



JANIS Book

of proton-induced cross-sections

Comparison of evaluated and experimental data from

ENDF/B-VII.1, JENDL/HE-2007, PADF-2007, TENDL-2015 and EXFOR

N. Soppera, E. Dupont, M. Bossant, O. Cabellos

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

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

Library	Release date
ENDF/B-VII.1	December 2011
JENDL/HE-2007	2007
PADF-2007	January 2007
TENDL-2015	January 2016
EXFOR	March 2017

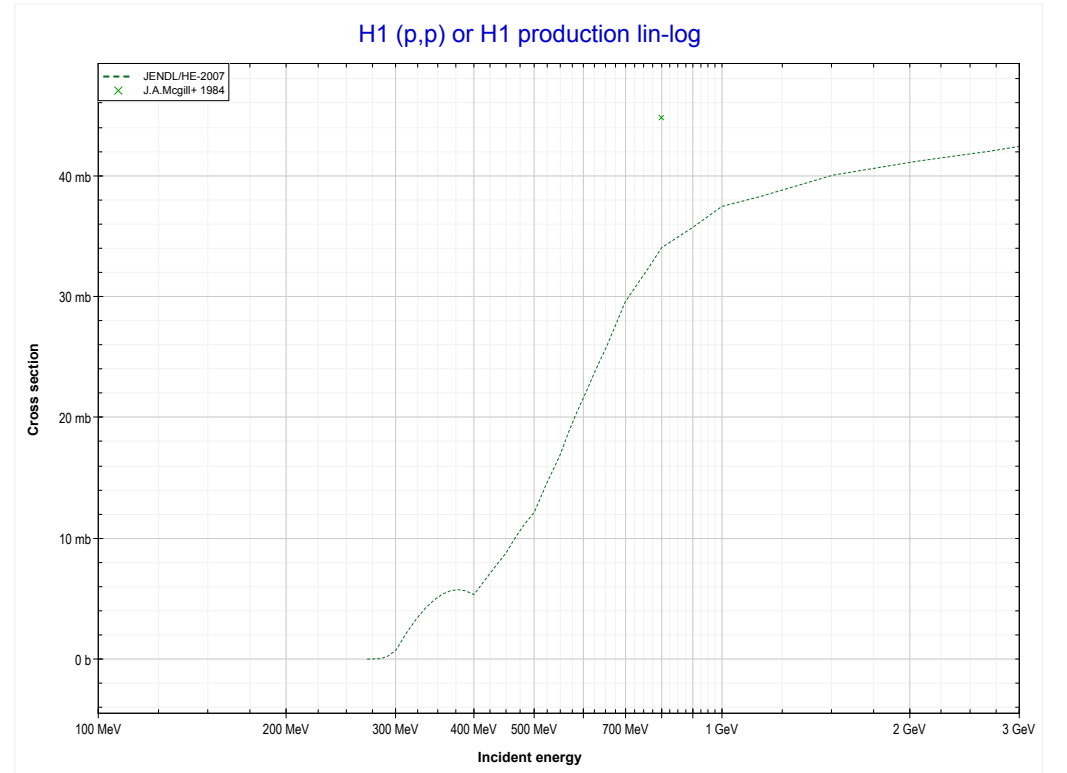
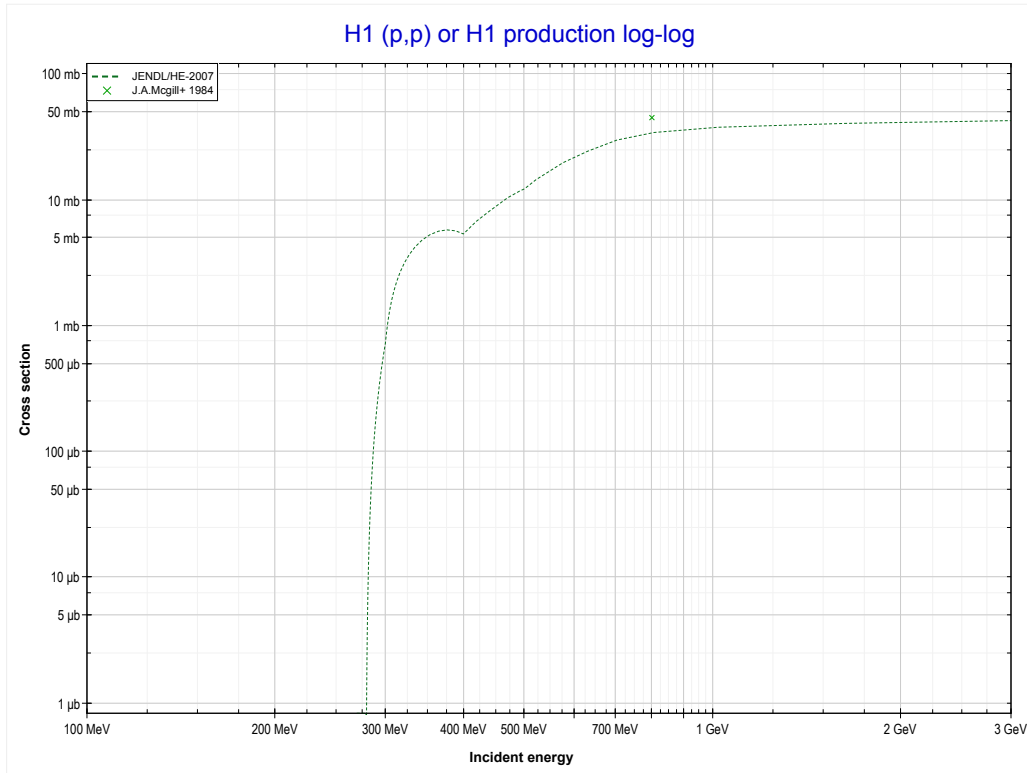
Table 2: experimental data sets color code

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

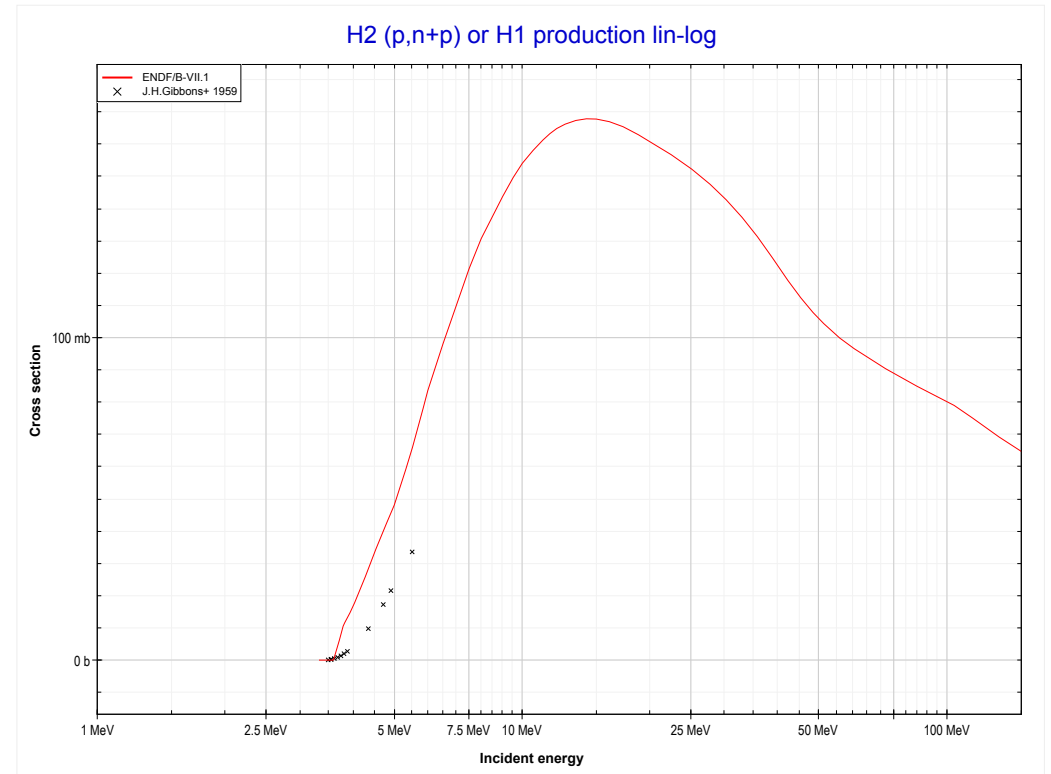
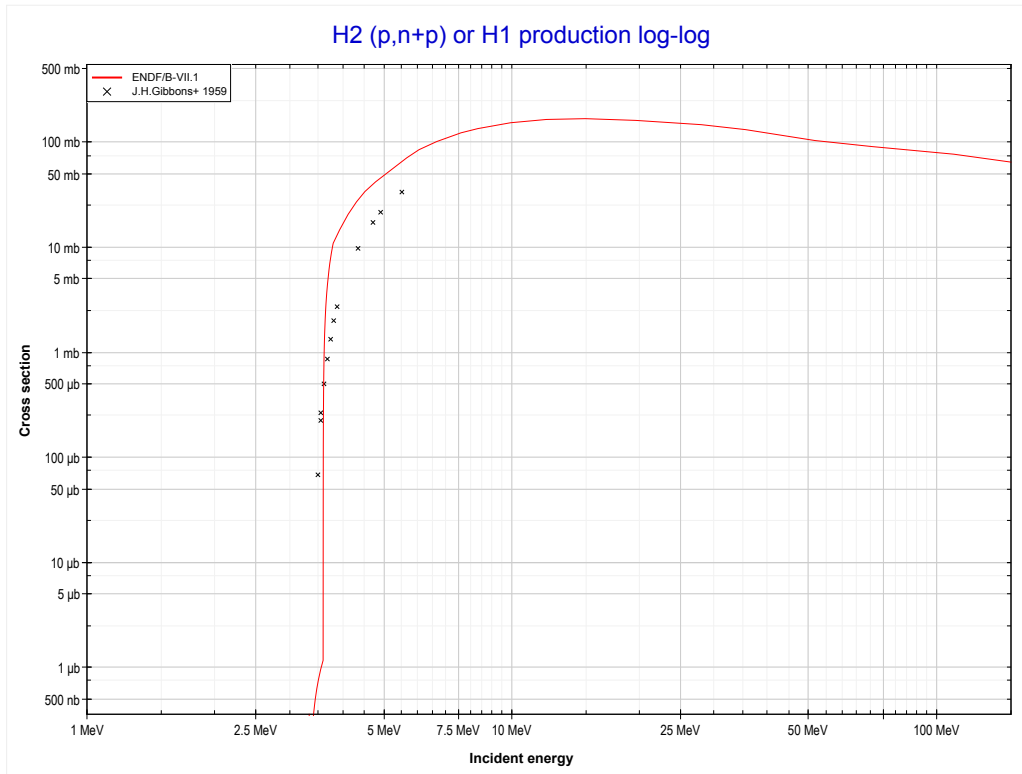
MT	Reaction	MT	Reaction	MT	Reaction	MT	Reaction
4	n	102	gamma	159	2n+p+a	181	3n+p+a
11	2n+d	103	p	160	7n	182	d+t
16	2n	104	d	161	8n	183	n+p+d
17	3n	105	t	162	5n+p	184	n+p+t
18	fission	106	h	163	6n+p	185	n+d+t
22	n+a	107	a	164	7n+p	186	n+p+h
23	n+3a	108	2a	165	4n+a	187	n+d+h
24	2n+a	109	3a	166	5n+a	188	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		

	1-H-1	3-Li-7 >>
	MT103 (p,p) or MT5 (H1 production)	1-H-2 MT28 (p,n+p) >>



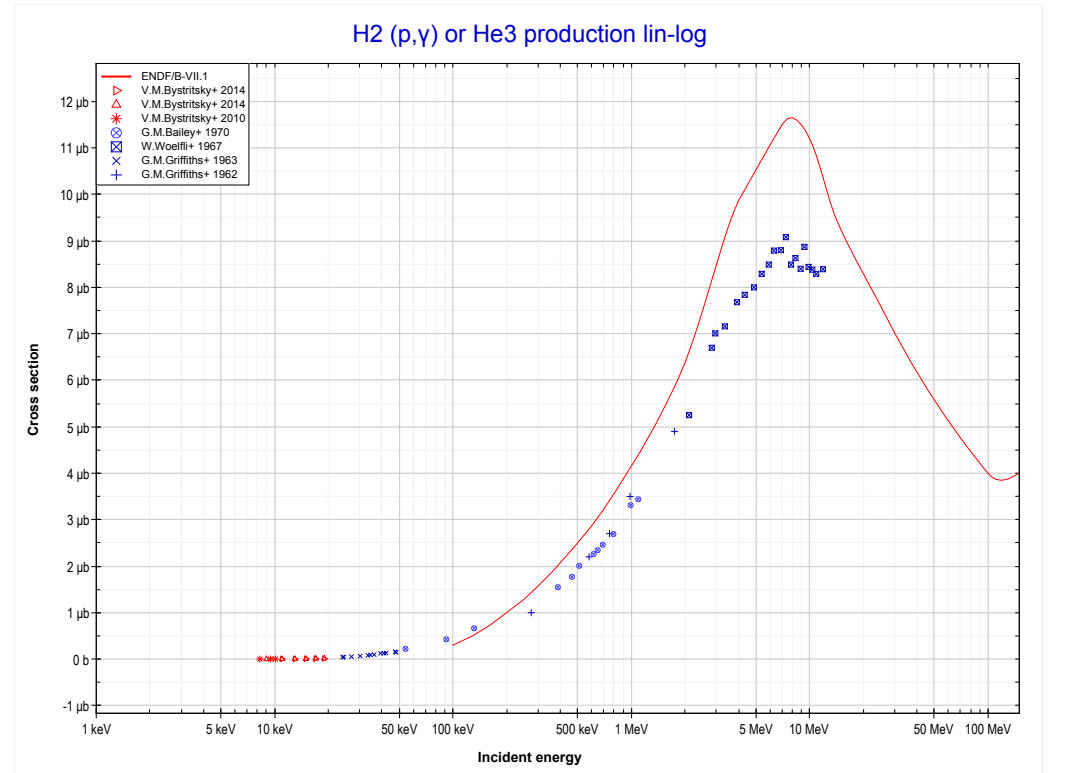
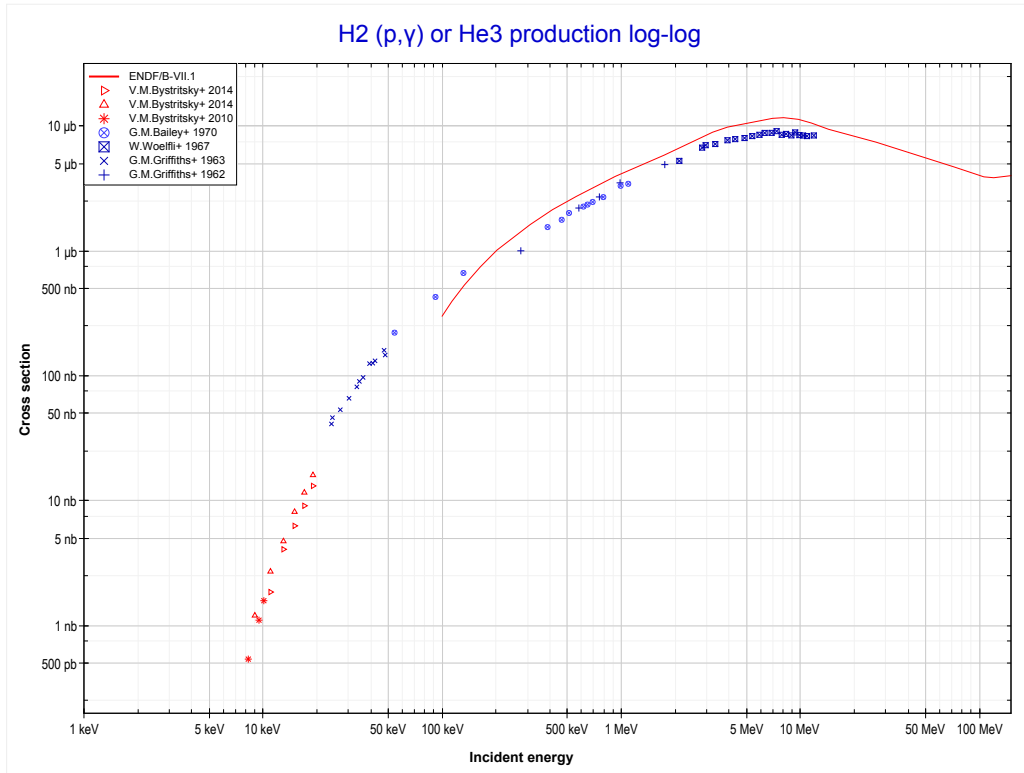
Reaction	Q-Value
H1(p,p)H1	0.00 keV

	1-H-2	6-C-12 >>
<< 1-H-1 MT103 (p,p)	MT28 (p,n+p) or MT5 (H1 production)	MT102 (p, γ) >>



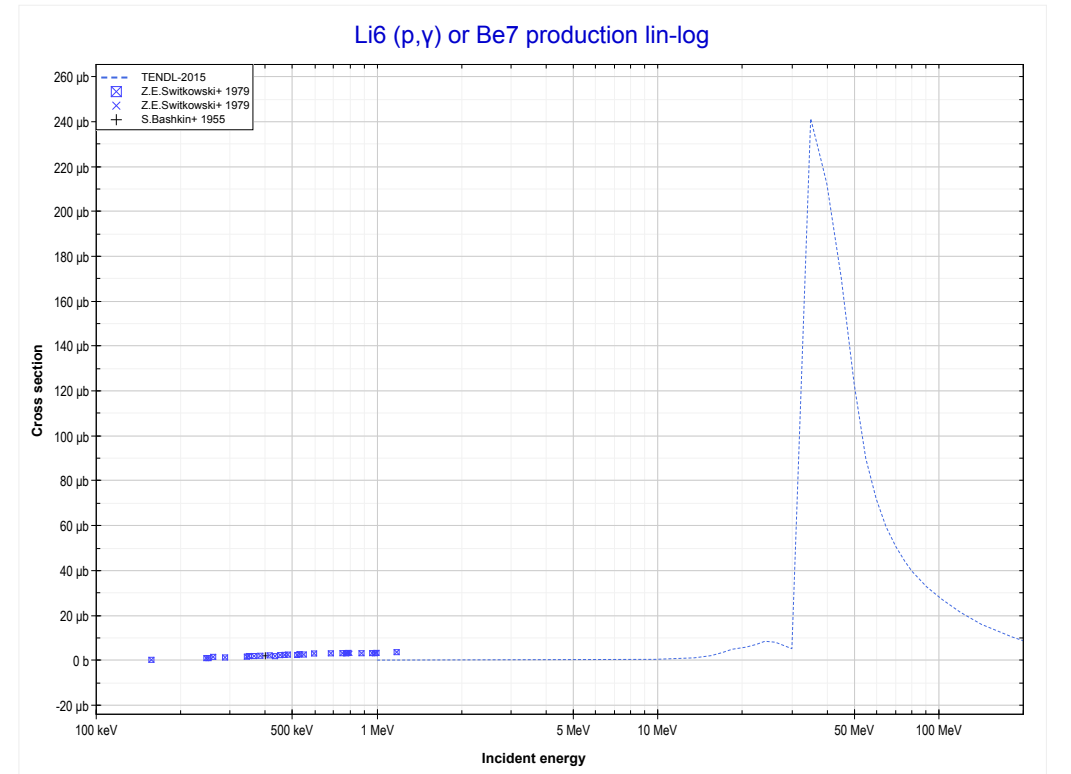
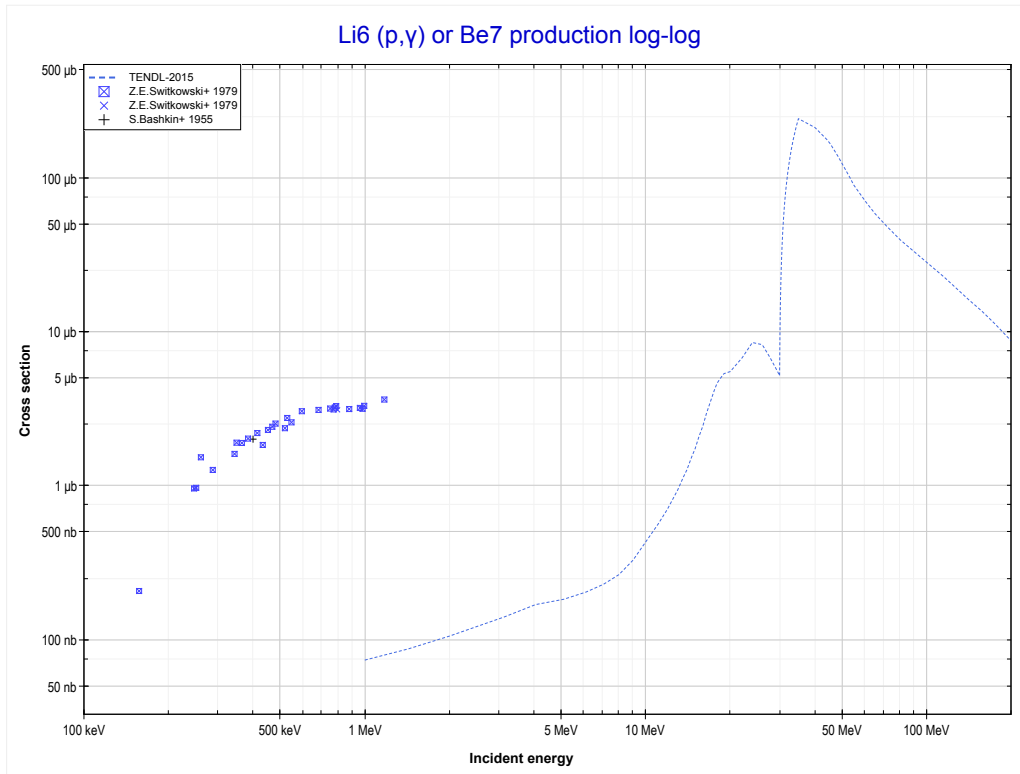
Reaction	Q-Value
H2(p,d)H1	0.00 keV
H2(p,n+p)H1	-2224.57 keV

	1-H-2	3-Li-6 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (He3 production)	3-Li-6 MT102 (p, γ) >>



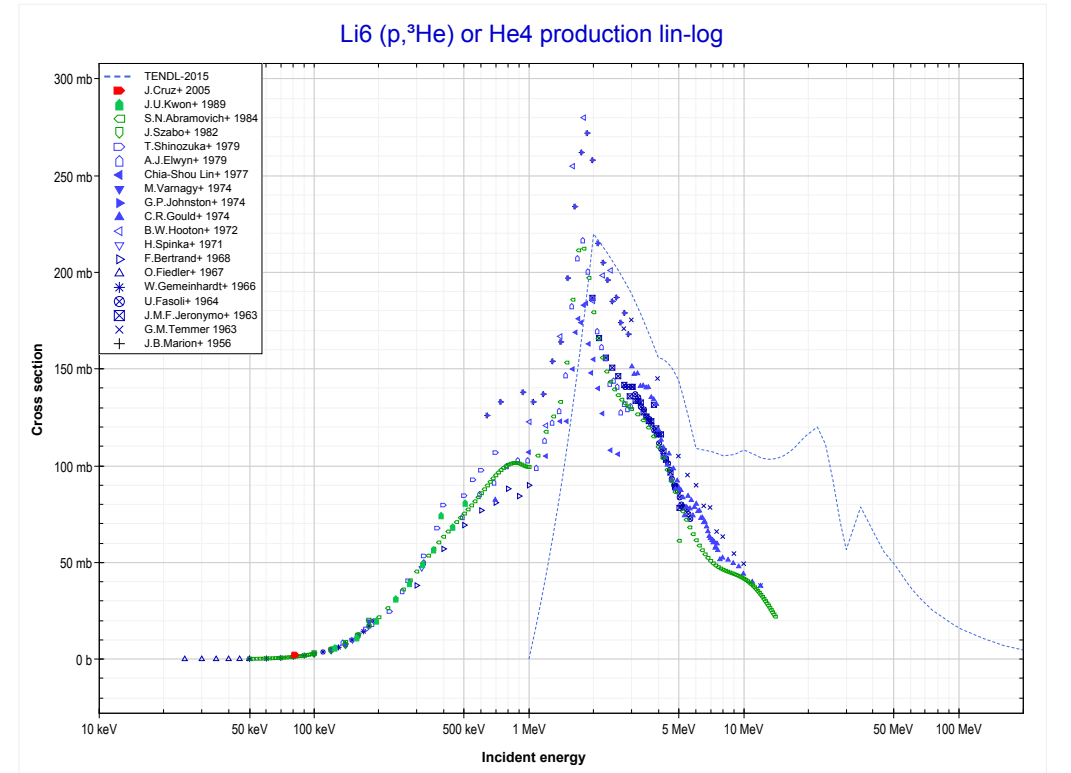
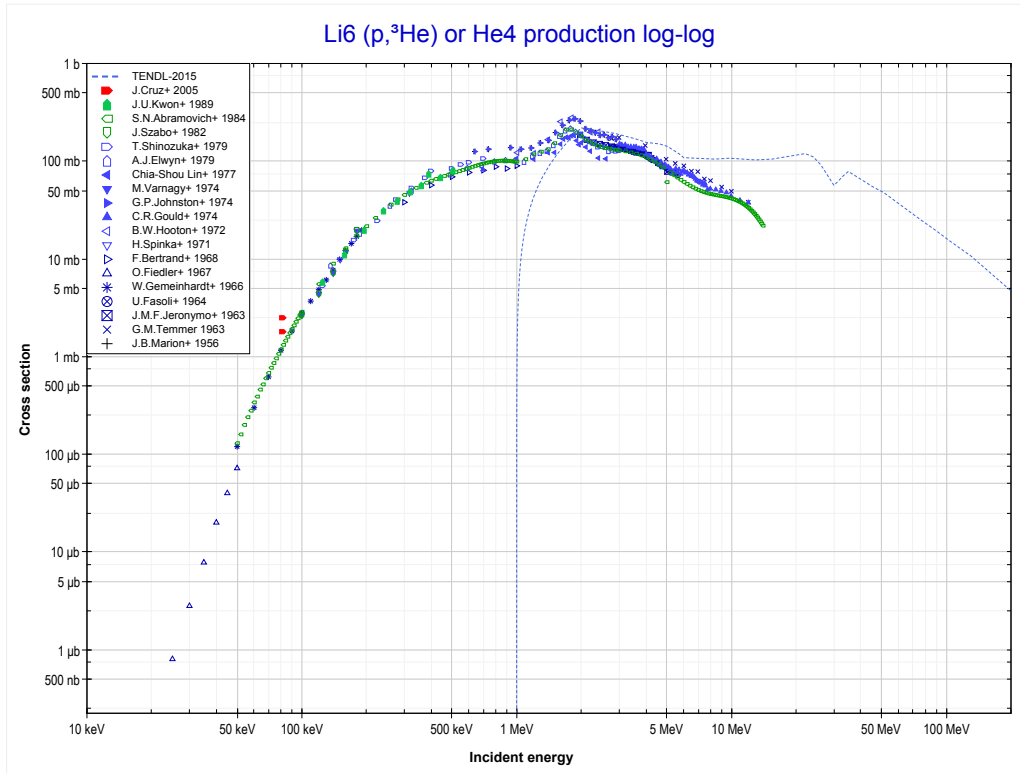
Reaction	Q-Value
H2(p, γ)He3	5493.48 keV

<< 1-H-2	3-Li-6	3-Li-7 >>
<< 1-H-2 MT102 (p, γ)	MT102 (p,γ) or MT5 (Be7 production)	MT106 (p, ^3He) >>



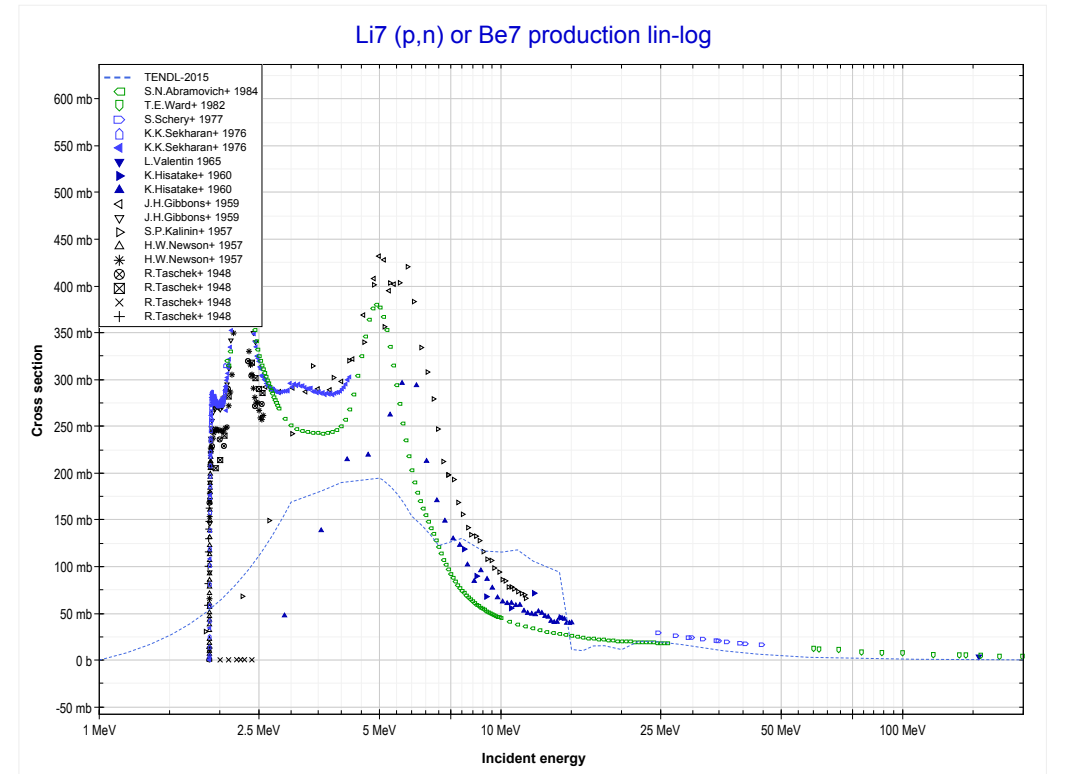
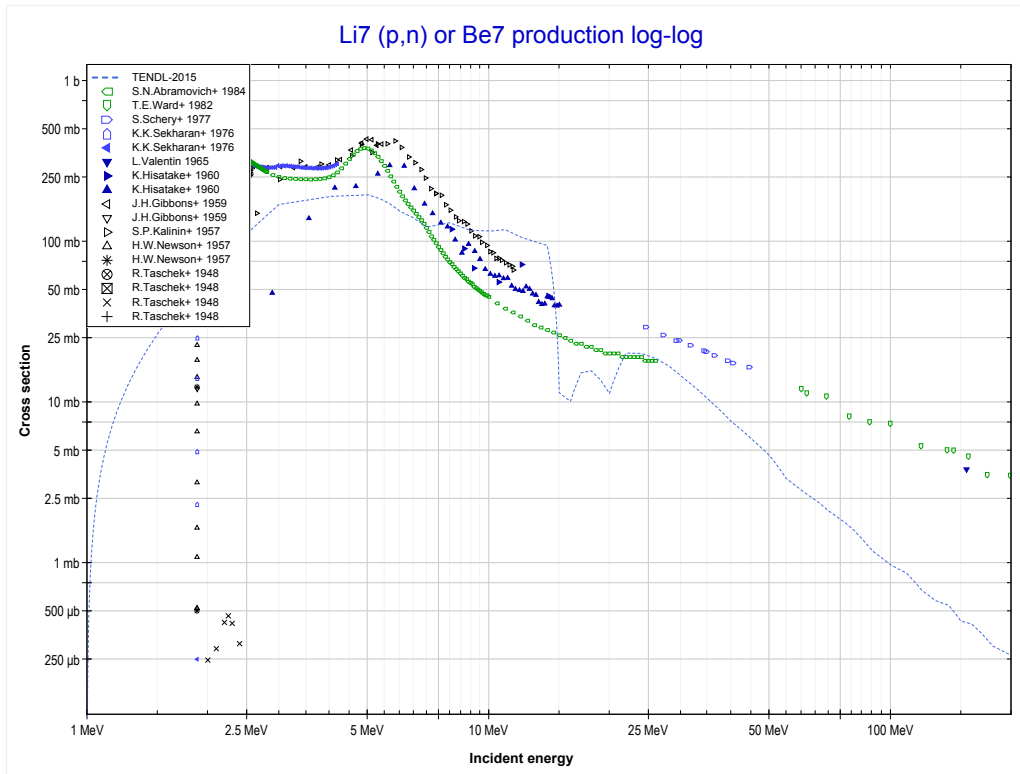
Reaction	Q-Value
Li6(p, γ)Be7	5606.85 keV

	3-Li-6	20-Ca-40 >>
<< MT102 (p, γ)	MT106 (p,^3He) or MT5 (He4 production)	3-Li-7 MT4 (p,n) >>



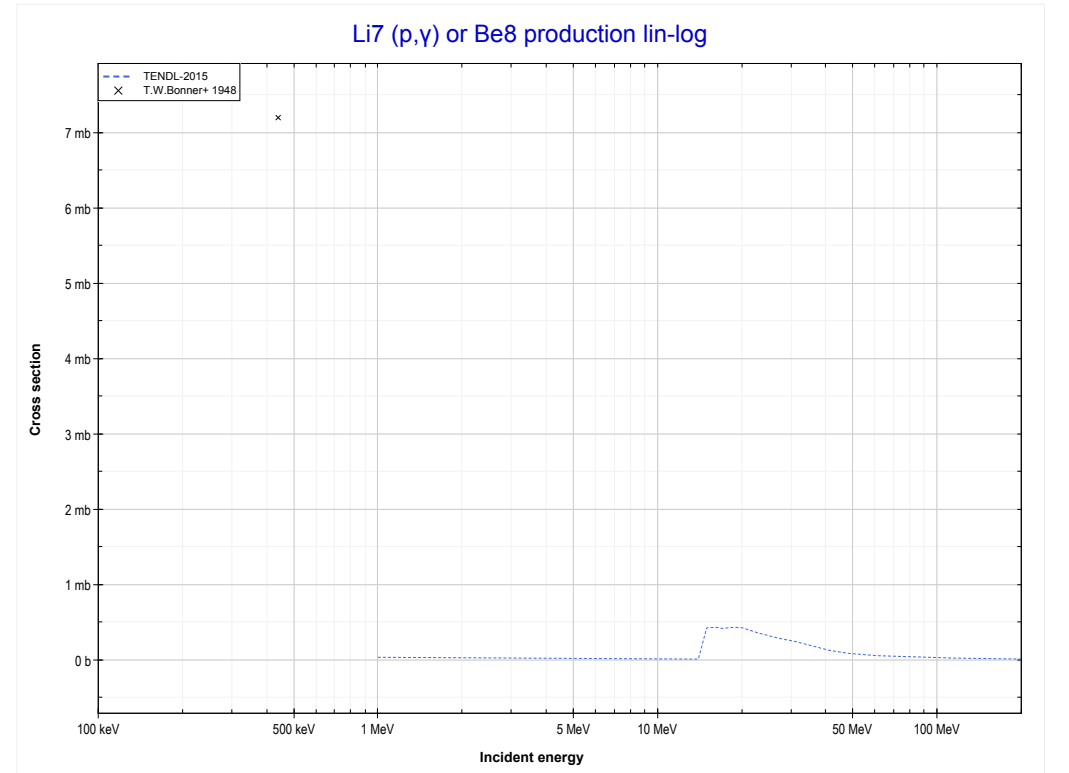
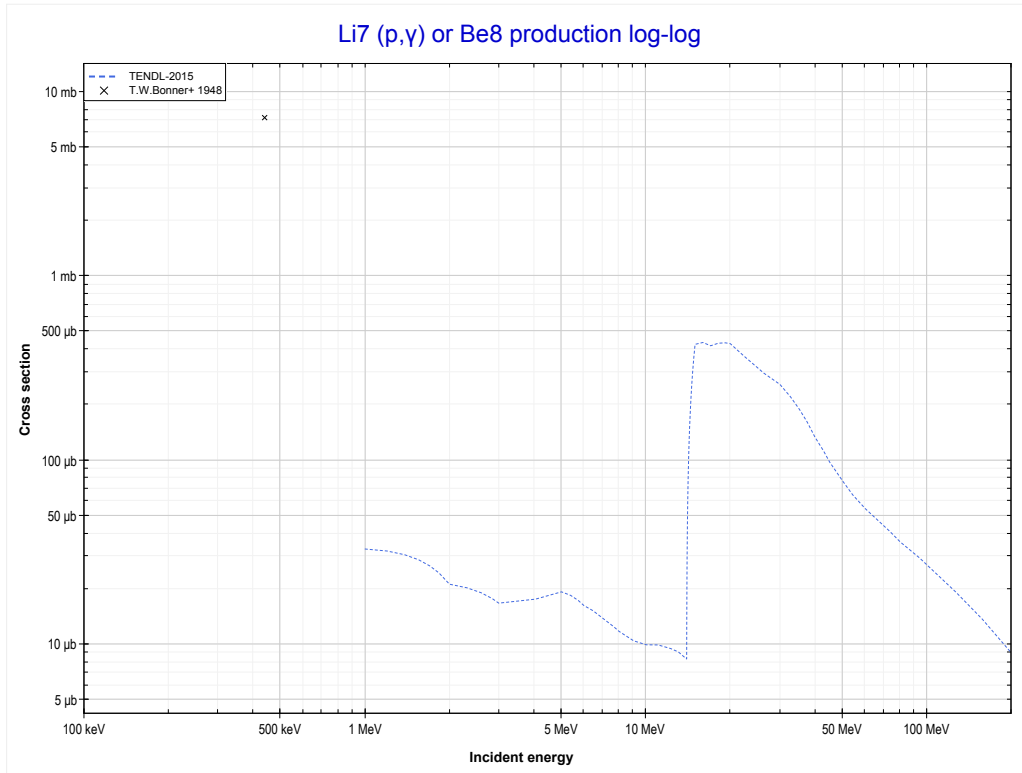
Reaction	Q-Value
Li6(p,He3)He4	4019.72 keV
Li6(p,p+d)He4	-1473.76 keV
Li6(p,n+2p)He4	-3698.32 keV

	3-Li-7	4-Be-9 >>
<< 3-Li-6 MT106 (p, ³ He)	MT4 (p,n) or MT5 (Be7 production)	MT102 (p, γ) >>



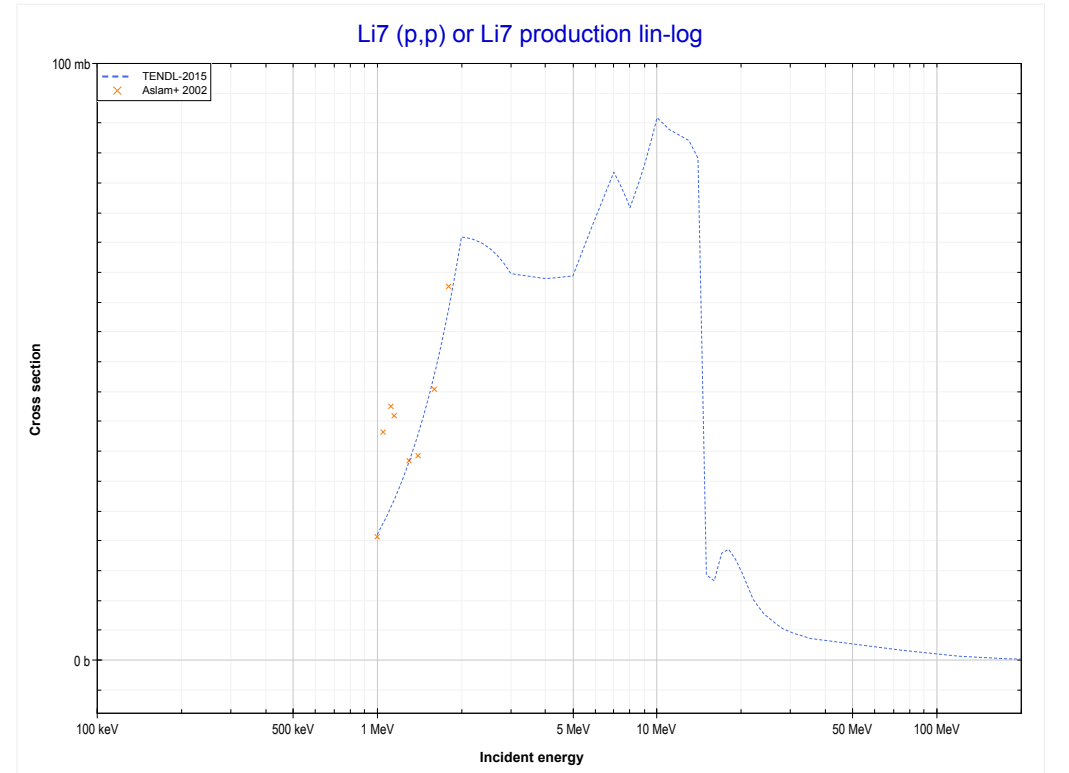
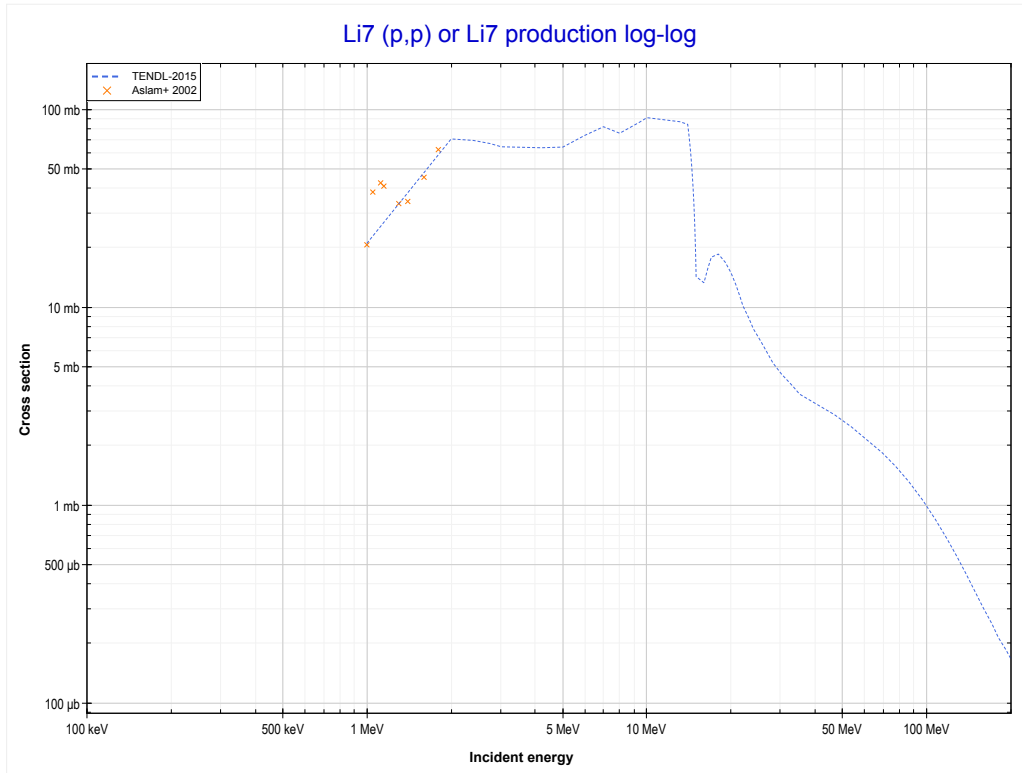
Reaction	Q-Value
Li7(p,n)Be7	-1644.24 keV

<< 3-Li-6	3-Li-7	4-Be-7 >>
<< MT4 (p,n)	MT102 (p,γ) or MT5 (Be8 production)	MT103 (p,p) >>



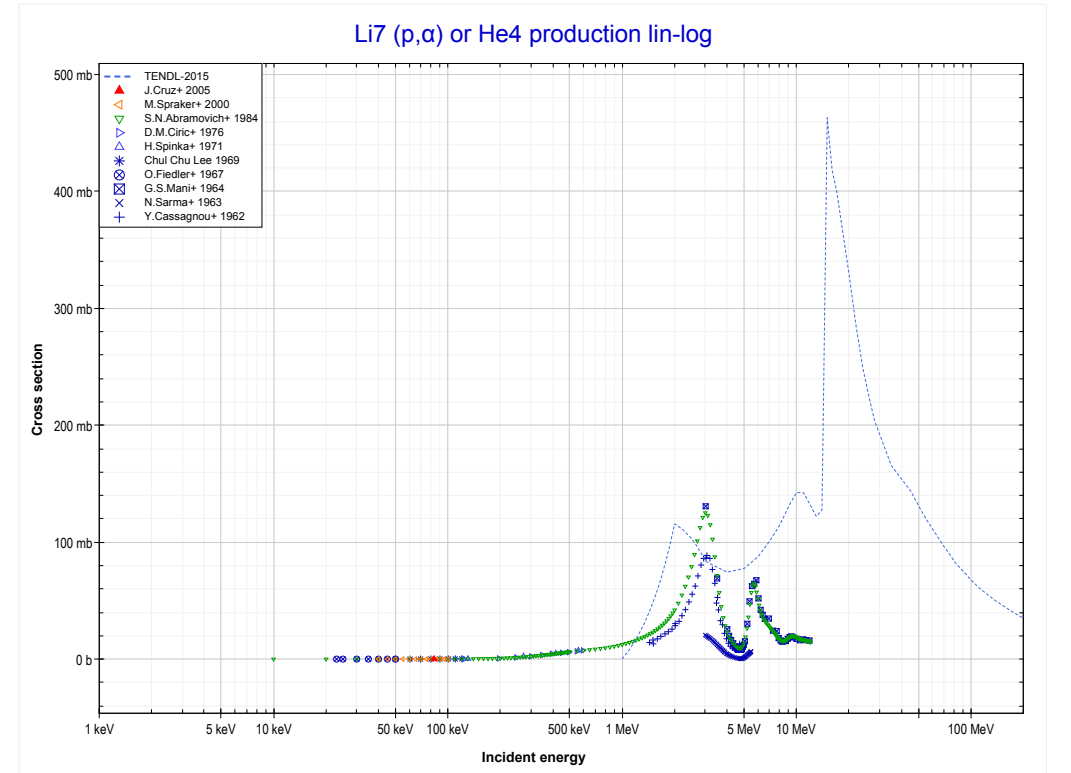
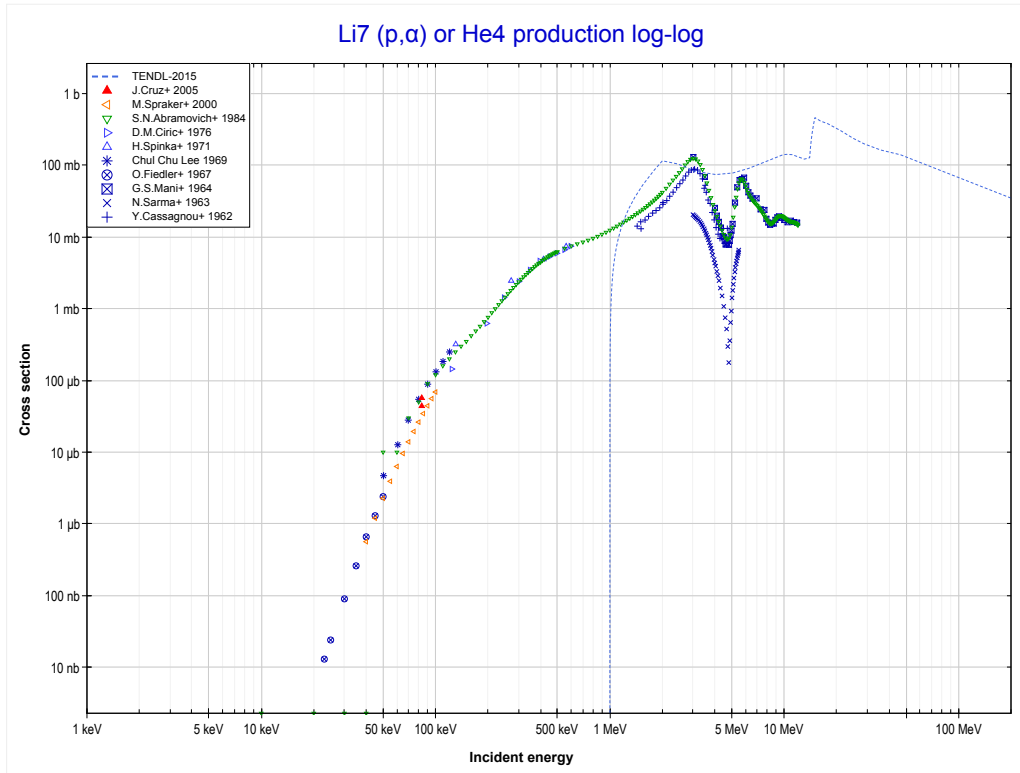
Reaction	Q-Value
Li7(p, γ)Be8	17254.41 keV

<< 1-H-1	3-Li-7	4-Be-9 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (Li7 production)	MT107 (p, α) >>



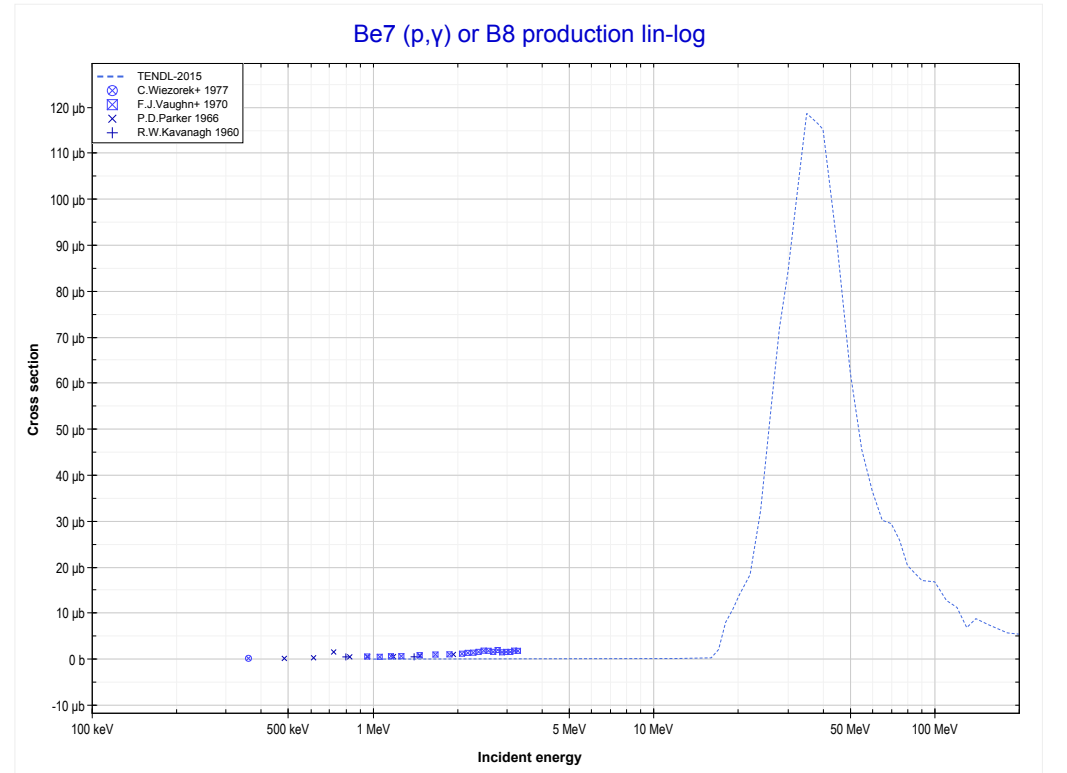
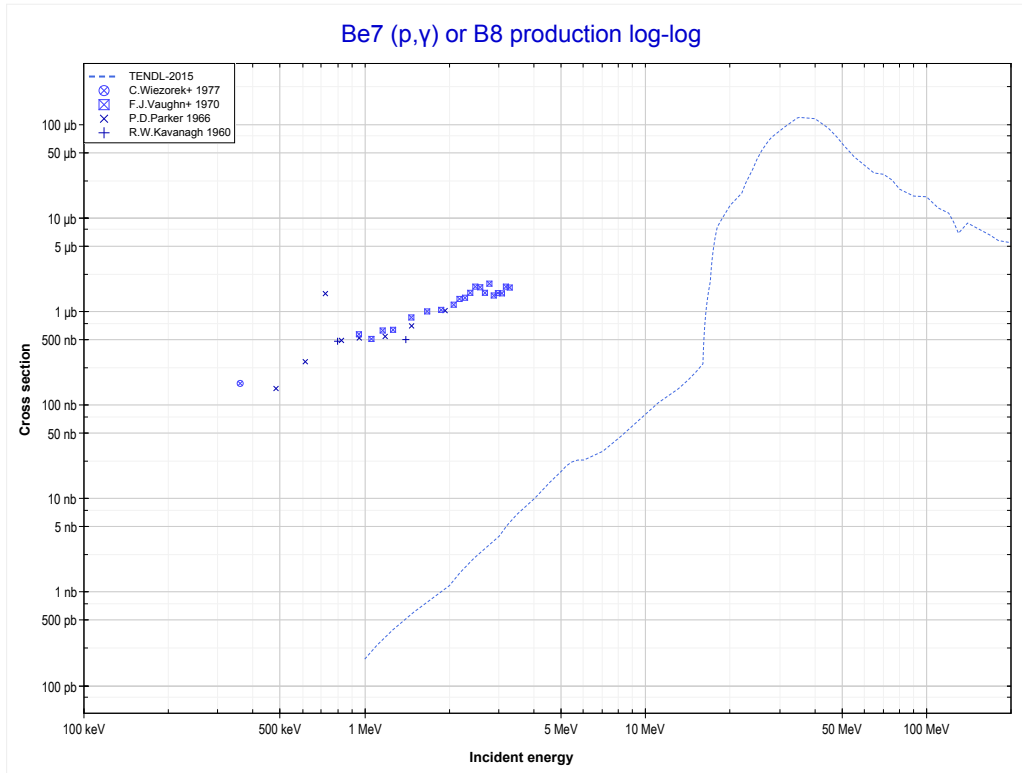
Reaction	Q-Value
Li7(p,p)Li7	0.00 keV

	3-Li-7	4-Be-9 >>
<< MT103 (p,p)	MT107 (p,α) or MT5 (He4 production)	4-Be-7 MT102 (p, γ) >>



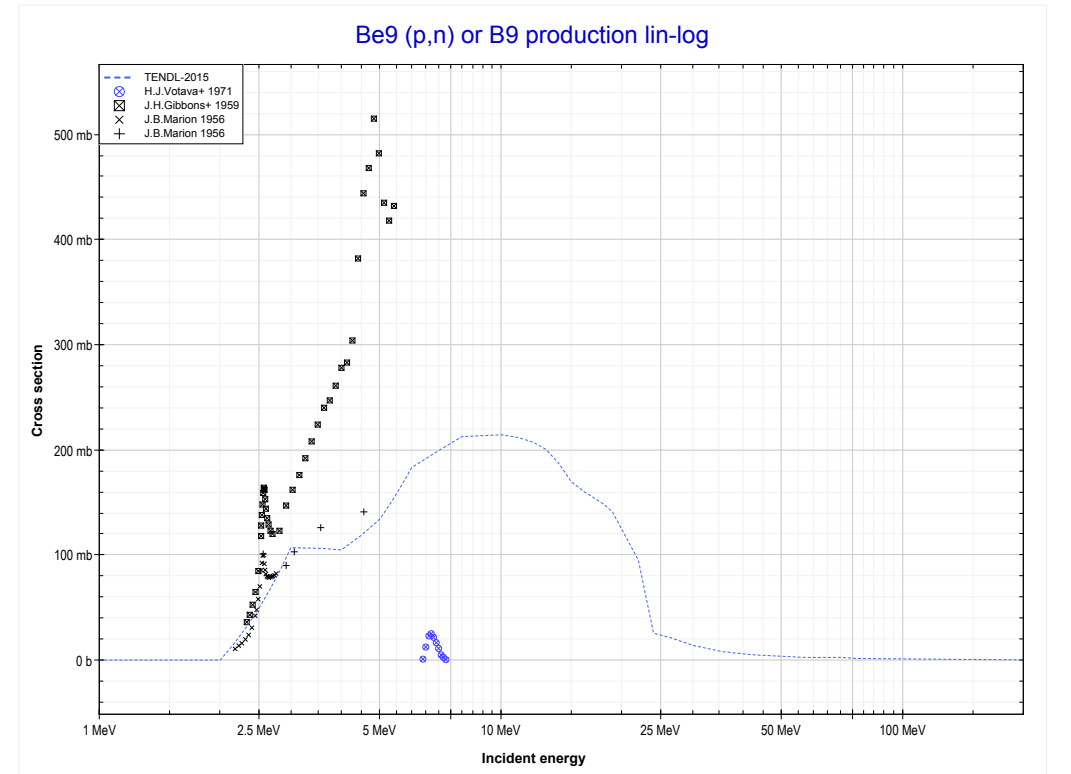
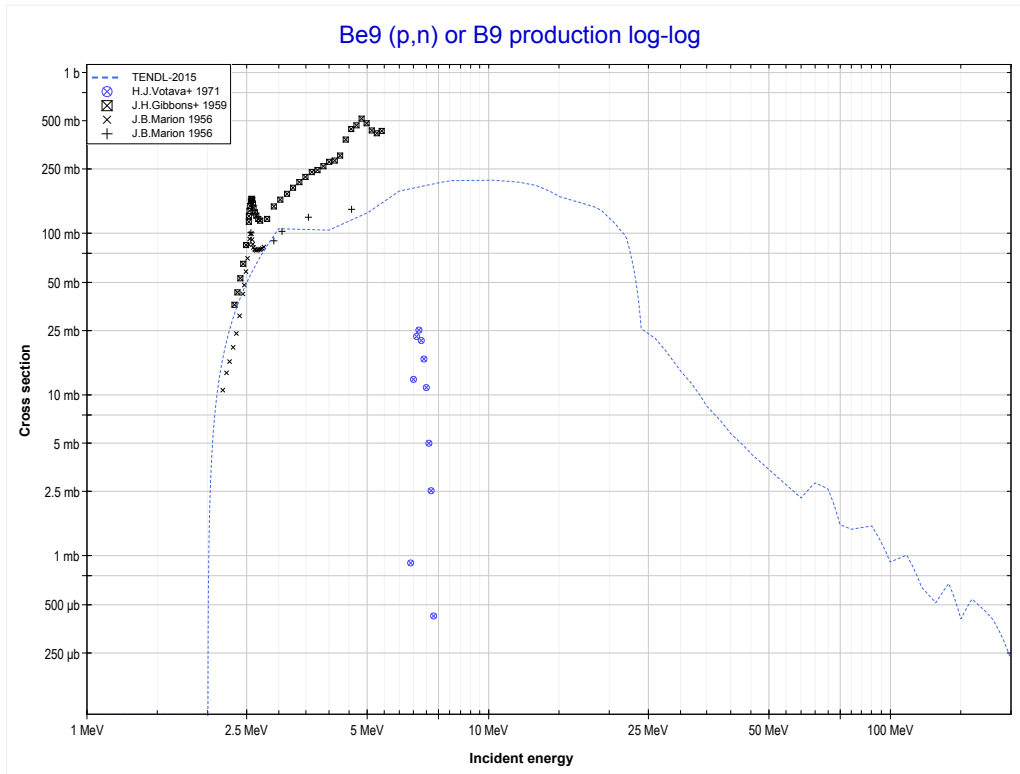
Reaction	Q-Value
Li7(p, α)He4	17346.24 keV
Li7(p,p+t)He4	-2467.62 keV
Li7(p,n+He3)He4	-3231.37 keV
Li7(p,2d)He4	-6500.28 keV
Li7(p,n+p+d)He4	-8724.85 keV
Li7(p,2n+2p)He4	-10949.42 keV

<< 3-Li-7	4-Be-7	4-Be-9 >>
<< 3-Li-7 MT107 (p, α)	MT102 (p,γ) or MT5 (B8 production)	4-Be-9 MT4 (p,n) >>



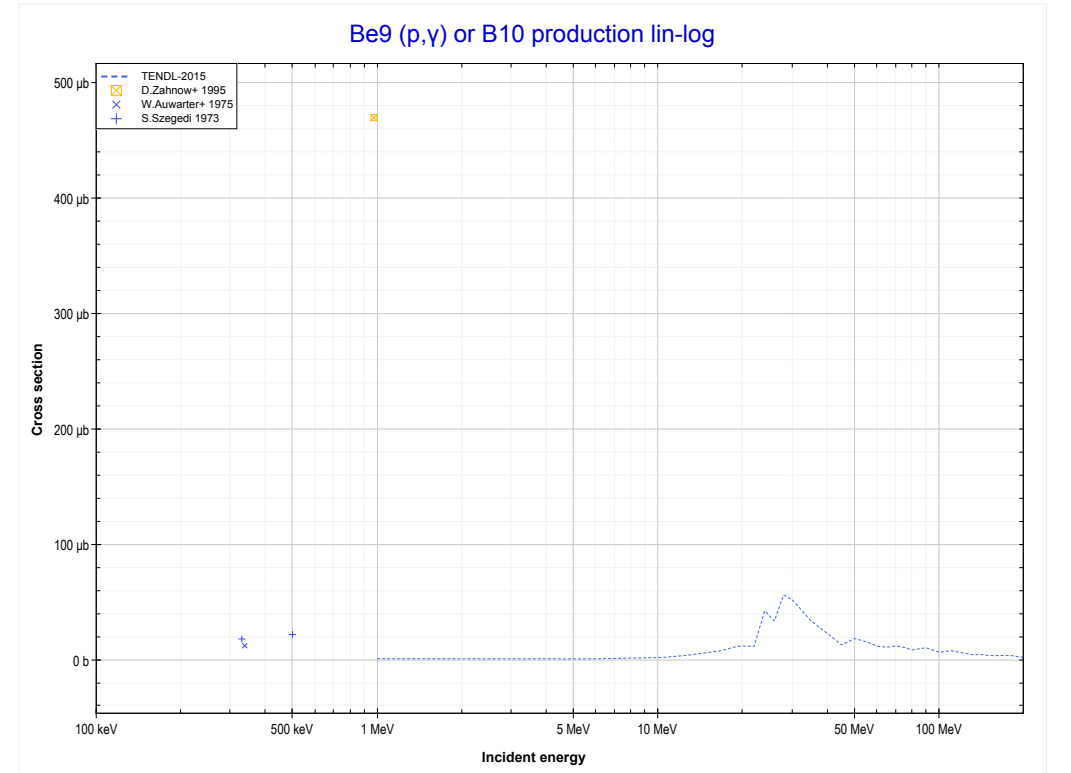
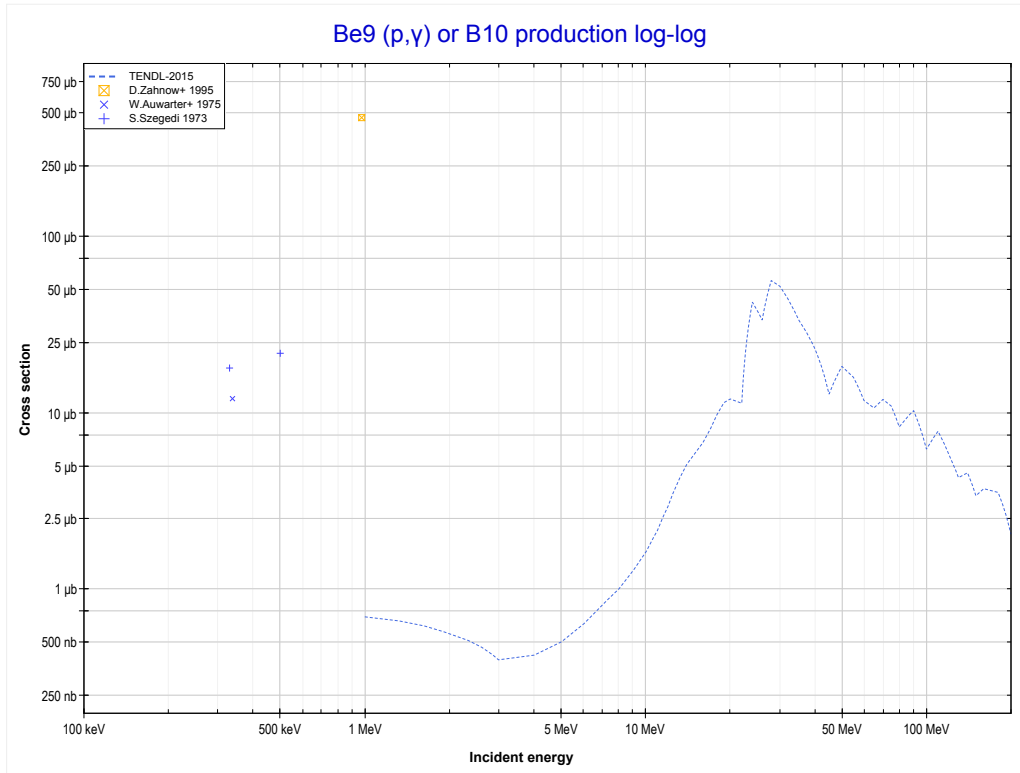
Reaction	Q-Value
Be7(p, γ)B8	136.37 keV

<< 3-Li-7	4-Be-9	4-Be-10 >>
<< 4-Be-7 MT102 (p, γ)	MT4 (p,n) or MT5 (B9 production)	MT102 (p, γ) >>



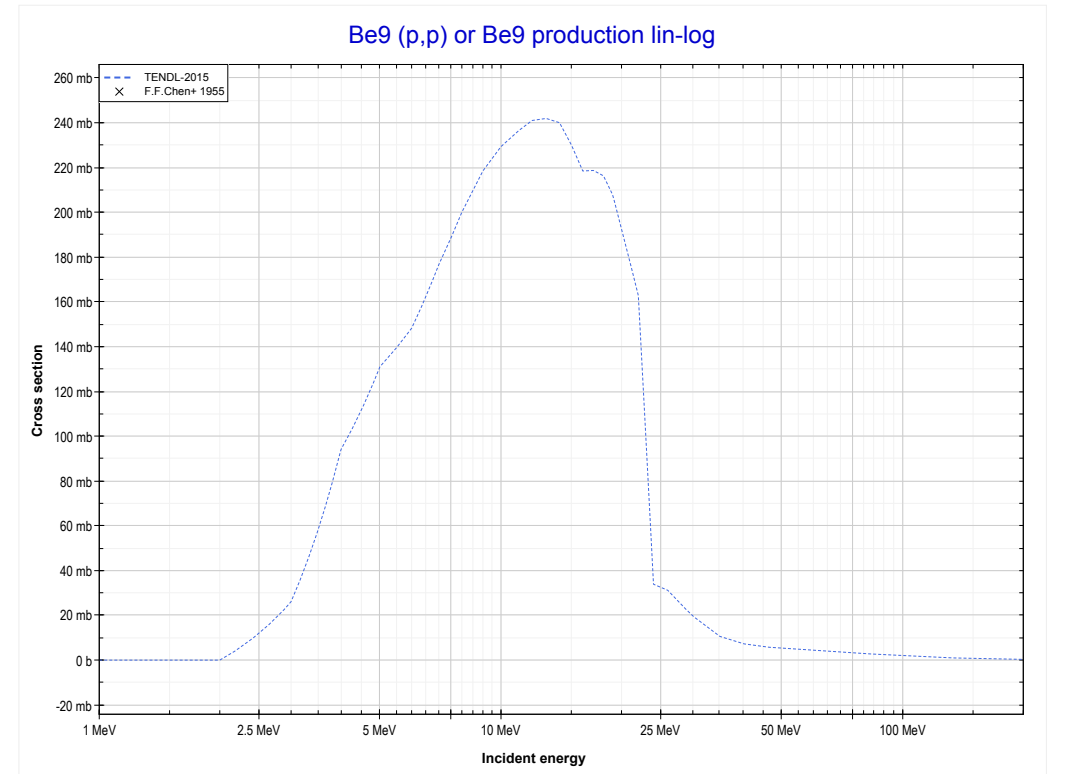
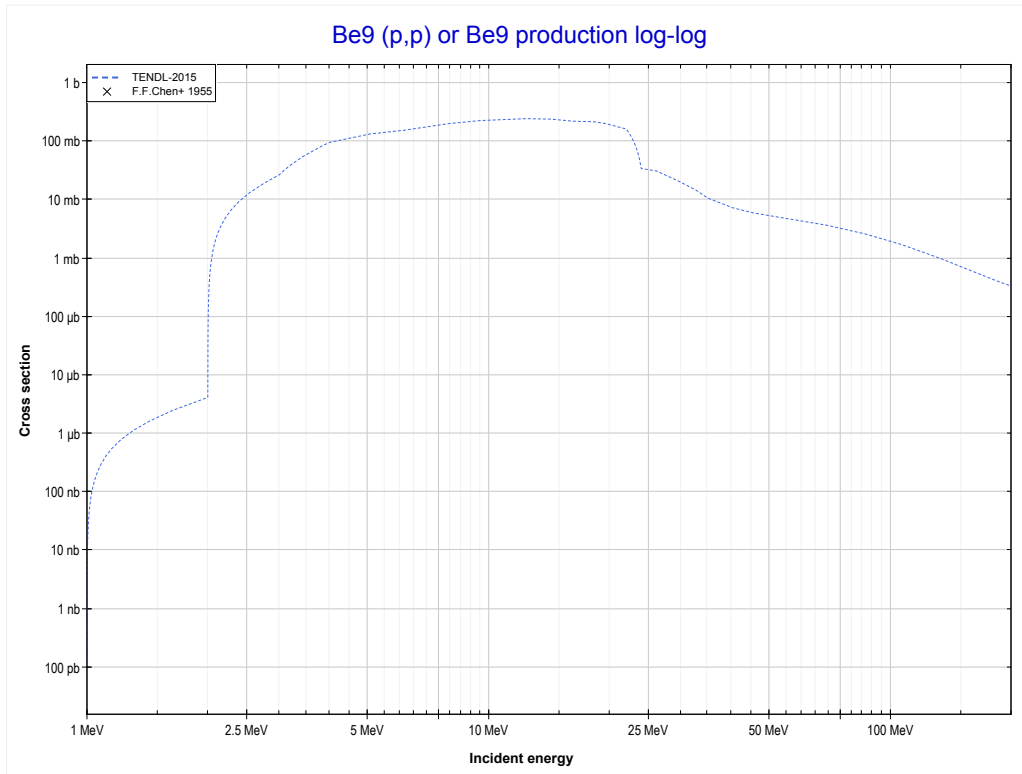
Reaction	Q-Value
Be9(p,n)B9	-1850.40 keV

<< 4-Be-7	4-Be-9	5-B-11 >>
<< MT4 (p,n)	MT102 (p,γ) or MT5 (B10 production)	MT103 (p,p) >>



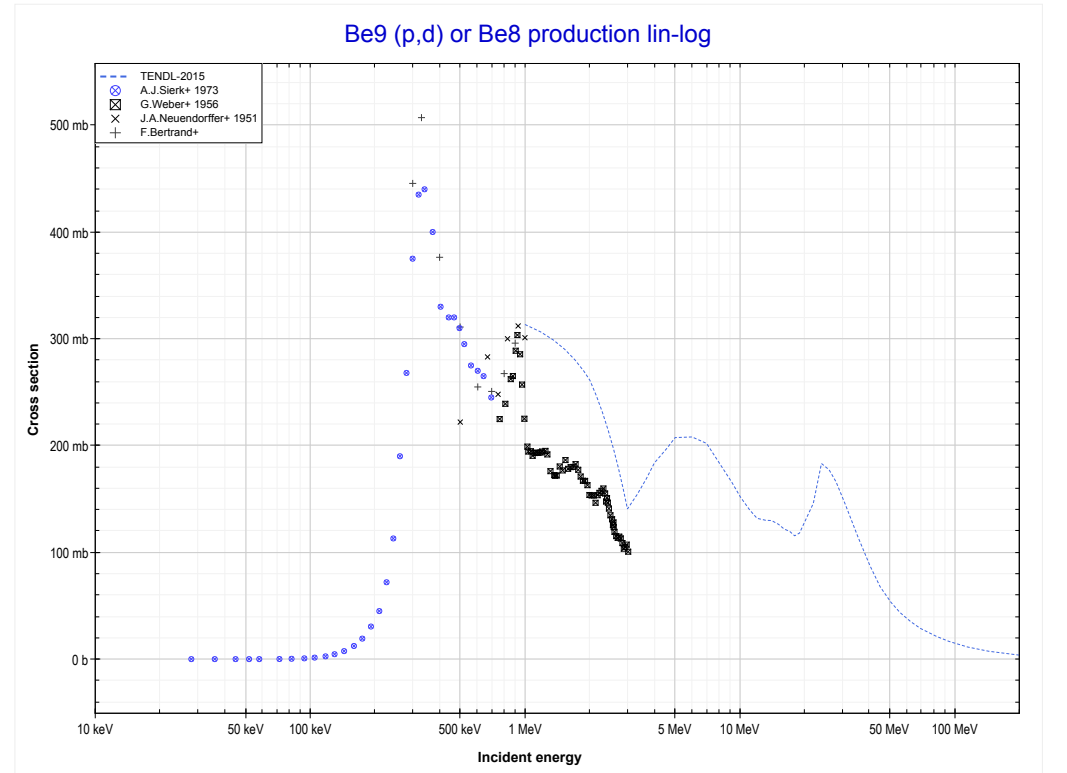
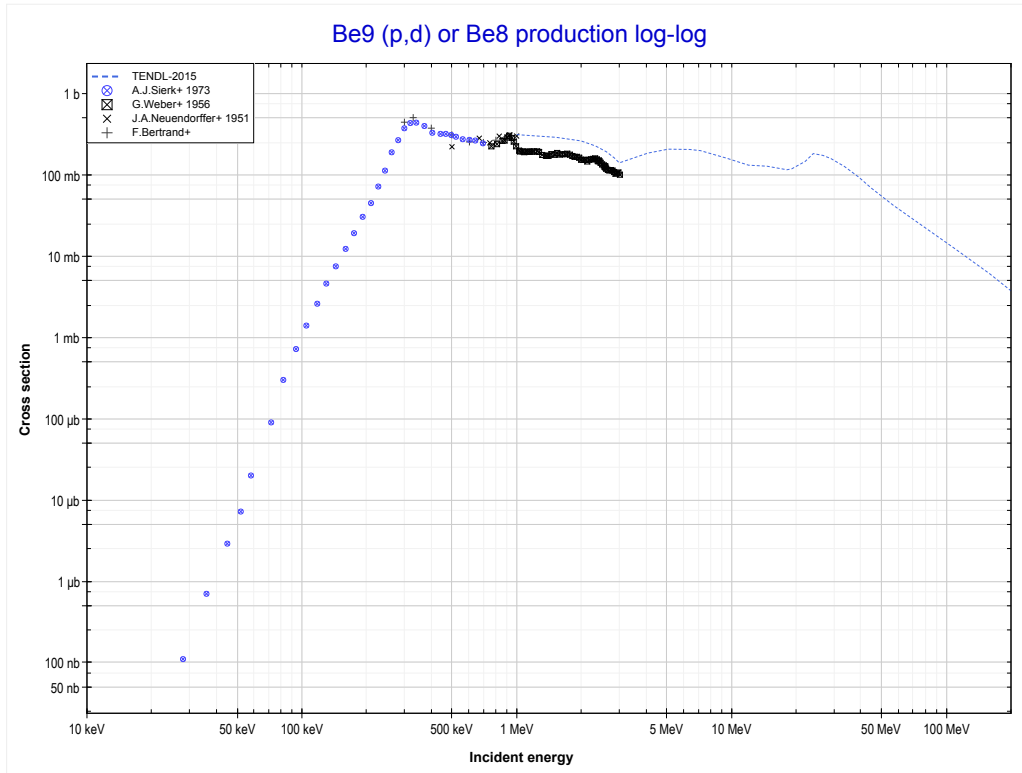
Reaction	Q-Value
Be9(p, γ)B10	6586.72 keV

<< 3-Li-7	4-Be-9	8-O-16 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (Be9 production)	MT104 (p,d) >>



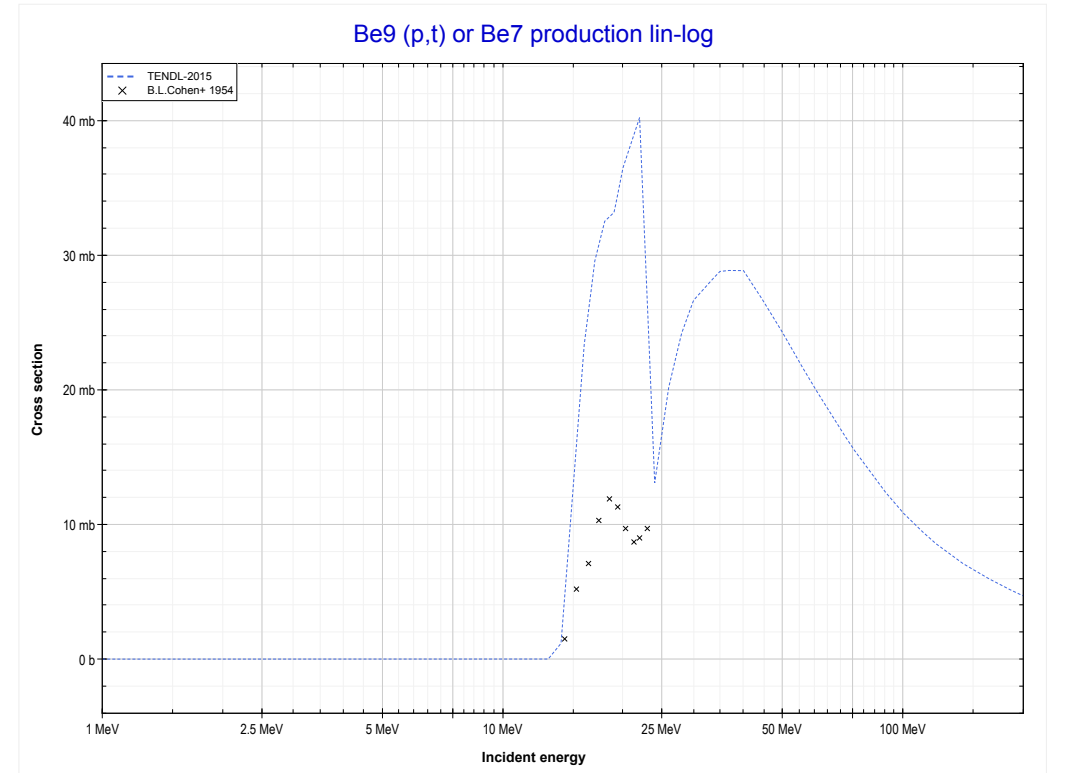
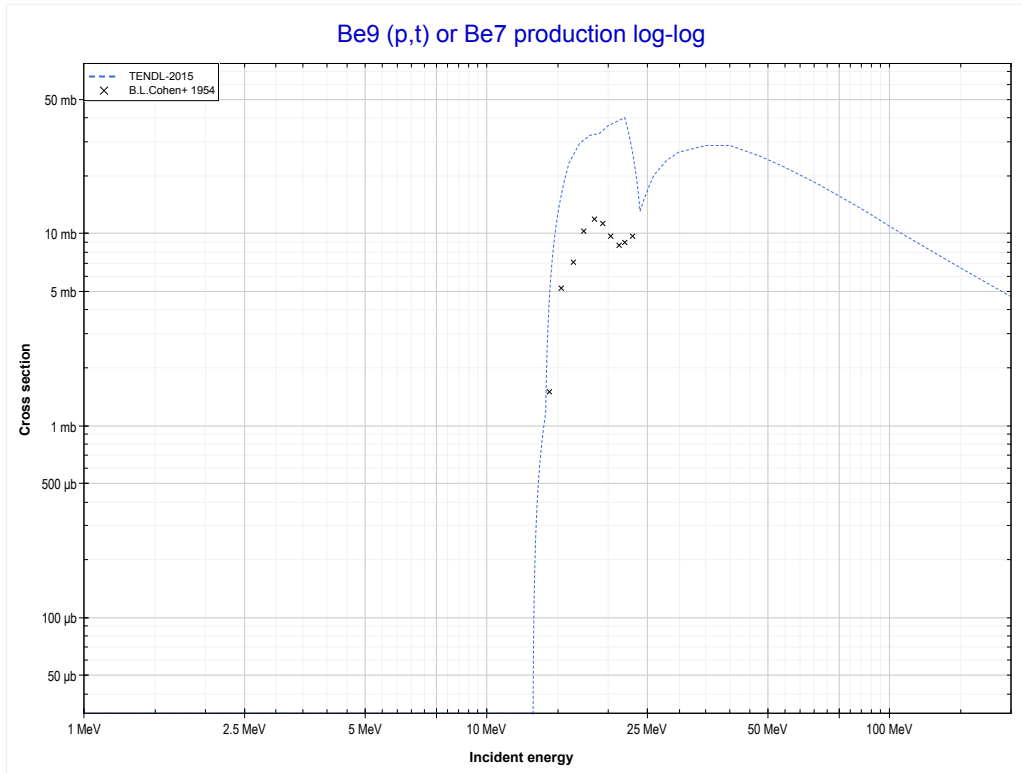
Reaction	Q-Value
Be9(p,p)Be9	0.00 keV

	4-Be-9	60-Nd-142 >>
<< MT103 (p,p)	MT104 (p,d) or MT5 (Be8 production)	MT105 (p,t) >>



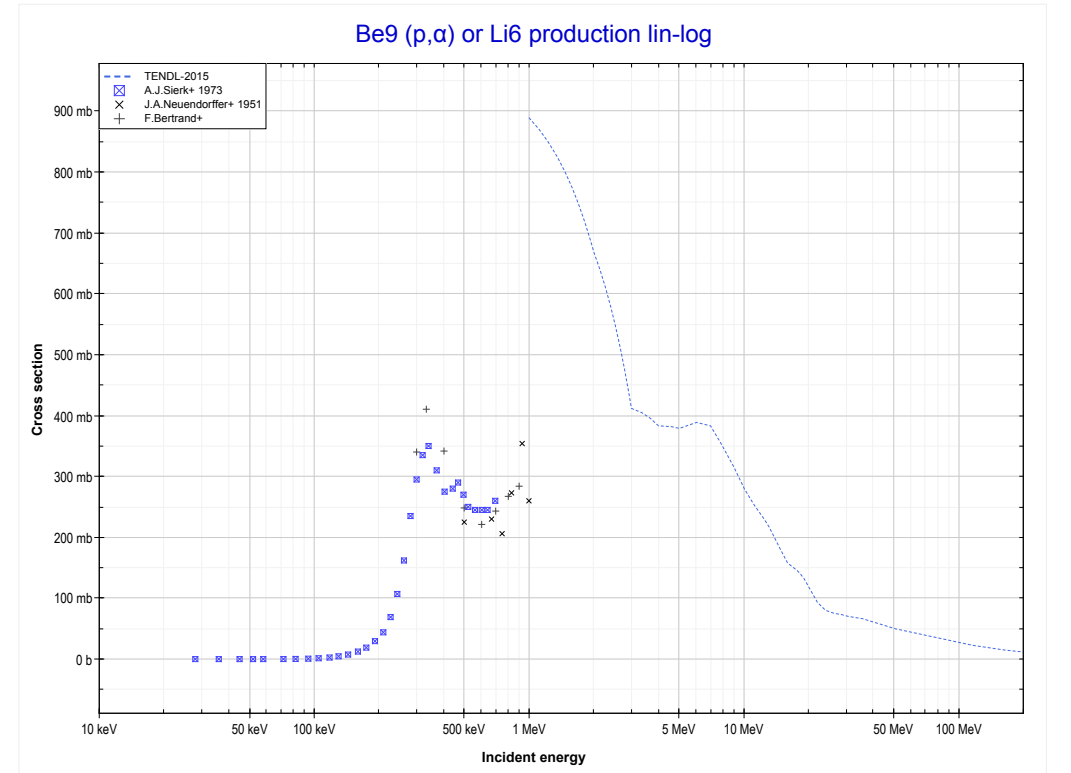
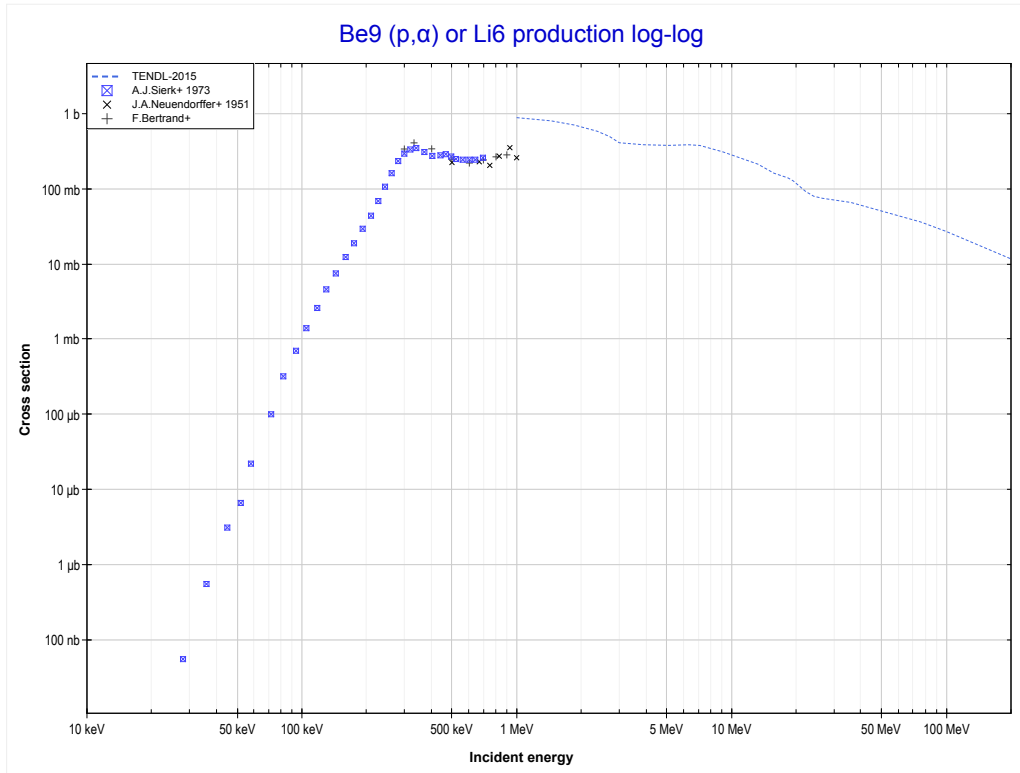
Reaction	Q-Value
Be9(p,d)Be8	560.03 keV
Be9(p,n+p)Be8	-1664.54 keV

	4-Be-9	26-Fe-54 >>
<< MT104 (p,d)	MT105 (p,t) or MT5 (Be7 production)	MT107 (p,α) >>



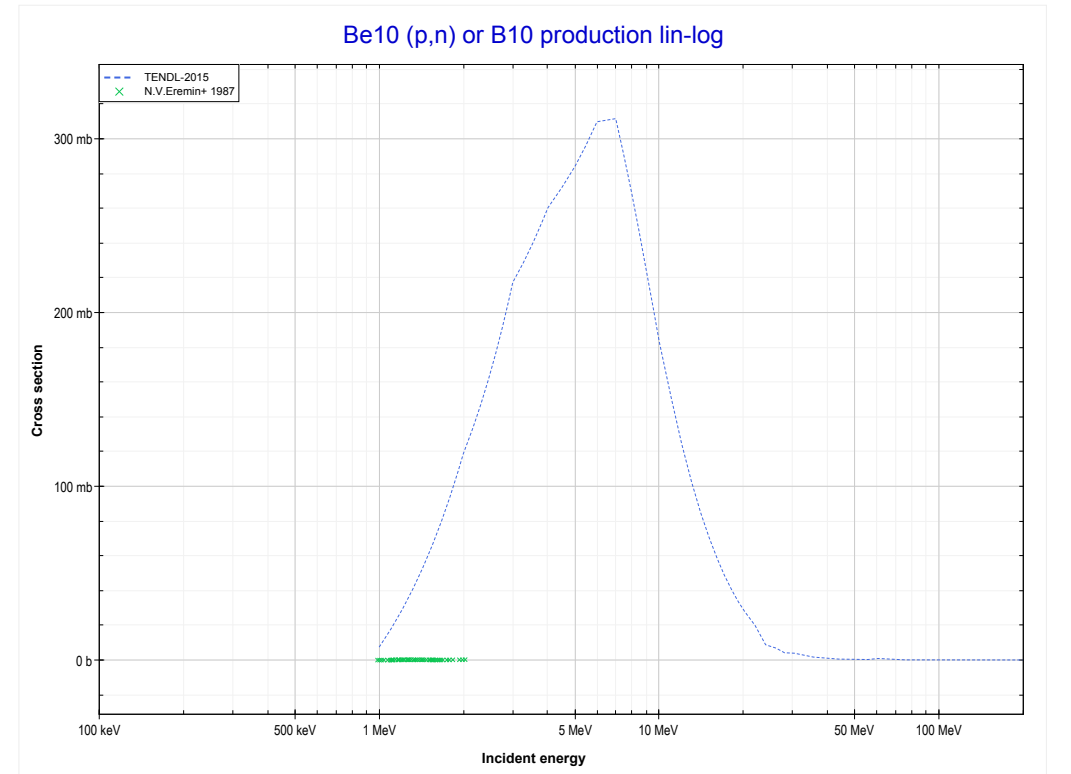
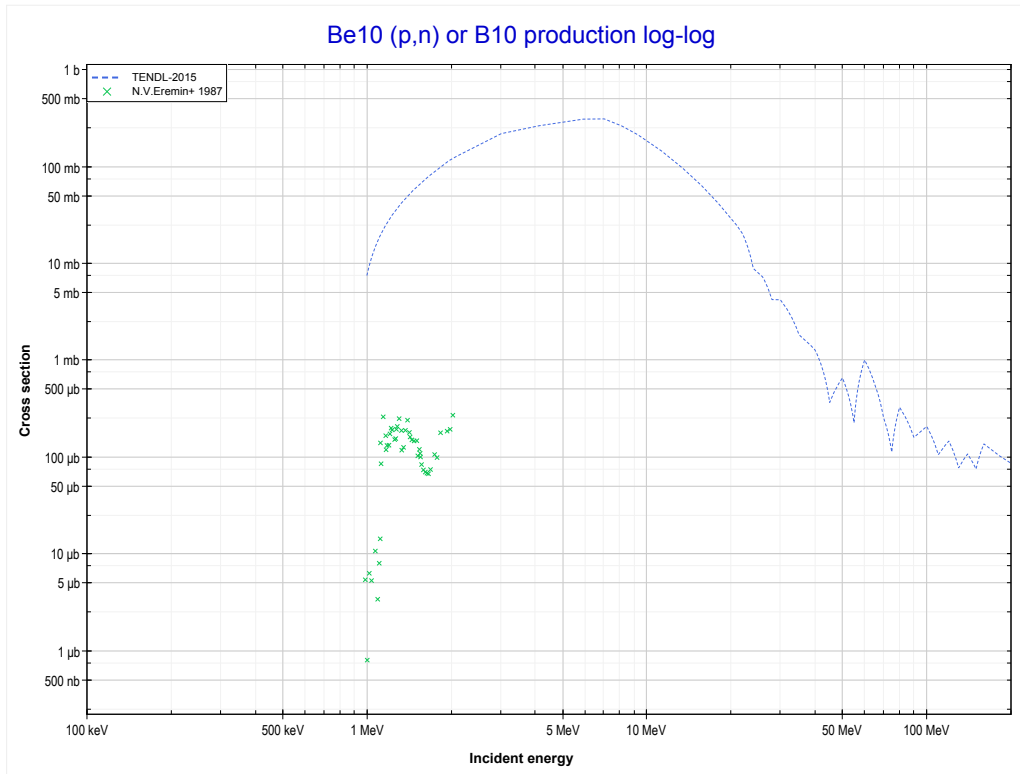
Reaction	Q-Value
Be9(p,t)Be7	-12081.39 keV
Be9(p,n+d)Be7	-18338.62 keV
Be9(p,2n+p)Be7	-20563.18 keV

<< 3-Li-7	4-Be-9	5-B-10 >>
<< MT105 (p,t)	MT107 (p,α) or MT5 (Li6 production)	4-Be-10 MT4 (p,n) >>



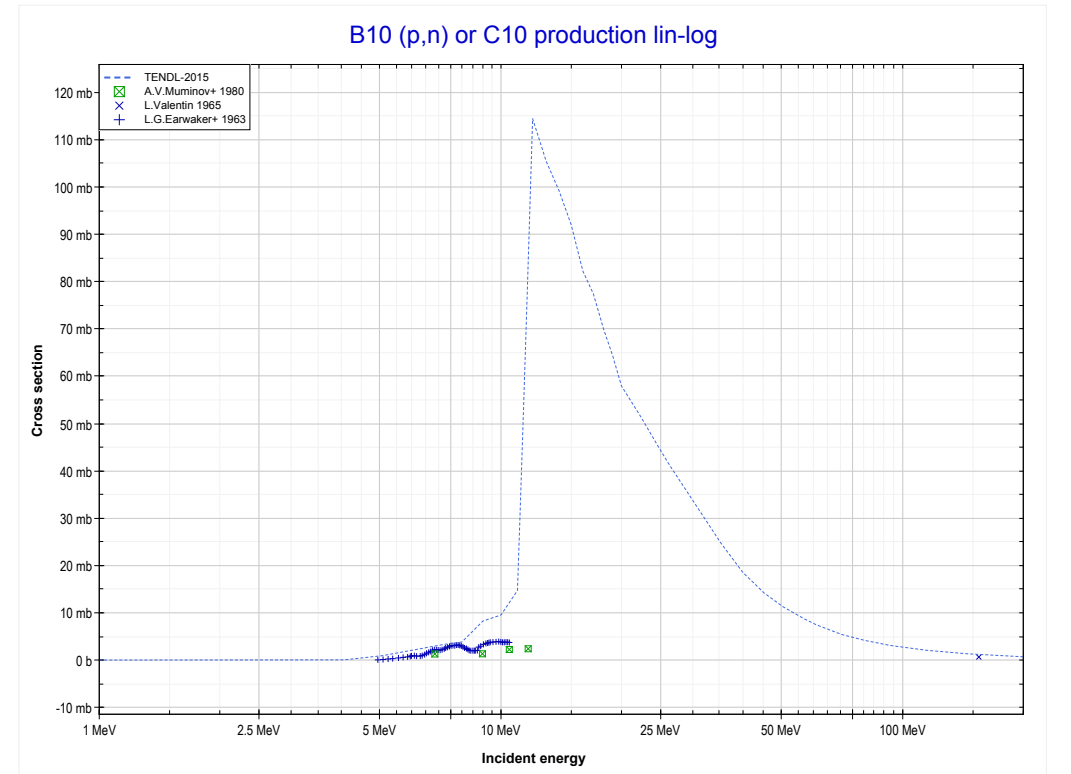
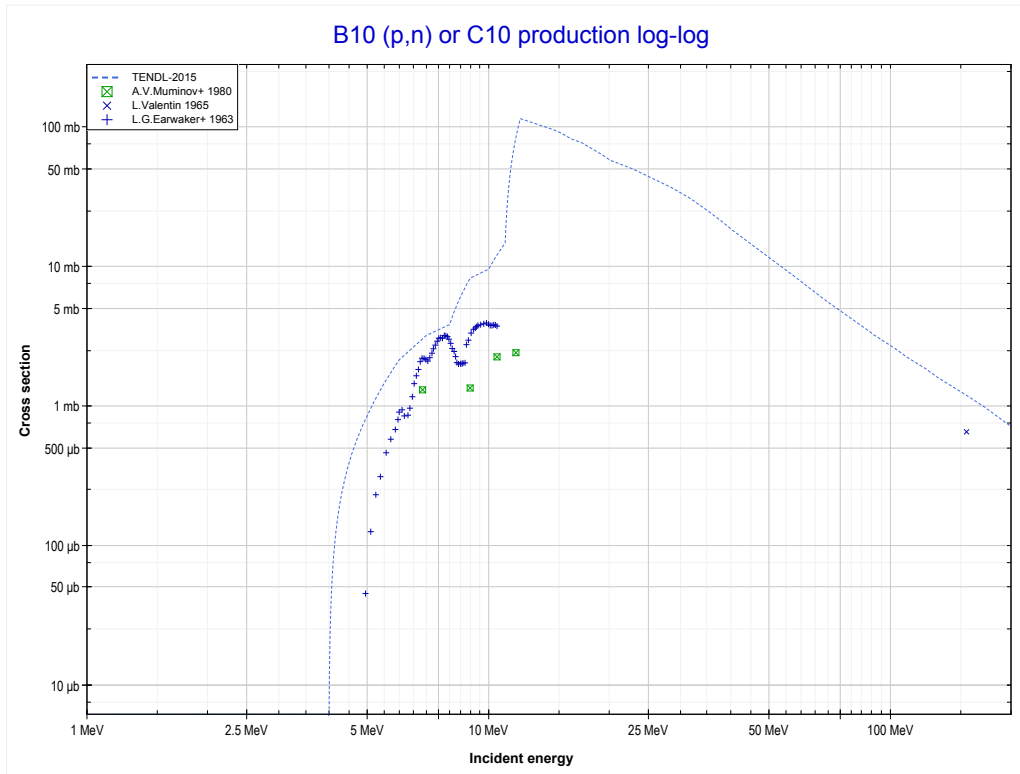
Reaction	Q-Value
Be9(p, α)Li6	2125.63 keV
Be9(p,p+t)Li6	-17688.24 keV
Be9(p,n+He3)Li6	-18451.99 keV
Be9(p,2d)Li6	-21720.90 keV
Be9(p,n+p+d)Li6	-23945.47 keV
Be9(p,2n+2p)Li6	-26170.03 keV

<< 4-Be-9	4-Be-10	5-B-10 >>
<< 4-Be-9 MT107 (p, α)	MT4 (p,n) or MT5 (B10 production)	5-B-10 MT4 (p,n) >>



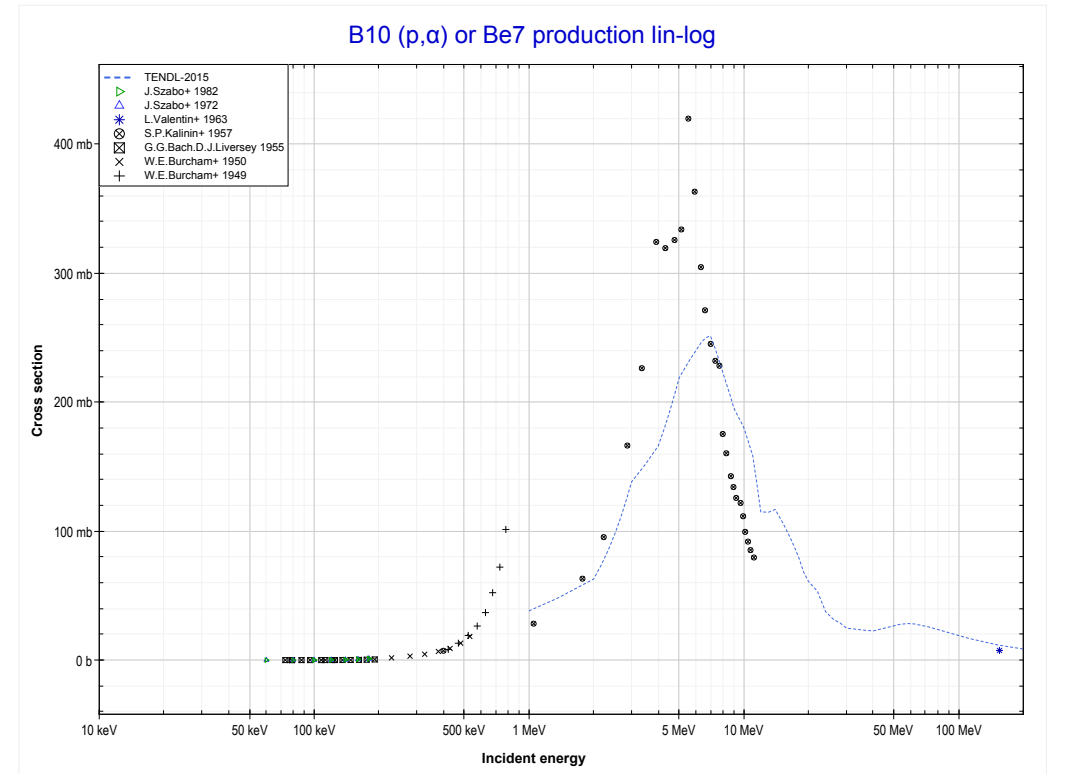
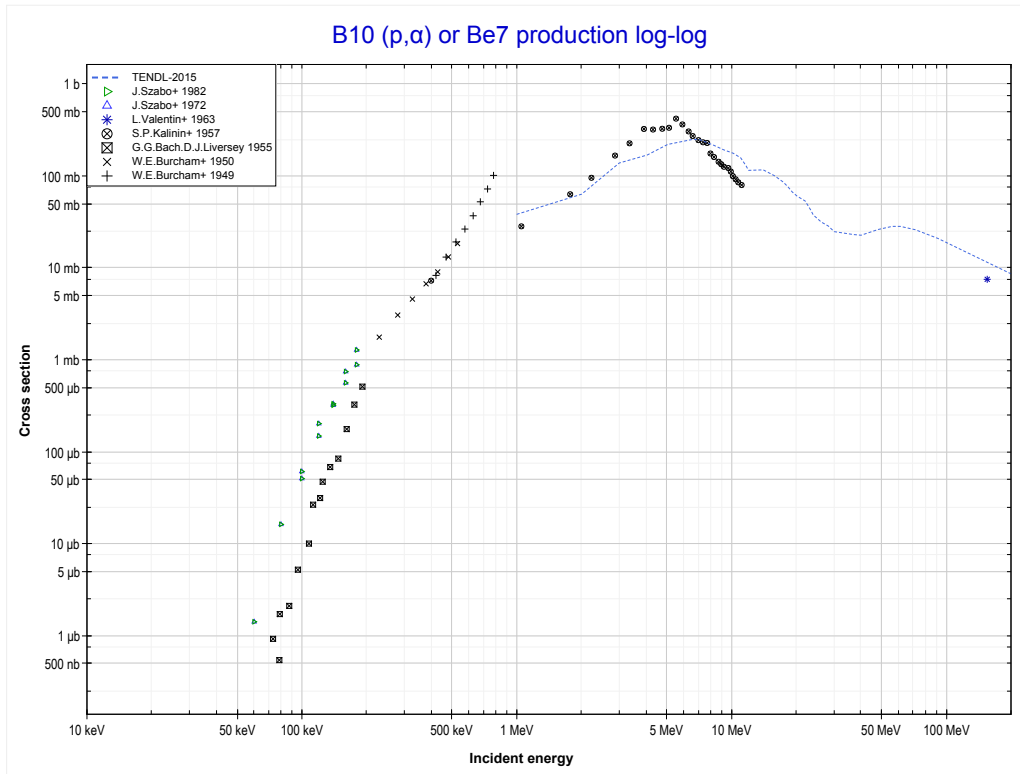
Reaction	Q-Value
Be10(p,n)B10	-225.56 keV

<< 4-Be-10	5-B-10	5-B-11 >>
<< 4-Be-10 MT4 (p,n)	MT4 (p,n) or MT5 (C10 production)	MT107 (p, α) >>



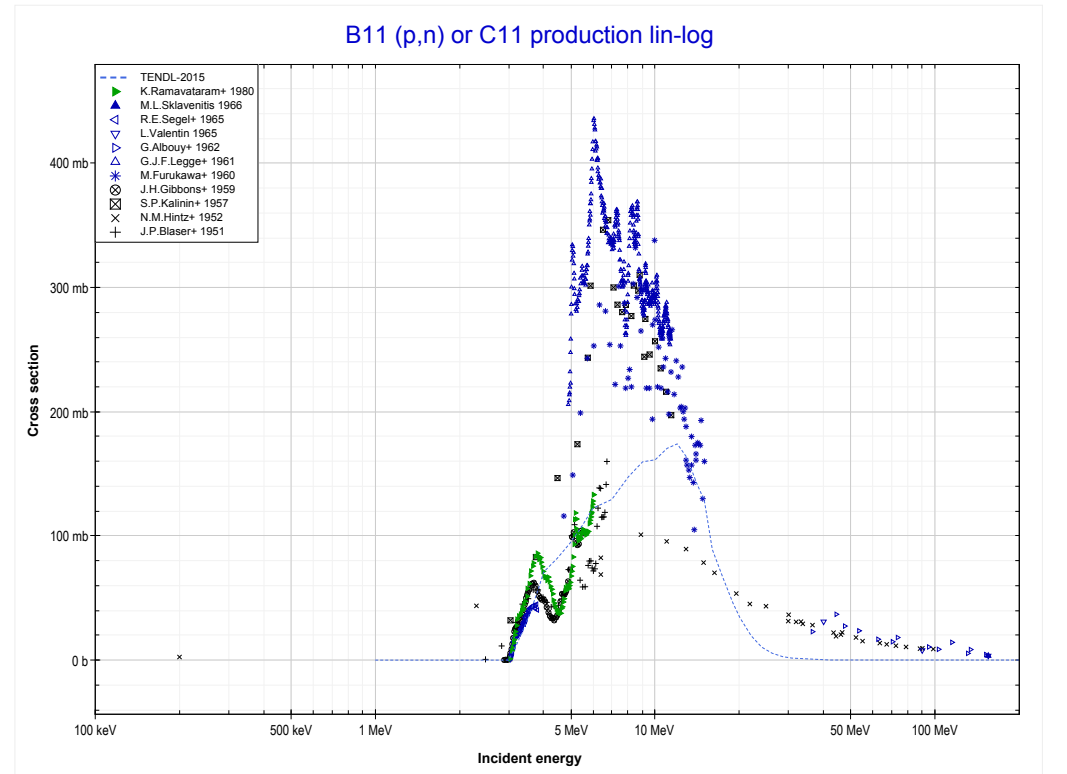
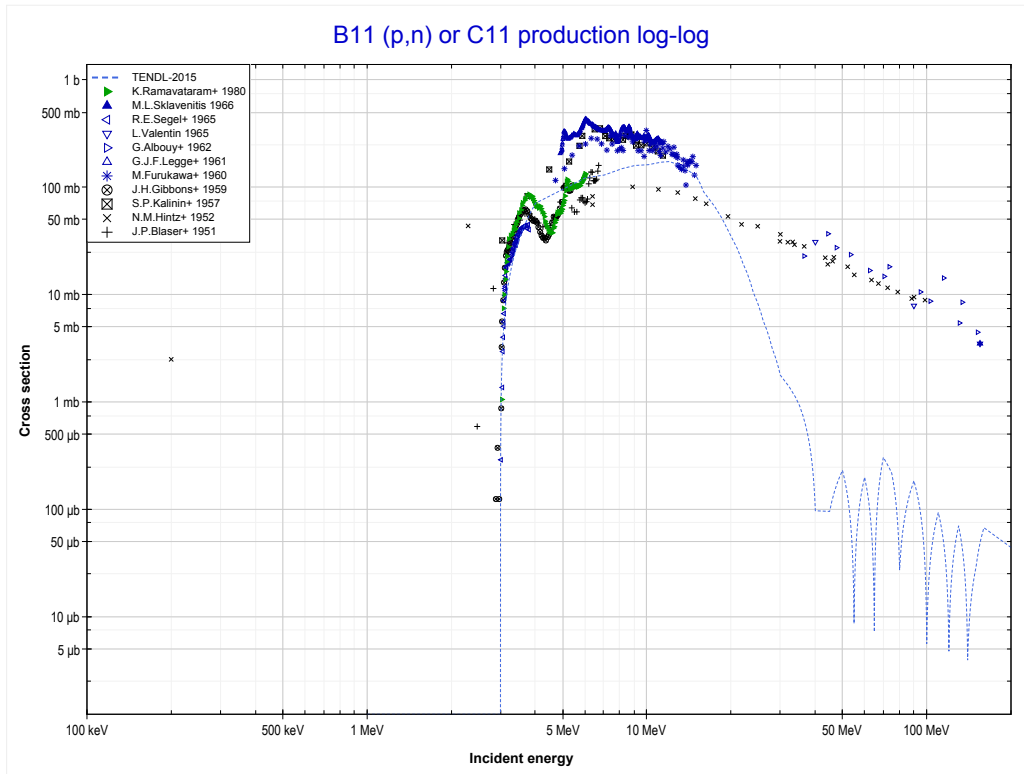
Reaction	Q-Value
B10(p,n)C10	-4430.45 keV

<< 4-Be-9	5-B-10	5-B-11 >>
<< MT4 (p,n)	MT107 (p,α) or MT5 (Be7 production)	5-B-11 MT4 (p,n) >>



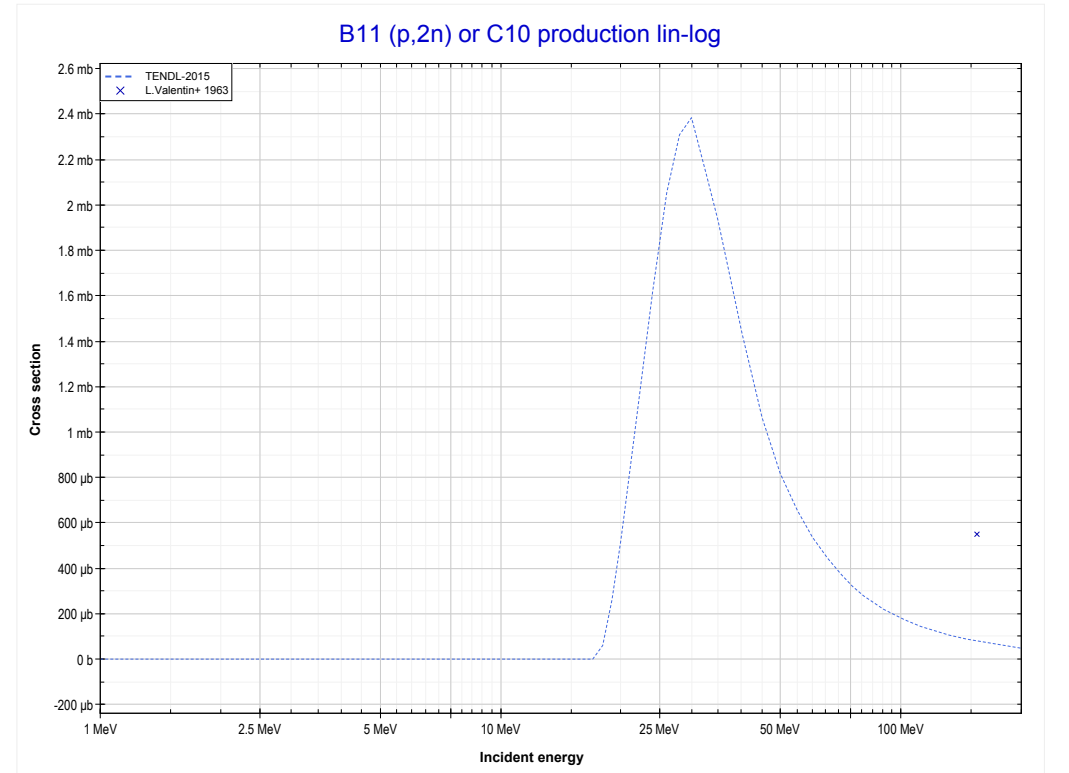
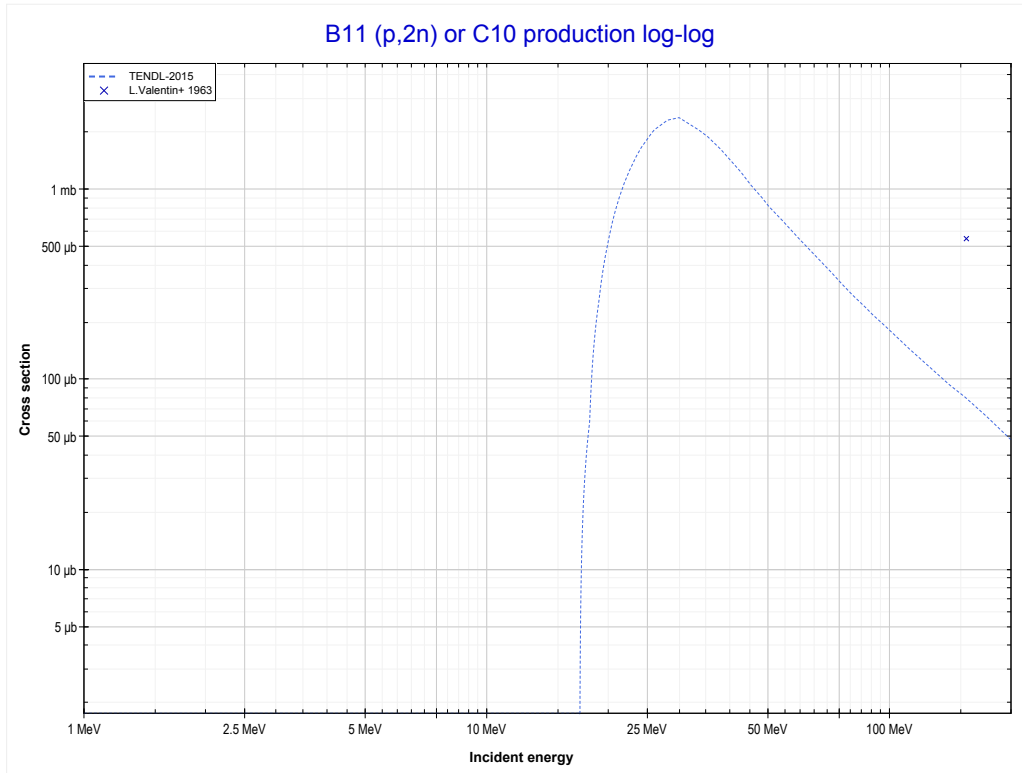
Reaction	Q-Value
B10(p, α)Be7	1145.75 keV
B10(p,p+t)Be7	-18668.11 keV
B10(p,n+He3)Be7	-19431.86 keV
B10(p,2d)Be7	-22700.77 keV
B10(p,n+p+d)Be7	-24925.34 keV
B10(p,2n+2p)Be7	-27149.90 keV

<< 5-B-10	5-B-11	6-C-13 >>
<< 5-B-10 MT107 (p, α)	MT4 (p,n) or MT5 (C11 production)	MT16 (p, $2n$) >>



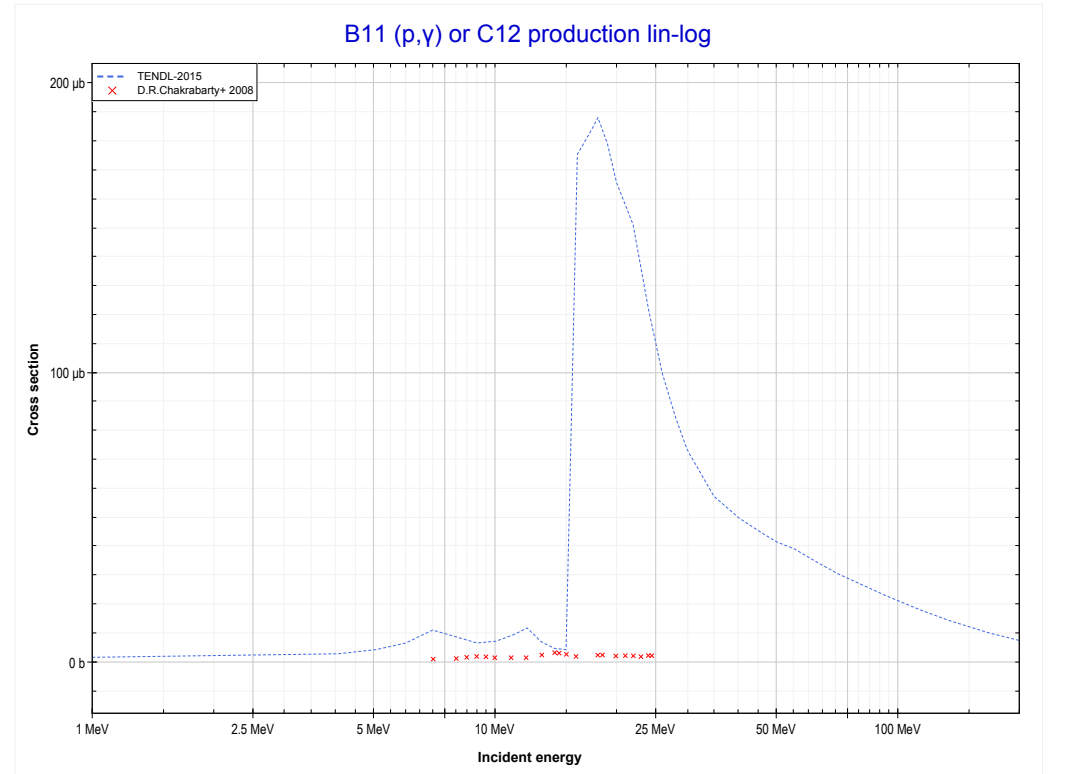
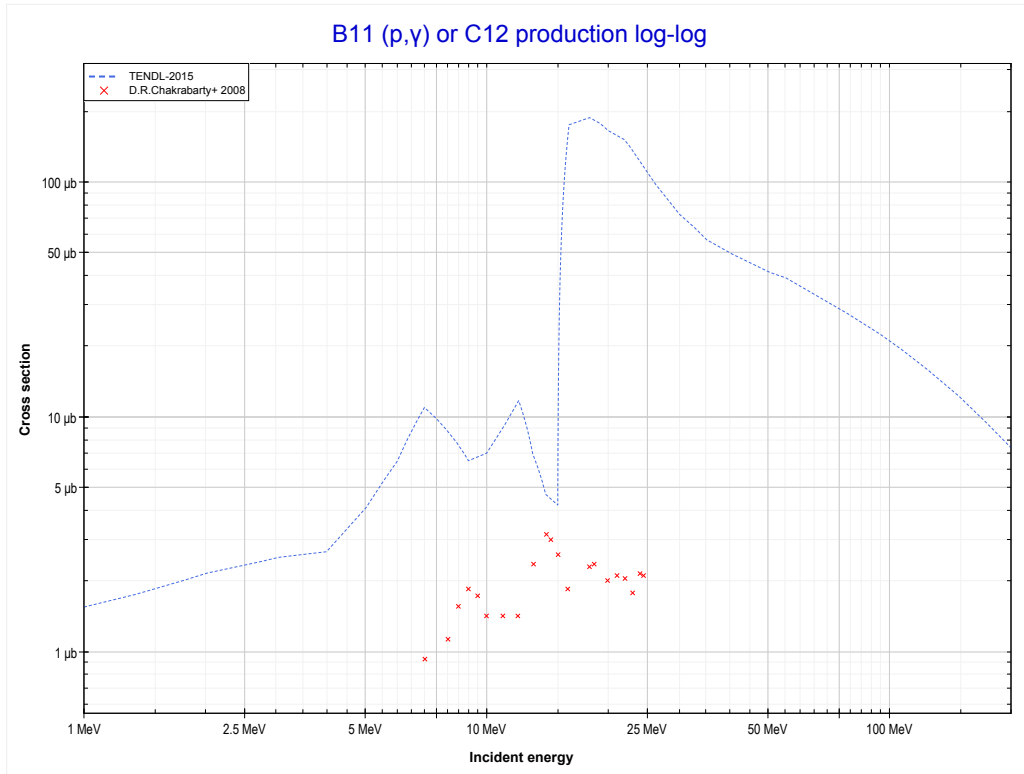
Reaction	Q-Value
B11(p,n)C11	-2764.75 keV

	5-B-11	20-Ca-44 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (C10 production)	MT102 (p, γ) >>



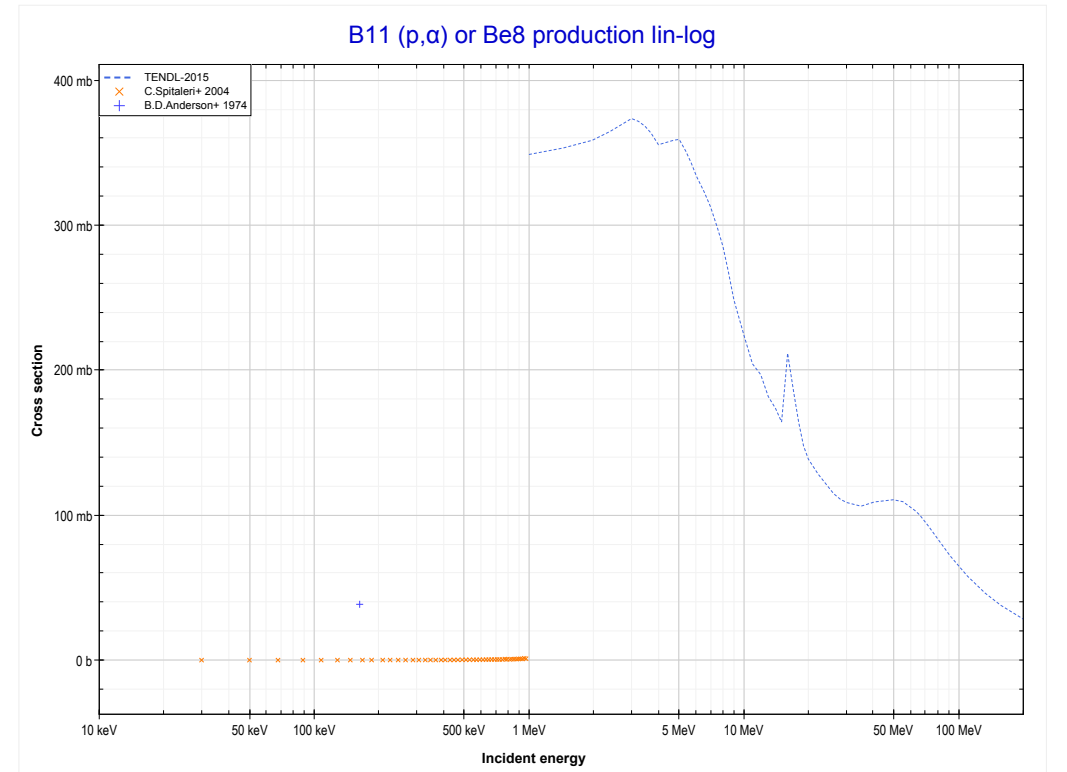
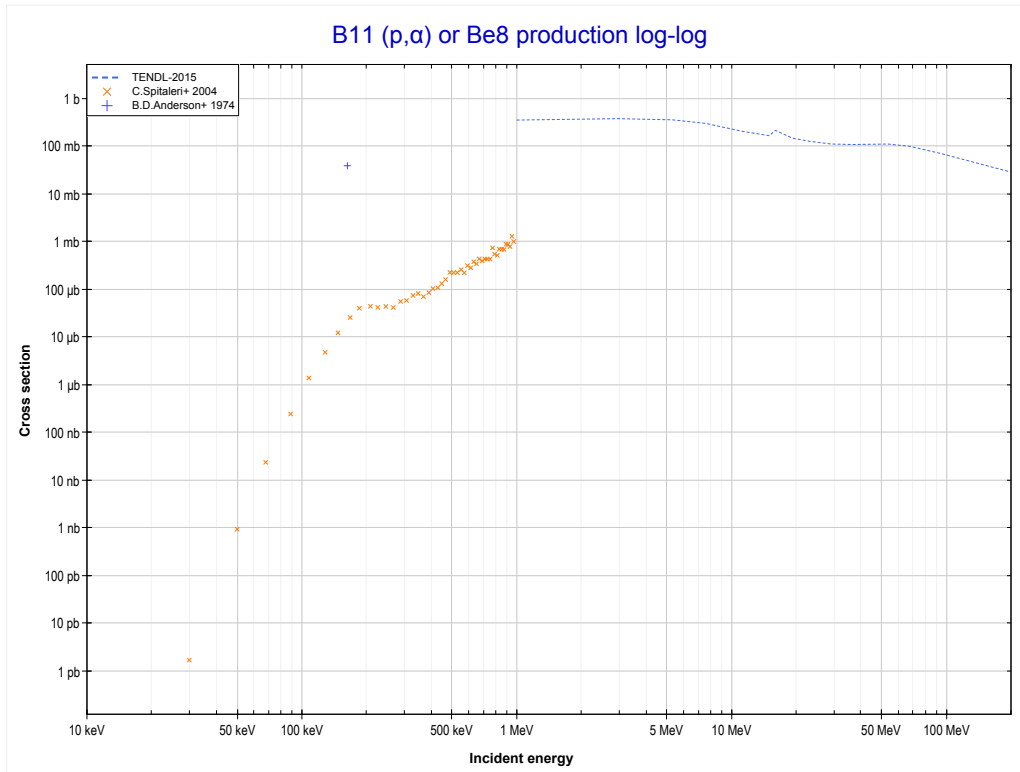
Reaction	Q-Value
B11(p,2n)C10	-15884.56 keV

<< 4-Be-9	5-B-11	6-C-12 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (C12 production)	MT107 (p, α) >>



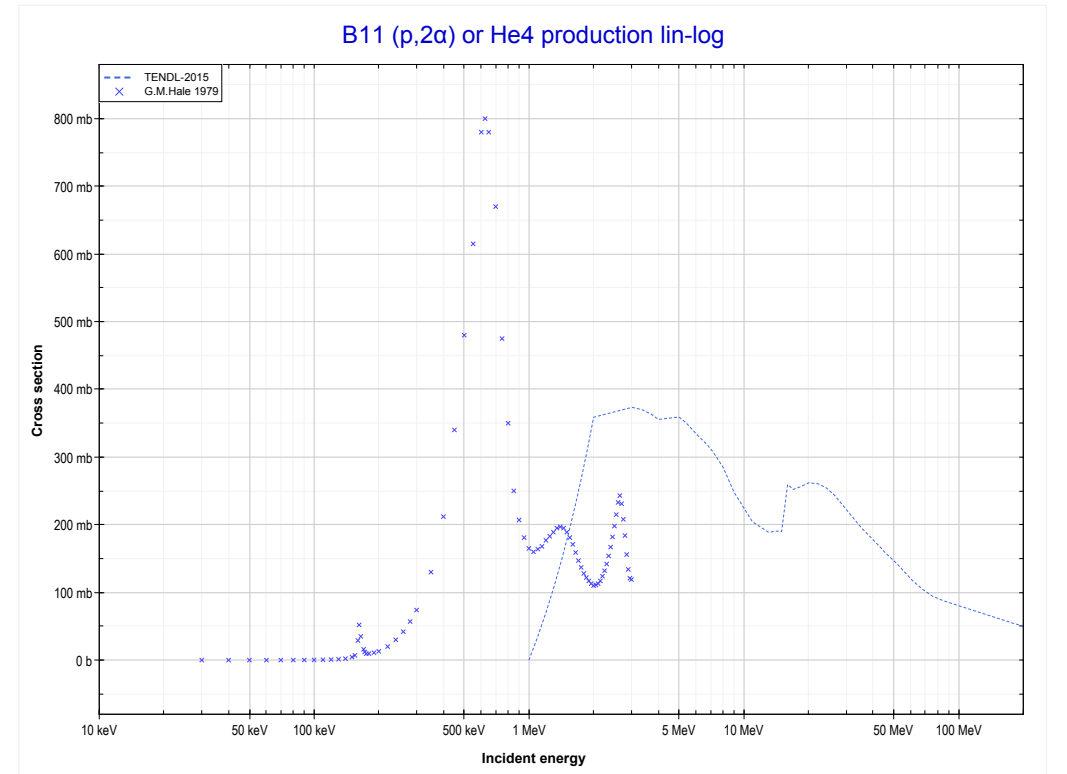
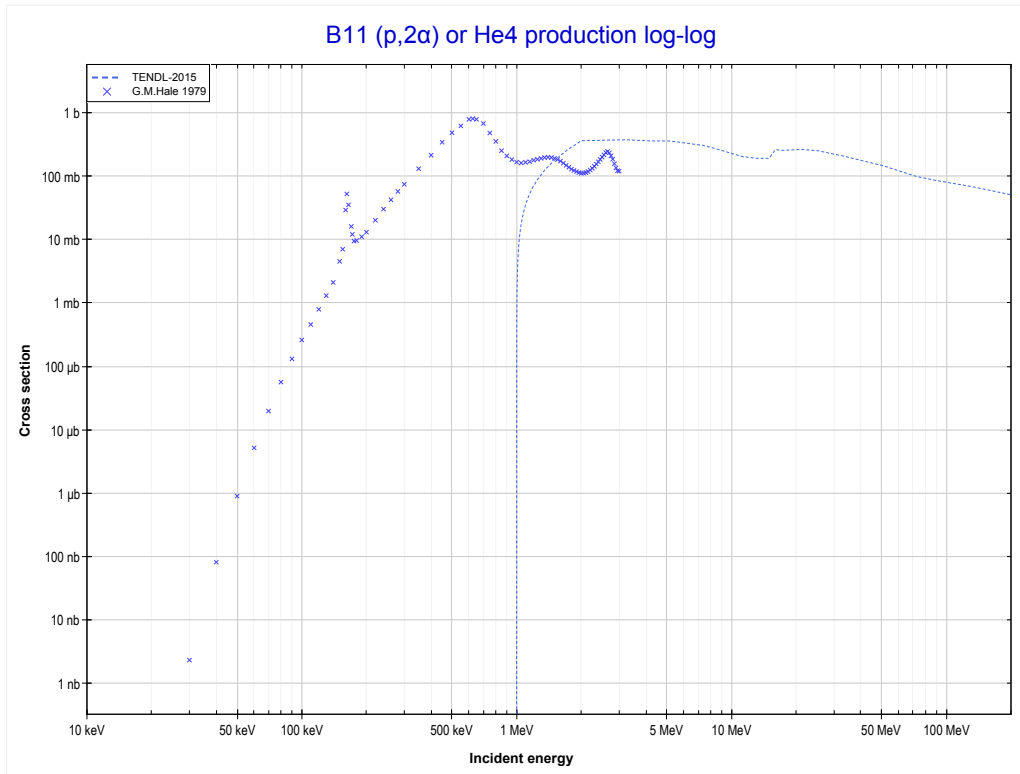
Reaction	Q-Value
B11(p, γ)C12	15956.87 keV

<< 5-B-10	5-B-11	6-C-12 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Be8 production)	MT108 (p, 2α) >>



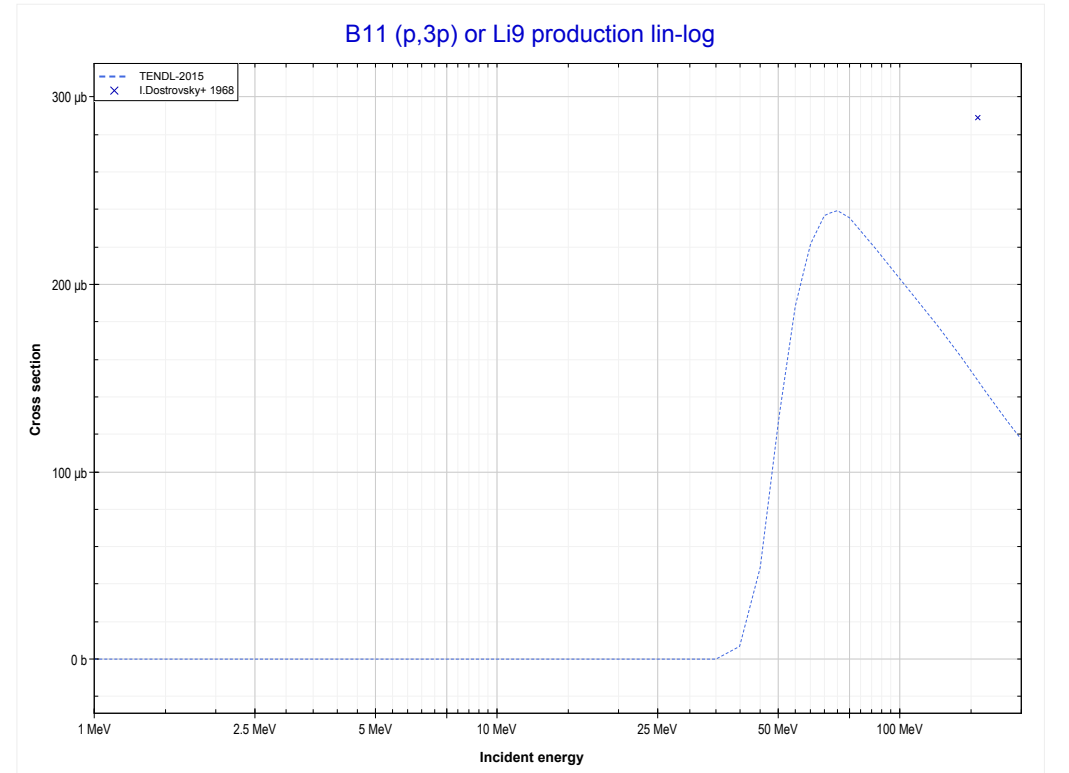
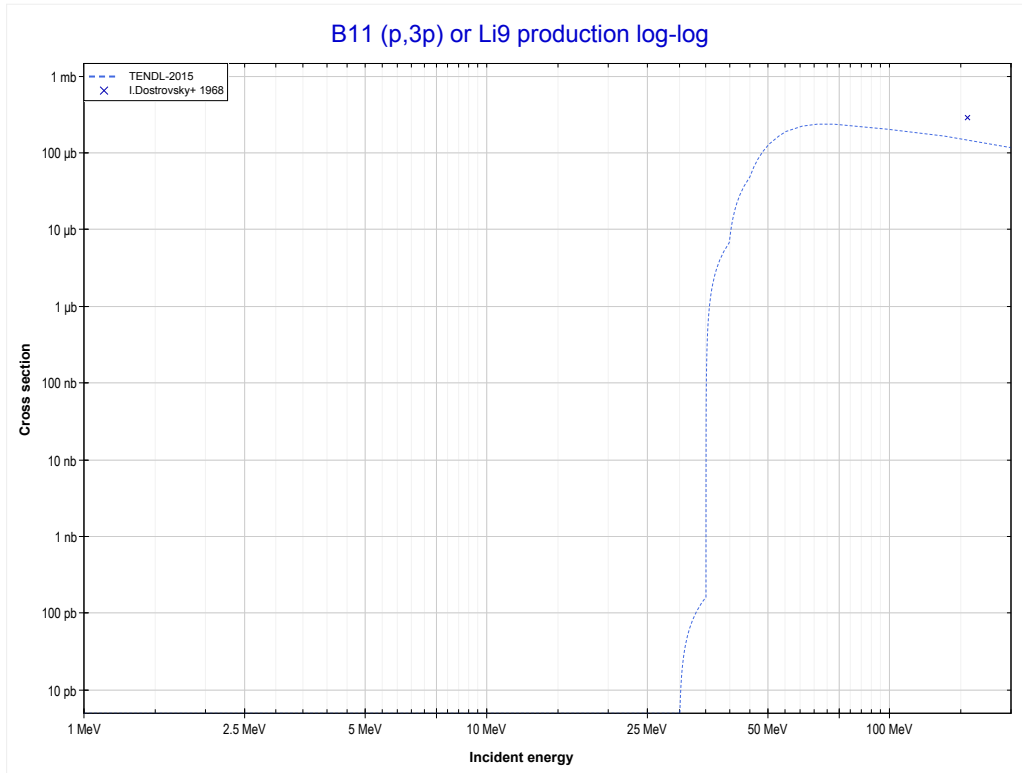
Reaction	Q-Value
B11(p, α)Be8	8590.28 keV
B11(p,p+t)Be8	-11223.58 keV
B11(p,n+He3)Be8	-11987.33 keV
B11(p, $2d$)Be8	-15256.24 keV
B11(p,n+p+d)Be8	-17480.81 keV
B11(p, $2n+2p$)Be8	-19705.37 keV

	5-B-11	7-N-14 >>
<< MT107 (p, α)	MT108 (p,2α) or MT5 (He4 production)	MT197 (p,3p) >>



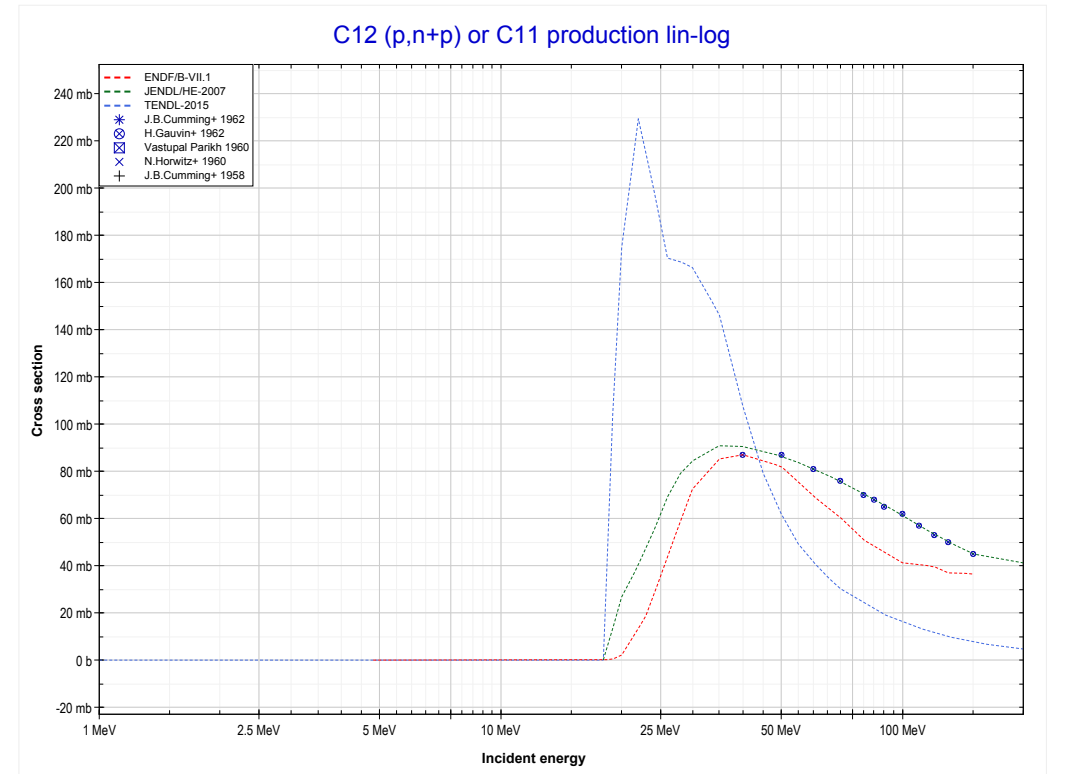
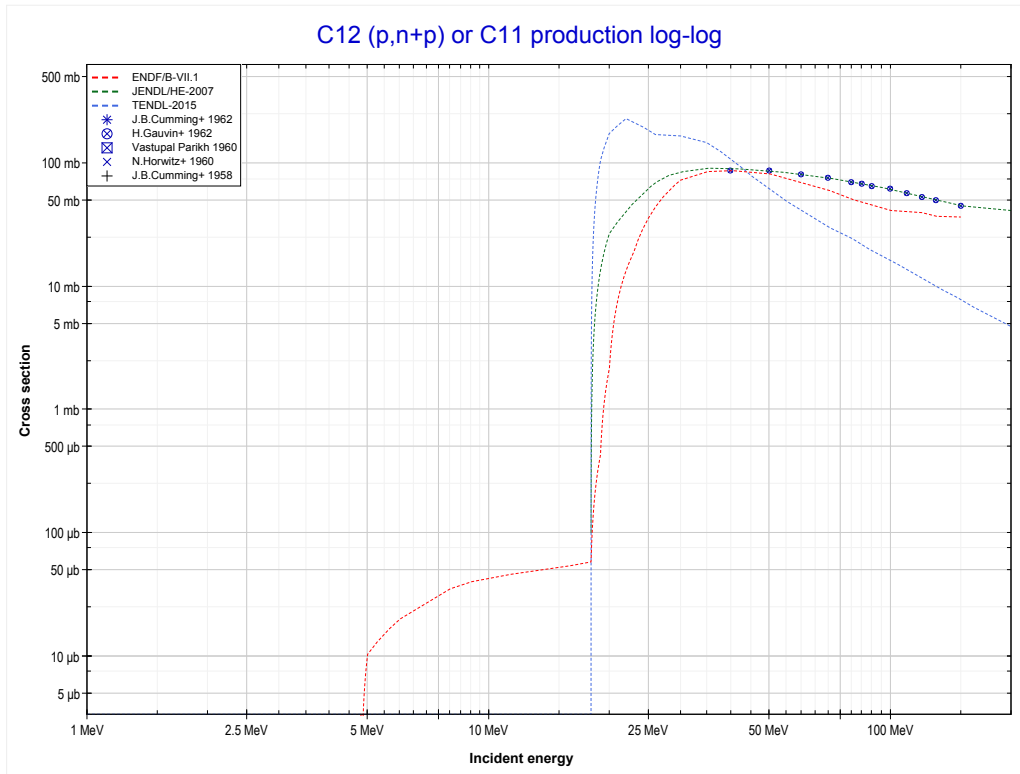
Reaction	Q-Value	Reaction	Q-Value
B11(p,2 α)He4	8682.12 keV	B11(p,n+p+t+He3)He4	-31709.35 keV
B11(p,p+t+ α)He4	-11131.74 keV	B11(p,2n+2He3)He4	-32473.11 keV
B11(p,n+He3+ α)He4	-11895.49 keV	B11(p,p+2d+t)He4	-34978.27 keV
B11(p,2d+ α)He4	-15164.40 keV	B11(p,n+2d+He3)He4	-35742.02 keV
B11(p,n+p+d+ α)He4	-17388.97 keV	B11(p,n+2p+d+t)He4	-37202.83 keV
B11(p,2n+2p+ α)He4	-19613.54 keV	B11(p,2n+p+d+He3)He4	-37966.59 keV
B11(p,d+t+He3)He4	-29484.79 keV	B11(p,4d)He4	-39010.93 keV
B11(p,2p+2t)He4	-30945.60 keV	B11(p,2n+3p+t)He4	-39427.40 keV

	5-B-11	6-C-12 >>
<< MT108 (p,2 α)	MT197 (p,3p) or MT5 (Li9 production)	6-C-12 MT28 (p,n+p) >>



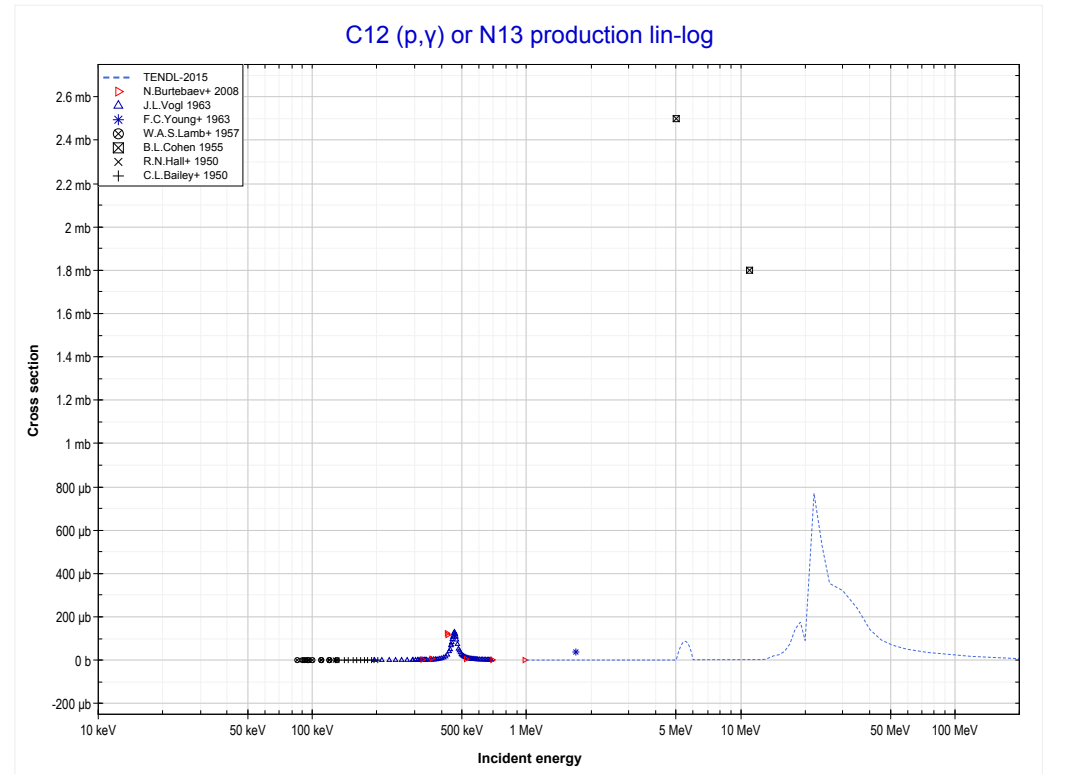
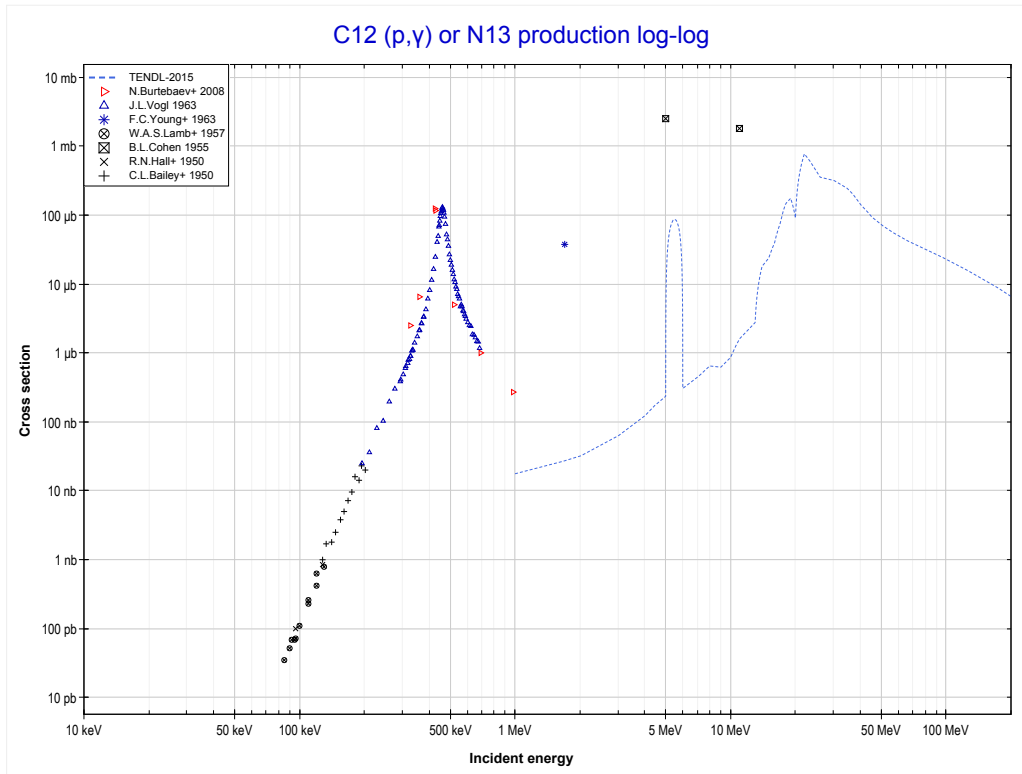
Reaction	Q-Value
B11(p,3p)Li9	-30864.94 keV

<< 1-H-2	6-C-12	7-N-14 >>
<< 5-B-11 MT197 (p,3p)	MT28 (p,n+p) or MT5 (C11 production)	MT102 (p, γ) >>



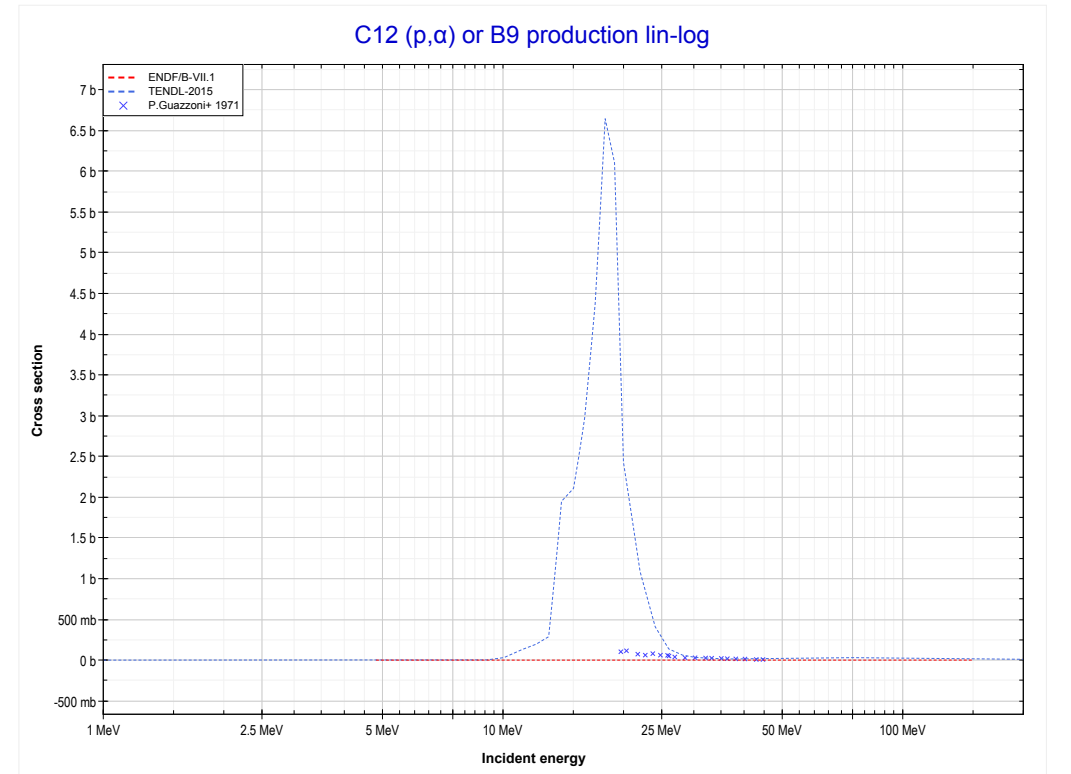
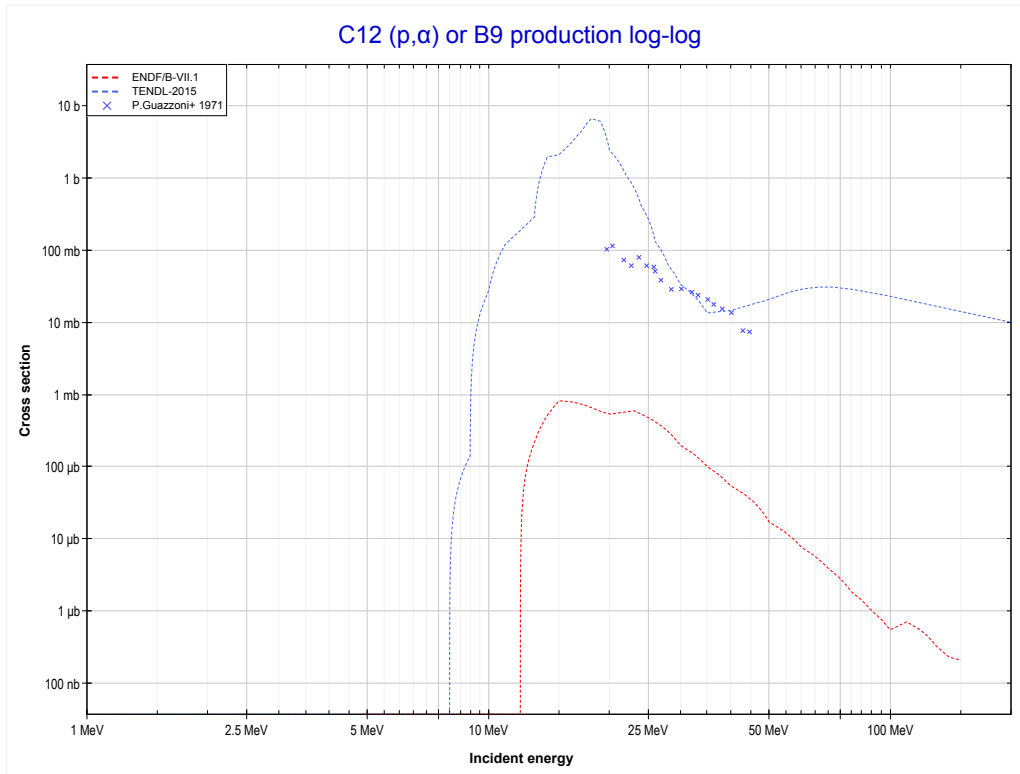
Reaction	Q-Value
C12(p,d)C11	-16497.05 keV
C12(p,n+p)C11	-18721.62 keV

<< 5-B-11	6-C-12	6-C-13 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (N13 production)	MT107 (p, α) >>



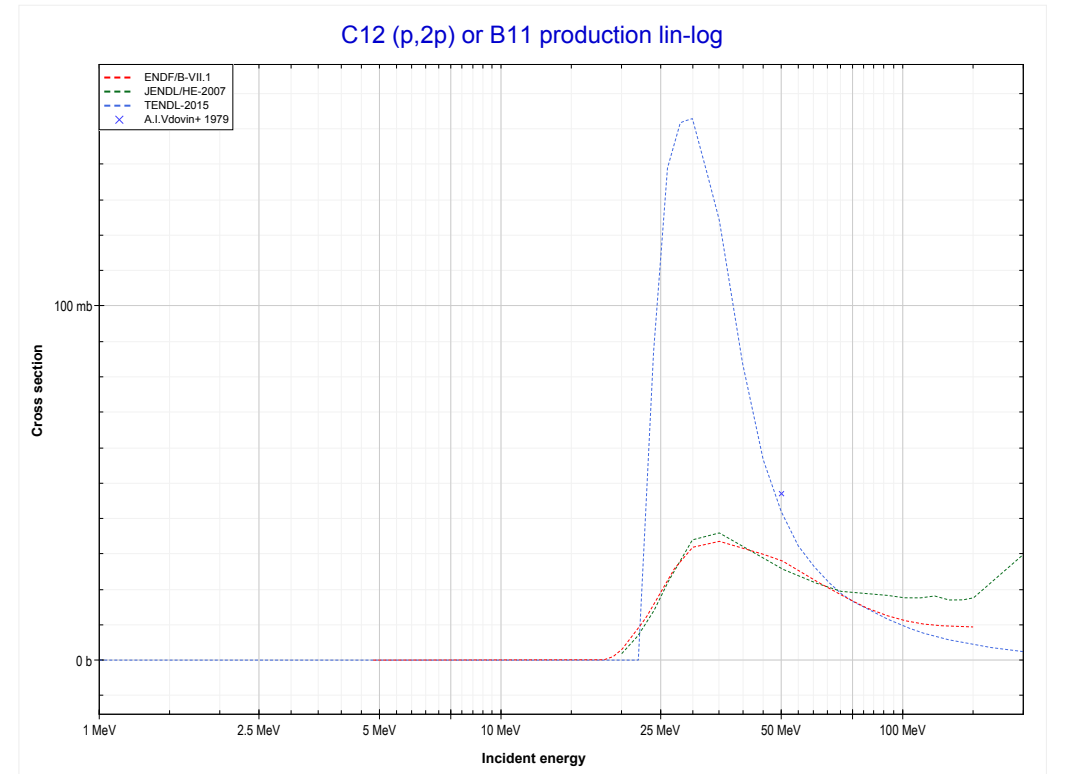
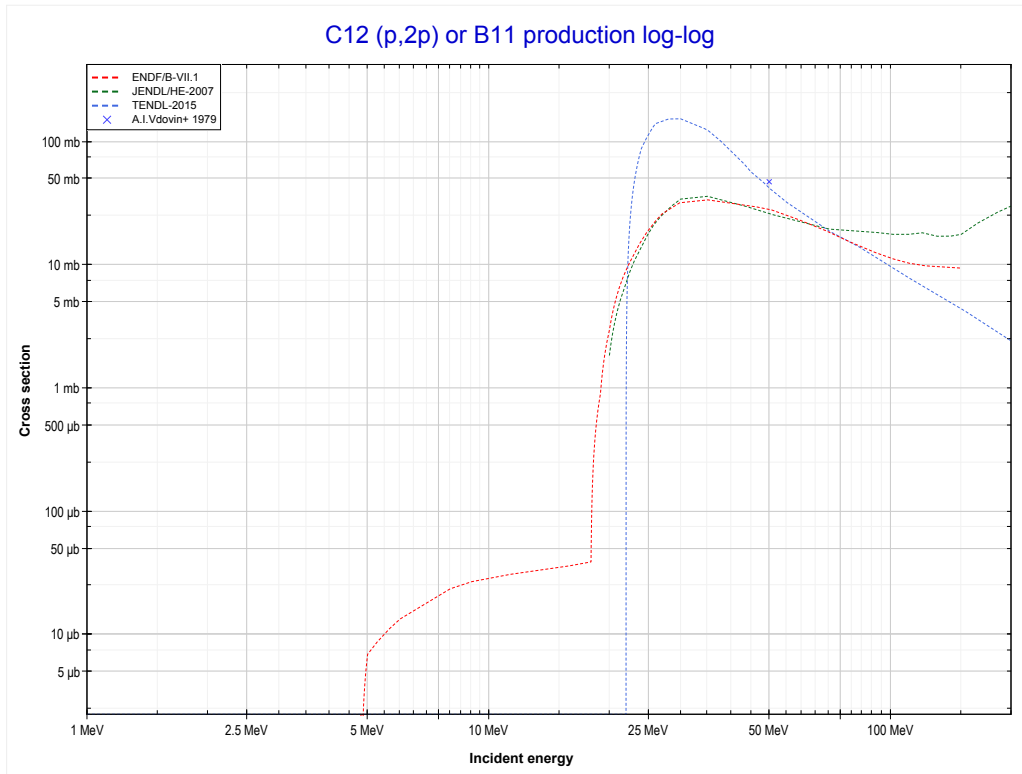
Reaction	Q-Value
C12(p, γ)N13	1943.49 keV

<< 5-B-11	6-C-12	7-N-14 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (B9 production)	MT111 (p,2p) >>



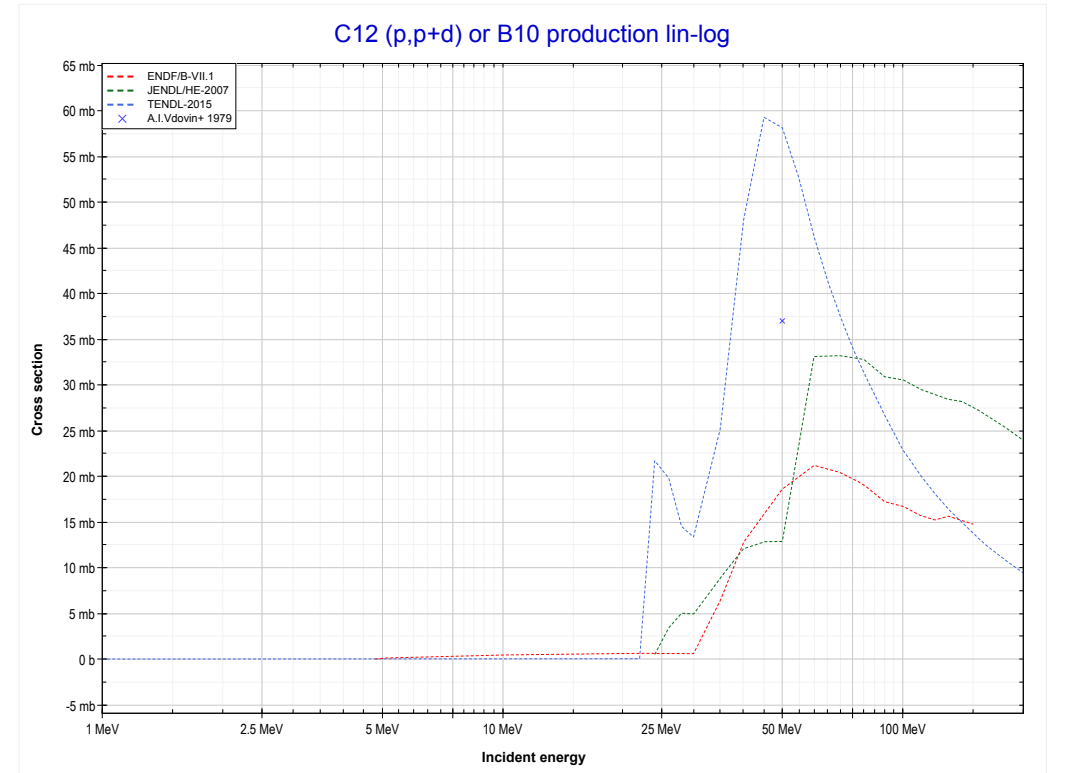
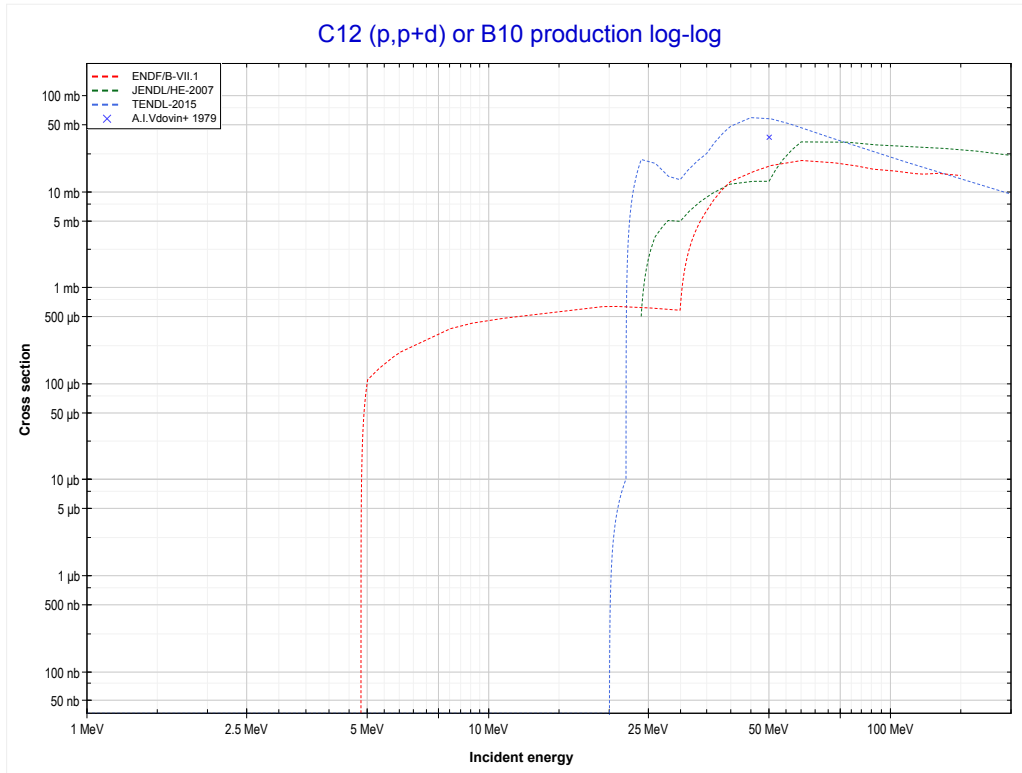
Reaction	Q-Value
C12(p, α)B9	-7552.45 keV
C12(p,p+t)B9	-27366.31 keV
C12(p,n+He3)B9	-28130.06 keV
C12(p,2d)B9	-31398.97 keV
C12(p,n+p+d)B9	-33623.54 keV
C12(p,2n+2p)B9	-35848.10 keV

	6-C-12	7-N-14 >>
<< MT107 (p, α)	MT111 (p,2p) or MT5 (B11 production)	MT115 (p,p+d) >>



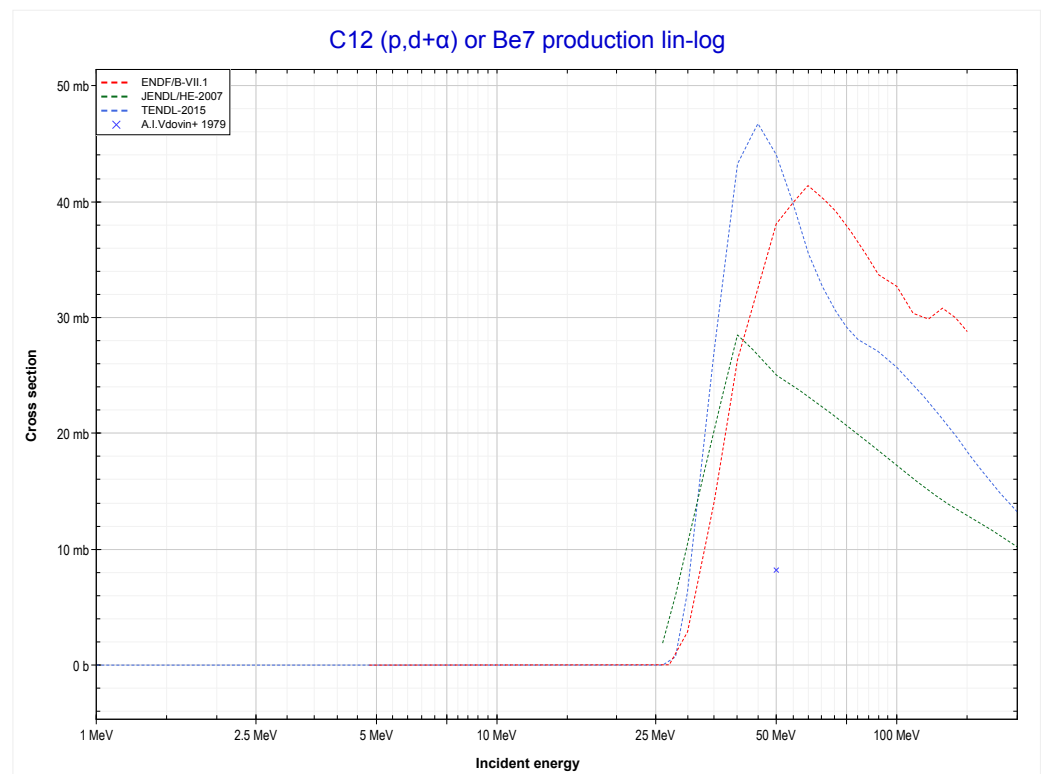
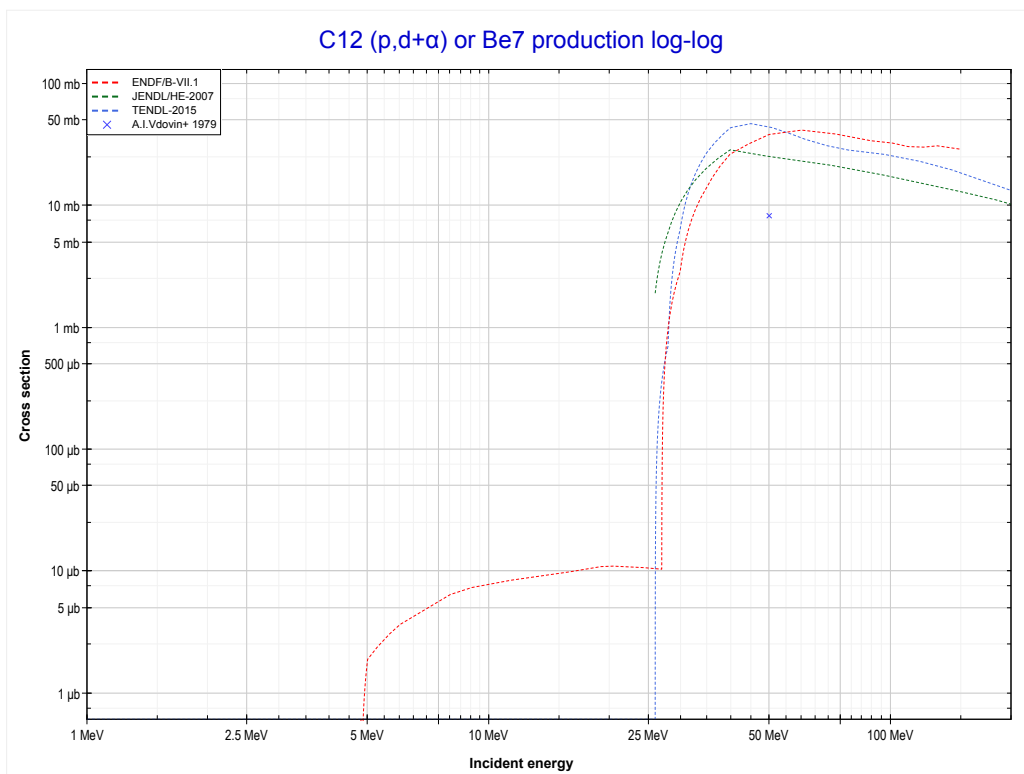
Reaction	Q-Value
C12(p,2p)B11	-15956.87 keV

	6-C-12	7-N-14 >>
<< MT111 (p,2p)	MT115 (p,p+d) or MT5 (B10 production)	MT117 (p,d+α) >>



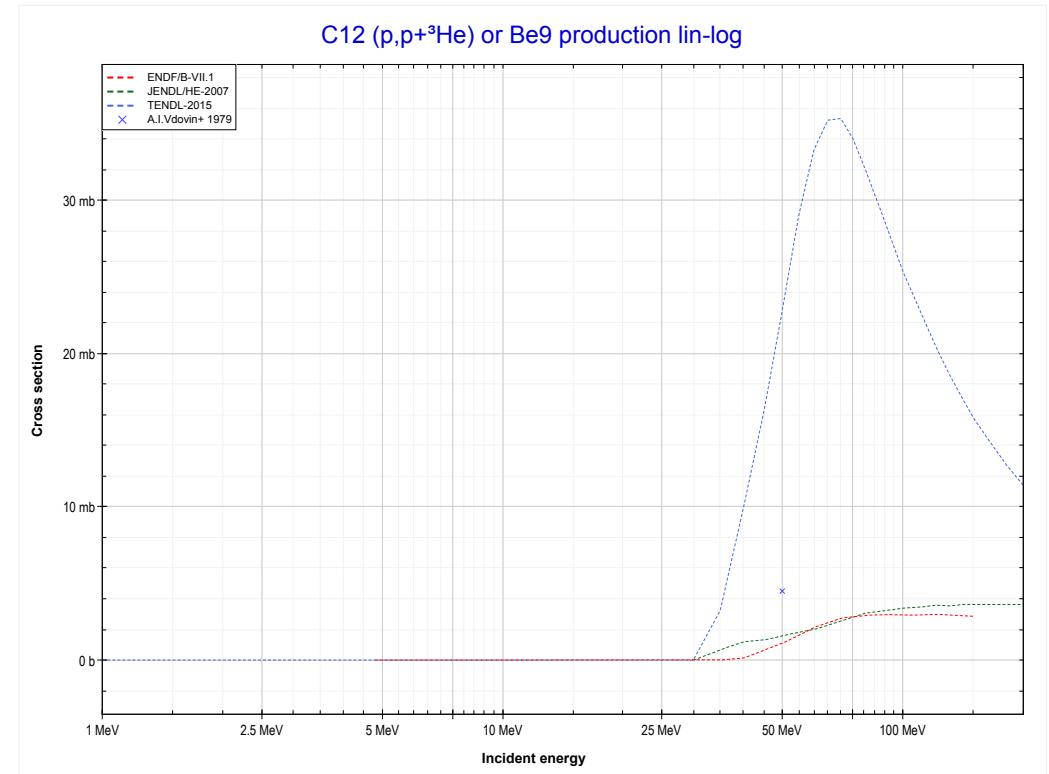
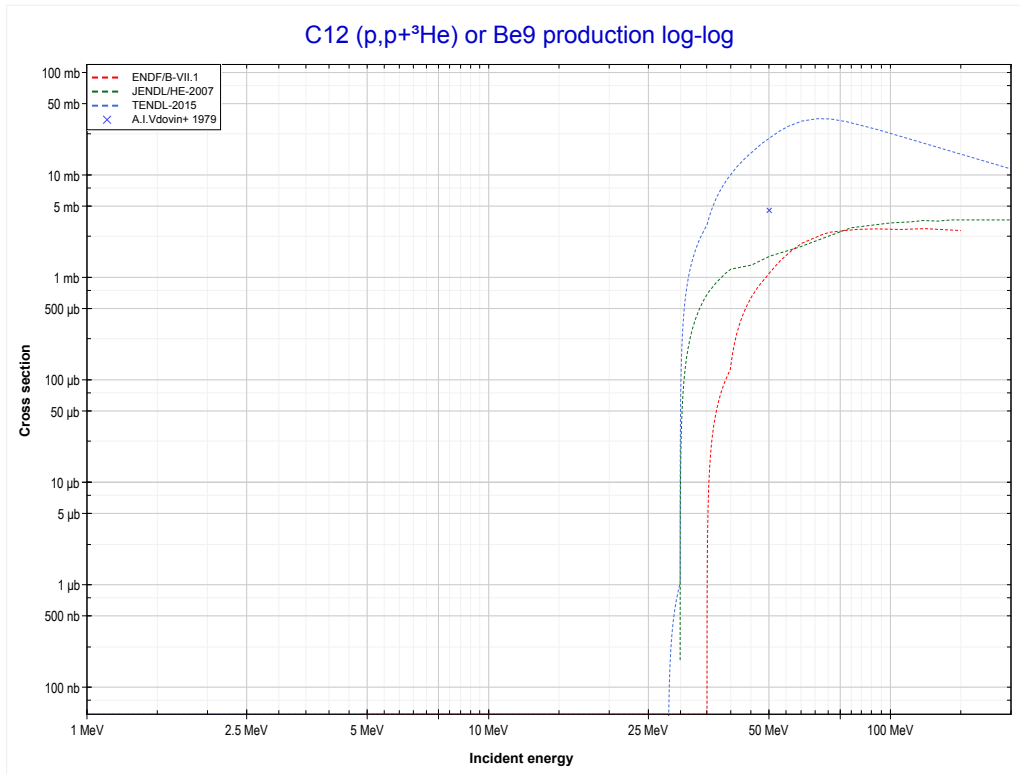
Reaction	Q-Value
C12(p,He3)B10	-19692.95 keV
C12(p,p+d)B10	-25186.42 keV
C12(p,n+2p)B10	-27410.99 keV

	6-C-12	8-O-16 >>
<< MT115 (p,p+d)	MT117 (p,d+α) or MT5 (Be7 production)	MT191 (p,p+ ³ He) >>



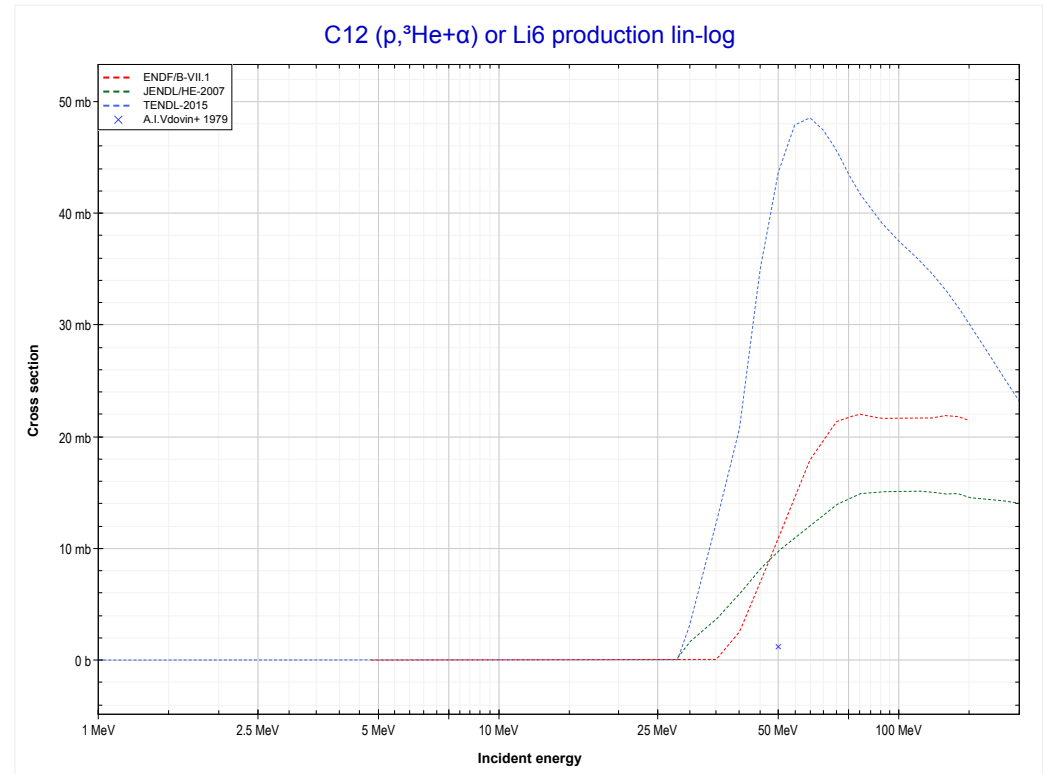
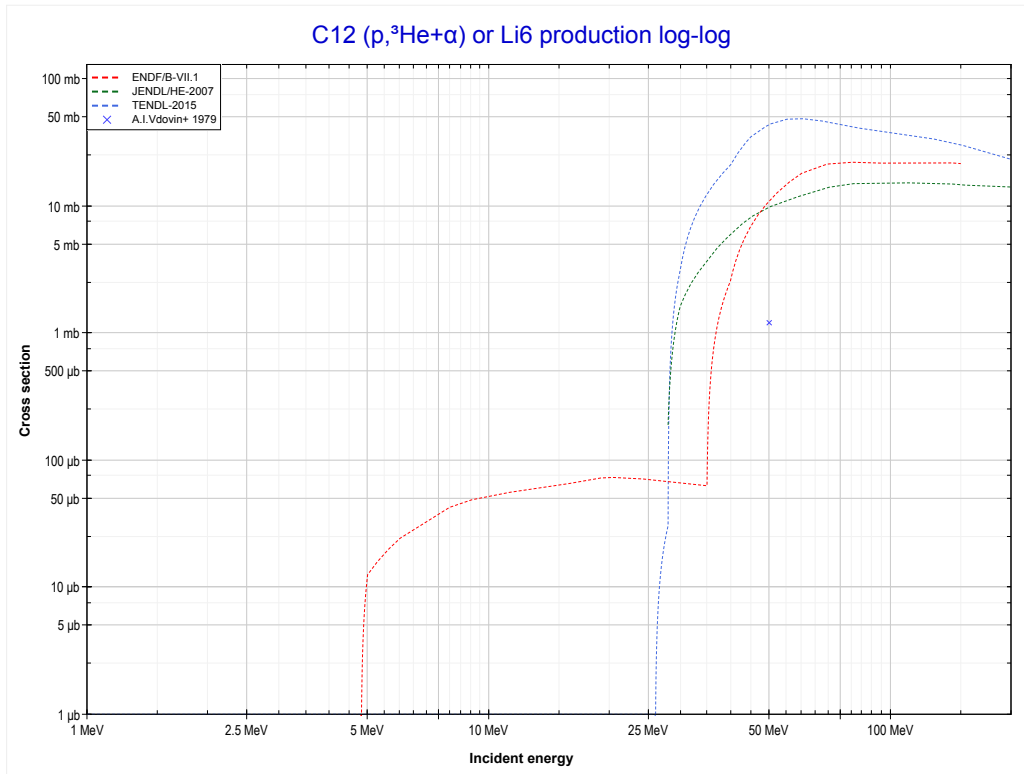
Reaction	Q-Value	Reaction	Q-Value
C12(p,d+α)Be7	-24040.67 keV	C12(p,n+p+2d)Be7	-50111.76 keV
C12(p,n+p+α)Be7	-26265.23 keV	C12(p,2n+2p+d)Be7	-52336.33 keV
C12(p,t+He3)Be7	-38361.05 keV	C12(p,3n+3p)Be7	-54560.89 keV
C12(p,p+d+t)Be7	-43854.53 keV		
C12(p,n+d+He3)Be7	-44618.28 keV		
C12(p,n+2p+t)Be7	-46079.09 keV		
C12(p,2n+p+He3)Be7	-46842.85 keV		
C12(p,3d)Be7	-47887.19 keV		

	6-C-12	7-N-14 >>
<< MT117 (p,d+α)	MT191 (p,p+³He) or MT5 (Be9 production)	MT193 (p,³He+α) >>



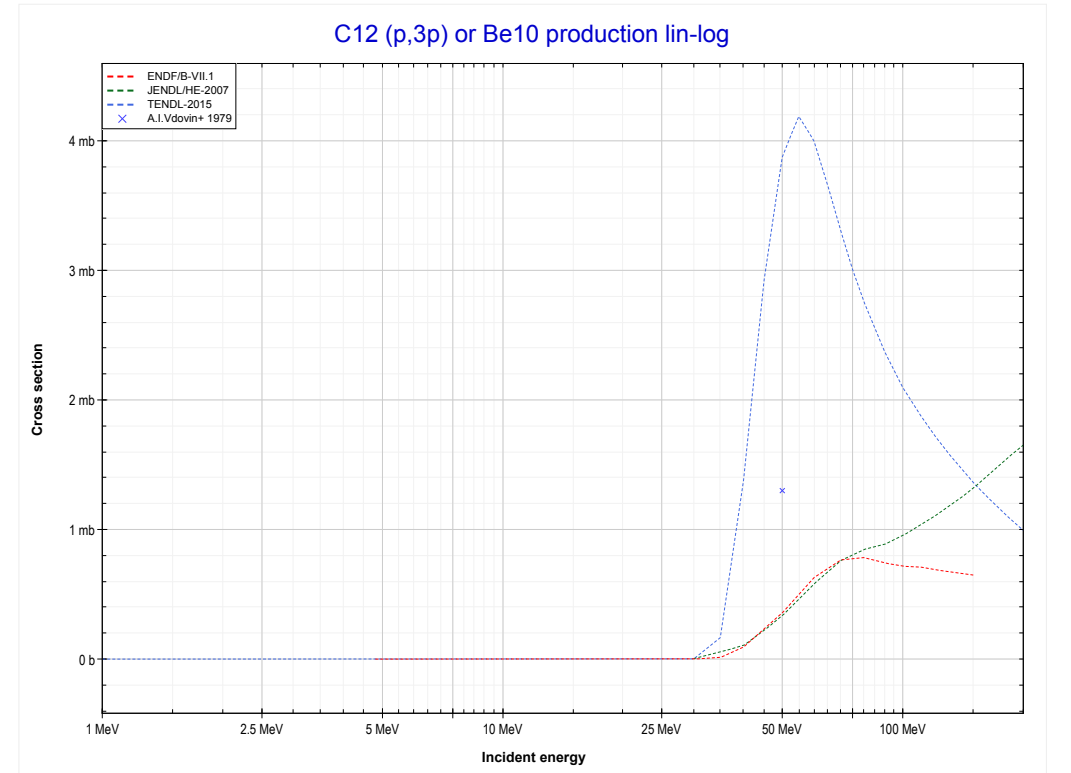
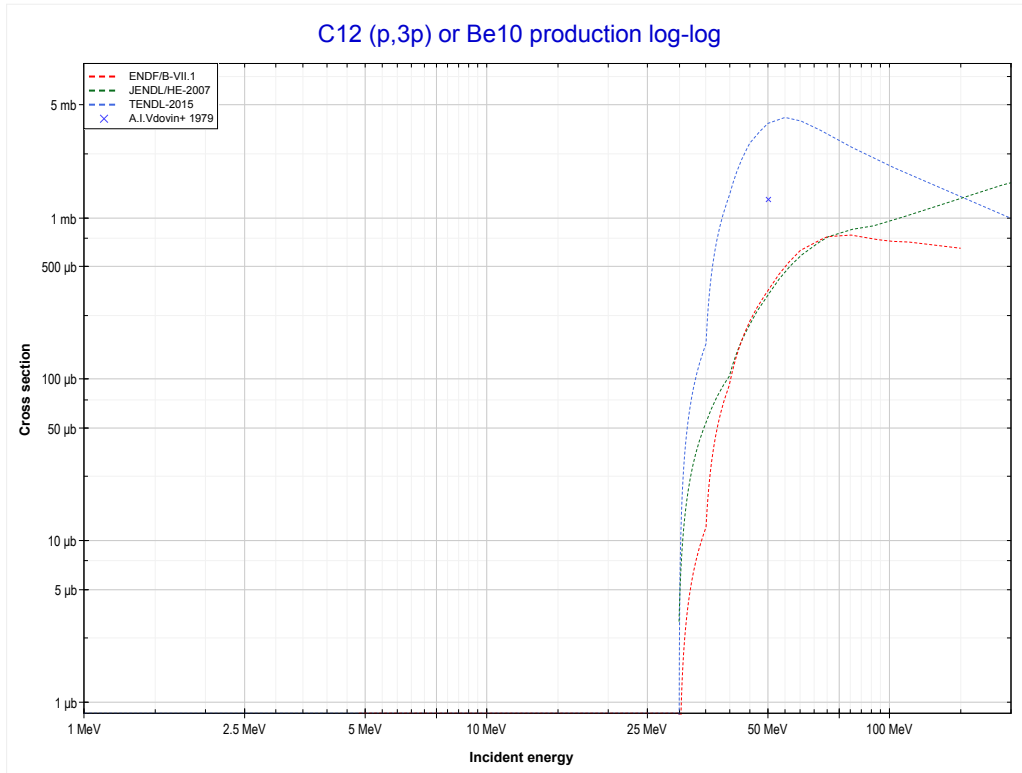
Reaction	Q-Value
C12(p,p+He3)Be9	-26279.67 keV
C12(p,2p+d)Be9	-31773.14 keV
C12(p,n+3p)Be9	-33997.71 keV

	6-C-12	8-O-16 >>
<< MT191 (p,p+ ³ He)	MT193 (p,³He+α) or MT5 (Li6 production)	MT197 (p,3p) >>



