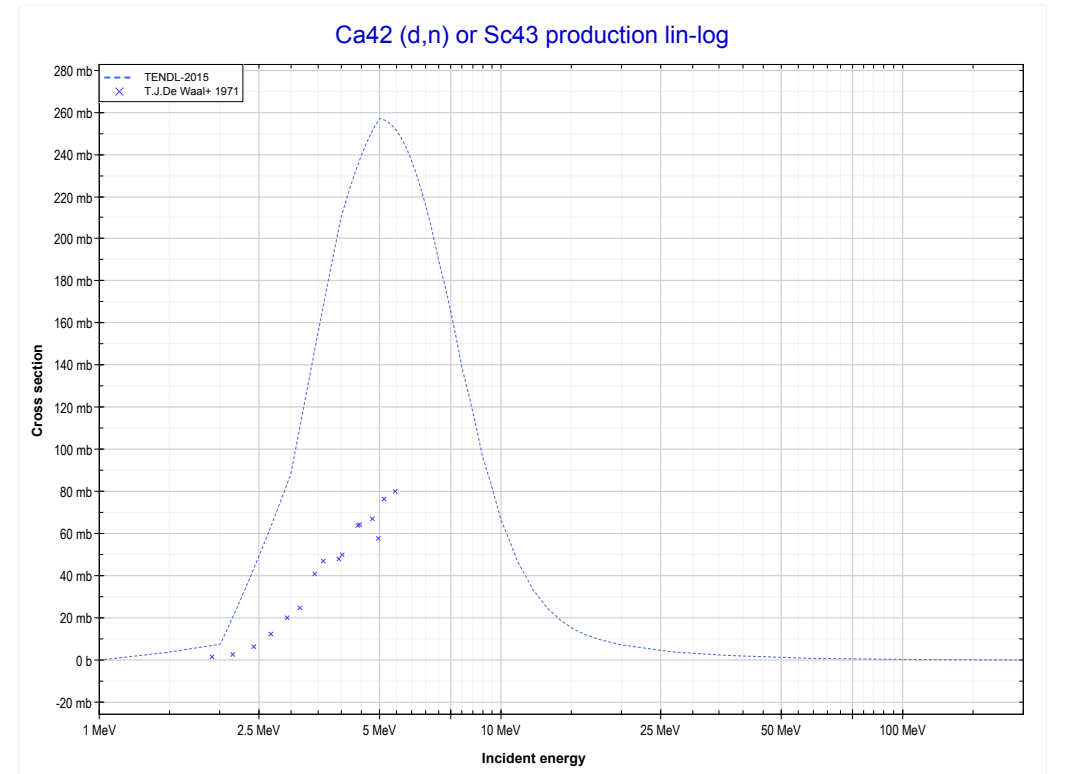
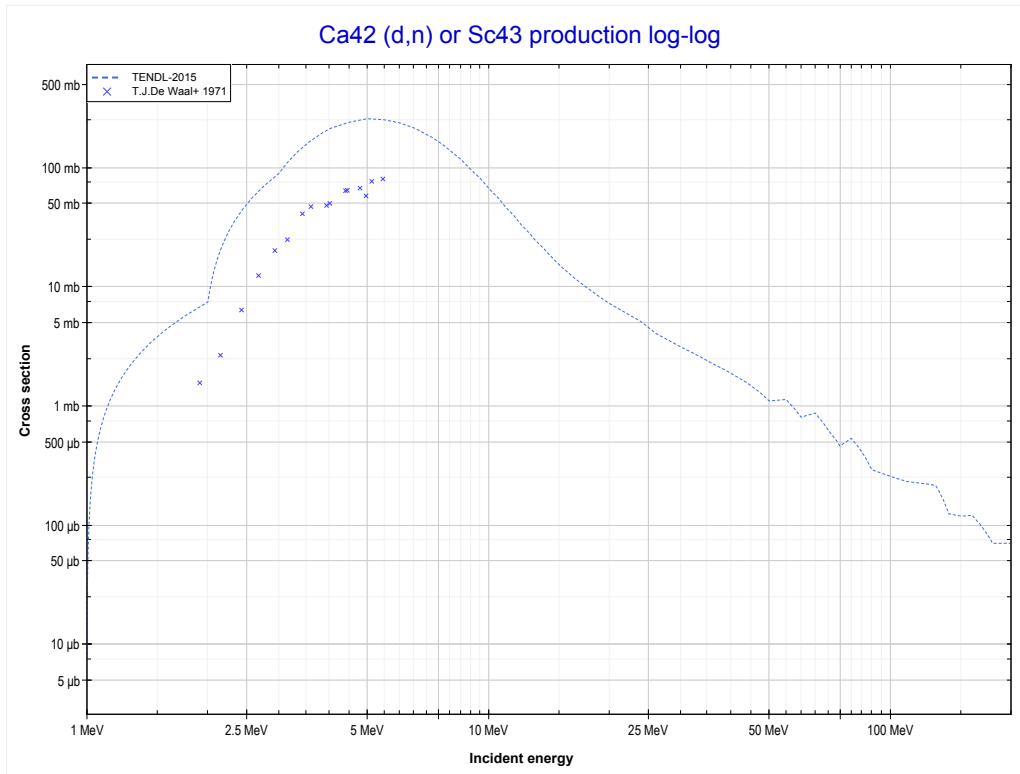
Reaction	Q-Value
K41(d,p)K42	5309.24 keV

<< 18-Ar-40	<b>20-Ca-40</b>	22-Ti-46 >>
<< 19-K-41 MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (K38 production)</b>	20-Ca-42 MT4 (d,n) >>



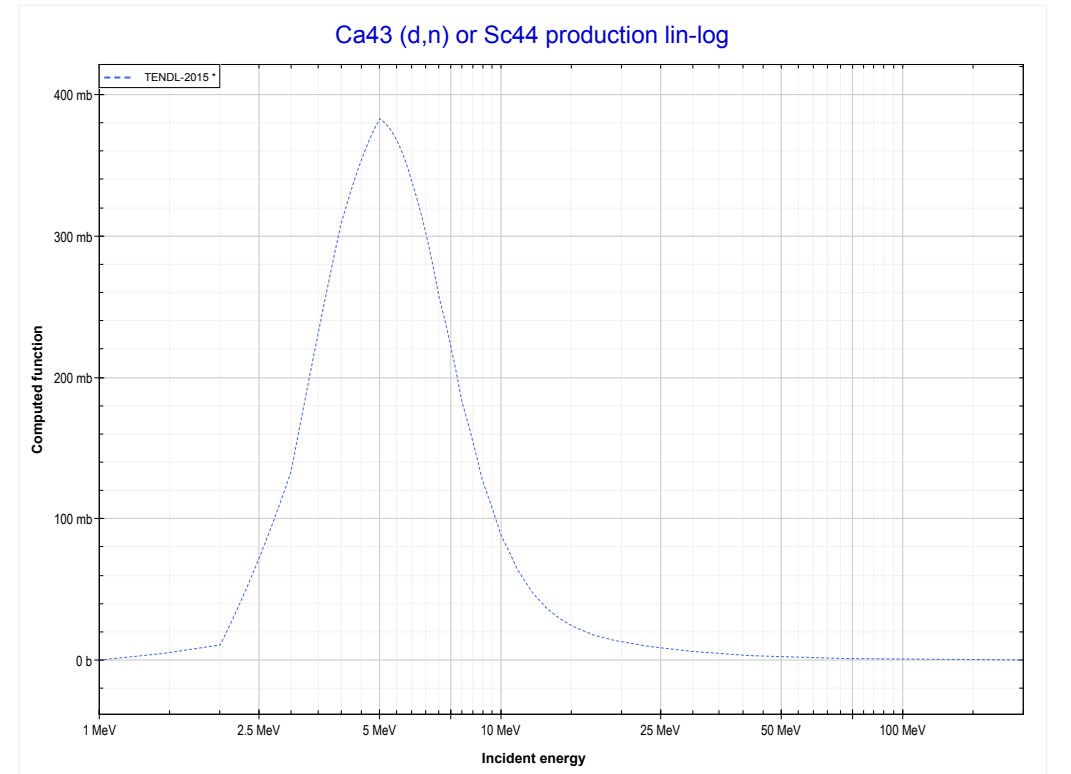
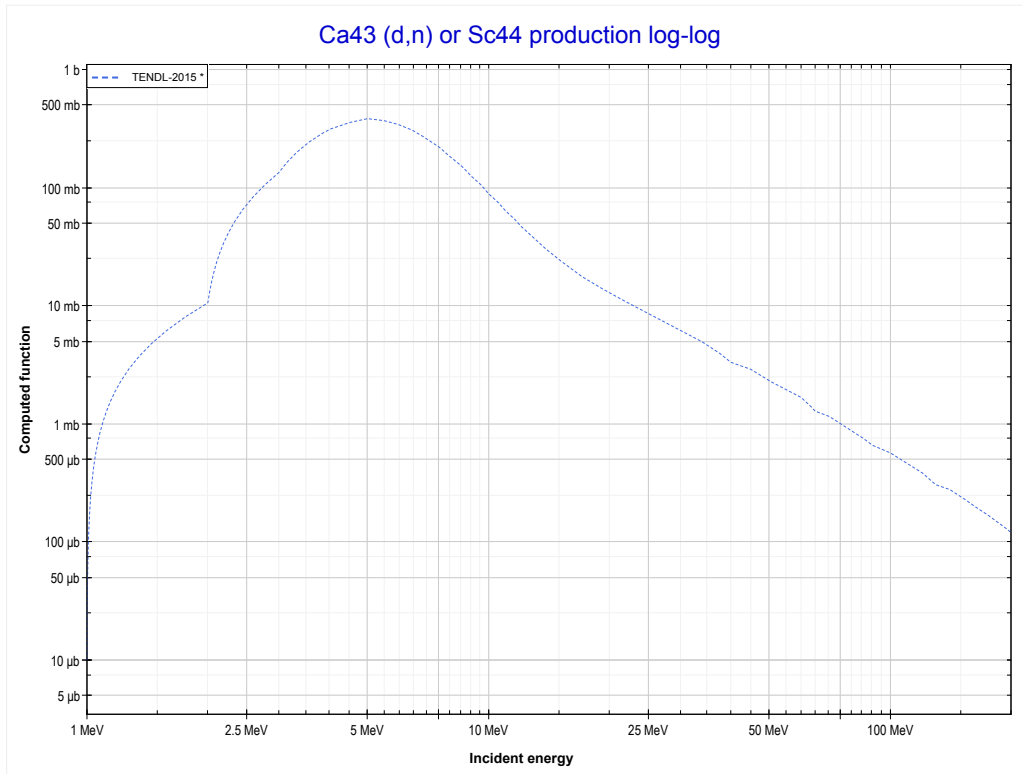
Reaction	Q-Value
Ca40(d, $\alpha$ )K38	4665.17 keV
Ca40(d,p+t)K38	-15148.69 keV
Ca40(d,n+He3)K38	-15912.45 keV
Ca40(d,2d)K38	-19181.36 keV
Ca40(d,n+p+d)K38	-21405.92 keV
Ca40(d,2n+2p)K38	-23630.49 keV

<< 10-Ne-20	<b>20-Ca-42</b>	20-Ca-43 >>
<< 20-Ca-40 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (Sc43 production)</b>	20-Ca-43 MT4 (d,n) >>



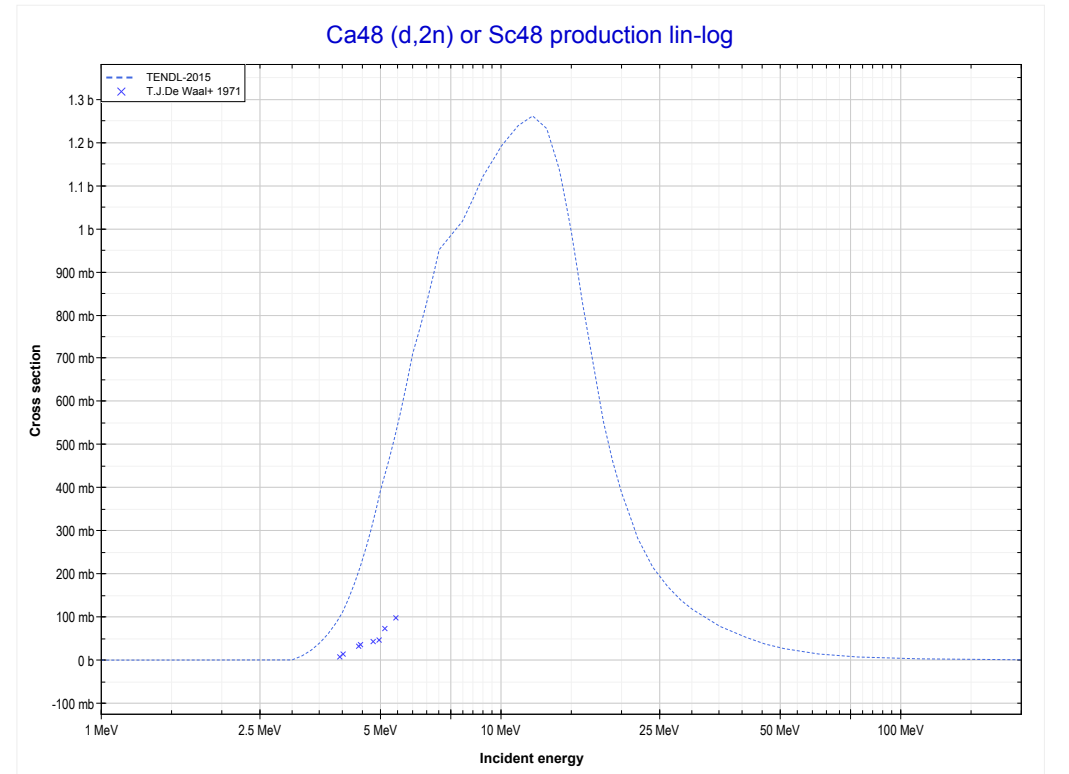
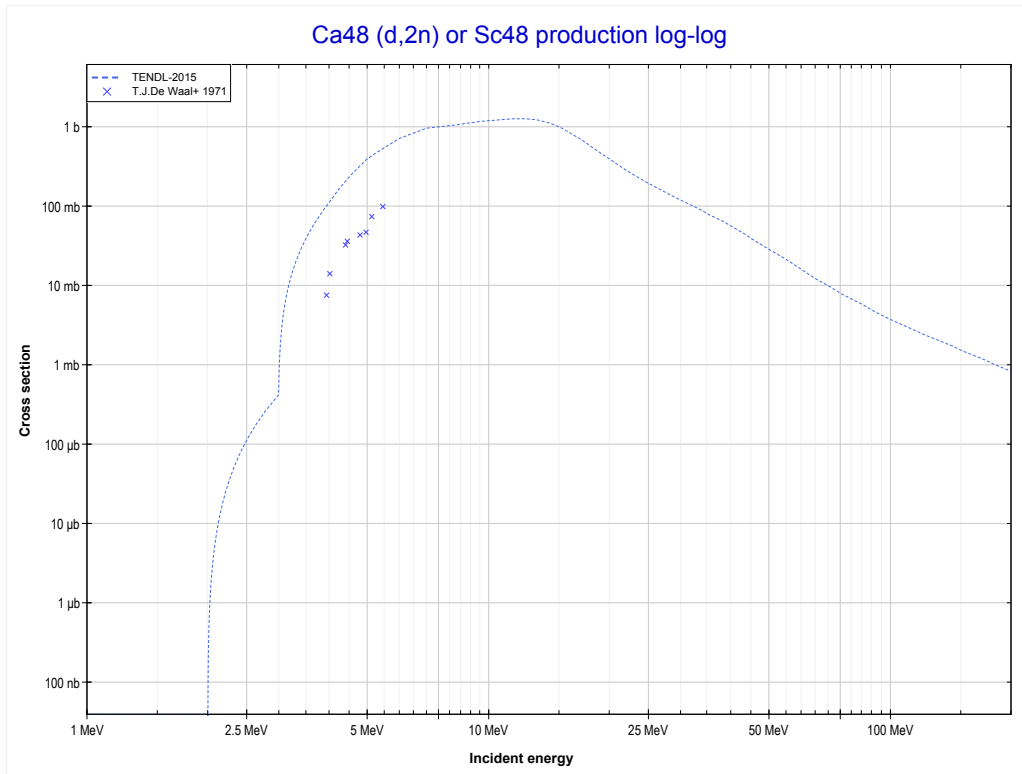
Reaction	Q-Value
Ca42(d,n)Sc43	2705.26 keV

<< 20-Ca-42	<b>20-Ca-43</b>	22-Ti-47 >>
<< 20-Ca-42 MT4 (d,n)	<b>MT4 (d,n) or MT5 (Sc44 production)</b>	20-Ca-48 MT16 (d,2n) >>



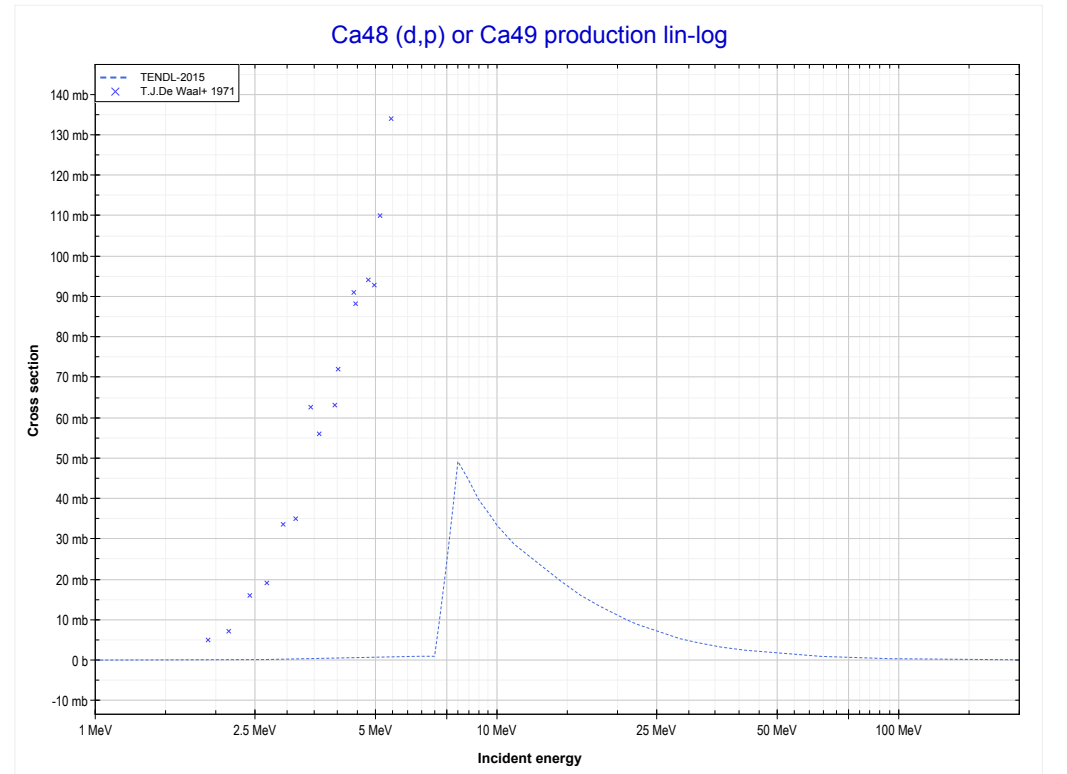
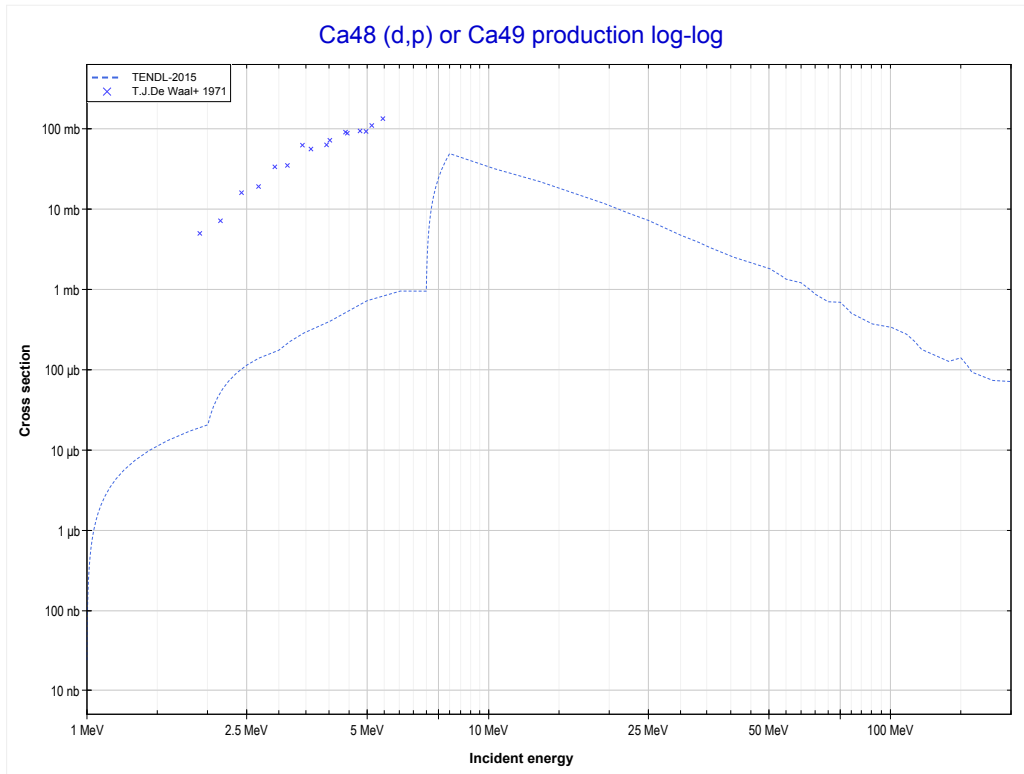
<b>Reaction</b>	<b>Q-Value</b>
Ca43(d,n)Sc44	4471.58 keV

<< 5-B-11	<b>20-Ca-48</b>	21-Sc-45 >>
<< 20-Ca-43 MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Sc48 production)</b>	MT103 (d,p) >>



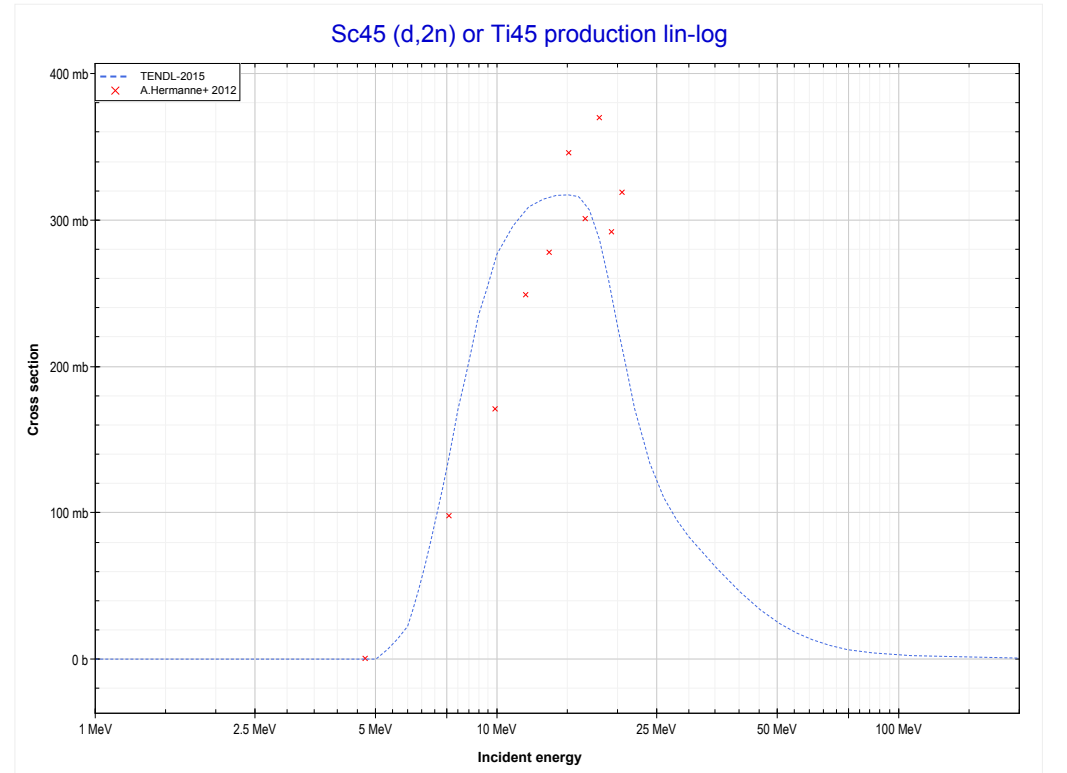
Reaction	Q-Value
Ca48(d,2n)Sc48	-2728.67 keV

<< 19-K-41	<b>20-Ca-48</b>	21-Sc-45 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Ca49 production)</b>	21-Sc-45 MT16 (d,2n) >>



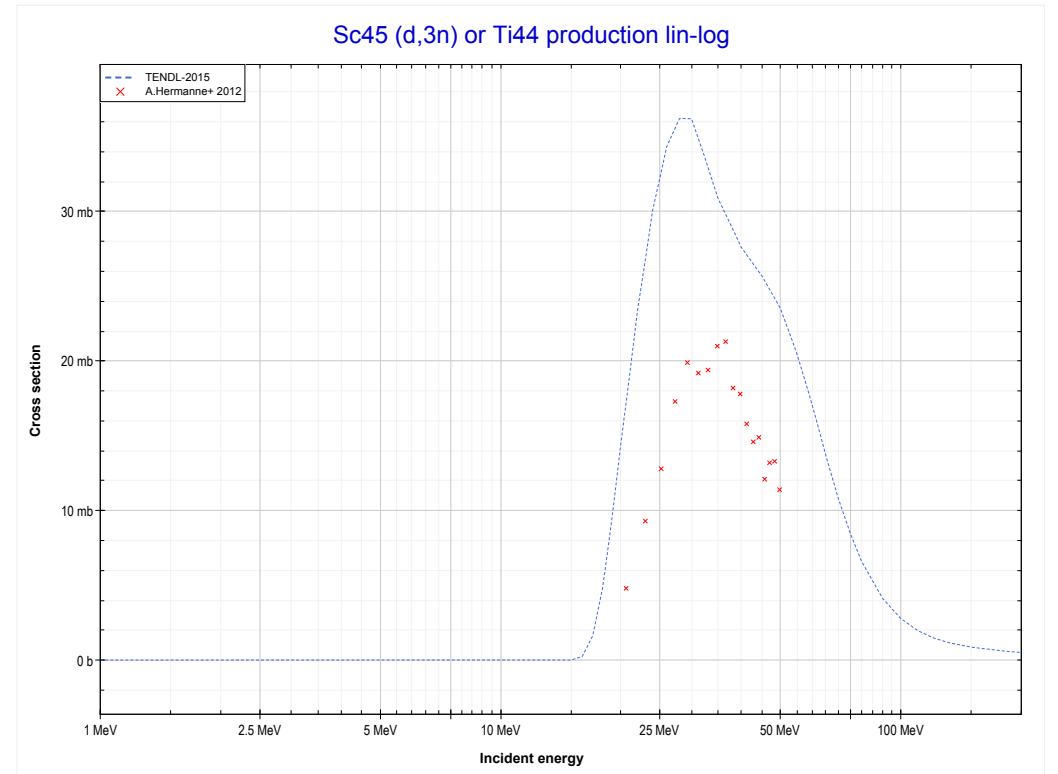
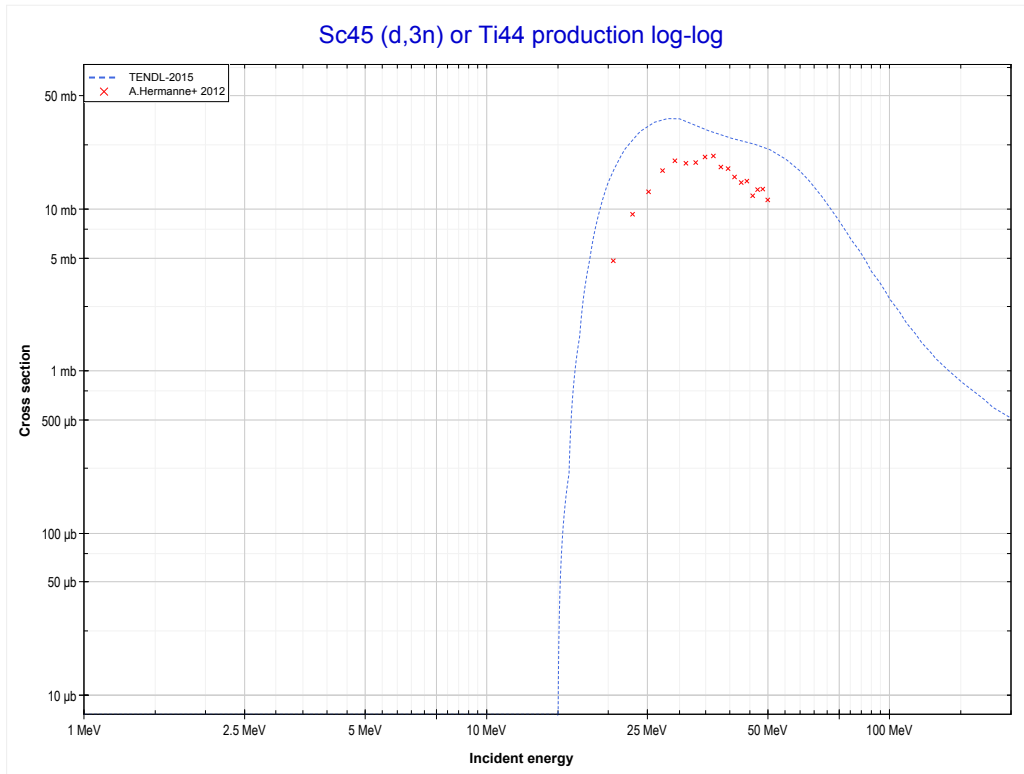
Reaction	Q-Value
Ca48(d,p)Ca49	2921.88 keV

<< 20-Ca-48	<b>21-Sc-45</b>	22-Ti-47 >>
<< 20-Ca-48 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (Ti45 production)</b>	MT17 (d,3n) >>



Reaction	Q-Value
Sc45(d,2n)Ti45	-5069.01 keV

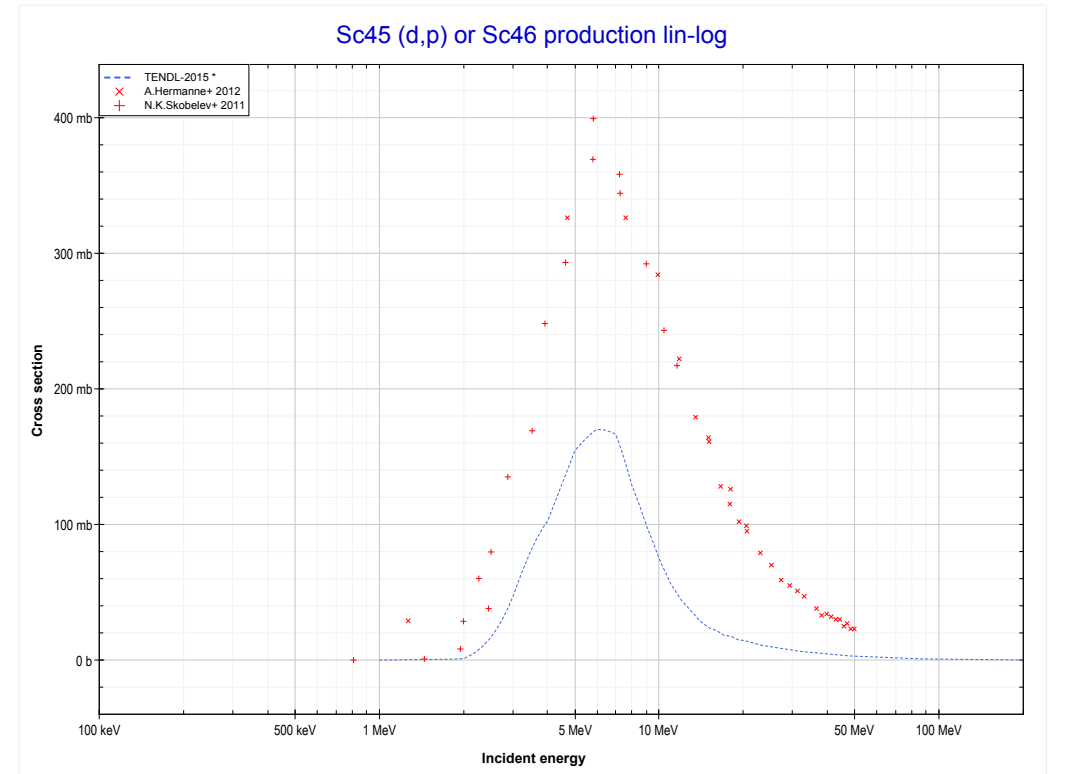
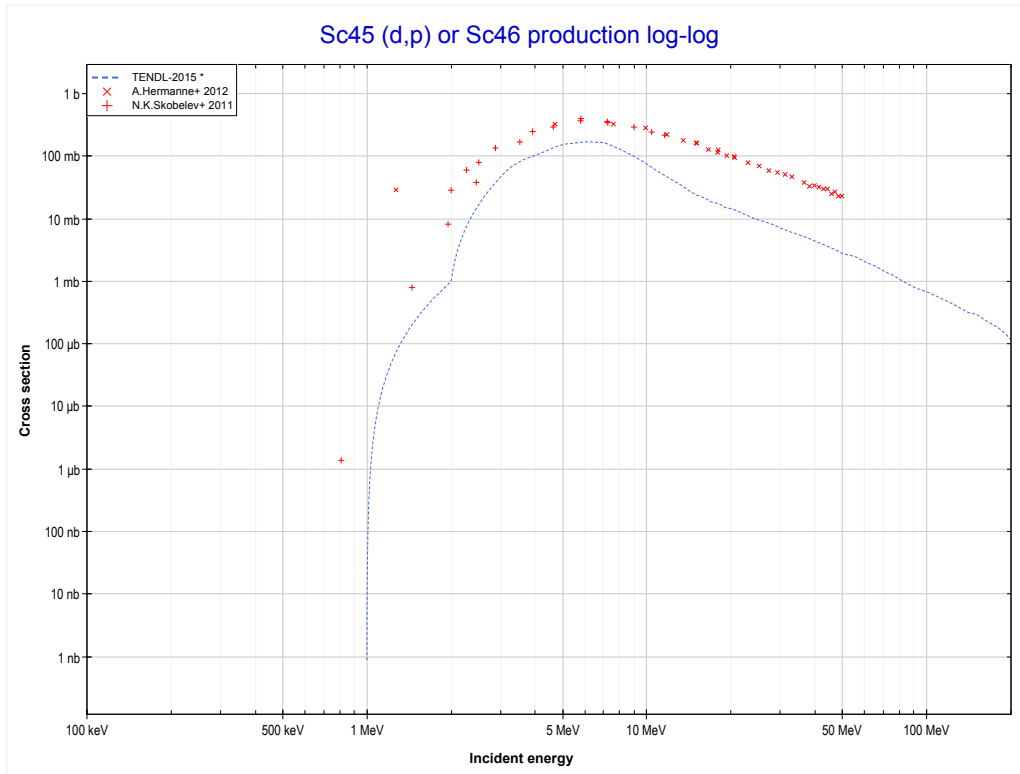
	<b>21-Sc-45</b>	<b>29-Cu-63 &gt;&gt;</b>
<b>&lt;&lt; MT16 (d,2n)</b>	<b>MT17 (d,3n) or MT5 (Ti44 production)</b>	<b>MT103 (d,p) &gt;&gt;</b>



Reaction	Q-Value
Sc45(d,3n)Ti44	-14600.83 keV

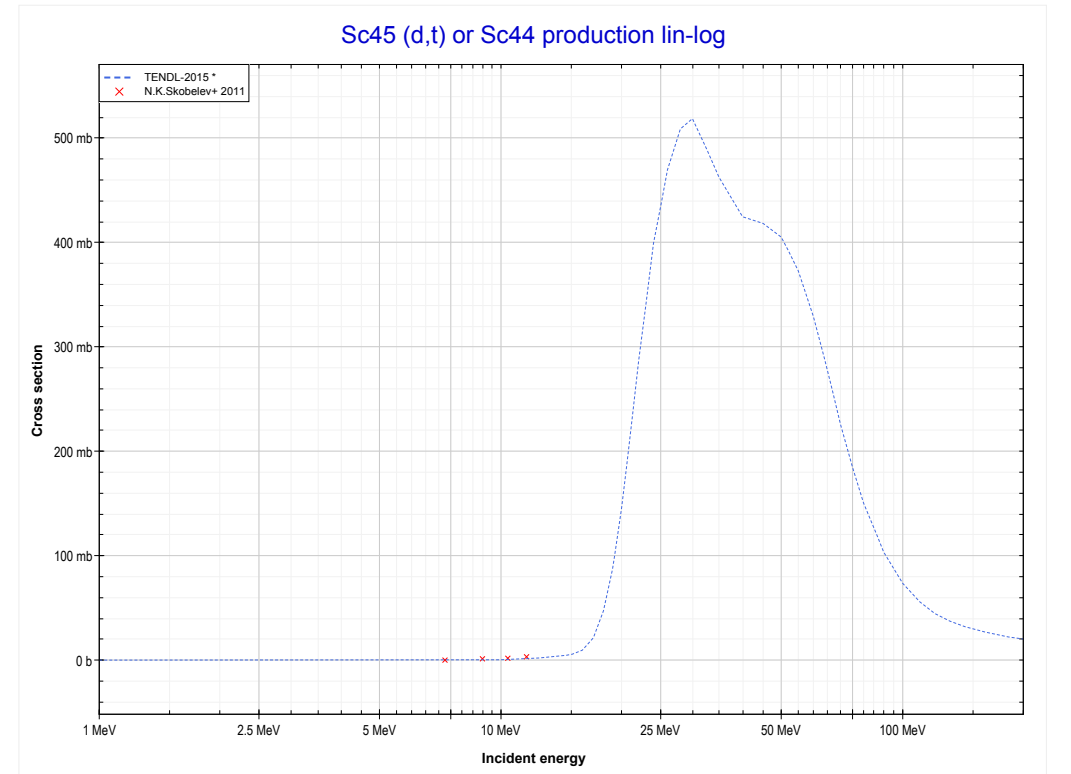
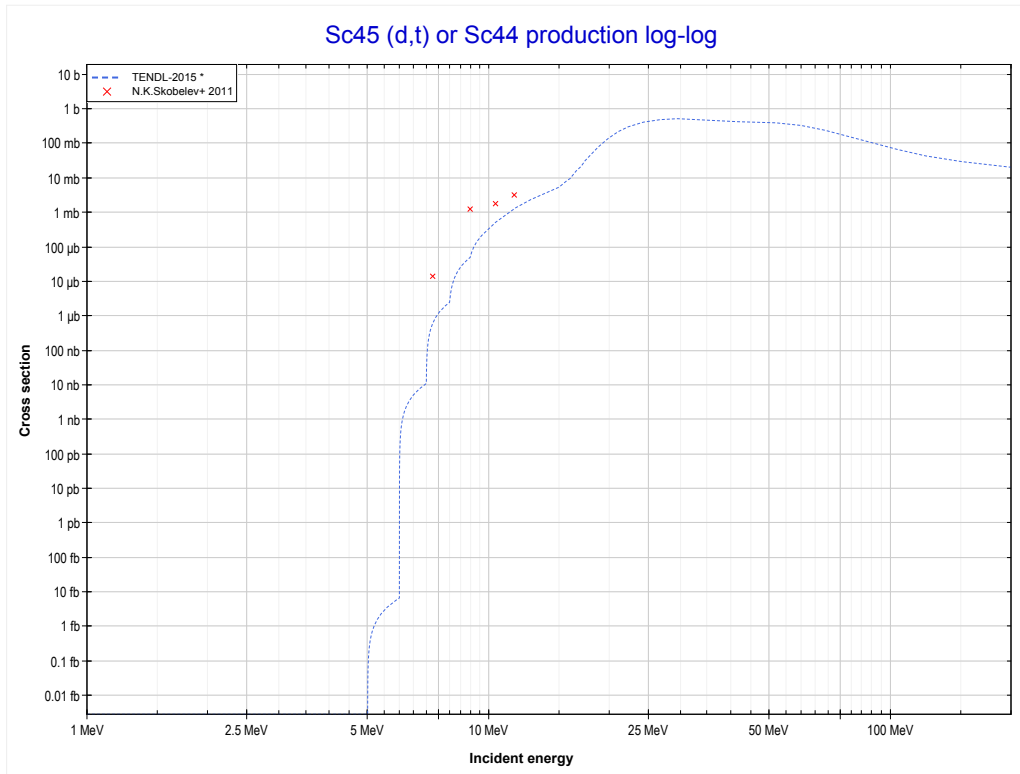


<< 20-Ca-48	<b>21-Sc-45</b>	24-Cr-50 >>
<< MT17 (d,3n)	<b>MT103 (d,p) or MT5 (Sc46 production)</b>	MT105 (d,t) >>



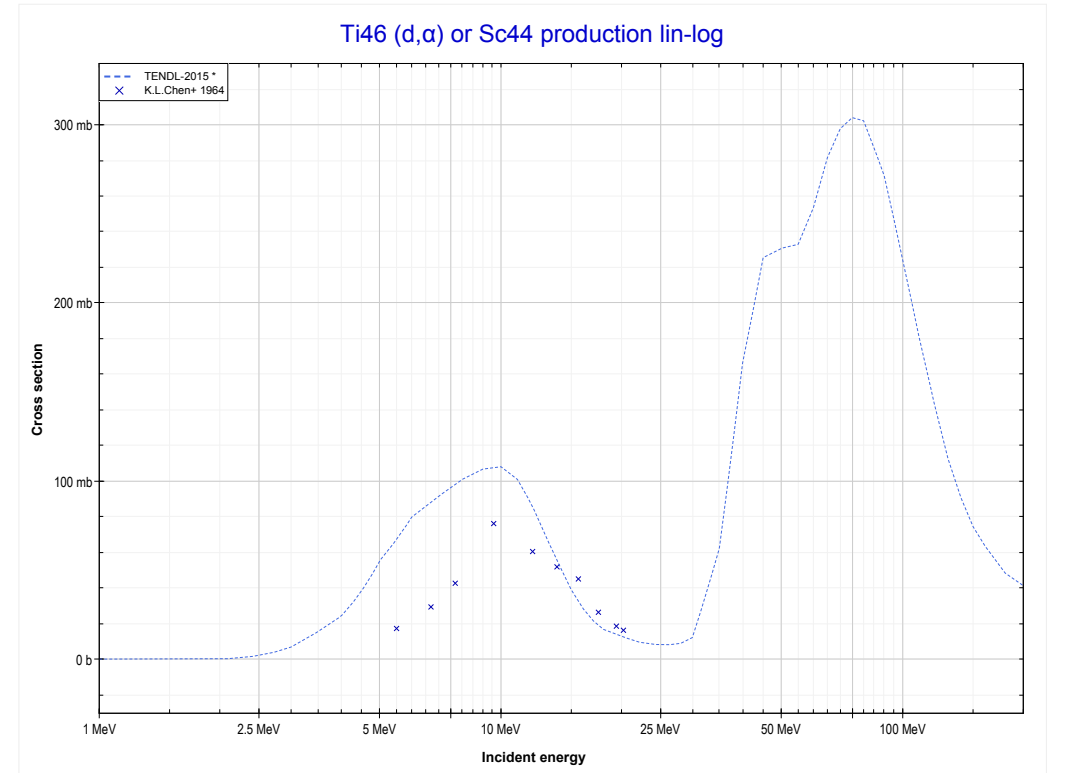
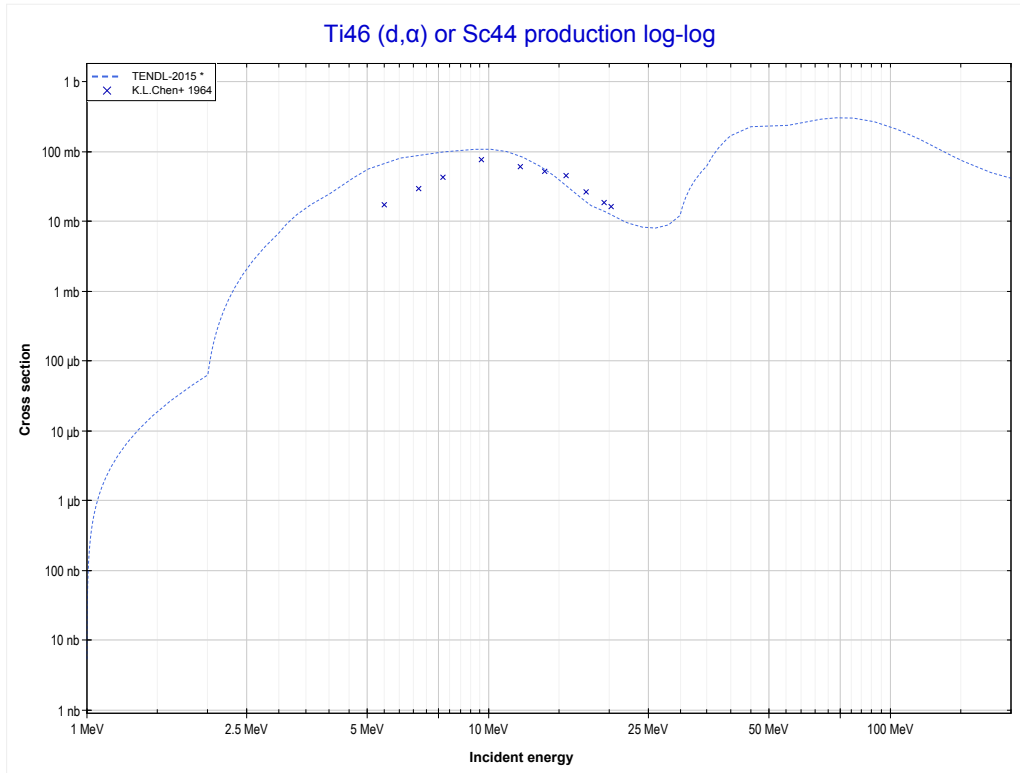
Reaction	Q-Value
Sc45(d,p)Sc46	6536.05 keV

<< 11-Na-23	<b>21-Sc-45</b>	24-Cr-50 >>
<< MT103 (d,p)	<b>MT105 (d,t) or MT5 (Sc44 production)</b>	22-Ti-46 MT107 (d, $\alpha$ ) >>



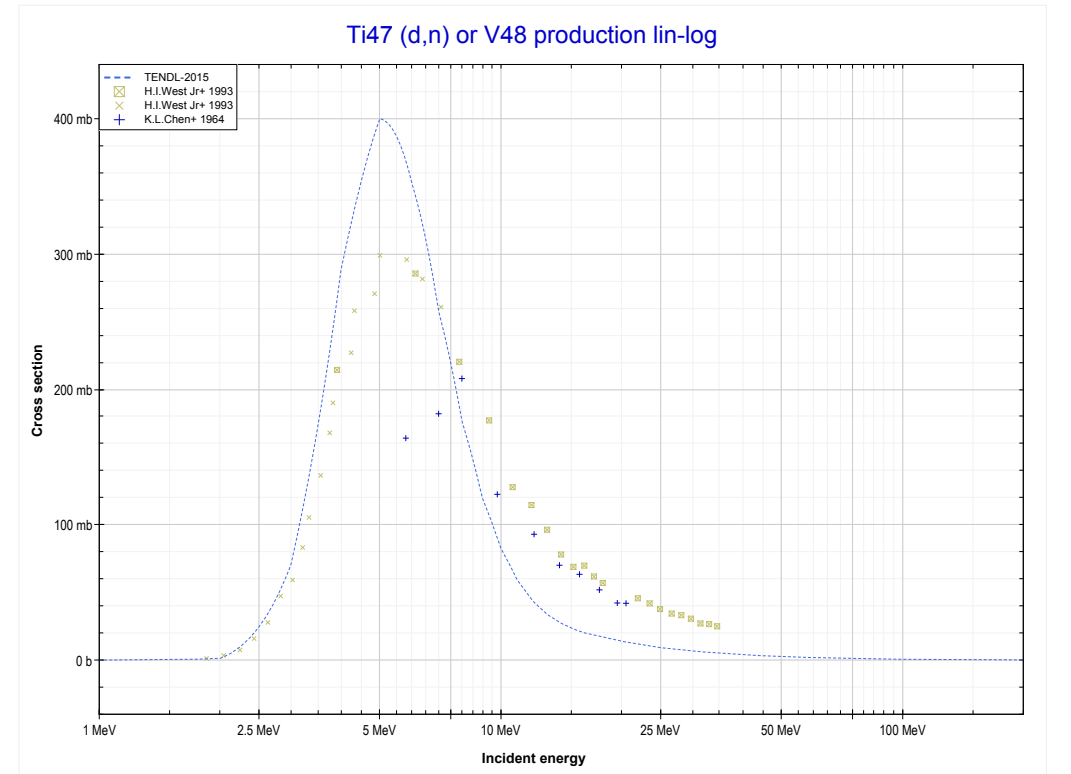
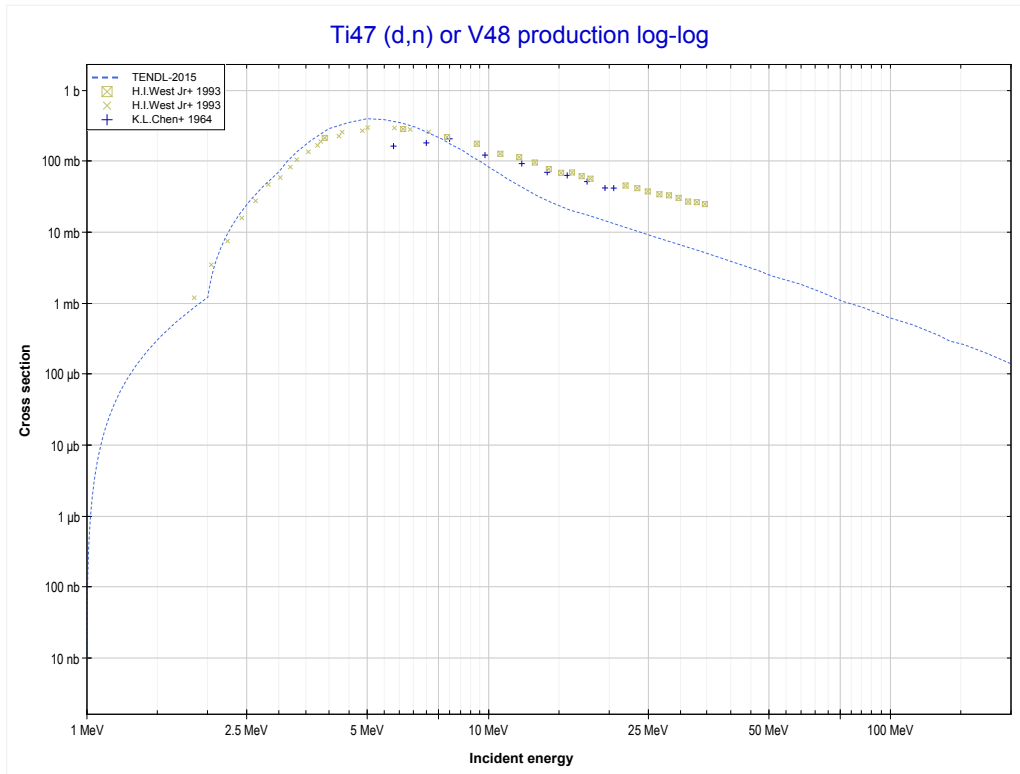
Reaction	Q-Value
Sc45(d,t)Sc44	-5069.28 keV
Sc45(d,n+d)Sc44	-11326.52 keV
Sc45(d,2n+p)Sc44	-13551.08 keV

<< 20-Ca-40	<b>22-Ti-46</b>	22-Ti-48 >>
<< 21-Sc-45 MT105 (d,t)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Sc44 production)</b>	22-Ti-47 MT4 (d,n) >>



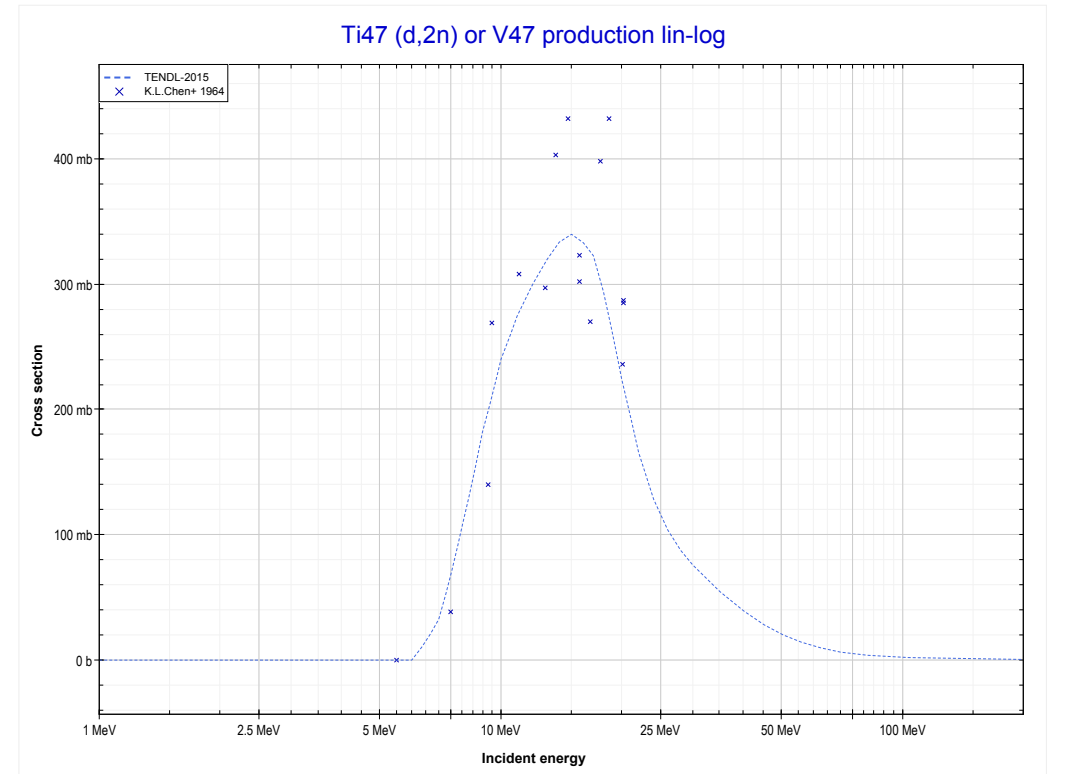
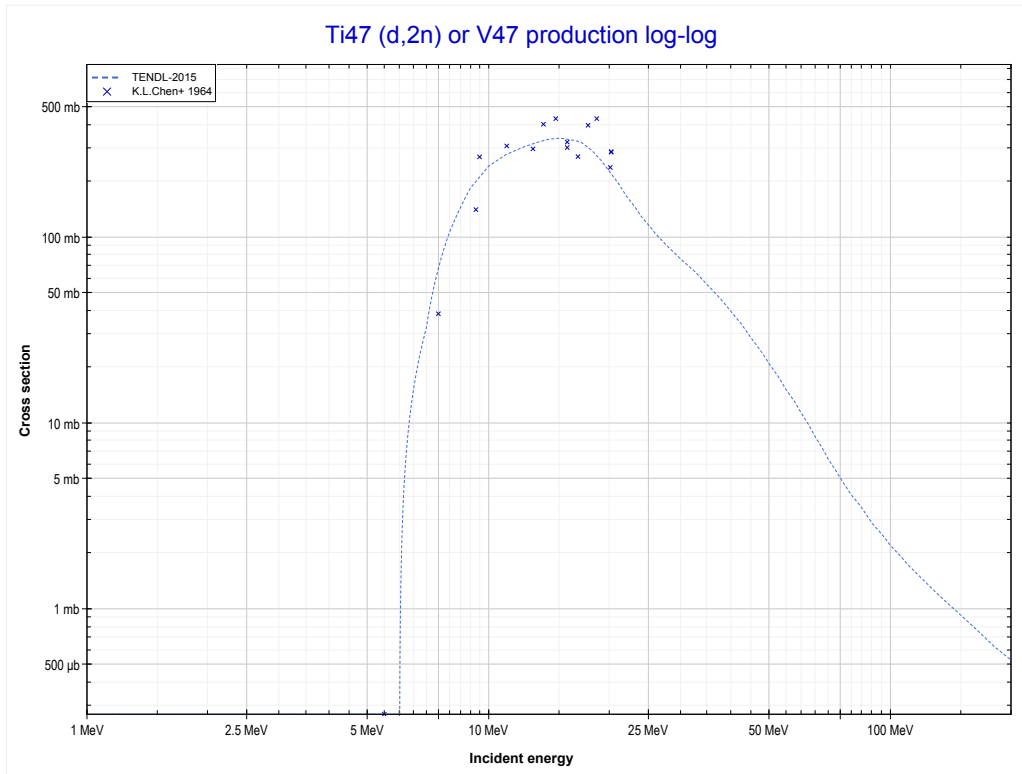
Reaction	Q-Value
Ti46(d, $\alpha$ )Sc44	4399.81 keV
Ti46(d,p+t)Sc44	-15414.05 keV
Ti46(d,n+He3)Sc44	-16177.81 keV
Ti46(d,2d)Sc44	-19446.72 keV
Ti46(d,n+p+d)Sc44	-21671.29 keV
Ti46(d,2n+2p)Sc44	-23895.85 keV

<< 20-Ca-43	<b>22-Ti-47</b>	24-Cr-50 >>
<< 22-Ti-46 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (V48 production)</b>	MT16 (d,2n) >>



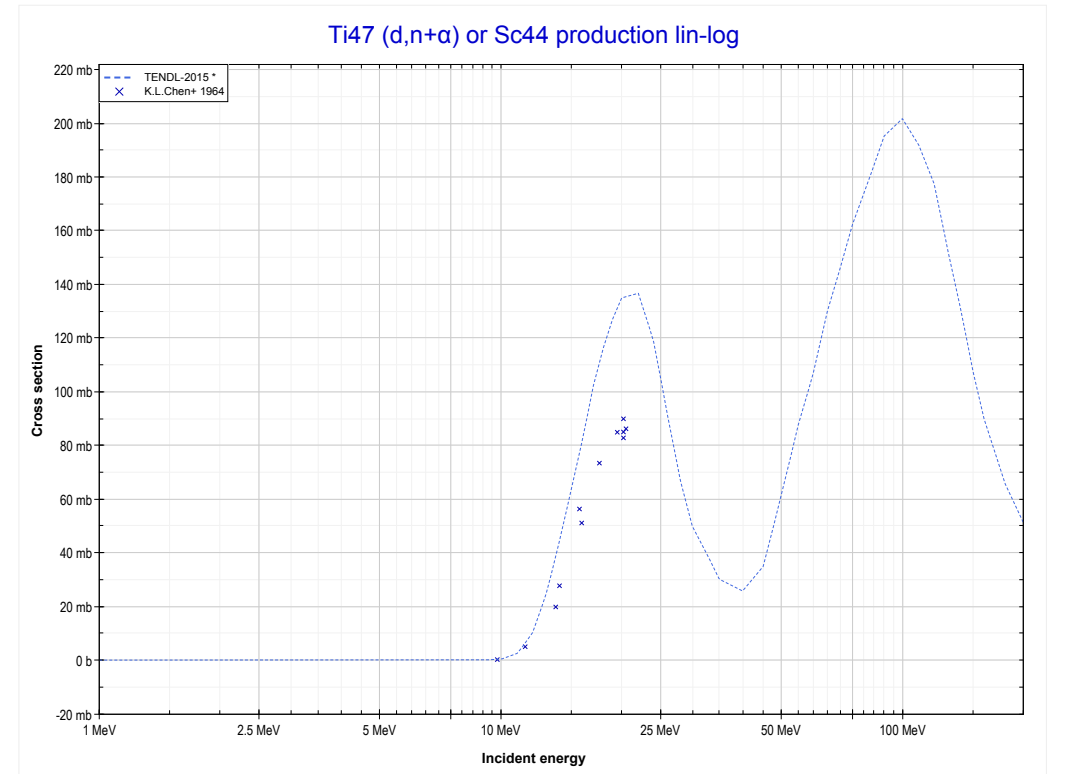
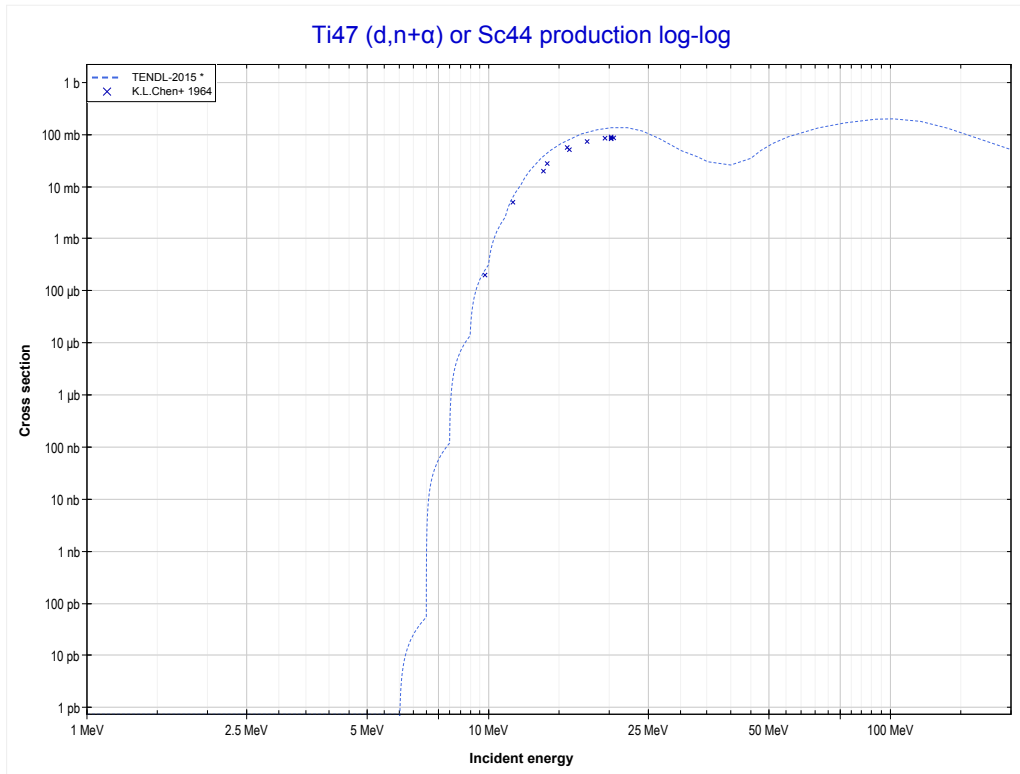
Reaction	Q-Value
Ti47(d,n)V48	4604.80 keV

<< 21-Sc-45	<b>22-Ti-47</b>	22-Ti-48 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (V47 production)</b>	MT22 (d,n+α) >>



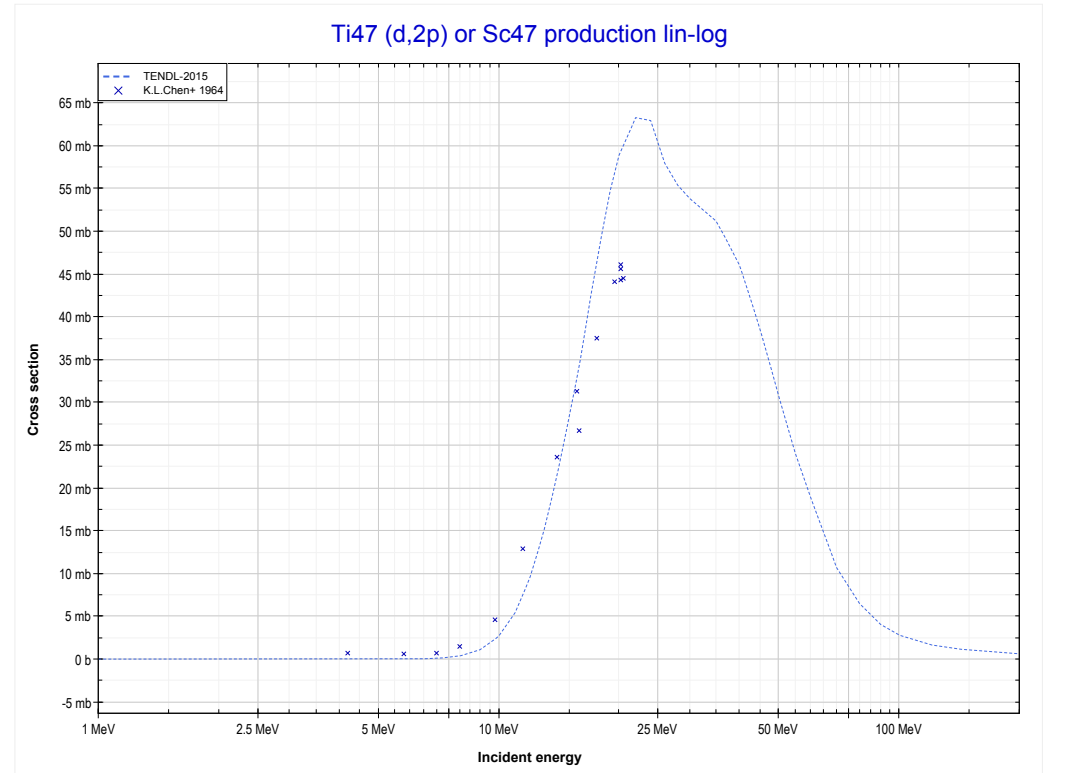
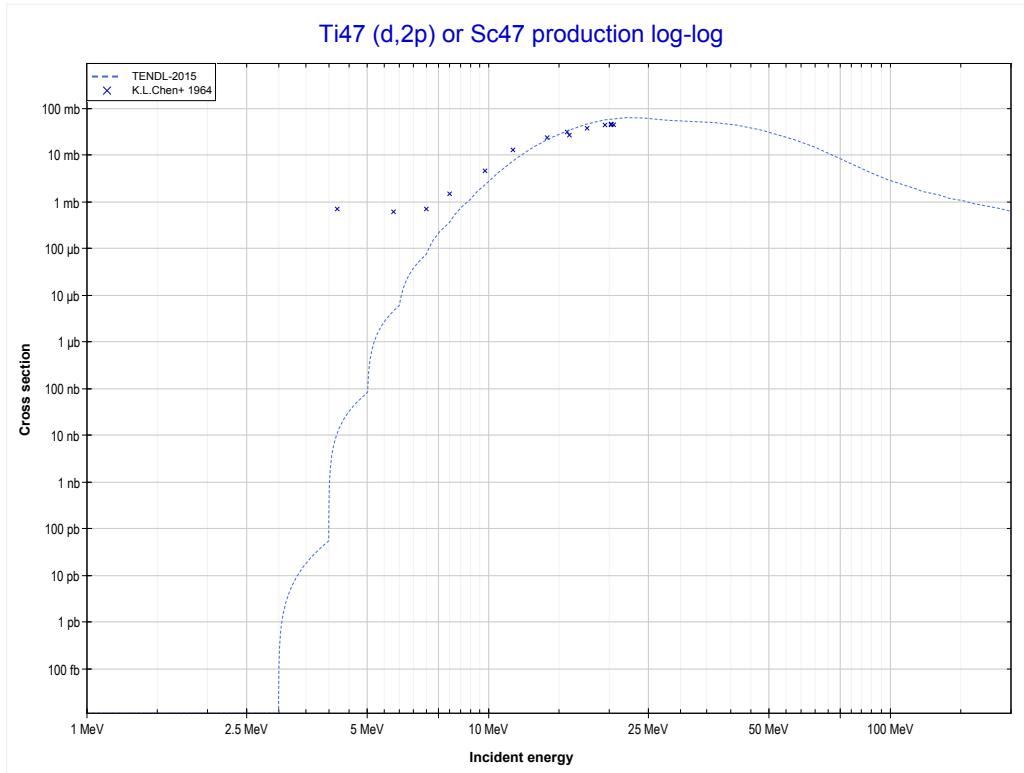
Reaction	Q-Value
Ti47(d,2n)V47	-5937.51 keV

<< 7-N-14	<b>22-Ti-47</b>	28-Ni-58 >>
<< MT16 (d,2n)	<b>MT22 (d,n+α) or MT5 (Sc44 production)</b>	MT111 (d,2p) >>



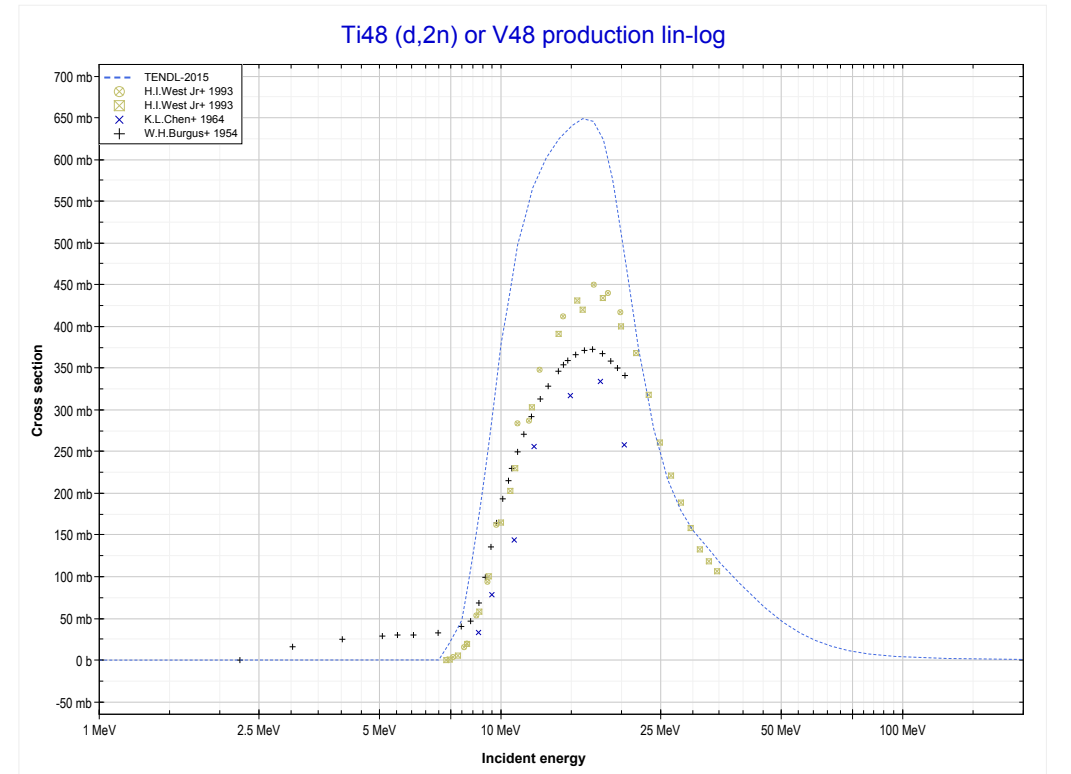
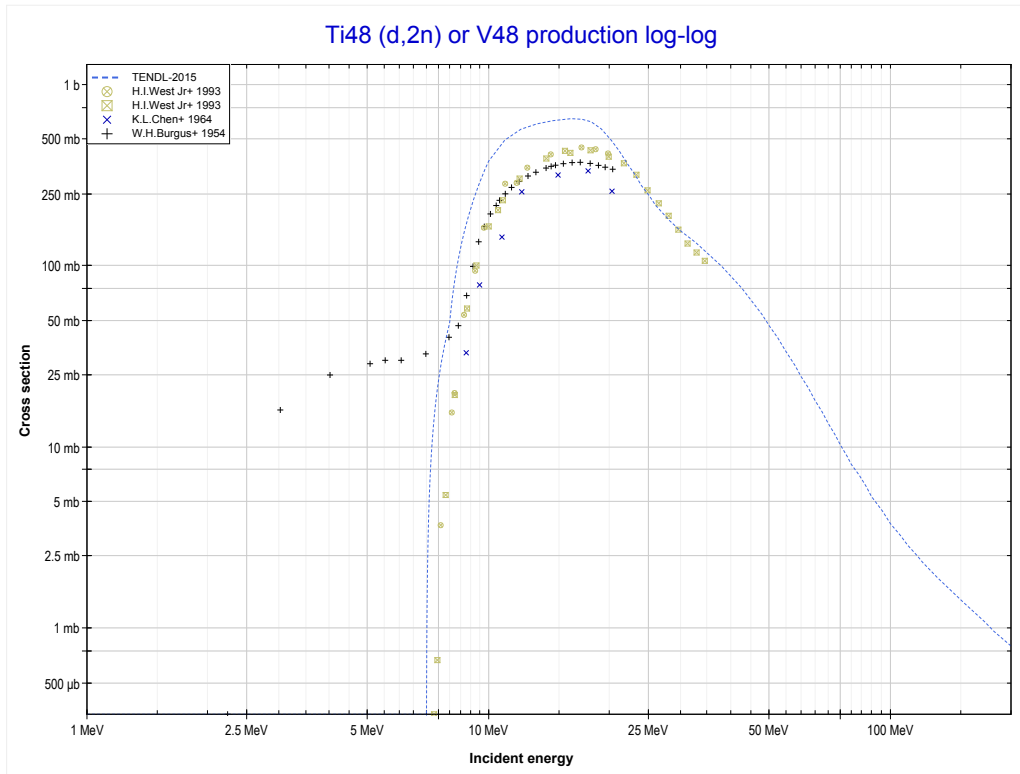
Reaction	Q-Value
Ti47(d,n+α)Sc44	-4480.91 keV
Ti47(d,d+t)Sc44	-22070.21 keV
Ti47(d,n+p+t)Sc44	-24294.77 keV
Ti47(d,2n+He3)Sc44	-25058.53 keV
Ti47(d,n+2d)Sc44	-28327.44 keV
Ti47(d,2n+p+d)Sc44	-30552.00 keV
Ti47(d,3n+2p)Sc44	-32776.57 keV

<< 16-S-32	<b>22-Ti-47</b>	24-Cr-52 >>
<< MT22 (d,n+α)	<b>MT111 (d,2p) or MT5 (Sc47 production)</b>	22-Ti-48 MT16 (d,2n) >>



<b>Reaction</b>	<b>Q-Value</b>
Ti47(d,2p)Sc47	-2043.02 keV

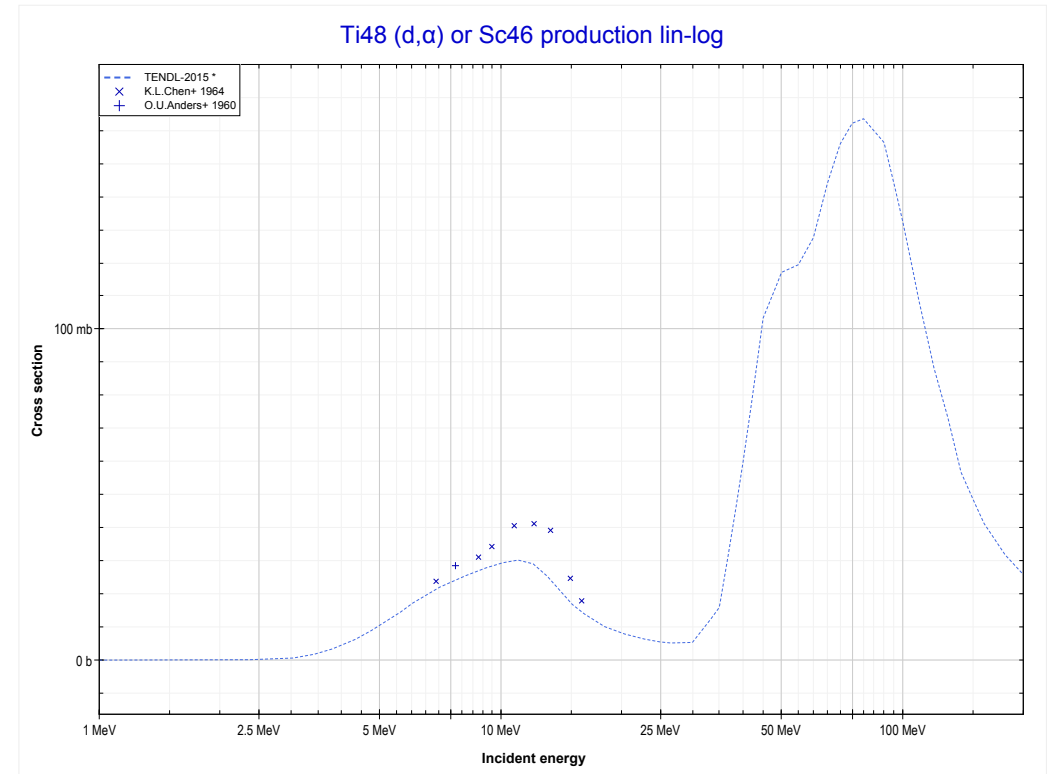
<< 22-Ti-47	<b>22-Ti-48</b>	23-V-51 >>
<< 22-Ti-47 MT111 (d,2p)	<b>MT16 (d,2n) or MT5 (V48 production)</b>	MT107 (d, $\alpha$ ) >>



Reaction	Q-Value
Ti48(d,2n)V48	-7021.81 keV

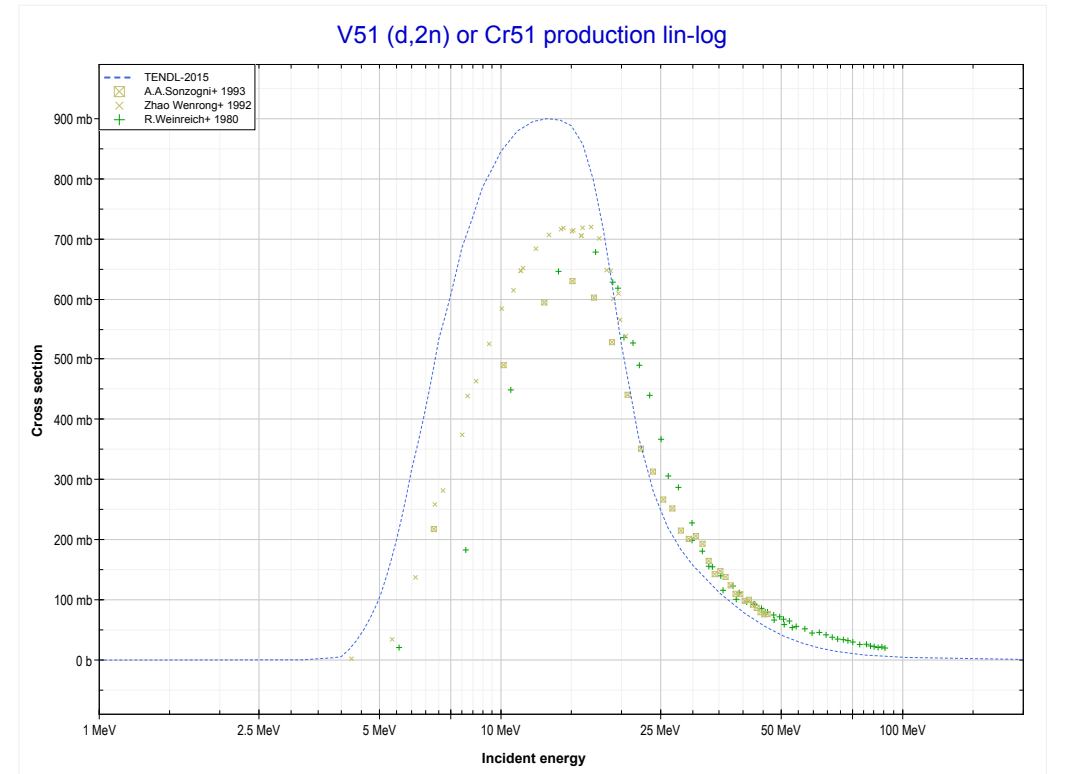
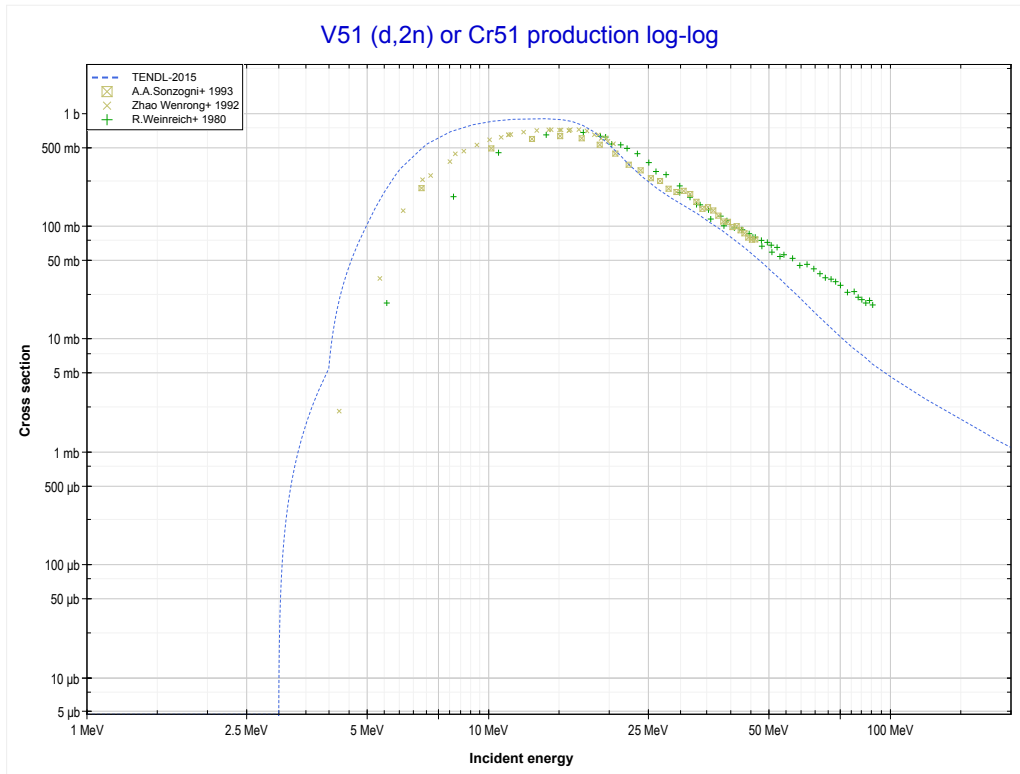


<< 22-Ti-46	<b>22-Ti-48</b>	24-Cr-50 >>
<< MT16 (d,2n)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Sc46 production)</b>	23-V-51 MT16 (d,2n) >>



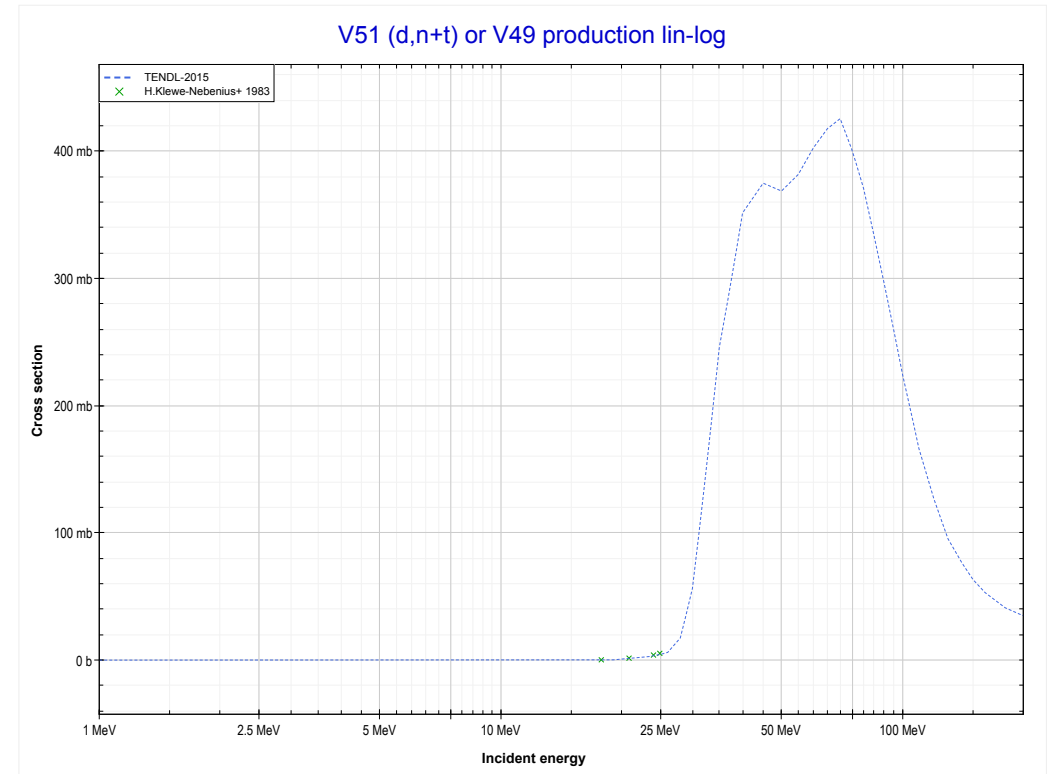
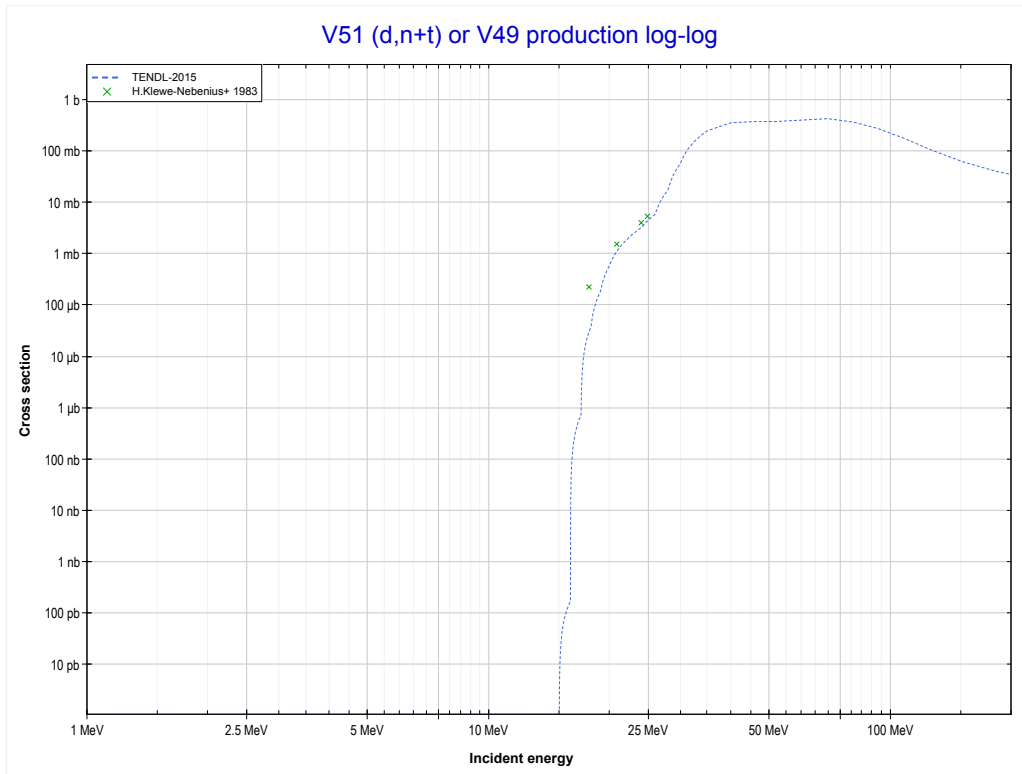
Reaction	Q-Value
Ti48(d, $\alpha$ )Sc46	3979.61 keV
Ti48(d,p+t)Sc46	-15834.25 keV
Ti48(d,n+He3)Sc46	-16598.01 keV
Ti48(d,2d)Sc46	-19866.92 keV
Ti48(d,n+p+d)Sc46	-22091.49 keV
Ti48(d,2n+2p)Sc46	-24316.05 keV

<< 22-Ti-48	<b>23-V-51</b>	24-Cr-50 >>
<< 22-Ti-48 MT107 (d, $\alpha$ )	<b>MT16 (d,2n) or MT5 (Cr51 production)</b>	MT33 (d,n+t) >>



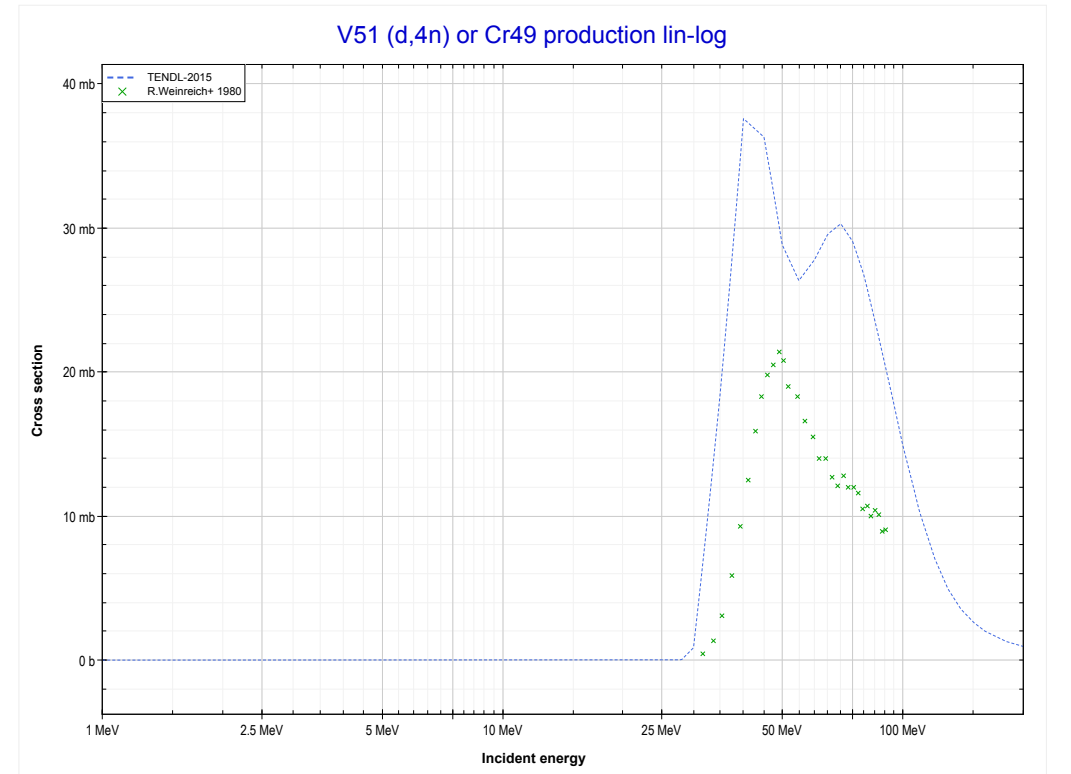
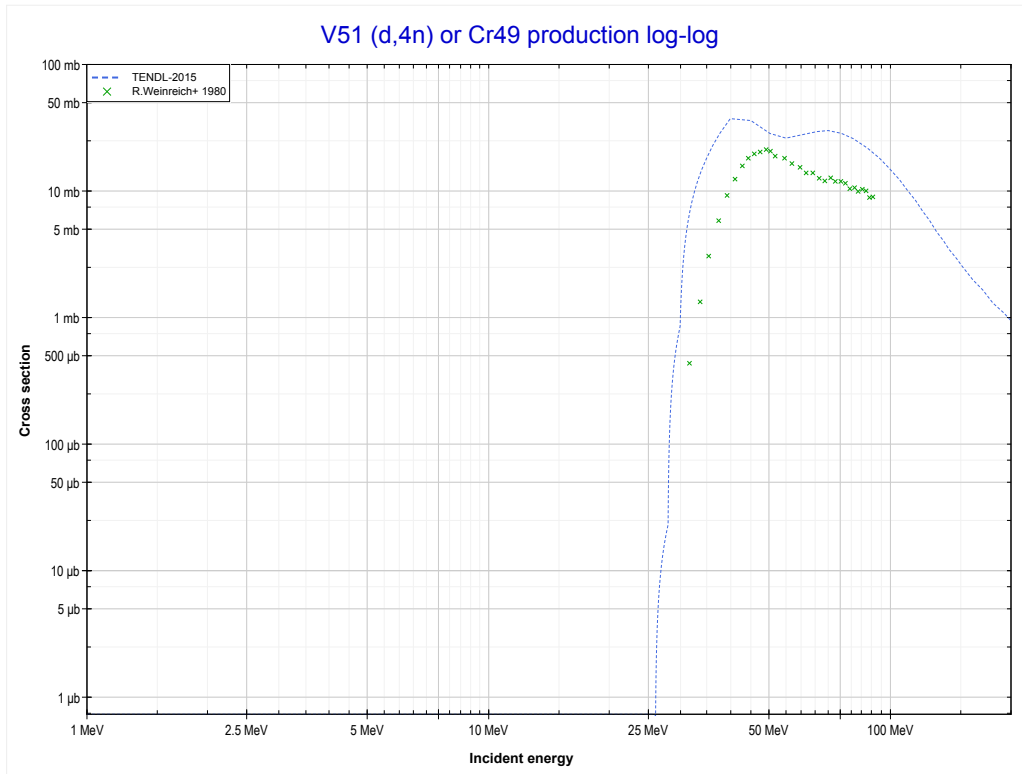
Reaction	Q-Value
V51(d,2n)Cr51	-3759.51 keV

<< 4-Be-9	<b>23-V-51</b>	
<< MT16 (d,2n)	<b>MT33 (d,n+t) or MT5 (V49 production)</b>	MT37 (d,4n) >>



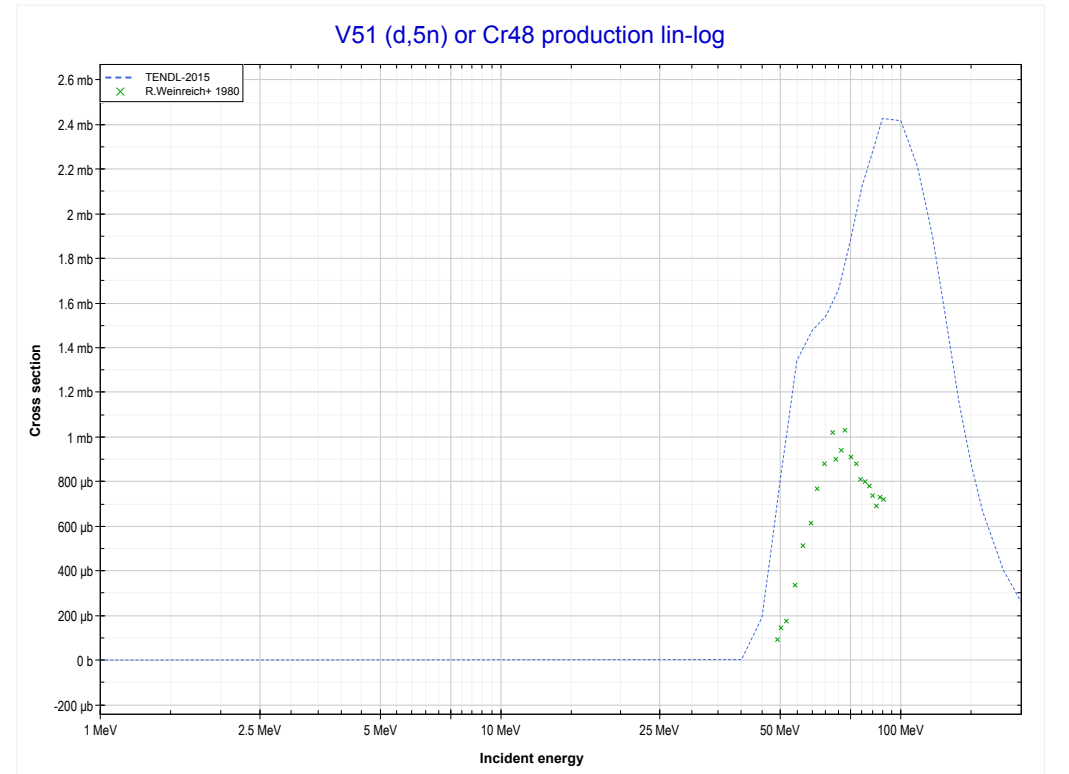
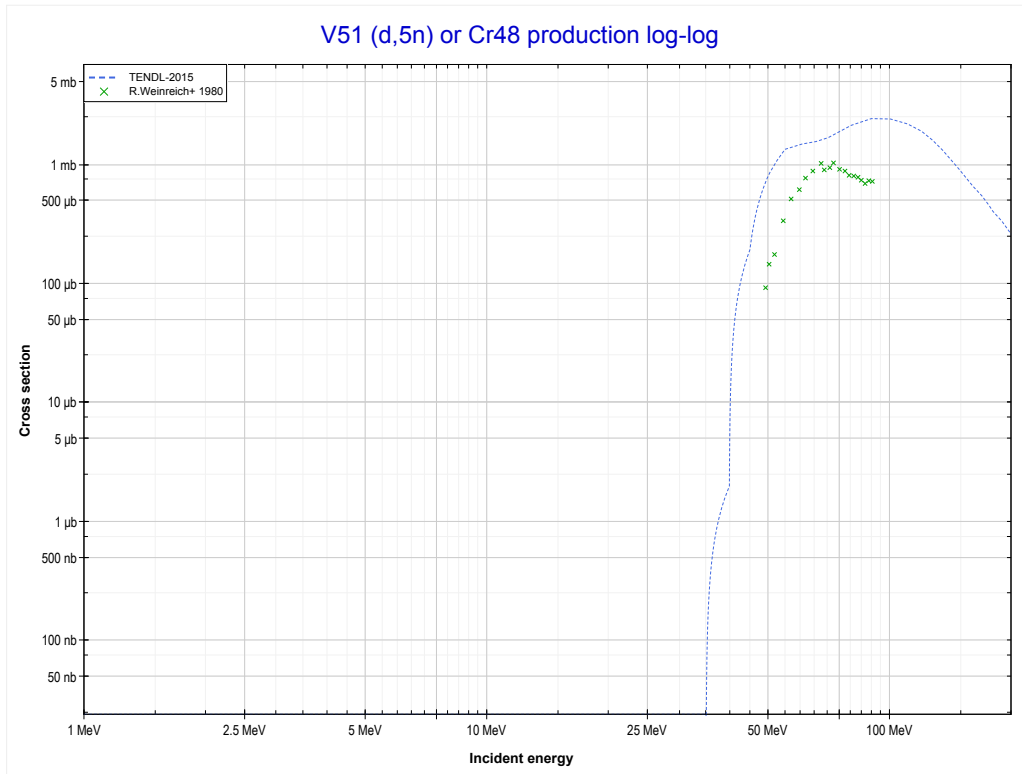
Reaction	Q-Value
V51(d,n+t)V49	-14128.10 keV
V51(d,2n+d)V49	-20385.33 keV
V51(d,3n+p)V49	-22609.90 keV

	<b>23-V-51</b>	<b>27-Co-59 &gt;&gt;</b>
<b>&lt;&lt; MT33 (d,n+t)</b>	<b>MT37 (d,4n) or MT5 (Cr49 production)</b>	<b>MT152 (d,5n) &gt;&gt;</b>



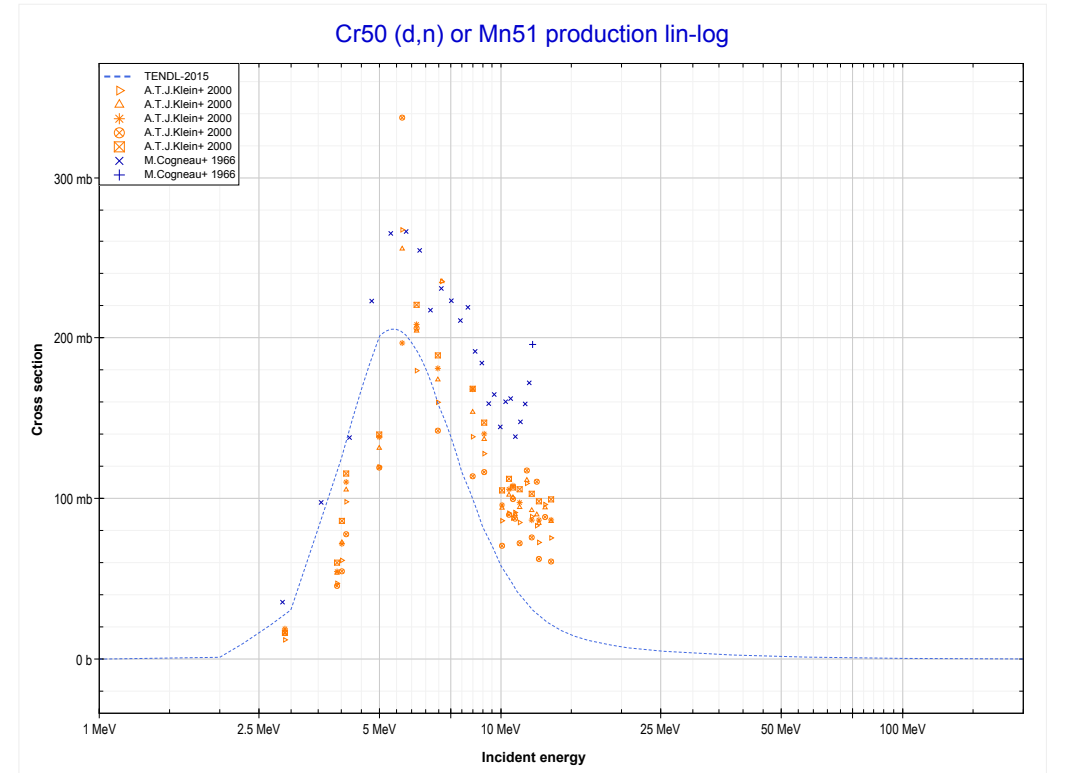
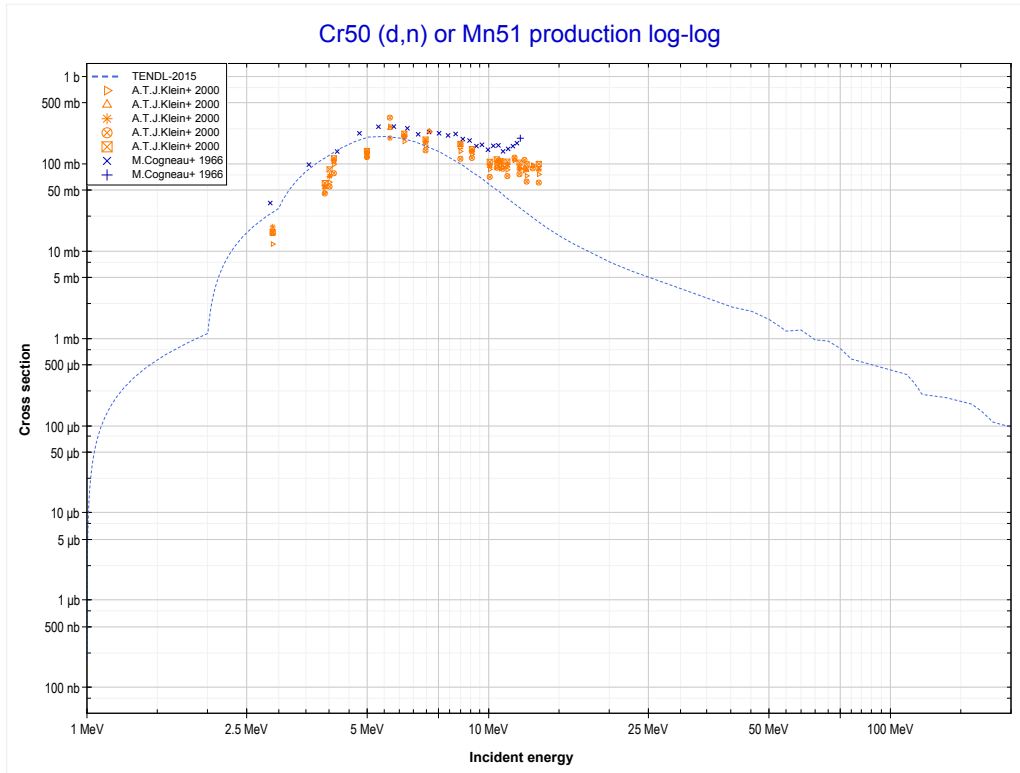
Reaction	Q-Value
V51(d,4n)Cr49	-26020.55 keV

	<b>23-V-51</b>	<b>27-Co-59 &gt;&gt;</b>
<b>&lt;&lt; MT37 (d,4n)</b>	<b>MT152 (d,5n) or MT5 (Cr48 production)</b>	<b>24-Cr-50 MT4 (d,n) &gt;&gt;</b>



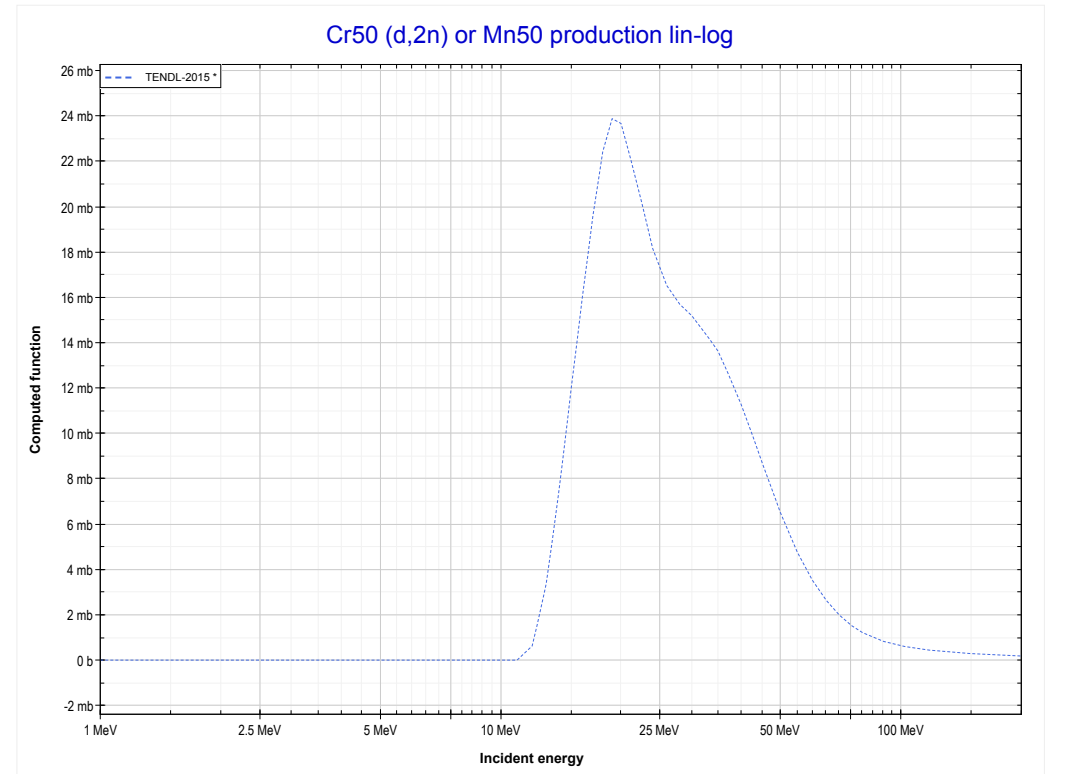
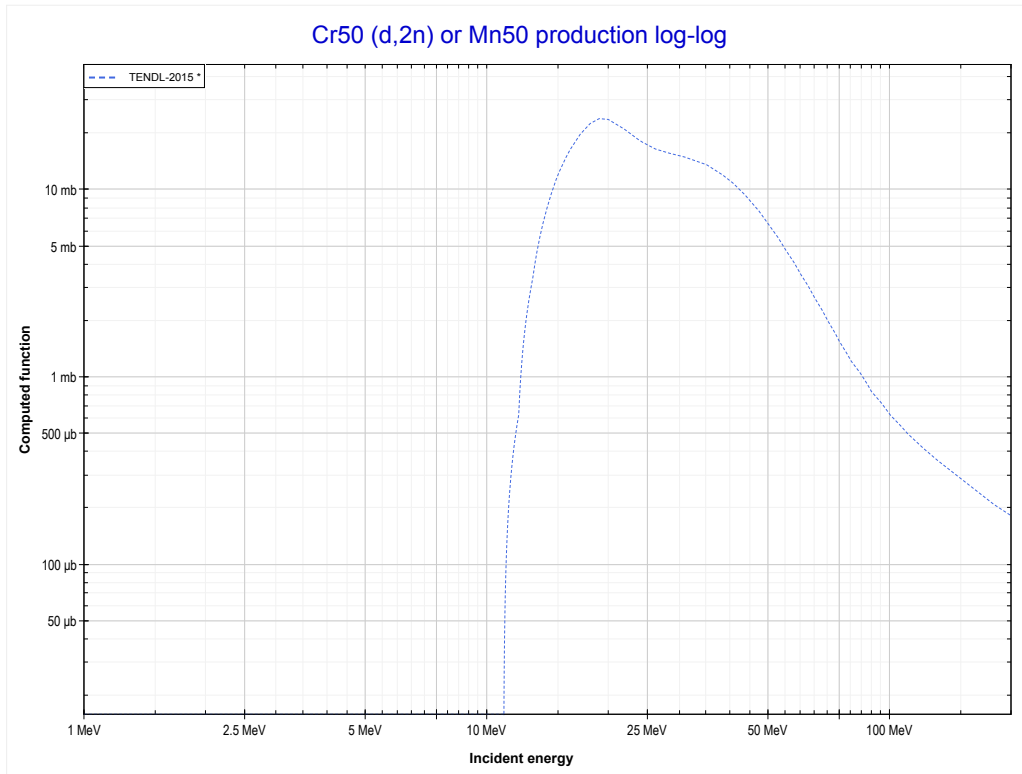
Reaction	Q-Value
V51(d,5n)Cr48	-36602.56 keV

<< 22-Ti-47	<b>24-Cr-50</b>	26-Fe-54 >>
<< 23-V-51 MT152 (d,5n)	<b>MT4 (d,n) or MT5 (Mn51 production)</b>	MT16 (d,2n) >>



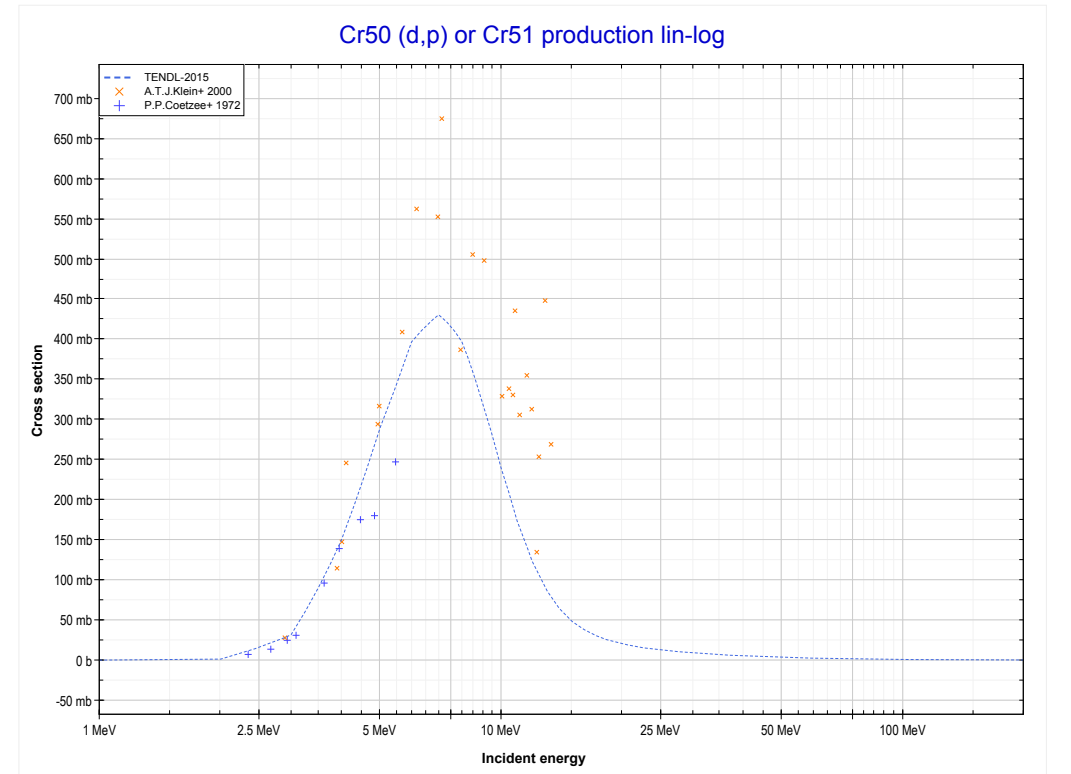
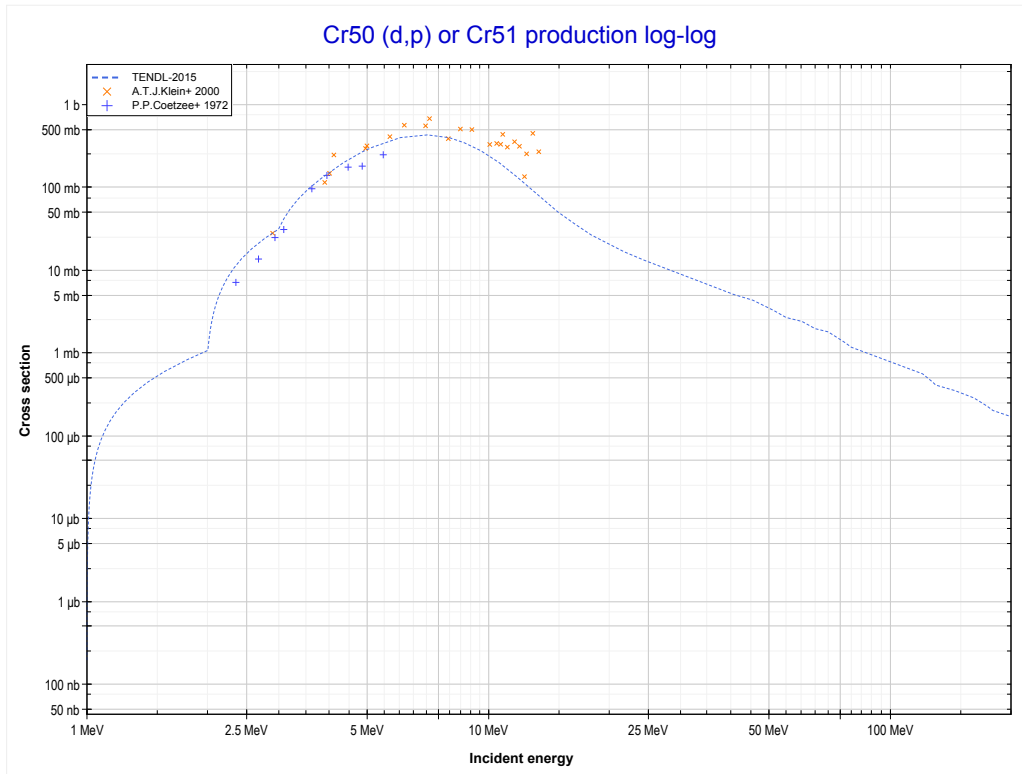
Reaction	Q-Value
Cr50(d,n)Mn51	3046.20 keV

<< 23-V-51	<b>24-Cr-50</b>	24-Cr-52 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Mn50 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Cr50(d,2n)Mn50	-10641.41 keV

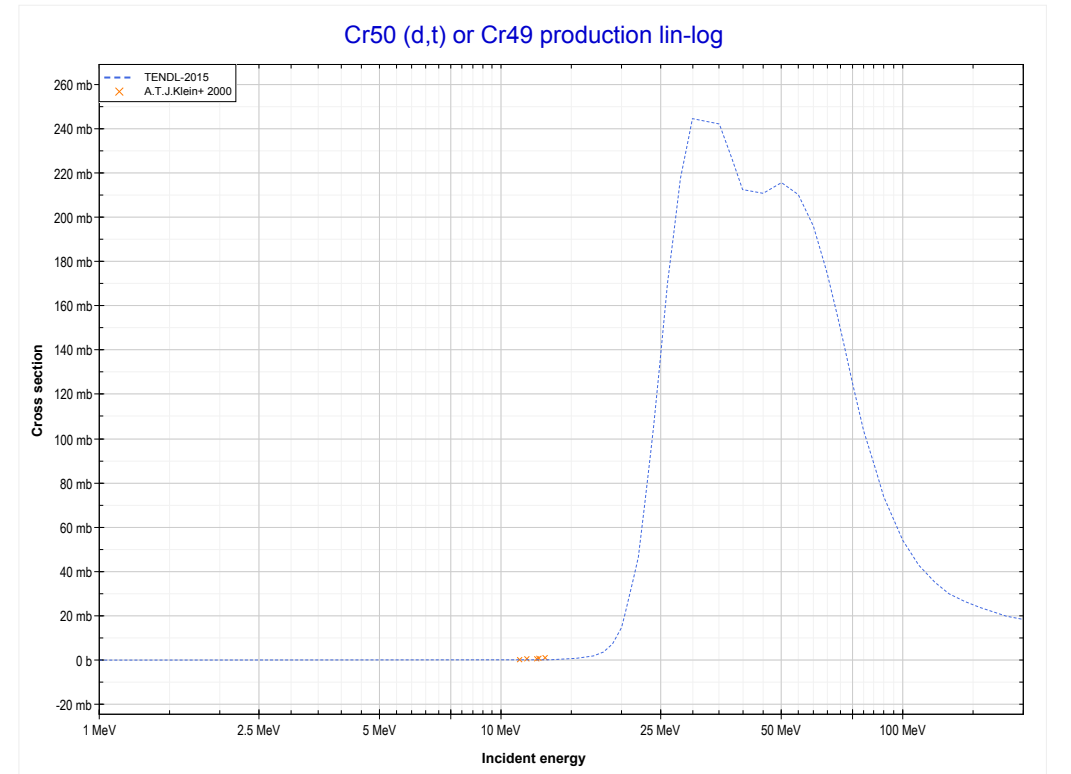
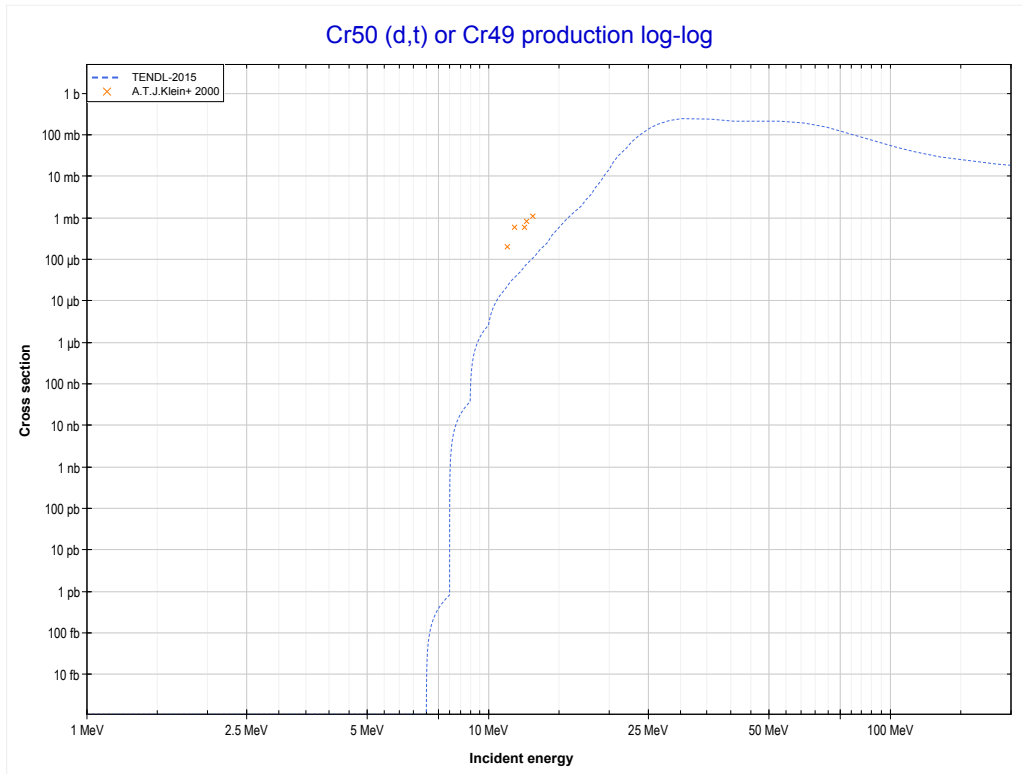
<< 21-Sc-45	<b>24-Cr-50</b>	24-Cr-54 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Cr51 production)</b>	MT105 (d,t) >>



Reaction	Q-Value
Cr50(d,p)Cr51	7036.15 keV

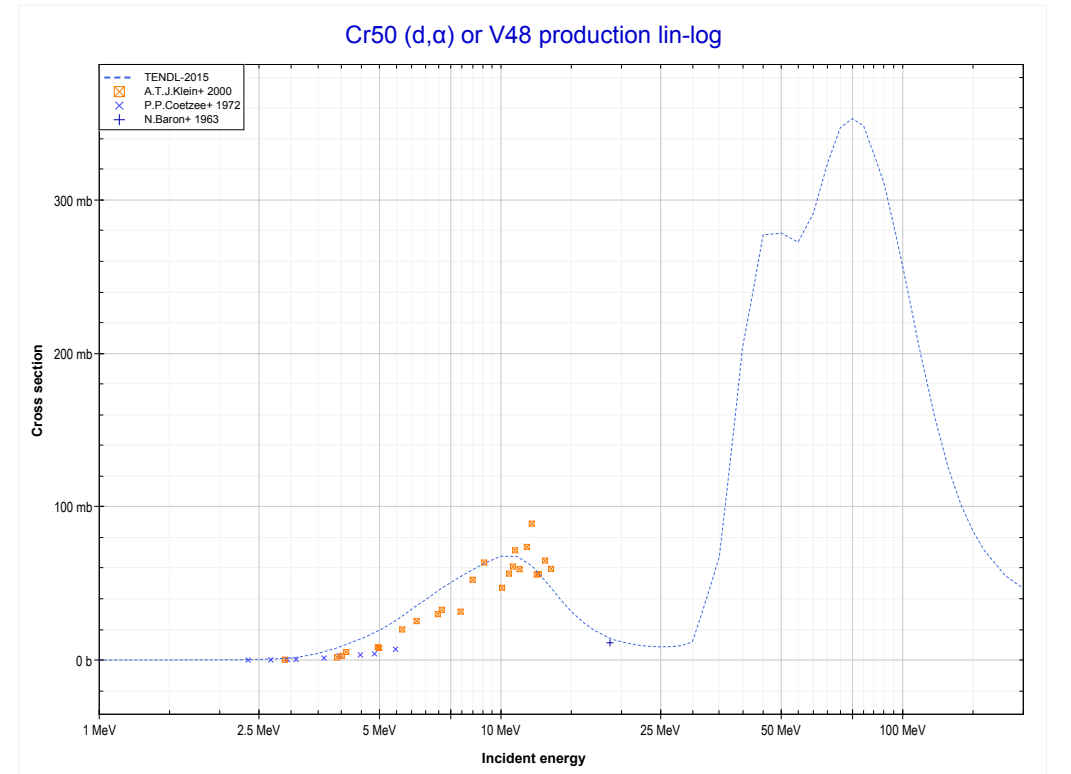
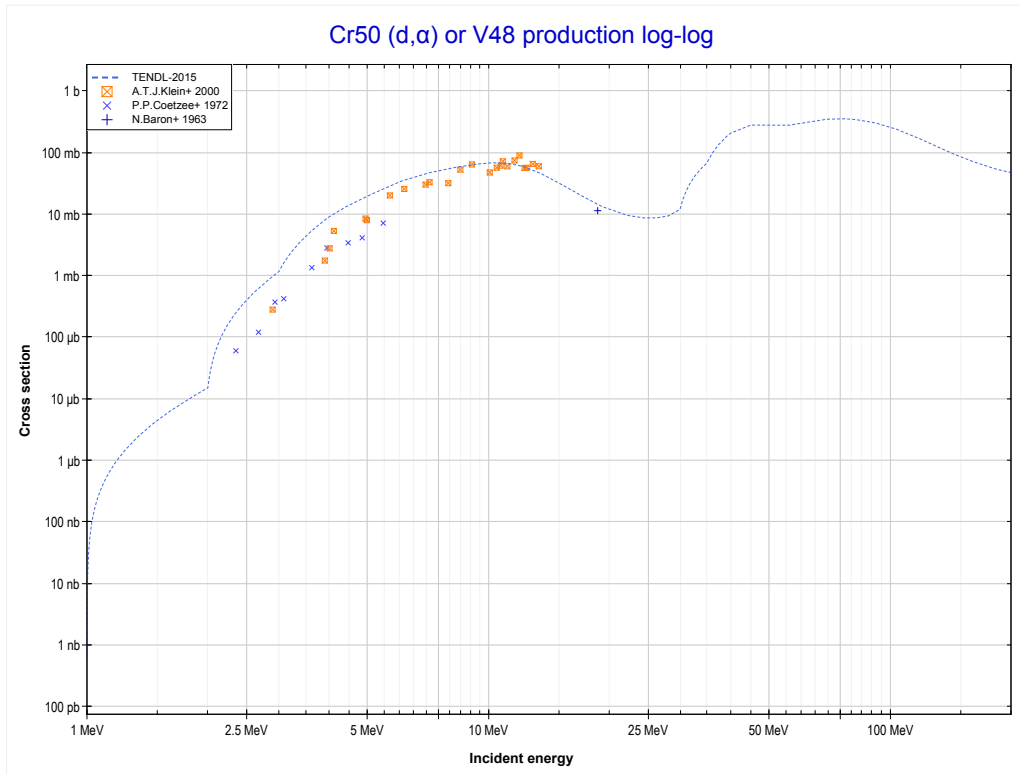


<< 21-Sc-45	<b>24-Cr-50</b>	26-Fe-54 >>
<< MT103 (d,p)	<b>MT105 (d,t) or MT5 (Cr49 production)</b>	MT107 (d, $\alpha$ ) >>



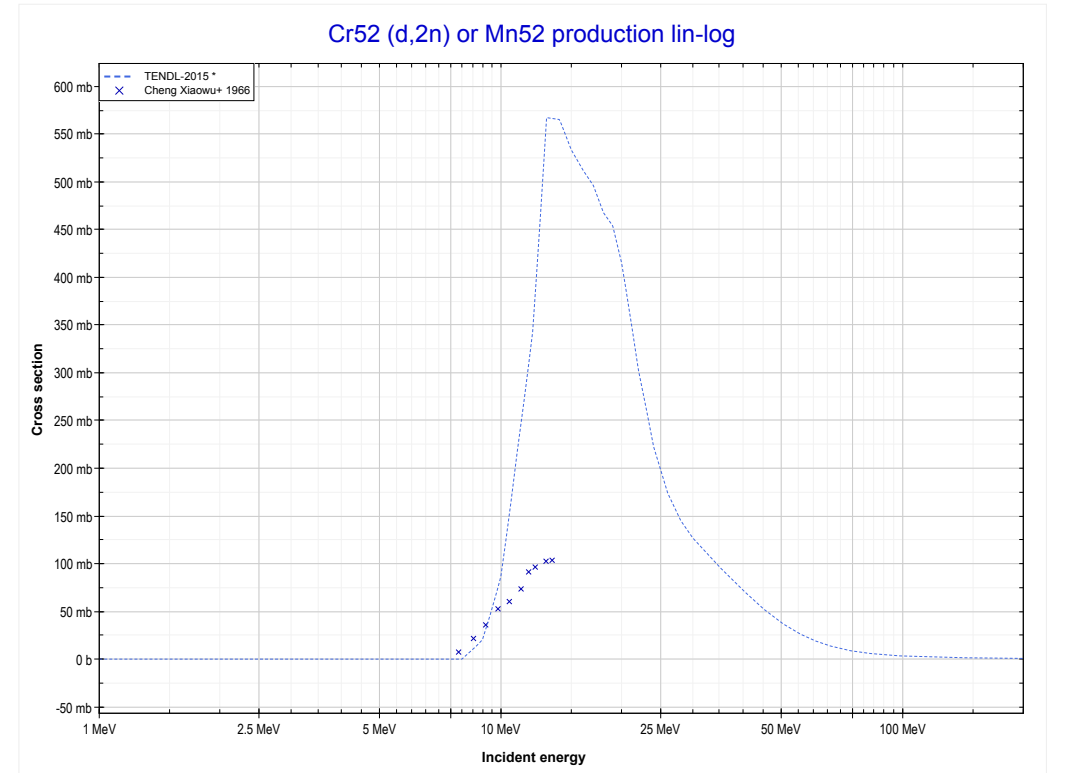
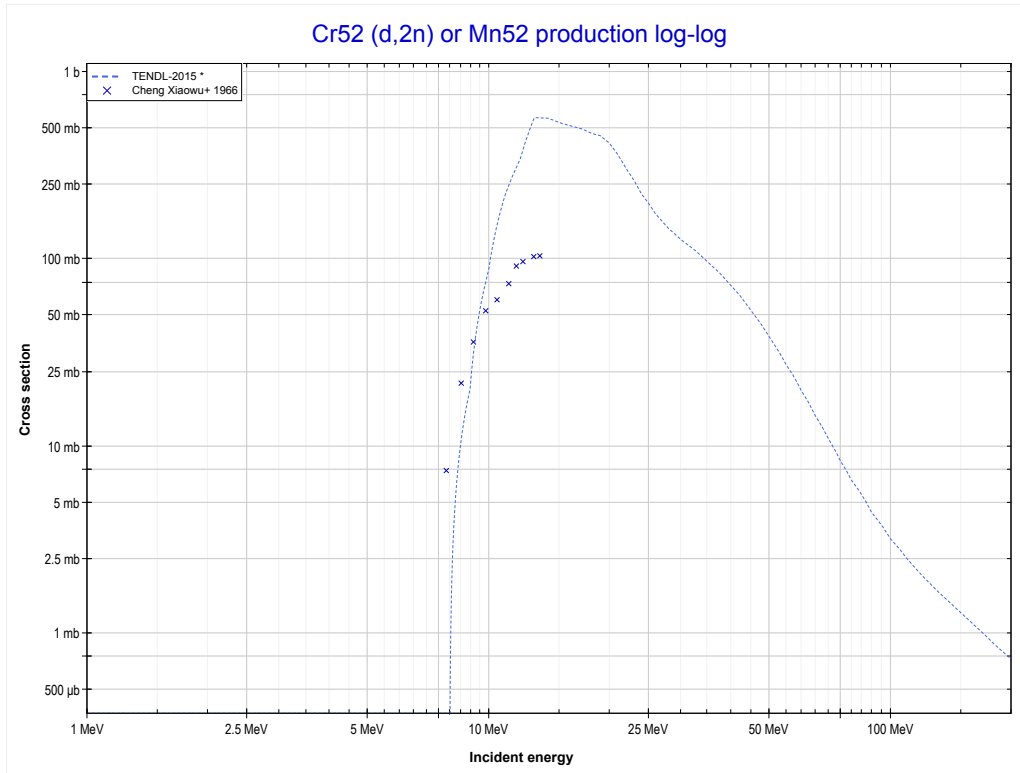
Reaction	Q-Value
Cr50(d,t)Cr49	-6743.08 keV
Cr50(d,n+d)Cr49	-13000.32 keV
Cr50(d,2n+p)Cr49	-15224.88 keV

<< 22-Ti-48	<b>24-Cr-50</b>	26-Fe-54 >>
<< MT105 (d,t)	<b>MT107 (d,<math>\alpha</math>) or MT5 (V48 production)</b>	24-Cr-52 MT16 (d,2n) >>



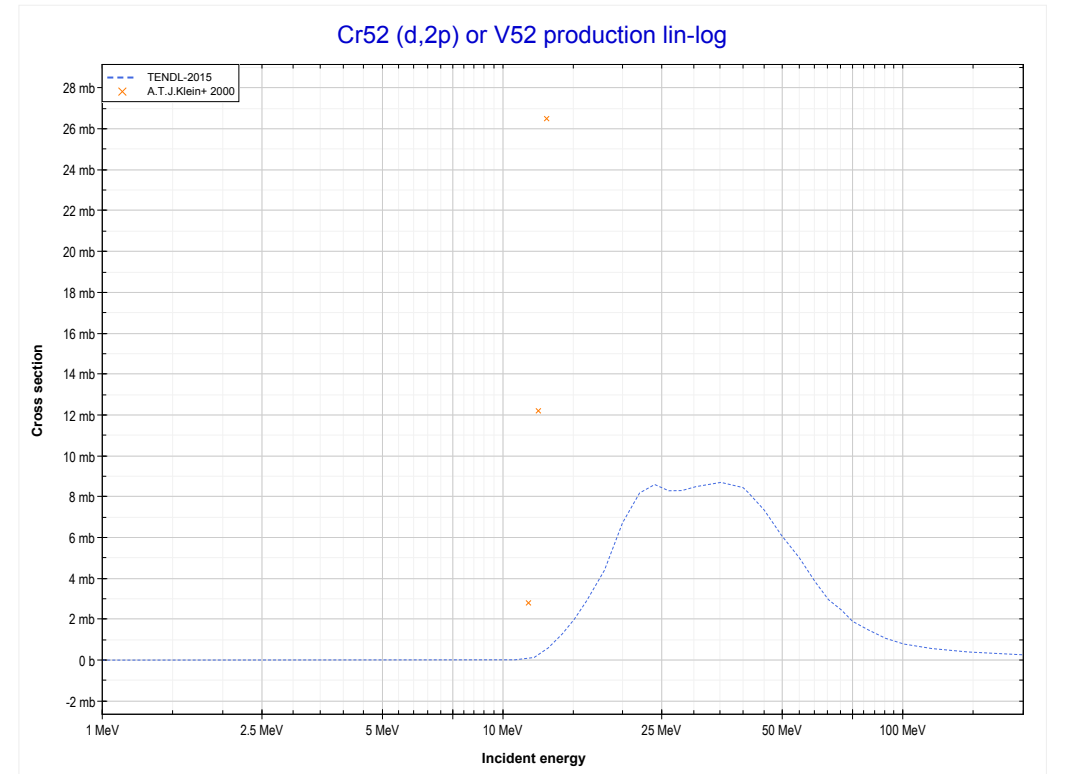
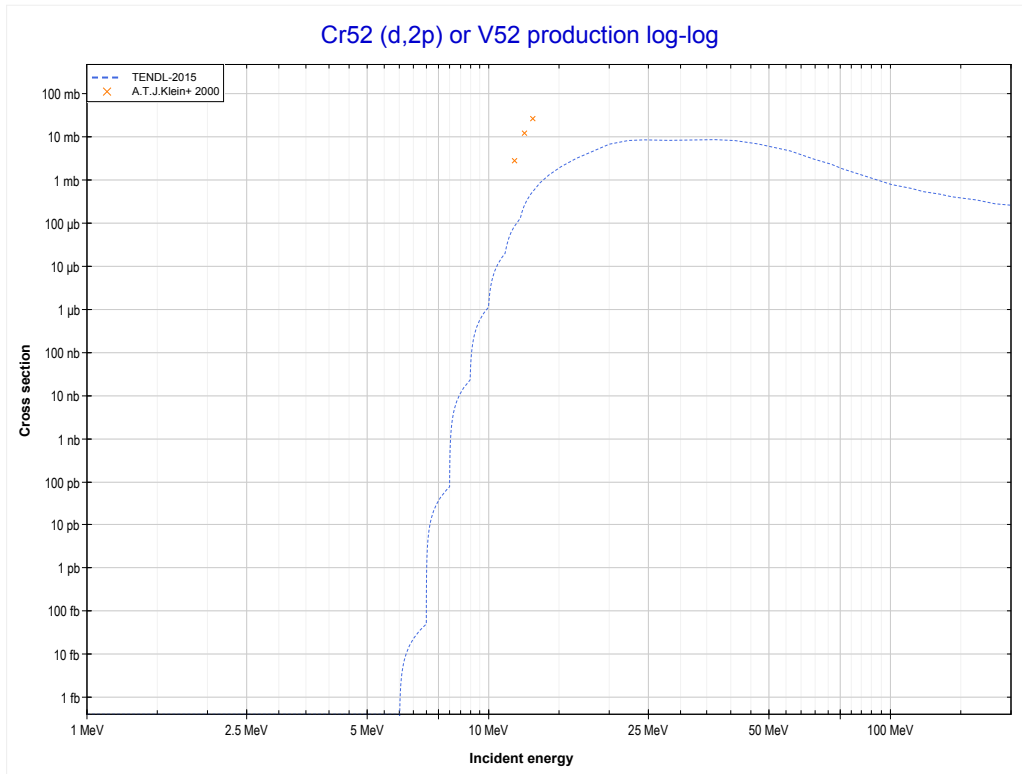
Reaction	Q-Value
Cr50(d, $\alpha$ )V48	4925.91 keV
Cr50(d,p+t)V48	-14887.95 keV
Cr50(d,n+He3)V48	-15651.71 keV
Cr50(d,2d)V48	-18920.62 keV
Cr50(d,n+p+d)V48	-21145.19 keV
Cr50(d,2n+2p)V48	-23369.75 keV

<< 24-Cr-50	<b>24-Cr-52</b>	26-Fe-56 >>
<< 24-Cr-50 MT107 (d, $\alpha$ )	<b>MT16 (d,2n) or MT5 (Mn52 production)</b>	MT111 (d,2p) >>



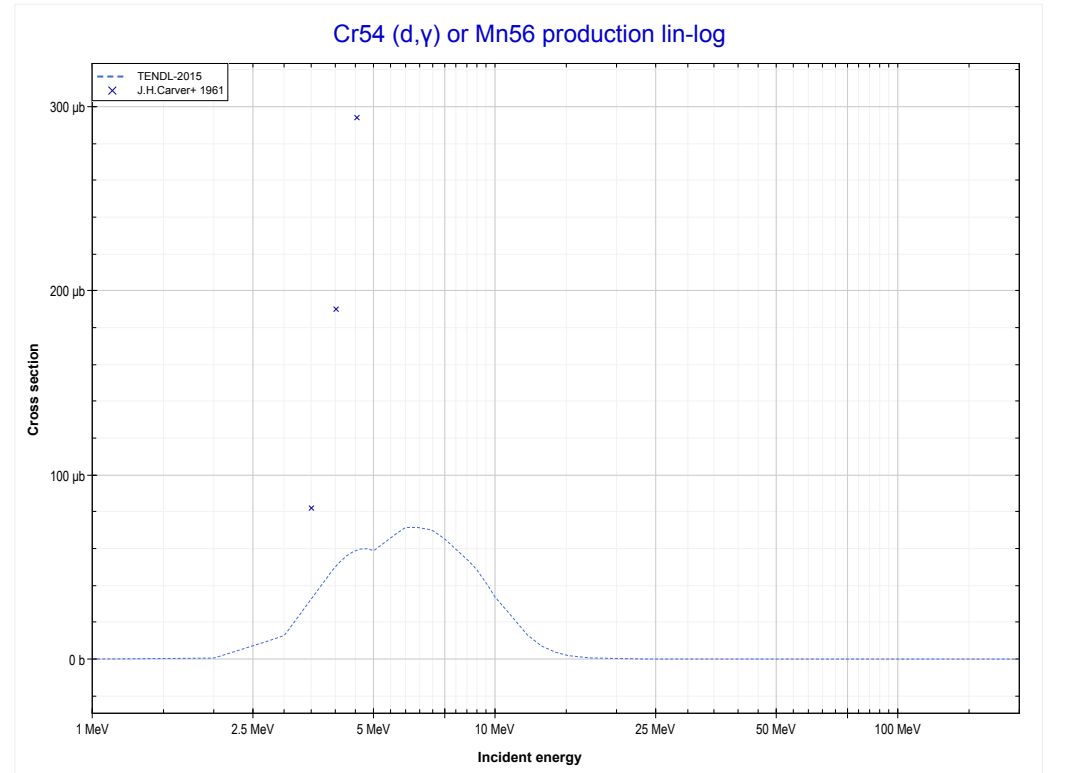
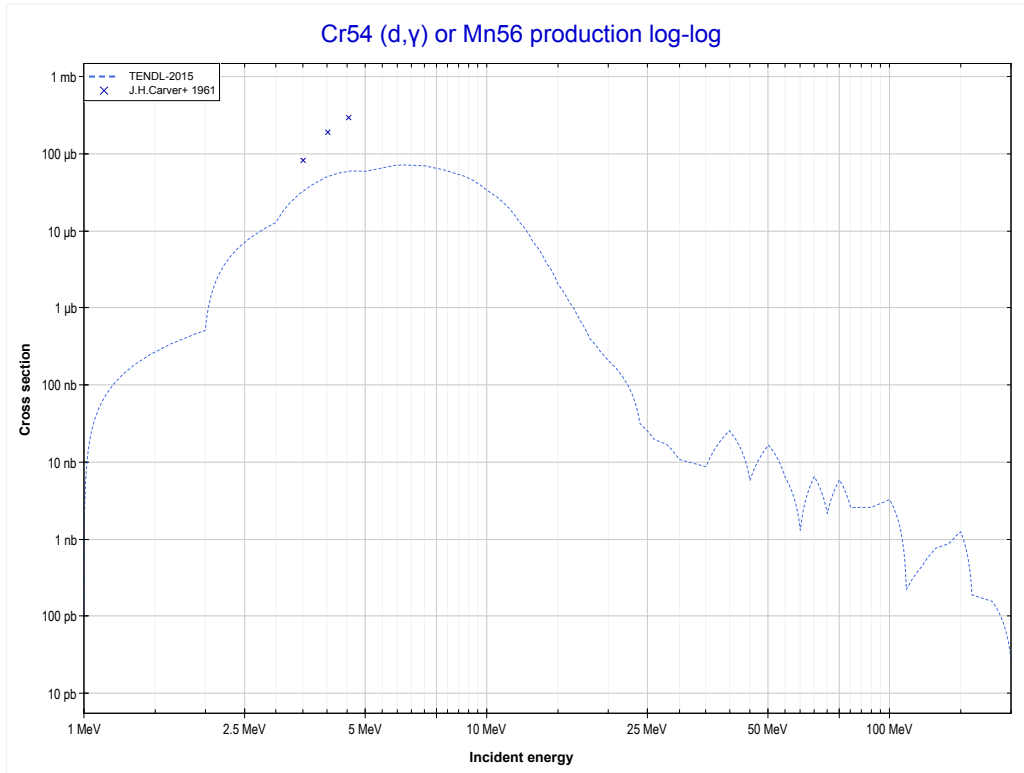
Reaction	Q-Value
Cr52(d,2n)Mn52	-7718.11 keV

<< 22-Ti-47	<b>24-Cr-52</b>	26-Fe-56 >>
<< MT16 (d,2n)	<b>MT111 (d,2p) or MT5 (V52 production)</b>	24-Cr-54 MT102 (d, $\gamma$ ) >>



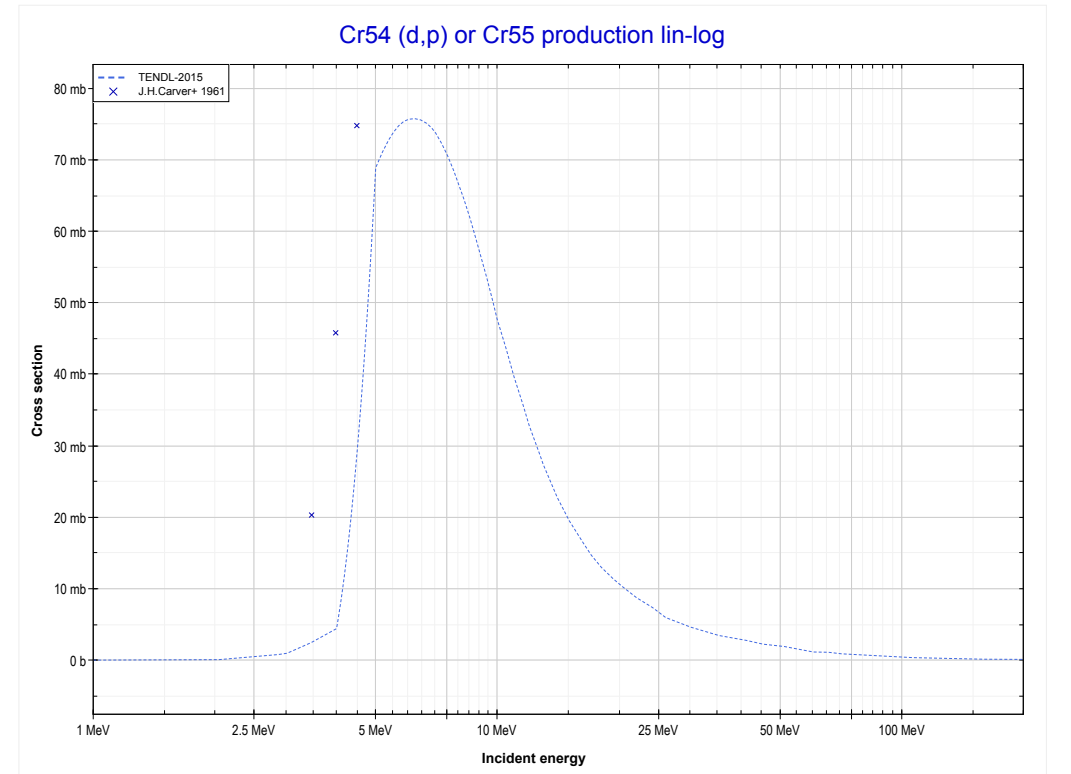
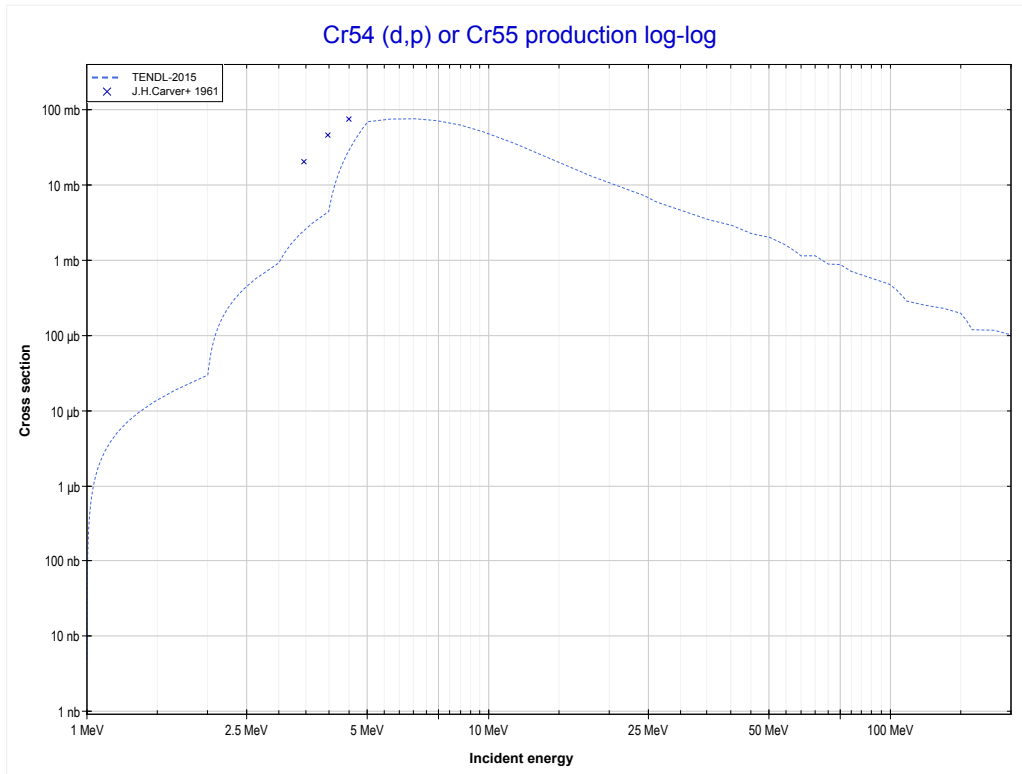
Reaction	Q-Value
Cr52(d,2p)V52	-5416.72 keV

<< 14-Si-30	<b>24-Cr-54</b>	28-Ni-58 >>
<< 24-Cr-52 MT111 (d,2p)	<b>MT102 (d,y) or MT5 (Mn56 production)</b>	MT103 (d,p) >>



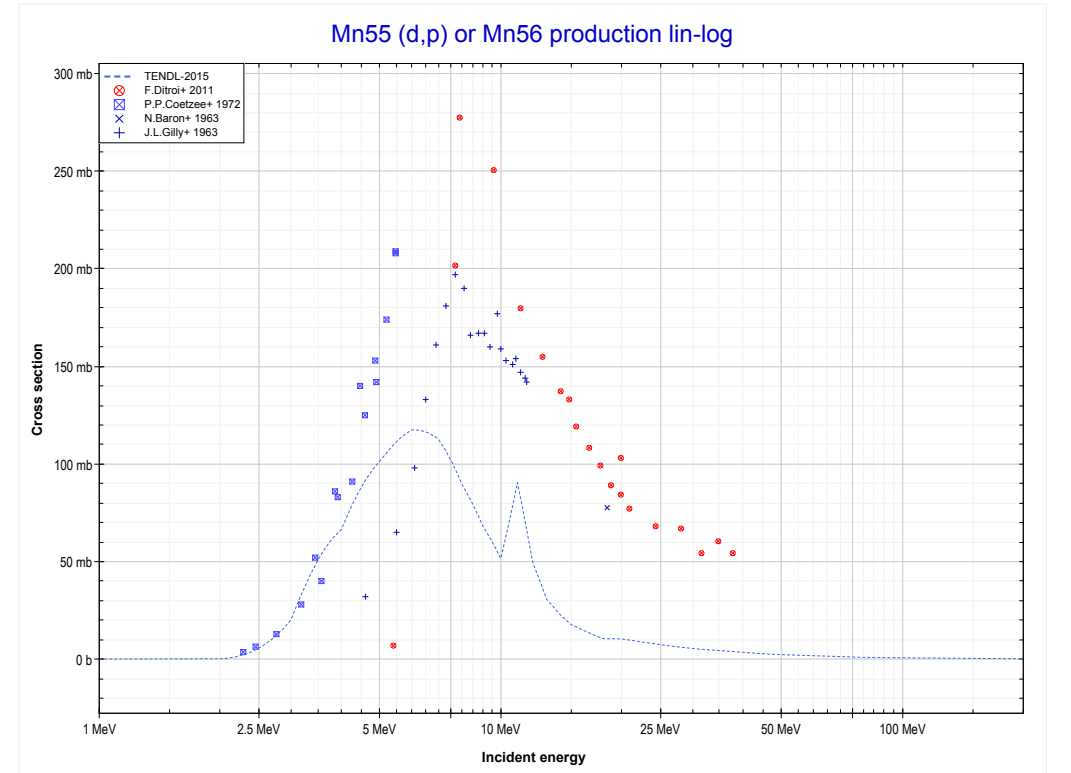
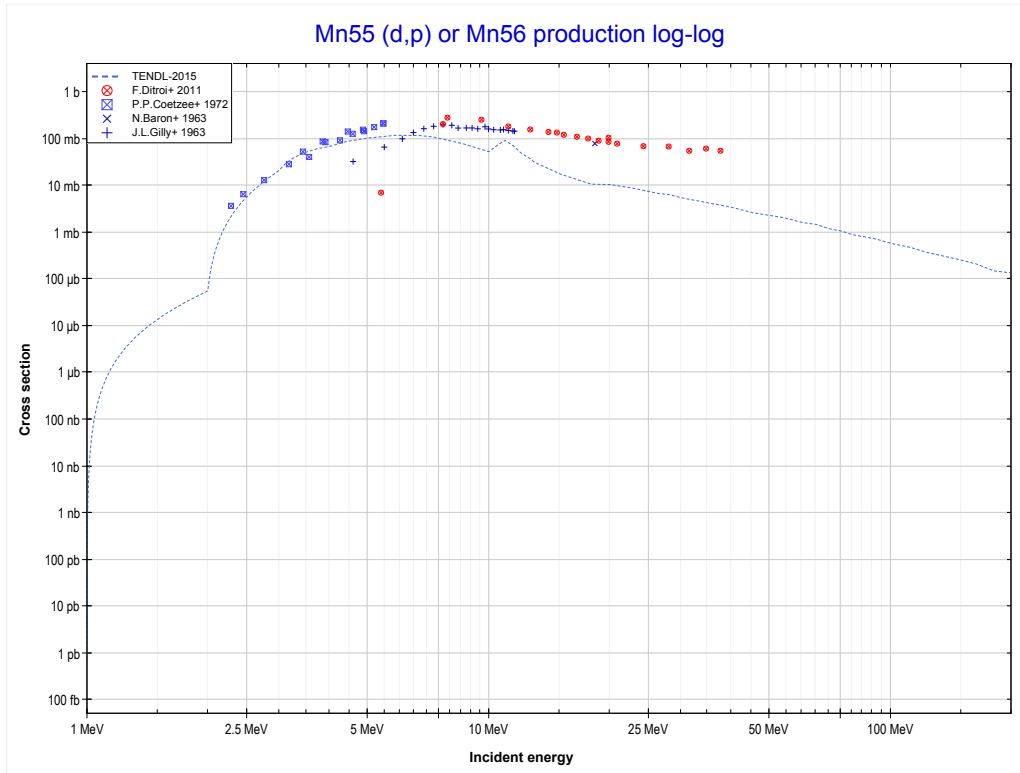
Reaction	Q-Value
Cr54(d,y)Mn56	13112.82 keV

<< 24-Cr-50	<b>24-Cr-54</b>	25-Mn-55 >>
<< MT102 (d,y)	<b>MT103 (d,p) or MT5 (Cr55 production)</b>	25-Mn-55 MT103 (d,p) >>



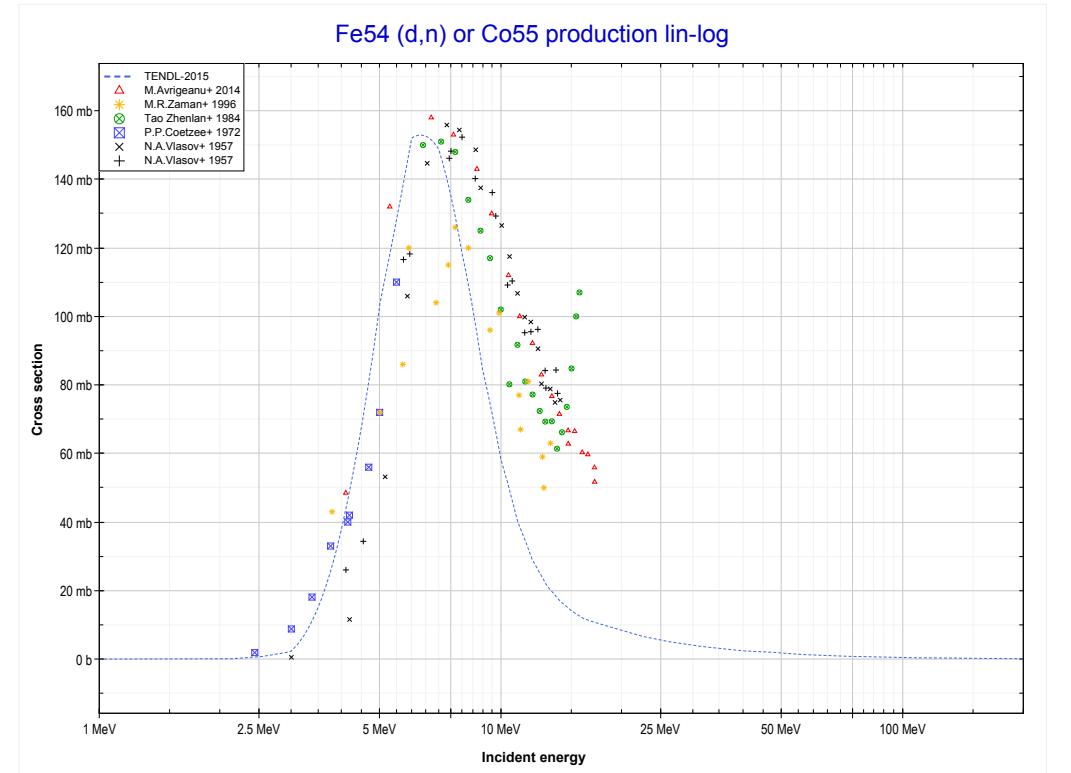
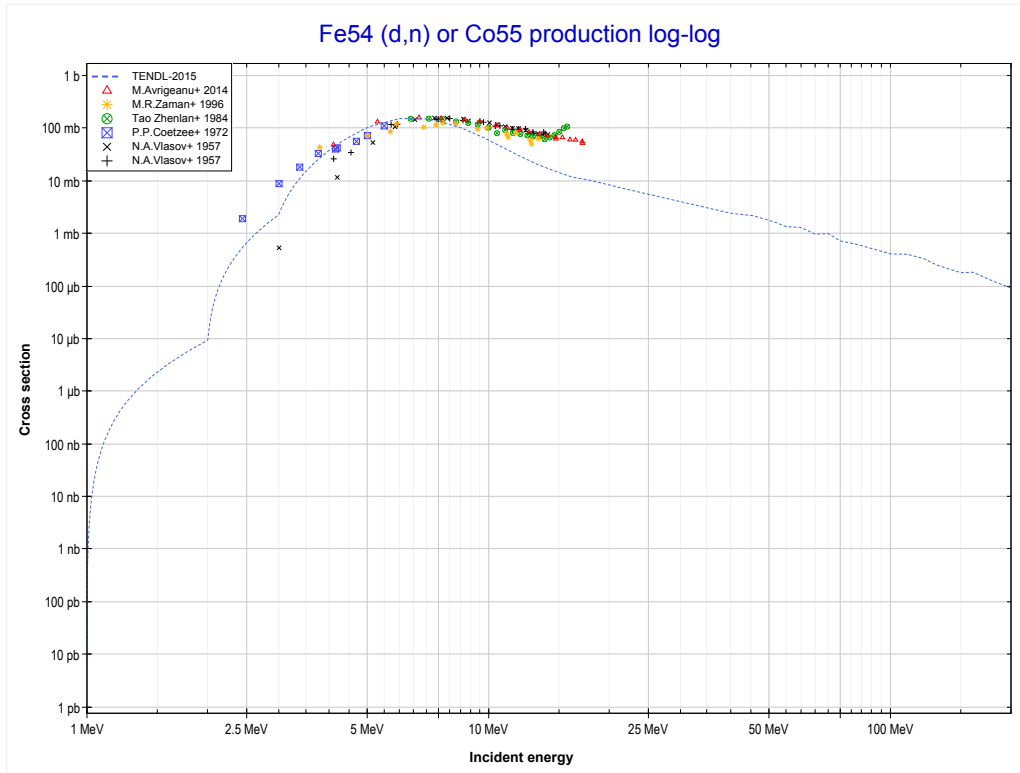
Reaction	Q-Value
Cr54(d,p)Cr55	4021.65 keV

<< 24-Cr-54	<b>25-Mn-55</b>	26-Fe-58 >>
<< 24-Cr-54 MT103 (d,p)	<b>MT103 (d,p) or MT5 (Mn56 production)</b>	26-Fe-54 MT4 (d,n) >>



Reaction	Q-Value
Mn55(d,p)Mn56	5045.85 keV

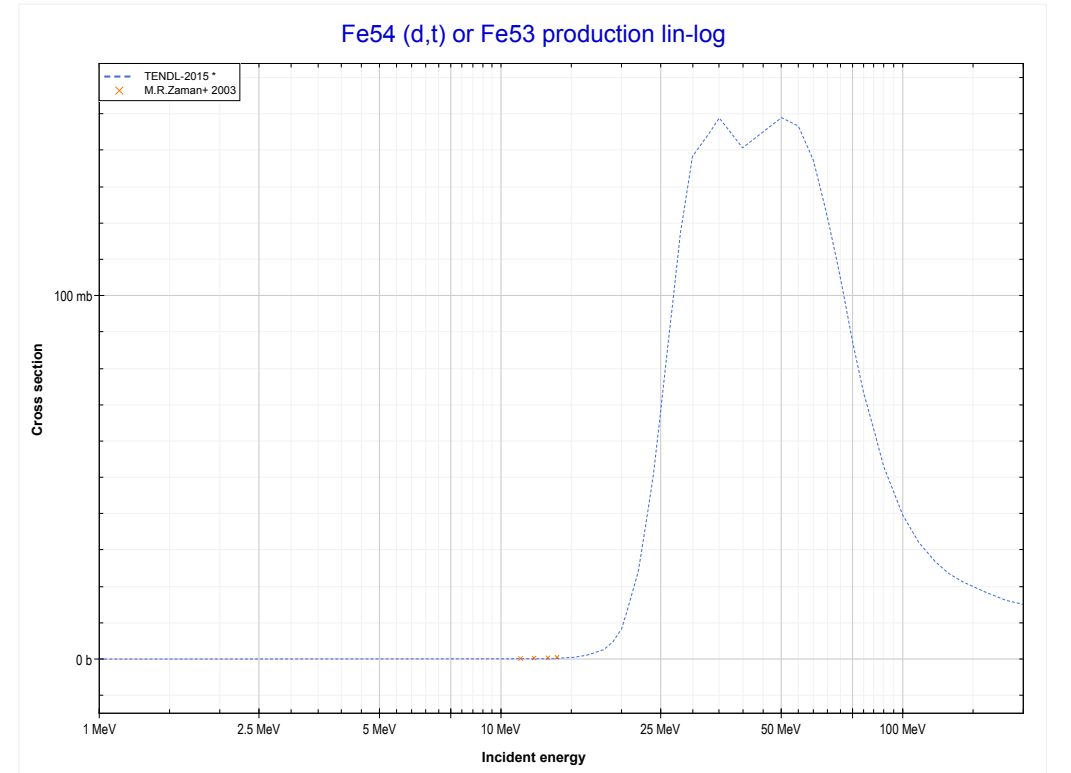
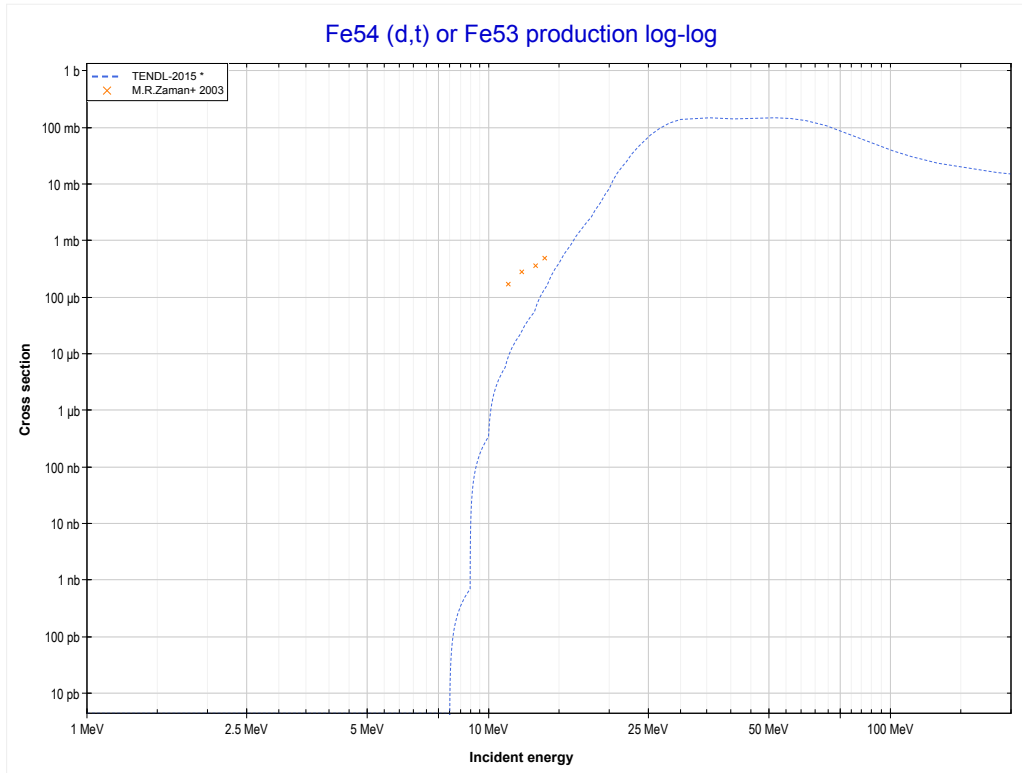
<< 24-Cr-50	<b>26-Fe-54</b>	28-Ni-58 >>
<< 25-Mn-55 MT103 (d,p)	<b>MT4 (d,n) or MT5 (Co55 production)</b>	MT105 (d,t) >>



Reaction	Q-Value
Fe54(d,n)Co55	2839.80 keV

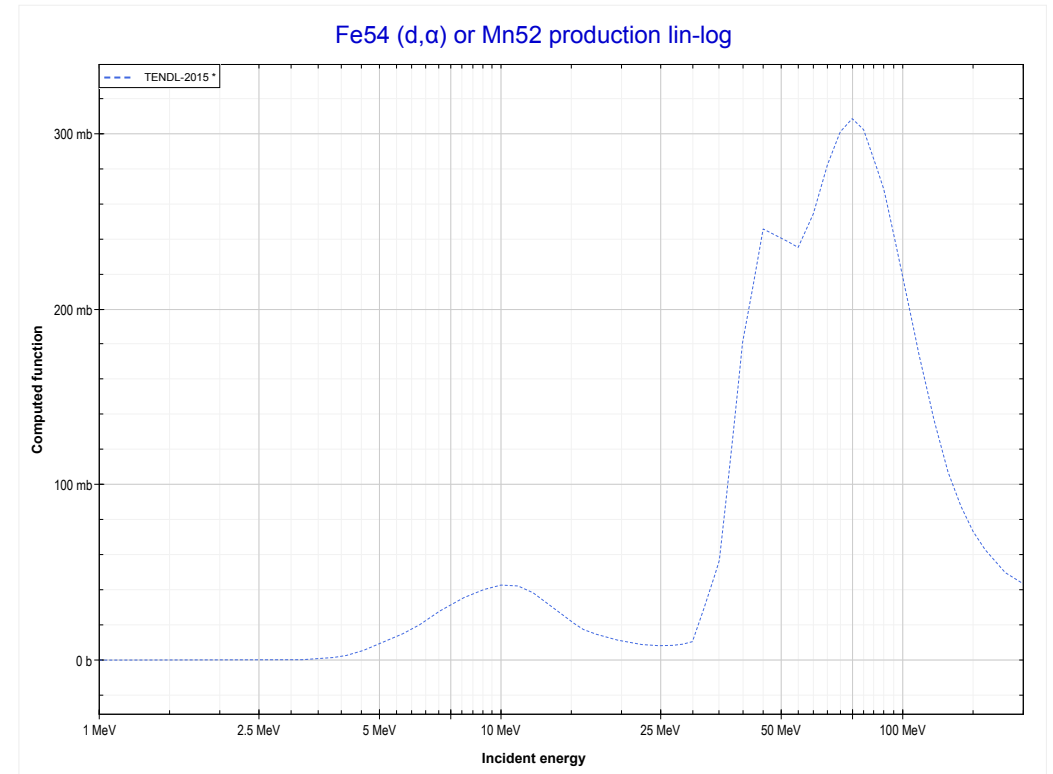
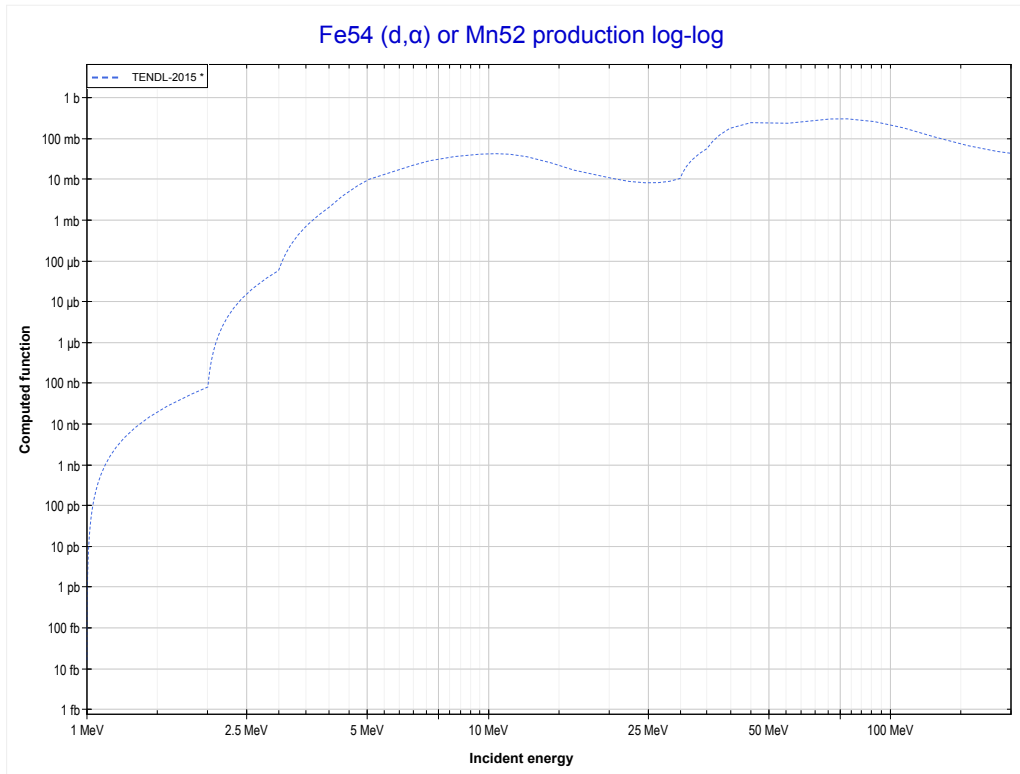


<< 24-Cr-50	<b>26-Fe-54</b>	28-Ni-58 >>
<< MT4 (d,n)	<b>MT105 (d,t) or MT5 (Fe53 production)</b>	MT107 (d, $\alpha$ ) >>



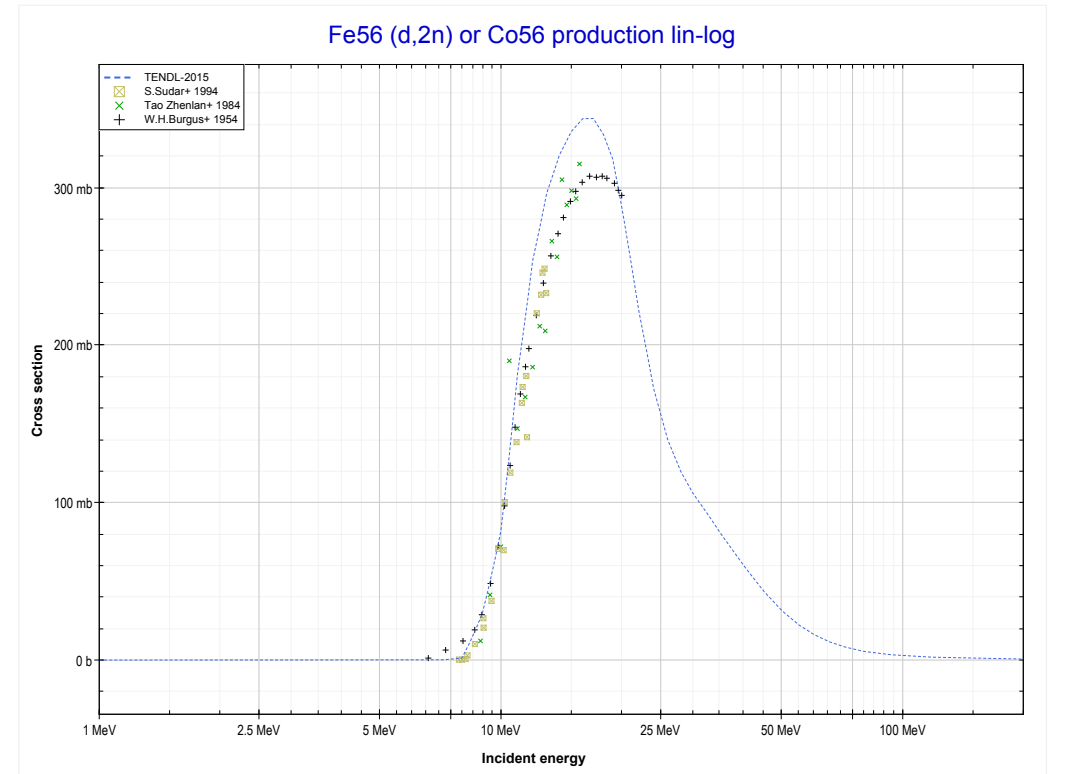
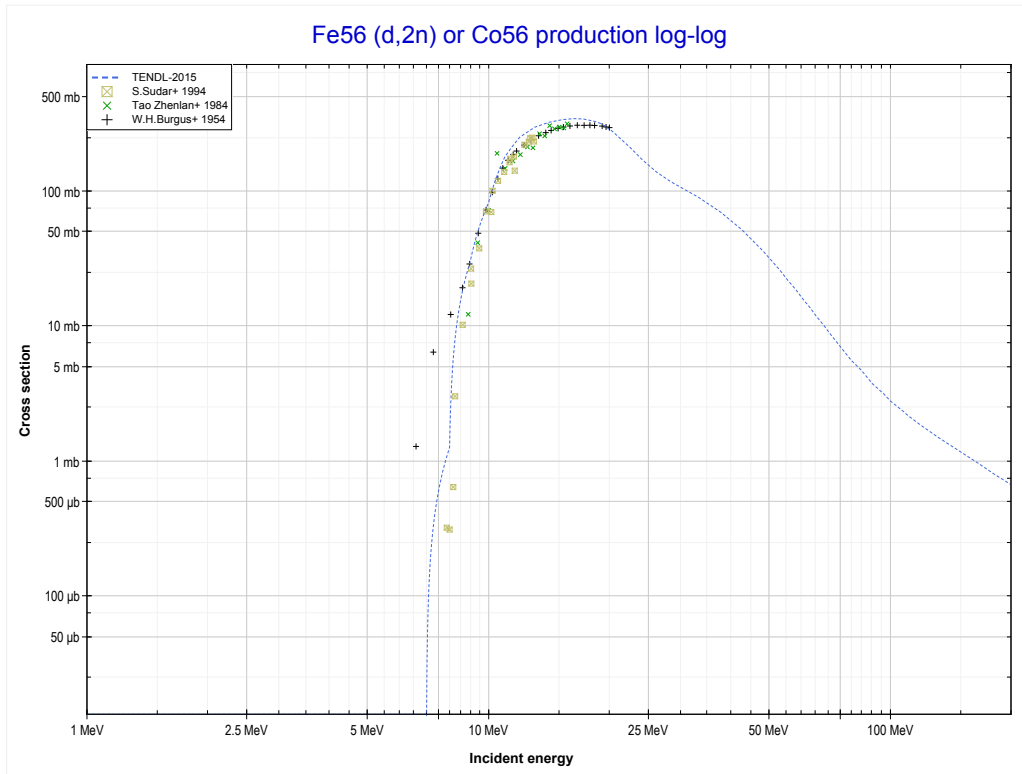
Reaction	Q-Value
Fe54(d,t)Fe53	-7121.28 keV
Fe54(d,n+d)Fe53	-13378.52 keV
Fe54(d,2n+p)Fe53	-15603.08 keV

<< 24-Cr-50	<b>26-Fe-54</b>	26-Fe-56 >>
<< MT105 (d,t)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Mn52 production)</b>	26-Fe-56 MT16 (d,2n) >>



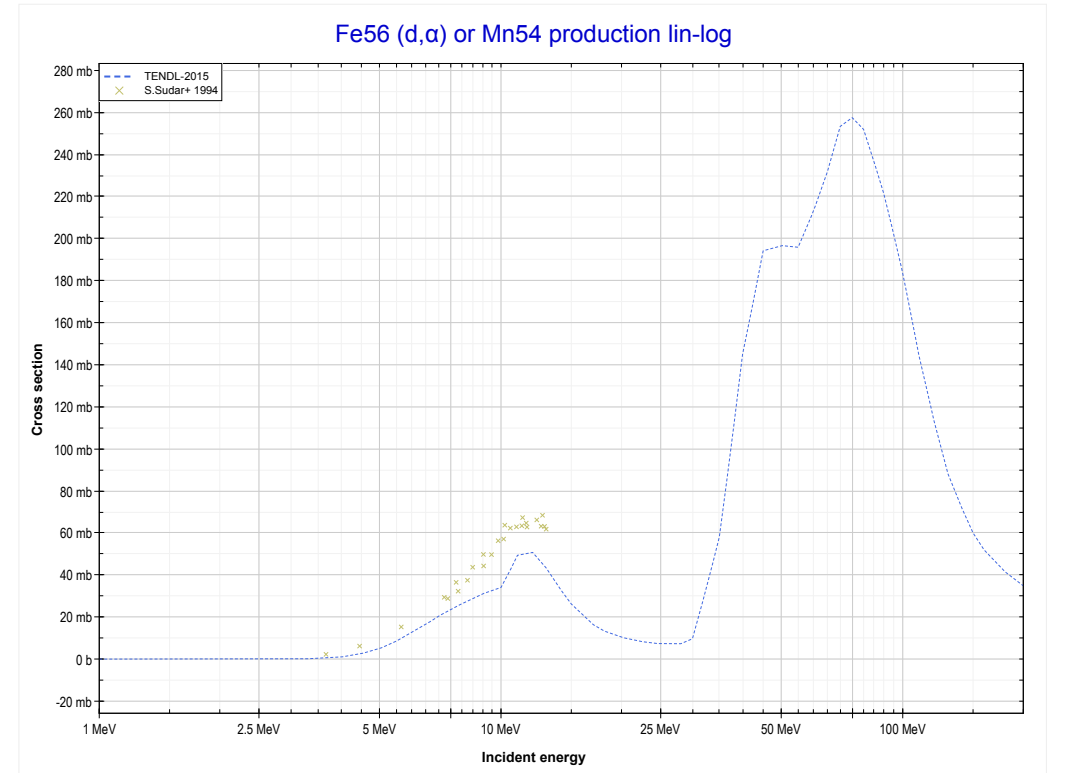
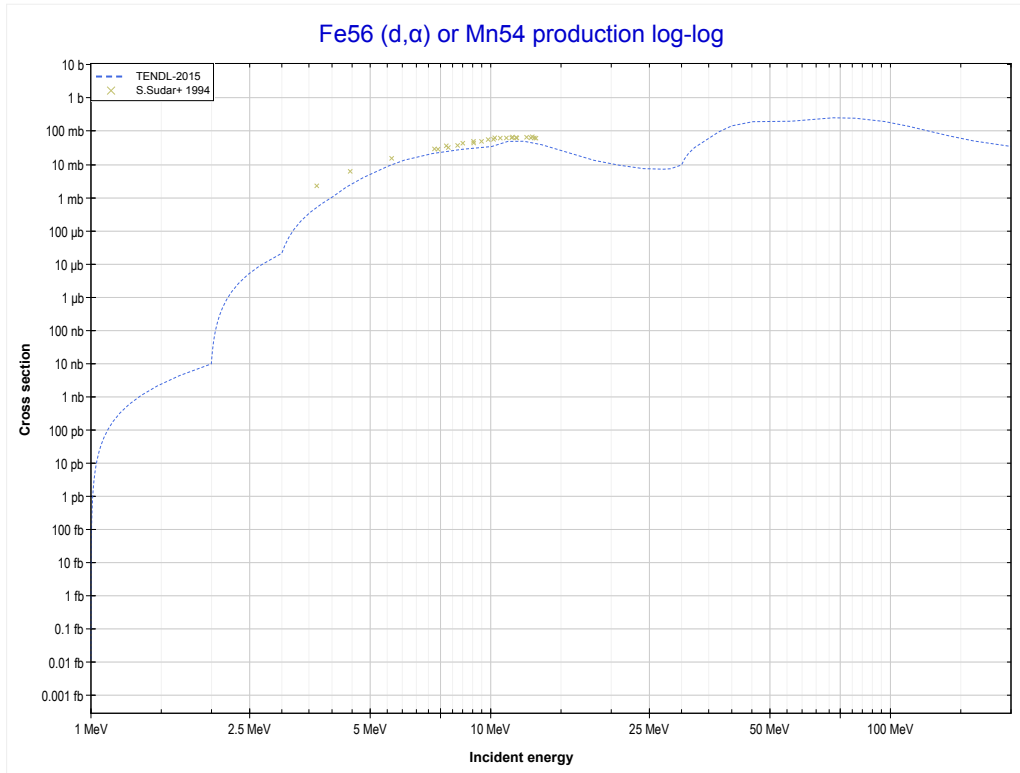
Reaction	Q-Value
Fe54(d, $\alpha$ )Mn52	5163.81 keV
Fe54(d,p+t)Mn52	-14650.05 keV
Fe54(d,n+He3)Mn52	-15413.81 keV
Fe54(d,2d)Mn52	-18682.72 keV
Fe54(d,n+p+d)Mn52	-20907.29 keV
Fe54(d,2n+2p)Mn52	-23131.85 keV

<< 24-Cr-52	<b>26-Fe-56</b>	28-Ni-60 >>
<< 26-Fe-54 MT107 (d, $\alpha$ )	<b>MT16 (d,2n) or MT5 (Co56 production)</b>	MT107 (d, $\alpha$ ) >>



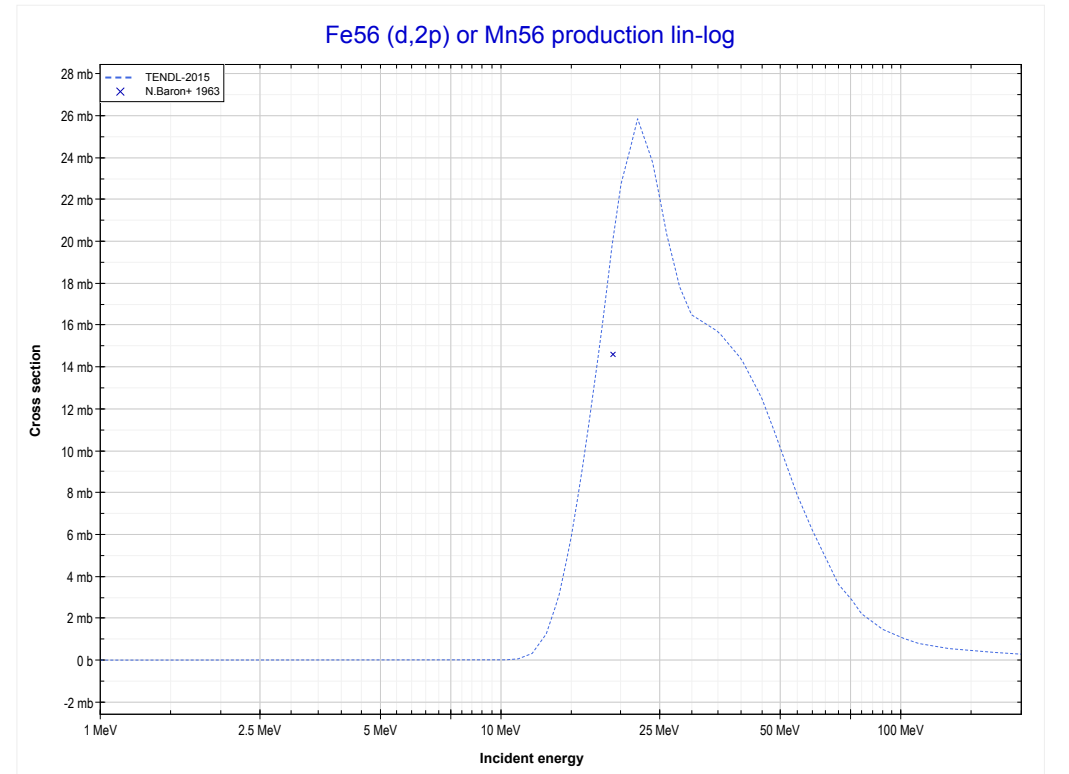
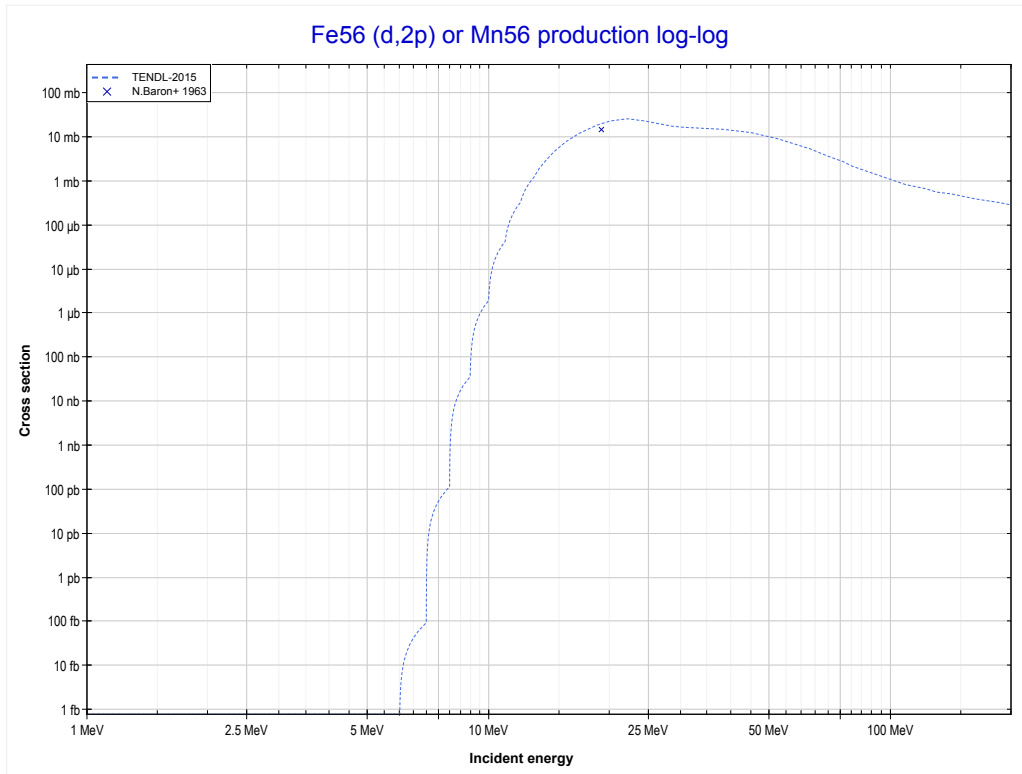
Reaction	Q-Value
Fe56(d,2n)Co56	-7573.51 keV

<< 26-Fe-54	<b>26-Fe-56</b>	28-Ni-58 >>
<< MT16 (d,2n)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Mn54 production)</b>	MT111 (d,2p) >>



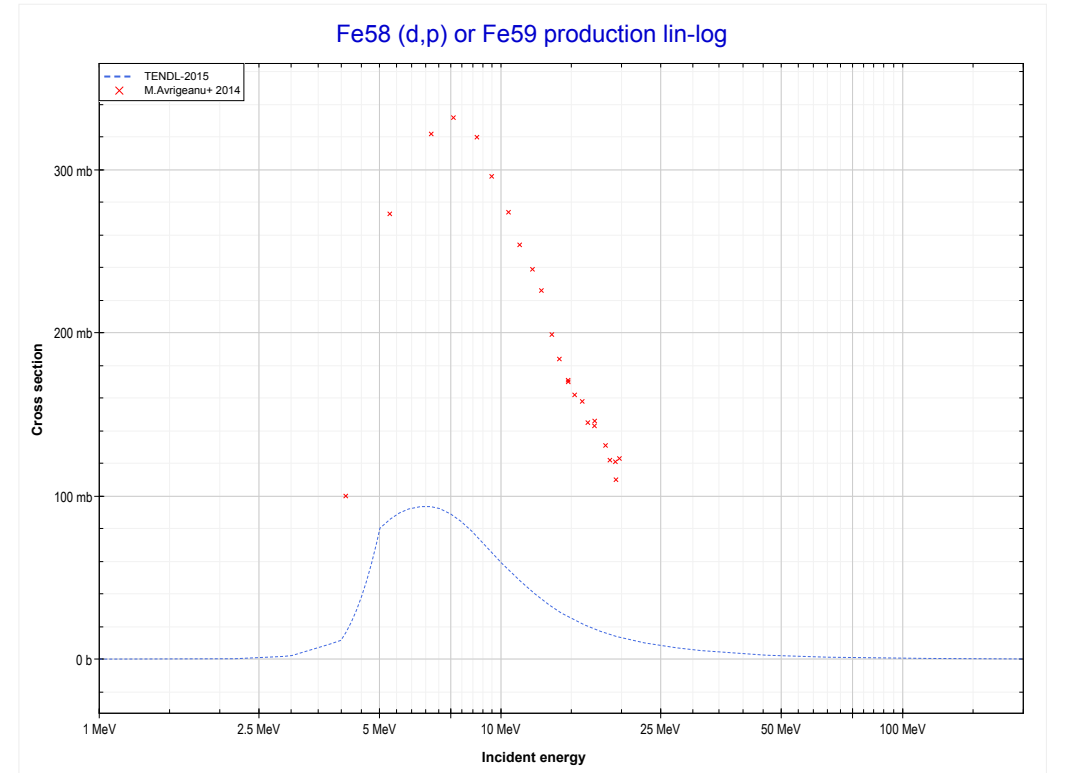
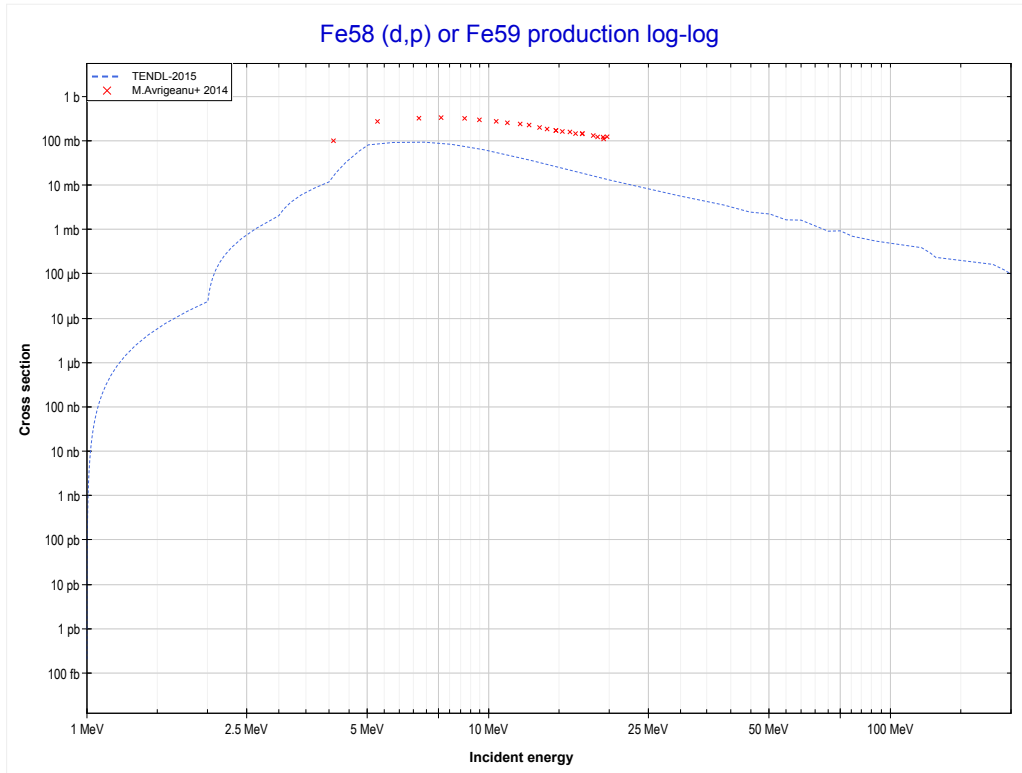
Reaction	Q-Value
Fe56(d, $\alpha$ )Mn54	5660.91 keV
Fe56(d,p+t)Mn54	-14152.95 keV
Fe56(d,n+He3)Mn54	-14916.71 keV
Fe56(d,2d)Mn54	-18185.62 keV
Fe56(d,n+p+d)Mn54	-20410.19 keV
Fe56(d,2n+2p)Mn54	-22634.75 keV

<< 24-Cr-52	<b>26-Fe-56</b>	27-Co-59 >>
<< MT107 (d, $\alpha$ )	<b>MT111 (d,2p) or MT5 (Mn56 production)</b>	26-Fe-58 MT103 (d,p) >>



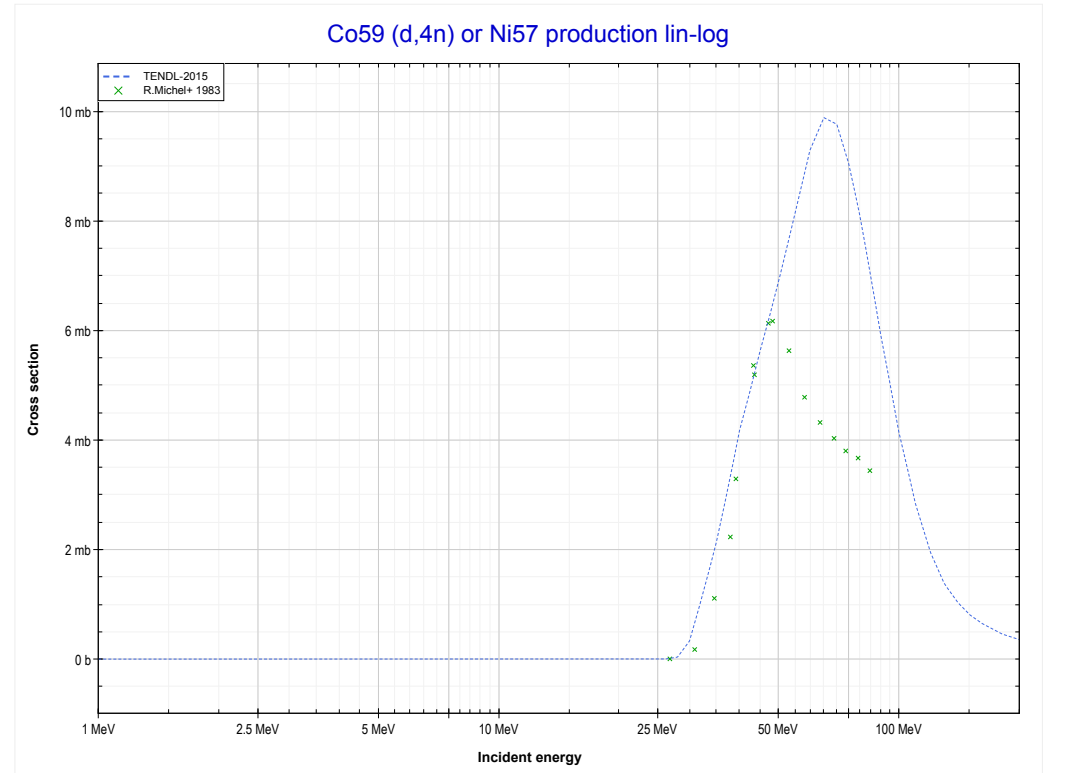
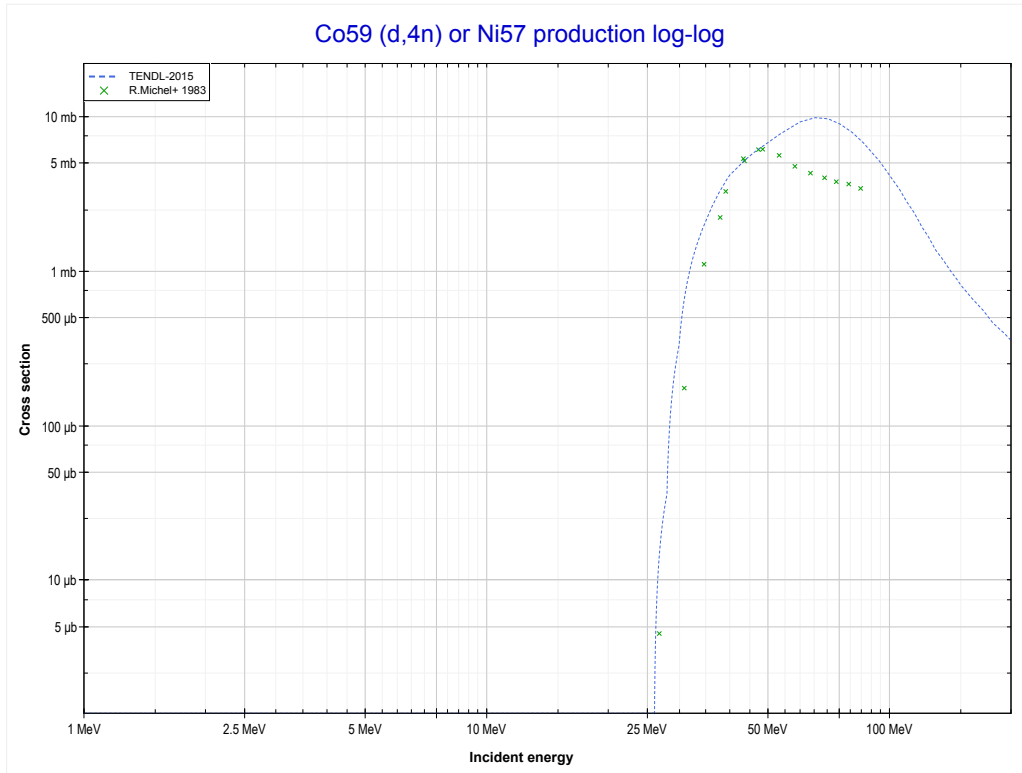
Reaction	Q-Value
Fe56(d,2p)Mn56	-5137.82 keV

<< 25-Mn-55	<b>26-Fe-58</b>	27-Co-59 >>
<< 26-Fe-56 MT111 (d,2p)	<b>MT103 (d,p) or MT5 (Fe59 production)</b>	27-Co-59 MT37 (d,4n) >>



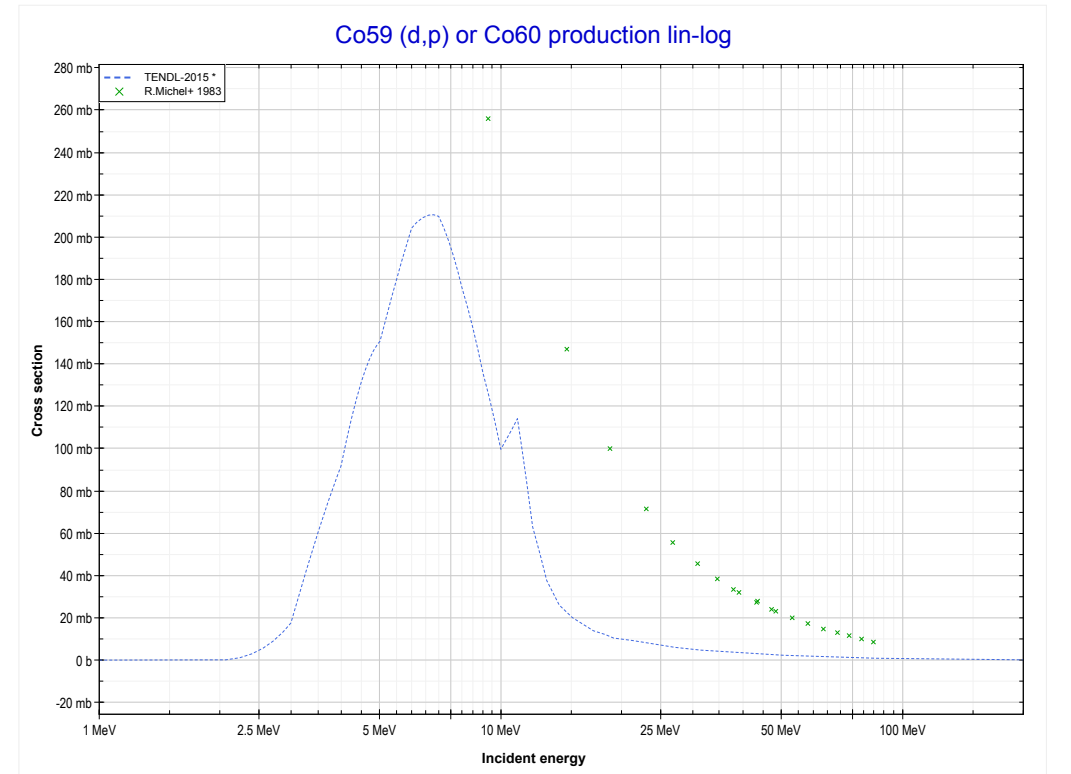
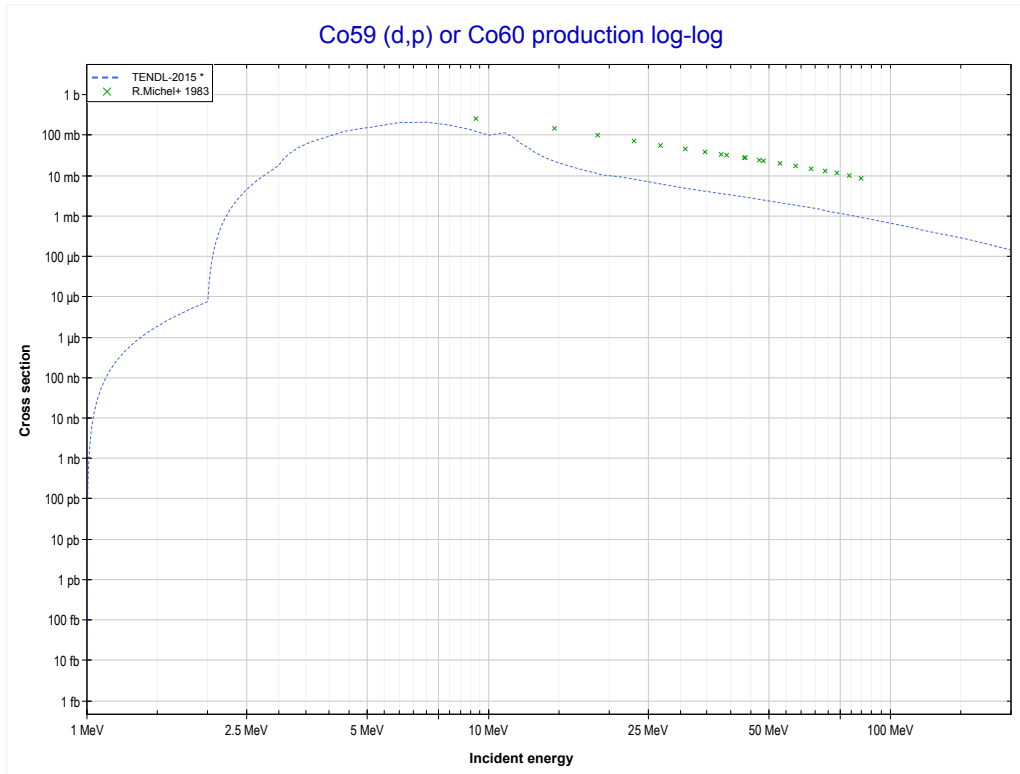
Reaction	Q-Value
Fe58(d,p)Fe59	4356.45 keV

<< 23-V-51	<b>27-Co-59</b>	33-As-75 >>
<< 26-Fe-58 MT103 (d,p)	<b>MT37 (d,4n) or MT5 (Ni57 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Co59(d,4n)Ni57	-25295.45 keV

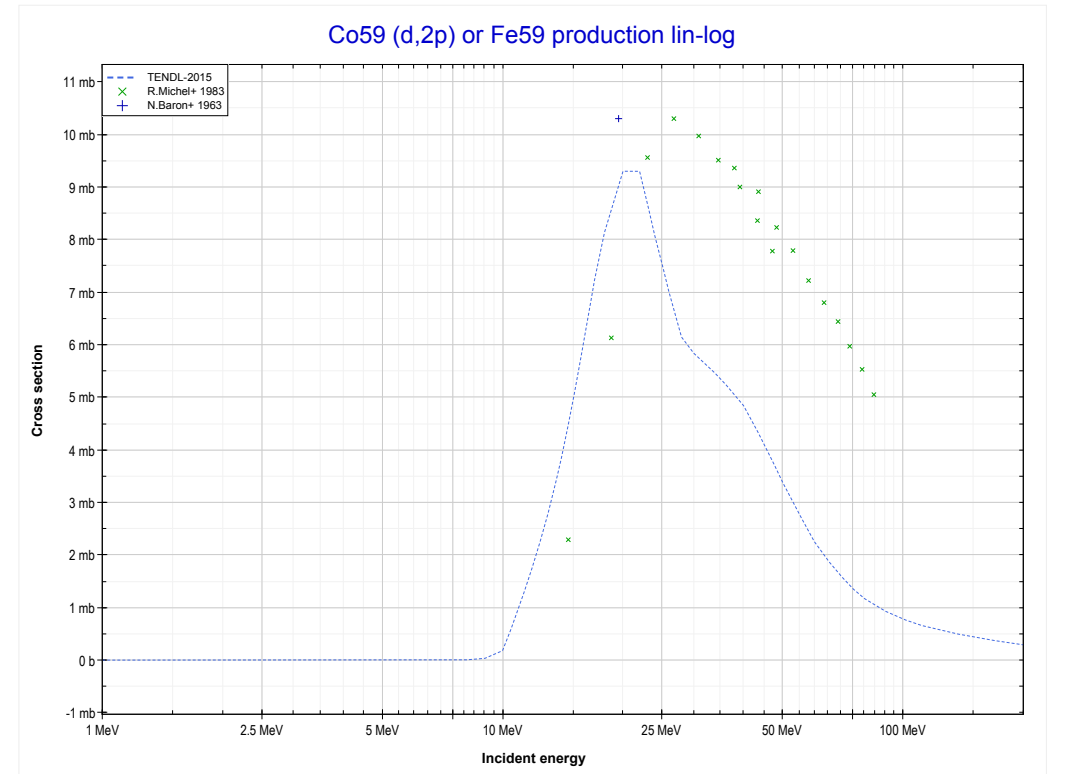
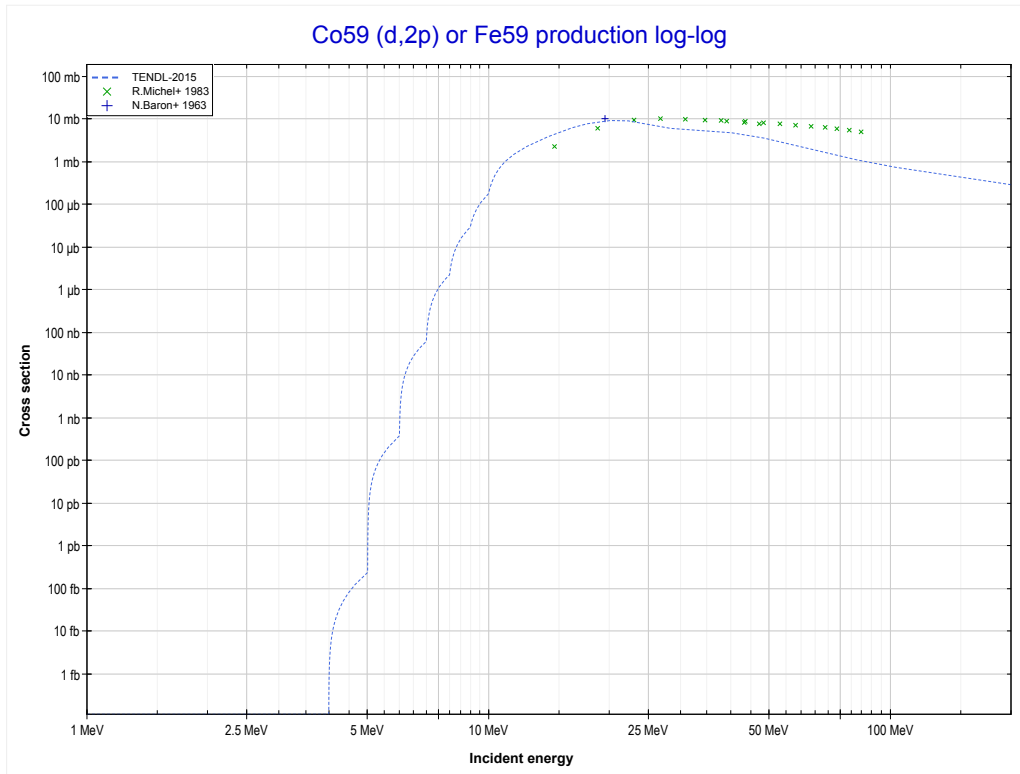
<< 26-Fe-58	<b>27-Co-59</b>	28-Ni-64 >>
<< MT37 (d,4n)	<b>MT103 (d,p) or MT5 (Co60 production)</b>	MT111 (d,2p) >>



Reaction	Q-Value
Co59(d,p)Co60	5267.35 keV

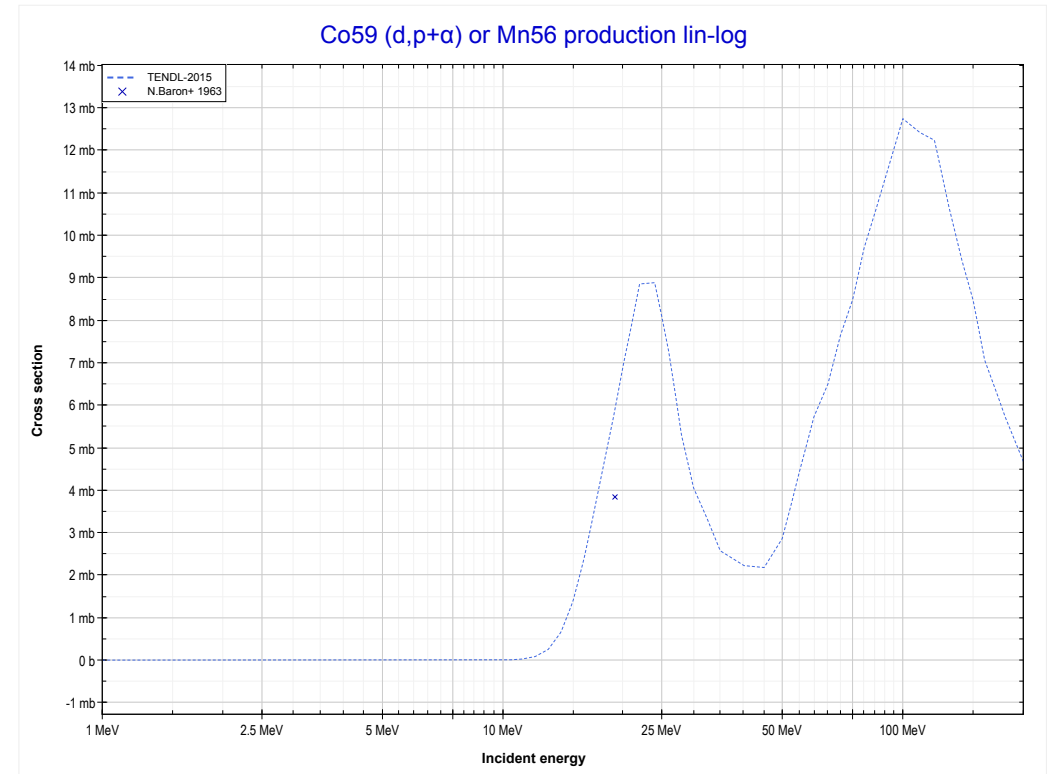
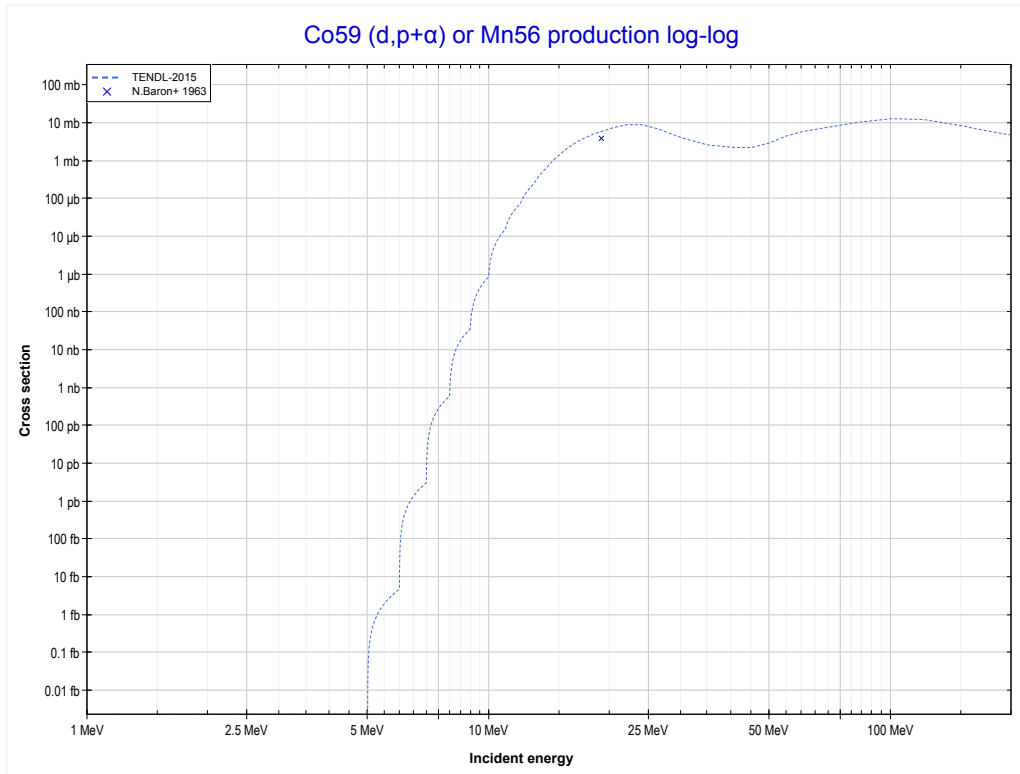


<< 26-Fe-56	<b>27-Co-59</b>	28-Ni-58 >>
<< MT103 (d,p)	<b>MT111 (d,2p) or MT5 (Fe59 production)</b>	MT112 (d,p+α) >>



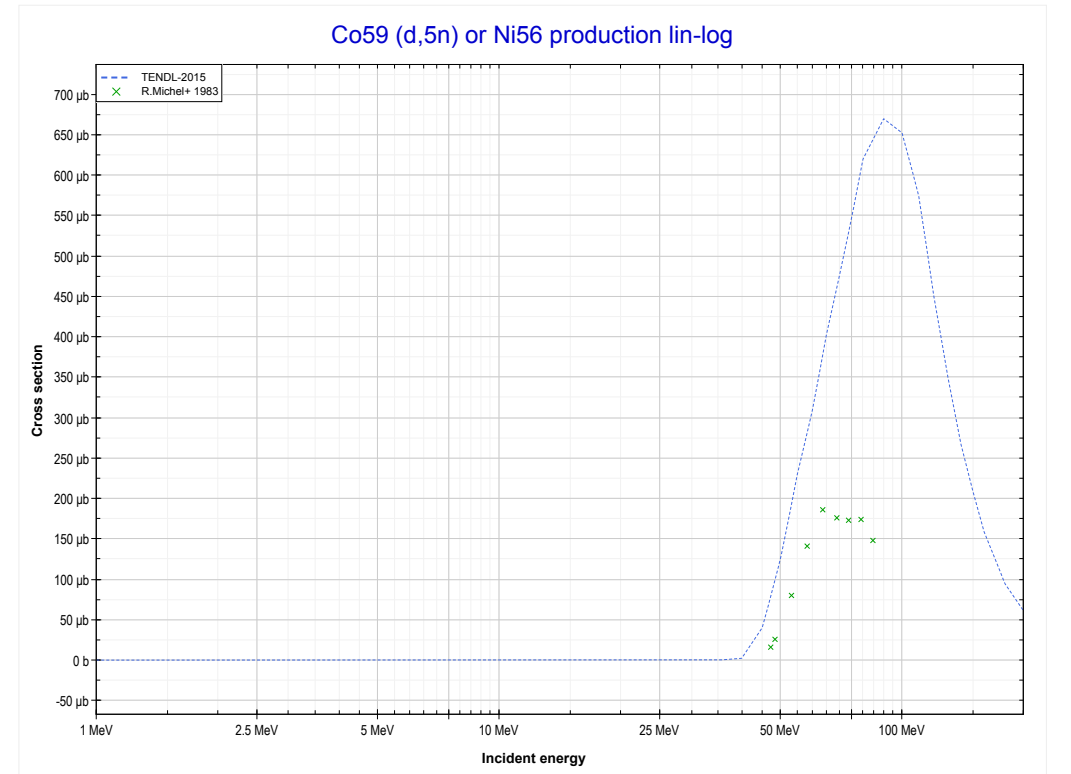
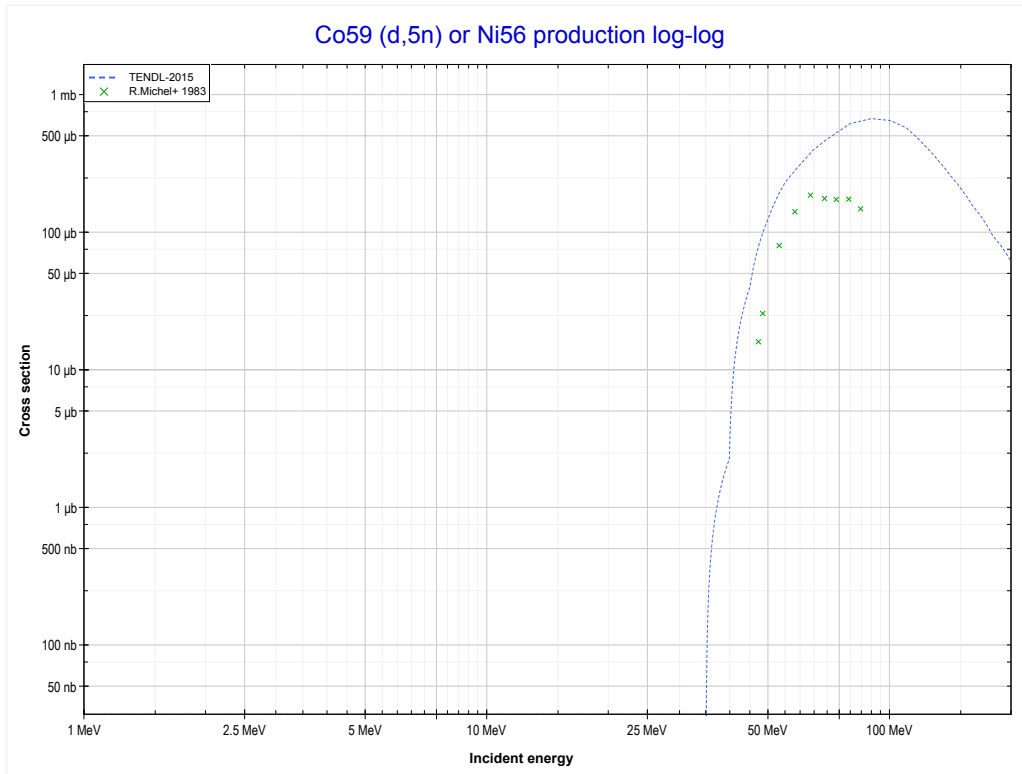
Reaction	Q-Value
Co59(d,2p)Fe59	-3007.12 keV

<< 17-CI-35	<b>27-Co-59</b>	28-Ni-58 >>
<< MT111 (d,2p)	<b>MT112 (d,p+α) or MT5 (Mn56 production)</b>	MT152 (d,5n) >>



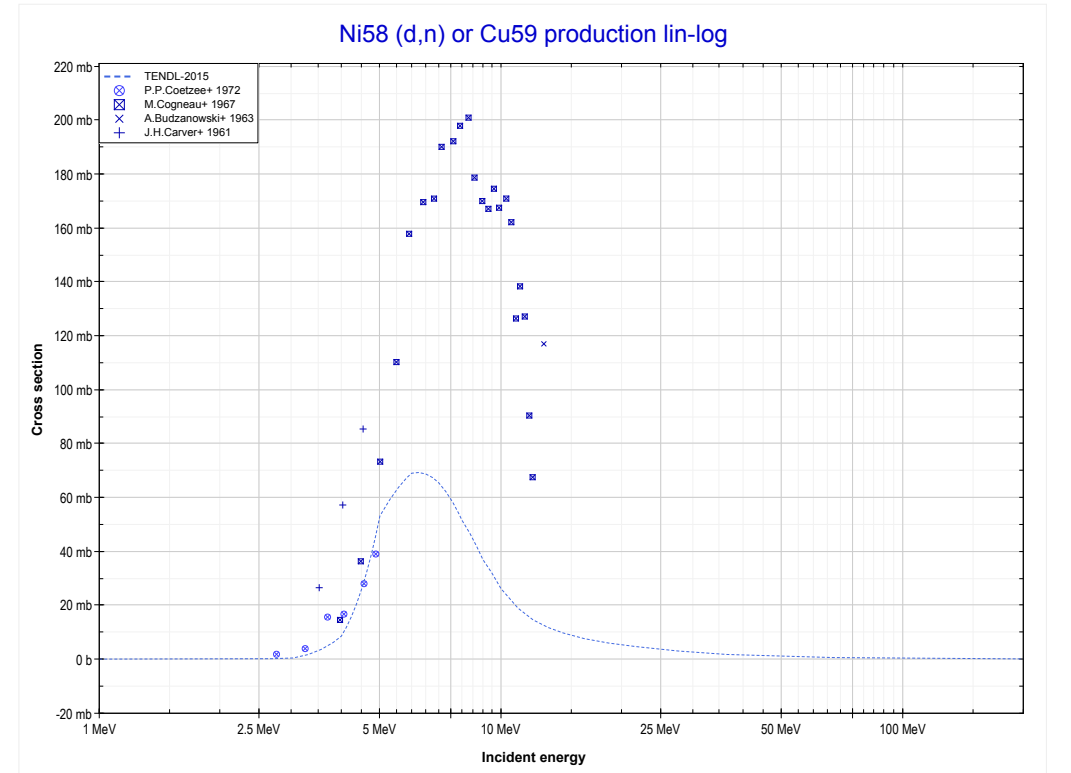
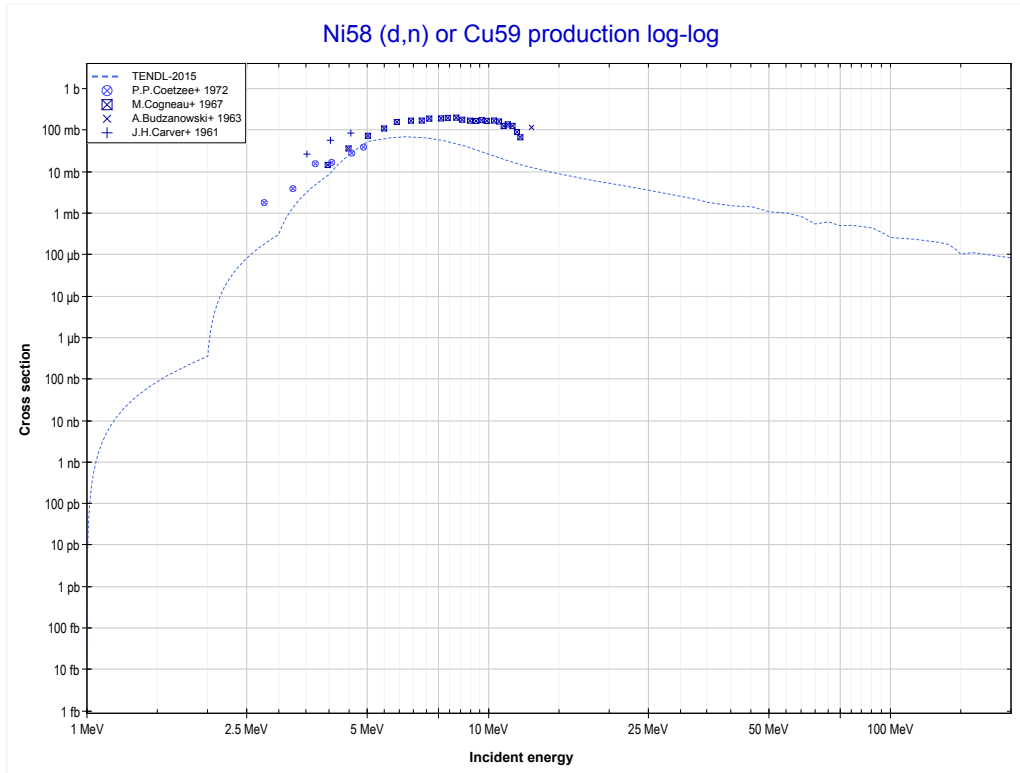
Reaction	Q-Value
Co59(d,p+α)Mn56	-1896.46 keV
Co59(d,d+He3)Mn56	-20249.52 keV
Co59(d,2p+t)Mn56	-21710.33 keV
Co59(d,n+p+He3)Mn56	-22474.08 keV
Co59(d,p+2d)Mn56	-25742.99 keV
Co59(d,n+2p+d)Mn56	-27967.56 keV
Co59(d,2n+3p)Mn56	-30192.12 keV

<< 23-V-51	<b>27-Co-59</b>	33-As-75 >>
<< MT112 (d,p+α)	<b>MT152 (d,5n) or MT5 (Ni56 production)</b>	28-Ni-58 MT4 (d,n) >>



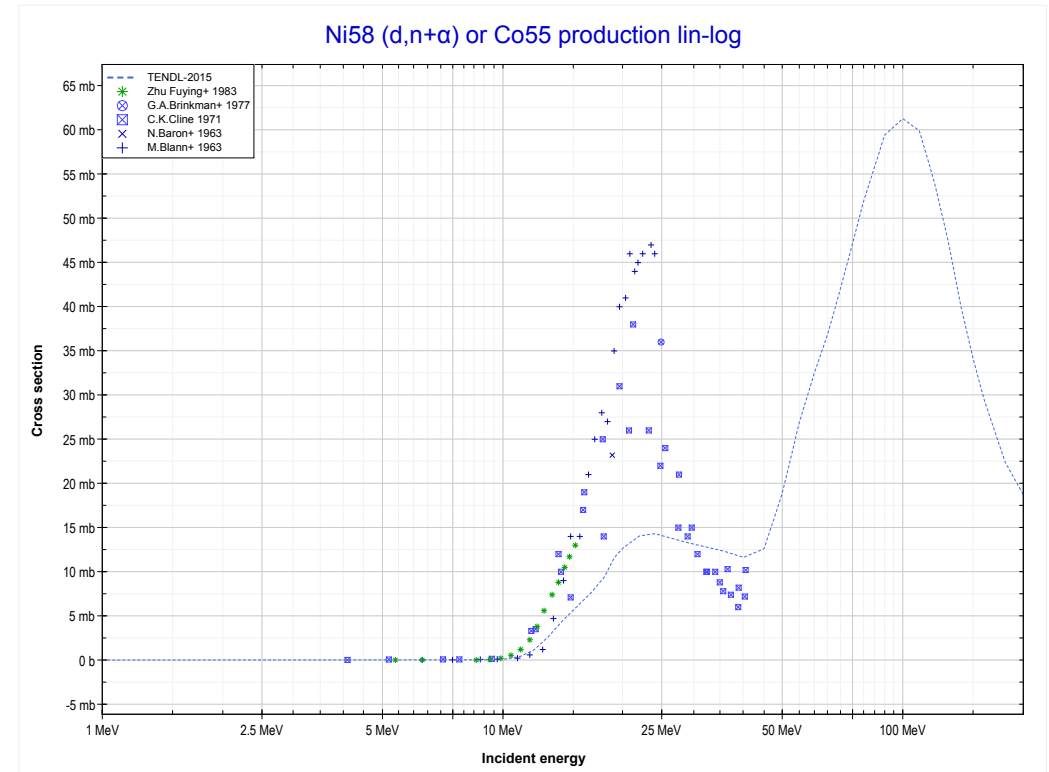
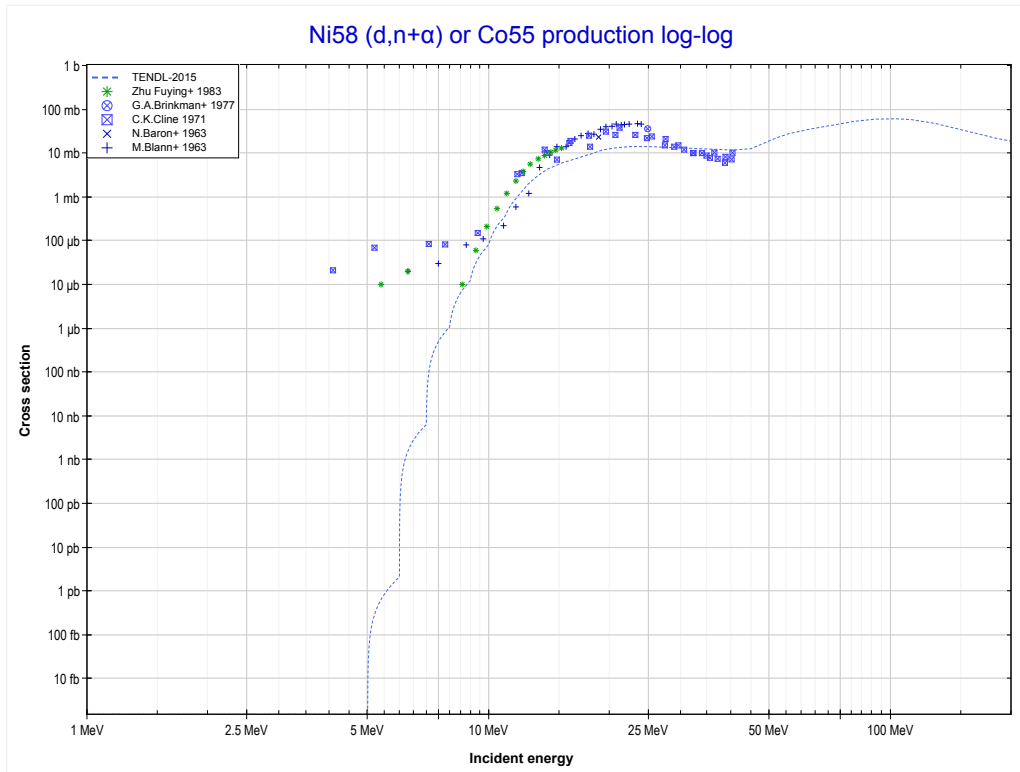
Reaction	Q-Value
Co59(d,5n)Ni56	-35543.06 keV

<< 26-Fe-54	<b>28-Ni-58</b>	28-Ni-60 >>
<< 27-Co-59 MT152 (d,5n)	<b>MT4 (d,n) or MT5 (Cu59 production)</b>	MT22 (d,n+α) >>



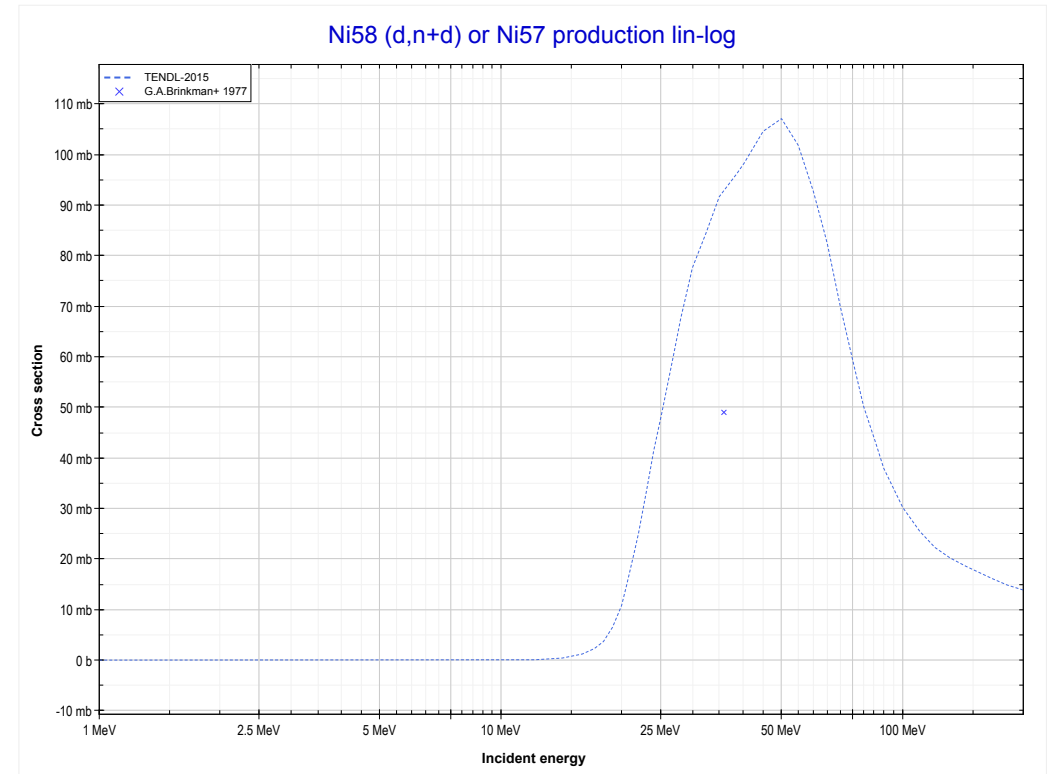
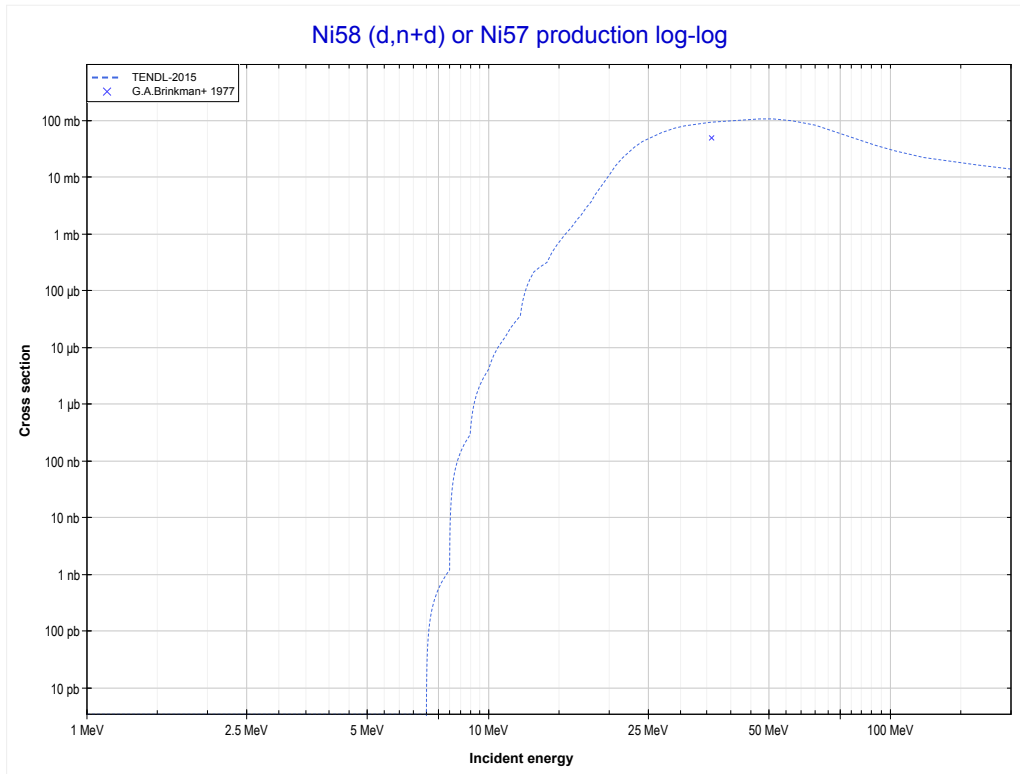
Reaction	Q-Value
Ni58(d,n)Cu59	1193.90 keV

<< 22-Ti-47	<b>28-Ni-58</b>	30-Zn-64 >>
<< MT4 (d,n)	<b>MT22 (d,n+α) or MT5 (Co55 production)</b>	MT32 (d,n+d) >>



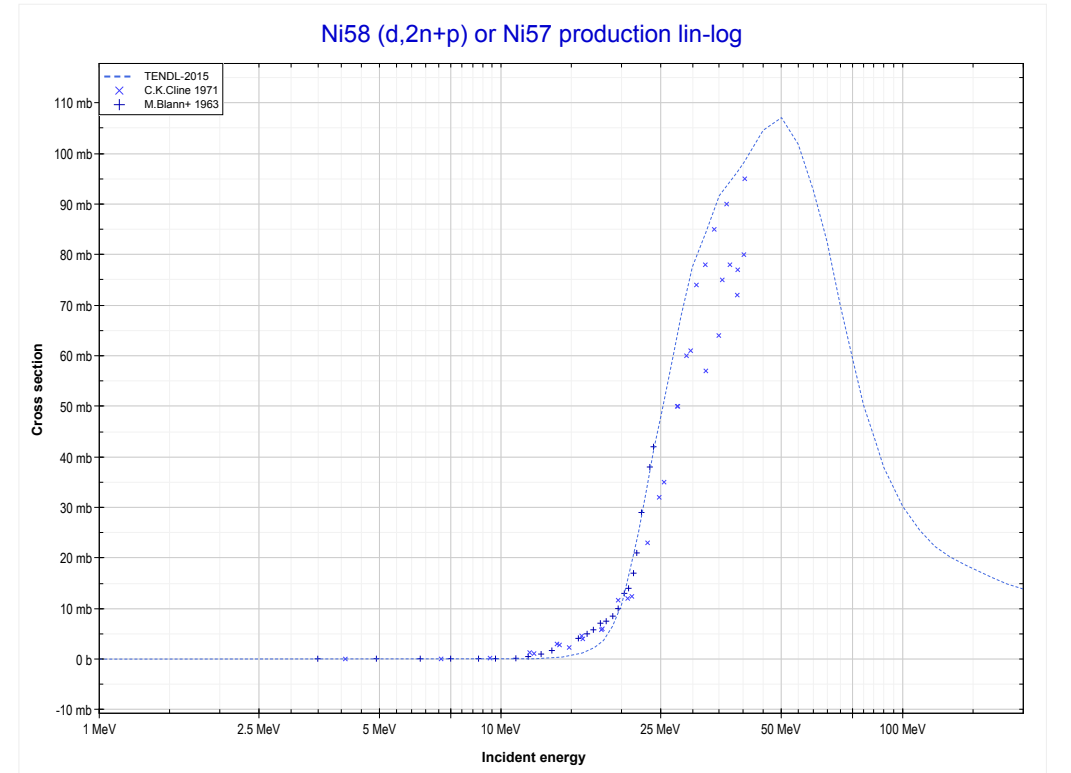
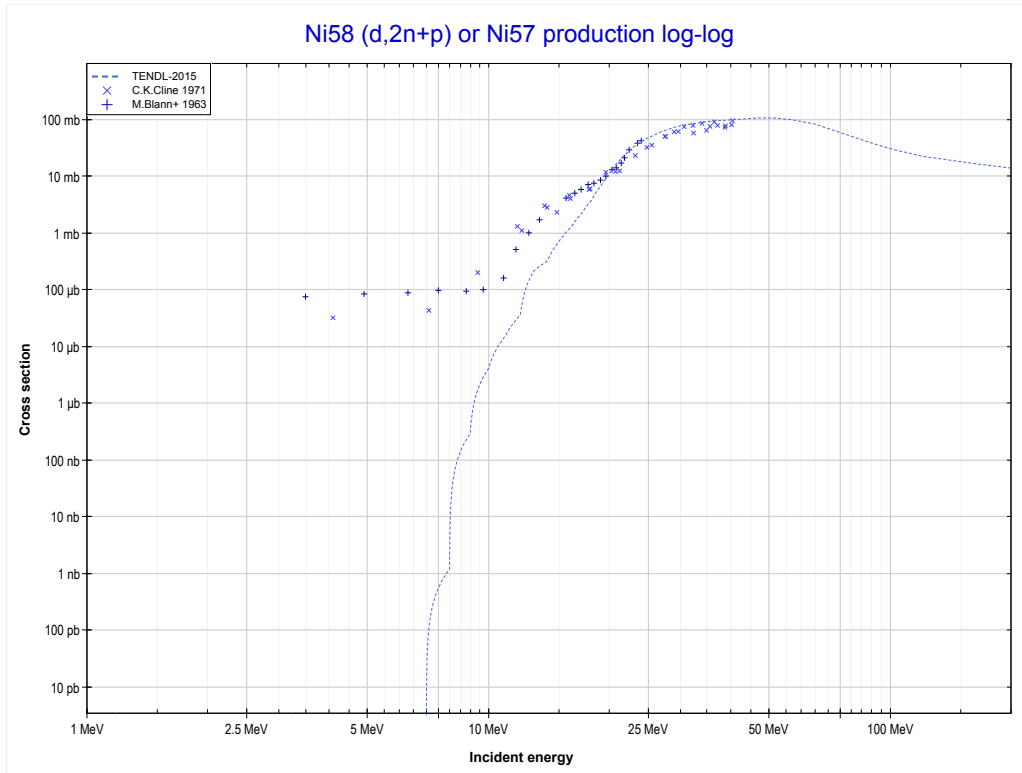
Reaction	Q-Value
Ni58(d,n+α)Co55	-3559.41 keV
Ni58(d,d+t)Co55	-21148.71 keV
Ni58(d,n+p+t)Co55	-23373.27 keV
Ni58(d,2n+He3)Co55	-24137.03 keV
Ni58(d,n+2d)Co55	-27405.94 keV
Ni58(d,2n+p+d)Co55	-29630.50 keV
Ni58(d,3n+2p)Co55	-31855.07 keV

<b>28-Ni-58</b>		
<< MT22 (d,n+α)	<b>MT32 (d,n+d) or MT5 (Ni57 production)</b>	MT41 (d,2n+p) >>



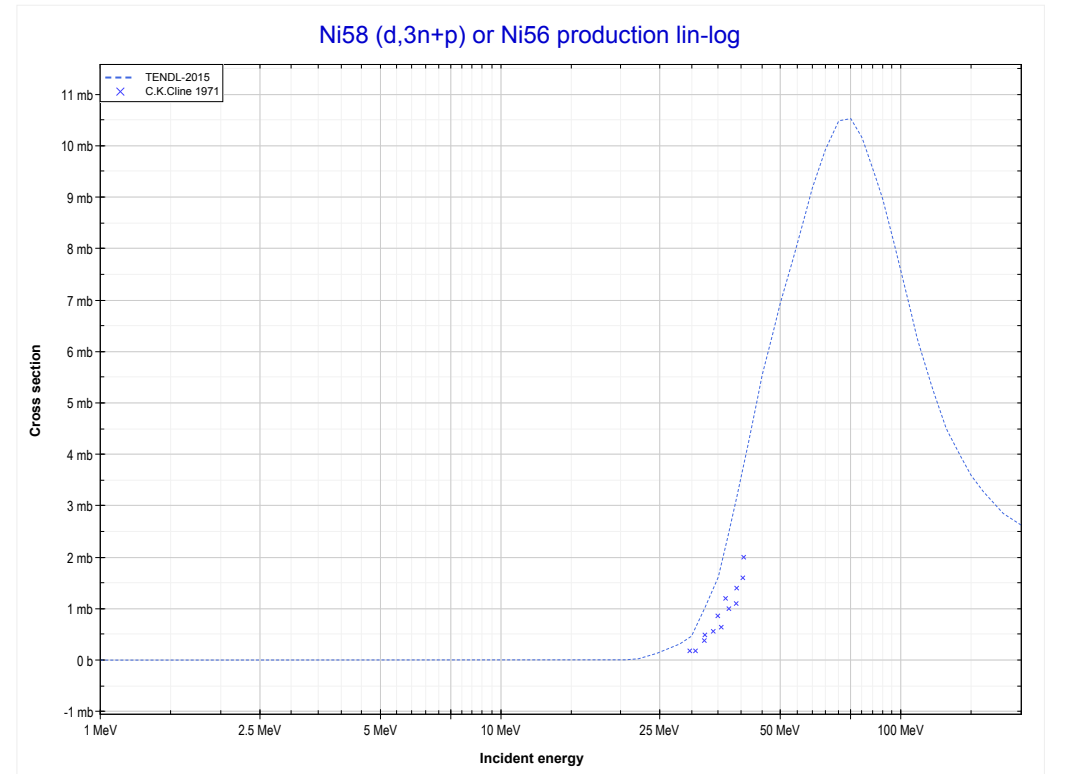
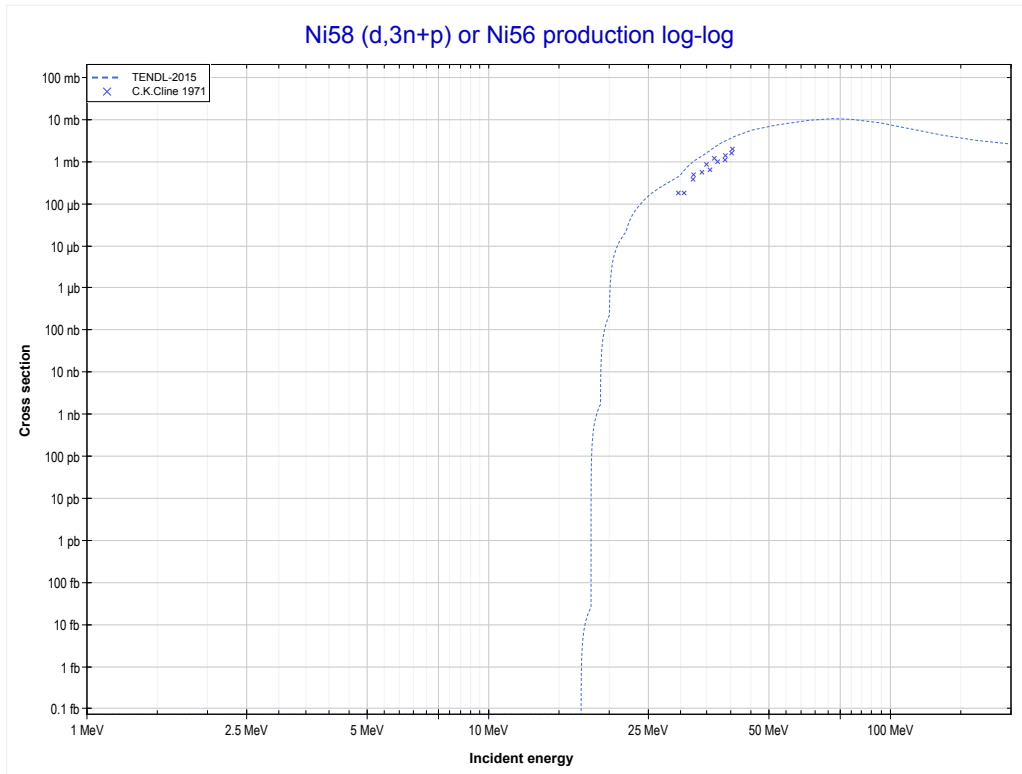
Reaction	Q-Value
Ni58(d,t)Ni57	-5959.08 keV
Ni58(d,n+d)Ni57	-12216.32 keV
Ni58(d,2n+p)Ni57	-14440.88 keV

<< 6-C-12	<b>28-Ni-58</b>	33-As-75 >>
<< MT32 (d,n+d)	<b>MT41 (d,2n+p) or MT5 (Ni57 production)</b>	MT42 (d,3n+p) >>



Reaction	Q-Value
Ni58(d,t)Ni57	-5959.08 keV
Ni58(d,n+d)Ni57	-12216.32 keV
Ni58(d,2n+p)Ni57	-14440.88 keV

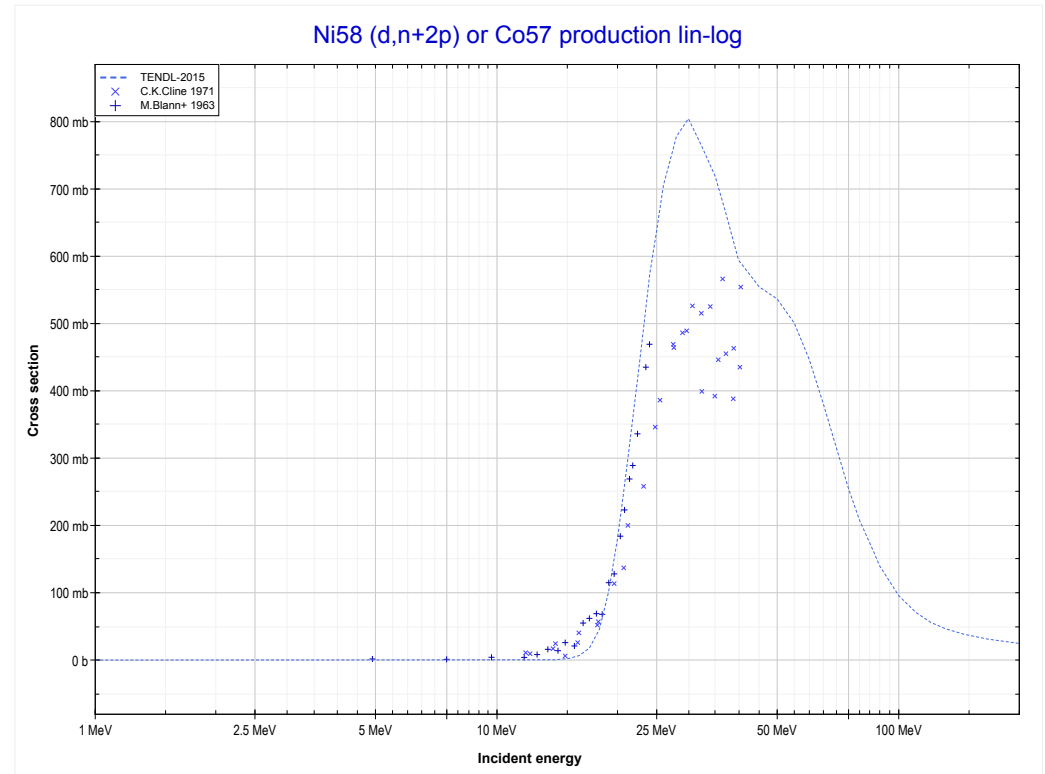
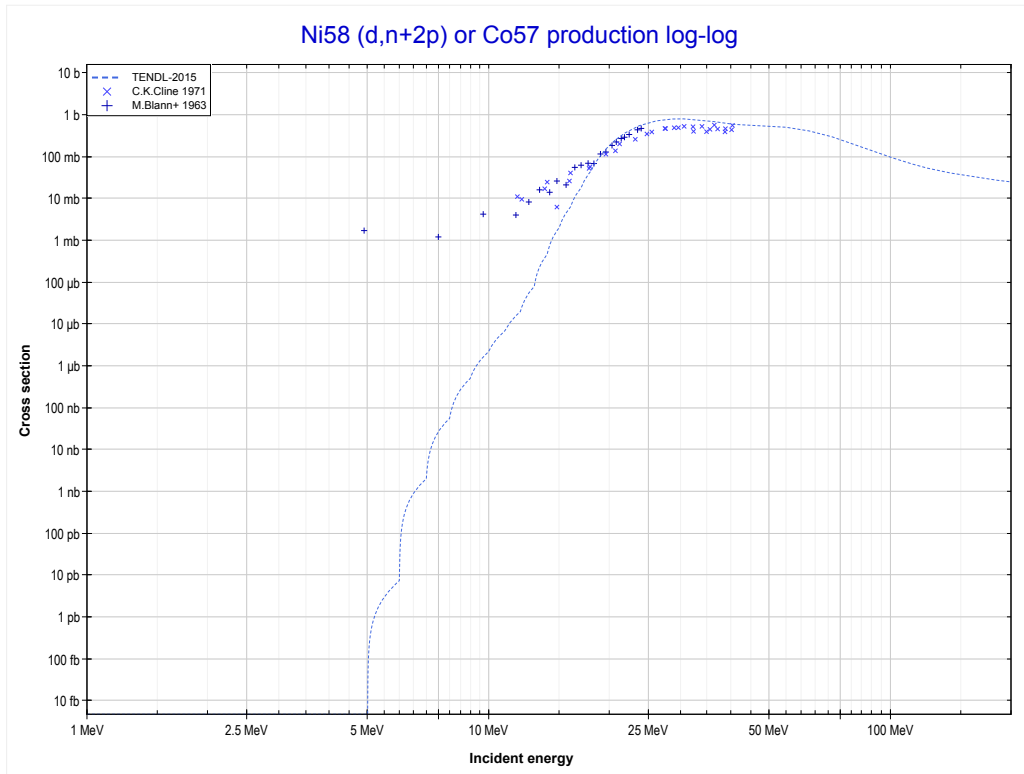
	<b>28-Ni-58</b>	<b>33-As-75 &gt;&gt;</b>
<< MT41 (d,2n+p)	<b>MT42 (d,3n+p) or MT5 (Ni56 production)</b>	<b>MT44 (d,n+2p) &gt;&gt;</b>



Reaction	Q-Value
Ni58(d,n+t)Ni56	-16206.70 keV
Ni58(d,2n+d)Ni56	-22463.93 keV
Ni58(d,3n+p)Ni56	-24688.50 keV

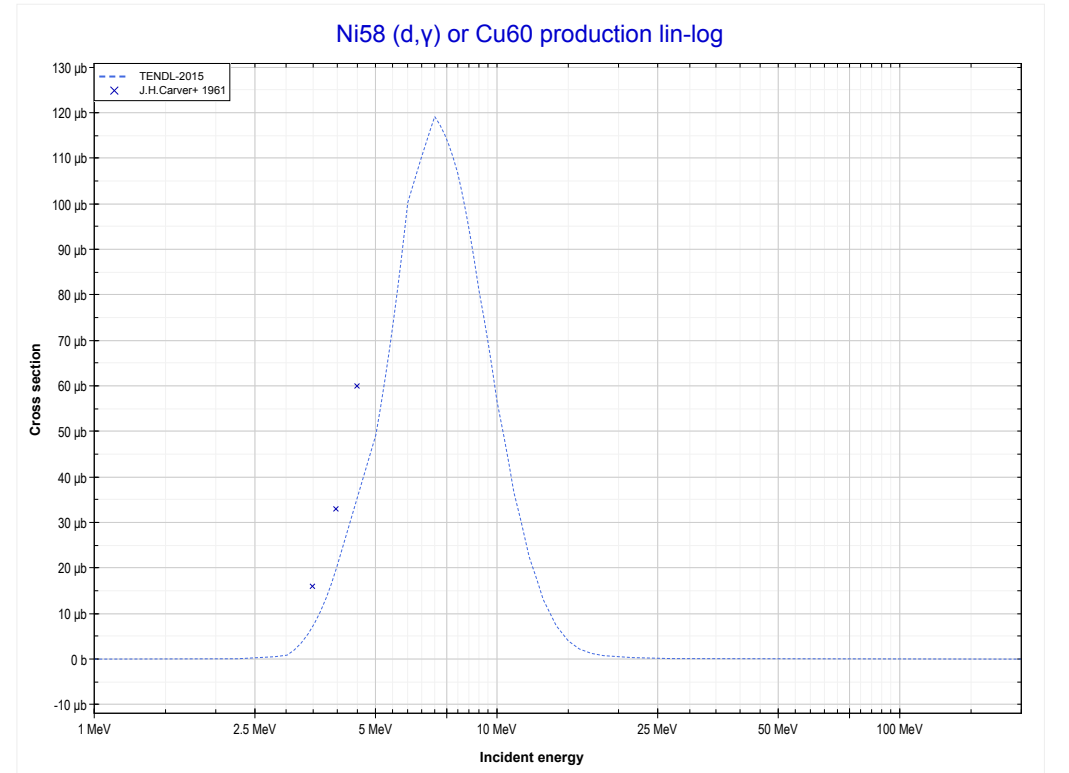
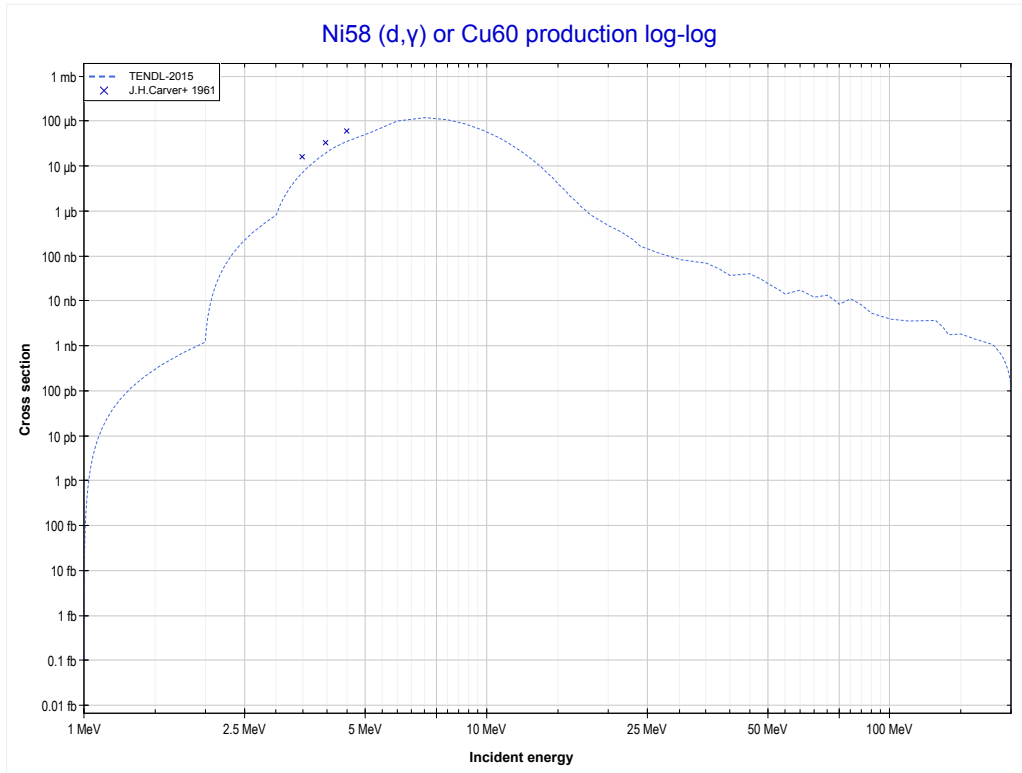


	<b>28-Ni-58</b>	<b>58-Ce-142 &gt;&gt;</b>
<< MT42 (d,3n+p)	<b>MT44 (d,n+2p) or MT5 (Co57 production)</b>	<b>MT102 (d,<math>\gamma</math>) &gt;&gt;</b>



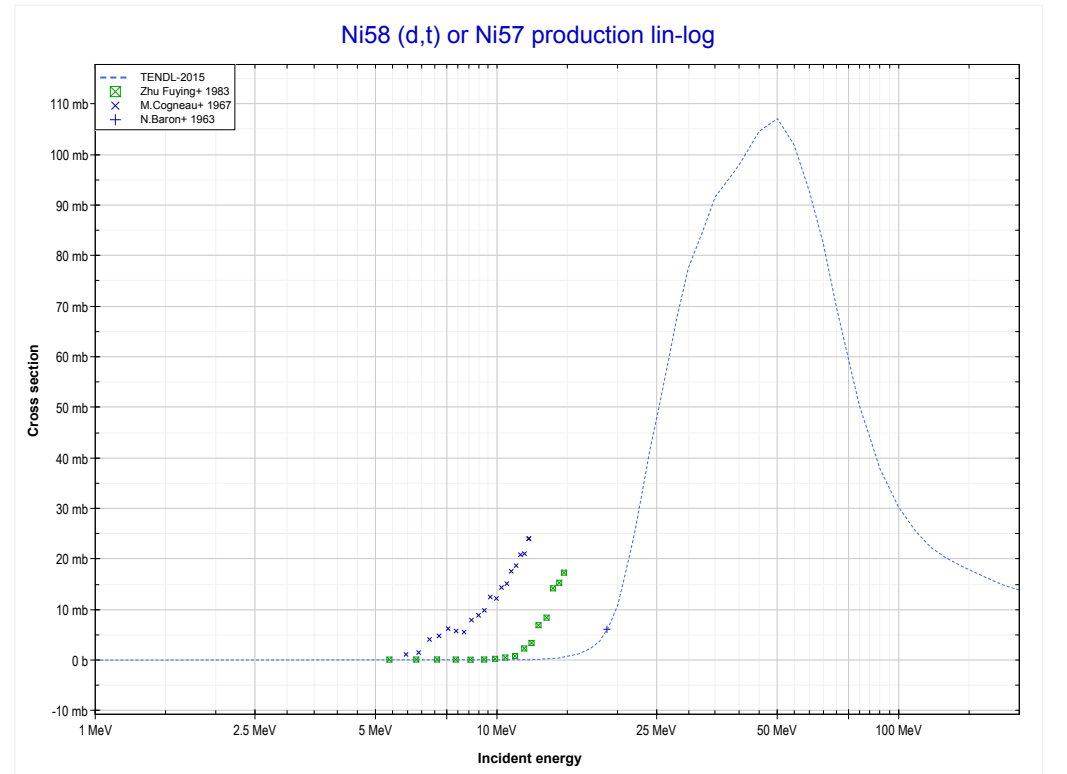
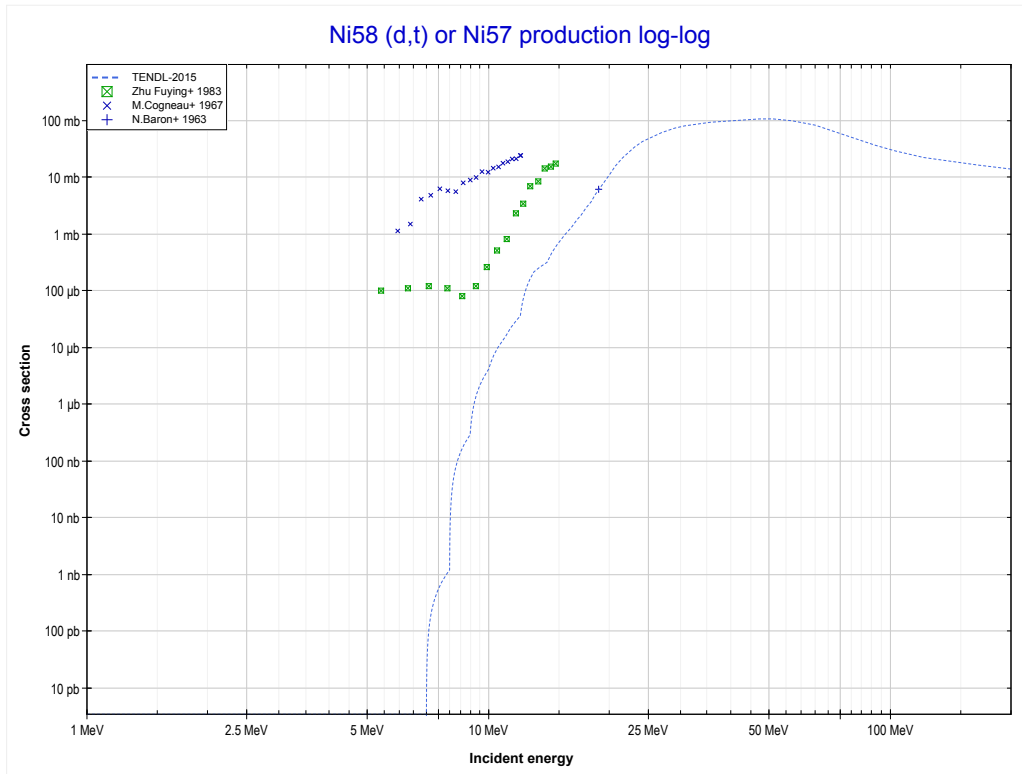
Reaction	Q-Value
Ni58(d,He3)Co57	-2678.79 keV
Ni58(d,p+d)Co57	-8172.27 keV
Ni58(d,n+2p)Co57	-10396.84 keV

<< 24-Cr-54	<b>28-Ni-58</b>	30-Zn-64 >>
<< MT44 (d,n+2p)	<b>MT102 (d,<math>\gamma</math>) or MT5 (Cu60 production)</b>	MT105 (d,t) >>



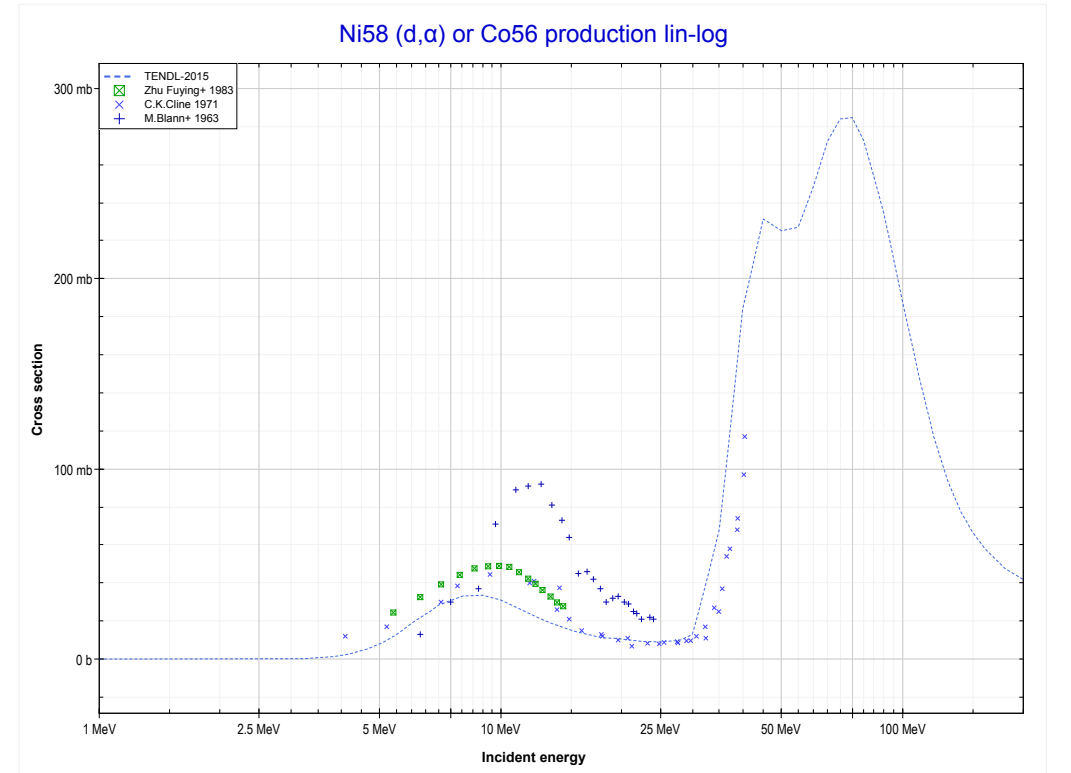
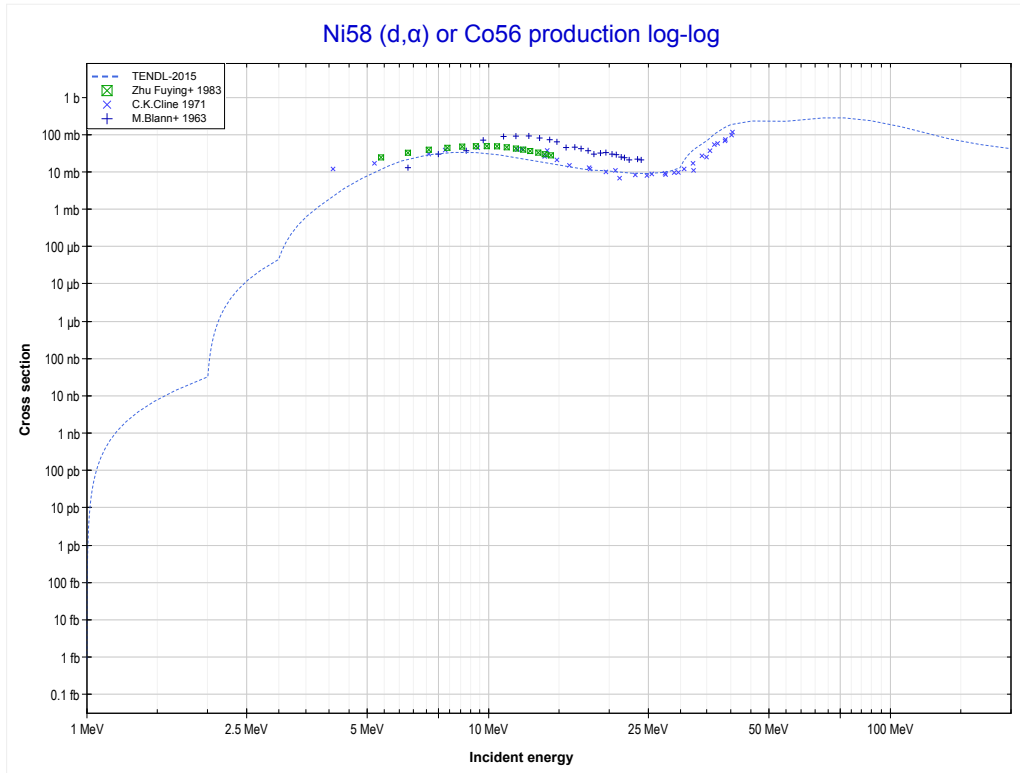
Reaction	Q-Value
Ni58(d, $\gamma$ )Cu60	11252.12 keV

<< 26-Fe-54	<b>28-Ni-58</b>	33-As-75 >>
<< MT102 (d,y)	<b>MT105 (d,t) or MT5 (Ni57 production)</b>	MT107 (d, $\alpha$ ) >>



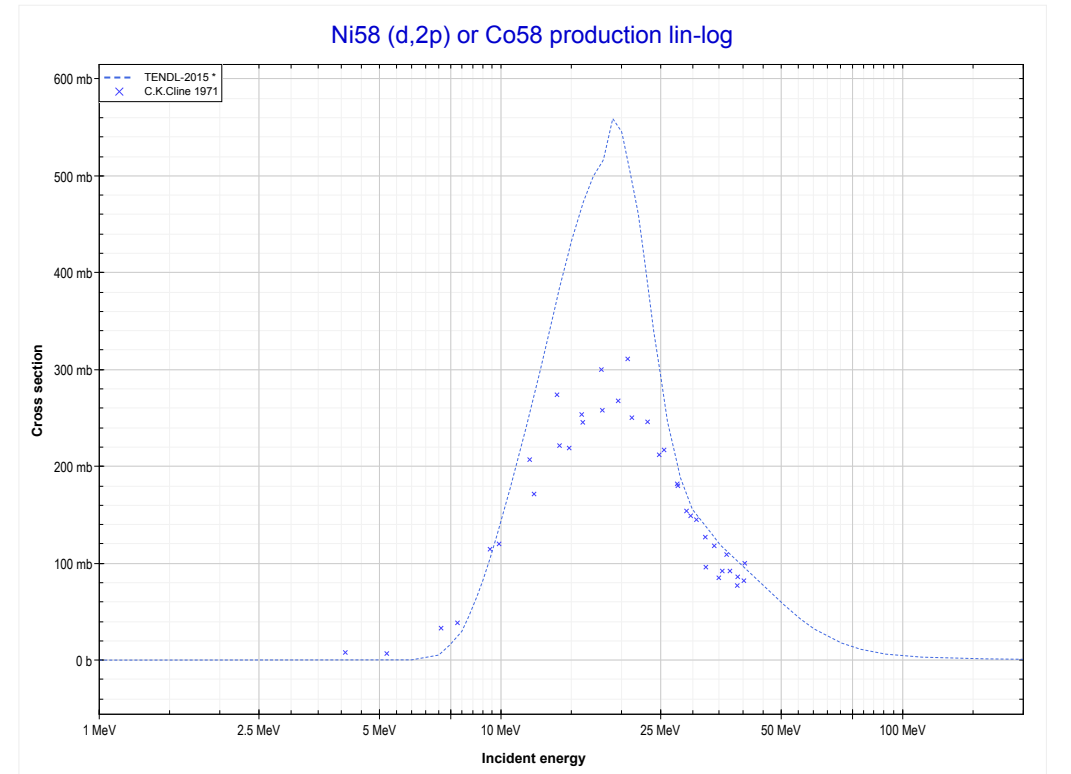
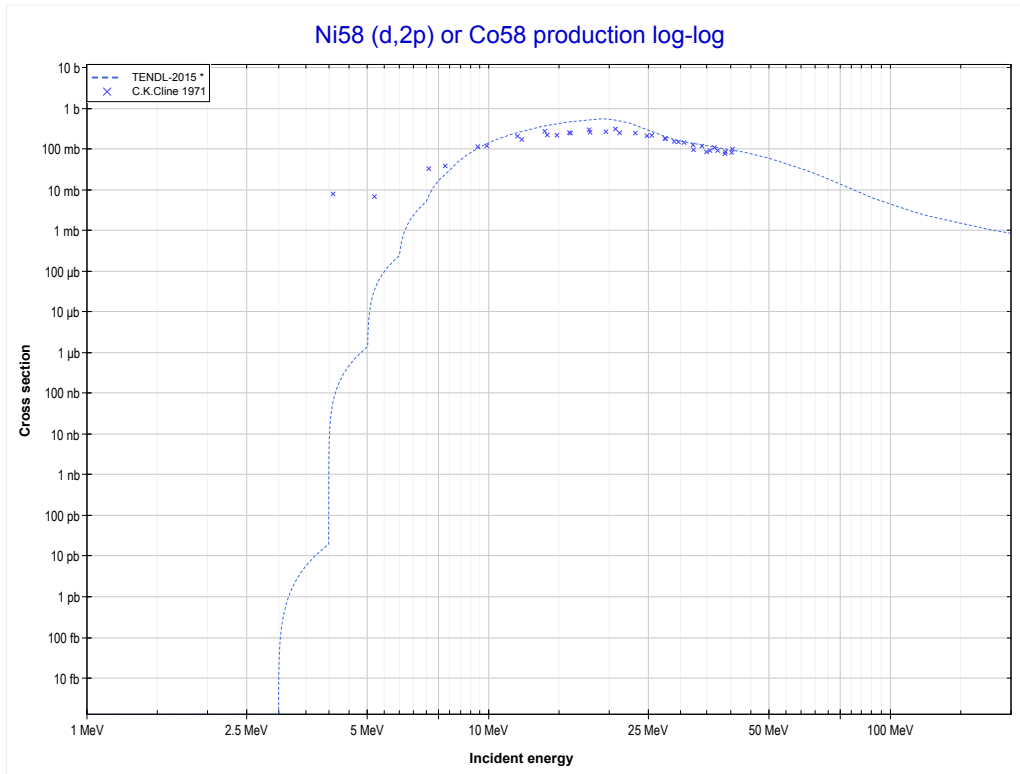
Reaction	Q-Value
Ni58(d,t)Ni57	-5959.08 keV
Ni58(d,n+d)Ni57	-12216.32 keV
Ni58(d,2n+p)Ni57	-14440.88 keV

<< 26-Fe-56	<b>28-Ni-58</b>	30-Zn-66 >>
<< MT105 (d,t)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Co56 production)</b>	MT111 (d,2p) >>



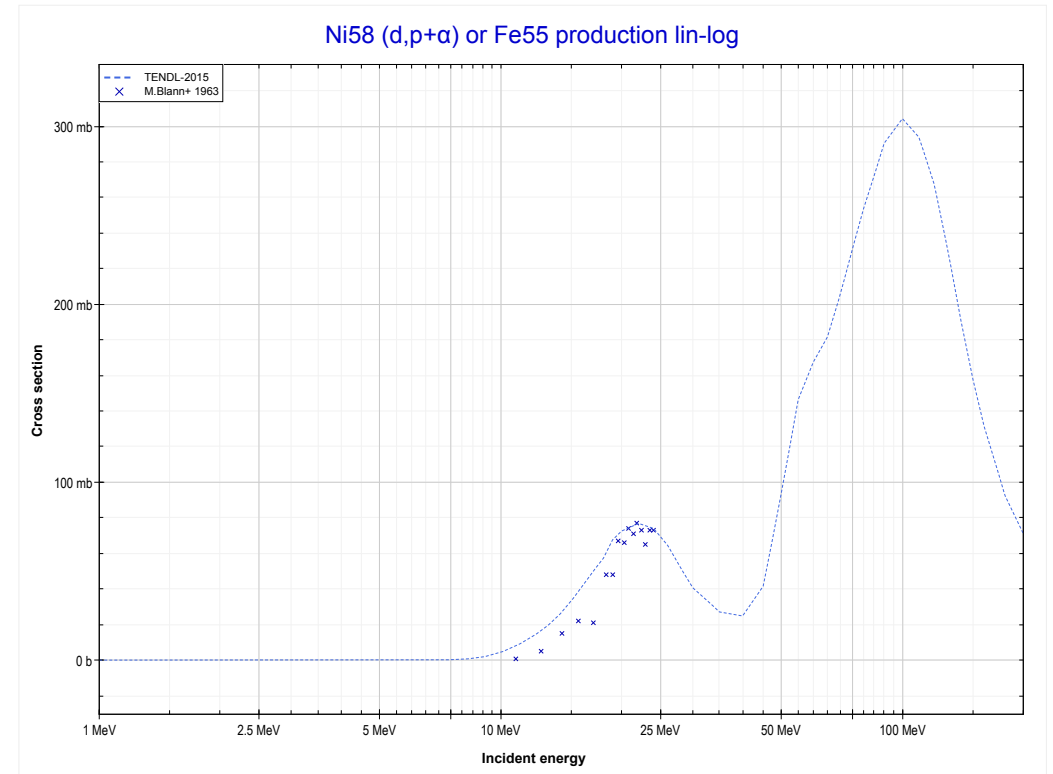
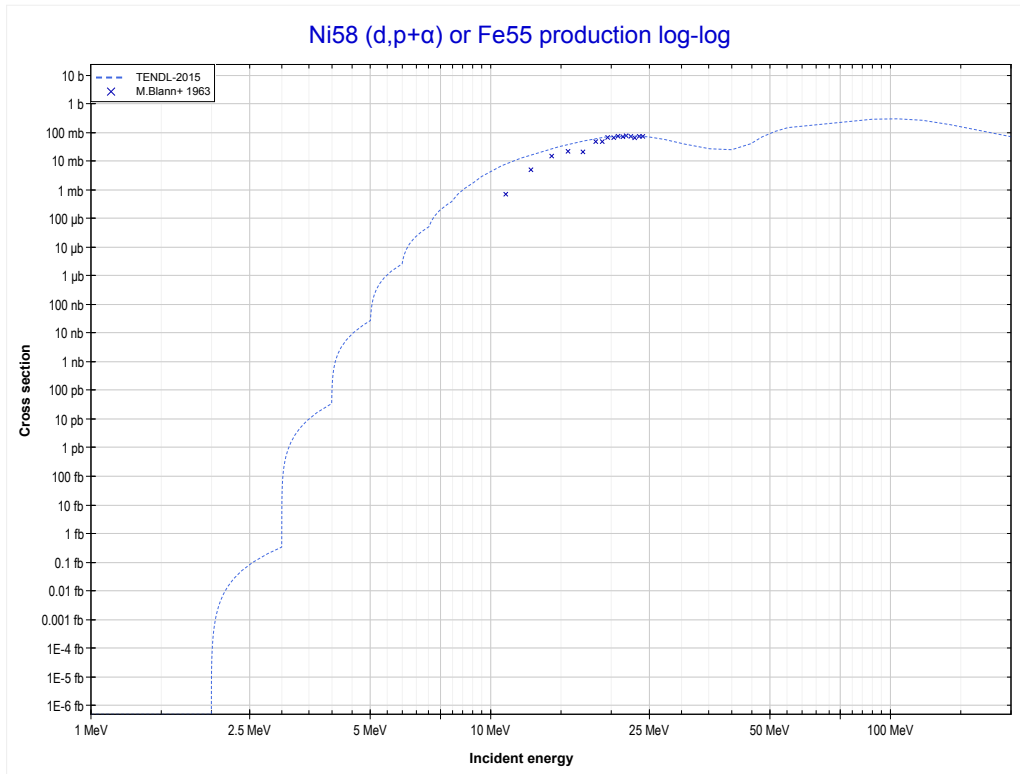
Reaction	Q-Value
Ni58(d, $\alpha$ )Co56	6522.41 keV
Ni58(d,p+t)Co56	-13291.45 keV
Ni58(d,n+He3)Co56	-14055.21 keV
Ni58(d,2d)Co56	-17324.12 keV
Ni58(d,n+p+d)Co56	-19548.69 keV
Ni58(d,2n+2p)Co56	-21773.25 keV

<< 27-Co-59	<b>28-Ni-58</b>	29-Cu-65 >>
<< MT107 (d, $\alpha$ )	<b>MT111 (d,2p) or MT5 (Co58 production)</b>	MT112 (d,p+ $\alpha$ ) >>



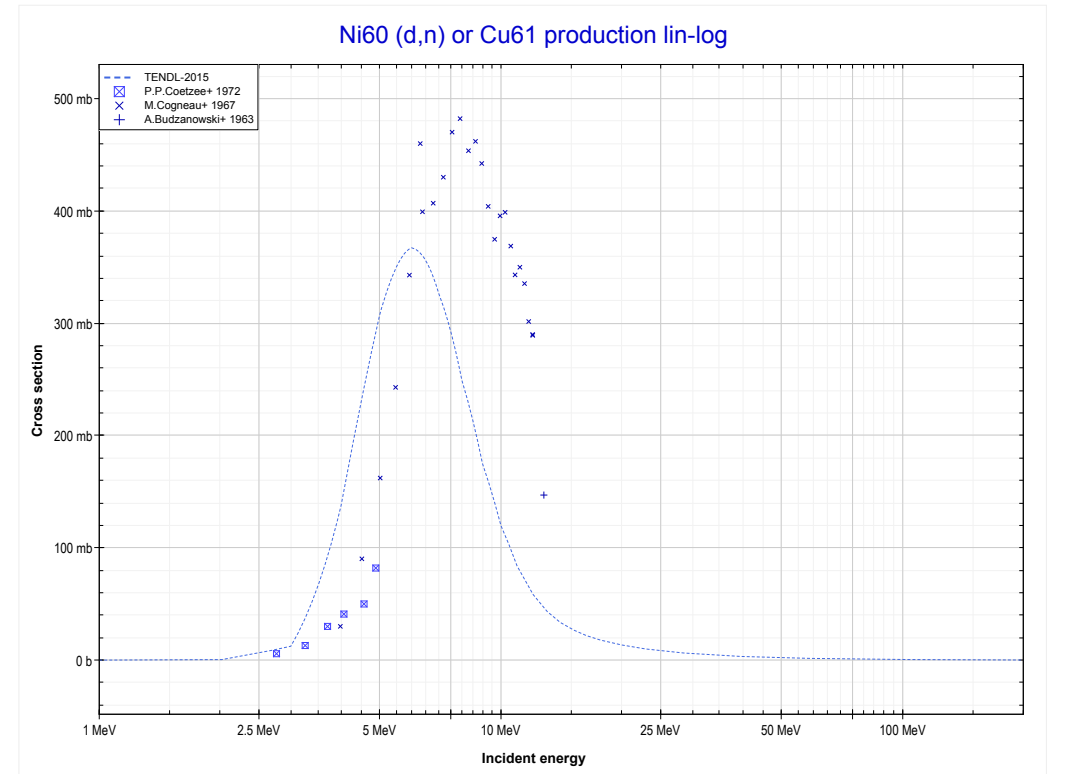
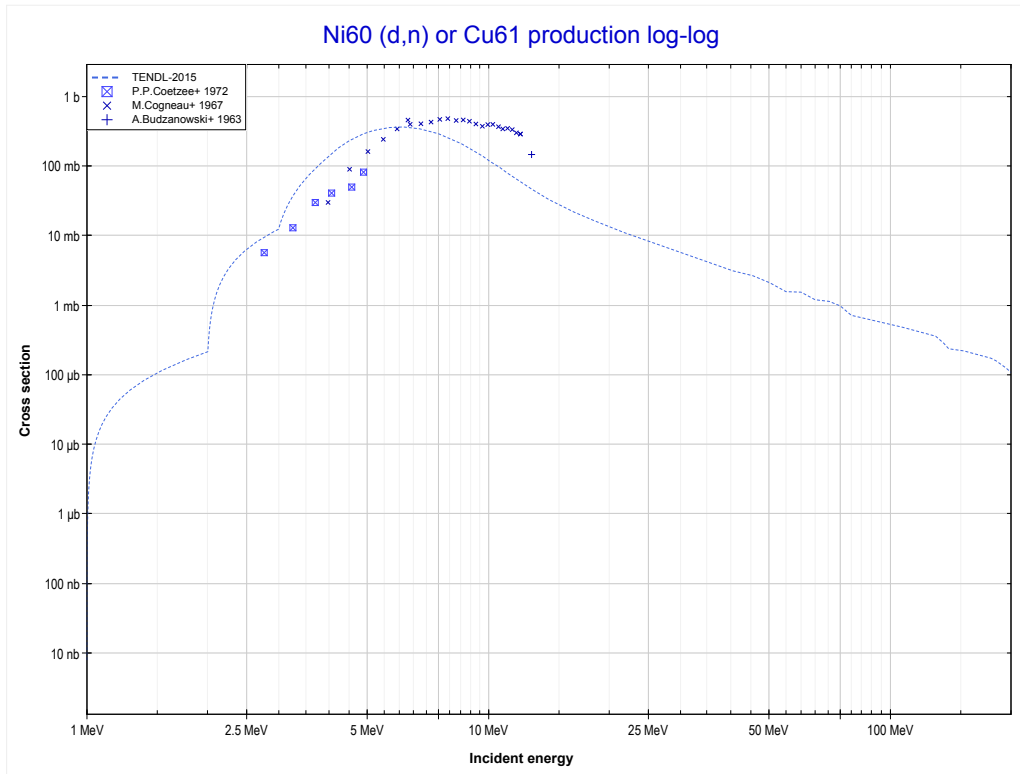
Reaction	Q-Value
Ni58(d,2p)Co58	-1823.82 keV

<< 27-Co-59	<b>28-Ni-58</b>	28-Ni-62 >>
<< MT111 (d,2p)	<b>MT112 (d,p+α) or MT5 (Fe55 production)</b>	28-Ni-60 MT4 (d,n) >>



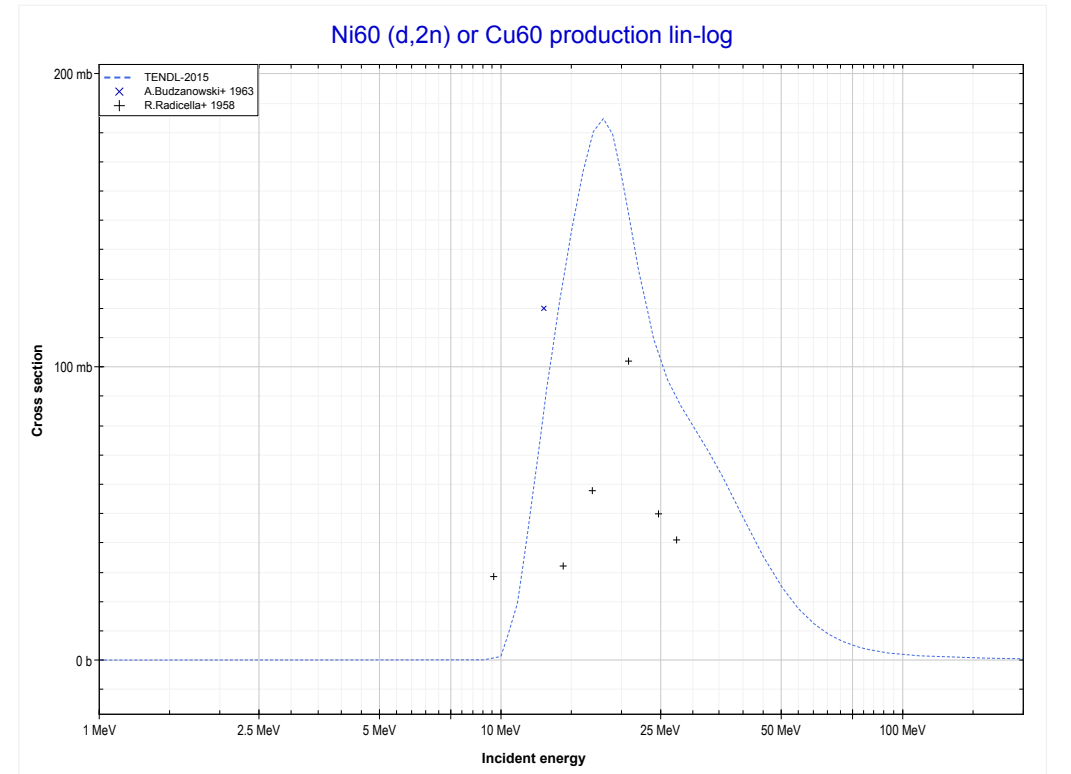
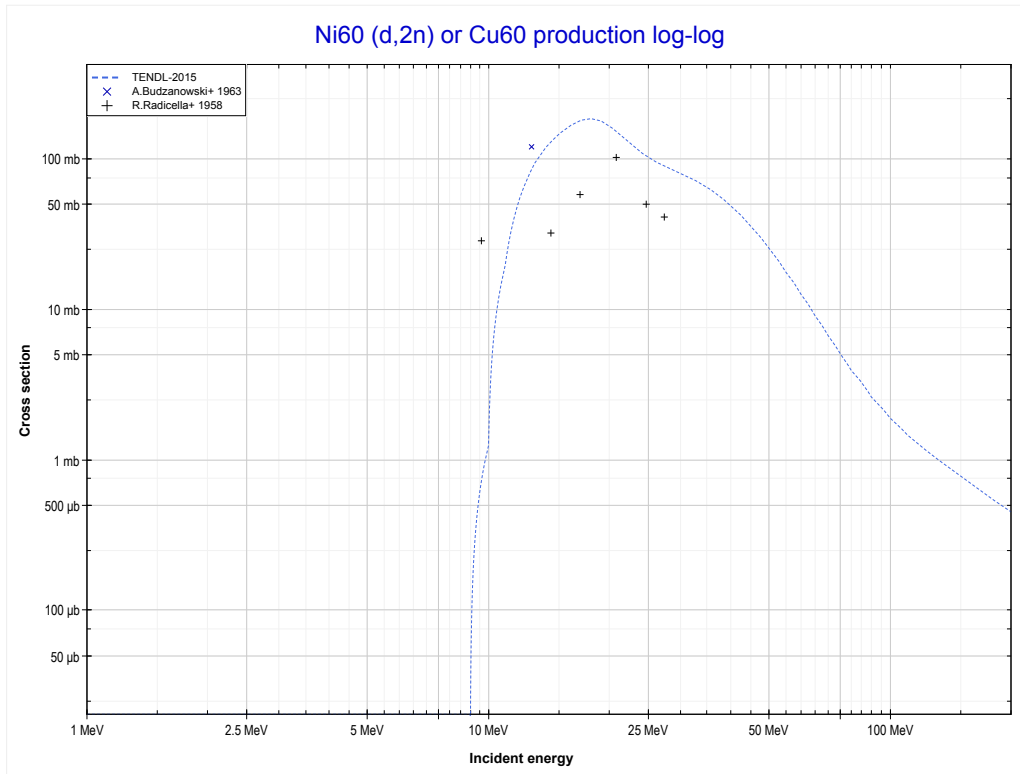
Reaction	Q-Value
Ni58(d,p+α)Fe55	674.24 keV
Ni58(d,d+He3)Fe55	-17678.82 keV
Ni58(d,2p+t)Fe55	-19139.63 keV
Ni58(d,n+p+He3)Fe55	-19903.38 keV
Ni58(d,p+2d)Fe55	-23172.29 keV
Ni58(d,n+2p+d)Fe55	-25396.86 keV
Ni58(d,2n+3p)Fe55	-27621.42 keV

<< 28-Ni-58	<b>28-Ni-60</b>	28-Ni-61 >>
<< 28-Ni-58 MT112 (d,p+α)	<b>MT4 (d,n) or MT5 (Cu61 production)</b>	MT16 (d,2n) >>



Reaction	Q-Value
Ni60(d,n)Cu61	2575.70 keV

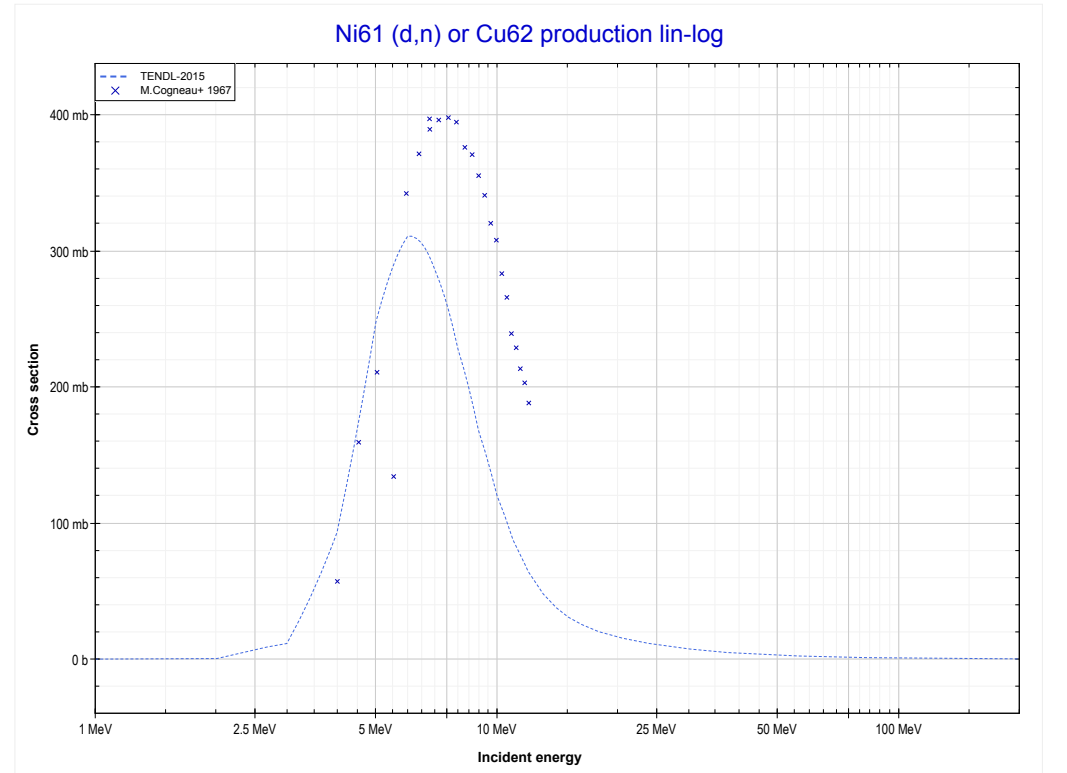
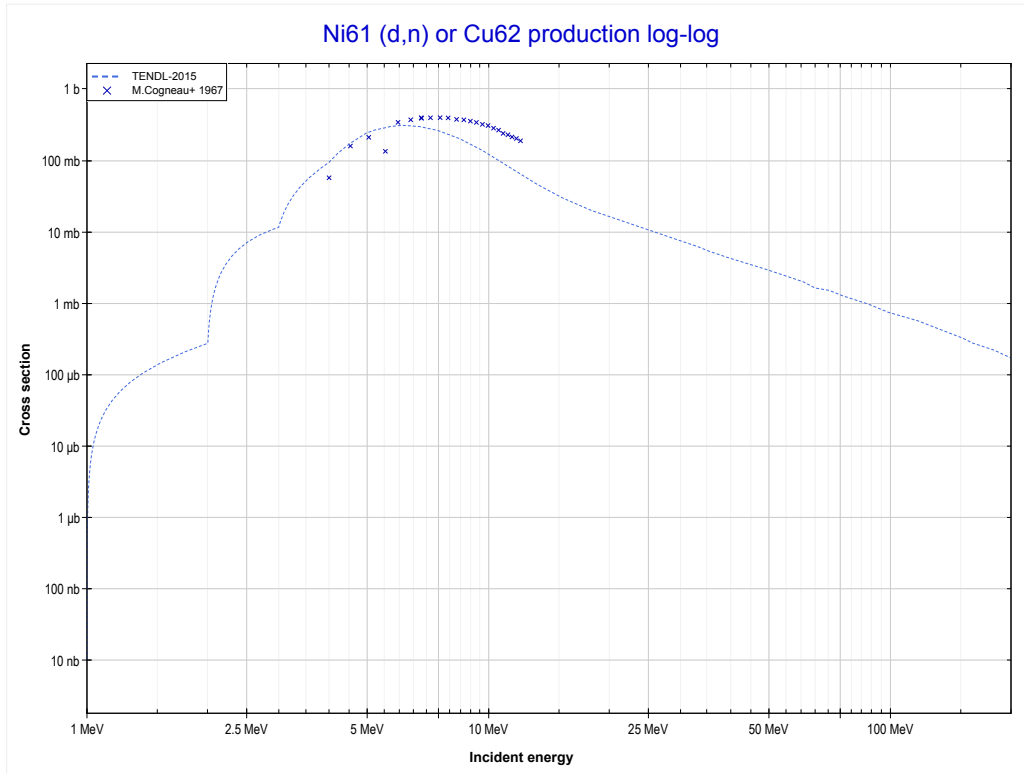
<< 26-Fe-56	<b>28-Ni-60</b>	28-Ni-62 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Cu60 production)</b>	28-Ni-61 MT4 (d,n) >>



Reaction	Q-Value
Ni60(d,2n)Cu60	-9134.81 keV

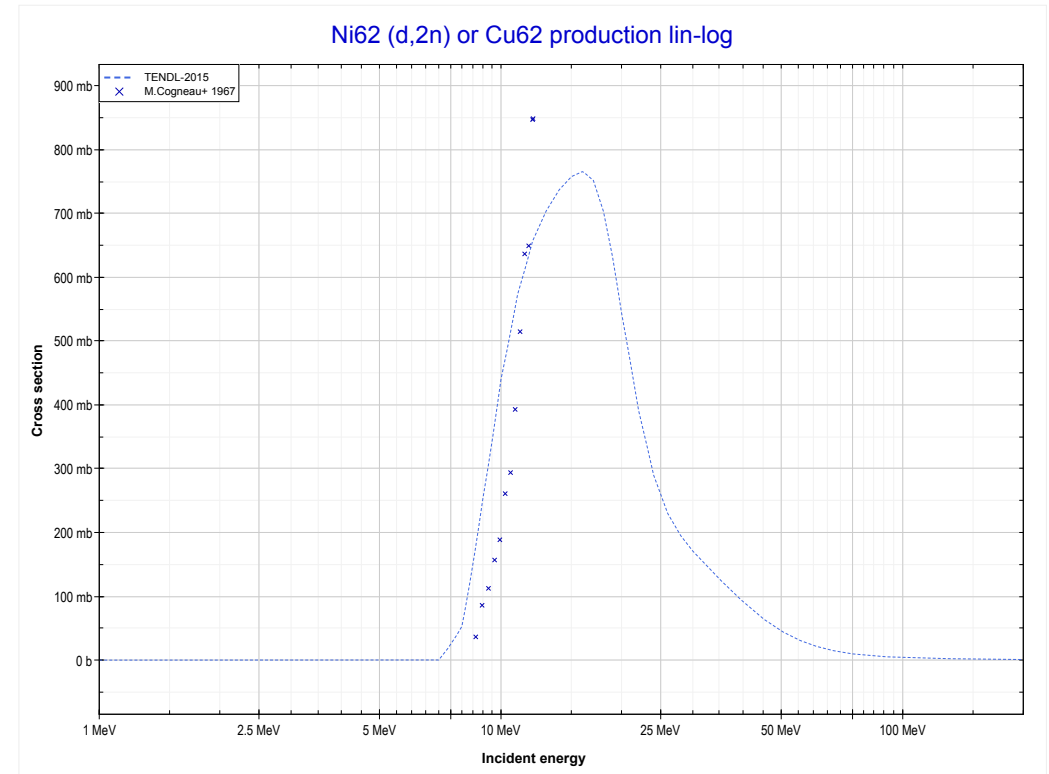
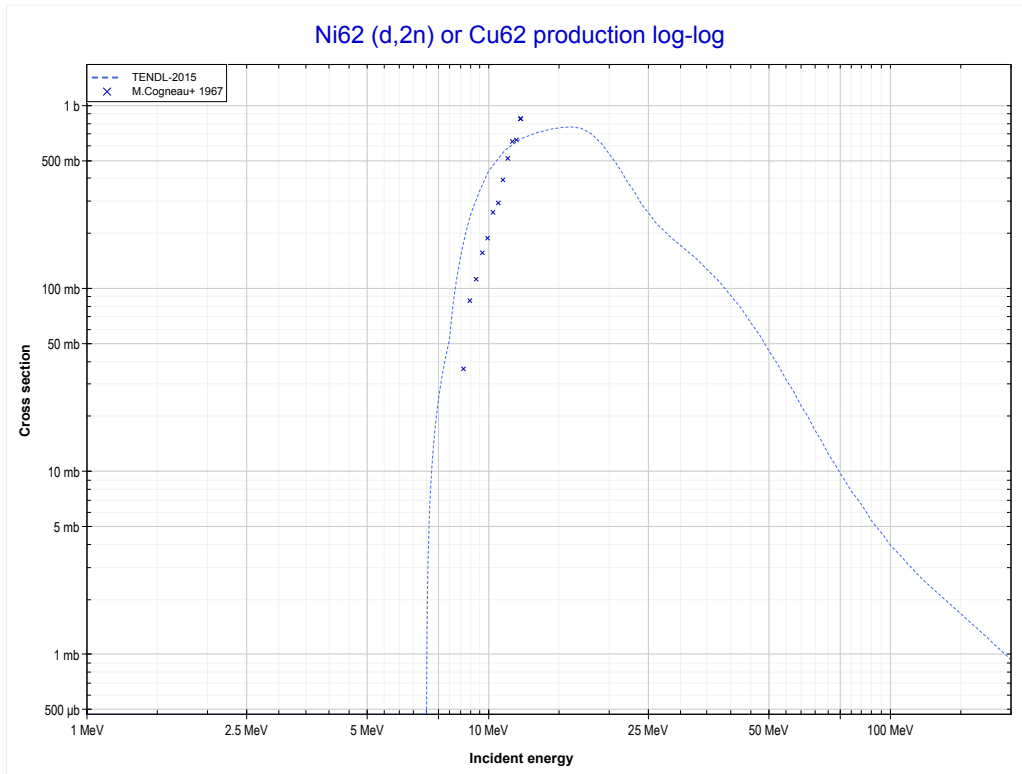


<< 28-Ni-60	<b>28-Ni-61</b>	30-Zn-64 >>
<< 28-Ni-60 MT16 (d,2n)	<b>MT4 (d,n) or MT5 (Cu62 production)</b>	28-Ni-62 MT16 (d,2n) >>



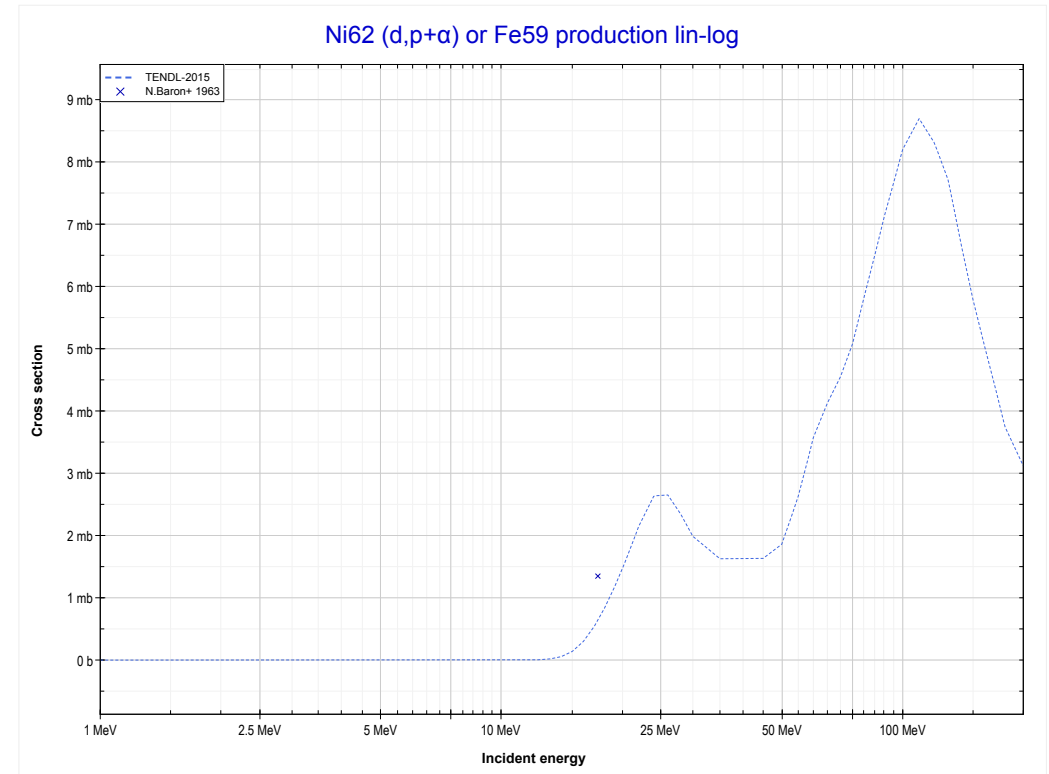
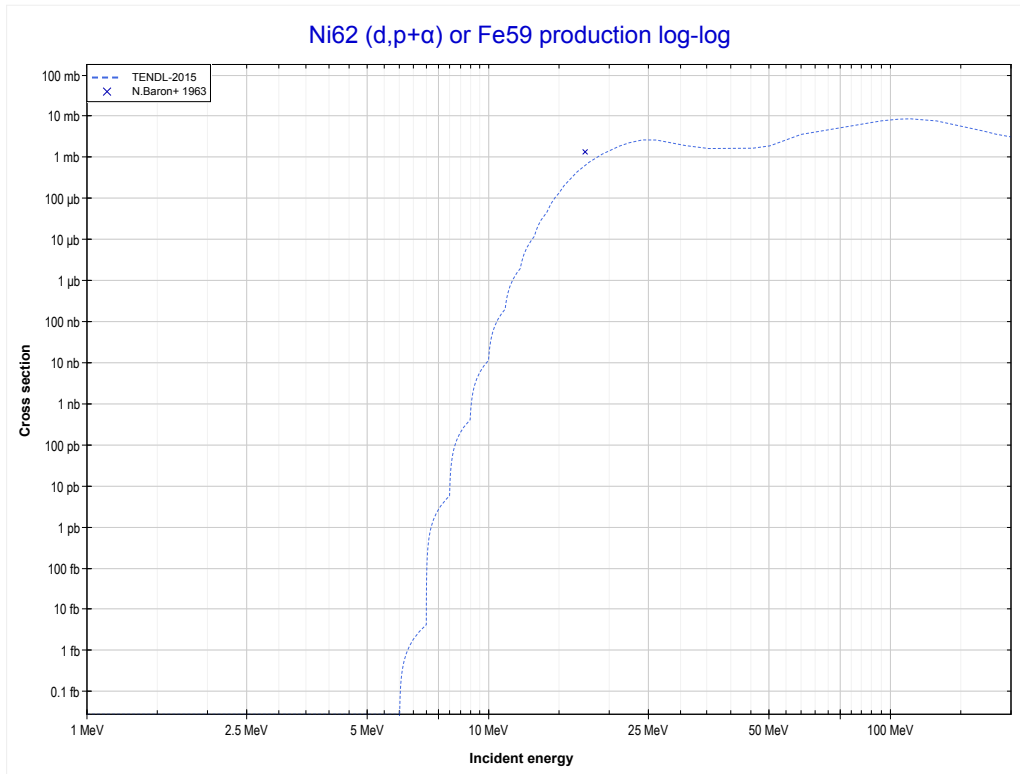
Reaction	Q-Value
Ni61(d,n)Cu62	3630.10 keV

<< 28-Ni-60	<b>28-Ni-62</b>	28-Ni-64 >>
<< 28-Ni-61 MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Cu62 production)</b>	MT112 (d,p+α) >>



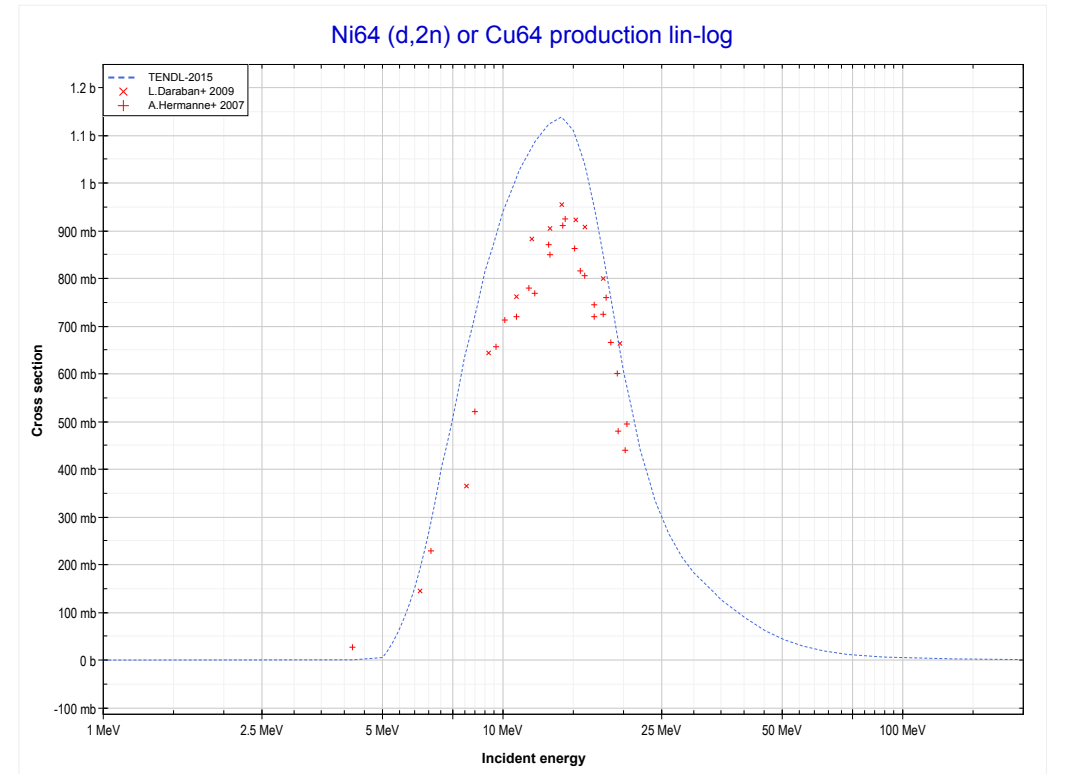
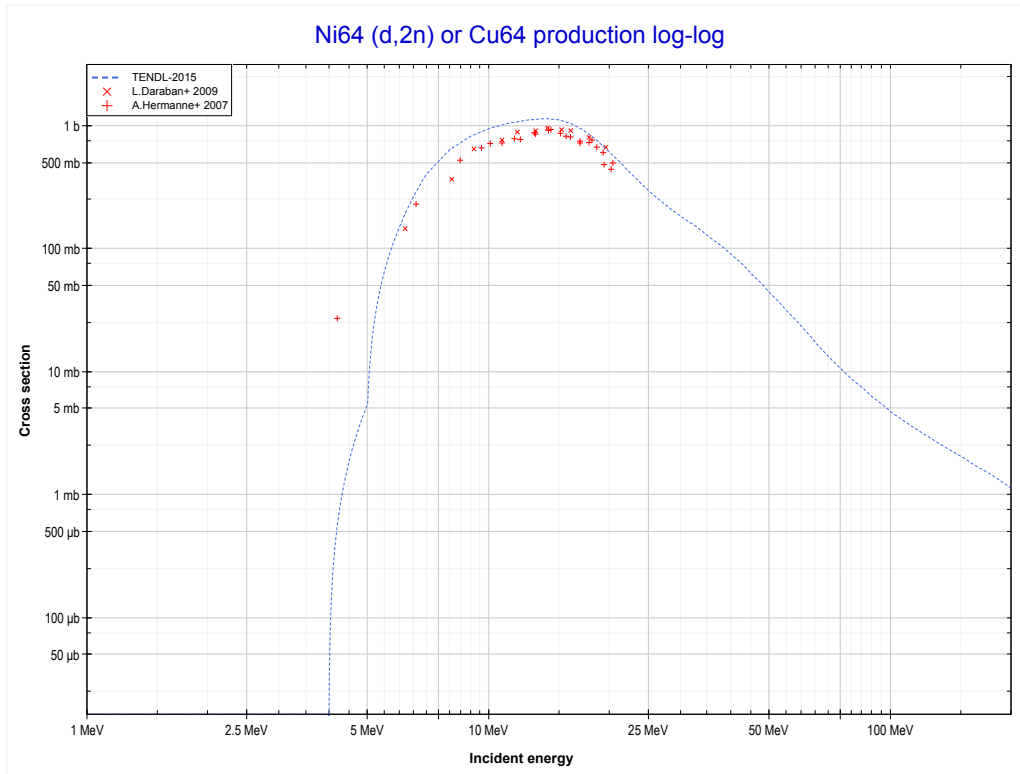
Reaction	Q-Value
Ni62(d,2n)Cu62	-6965.81 keV

<< 28-Ni-58	<b>28-Ni-62</b>	30-Zn-68 >>
<< MT16 (d,2n)	<b>MT112 (d,p+α) or MT5 (Fe59 production)</b>	28-Ni-64 MT16 (d,2n) >>



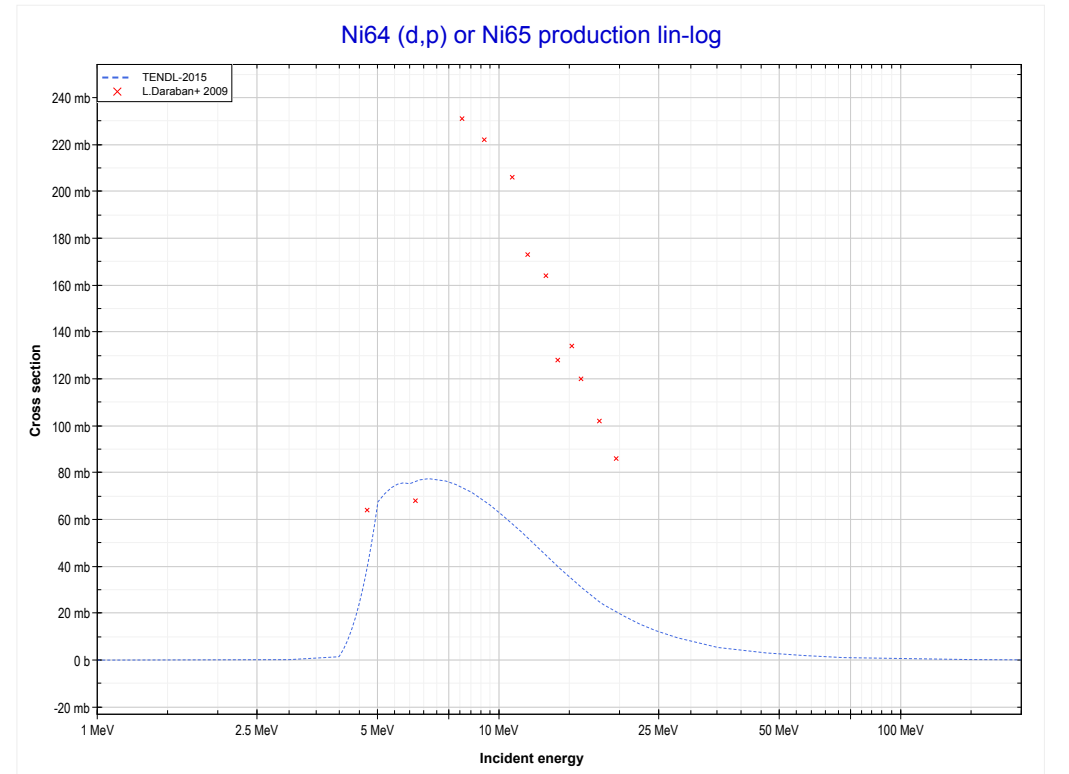
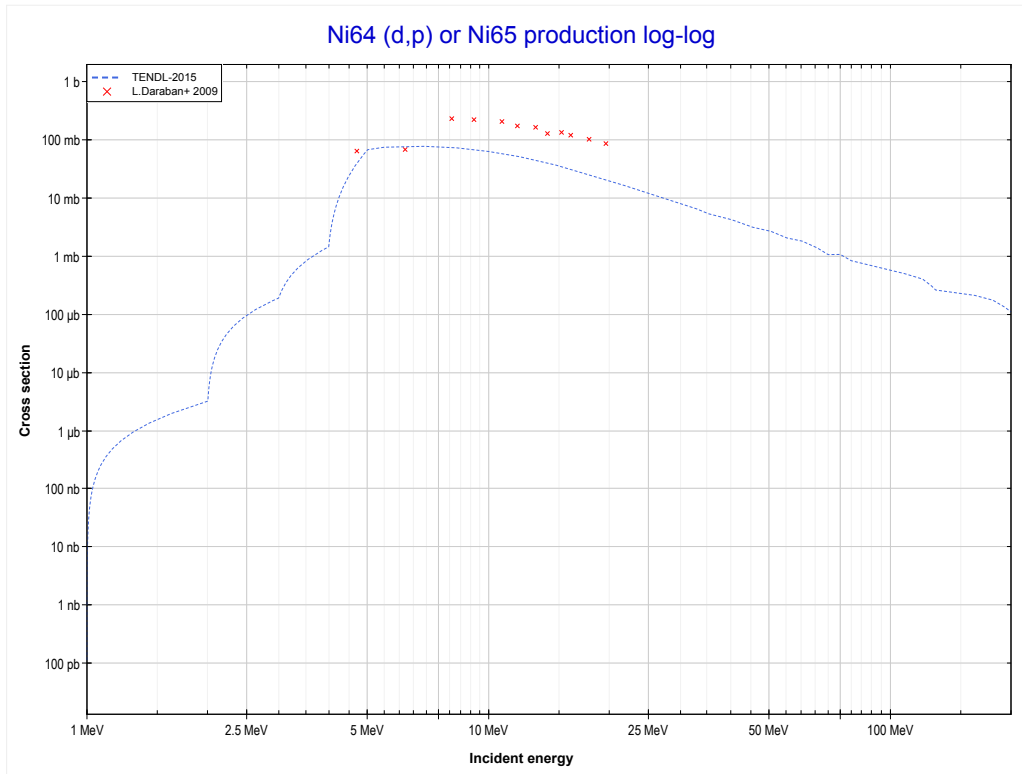
Reaction	Q-Value
Ni62(d,p+α)Fe59	-2659.86 keV
Ni62(d,d+He3)Fe59	-21012.92 keV
Ni62(d,2p+t)Fe59	-22473.73 keV
Ni62(d,n+p+He3)Fe59	-23237.48 keV
Ni62(d,p+2d)Fe59	-26506.39 keV
Ni62(d,n+2p+d)Fe59	-28730.96 keV
Ni62(d,2n+3p)Fe59	-30955.52 keV

<< 28-Ni-62	<b>28-Ni-64</b>	29-Cu-63 >>
<< 28-Ni-62 MT112 (d,p+α)	<b>MT16 (d,2n) or MT5 (Cu64 production)</b>	MT103 (d,p) >>



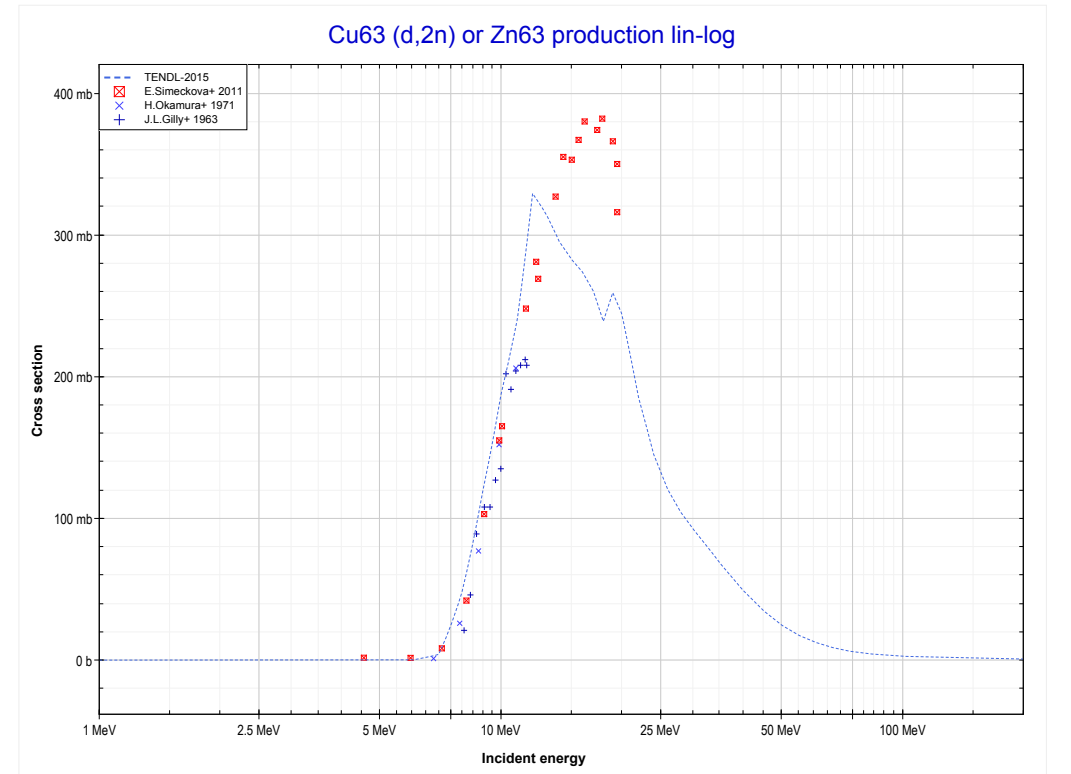
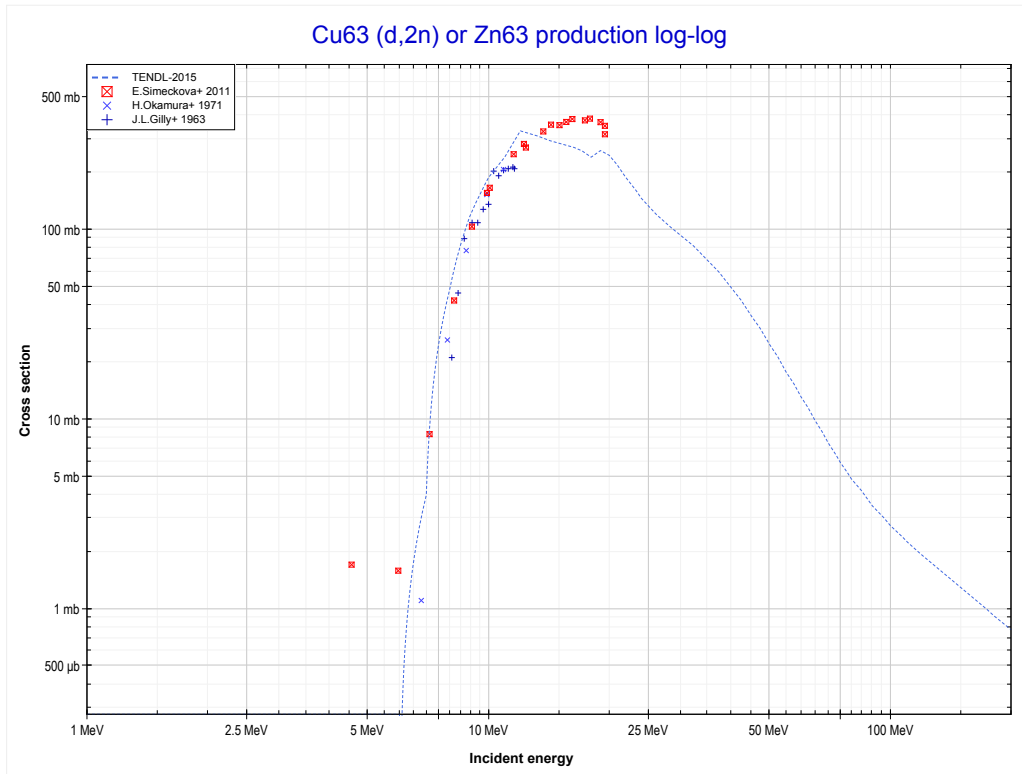
Reaction	Q-Value
Ni64(d,2n)Cu64	-4681.31 keV

<< 27-Co-59	<b>28-Ni-64</b>	29-Cu-63 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Ni65 production)</b>	29-Cu-63 MT16 (d,2n) >>



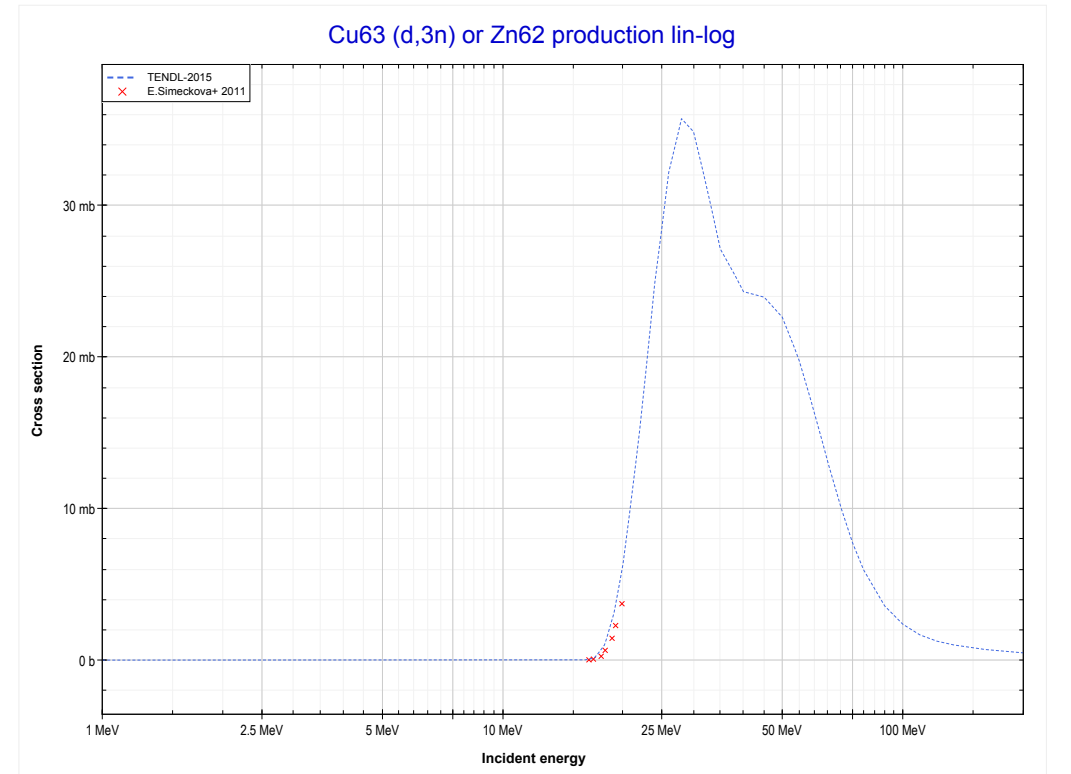
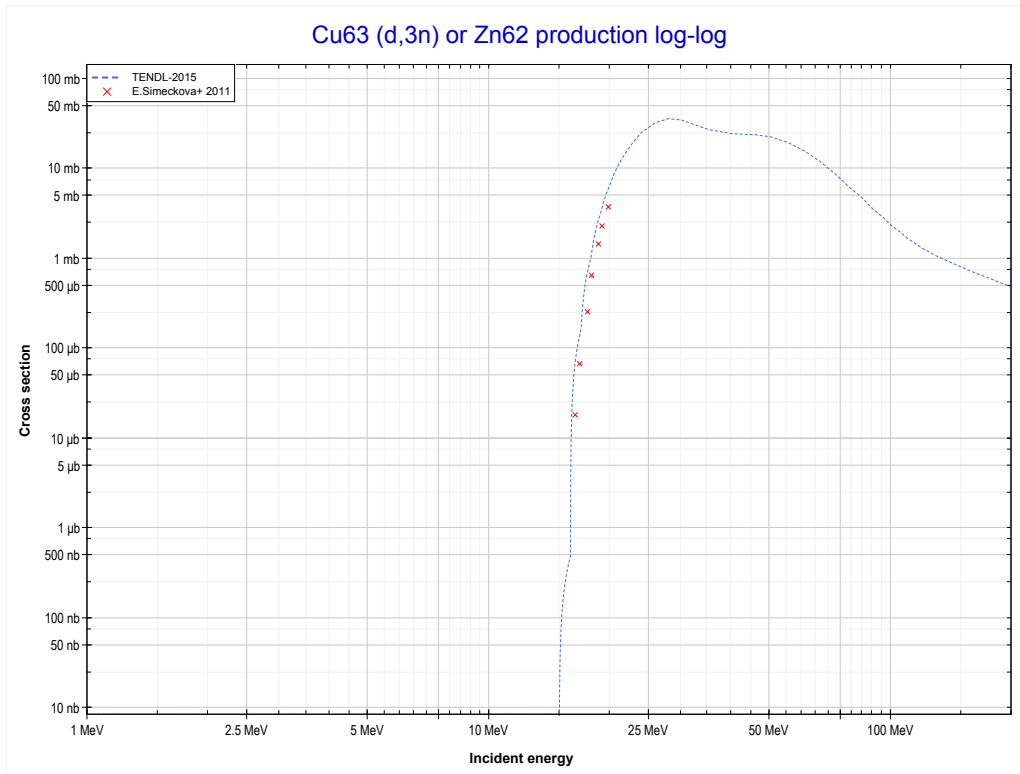
Reaction	Q-Value
Ni64(d,p)Ni65	3873.45 keV

<< 28-Ni-64	<b>29-Cu-63</b>	29-Cu-65 >>
<< 28-Ni-64 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (Zn63 production)</b>	MT17 (d,3n) >>



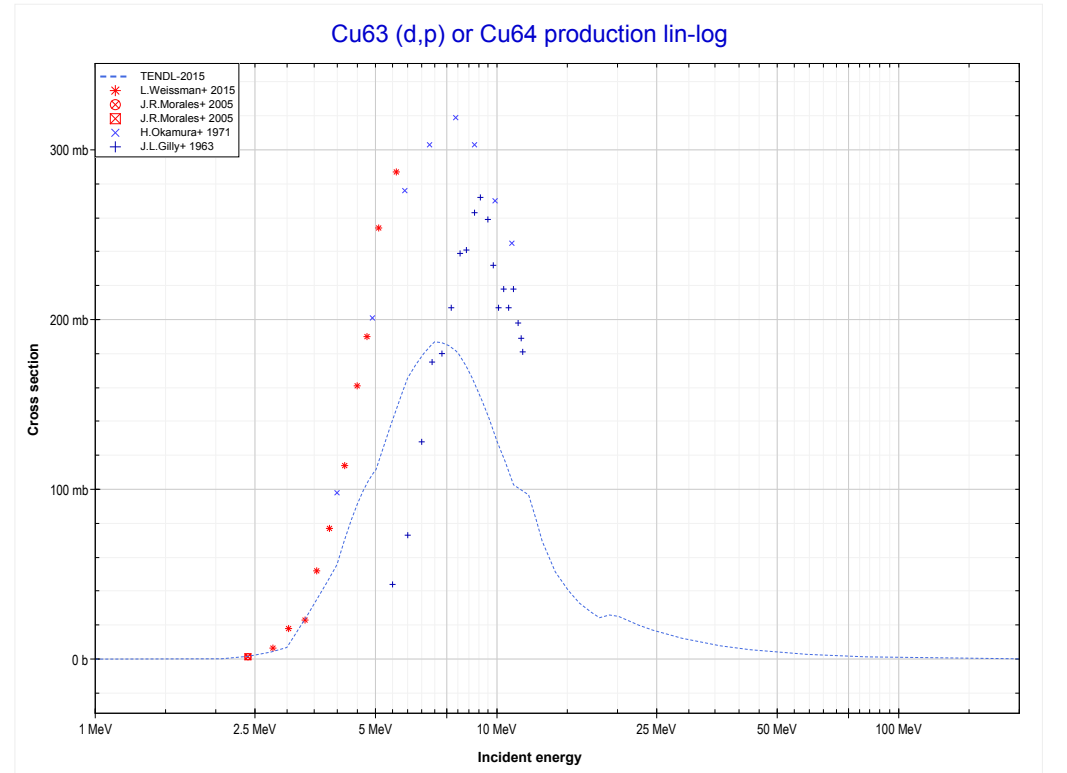
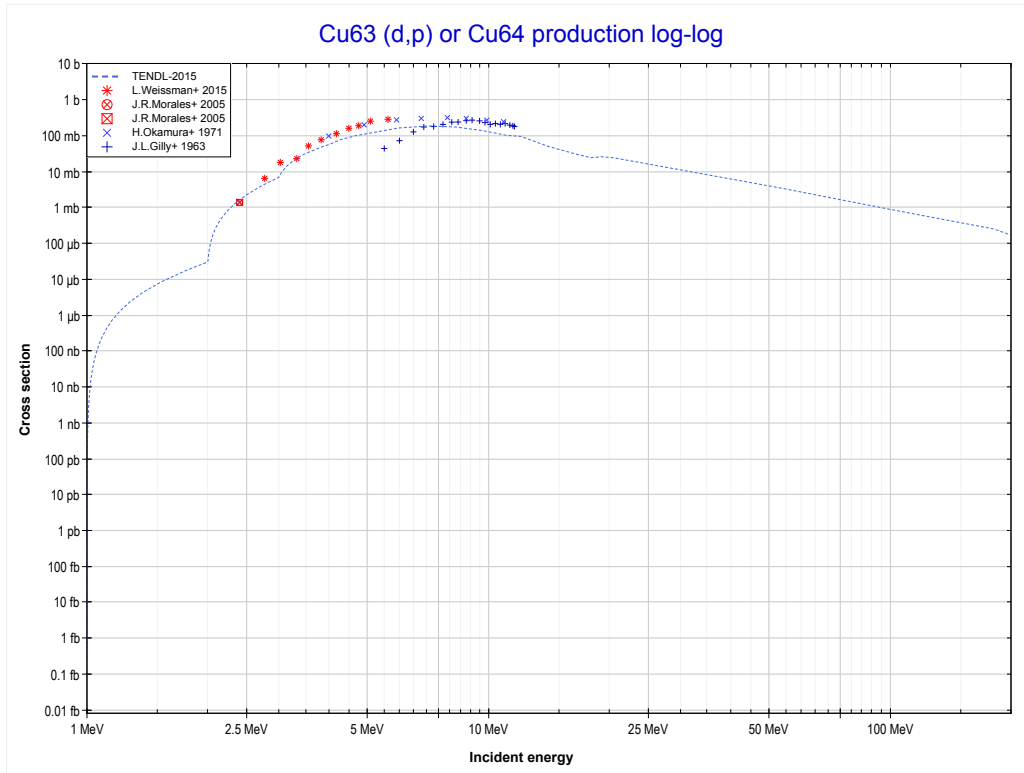
Reaction	Q-Value
Cu63(d,2n)Zn63	-6373.11 keV

<< 21-Sc-45	<b>29-Cu-63</b>	30-Zn-66 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Zn62 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Cu63(d,3n)Zn62	-15490.03 keV

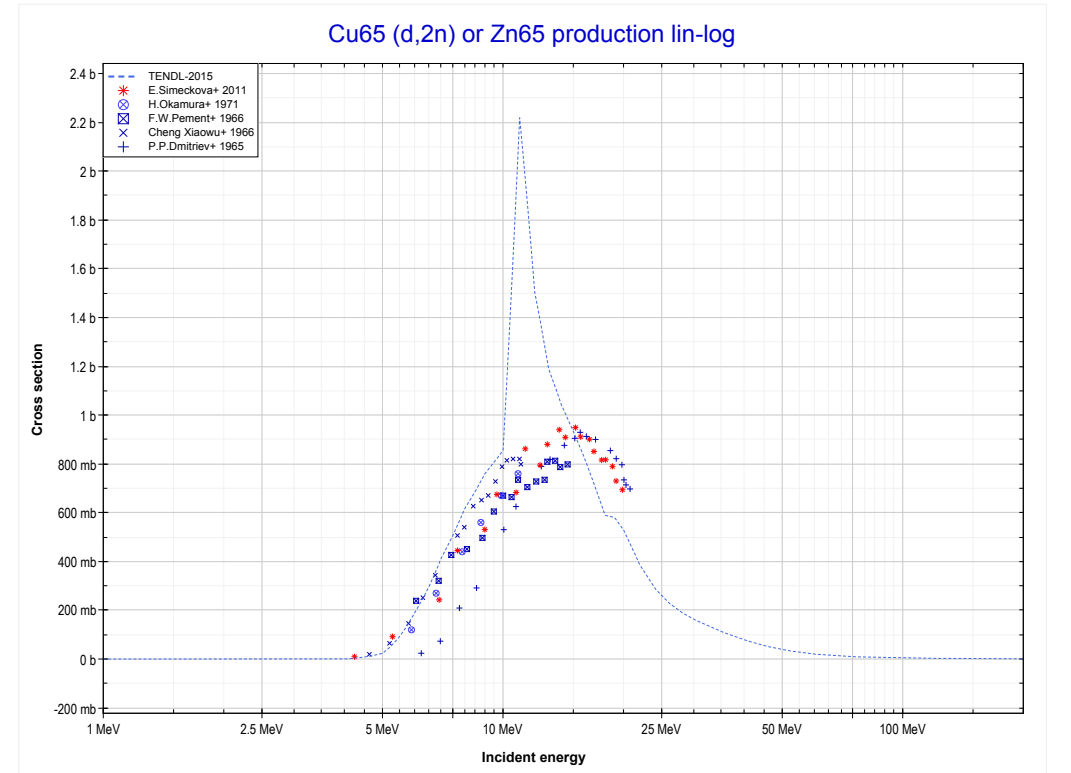
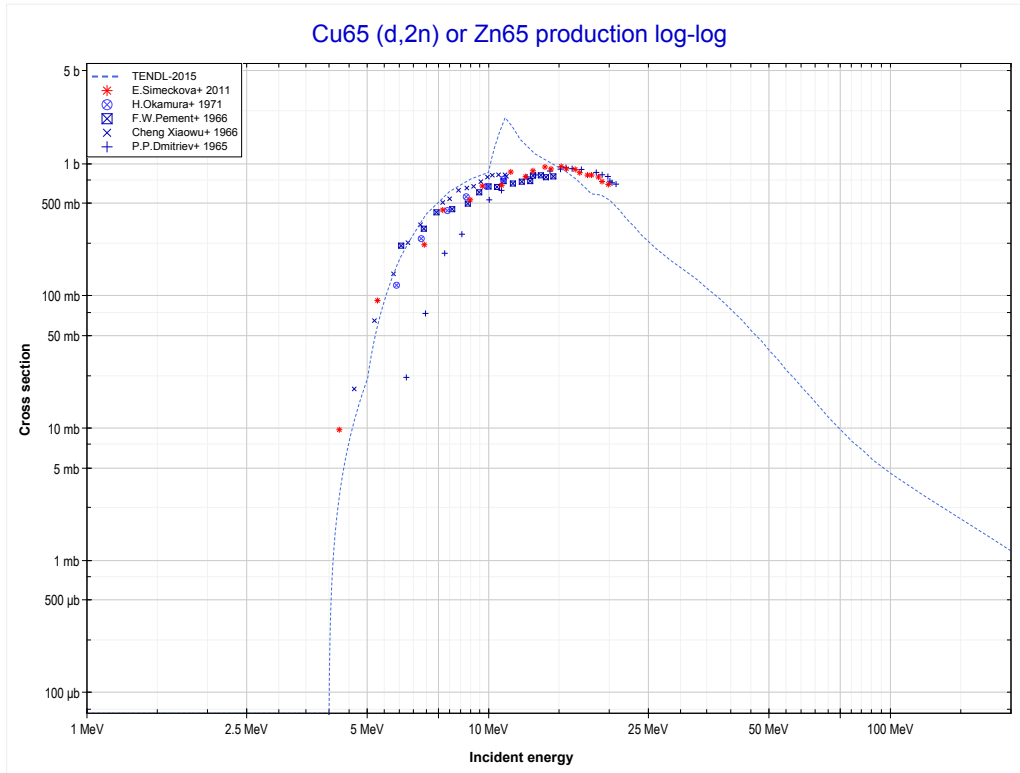
<< 28-Ni-64	<b>29-Cu-63</b>	29-Cu-65 >>
<< MT17 (d,3n)	<b>MT103 (d,p) or MT5 (Cu64 production)</b>	29-Cu-65 MT16 (d,2n) >>



Reaction	Q-Value
Cu63(d,p)Cu64	5691.55 keV

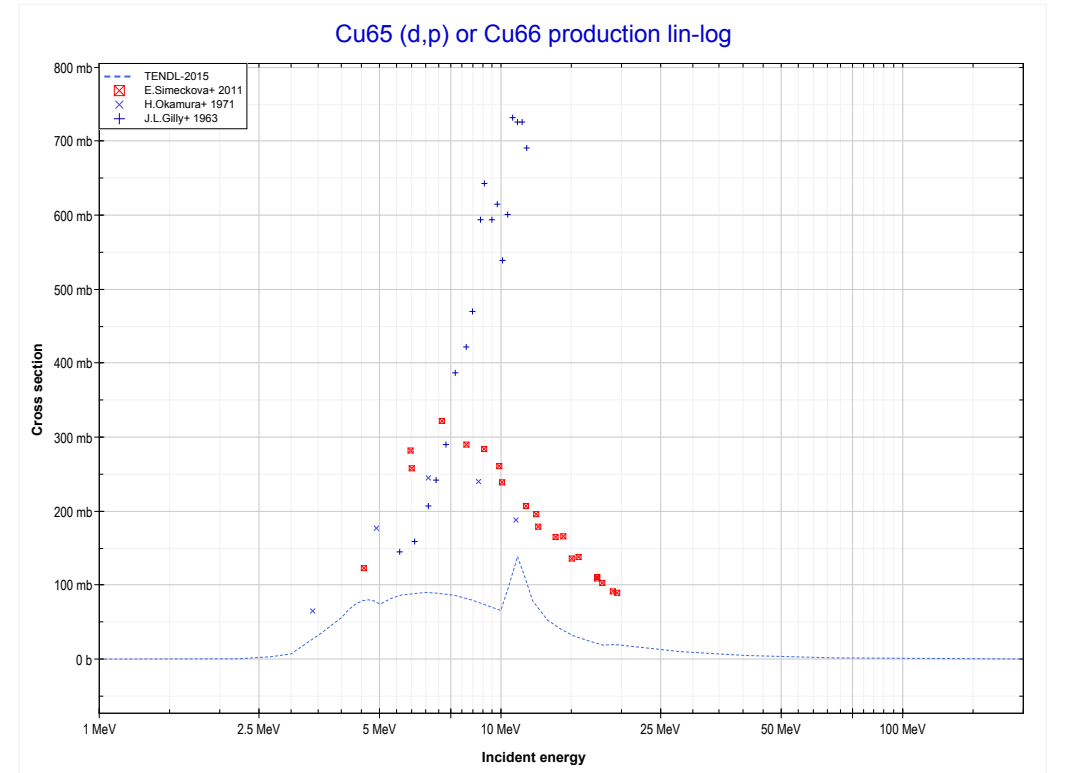
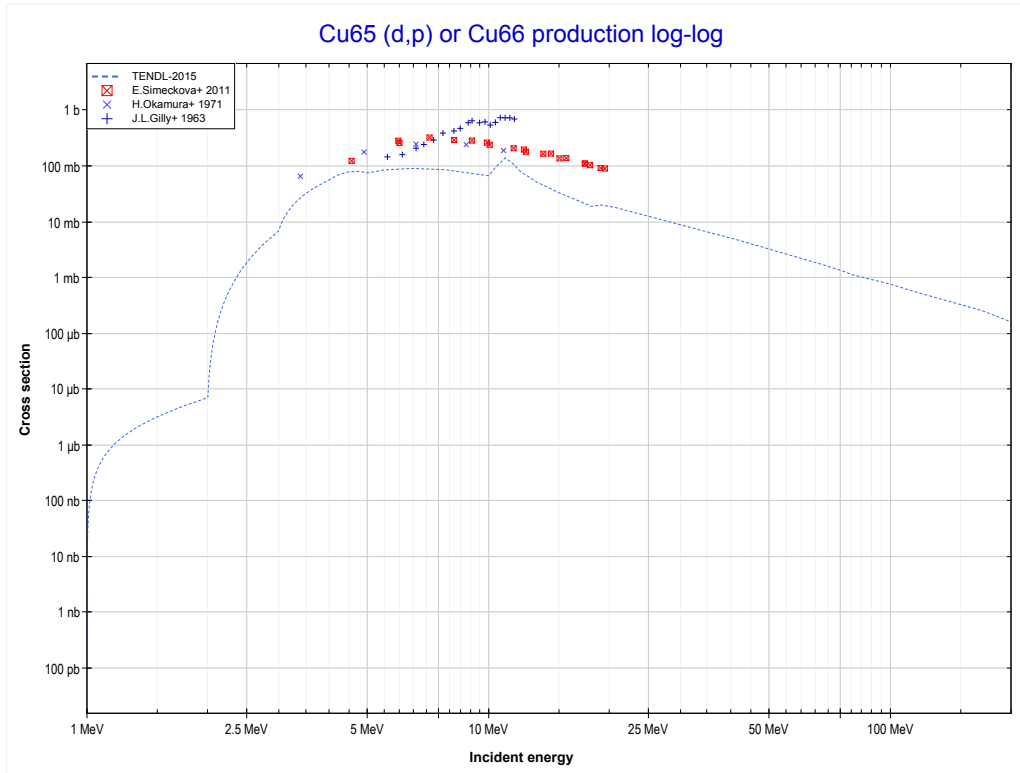


<< 29-Cu-63	<b>29-Cu-65</b>	30-Zn-64 >>
<< 29-Cu-63 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (Zn65 production)</b>	MT103 (d,p) >>



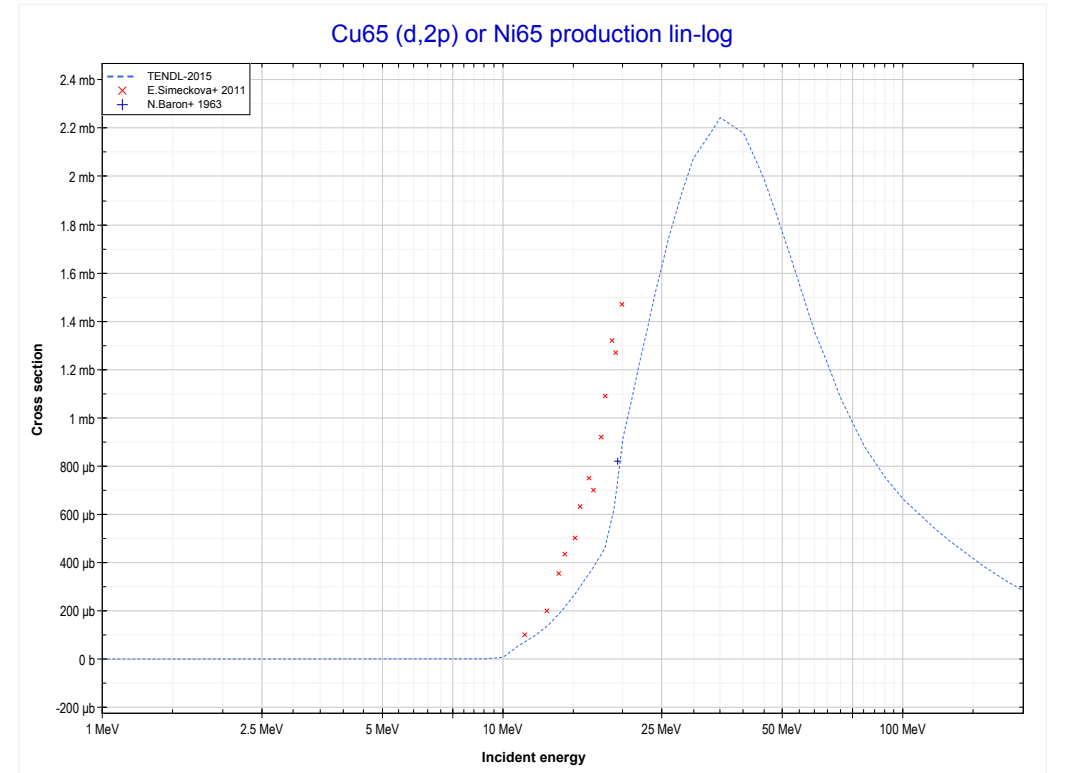
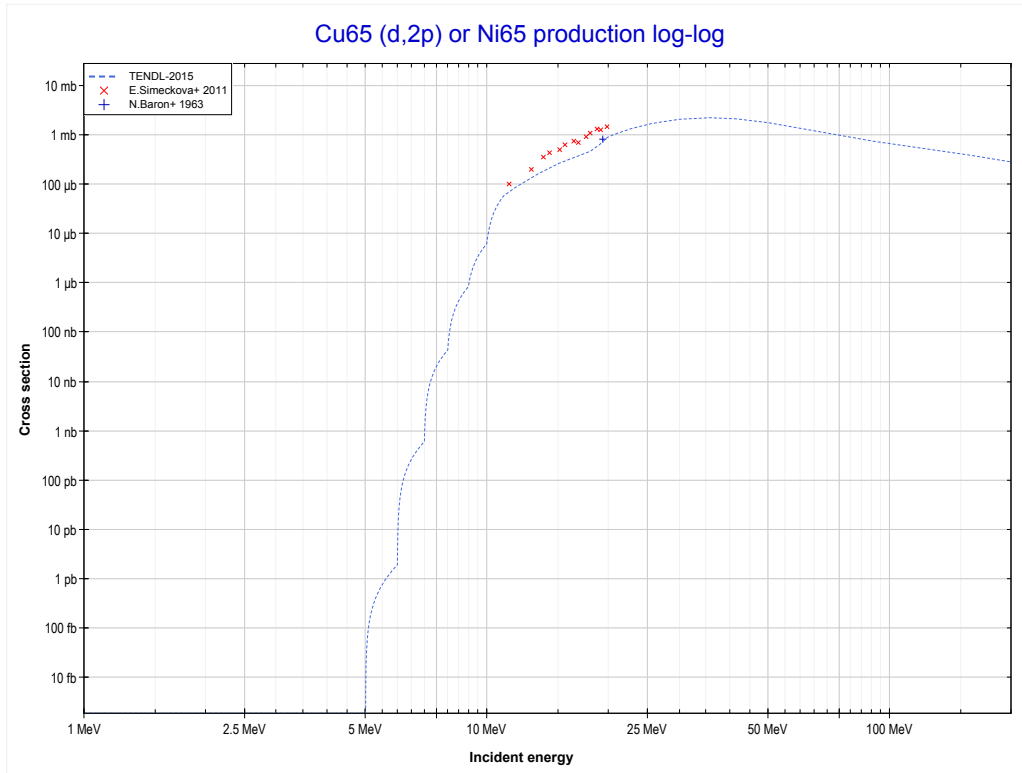
Reaction	Q-Value
Cu65(d,2n)Zn65	-4358.61 keV

<< 29-Cu-63	<b>29-Cu-65</b>	30-Zn-68 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Cu66 production)</b>	MT111 (d,2p) >>



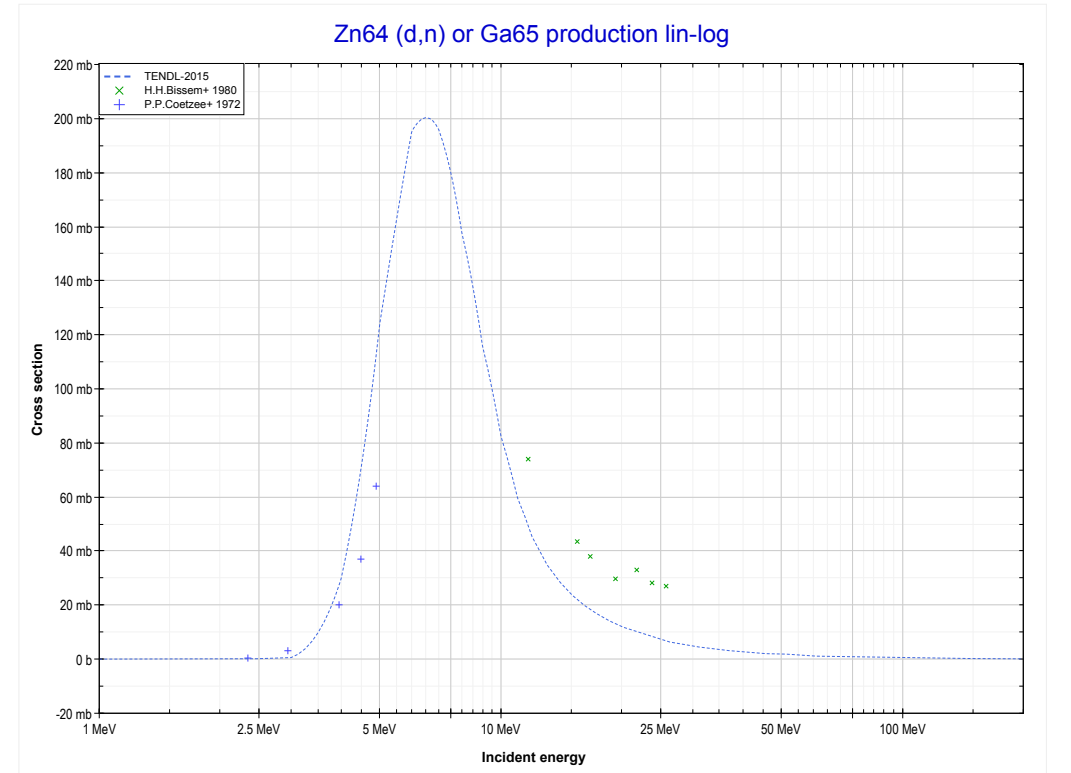
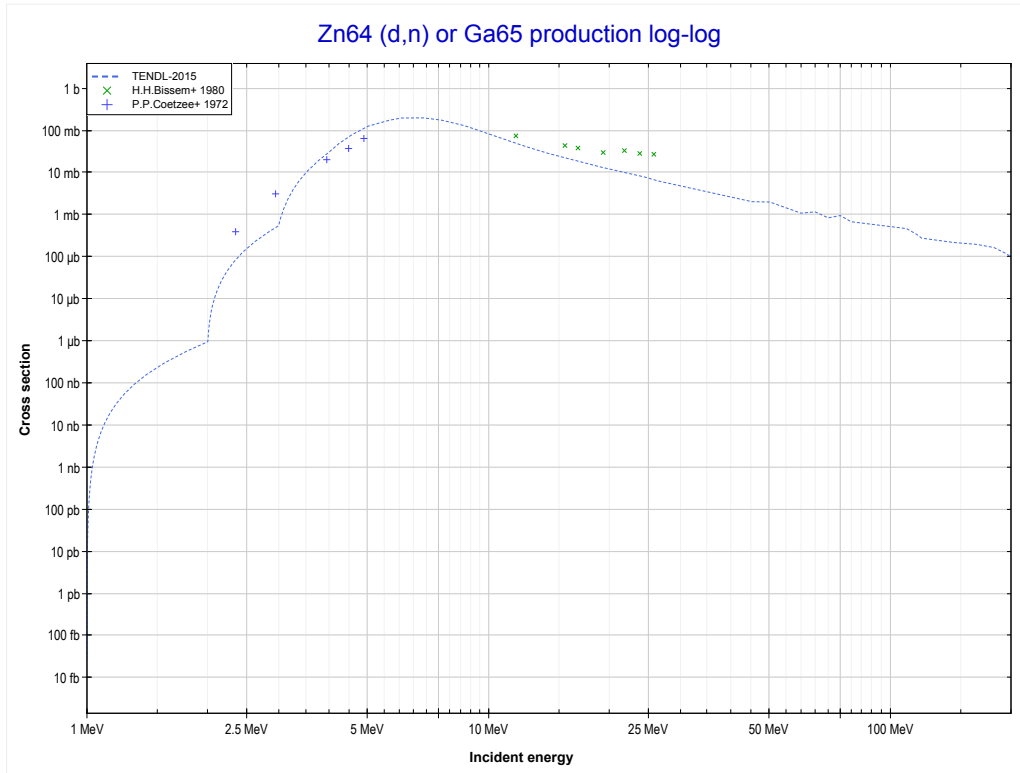
Reaction	Q-Value
Cu65(d,p)Cu66	4841.35 keV

<< 28-Ni-58	<b>29-Cu-65</b>	30-Zn-64 >>
<< MT103 (d,p)	<b>MT111 (d,2p) or MT5 (Ni65 production)</b>	30-Zn-64 MT4 (d,n) >>



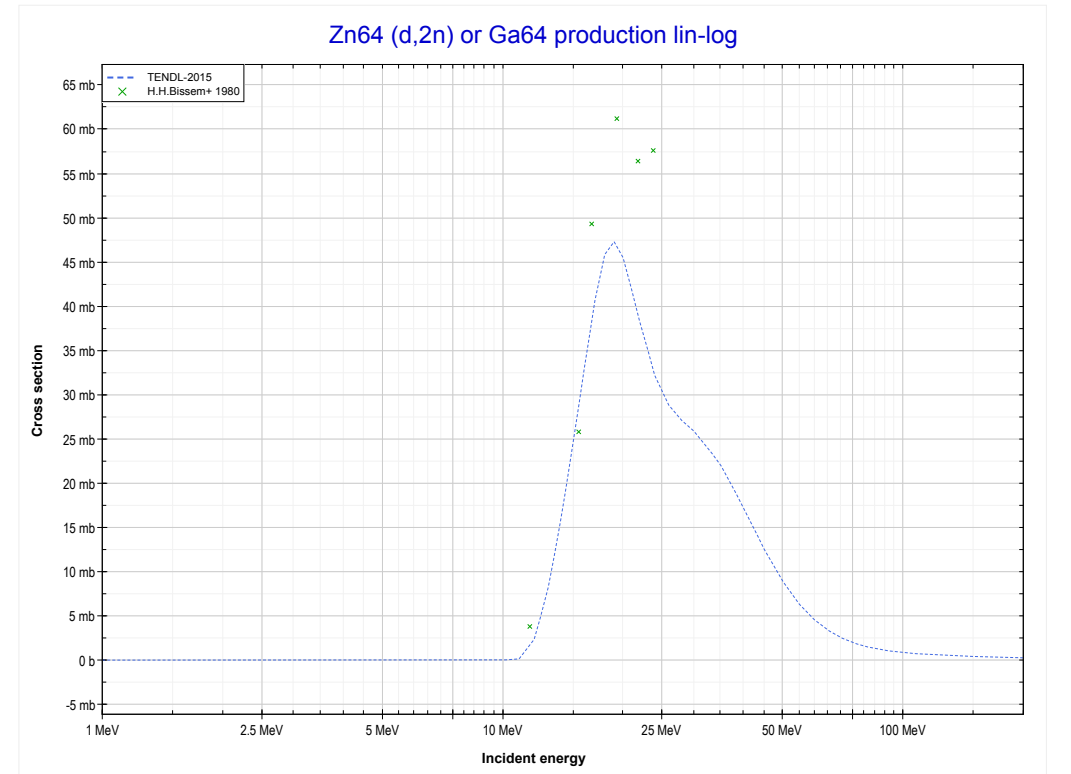
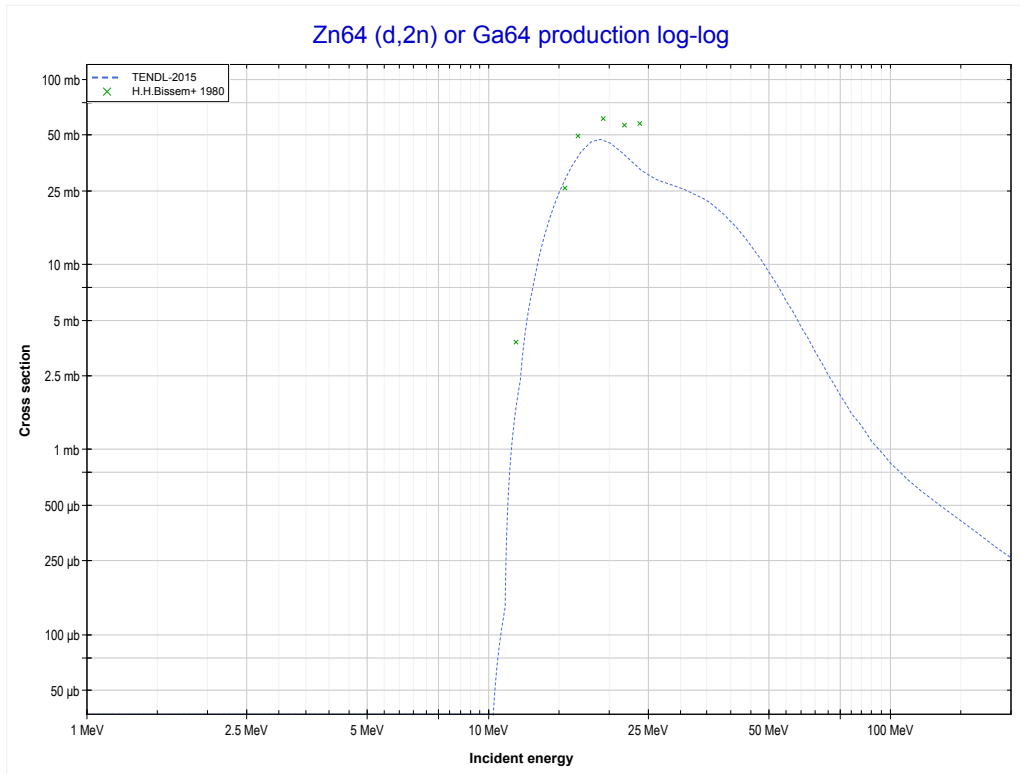
Reaction	Q-Value
Cu65(d,2p)Ni65	-3580.52 keV

<< 28-Ni-61	<b>30-Zn-64</b>	30-Zn-66 >>
<< 29-Cu-65 MT111 (d,2p)	<b>MT4 (d,n) or MT5 (Ga65 production)</b>	MT16 (d,2n) >>



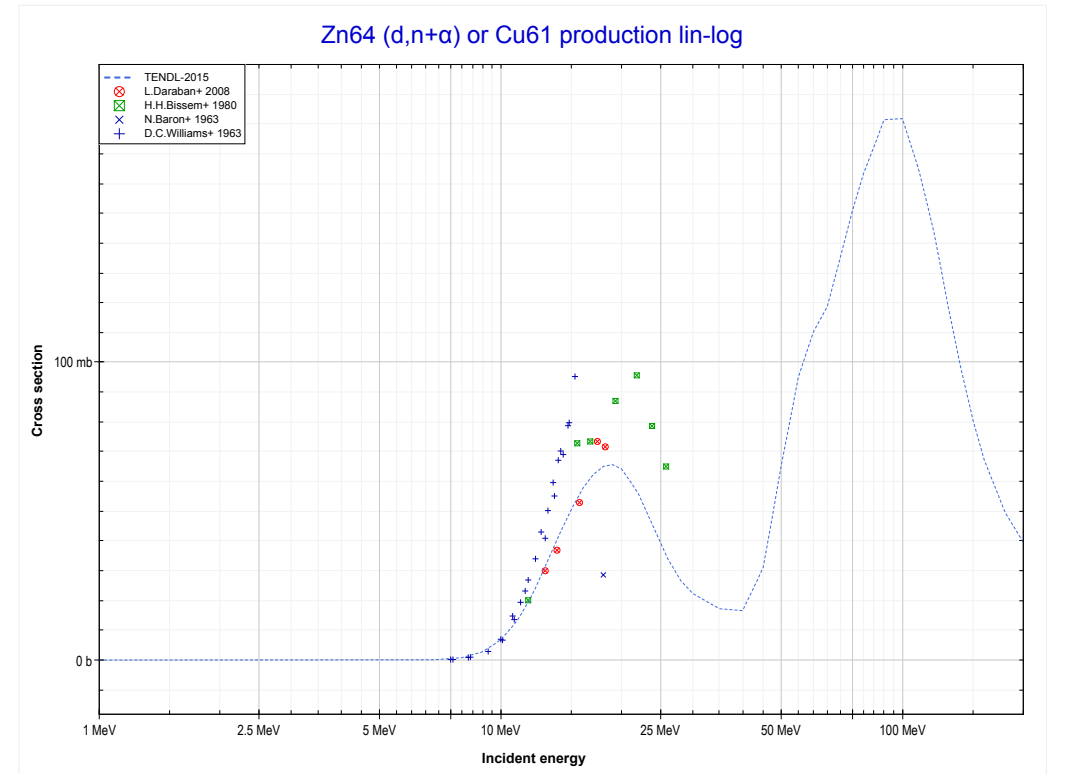
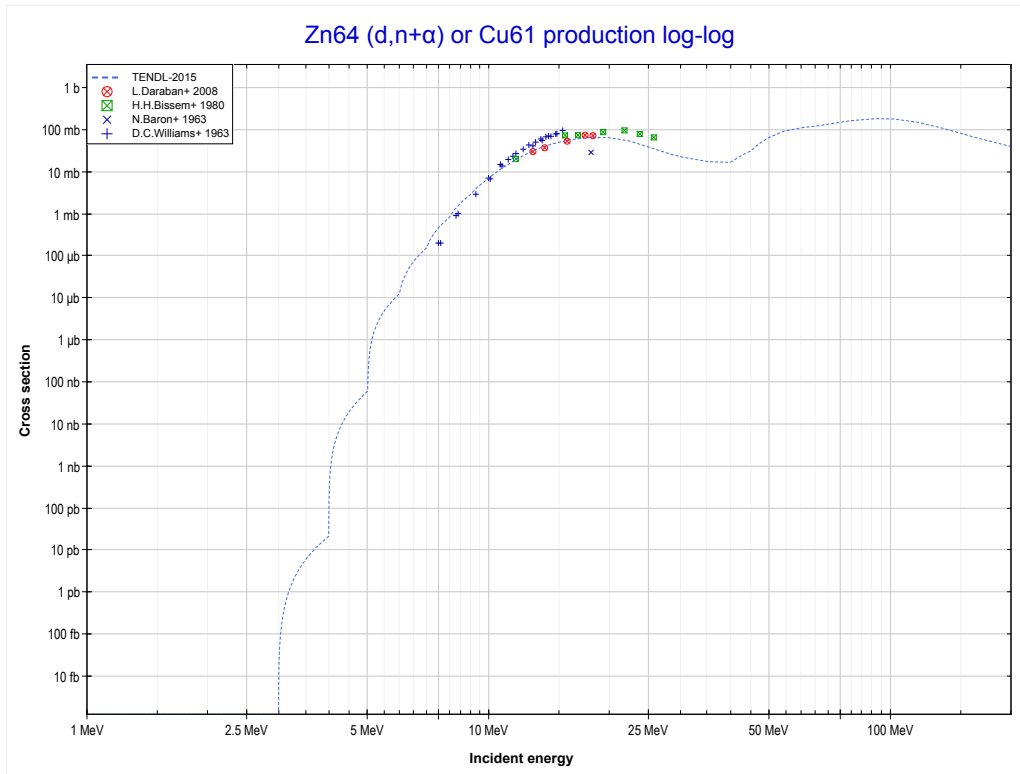
Reaction	Q-Value
Zn64(d,n)Ga65	1717.90 keV

<< 29-Cu-65	<b>30-Zn-64</b>	30-Zn-66 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Ga64 production)</b>	MT22 (d,n+α) >>



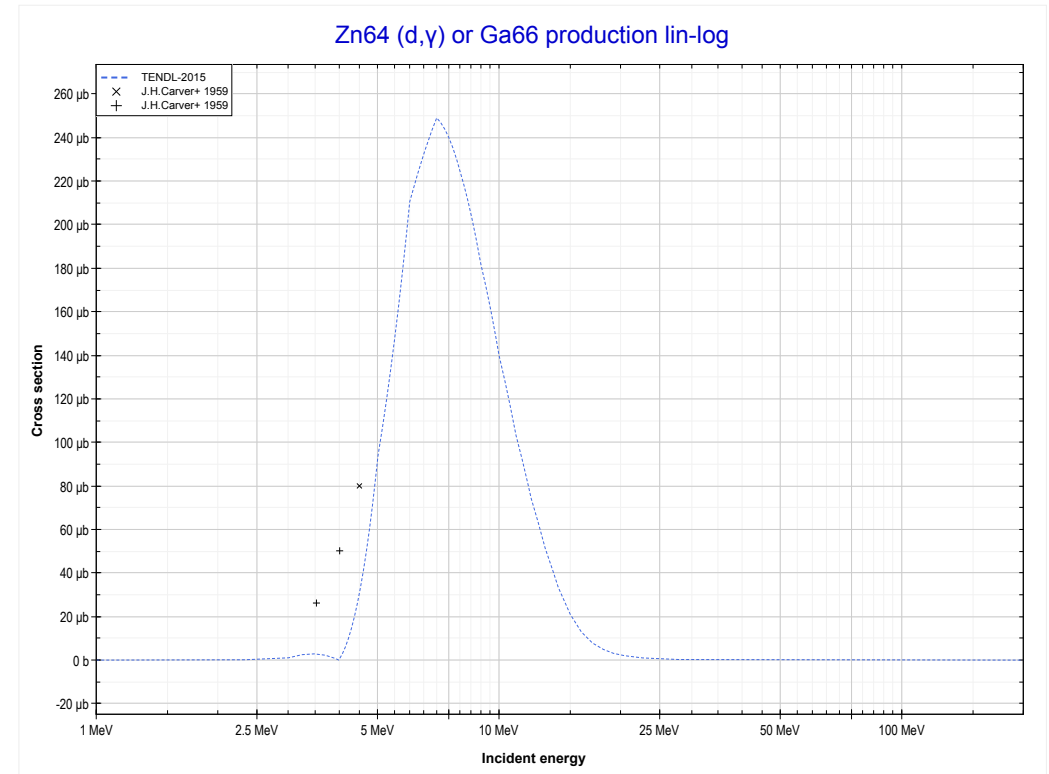
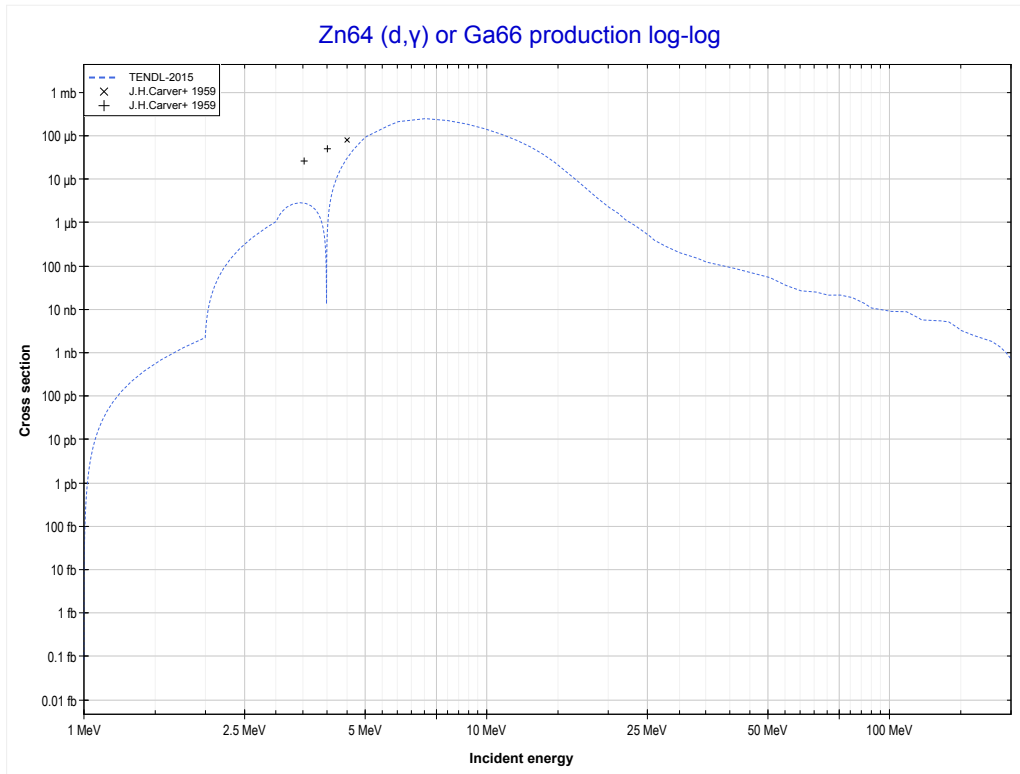
Reaction	Q-Value
Zn64(d,2n)Ga64	-10177.91 keV

<< 28-Ni-58	<b>30-Zn-64</b>	30-Zn-67 >>
<< MT16 (d,2n)	<b>MT22 (d,n+α) or MT5 (Cu61 production)</b>	MT102 (d,γ) >>



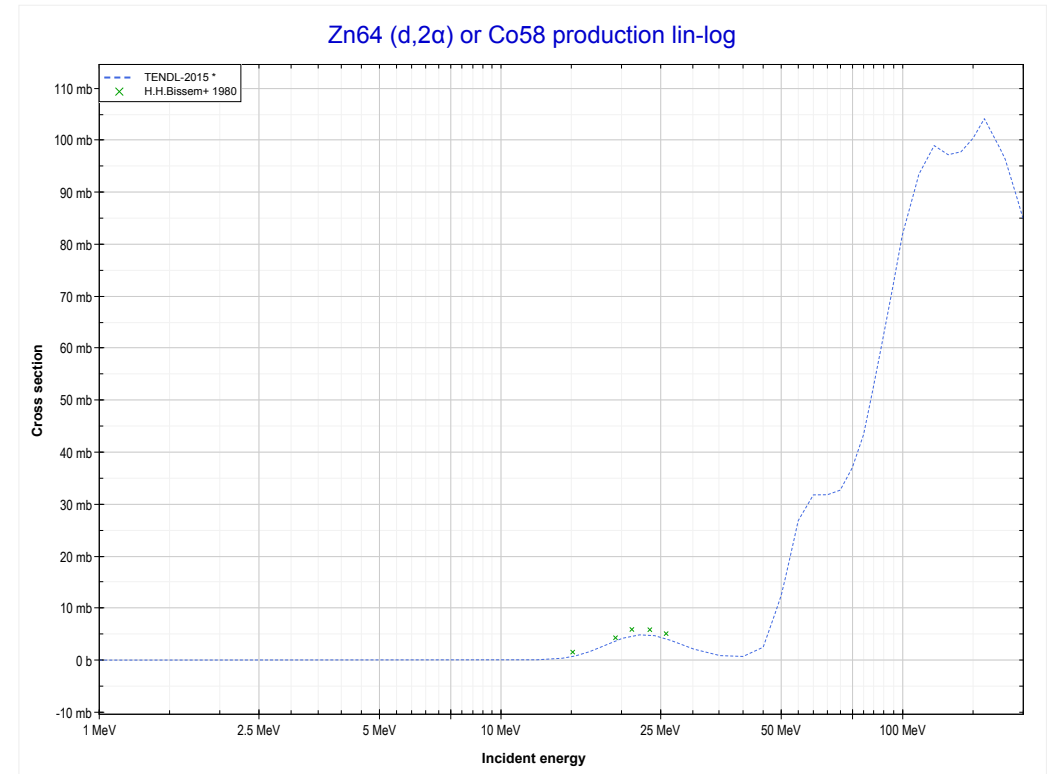
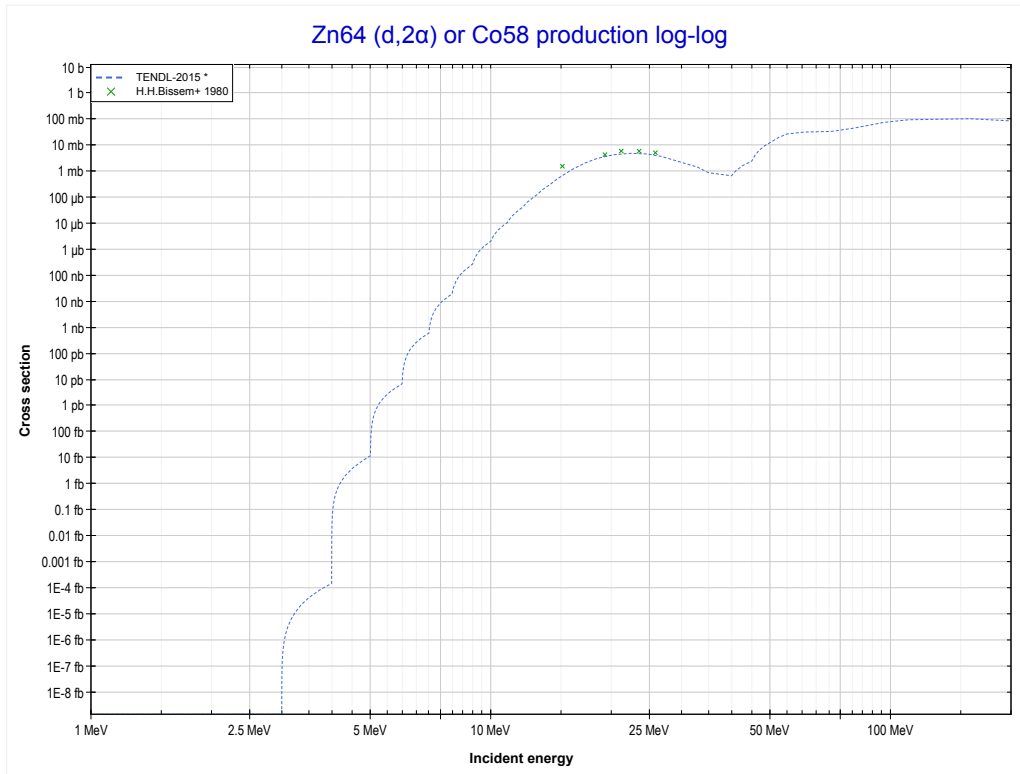
Reaction	Q-Value
Zn64(d,n+α)Cu61	-1380.51 keV
Zn64(d,d+t)Cu61	-18969.81 keV
Zn64(d,n+p+t)Cu61	-21194.37 keV
Zn64(d,2n+He3)Cu61	-21958.13 keV
Zn64(d,n+2d)Cu61	-25227.04 keV
Zn64(d,2n+p+d)Cu61	-27451.60 keV
Zn64(d,3n+2p)Cu61	-29676.17 keV

<< 28-Ni-58	<b>30-Zn-64</b>	
<< MT22 (d,n+α)	<b>MT102 (d,γ) or MT5 (Ga66 production)</b>	MT108 (d,2α) >>



Reaction	Q-Value
Zn64(d,γ)Ga66	10855.92 keV

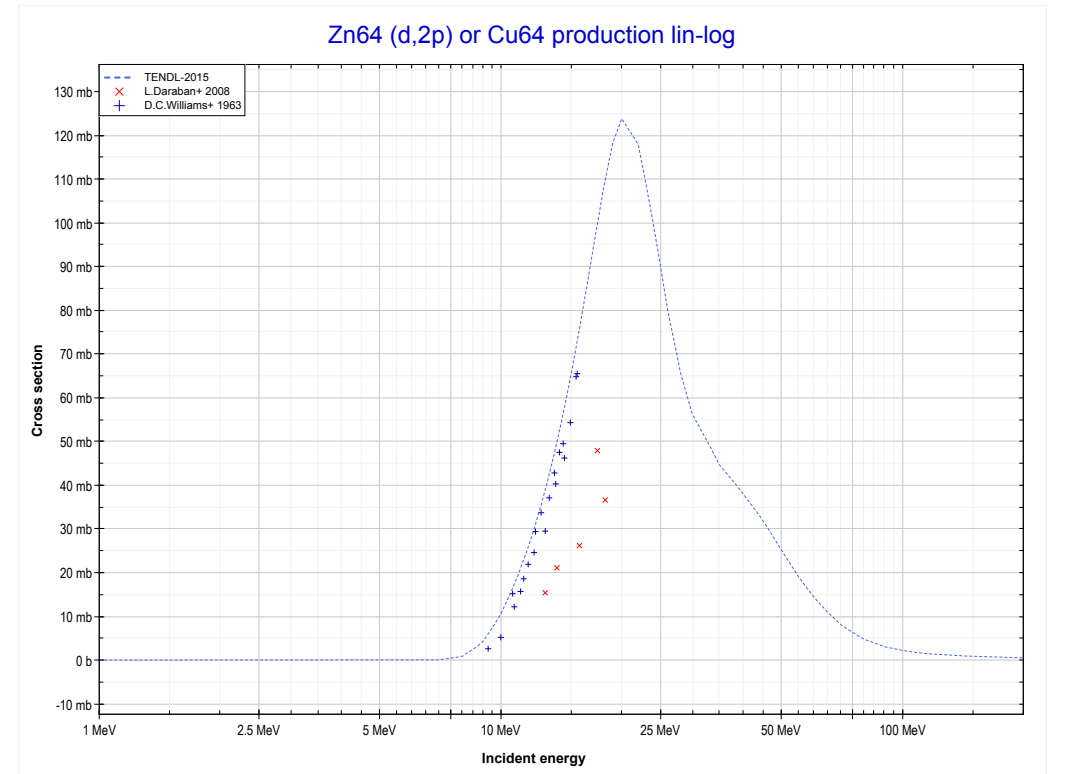
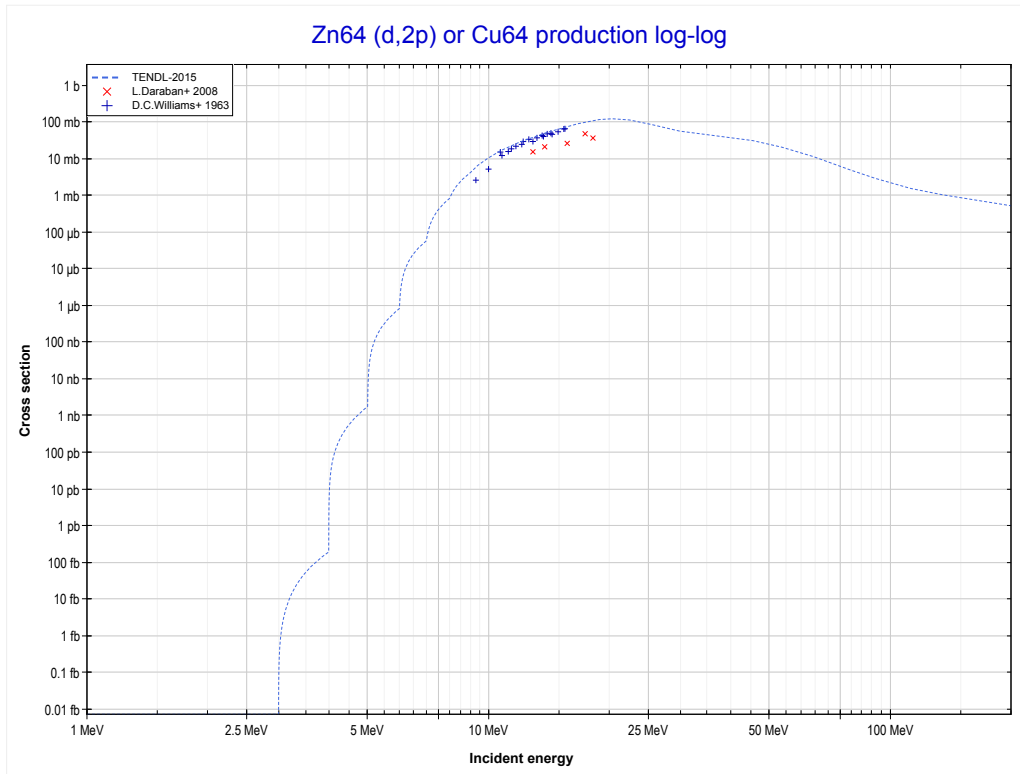
	<b>30-Zn-64</b>	
<< MT102 (d, $\gamma$ )	<b>MT108 (d,2<math>\alpha</math>) or MT5 (Co58 production)</b>	MT111 (d,2p) >>



Reaction	Q-Value	Reaction	Q-Value
Zn64(d,2 $\alpha$ )Co58	2128.69 keV	Zn64(d,n+p+t+He3)Co58	-38262.79 keV
Zn64(d,p+t+ $\alpha$ )Co58	-17685.17 keV	Zn64(d,2n+2He3)Co58	-39026.54 keV
Zn64(d,n+He3+ $\alpha$ )Co58	-18448.93 keV	Zn64(d,p+2d+t)Co58	-41531.70 keV
Zn64(d,2d+ $\alpha$ )Co58	-21717.84 keV	Zn64(d,n+2d+He3)Co58	-42295.45 keV
Zn64(d,n+p+d+ $\alpha$ )Co58	-23942.40 keV	Zn64(d,n+2p+d+t)Co58	-43756.26 keV
Zn64(d,2n+2p+ $\alpha$ )Co58	-26166.97 keV	Zn64(d,2n+p+d+He3)Co58	-44520.02 keV
Zn64(d,d+t+He3)Co58	-36038.22 keV	Zn64(d,4d)Co58	-45564.37 keV
Zn64(d,2p+2t)Co58	-37499.03 keV	Zn64(d,2n+3p+t)Co58	-45980.83 keV

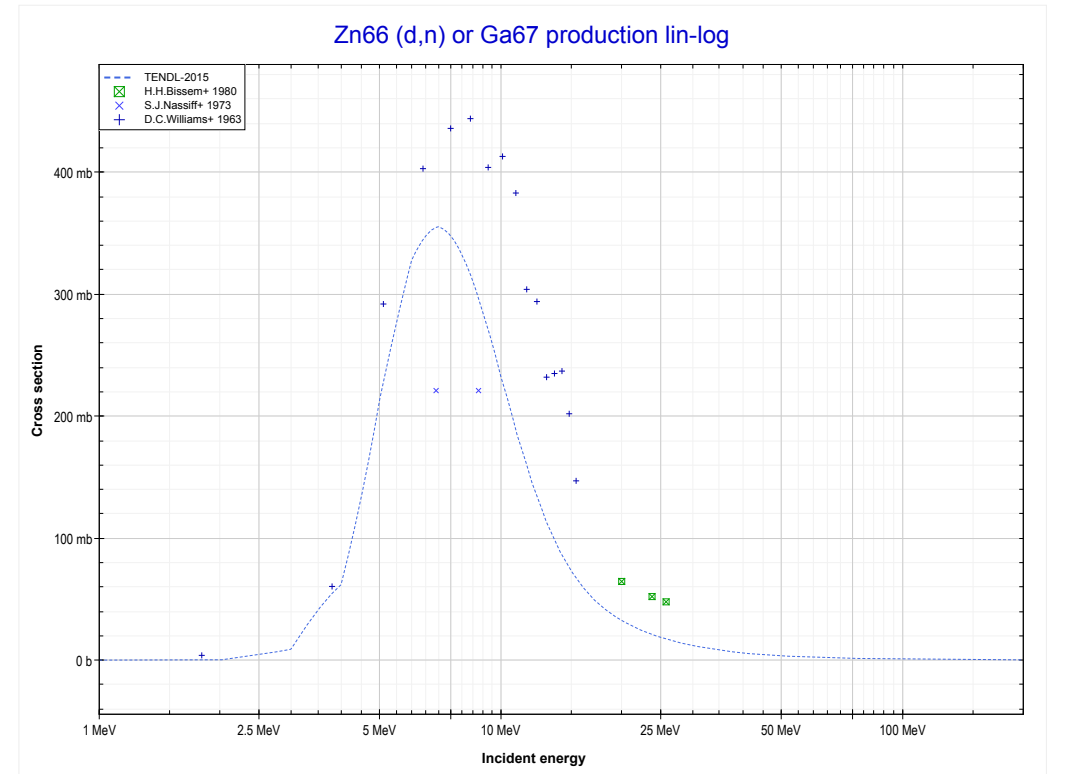
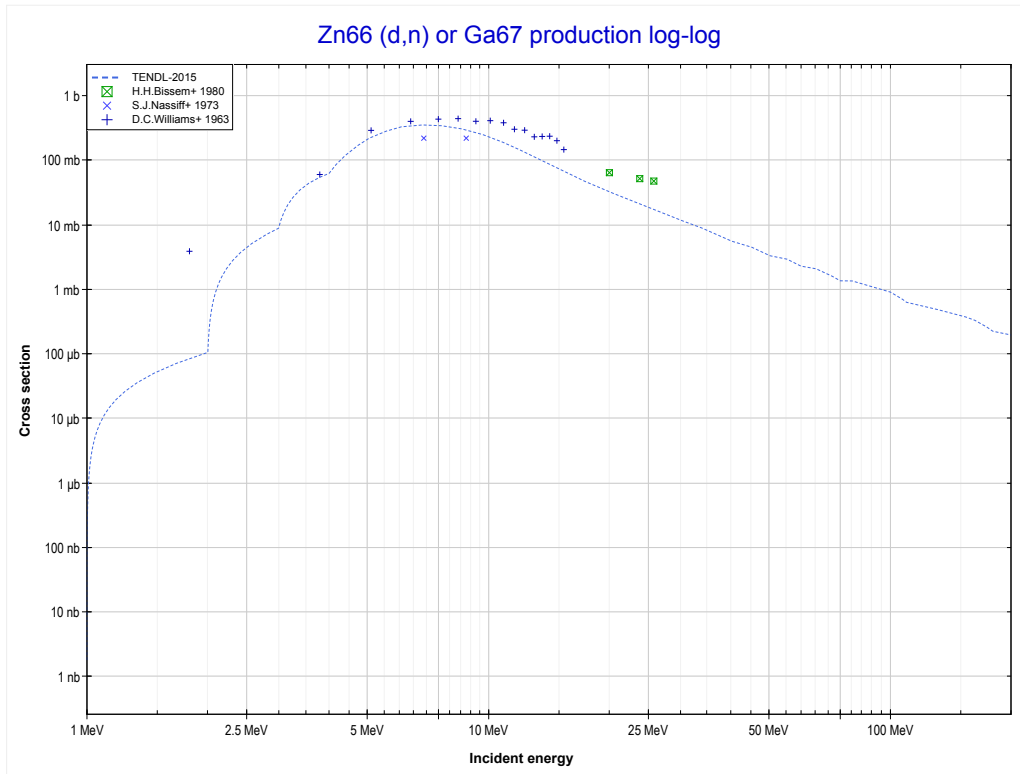


<< 29-Cu-65	<b>30-Zn-64</b>	30-Zn-67 >>
<< MT108 (d,2 $\alpha$ )	<b>MT111 (d,2p) or MT5 (Cu64 production)</b>	30-Zn-66 MT4 (d,n) >>



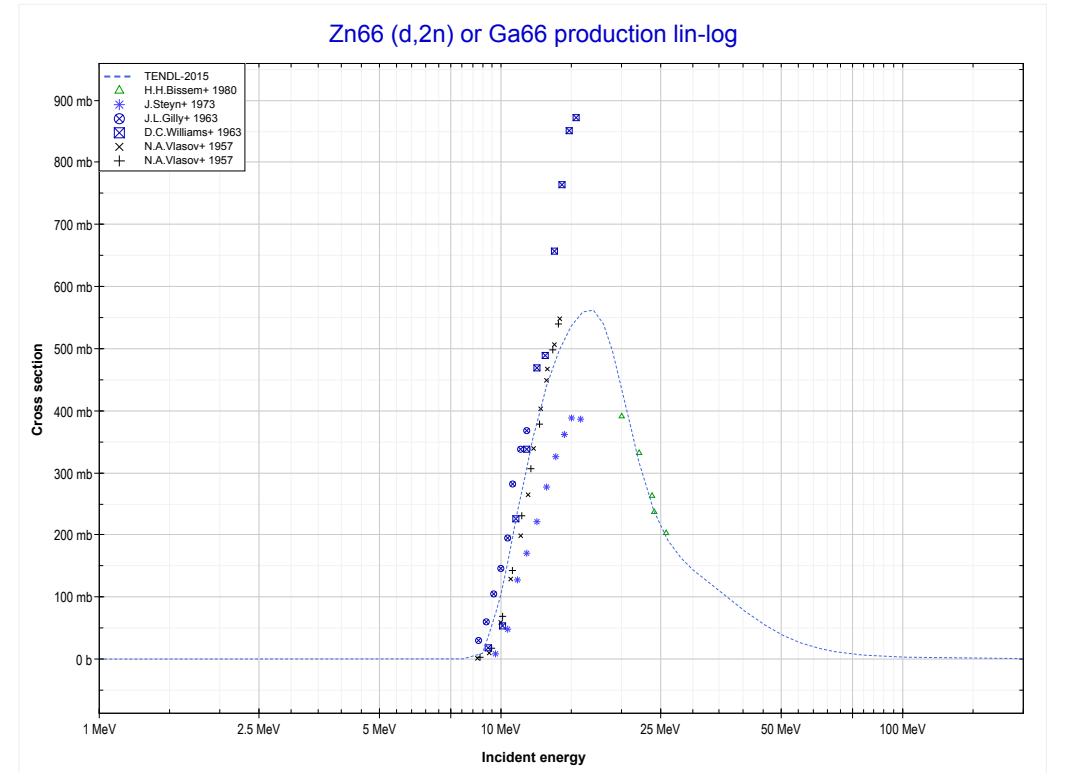
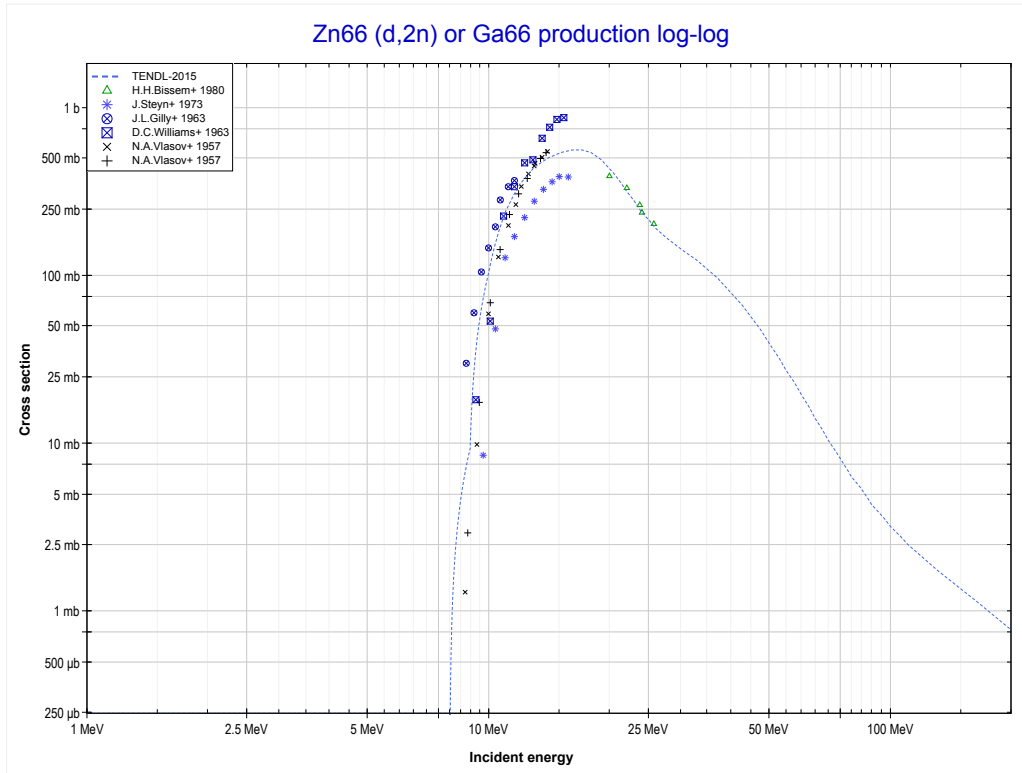
Reaction	Q-Value
Zn64(d,2p)Cu64	-2021.92 keV

<< 30-Zn-64	<b>30-Zn-66</b>	34-Se-74 >>
<< 30-Zn-64 MT111 (d,2p)	<b>MT4 (d,n) or MT5 (Ga67 production)</b>	MT16 (d,2n) >>



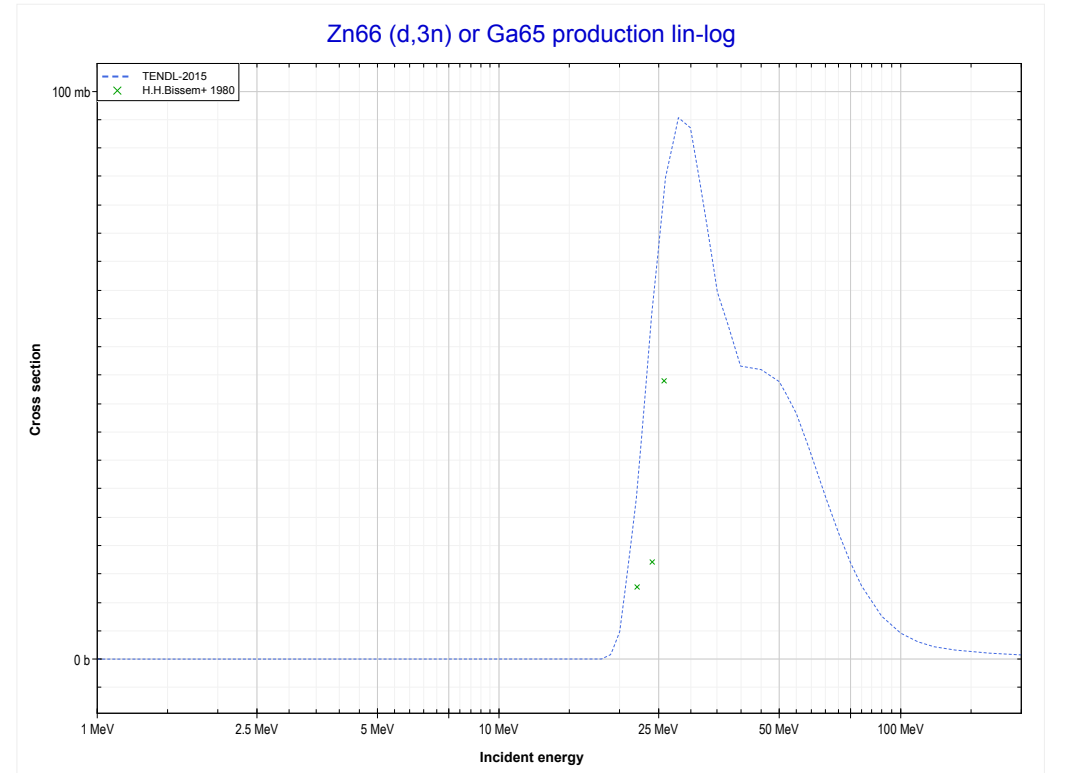
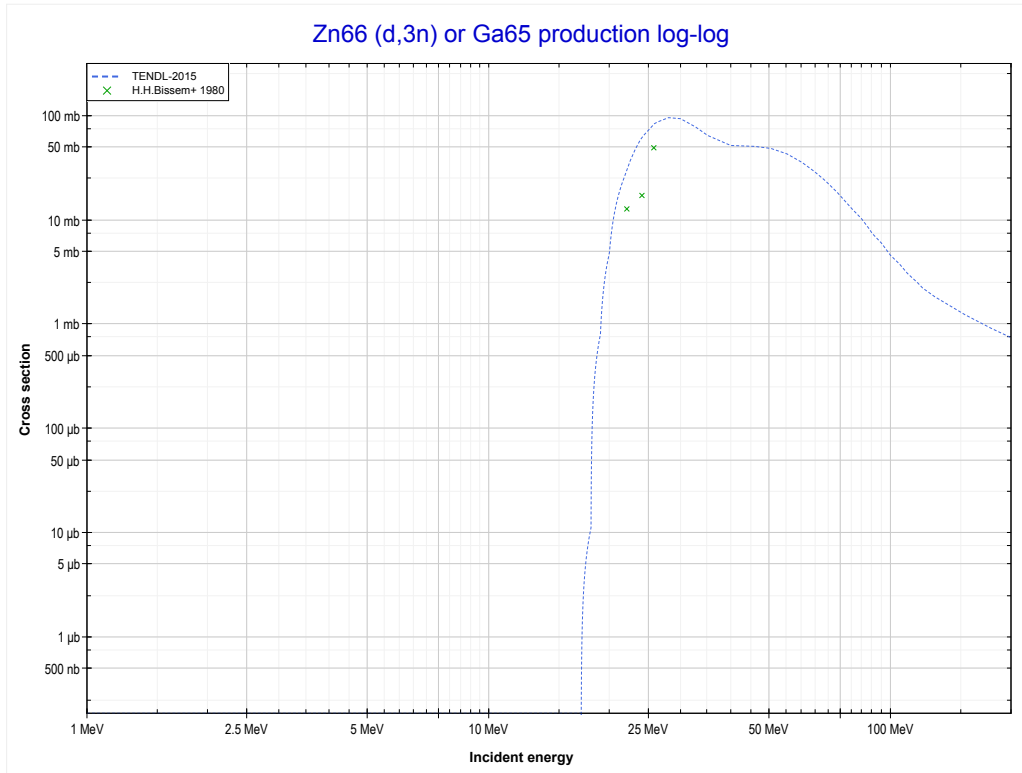
Reaction	Q-Value
Zn66(d,n)Ga67	3044.20 keV

<< 30-Zn-64	<b>30-Zn-66</b>	30-Zn-68 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Ga66 production)</b>	MT17 (d,3n) >>



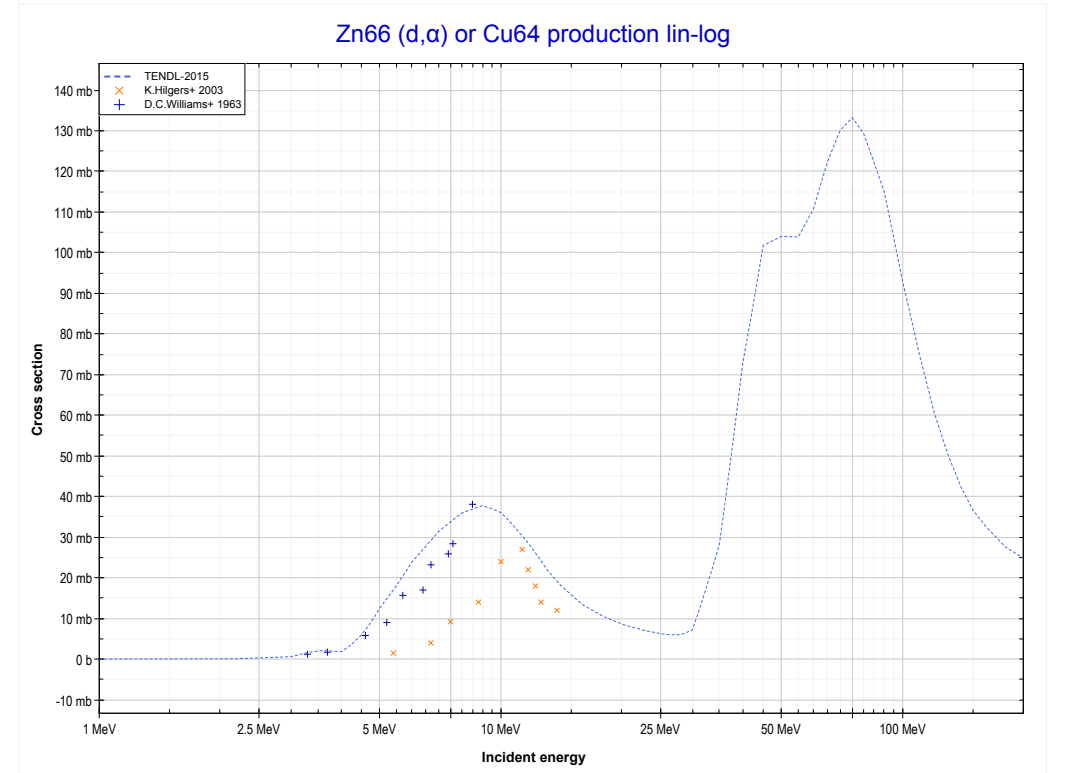
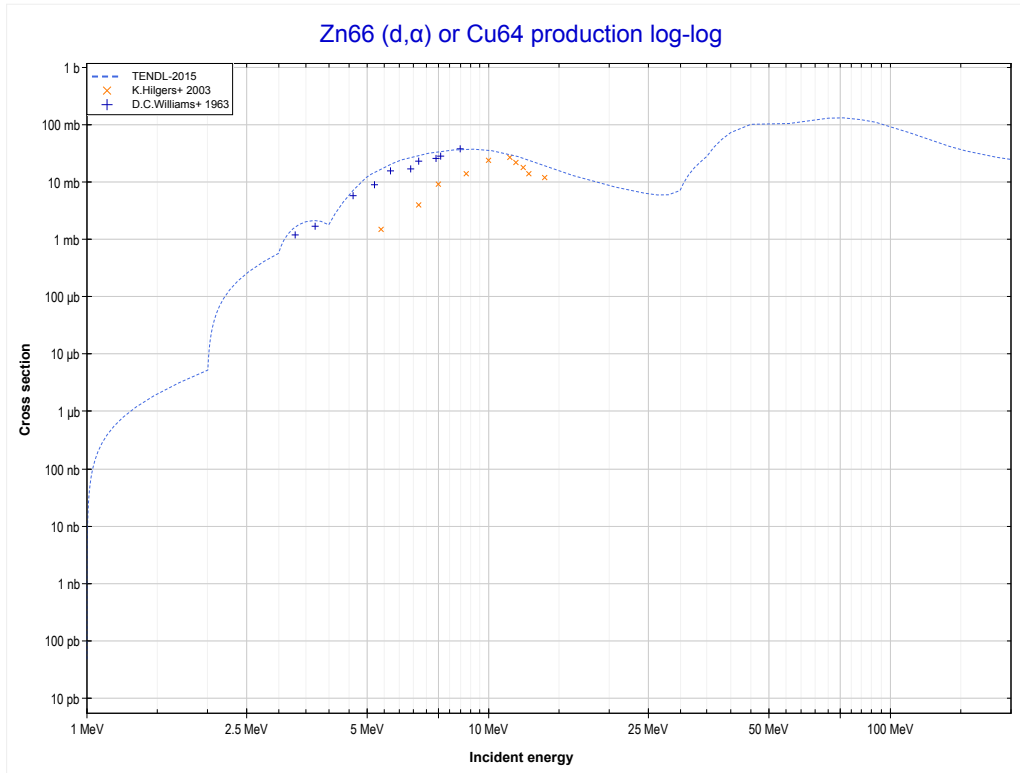
Reaction	Q-Value
Zn66(d,2n)Ga66	-8182.01 keV

<< 29-Cu-63	<b>30-Zn-66</b>	34-Se-76 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Ga65 production)</b>	MT107 (d, $\alpha$ ) >>



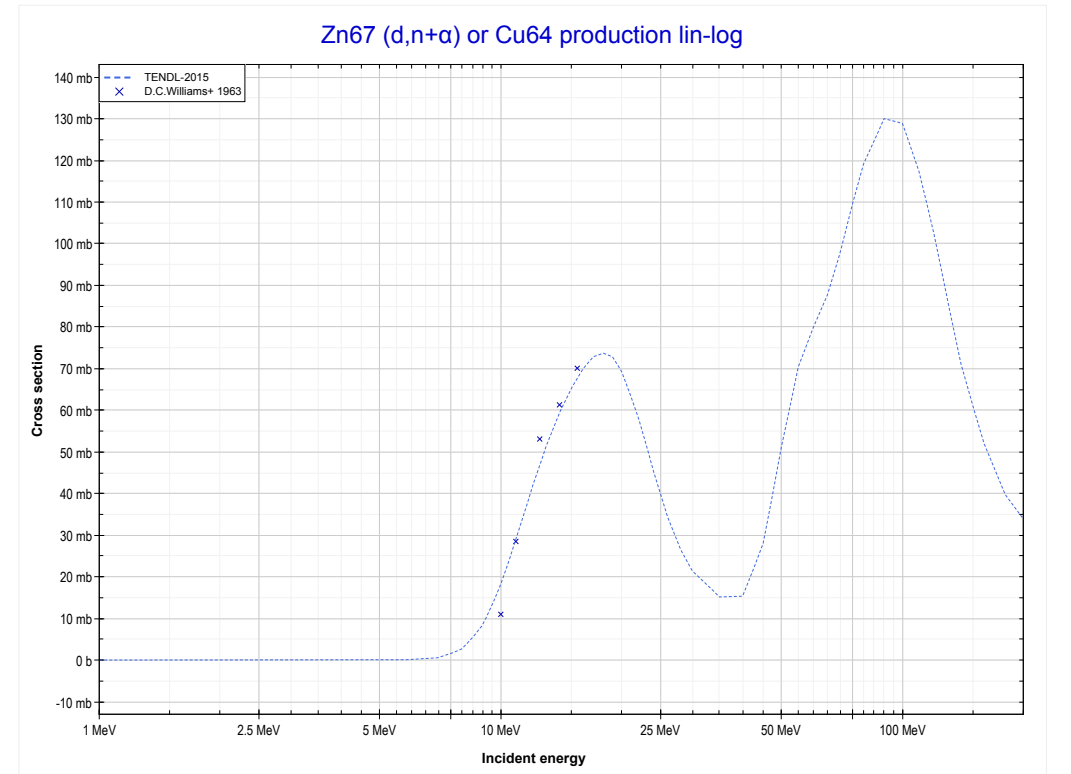
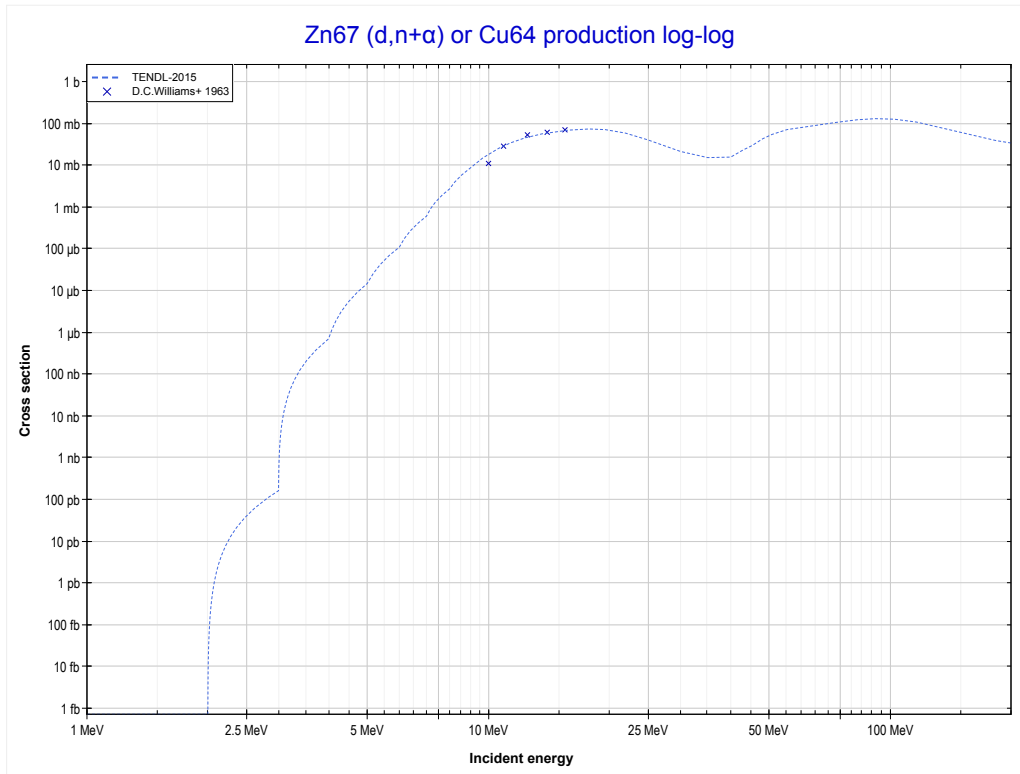
Reaction	Q-Value
Zn66(d,3n)Ga65	-17320.03 keV

<< 28-Ni-58	<b>30-Zn-66</b>	36-Kr-78 >>
<< MT17 (d,3n)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Cu64 production)</b>	30-Zn-67 MT22 (d,n+ $\alpha$ ) >>



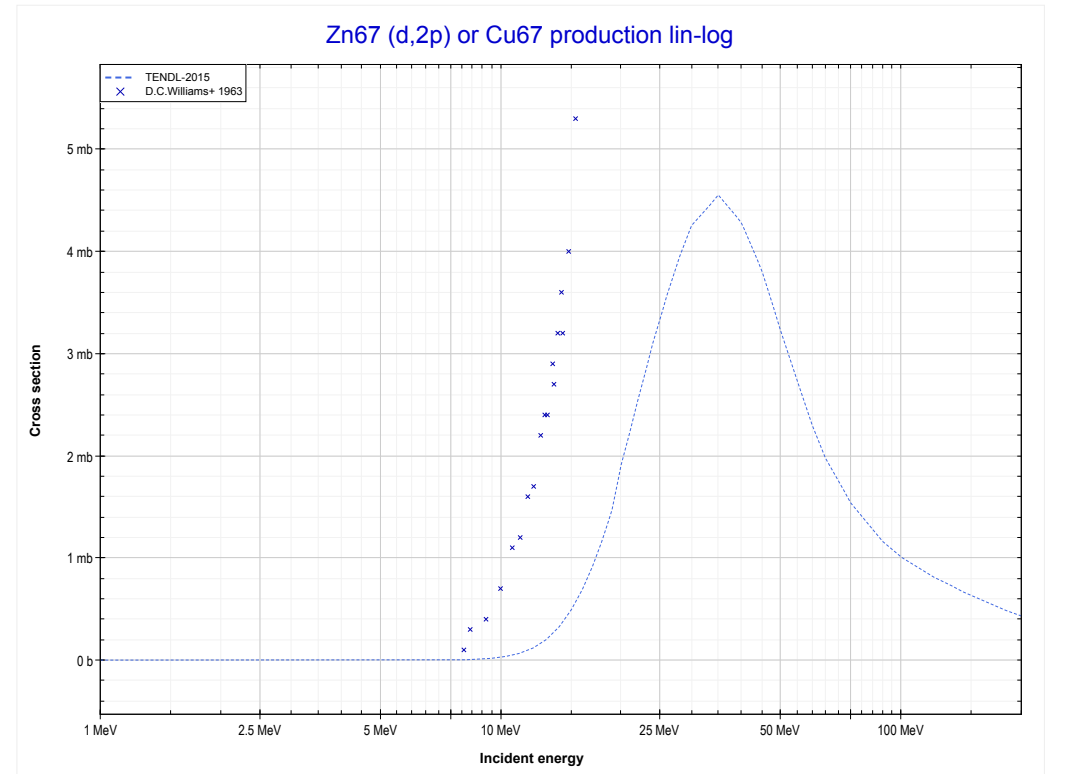
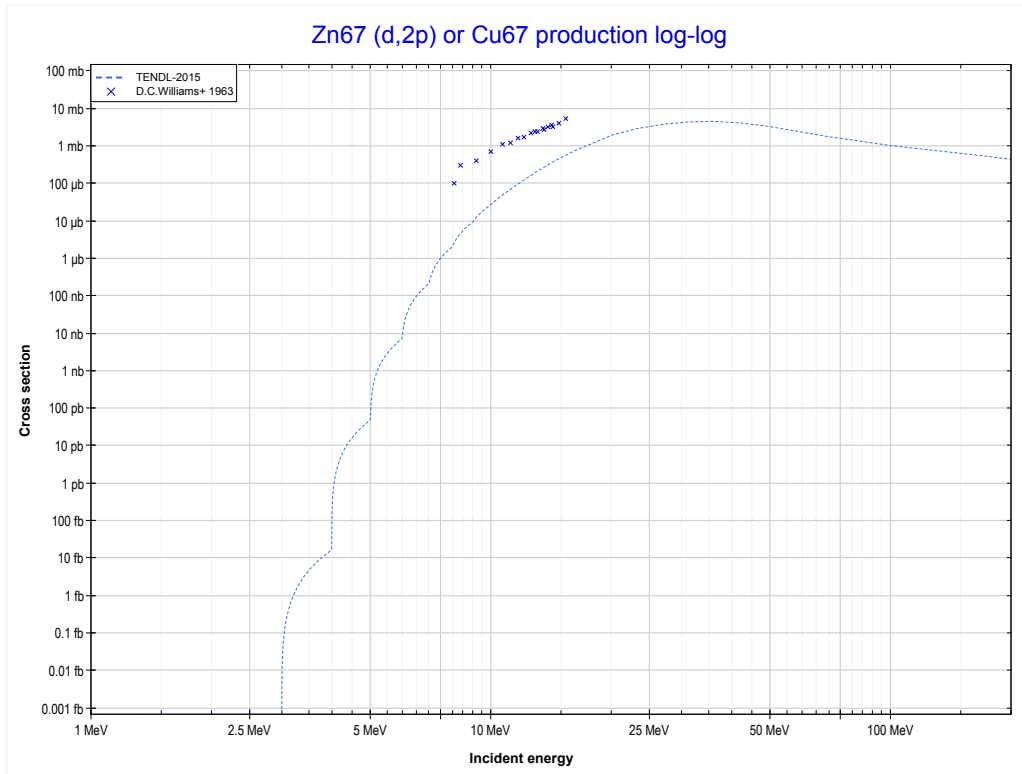
Reaction	Q-Value
Zn66(d, $\alpha$ )Cu64	7235.81 keV
Zn66(d,p+t)Cu64	-12578.05 keV
Zn66(d,n+He3)Cu64	-13341.81 keV
Zn66(d,2d)Cu64	-16610.72 keV
Zn66(d,n+p+d)Cu64	-18835.29 keV
Zn66(d,2n+2p)Cu64	-21059.85 keV

<< 30-Zn-64	<b>30-Zn-67</b>	36-Kr-78 >>
<< 30-Zn-66 MT107 (d, $\alpha$ )	<b>MT22 (d,n+<math>\alpha</math>) or MT5 (Cu64 production)</b>	MT111 (d,2p) >>



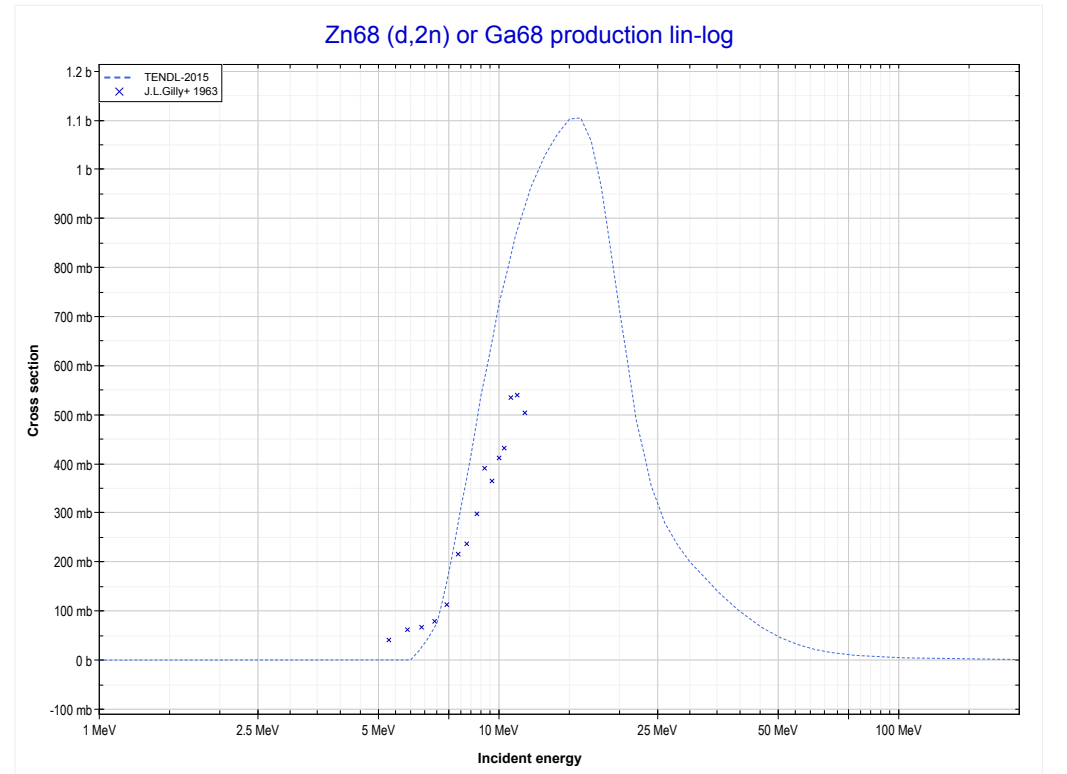
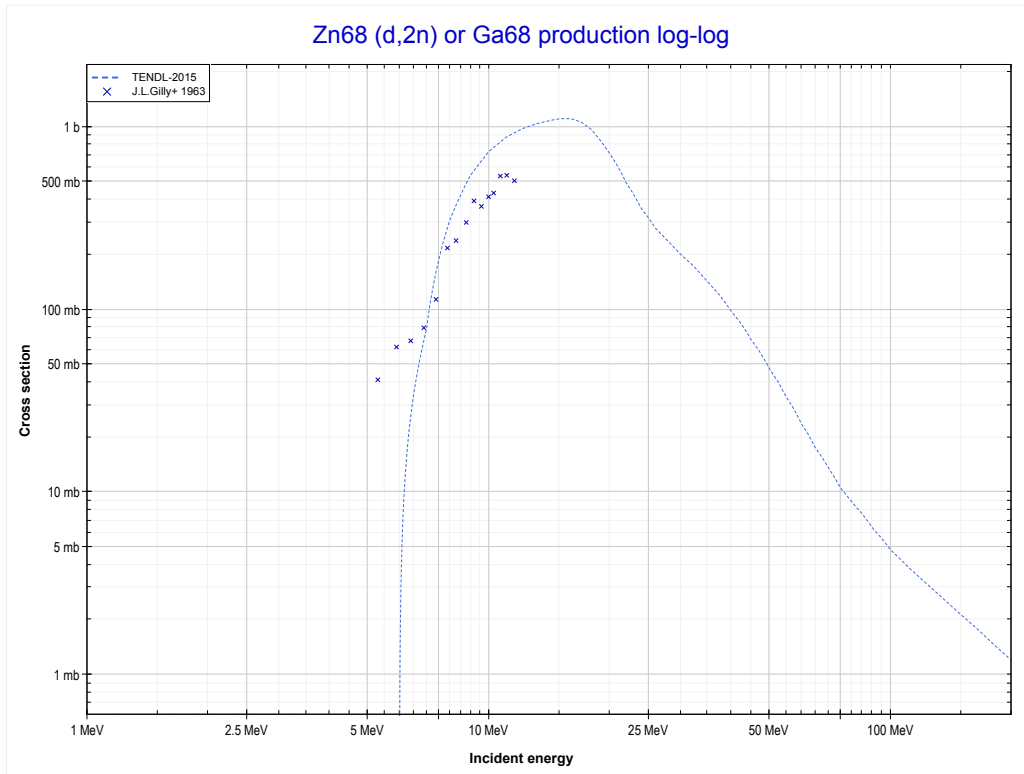
Reaction	Q-Value
Zn67(d,n+ $\alpha$ )Cu64	183.49 keV
Zn67(d,d+t)Cu64	-17405.81 keV
Zn67(d,n+p+t)Cu64	-19630.37 keV
Zn67(d,2n+He3)Cu64	-20394.13 keV
Zn67(d,n+2d)Cu64	-23663.04 keV
Zn67(d,2n+p+d)Cu64	-25887.60 keV
Zn67(d,3n+2p)Cu64	-28112.17 keV

<< 30-Zn-64	<b>30-Zn-67</b>	39-Y-89 >>
<< MT22 (d,n+α)	<b>MT111 (d,2p) or MT5 (Cu67 production)</b>	30-Zn-68 MT16 (d,2n) >>



Reaction	Q-Value
Zn67(d,2p)Cu67	-2003.52 keV

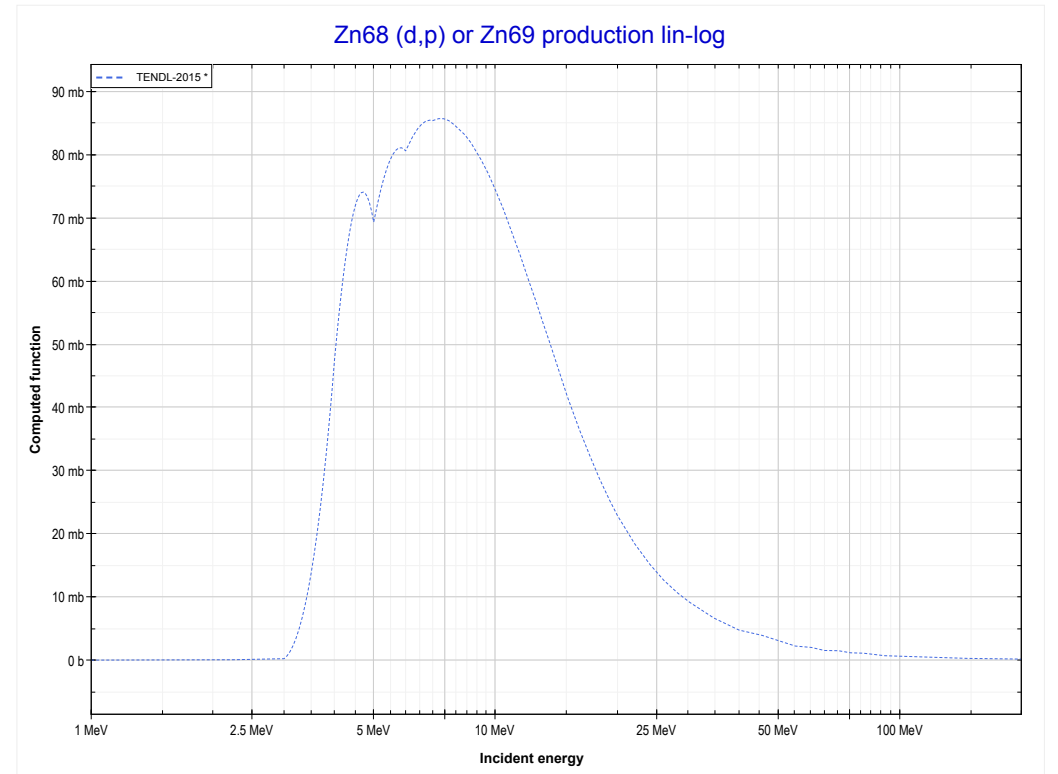
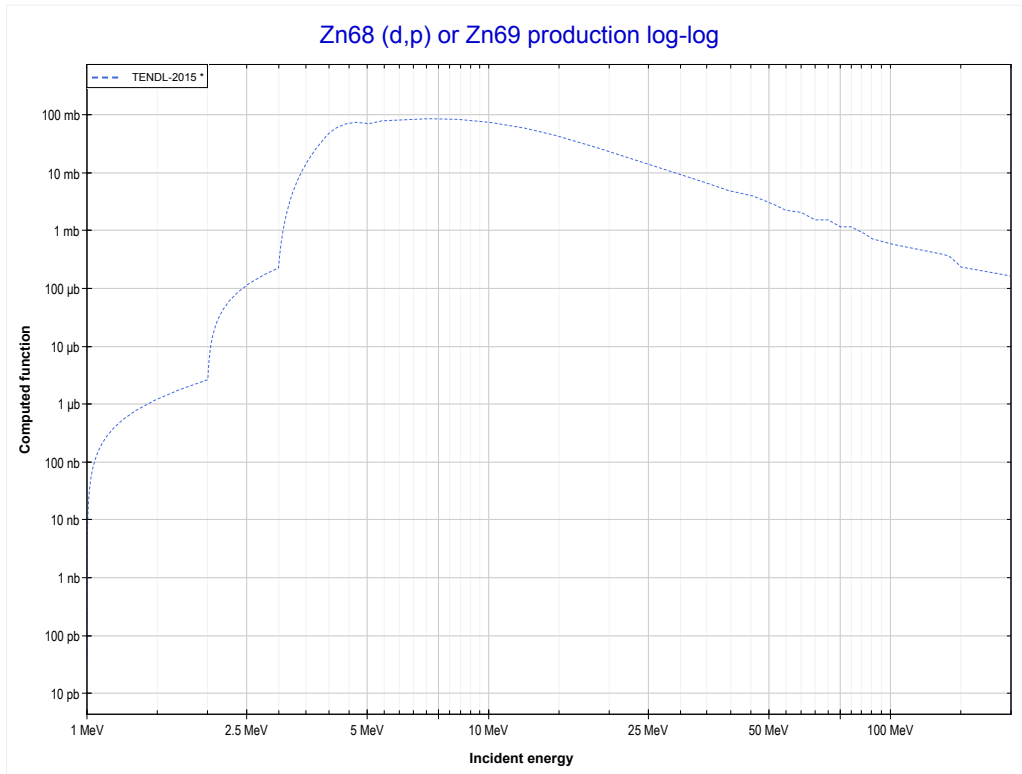
<< 30-Zn-66	<b>30-Zn-68</b>	31-Ga-69 >>
<< 30-Zn-67 MT111 (d,2p)	<b>MT16 (d,2n) or MT5 (Ga68 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Zn68(d,2n)Ga68	-5928.01 keV