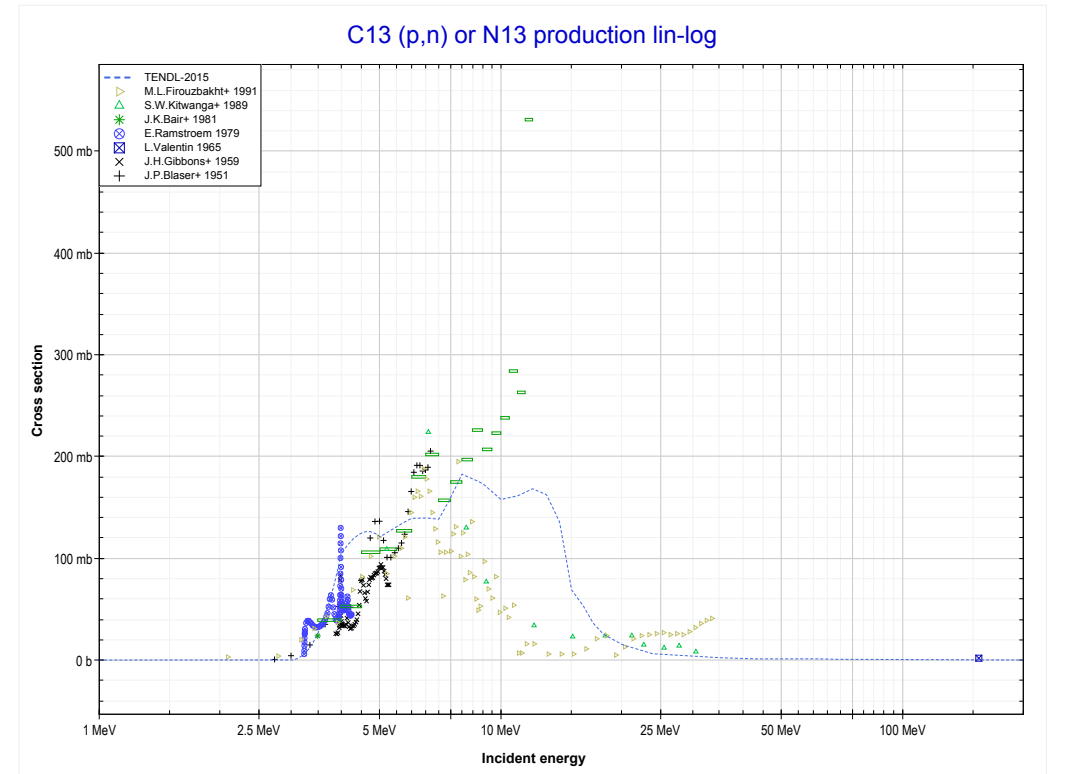
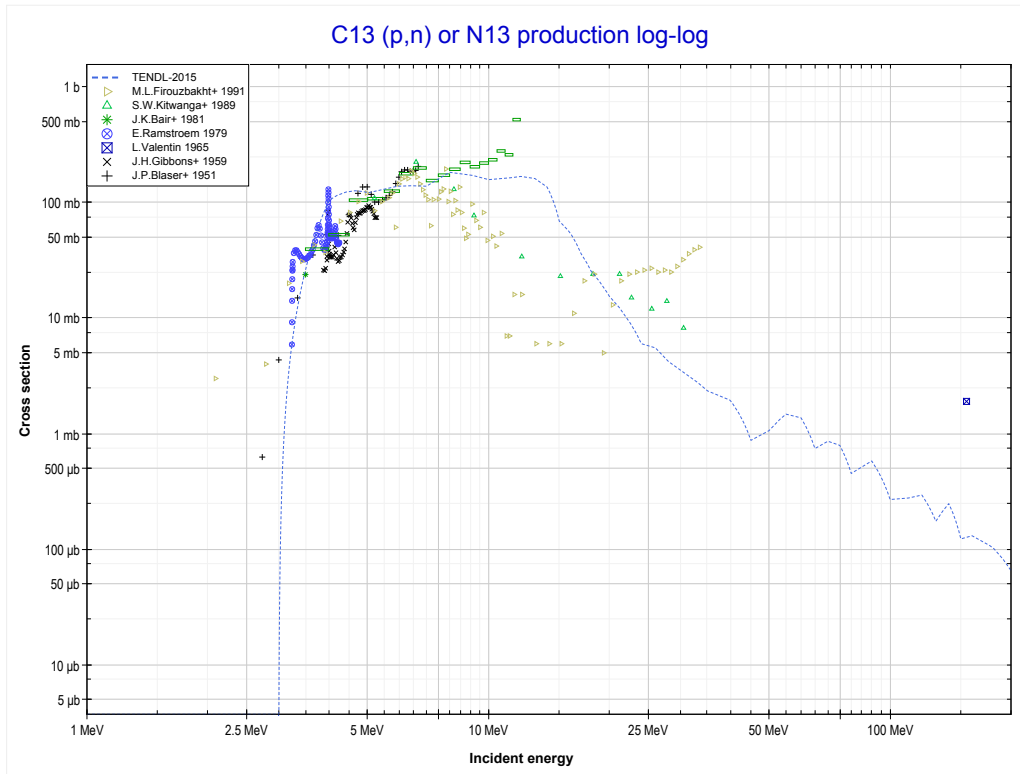
Reaction	Q-Value	Reaction	Q-Value
C12(p,He3+α)Li6	-24154.04 keV	C12(p,n+3p+t)Li6	-51685.94 keV
C12(p,p+d+α)Li6	-29647.52 keV	C12(p,2n+2p+He3)Li6	-52449.70 keV
C12(p,n+2p+α)Li6	-31872.08 keV	C12(p,p+3d)Li6	-53494.04 keV
C12(p,p+t+He3)Li6	-43967.90 keV	C12(p,n+2p+2d)Li6	-55718.61 keV
C12(p,n+2He3)Li6	-44731.66 keV	C12(p,2n+3p+d)Li6	-57943.18 keV
C12(p,2d+He3)Li6	-48000.57 keV	C12(p,3n+4p)Li6	-60167.74 keV
C12(p,2p+d+t)Li6	-49461.38 keV		
C12(p,n+p+d+He3)Li6	-50225.13 keV		

<< 5-B-11	6-C-12	8-O-16 >>
<< MT193 (p, ³ He+α)	MT197 (p,3p) or MT5 (Be¹⁰ production)	6-C-13 MT4 (p,n) >>



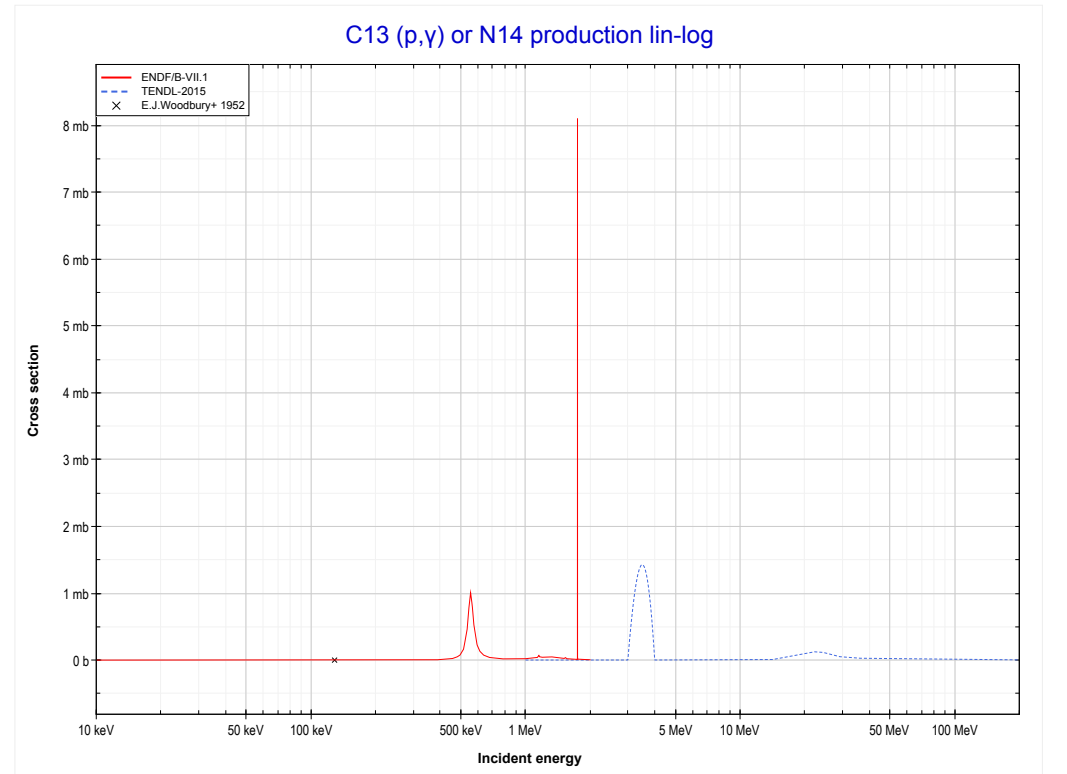
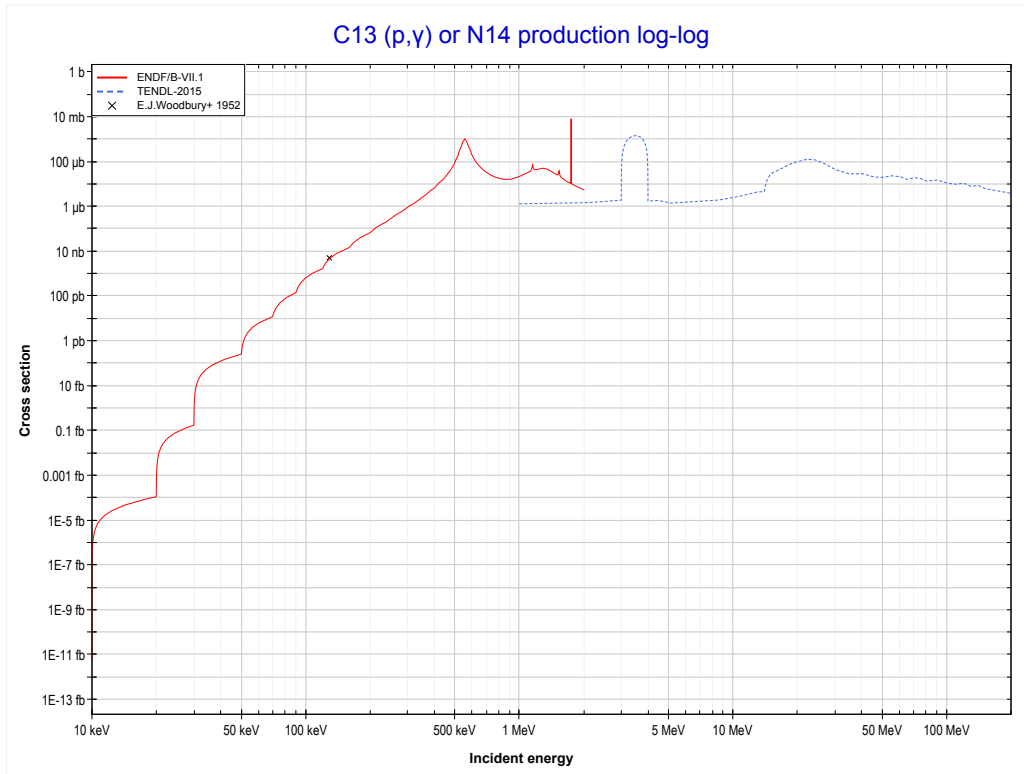
Reaction	Q-Value
C12(p,3p)Be10	-27185.43 keV

<< 5-B-11	6-C-13	6-C-14 >>
<< 6-C-12 MT197 (p,3p)	MT4 (p,n) or MT5 (N13 production)	MT102 (p, γ) >>



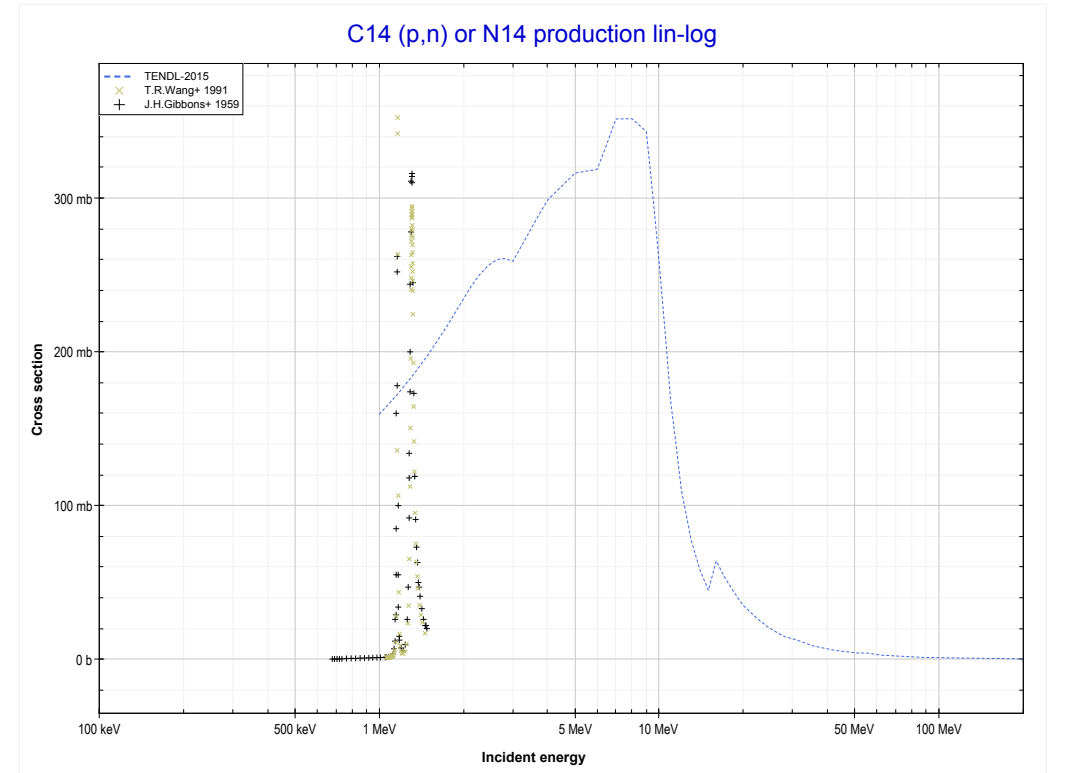
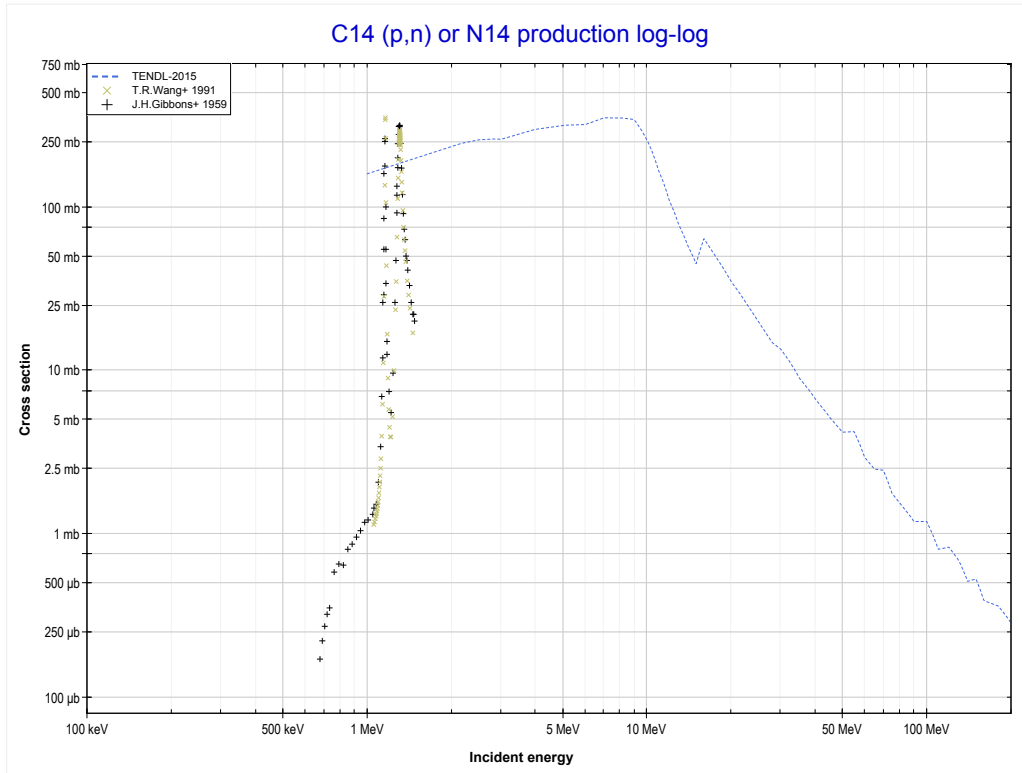
Reaction	Q-Value
C13(p,n)N13	-3002.82 keV

<< 6-C-12	6-C-13	7-N-14 >>
<< MT4 (p,n)	MT102 (p,γ) or MT5 (N14 production)	6-C-14 MT4 (p,n) >>



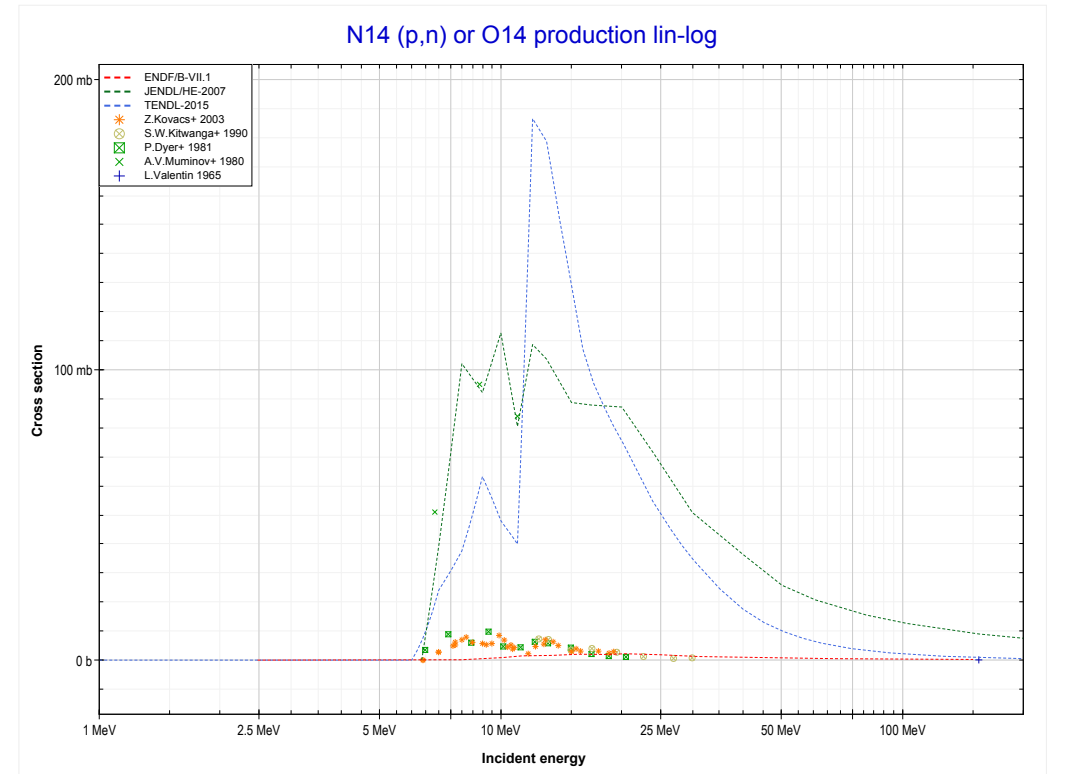
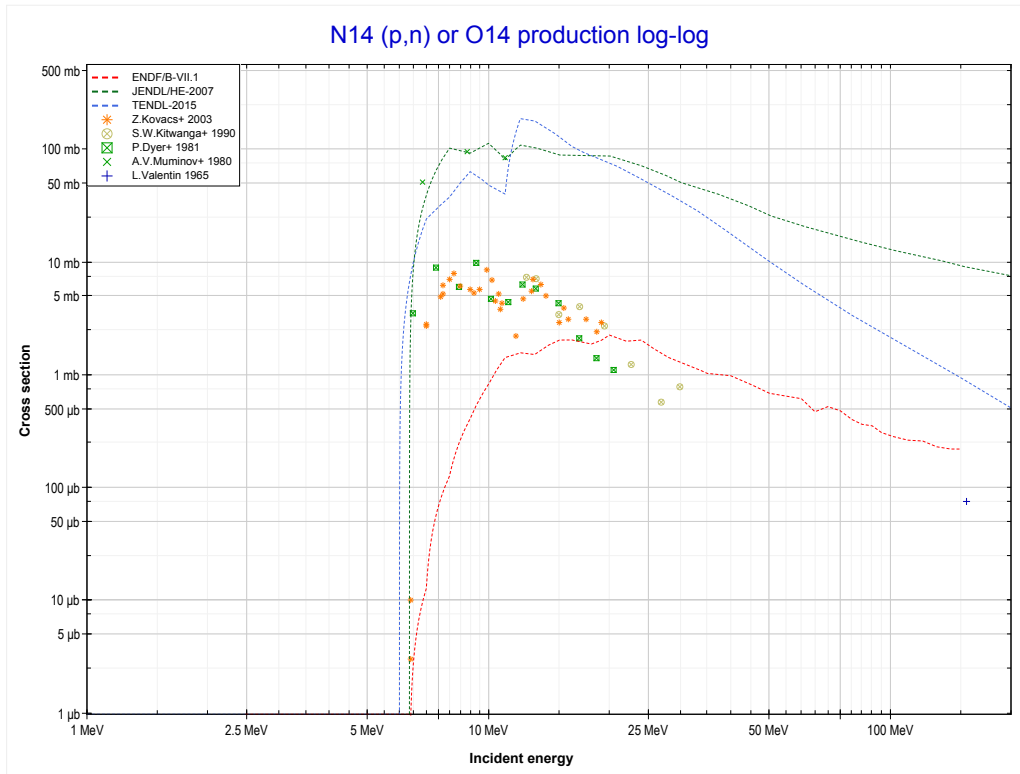
Reaction	Q-Value
C13(p, γ)N14	7550.56 keV

<< 6-C-13	6-C-14	7-N-14 >>
<< 6-C-13 MT102 (p, γ)	MT4 (p,n) or MT5 (N14 production)	7-N-14 MT4 (p,n) >>



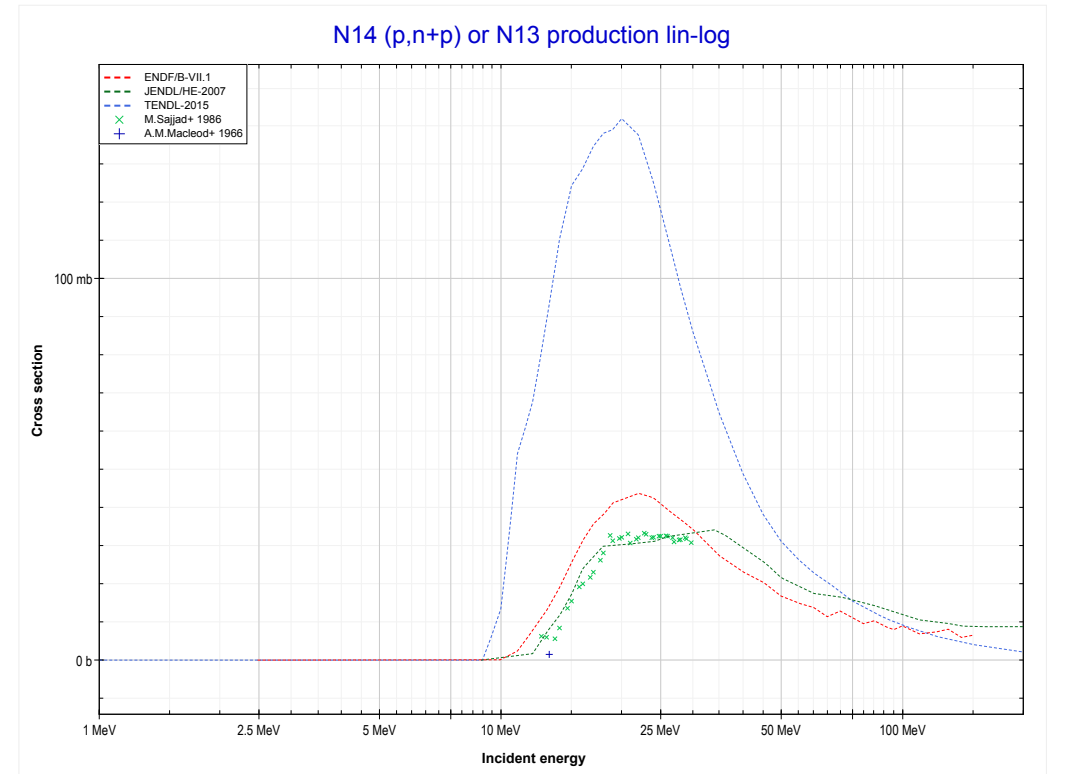
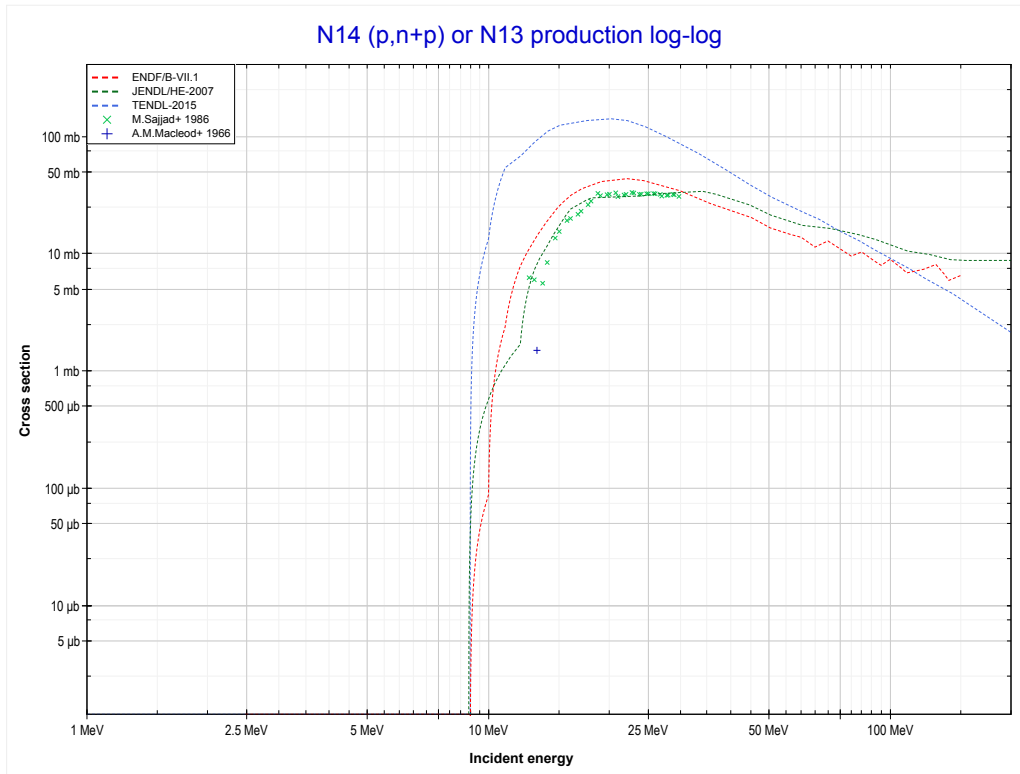
Reaction	Q-Value
C14(p,n)N14	-625.87 keV

<< 6-C-14	7-N-14	7-N-15 >>
<< 6-C-14 MT4 (p,n)	MT4 (p,n) or MT5 (O14 production)	MT28 (p,n+p) >>



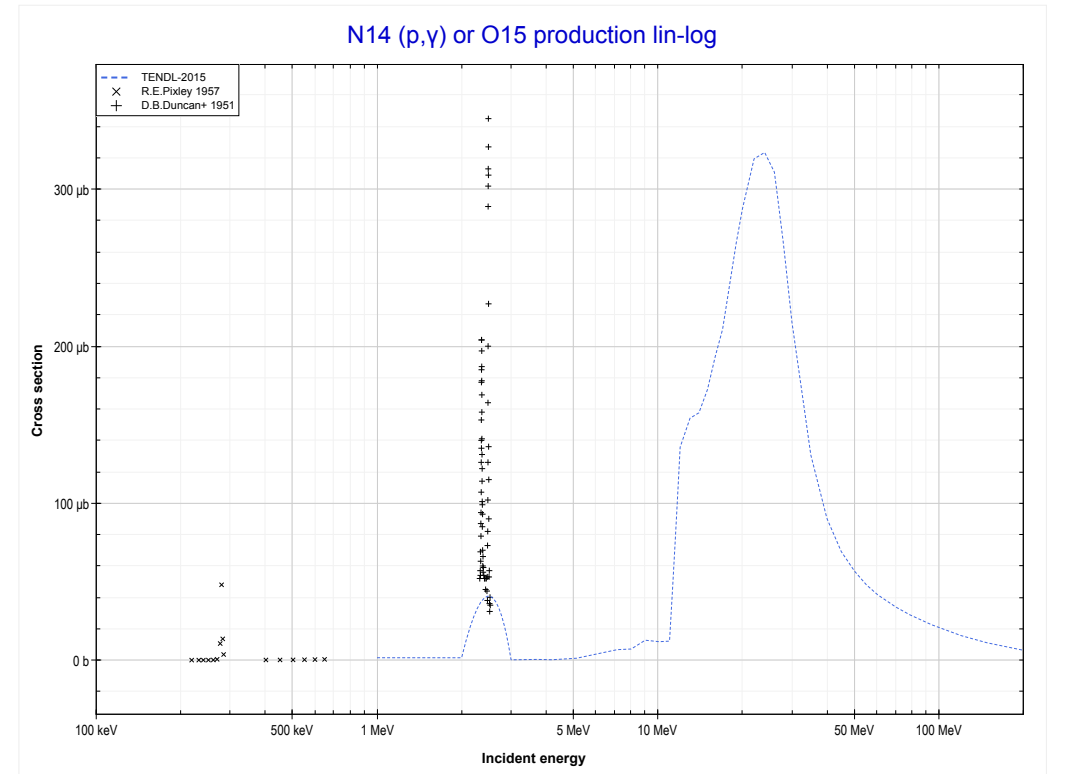
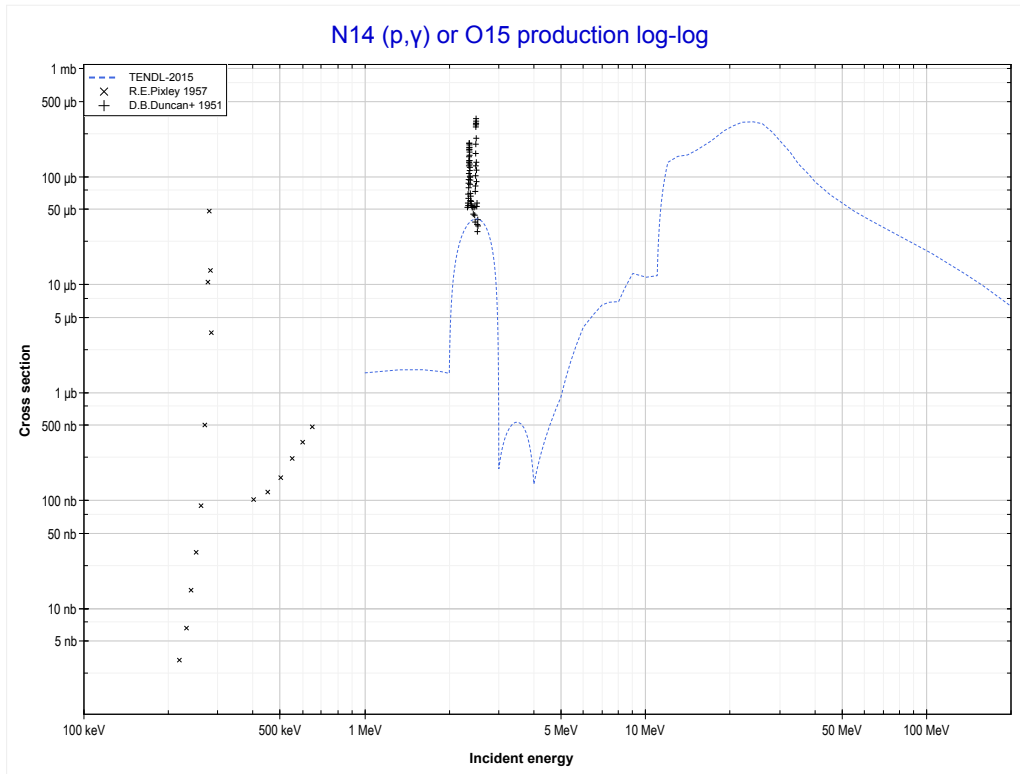
Reaction	Q-Value
N14(p,n)O14	-5926.39 keV

<< 6-C-12	7-N-14	8-O-16 >>
<< MT4 (p,n)	MT28 (p,n+p) or MT5 (N13 production)	MT102 (p, γ) >>



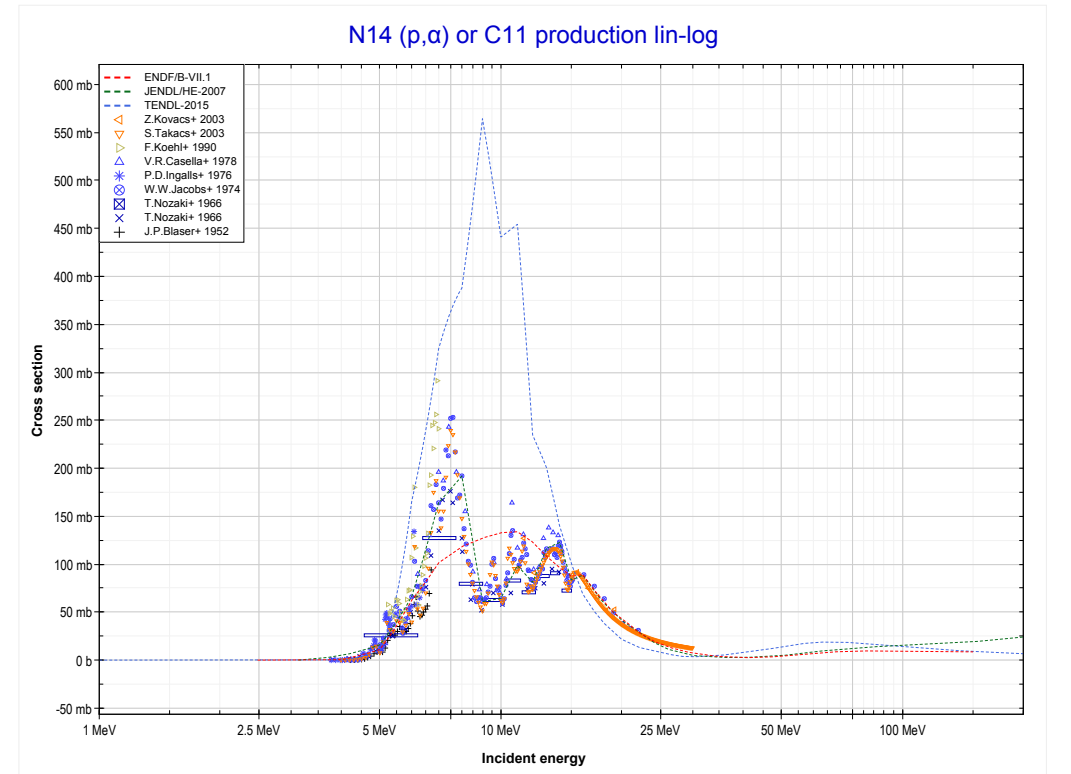
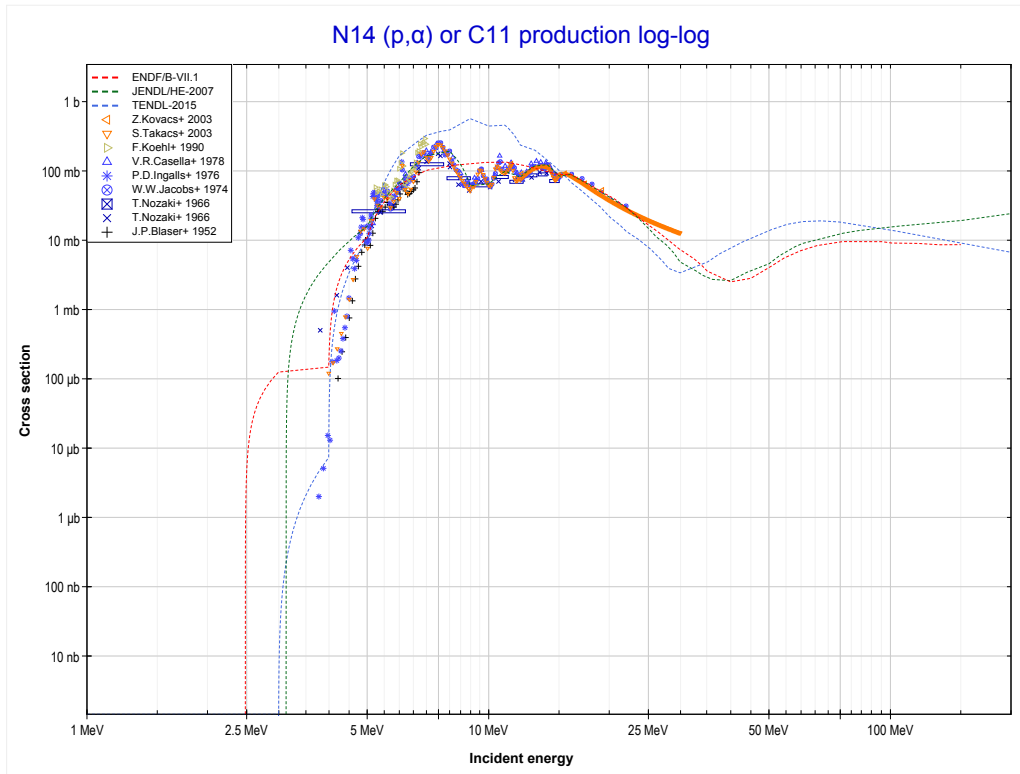
Reaction	Q-Value
N14(p,d)N13	-8328.81 keV
N14(p,n+p)N13	-10553.38 keV

<< 6-C-13	7-N-14	7-N-15 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (O15 production)	MT107 (p, α) >>



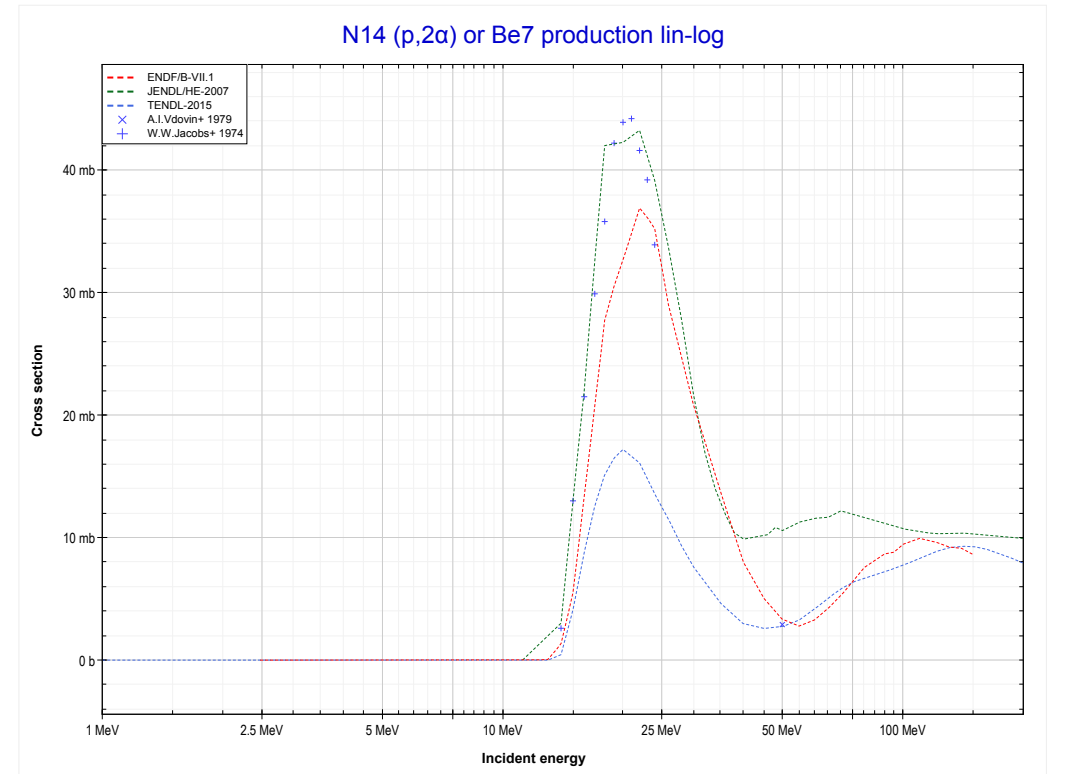
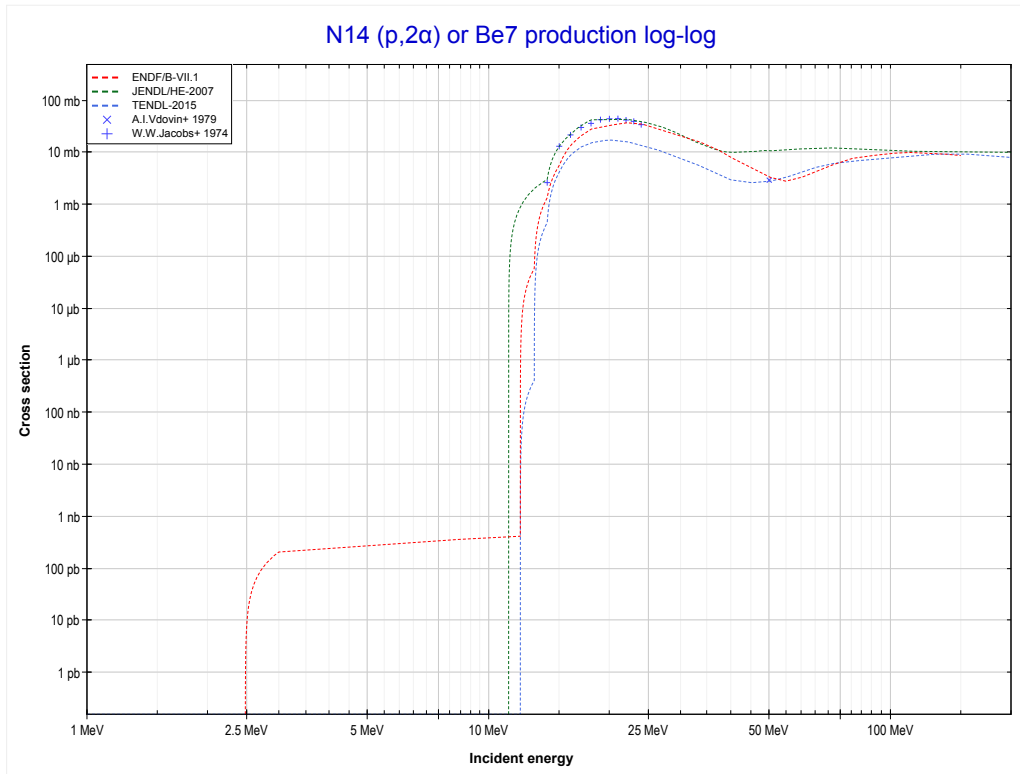
Reaction	Q-Value
N14(p, γ)O15	7296.79 keV

<< 6-C-12	7-N-14	7-N-15 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (C11 production)	MT108 (p, 2α) >>



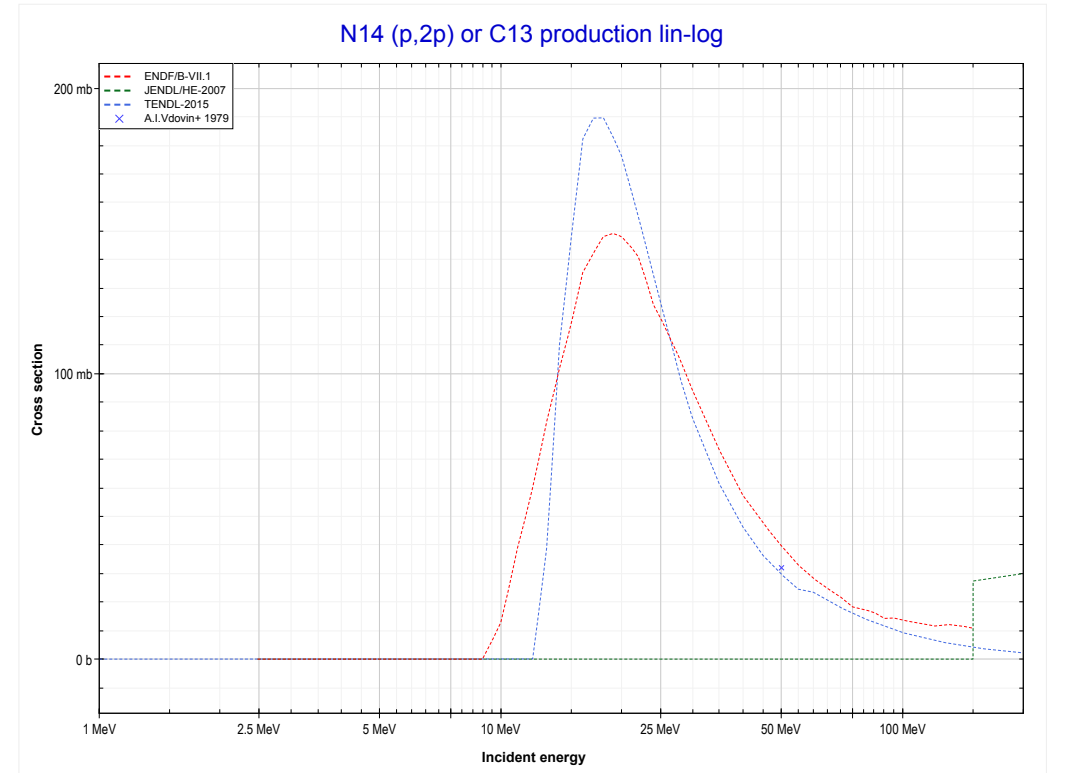
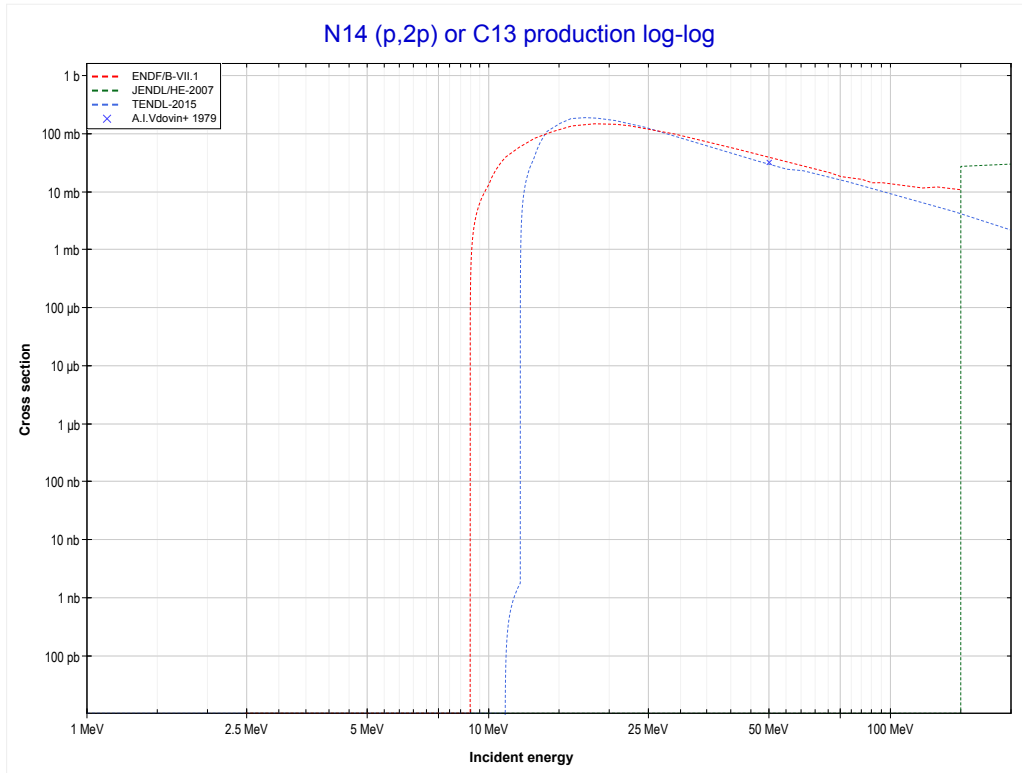
Reaction	Q-Value
N14(p, α)C11	-2922.83 keV
N14(p,p+t)C11	-22736.69 keV
N14(p,n+He3)C11	-23500.45 keV
N14(p, $2d$)C11	-26769.36 keV
N14(p,n+p+d)C11	-28993.92 keV
N14(p, $2n+2p$)C11	-31218.49 keV

<< 5-B-11	7-N-14	12-Mg-25 >>
<< MT107 (p, α)	MT108 (p,2α) or MT5 (Be7 production)	MT111 (p,2p) >>



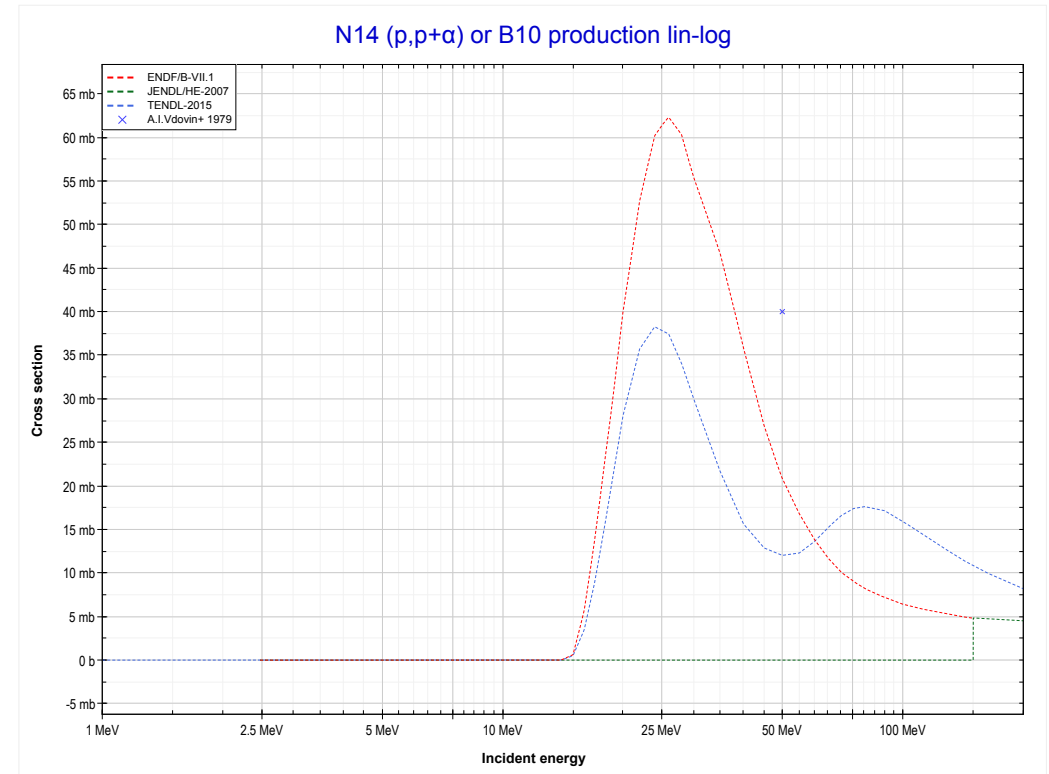
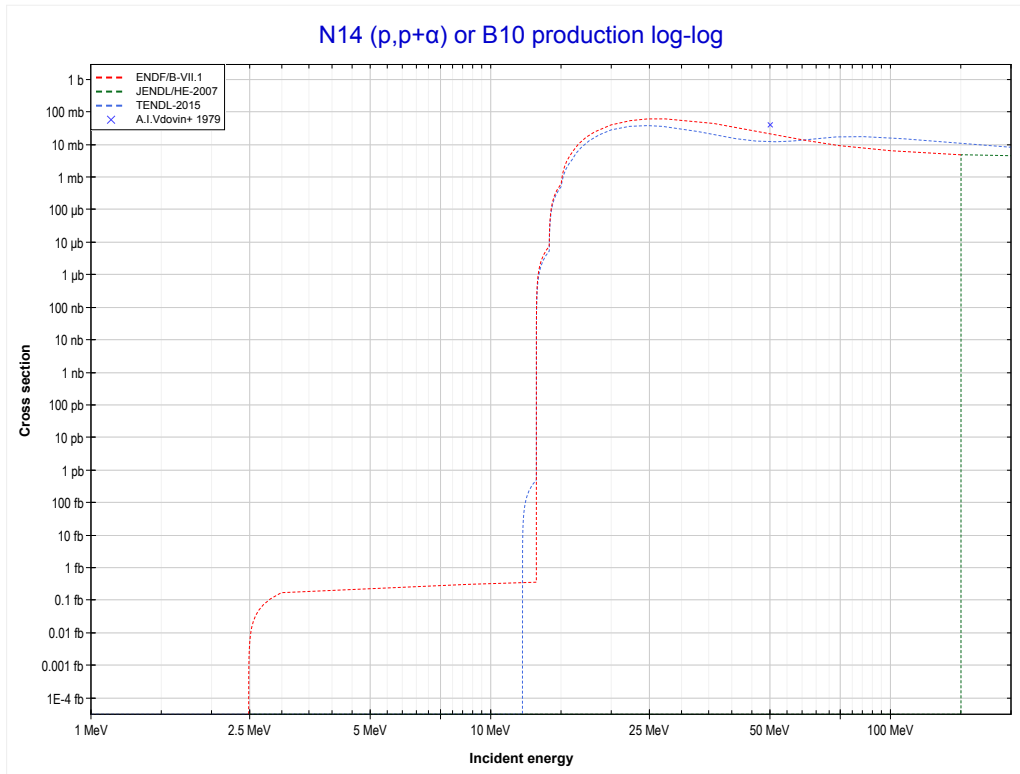
Reaction	Q-Value	Reaction	Q-Value
N14(p,2 α)Be7	-10466.44 keV	N14(p,n+p+t+He3)Be7	-50857.92 keV
N14(p,p+t α)Be7	-30280.31 keV	N14(p,2n+2He3)Be7	-51621.68 keV
N14(p,n+He3 α)Be7	-31044.06 keV	N14(p,p+2d+t)Be7	-54126.83 keV
N14(p,2d α)Be7	-34312.97 keV	N14(p,n+2d+He3)Be7	-54890.59 keV
N14(p,n+p+d α)Be7	-36537.54 keV	N14(p,n+2p+d+t)Be7	-56351.40 keV
N14(p,2n+2p α)Be7	-38762.10 keV	N14(p,2n+p+d+He3)Be7	-57115.15 keV
N14(p,d+t+He3)Be7	-48633.36 keV	N14(p,4d)Be7	-58159.50 keV
N14(p,2p+2t)Be7	-50094.17 keV	N14(p,2n+3p+t)Be7	-58575.96 keV

<< 6-C-12	7-N-14	8-O-16 >>
<< MT108 (p,2α)	MT111 (p,2p) or MT5 (C13 production)	MT112 (p,p+α) >>



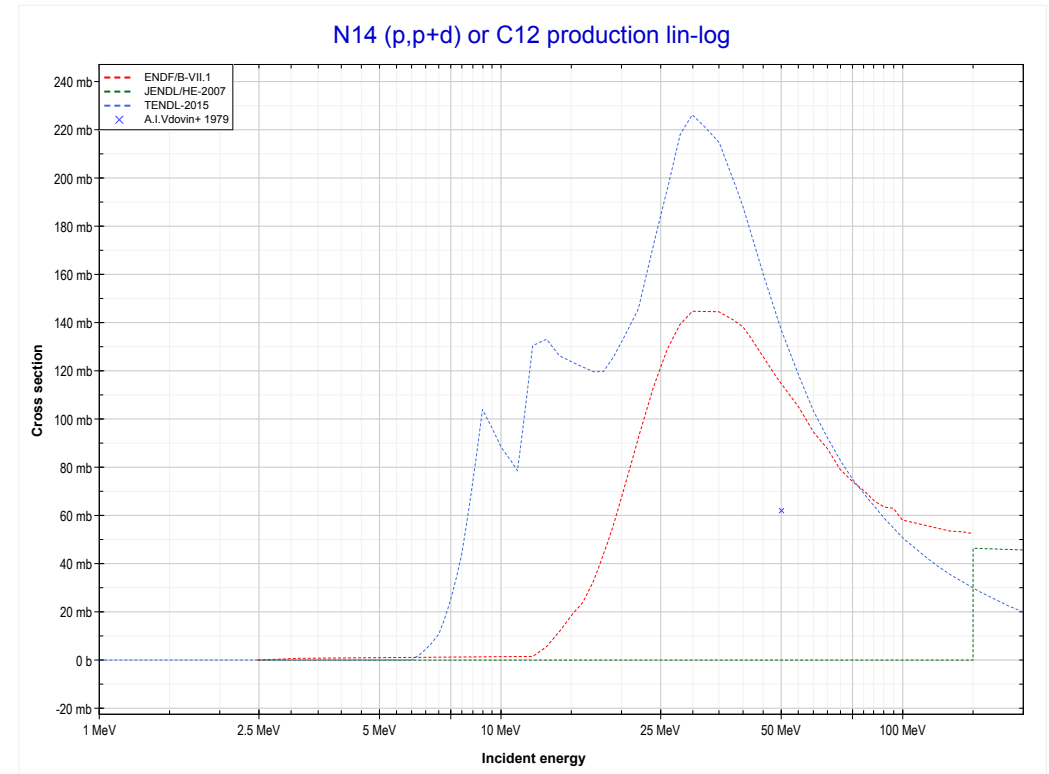
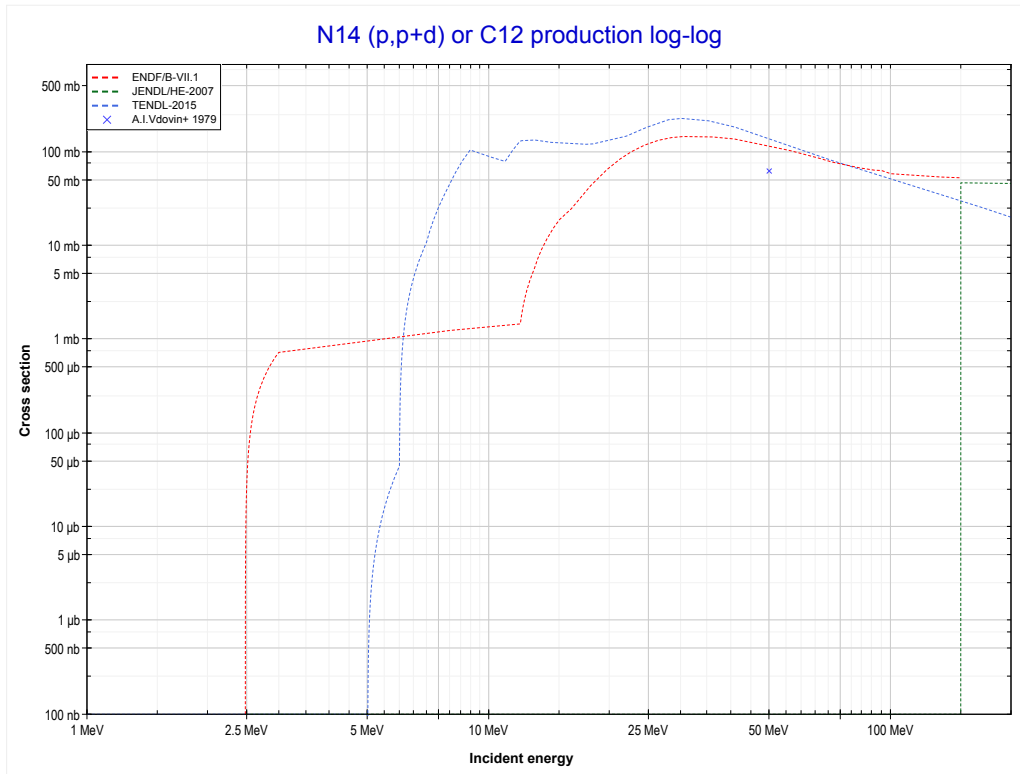
Reaction	Q-Value
N14(p,2p)C13	-7550.56 keV

	7-N-14	8-O-16 >>
<< MT111 (p,2p)	MT112 (p,p+α) or MT5 (B10 production)	MT115 (p,p+d) >>



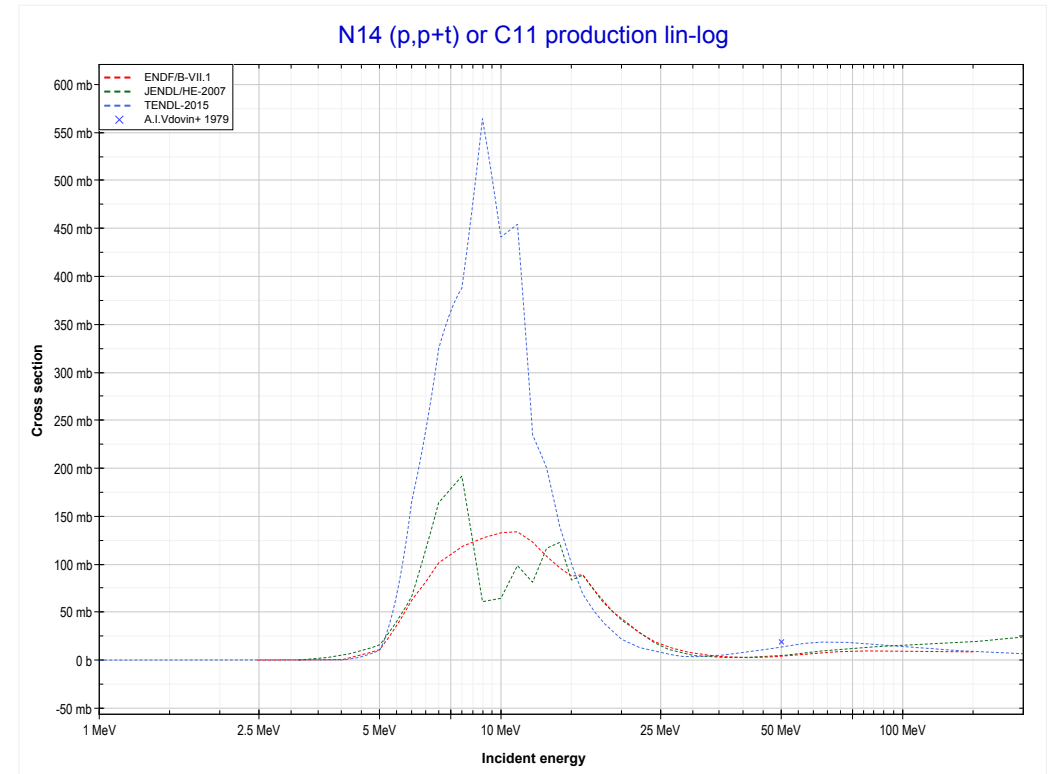
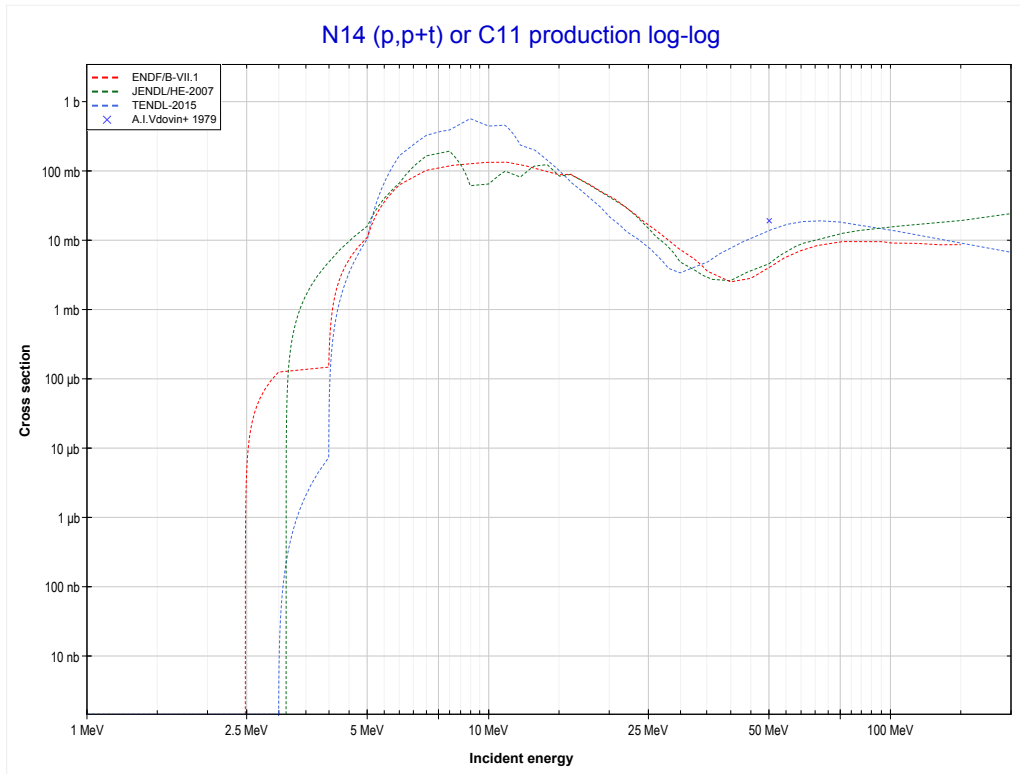
Reaction	Q-Value
N14(p,p+α)B10	-11612.20 keV
N14(p,d+He3)B10	-29965.25 keV
N14(p,2p+t)B10	-31426.06 keV
N14(p,n+p+He3)B10	-32189.82 keV
N14(p,p+2d)B10	-35458.73 keV
N14(p,n+2p+d)B10	-37683.29 keV
N14(p,2n+3p)B10	-39907.86 keV

<< 6-C-12	7-N-14	8-O-16 >>
<< MT112 (p,p+α)	MT115 (p,p+d) or MT5 (C12 production)	MT116 (p,p+t) >>



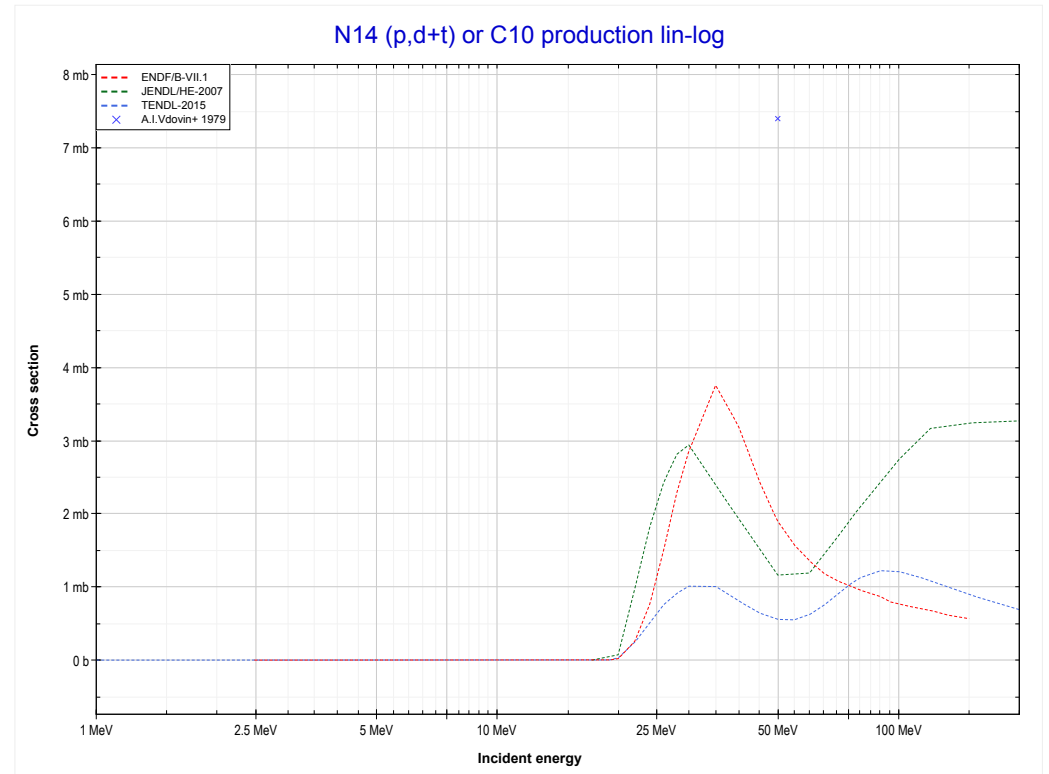
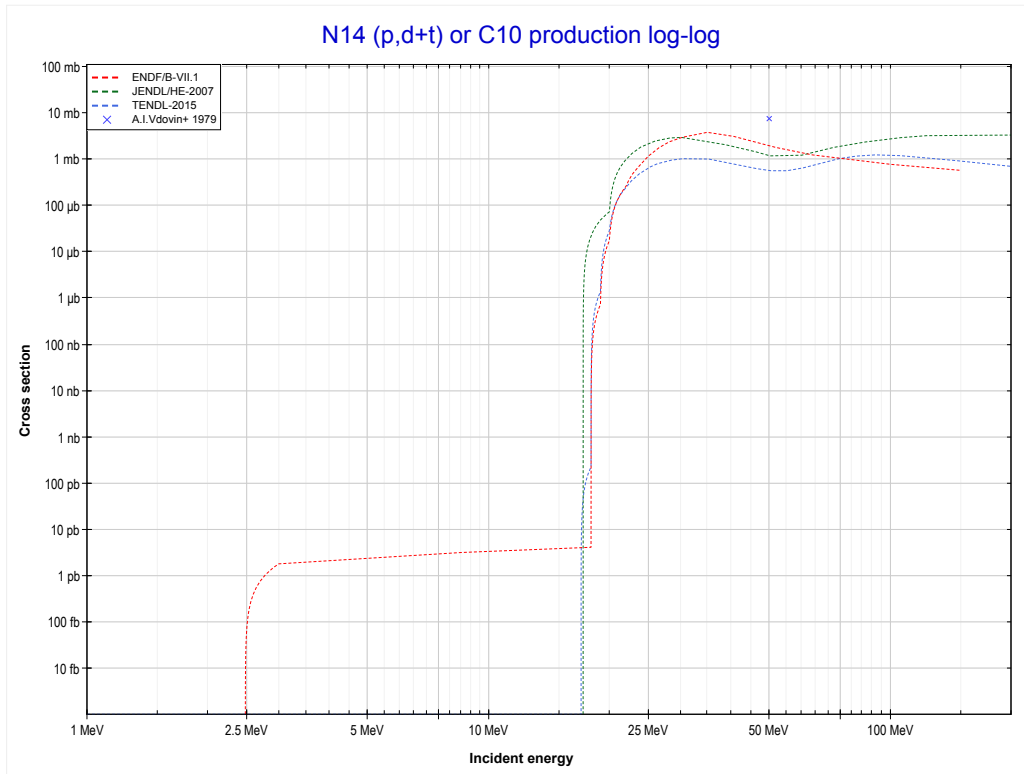
Reaction	Q-Value
N14(p,He3)C12	-4778.83 keV
N14(p,p+d)C12	-10272.31 keV
N14(p,n+2p)C12	-12496.87 keV

	7-N-14	8-O-16 >>
<< MT115 (p,p+d)	MT116 (p,p+t) or MT5 (C11 production)	MT182 (p,d+t) >>



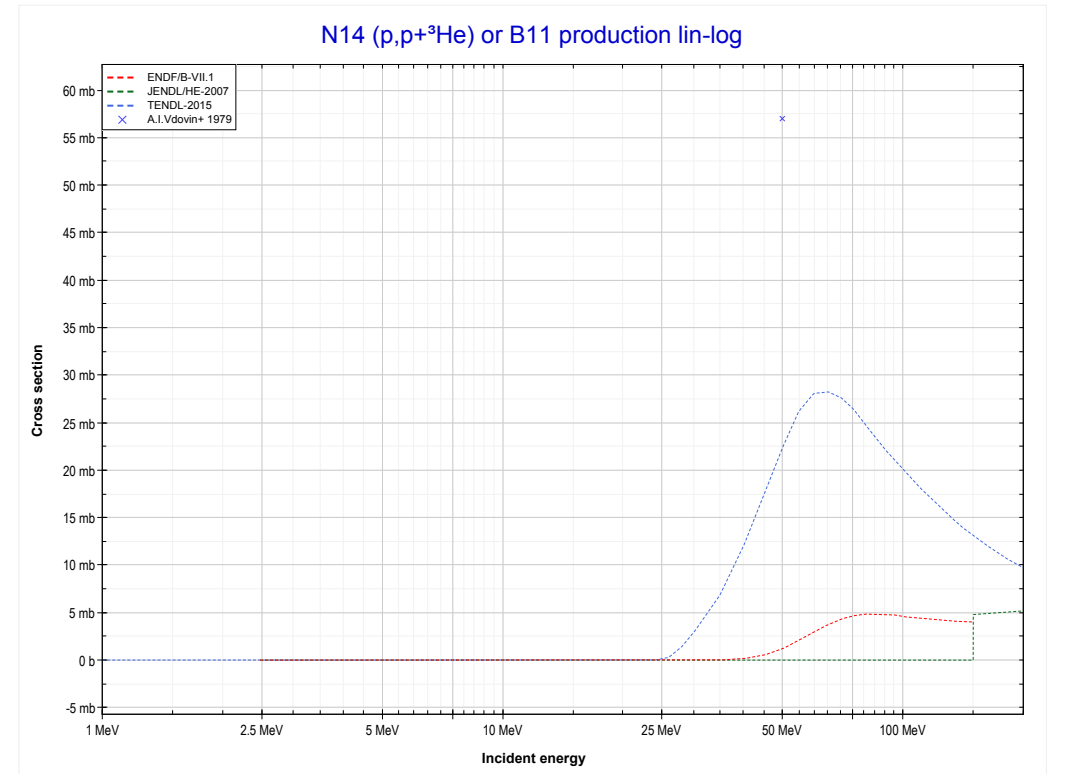
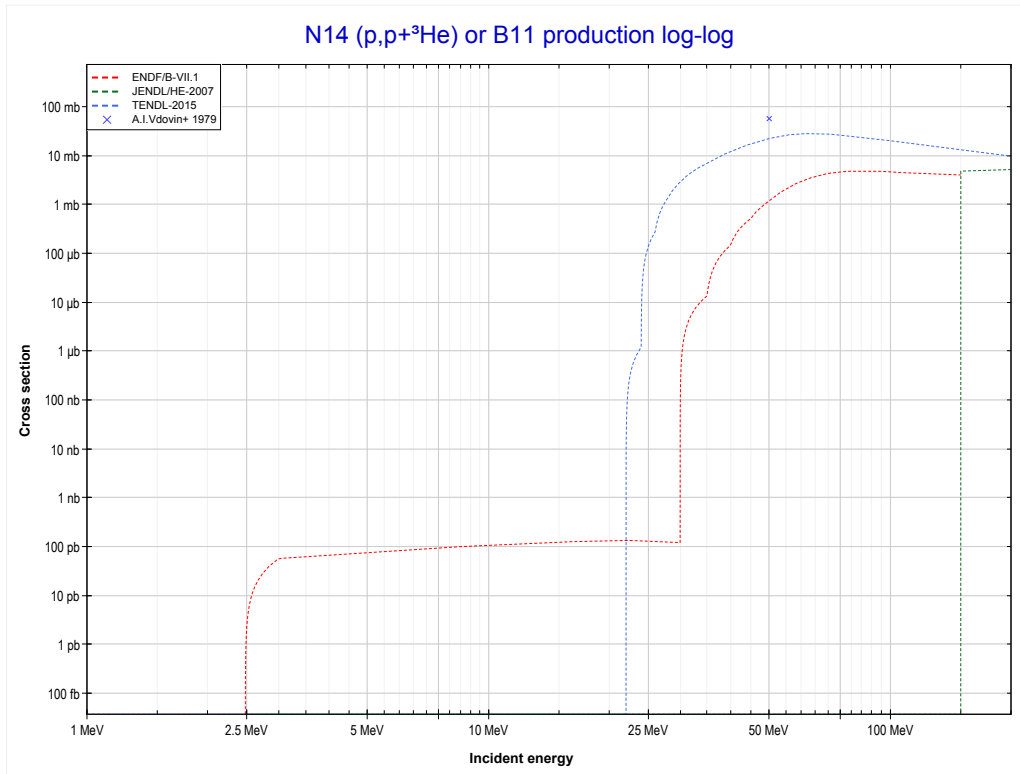
Reaction	Q-Value
N14(p,α)C11	-2922.83 keV
N14(p,p+t)C11	-22736.69 keV
N14(p,n+He3)C11	-23500.45 keV
N14(p,2d)C11	-26769.36 keV
N14(p,n+p+d)C11	-28993.92 keV
N14(p,2n+2p)C11	-31218.49 keV

	7-N-14	
<< MT116 (p,p+t)	MT182 (p,d+t) or MT5 (C10 production)	MT191 (p,p+ ³ He) >>



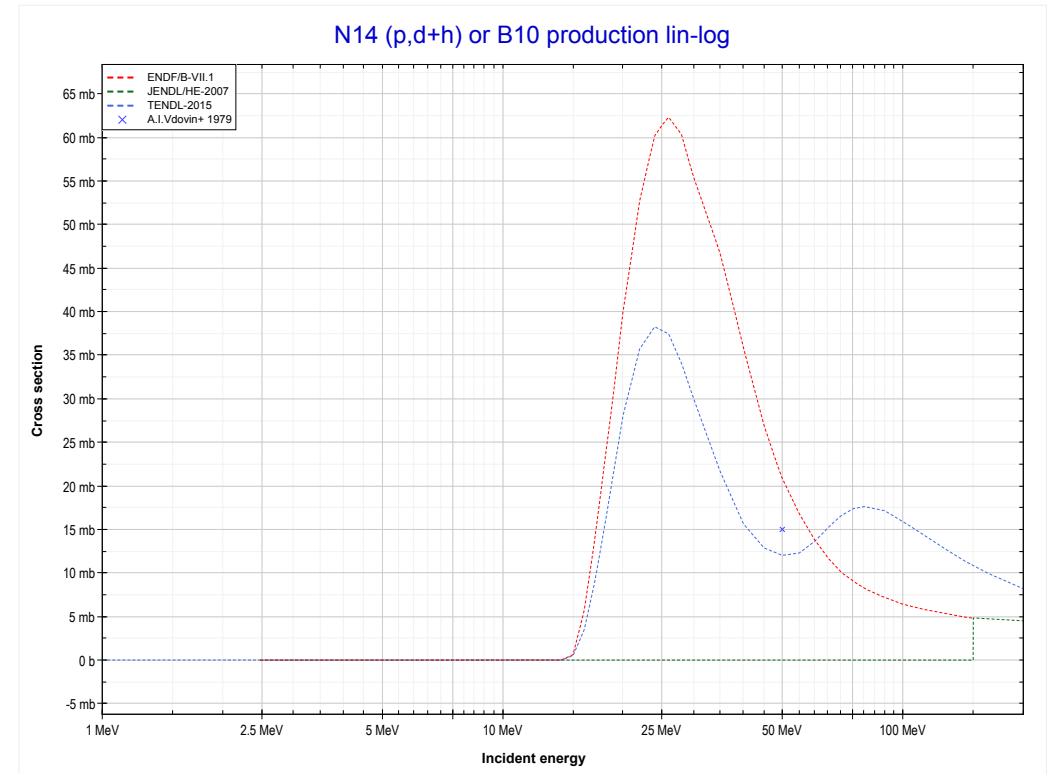
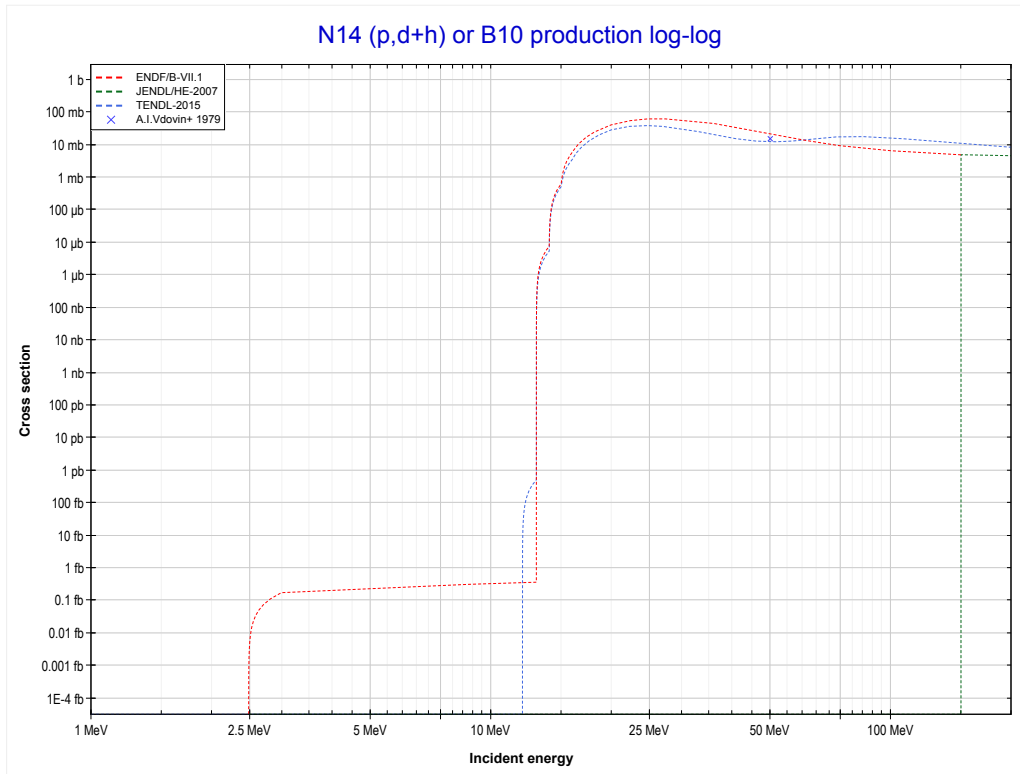
Reaction	Q-Value
N14(p,n+α)C10	-16042.65 keV
N14(p,d+t)C10	-33631.94 keV
N14(p,n+p+t)C10	-35856.51 keV
N14(p,2n+He3)C10	-36620.26 keV
N14(p,n+2d)C10	-39889.17 keV
N14(p,2n+p+d)C10	-42113.74 keV
N14(p,3n+2p)C10	-44338.31 keV

<< 6-C-12	7-N-14	8-O-16 >>
<< MT182 (p,d+t)	MT191 (p,p+³He) or MT5 (B11 production)	MT192 (p,d+ ³ He) >>



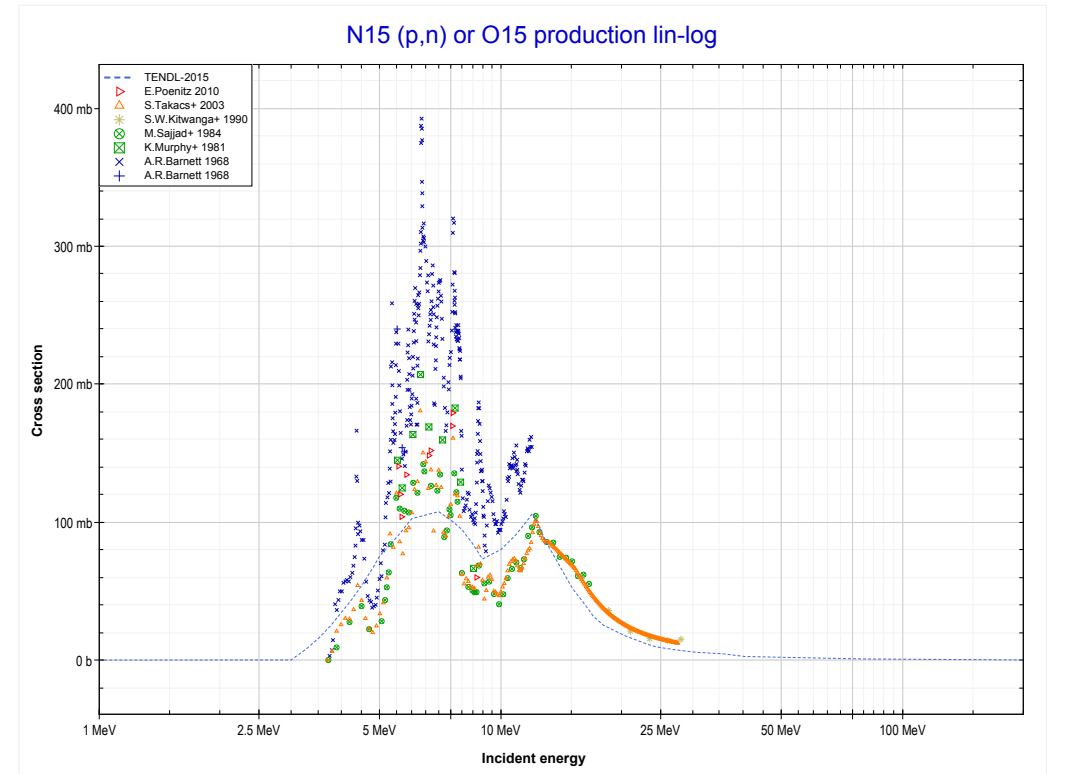
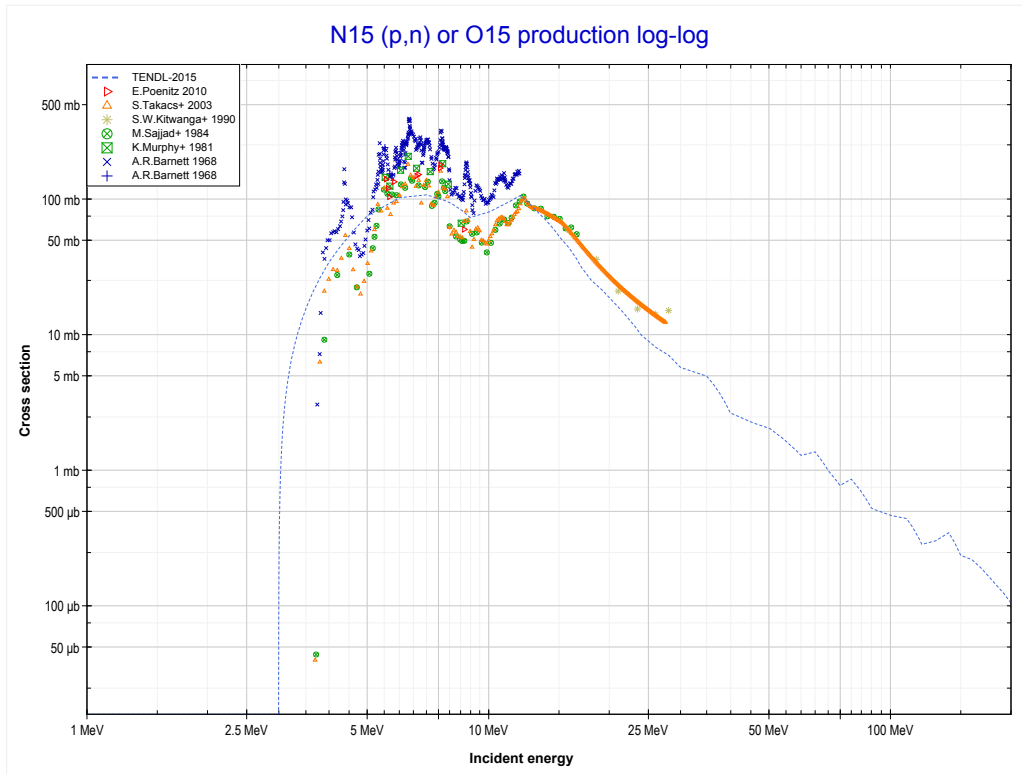
Reaction	Q-Value
N14(p,p+He3)B11	-20735.70 keV
N14(p,2p+d)B11	-26229.18 keV
N14(p,n+3p)B11	-28453.74 keV

	7-N-14	8-O-16 >>
<< MT191 (p,p+ ³ He)	MT192 (p,d+³He) or MT5 (B10 production)	7-N-15 MT4 (p,n) >>



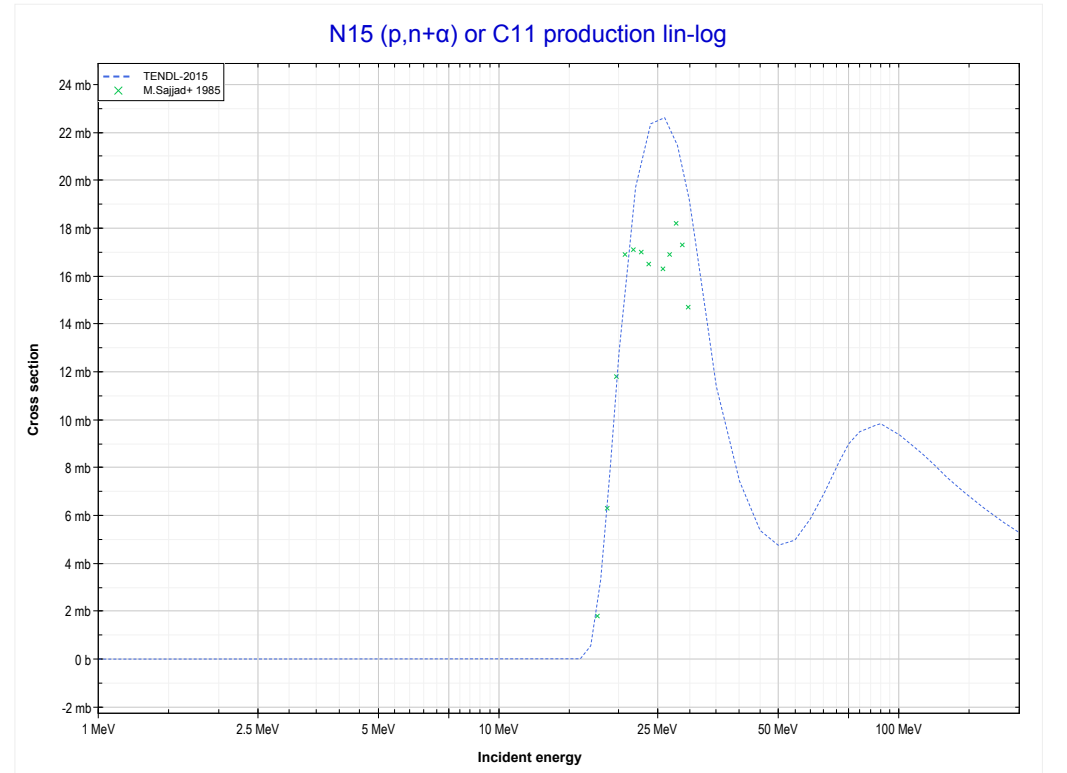
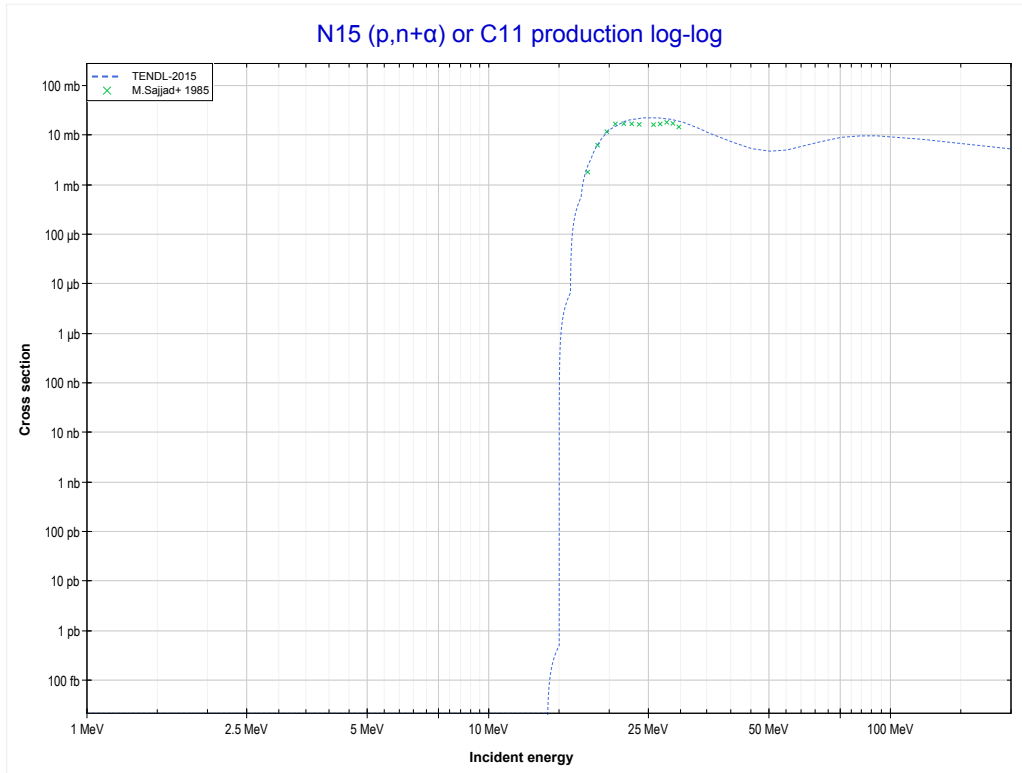
Reaction	Q-Value
N14(p,p+α)B10	-11612.20 keV
N14(p,d+He3)B10	-29965.25 keV
N14(p,2p+t)B10	-31426.06 keV
N14(p,n+p+He3)B10	-32189.82 keV
N14(p,p+2d)B10	-35458.73 keV
N14(p,n+2p+d)B10	-37683.29 keV
N14(p,2n+3p)B10	-39907.86 keV

<< 7-N-14	7-N-15	8-O-17 >>
<< 7-N-14 MT192 (p,d+ ³ He)	MT4 (p,n) or MT5 (O15 production)	MT22 (p,n+α) >>



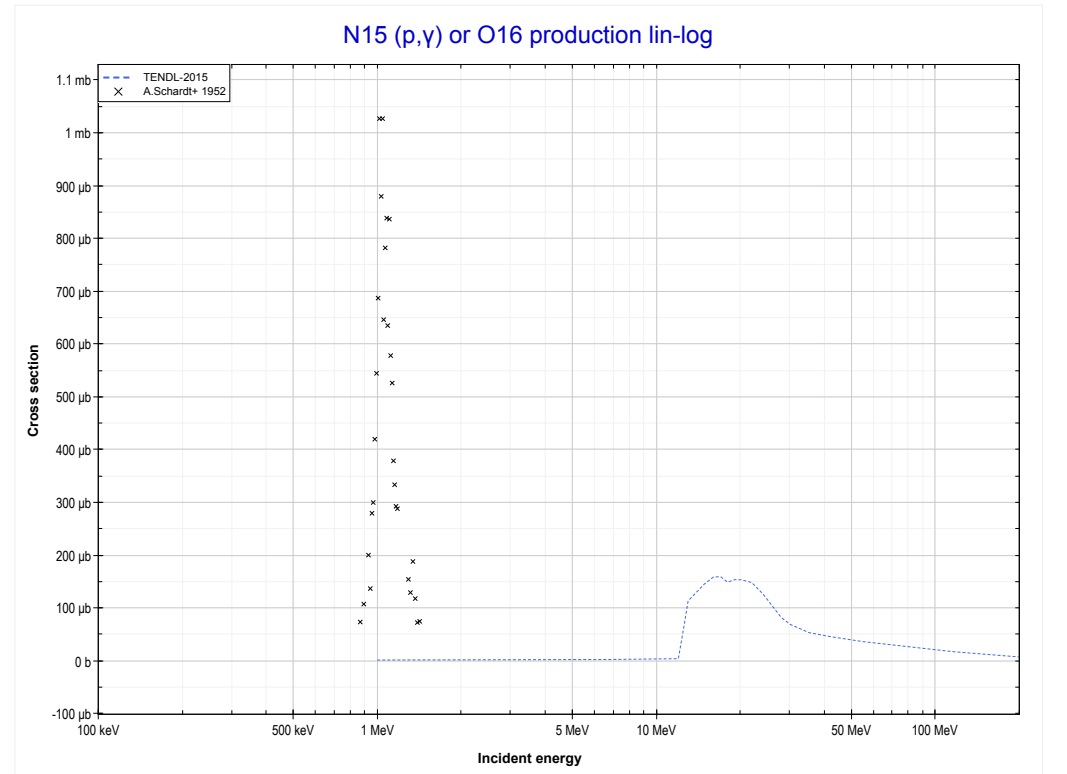
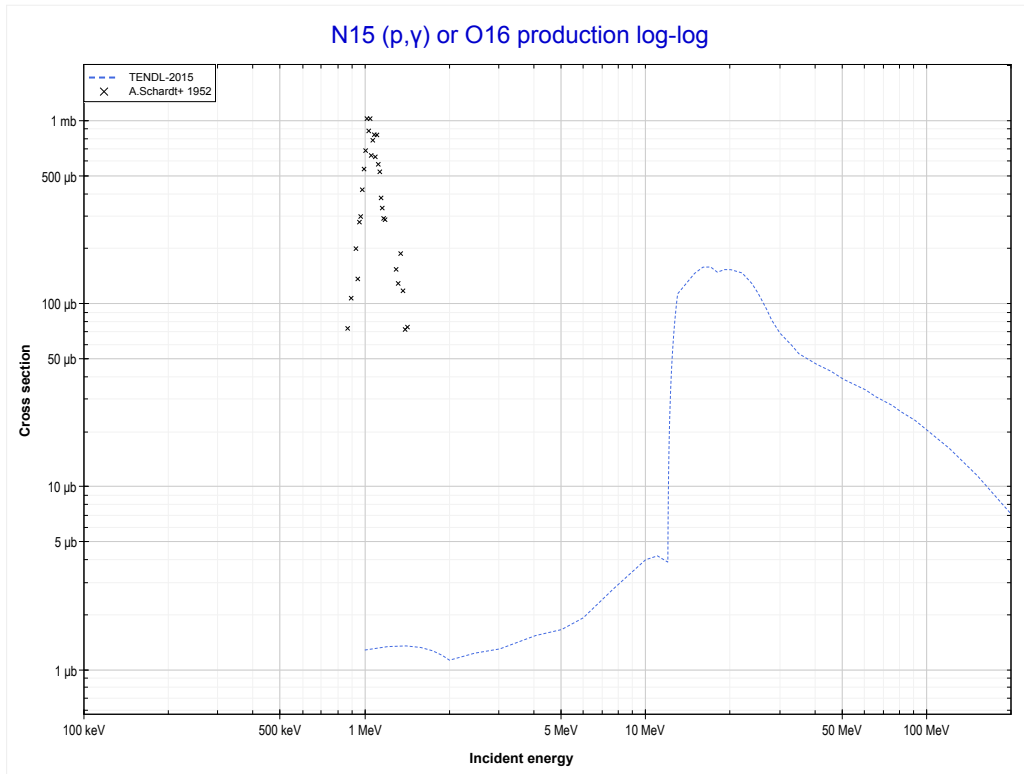
Reaction	Q-Value
N15(p,n)O15	-3536.51 keV

	7-N-15	22-Ti-50 >>
<< MT4 (p,n)	MT22 (p,n+α) or MT5 (C11 production)	MT102 (p,γ) >>



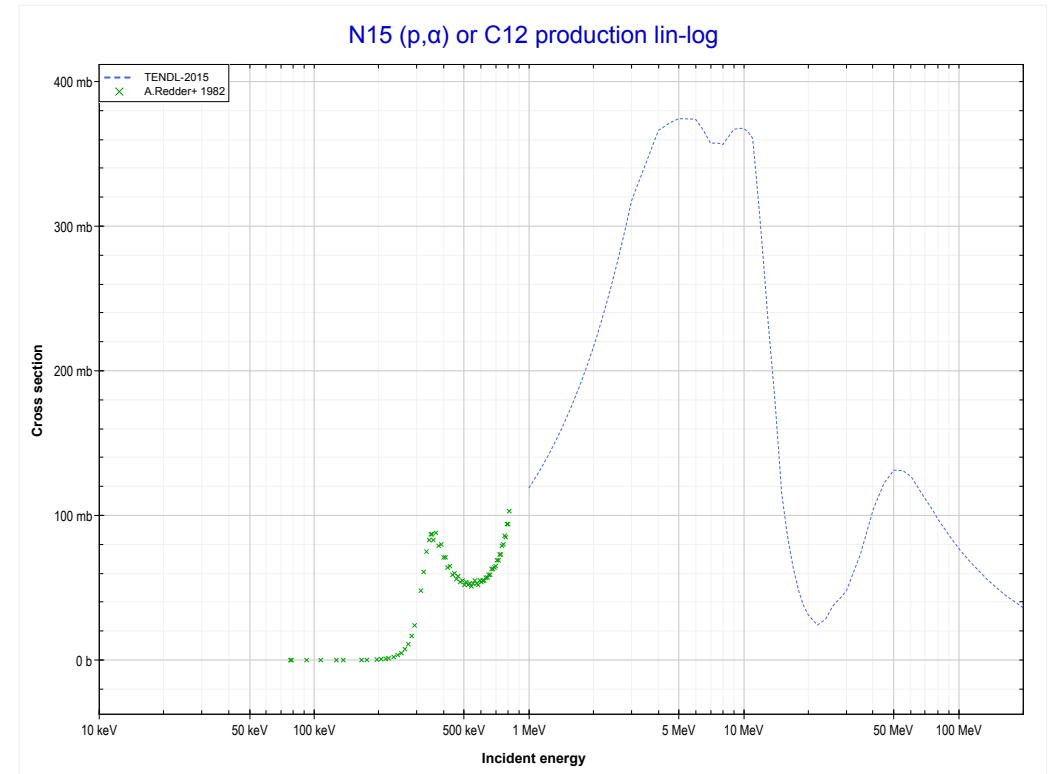
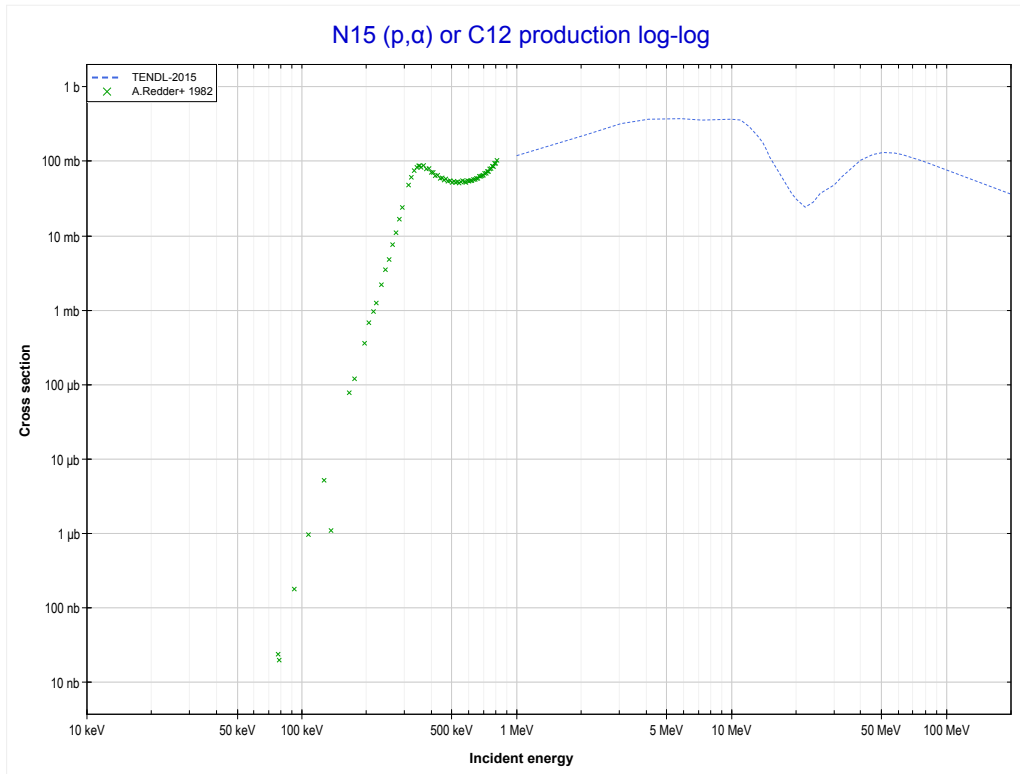
Reaction	Q-Value
N15(p,n+α)C11	-13756.12 keV
N15(p,d+t)C11	-31345.42 keV
N15(p,n+p+t)C11	-33569.98 keV
N15(p,2n+He3)C11	-34333.74 keV
N15(p,n+2d)C11	-37602.65 keV
N15(p,2n+p+d)C11	-39827.22 keV
N15(p,3n+2p)C11	-42051.78 keV

<< 7-N-14	7-N-15	8-O-16 >>
<< MT22 (p,n+α)	MT102 (p,γ) or MT5 (O16 production)	MT107 (p,α) >>



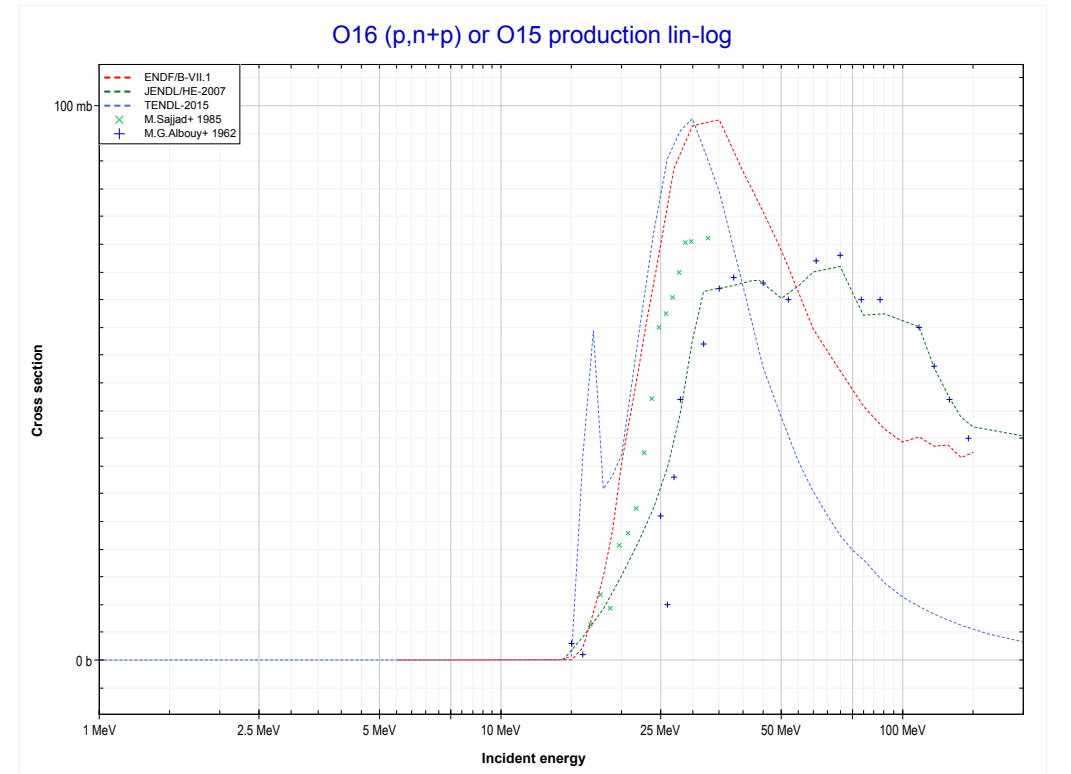
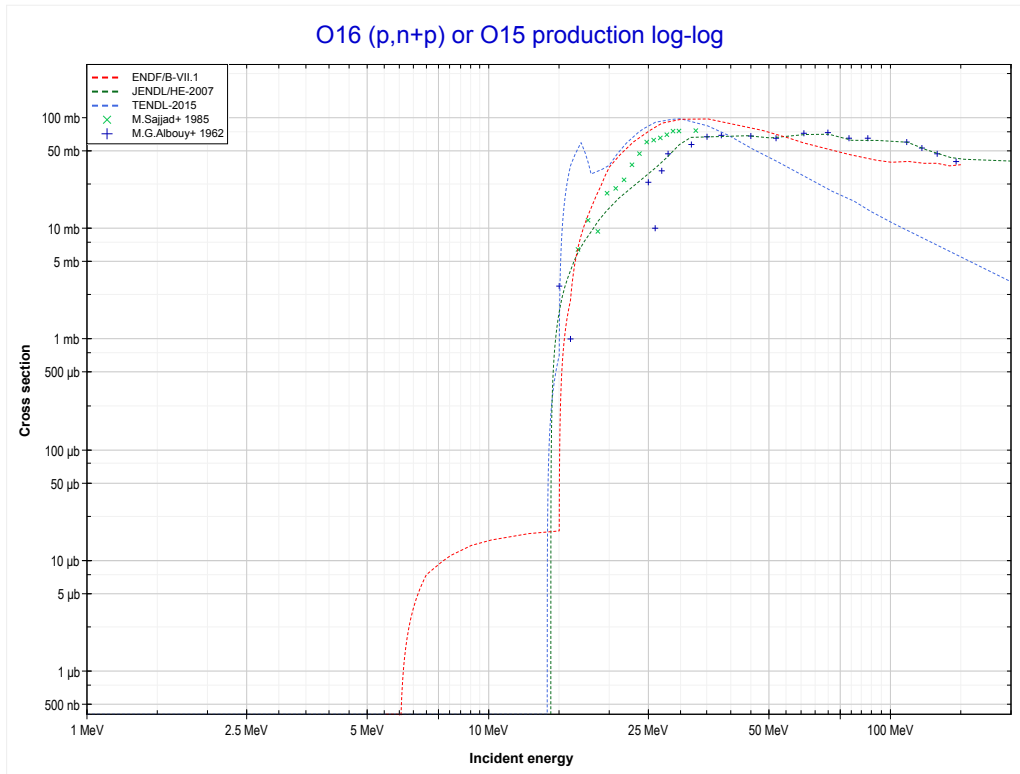
Reaction	Q-Value
N15(p,γ)O16	12127.41 keV

<< 7-N-14	7-N-15	8-O-16 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (C12 production)	8-O-16 MT28 (p,n+p) >>



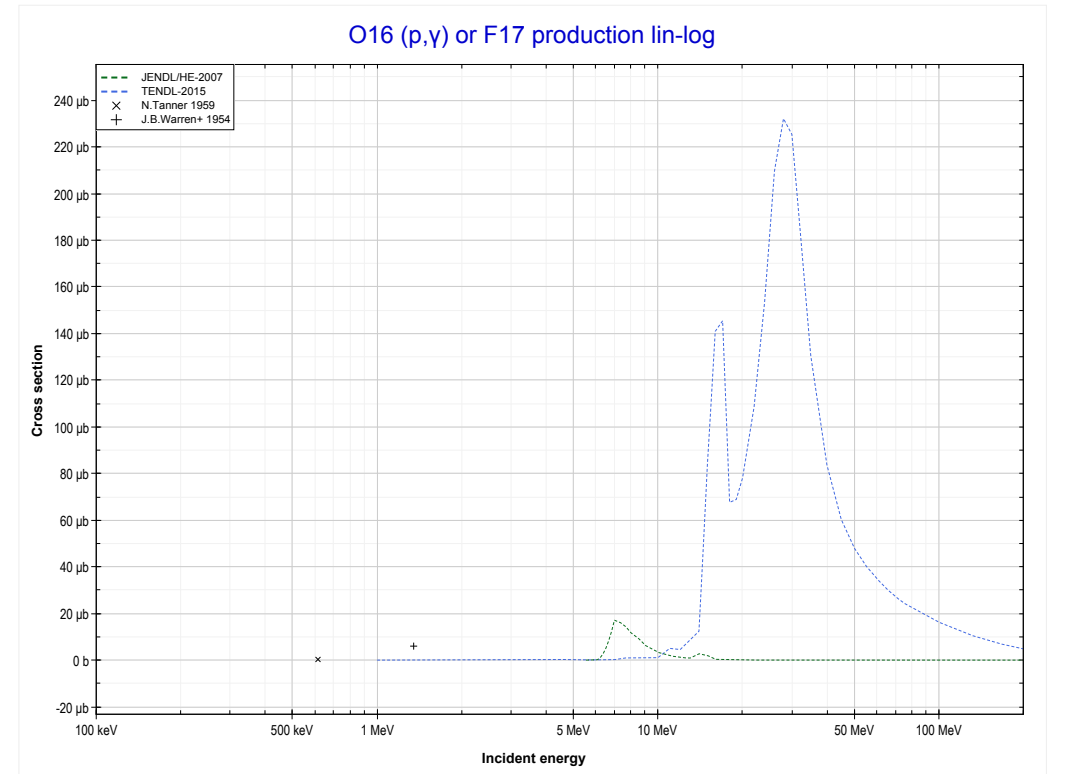
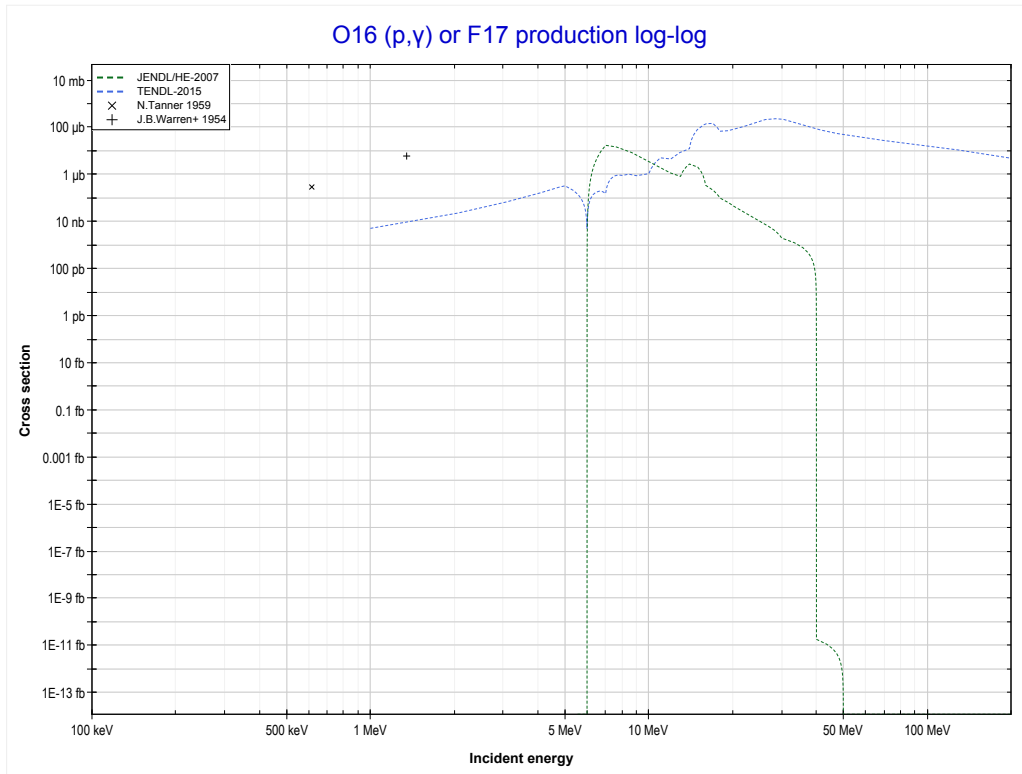
Reaction	Q-Value
N15(p, α)C12	4965.49 keV
N15(p,p+t)C12	-14848.37 keV
N15(p,n+He3)C12	-15612.12 keV
N15(p,2d)C12	-18881.03 keV
N15(p,n+p+d)C12	-21105.60 keV
N15(p,2n+2p)C12	-23330.17 keV

<< 7-N-14	8-O-16	9-F-19 >>
<< 7-N-15 MT107 (p, α)	MT28 (p,n+p) or MT5 (O15 production)	MT102 (p, γ) >>



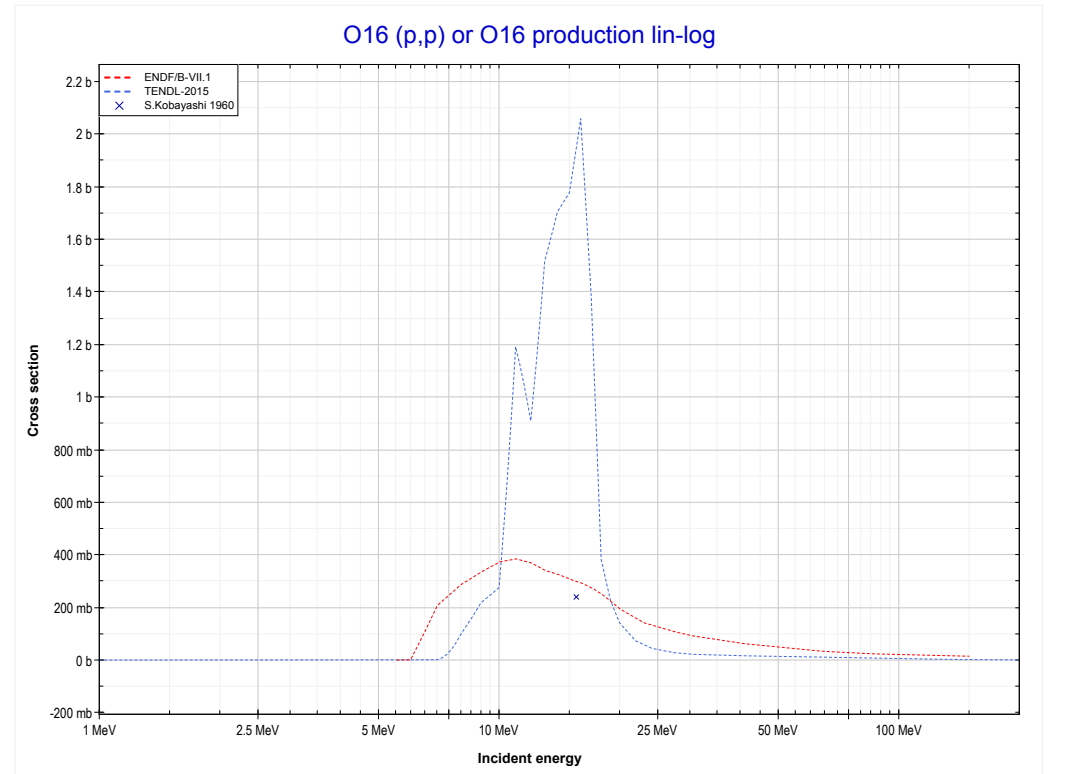
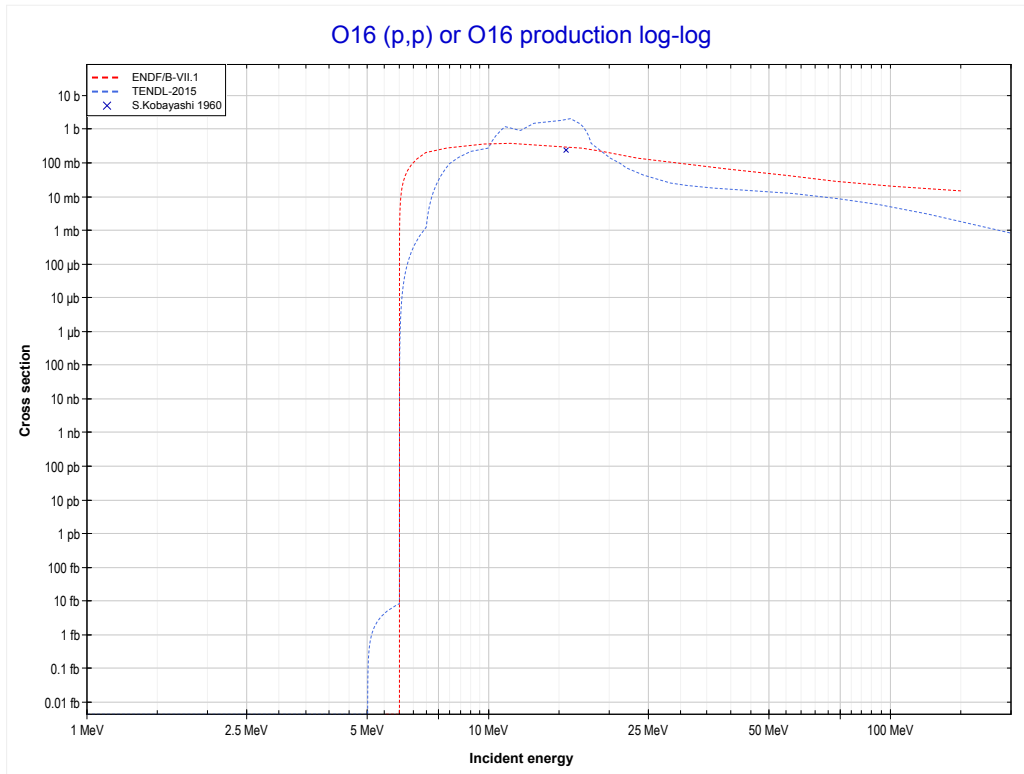
Reaction	Q-Value
O16(p,d)O15	-13439.35 keV
O16(p,n+p)O15	-15663.92 keV

<< 7-N-15	8-O-16	8-O-17 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (F17 production)	MT103 (p,p) >>



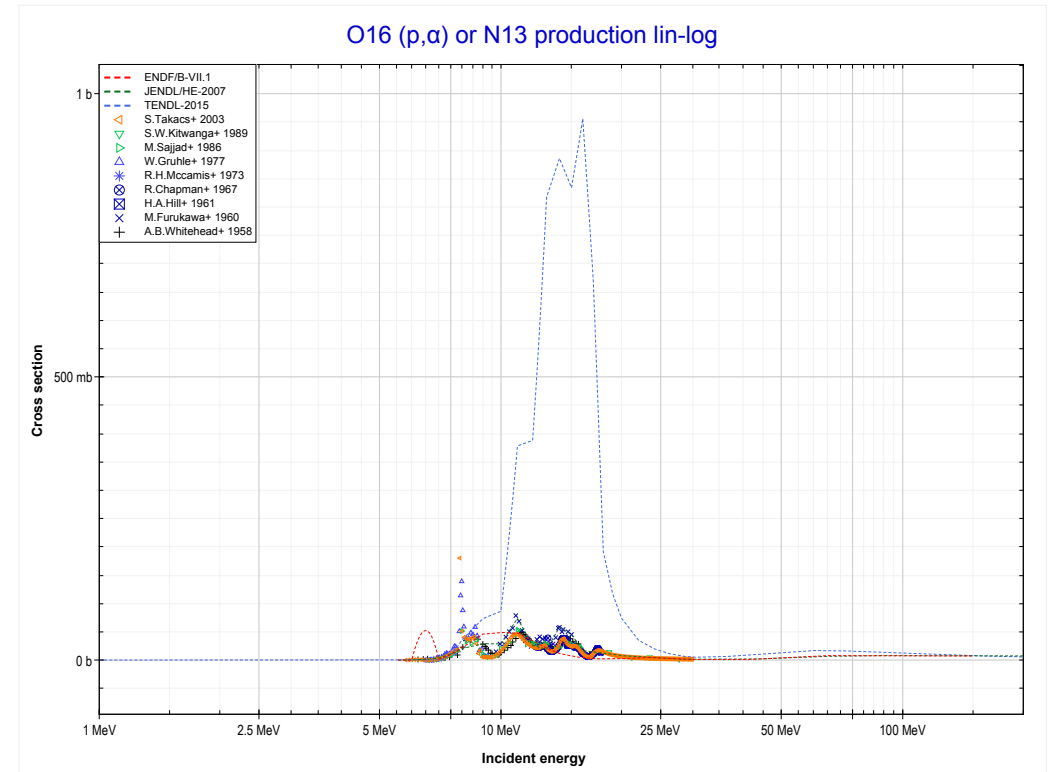
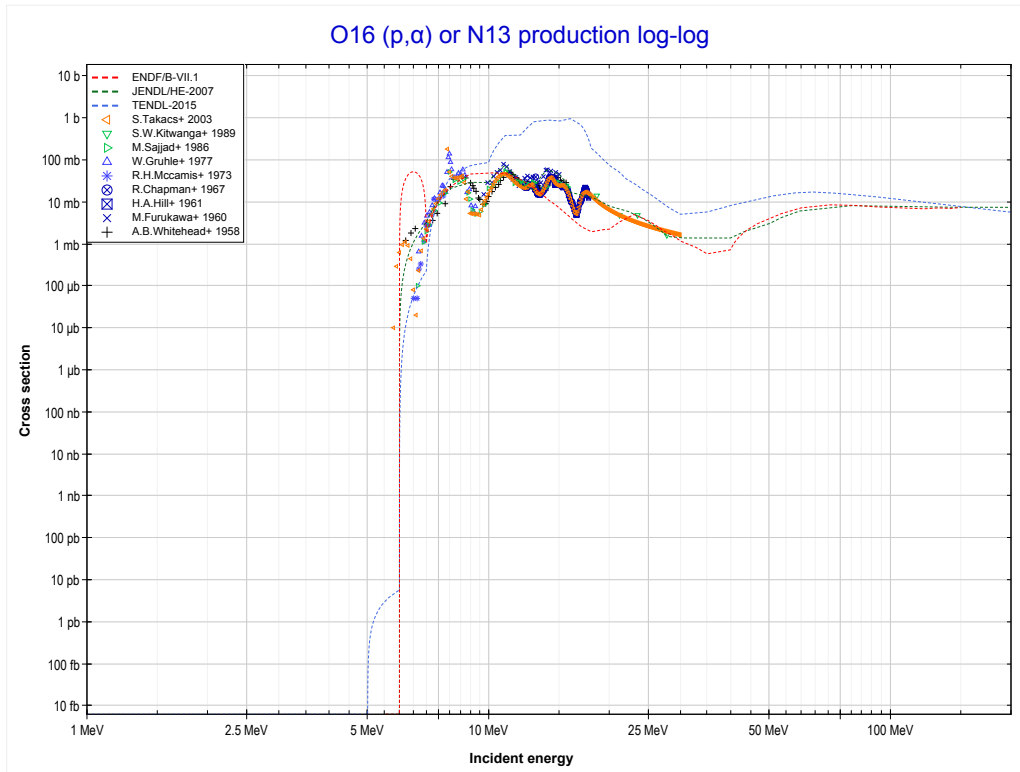
Reaction	Q-Value
O16(p, γ)F17	600.27 keV

<< 4-Be-9	8-O-16	12-Mg-24 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (O16 production)	MT107 (p, α) >>



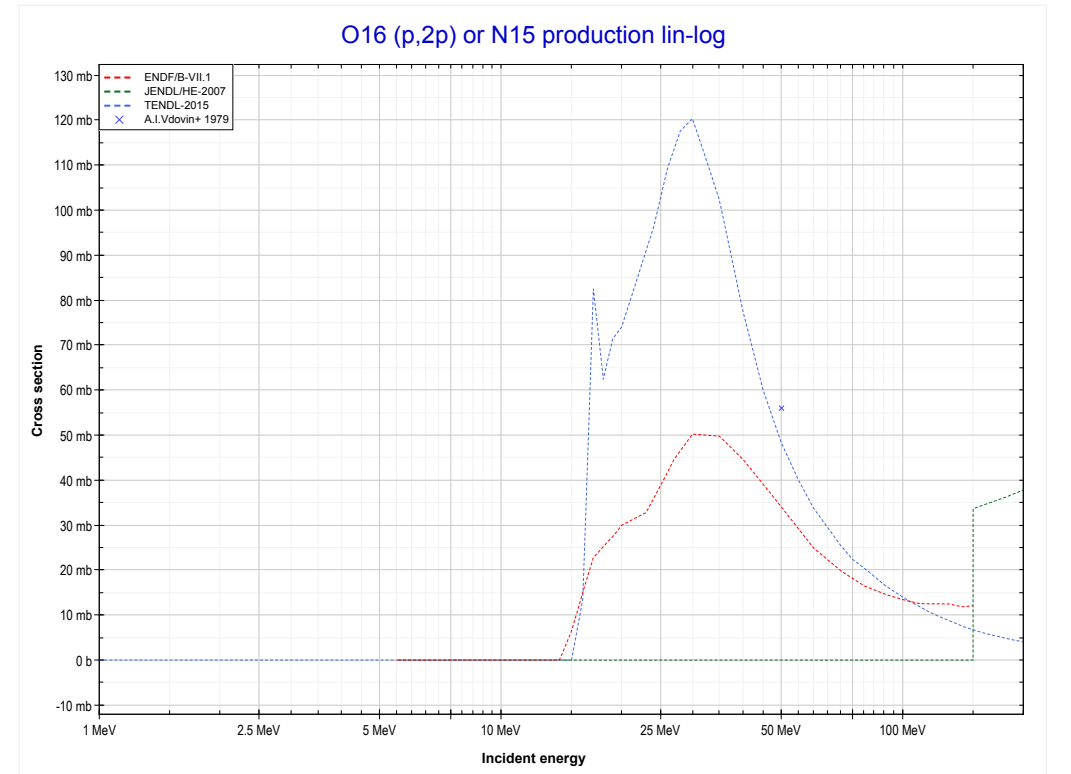
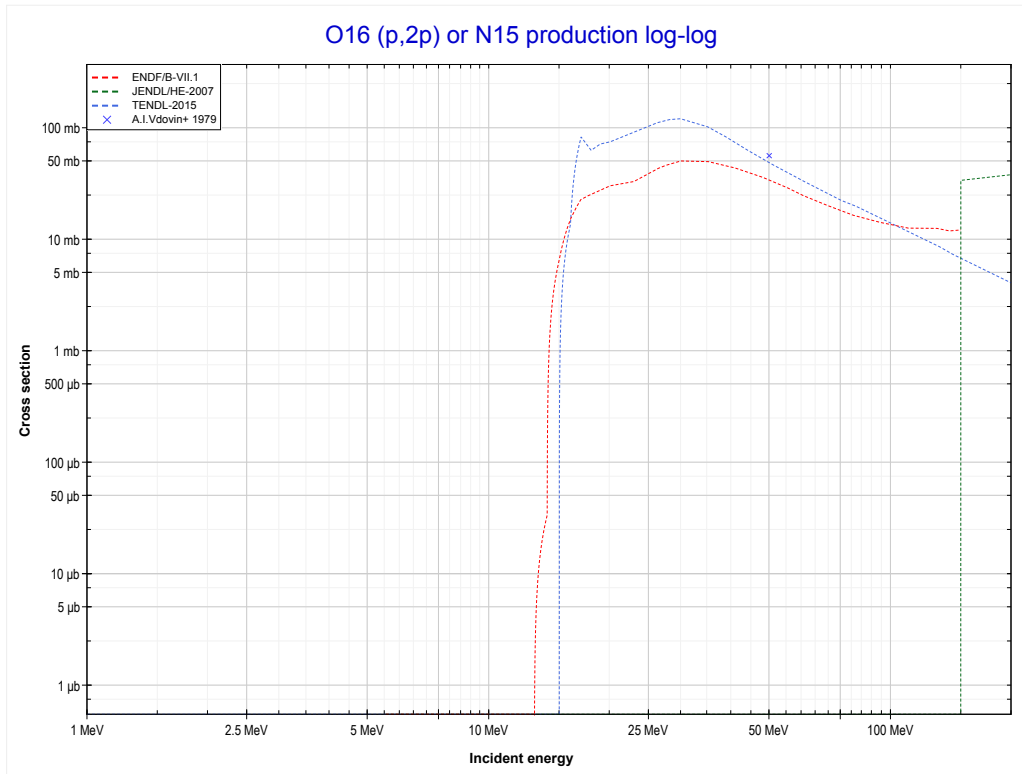
Reaction	Q-Value
O16(p,p)O16	0.00 keV

<< 7-N-15	8-O-16	8-O-18 >>
<< MT103 (p,p)	MT107 (p,α) or MT5 (N13 production)	MT111 (p,2p) >>



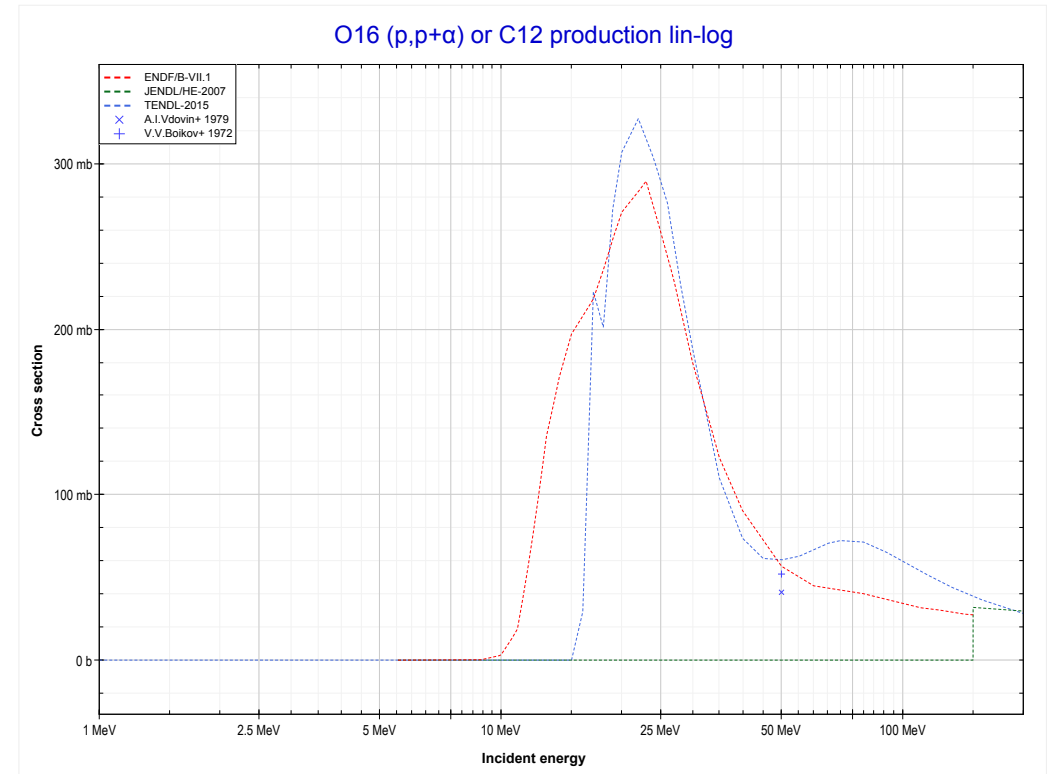
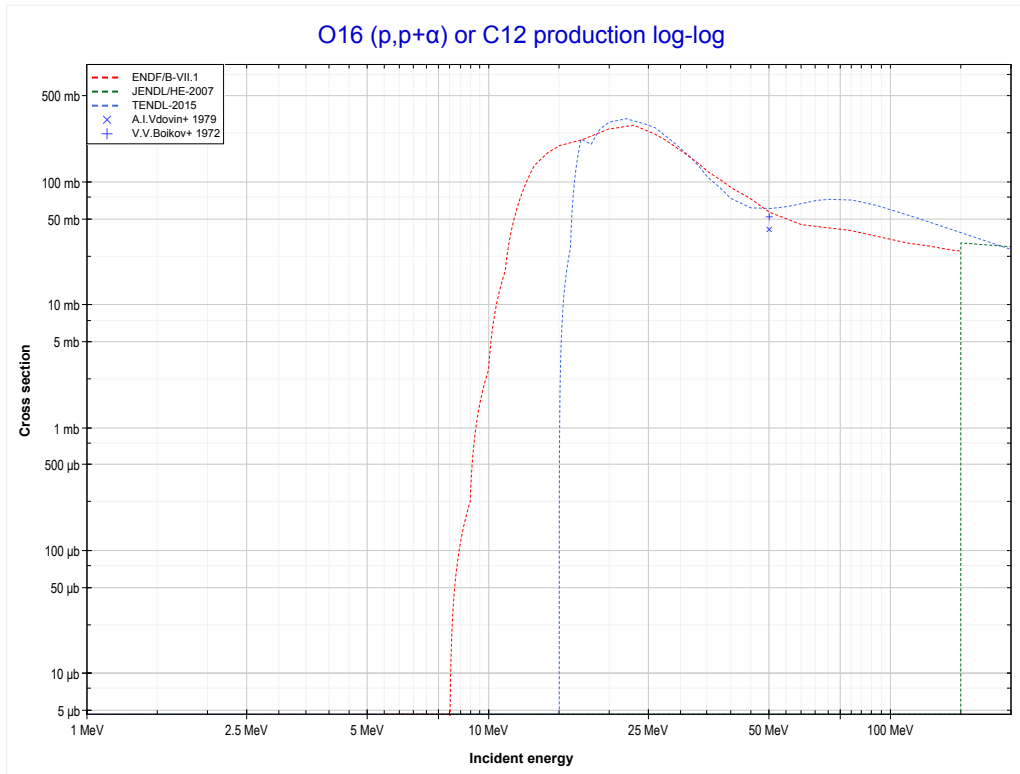
Reaction	Q-Value
O16(p, α)N13	-5218.43 keV
O16(p,p+t)N13	-25032.29 keV
O16(p,n+He3)N13	-25796.04 keV
O16(p,2d)N13	-29064.95 keV
O16(p,n+p+d)N13	-31289.52 keV
O16(p,2n+2p)N13	-33514.09 keV

<< 7-N-14	8-O-16	12-Mg-25 >>
<< MT107 (p, α)	MT111 (p,2p) or MT5 (N15 production)	MT112 (p,p $+\alpha$) >>



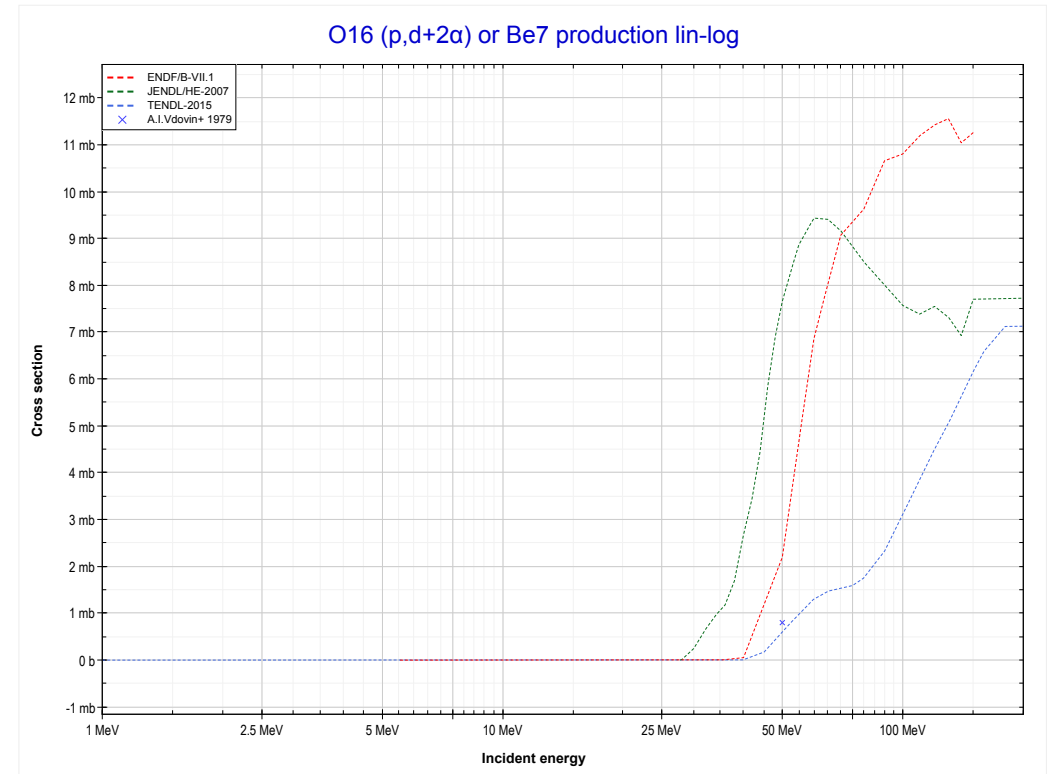
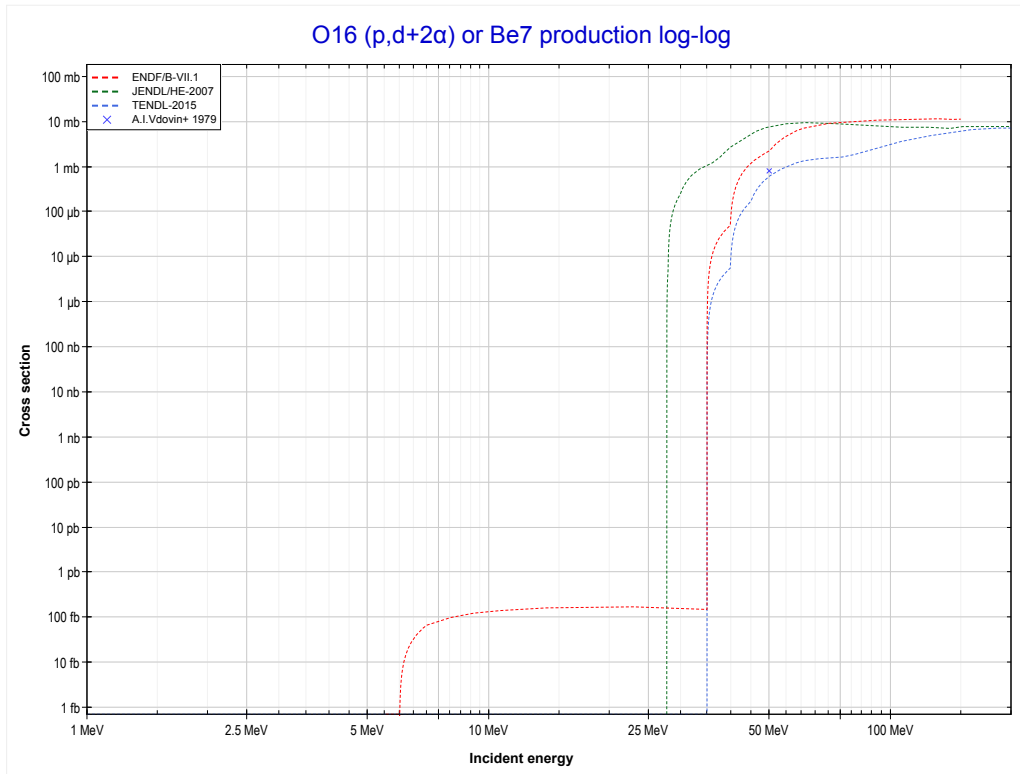
Reaction	Q-Value
O16(p,2p)N15	-12127.41 keV

<< 7-N-14	8-O-16	
<< MT111 (p,2p)	MT112 (p,p+α) or MT5 (C12 production)	MT114 (p,d+2α) >>



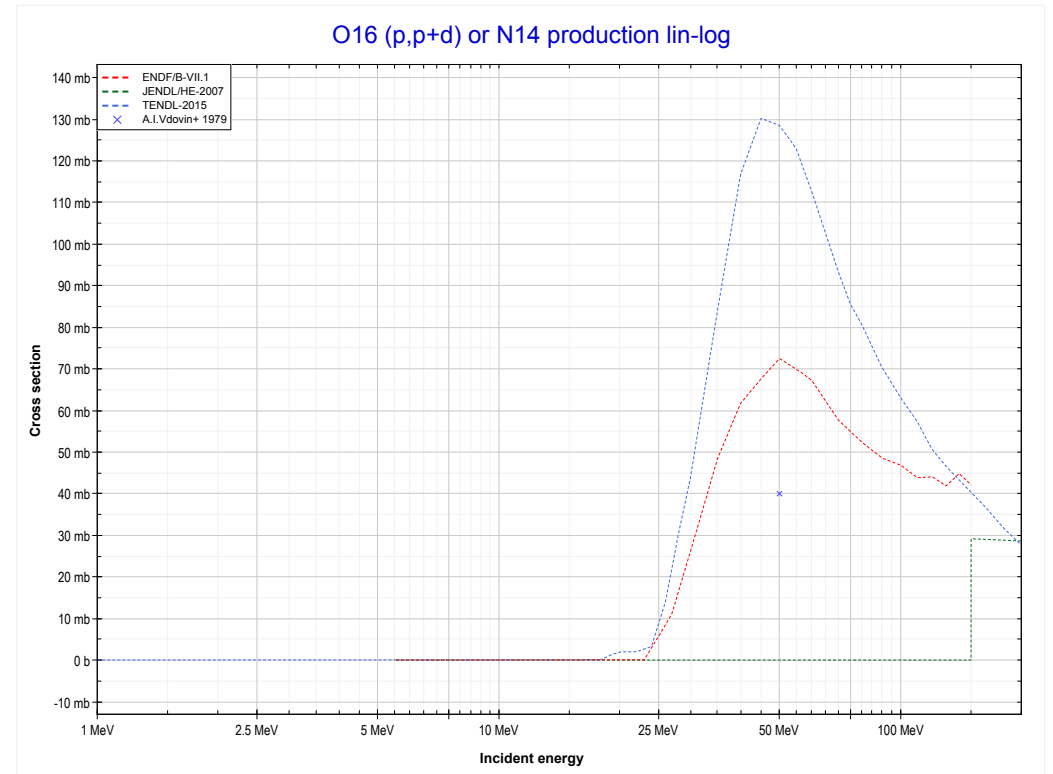
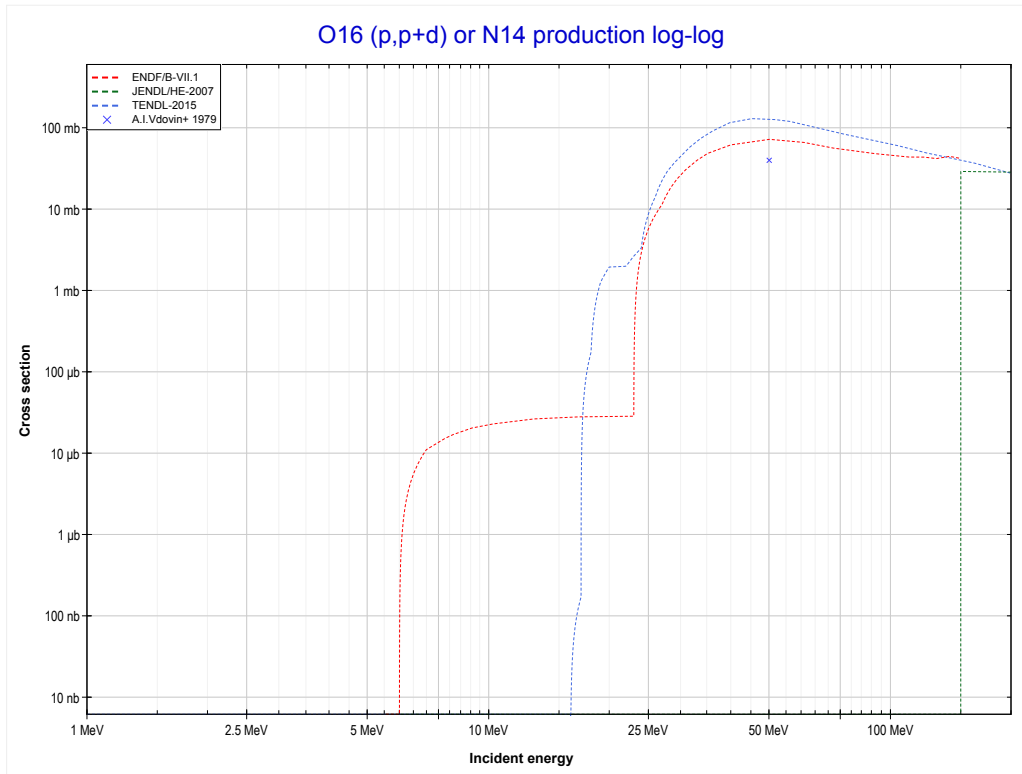
Reaction	Q-Value
O16(p,p+α)C12	-7161.92 keV
O16(p,d+He3)C12	-25514.97 keV
O16(p,2p+t)C12	-26975.78 keV
O16(p,n+p+He3)C12	-27739.53 keV
O16(p,p+2d)C12	-31008.44 keV
O16(p,n+2p+d)C12	-33233.01 keV
O16(p,2n+3p)C12	-35457.58 keV

	8-O-16	
<< MT112 (p,p+α)	MT114 (p,d+2α) or MT5 (Be7 production)	MT115 (p,p+d) >>



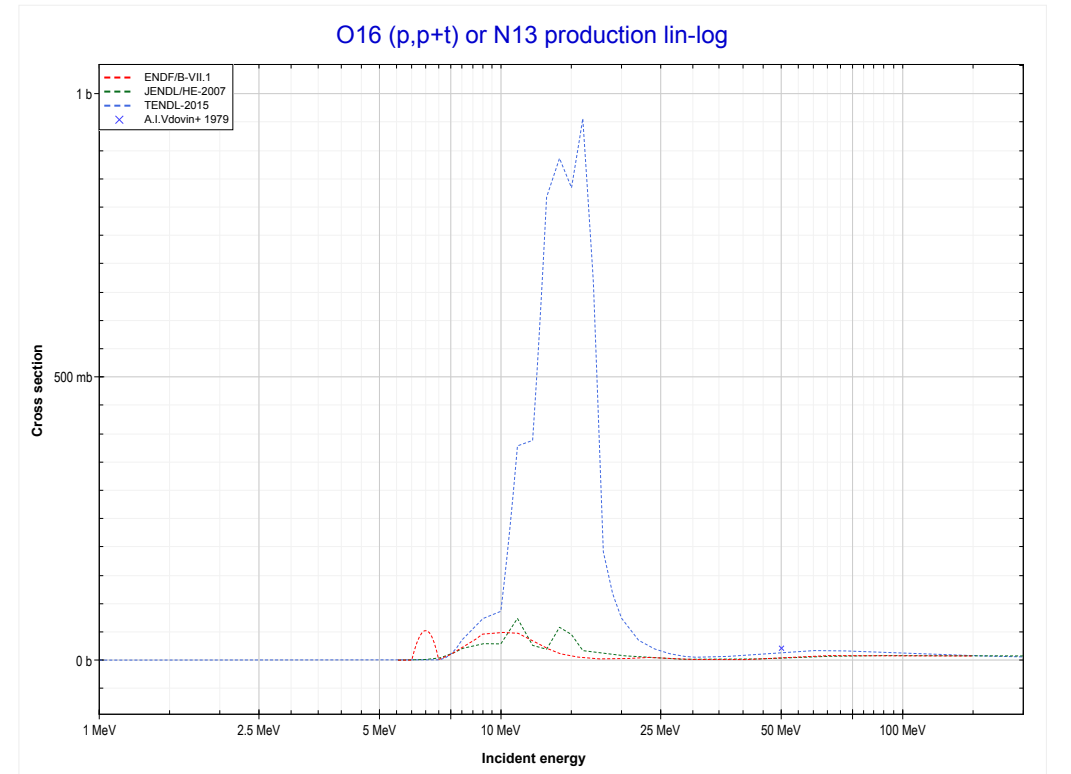
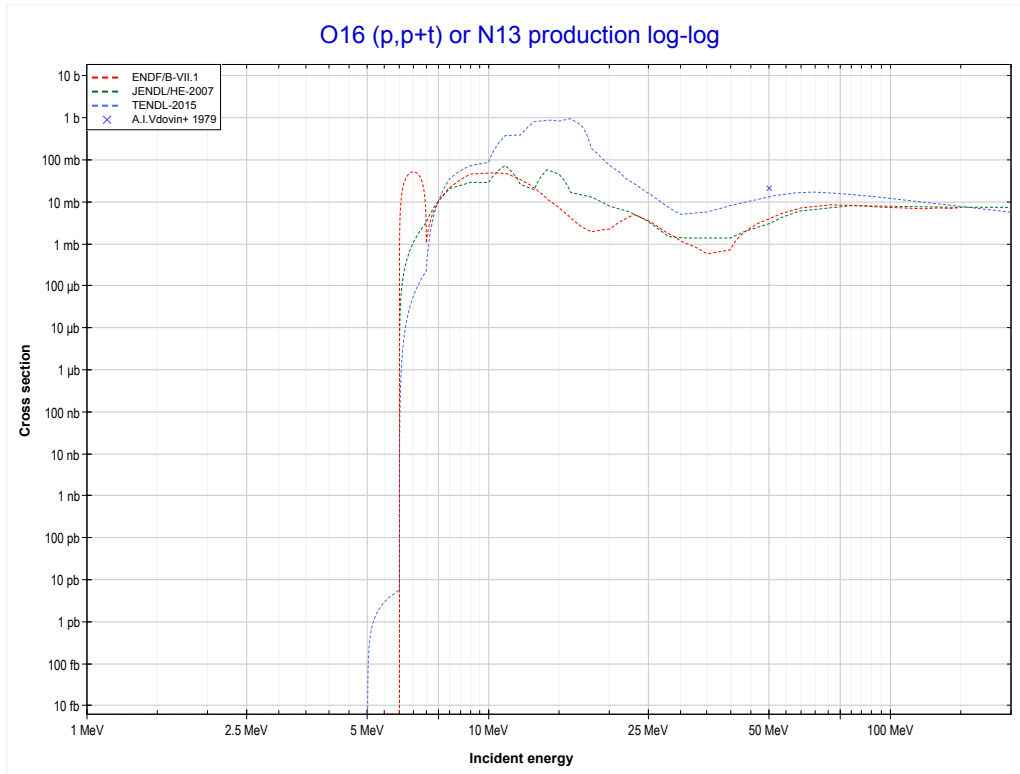
Reaction	Q-Value	Reaction	Q-Value
O16(p,d+2α)Be7	-31202.58 keV	O16(p,n+p+2d+α)Be7	-57273.68 keV
O16(p,n+p+2α)Be7	-33427.15 keV	O16(p,2n+2p+d+α)Be7	-59498.24 keV
O16(p,t+He3+α)Be7	-45522.97 keV	O16(p,3n+3p+α)Be7	-61722.81 keV
O16(p,p+d+t+α)Be7	-51016.44 keV	O16(p,p+2t+He3)Be7	-65336.83 keV
O16(p,n+d+He3+α)Be7	-51780.20 keV	O16(p,n+t+2He3)Be7	-66100.58 keV
O16(p,n+2p+t+α)Be7	-53241.01 keV	O16(p,2d+t+He3)Be7	-69369.50 keV
O16(p,2n+p+He3+α)Be7	-54004.77 keV	O16(p,2p+d+2t)Be7	-70830.31 keV
O16(p,3d+α)Be7	-55049.11 keV	O16(p,n+p+d+t+He3)Be7	-71594.06 keV

<< 7-N-14	8-O-16	
<< MT114 (p,d+2 α)	MT115 (p,p+d) or MT5 (N14 production)	MT116 (p,p+t) >>



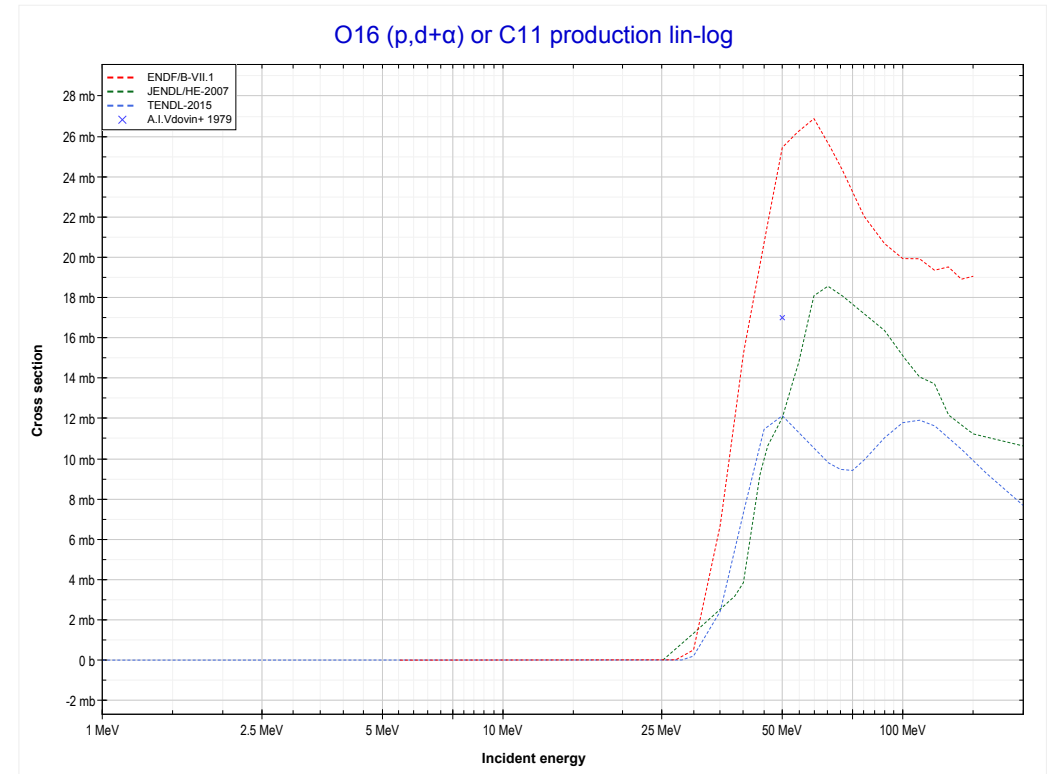
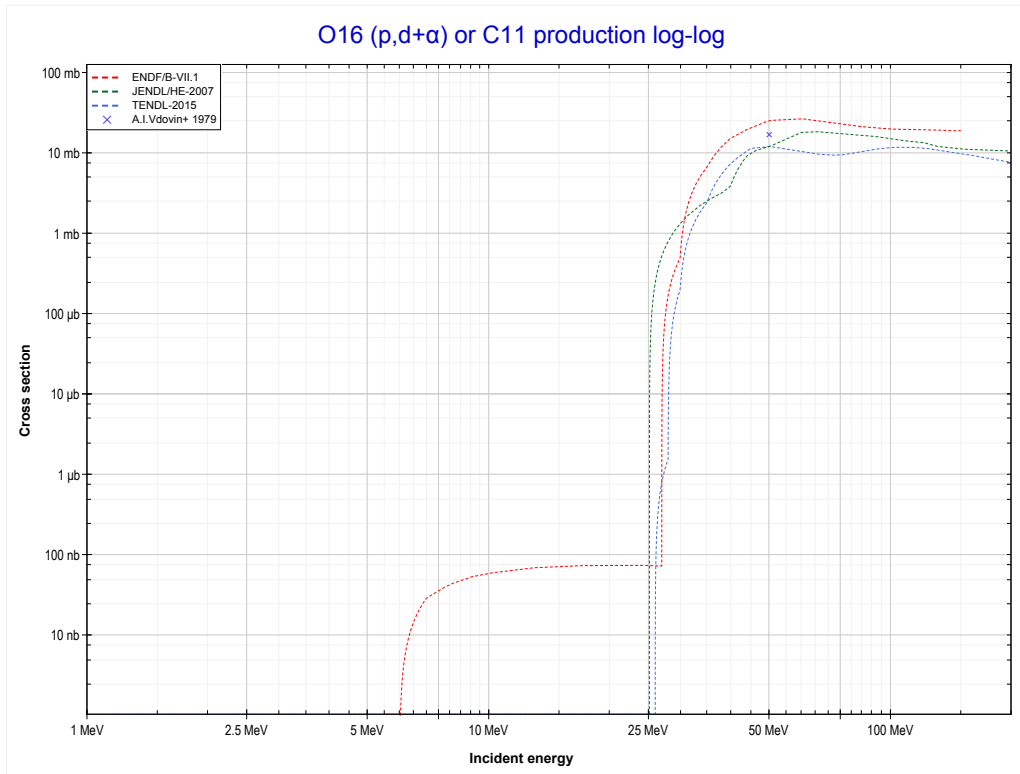
Reaction	Q-Value
O16(p,He3)N14	-15242.66 keV
O16(p,p+d)N14	-20736.14 keV
O16(p,n+2p)N14	-22960.71 keV

<< 7-N-14	8-O-16	
<< MT115 (p,p+d)	MT116 (p,p+t) or MT5 (N13 production)	MT117 (p,d+α) >>



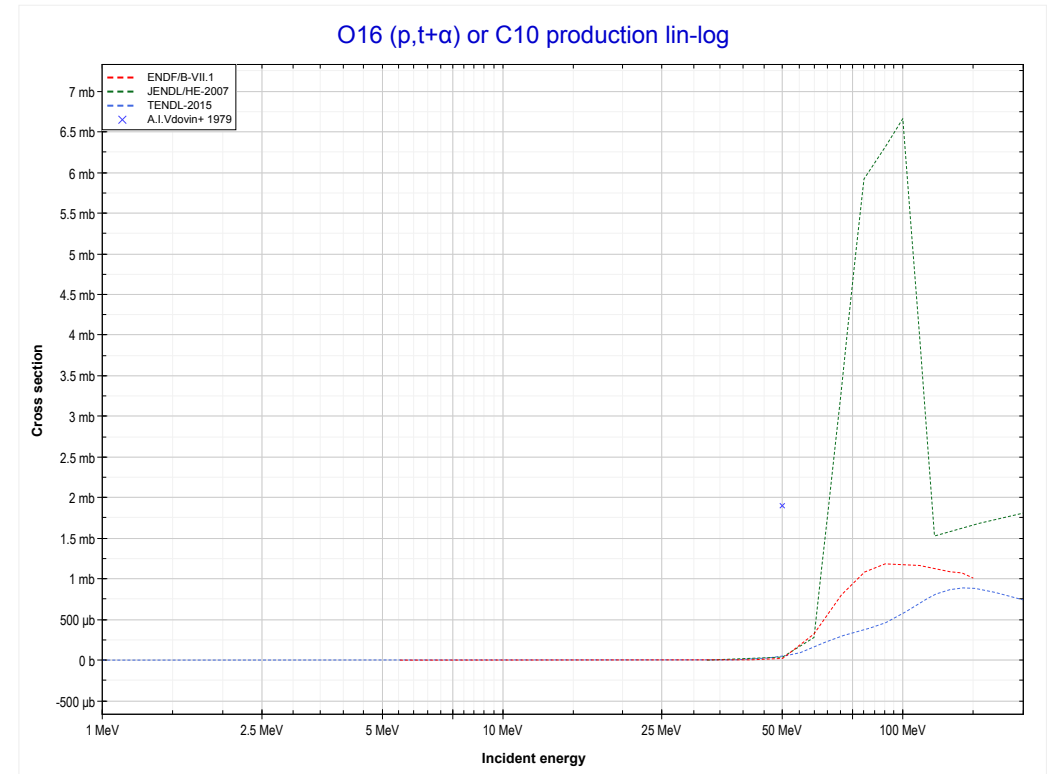
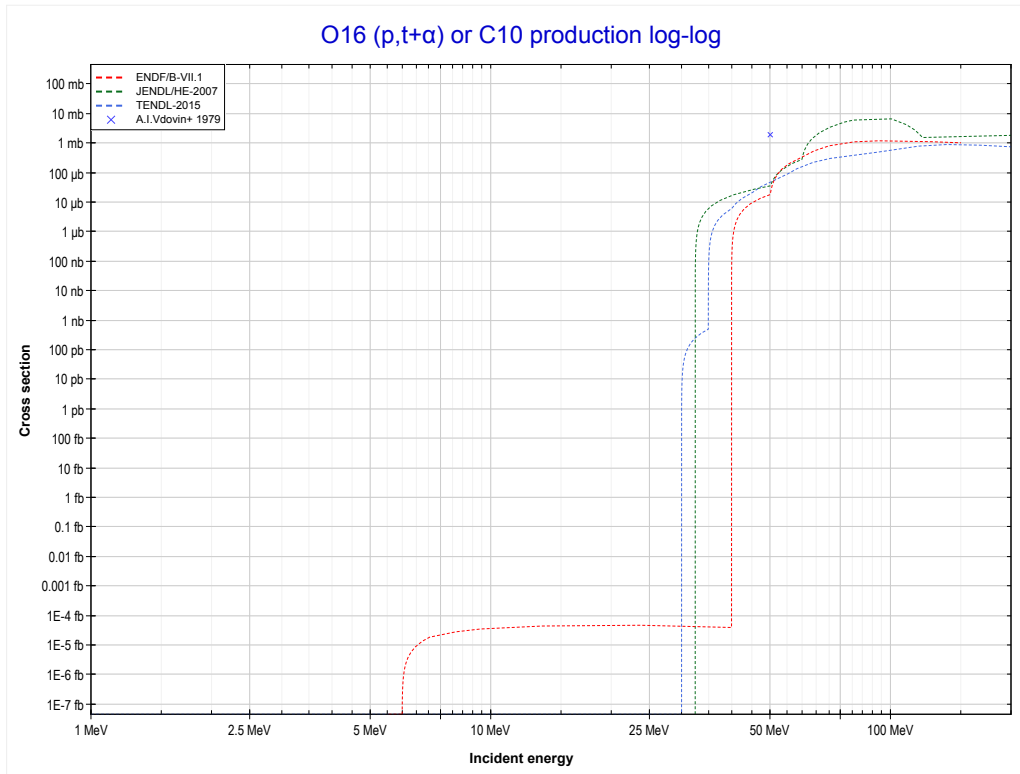
Reaction	Q-Value
O16(p,α)N13	-5218.43 keV
O16(p,p+t)N13	-25032.29 keV
O16(p,n+He3)N13	-25796.04 keV
O16(p,2d)N13	-29064.95 keV
O16(p,n+p+d)N13	-31289.52 keV
O16(p,2n+2p)N13	-33514.09 keV

<< 6-C-12	8-O-16	
<< MT116 (p,p+t)	MT117 (p,d+α) or MT5 (C11 production)	MT155 (p,t+α) >>



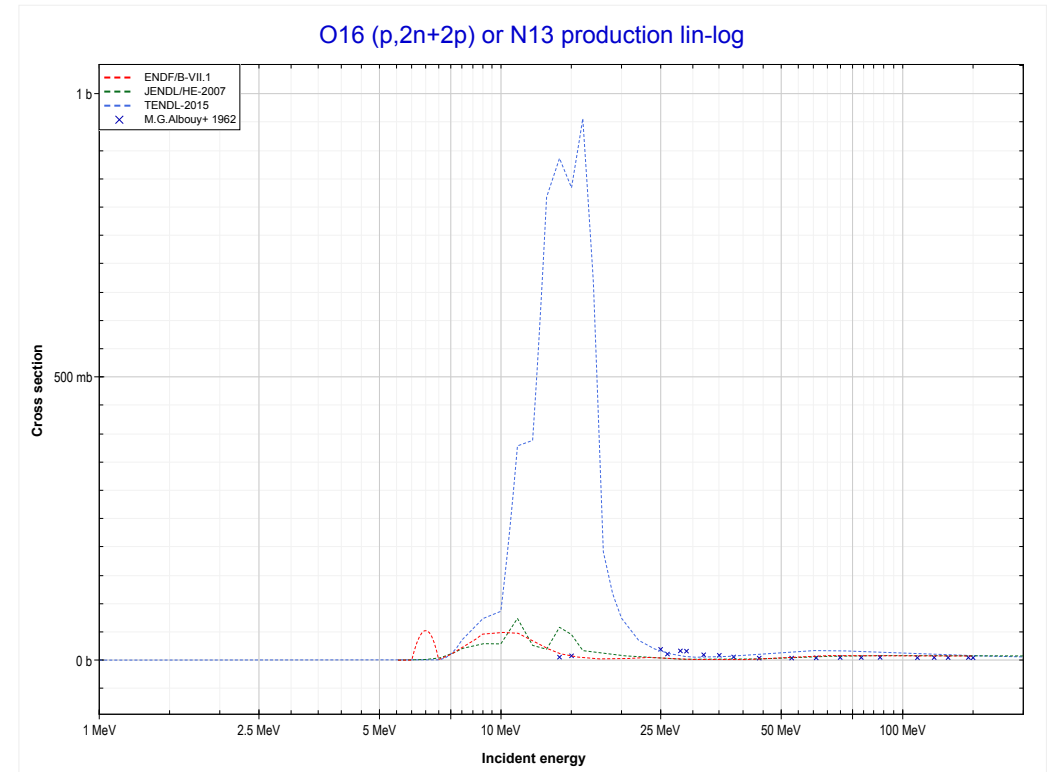
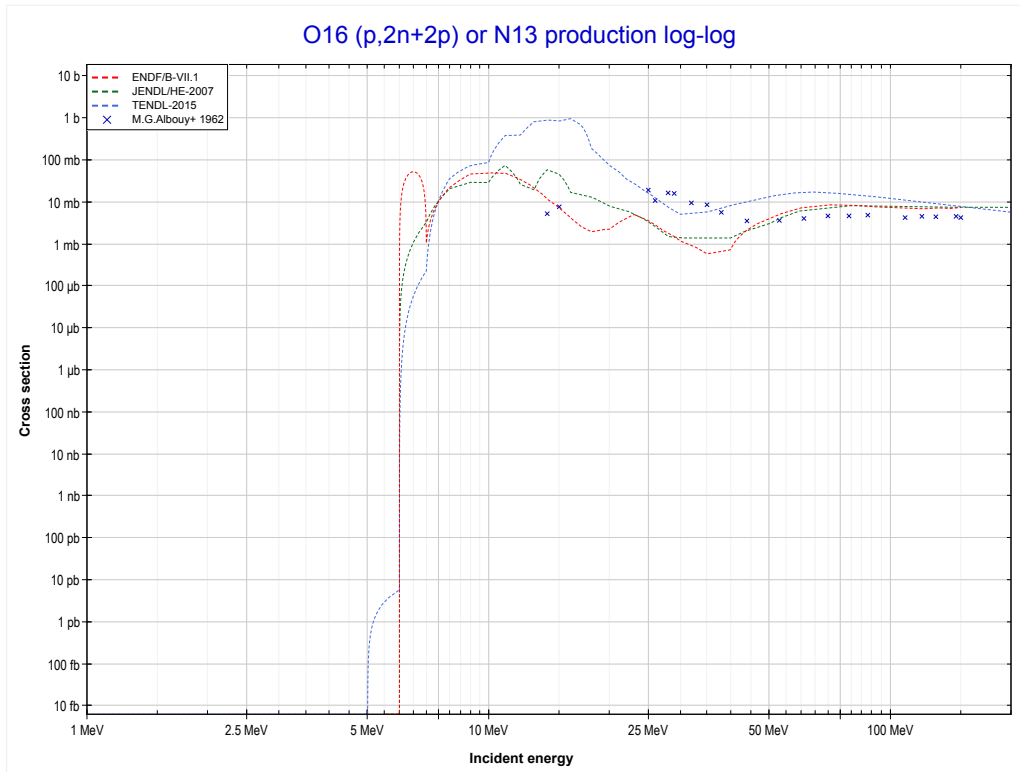
Reaction	Q-Value	Reaction	Q-Value
O16(p,d+α)C11	-23658.97 keV	O16(p,n+p+2d)C11	-49730.06 keV
O16(p,n+p+α)C11	-25883.53 keV	O16(p,2n+2p+d)C11	-51954.63 keV
O16(p,t+He3)C11	-37979.35 keV	O16(p,3n+3p)C11	-54179.19 keV
O16(p,p+d+t)C11	-43472.83 keV		
O16(p,n+d+He3)C11	-44236.59 keV		
O16(p,n+2p+t)C11	-45697.40 keV		
O16(p,2n+p+He3)C11	-46461.15 keV		
O16(p,3d)C11	-47505.50 keV		

	8-O-16	
<< MT117 (p,d+α)	MT155 (p,t+α) or MT5 (C10 production)	MT190 (p,2n+2p) >>



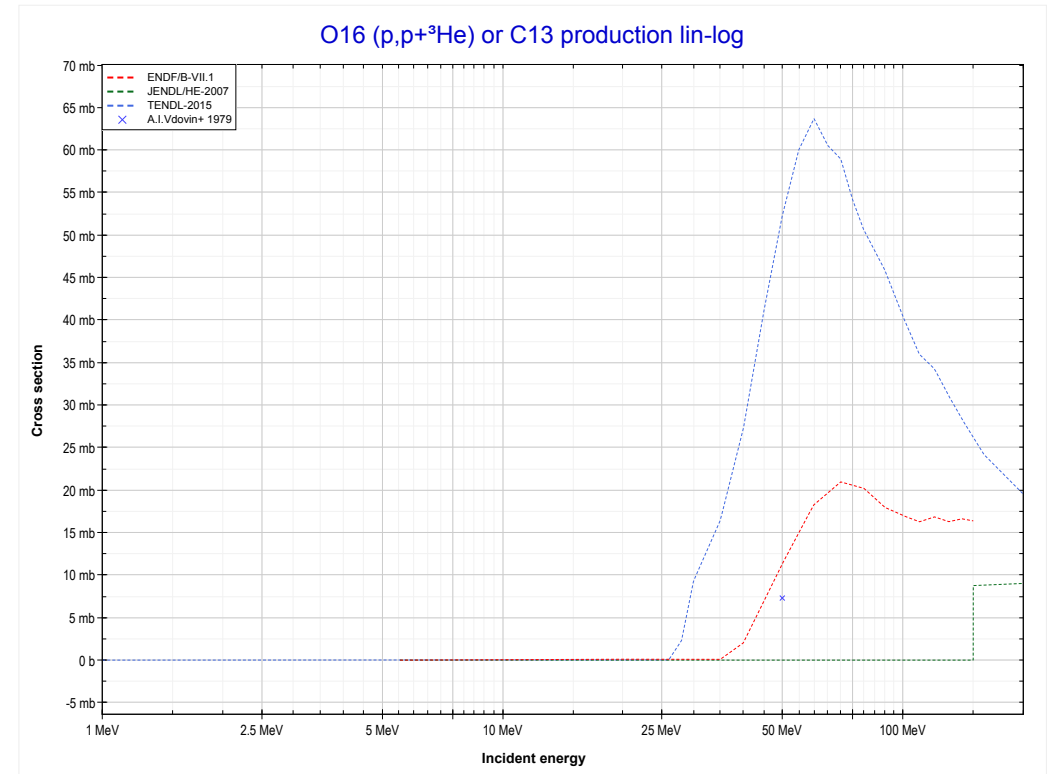
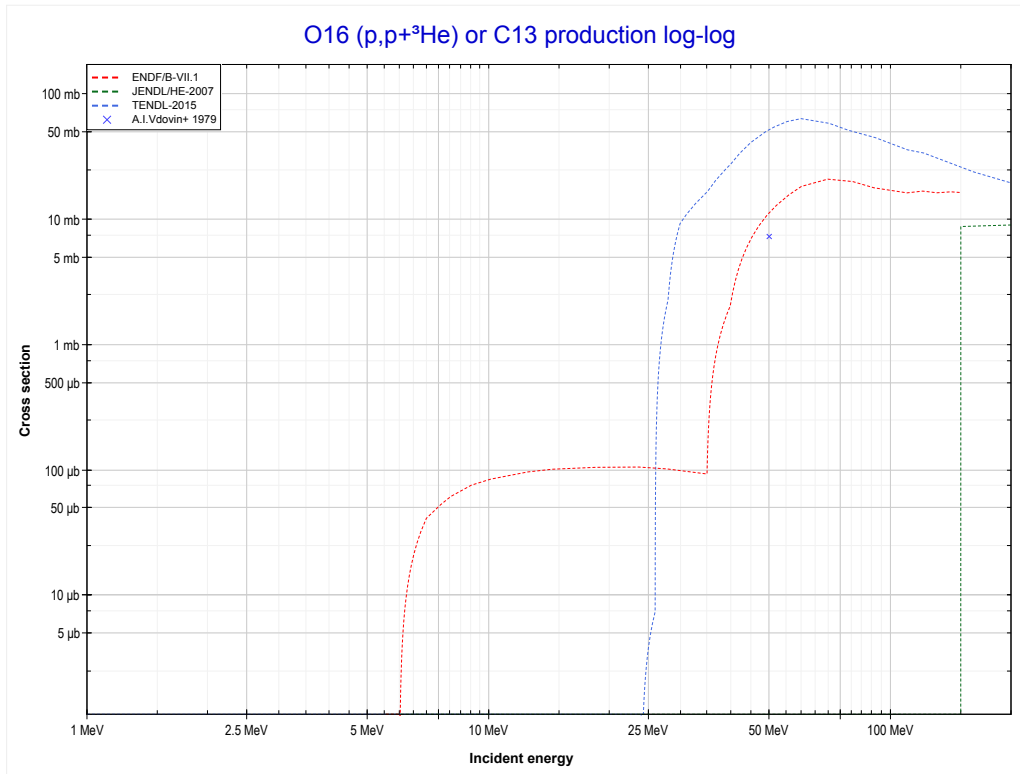
Reaction	Q-Value	Reaction	Q-Value
O16(p,t+α)C10	-30521.55 keV	O16(p,2n+2p+t)C10	-58817.21 keV
O16(p,n+d+α)C10	-36778.79 keV	O16(p,3n+p+He3)C10	-59580.97 keV
O16(p,2n+p+α)C10	-39003.35 keV	O16(p,n+3d)C10	-60625.31 keV
O16(p,p+2t)C10	-50335.41 keV	O16(p,2n+p+2d)C10	-62849.88 keV
O16(p,n+t+He3)C10	-51099.17 keV	O16(p,3n+2p+d)C10	-65074.44 keV
O16(p,2d+t)C10	-54368.08 keV	O16(p,4n+3p)C10	-67299.01 keV
O16(p,n+p+d+t)C10	-56592.65 keV		
O16(p,2n+d+He3)C10	-57356.40 keV		

	8-O-16	12-Mg-25 >>
<< MT155 (p,t+α)	MT190 (p,2n+2p) or MT5 (N13 production)	MT191 (p,p+ ³ He) >>



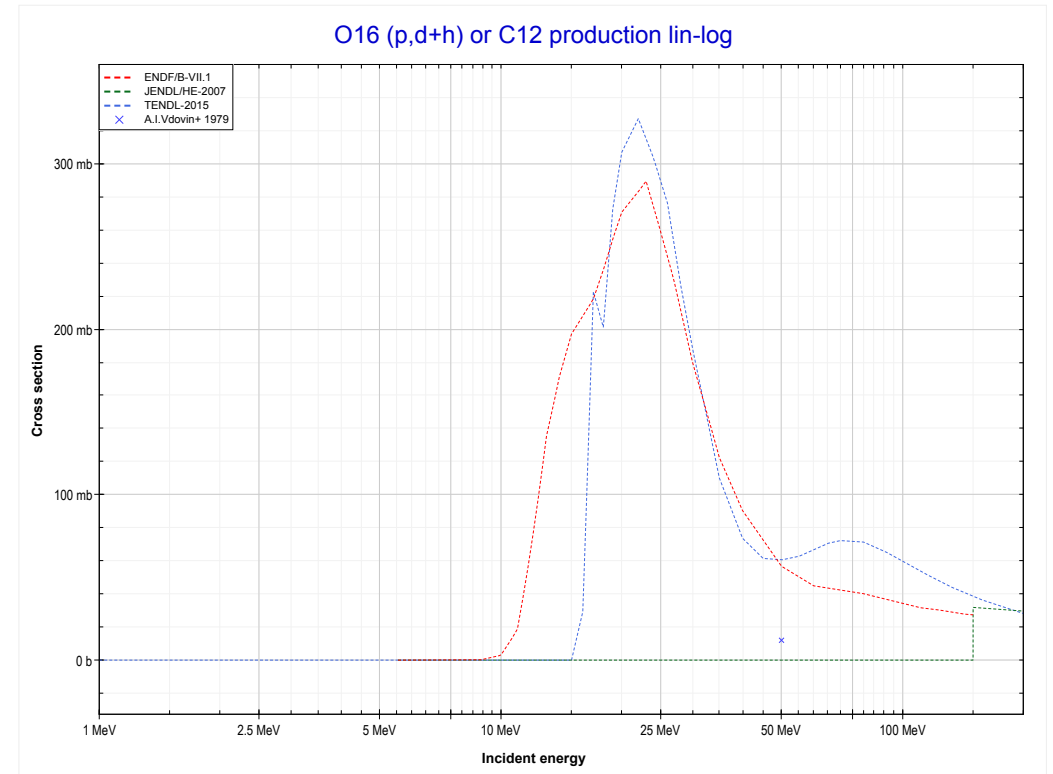
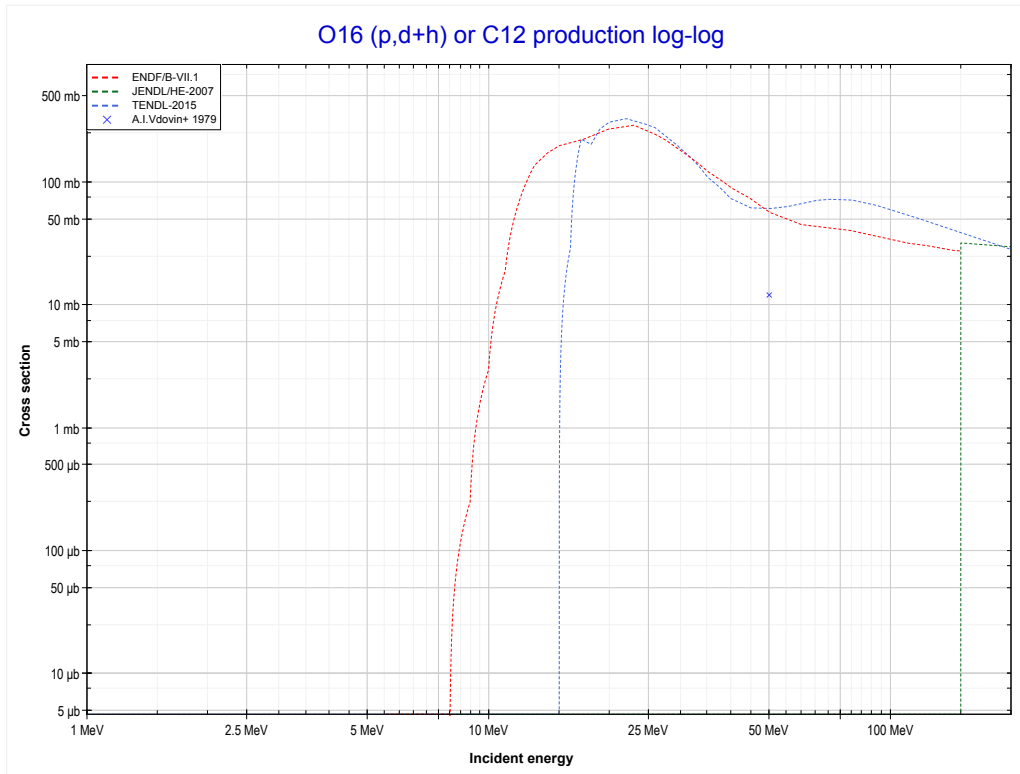
Reaction	Q-Value
O16(p,α)N13	-5218.43 keV
O16(p,p+t)N13	-25032.29 keV
O16(p,n+He3)N13	-25796.04 keV
O16(p,2d)N13	-29064.95 keV
O16(p,n+p+d)N13	-31289.52 keV
O16(p,2n+2p)N13	-33514.09 keV

<< 7-N-14	8-O-16	
<< MT190 (p,2n+2p)	MT191 (p,p+³He) or MT5 (C13 production)	MT192 (p,d+ ³ He) >>



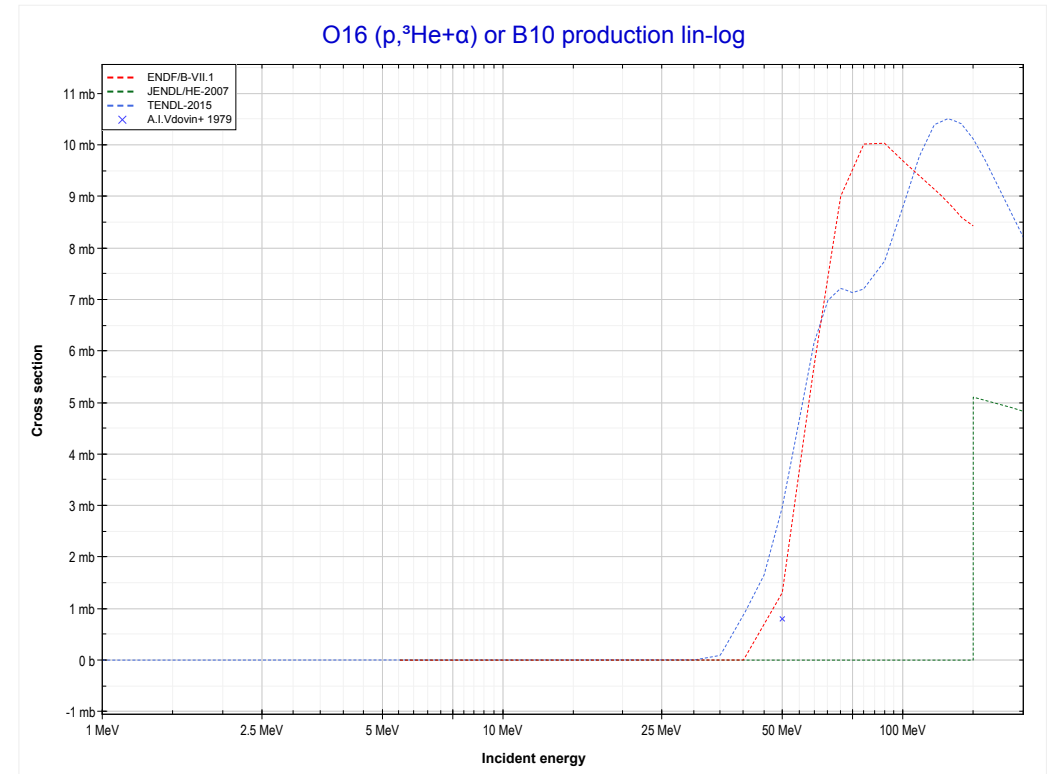
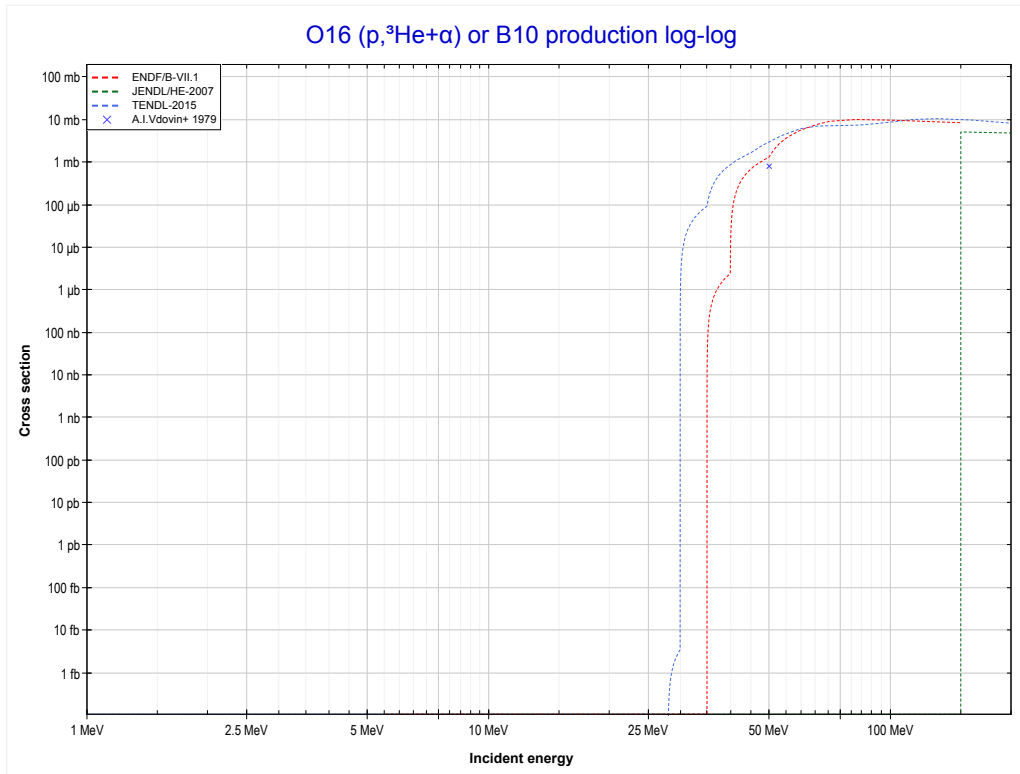
Reaction	Q-Value
O16(p,p+He3)C13	-22793.23 keV
O16(p,2p+d)C13	-28286.70 keV
O16(p,n+3p)C13	-30511.27 keV

<< 7-N-14	8-O-16	
<< MT191 (p,p+ ³ He)	MT192 (p,d+³He) or MT5 (C12 production)	MT193 (p, ³ He+α) >>



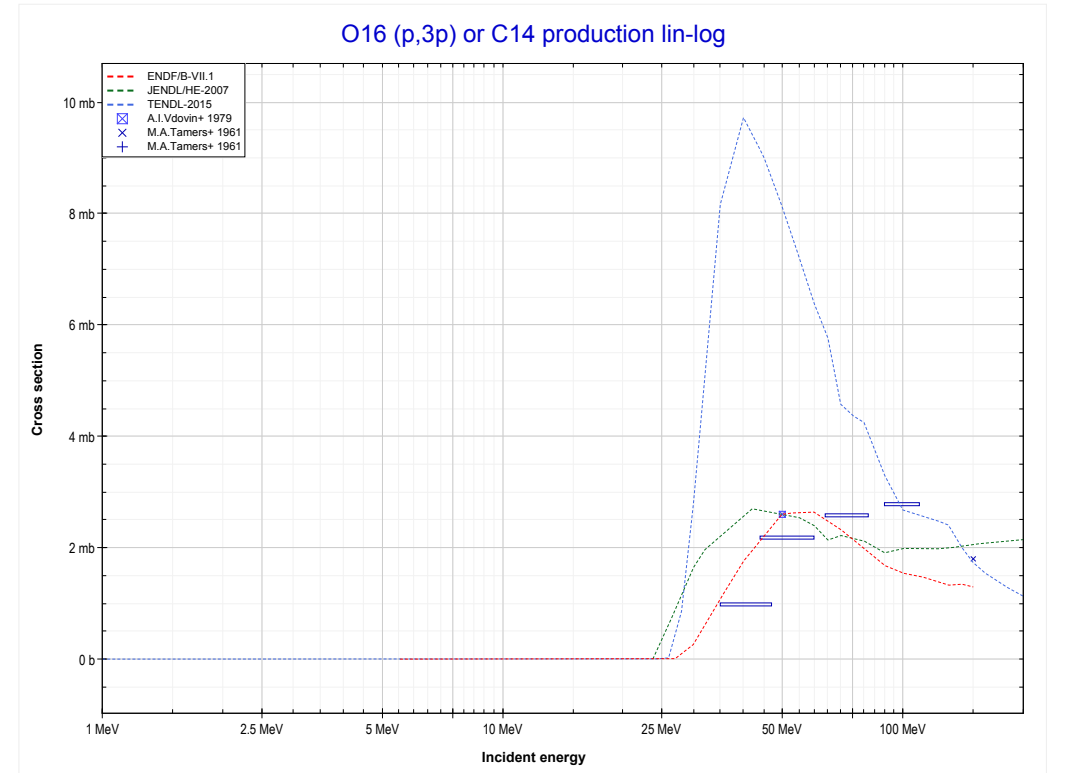
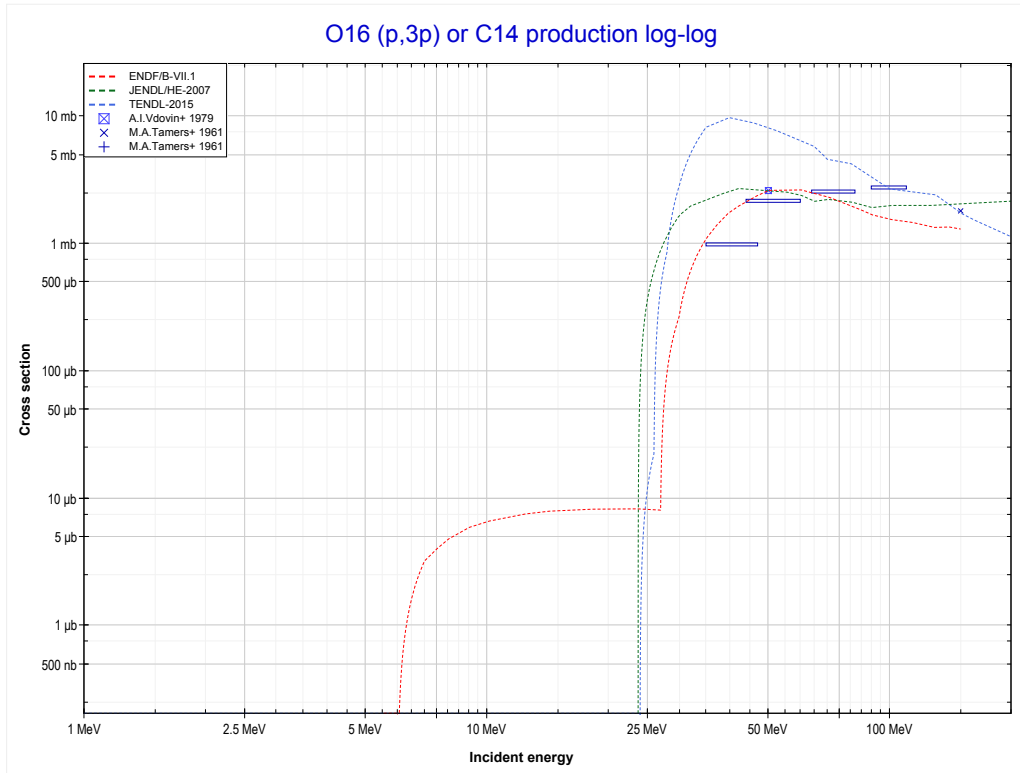
Reaction	Q-Value
O16(p,p+α)C12	-7161.92 keV
O16(p,d+He3)C12	-25514.97 keV
O16(p,2p+t)C12	-26975.78 keV
O16(p,n+p+He3)C12	-27739.53 keV
O16(p,p+2d)C12	-31008.44 keV
O16(p,n+2p+d)C12	-33233.01 keV
O16(p,2n+3p)C12	-35457.58 keV

<< 6-C-12	8-O-16	
<< MT192 (p,d+ ³ He)	MT193 (p,³He+α) or MT5 (B10 production)	MT197 (p,3p) >>



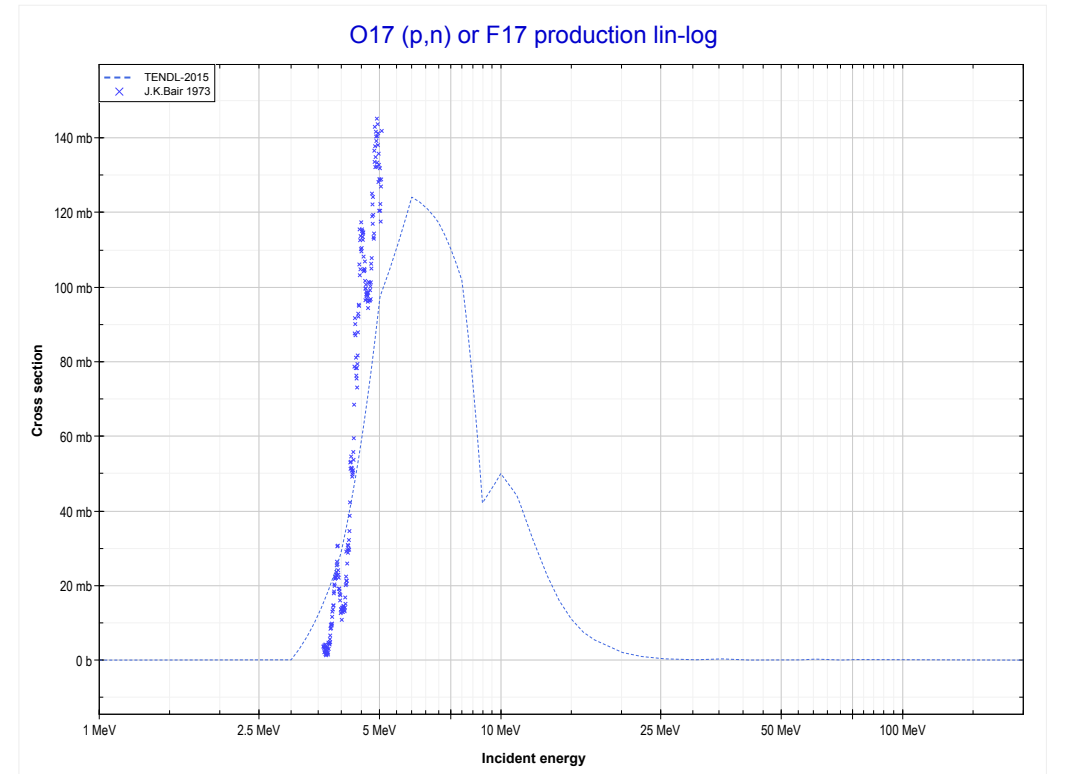
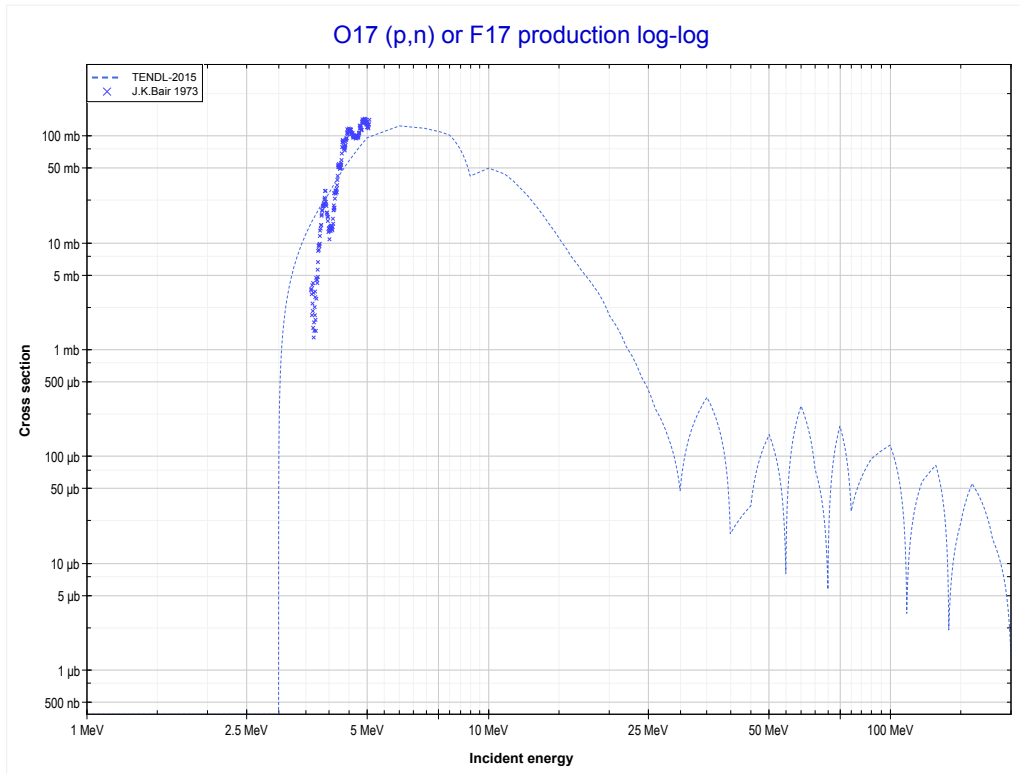
Reaction	Q-Value	Reaction	Q-Value
O16(p,He3+α)B10	-26854.86 keV	O16(p,n+3p+t)B10	-54386.77 keV
O16(p,p+d+α)B10	-32348.34 keV	O16(p,2n+2p+He3)B10	-55150.52 keV
O16(p,n+2p+α)B10	-34572.90 keV	O16(p,p+3d)B10	-56194.87 keV
O16(p,p+t+He3)B10	-46668.72 keV	O16(p,n+2p+2d)B10	-58419.43 keV
O16(p,n+2He3)B10	-47432.48 keV	O16(p,2n+3p+d)B10	-60644.00 keV
O16(p,2d+He3)B10	-50701.39 keV	O16(p,3n+4p)B10	-62868.56 keV
O16(p,2p+d+t)B10	-52162.20 keV		
O16(p,n+p+d+He3)B10	-52925.96 keV		

<< 6-C-12	8-O-16	8-O-18 >>
<< MT193 (p, ³ He+α)	MT197 (p,3p) or MT5 (C14 production)	8-O-17 MT4 (p,n) >>



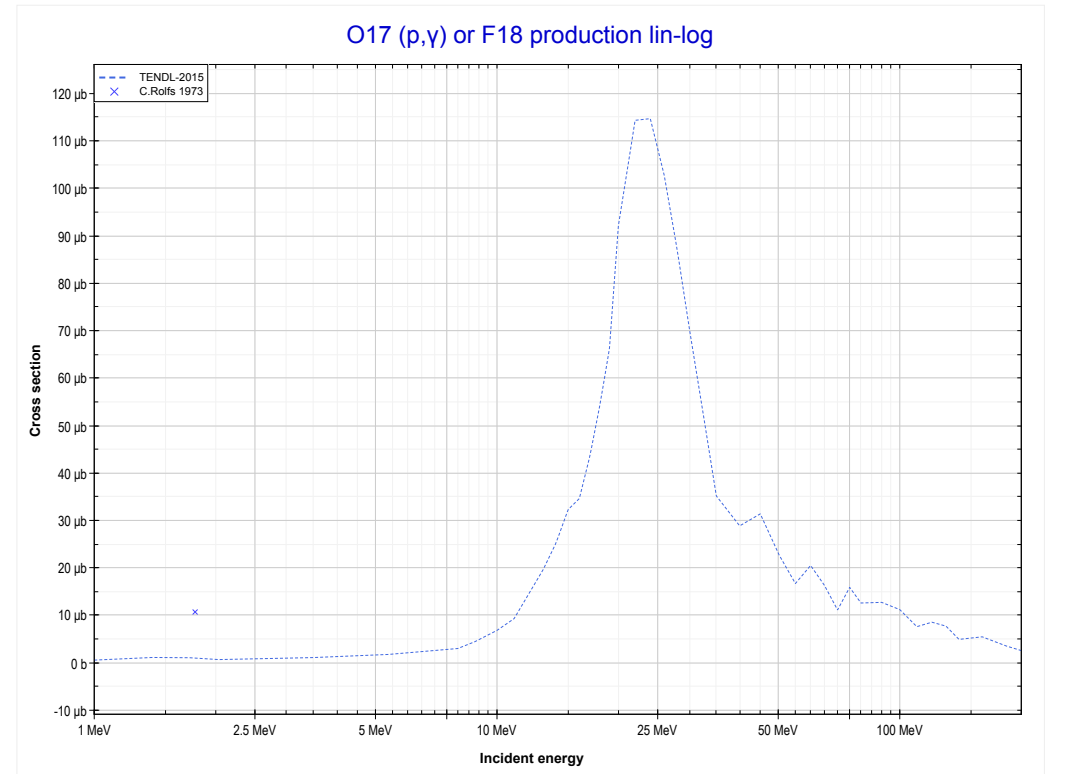
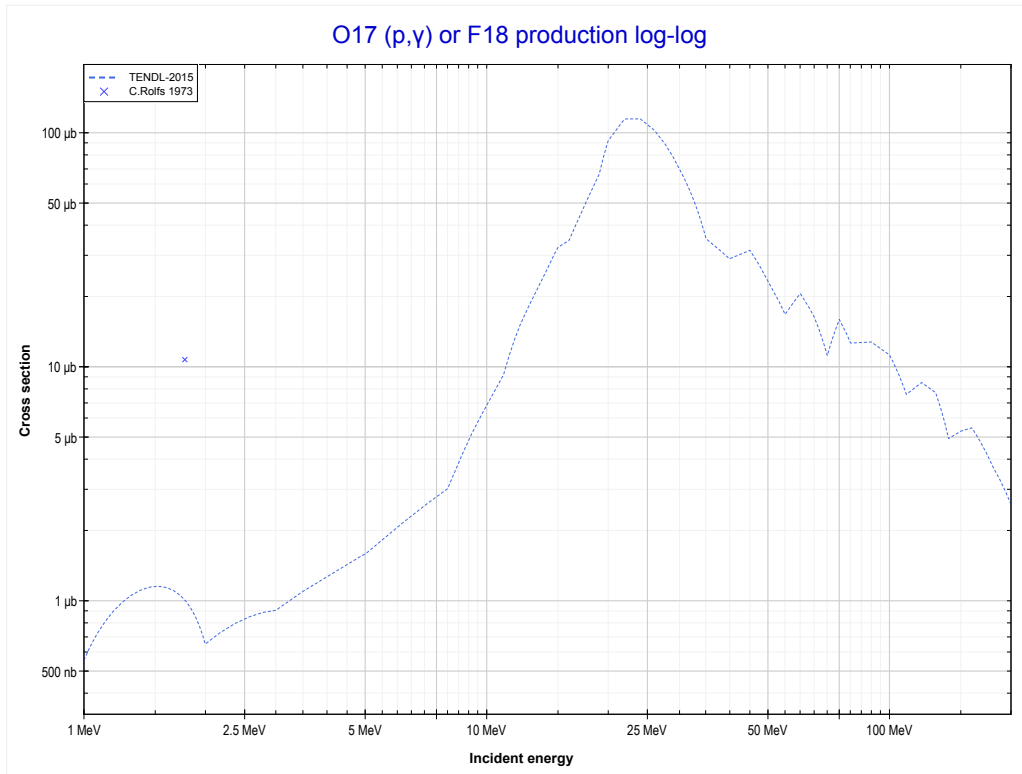
Reaction	Q-Value
O16(p,3p)C14	-22334.84 keV

<< 7-N-15	8-O-17	8-O-18 >>
<< 8-O-16 MT197 (p,3p)	MT4 (p,n) or MT5 (F17 production)	MT102 (p, γ) >>



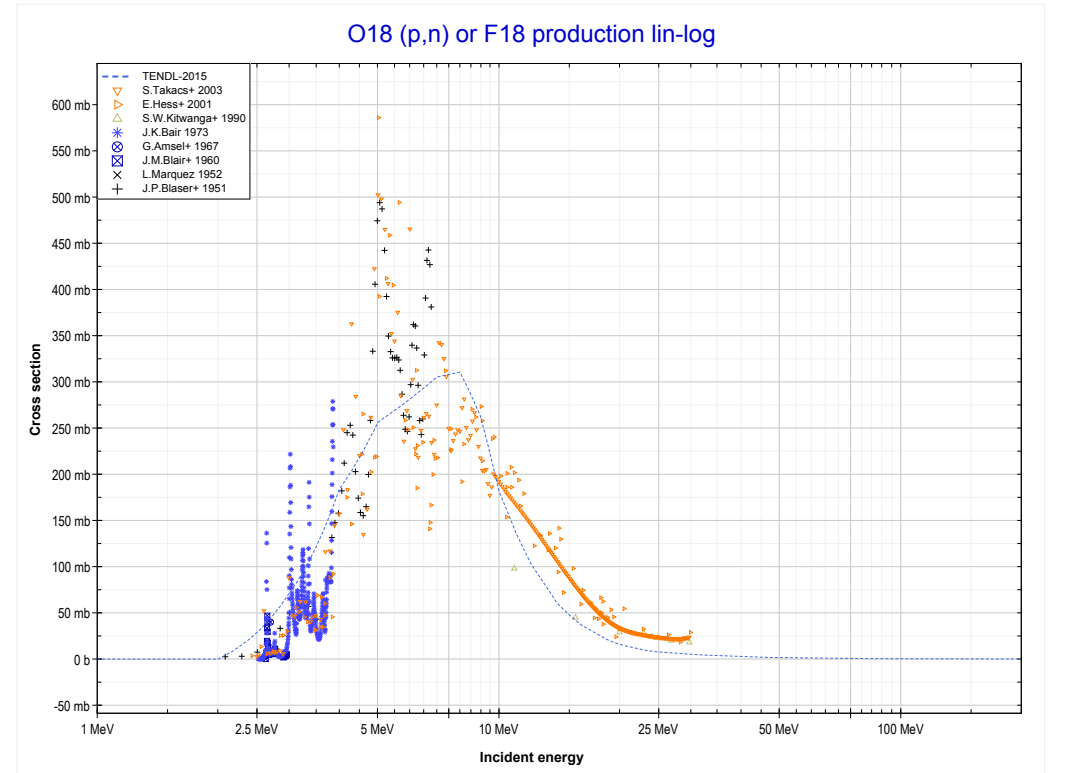
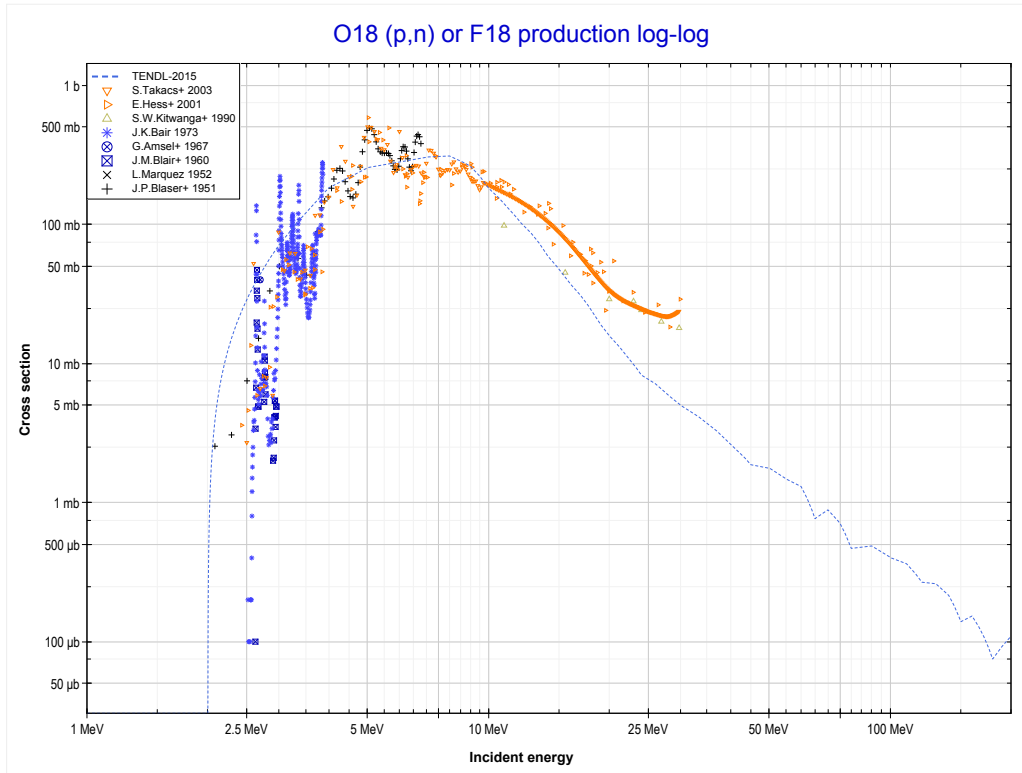
Reaction	Q-Value
O17(p,n)F17	-3542.81 keV

<< 8-O-16	8-O-17	9-F-19 >>
<< MT4 (p,n)	MT102 (p,γ) or MT5 (F18 production)	8-O-18 MT4 (p,n) >>



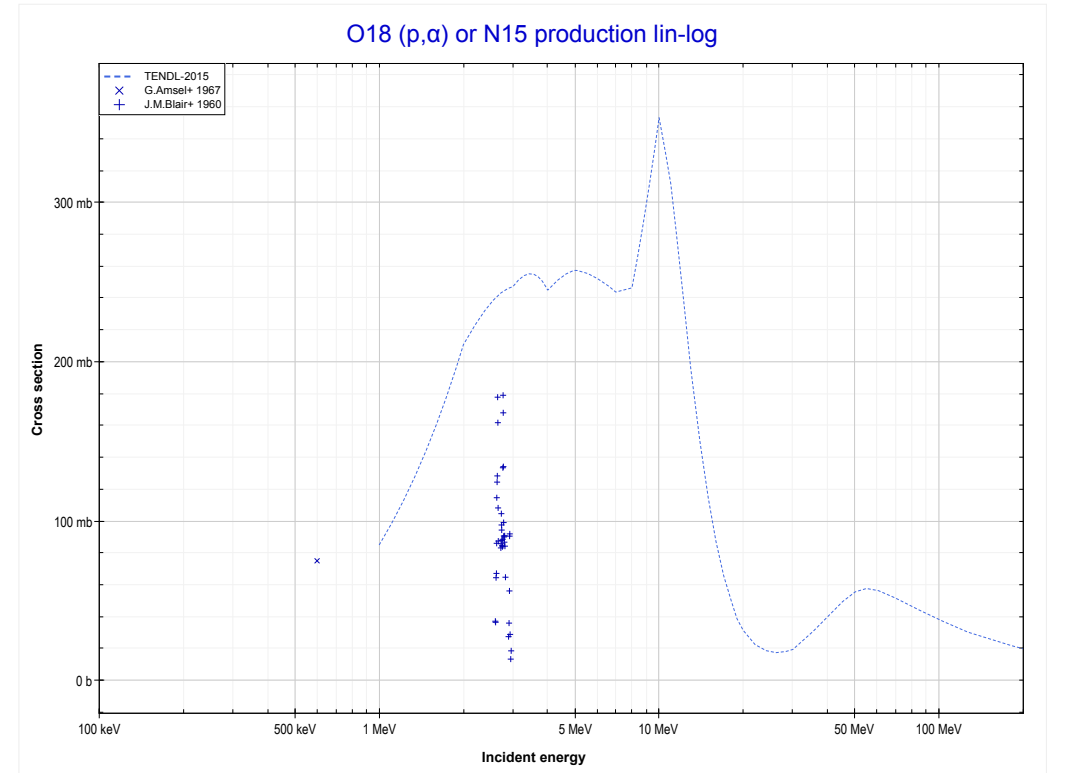
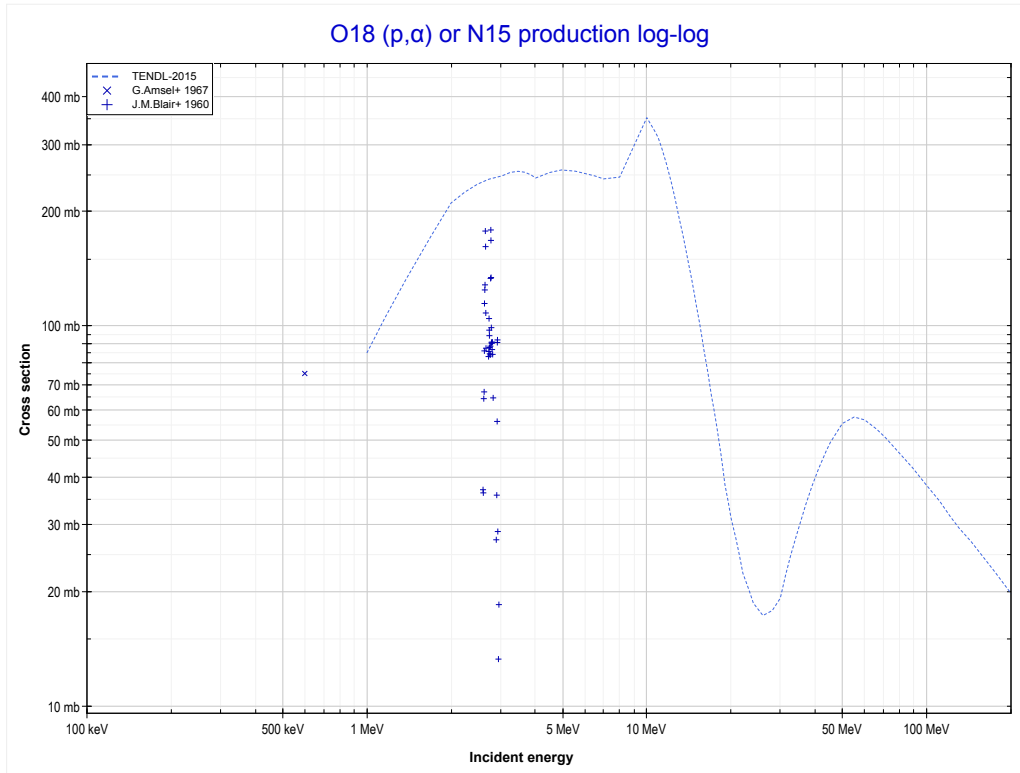
Reaction	Q-Value
O17(p, γ)F18	5607.11 keV

<< 8-O-17	8-O-18	9-F-19 >>
<< 8-O-17 MT102 (p, γ)	MT4 (p,n) or MT5 (F18 production)	MT107 (p, α) >>



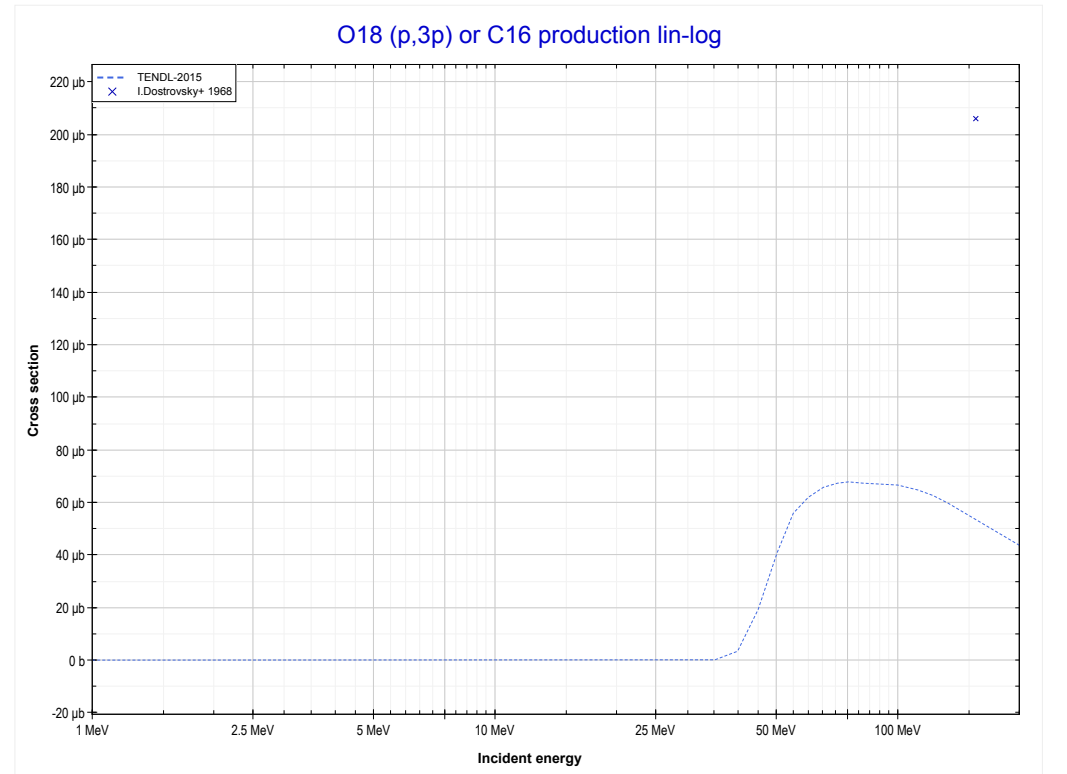
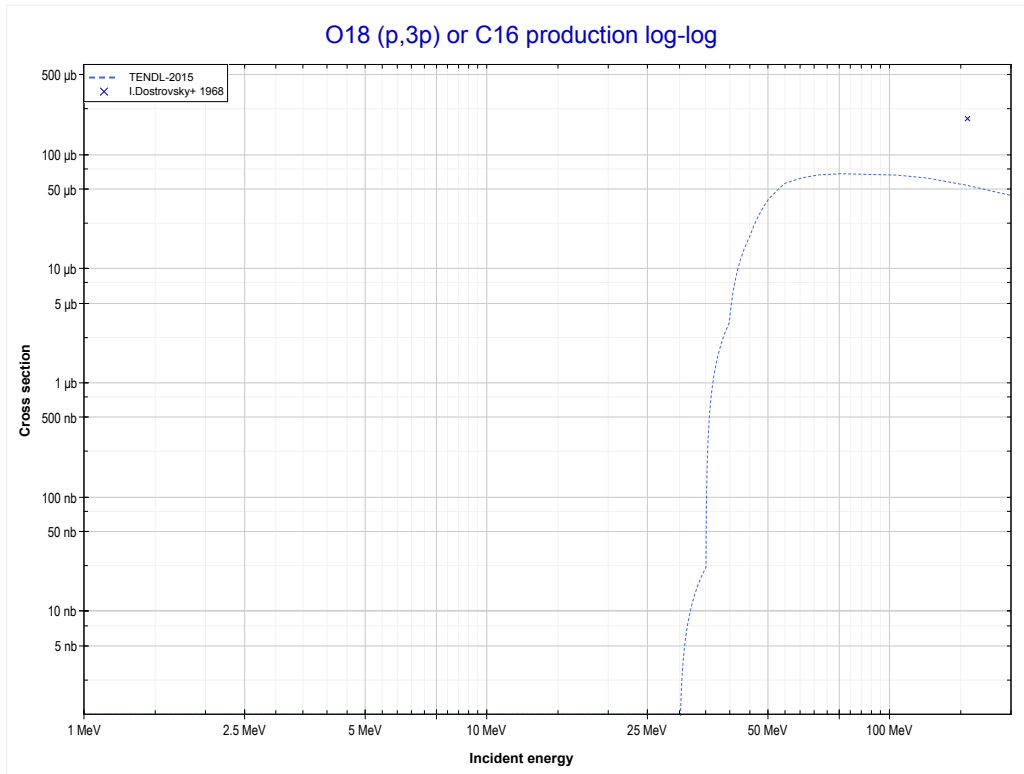
Reaction	Q-Value
O18(p,n)F18	-2438.26 keV

<< 8-O-16	8-O-18	9-F-18 >>
<< MT4 (p,n)	MT107 (p,α) or MT5 (N15 production)	MT197 (p,3p) >>



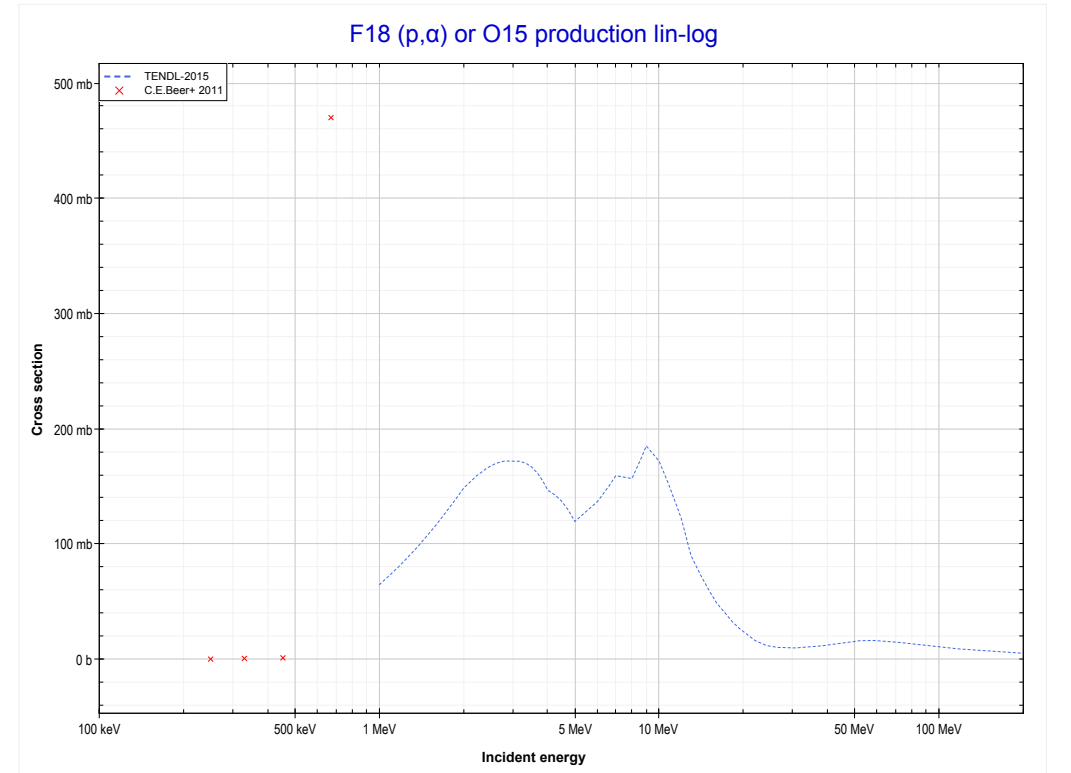
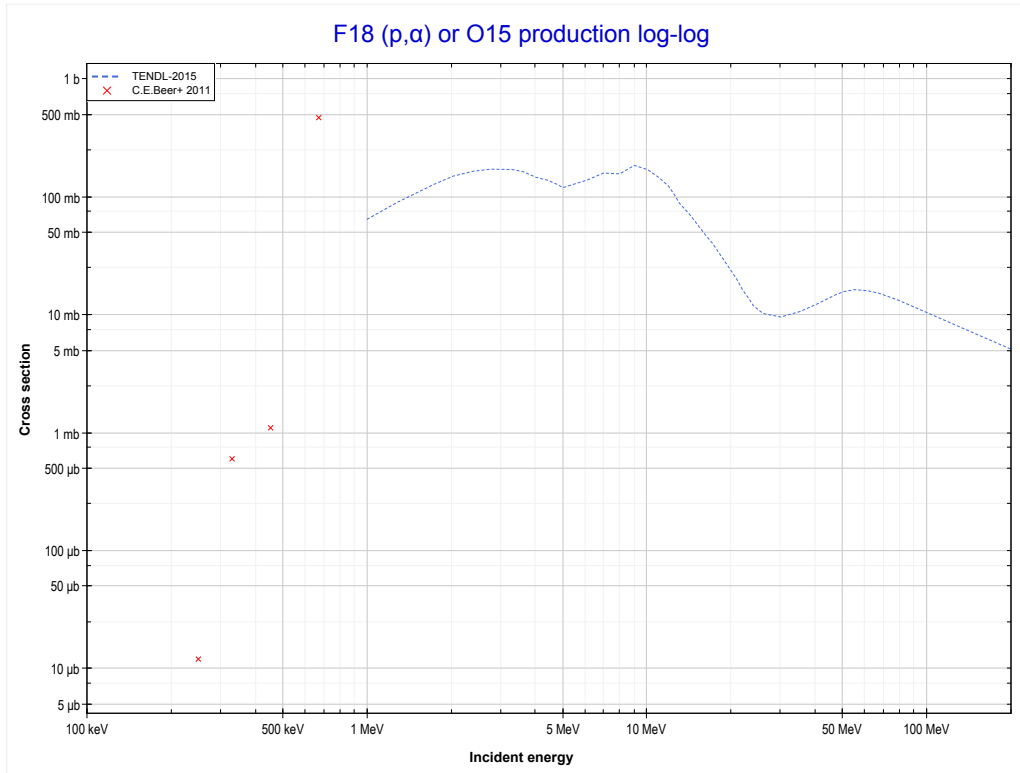
Reaction	Q-Value
O18(p, α)N15	3979.80 keV
O18(p,p+t)N15	-15834.06 keV
O18(p,n+He3)N15	-16597.82 keV
O18(p,2d)N15	-19866.73 keV
O18(p,n+p+d)N15	-22091.29 keV
O18(p,2n+2p)N15	-24315.86 keV

<< 8-O-16	8-O-18	9-F-19 >>
<< MT107 (p, α)	MT197 (p,3p) or MT5 (C16 production)	9-F-18 MT107 (p, α) >>



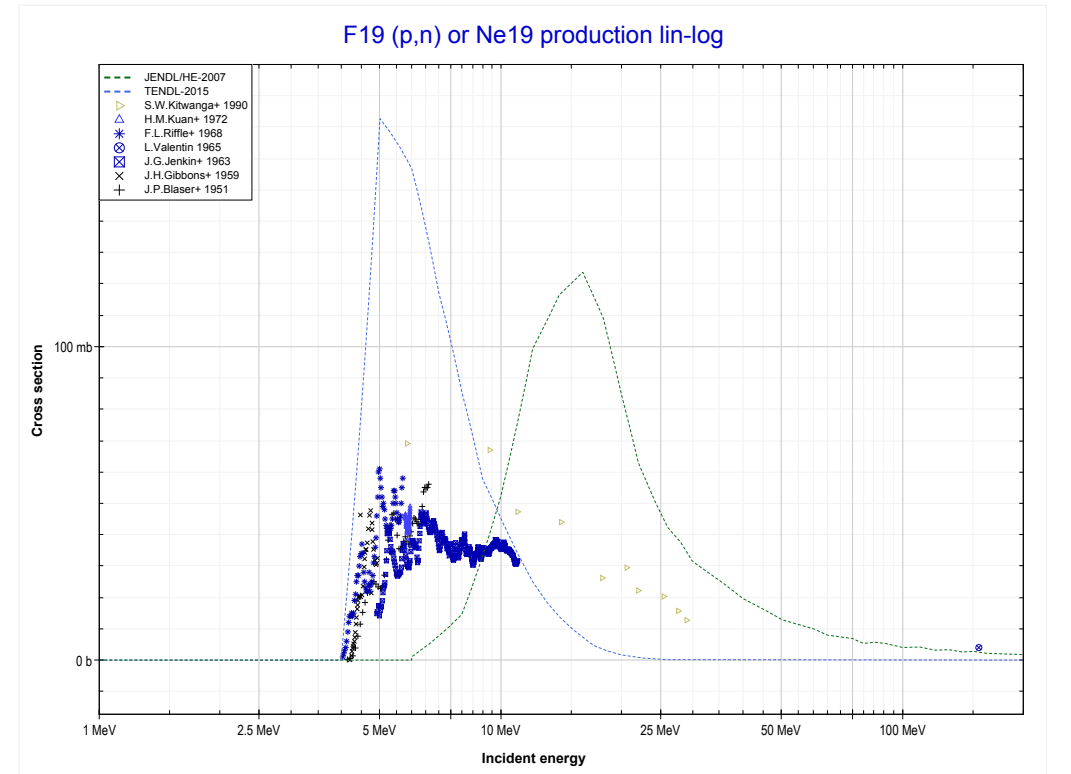
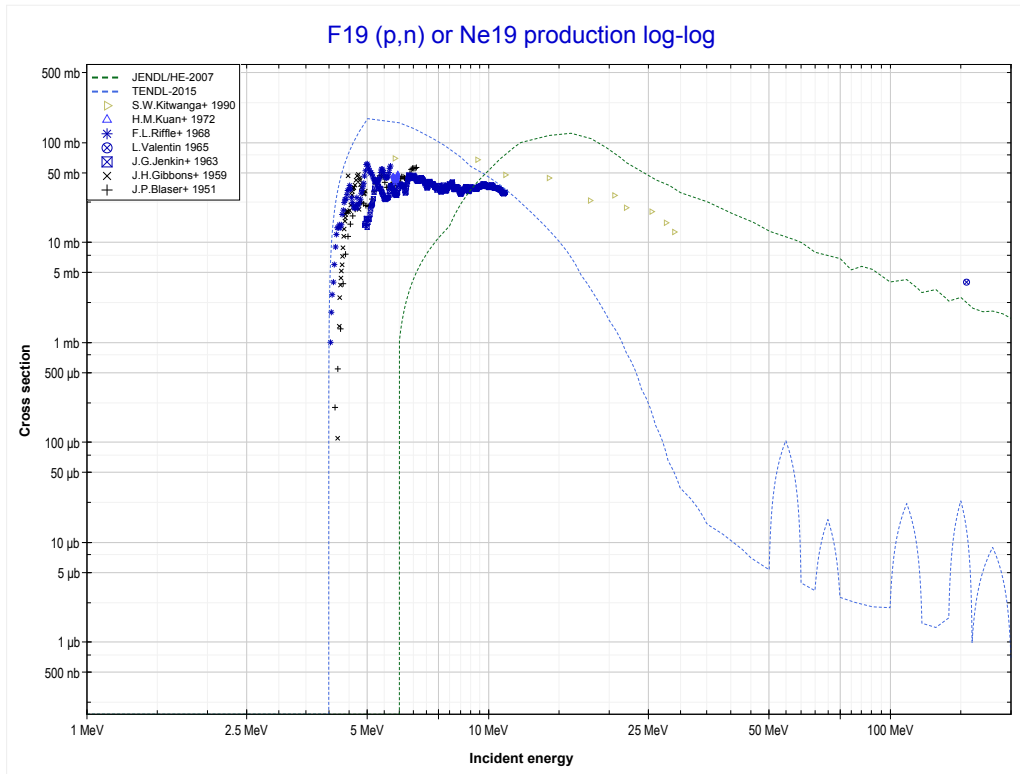
Reaction	Q-Value
O18(p,3p)C16	-29054.76 keV

<< 8-O-18	9-F-18	9-F-19 >>
<< 8-O-18 MT197 (p,3p)	MT107 (p,α) or MT5 (O15 production)	9-F-19 MT4 (p,n) >>



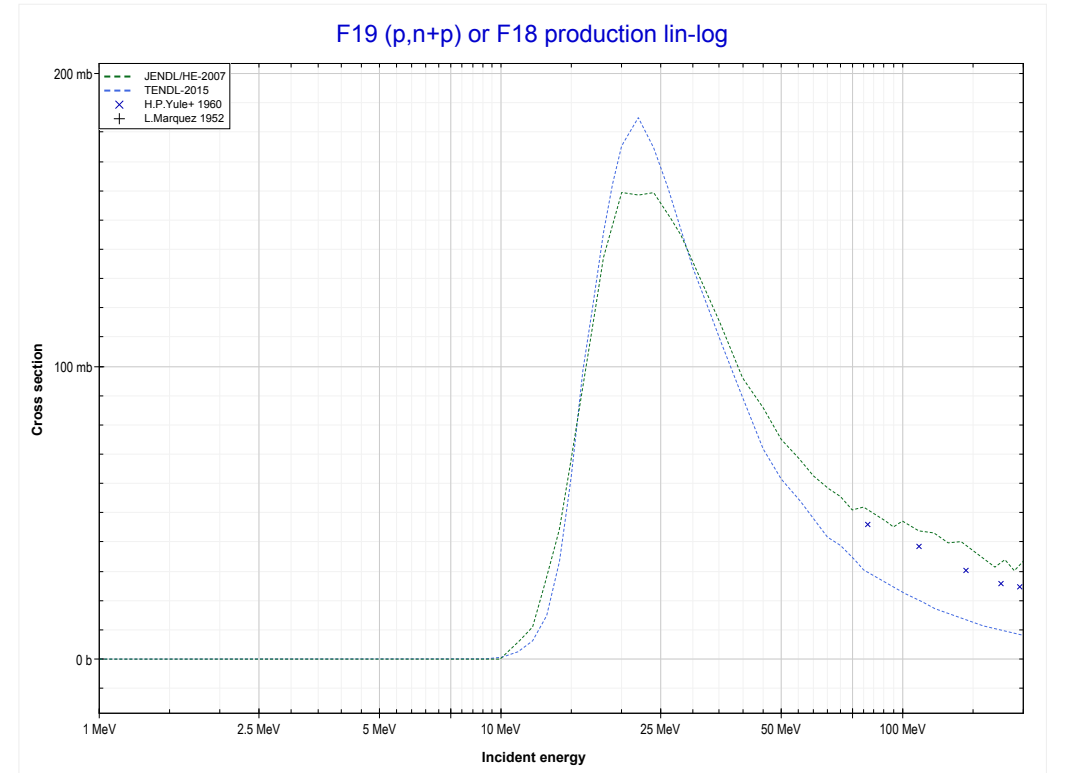
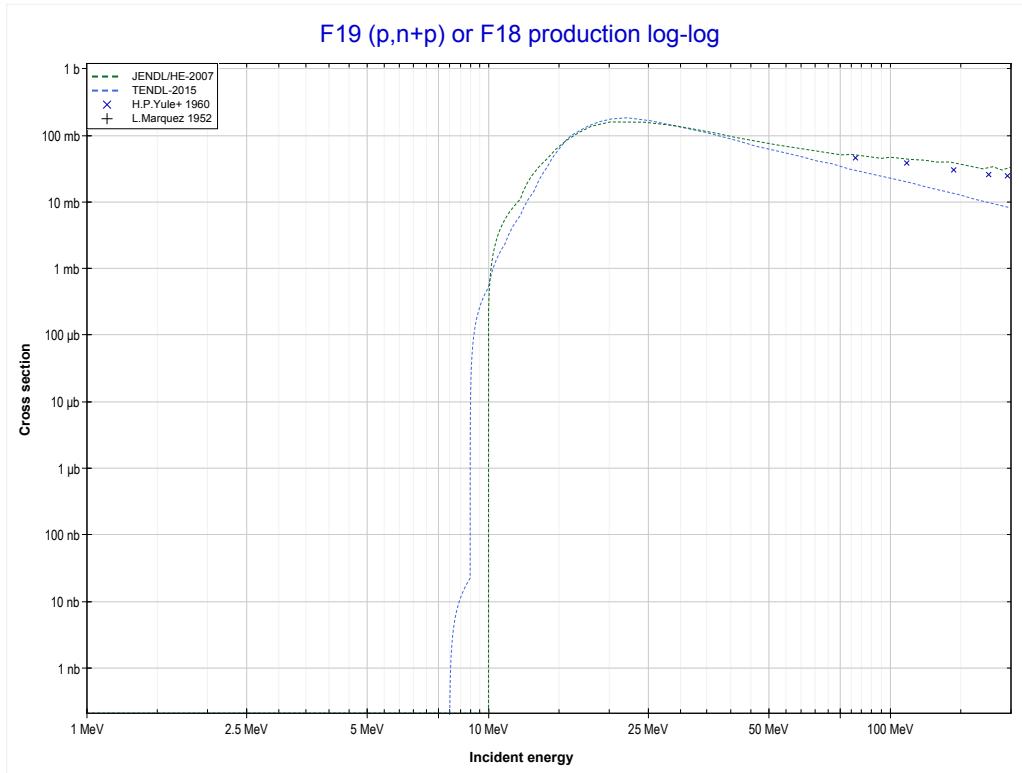
Reaction	Q-Value
F18(p, α)O15	2881.55 keV
F18(p,p+t)O15	-16932.31 keV
F18(p,n+He3)O15	-17696.06 keV
F18(p,2d)O15	-20964.97 keV
F18(p,n+p+d)O15	-23189.54 keV
F18(p,2n+2p)O15	-25414.10 keV

<< 8-O-18	9-F-19	10-Ne-22 >>
<< 9-F-18 MT107 (p, α)	MT4 (p,n) or MT5 (Ne19 production)	MT28 (p,n+p) >>



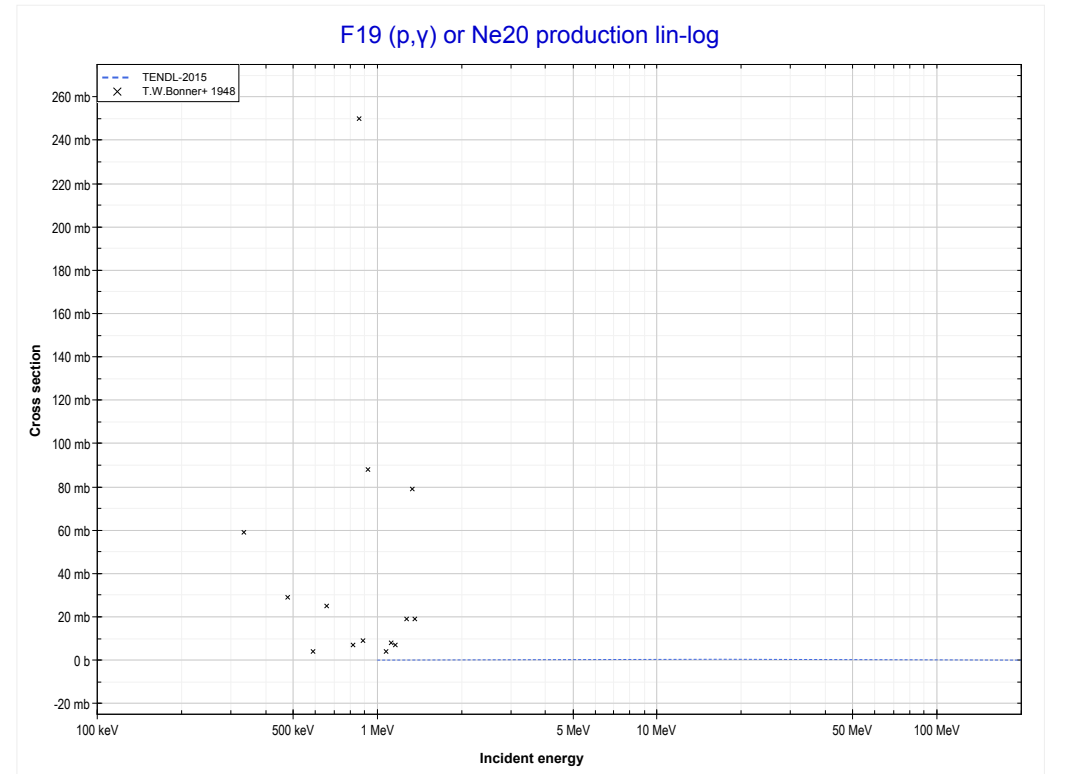
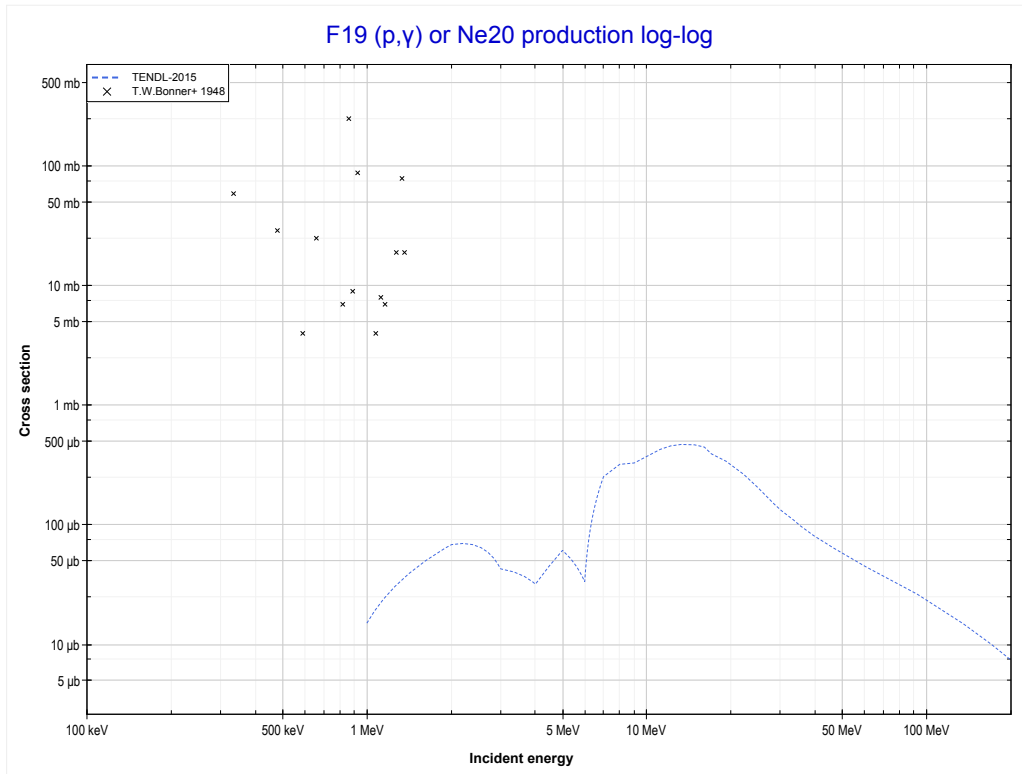
Reaction	Q-Value
F19(p,n)Ne19	-4021.84 keV

<< 8-O-16	9-F-19	13-AI-27 >>
<< MT4 (p,n)	MT28 (p,n+p) or MT5 (F18 production)	MT102 (p, γ) >>



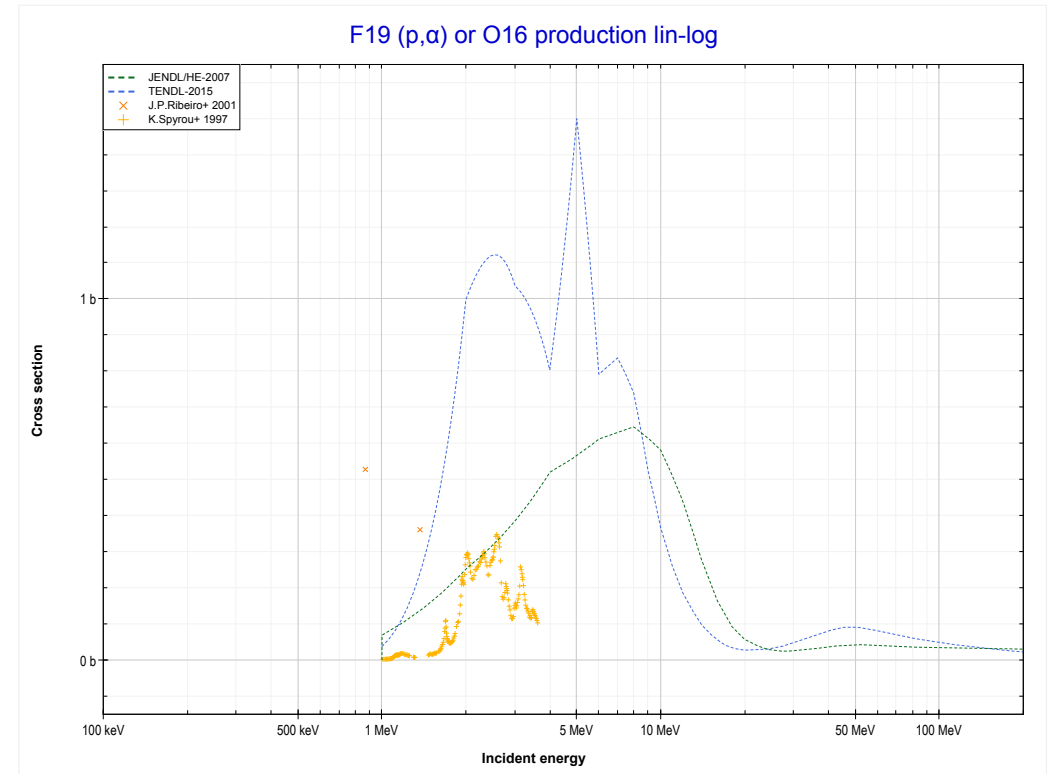
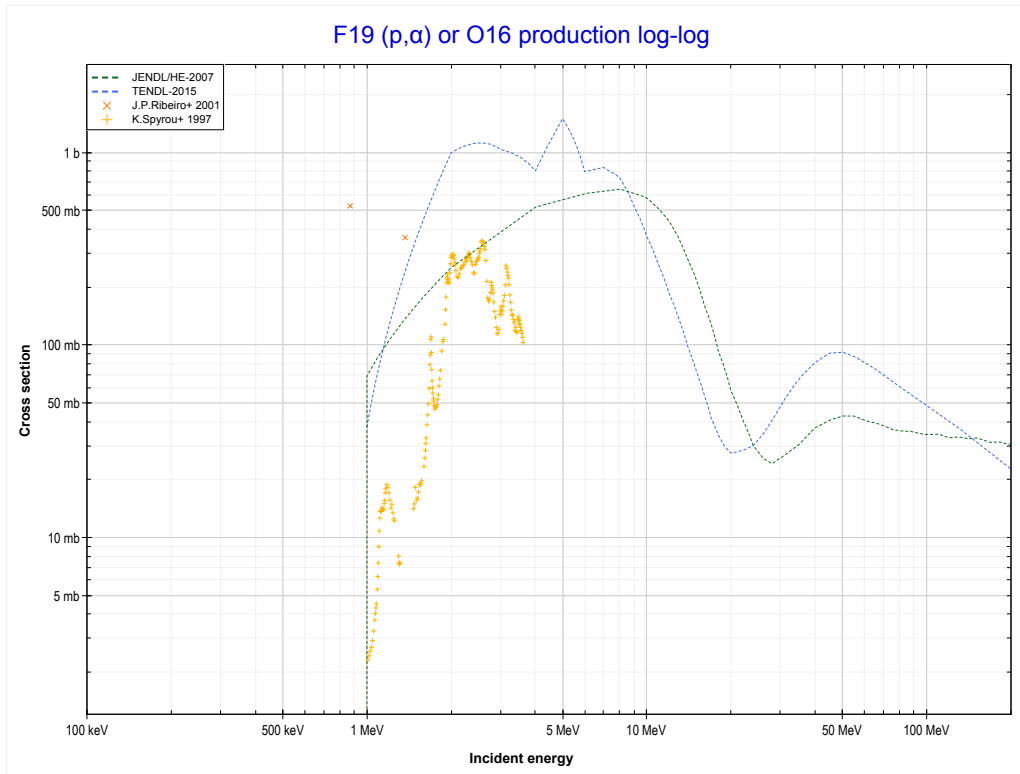
Reaction	Q-Value
F19(p,d)F18	-8207.30 keV
F19(p,n+p)F18	-10431.86 keV

<< 8-O-17	9-F-19	13-AI-27 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (Ne20 production)	MT107 (p, α) >>



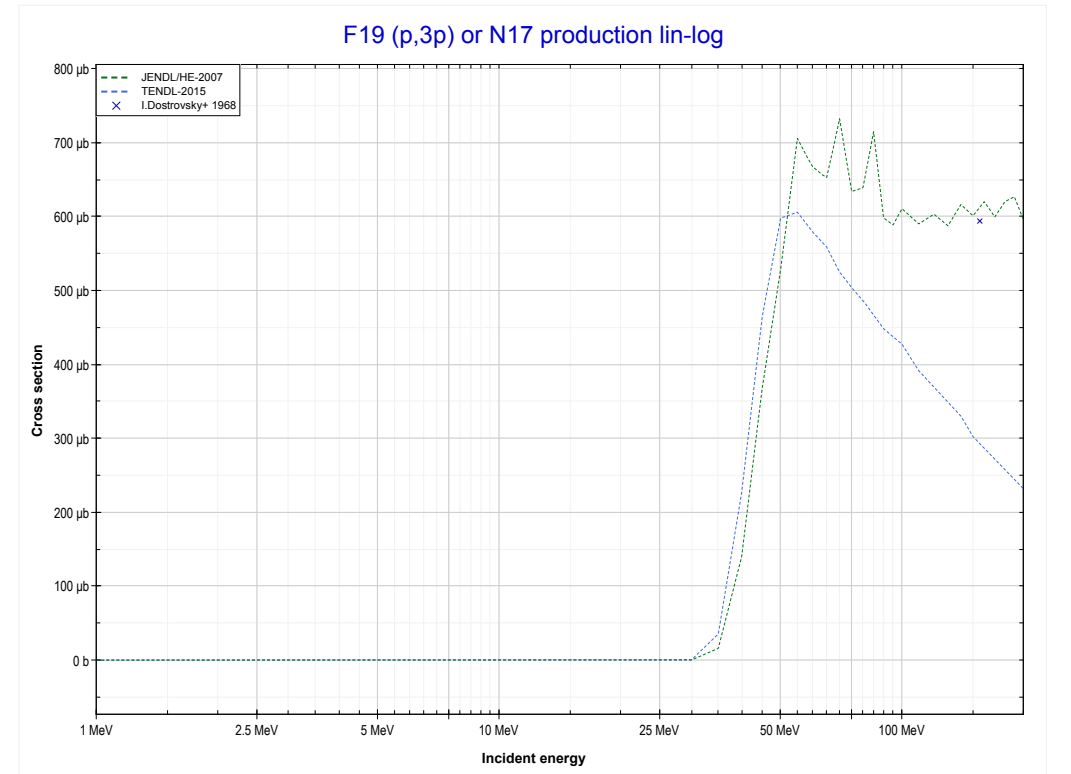
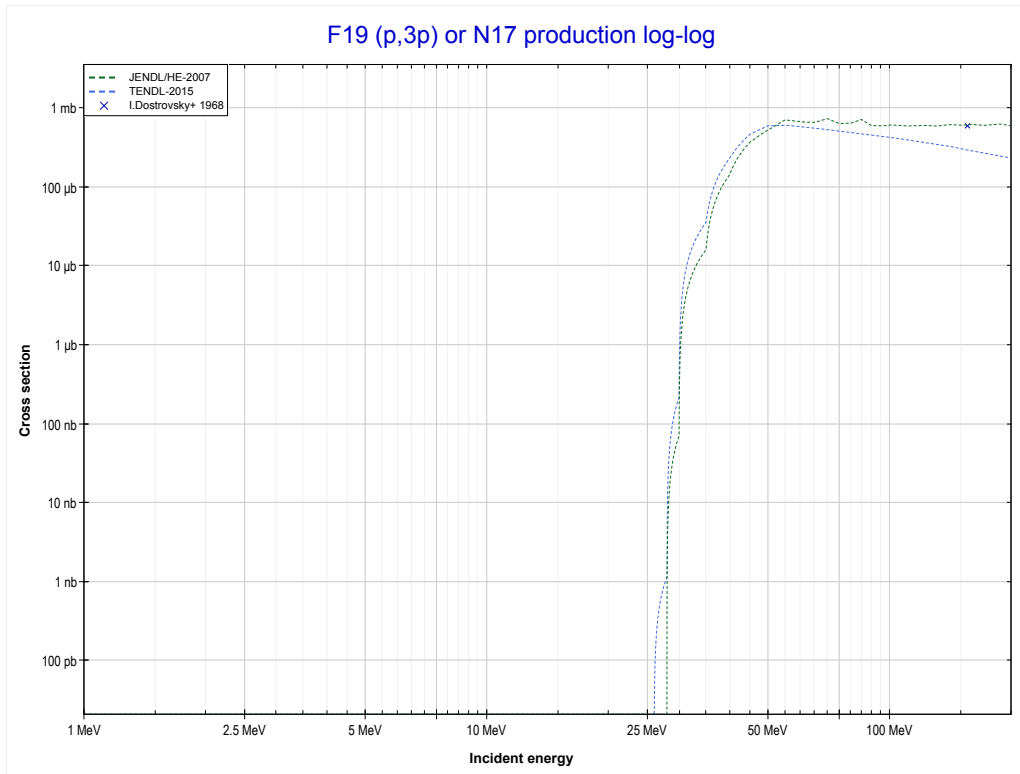
Reaction	Q-Value
F19(p, γ)Ne20	12843.46 keV

<< 9-F-18	9-F-19	10-Ne-20 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (O16 production)	MT197 (p,3p) >>



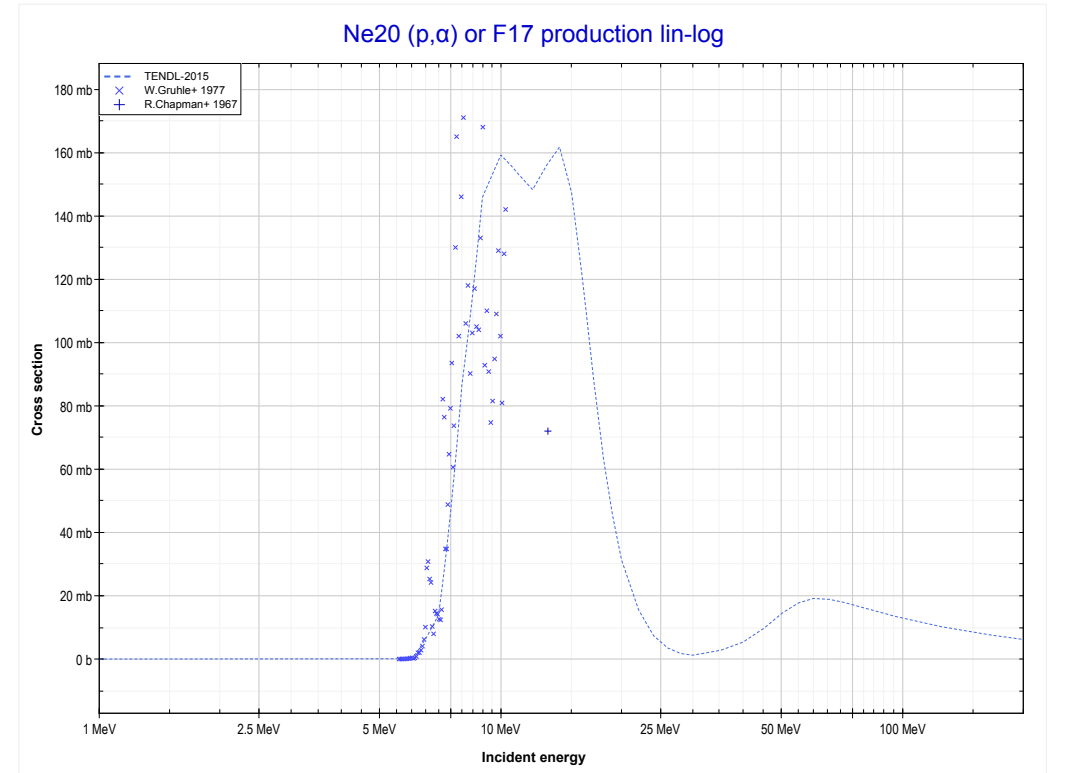
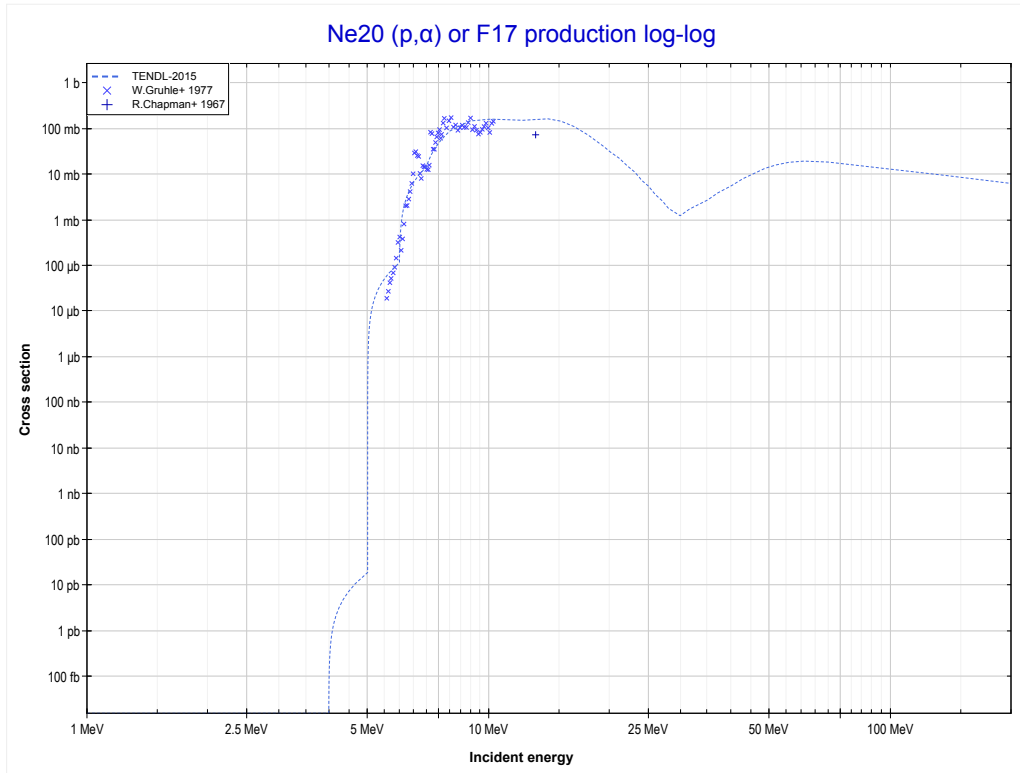
Reaction	Q-Value
F19(p, α)O16	8113.61 keV
F19(p,p+t)O16	-11700.25 keV
F19(p,n+He3)O16	-12464.01 keV
F19(p,2d)O16	-15732.92 keV
F19(p,n+p+d)O16	-17957.48 keV
F19(p,2n+2p)O16	-20182.05 keV

<< 8-O-18	9-F-19	14-Si-30 >>
<< MT107 (p, α)	MT197 (p,3p) or MT5 (N17 production)	10-Ne-20 MT107 (p, α) >>



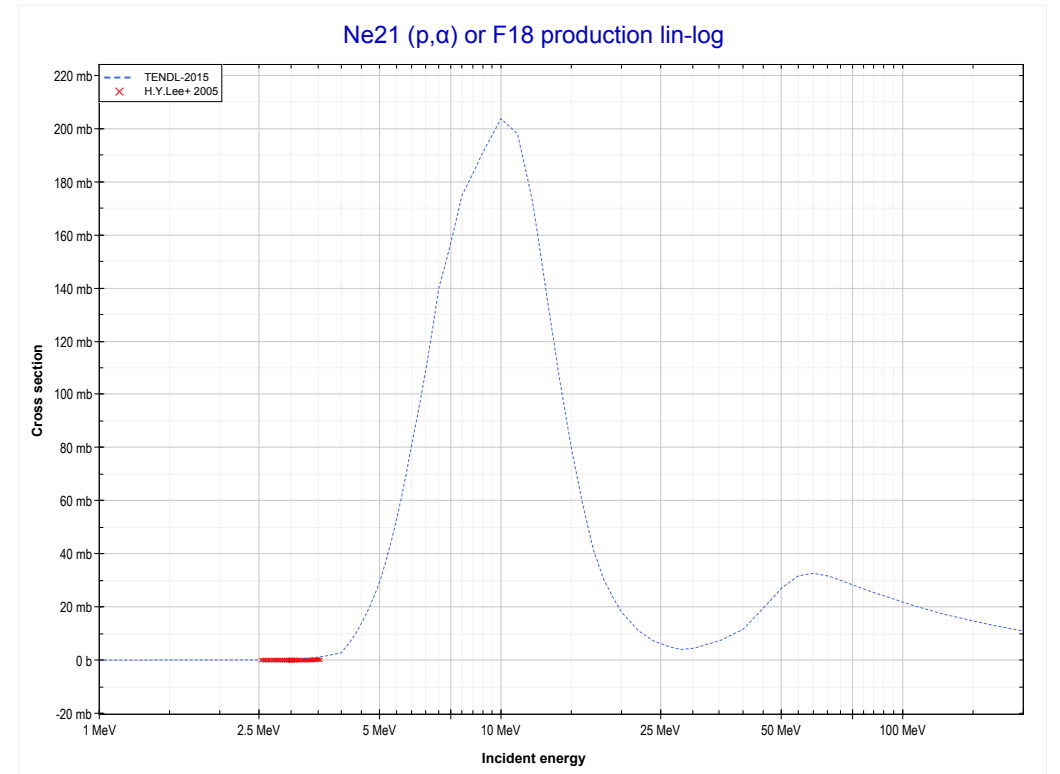
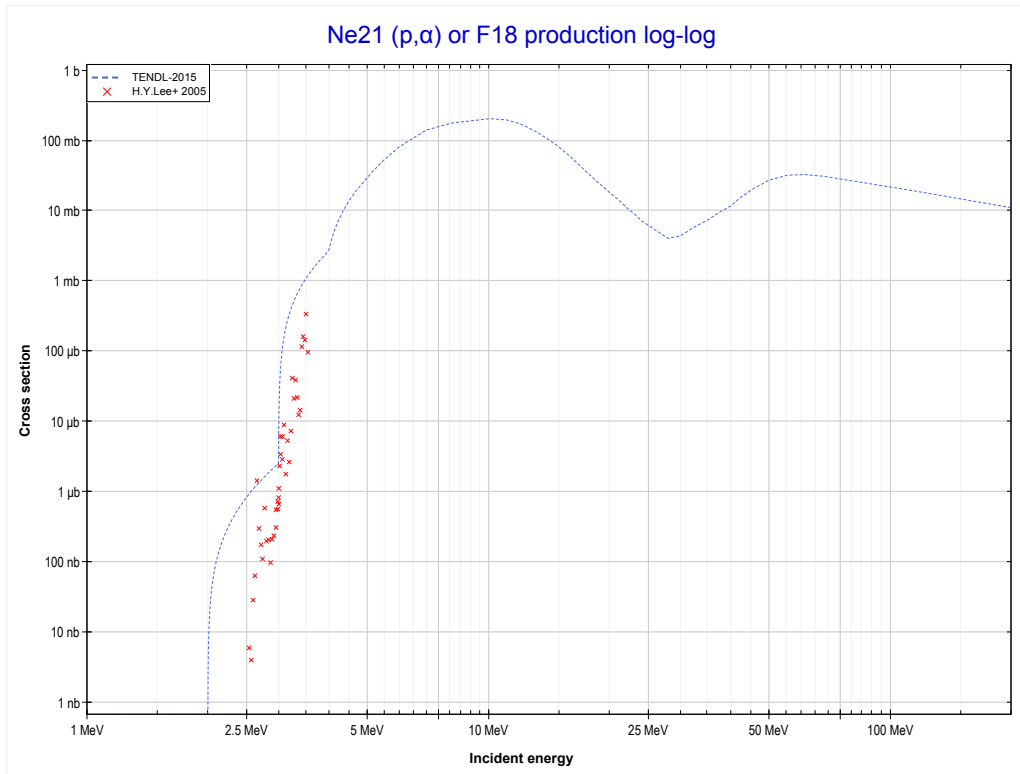
Reaction	Q-Value
F19(p,3p)N17	-23935.39 keV

<< 9-F-19	10-Ne-20	10-Ne-21 >>
<< 9-F-19 MT197 (p,3p)	MT107 (p,α) or MT5 (F17 production)	10-Ne-21 MT107 (p, α) >>



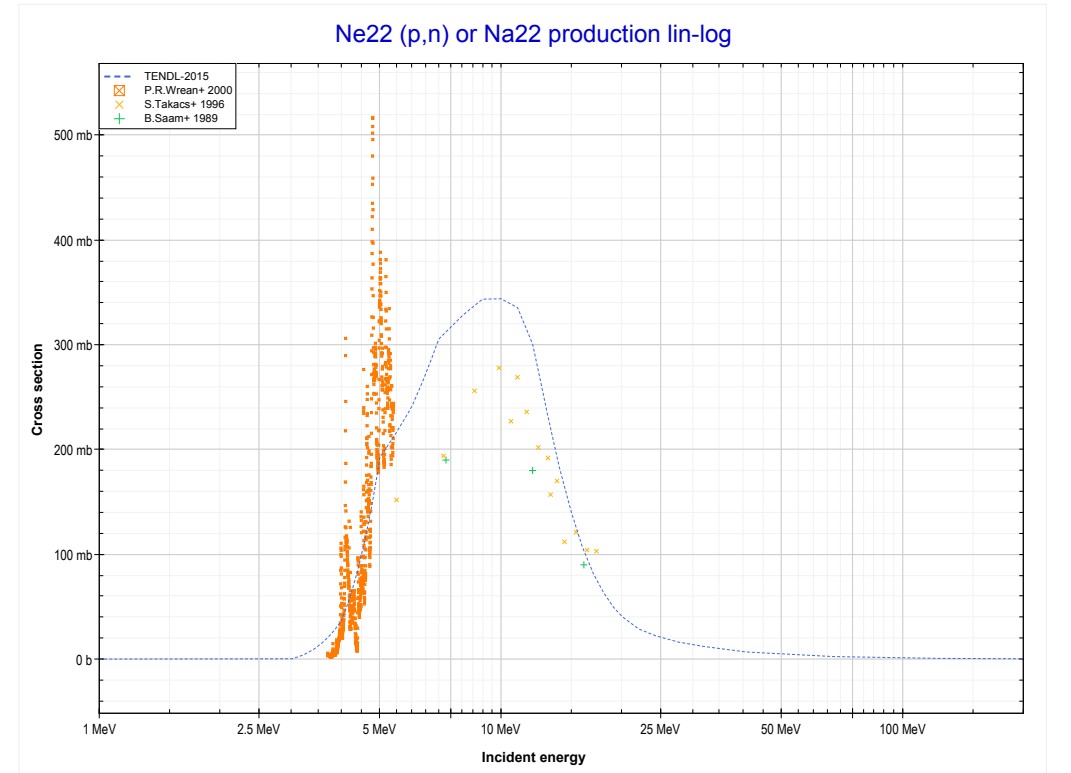
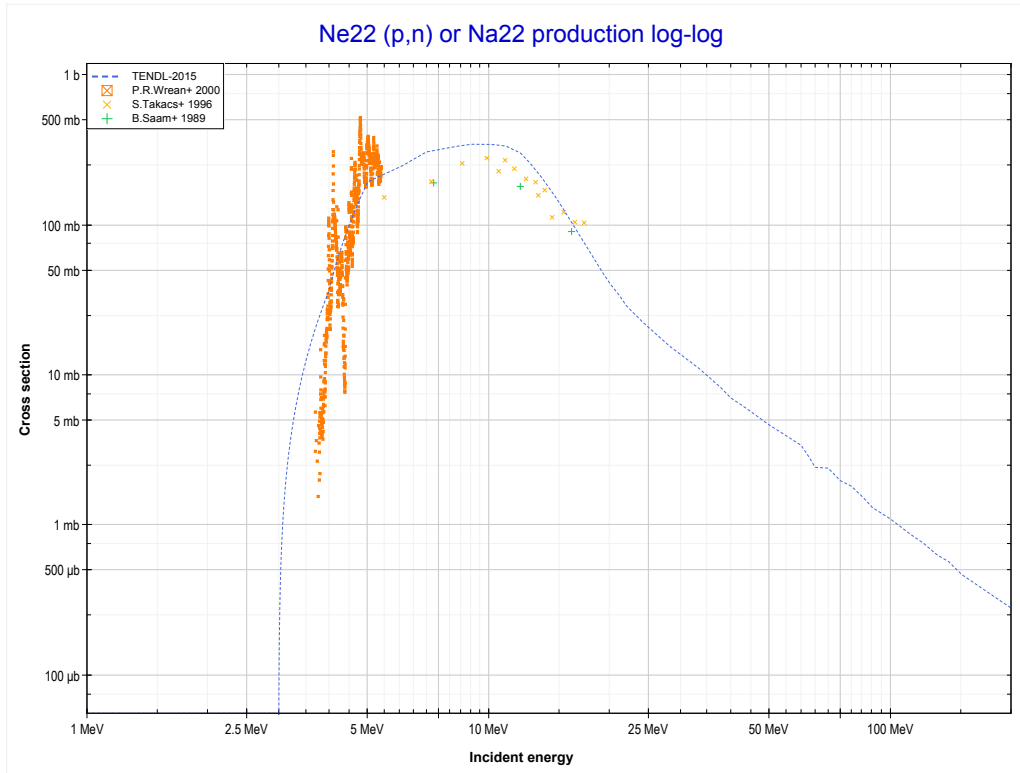
Reaction	Q-Value
Ne20(p, α)F17	-4129.58 keV
Ne20(p,p+t)F17	-23943.44 keV
Ne20(p,n+He3)F17	-24707.19 keV
Ne20(p,2d)F17	-27976.10 keV
Ne20(p,n+p+d)F17	-30200.67 keV
Ne20(p,2n+2p)F17	-32425.24 keV

<< 10-Ne-20	10-Ne-21	12-Mg-24 >>
<< 10-Ne-20 MT107 (p, α)	MT107 (p,α) or MT5 (F18 production)	10-Ne-22 MT4 (p,n) >>



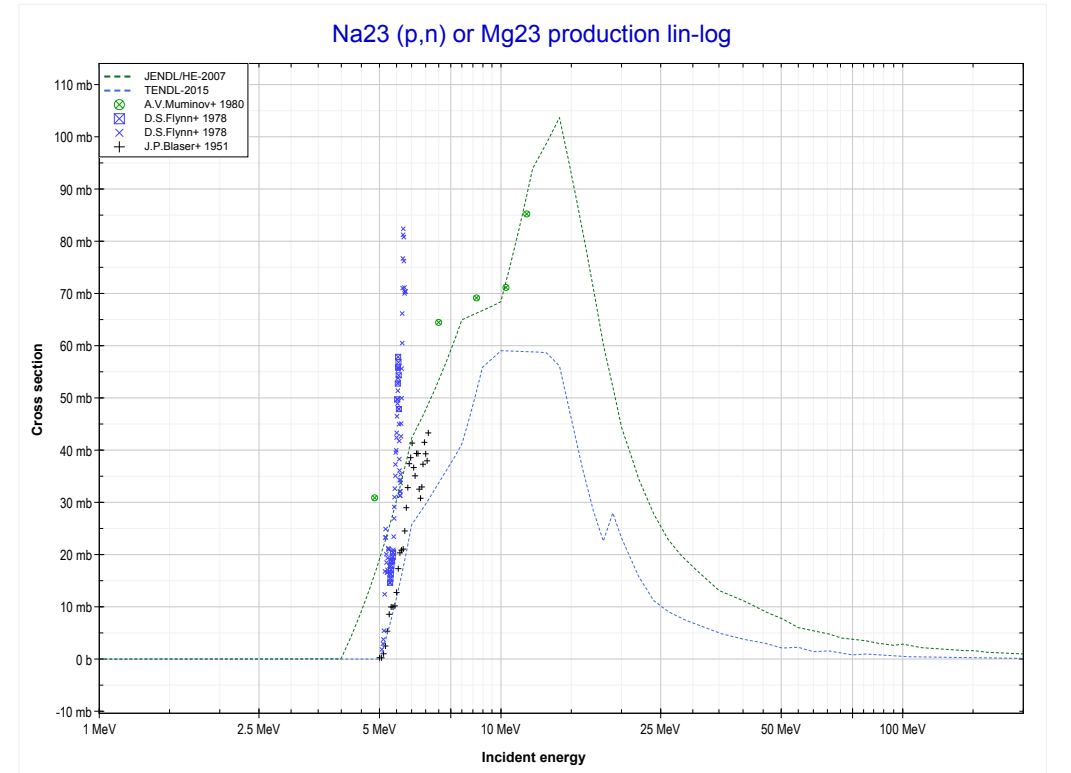
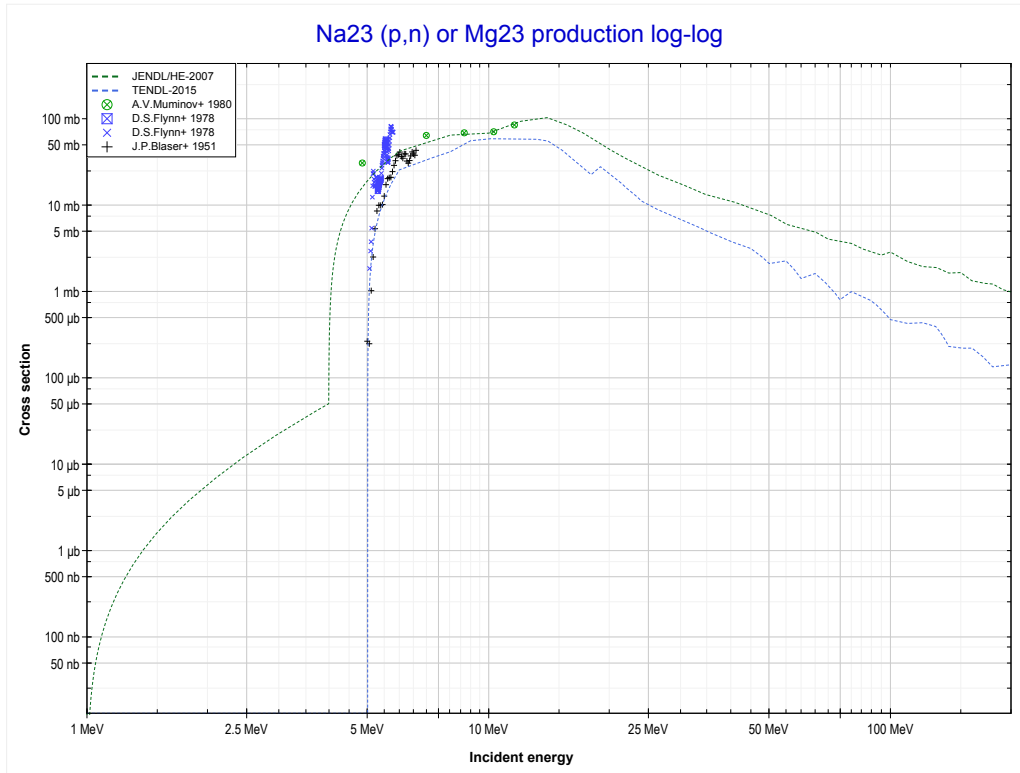
Reaction	Q-Value
Ne21(p, α)F18	-1740.83 keV
Ne21(p,p+t)F18	-21554.69 keV
Ne21(p,n+He3)F18	-22318.44 keV
Ne21(p,2d)F18	-25587.35 keV
Ne21(p,n+p+d)F18	-27811.92 keV
Ne21(p,2n+2p)F18	-30036.48 keV

<< 9-F-19	10-Ne-22	11-Na-23 >>
<< 10-Ne-21 MT107 (p, α)	MT4 (p,n) or MT5 (Na22 production)	11-Na-23 MT4 (p,n) >>



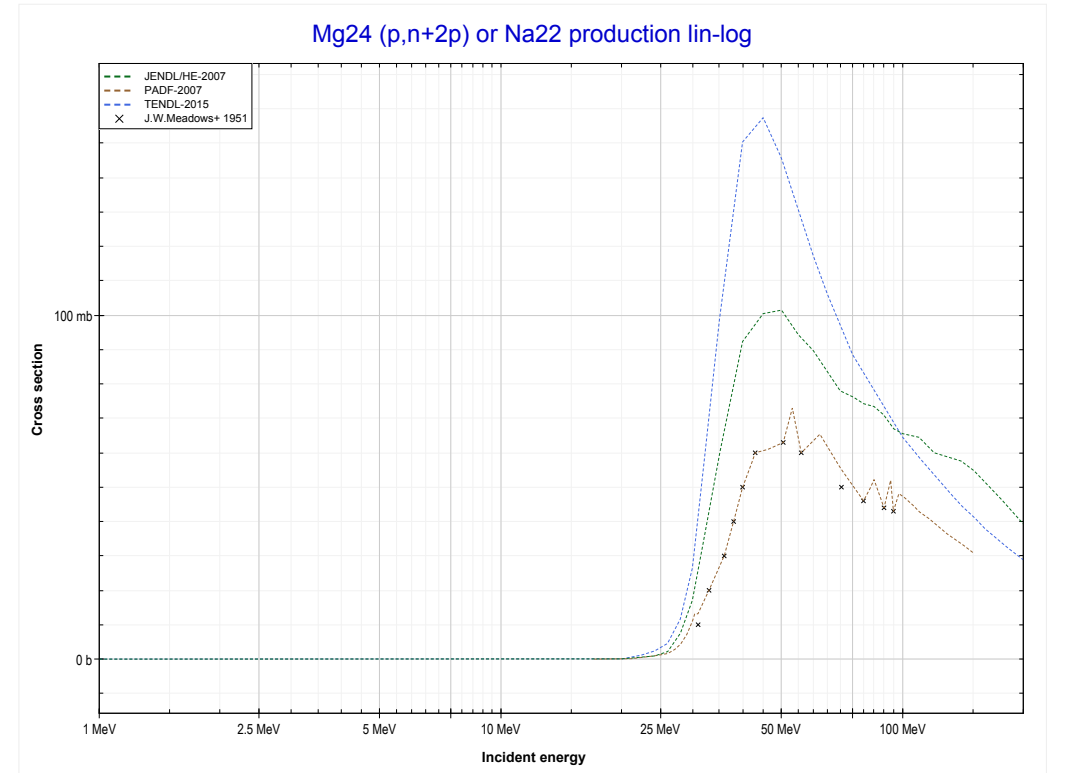
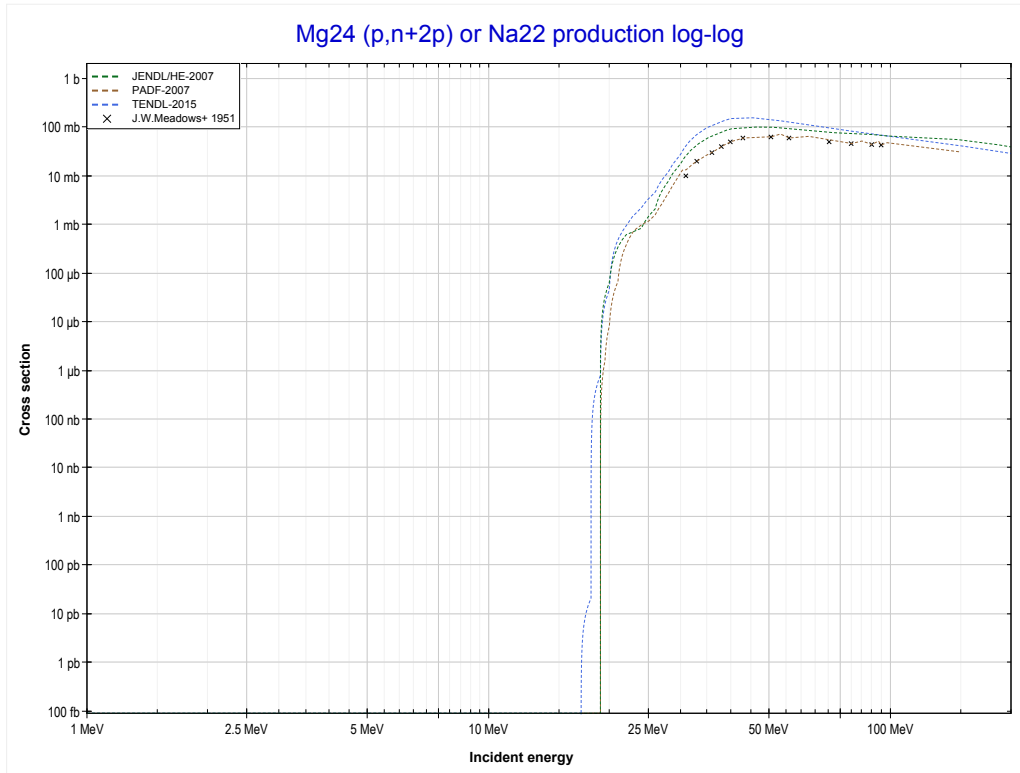
Reaction	Q-Value
Ne22(p,n)Na22	-3625.54 keV

<< 10-Ne-22	11-Na-23	12-Mg-25 >>
<< 10-Ne-22 MT4 (p,n)	MT4 (p,n) or MT5 (Mg23 production)	12-Mg-24 MT44 (p,n+2p) >>



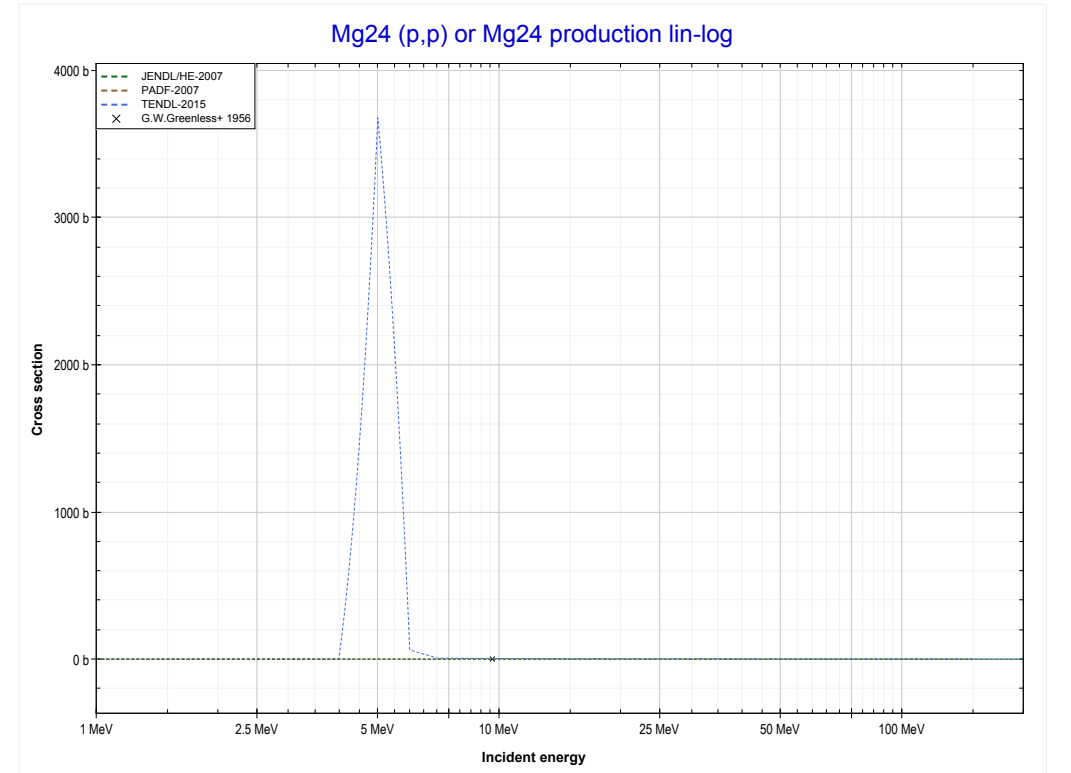
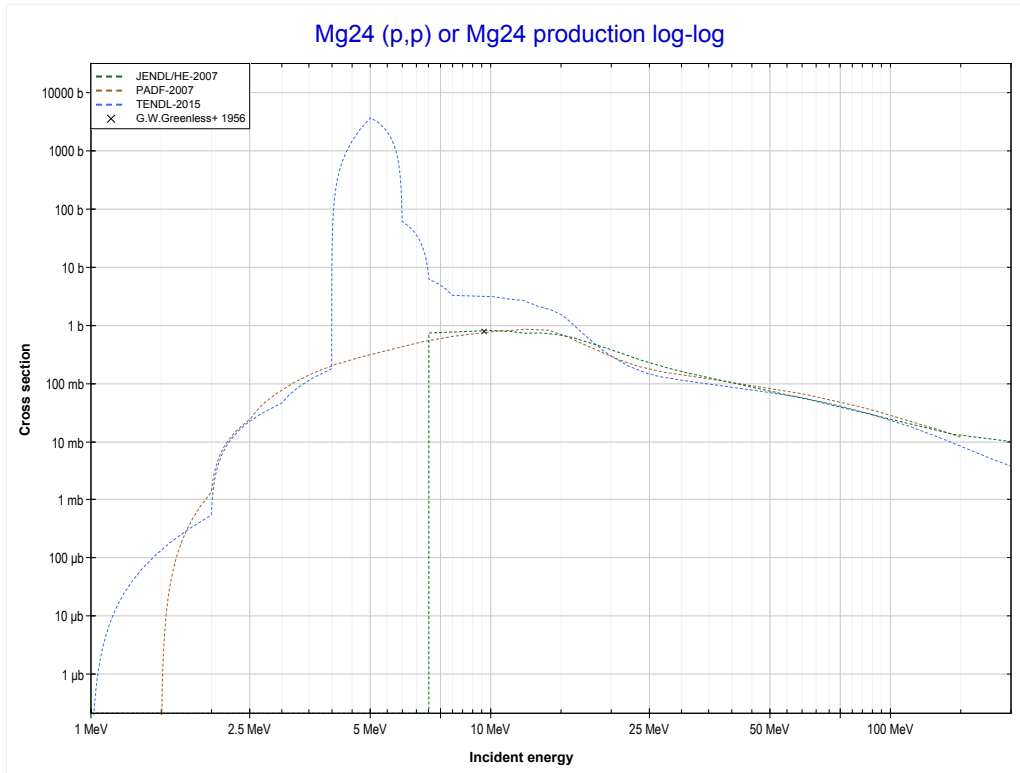
Reaction	Q-Value
Na23(p,n)Mg23	-4838.90 keV

	12-Mg-24	22-Ti-50 >>
<< 11-Na-23 MT4 (p,n)	MT44 (p,n+2p) or MT5 (Na22 production)	MT103 (p,p) >>



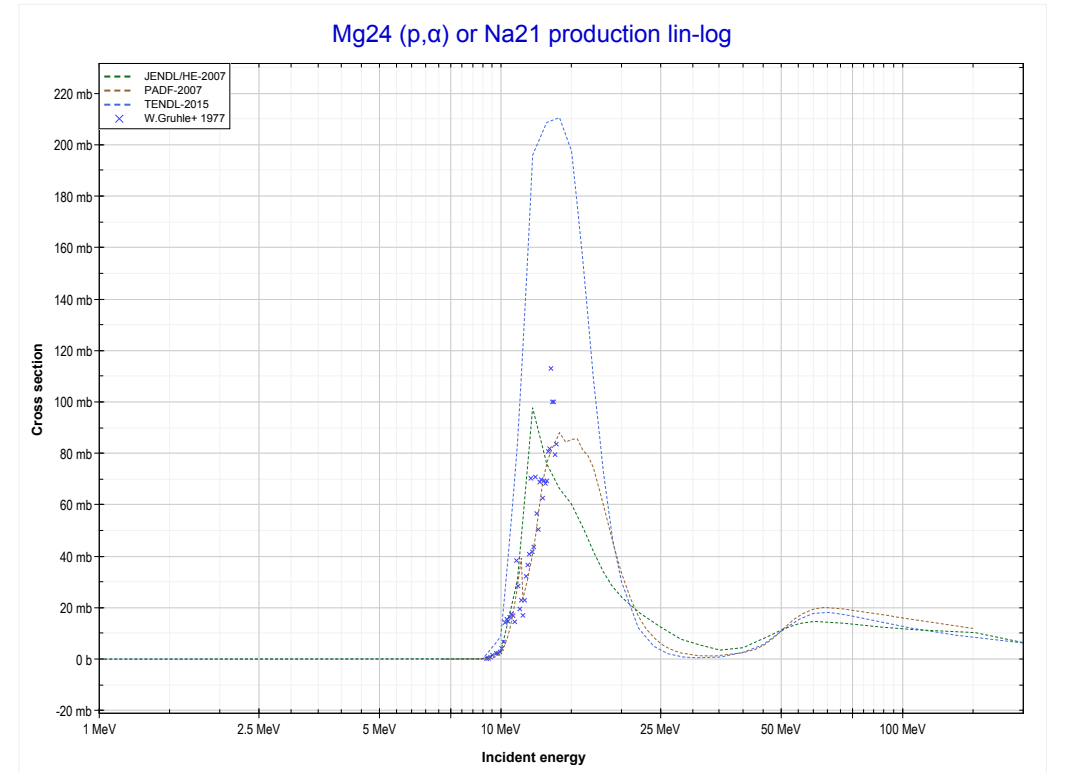
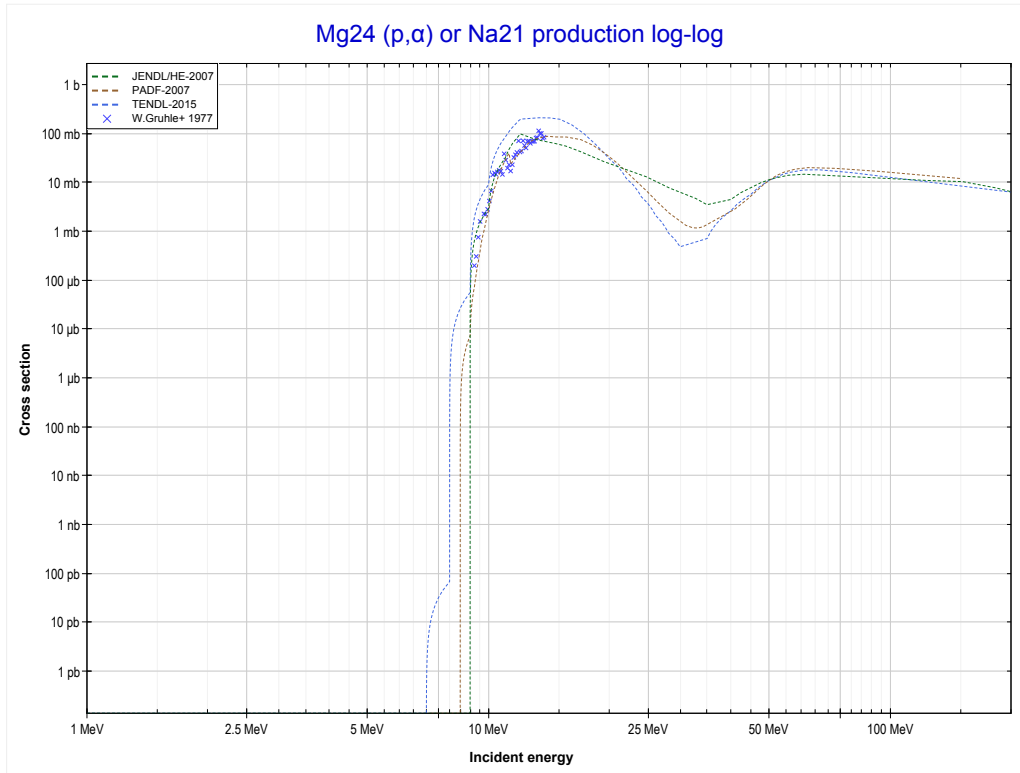
Reaction	Q-Value
Mg24(p,He3)Na22	-16394.29 keV
Mg24(p,p+d)Na22	-21887.77 keV
Mg24(p,n+2p)Na22	-24112.34 keV

<< 8-O-16	12-Mg-24	13-Al-27 >>
<< MT44 (p,n+2p)	MT103 (p,p) or MT5 (Mg24 production)	MT107 (p, α) >>



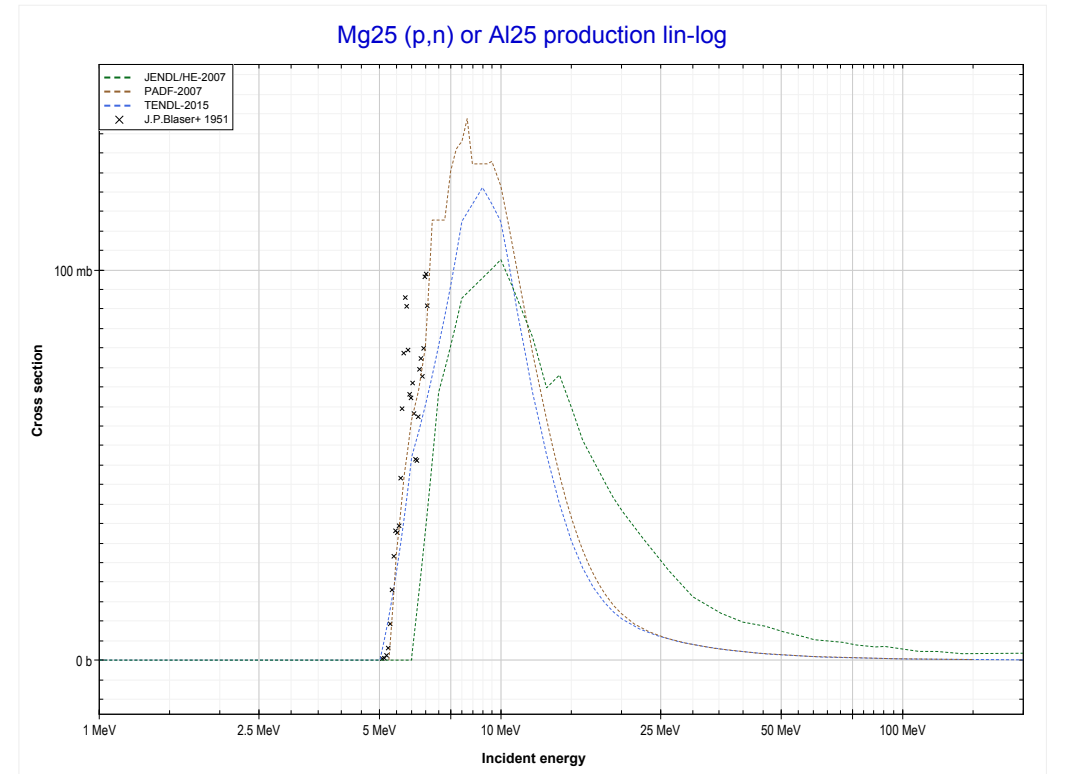
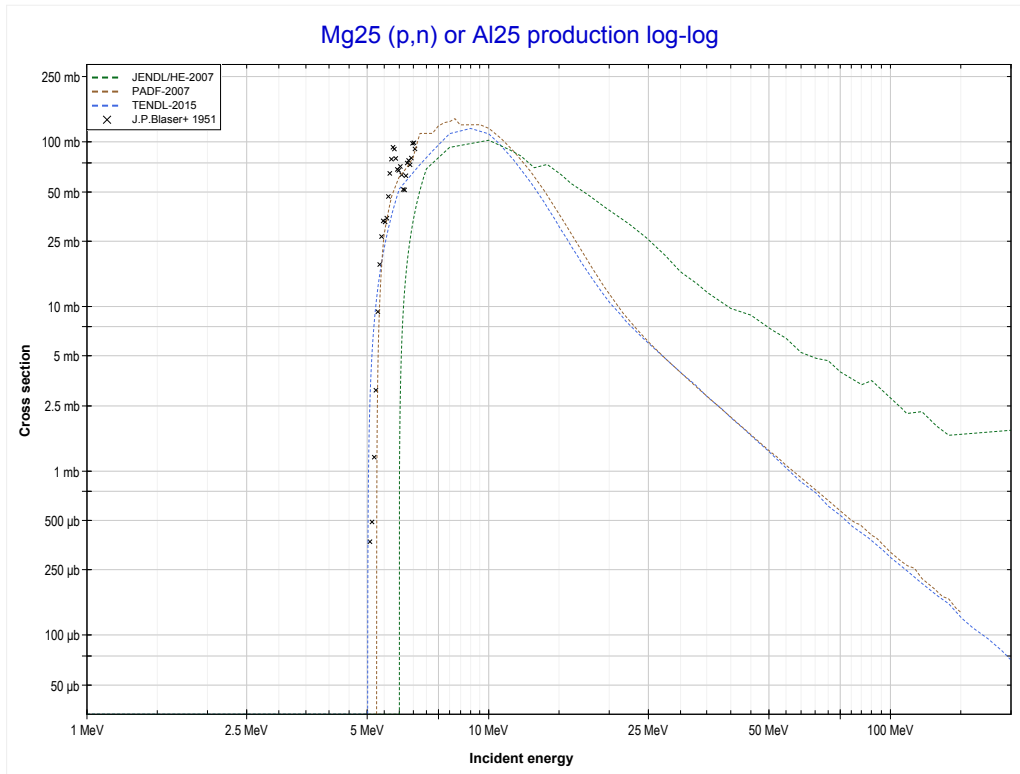
Reaction	Q-Value
Mg24(p,p)Mg24	0.00 keV

<< 10-Ne-21	12-Mg-24	12-Mg-25 >>
<< MT103 (p,p)	MT107 (p,α) or MT5 (Na21 production)	12-Mg-25 MT4 (p,n) >>



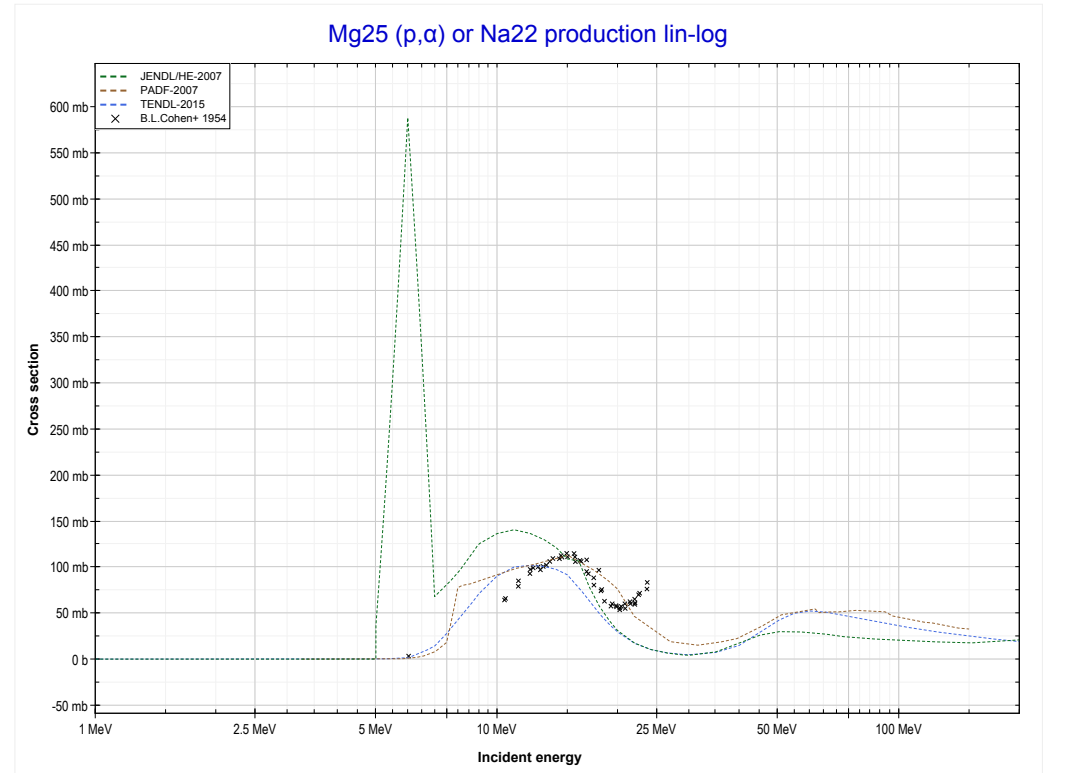
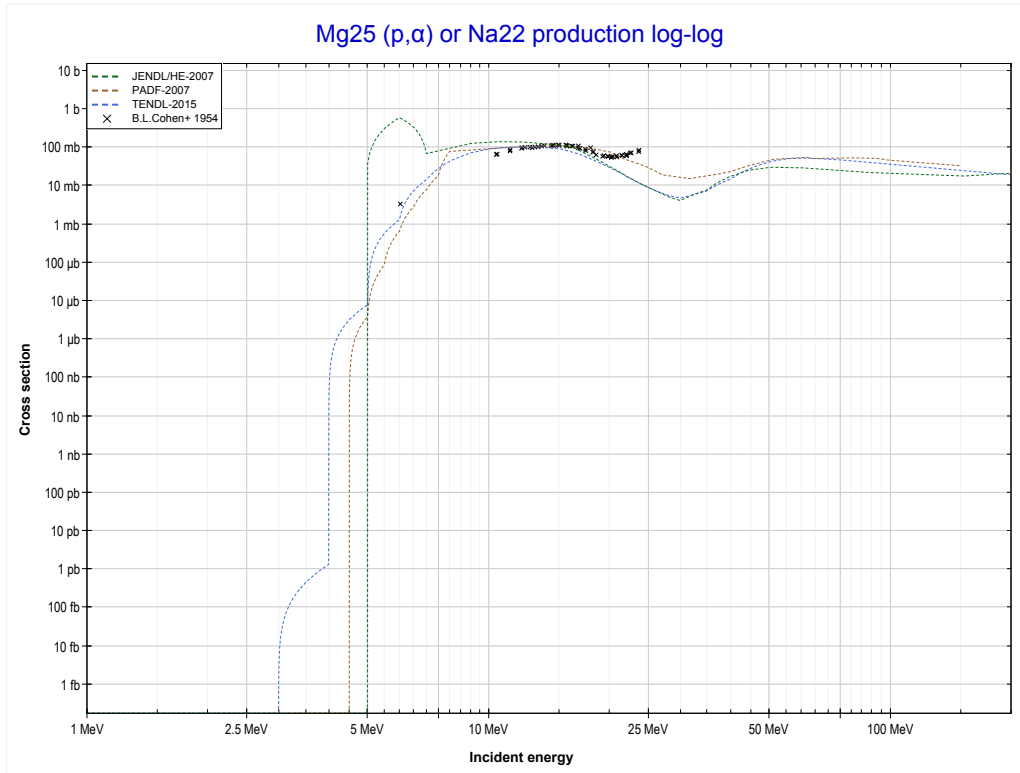
Reaction	Q-Value
Mg24(p, α)Na21	-6884.87 keV
Mg24(p,p+t)Na21	-26698.74 keV
Mg24(p,n+He3)Na21	-27462.49 keV
Mg24(p,2d)Na21	-30731.40 keV
Mg24(p,n+p+d)Na21	-32955.97 keV
Mg24(p,2n+2p)Na21	-35180.53 keV

<< 11-Na-23	12-Mg-25	12-Mg-26 >>
<< 12-Mg-24 MT107 (p, α)	MT4 (p,n) or MT5 (Al25 production)	MT107 (p, α) >>



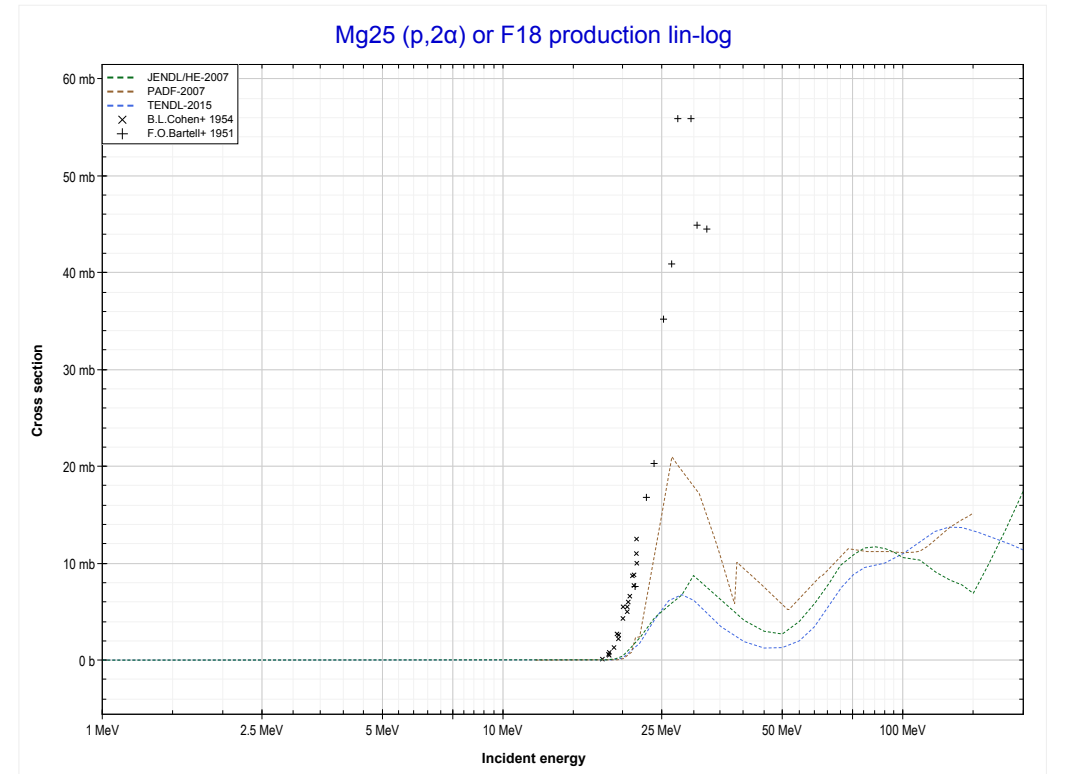
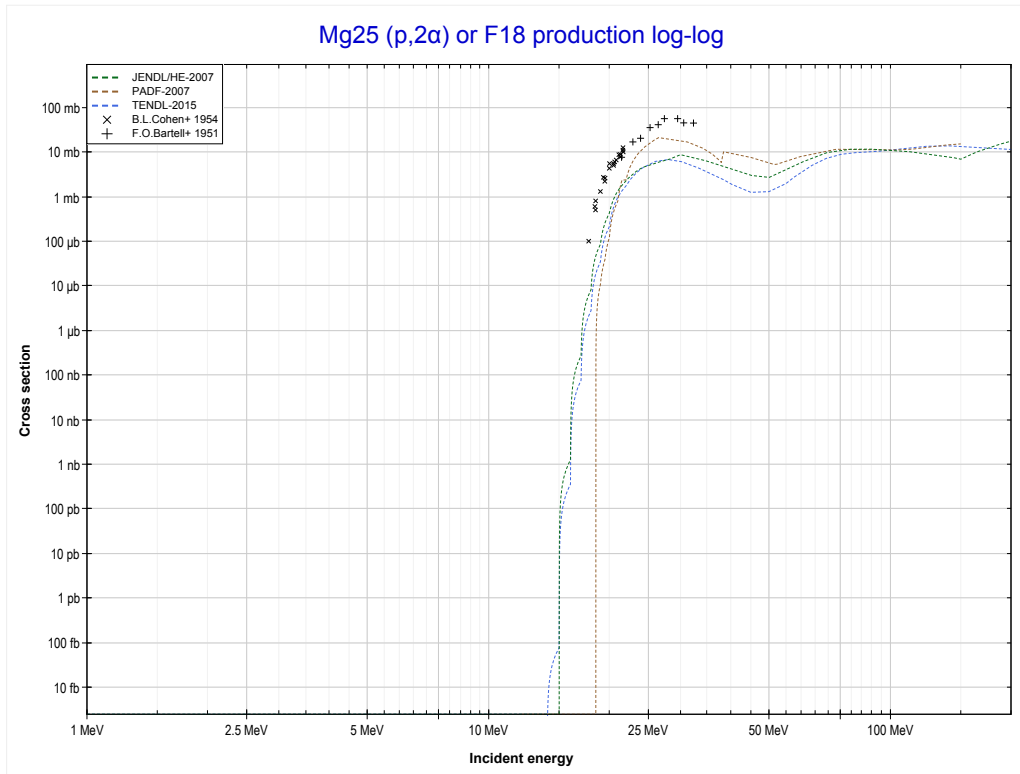
Reaction	Q-Value
Mg25(p,n)Al25	-5058.92 keV

<< 12-Mg-24	12-Mg-25	22-Ti-46 >>
<< MT4 (p,n)	MT107 (p,α) or MT5 (Na22 production)	MT108 (p, 2α) >>



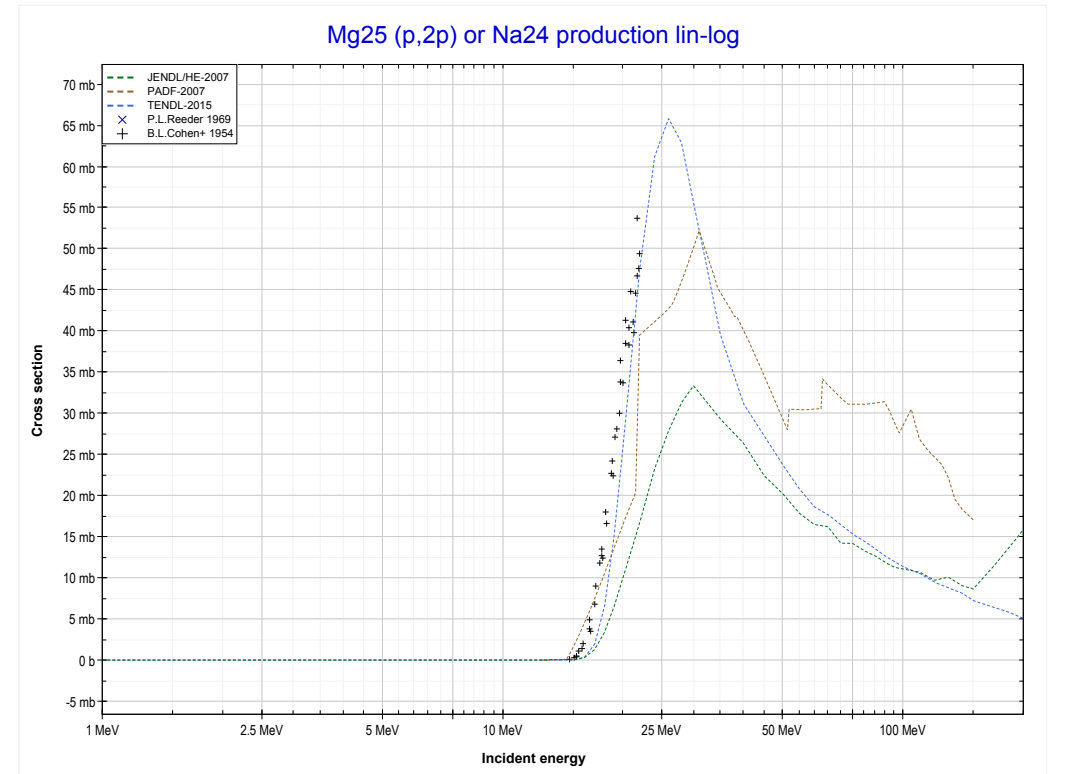
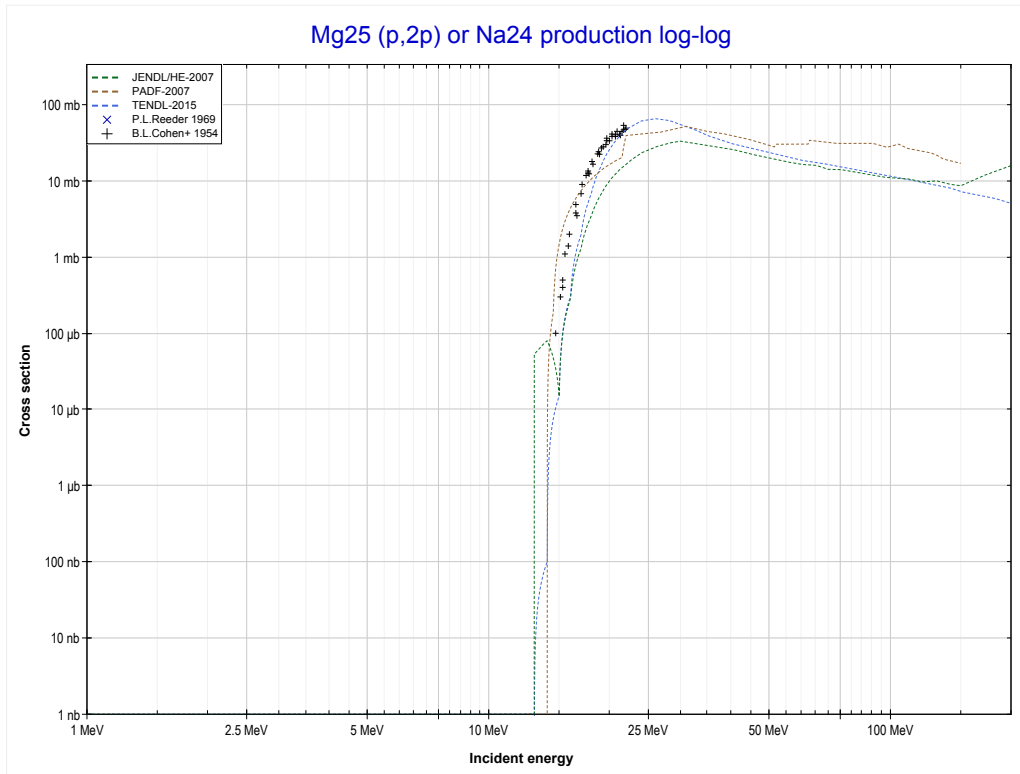
Reaction	Q-Value
Mg25(p, α)Na22	-3147.20 keV
Mg25(p,p+t)Na22	-22961.06 keV
Mg25(p,n+He3)Na22	-23724.81 keV
Mg25(p, $2d$)Na22	-26993.72 keV
Mg25(p,n+p+d)Na22	-29218.29 keV
Mg25(p, $2n+2p$)Na22	-31442.85 keV

<< 7-N-14	12-Mg-25	22-Ti-50 >>
<< MT107 (p, α)	MT108 (p,2α) or MT5 (F18 production)	MT111 (p,2p) >>



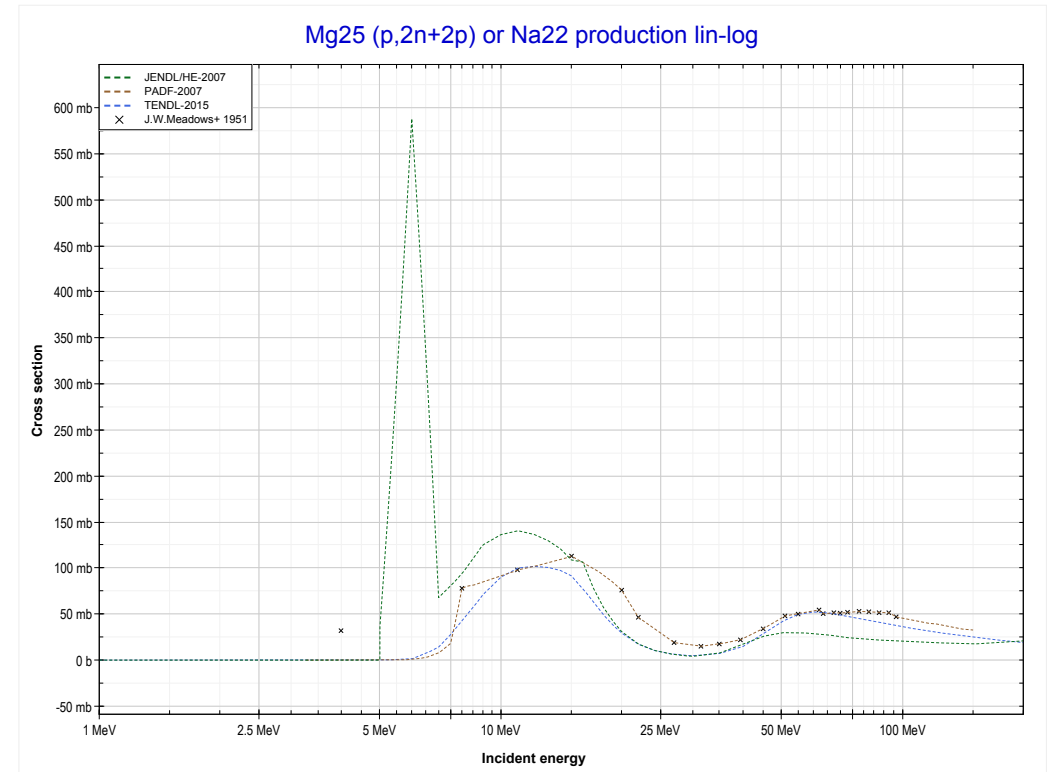
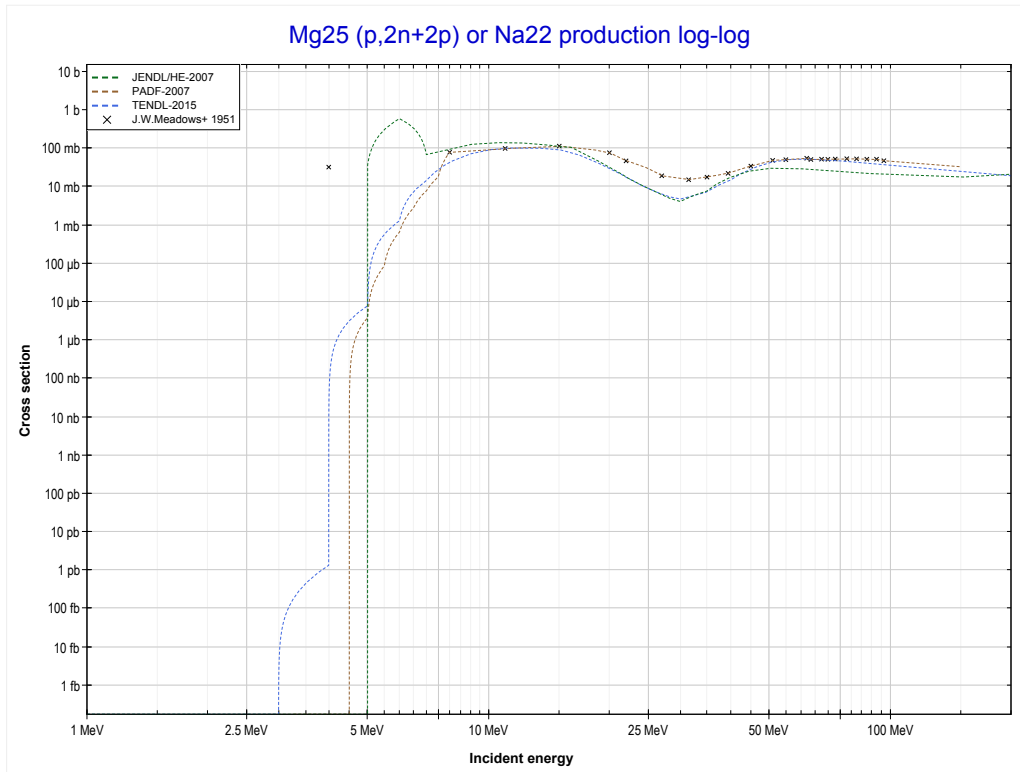
Reaction	Q-Value	Reaction	Q-Value
Mg25(p,2 α)F18	-11626.73 keV	Mg25(p,n+p+t+He3)F18	-52018.21 keV
Mg25(p,p+t+ α)F18	-31440.59 keV	Mg25(p,2n+2He3)F18	-52781.96 keV
Mg25(p,n+He3+ α)F18	-32204.35 keV	Mg25(p,p+2d+t)F18	-55287.12 keV
Mg25(p,2d+ α)F18	-35473.26 keV	Mg25(p,n+2d+He3)F18	-56050.88 keV
Mg25(p,n+p+d+ α)F18	-37697.82 keV	Mg25(p,n+2p+d+t)F18	-57511.69 keV
Mg25(p,2n+2p+ α)F18	-39922.39 keV	Mg25(p,2n+p+d+He3)F18	-58275.44 keV
Mg25(p,d+t+He3)F18	-49793.64 keV	Mg25(p,4d)F18	-59319.79 keV
Mg25(p,2p+2t)F18	-51254.45 keV	Mg25(p,2n+3p+t)F18	-59736.25 keV

<< 8-O-16	12-Mg-25	14-Si-29 >>
<< MT108 (p,2 α)	MT111 (p,2p) or MT5 (Na24 production)	MT190 (p,2n+2p) >>



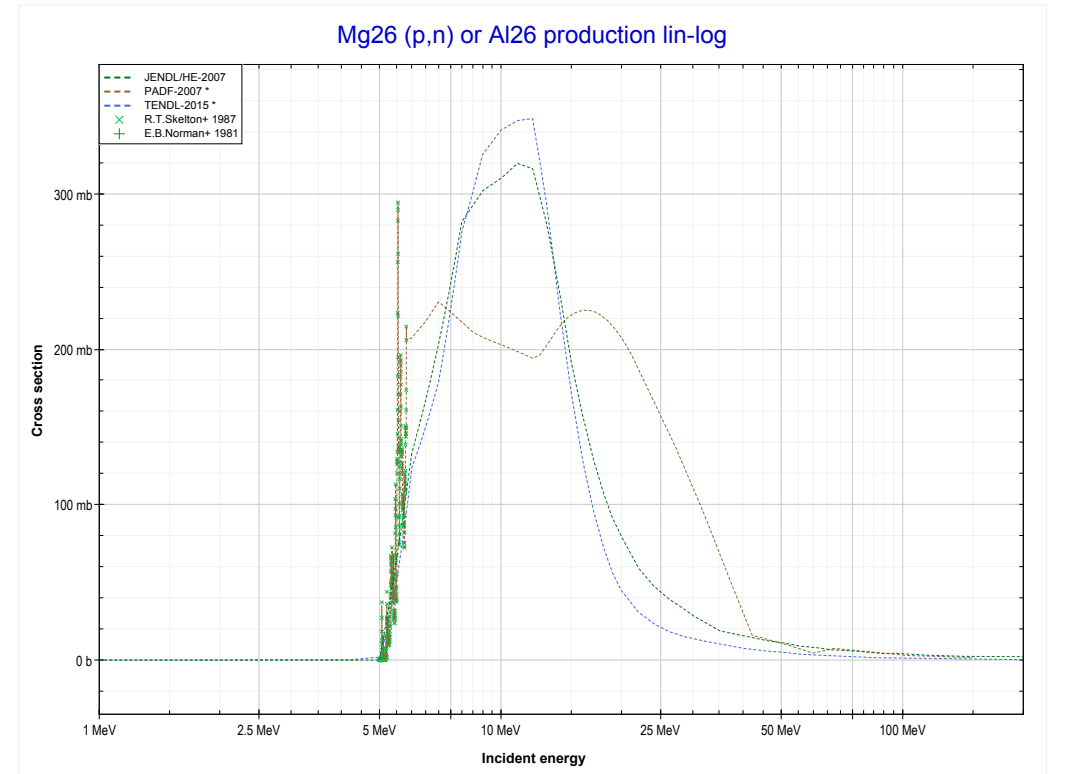
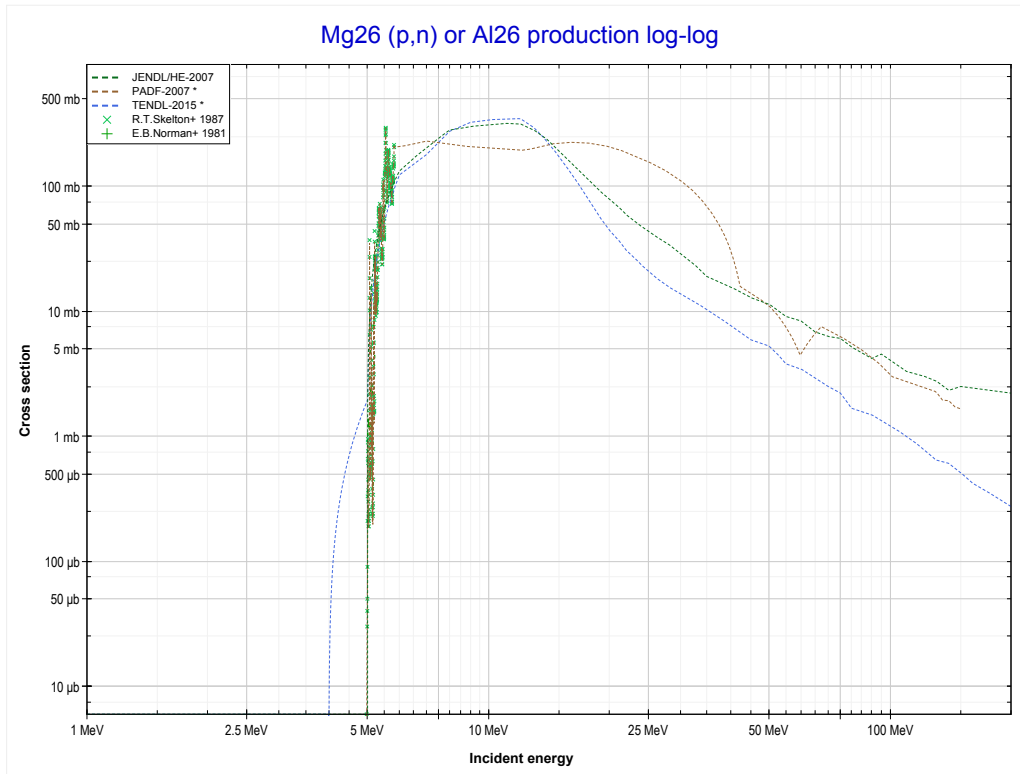
Reaction	Q-Value
Mg25(p,2p)Na24	-12063.78 keV

<< 8-O-16	12-Mg-25	
<< MT111 (p,2p)	MT190 (p,2n+2p) or MT5 (Na22 production)	12-Mg-26 MT4 (p,n) >>



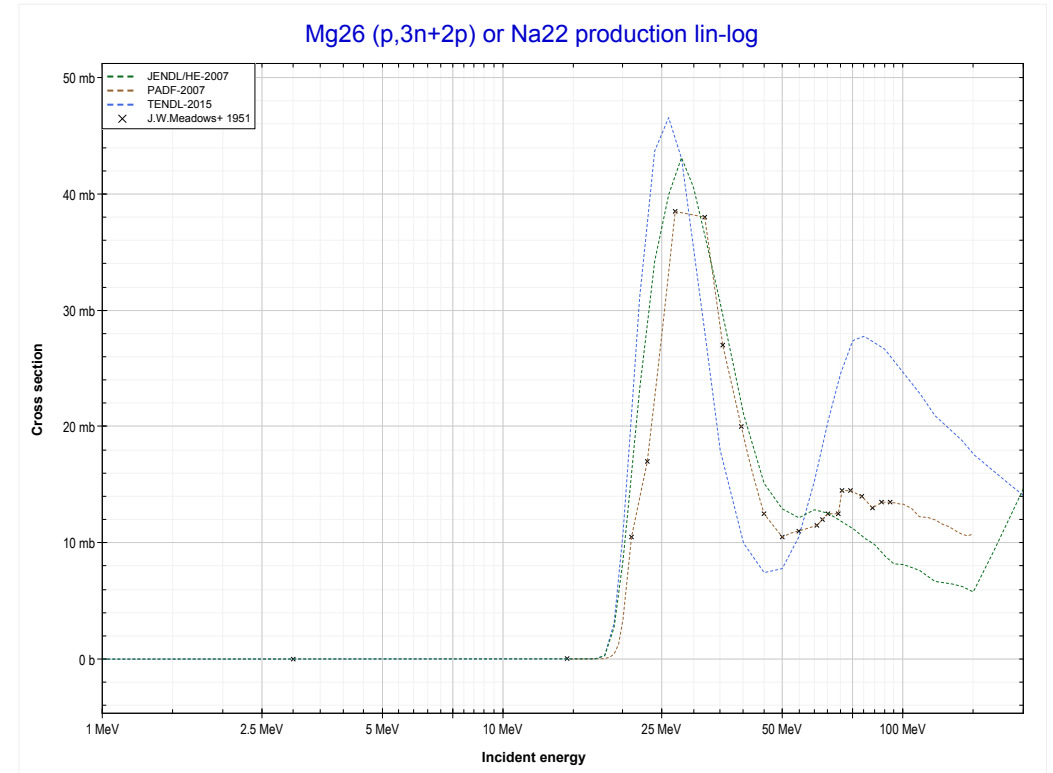
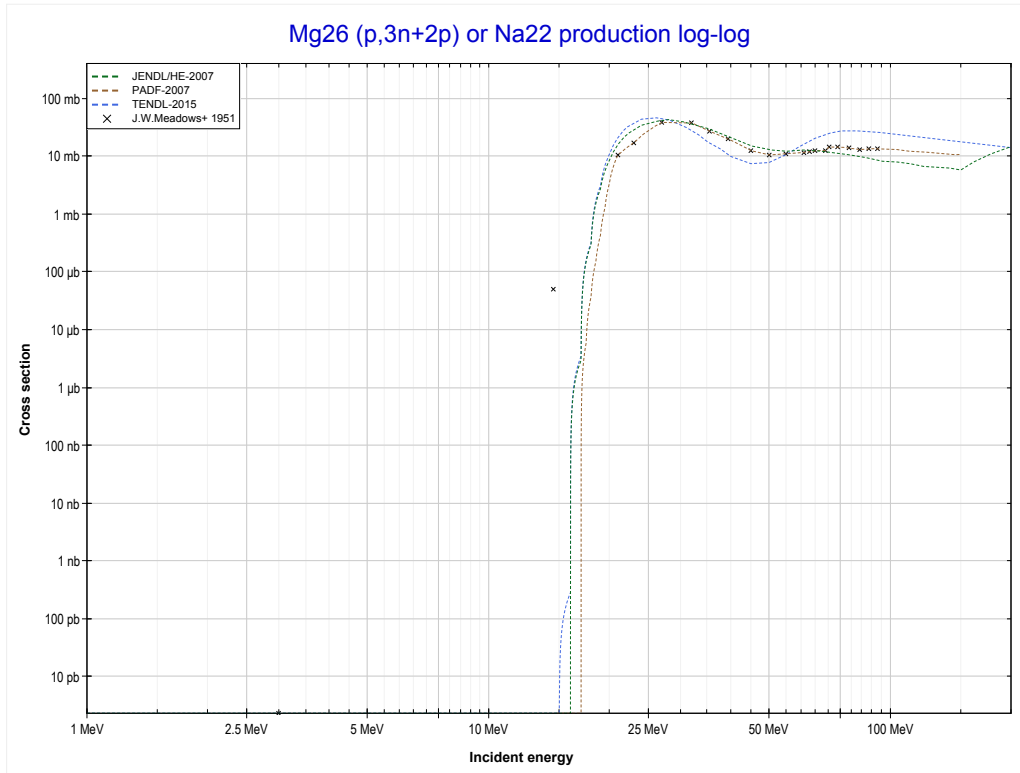
Reaction	Q-Value
Mg25(p, α)Na22	-3147.20 keV
Mg25(p,p+t)Na22	-22961.06 keV
Mg25(p,n+He3)Na22	-23724.81 keV
Mg25(p,2d)Na22	-26993.72 keV
Mg25(p,n+p+d)Na22	-29218.29 keV
Mg25(p,2n+2p)Na22	-31442.85 keV

<< 12-Mg-25	12-Mg-26	13-Al-27 >>
<< 12-Mg-25 MT190 (p,2n+2p)	MT4 (p,n) or MT5 (Al26 production)	MT179 (p,3n+2p) >>



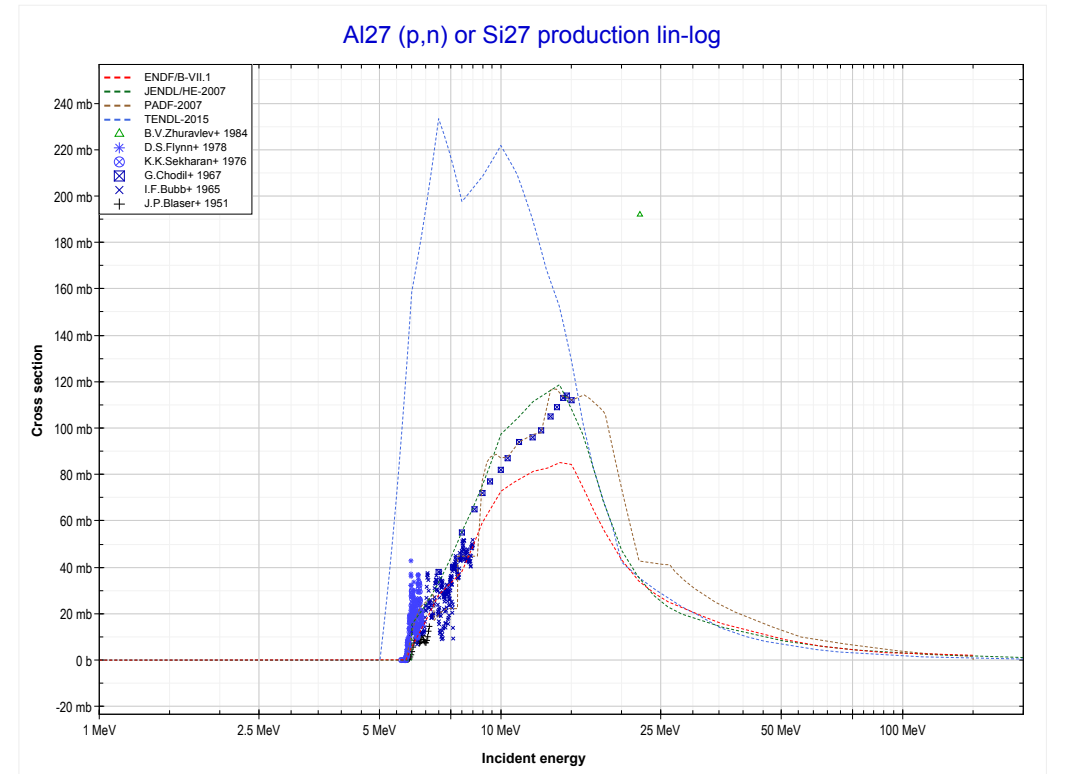
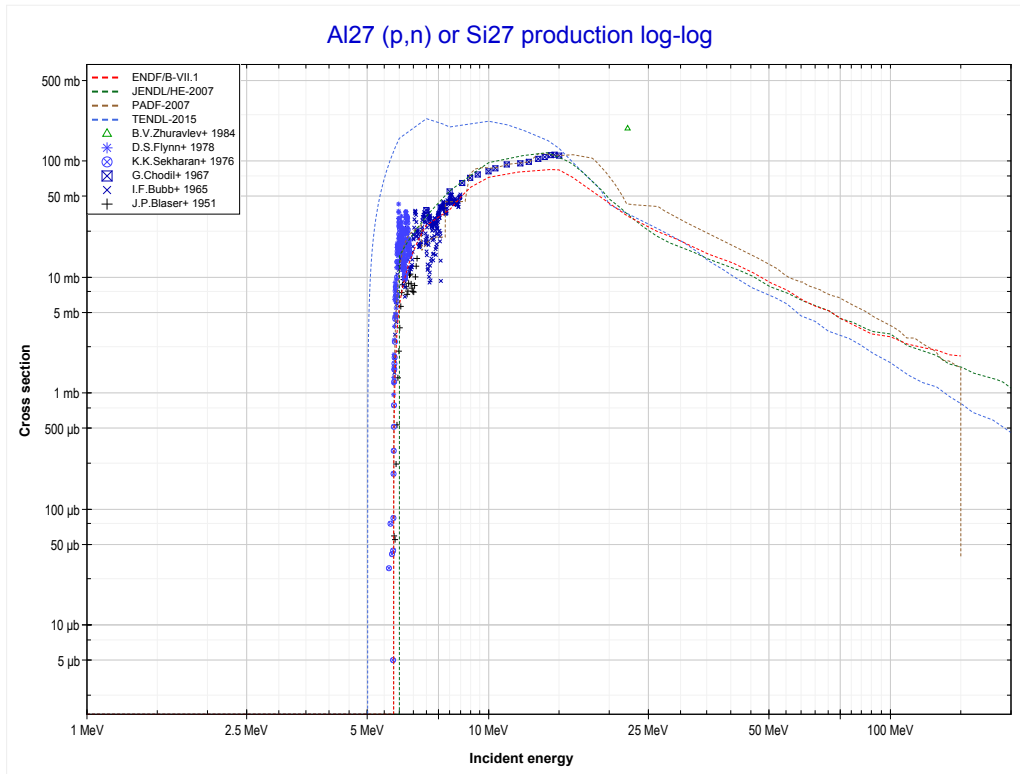
Reaction	Q-Value
Mg26(p,n)Al26	-4786.78 keV

	12-Mg-26	
<< MT4 (p,n)	MT179 (p,3n+2p) or MT5 (Na22 production)	13-Al-27 MT4 (p,n) >>



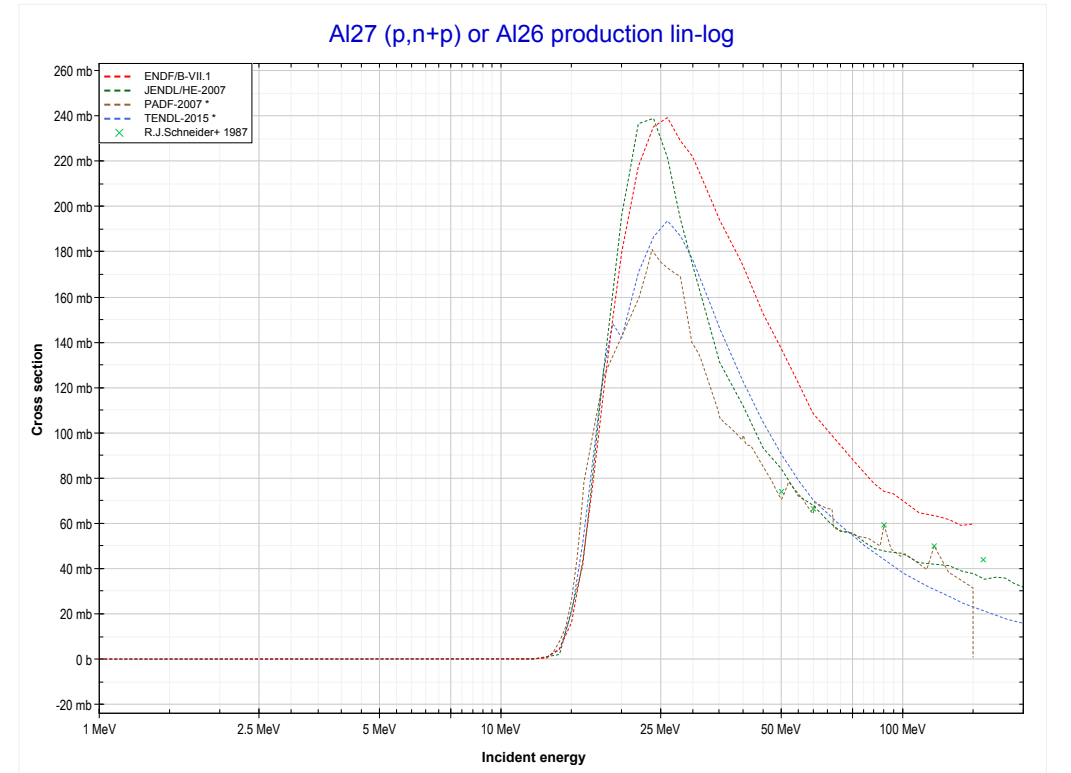
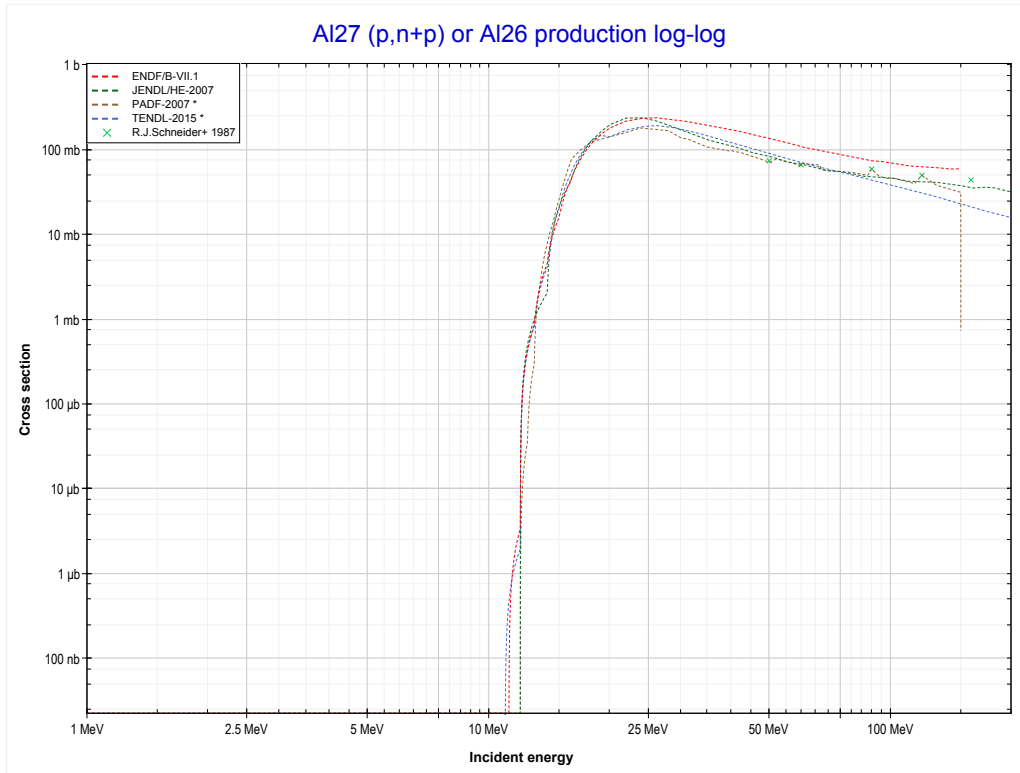
Reaction	Q-Value
Mg26(p,n+α)Na22	-14240.29 keV
Mg26(p,d+t)Na22	-31829.58 keV
Mg26(p,n+p+t)Na22	-34054.15 keV
Mg26(p,2n+He3)Na22	-34817.91 keV
Mg26(p,n+2d)Na22	-38086.82 keV
Mg26(p,2n+p+d)Na22	-40311.38 keV
Mg26(p,3n+2p)Na22	-42535.95 keV

<< 12-Mg-26	13-Al-27	16-S-34 >>
<< 12-Mg-26 MT179 (p,3n+2p)	MT4 (p,n) or MT5 (Si27 production)	MT28 (p,n+p) >>



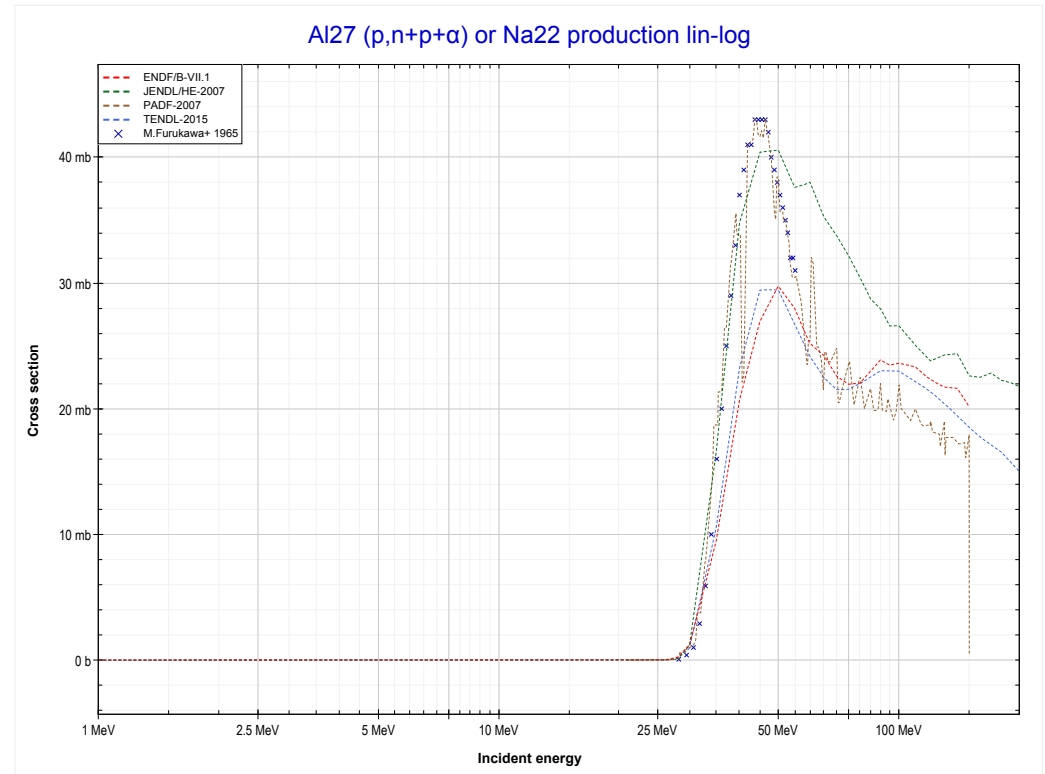
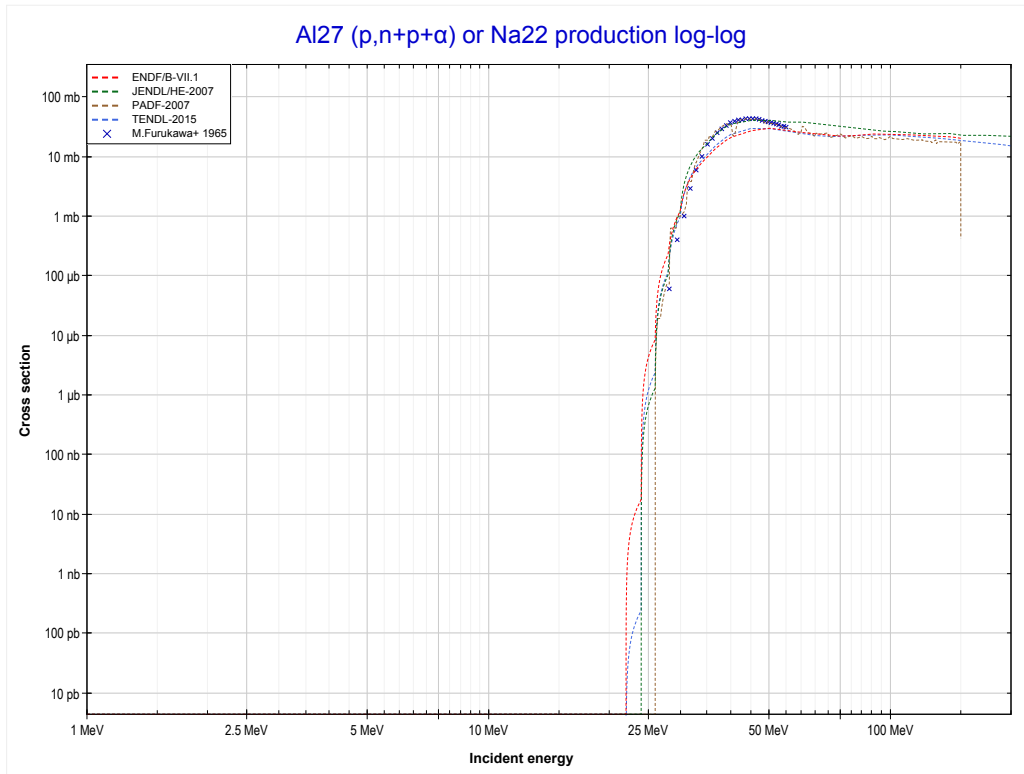
Reaction	Q-Value
Al27(p,n)Si27	-5594.71 keV

<< 9-F-19	13-Al-27	20-Ca-48 >>
<< MT4 (p,n)	MT28 (p,n+p) or MT5 (Al26 production)	MT45 (p,n+p+α) >>



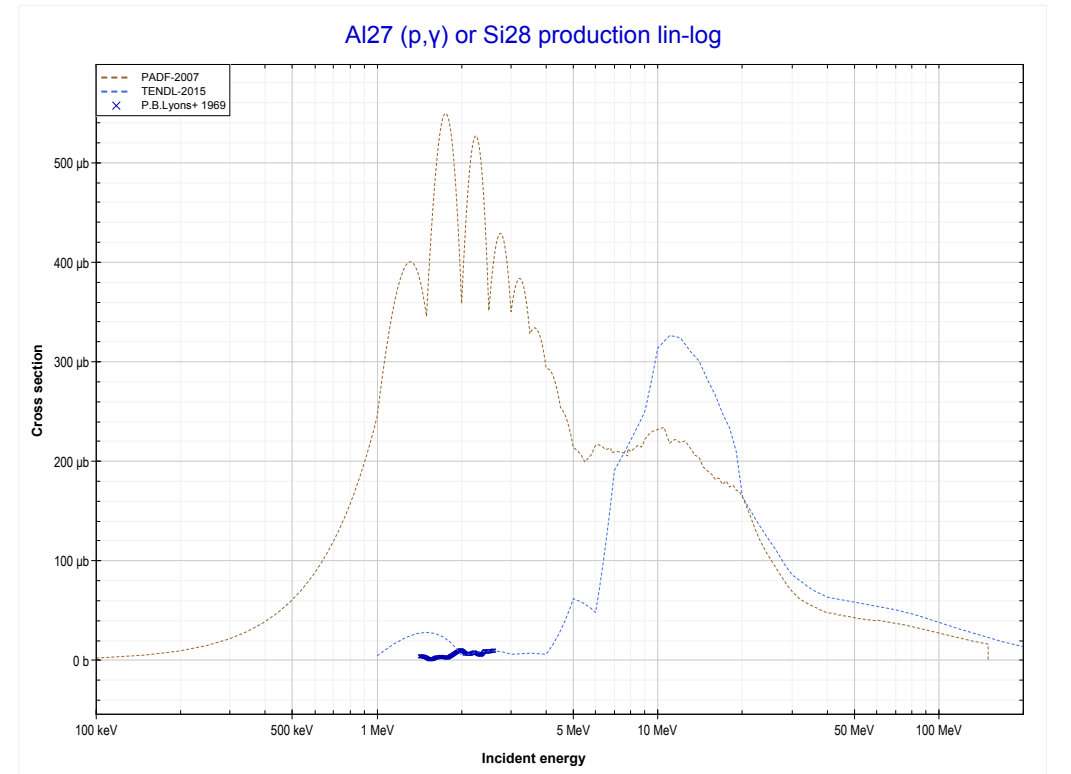
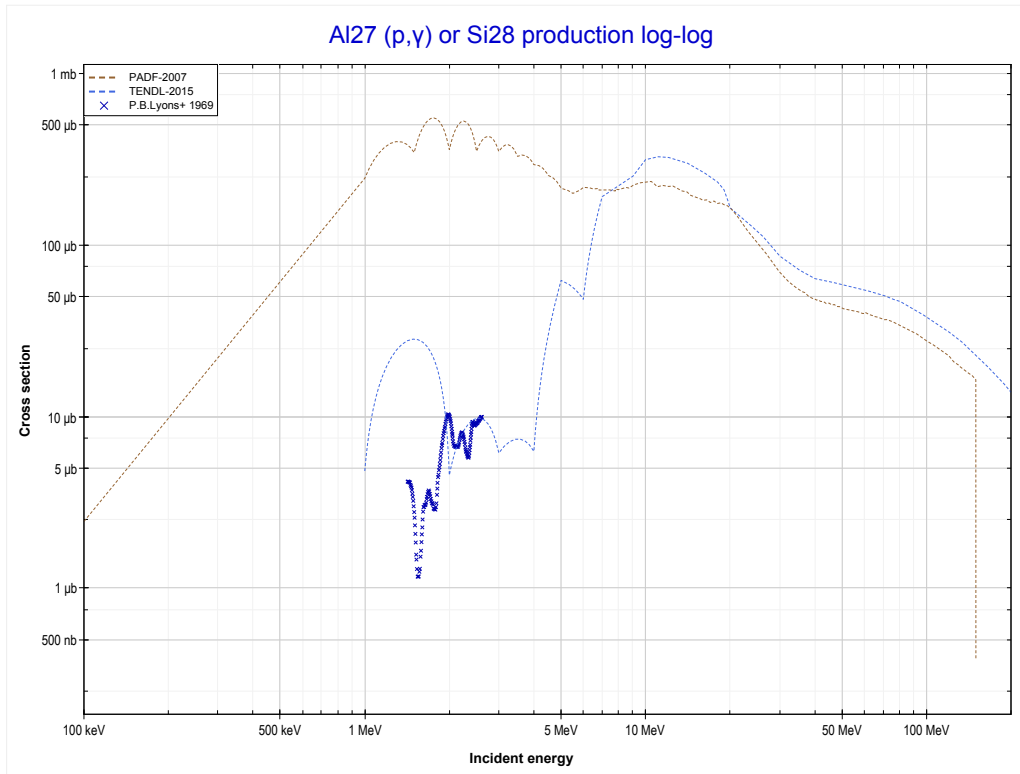
Reaction	Q-Value
Al27(p,d)Al26	-10833.39 keV
Al27(p,n+p)Al26	-13057.96 keV

	13-Al-27	29-Cu-63 >>
<< MT28 (p,n+p)	MT45 (p,n+p+α) or MT5 (Na22 production)	MT102 (p,γ) >>



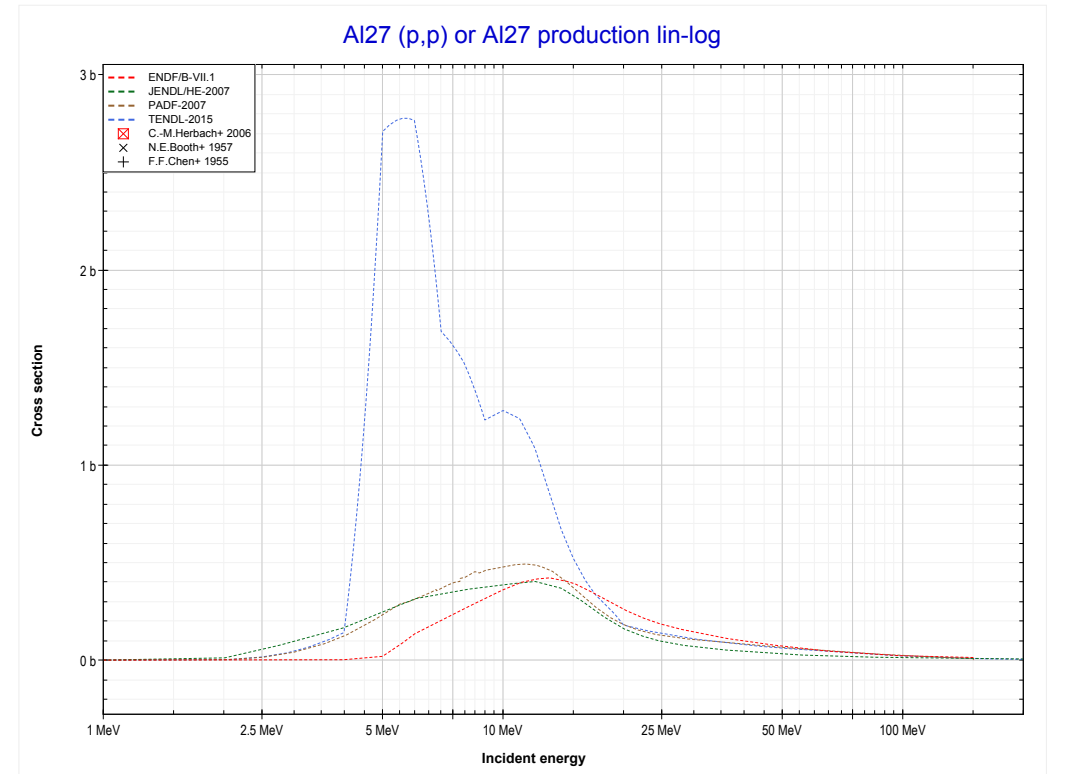
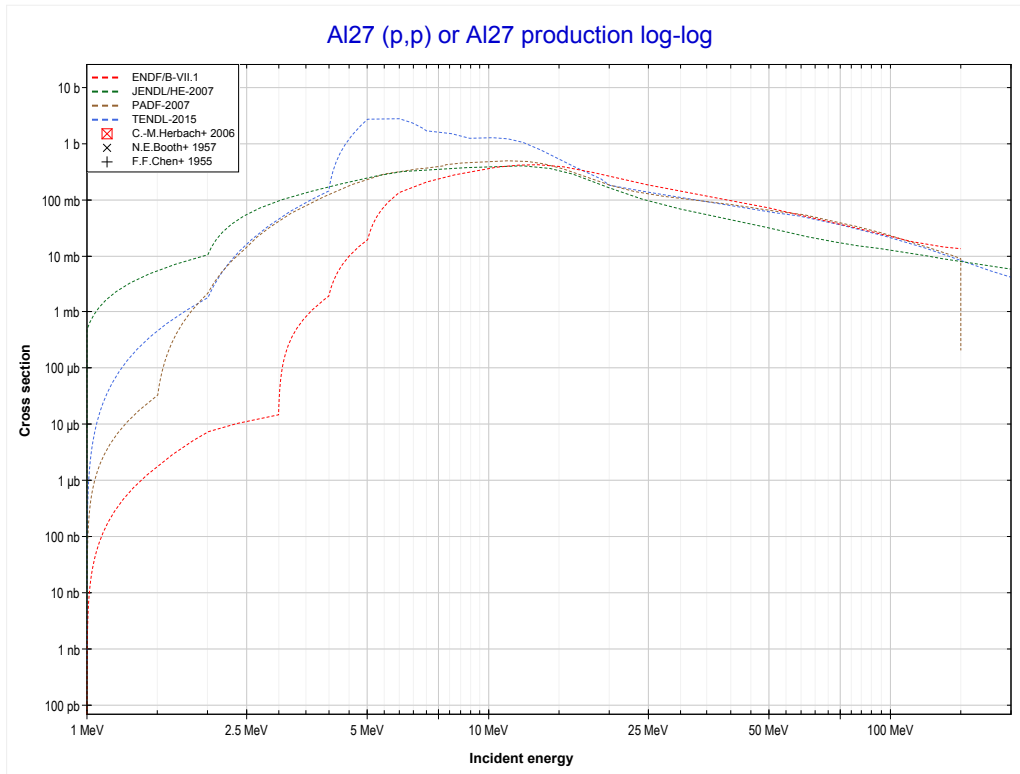
Reaction	Q-Value	Reaction	Q-Value
Al27(p,d+α)Na22	-20286.90 keV	Al27(p,n+p+2d)Na22	-46357.99 keV
Al27(p,n+p+α)Na22	-22511.46 keV	Al27(p,2n+2p+d)Na22	-48582.56 keV
Al27(p,t+He3)Na22	-34607.28 keV	Al27(p,3n+3p)Na22	-50807.12 keV
Al27(p,p+d+t)Na22	-40100.76 keV		
Al27(p,n+d+He3)Na22	-40864.51 keV		
Al27(p,n+2p+t)Na22	-42325.32 keV		
Al27(p,2n+p+He3)Na22	-43089.08 keV		
Al27(p,3d)Na22	-44133.42 keV		

<< 9-F-19	13-Al-27	20-Ca-42 >>
<< MT45 (p,n+p+α)	MT102 (p,γ) or MT5 (Si28 production)	MT103 (p,p) >>



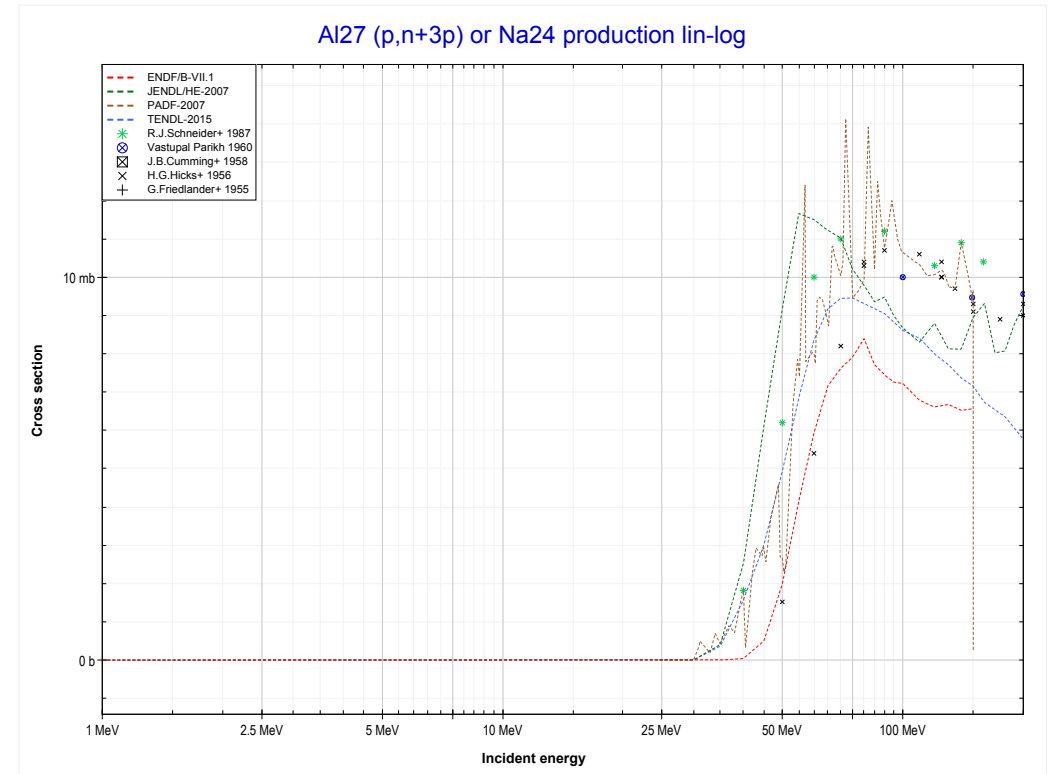
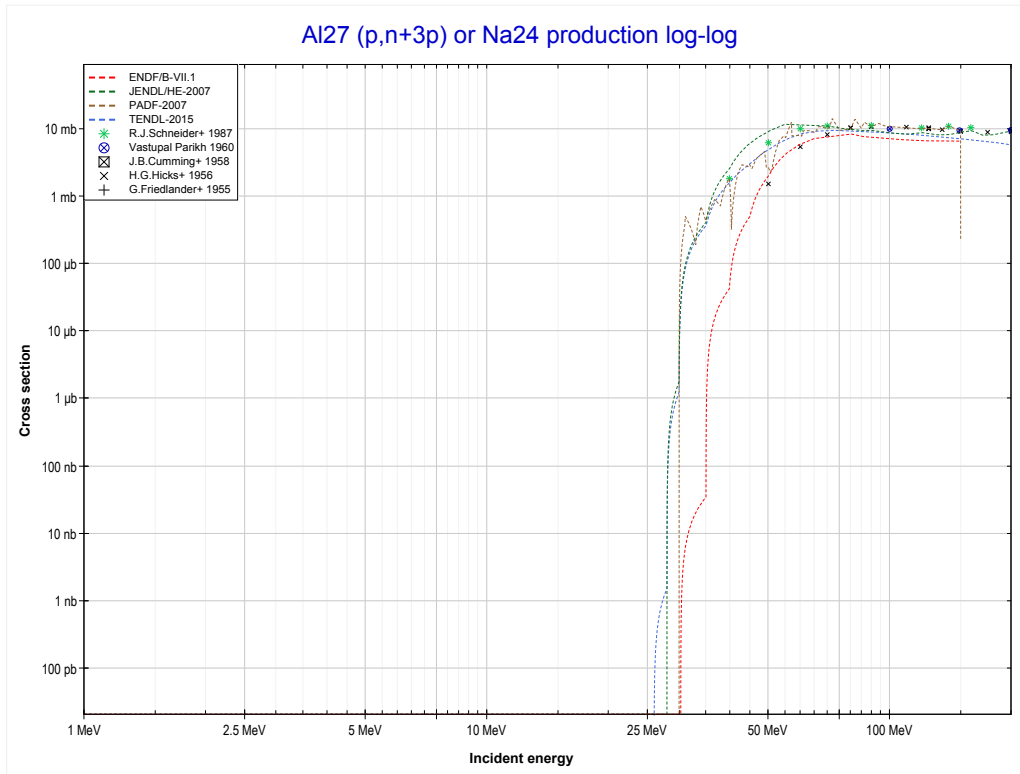
Reaction	Q-Value
Al27(p,γ)Si28	11585.02 keV

<< 12-Mg-24	13-Al-27	14-Si-28 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (Al27 production)	MT198 (p,n+3p) >>



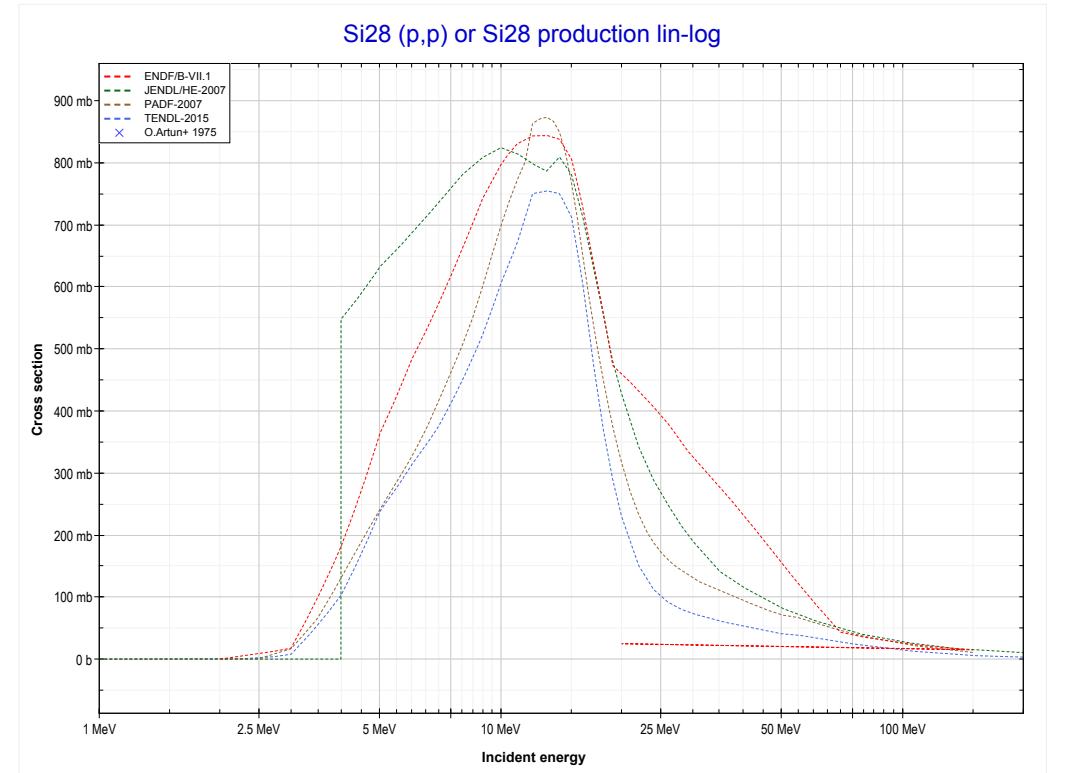
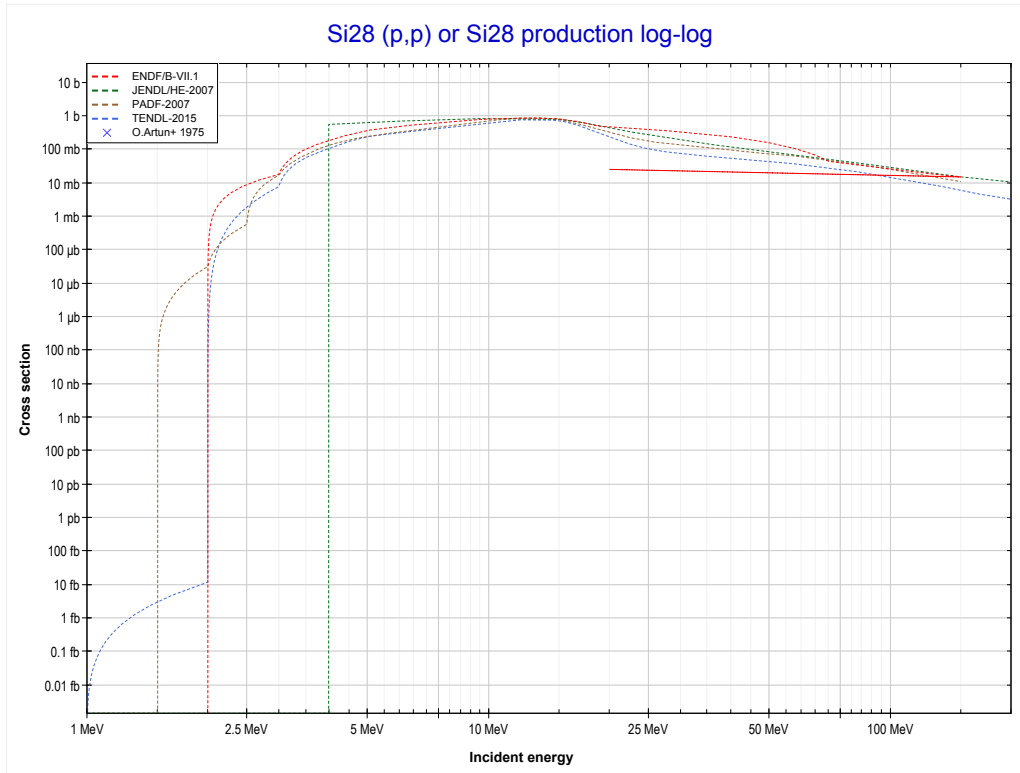
Reaction	Q-Value
Al27(p,p)Al27	0.00 keV

	13-Al-27	21-Sc-45 >>
<< MT103 (p,p)	MT198 (p,n+3p) or MT5 (Na24 production)	14-Si-28 MT103 (p,p) >>



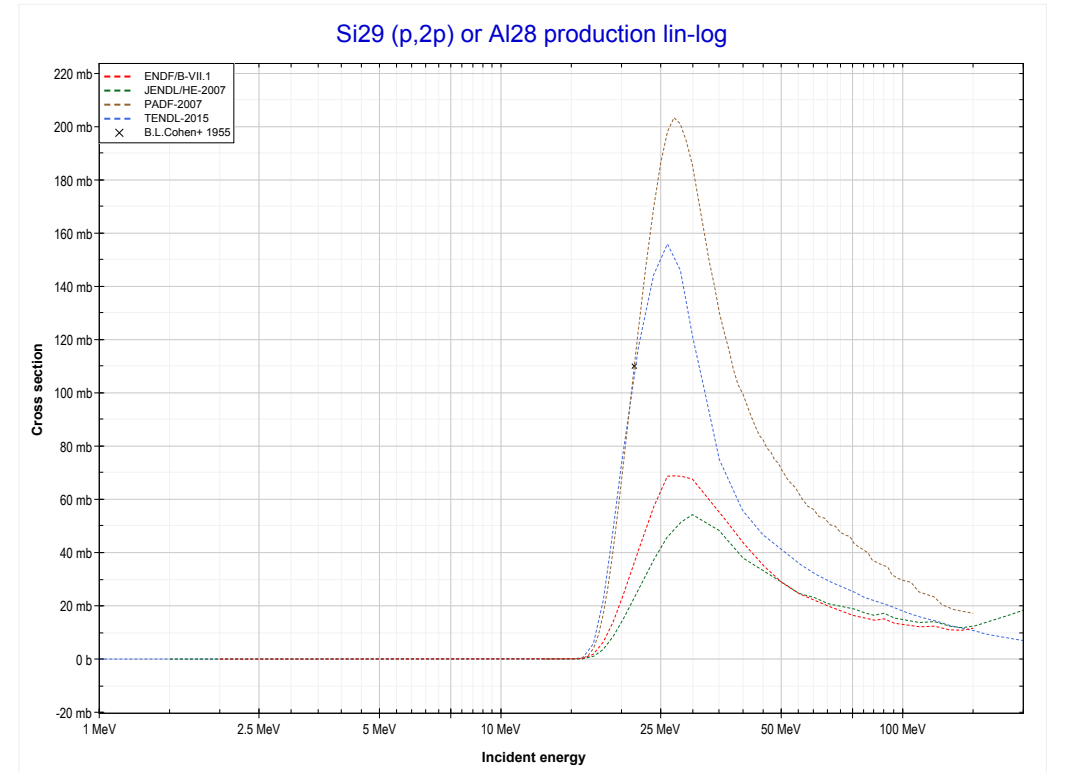
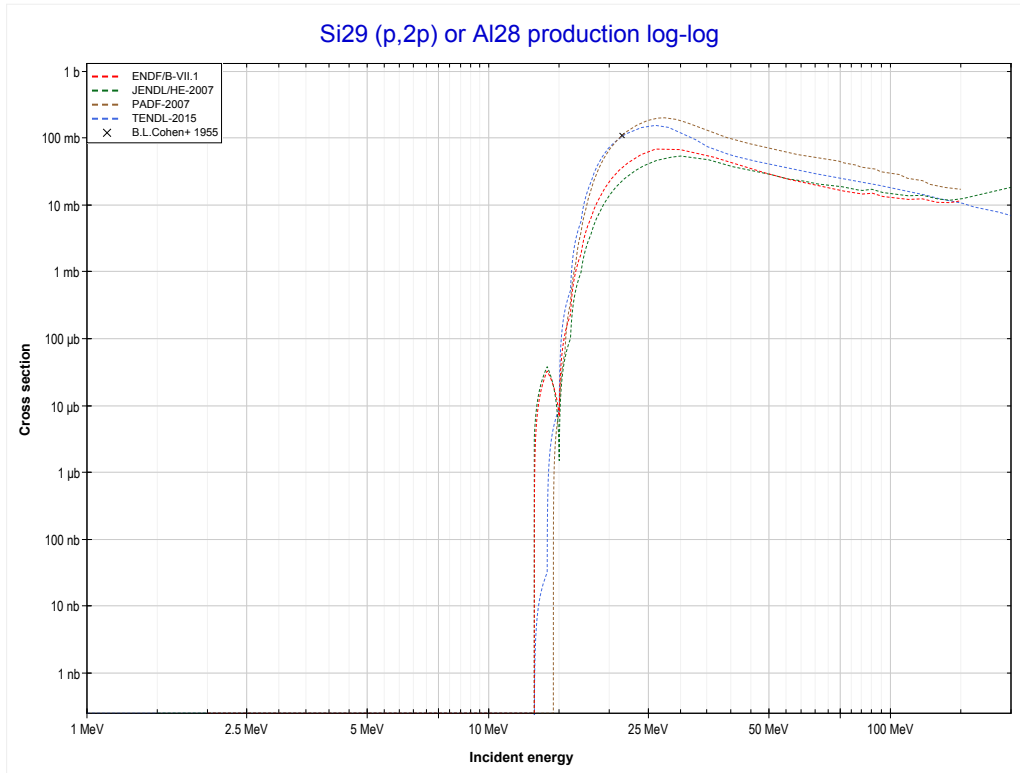
Reaction	Q-Value
Al27(p,p+He3)Na24	-23710.01 keV
Al27(p,2p+d)Na24	-29203.48 keV
Al27(p,n+3p)Na24	-31428.05 keV

<< 13-Al-27	14-Si-28	20-Ca-40 >>
<< 13-Al-27 MT198 (p,n+3p)	MT103 (p,p) or MT5 (Si28 production)	14-Si-29 MT111 (p,2p) >>



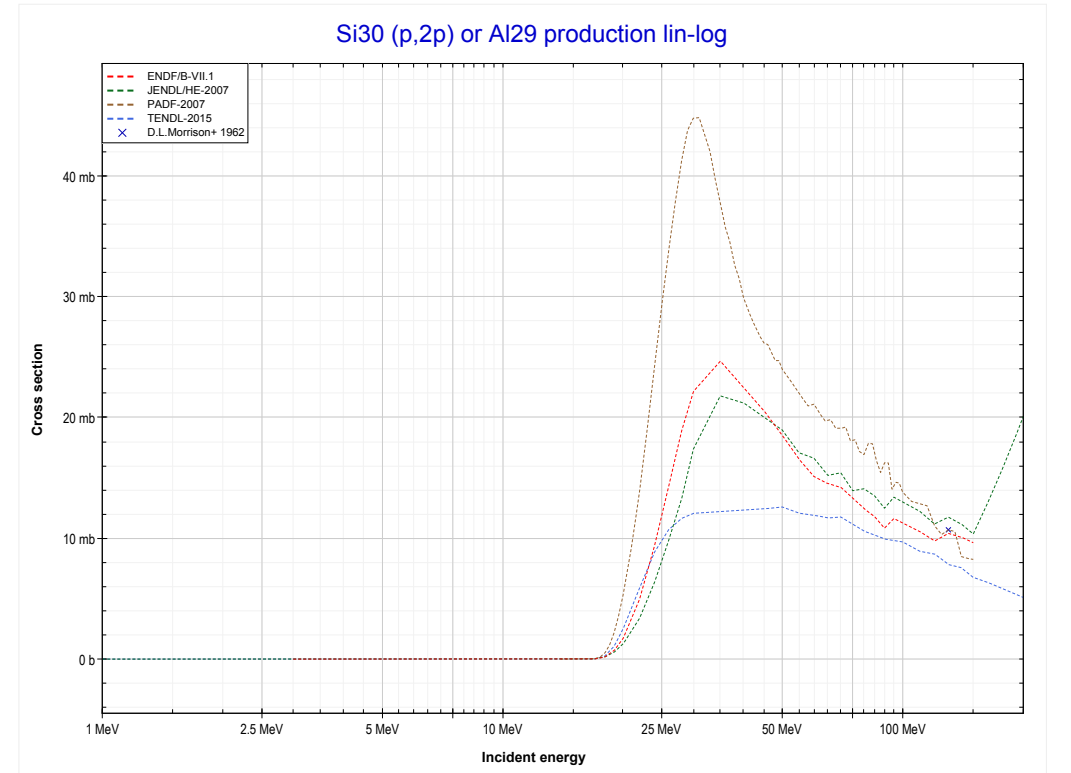
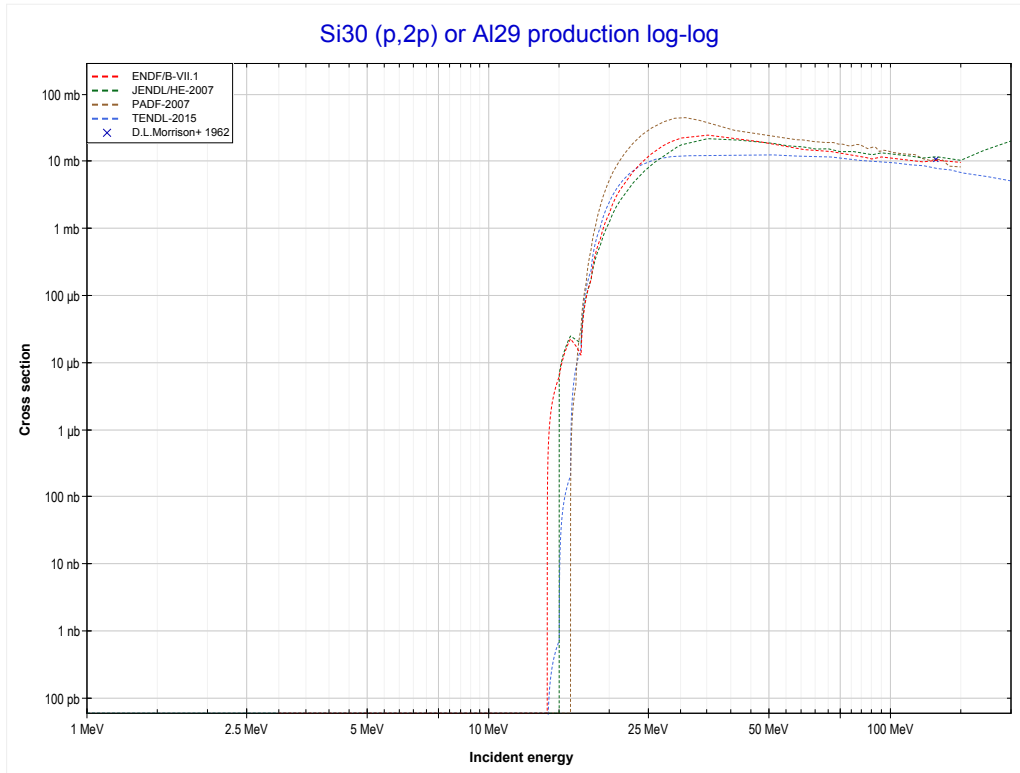
Reaction	Q-Value
Si28(p,p)Si28	0.00 keV