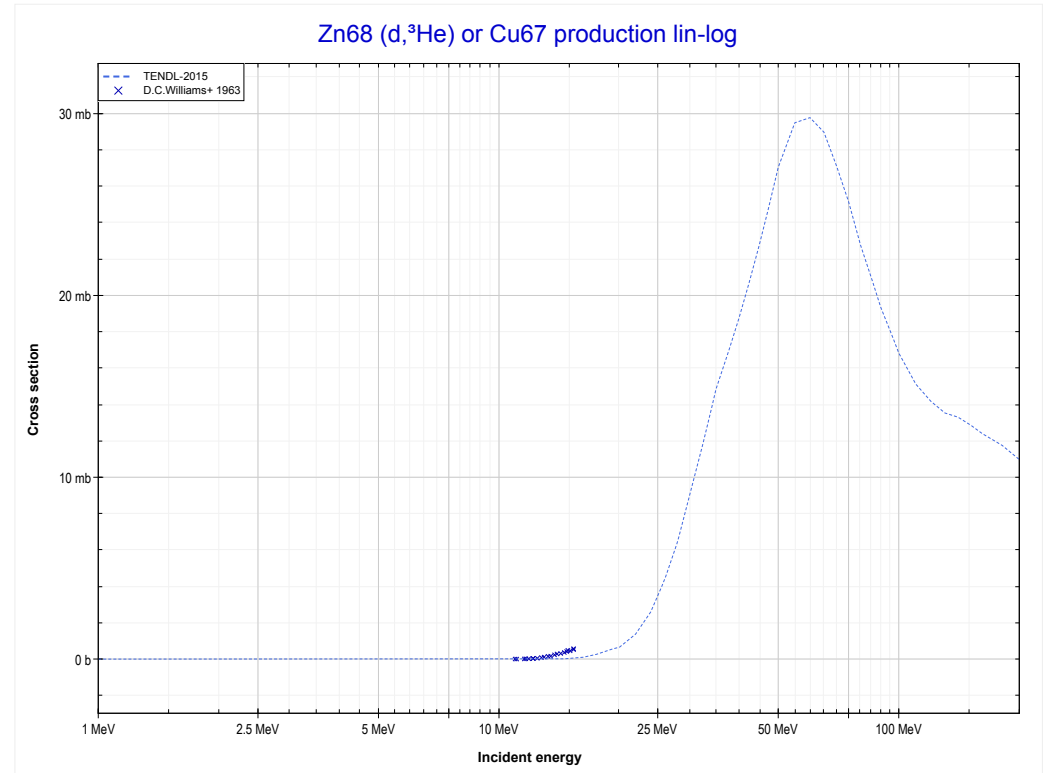
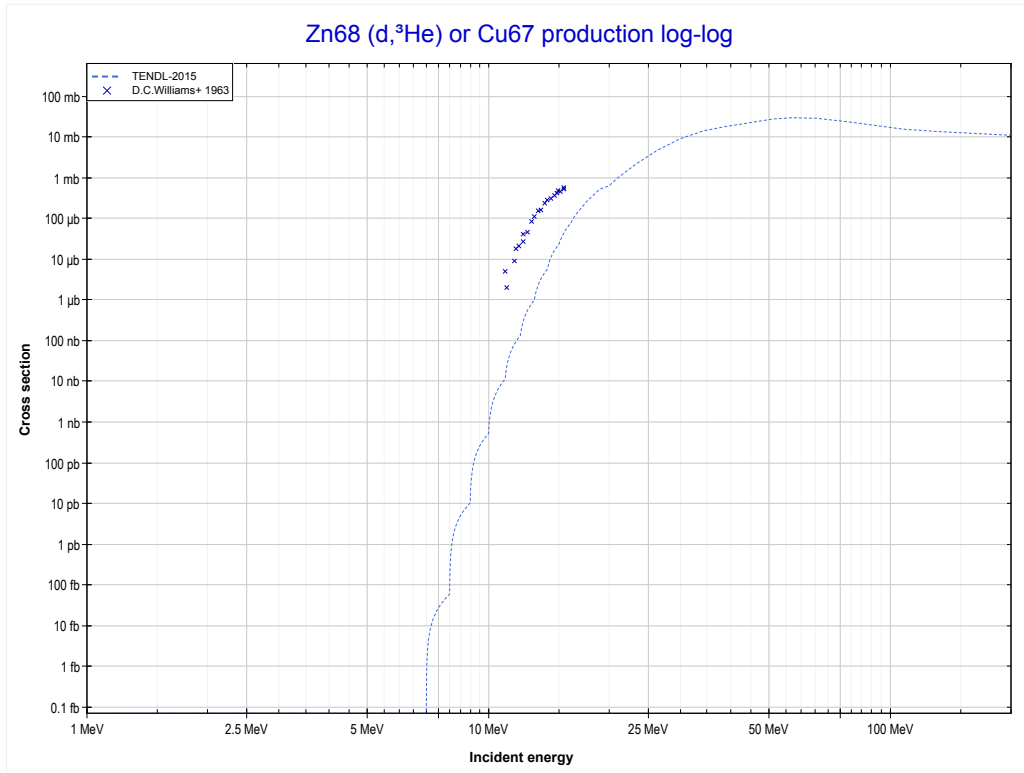


<< 29-Cu-65	<b>30-Zn-68</b>	31-Ga-71 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Zn69 production)</b>	MT106 (d, <sup>3</sup> He) >>



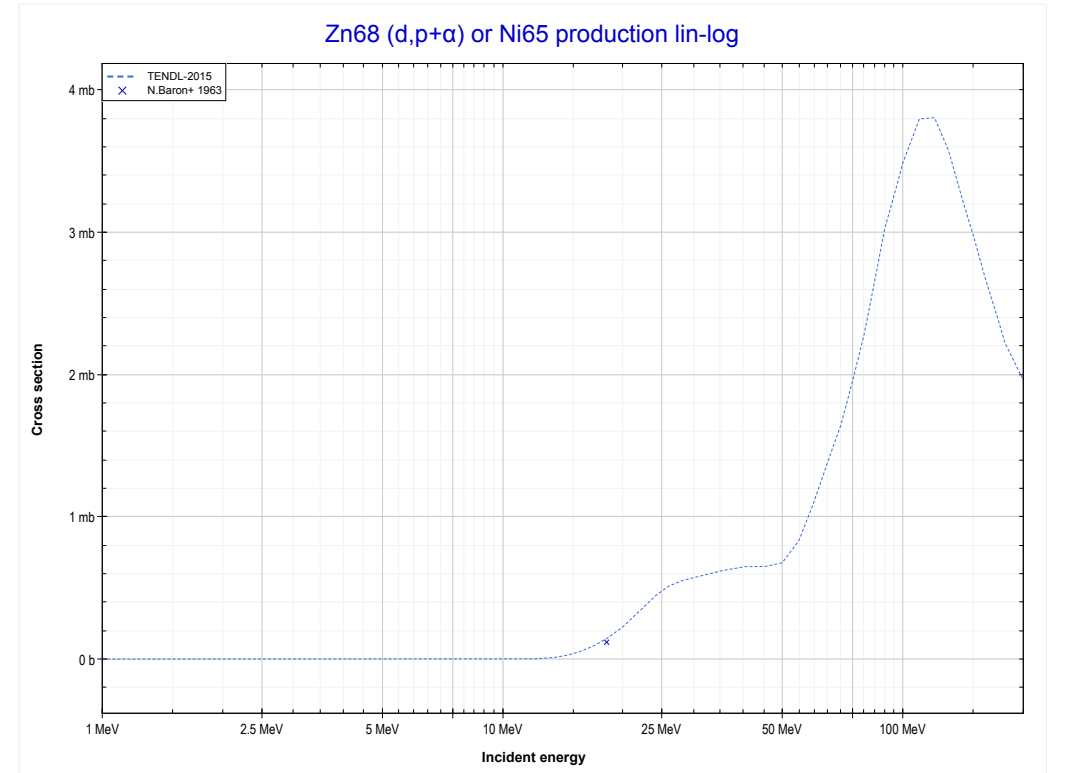
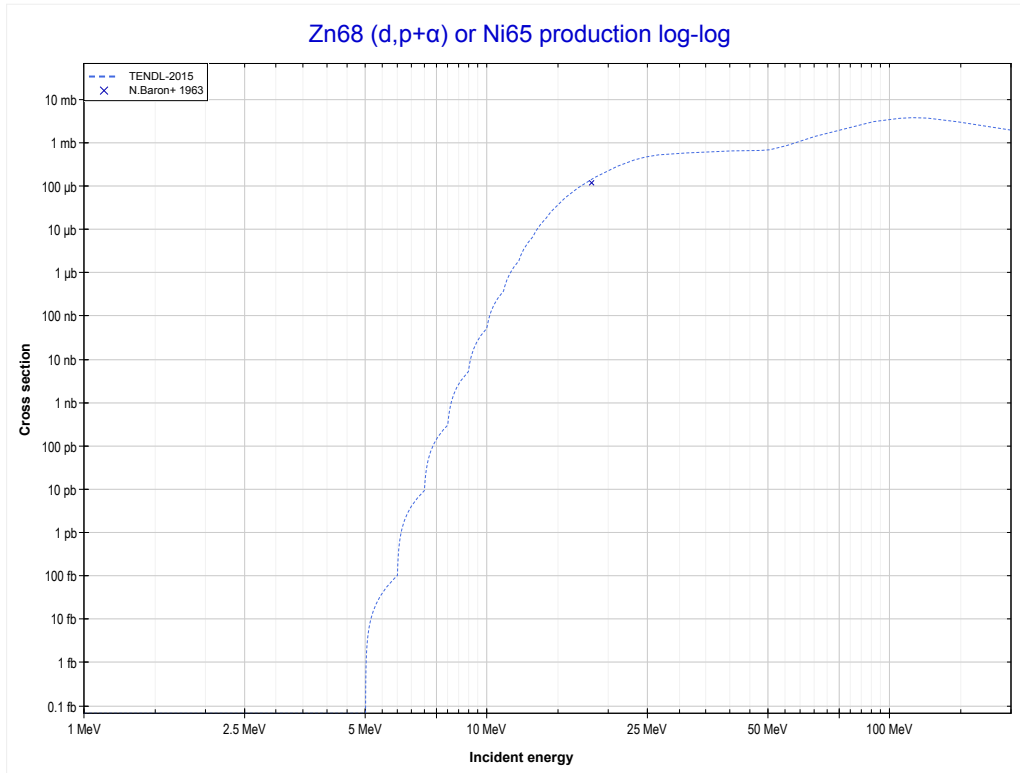
Reaction	Q-Value
Zn68(d,p)Zn69	4257.55 keV

<< 18-Ar-40	<b>30-Zn-68</b>	
<< MT103 (d,p)	<b>MT106 (d,<sup>3</sup>He) or MT5 (Cu67 production)</b>	MT112 (d,p+α) >>



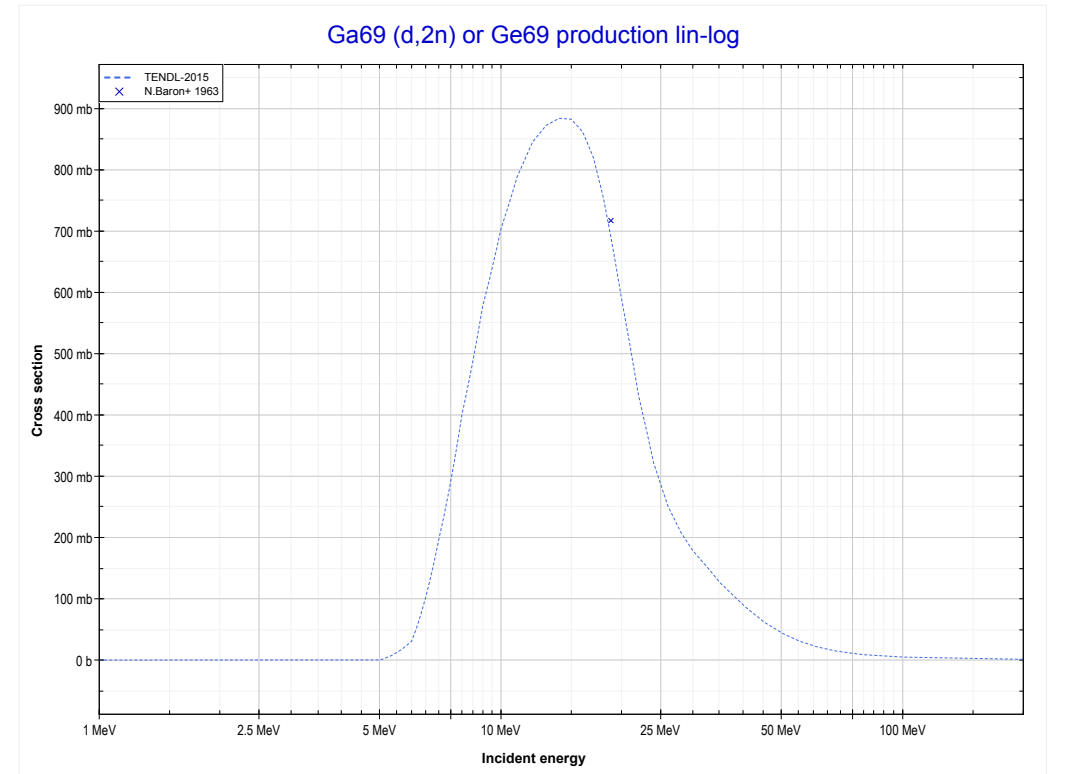
Reaction	Q-Value
Zn68(d,He3)Cu67	-4483.49 keV
Zn68(d,p+d)Cu67	-9976.97 keV
Zn68(d,n+2p)Cu67	-12201.54 keV

<< 28-Ni-62	<b>30-Zn-68</b>	33-As-75 >>
<< MT106 (d, <sup>3</sup> He)	<b>MT112 (d,p+α) or MT5 (Ni65 production)</b>	31-Ga-69 MT16 (d,2n) >>



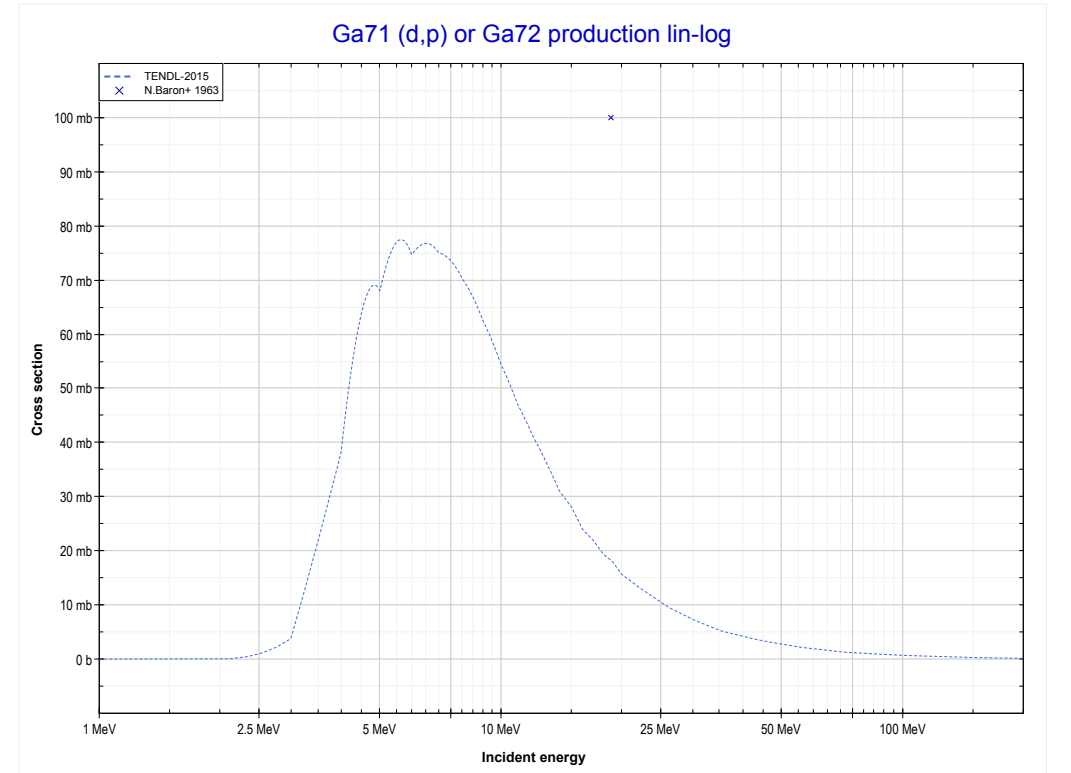
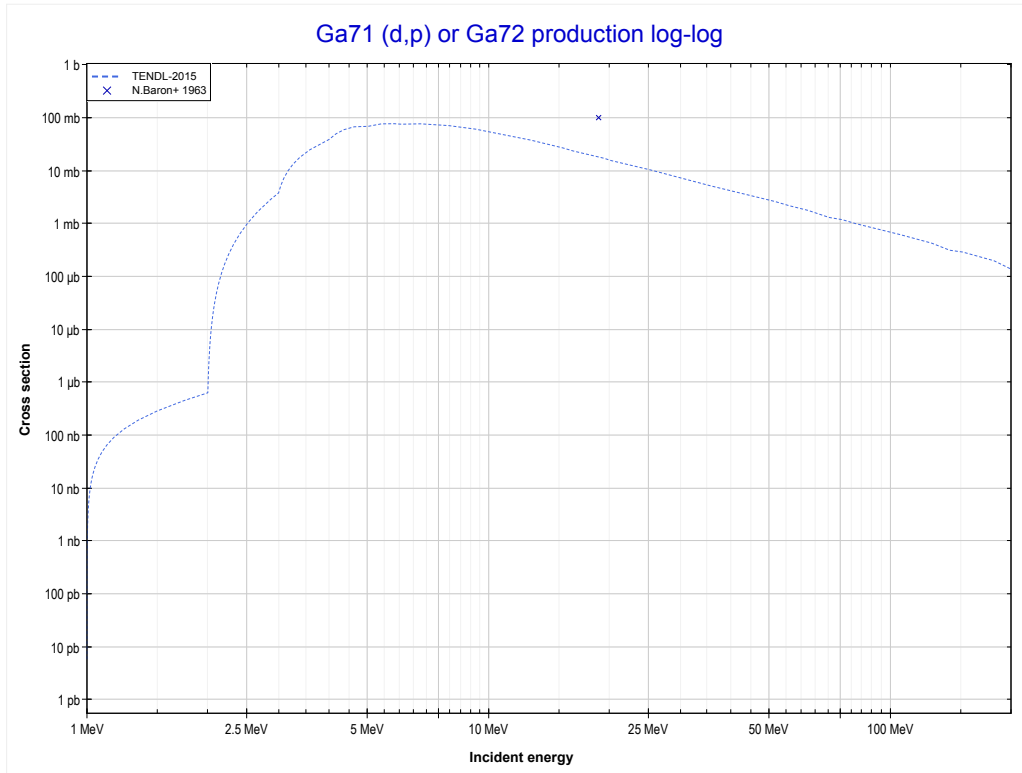
Reaction	Q-Value
Zn68(d,p+α)Ni65	-1459.76 keV
Zn68(d,d+He3)Ni65	-19812.82 keV
Zn68(d,2p+t)Ni65	-21273.63 keV
Zn68(d,n+p+He3)Ni65	-22037.38 keV
Zn68(d,p+2d)Ni65	-25306.29 keV
Zn68(d,n+2p+d)Ni65	-27530.86 keV
Zn68(d,2n+3p)Ni65	-29755.42 keV

<< 30-Zn-68	<b>31-Ga-69</b>	32-Ge-74 >>
<< 30-Zn-68 MT112 (d,p+α)	<b>MT16 (d,2n) or MT5 (Ge69 production)</b>	31-Ga-71 MT103 (d,p) >>



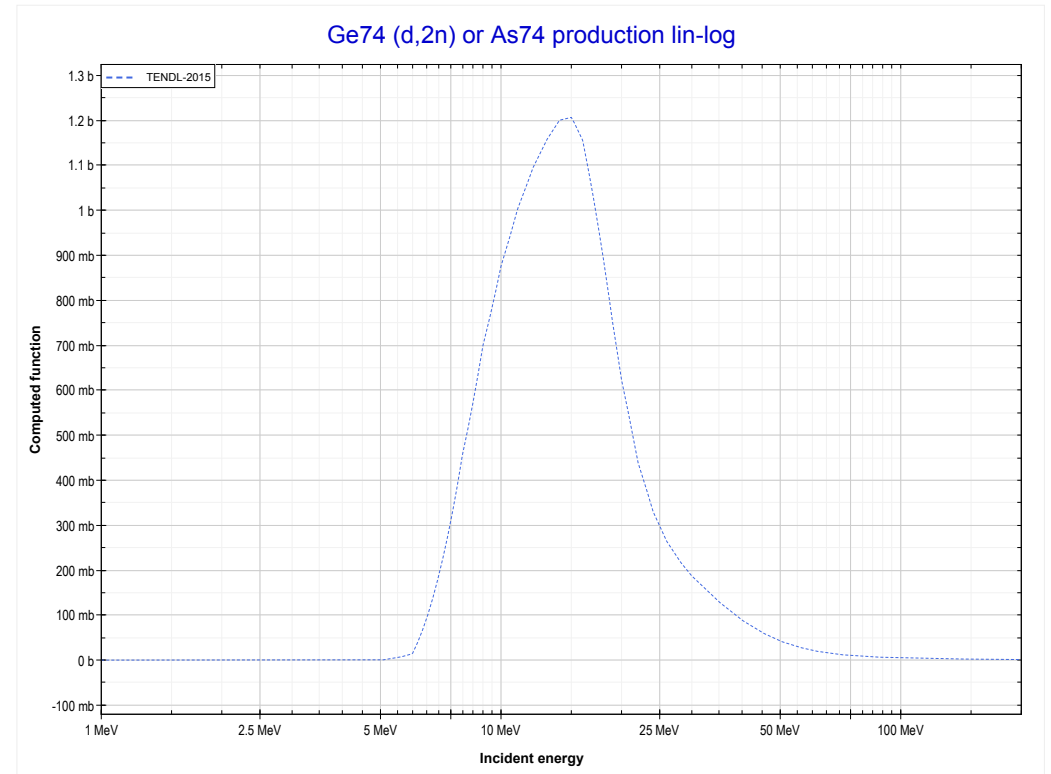
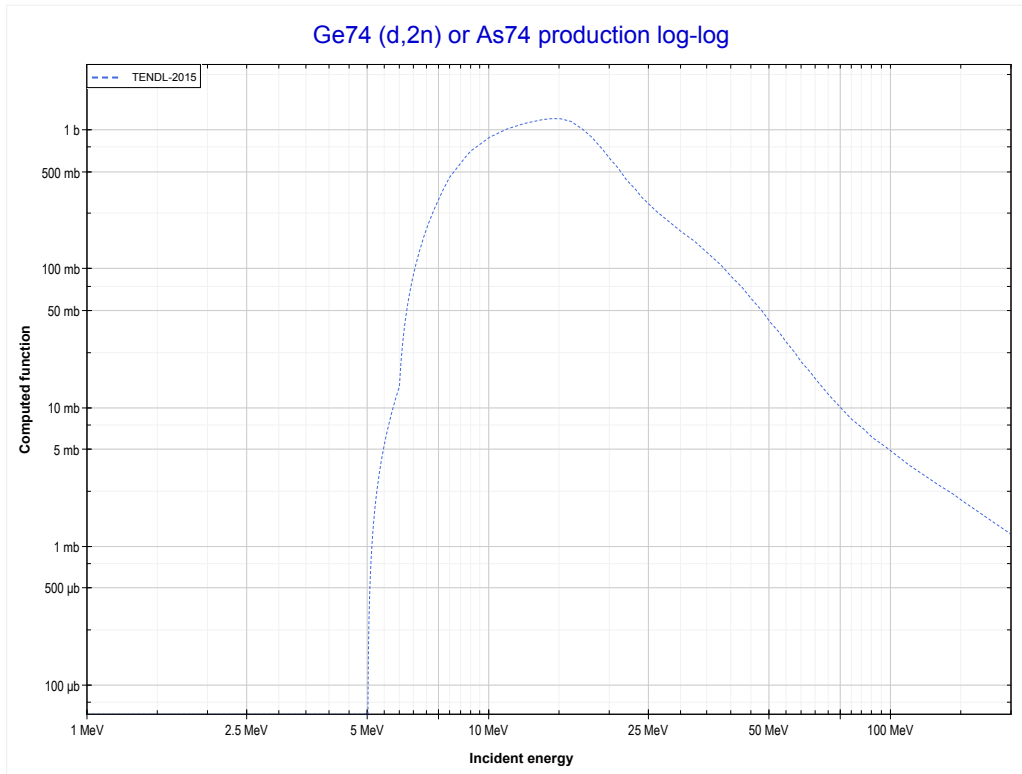
Reaction	Q-Value
Ga69(d,2n)Ge69	-5234.01 keV

<< 30-Zn-68	<b>31-Ga-71</b>	33-As-75 >>
<< 31-Ga-69 MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Ga72 production)</b>	32-Ge-74 MT16 (d,2n) >>



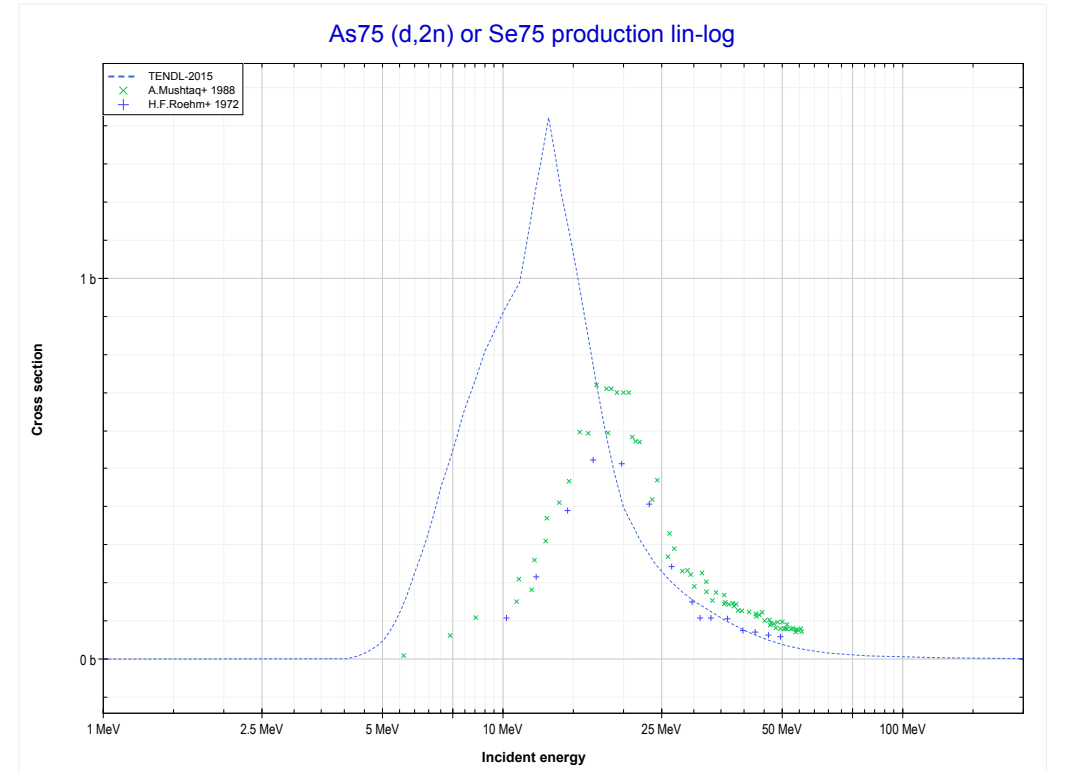
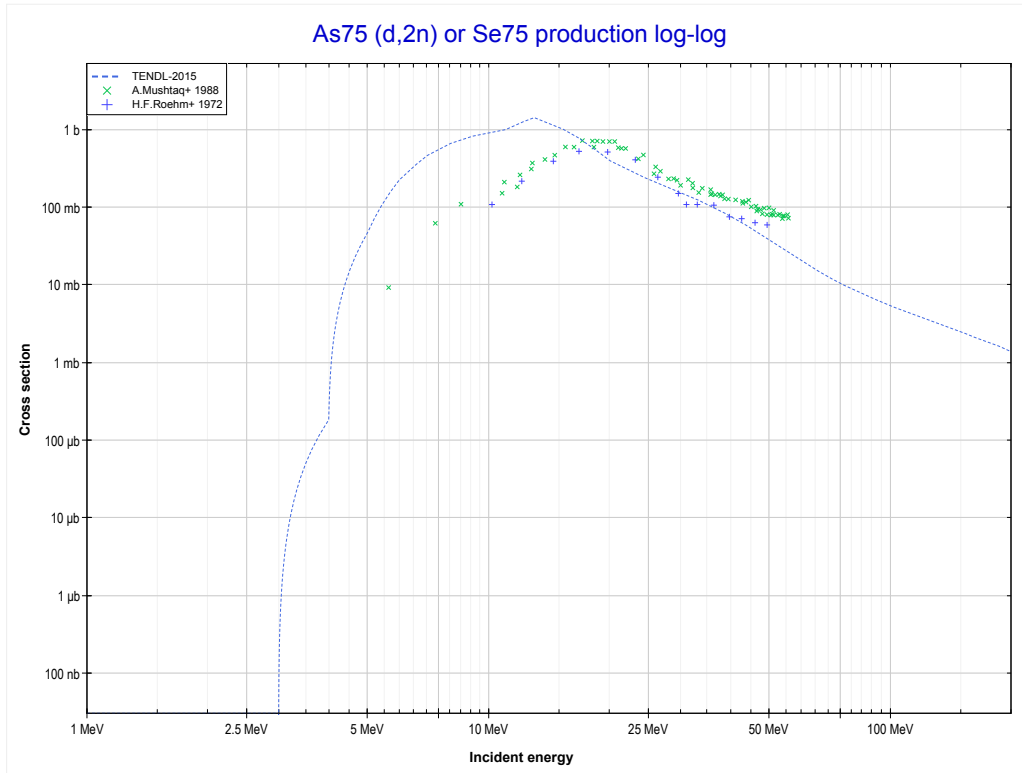
Reaction	Q-Value
Ga71(d,p)Ga72	4295.95 keV

<< 31-Ga-69	<b>32-Ge-74</b>	33-As-75 >>
<< 31-Ga-71 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (As74 production)</b>	33-As-75 MT16 (d,2n) >>



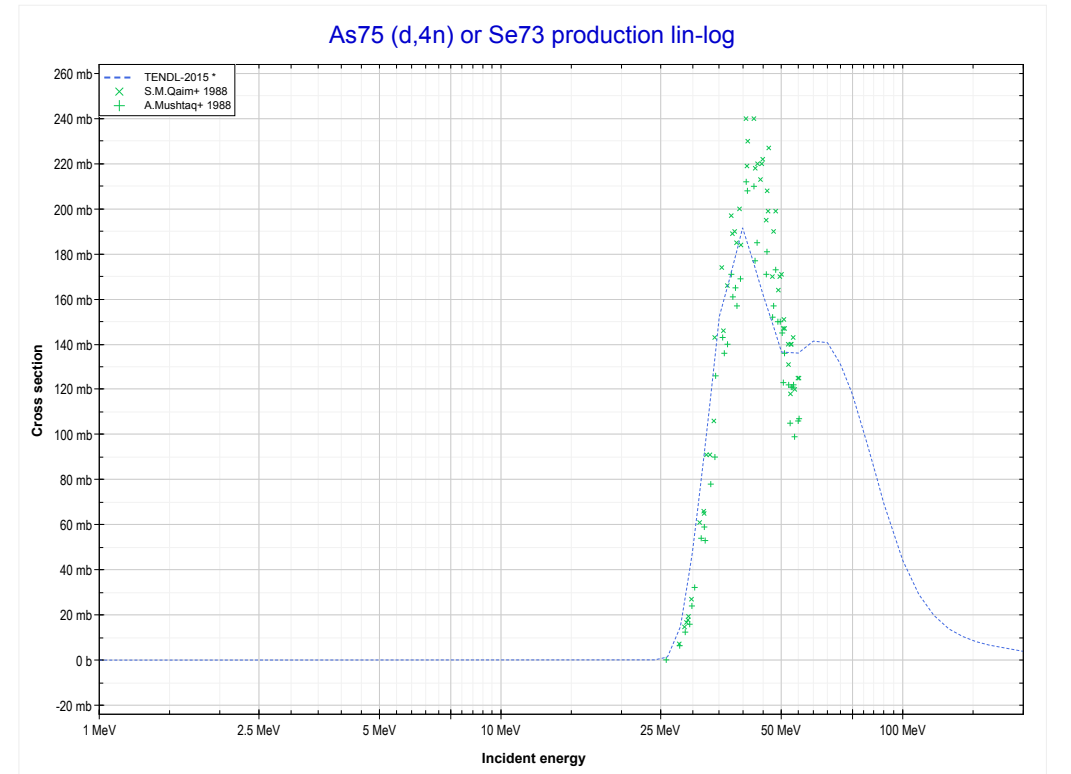
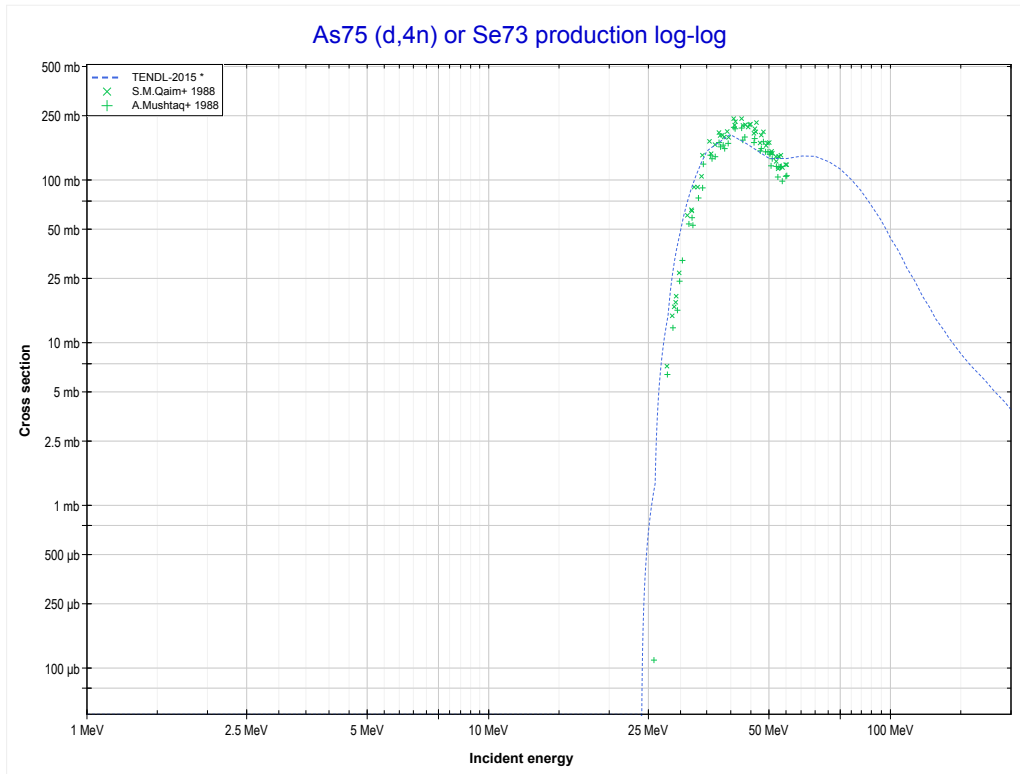
Reaction	Q-Value
Ge74(d,2n)As74	-5569.25 keV

<< 32-Ge-74	<b>33-As-75</b>	34-Se-74 >>
<< 32-Ge-74 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Se75 production)</b>	MT37 (d,4n) >>



Reaction	Q-Value
As75(d,2n)Se75	-3871.63 keV

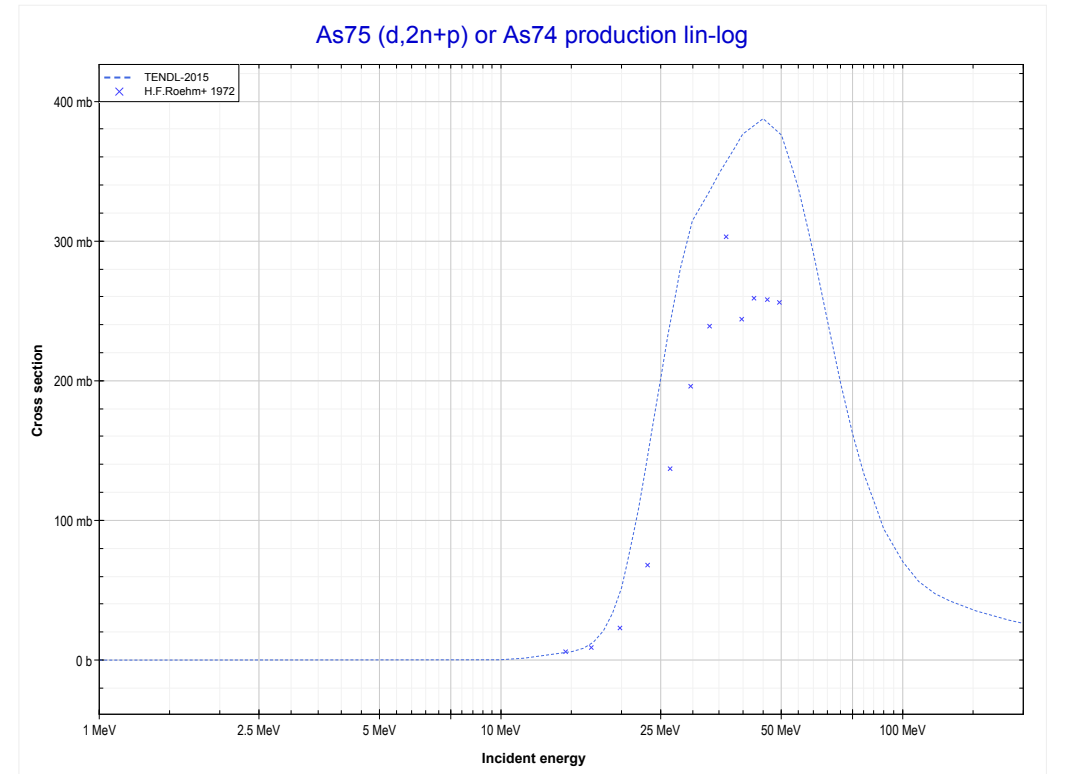
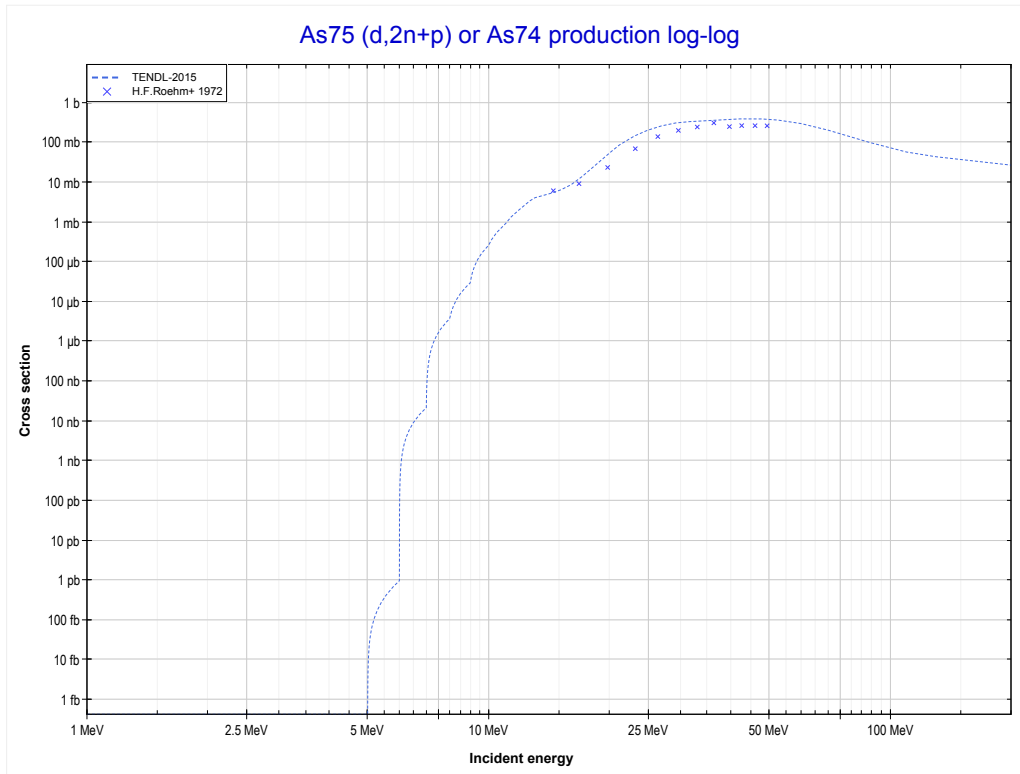
<< 27-Co-59	<b>33-As-75</b>	34-Se-76 >>
<< MT16 (d,2n)	<b>MT37 (d,4n) or MT5 (Se73 production)</b>	MT41 (d,2n+p) >>



Reaction	Q-Value
As75(d,4n)Se73	-23956.75 keV

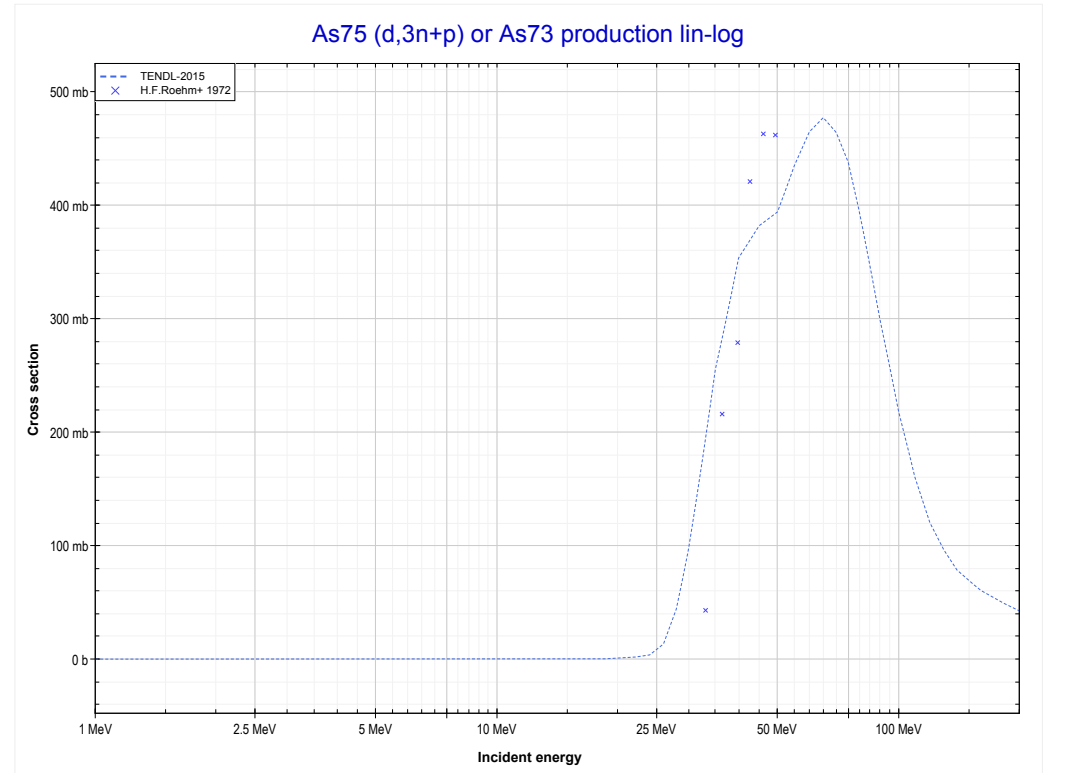
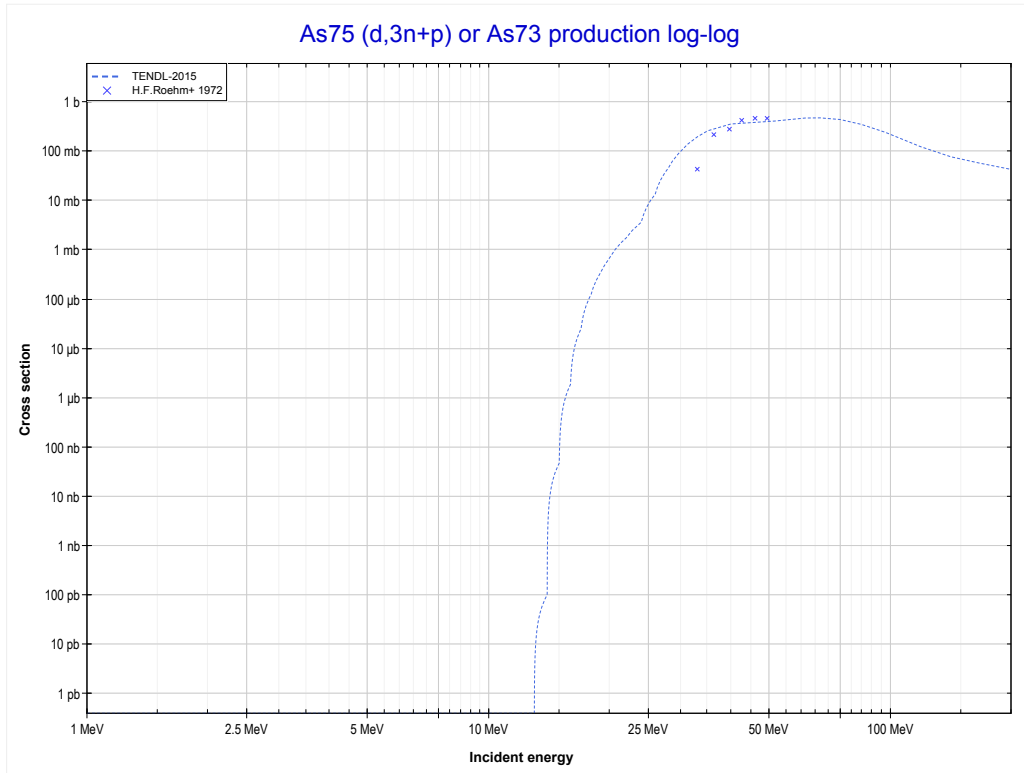


<< 28-Ni-58	<b>33-As-75</b>	52-Te-122 >>
<< MT37 (d,4n)	<b>MT41 (d,2n+p) or MT5 (As74 production)</b>	MT42 (d,3n+p) >>



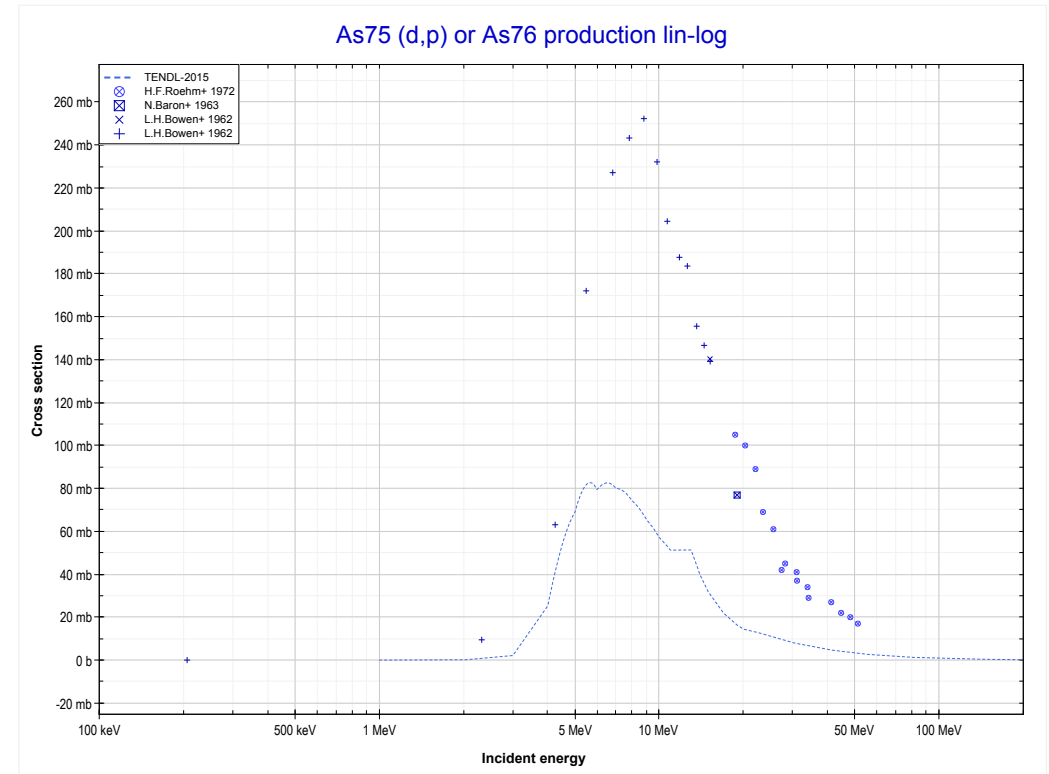
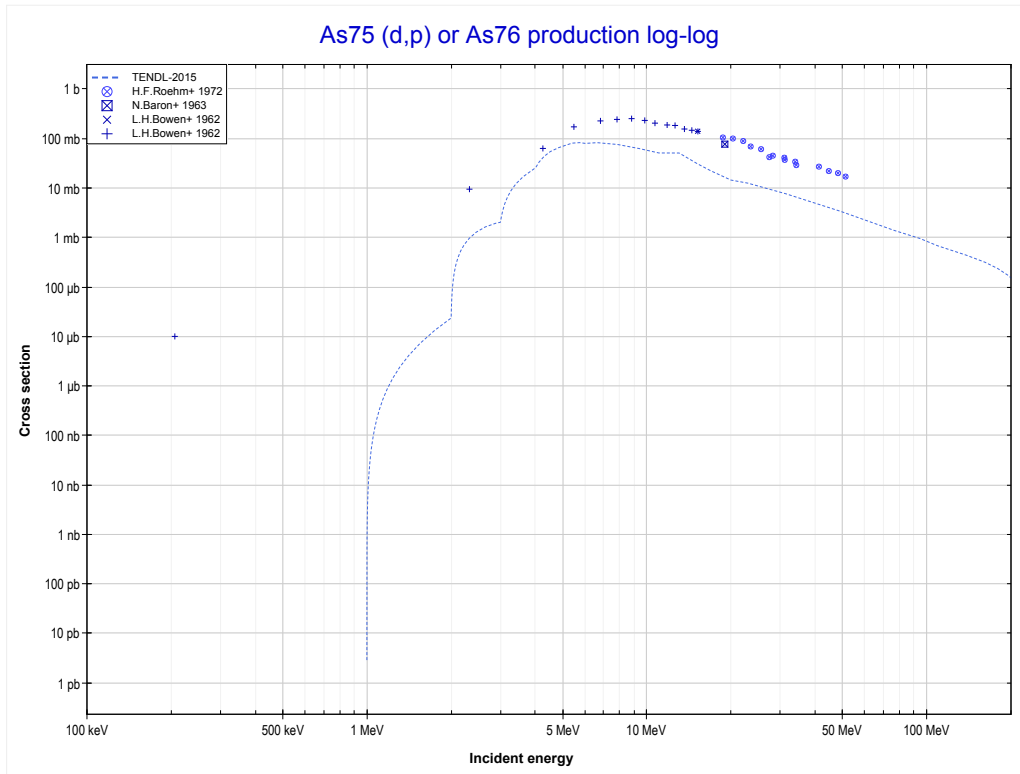
Reaction	Q-Value
As75(d,t)As74	-3988.18 keV
As75(d,n+d)As74	-10245.42 keV
As75(d,2n+p)As74	-12469.98 keV

<< 28-Ni-58	<b>33-As-75</b>	83-Bi-209 >>
<< MT41 (d,2n+p)	<b>MT42 (d,3n+p) or MT5 (As73 production)</b>	MT103 (d,p) >>



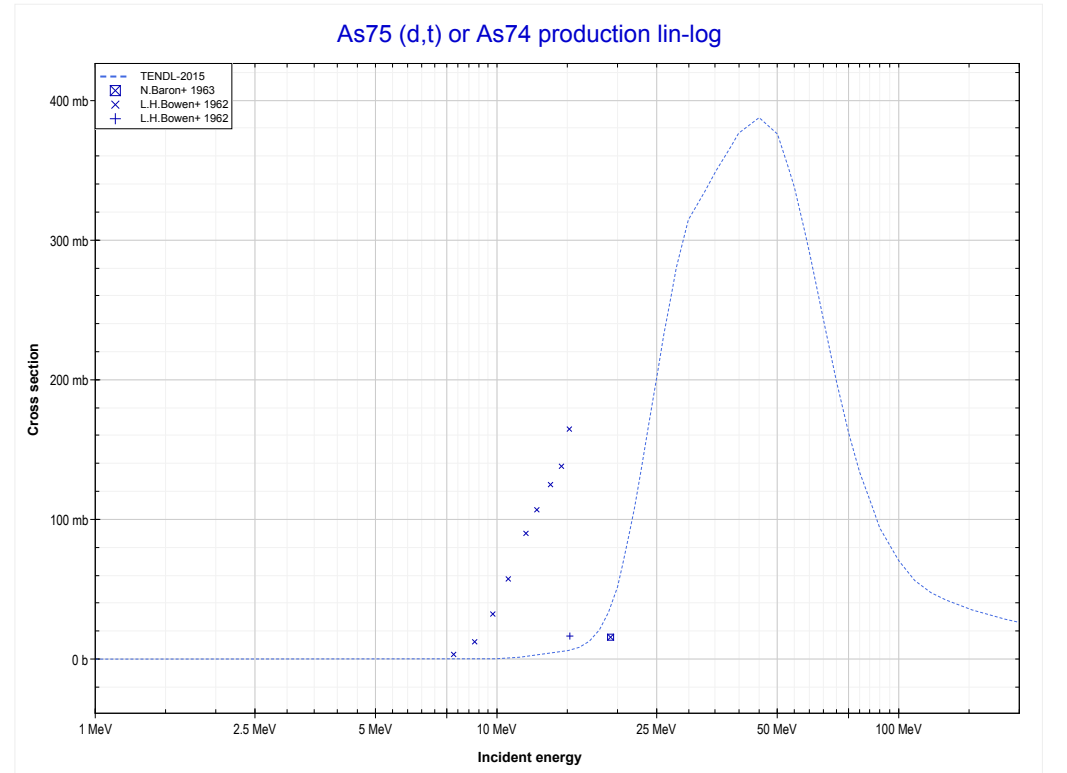
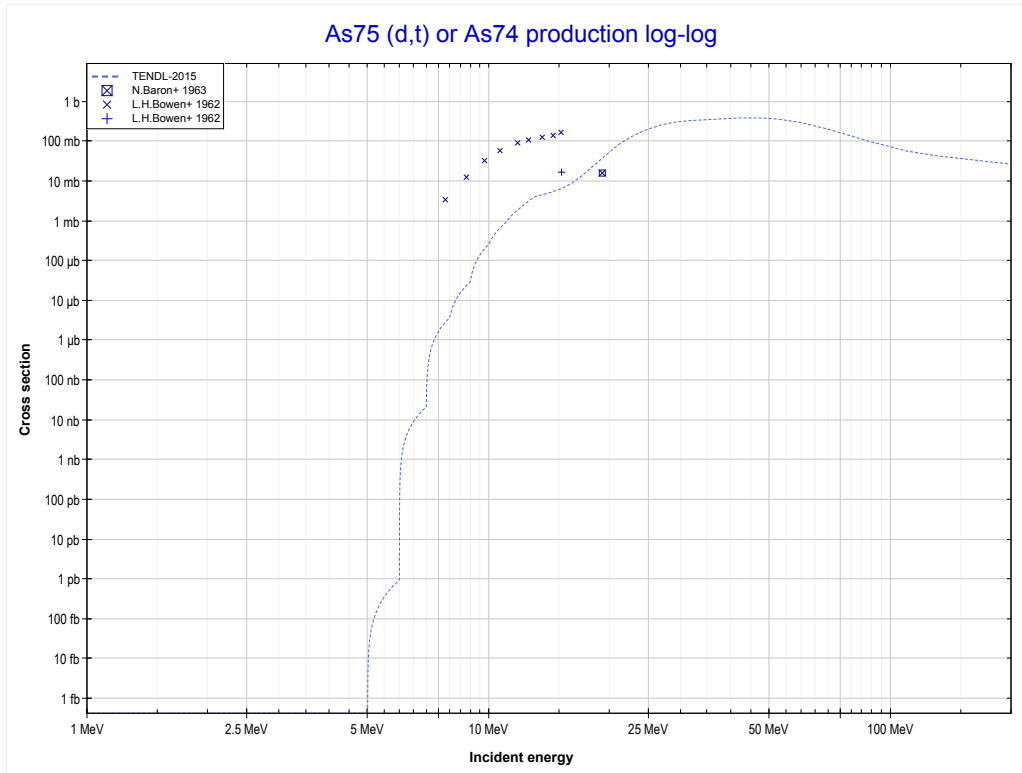
Reaction	Q-Value
As75(d,n+t)As73	-11966.60 keV
As75(d,2n+d)As73	-18223.83 keV
As75(d,3n+p)As73	-20448.40 keV

<< 31-Ga-71	<b>33-As-75</b>	35-Br-81 >>
<< MT42 (d,3n+p)	<b>MT103 (d,p) or MT5 (As76 production)</b>	MT105 (d,t) >>



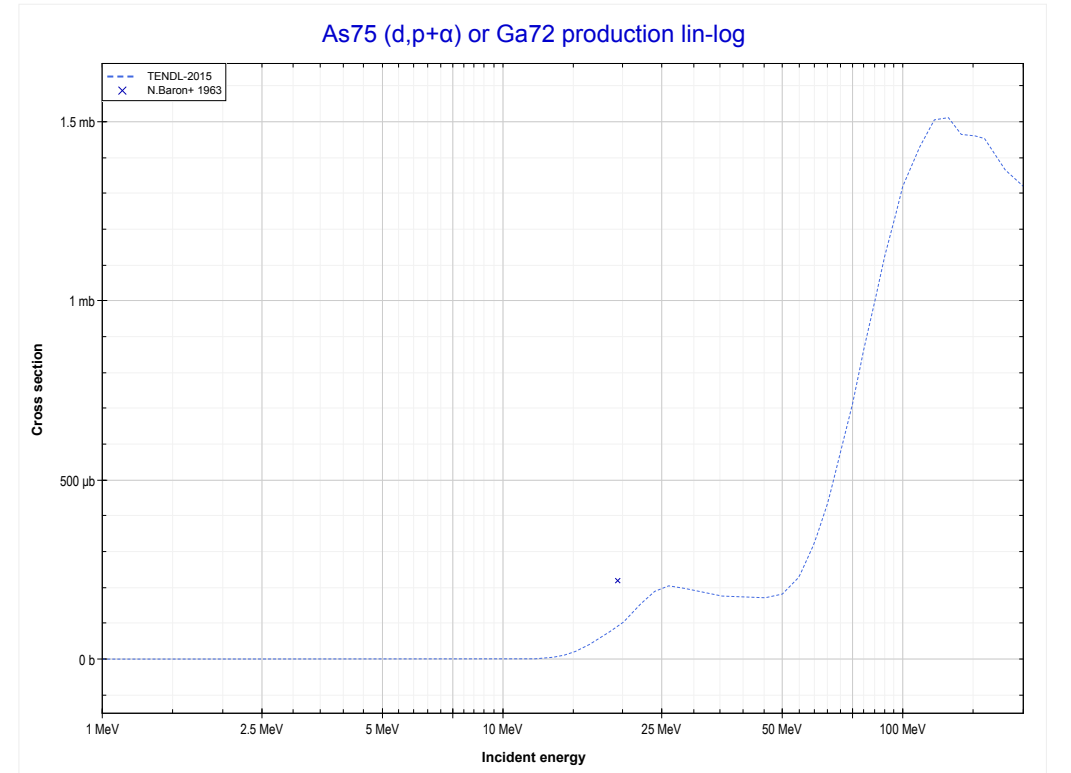
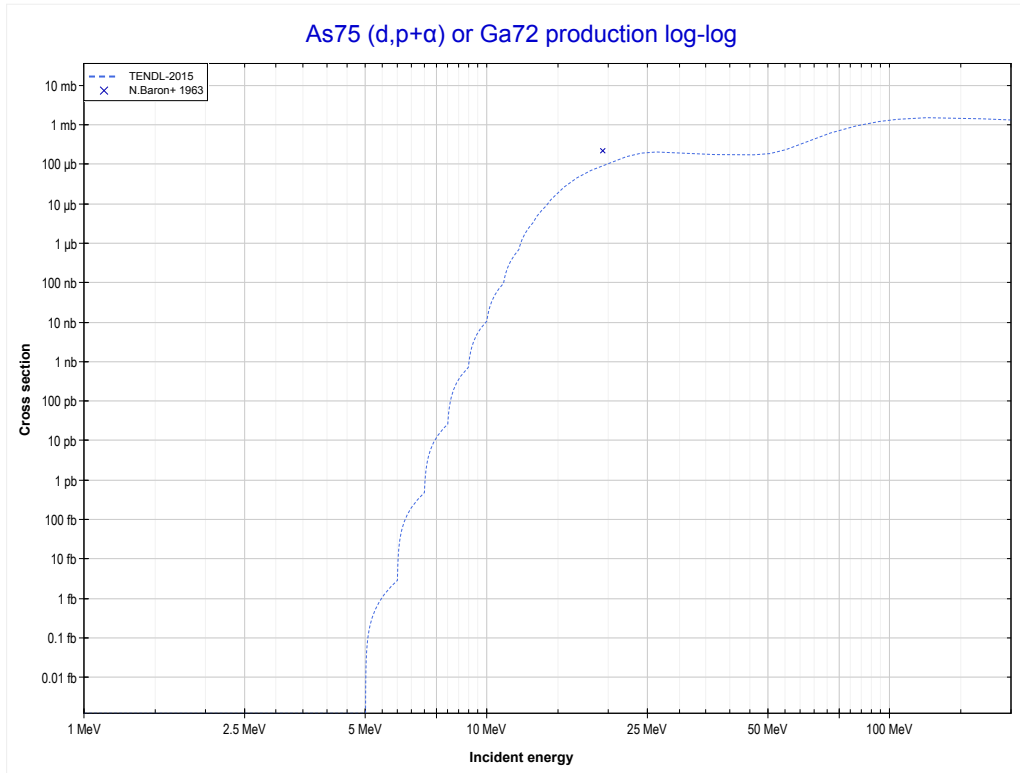
Reaction	Q-Value
As75(d,p)As76	5103.95 keV

<< 28-Ni-58	<b>33-As-75</b>	40-Zr-90 >>
<< MT103 (d,p)	<b>MT105 (d,t) or MT5 (As74 production)</b>	MT112 (d,p+α) >>



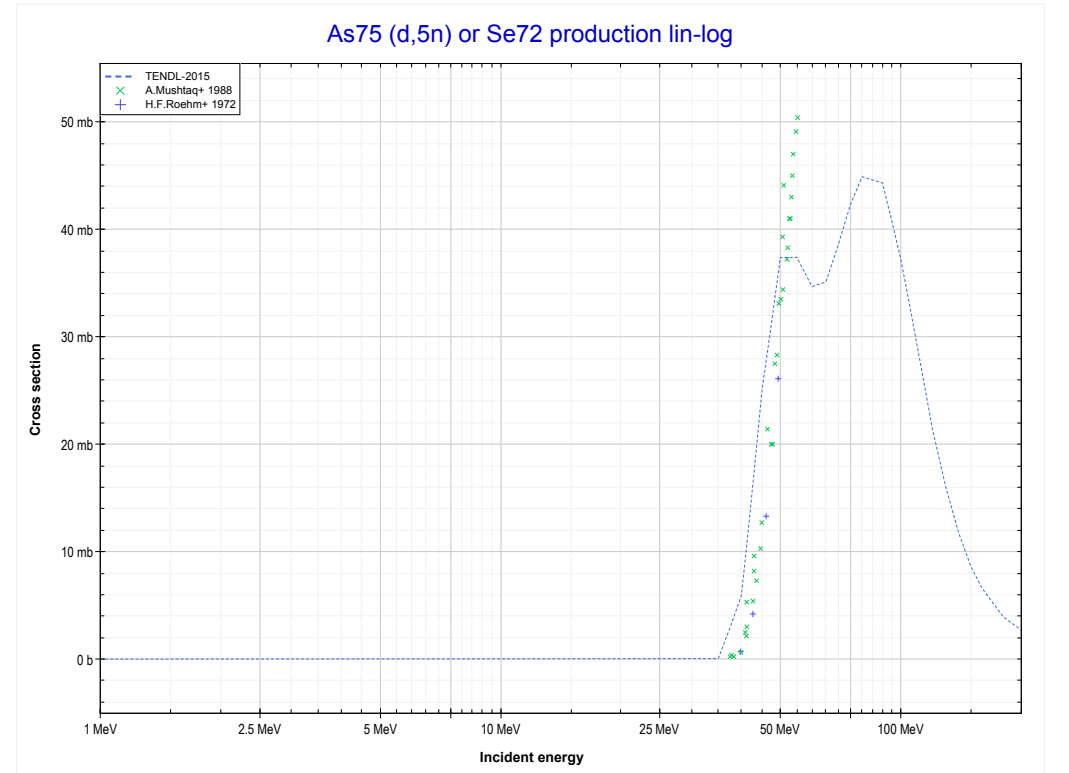
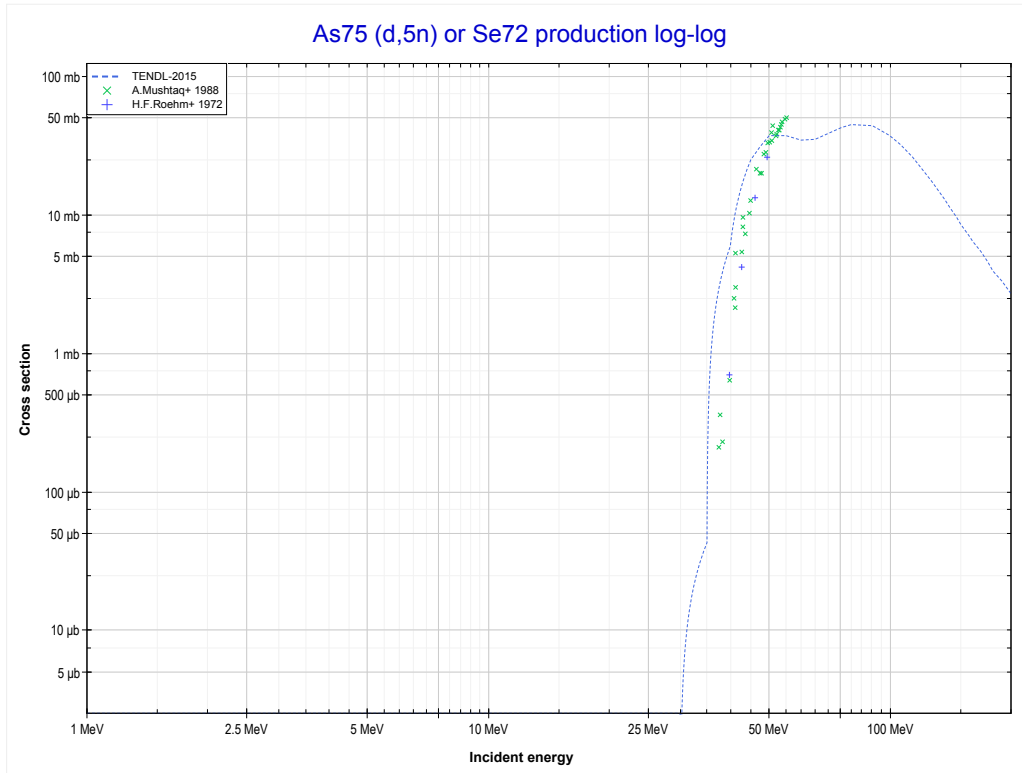
Reaction	Q-Value
As75(d,t)As74	-3988.18 keV
As75(d,n+d)As74	-10245.42 keV
As75(d,2n+p)As74	-12469.98 keV

<< 30-Zn-68	<b>33-As-75</b>	35-Br-79 >>
<< MT105 (d,t)	<b>MT112 (d,p+α) or MT5 (Ga72 production)</b>	MT152 (d,5n) >>



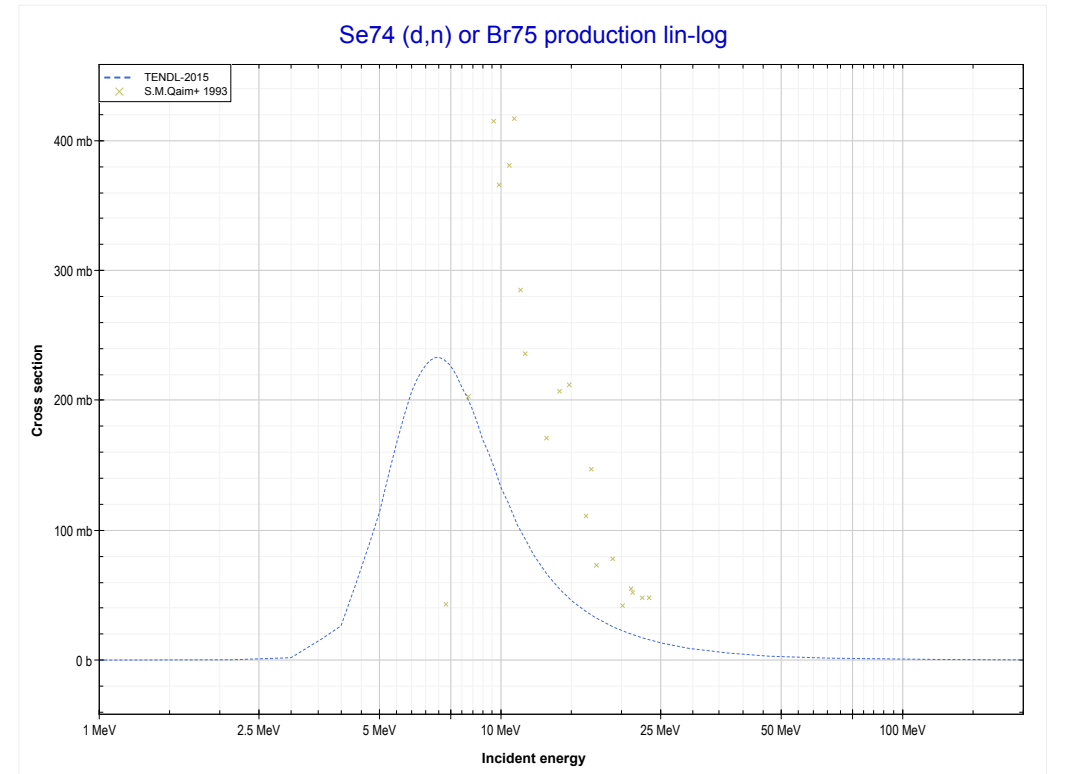
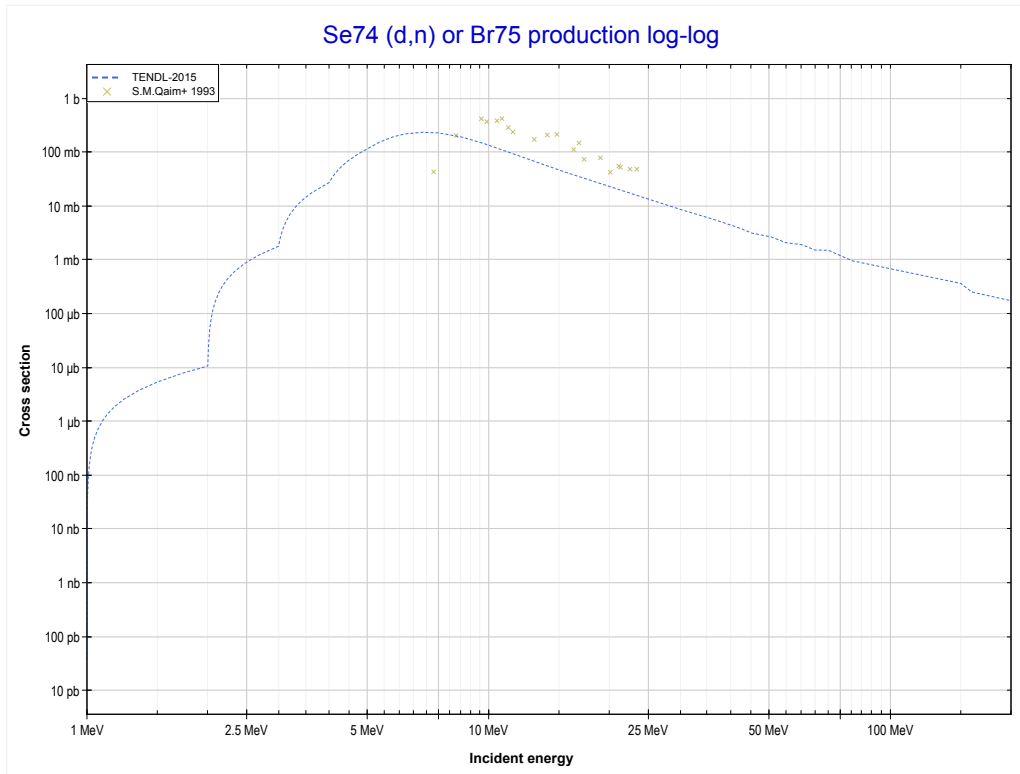
Reaction	Q-Value
As75(d,p+α)Ga72	-1024.06 keV
As75(d,d+He3)Ga72	-19377.12 keV
As75(d,2p+t)Ga72	-20837.93 keV
As75(d,n+p+He3)Ga72	-21601.68 keV
As75(d,p+2d)Ga72	-24870.59 keV
As75(d,n+2p+d)Ga72	-27095.16 keV
As75(d,2n+3p)Ga72	-29319.72 keV

<< 27-Co-59	<b>33-As-75</b>	41-Nb-93 >>
<< MT112 (d,p+α)	<b>MT152 (d,5n) or MT5 (Se72 production)</b>	34-Se-74 MT4 (d,n) >>



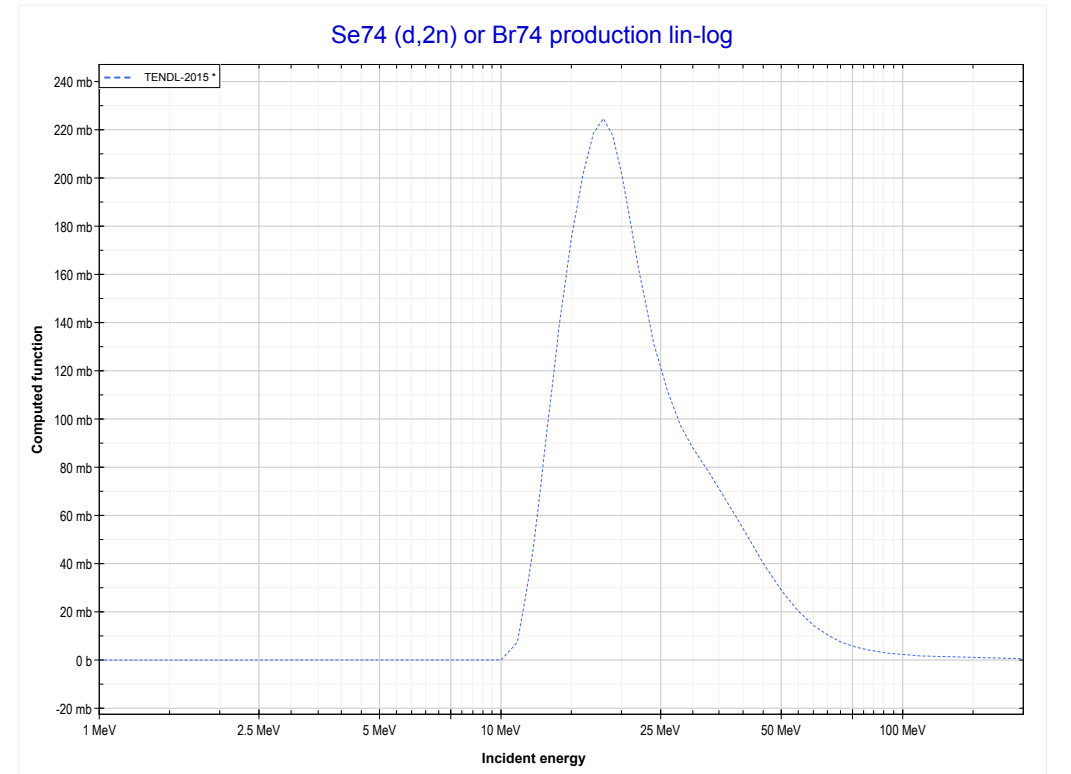
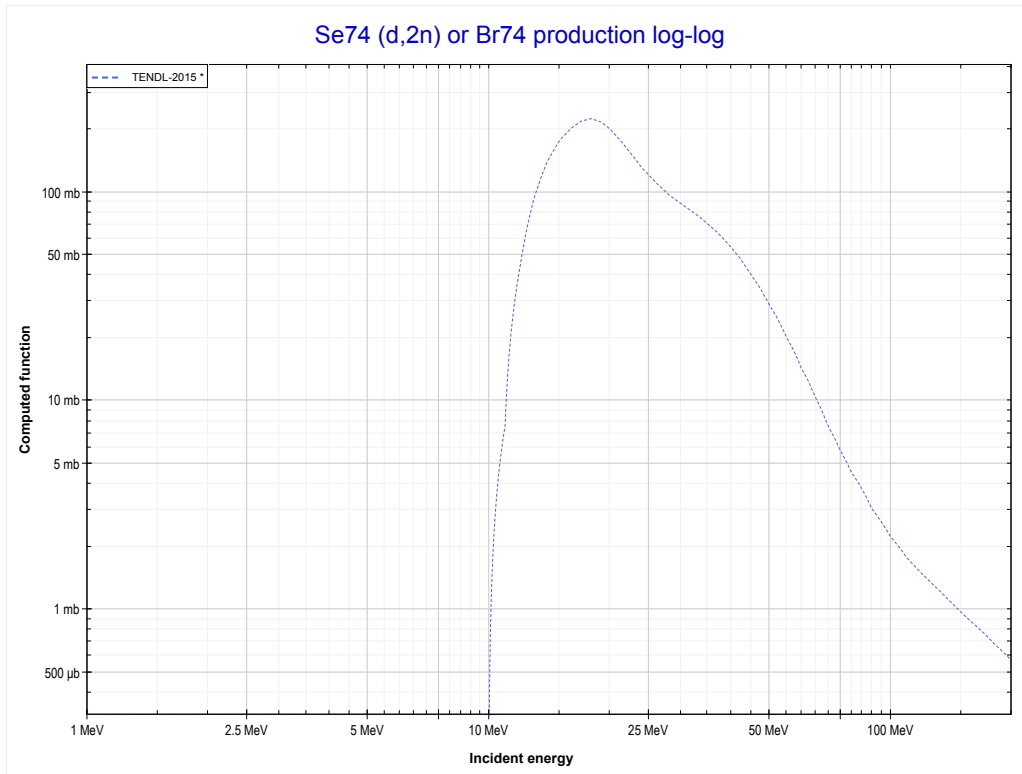
Reaction	Q-Value
As75(d,5n)Se72	-32386.86 keV

<< 30-Zn-66	<b>34-Se-74</b>	36-Kr-78 >>
<< 33-As-75 MT152 (d,5n)	<b>MT4 (d,n) or MT5 (Br75 production)</b>	MT16 (d,2n) >>



Reaction	Q-Value
Se74(d,n)Br75	1958.20 keV

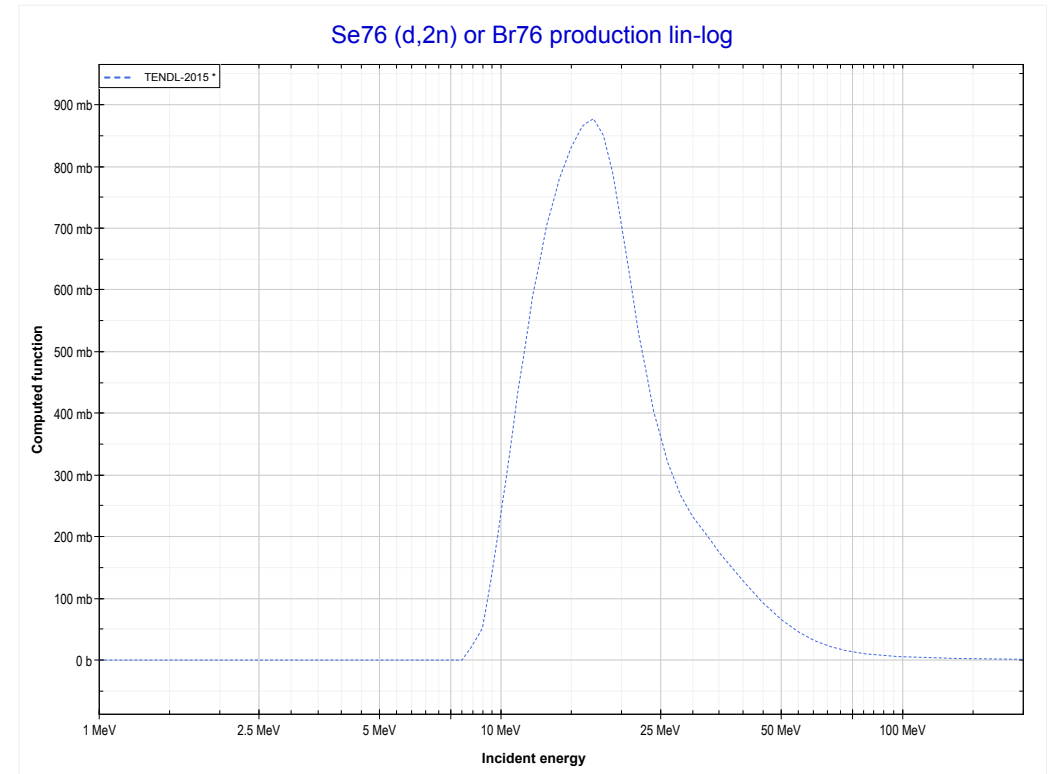
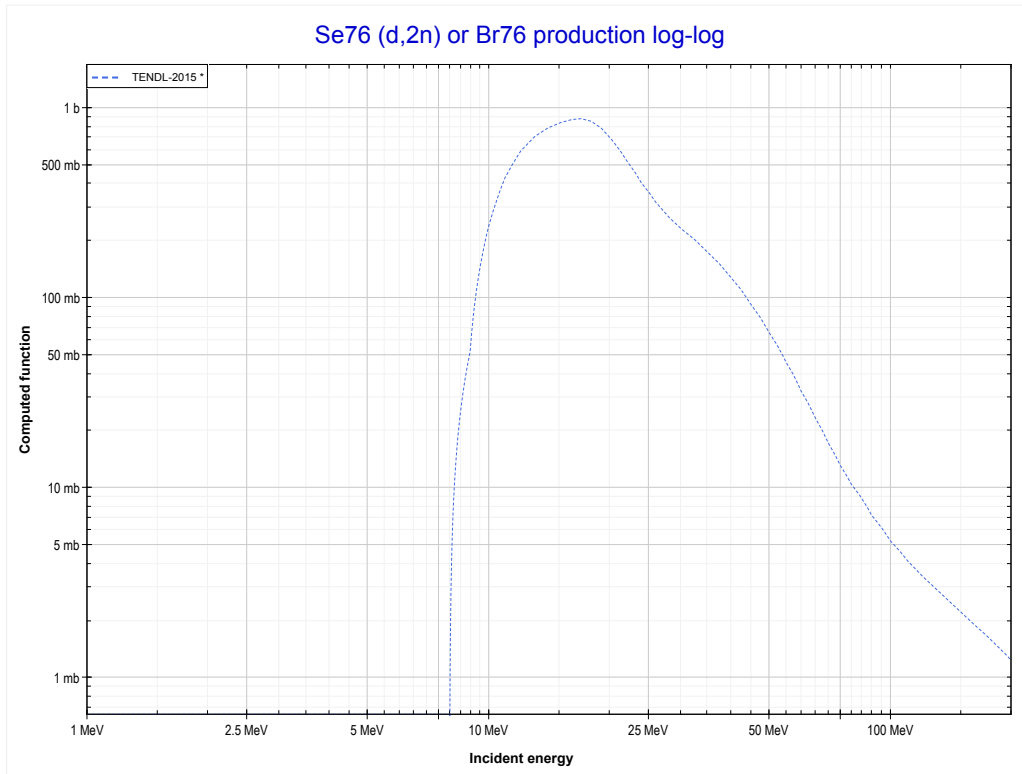
<< 33-As-75	<b>34-Se-74</b>	34-Se-76 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Br74 production)</b>	34-Se-76 MT16 (d,2n) >>



Reaction	Q-Value
Se74(d,2n)Br74	-9932.11 keV

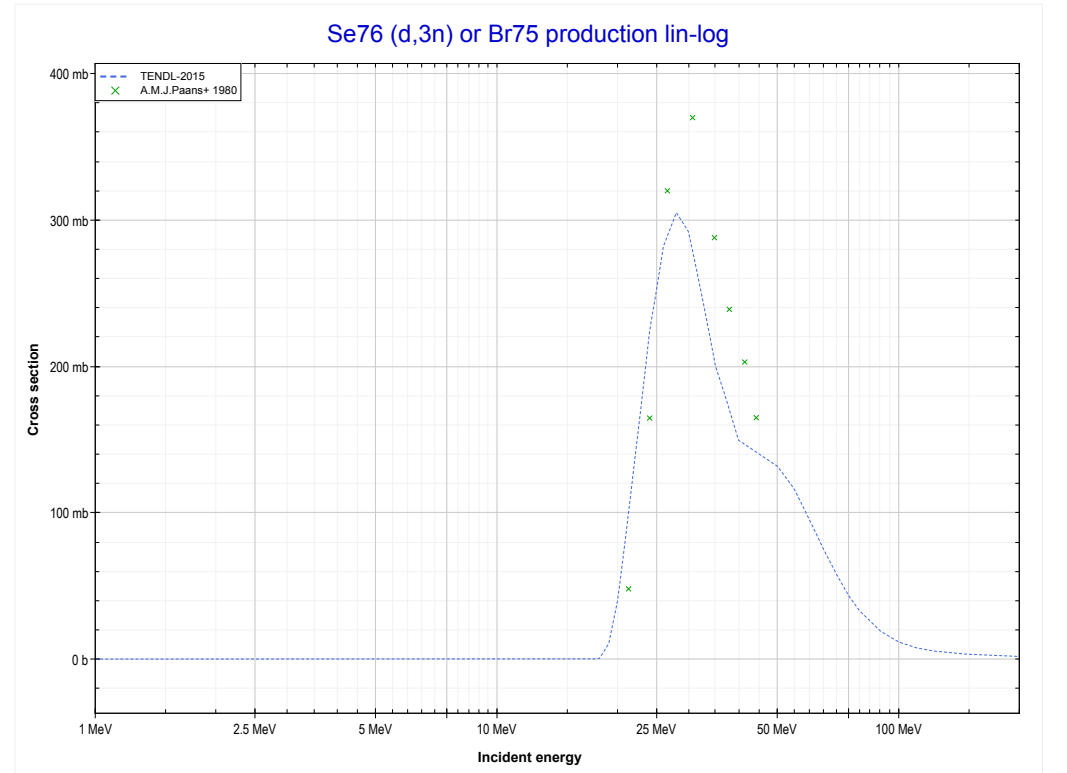
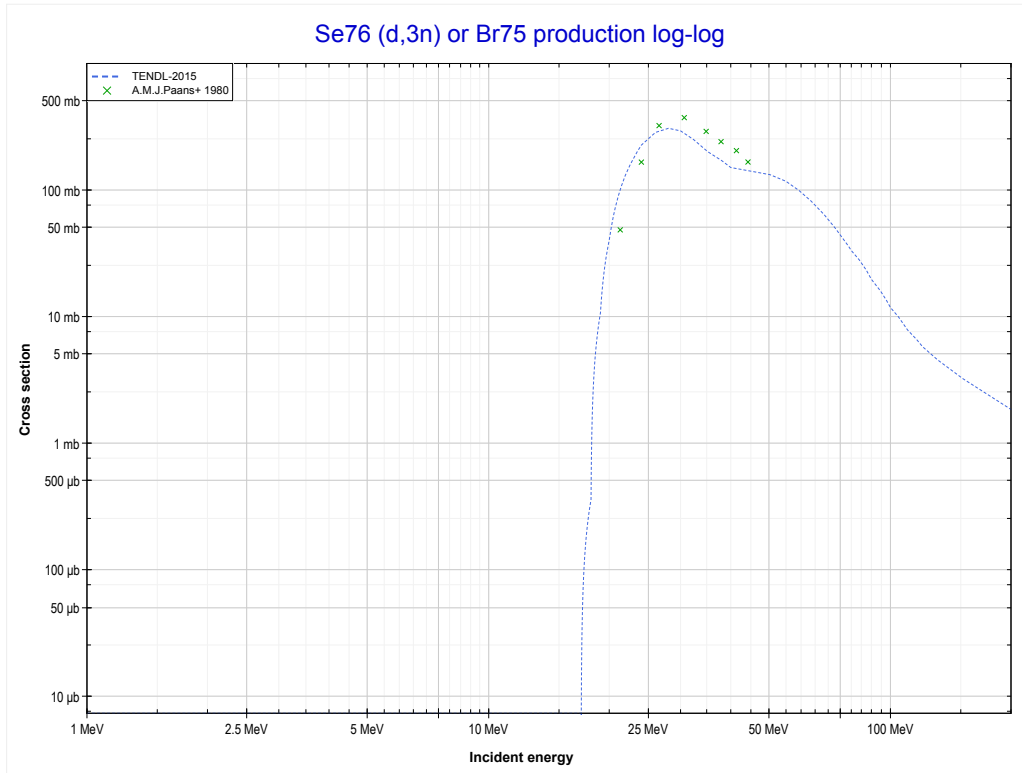


<< 34-Se-74	<b>34-Se-76</b>	34-Se-80 >>
<< 34-Se-74 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Br76 production)</b>	MT17 (d,3n) >>



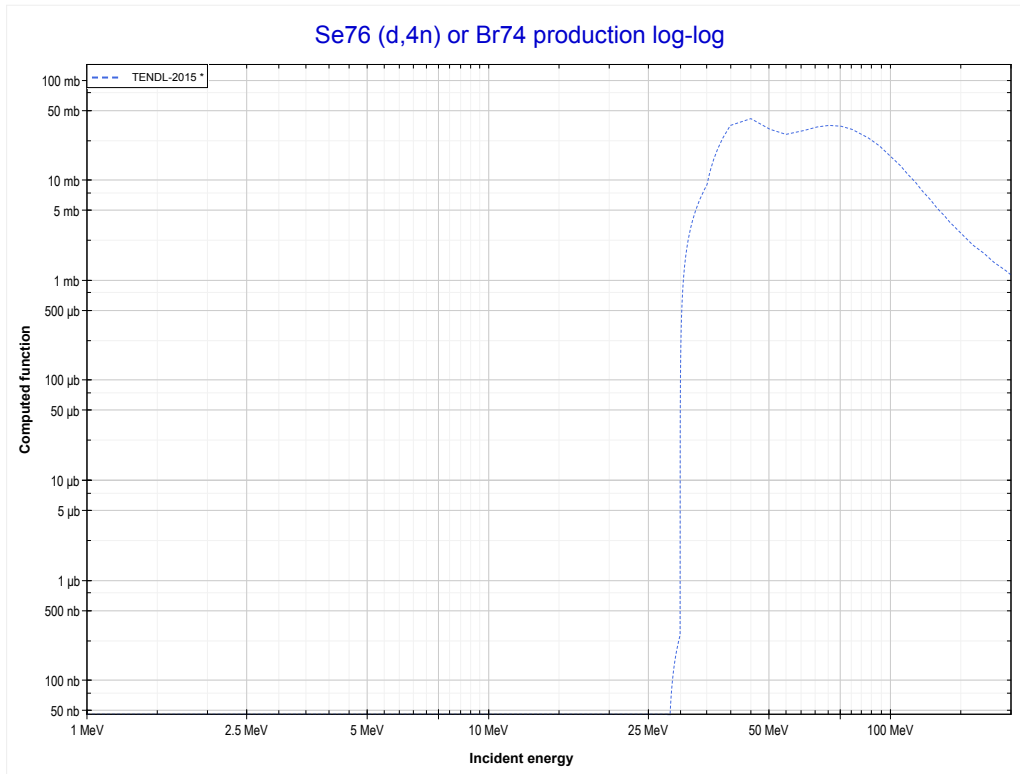
Reaction	Q-Value
Se76(d,2n)Br76	-7969.86 keV

<< 30-Zn-66	<b>34-Se-76</b>	39-Y-89 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Br75 production)</b>	MT37 (d,4n) >>



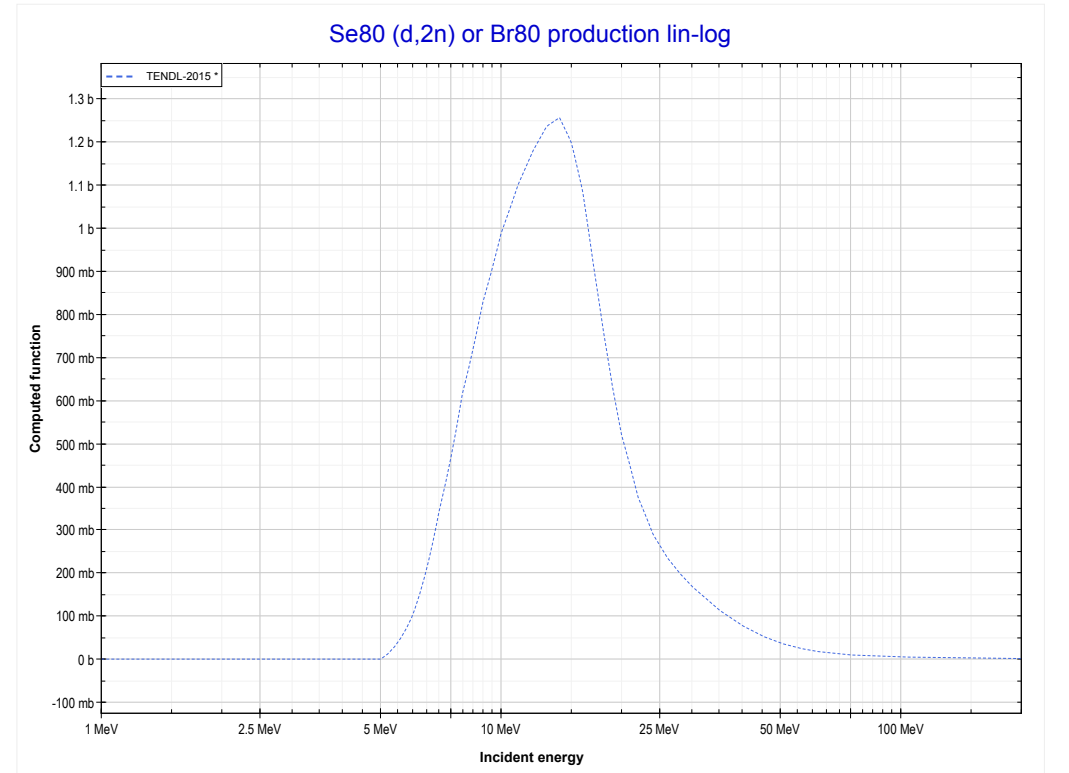
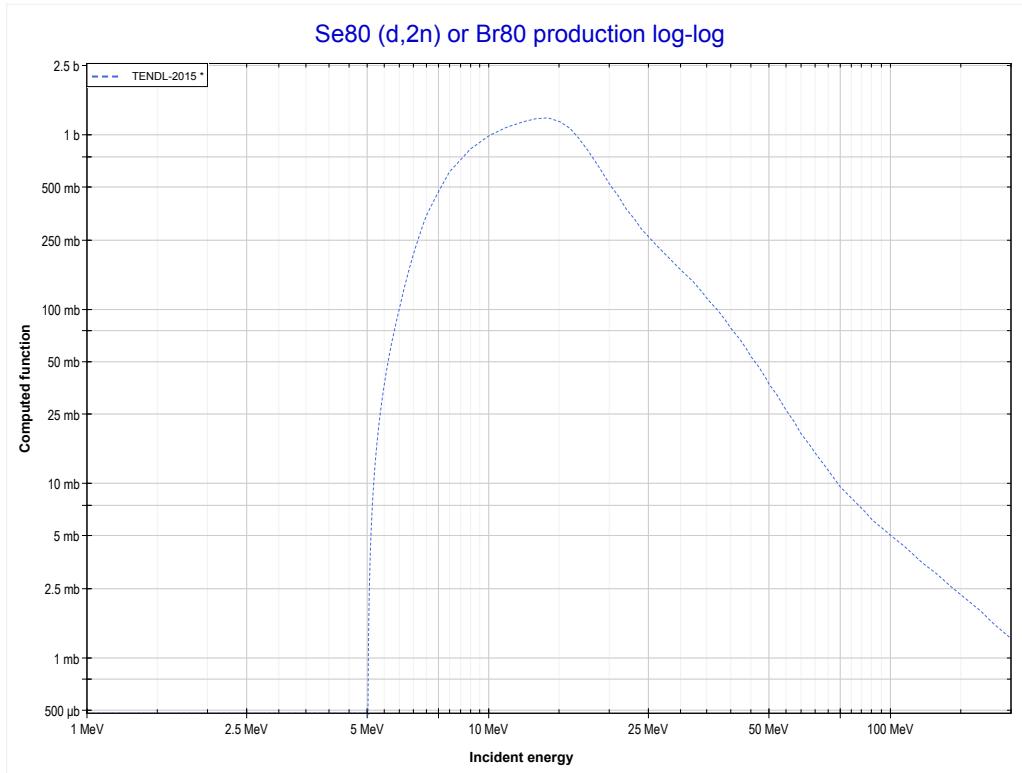
Reaction	Q-Value
Se76(d,3n)Br75	-17223.18 keV

<< 33-As-75	<b>34-Se-76</b>	45-Rh-103 >>
<< MT17 (d,3n)	<b>MT37 (d,4n) or MT5 (Br74 production)</b>	34-Se-80 MT16 (d,2n) >>



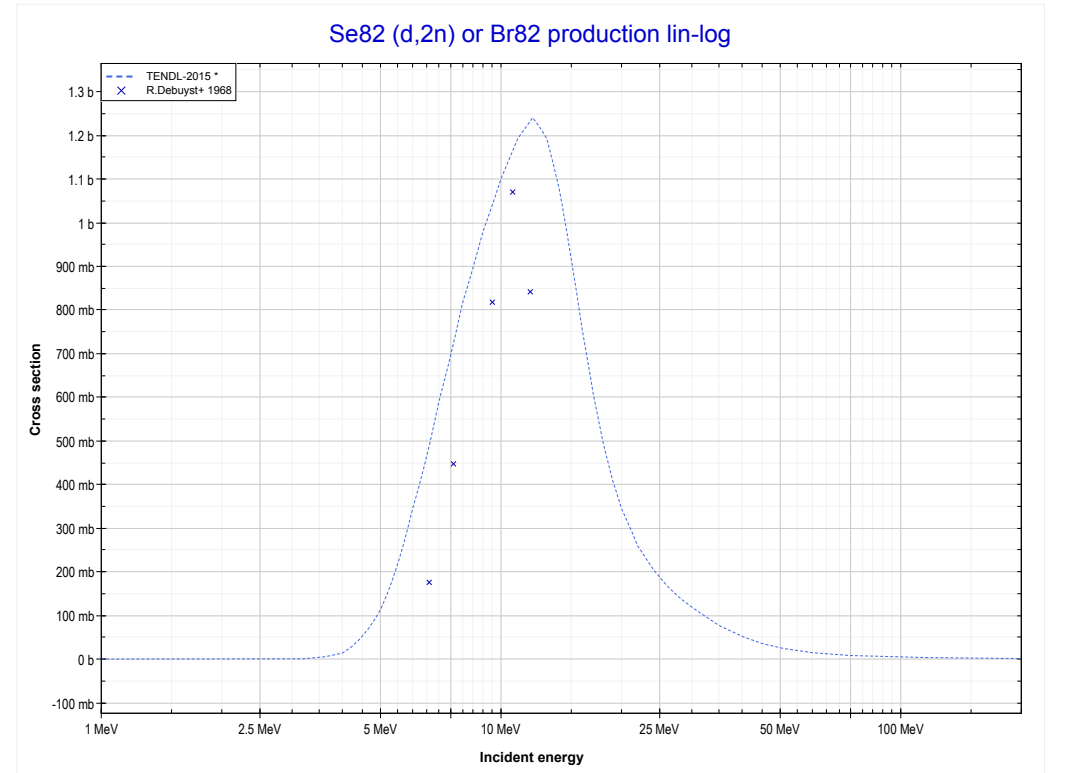
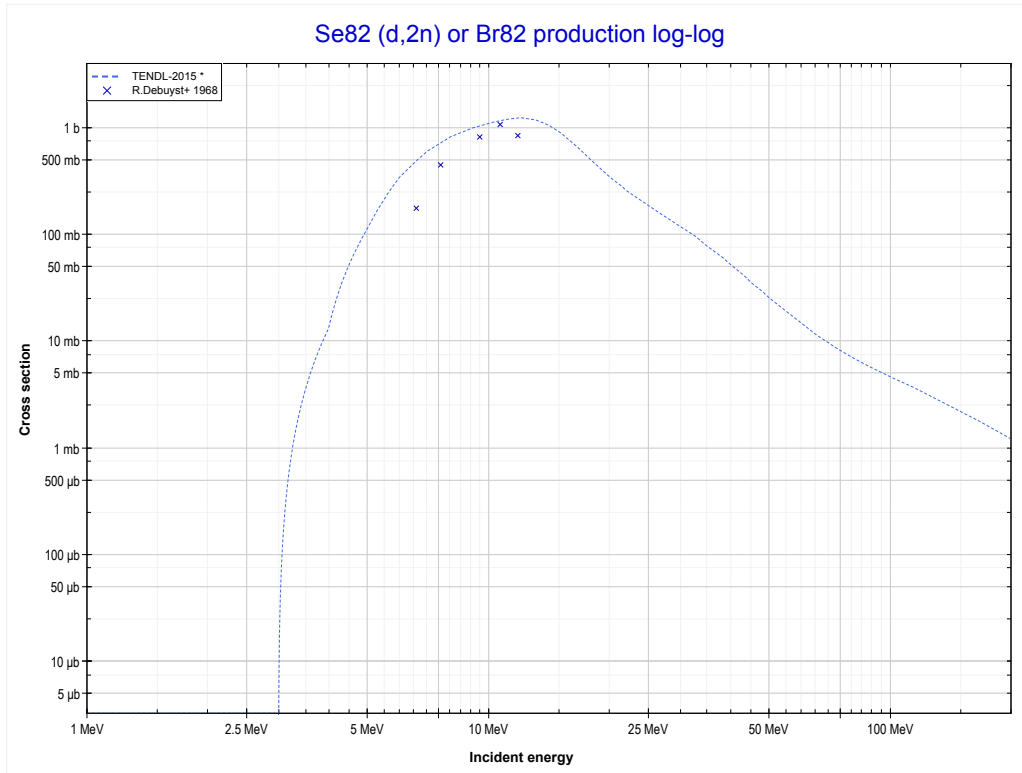
Reaction	Q-Value
Se76(d,4n)Br74	-29113.50 keV

<< 34-Se-76	<b>34-Se-80</b>	34-Se-82 >>
<< 34-Se-76 MT37 (d,4n)	<b>MT16 (d,2n) or MT5 (Br80 production)</b>	34-Se-82 MT16 (d,2n) >>



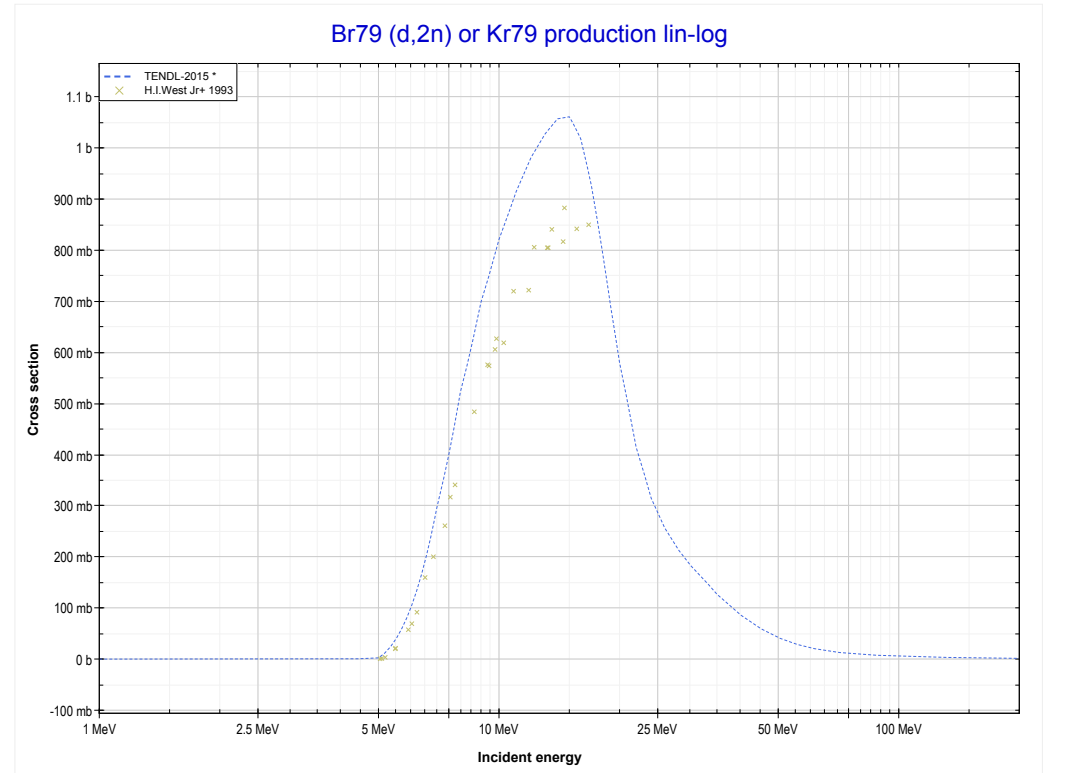
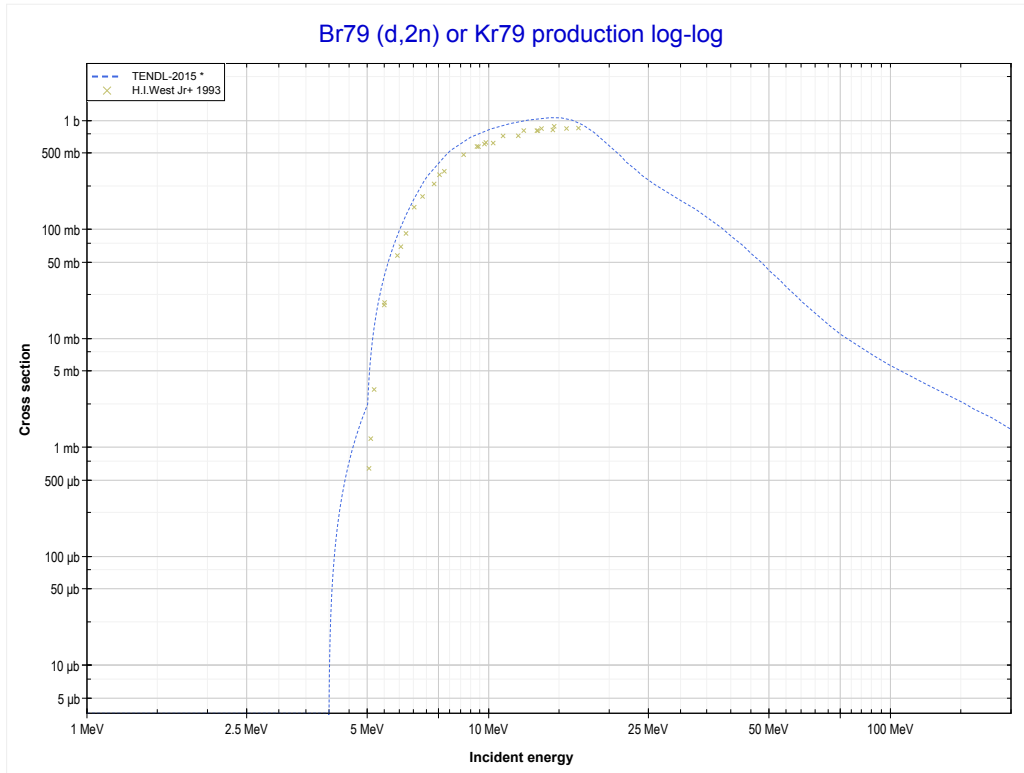
Reaction	Q-Value
Se80(d,2n)Br80	-4877.41 keV

<< 34-Se-80	<b>34-Se-82</b>	35-Br-79 >>
<< 34-Se-80 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Br82 production)</b>	35-Br-79 MT16 (d,2n) >>



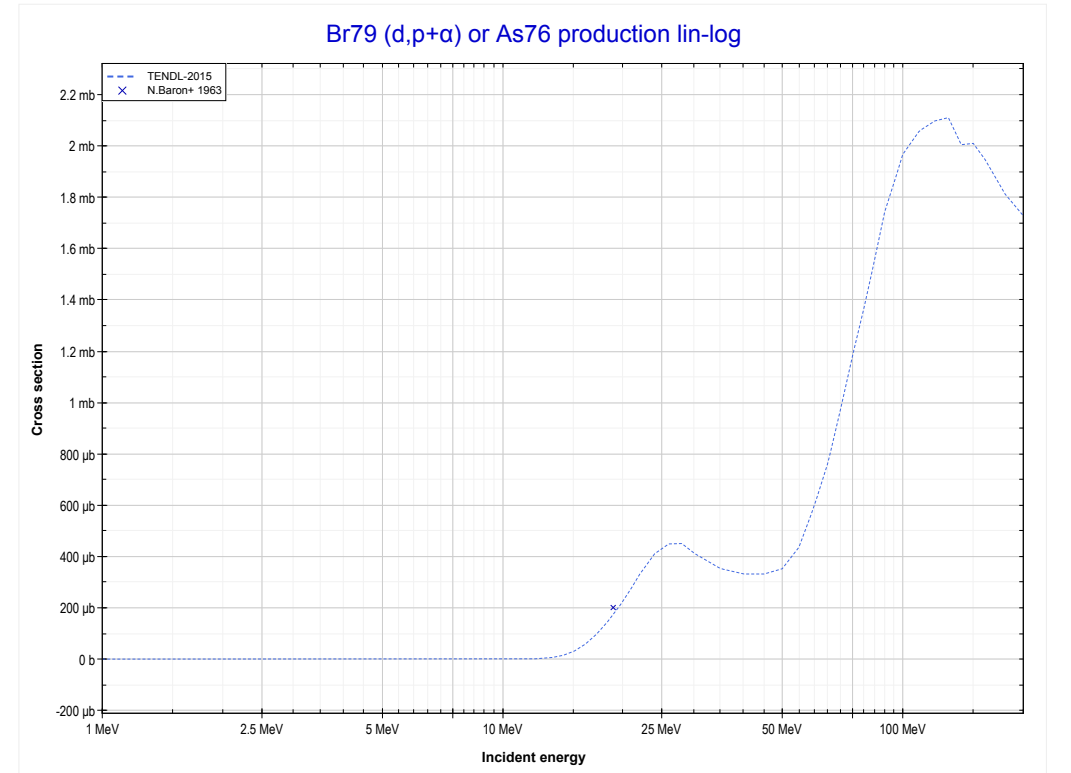
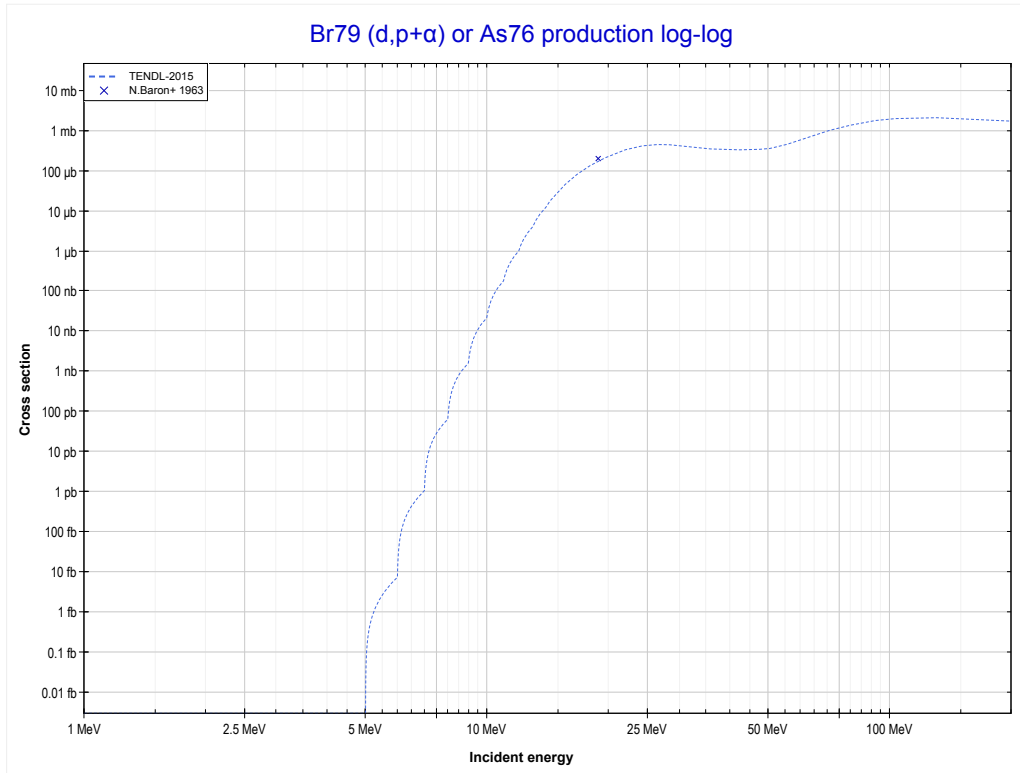
Reaction	Q-Value
Se82(d,2n)Br82	-3103.51 keV

<< 34-Se-82	<b>35-Br-79</b>	35-Br-81 >>
<< 34-Se-82 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Kr79 production)</b>	MT112 (d,p+α) >>



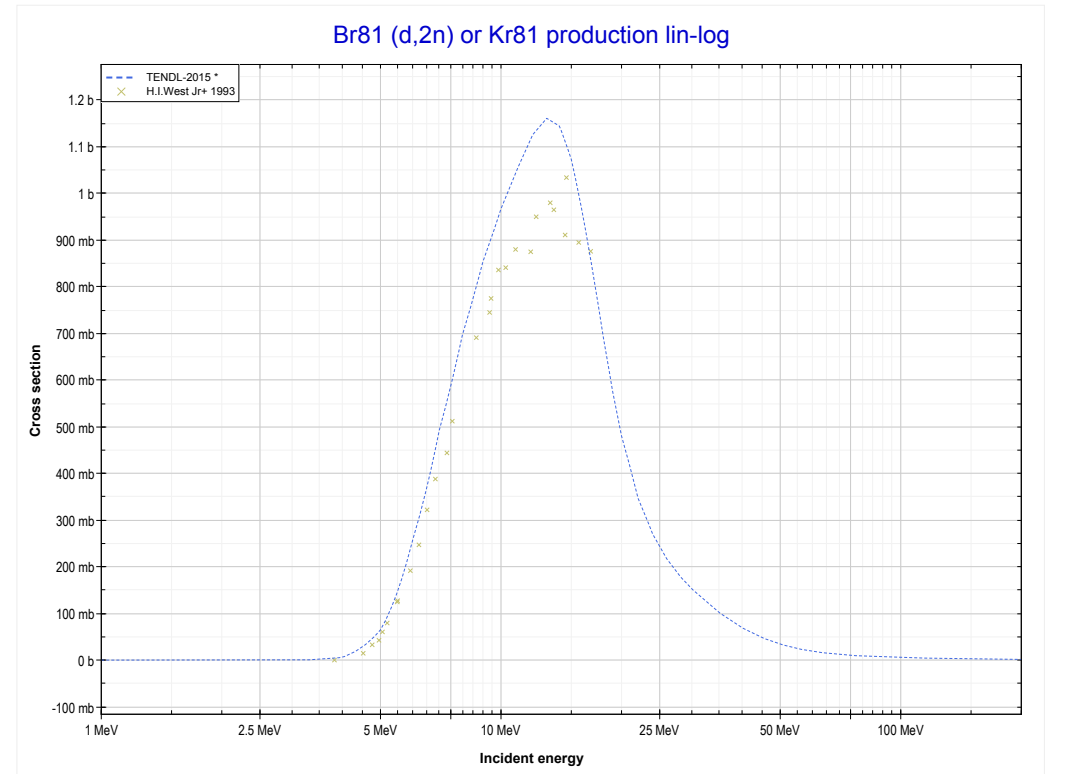
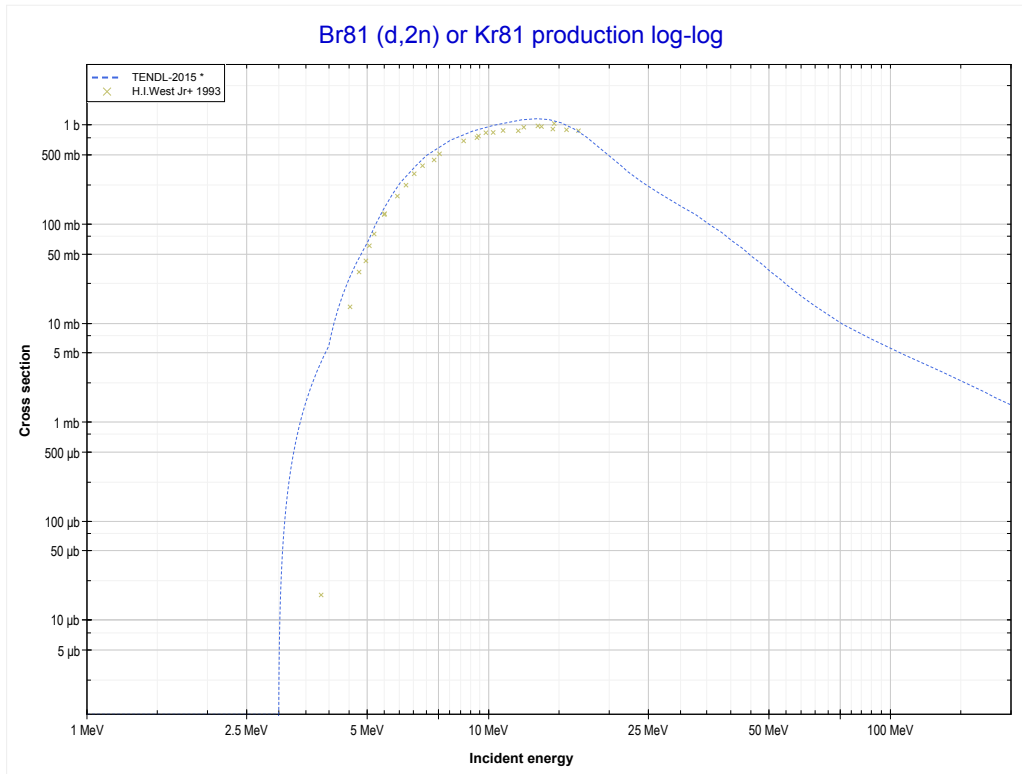
Reaction	Q-Value
Br79(d,2n)Kr79	-4633.01 keV

<< 33-As-75	<b>35-Br-79</b>	49-In-115 >>
<< MT16 (d,2n)	<b>MT112 (d,p+α) or MT5 (As76 production)</b>	35-Br-81 MT16 (d,2n) >>



Reaction	Q-Value
Br79(d,p+α)As76	-354.86 keV
Br79(d,d+He3)As76	-18707.92 keV
Br79(d,2p+t)As76	-20168.73 keV
Br79(d,n+p+He3)As76	-20932.48 keV
Br79(d,p+2d)As76	-24201.39 keV
Br79(d,n+2p+d)As76	-26425.96 keV
Br79(d,2n+3p)As76	-28650.52 keV

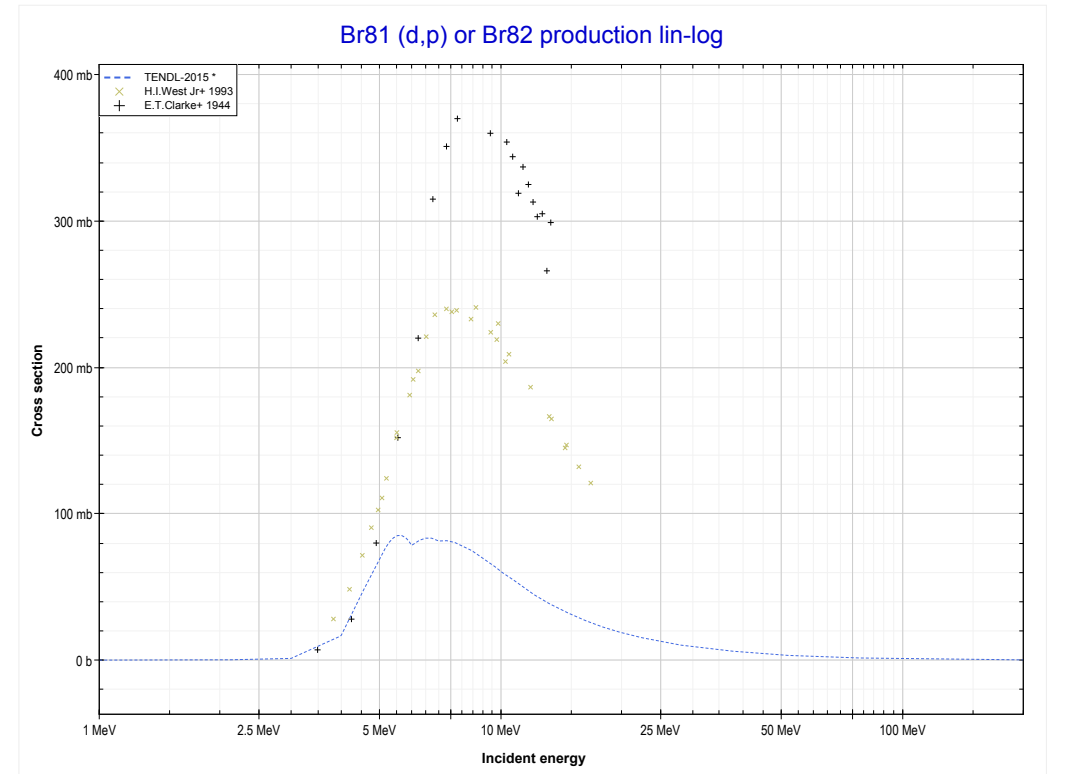
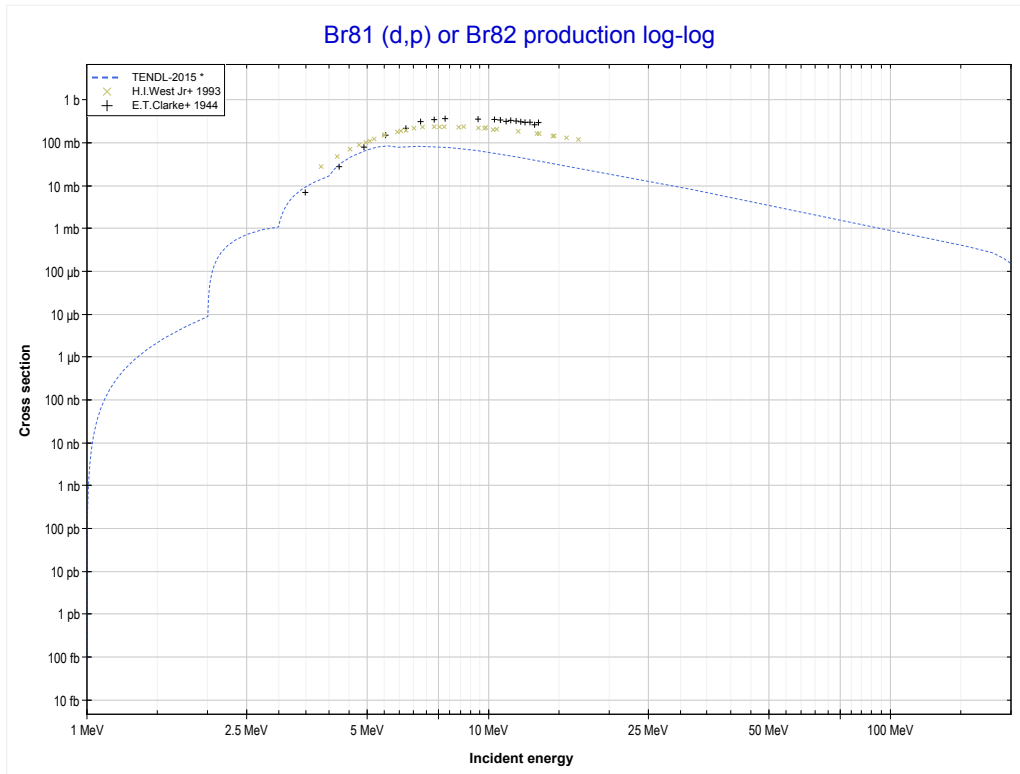
<< 35-Br-79	<b>35-Br-81</b>	39-Y-89 >>
<< 35-Br-79 MT112 (d,p+α)	<b>MT16 (d,2n) or MT5 (Kr81 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Br81(d,2n)Kr81	-3287.81 keV

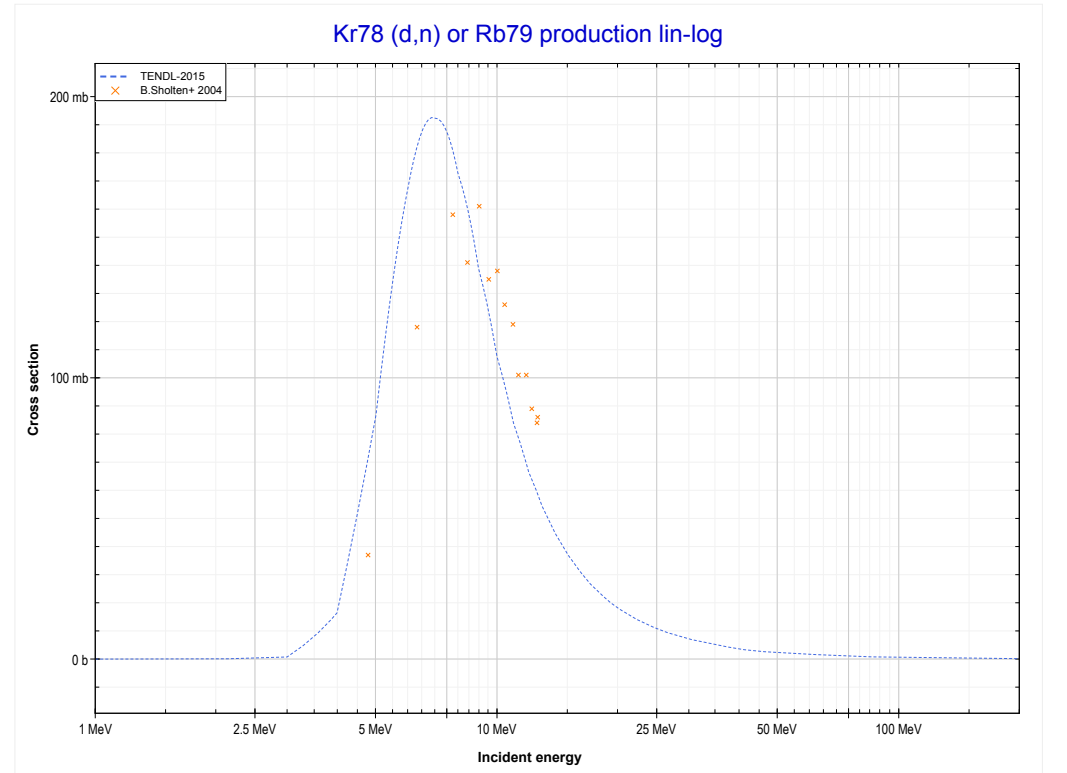
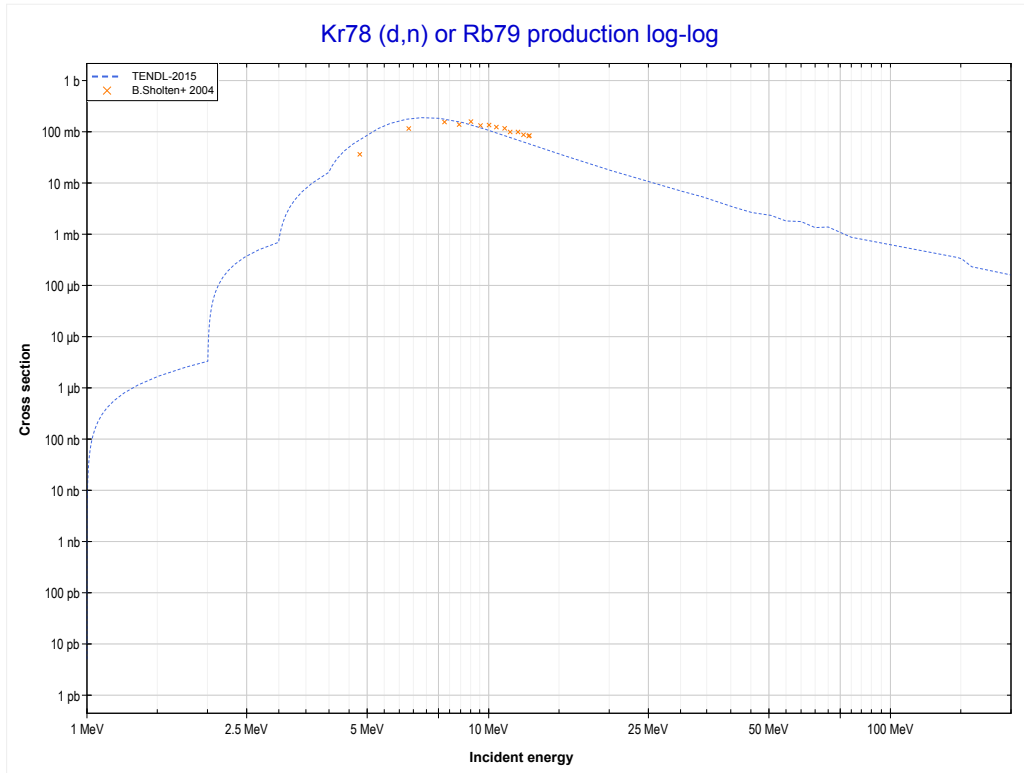


<< 33-As-75	<b>35-Br-81</b>	39-Y-89 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Br82 production)</b>	36-Kr-78 MT4 (d,n) >>



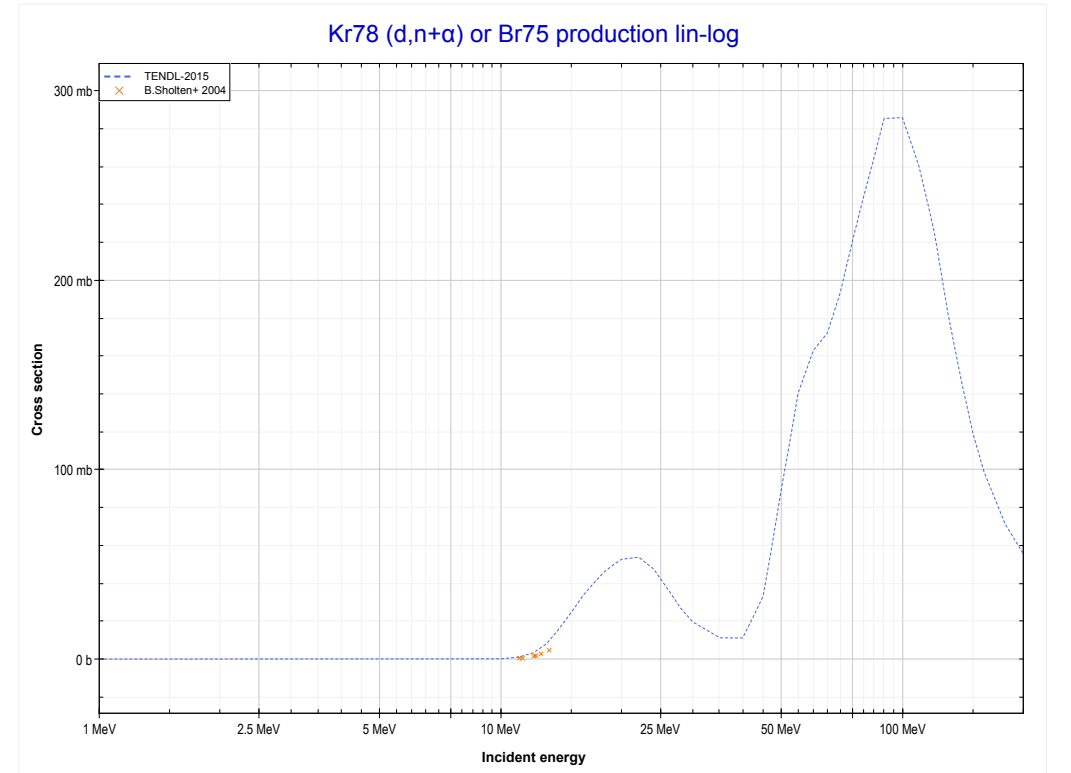
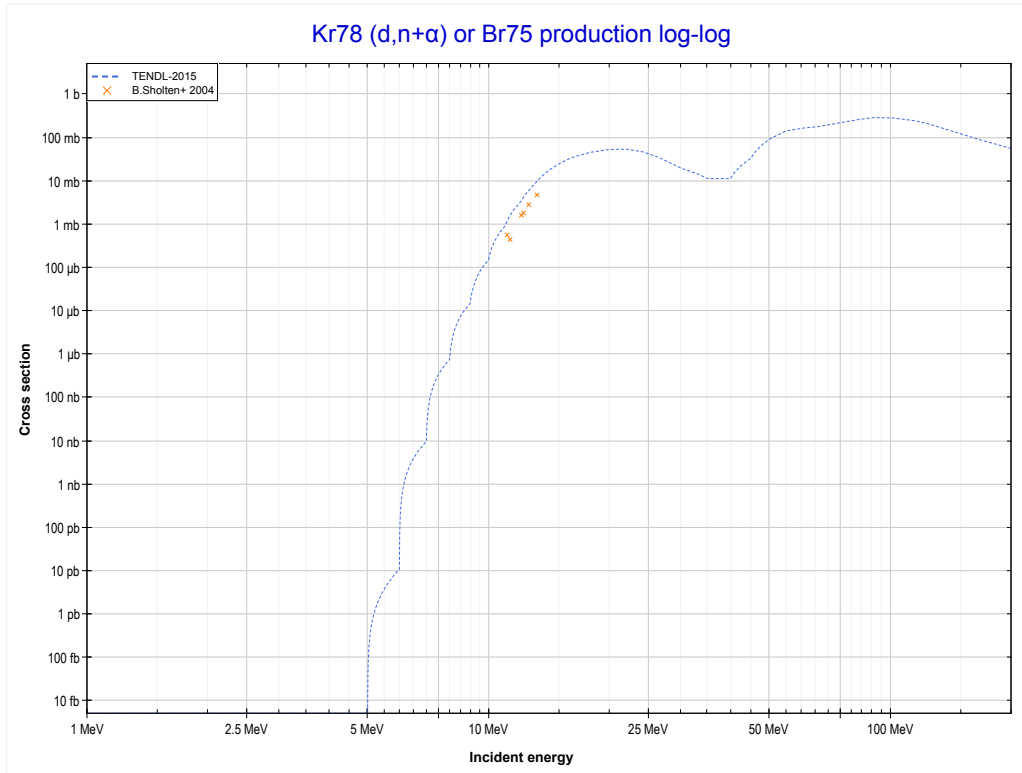
Reaction	Q-Value
Br81(d,p)Br82	5368.35 keV

<< 34-Se-74	<b>36-Kr-78</b>	36-Kr-80 >>
<< 35-Br-81 MT103 (d,p)	<b>MT4 (d,n) or MT5 (Rb79 production)</b>	MT22 (d,n+α) >>



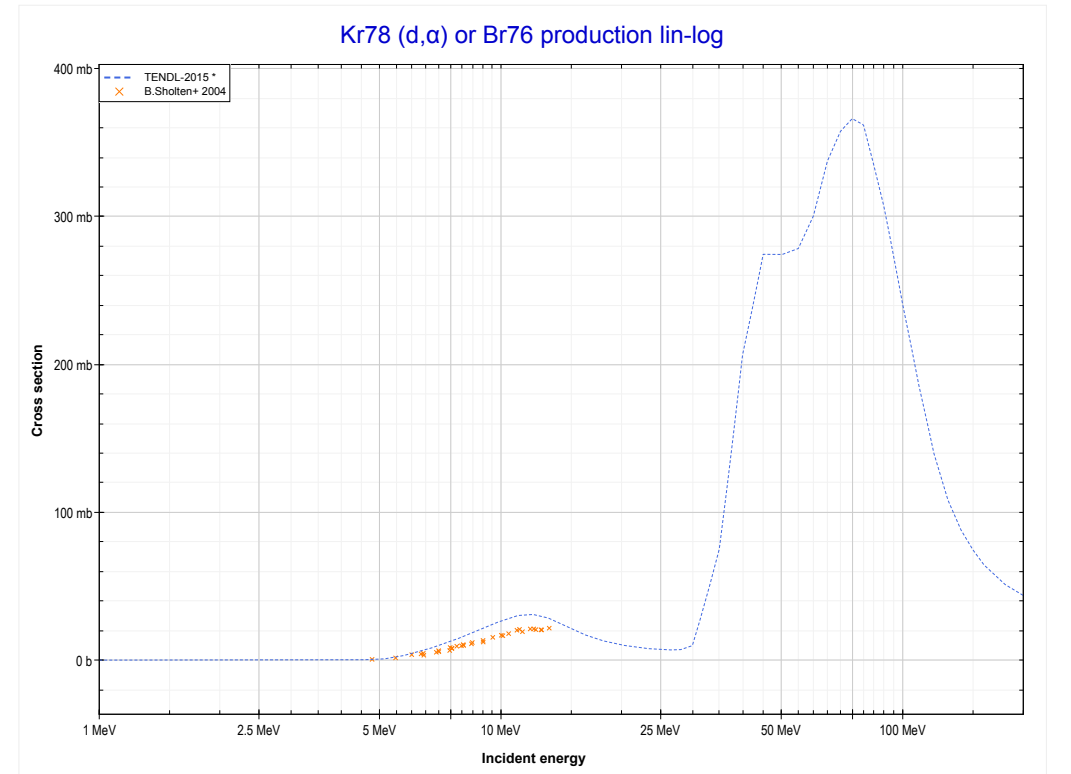
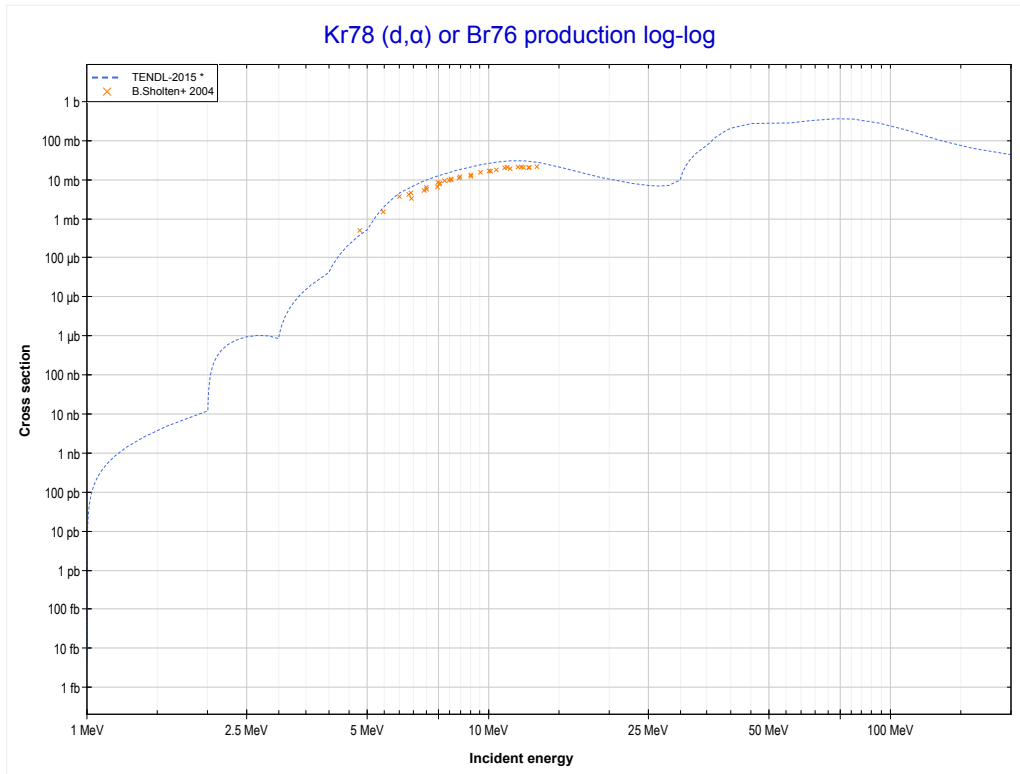
Reaction	Q-Value
Kr78(d,n)Rb79	1687.80 keV

<< 30-Zn-67	<b>36-Kr-78</b>	48-Cd-114 >>
<< MT4 (d,n)	<b>MT22 (d,n+α) or MT5 (Br75 production)</b>	MT107 (d,α) >>



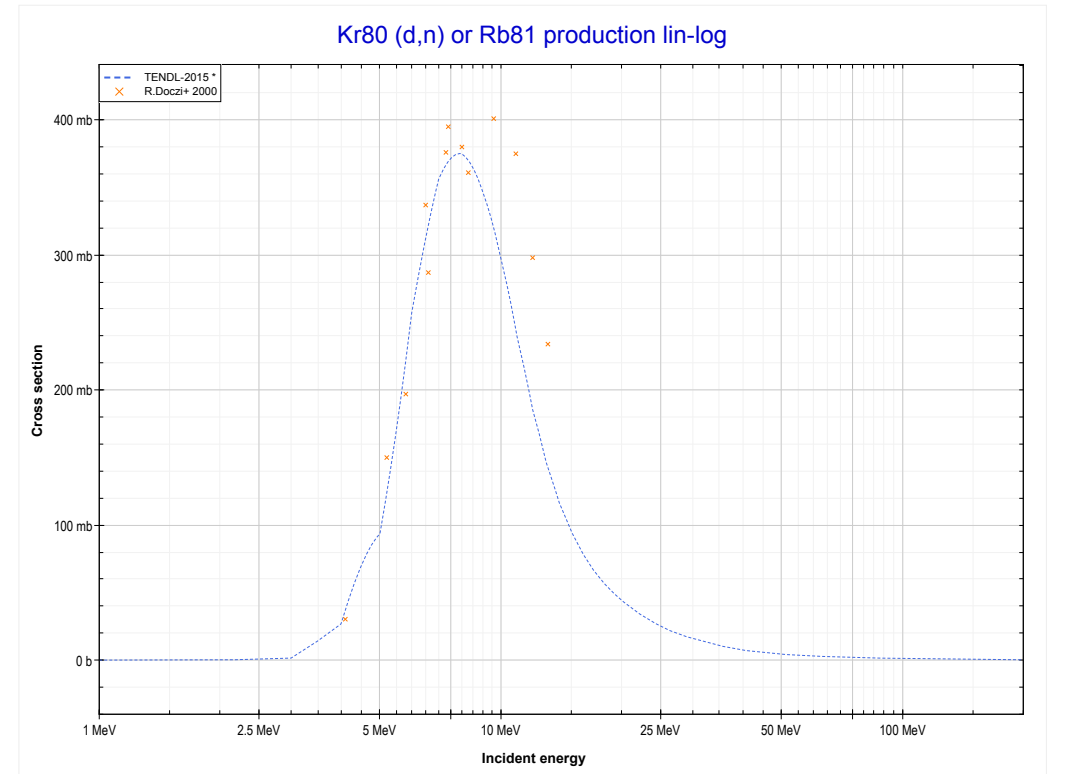
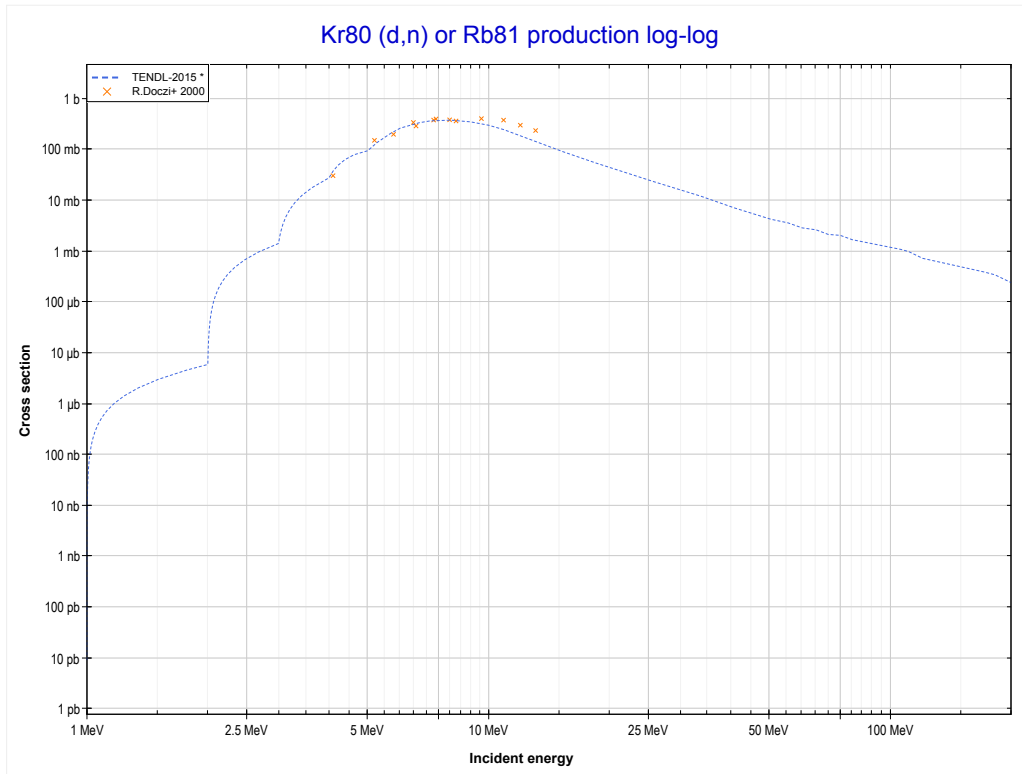
Reaction	Q-Value
Kr78(d,n+α)Br75	-2433.11 keV
Kr78(d,d+t)Br75	-20022.41 keV
Kr78(d,n+p+t)Br75	-22246.97 keV
Kr78(d,2n+He3)Br75	-23010.73 keV
Kr78(d,n+2d)Br75	-26279.64 keV
Kr78(d,2n+p+d)Br75	-28504.20 keV
Kr78(d,3n+2p)Br75	-30728.77 keV

<< 30-Zn-66	<b>36-Kr-78</b>	39-Y-89 >>
<< MT22 (d,n+α)	<b>MT107 (d,α) or MT5 (Br76 production)</b>	36-Kr-80 MT4 (d,n) >>



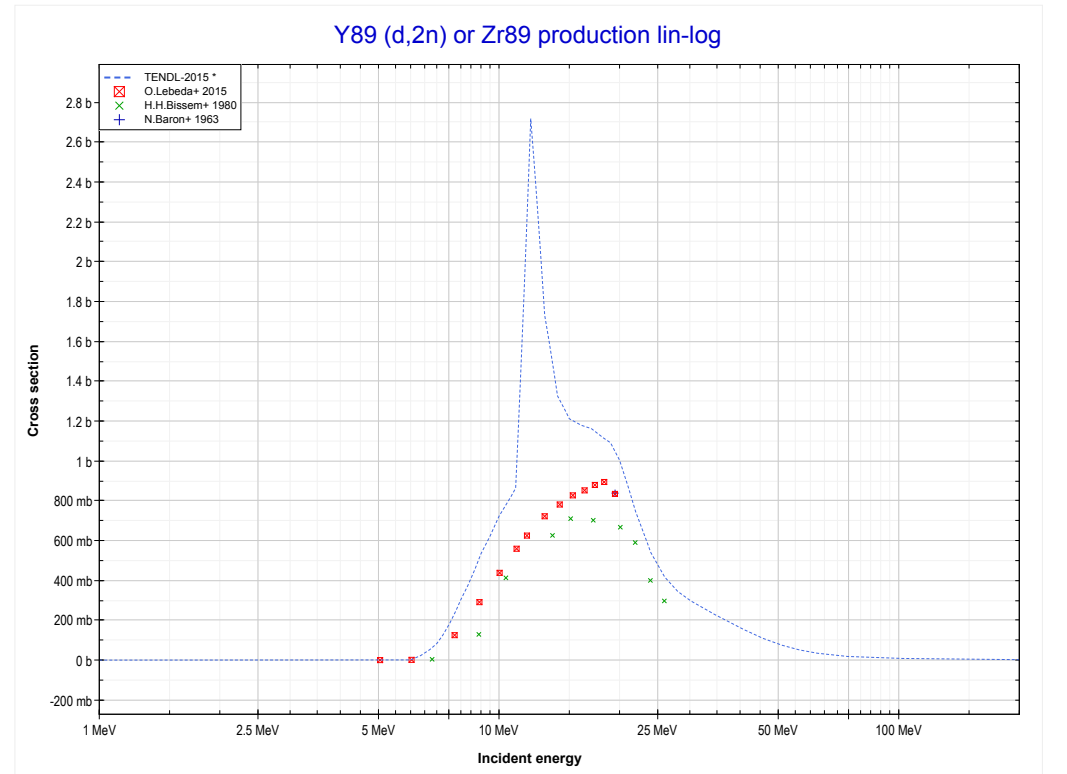
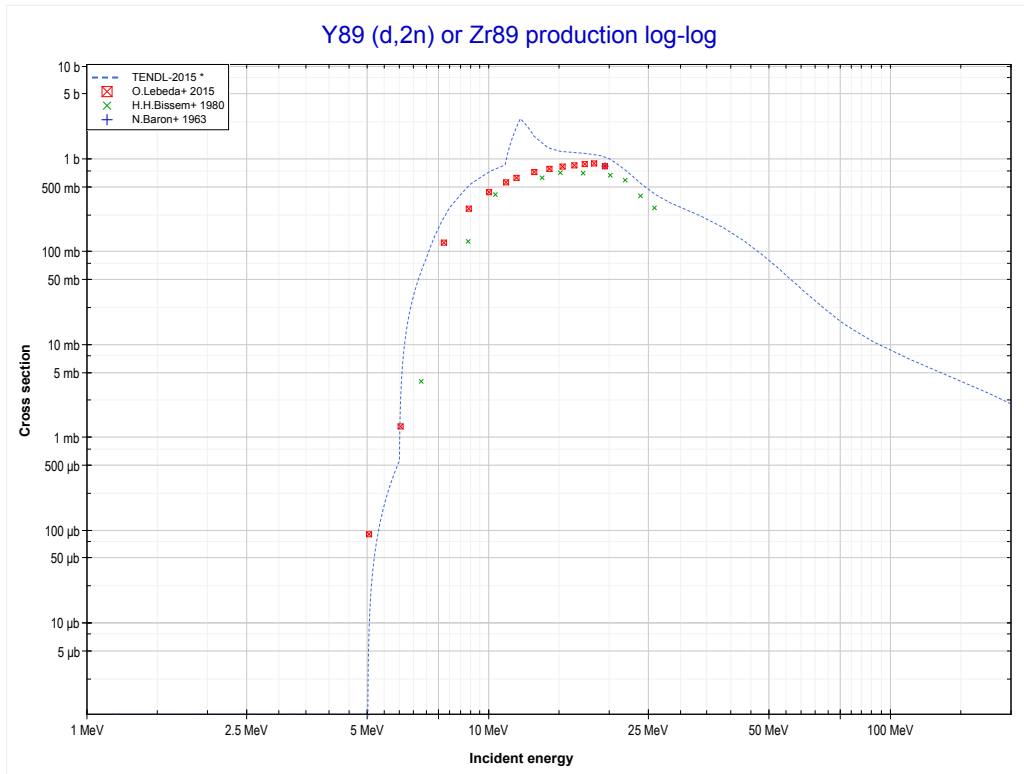
Reaction	Q-Value
Kr78(d,α)Br76	6820.21 keV
Kr78(d,p+t)Br76	-12993.65 keV
Kr78(d,n+He3)Br76	-13757.41 keV
Kr78(d,2d)Br76	-17026.32 keV
Kr78(d,n+p+d)Br76	-19250.89 keV
Kr78(d,2n+2p)Br76	-21475.45 keV

<< 36-Kr-78	<b>36-Kr-80</b>	40-Zr-94 >>
<< 36-Kr-78 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (Rb81 production)</b>	39-Y-89 MT16 (d,2n) >>



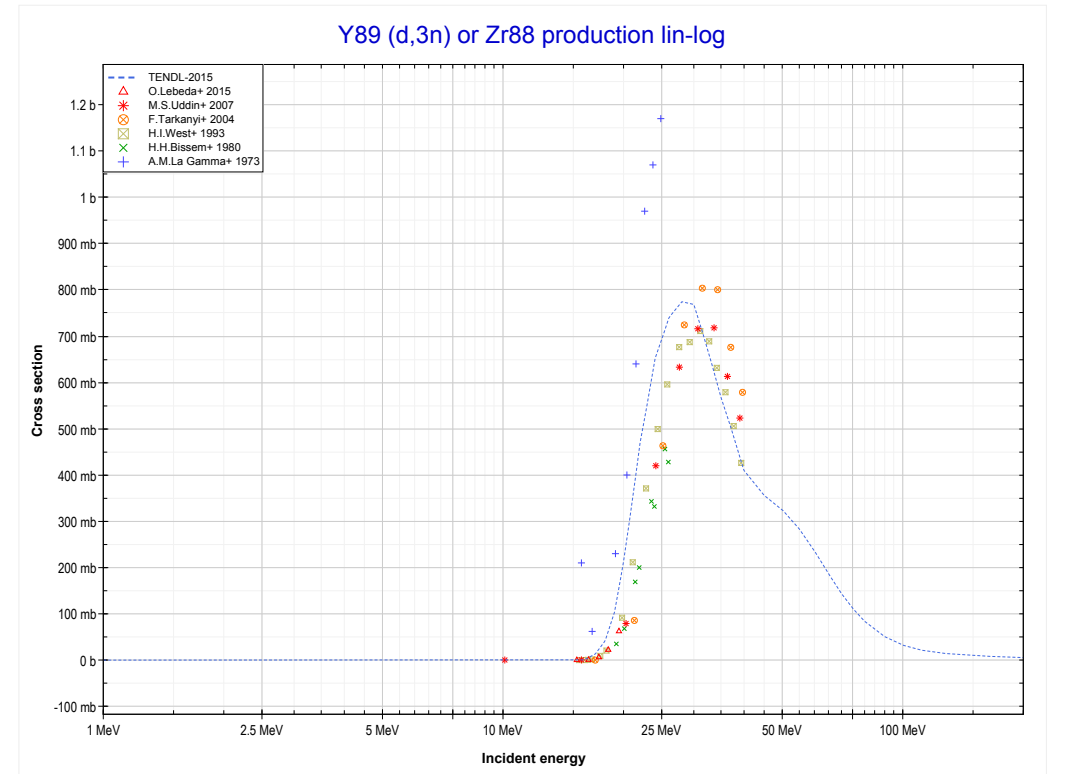
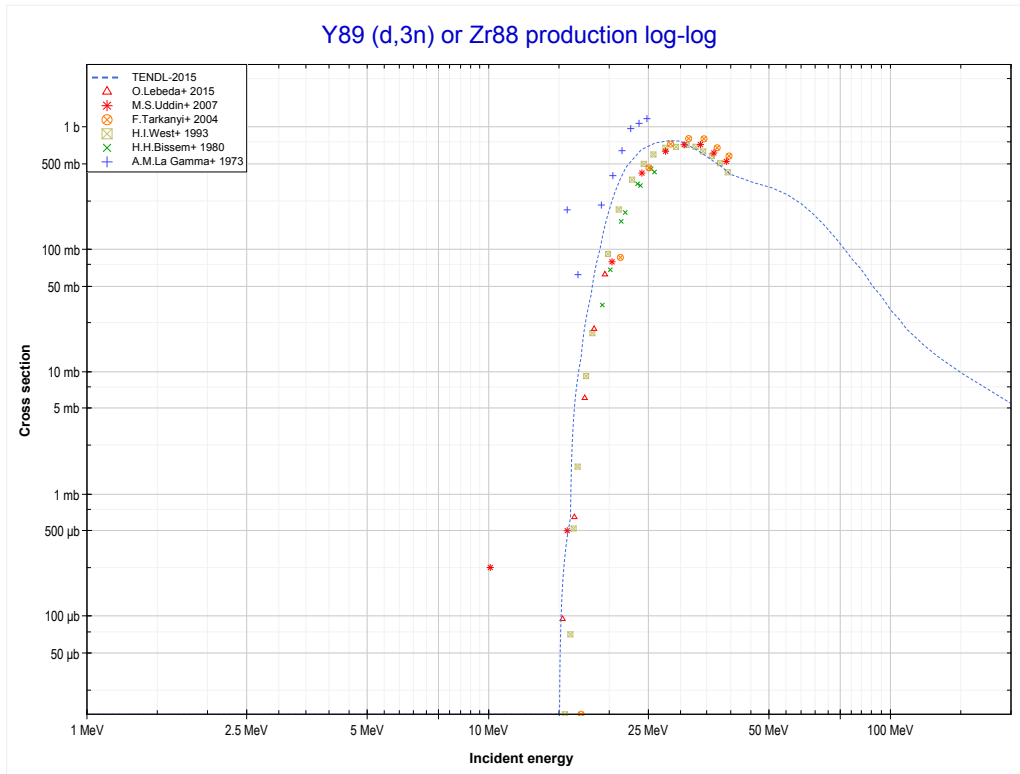
Reaction	Q-Value
Kr80(d,n)Rb81	2628.10 keV

<< 35-Br-81	<b>39-Y-89</b>	40-Zr-90 >>
<< 36-Kr-80 MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Zr89 production)</b>	MT17 (d,3n) >>



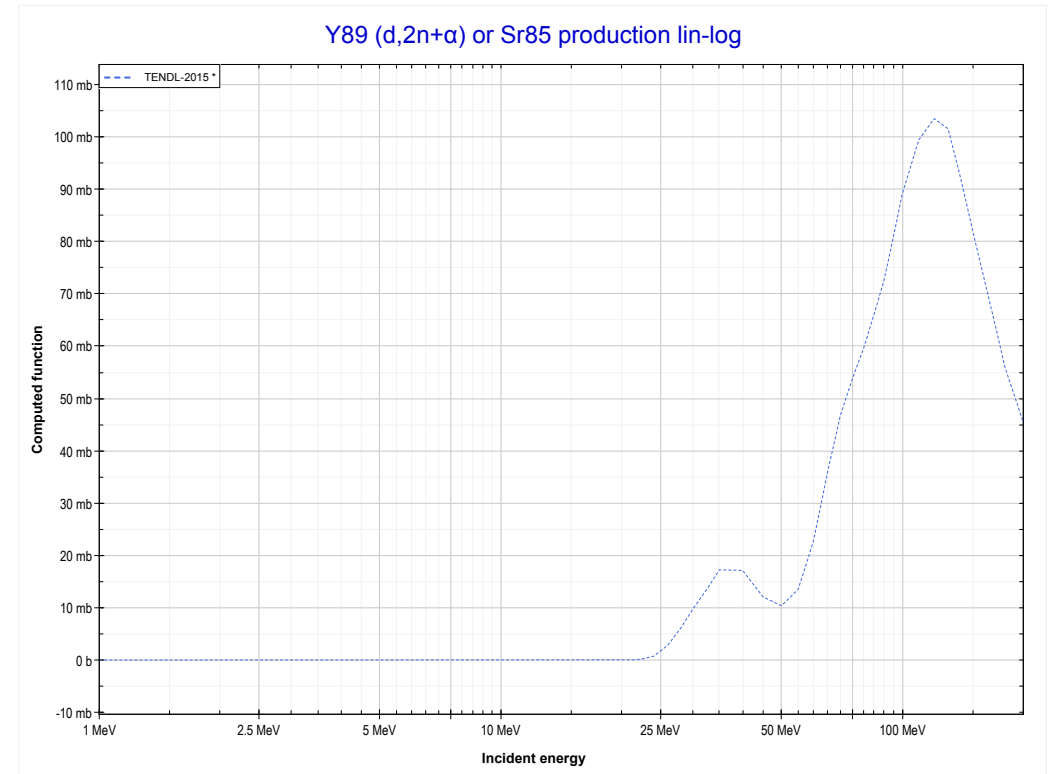
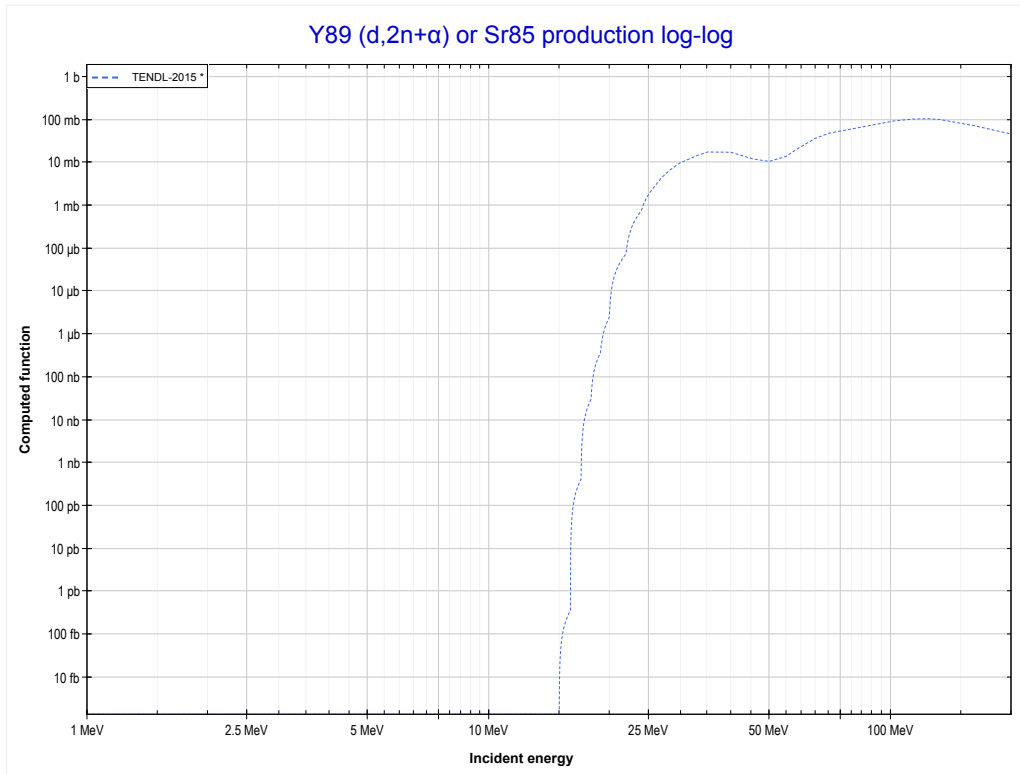
Reaction	Q-Value
Y89(d,2n)Zr89	-5840.11 keV

<< 34-Se-76	<b>39-Y-89</b>	40-Zr-90 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Zr88 production)</b>	MT24 (d,2n+α) >>



<b>Reaction</b>	<b>Q-Value</b>
Y89(d,3n)Zr88	-15159.43 keV

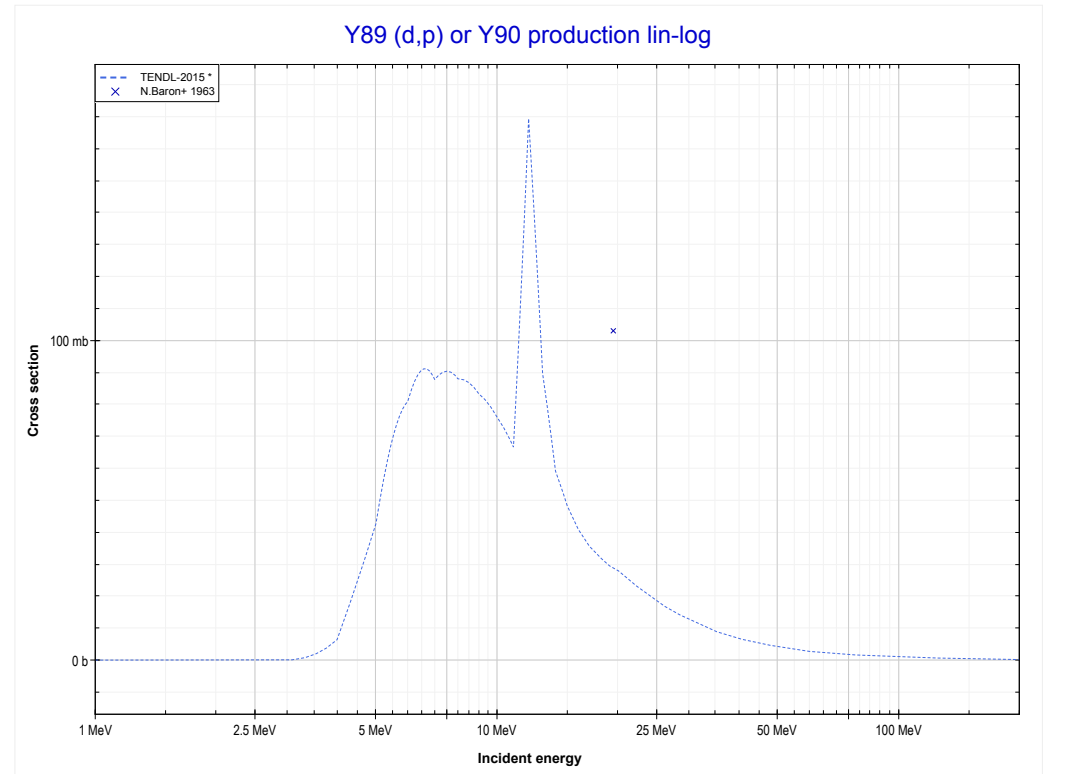
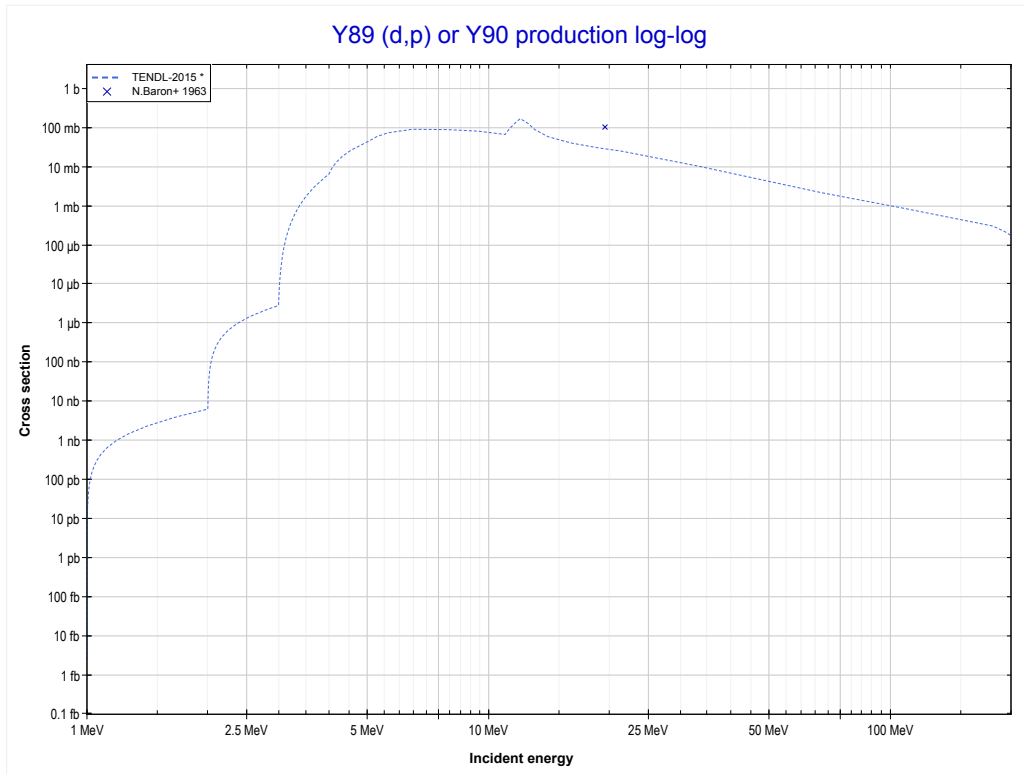
	<b>39-Y-89</b>	47-Ag-107 >>
<< MT17 (d,3n)	<b>MT24 (d,2n+α) or MT5 (Sr85 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Y89(d,2n+α)Sr85	-12037.73 keV
Y89(d,2t)Sr85	-23369.79 keV
Y89(d,n+d+t)Sr85	-29627.02 keV
Y89(d,2n+p+t)Sr85	-31851.59 keV
Y89(d,3n+He3)Sr85	-32615.35 keV
Y89(d,2n+2d)Sr85	-35884.26 keV
Y89(d,3n+p+d)Sr85	-38108.82 keV
Y89(d,4n+2p)Sr85	-40333.39 keV

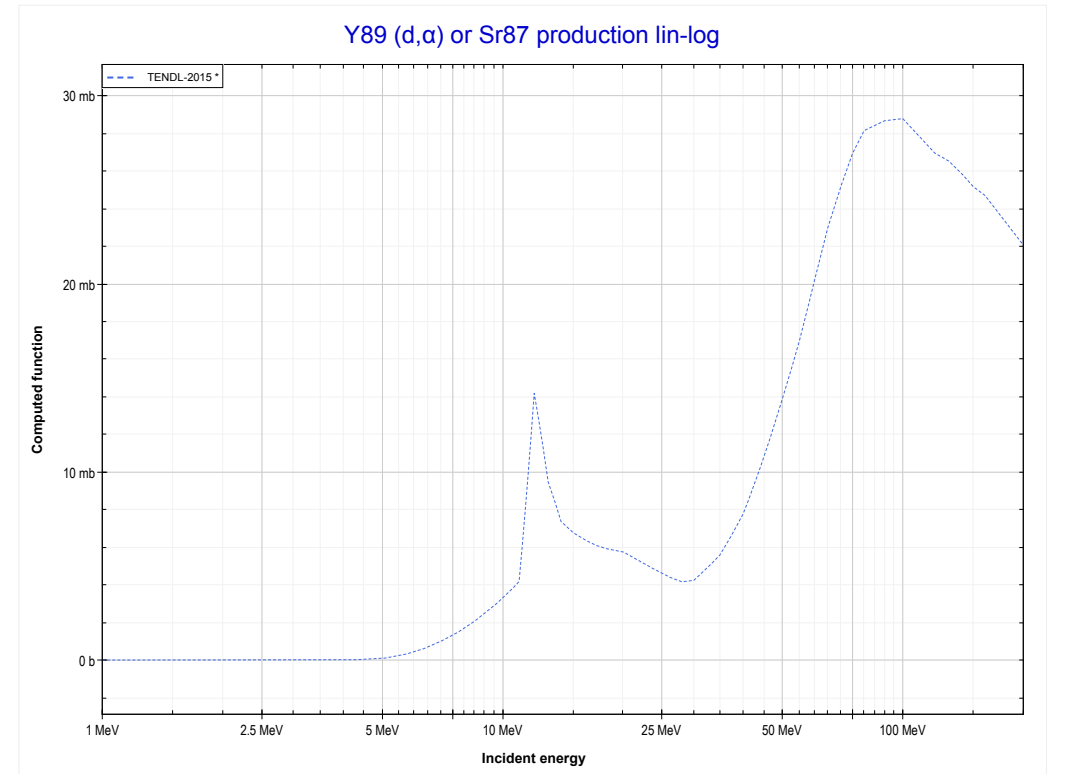
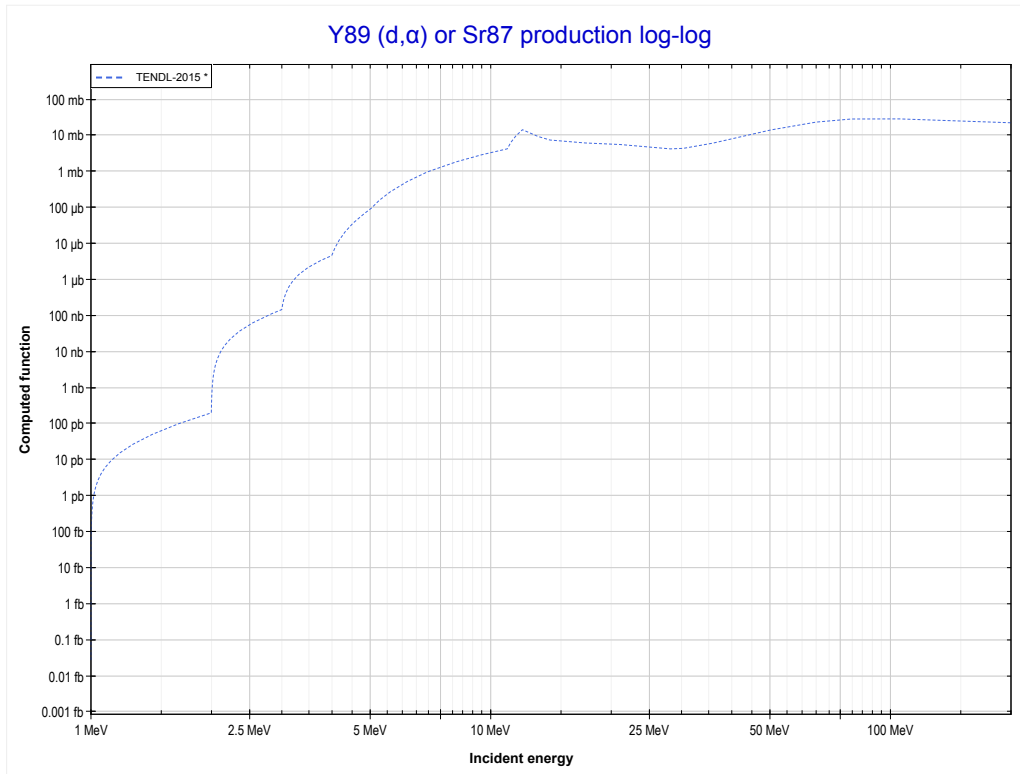


<< 35-Br-81	<b>39-Y-89</b>	40-Zr-94 >>
<< MT24 (d,2n+α)	<b>MT103 (d,p) or MT5 (Y90 production)</b>	MT107 (d,α) >>



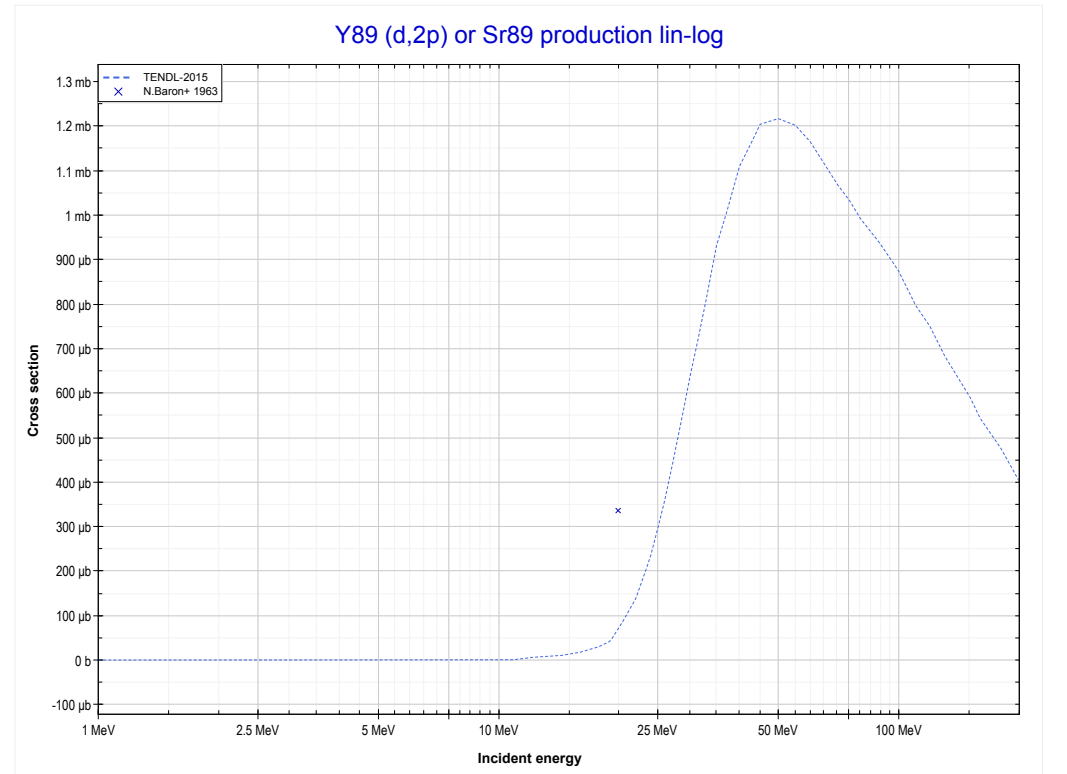
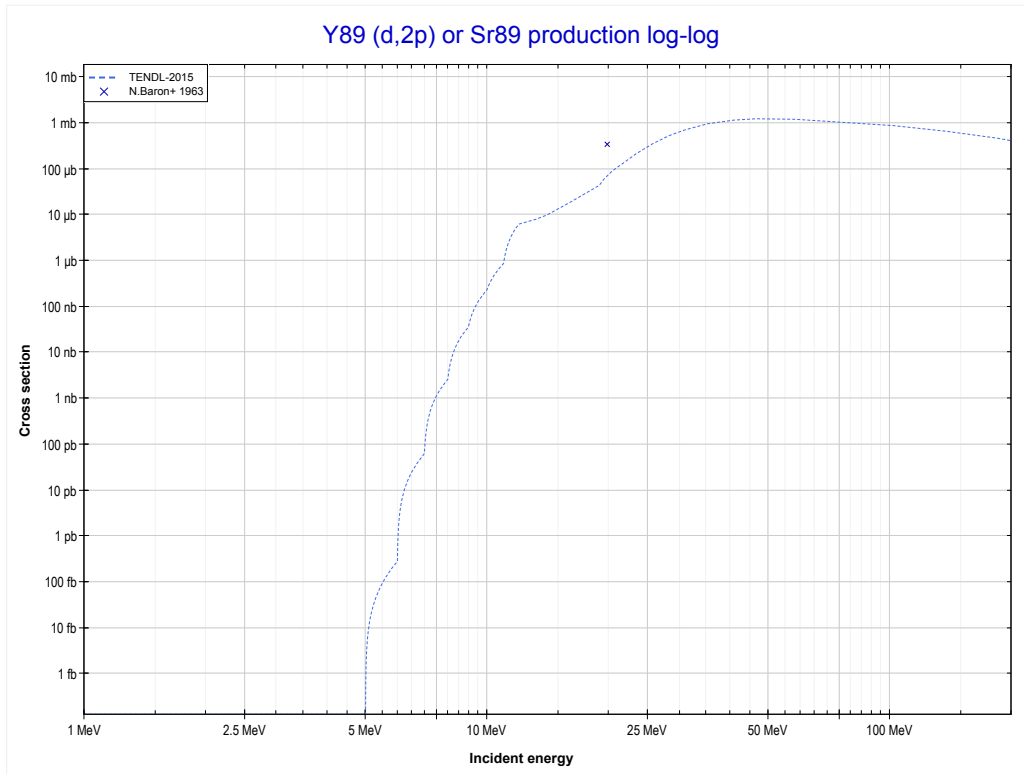
Reaction	Q-Value
Y89(d,p)Y90	4632.45 keV

<< 36-Kr-78	<b>39-Y-89</b>	40-Zr-90 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Sr87 production)</b>	MT111 (d,2p) >>



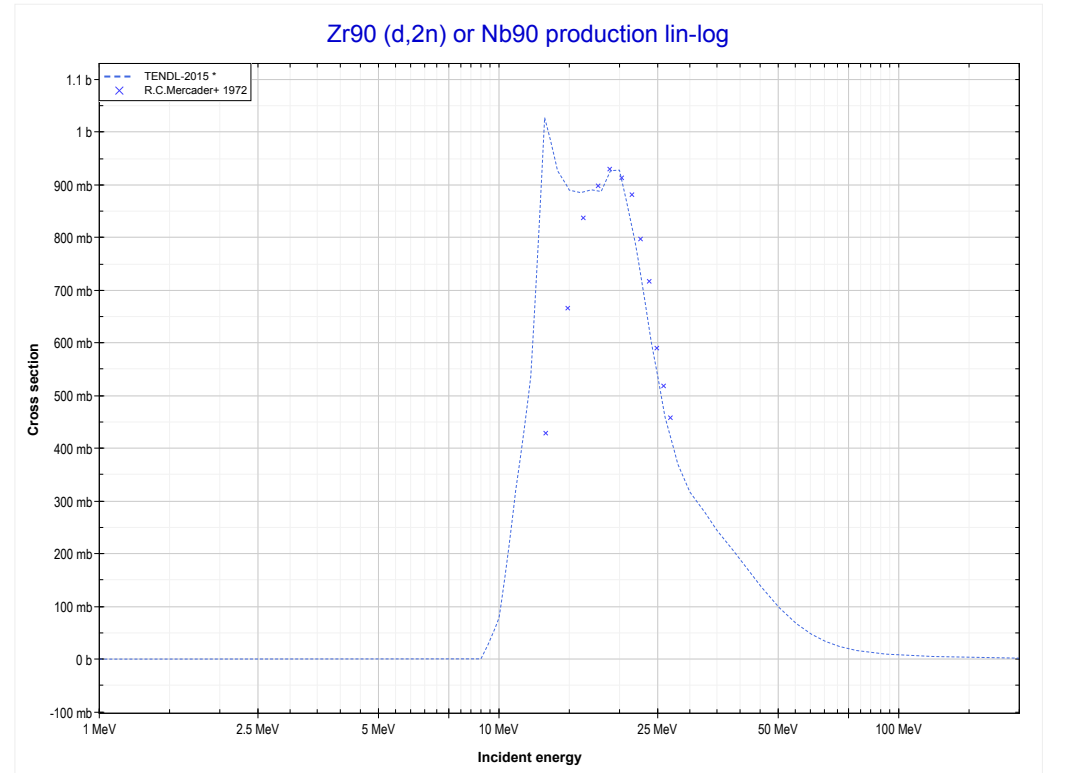
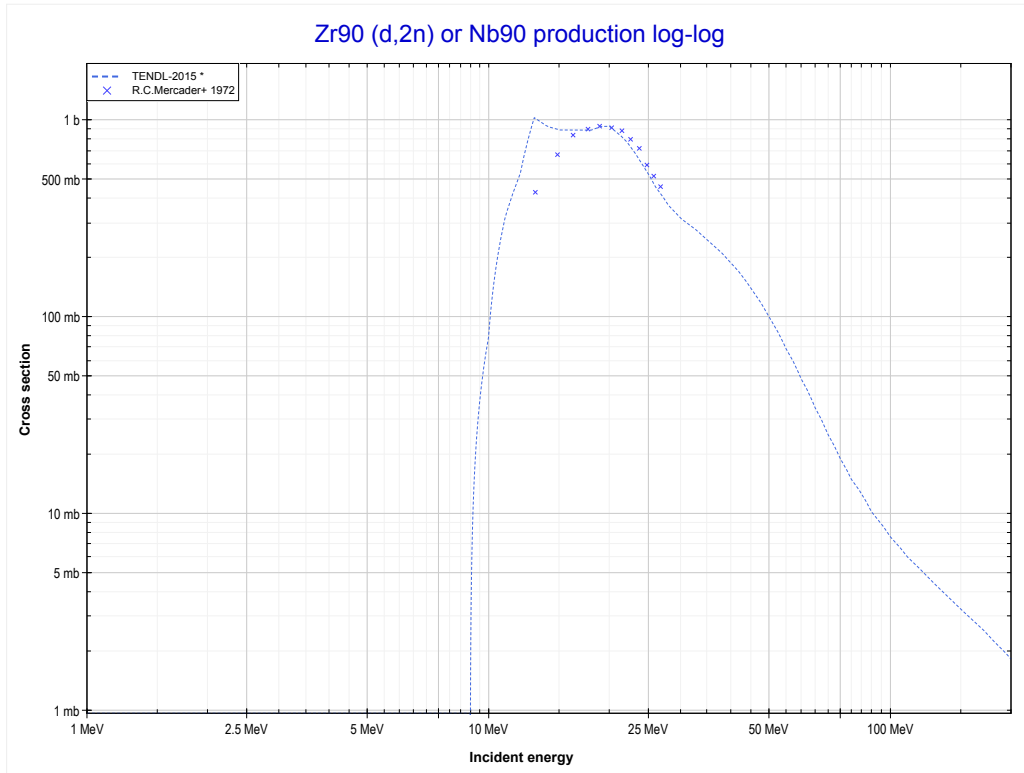
Reaction	Q-Value
Y89(d, $\alpha$ )Sr87	7881.61 keV
Y89(d,p+t)Sr87	-11932.25 keV
Y89(d,n+He3)Sr87	-12696.01 keV
Y89(d,2d)Sr87	-15964.92 keV
Y89(d,n+p+d)Sr87	-18189.49 keV
Y89(d,2n+2p)Sr87	-20414.05 keV

<< 30-Zn-67	<b>39-Y-89</b>	45-Rh-103 >>
<< MT107 (d, $\alpha$ )	<b>MT111 (d,2p) or MT5 (Sr89 production)</b>	40-Zr-90 MT16 (d,2n) >>



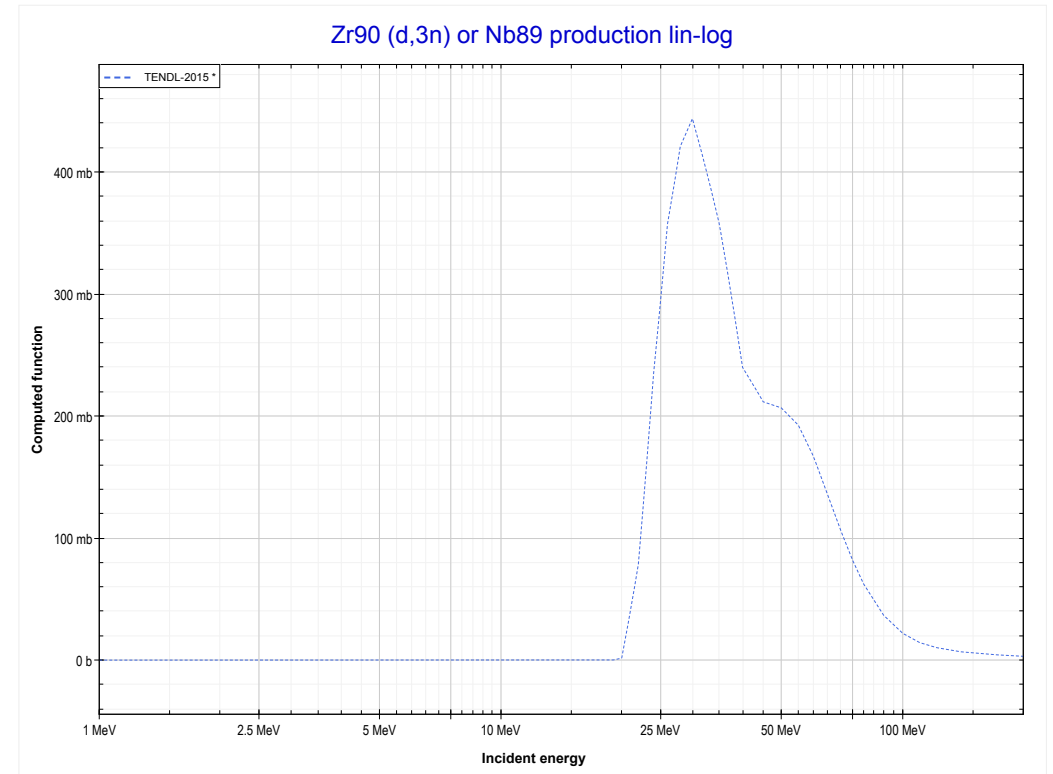
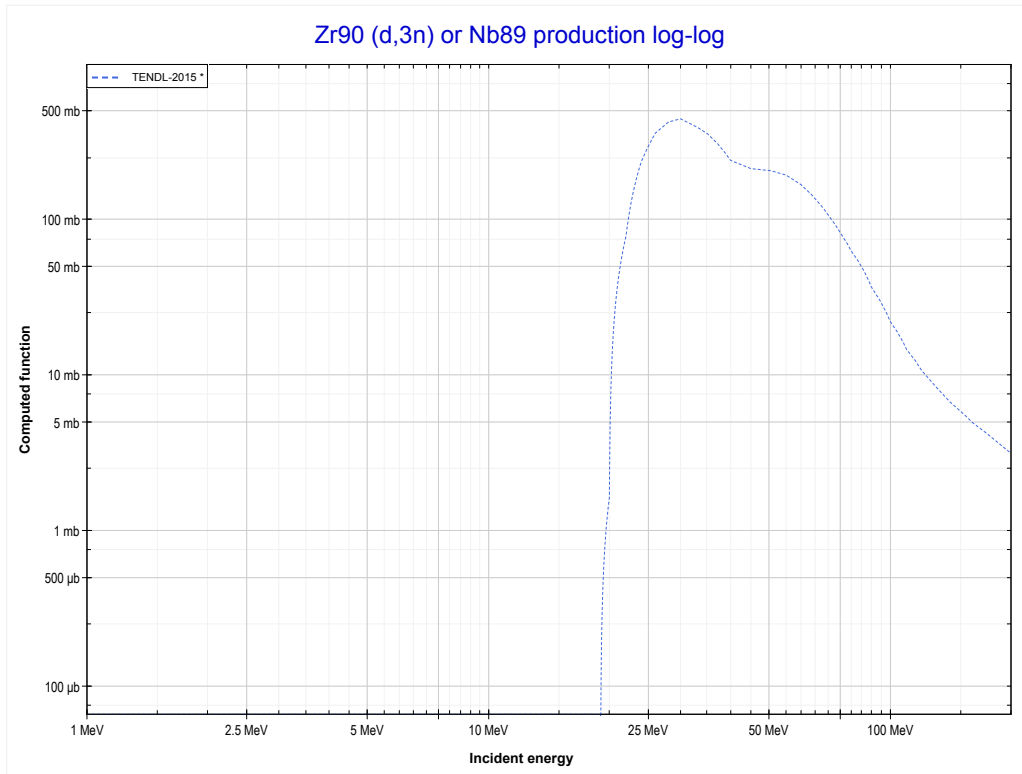
Reaction	Q-Value
Y89(d,2p)Sr89	-2942.72 keV

<< 39-Y-89	<b>40-Zr-90</b>	40-Zr-96 >>
<< 39-Y-89 MT111 (d,2p)	<b>MT16 (d,2n) or MT5 (Nb90 production)</b>	MT17 (d,3n) >>



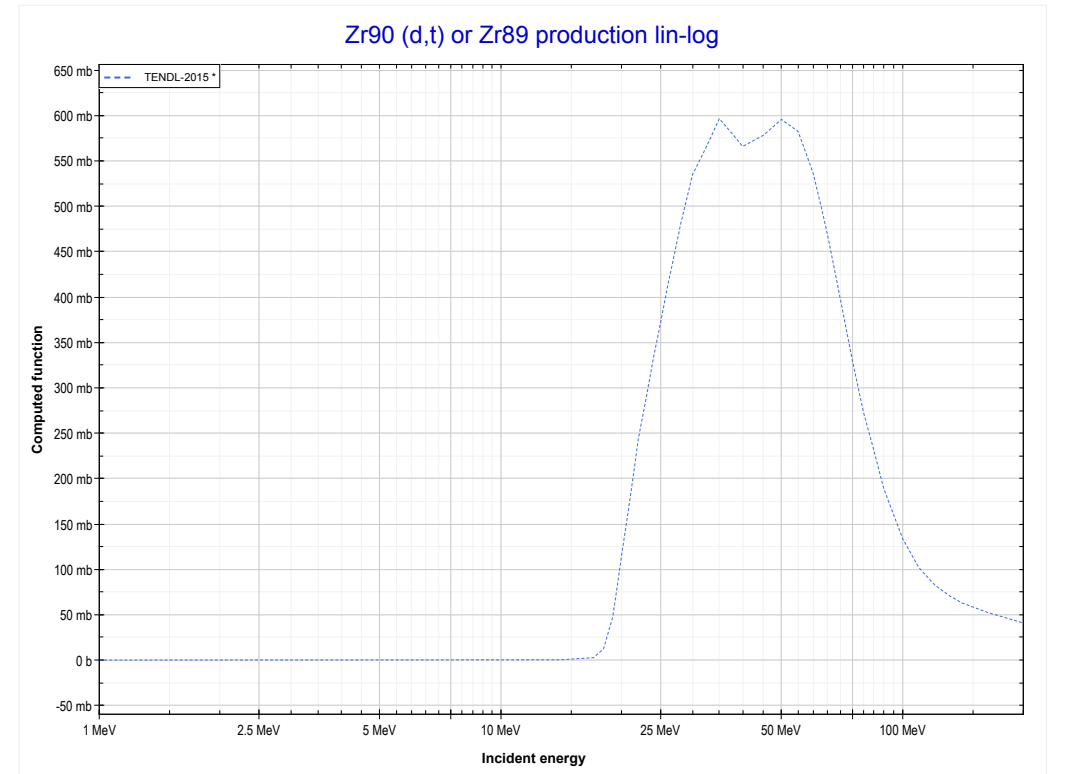
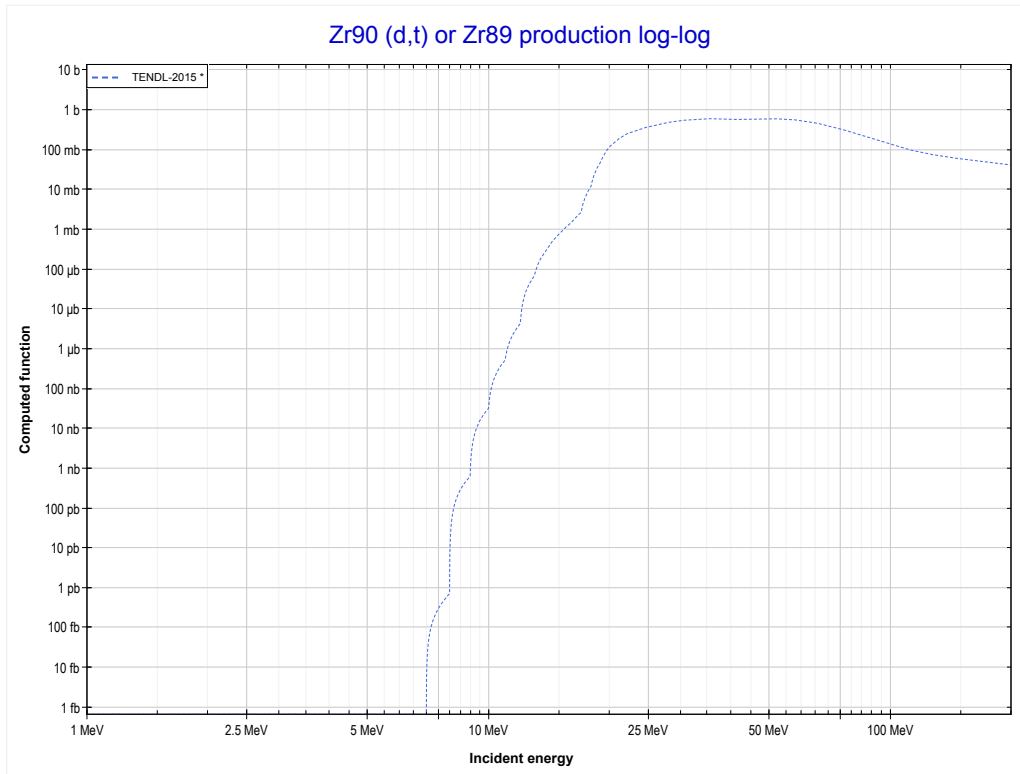
Reaction	Q-Value
Zr90(d,2n)Nb90	-9118.51 keV

<< 39-Y-89	<b>40-Zr-90</b>	40-Zr-91 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Nb89 production)</b>	MT105 (d,t) >>



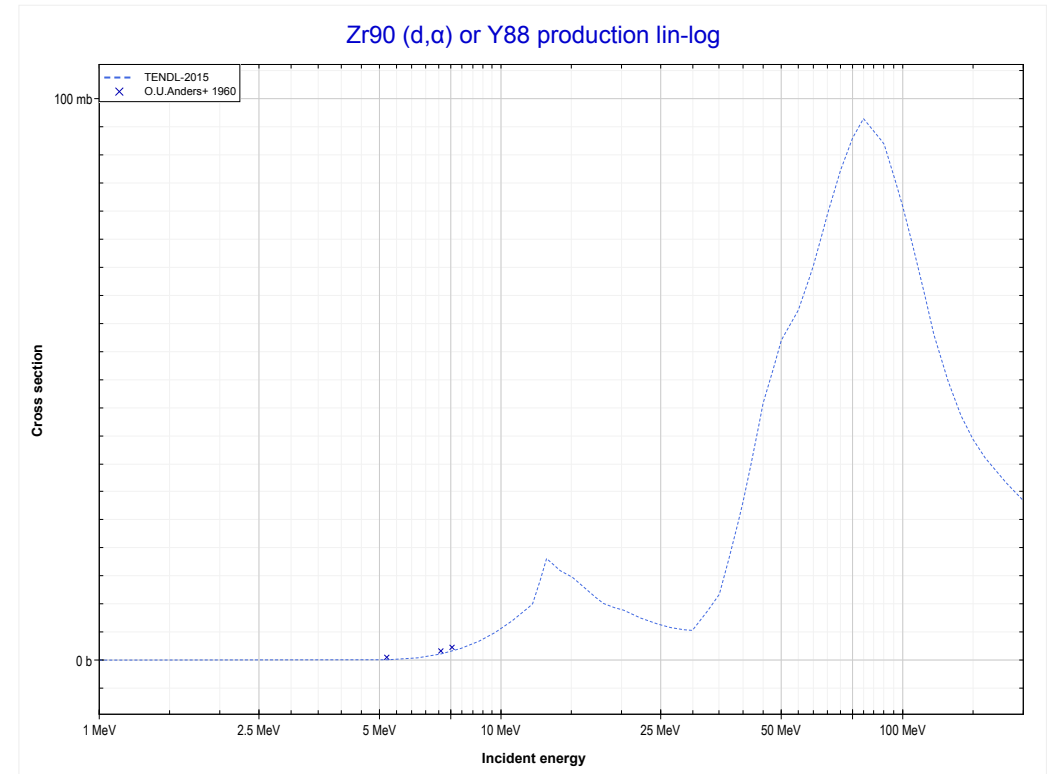
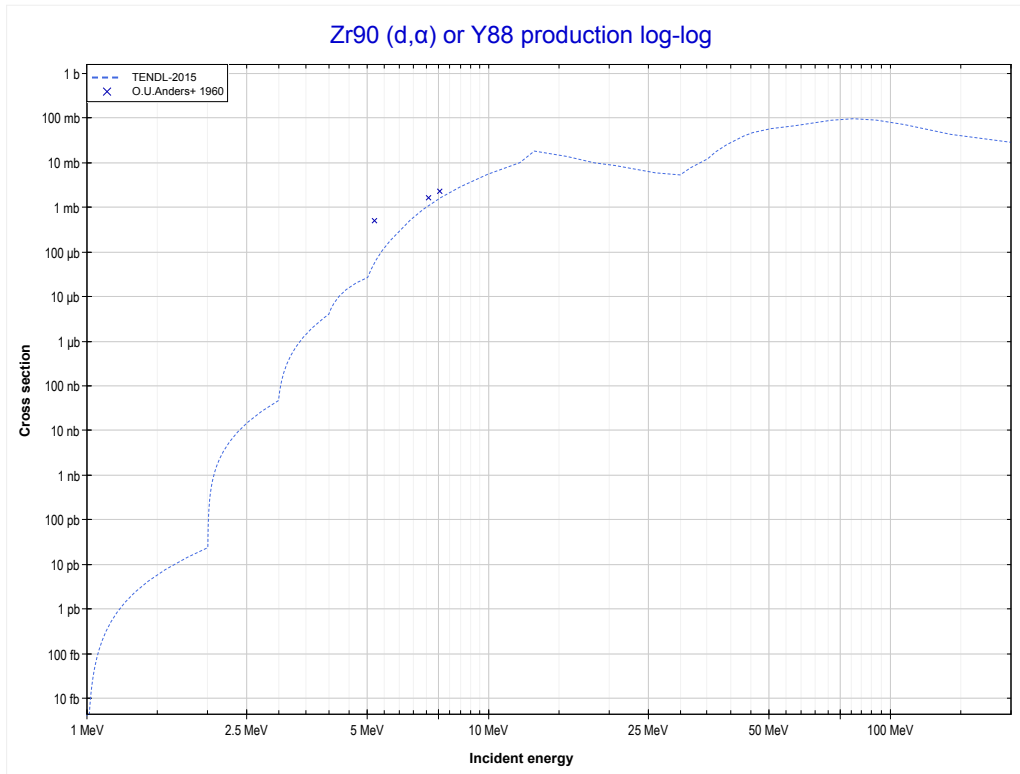
Reaction	Q-Value
Zr90(d,3n)Nb89	-19226.83 keV

<< 33-As-75	<b>40-Zr-90</b>	53-I-127 >>
<< MT17 (d,3n)	<b>MT105 (d,t) or MT5 (Zr89 production)</b>	MT107 (d, $\alpha$ ) >>



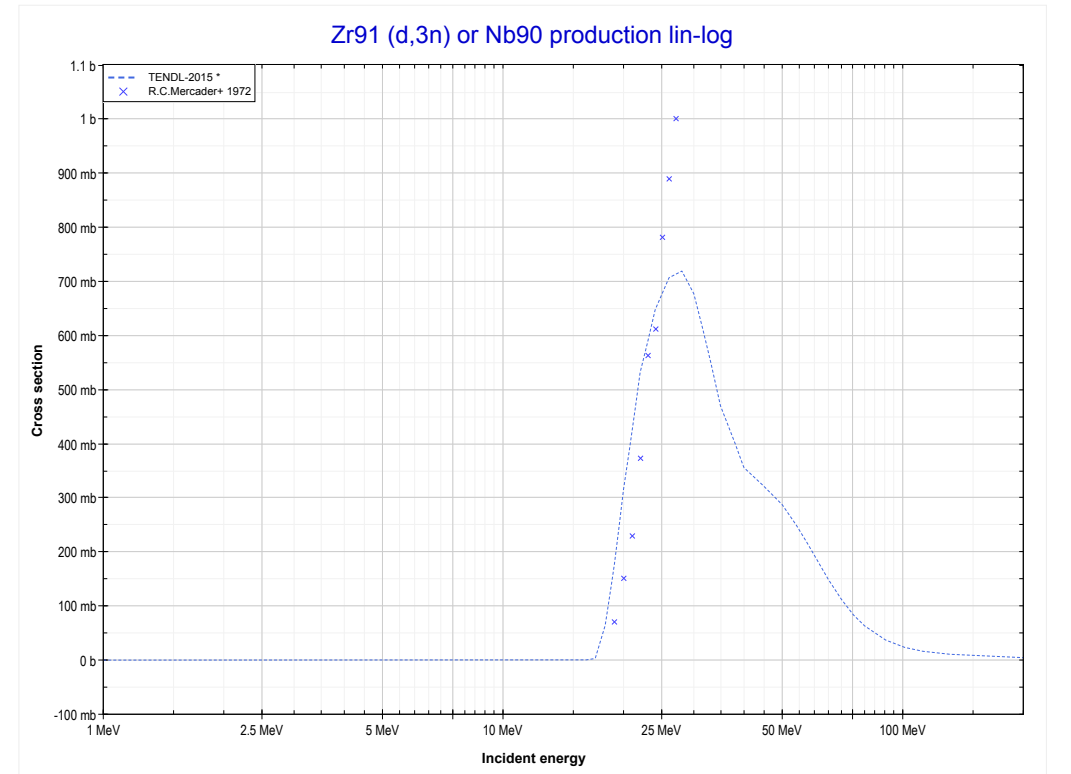
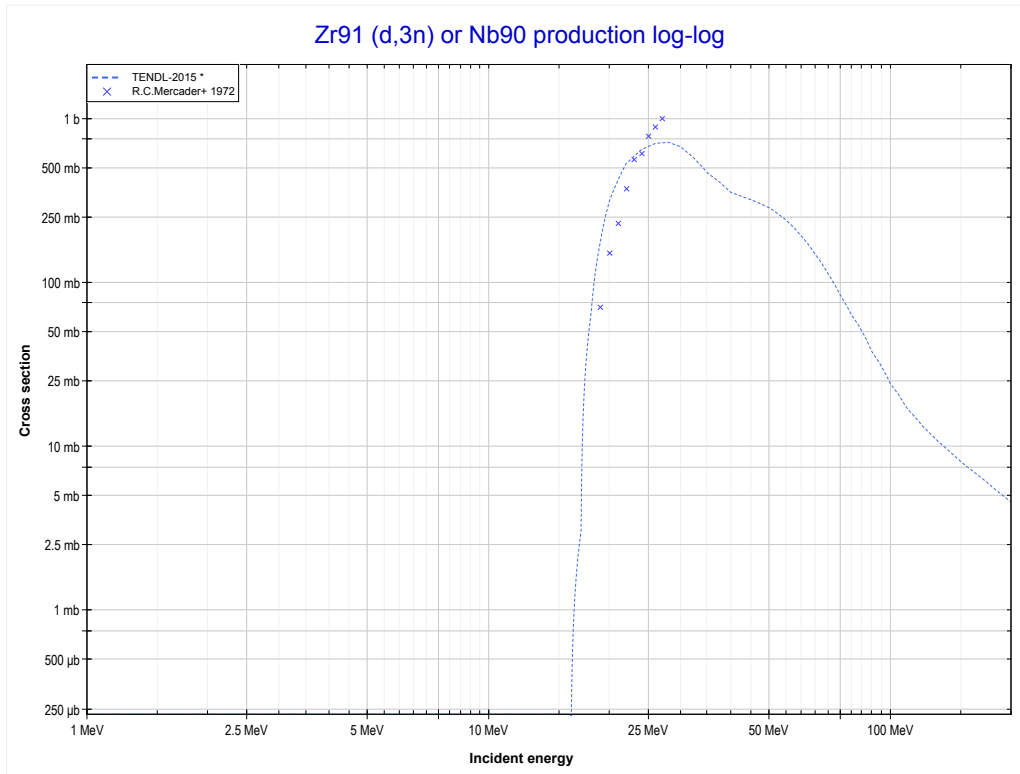
Reaction	Q-Value
Zr90(d,t)Zr89	-5711.68 keV
Zr90(d,n+d)Zr89	-11968.92 keV
Zr90(d,2n+p)Zr89	-14193.48 keV

<< 39-Y-89	<b>40-Zr-90</b>	40-Zr-92 >>
<< MT105 (d,t)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Y88 production)</b>	40-Zr-91 MT17 (d,3n) >>



Reaction	Q-Value
Zr90(d, $\alpha$ )Y88	6236.01 keV
Zr90(d,p+t)Y88	-13577.85 keV
Zr90(d,n+He3)Y88	-14341.61 keV
Zr90(d,2d)Y88	-17610.52 keV
Zr90(d,n+p+d)Y88	-19835.09 keV
Zr90(d,2n+2p)Y88	-22059.65 keV

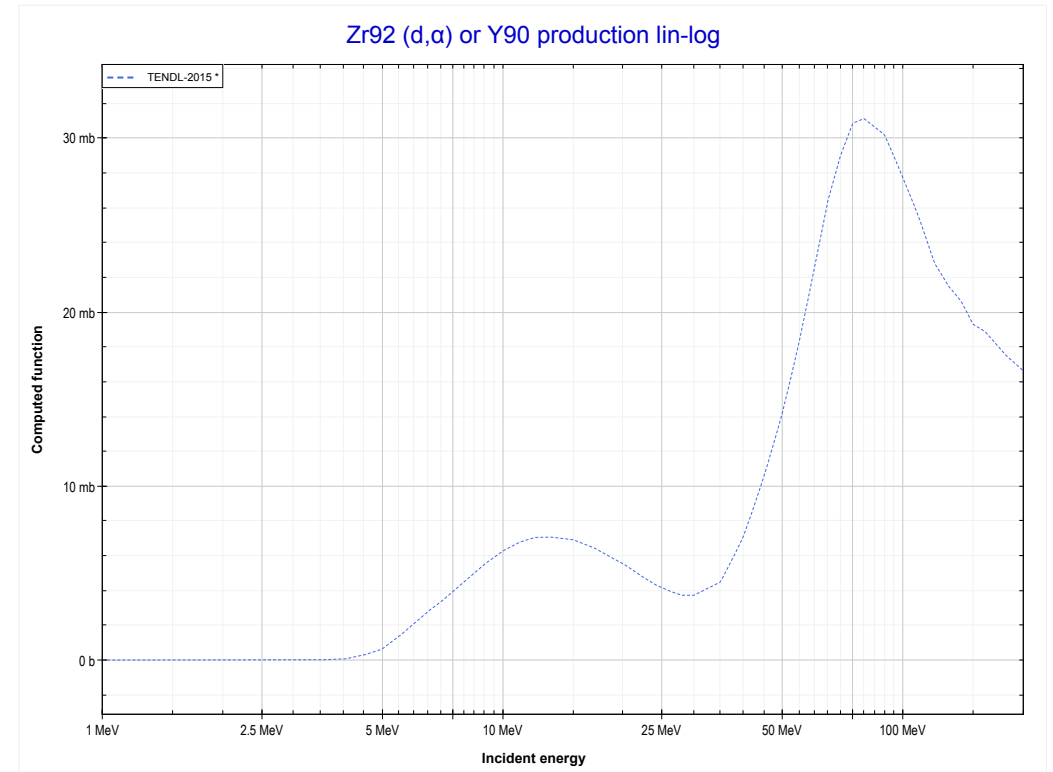
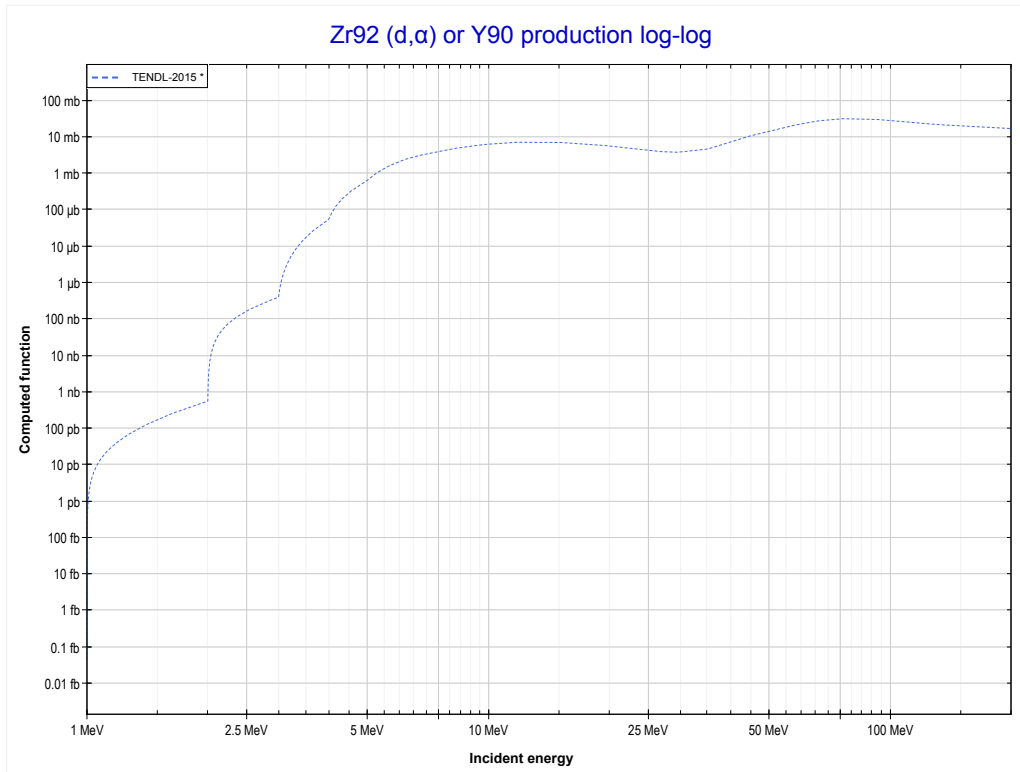
<< 40-Zr-90	<b>40-Zr-91</b>	42-Mo-100 >>
<< 40-Zr-90 MT107 (d, $\alpha$ )	<b>MT17 (d,3n) or MT5 (Nb90 production)</b>	40-Zr-92 MT107 (d, $\alpha$ ) >>