<< 12-Mg-25	14-Si-29	14-Si-30 >>
<< 14-Si-28 MT103 (p,p)	MT111 (p,2p) or MT5 (Al28 production)	14-Si-30 MT111 (p,2p) >>



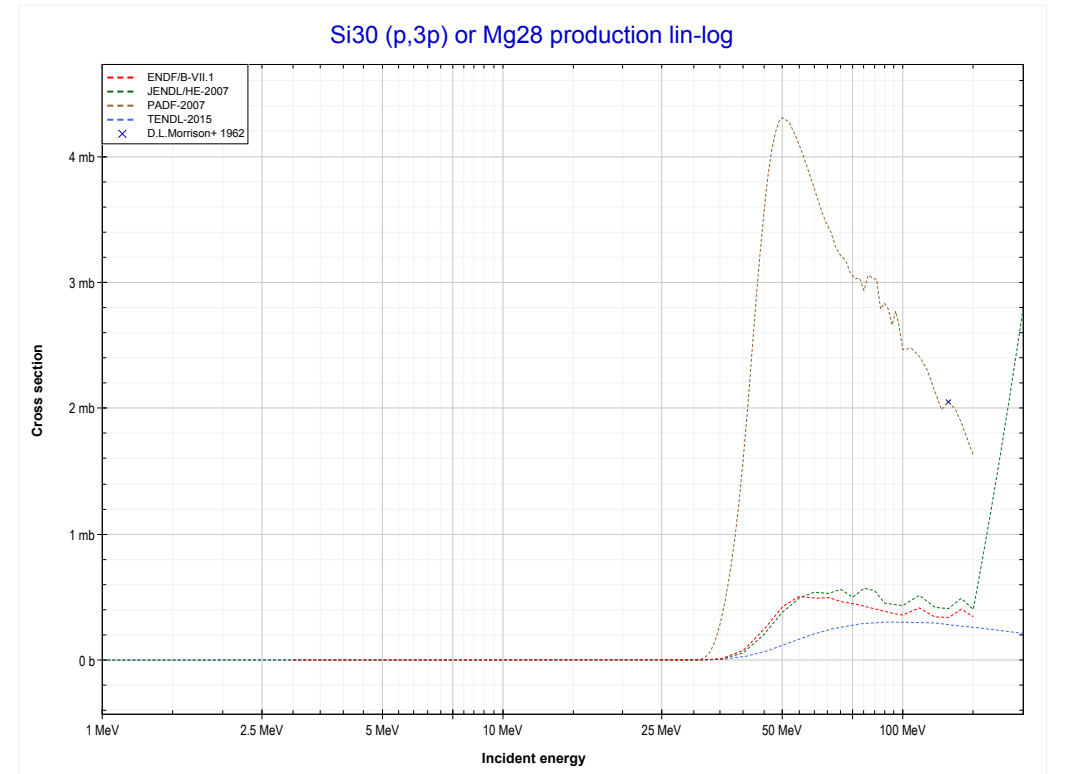
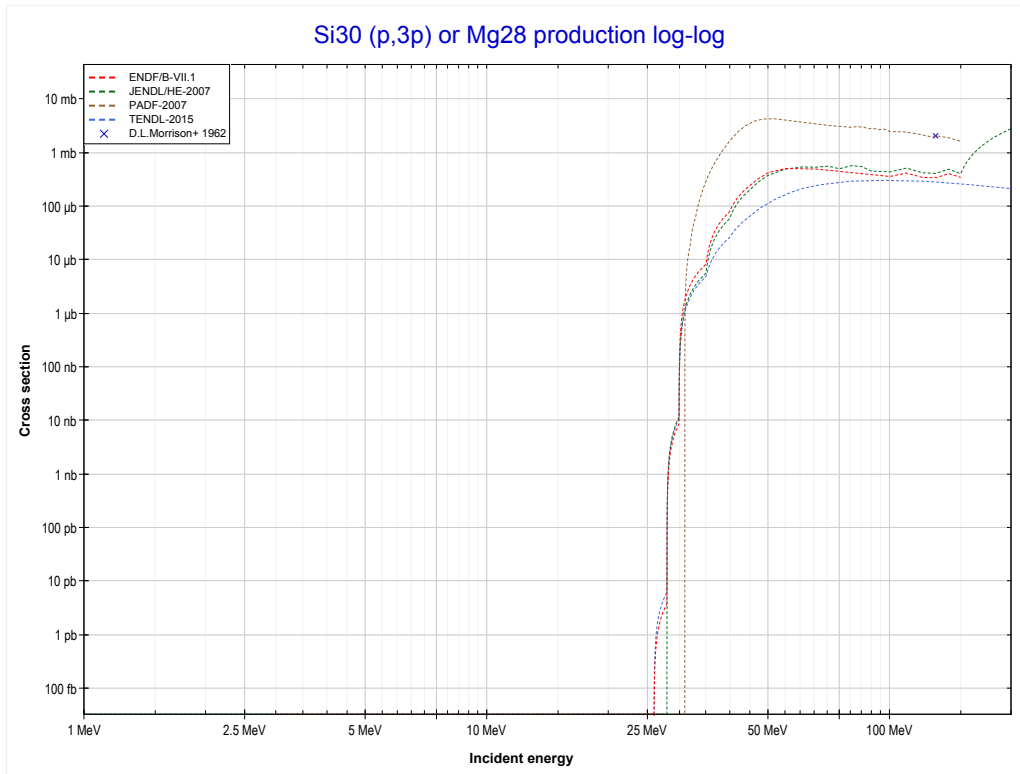
Reaction	Q-Value
Si29(p,2p)Al28	-12333.52 keV

<< 14-Si-29	14-Si-30	18-Ar-40 >>
<< 14-Si-29 MT111 (p,2p)	MT111 (p,2p) or MT5 (Al29 production)	MT197 (p,3p) >>



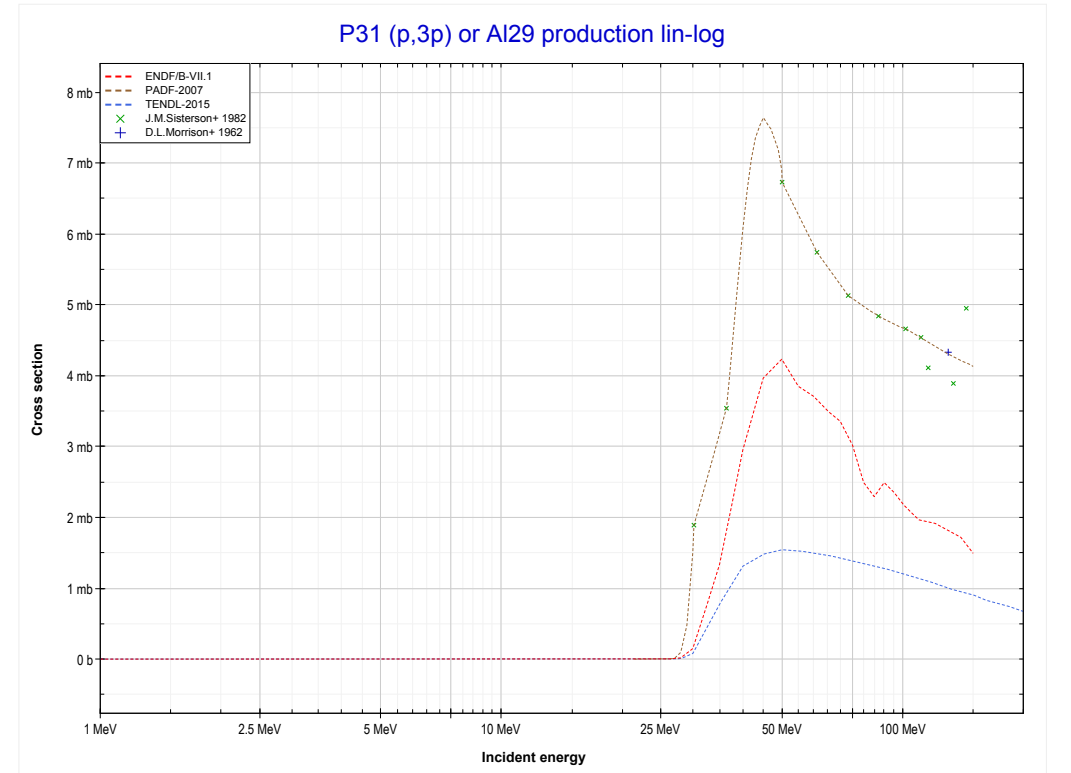
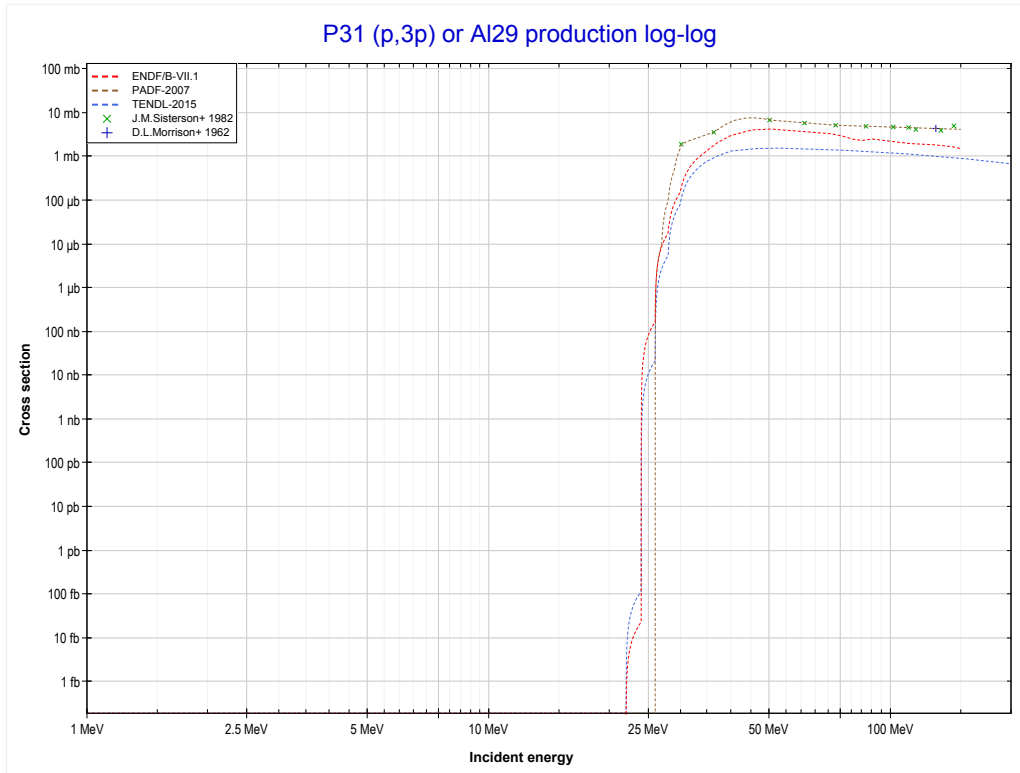
Reaction	Q-Value
Si30(p,2p)Al29	-13517.23 keV

<< 9-F-19	14-Si-30	15-P-31 >>
<< MT111 (p,2p)	MT197 (p,3p) or MT5 (Mg28 production)	15-P-31 MT197 (p,3p) >>



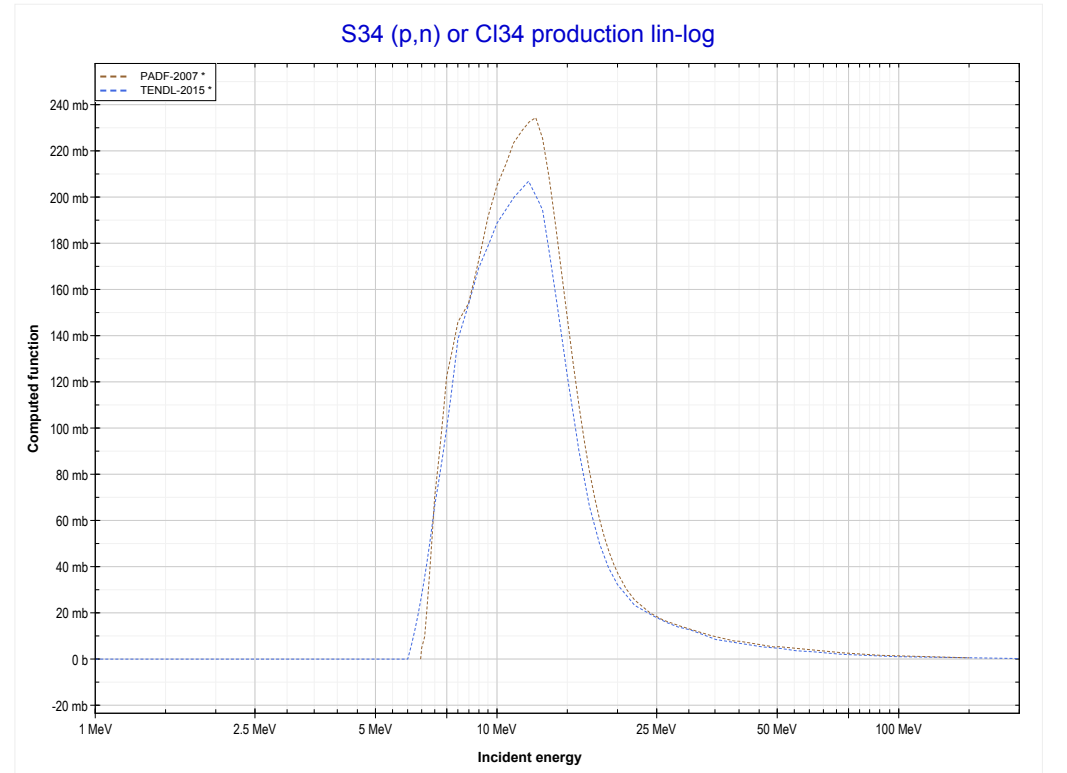
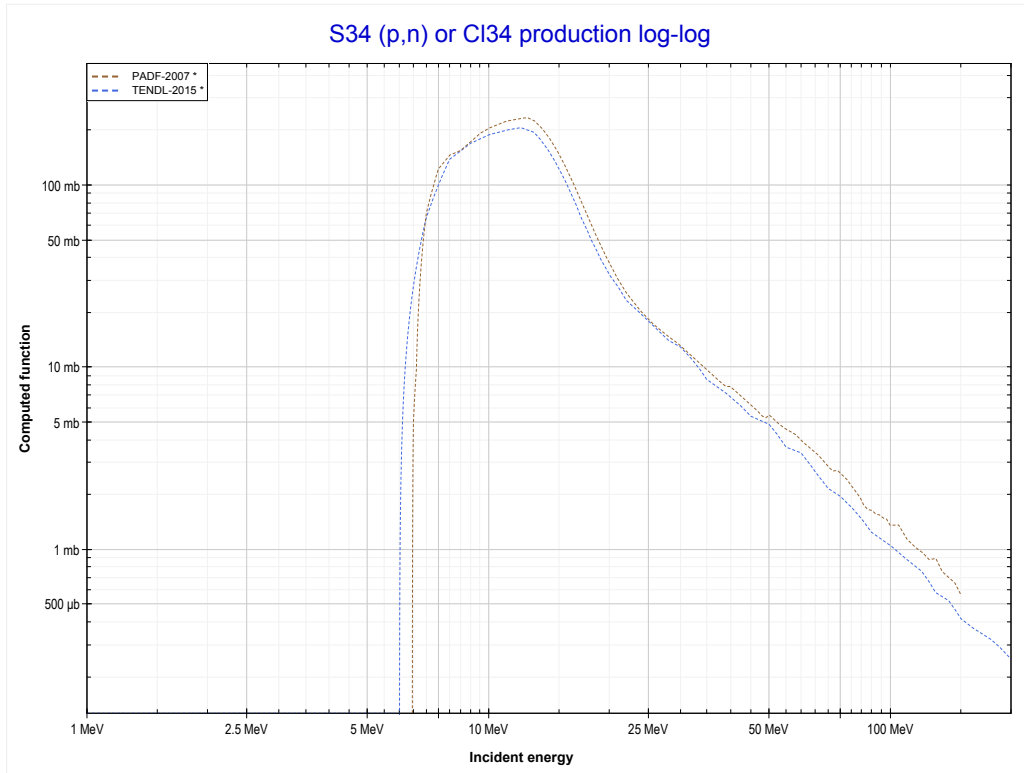
Reaction	Q-Value
Si30(p,3p)Mg28	-23992.20 keV

<< 14-Si-30	15-P-31	21-Sc-45 >>
<< 14-Si-30 MT197 (p,3p)	MT197 (p,3p) or MT5 (Al29 production)	16-S-34 MT4 (p,n) >>



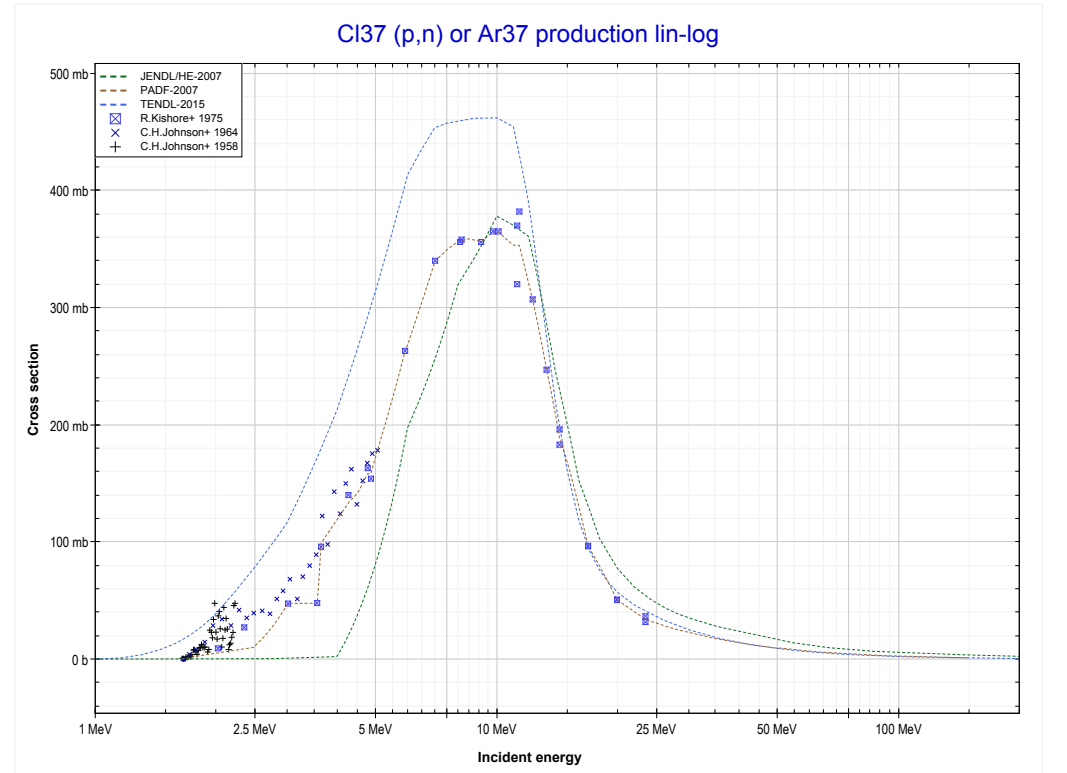
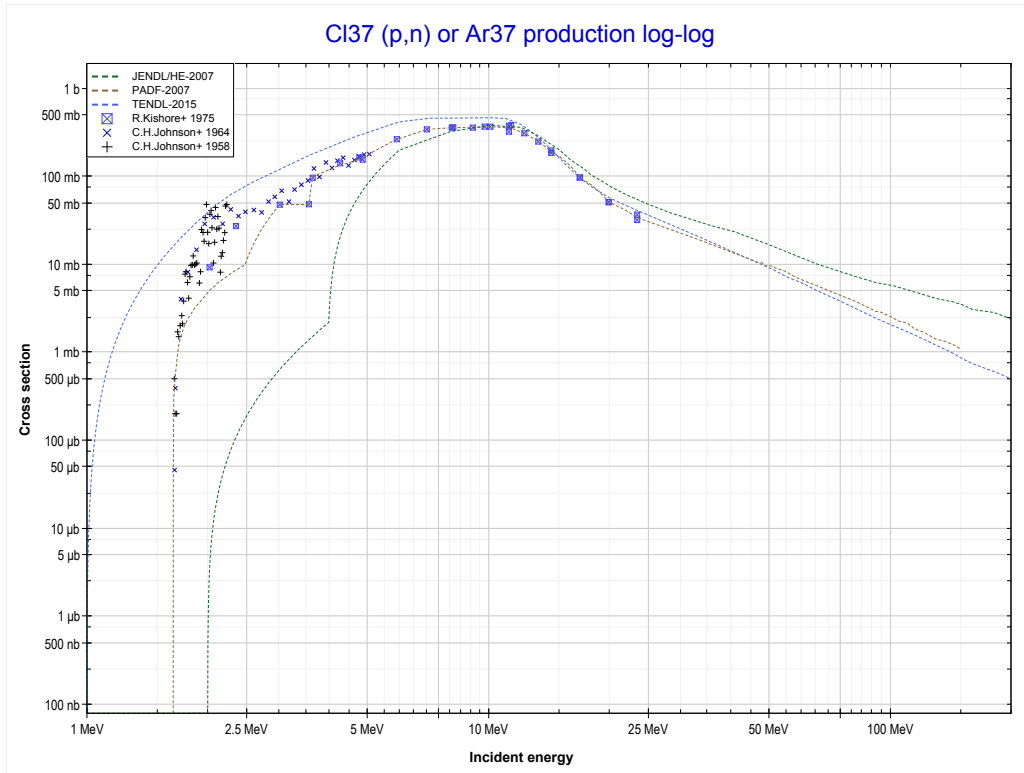
Reaction	Q-Value
P31(p,3p)Al29	-20813.78 keV

<< 13-AI-27	16-S-34	17-Cl-37 >>
<< 15-P-31 MT197 (p,3p)	MT4 (p,n) or MT5 (Cl34 production)	17-Cl-37 MT4 (p,n) >>



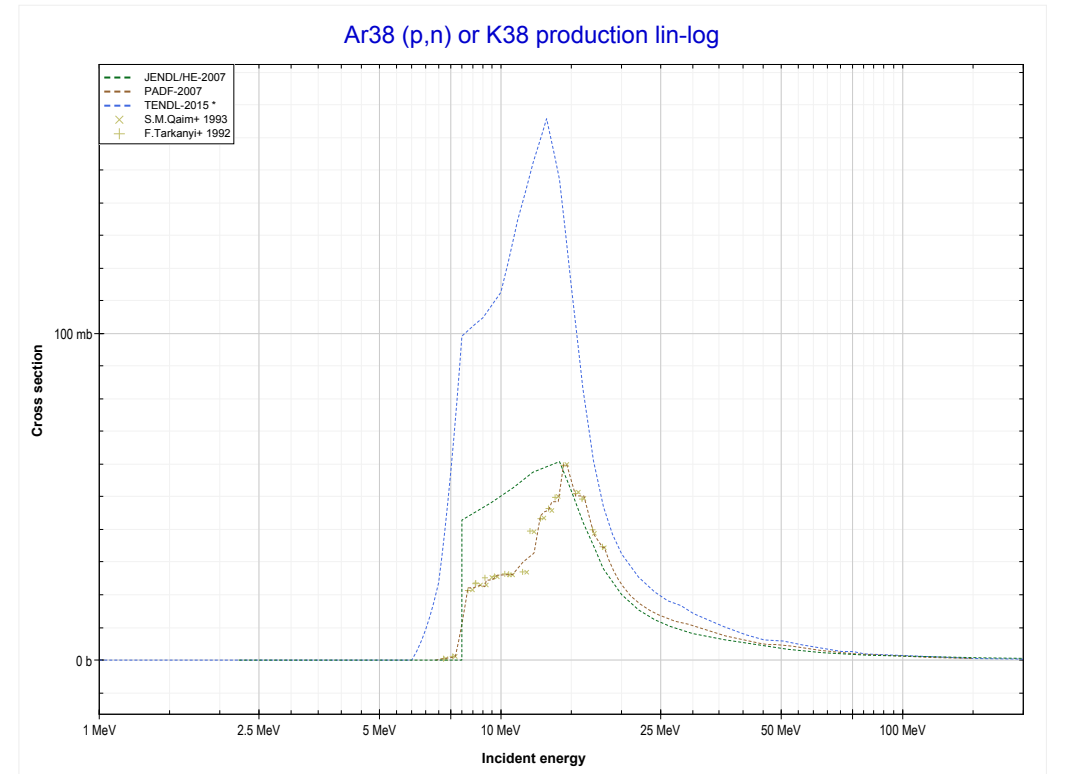
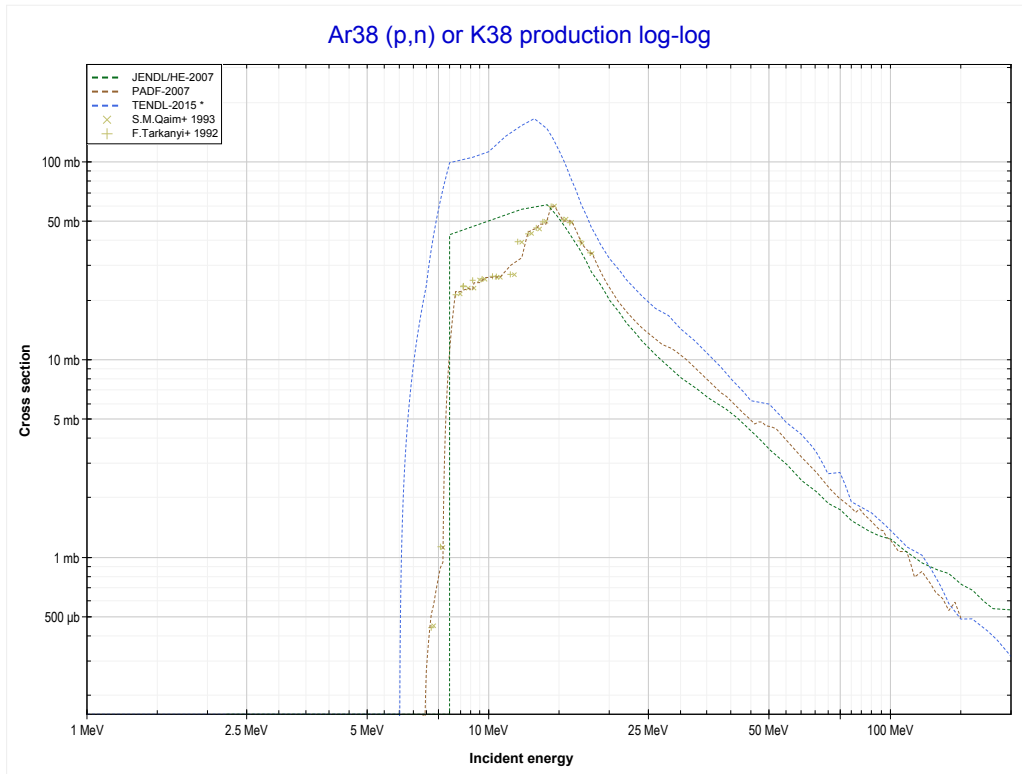
Reaction	Q-Value
S34(p,n)Cl34	-6273.95 keV

<< 16-S-34	17-CI-37	18-Ar-38 >>
<< 16-S-34 MT4 (p,n)	MT4 (p,n) or MT5 (Ar37 production)	18-Ar-38 MT4 (p,n) >>



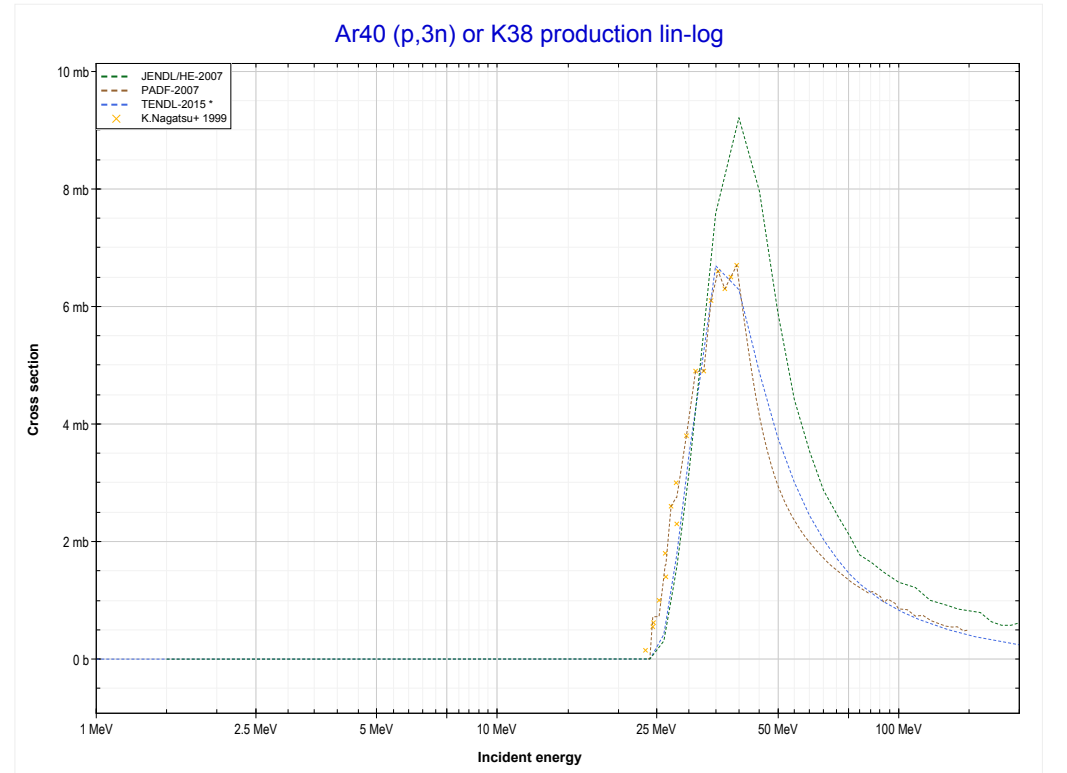
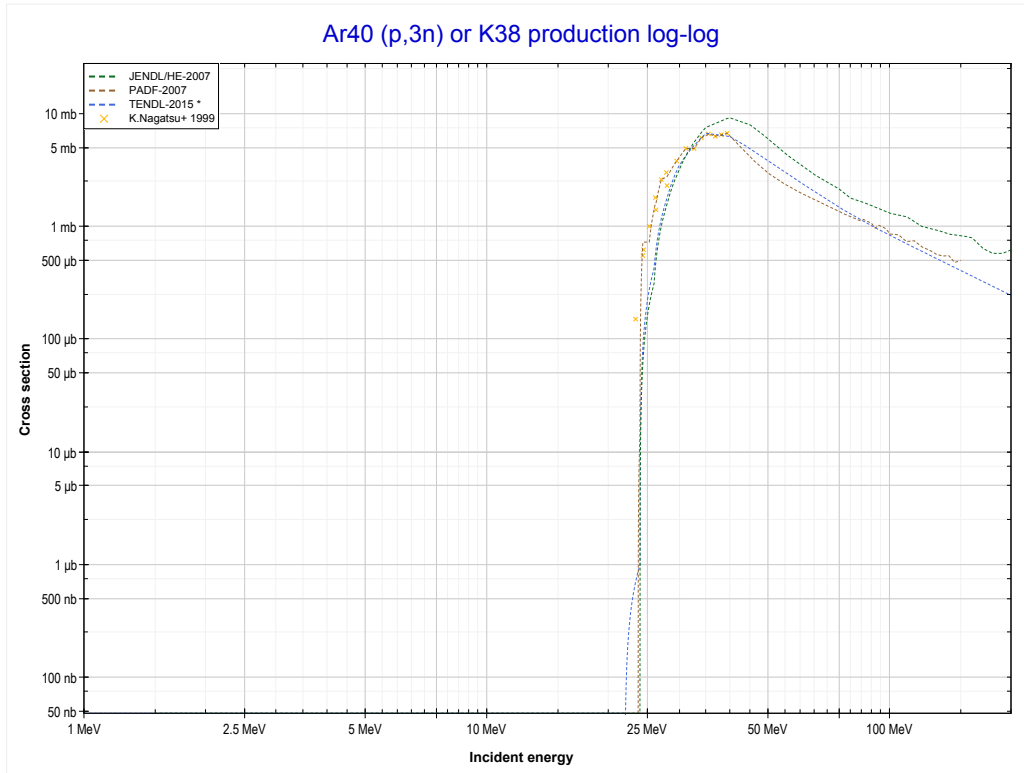
Reaction	Q-Value
Cl37(p,n)Ar37	-1596.22 keV

<< 17-Cl-37	18-Ar-38	19-K-39 >>
<< 17-Cl-37 MT4 (p,n)	MT4 (p,n) or MT5 (K38 production)	18-Ar-40 MT17 (p,3n) >>



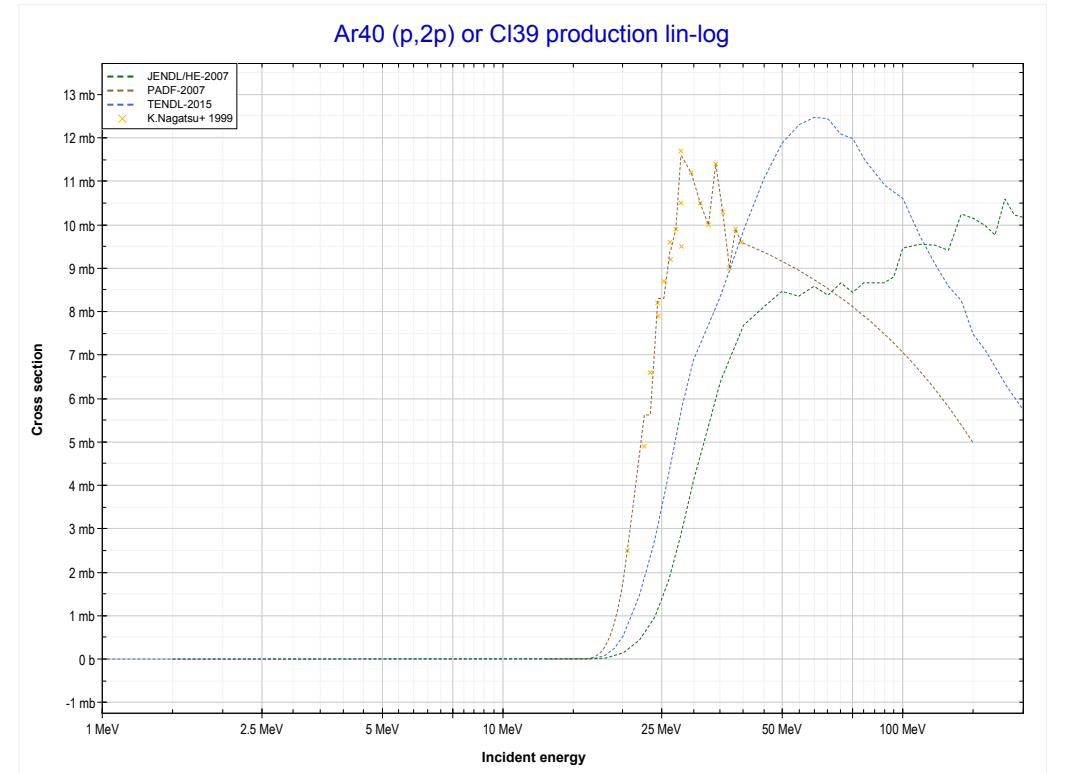
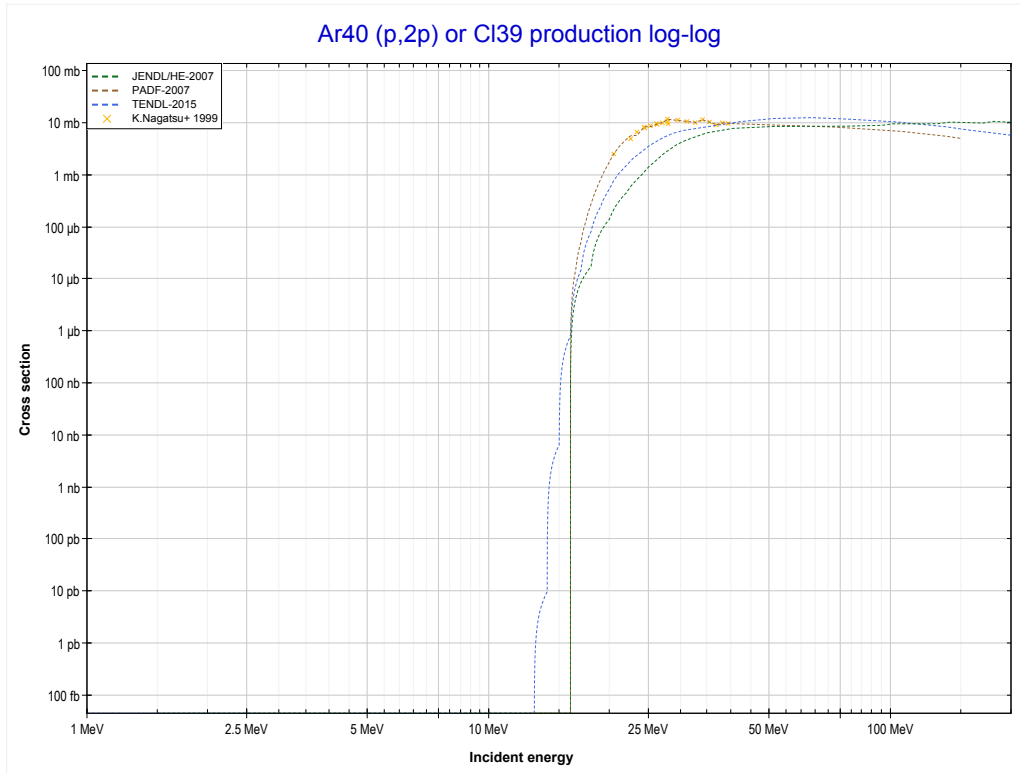
Reaction	Q-Value
Ar38(p,n)K38	-6696.42 keV

	18-Ar-40	23-V-51 >>
<< 18-Ar-38 MT4 (p,n)	MT17 (p,3n) or MT5 (K38 production)	MT111 (p,2p) >>



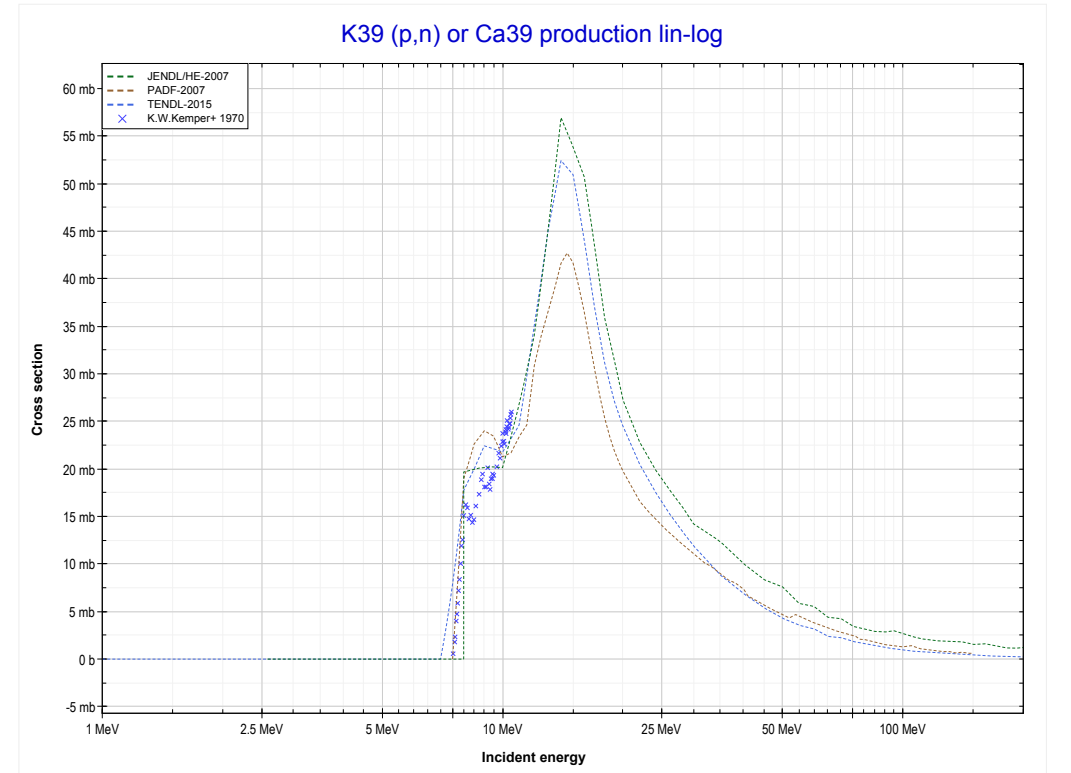
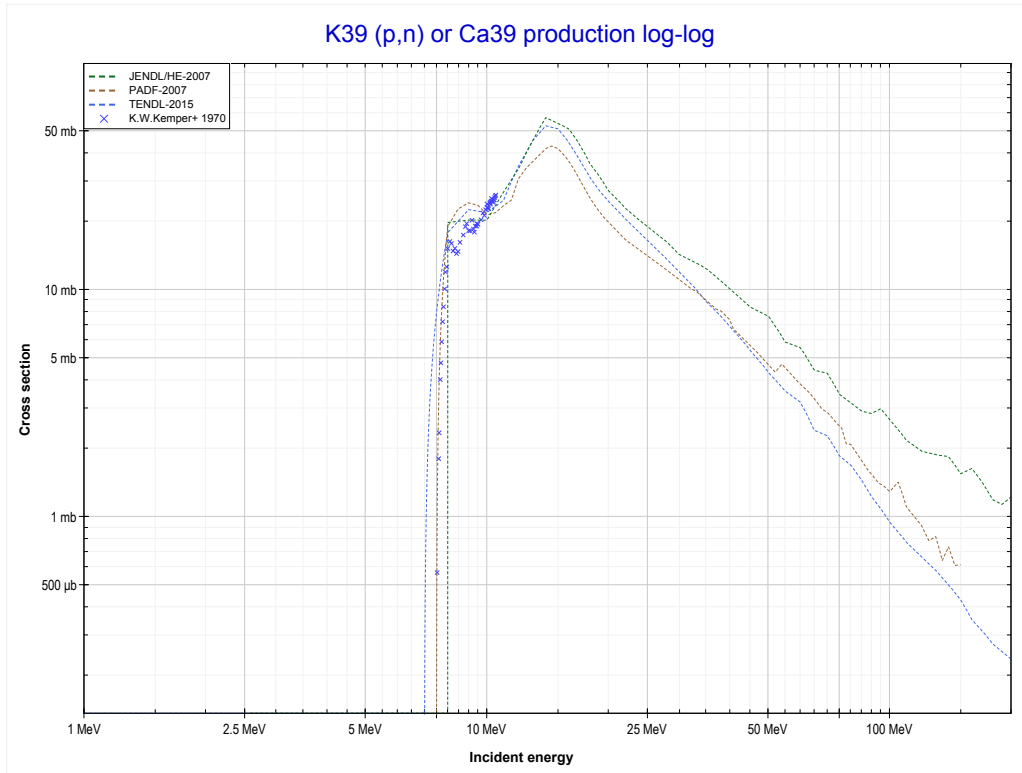
Reaction	Q-Value
Ar40(p,3n)K38	-23164.13 keV

<< 14-Si-30	18-Ar-40	20-Ca-43 >>
<< MT17 (p,3n)	MT111 (p,2p) or MT5 (Cl39 production)	19-K-39 MT4 (p,n) >>



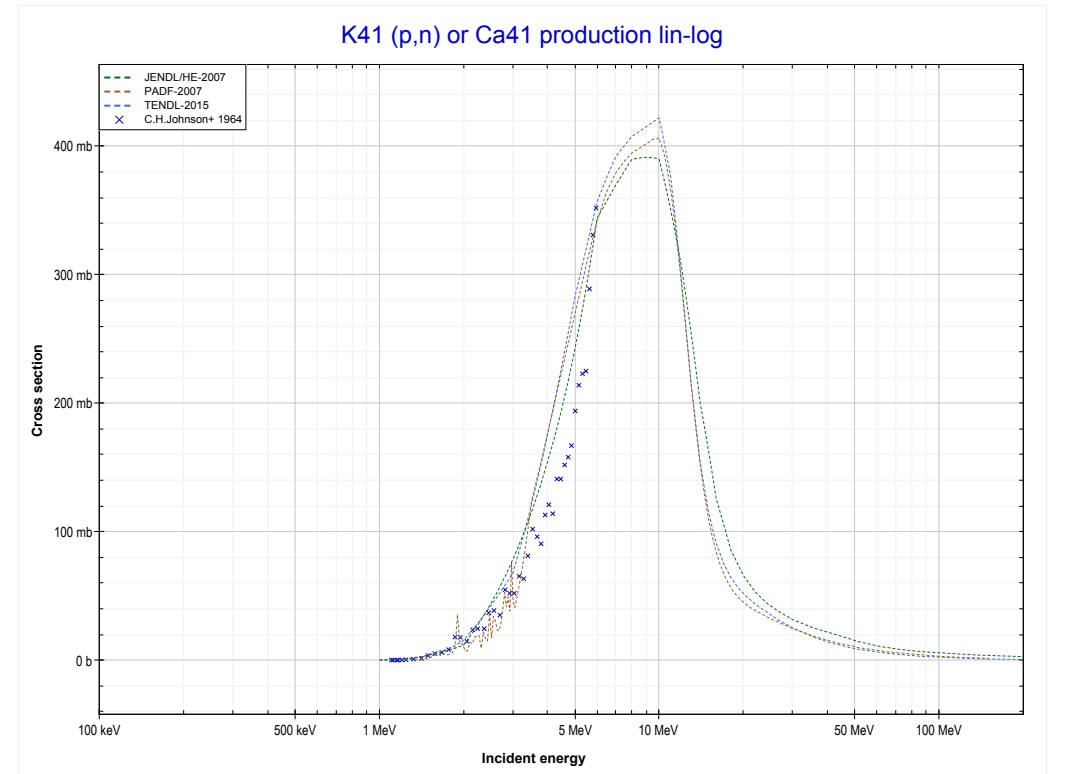
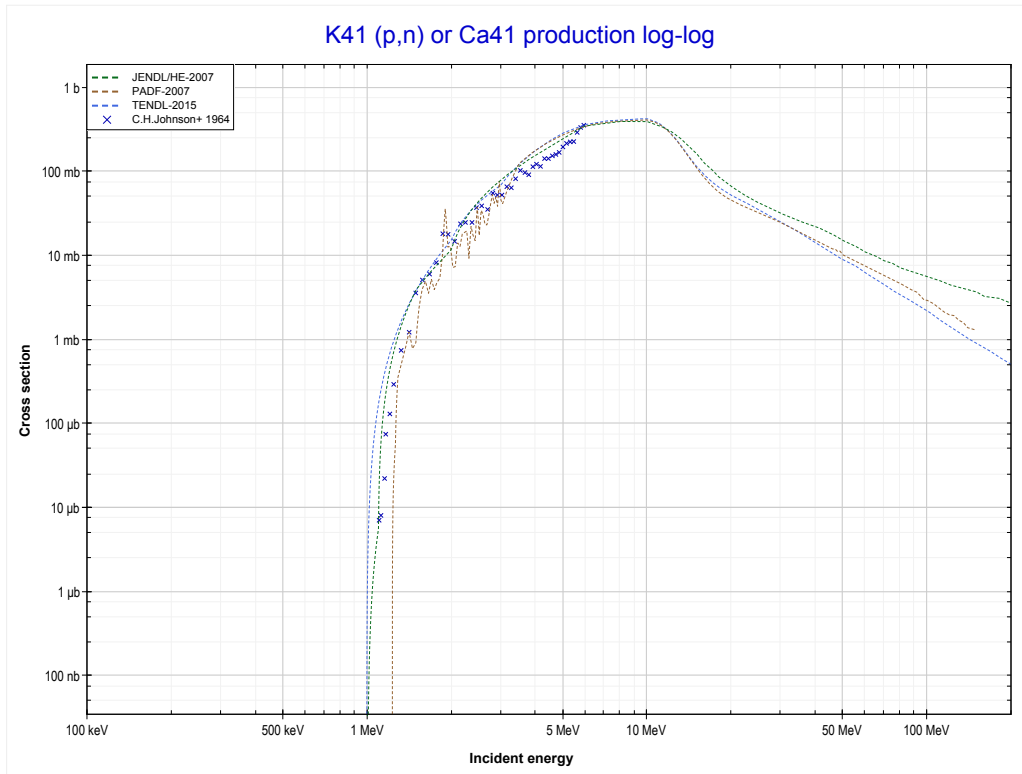
Reaction	Q-Value
Ar40(p,2p)Cl39	-12528.67 keV

<< 18-Ar-38	19-K-39	19-K-41 >>
<< 18-Ar-40 MT111 (p,2p)	MT4 (p,n) or MT5 (Ca39 production)	19-K-41 MT4 (p,n) >>



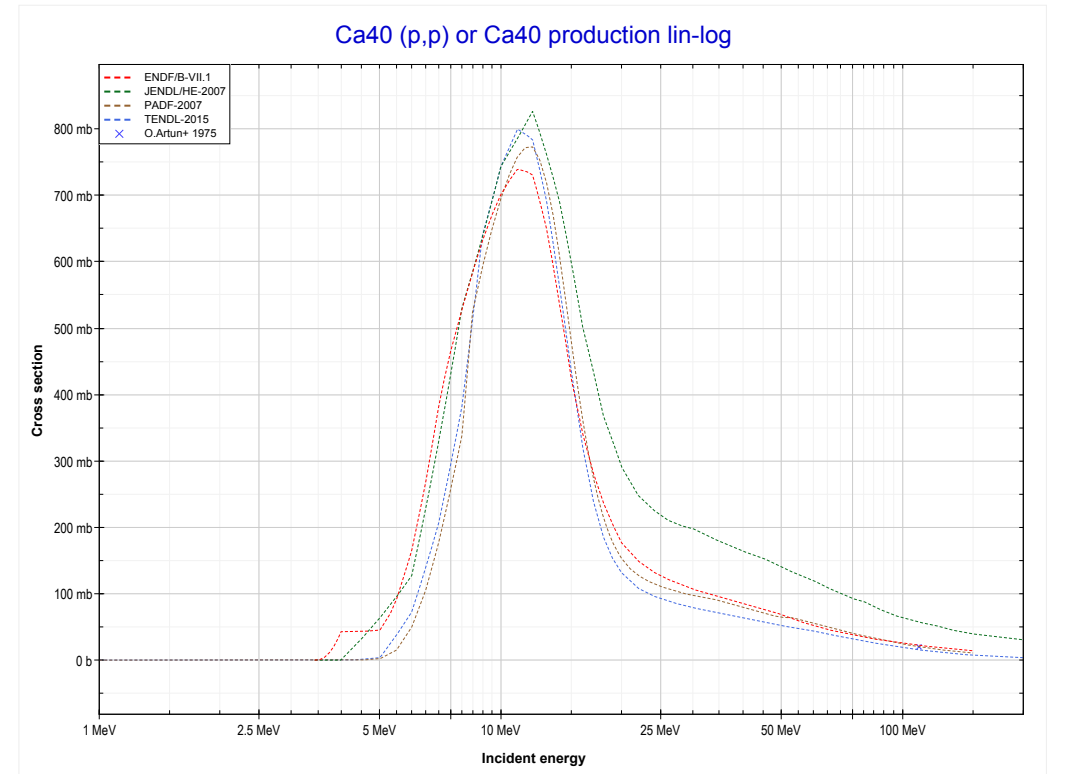
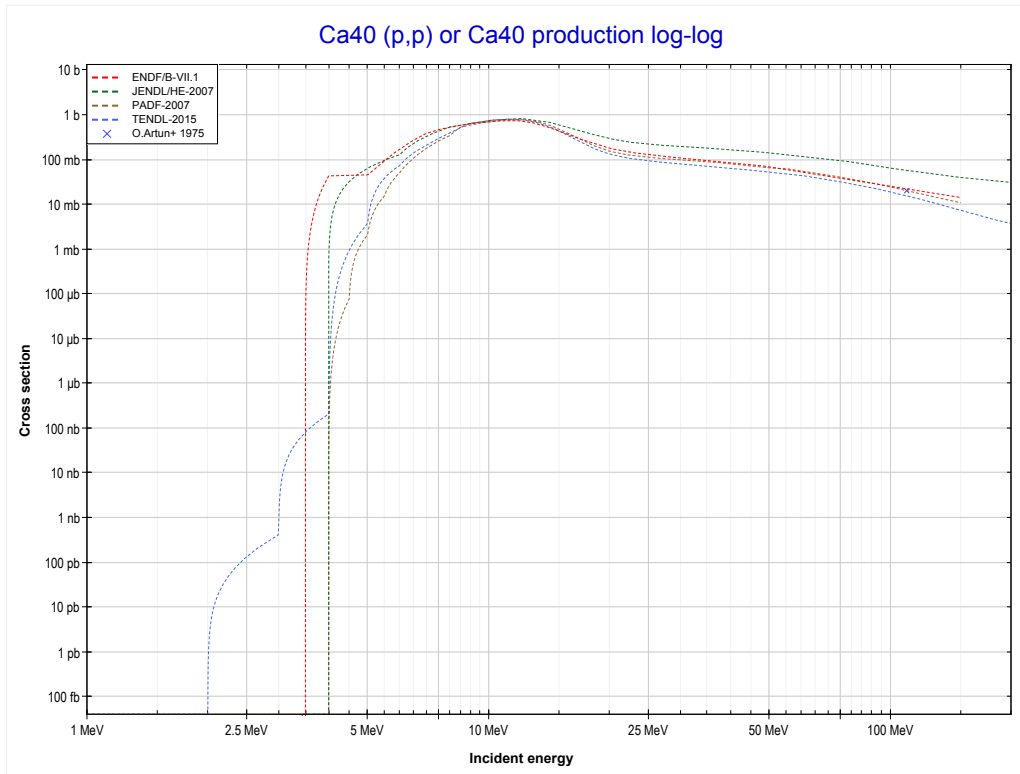
Reaction	Q-Value
K39(p,n)Ca39	-7306.84 keV

<< 19-K-39	19-K-41	20-Ca-43 >>
<< 19-K-39 MT4 (p,n)	MT4 (p,n) or MT5 (Ca41 production)	20-Ca-40 MT103 (p,p) >>



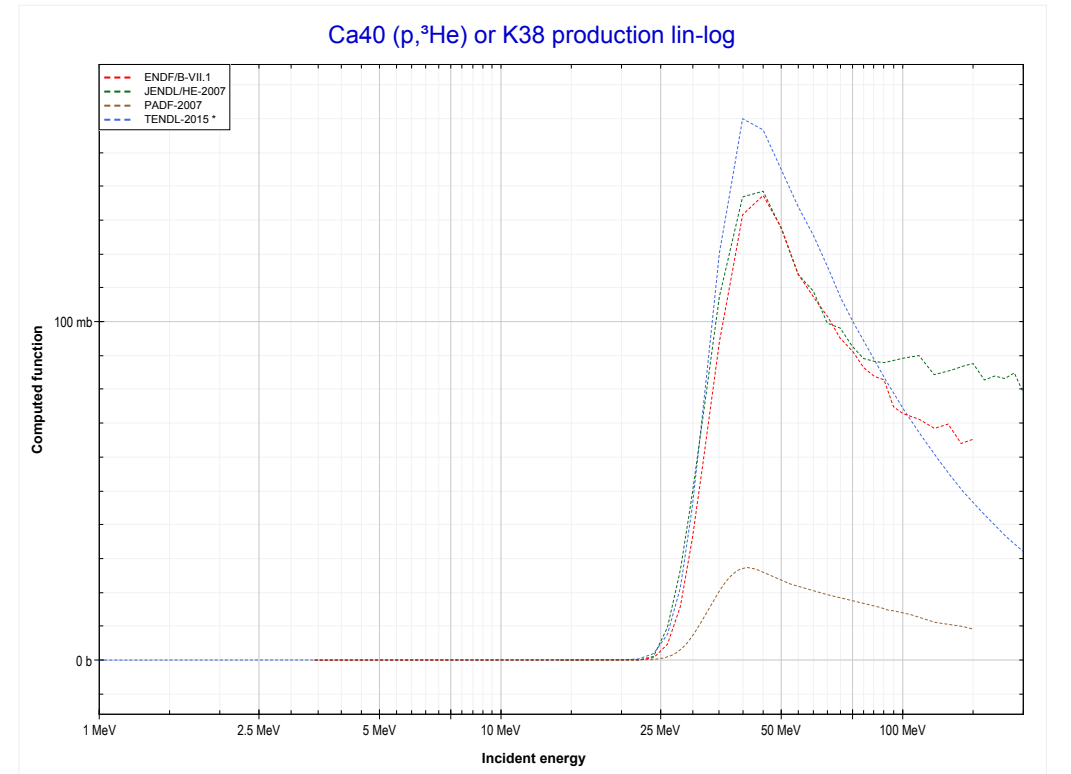
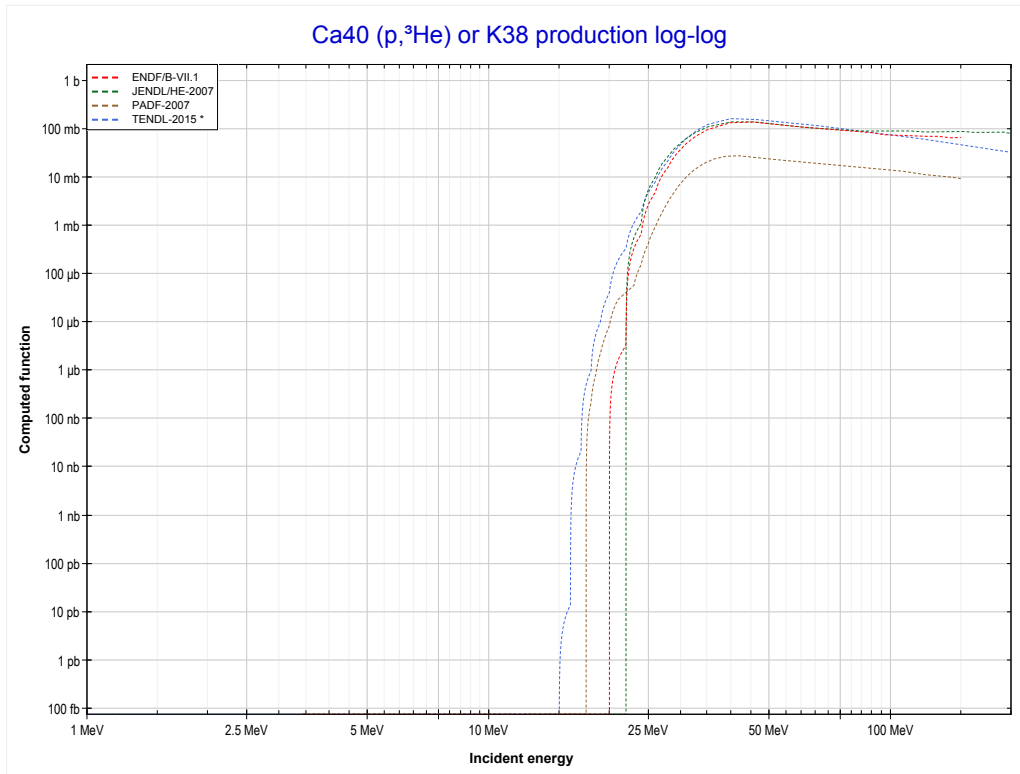
Reaction	Q-Value
K41(p,n)Ca41	-1204.00 keV

<< 14-Si-28	20-Ca-40	28-Ni-58 >>
<< 19-K-41 MT4 (p,n)	MT103 (p,p) or MT5 (Ca40 production)	MT106 (p, ³ He) >>



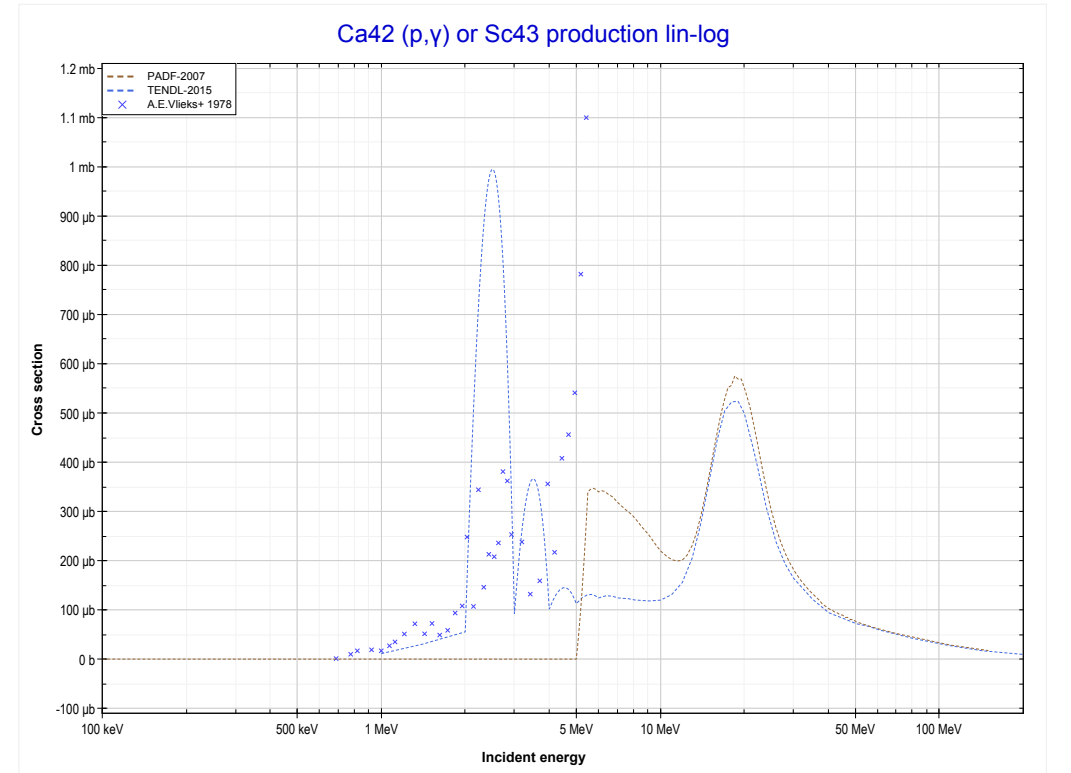
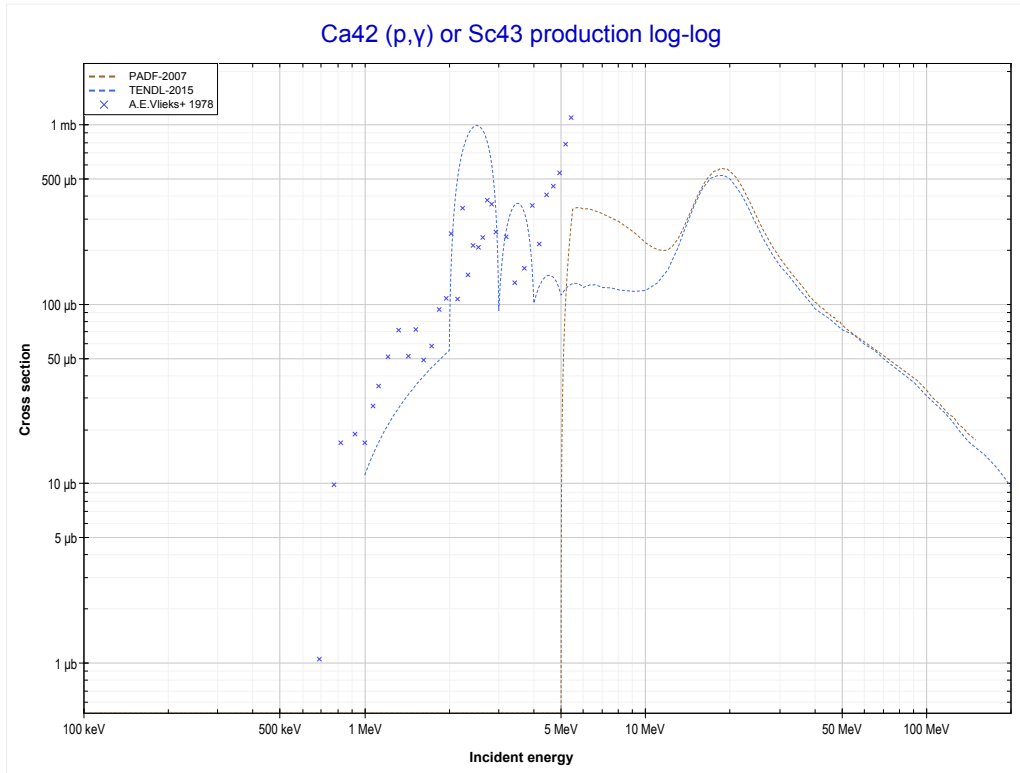
Reaction	Q-Value
Ca40(p,p)Ca40	0.00 keV

<< 3-Li-6	20-Ca-40	20-Ca-44 >>
<< MT103 (p,p)	MT106 (p,³He) or MT5 (K38 production)	20-Ca-42 MT102 (p, γ) >>



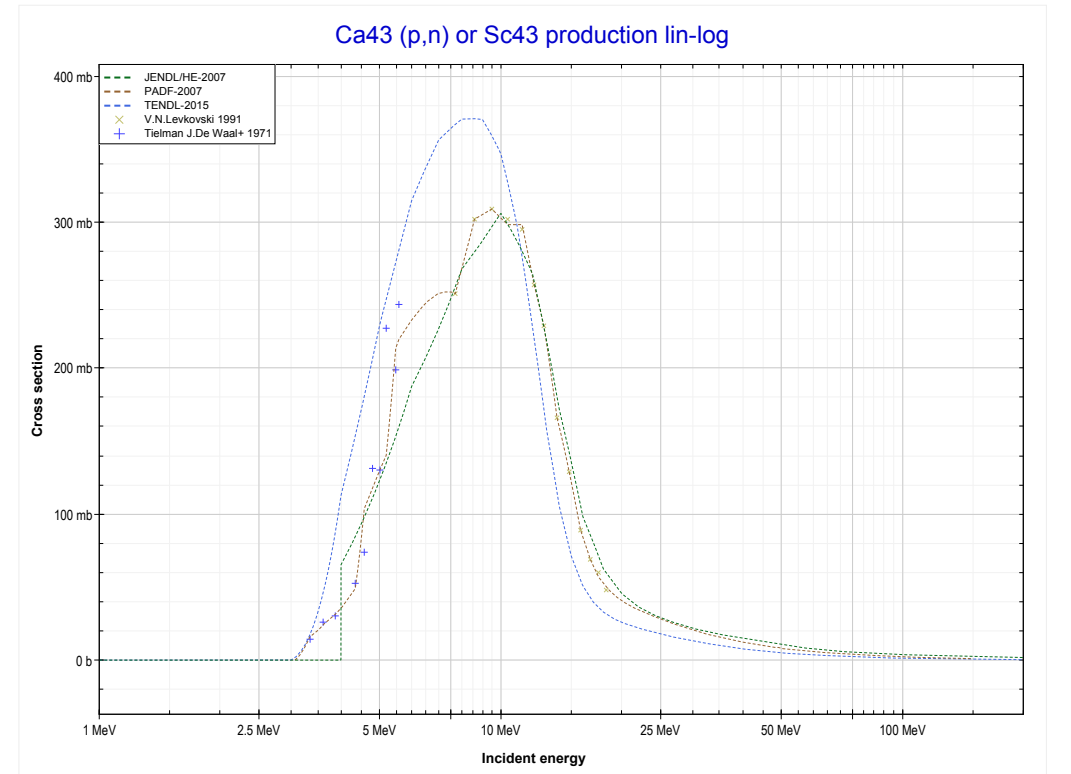
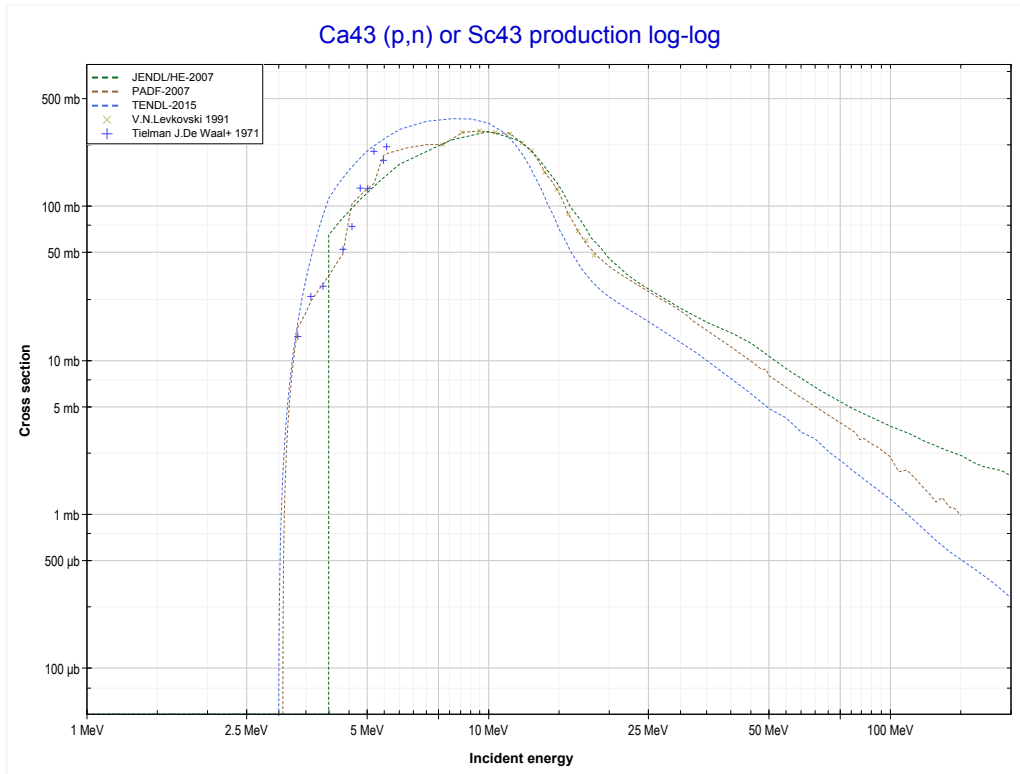
Reaction	Q-Value
Ca40(p,He3)K38	-13687.88 keV
Ca40(p,p+d)K38	-19181.36 keV
Ca40(p,n+2p)K38	-21405.92 keV

<< 13-Al-27	20-Ca-42	20-Ca-44 >>
<< 20-Ca-40 MT106 (p, ³ He)	MT102 (p,γ) or MT5 (Sc43 production)	20-Ca-43 MT4 (p,n) >>



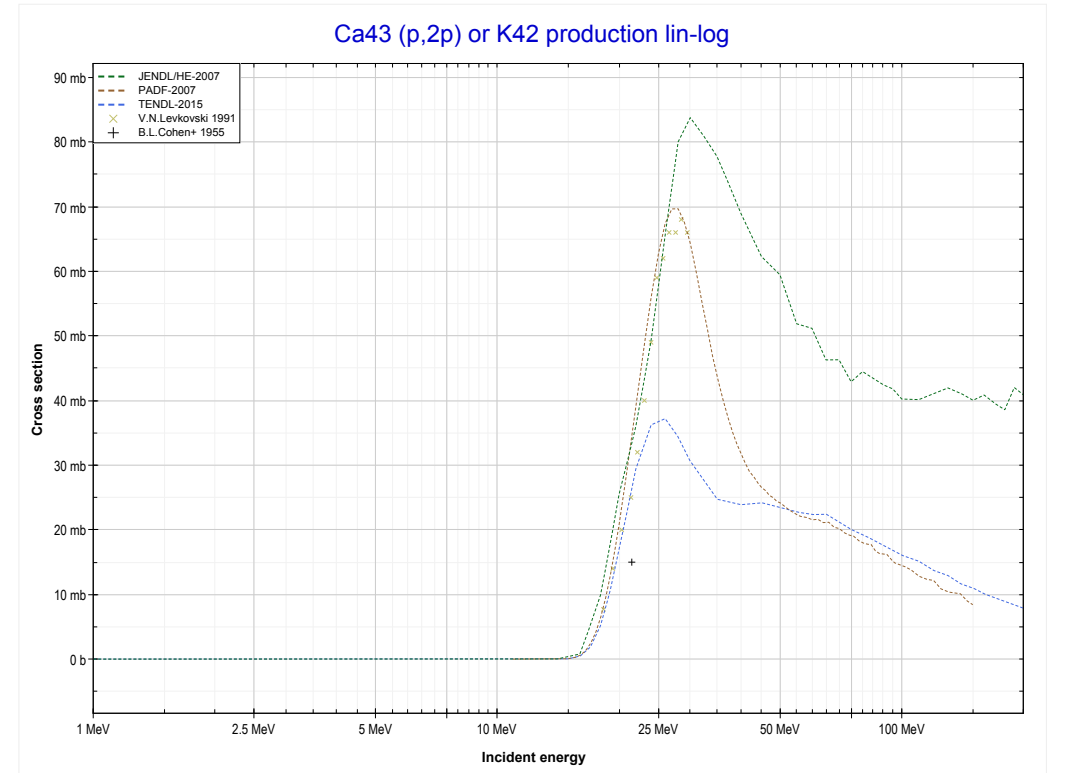
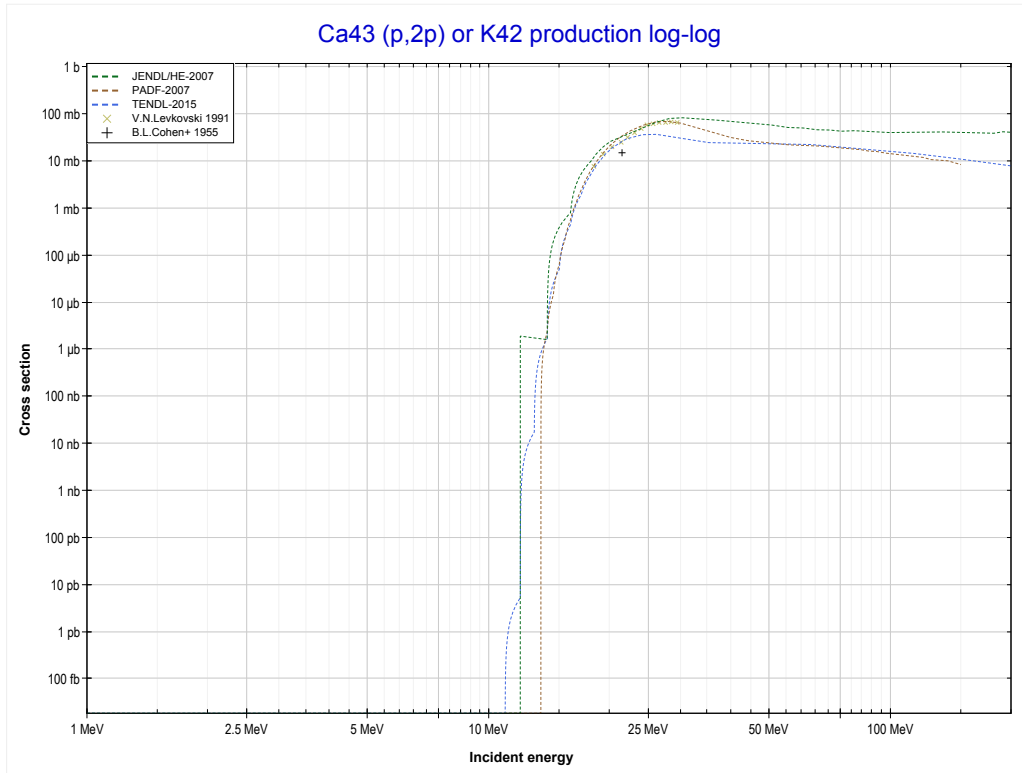
Reaction	Q-Value
Ca42(p, γ)Sc43	4929.83 keV

<< 19-K-41	20-Ca-43	20-Ca-44 >>
<< 20-Ca-42 MT102 (p, γ)	MT4 (p,n) or MT5 (Sc43 production)	MT111 (p,2p) >>



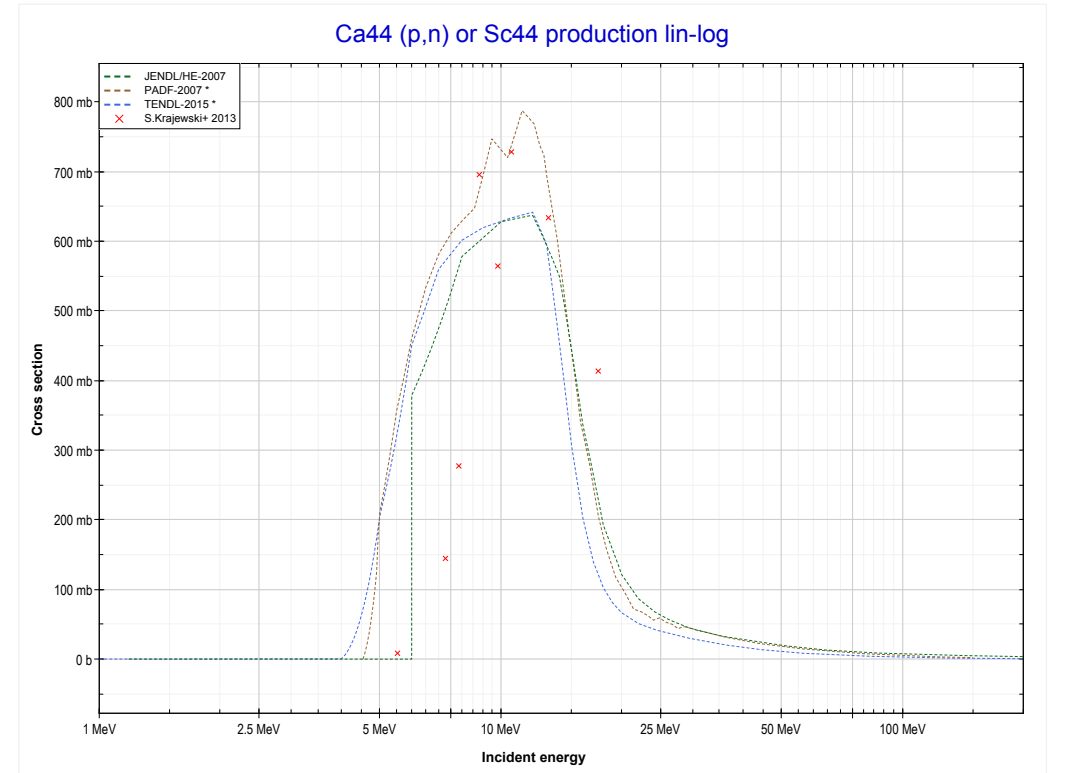
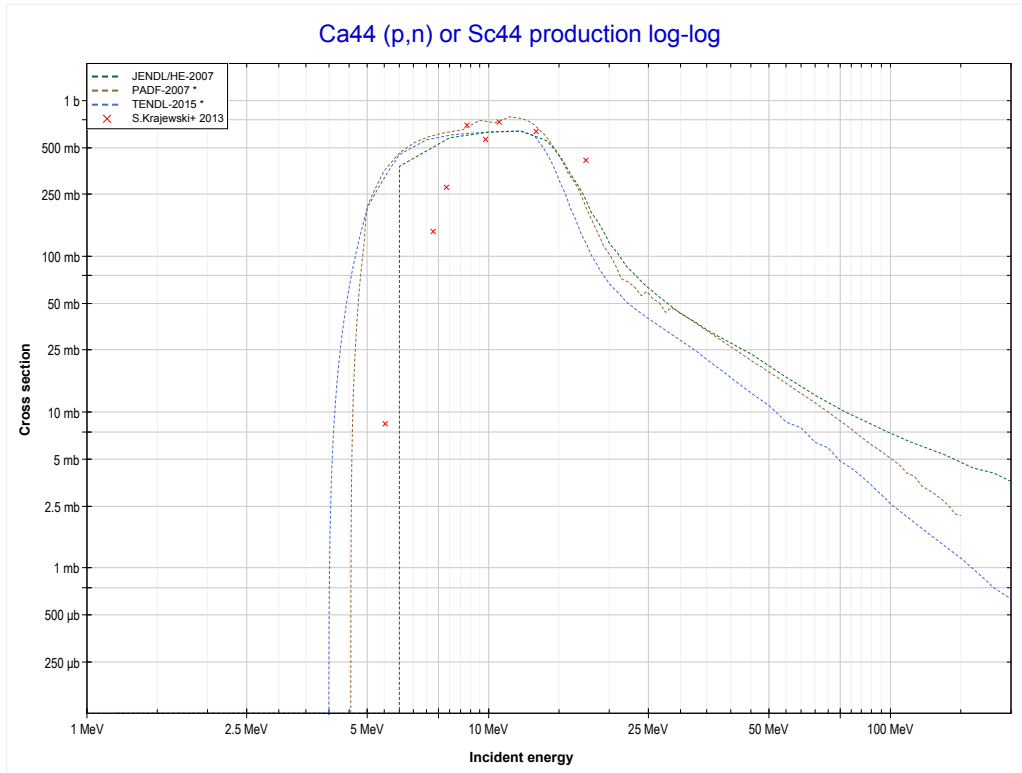
Reaction	Q-Value
Ca43(p,n)Sc43	-3003.07 keV

<< 18-Ar-40	20-Ca-43	20-Ca-44 >>
<< MT4 (p,n)	MT111 (p,2p) or MT5 (K42 production)	20-Ca-44 MT4 (p,n) >>



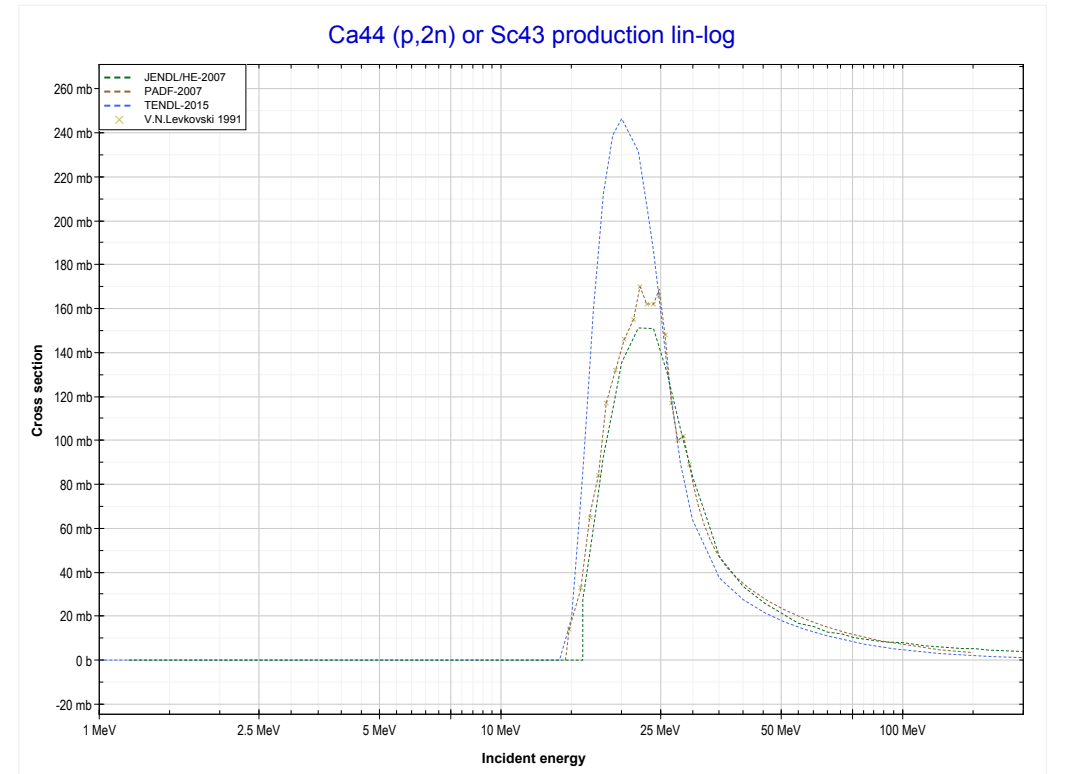
Reaction	Q-Value
Ca43(p,2p)K42	-10675.76 keV

<< 20-Ca-43	20-Ca-44	20-Ca-48 >>
<< 20-Ca-43 MT111 (p,2p)	MT4 (p,n) or MT5 (Sc44 production)	MT16 (p,2n) >>



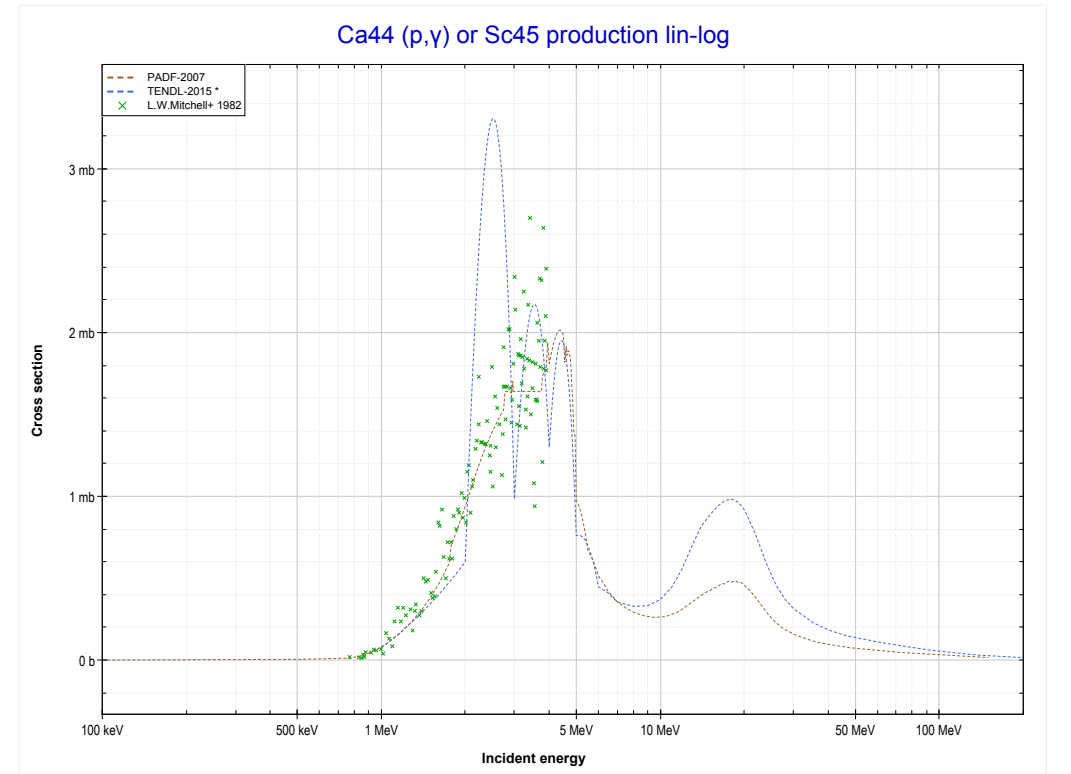
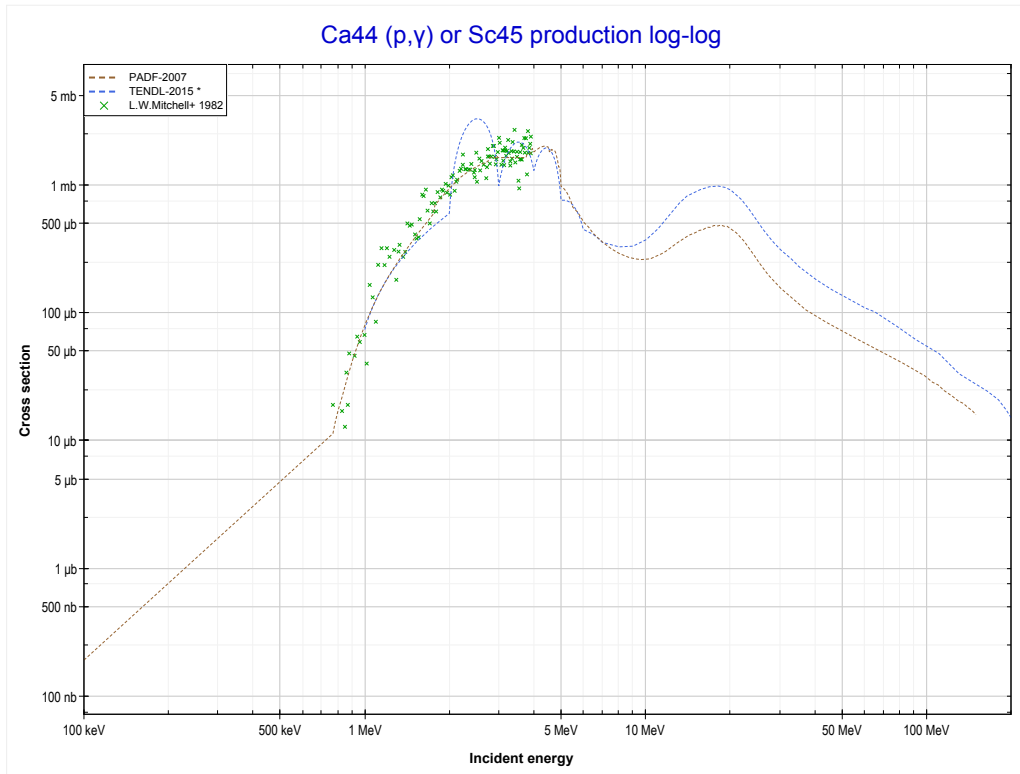
Reaction	Q-Value
Ca44(p,n)Sc44	-4435.05 keV

<< 5-B-11	20-Ca-44	20-Ca-48 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Sc43 production)	MT102 (p, γ) >>



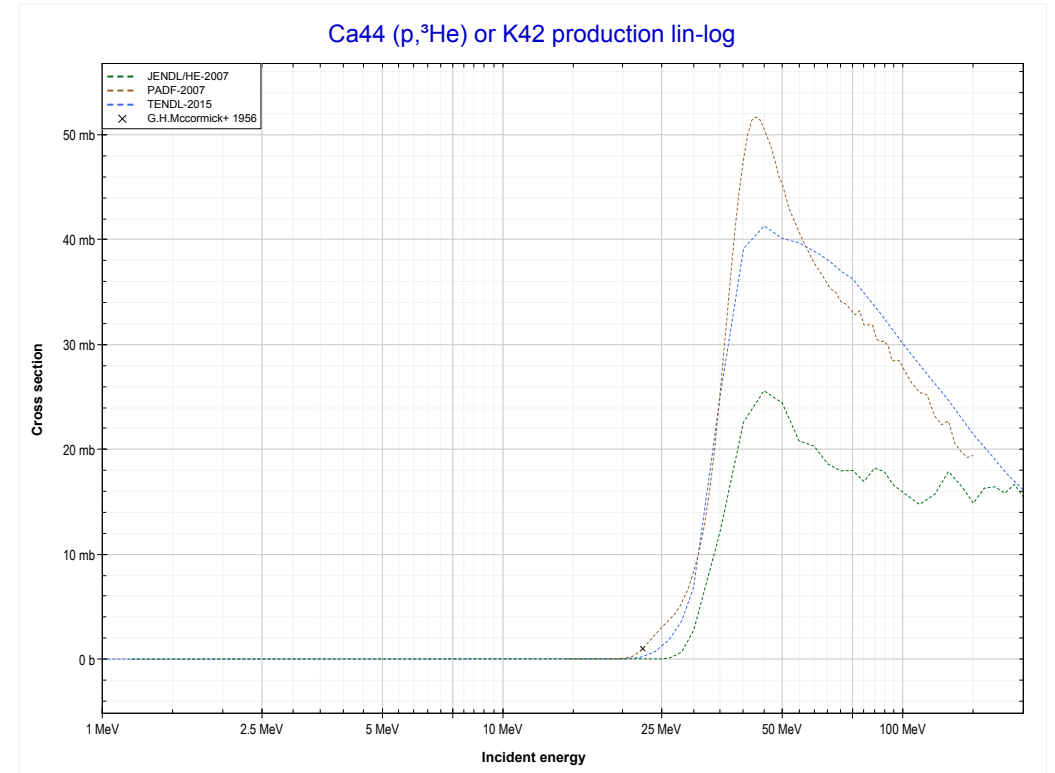
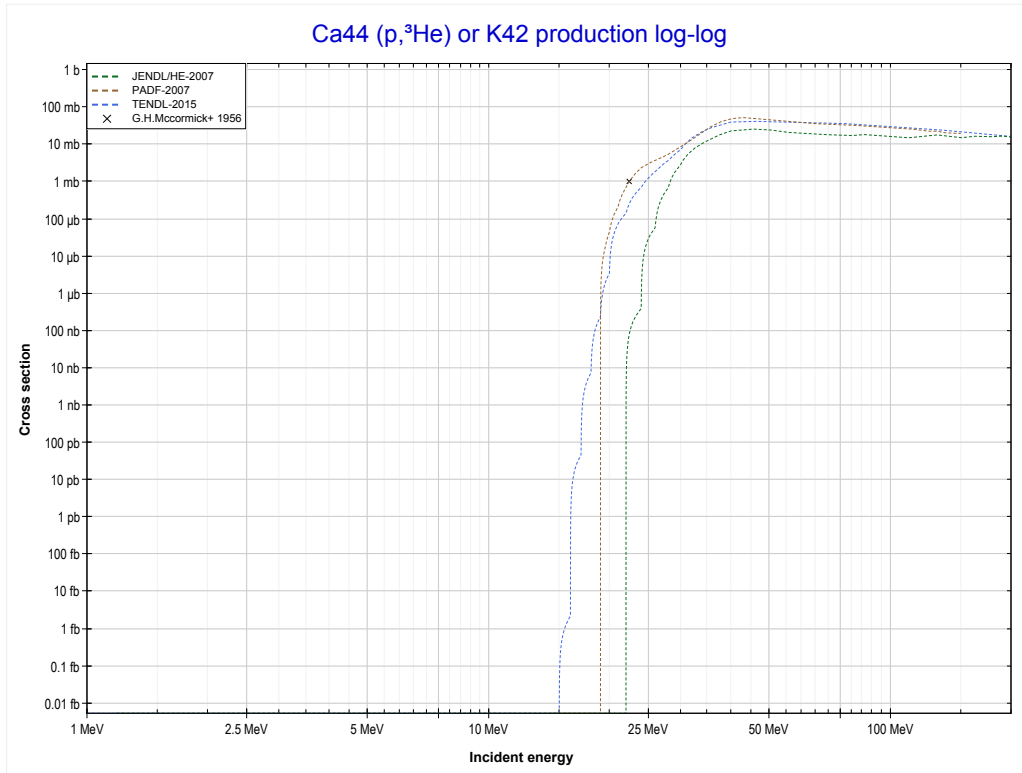
Reaction	Q-Value
Ca44(p,2n)Sc43	-14134.26 keV

<< 20-Ca-42	20-Ca-44	20-Ca-48 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (Sc45 production)	MT106 (p, ^3He) >>



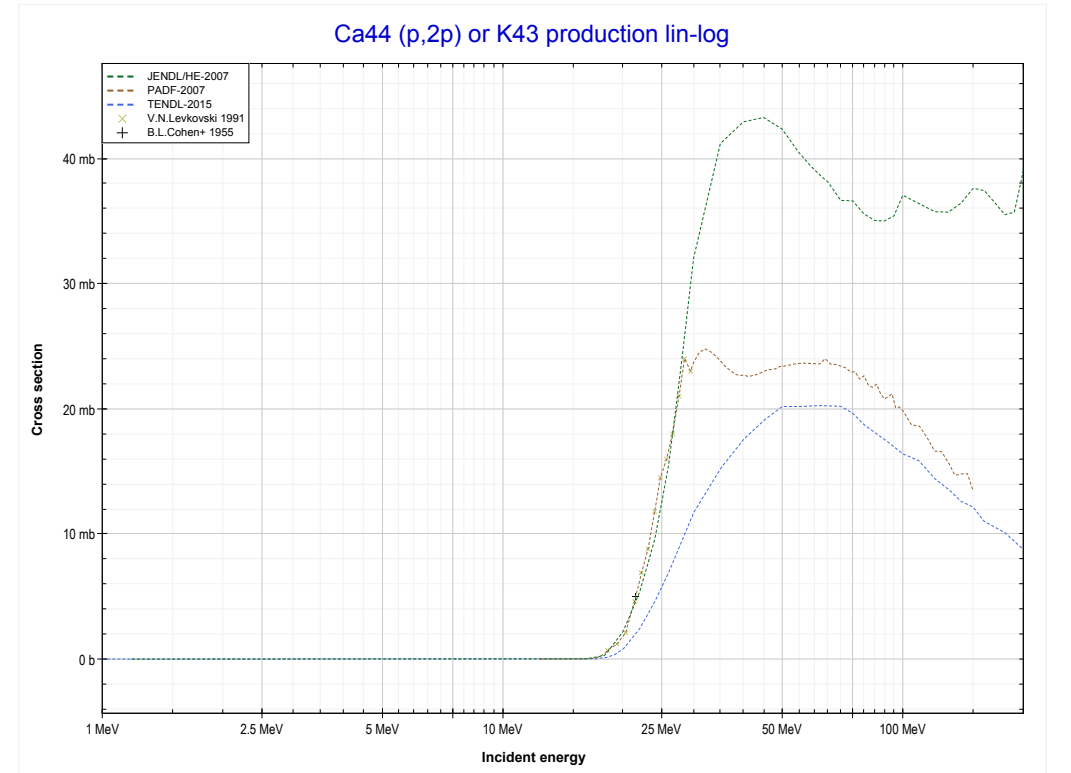
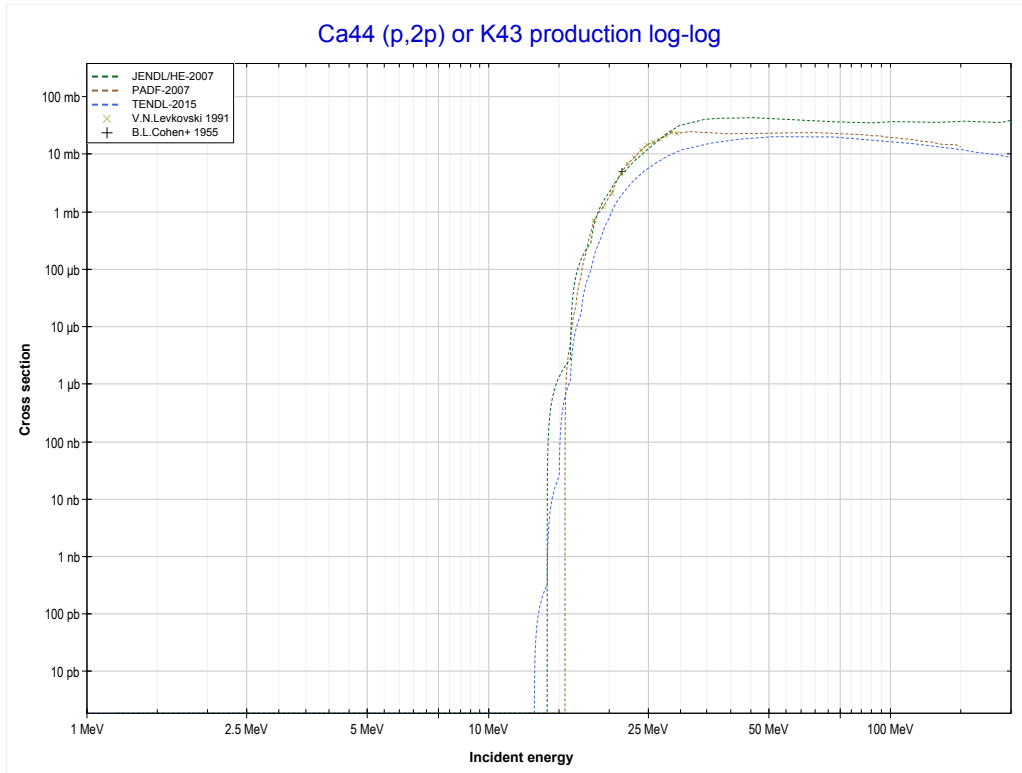
Reaction	Q-Value
Ca44(p, γ)Sc45	6891.47 keV

<< 20-Ca-40	20-Ca-44	
<< MT102 (p, γ)	MT106 (p,^3He) or MT5 (K42 production)	MT111 (p,2p) >>



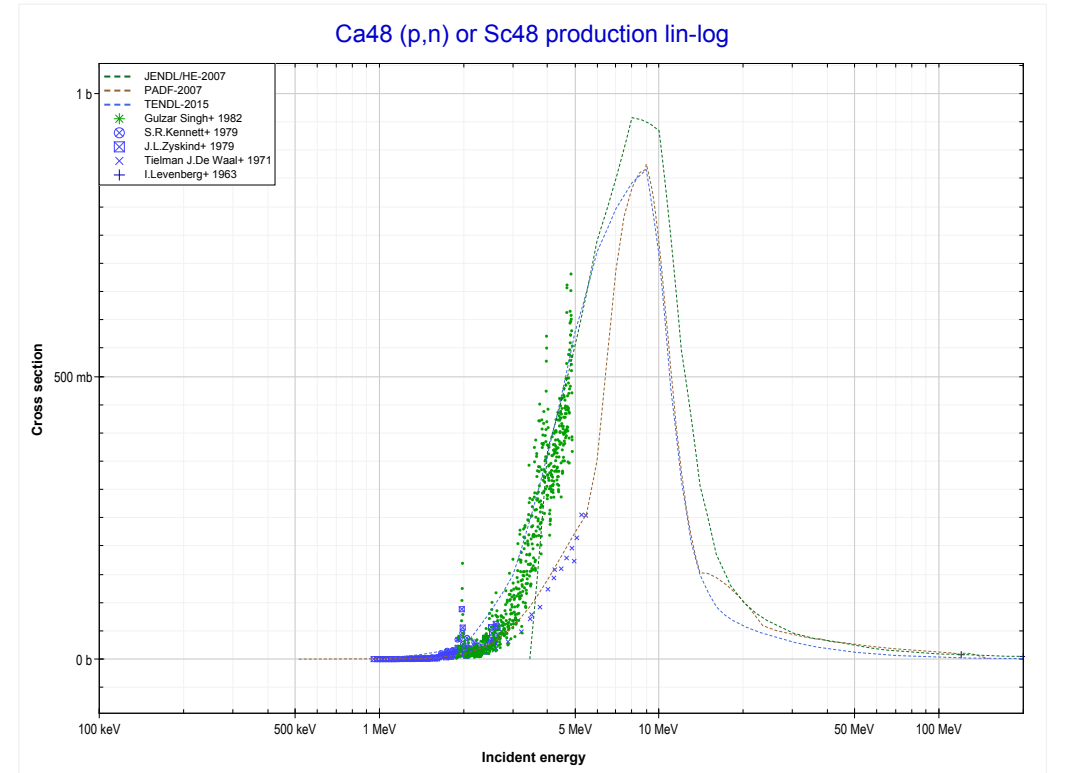
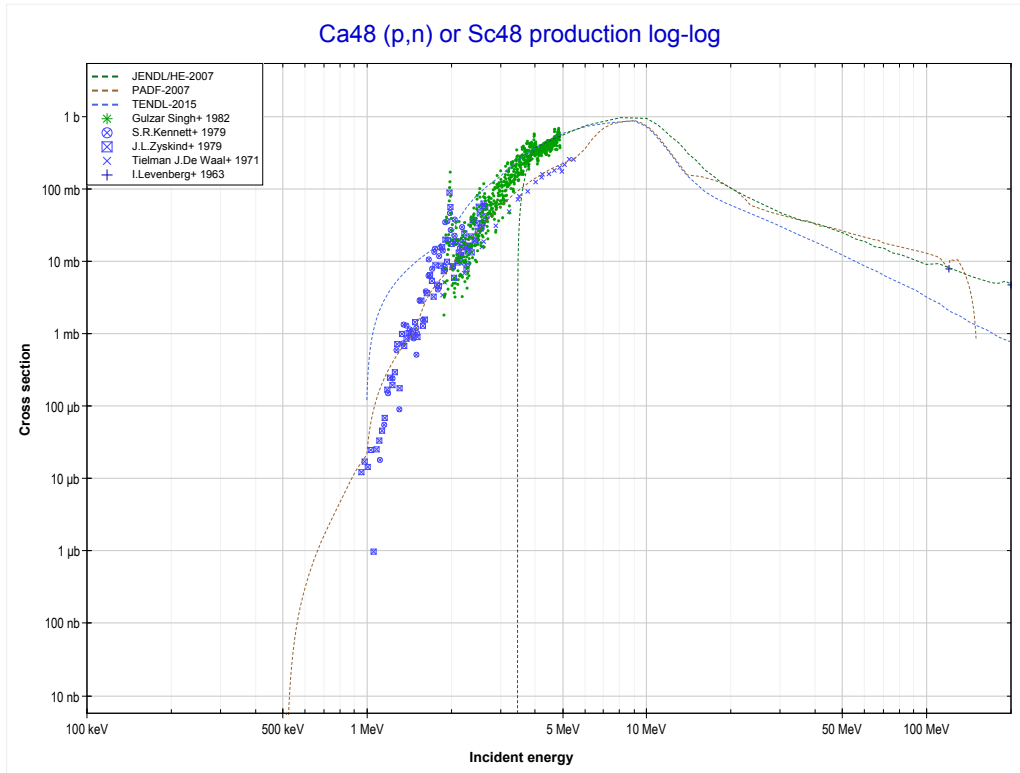
Reaction	Q-Value
Ca44(p, $\text{He}3$)K42	-14088.92 keV
Ca44(p,p+d)K42	-19582.39 keV
Ca44(p,n+2p)K42	-21806.96 keV

<< 20-Ca-43	20-Ca-44	22-Ti-47 >>
<< MT106 (p, ³ He)	MT111 (p,2p) or MT5 (K43 production)	20-Ca-48 MT4 (p,n) >>



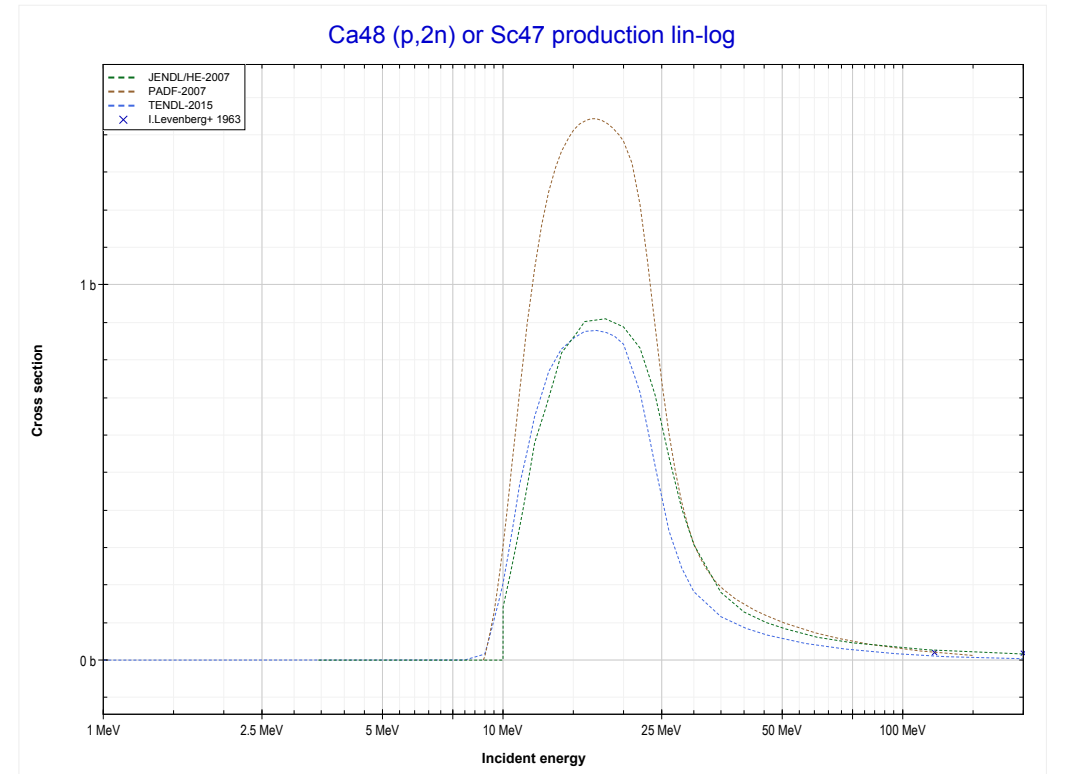
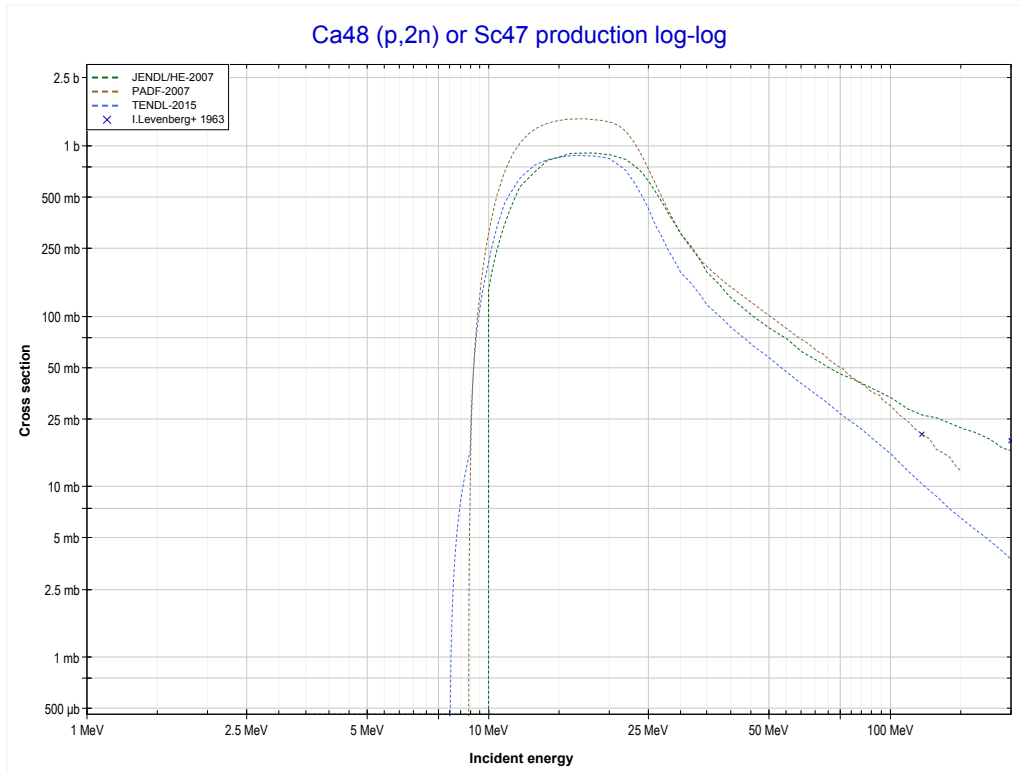
Reaction	Q-Value
Ca44(p,2p)K43	-12182.27 keV

<< 20-Ca-44	20-Ca-48	21-Sc-45 >>
<< 20-Ca-44 MT111 (p,2p)	MT4 (p,n) or MT5 (Sc48 production)	MT16 (p,2n) >>



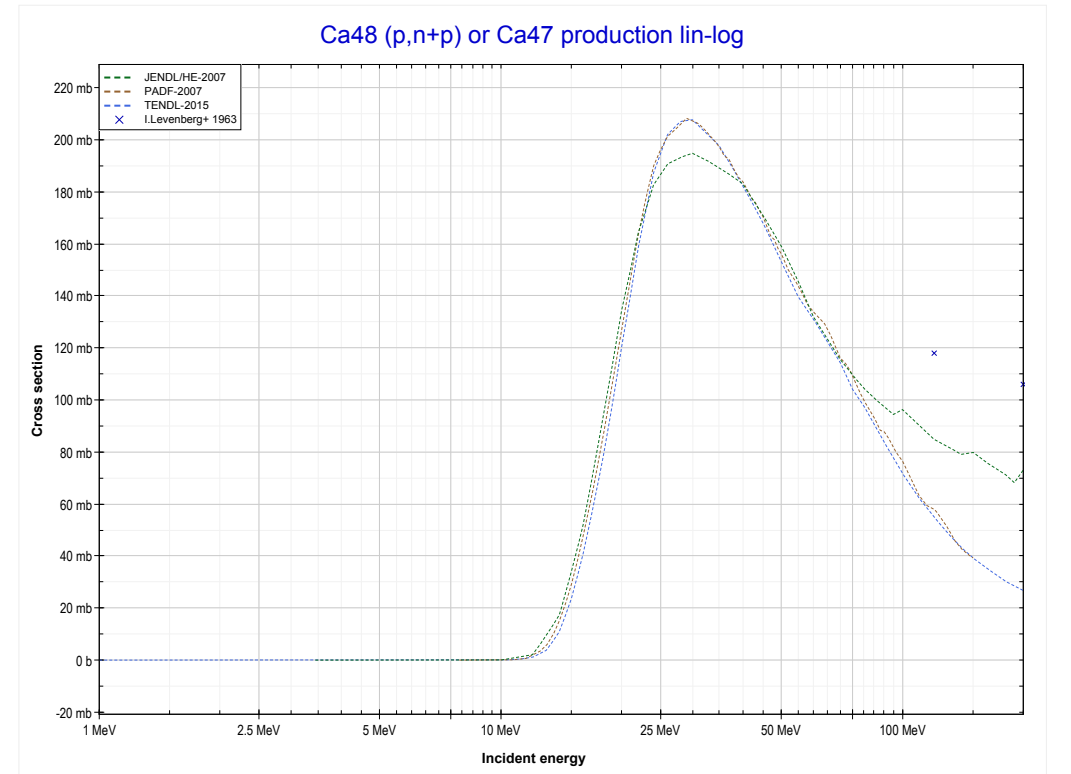
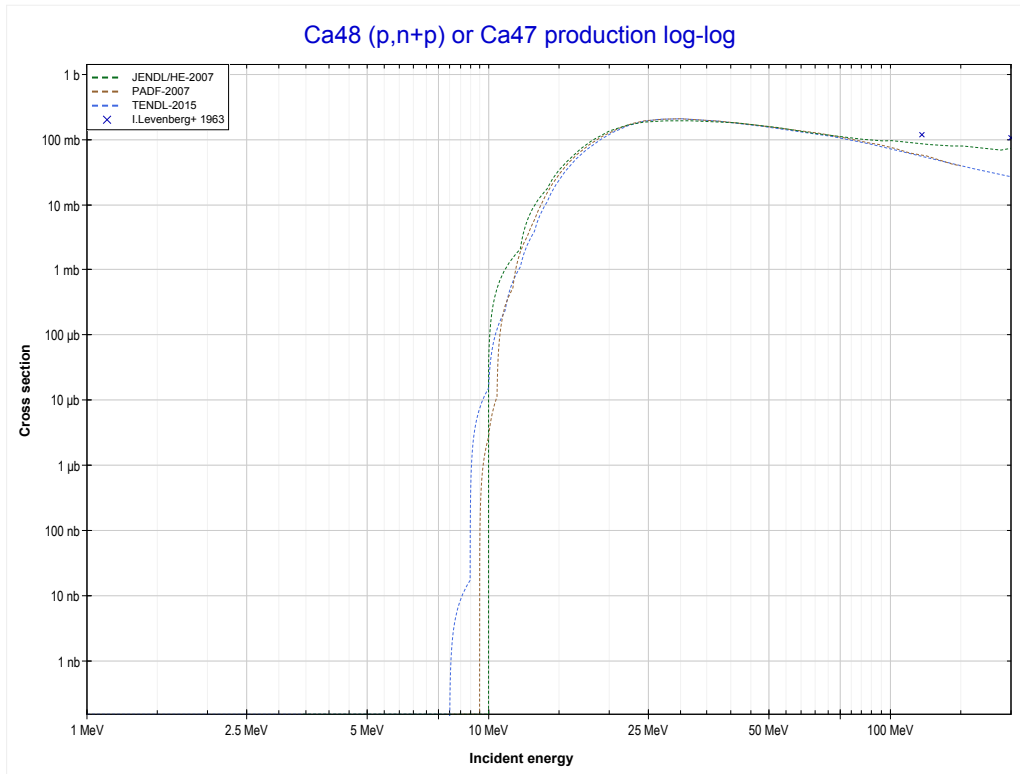
Reaction	Q-Value
Ca48(p,n)Sc48	-504.11 keV

<< 20-Ca-44	20-Ca-48	21-Sc-45 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Sc47 production)	MT28 (p,n+p) >>



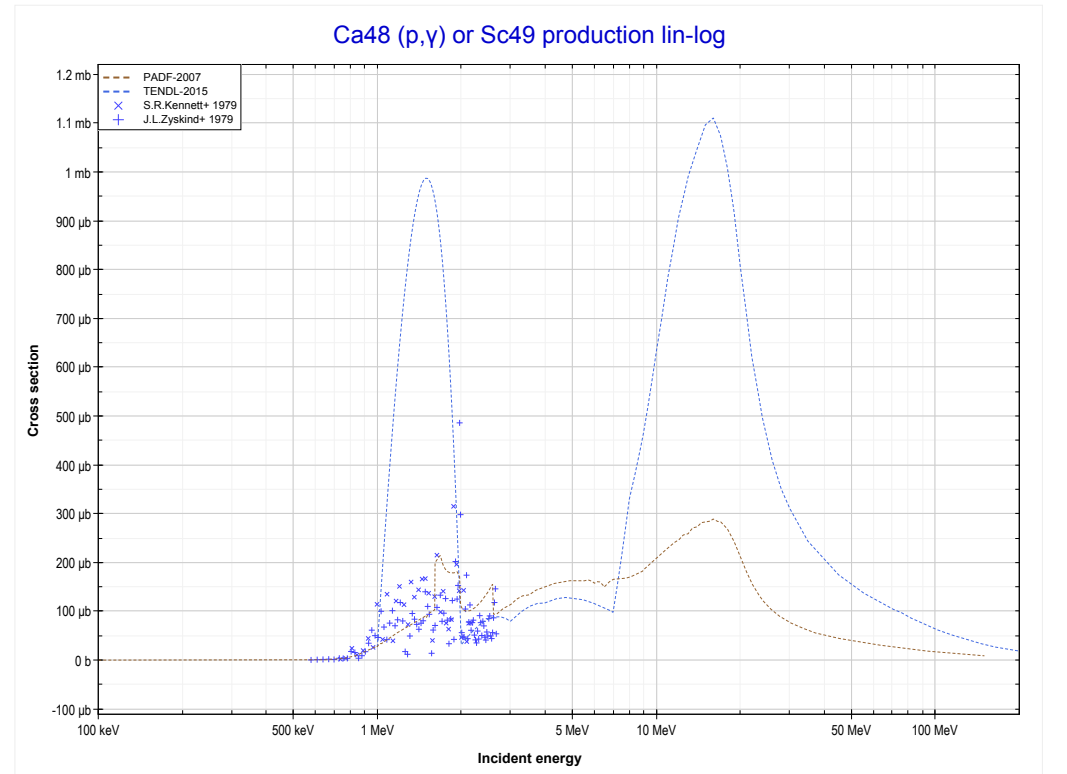
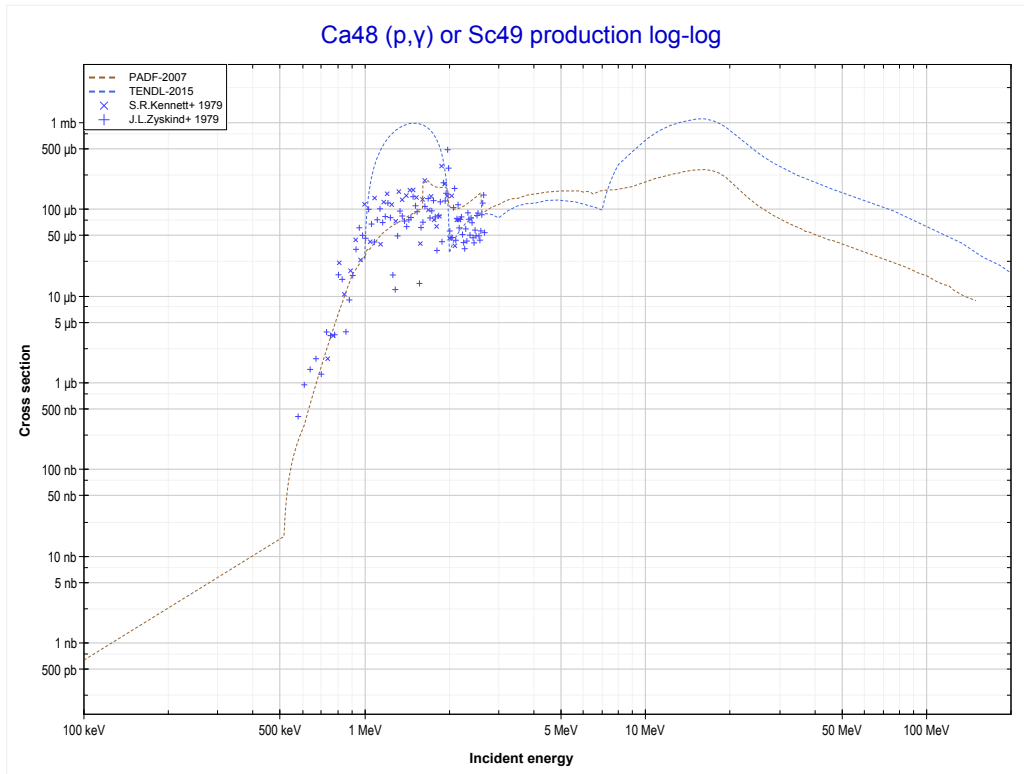
Reaction	Q-Value
Ca48(p,2n)Sc47	-8742.82 keV

<< 13-Al-27	20-Ca-48	21-Sc-45 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Ca47 production)	MT102 (p, γ) >>



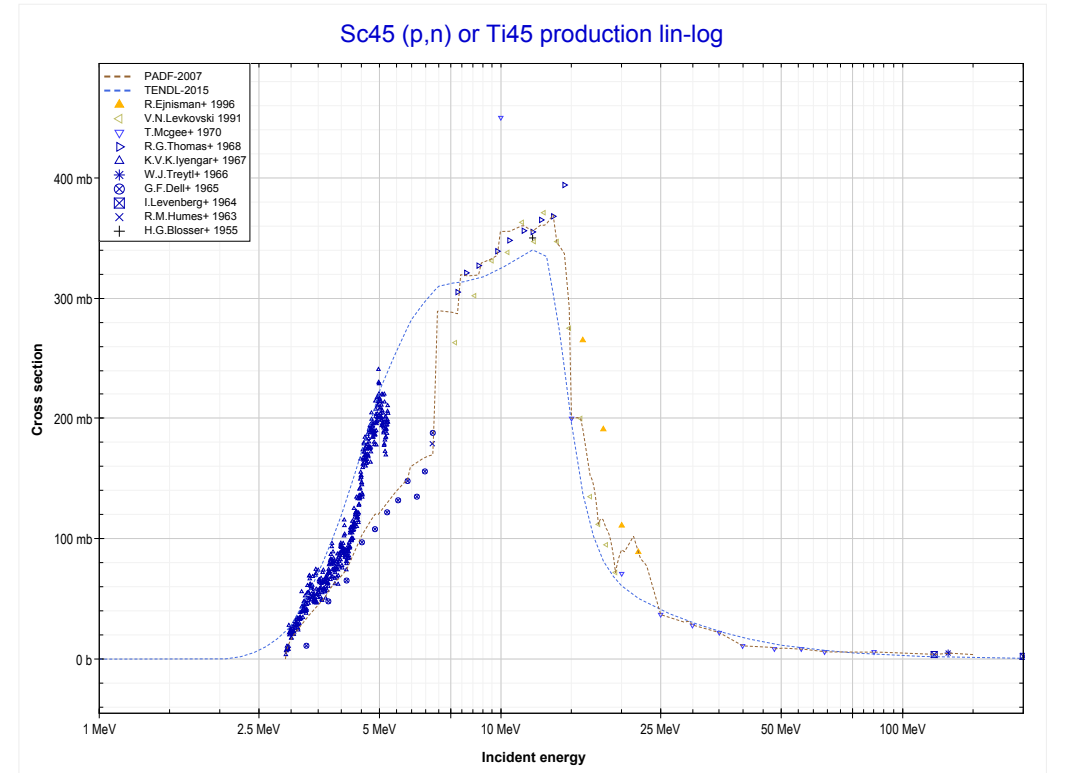
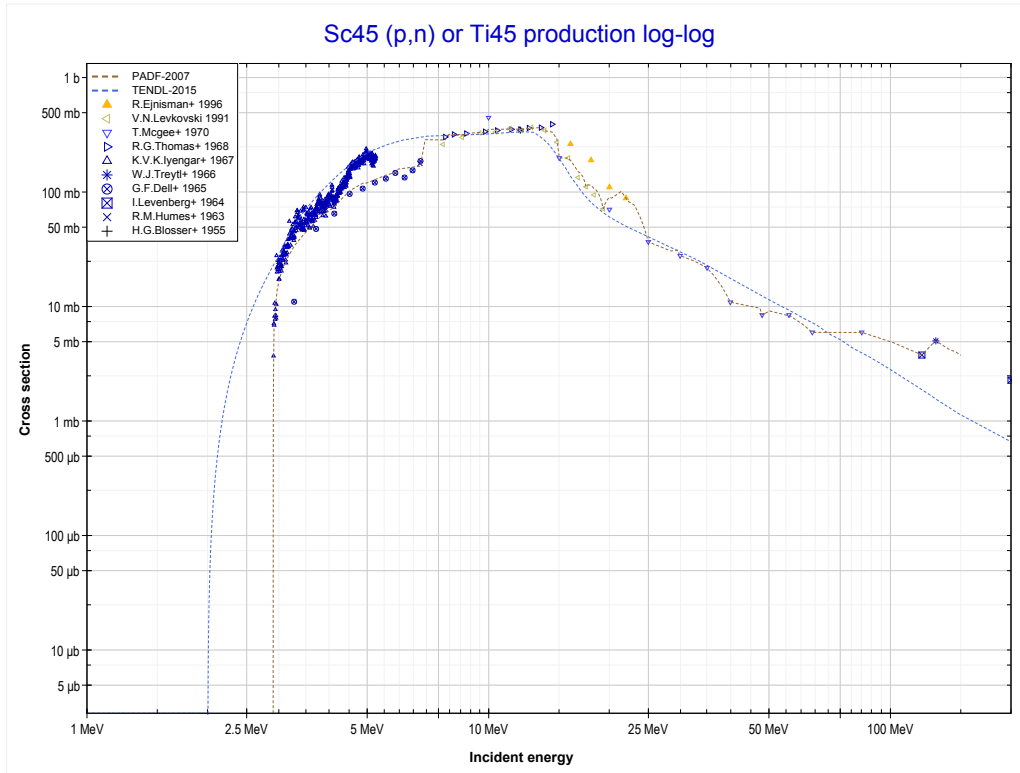
Reaction	Q-Value
Ca48(p,d)Ca47	-7728.01 keV
Ca48(p,n+p)Ca47	-9952.58 keV

<< 20-Ca-44	20-Ca-48	22-Ti-46 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (Sc49 production)	21-Sc-45 MT4 (p,n) >>



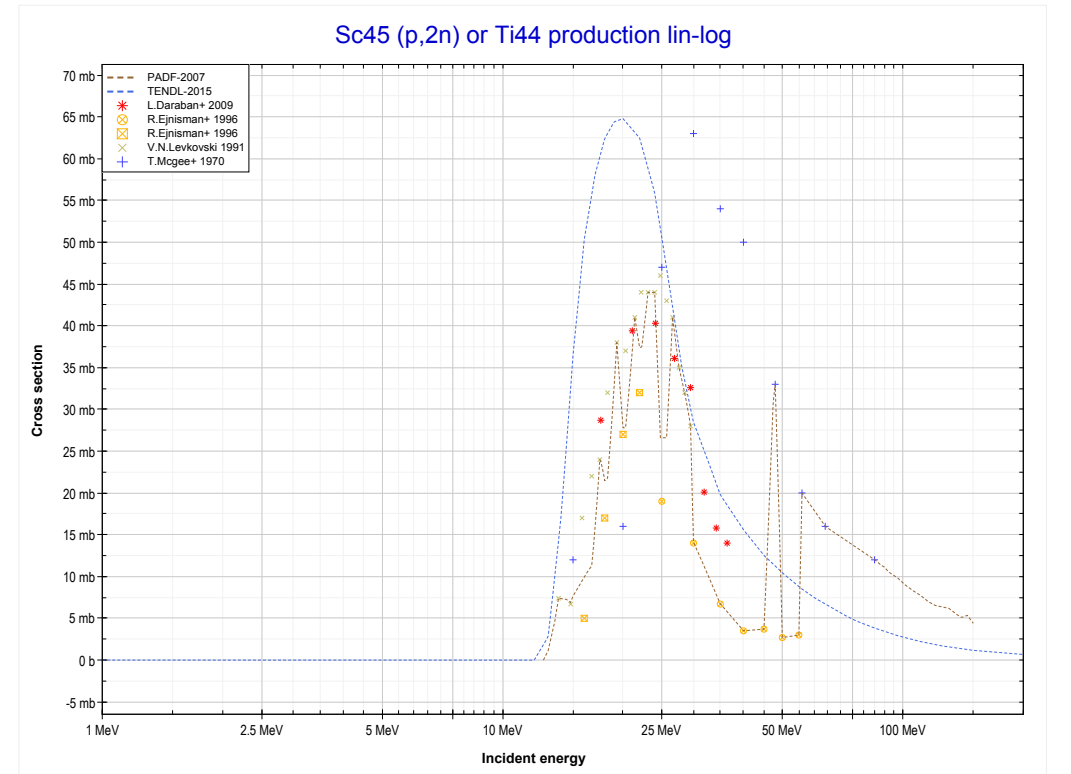
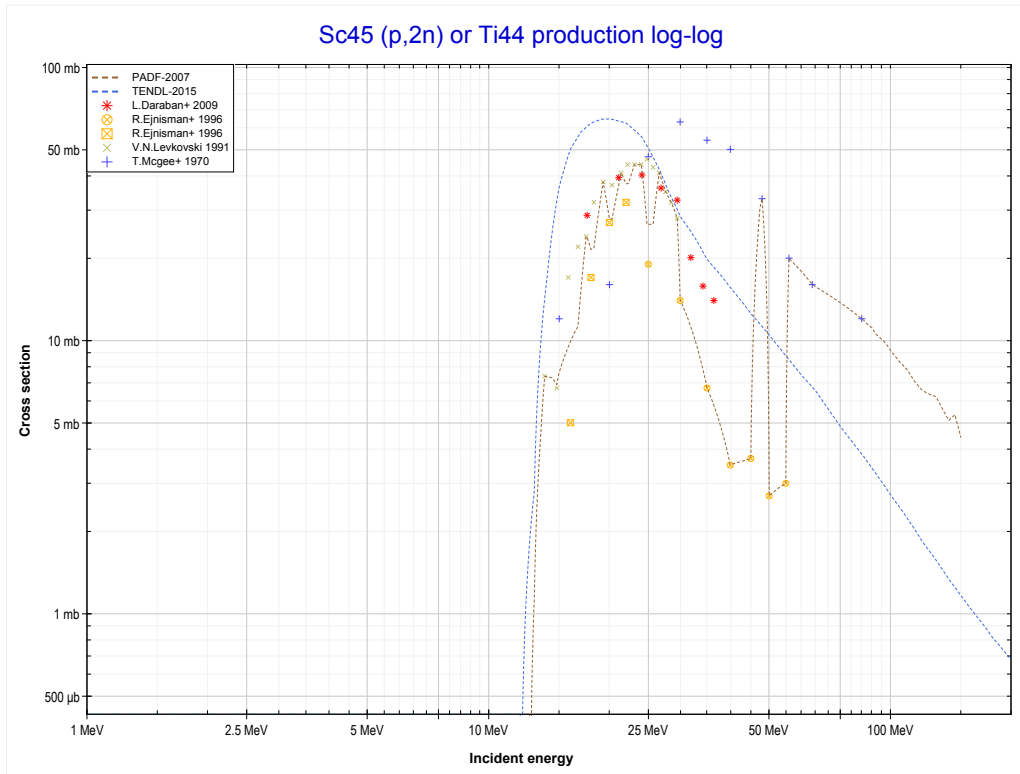
Reaction	Q-Value
Ca48(p, γ)Sc49	9625.31 keV

<< 20-Ca-48	21-Sc-45	22-Ti-47 >>
<< 20-Ca-48 MT102 (p, γ)	MT4 (p,n) or MT5 (Ti45 production)	MT16 (p,2n) >>



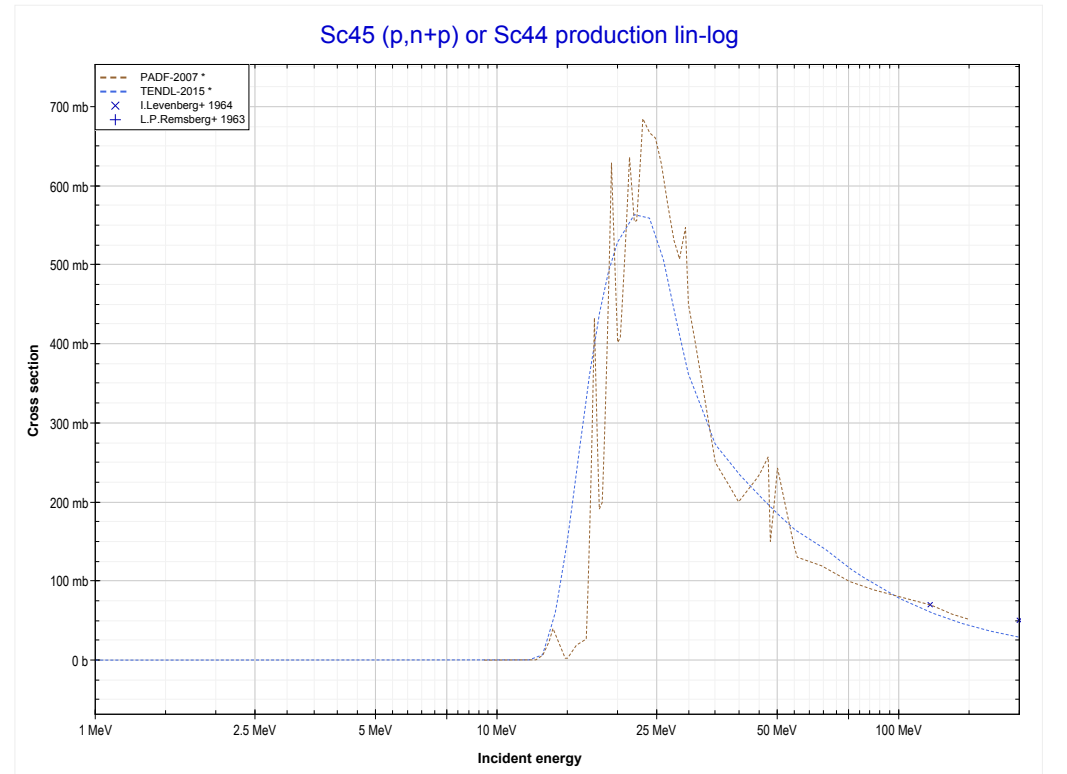
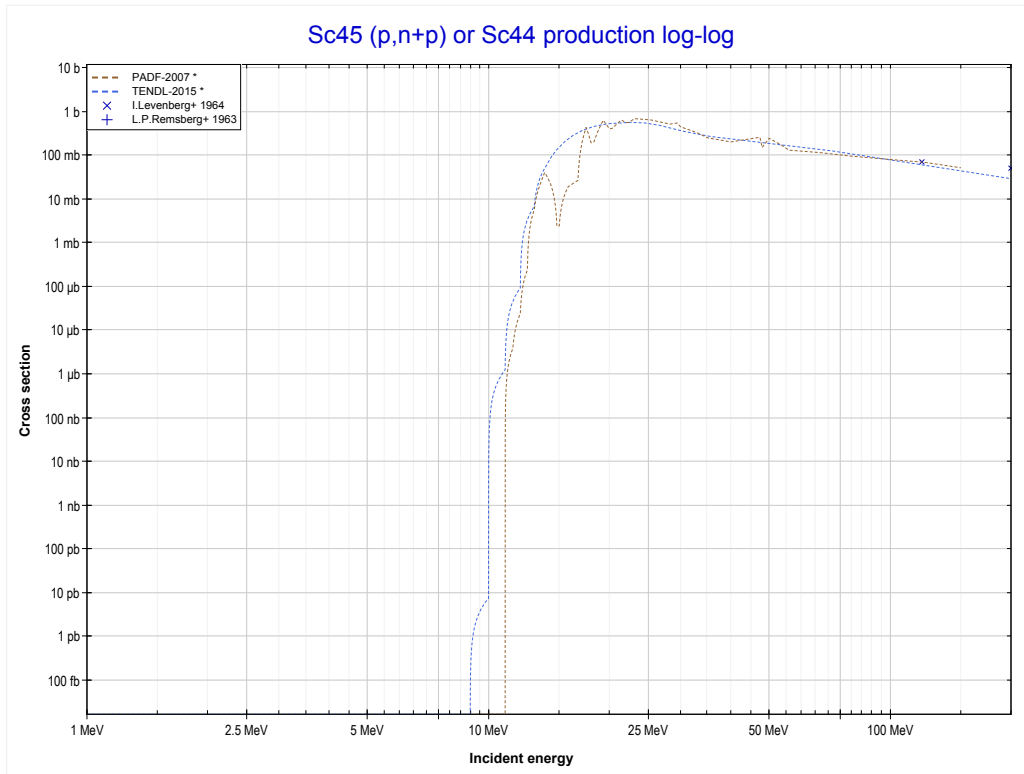
Reaction	Q-Value
Sc45(p,n)Ti45	-2844.45 keV

<< 20-Ca-48	21-Sc-45	22-Ti-48 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Ti44 production)	MT28 (p,n+p) >>



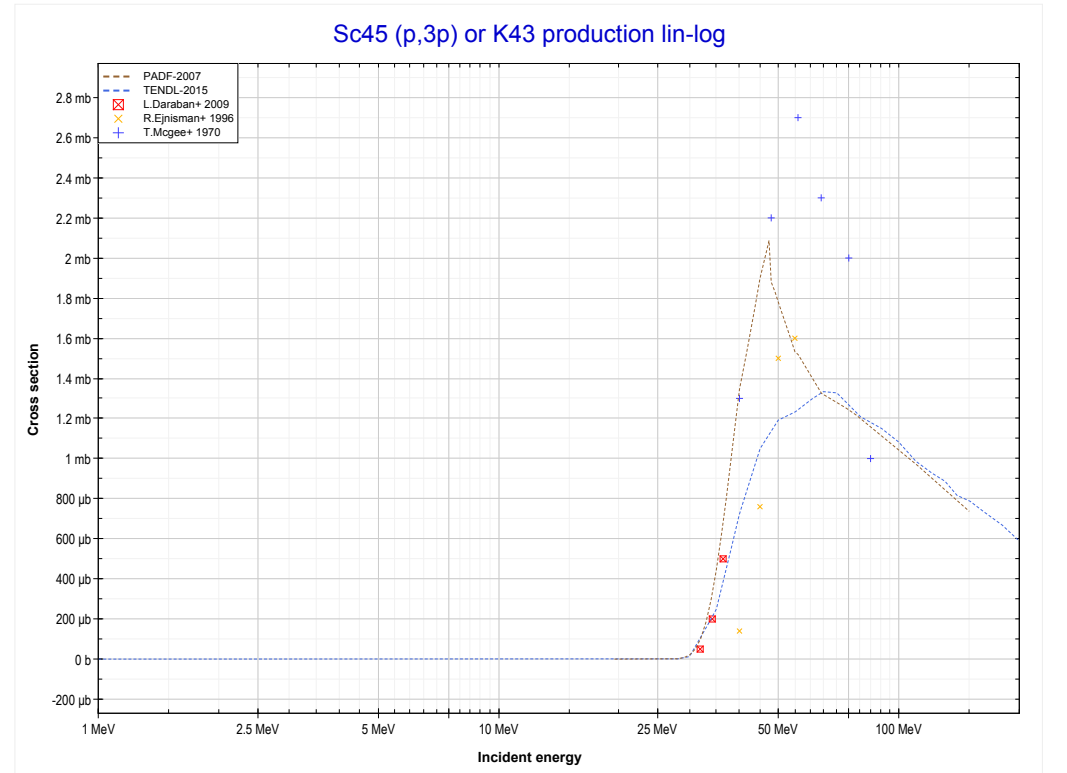
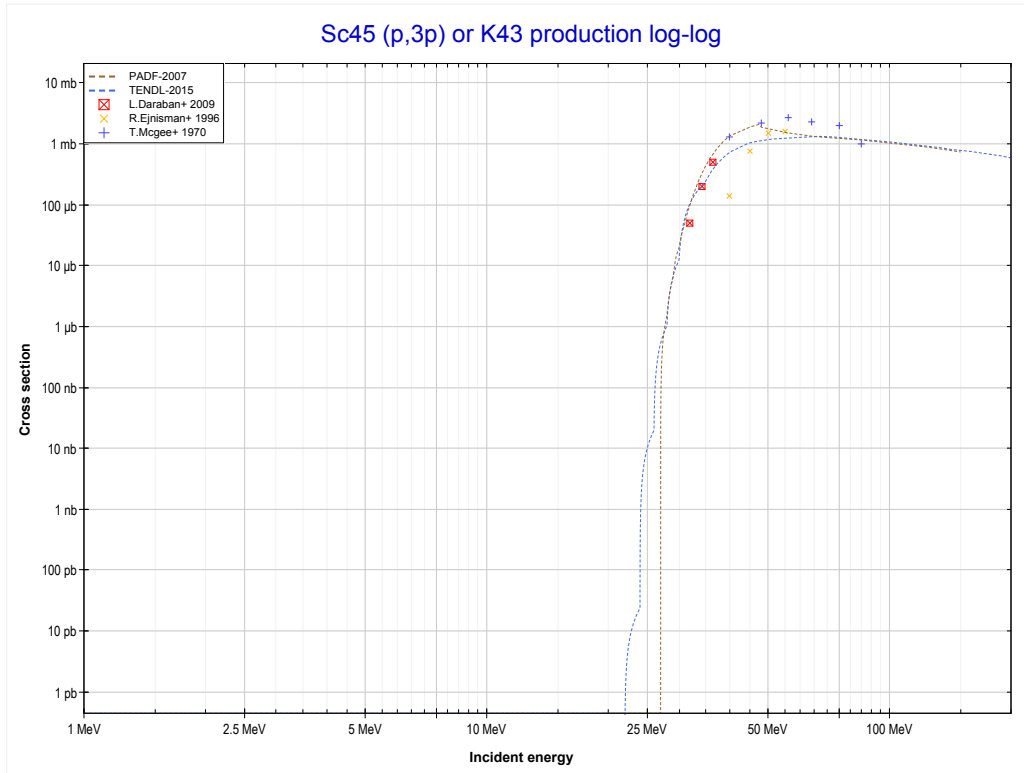
Reaction	Q-Value
Sc45(p,2n)Ti44	-12376.26 keV

<< 20-Ca-48	21-Sc-45	24-Cr-50 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Sc44 production)	MT197 (p,3p) >>



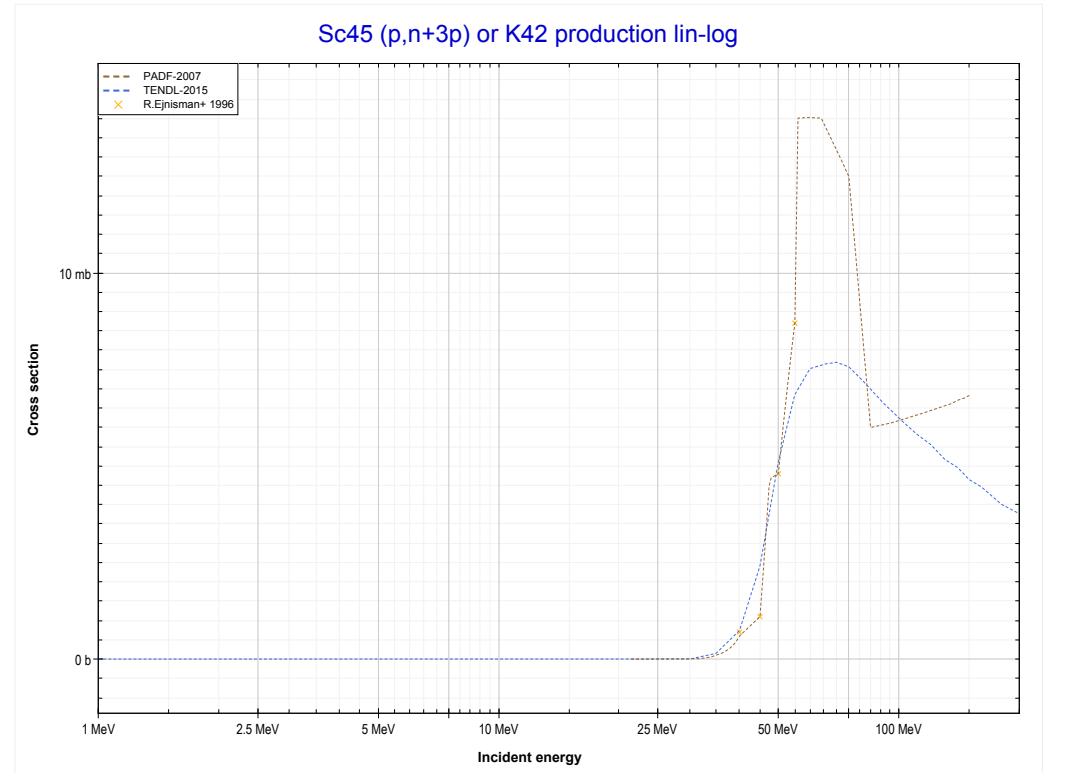
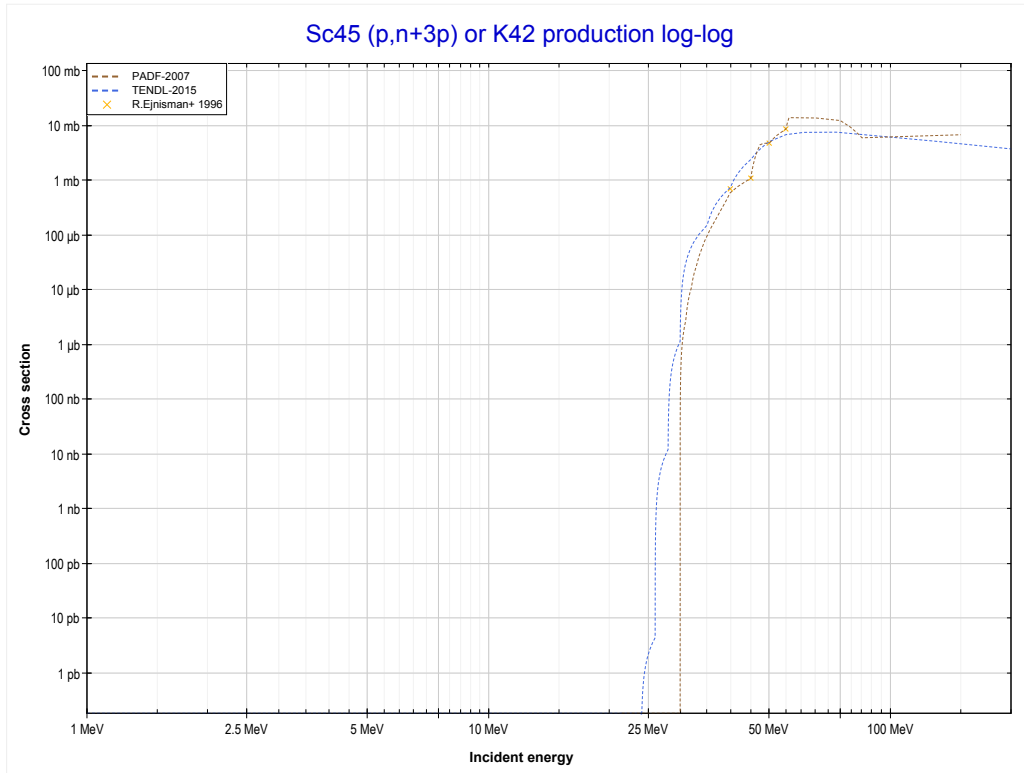
Reaction	Q-Value
Sc45(p,d)Sc44	-9101.95 keV
Sc45(p,n+p)Sc44	-11326.52 keV

<< 15-P-31	21-Sc-45	23-V-51 >>
<< MT28 (p,n+p)	MT197 (p,3p) or MT5 (K43 production)	MT198 (p,n+3p) >>



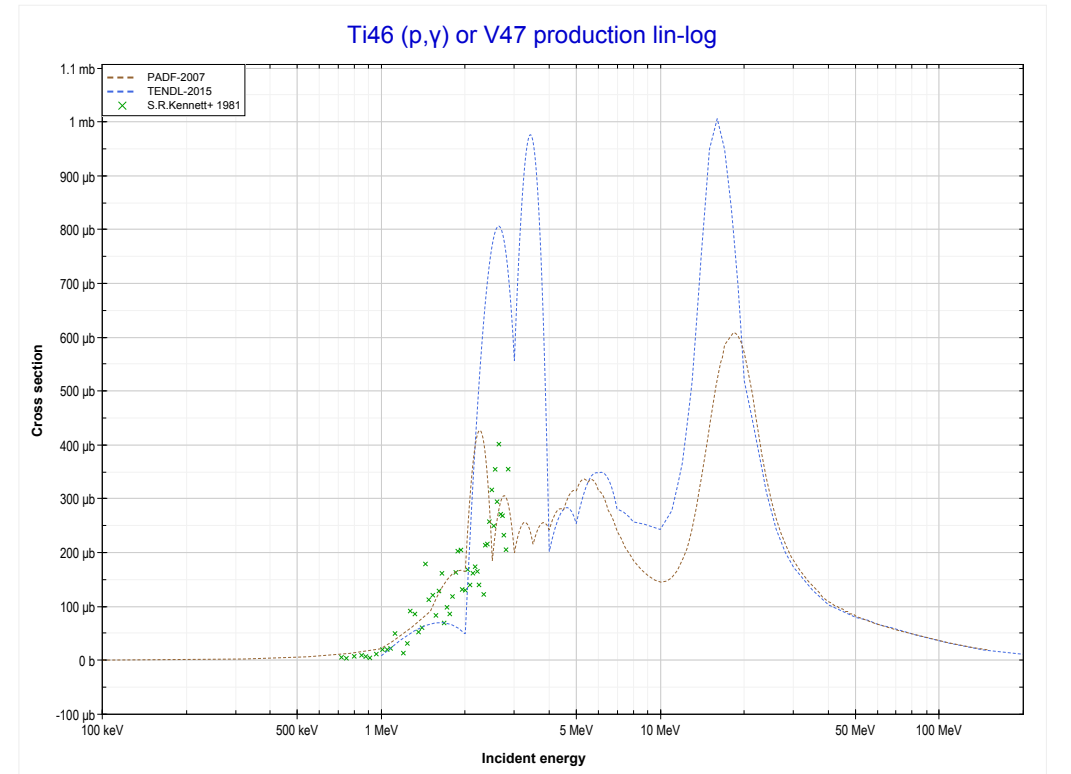
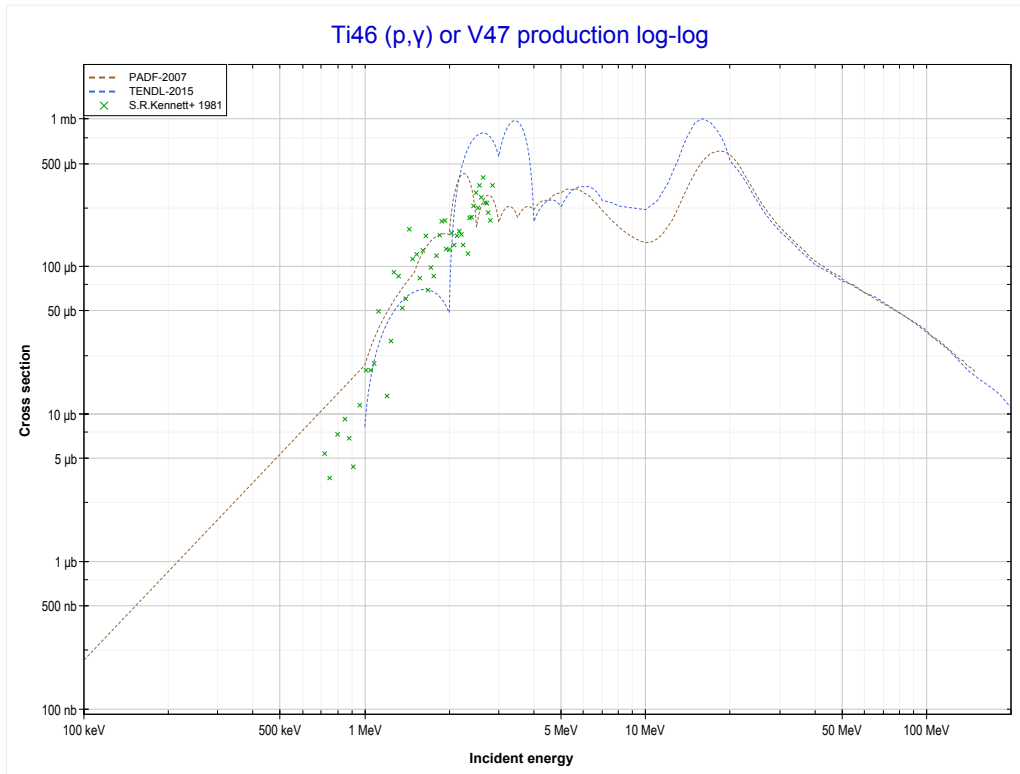
Reaction	Q-Value
Sc45(p,3p)K43	-19073.74 keV

<< 13-Al-27	21-Sc-45	27-Co-59 >>
<< MT197 (p,3p)	MT198 (p,n+3p) or MT5 (K42 production)	22-Ti-46 MT102 (p, γ) >>



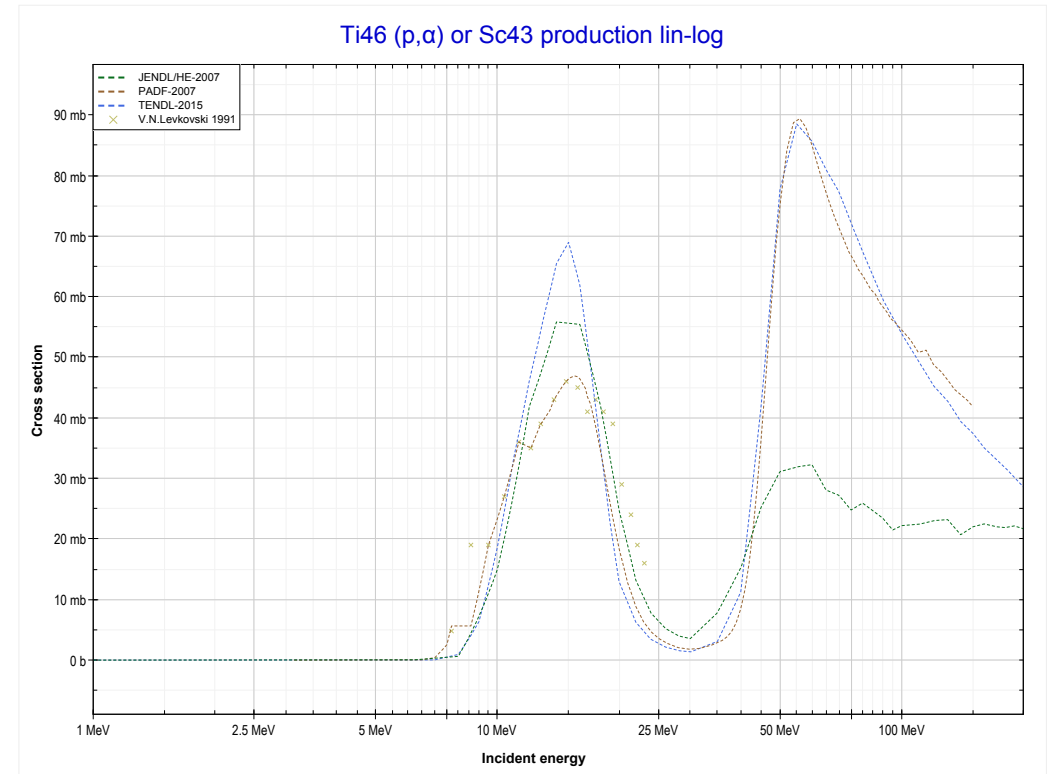
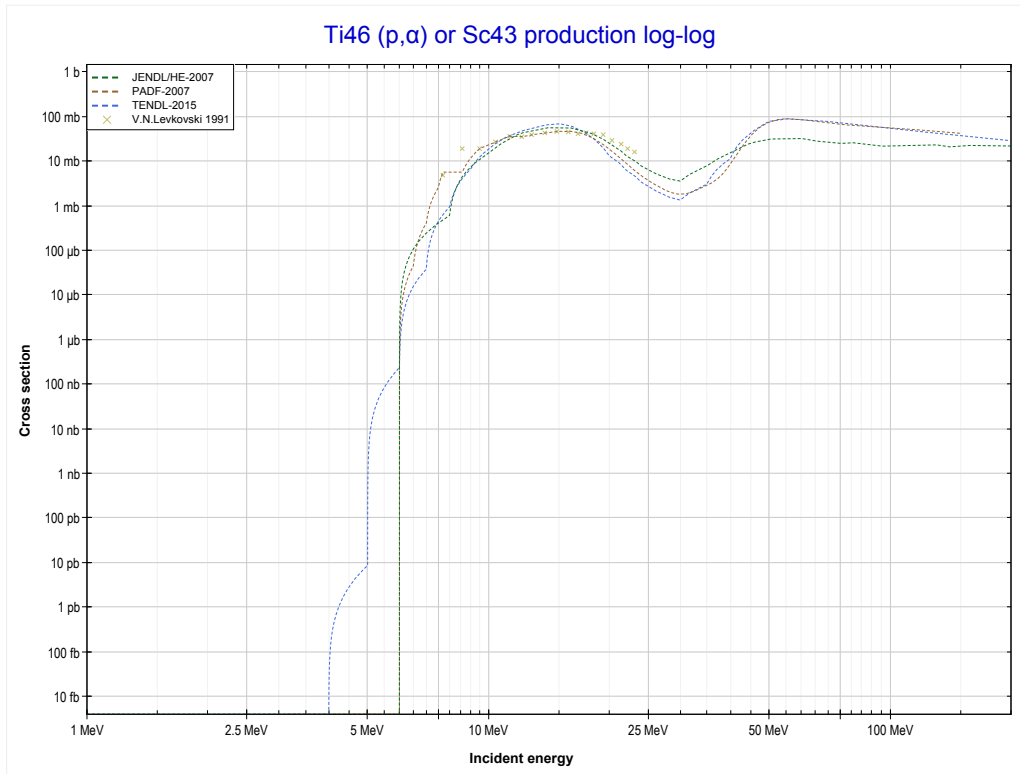
Reaction	Q-Value
Sc45(p,p+He3)K42	-20980.39 keV
Sc45(p,2p+d)K42	-26473.86 keV
Sc45(p,n+3p)K42	-28698.43 keV

<< 20-Ca-48	22-Ti-46	22-Ti-47 >>
<< 21-Sc-45 MT198 (p,n+3p)	MT102 (p,γ) or MT5 (V47 production)	MT107 (p, α) >>



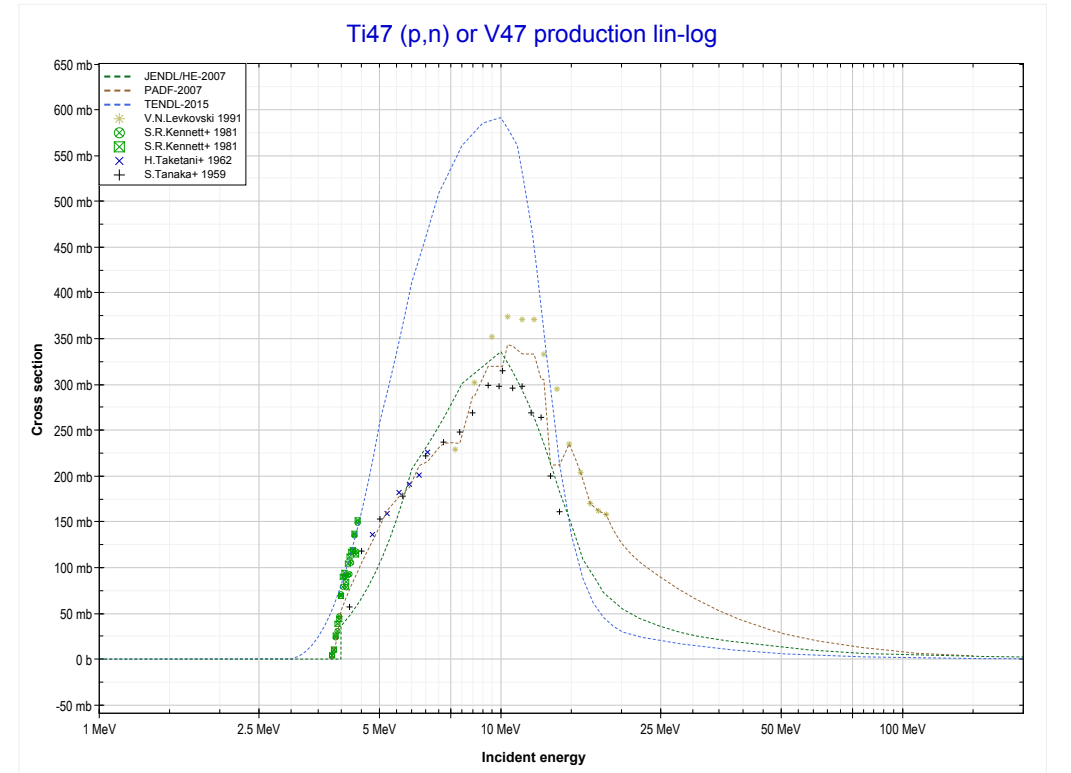
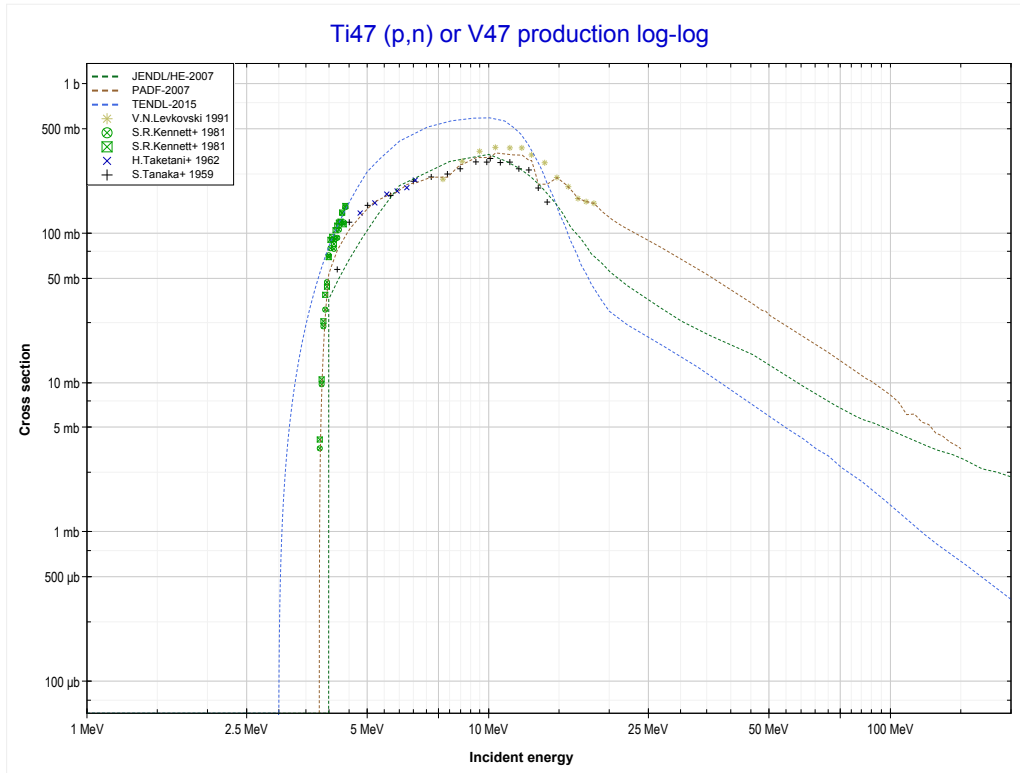
Reaction	Q-Value
Ti46(p, γ)V47	5167.77 keV

<< 12-Mg-25	22-Ti-46	22-Ti-47 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Sc43 production)	22-Ti-47 MT4 (p,n) >>



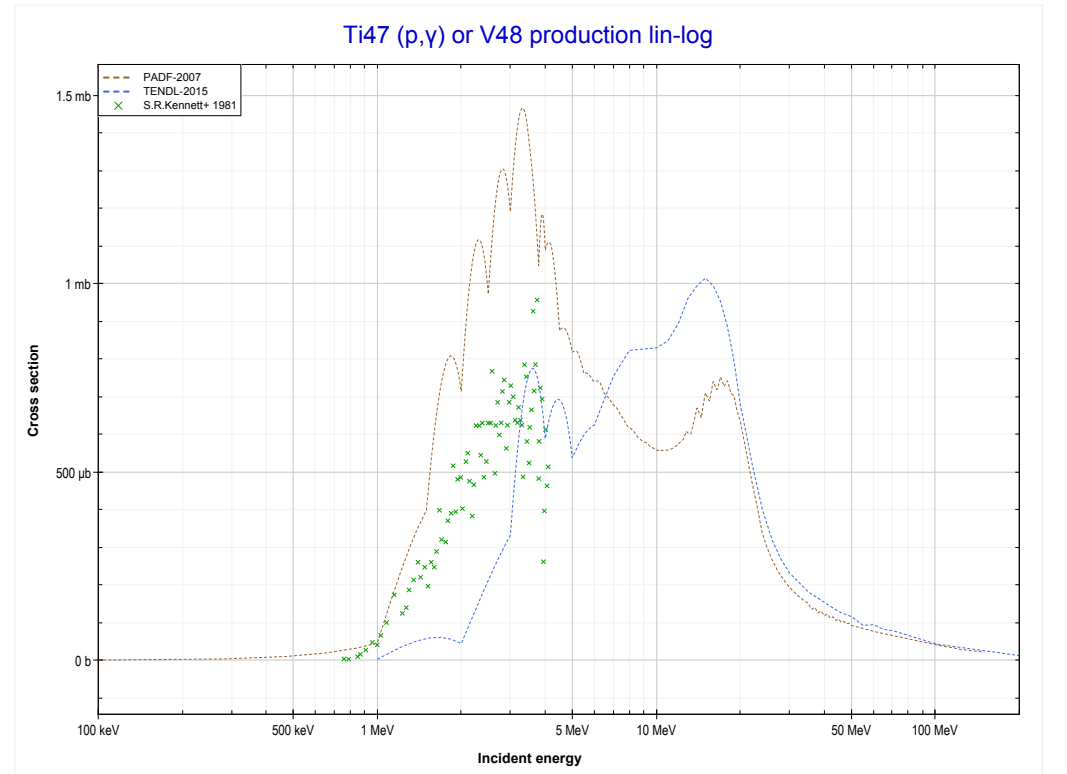
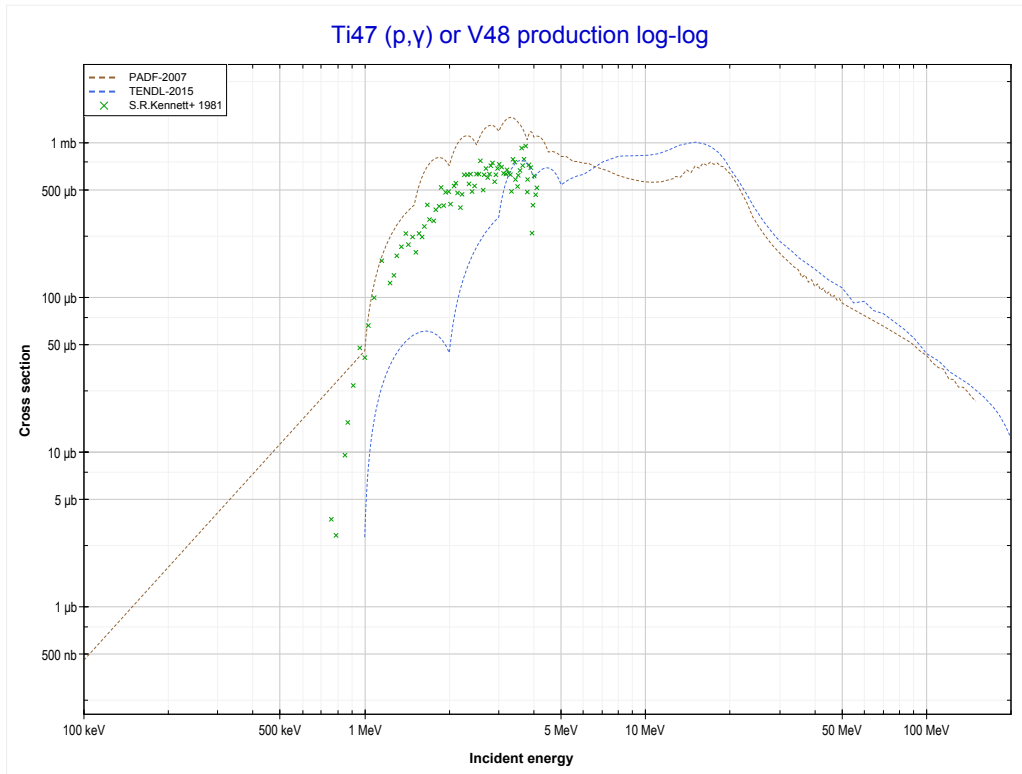
Reaction	Q-Value
Ti46(p, α)Sc43	-3074.85 keV
Ti46(p,p+t)Sc43	-22888.71 keV
Ti46(p,n+He3)Sc43	-23652.46 keV
Ti46(p,2d)Sc43	-26921.37 keV
Ti46(p,n+p+d)Sc43	-29145.94 keV
Ti46(p,2n+2p)Sc43	-31370.50 keV

<< 21-Sc-45	22-Ti-47	22-Ti-48 >>
<< 22-Ti-46 MT107 (p, α)	MT4 (p,n) or MT5 (V47 production)	MT102 (p, γ) >>



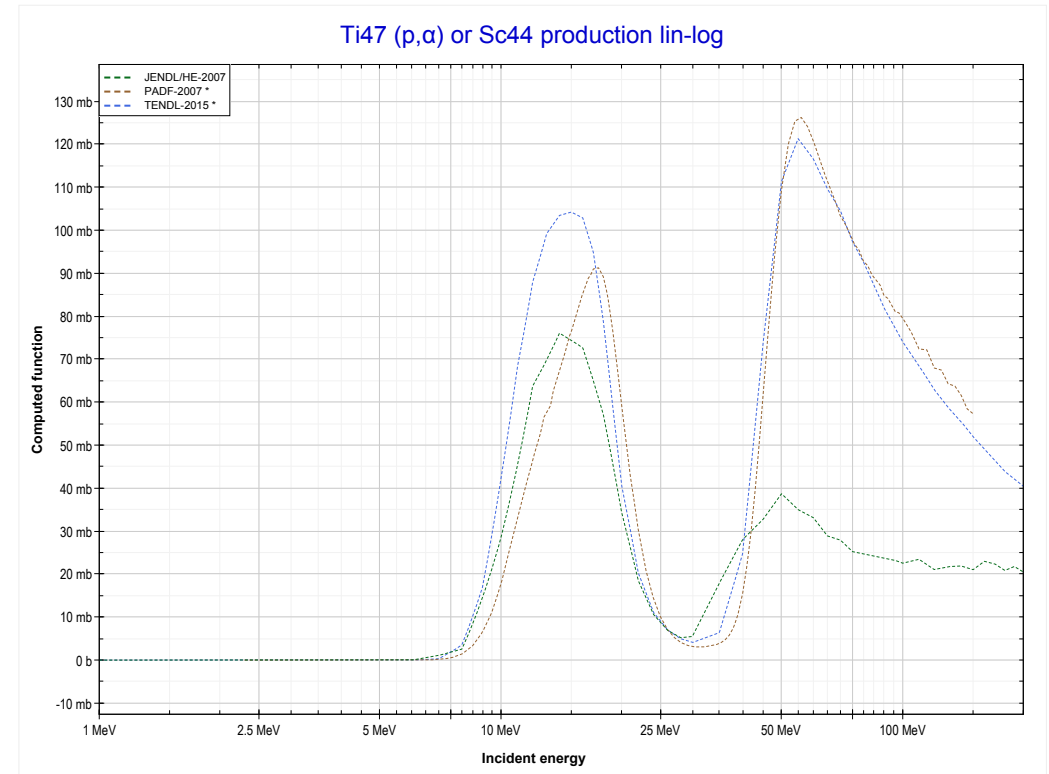
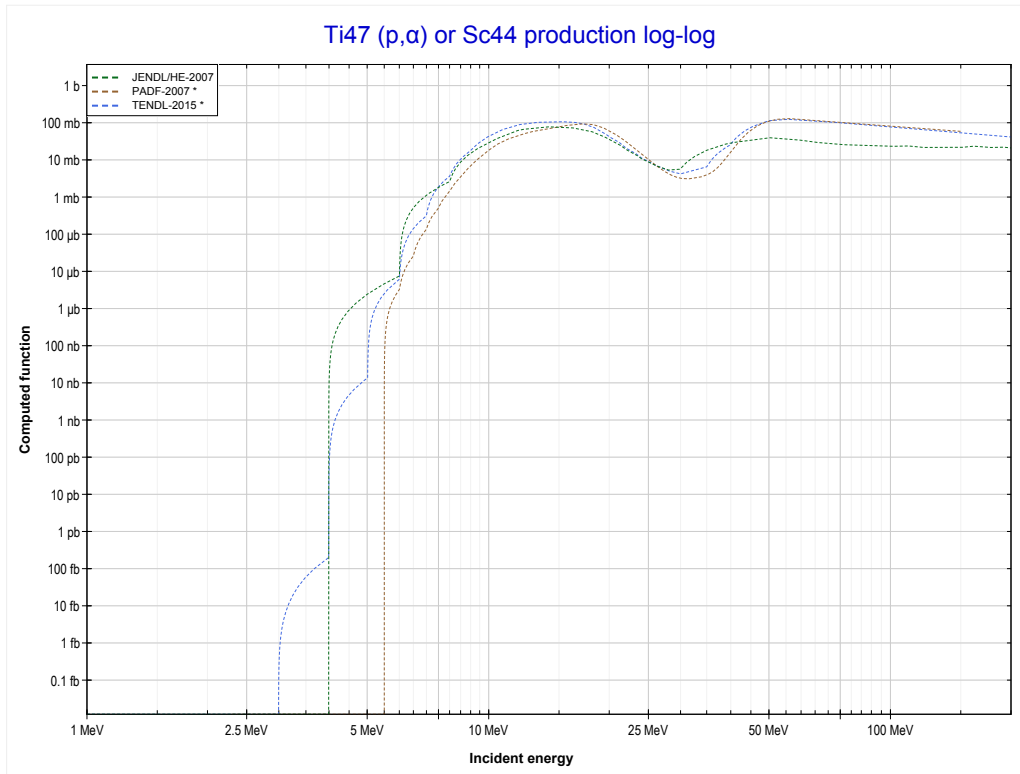
Reaction	Q-Value
Ti47(p,n)V47	-3712.95 keV

<< 22-Ti-46	22-Ti-47	22-Ti-48 >>
<< MT4 (p,n)	MT102 (p,γ) or MT5 (V48 production)	MT107 (p, α) >>



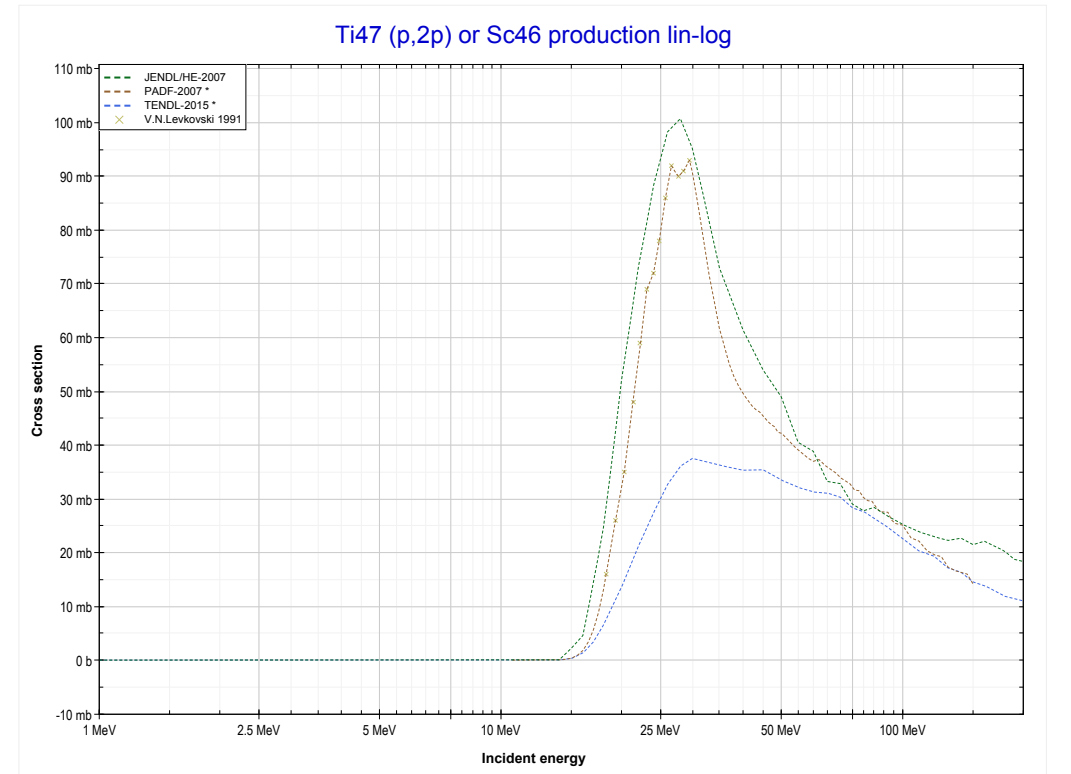
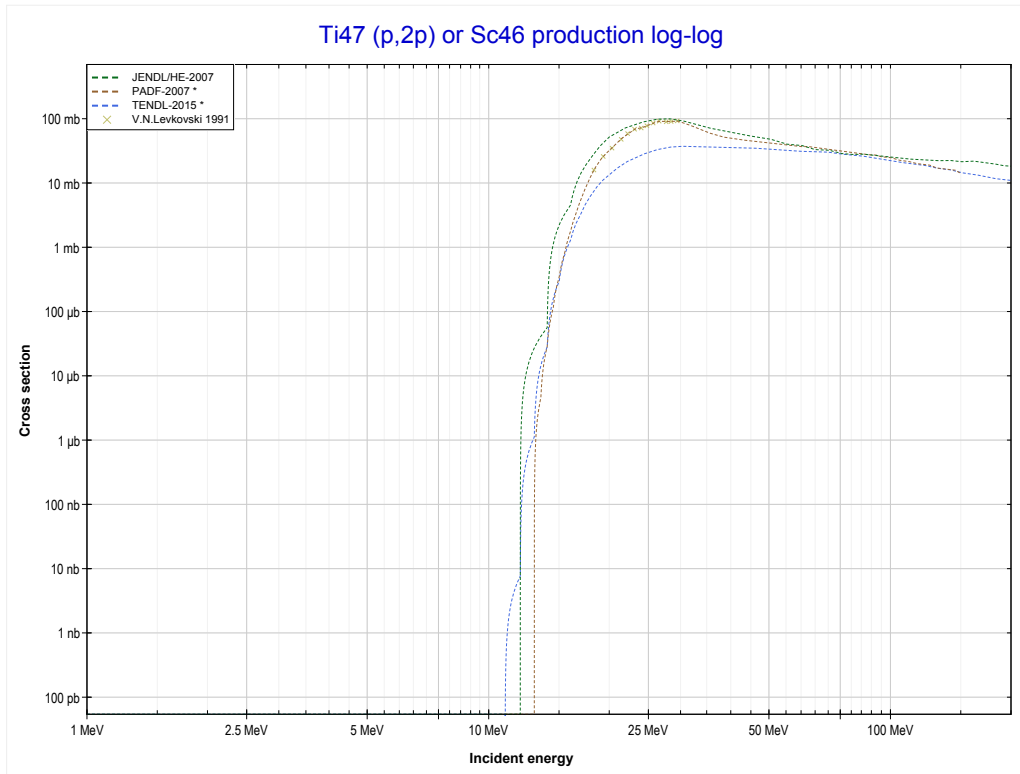
Reaction	Q-Value
Ti47(p, γ)V48	6829.37 keV

<< 22-Ti-46	22-Ti-47	22-Ti-49 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Sc44 production)	MT111 (p,2p) >>



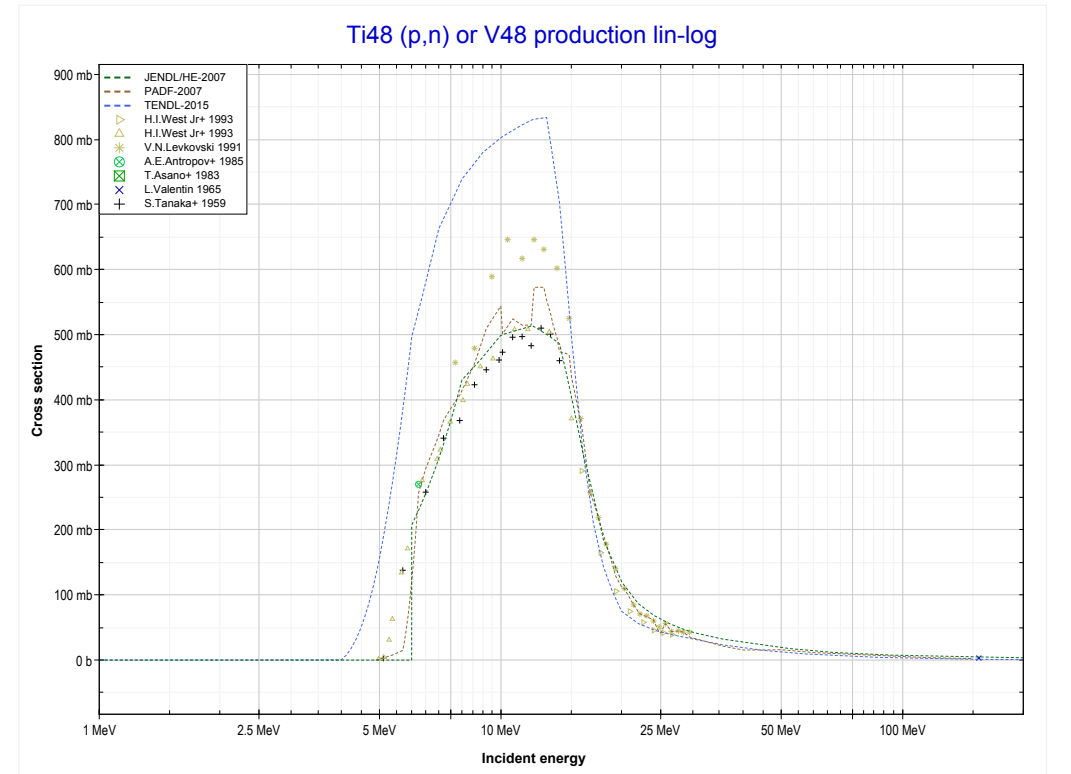
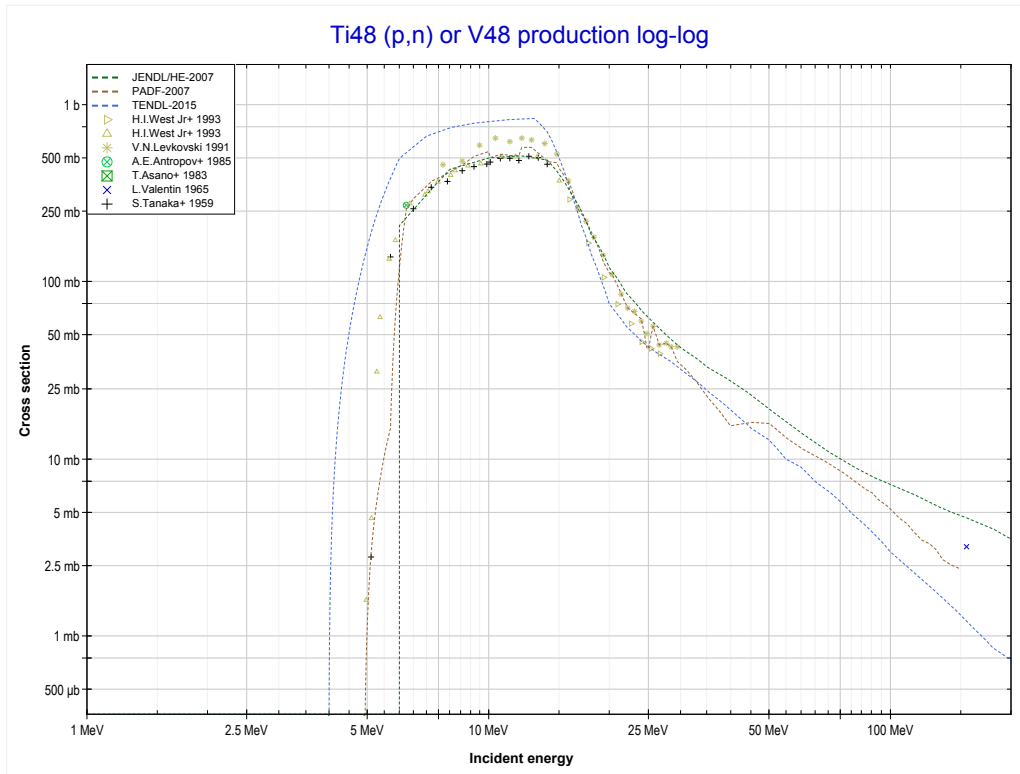
Reaction	Q-Value
Ti47(p, α)Sc44	-2256.35 keV
Ti47(p,p+t)Sc44	-22070.21 keV
Ti47(p,n+He3)Sc44	-22833.96 keV
Ti47(p,2d)Sc44	-26102.87 keV
Ti47(p,n+p+d)Sc44	-28327.44 keV
Ti47(p,2n+2p)Sc44	-30552.00 keV

<< 20-Ca-44	22-Ti-47	22-Ti-48 >>
<< MT107 (p, α)	MT111 (p,2p) or MT5 (Sc46 production)	22-Ti-48 MT4 (p,n) >>



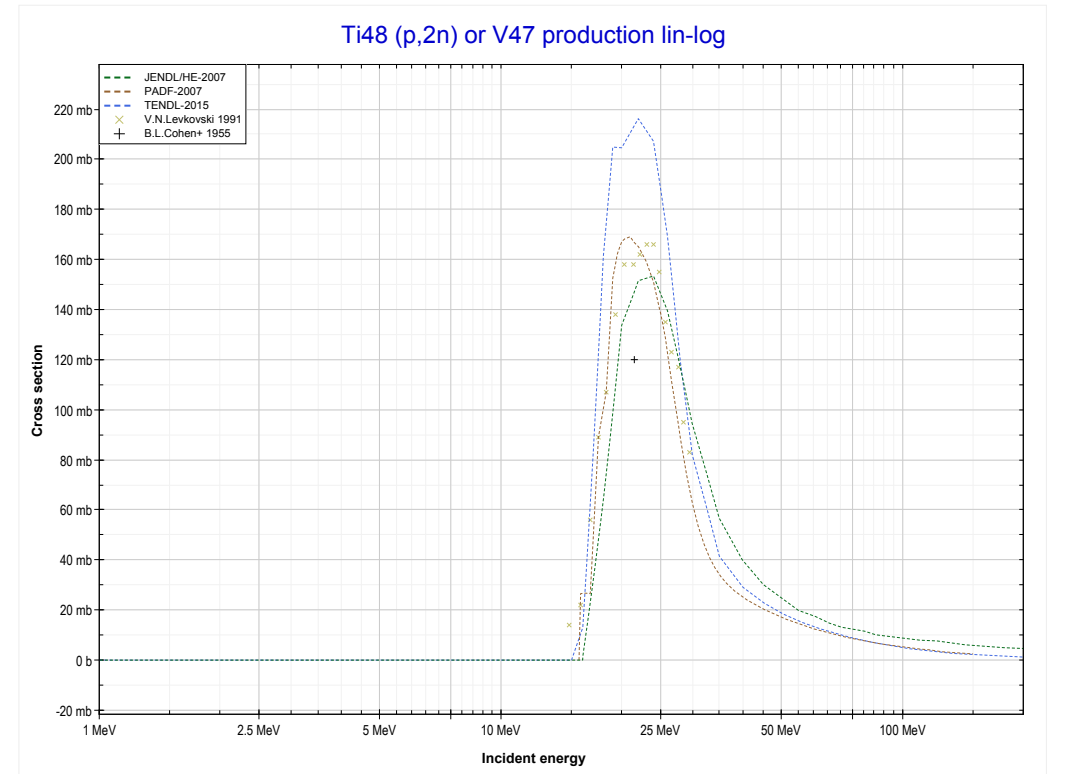
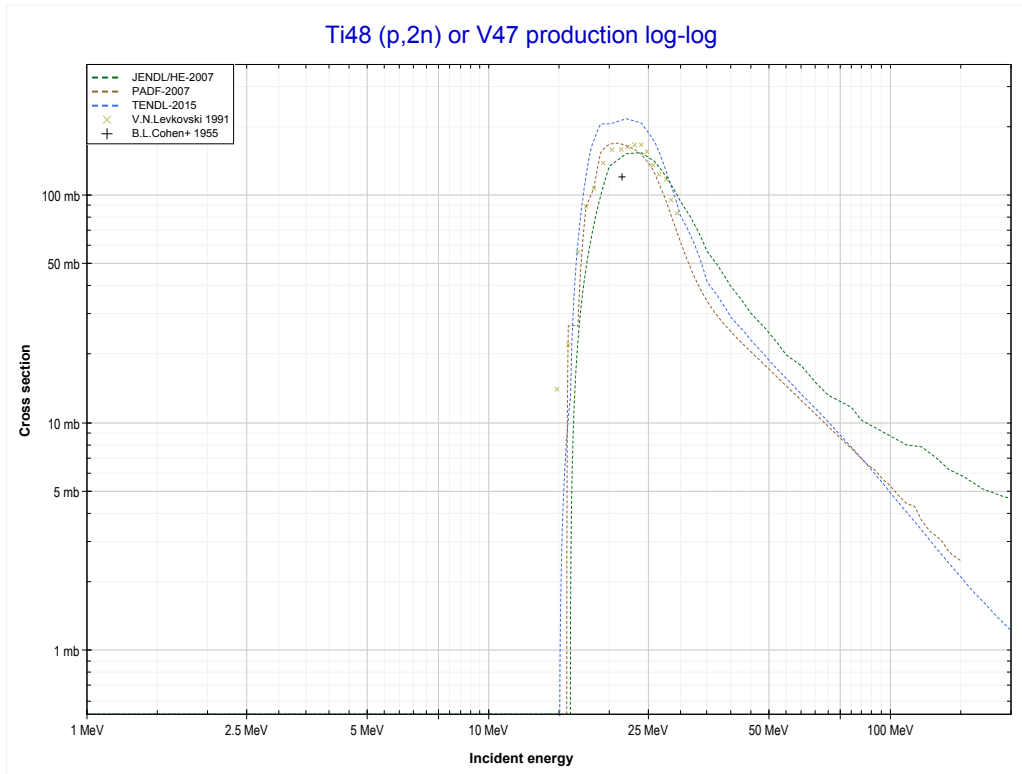
Reaction	Q-Value
Ti47(p,2p)Sc46	-10464.87 keV

<< 22-Ti-47	22-Ti-48	22-Ti-49 >>
<< 22-Ti-47 MT111 (p,2p)	MT4 (p,n) or MT5 (V48 production)	MT16 (p,2n) >>



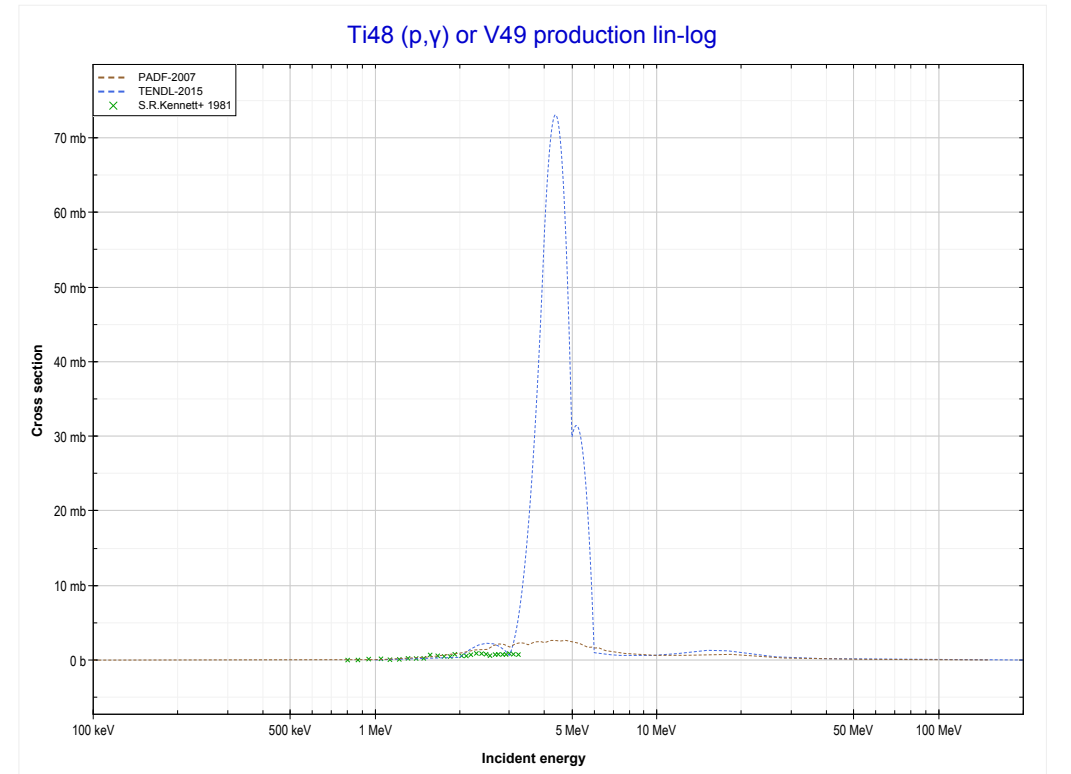
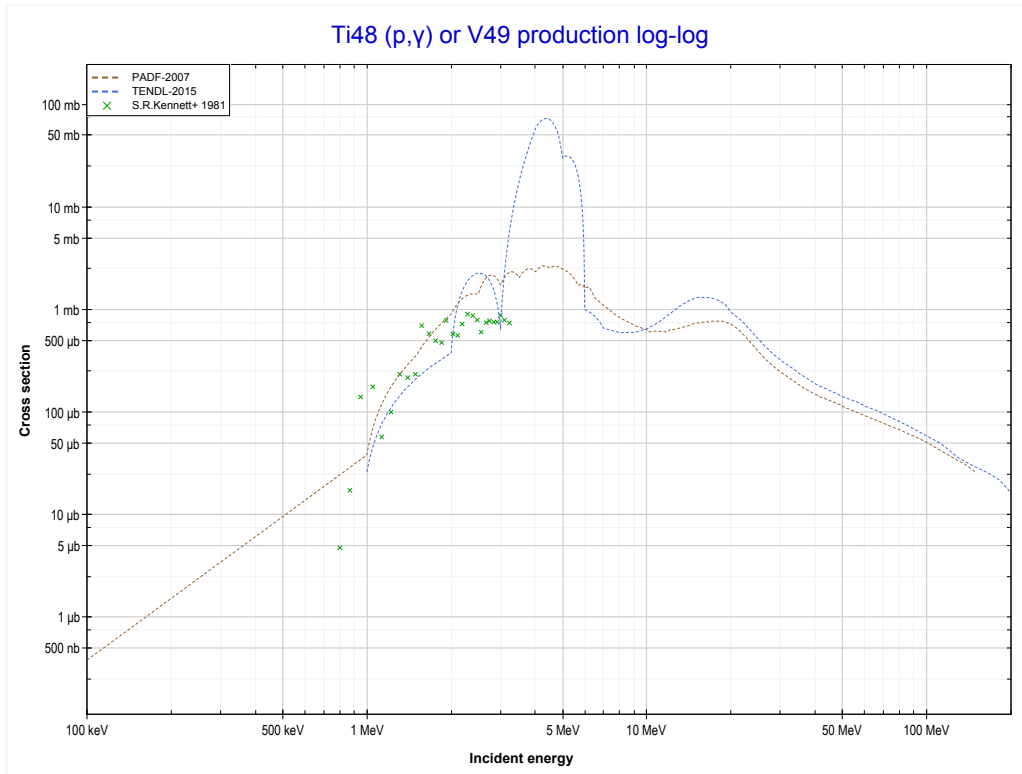
Reaction	Q-Value
Ti48(p,n)V48	-4797.25 keV

<< 21-Sc-45	22-Ti-48	22-Ti-49 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (V47 production)	MT102 (p, γ) >>



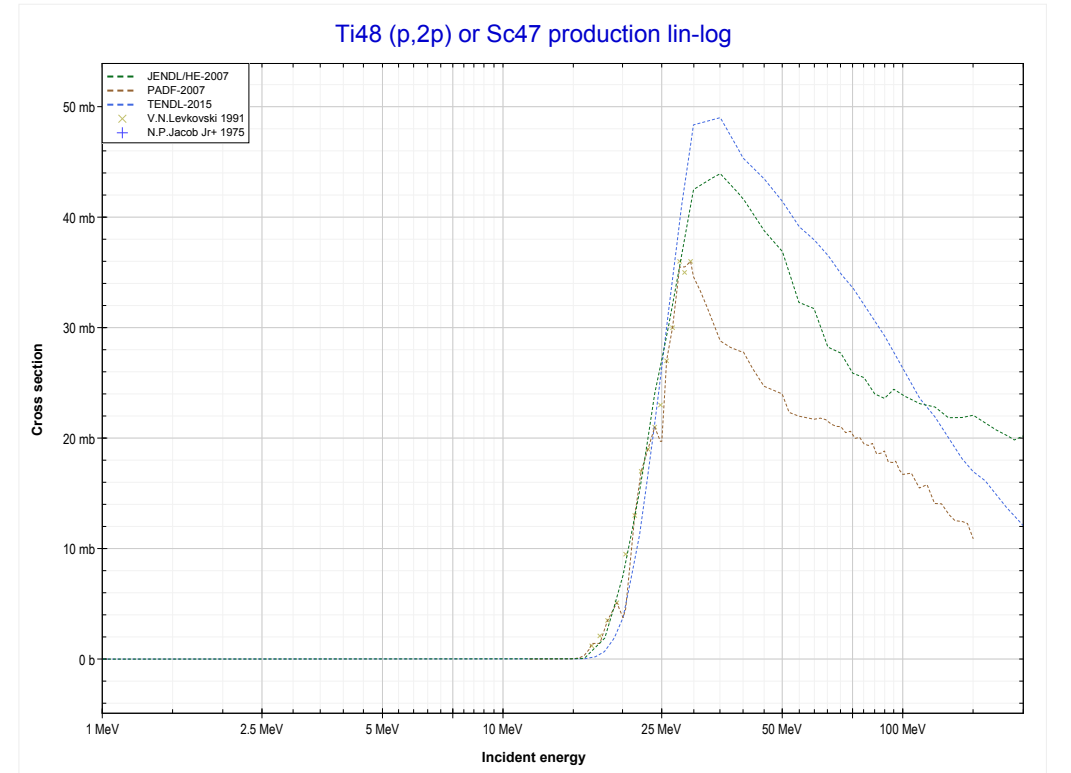
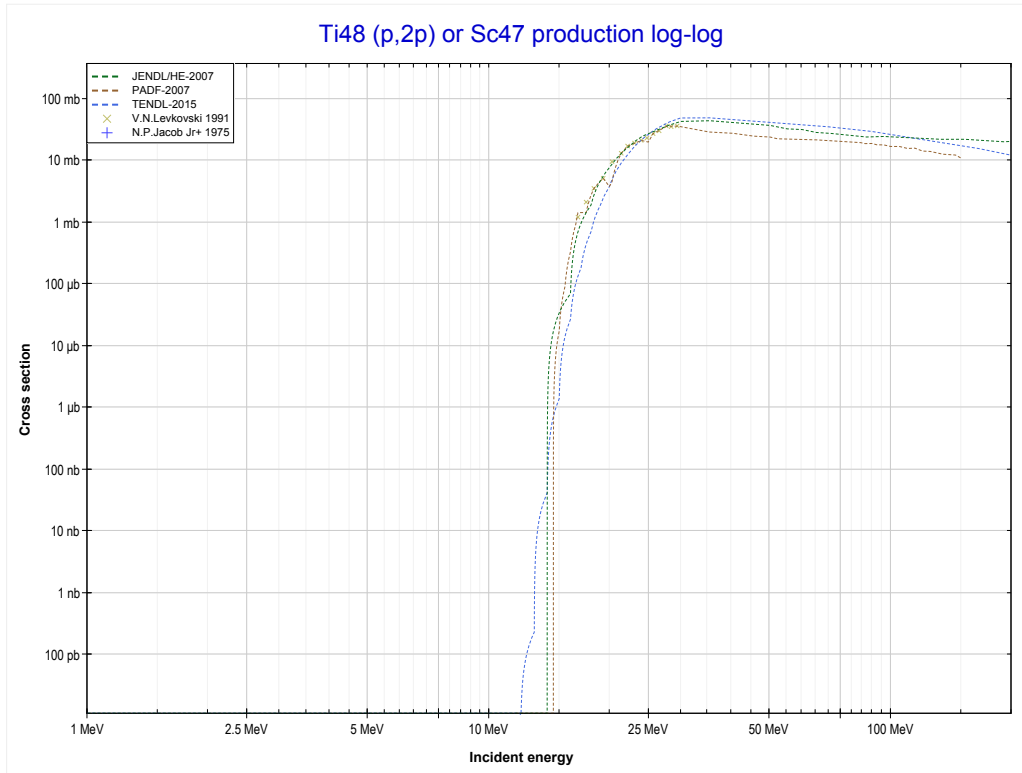
Reaction	Q-Value
Ti48(p,2n)V47	-15339.56 keV

<< 22-Ti-47	22-Ti-48	22-Ti-49 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (V49 production)	MT111 (p,2p) >>



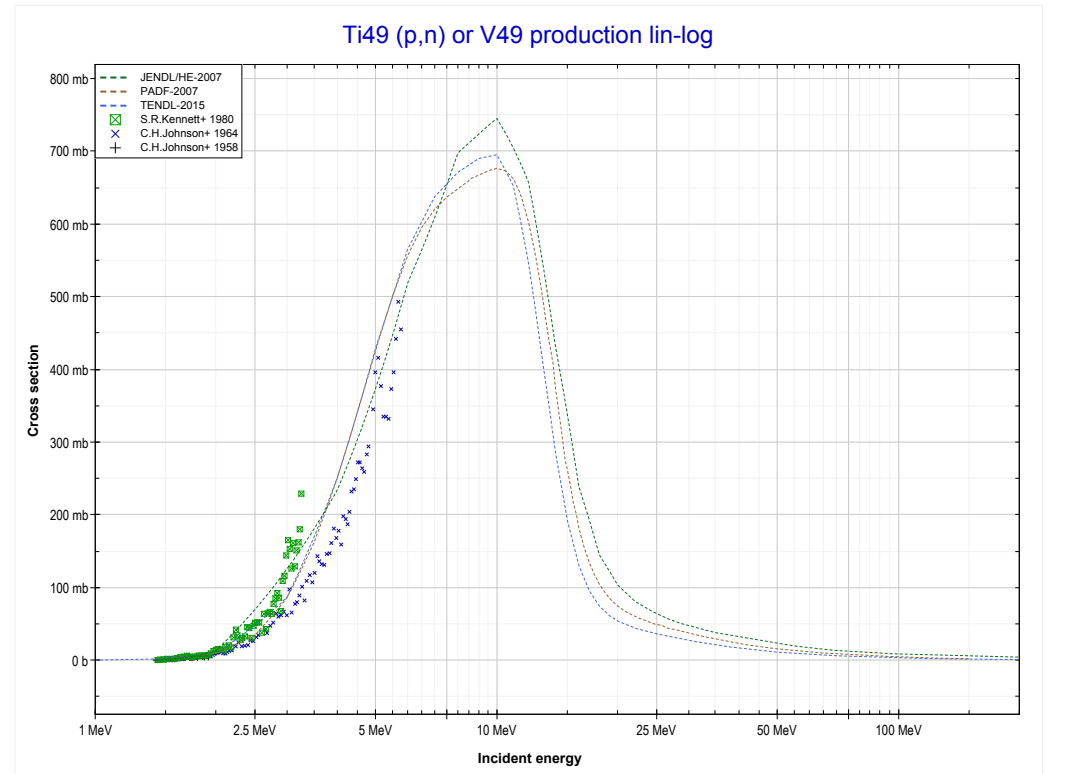
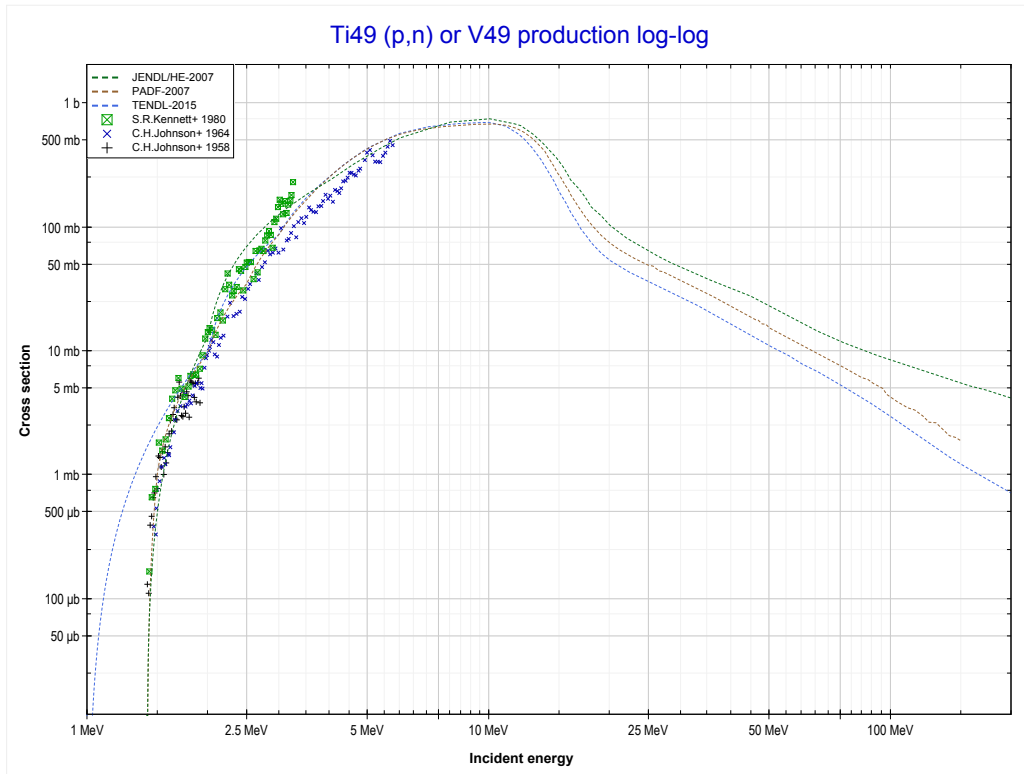
Reaction	Q-Value
Ti48(p, γ)V49	6758.27 keV

<< 22-Ti-47	22-Ti-48	22-Ti-49 >>
<< MT102 (p, γ)	MT111 (p,2p) or MT5 (Sc47 production)	22-Ti-49 MT4 (p,n) >>



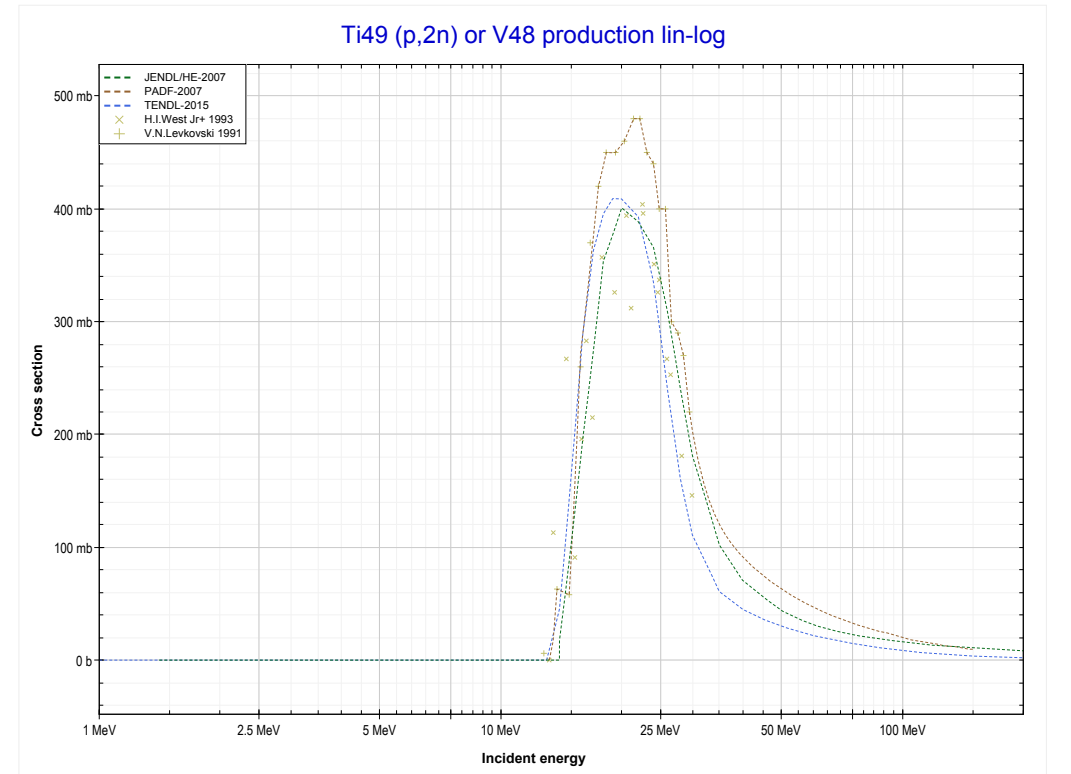
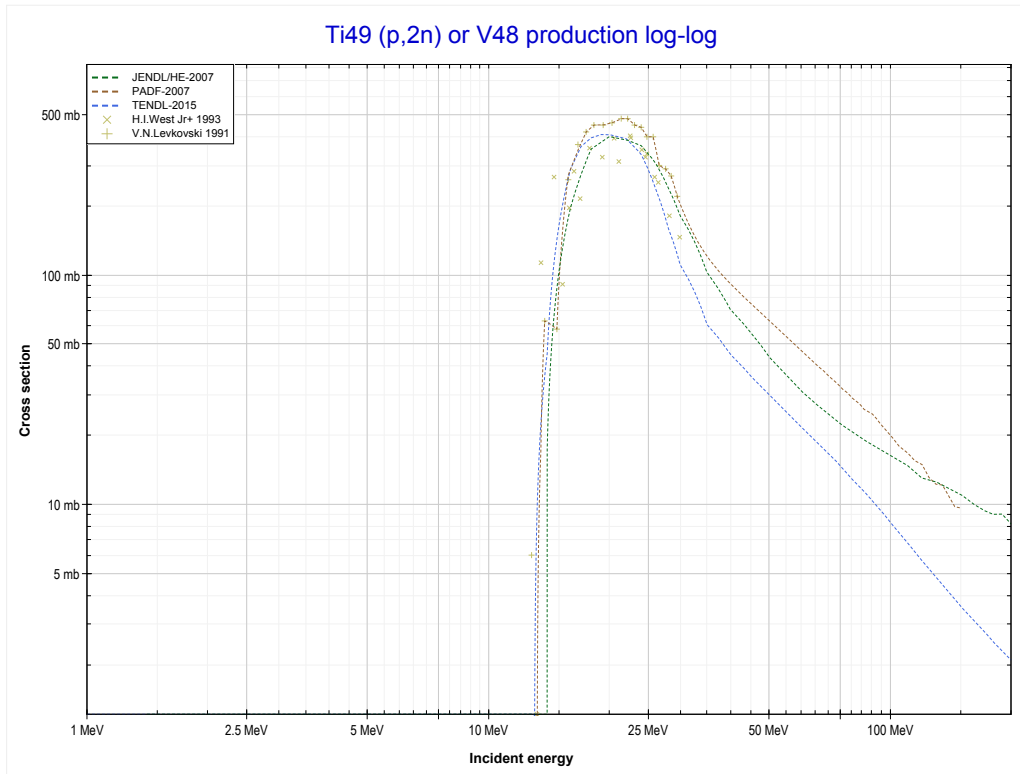
Reaction	Q-Value
Ti48(p,2p)Sc47	-11445.07 keV

<< 22-Ti-48	22-Ti-49	22-Ti-50 >>
<< 22-Ti-48 MT111 (p,2p)	MT4 (p,n) or MT5 (V49 production)	MT16 (p,2n) >>



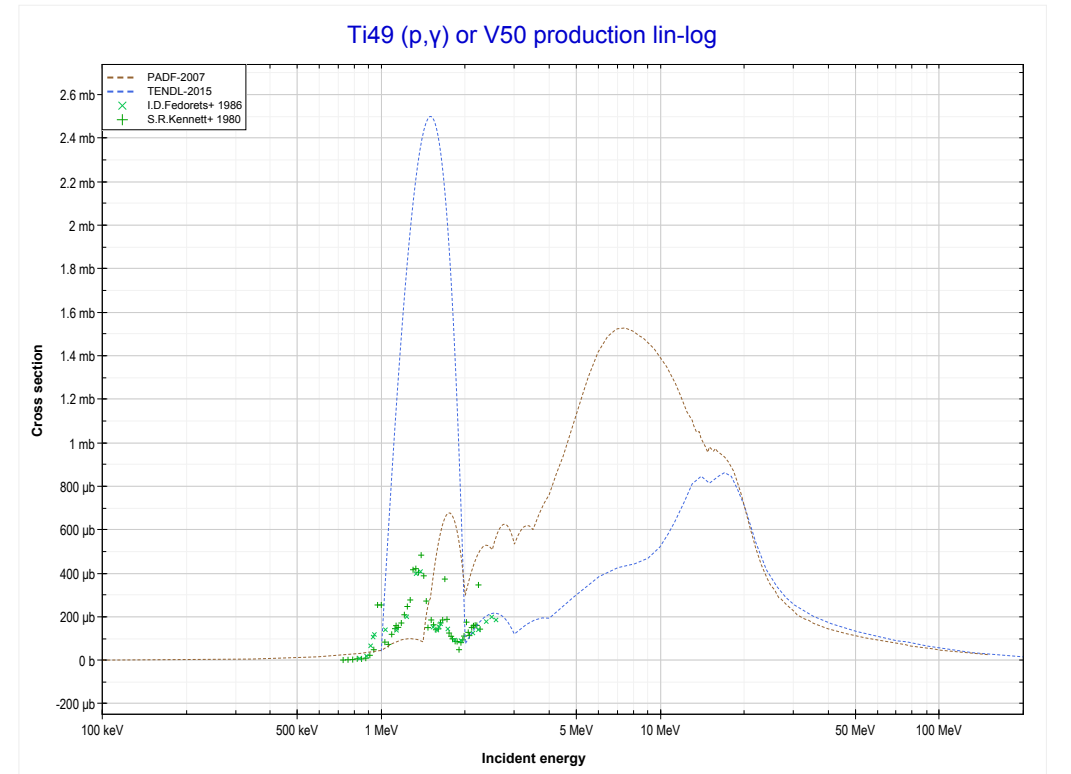
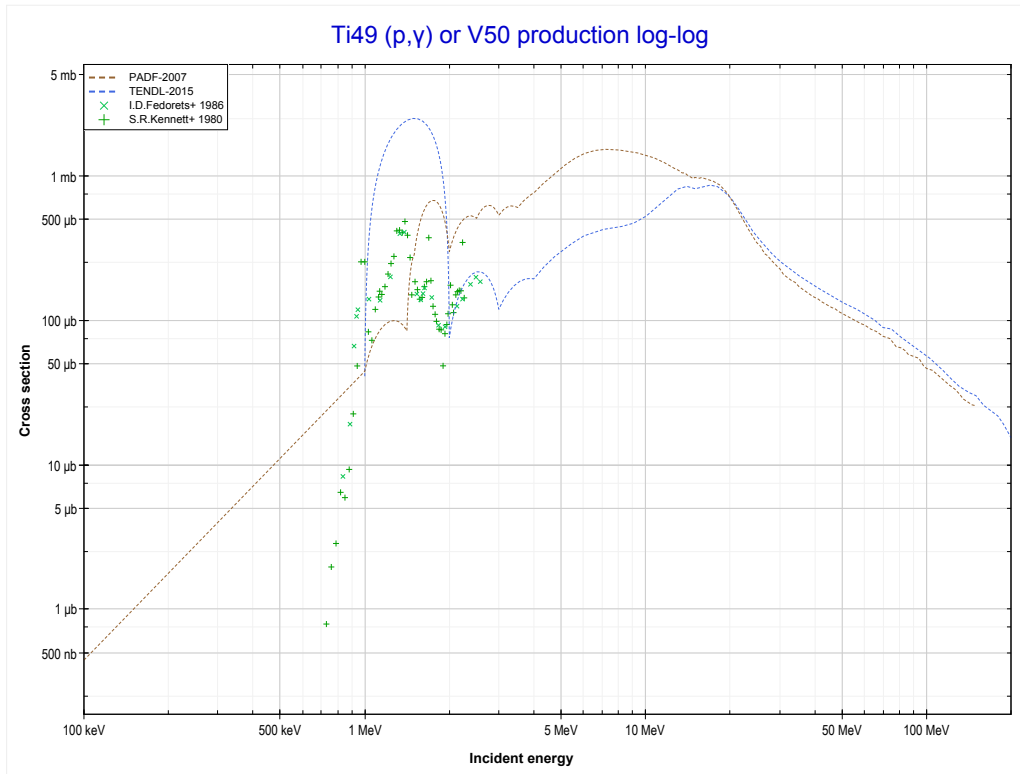
Reaction	Q-Value
Ti49(p,n)V49	-1384.15 keV

<< 22-Ti-48	22-Ti-49	24-Cr-52 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (V48 production)	MT102 (p, γ) >>



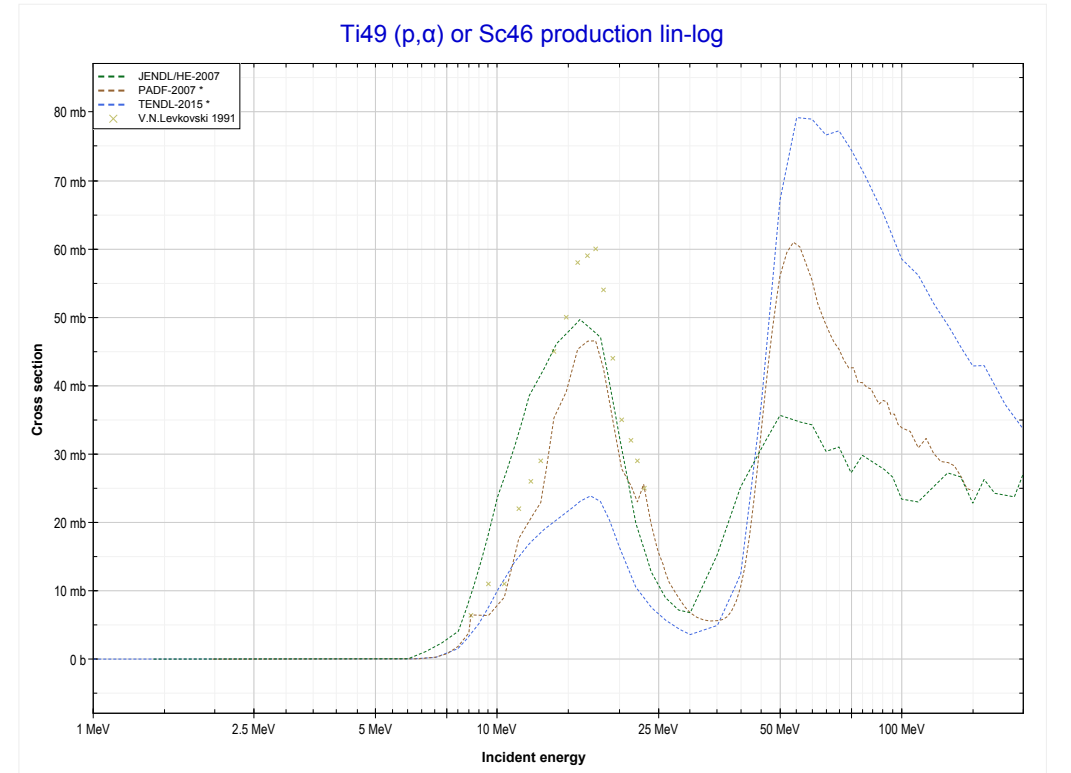
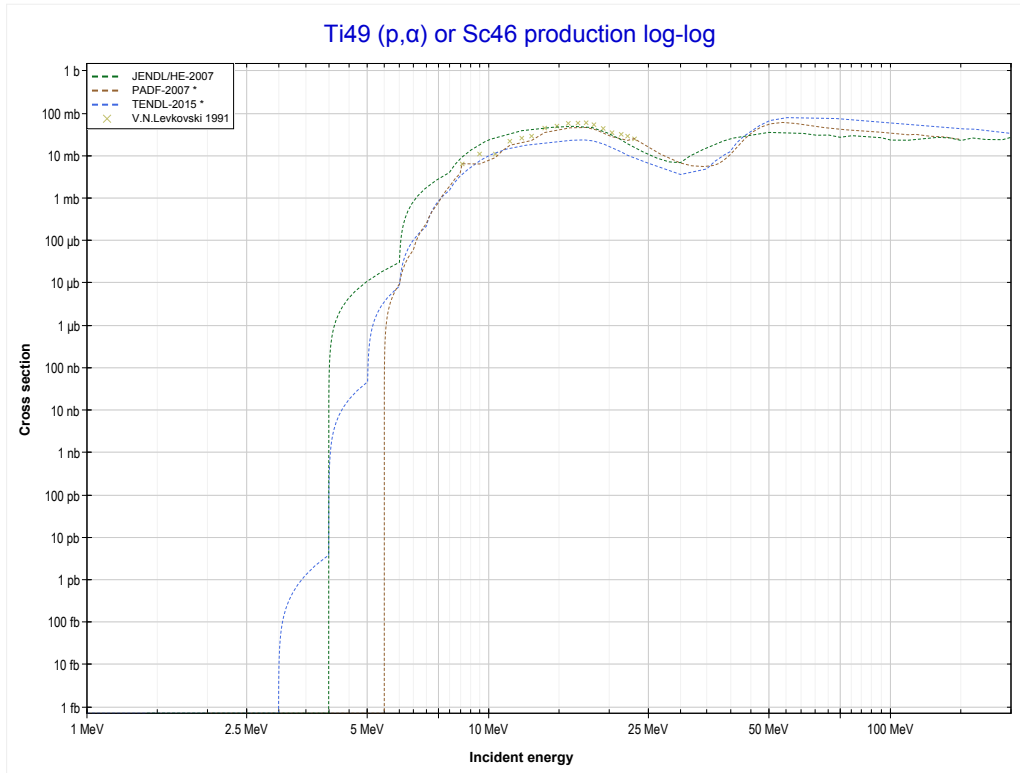
Reaction	Q-Value
Ti49(p,2n)V48	-12939.66 keV

<< 22-Ti-48	22-Ti-49	22-Ti-50 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (V50 production)	MT107 (p, α) >>



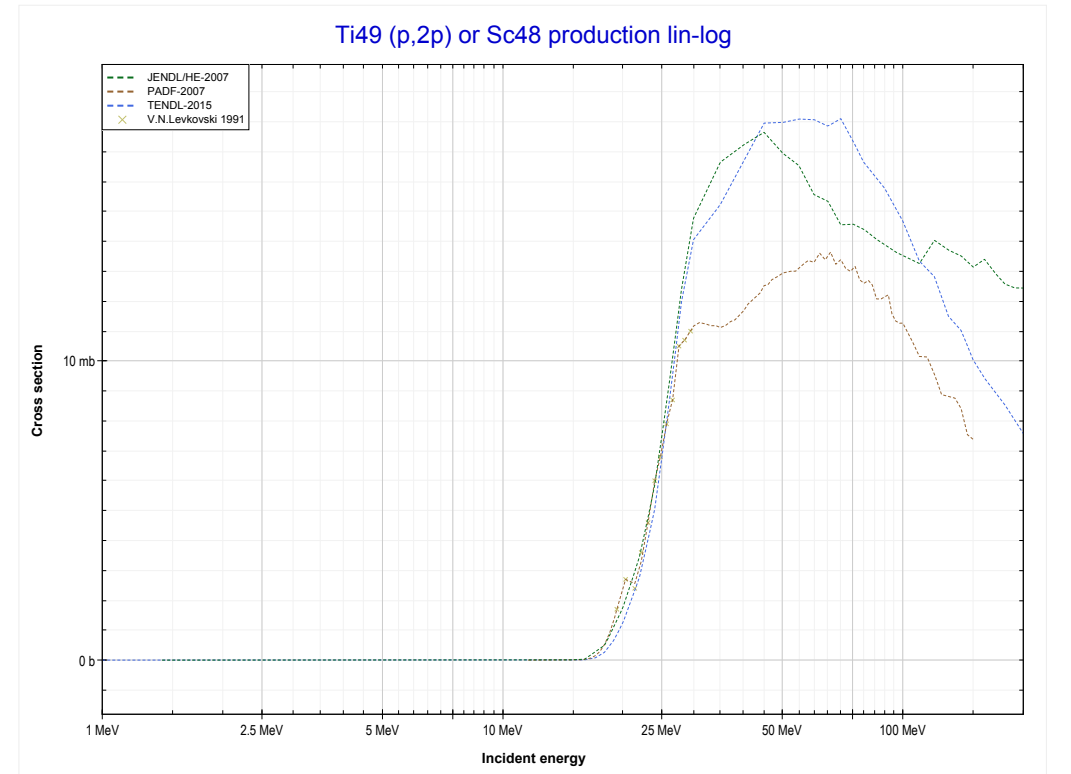
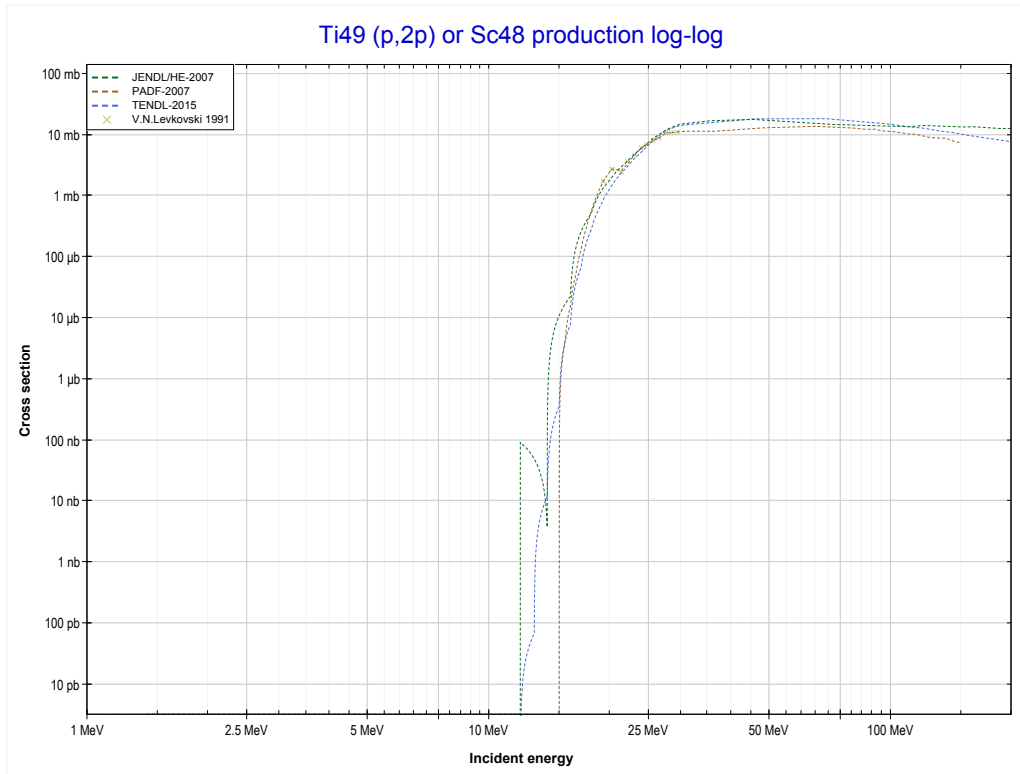
Reaction	Q-Value
Ti49(p, γ)V50	7950.07 keV

<< 22-Ti-47	22-Ti-49	22-Ti-50 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Sc46 production)	MT111 (p,2p) >>



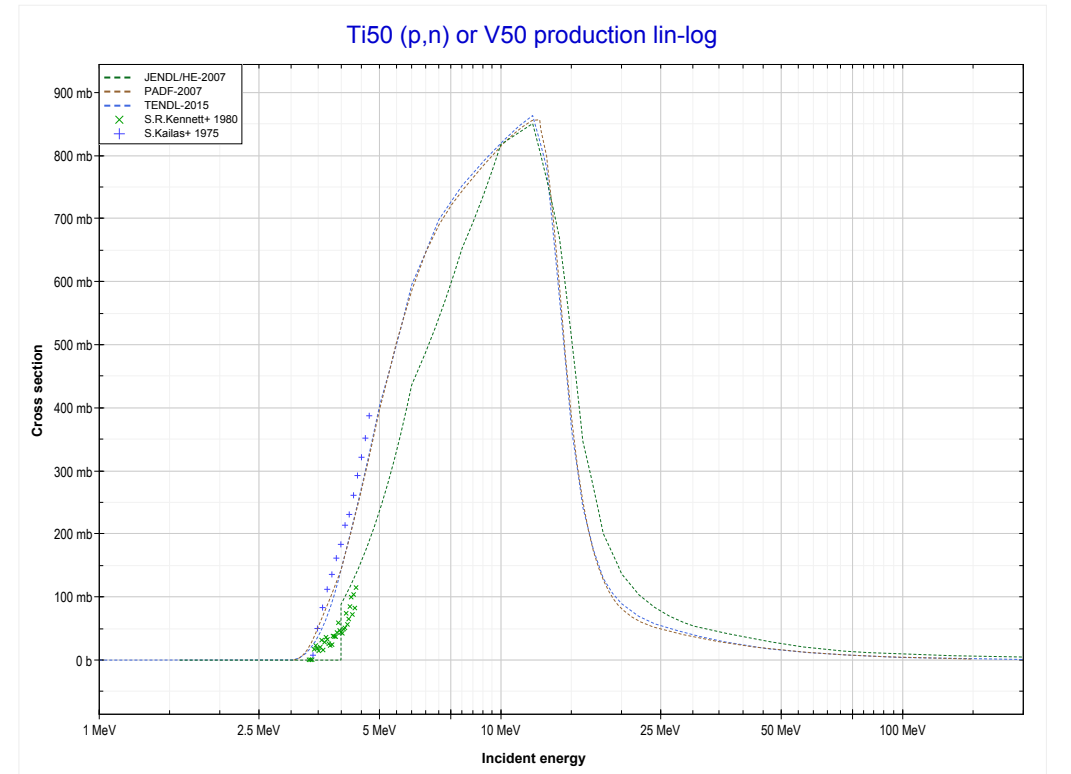
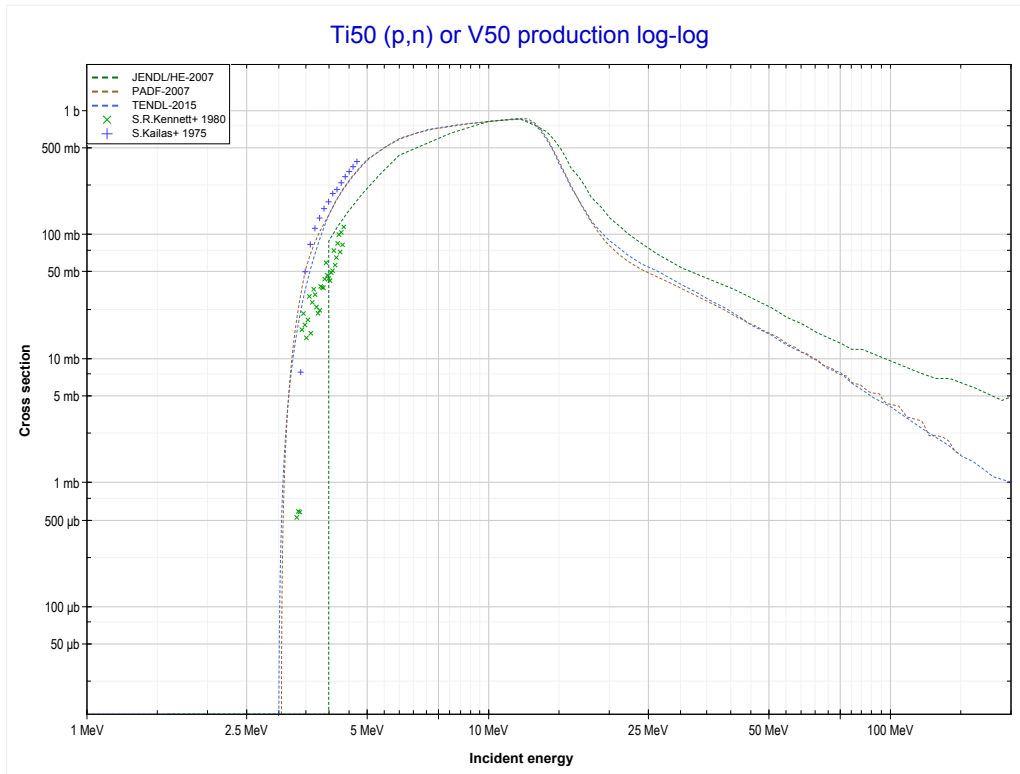
Reaction	Q-Value
Ti49(p, α)Sc46	-1938.25 keV
Ti49(p,p+t)Sc46	-21752.11 keV
Ti49(p,n+He3)Sc46	-22515.86 keV
Ti49(p,2d)Sc46	-25784.77 keV
Ti49(p,n+p+d)Sc46	-28009.34 keV
Ti49(p,2n+2p)Sc46	-30233.90 keV

<< 22-Ti-48	22-Ti-49	26-Fe-57 >>
<< MT107 (p, α)	MT111 (p,2p) or MT5 (Sc48 production)	22-Ti-50 MT4 (p,n) >>



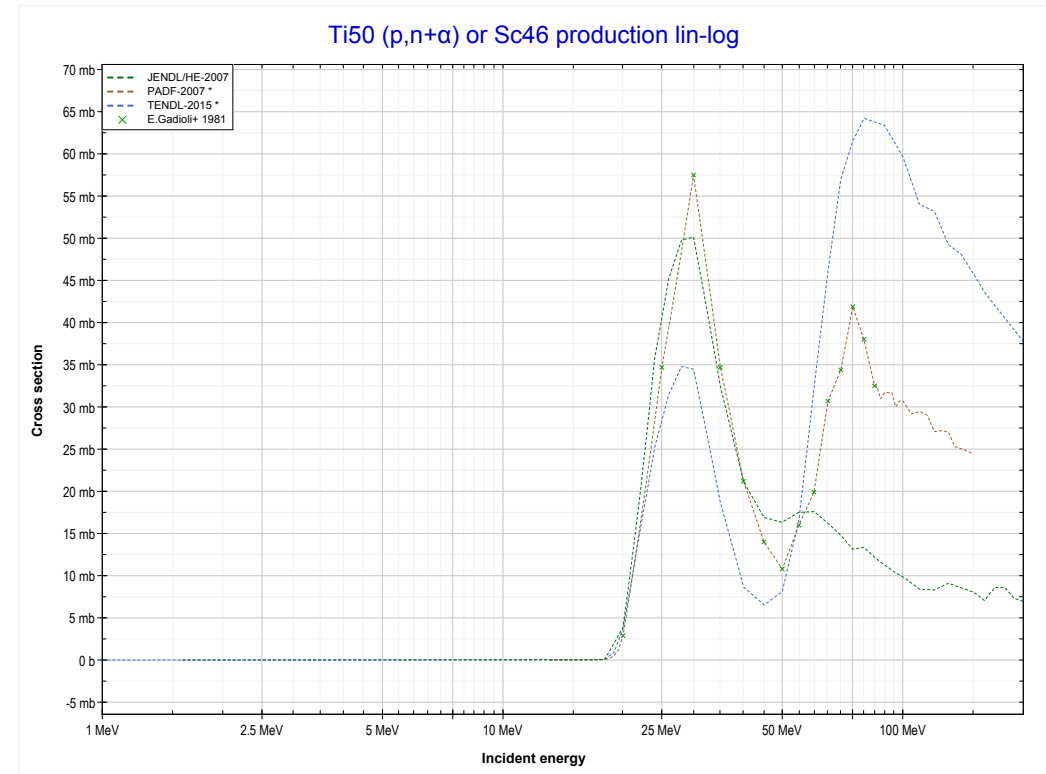
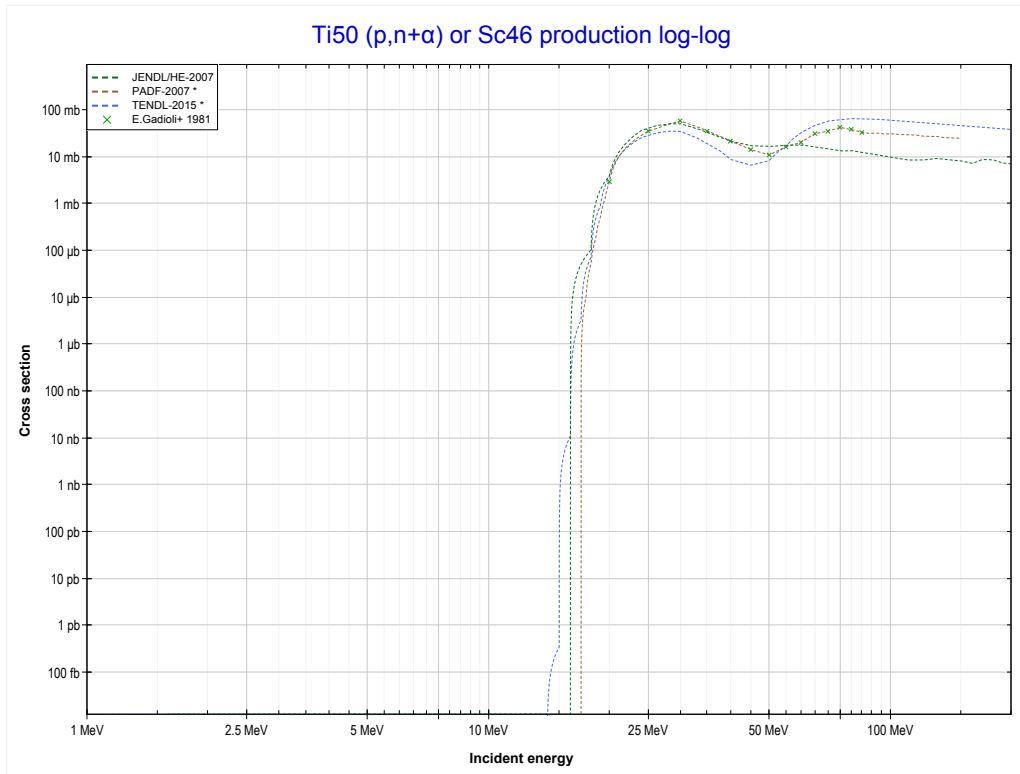
Reaction	Q-Value
Ti49(p,2p)Sc48	-11348.77 keV

<< 22-Ti-49	22-Ti-50	23-V-51 >>
<< 22-Ti-49 MT111 (p,2p)	MT4 (p,n) or MT5 (V50 production)	MT22 (p,n+α) >>



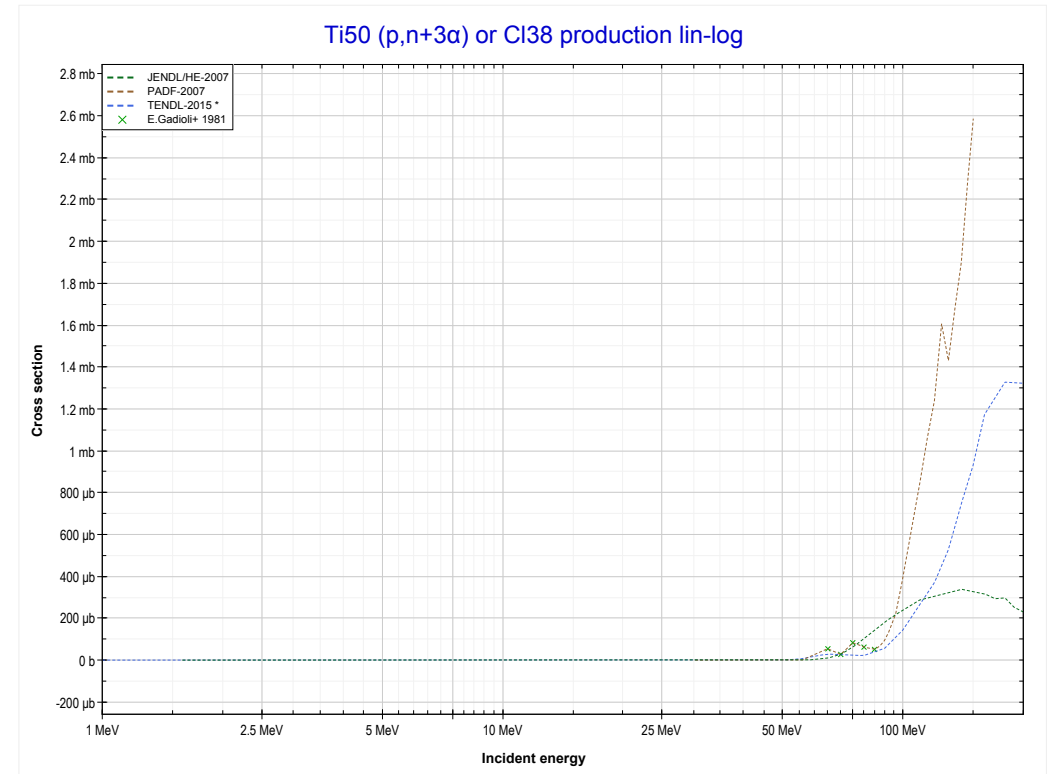
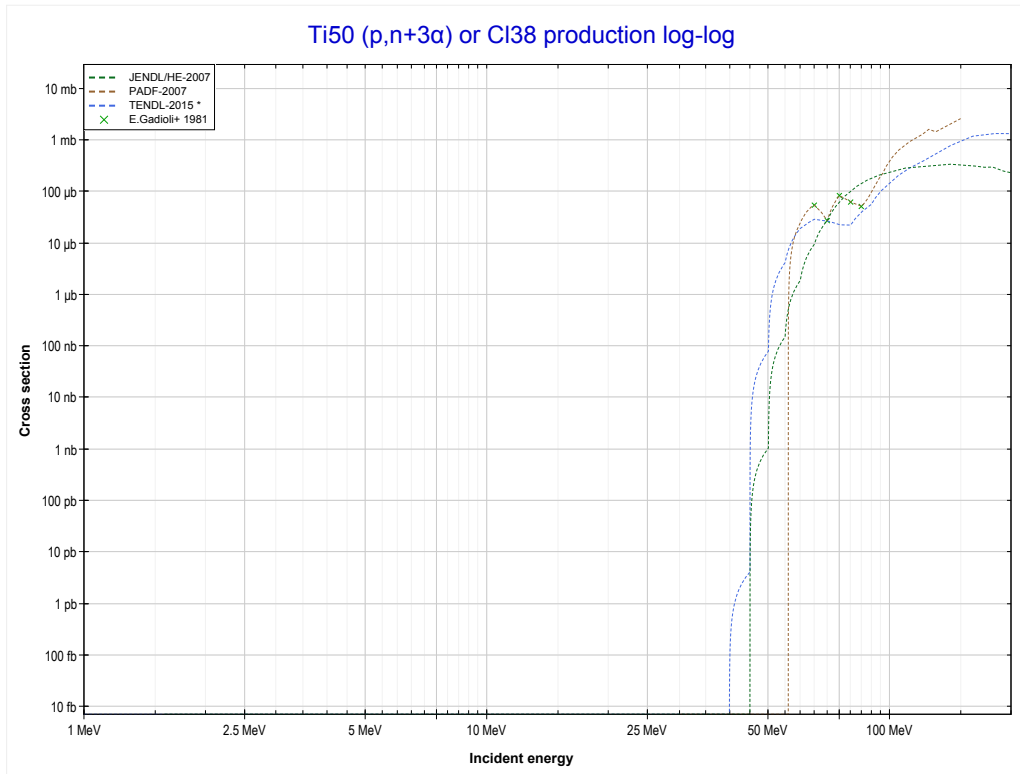
Reaction	Q-Value
Ti50(p,n)V50	-2989.15 keV

<< 7-N-15	22-Ti-50	28-Ni-62 >>
<< MT4 (p,n)	MT22 (p,n+α) or MT5 (Sc46 production)	MT23 (p,n+3α) >>



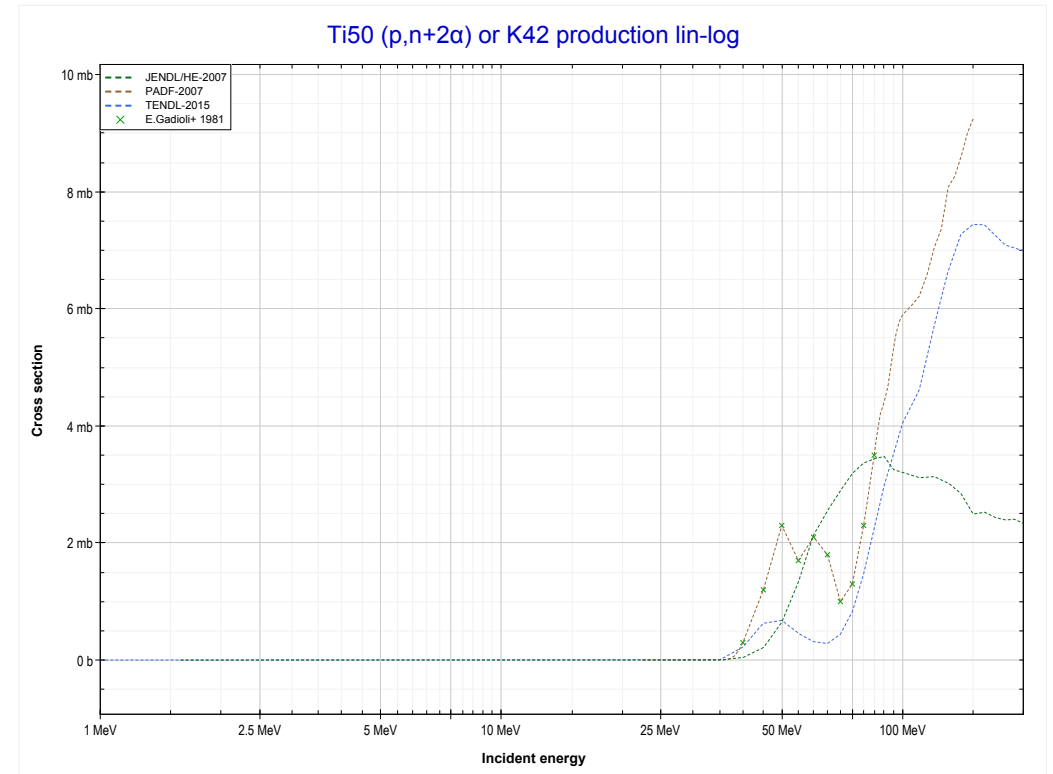
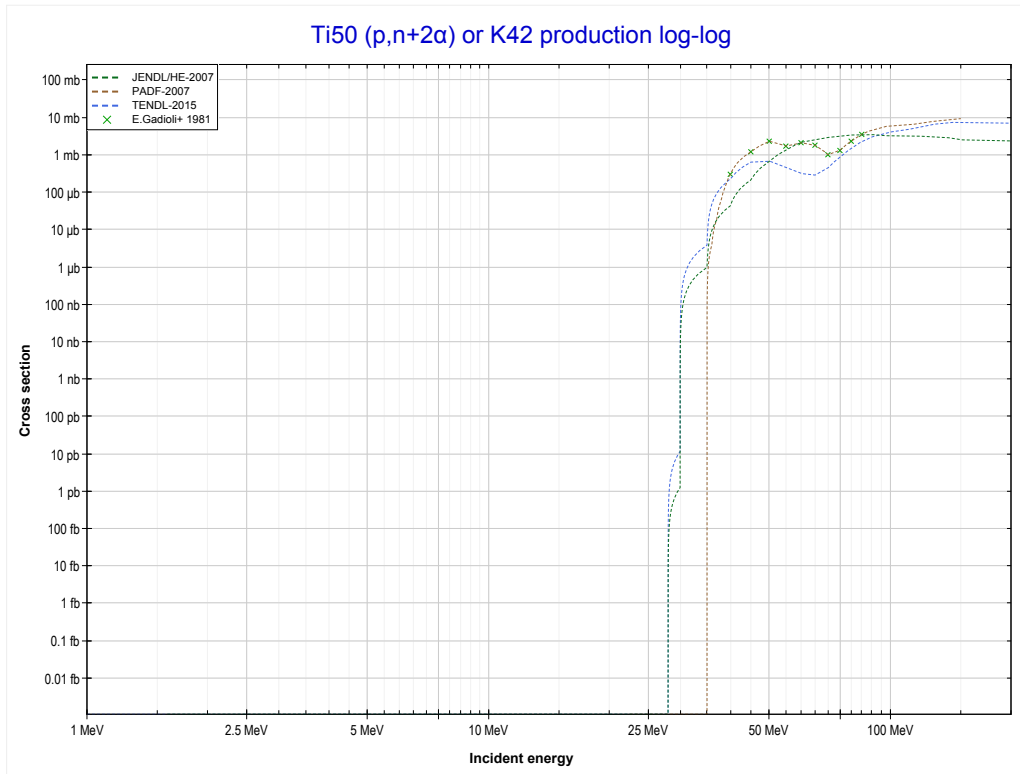
Reaction	Q-Value
Ti50(p,n+α)Sc46	-12877.46 keV
Ti50(p,d+t)Sc46	-30466.76 keV
Ti50(p,n+p+t)Sc46	-32691.32 keV
Ti50(p,2n+He3)Sc46	-33455.08 keV
Ti50(p,n+2d)Sc46	-36723.99 keV
Ti50(p,2n+p+d)Sc46	-38948.56 keV
Ti50(p,3n+2p)Sc46	-41173.12 keV

22-Ti-50		
<< MT22 (p,n+α)	MT23 (p,n+3α) or MT5 (Cl38 production)	MT29 (p,n+2α) >>



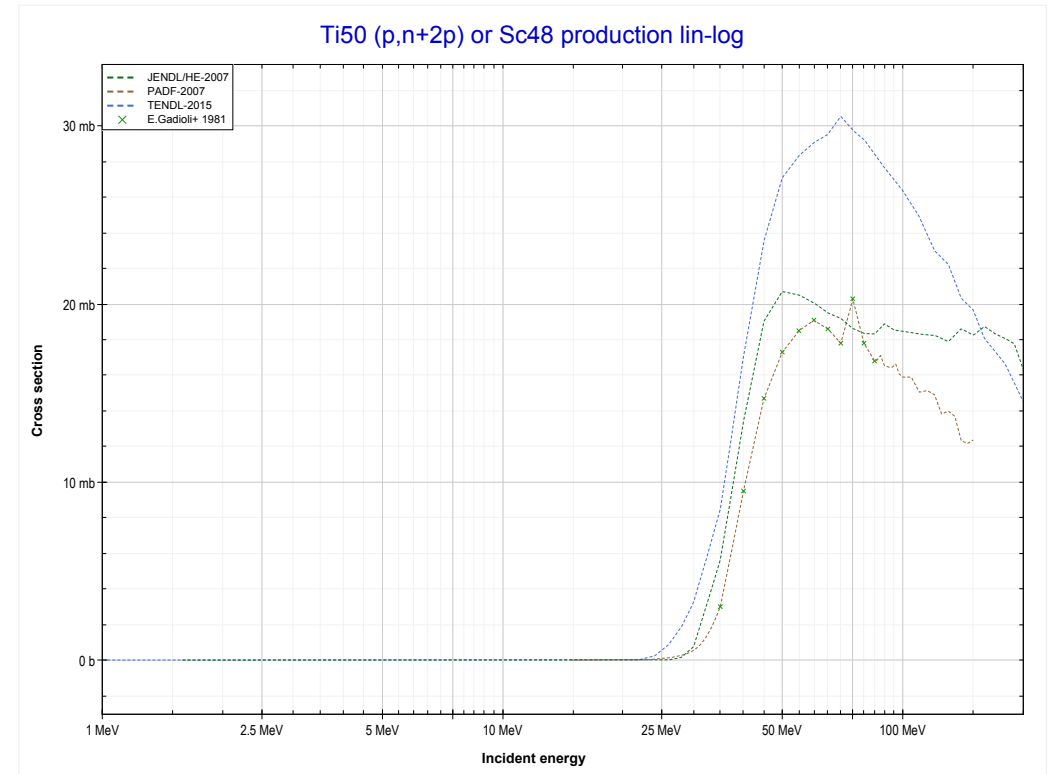
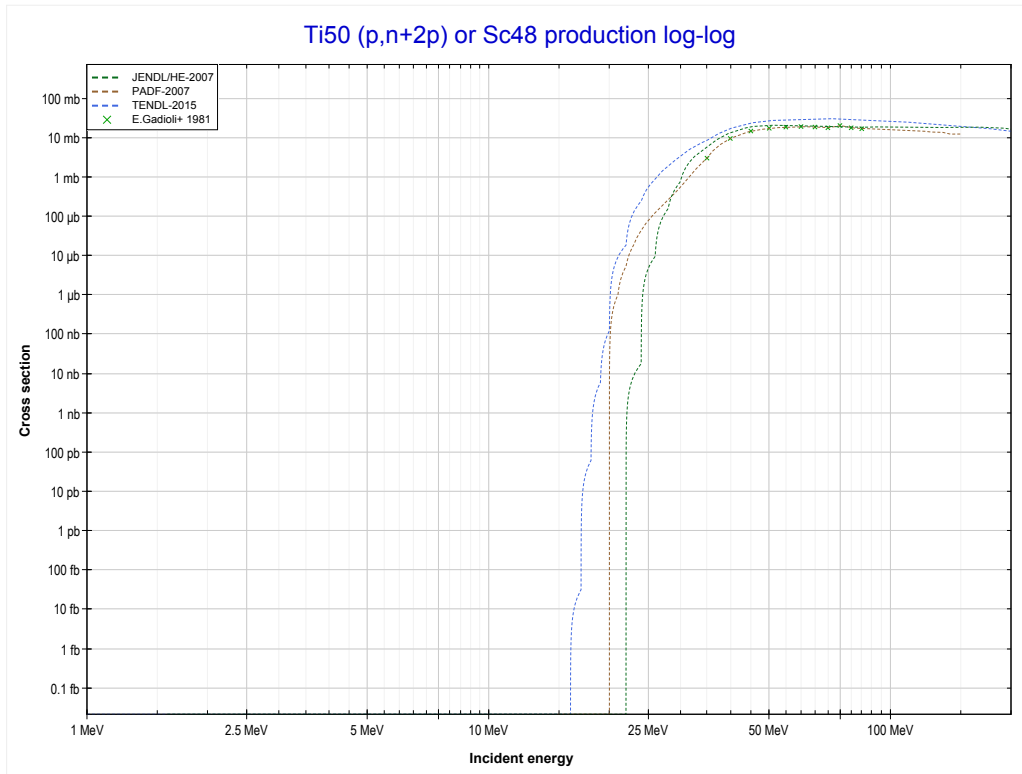
Reaction	Q-Value	Reaction	Q-Value
Ti50(p,n+3α)Cl38	-29689.70 keV	Ti50(p,p+d+2t+α)Cl38	-67092.86 keV
Ti50(p,d+t+2α)Cl38	-47279.00 keV	Ti50(p,n+d+t+He3+α)Cl38	-67856.62 keV
Ti50(p,n+p+t+2α)Cl38	-49503.56 keV	Ti50(p,n+2p+2t+α)Cl38	-69317.43 keV
Ti50(p,2n+He3+2α)Cl38	-50267.32 keV	Ti50(p,2n+p+t+He3+α)Cl38	-70081.18 keV
Ti50(p,n+2d+2α)Cl38	-53536.23 keV	Ti50(p,3n+2He3+α)Cl38	-70844.94 keV
Ti50(p,2n+p+d+2α)Cl38	-55760.80 keV	Ti50(p,3d+t+α)Cl38	-71125.53 keV
Ti50(p,3n+2p+2α)Cl38	-57985.36 keV	Ti50(p,n+p+2d+t+α)Cl38	-73350.09 keV
Ti50(p,2t+He3+α)Cl38	-61599.38 keV	Ti50(p,2n+2d+He3+α)Cl38	-74113.85 keV

22-Ti-50		
<< MT23 (p,n+3 α)	MT29 (p,n+2α) or MT5 (K42 production)	MT44 (p,n+2p) >>



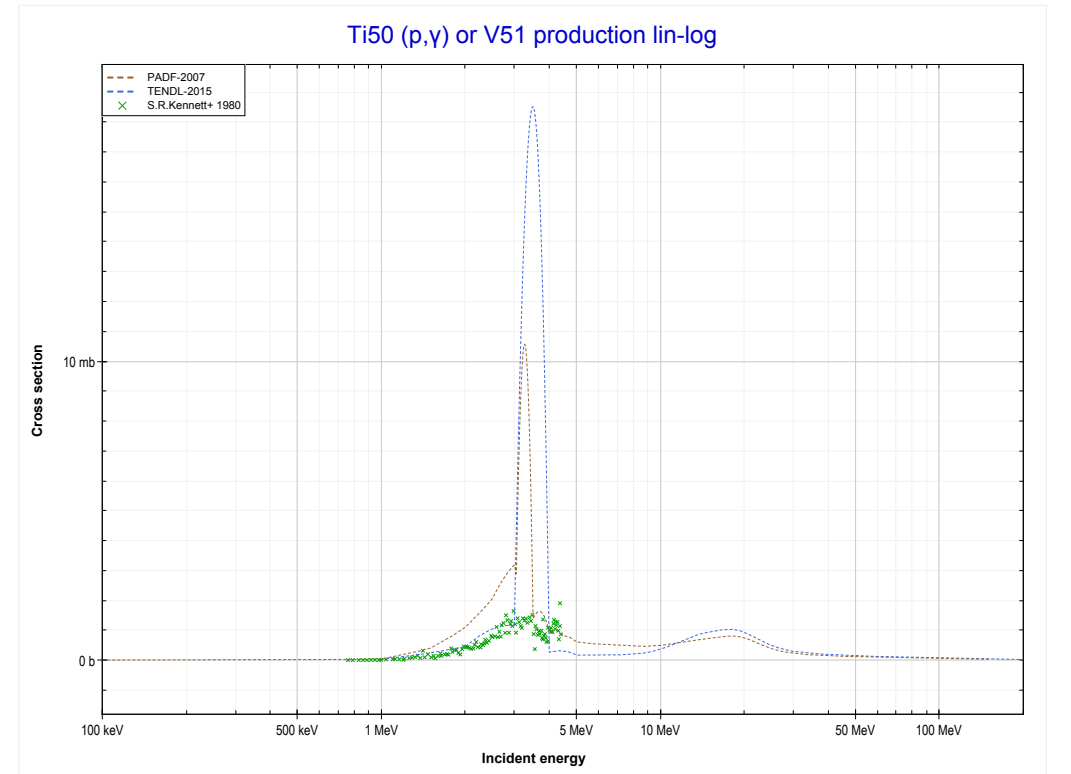
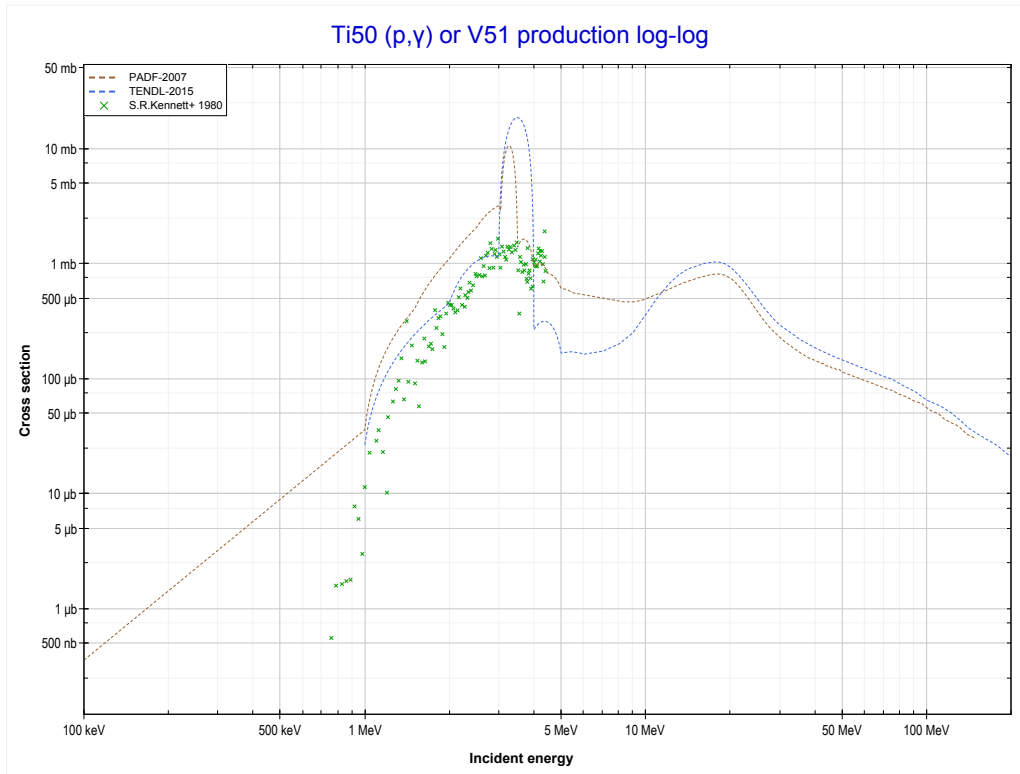
Reaction	Q-Value	Reaction	Q-Value
Ti50(p,n+2 α)K42	-22040.85 keV	Ti50(p,p+d+2t)K42	-59444.00 keV
Ti50(p,d+t+ α)K42	-39630.14 keV	Ti50(p,n+d+t+He3)K42	-60207.76 keV
Ti50(p,n+p+t+ α)K42	-41854.71 keV	Ti50(p,n+2p+2t)K42	-61668.57 keV
Ti50(p,2n+He3+ α)K42	-42618.46 keV	Ti50(p,2n+p+t+He3)K42	-62432.33 keV
Ti50(p,n+2d+ α)K42	-45887.38 keV	Ti50(p,3n+2He3)K42	-63196.08 keV
Ti50(p,2n+p+d+ α)K42	-48111.94 keV	Ti50(p,3d+t)K42	-63476.67 keV
Ti50(p,3n+2p+ α)K42	-50336.51 keV	Ti50(p,n+p+2d+t)K42	-65701.24 keV
Ti50(p,2t+He3)K42	-53950.53 keV	Ti50(p,2n+2d+He3)K42	-66464.99 keV

<< 12-Mg-24	22-Ti-50	
<< MT29 (p,n+2 α)	MT44 (p,n+2p) or MT5 (Sc48 production)	MT102 (p, γ) >>



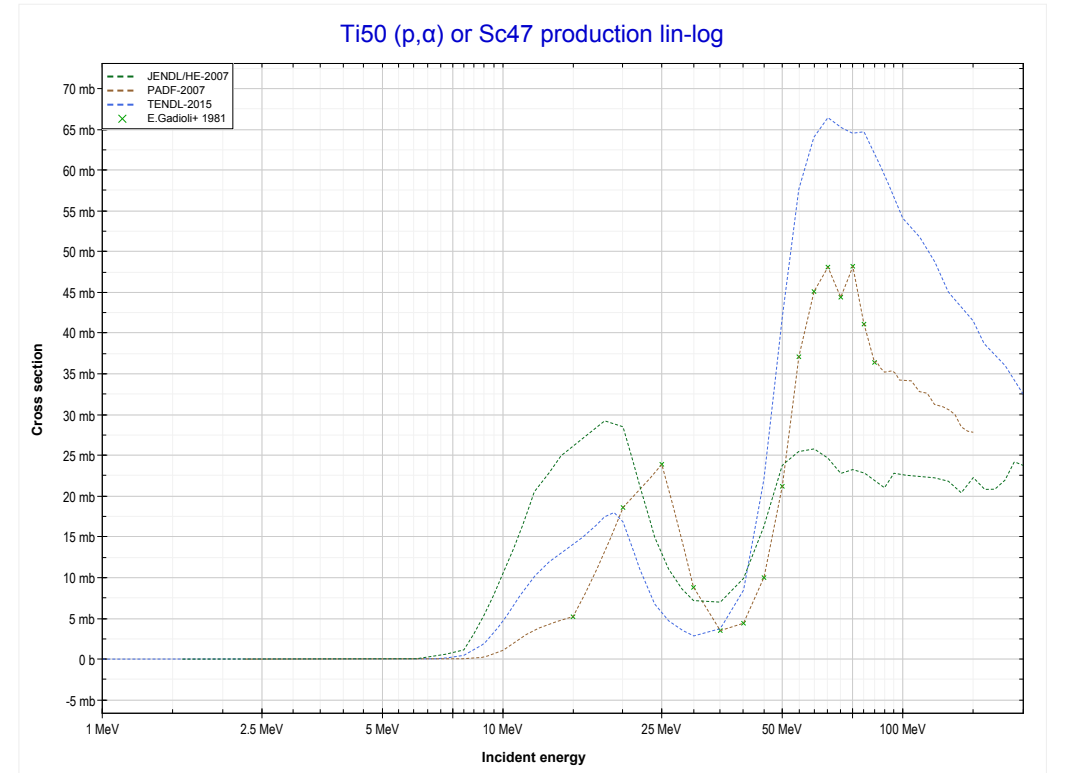
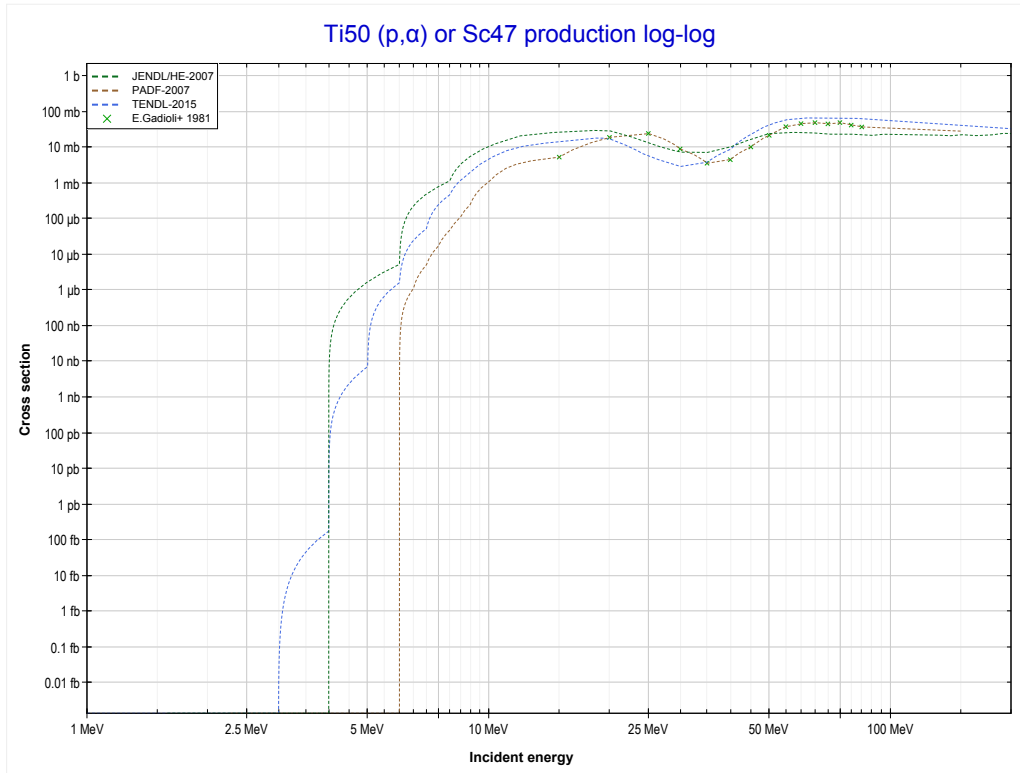
Reaction	Q-Value
Ti50(p,He3)Sc48	-14569.95 keV
Ti50(p,p+d)Sc48	-20063.42 keV
Ti50(p,n+2p)Sc48	-22287.99 keV

<< 22-Ti-49	22-Ti-50	23-V-51 >>
<< MT44 (p,n+2p)	MT102 (p,γ) or MT5 (V51 production)	MT107 (p, α) >>



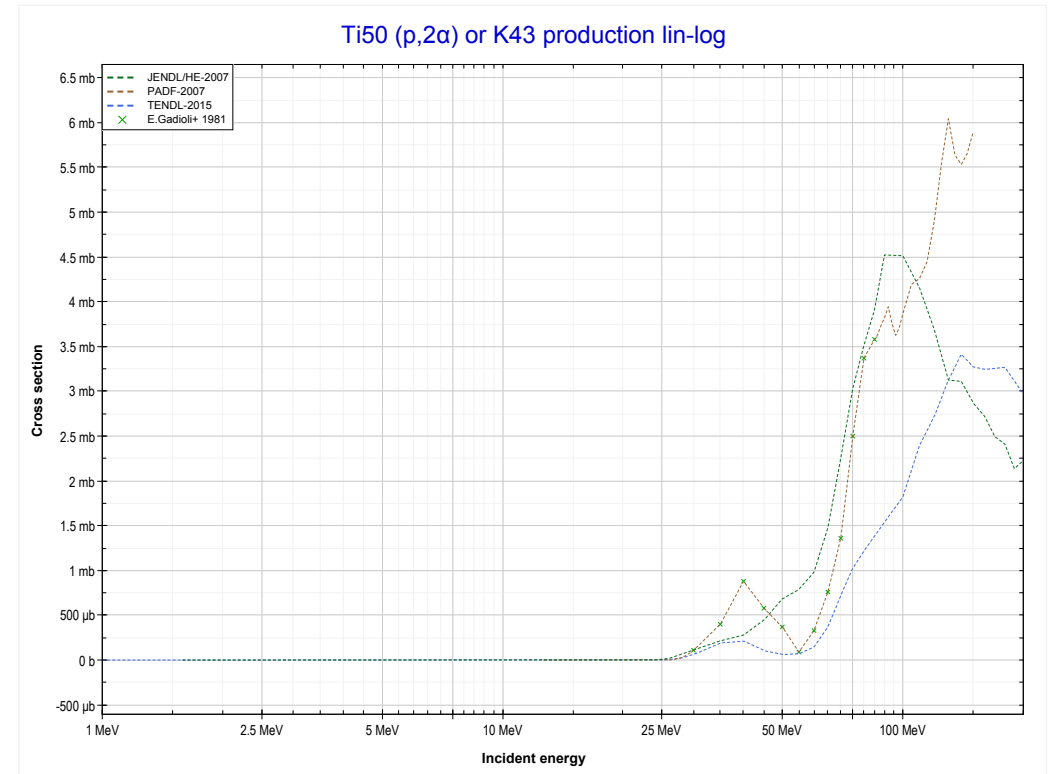
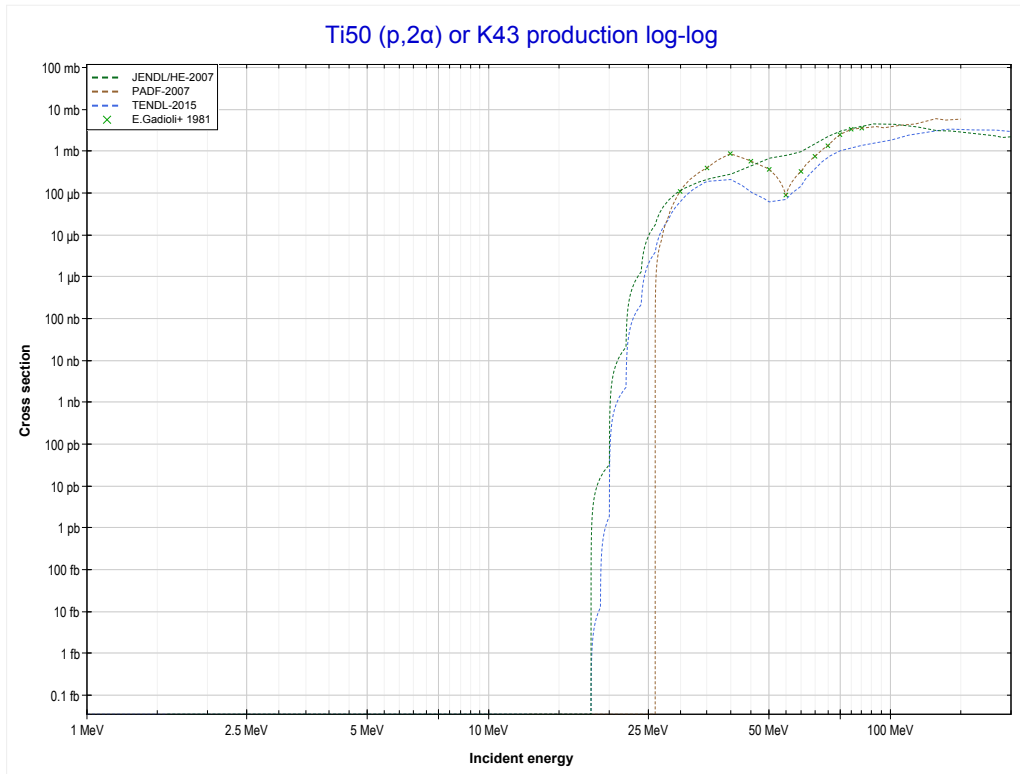
Reaction	Q-Value
Ti50(p, γ)V51	8061.97 keV

<< 22-Ti-49	22-Ti-50	26-Fe-54 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Sc47 production)	MT108 (p, 2α) >>



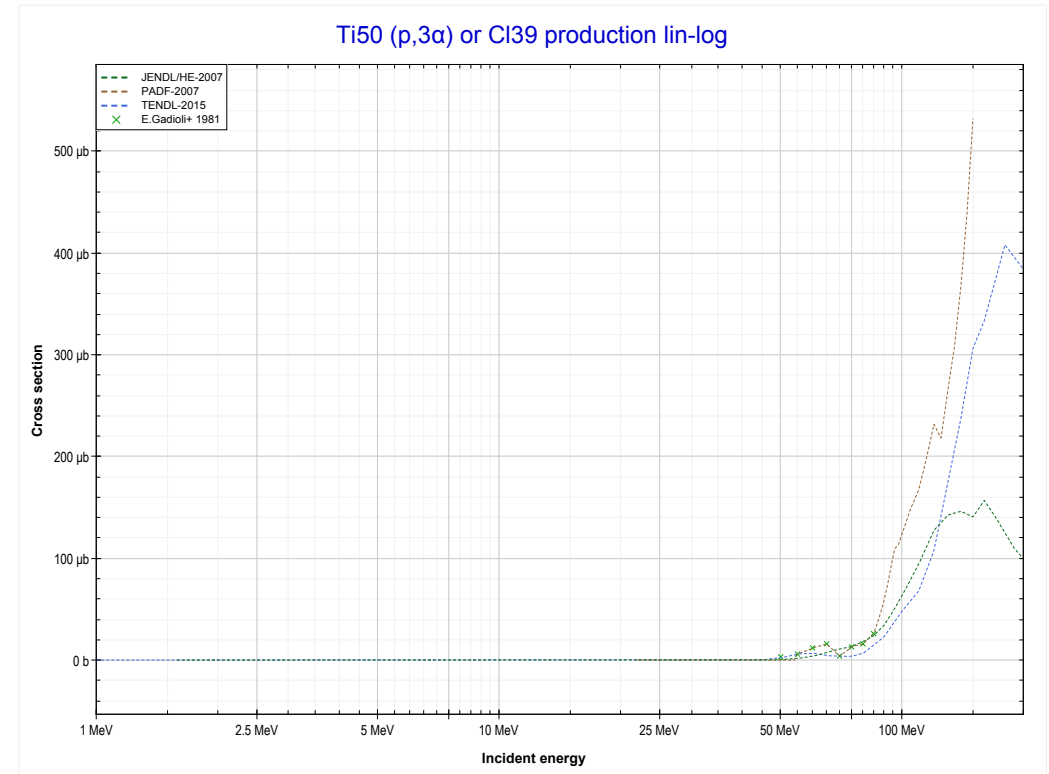
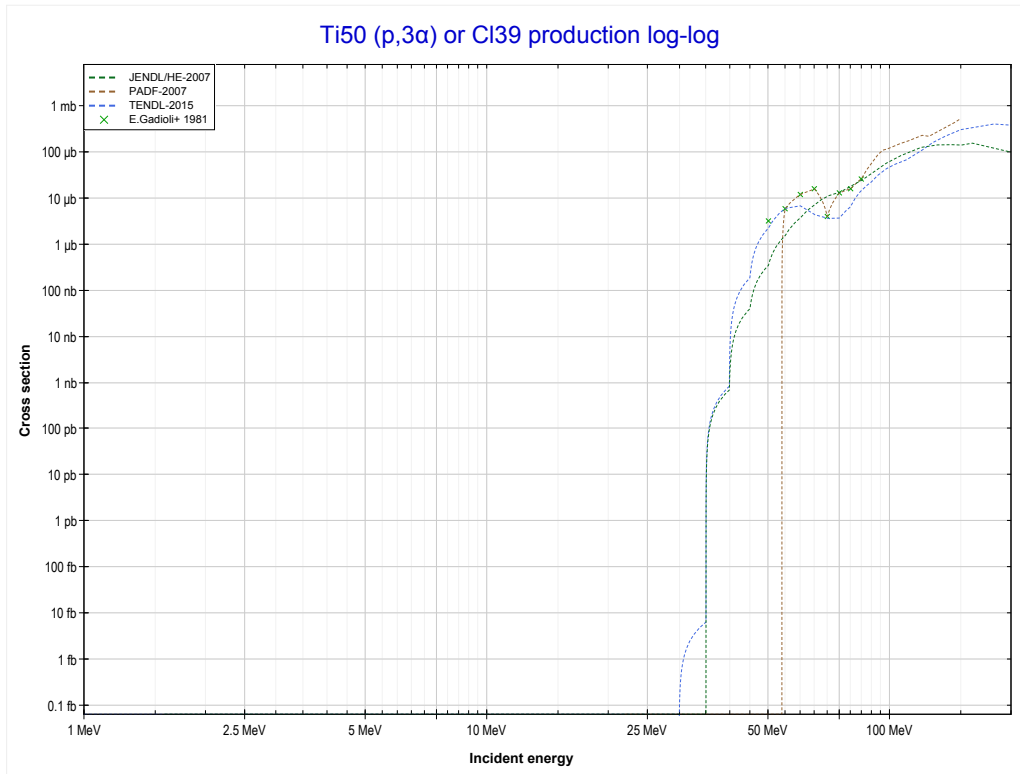
Reaction	Q-Value
Ti50(p, α)Sc47	-2231.05 keV
Ti50(p,p+t)Sc47	-22044.91 keV
Ti50(p,n+He3)Sc47	-22808.66 keV
Ti50(p, $2d$)Sc47	-26077.57 keV
Ti50(p,n+p+d)Sc47	-28302.14 keV
Ti50(p, $2n+2p$)Sc47	-30526.70 keV

<< 12-Mg-25	22-Ti-50	
<< MT107 (p, α)	MT108 (p,2α) or MT5 (K43 production)	MT109 (p,3 α) >>



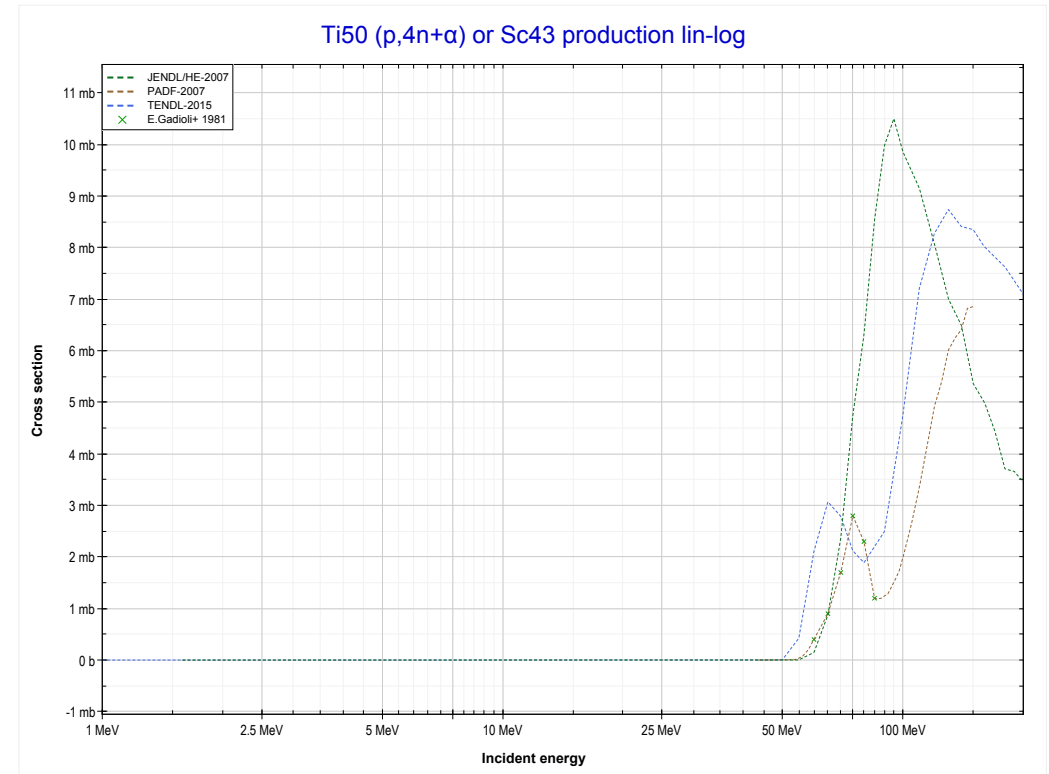
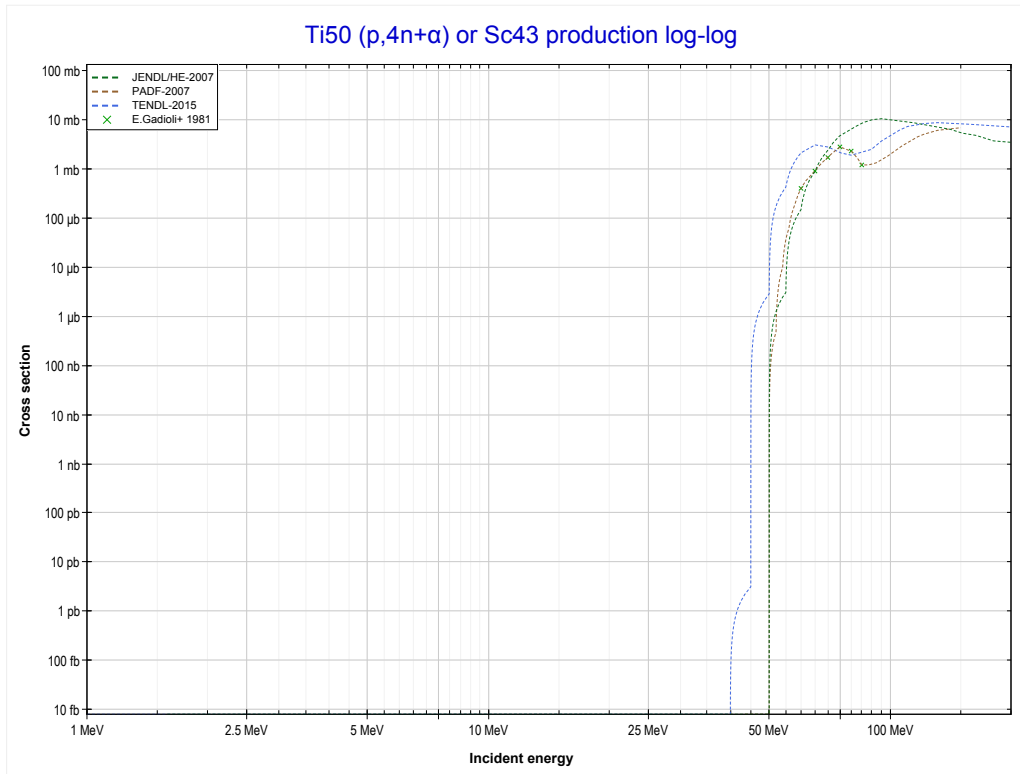
Reaction	Q-Value	Reaction	Q-Value
Ti50(p,2 α)K43	-12416.16 keV	Ti50(p,n+p+t+He3)K43	-52807.64 keV
Ti50(p,p+t+ α)K43	-32230.02 keV	Ti50(p,2n+2He3)K43	-53571.39 keV
Ti50(p,n+He3+ α)K43	-32993.78 keV	Ti50(p,p+2d+t)K43	-56076.55 keV
Ti50(p,2d+ α)K43	-36262.69 keV	Ti50(p,n+2d+He3)K43	-56840.31 keV
Ti50(p,n+p+d+ α)K43	-38487.25 keV	Ti50(p,n+2p+d+t)K43	-58301.12 keV
Ti50(p,2n+2p+ α)K43	-40711.82 keV	Ti50(p,2n+p+d+He3)K43	-59064.87 keV
Ti50(p,d+t+He3)K43	-50583.07 keV	Ti50(p,4d)K43	-60109.22 keV
Ti50(p,2p+2t)K43	-52043.88 keV	Ti50(p,2n+3p+t)K43	-60525.68 keV

	22-Ti-50	
<< MT108 (p,2 α)	MT109 (p,3α) or MT5 (Cl39 production)	MT165 (p,4n+ α) >>



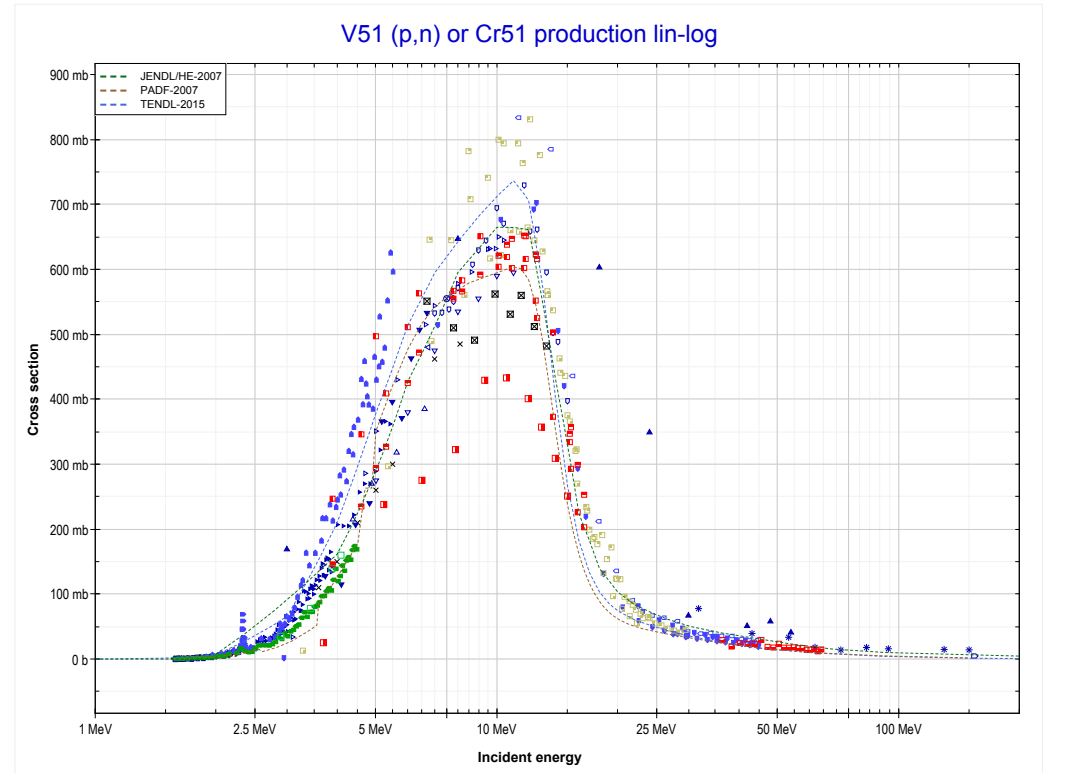
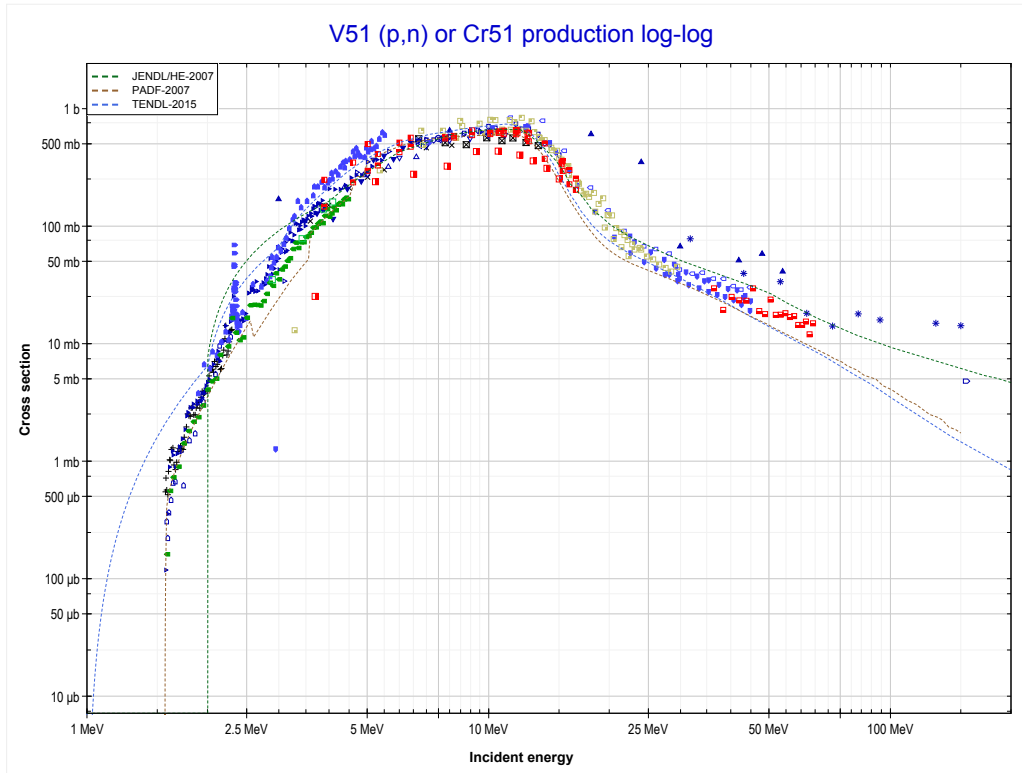
Reaction	Q-Value	Reaction	Q-Value
Ti50(p,3 α)Cl39	-21616.28 keV	Ti50(p,n+p+t+He3+ α)Cl39	-62007.75 keV
Ti50(p,p+t+2 α)Cl39	-41430.14 keV	Ti50(p,2n+2He3+ α)Cl39	-62771.51 keV
Ti50(p,n+He3+2 α)Cl39	-42193.89 keV	Ti50(p,p+2d+t+ α)Cl39	-65276.67 keV
Ti50(p,2d+2 α)Cl39	-45462.80 keV	Ti50(p,n+2d+He3+ α)Cl39	-66040.42 keV
Ti50(p,n+p+d+2 α)Cl39	-47687.37 keV	Ti50(p,n+2p+d+t+ α)Cl39	-67501.23 keV
Ti50(p,2n+2p+2 α)Cl39	-49911.94 keV	Ti50(p,2n+p+d+He3+ α)Cl39	-68264.99 keV
Ti50(p,d+t+He3+ α)Cl39	-59783.19 keV	Ti50(p,4d+ α)Cl39	-69309.33 keV
Ti50(p,2p+2t+ α)Cl39	-61244.00 keV	Ti50(p,2n+3p+t+ α)Cl39	-69725.80 keV

22-Ti-50		
<< MT109 (p,3α)	MT165 (p,4n+α) or MT5 (Sc43 production)	23-V-51 MT4 (p,n) >>



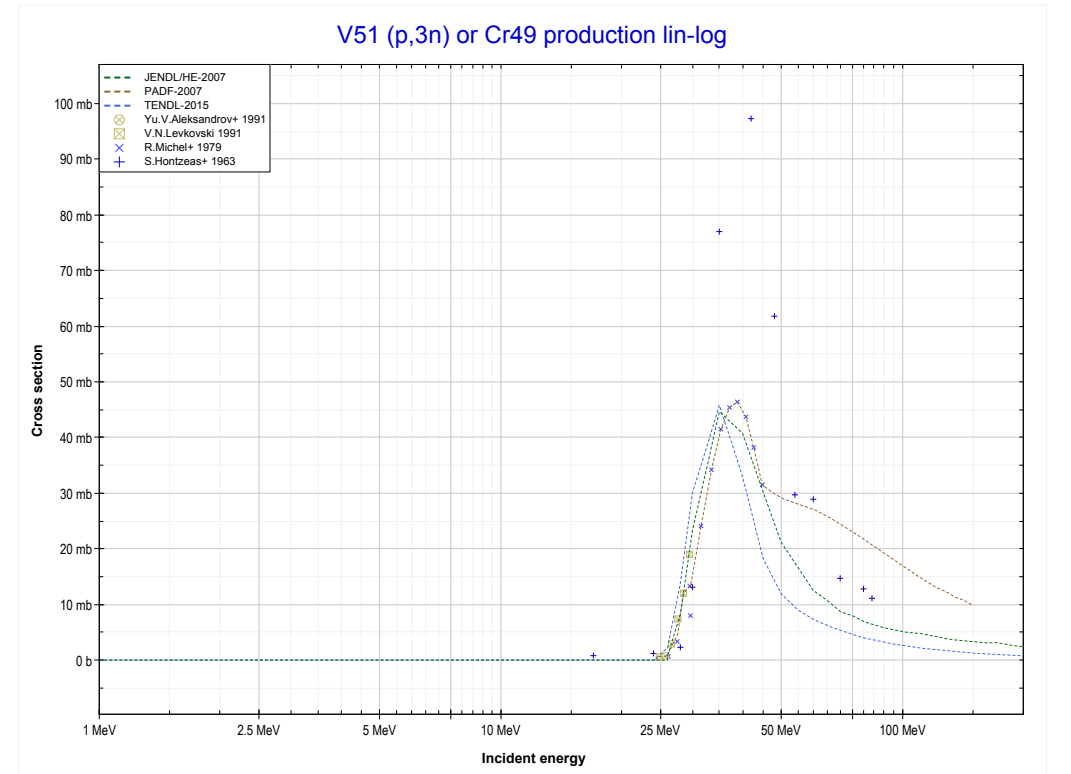
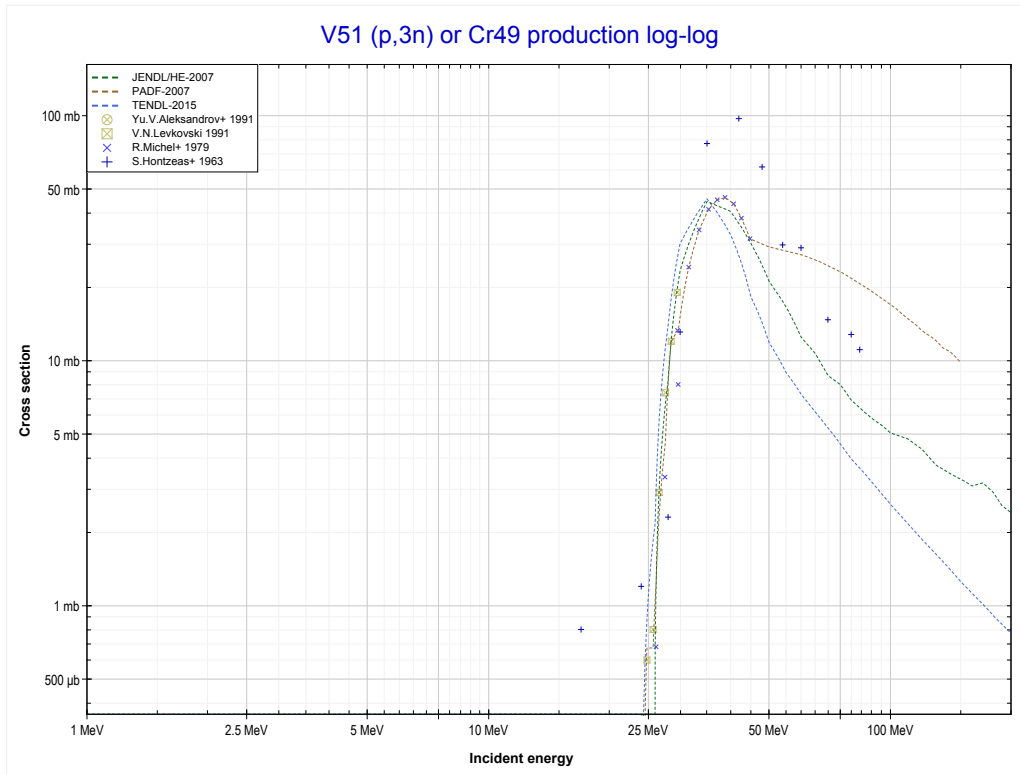
Reaction	Q-Value
Ti50(p,4n+α)Sc43	-42663.81 keV
Ti50(p,2n+2t)Sc43	-53995.88 keV
Ti50(p,3n+d+t)Sc43	-60253.11 keV
Ti50(p,4n+p+t)Sc43	-62477.67 keV
Ti50(p,5n+He3)Sc43	-63241.43 keV
Ti50(p,4n+2d)Sc43	-66510.34 keV
Ti50(p,5n+p+d)Sc43	-68734.91 keV
Ti50(p,6n+2p)Sc43	-70959.47 keV

<< 22-Ti-50	23-V-51	24-Cr-50 >>
<< 22-Ti-50 MT165 (p,4n+α)	MT4 (p,n) or MT5 (Cr51 production)	MT17 (p,3n) >>



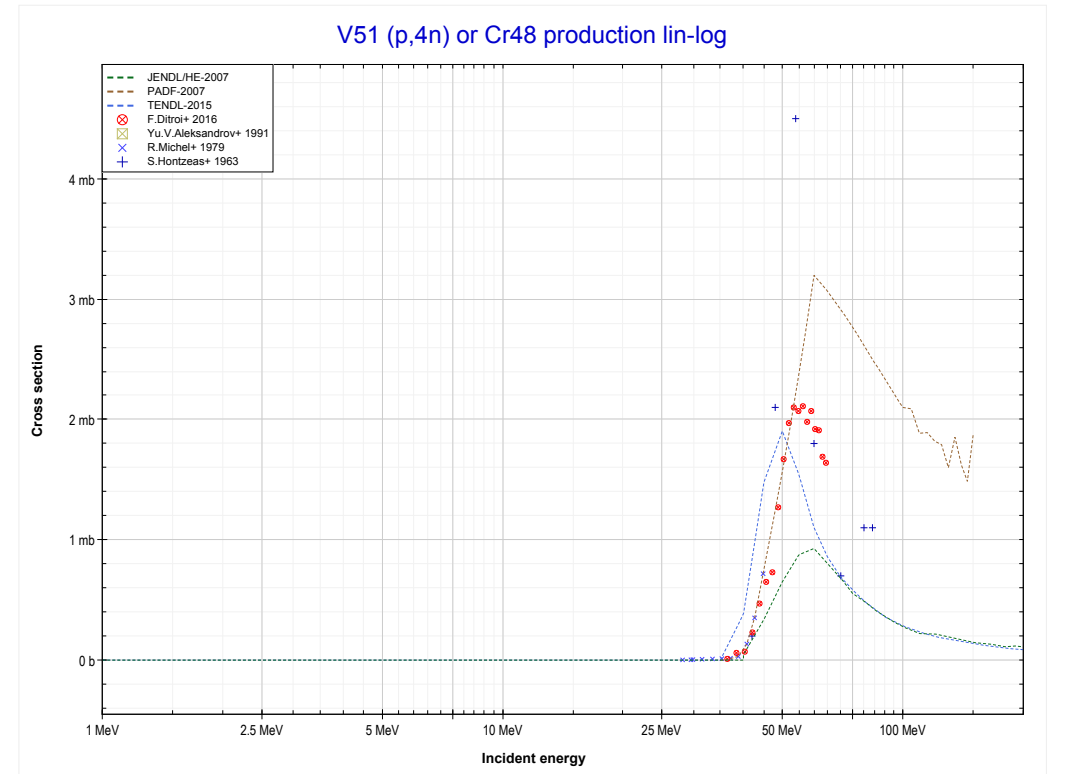
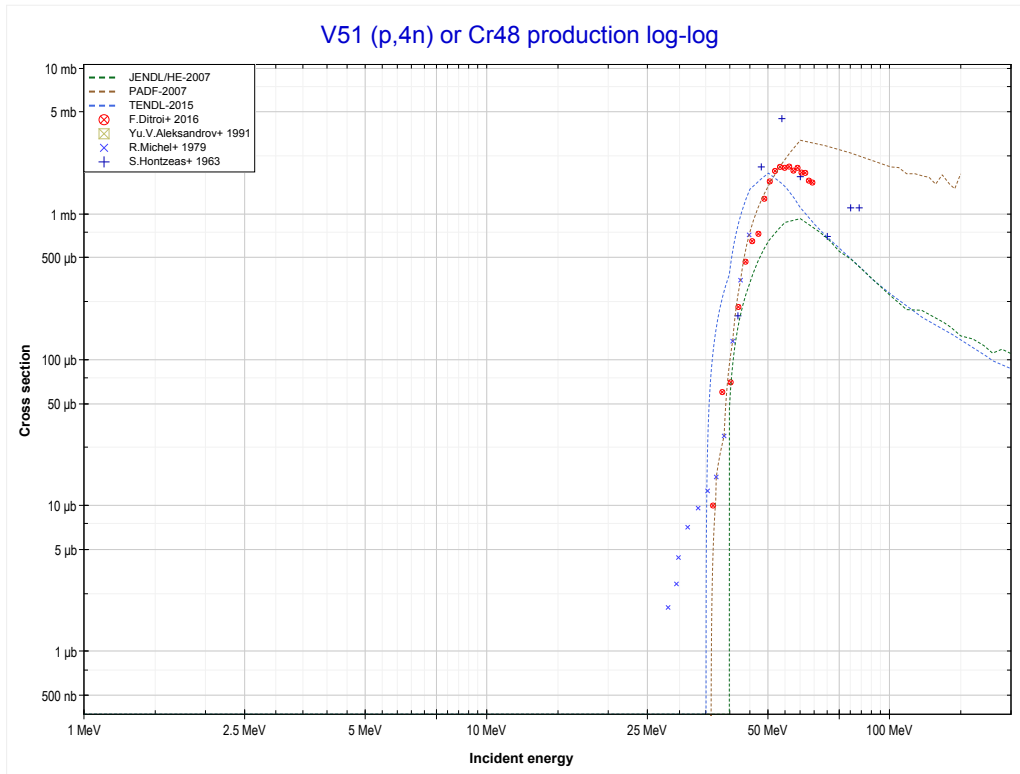
Reaction	Q-Value
V51(p,n)Cr51	-1534.95 keV

<< 18-Ar-40	23-V-51	25-Mn-55 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Cr49 production)	MT37 (p,4n) >>



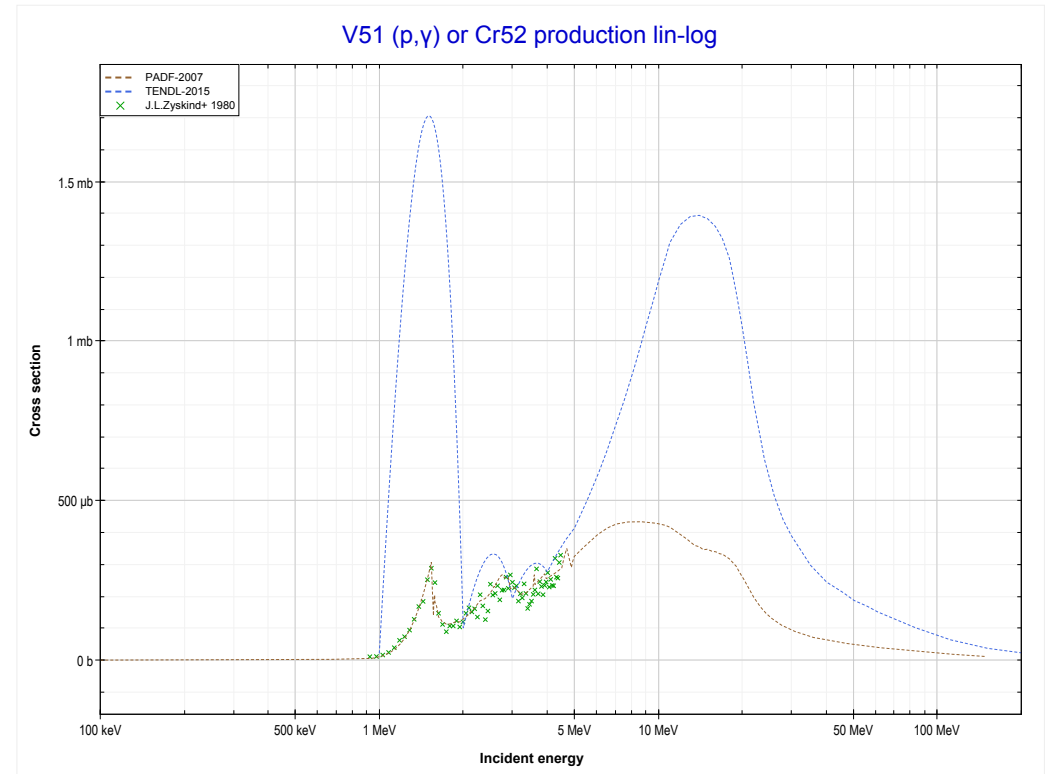
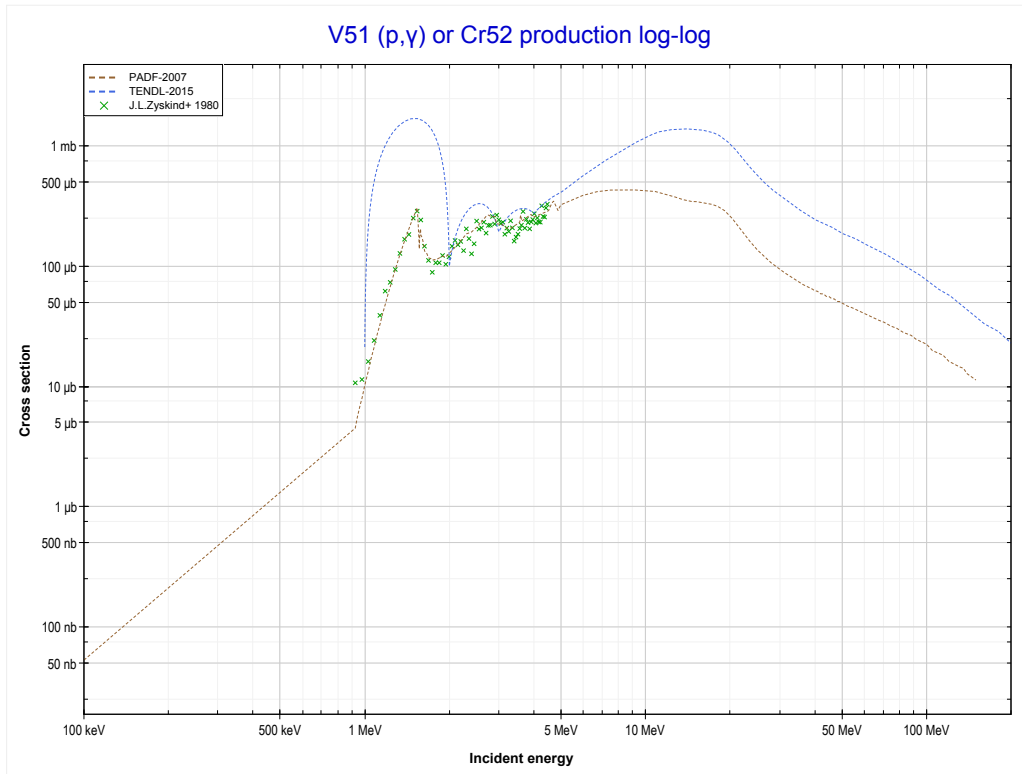
Reaction	Q-Value
V51(p,3n)Cr49	-23795.98 keV

	23-V-51	25-Mn-55 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Cr48 production)	MT102 (p, γ) >>



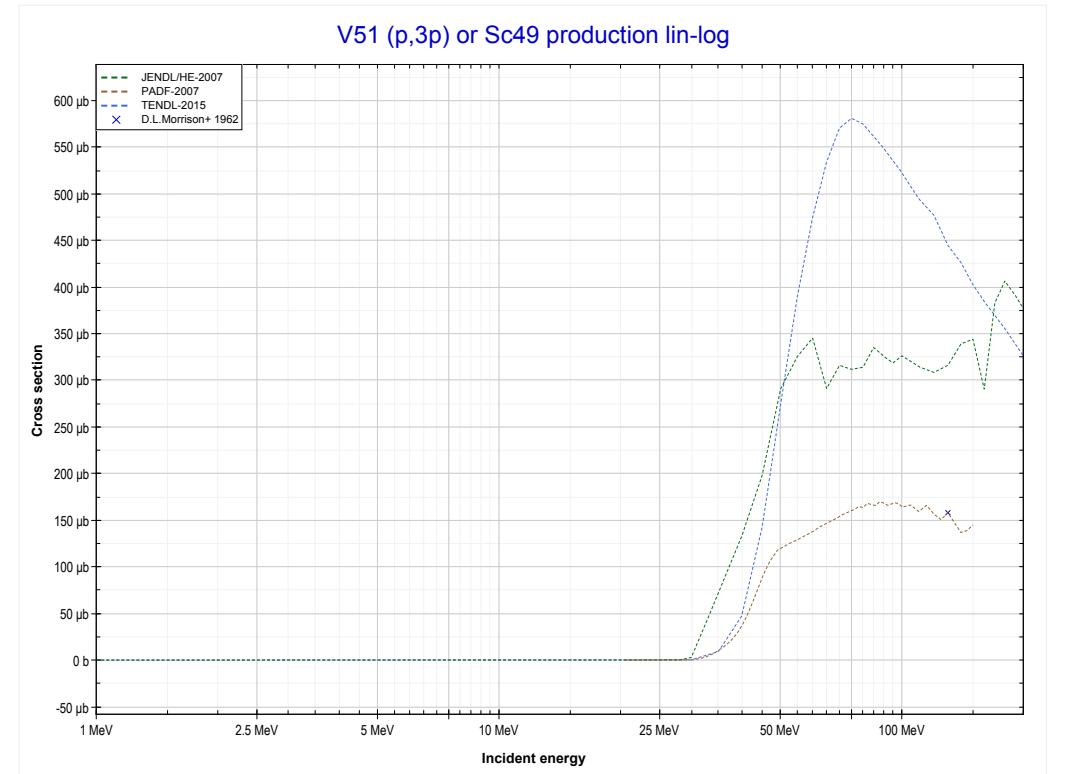
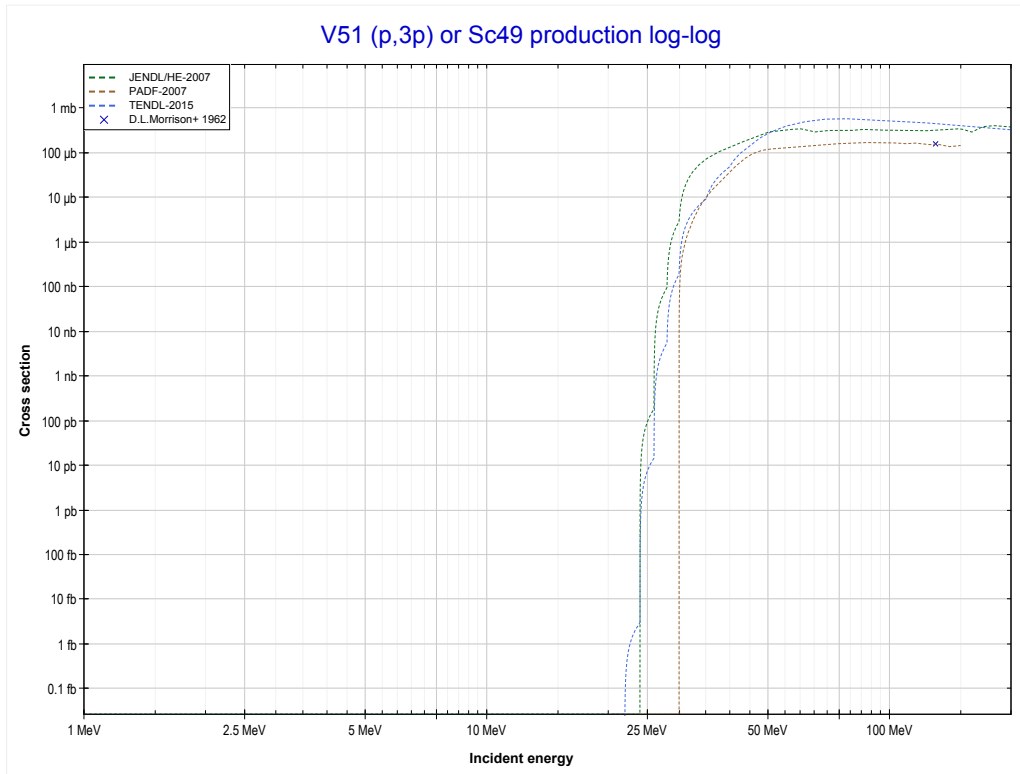
Reaction	Q-Value
V51(p,4n)Cr48	-34378.00 keV

<< 22-Ti-50	23-V-51	24-Cr-50 >>
<< MT37 (p,4n)	MT102 (p,γ) or MT5 (Cr52 production)	MT197 (p,3p) >>



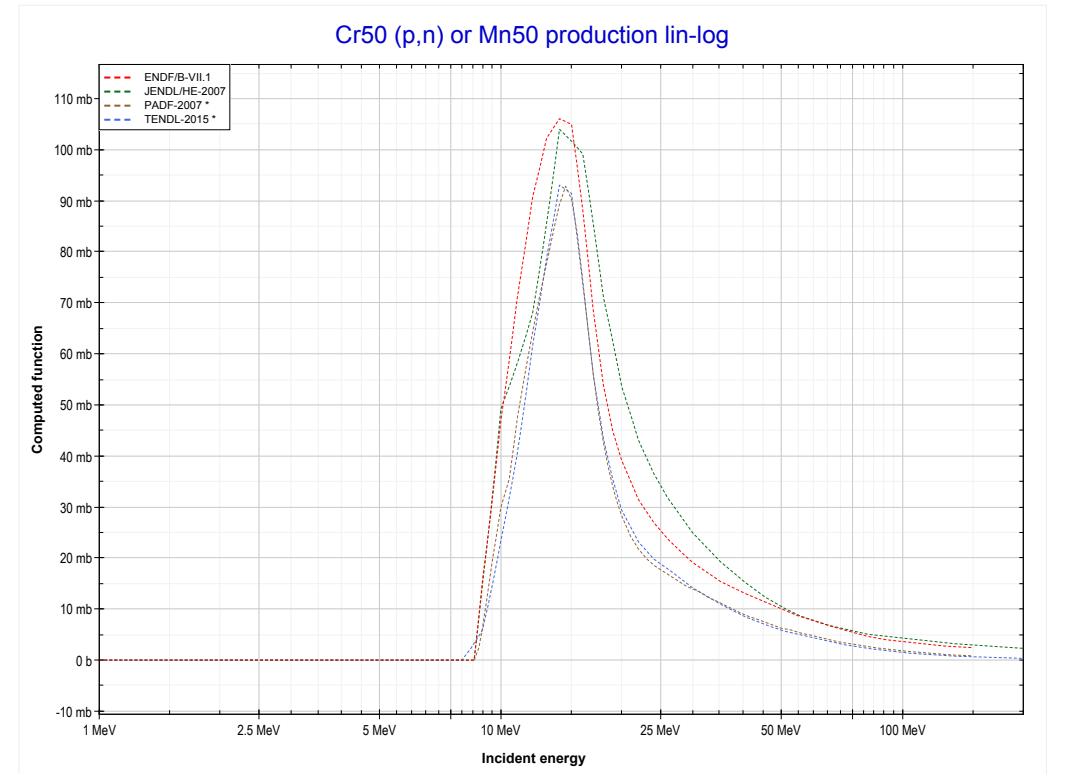
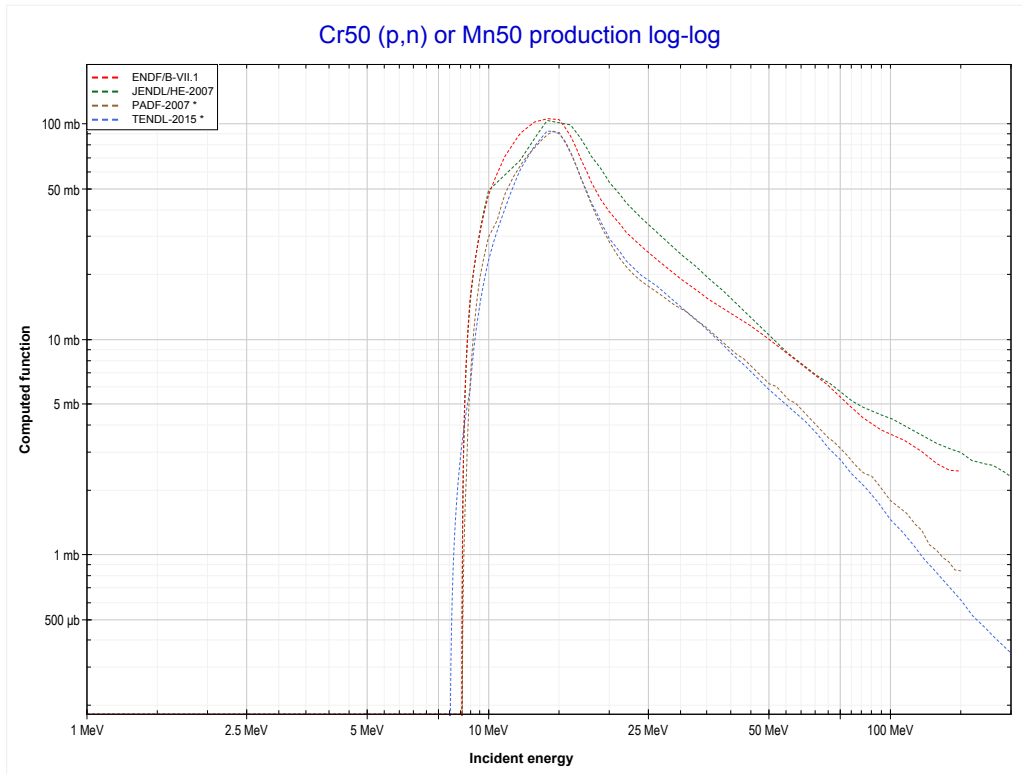
Reaction	Q-Value
V51(p, γ)Cr52	10503.37 keV

<< 21-Sc-45	23-V-51	31-Ga-69 >>
<< MT102 (p, γ)	MT197 (p,3p) or MT5 (Sc49 production)	24-Cr-50 MT4 (p,n) >>



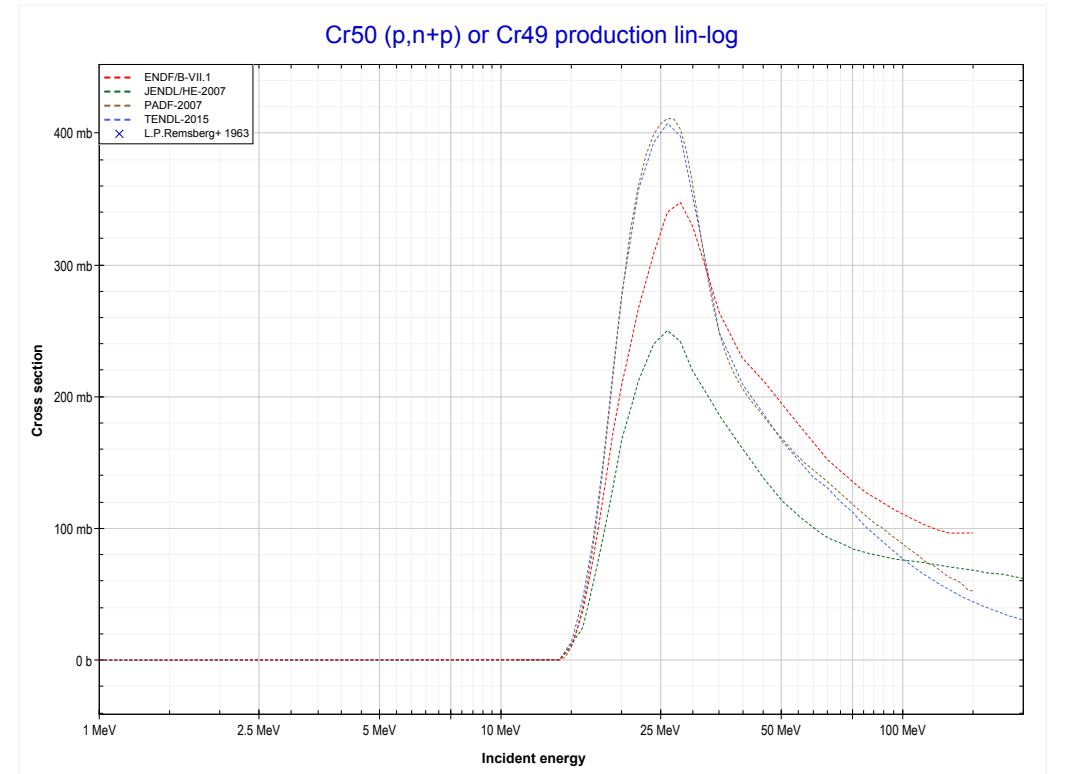
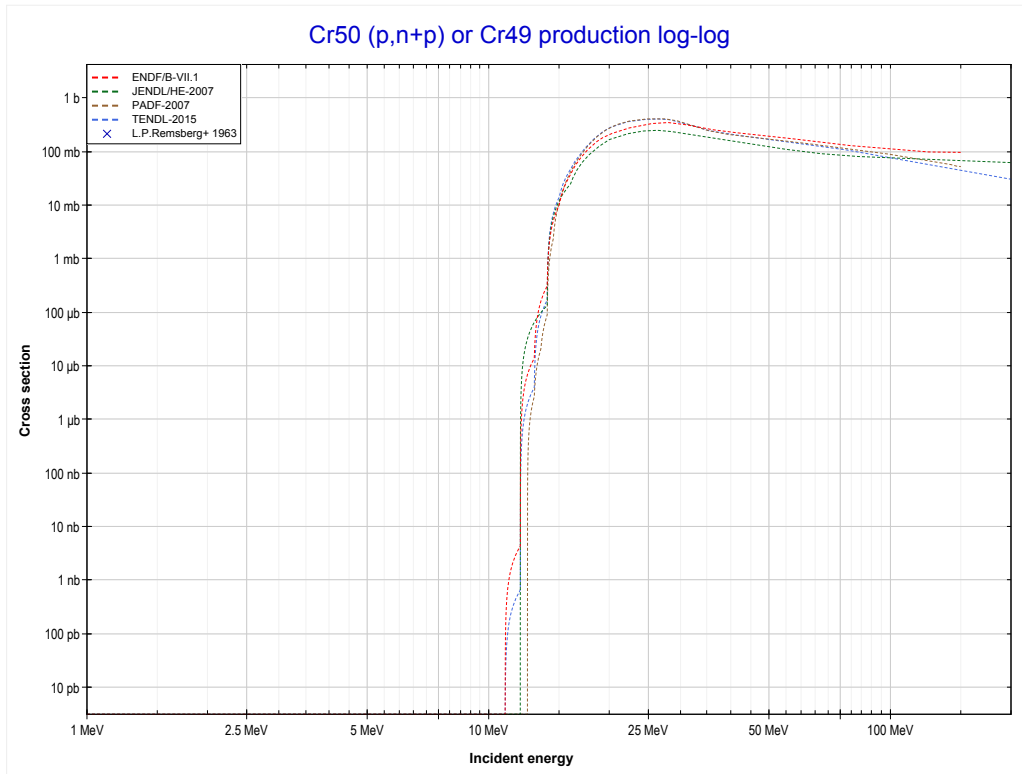
Reaction	Q-Value
V51(p,3p)Sc49	-20220.54 keV

<< 23-V-51	24-Cr-50	24-Cr-52 >>
<< 23-V-51 MT197 (p,3p)	MT4 (p,n) or MT5 (Mn50 production)	MT28 (p,n+p) >>



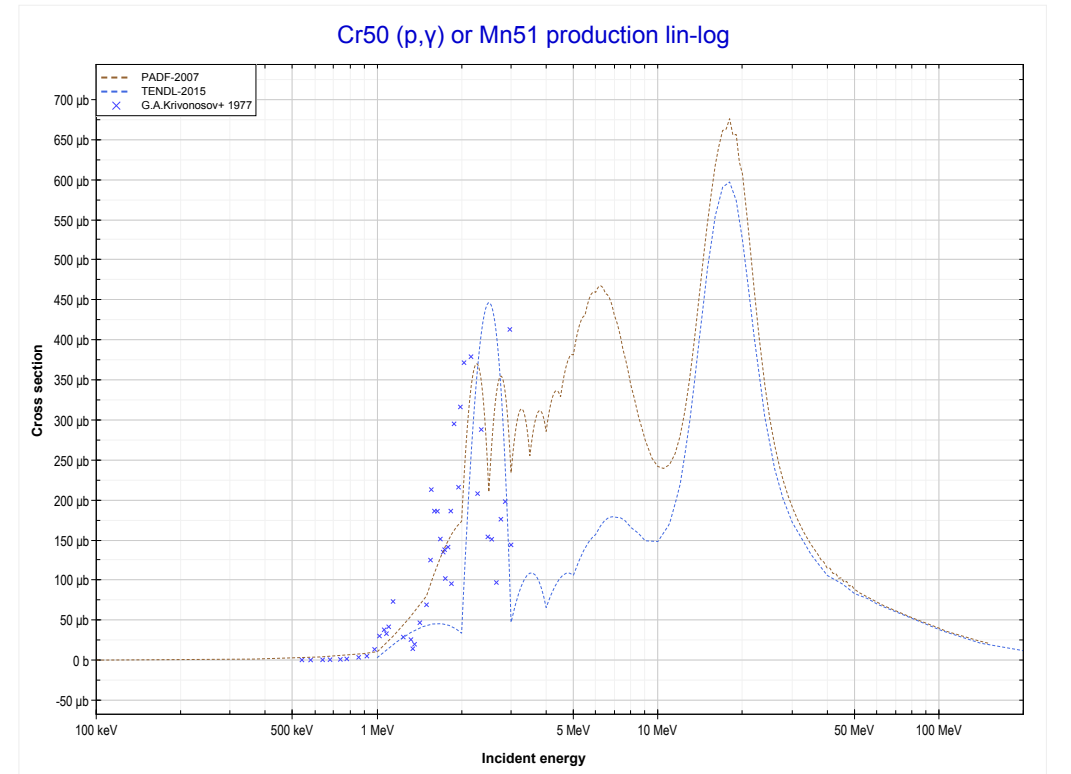
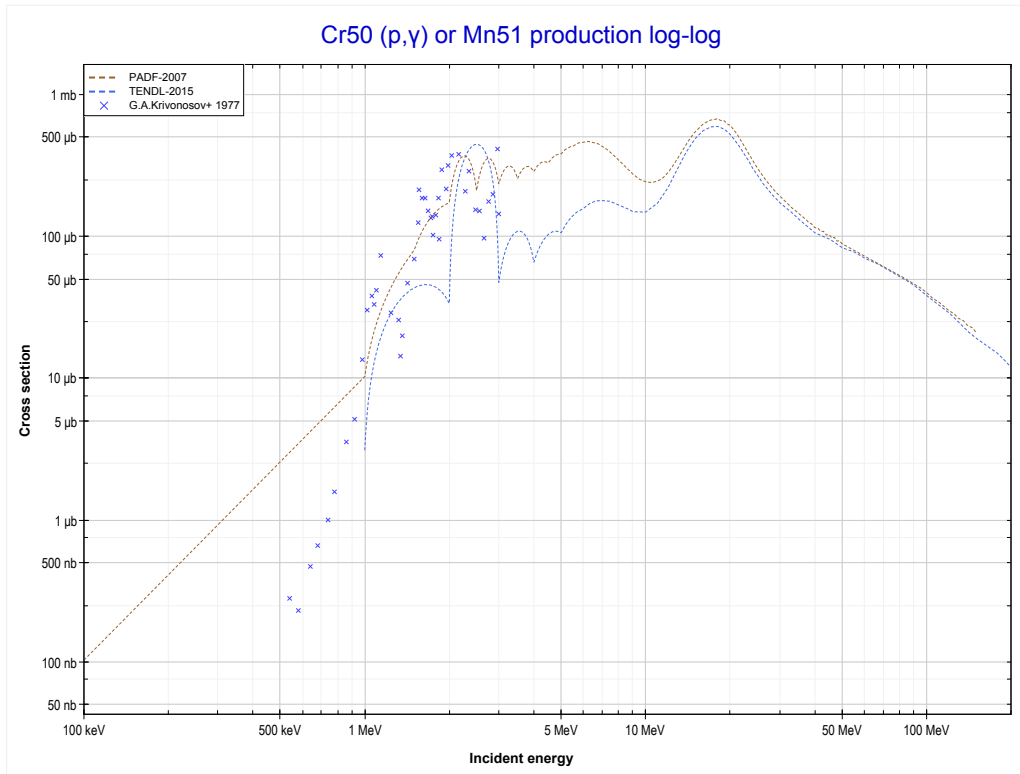
Reaction	Q-Value
Cr50(p,n)Mn50	-8416.85 keV

<< 21-Sc-45	24-Cr-50	24-Cr-52 >>
<< MT4 (p,n)	MT28 (p,n+p) or MT5 (Cr49 production)	MT102 (p, γ) >>



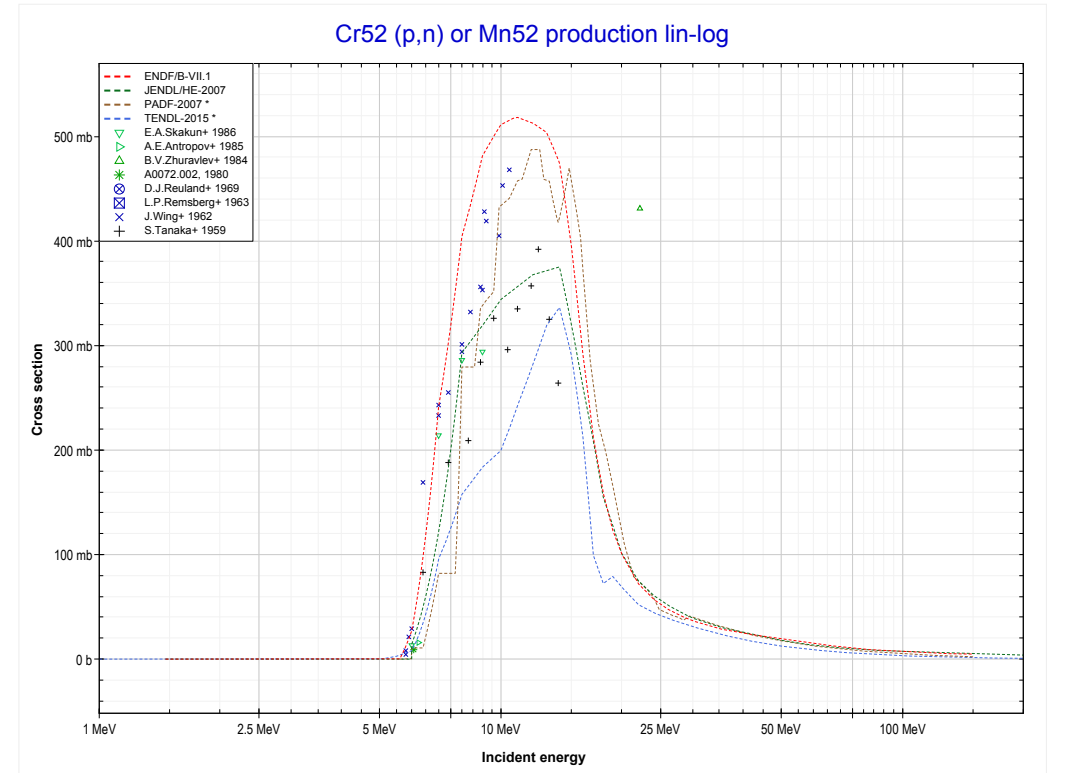
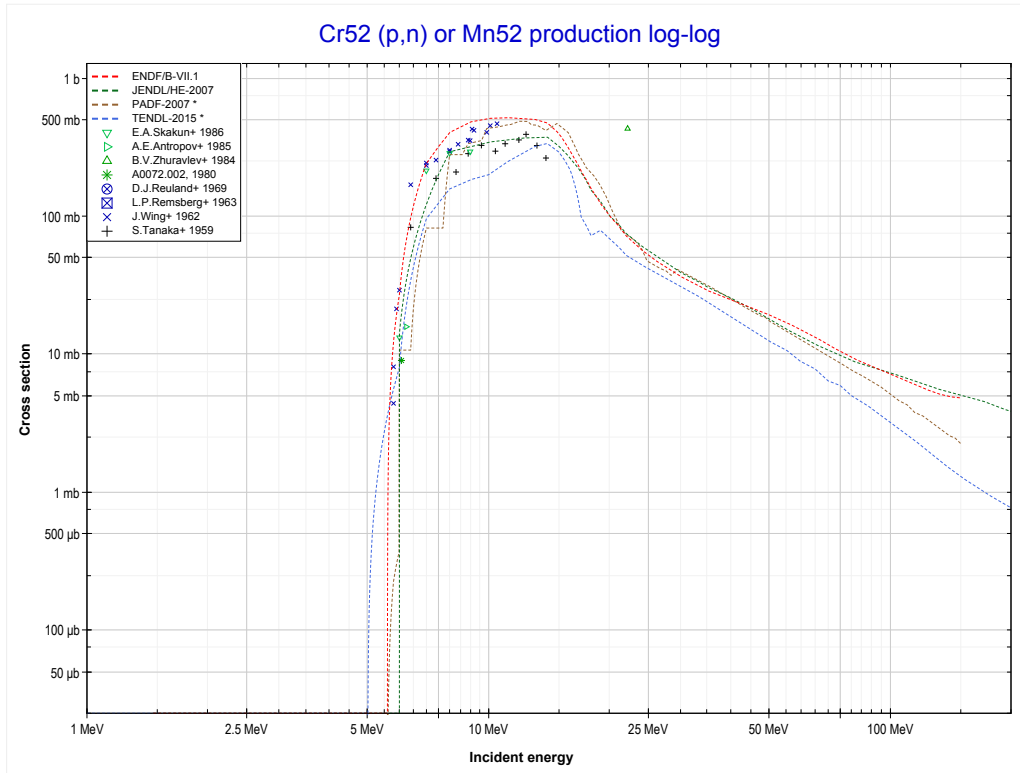
Reaction	Q-Value
Cr50(p,d)Cr49	-10775.75 keV
Cr50(p,n+p)Cr49	-13000.32 keV

<< 23-V-51	24-Cr-50	24-Cr-52 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (Mn51 production)	24-Cr-52 MT4 (p,n) >>



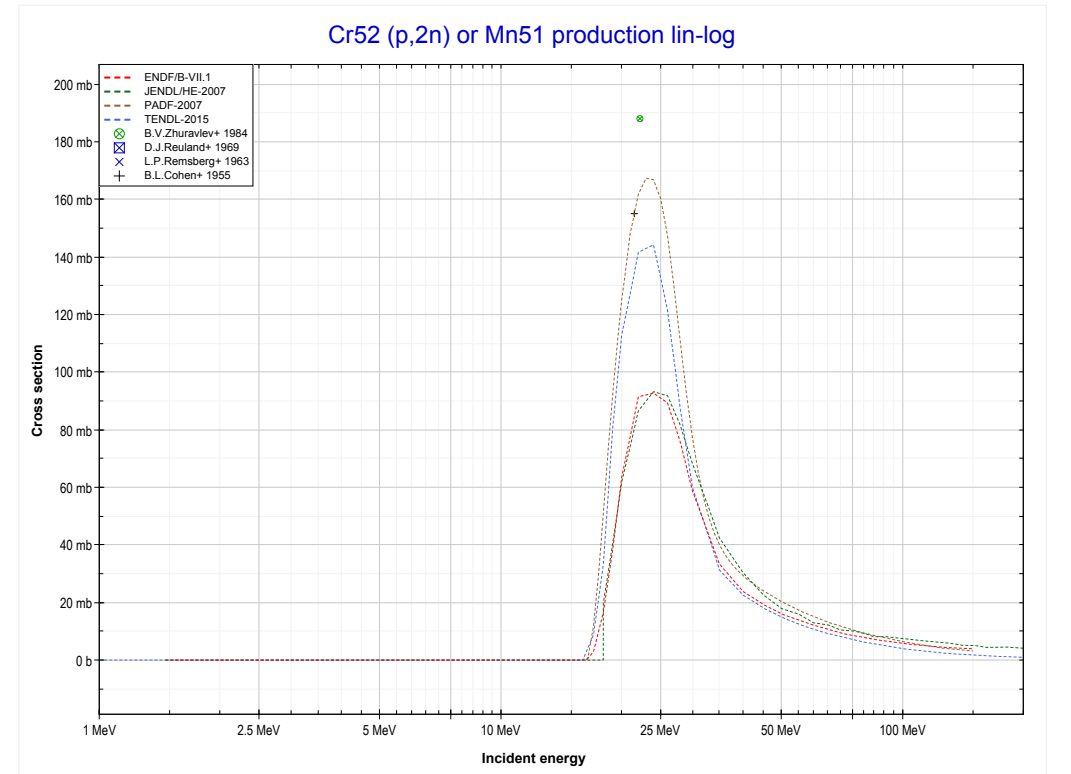
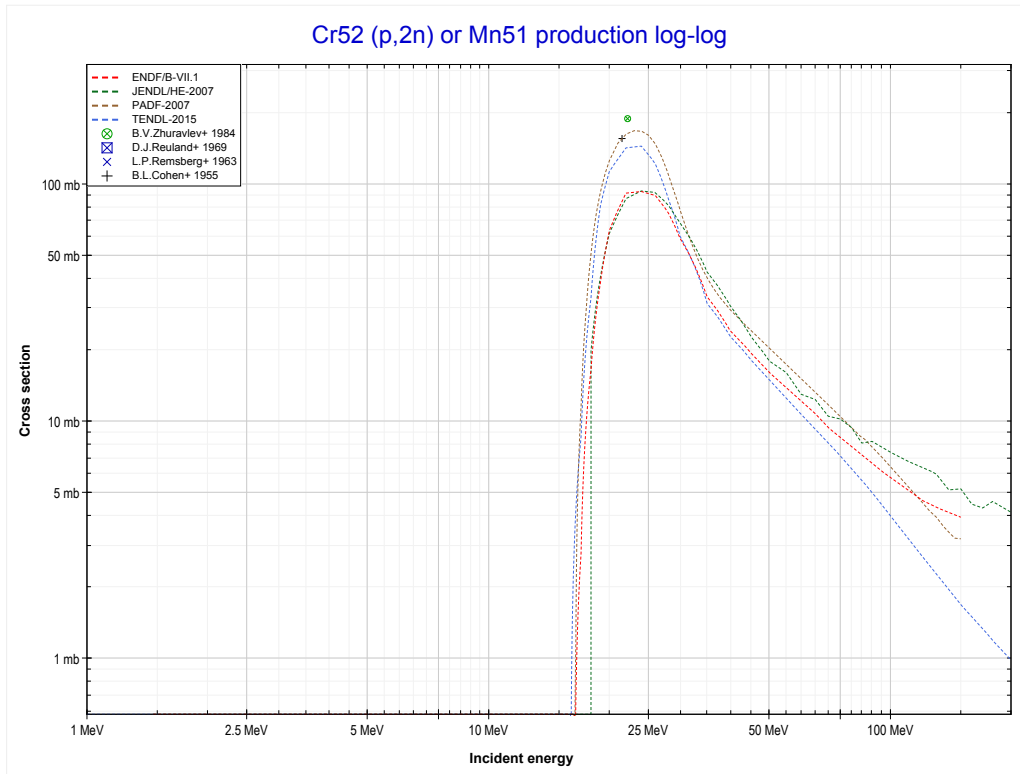
Reaction	Q-Value
Cr50(p, γ)Mn51	5270.77 keV

<< 24-Cr-50	24-Cr-52	24-Cr-53 >>
<< 24-Cr-50 MT102 (p, γ)	MT4 (p,n) or MT5 (Mn52 production)	MT16 (p,2n) >>



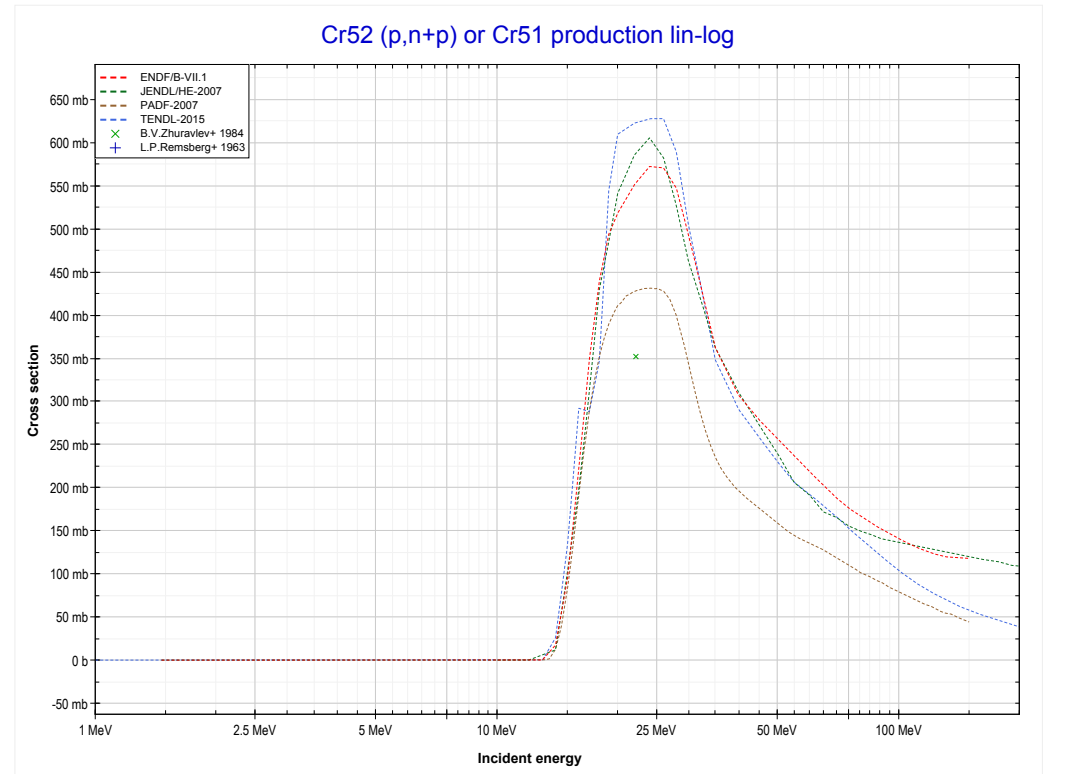
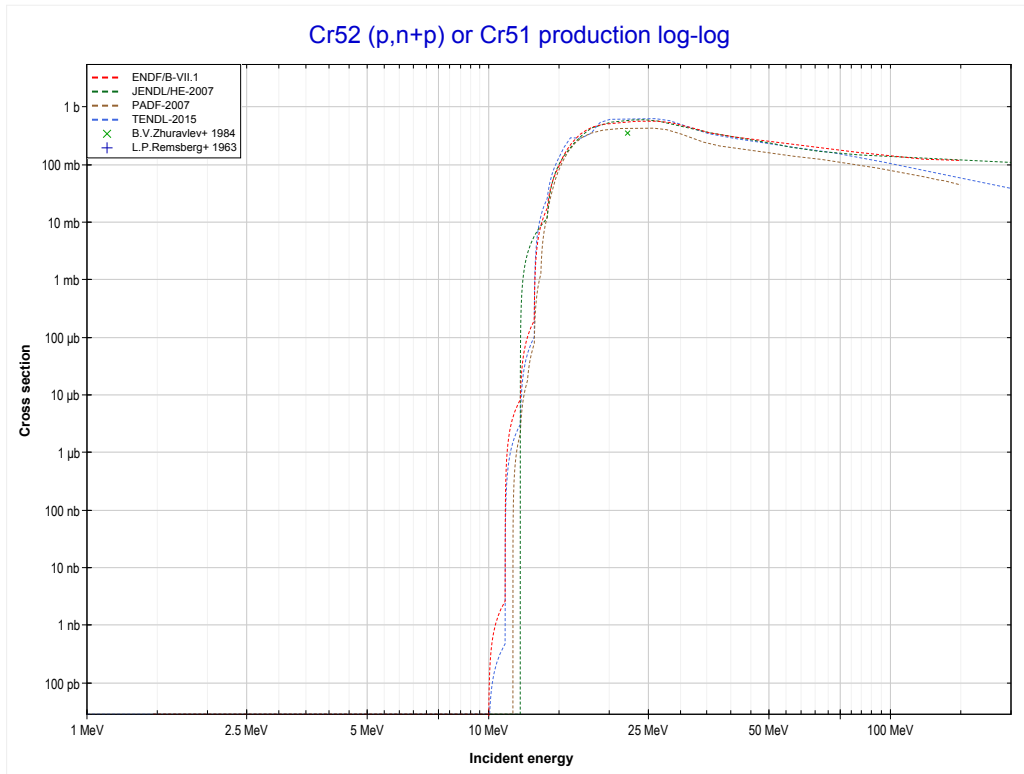
Reaction	Q-Value
Cr52(p,n)Mn52	-5493.55 keV

<< 22-Ti-49	24-Cr-52	24-Cr-53 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Mn51 production)	MT28 (p,n+p) >>



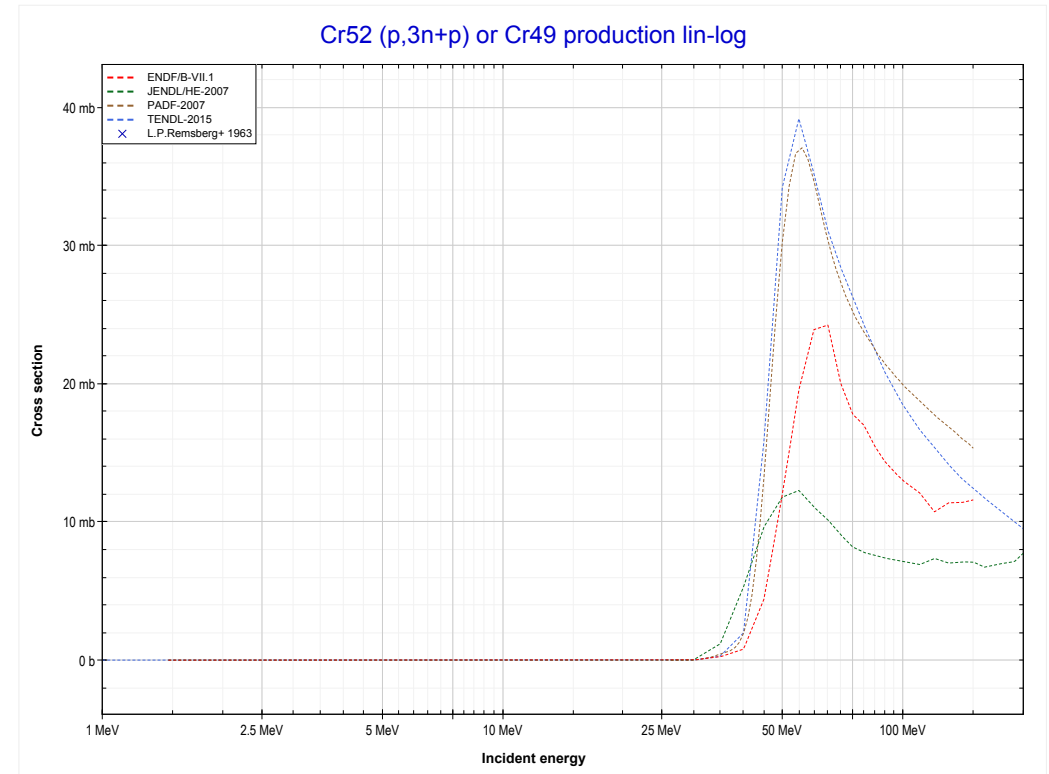
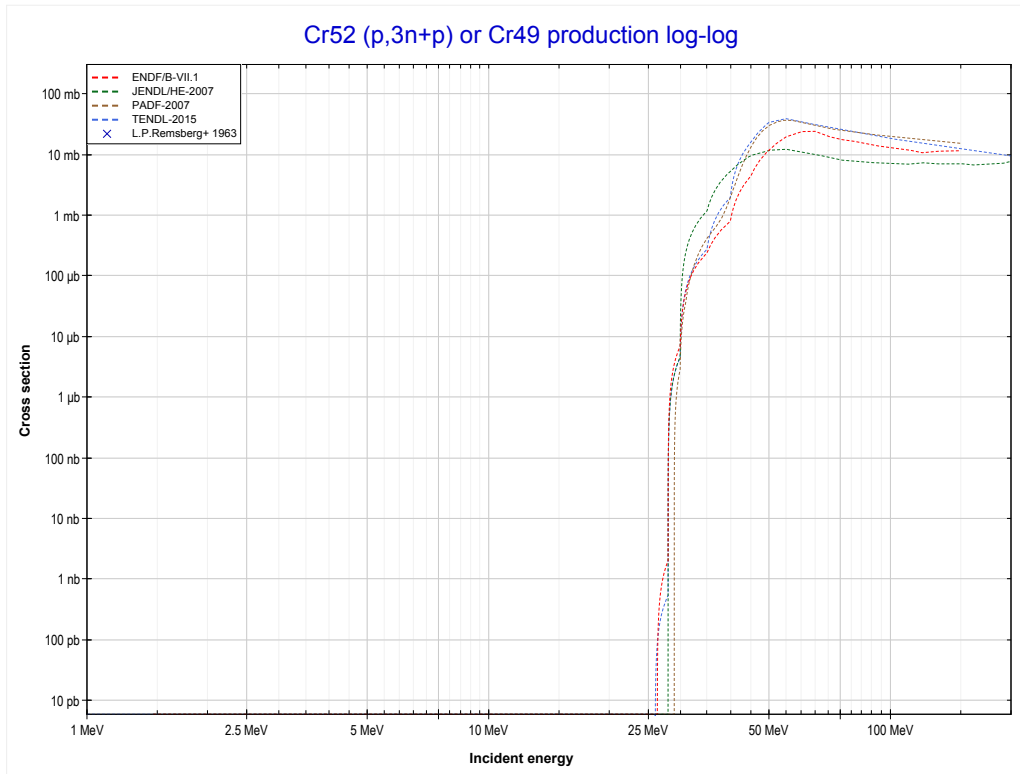
Reaction	Q-Value
Cr52(p,2n)Mn51	-16028.26 keV

<< 24-Cr-50	24-Cr-52	25-Mn-55 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Cr51 production)	MT42 (p,3n+p) >>



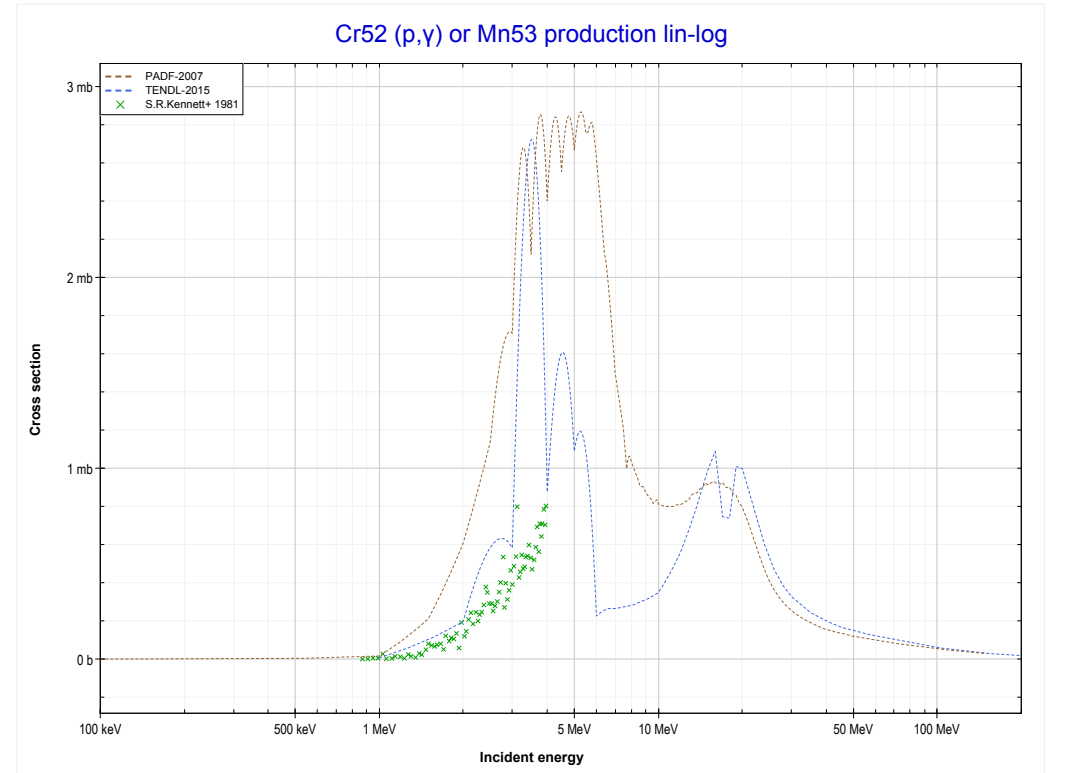
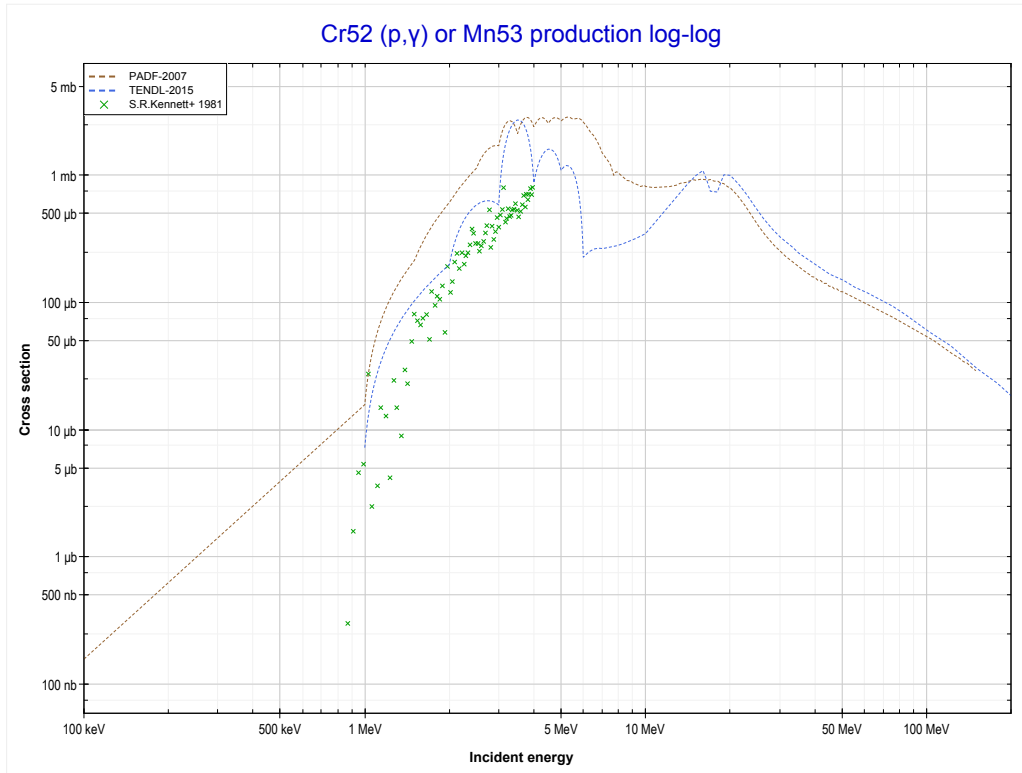
Reaction	Q-Value
Cr52(p,d)Cr51	-9813.75 keV
Cr52(p,n+p)Cr51	-12038.32 keV

	24-Cr-52	26-Fe-56 >>
<< MT28 (p,n+p)	MT42 (p,3n+p) or MT5 (Cr49 production)	MT102 (p, γ) >>



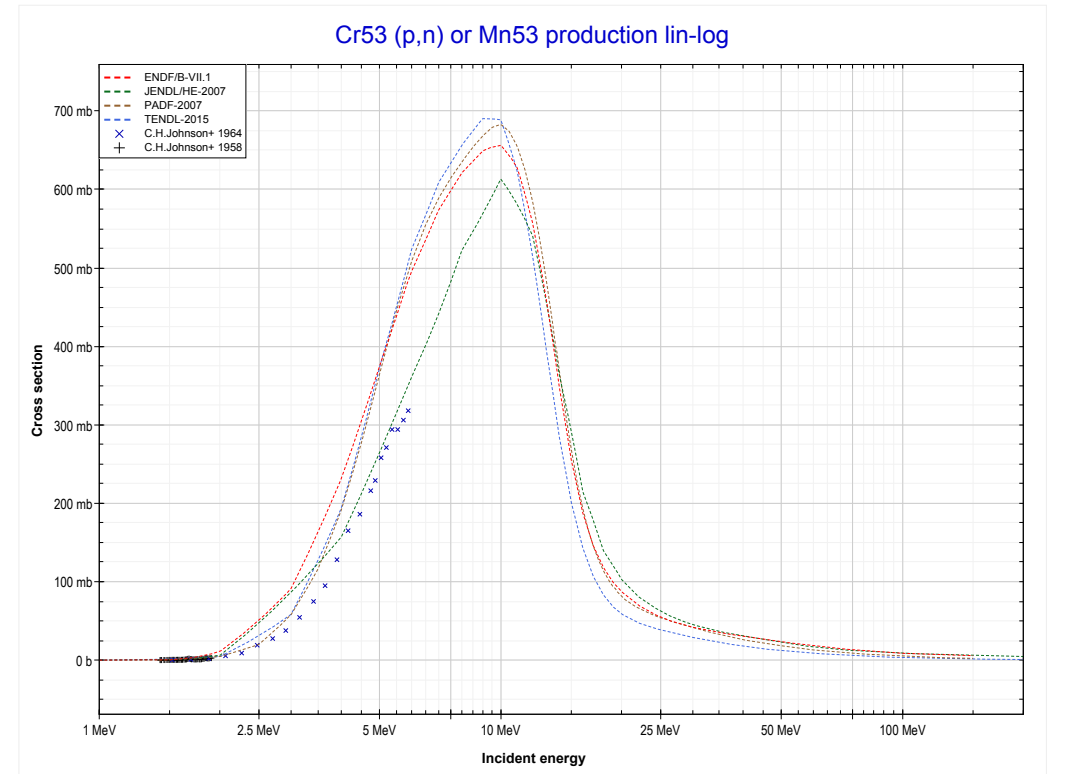
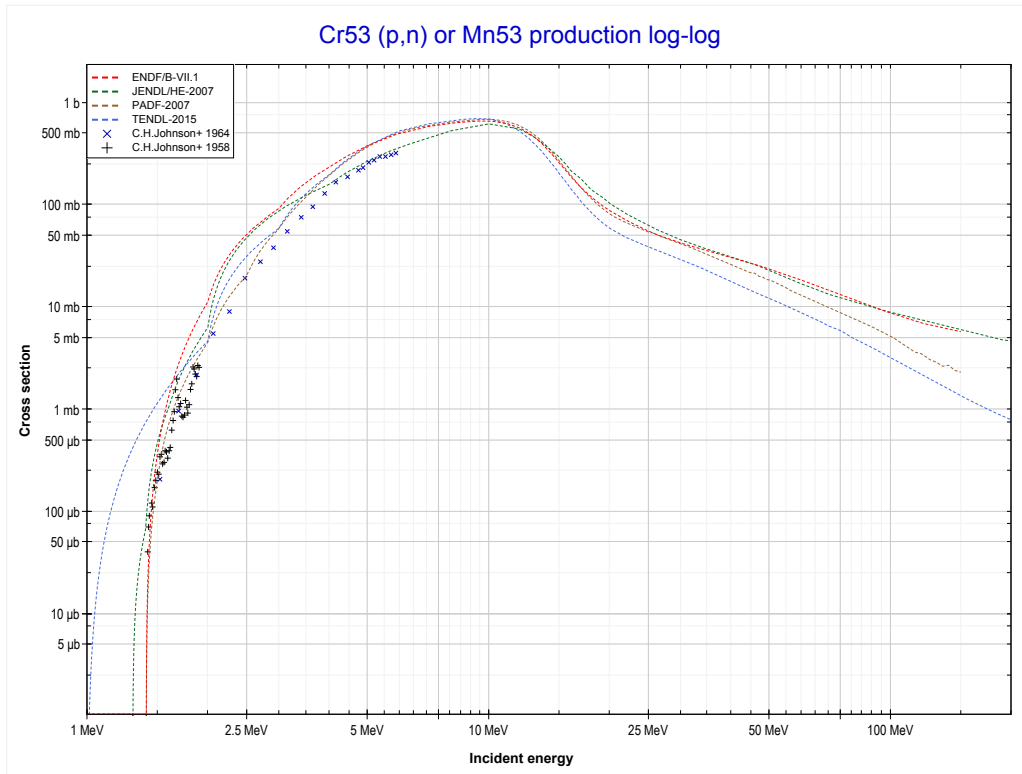
Reaction	Q-Value
Cr52(p,n+t)Cr49	-25817.55 keV
Cr52(p,2n+d)Cr49	-32074.79 keV
Cr52(p,3n+p)Cr49	-34299.35 keV

<< 24-Cr-50	24-Cr-52	24-Cr-54 >>
<< MT42 (p,3n+p)	MT102 (p,γ) or MT5 (Mn53 production)	24-Cr-53 MT4 (p,n) >>



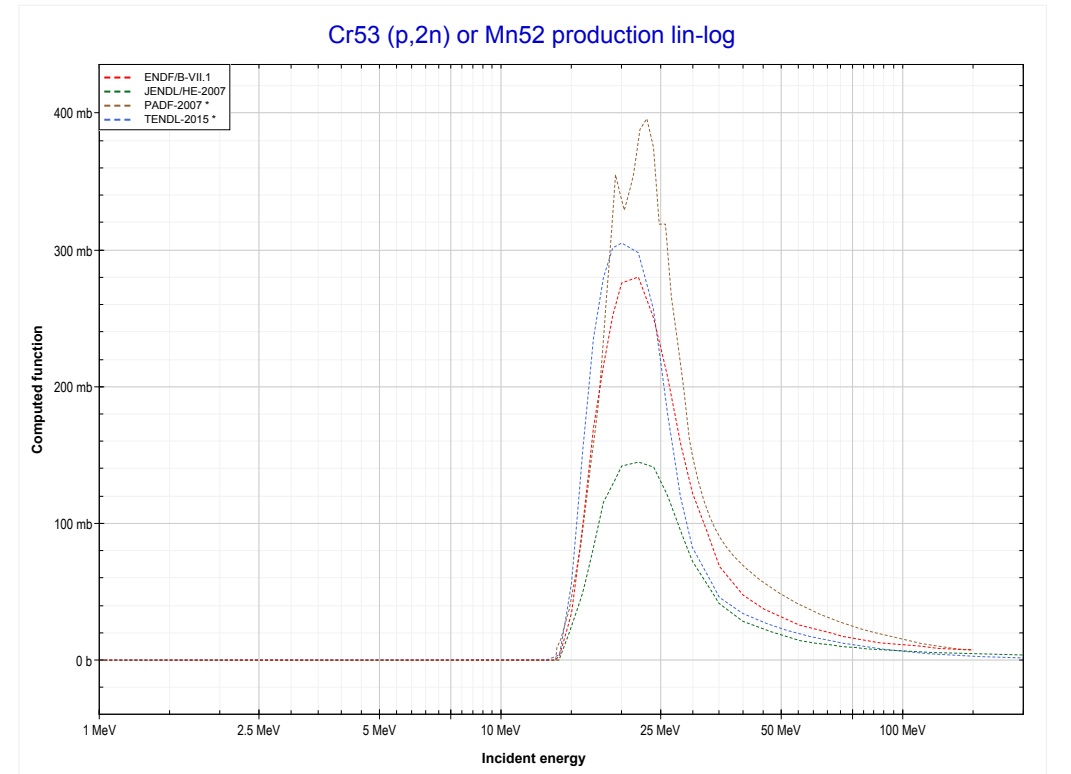
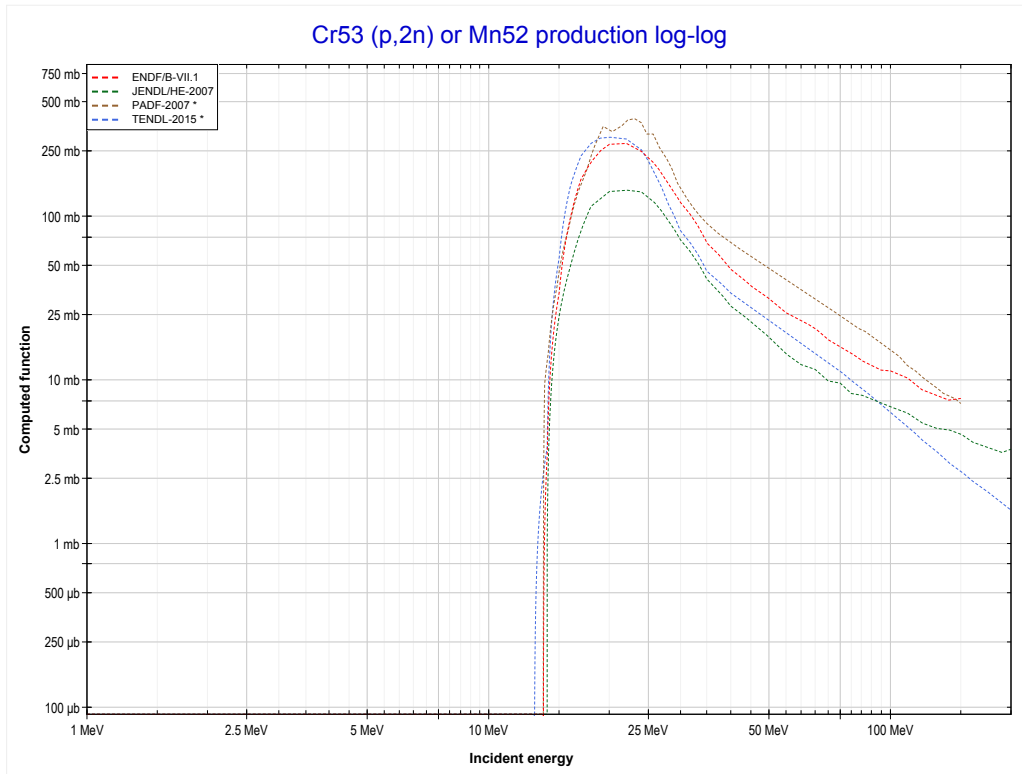
Reaction	Q-Value
Cr52(p, γ)Mn53	6559.87 keV

<< 24-Cr-52	24-Cr-53	24-Cr-54 >>
<< 24-Cr-52 MT102 (p, γ)	MT4 (p,n) or MT5 (Mn53 production)	MT16 (p,2n) >>



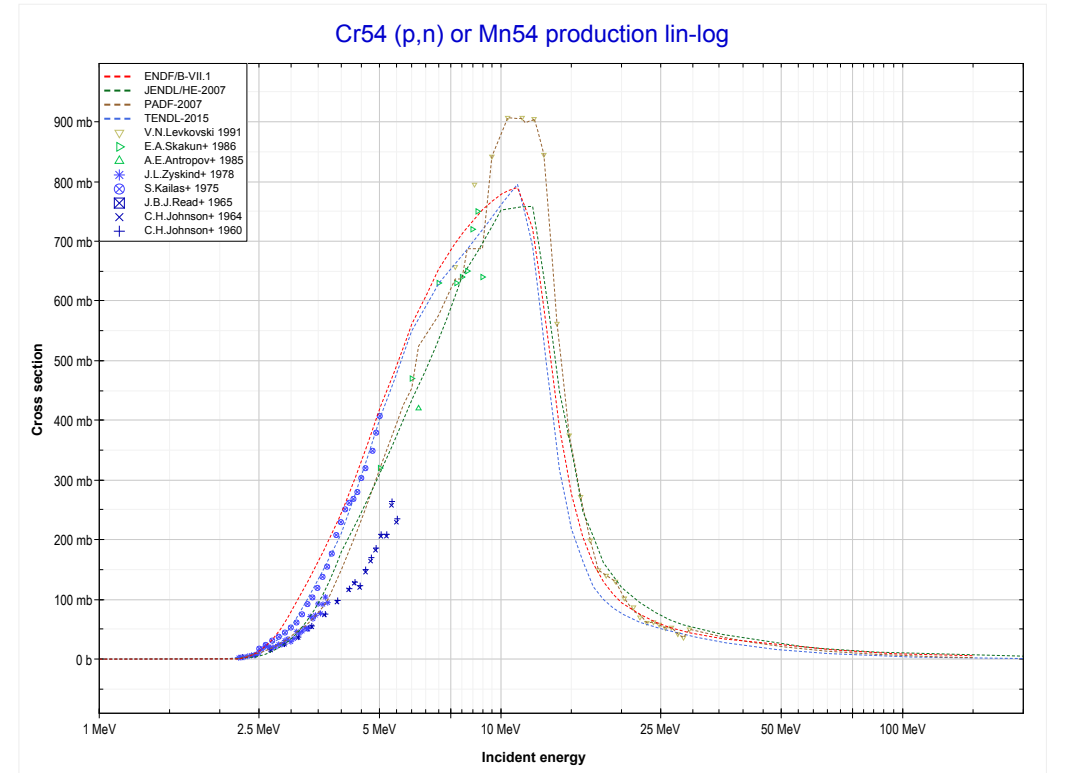
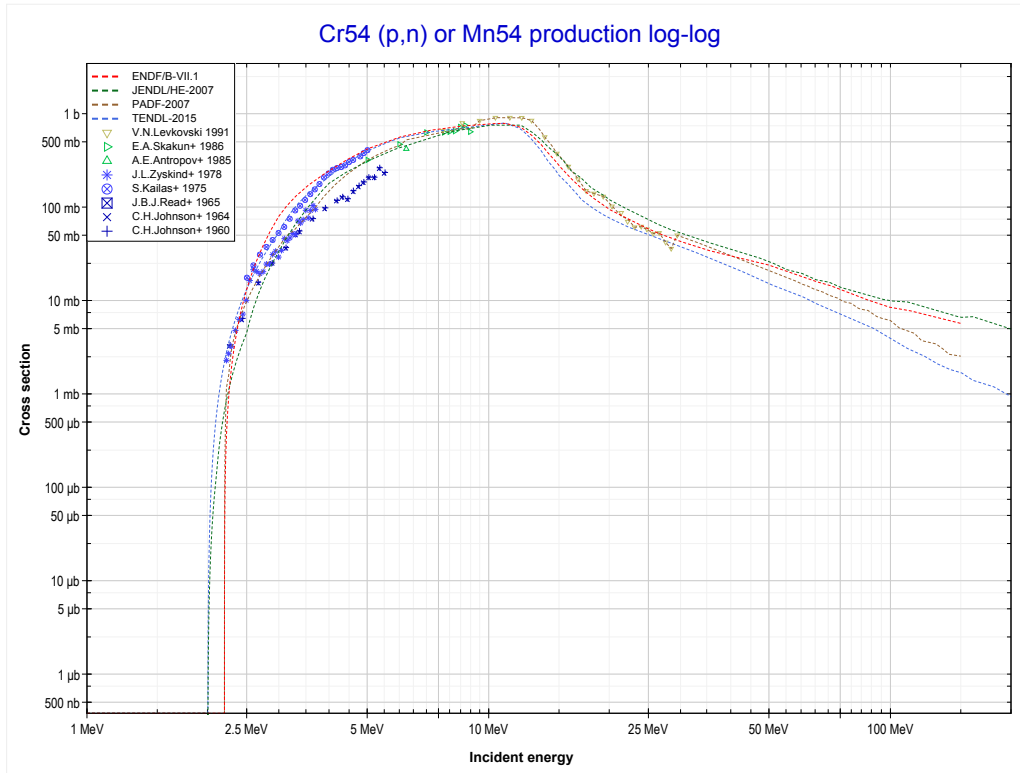
Reaction	Q-Value
Cr53(p,n)Mn53	-1379.25 keV

<< 24-Cr-52	24-Cr-53	26-Fe-56 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Mn52 production)	24-Cr-54 MT4 (p,n) >>