Reaction	Q-Value
Zr91(d,3n)Nb90	-16312.43 keV

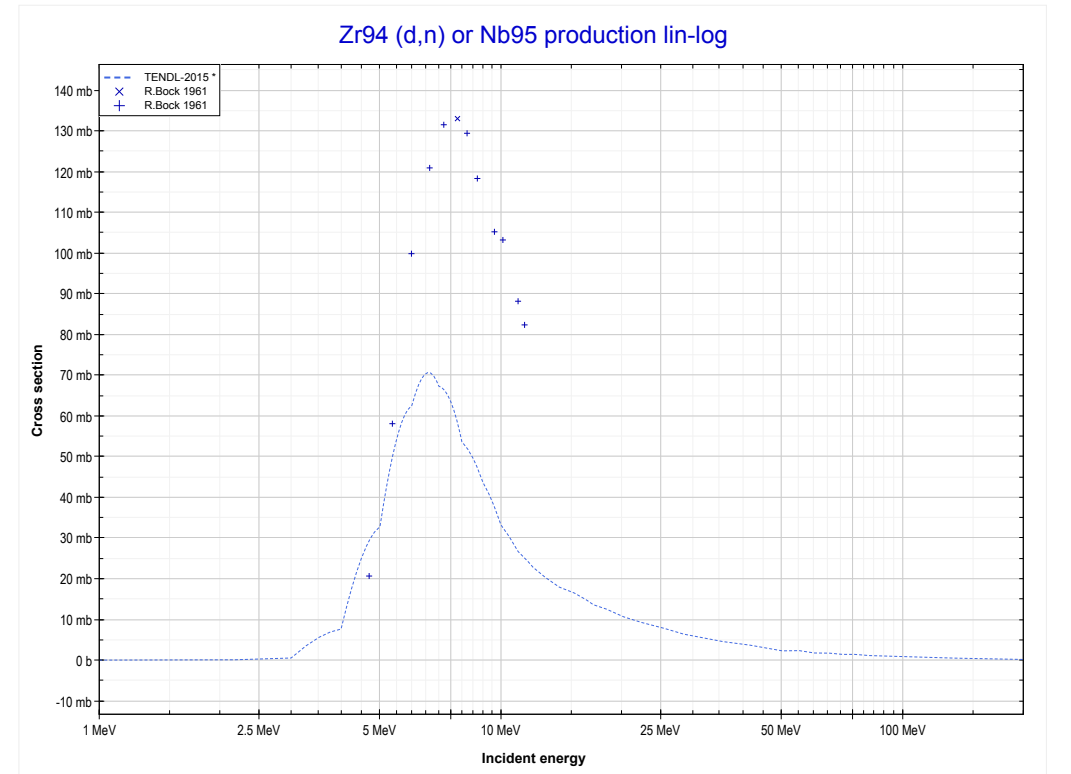
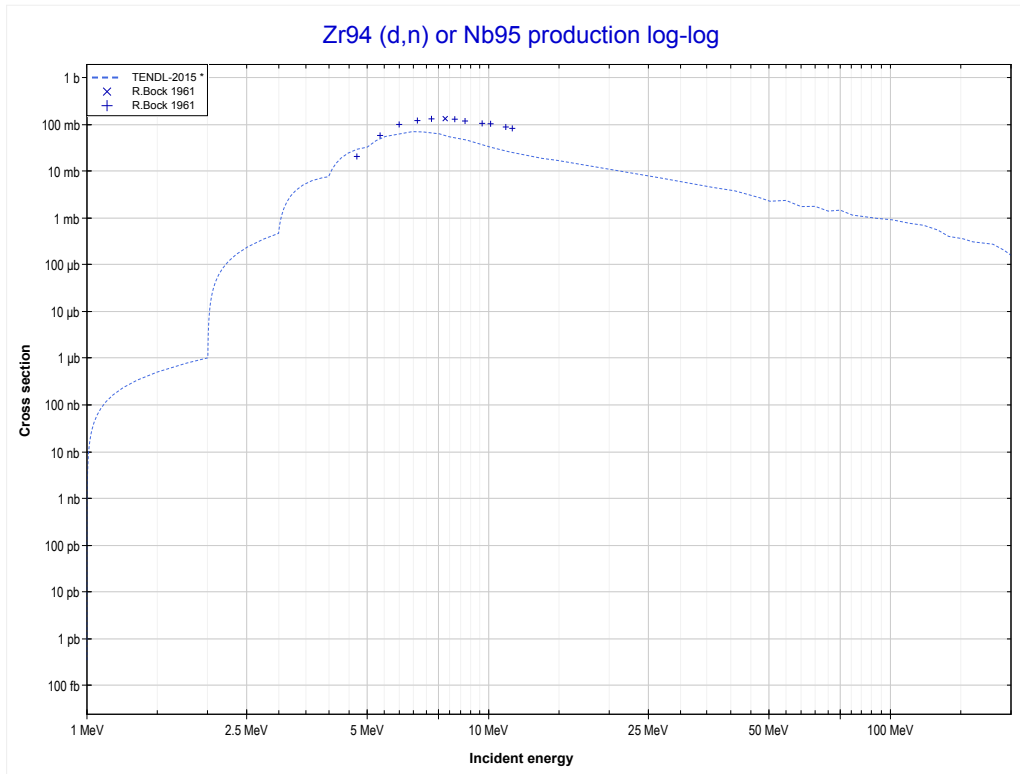


<< 40-Zr-90	<b>40-Zr-92</b>	40-Zr-94 >>
<< 40-Zr-91 MT17 (d,3n)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Y90 production)</b>	40-Zr-94 MT4 (d,n) >>



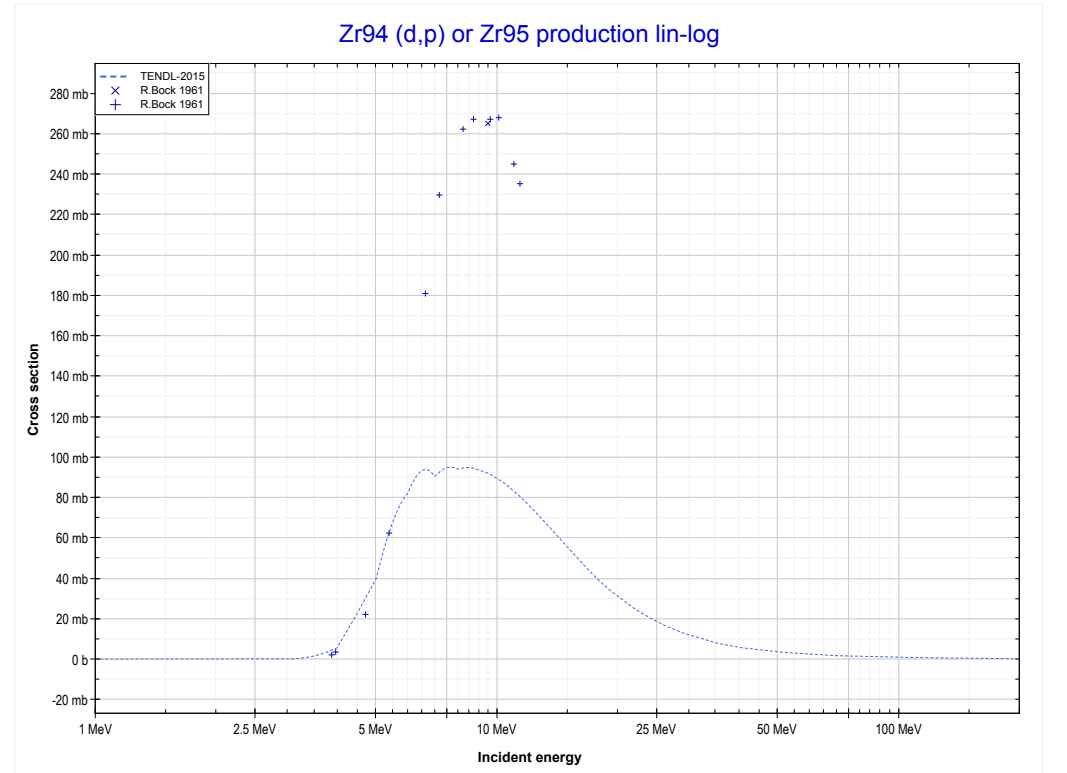
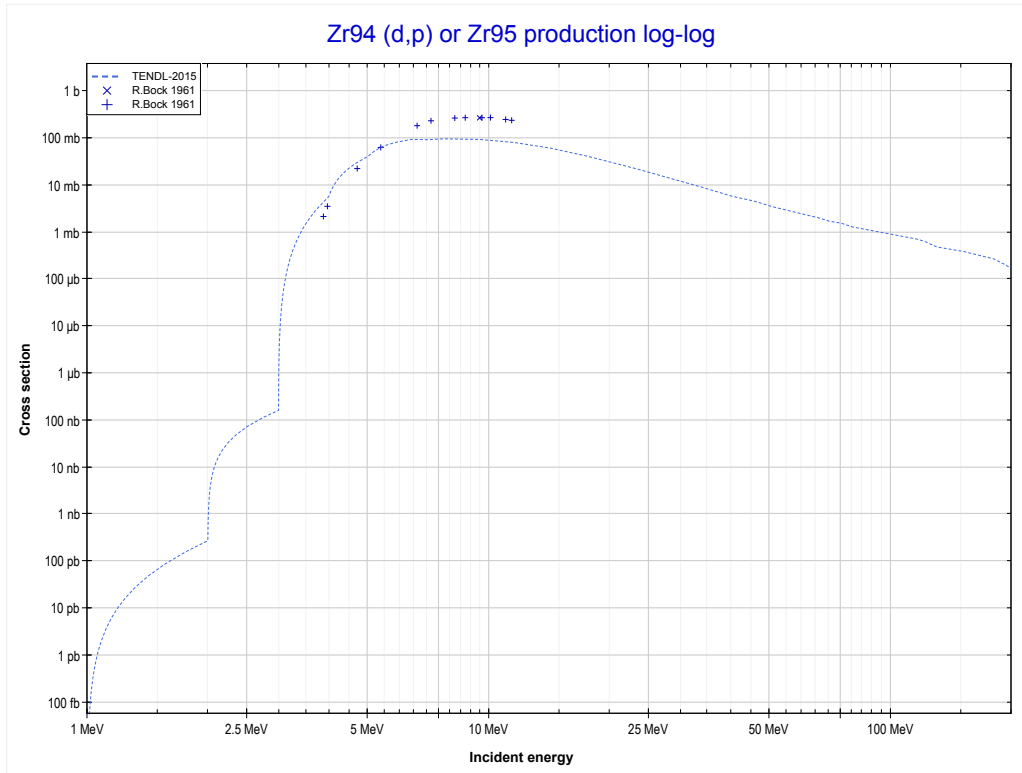
Reaction	Q-Value
Zr92(d, $\alpha$ )Y90	8746.11 keV
Zr92(d,p+t)Y90	-11067.75 keV
Zr92(d,n+He3)Y90	-11831.51 keV
Zr92(d,2d)Y90	-15100.42 keV
Zr92(d,n+p+d)Y90	-17324.99 keV
Zr92(d,2n+2p)Y90	-19549.55 keV

<< 36-Kr-80	<b>40-Zr-94</b>	40-Zr-96 >>
<< 40-Zr-92 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (Nb95 production)</b>	MT103 (d,p) >>



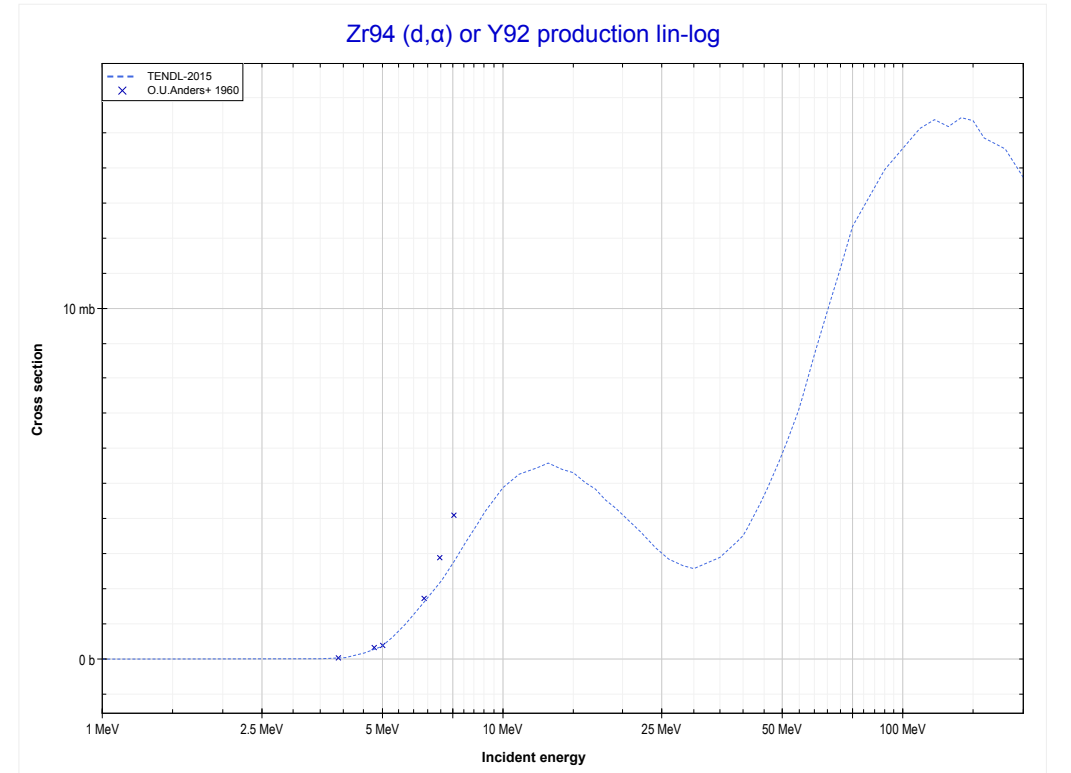
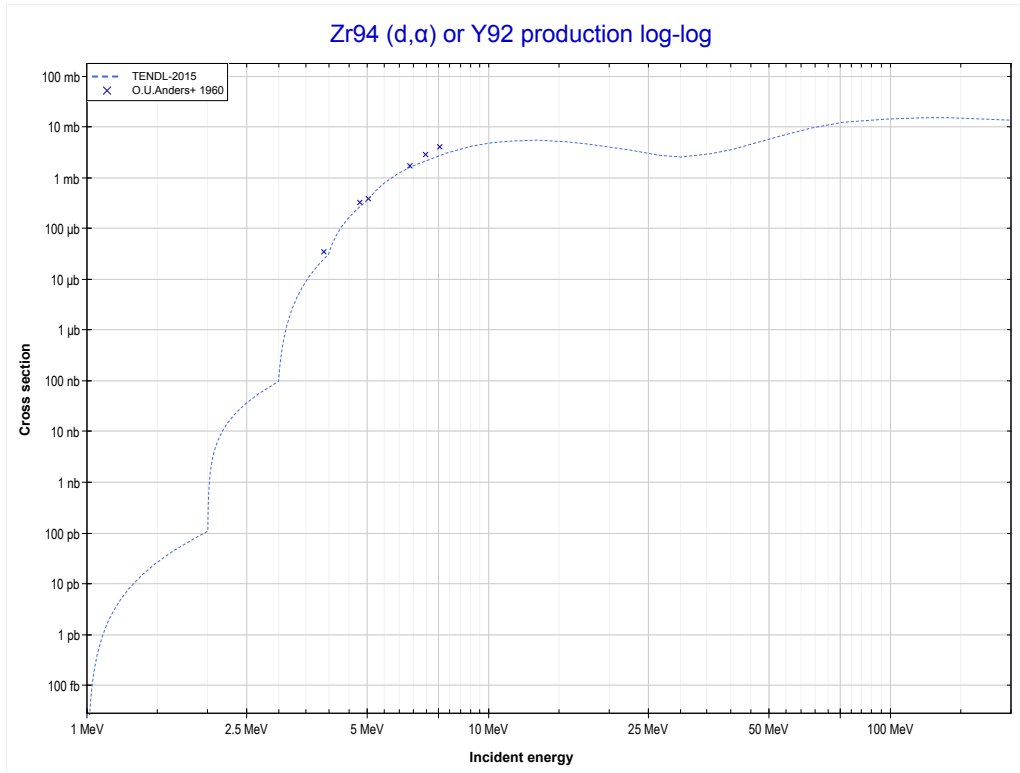
Reaction	Q-Value
Zr94(d,n)Nb95	4578.60 keV

<< 39-Y-89	<b>40-Zr-94</b>	40-Zr-96 >>
<< MT4 (d,n)	<b>MT103 (d,p) or MT5 (Zr95 production)</b>	MT107 (d, $\alpha$ ) >>



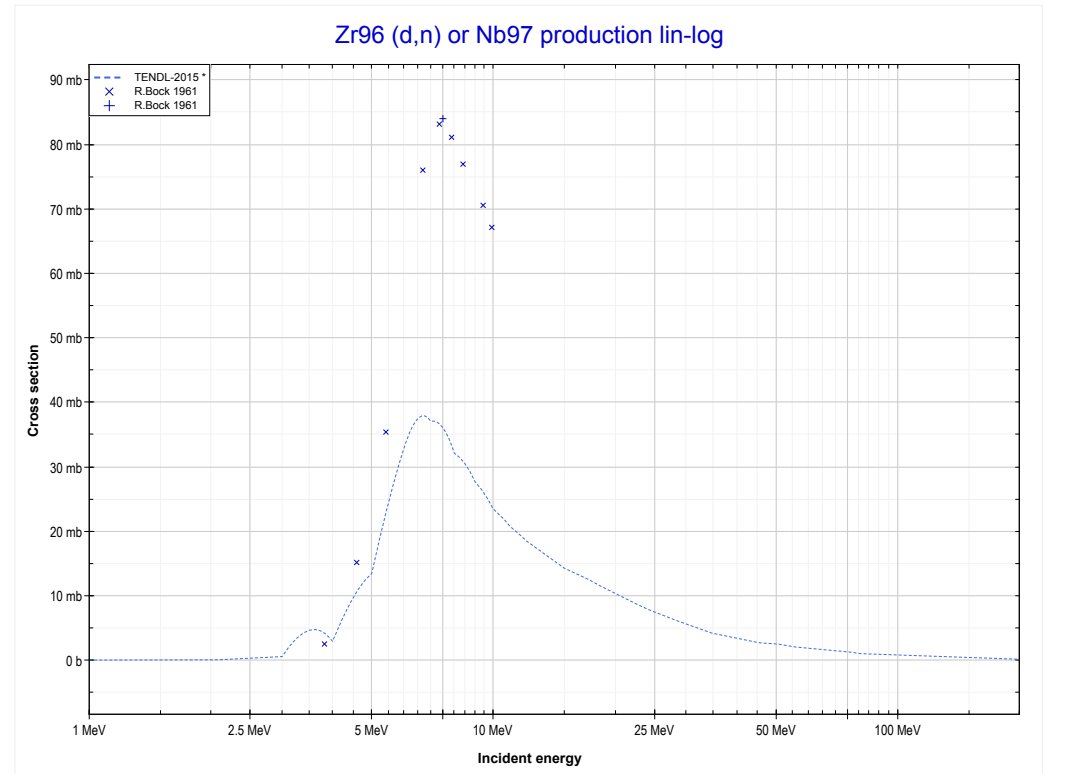
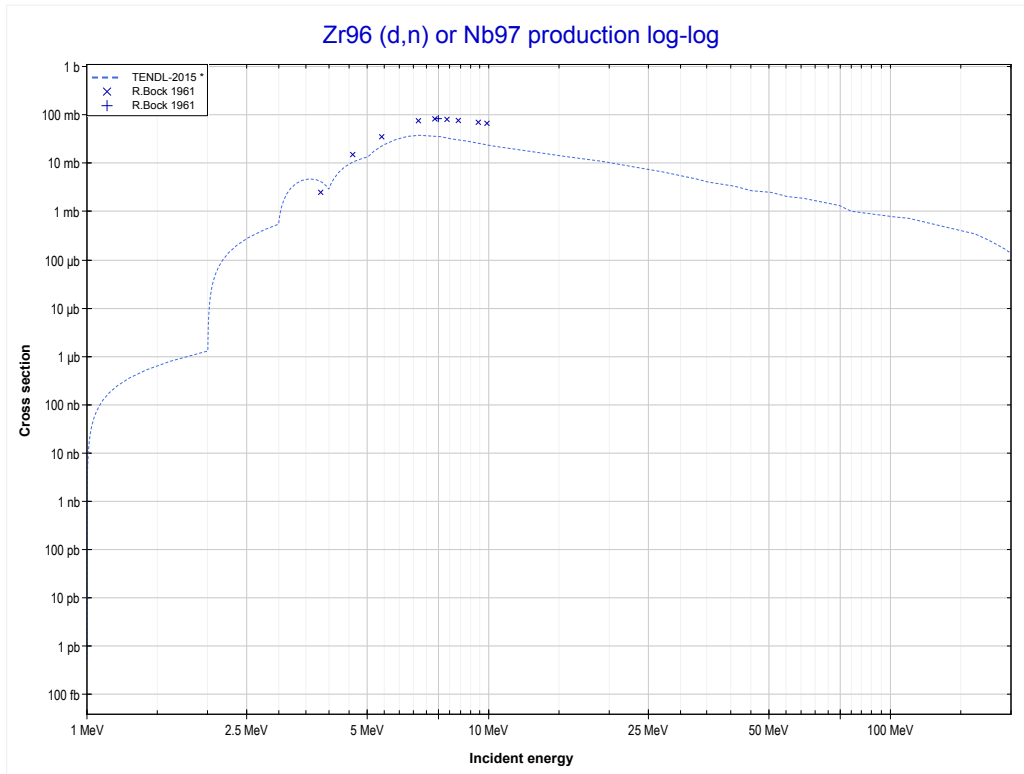
Reaction	Q-Value
Zr94(d,p)Zr95	4237.45 keV

<< 40-Zr-92	<b>40-Zr-94</b>	42-Mo-92 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Y92 production)</b>	40-Zr-96 MT4 (d,n) >>



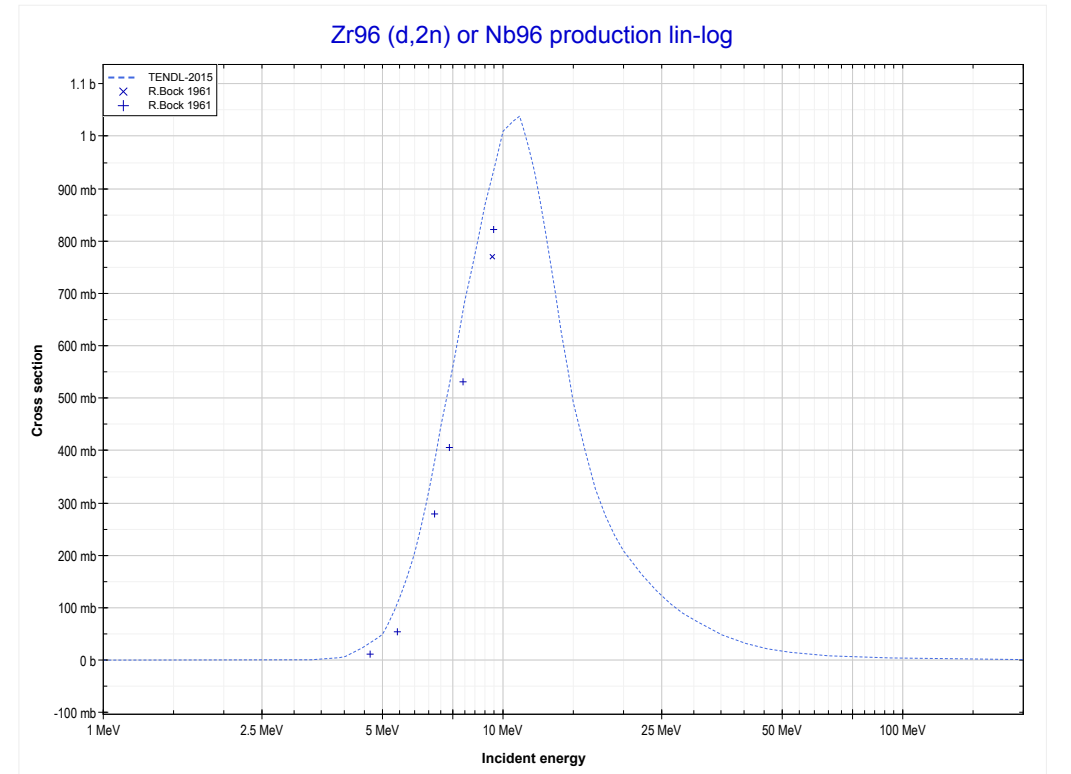
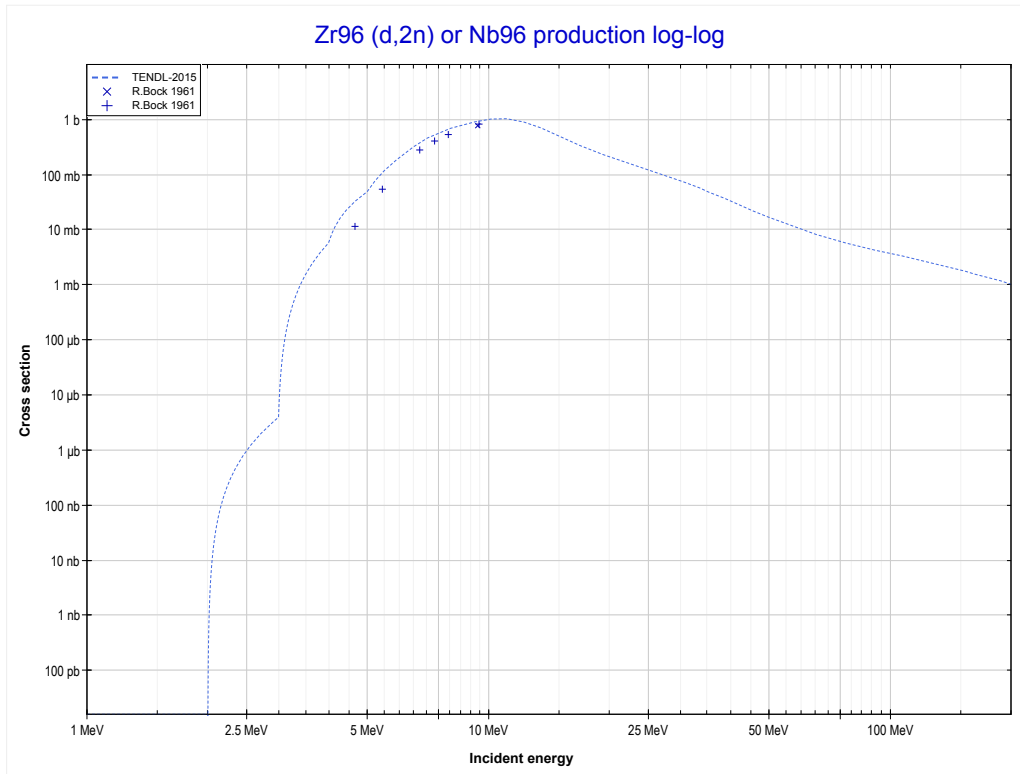
Reaction	Q-Value
Zr94(d, $\alpha$ )Y92	8256.91 keV
Zr94(d,p+t)Y92	-11556.95 keV
Zr94(d,n+He3)Y92	-12320.71 keV
Zr94(d,2d)Y92	-15589.62 keV
Zr94(d,n+p+d)Y92	-17814.19 keV
Zr94(d,2n+2p)Y92	-20038.75 keV

<< 40-Zr-94	<b>40-Zr-96</b>	42-Mo-92 >>
<< 40-Zr-94 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (Nb97 production)</b>	MT16 (d,2n) >>



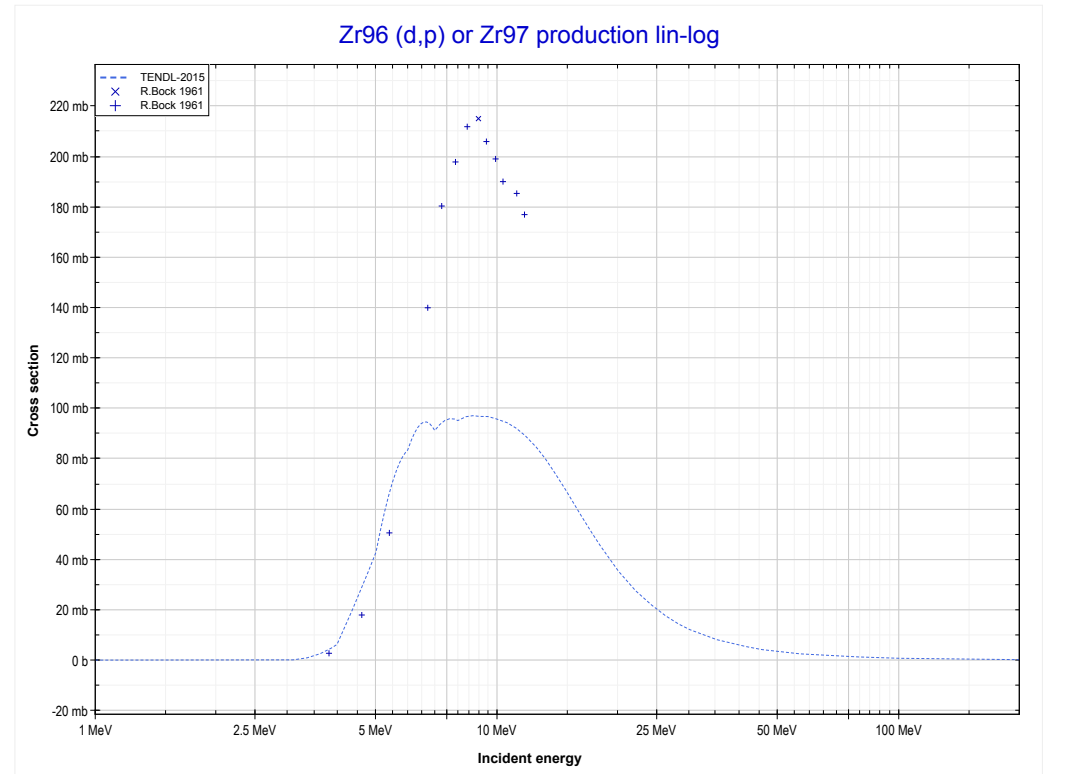
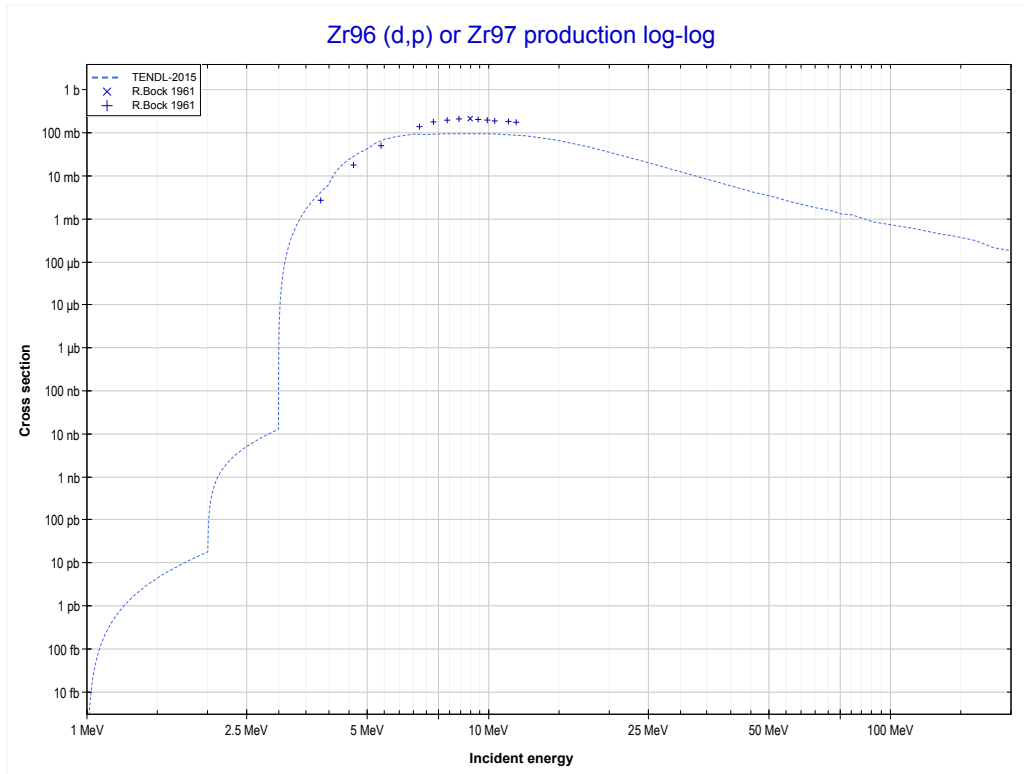
Reaction	Q-Value
Zr96(d,n)Nb97	5227.90 keV

<< 40-Zr-90	<b>40-Zr-96</b>	41-Nb-93 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Nb96 production)</b>	MT103 (d,p) >>



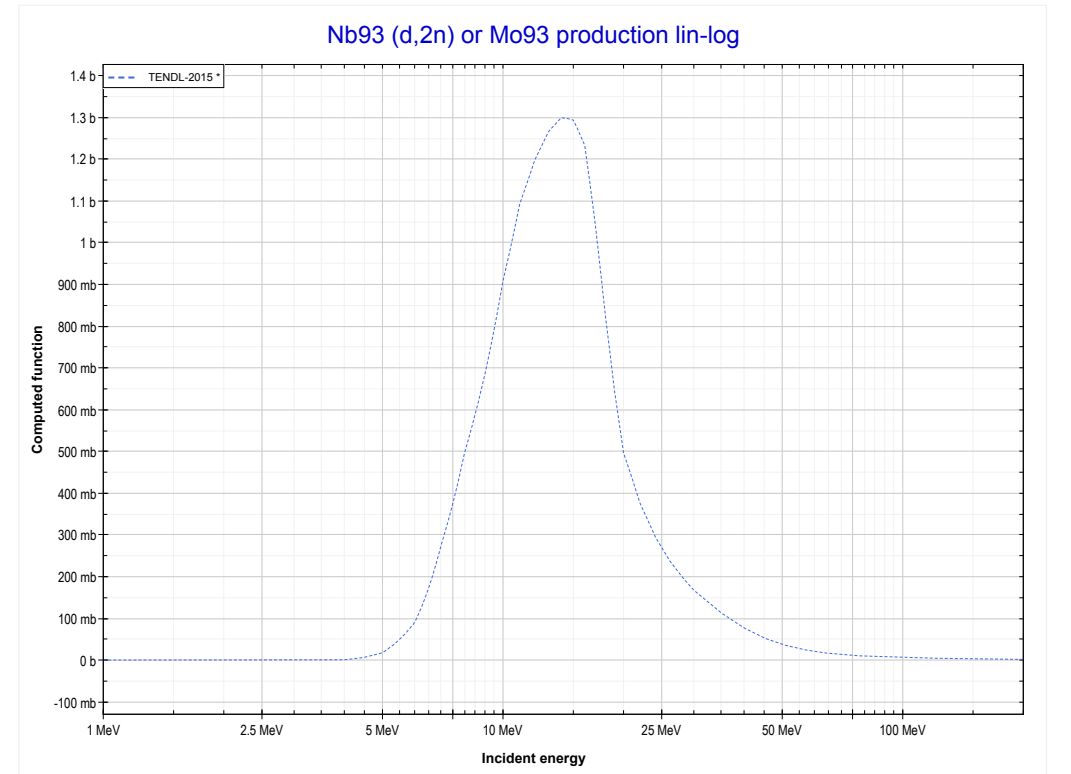
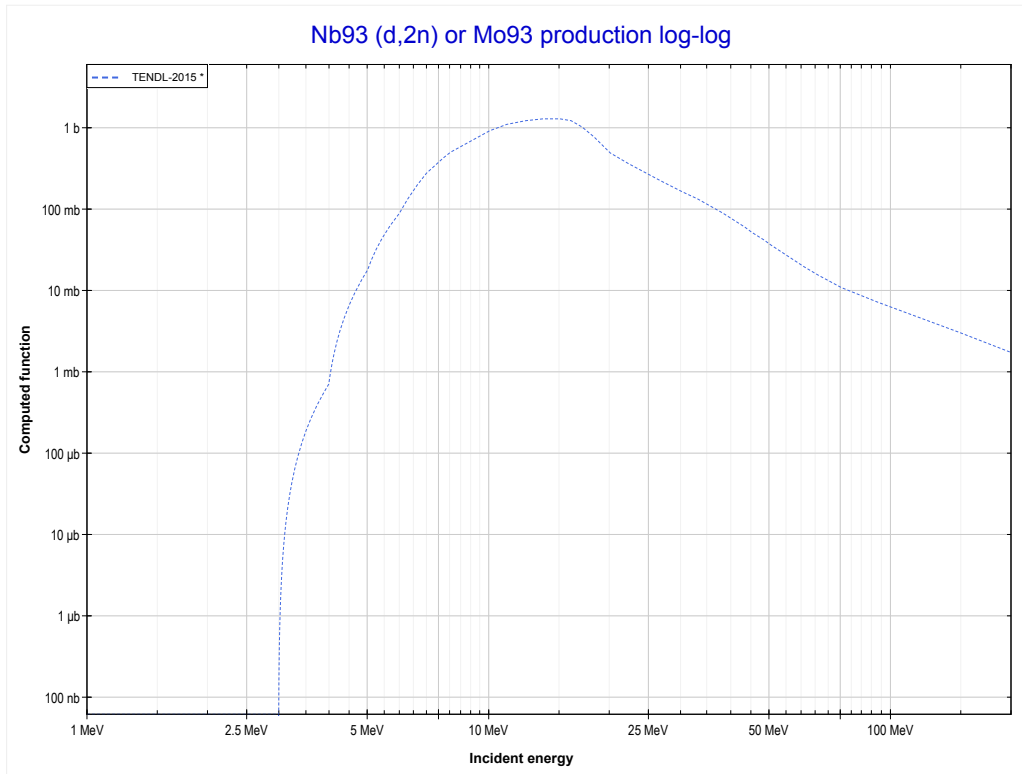
Reaction	Q-Value
Zr96(d,2n)Nb96	-2844.51 keV

<< 40-Zr-94	<b>40-Zr-96</b>	41-Nb-93 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Zr97 production)</b>	41-Nb-93 MT16 (d,2n) >>



Reaction	Q-Value
Zr96(d,p)Zr97	3350.55 keV

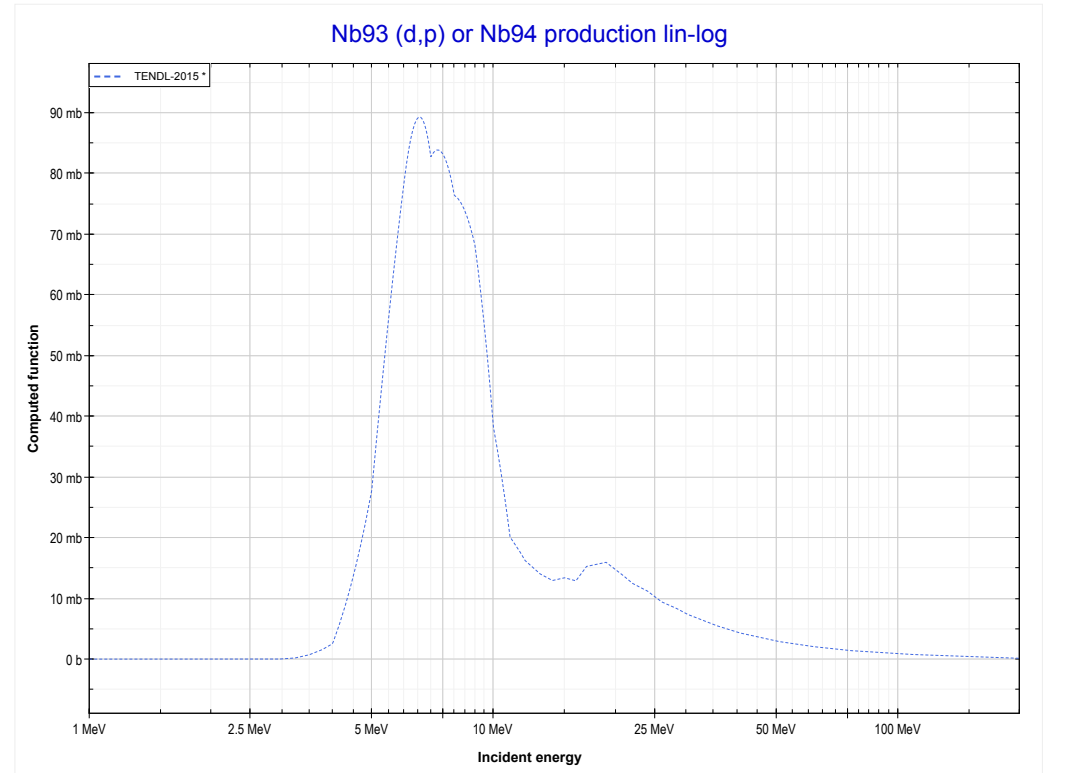
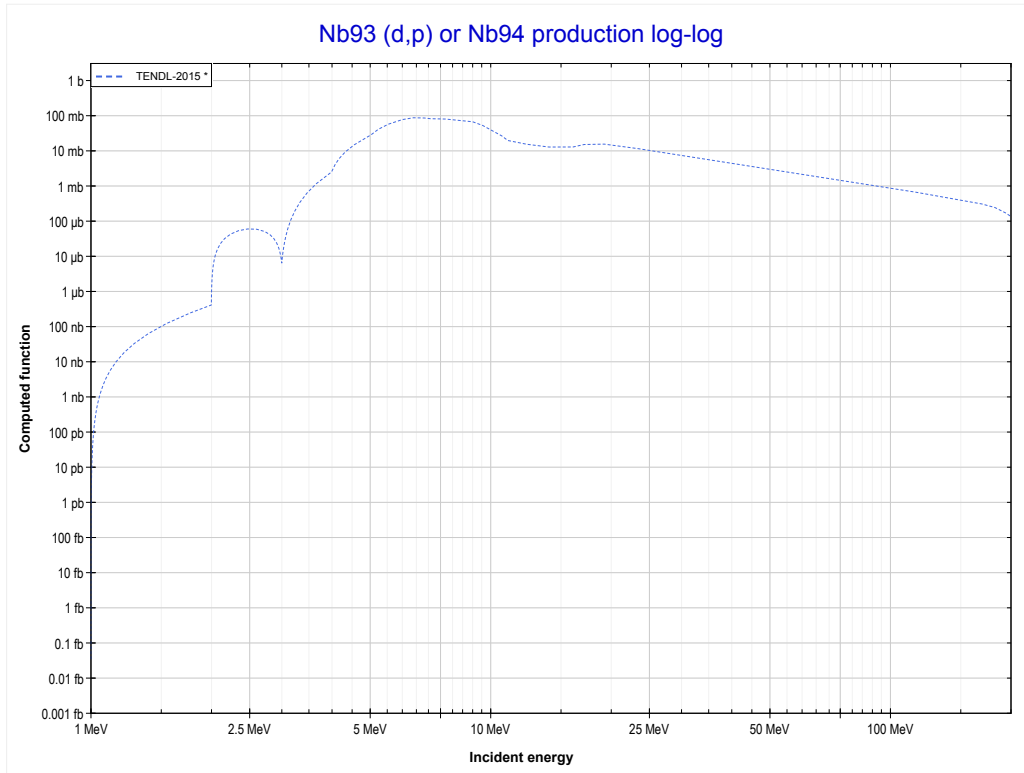
<< 40-Zr-96	<b>41-Nb-93</b>	42-Mo-94 >>
<< 40-Zr-96 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (Mo93 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Nb93(d,2n)Mo93	-3413.61 keV

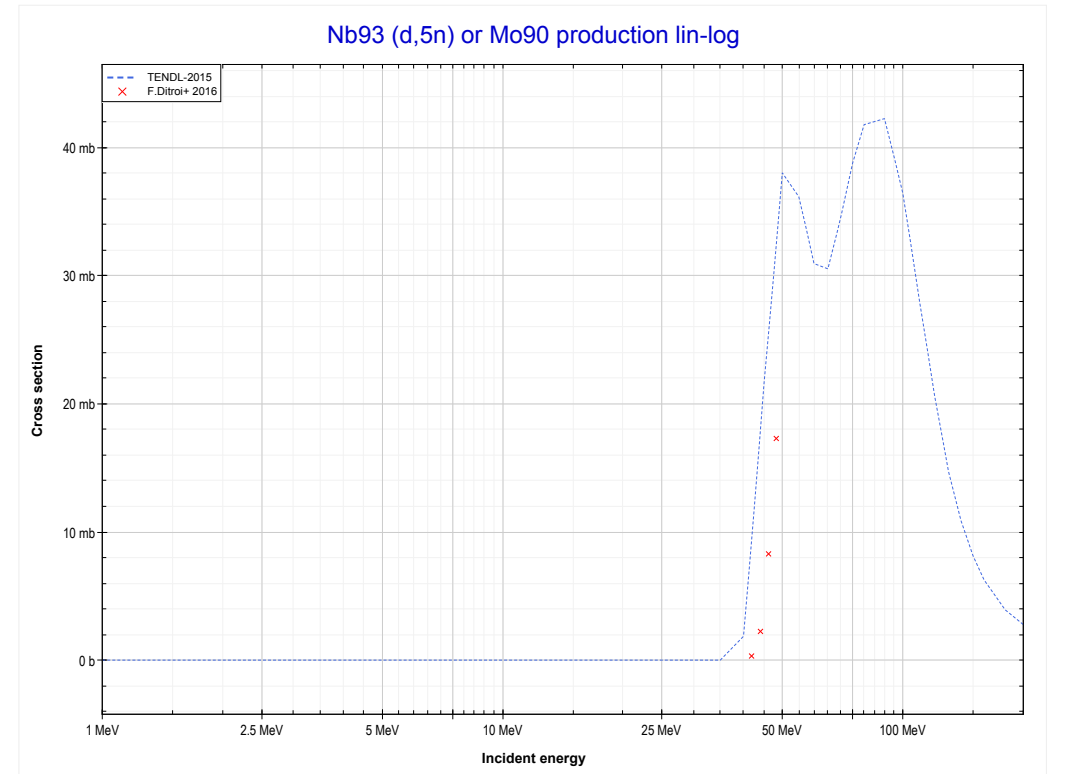
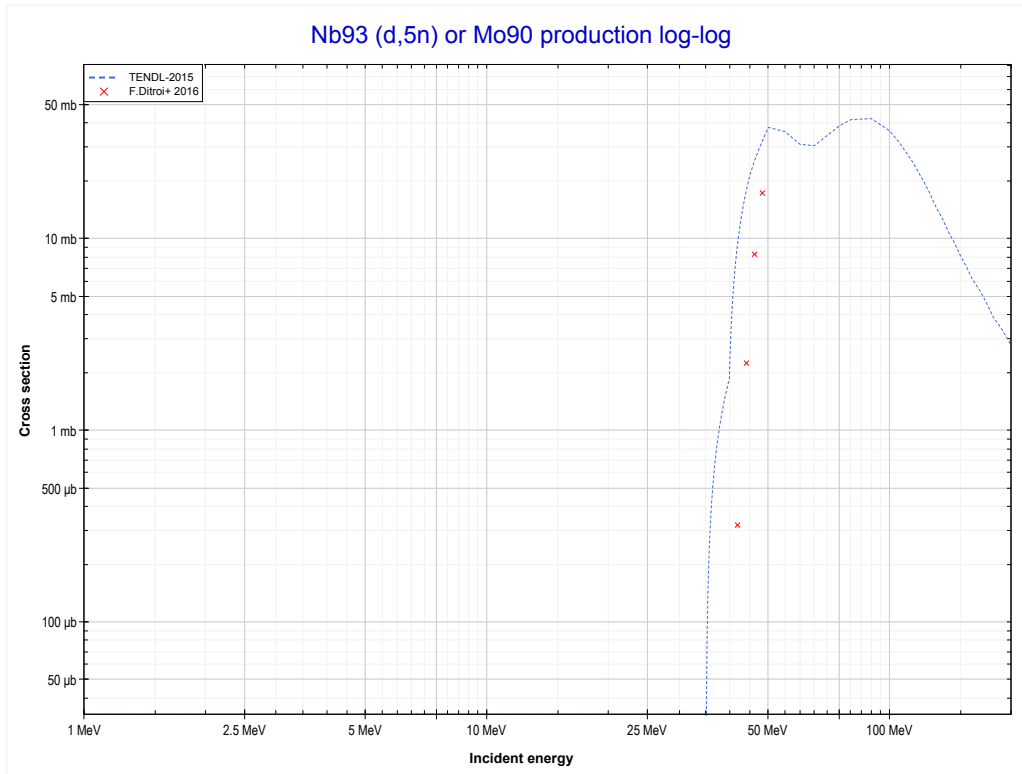


<< 40-Zr-96	<b>41-Nb-93</b>	42-Mo-98 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Nb94 production)</b>	MT152 (d,5n) >>



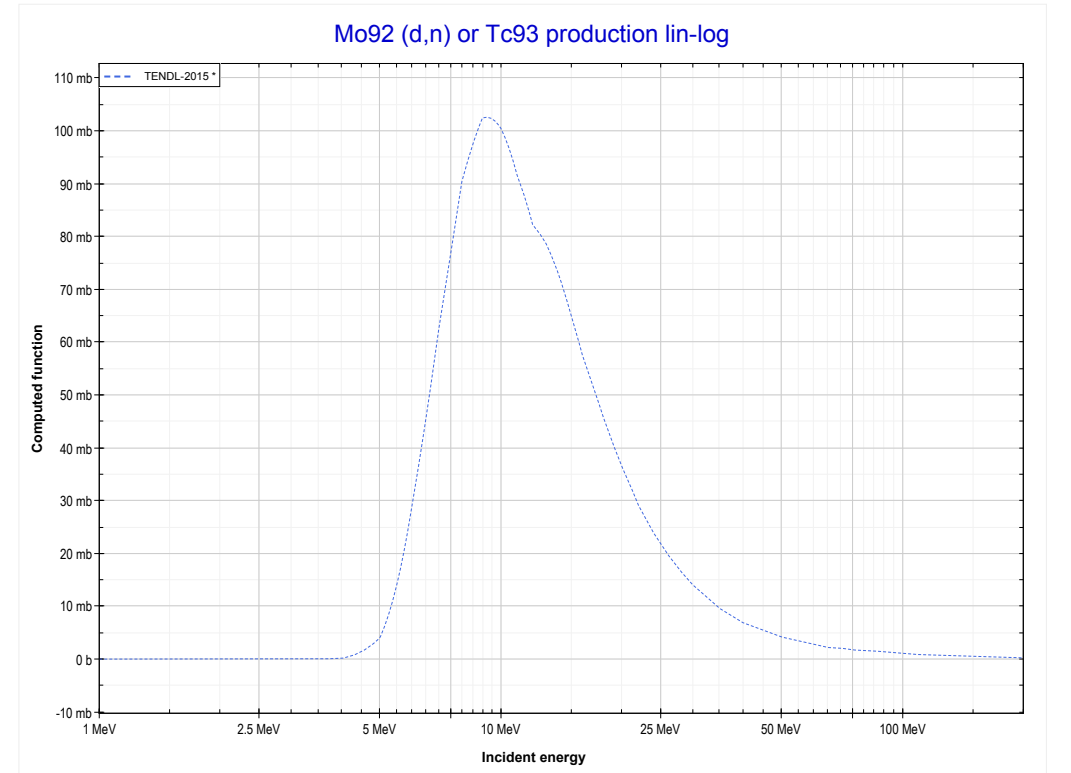
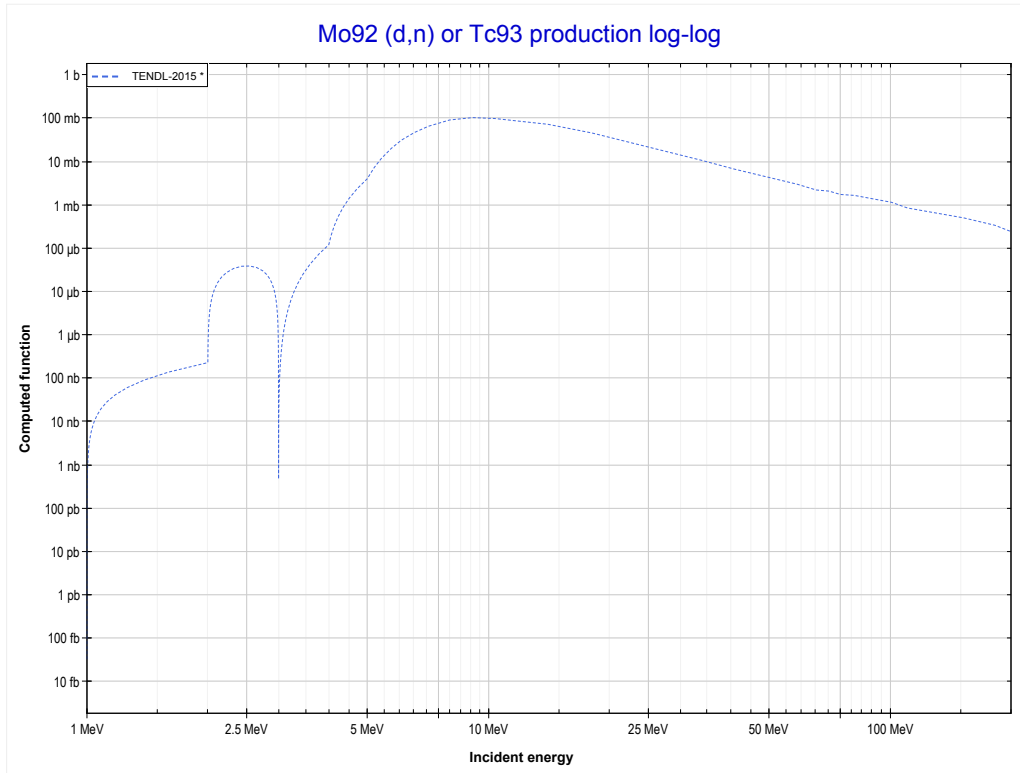
Reaction	Q-Value
Nb93(d,p)Nb94	5002.95 keV

<< 33-As-75	<b>41-Nb-93</b>	45-Rh-103 >>
<< MT103 (d,p)	<b>MT152 (d,5n) or MT5 (Mo90 production)</b>	42-Mo-92 MT4 (d,n) >>



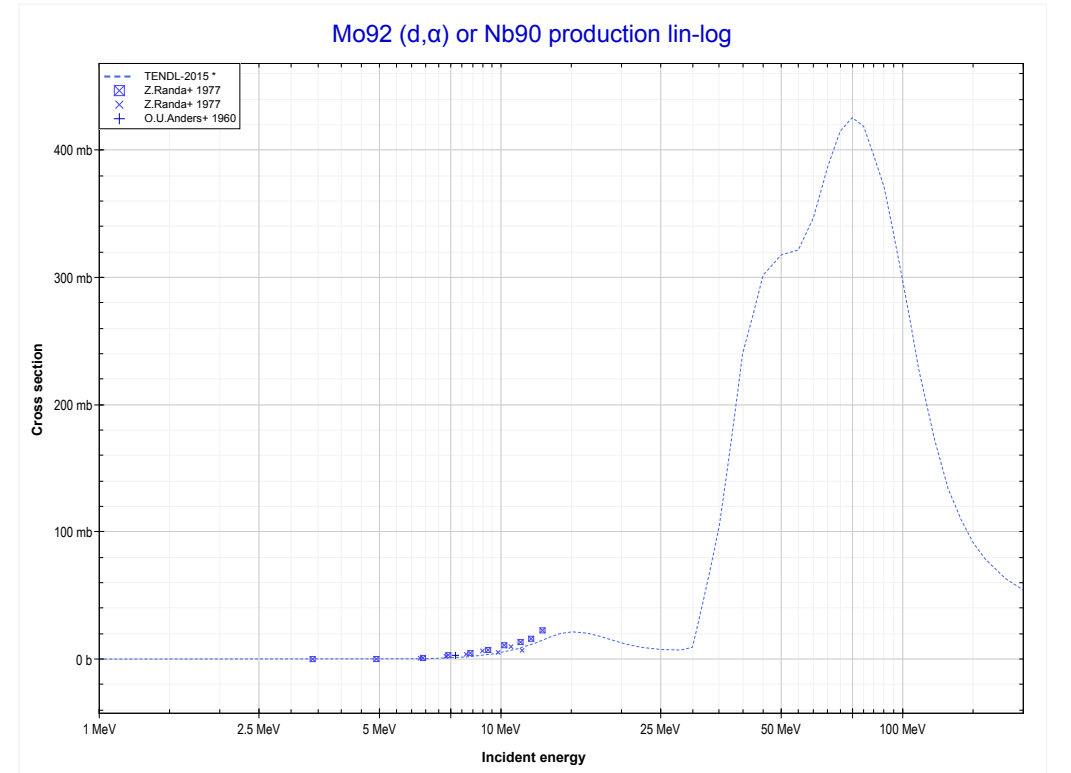
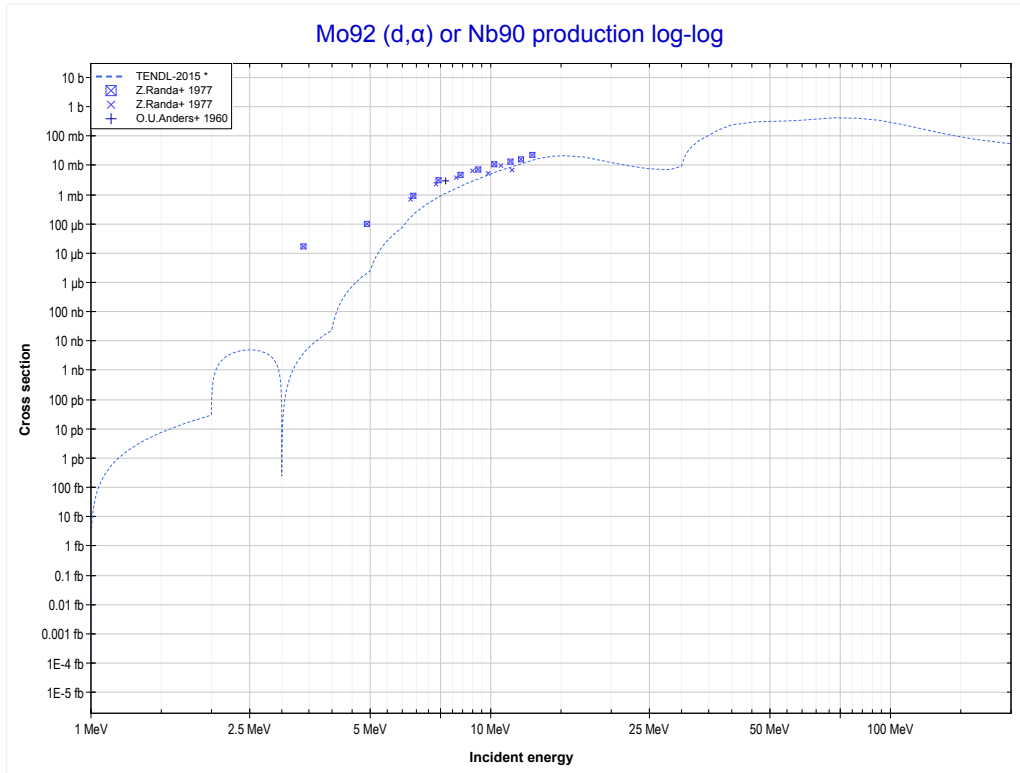
Reaction	Q-Value
Nb93(d,5n)Mo90	-34260.86 keV

<< 40-Zr-96	<b>42-Mo-92</b>	42-Mo-94 >>
<< 41-Nb-93 MT152 (d,5n)	<b>MT4 (d,n) or MT5 (Tc93 production)</b>	MT107 (d, $\alpha$ ) >>



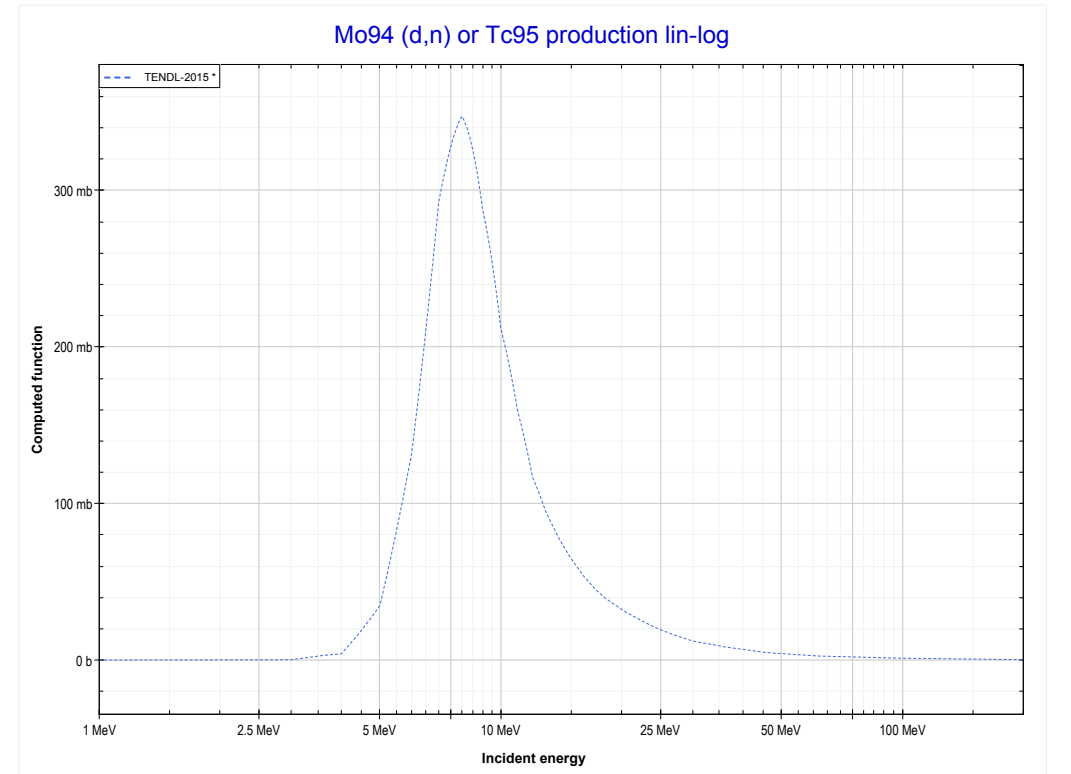
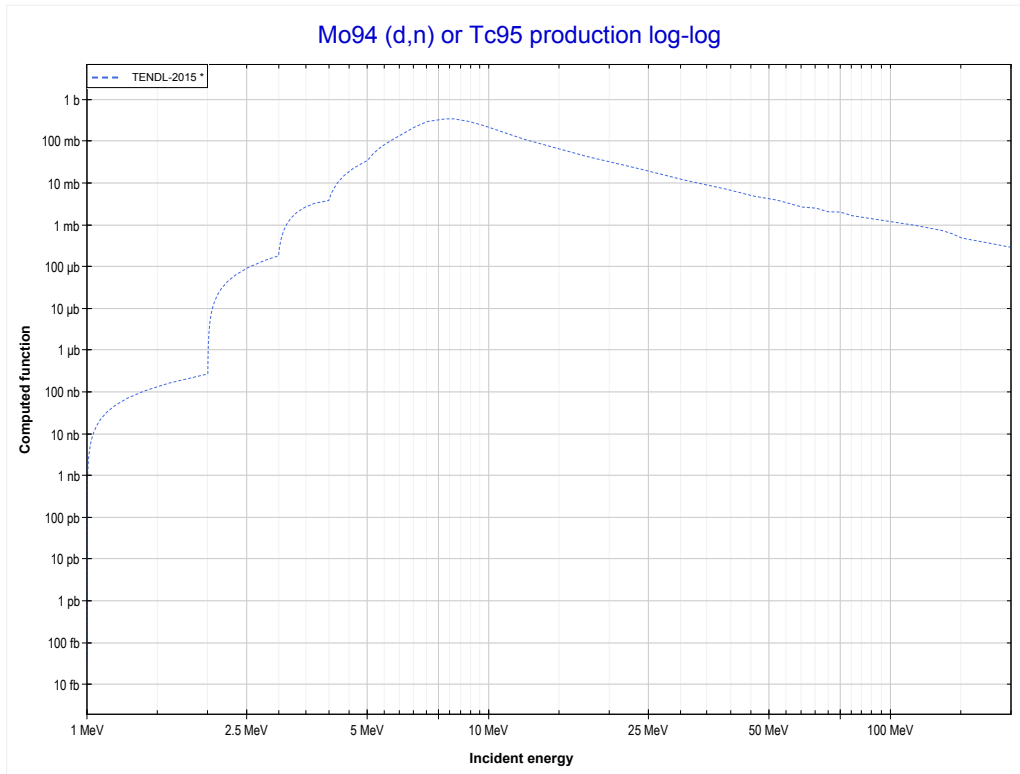
Reaction	Q-Value
Mo92(d,n)Tc93	1862.00 keV

<< 40-Zr-94	<b>42-Mo-92</b>	42-Mo-94 >>
<< MT4 (d,n)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Nb90 production)</b>	42-Mo-94 MT4 (d,n) >>



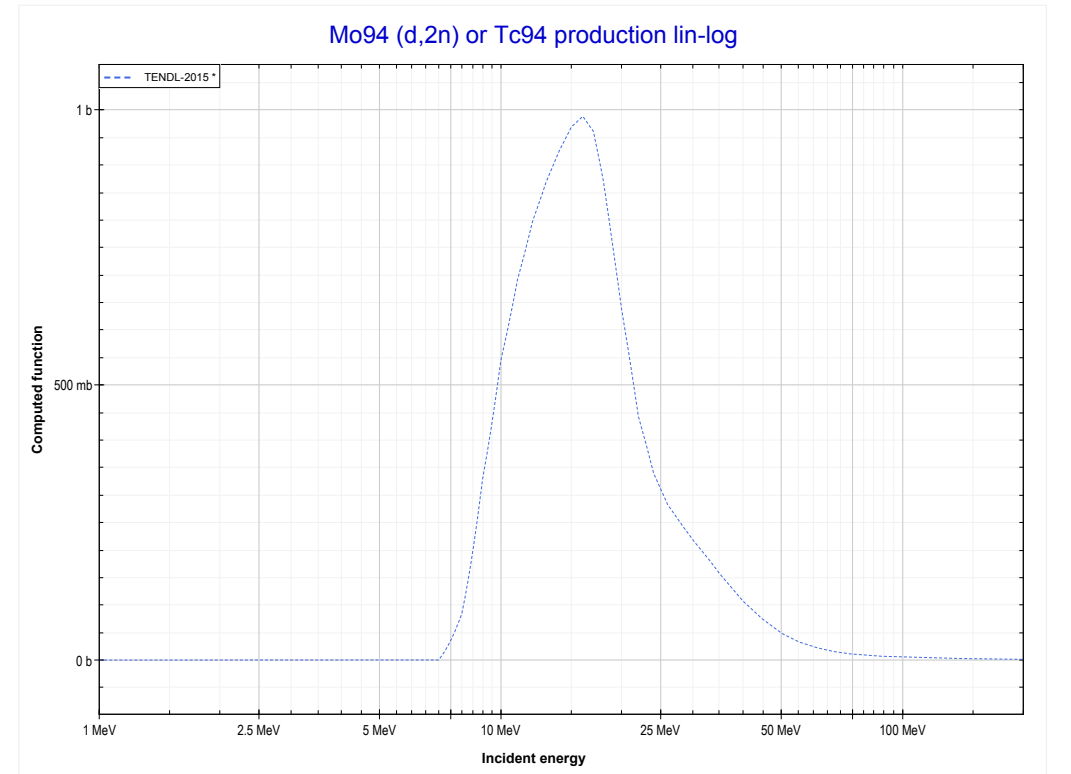
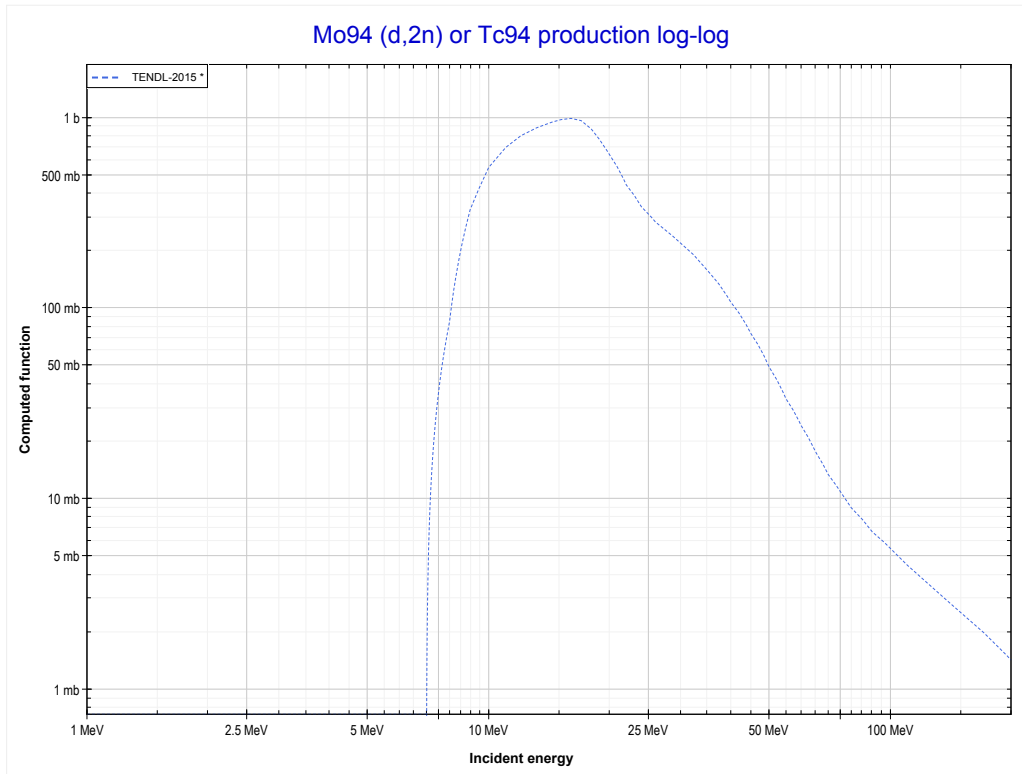
Reaction	Q-Value
Mo92(d, $\alpha$ )Nb90	6565.01 keV
Mo92(d,p+t)Nb90	-13248.85 keV
Mo92(d,n+He3)Nb90	-14012.61 keV
Mo92(d,2d)Nb90	-17281.52 keV
Mo92(d,n+p+d)Nb90	-19506.09 keV
Mo92(d,2n+2p)Nb90	-21730.65 keV

<< 42-Mo-92	<b>42-Mo-94</b>	42-Mo-96 >>
<< 42-Mo-92 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (Tc95 production)</b>	MT16 (d,2n) >>



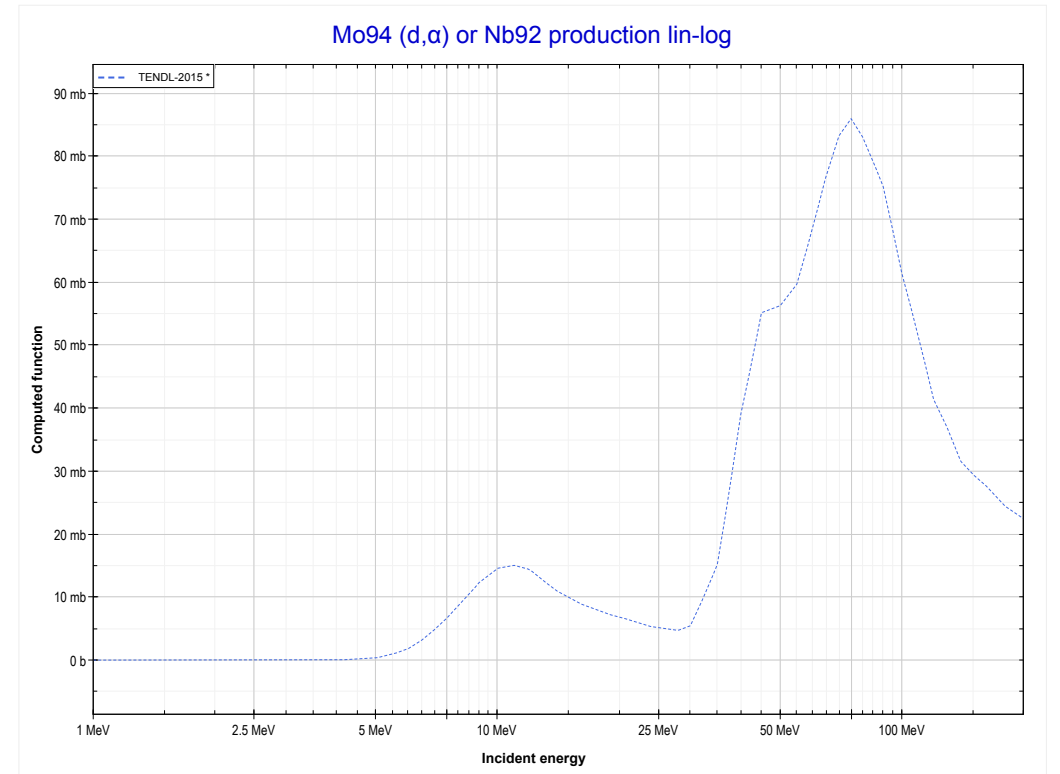
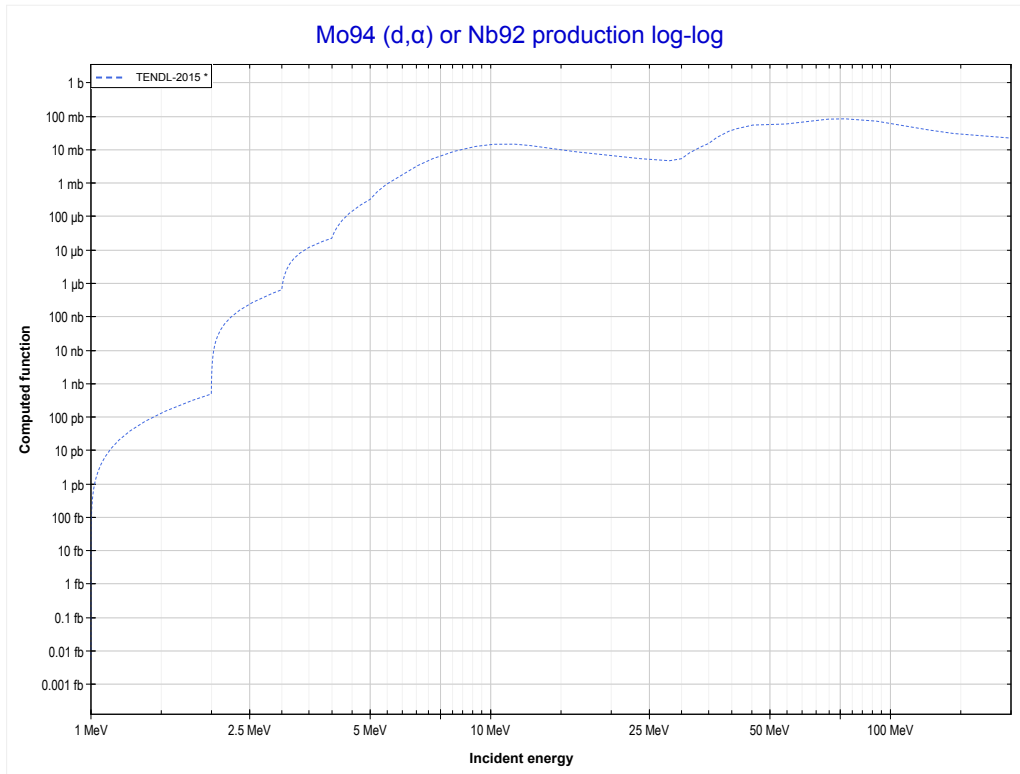
Reaction	Q-Value
Mo94(d,n)Tc95	2671.60 keV

<< 41-Nb-93	<b>42-Mo-94</b>	45-Rh-103 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Tc94 production)</b>	MT107 (d, $\alpha$ ) >>



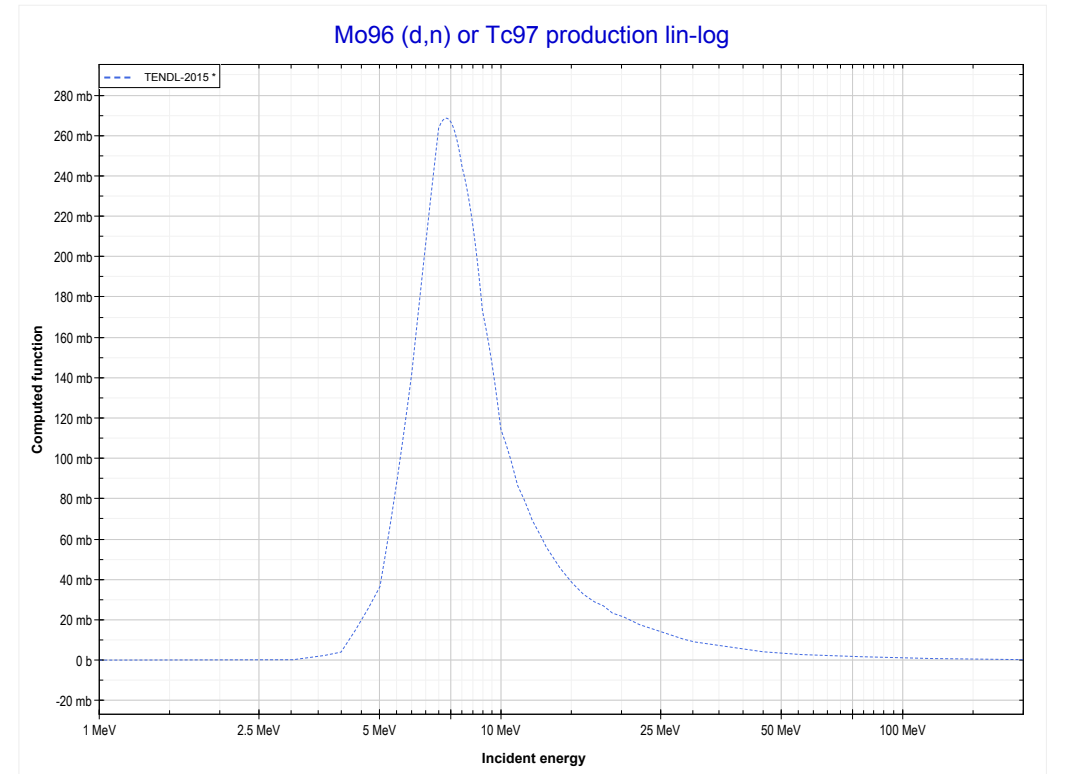
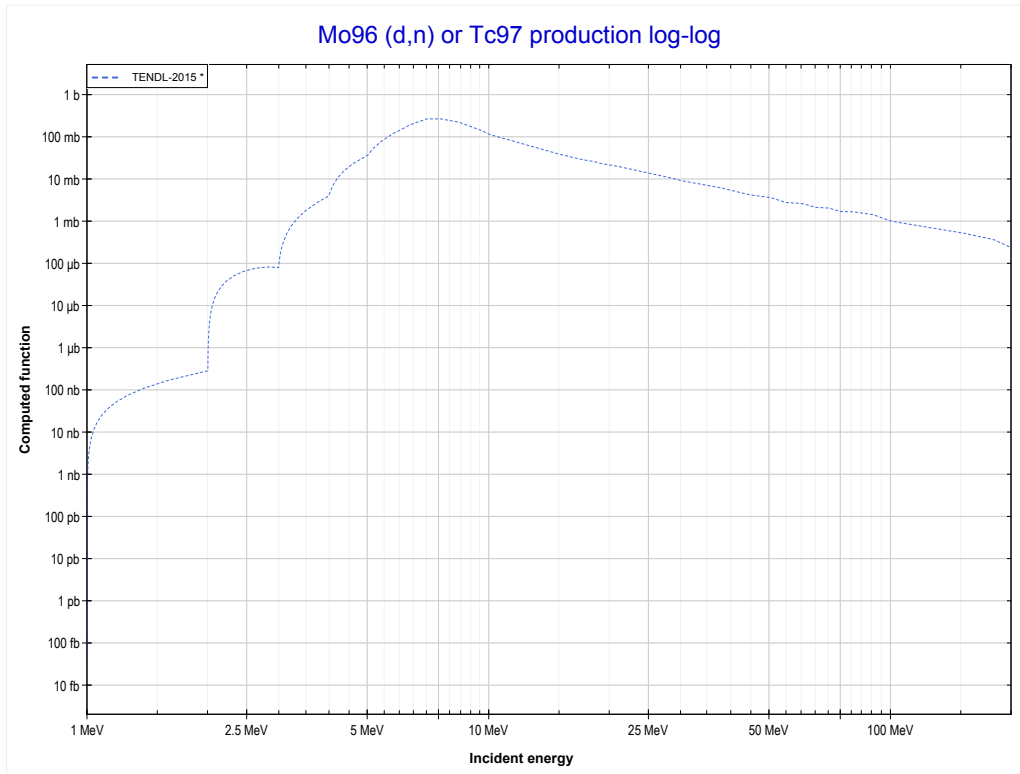
Reaction	Q-Value
Mo94(d,2n)Tc94	-7262.71 keV

<< 42-Mo-92	<b>42-Mo-94</b>	42-Mo-97 >>
<< MT16 (d,2n)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Nb92 production)</b>	42-Mo-96 MT4 (d,n) >>



Reaction	Q-Value
Mo94(d, $\alpha$ )Nb92	8751.71 keV
Mo94(d,p+t)Nb92	-11062.15 keV
Mo94(d,n+He3)Nb92	-11825.91 keV
Mo94(d,2d)Nb92	-15094.82 keV
Mo94(d,n+p+d)Nb92	-17319.39 keV
Mo94(d,2n+2p)Nb92	-19543.95 keV

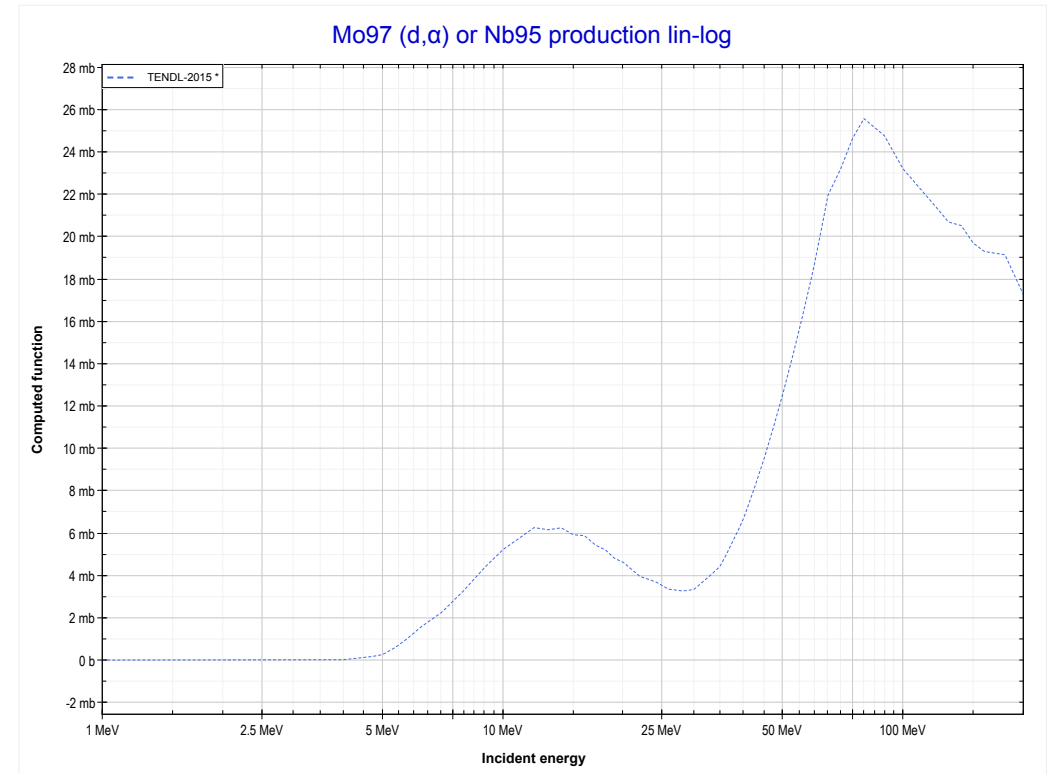
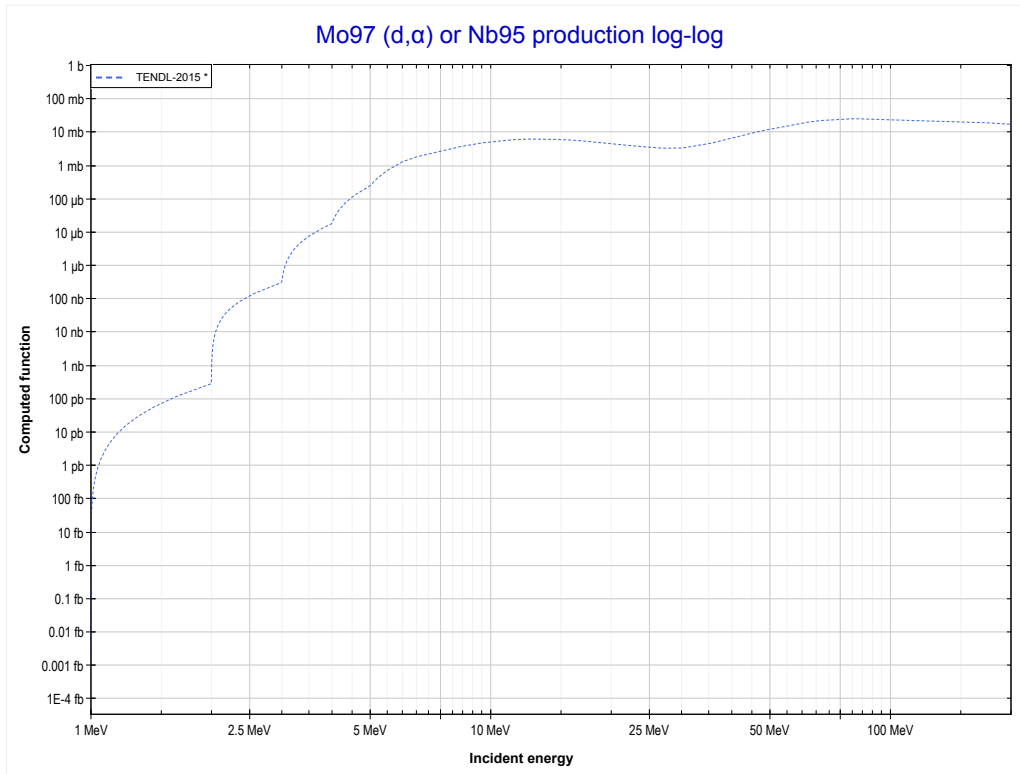
<< 42-Mo-94	<b>42-Mo-96</b>	42-Mo-98 >>
<< 42-Mo-94 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (Tc97 production)</b>	42-Mo-97 MT107 (d, $\alpha$ ) >>



Reaction	Q-Value
Mo96(d,n)Tc97	3489.80 keV

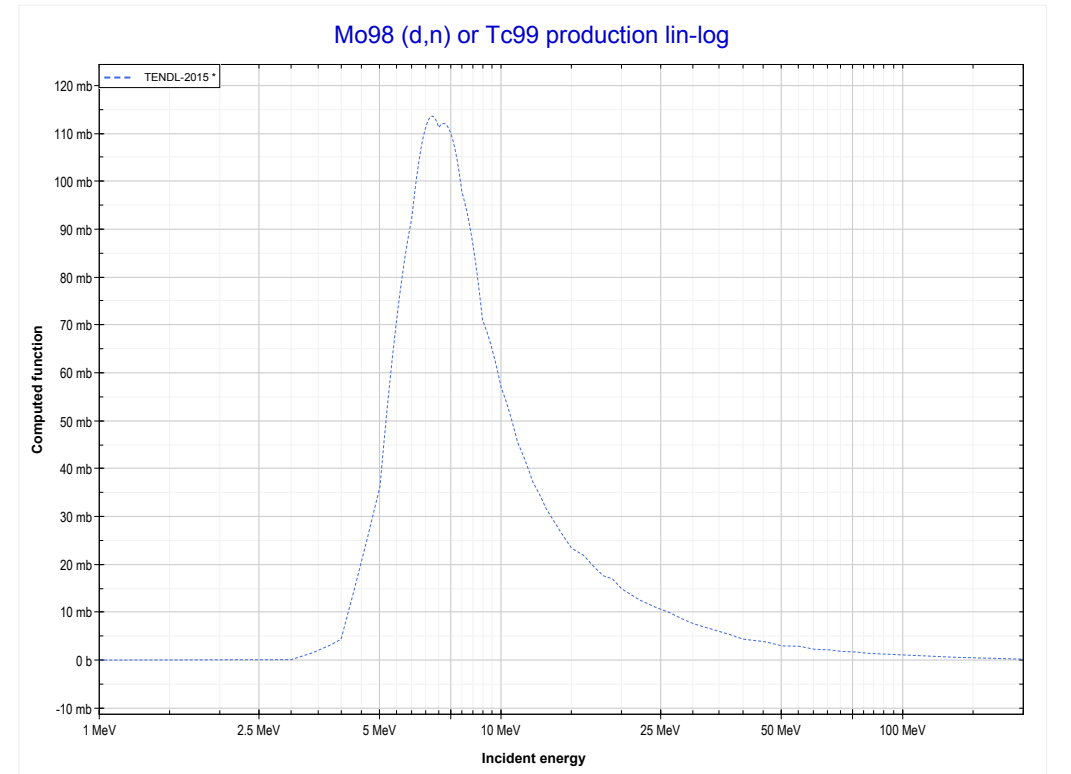
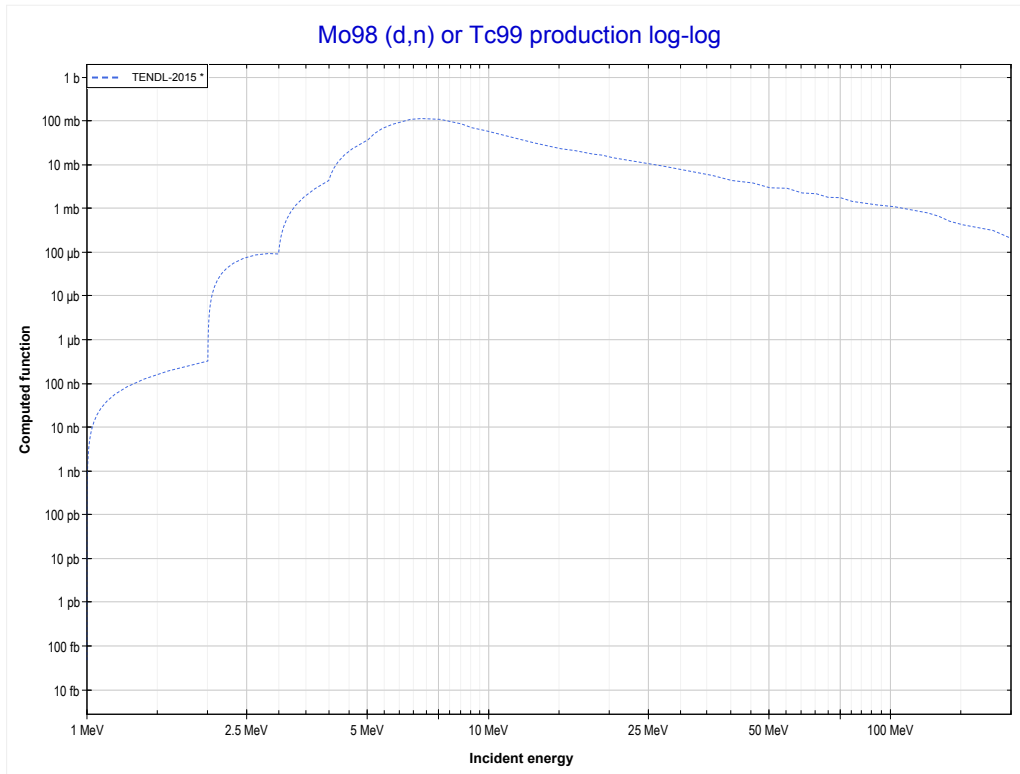


<< 42-Mo-94	<b>42-Mo-97</b>	42-Mo-98 >>
<< 42-Mo-96 MT4 (d,n)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Nb95 production)</b>	42-Mo-98 MT4 (d,n) >>



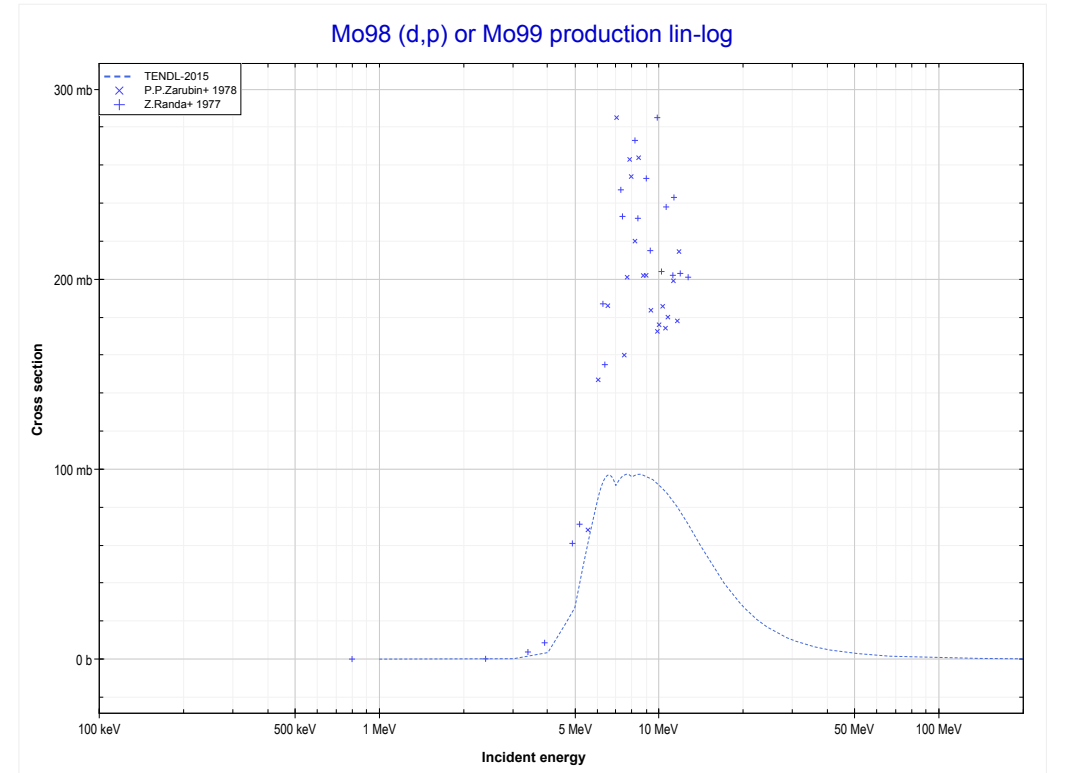
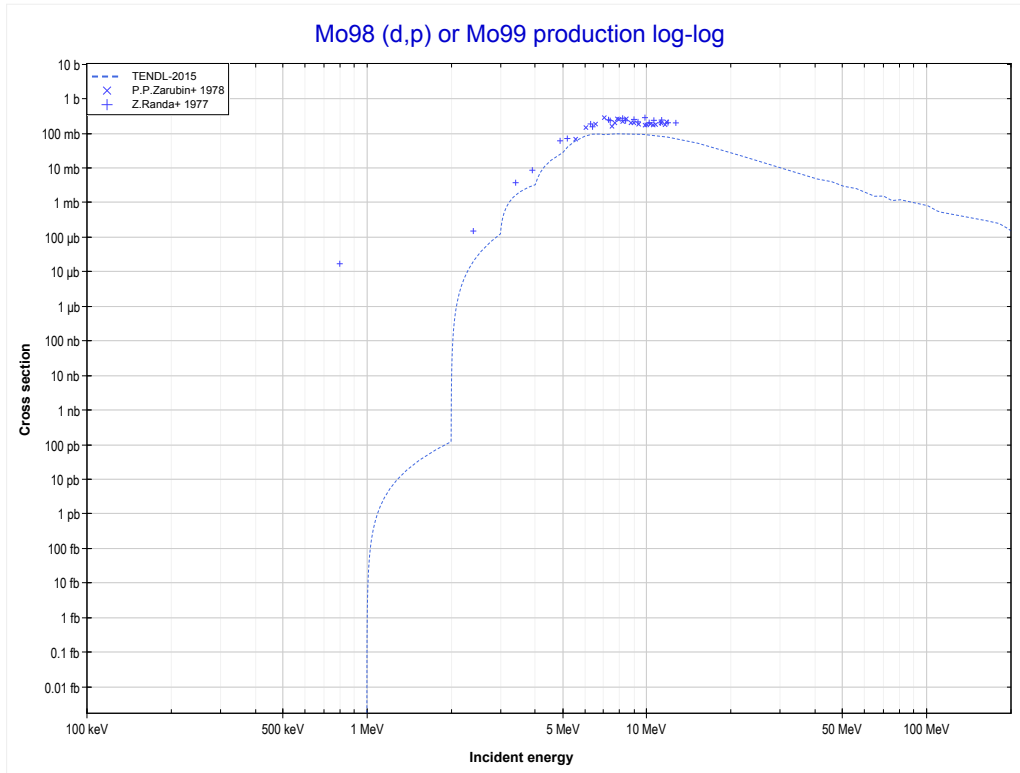
Reaction	Q-Value
Mo97(d, $\alpha$ )Nb95	9952.31 keV
Mo97(d,p+t)Nb95	-9861.55 keV
Mo97(d,n+He3)Nb95	-10625.31 keV
Mo97(d,2d)Nb95	-13894.22 keV
Mo97(d,n+p+d)Nb95	-16118.79 keV
Mo97(d,2n+2p)Nb95	-18343.35 keV

<< 42-Mo-96	<b>42-Mo-98</b>	42-Mo-100 >>
<< 42-Mo-97 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (Tc99 production)</b>	MT103 (d,p) >>



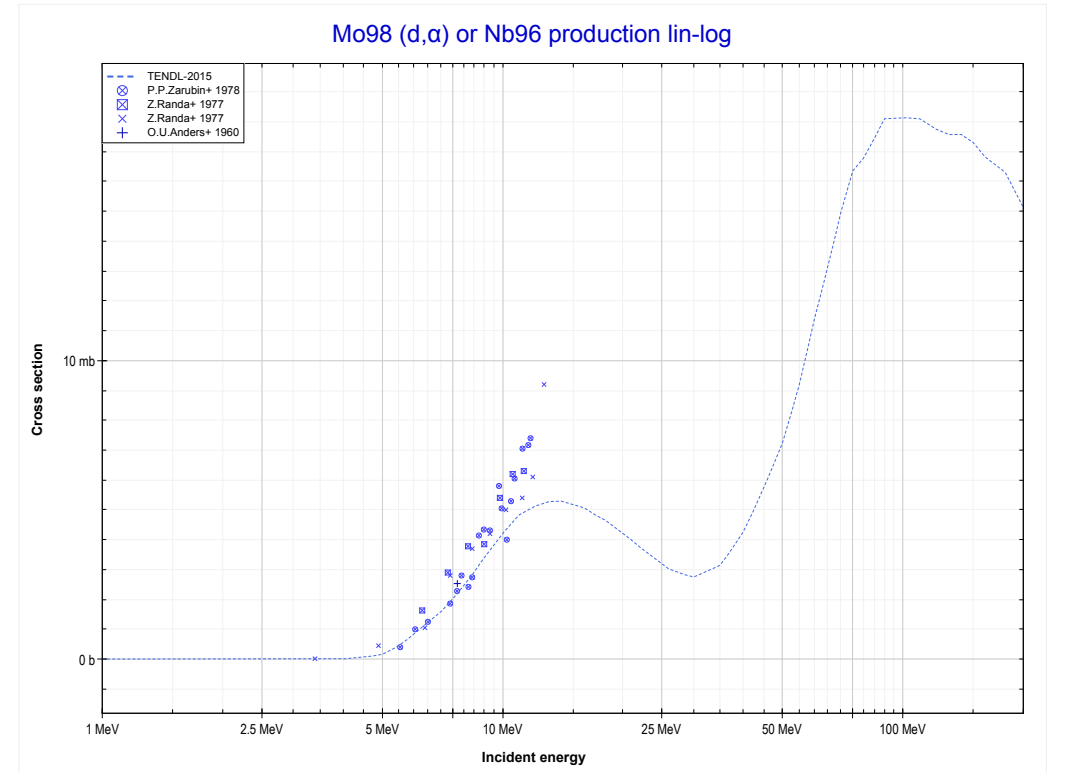
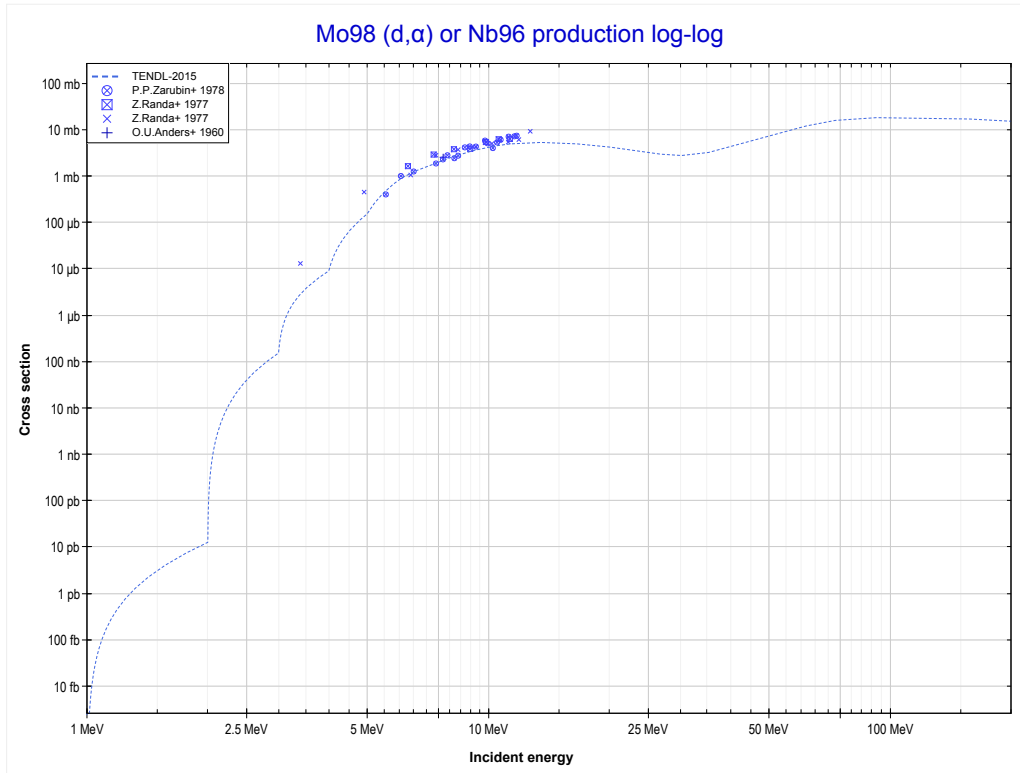
Reaction	Q-Value
Mo98(d,n)Tc99	4276.40 keV

<< 41-Nb-93	<b>42-Mo-98</b>	42-Mo-100 >>
<< MT4 (d,n)	<b>MT103 (d,p) or MT5 (Mo99 production)</b>	MT107 (d, $\alpha$ ) >>



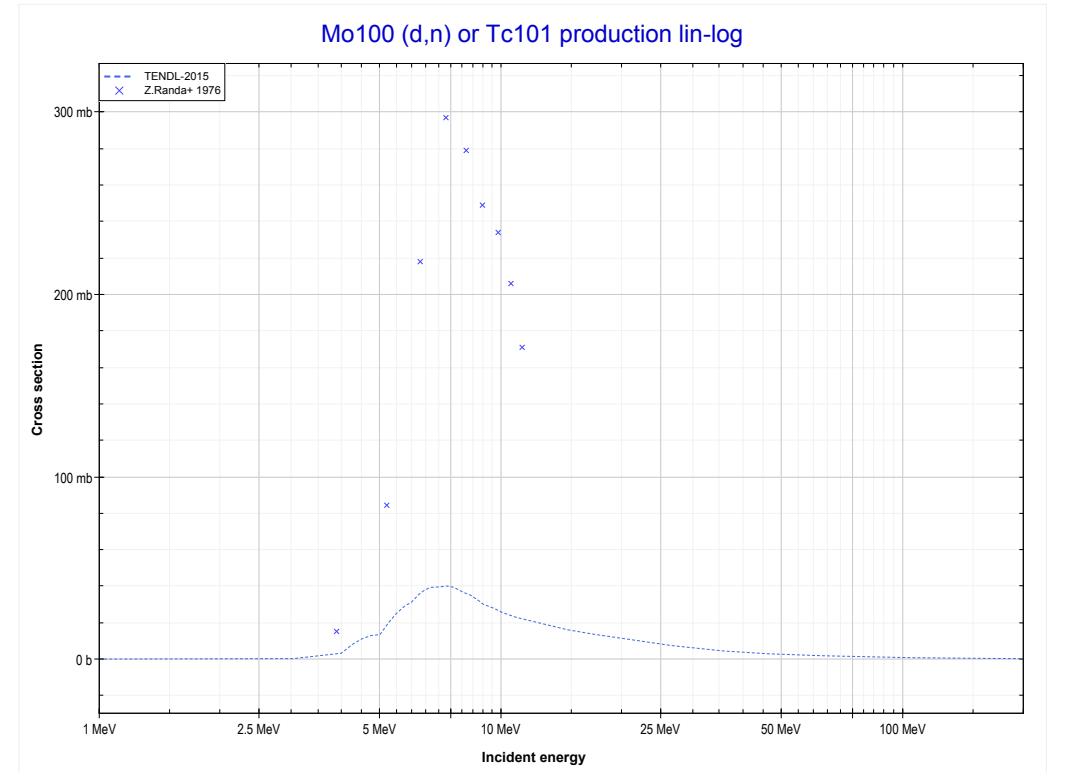
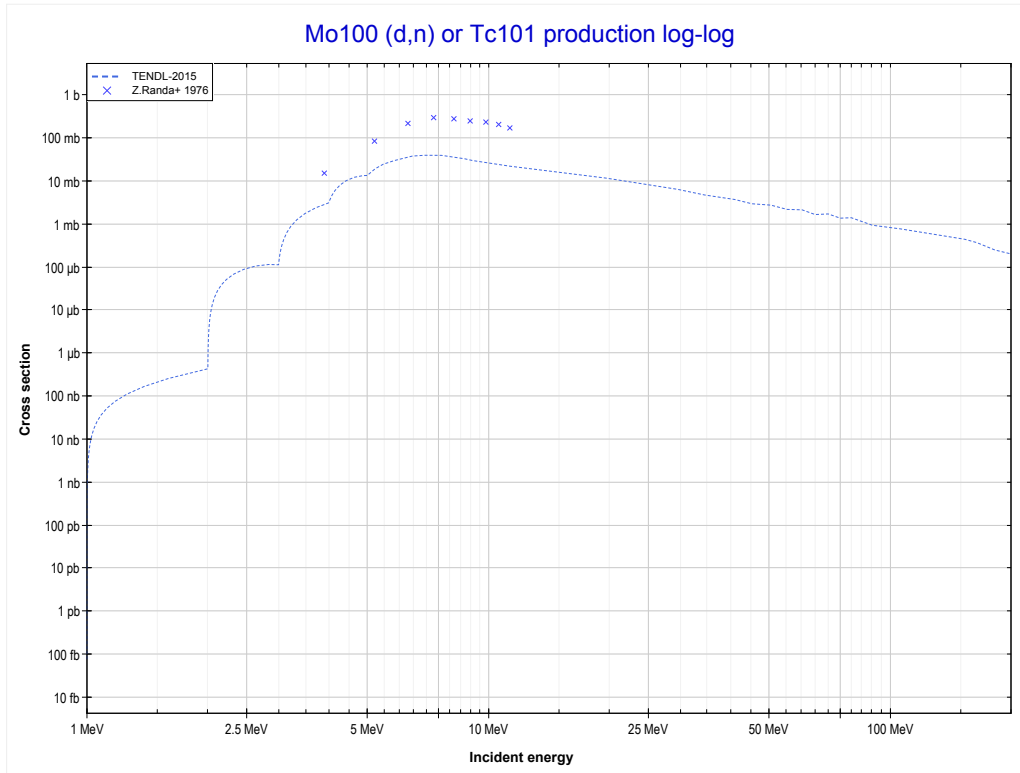
Reaction	Q-Value
Mo98(d,p)Mo99	3700.95 keV

<< 42-Mo-97	<b>42-Mo-98</b>	48-Cd-114 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Nb96 production)</b>	42-Mo-100 MT4 (d,n) >>



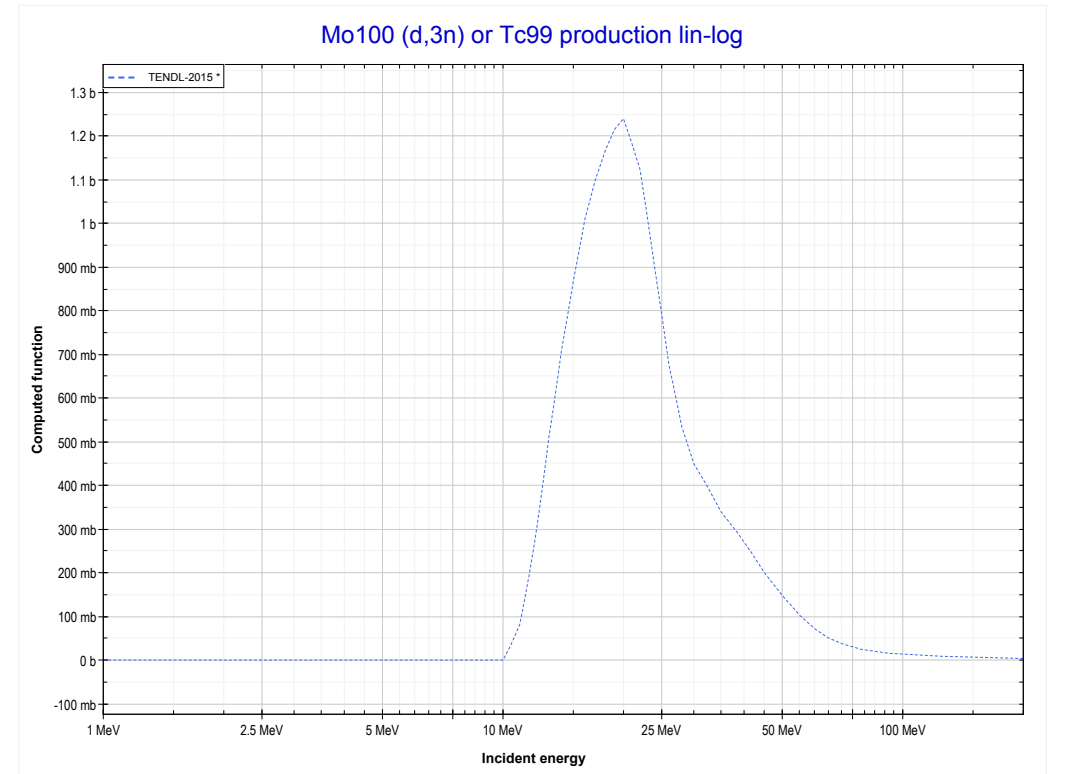
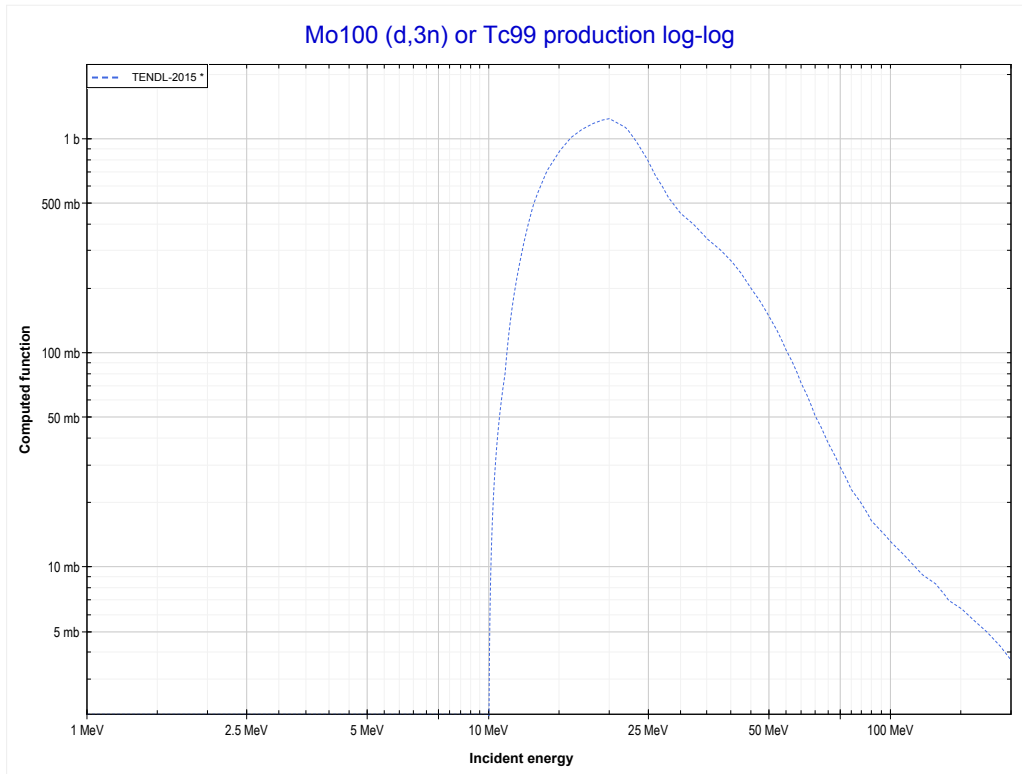
Reaction	Q-Value
Mo98(d, $\alpha$ )Nb96	8203.01 keV
Mo98(d,p+t)Nb96	-11610.85 keV
Mo98(d,n+He3)Nb96	-12374.61 keV
Mo98(d,2d)Nb96	-15643.52 keV
Mo98(d,n+p+d)Nb96	-17868.09 keV
Mo98(d,2n+2p)Nb96	-20092.65 keV

<< 42-Mo-98	<b>42-Mo-100</b>	46-Pd-110 >>
<< 42-Mo-98 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (Tc101 production)</b>	MT17 (d,3n) >>



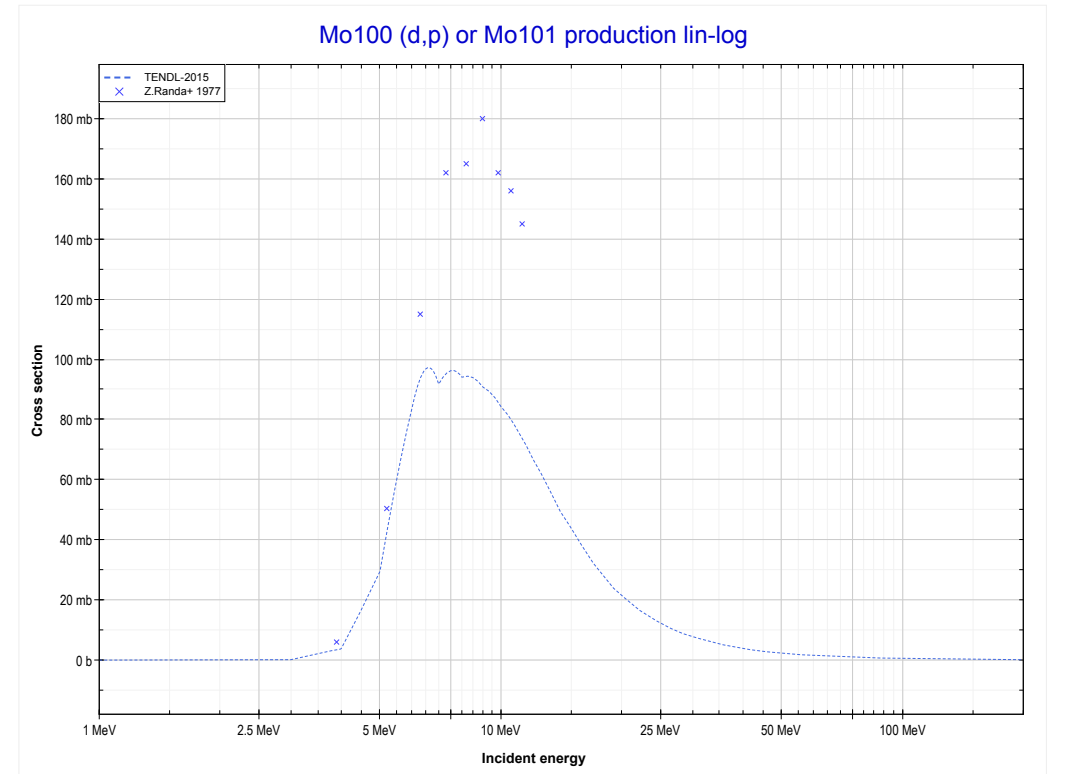
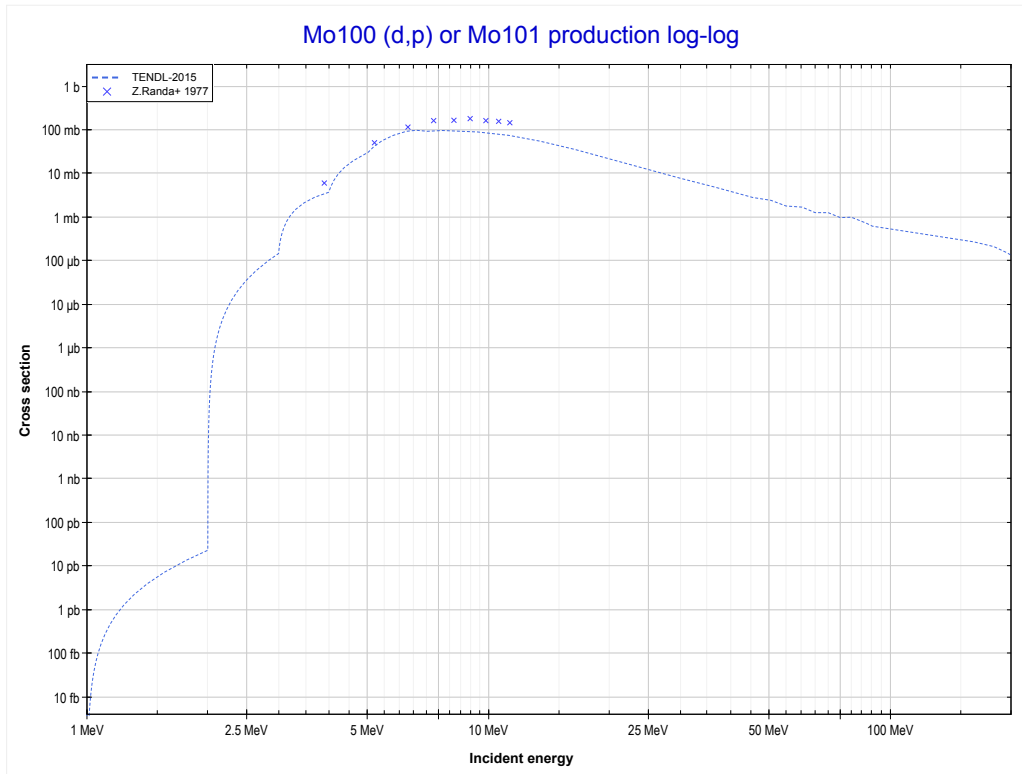
Reaction	Q-Value
Mo100(d,n)Tc101	5215.90 keV

<< 40-Zr-91	<b>42-Mo-100</b>	48-Cd-112 >>
<< MT4 (d,n)	<b>MT17 (d,3n) or MT5 (Tc99 production)</b>	MT103 (d,p) >>



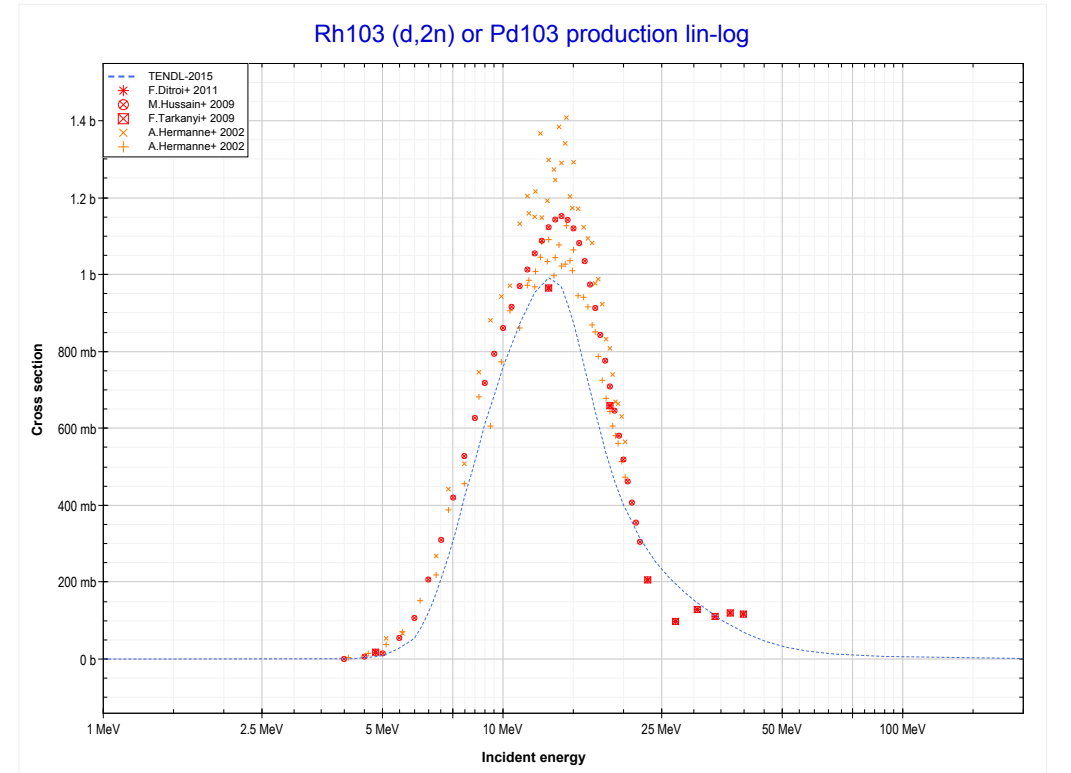
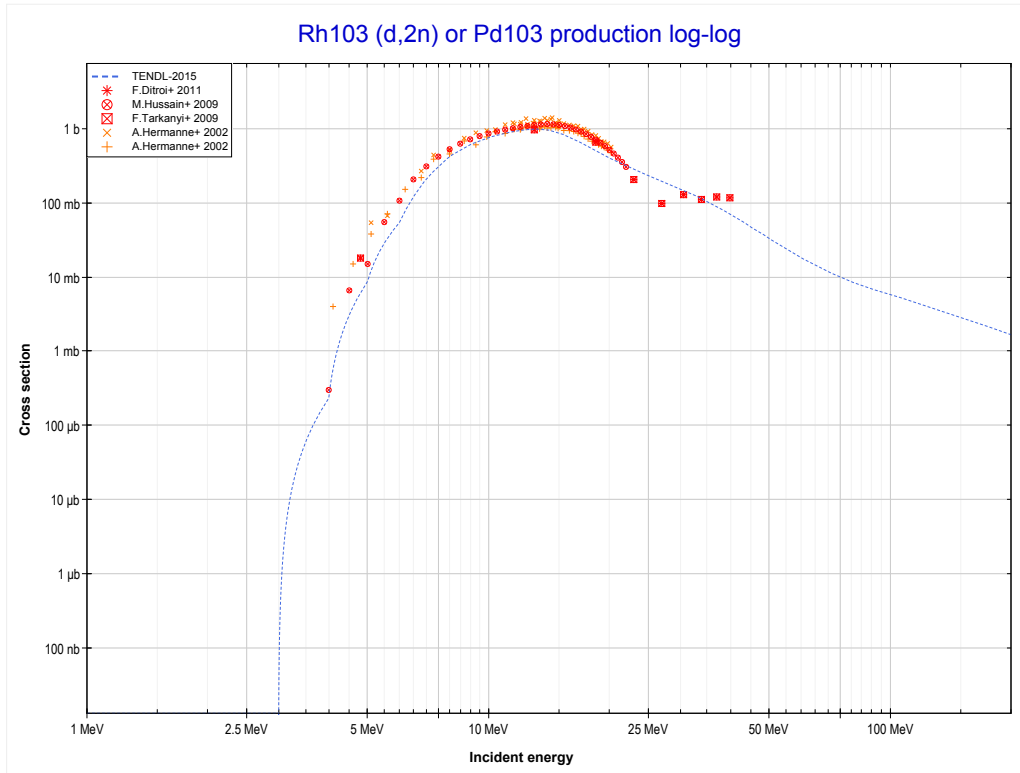
Reaction	Q-Value
Mo100(d,3n)Tc99	-9940.93 keV

<< 42-Mo-98	<b>42-Mo-100</b>	47-Ag-109 >>
<< MT17 (d,3n)	<b>MT103 (d,p) or MT5 (Mo101 production)</b>	45-Rh-103 MT16 (d,2n) >>



Reaction	Q-Value
Mo100(d,p)Mo101	3173.65 keV

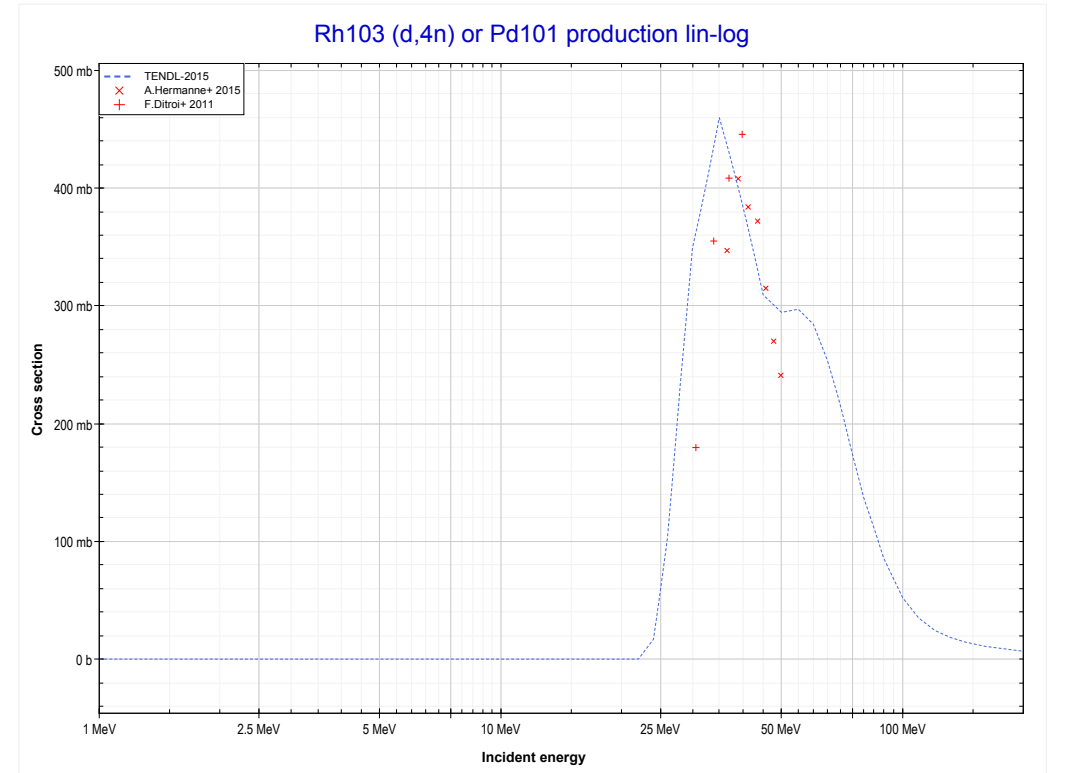
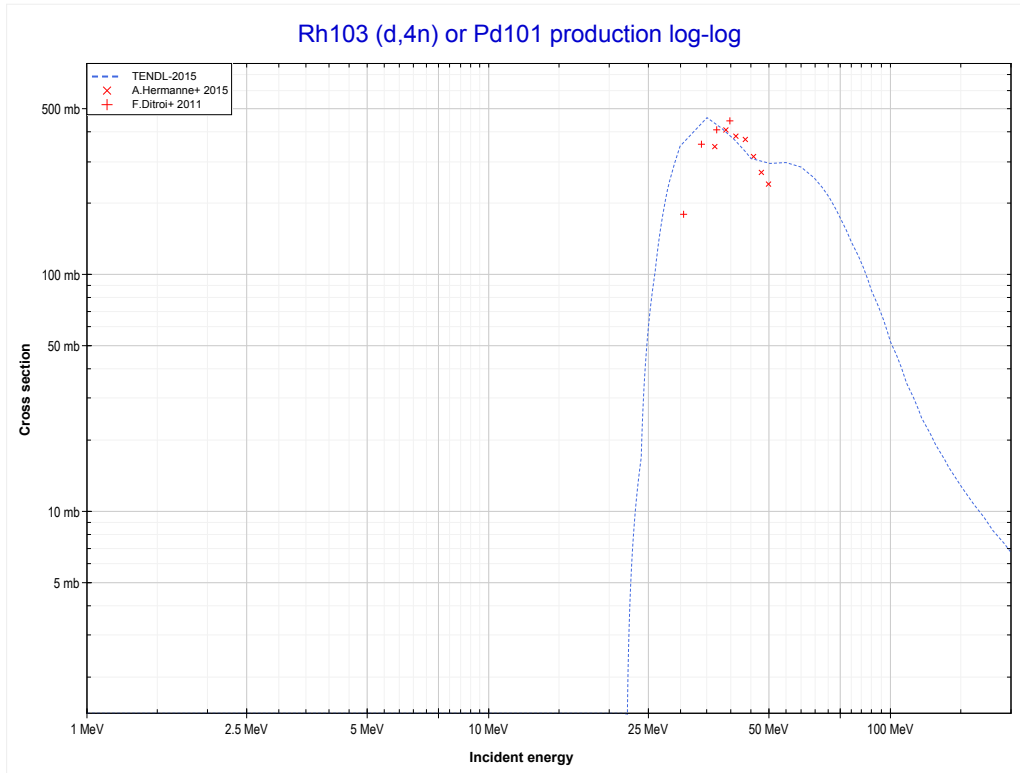
<< 42-Mo-94	<b>45-Rh-103</b>	46-Pd-110 >>
<< 42-Mo-100 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (Pd103 production)</b>	MT37 (d,4n) >>



Reaction	Q-Value
Rh103(d,2n)Pd103	-3550.01 keV

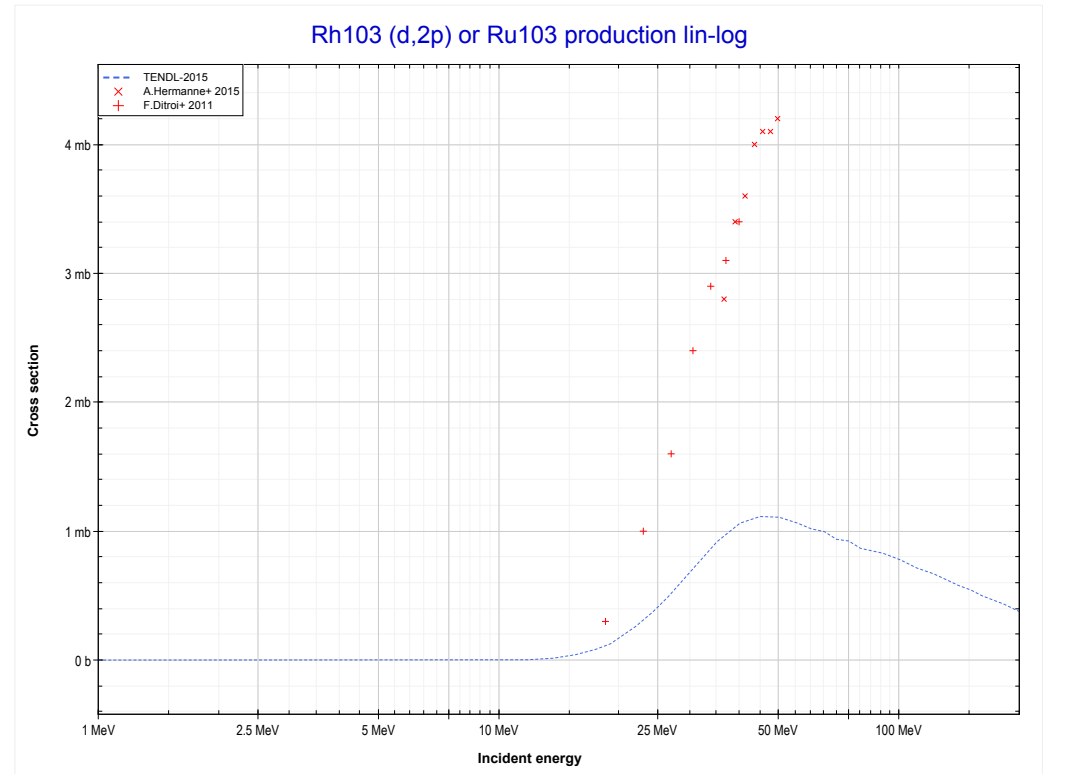
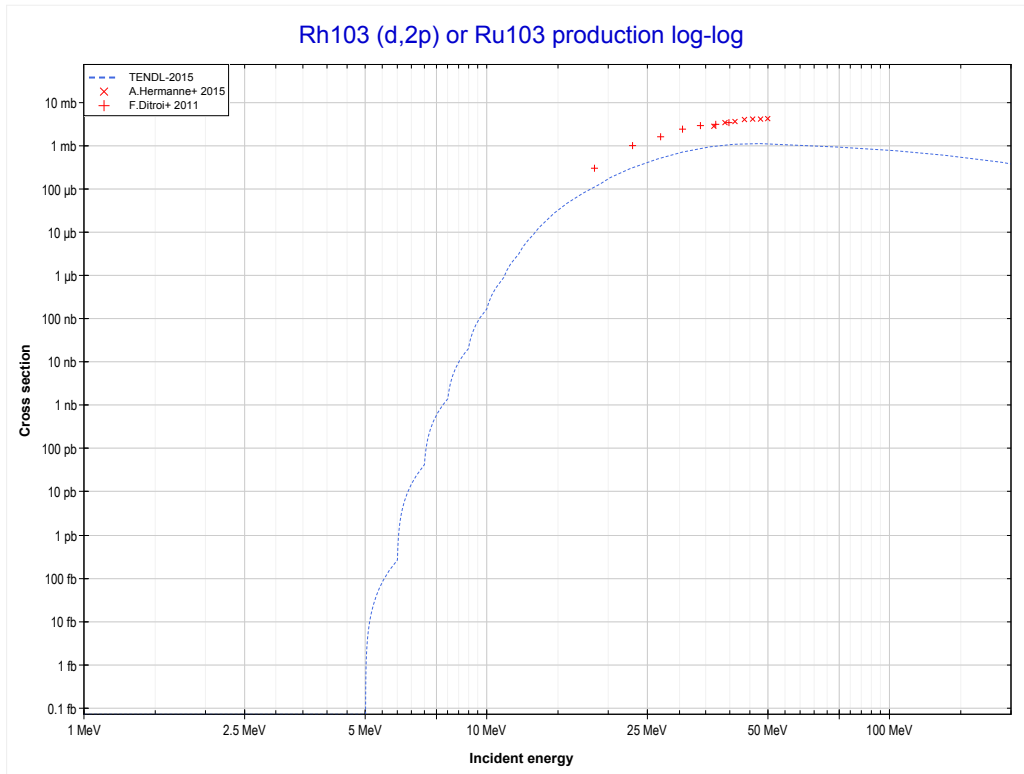


<< 34-Se-76	<b>45-Rh-103</b>	48-Cd-112 >>
<< MT16 (d,2n)	<b>MT37 (d,4n) or MT5 (Pd101 production)</b>	MT111 (d,2p) >>



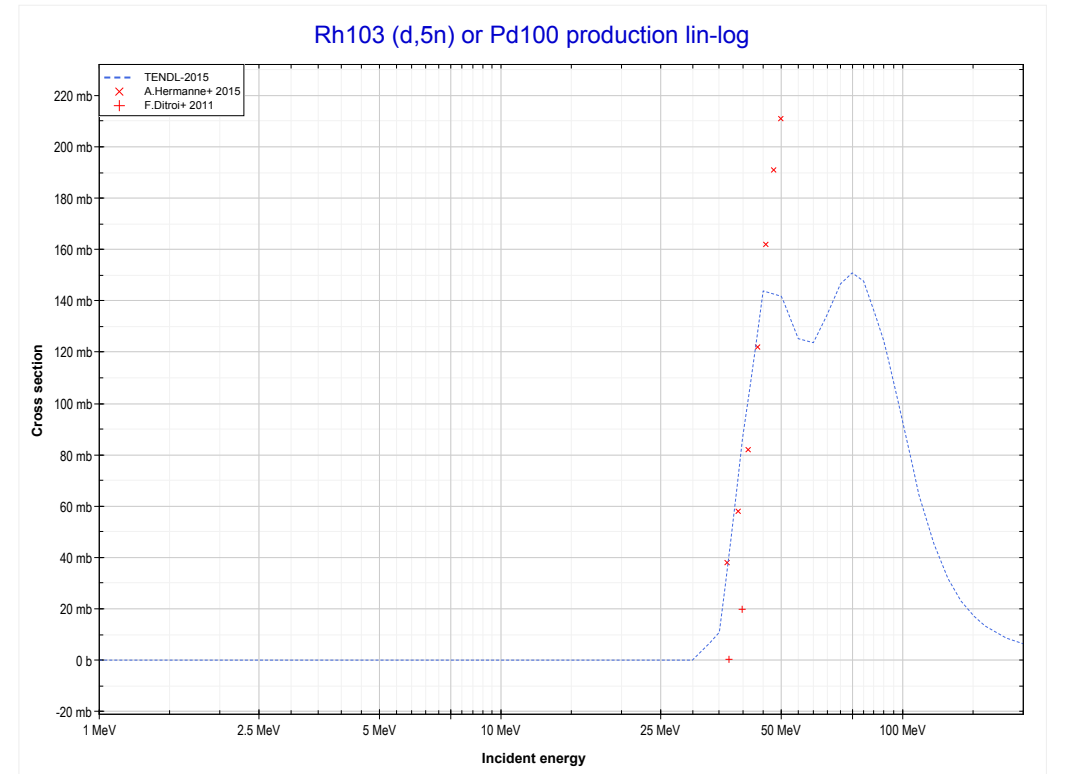
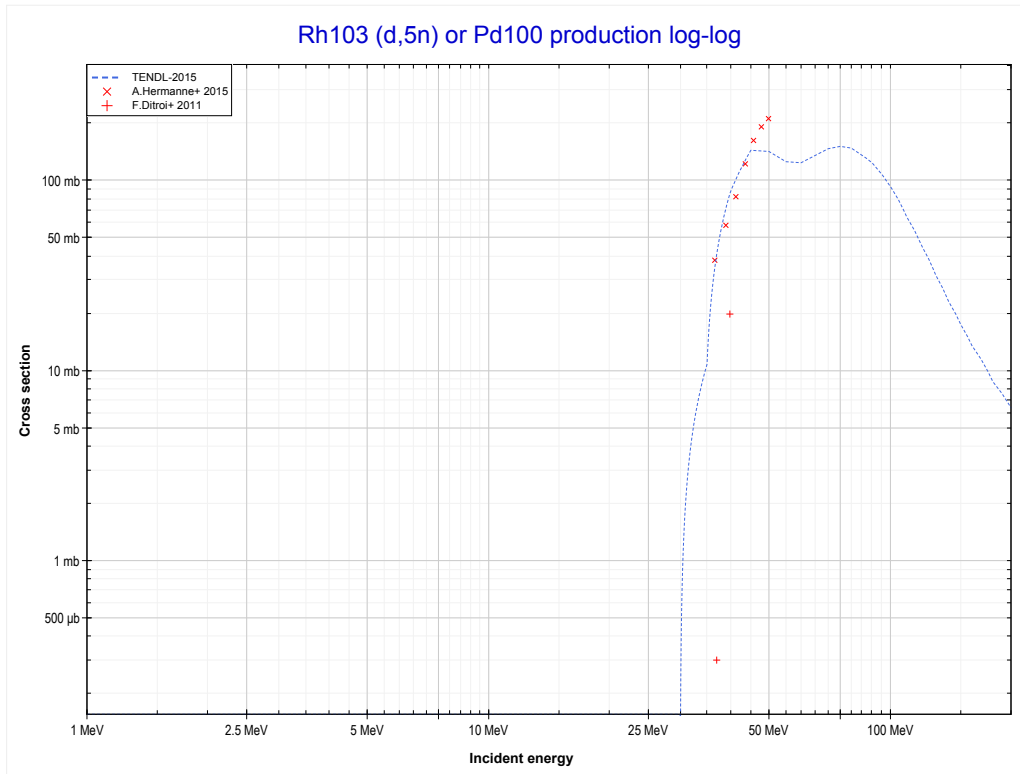
Reaction	Q-Value
Rh103(d,4n)Pd101	-21746.65 keV

<< 39-Y-89	<b>45-Rh-103</b>	47-Ag-109 >>
<< MT37 (d,4n)	<b>MT111 (d,2p) or MT5 (Ru103 production)</b>	MT152 (d,5n) >>



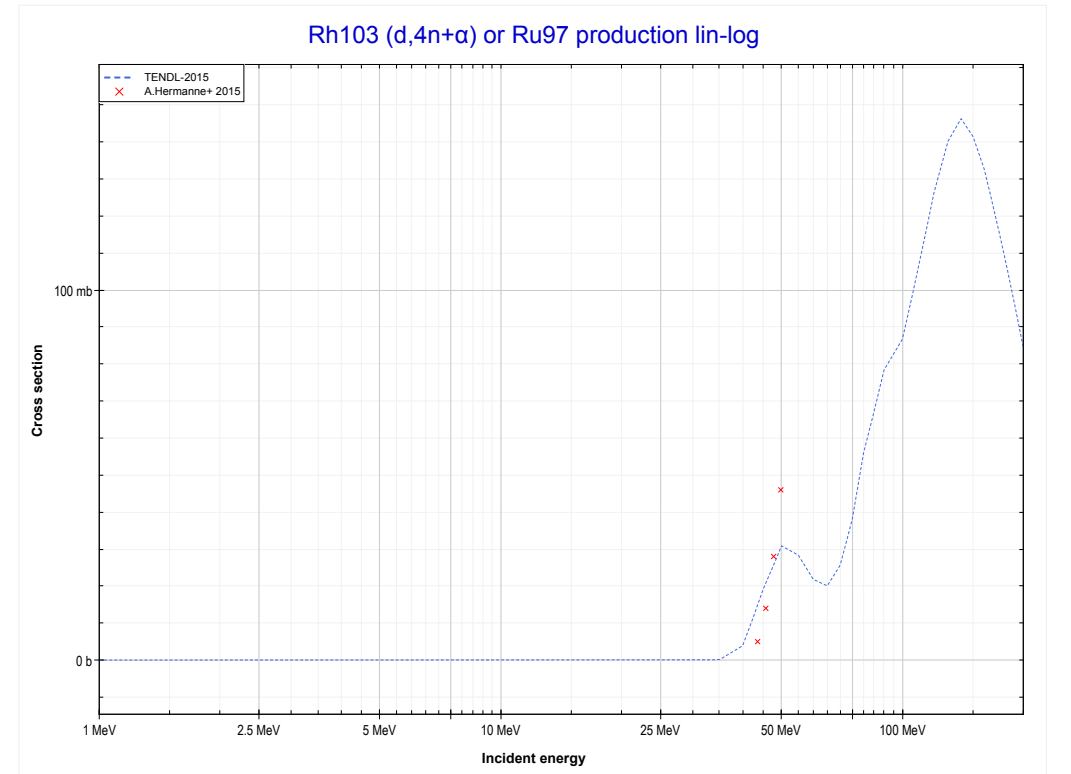
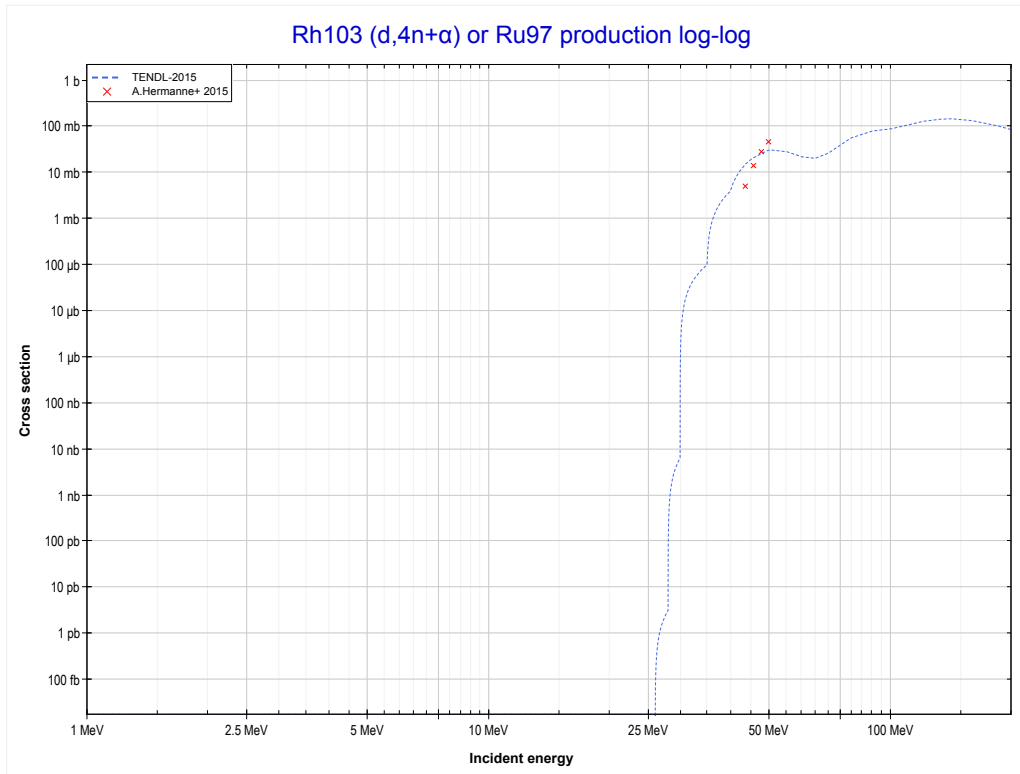
Reaction	Q-Value
Rh103(d,2p)Ru103	-2206.72 keV

<< 41-Nb-93	<b>45-Rh-103</b>	48-Cd-112 >>
<< MT111 (d,2p)	<b>MT152 (d,5n) or MT5 (Pd100 production)</b>	MT165 (d,4n+α) >>



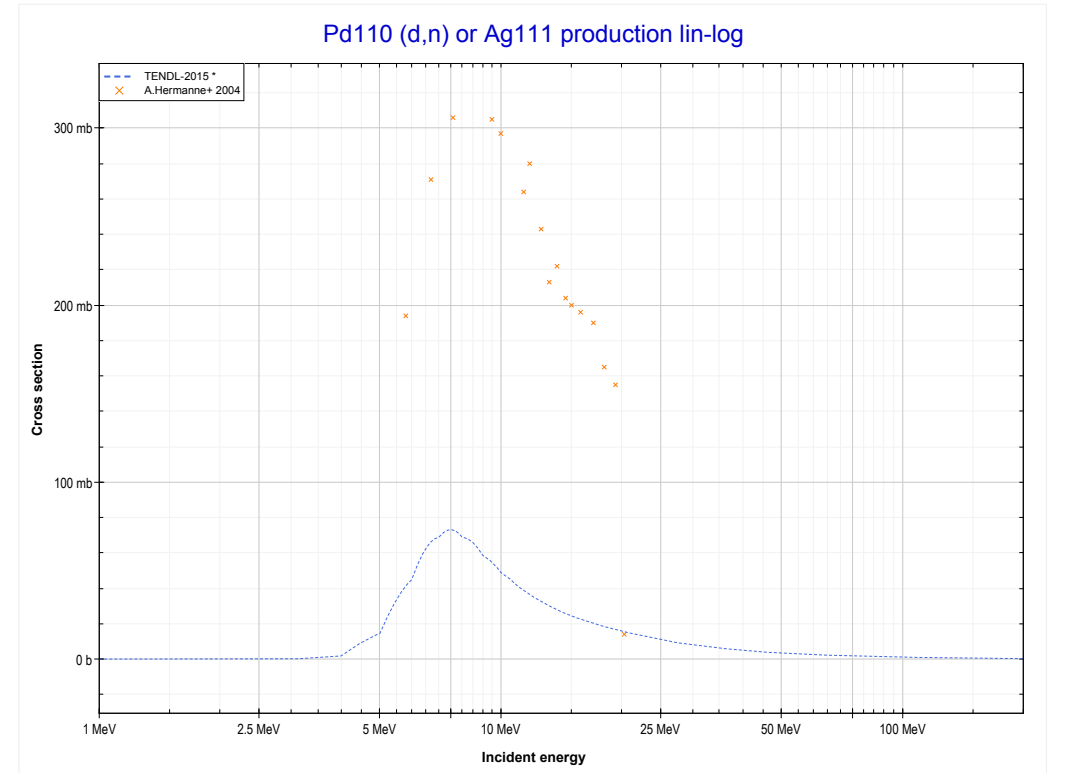
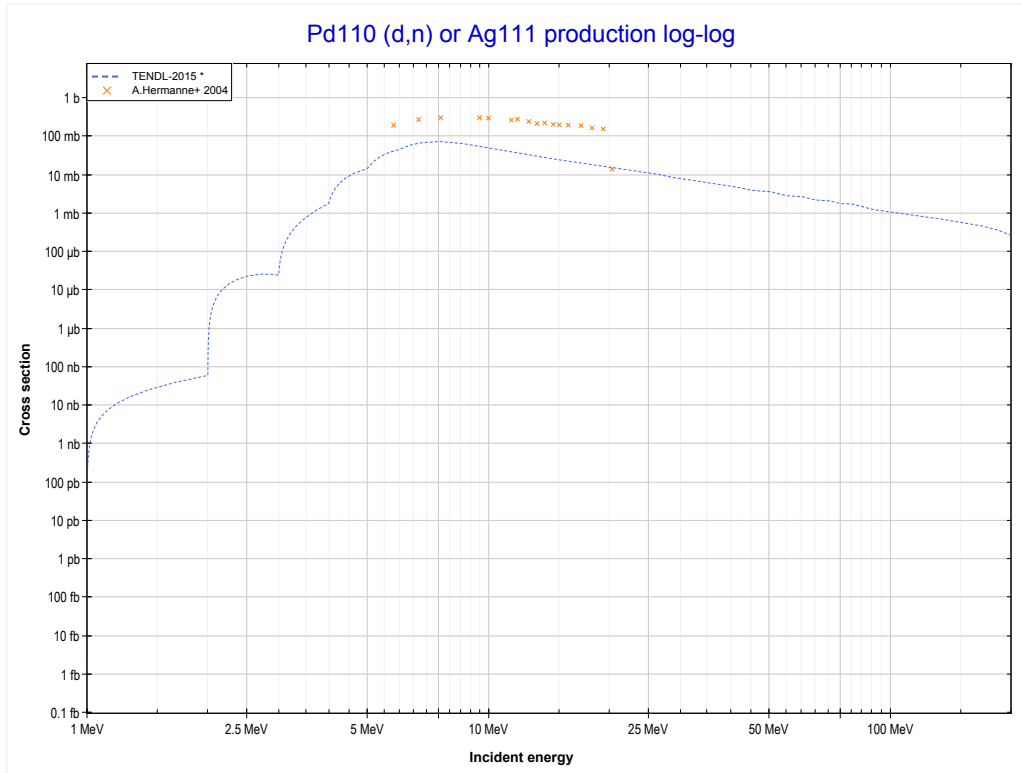
Reaction	Q-Value
Rh103(d,5n)Pd100	-30021.96 keV

	<b>45-Rh-103</b>	48-Cd-112 >>
<< MT152 (d,5n)	<b>MT165 (d,4n+α) or MT5 (Ru97 production)</b>	46-Pd-110 MT4 (d,n) >>



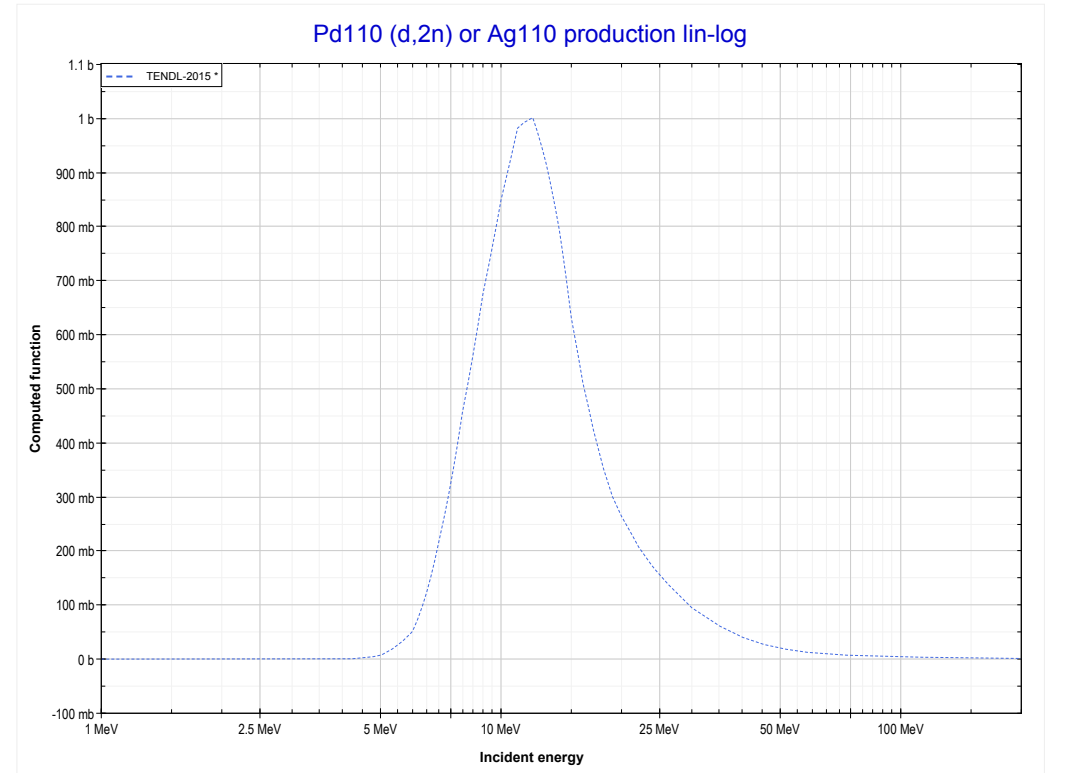
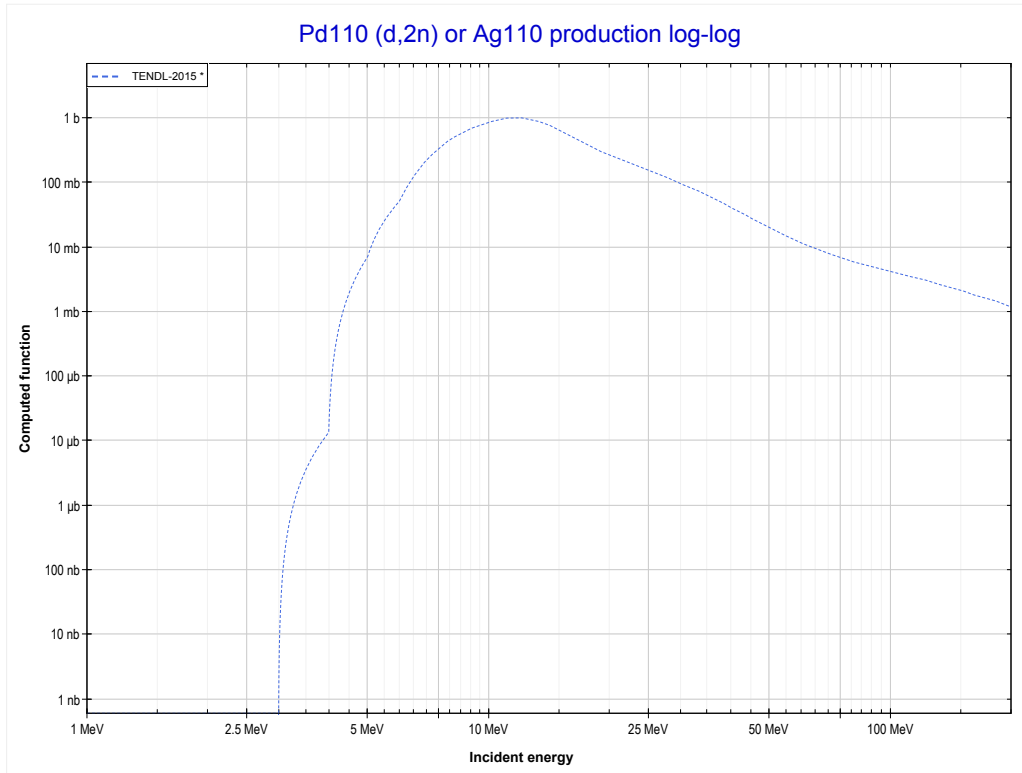
Reaction	Q-Value
Rh103(d,4n+α)Ru97	-23483.26 keV
Rh103(d,2n+2t)Ru97	-34815.32 keV
Rh103(d,3n+d+t)Ru97	-41072.56 keV
Rh103(d,4n+p+t)Ru97	-43297.12 keV
Rh103(d,5n+He3)Ru97	-44060.88 keV
Rh103(d,4n+2d)Ru97	-47329.79 keV
Rh103(d,5n+p+d)Ru97	-49554.36 keV
Rh103(d,6n+2p)Ru97	-51778.92 keV

<< 42-Mo-100	<b>46-Pd-110</b>	48-Cd-114 >>
<< 45-Rh-103 MT165 (d,4n+α)	<b>MT4 (d,n) or MT5 (Ag111 production)</b>	MT16 (d,2n) >>



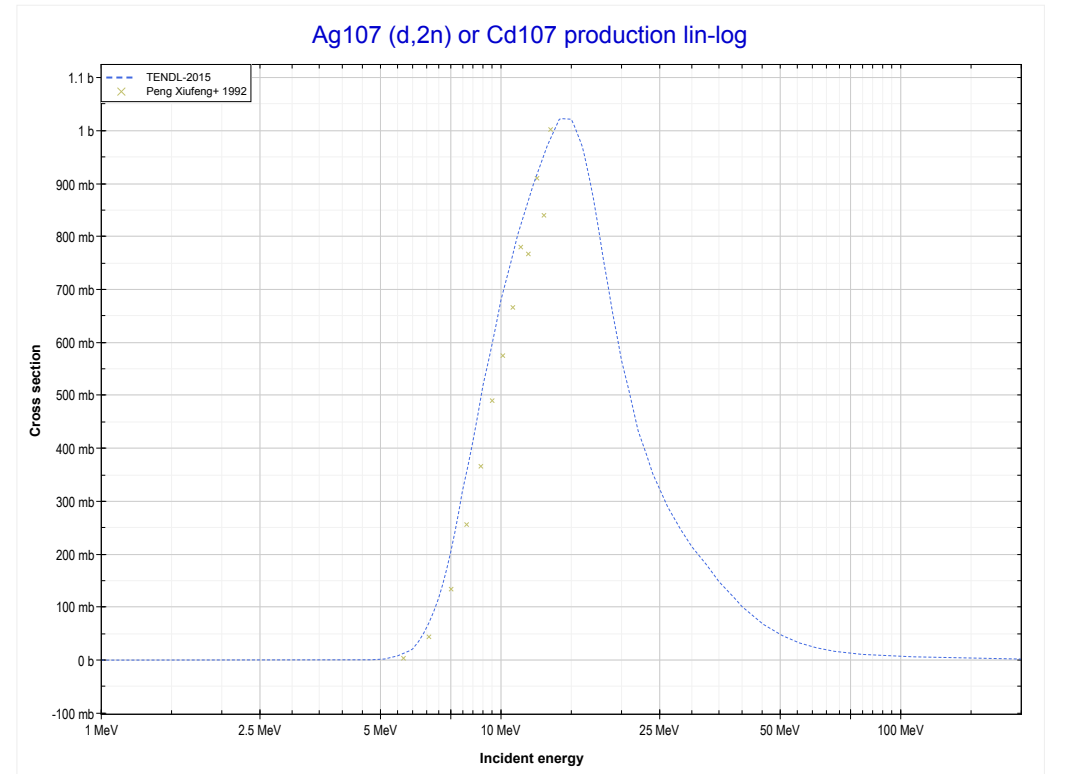
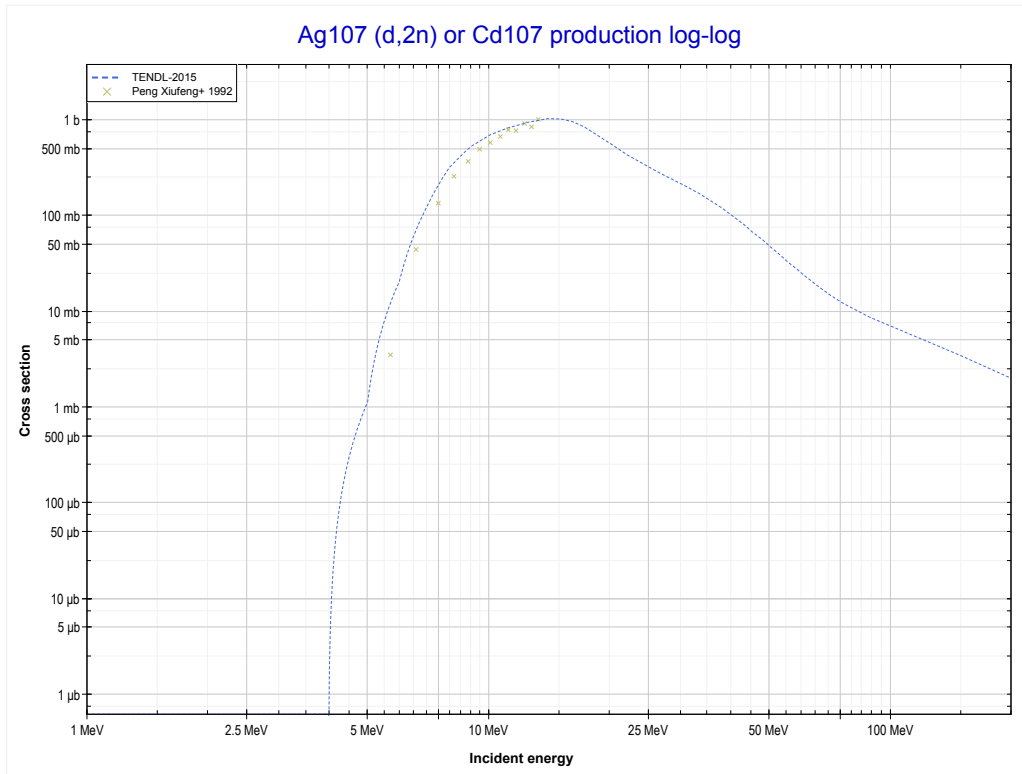
Reaction	Q-Value
Pd110(d,n)Ag111	4949.20 keV

<< 45-Rh-103	<b>46-Pd-110</b>	47-Ag-107 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Ag110 production)</b>	47-Ag-107 MT16 (d,2n) >>



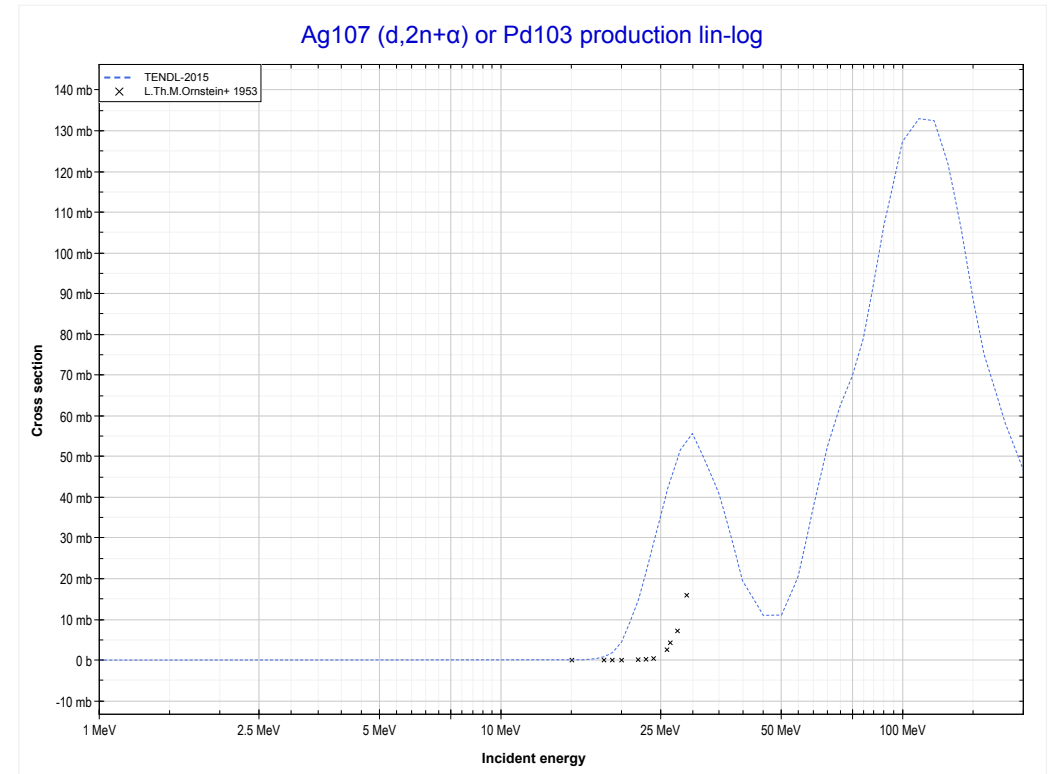
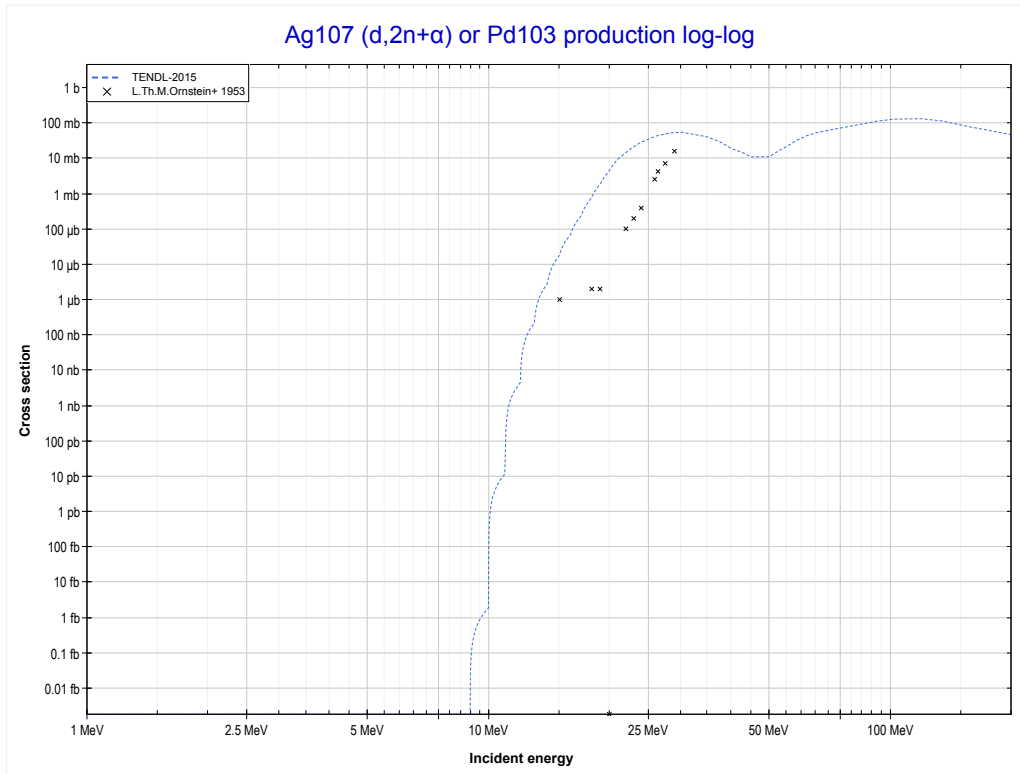
Reaction	Q-Value
Pd110(d,2n)Ag110	-3880.61 keV

<< 46-Pd-110	<b>47-Ag-107</b>	47-Ag-109 >>
<< 46-Pd-110 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Cd107 production)</b>	MT24 (d,2n+α) >>



Reaction	Q-Value
Ag107(d,2n)Cd107	-4423.31 keV

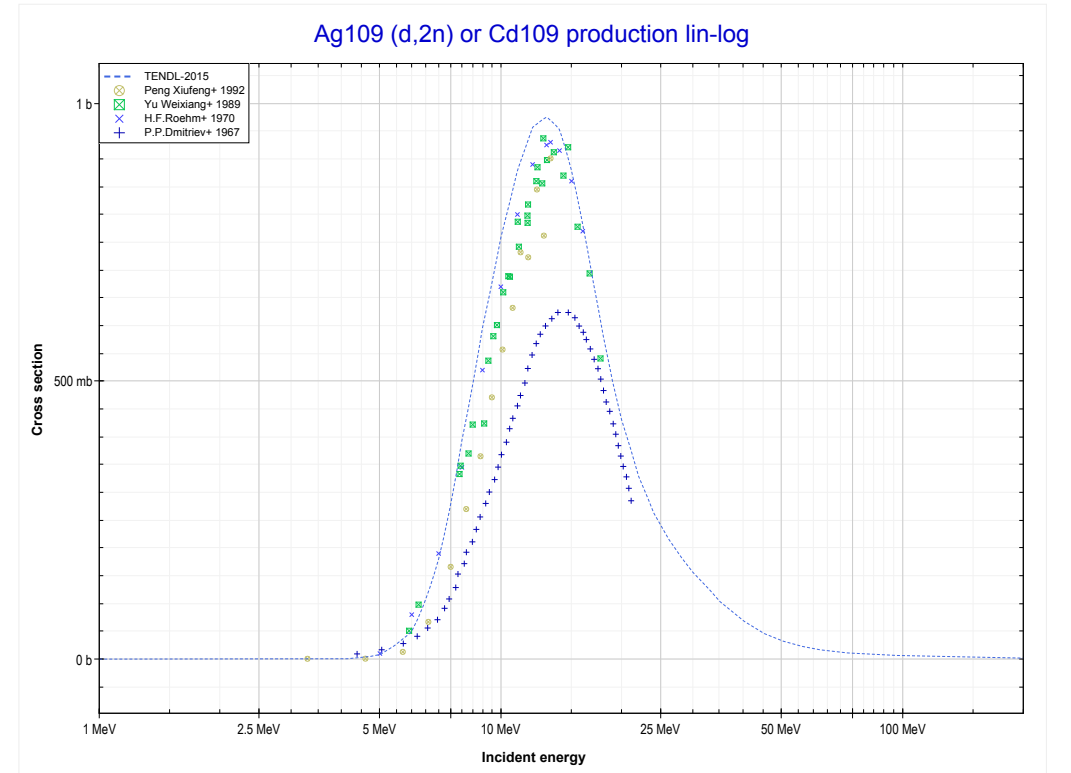
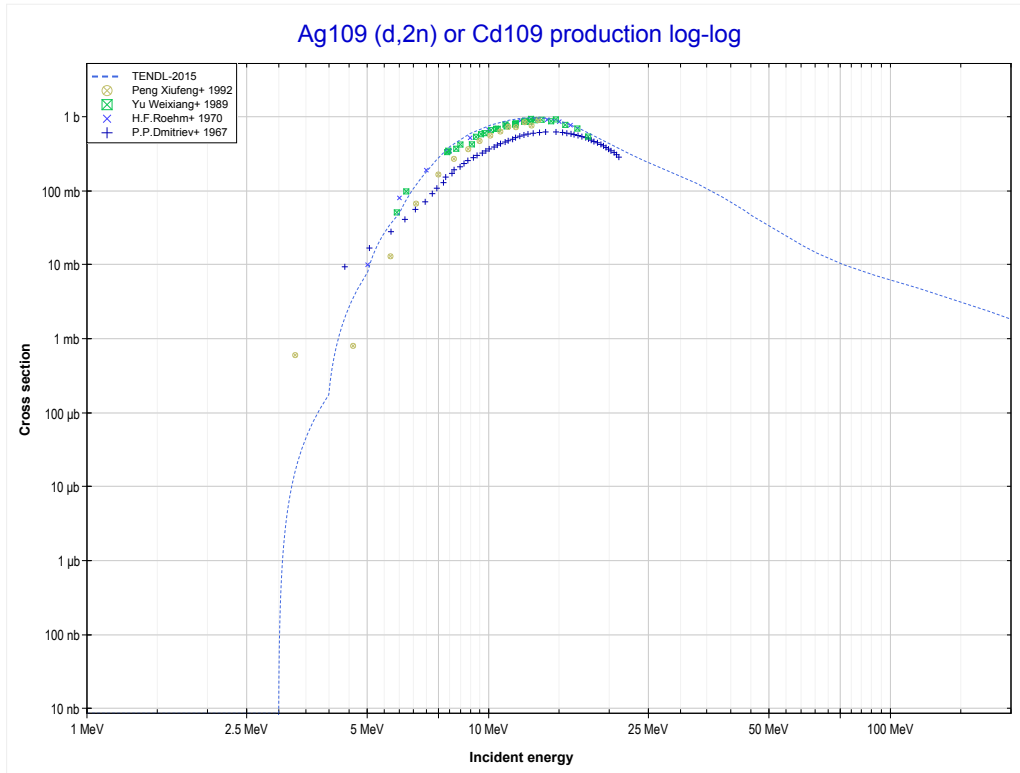
<< 39-Y-89	<b>47-Ag-107</b>	
<< MT16 (d,2n)	<b>MT24 (d,2n+α) or MT5 (Pd103 production)</b>	47-Ag-109 MT16 (d,2n) >>



Reaction	Q-Value
Ag107(d,2n+α)Pd103	-6353.43 keV
Ag107(d,2t)Pd103	-17685.49 keV
Ag107(d,n+d+t)Pd103	-23942.72 keV
Ag107(d,2n+p+t)Pd103	-26167.29 keV
Ag107(d,3n+He3)Pd103	-26931.05 keV
Ag107(d,2n+2d)Pd103	-30199.96 keV
Ag107(d,3n+p+d)Pd103	-32424.52 keV
Ag107(d,4n+2p)Pd103	-34649.09 keV

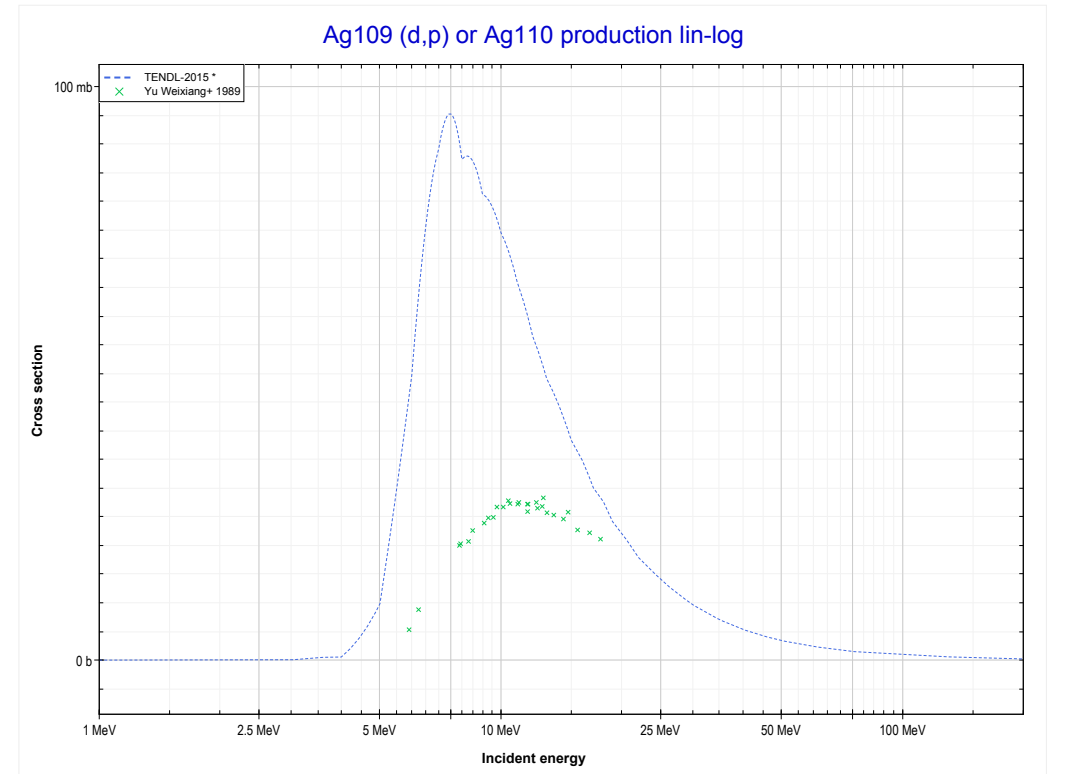
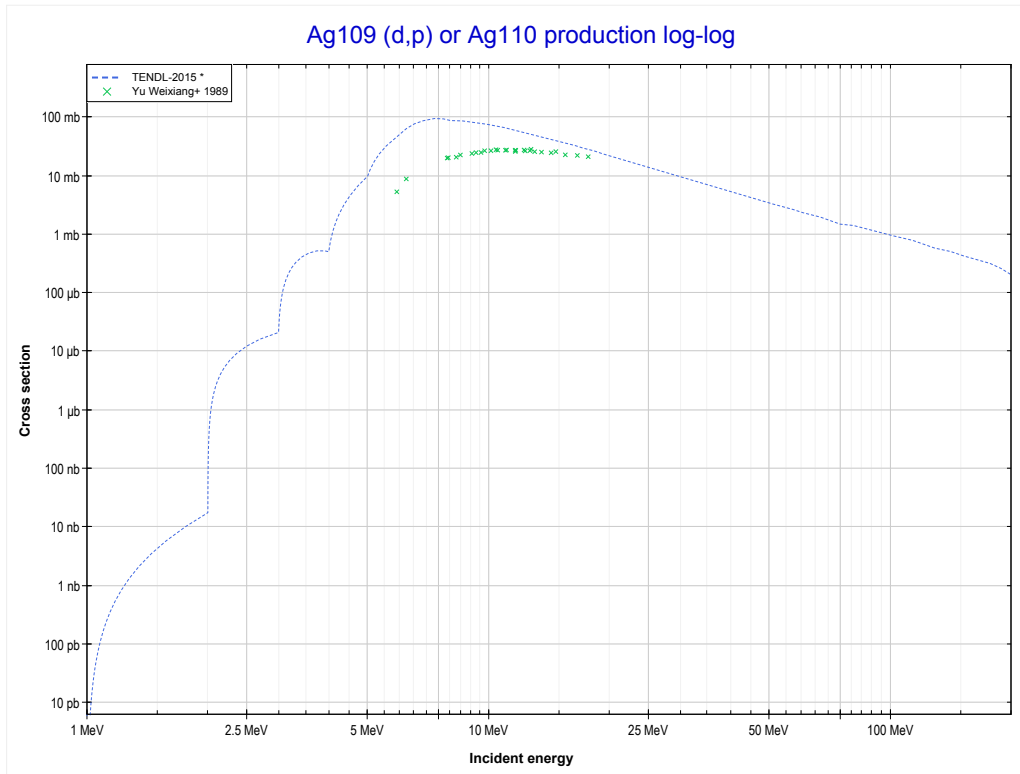


<< 47-Ag-107	<b>47-Ag-109</b>	48-Cd-110 >>
<< 47-Ag-107 MT24 (d,2n+α)	<b>MT16 (d,2n) or MT5 (Cd109 production)</b>	MT103 (d,p) >>



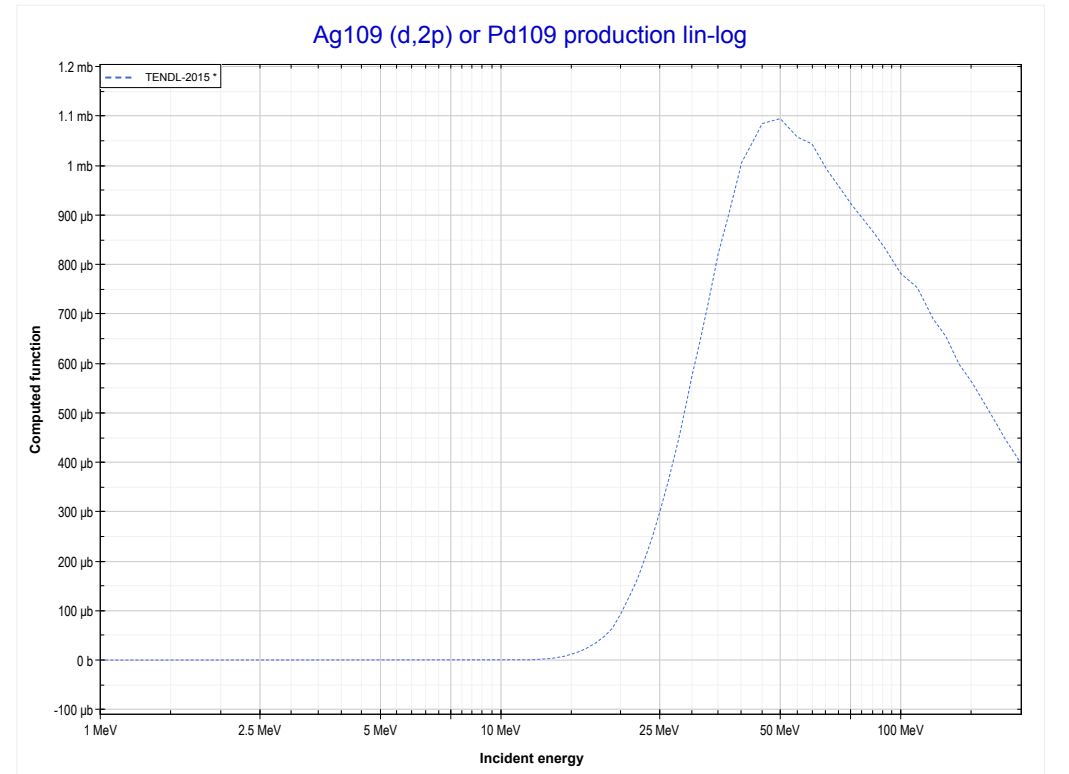
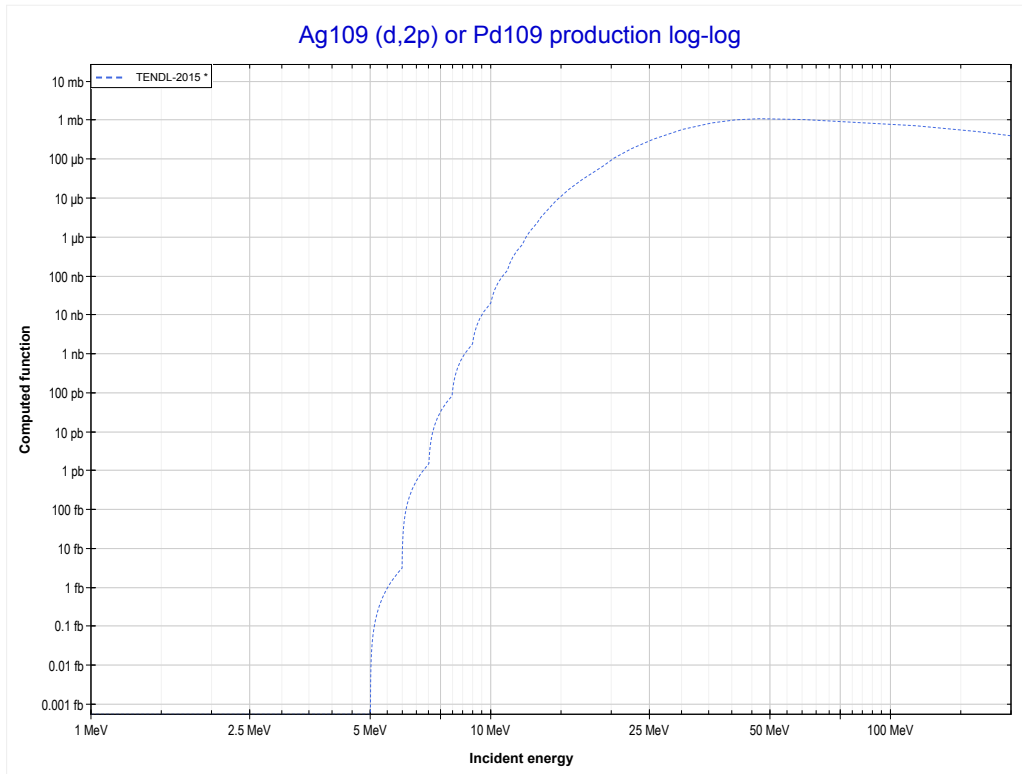
<b>Reaction</b>	<b>Q-Value</b>
Ag109(d,2n)Cd109	-3222.41 keV

<< 42-Mo-100	<b>47-Ag-109</b>	48-Cd-114 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Ag110 production)</b>	MT111 (d,2p) >>



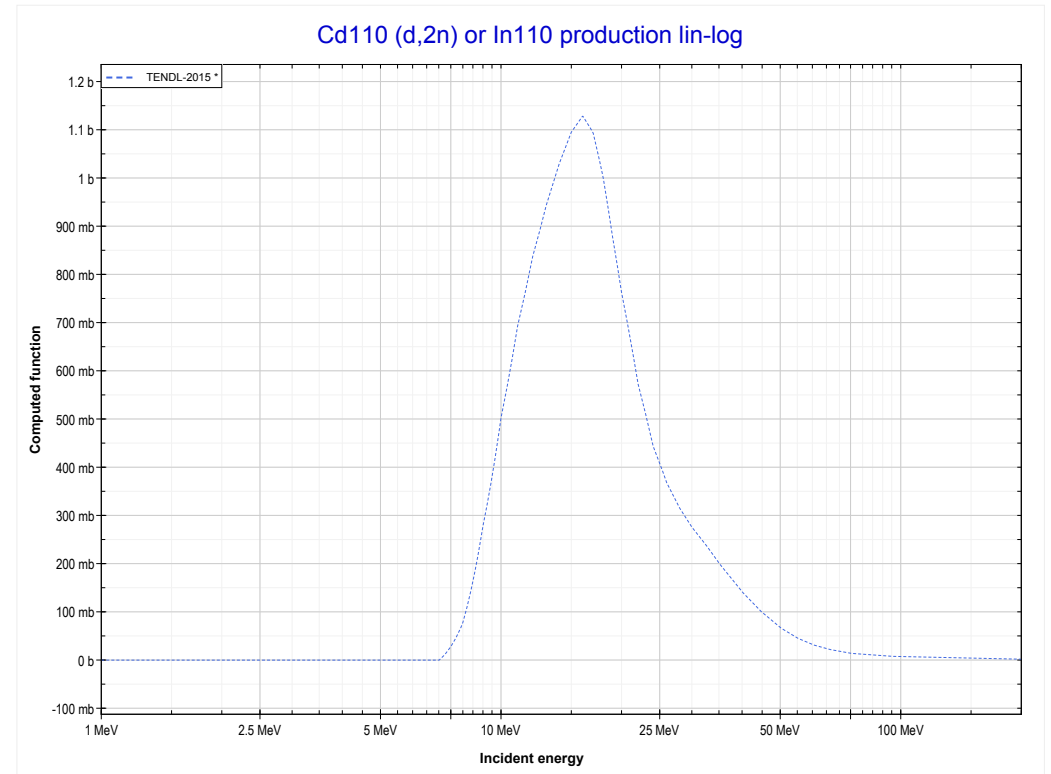
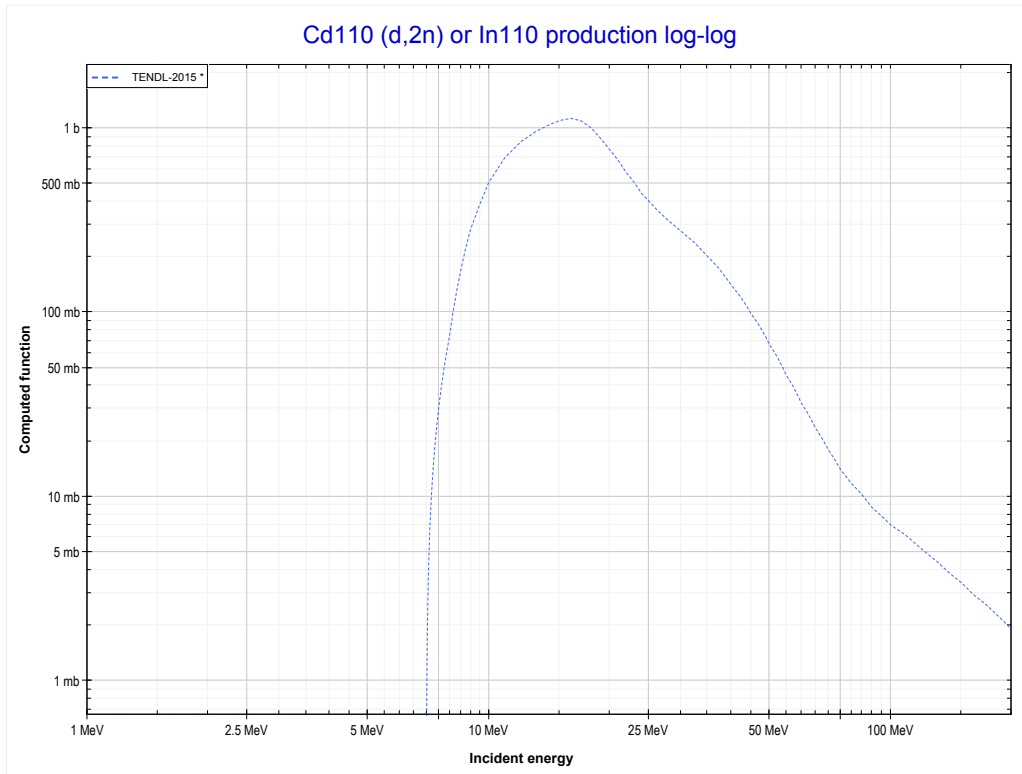
Reaction	Q-Value
Ag109(d,p)Ag110	4584.65 keV

<< 45-Rh-103	<b>47-Ag-109</b>	59-Pr-141 >>
<< MT103 (d,p)	<b>MT111 (d,2p) or MT5 (Pd109 production)</b>	48-Cd-110 MT16 (d,2n) >>



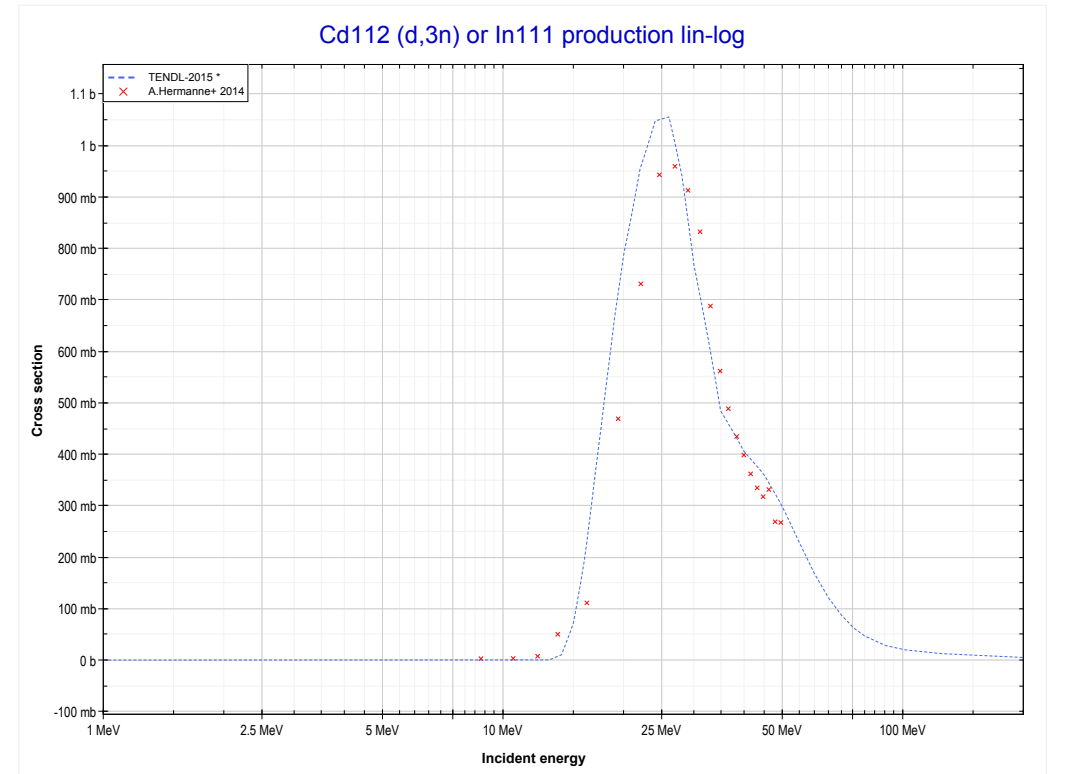
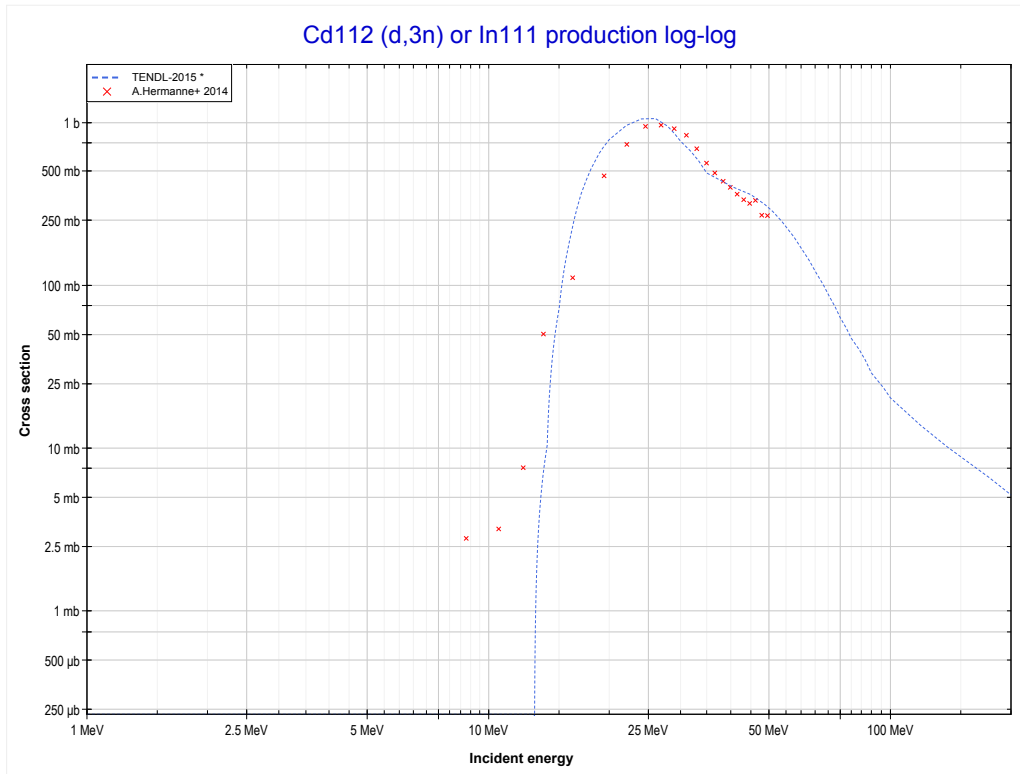
Reaction	Q-Value
Ag109(d,2p)Pd109	-2555.52 keV

<< 47-Ag-109	<b>48-Cd-110</b>	48-Cd-114 >>
<< 47-Ag-109 MT111 (d,2p)	<b>MT16 (d,2n) or MT5 (In110 production)</b>	48-Cd-112 MT17 (d,3n) >>



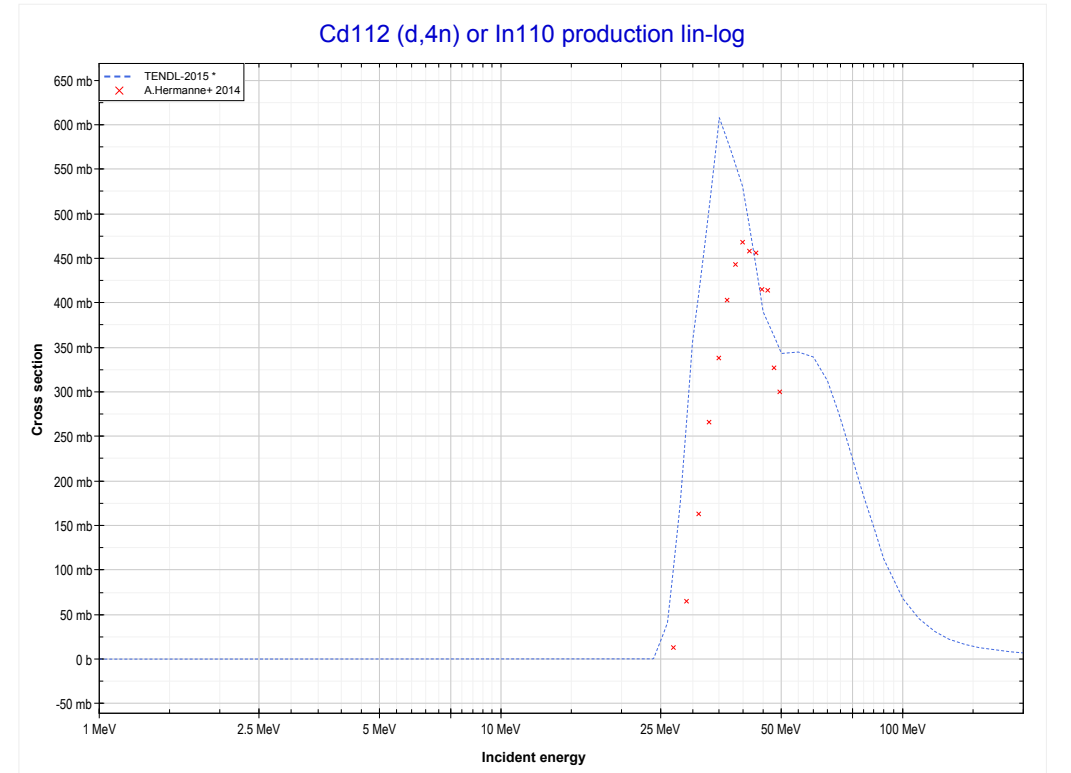
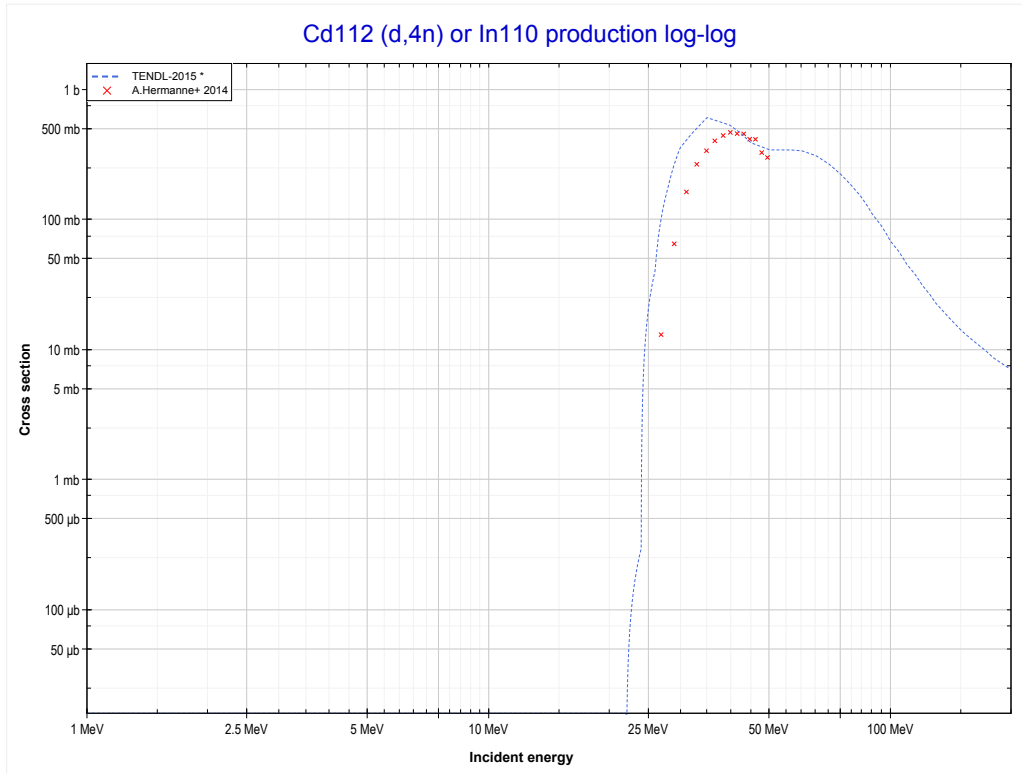
Reaction	Q-Value
Cd110(d,2n)In110	-6884.71 keV

<< 42-Mo-100	<b>48-Cd-112</b>	48-Cd-114 >>
<< 48-Cd-110 MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (In111 production)</b>	MT37 (d,4n) >>



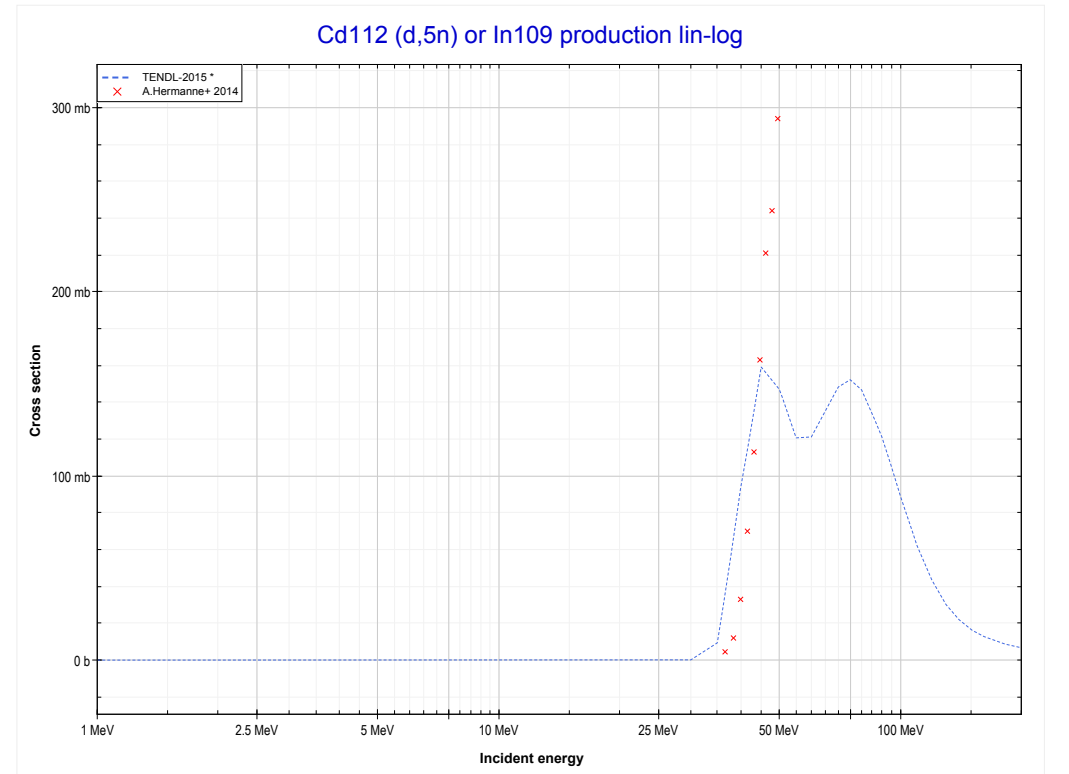
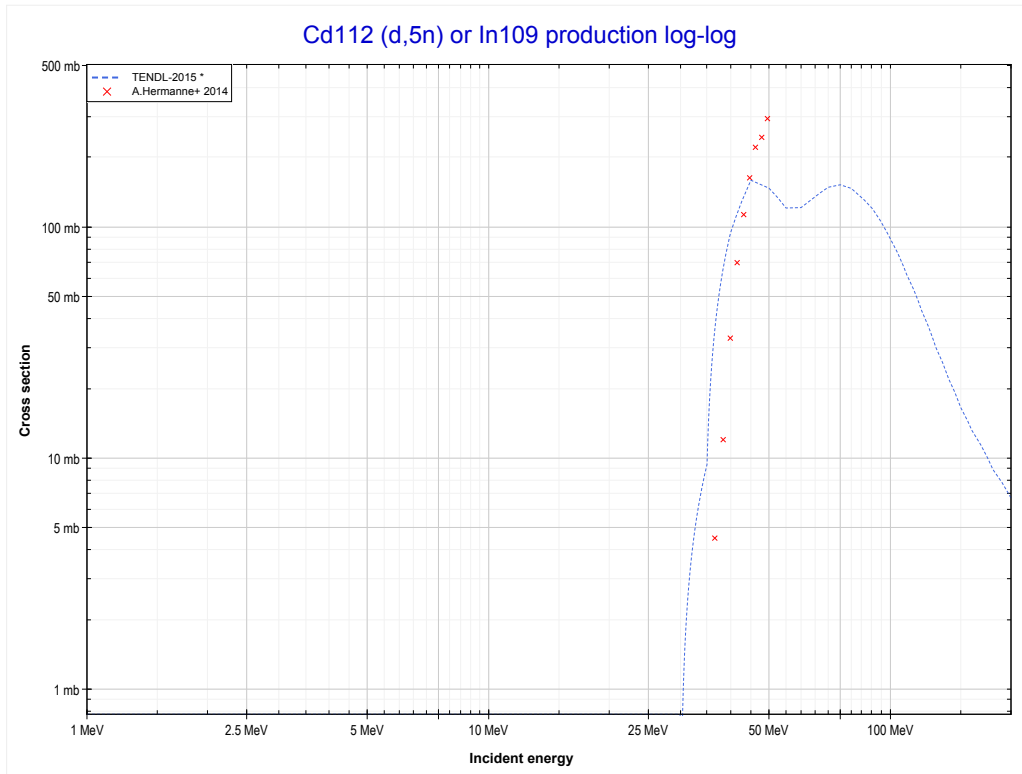
Reaction	Q-Value
Cd112(d,3n)In111	-13263.03 keV

<< 45-Rh-103	<b>48-Cd-112</b>	53-I-127 >>
<< MT17 (d,3n)	<b>MT37 (d,4n) or MT5 (In110 production)</b>	MT152 (d,5n) >>



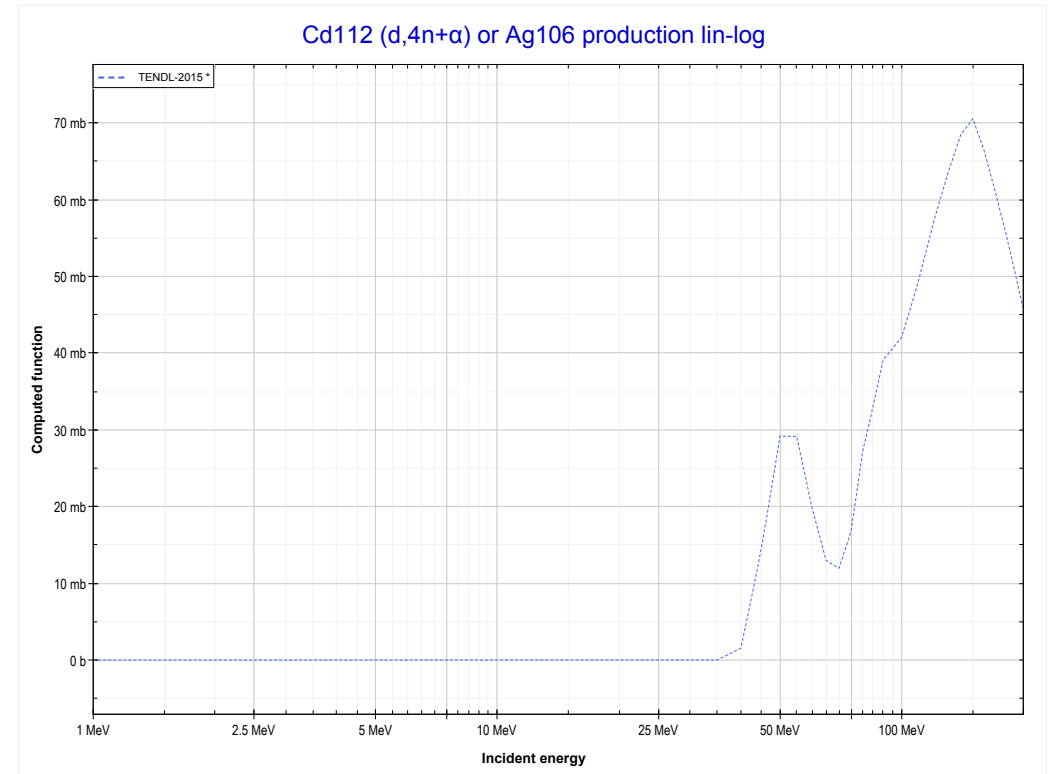
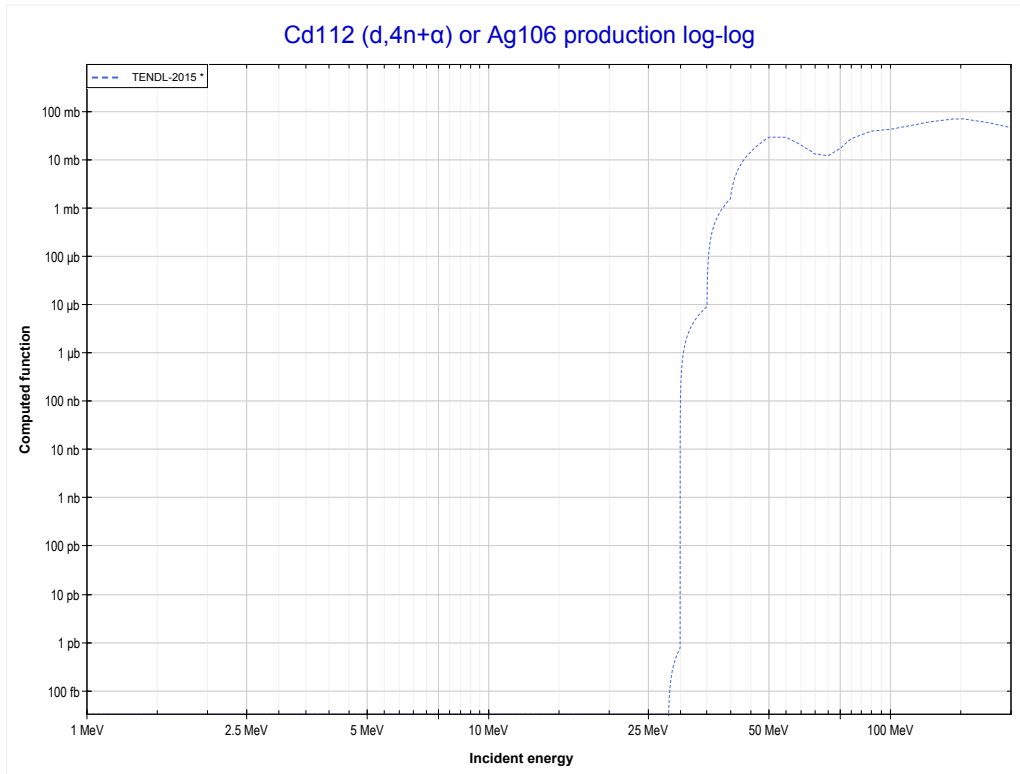
Reaction	Q-Value
Cd112(d,4n)In110	-23254.35 keV

<< 45-Rh-103	<b>48-Cd-112</b>	59-Pr-141 >>
<< MT37 (d,4n)	<b>MT152 (d,5n) or MT5 (In109 production)</b>	MT165 (d,4n+α) >>



Reaction	Q-Value
Cd112(d,5n)In109	-31308.66 keV

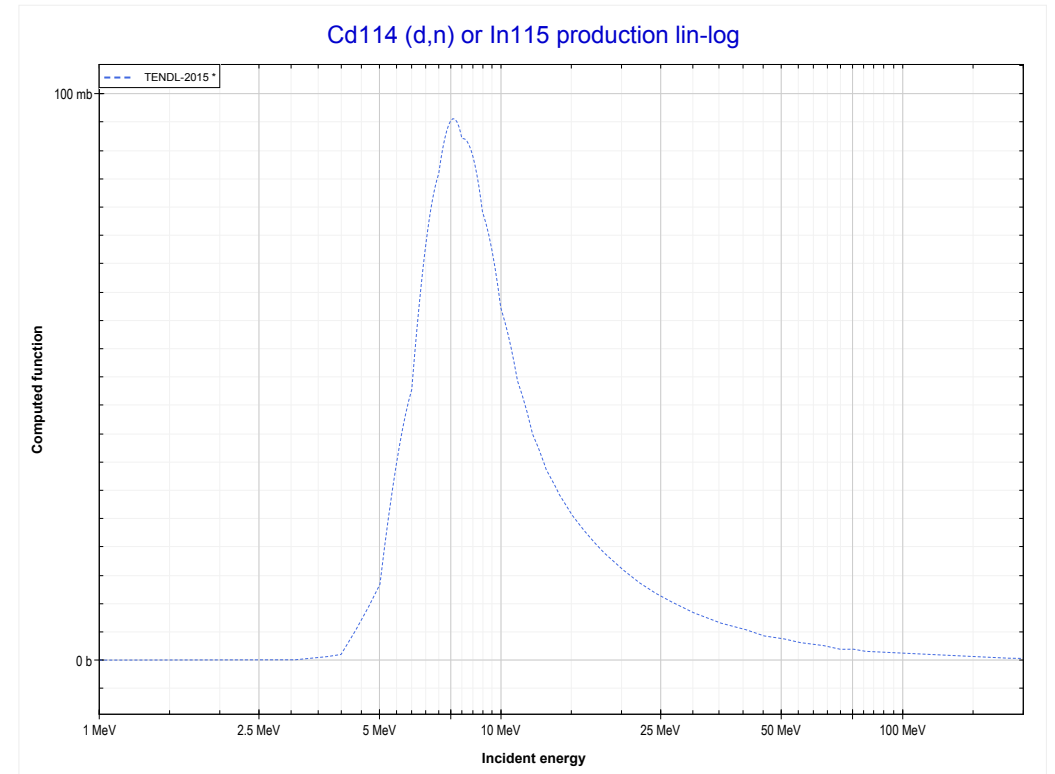
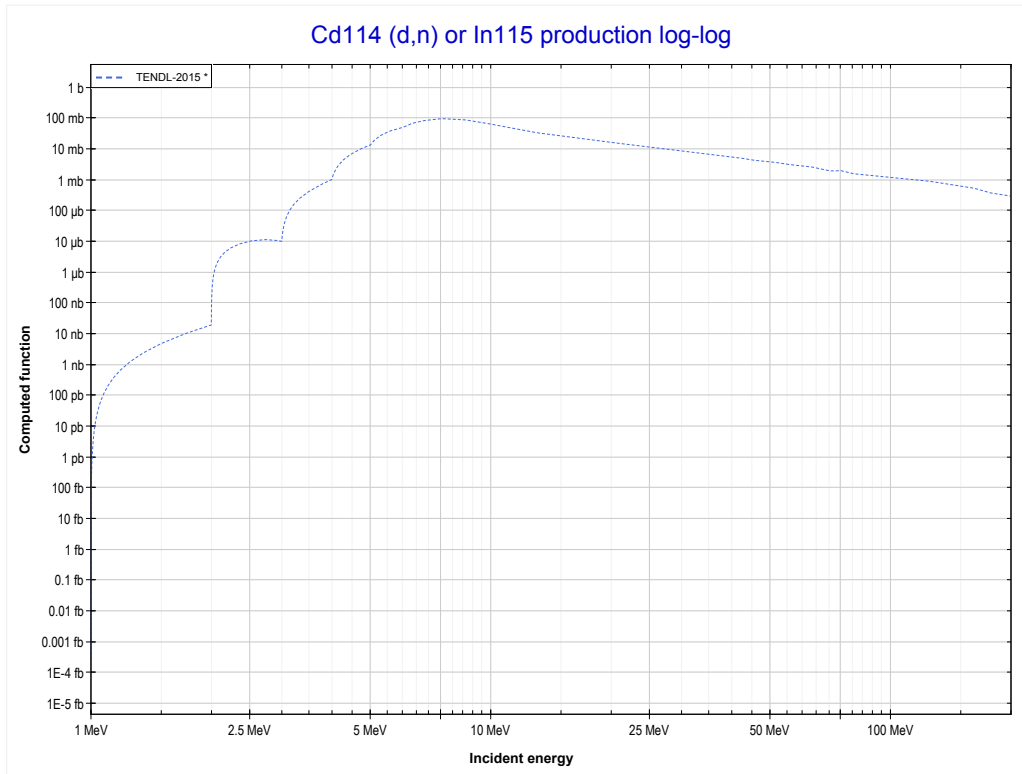
<< 45-Rh-103	<b>48-Cd-112</b>	73-Ta-181 >>
<< MT152 (d,5n)	<b>MT165 (d,4n+α) or MT5 (Ag106 production)</b>	48-Cd-114 MT4 (d,n) >>