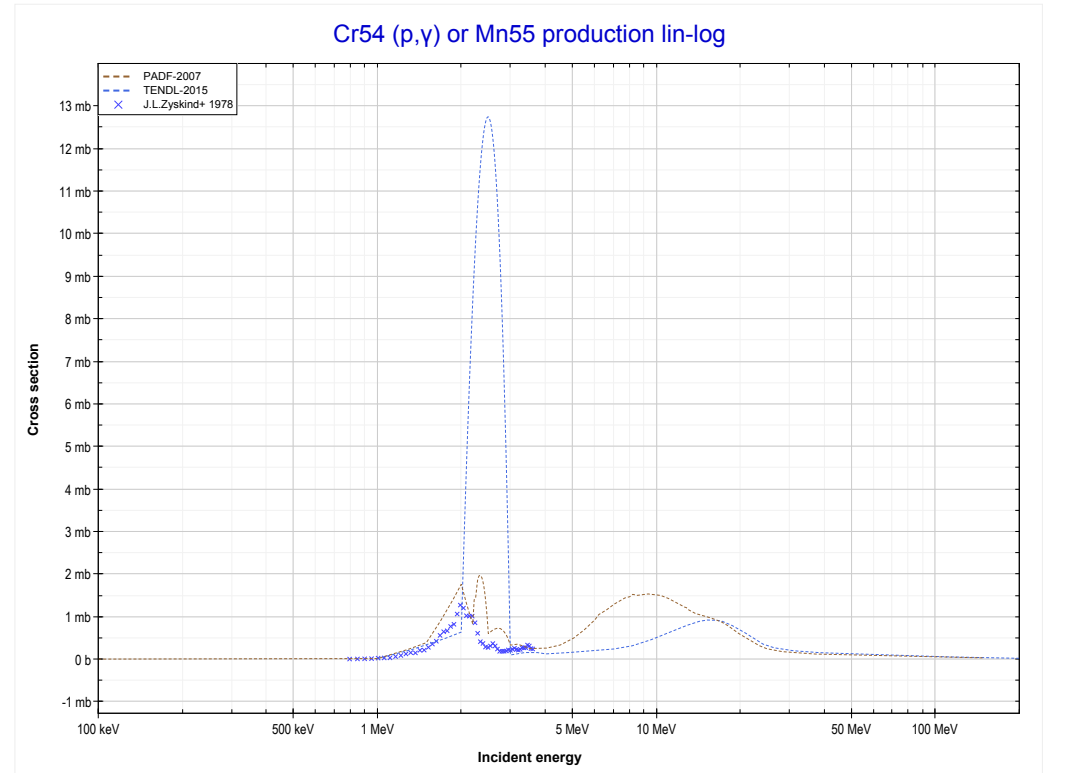
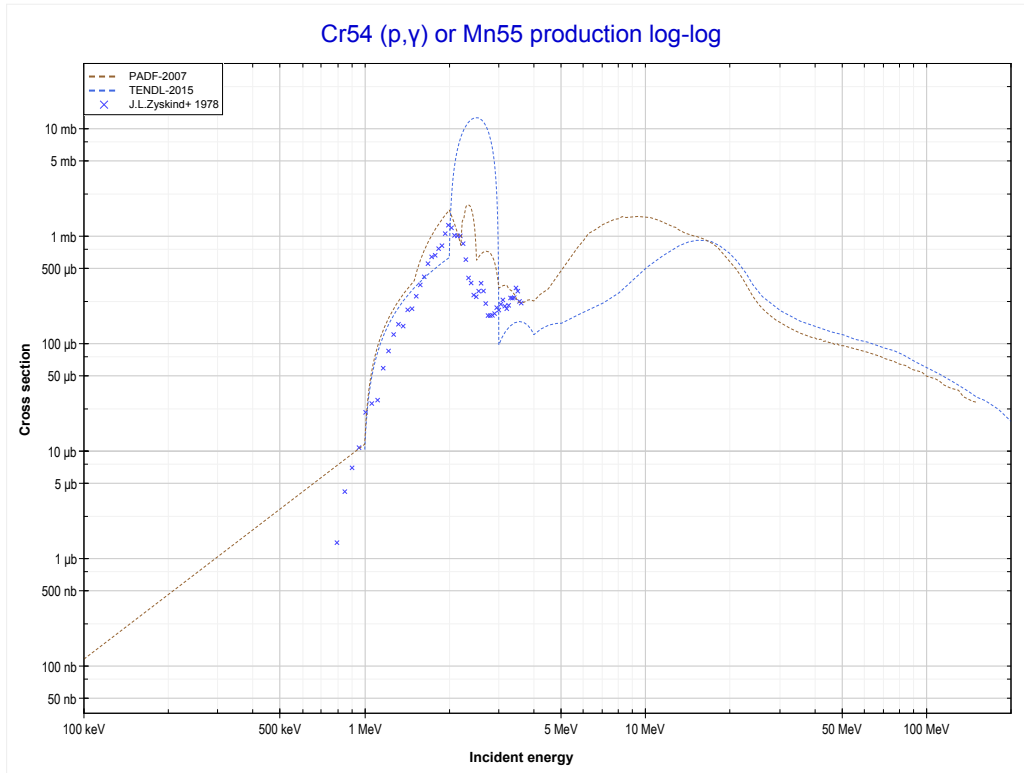
Reaction	Q-Value
Cr53(p,2n)Mn52	-13432.66 keV

<< 24-Cr-53	24-Cr-54	25-Mn-55 >>
<< 24-Cr-53 MT16 (p,2n)	MT4 (p,n) or MT5 (Mn54 production)	MT102 (p, γ) >>



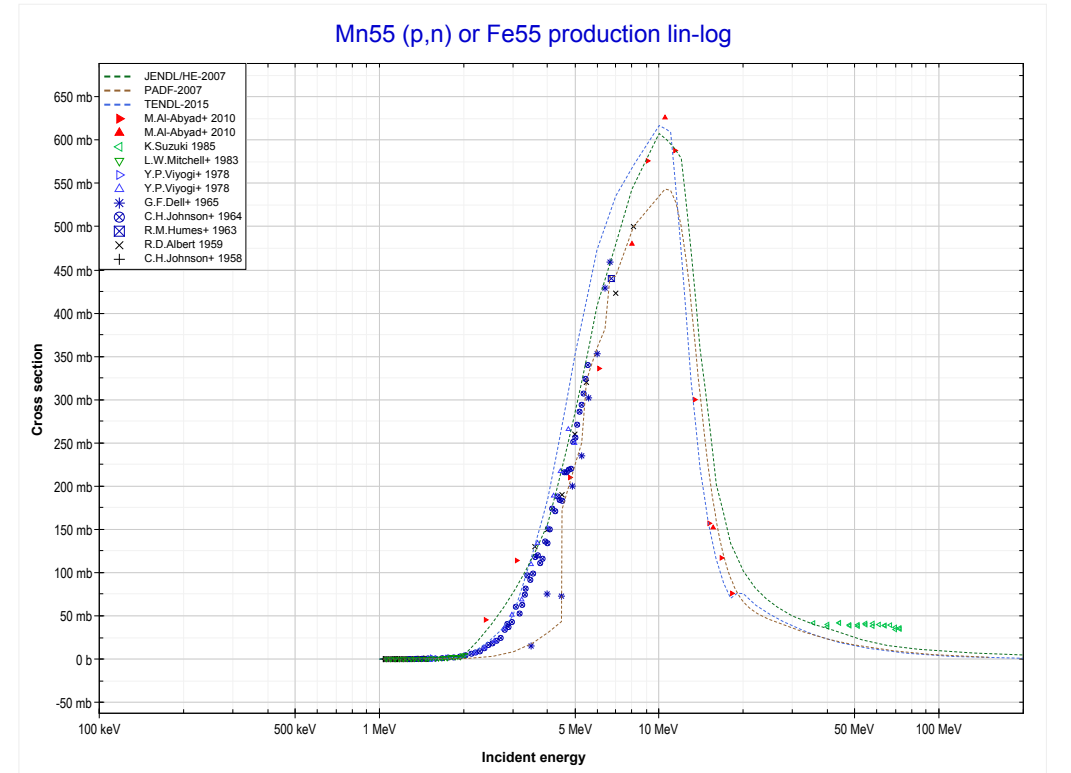
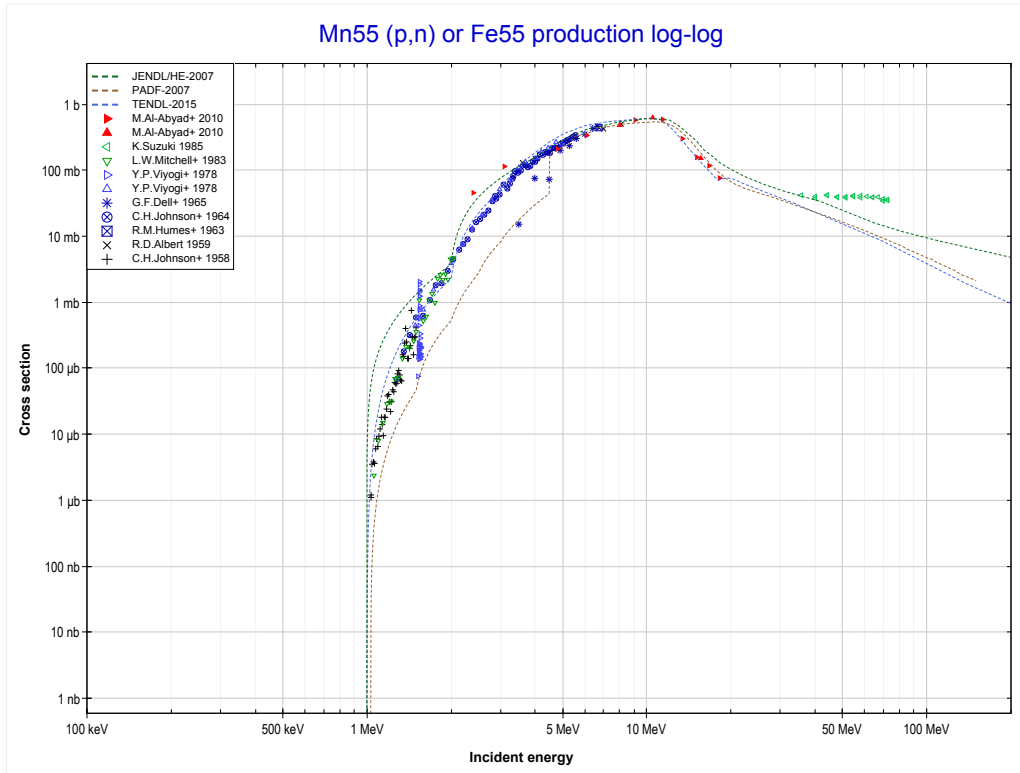
Reaction	Q-Value
Cr54(p,n)Mn54	-2159.55 keV

<< 24-Cr-52	24-Cr-54	25-Mn-55 >>
<< MT4 (p,n)	MT102 (p,γ) or MT5 (Mn55 production)	25-Mn-55 MT4 (p,n) >>



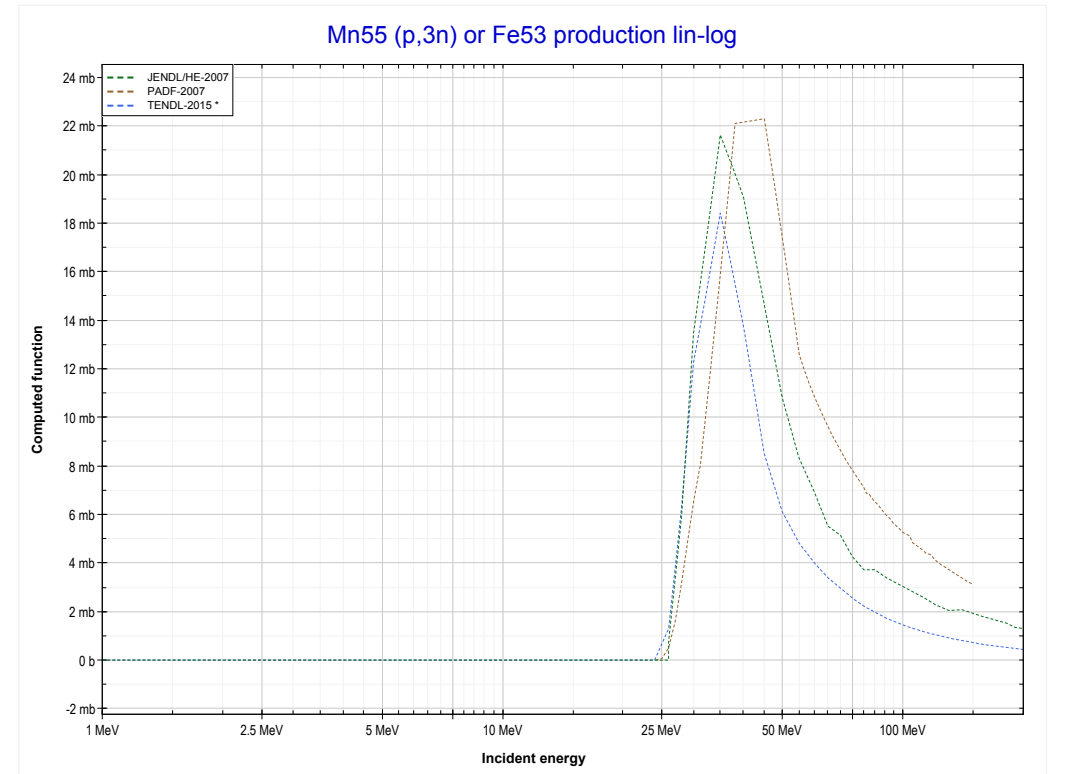
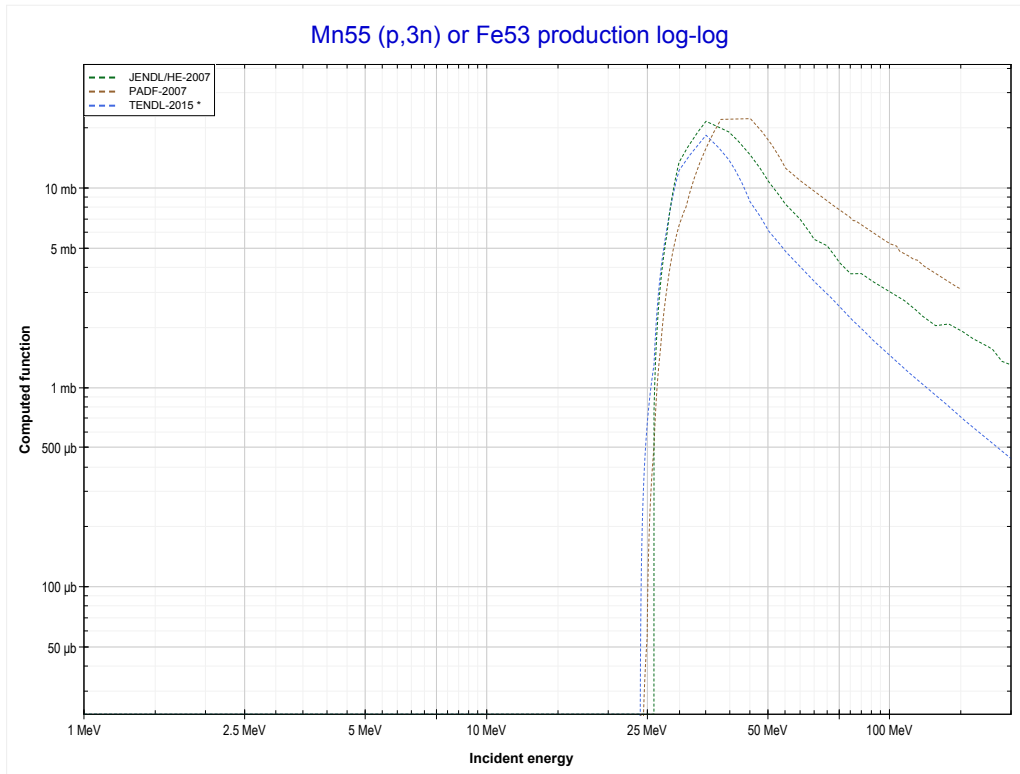
Reaction	Q-Value
Cr54(p, γ)Mn55	8066.97 keV

<< 24-Cr-54	25-Mn-55	26-Fe-56 >>
<< 24-Cr-54 MT102 (p, γ)	MT4 (p,n) or MT5 (Fe55 production)	MT17 (p,3n) >>



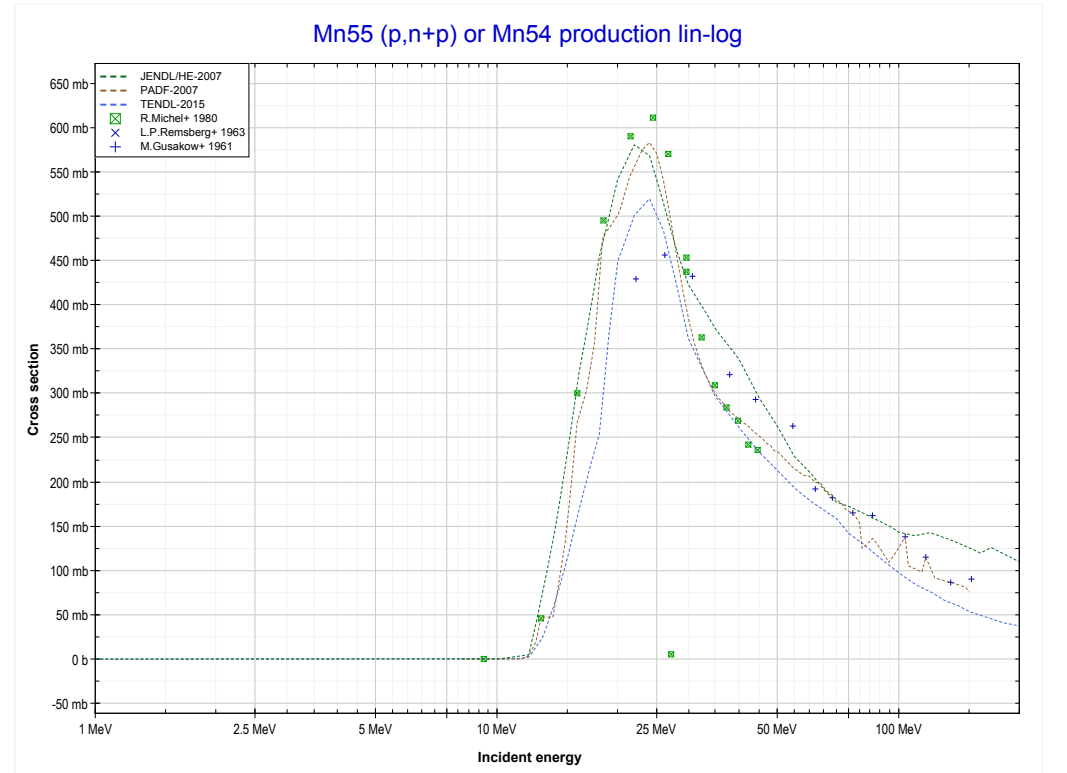
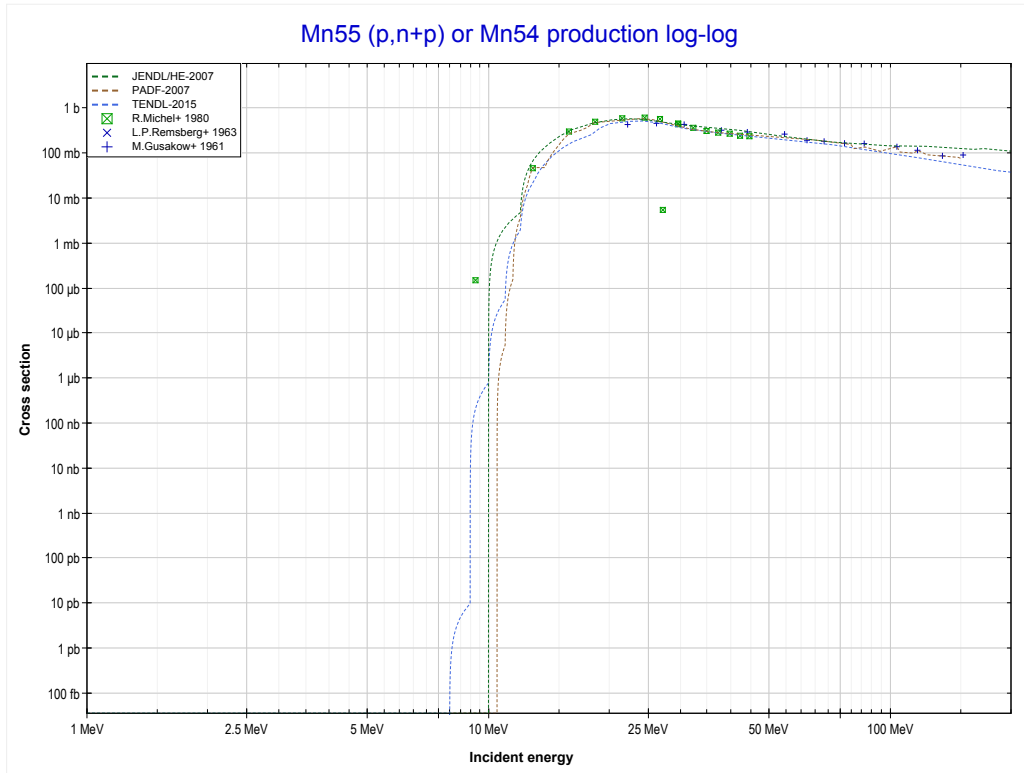
Reaction	Q-Value
Mn55(p,n)Fe55	-1013.45 keV

<< 23-V-51	25-Mn-55	26-Fe-57 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Fe53 production)	MT28 (p,n+p) >>



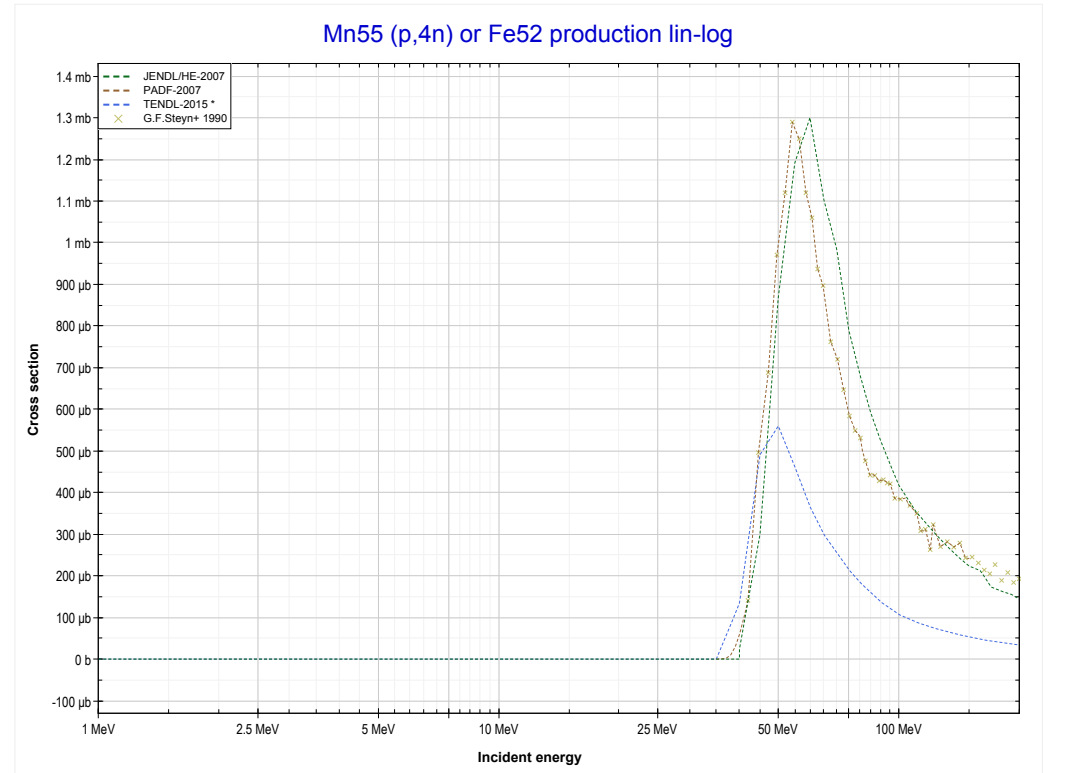
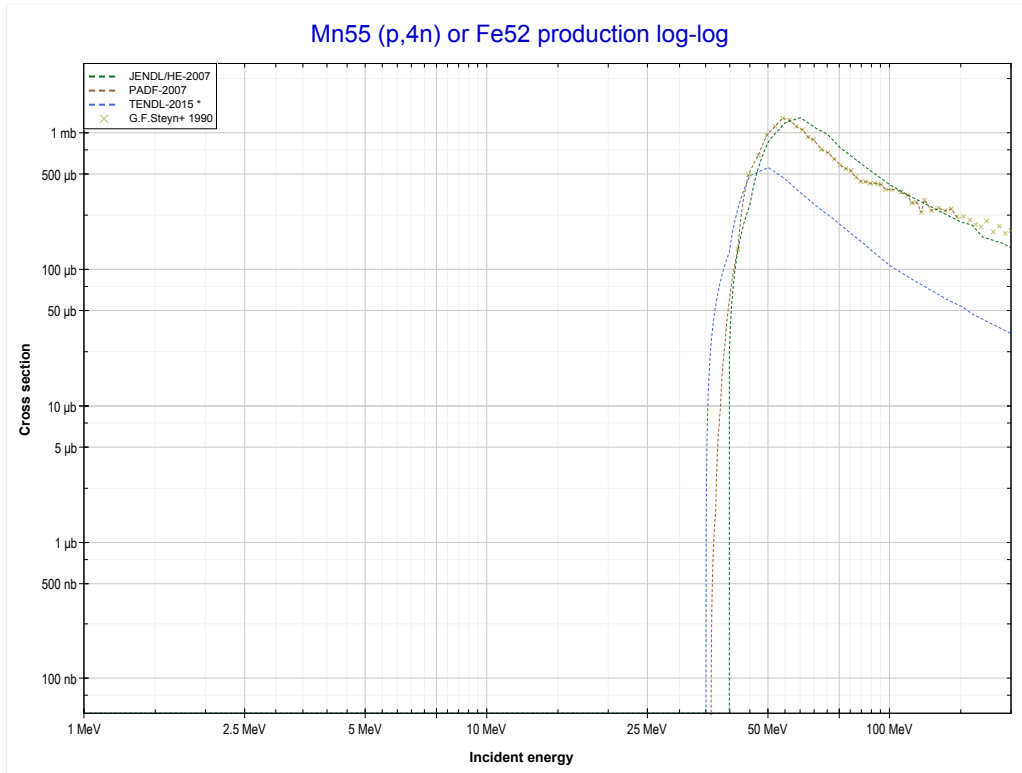
Reaction	Q-Value
Mn55(p,3n)Fe53	-23689.98 keV

<< 24-Cr-52	25-Mn-55	26-Fe-54 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Mn54 production)	MT37 (p,4n) >>



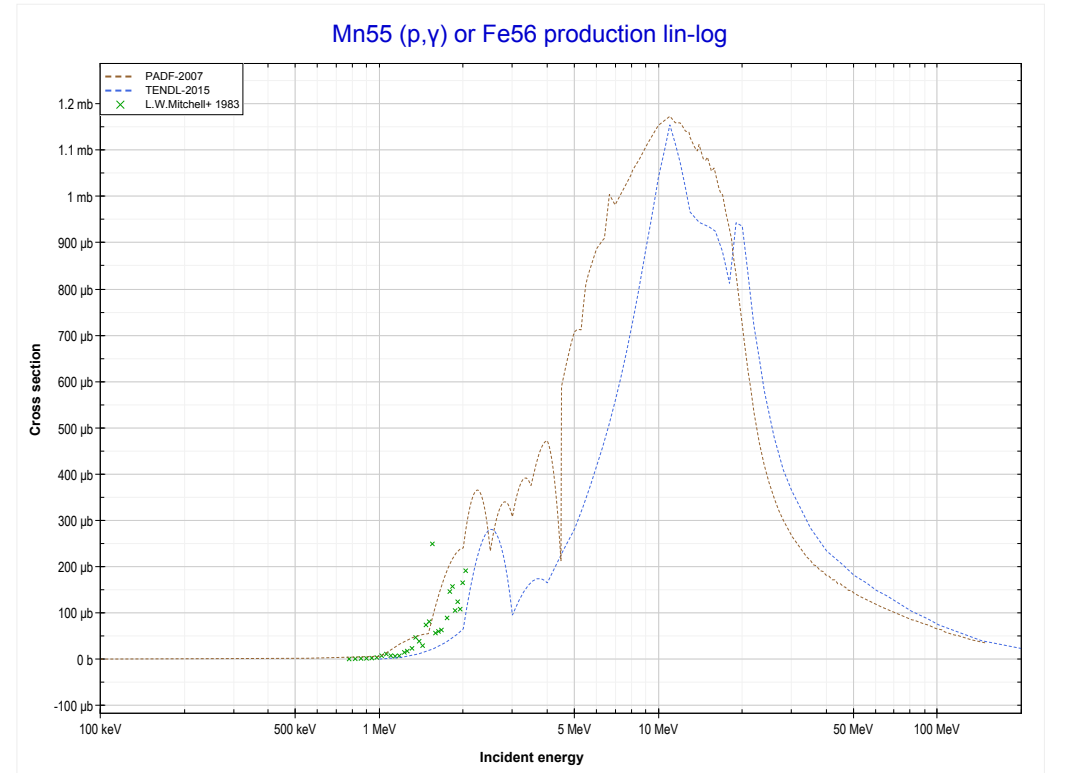
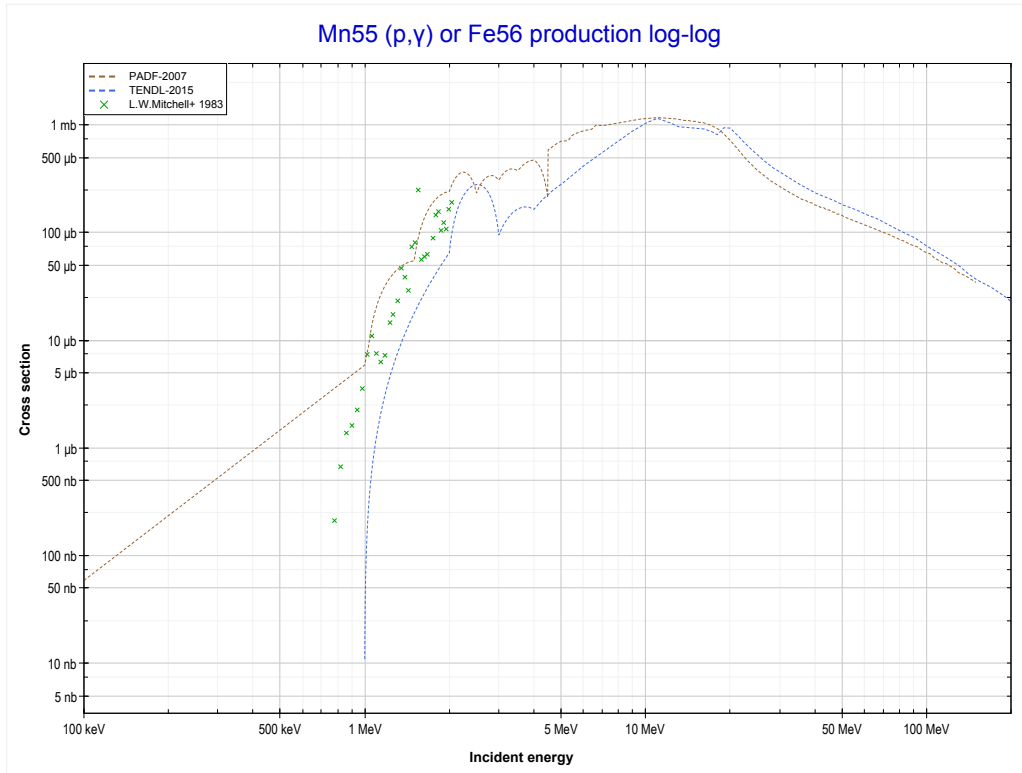
Reaction	Q-Value
Mn55(p,d)Mn54	-8001.95 keV
Mn55(p,n+p)Mn54	-10226.52 keV

<< 23-V-51	25-Mn-55	26-Fe-58 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Fe52 production)	MT102 (p, γ) >>



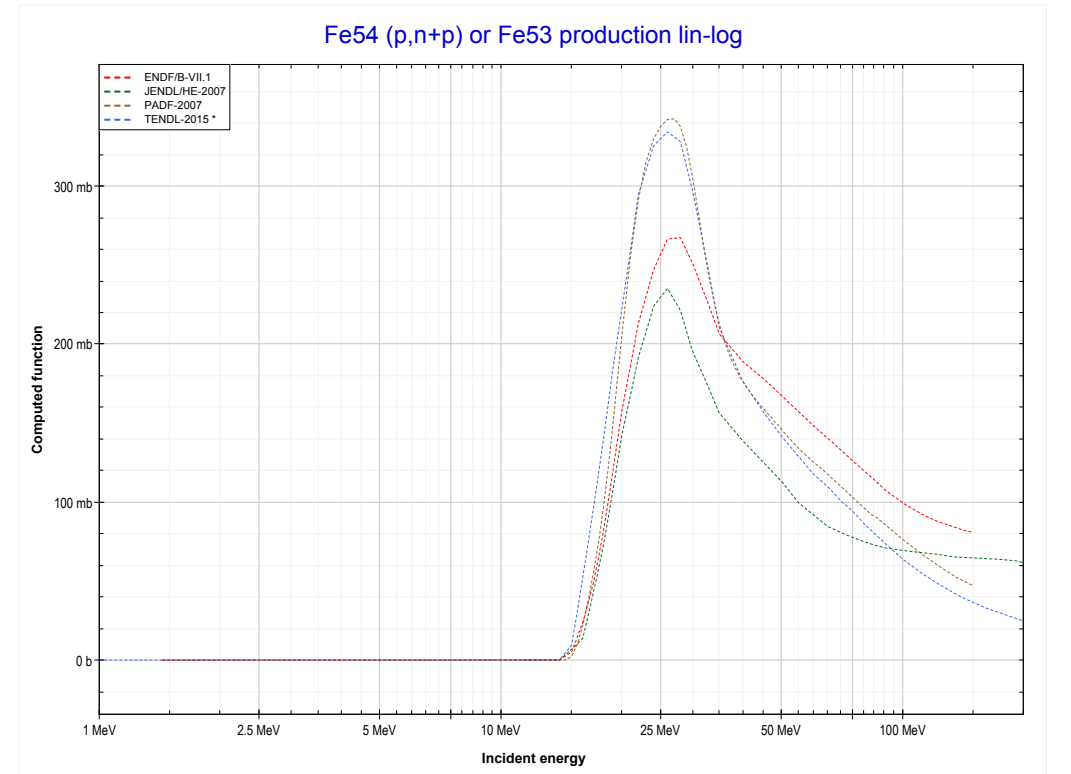
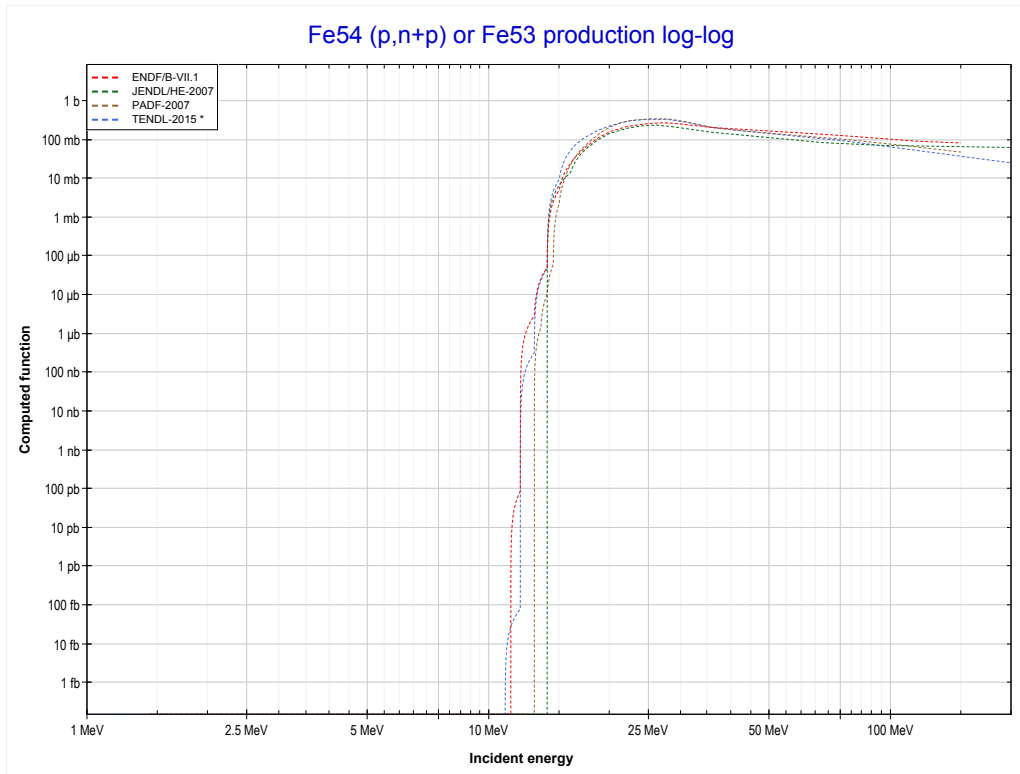
Reaction	Q-Value
Mn55(p,4n)Fe52	-34376.00 keV

<< 24-Cr-54	25-Mn-55	26-Fe-54 >>
<< MT37 (p,4n)	MT102 (p,γ) or MT5 (Fe56 production)	26-Fe-54 MT28 (p,n+p) >>



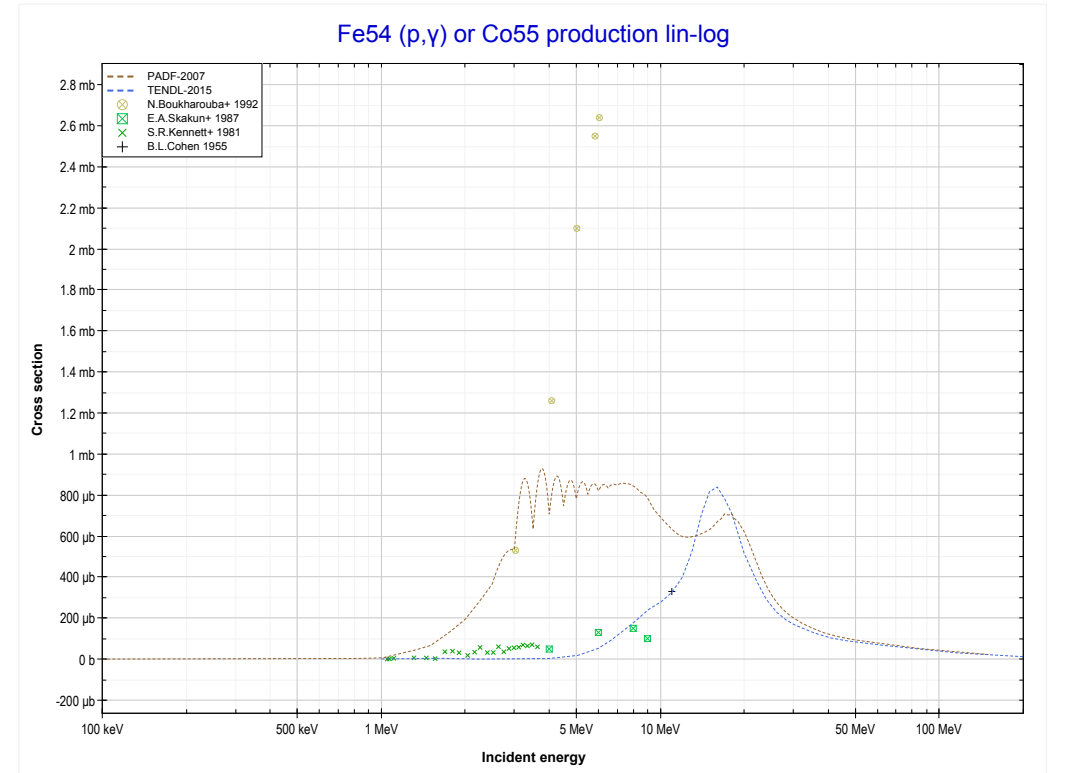
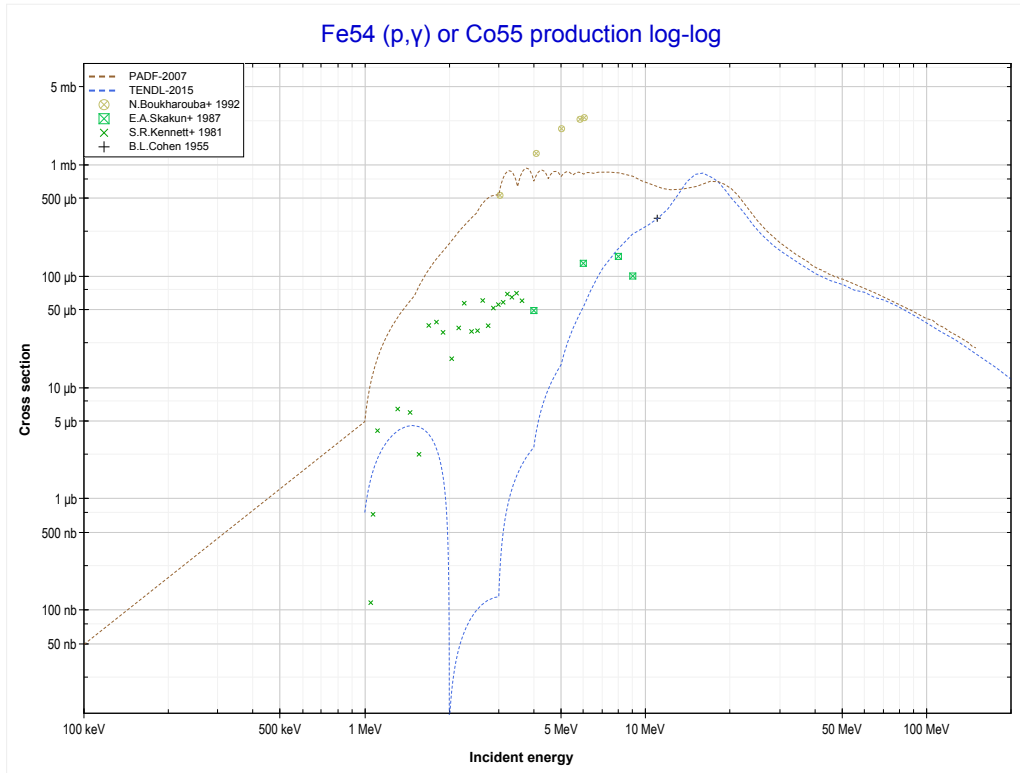
Reaction	Q-Value
Mn55(p, γ)Fe56	10183.67 keV

<< 25-Mn-55	26-Fe-54	26-Fe-56 >>
<< 25-Mn-55 MT102 (p, γ)	MT28 (p,n+p) or MT5 (Fe53 production)	MT102 (p, γ) >>



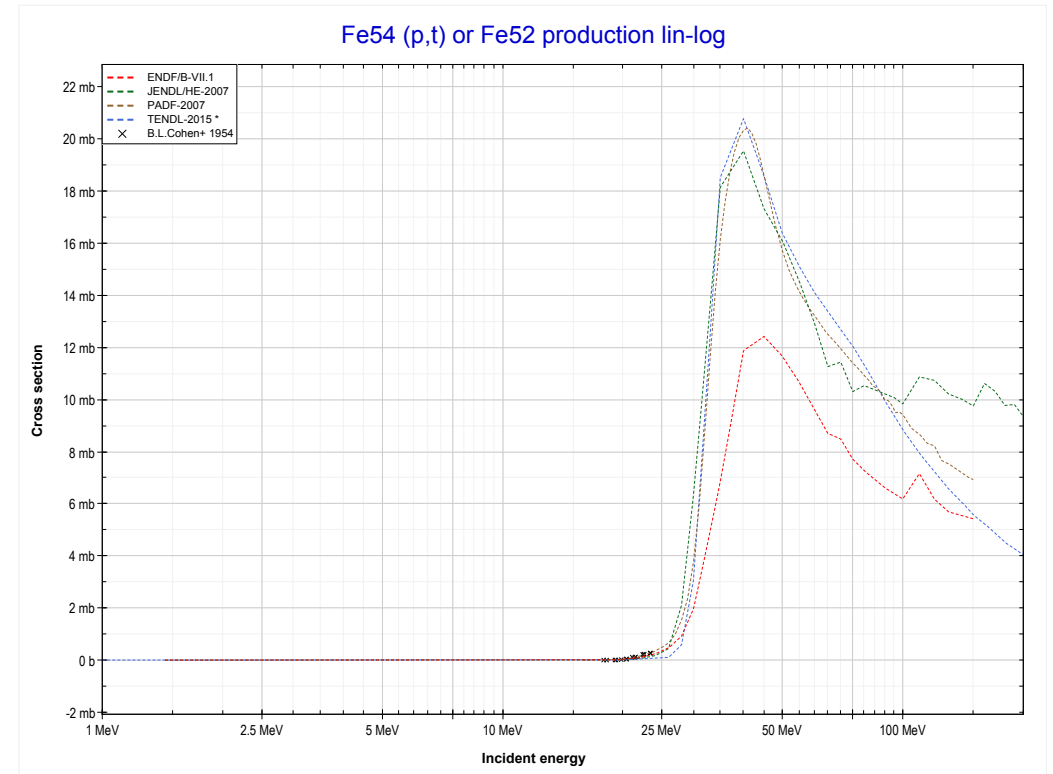
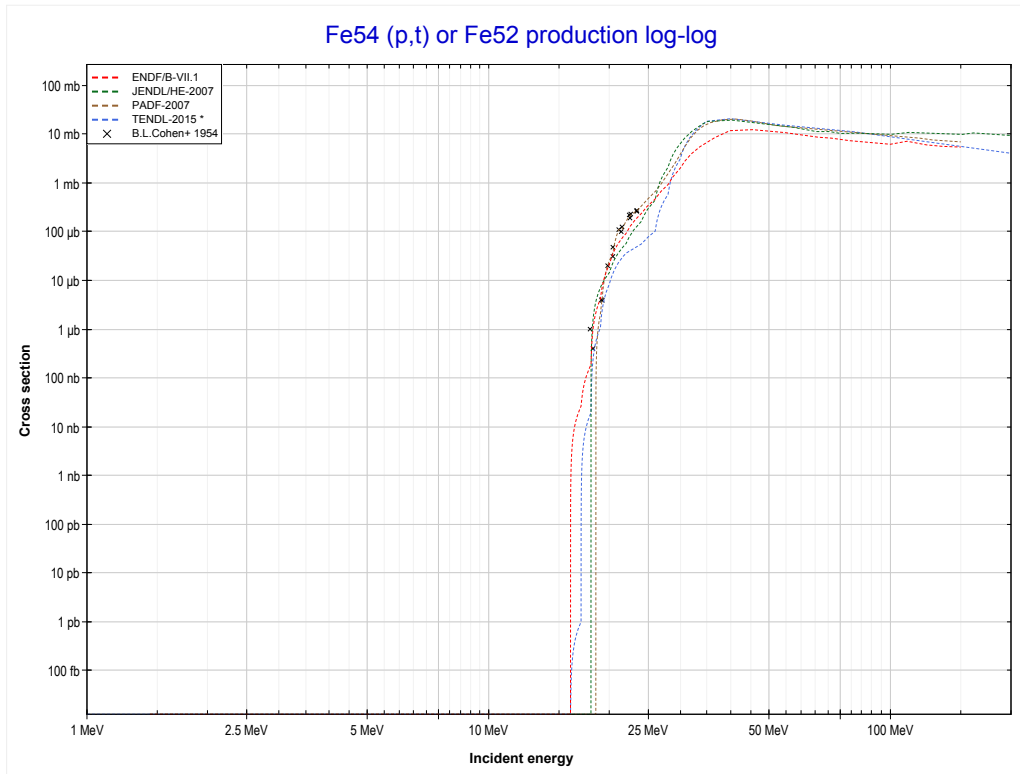
Reaction	Q-Value
Fe54(p,d)Fe53	-11153.95 keV
Fe54(p,n+p)Fe53	-13378.52 keV

<< 25-Mn-55	26-Fe-54	26-Fe-56 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (Co55 production)	MT105 (p,t) >>



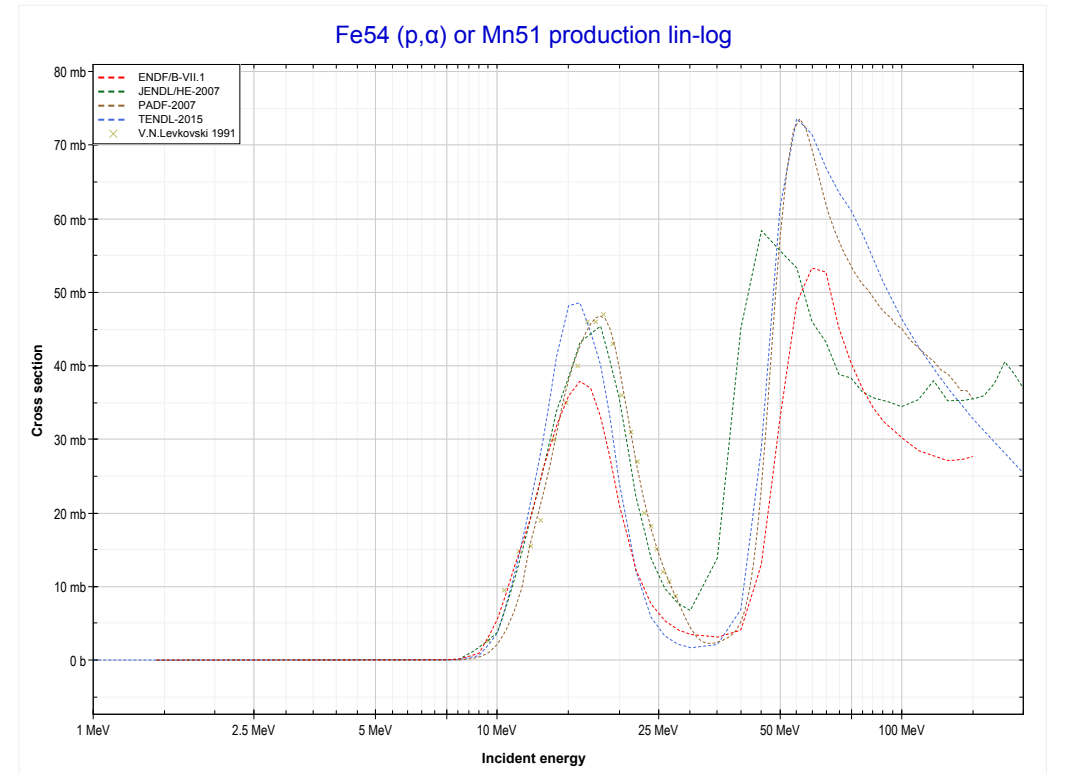
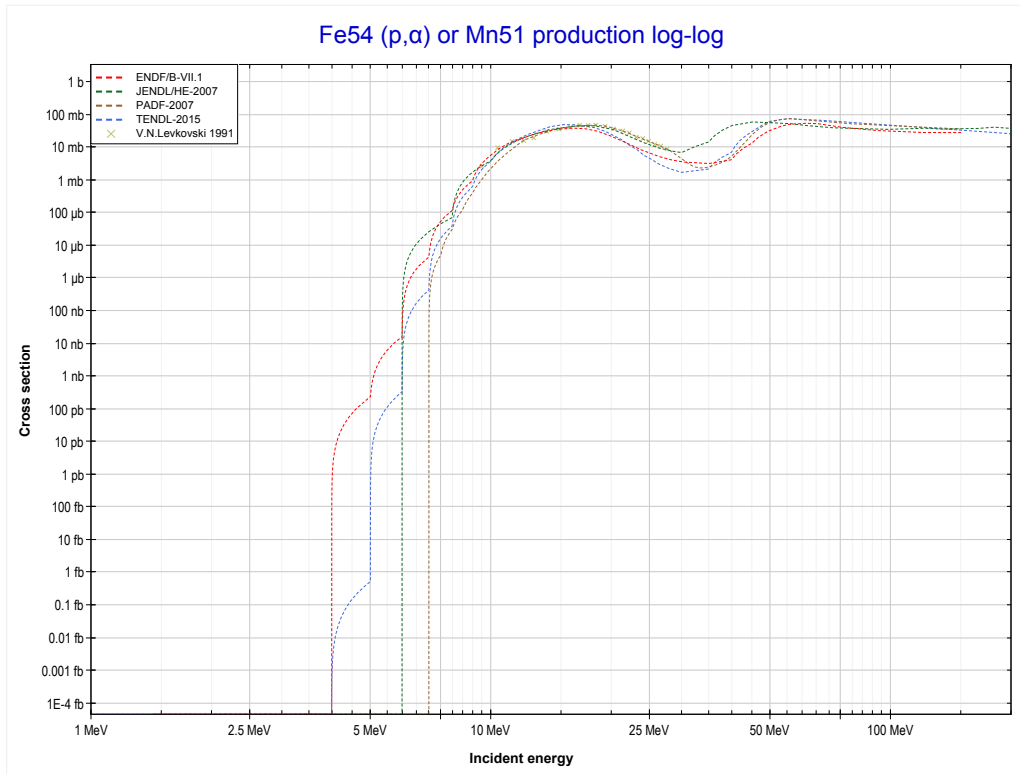
Reaction	Q-Value
Fe54(p, γ)Co55	5064.37 keV

<< 4-Be-9	26-Fe-54	92-U-235 >>
<< MT102 (p, γ)	MT105 (p,t) or MT5 (Fe52 production)	MT107 (p, α) >>



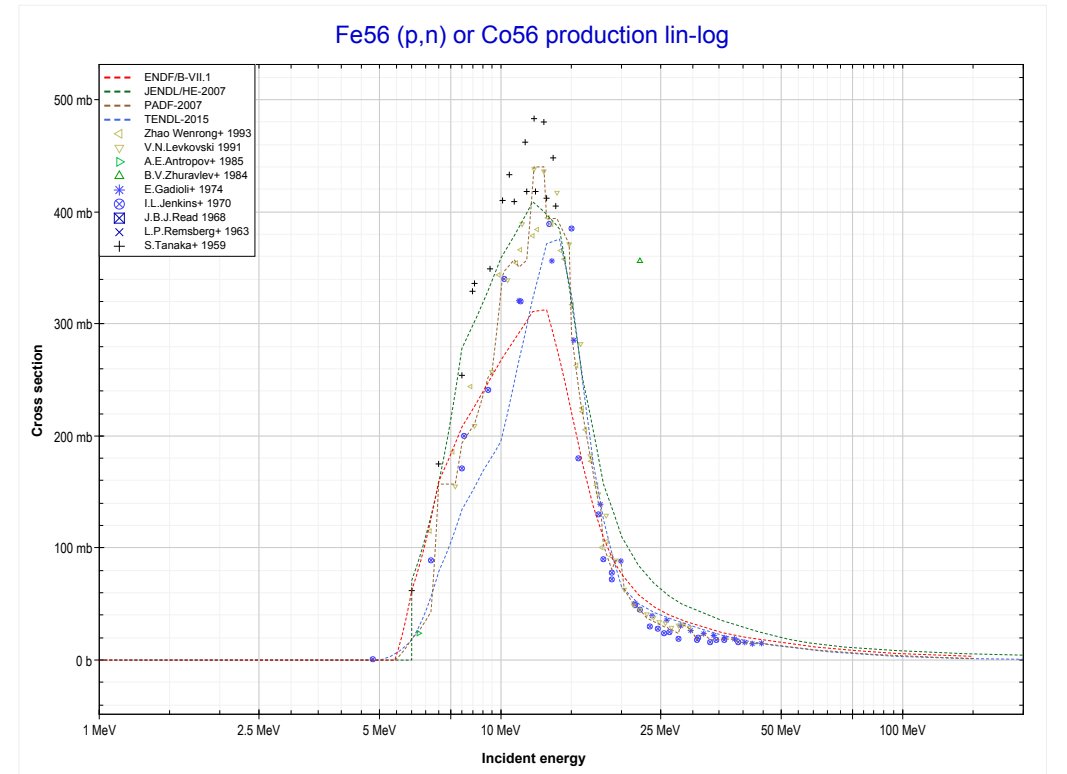
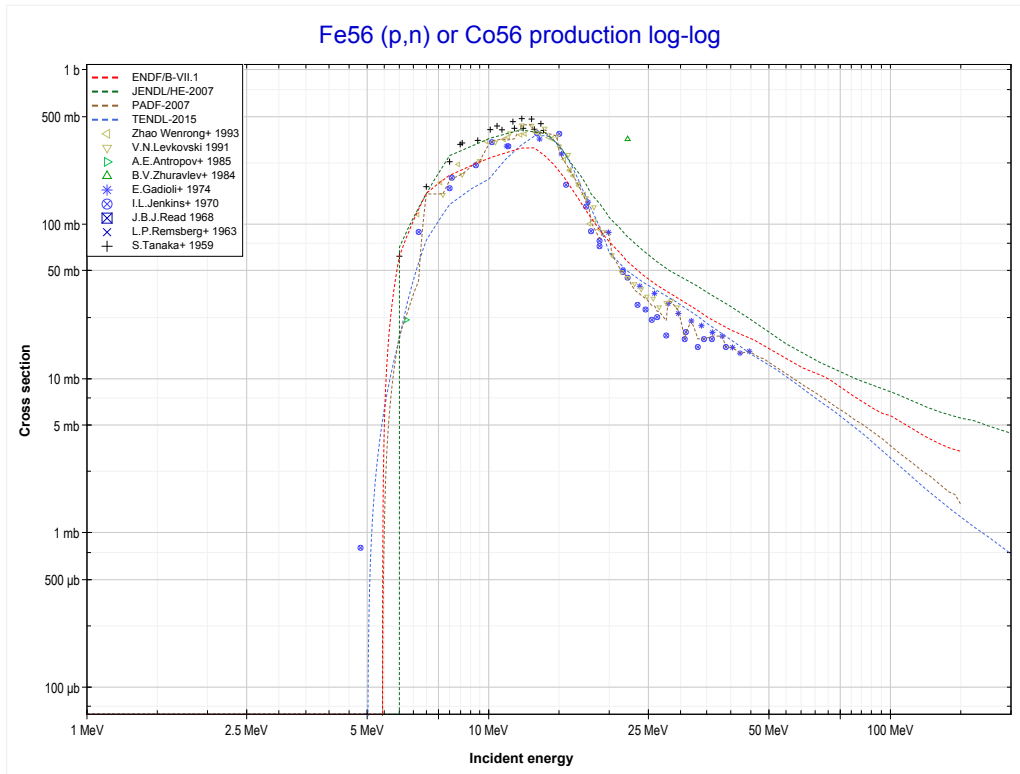
Reaction	Q-Value
Fe54(p,t)Fe52	-15582.74 keV
Fe54(p,n+d)Fe52	-21839.97 keV
Fe54(p,2n+p)Fe52	-24064.53 keV

<< 22-Ti-50	26-Fe-54	26-Fe-57 >>
<< MT105 (p,t)	MT107 (p,α) or MT5 (Mn51 production)	26-Fe-56 MT4 (p,n) >>



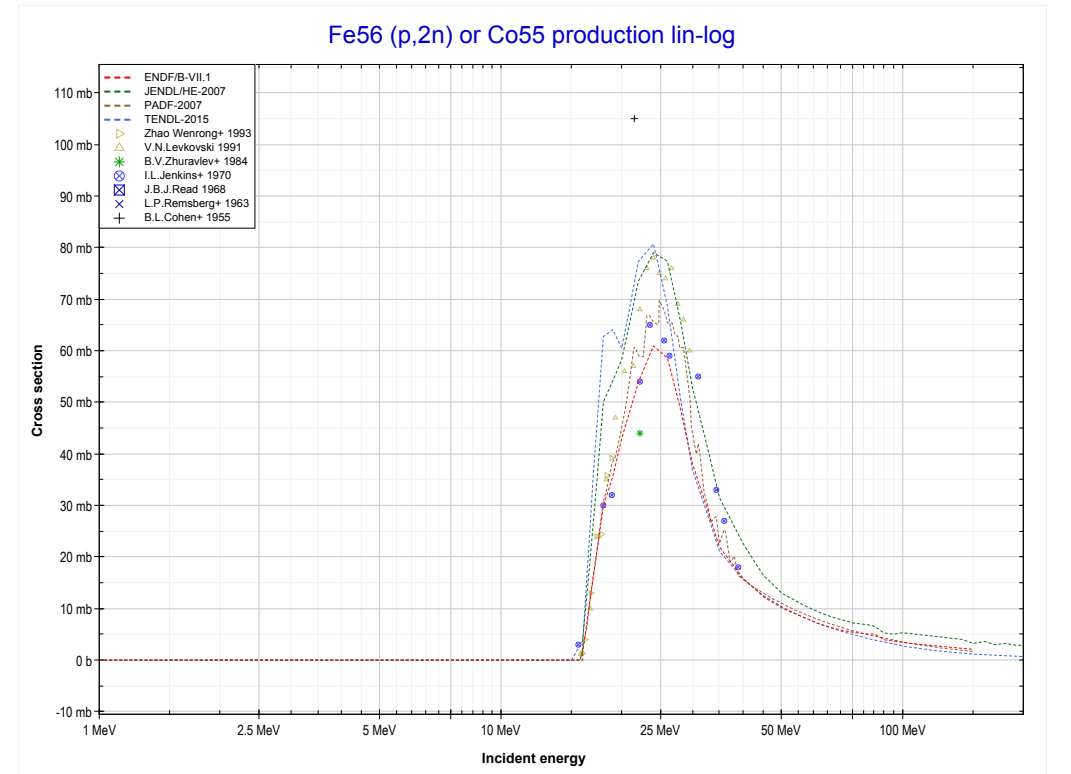
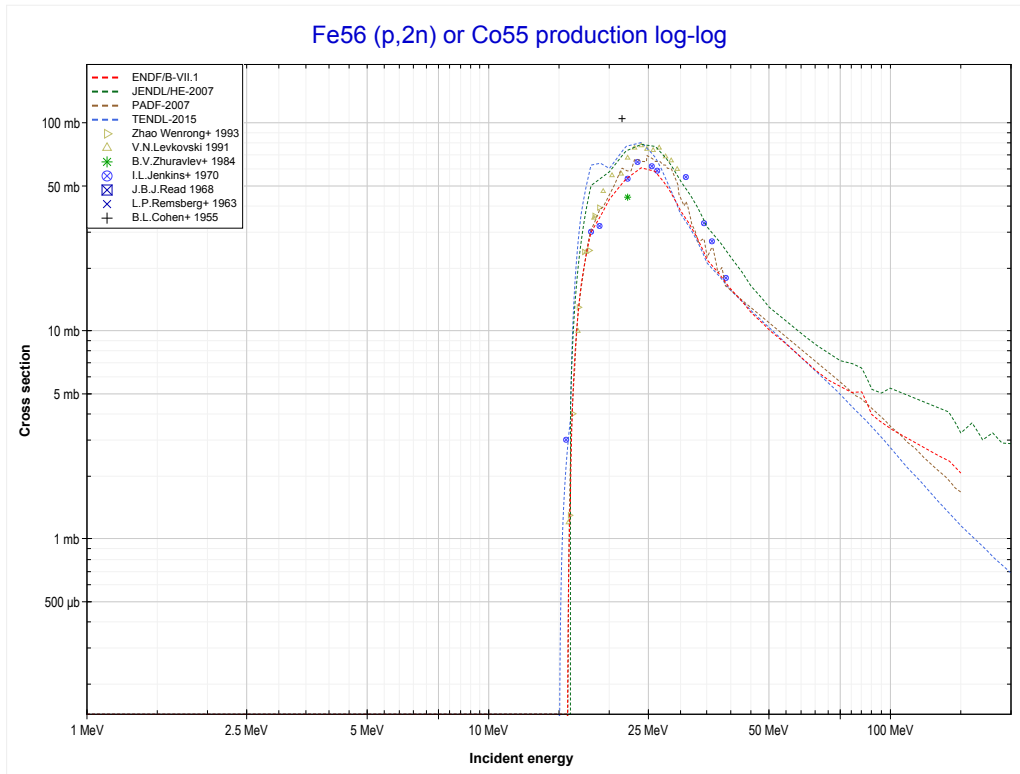
Reaction	Q-Value
Fe54(p, α)Mn51	-3146.35 keV
Fe54(p,p+t)Mn51	-22960.21 keV
Fe54(p,n+He3)Mn51	-23723.96 keV
Fe54(p,2d)Mn51	-26992.87 keV
Fe54(p,n+p+d)Mn51	-29217.44 keV
Fe54(p,2n+2p)Mn51	-31442.00 keV

<< 25-Mn-55	26-Fe-56	26-Fe-57 >>
<< 26-Fe-54 MT107 (p, α)	MT4 (p,n) or MT5 (Co56 production)	MT16 (p,2n) >>



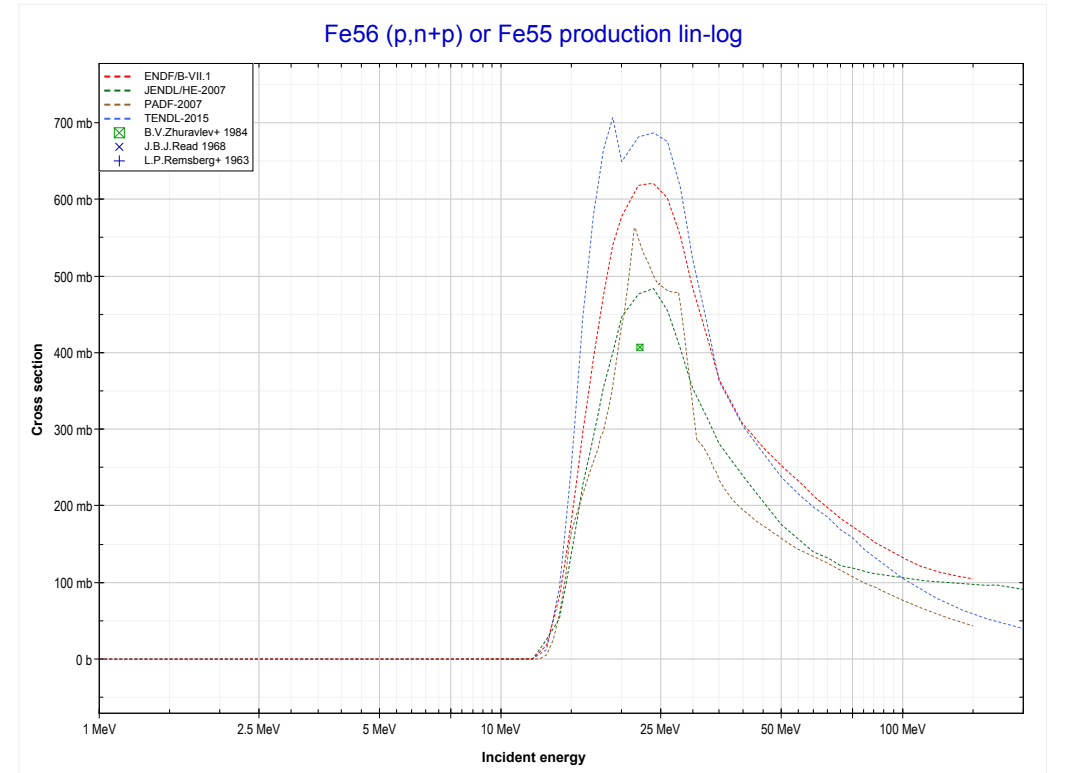
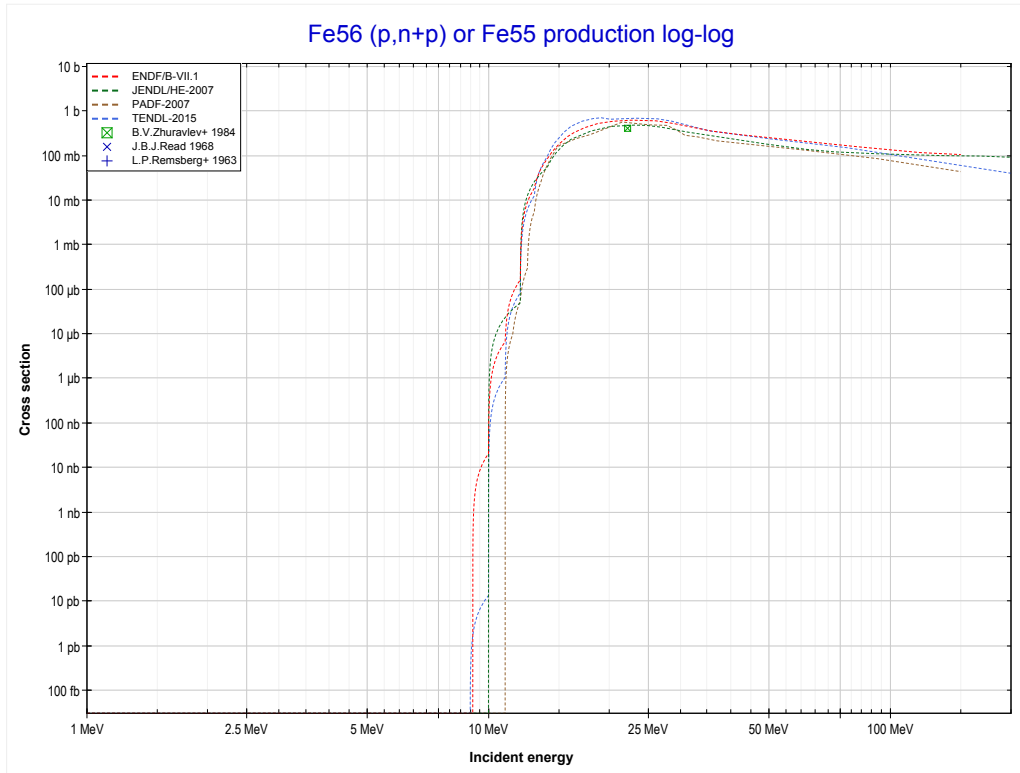
Reaction	Q-Value
Fe56(p,n)Co56	-5348.95 keV

<< 24-Cr-53	26-Fe-56	26-Fe-57 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Co55 production)	MT28 (p,n+p) >>



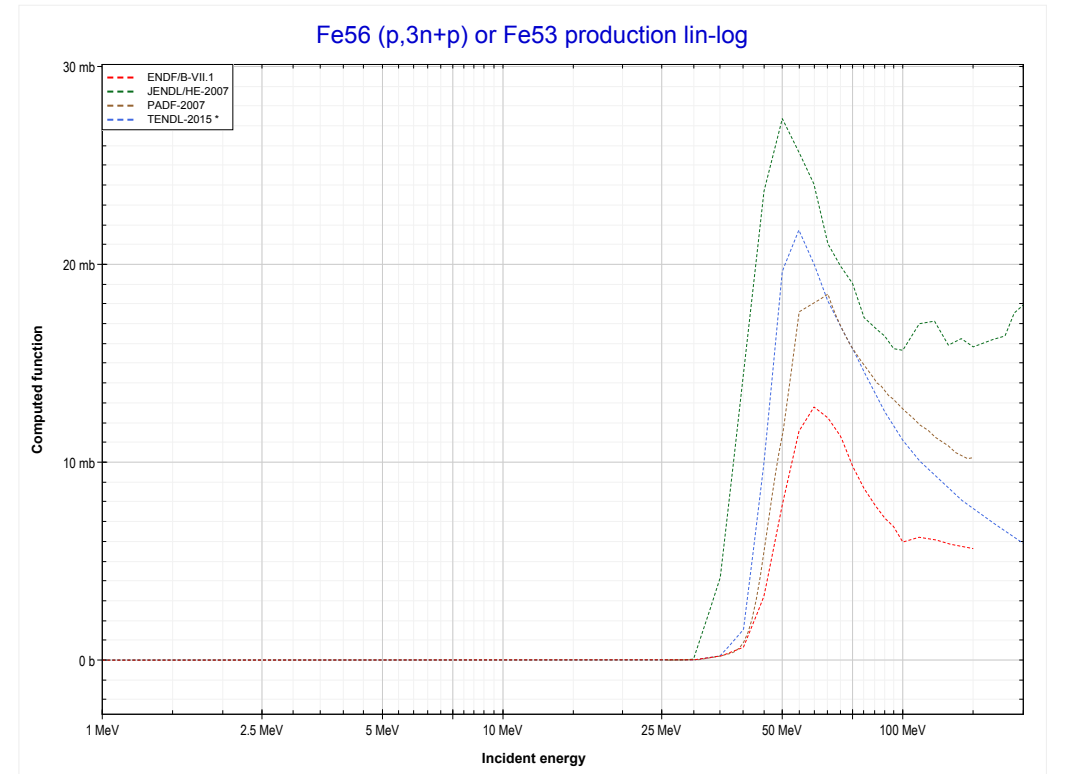
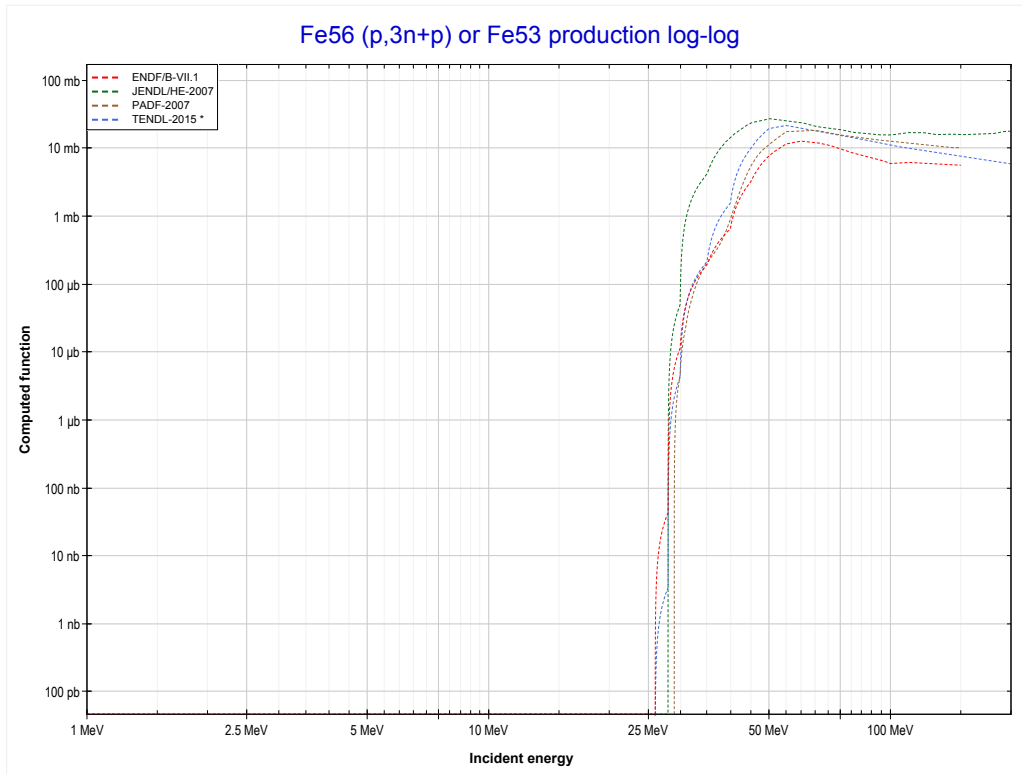
Reaction	Q-Value
Fe56(p,2n)Co55	-15430.76 keV

<< 26-Fe-54	26-Fe-56	27-Co-59 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Fe55 production)	MT42 (p,3n+p) >>



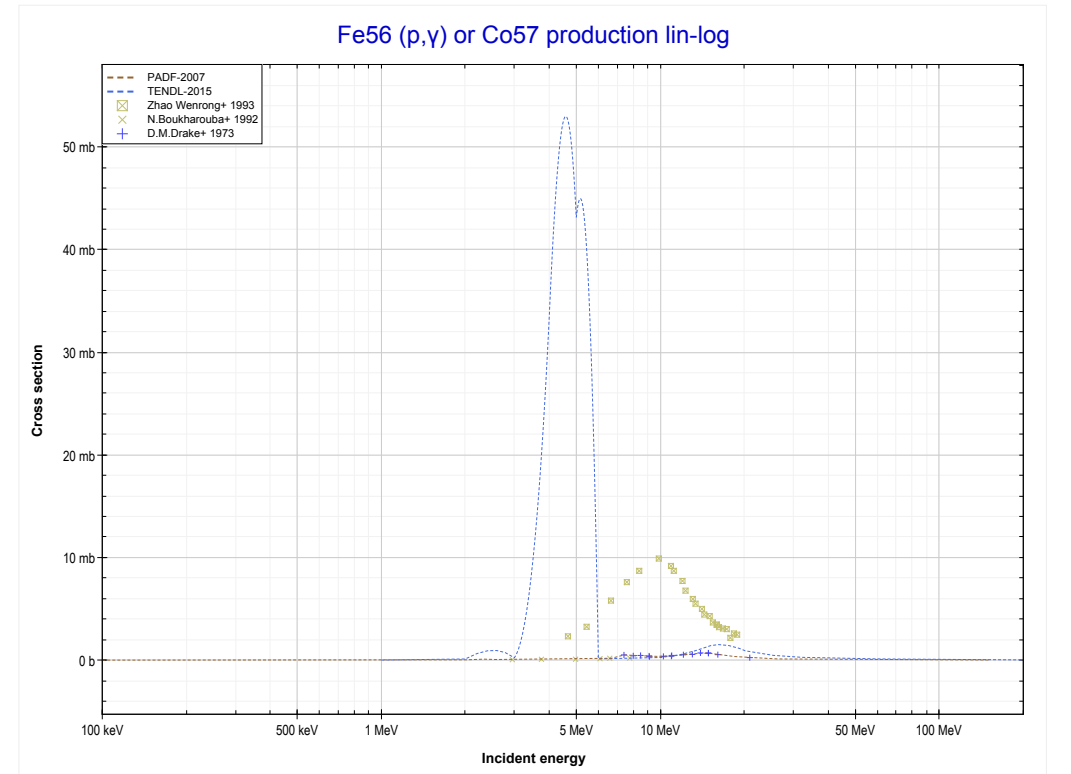
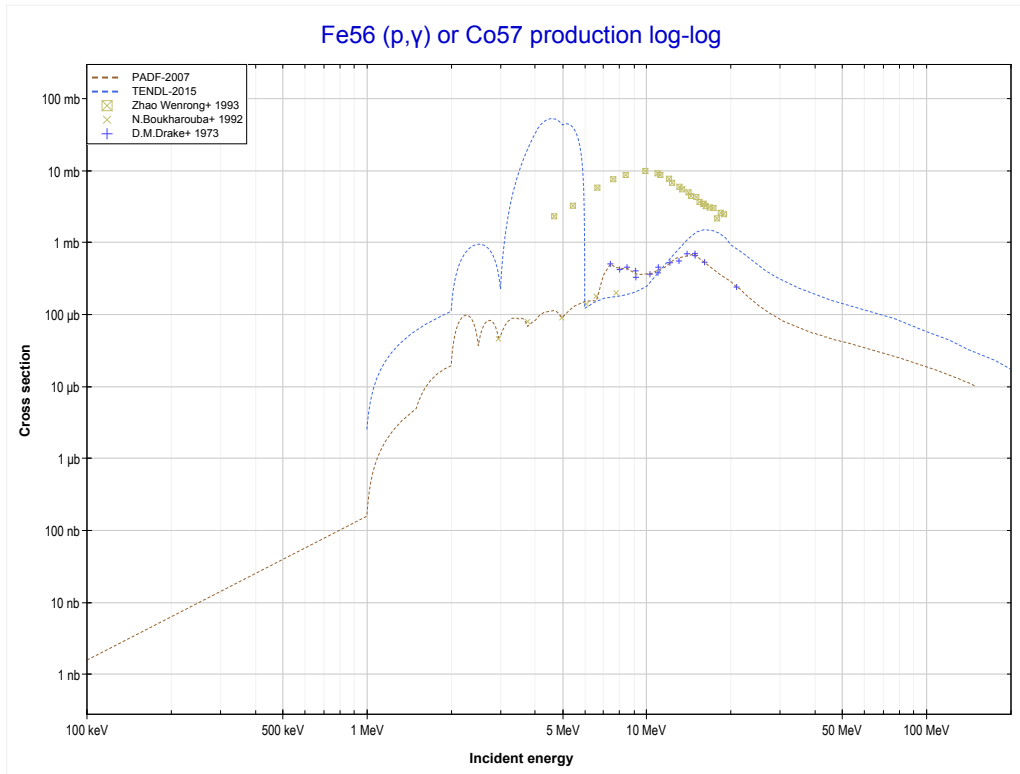
Reaction	Q-Value
Fe56(p,d)Fe55	-8972.55 keV
Fe56(p,n+p)Fe55	-11197.12 keV

<< 24-Cr-52	26-Fe-56	27-Co-59 >>
<< MT28 (p,n+p)	MT42 (p,3n+p) or MT5 (Fe53 production)	MT102 (p, γ) >>



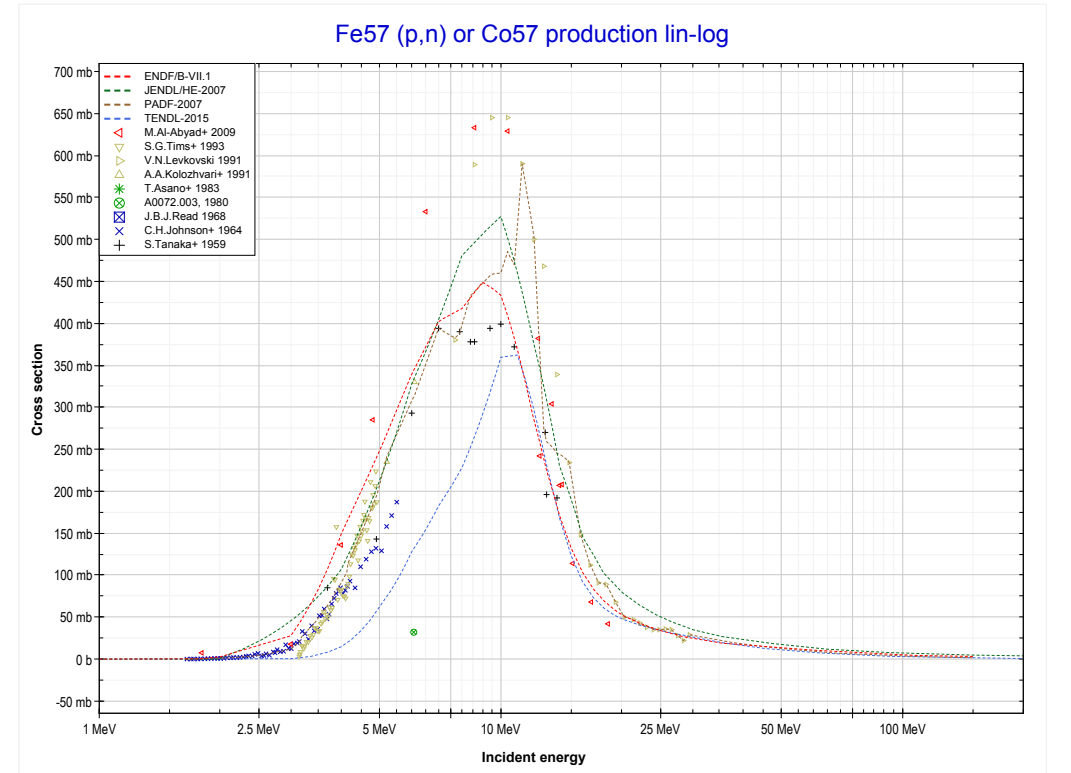
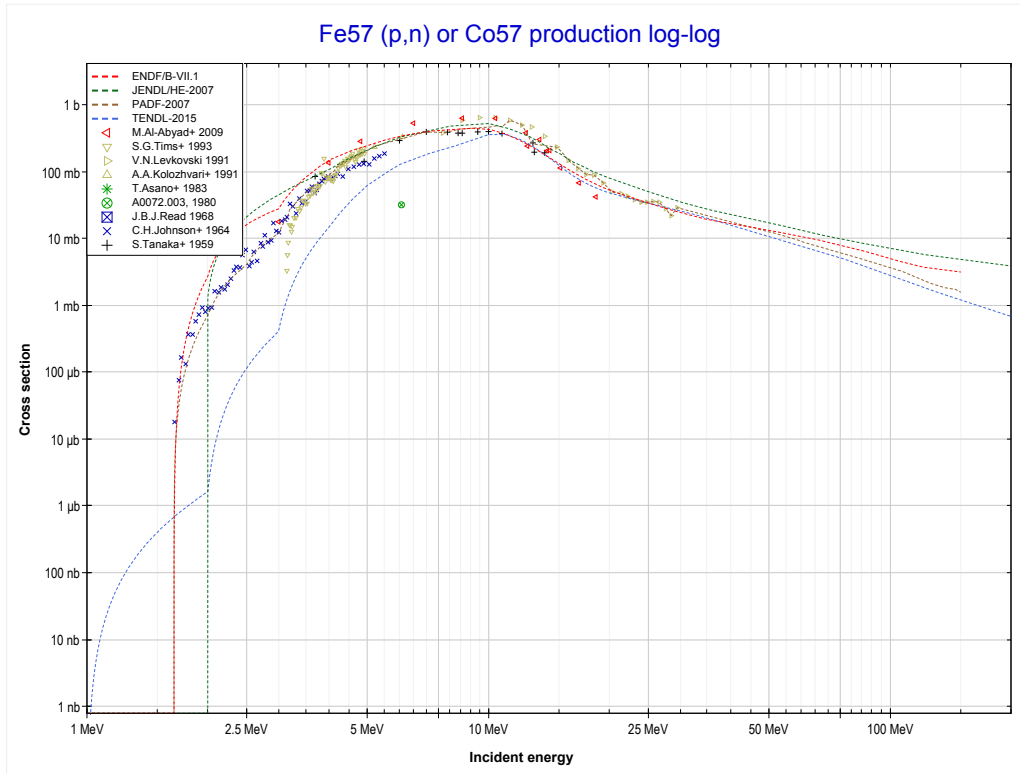
Reaction	Q-Value
Fe56(p,n+t)Fe53	-25391.85 keV
Fe56(p,2n+d)Fe53	-31649.09 keV
Fe56(p,3n+p)Fe53	-33873.65 keV

<< 26-Fe-54	26-Fe-56	26-Fe-58 >>
<< MT42 (p,3n+p)	MT102 (p,γ) or MT5 (Co57 production)	26-Fe-57 MT4 (p,n) >>



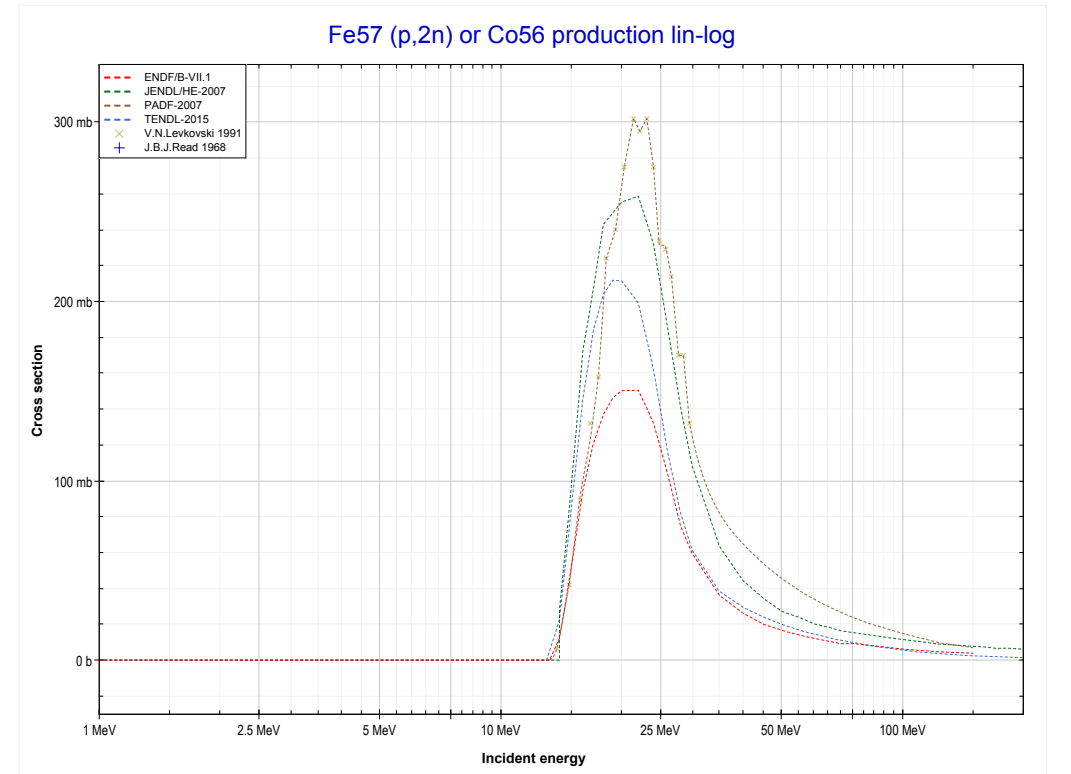
Reaction	Q-Value
Fe56(p, γ)Co57	6027.47 keV

<< 26-Fe-56	26-Fe-57	26-Fe-58 >>
<< 26-Fe-56 MT102 (p, γ)	MT4 (p,n) or MT5 (Co57 production)	MT16 (p,2n) >>



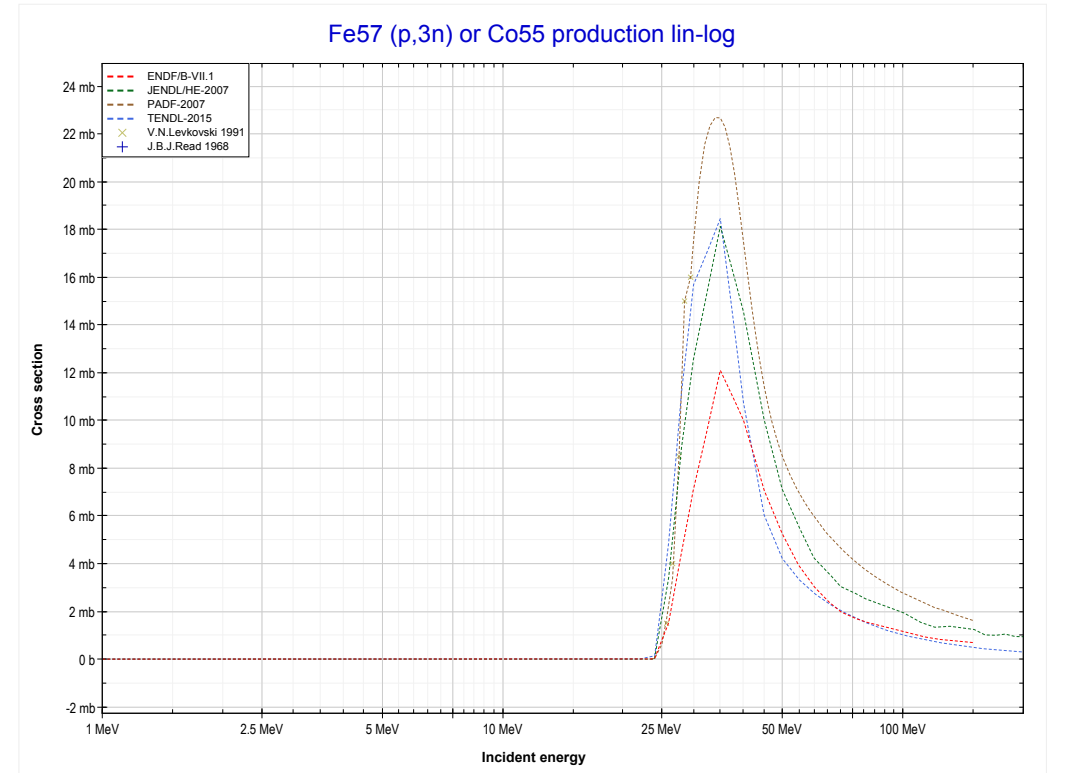
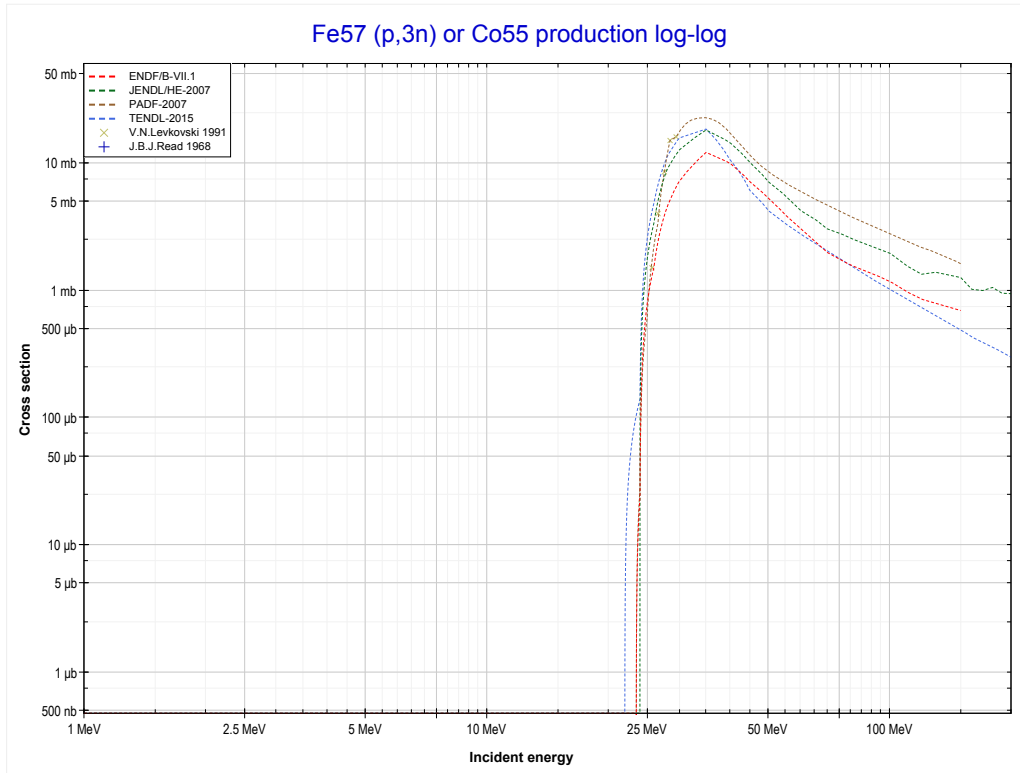
Reaction	Q-Value
Fe57(p,n)Co57	-1618.65 keV

<< 26-Fe-56	26-Fe-57	26-Fe-58 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Co56 production)	MT17 (p,3n) >>



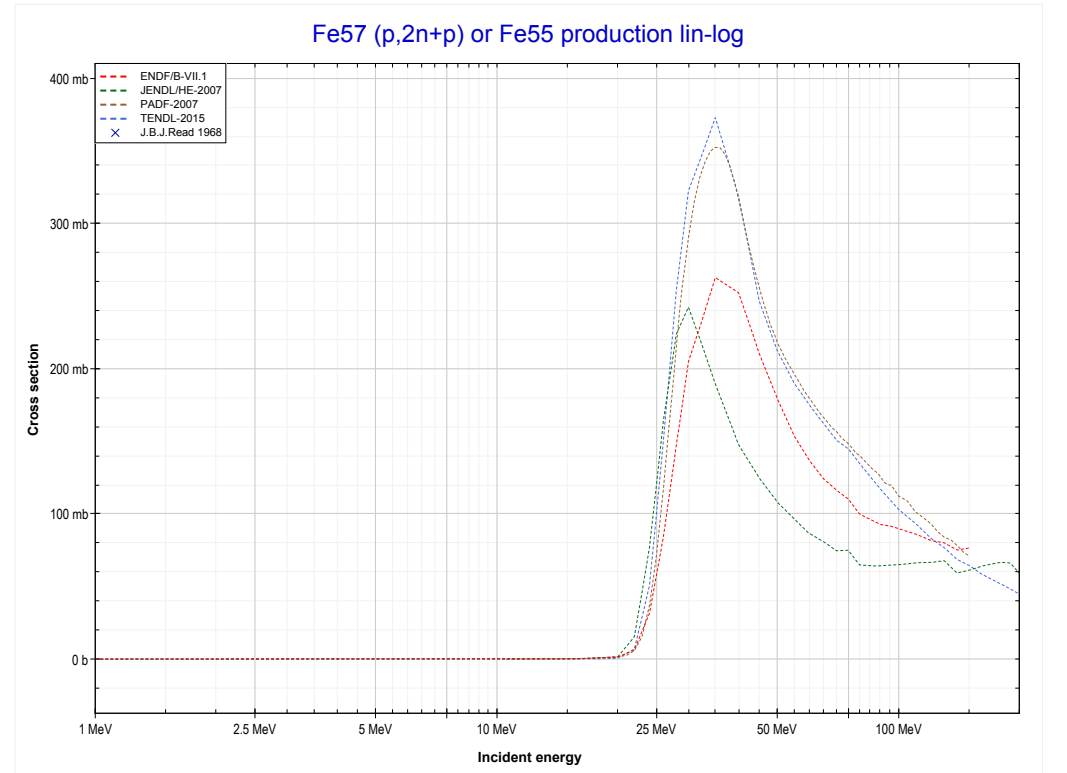
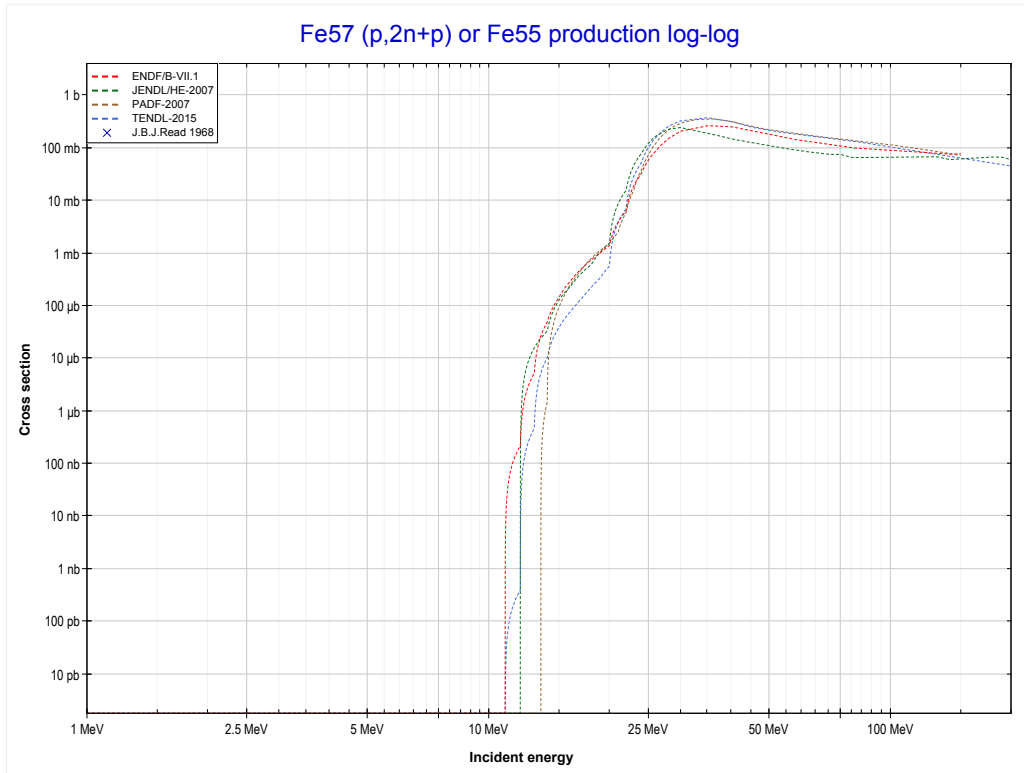
Reaction	Q-Value
Fe57(p,2n)Co56	-12995.06 keV

<< 25-Mn-55	26-Fe-57	26-Fe-58 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Co55 production)	MT41 (p,2n+p) >>



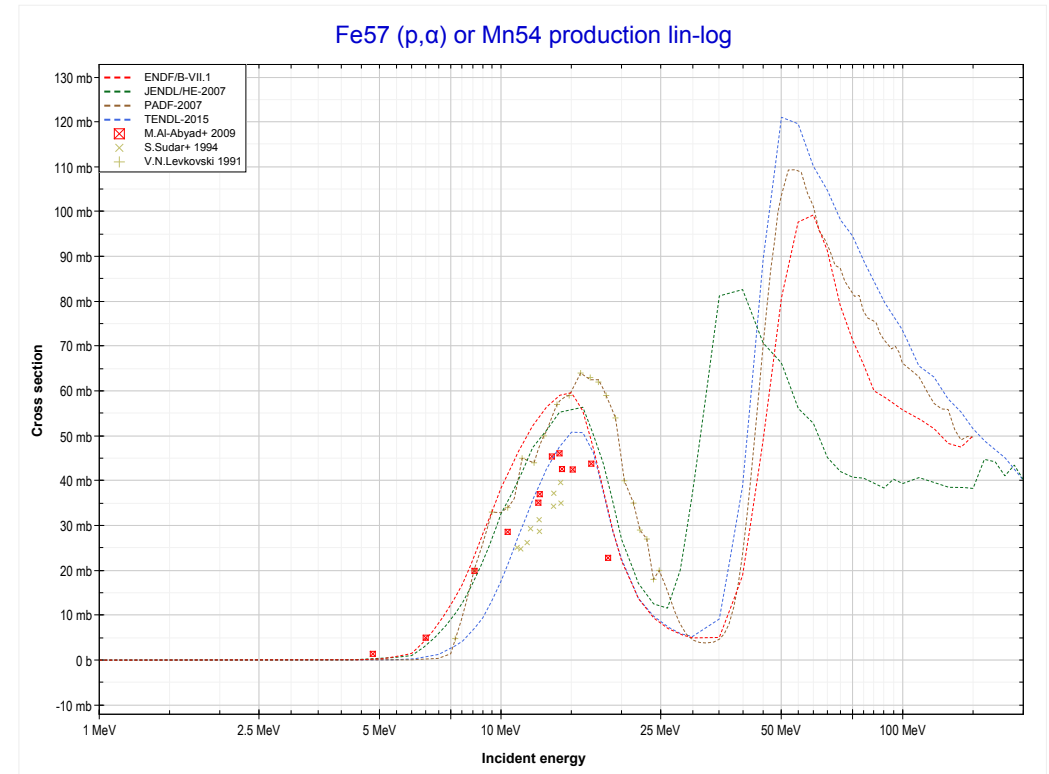
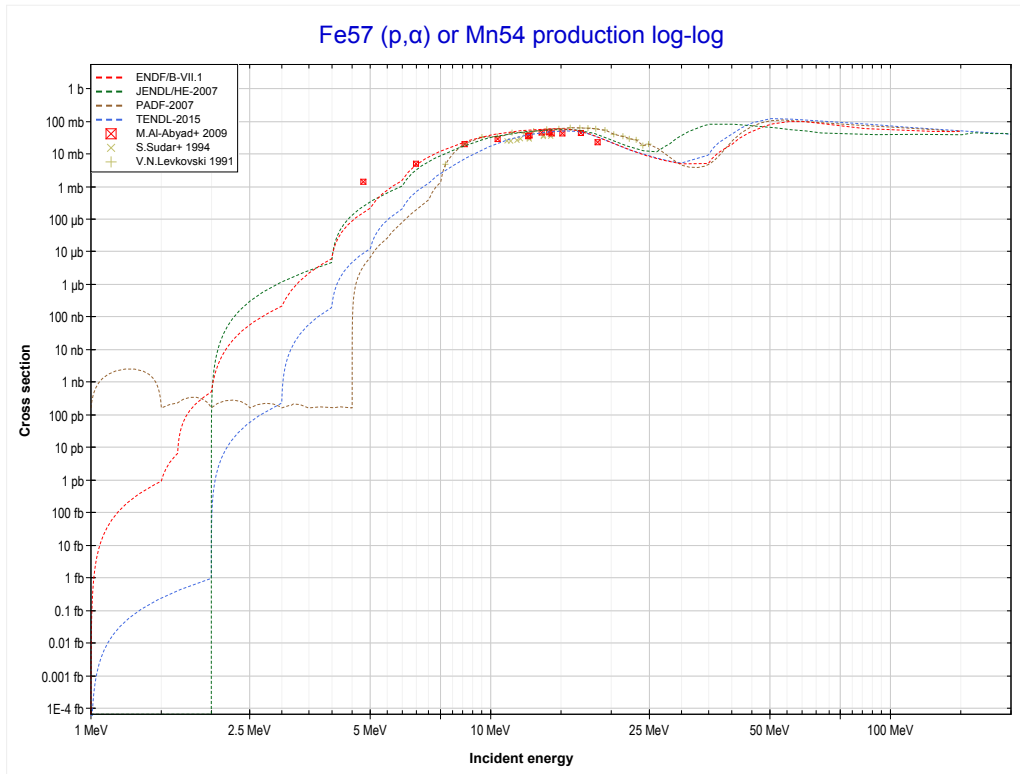
Reaction	Q-Value
Fe57(p,3n)Co55	-23076.88 keV

	26-Fe-57	27-Co-59 >>
<< MT17 (p,3n)	MT41 (p,2n+p) or MT5 (Fe55 production)	MT107 (p,α) >>



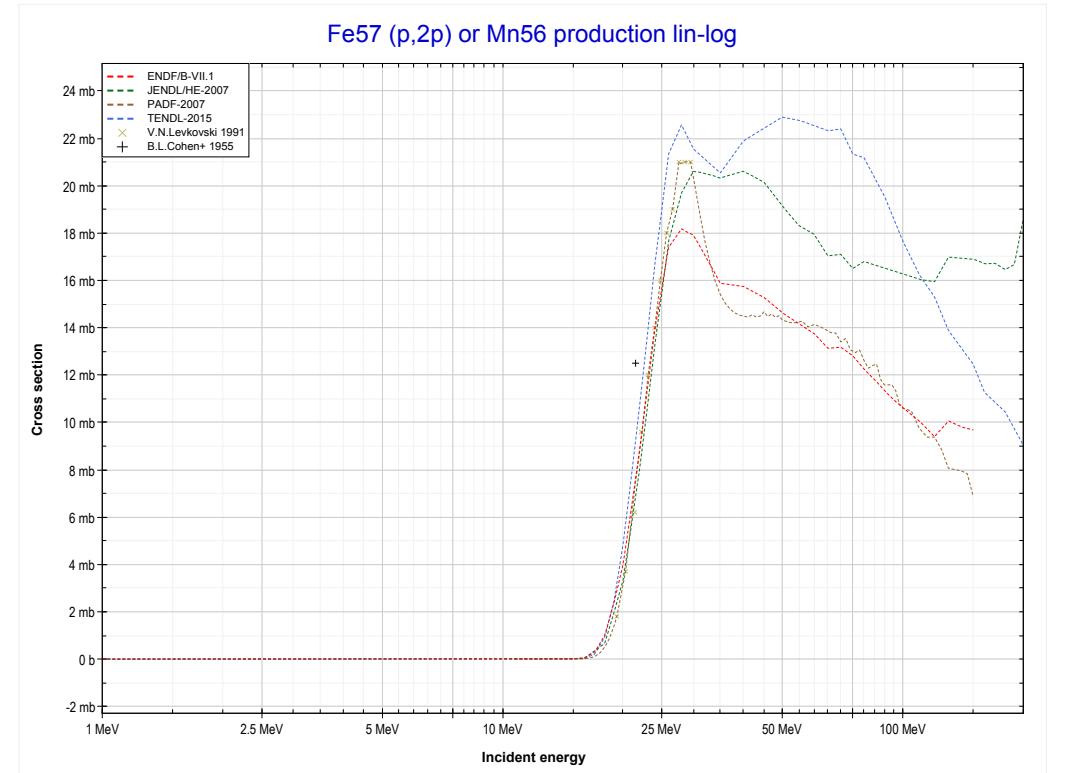
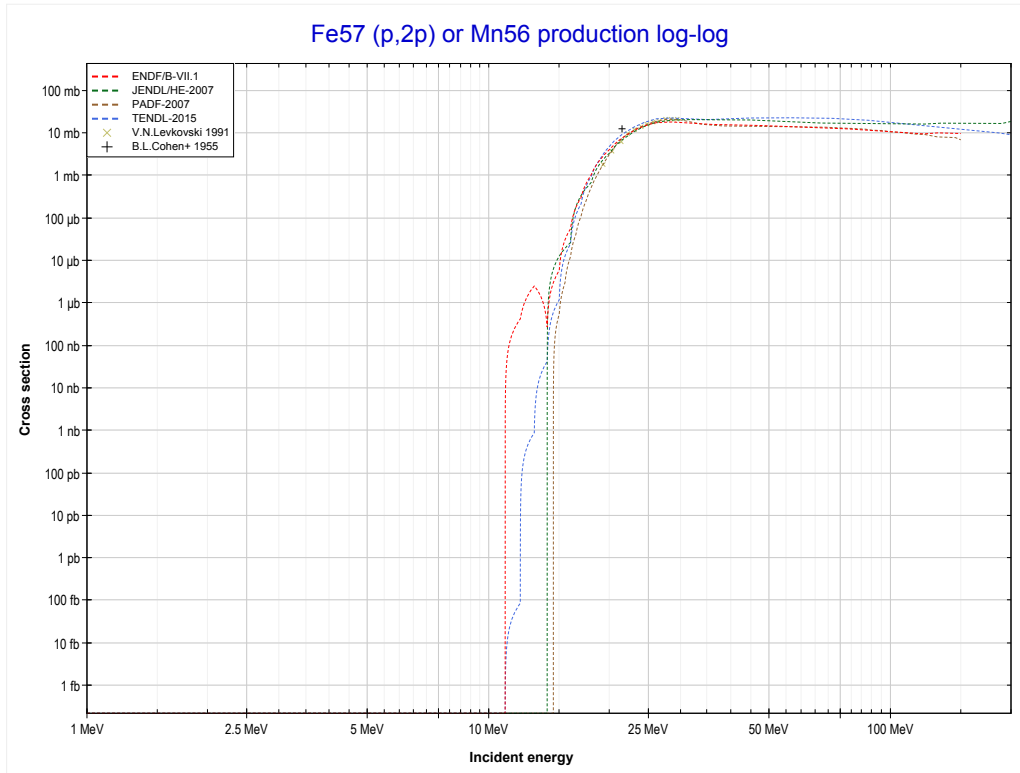
Reaction	Q-Value
Fe57(p,t)Fe55	-10361.44 keV
Fe57(p,n+d)Fe55	-16618.67 keV
Fe57(p,2n+p)Fe55	-18843.23 keV

<< 26-Fe-54	26-Fe-57	28-Ni-58 >>
<< MT41 (p,2n+p)	MT107 (p,α) or MT5 (Mn54 production)	MT111 (p,2p) >>



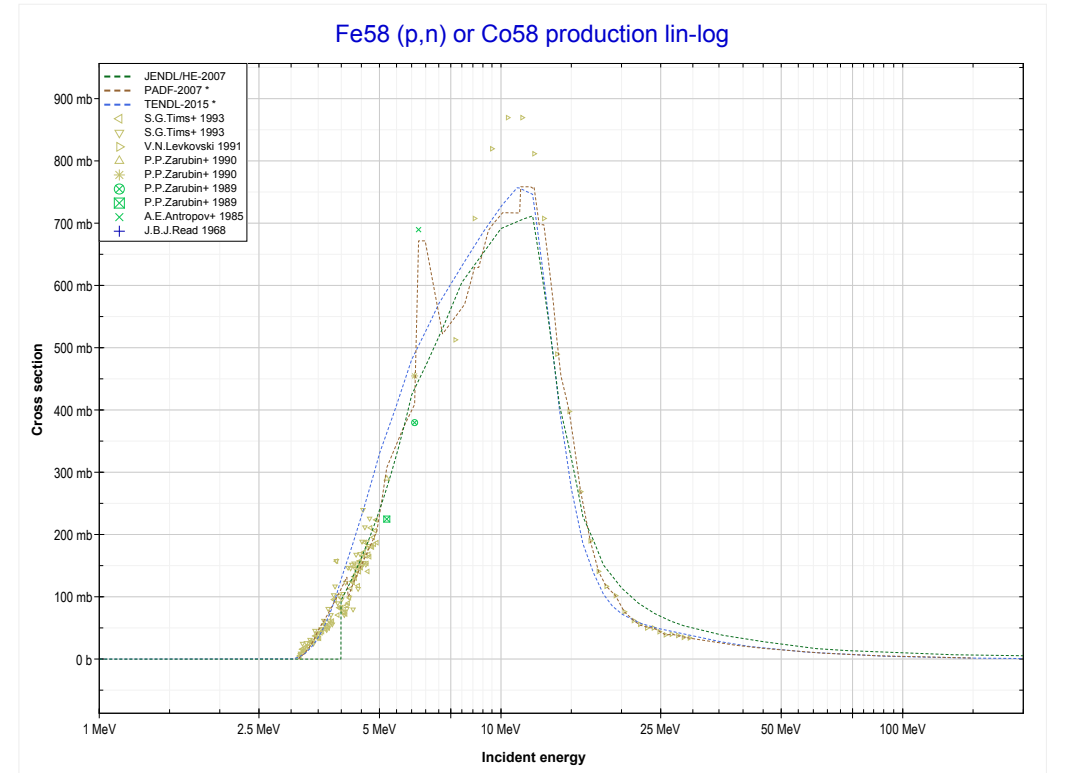
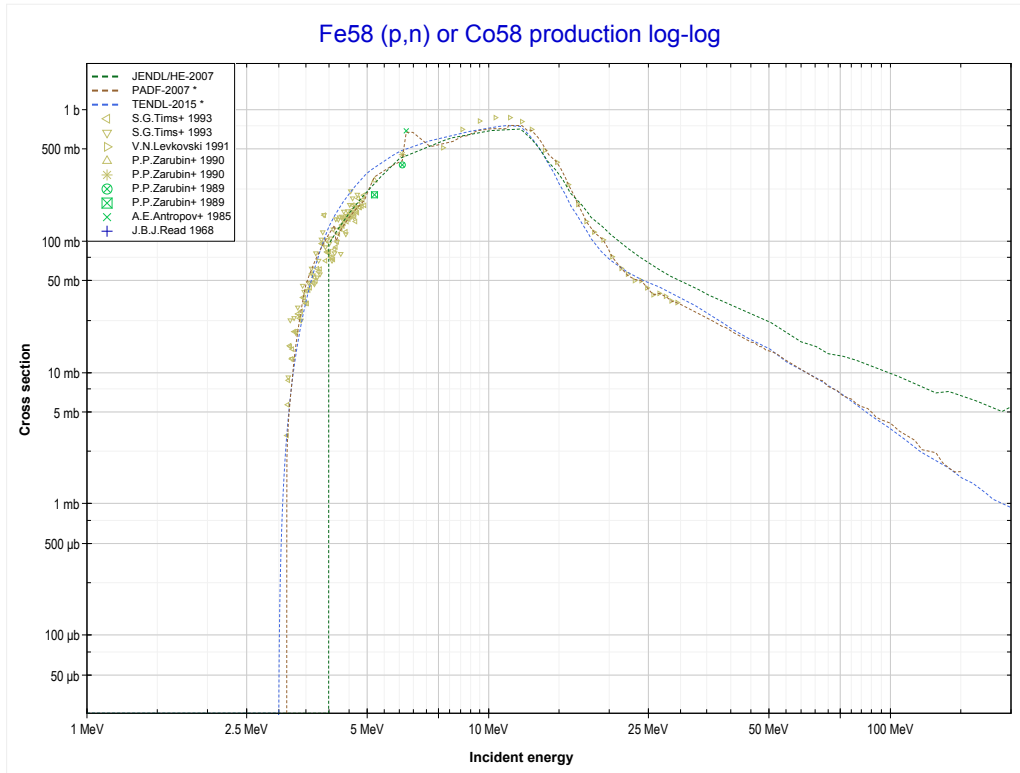
Reaction	Q-Value
Fe57(p, α)Mn54	239.35 keV
Fe57(p,p+t)Mn54	-19574.51 keV
Fe57(p,n+He3)Mn54	-20338.26 keV
Fe57(p,2d)Mn54	-23607.17 keV
Fe57(p,n+p+d)Mn54	-25831.74 keV
Fe57(p,2n+2p)Mn54	-28056.30 keV

<< 22-Ti-49	26-Fe-57	28-Ni-58 >>
<< MT107 (p, α)	MT111 (p,2p) or MT5 (Mn56 production)	26-Fe-58 MT4 (p,n) >>



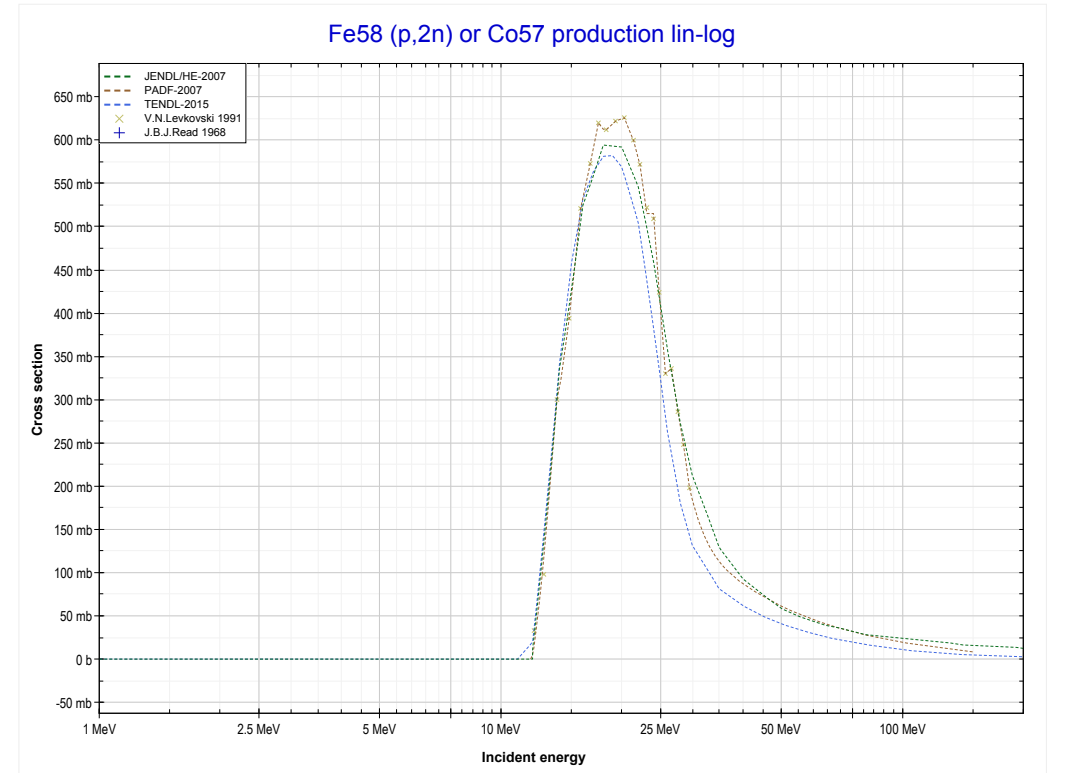
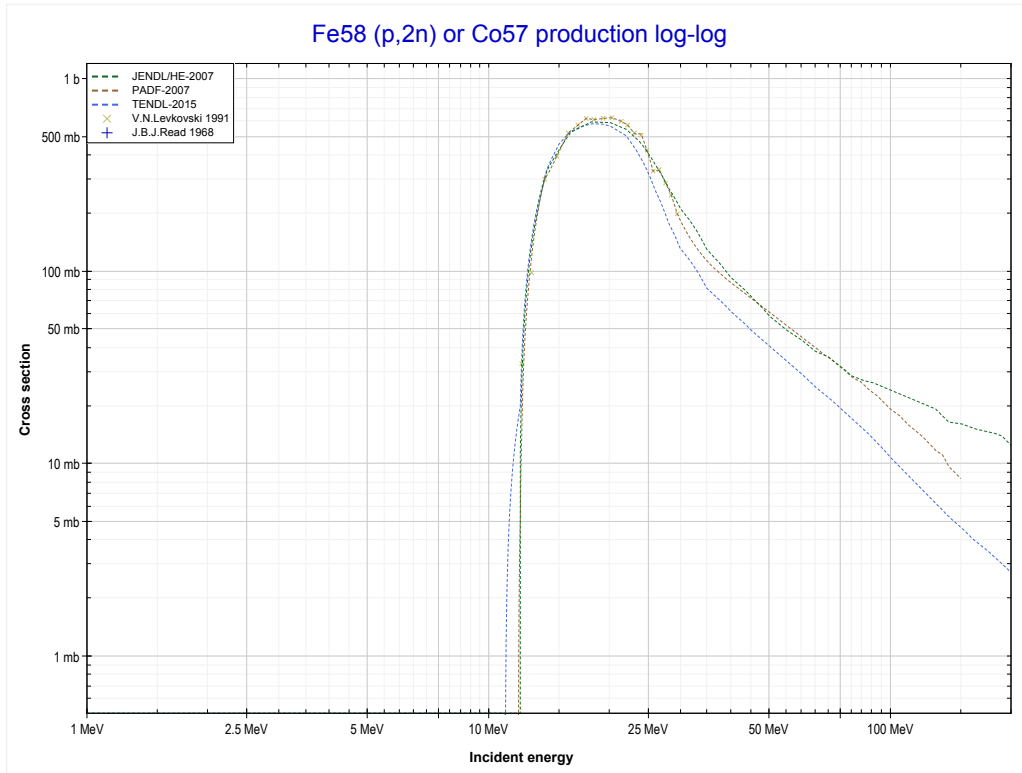
Reaction	Q-Value
Fe57(p,2p)Mn56	-10559.37 keV

<< 26-Fe-57	26-Fe-58	27-Co-59 >>
<< 26-Fe-57 MT111 (p,2p)	MT4 (p,n) or MT5 (Co58 production)	MT16 (p,2n) >>



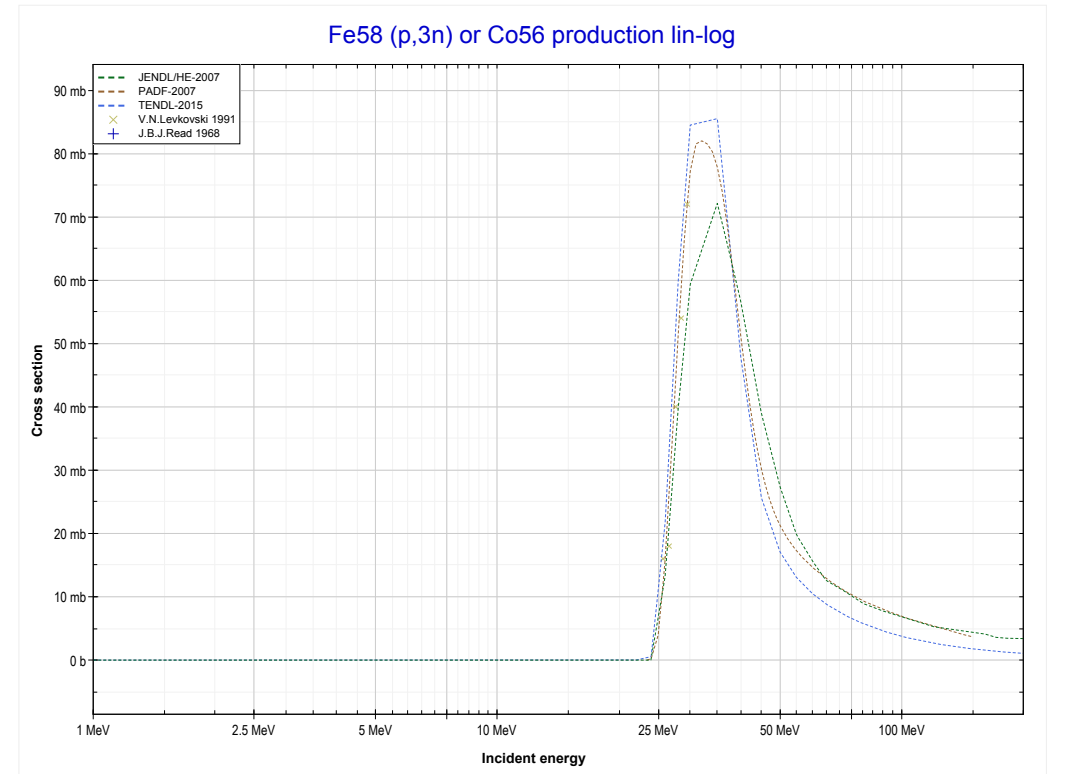
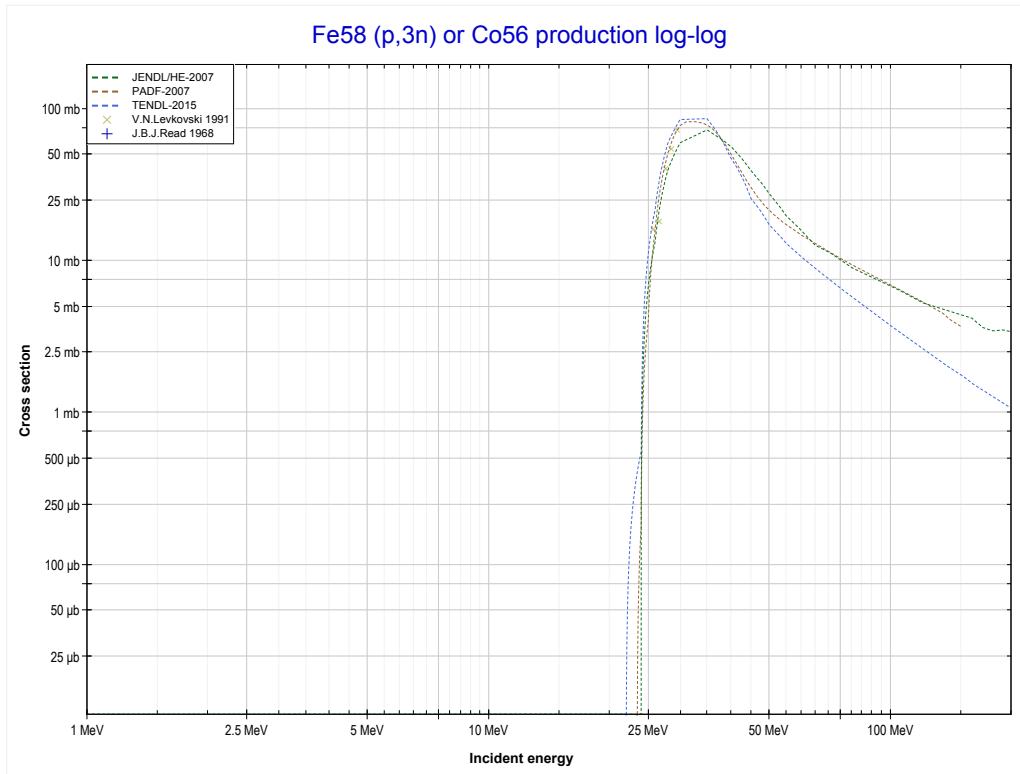
Reaction	Q-Value
Fe58(p,n)Co58	-3090.25 keV

<< 26-Fe-57	26-Fe-58	28-Ni-60 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Co57 production)	MT17 (p,3n) >>



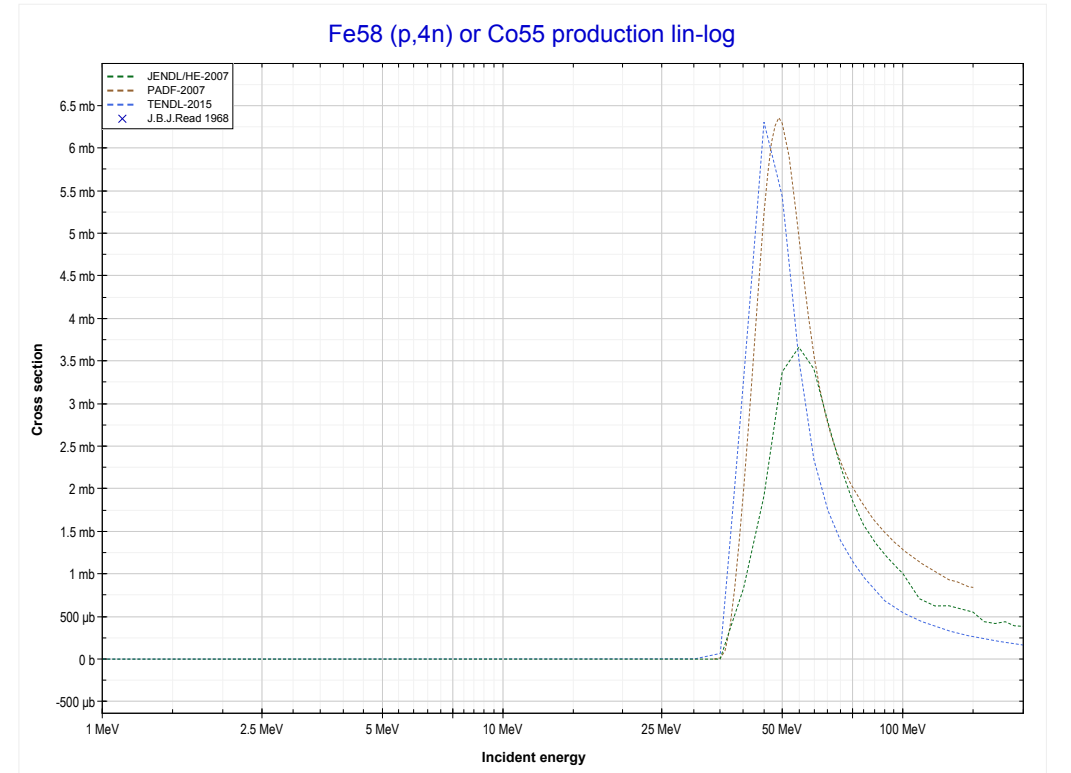
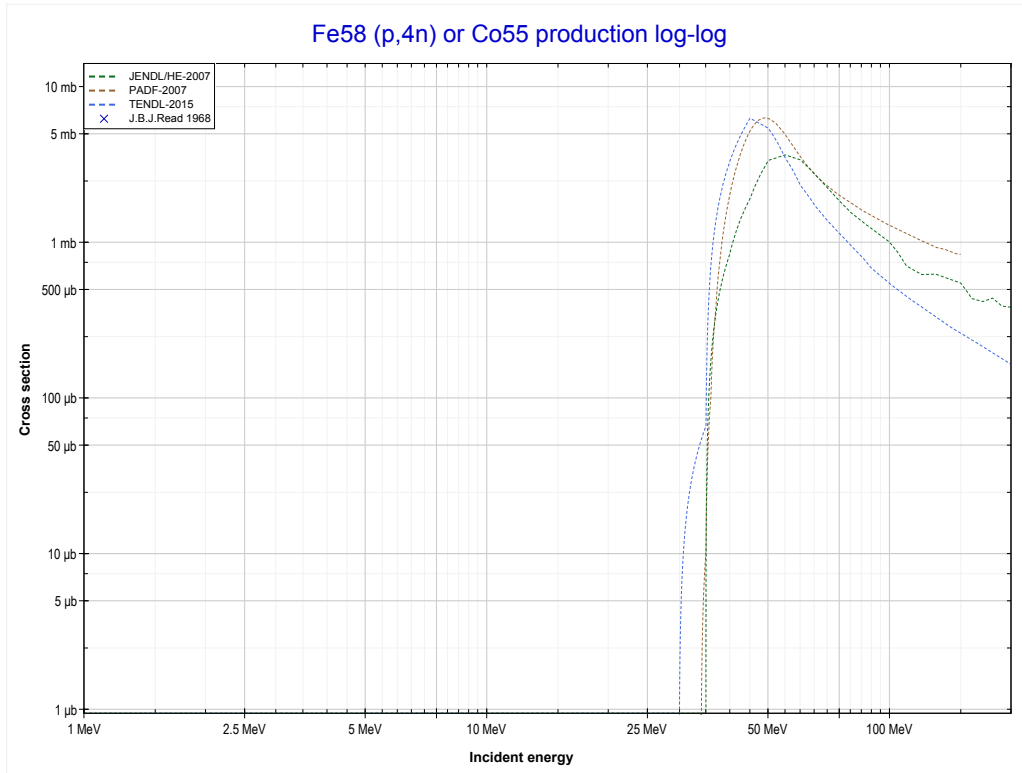
Reaction	Q-Value
Fe58(p,2n)Co57	-11663.26 keV

<< 26-Fe-57	26-Fe-58	27-Co-59 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Co56 production)	MT37 (p,4n) >>



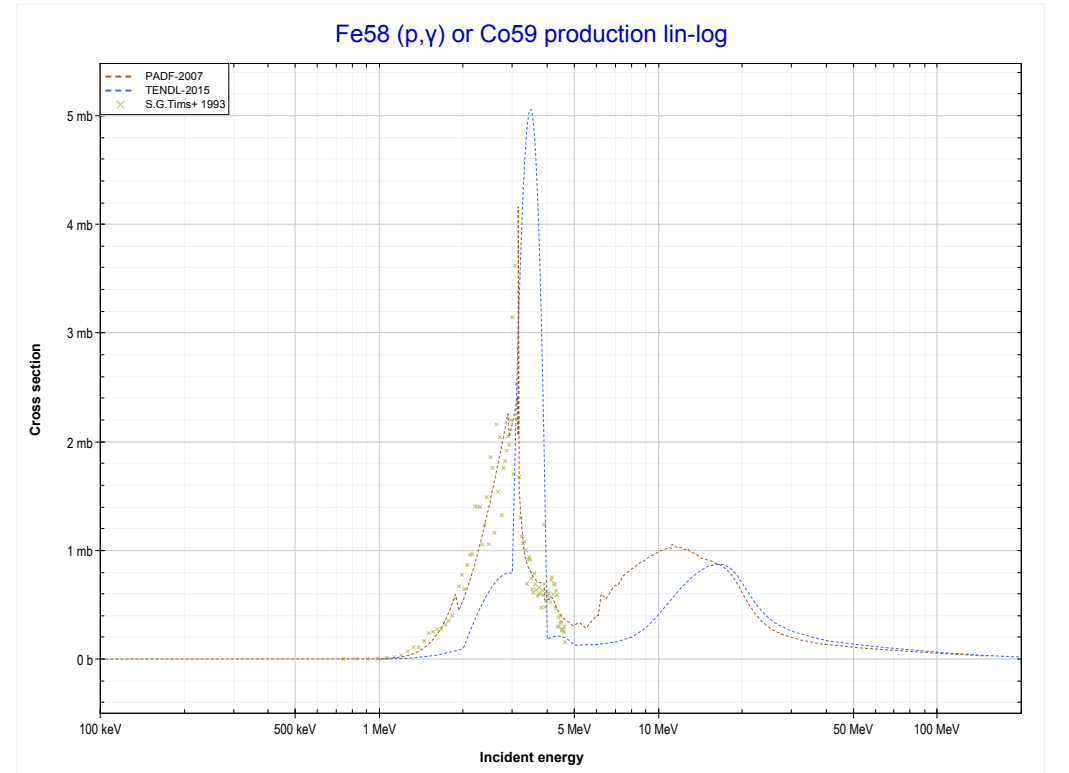
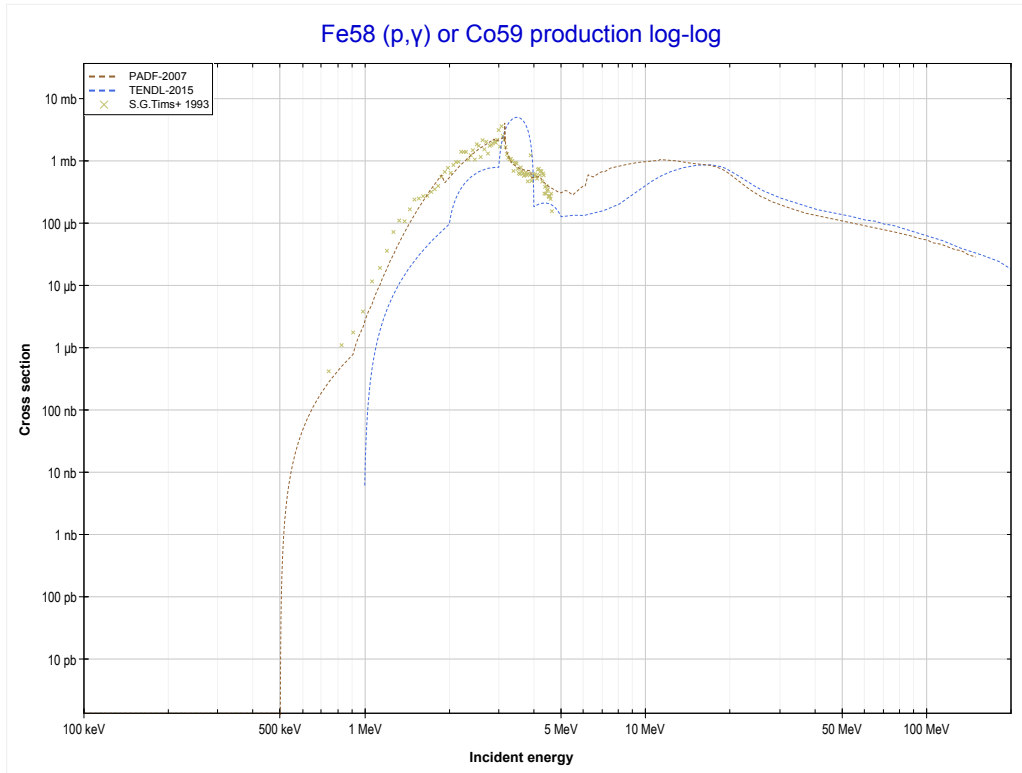
Reaction	Q-Value
Fe58(p,3n)Co56	-23039.68 keV

<< 25-Mn-55	26-Fe-58	27-Co-59 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Co55 production)	MT102 (p, γ) >>



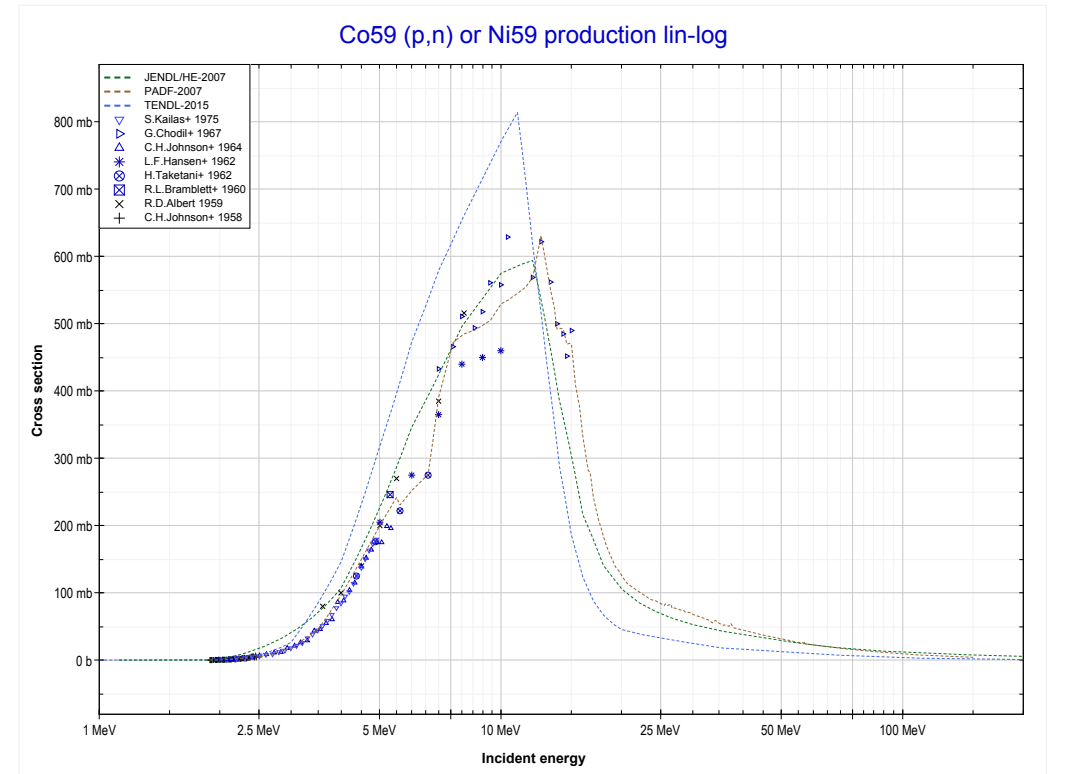
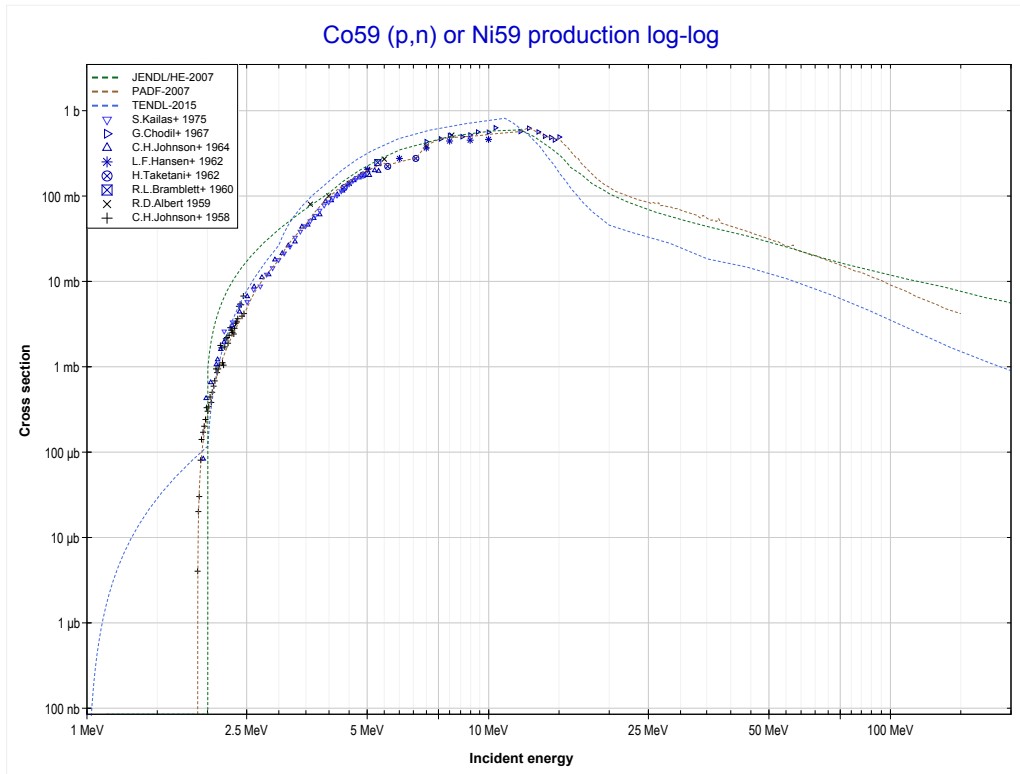
Reaction	Q-Value
Fe58(p,4n)Co55	-33121.50 keV

<< 26-Fe-56	26-Fe-58	27-Co-59 >>
<< MT37 (p,4n)	MT102 (p,γ) or MT5 (Co59 production)	27-Co-59 MT4 (p,n) >>



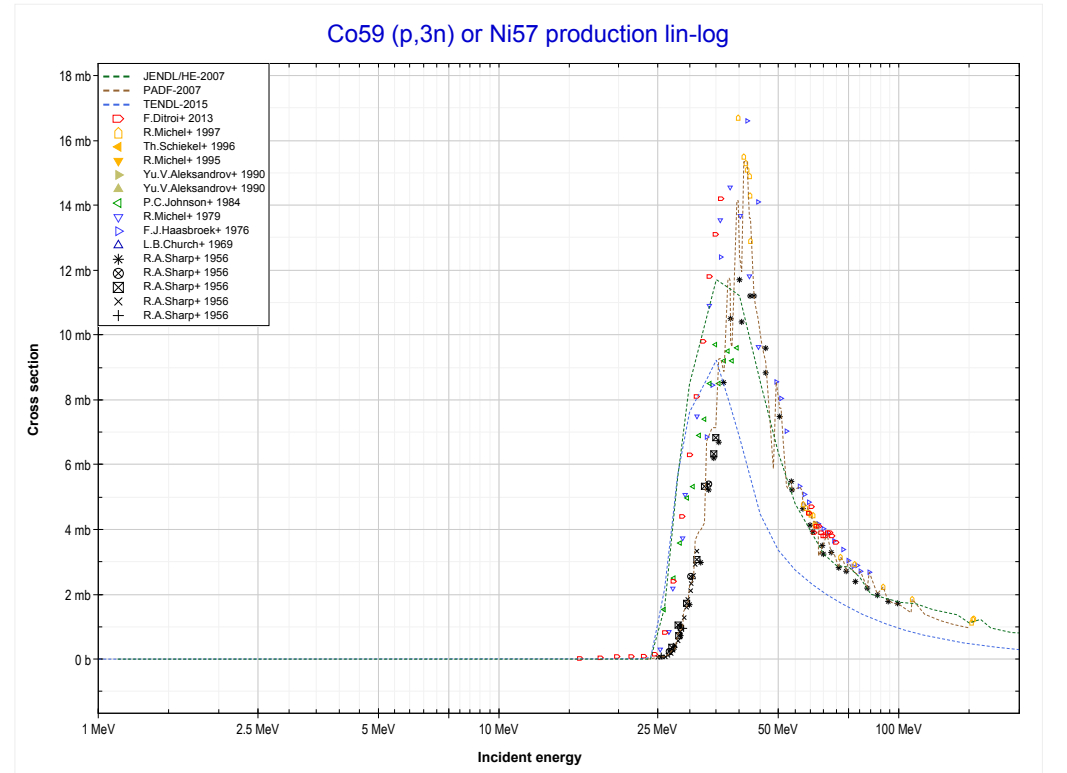
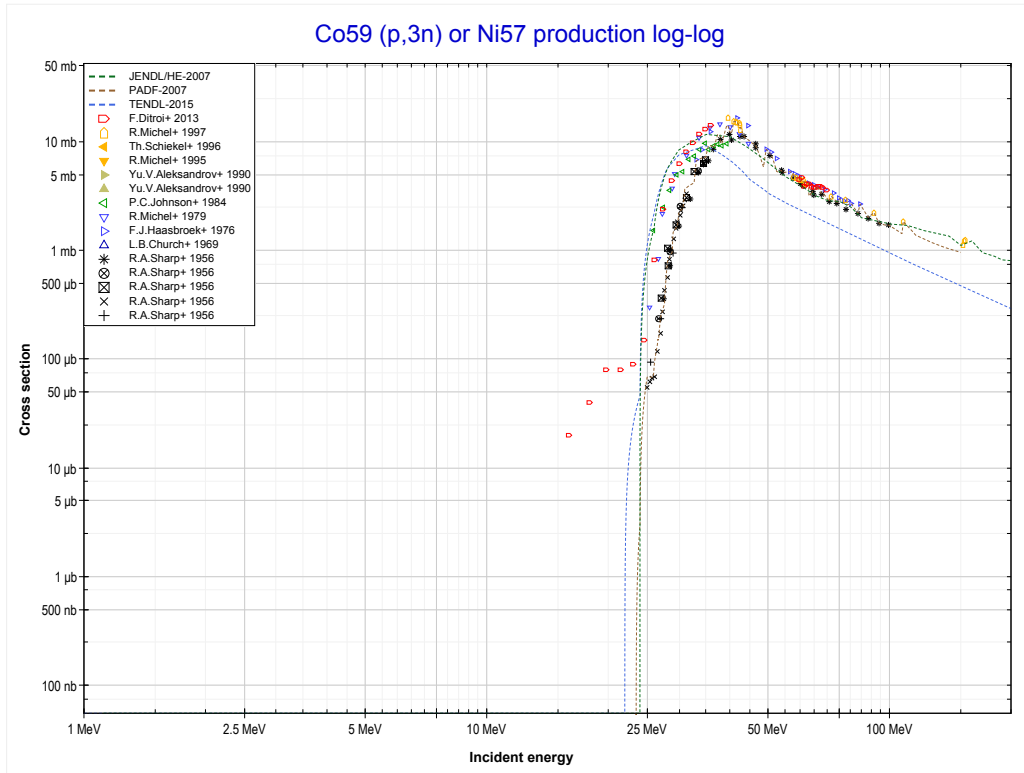
Reaction	Q-Value
Fe58(p, γ)Co59	7363.57 keV

<< 26-Fe-58	27-Co-59	28-Ni-58 >>
<< 26-Fe-58 MT102 (p, γ)	MT4 (p,n) or MT5 (Ni59 production)	MT17 (p,3n) >>



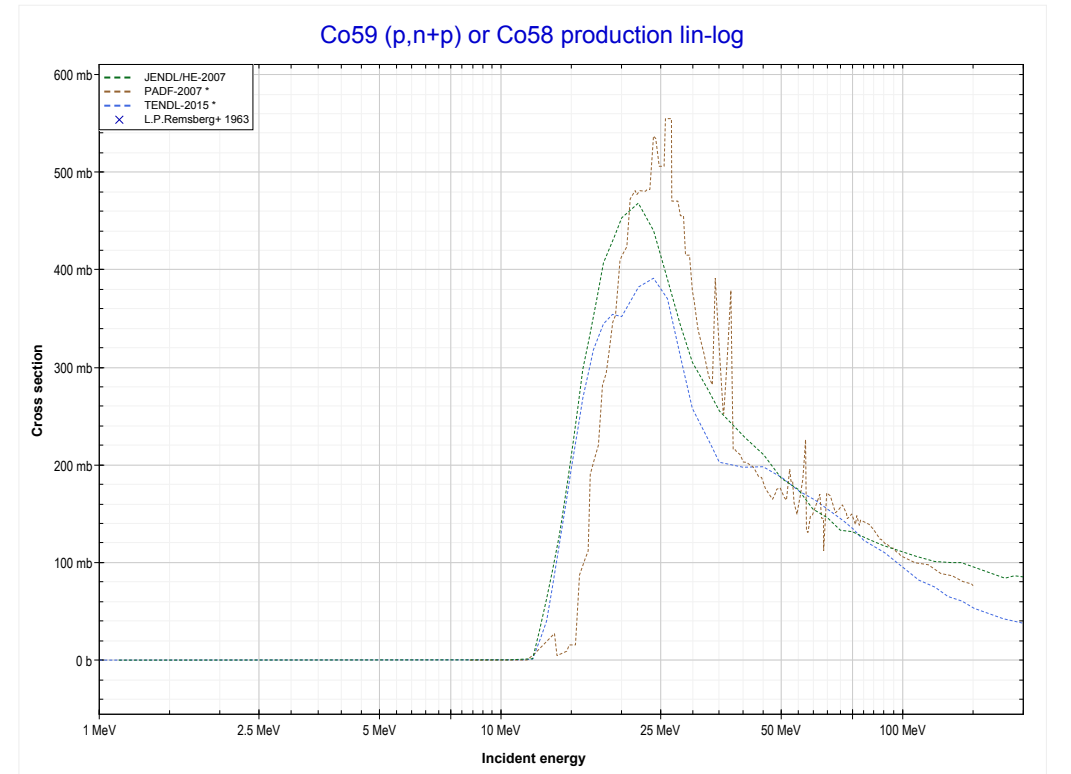
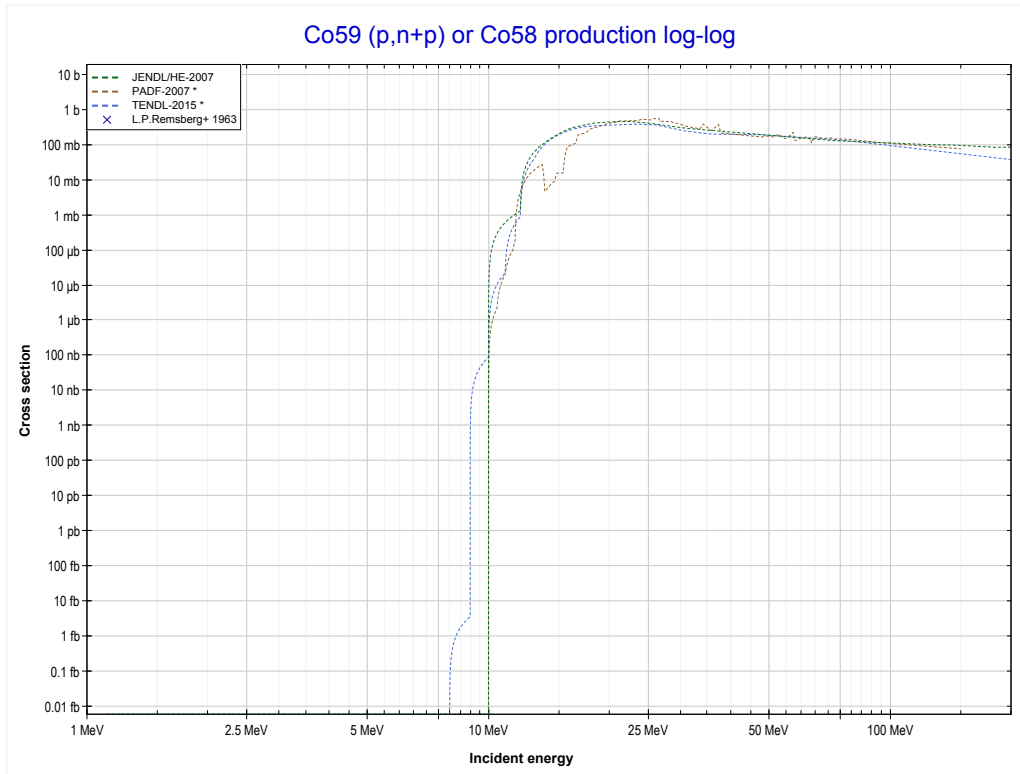
Reaction	Q-Value
Co59(p,n)Ni59	-1855.35 keV

<< 26-Fe-58	27-Co-59	28-Ni-62 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Ni57 production)	MT28 (p,n+p) >>



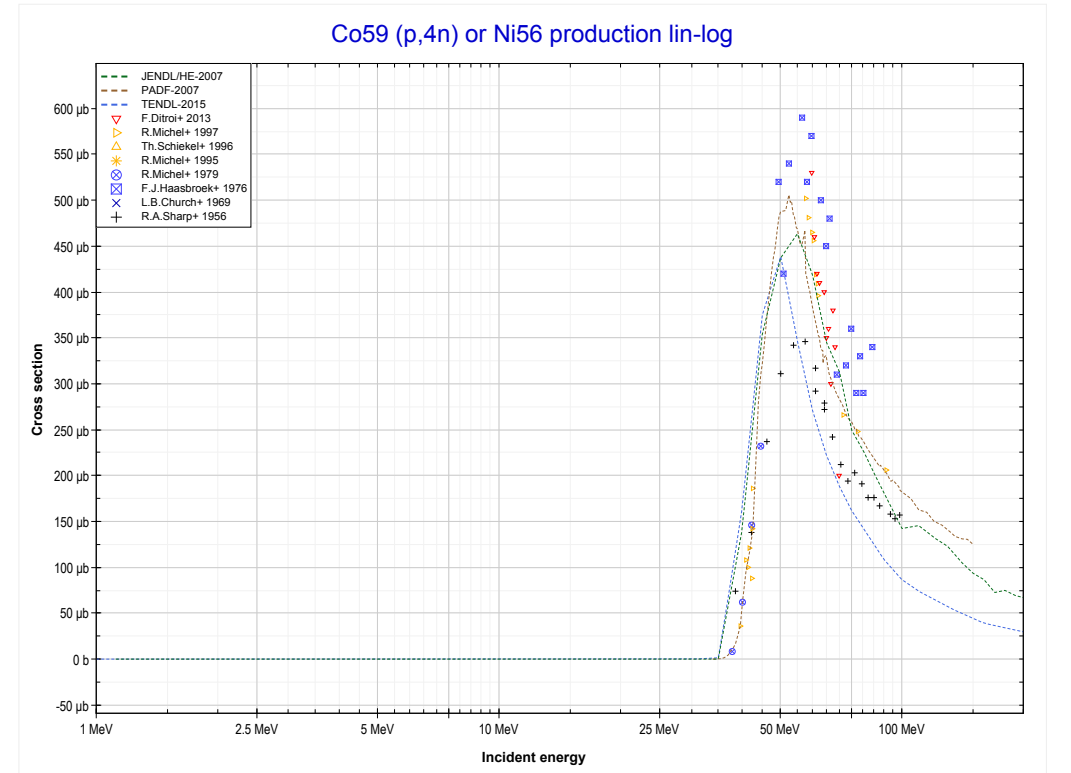
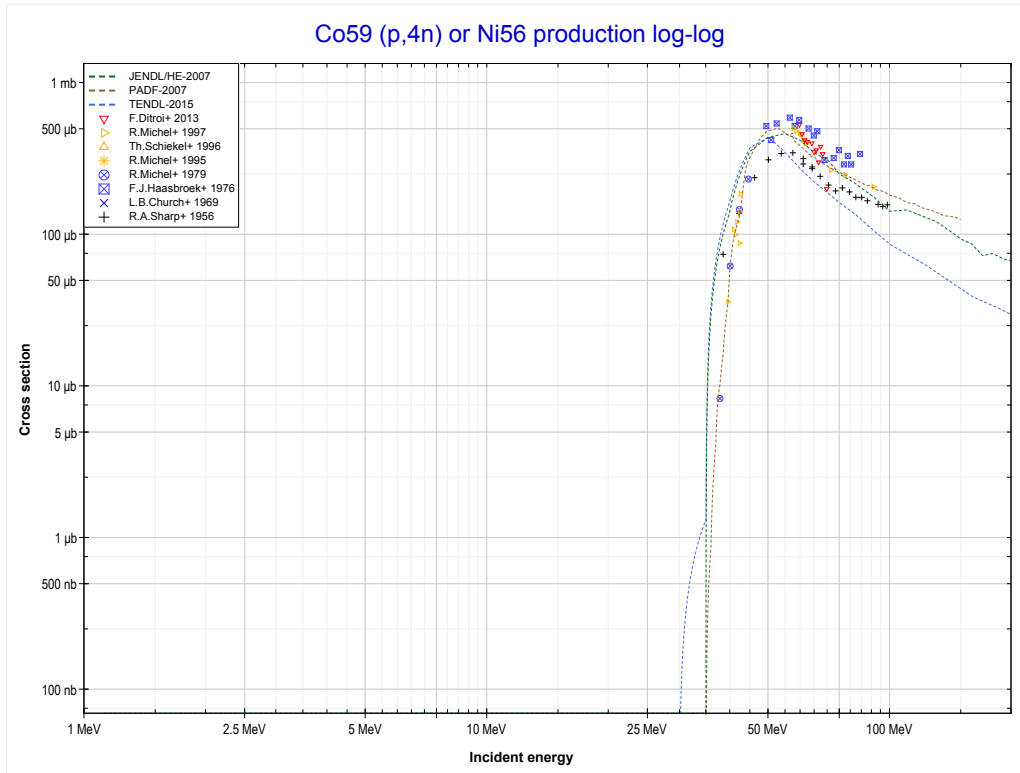
Reaction	Q-Value
Co59(p,3n)Ni57	-23070.88 keV

<< 26-Fe-56	27-Co-59	28-Ni-58 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Co58 production)	MT37 (p,4n) >>



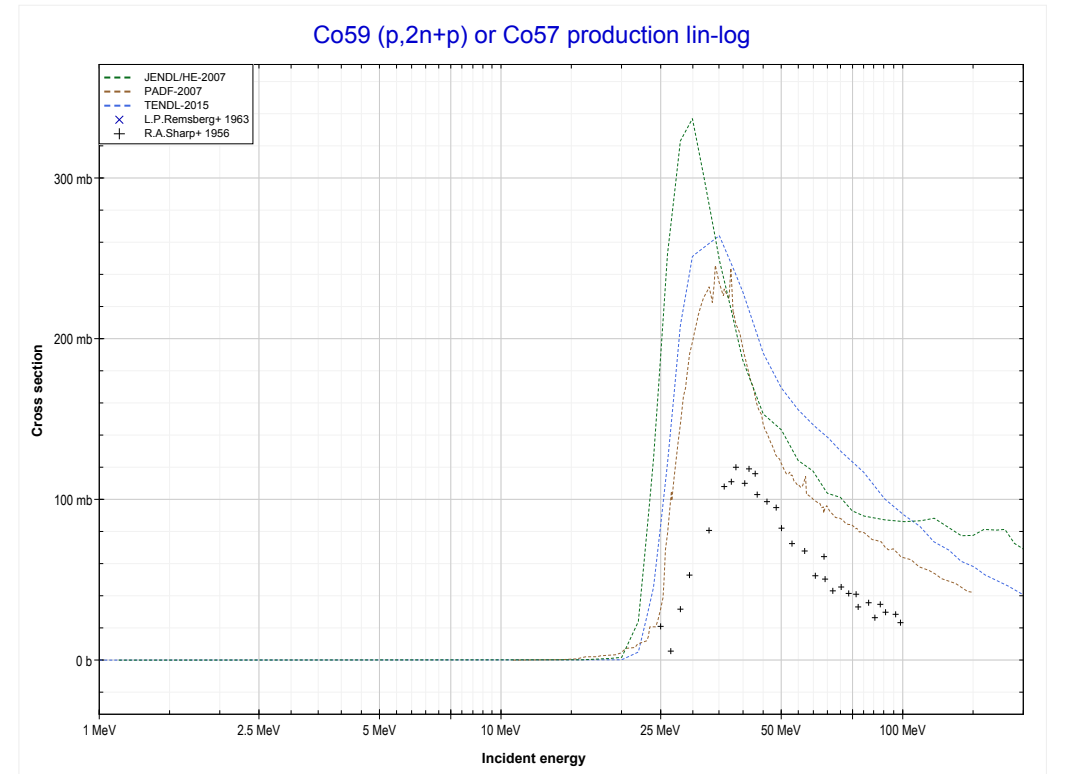
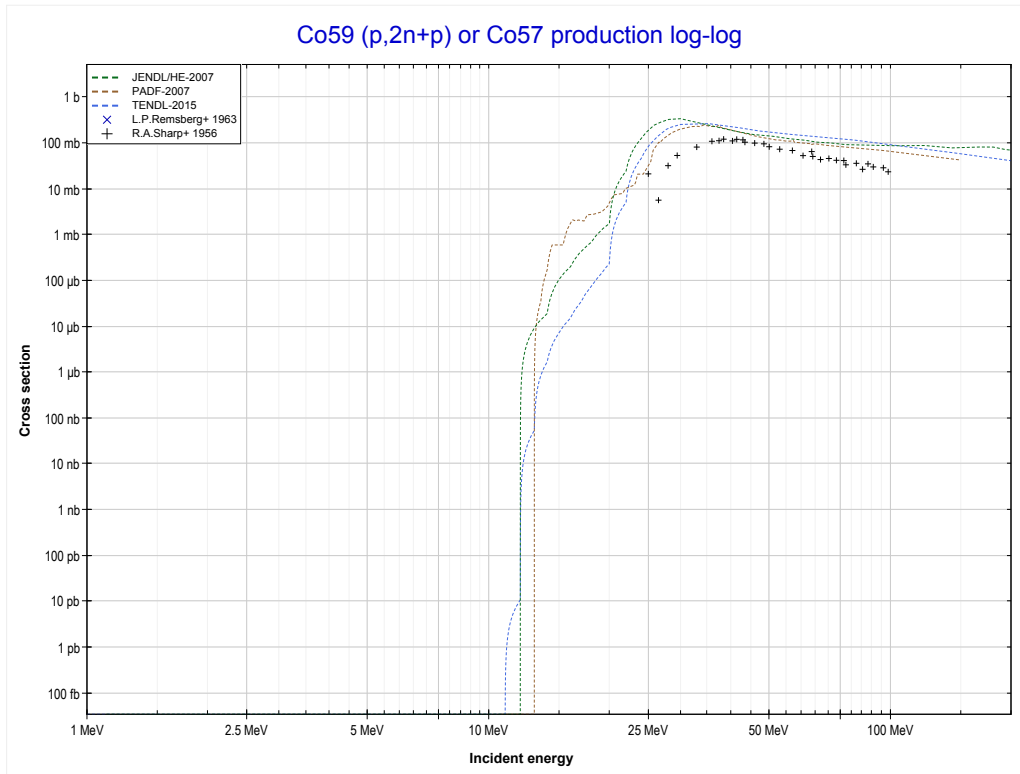
Reaction	Q-Value
Co59(p,d)Co58	-8229.25 keV
Co59(p,n+p)Co58	-10453.82 keV

<< 26-Fe-58	27-Co-59	29-Cu-65 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Ni56 production)	MT41 (p,2n+p) >>



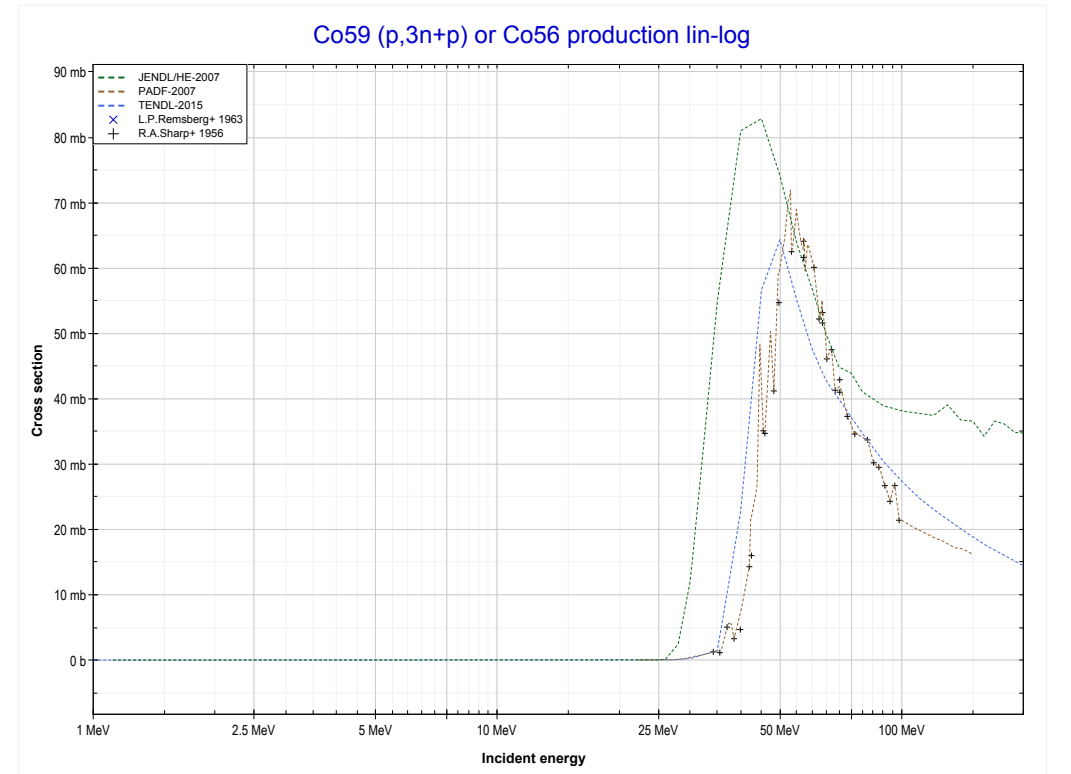
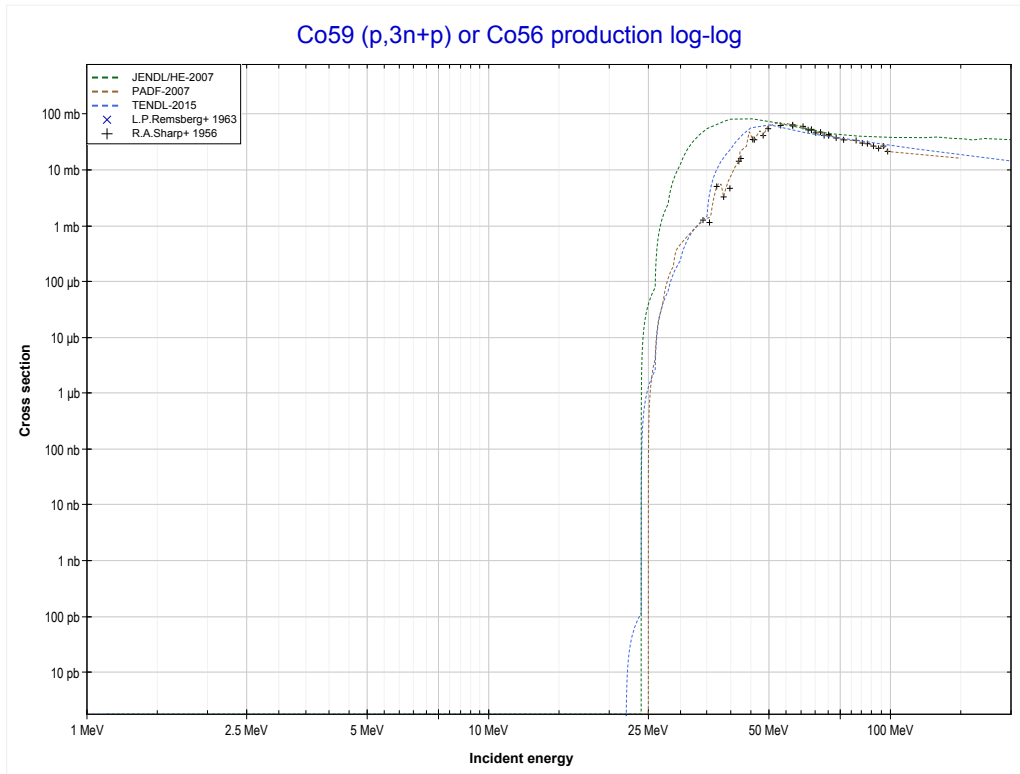
Reaction	Q-Value
Co59(p,4n)Ni56	-33318.50 keV

<< 26-Fe-57	27-Co-59	29-Cu-63 >>
<< MT37 (p,4n)	MT41 (p,2n+p) or MT5 (Co57 production)	MT42 (p,3n+p) >>



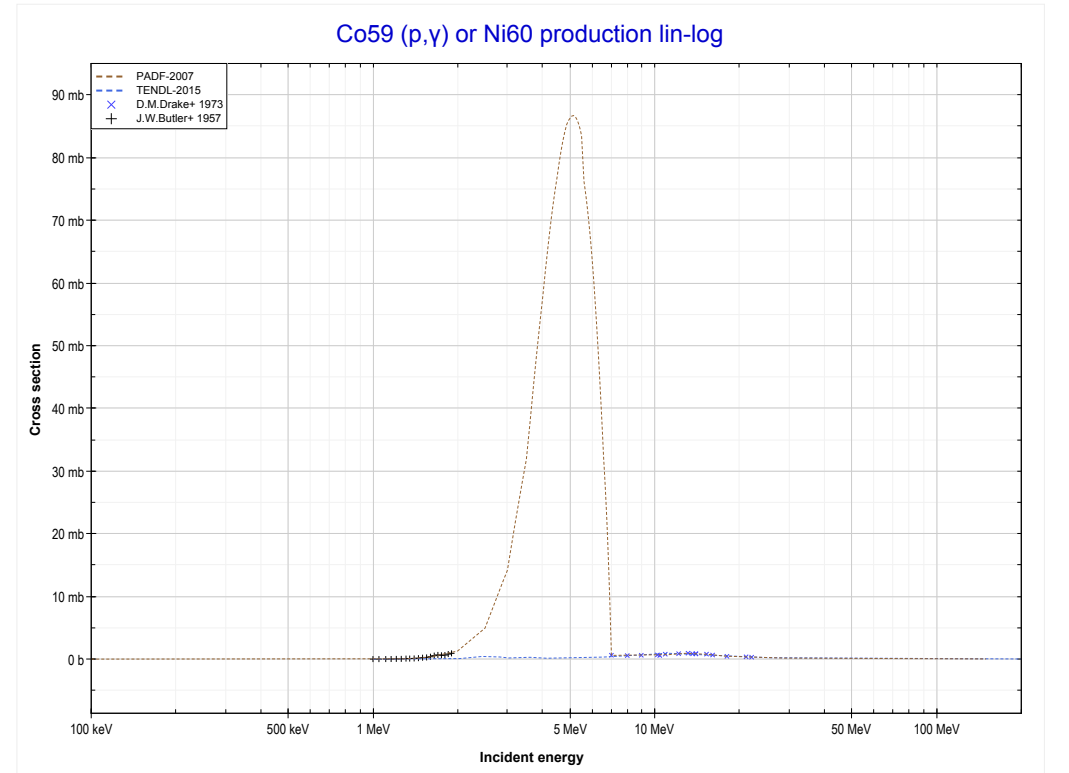
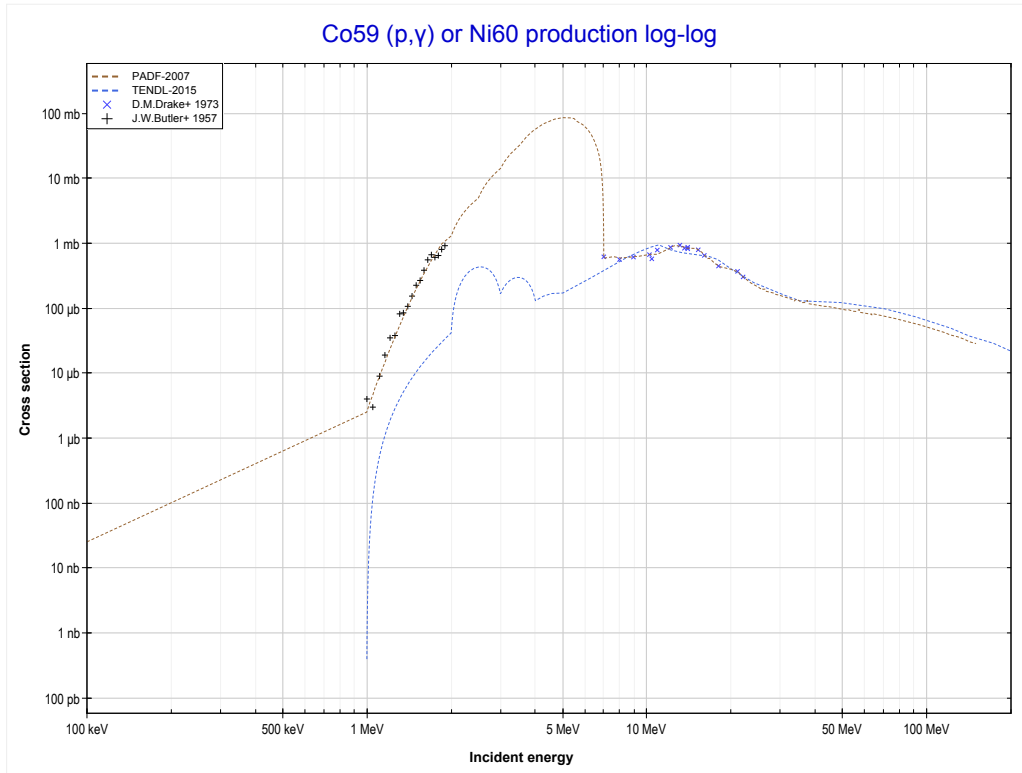
Reaction	Q-Value
Co59(p,t)Co57	-10545.04 keV
Co59(p,n+d)Co57	-16802.27 keV
Co59(p,2n+p)Co57	-19026.83 keV

<< 26-Fe-56	27-Co-59	31-Ga-69 >>
<< MT41 (p,2n+p)	MT42 (p,3n+p) or MT5 (Co56 production)	MT102 (p, γ) >>



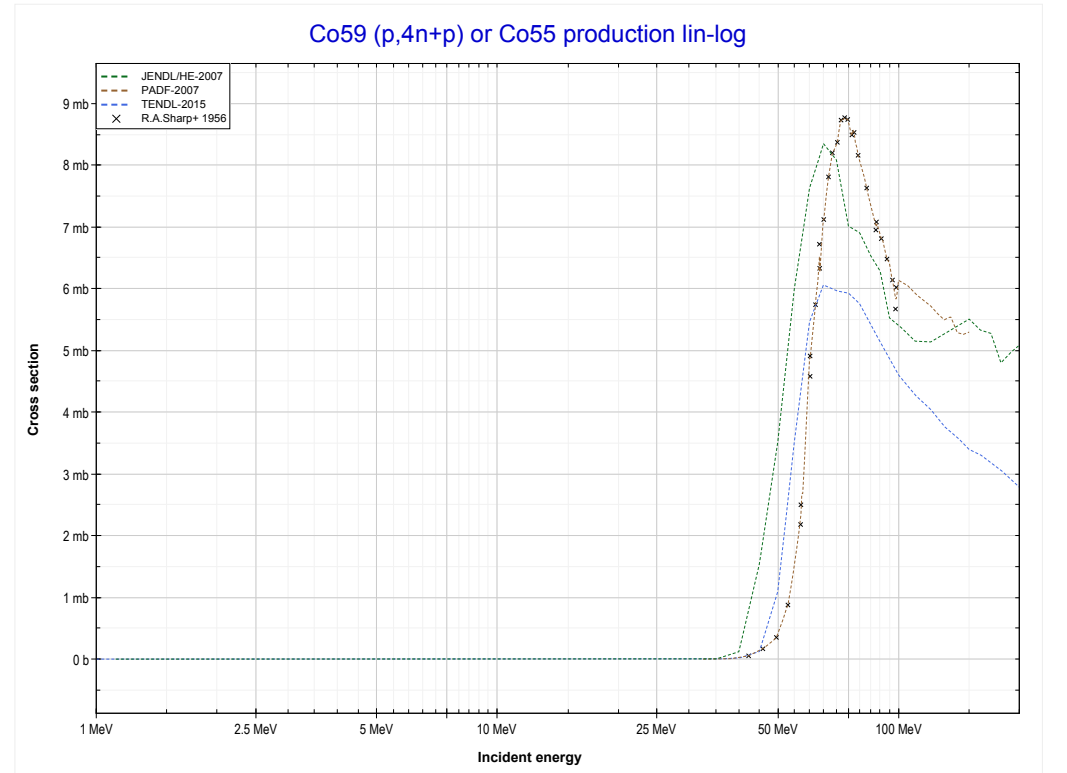
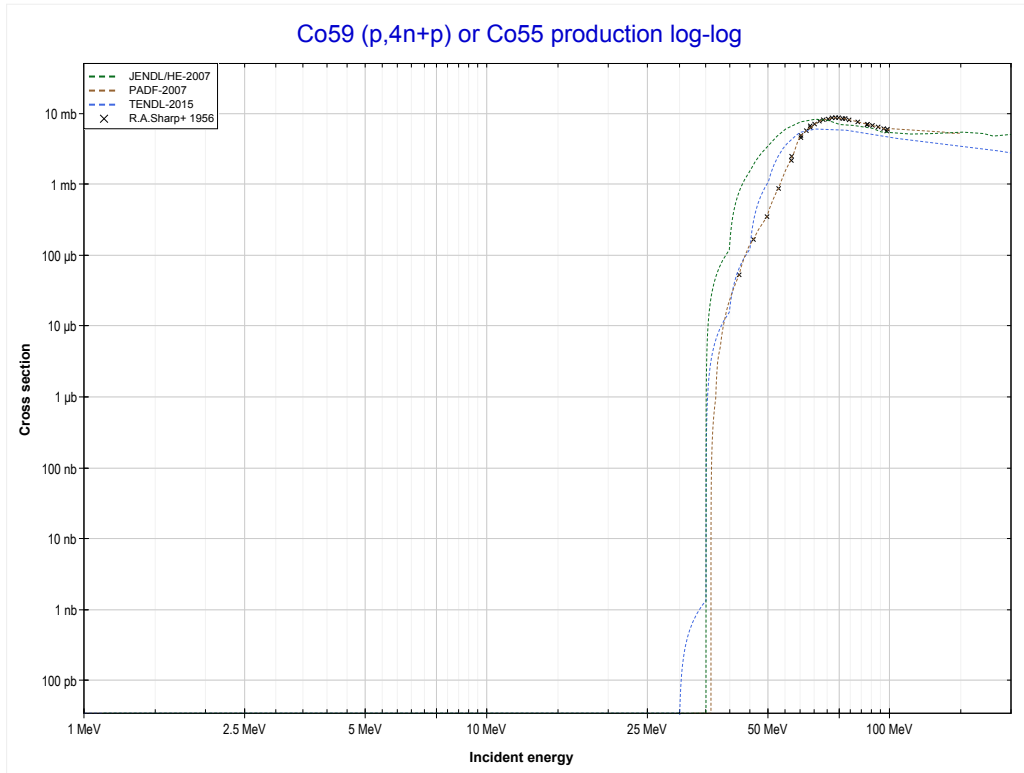
Reaction	Q-Value
Co59(p,n+t)Co56	-21921.45 keV
Co59(p,2n+d)Co56	-28178.69 keV
Co59(p,3n+p)Co56	-30403.25 keV

<< 26-Fe-58	27-Co-59	28-Ni-58 >>
<< MT42 (p,3n+p)	MT102 (p,γ) or MT5 (Ni60 production)	MT156 (p,4n+p) >>



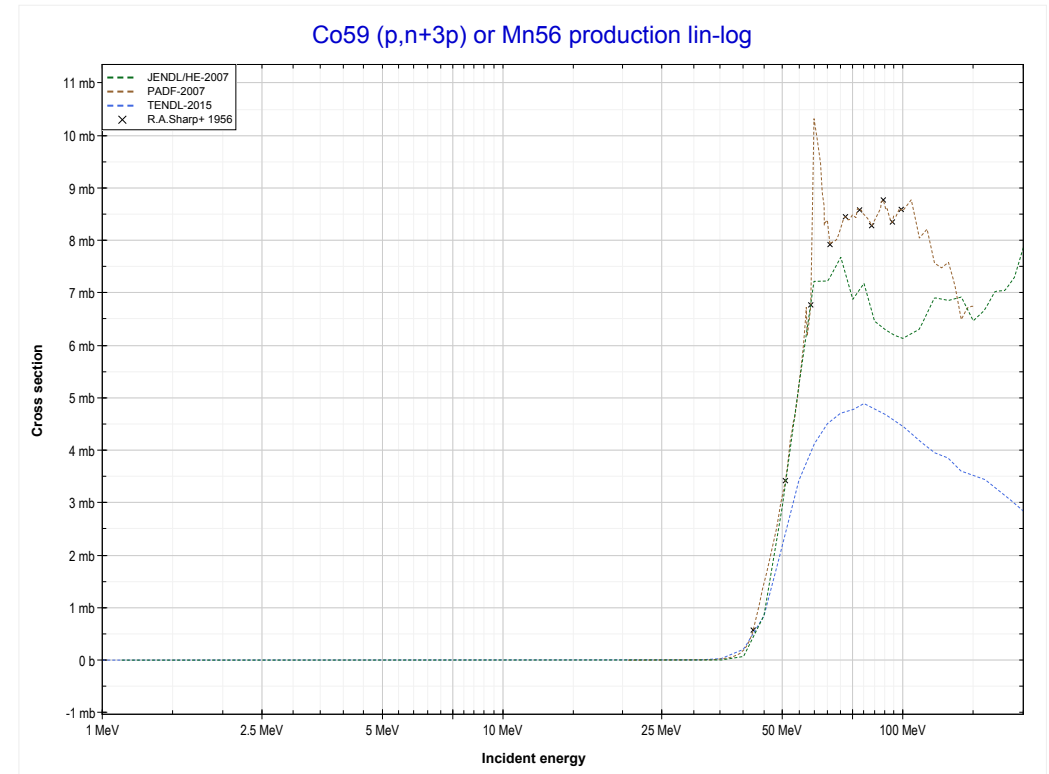
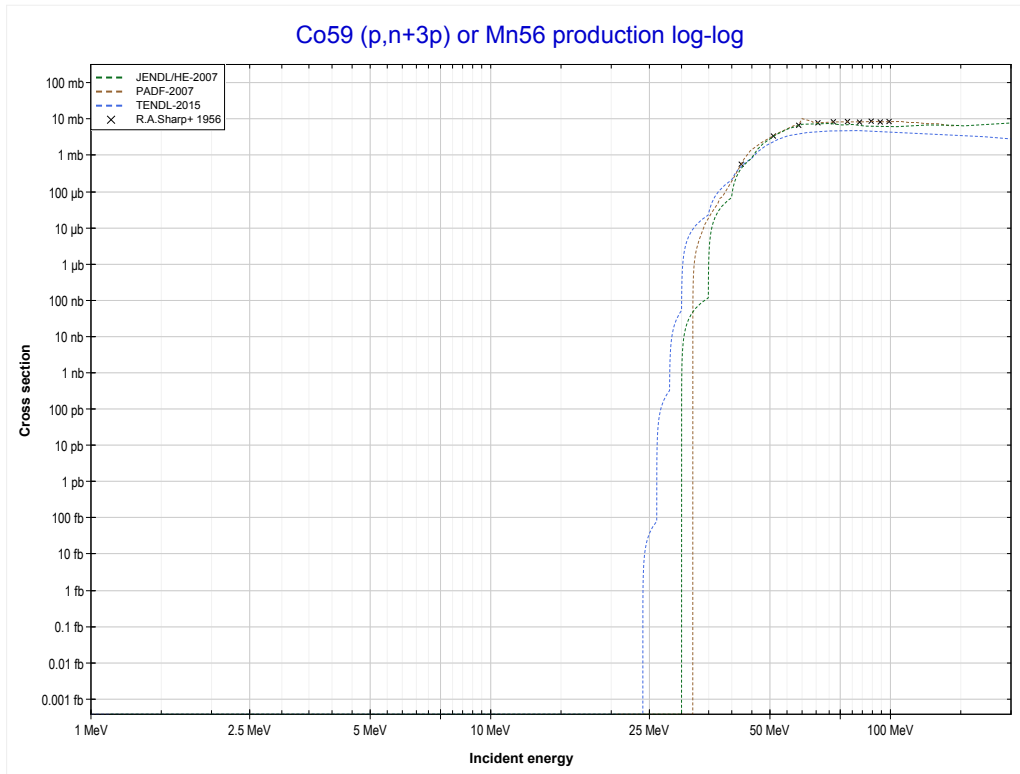
Reaction	Q-Value
Co59(p, γ)Ni60	9532.37 keV

	27-Co-59	31-Ga-69 >>
<< MT102 (p, γ)	MT156 (p,4n+p) or MT5 (Co55 production)	MT198 (p,n+3p) >>



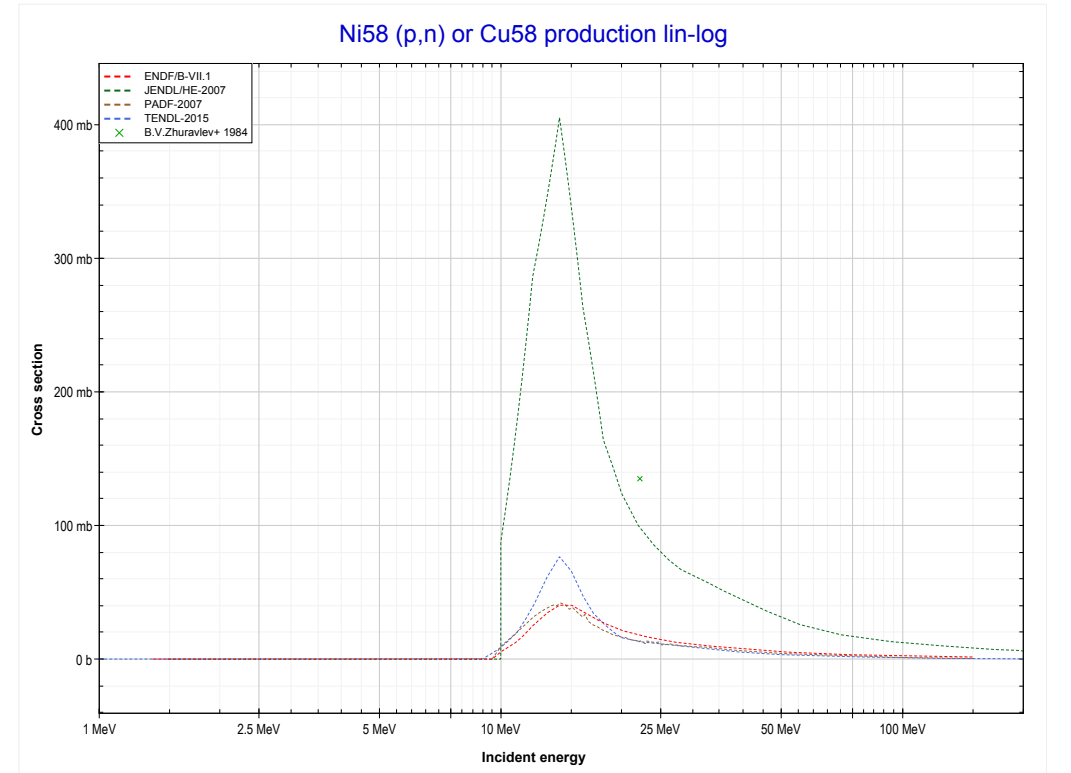
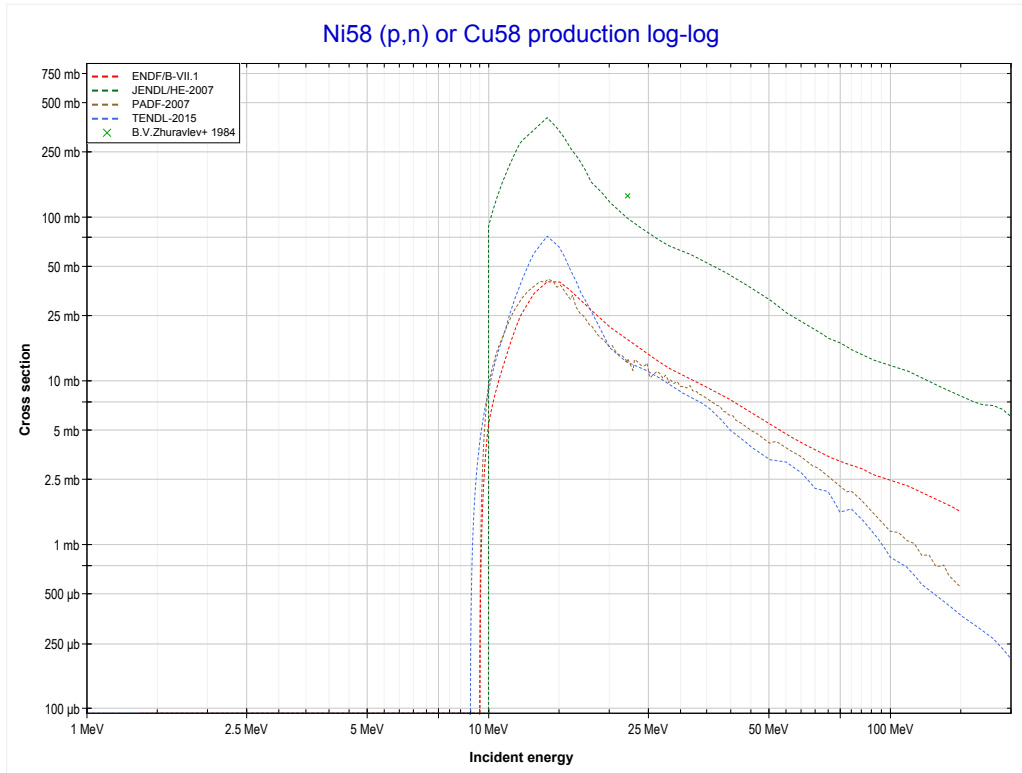
Reaction	Q-Value
Co59(p,2n+t)Co55	-32003.27 keV
Co59(p,3n+d)Co55	-38260.50 keV
Co59(p,4n+p)Co55	-40485.07 keV