Reaction	Q-Value
Cd112(d,4n+α)Ag106	-25208.26 keV
Cd112(d,2n+2t)Ag106	-36540.32 keV
Cd112(d,3n+d+t)Ag106	-42797.56 keV
Cd112(d,4n+p+t)Ag106	-45022.12 keV
Cd112(d,5n+He3)Ag106	-45785.88 keV
Cd112(d,4n+2d)Ag106	-49054.79 keV
Cd112(d,5n+p+d)Ag106	-51279.36 keV
Cd112(d,6n+2p)Ag106	-53503.92 keV

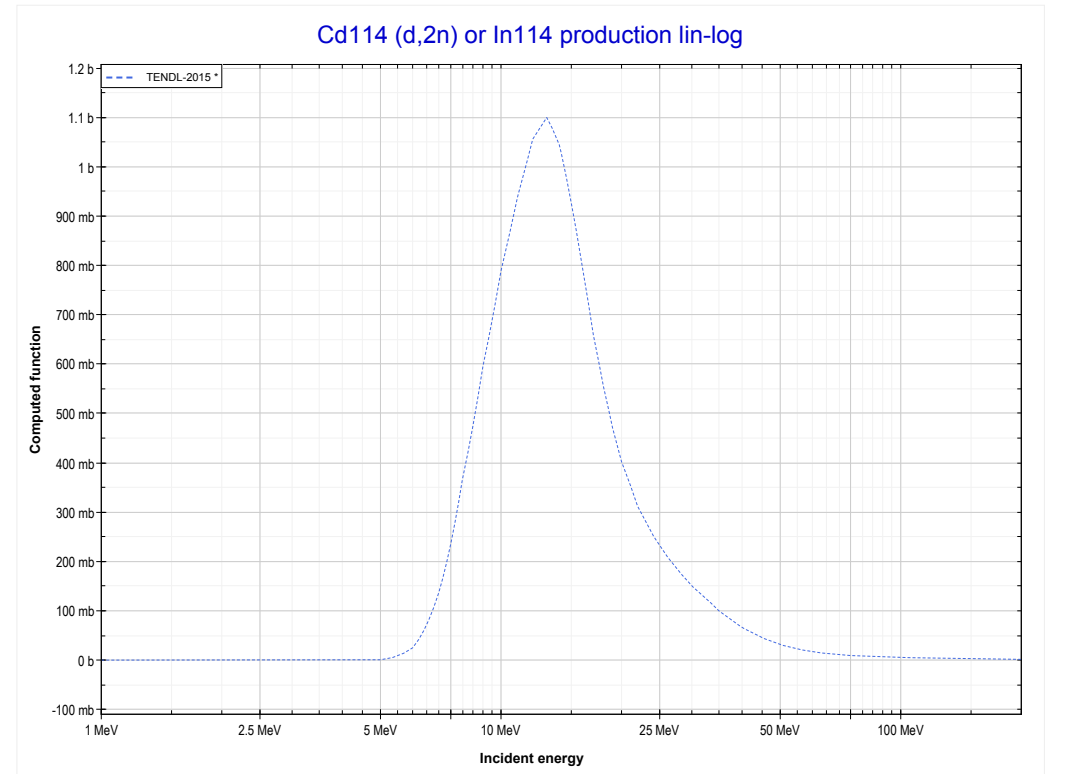
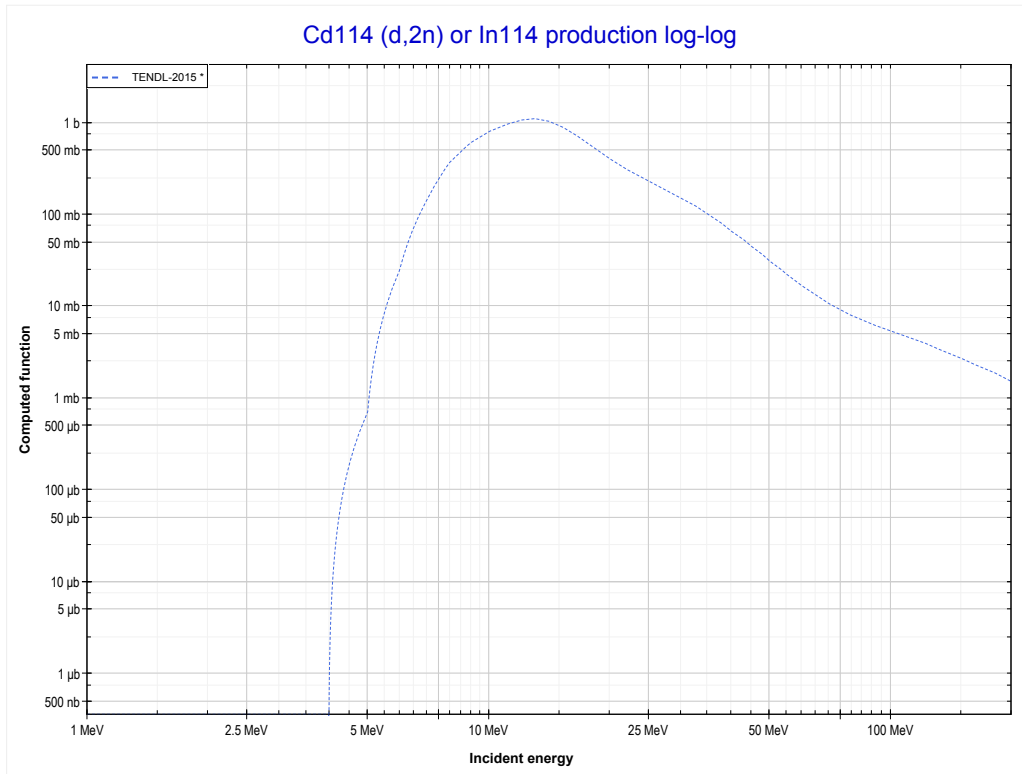


<< 46-Pd-110	<b>48-Cd-114</b>	52-Te-122 >>
<< 48-Cd-112 MT165 (d,4n+α)	<b>MT4 (d,n) or MT5 (In115 production)</b>	MT16 (d,2n) >>



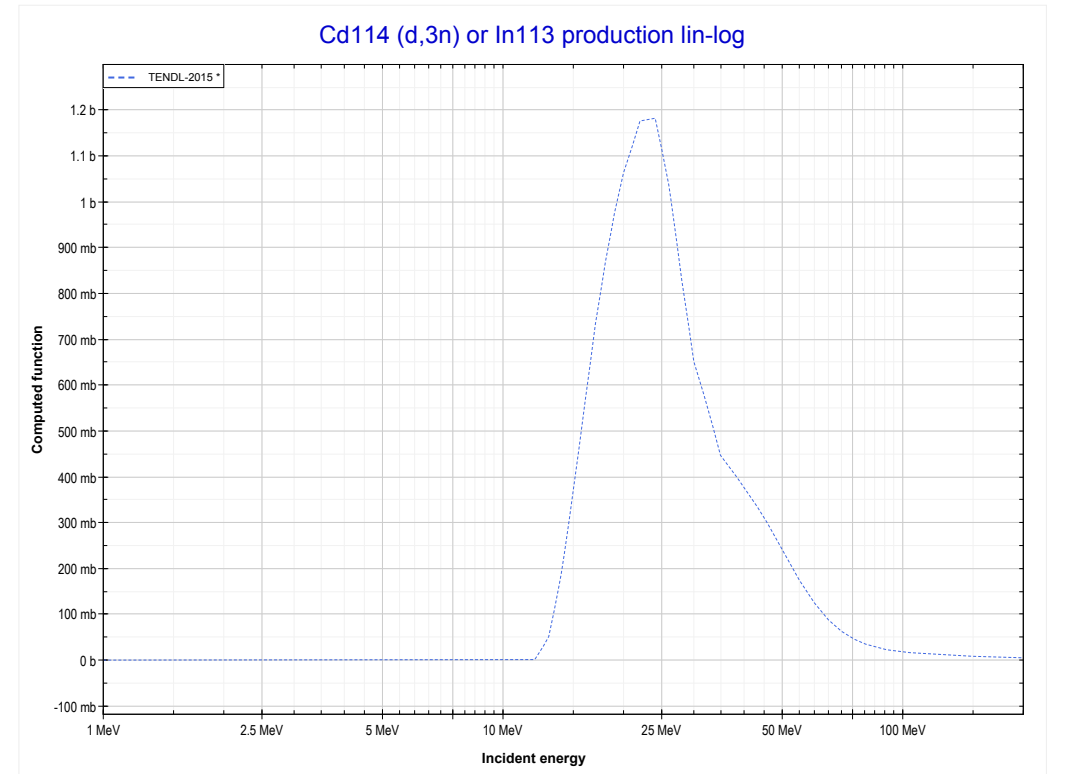
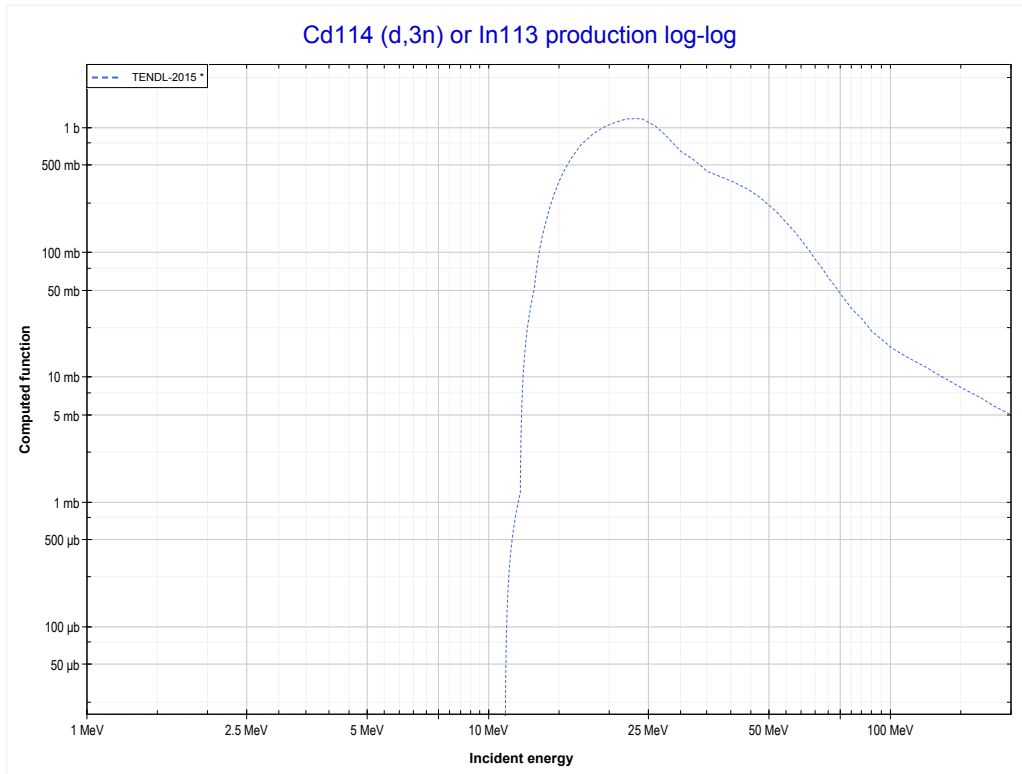
Reaction	Q-Value
Cd114(d,n)In115	4585.95 keV

<< 48-Cd-110	<b>48-Cd-114</b>	48-Cd-116 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (In114 production)</b>	MT17 (d,3n) >>



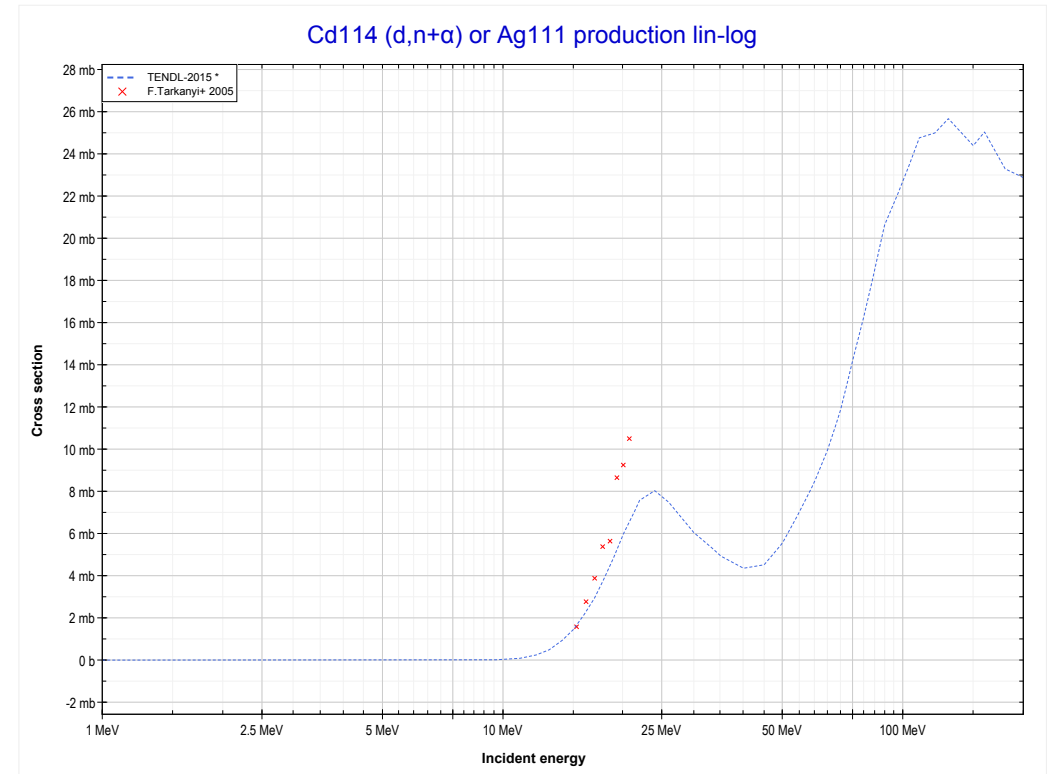
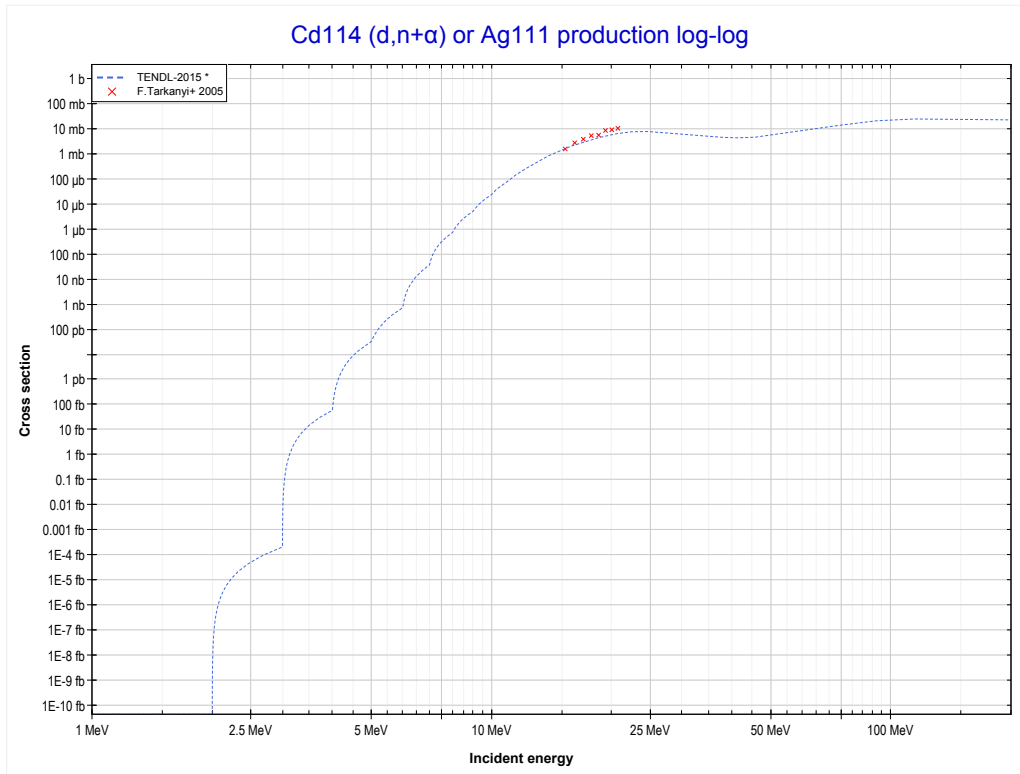
Reaction	Q-Value
Cd114(d,2n)In114	-4453.31 keV

<< 48-Cd-112	<b>48-Cd-114</b>	52-Te-122 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (In113 production)</b>	MT22 (d,n+α) >>



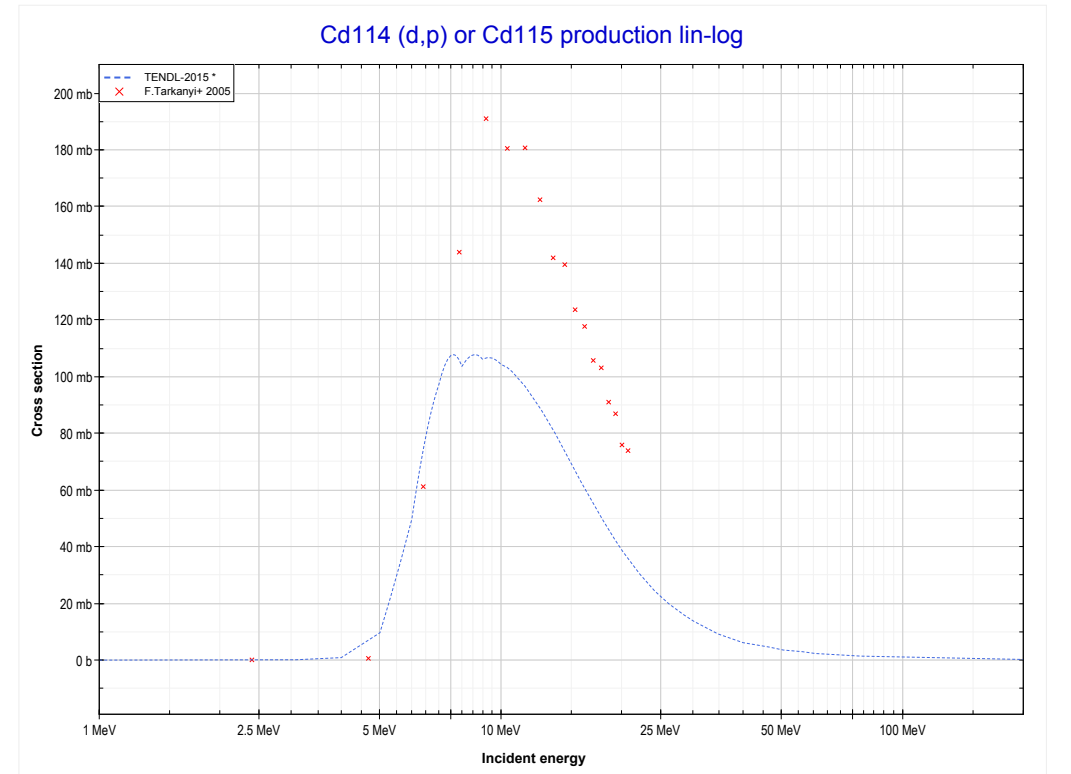
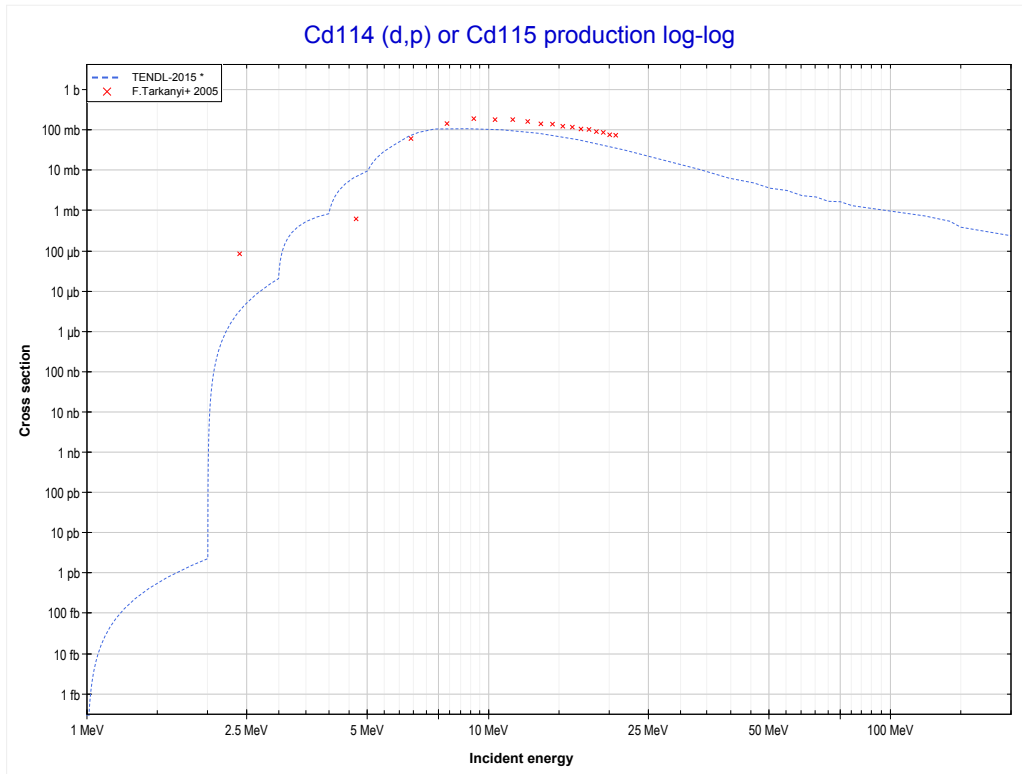
Reaction	Q-Value
Cd114(d,3n)In113	-11727.23 keV

<< 36-Kr-78	<b>48-Cd-114</b>	74-W-186 >>
<< MT17 (d,3n)	<b>MT22 (d,n+α) or MT5 (Ag111 production)</b>	MT103 (d,p) >>



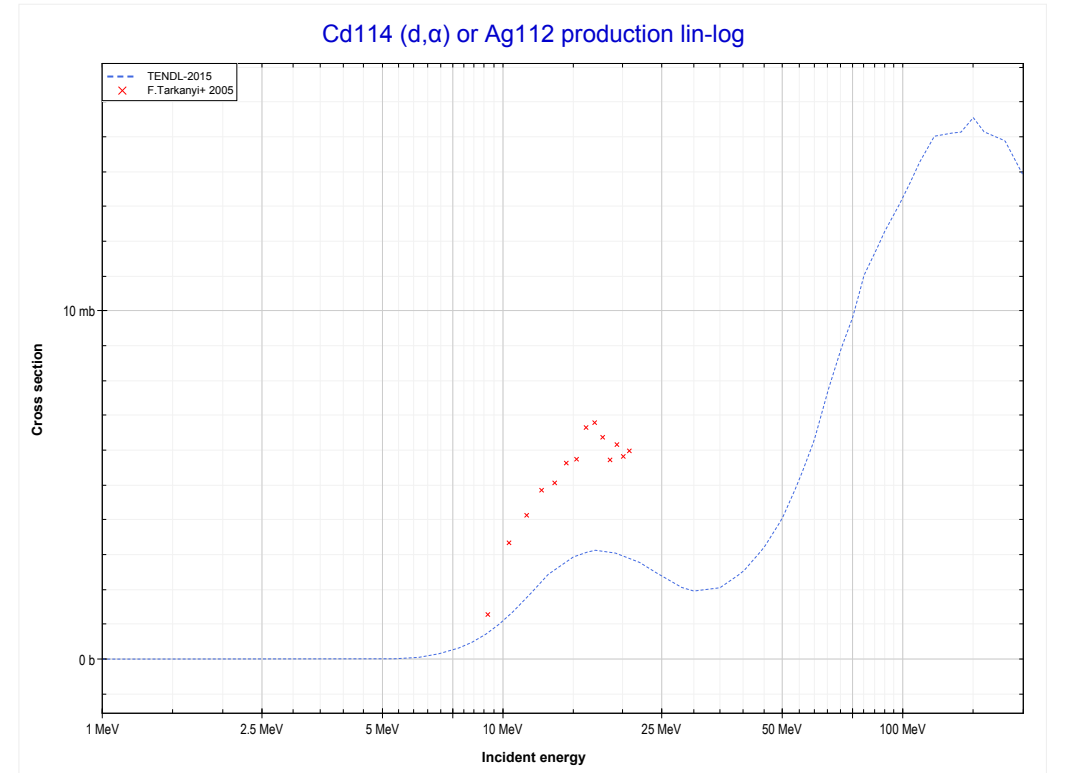
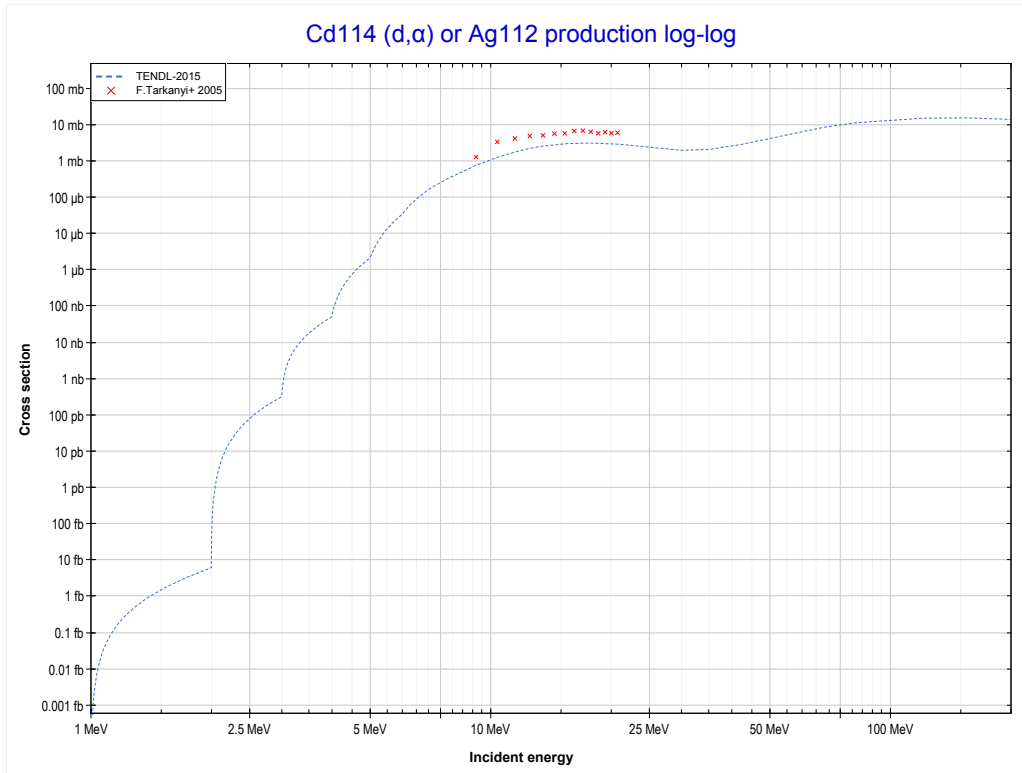
Reaction	Q-Value
Cd114(d,n+α)Ag111	840.99 keV
Cd114(d,d+t)Ag111	-16748.31 keV
Cd114(d,n+p+t)Ag111	-18972.87 keV
Cd114(d,2n+He3)Ag111	-19736.63 keV
Cd114(d,n+2d)Ag111	-23005.54 keV
Cd114(d,2n+p+d)Ag111	-25230.10 keV
Cd114(d,3n+2p)Ag111	-27454.67 keV

<< 47-Ag-109	<b>48-Cd-114</b>	48-Cd-116 >>
<< MT22 (d,n+α)	<b>MT103 (d,p) or MT5 (Cd115 production)</b>	MT107 (d,α) >>



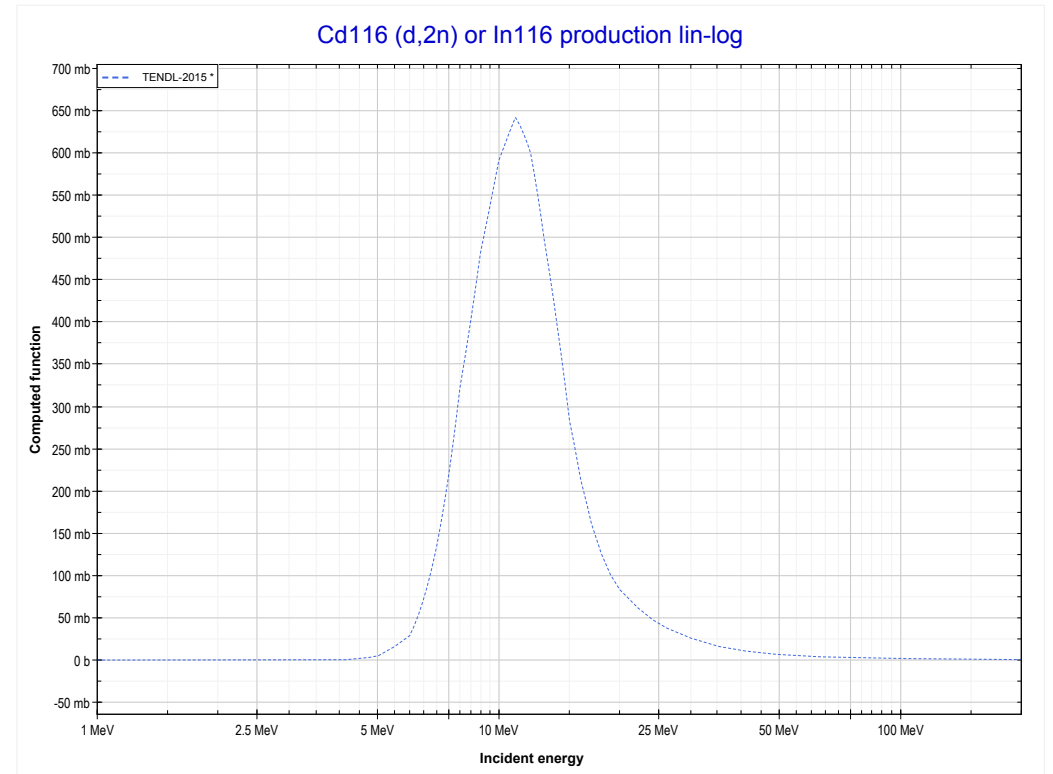
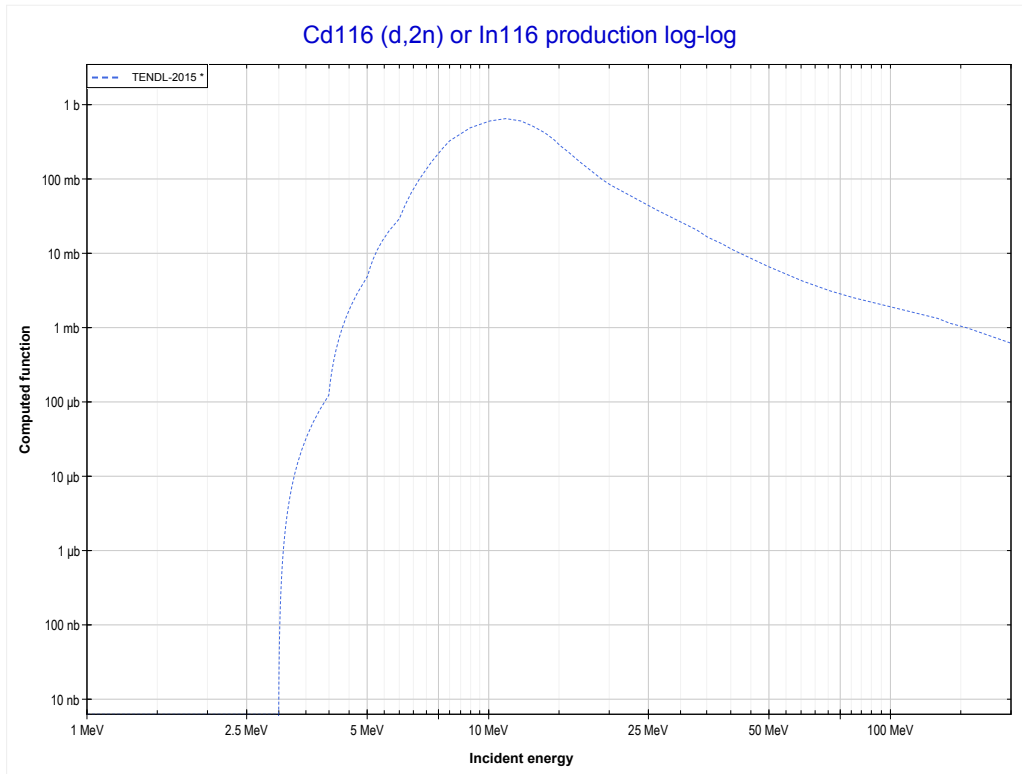
Reaction	Q-Value
Cd114(d,p)Cd115	3916.35 keV

<< 42-Mo-98	<b>48-Cd-114</b>	52-Te-122 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Ag112 production)</b>	48-Cd-116 MT16 (d,2n) >>



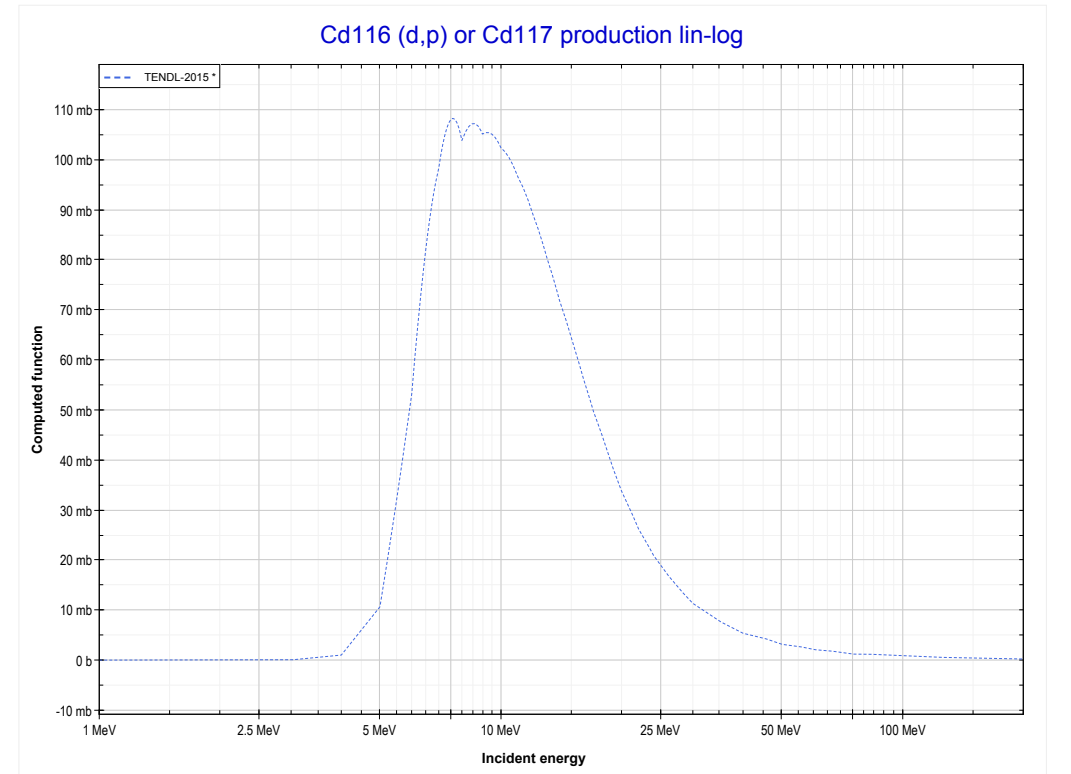
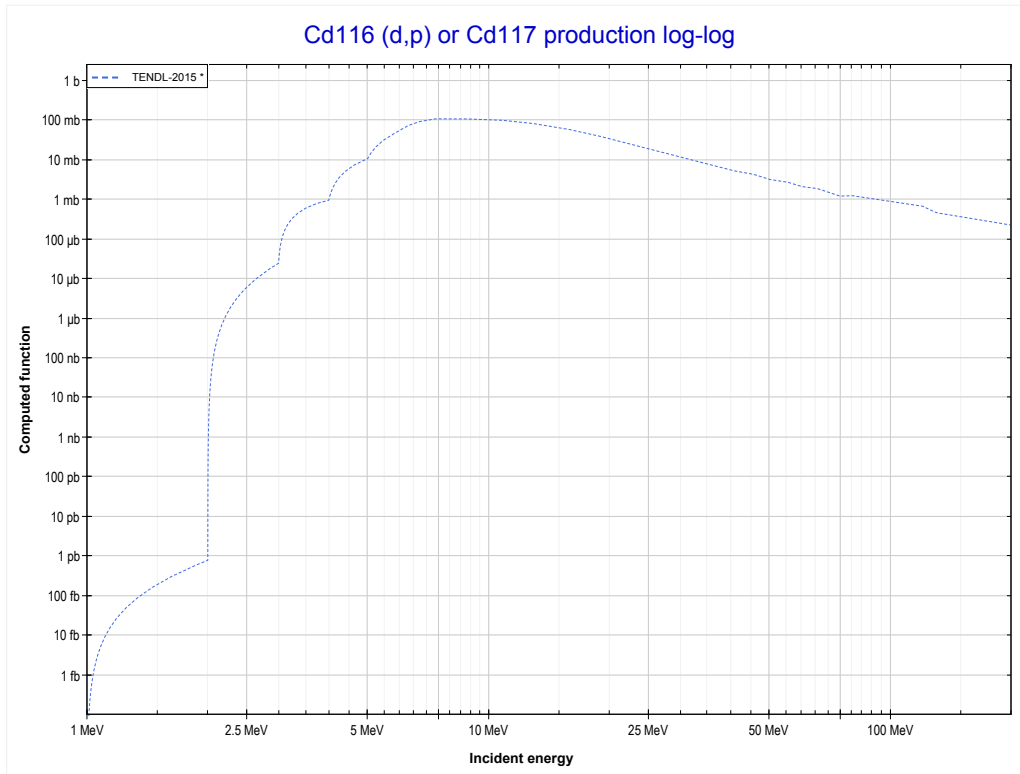
Reaction	Q-Value
Cd114(d, $\alpha$ )Ag112	7279.71 keV
Cd114(d,p+t)Ag112	-12534.15 keV
Cd114(d,n+He3)Ag112	-13297.91 keV
Cd114(d,2d)Ag112	-16566.82 keV
Cd114(d,n+p+d)Ag112	-18791.39 keV
Cd114(d,2n+2p)Ag112	-21015.95 keV

<< 48-Cd-114	<b>48-Cd-116</b>	52-Te-122 >>
<< 48-Cd-114 MT107 (d, $\alpha$ )	<b>MT16 (d,2n) or MT5 (In116 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Cd116(d,2n)In116	-3469.72 keV

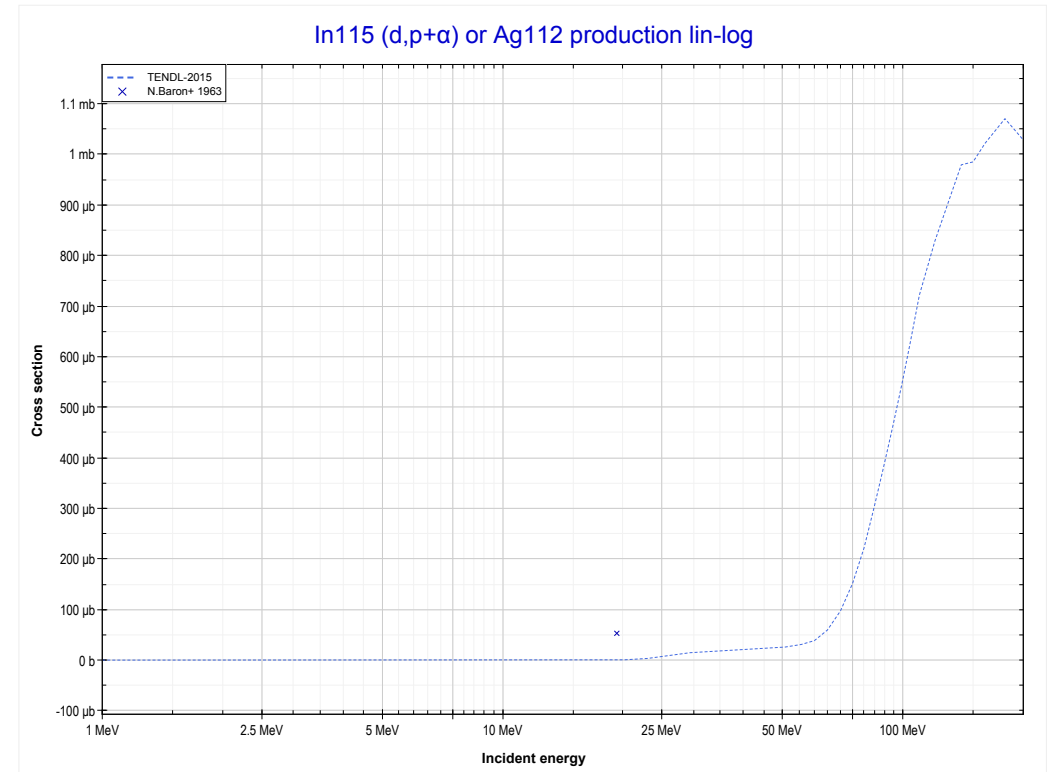
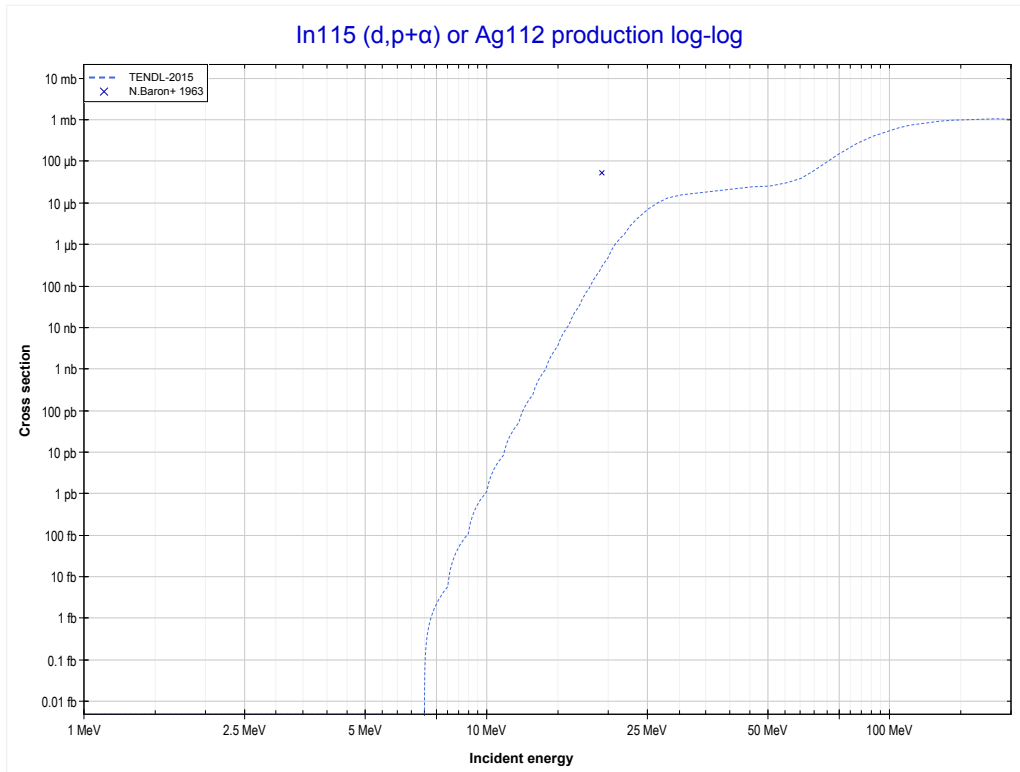
<< 48-Cd-114	<b>48-Cd-116</b>	52-Te-122 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Cd117 production)</b>	49-In-115 MT112 (d,p+α) >>



Reaction	Q-Value
Cd116(d,p)Cd117	3552.69 keV

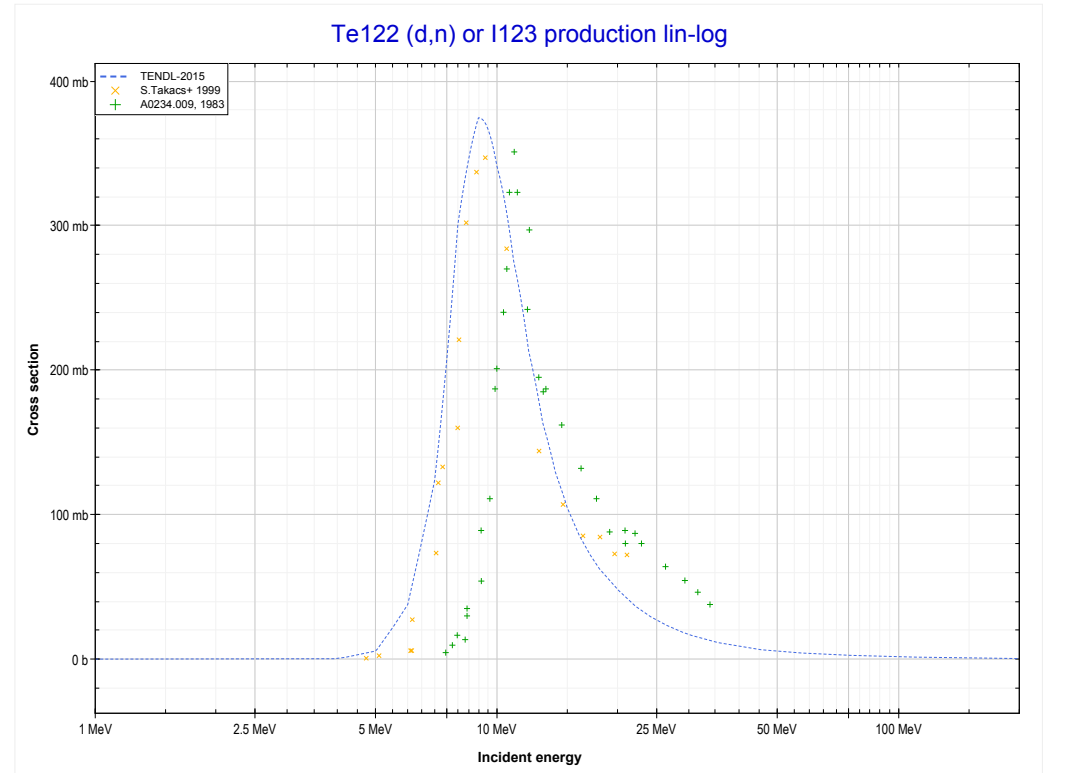
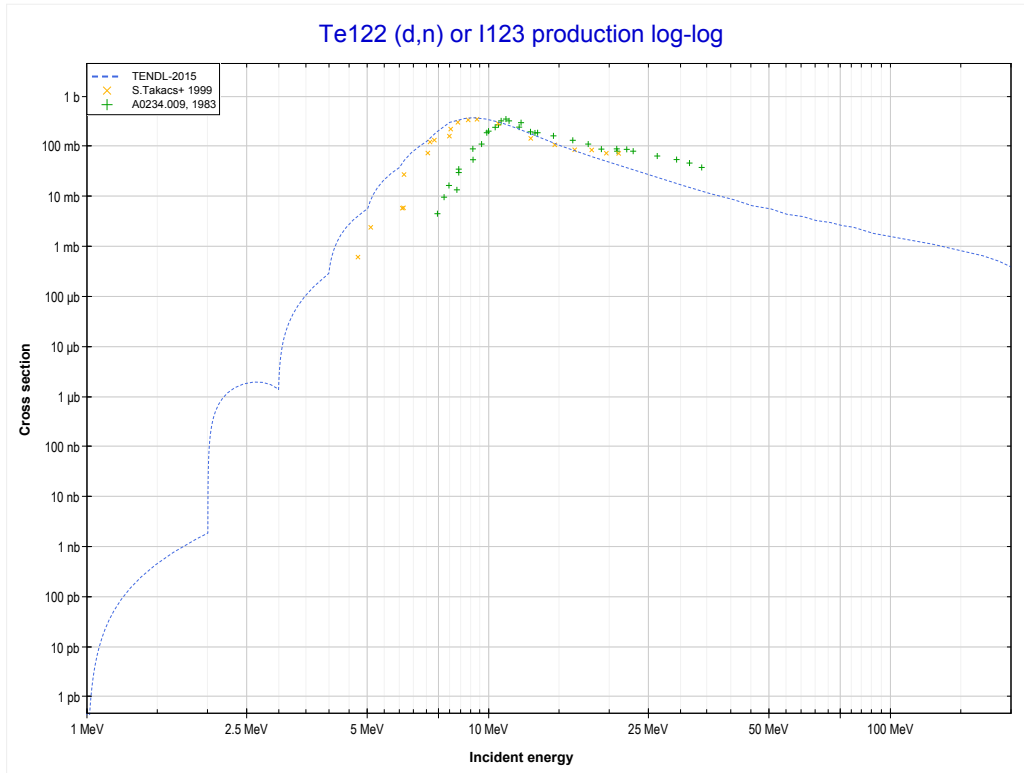


<< 35-Br-79	<b>49-In-115</b>	57-La-139 >>
<< 48-Cd-116 MT103 (d,p)	<b>MT112 (d,p+α) or MT5 (Ag112 production)</b>	52-Te-122 MT4 (d,n) >>



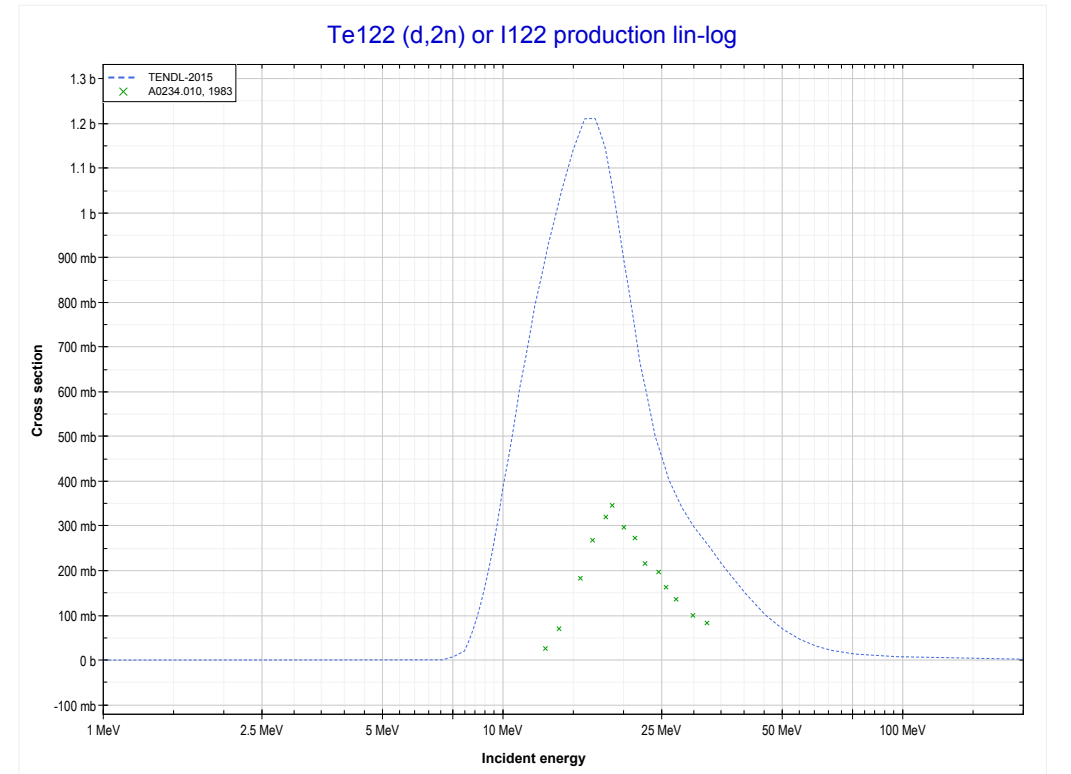
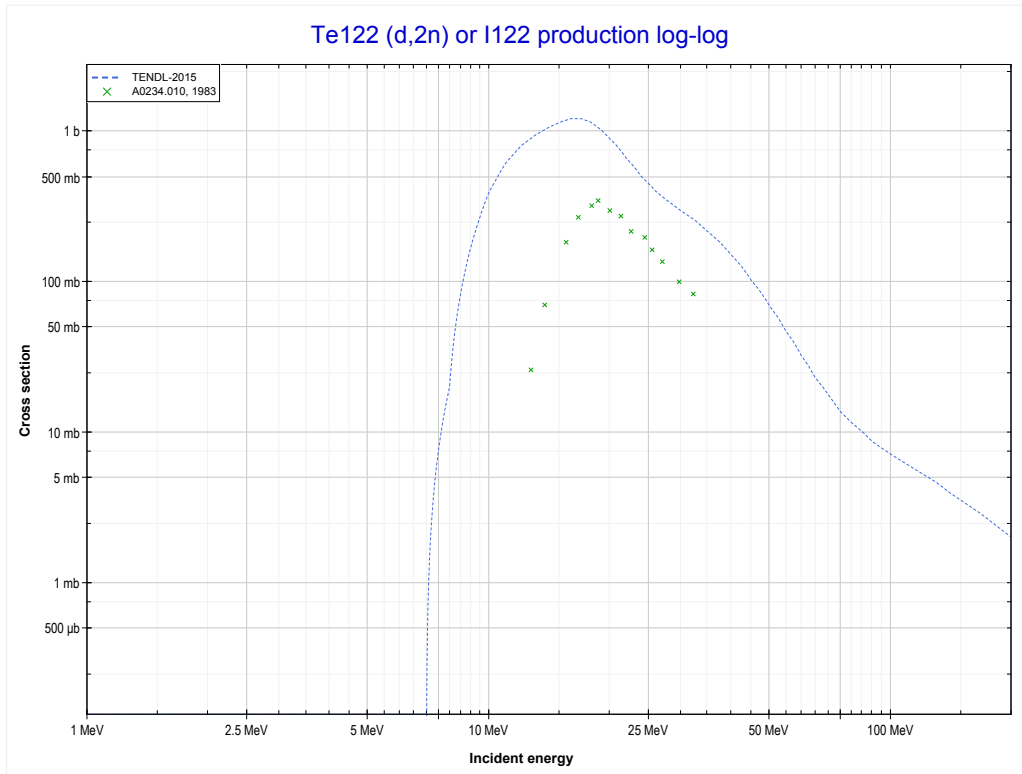
Reaction	Q-Value
In115(d,p+α)Ag112	469.19 keV
In115(d,d+He3)Ag112	-17883.86 keV
In115(d,2p+t)Ag112	-19344.67 keV
In115(d,n+p+He3)Ag112	-20108.42 keV
In115(d,p+2d)Ag112	-23377.34 keV
In115(d,n+2p+d)Ag112	-25601.90 keV
In115(d,2n+3p)Ag112	-27826.47 keV

<< 48-Cd-114	<b>52-Te-122</b>	52-Te-123 >>
<< 49-In-115 MT112 (d,p+α)	<b>MT4 (d,n) or MT5 (I123 production)</b>	MT16 (d,2n) >>



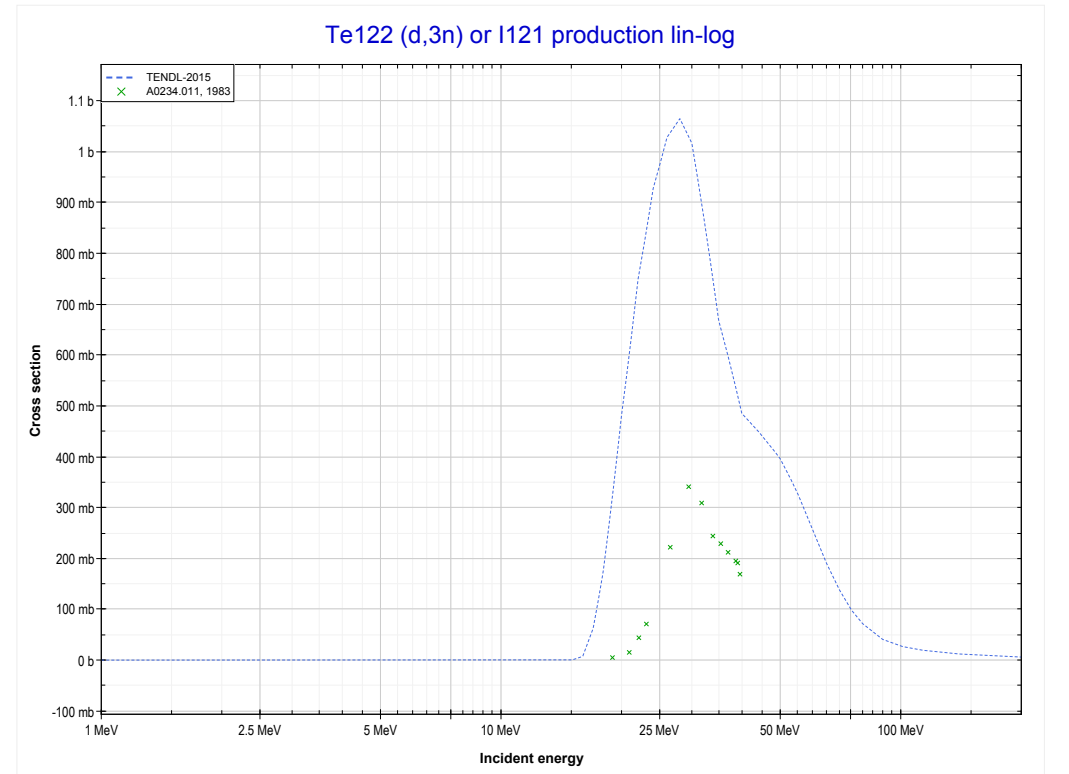
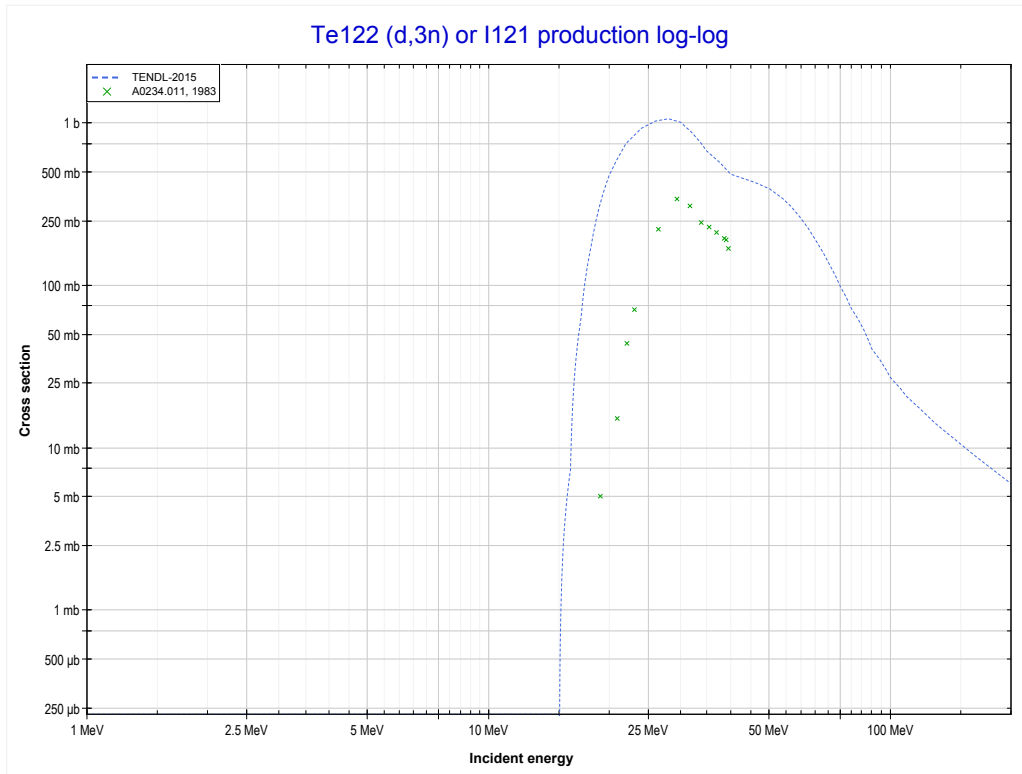
Reaction	Q-Value
Te122(d,n)I123	2694.00 keV

<< 48-Cd-116	<b>52-Te-122</b>	52-Te-123 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (I122 production)</b>	MT17 (d,3n) >>



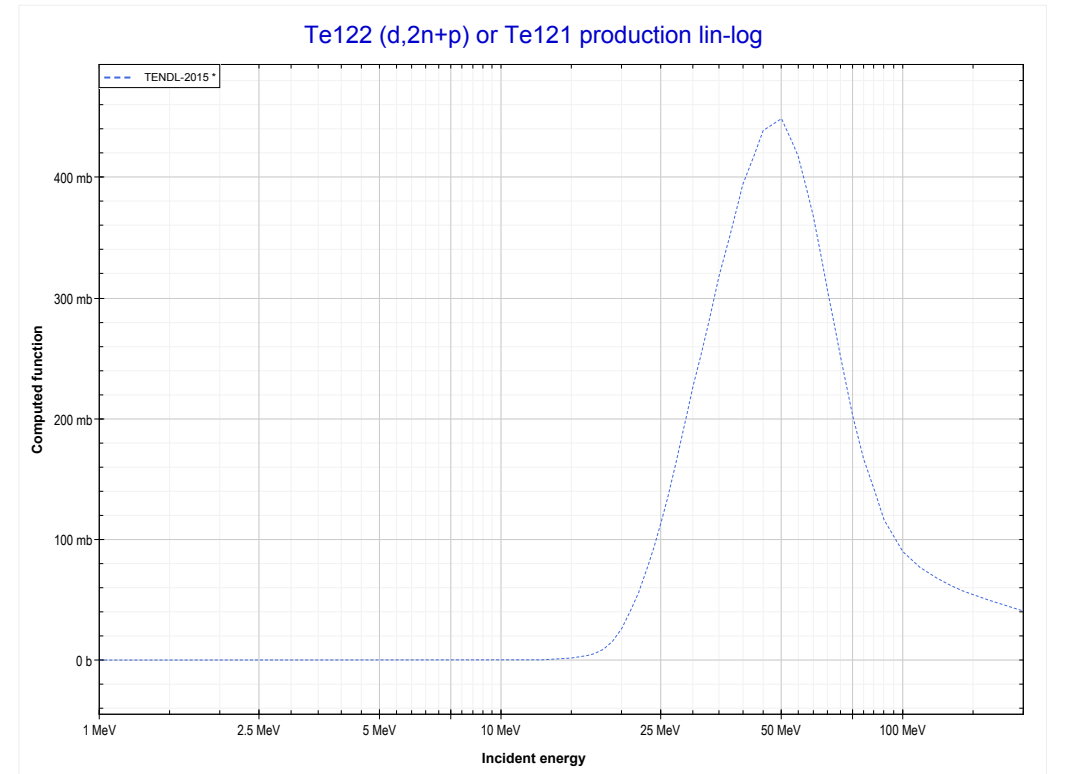
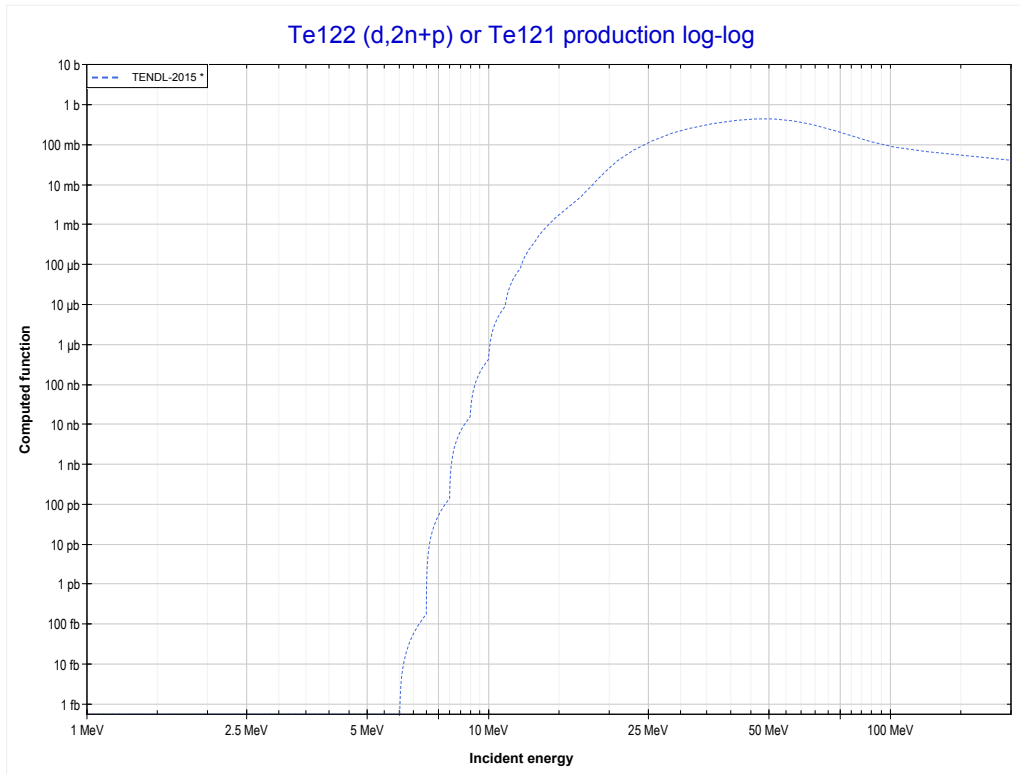
Reaction	Q-Value
Te122(d,2n)I122	-7241.31 keV

<< 48-Cd-114	<b>52-Te-122</b>	52-Te-124 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (I121 production)</b>	MT41 (d,2n+p) >>



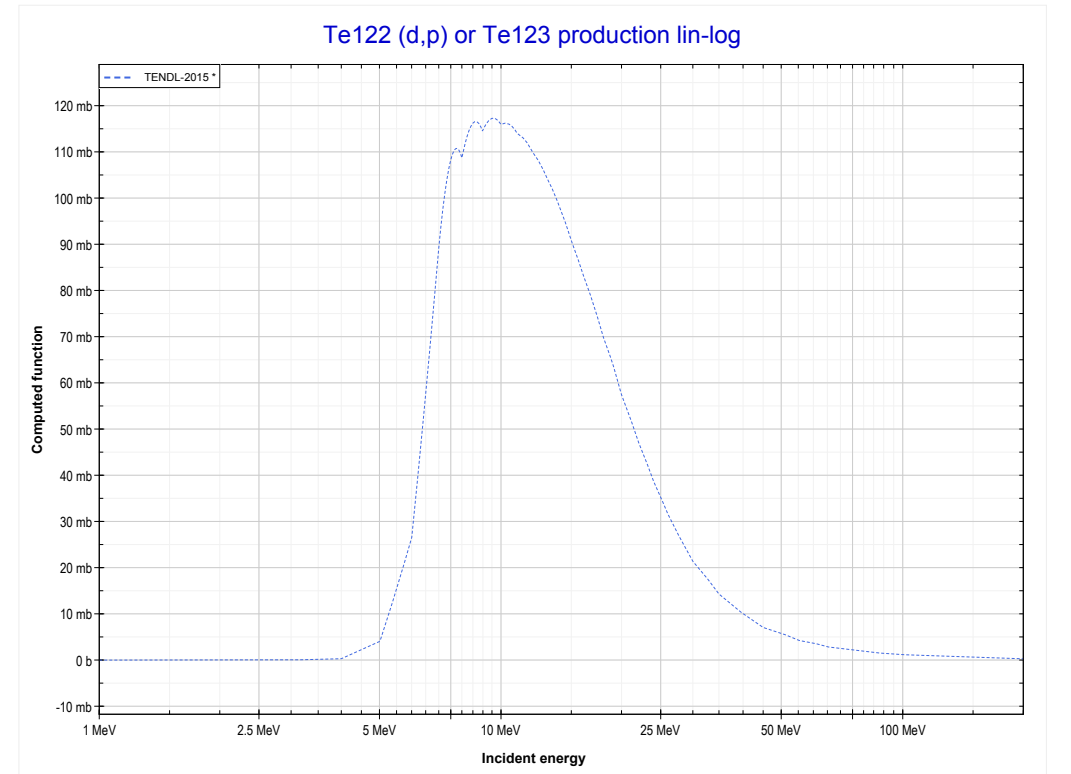
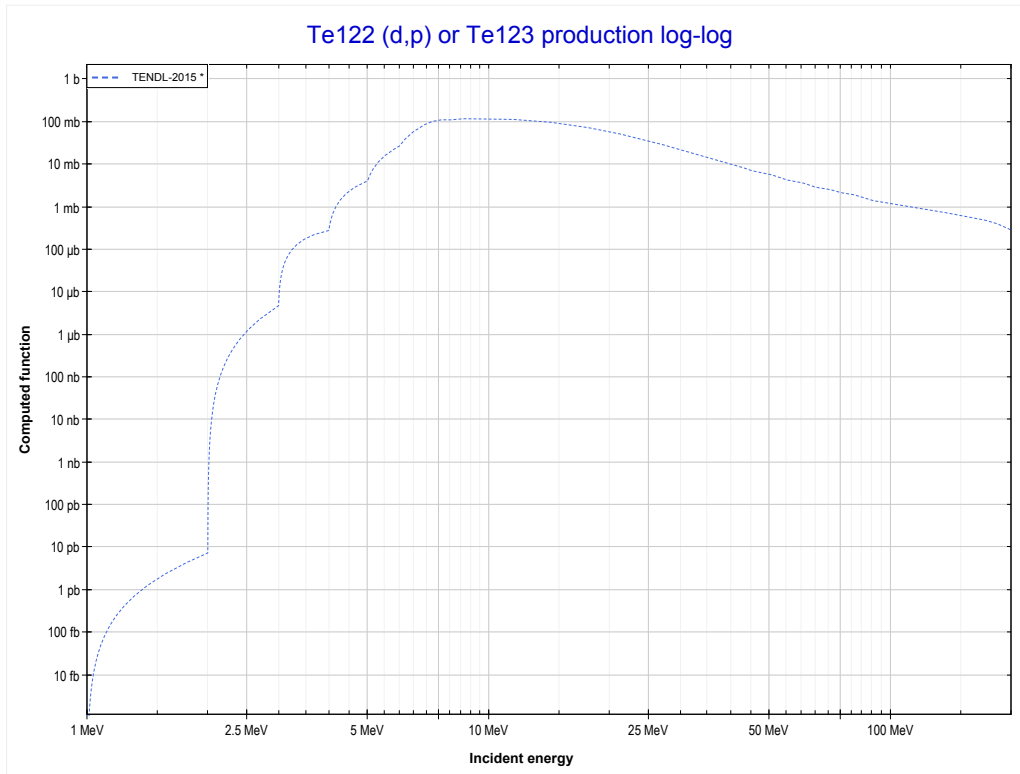
Reaction	Q-Value
Te122(d,3n)I121	-15140.63 keV

<< 33-As-75	<b>52-Te-122</b>	73-Ta-181 >>
<< MT17 (d,3n)	<b>MT41 (d,2n+p) or MT5 (Te121 production)</b>	MT103 (d,p) >>



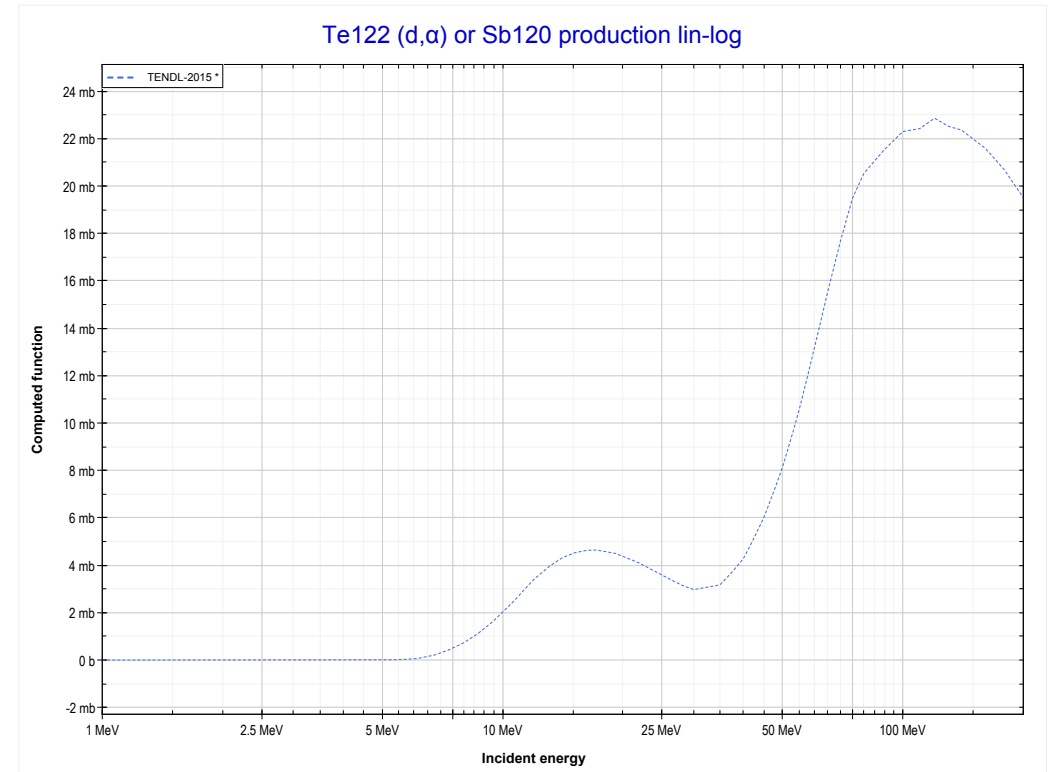
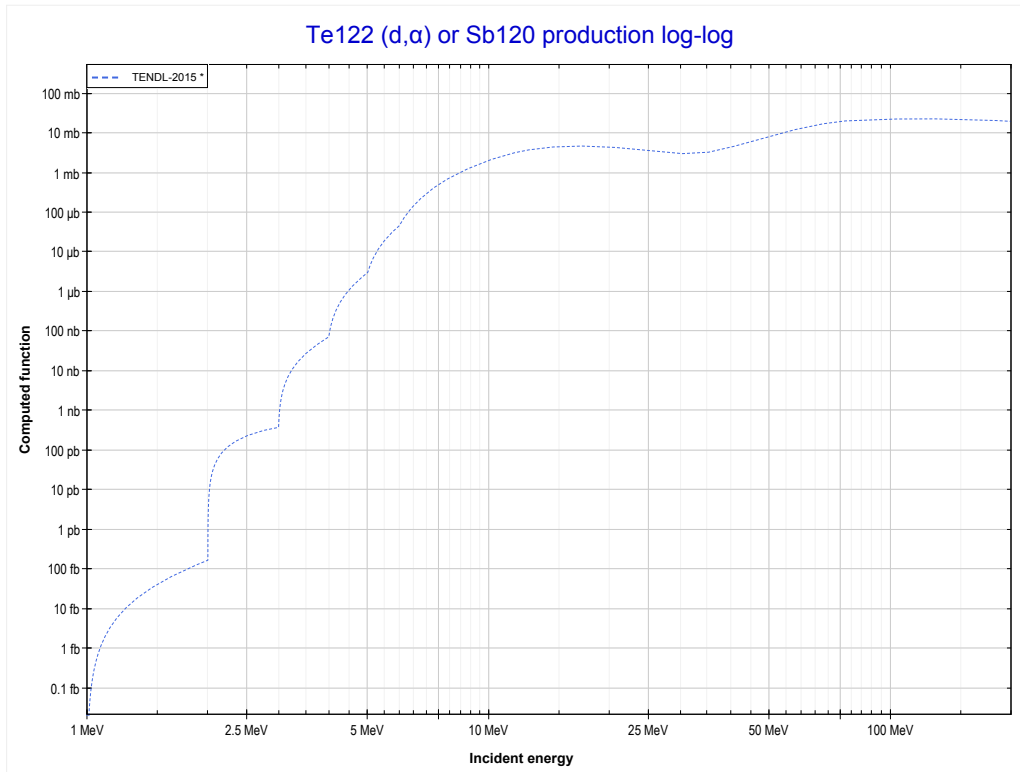
Reaction	Q-Value
Te122(d,t)Te121	-3584.48 keV
Te122(d,n+d)Te121	-9841.72 keV
Te122(d,2n+p)Te121	-12066.28 keV

<< 48-Cd-116	<b>52-Te-122</b>	52-Te-130 >>
<< MT41 (d,2n+p)	<b>MT103 (d,p) or MT5 (Te123 production)</b>	MT107 (d, $\alpha$ ) >>



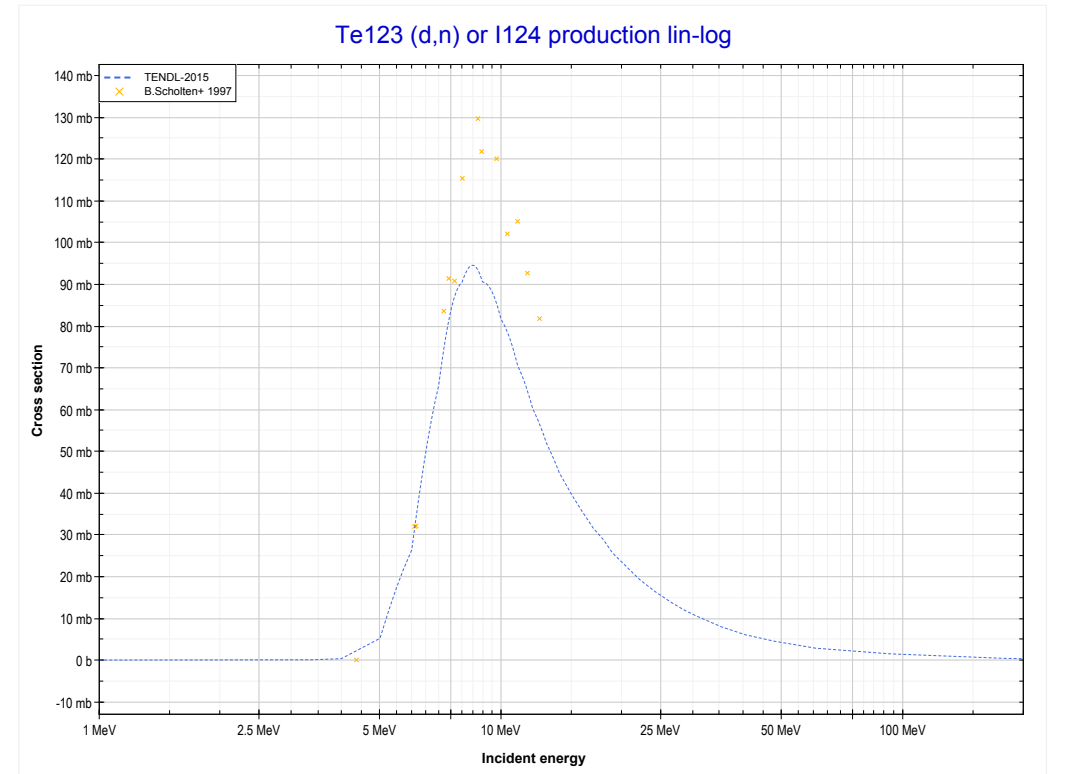
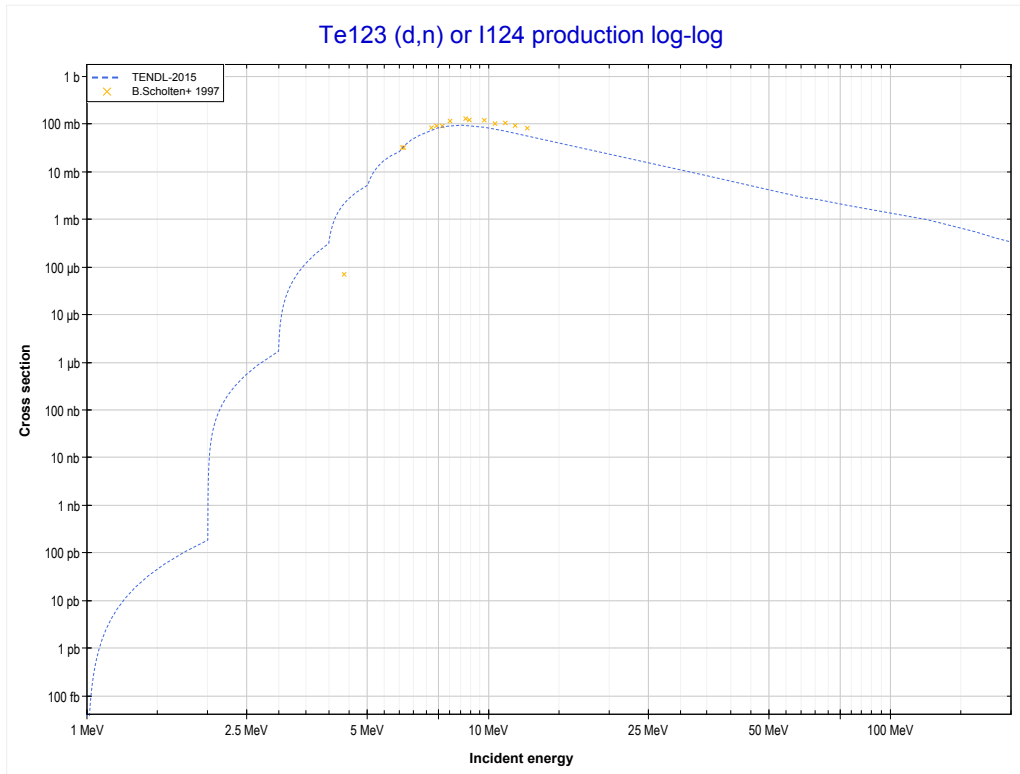
Reaction	Q-Value
Te122(d,p)Te123	4704.45 keV

<< 48-Cd-114	<b>52-Te-122</b>	74-W-184 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Sb120 production)</b>	52-Te-123 MT4 (d,n) >>



Reaction	Q-Value
Te122(d, $\alpha$ )Sb120	8814.41 keV
Te122(d,p+t)Sb120	-10999.45 keV
Te122(d,n+He3)Sb120	-11763.21 keV
Te122(d,2d)Sb120	-15032.12 keV
Te122(d,n+p+d)Sb120	-17256.69 keV
Te122(d,2n+2p)Sb120	-19481.25 keV

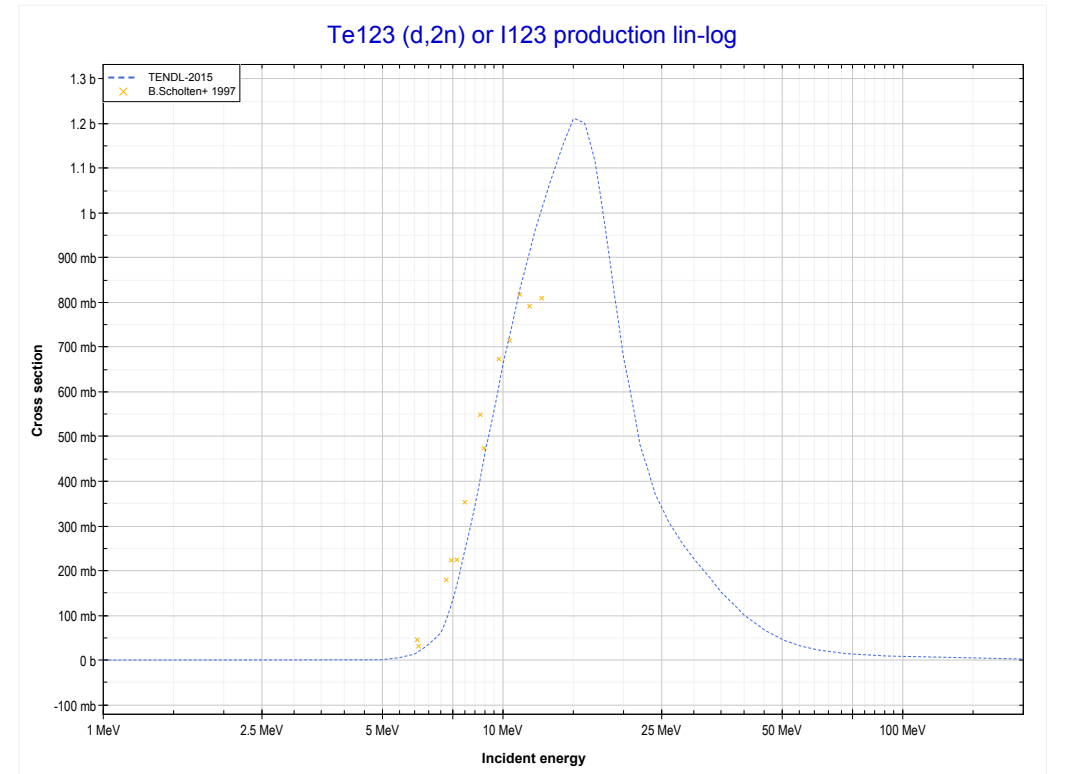
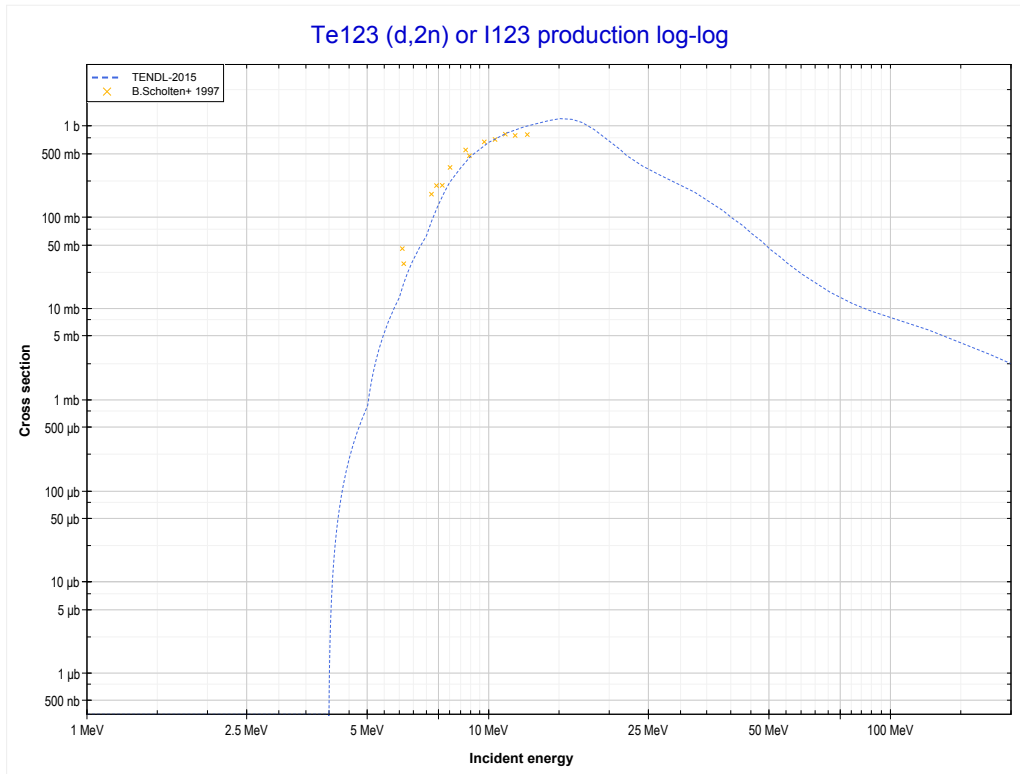
<< 52-Te-122	<b>52-Te-123</b>	52-Te-124 >>
<< 52-Te-122 MT107 (d, $\alpha$ )	<b>MT4 (d,n) or MT5 (I124 production)</b>	MT16 (d,2n) >>



Reaction	Q-Value
Te123(d,n)I124	3258.00 keV

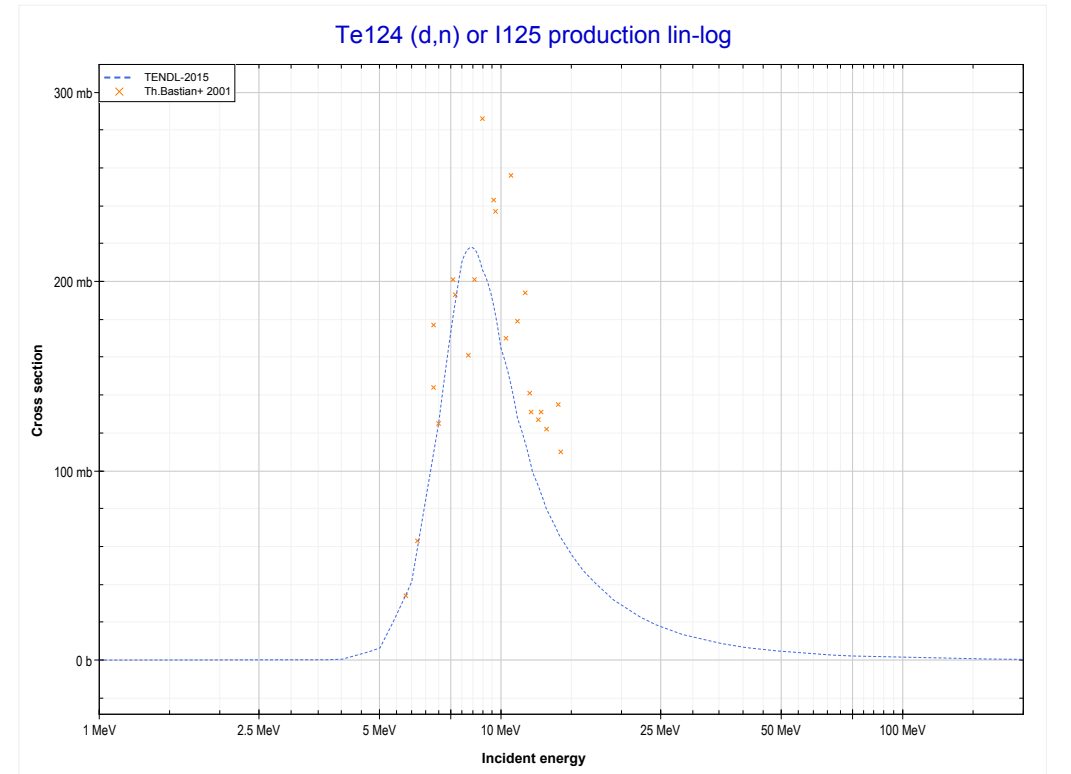
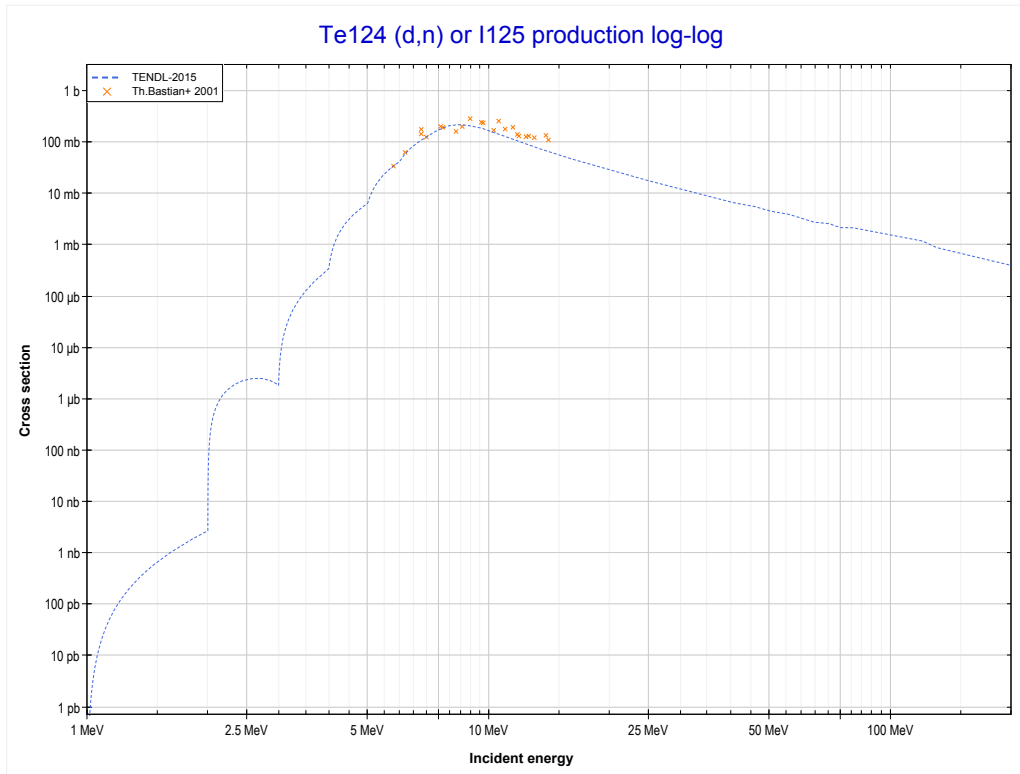


<< 52-Te-122	<b>52-Te-123</b>	52-Te-124 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (I123 production)</b>	52-Te-124 MT4 (d,n) >>



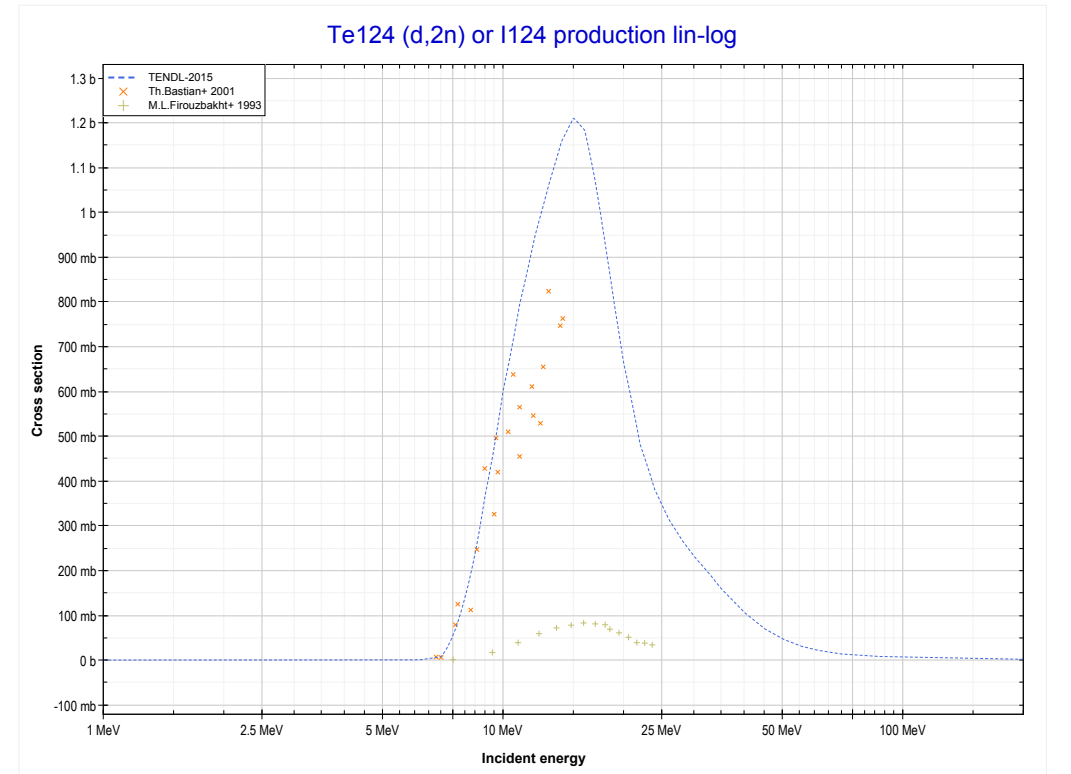
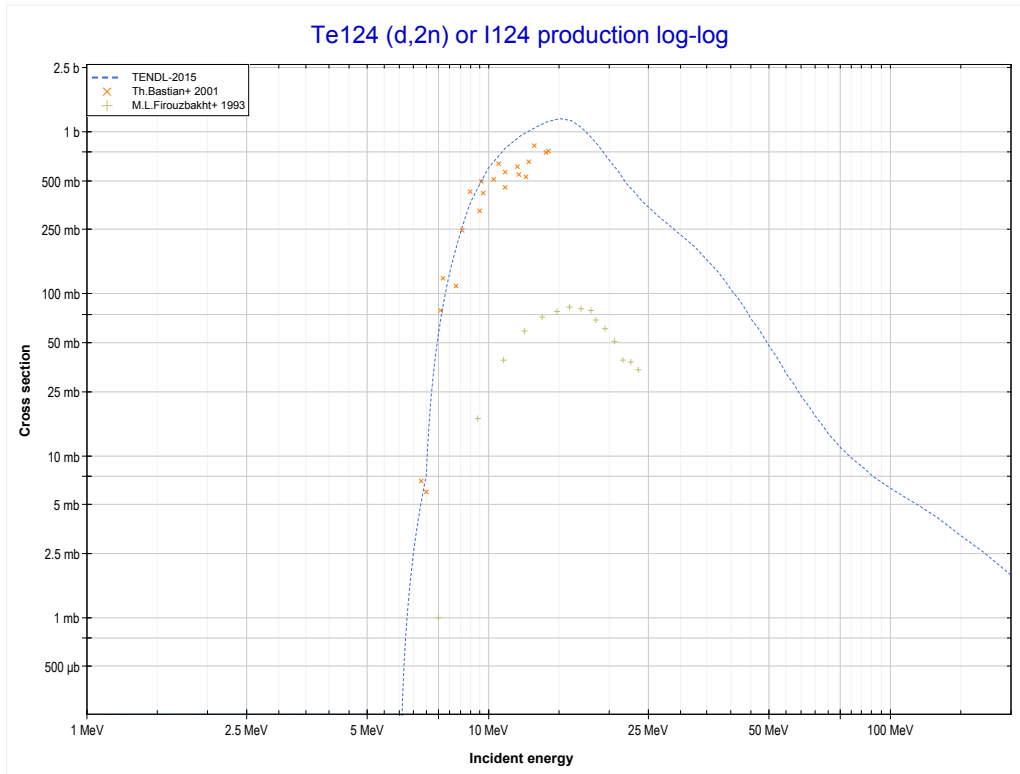
Reaction	Q-Value
Te123(d,2n)I123	-4235.01 keV

<< 52-Te-123	<b>52-Te-124</b>	58-Ce-142 >>
<< 52-Te-123 MT16 (d,2n)	<b>MT4 (d,n) or MT5 (I125 production)</b>	MT16 (d,2n) >>



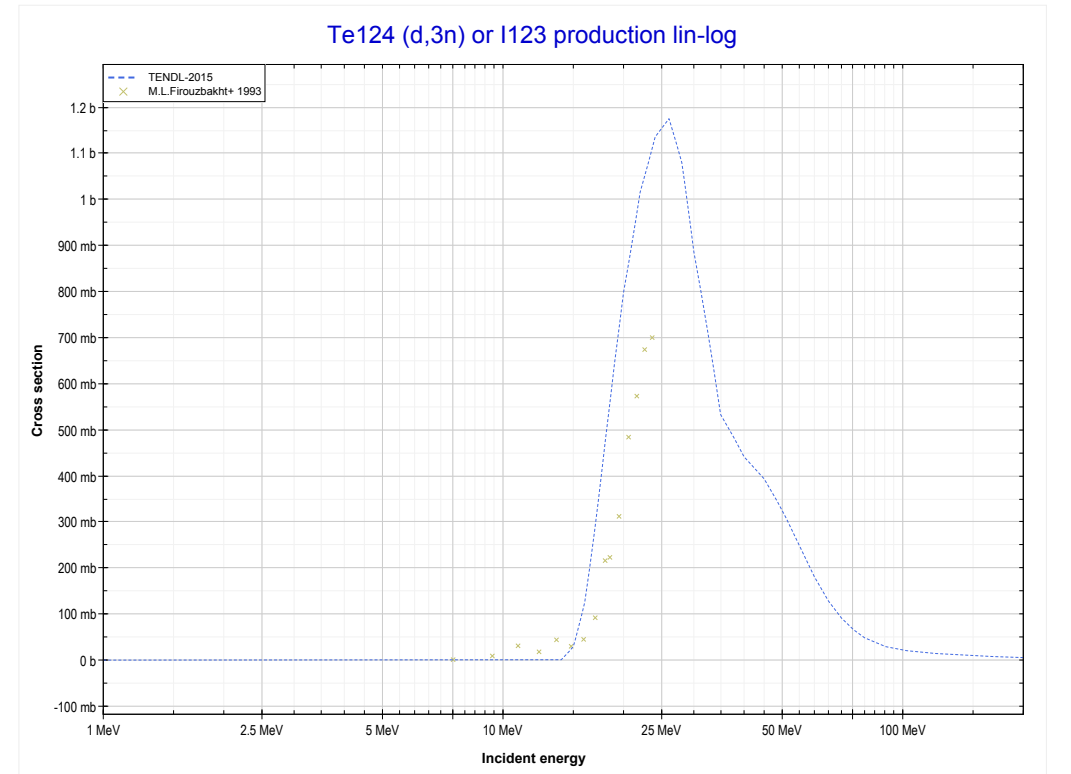
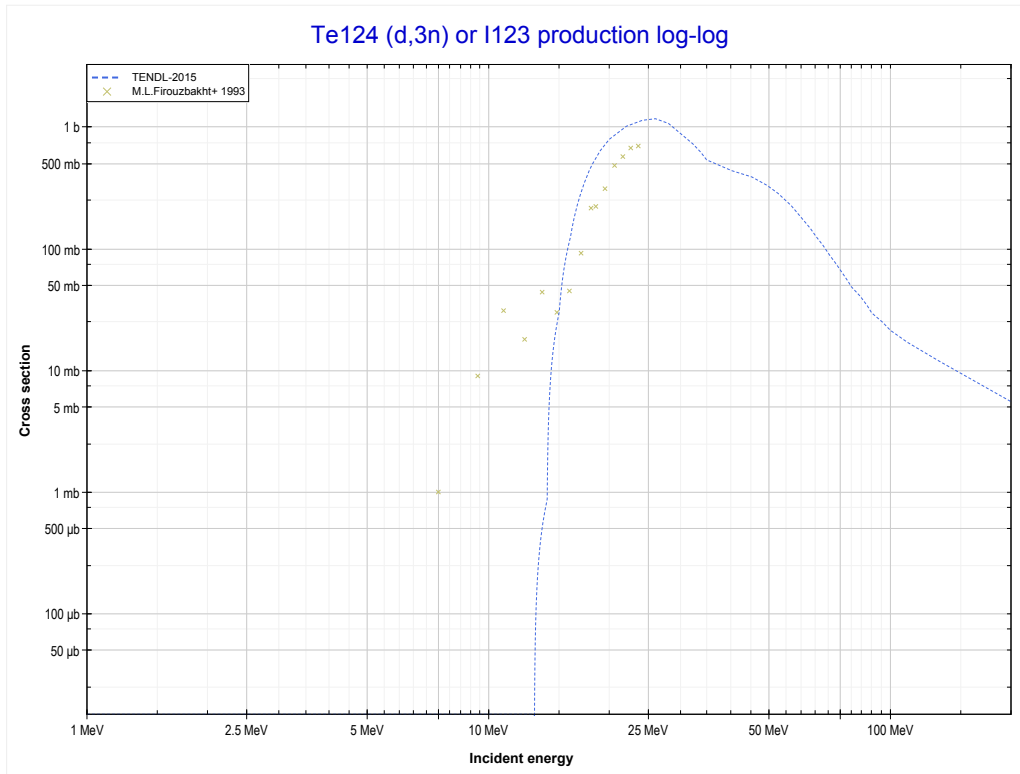
Reaction	Q-Value
Te124(d,n)I125	3376.30 keV

<< 52-Te-123	<b>52-Te-124</b>	52-Te-126 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (I124 production)</b>	MT17 (d,3n) >>



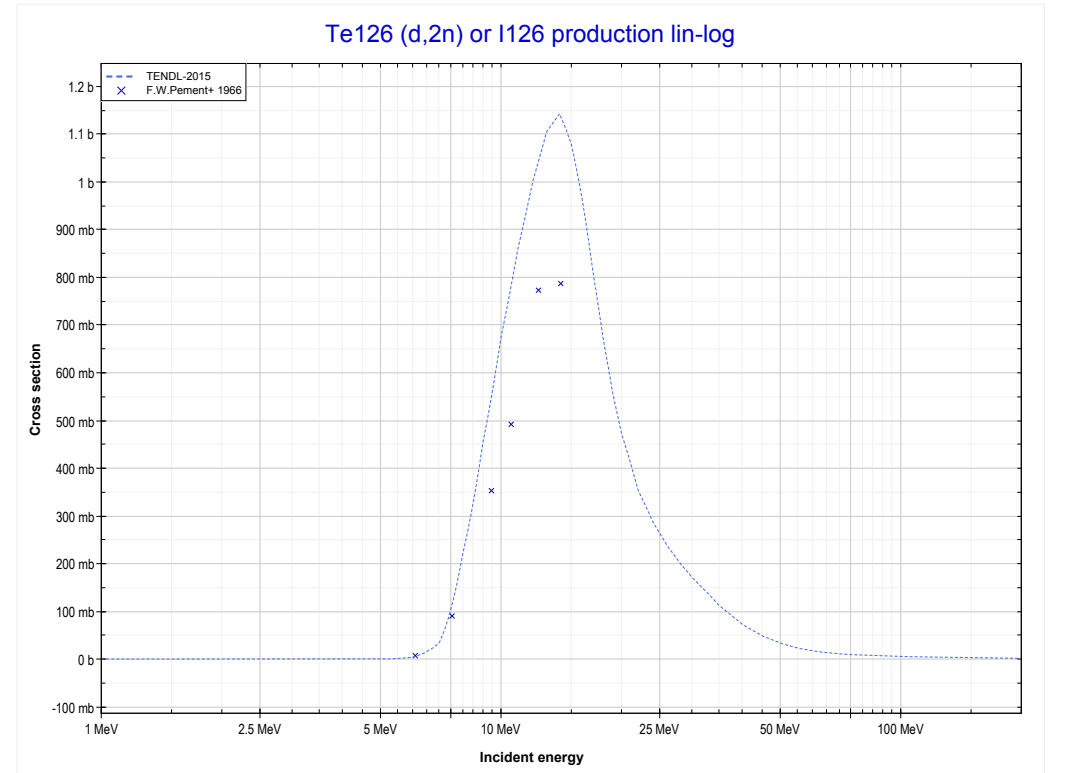
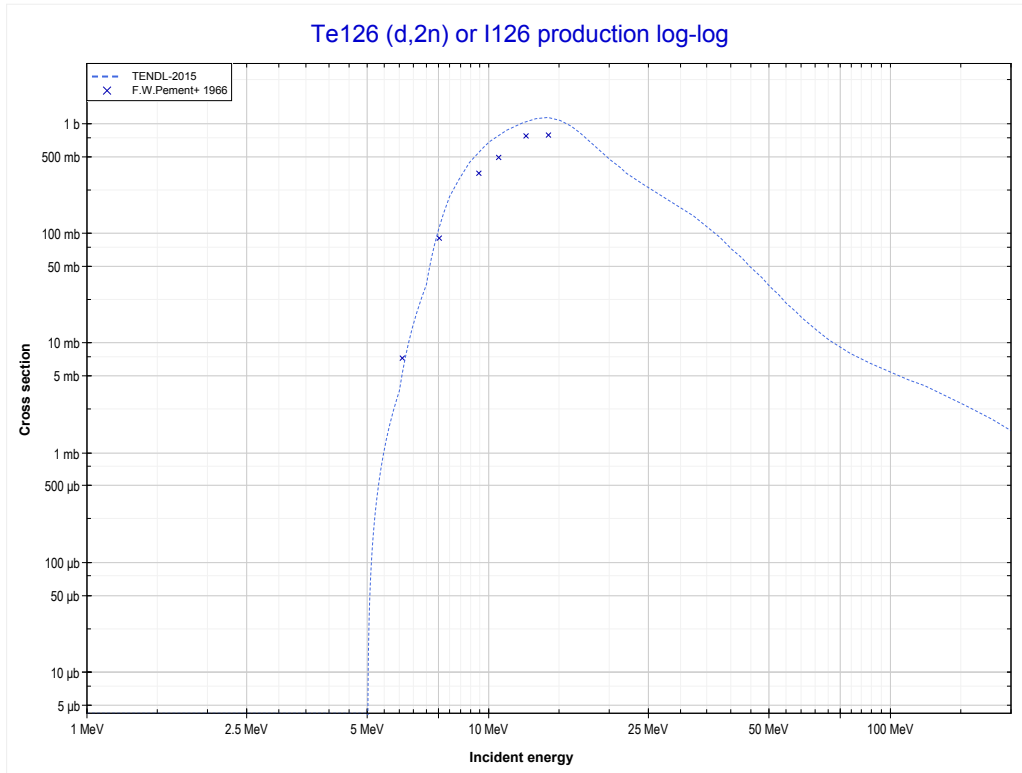
Reaction	Q-Value
Te124(d,2n)I124	-6166.51 keV

<< 52-Te-122	<b>52-Te-124</b>	53-I-127 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (I123 production)</b>	52-Te-126 MT16 (d,2n) >>



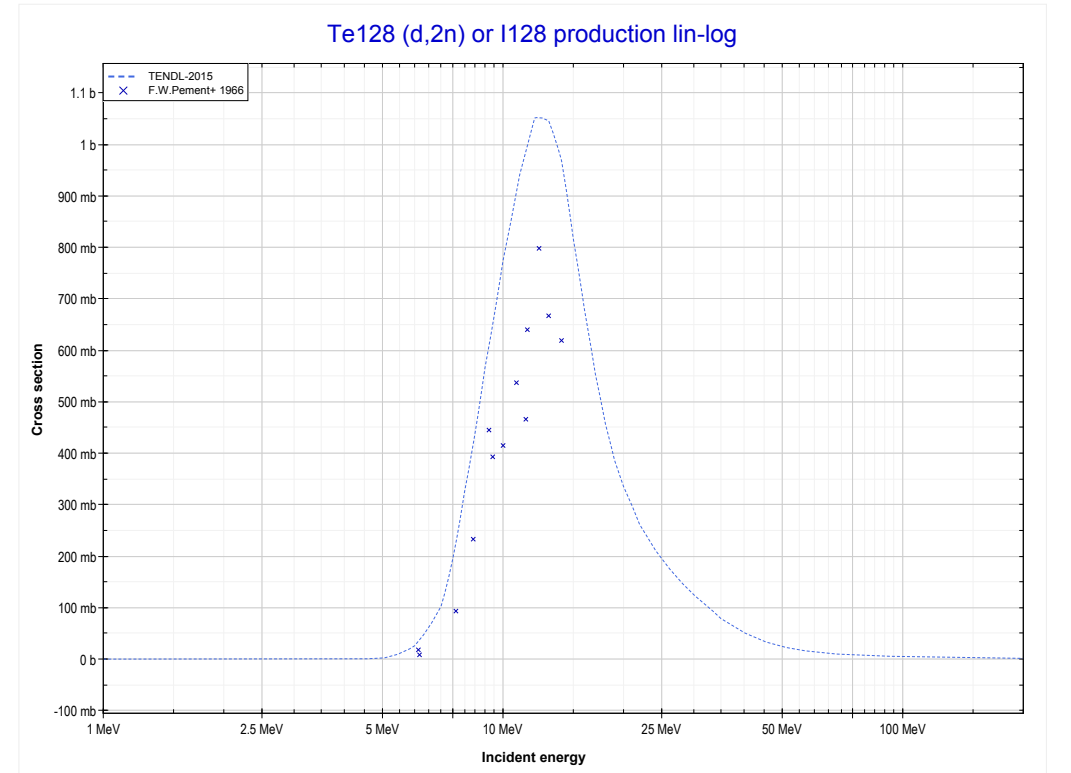
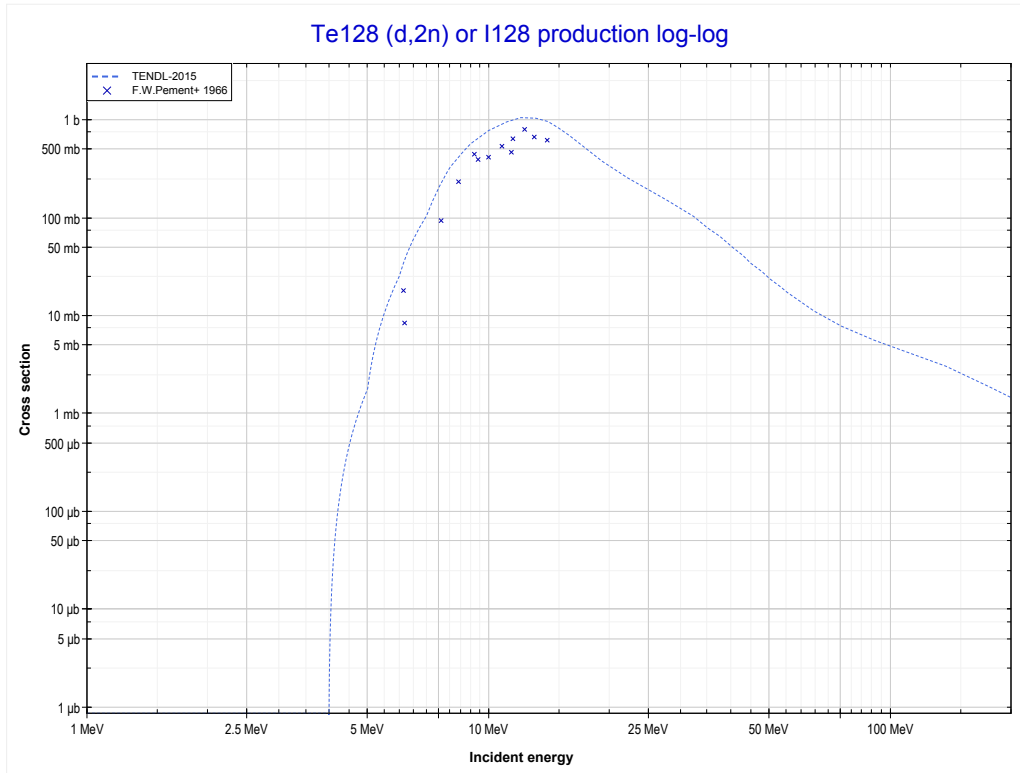
Reaction	Q-Value
Te124(d,3n)I123	-13659.53 keV

<< 52-Te-124	<b>52-Te-126</b>	52-Te-128 >>
<< 52-Te-124 MT17 (d,3n)	<b>MT16 (d,2n) or MT5 (I126 production)</b>	52-Te-128 MT16 (d,2n) >>



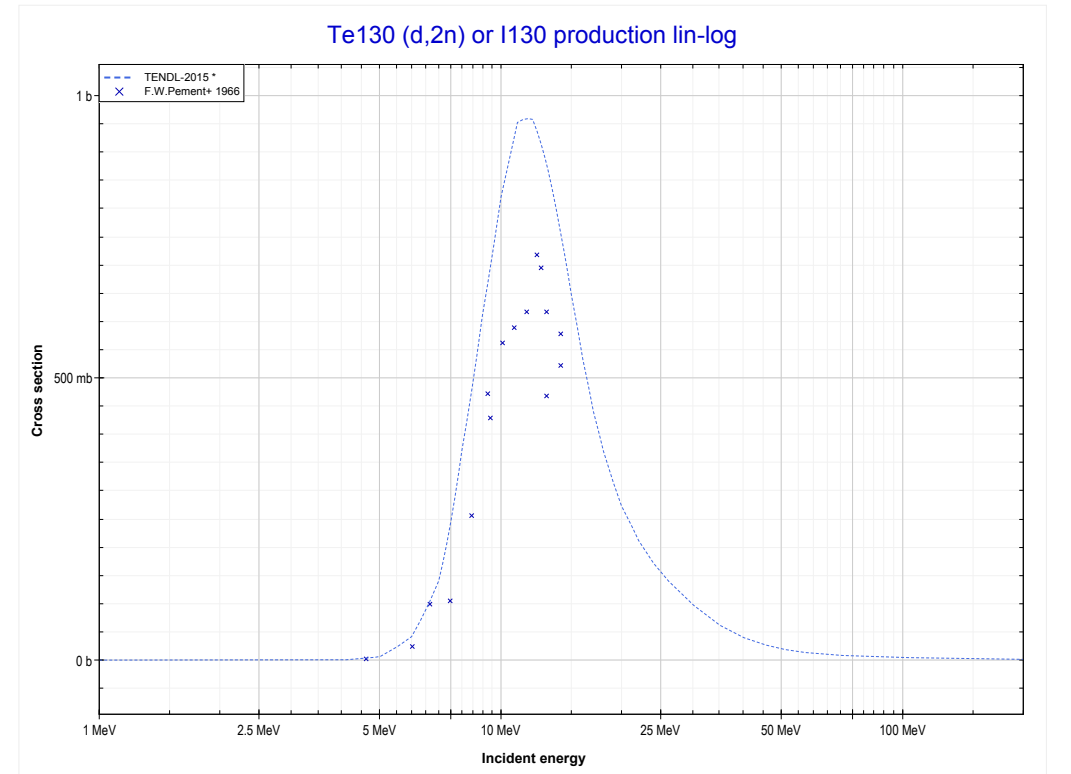
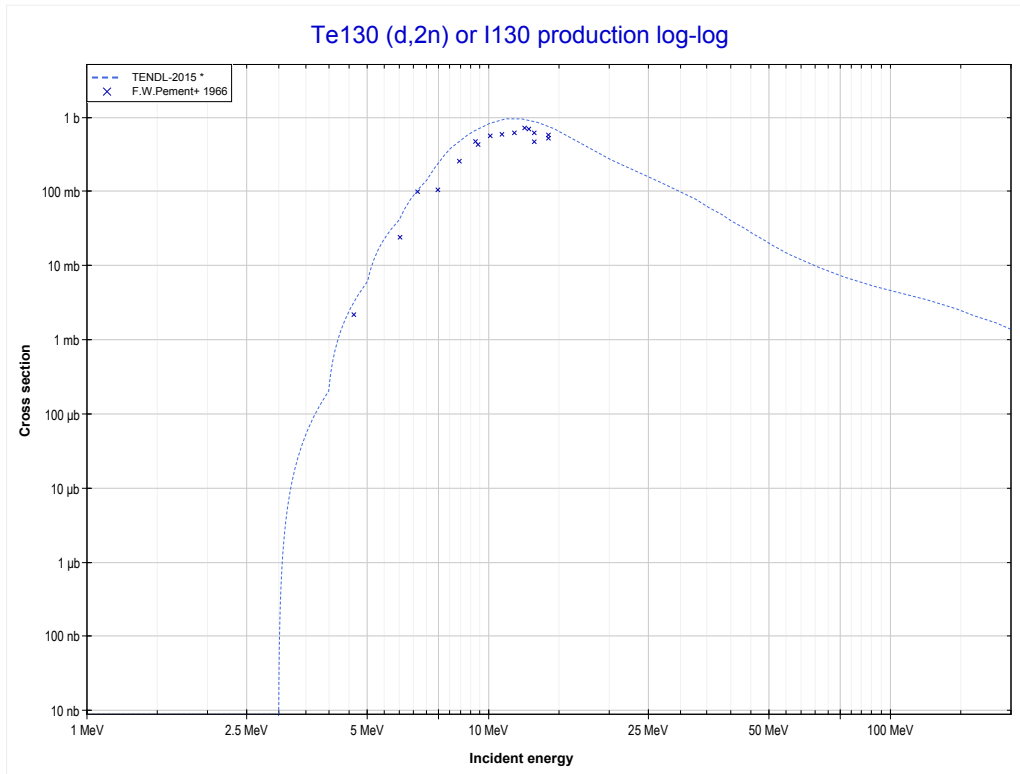
Reaction	Q-Value
Te126(d,2n)I126	-5161.21 keV

<< 52-Te-126	<b>52-Te-128</b>	52-Te-130 >>
<< 52-Te-126 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (I128 production)</b>	52-Te-130 MT16 (d,2n) >>



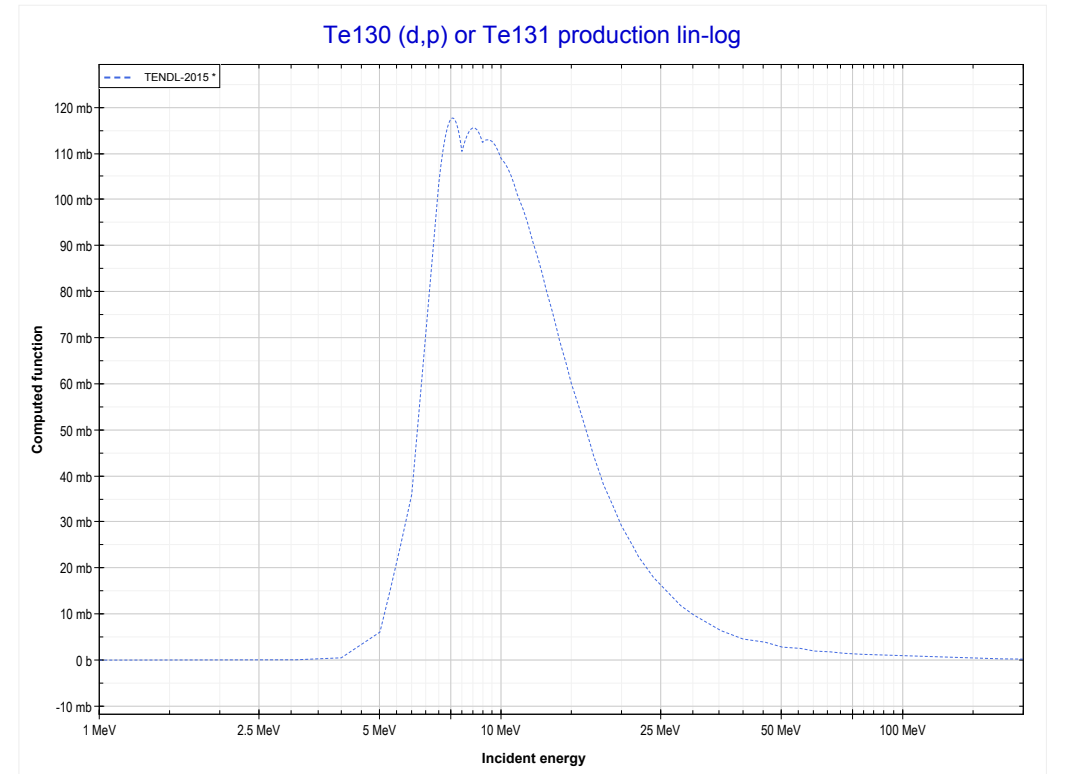
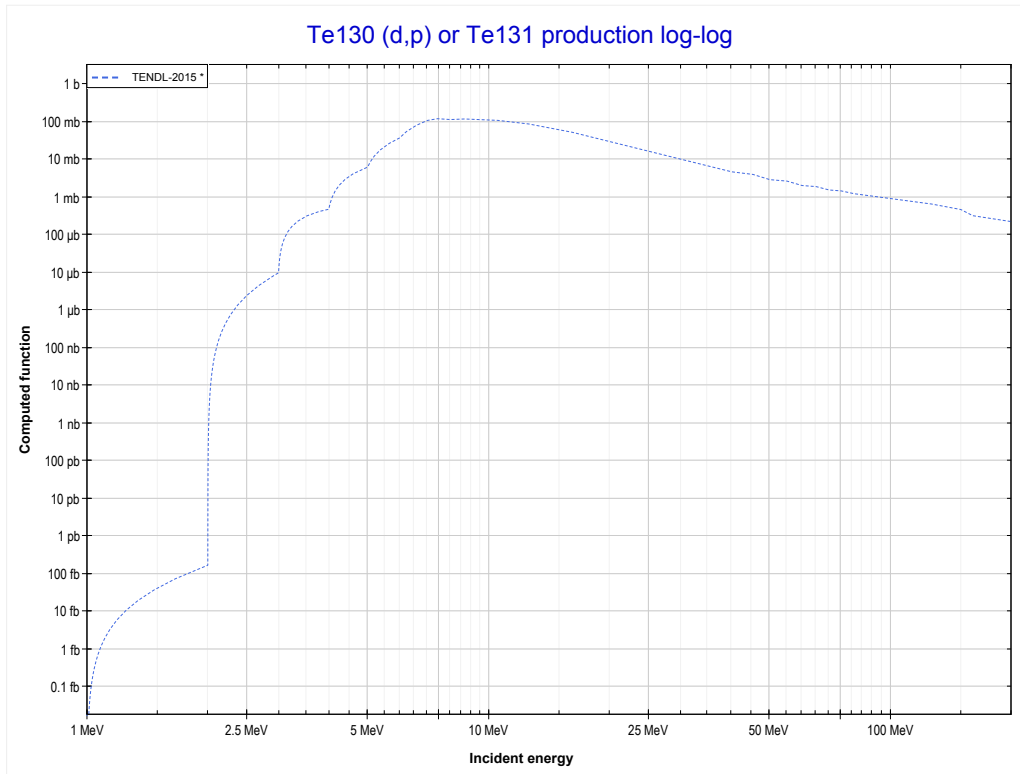
<b>Reaction</b>	<b>Q-Value</b>
Te128(d,2n)I128	-4261.61 keV

<< 52-Te-128	<b>52-Te-130</b>	53-I-127 >>
<< 52-Te-128 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (I130 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Te130(d,2n)I130	-3423.86 keV

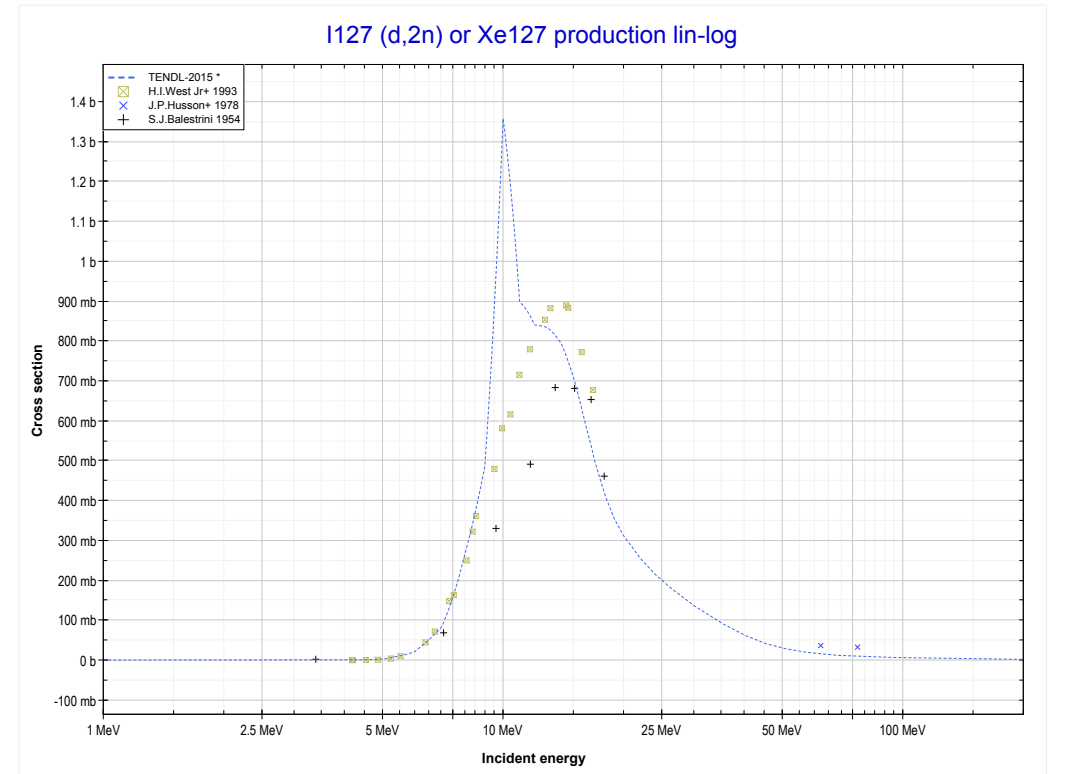
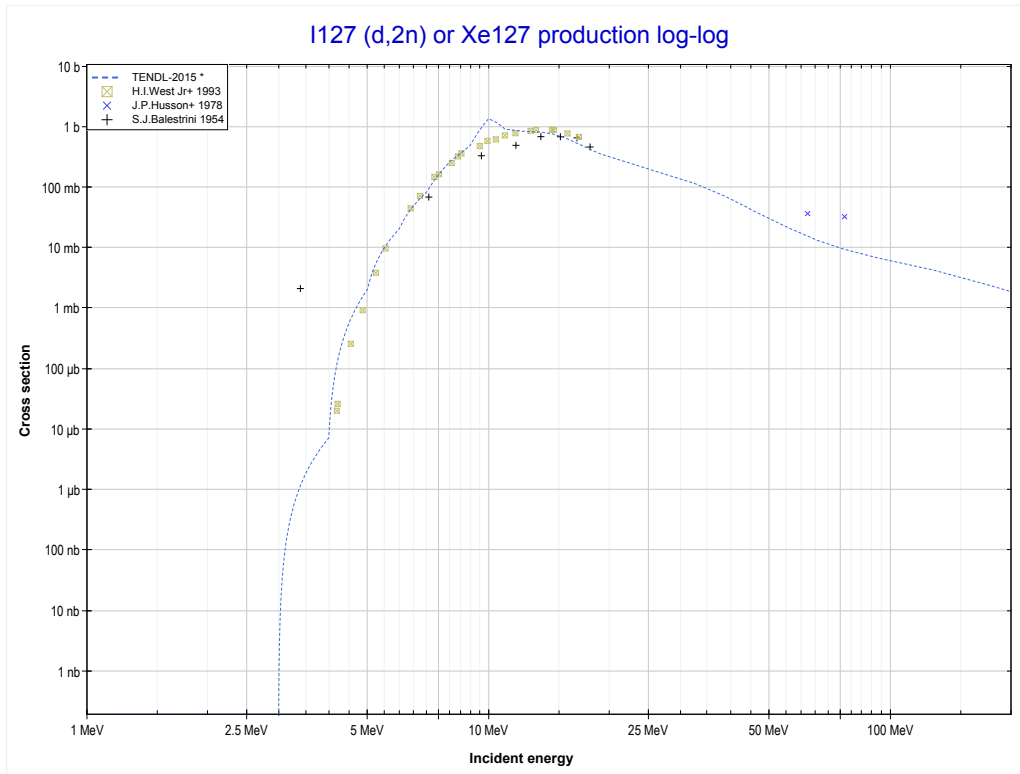
<< 52-Te-122	<b>52-Te-130</b>	55-Cs-133 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Te131 production)</b>	53-I-127 MT16 (d,2n) >>



<b>Reaction</b>	<b>Q-Value</b>
Te130(d,p)Te131	3704.81 keV

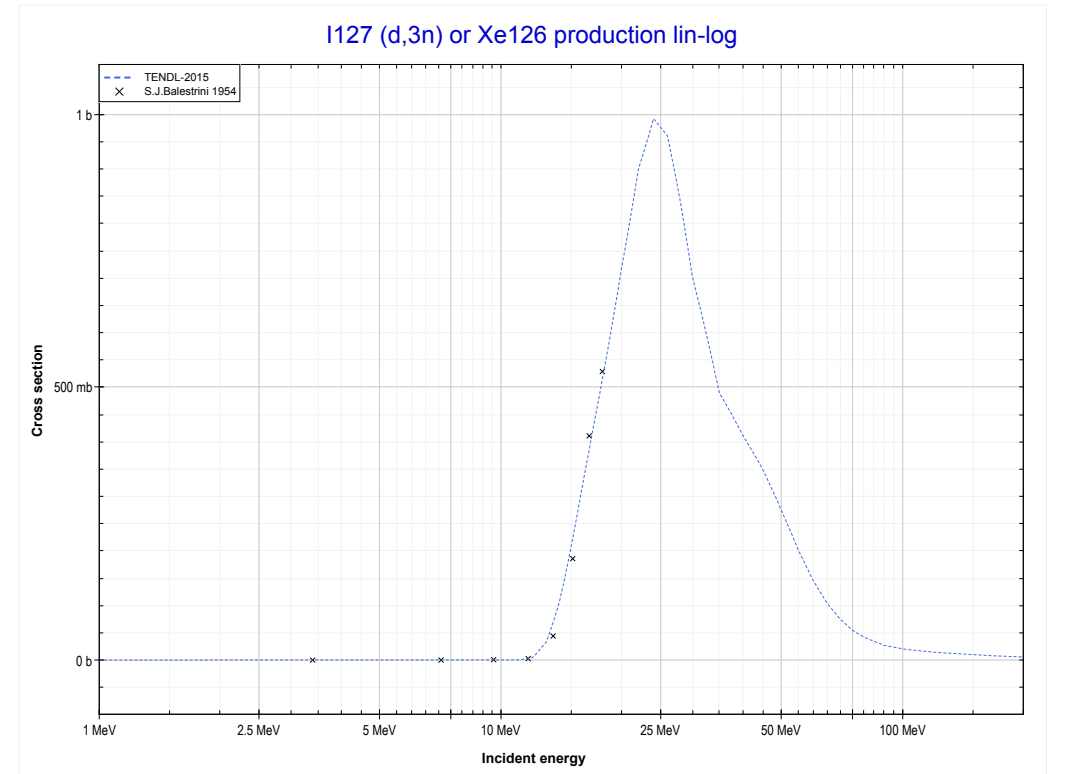
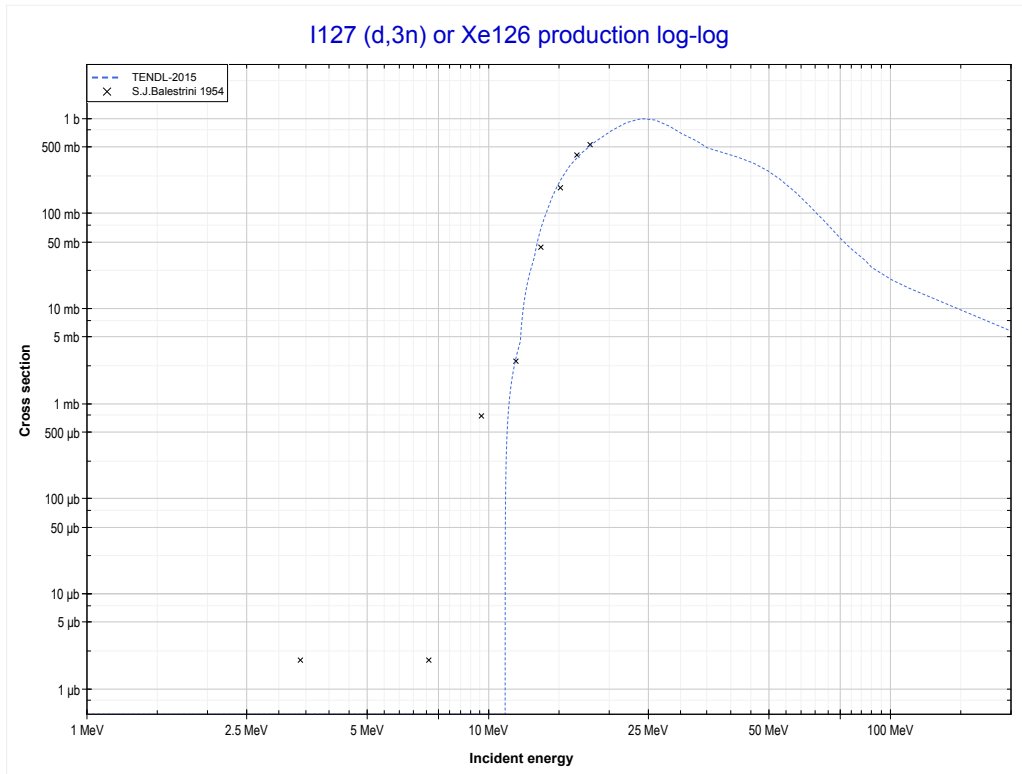


<< 52-Te-130	<b>53-I-127</b>	55-Cs-133 >>
<< 52-Te-130 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (Xe127 production)</b>	MT17 (d,3n) >>



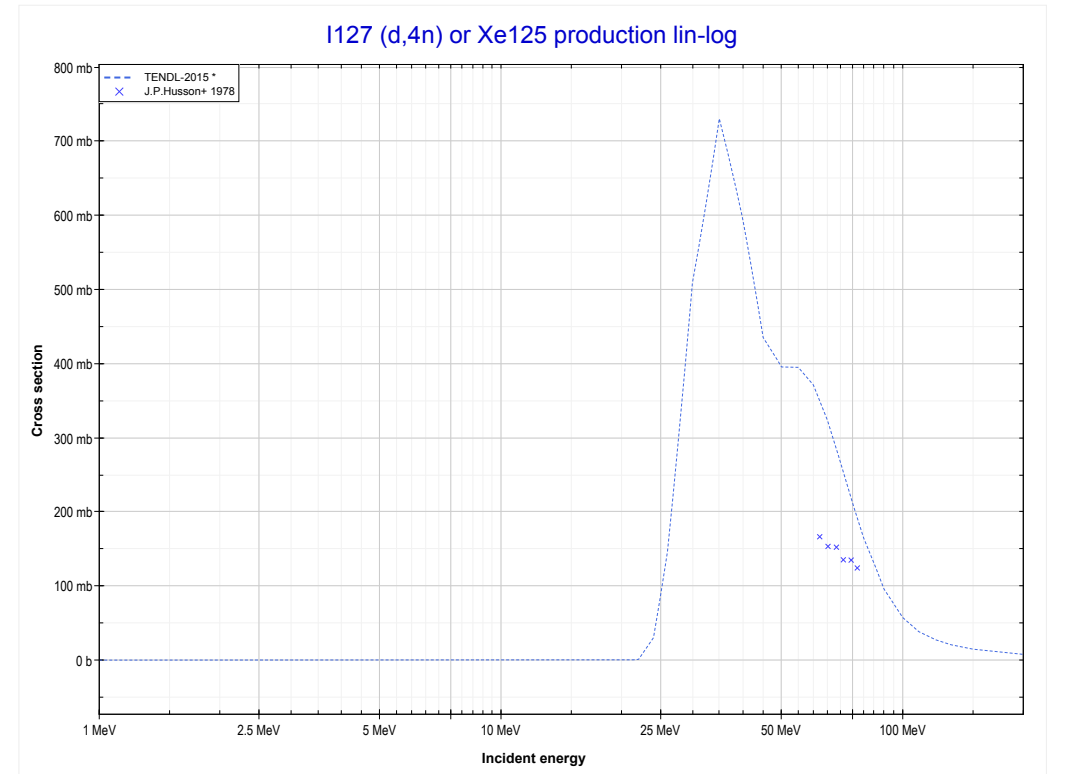
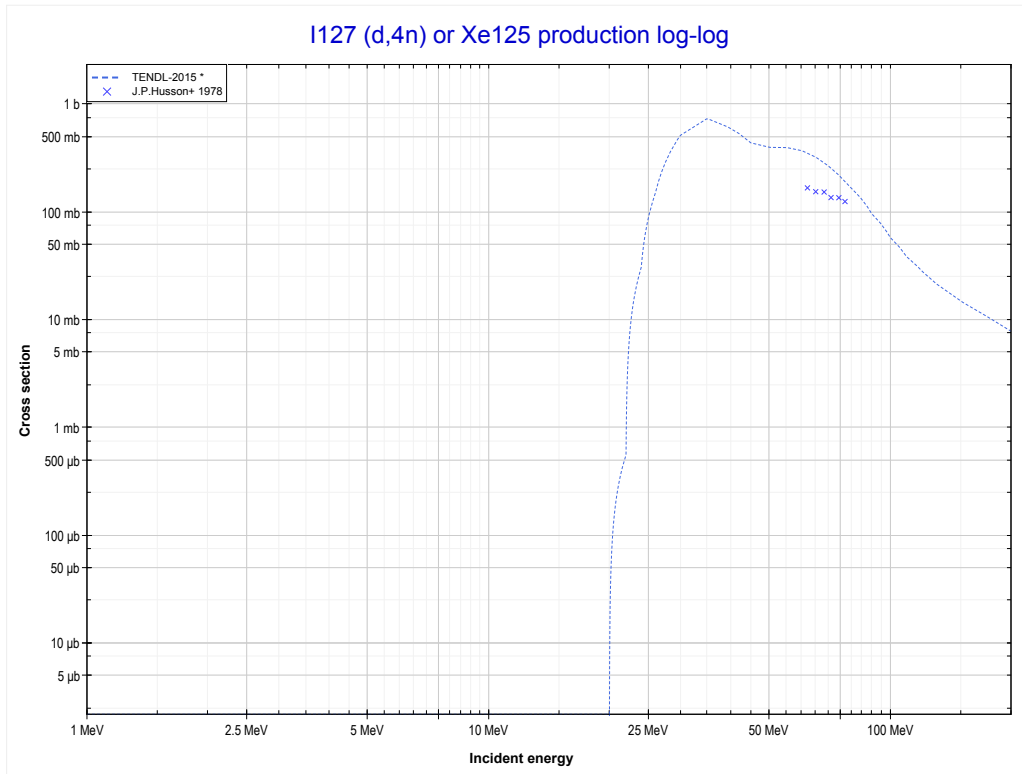
Reaction	Q-Value
I127(d,2n)Xe127	-3668.91 keV

<< 52-Te-124	<b>53-I-127</b>	59-Pr-141 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Xe126 production)</b>	MT37 (d,4n) >>



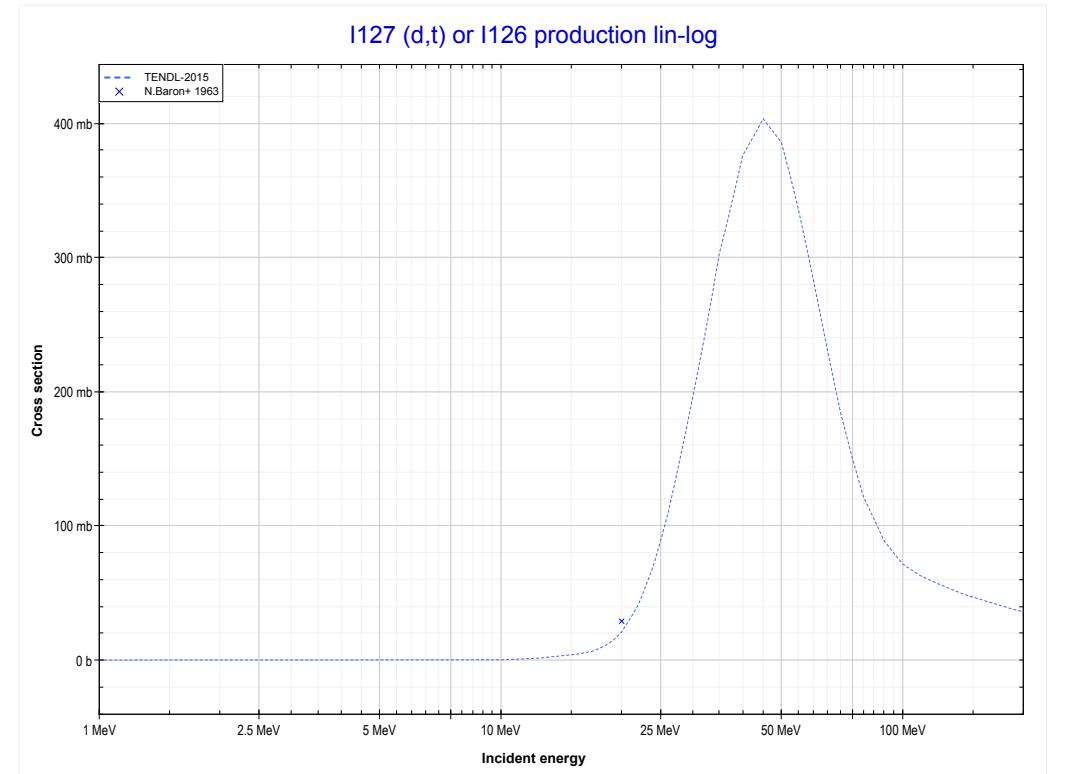
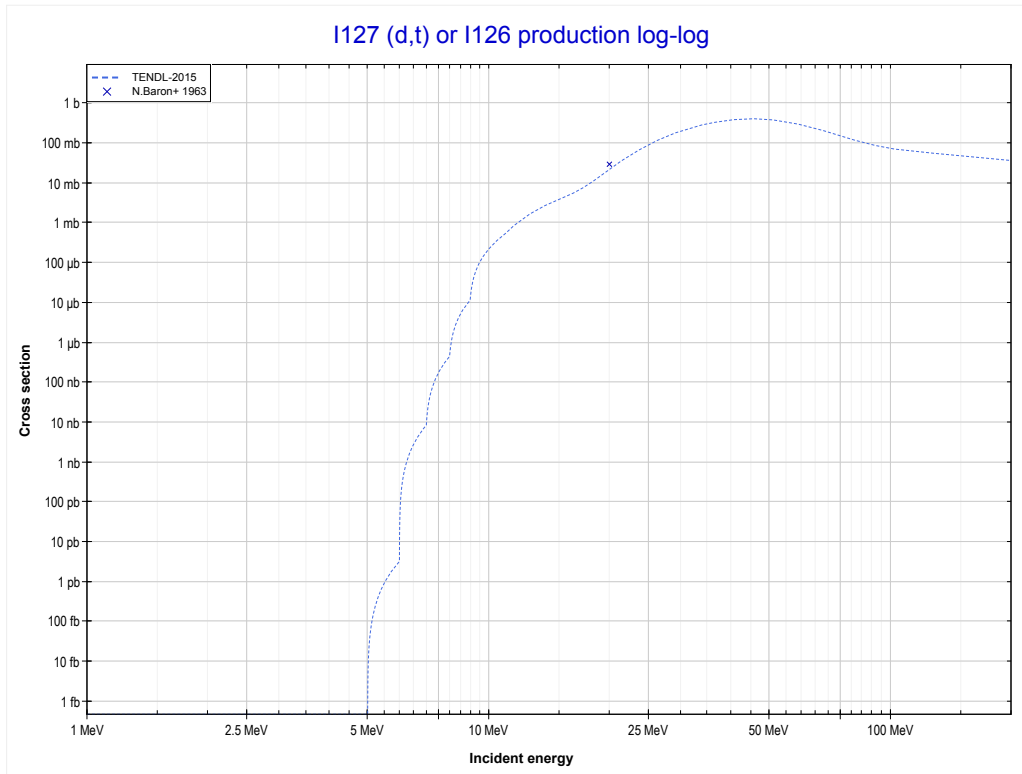
Reaction	Q-Value
I127(d,3n)Xe126	-10916.23 keV

<< 48-Cd-112	<b>53-I-127</b>	59-Pr-141 >>
<< MT17 (d,3n)	<b>MT37 (d,4n) or MT5 (Xe125 production)</b>	MT105 (d,t) >>



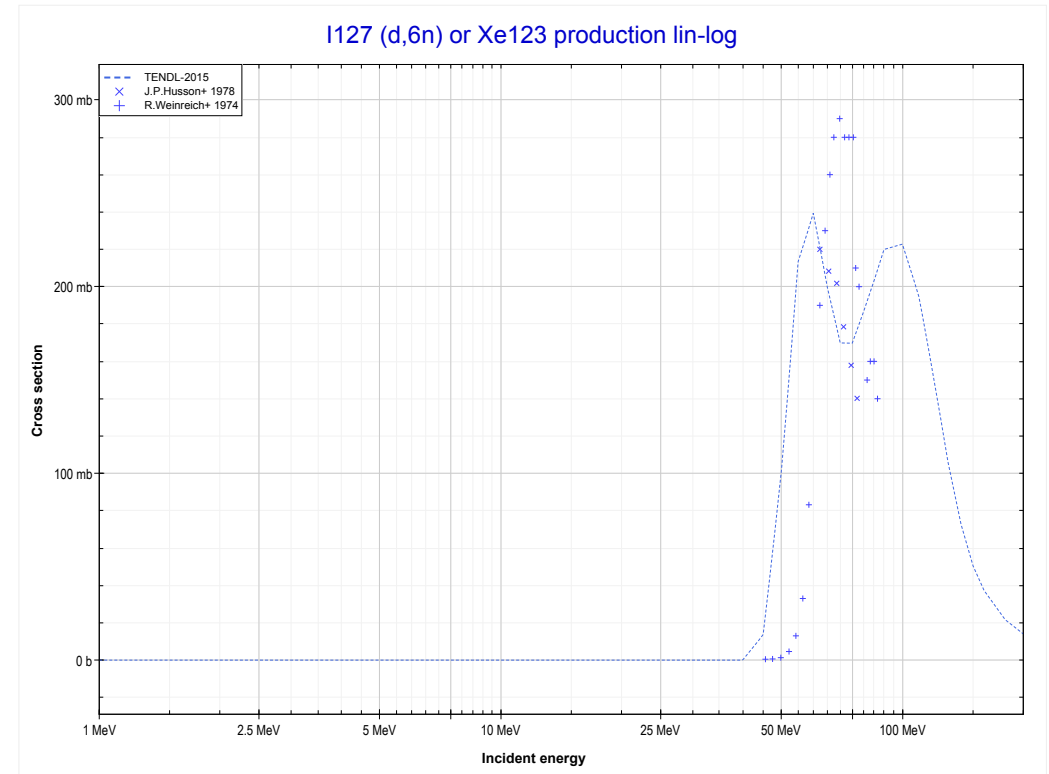
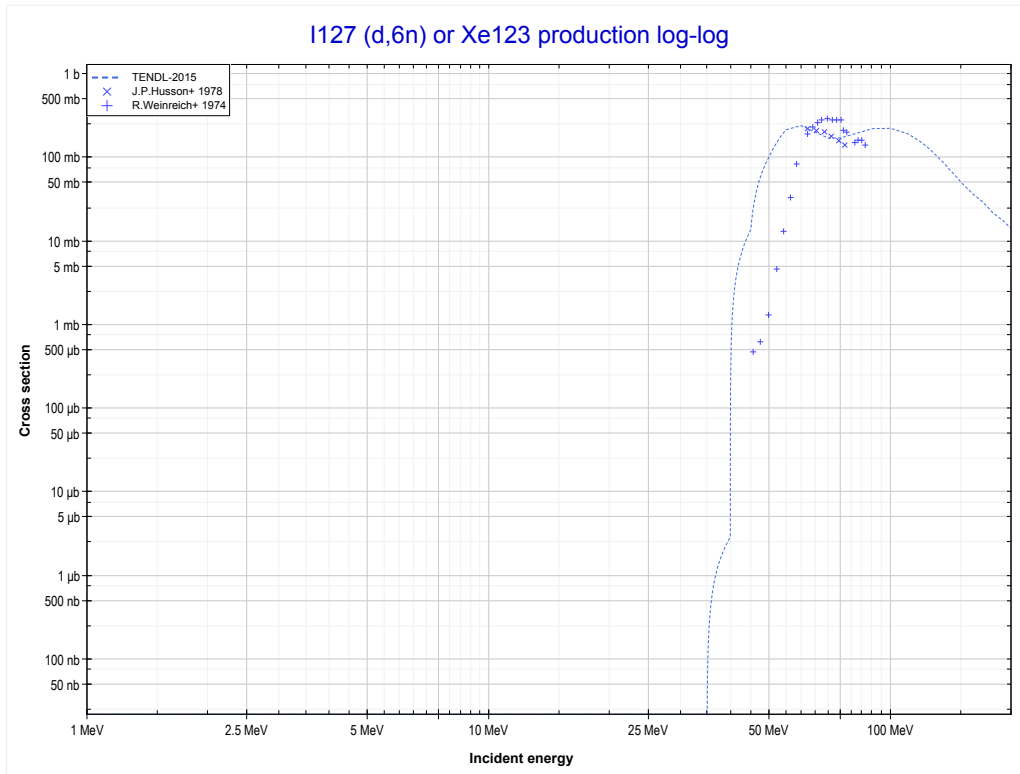
Reaction	Q-Value
I127(d,4n)Xe125	-20940.55 keV

<< 40-Zr-90	<b>53-I-127</b>	79-Au-197 >>
<< MT37 (d,4n)	<b>MT105 (d,t) or MT5 (I126 production)</b>	MT153 (d,6n) >>



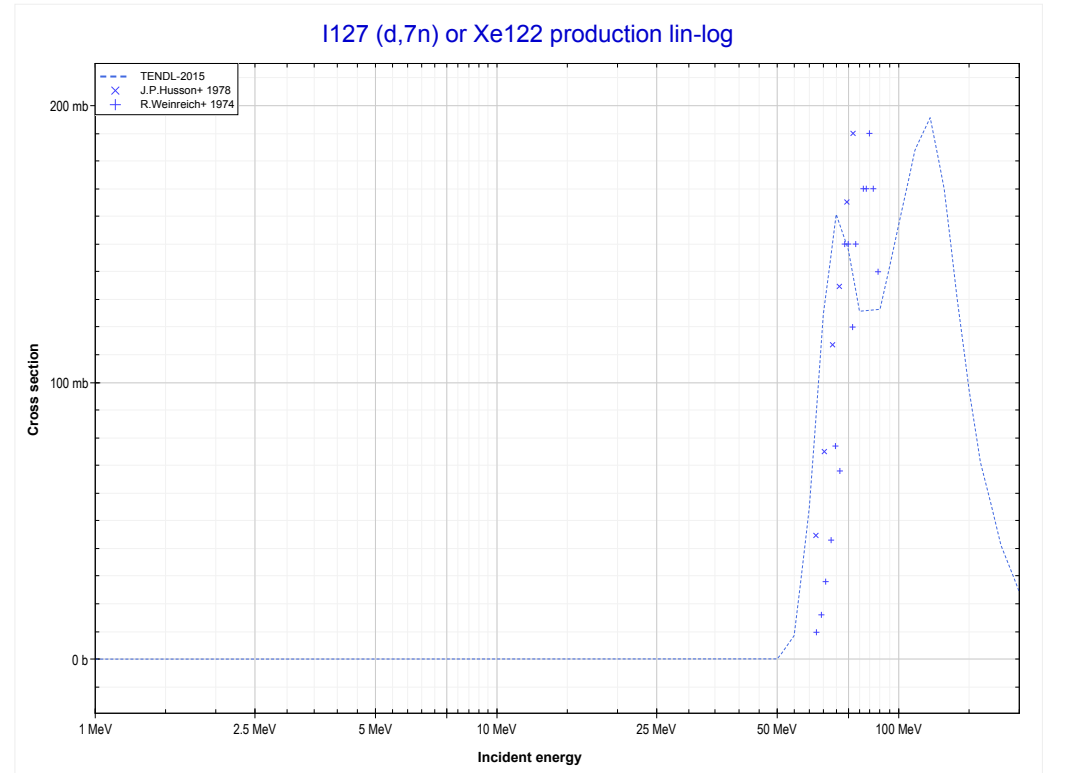
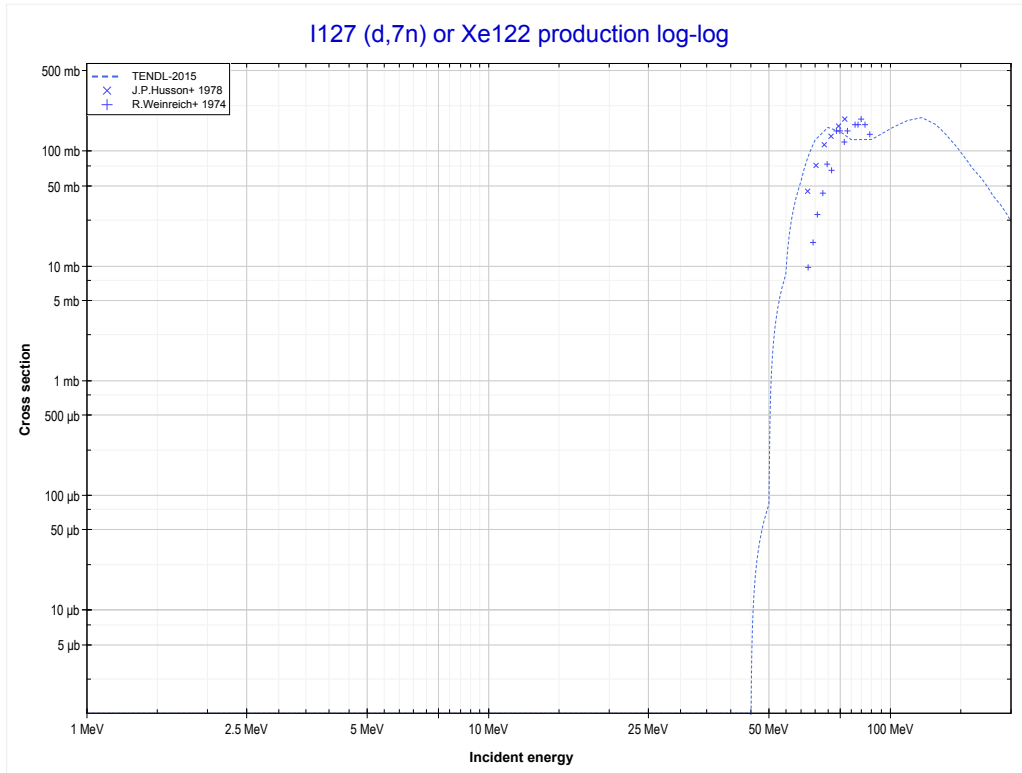
Reaction	Q-Value
I127(d,t)I126	-2887.08 keV
I127(d,n+d)I126	-9144.32 keV
I127(d,2n+p)I126	-11368.88 keV

	<b>53-I-127</b>	65-Tb-159 >>
<< MT105 (d,t)	<b>MT153 (d,6n) or MT5 (Xe123 production)</b>	MT160 (d,7n) >>



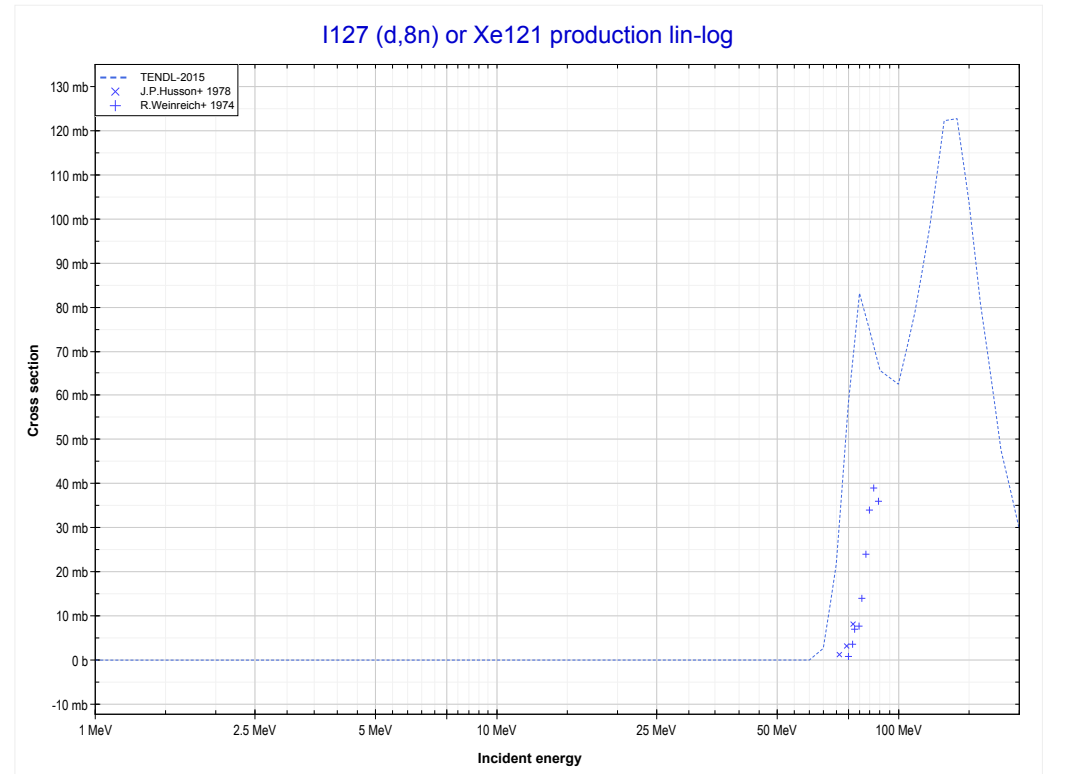
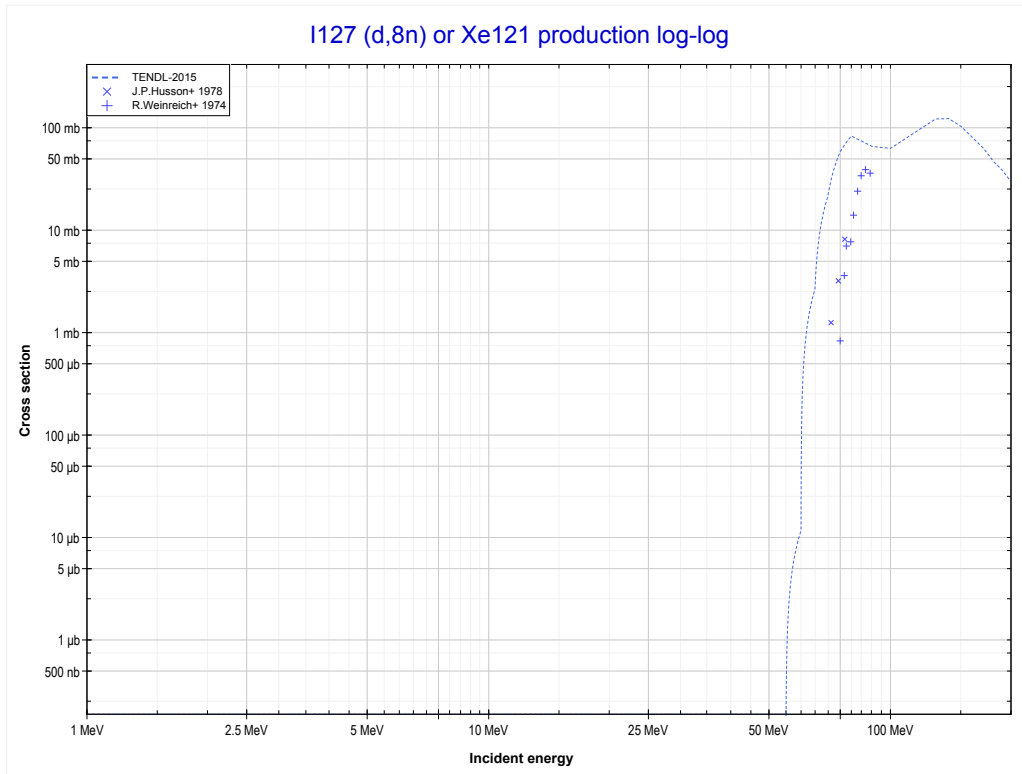
Reaction	Q-Value
I127(d,6n)Xe123	-39027.18 keV

	<b>53-I-127</b>	73-Ta-181 >>
<< MT153 (d,6n)	<b>MT160 (d,7n) or MT5 (Xe122 production)</b>	MT161 (d,8n) >>



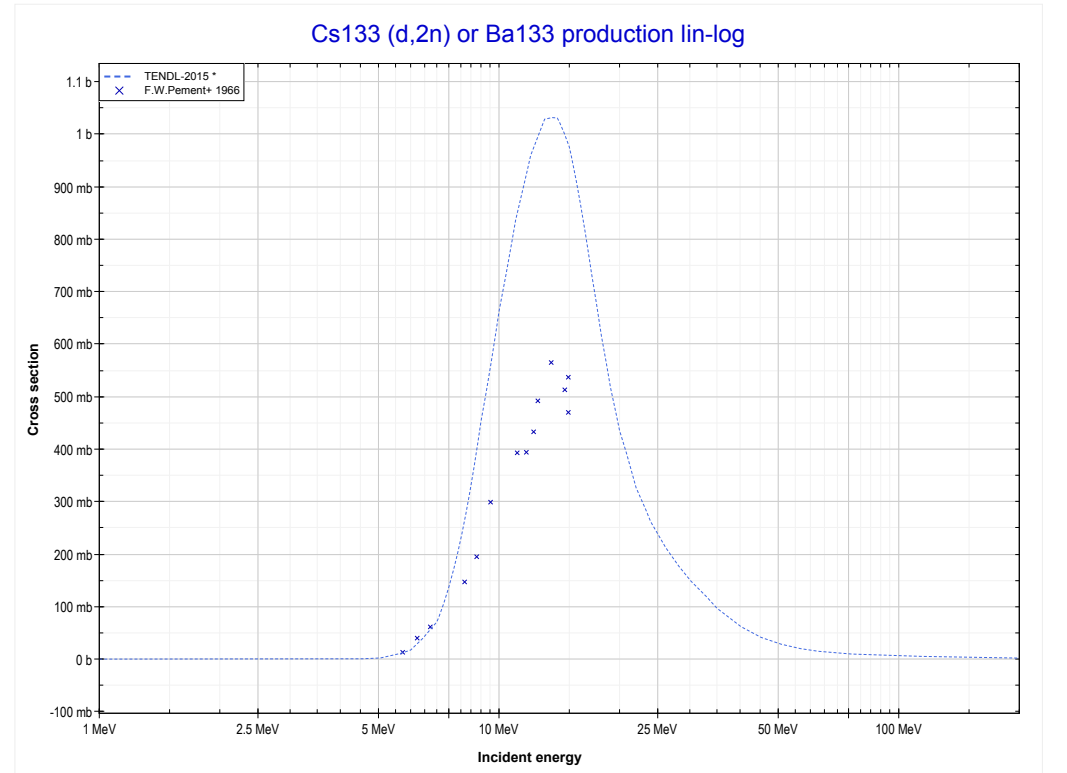
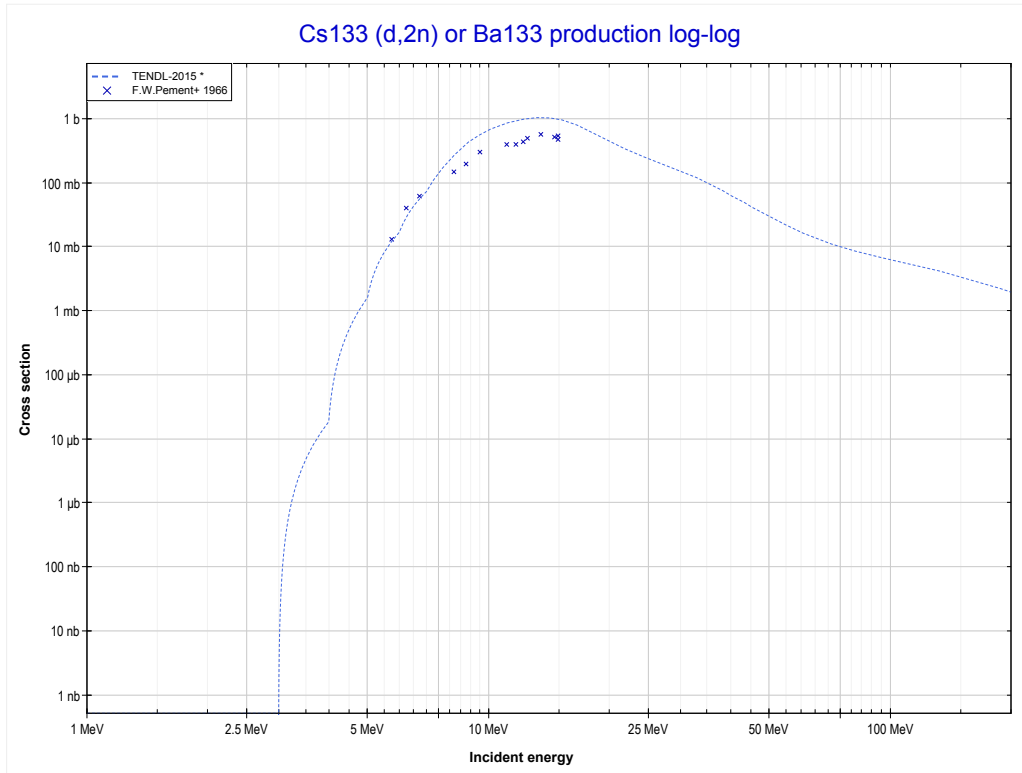
Reaction	Q-Value
I127(d,7n)Xe122	-46992.50 keV

	<b>53-I-127</b>	79-Au-197 >>
<< MT160 (d,7n)	<b>MT161 (d,8n) or MT5 (Xe121 production)</b>	55-Cs-133 MT16 (d,2n) >>



Reaction	Q-Value
I127(d,8n)Xe121	-57937.82 keV

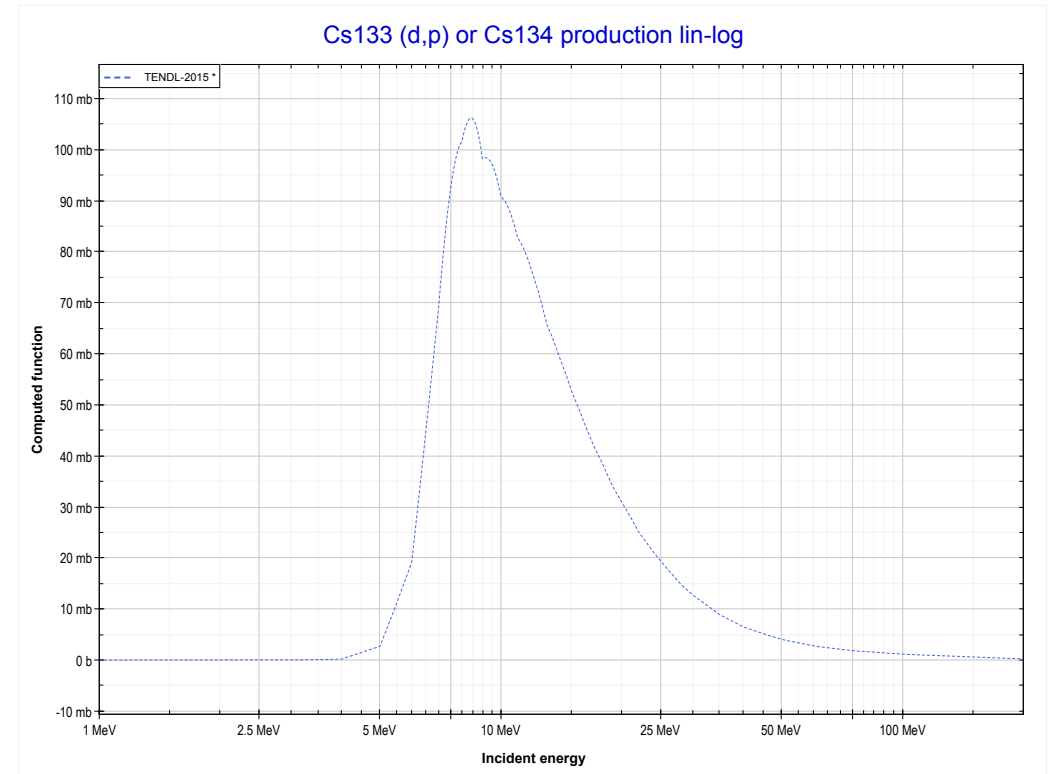
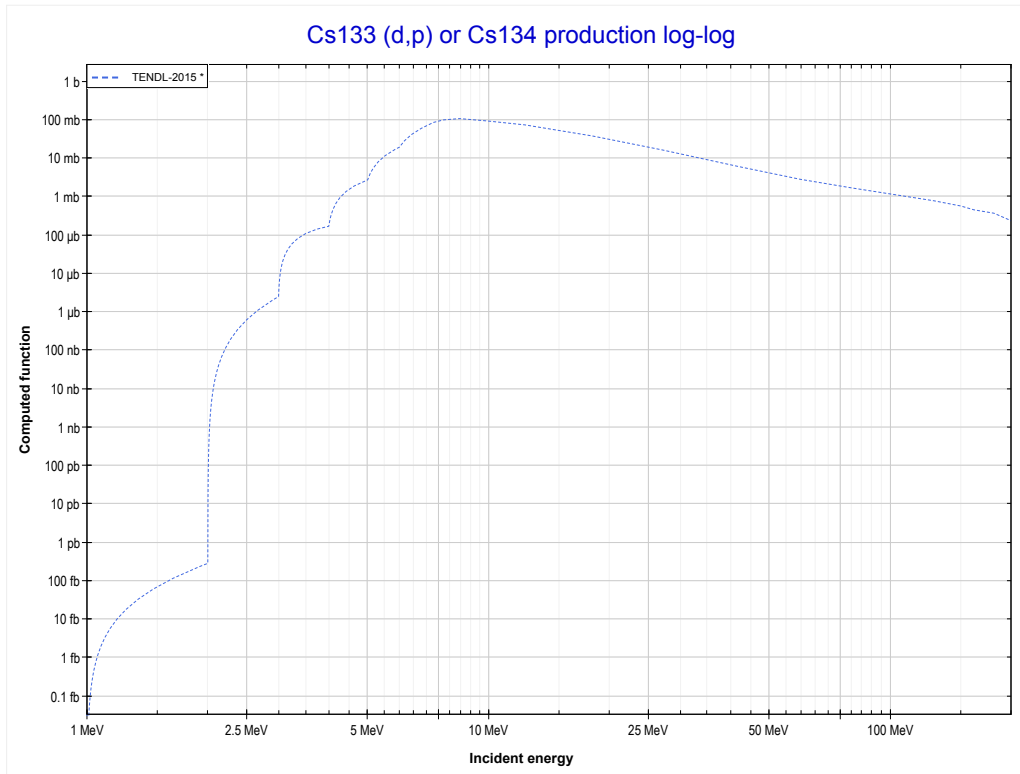
<< 53-I-127	<b>55-Cs-133</b>	58-Ce-142 >>
<< 53-I-127 MT161 (d,8n)	<b>MT16 (d,2n) or MT5 (Ba133 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Cs133(d,2n)Ba133	-3524.24 keV

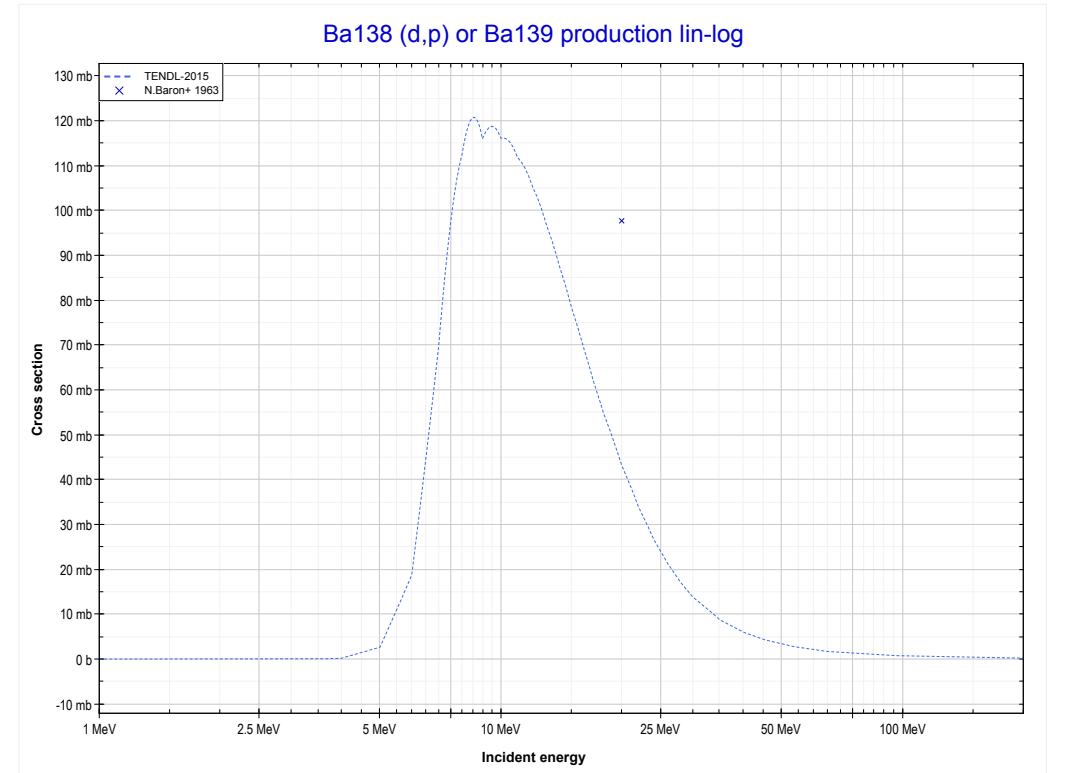
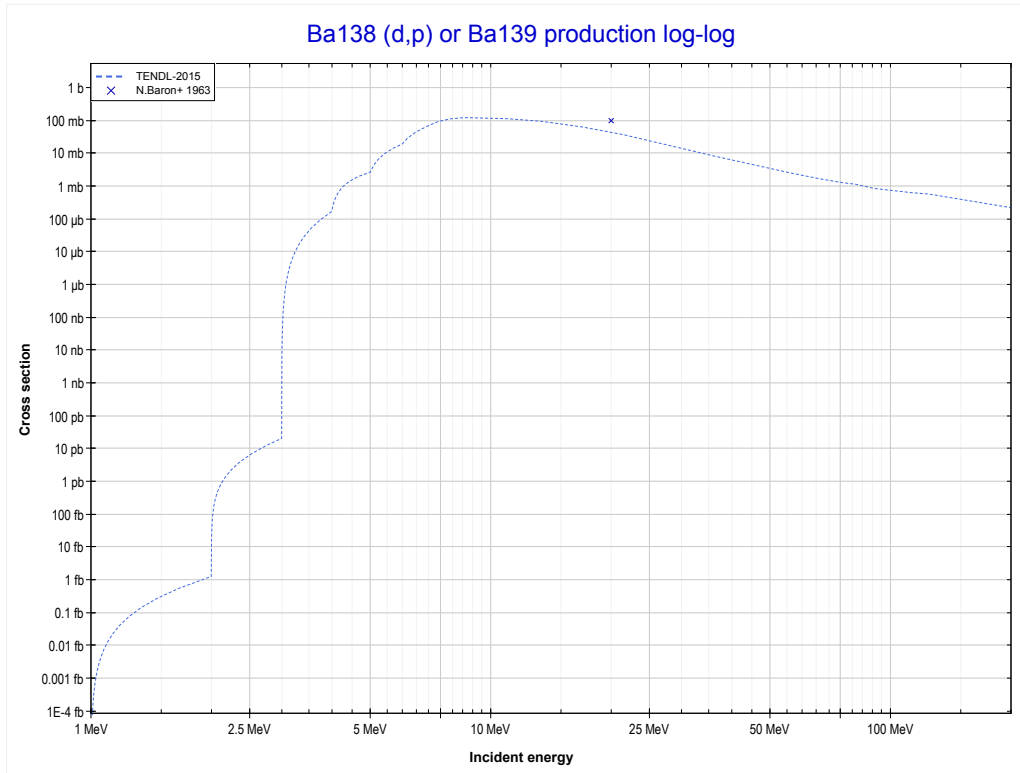


<< 52-Te-130	<b>55-Cs-133</b>	56-Ba-138 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Cs134 production)</b>	56-Ba-138 MT103 (d,p) >>



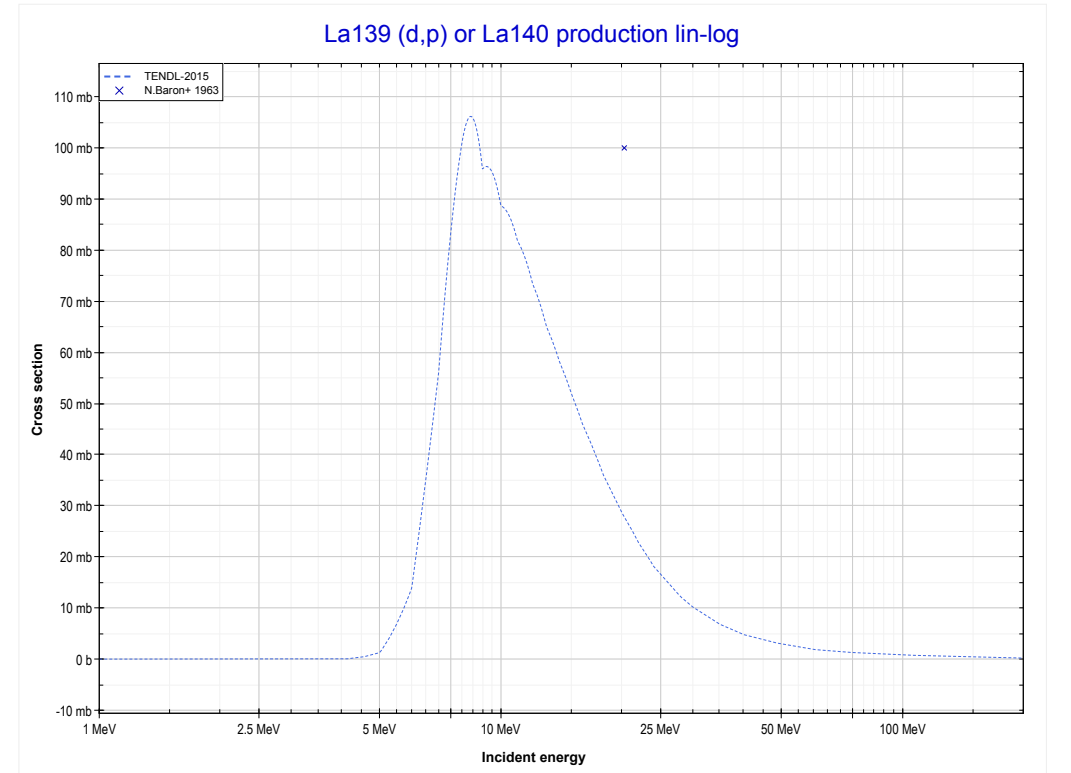
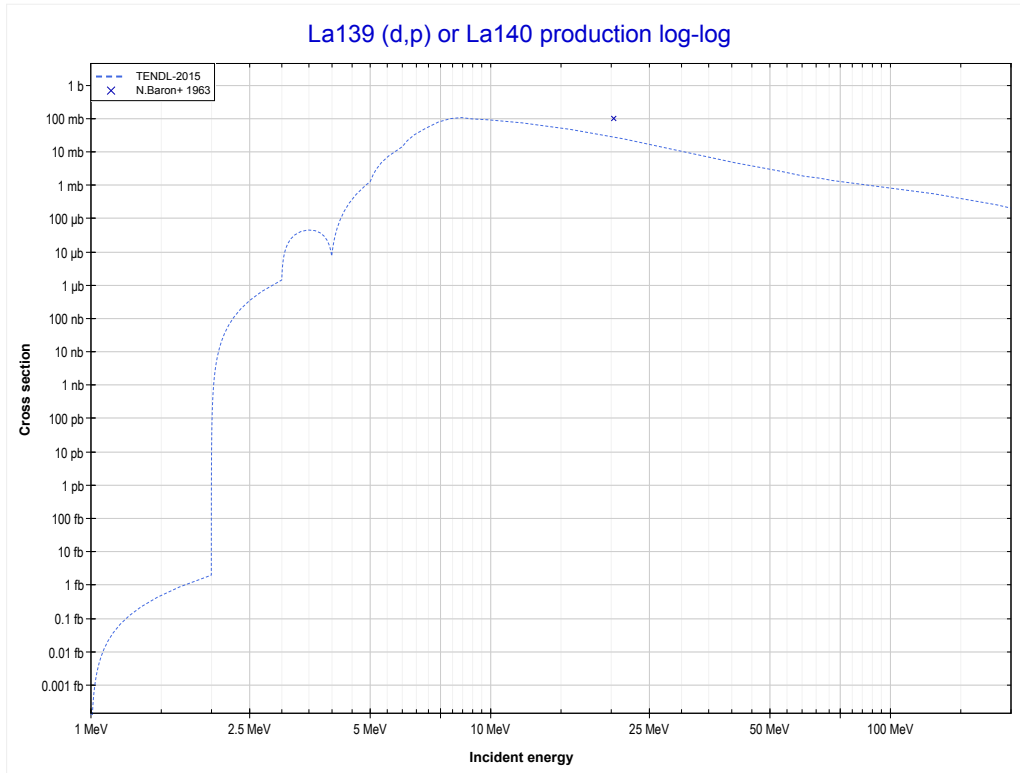
Reaction	Q-Value
Cs133(d,p)Cs134	4666.97 keV

<< 55-Cs-133	<b>56-Ba-138</b>	57-La-139 >>
<< 55-Cs-133 MT103 (d,p)	<b>MT103 (d,p) or MT5 (Ba139 production)</b>	57-La-139 MT103 (d,p) >>



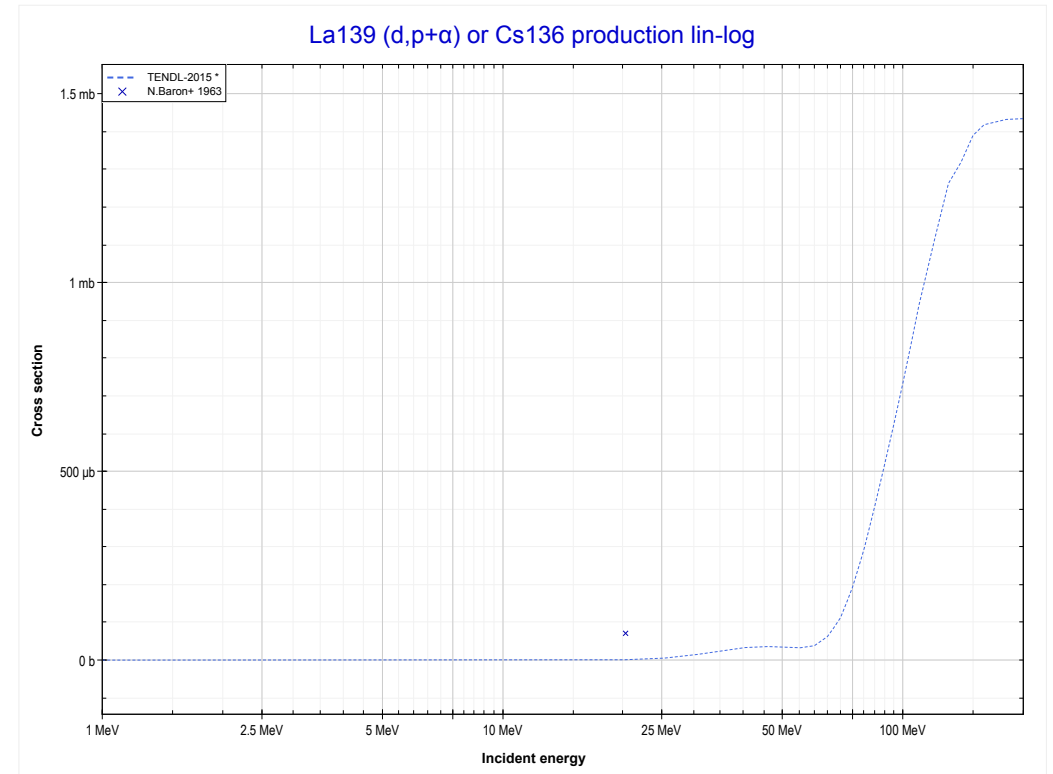
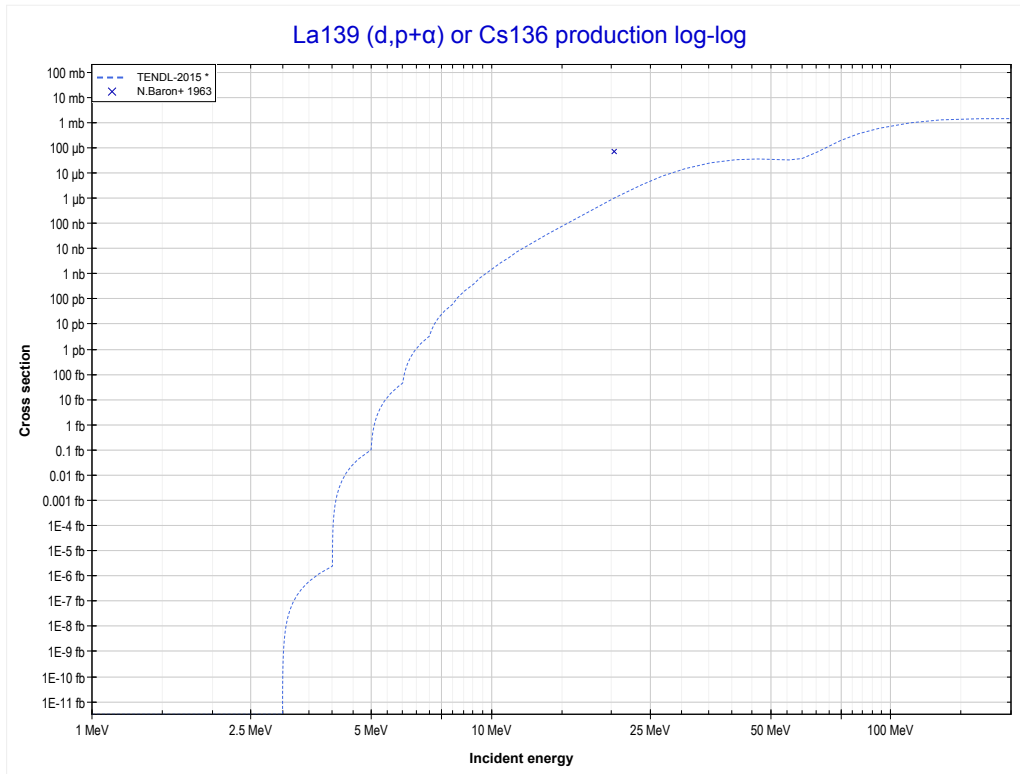
Reaction	Q-Value
Ba138(d,p)Ba139	2498.86 keV

<< 56-Ba-138	<b>57-La-139</b>	58-Ce-142 >>
<< 56-Ba-138 MT103 (d,p)	<b>MT103 (d,p) or MT5 (La140 production)</b>	MT112 (d,p+α) >>



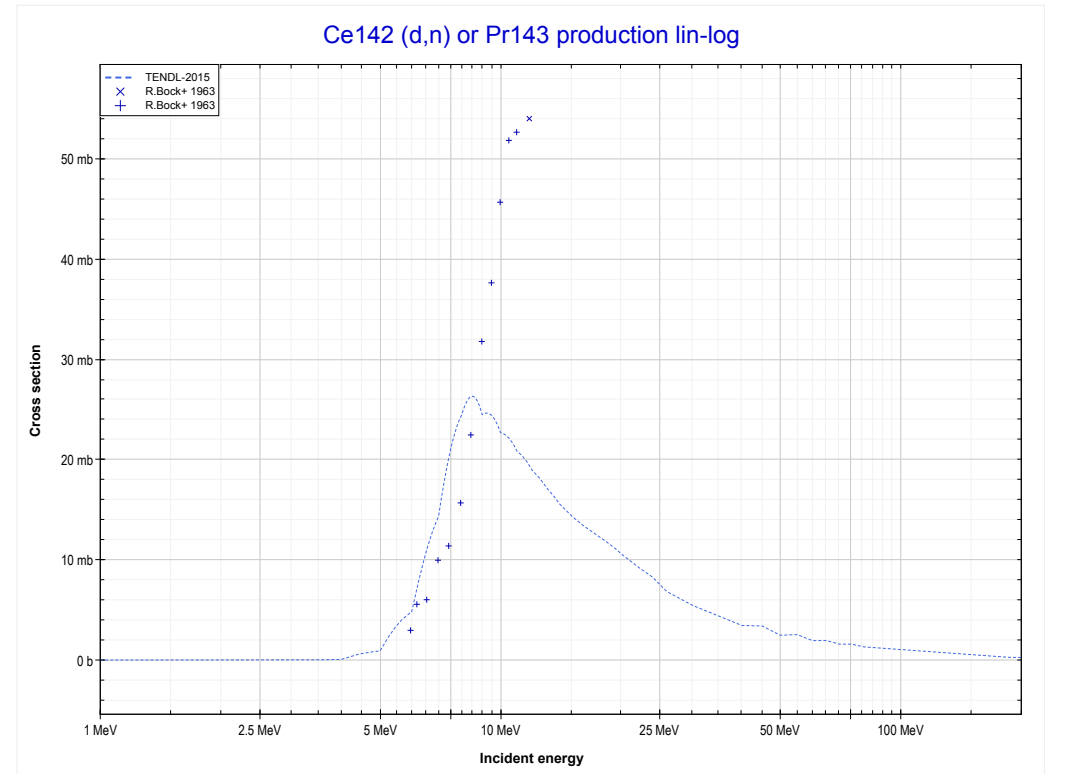
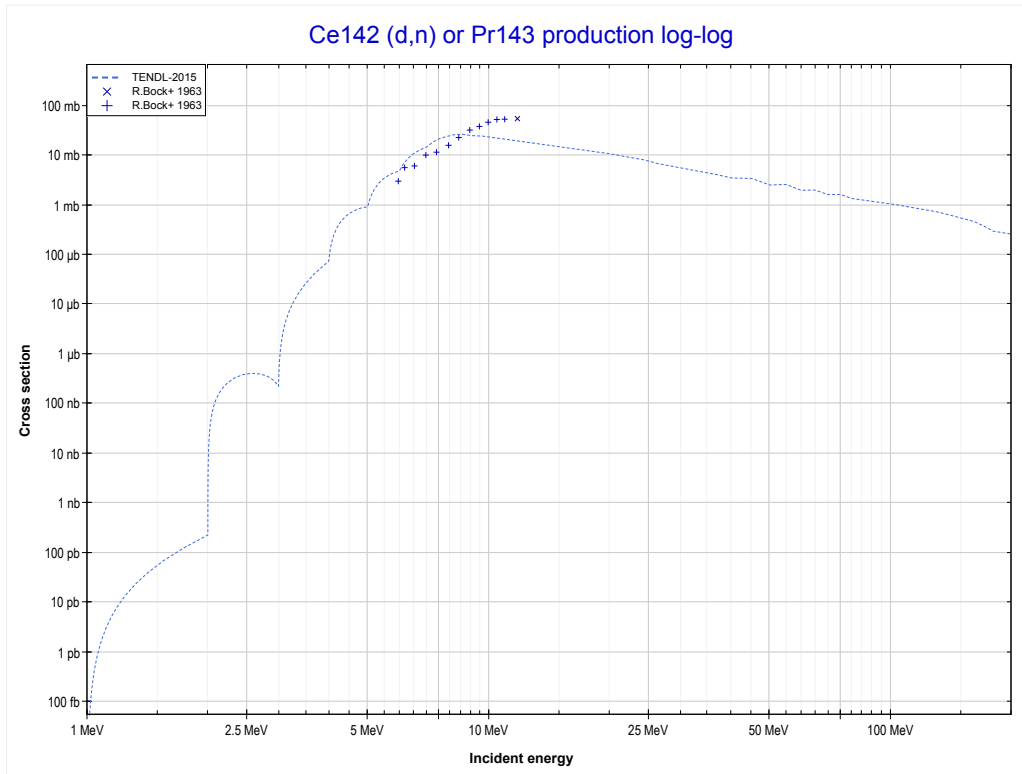
Reaction	Q-Value
La139(d,p)La140	2936.35 keV

<< 49-In-115	<b>57-La-139</b>	
<< MT103 (d,p)	<b>MT112 (d,p+α) or MT5 (Cs136 production)</b>	58-Ce-142 MT4 (d,n) >>



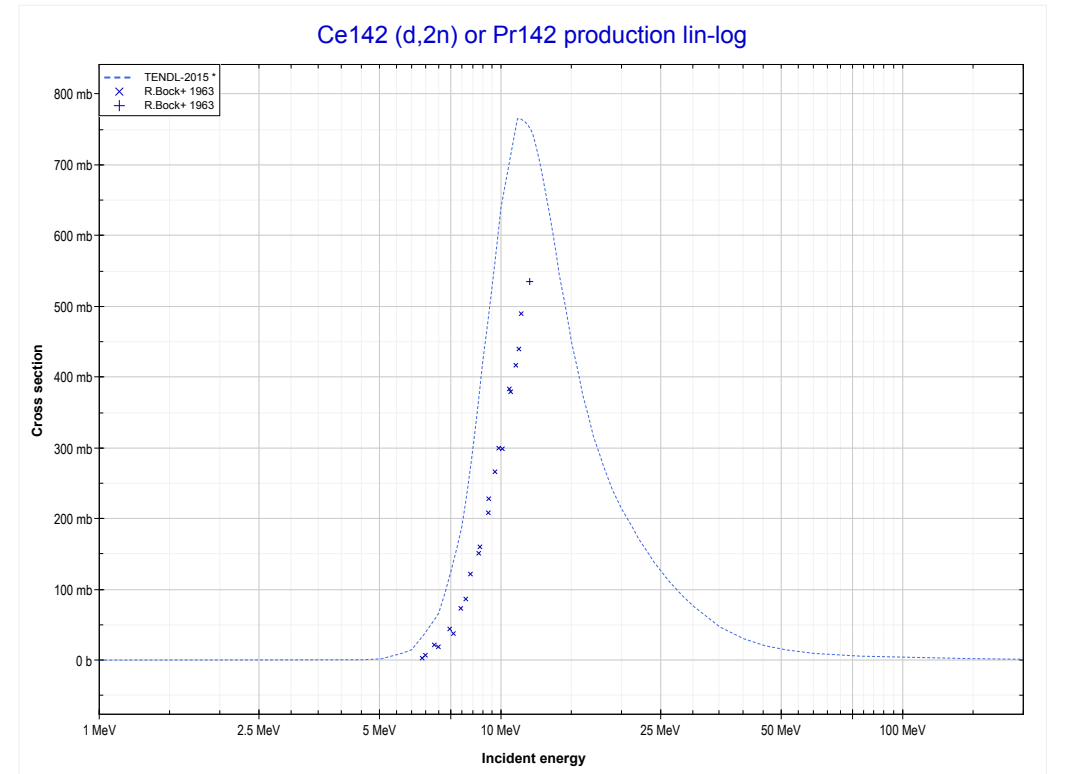
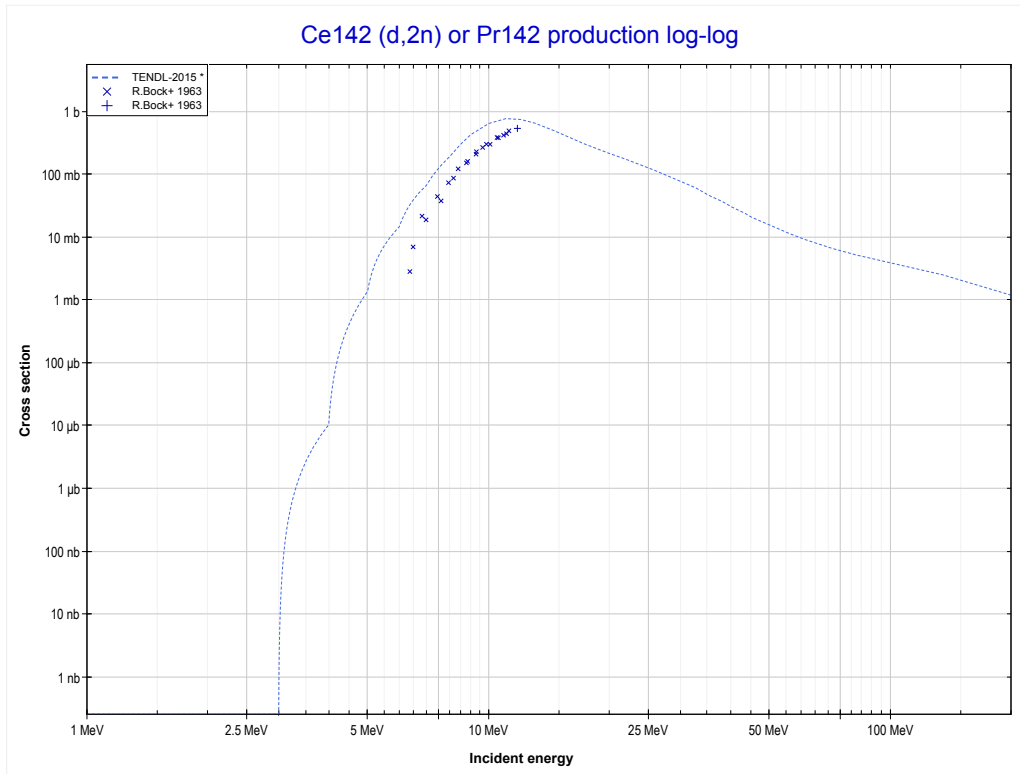
Reaction	Q-Value
La139(d,p+α)Cs136	2532.14 keV
La139(d,d+He3)Cs136	-15820.92 keV
La139(d,2p+t)Cs136	-17281.73 keV
La139(d,n+p+He3)Cs136	-18045.48 keV
La139(d,p+2d)Cs136	-21314.39 keV
La139(d,n+2p+d)Cs136	-23538.96 keV
La139(d,2n+3p)Cs136	-25763.52 keV

<< 52-Te-124	<b>58-Ce-142</b>	70-Yb-176 >>
<< 57-La-139 MT112 (d,p+α)	<b>MT4 (d,n) or MT5 (Pr143 production)</b>	MT16 (d,2n) >>



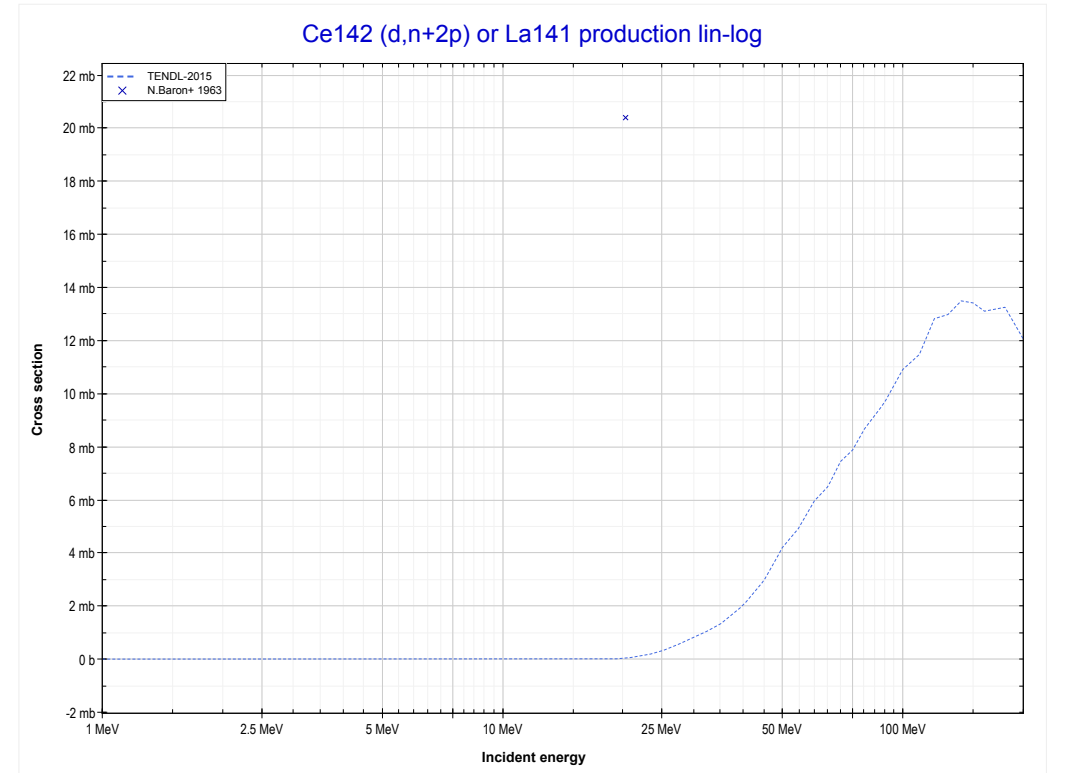
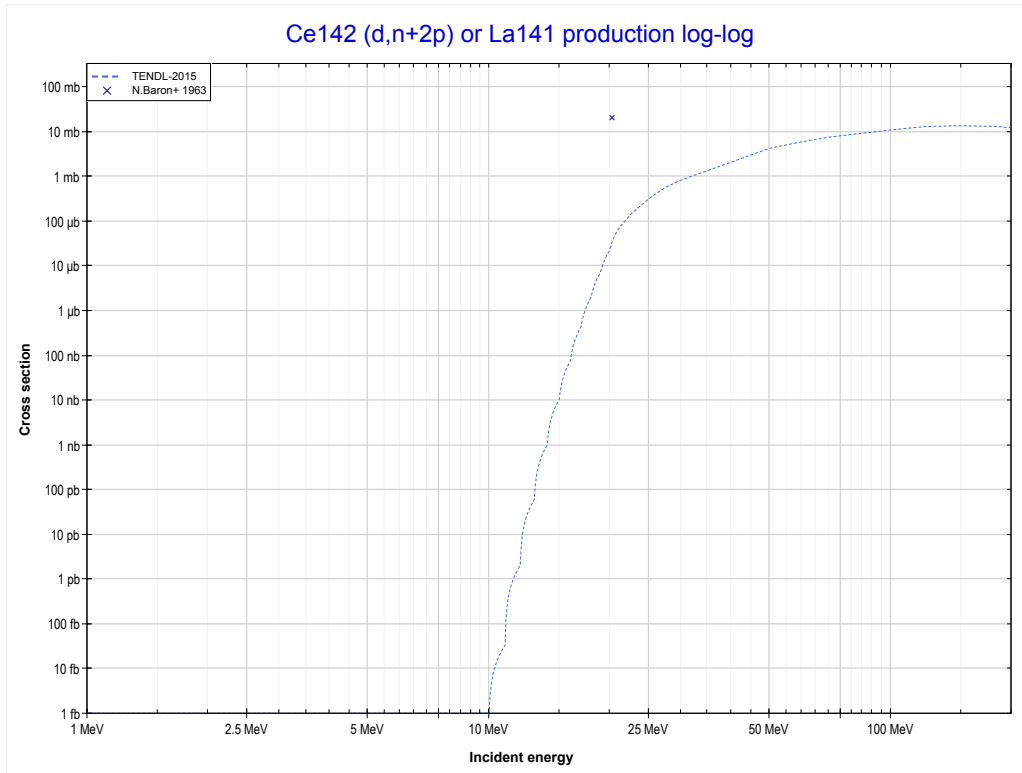
<b>Reaction</b>	<b>Q-Value</b>
Ce142(d,n)Pr143	3599.70 keV

<< 55-Cs-133	<b>58-Ce-142</b>	59-Pr-141 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Pr142 production)</b>	MT44 (d,n+2p) >>



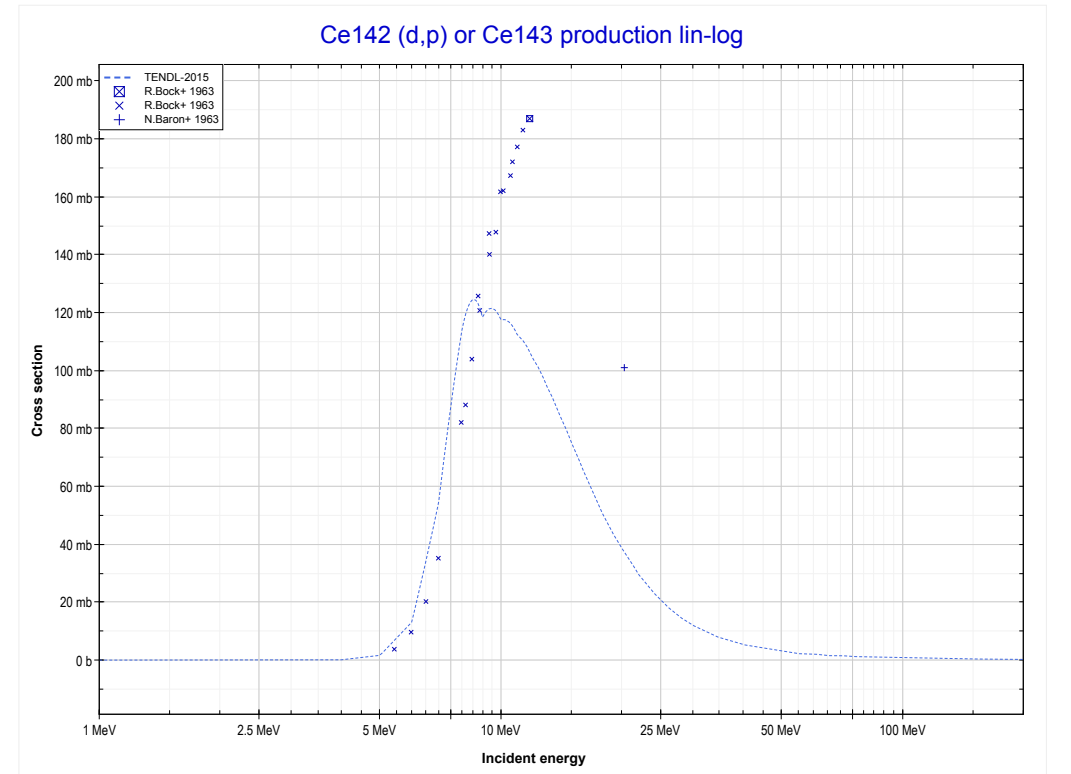
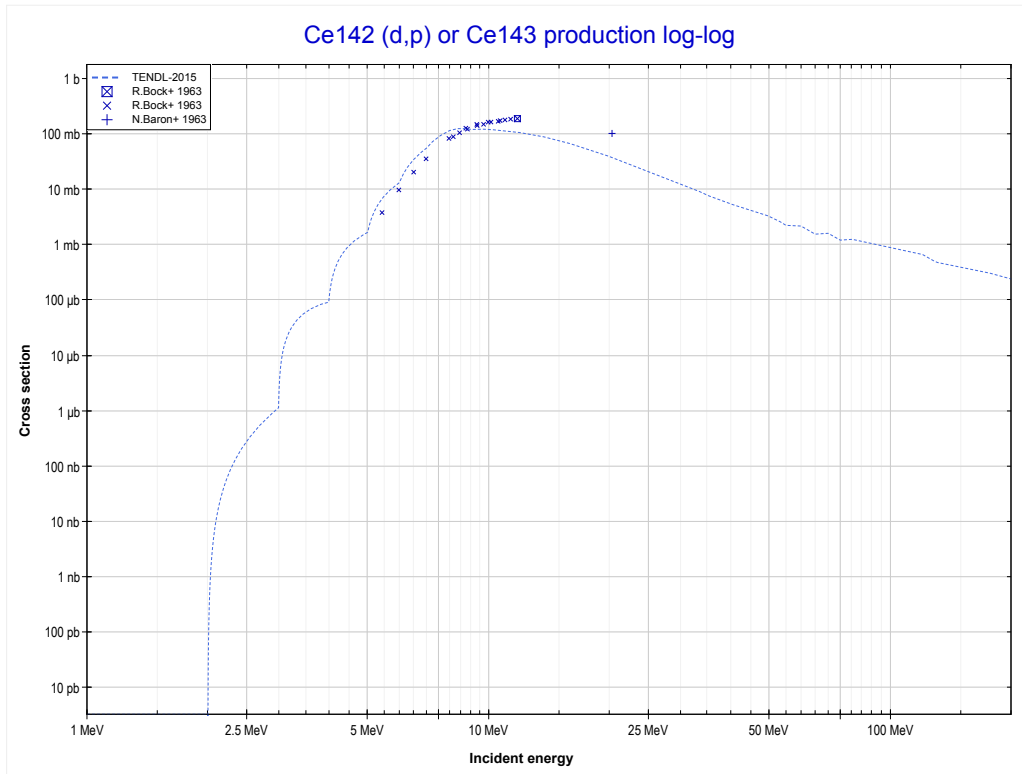
Reaction	Q-Value
Ce142(d,2n)Pr142	-3751.31 keV

<< 28-Ni-58	<b>58-Ce-142</b>	73-Ta-181 >>
<< MT16 (d,2n)	<b>MT44 (d,n+2p) or MT5 (La141 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Ce142(d,He3)La141	-3393.19 keV
Ce142(d,p+d)La141	-8886.67 keV
Ce142(d,n+2p)La141	-11111.24 keV

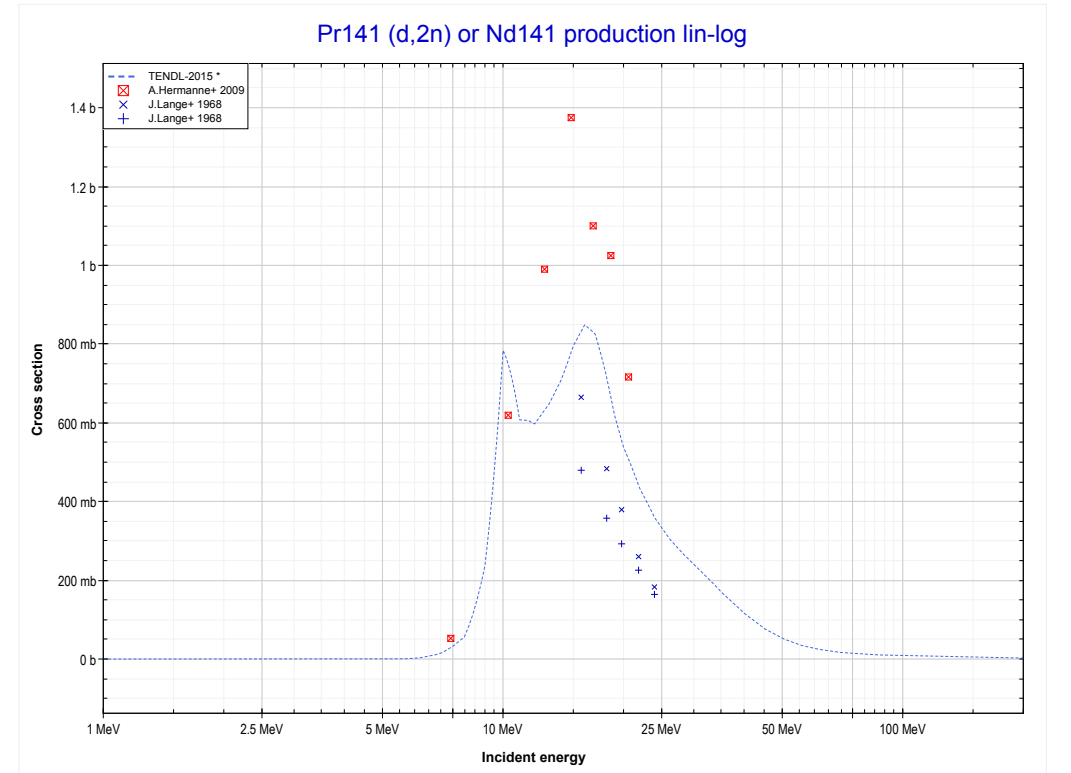
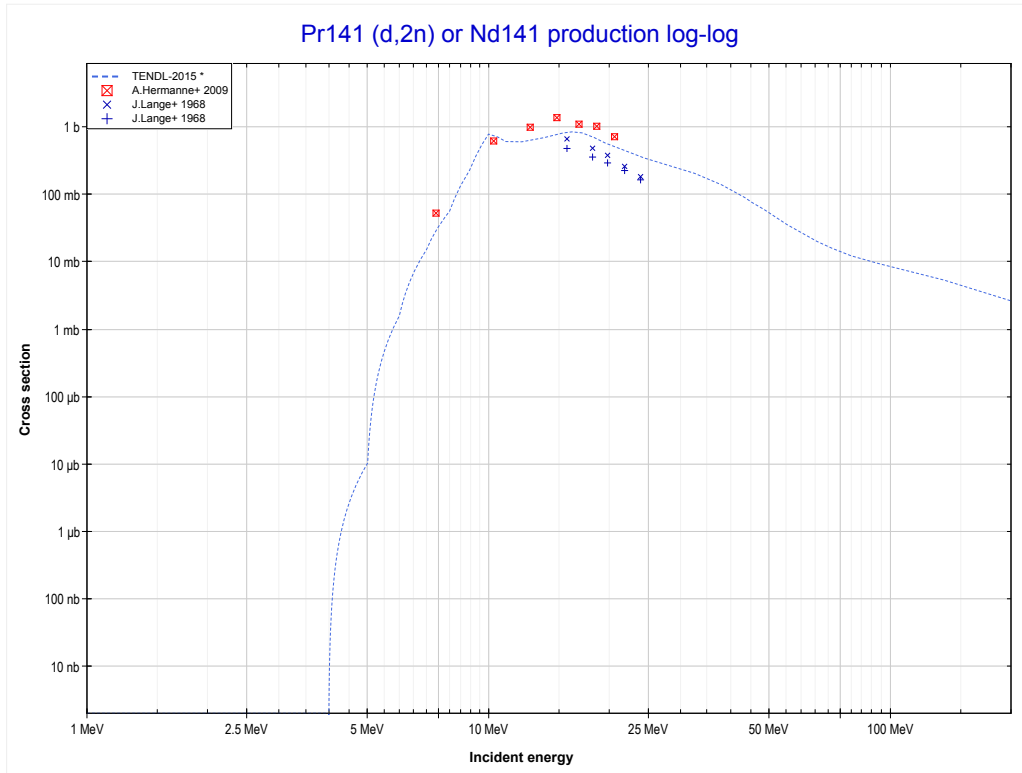
<< 57-La-139	<b>58-Ce-142</b>	59-Pr-141 >>
<< MT44 (d,n+2p)	<b>MT103 (d,p) or MT5 (Ce143 production)</b>	59-Pr-141 MT16 (d,2n) >>



Reaction	Q-Value
Ce142(d,p)Ce143	2920.25 keV

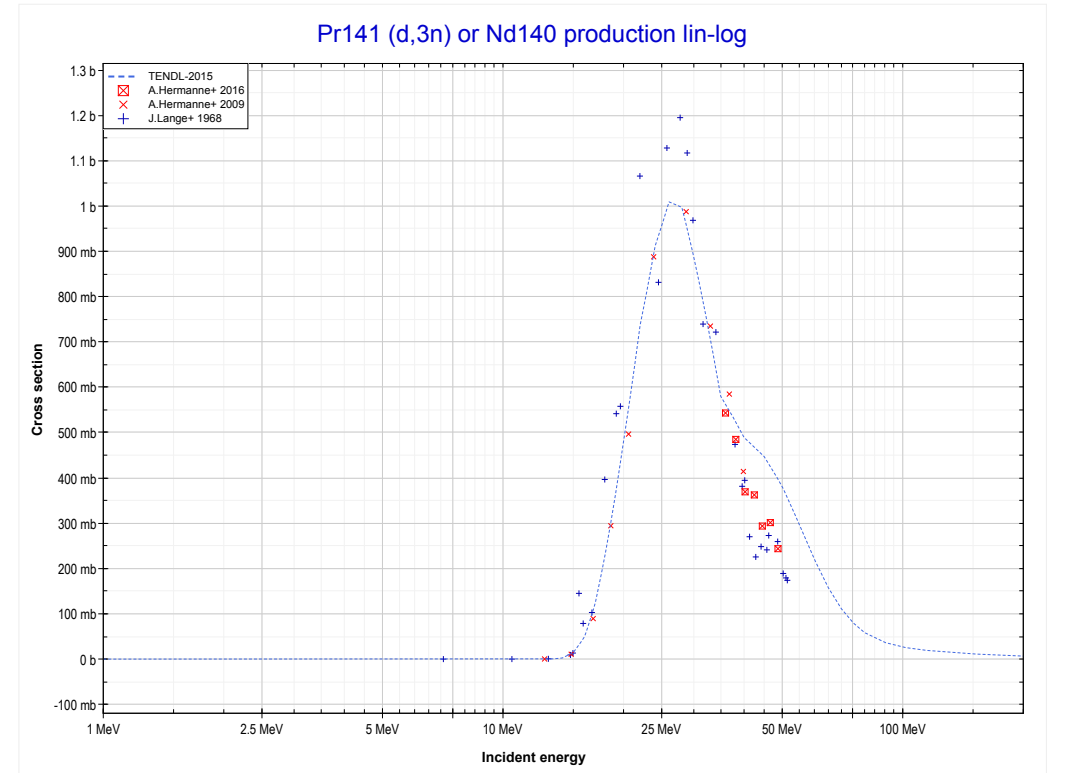
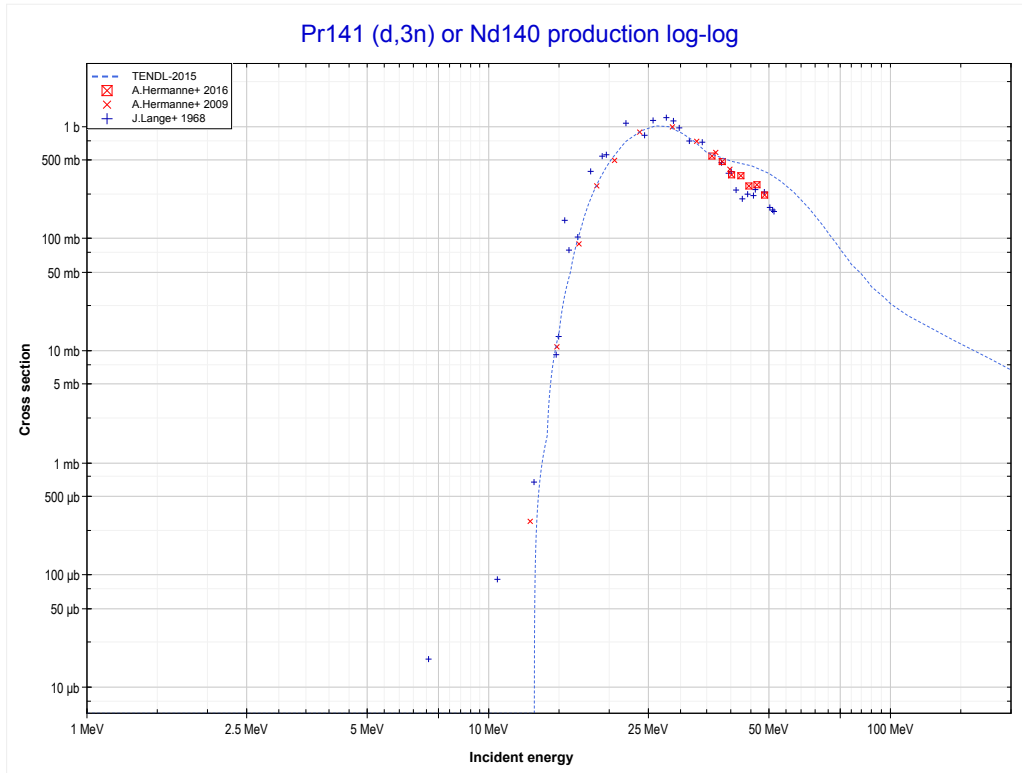


<< 58-Ce-142	<b>59-Pr-141</b>	60-Nd-148 >>
<< 58-Ce-142 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (Nd141 production)</b>	MT17 (d,3n) >>



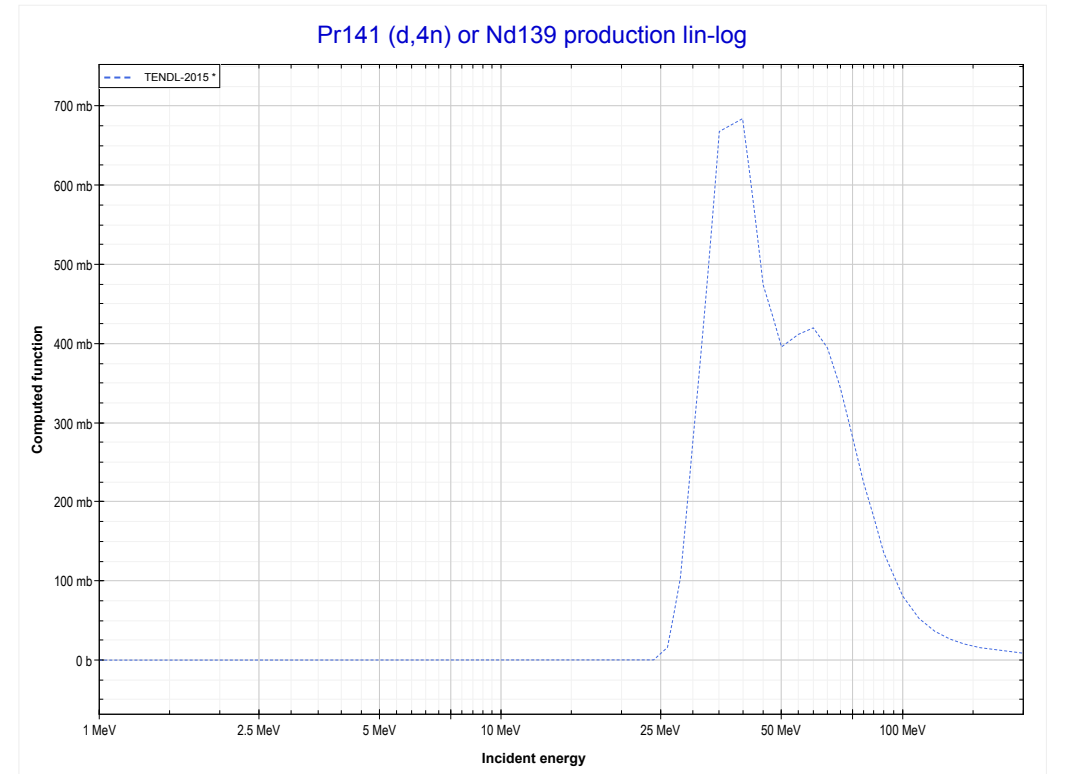
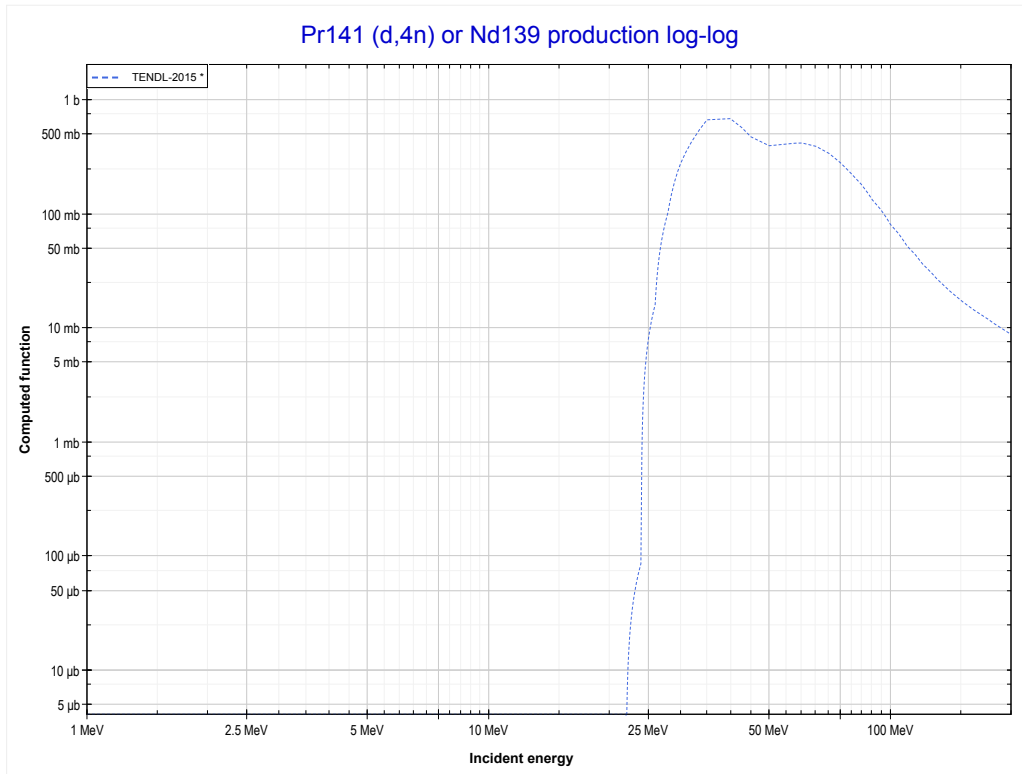
Reaction	Q-Value
Pr141(d,2n)Nd141	-4830.31 keV

<< 53-I-127	<b>59-Pr-141</b>	68-Er-166 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Nd140 production)</b>	MT37 (d,4n) >>



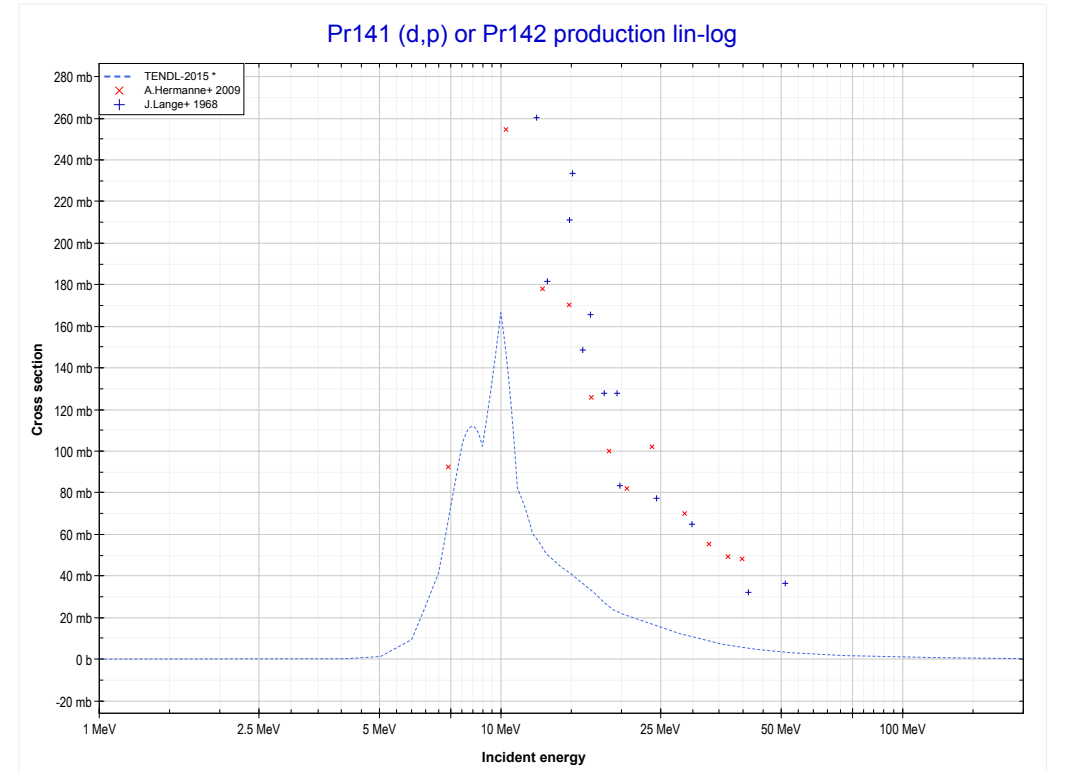
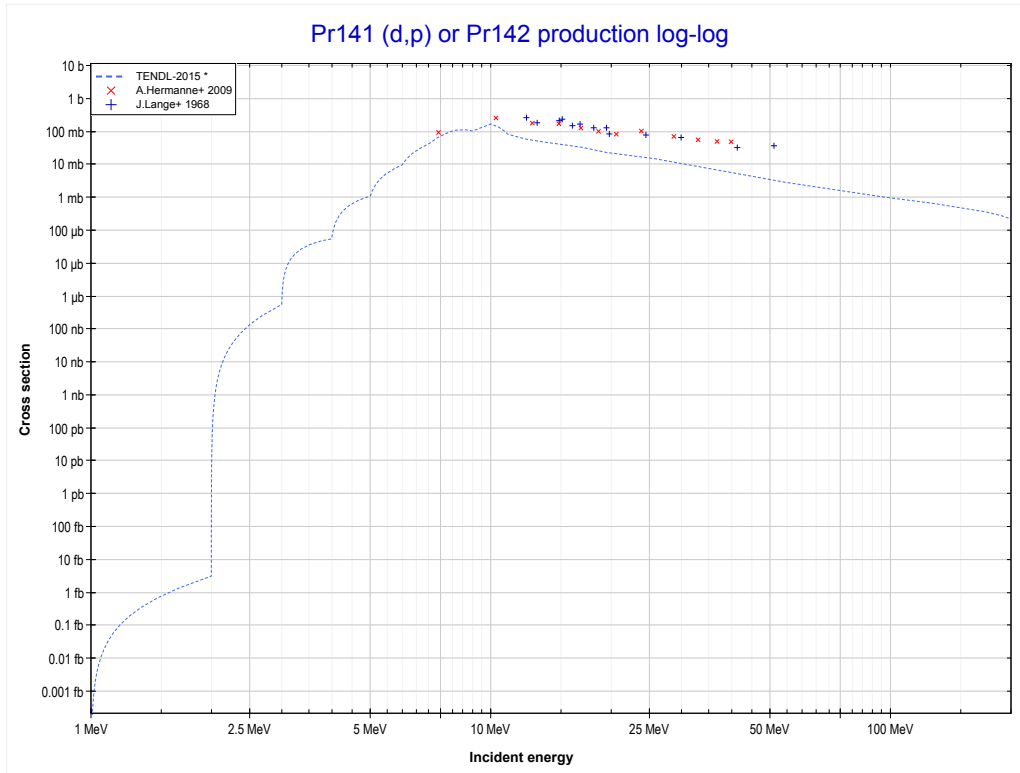
Reaction	Q-Value
Pr141(d,3n)Nd140	-12840.63 keV

<< 53-I-127	<b>59-Pr-141</b>	63-Eu-151 >>
<< MT17 (d,3n)	<b>MT37 (d,4n) or MT5 (Nd139 production)</b>	MT103 (d,p) >>



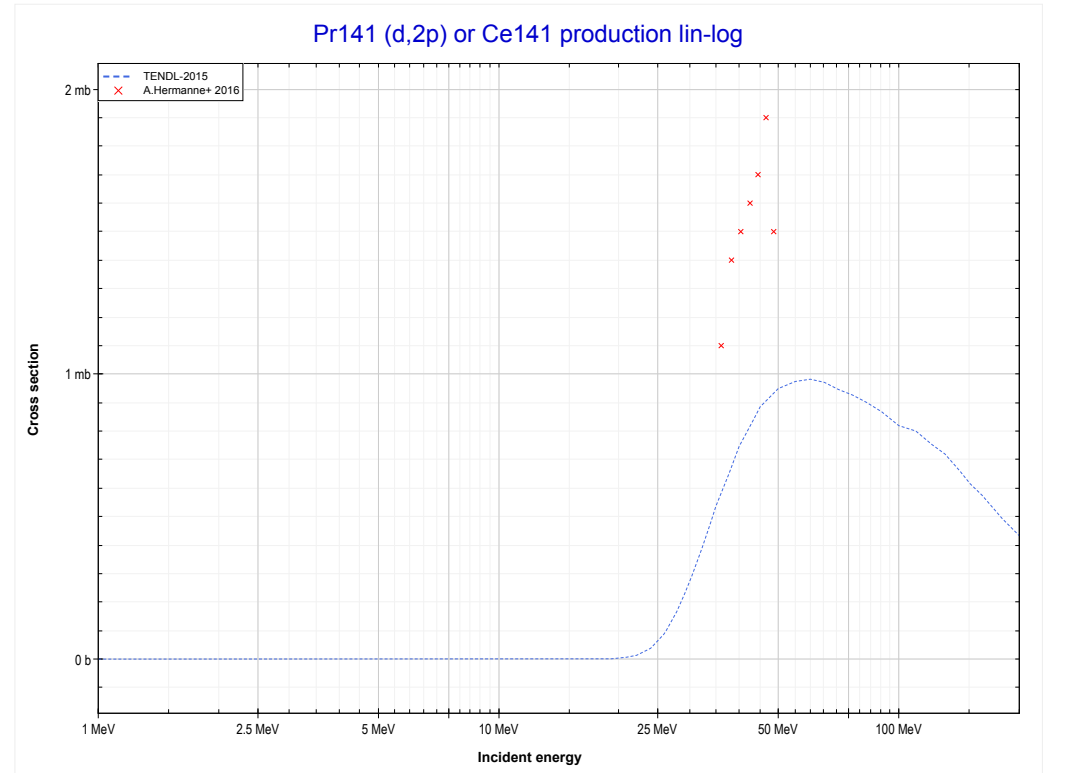
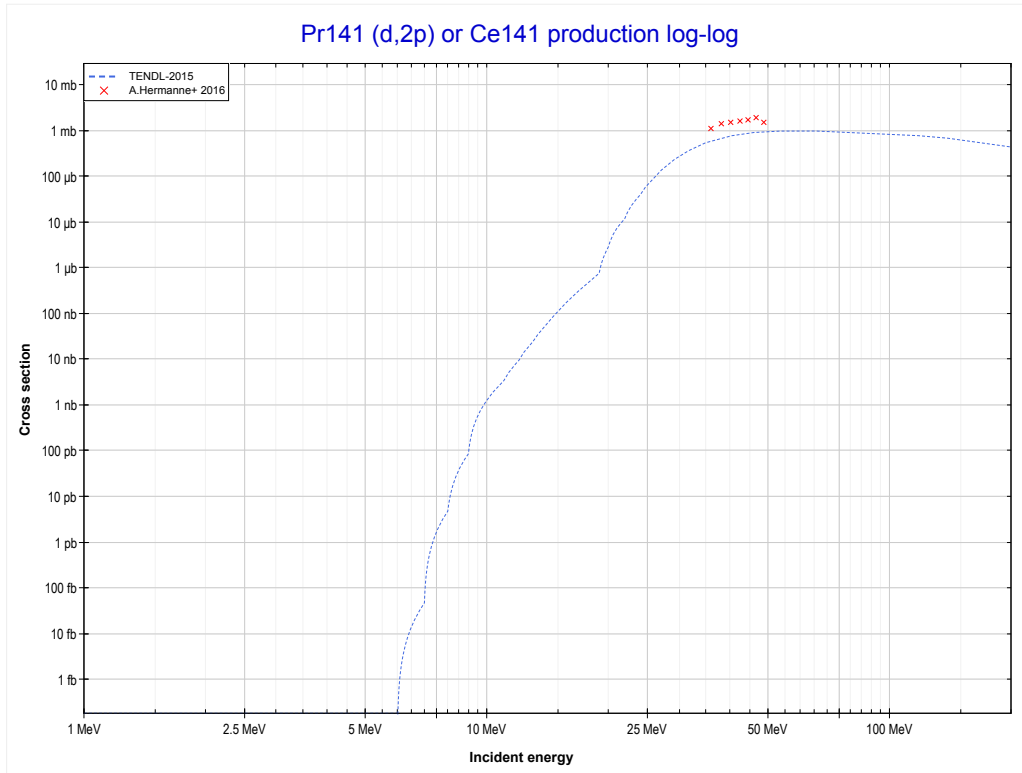
<b>Reaction</b>	<b>Q-Value</b>
Pr141(d,4n)Nd139	-23150.95 keV

<< 58-Ce-142	<b>59-Pr-141</b>	65-Tb-159 >>
<< MT37 (d,4n)	<b>MT103 (d,p) or MT5 (Pr142 production)</b>	MT111 (d,2p) >>



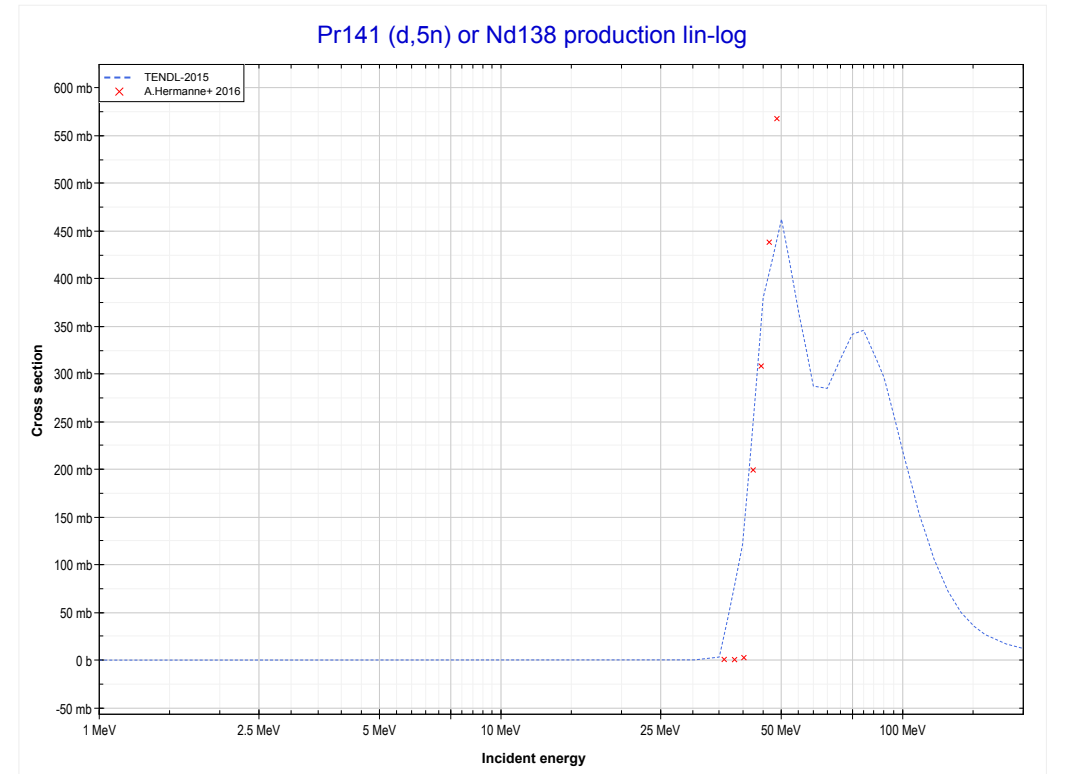
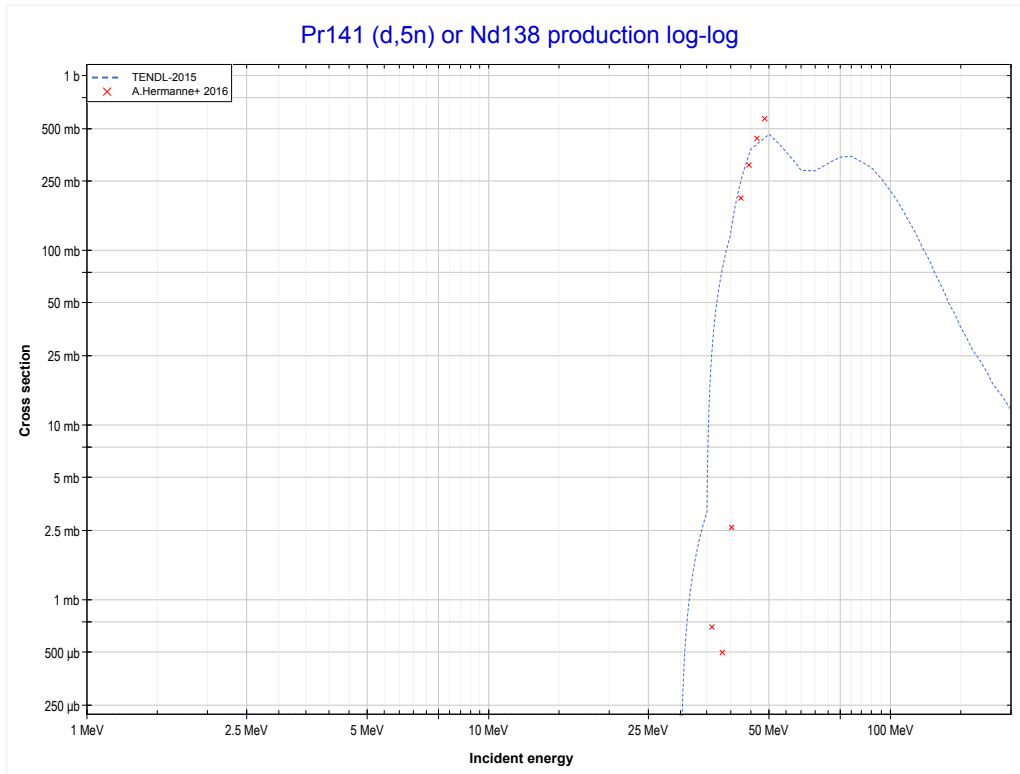
Reaction	Q-Value
Pr141(d,p)Pr142	3618.65 keV

<< 47-Ag-109	<b>59-Pr-141</b>	73-Ta-181 >>
<< MT103 (d,p)	<b>MT111 (d,2p) or MT5 (Ce141 production)</b>	MT152 (d,5n) >>



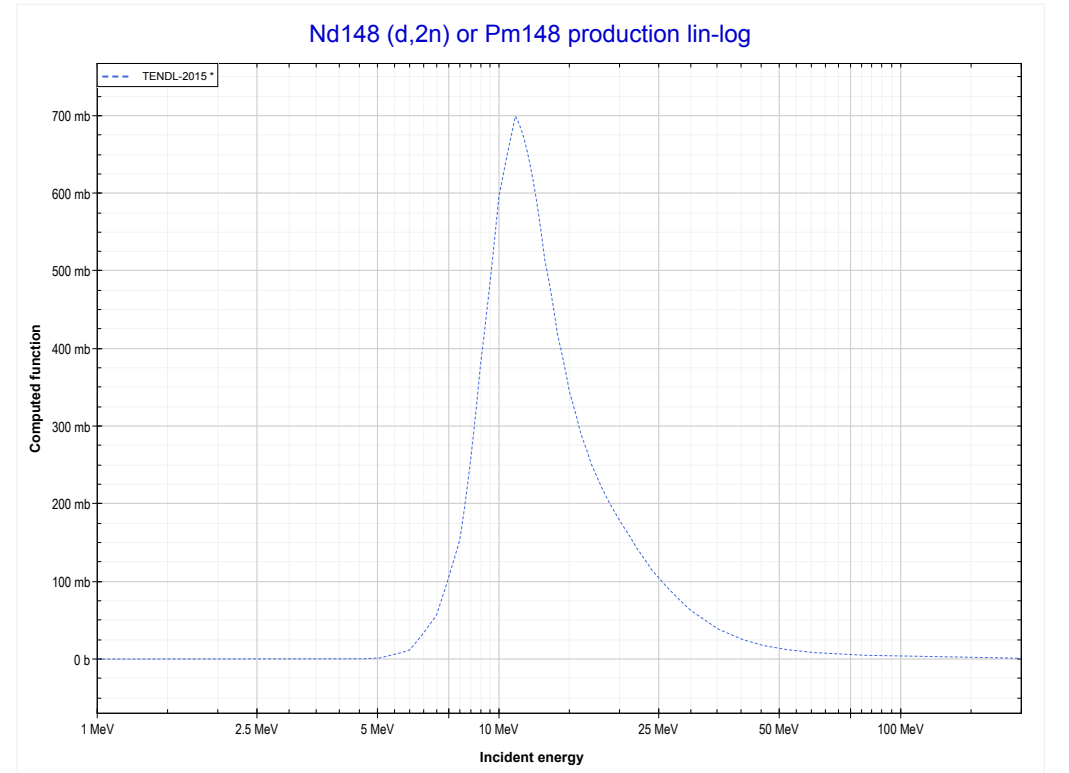
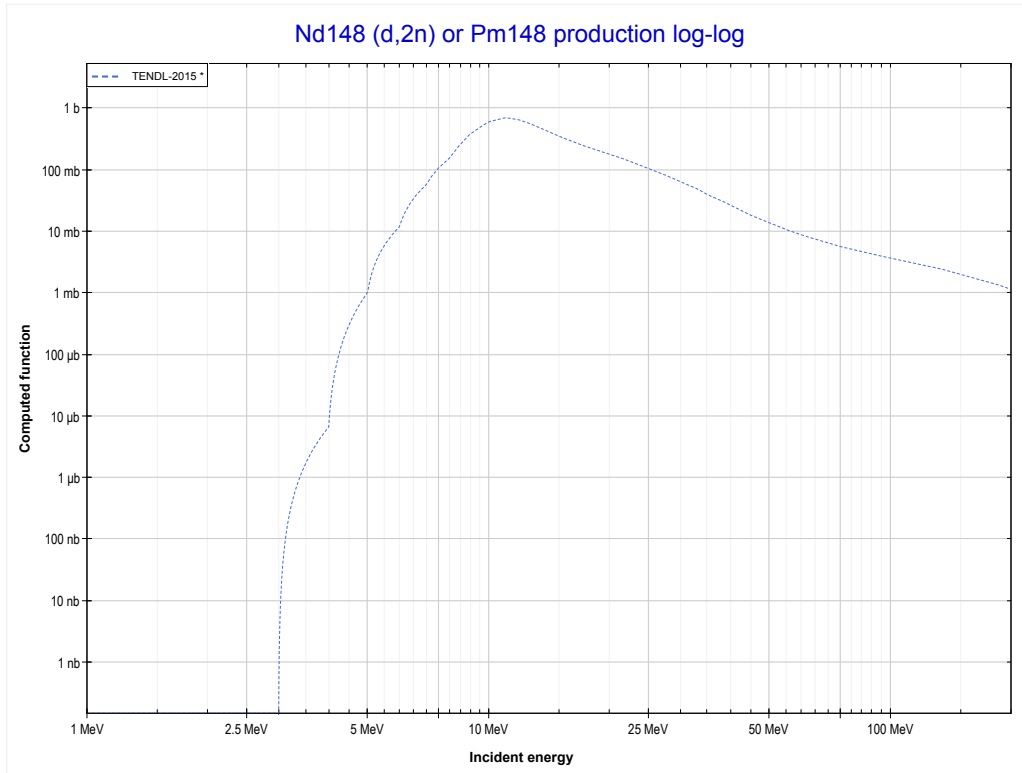
Reaction	Q-Value
Pr141(d,2p)Ce141	-2022.62 keV

<< 48-Cd-112	<b>59-Pr-141</b>	69-Tm-169 >>
<< MT111 (d,2p)	<b>MT152 (d,5n) or MT5 (Nd138 production)</b>	60-Nd-148 MT16 (d,2n) >>



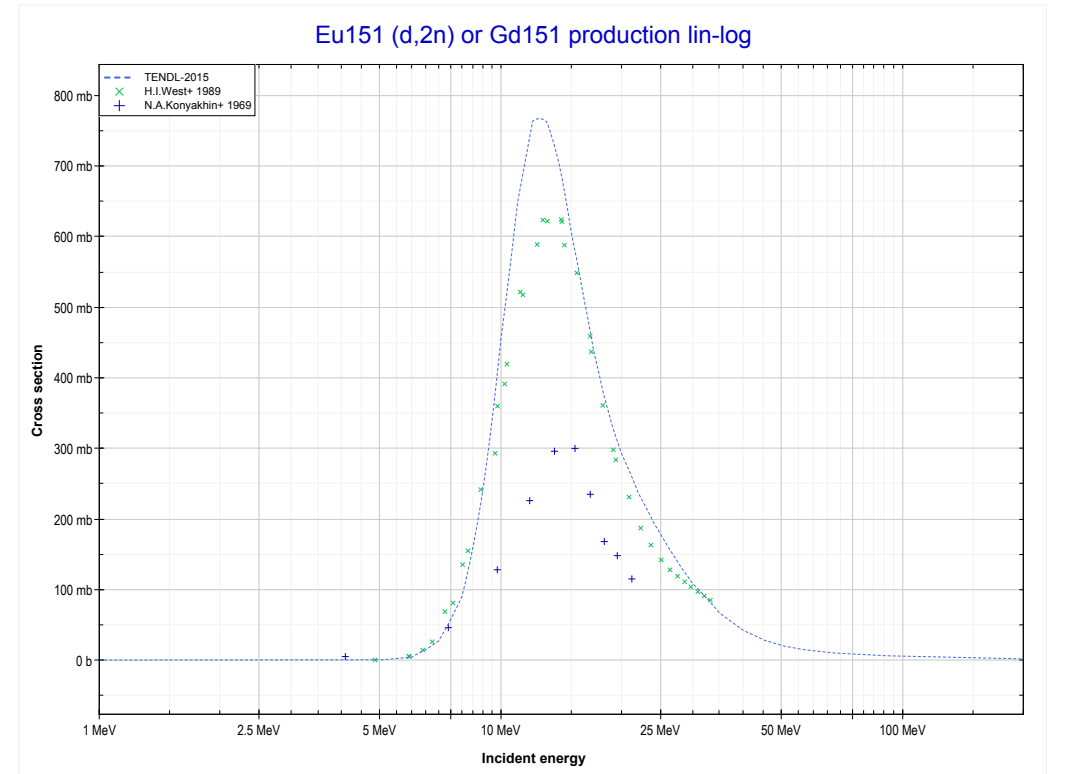
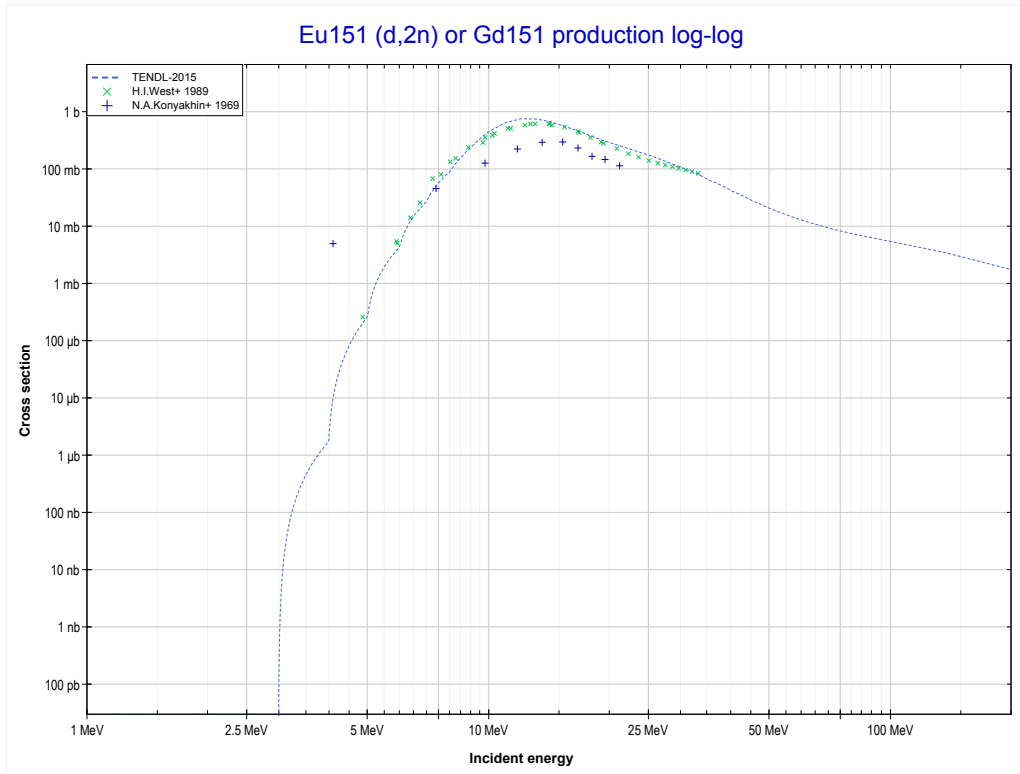
Reaction	Q-Value
Pr141(d,5n)Nd138	-31219.26 keV

<< 59-Pr-141	<b>60-Nd-148</b>	63-Eu-151 >>
<< 59-Pr-141 MT152 (d,5n)	<b>MT16 (d,2n) or MT5 (Pm148 production)</b>	63-Eu-151 MT16 (d,2n) >>



Reaction	Q-Value
Nd148(d,2n)Pm148	-3549.71 keV

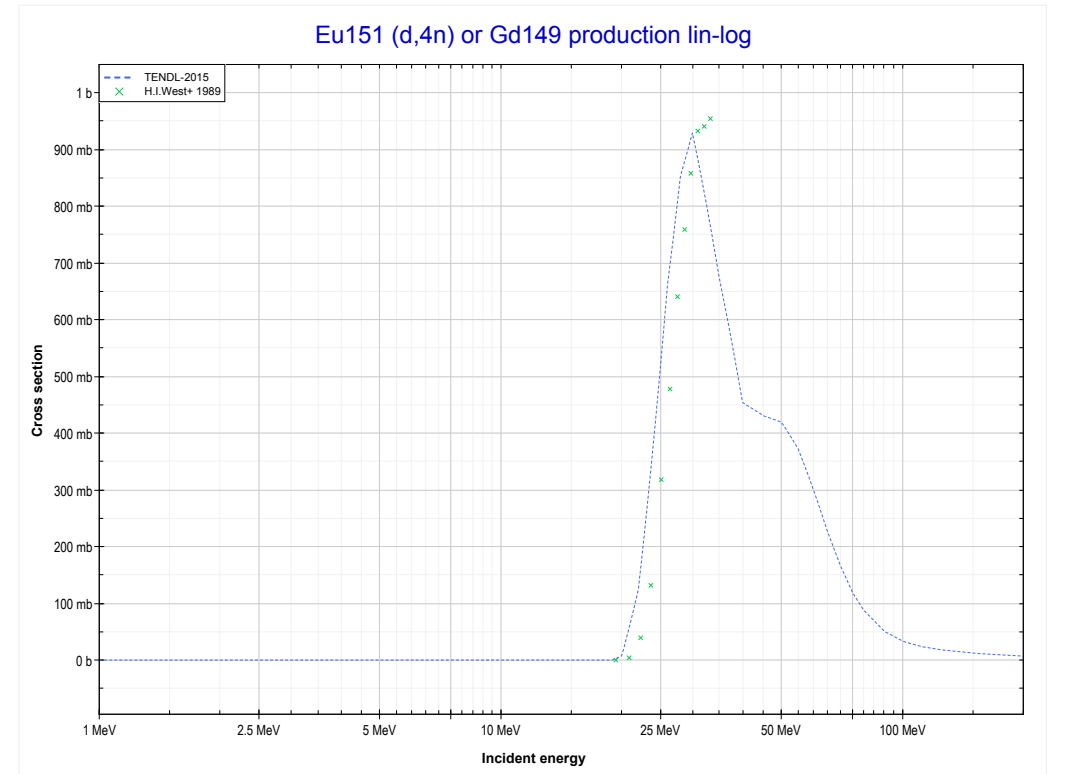
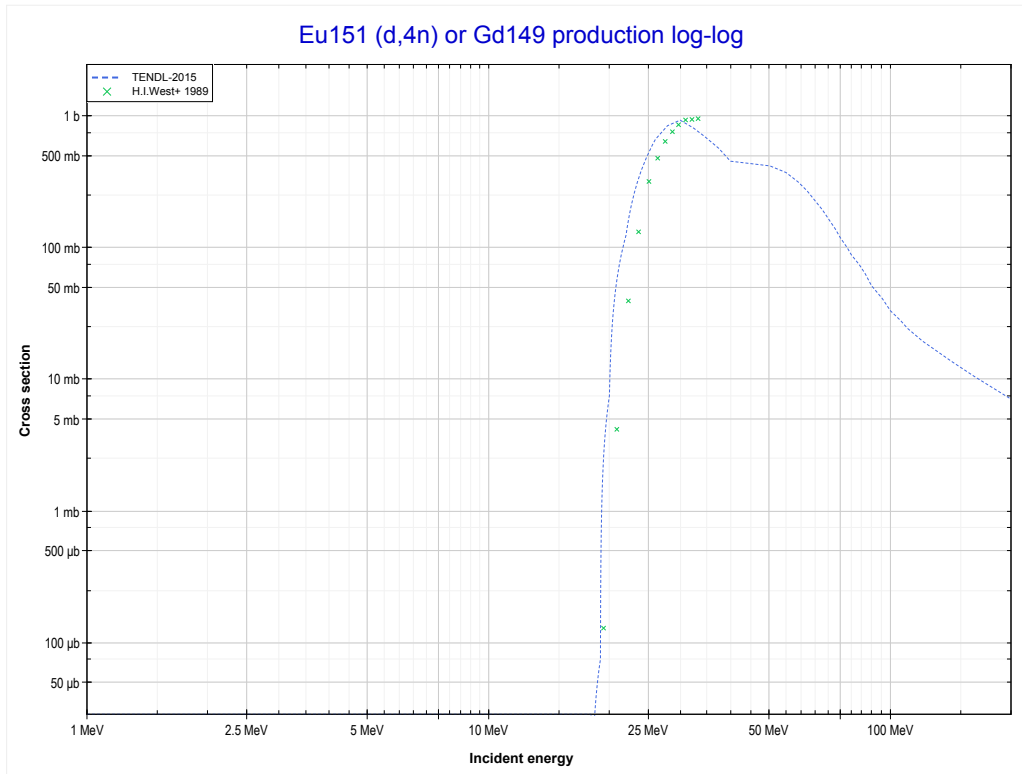
<< 60-Nd-148	<b>63-Eu-151</b>	63-Eu-153 >>
<< 60-Nd-148 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Gd151 production)</b>	MT37 (d,4n) >>



Reaction	Q-Value
Eu151(d,2n)Gd151	-3470.91 keV

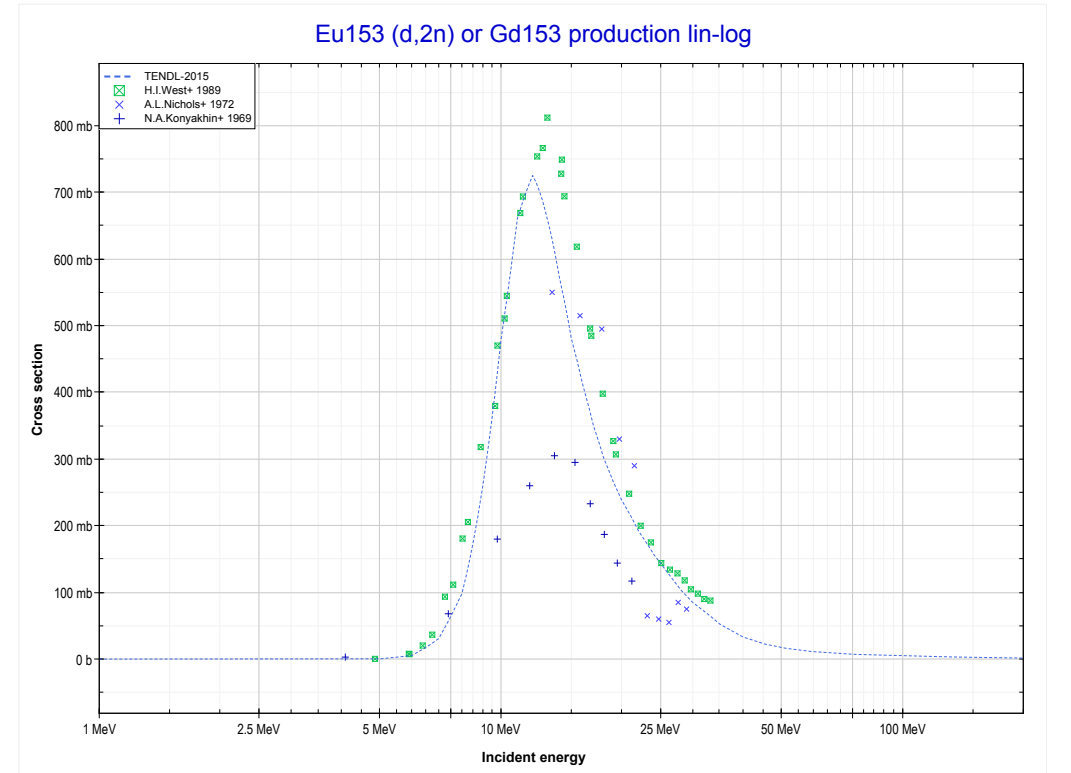
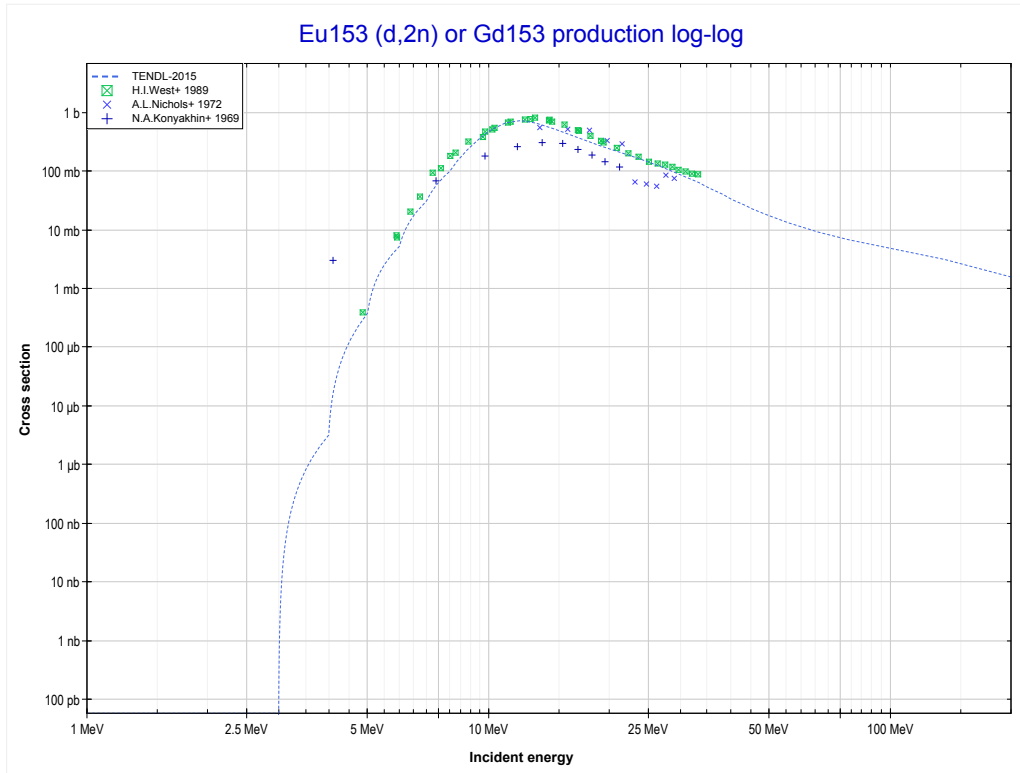


<< 59-Pr-141	<b>63-Eu-151</b>	63-Eu-153 >>
<< MT16 (d,2n)	<b>MT37 (d,4n) or MT5 (Gd149 production)</b>	63-Eu-153 MT16 (d,2n) >>



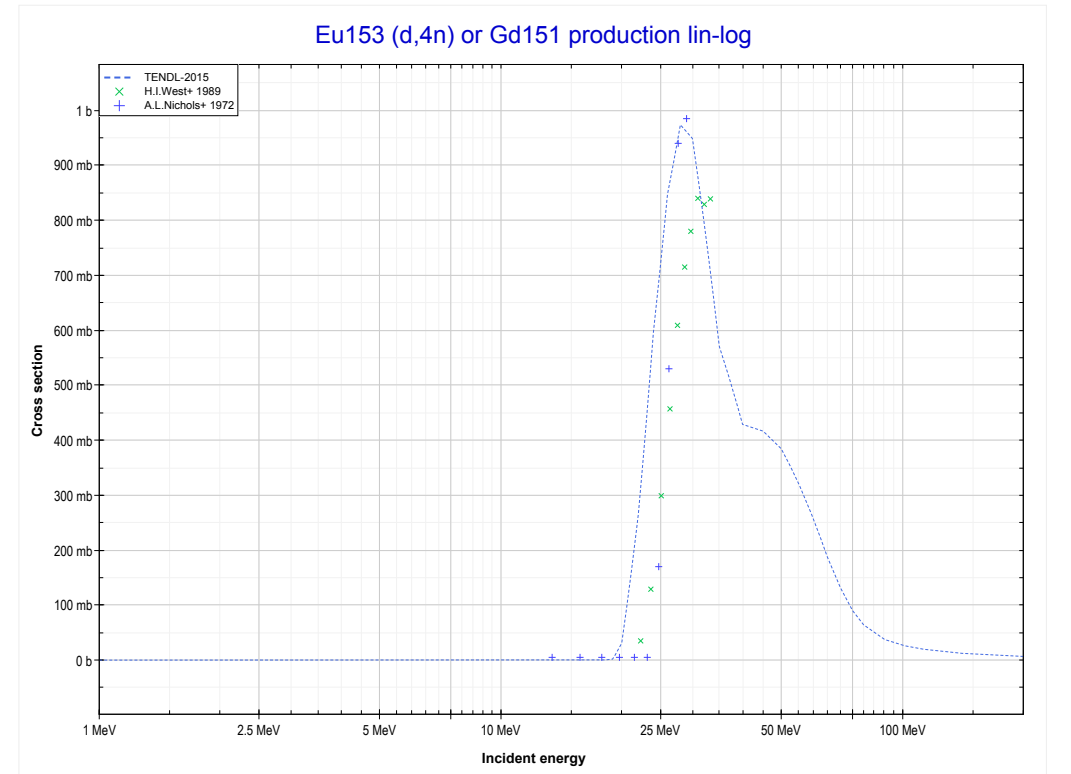
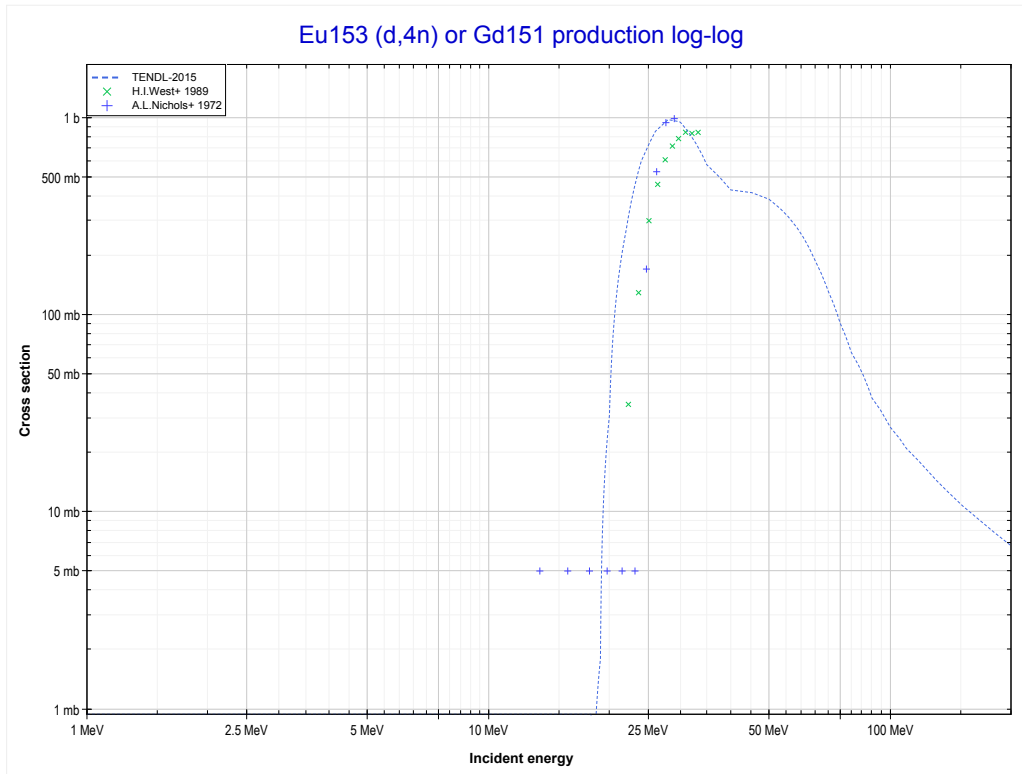
Reaction	Q-Value
Eu151(d,4n)Gd149	-18674.55 keV

<< 63-Eu-151	<b>63-Eu-153</b>	64-Gd-160 >>
<< 63-Eu-151 MT37 (d,4n)	<b>MT16 (d,2n) or MT5 (Gd153 production)</b>	MT37 (d,4n) >>



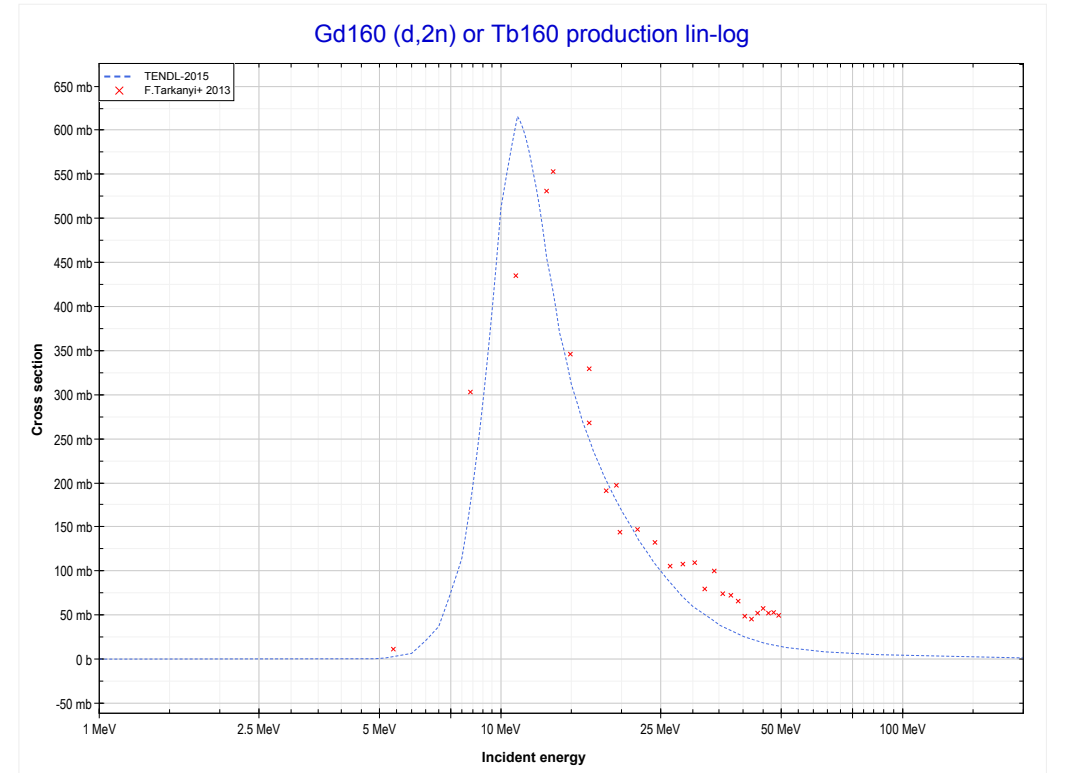
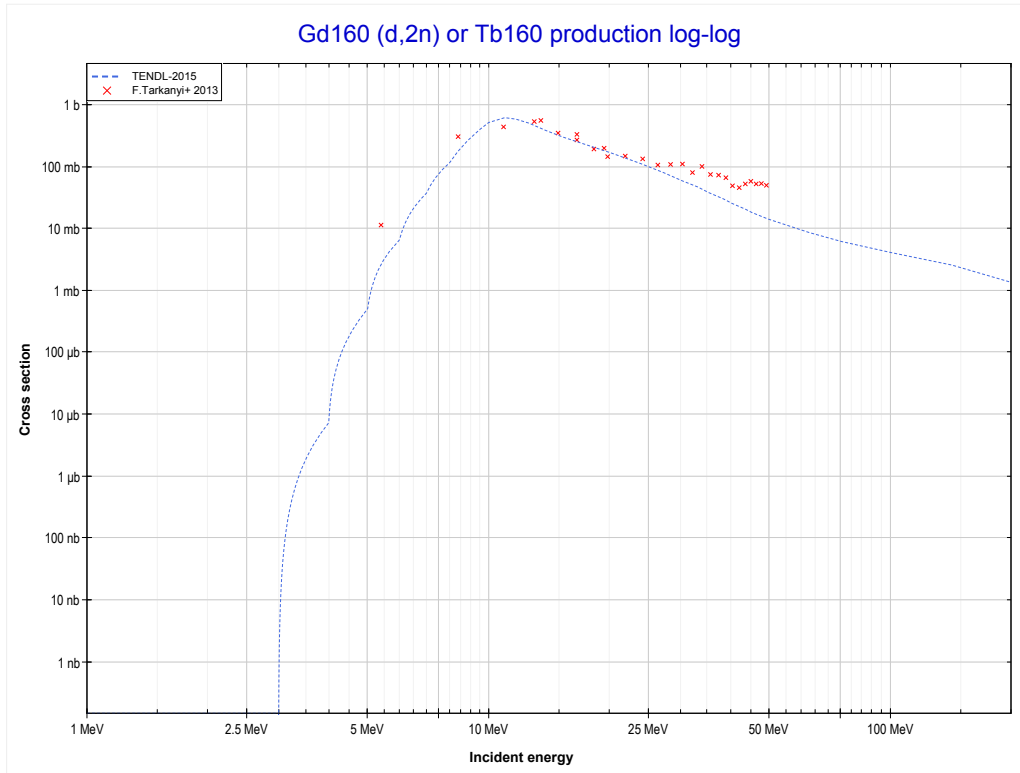
Reaction	Q-Value
Eu153(d,2n)Gd153	-3491.31 keV

<< 63-Eu-151	<b>63-Eu-153</b>	65-Tb-159 >>
<< MT16 (d,2n)	<b>MT37 (d,4n) or MT5 (Gd151 production)</b>	64-Gd-160 MT16 (d,2n) >>



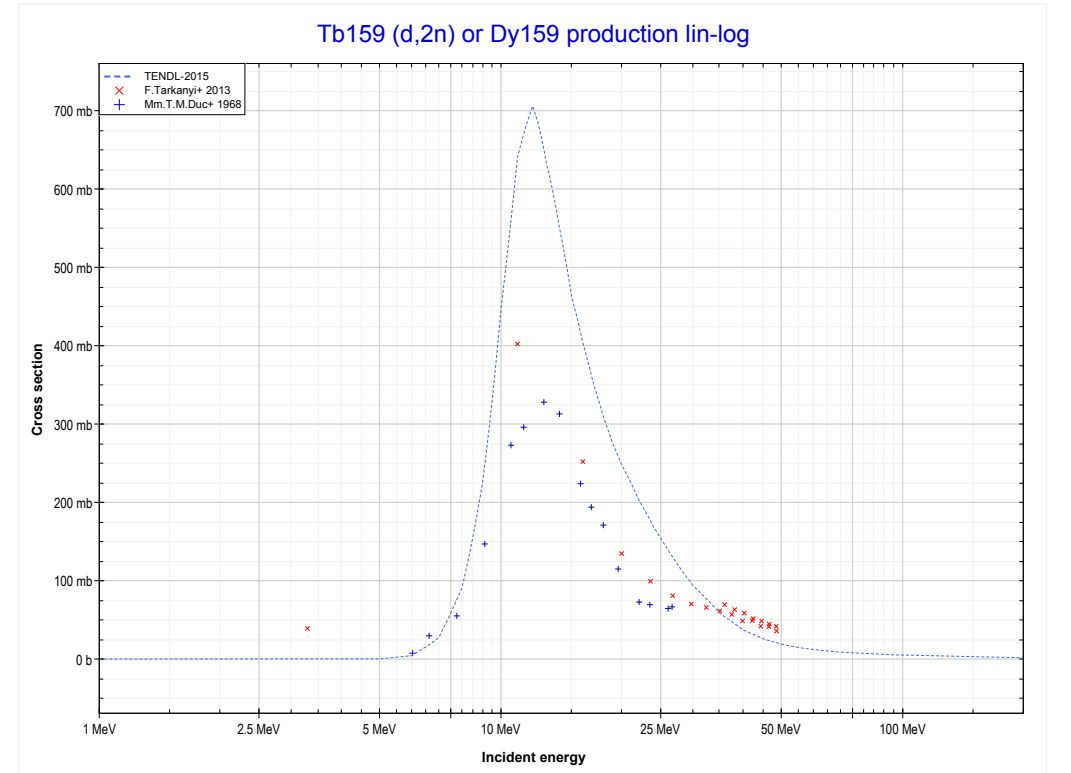
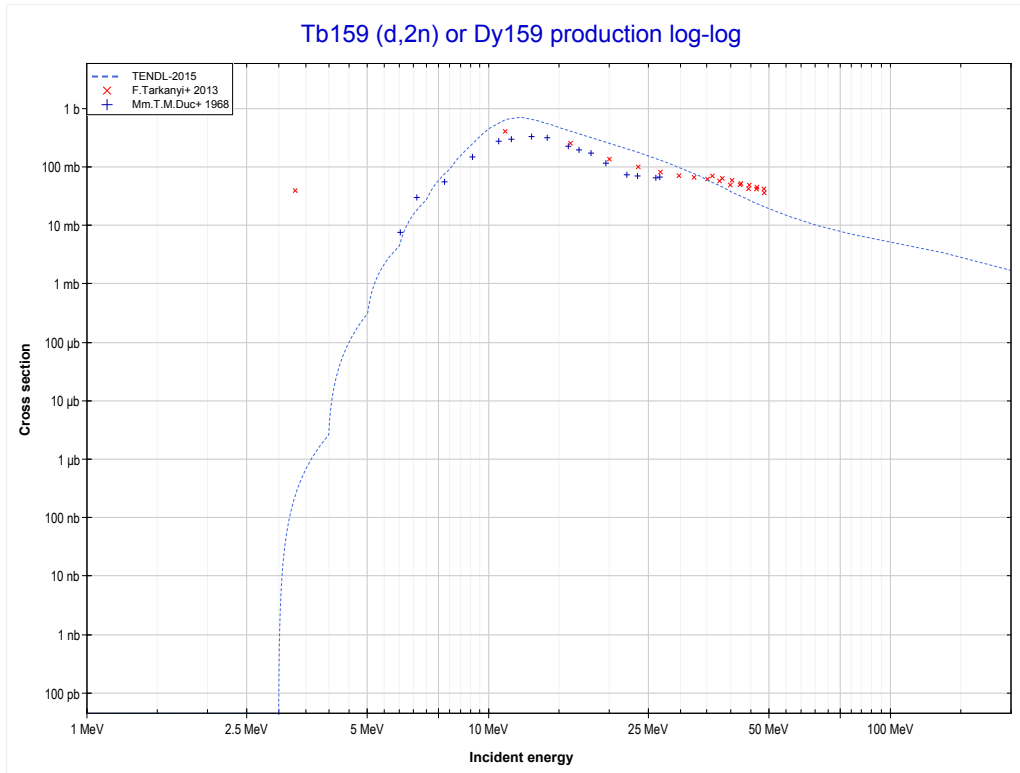
Reaction	Q-Value
Eu153(d,4n)Gd151	-18327.85 keV

<< 63-Eu-153	<b>64-Gd-160</b>	65-Tb-159 >>
<< 63-Eu-153 MT37 (d,4n)	<b>MT16 (d,2n) or MT5 (Tb160 production)</b>	65-Tb-159 MT16 (d,2n) >>



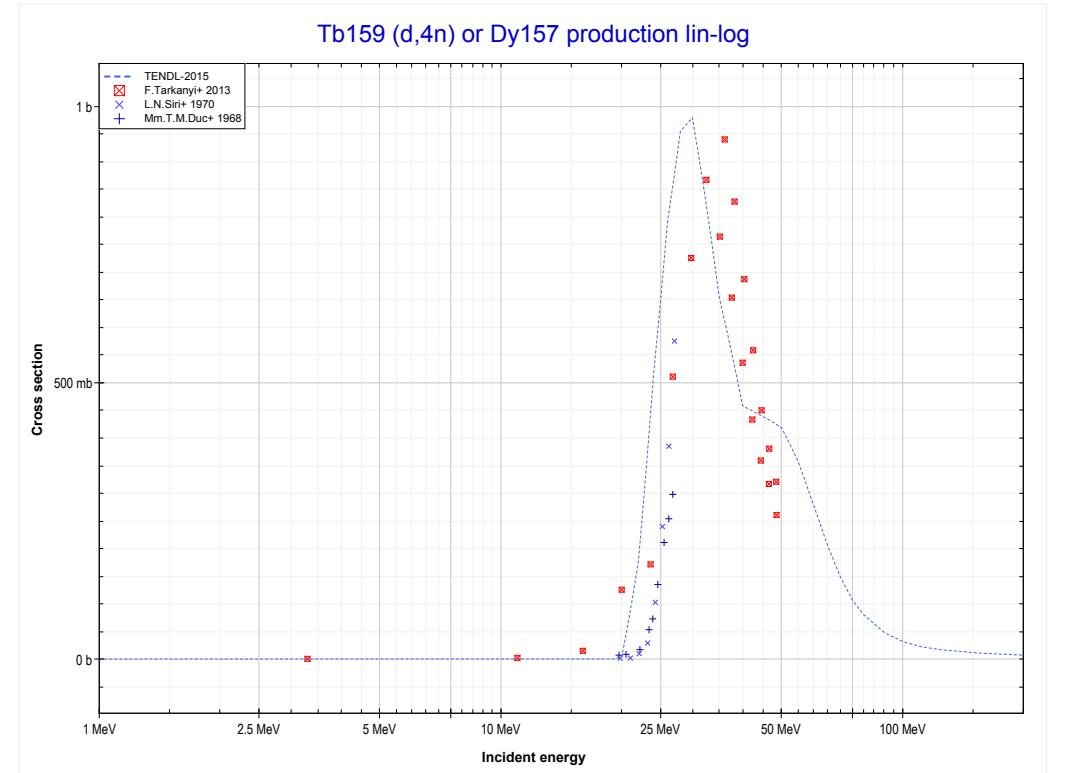
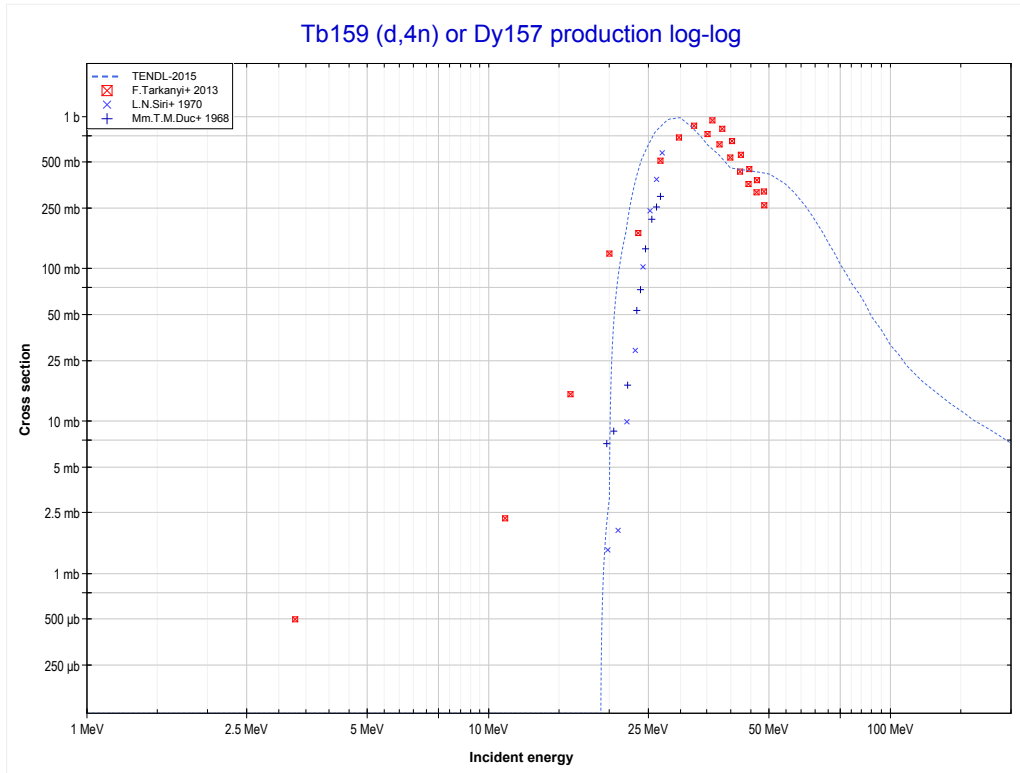
Reaction	Q-Value
Gd160(d,2n)Tb160	-3112.31 keV

<< 64-Gd-160	<b>65-Tb-159</b>	67-Ho-165 >>
<< 64-Gd-160 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Dy159 production)</b>	MT37 (d,4n) >>



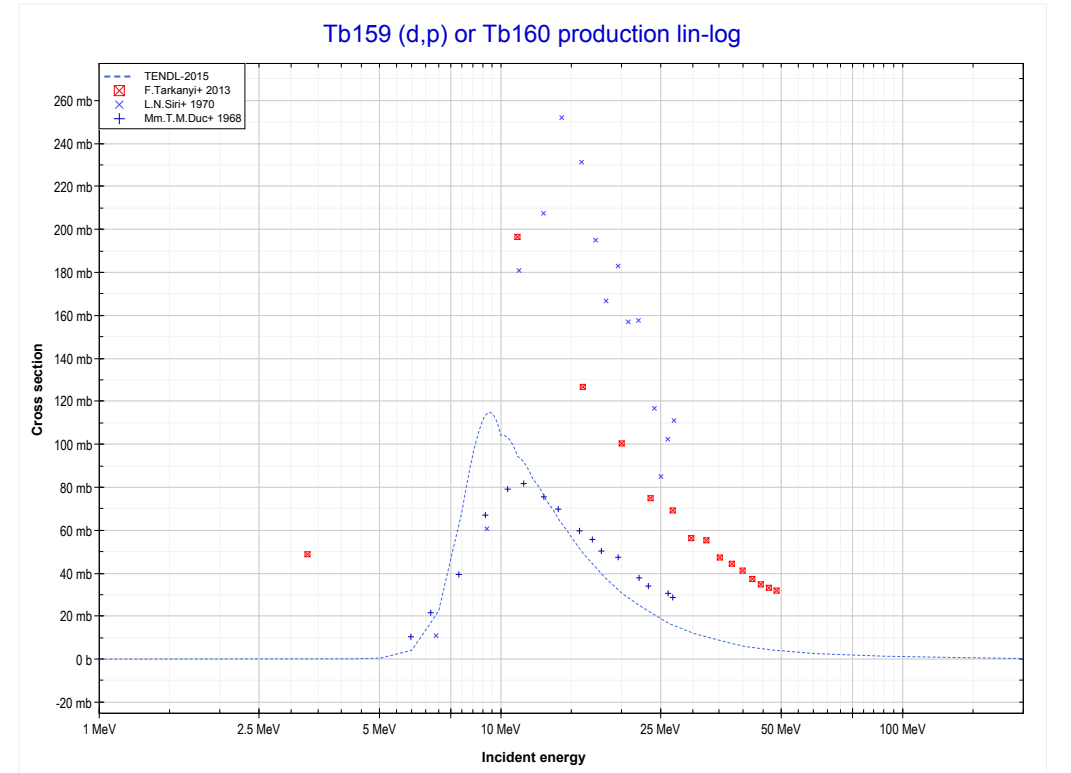
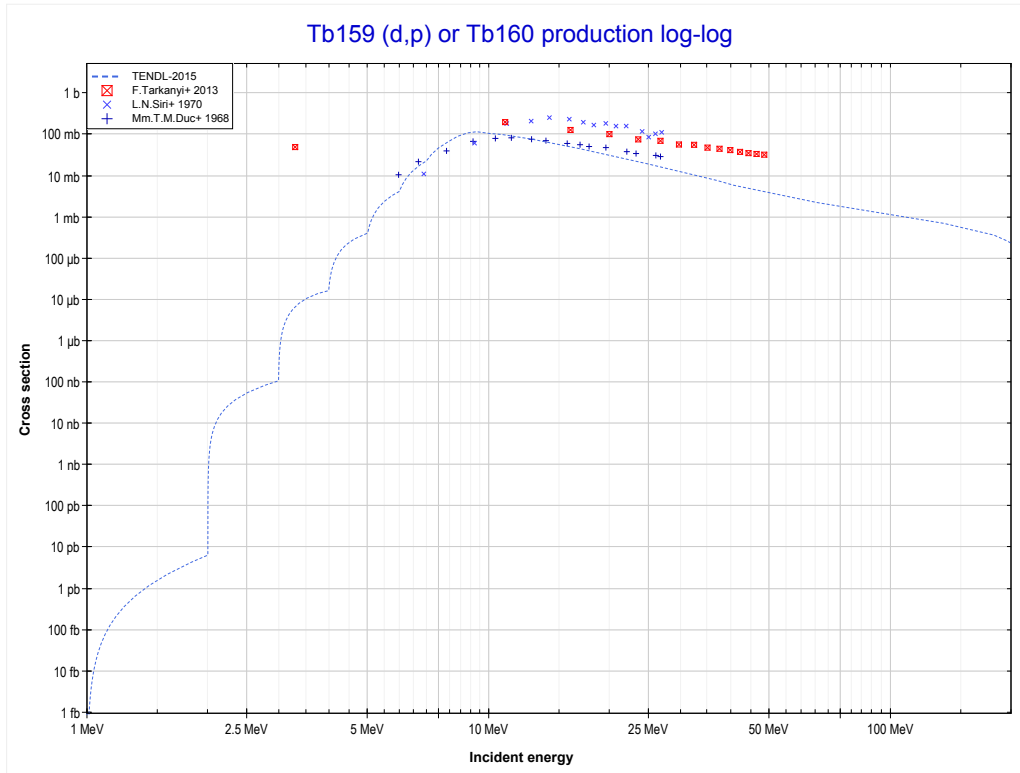
Reaction	Q-Value
Tb159(d,2n)Dy159	-3372.21 keV

<< 63-Eu-153	<b>65-Tb-159</b>	79-Au-197 >>
<< MT16 (d,2n)	<b>MT37 (d,4n) or MT5 (Dy157 production)</b>	MT103 (d,p) >>



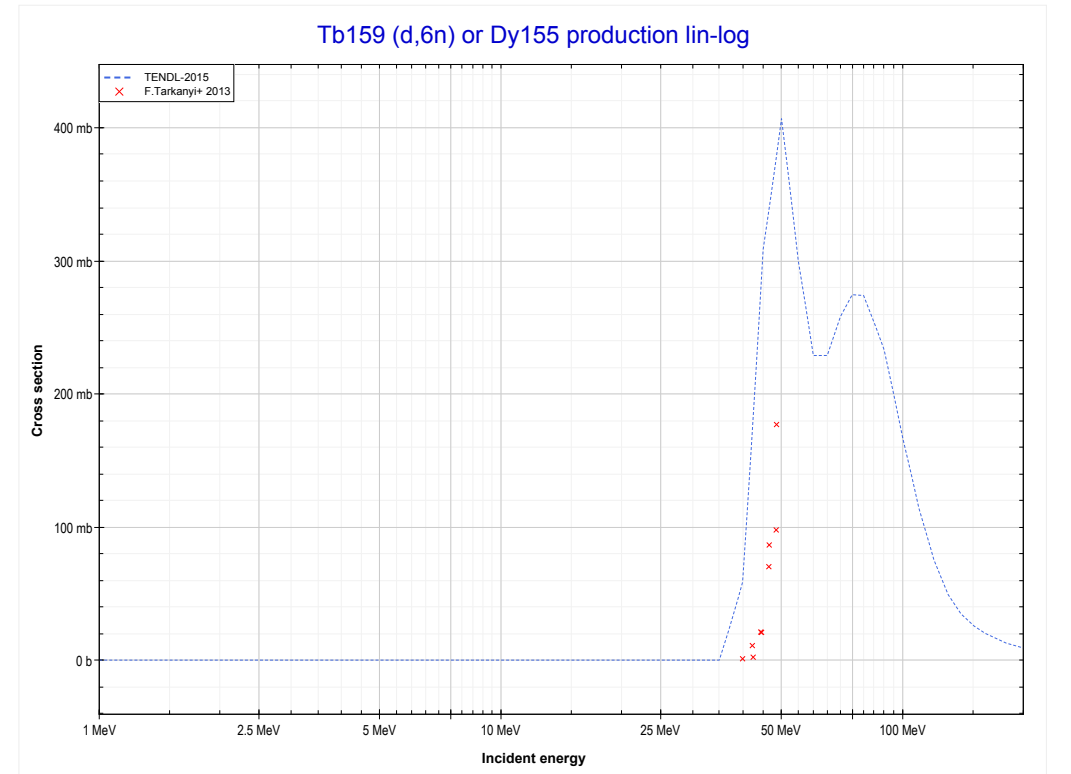
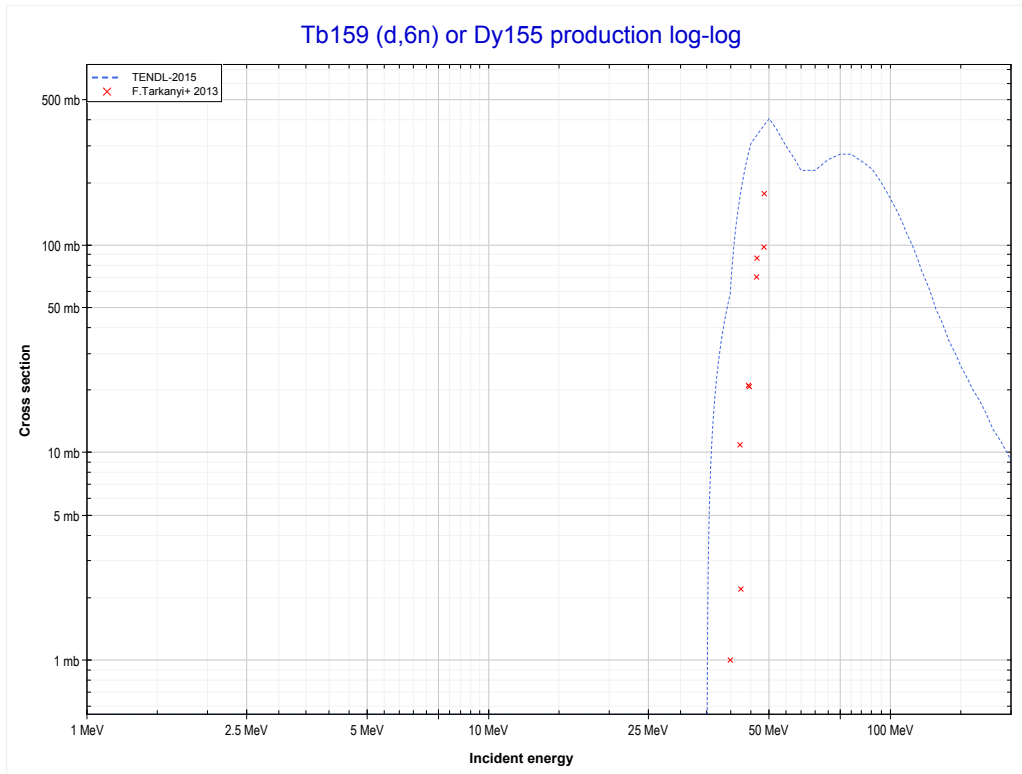
Reaction	Q-Value
Tb159(d,4n)Dy157	-19257.15 keV

<< 59-Pr-141	<b>65-Tb-159</b>	67-Ho-165 >>
<< MT37 (d,4n)	<b>MT103 (d,p) or MT5 (Tb160 production)</b>	MT153 (d,6n) >>



Reaction	Q-Value
Tb159(d,p)Tb160	4150.65 keV

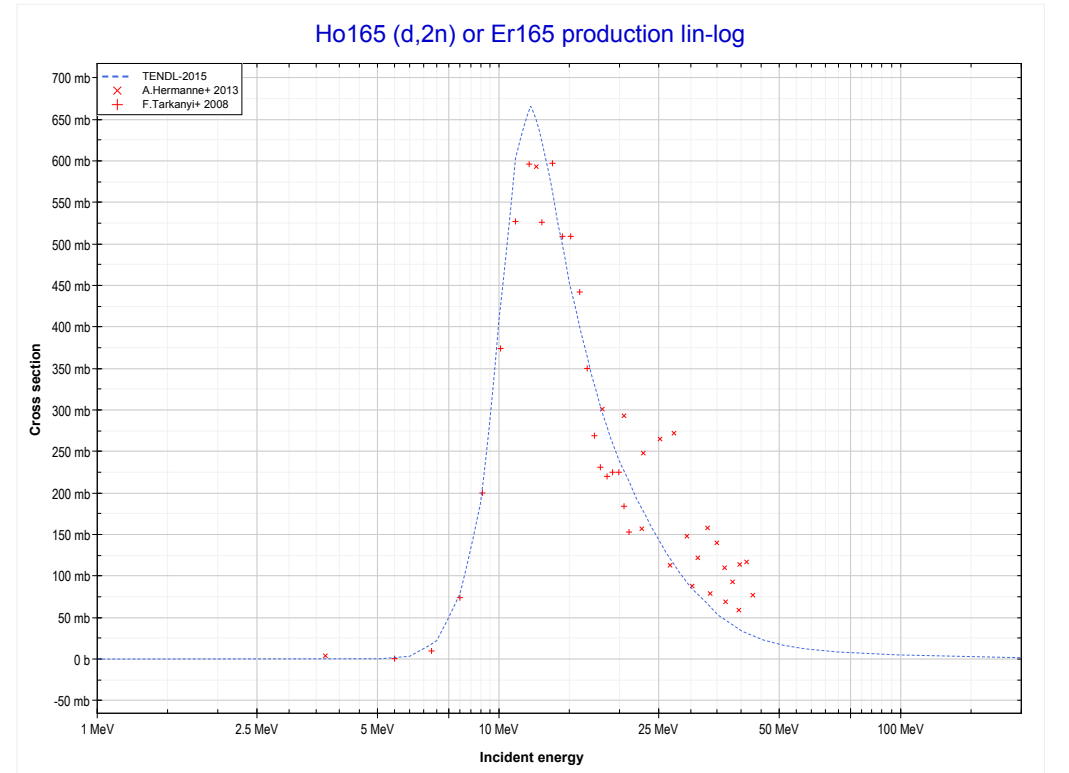
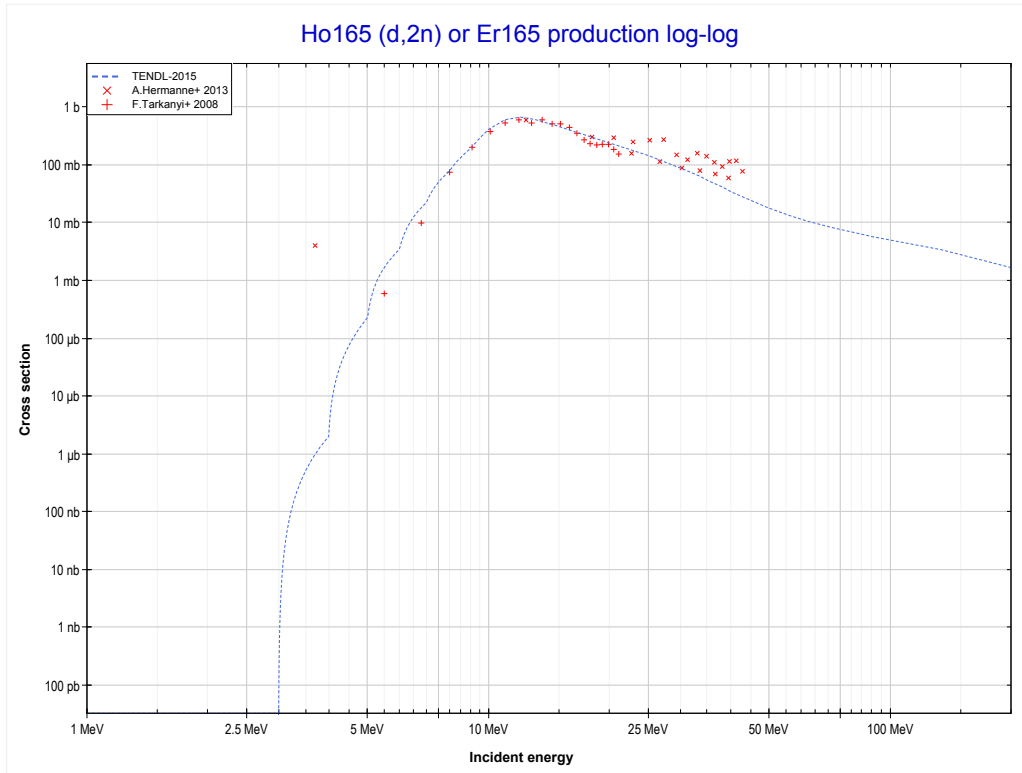
<< 53-I-127	<b>65-Tb-159</b>	67-Ho-165 >>
<< MT103 (d,p)	<b>MT153 (d,6n) or MT5 (Dy155 production)</b>	67-Ho-165 MT16 (d,2n) >>



Reaction	Q-Value
Tb159(d,6n)Dy155	-35668.78 keV

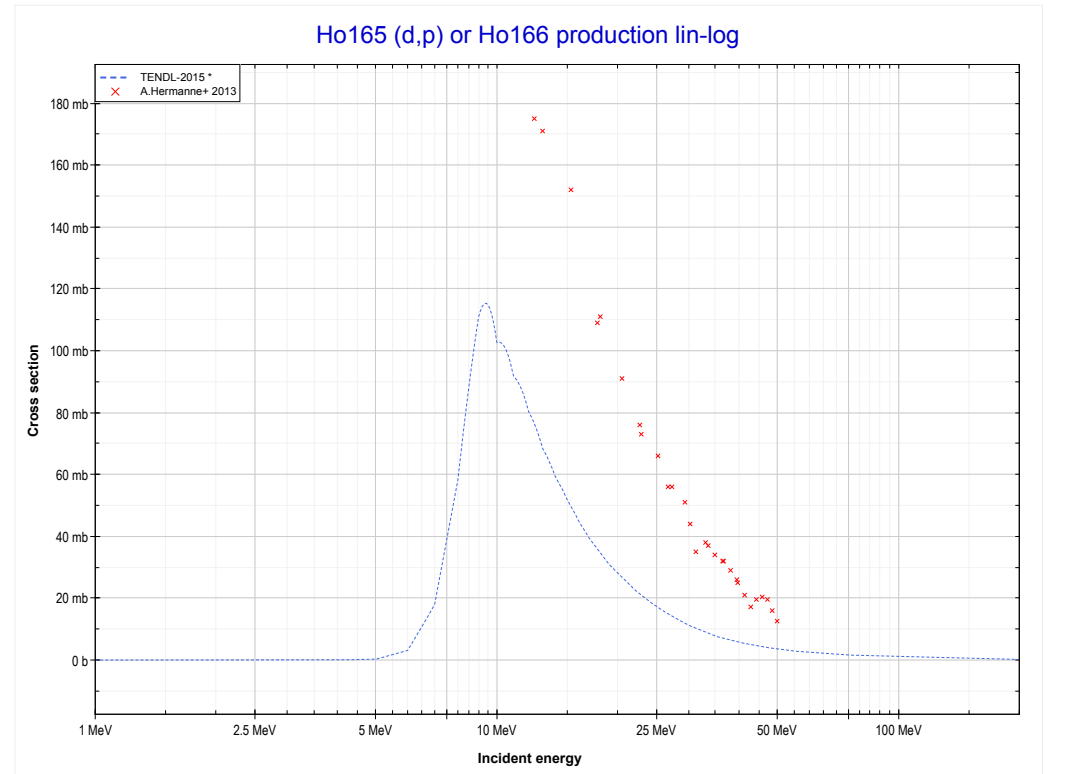
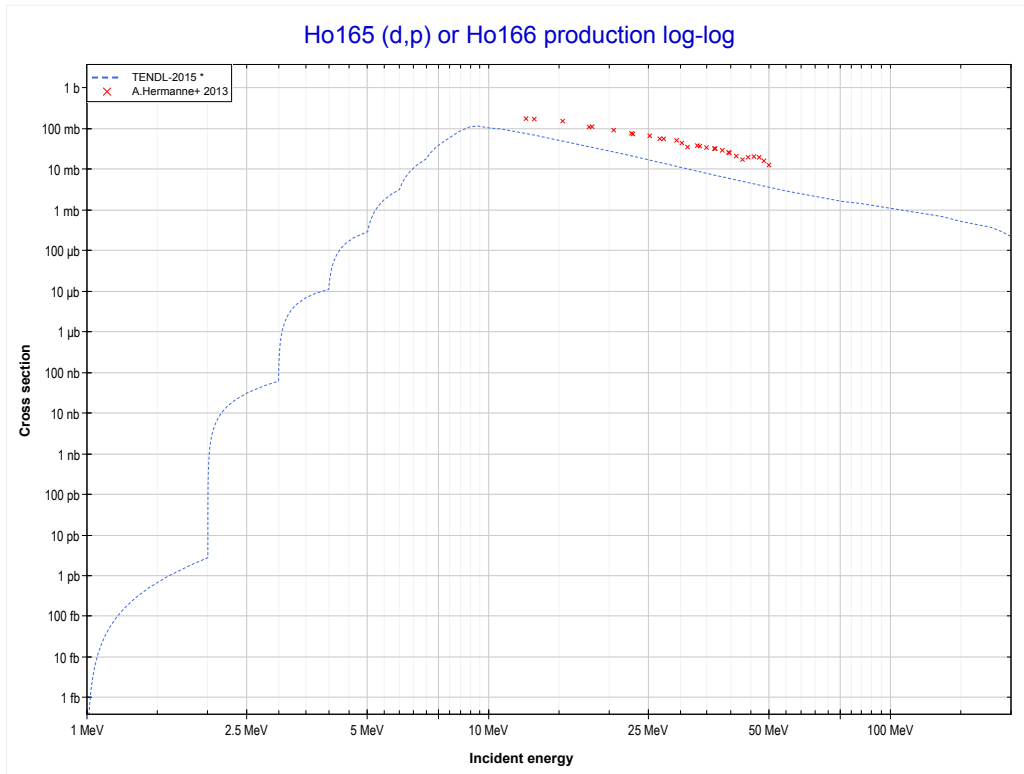


<< 65-Tb-159	<b>67-Ho-165</b>	68-Er-167 >>
<< 65-Tb-159 MT153 (d,6n)	<b>MT16 (d,2n) or MT5 (Er165 production)</b>	MT103 (d,p) >>



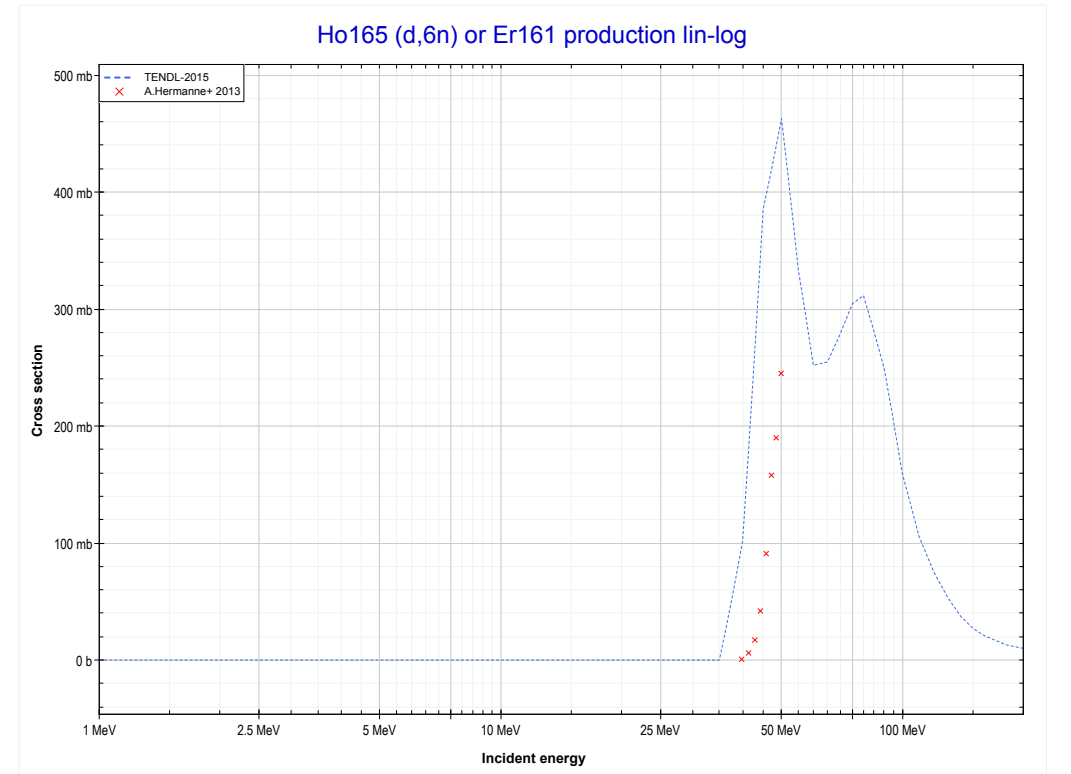
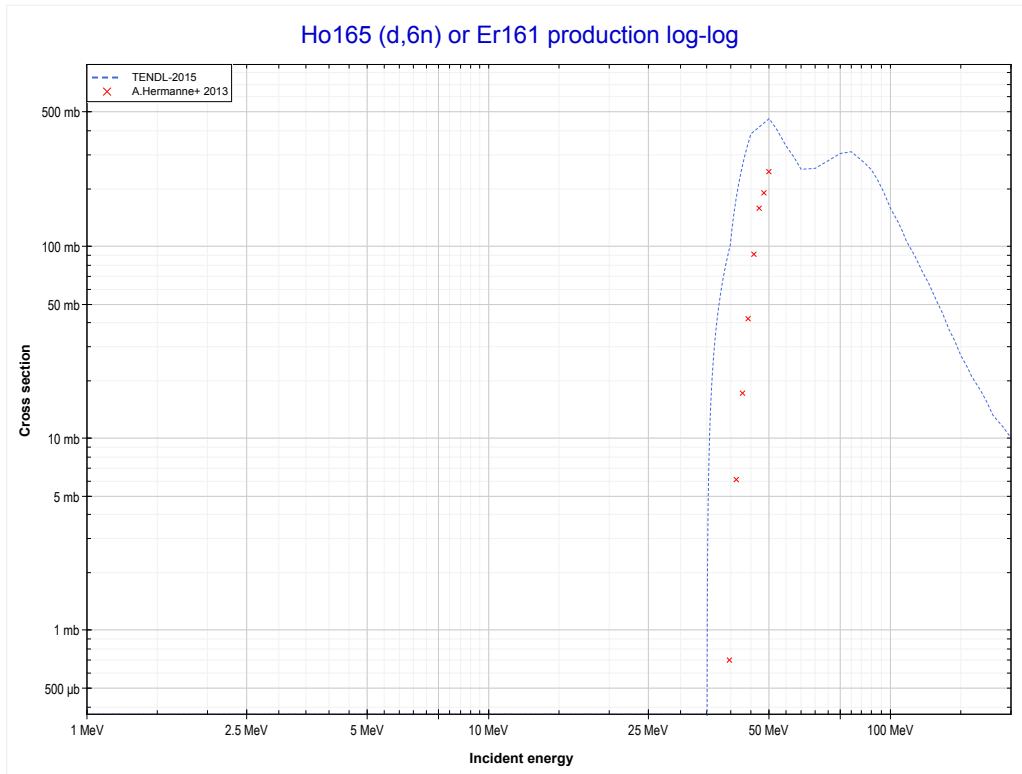
Reaction	Q-Value
Ho165(d,2n)Er165	-3384.81 keV

<< 65-Tb-159	<b>67-Ho-165</b>	70-Yb-176 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Ho166 production)</b>	MT153 (d,6n) >>



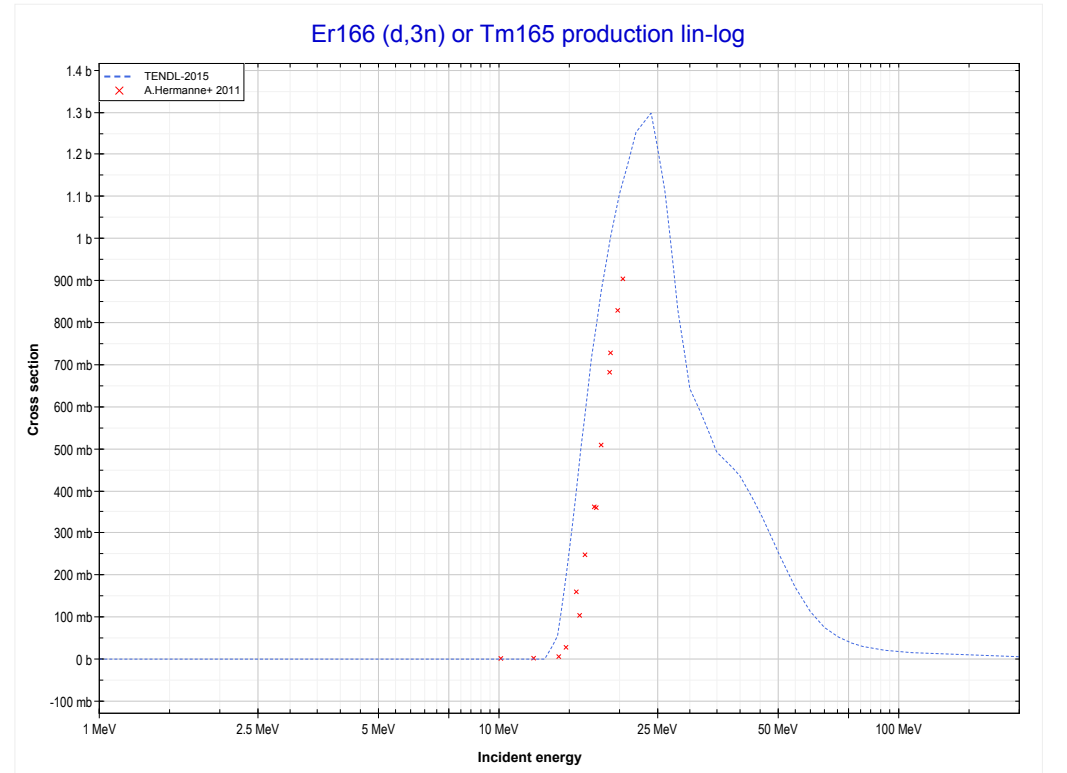
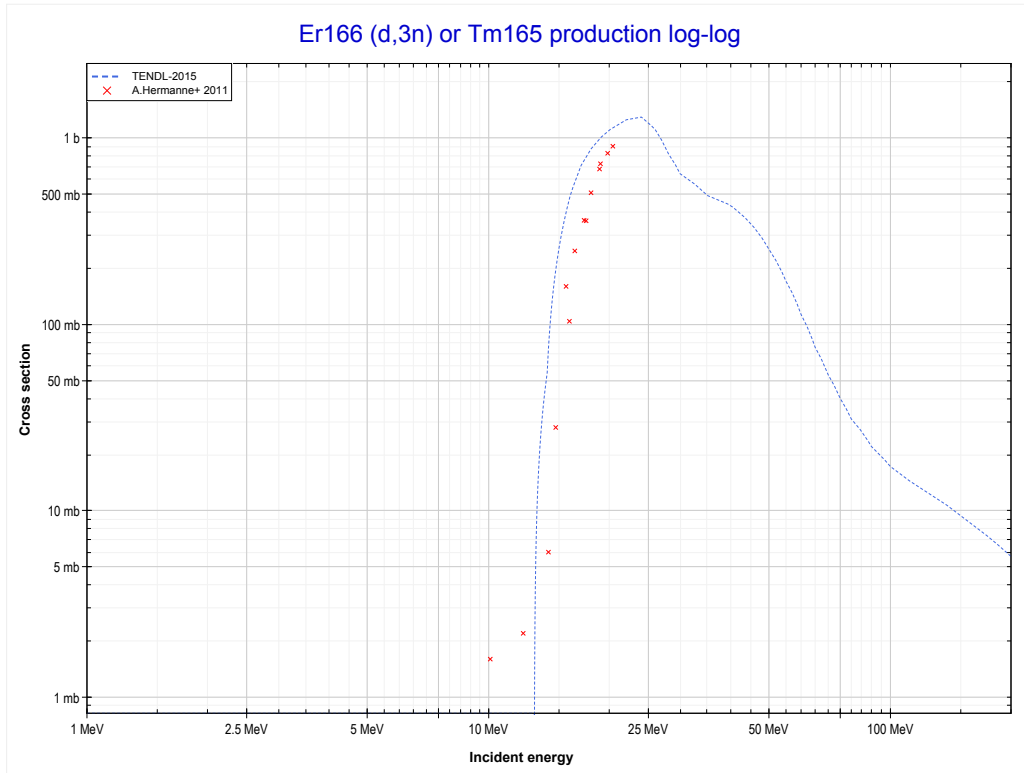
Reaction	Q-Value
Ho165(d,p)Ho166	4019.05 keV

<< 65-Tb-159	<b>67-Ho-165</b>	73-Ta-181 >>
<< MT103 (d,p)	<b>MT153 (d,6n) or MT5 (Er161 production)</b>	68-Er-166 MT17 (d,3n) >>



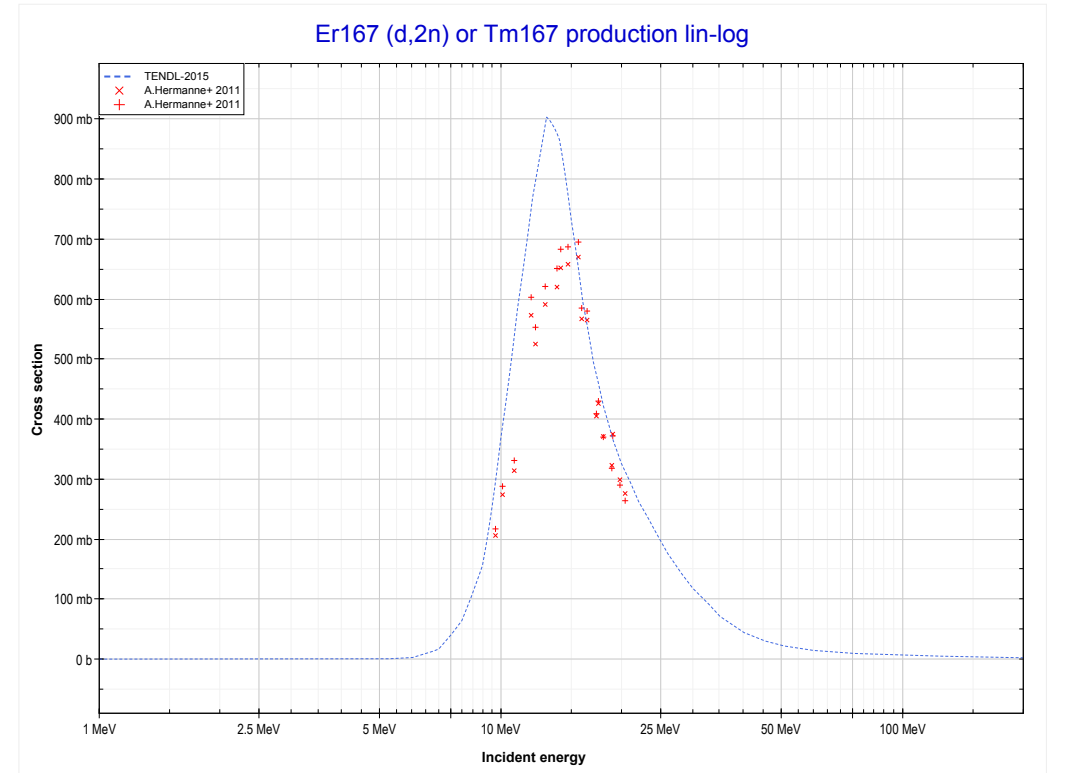
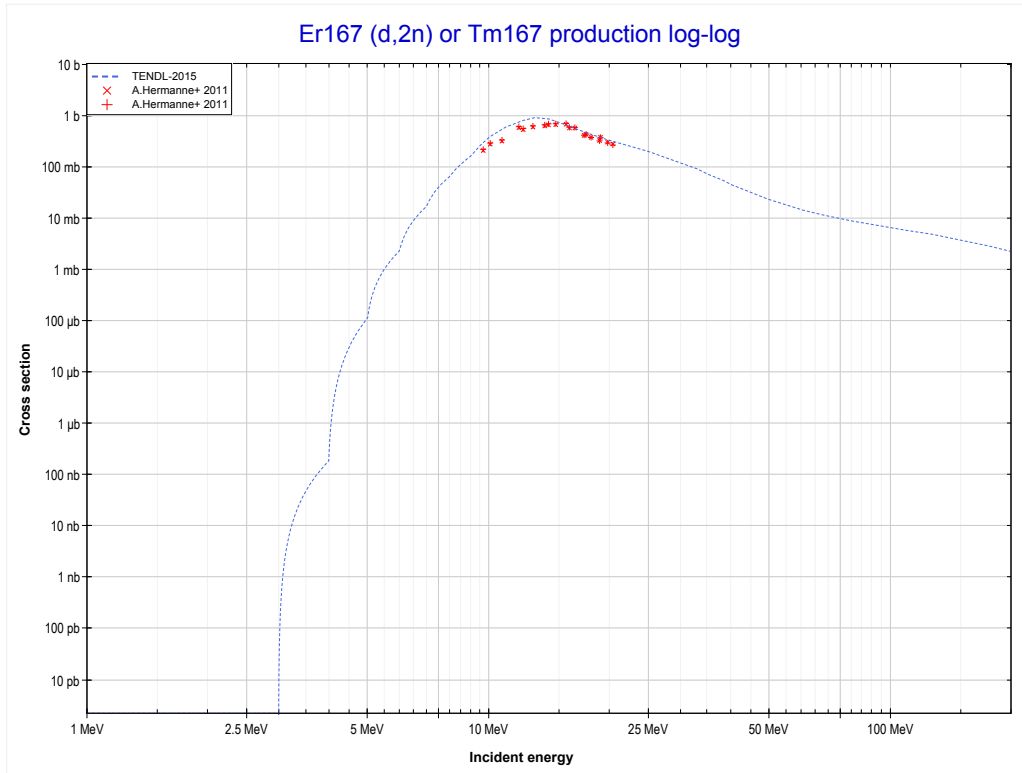
<b>Reaction</b>	<b>Q-Value</b>
Ho165(d,6n)Er161	-34990.48 keV

<< 59-Pr-141	<b>68-Er-166</b>	68-Er-167 >>
<< 67-Ho-165 MT153 (d,6n)	<b>MT17 (d,3n) or MT5 (Tm165 production)</b>	68-Er-167 MT16 (d,2n) >>



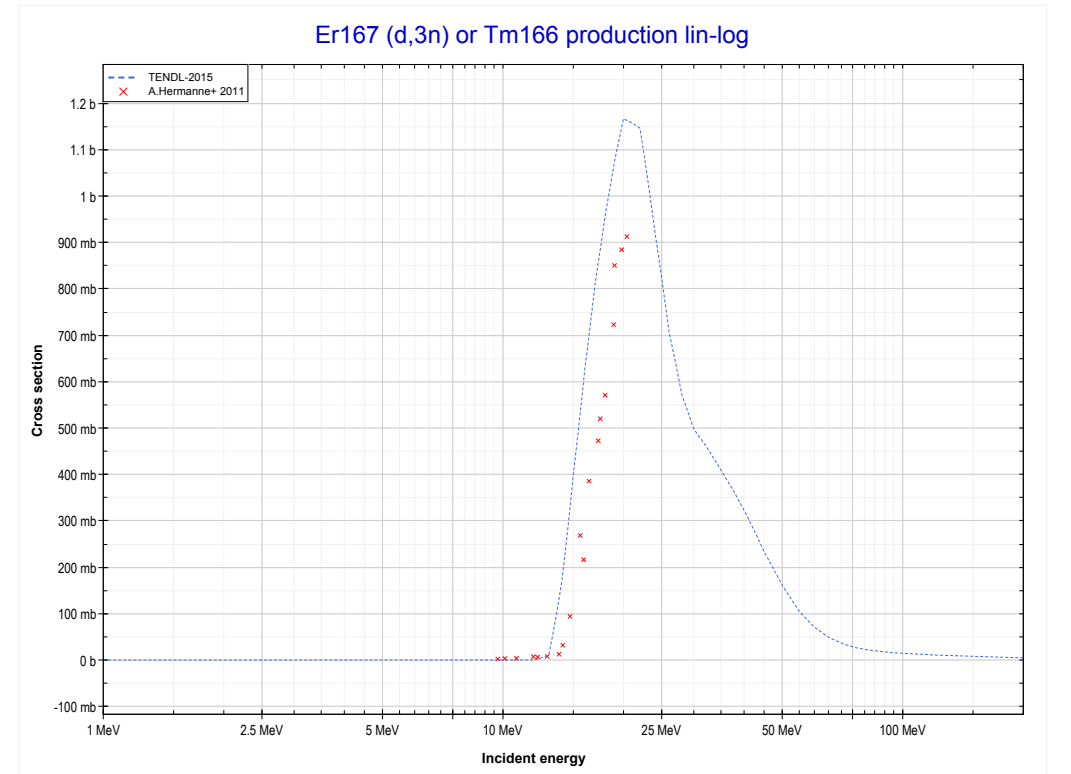
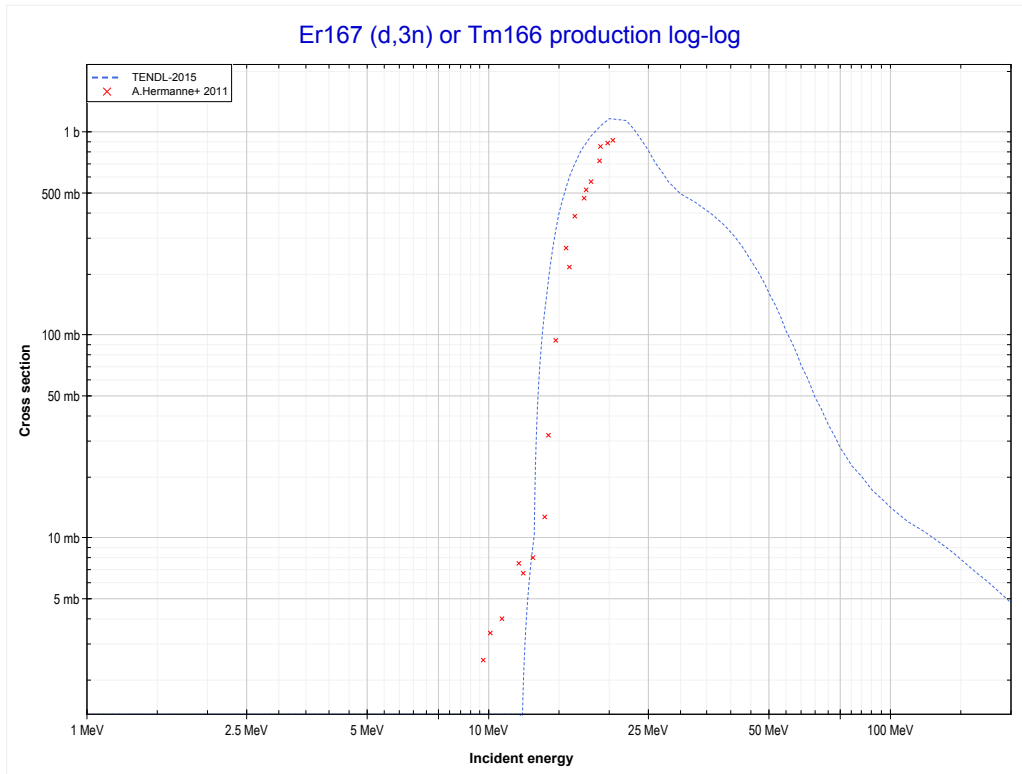
Reaction	Q-Value
Er166(d,3n)Tm165	-13075.03 keV

<< 67-Ho-165	<b>68-Er-167</b>	69-Tm-169 >>
<< 68-Er-166 MT17 (d,3n)	<b>MT16 (d,2n) or MT5 (Tm167 production)</b>	MT17 (d,3n) >>



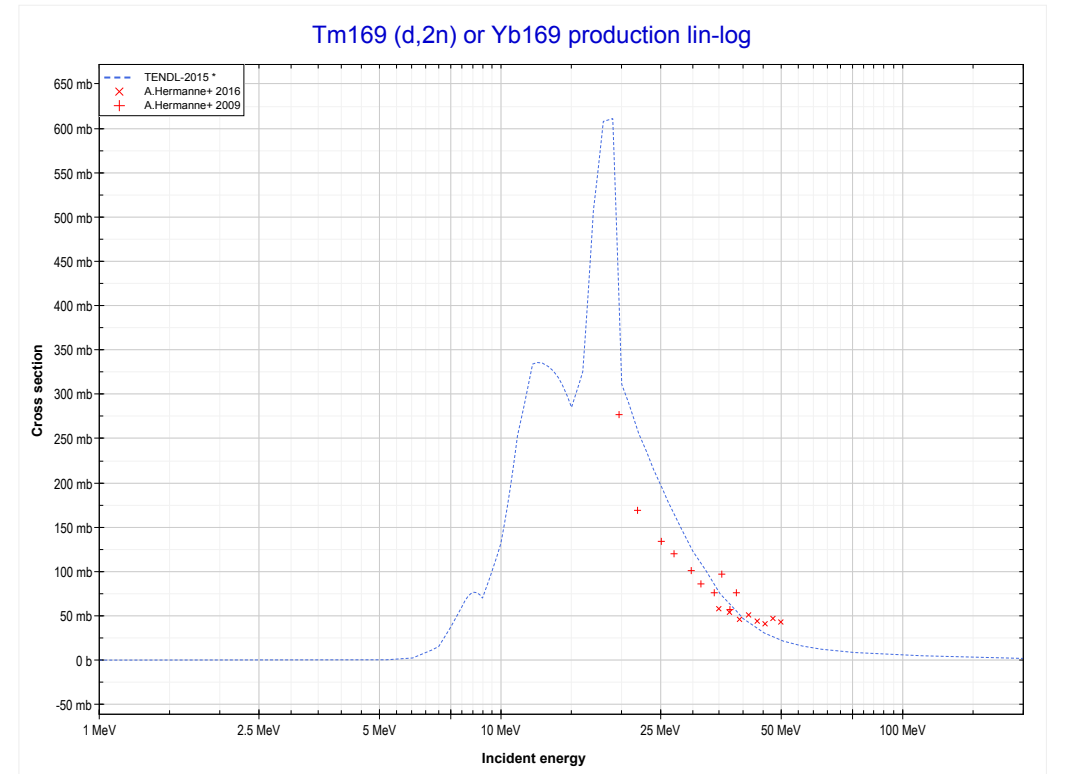
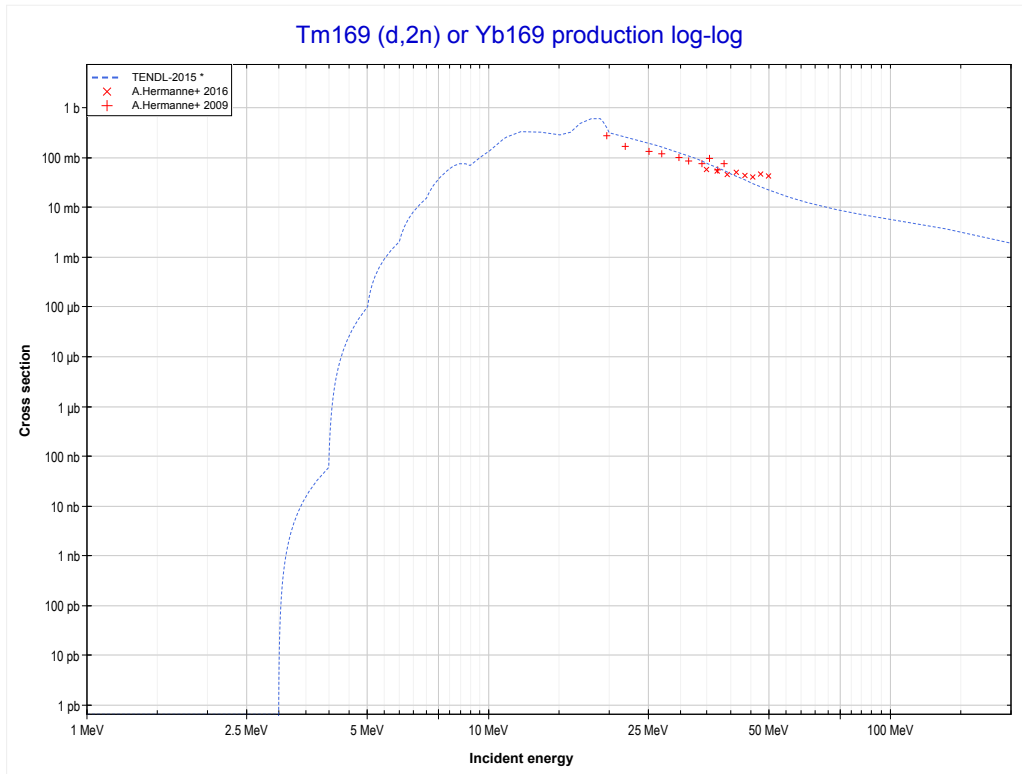
Reaction	Q-Value
Er167(d,2n)Tm167	-3753.51 keV

<< 68-Er-166	<b>68-Er-167</b>	79-Au-197 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Tm166 production)</b>	69-Tm-169 MT16 (d,2n) >>



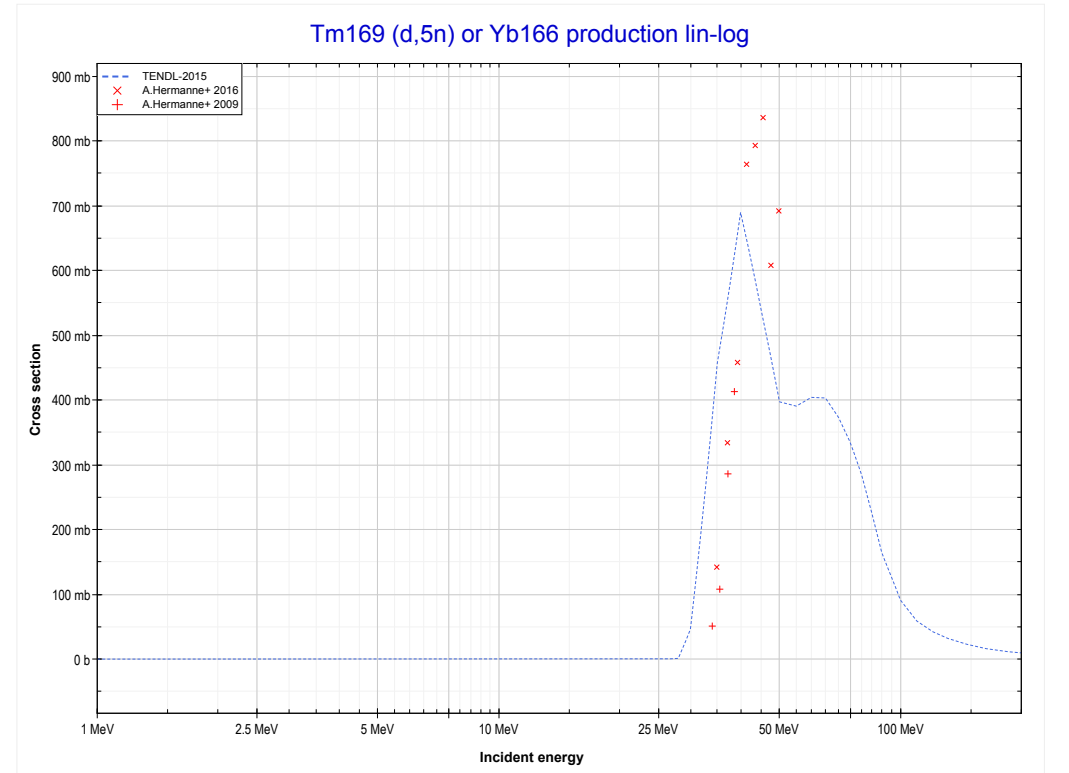
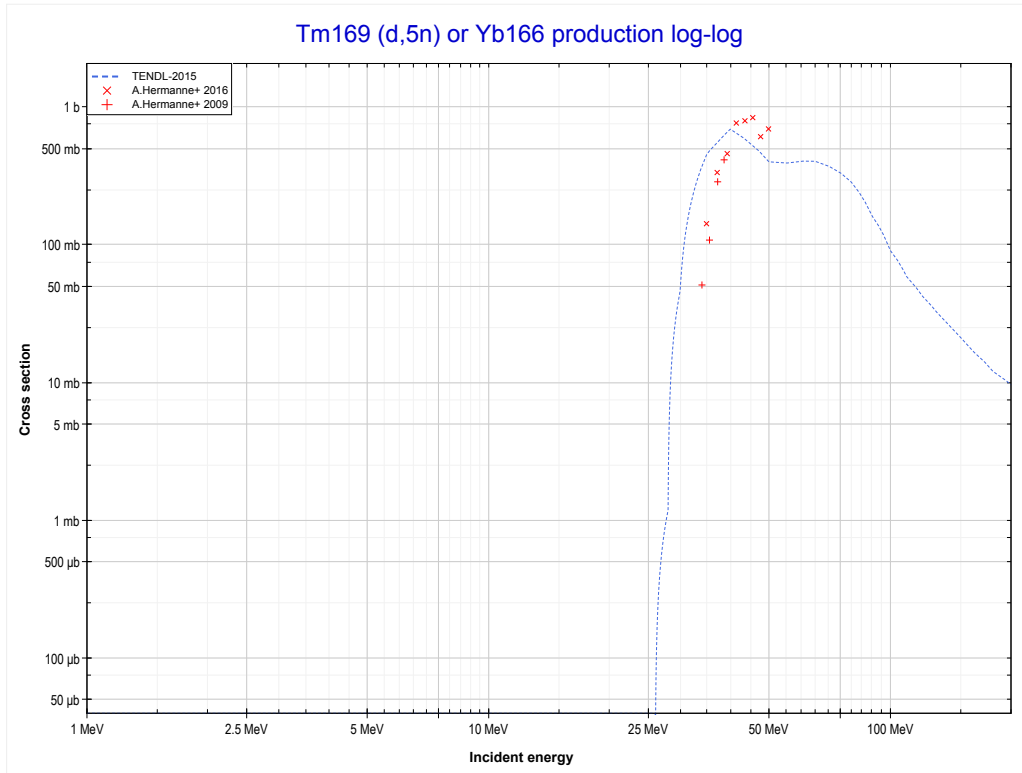
Reaction	Q-Value
Er167(d,3n)Tm166	-12480.93 keV

<< 68-Er-167	<b>69-Tm-169</b>	70-Yb-176 >>
<< 68-Er-167 MT17 (d,3n)	<b>MT16 (d,2n) or MT5 (Yb169 production)</b>	MT152 (d,5n) >>



Reaction	Q-Value
Tm169(d,2n)Yb169	-3905.41 keV

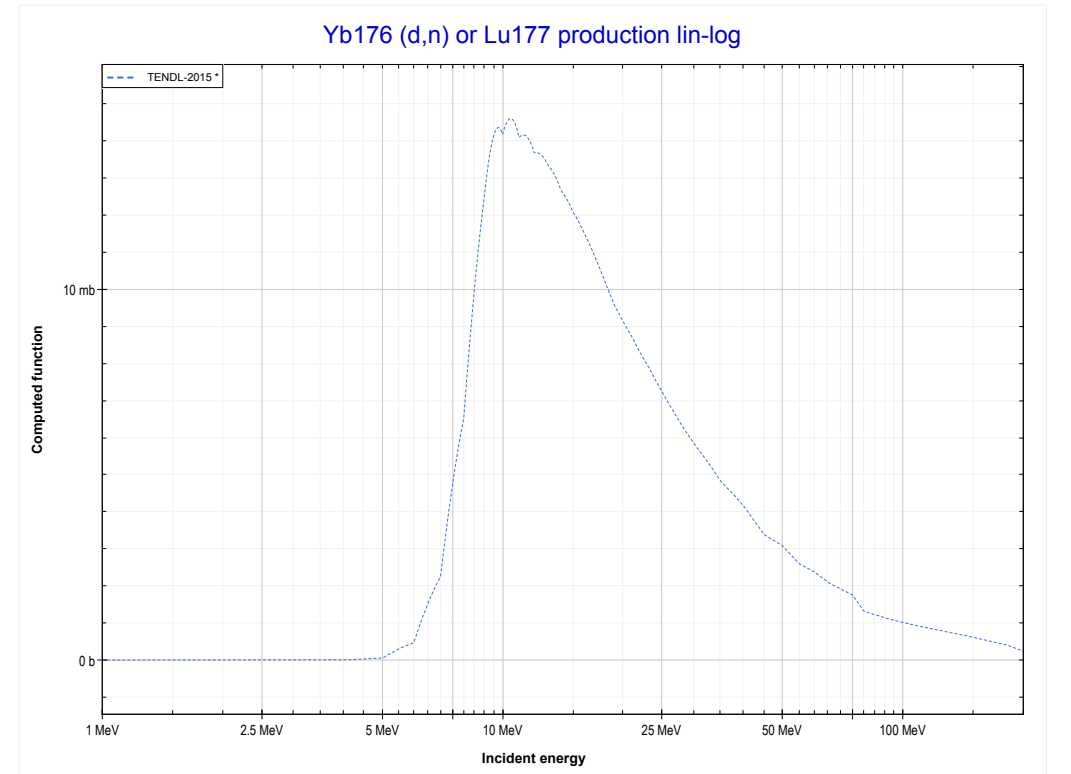
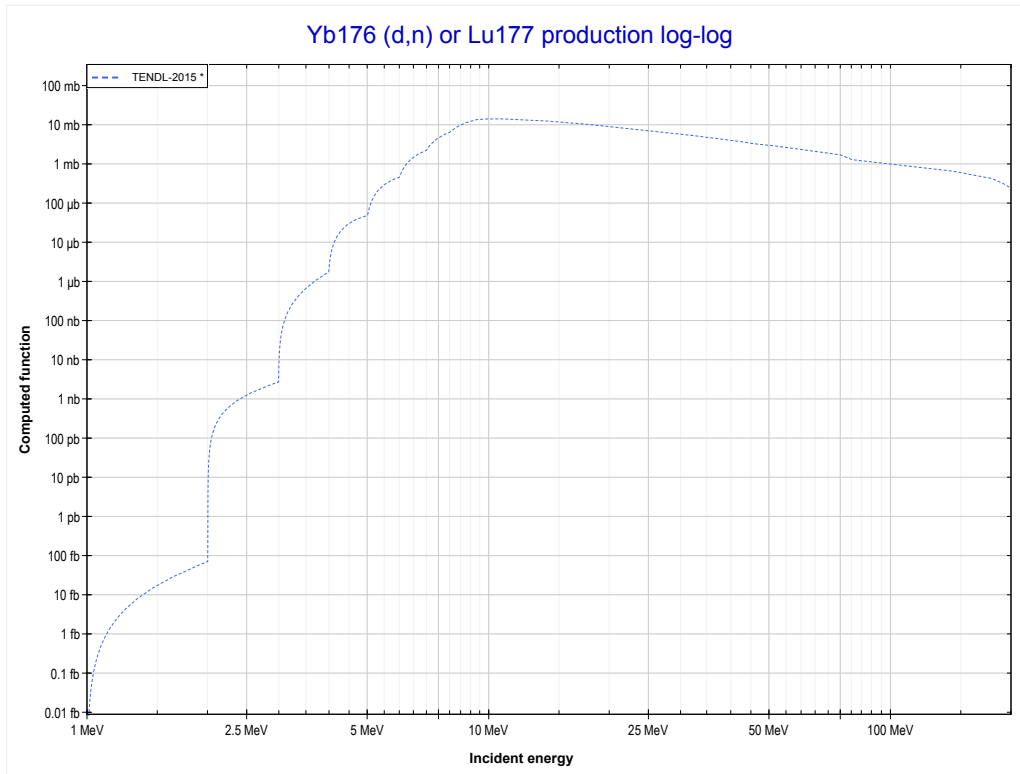
<< 59-Pr-141	<b>69-Tm-169</b>	73-Ta-181 >>
<< MT16 (d,2n)	<b>MT152 (d,5n) or MT5 (Yb166 production)</b>	70-Yb-176 MT4 (d,n) >>



Reaction	Q-Value
Tm169(d,5n)Yb166	-26901.46 keV

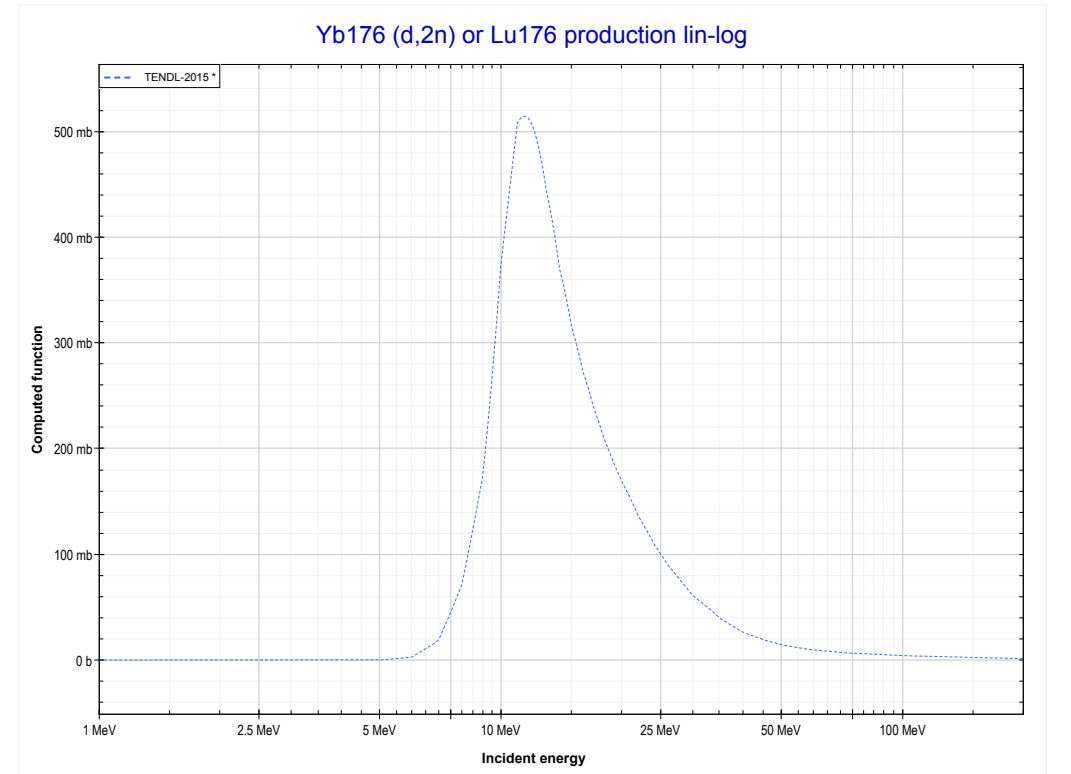
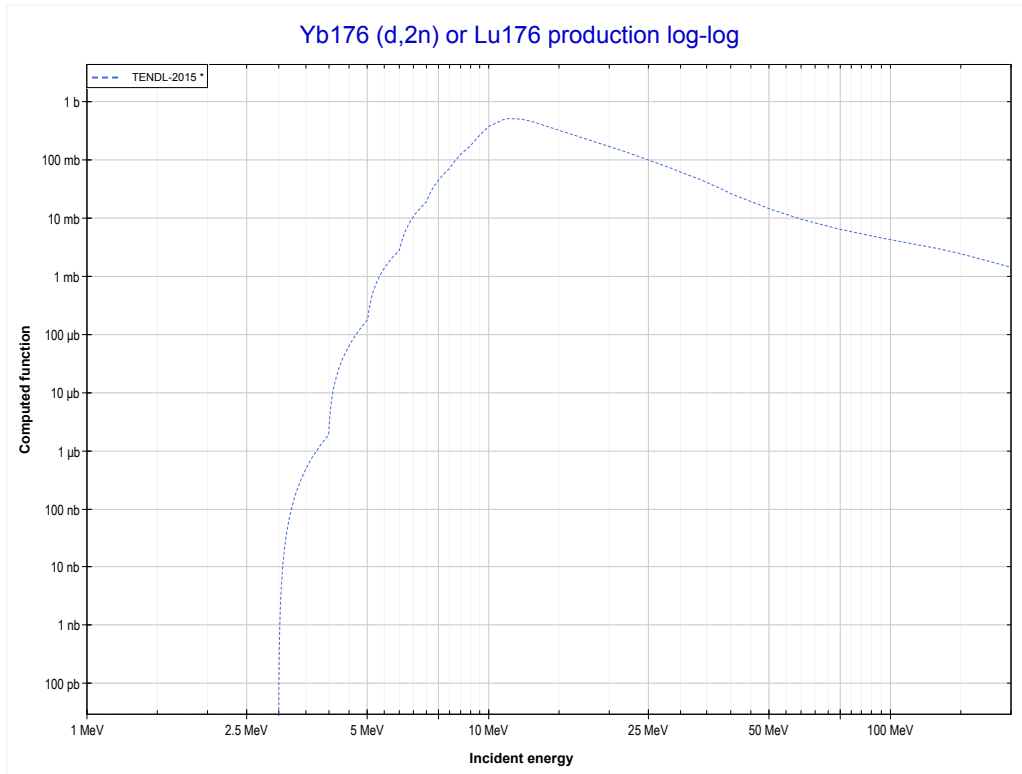


<< 58-Ce-142	<b>70-Yb-176</b>	78-Pt-194 >>
<< 69-Tm-169 MT152 (d,5n)	<b>MT4 (d,n) or MT5 (Lu177 production)</b>	MT16 (d,2n) >>



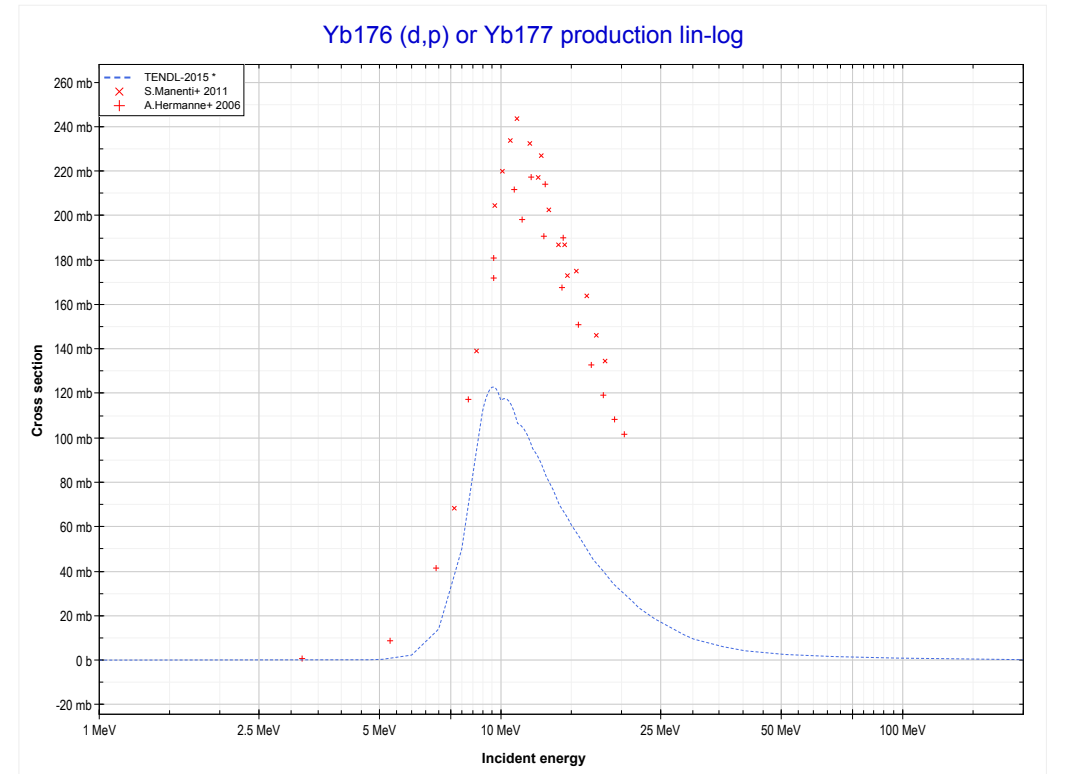
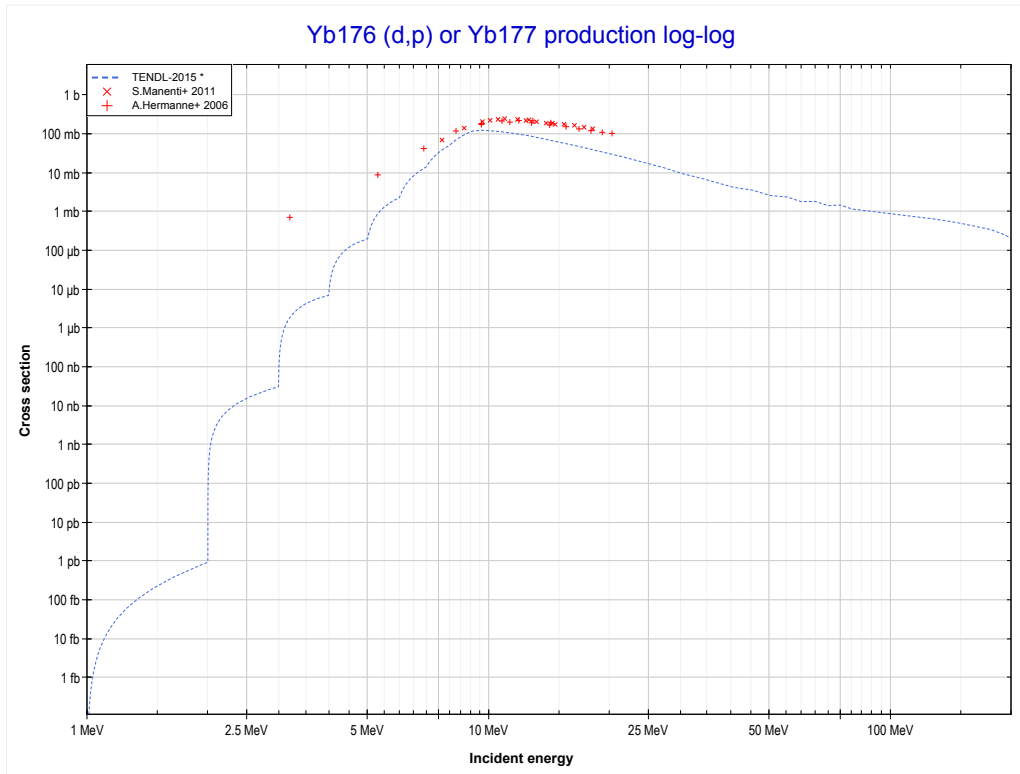
Reaction	Q-Value
Yb176(d,n)Lu177	3960.50 keV

<< 69-Tm-169	<b>70-Yb-176</b>	72-Hf-174 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Lu176 production)</b>	MT103 (d,p) >>



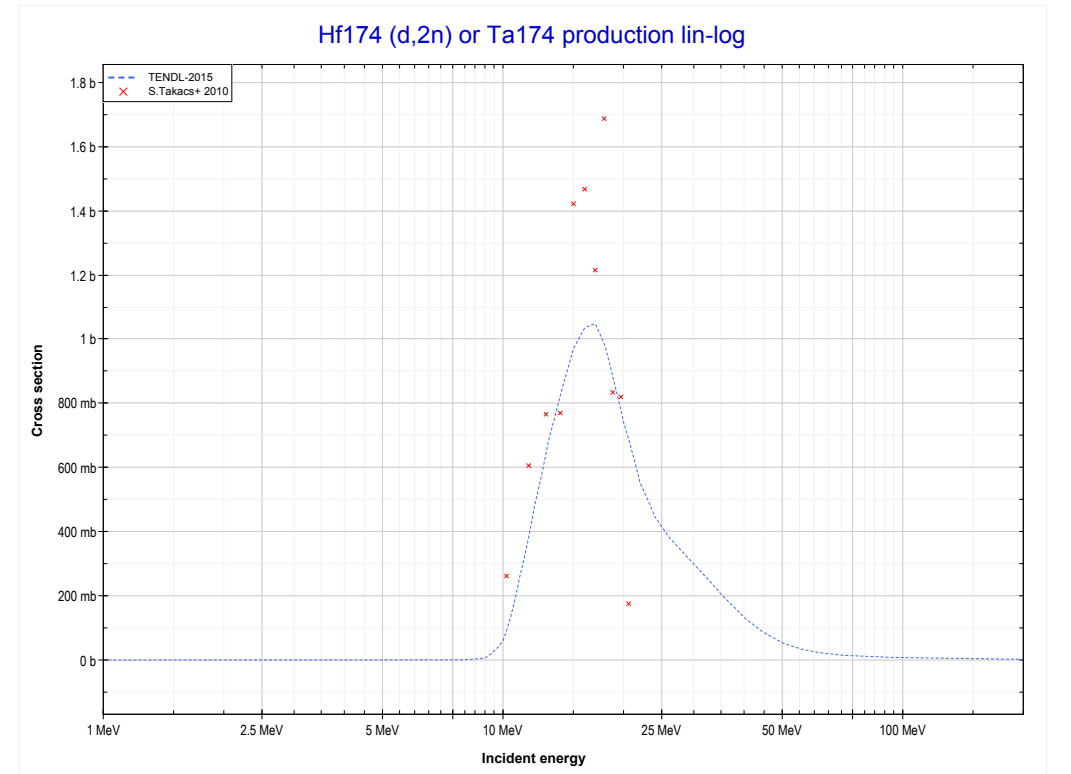
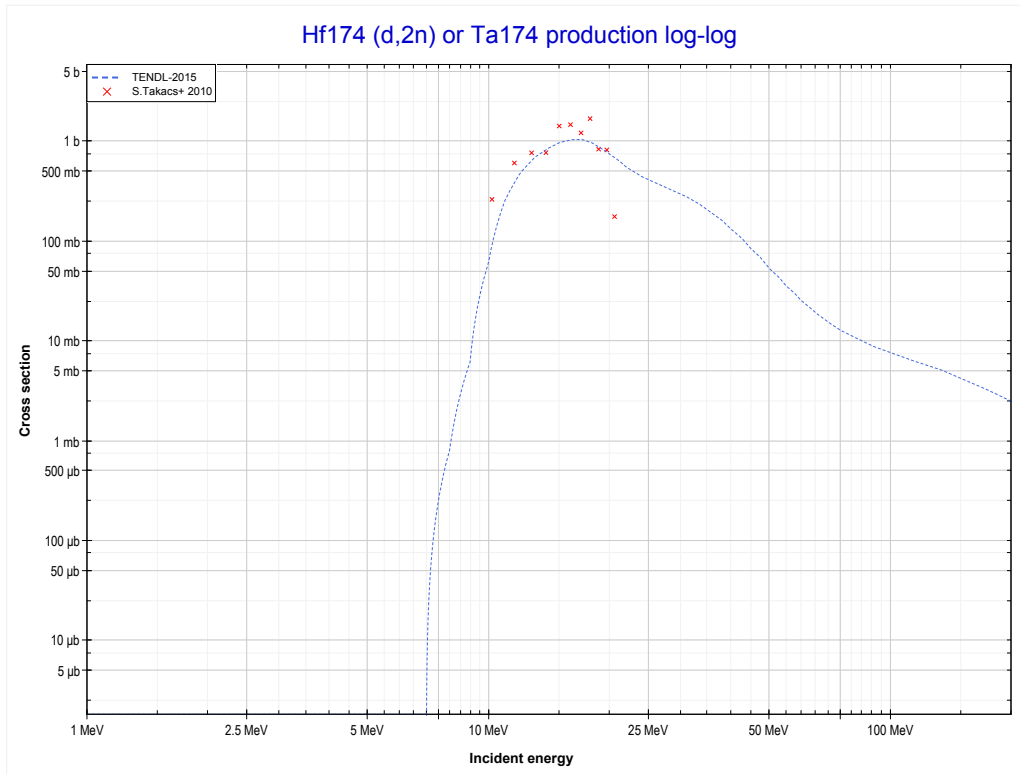
Reaction	Q-Value
Yb176(d,2n)Lu176	-3112.41 keV

<< 67-Ho-165	<b>70-Yb-176</b>	72-Hf-180 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Yb177 production)</b>	72-Hf-174 MT16 (d,2n) >>



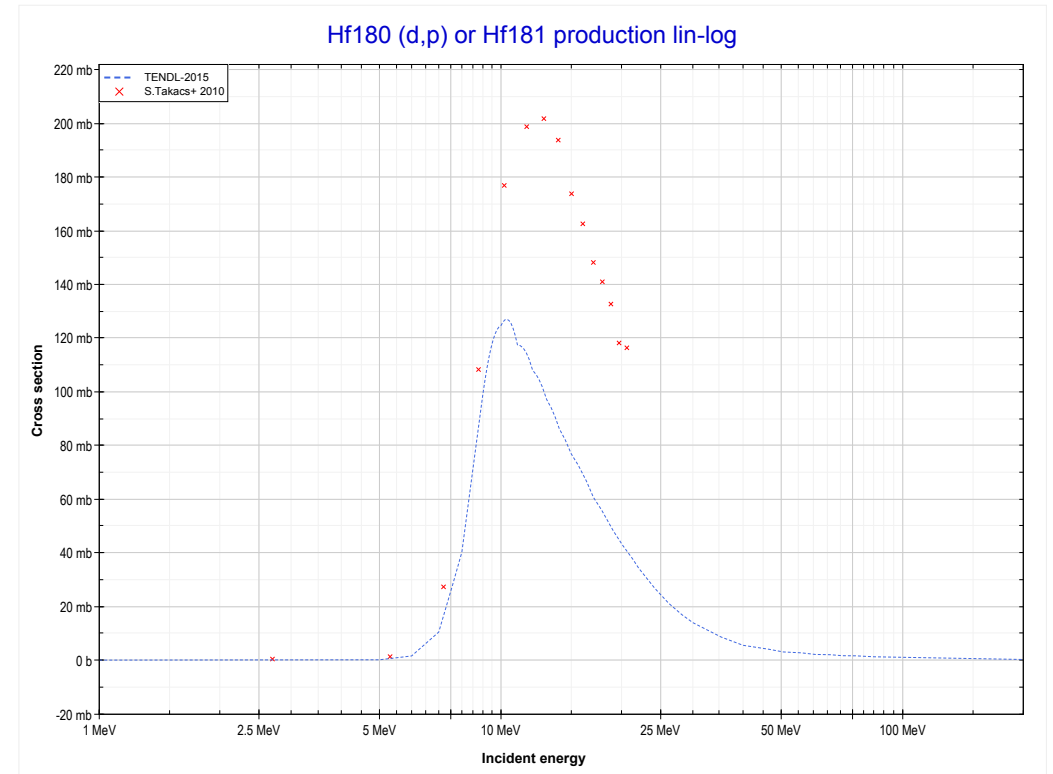
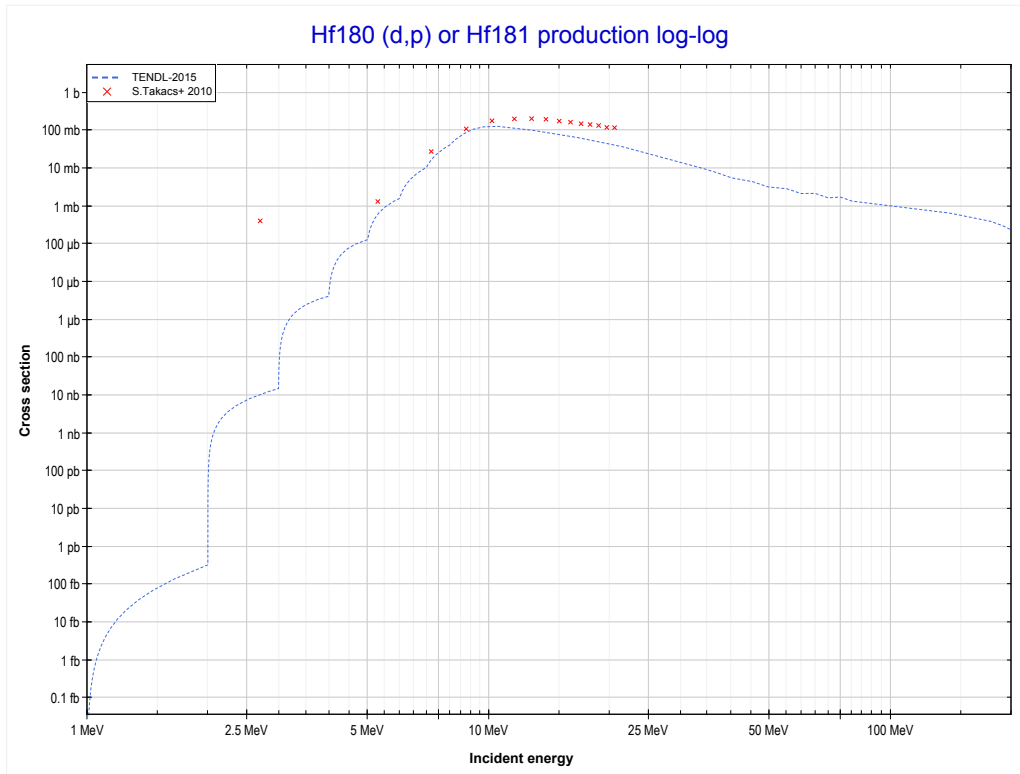
Reaction	Q-Value
Yb176(d,p)Yb177	3341.85 keV

<< 70-Yb-176	<b>72-Hf-174</b>	73-Ta-181 >>
<< 70-Yb-176 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (Ta174 production)</b>	72-Hf-180 MT103 (d,p) >>



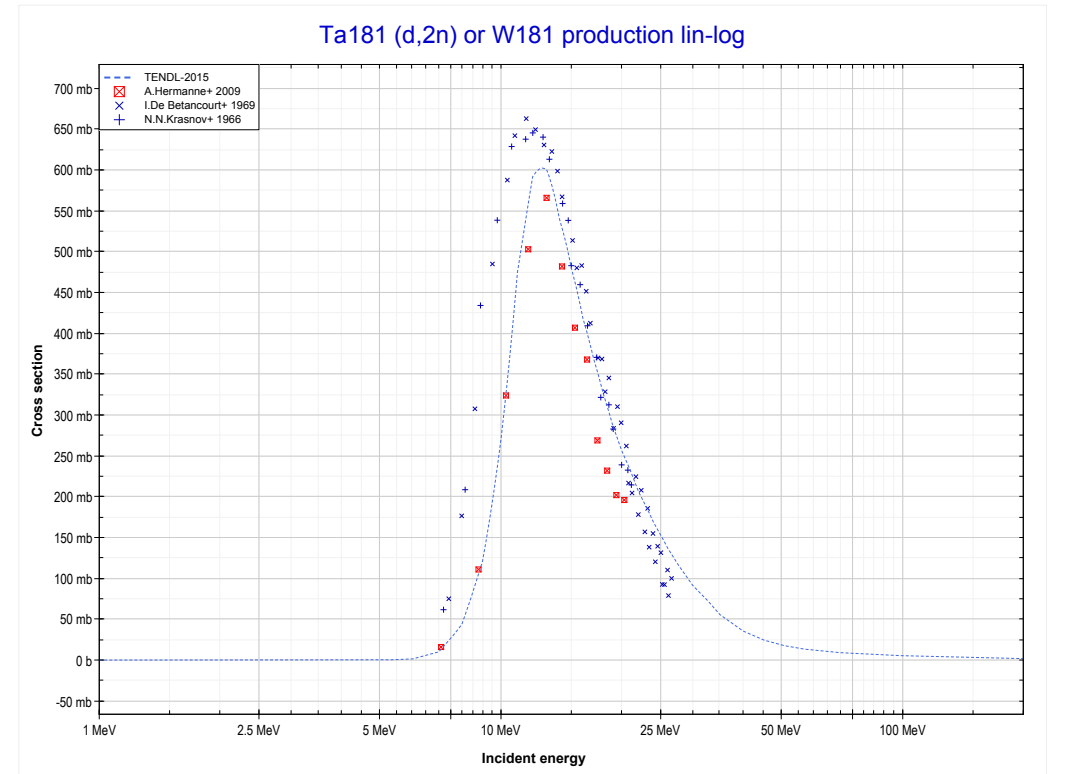
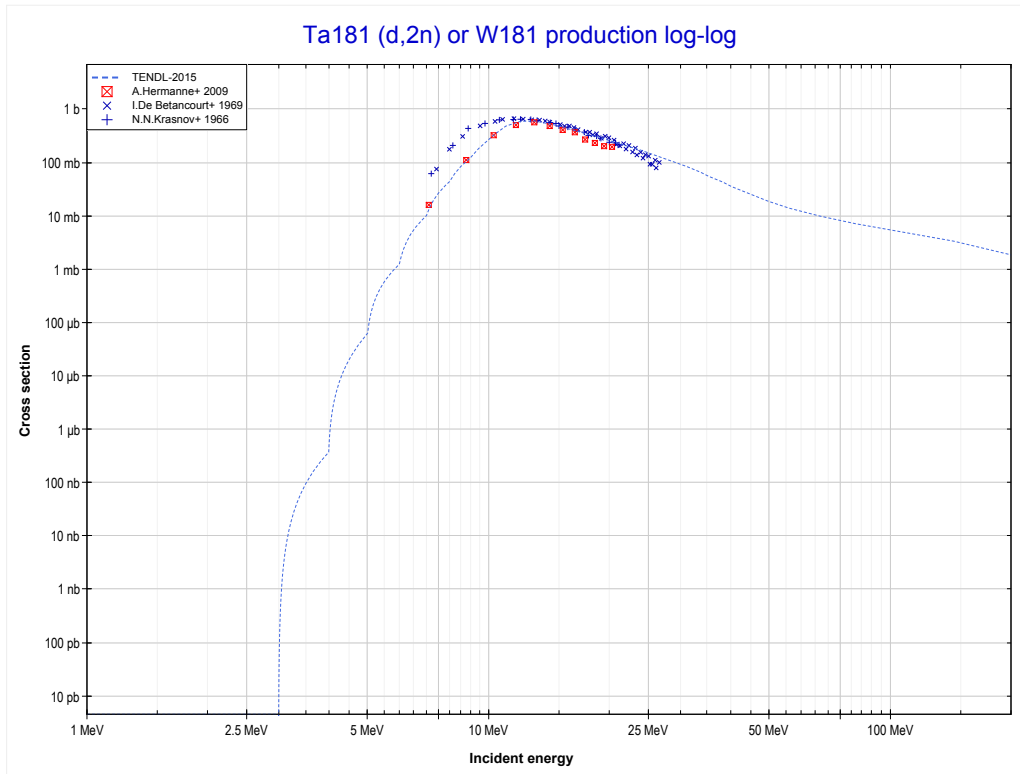
<b>Reaction</b>	<b>Q-Value</b>
Hf174(d,2n)Ta174	-7112.61 keV

<< 70-Yb-176	<b>72-Hf-180</b>	73-Ta-181 >>
<< 72-Hf-174 MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Hf181 production)</b>	73-Ta-181 MT16 (d,2n) >>



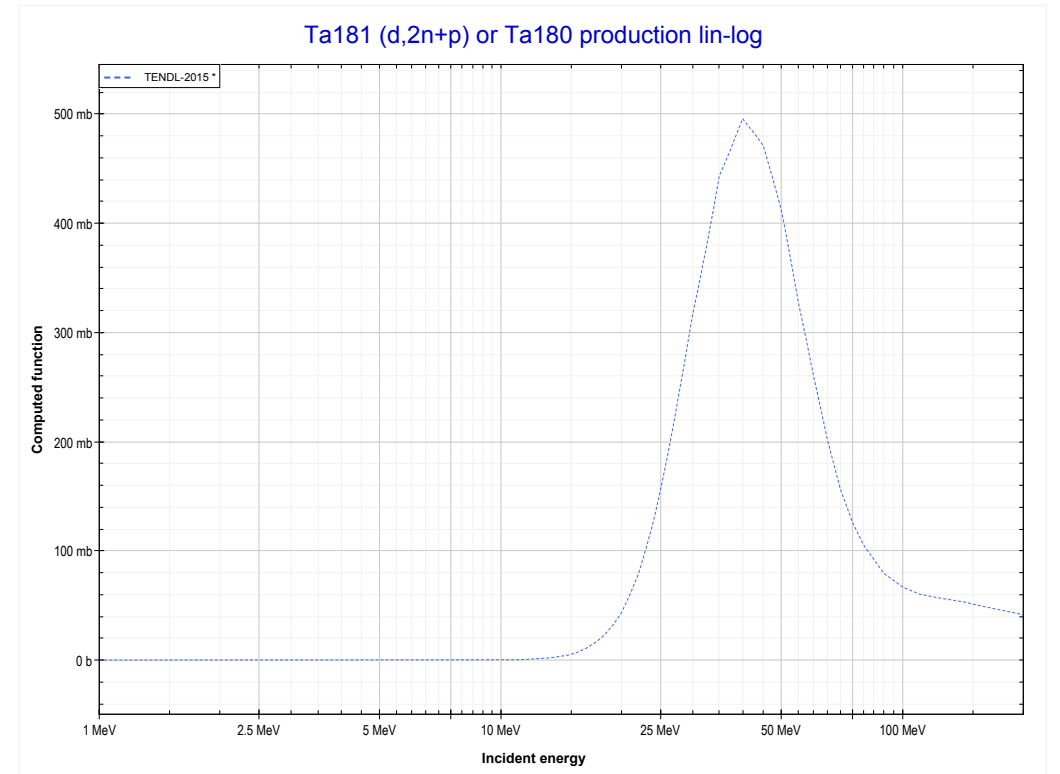
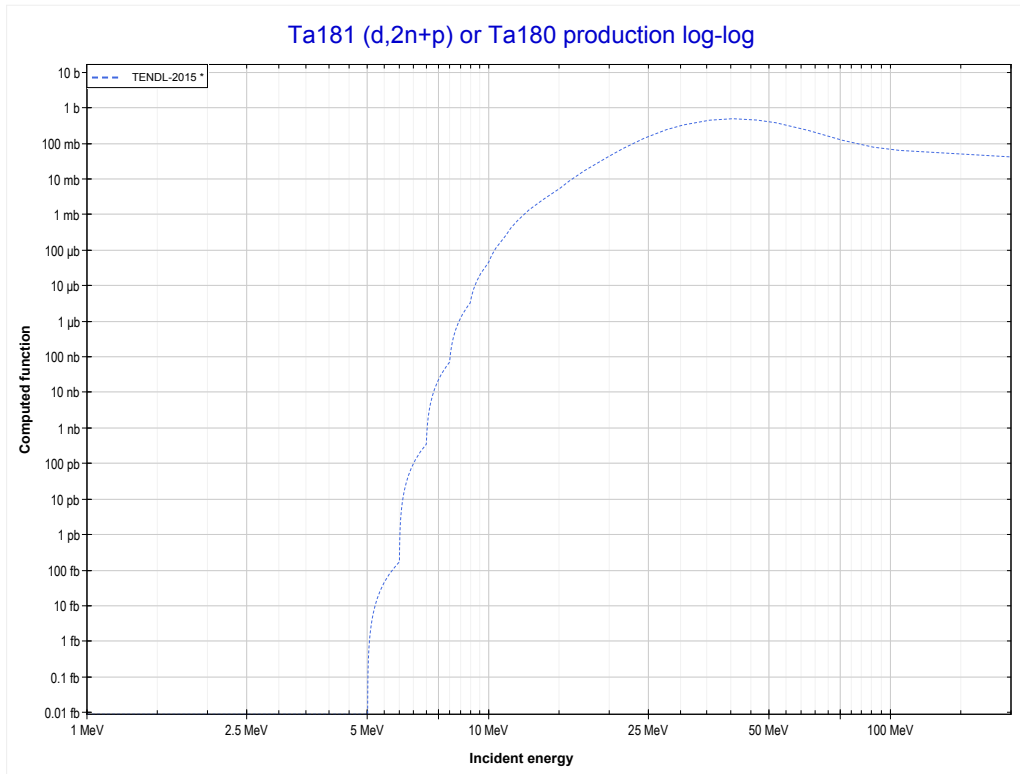
Reaction	Q-Value
Hf180(d,p)Hf181	3470.25 keV

<< 72-Hf-174	<b>73-Ta-181</b>	74-W-182 >>
<< 72-Hf-180 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (W181 production)</b>	MT41 (d,2n+p) >>



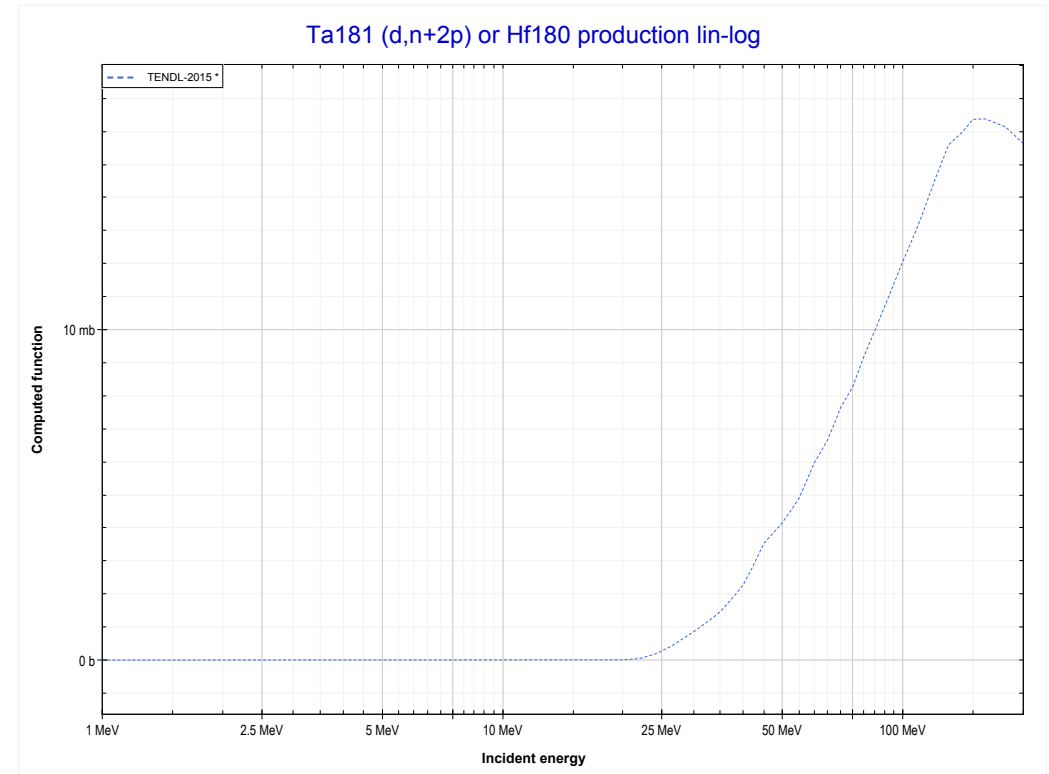
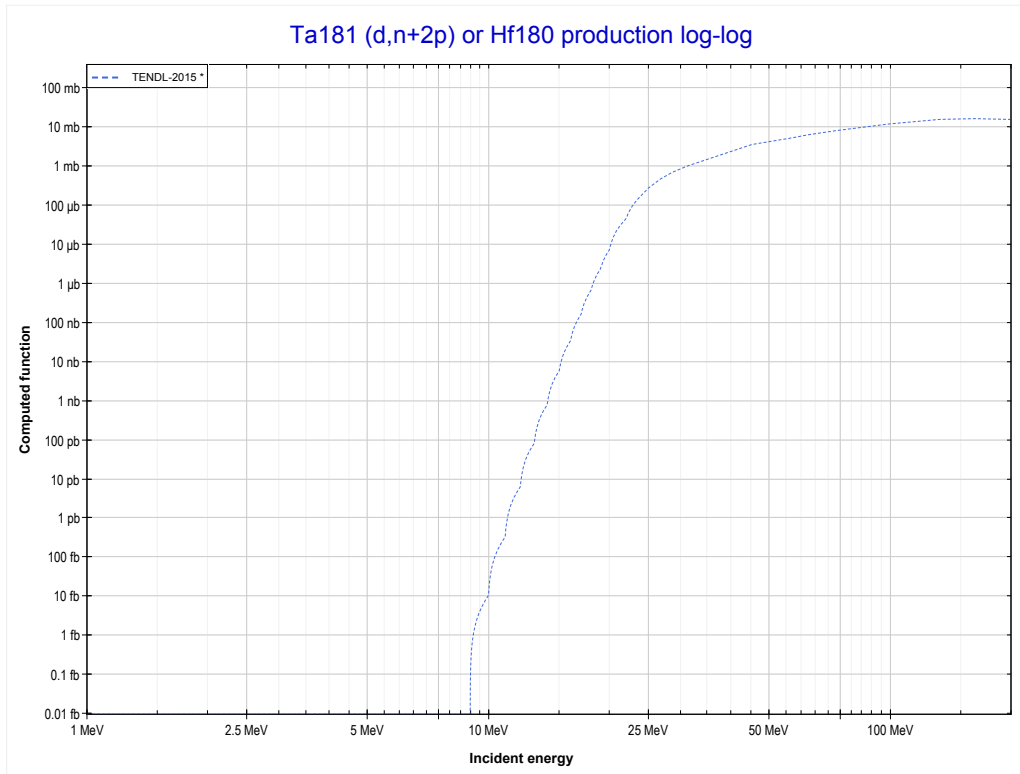
Reaction	Q-Value
Ta181(d,2n)W181	-3195.51 keV

<< 52-Te-122	<b>73-Ta-181</b>	79-Au-197 >>
<< MT16 (d,2n)	<b>MT41 (d,2n+p) or MT5 (Ta180 production)</b>	MT44 (d,n+2p) >>



Reaction	Q-Value
Ta181(d,t)Ta180	-1319.48 keV
Ta181(d,n+d)Ta180	-7576.72 keV
Ta181(d,2n+p)Ta180	-9801.28 keV

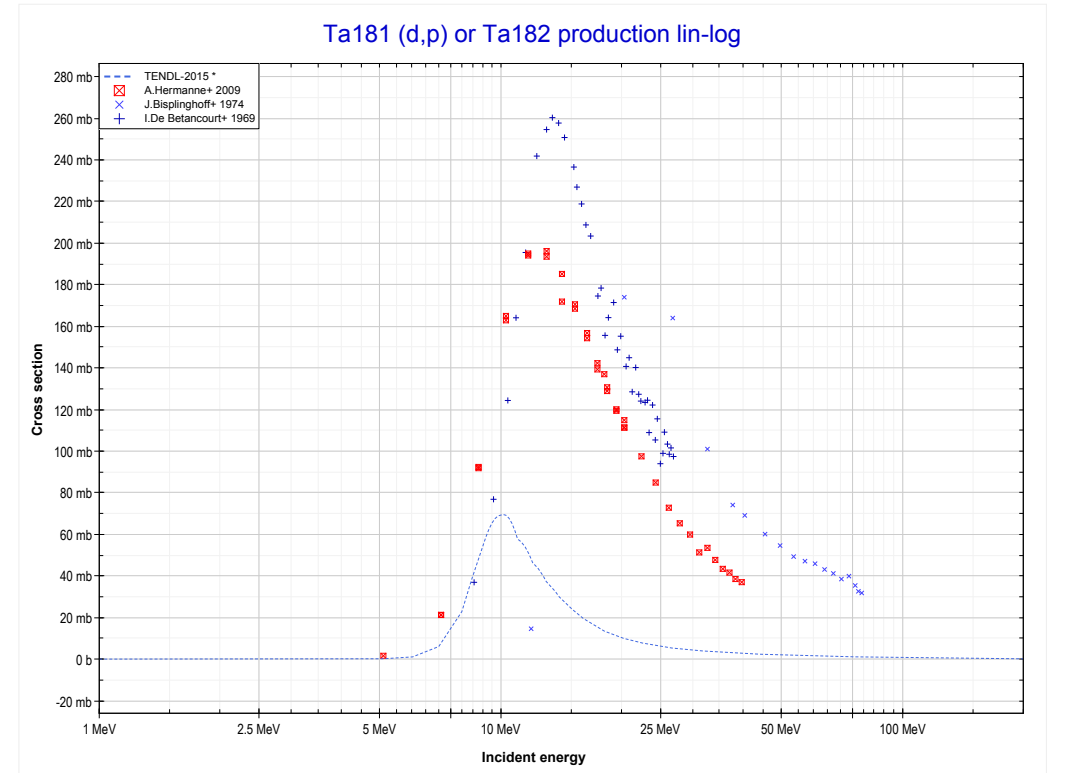
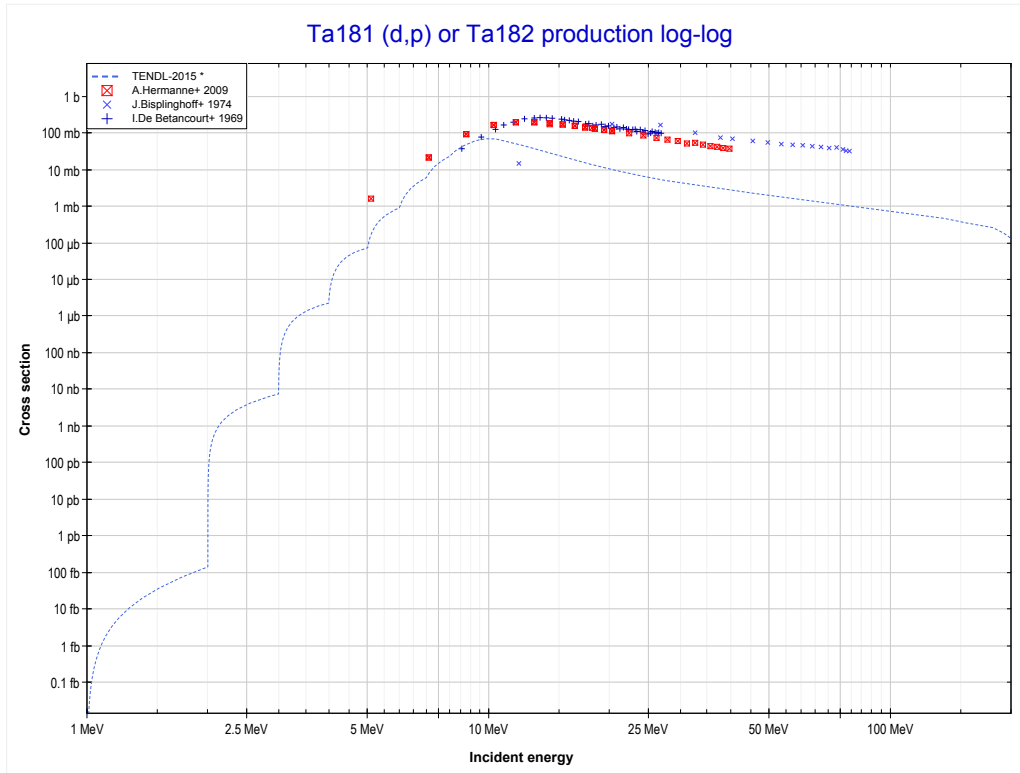
<< 58-Ce-142	<b>73-Ta-181</b>	
<< MT41 (d,2n+p)	<b>MT44 (d,n+2p) or MT5 (Hf180 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Ta181(d,He3)Hf180	-455.29 keV
Ta181(d,p+d)Hf180	-5948.77 keV
Ta181(d,n+2p)Hf180	-8173.34 keV

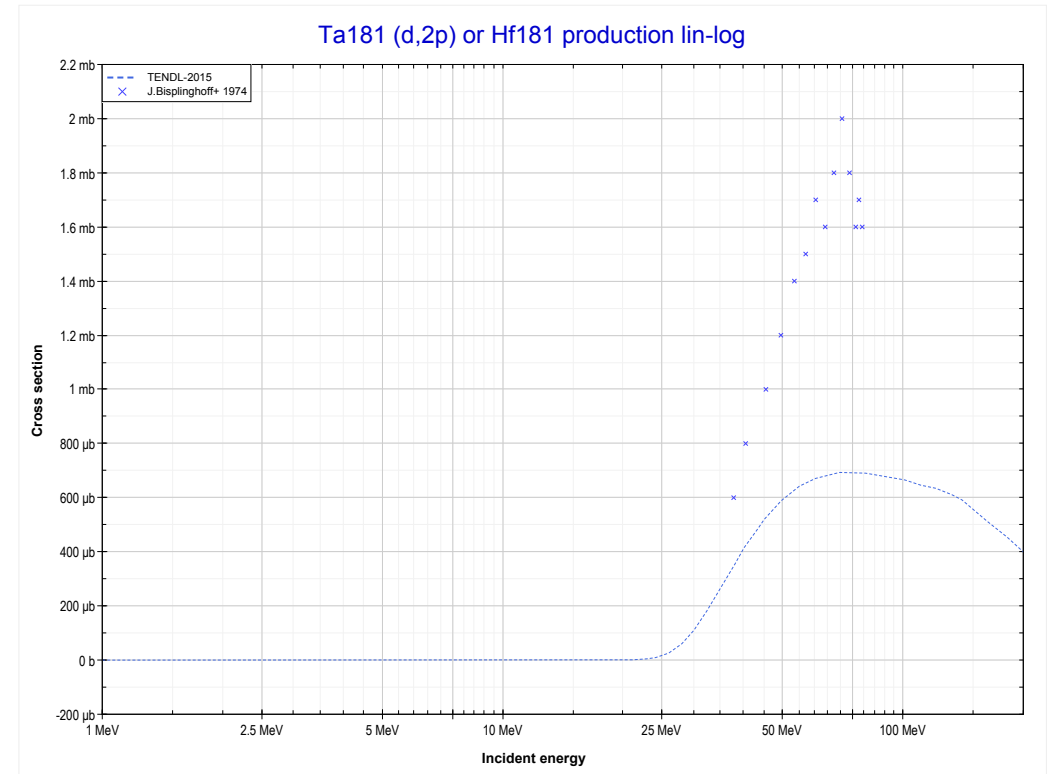
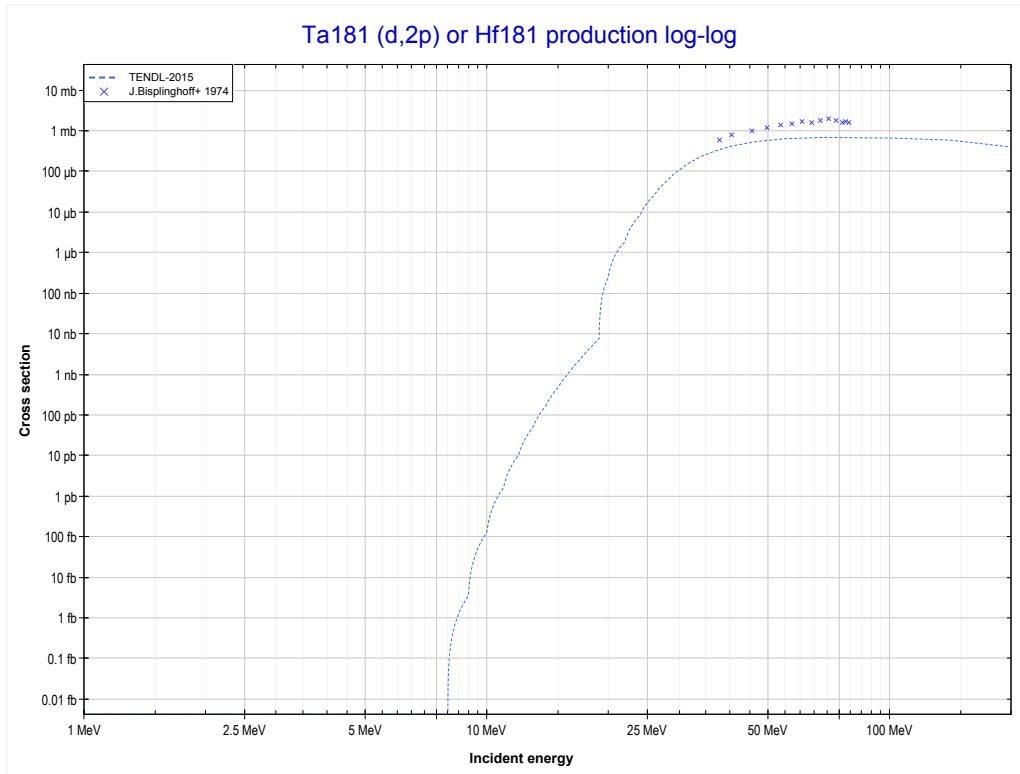


<< 72-Hf-180	<b>73-Ta-181</b>	74-W-184 >>
<< MT44 (d,n+2p)	<b>MT103 (d,p) or MT5 (Ta182 production)</b>	MT111 (d,2p) >>



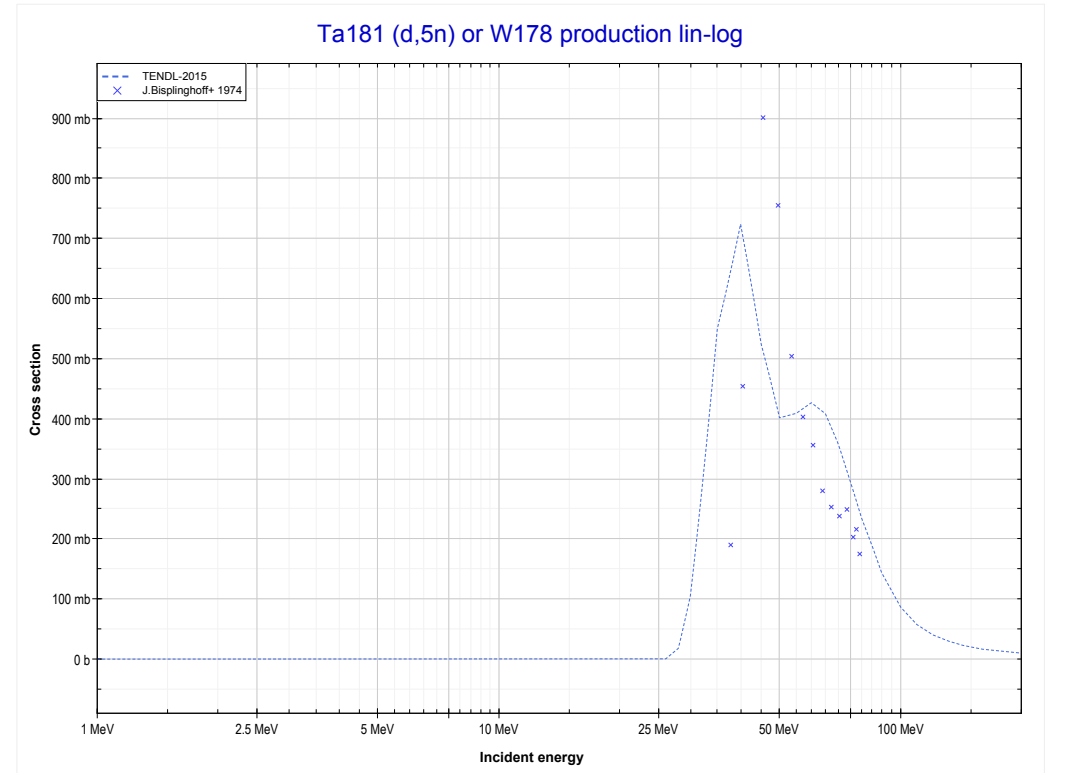
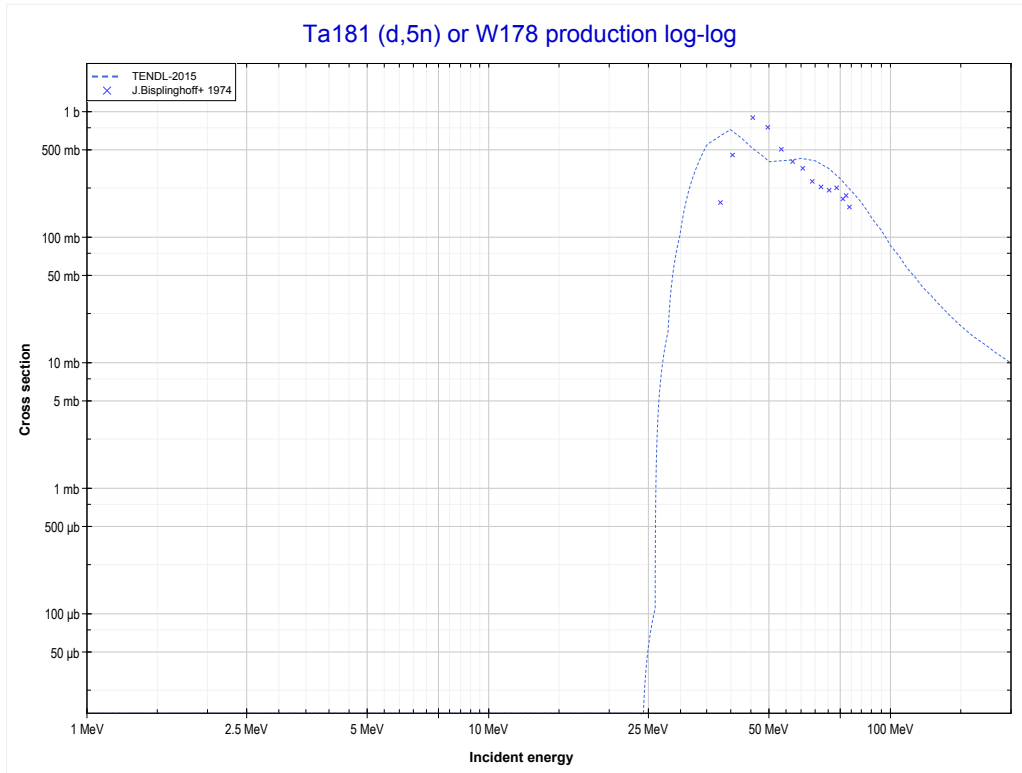
Reaction	Q-Value
Ta181(d,p)Ta182	3838.35 keV

<< 59-Pr-141	<b>73-Ta-181</b>	
<< MT103 (d,p)	<b>MT111 (d,2p) or MT5 (Hf181 production)</b>	MT152 (d,5n) >>



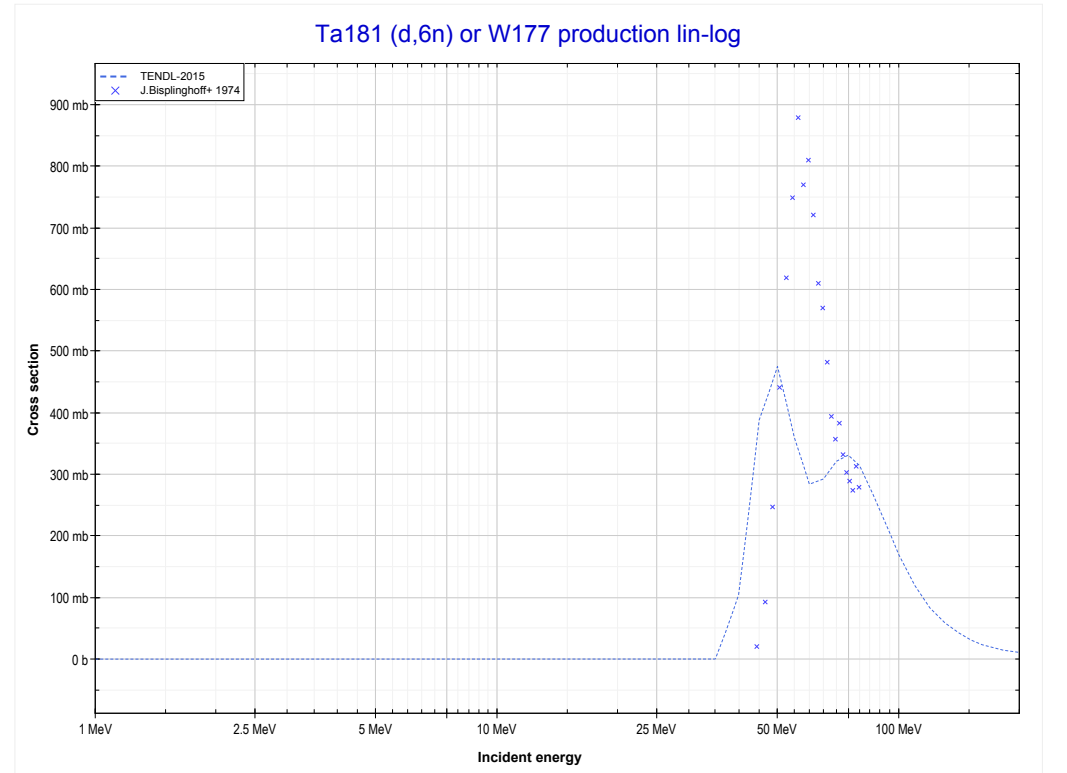
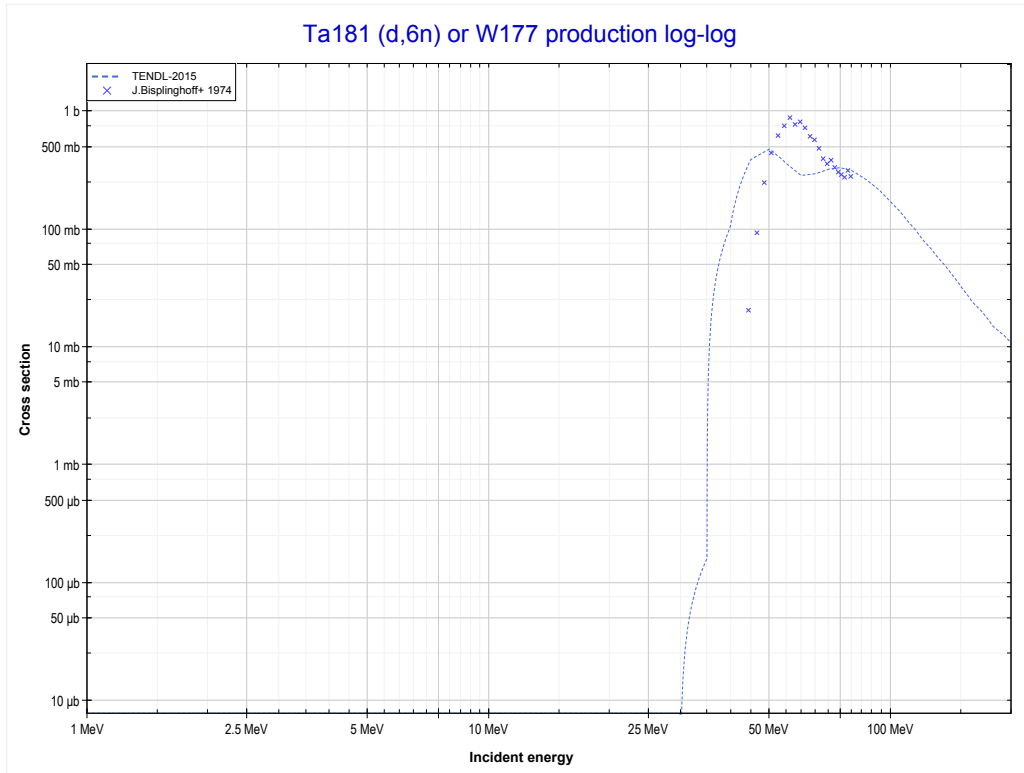
Reaction	Q-Value
Ta181(d,2p)Hf181	-2478.52 keV

<< 69-Tm-169	<b>73-Ta-181</b>	81-Tl-203 >>
<< MT111 (d,2p)	<b>MT152 (d,5n) or MT5 (W178 production)</b>	MT153 (d,6n) >>



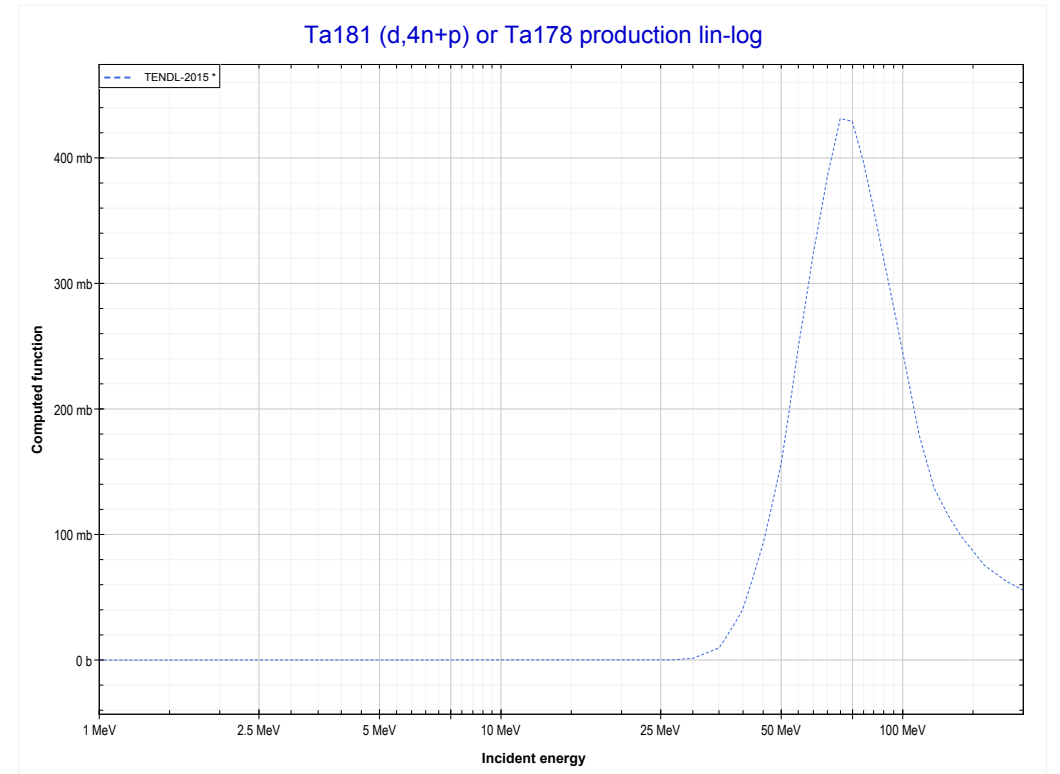
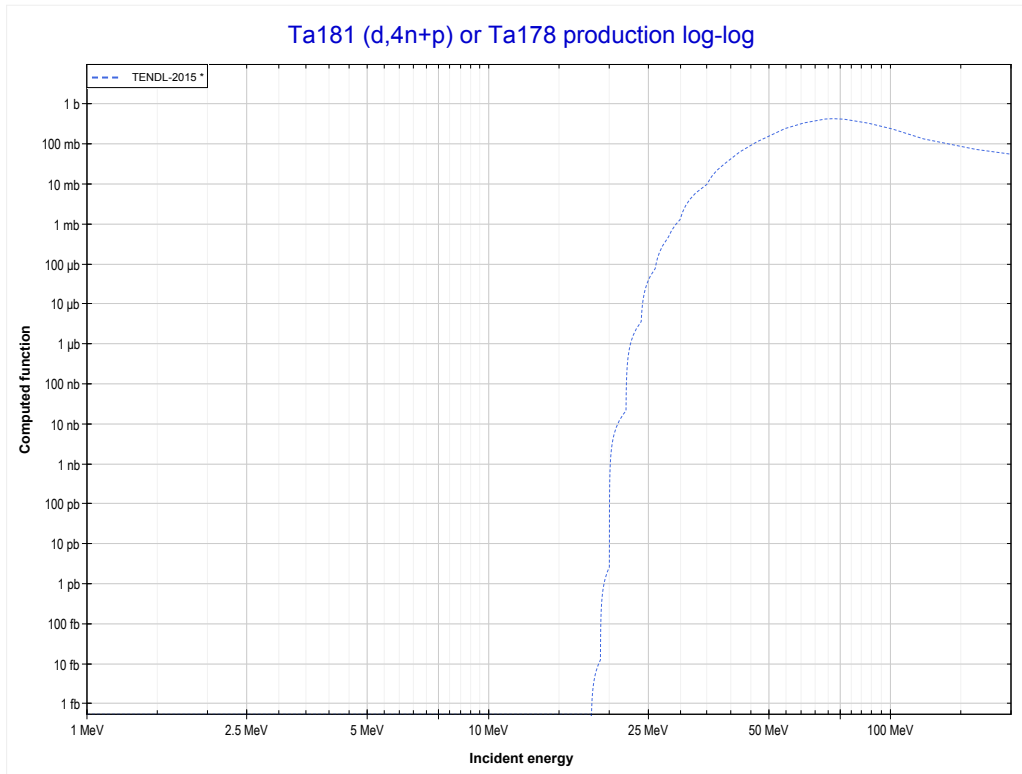
Reaction	Q-Value
Ta181(d,5n)W178	-25253.46 keV

<< 67-Ho-165	<b>73-Ta-181</b>	79-Au-197 >>
<< MT152 (d,5n)	<b>MT153 (d,6n) or MT5 (W177 production)</b>	MT156 (d,4n+p) >>



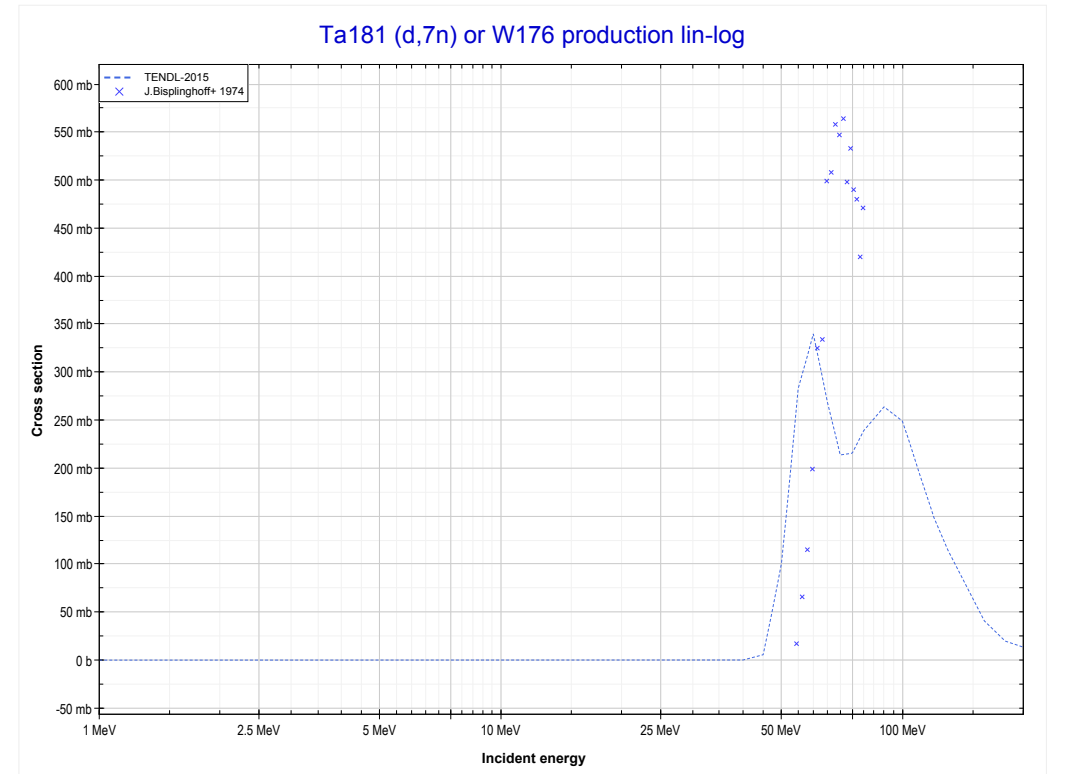
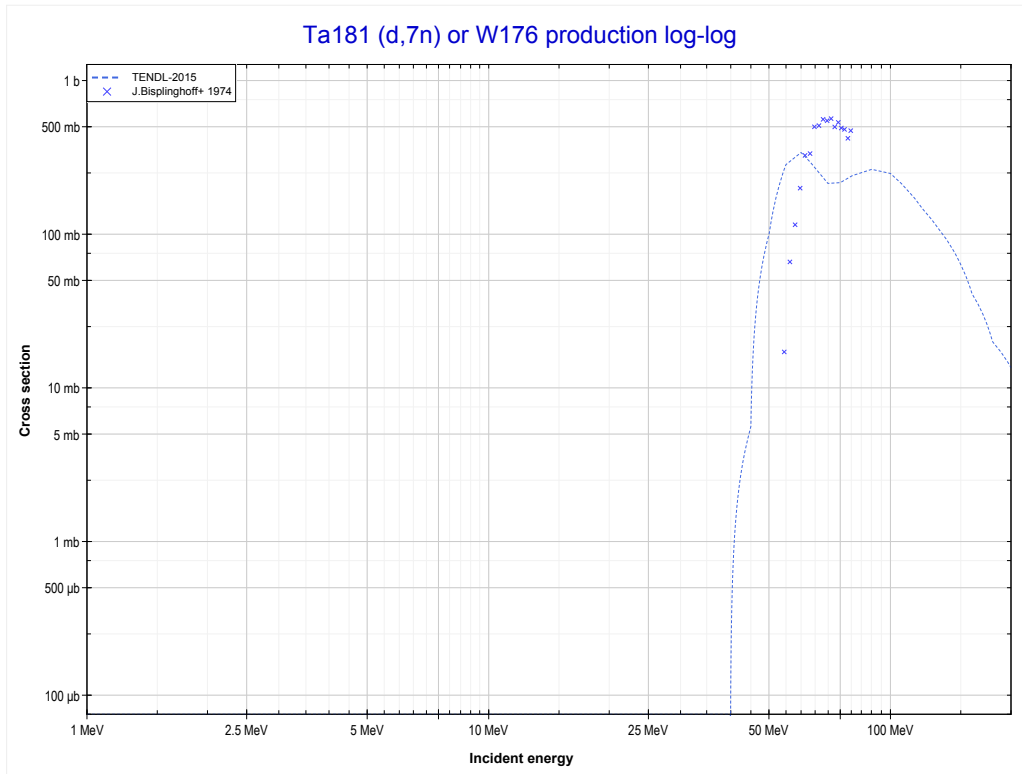
Reaction	Q-Value
Ta181(d,6n)W177	-34031.78 keV

	<b>73-Ta-181</b>	<a href="#">83-Bi-209 &gt;&gt;</a>
<a href="#">&lt;&lt; MT153 (d,6n)</a>	<b>MT156 (d,4n+p) or MT5 (Ta178 production)</b>	<a href="#">MT160 (d,7n) &gt;&gt;</a>



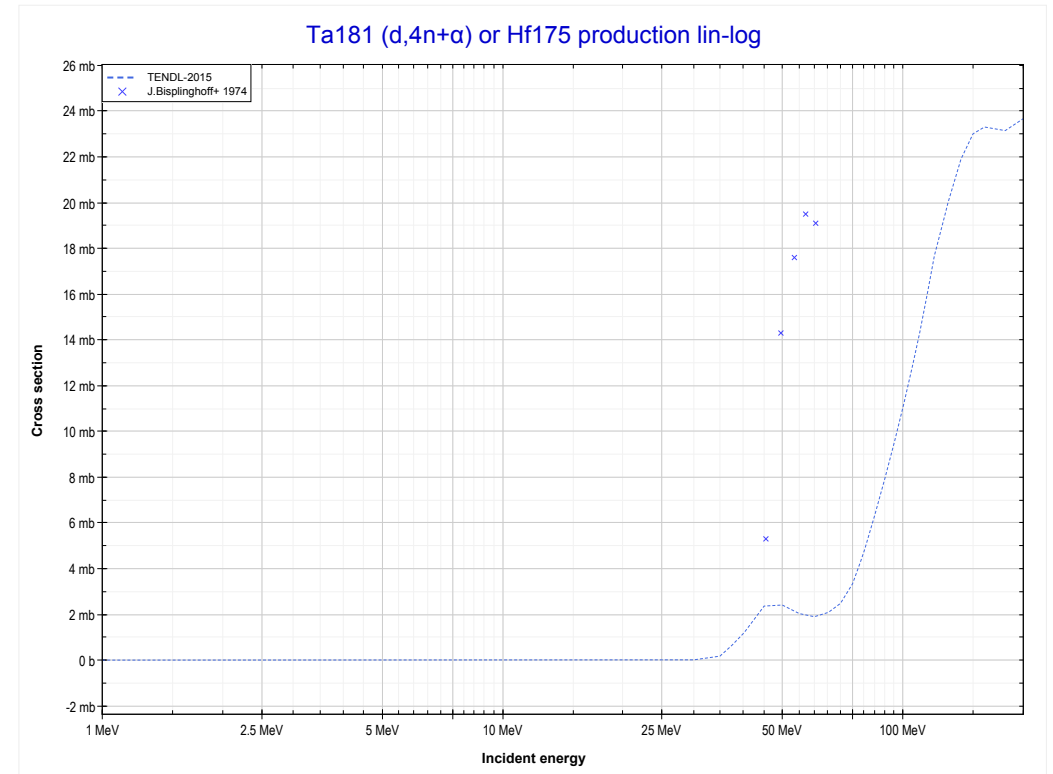
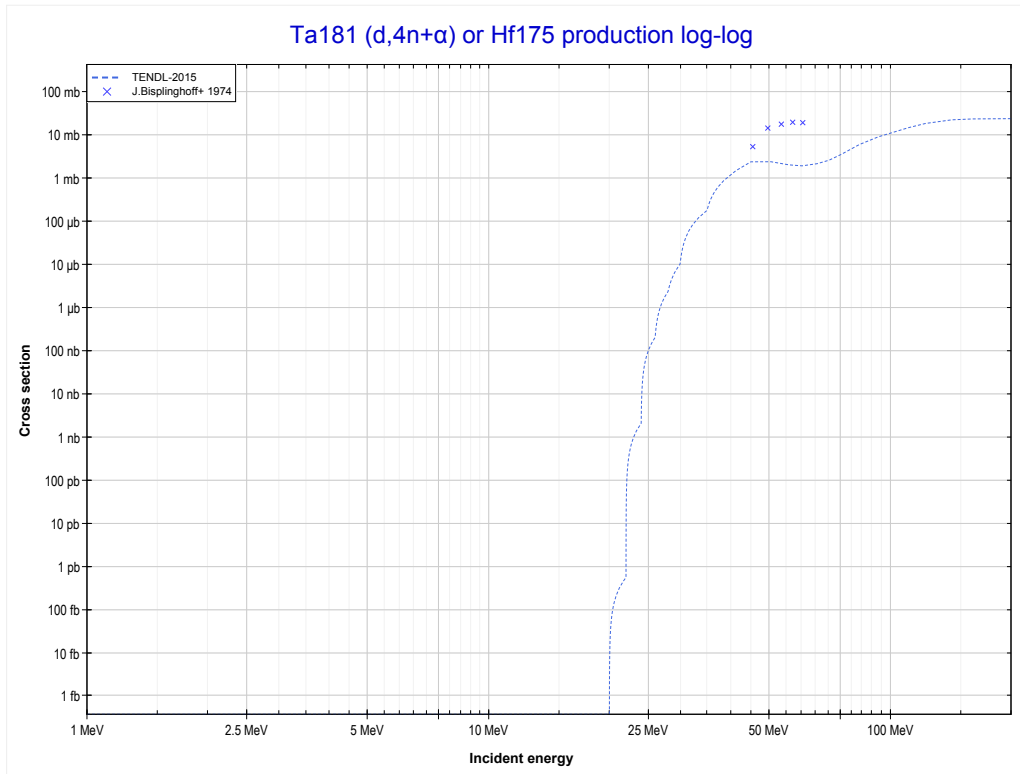
Reaction	Q-Value
Ta181(d,2n+t)Ta178	-15798.32 keV
Ta181(d,3n+d)Ta178	-22055.55 keV
Ta181(d,4n+p)Ta178	-24280.12 keV

<< 53-I-127	<b>73-Ta-181</b>	79-Au-197 >>
<< MT156 (d,4n+p)	<b>MT160 (d,7n) or MT5 (W176 production)</b>	MT165 (d,4n+α) >>



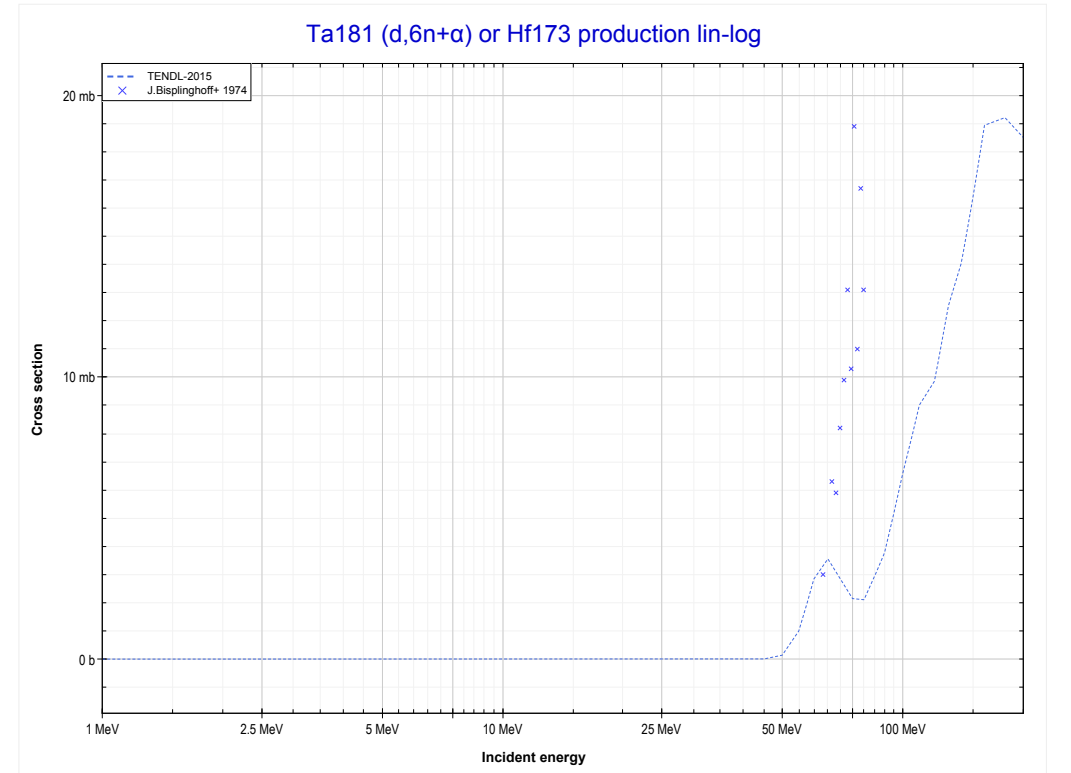
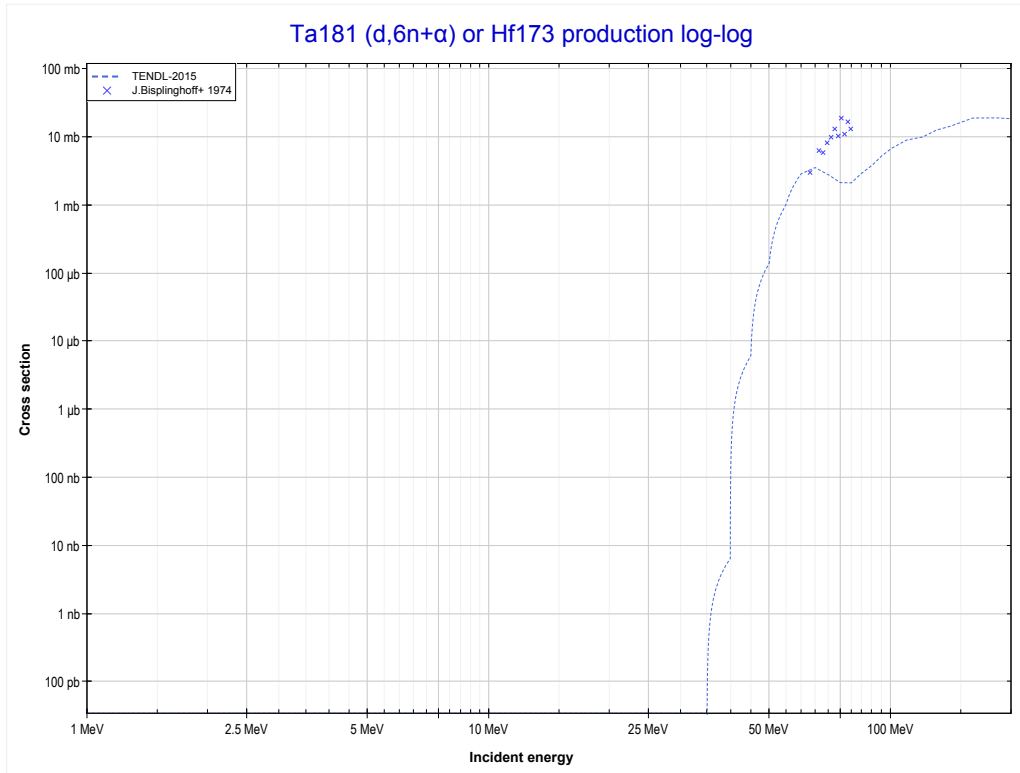
Reaction	Q-Value
Ta181(d,7n)W176	-41163.10 keV