<< 21-Sc-45	27-Co-59	
<< MT156 (p,4n+p)	MT198 (p,n+3p) or MT5 (Mn56 production)	28-Ni-58 MT4 (p,n) >>



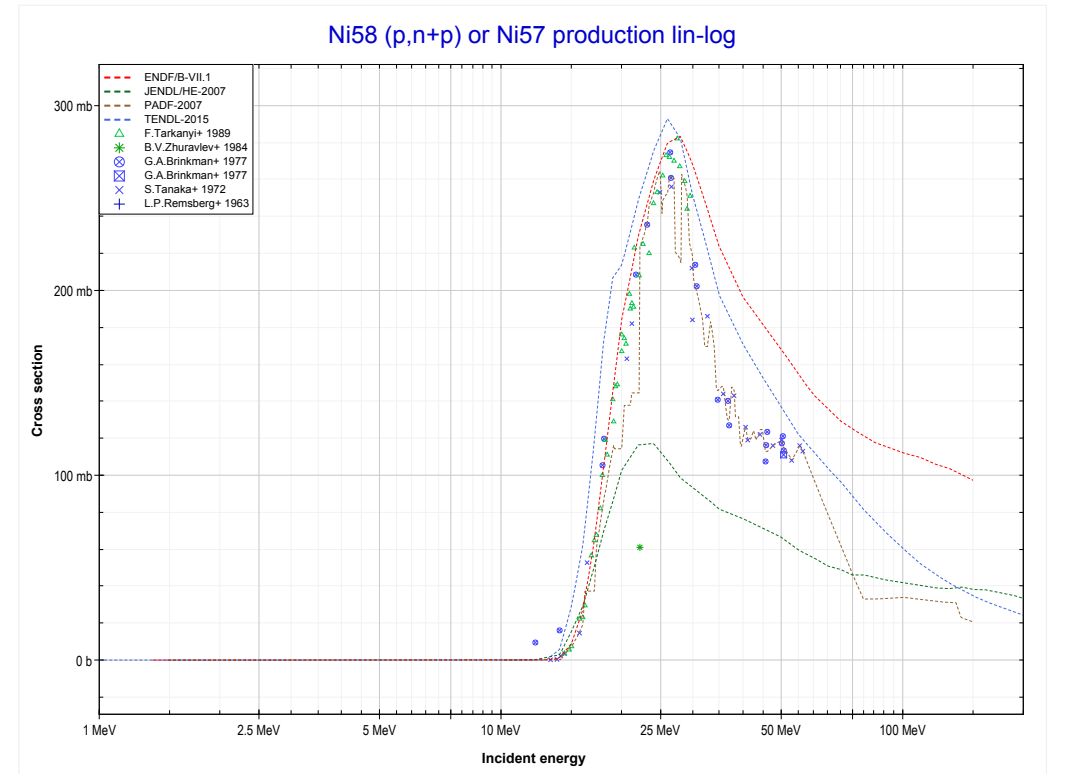
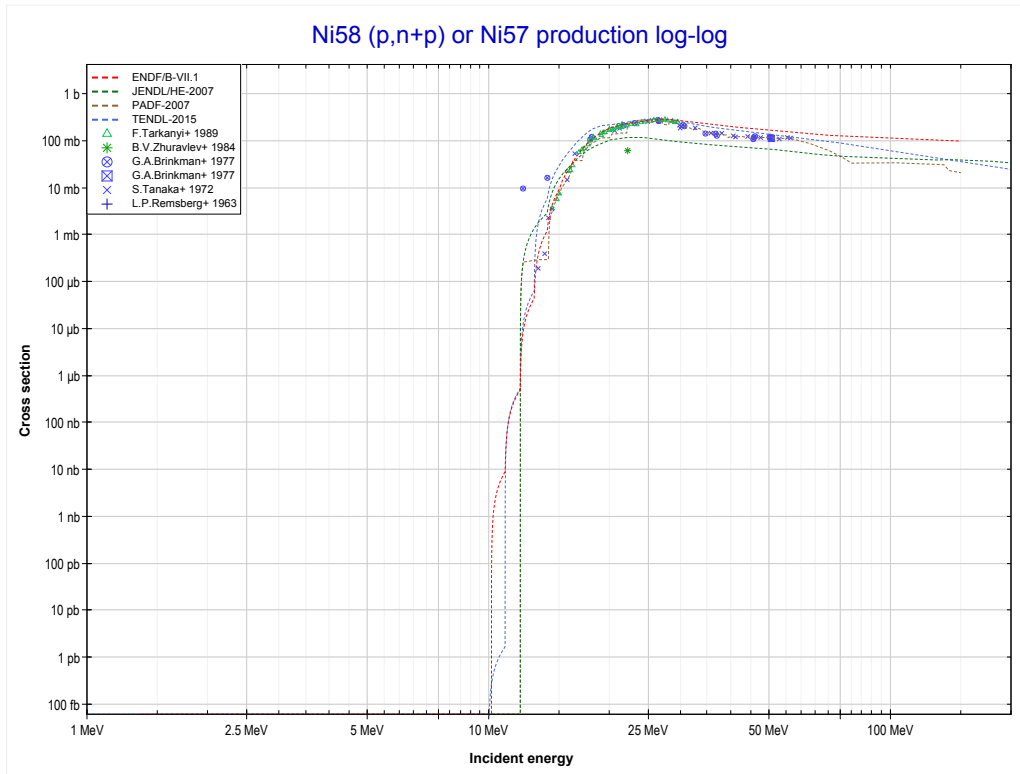
Reaction	Q-Value
Co59(p,p+He3)Mn56	-20249.52 keV
Co59(p,2p+d)Mn56	-25742.99 keV
Co59(p,n+3p)Mn56	-27967.56 keV

<< 27-Co-59	28-Ni-58	28-Ni-60 >>
<< 27-Co-59 MT198 (p,n+3p)	MT4 (p,n) or MT5 (Cu58 production)	MT28 (p,n+p) >>



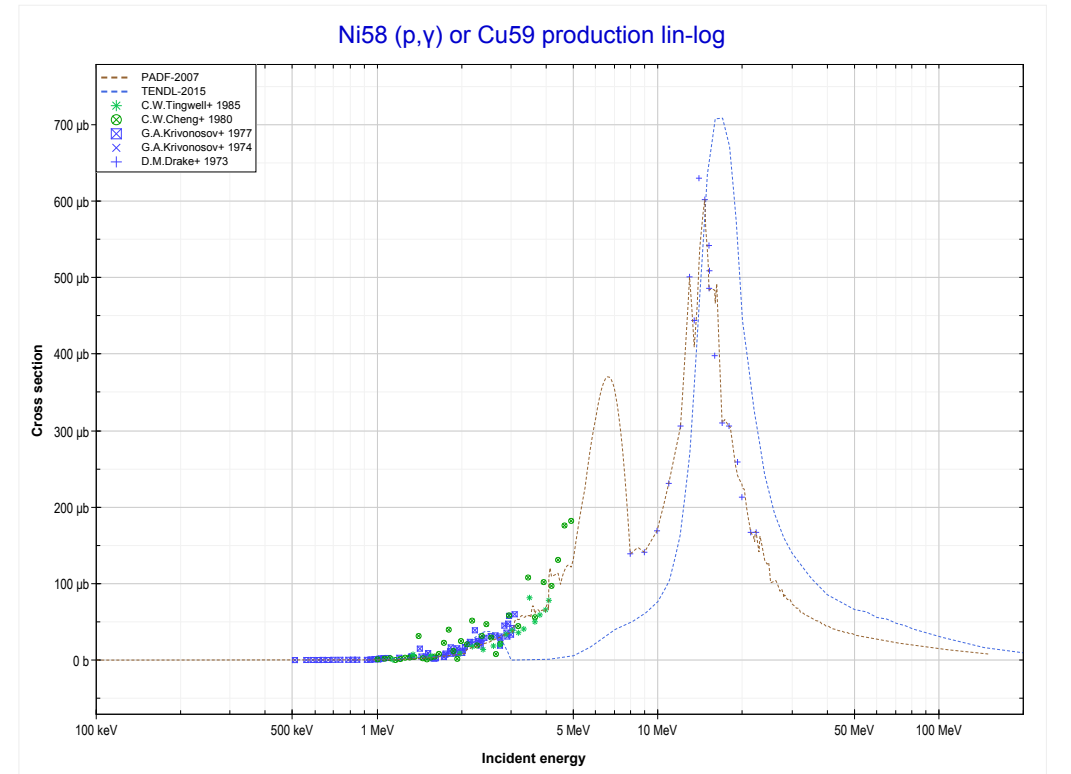
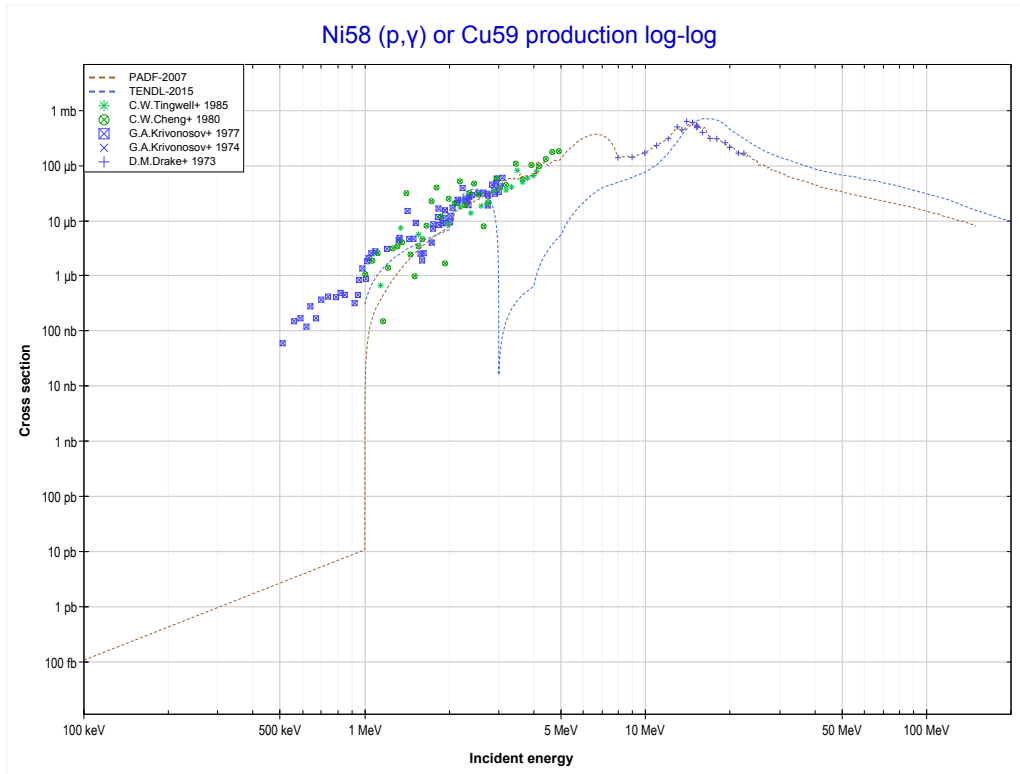
Reaction	Q-Value
Ni58(p,n)Cu58	-9343.45 keV

<< 27-Co-59	28-Ni-58	28-Ni-60 >>
<< MT4 (p,n)	MT28 (p,n+p) or MT5 (Ni57 production)	MT102 (p, γ) >>



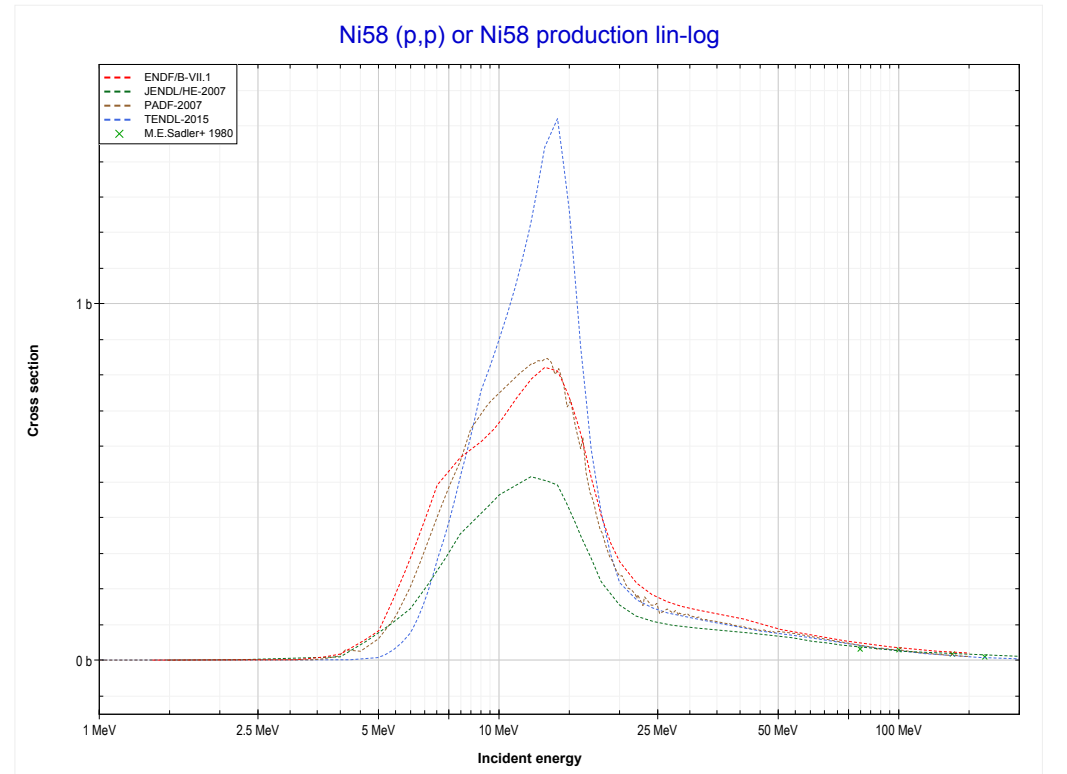
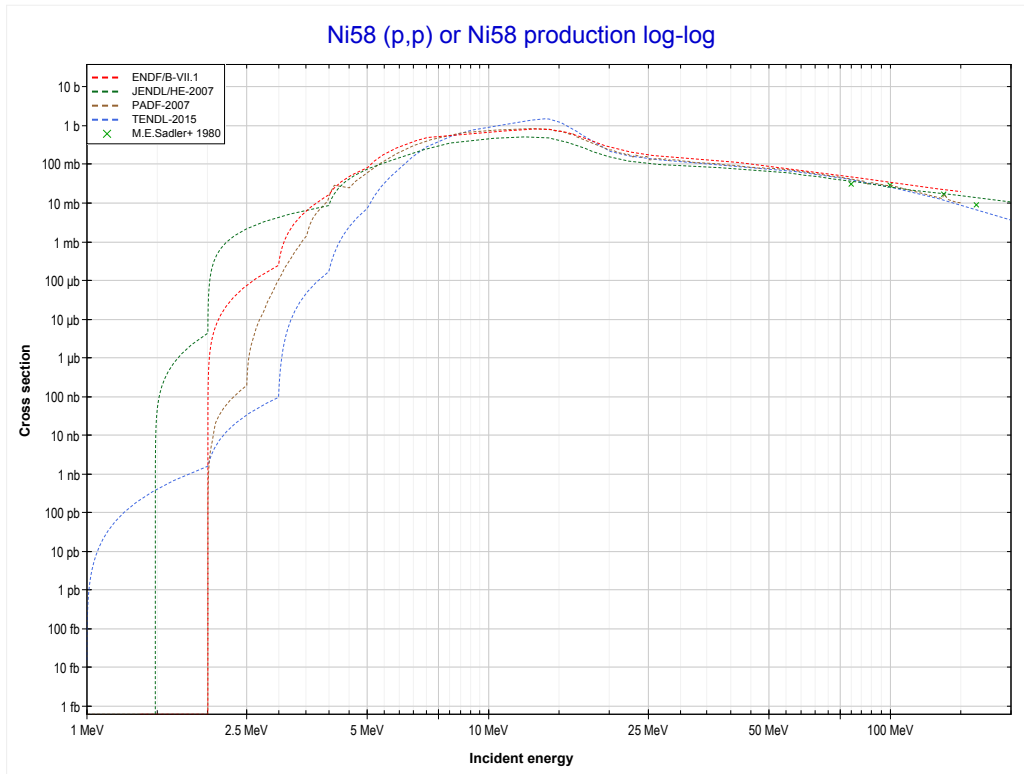
Reaction	Q-Value
Ni58(p,d)Ni57	-9991.75 keV
Ni58(p,n+p)Ni57	-12216.32 keV

<< 27-Co-59	28-Ni-58	28-Ni-60 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (Cu59 production)	MT103 (p,p) >>



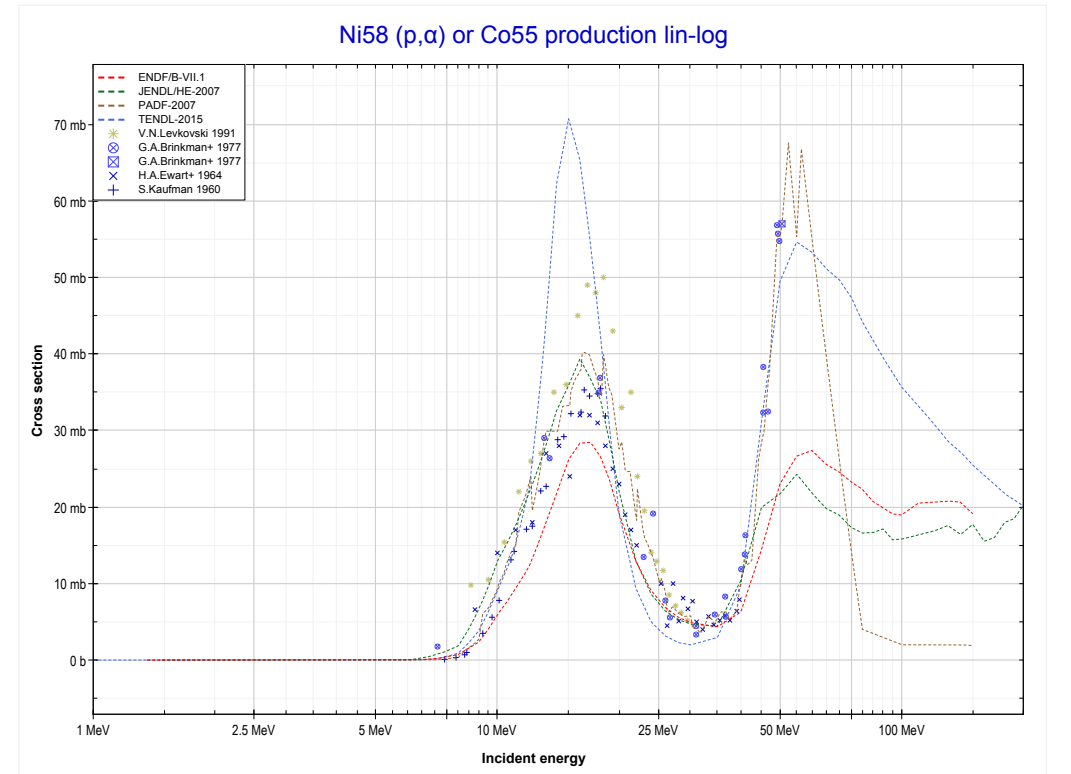
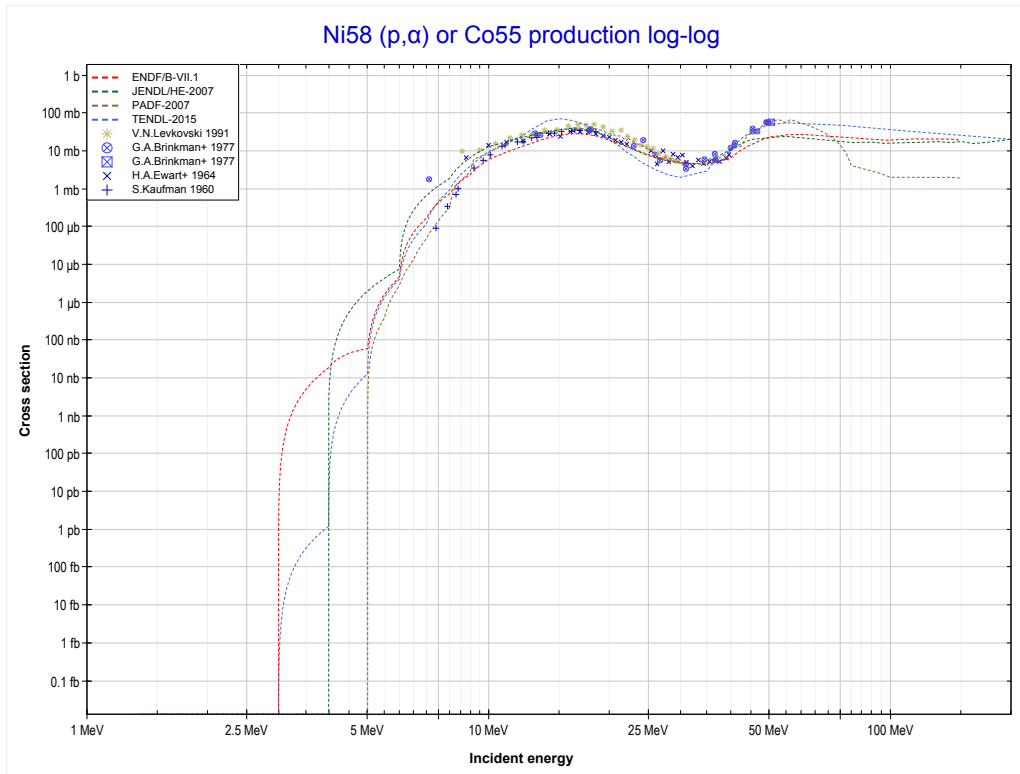
Reaction	Q-Value
Ni58(p, γ)Cu59	3418.47 keV

<< 20-Ca-40	28-Ni-58	28-Ni-60 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (Ni58 production)	MT107 (p, α) >>



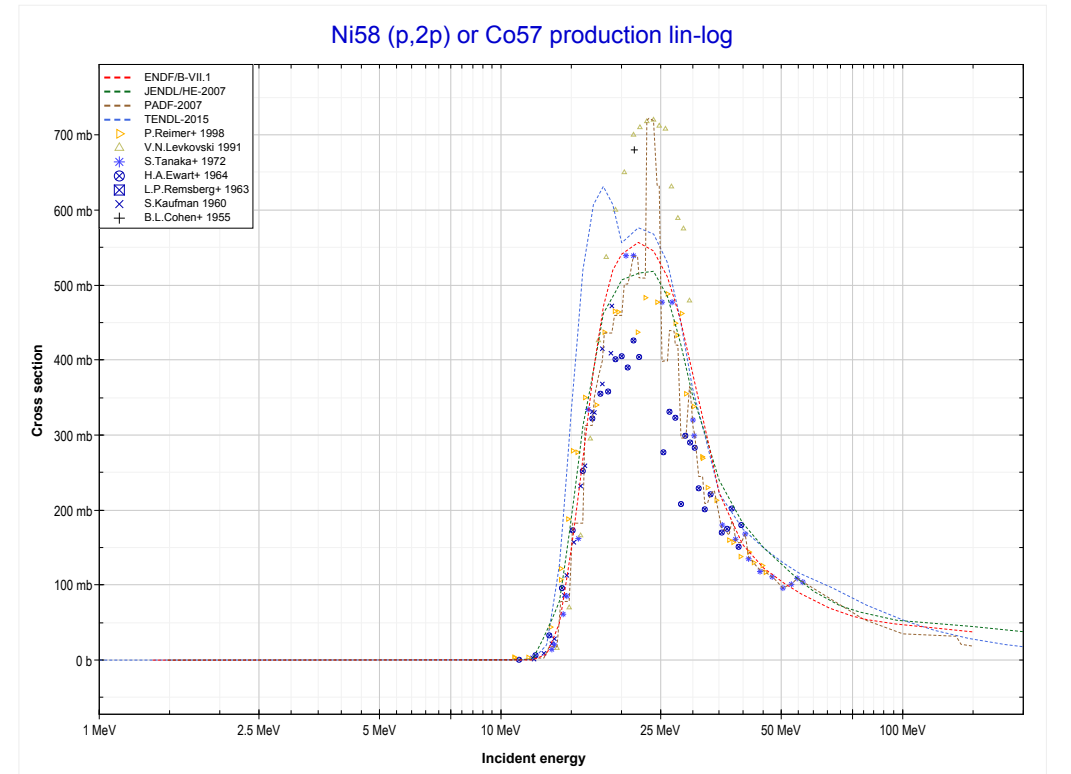
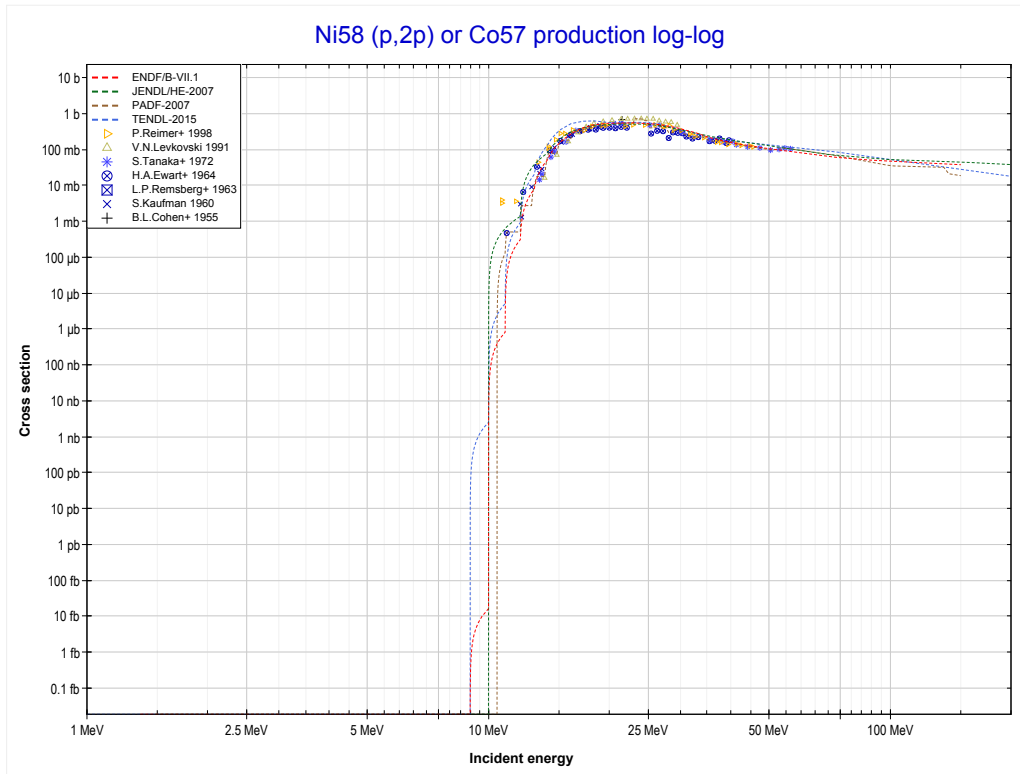
Reaction	Q-Value
Ni58(p,p)Ni58	0.00 keV

<< 26-Fe-57	28-Ni-58	28-Ni-60 >>
<< MT103 (p,p)	MT107 (p,α) or MT5 (Co55 production)	MT111 (p,2p) >>



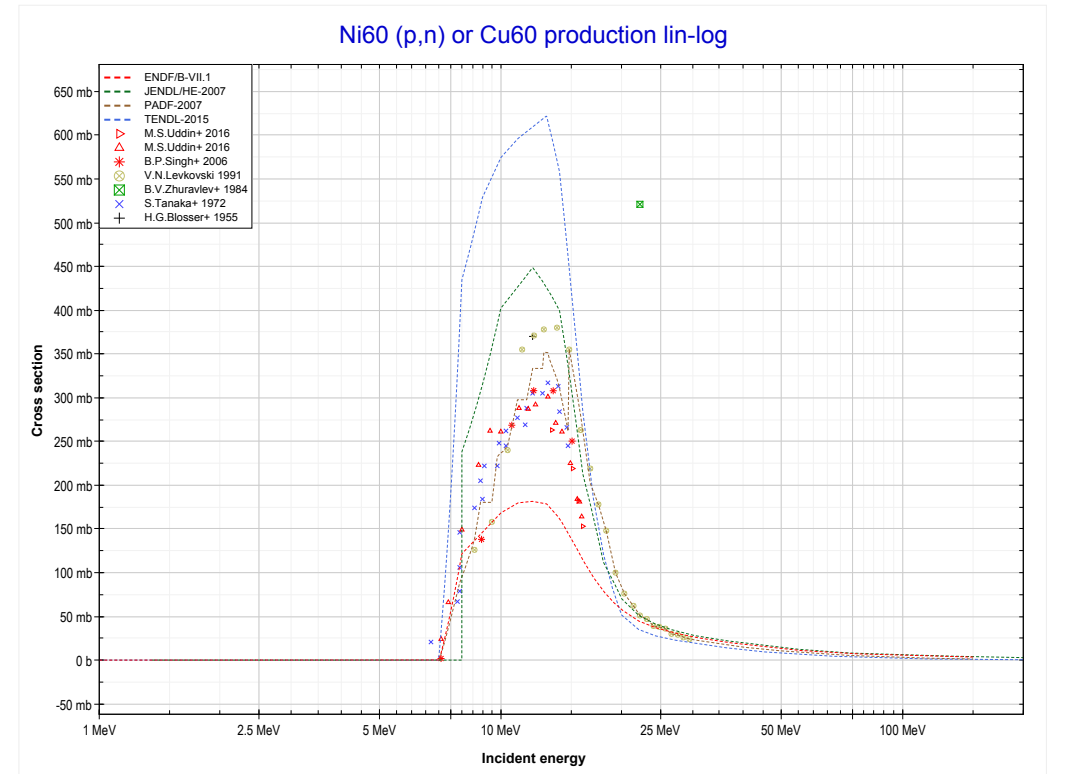
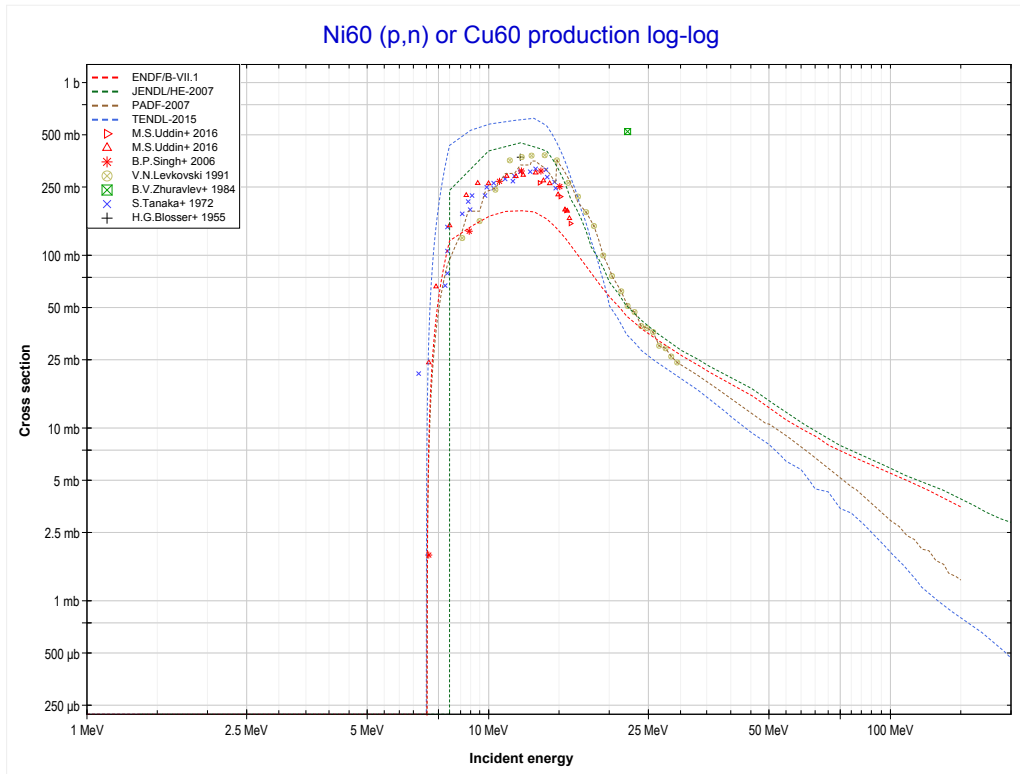
Reaction	Q-Value
Ni58(p, α)Co55	-1334.85 keV
Ni58(p,p+t)Co55	-21148.71 keV
Ni58(p,n+He3)Co55	-21912.46 keV
Ni58(p,2d)Co55	-25181.37 keV
Ni58(p,n+p+d)Co55	-27405.94 keV
Ni58(p,2n+2p)Co55	-29630.50 keV

<< 26-Fe-57	28-Ni-58	28-Ni-62 >>
<< MT107 (p, α)	MT111 (p,2p) or MT5 (Co57 production)	28-Ni-60 MT4 (p,n) >>



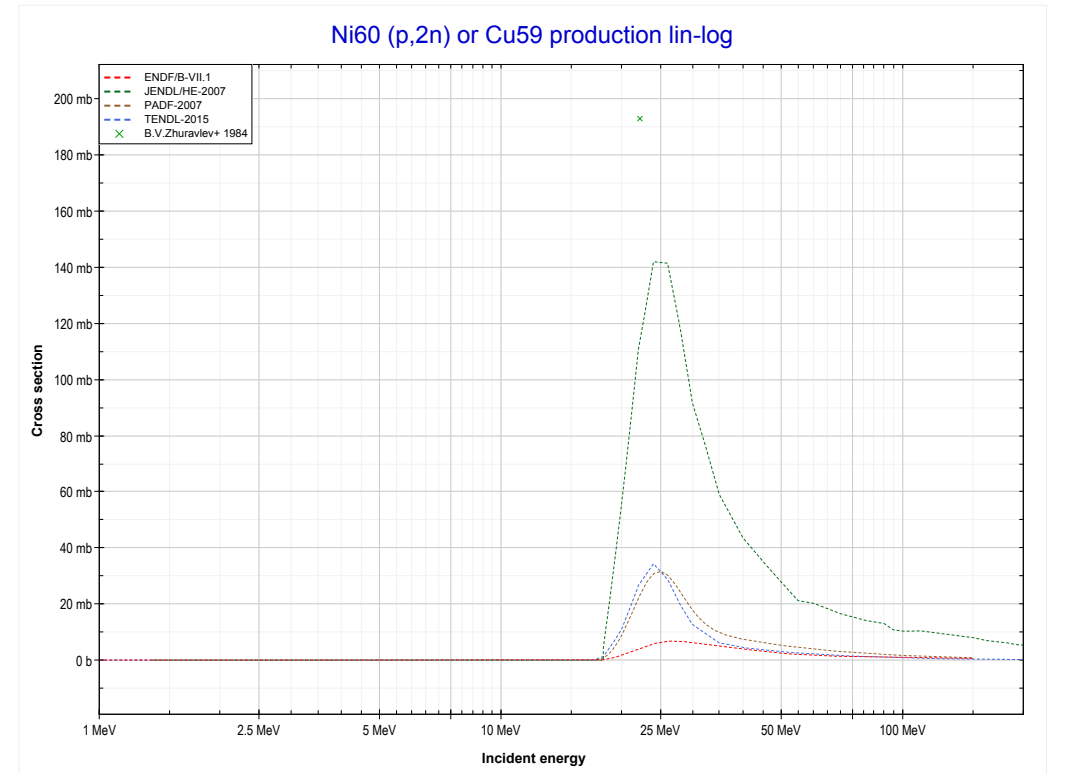
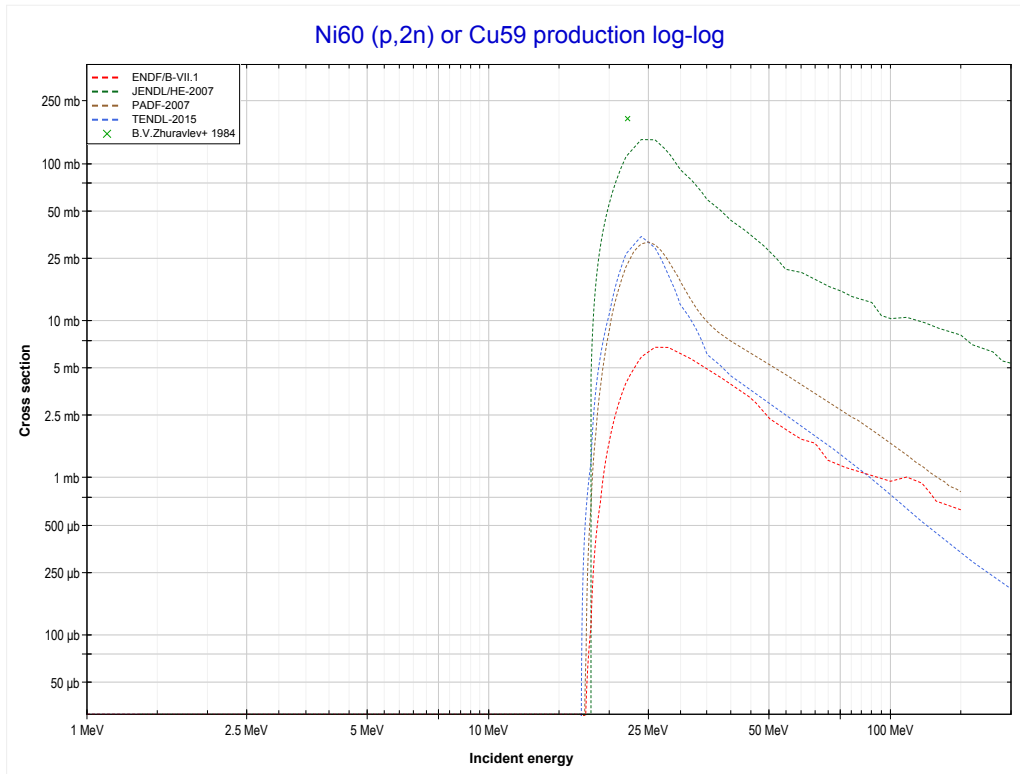
Reaction	Q-Value
Ni58(p,2p)Co57	-8172.27 keV

<< 28-Ni-58	28-Ni-60	28-Ni-61 >>
<< 28-Ni-58 MT111 (p,2p)	MT4 (p,n) or MT5 (Cu60 production)	MT16 (p,2n) >>



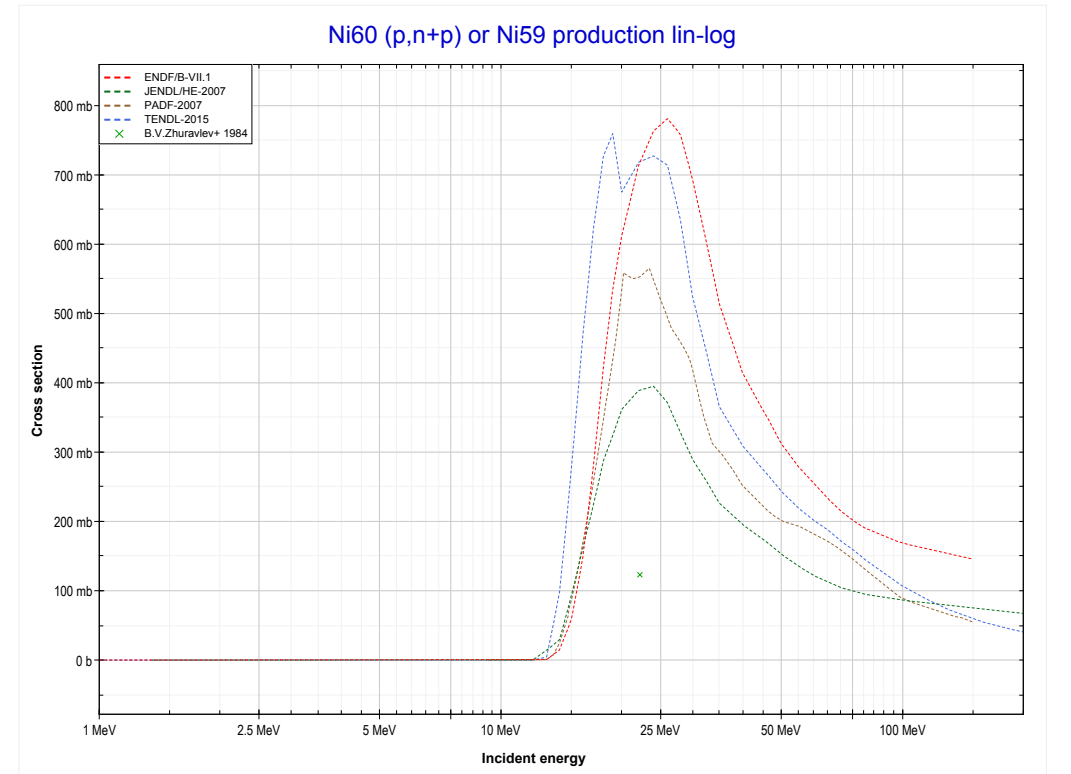
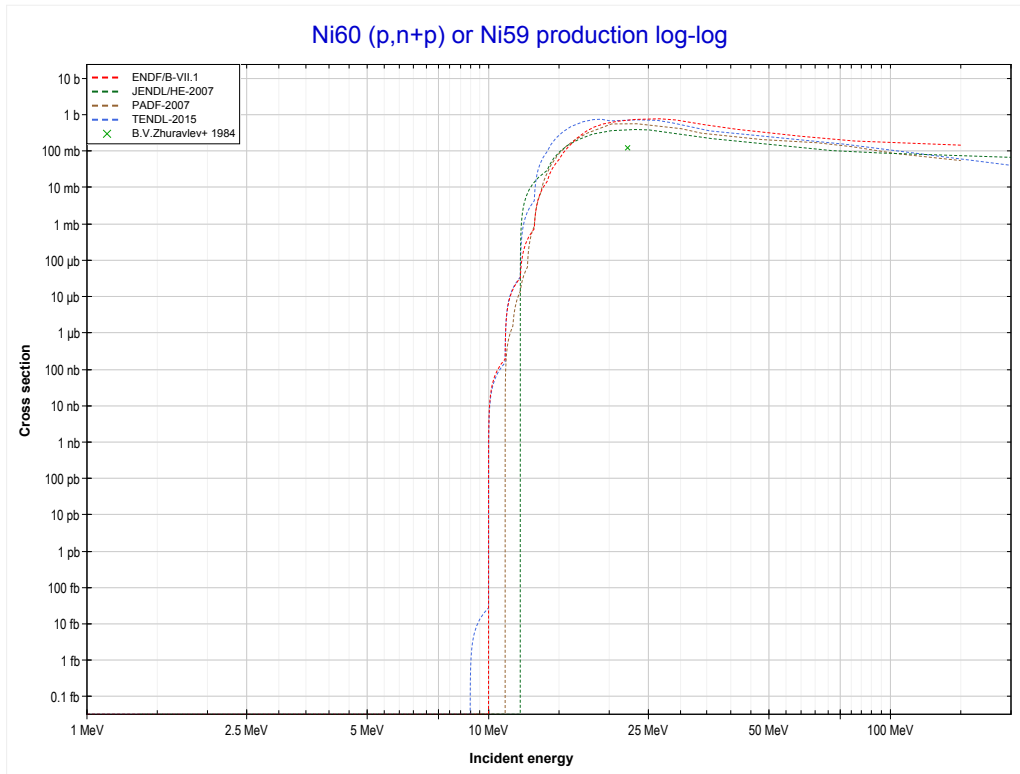
Reaction	Q-Value
Ni60(p,n)Cu60	-6910.25 keV

<< 26-Fe-58	28-Ni-60	28-Ni-61 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Cu59 production)	MT28 (p,n+p) >>



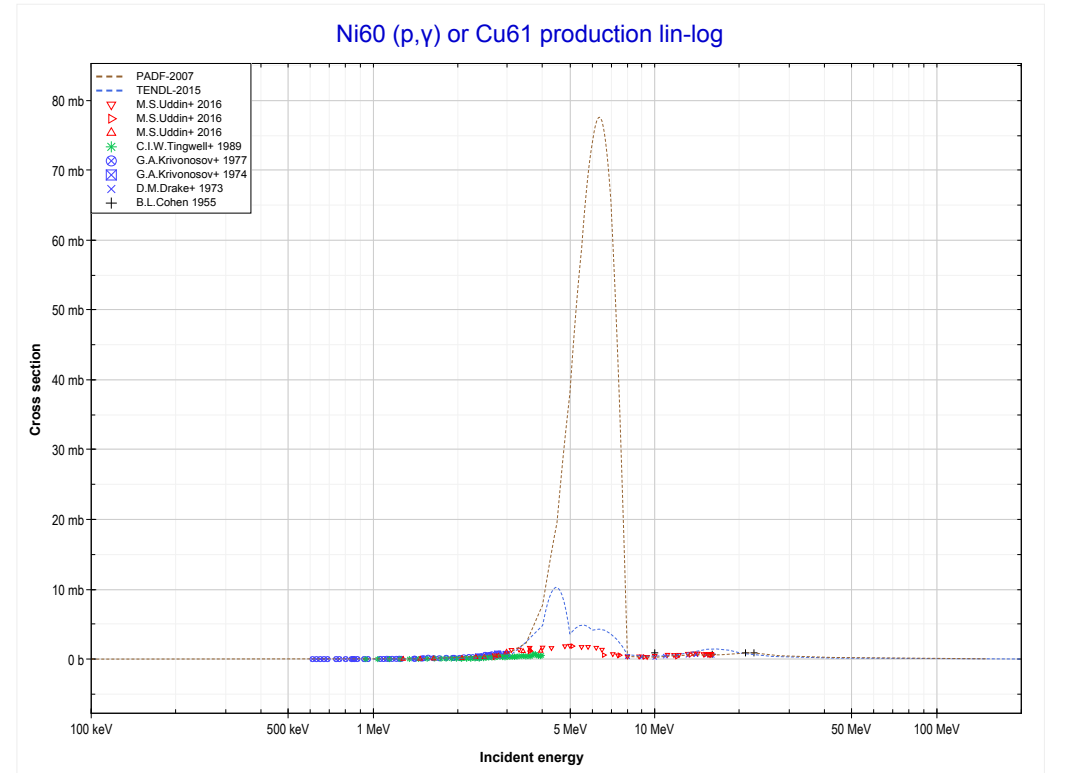
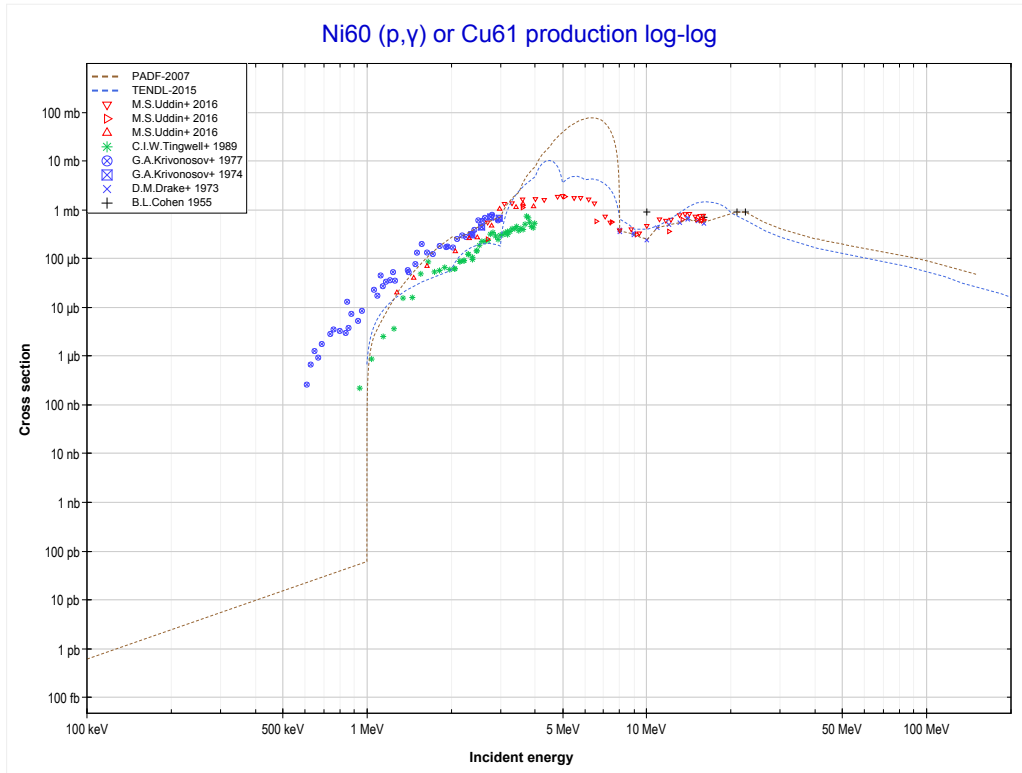
Reaction	Q-Value
Ni60(p,2n)Cu59	-16968.46 keV

<< 28-Ni-58	28-Ni-60	29-Cu-65 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Ni59 production)	MT102 (p, γ) >>



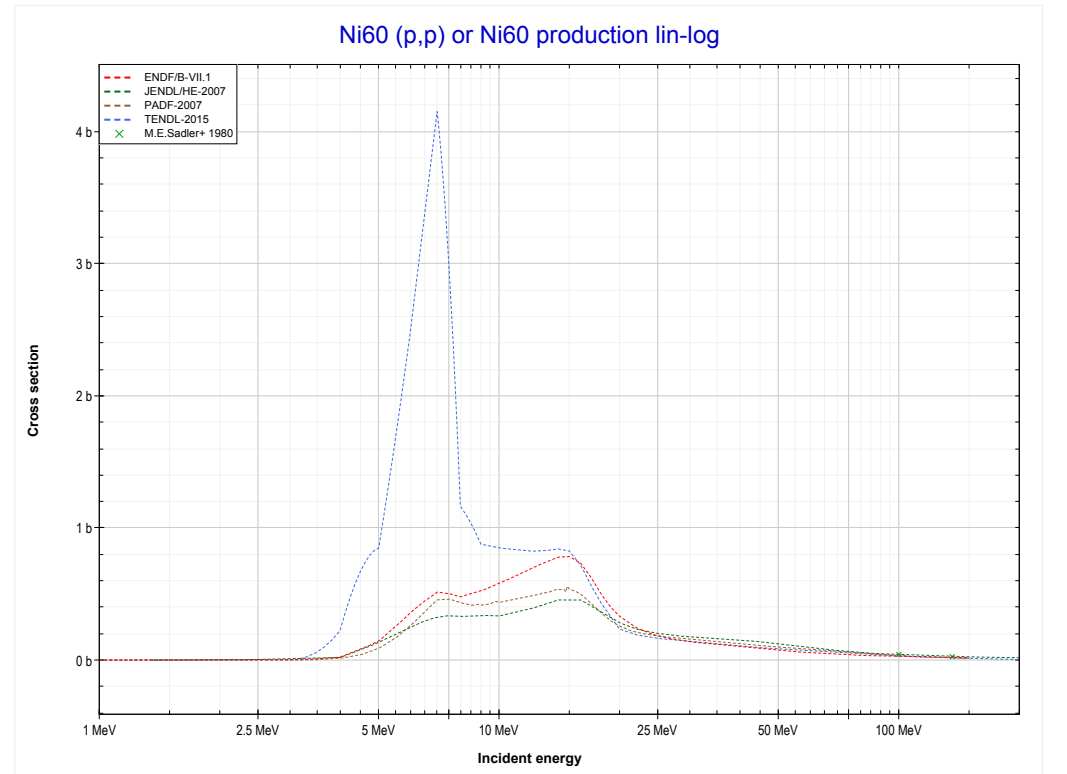
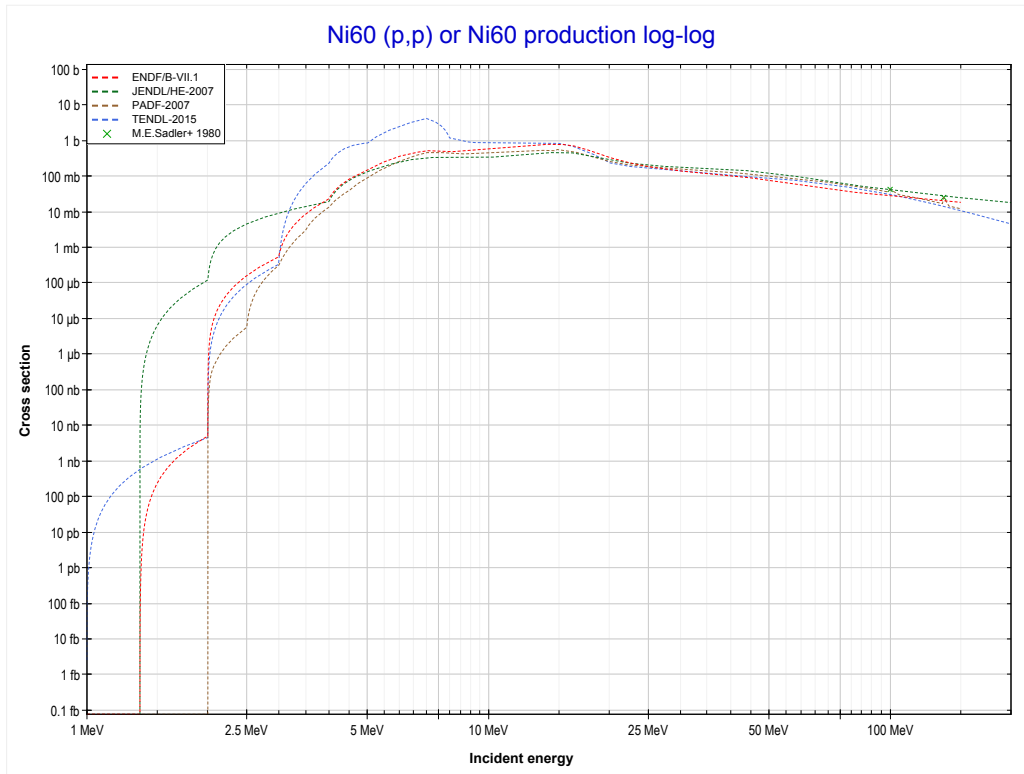
Reaction	Q-Value
Ni60(p,d)Ni59	-9163.15 keV
Ni60(p,n+p)Ni59	-11387.72 keV

<< 28-Ni-58	28-Ni-60	28-Ni-61 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (Cu61 production)	MT103 (p,p) >>



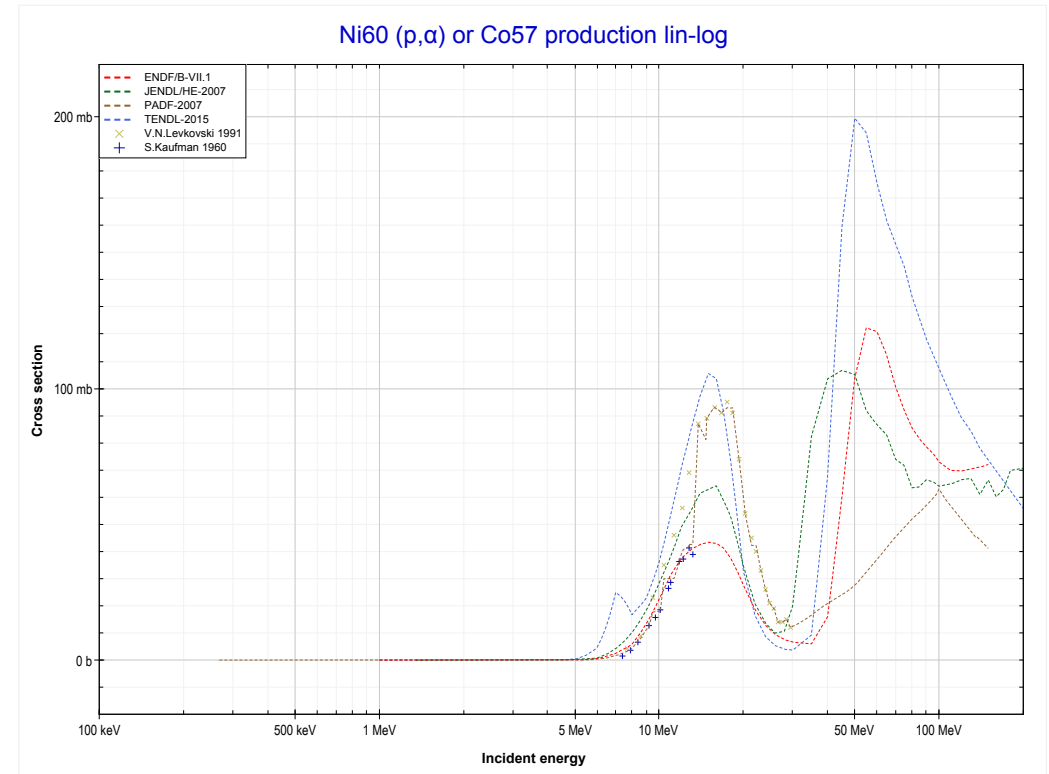
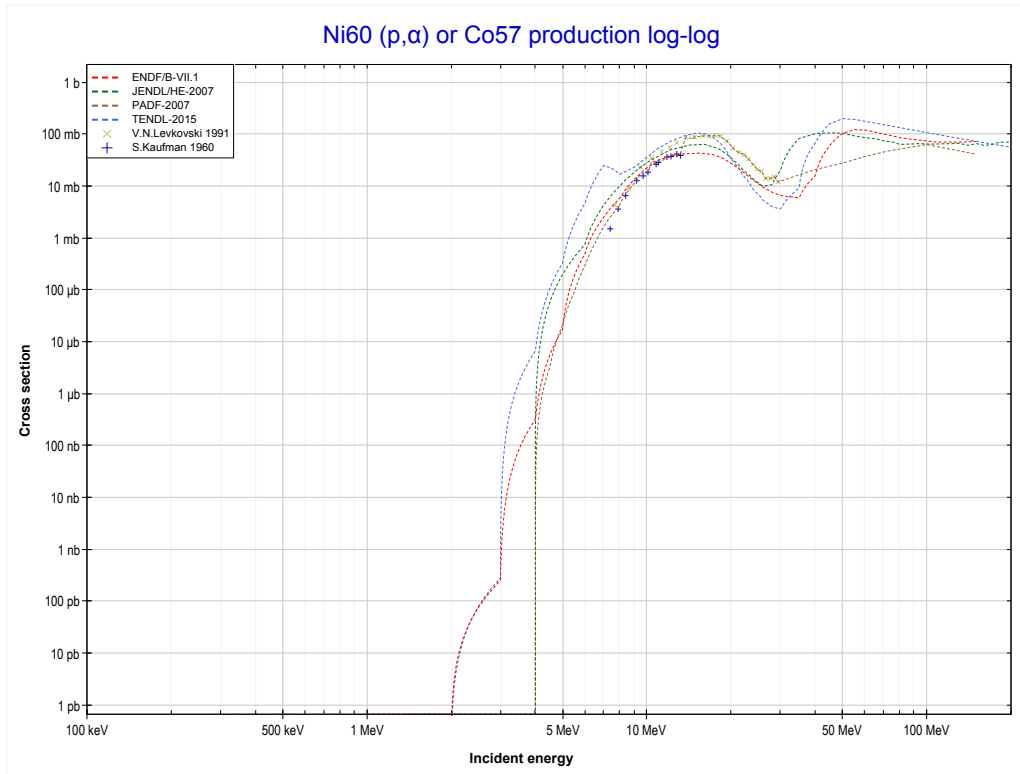
Reaction	Q-Value
Ni60(p, γ)Cu61	4800.27 keV

<< 28-Ni-58	28-Ni-60	28-Ni-62 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (Ni60 production)	MT107 (p, α) >>



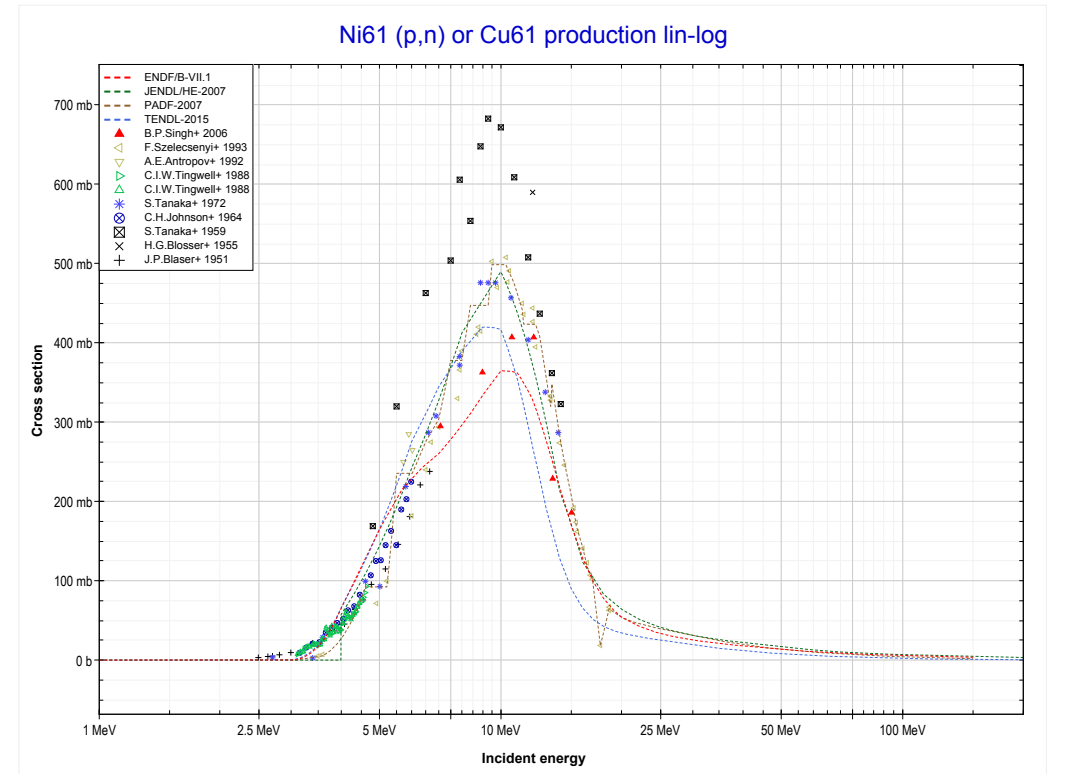
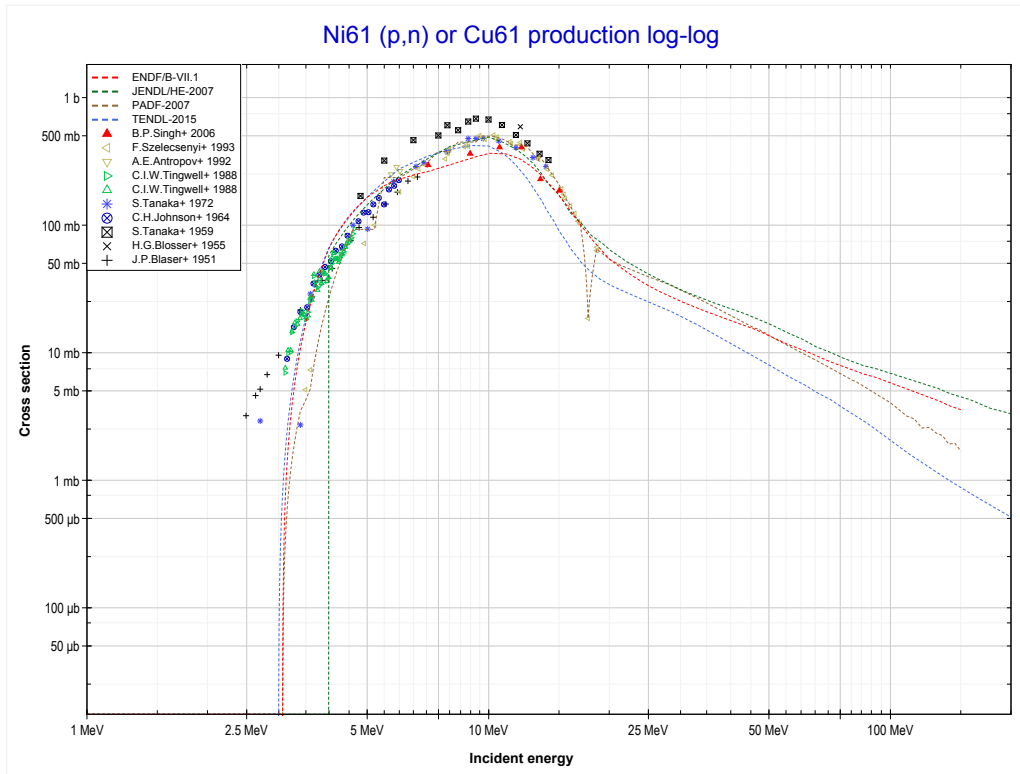
Reaction	Q-Value
Ni60(p,p)Ni60	0.00 keV

<< 28-Ni-58	28-Ni-60	28-Ni-61 >>
<< MT103 (p,p)	MT107 (p,α) or MT5 (Co57 production)	28-Ni-61 MT4 (p,n) >>



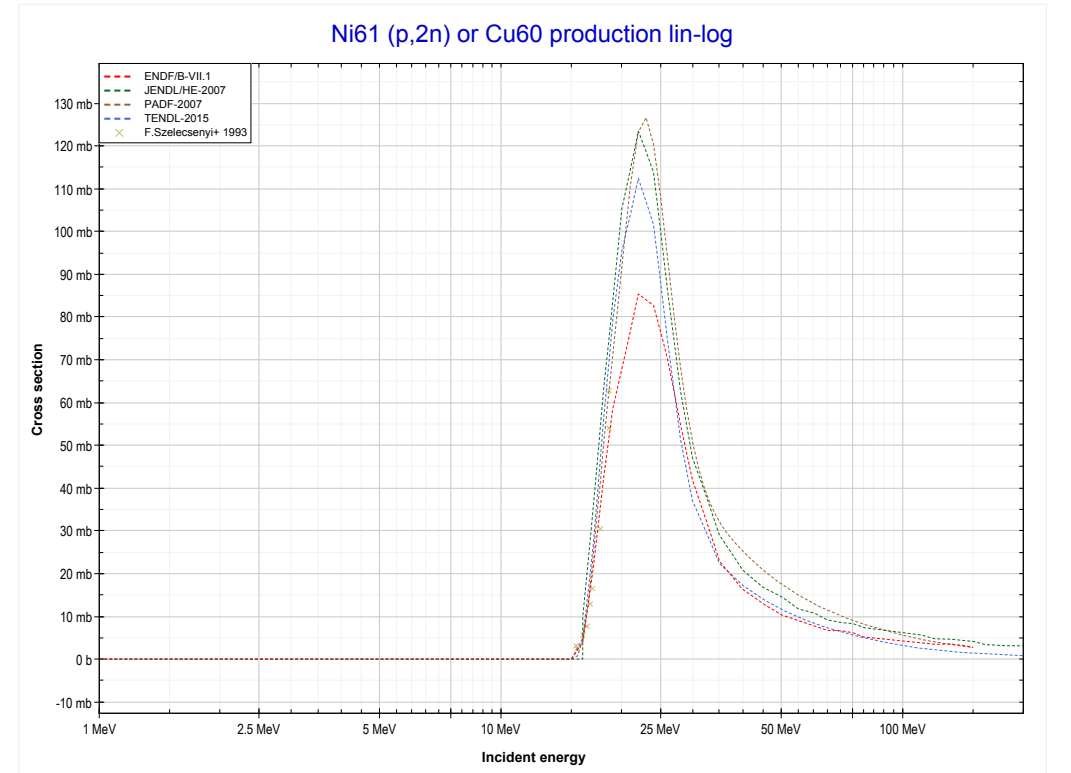
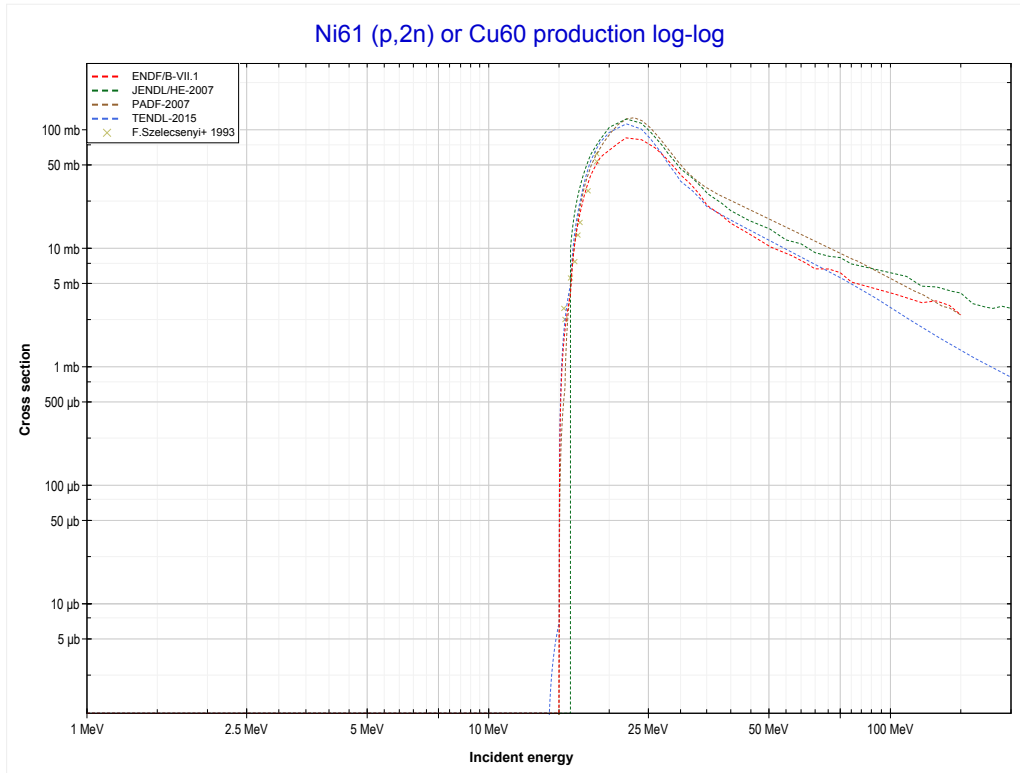
Reaction	Q-Value
Ni60(p, α)Co57	-263.55 keV
Ni60(p,p+t)Co57	-20077.41 keV
Ni60(p,n+He3)Co57	-20841.16 keV
Ni60(p,2d)Co57	-24110.07 keV
Ni60(p,n+p+d)Co57	-26334.64 keV
Ni60(p,2n+2p)Co57	-28559.20 keV

<< 28-Ni-60	28-Ni-61	28-Ni-62 >>
<< 28-Ni-60 MT107 (p, α)	MT4 (p,n) or MT5 (Cu61 production)	MT16 (p,2n) >>



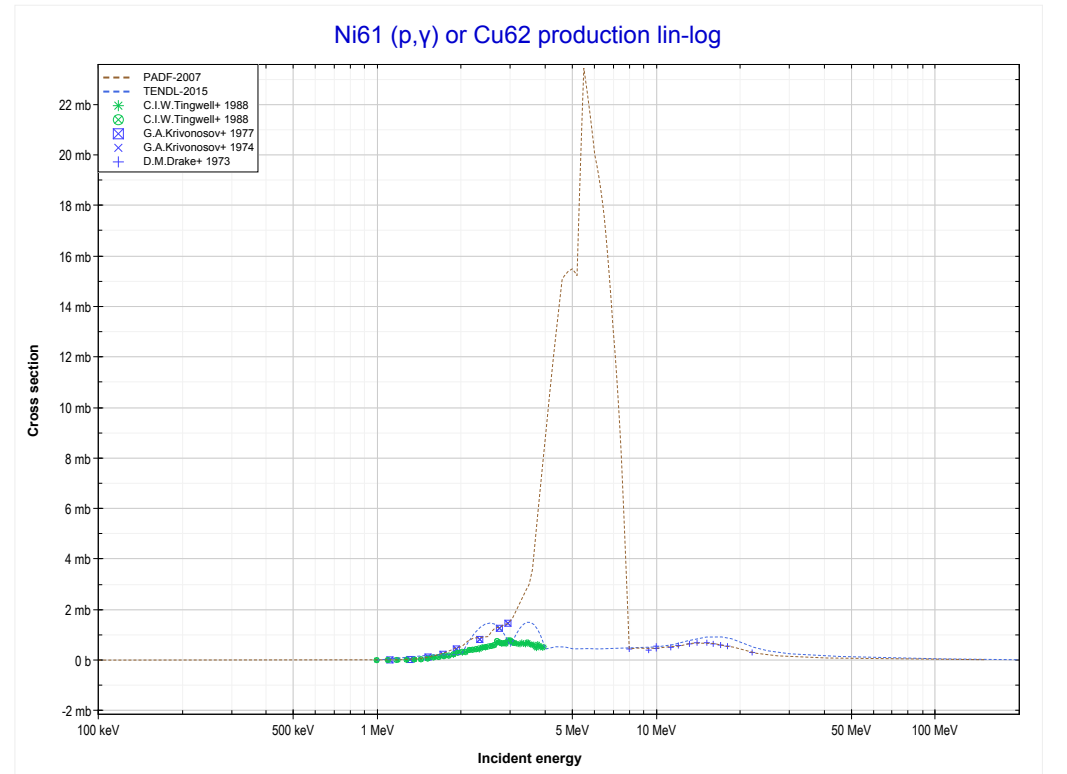
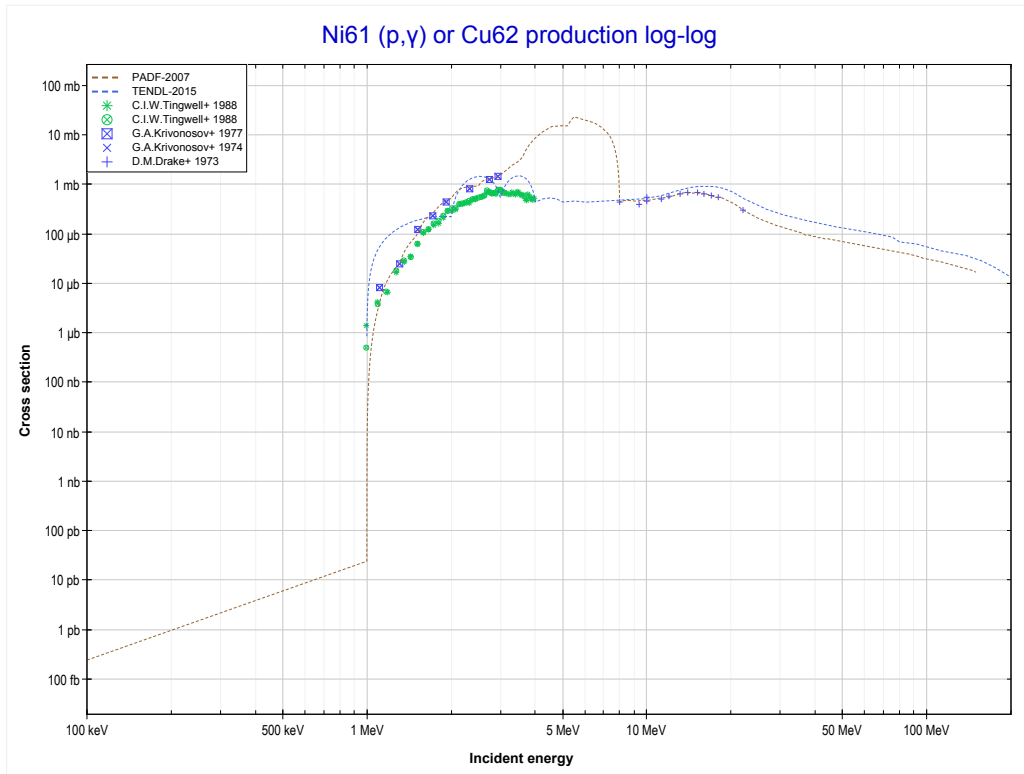
Reaction	Q-Value
Ni61(p,n)Cu61	-3019.85 keV

<< 28-Ni-60	28-Ni-61	28-Ni-62 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Cu60 production)	MT102 (p, γ) >>



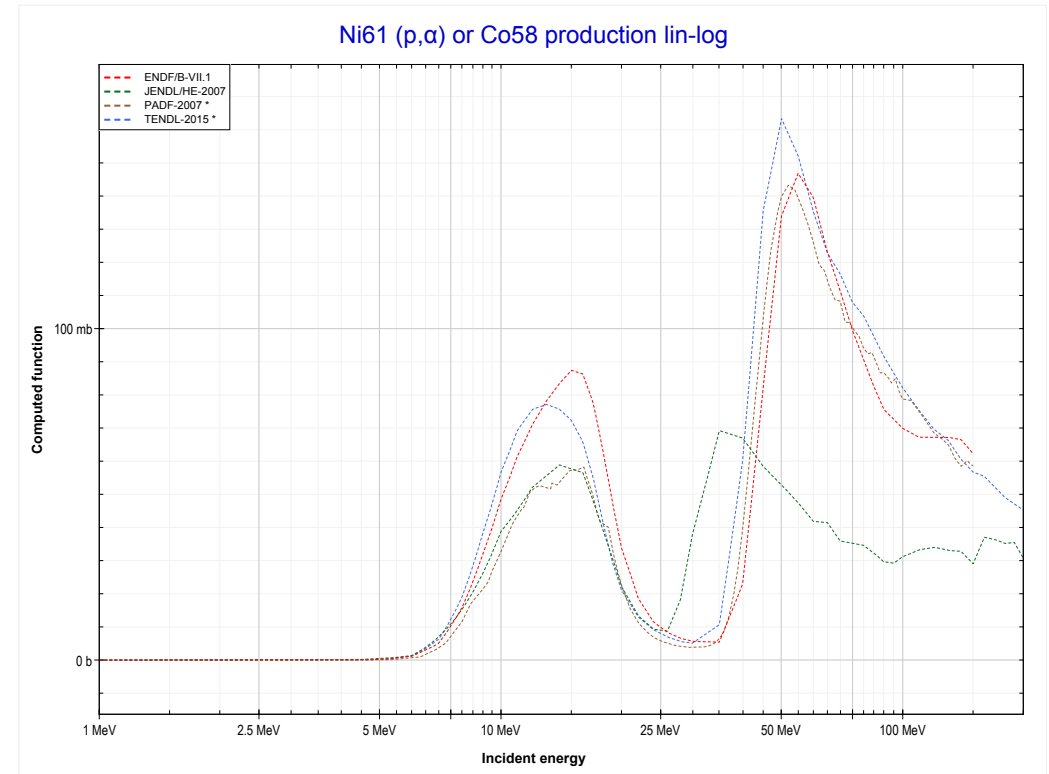
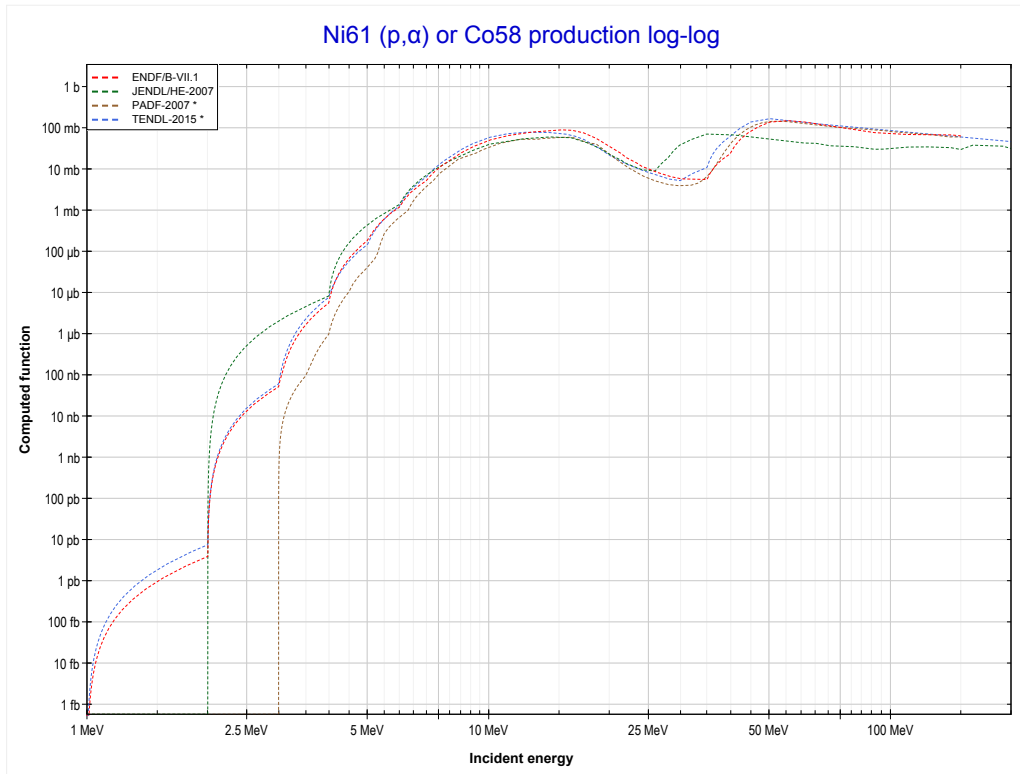
Reaction	Q-Value
Ni61(p,2n)Cu60	-14730.36 keV

<< 28-Ni-60	28-Ni-61	28-Ni-62 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (Cu62 production)	MT107 (p, α) >>



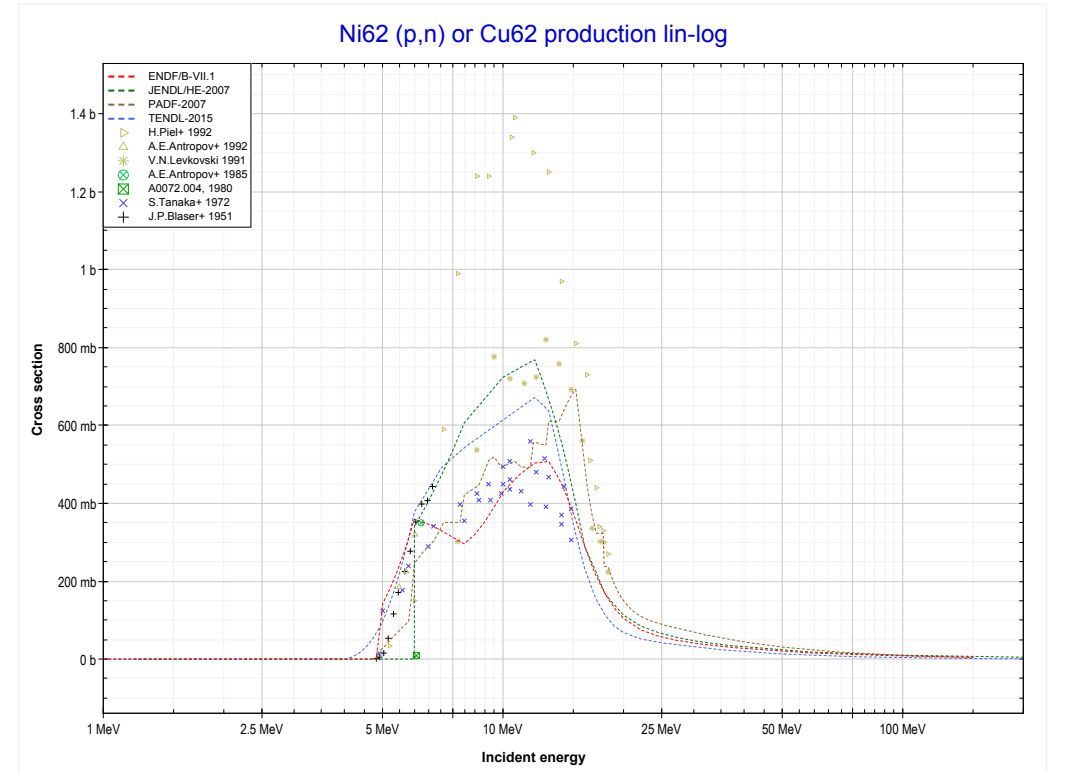
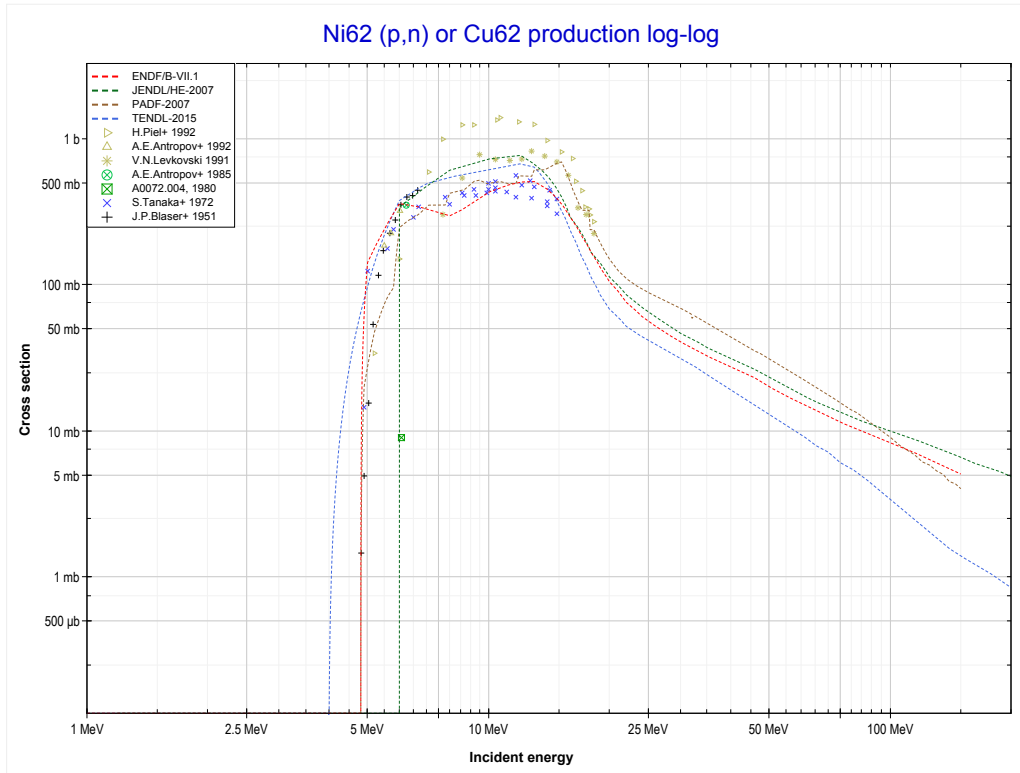
Reaction	Q-Value
Ni61(p, γ)Cu62	5854.67 keV

<< 28-Ni-60	28-Ni-61	28-Ni-64 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Co58 production)	28-Ni-62 MT4 (p,n) >>



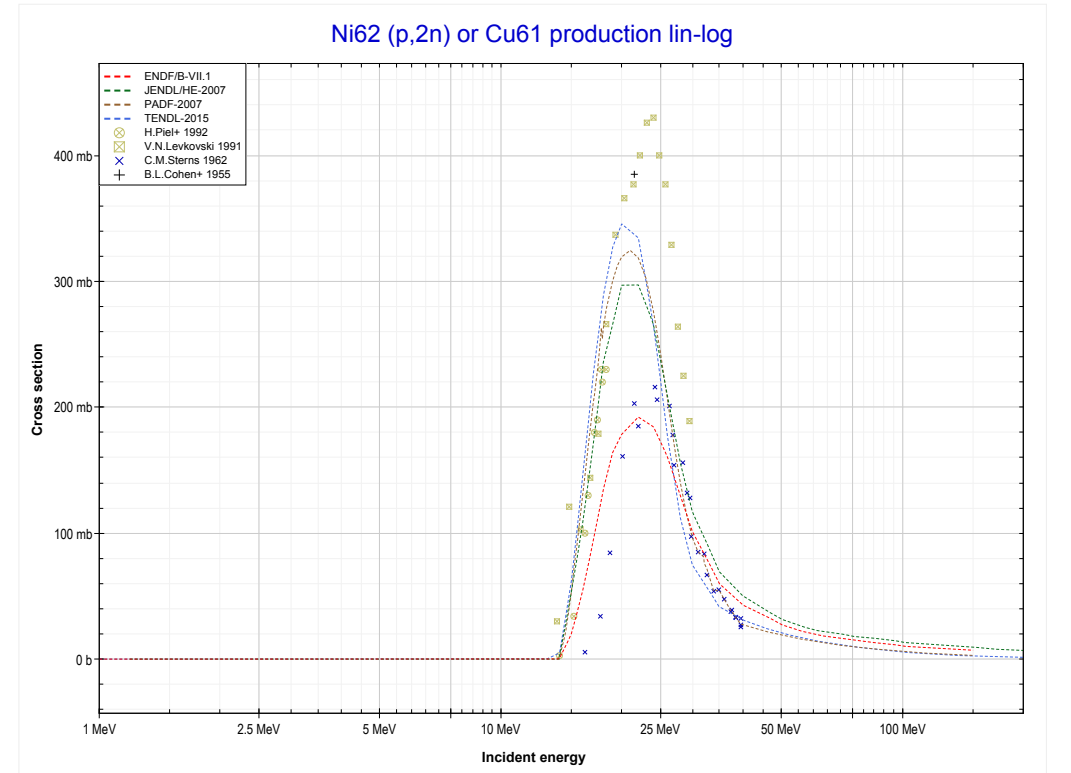
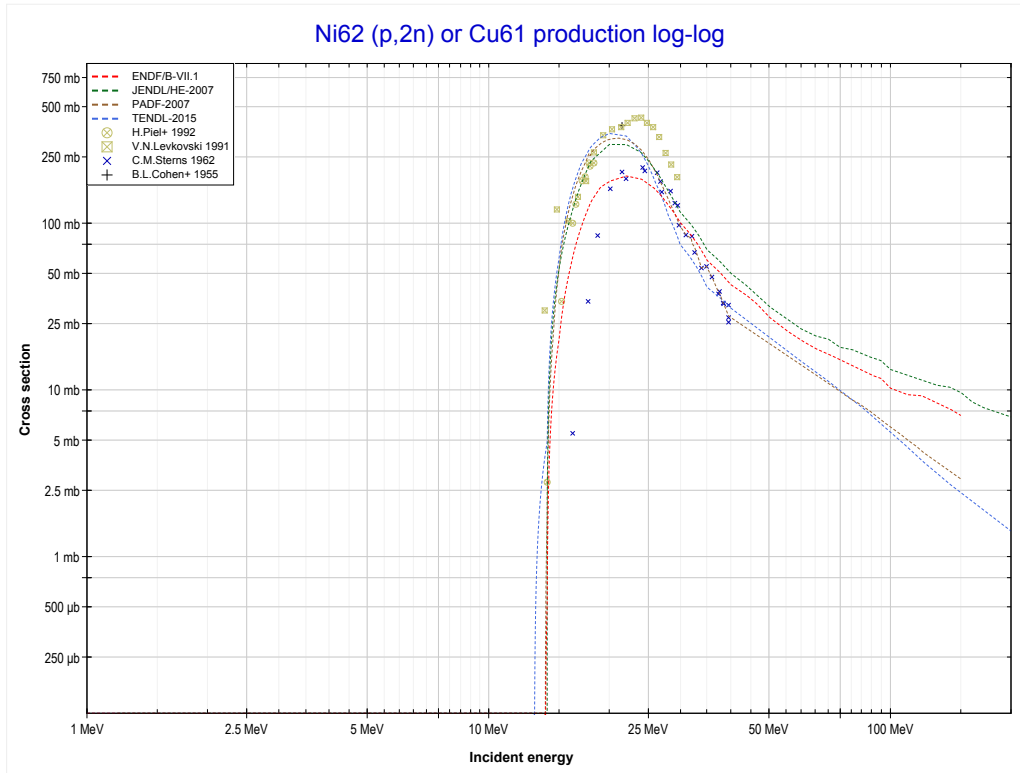
Reaction	Q-Value
Ni61(p, α)Co58	489.35 keV
Ni61(p,p+t)Co58	-19324.51 keV
Ni61(p,n+He3)Co58	-20088.26 keV
Ni61(p,2d)Co58	-23357.17 keV
Ni61(p,n+p+d)Co58	-25581.74 keV
Ni61(p,2n+2p)Co58	-27806.30 keV

<< 28-Ni-61	28-Ni-62	28-Ni-64 >>
<< 28-Ni-61 MT107 (p, α)	MT4 (p,n) or MT5 (Cu62 production)	MT16 (p,2n) >>



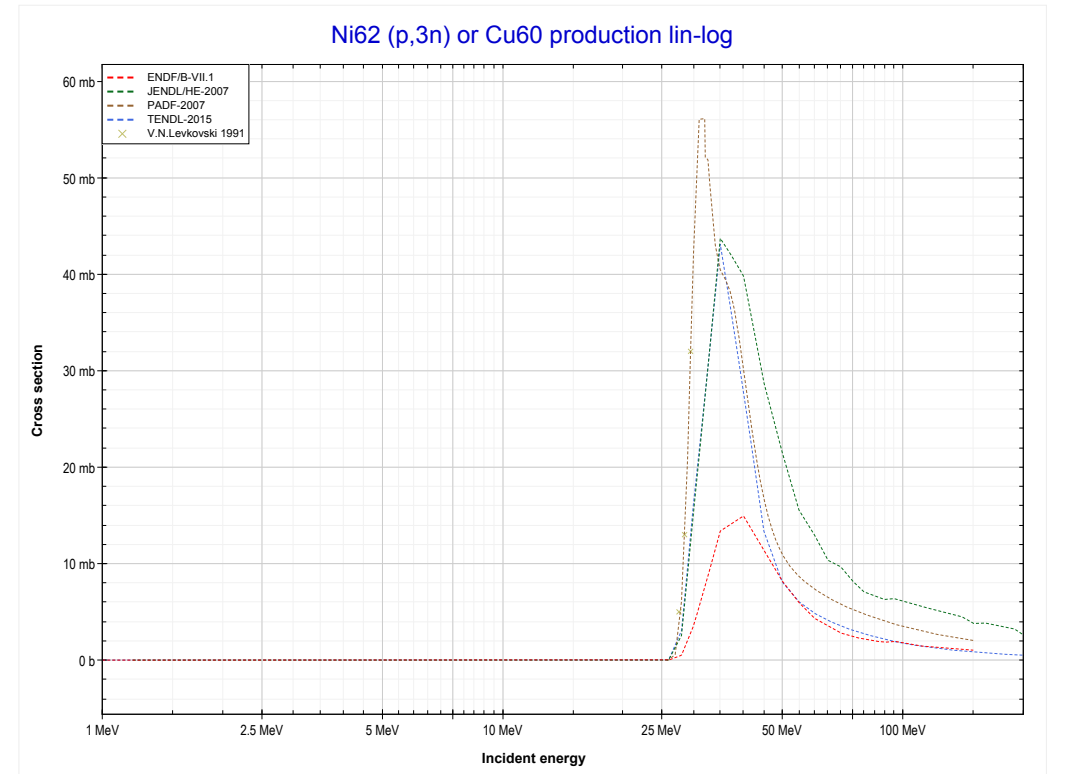
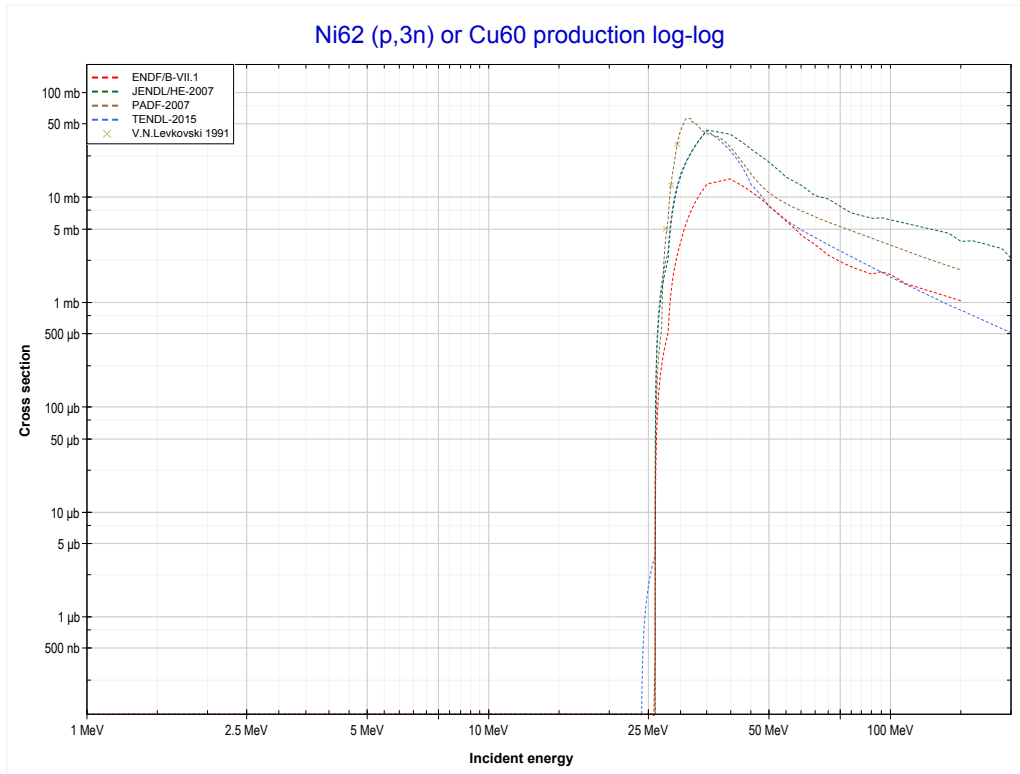
Reaction	Q-Value
Ni62(p,n)Cu62	-4741.25 keV

<< 28-Ni-61	28-Ni-62	29-Cu-63 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Cu61 production)	MT17 (p,3n) >>



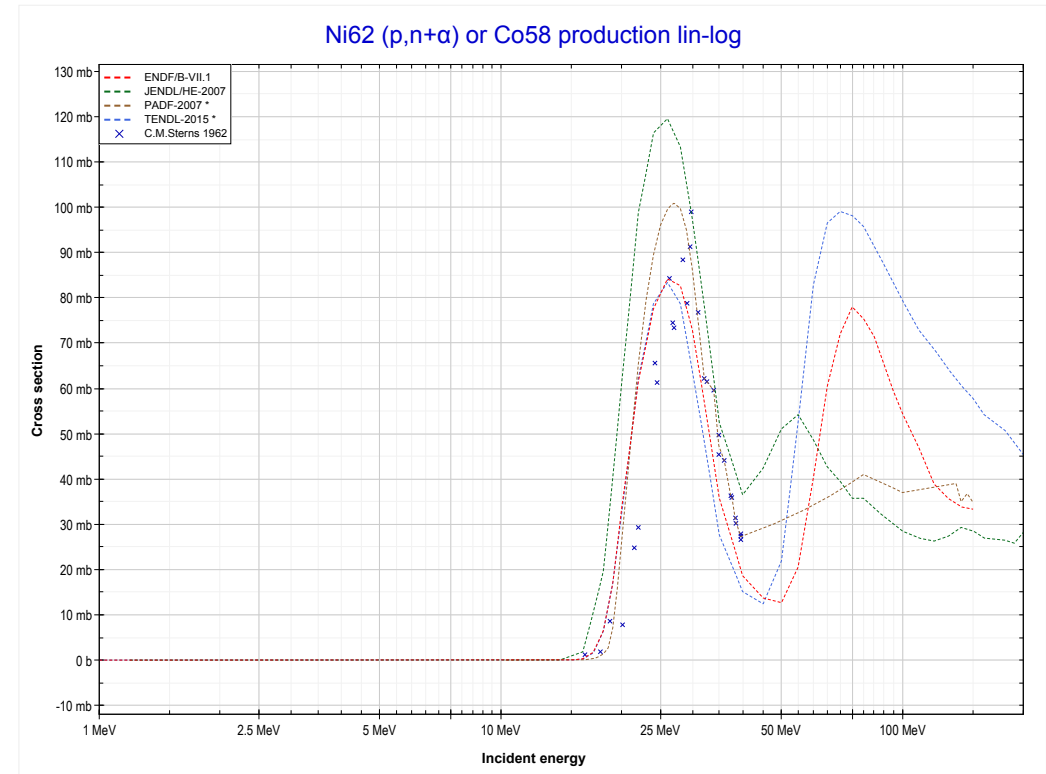
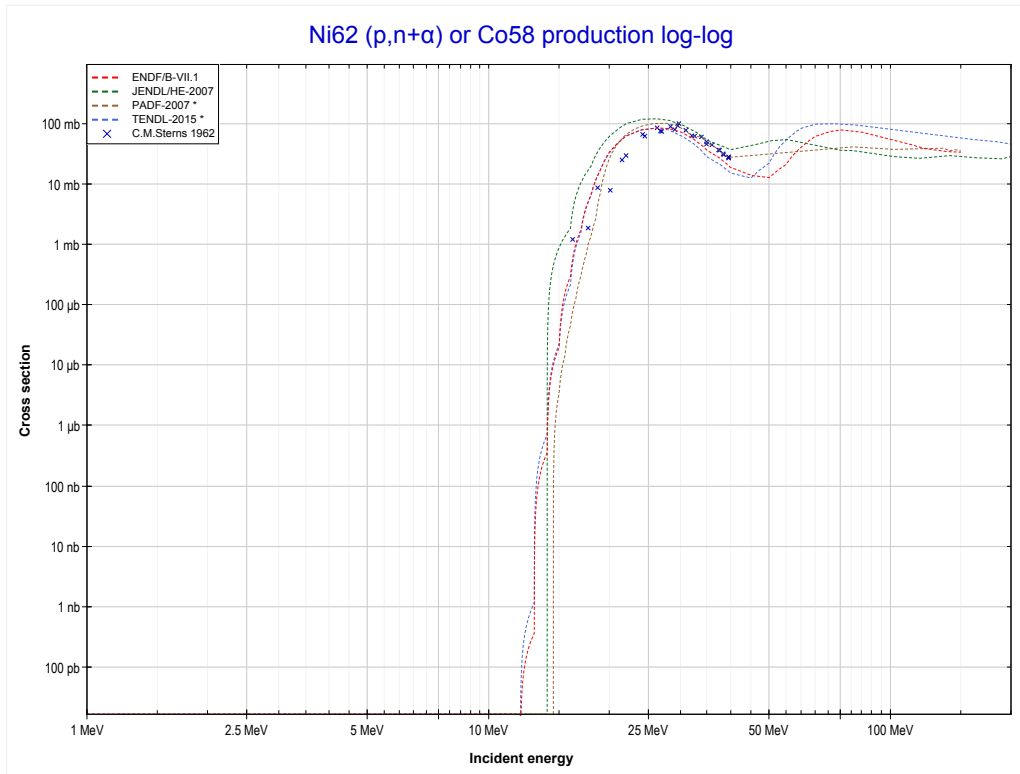
Reaction	Q-Value
Ni62(p,2n)Cu61	-13615.76 keV

<< 27-Co-59	28-Ni-62	29-Cu-63 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Cu60 production)	MT22 (p,n+α) >>



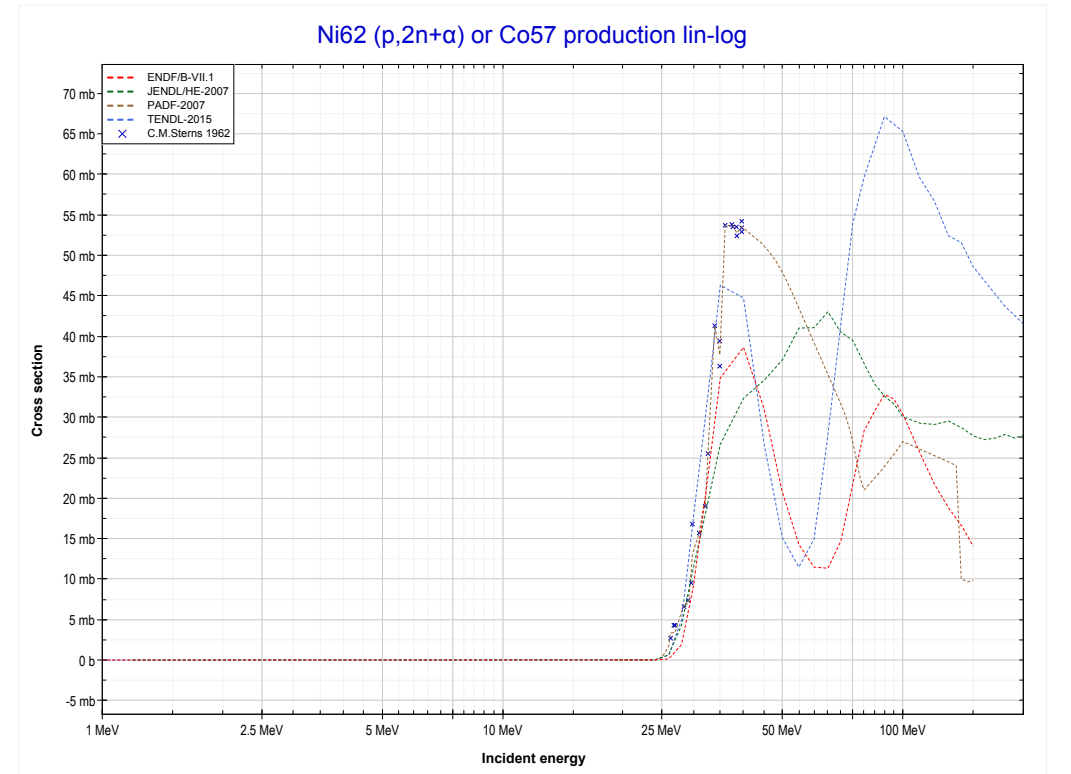
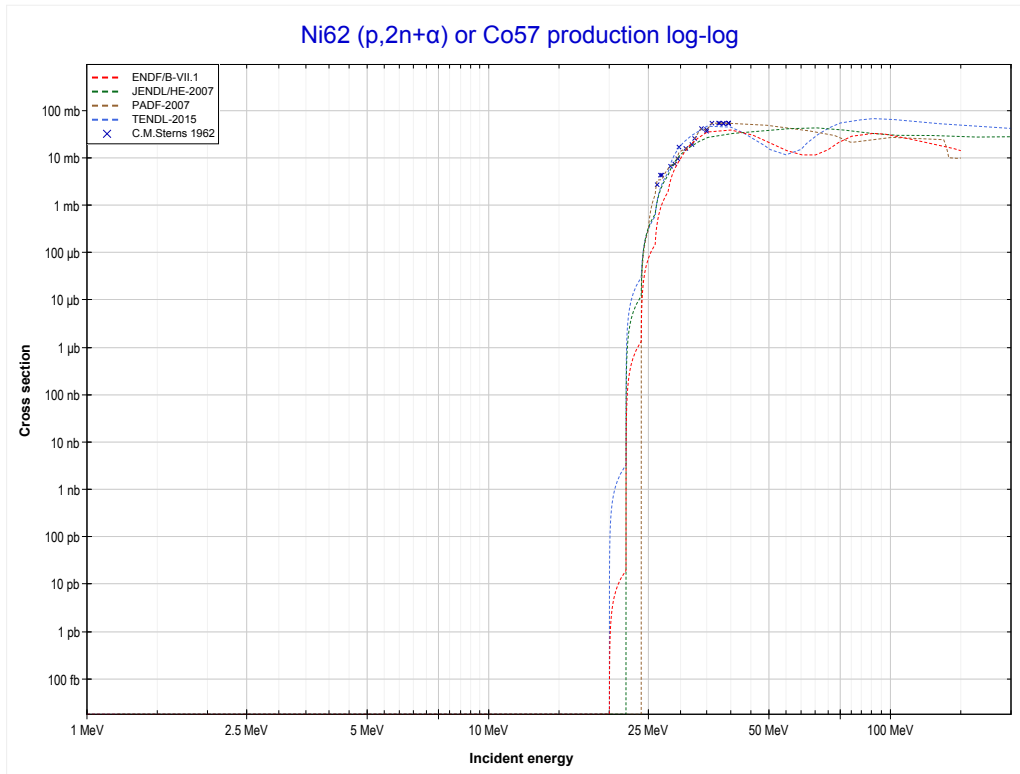
Reaction	Q-Value
Ni62(p,3n)Cu60	-25326.28 keV

<< 22-Ti-50	28-Ni-62	30-Zn-64 >>
<< MT17 (p,3n)	MT22 (p,n+α) or MT5 (Co58 production)	MT24 (p,2n+α) >>



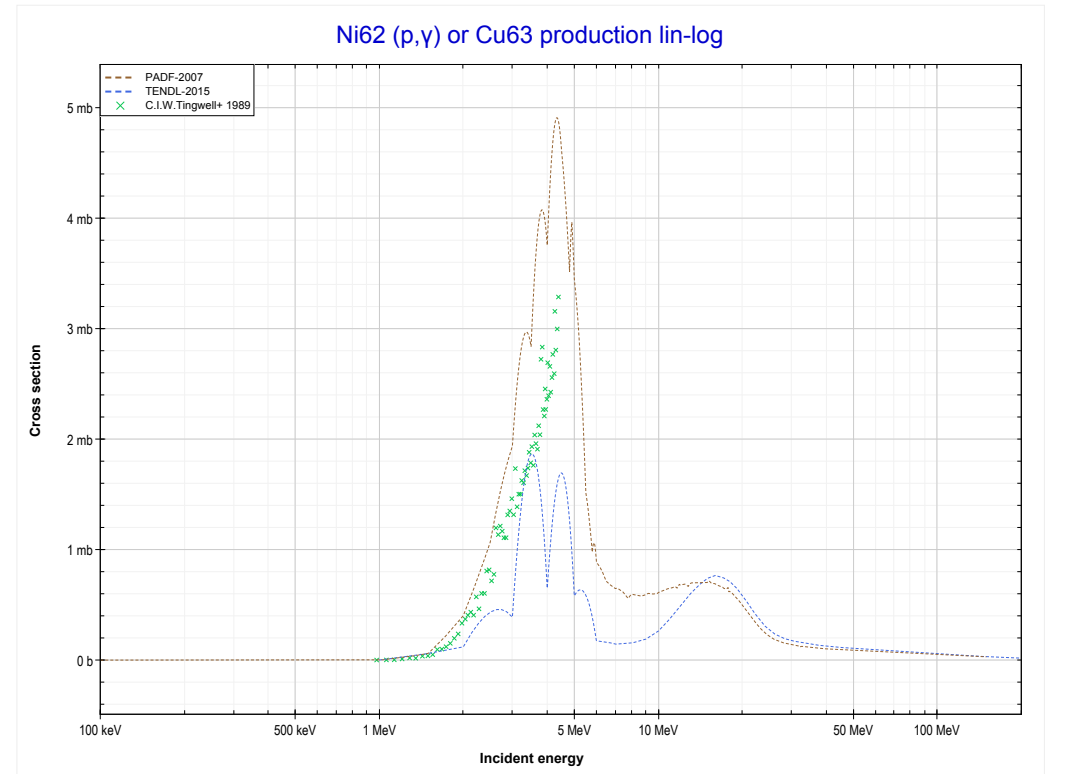
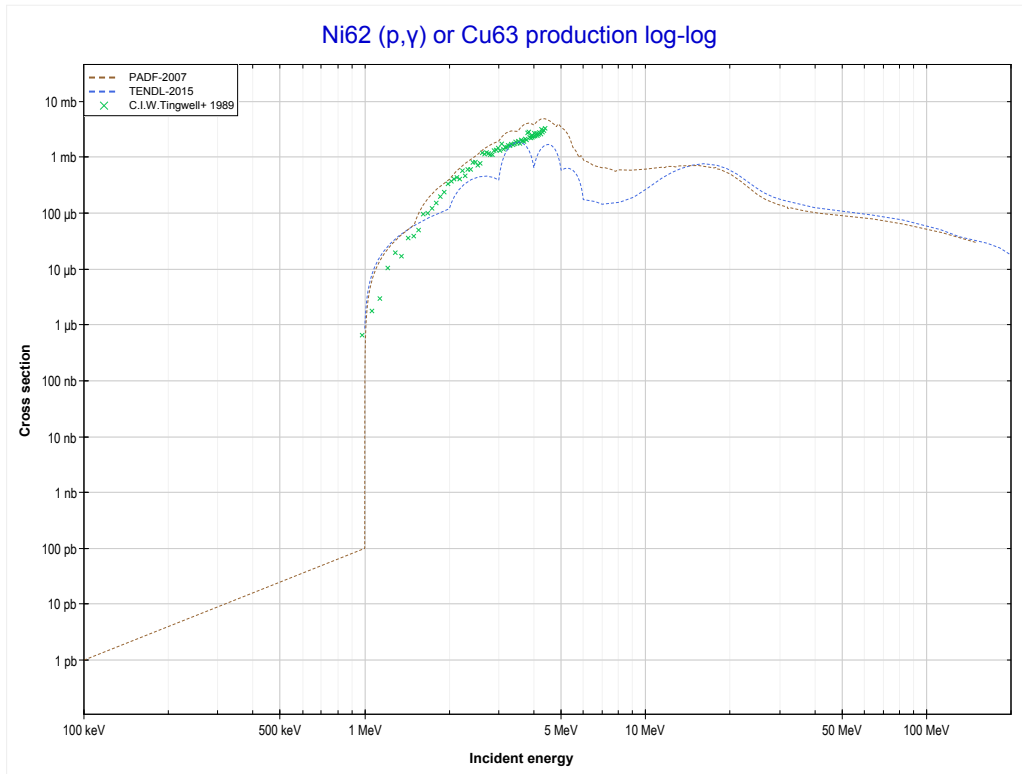
Reaction	Q-Value
Ni62(p,n+α)Co58	-10106.56 keV
Ni62(p,d+t)Co58	-27695.86 keV
Ni62(p,n+p+t)Co58	-29920.42 keV
Ni62(p,2n+He3)Co58	-30684.18 keV
Ni62(p,n+2d)Co58	-33953.09 keV
Ni62(p,2n+p+d)Co58	-36177.66 keV
Ni62(p,3n+2p)Co58	-38402.22 keV

	28-Ni-62	34-Se-76 >>
<< MT22 (p,n+α)	MT24 (p,2n+α) or MT5 (Co57 production)	MT102 (p,γ) >>



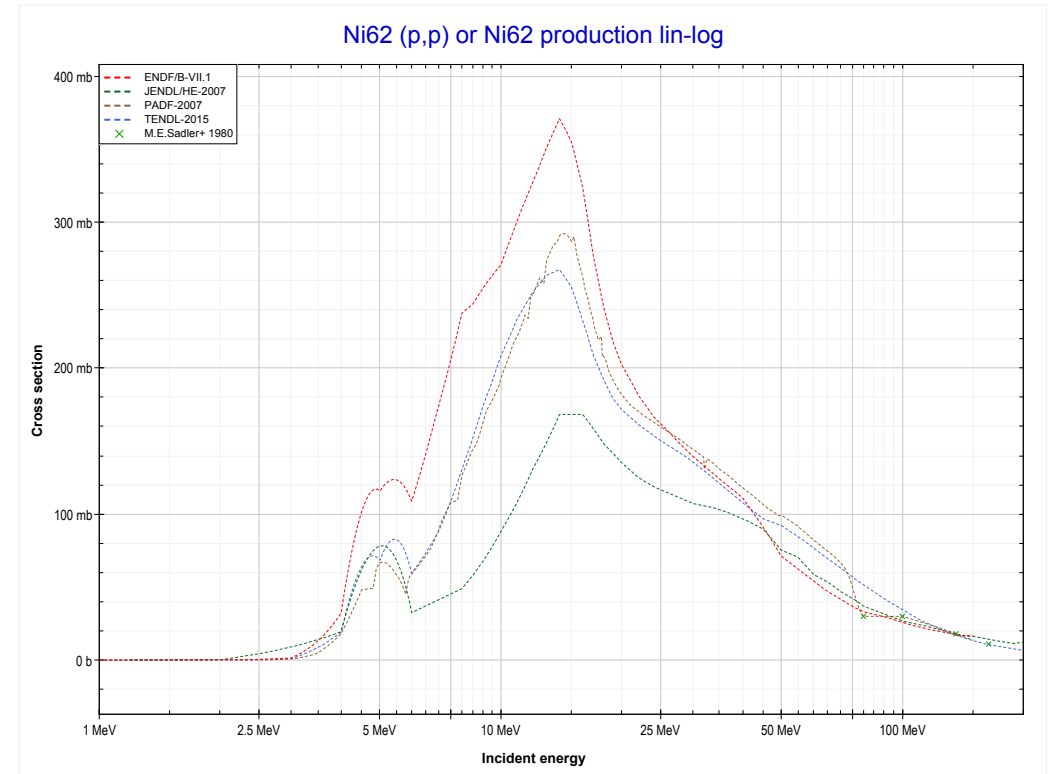
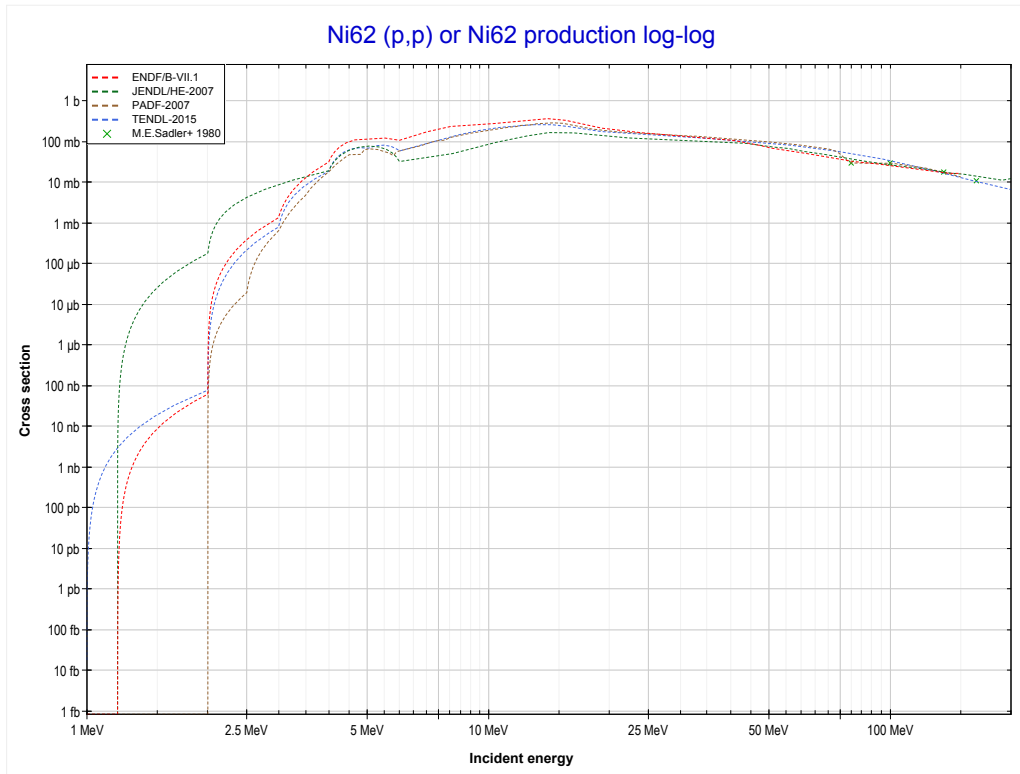
Reaction	Q-Value
Ni62(p,2n+α)Co57	-18679.58 keV
Ni62(p,2t)Co57	-30011.64 keV
Ni62(p,n+d+t)Co57	-36268.87 keV
Ni62(p,2n+p+t)Co57	-38493.44 keV
Ni62(p,3n+He3)Co57	-39257.20 keV
Ni62(p,2n+2d)Co57	-42526.11 keV
Ni62(p,3n+p+d)Co57	-44750.67 keV
Ni62(p,4n+2p)Co57	-46975.24 keV

<< 28-Ni-61	28-Ni-62	28-Ni-64 >>
<< MT24 (p,2n+α)	MT102 (p,γ) or MT5 (Cu63 production)	MT103 (p,p) >>



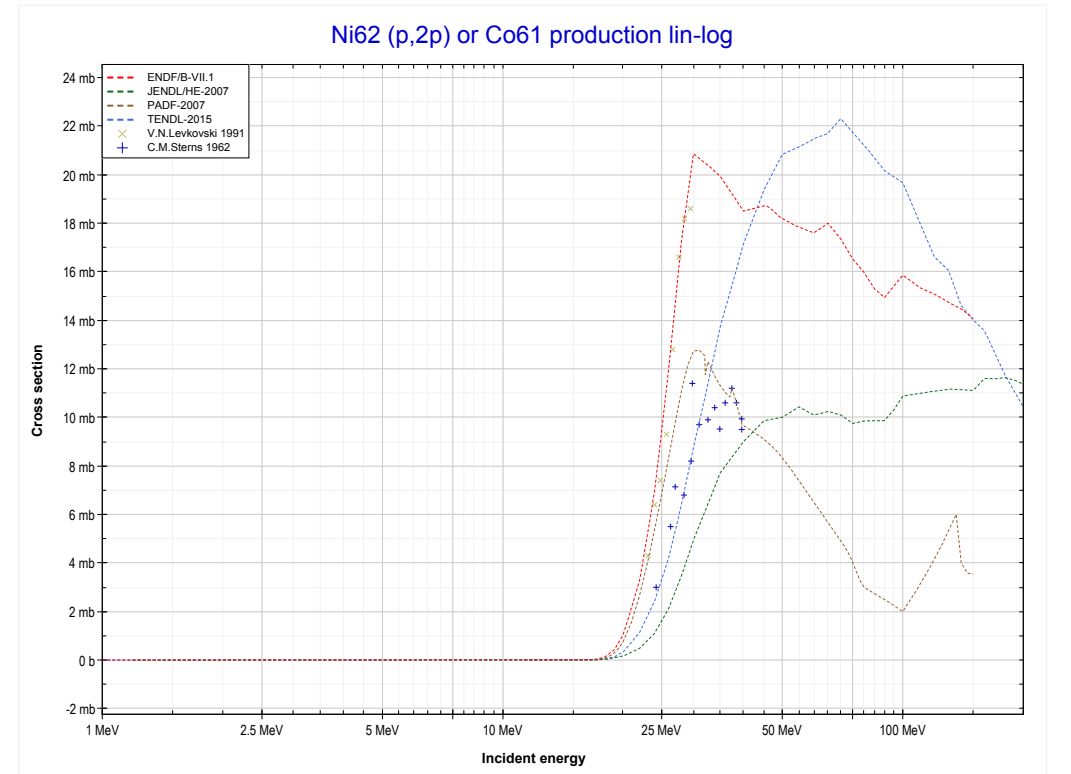
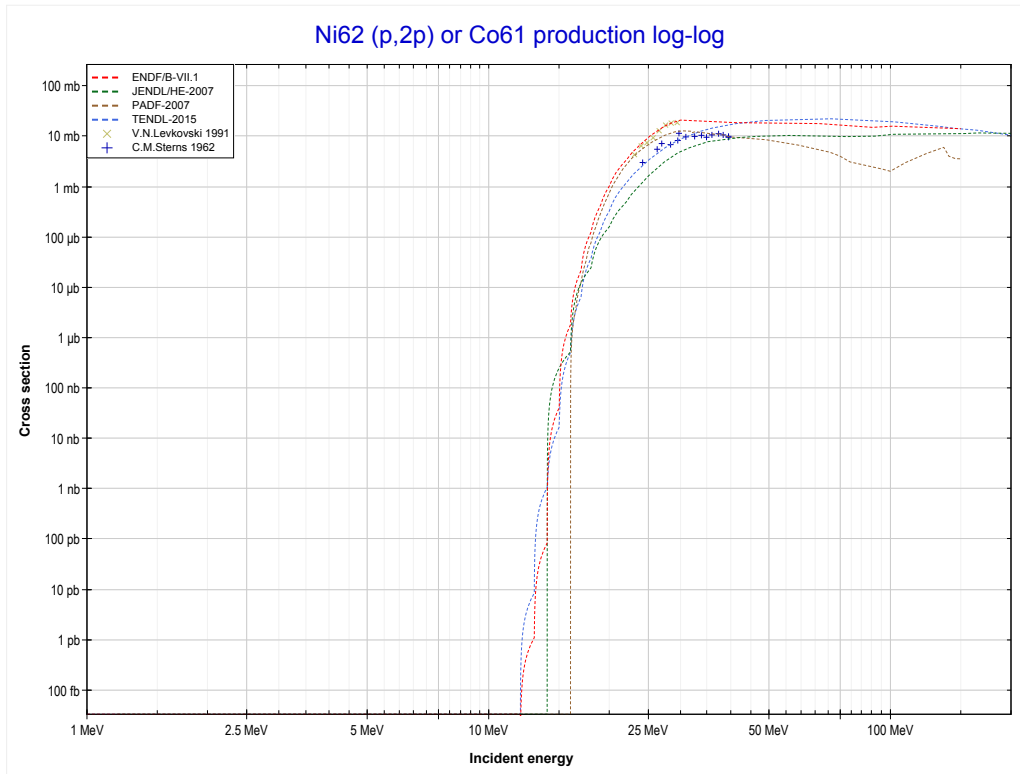
Reaction	Q-Value
Ni62(p,γ)Cu63	6122.37 keV

<< 28-Ni-60	28-Ni-62	28-Ni-64 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (Ni62 production)	MT111 (p,2p) >>



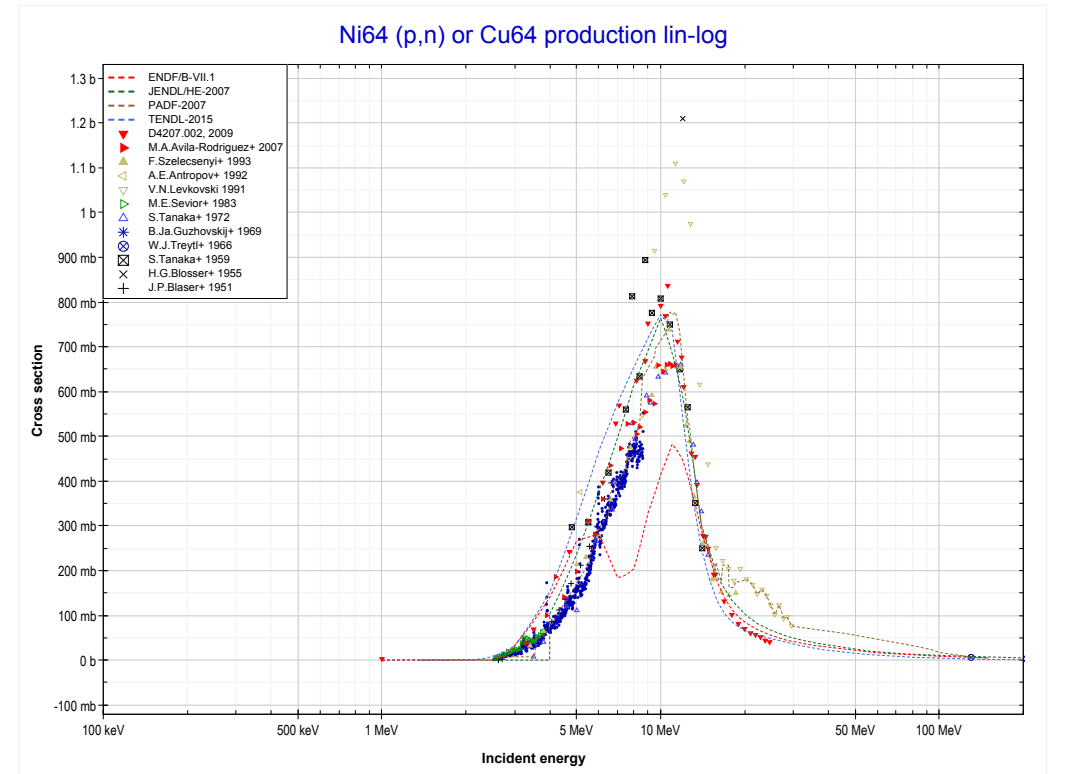
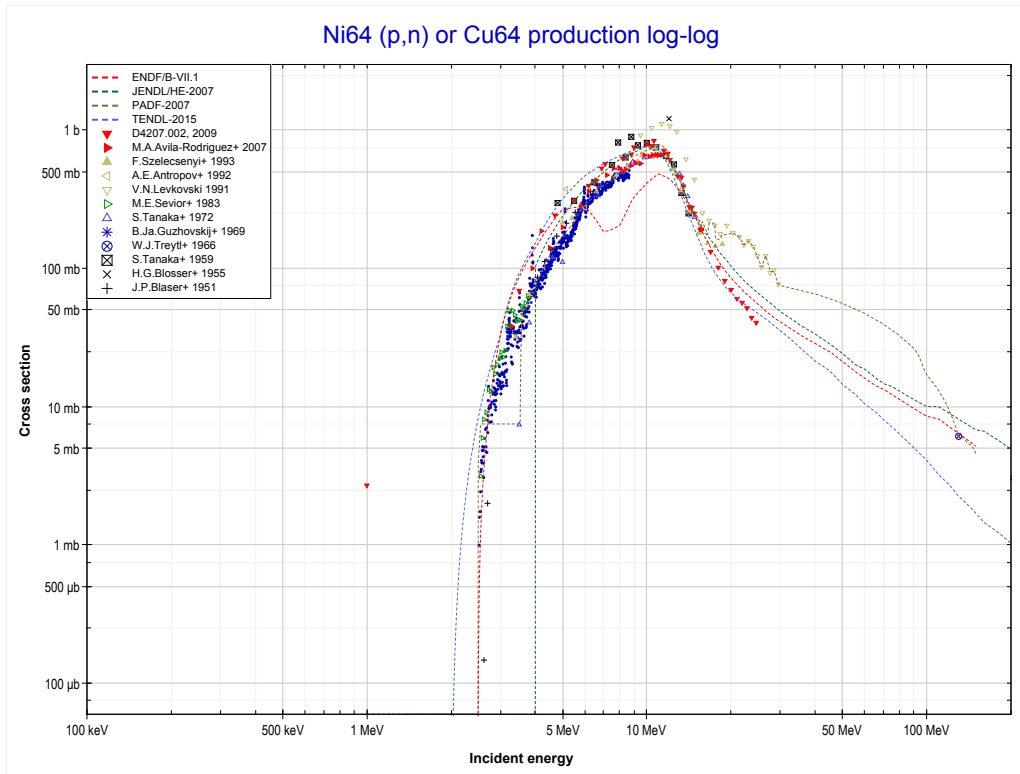
Reaction	Q-Value
Ni62(p,p)Ni62	0.00 keV

<< 28-Ni-58	28-Ni-62	30-Zn-68 >>
<< MT103 (p,p)	MT111 (p,2p) or MT5 (Co61 production)	28-Ni-64 MT4 (p,n) >>



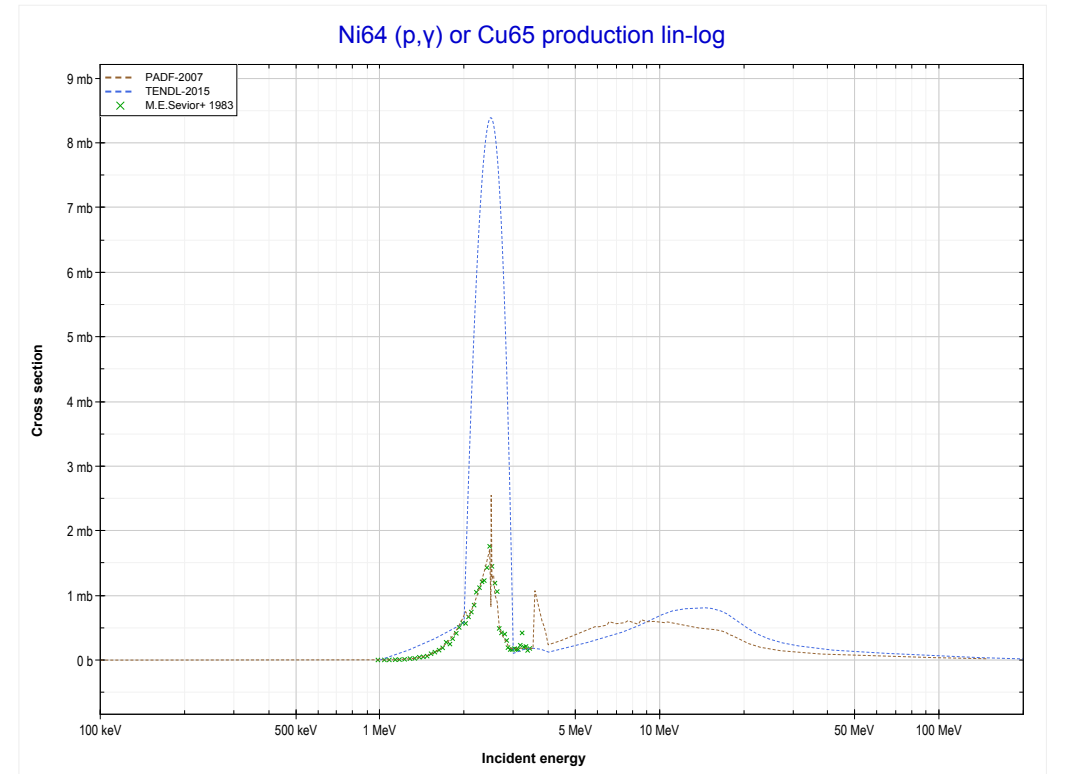
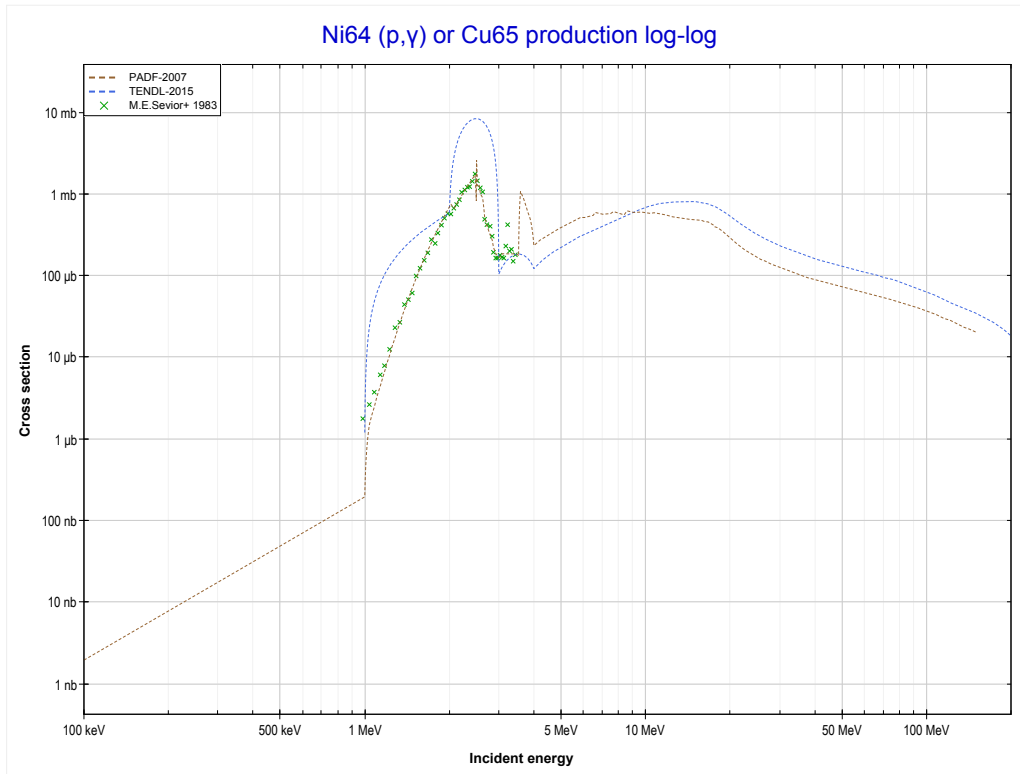
Reaction	Q-Value
Ni62(p,2p)Co61	-11137.27 keV

<< 28-Ni-62	28-Ni-64	29-Cu-63 >>
<< 28-Ni-62 MT111 (p,2p)	MT4 (p,n) or MT5 (Cu64 production)	MT102 (p, γ) >>



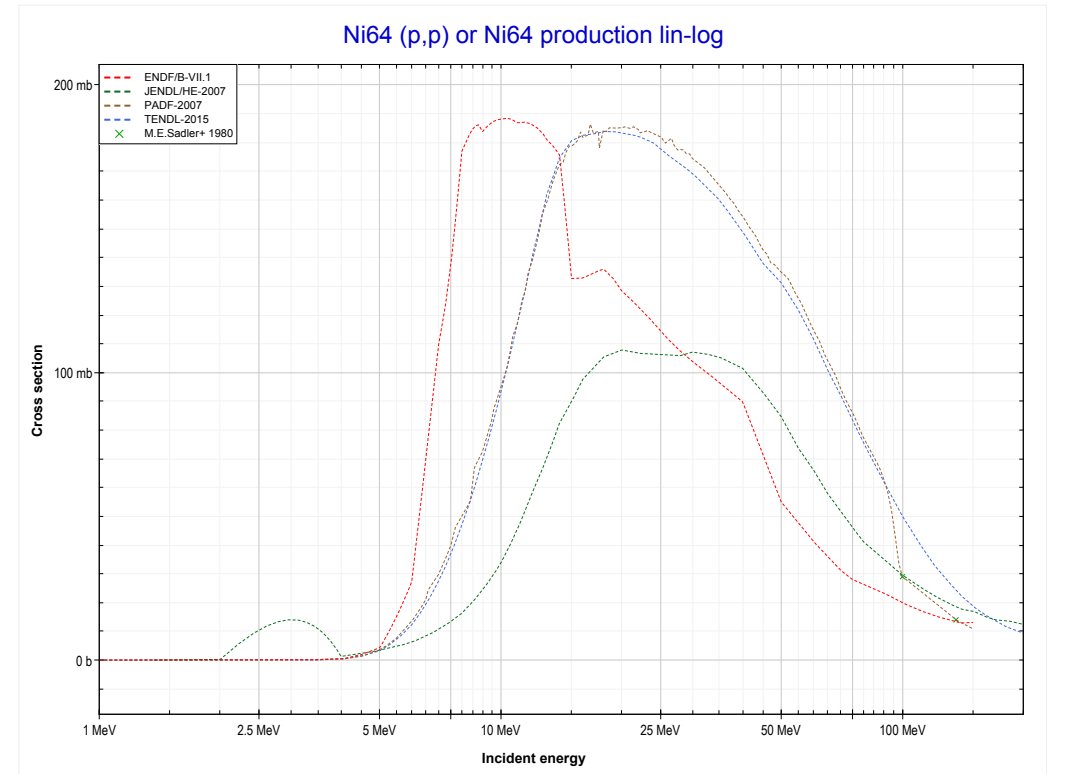
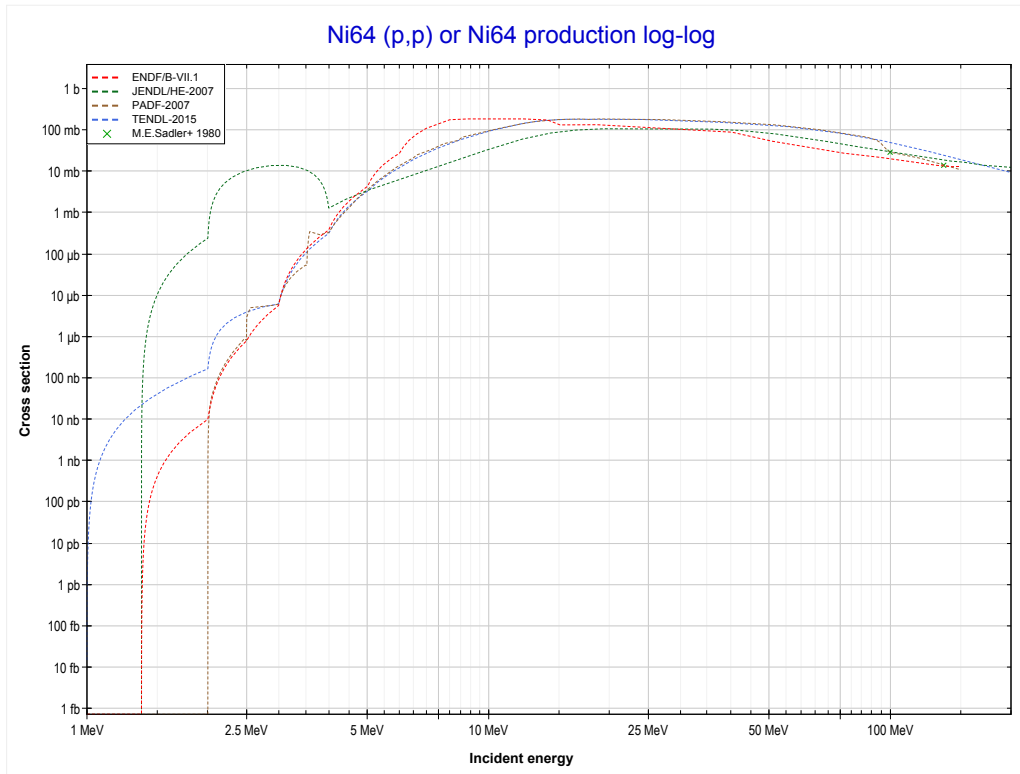
Reaction	Q-Value
Ni64(p,n)Cu64	-2456.75 keV

<< 28-Ni-62	28-Ni-64	29-Cu-63 >>
<< MT4 (p,n)	MT102 (p,γ) or MT5 (Cu65 production)	MT103 (p,p) >>



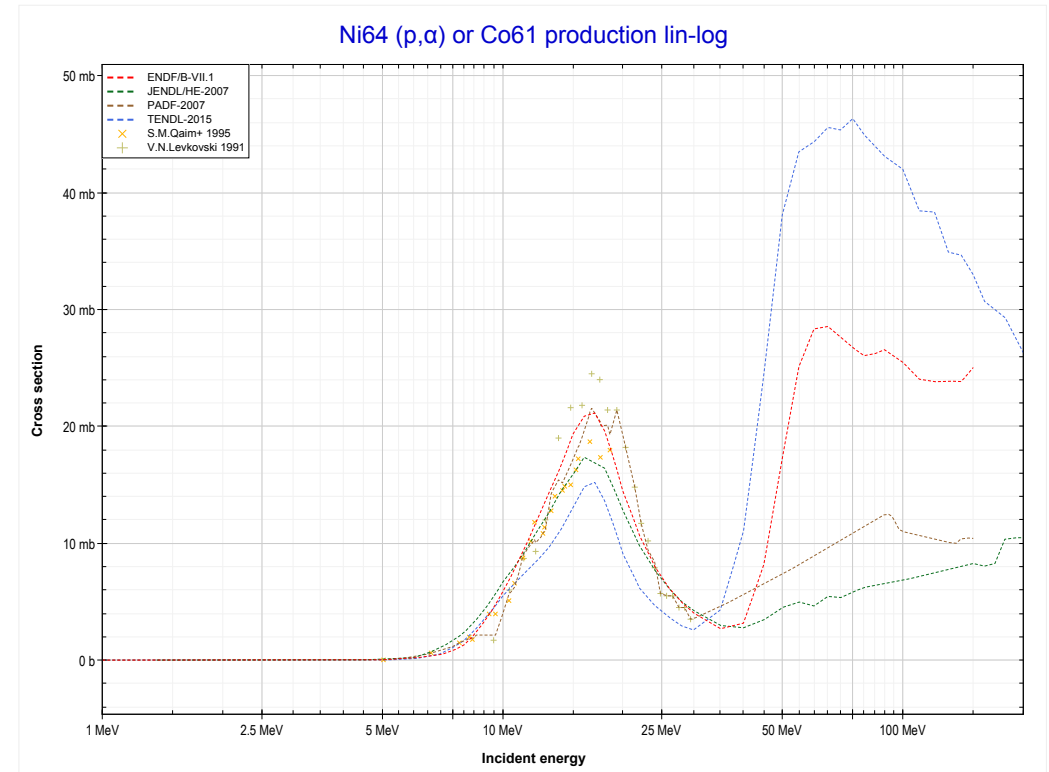
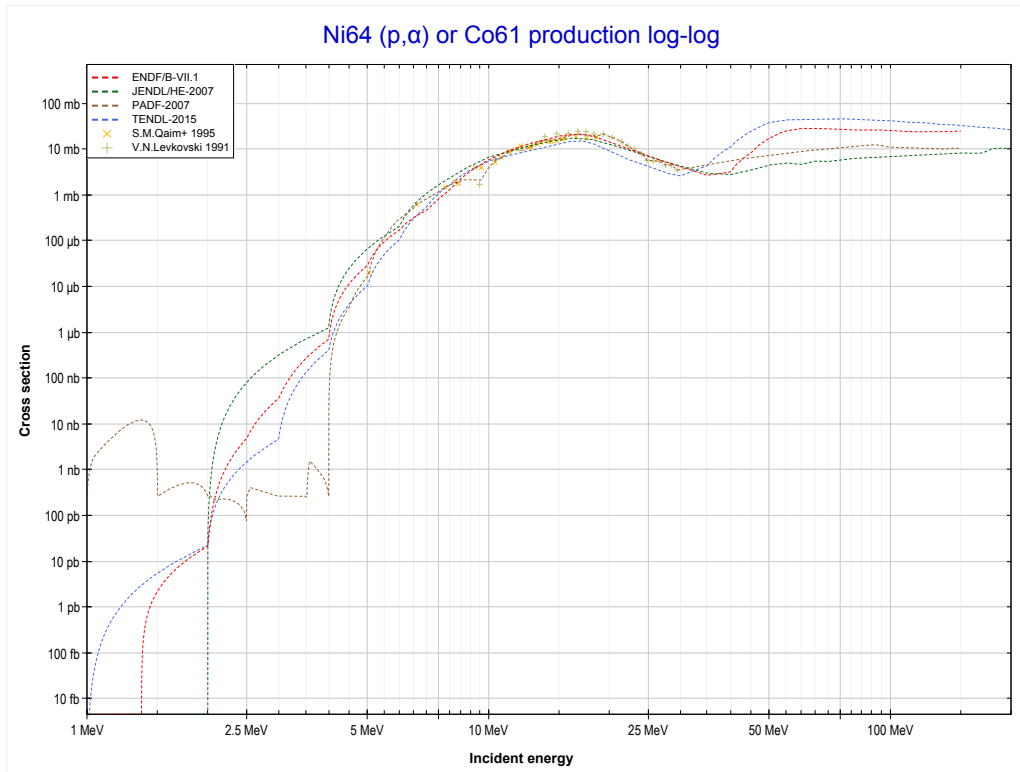
Reaction	Q-Value
Ni64(p, γ)Cu65	7453.97 keV

<< 28-Ni-62	28-Ni-64	29-Cu-63 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (Ni64 production)	MT107 (p, α) >>



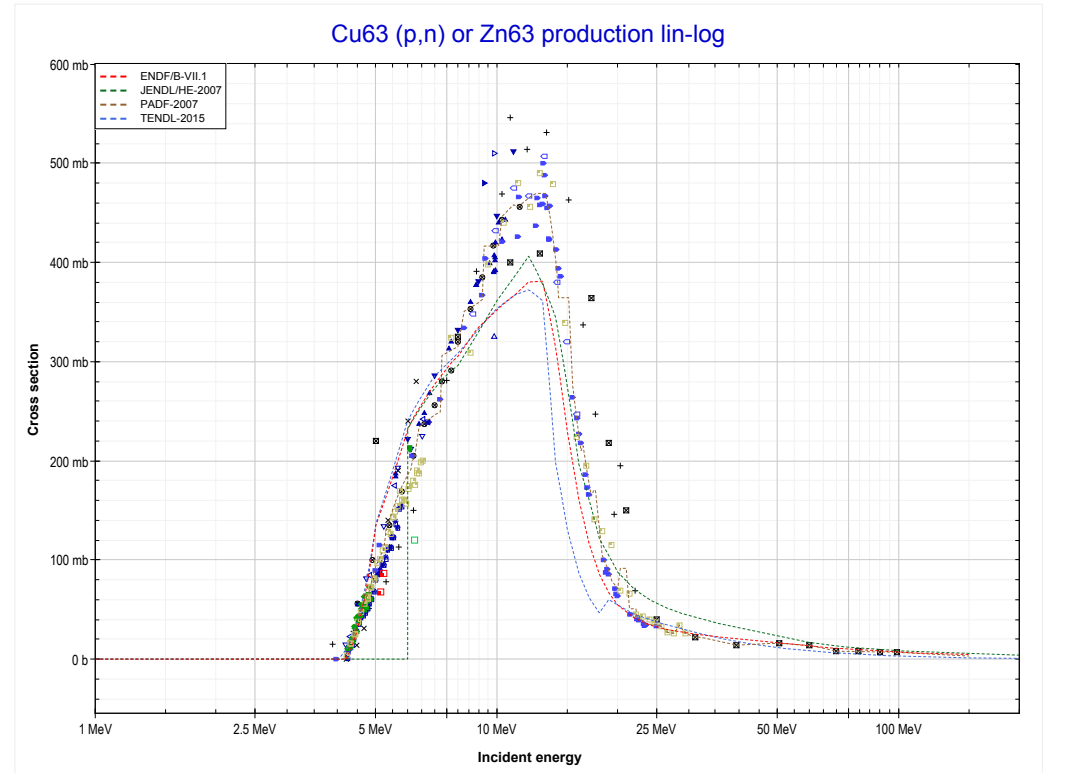
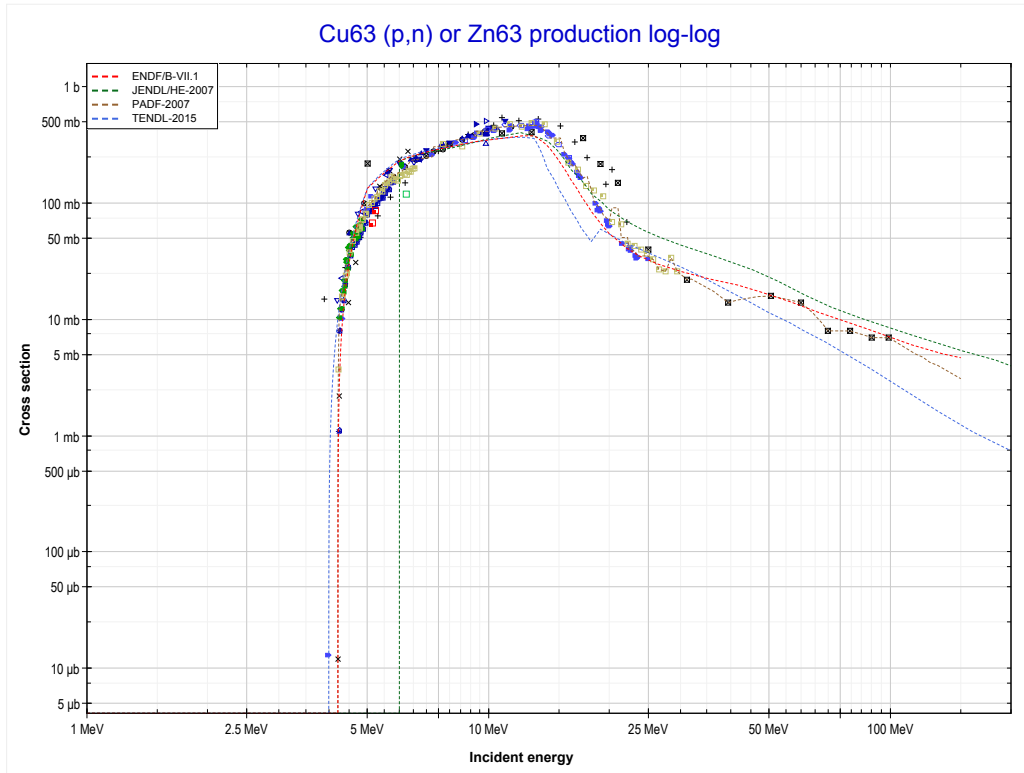
Reaction	Q-Value
Ni64(p,p)Ni64	0.00 keV

<< 28-Ni-61	28-Ni-64	29-Cu-63 >>
<< MT103 (p,p)	MT107 (p,α) or MT5 (Co61 production)	29-Cu-63 MT4 (p,n) >>



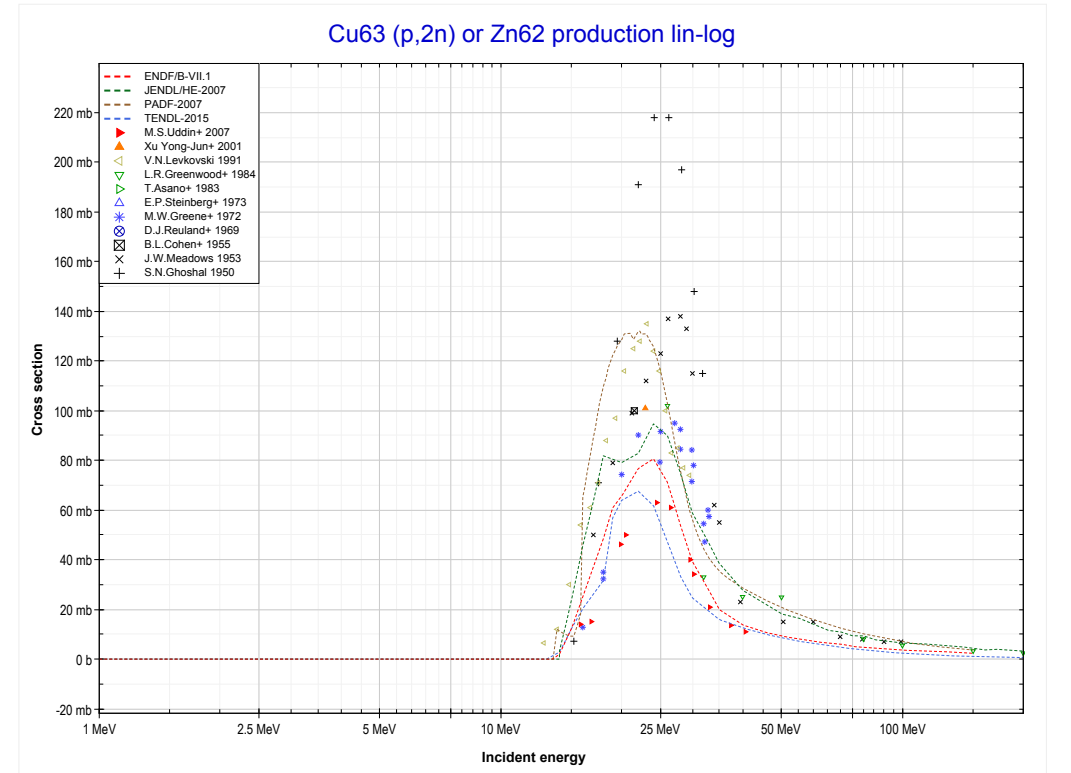
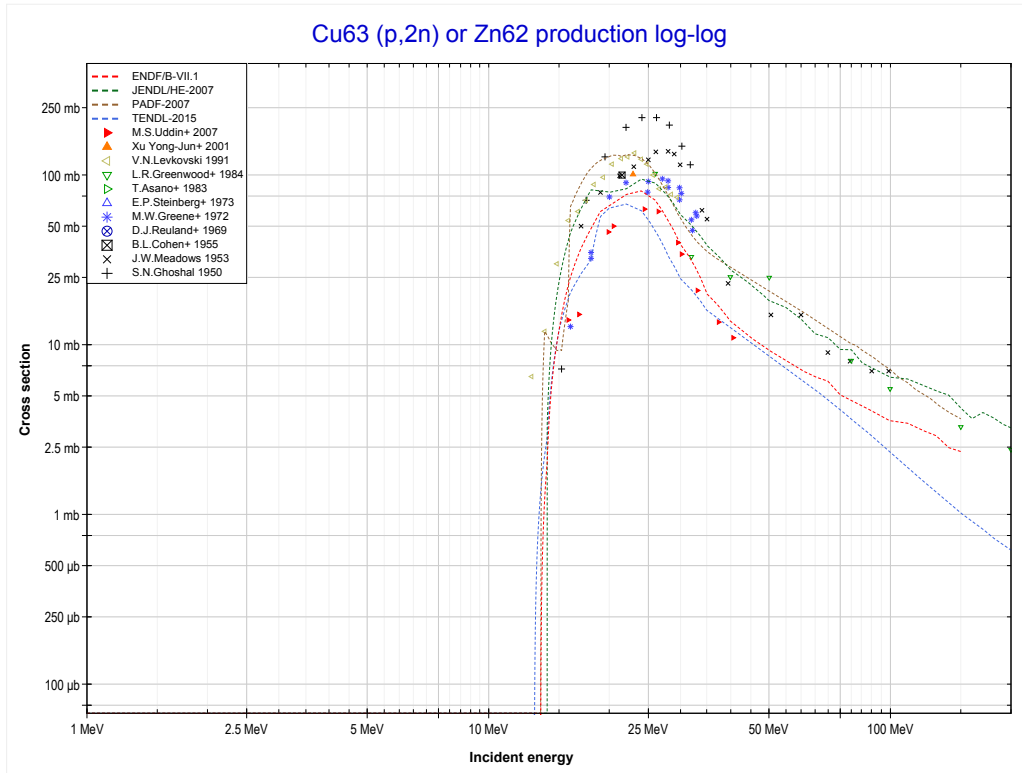
Reaction	Q-Value
Ni64(p, α)Co61	663.15 keV
Ni64(p,p+t)Co61	-19150.71 keV
Ni64(p,n+He3)Co61	-19914.46 keV
Ni64(p,2d)Co61	-23183.37 keV
Ni64(p,n+p+d)Co61	-25407.94 keV
Ni64(p,2n+2p)Co61	-27632.50 keV

<< 28-Ni-64	29-Cu-63	29-Cu-65 >>
<< 28-Ni-64 MT107 (p, α)	MT4 (p,n) or MT5 (Zn63 production)	MT16 (p,2n) >>



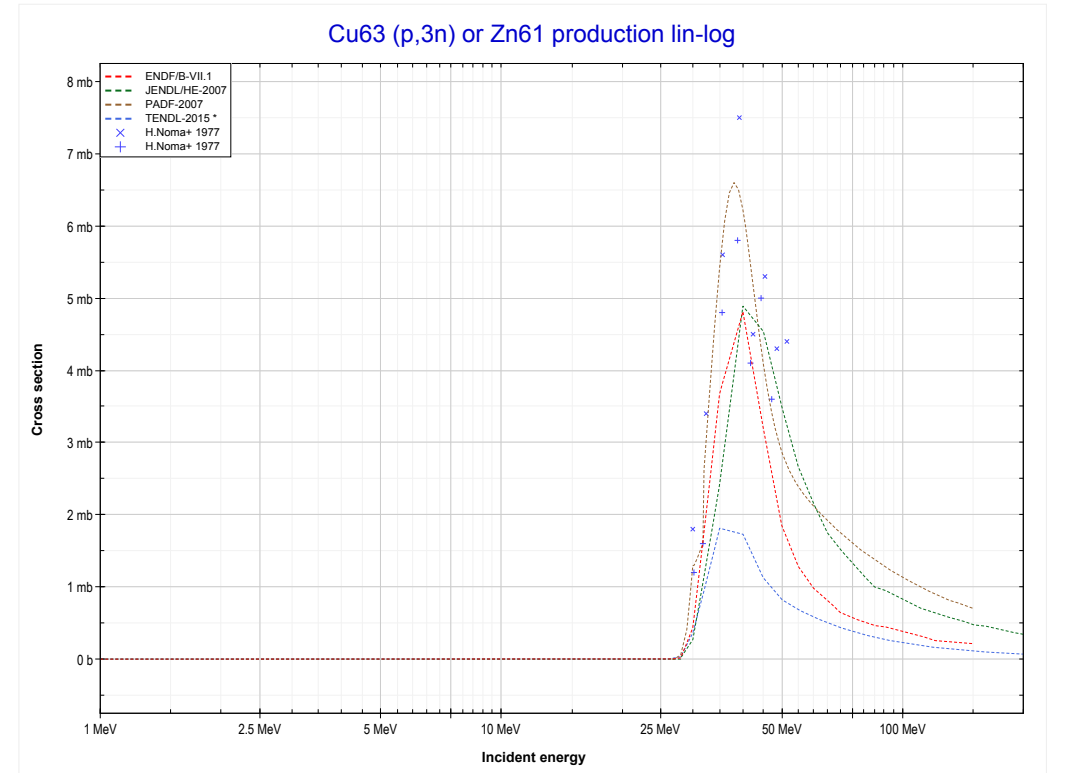
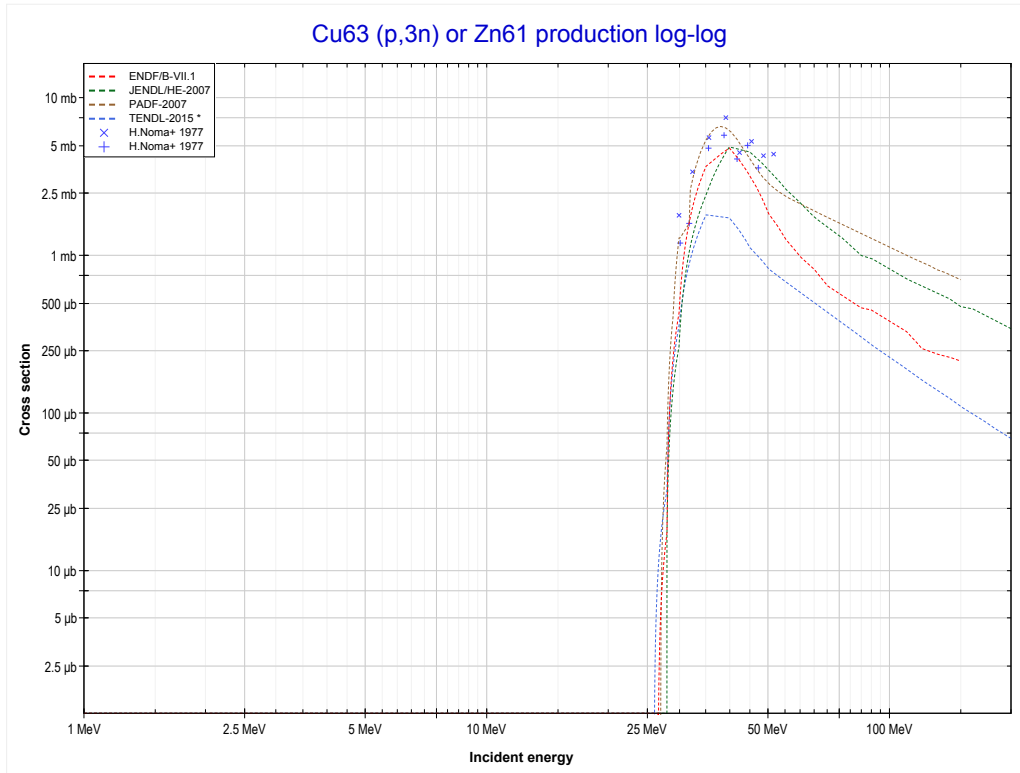
Reaction	Q-Value
Cu63(p,n)Zn63	-4148.55 keV

<< 28-Ni-62	29-Cu-63	30-Zn-66 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Zn62 production)	MT17 (p,3n) >>



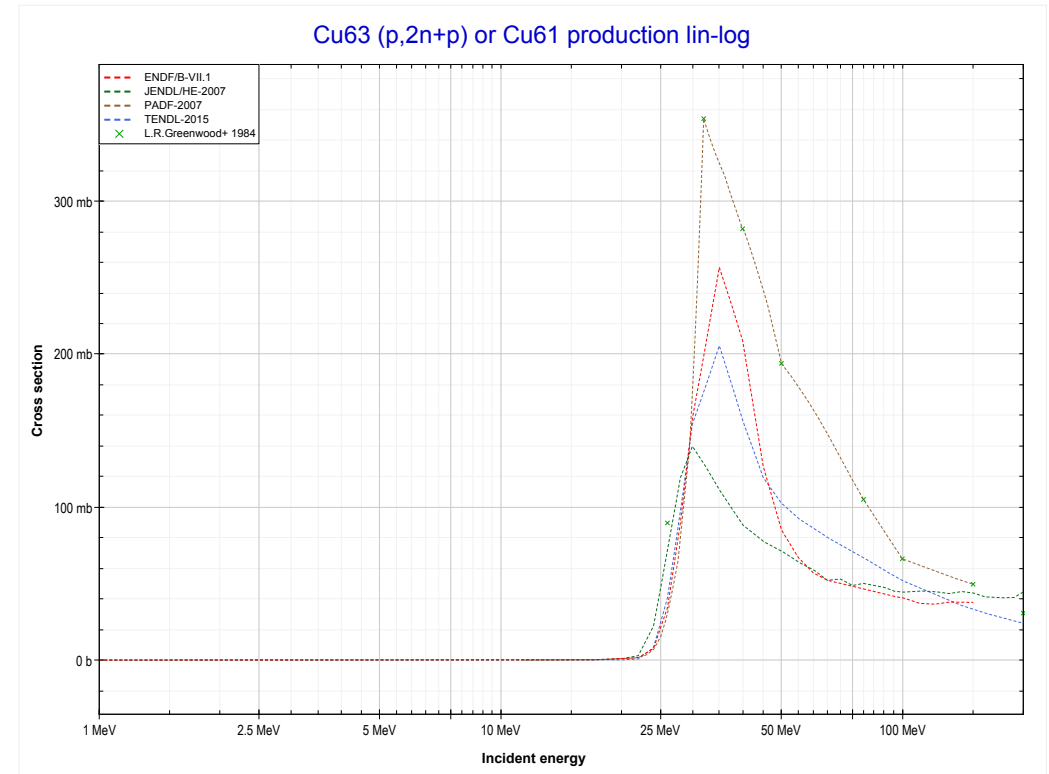
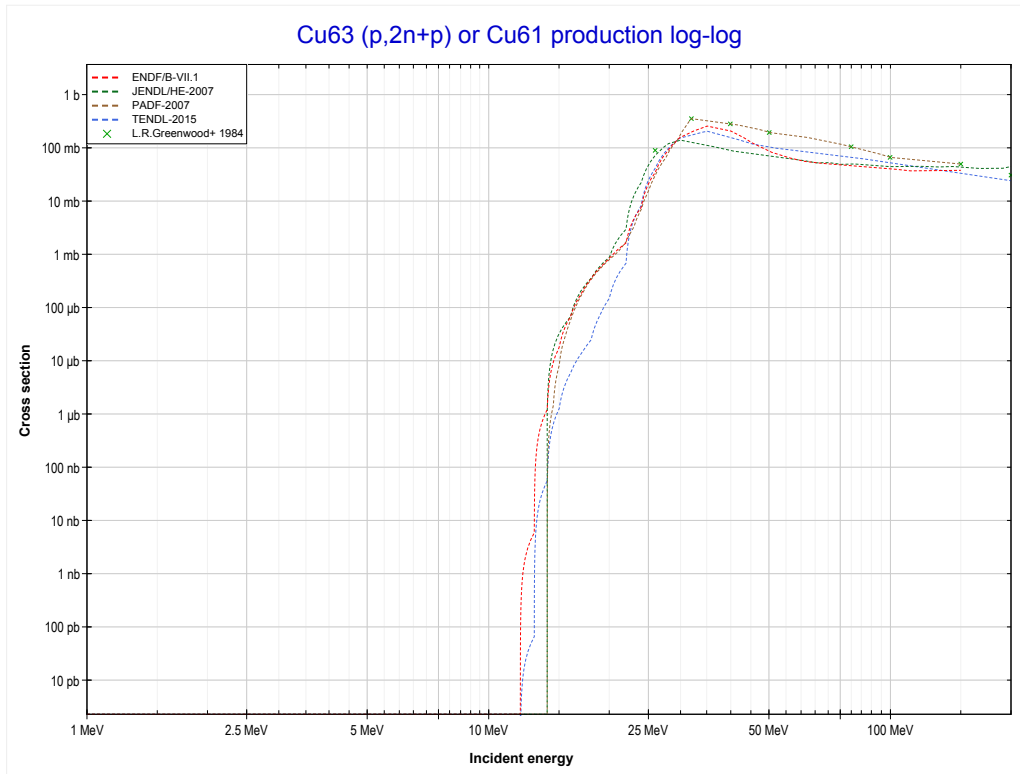
Reaction	Q-Value
Cu63(p,2n)Zn62	-13265.46 keV

<< 28-Ni-62	29-Cu-63	29-Cu-65 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Zn61 production)	MT41 (p,2n+p) >>



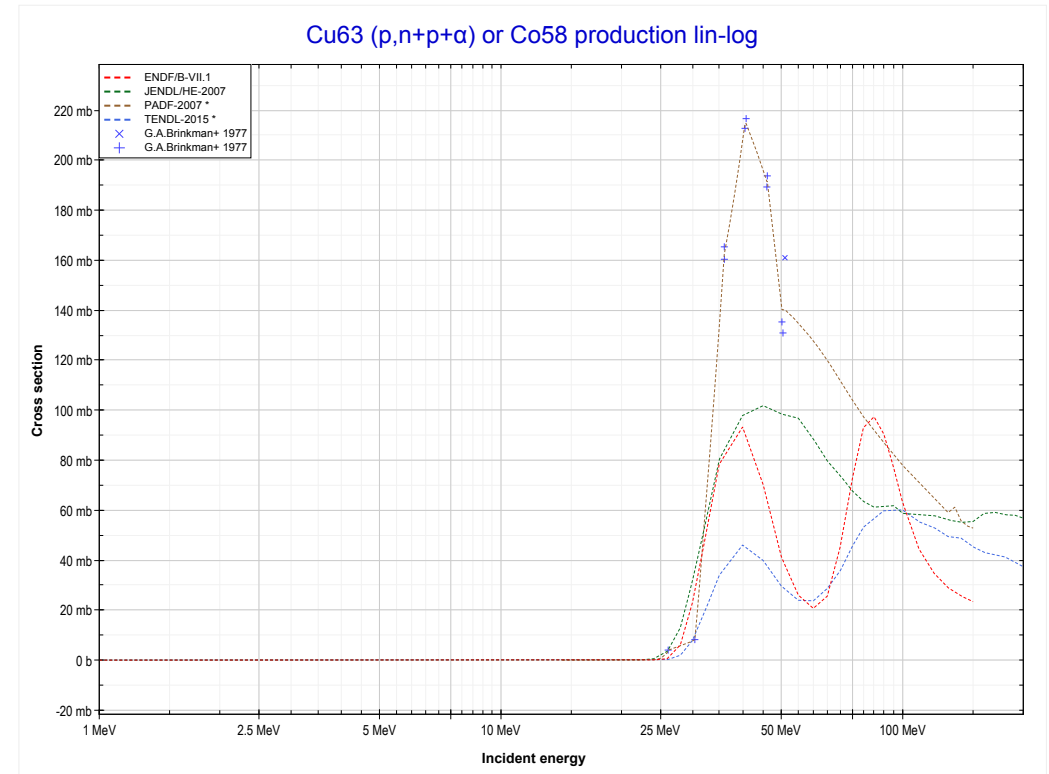
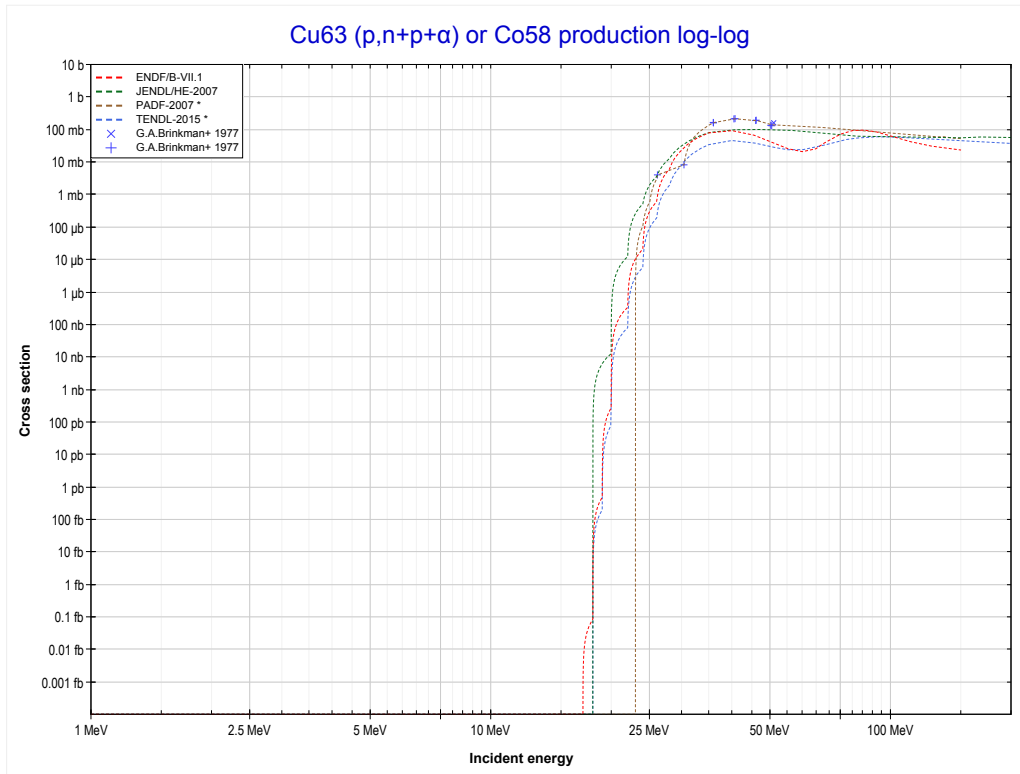
Reaction	Q-Value
Cu63(p,3n)Zn61	-26155.28 keV

<< 27-Co-59	29-Cu-63	
<< MT17 (p,3n)	MT41 (p,2n+p) or MT5 (Cu61 production)	MT45 (p,n+p+α) >>



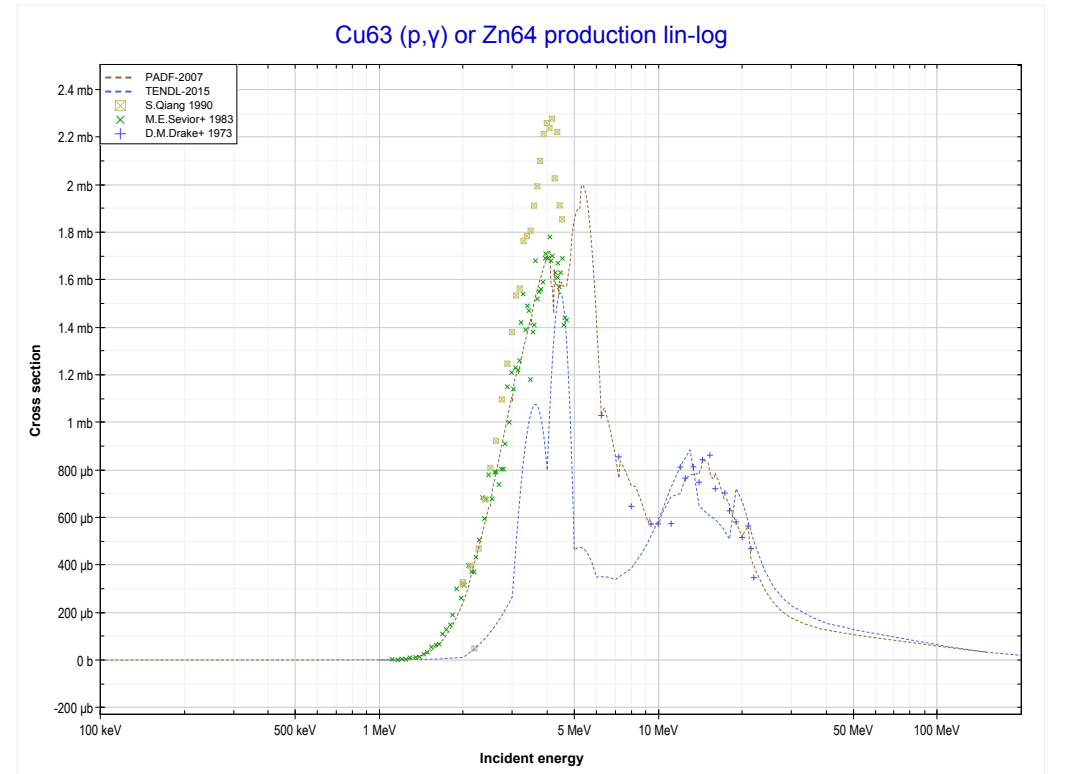
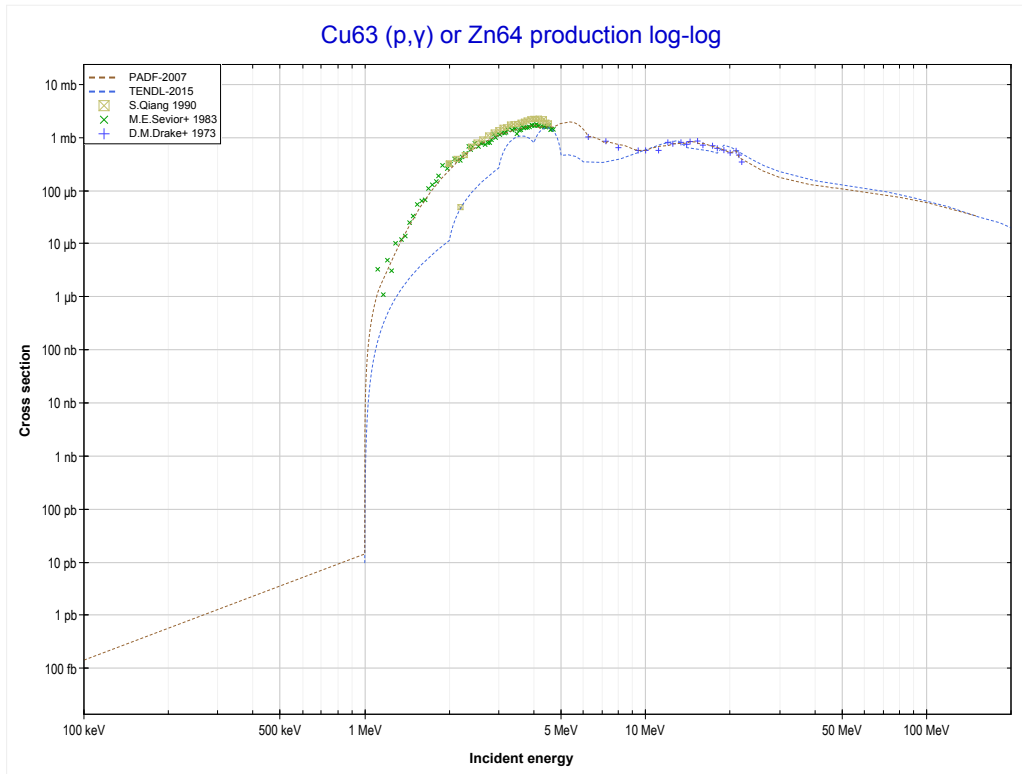
Reaction	Q-Value
Cu63(p,t)Cu61	-11256.34 keV
Cu63(p,n+d)Cu61	-17513.57 keV
Cu63(p,2n+p)Cu61	-19738.13 keV

<< 13-AI-27	29-Cu-63	
<< MT41 (p,2n+p)	MT45 (p,n+p+α) or MT5 (Co58 production)	MT102 (p,γ) >>



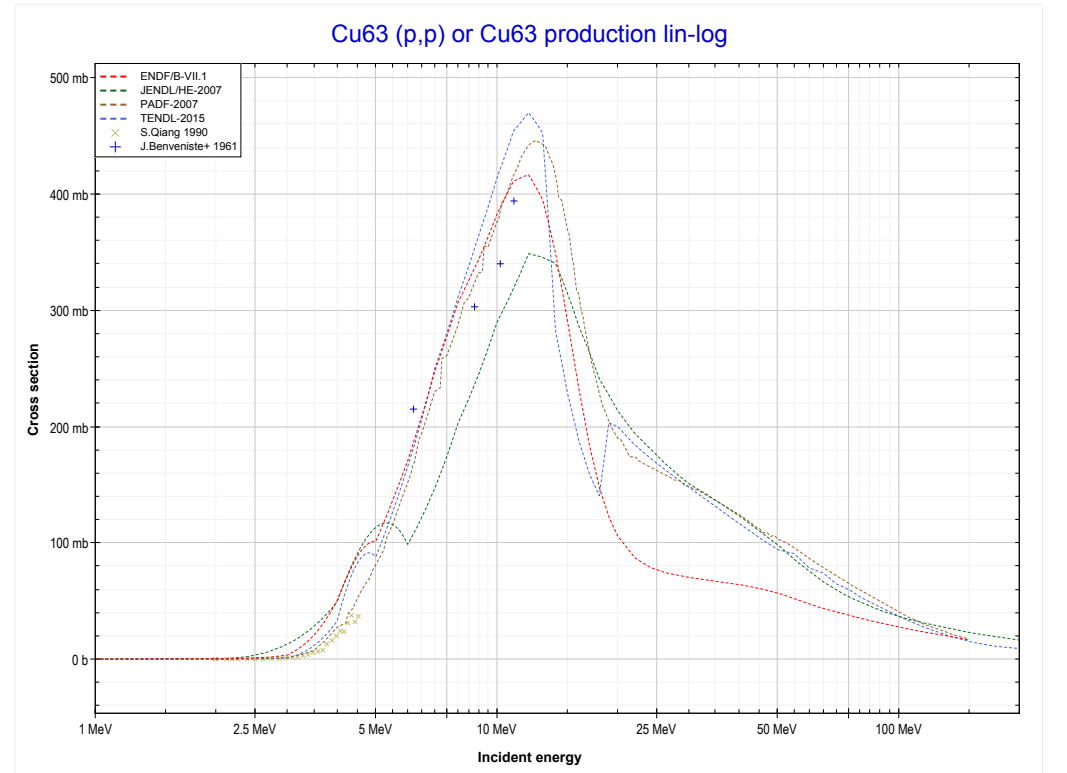
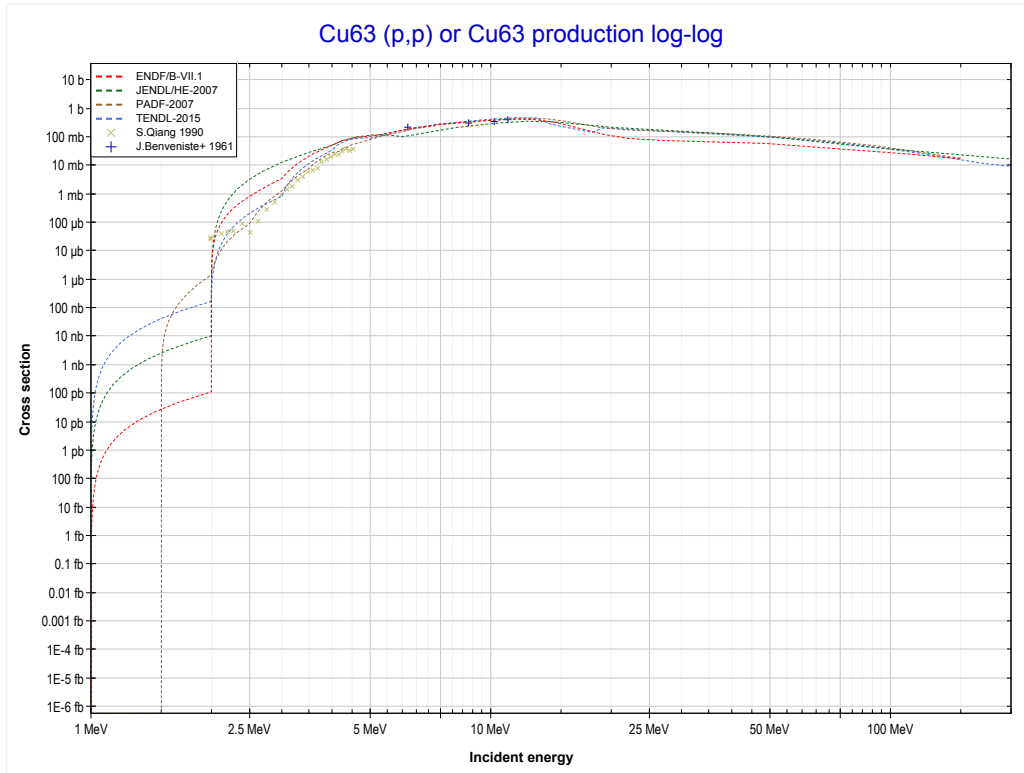
Reaction	Q-Value	Reaction	Q-Value
Cu63(p,d+α)Co58	-14004.37 keV	Cu63(p,n+p+2d)Co58	-40075.46 keV
Cu63(p,n+p+α)Co58	-16228.93 keV	Cu63(p,2n+2p+d)Co58	-42300.03 keV
Cu63(p,t+He3)Co58	-28324.75 keV	Cu63(p,3n+3p)Co58	-44524.59 keV
Cu63(p,p+d+t)Co58	-33818.23 keV		
Cu63(p,n+d+He3)Co58	-34581.98 keV		
Cu63(p,n+2p+t)Co58	-36042.79 keV		
Cu63(p,2n+p+He3)Co58	-36806.55 keV		
Cu63(p,3d)Co58	-37850.89 keV		

<< 28-Ni-64	29-Cu-63	29-Cu-65 >>
<< MT45 (p,n+p+α)	MT102 (p,γ) or MT5 (Zn64 production)	MT103 (p,p) >>