<< 48-Cd-112	<b>73-Ta-181</b>	
<< MT160 (d,7n)	<b>MT165 (d,4n+α) or MT5 (Hf175 production)</b>	MT167 (d,6n+α) >>



Reaction	Q-Value
Ta181(d,4n+α)Hf175	-15532.26 keV
Ta181(d,2n+2t)Hf175	-26864.32 keV
Ta181(d,3n+d+t)Hf175	-33121.56 keV
Ta181(d,4n+p+t)Hf175	-35346.12 keV
Ta181(d,5n+He3)Hf175	-36109.88 keV
Ta181(d,4n+2d)Hf175	-39378.79 keV
Ta181(d,5n+p+d)Hf175	-41603.36 keV
Ta181(d,6n+2p)Hf175	-43827.92 keV

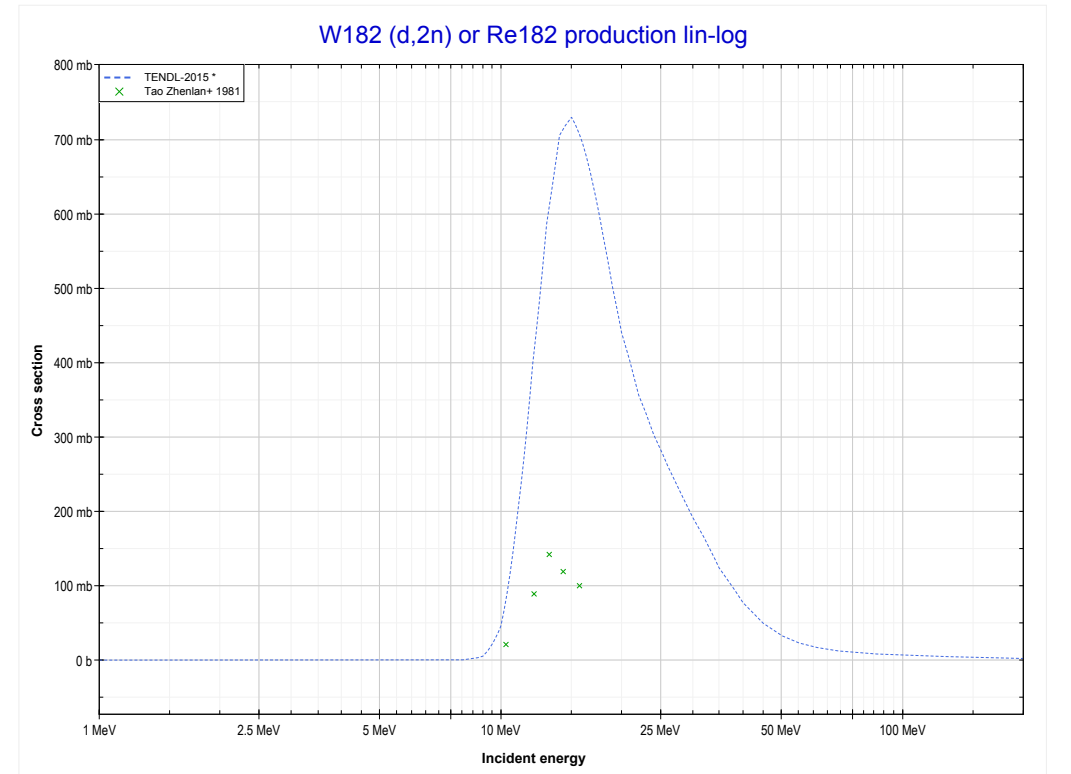
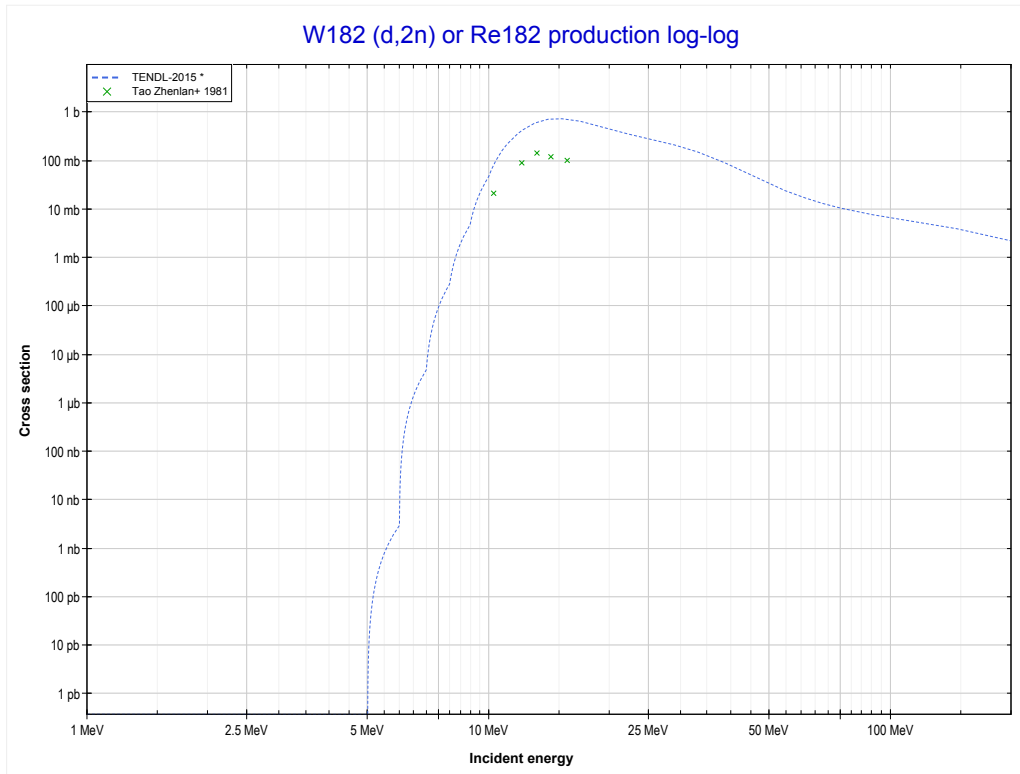
	<b>73-Ta-181</b>	
<< MT165 (d,4n+α)	<b>MT167 (d,6n+α) or MT5 (Hf173 production)</b>	74-W-182 MT16 (d,2n) >>



Reaction	Q-Value
Ta181(d,6n+α)Hf173	-30746.70 keV
Ta181(d,4n+2t)Hf173	-42078.76 keV
Ta181(d,5n+d+t)Hf173	-48335.99 keV
Ta181(d,6n+p+t)Hf173	-50560.56 keV
Ta181(d,7n+He3)Hf173	-51324.31 keV
Ta181(d,6n+2d)Hf173	-54593.22 keV
Ta181(d,7n+p+d)Hf173	-56817.79 keV
Ta181(d,8n+2p)Hf173	-59042.36 keV

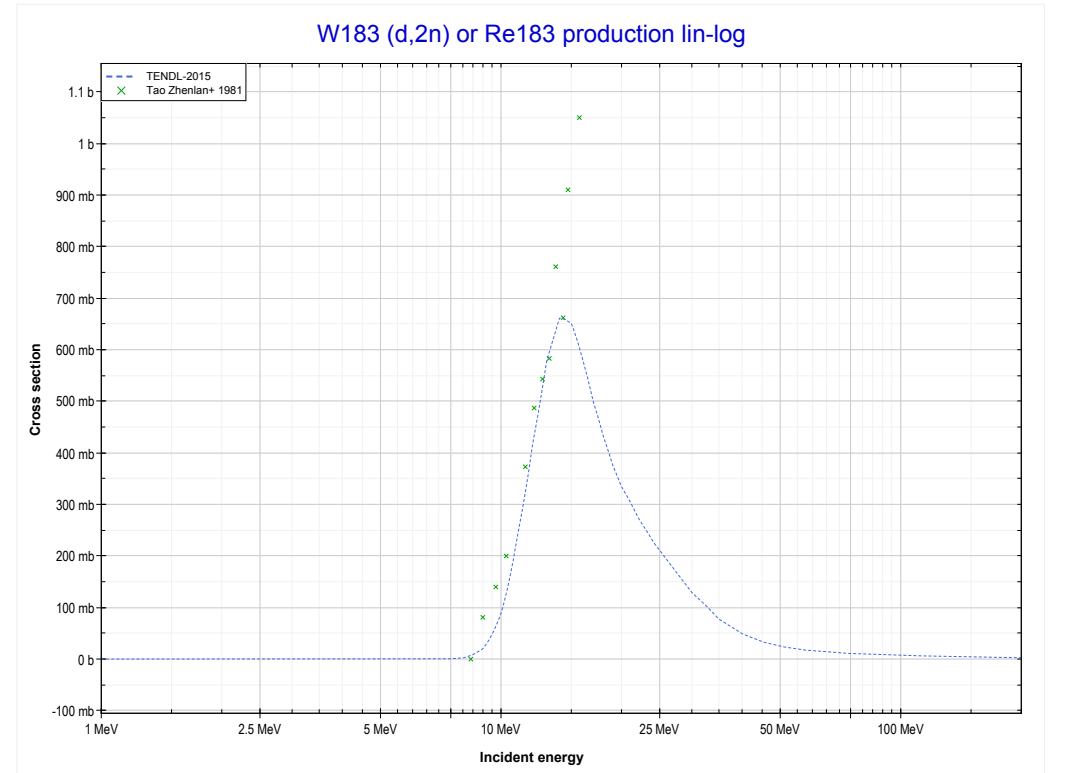
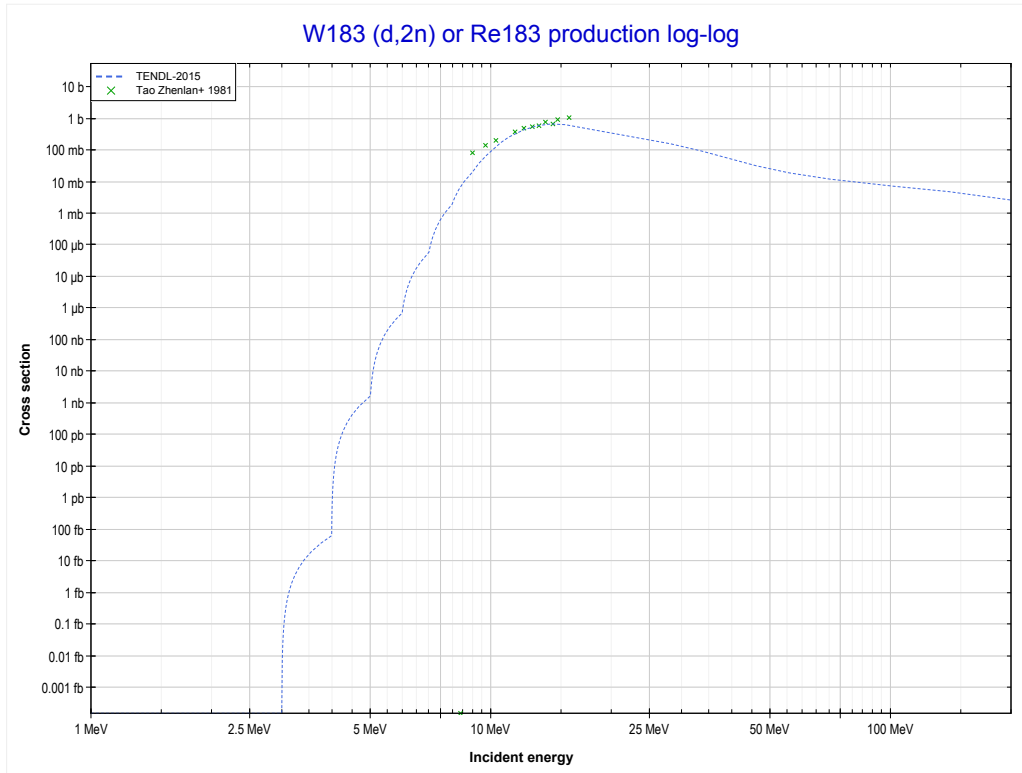


<< 73-Ta-181	<b>74-W-182</b>	74-W-183 >>
<< 73-Ta-181 MT167 (d,6n+α)	<b>MT16 (d,2n) or MT5 (Re182 production)</b>	74-W-183 MT16 (d,2n) >>



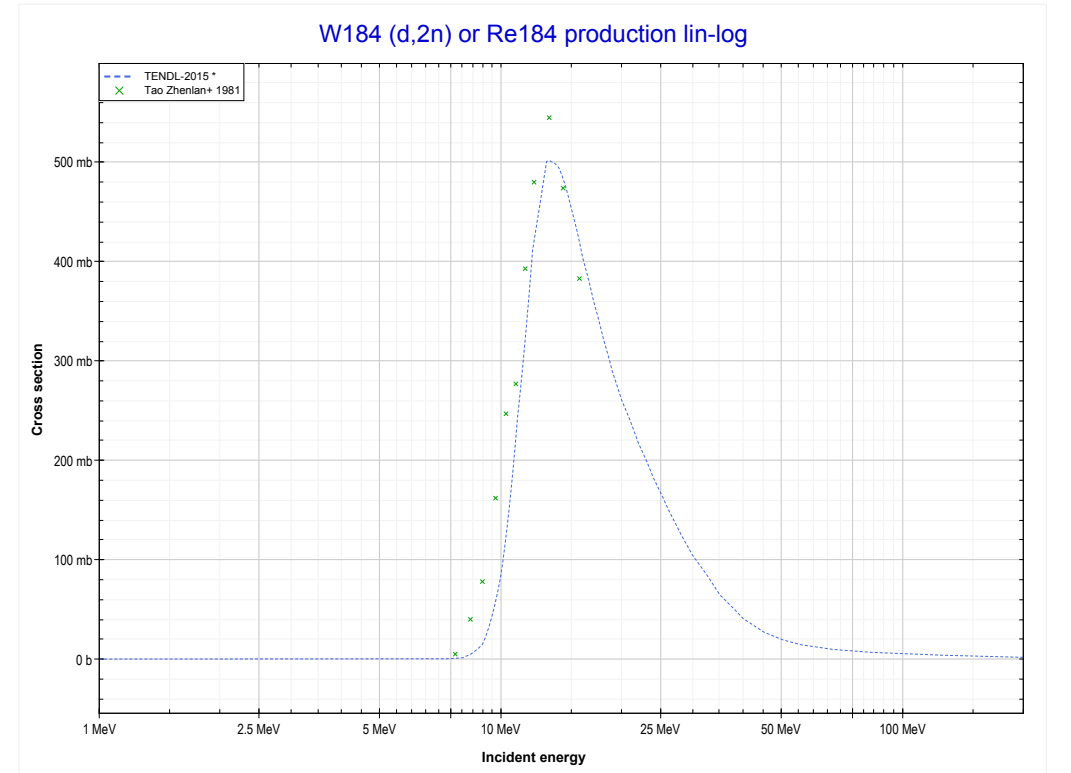
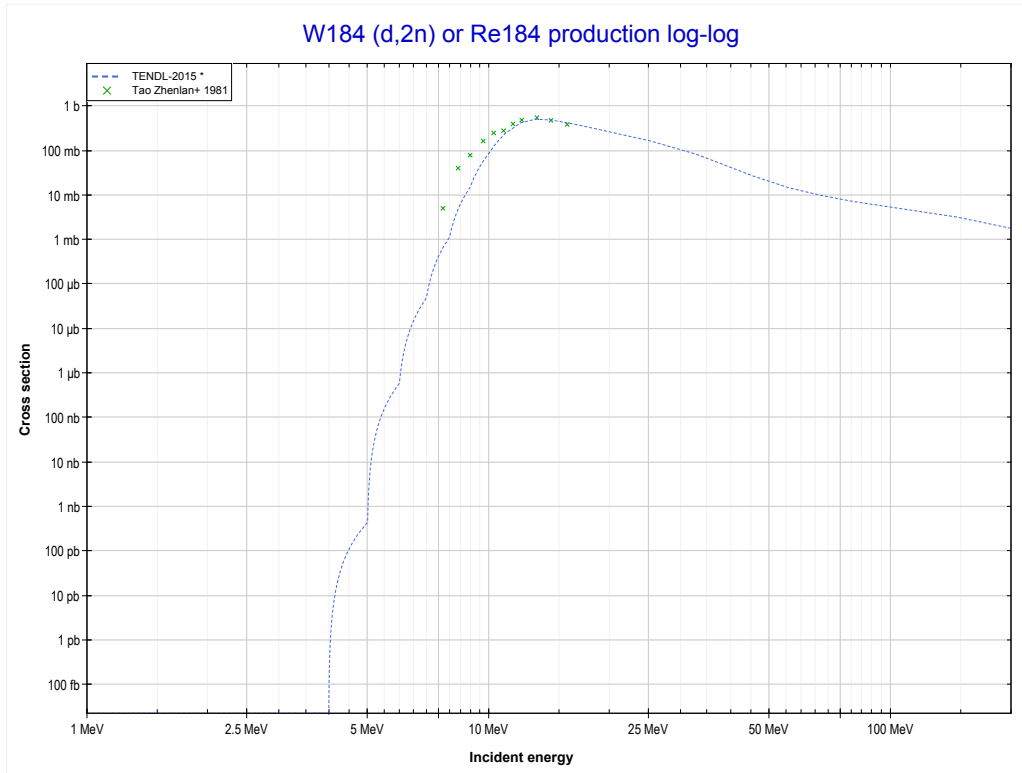
Reaction	Q-Value
W182(d,2n)Re182	-5804.61 keV

<< 74-W-182	<b>74-W-183</b>	74-W-184 >>
<< 74-W-182 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Re183 production)</b>	74-W-184 MT16 (d,2n) >>



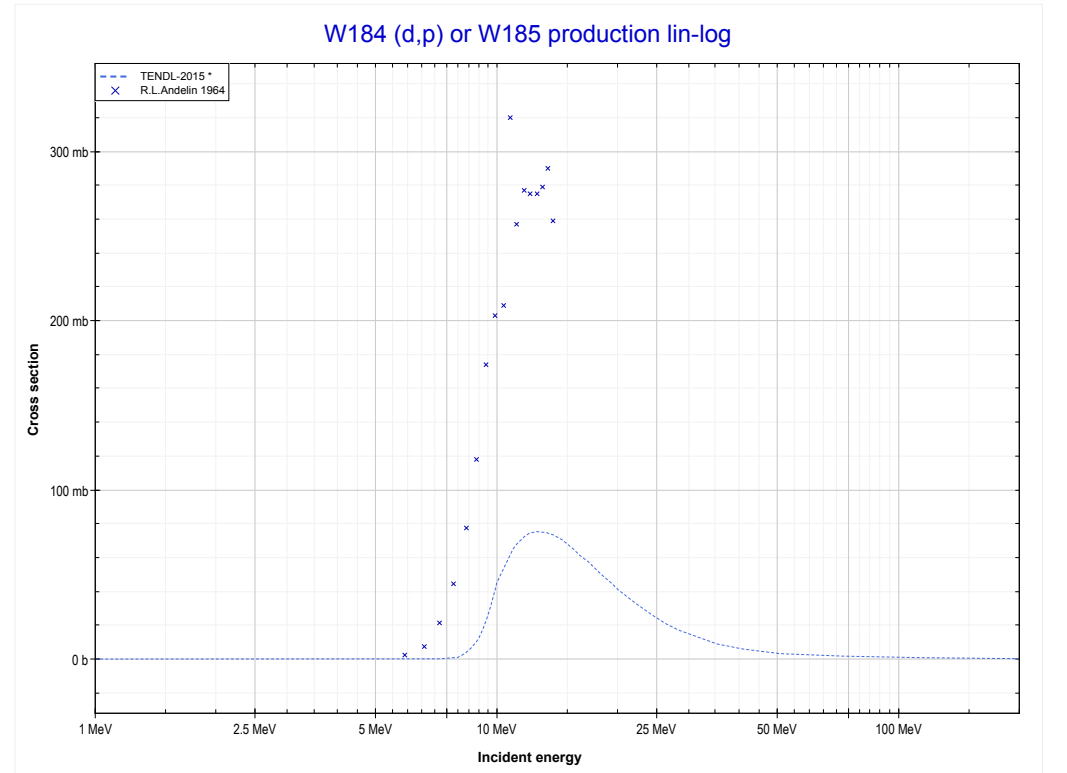
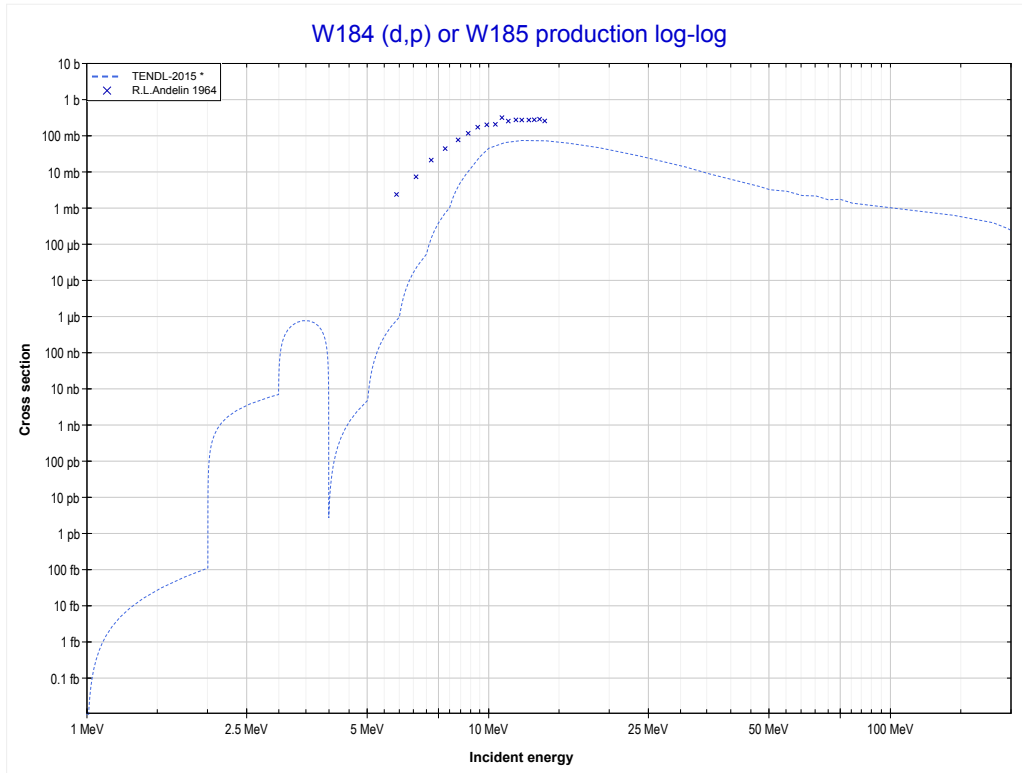
Reaction	Q-Value
W183(d,2n)Re183	-3563.11 keV

<< 74-W-183	<b>74-W-184</b>	74-W-186 >>
<< 74-W-183 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Re184 production)</b>	MT103 (d,p) >>



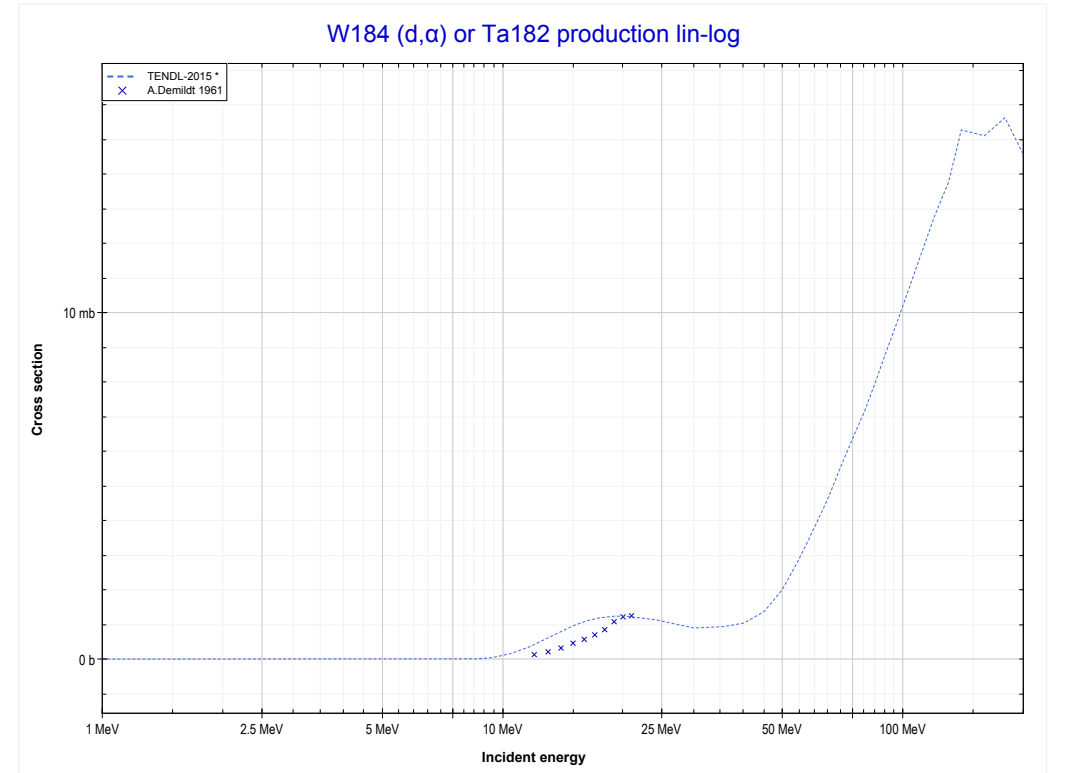
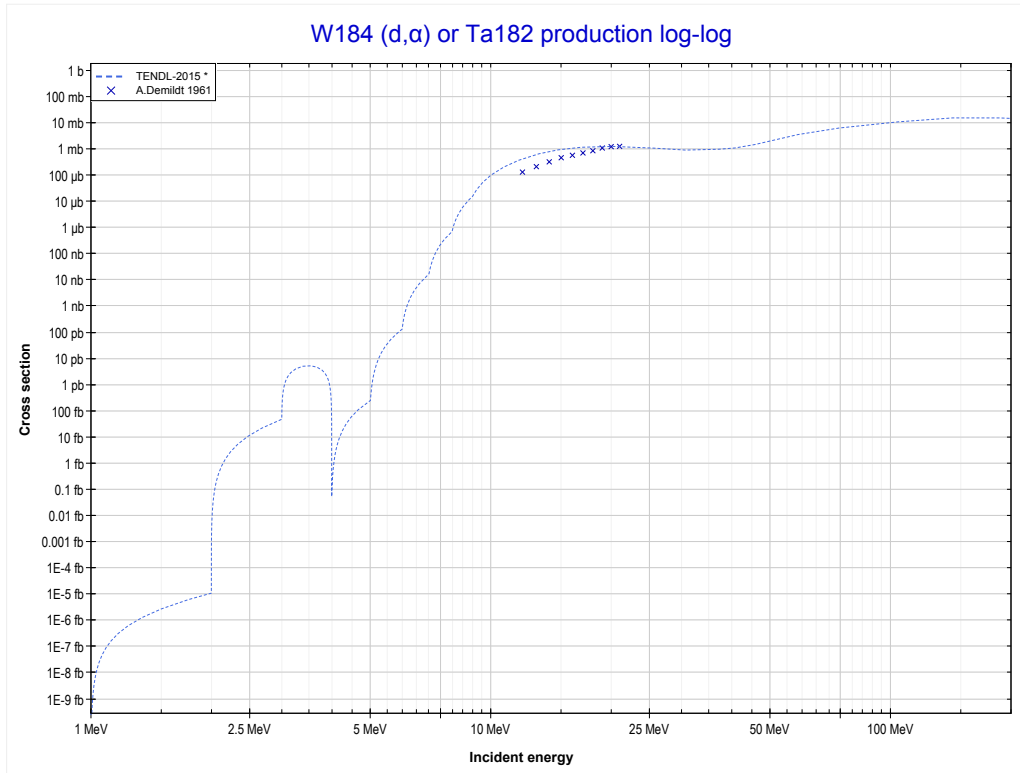
Reaction	Q-Value
W184(d,2n)Re184	-4489.51 keV

<< 73-Ta-181	<b>74-W-184</b>	74-W-186 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (W185 production)</b>	MT107 (d, $\alpha$ ) >>



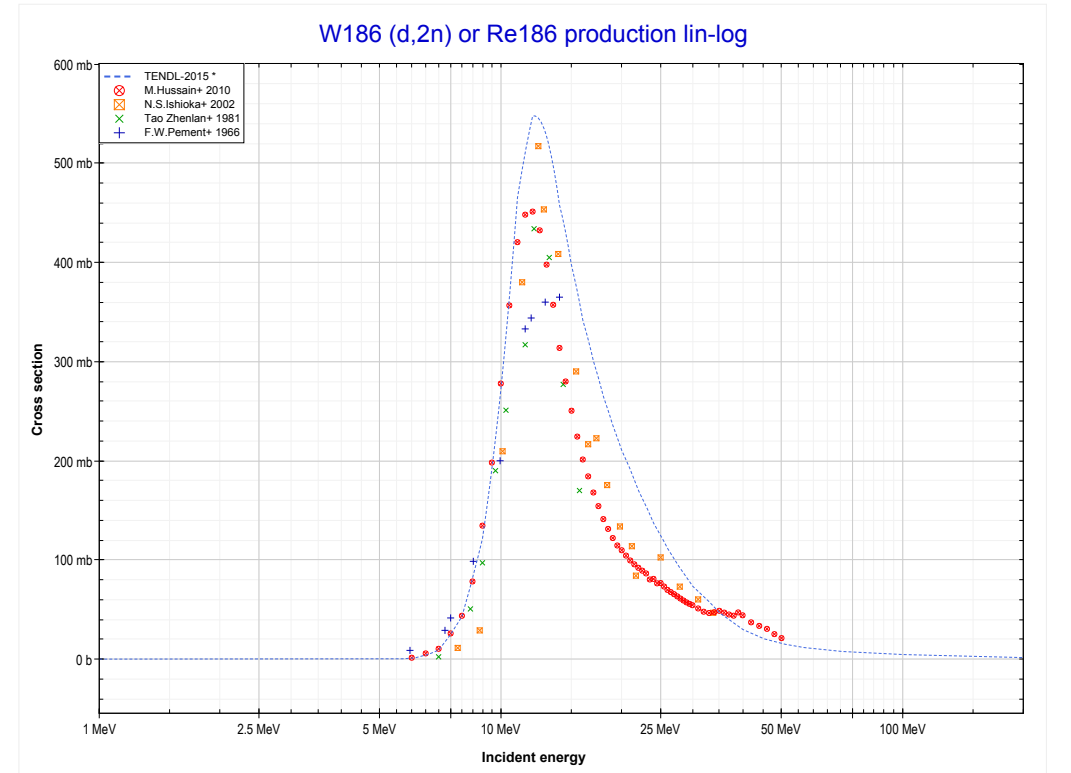
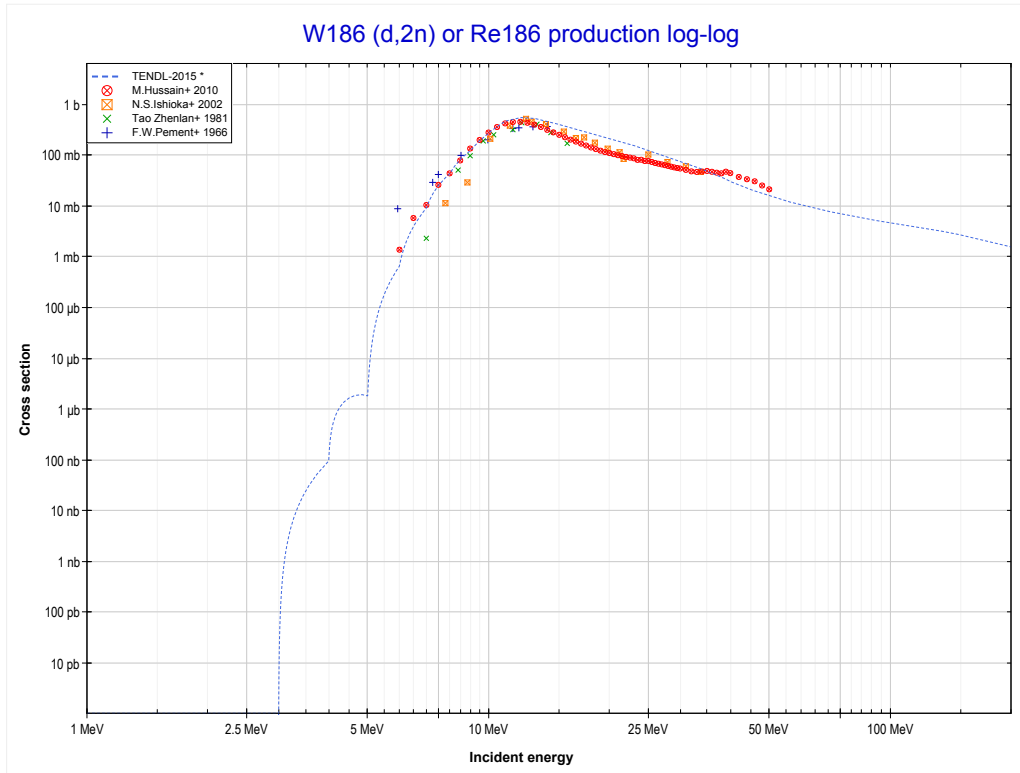
Reaction	Q-Value
W184(d,p)W185	3529.05 keV

<< 52-Te-122	<b>74-W-184</b>	74-W-186 >>
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Ta182 production)</b>	74-W-186 MT16 (d,2n) >>



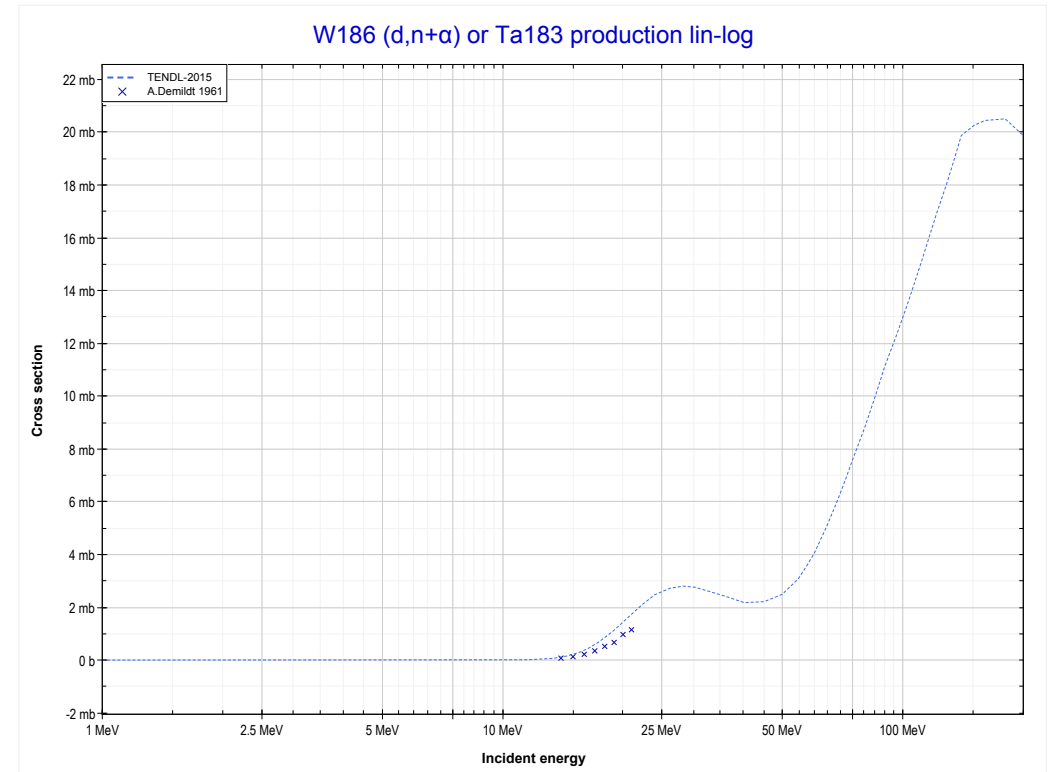
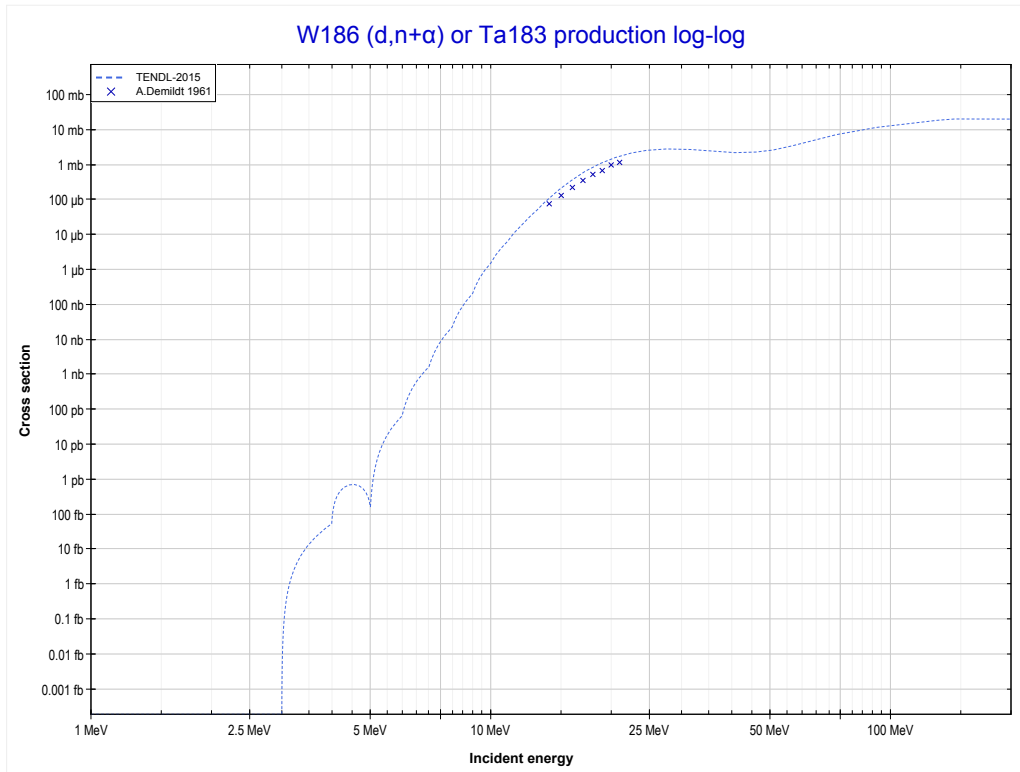
Reaction	Q-Value
W184(d, $\alpha$ )Ta182	11436.41 keV
W184(d,p+t)Ta182	-8377.45 keV
W184(d,n+He3)Ta182	-9141.21 keV
W184(d,2d)Ta182	-12410.12 keV
W184(d,n+p+d)Ta182	-14634.69 keV
W184(d,2n+2p)Ta182	-16859.25 keV

<< 74-W-184	<b>74-W-186</b>	76-Os-192 >>
<< 74-W-184 MT107 (d, $\alpha$ )	<b>MT16 (d,2n) or MT5 (Re186 production)</b>	MT22 (d,n+ $\alpha$ ) >>



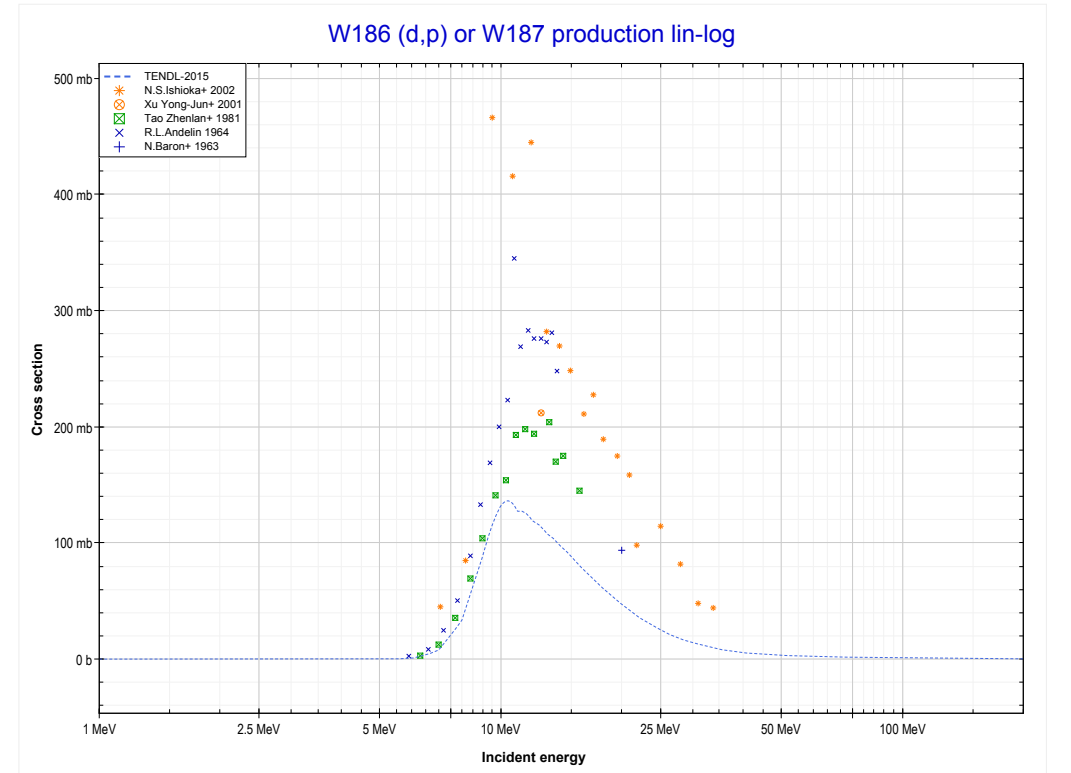
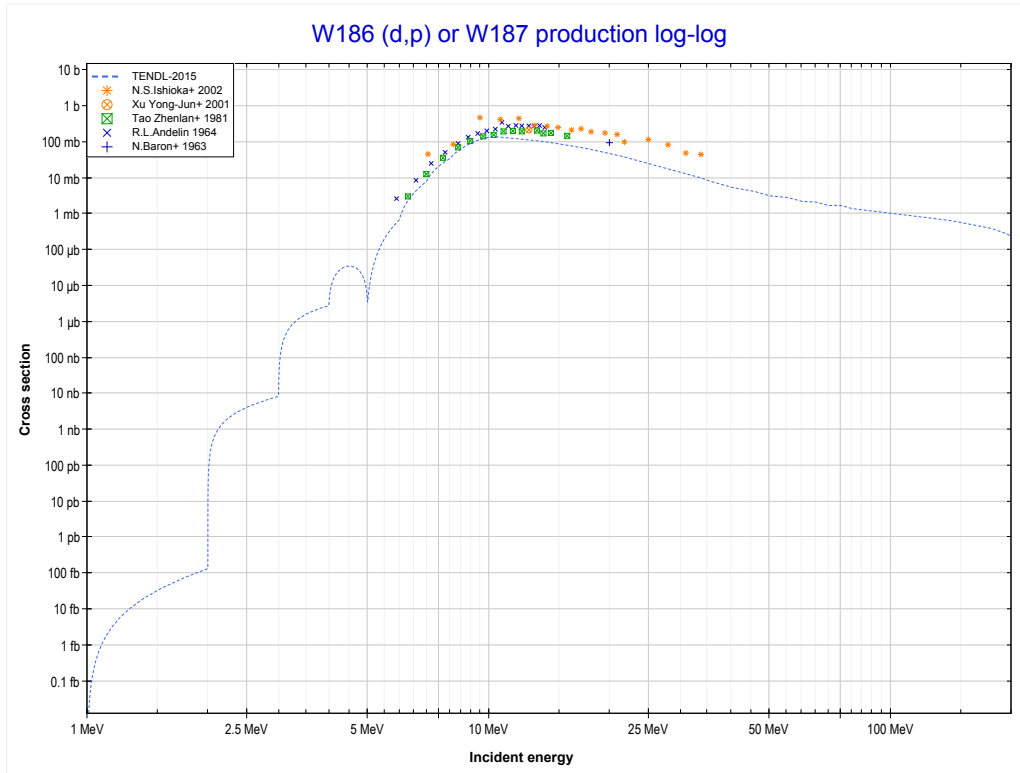
Reaction	Q-Value
W186(d,2n)Re186	-3587.11 keV

<< 48-Cd-114	<b>74-W-186</b>	
<< MT16 (d,2n)	<b>MT22 (d,n+α) or MT5 (Ta183 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
W186(d,n+α)Ta183	5424.79 keV
W186(d,d+t)Ta183	-12164.51 keV
W186(d,n+p+t)Ta183	-14389.07 keV
W186(d,2n+He3)Ta183	-15152.83 keV
W186(d,n+2d)Ta183	-18421.74 keV
W186(d,2n+p+d)Ta183	-20646.30 keV
W186(d,3n+2p)Ta183	-22870.87 keV

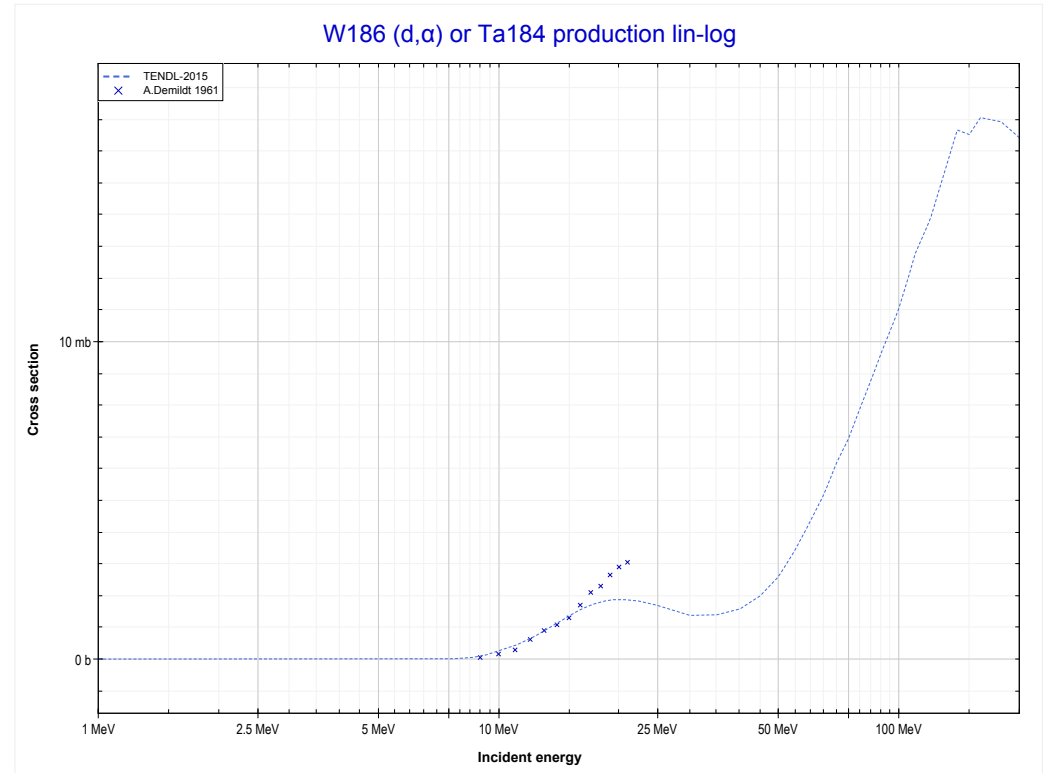
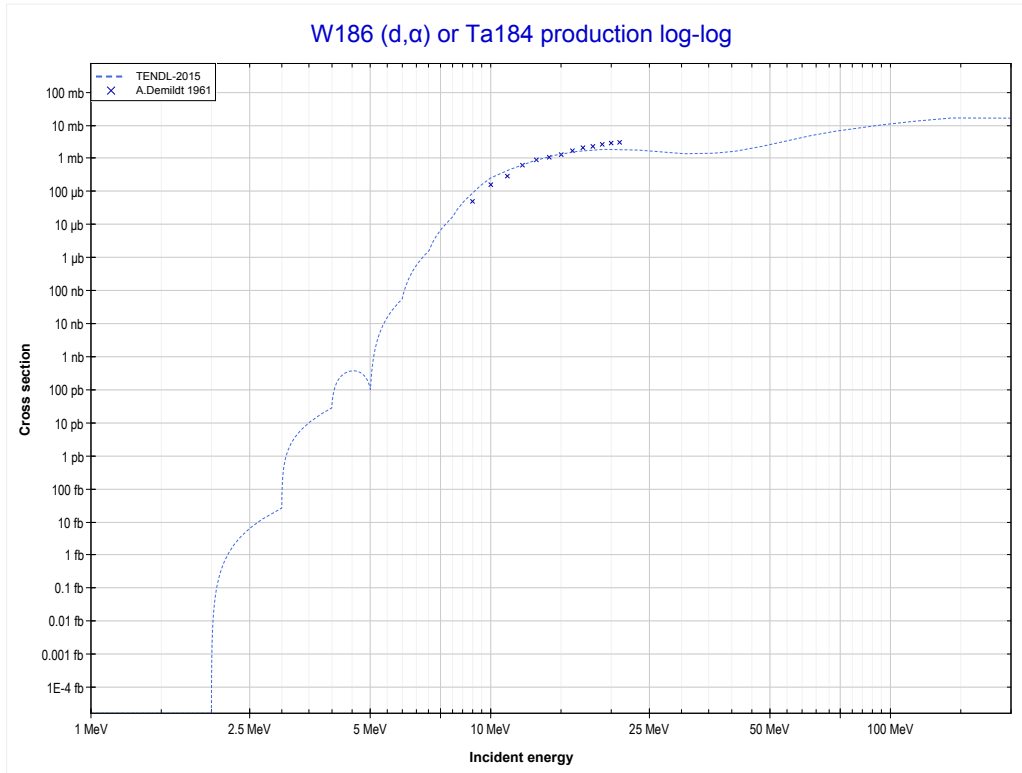
<< 74-W-184	<b>74-W-186</b>	76-Os-192 >>
<< MT22 (d,n+α)	<b>MT103 (d,p) or MT5 (W187 production)</b>	MT107 (d,α) >>



Reaction	Q-Value
W186(d,p)W187	3242.25 keV

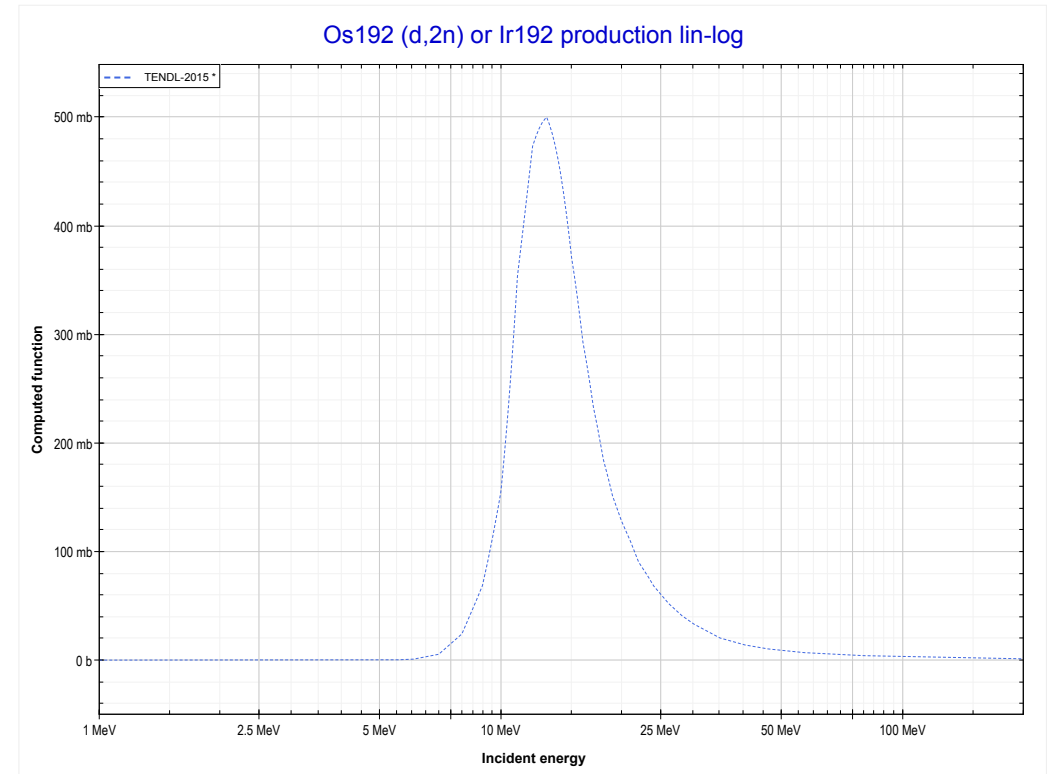
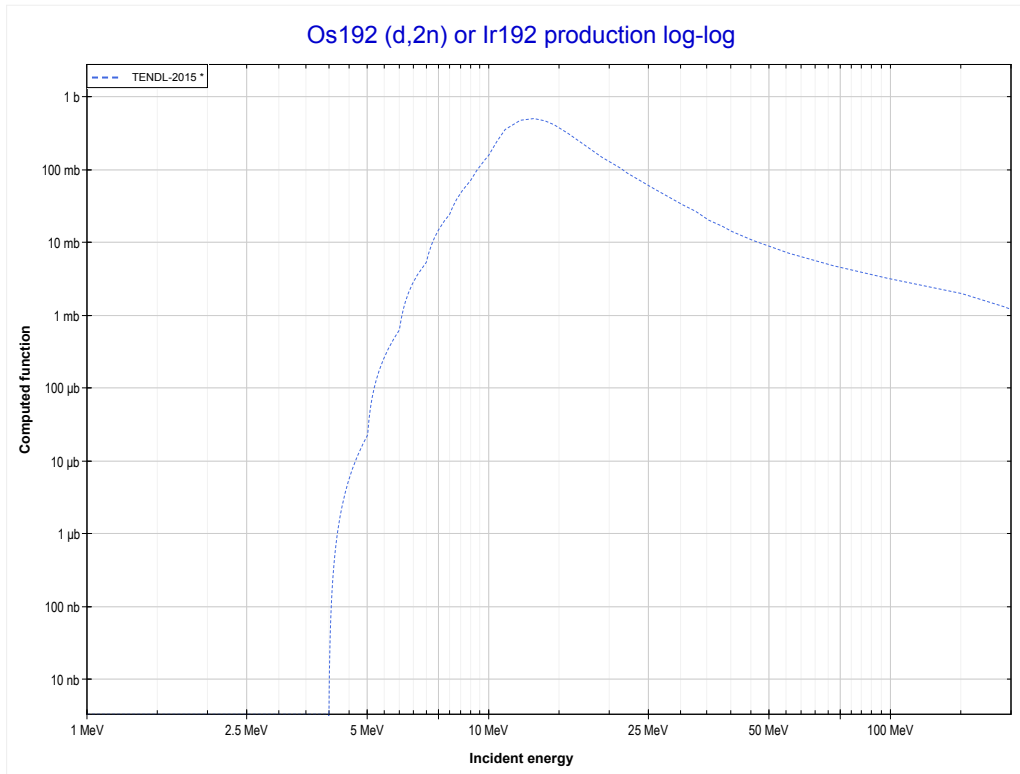


<< 74-W-184	<b>74-W-186</b>	
<< MT103 (d,p)	<b>MT107 (d,<math>\alpha</math>) or MT5 (Ta184 production)</b>	76-Os-192 MT16 (d,2n) >>



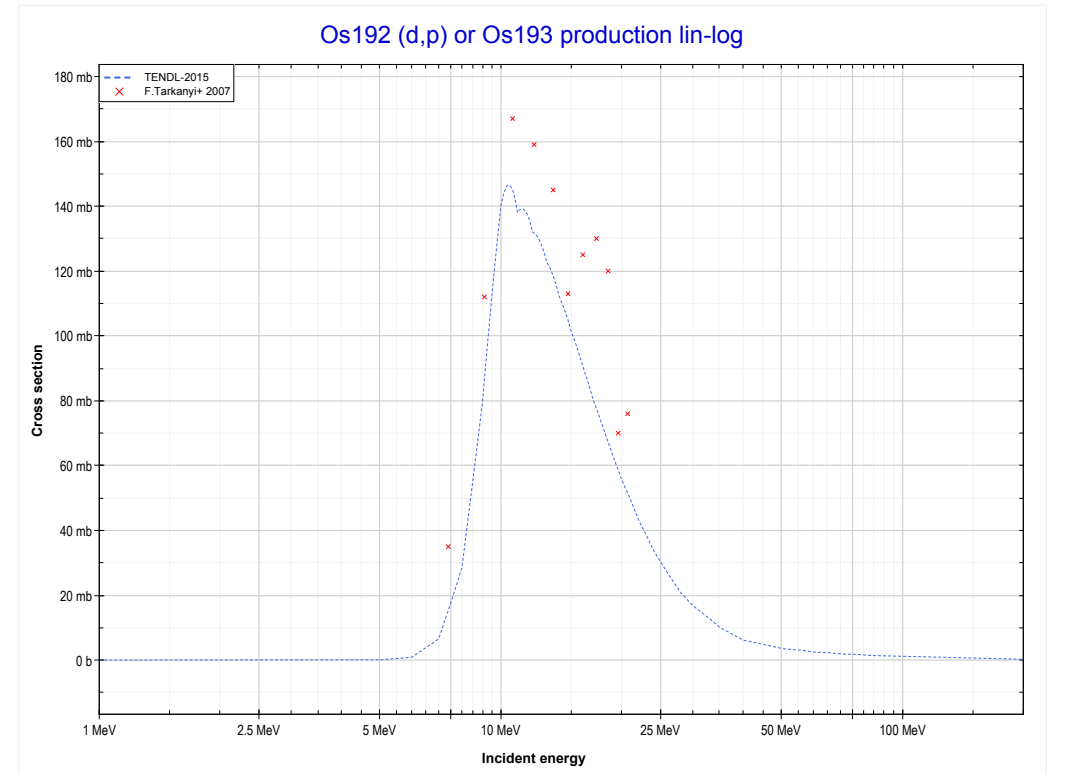
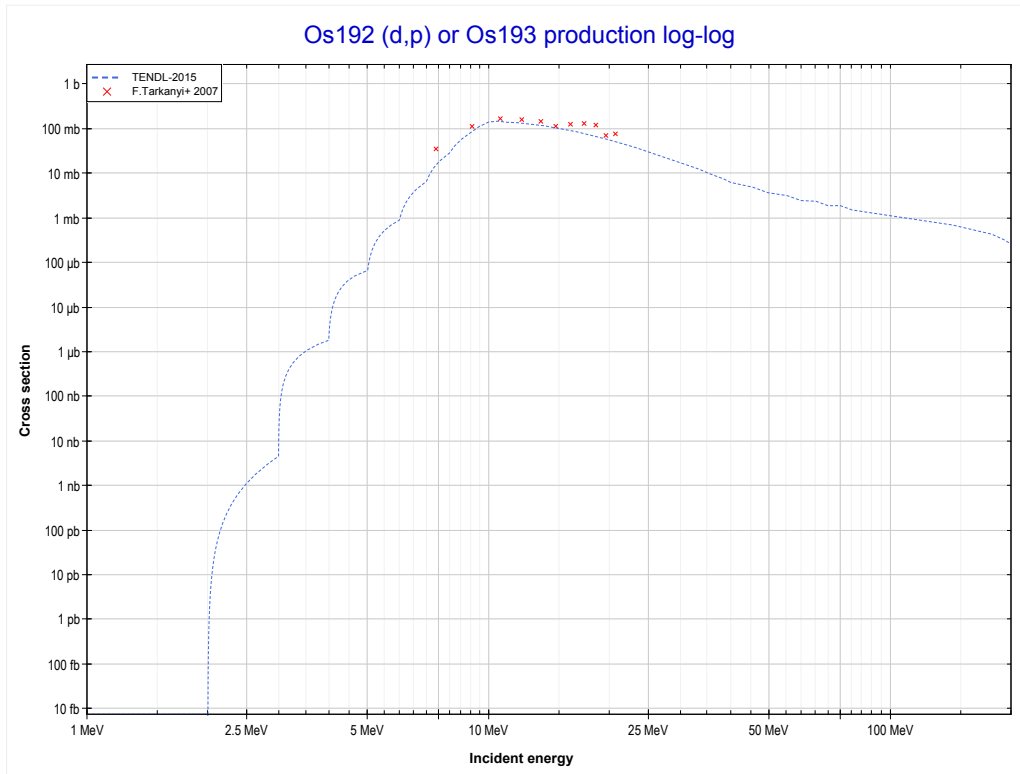
Reaction	Q-Value
W186(d, $\alpha$ )Ta184	11042.01 keV
W186(d,p+t)Ta184	-8771.85 keV
W186(d,n+He3)Ta184	-9535.61 keV
W186(d,2d)Ta184	-12804.52 keV
W186(d,n+p+d)Ta184	-15029.09 keV
W186(d,2n+2p)Ta184	-17253.65 keV

<< 74-W-186	<b>76-Os-192</b>	78-Pt-194 >>
<< 74-W-186 MT107 (d, $\alpha$ )	<b>MT16 (d,2n) or MT5 (Ir192 production)</b>	MT103 (d,p) >>



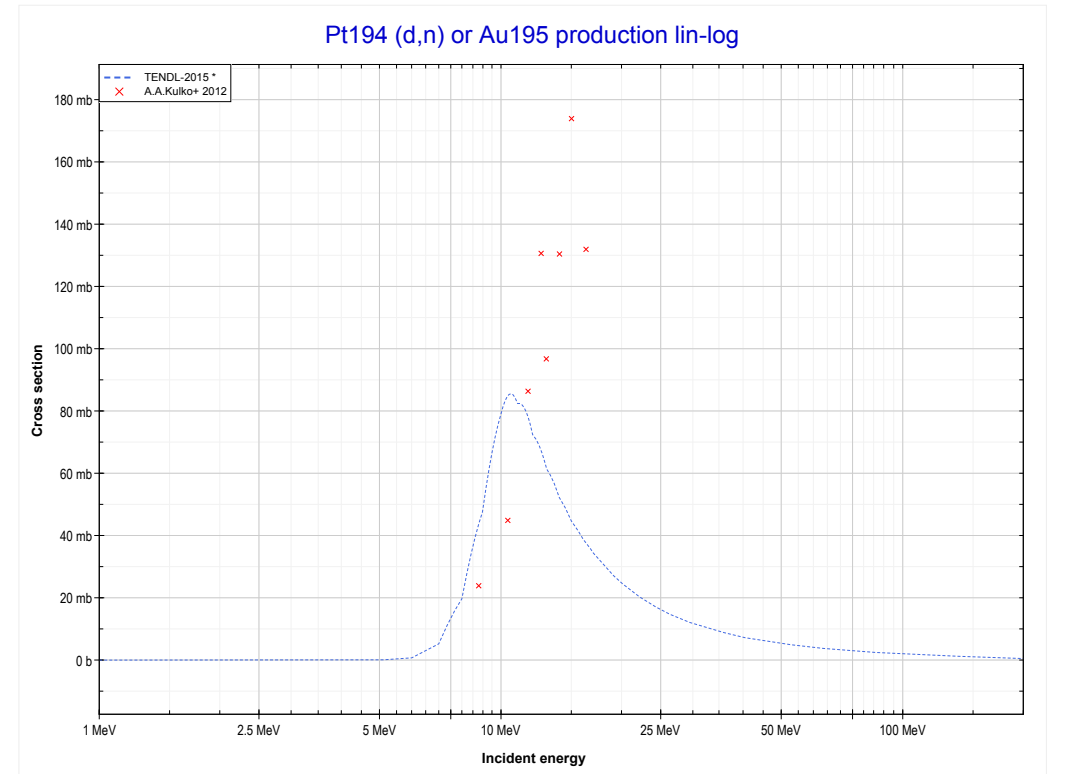
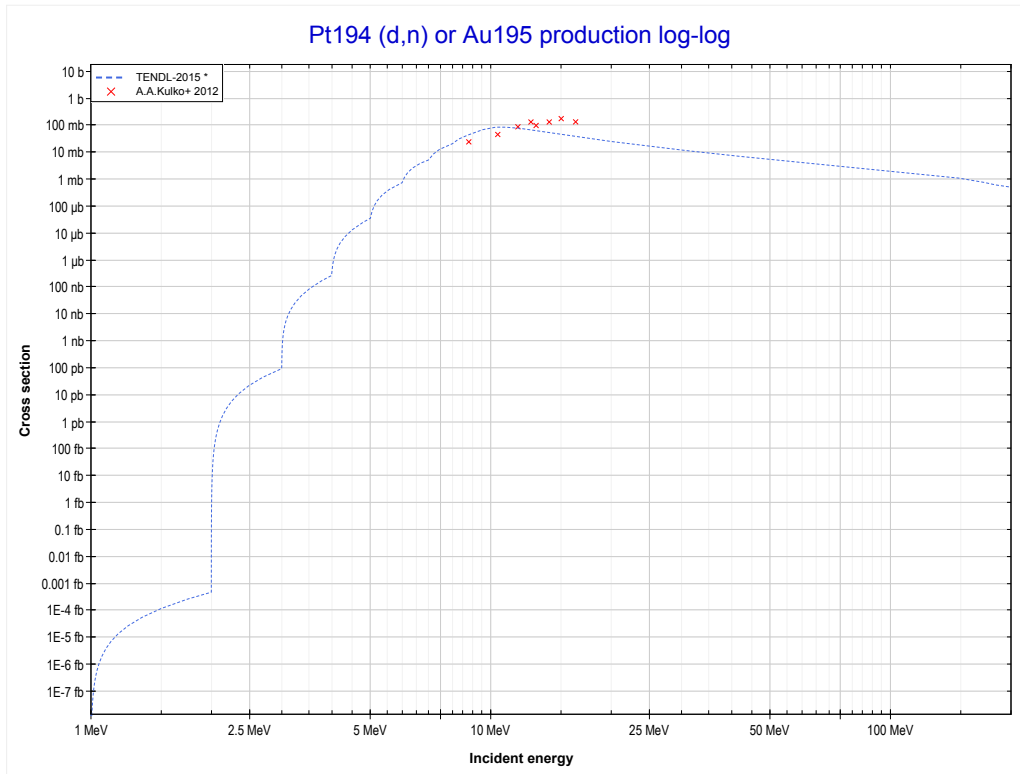
Reaction	Q-Value
Os192(d,2n)Ir192	-4053.21 keV

<< 74-W-186	<b>76-Os-192</b>	78-Pt-194 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Os193 production)</b>	78-Pt-194 MT4 (d,n) >>



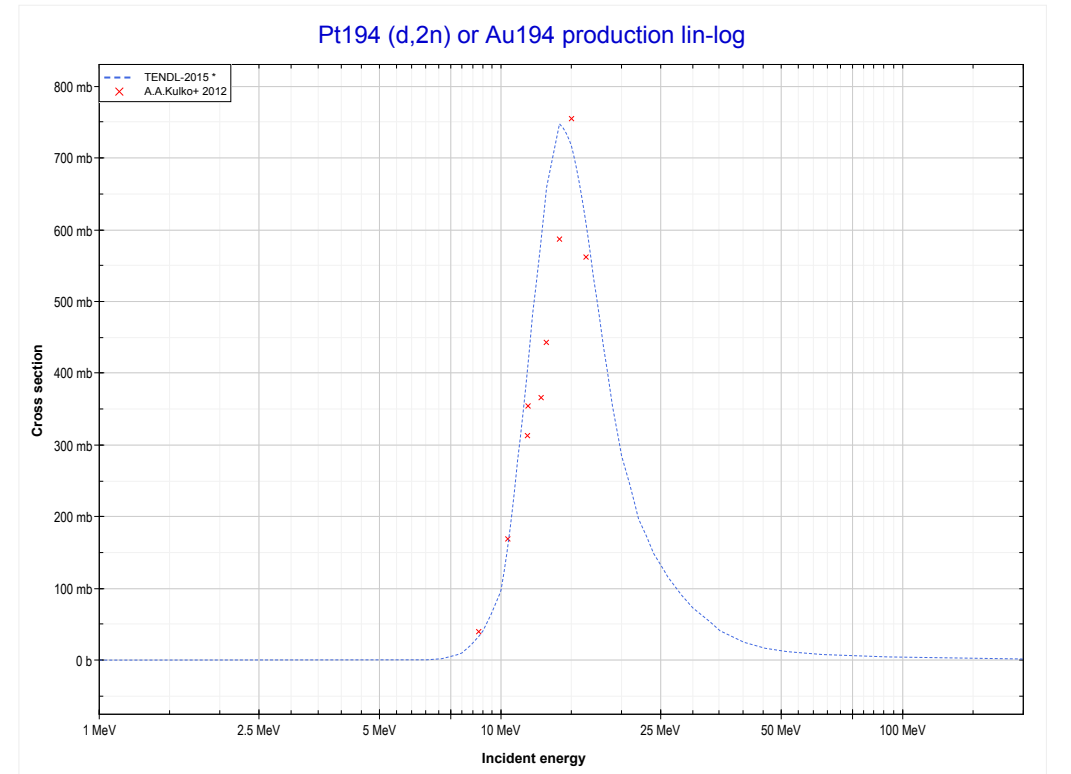
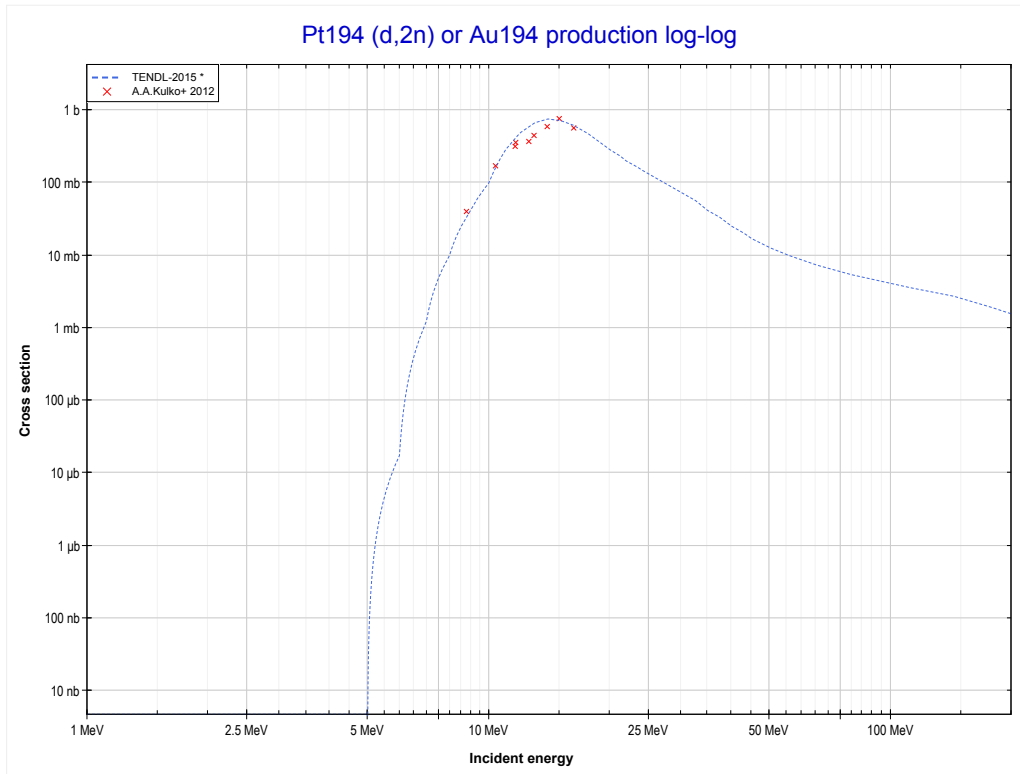
Reaction	Q-Value
Os192(d,p)Os193	3358.85 keV

<< 70-Yb-176	<b>78-Pt-194</b>	83-Bi-209 >>
<< 76-Os-192 MT103 (d,p)	<b>MT4 (d,n) or MT5 (Au195 production)</b>	MT16 (d,2n) >>



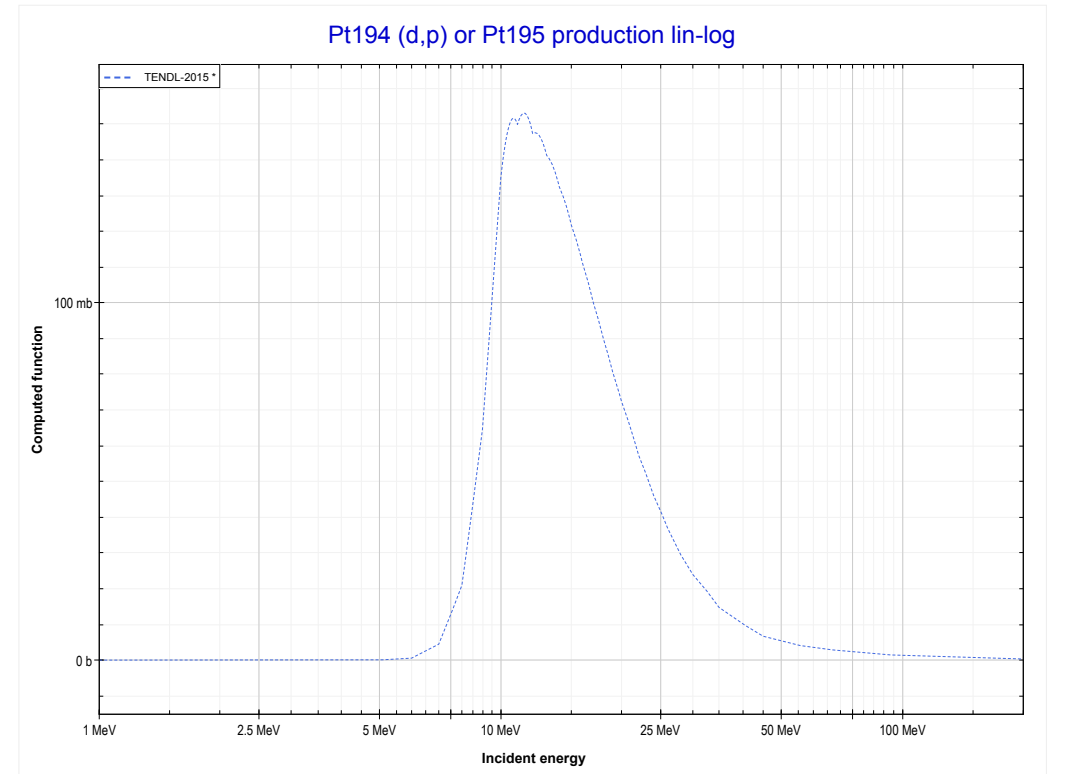
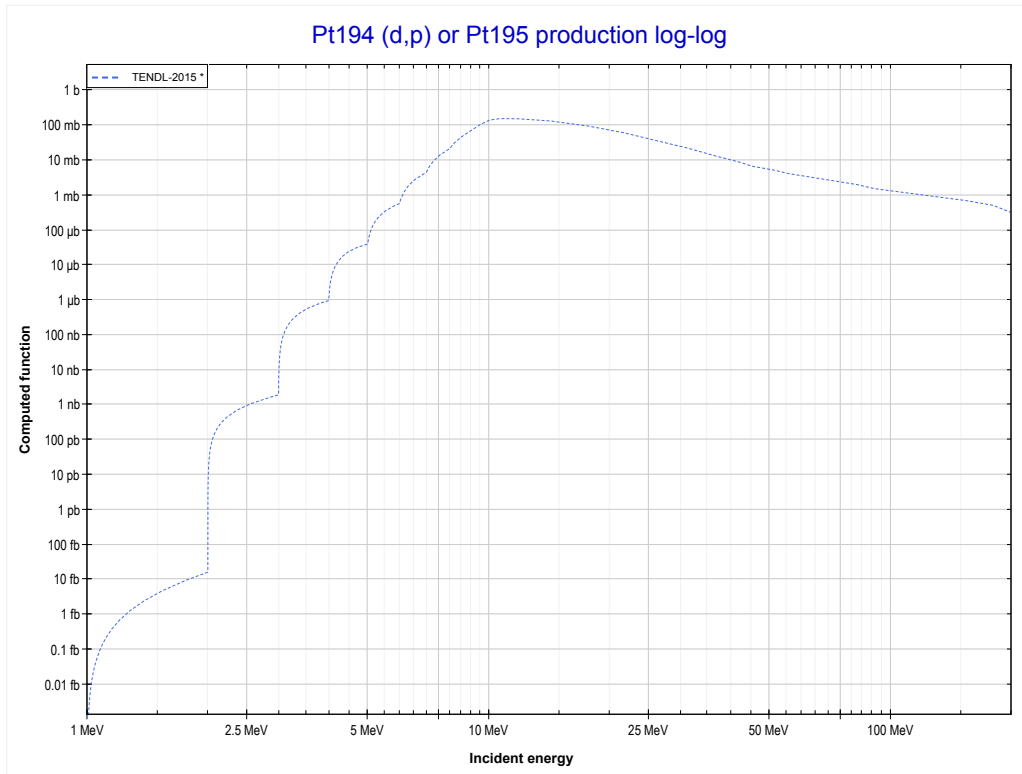
Reaction	Q-Value
Pt194(d,n)Au195	2871.30 keV

<< 76-Os-192	<b>78-Pt-194</b>	78-Pt-198 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Au194 production)</b>	MT103 (d,p) >>



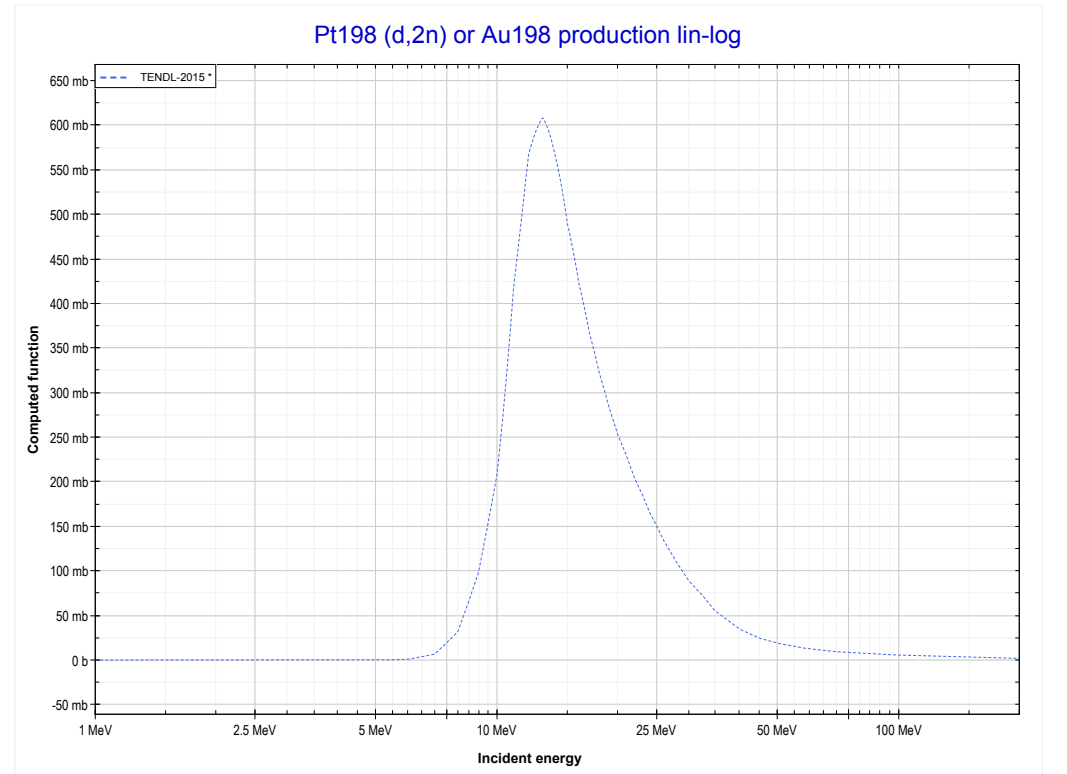
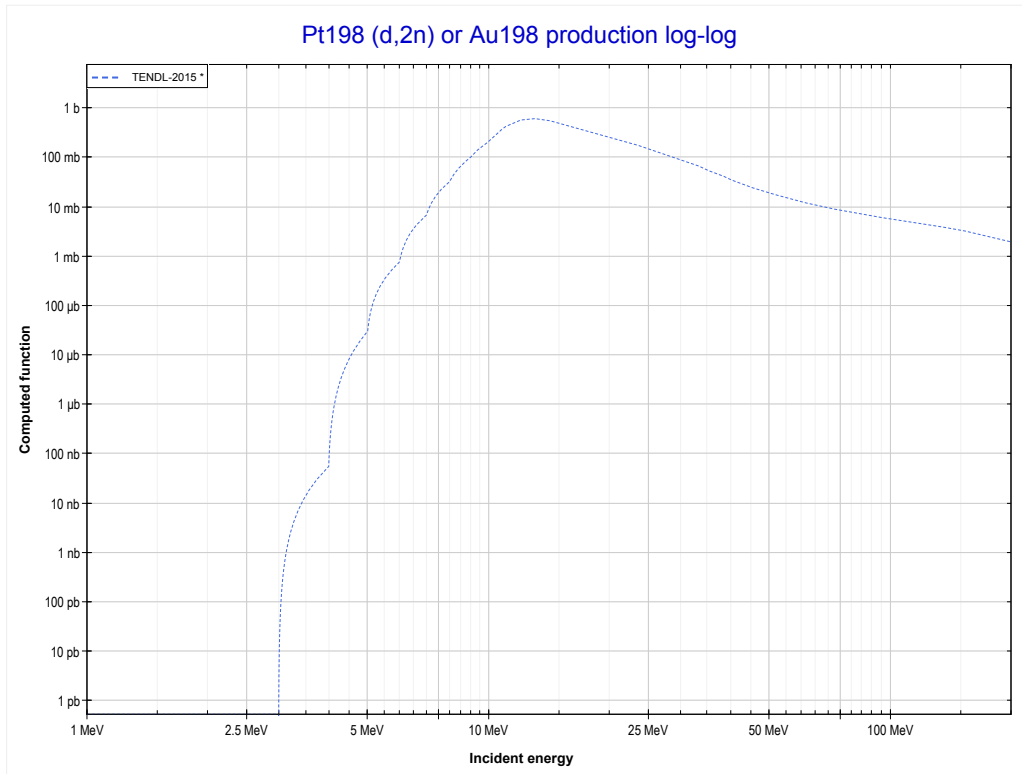
Reaction	Q-Value
Pt194(d,2n)Au194	-5556.31 keV

<< 76-Os-192	<b>78-Pt-194</b>	79-Au-197 >>
<< MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Pt195 production)</b>	78-Pt-198 MT16 (d,2n) >>



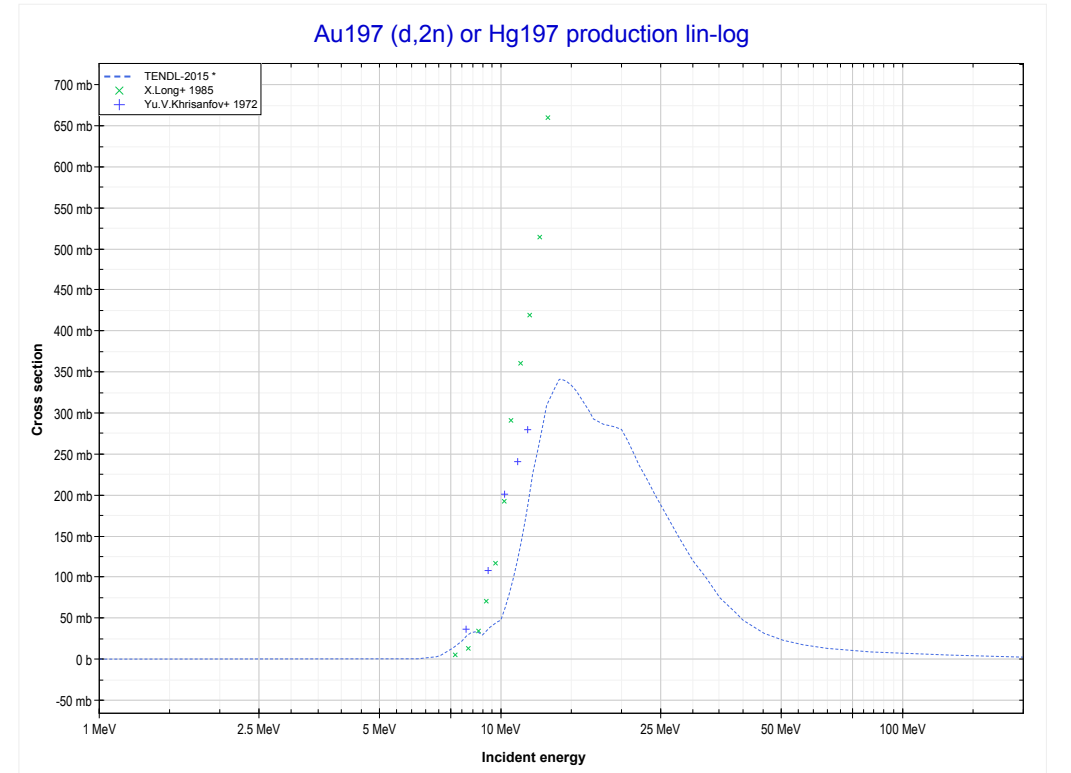
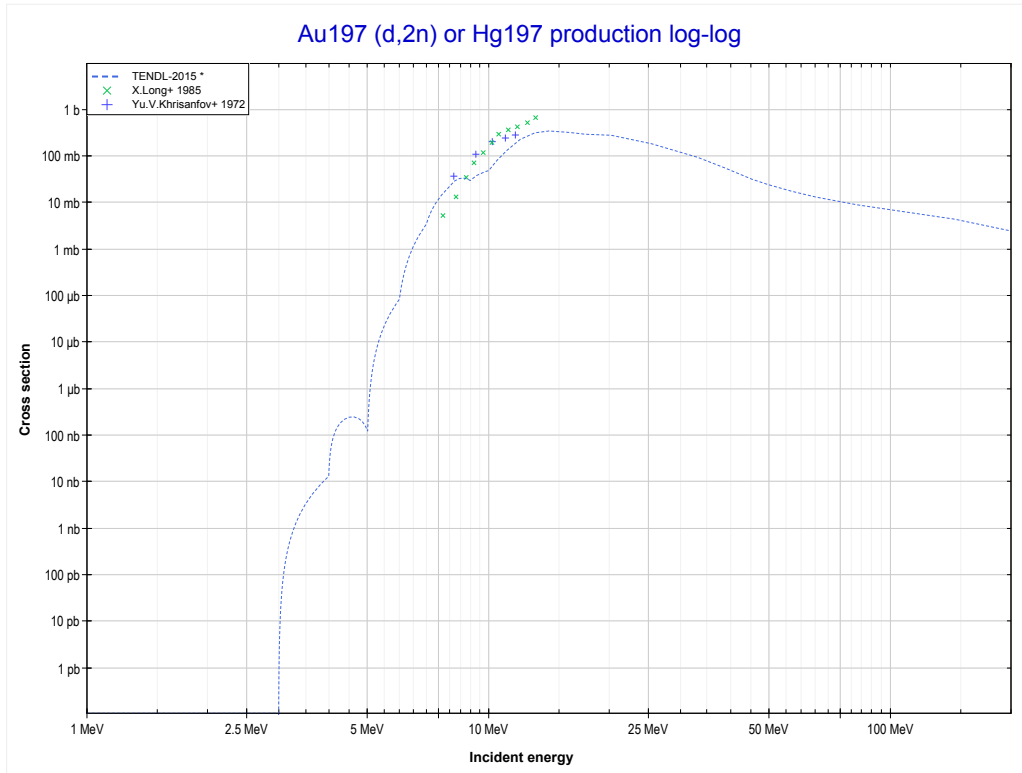
<b>Reaction</b>	<b>Q-Value</b>
Pt194(d,p)Pt195	3880.45 keV

<< 78-Pt-194	<b>78-Pt-198</b>	79-Au-197 >>
<< 78-Pt-194 MT103 (d,p)	<b>MT16 (d,2n) or MT5 (Au198 production)</b>	79-Au-197 MT16 (d,2n) >>



Reaction	Q-Value
Pt198(d,2n)Au198	-3330.51 keV

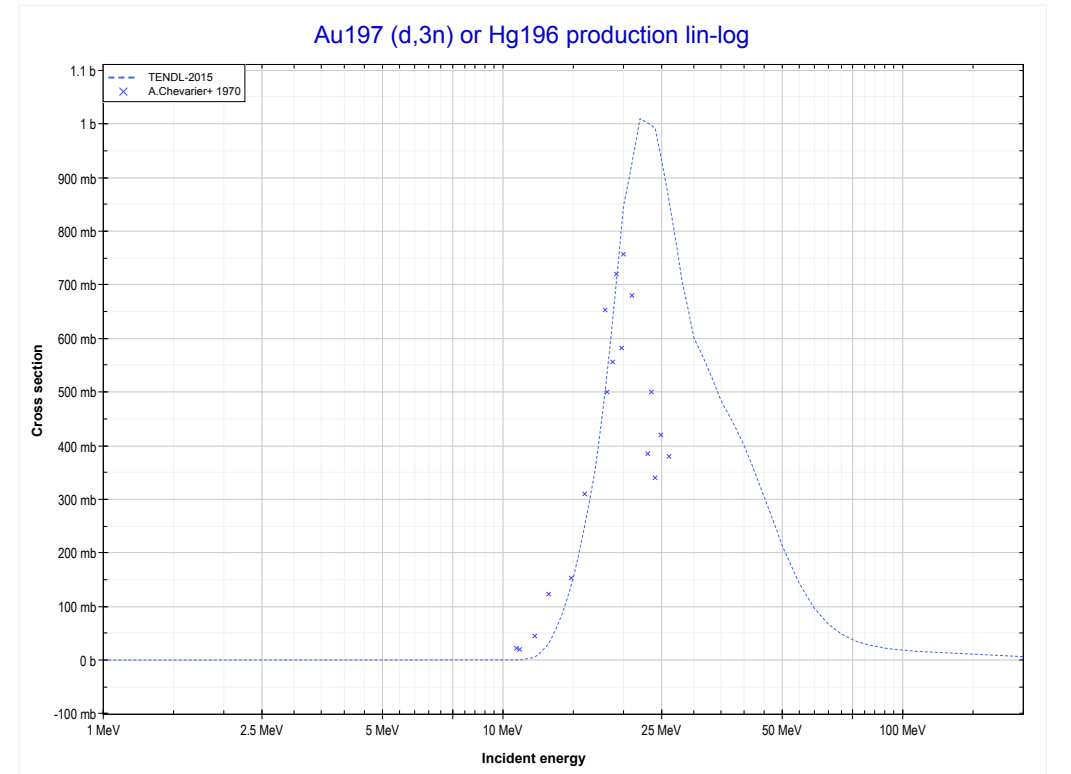
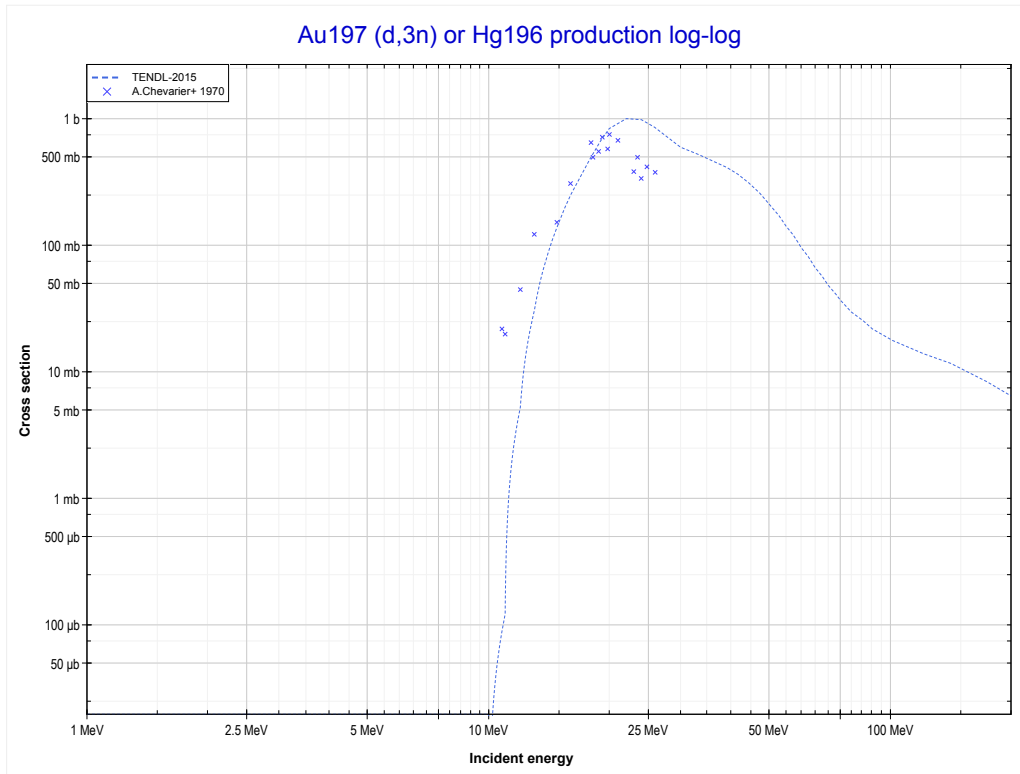
<< 78-Pt-198	<b>79-Au-197</b>	82-Pb-204 >>
<< 78-Pt-198 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Hg197 production)</b>	MT17 (d,3n) >>



Reaction	Q-Value
Au197(d,2n)Hg197	-3606.91 keV

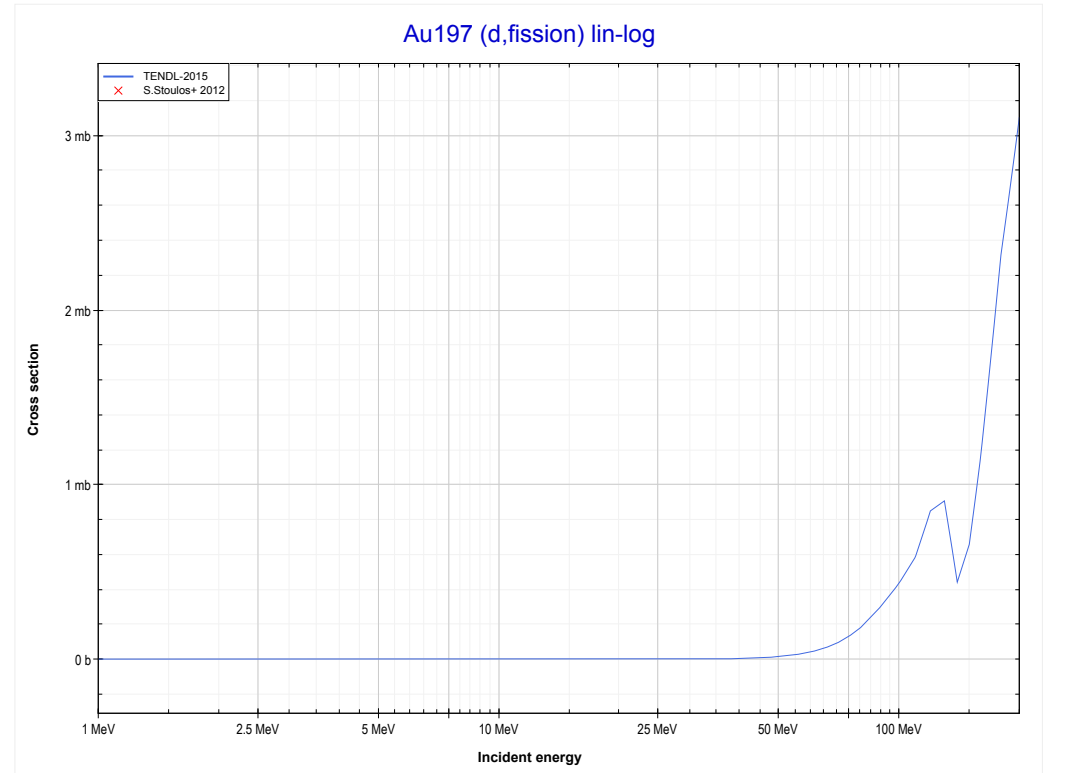
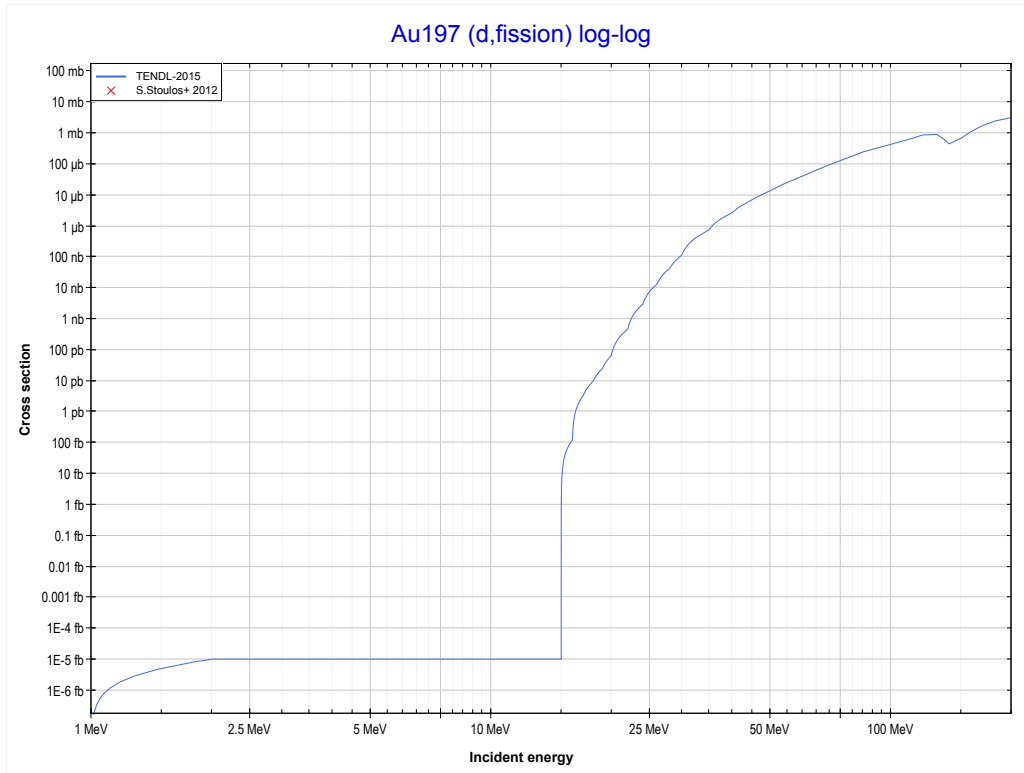


<< 68-Er-167	<b>79-Au-197</b>	81-Tl-203 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Hg196 production)</b>	MT18 (d,fission) >>

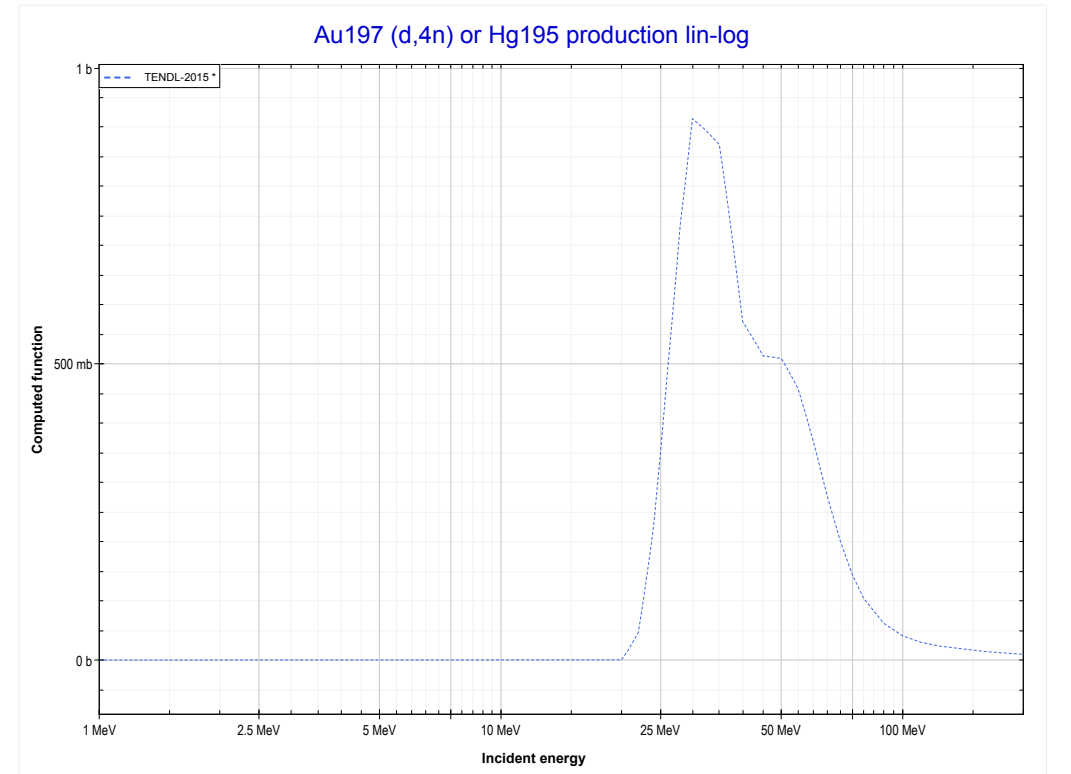
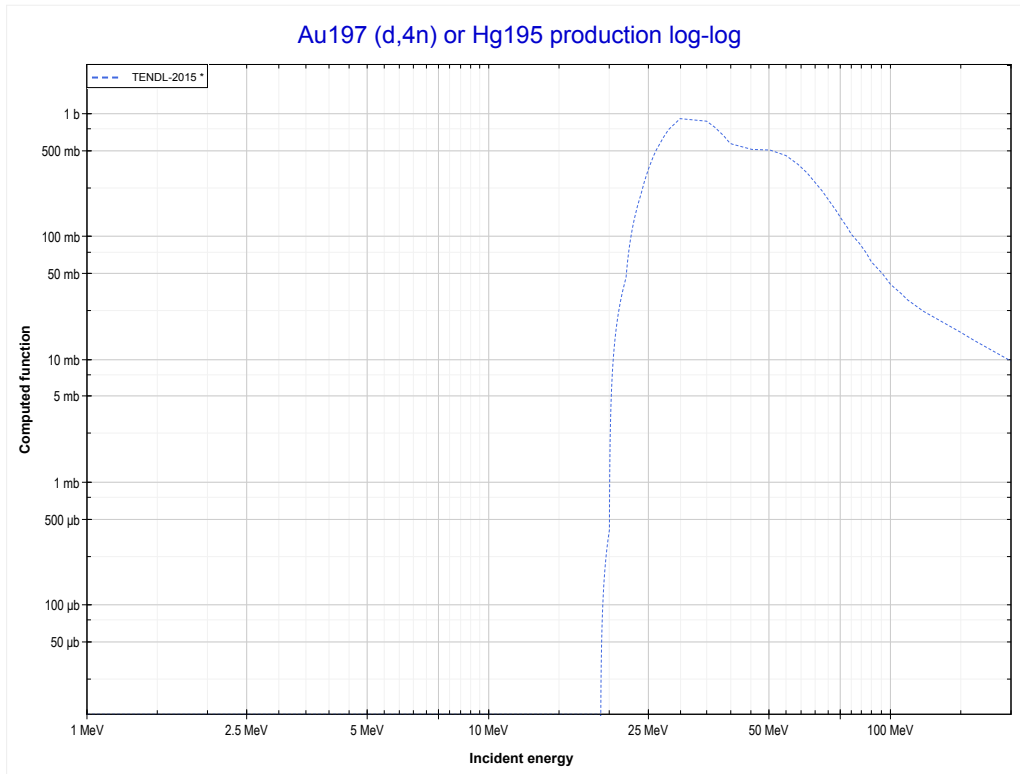


Reaction	Q-Value
Au197(d,3n)Hg196	-10392.43 keV

	<b>79-Au-197</b>	83-Bi-209 >>
<< MT17 (d,3n)	<b>MT18 (d,fission)</b>	MT37 (d,4n) >>

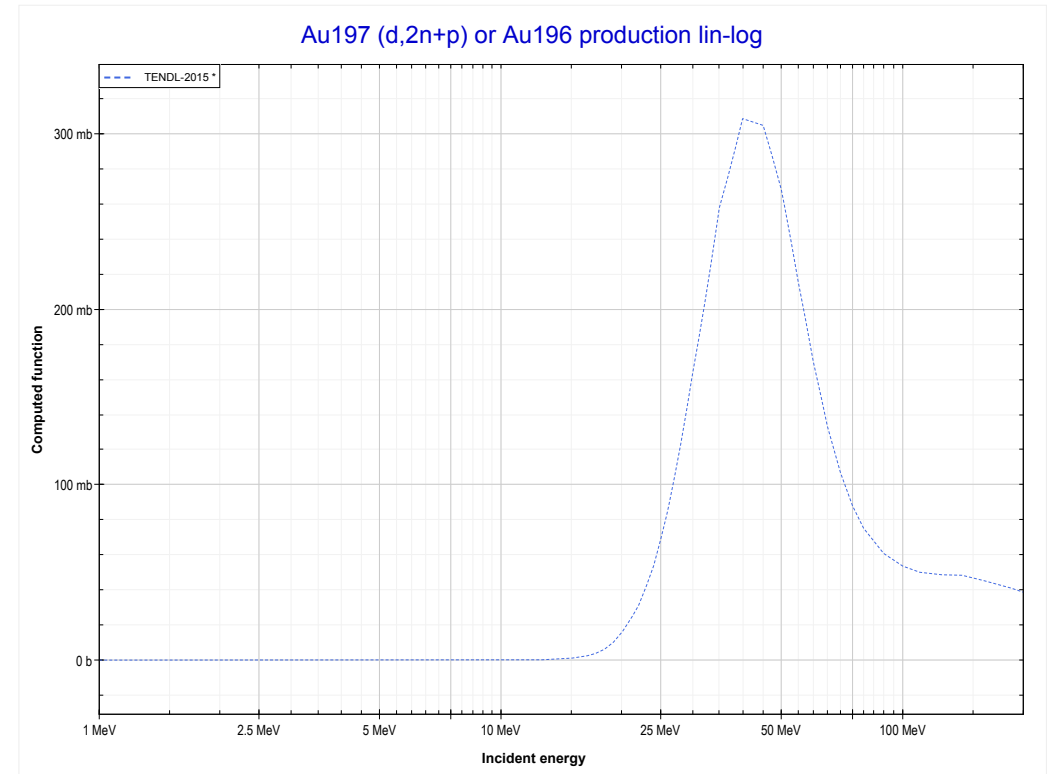
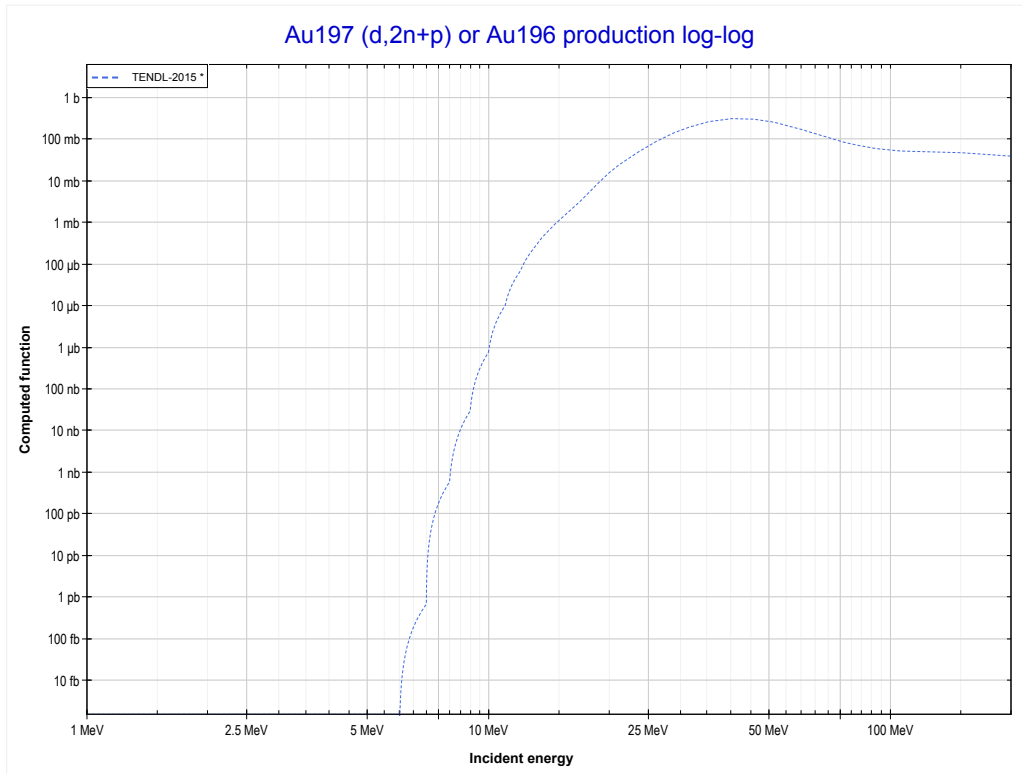


<< 65-Tb-159	<b>79-Au-197</b>	81-Tl-203 >>
<< MT18 (d,fission)	<b>MT37 (d,4n) or MT5 (Hg195 production)</b>	MT41 (d,2n+p) >>



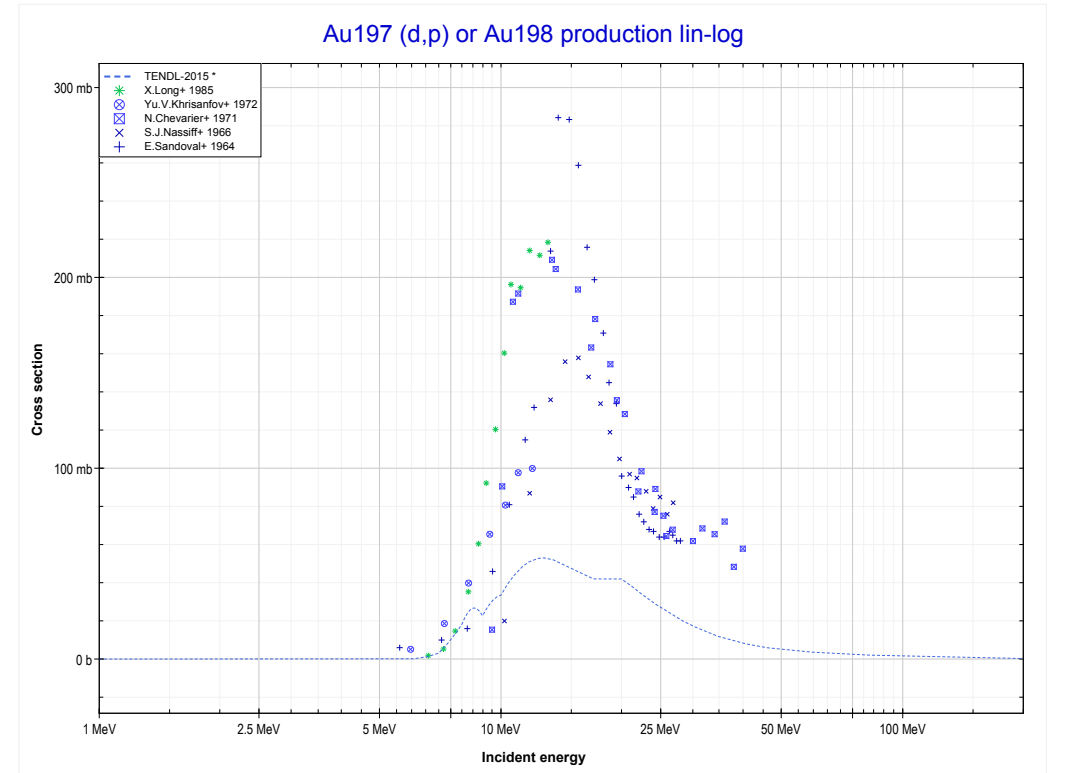
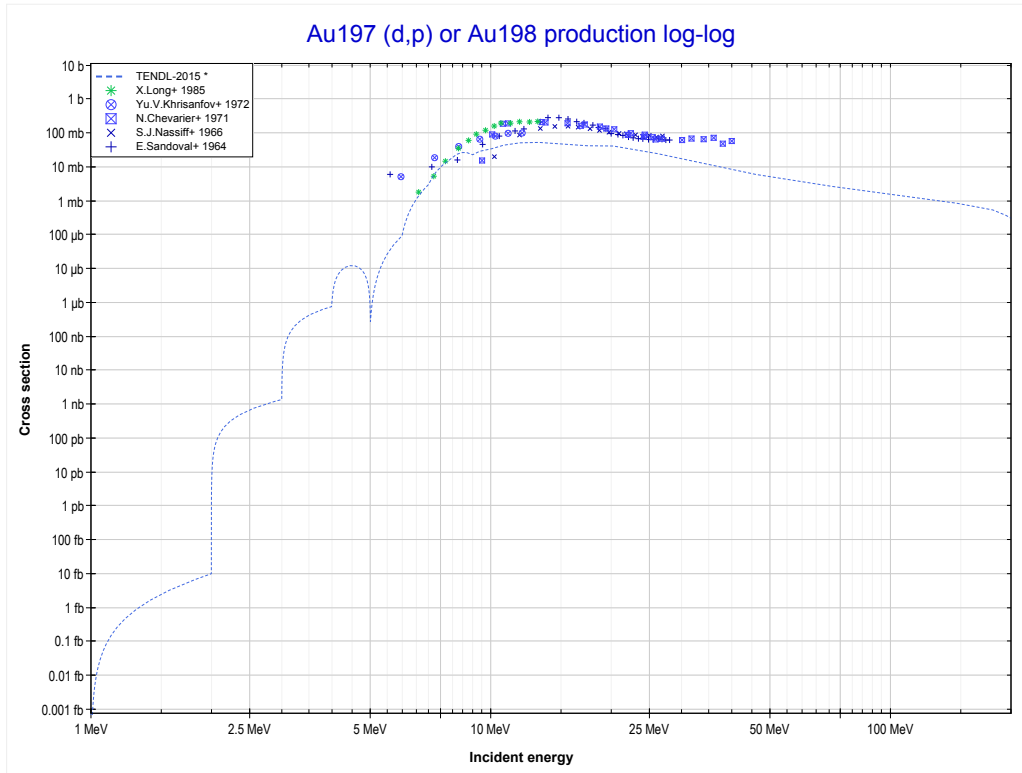
Reaction	Q-Value
Au197(d,4n)Hg195	-19290.55 keV

<< 73-Ta-181	<b>79-Au-197</b>	
<< MT37 (d,4n)	<b>MT41 (d,2n+p) or MT5 (Au196 production)</b>	MT103 (d,p) >>



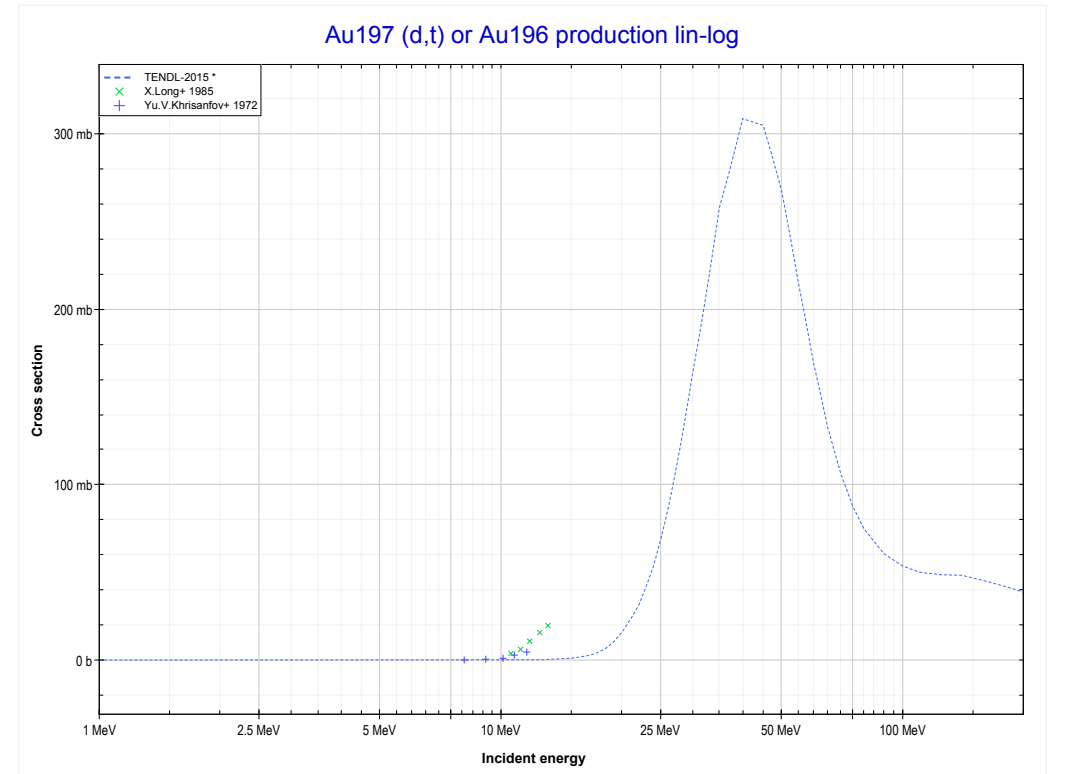
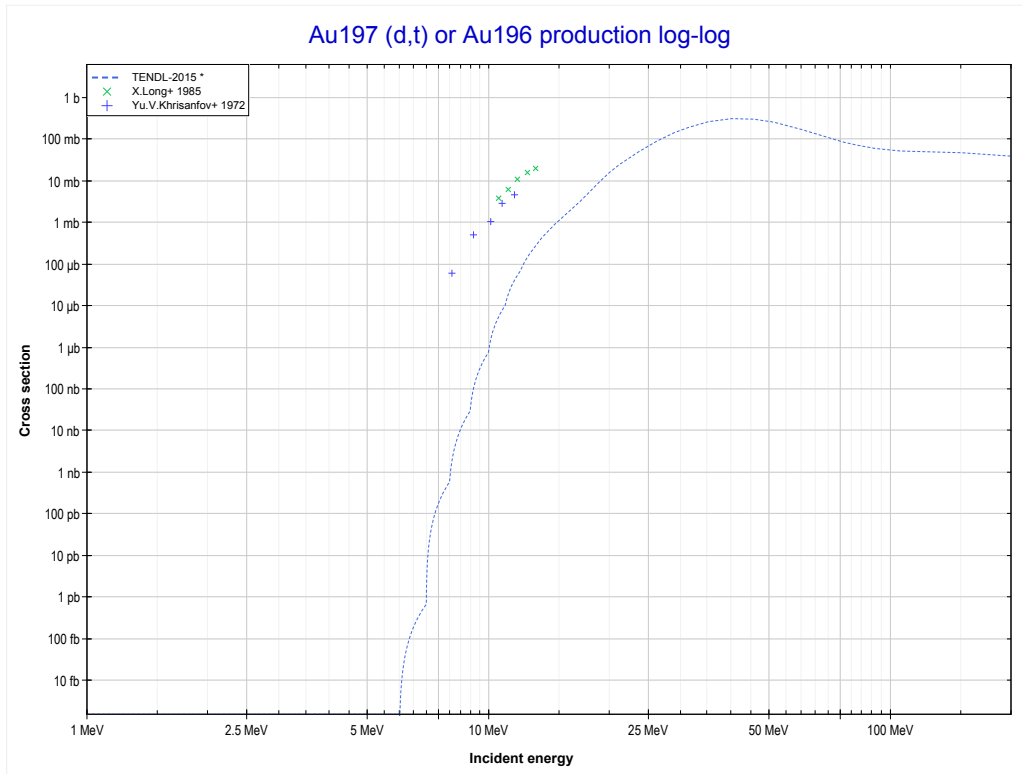
Reaction	Q-Value
Au197(d,t)Au196	-1815.18 keV
Au197(d,n+d)Au196	-8072.42 keV
Au197(d,2n+p)Au196	-10296.98 keV

<< 78-Pt-194	<b>79-Au-197</b>	82-Pb-208 >>
<< MT41 (d,2n+p)	<b>MT103 (d,p) or MT5 (Au198 production)</b>	MT105 (d,t) >>



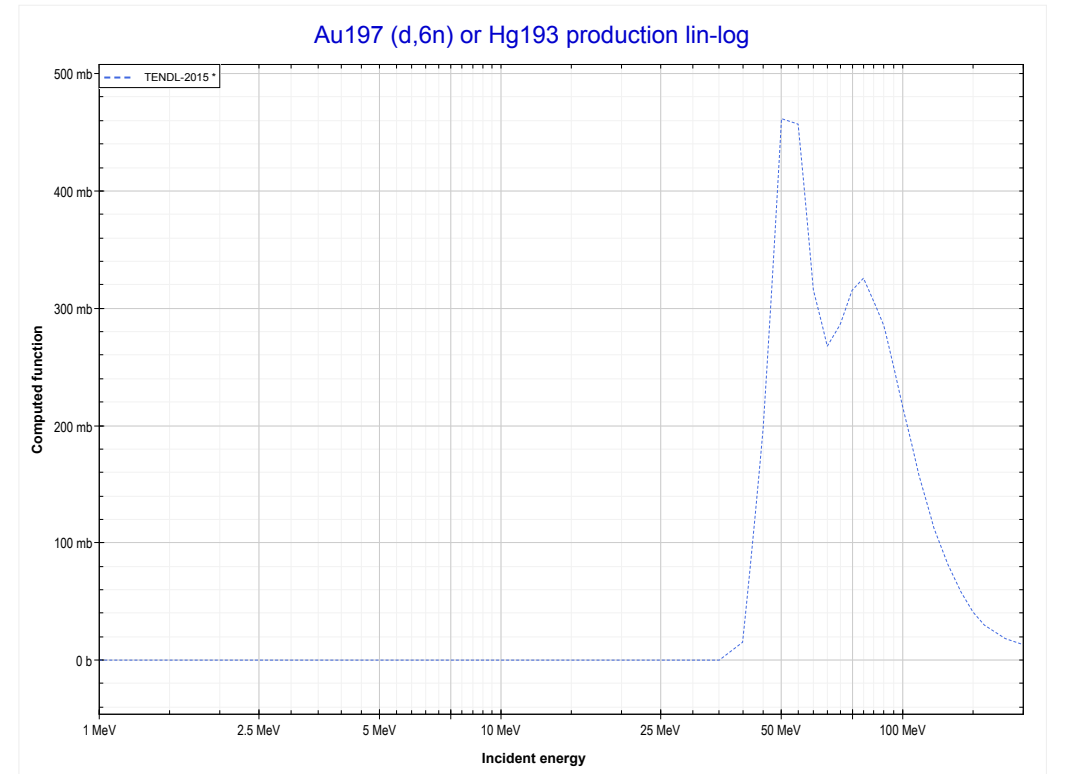
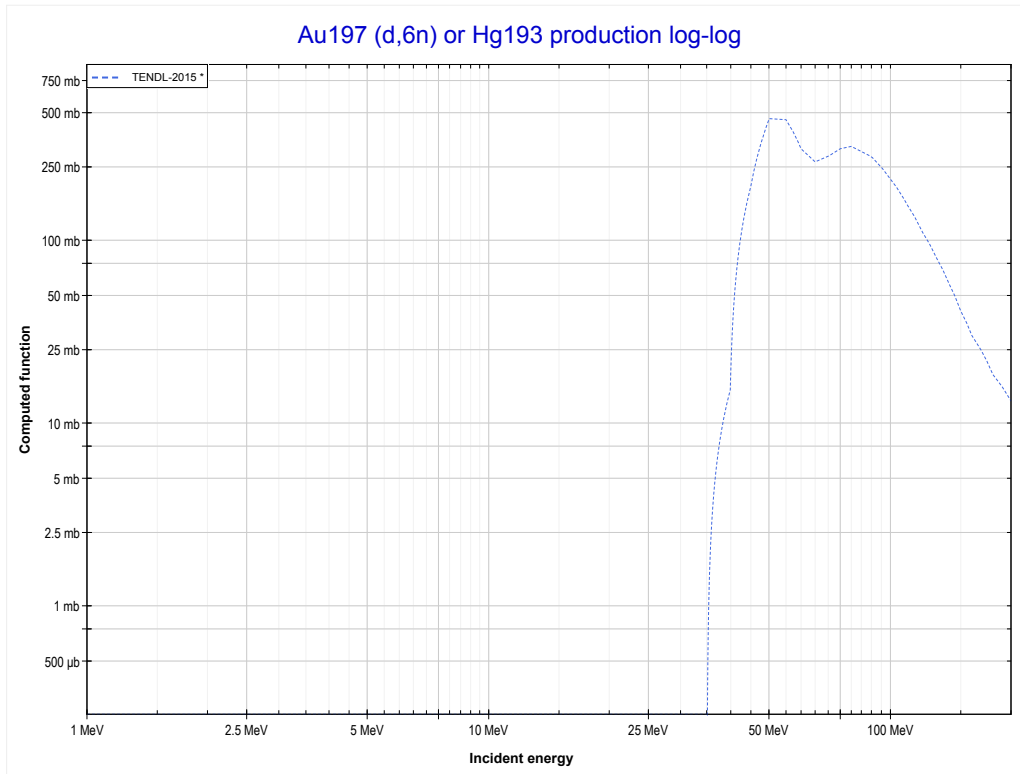
Reaction	Q-Value
Au197(d,p)Au198	4287.85 keV

<< 53-I-127	<b>79-Au-197</b>	92-U-238 >>
<< MT103 (d,p)	<b>MT105 (d,t) or MT5 (Au196 production)</b>	MT153 (d,6n) >>



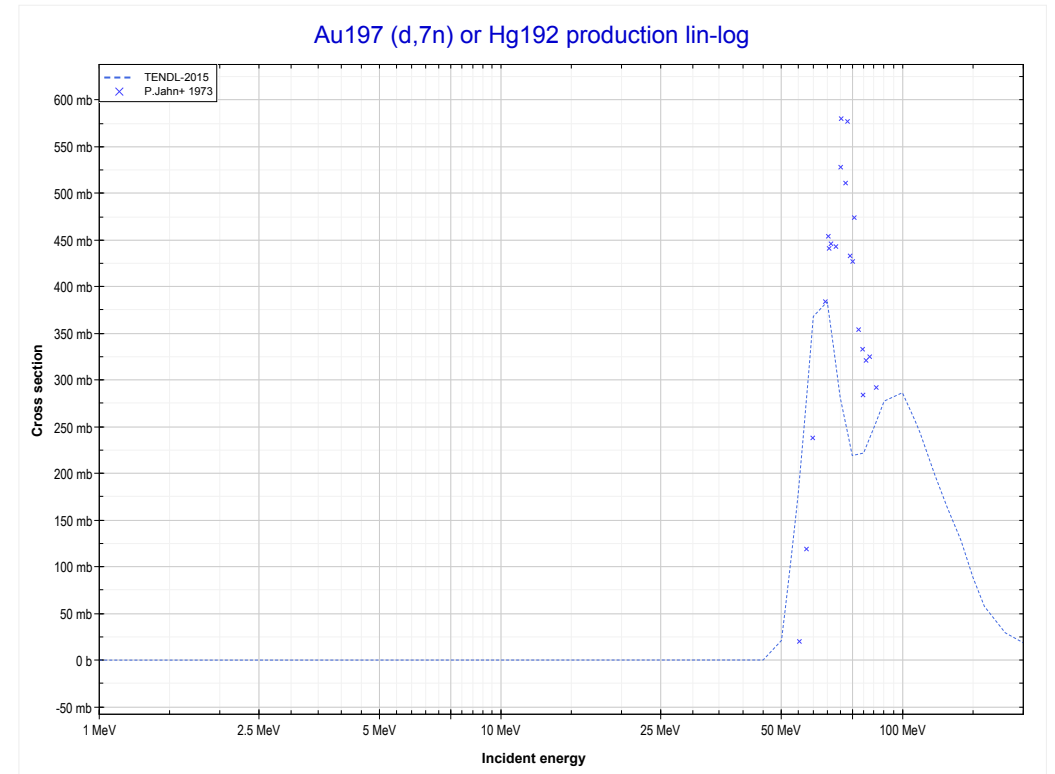
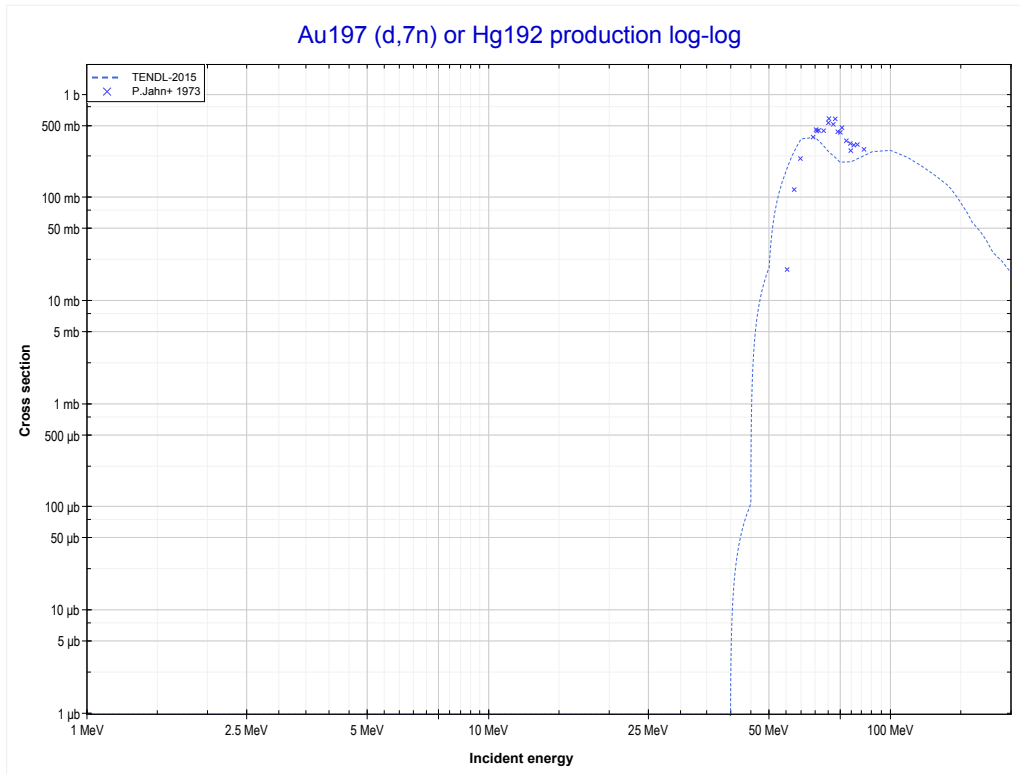
Reaction	Q-Value
Au197(d,t)Au196	-1815.18 keV
Au197(d,n+d)Au196	-8072.42 keV
Au197(d,2n+p)Au196	-10296.98 keV

<< 73-Ta-181	<b>79-Au-197</b>	83-Bi-209 >>
<< MT105 (d,t)	<b>MT153 (d,6n) or MT5 (Hg193 production)</b>	MT160 (d,7n) >>



Reaction	Q-Value
Au197(d,6n)Hg193	-35370.18 keV

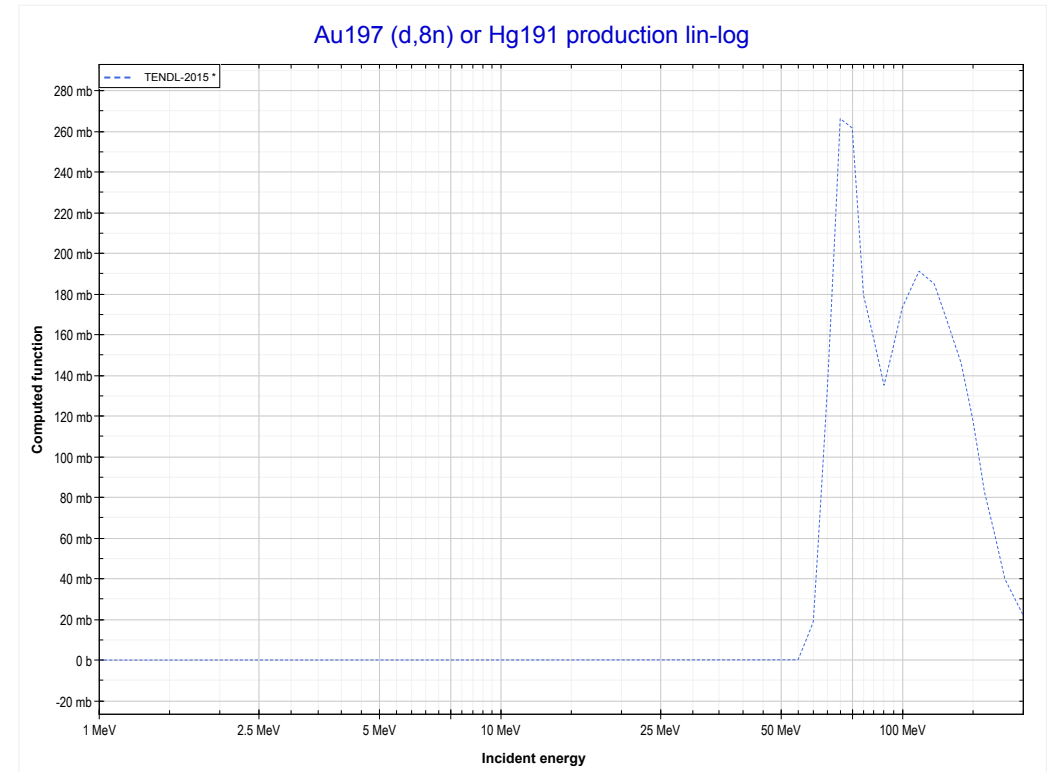
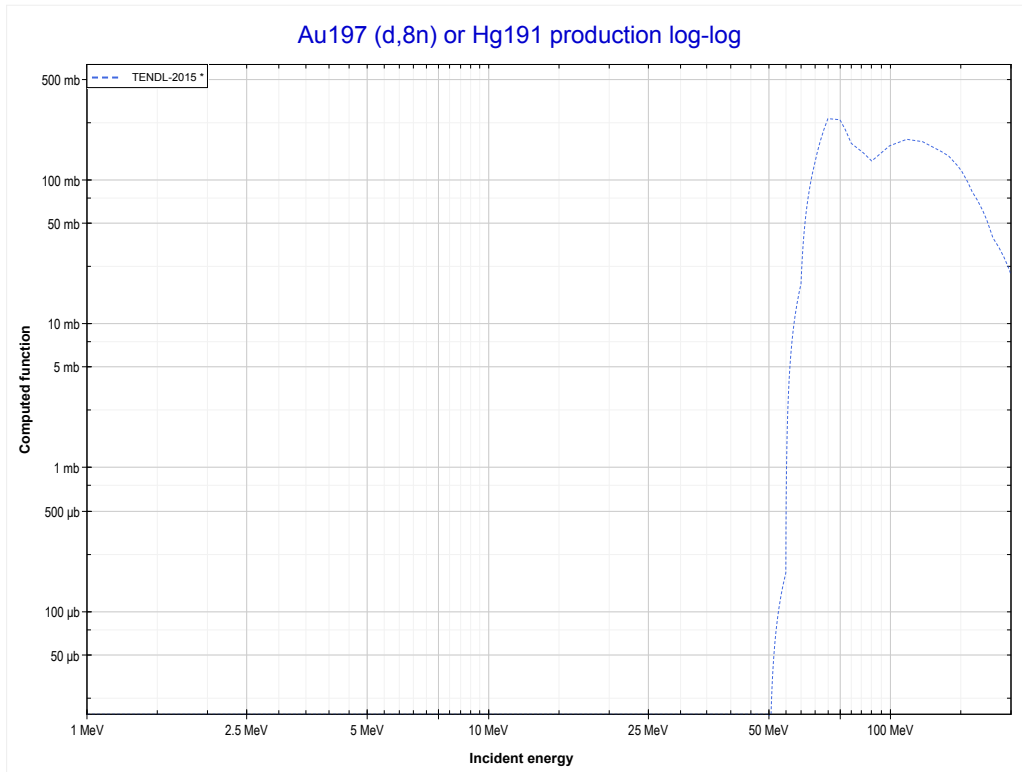
<< 73-Ta-181	<b>79-Au-197</b>	83-Bi-209 >>
<< MT153 (d,6n)	<b>MT160 (d,7n) or MT5 (Hg192 production)</b>	MT161 (d,8n) >>



Reaction	Q-Value
Au197(d,7n)Hg192	-42493.50 keV

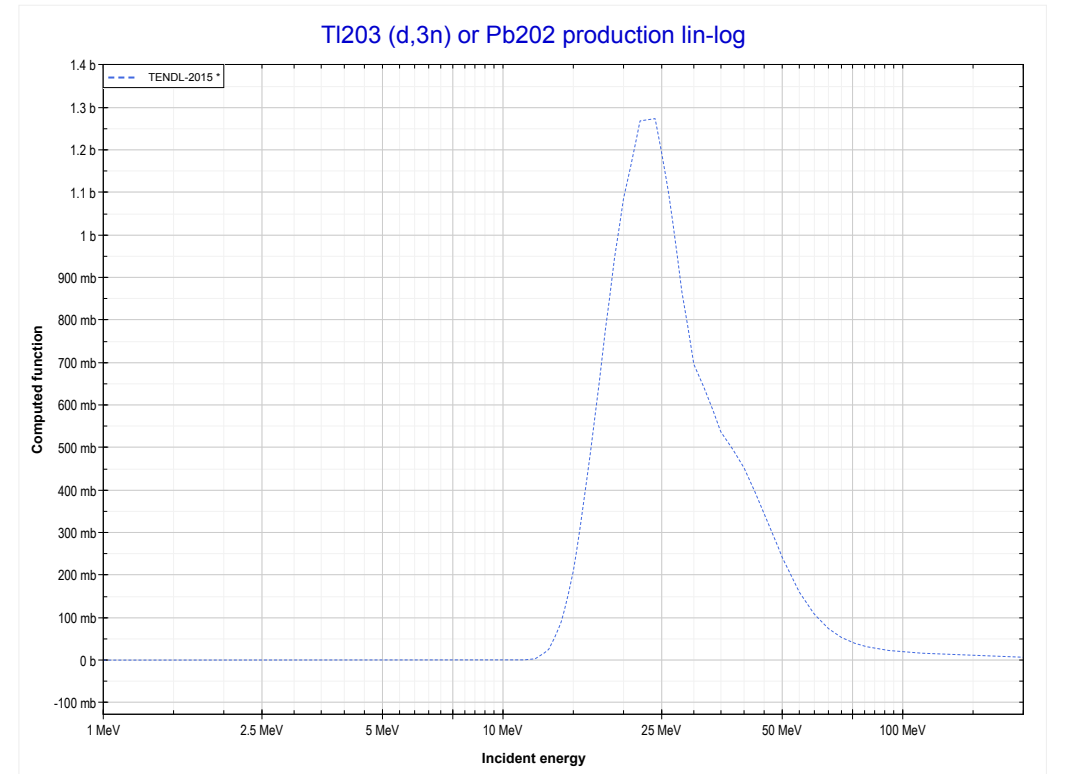
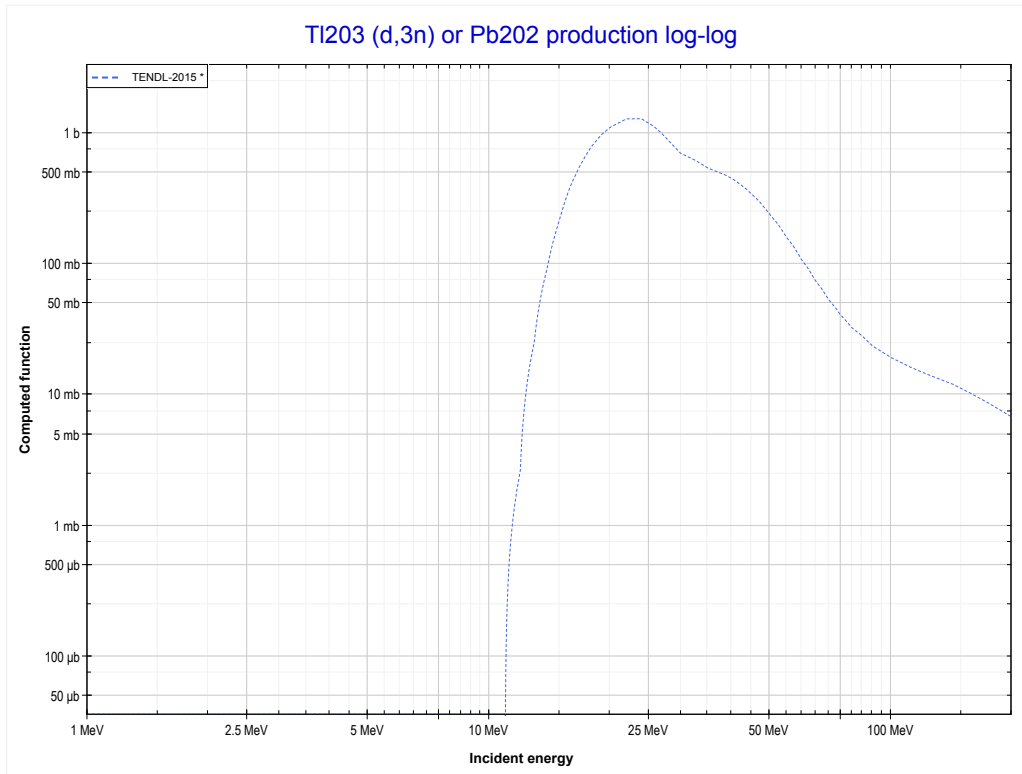


<< 53-I-127	<b>79-Au-197</b>	83-Bi-209 >>
<< MT160 (d,7n)	<b>MT161 (d,8n) or MT5 (Hg191 production)</b>	81-Tl-203 MT17 (d,3n) >>



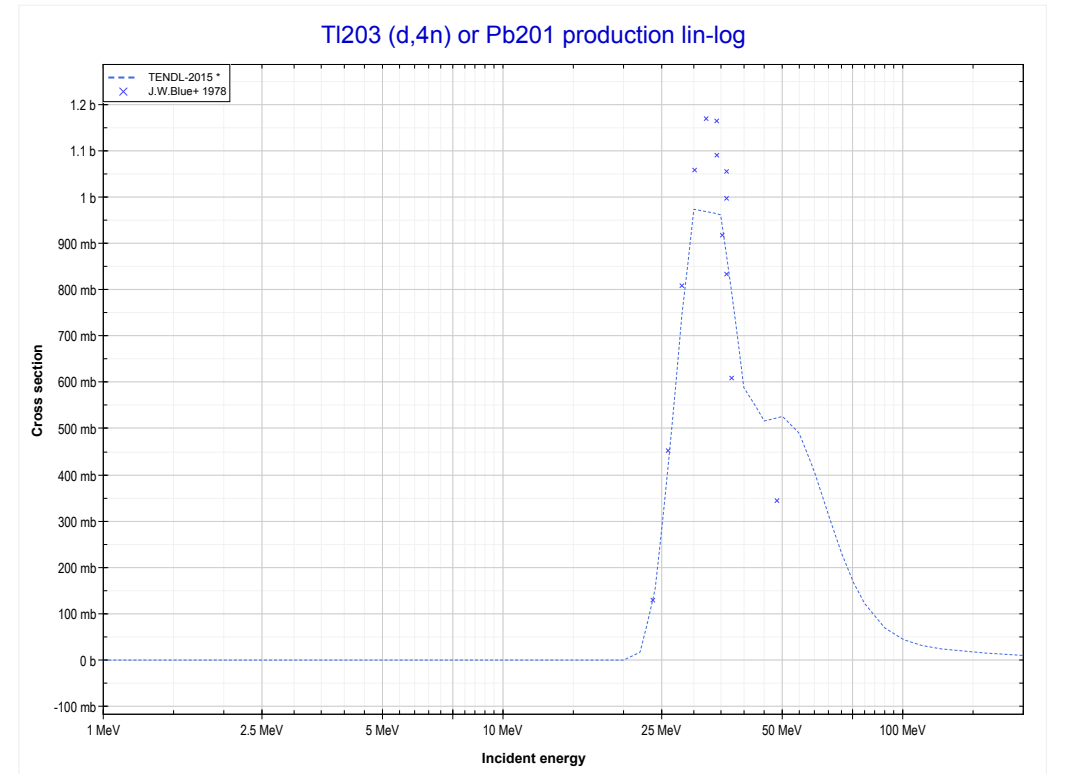
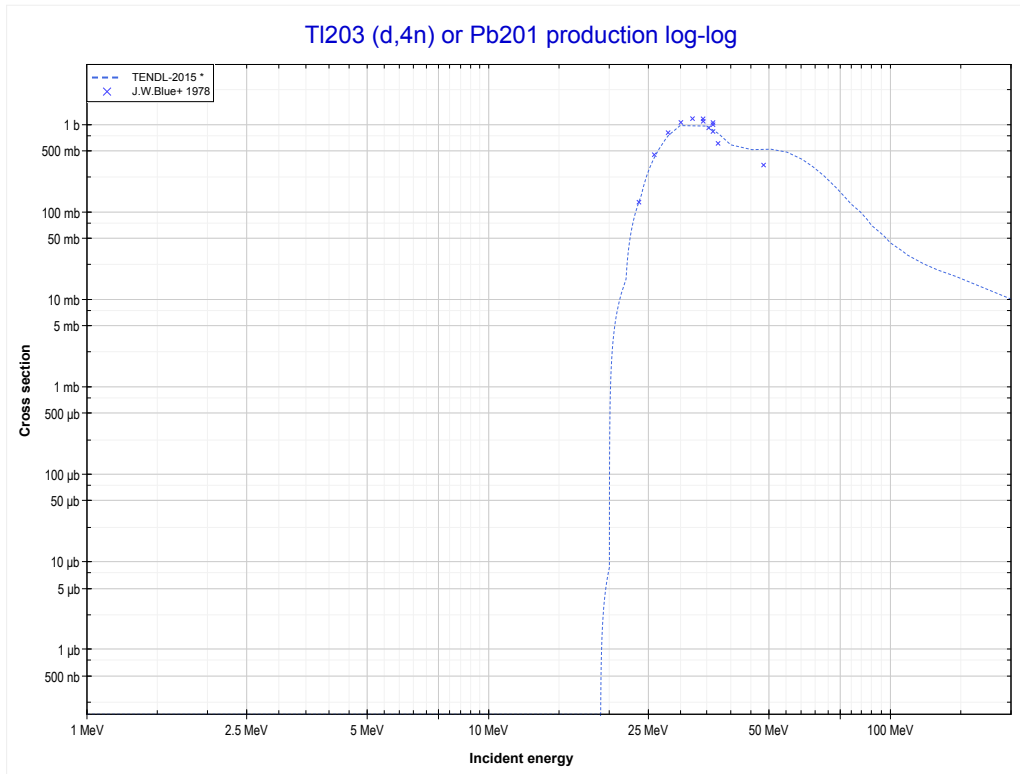
<b>Reaction</b>	<b>Q-Value</b>
Au197(d,8n)Hg191	-51982.82 keV

<< 79-Au-197	<b>81-Tl-203</b>	81-Tl-205 >>
<< 79-Au-197 MT161 (d,8n)	<b>MT17 (d,3n) or MT5 (Pb202 production)</b>	MT37 (d,4n) >>



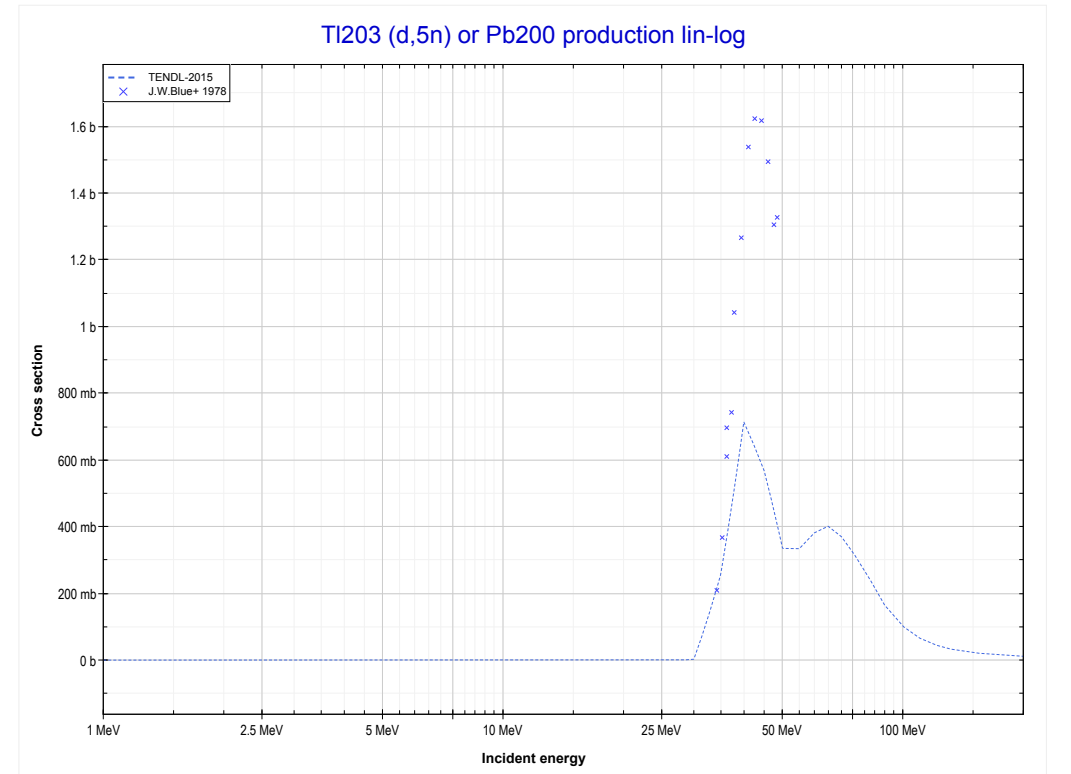
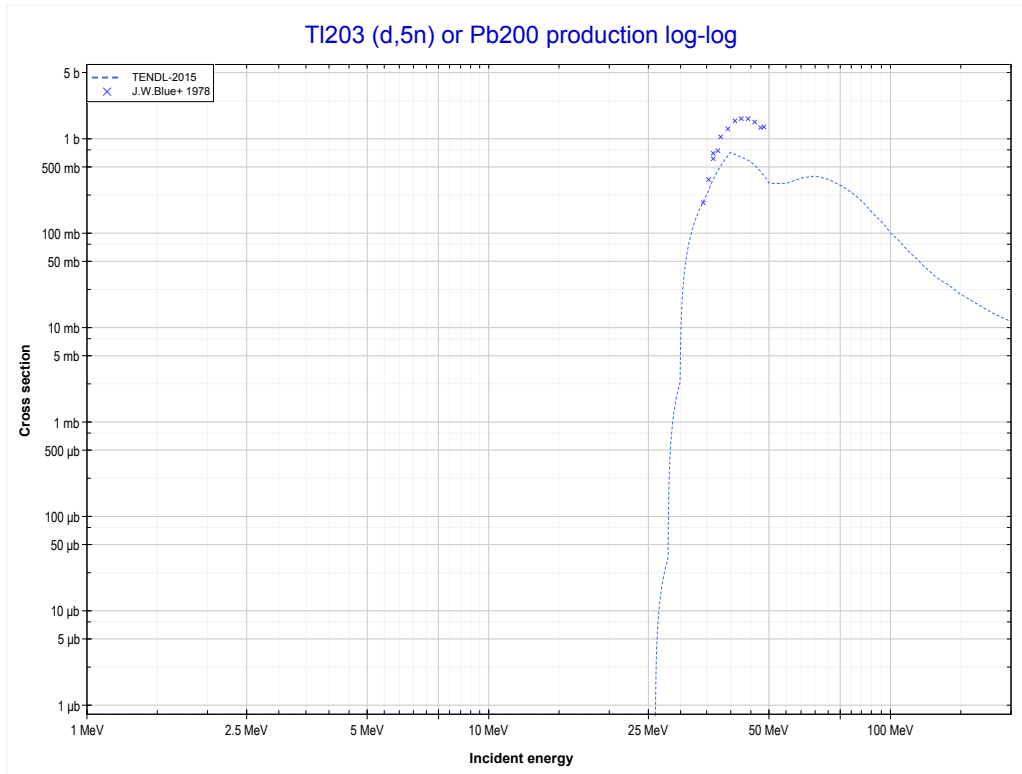
Reaction	Q-Value
Tl203(d,3n)Pb202	-10899.03 keV

<< 79-Au-197	<b>81-Tl-203</b>	81-Tl-205 >>
<< MT17 (d,3n)	<b>MT37 (d,4n) or MT5 (Pb201 production)</b>	MT152 (d,5n) >>



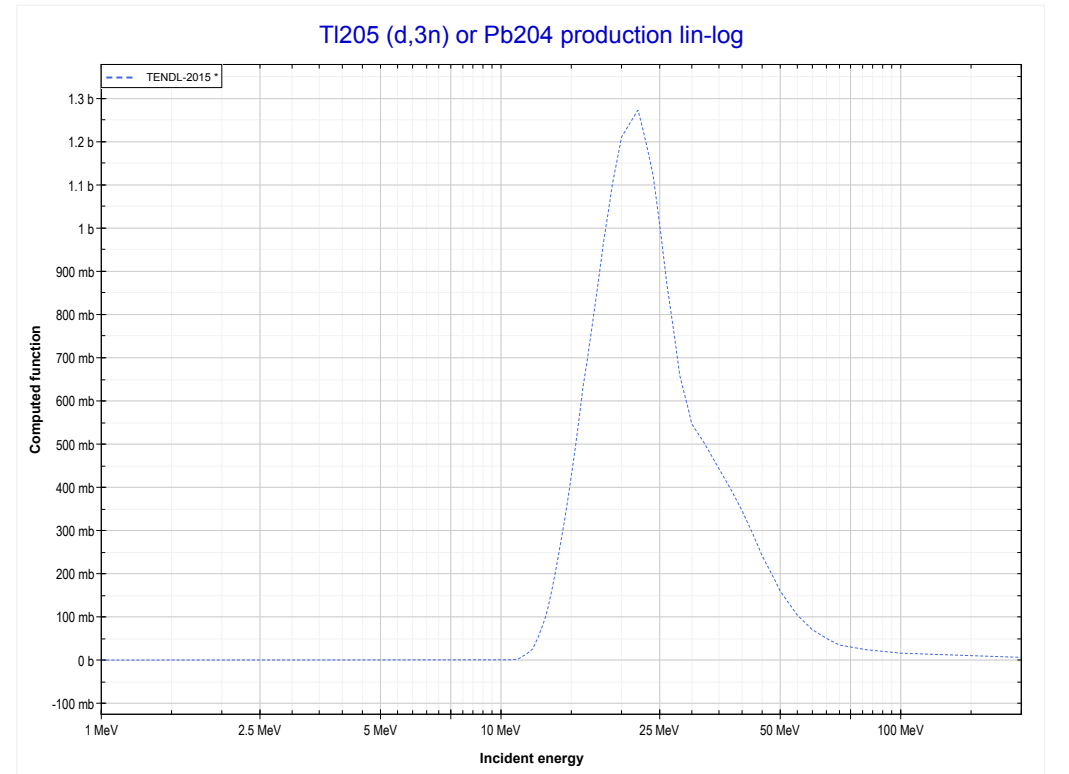
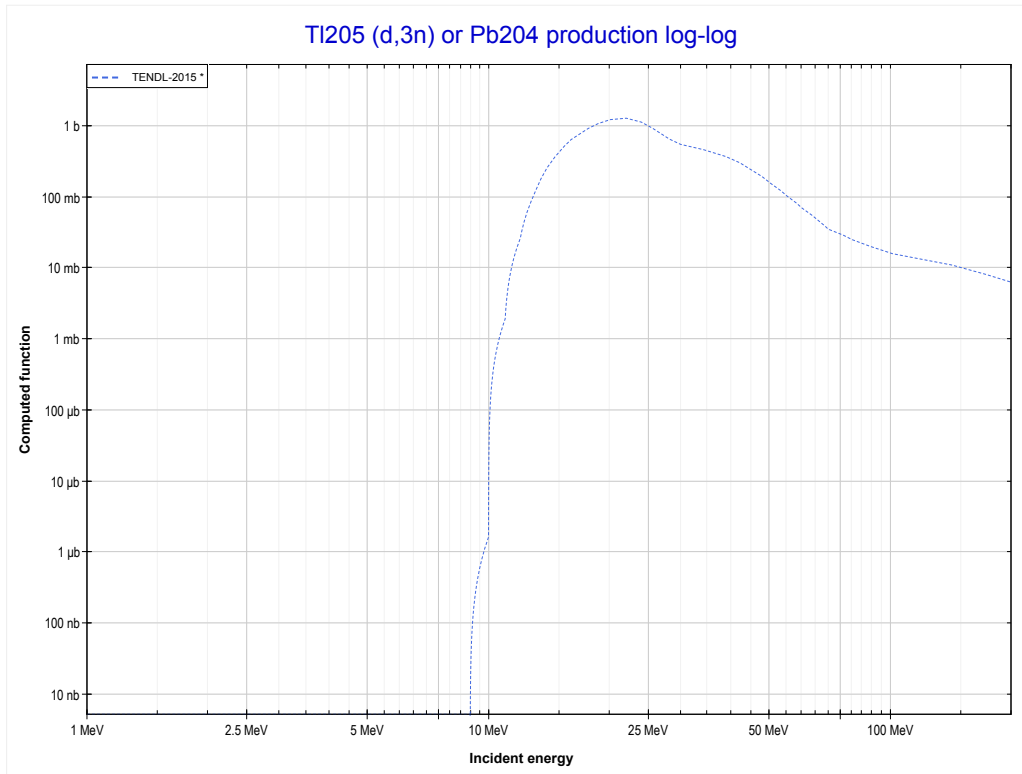
Reaction	Q-Value
Tl203(d,4n)Pb201	-19651.35 keV

<< 73-Ta-181	<b>81-Tl-203</b>	81-Tl-205 >>
<< MT37 (d,4n)	<b>MT152 (d,5n) or MT5 (Pb200 production)</b>	81-Tl-205 MT17 (d,3n) >>



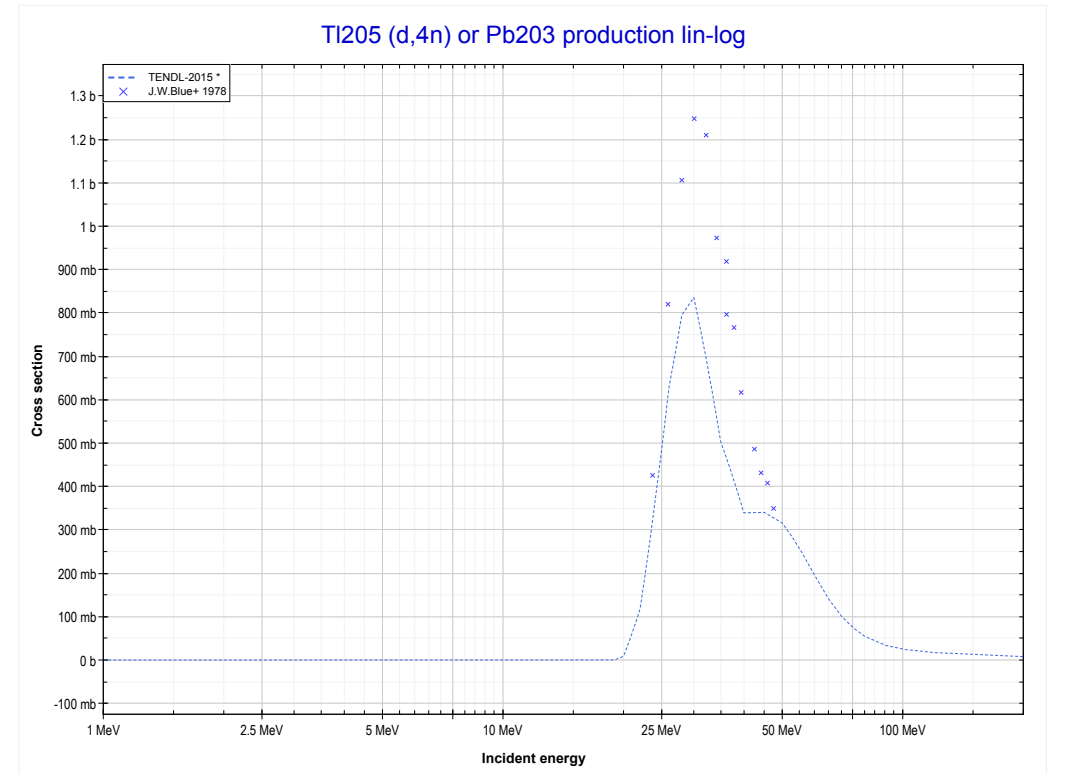
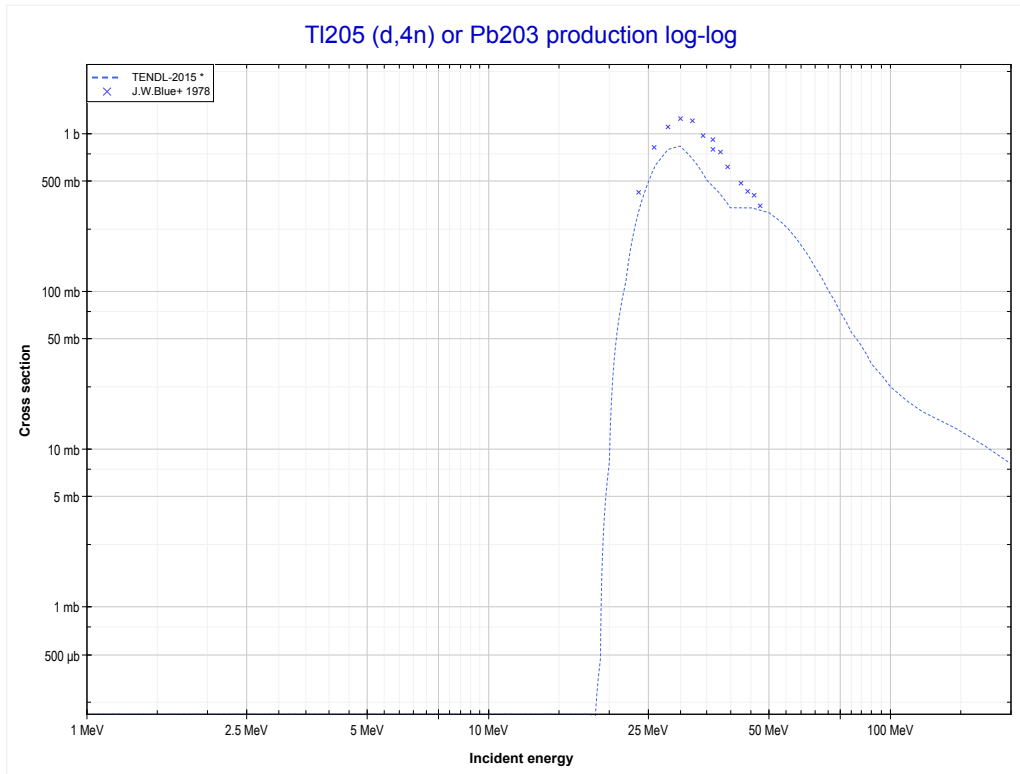
Reaction	Q-Value
Tl203(d,5n)Pb200	-26730.66 keV

<< 81-Tl-203	<b>81-Tl-205</b>	83-Bi-209 >>
<< 81-Tl-203 MT152 (d,5n)	<b>MT17 (d,3n) or MT5 (Pb204 production)</b>	MT37 (d,4n) >>



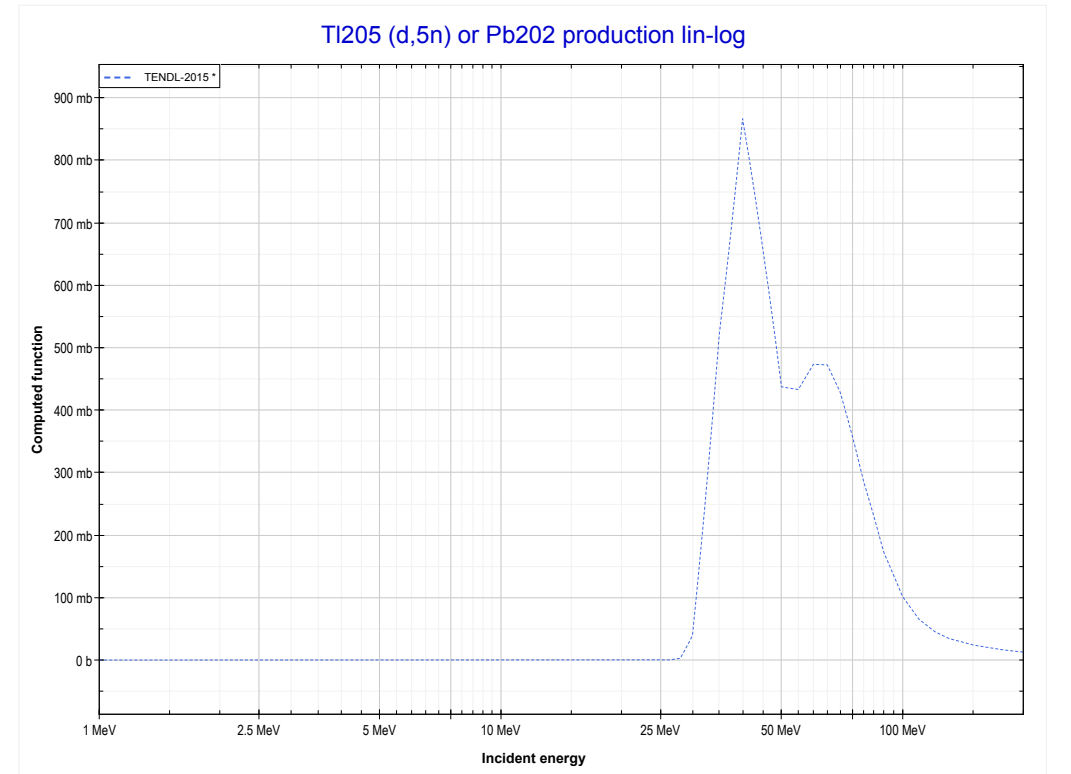
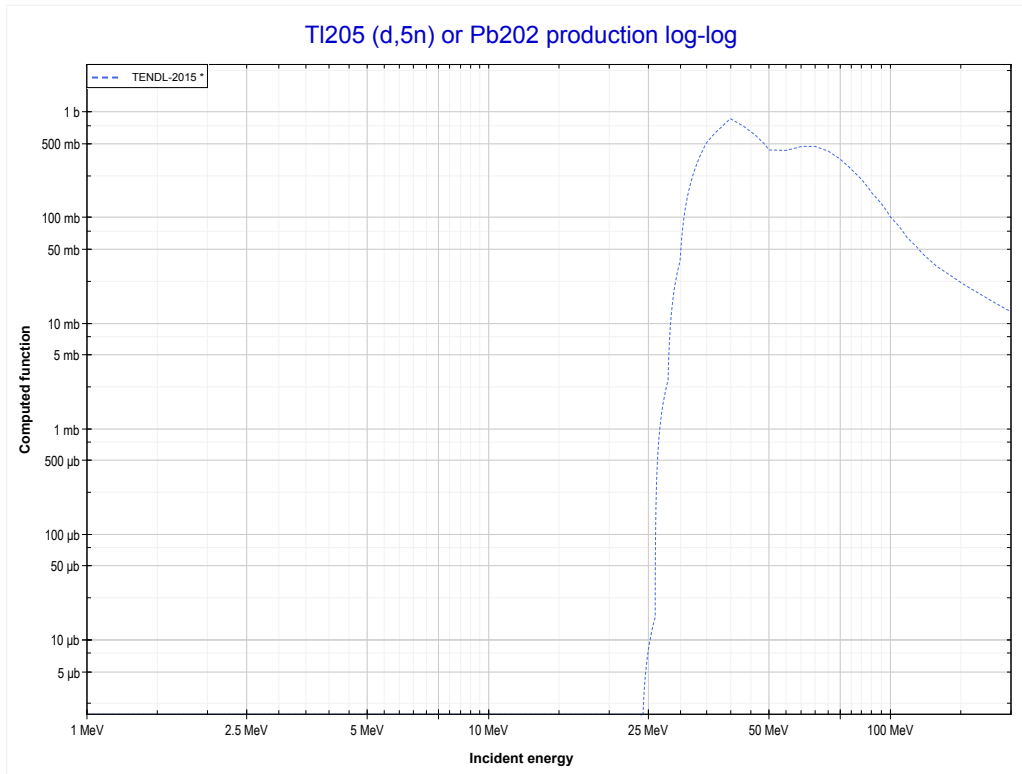
Reaction	Q-Value
Tl205(d,3n)Pb204	-9789.13 keV

<< 81-Tl-203	<b>81-Tl-205</b>	83-Bi-209 >>
<< MT17 (d,3n)	<b>MT37 (d,4n) or MT5 (Pb203 production)</b>	MT152 (d,5n) >>



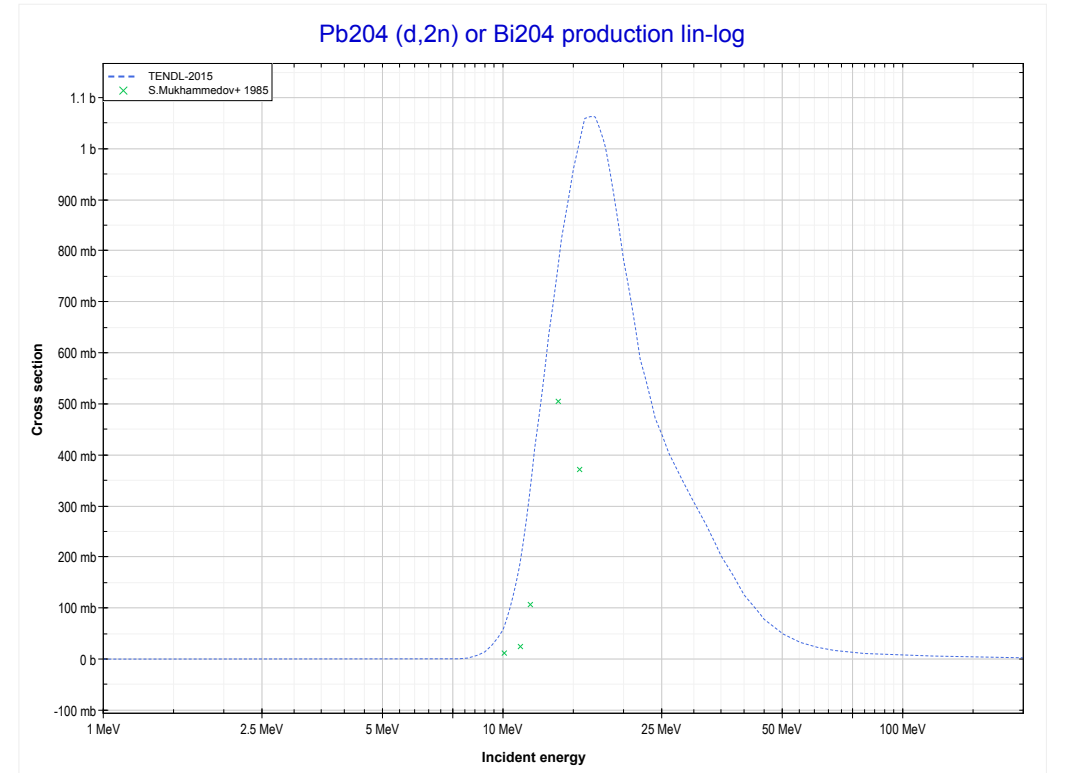
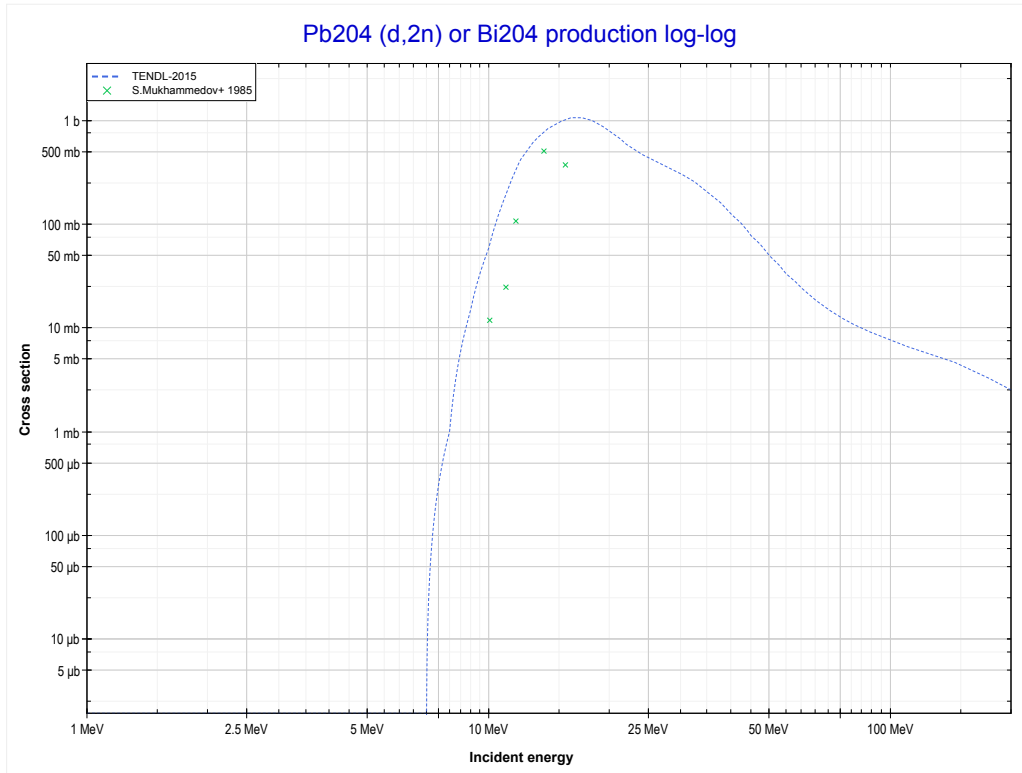
Reaction	Q-Value
Tl205(d,4n)Pb203	-18183.85 keV

<< 81-Tl-203	<b>81-Tl-205</b>	83-Bi-209 >>
<< MT37 (d,4n)	<b>MT152 (d,5n) or MT5 (Pb202 production)</b>	82-Pb-204 MT16 (d,2n) >>



Reaction	Q-Value
Tl205(d,5n)Pb202	-25101.16 keV

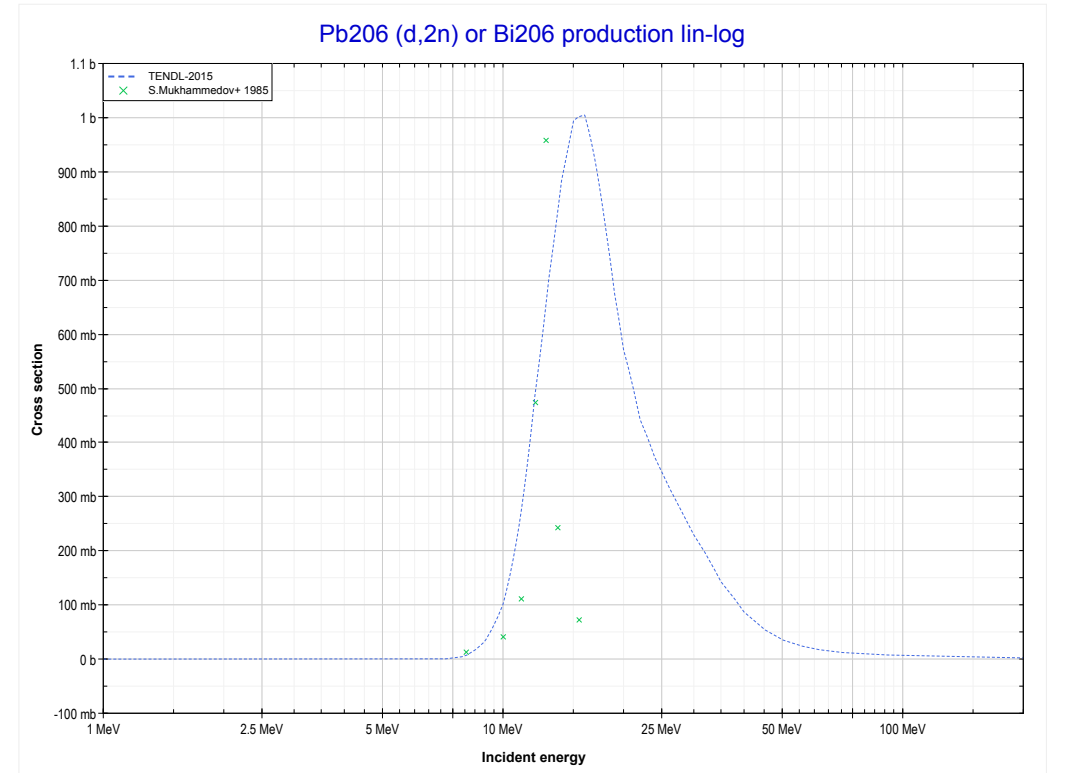
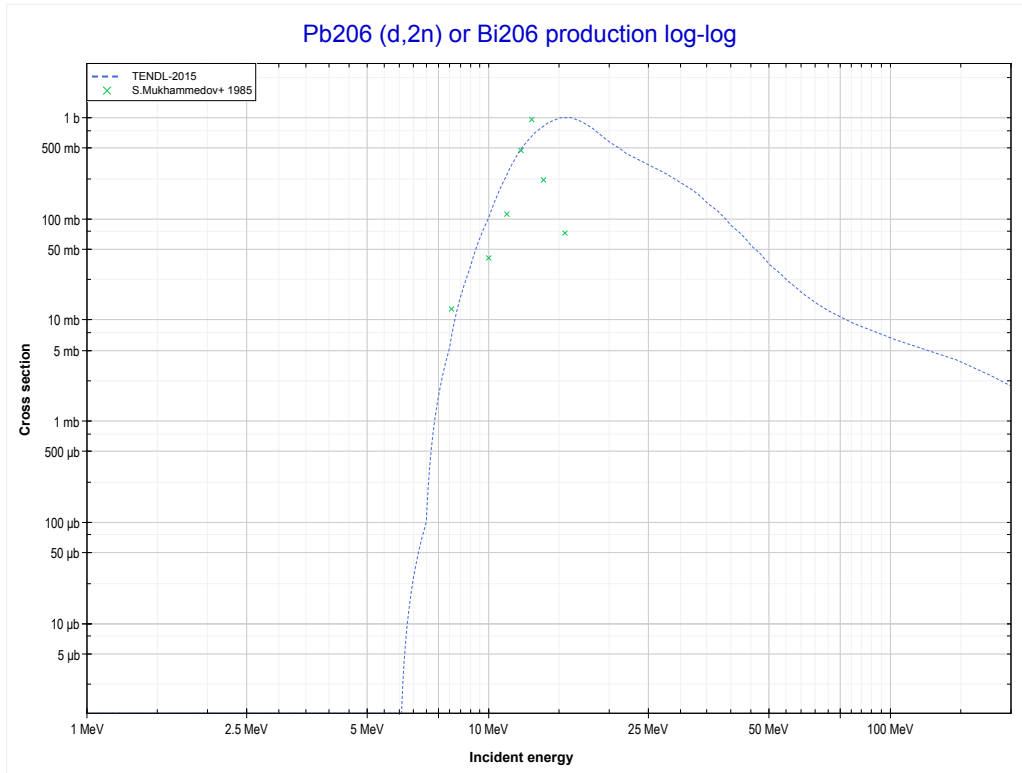
<< 79-Au-197	<b>82-Pb-204</b>	82-Pb-206 >>
<< 81-Tl-205 MT152 (d,5n)	<b>MT16 (d,2n) or MT5 (Bi204 production)</b>	82-Pb-206 MT16 (d,2n) >>



<b>Reaction</b>	<b>Q-Value</b>
Pb204(d,2n)Bi204	-7470.31 keV

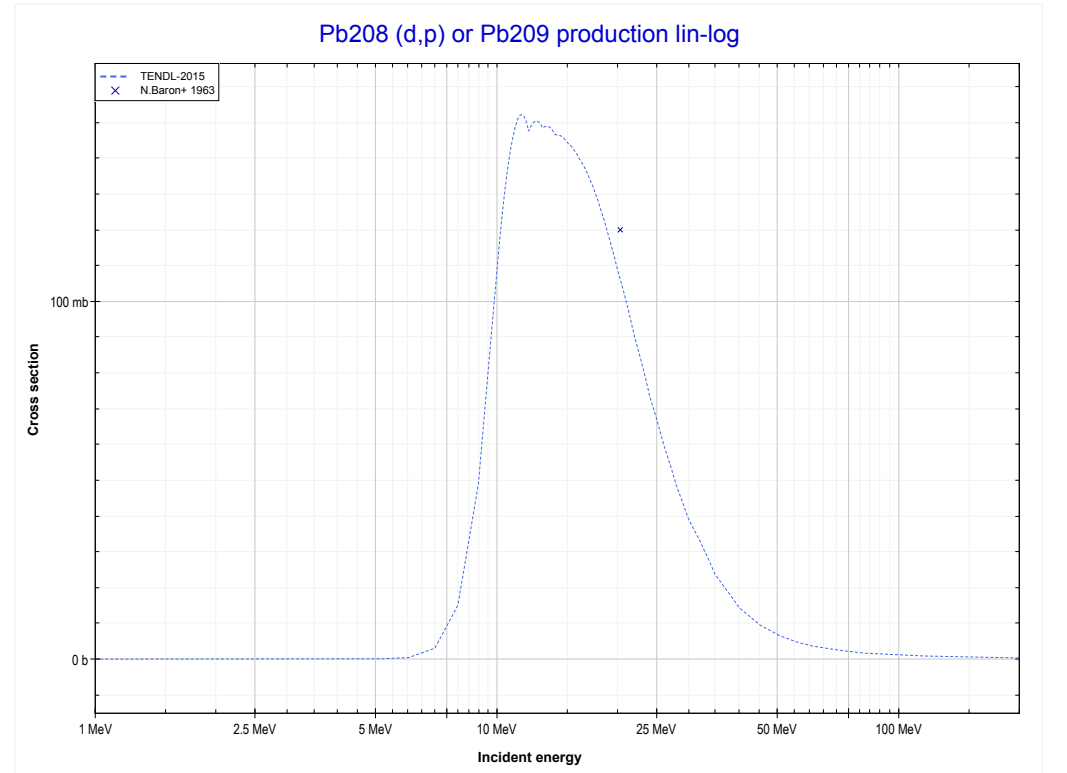
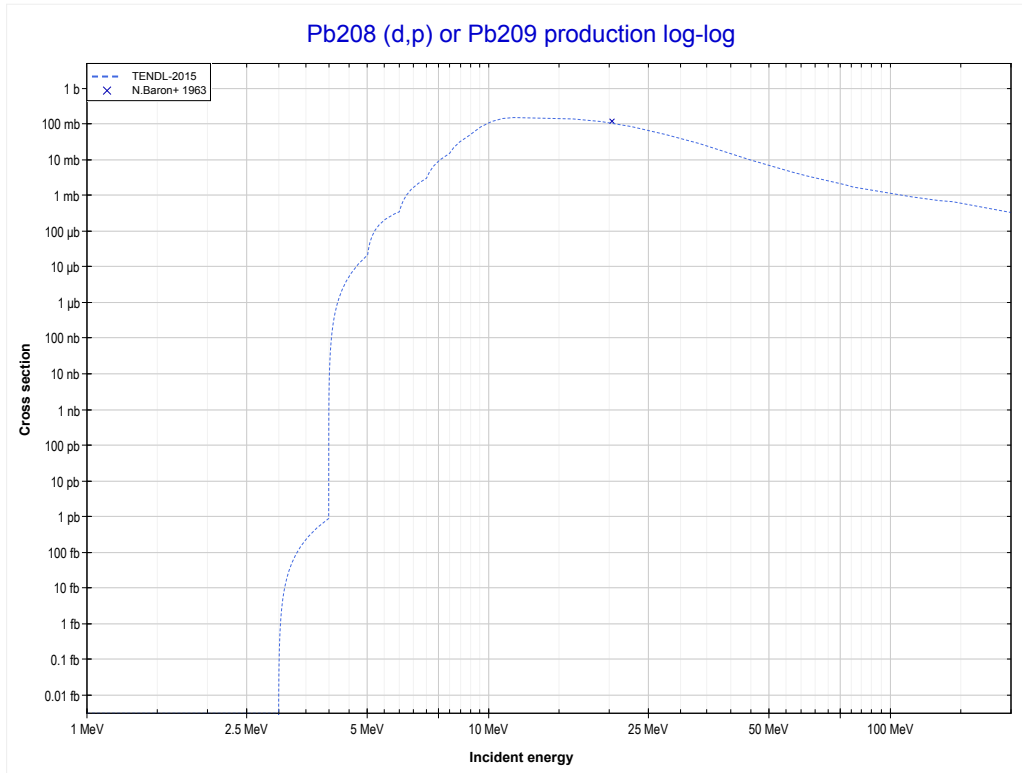


<< 82-Pb-204	<b>82-Pb-206</b>	83-Bi-209 >>
<< 82-Pb-204 MT16 (d,2n)	<b>MT16 (d,2n) or MT5 (Bi206 production)</b>	82-Pb-208 MT103 (d,p) >>



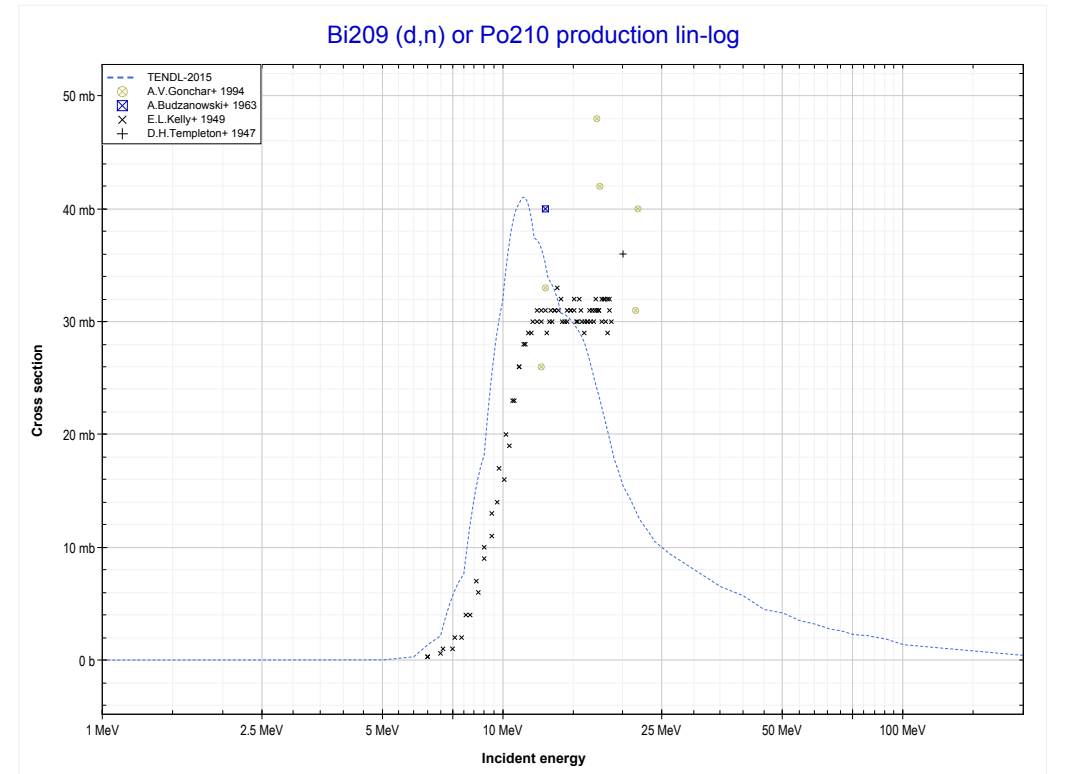
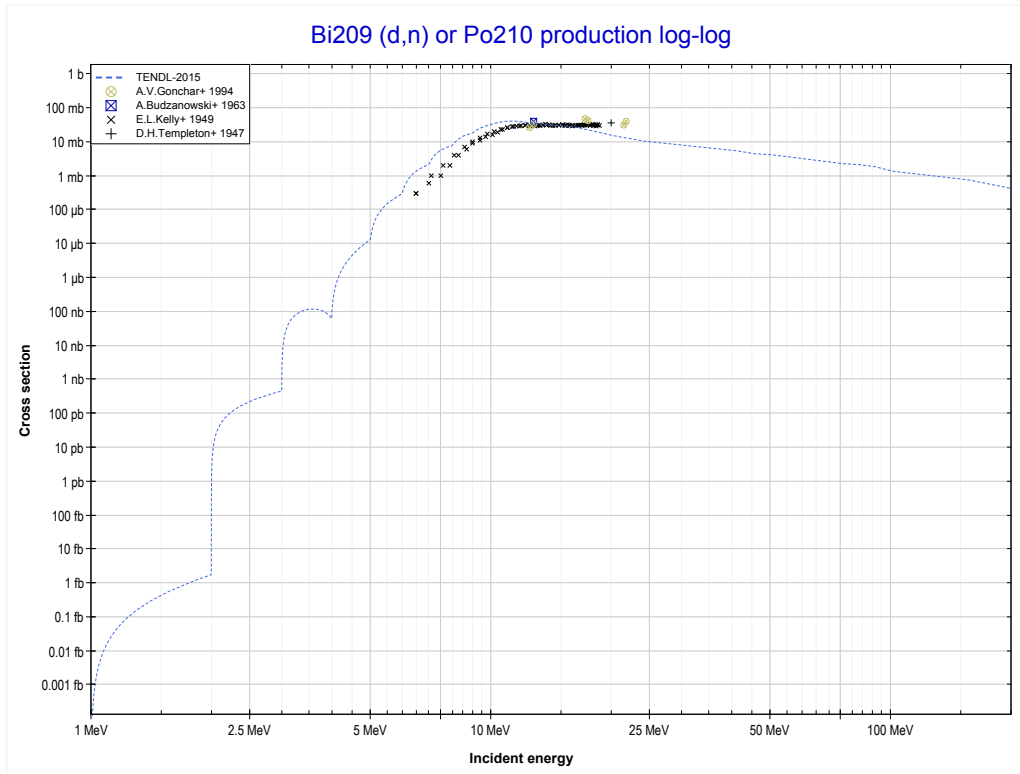
Reaction	Q-Value
Pb206(d,2n)Bi206	-6764.01 keV

<< 79-Au-197	<b>82-Pb-208</b>	83-Bi-209 >>
<< 82-Pb-206 MT16 (d,2n)	<b>MT103 (d,p) or MT5 (Pb209 production)</b>	83-Bi-209 MT4 (d,n) >>



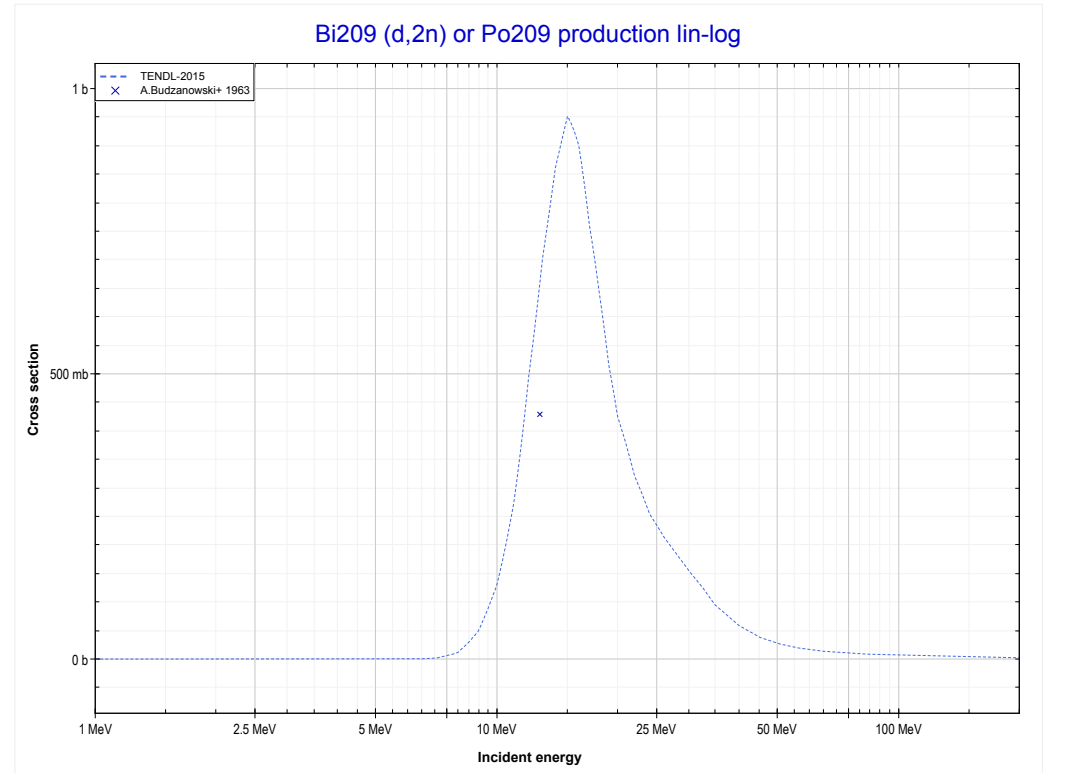
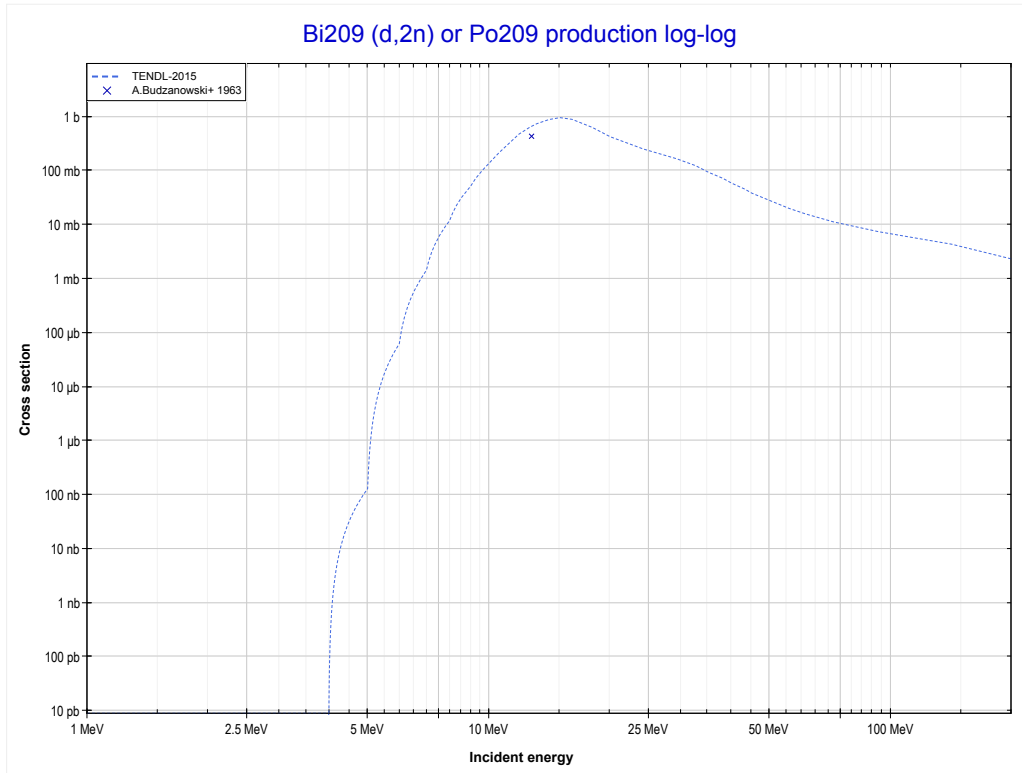
Reaction	Q-Value
Pb208(d,p)Pb209	1712.75 keV

<< 78-Pt-194	<b>83-Bi-209</b>	92-U-234 >>
<< 82-Pb-208 MT103 (d,p)	<b>MT4 (d,n) or MT5 (Po210 production)</b>	MT16 (d,2n) >>



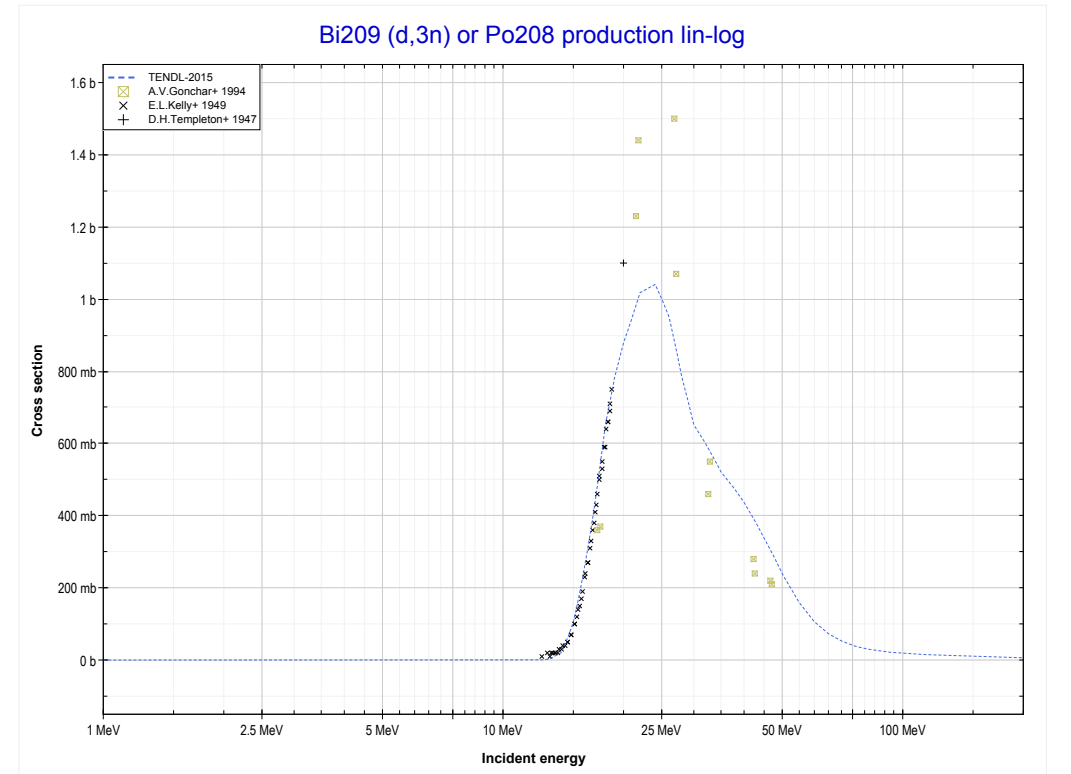
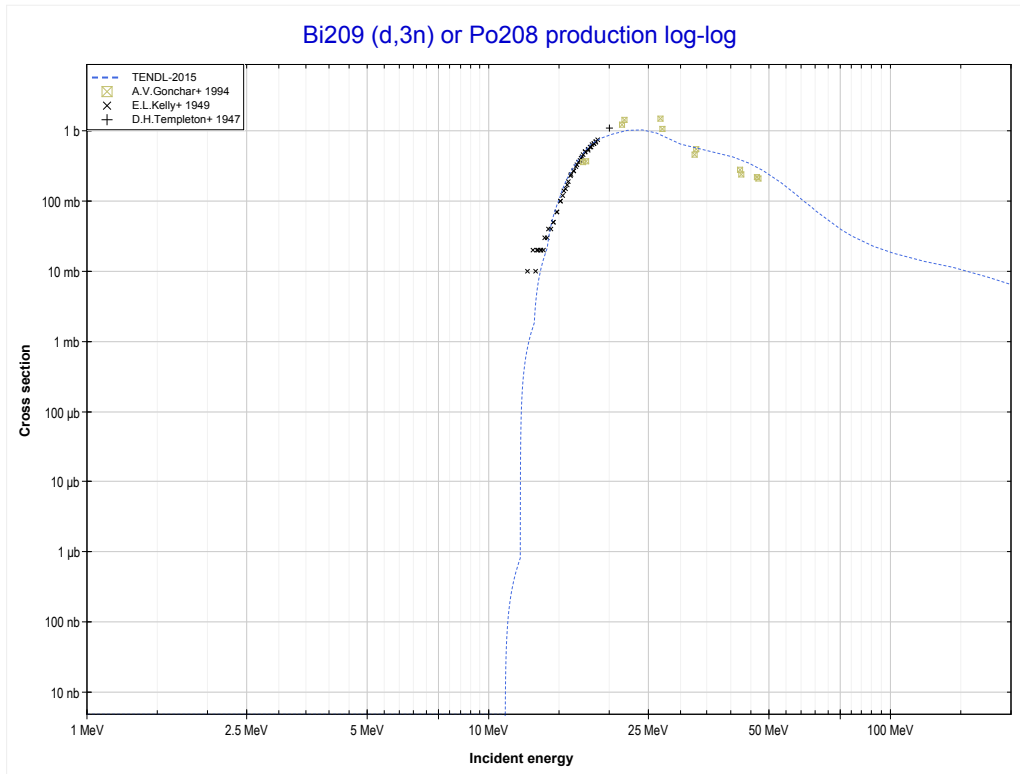
Reaction	Q-Value
Bi209(d,n)Po210	2758.90 keV

<< 82-Pb-206	<b>83-Bi-209</b>	90-Th-232 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Po209 production)</b>	MT17 (d,3n) >>



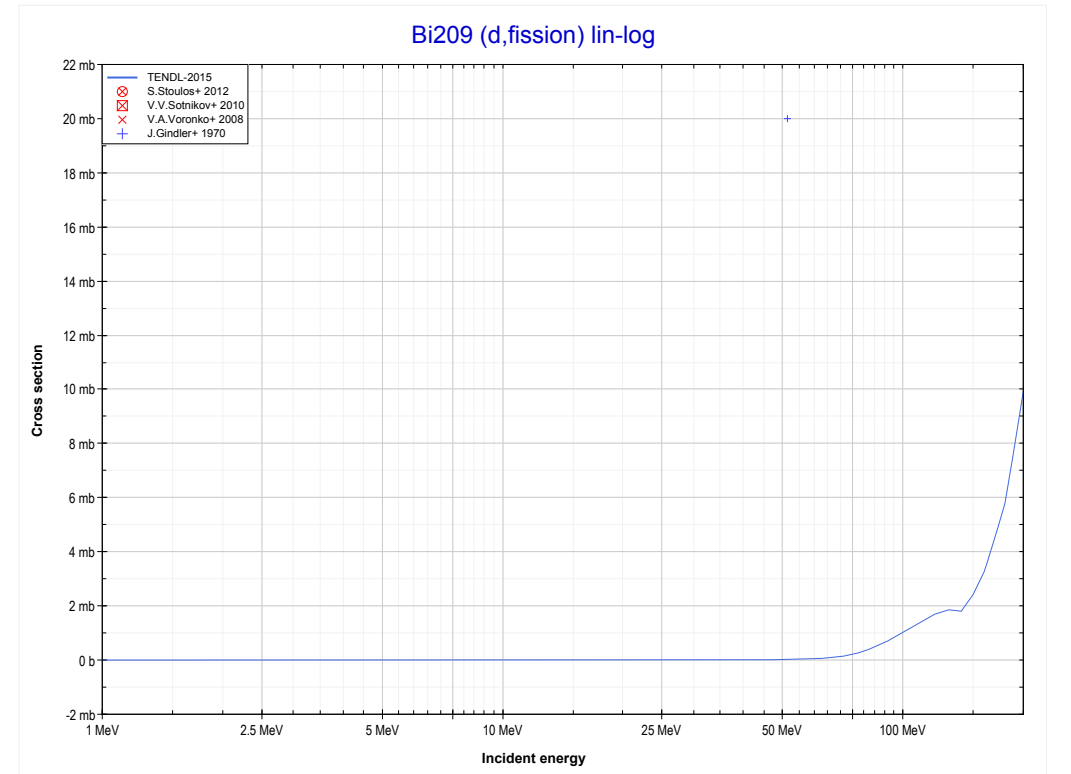
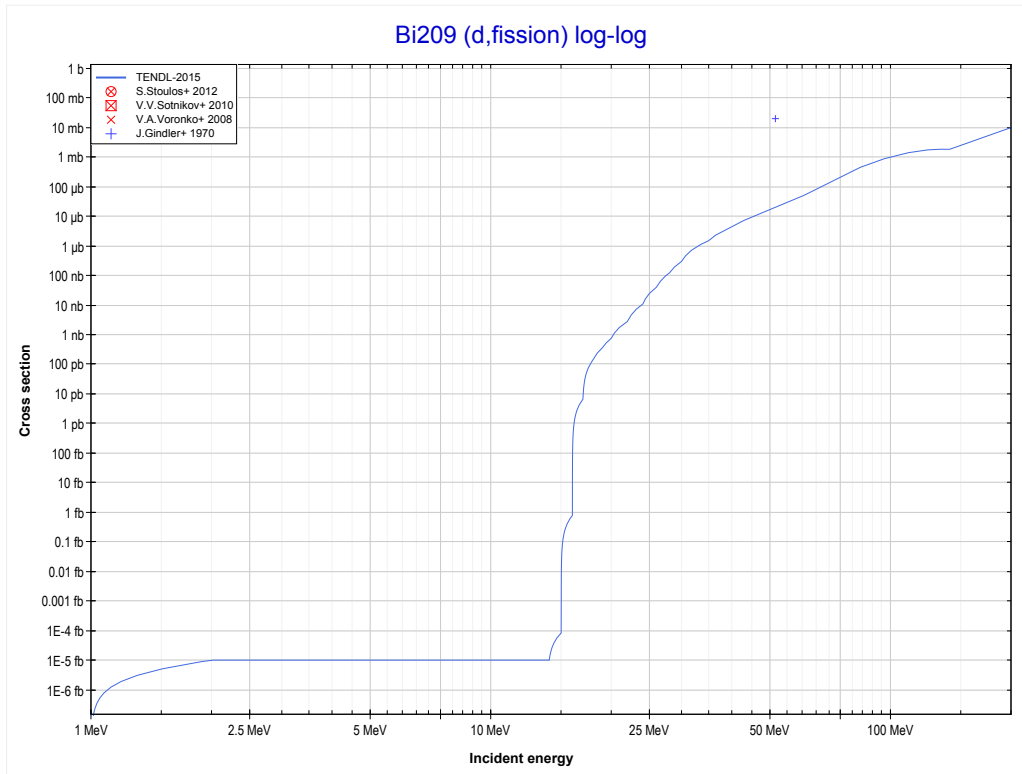
Reaction	Q-Value
Bi209(d,2n)Po209	-4899.51 keV

<< 81-Tl-205	<b>83-Bi-209</b>	91-Pa-231 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Po208 production)</b>	MT18 (d,fission) >>

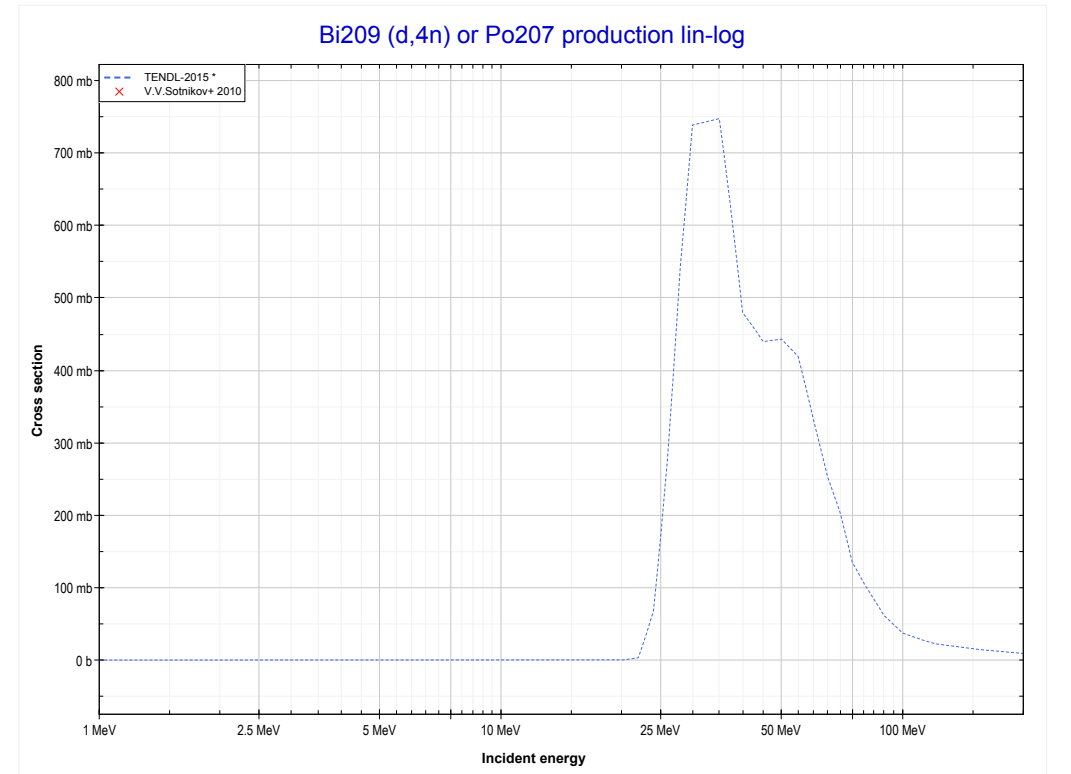
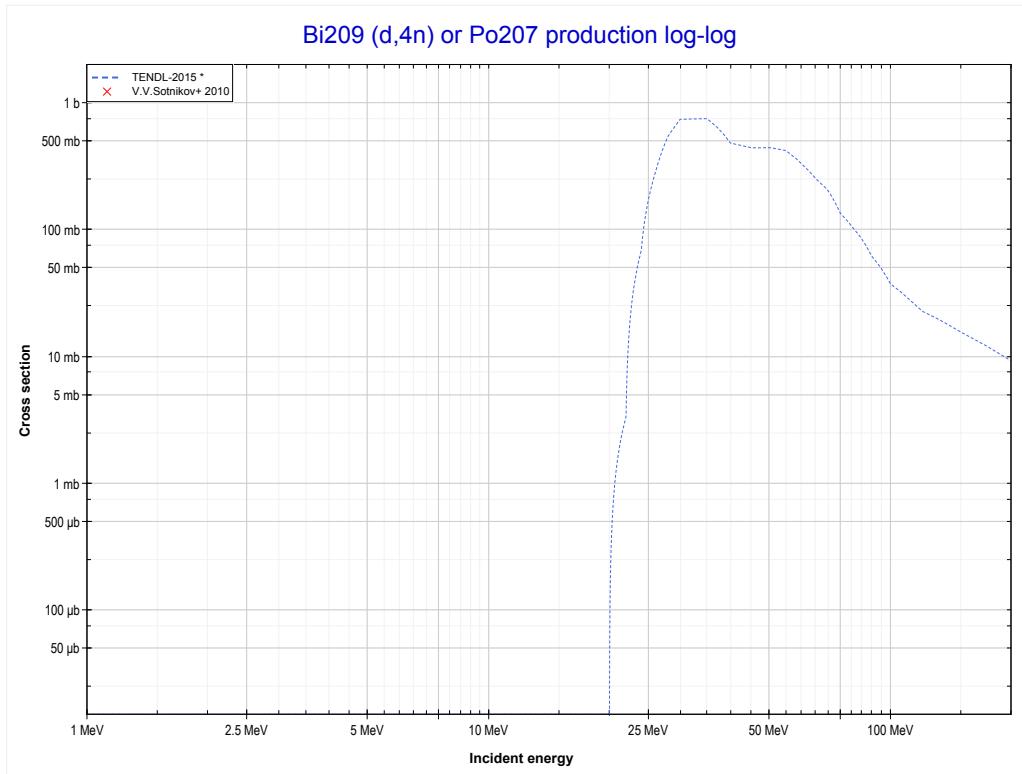


Reaction	Q-Value
Bi209(d,3n)Po208	-11867.23 keV

<< 79-Au-197	<b>83-Bi-209</b>	88-Ra-226 >>
<< MT17 (d,3n)	<b>MT18 (d,fission)</b>	MT37 (d,4n) >>

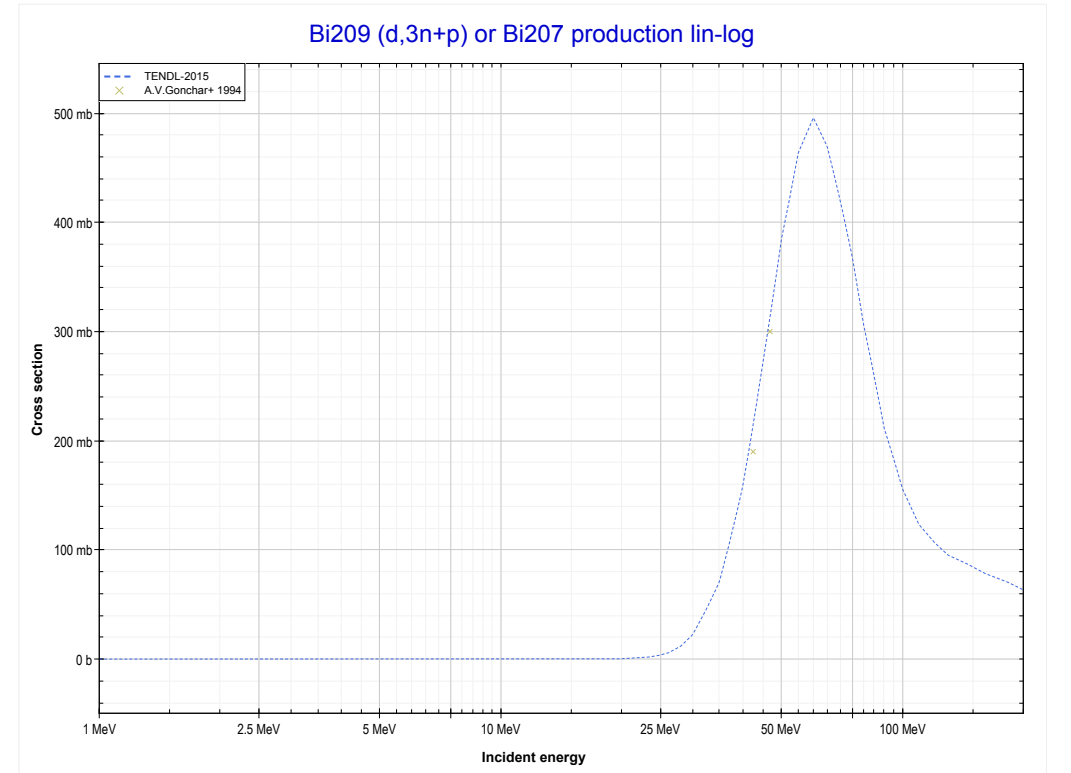
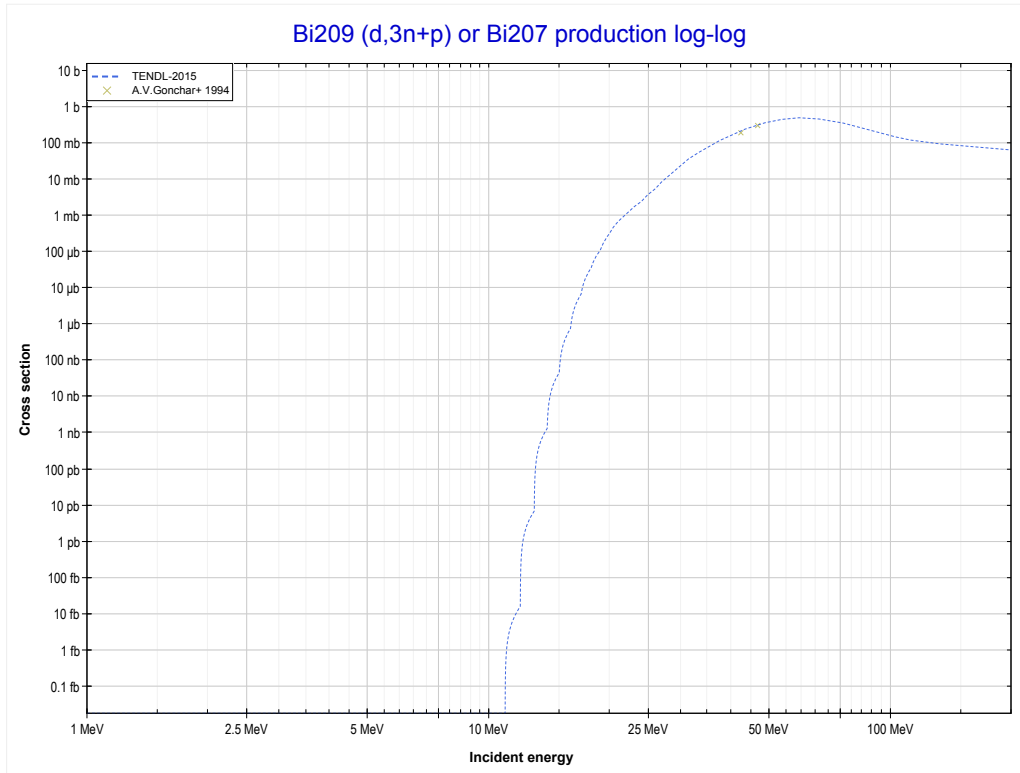


<< 81-Tl-205	<b>83-Bi-209</b>	90-Th-232 >>
<< MT18 (d,fission)	<b>MT37 (d,4n) or MT5 (Po207 production)</b>	MT42 (d,3n+p) >>



Reaction	Q-Value
Bi209(d,4n)Po207	-20262.75 keV

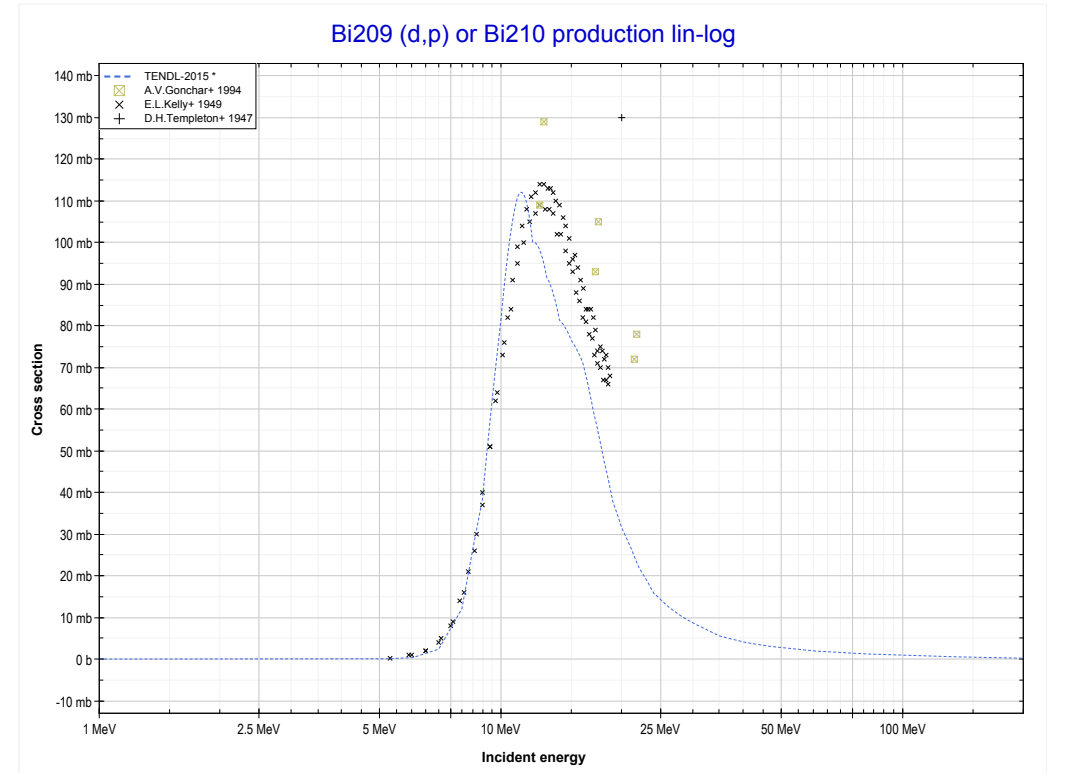
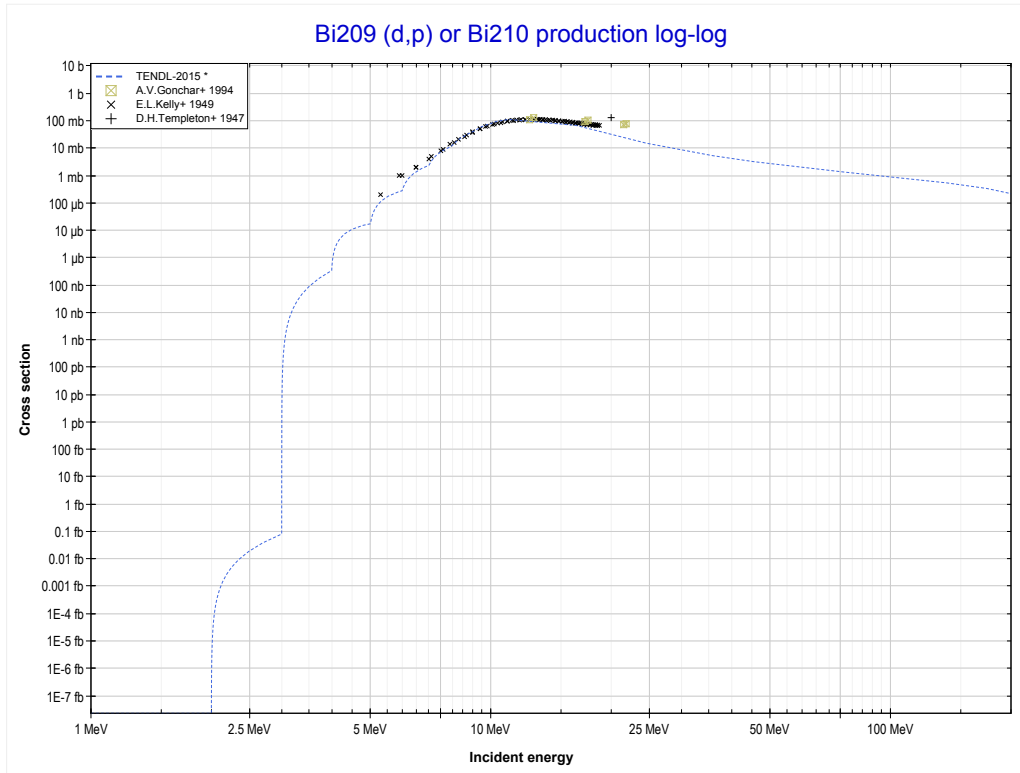
<< 33-As-75	<b>83-Bi-209</b>	
<< MT37 (d,4n)	<b>MT42 (d,3n+p) or MT5 (Bi207 production)</b>	MT103 (d,p) >>



Reaction	Q-Value
Bi209(d,n+t)Bi207	-8089.50 keV
Bi209(d,2n+d)Bi207	-14346.73 keV
Bi209(d,3n+p)Bi207	-16571.30 keV

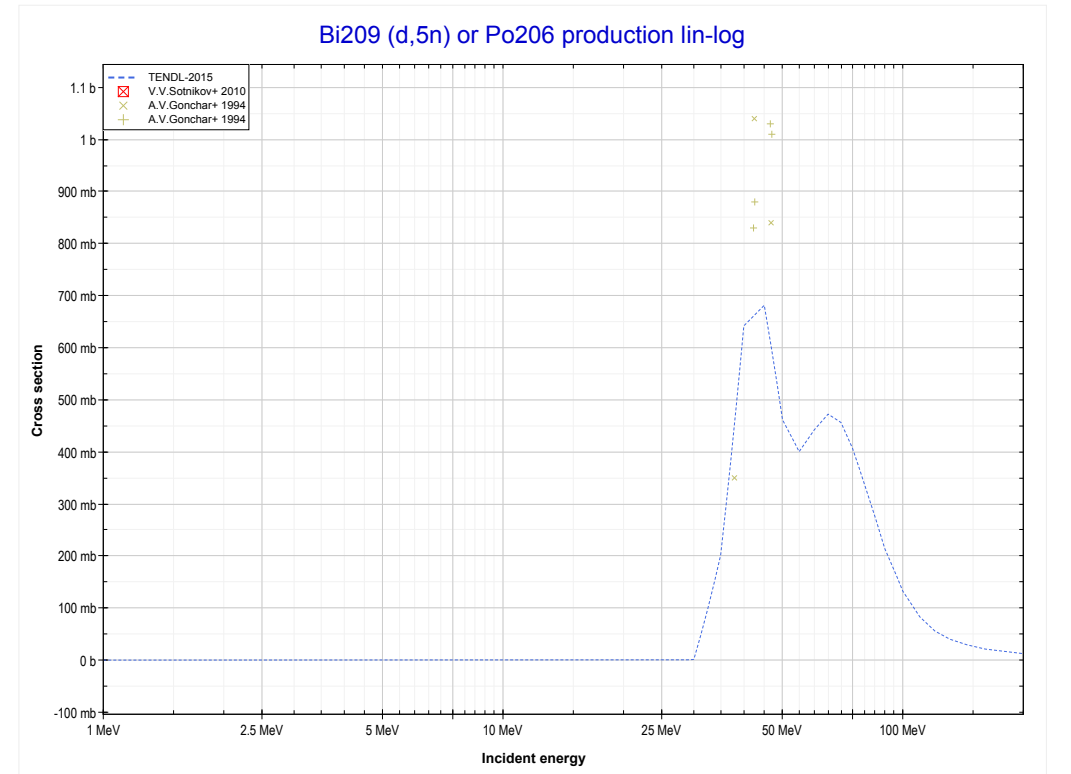
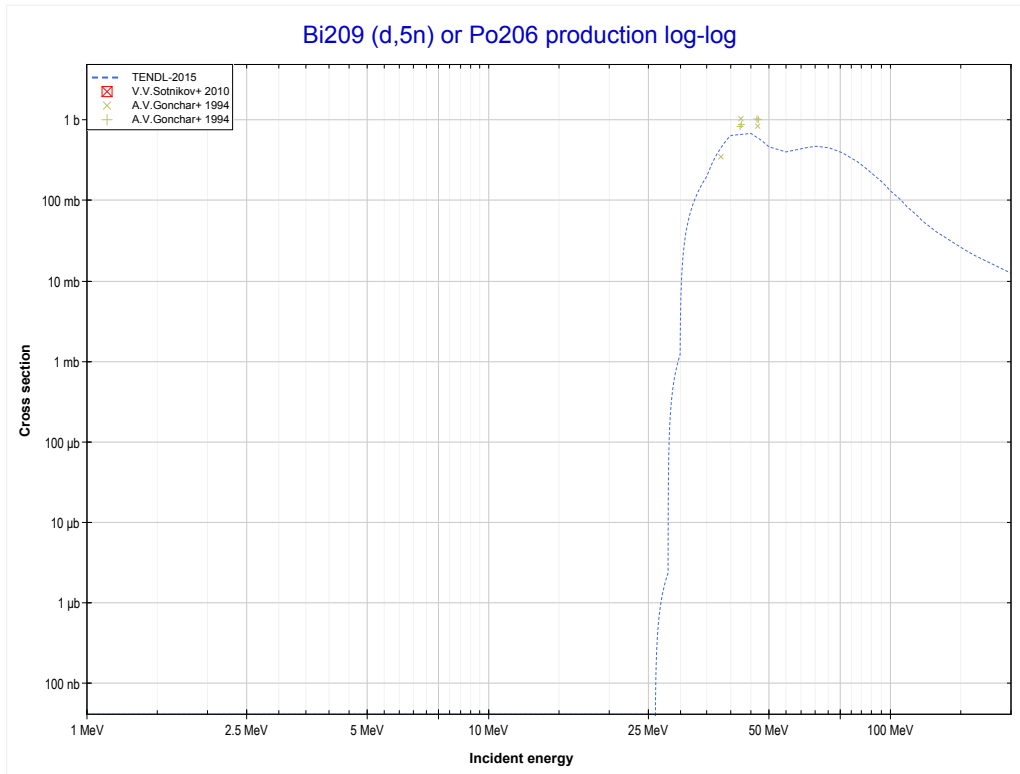


<< 82-Pb-208	<b>83-Bi-209</b>	92-U-238 >>
<< MT42 (d,3n+p)	<b>MT103 (d,p) or MT5 (Bi210 production)</b>	MT152 (d,5n) >>



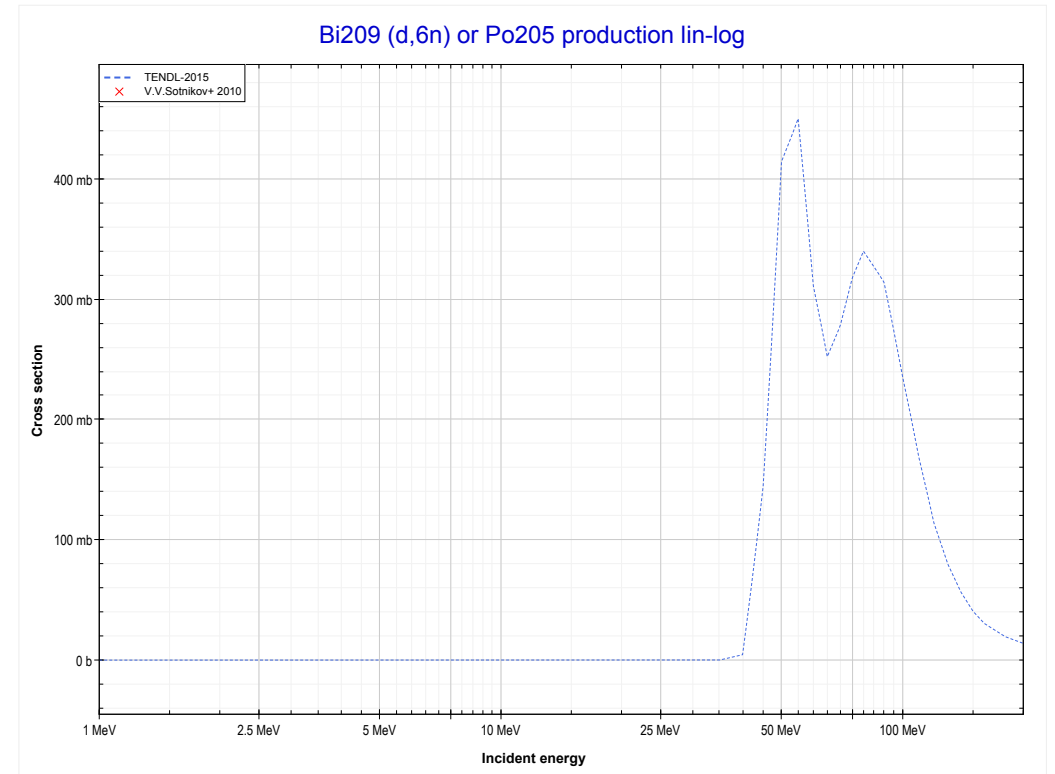
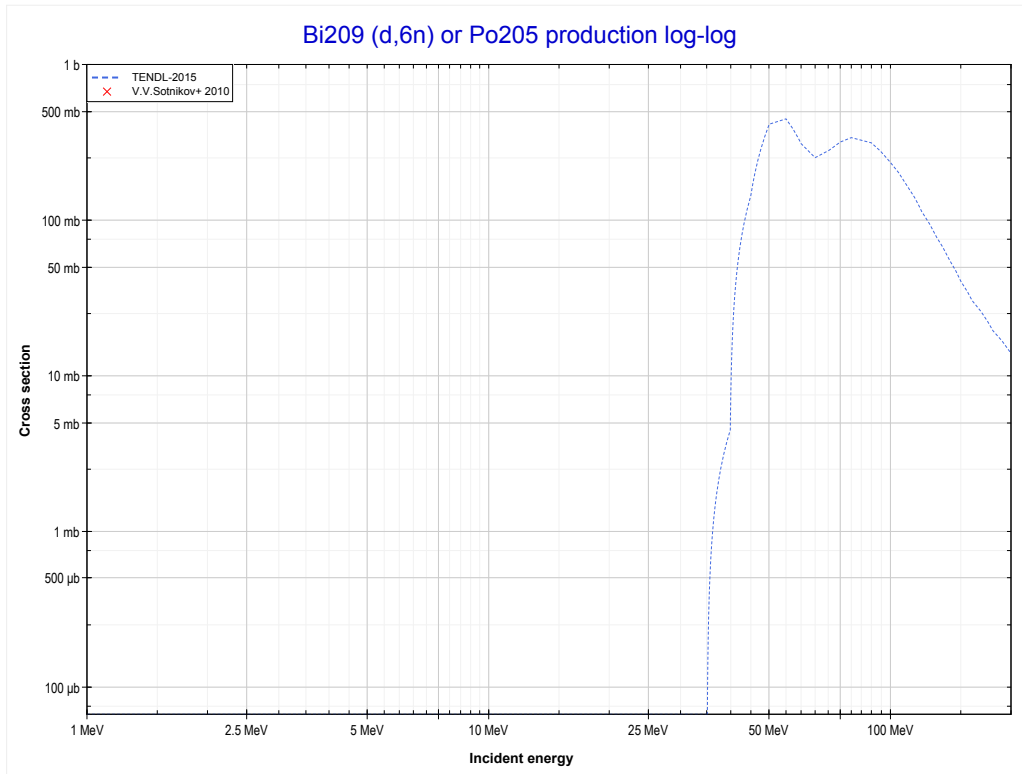
Reaction	Q-Value
Bi209(d,p)Bi210	2380.05 keV

<< 81-Tl-205	<b>83-Bi-209</b>	92-U-238 >>
<< MT103 (d,p)	<b>MT152 (d,5n) or MT5 (Po206 production)</b>	MT153 (d,6n) >>



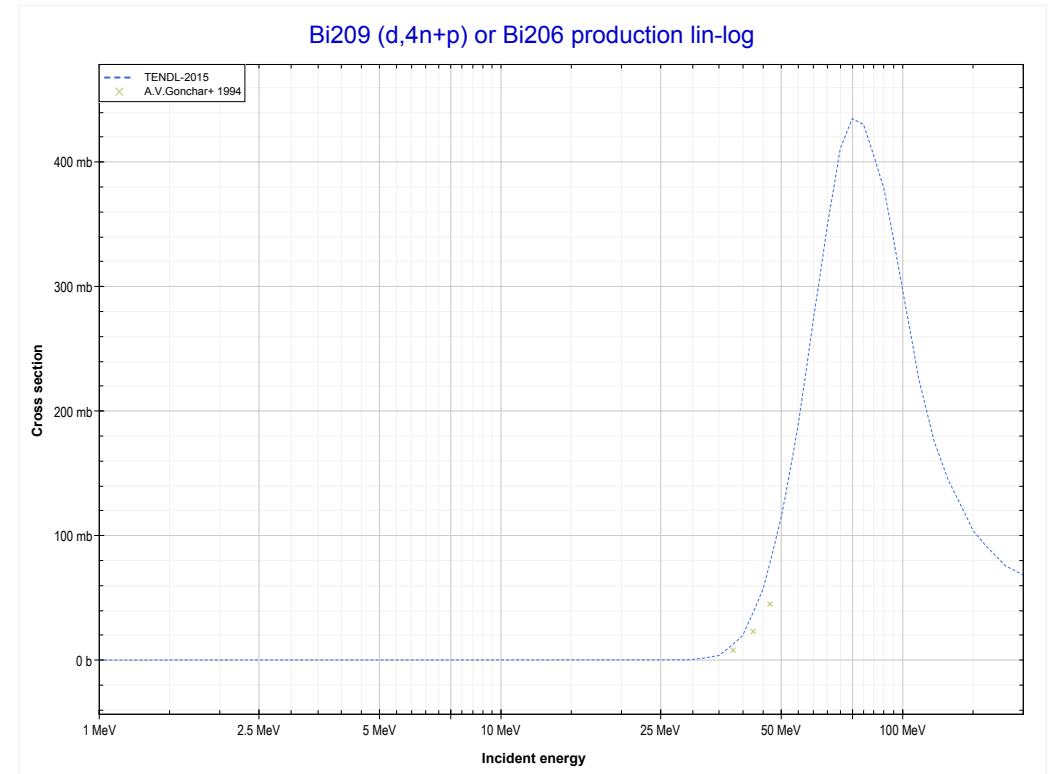
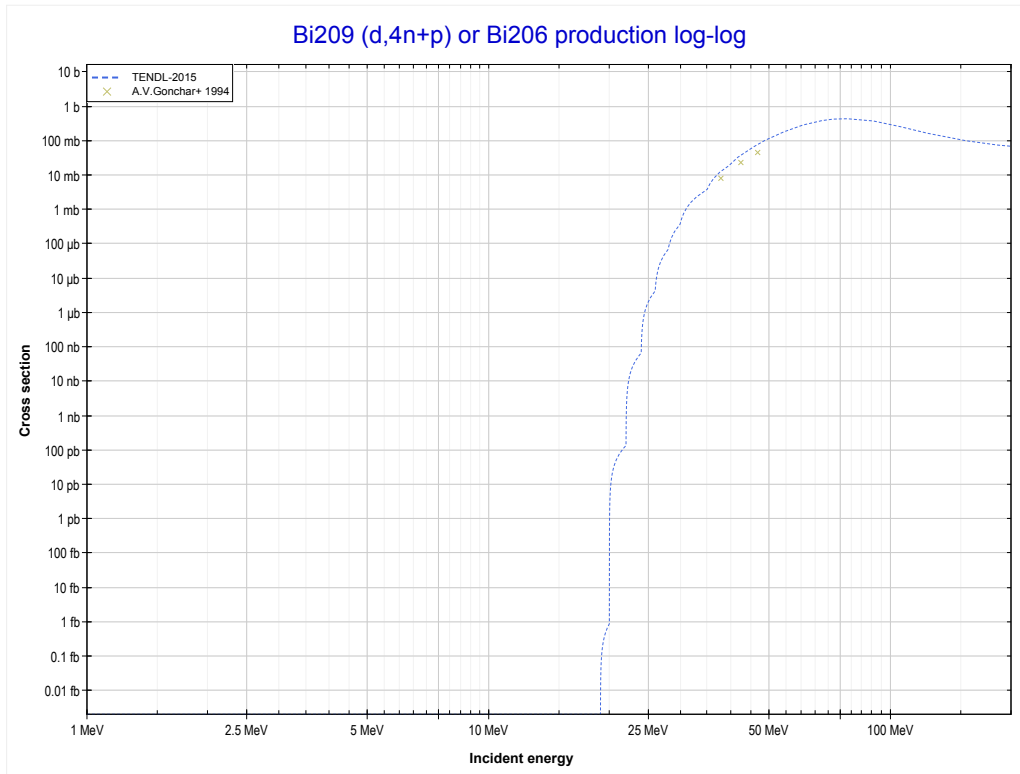
<b>Reaction</b>	<b>Q-Value</b>
Bi209(d,5n)Po206	-27291.06 keV

<< 79-Au-197	<b>83-Bi-209</b>	90-Th-232 >>
<< MT152 (d,5n)	<b>MT153 (d,6n) or MT5 (Po205 production)</b>	MT156 (d,4n+p) >>



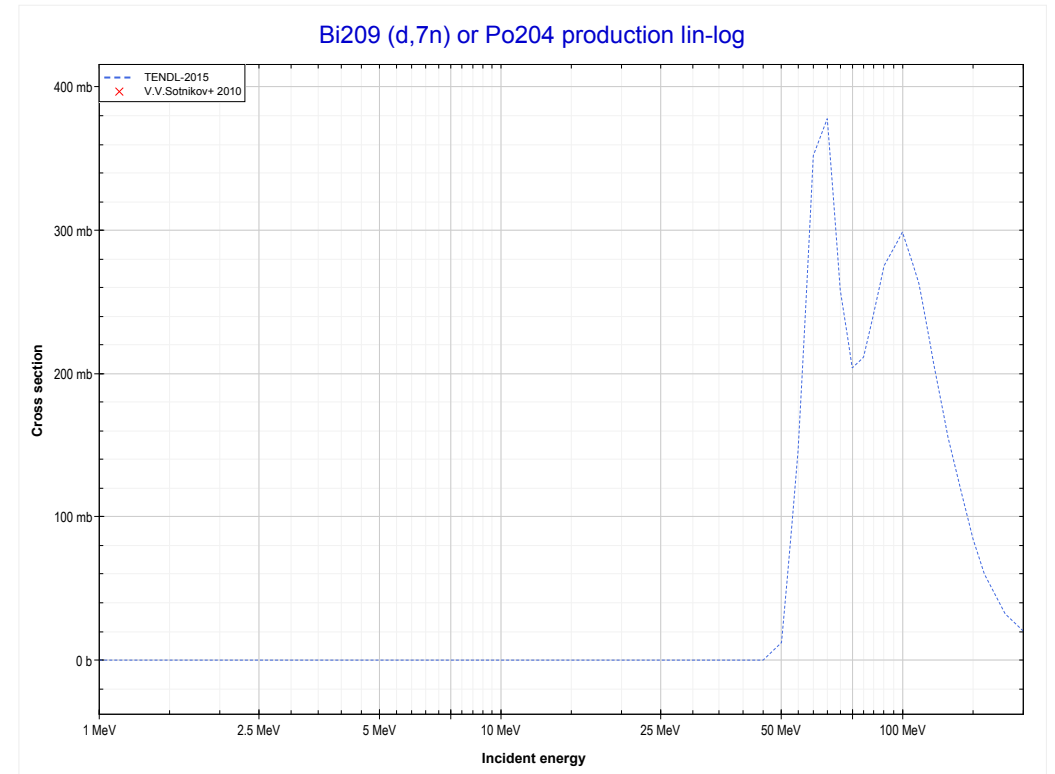
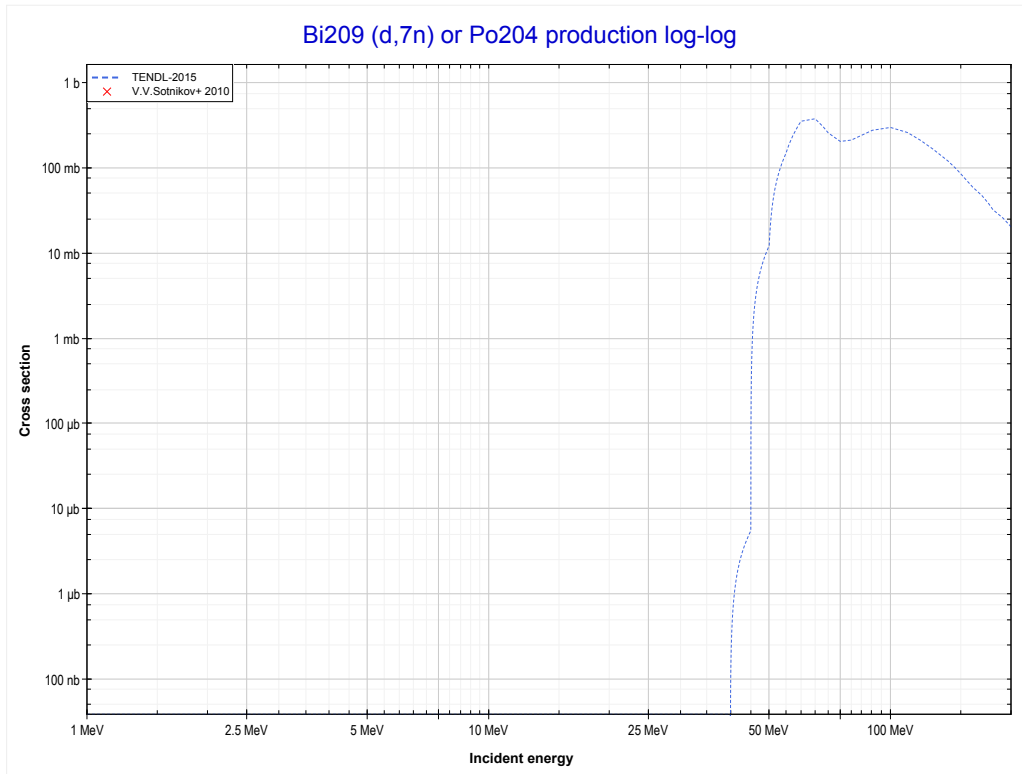
<b>Reaction</b>	<b>Q-Value</b>
Bi209(d,6n)Po205	-36041.38 keV

<< 73-Ta-181	<b>83-Bi-209</b>	
<< MT153 (d,6n)	<b>MT156 (d,4n+p) or MT5 (Bi206 production)</b>	MT160 (d,7n) >>



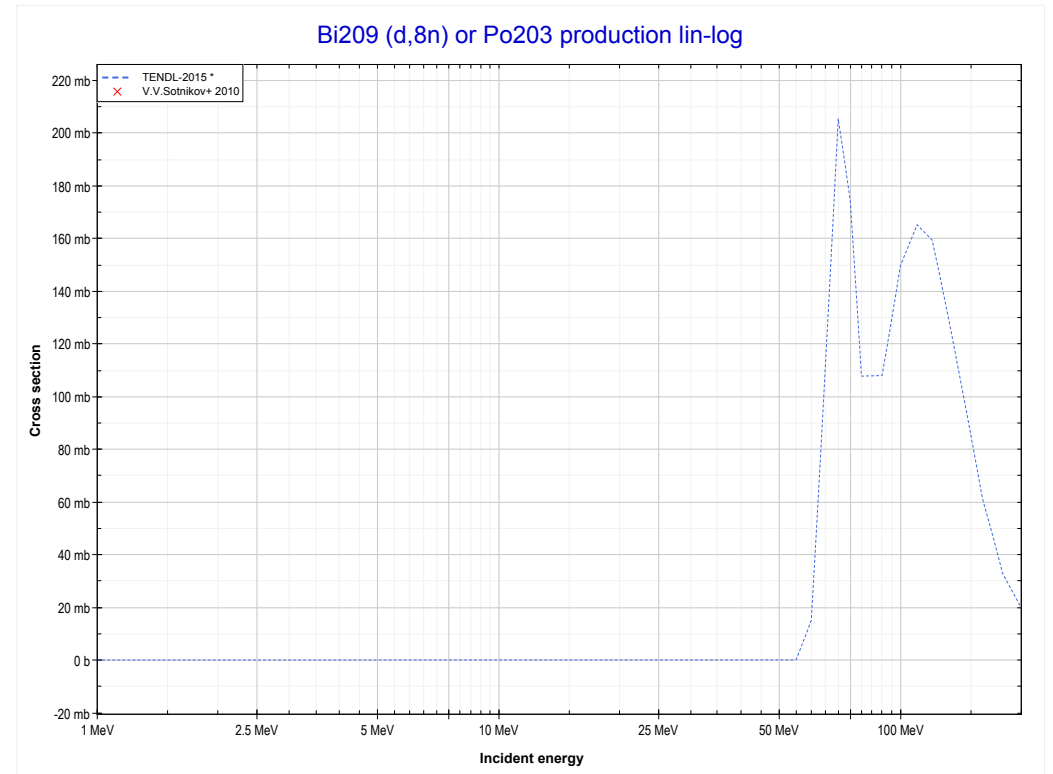
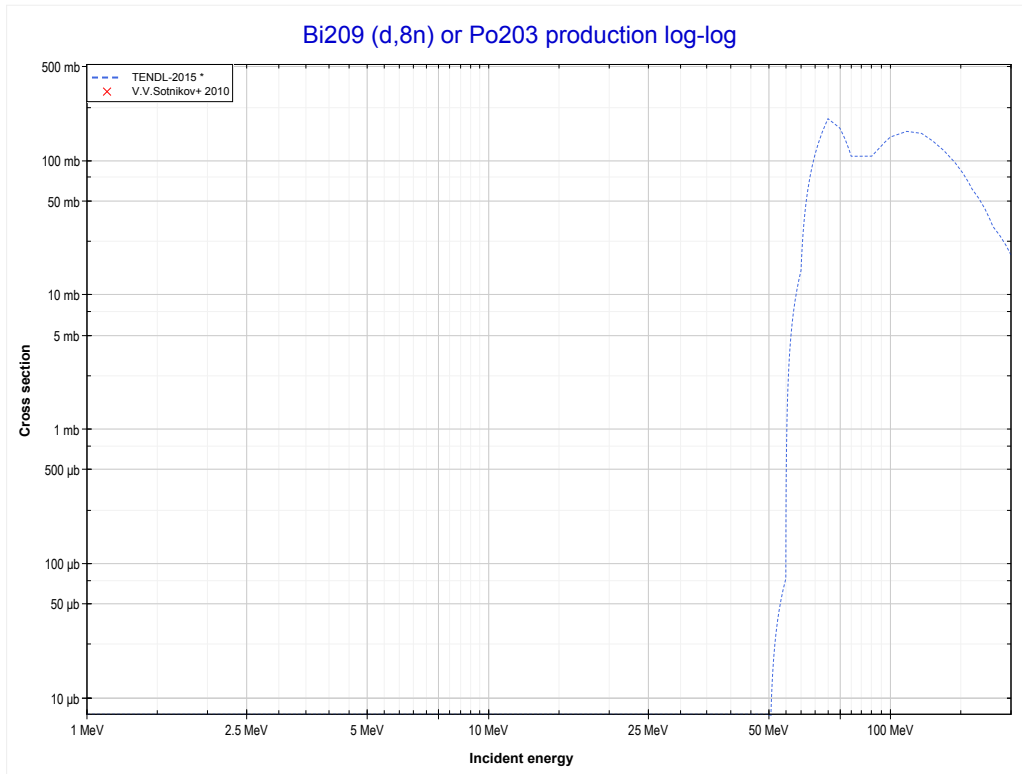
Reaction	Q-Value
Bi209(d,2n+t)Bi206	-16186.92 keV
Bi209(d,3n+d)Bi206	-22444.15 keV
Bi209(d,4n+p)Bi206	-24668.72 keV

<< 79-Au-197	<b>83-Bi-209</b>	90-Th-232 >>
<< MT156 (d,4n+p)	<b>MT160 (d,7n) or MT5 (Po204 production)</b>	MT161 (d,8n) >>



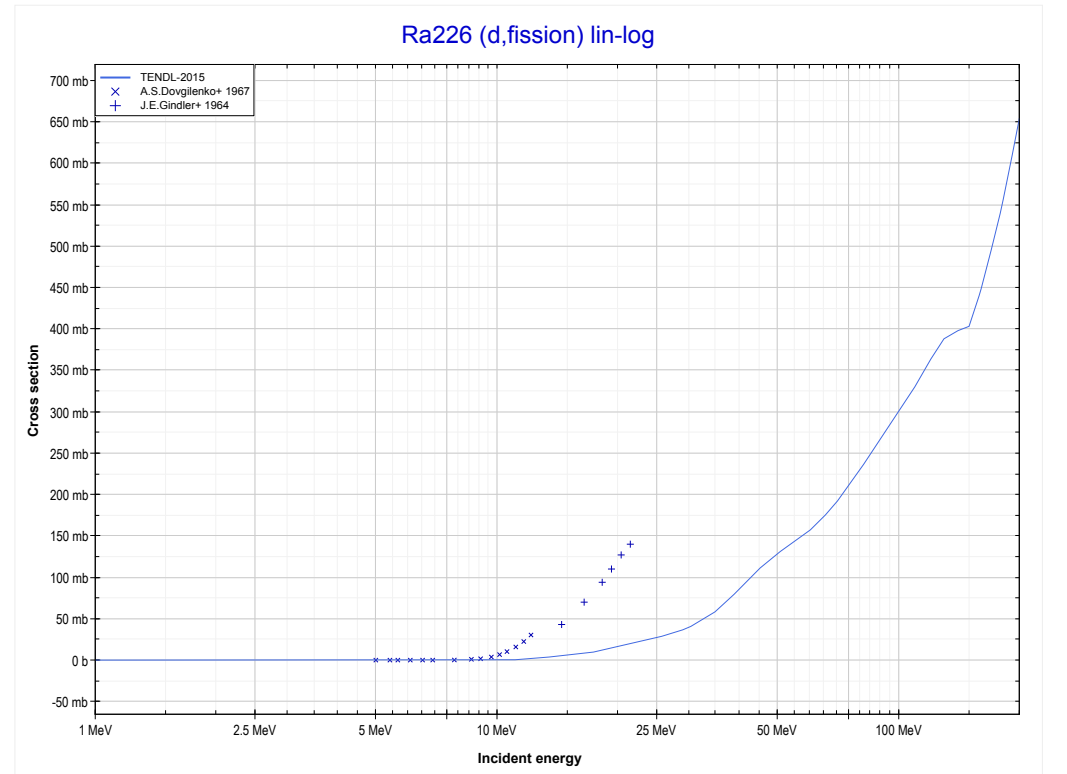
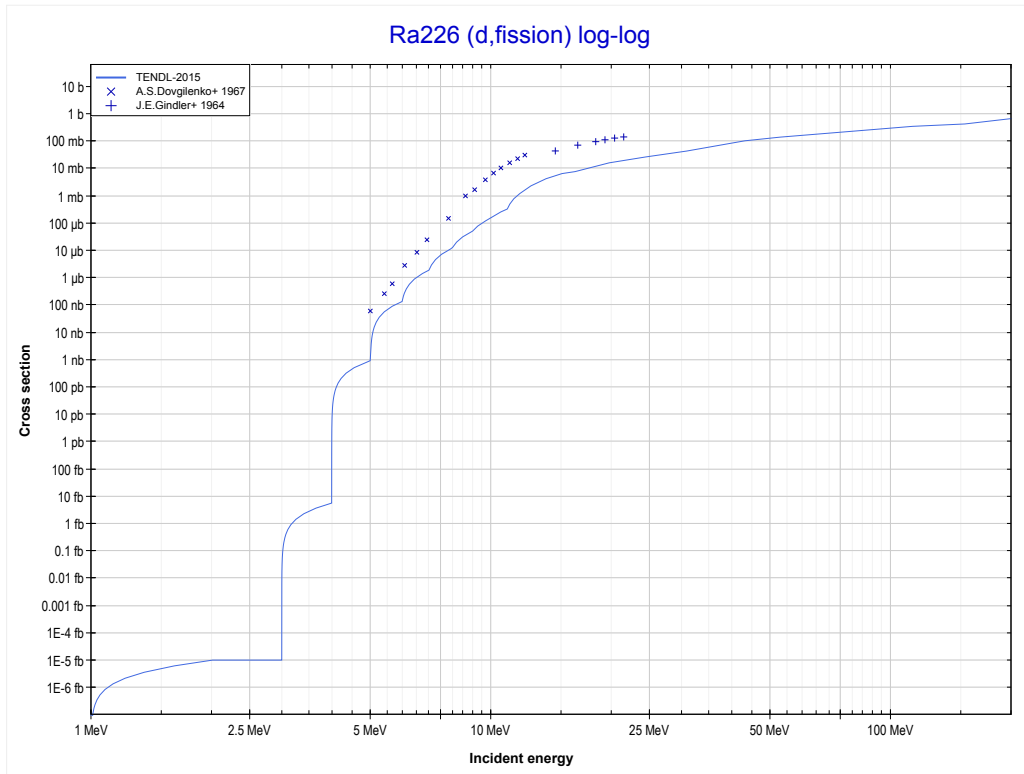
Reaction	Q-Value
Bi209(d,7n)Po204	-43280.70 keV

<< 79-Au-197	<b>83-Bi-209</b>	
<< MT160 (d,7n)	<b>MT161 (d,8n) or MT5 (Po203 production)</b>	88-Ra-226 MT18 (d,fission) >>

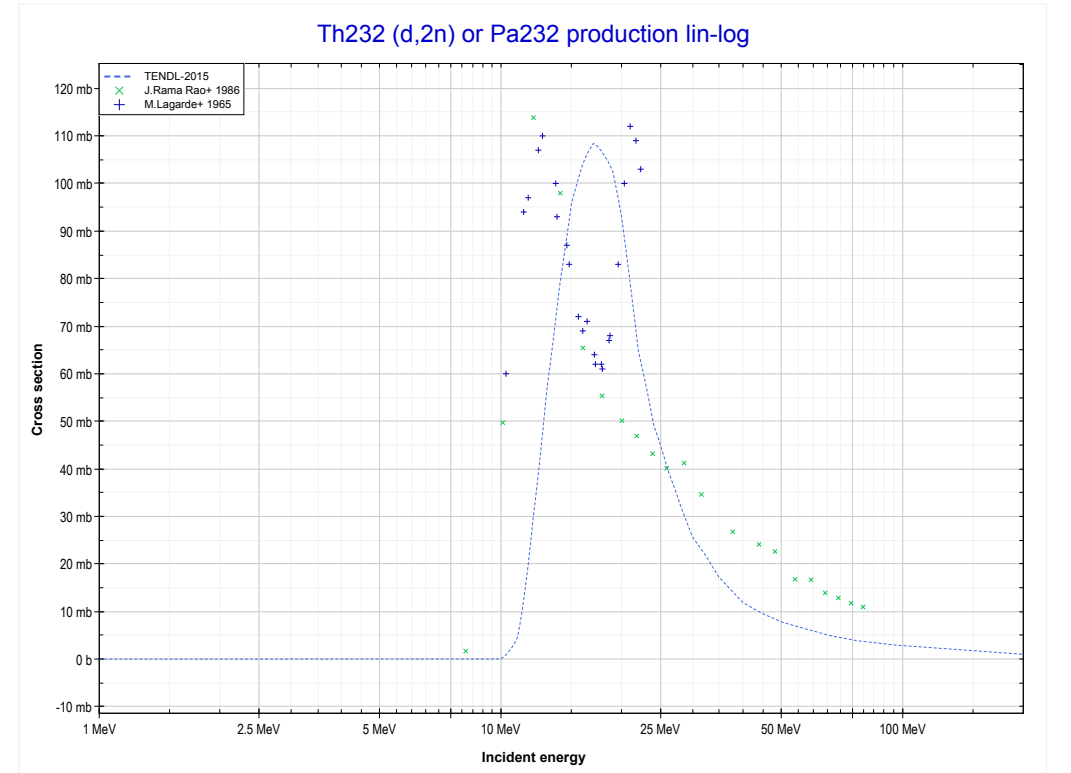
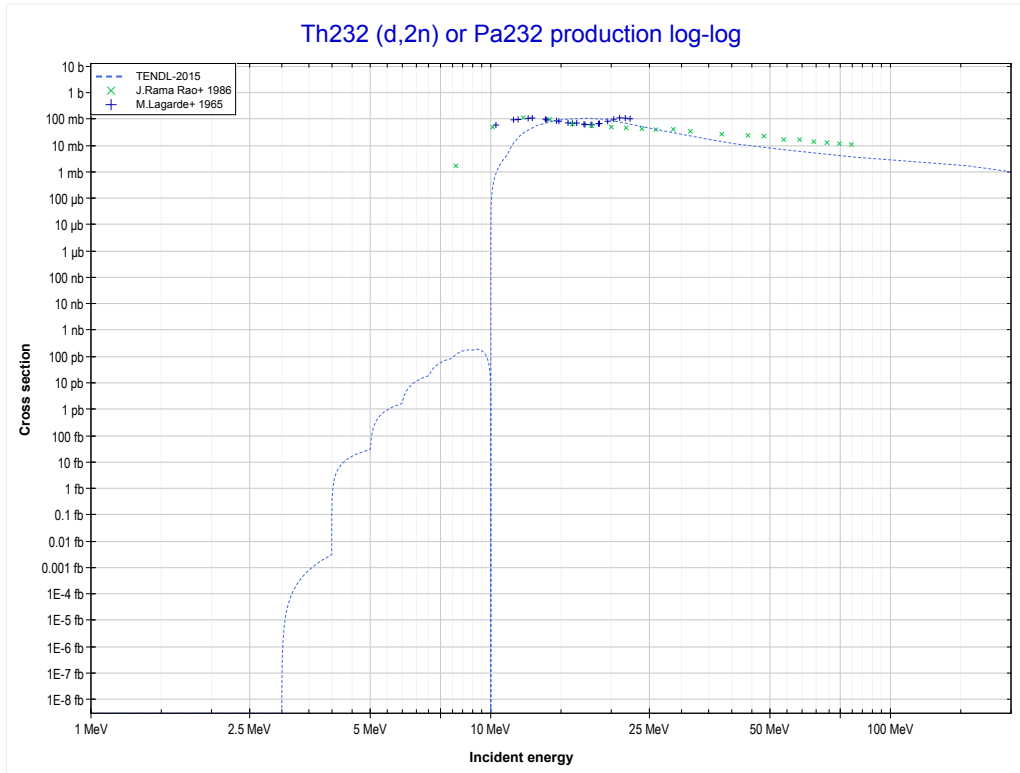


Reaction	Q-Value
Bi209(d,8n)Po203	-52382.02 keV

<< 83-Bi-209	<b>88-Ra-226</b>	90-Th-232 >>
<< 83-Bi-209 MT161 (d,8n)	<b>MT18 (d,fission)</b>	90-Th-232 MT16 (d,2n) >>



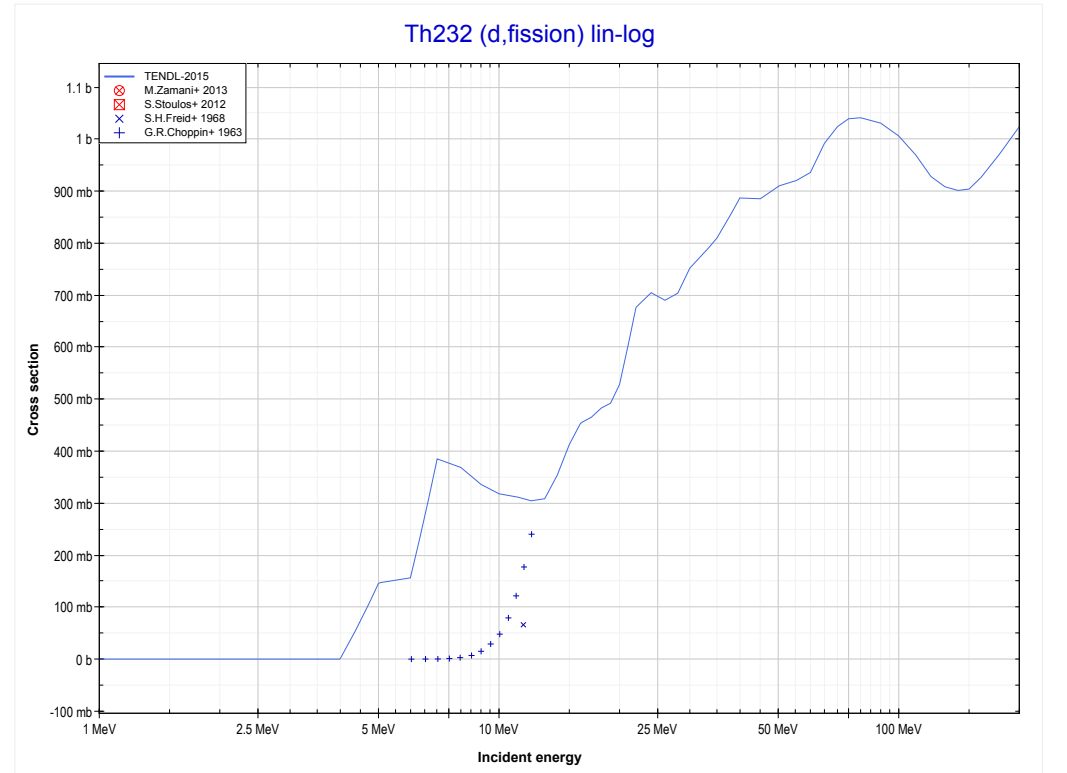
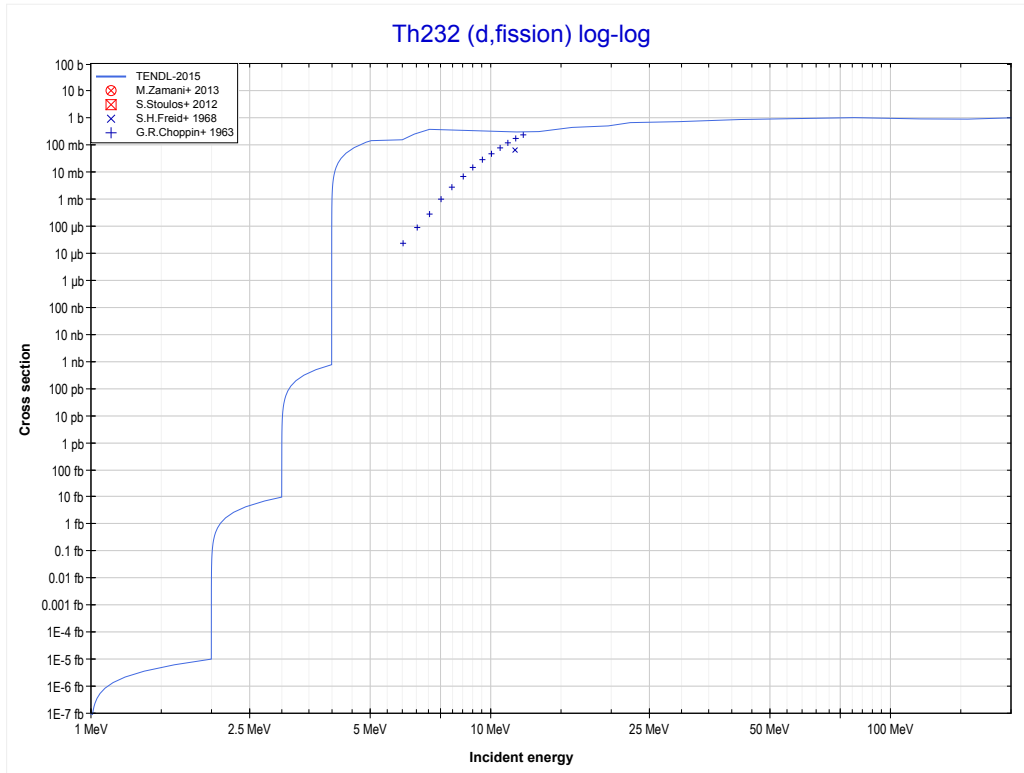
<< 83-Bi-209	<b>90-Th-232</b>	92-U-234 >>
<< 88-Ra-226 MT18 (d,fission)	<b>MT16 (d,2n) or MT5 (Pa232 production)</b>	MT18 (d,fission) >>



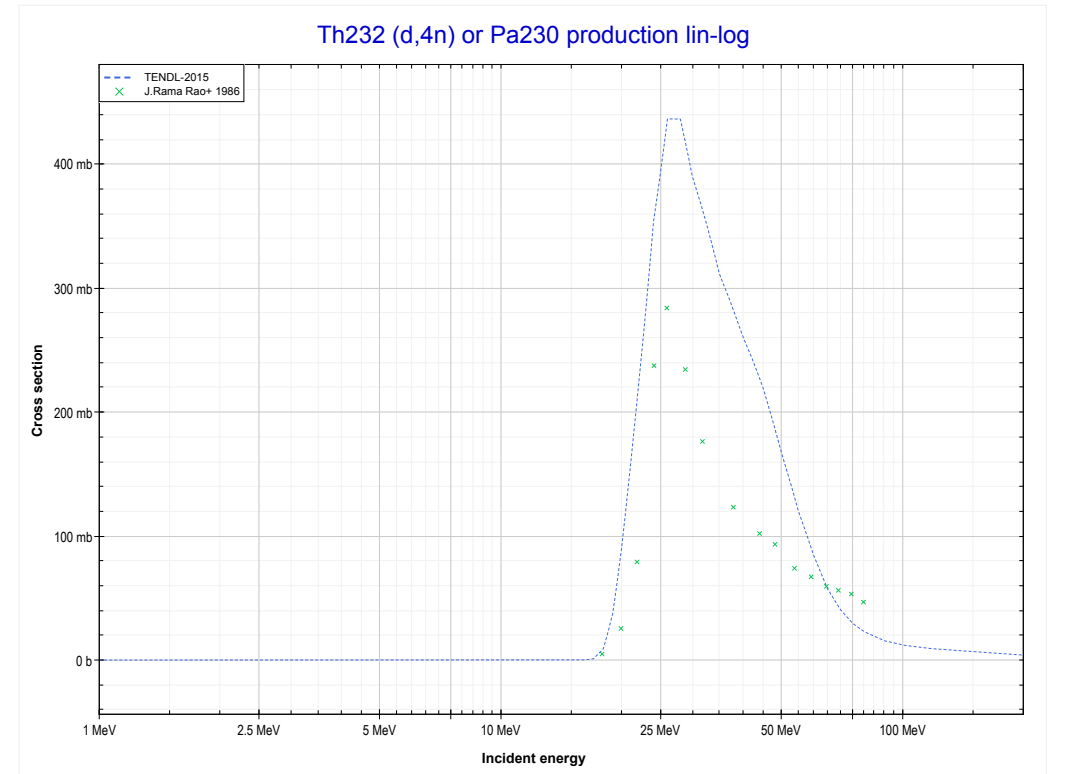
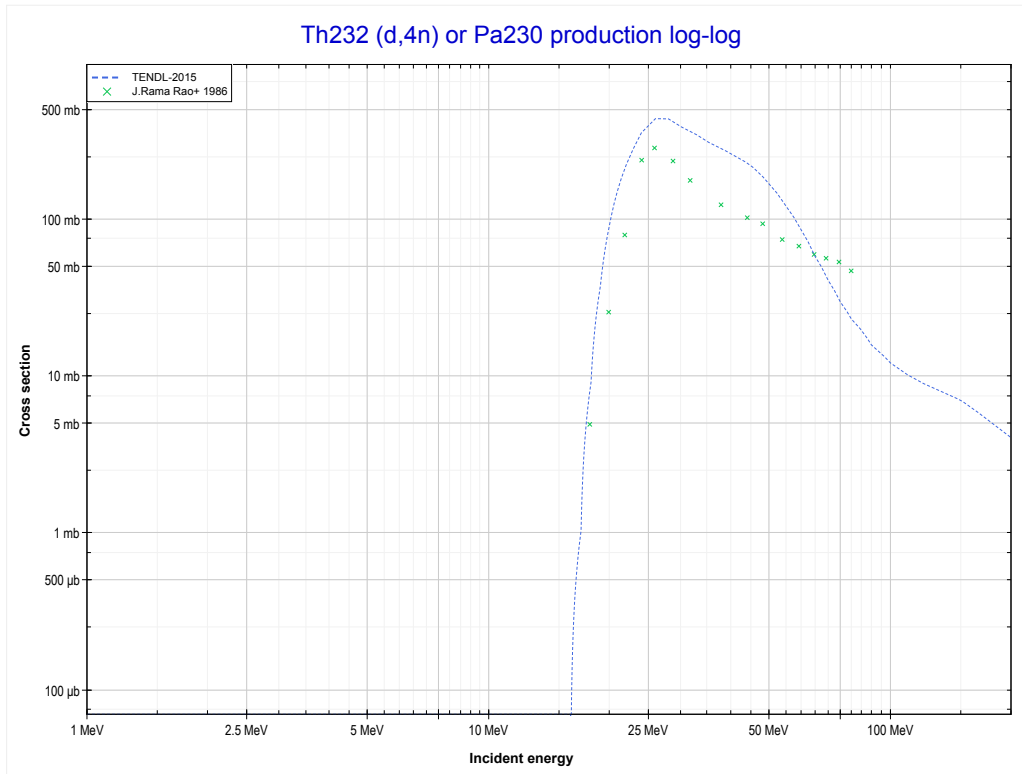
Reaction	Q-Value
Th232(d,2n)Pa232	-3506.21 keV



<< 88-Ra-226	<b>90-Th-232</b>	92-U-233 >>
<< MT16 (d,2n)	<b>MT18 (d,fission)</b>	MT37 (d,4n) >>

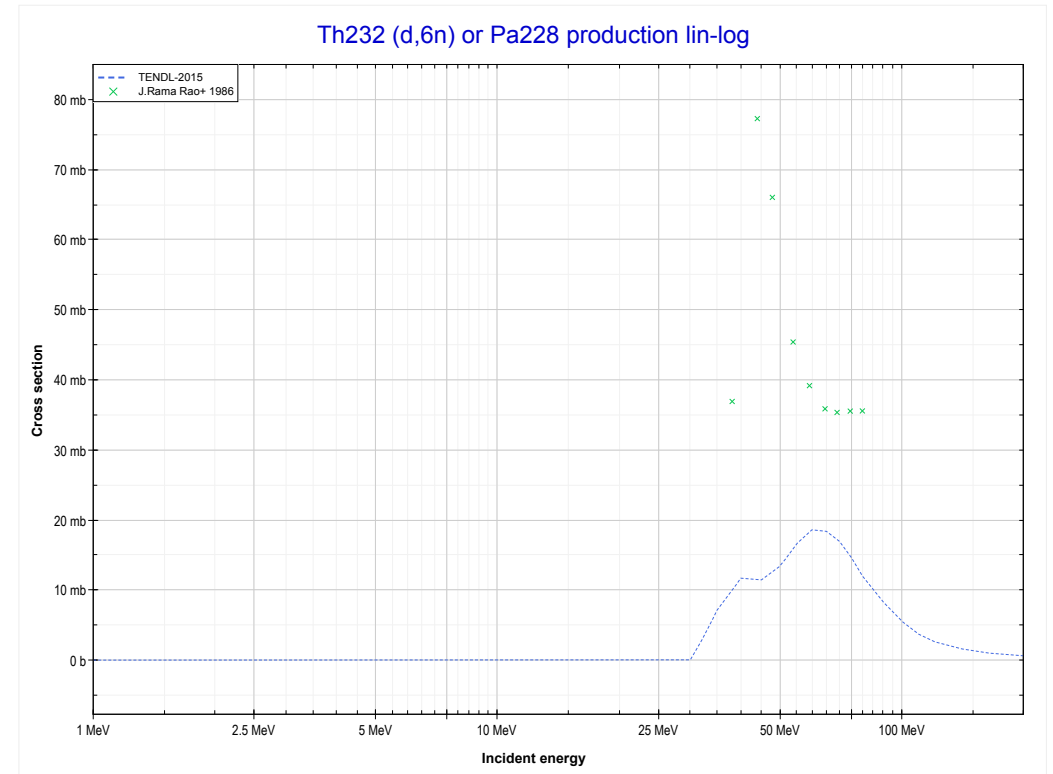
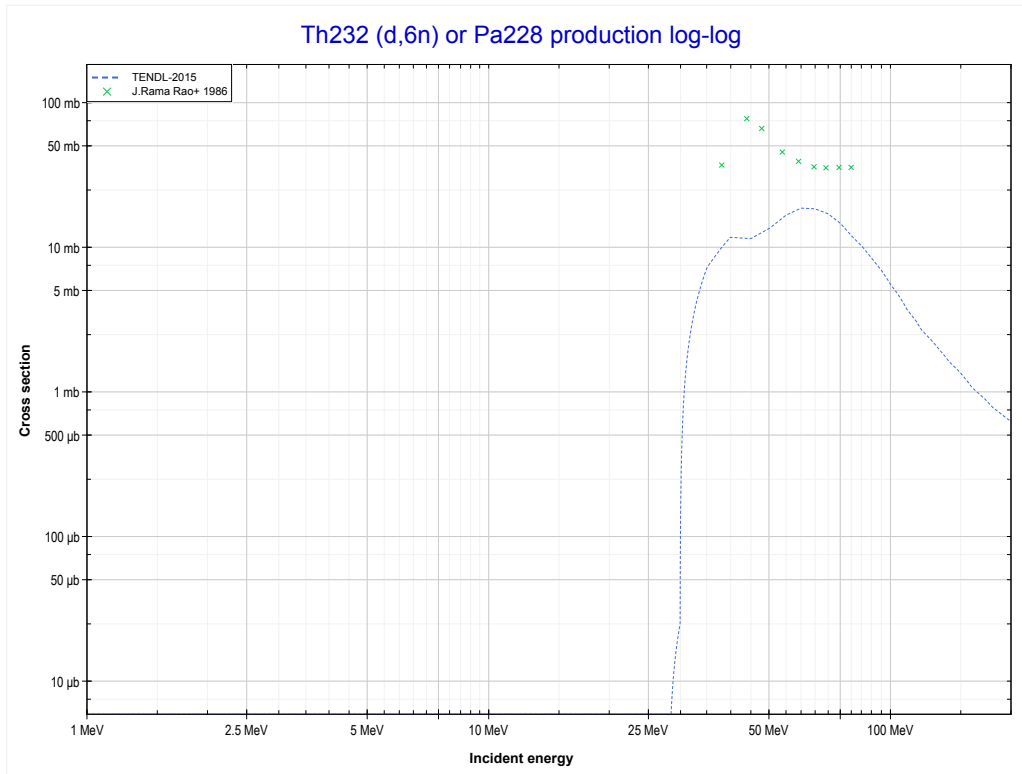


<< 83-Bi-209	<b>90-Th-232</b>	92-U-238 >>
<< MT18 (d,fission)	<b>MT37 (d,4n) or MT5 (Pa230 production)</b>	MT153 (d,6n) >>



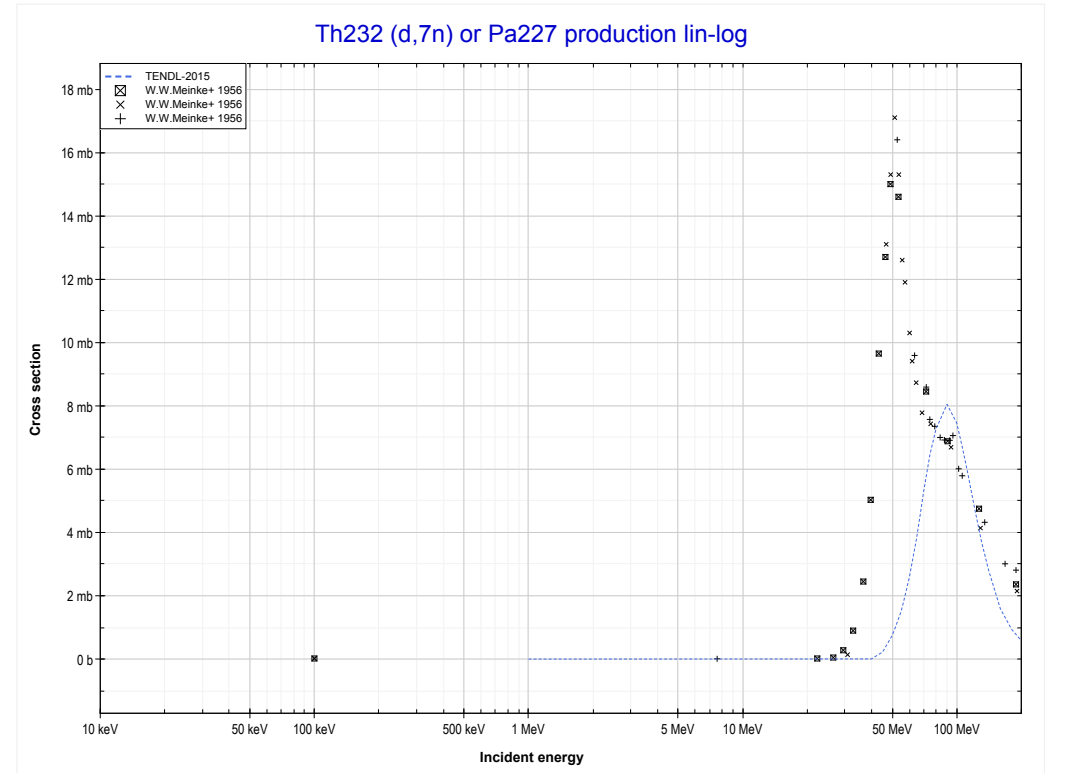
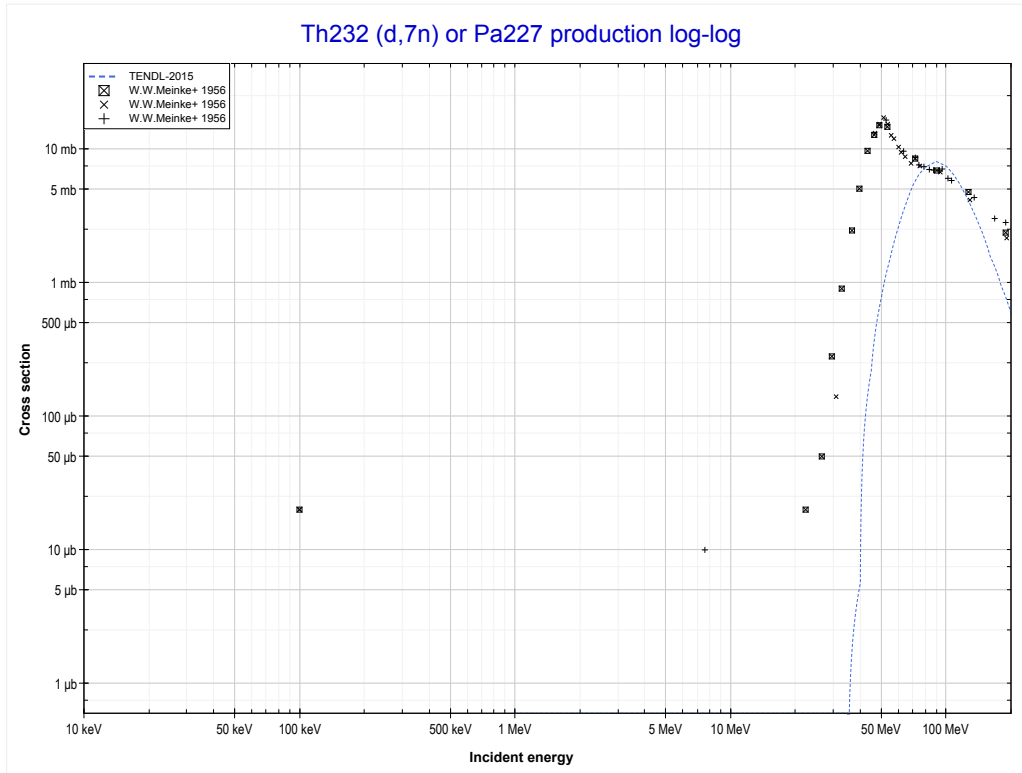
<b>Reaction</b>	<b>Q-Value</b>
Th232(d,4n)Pa230	-15875.85 keV

<< 83-Bi-209	<b>90-Th-232</b>	
<< MT37 (d,4n)	<b>MT153 (d,6n) or MT5 (Pa228 production)</b>	MT160 (d,7n) >>



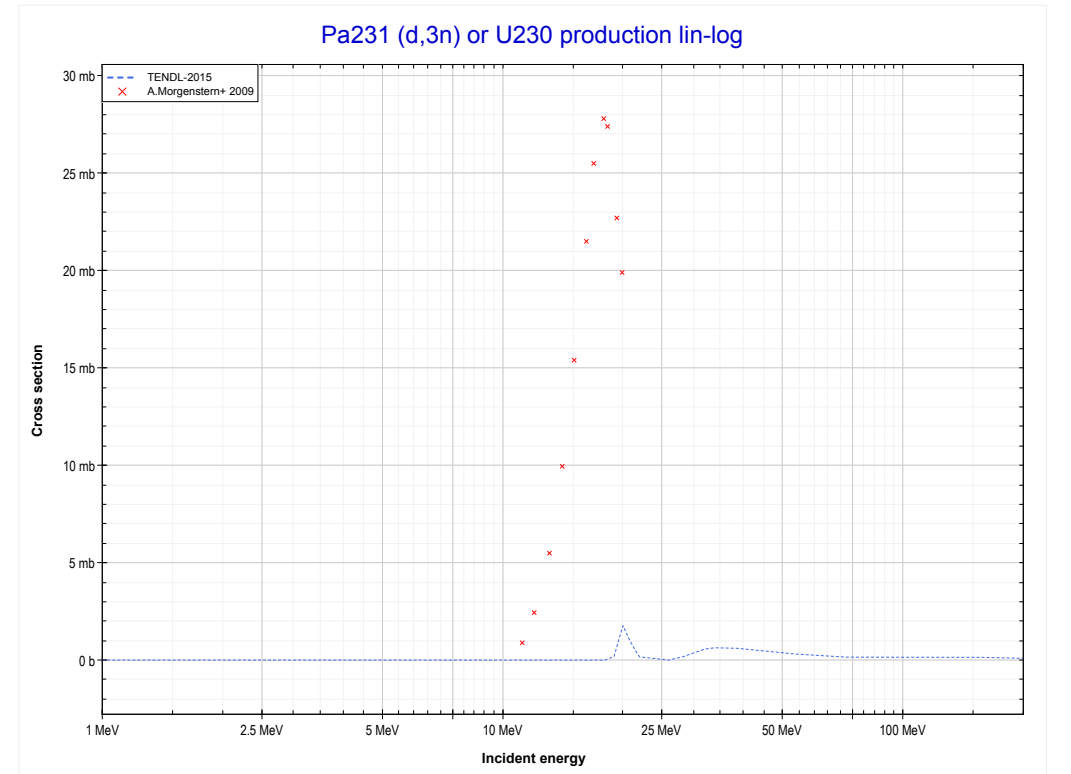
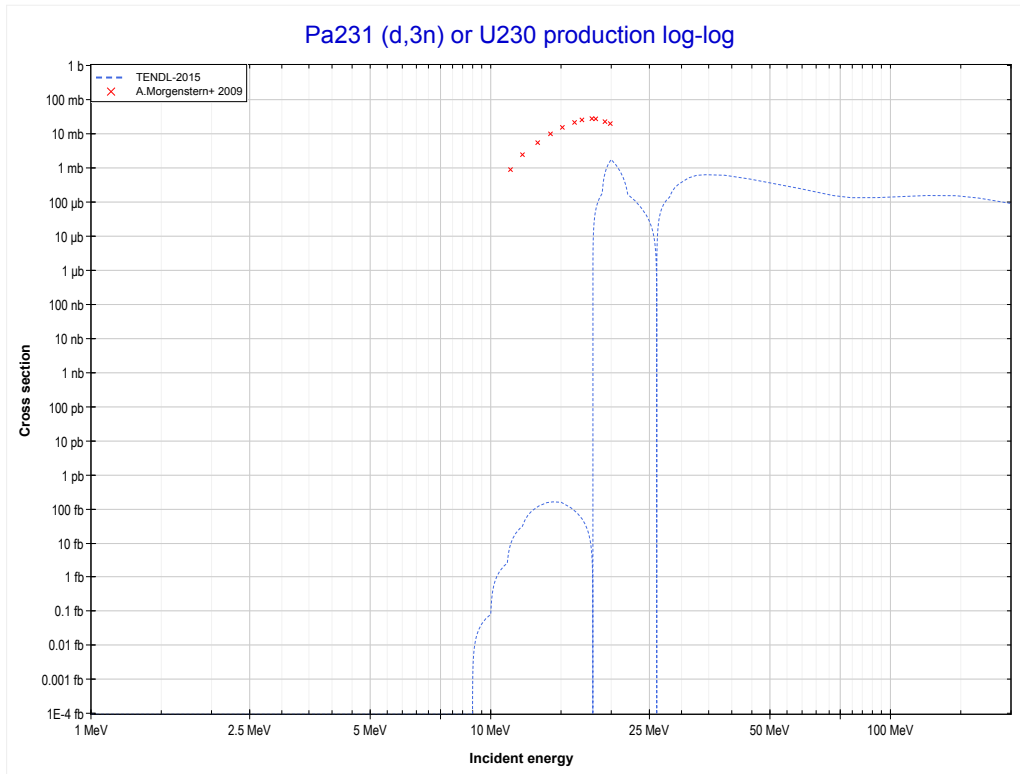
Reaction	Q-Value
Th232(d,6n)Pa228	-28767.48 keV

<< 83-Bi-209	<b>90-Th-232</b>	
<< MT153 (d,6n)	<b>MT160 (d,7n) or MT5 (Pa227 production)</b>	91-Pa-231 MT17 (d,3n) >>



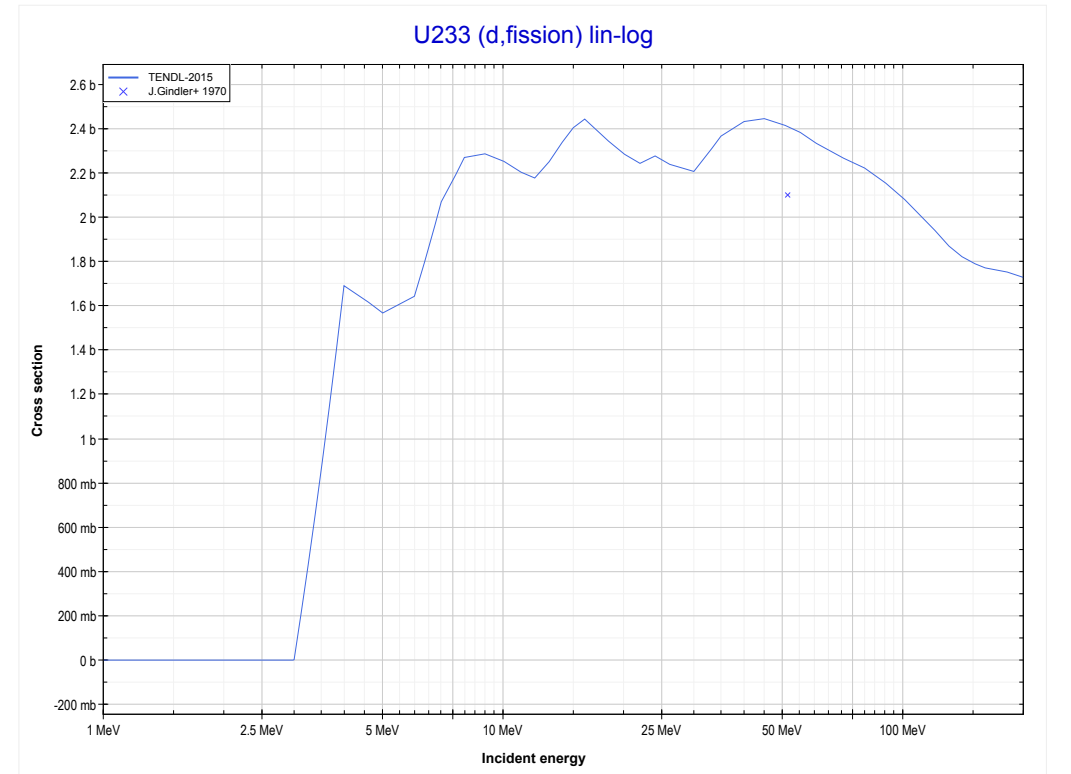
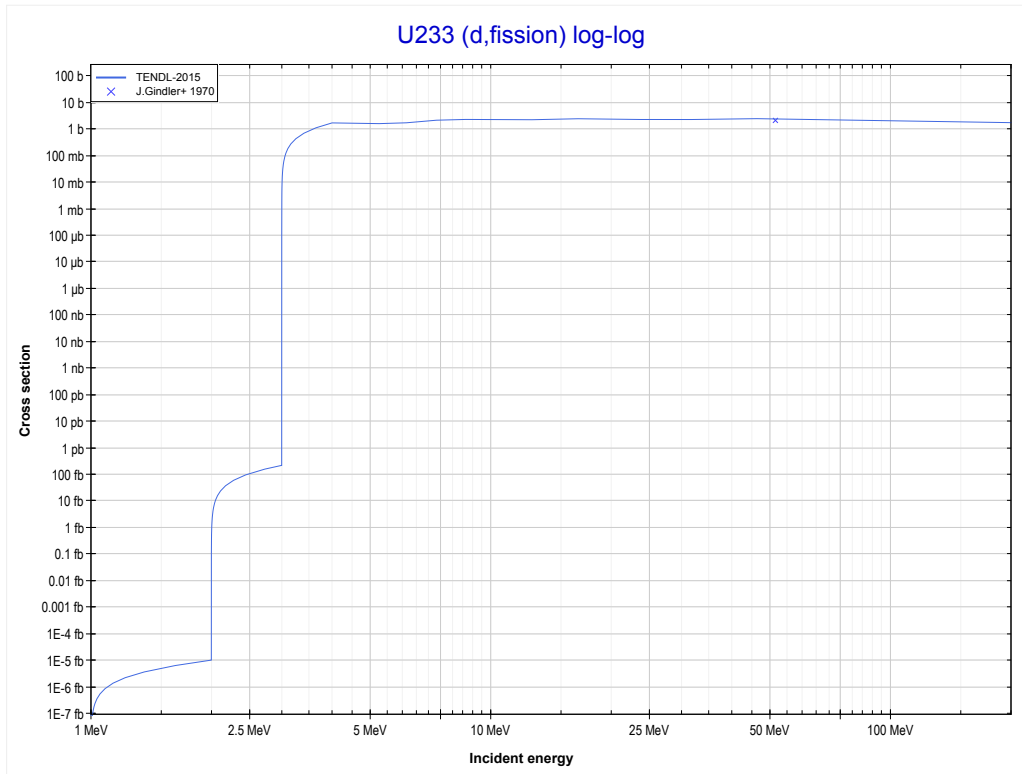
Reaction	Q-Value
Th232(d,7n)Pa227	-34746.80 keV

<< 83-Bi-209	<b>91-Pa-231</b>	92-U-234 >>
<< 90-Th-232 MT160 (d,7n)	<b>MT17 (d,3n) or MT5 (U230 production)</b>	92-U-233 MT18 (d,fission) >>

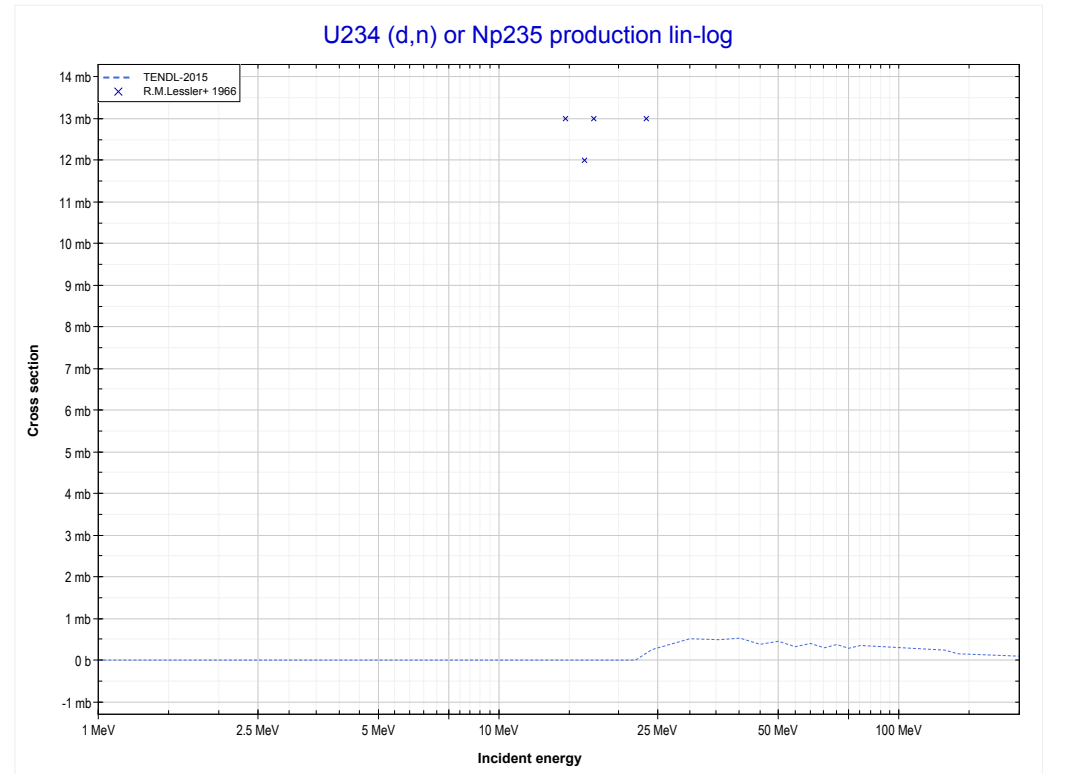
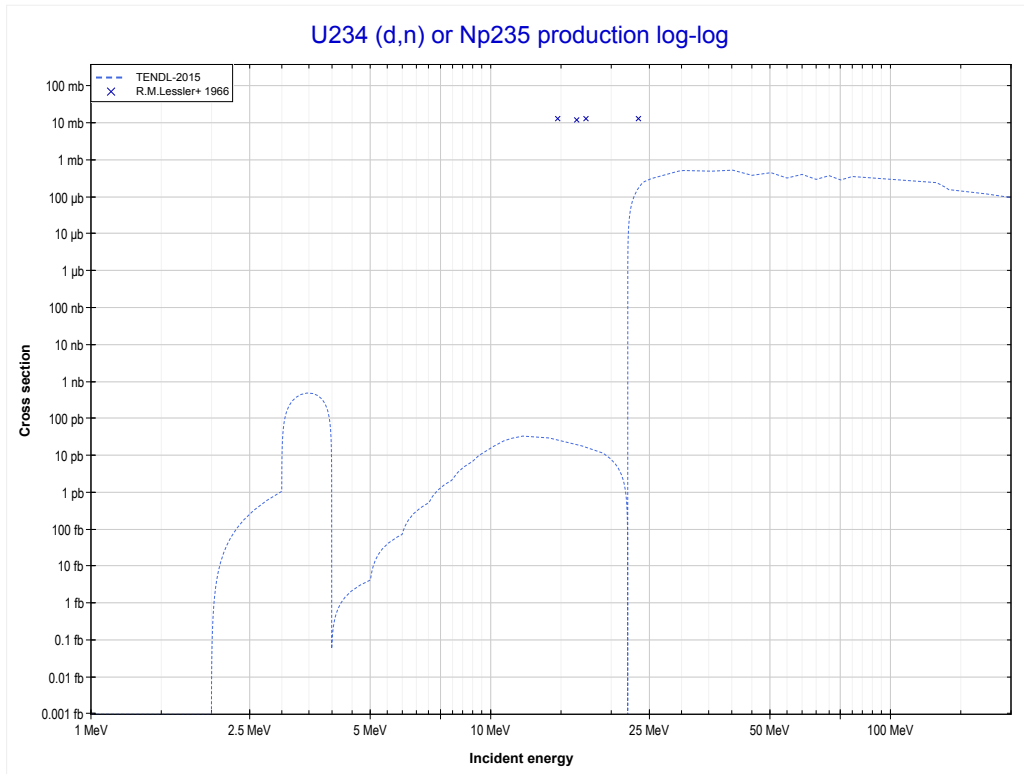


Reaction	Q-Value
Pa231(d,3n)U230	-9267.23 keV

<< 90-Th-232	<b>92-U-233</b>	92-U-234 >>
<< 91-Pa-231 MT17 (d,3n)	<b>MT18 (d,fission)</b>	92-U-234 MT4 (d,n) >>

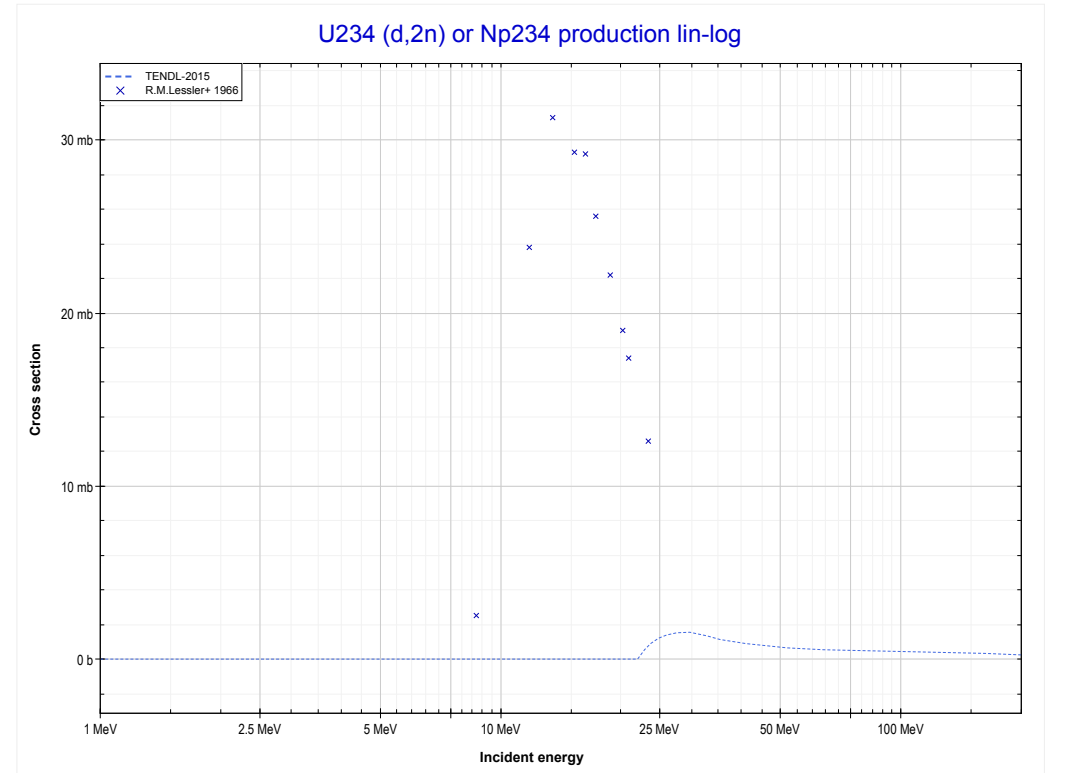
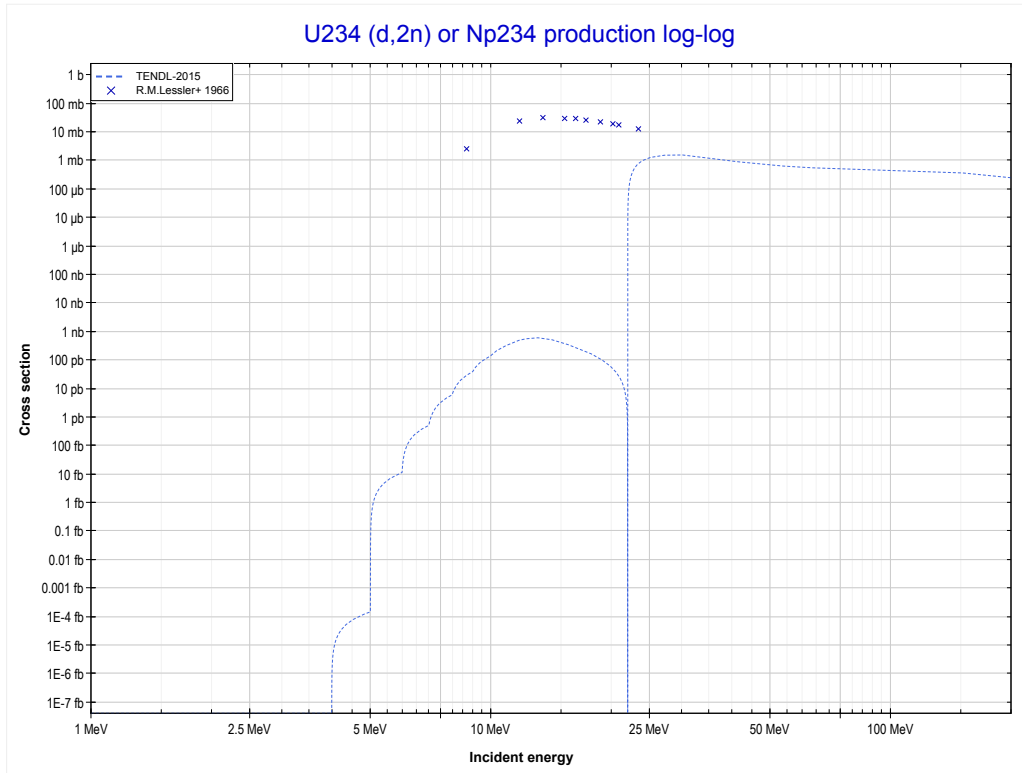


<< 83-Bi-209	<b>92-U-234</b>	92-U-235 >>
<< 92-U-233 MT18 (d,fission)	<b>MT4 (d,n) or MT5 (Np235 production)</b>	MT16 (d,2n) >>



Reaction	Q-Value
U234(d,n)Np235	2166.30 keV

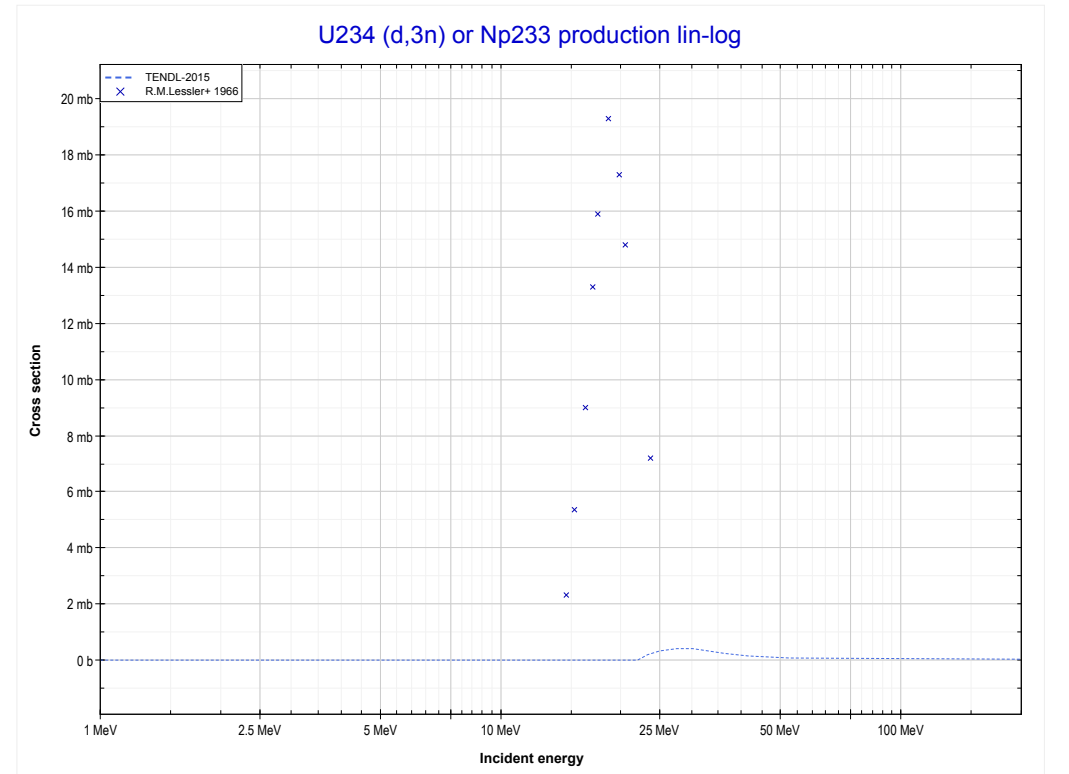
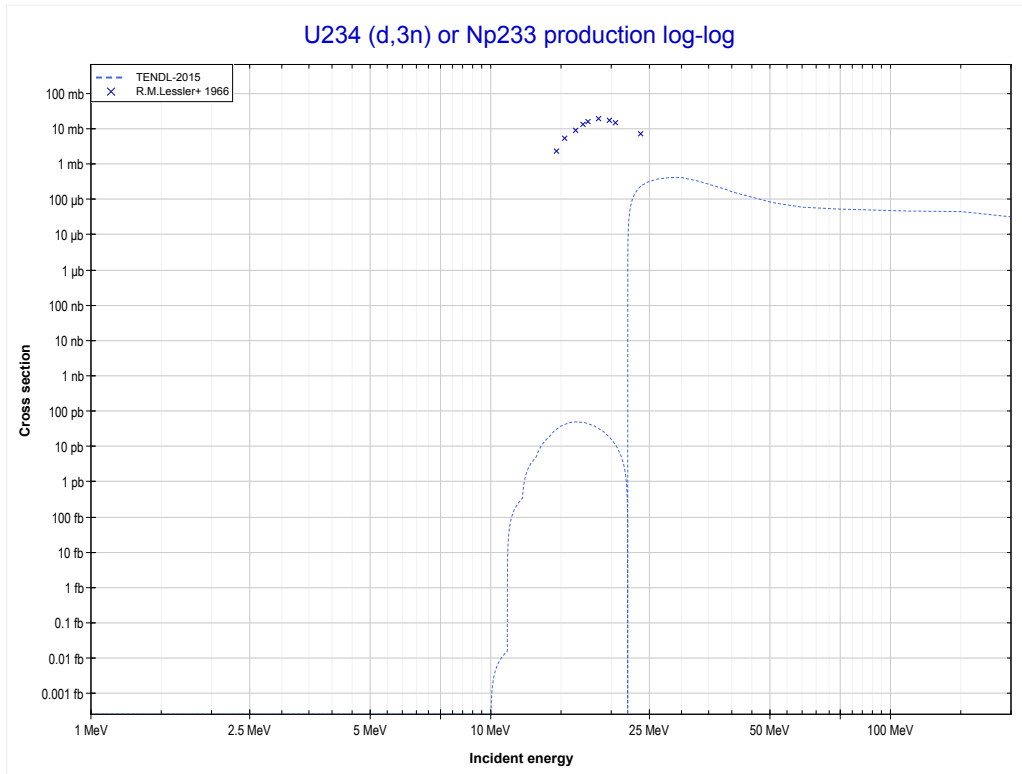
<< 90-Th-232	<b>92-U-234</b>	92-U-235 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Np234 production)</b>	MT17 (d,3n) >>



Reaction	Q-Value
U234(d,2n)Np234	-4817.11 keV

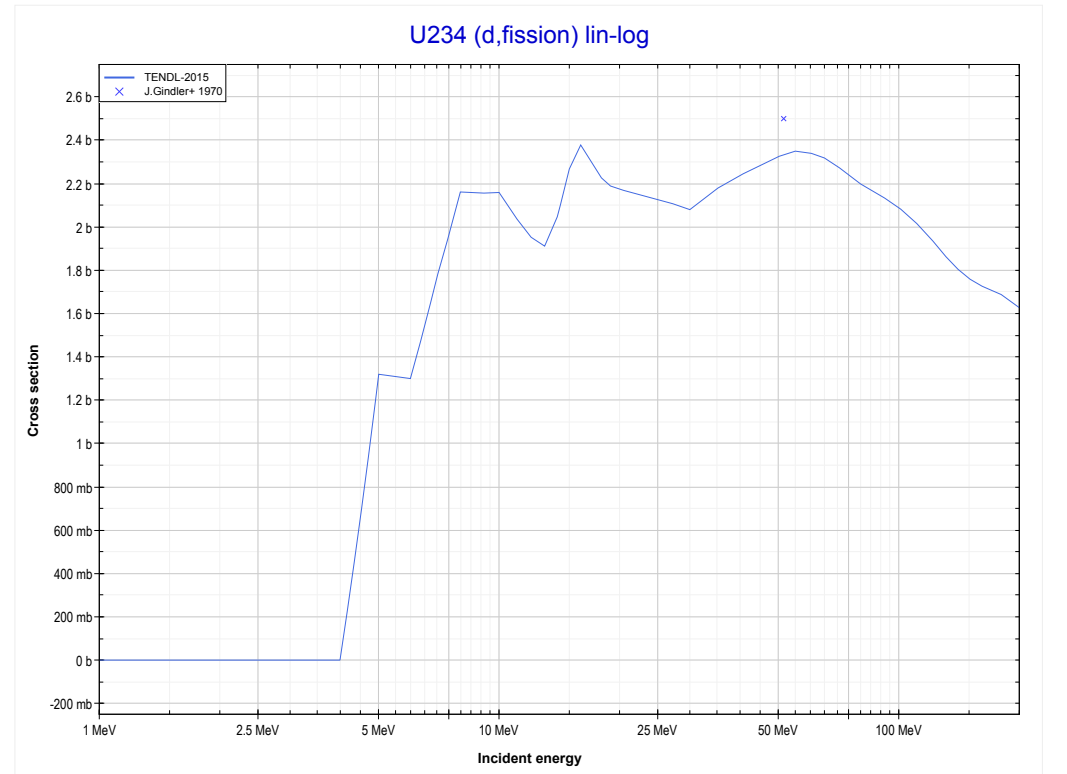
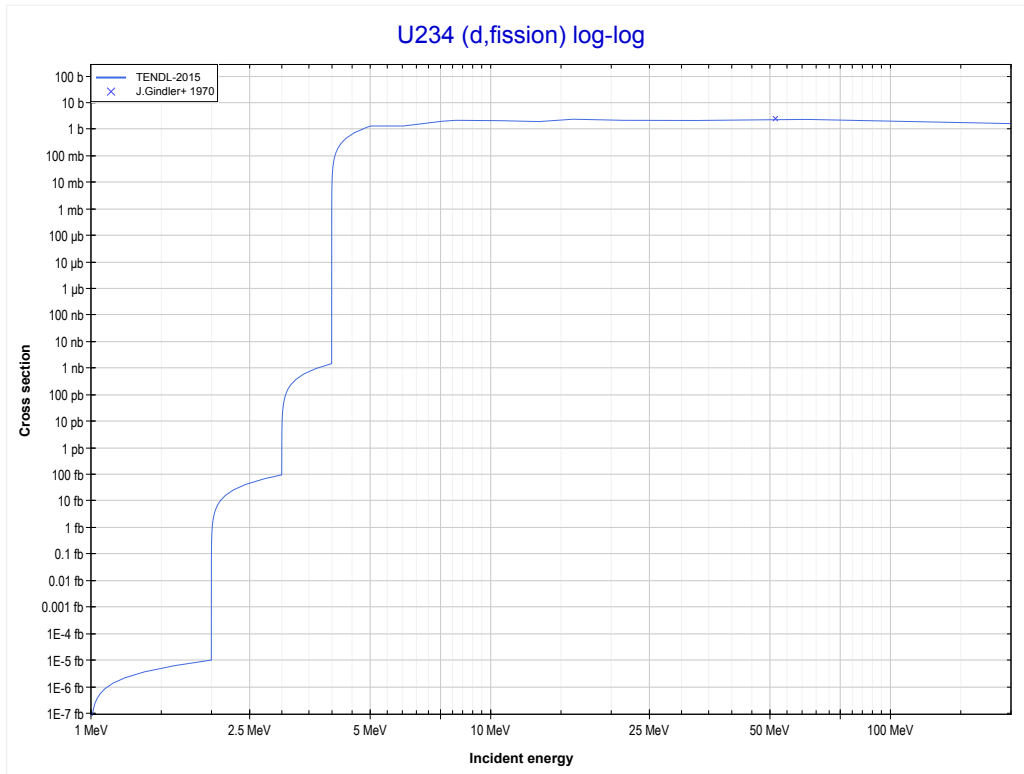


<< 91-Pa-231	<b>92-U-234</b>	92-U-235 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Np233 production)</b>	MT18 (d,fission) >>

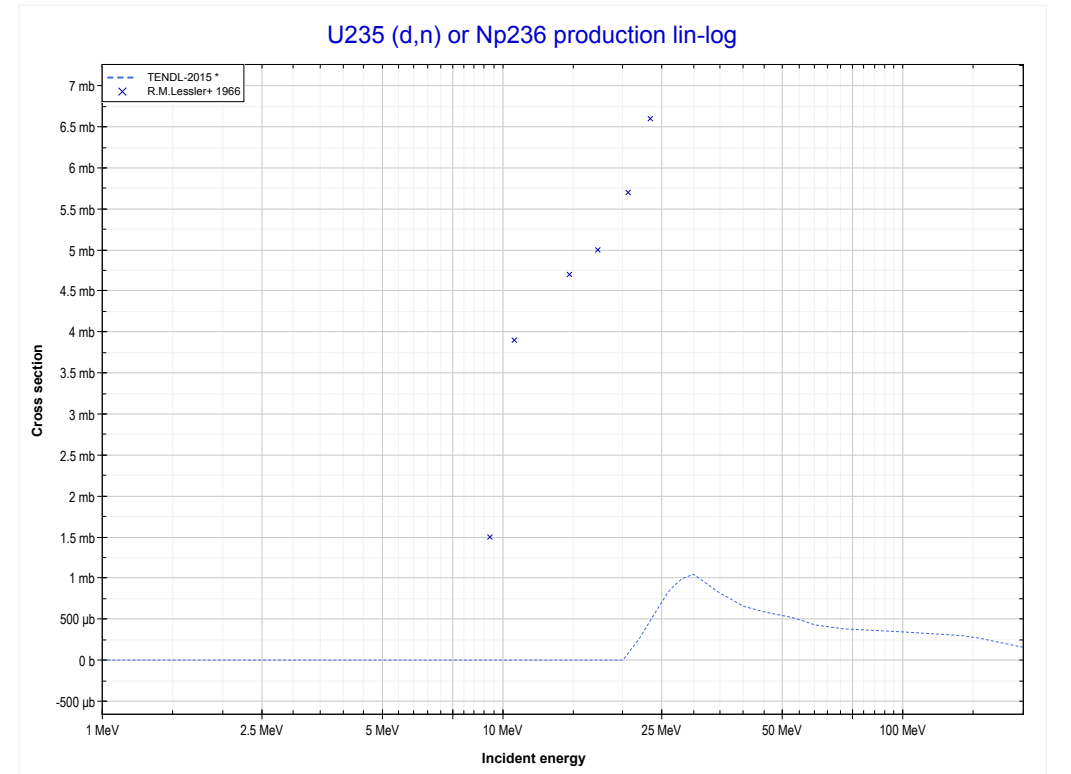
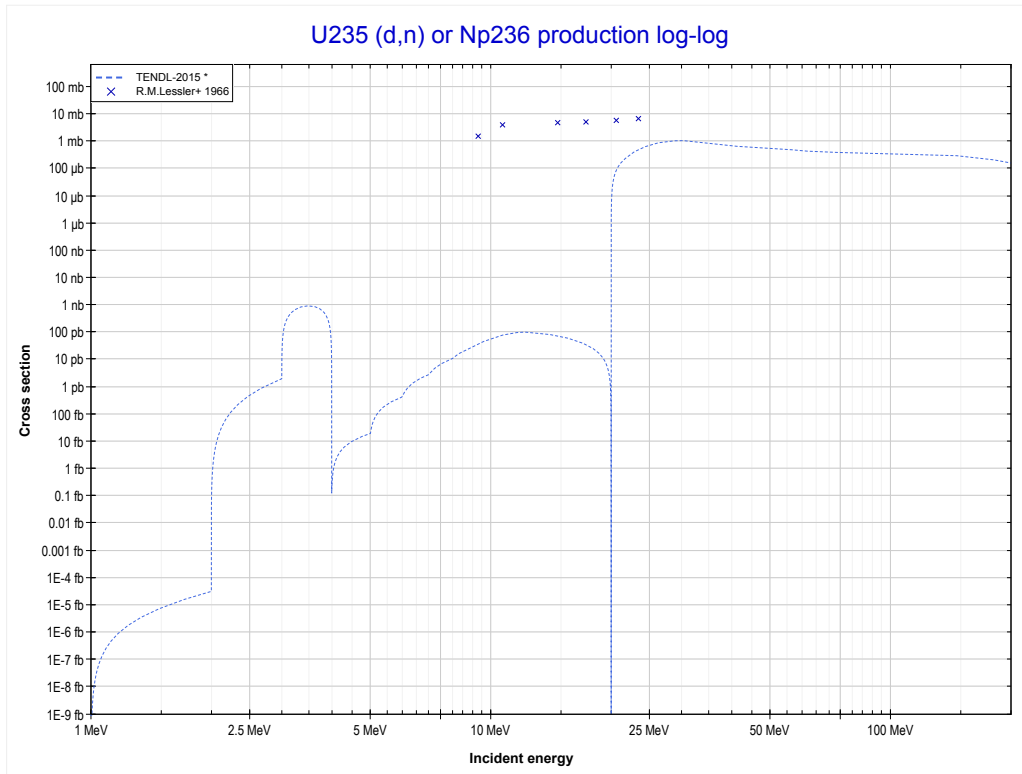


Reaction	Q-Value
U234(d,3n)Np233	-10881.43 keV

<< 92-U-233	<b>92-U-234</b>	92-U-235 >>
<< MT17 (d,3n)	<b>MT18 (d,fission)</b>	92-U-235 MT4 (d,n) >>

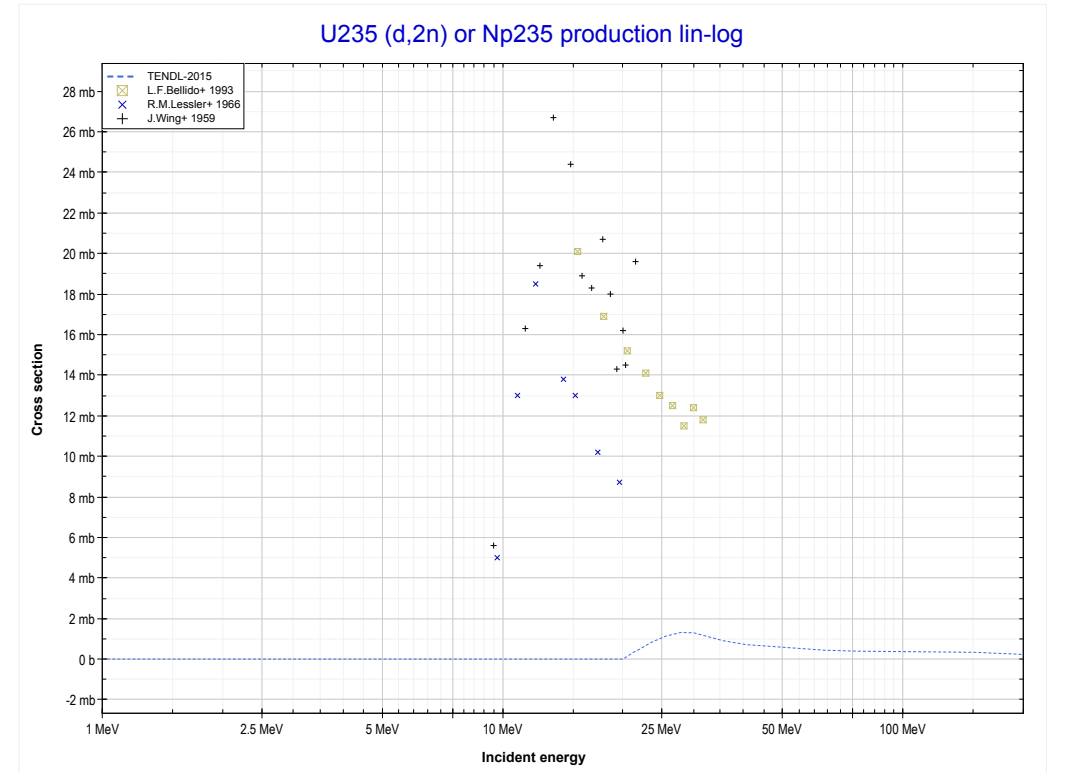
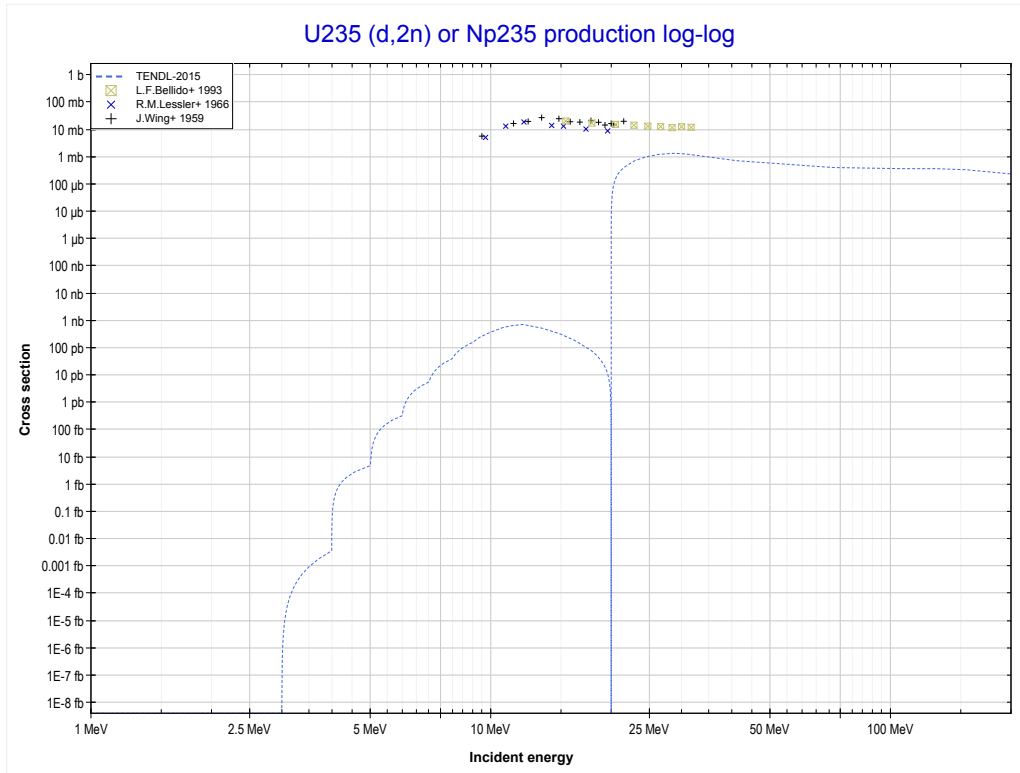


<< 92-U-234	<b>92-U-235</b>	94-Pu-239 >>
<< 92-U-234 MT18 (d,fission)	<b>MT4 (d,n) or MT5 (Np236 production)</b>	MT16 (d,2n) >>



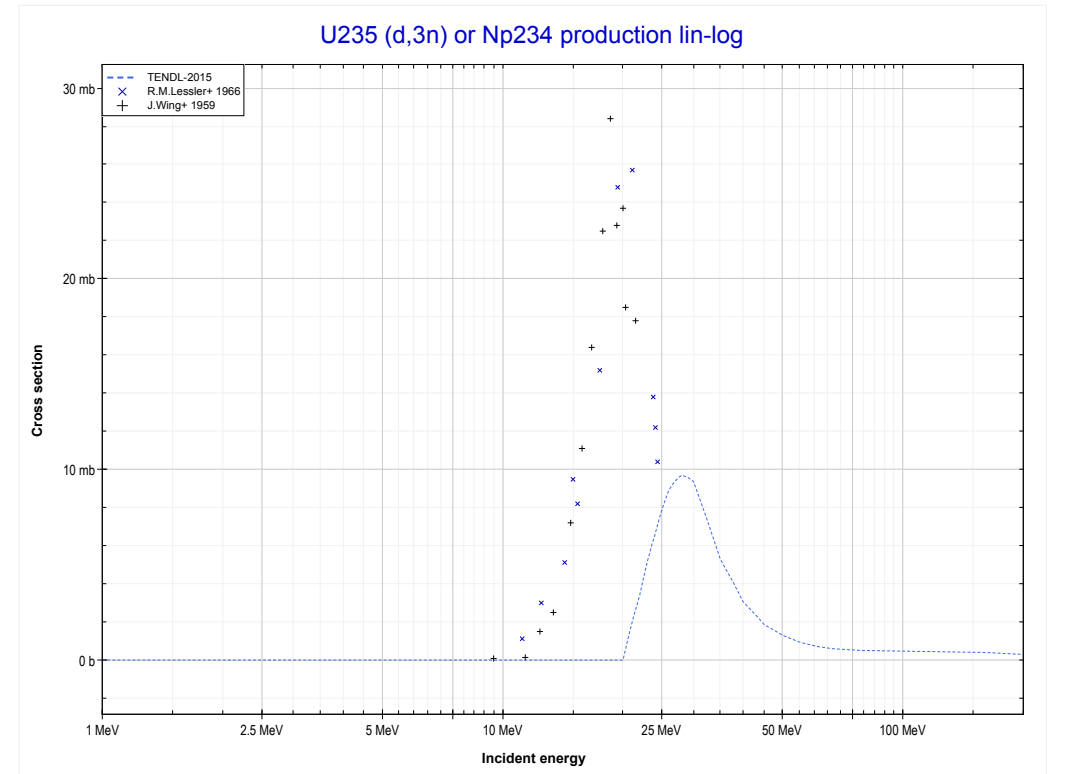
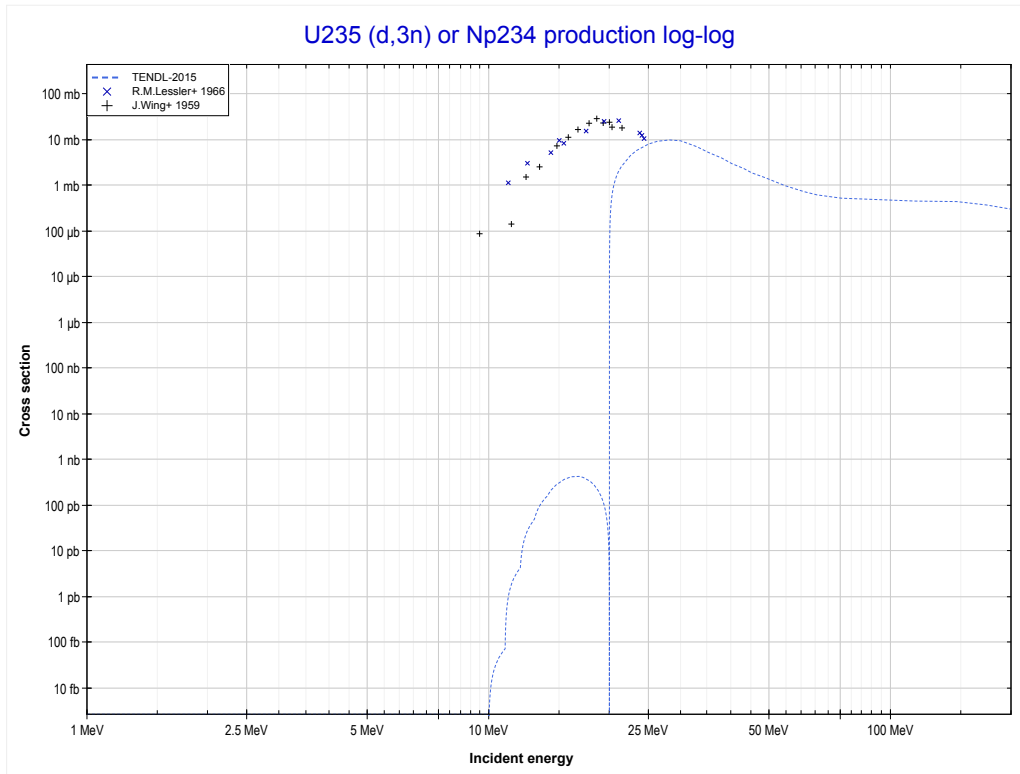
Reaction	Q-Value
U235(d,n)Np236	2605.10 keV

<< 92-U-234	<b>92-U-235</b>	92-U-236 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Np235 production)</b>	MT17 (d,3n) >>



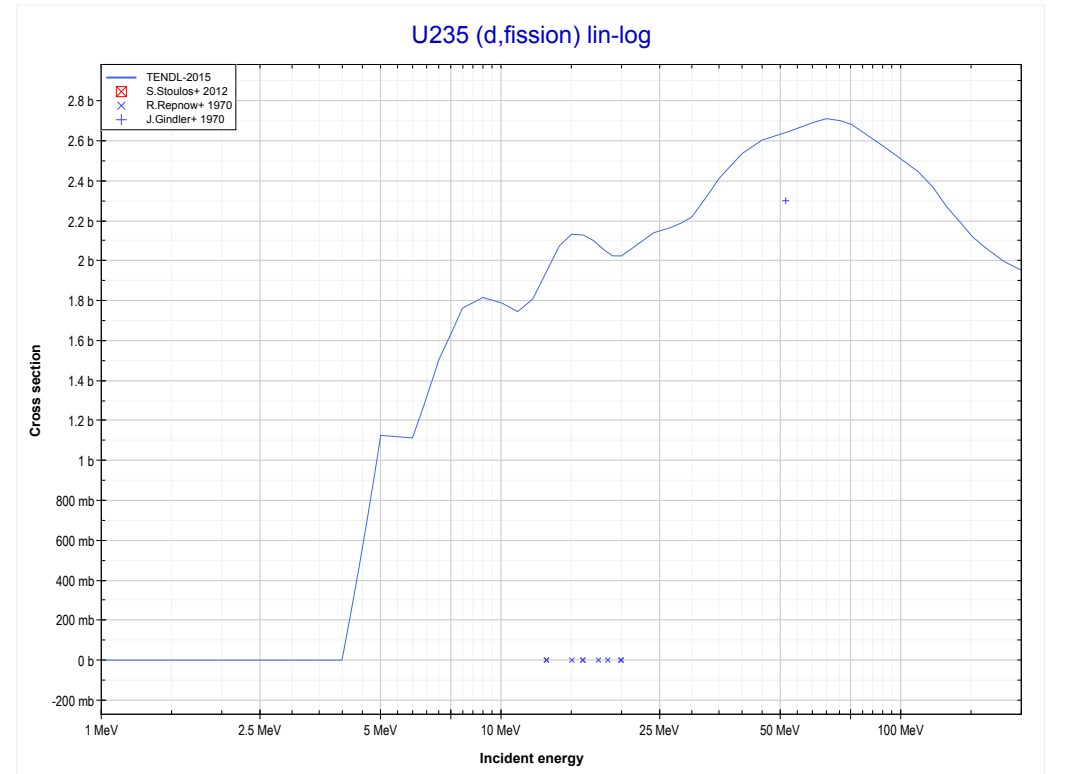
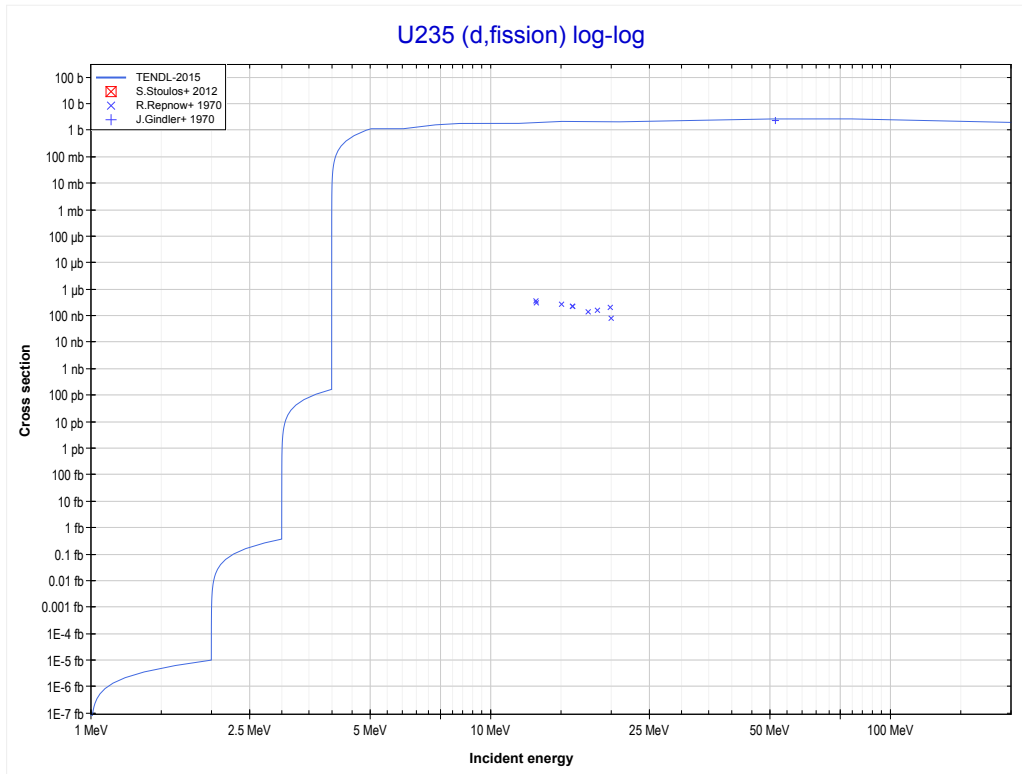
Reaction	Q-Value
U235(d,2n)Np235	-3131.11 keV

<< 92-U-234	<b>92-U-235</b>	92-U-236 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Np234 production)</b>	MT18 (d,fission) >>

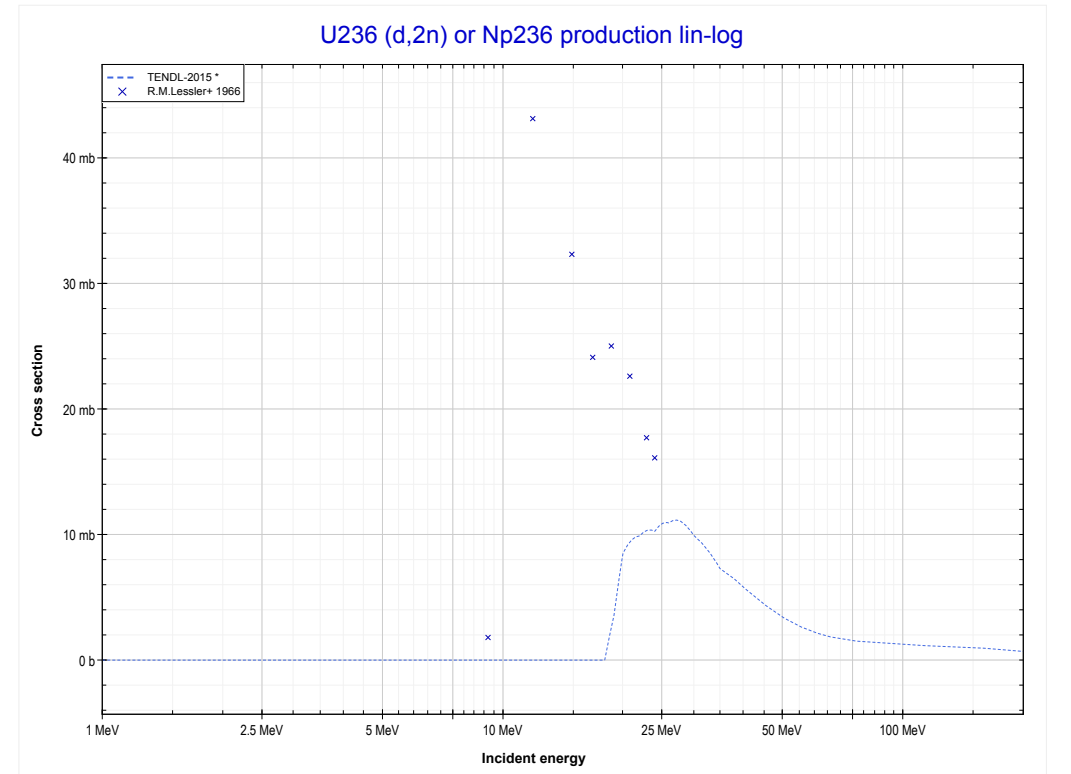
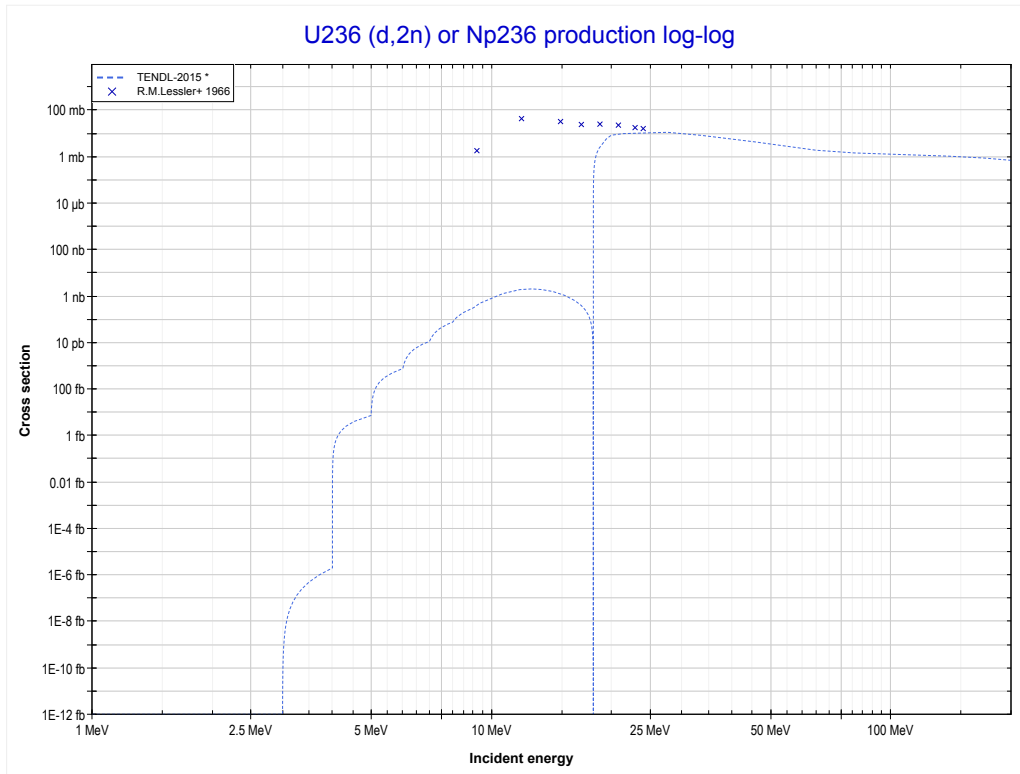


Reaction	Q-Value
U235(d,3n)Np234	-10114.53 keV

<< 92-U-234	<b>92-U-235</b>	92-U-236 >>
<< MT17 (d,3n)	<b>MT18 (d,fission)</b>	92-U-236 MT16 (d,2n) >>

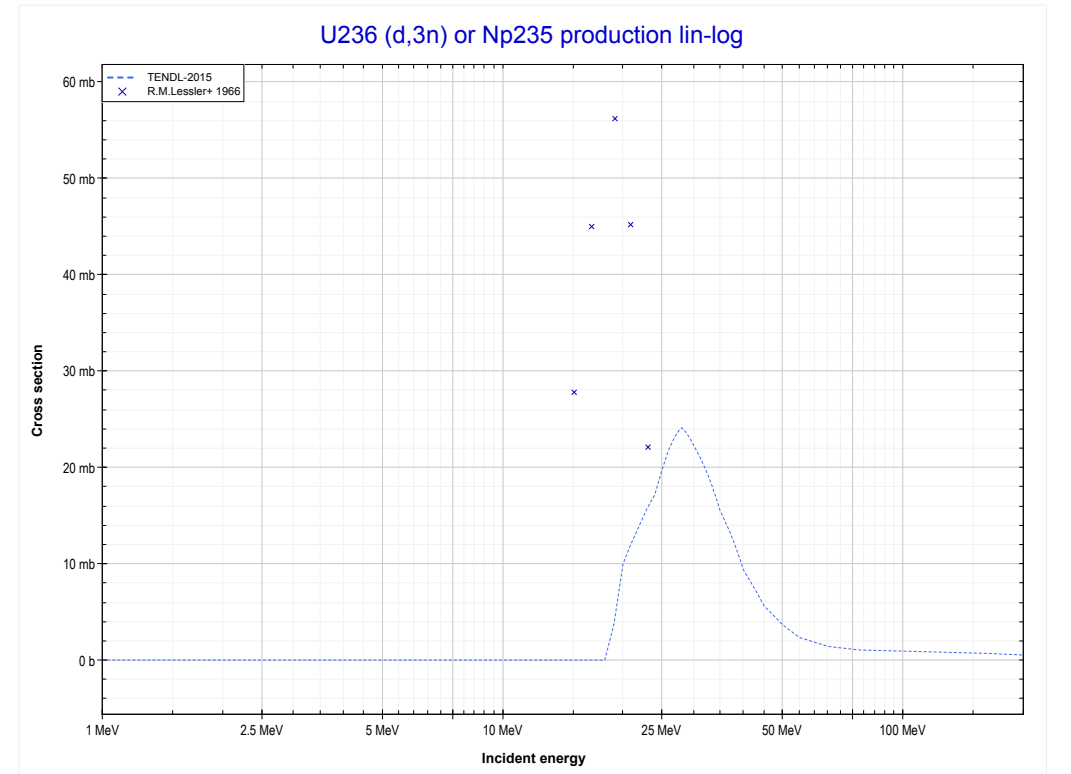
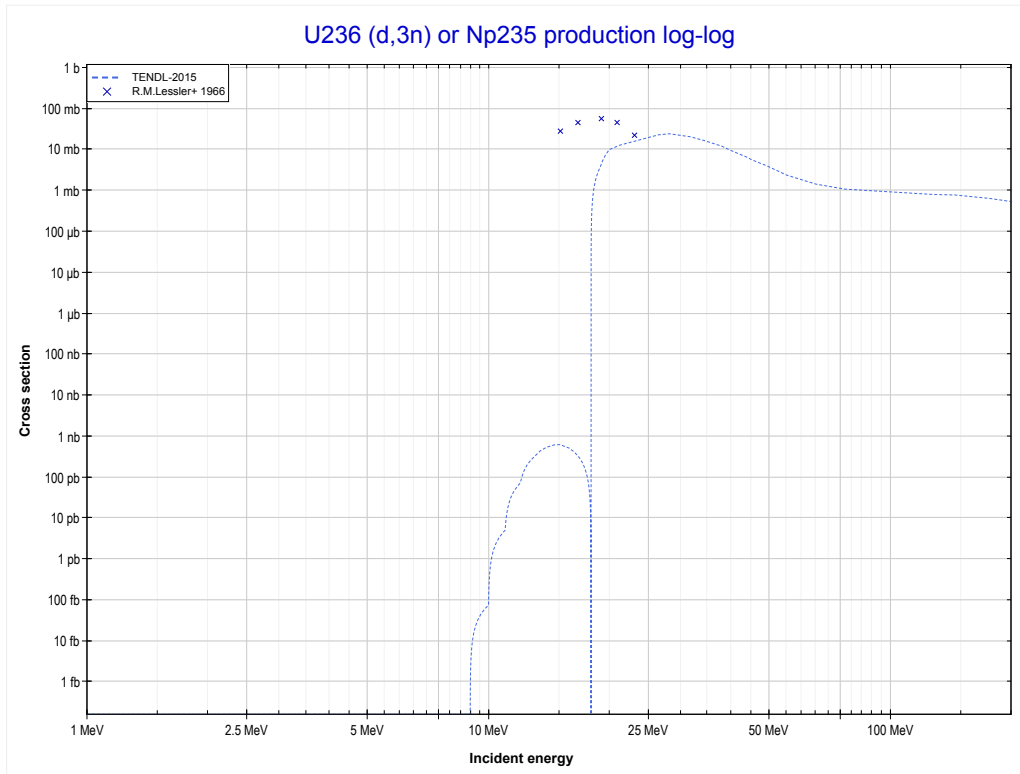


<< 92-U-235	<b>92-U-236</b>	92-U-238 >>
<< 92-U-235 MT18 (d,fission)	<b>MT16 (d,2n) or MT5 (Np236 production)</b>	MT17 (d,3n) >>



Reaction	Q-Value
U236(d,2n)Np236	-3940.41 keV

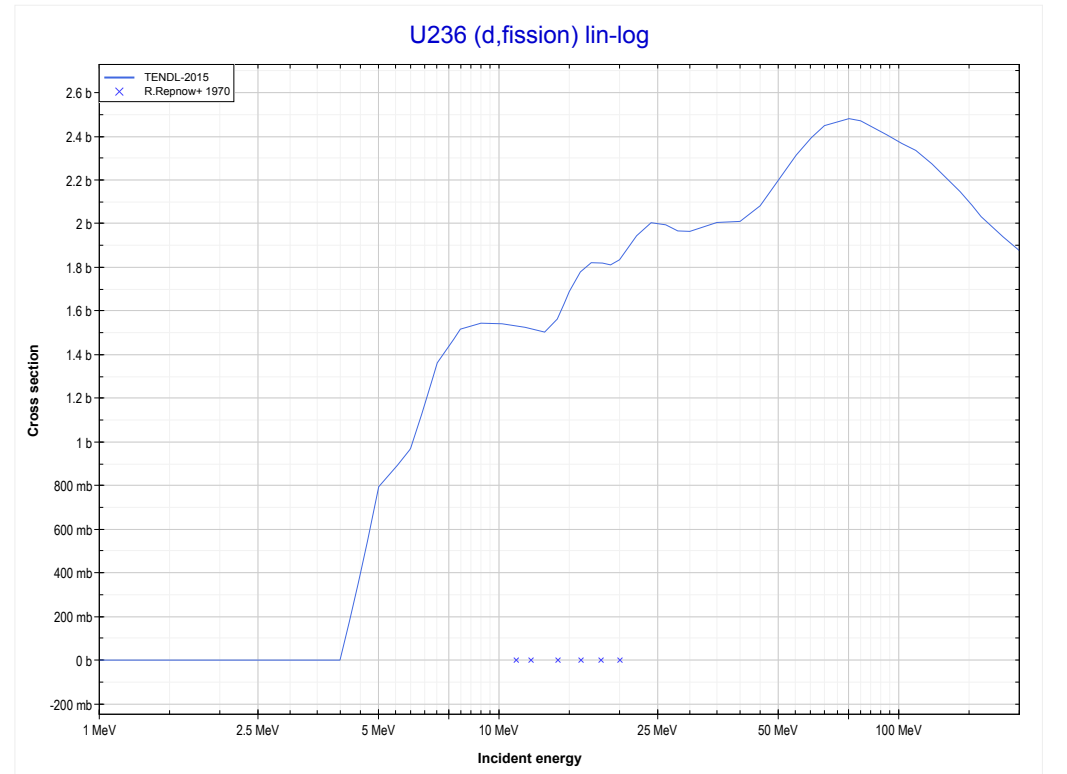
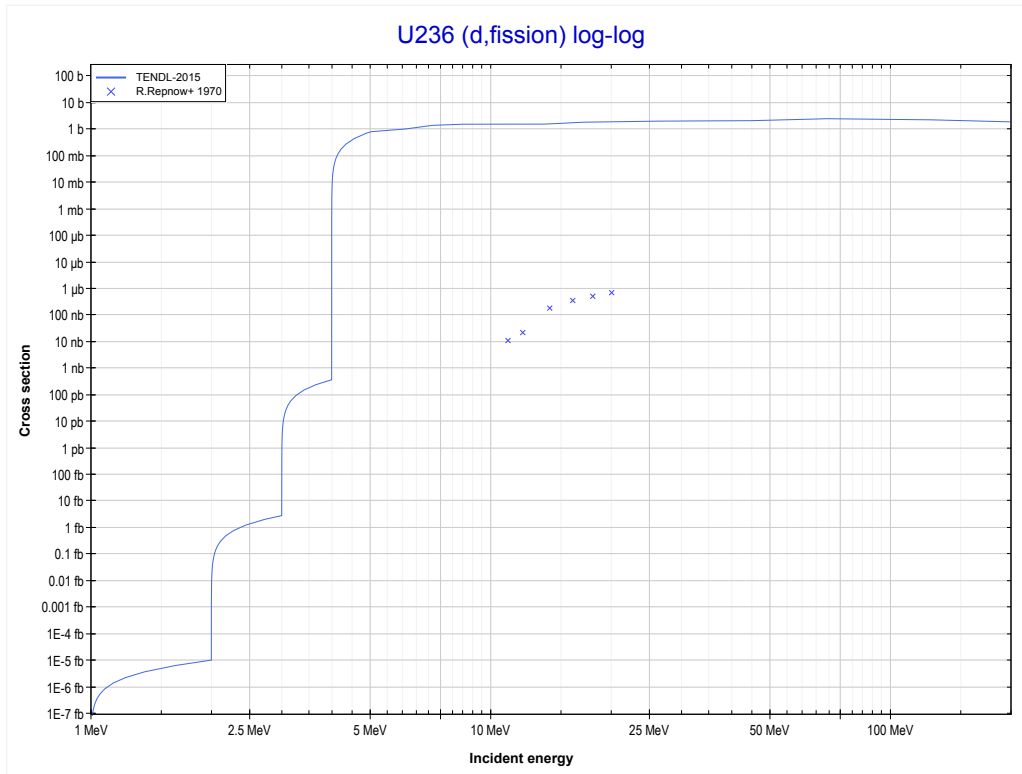
<< 92-U-235	<b>92-U-236</b>	94-Pu-239 >>
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Np235 production)</b>	MT18 (d,fission) >>



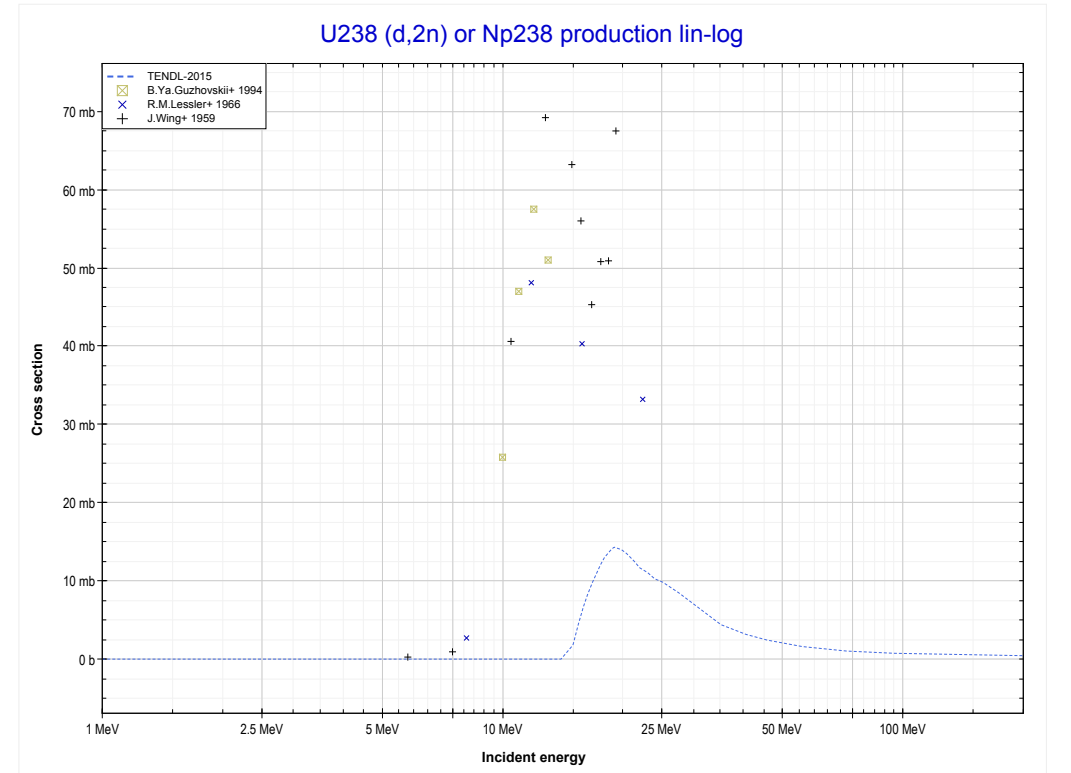
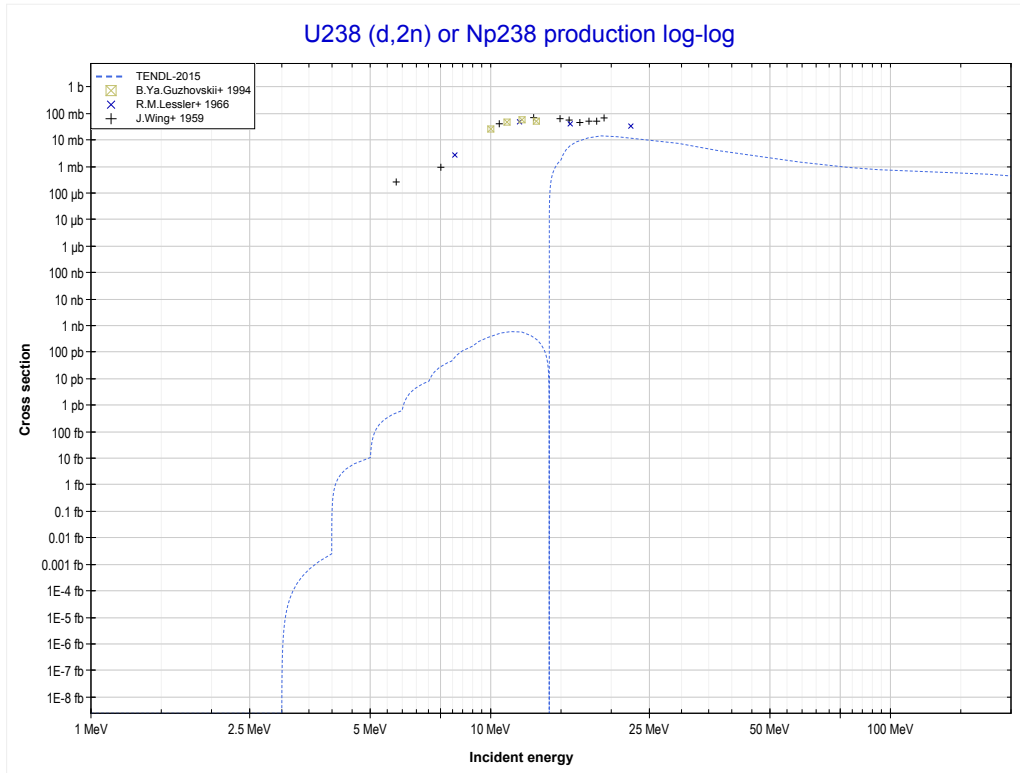
Reaction	Q-Value
U236(d,3n)Np235	-9676.63 keV



<< 92-U-235	<b>92-U-236</b>	92-U-238 >>
<< MT17 (d,3n)	<b>MT18 (d,fission)</b>	92-U-238 MT16 (d,2n) >>

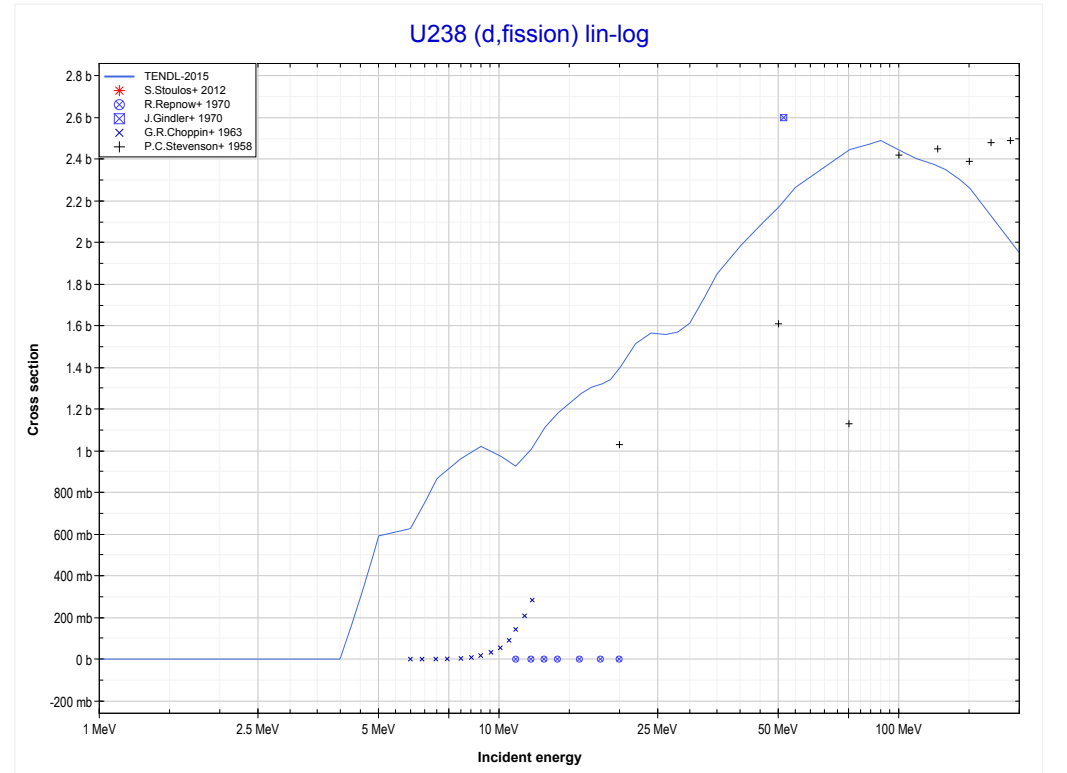
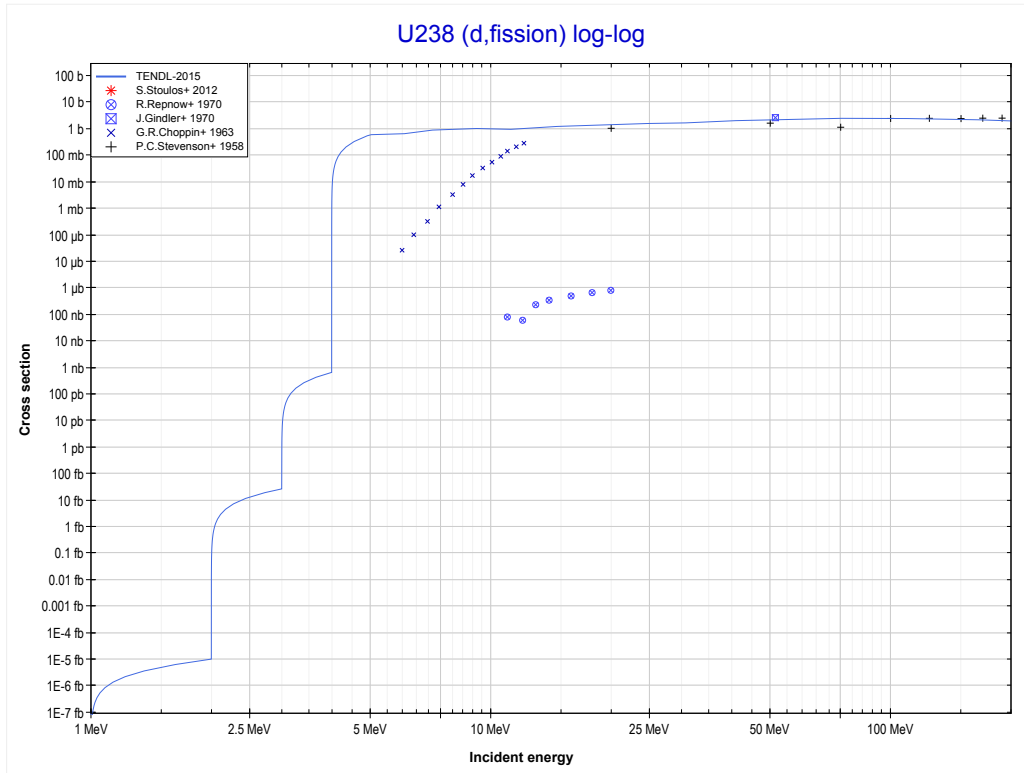


<< 92-U-236	<b>92-U-238</b>	94-Pu-239 >>
<< 92-U-236 MT18 (d,fission)	<b>MT16 (d,2n) or MT5 (Np238 production)</b>	MT18 (d,fission) >>

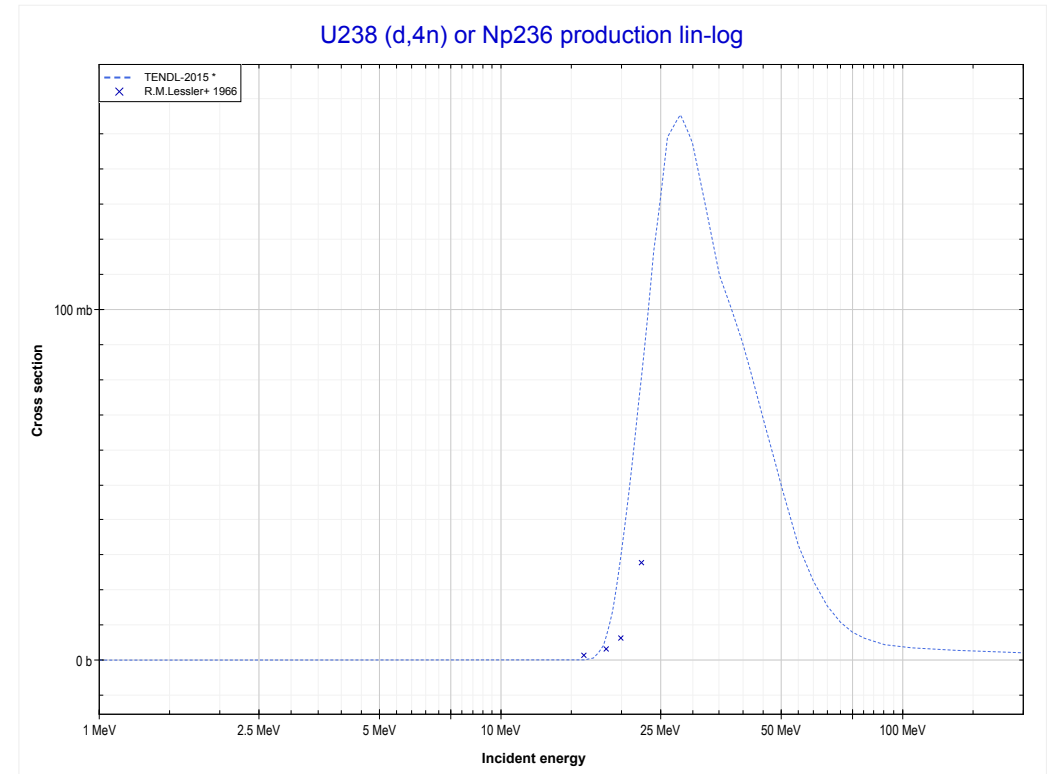
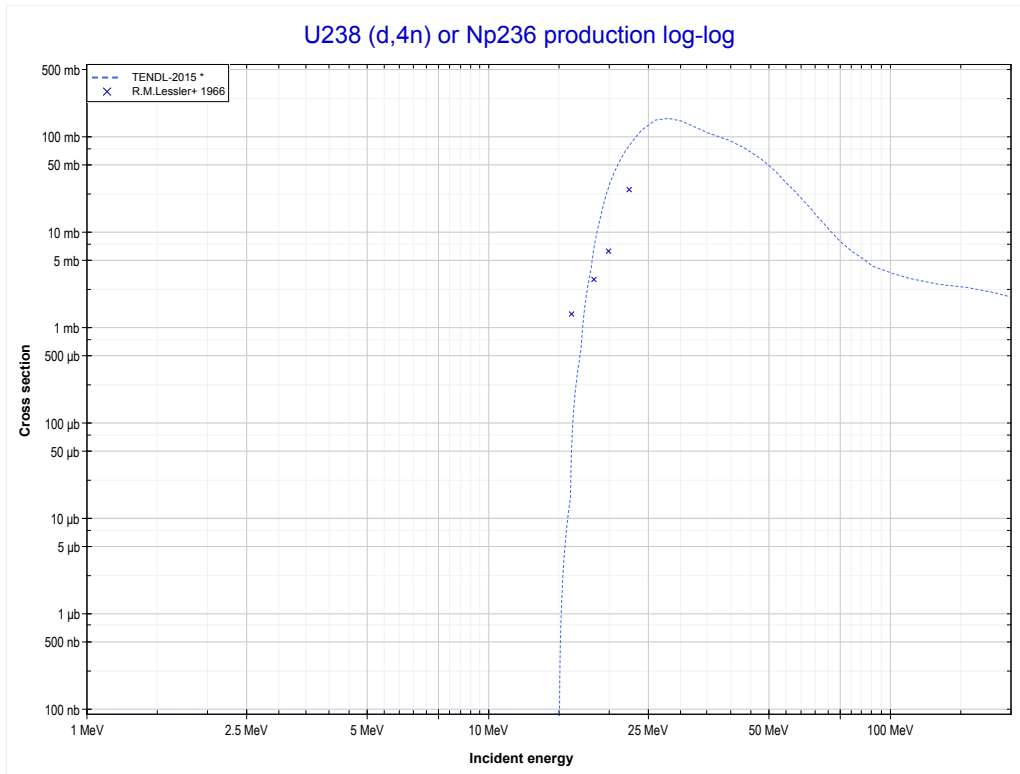


Reaction	Q-Value
U238(d,2n)Np238	-3154.31 keV

<< 92-U-236	<b>92-U-238</b>	94-Pu-240 >>
<< MT16 (d,2n)	<b>MT18 (d,fission)</b>	MT37 (d,4n) >>

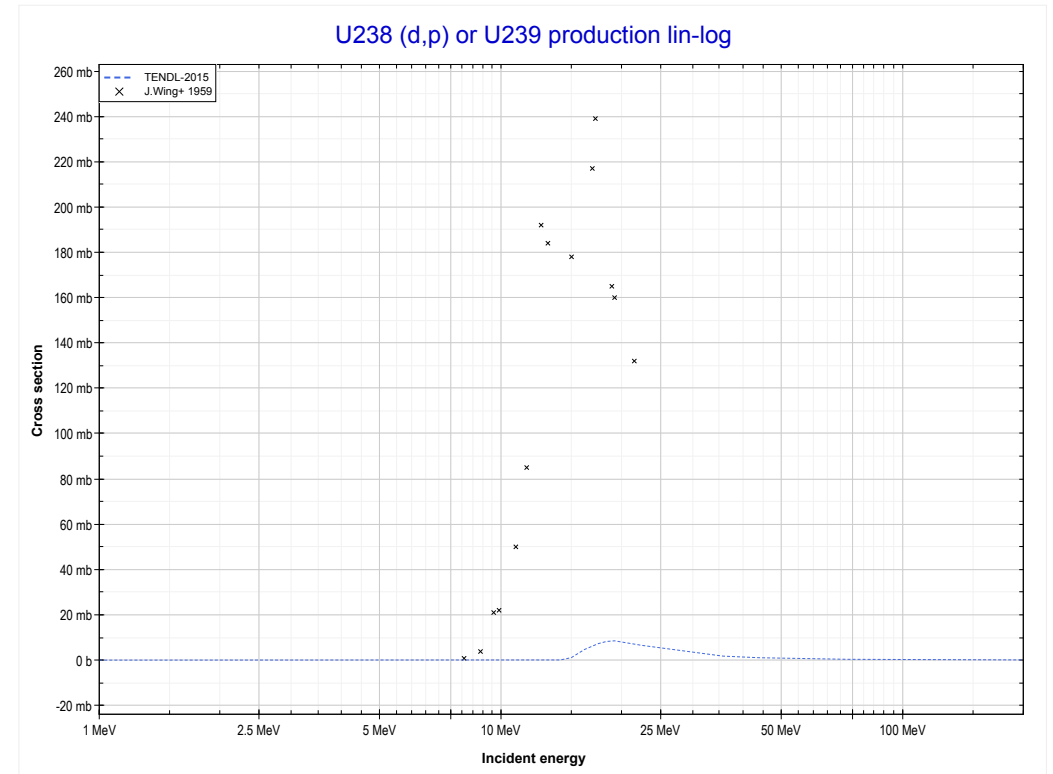
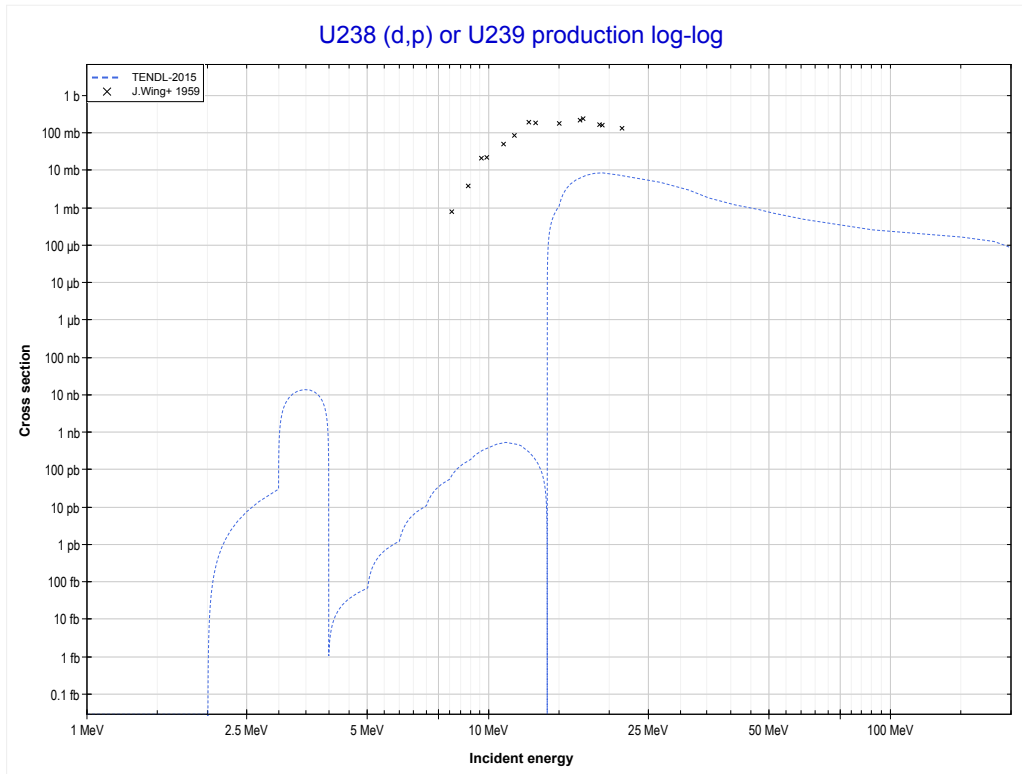


<< 90-Th-232	<b>92-U-238</b>	
<< MT18 (d,fission)	<b>MT37 (d,4n) or MT5 (Np236 production)</b>	MT103 (d,p) >>



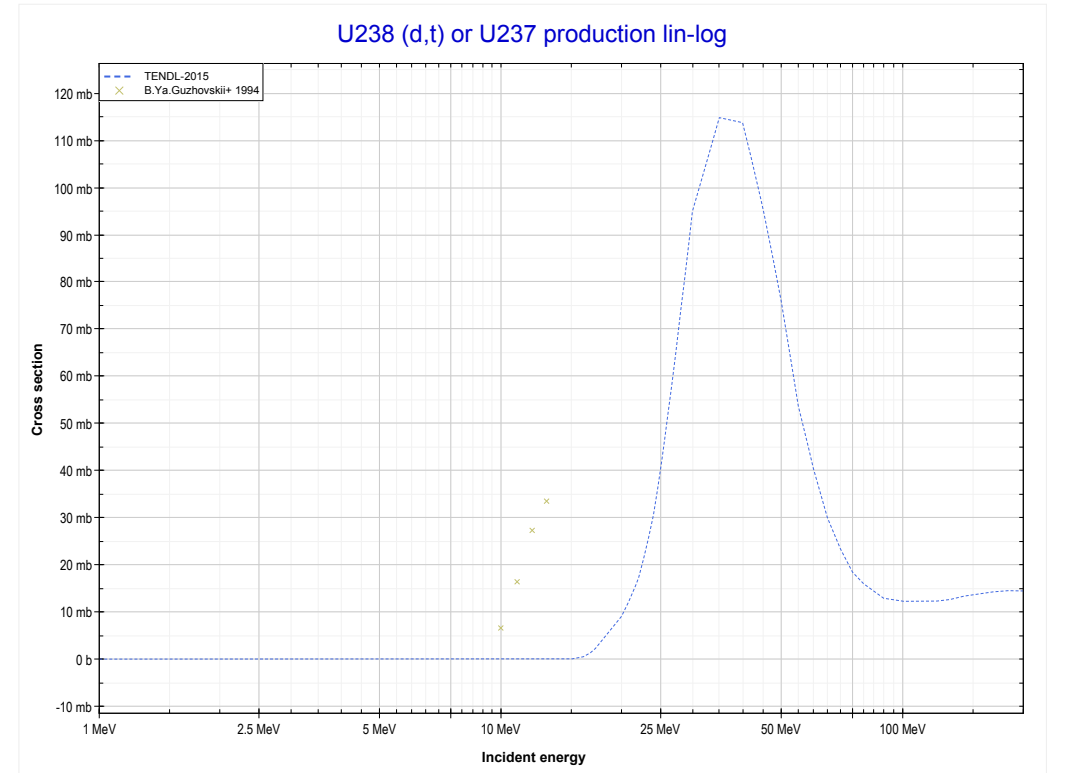
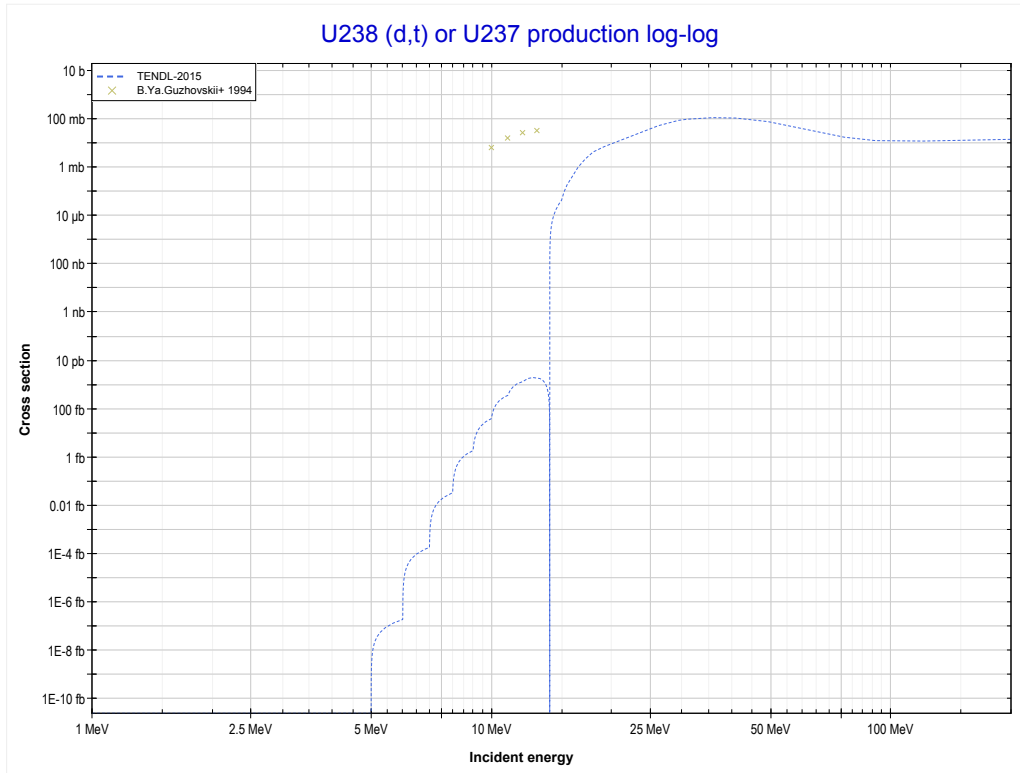
Reaction	Q-Value
U238(d,4n)Np236	-15220.45 keV

<< 83-Bi-209	<b>92-U-238</b>	
<< MT37 (d,4n)	<b>MT103 (d,p) or MT5 (U239 production)</b>	MT105 (d,t) >>



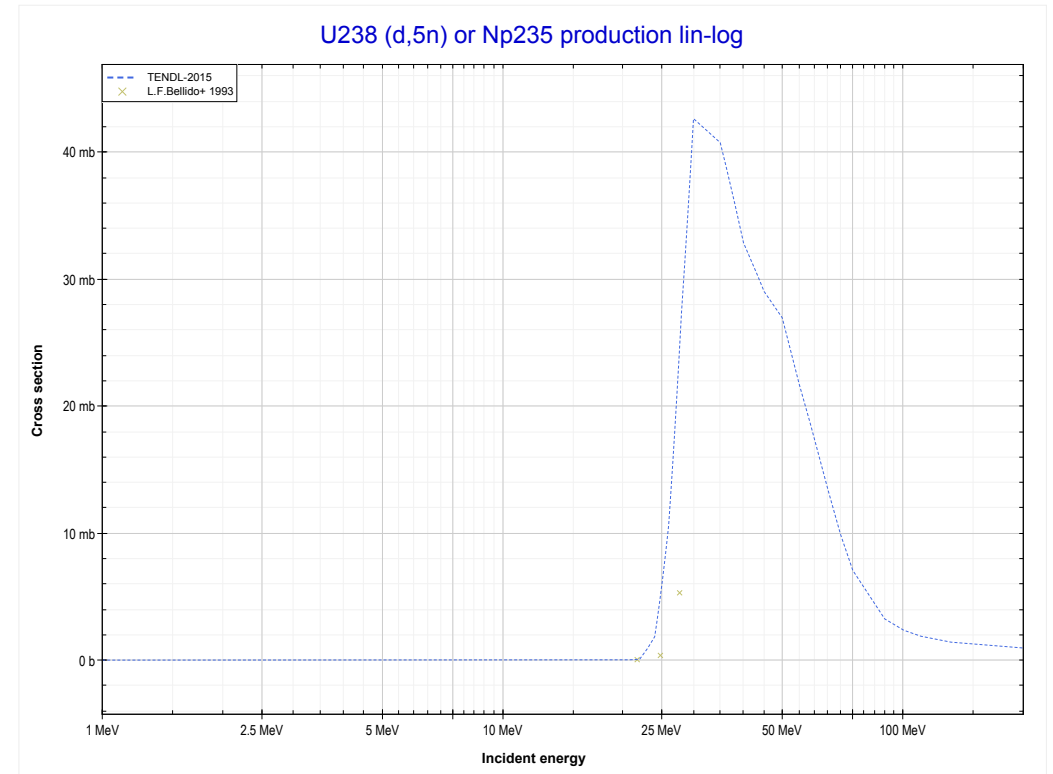
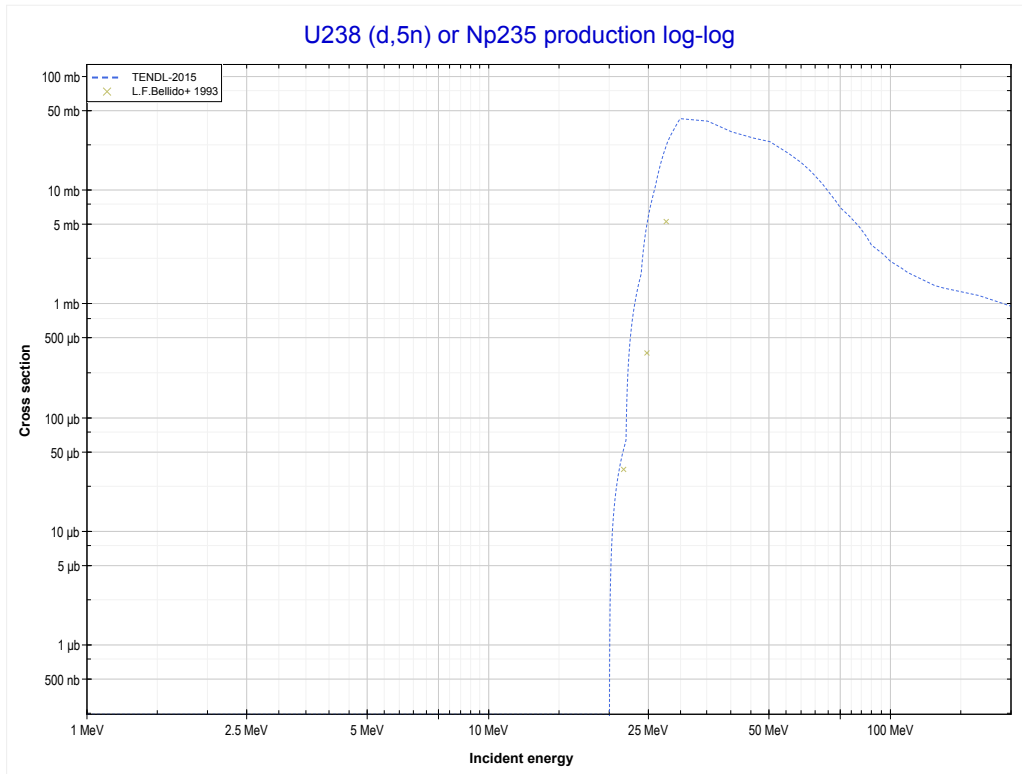
Reaction	Q-Value
U238(d,p)U239	2581.85 keV

<< 79-Au-197	<b>92-U-238</b>	
<< MT103 (d,p)	<b>MT105 (d,t) or MT5 (U237 production)</b>	MT152 (d,5n) >>



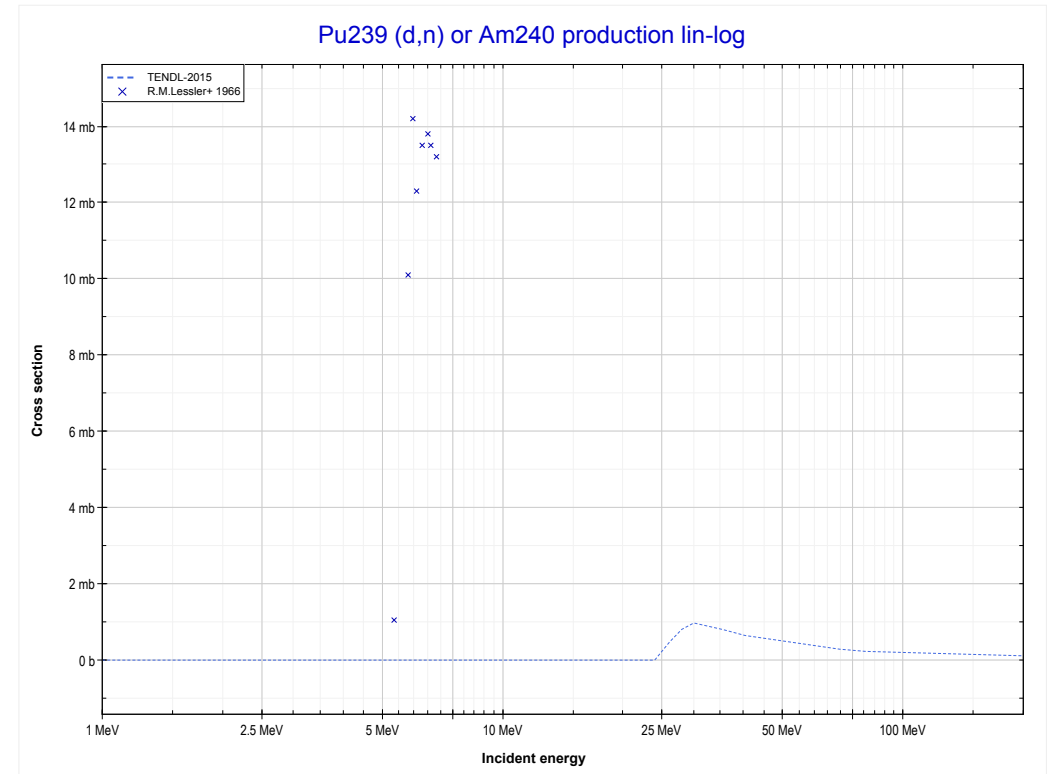
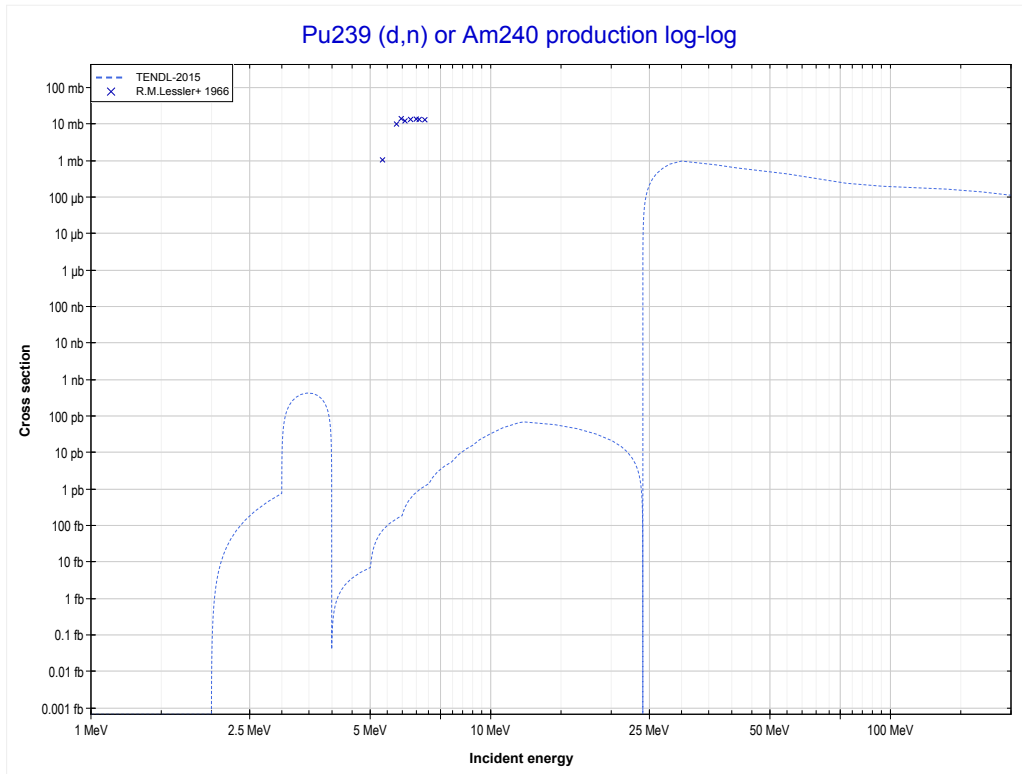
Reaction	Q-Value
U238(d,t)U237	102.92 keV
U238(d,n+d)U237	-6154.32 keV
U238(d,2n+p)U237	-8378.88 keV

<< 83-Bi-209	<b>92-U-238</b>	
<< MT105 (d,t)	<b>MT152 (d,5n) or MT5 (Np235 production)</b>	94-Pu-239 MT4 (d,n) >>



Reaction	Q-Value
U238(d,5n)Np235	-20956.66 keV

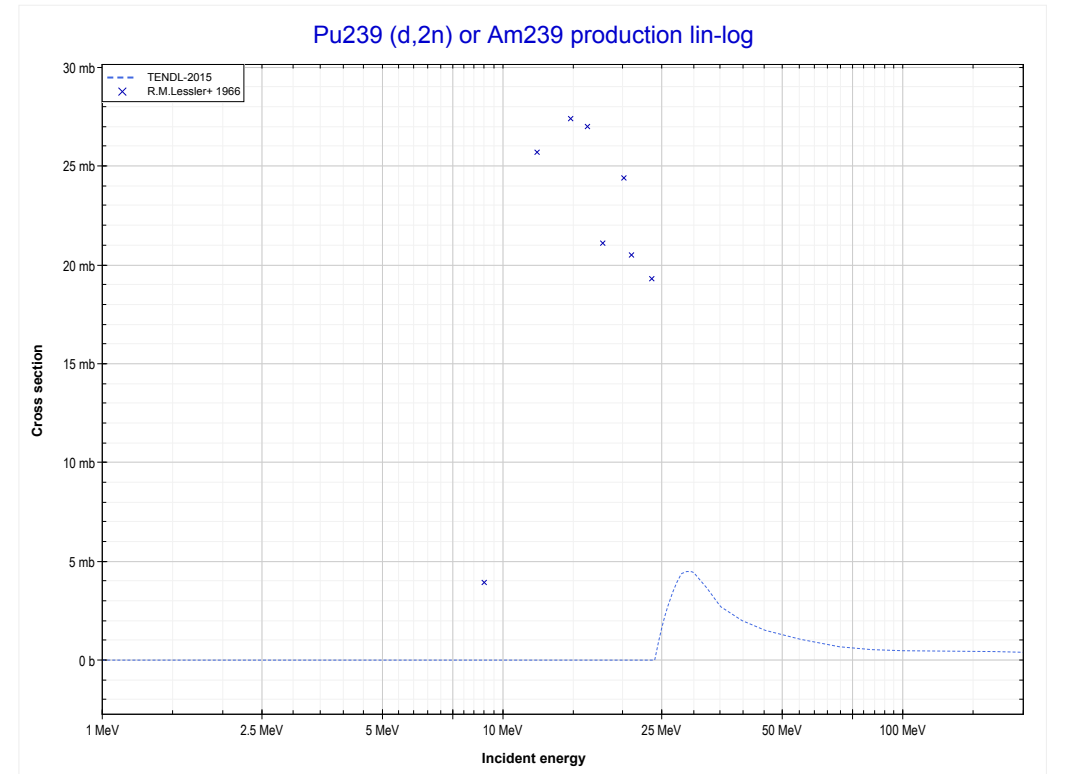
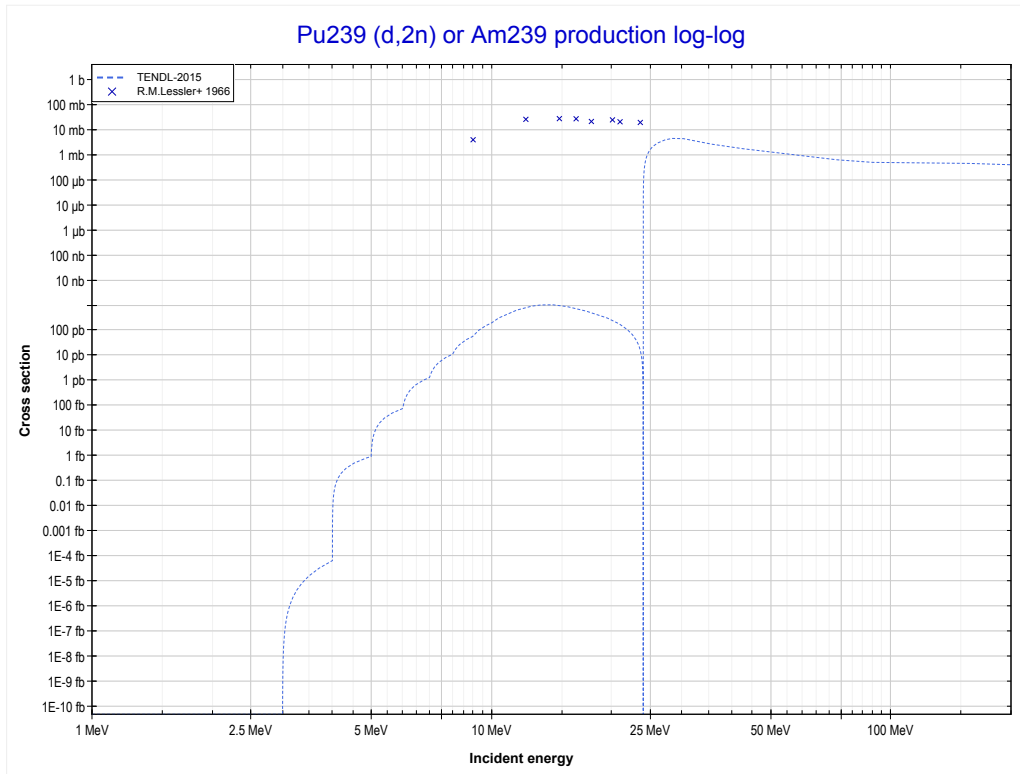
<< 92-U-235	<b>94-Pu-239</b>	
<< 92-U-238 MT152 (d,5n)	<b>MT4 (d,n) or MT5 (Am240 production)</b>	MT16 (d,2n) >>



Reaction	Q-Value
Pu239(d,n)Am240	2142.50 keV

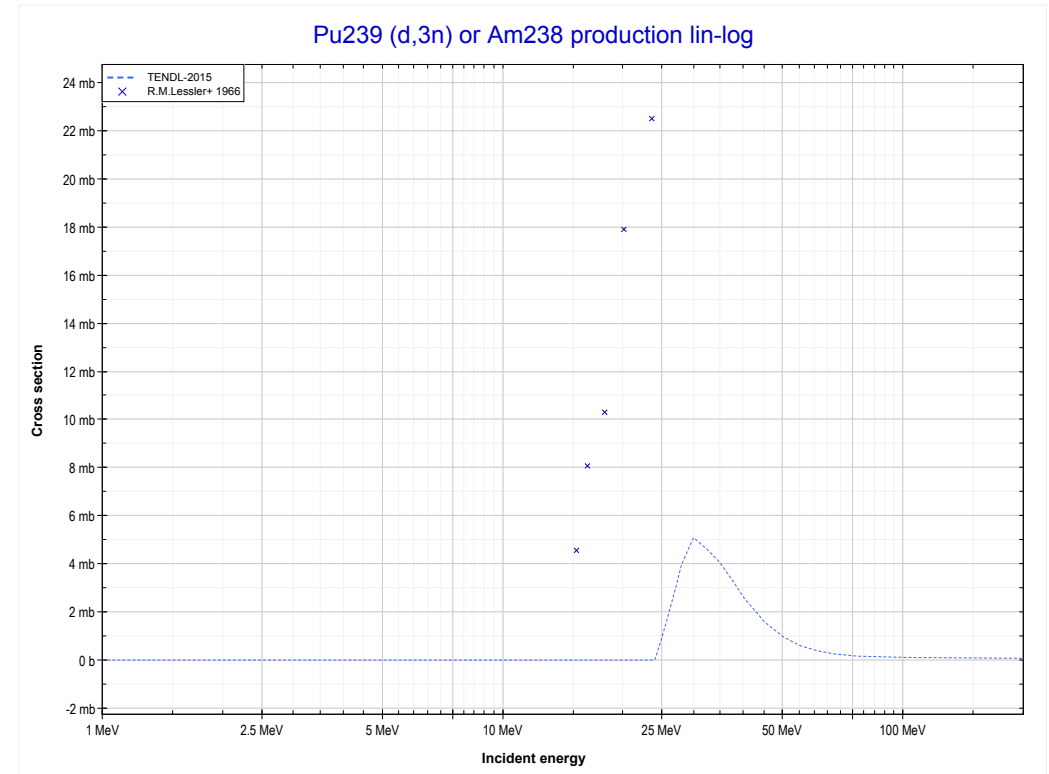
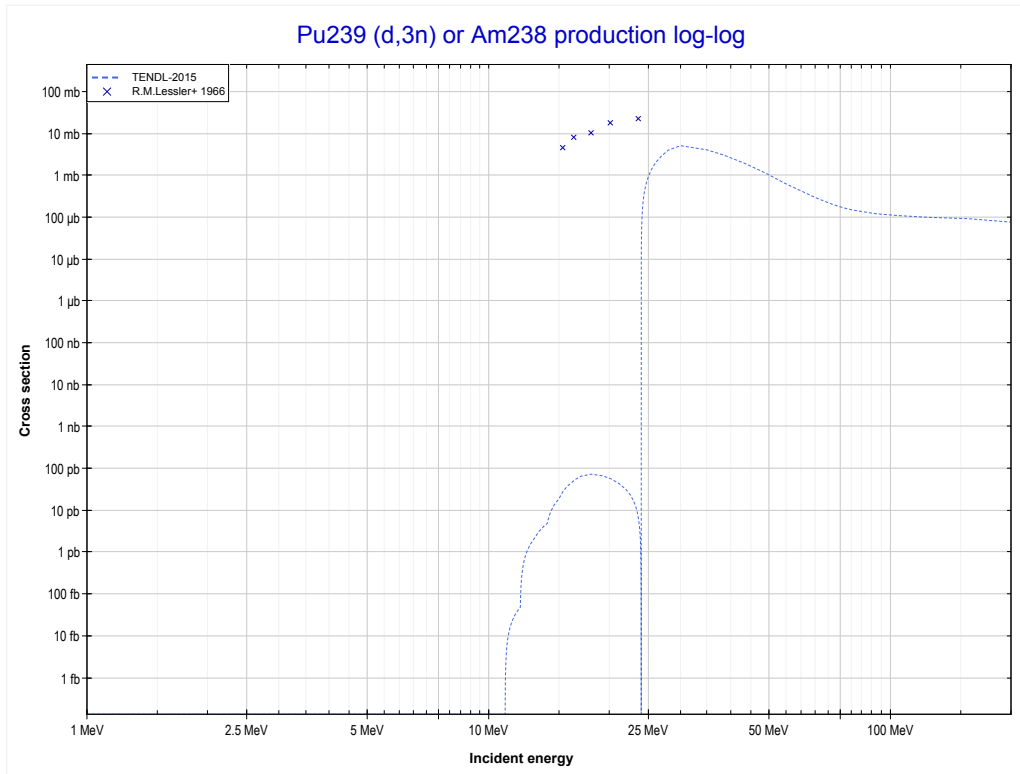


<< 92-U-238	<b>94-Pu-239</b>	94-Pu-240 >>
<< MT4 (d,n)	<b>MT16 (d,2n) or MT5 (Am239 production)</b>	MT17 (d,3n) >>



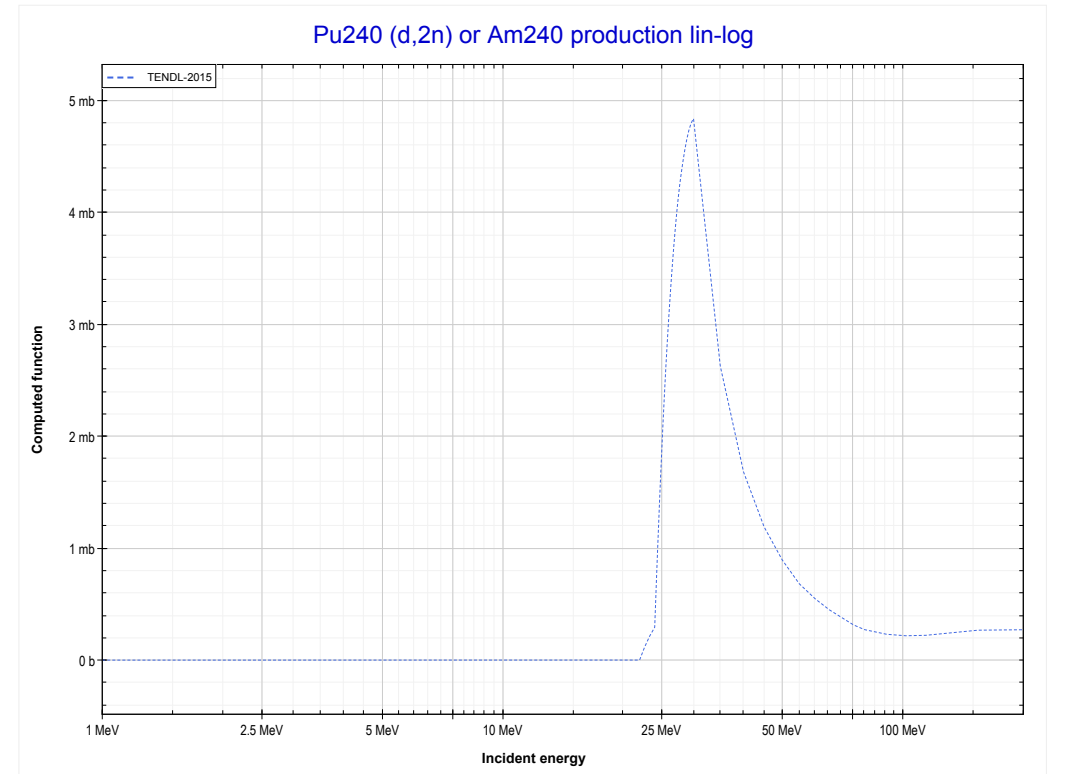
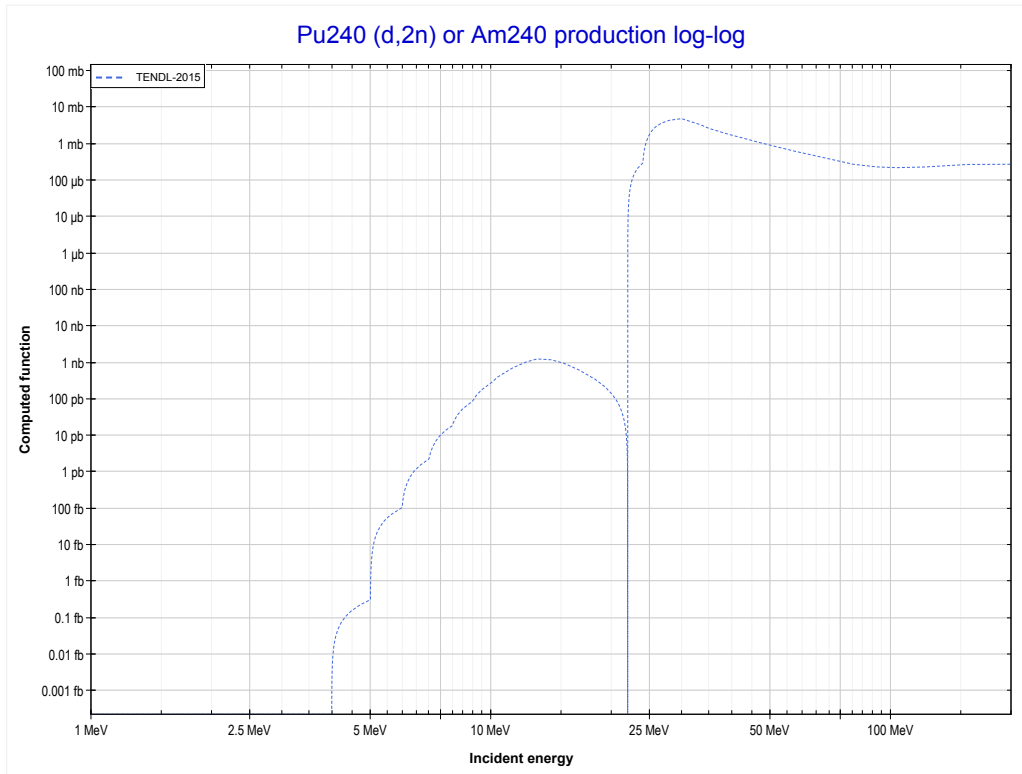
Reaction	Q-Value
Pu239(d,2n)Am239	-3809.01 keV

<< 92-U-236	<b>94-Pu-239</b>	
<< MT16 (d,2n)	<b>MT17 (d,3n) or MT5 (Am238 production)</b>	94-Pu-240 MT16 (d,2n) >>



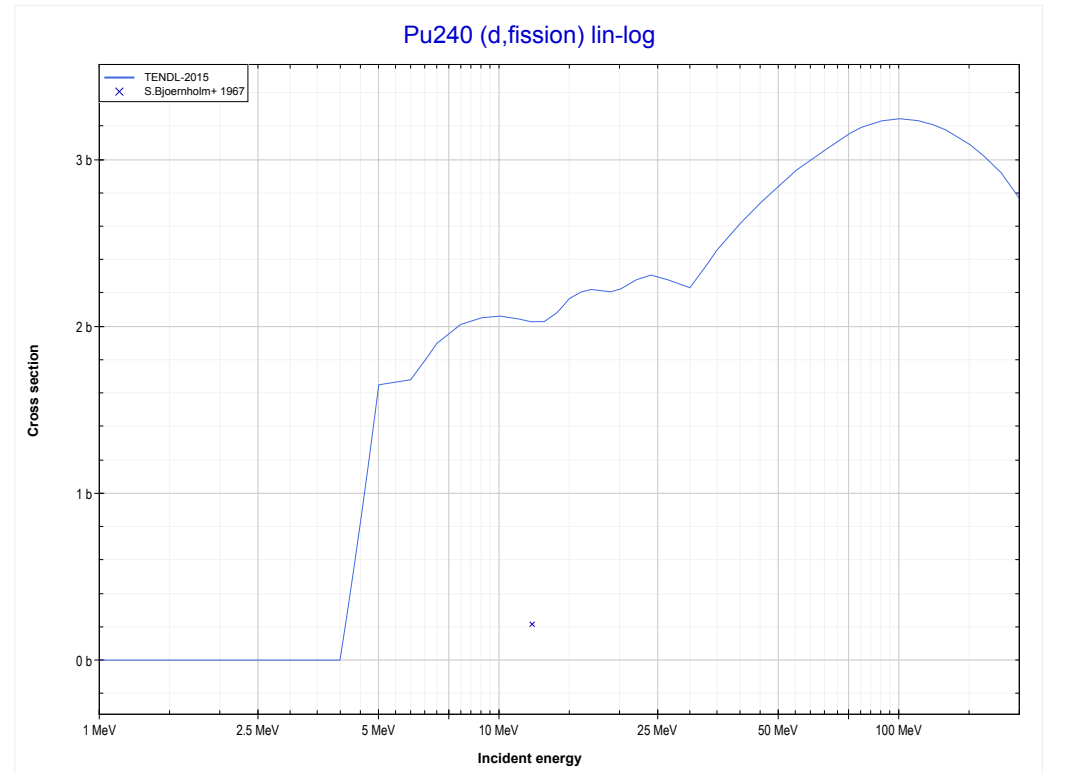
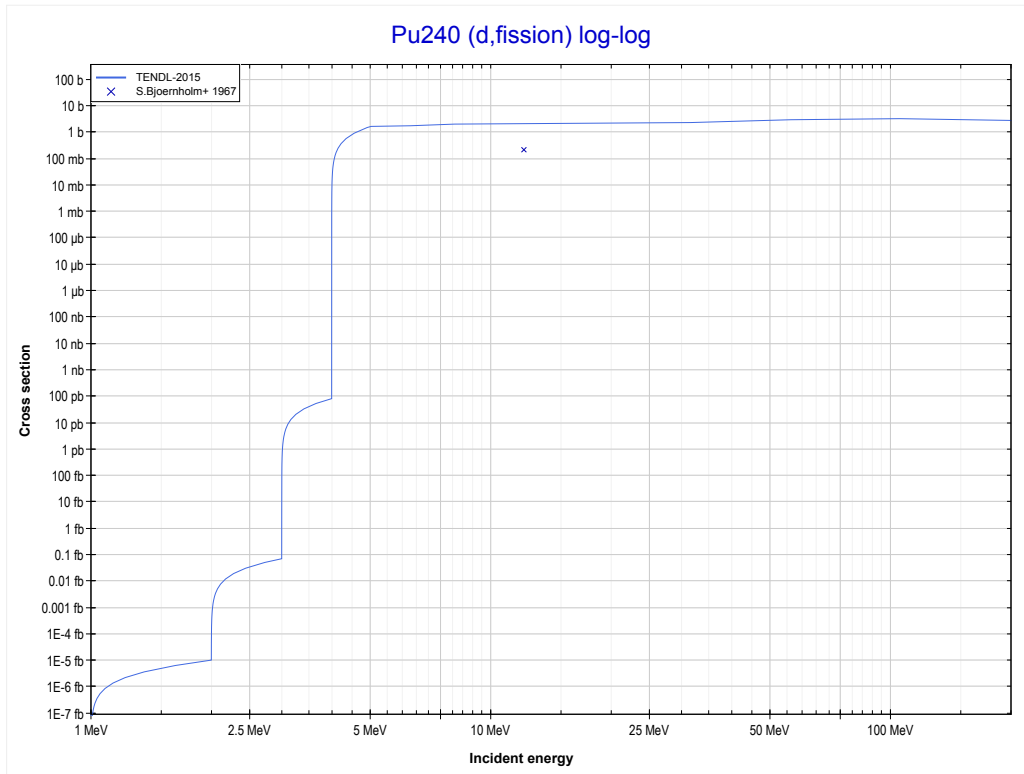
Reaction	Q-Value
Pu239(d,3n)Am238	-10908.13 keV

<< 94-Pu-239	<b>94-Pu-240</b>	94-Pu-242 >>
<< 94-Pu-239 MT17 (d,3n)	<b>MT16 (d,2n) or MT5 (Am240 production)</b>	MT18 (d,fission) >>

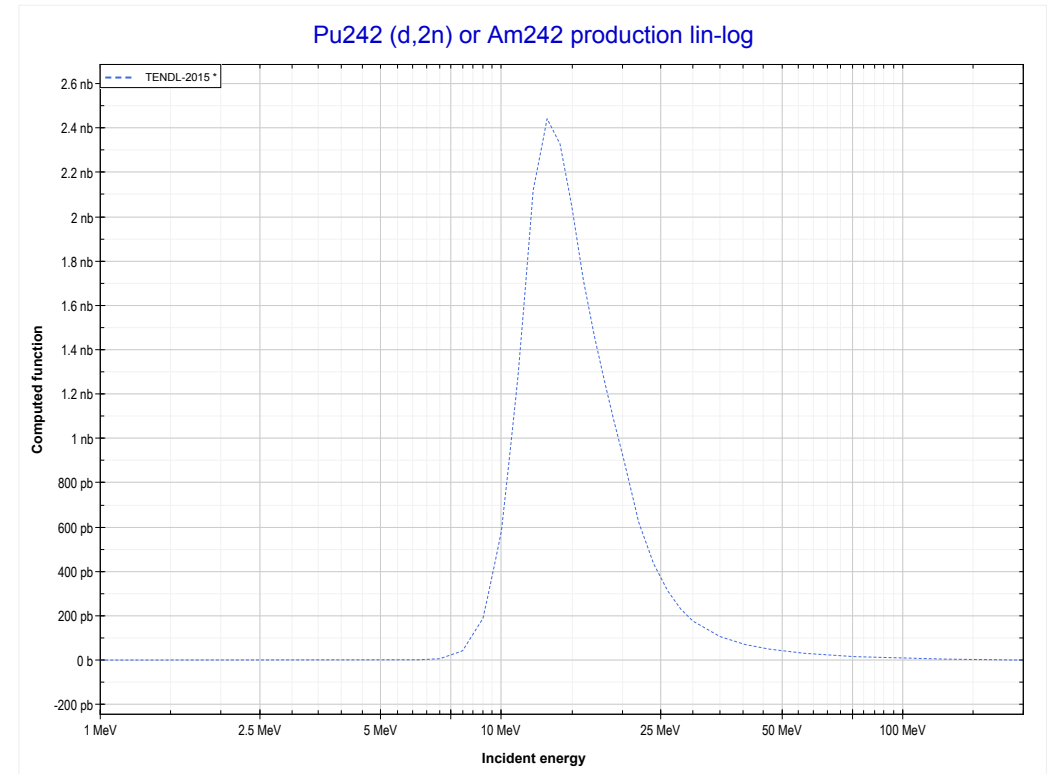
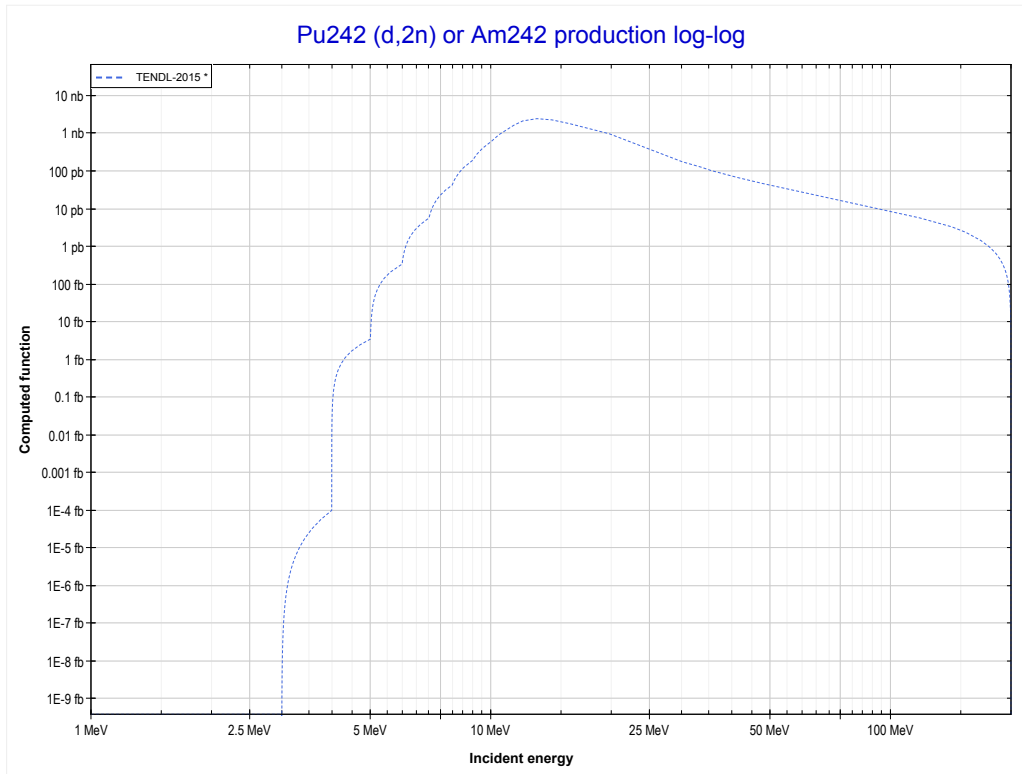


<b>Reaction</b>	<b>Q-Value</b>
Pu240(d,2n)Am240	-4391.71 keV

<< 92-U-238	<b>94-Pu-240</b>	94-Pu-242 >>
<< MT16 (d,2n)	<b>MT18 (d,fission)</b>	94-Pu-242 MT16 (d,2n) >>

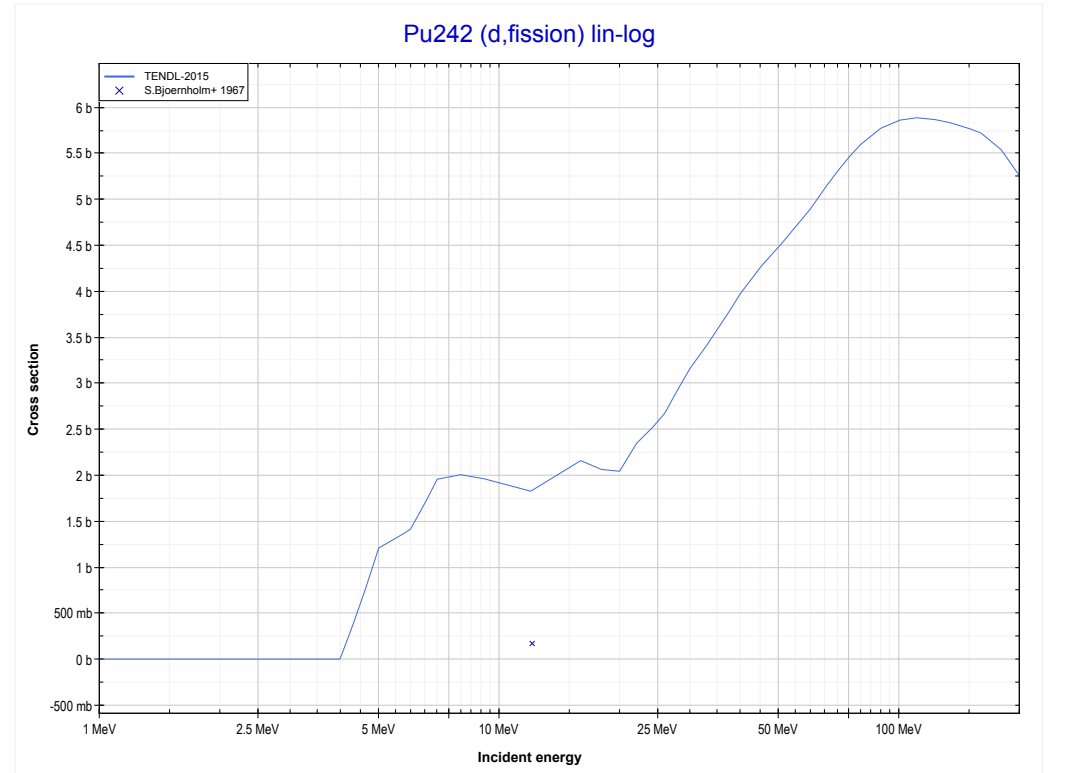
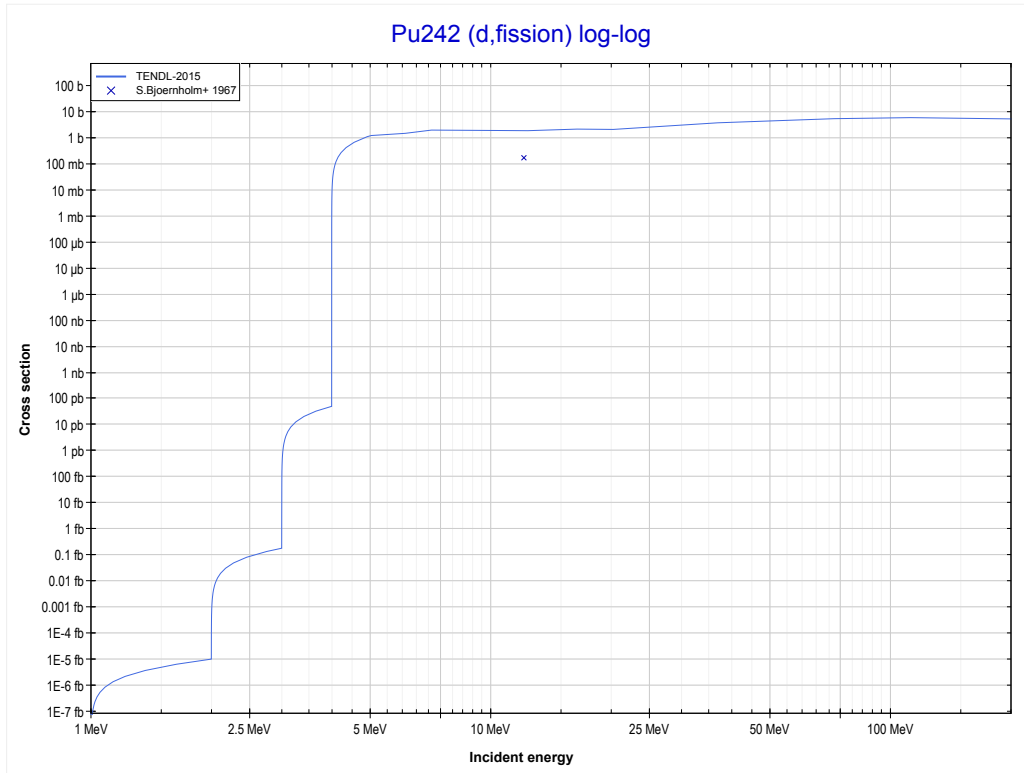


<< 94-Pu-240	<b>94-Pu-242</b>	
<< 94-Pu-240 MT18 (d,fission)	<b>MT16 (d,2n) or MT5 (Am242 production)</b>	MT18 (d,fission) >>

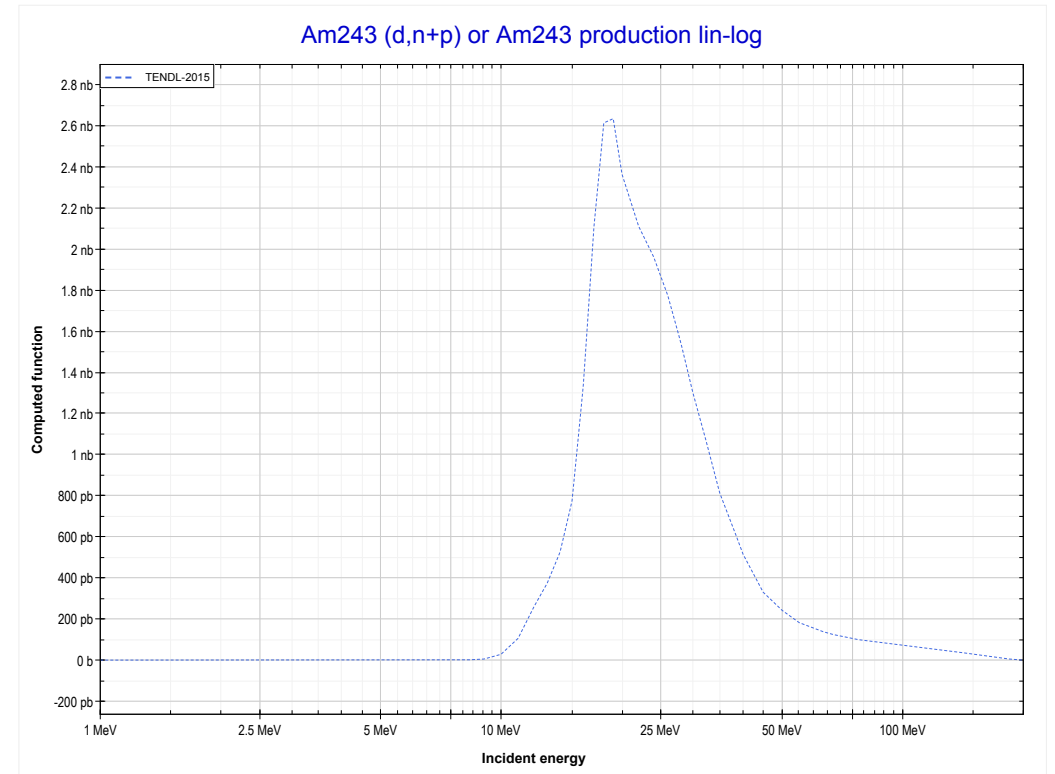
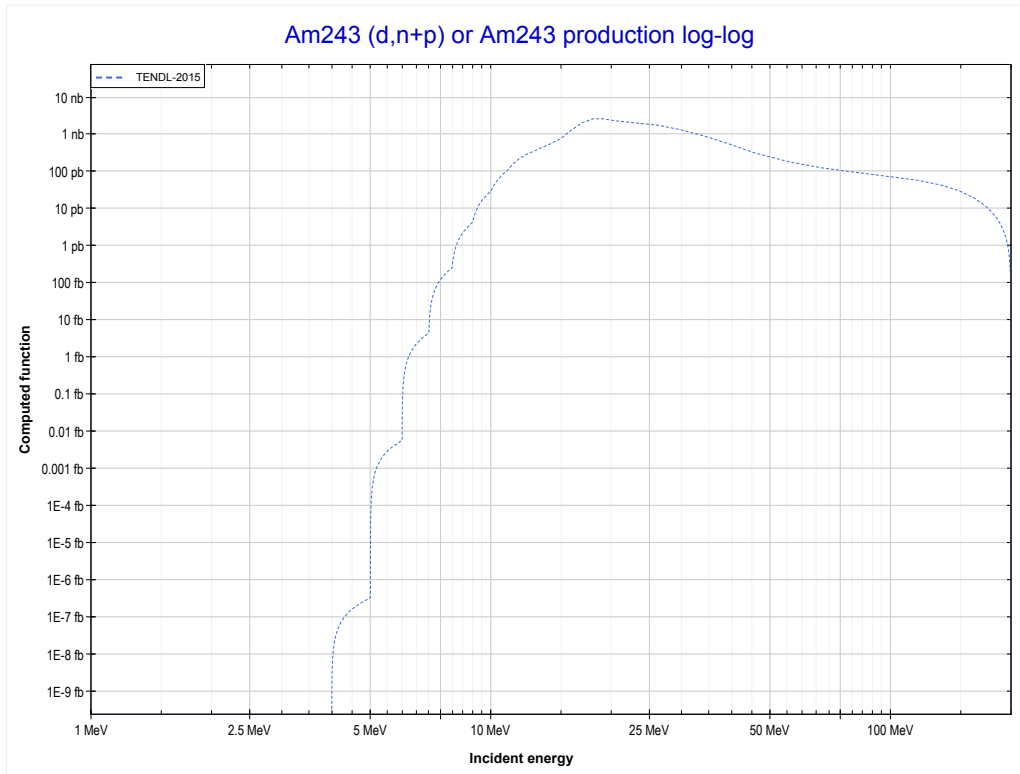


Reaction	Q-Value
Pu242(d,2n)Am242	-3758.21 keV

<< 94-Pu-240	<b>94-Pu-242</b>	
<< MT16 (d,2n)	<b>MT18 (d,fission)</b>	95-Am-243 MT28 (d,n+p) >>



	<b>95-Am-243</b>	
<< 94-Pu-242 MT18 (d,fission)	<b>MT28 (d,n+p) or MT5 (Am243 production)</b>	



Reaction	Q-Value
Am243(d,d)Am243	0.00 keV
Am243(d,n+p)Am243	-2224.57 keV