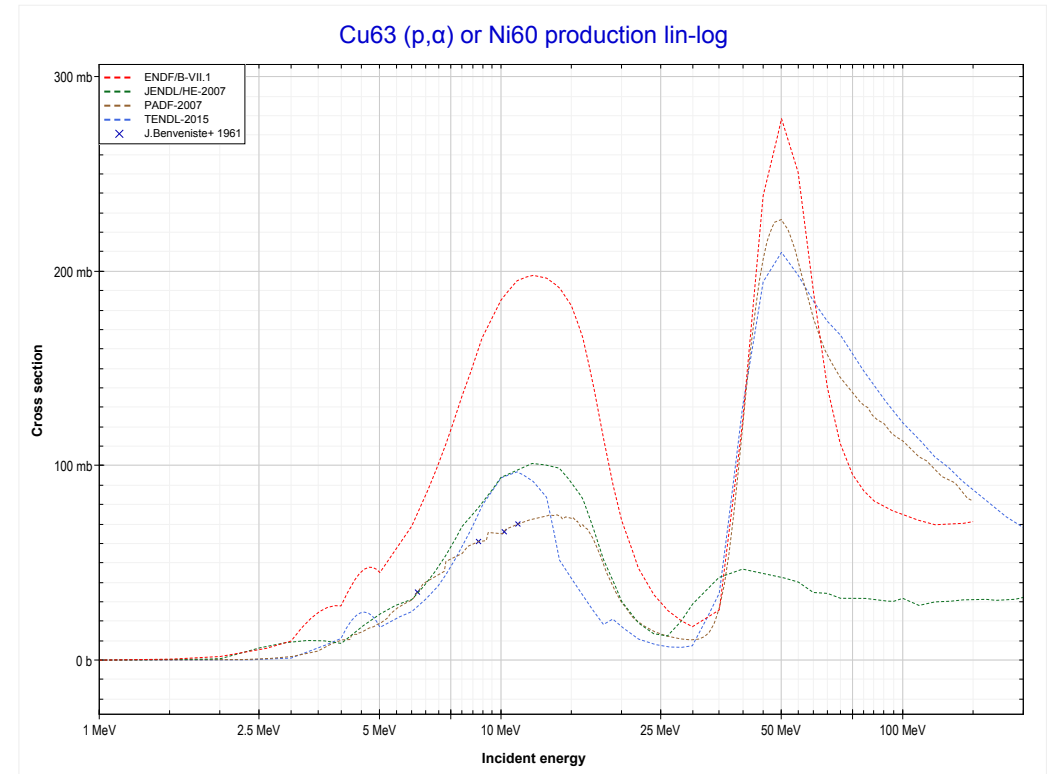
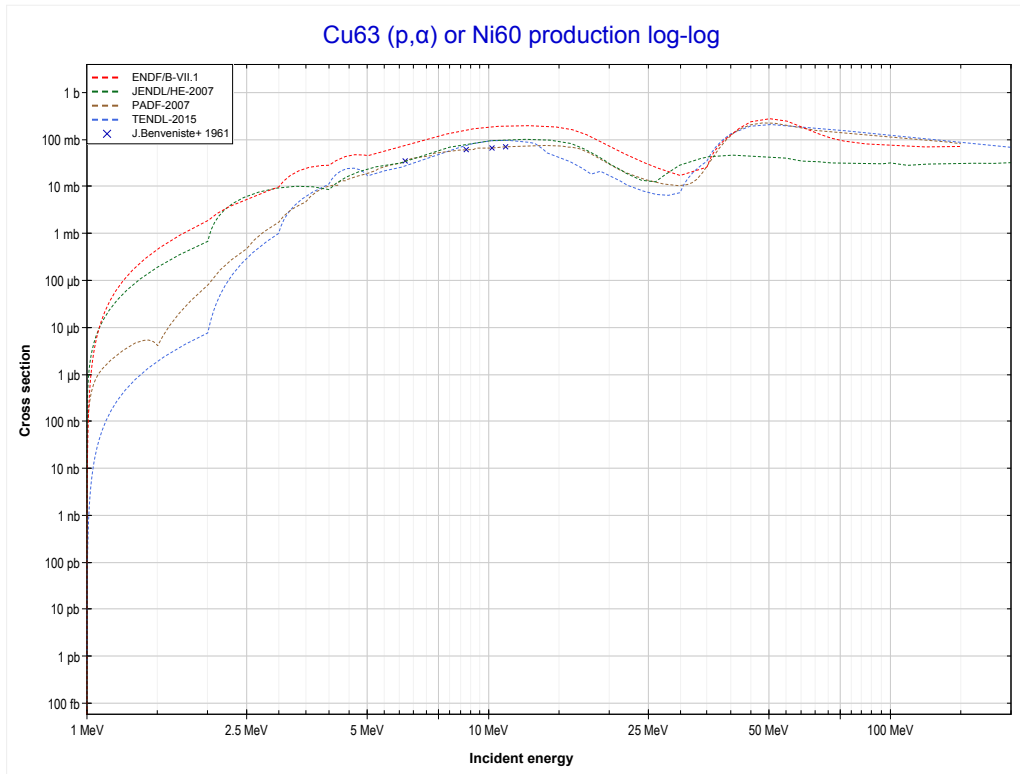
Reaction	Q-Value
Cu63(p,γ)Zn64	7713.47 keV

<< 28-Ni-64	29-Cu-63	29-Cu-65 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (Cu63 production)	MT107 (p, α) >>



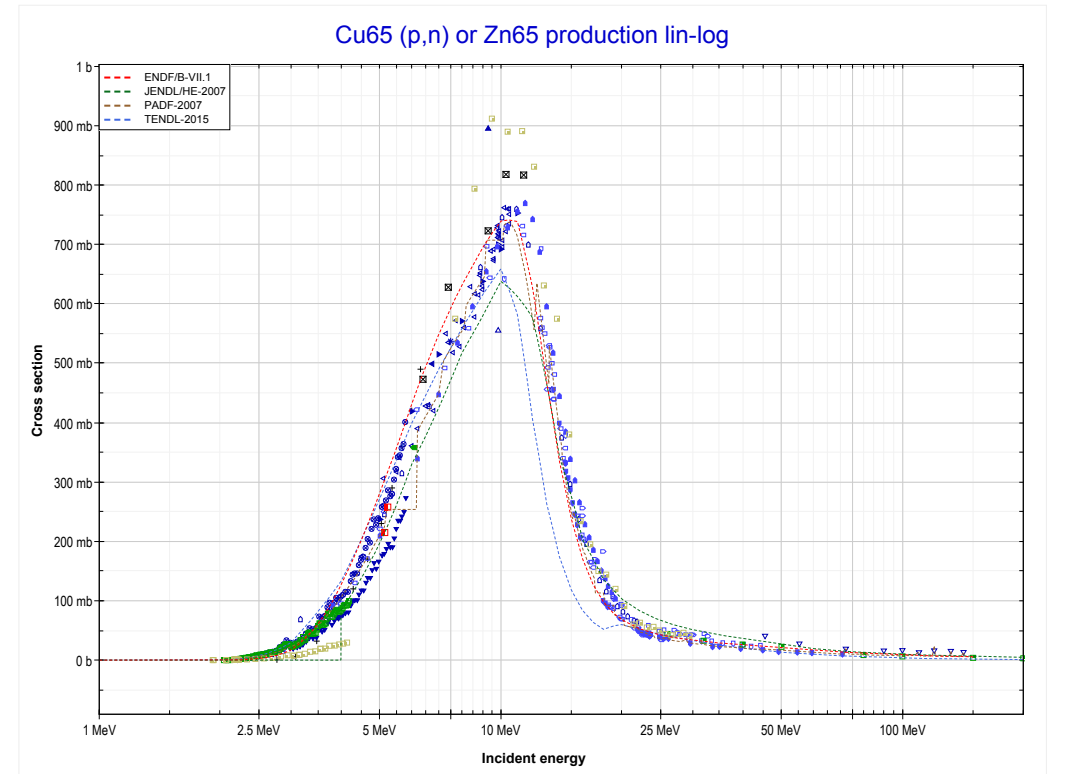
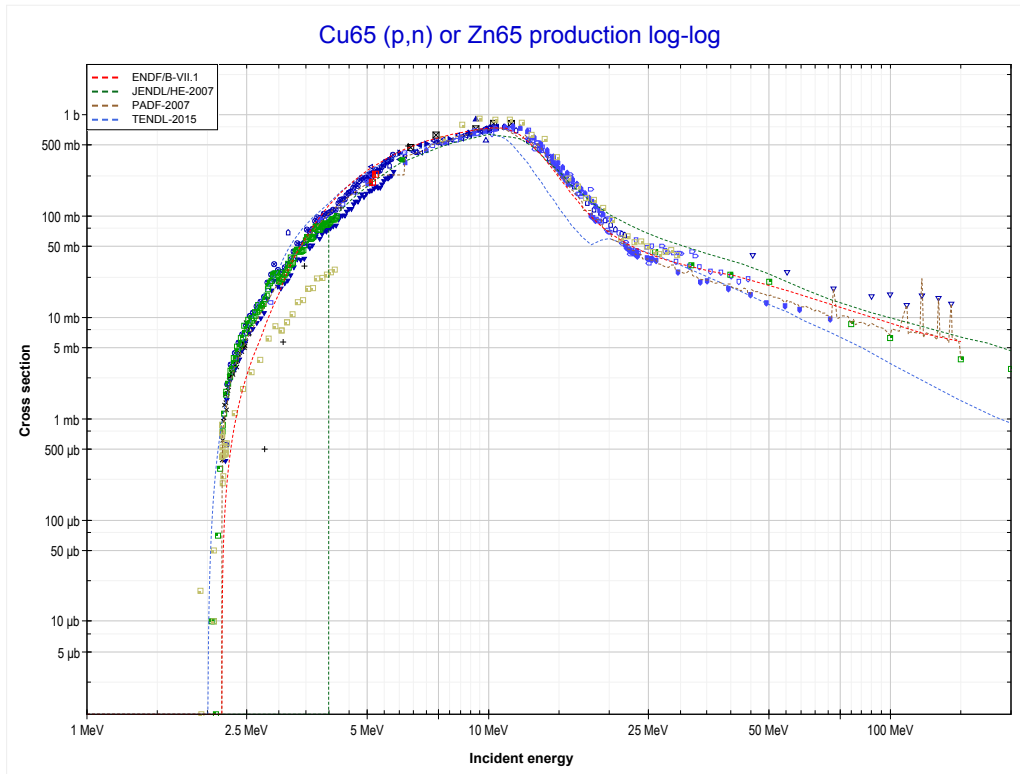
Reaction	Q-Value
Cu63(p,p)Cu63	0.00 keV

<< 28-Ni-64	29-Cu-63	29-Cu-65 >>
<< MT103 (p,p)	MT107 (p,α) or MT5 (Ni60 production)	29-Cu-65 MT4 (p,n) >>



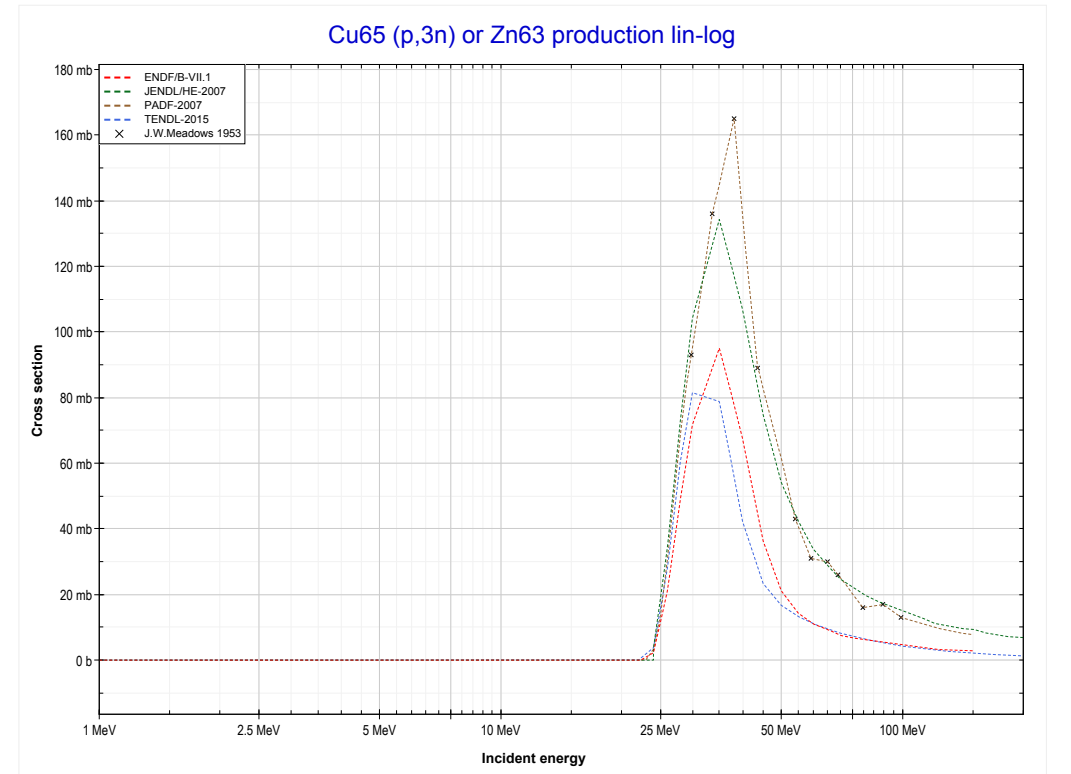
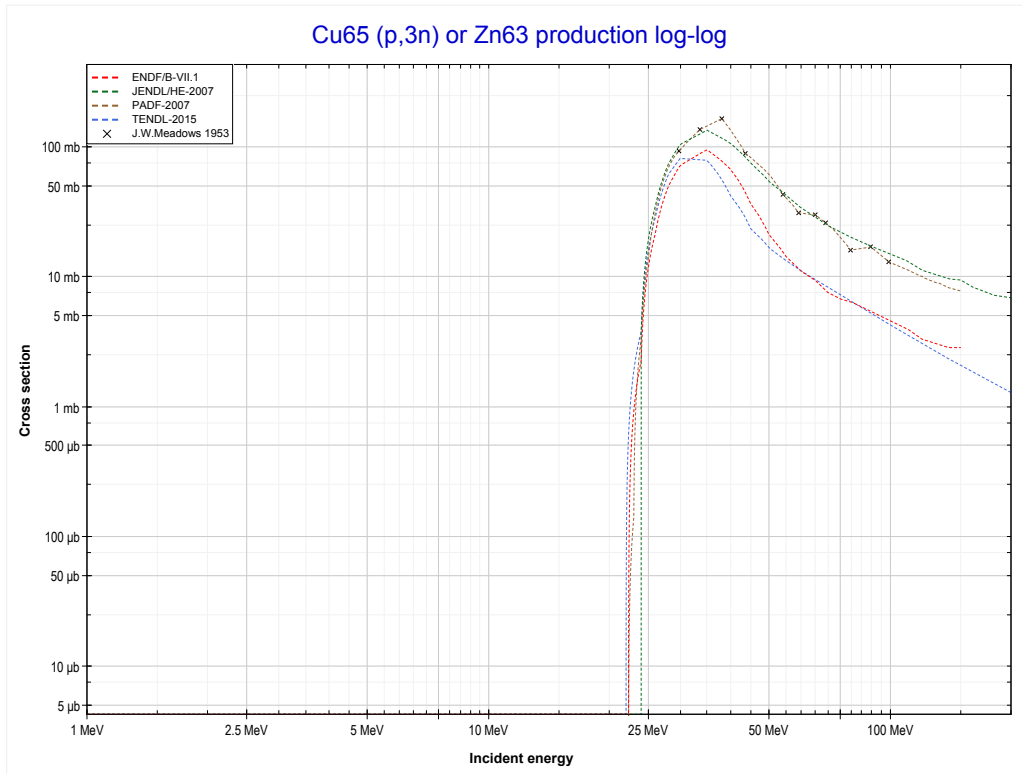
Reaction	Q-Value
Cu63(p, α)Ni60	3757.25 keV
Cu63(p,p+t)Ni60	-16056.61 keV
Cu63(p,n+He3)Ni60	-16820.36 keV
Cu63(p,2d)Ni60	-20089.27 keV
Cu63(p,n+p+d)Ni60	-22313.84 keV
Cu63(p,2n+2p)Ni60	-24538.40 keV

<< 29-Cu-63	29-Cu-65	30-Zn-64 >>
<< 29-Cu-63 MT107 (p, α)	MT4 (p,n) or MT5 (Zn65 production)	MT17 (p,3n) >>



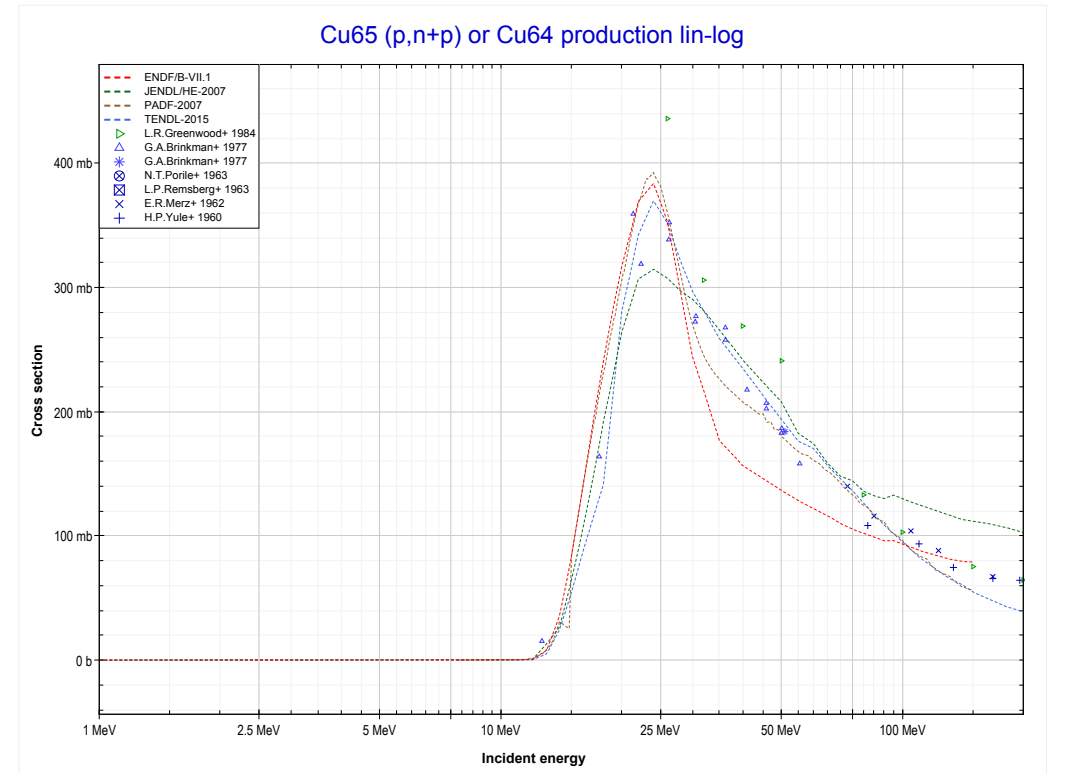
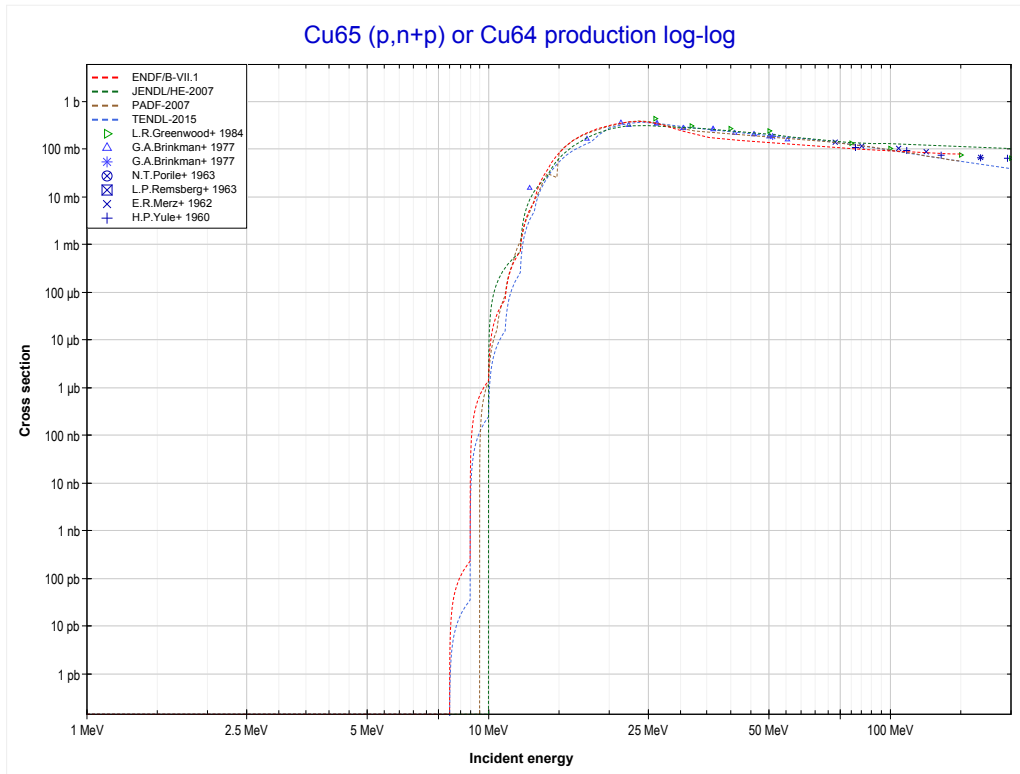
Reaction	Q-Value
Cu65(p,n)Zn65	-2134.05 keV

<< 29-Cu-63	29-Cu-65	30-Zn-68 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Zn63 production)	MT28 (p,n+p) >>



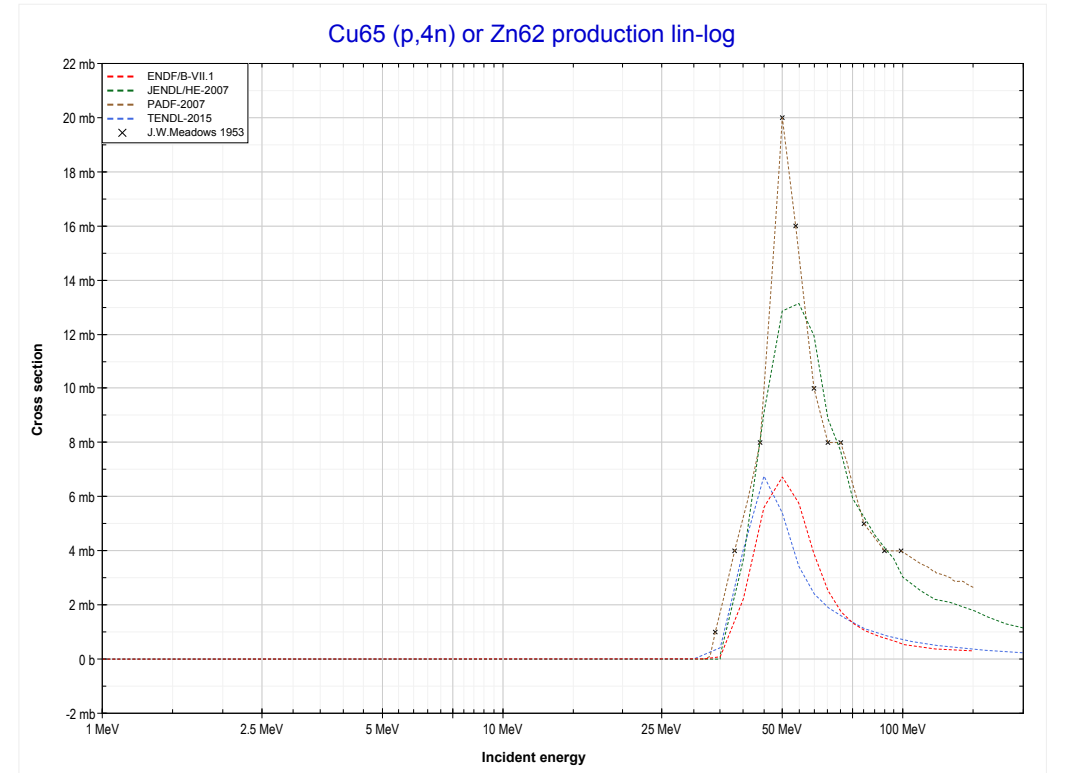
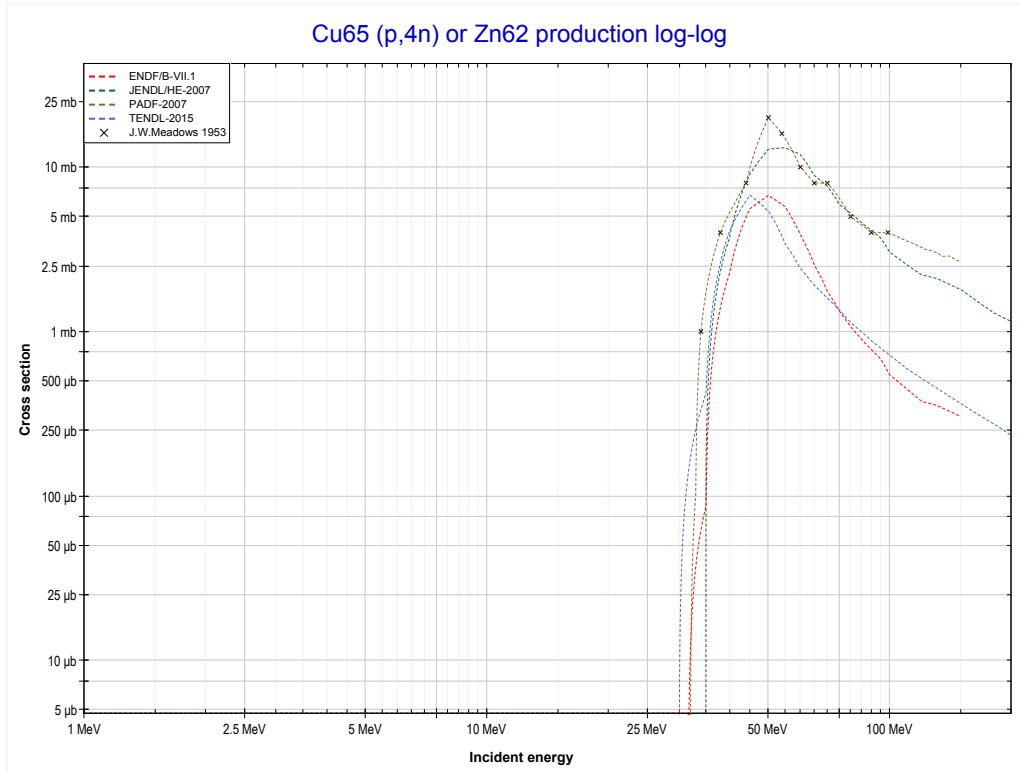
Reaction	Q-Value
Cu65(p,3n)Zn63	-21975.38 keV

<< 28-Ni-60	29-Cu-65	30-Zn-66 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Cu64 production)	MT37 (p,4n) >>



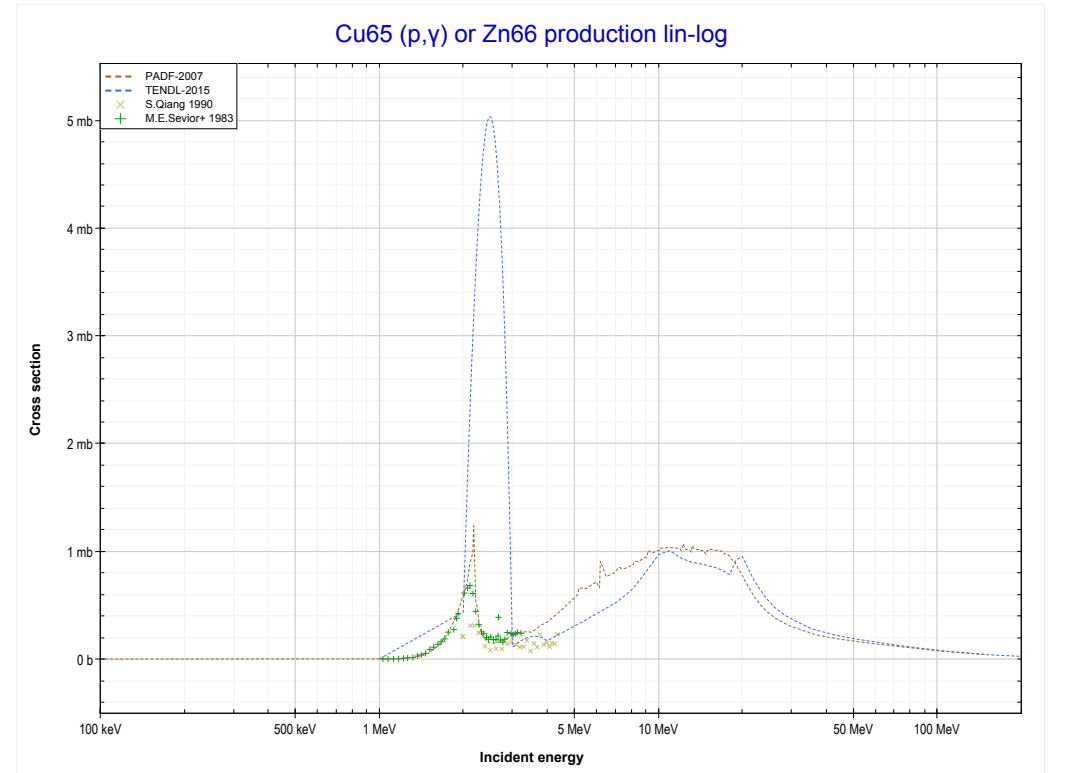
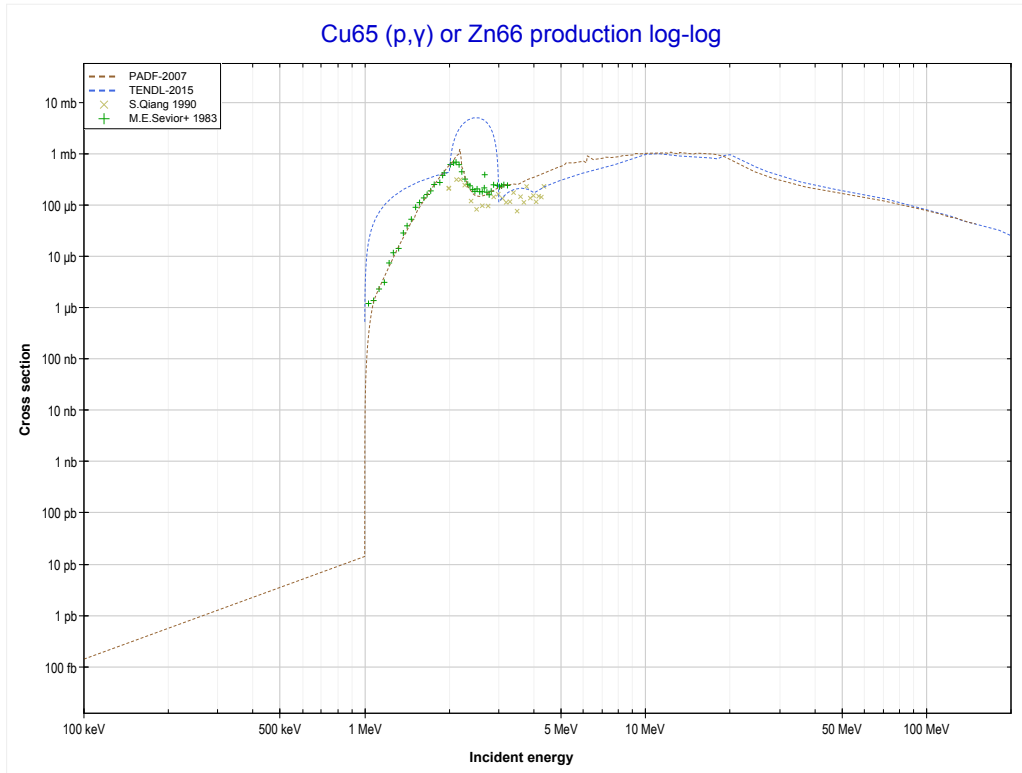
Reaction	Q-Value
Cu65(p,d)Cu64	-7686.15 keV
Cu65(p,n+p)Cu64	-9910.72 keV

<< 27-Co-59	29-Cu-65	31-Ga-69 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Zn62 production)	MT102 (p, γ) >>



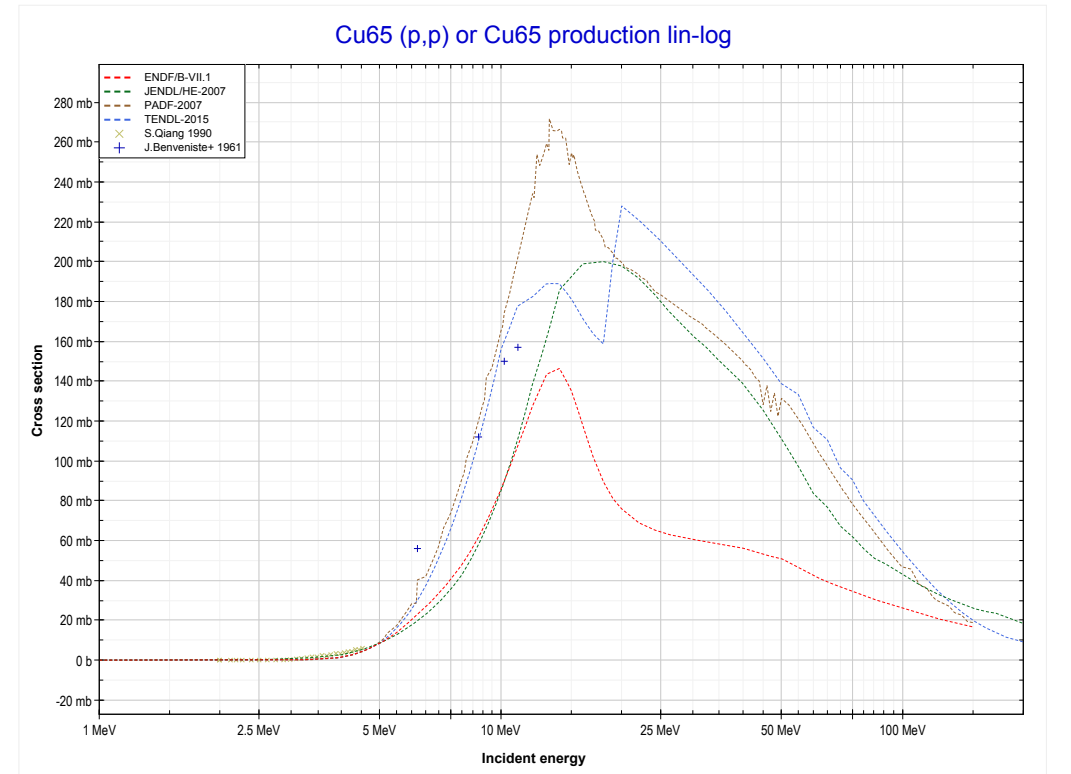
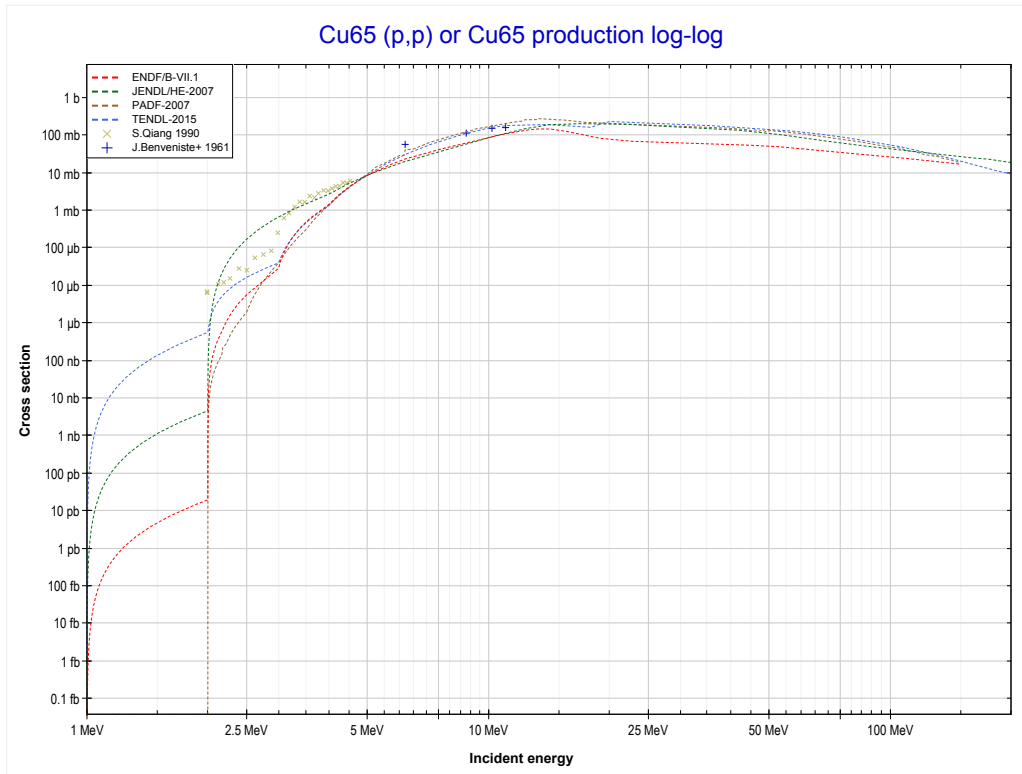
Reaction	Q-Value
Cu65(p,4n)Zn62	-31092.30 keV

<< 29-Cu-63	29-Cu-65	30-Zn-64 >>
<< MT37 (p,4n)	MT102 (p,γ) or MT5 (Zn66 production)	MT103 (p,p) >>



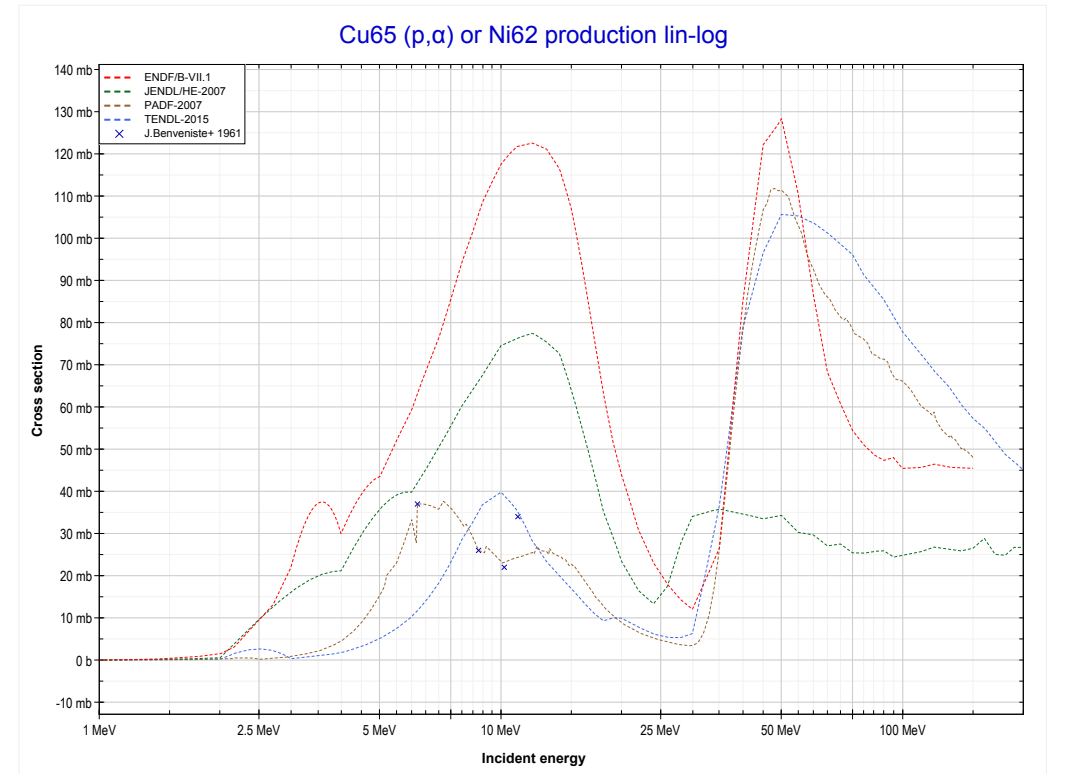
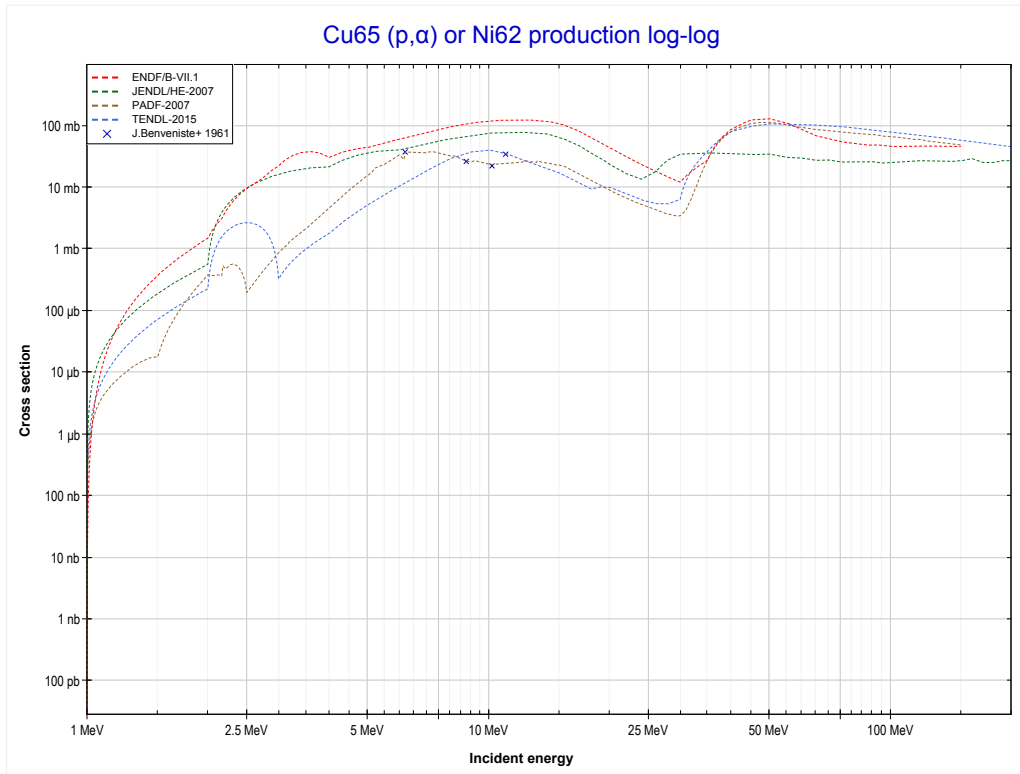
Reaction	Q-Value
Cu65(p, γ)Zn66	8924.57 keV

<< 29-Cu-63	29-Cu-65	41-Nb-93 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (Cu65 production)	MT107 (p, α) >>



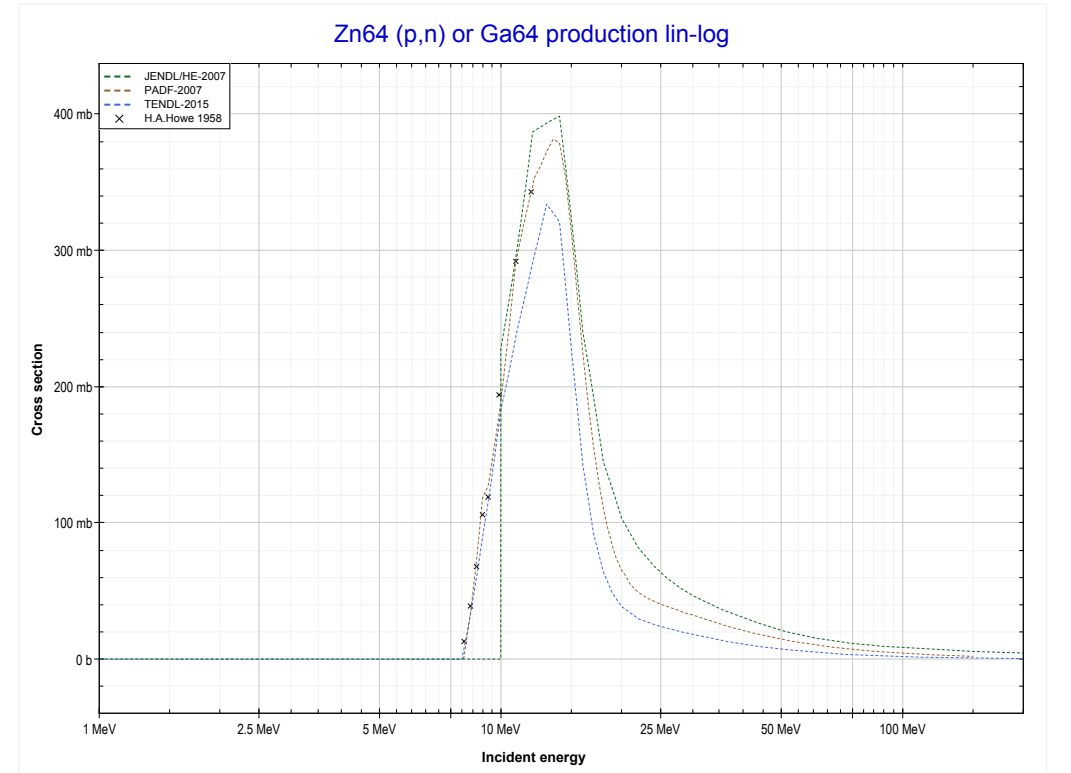
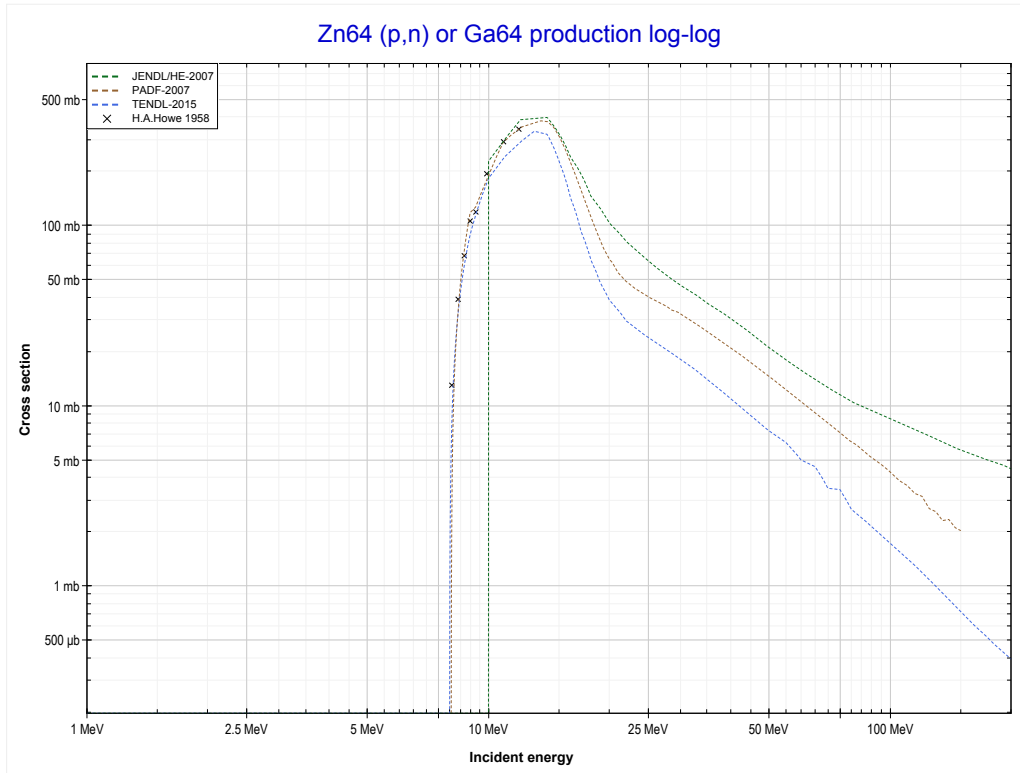
Reaction	Q-Value
Cu65(p,p)Cu65	0.00 keV

<< 29-Cu-63	29-Cu-65	30-Zn-64 >>
<< MT103 (p,p)	MT107 (p,α) or MT5 (Ni62 production)	30-Zn-64 MT4 (p,n) >>



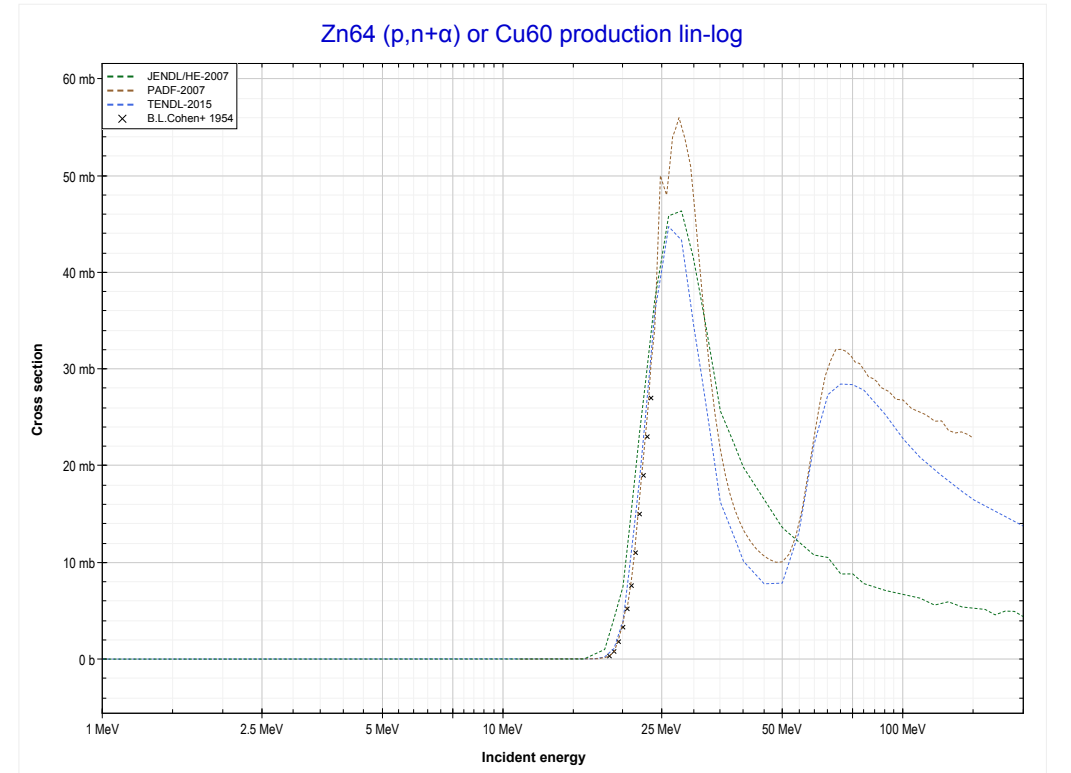
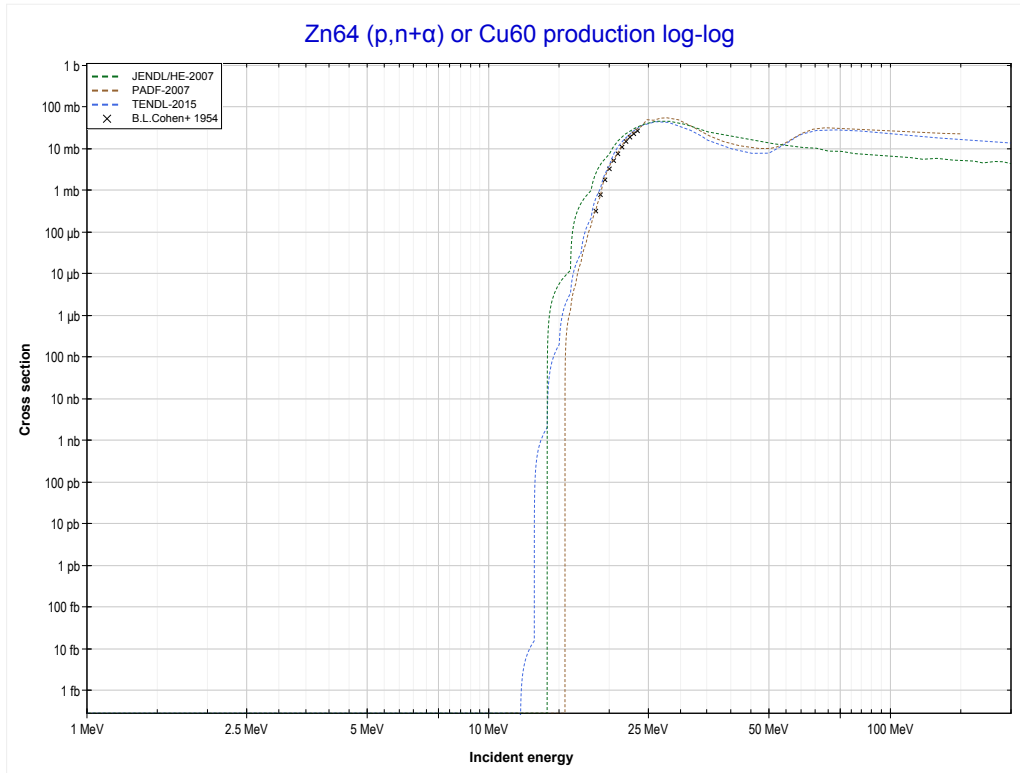
Reaction	Q-Value
Cu65(p, α)Ni62	4346.45 keV
Cu65(p,p+t)Ni62	-15467.41 keV
Cu65(p,n+He3)Ni62	-16231.16 keV
Cu65(p,2d)Ni62	-19500.07 keV
Cu65(p,n+p+d)Ni62	-21724.64 keV
Cu65(p,2n+2p)Ni62	-23949.20 keV

<< 29-Cu-65	30-Zn-64	30-Zn-66 >>
<< 29-Cu-65 MT107 (p, α)	MT4 (p,n) or MT5 (Ga64 production)	MT22 (p,n+ α) >>



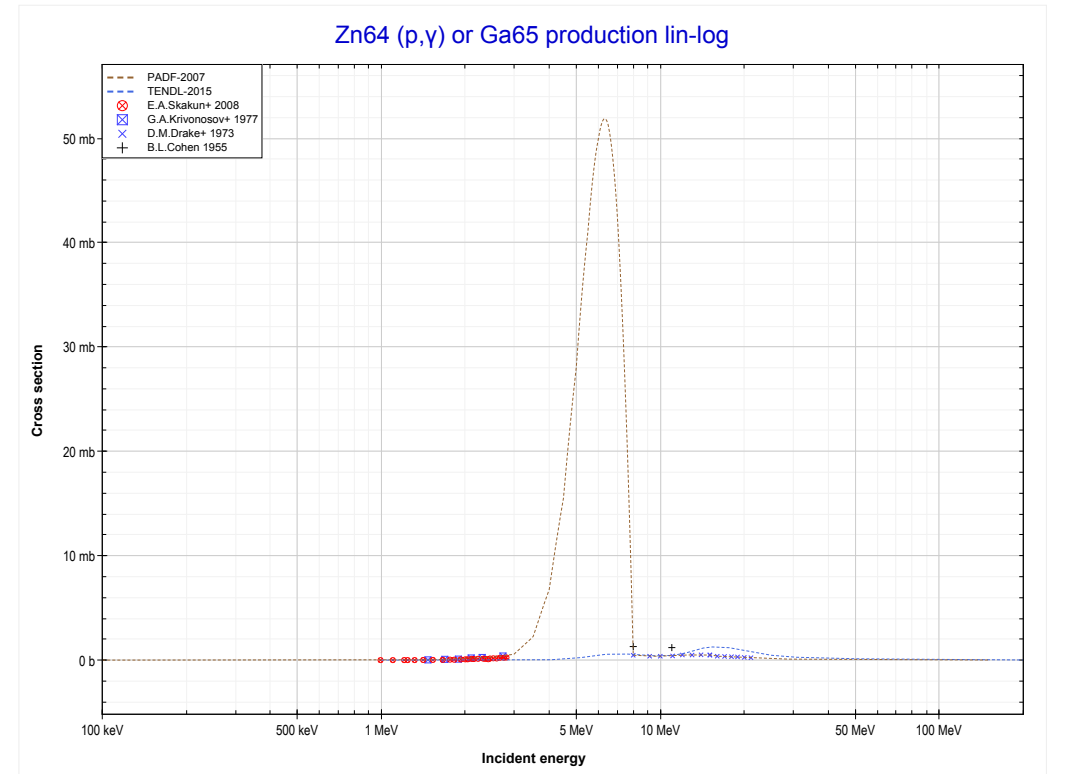
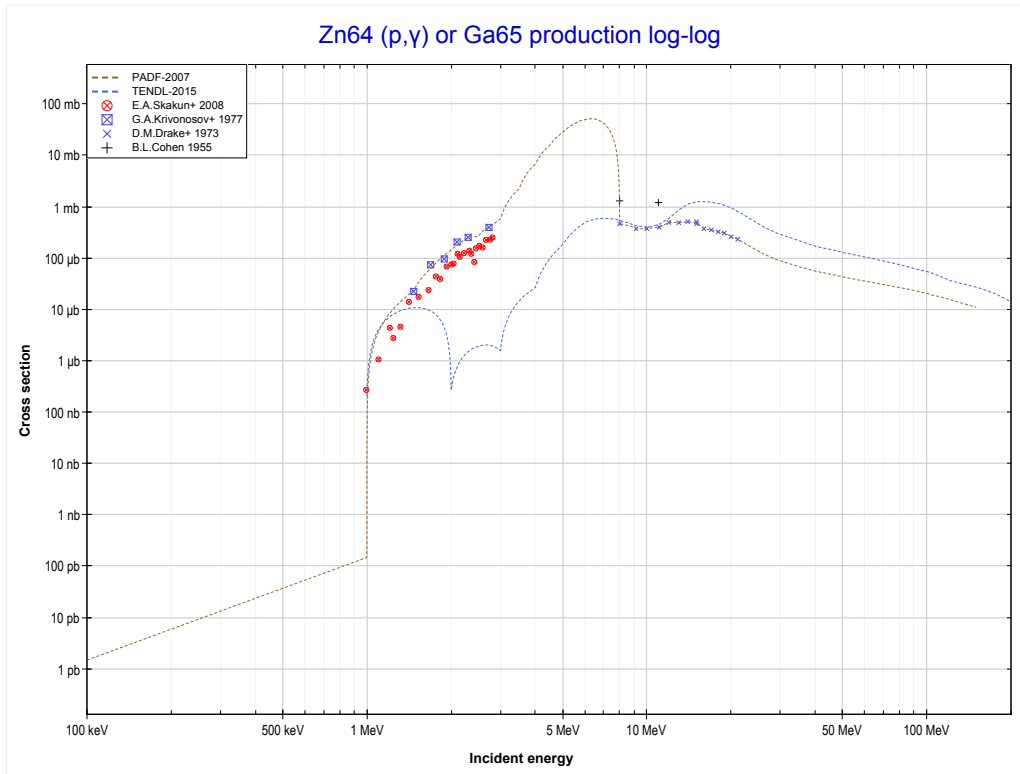
Reaction	Q-Value
Zn64(p,n)Ga64	-7953.35 keV

<< 28-Ni-62	30-Zn-64	30-Zn-68 >>
<< MT4 (p,n)	MT22 (p,n+α) or MT5 (Cu60 production)	MT102 (p,γ) >>



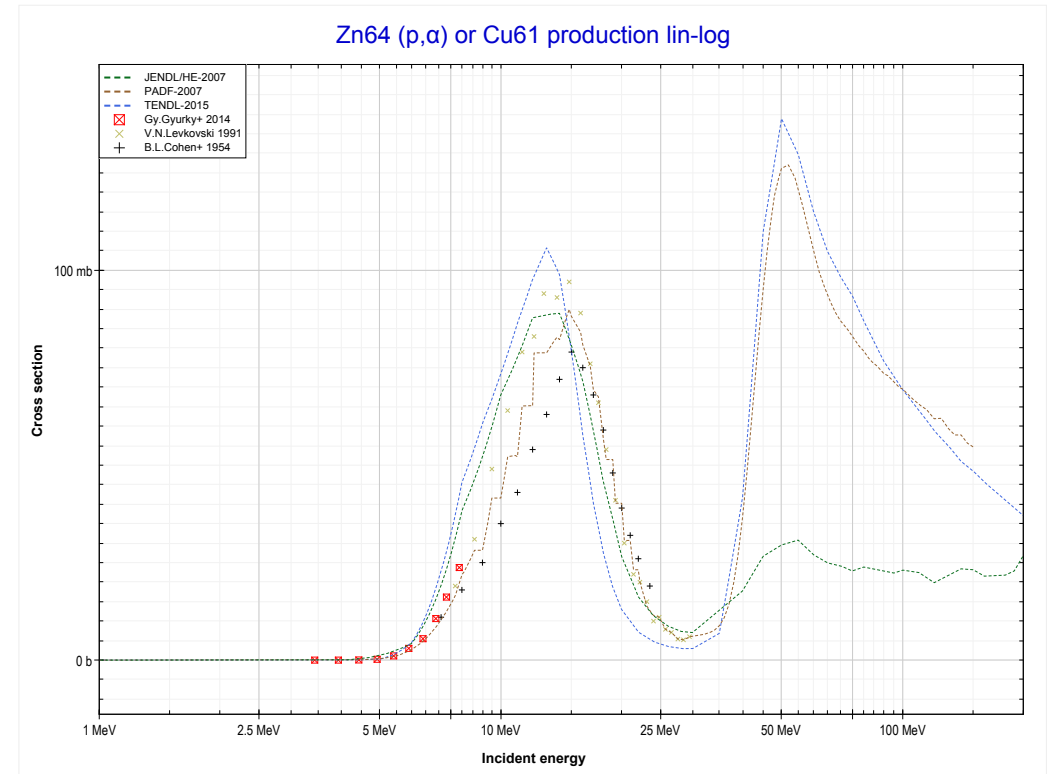
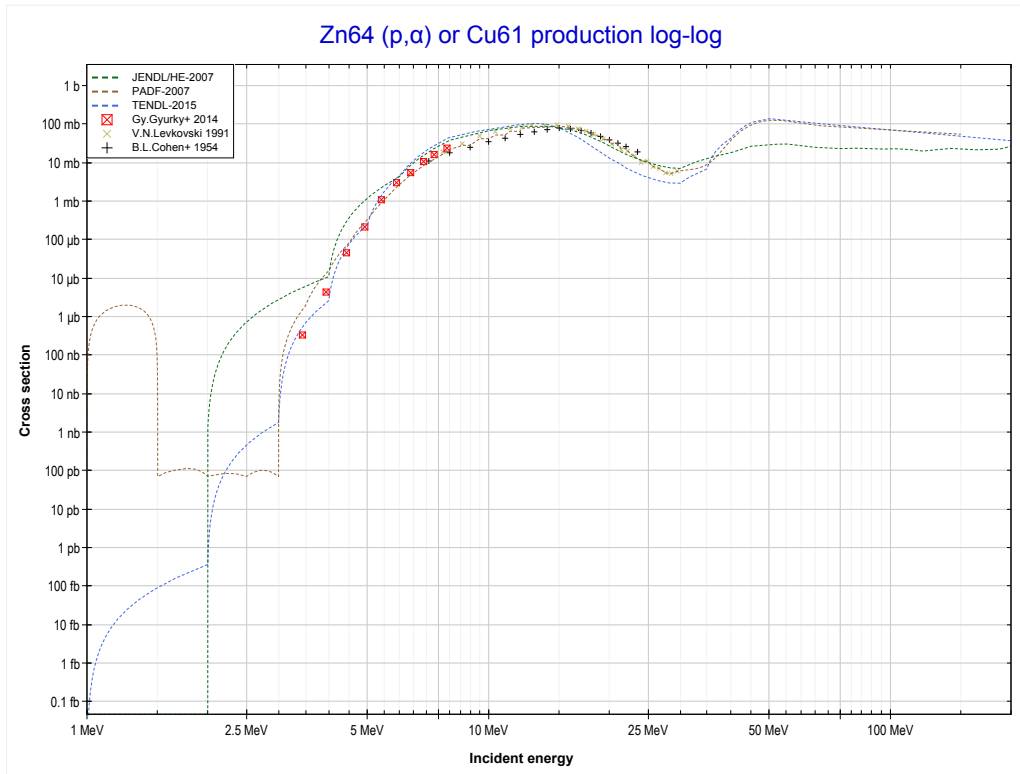
Reaction	Q-Value
Zn64(p,n+α)Cu60	-10866.46 keV
Zn64(p,d+t)Cu60	-28455.76 keV
Zn64(p,n+p+t)Cu60	-30680.32 keV
Zn64(p,2n+He3)Cu60	-31444.08 keV
Zn64(p,n+2d)Cu60	-34712.99 keV
Zn64(p,2n+p+d)Cu60	-36937.56 keV
Zn64(p,3n+2p)Cu60	-39162.12 keV

<< 29-Cu-65	30-Zn-64	30-Zn-66 >>
<< MT22 (p,n+α)	MT102 (p,γ) or MT5 (Ga65 production)	MT107 (p,α) >>



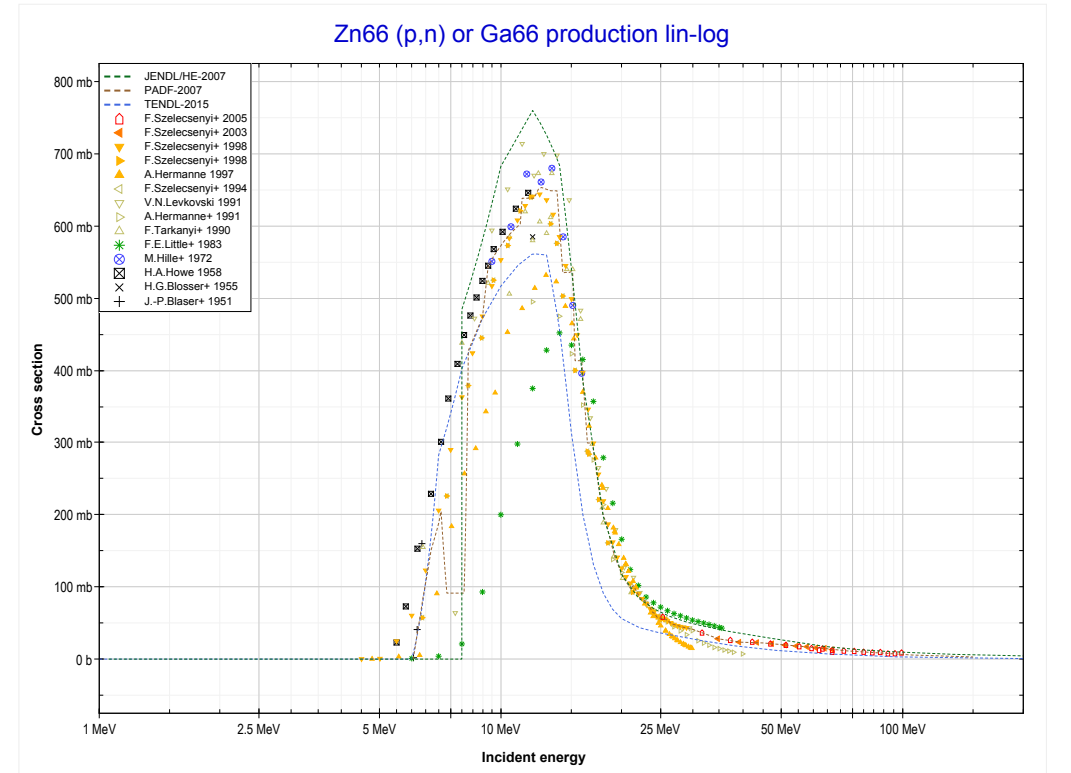
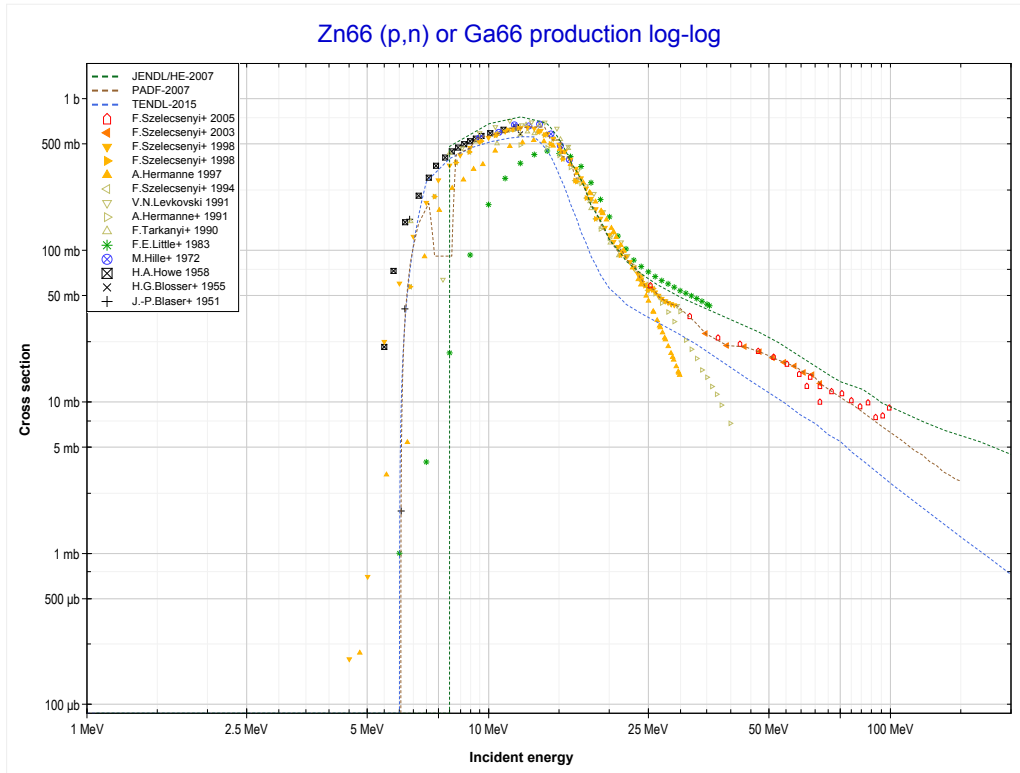
Reaction	Q-Value
Zn64(p,γ)Ga65	3942.47 keV

<< 29-Cu-65	30-Zn-64	30-Zn-67 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Cu61 production)	30-Zn-66 MT4 (p,n) >>



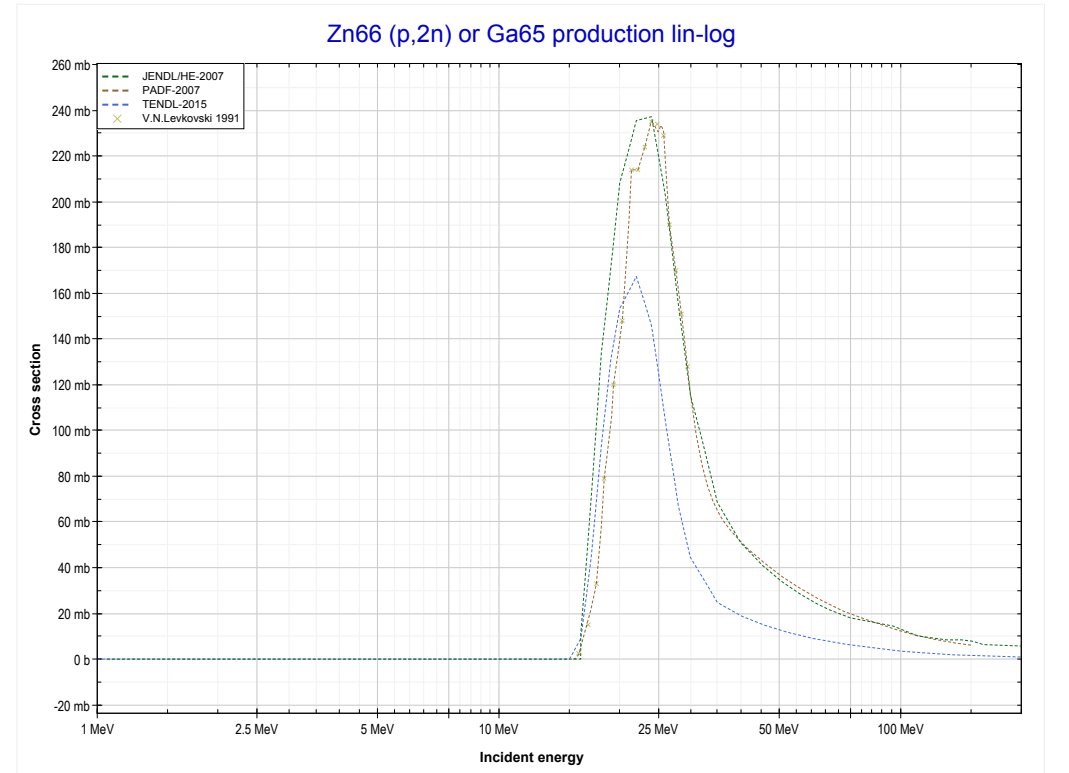
Reaction	Q-Value
Zn64(p, α)Cu61	844.05 keV
Zn64(p,p+t)Cu61	-18969.81 keV
Zn64(p,n+He3)Cu61	-19733.56 keV
Zn64(p,2d)Cu61	-23002.47 keV
Zn64(p,n+p+d)Cu61	-25227.04 keV
Zn64(p,2n+2p)Cu61	-27451.60 keV

<< 30-Zn-64	30-Zn-66	30-Zn-67 >>
<< 30-Zn-64 MT107 (p, α)	MT4 (p,n) or MT5 (Ga66 production)	MT16 (p,2n) >>



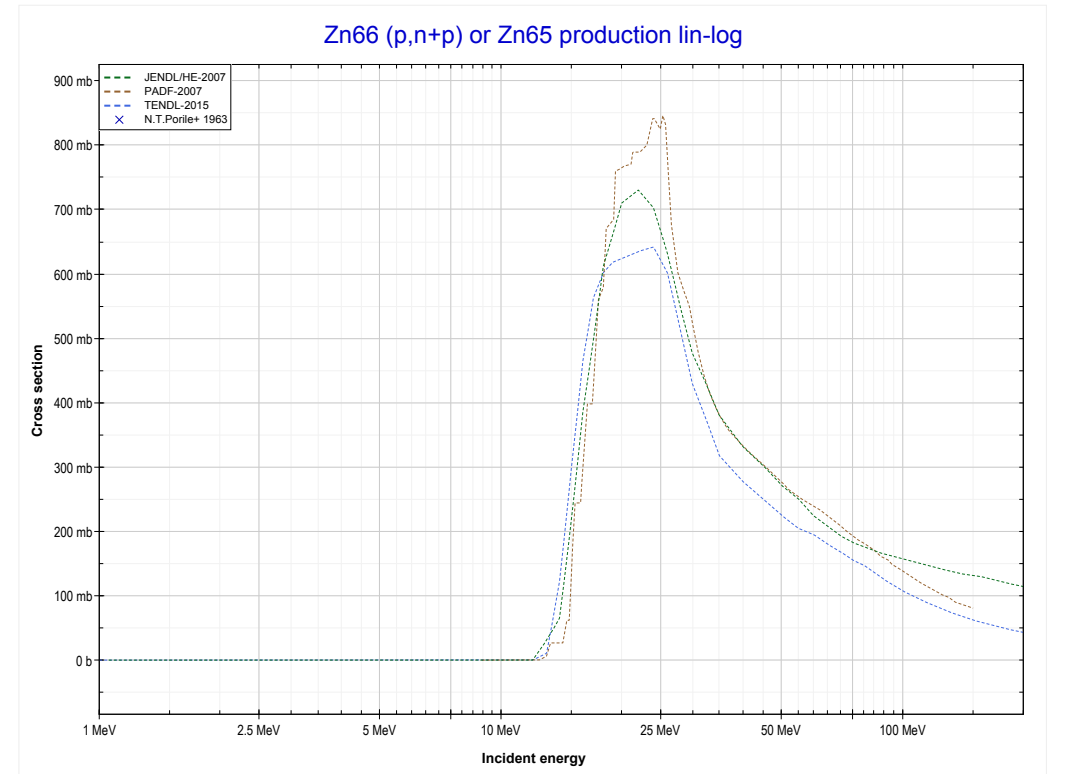
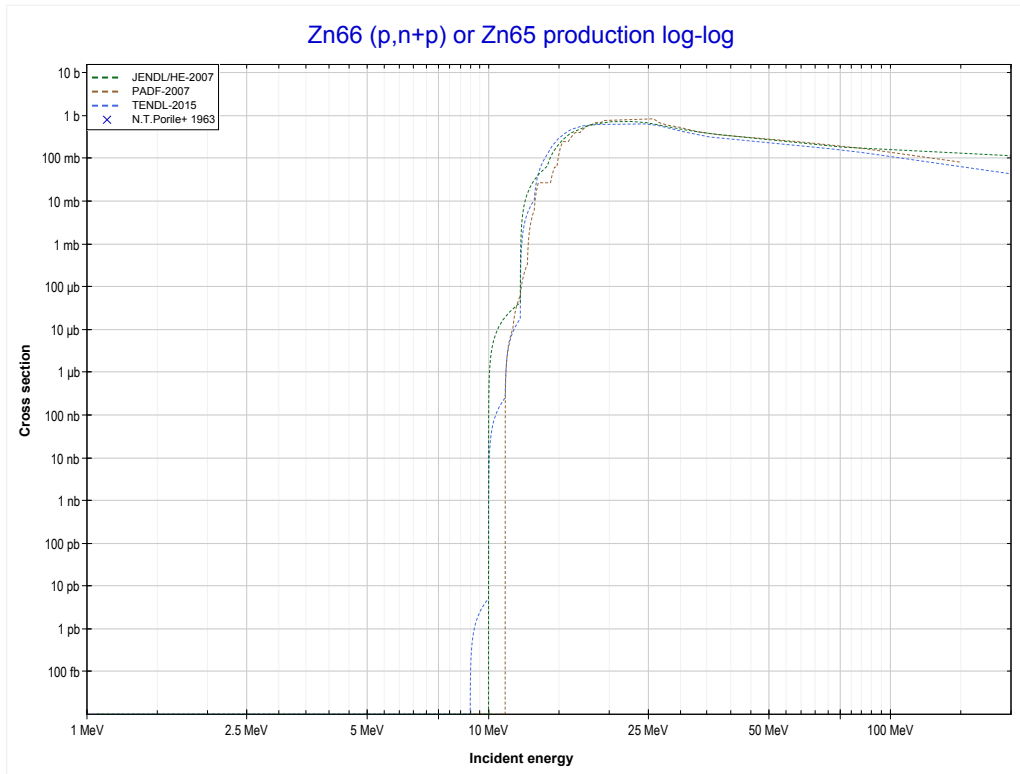
Reaction	Q-Value
Zn66(p,n)Ga66	-5957.45 keV

<< 29-Cu-63	30-Zn-66	30-Zn-67 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Ga65 production)	MT28 (p,n+p) >>



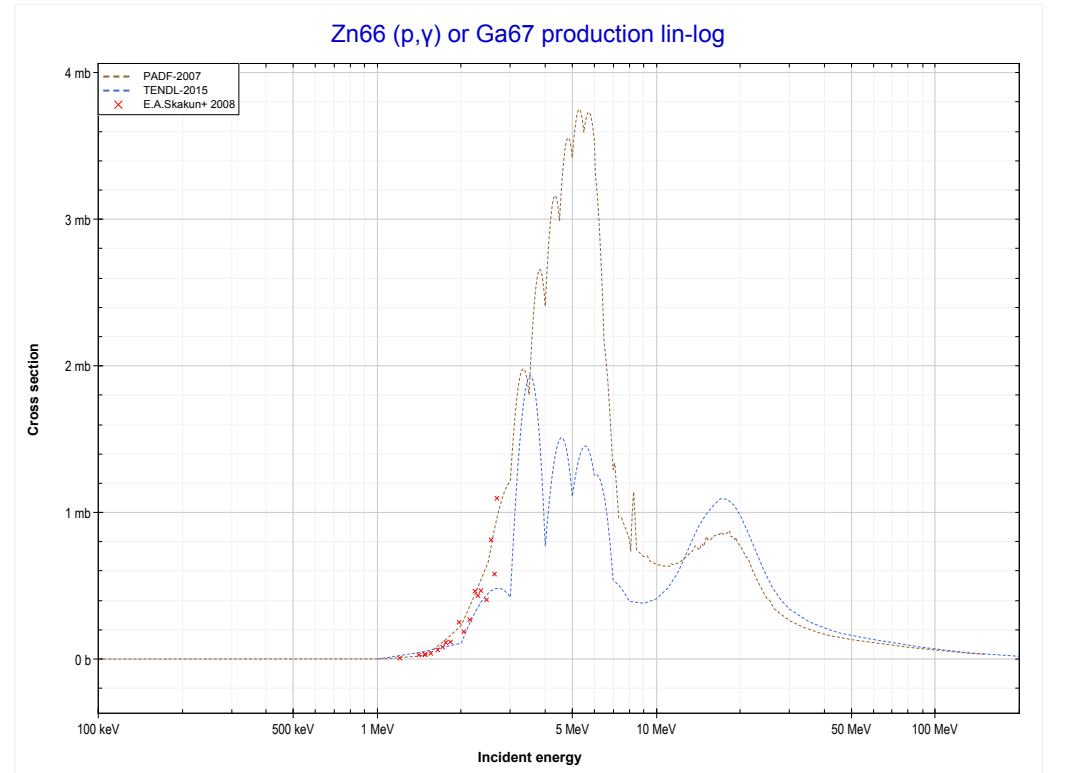
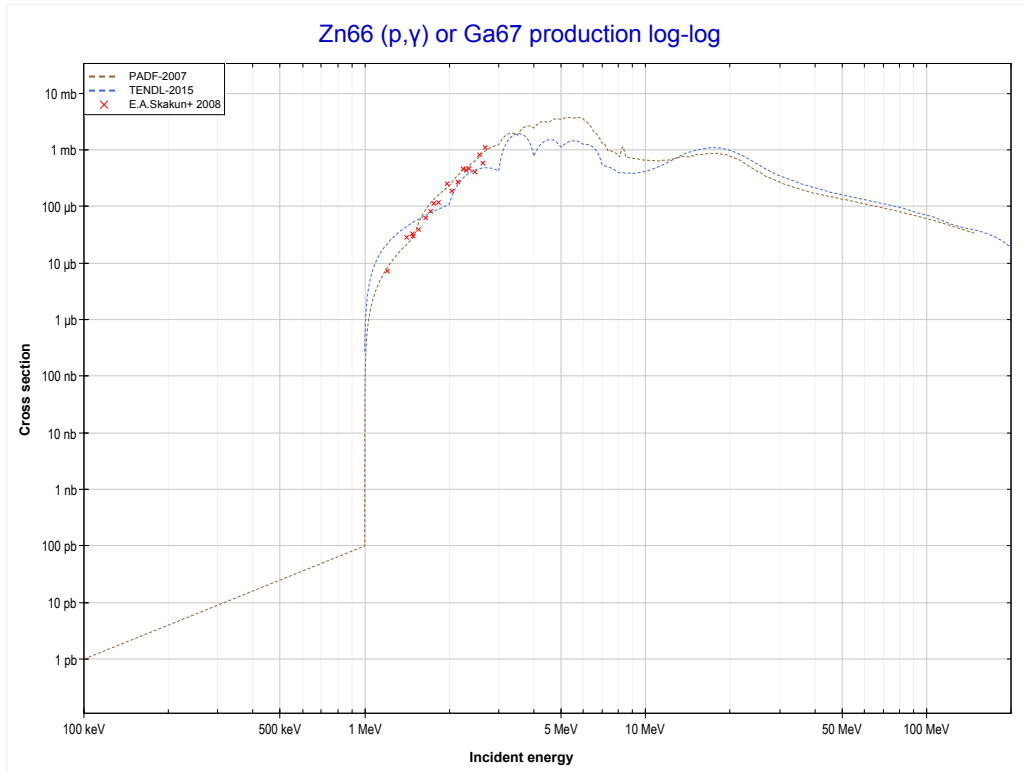
Reaction	Q-Value
Zn66(p,2n)Ga65	-15095.46 keV

<< 29-Cu-65	30-Zn-66	31-Ga-69 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Zn65 production)	MT102 (p, γ) >>



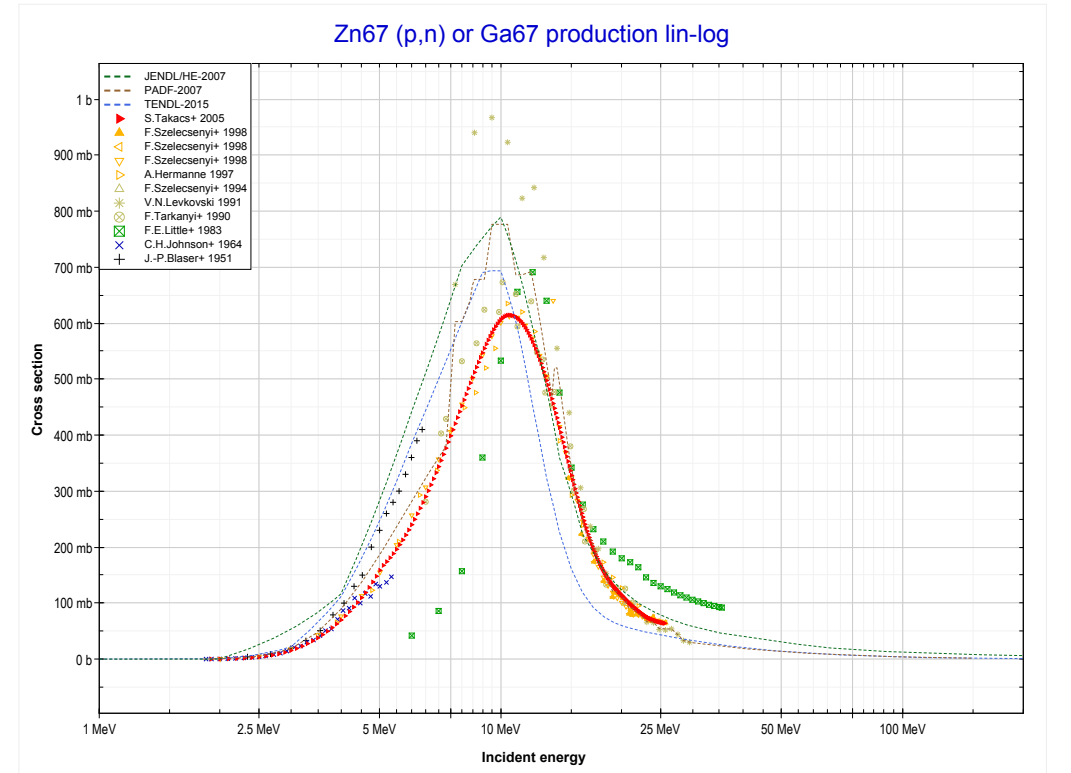
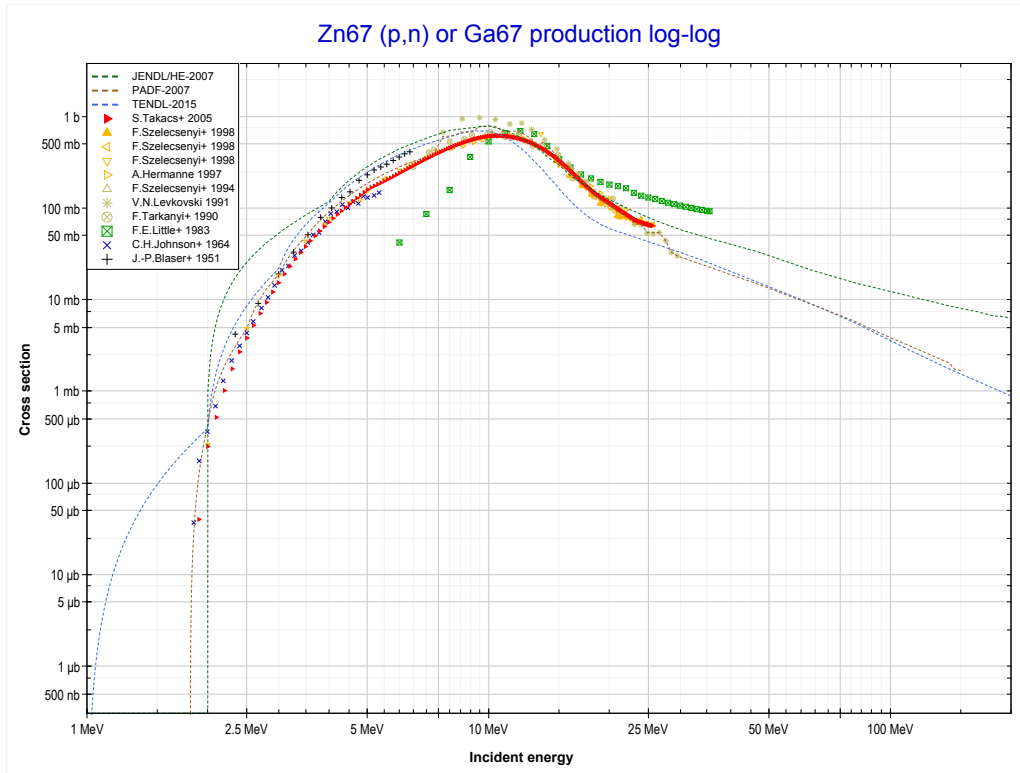
Reaction	Q-Value
Zn66(p,d)Zn65	-8834.05 keV
Zn66(p,n+p)Zn65	-11058.62 keV

<< 30-Zn-64	30-Zn-66	30-Zn-67 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (Ga67 production)	30-Zn-67 MT4 (p,n) >>



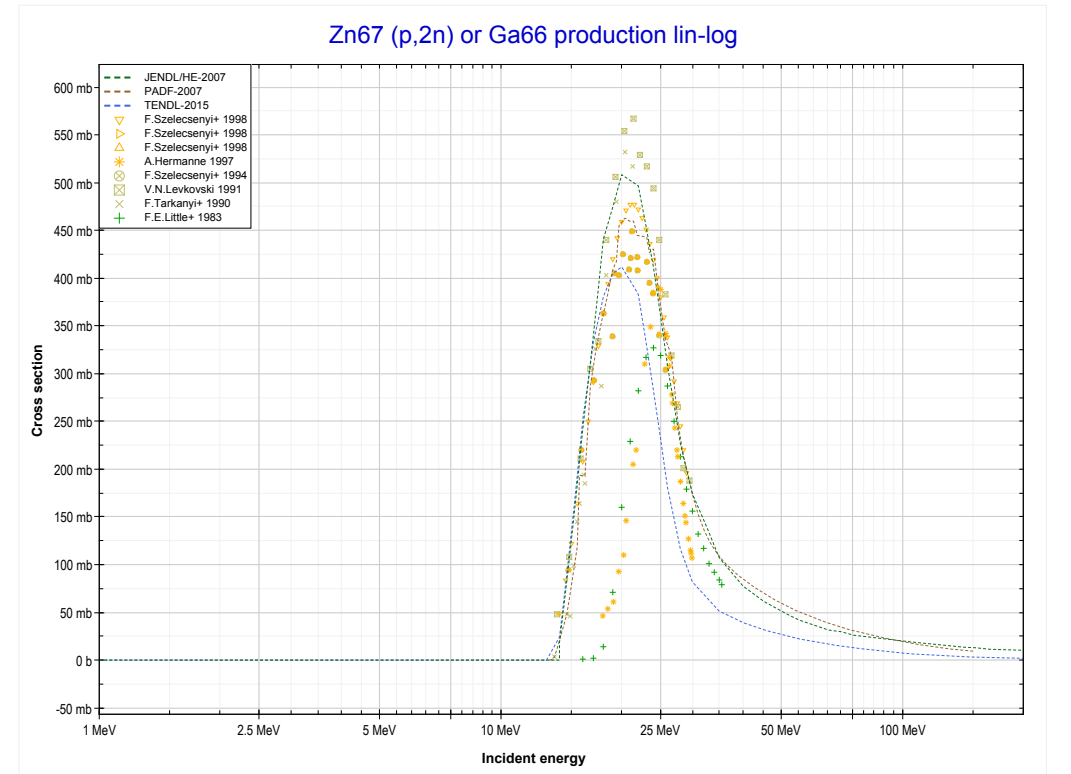
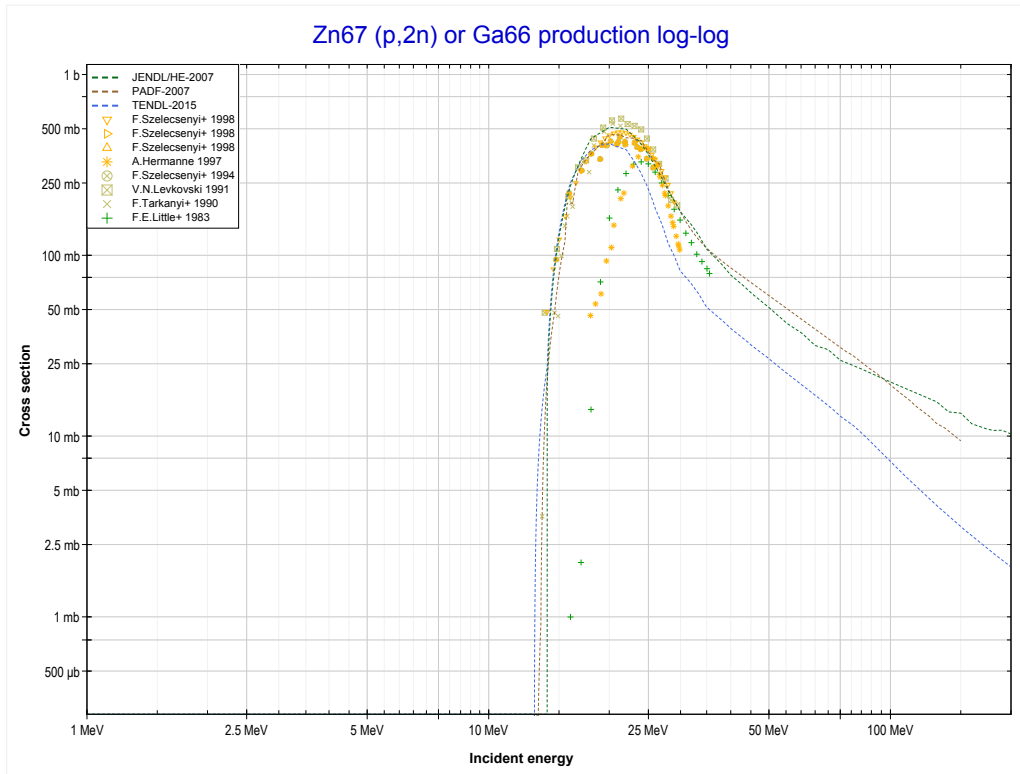
Reaction	Q-Value
Zn66(p, γ)Ga67	5268.77 keV

<< 30-Zn-66	30-Zn-67	30-Zn-68 >>
<< 30-Zn-66 MT102 (p, γ)	MT4 (p,n) or MT5 (Ga67 production)	MT16 (p,2n) >>



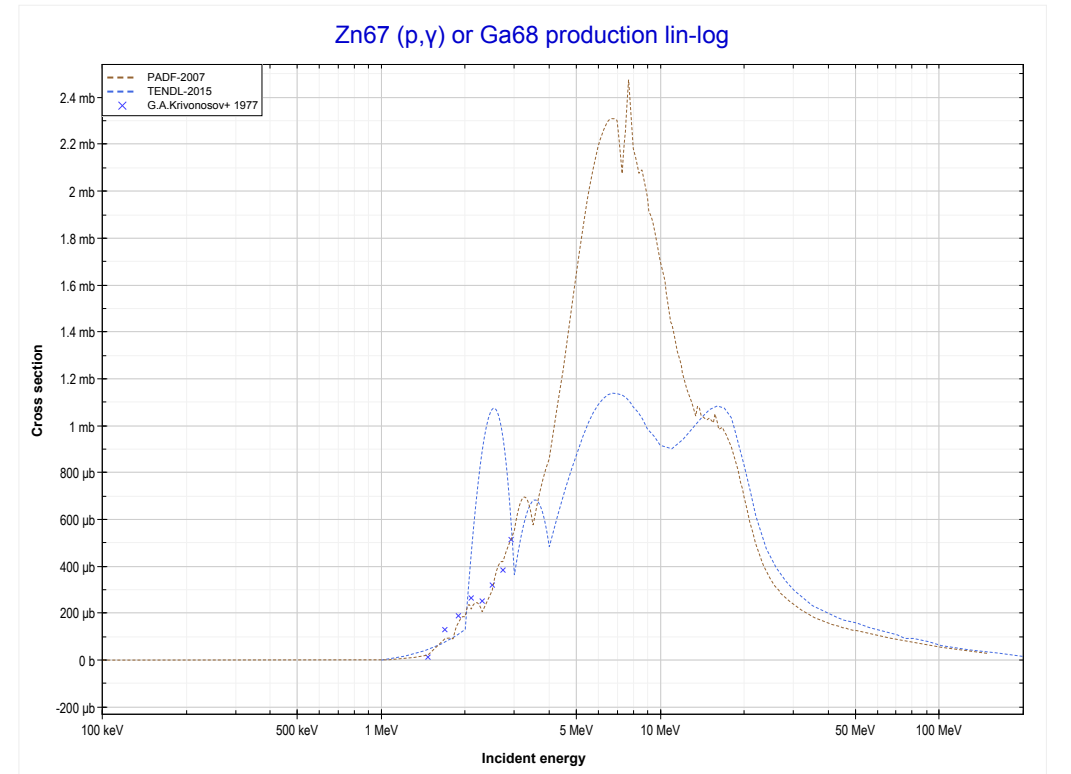
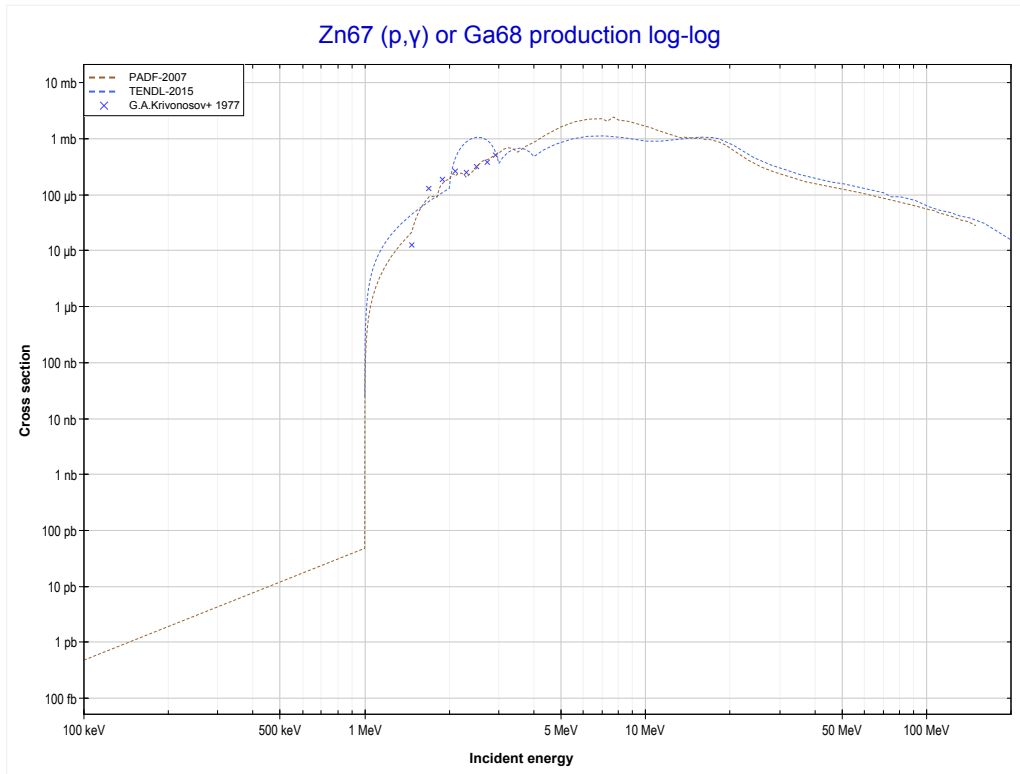
Reaction	Q-Value
Zn67(p,n)Ga67	-1783.55 keV

<< 30-Zn-66	30-Zn-67	30-Zn-68 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Ga66 production)	MT102 (p,γ) >>



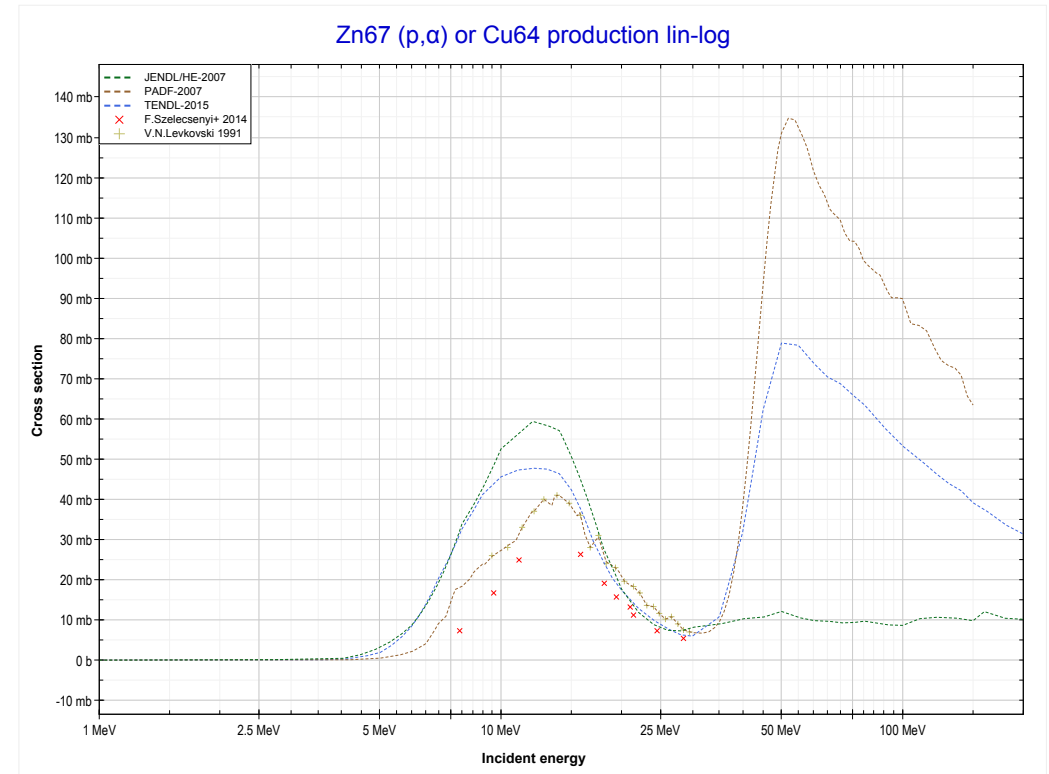
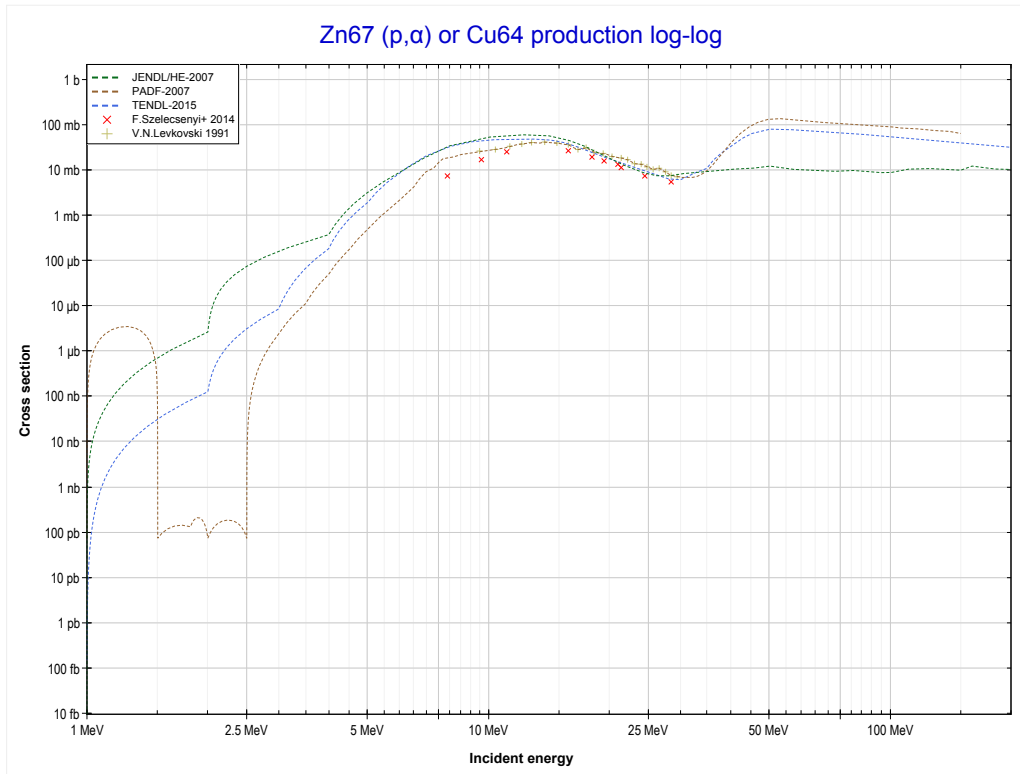
Reaction	Q-Value
Zn67(p,2n)Ga66	-13009.76 keV

<< 30-Zn-66	30-Zn-67	30-Zn-68 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (Ga68 production)	MT107 (p, α) >>



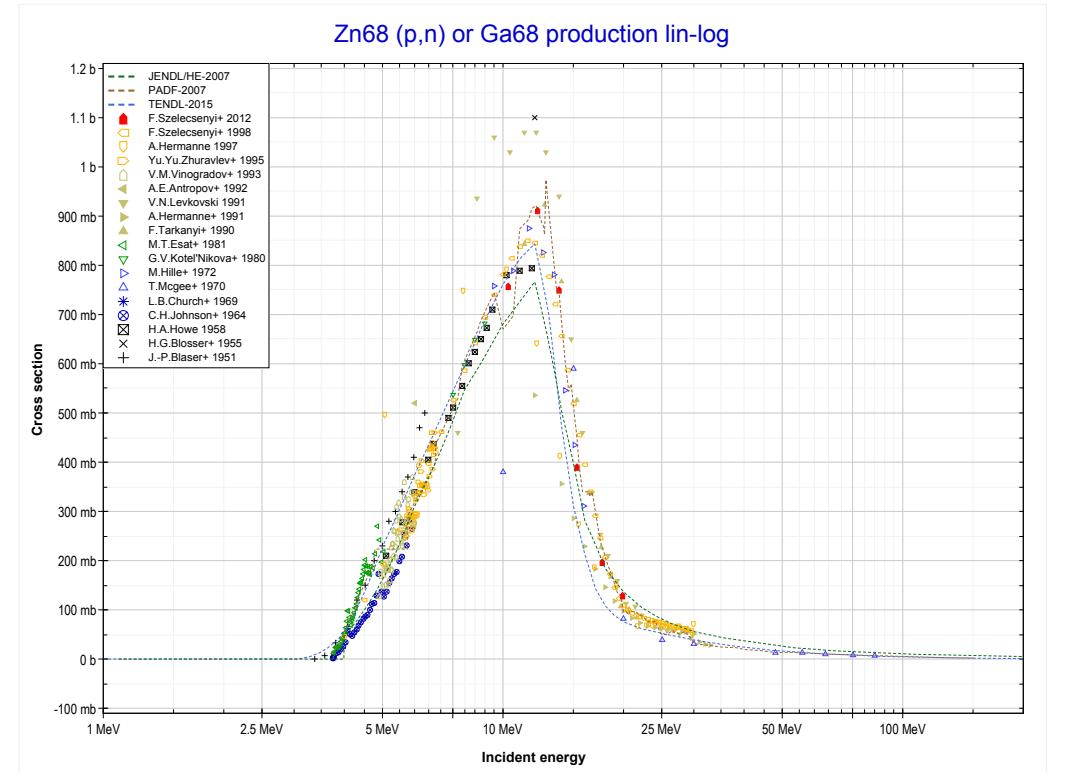
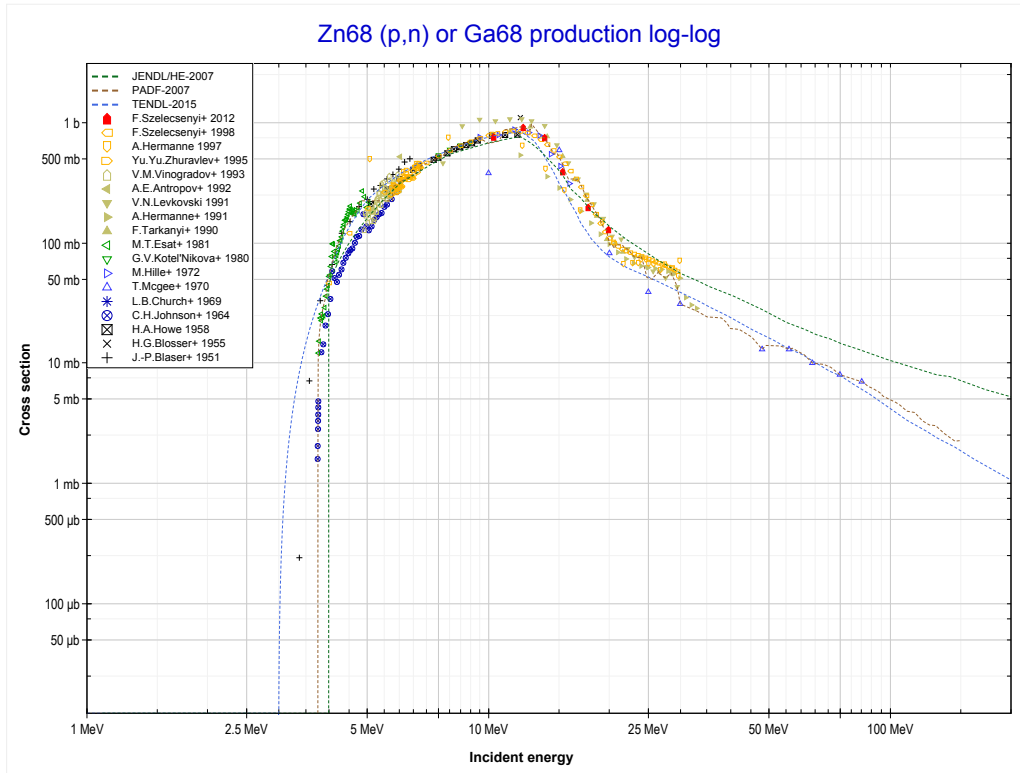
Reaction	Q-Value
Zn67(p, γ)Ga68	6494.57 keV

<< 30-Zn-64	30-Zn-67	30-Zn-68 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Cu64 production)	30-Zn-68 MT4 (p,n) >>



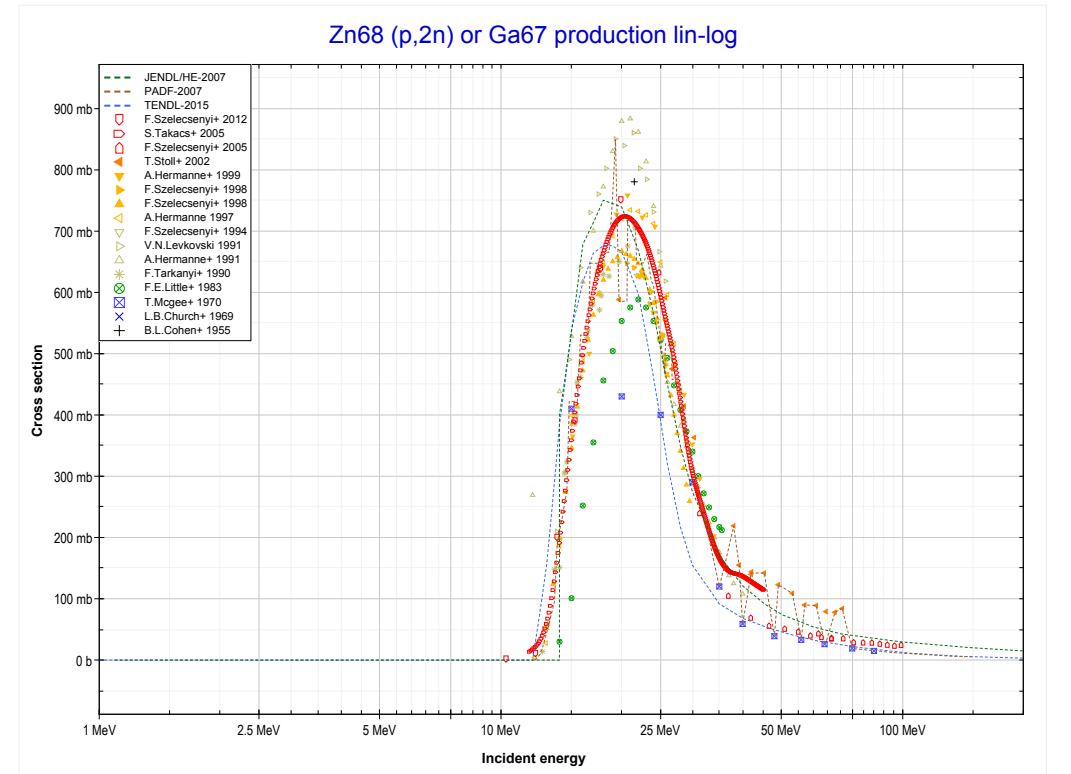
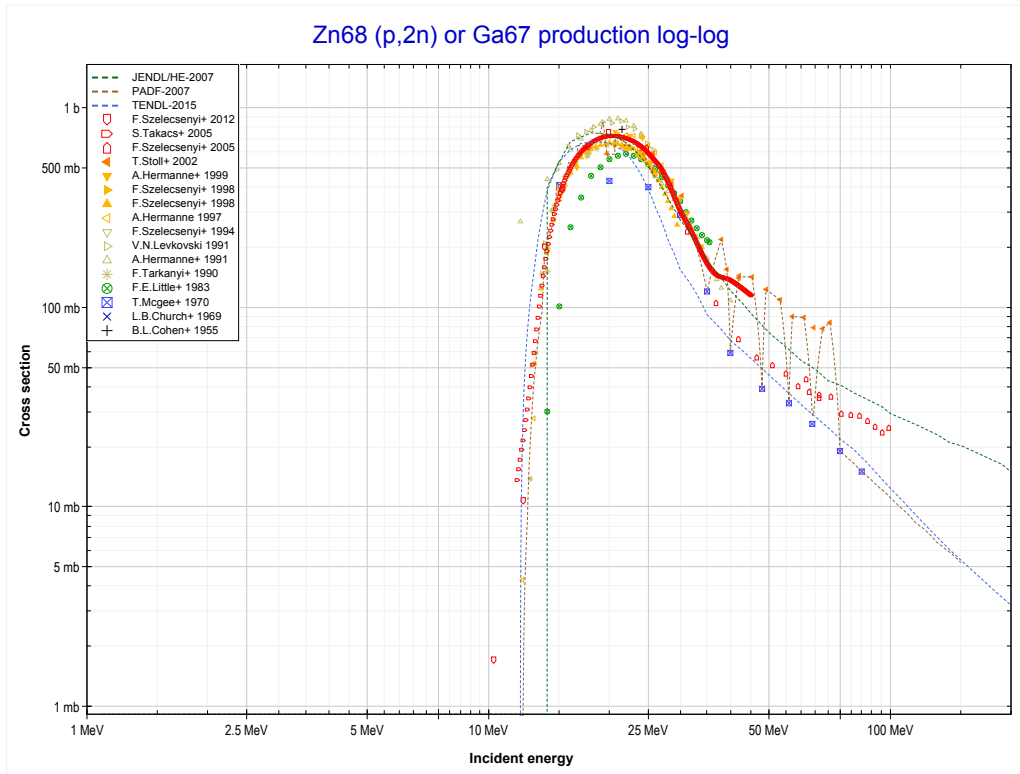
Reaction	Q-Value
Zn67(p, α)Cu64	2408.05 keV
Zn67(p,p+t)Cu64	-17405.81 keV
Zn67(p,n+He3)Cu64	-18169.56 keV
Zn67(p,2d)Cu64	-21438.47 keV
Zn67(p,n+p+d)Cu64	-23663.04 keV
Zn67(p,2n+2p)Cu64	-25887.60 keV

<< 30-Zn-67	30-Zn-68	30-Zn-70 >>
<< 30-Zn-67 MT107 (p, α)	MT4 (p,n) or MT5 (Ga68 production)	MT16 (p,2n) >>



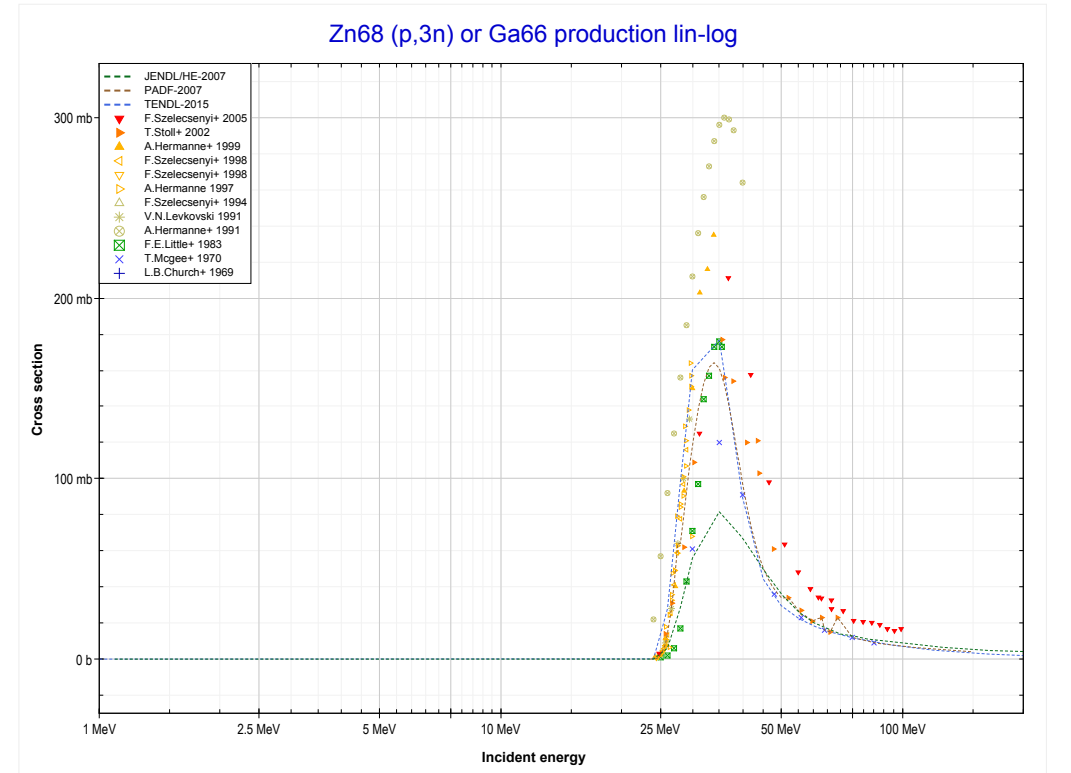
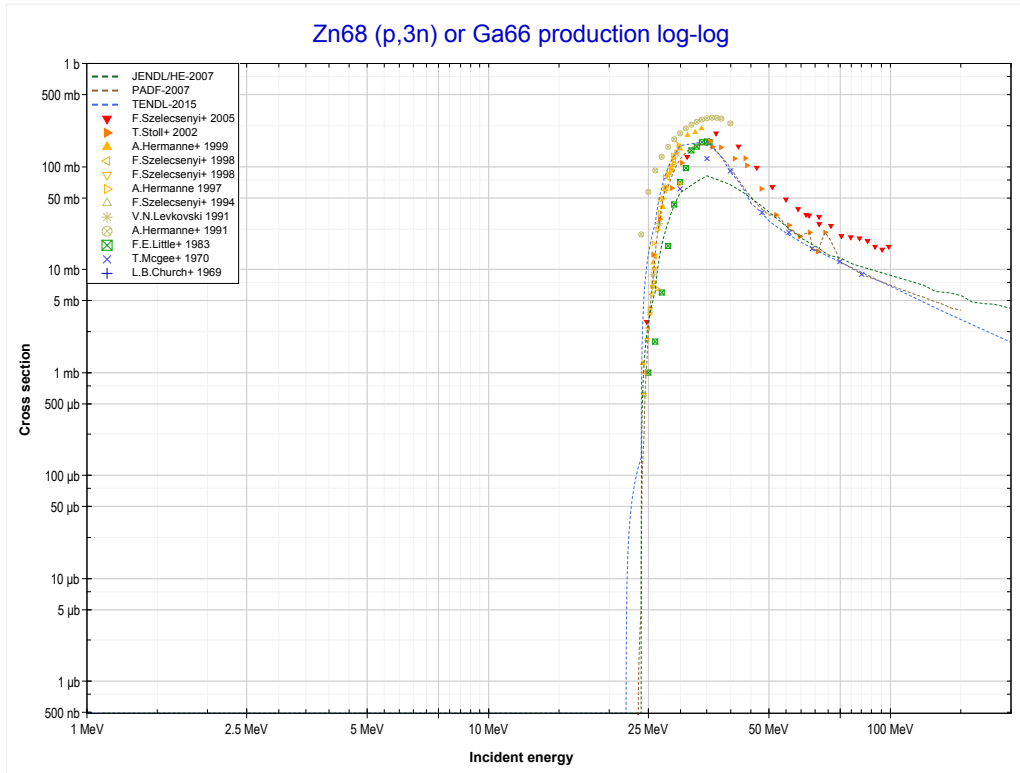
Reaction	Q-Value
Zn68(p,n)Ga68	-3703.45 keV

<< 30-Zn-67	30-Zn-68	31-Ga-69 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Ga67 production)	MT17 (p,3n) >>



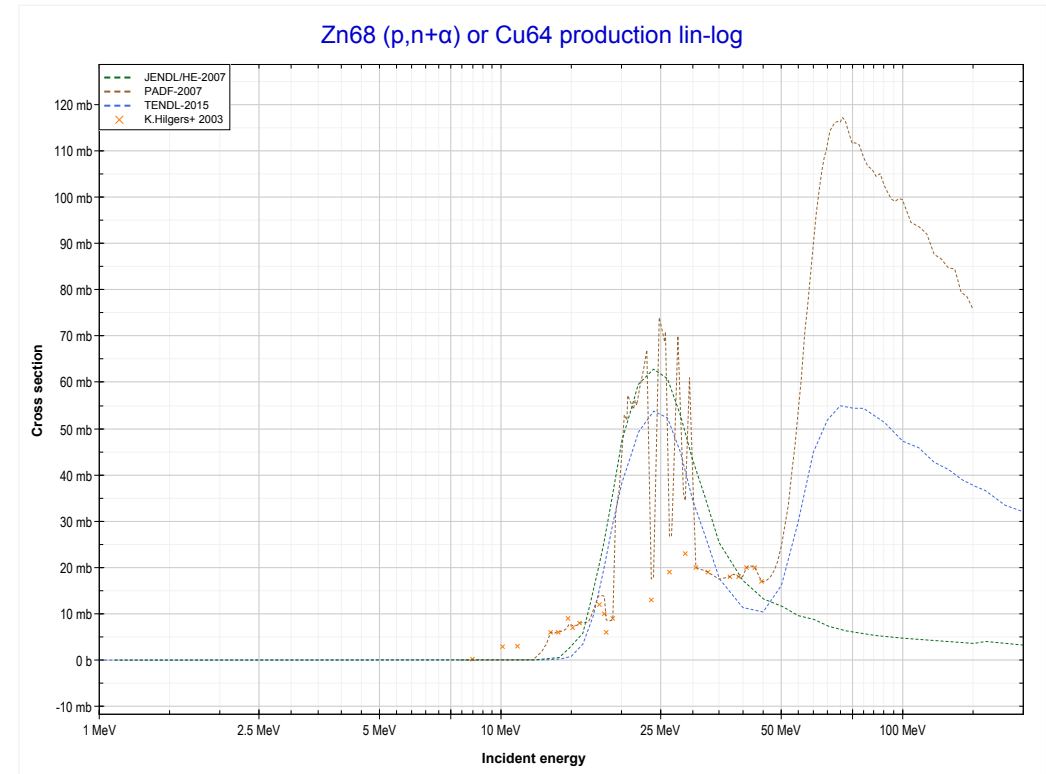
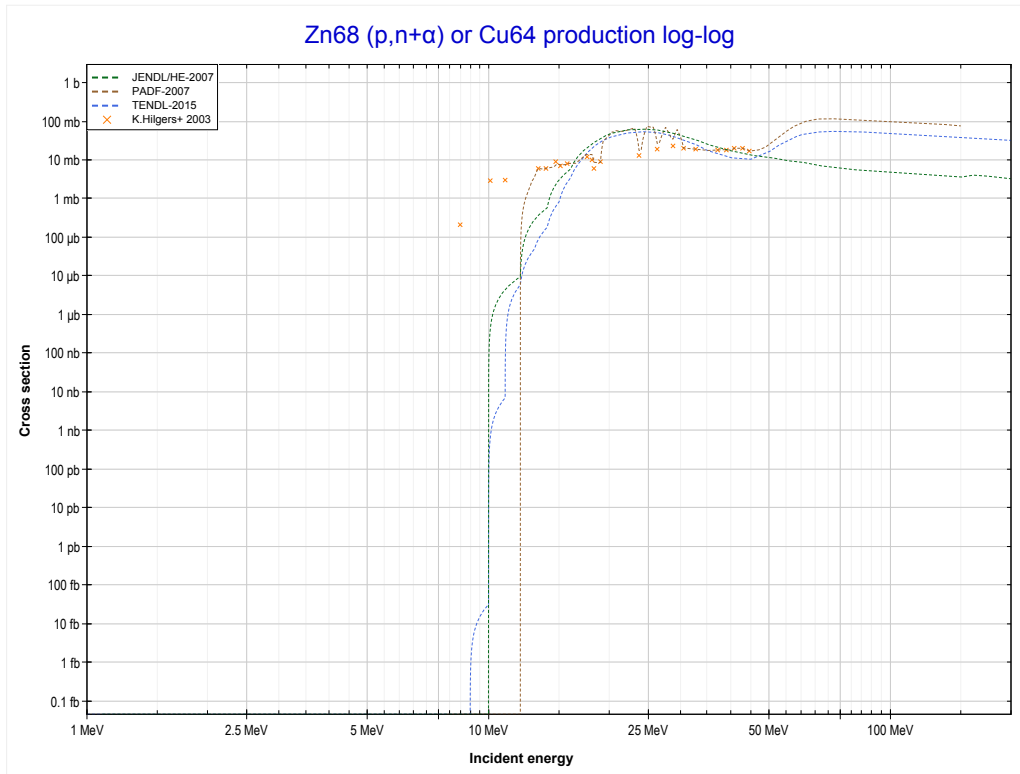
Reaction	Q-Value
Zn68(p,2n)Ga67	-11981.56 keV

<< 29-Cu-65	30-Zn-68	31-Ga-69 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Ga66 production)	MT22 (p,n+α) >>



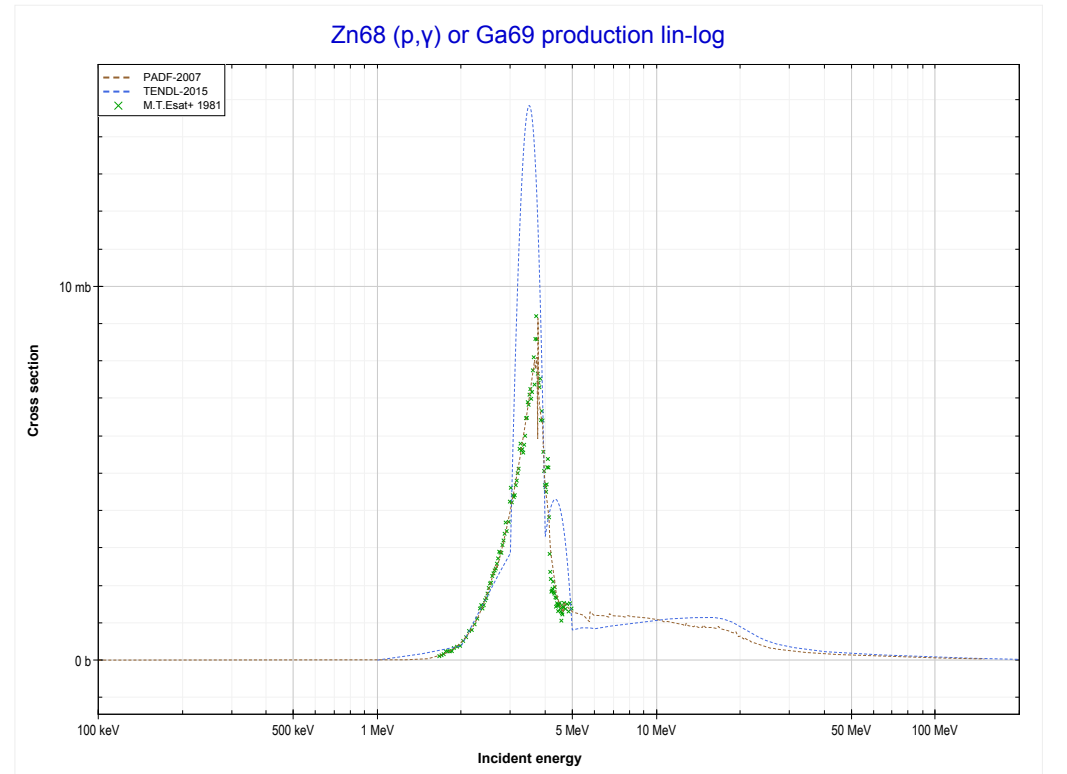
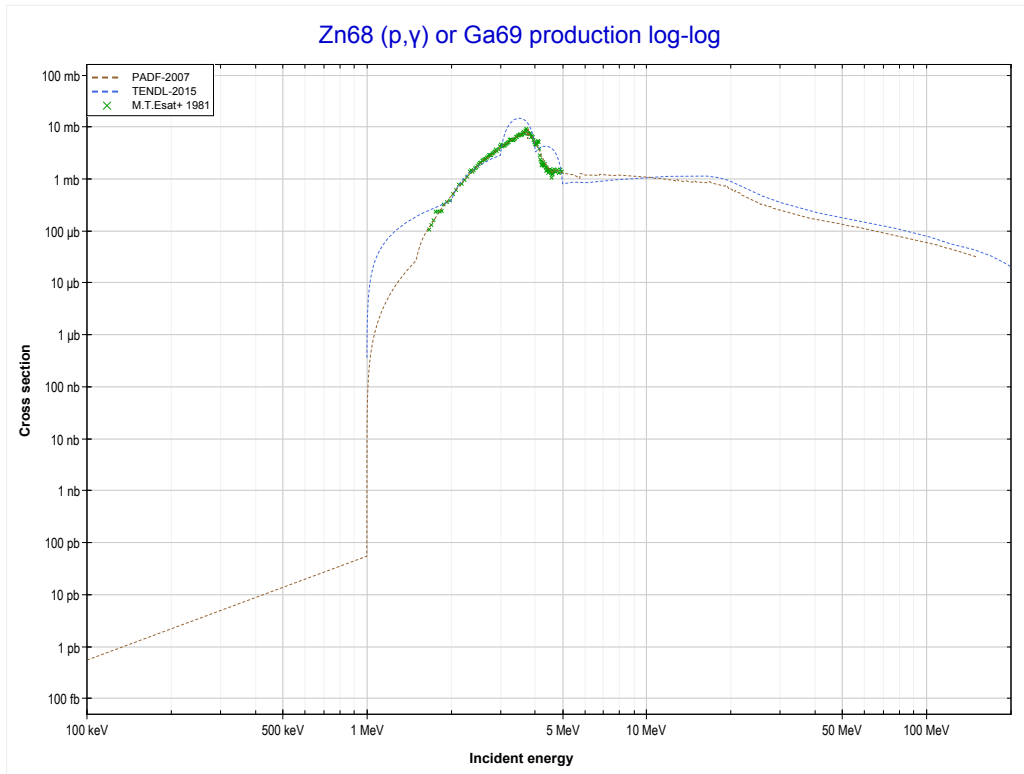
Reaction	Q-Value
Zn68(p,3n)Ga66	-23207.78 keV

<< 30-Zn-64	30-Zn-68	34-Se-76 >>
<< MT17 (p,3n)	MT22 (p,n+α) or MT5 (Cu64 production)	MT102 (p,γ) >>



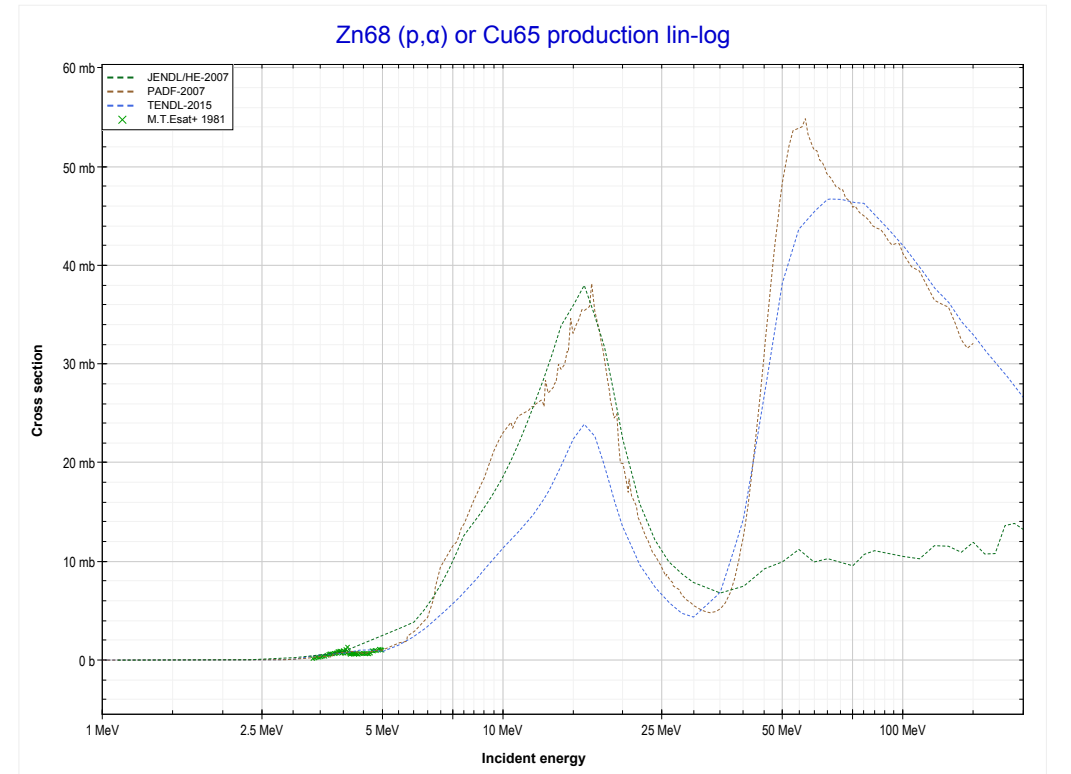
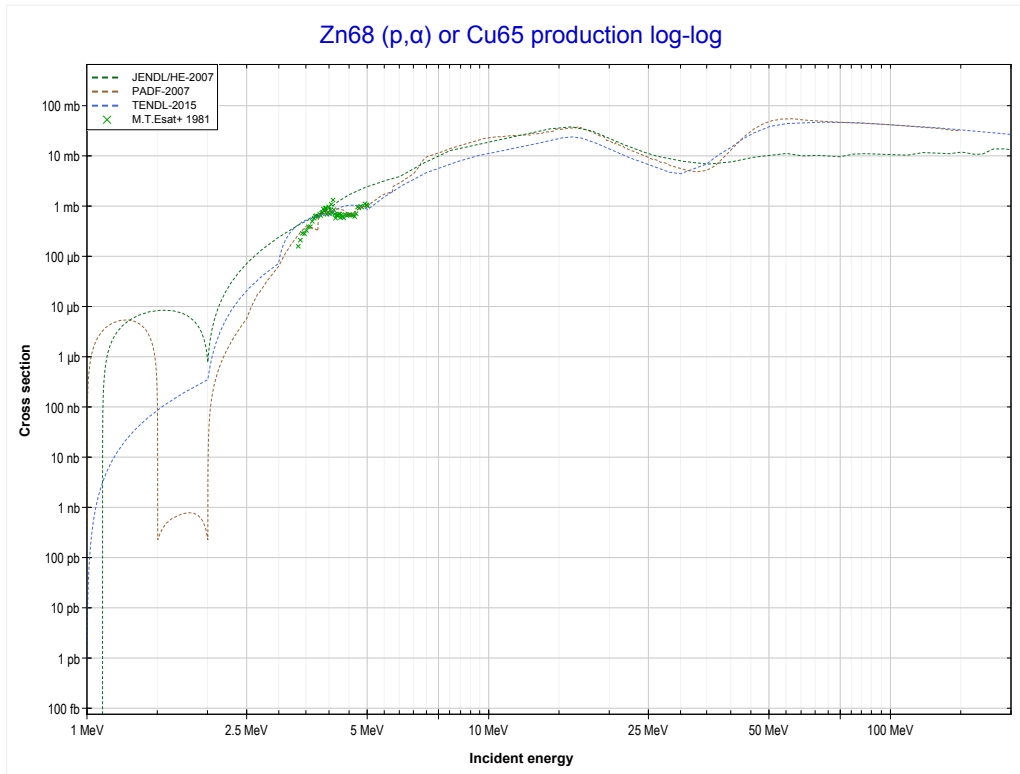
Reaction	Q-Value
Zn68(p,n+α)Cu64	-7789.96 keV
Zn68(p,d+t)Cu64	-25379.26 keV
Zn68(p,n+p+t)Cu64	-27603.82 keV
Zn68(p,2n+He3)Cu64	-28367.58 keV
Zn68(p,n+2d)Cu64	-31636.49 keV
Zn68(p,2n+p+d)Cu64	-33861.06 keV
Zn68(p,3n+2p)Cu64	-36085.62 keV

<< 30-Zn-67	30-Zn-68	34-Se-74 >>
<< MT22 (p,n+α)	MT102 (p,γ) or MT5 (Ga69 production)	MT107 (p,α) >>



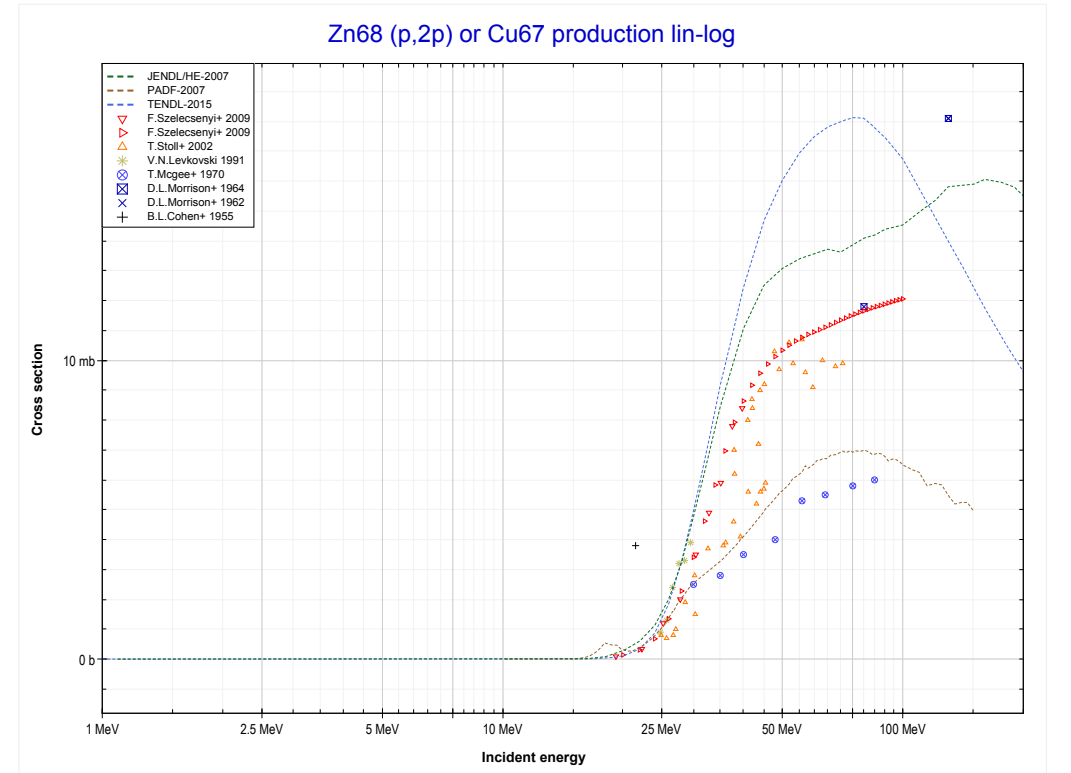
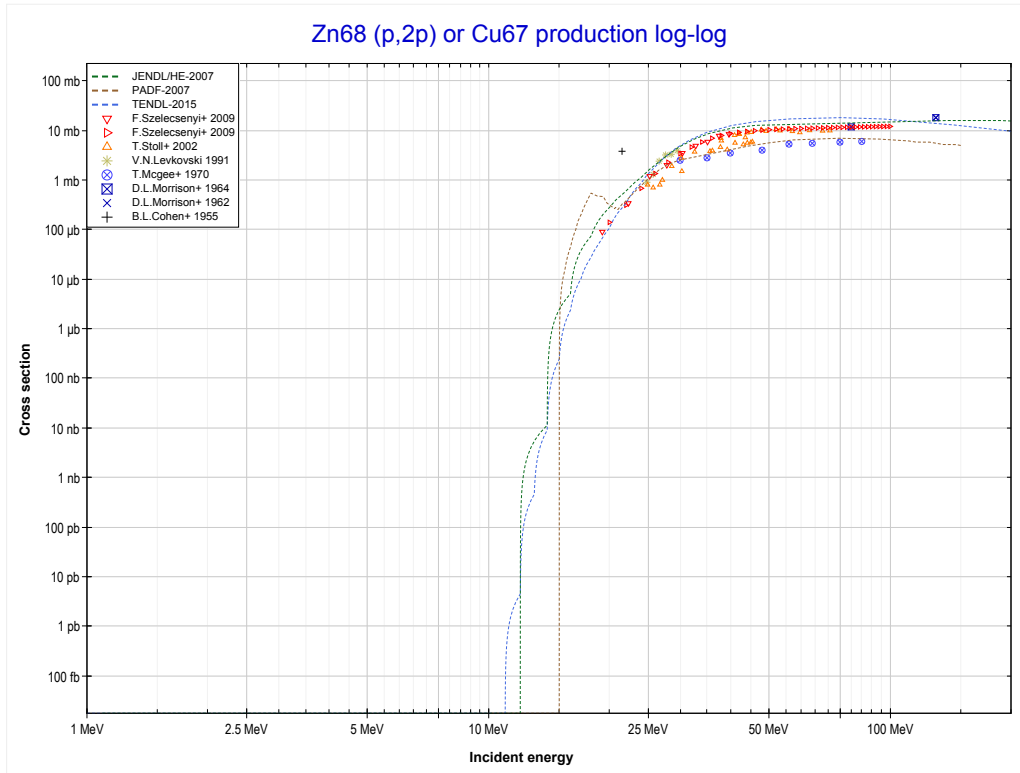
Reaction	Q-Value
Zn68(p,γ)Ga69	6609.97 keV

<< 30-Zn-67	30-Zn-68	30-Zn-70 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Cu65 production)	MT111 (p,2p) >>



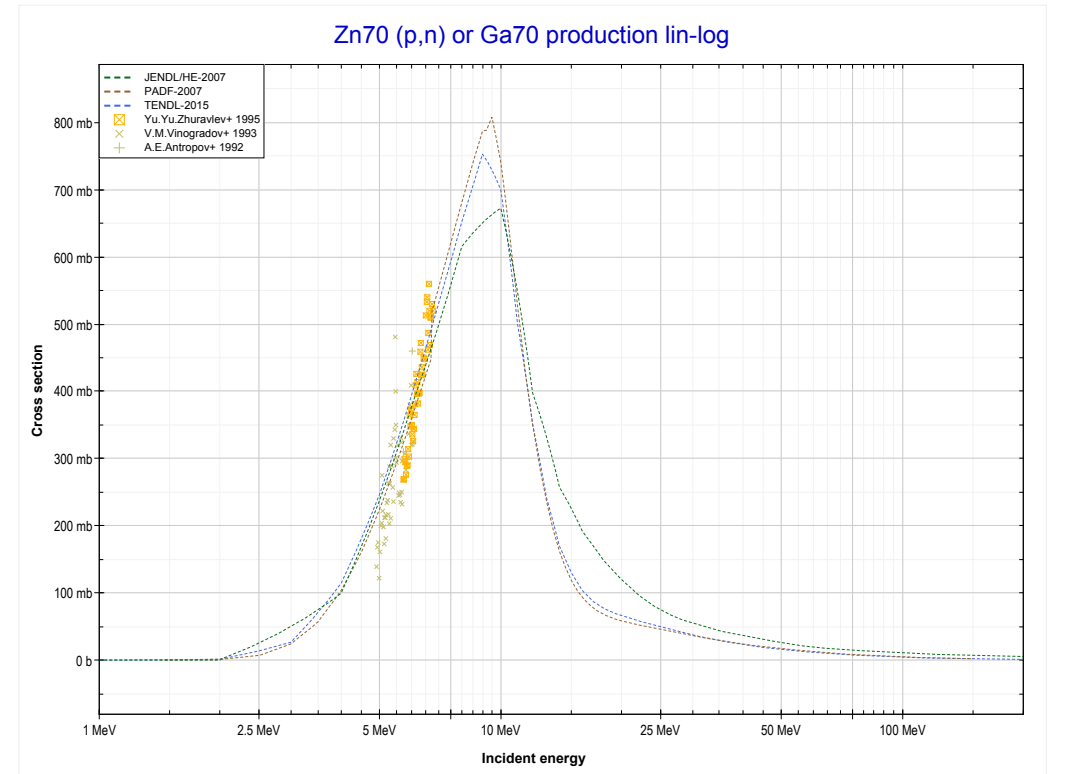
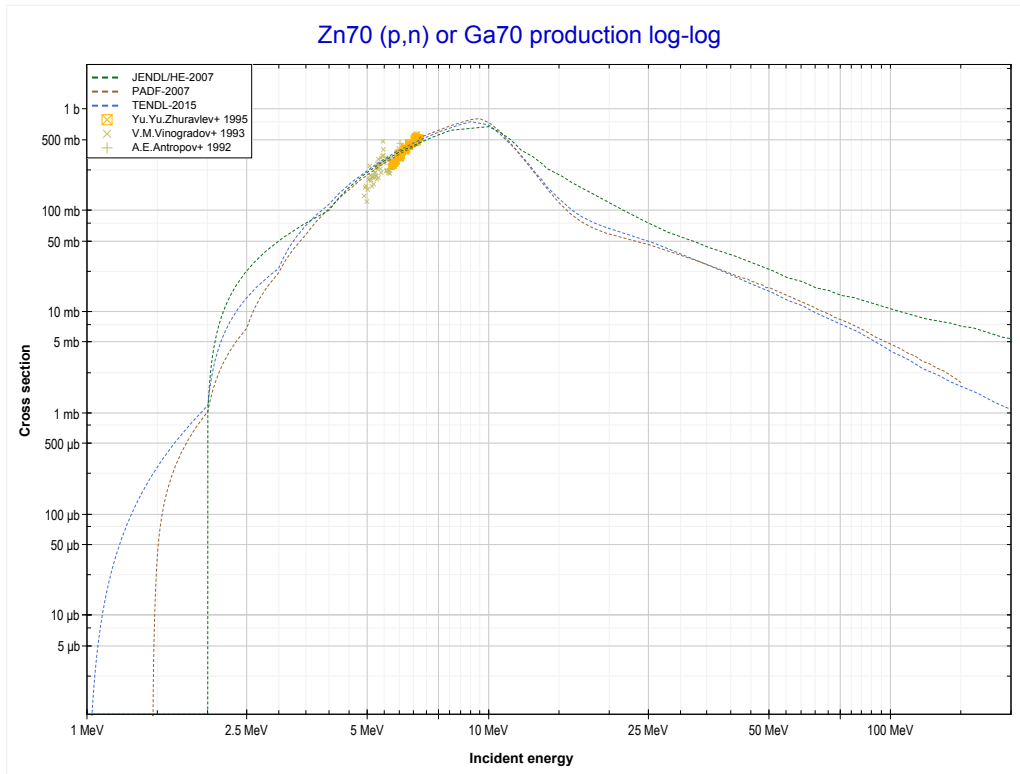
Reaction	Q-Value
Zn68(p, α)Cu65	2120.75 keV
Zn68(p,p+t)Cu65	-17693.11 keV
Zn68(p,n+He3)Cu65	-18456.86 keV
Zn68(p,2d)Cu65	-21725.77 keV
Zn68(p,n+p+d)Cu65	-23950.34 keV
Zn68(p,2n+2p)Cu65	-26174.90 keV

<< 28-Ni-62	30-Zn-68	32-Ge-74 >>
<< MT107 (p, α)	MT111 (p,2p) or MT5 (Cu67 production)	30-Zn-70 MT4 (p,n) >>



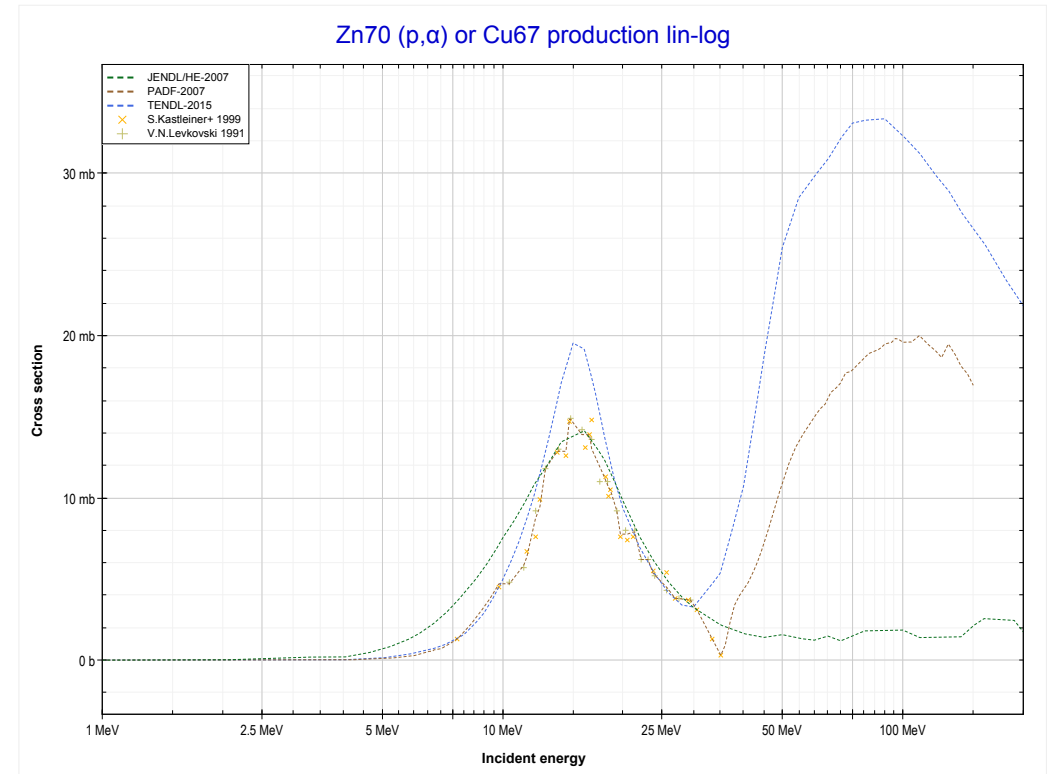
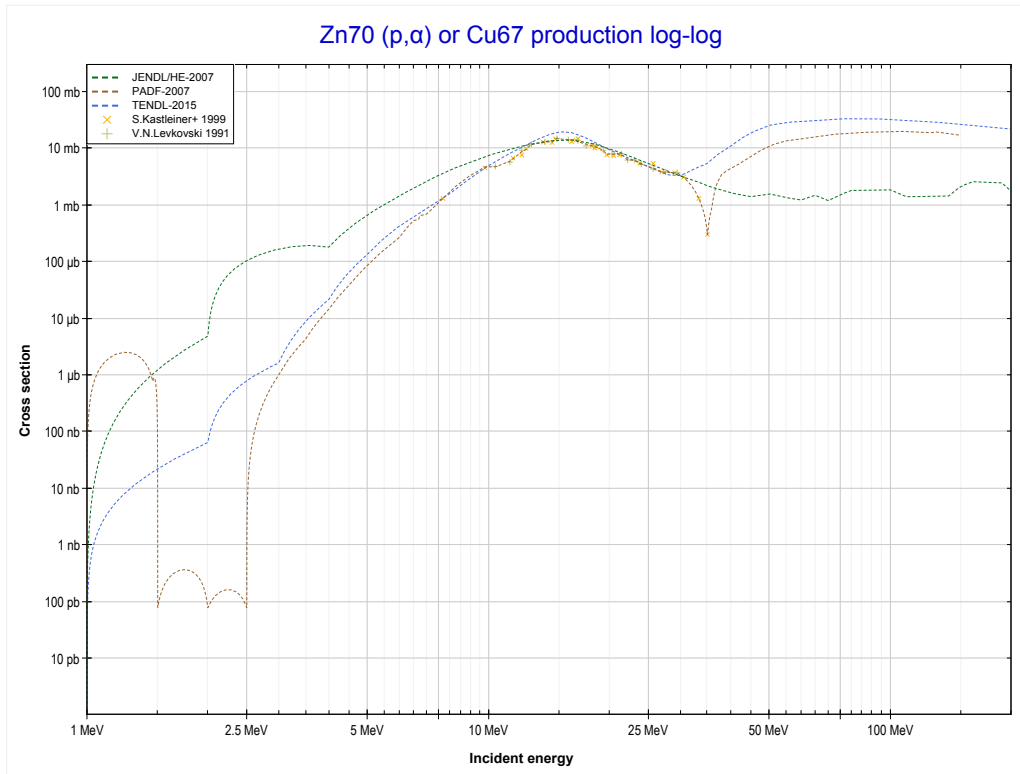
Reaction	Q-Value
Zn68(p,2p)Cu67	-9976.97 keV

<< 30-Zn-68	30-Zn-70	31-Ga-69 >>
<< 30-Zn-68 MT111 (p,2p)	MT4 (p,n) or MT5 (Ga70 production)	MT107 (p, α) >>



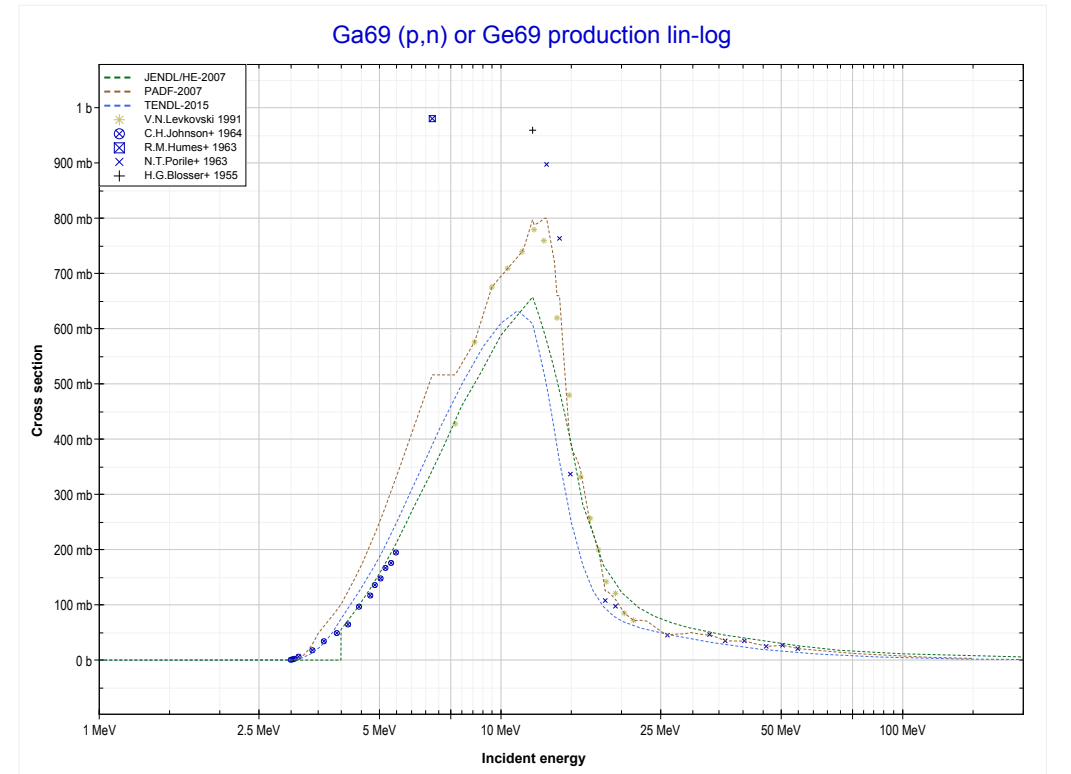
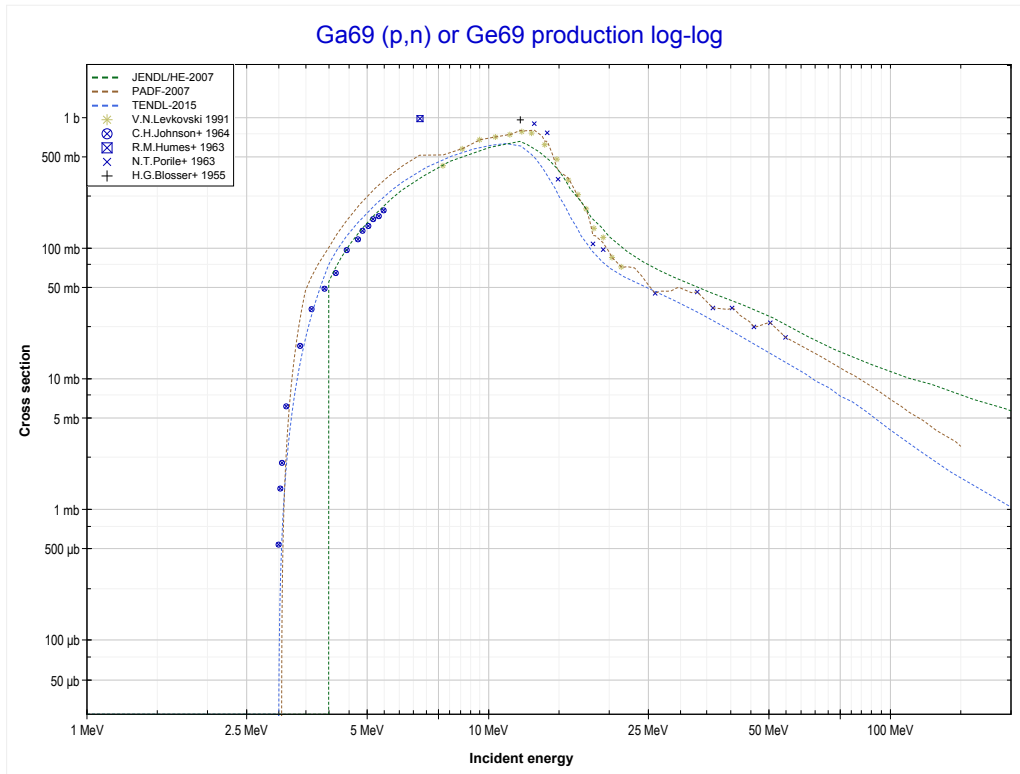
Reaction	Q-Value
Zn70(p,n)Ga70	-1436.95 keV

<< 30-Zn-68	30-Zn-70	32-Ge-70 >>
<< MT4 (p,n)	MT107 (p,α) or MT5 (Cu67 production)	31-Ga-69 MT4 (p,n) >>



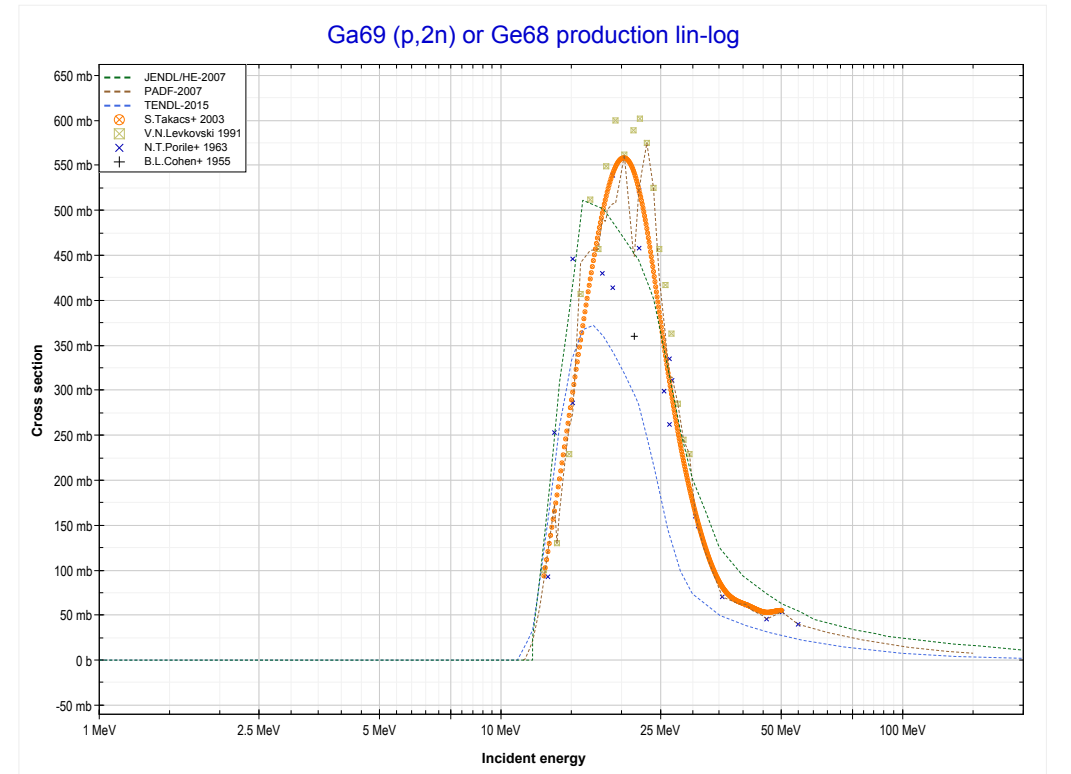
Reaction	Q-Value
Zn70(p, α)Cu67	2618.15 keV
Zn70(p,p+t)Cu67	-17195.71 keV
Zn70(p,n+He3)Cu67	-17959.46 keV
Zn70(p,2d)Cu67	-21228.37 keV
Zn70(p,n+p+d)Cu67	-23452.94 keV
Zn70(p,2n+2p)Cu67	-25677.50 keV

<< 30-Zn-70	31-Ga-69	31-Ga-71 >>
<< 30-Zn-70 MT107 (p, α)	MT4 (p,n) or MT5 (Ge69 production)	MT16 (p,2n) >>



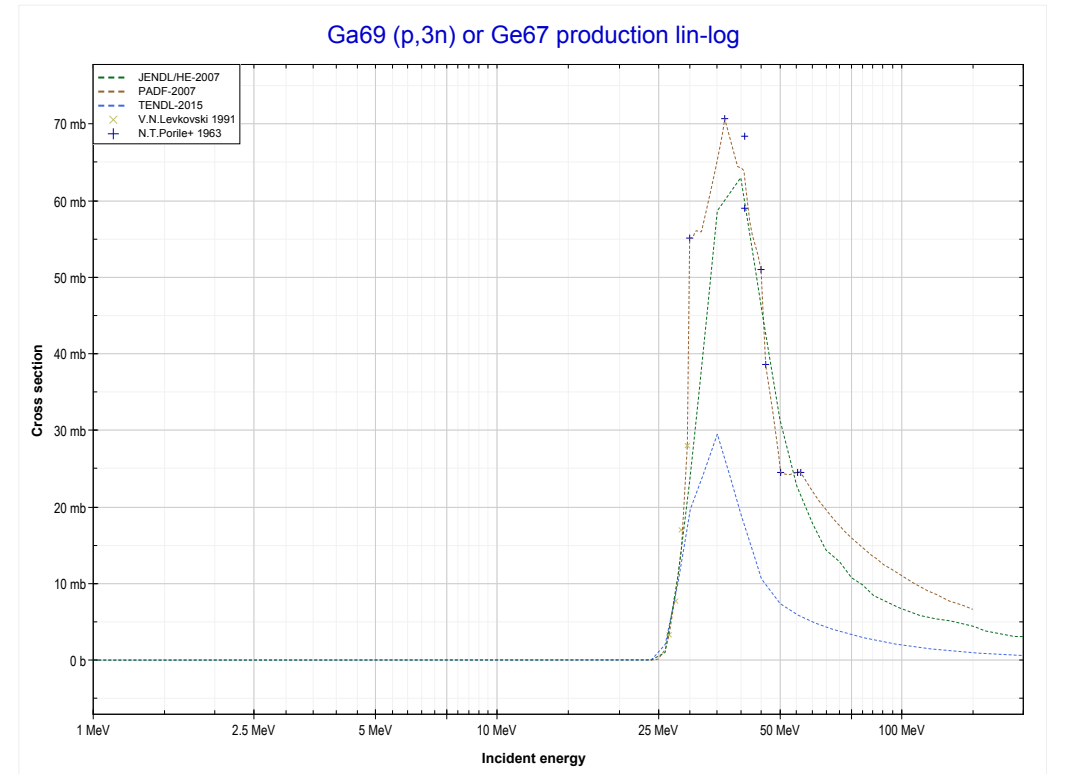
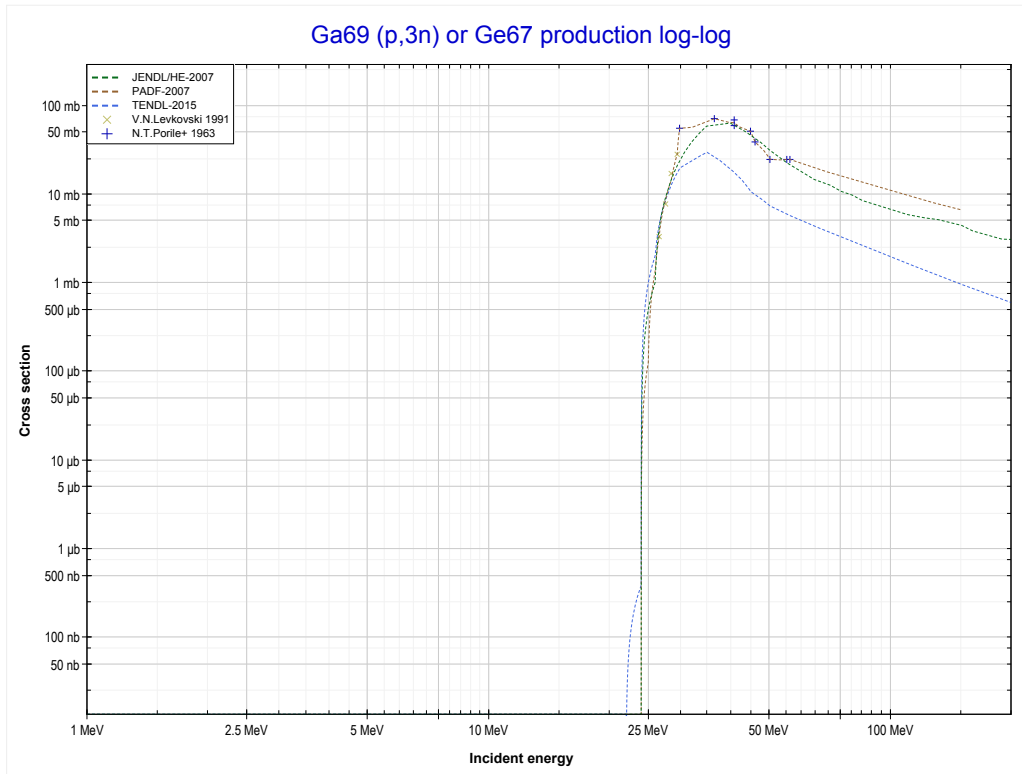
Reaction	Q-Value
Ga69(p,n)Ge69	-3009.45 keV

<< 30-Zn-68	31-Ga-69	32-Ge-70 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Ge68 production)	MT17 (p,3n) >>



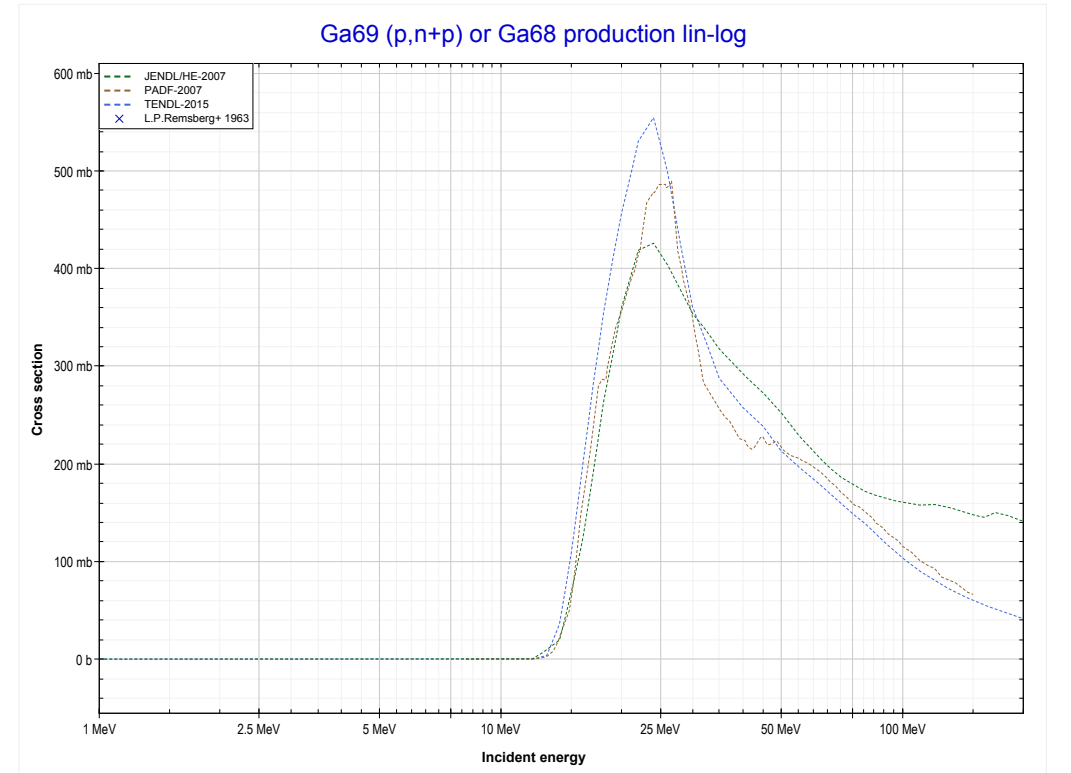
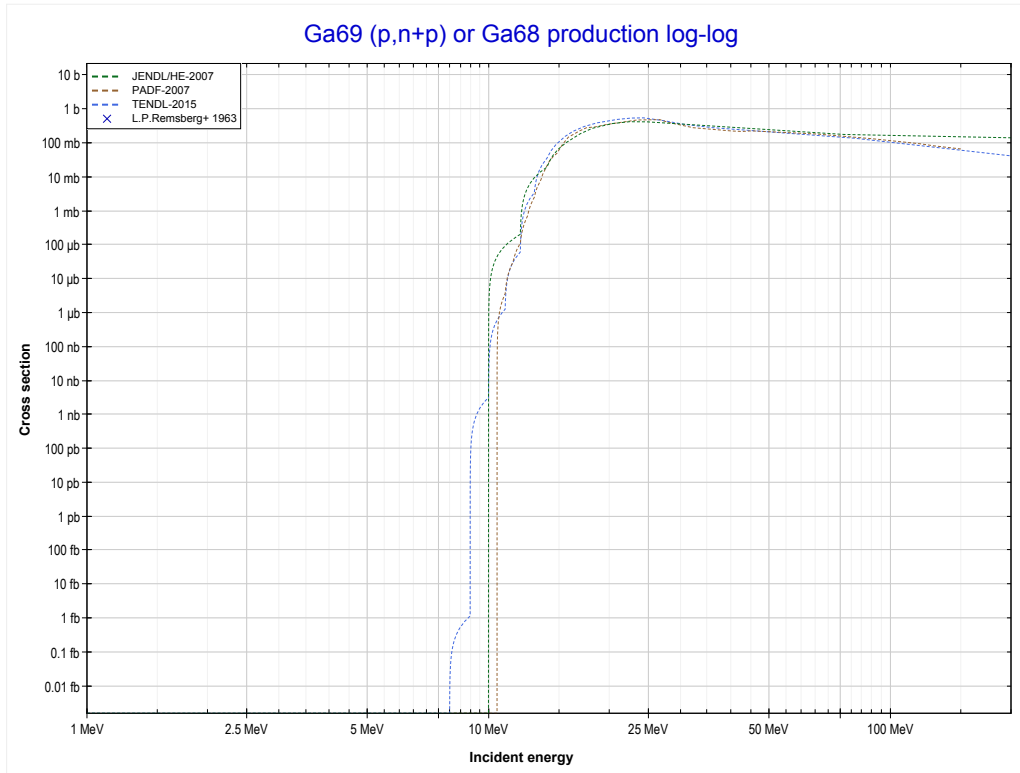
Reaction	Q-Value
Ga69(p,2n)Ge68	-11202.66 keV

<< 30-Zn-68	31-Ga-69	31-Ga-71 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Ge67 production)	MT28 (p,n+p) >>



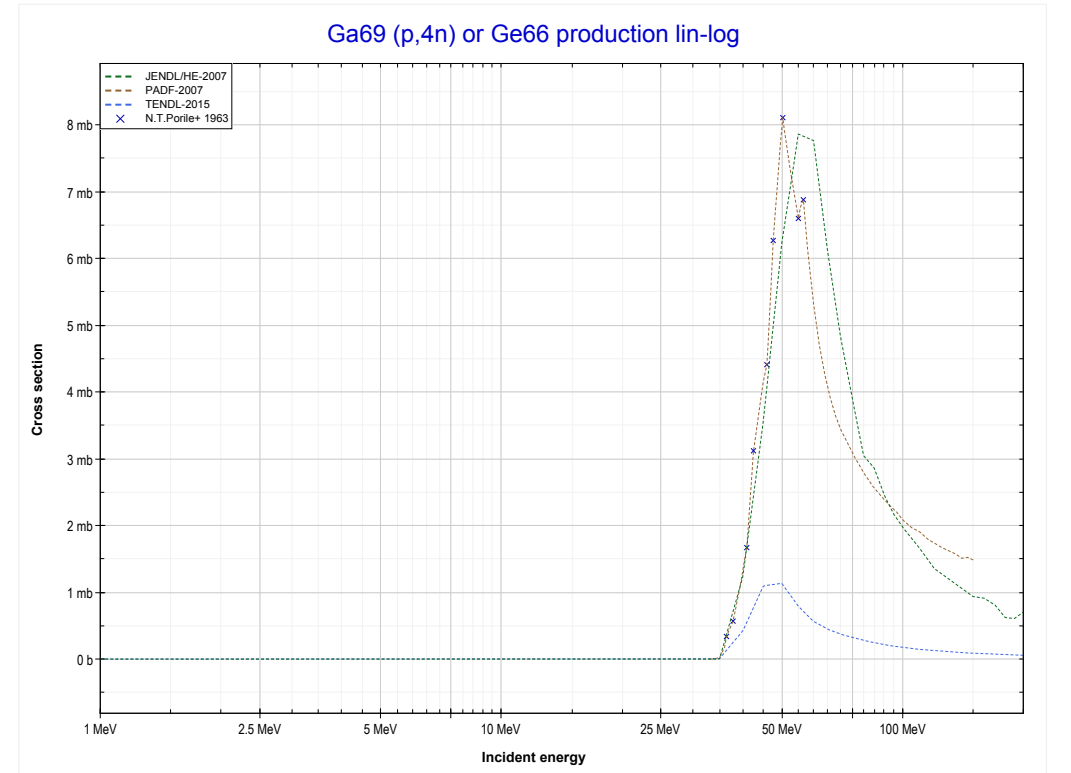
Reaction	Q-Value
Ga69(p,3n)Ge67	-23594.78 keV

<< 30-Zn-66	31-Ga-69	31-Ga-71 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Ga68 production)	MT37 (p,4n) >>



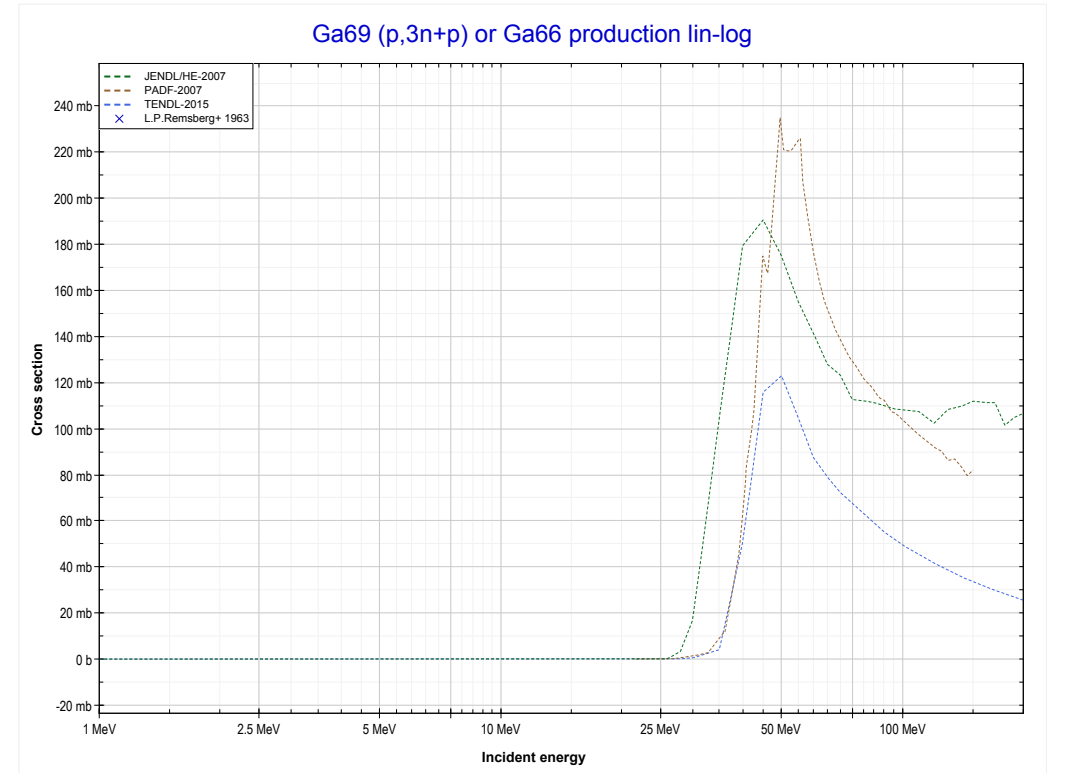
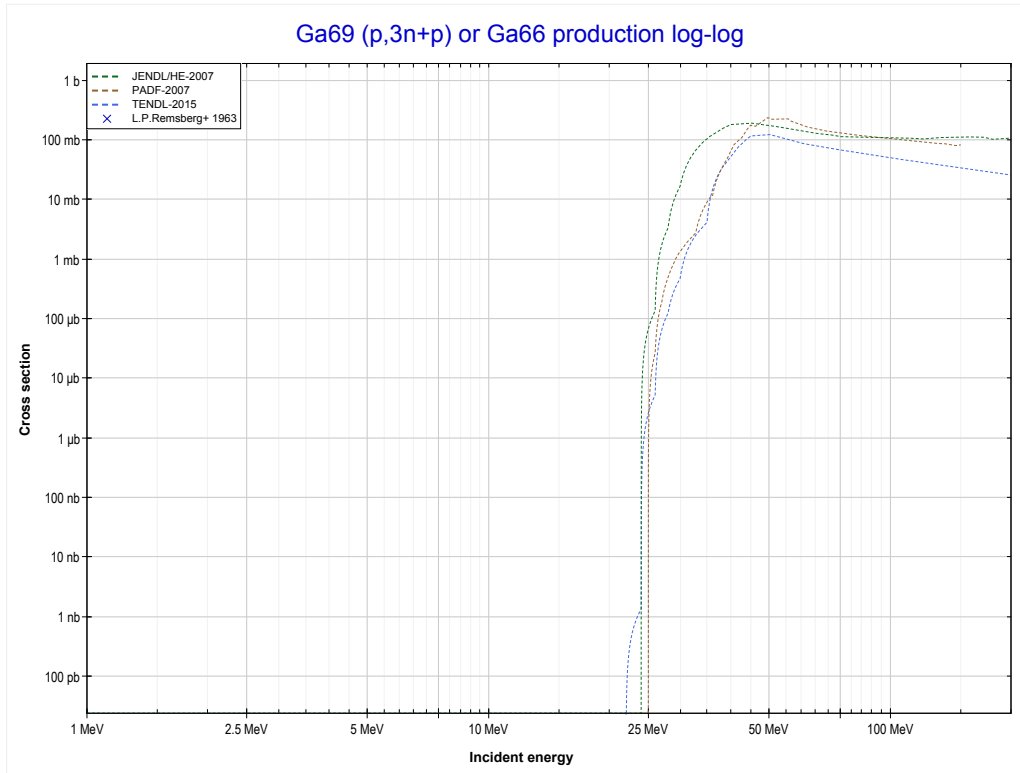
Reaction	Q-Value
Ga69(p,d)Ga68	-8088.85 keV
Ga69(p,n+p)Ga68	-10313.42 keV

<< 29-Cu-65	31-Ga-69	31-Ga-71 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Ge66 production)	MT42 (p,3n+p) >>



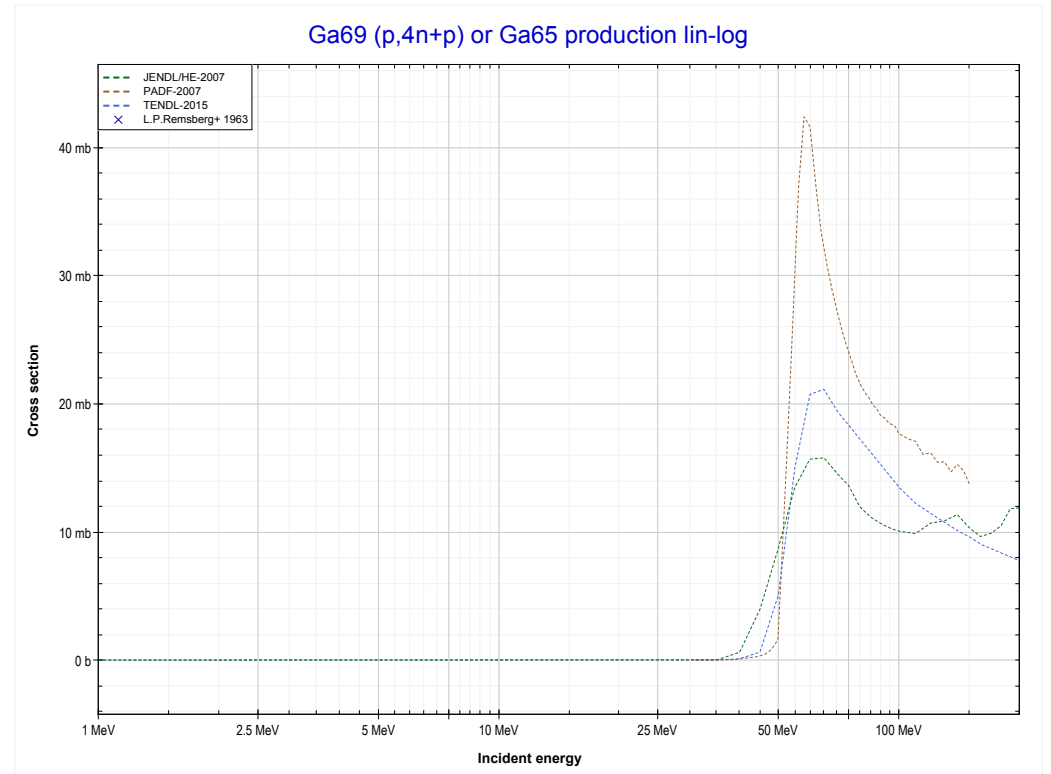
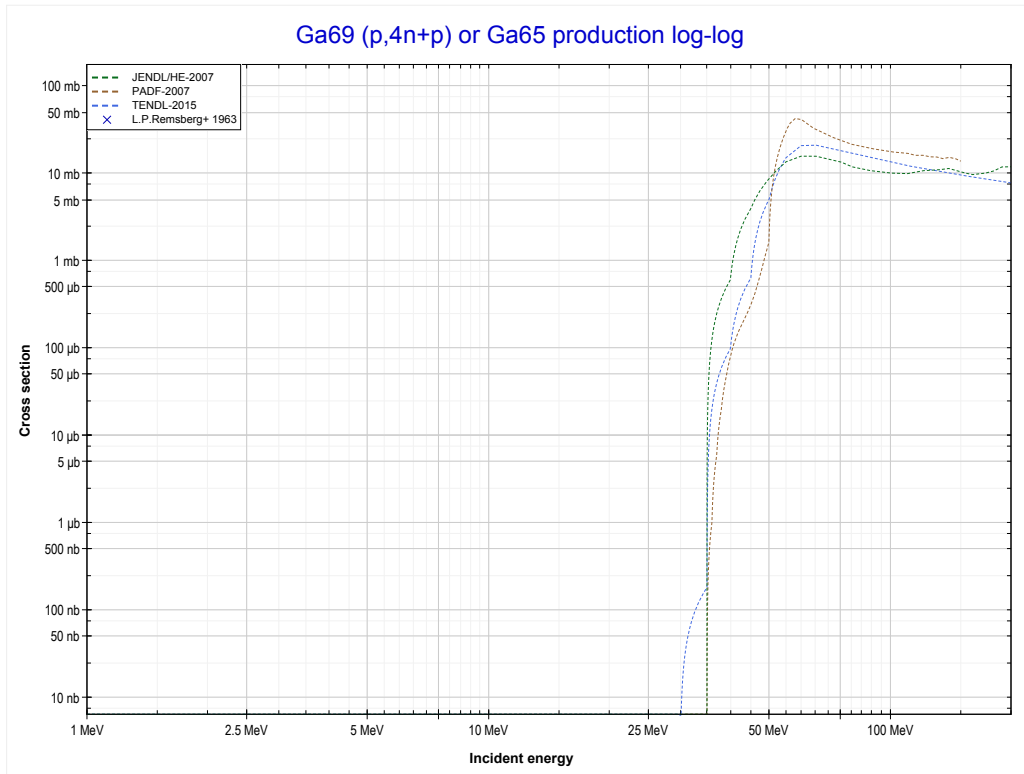
Reaction	Q-Value
Ga69(p,4n)Ge66	-32717.10 keV

<< 27-Co-59	31-Ga-69	31-Ga-71 >>
<< MT37 (p,4n)	MT42 (p,3n+p) or MT5 (Ga66 production)	MT156 (p,4n+p) >>



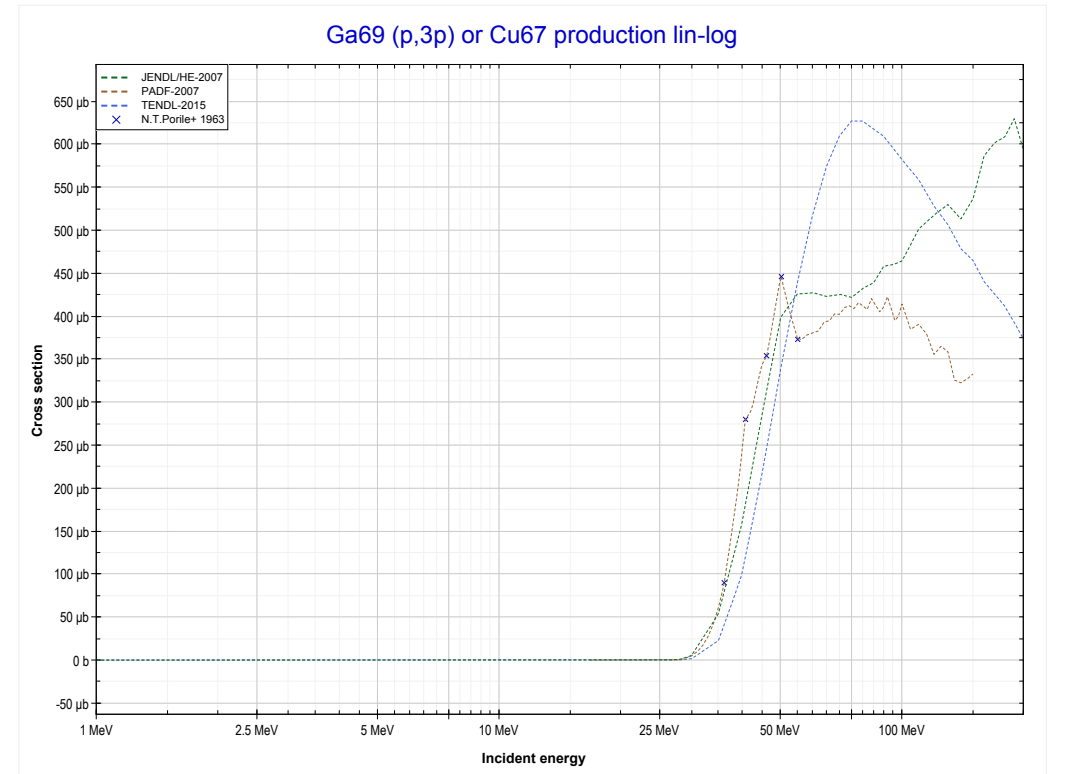
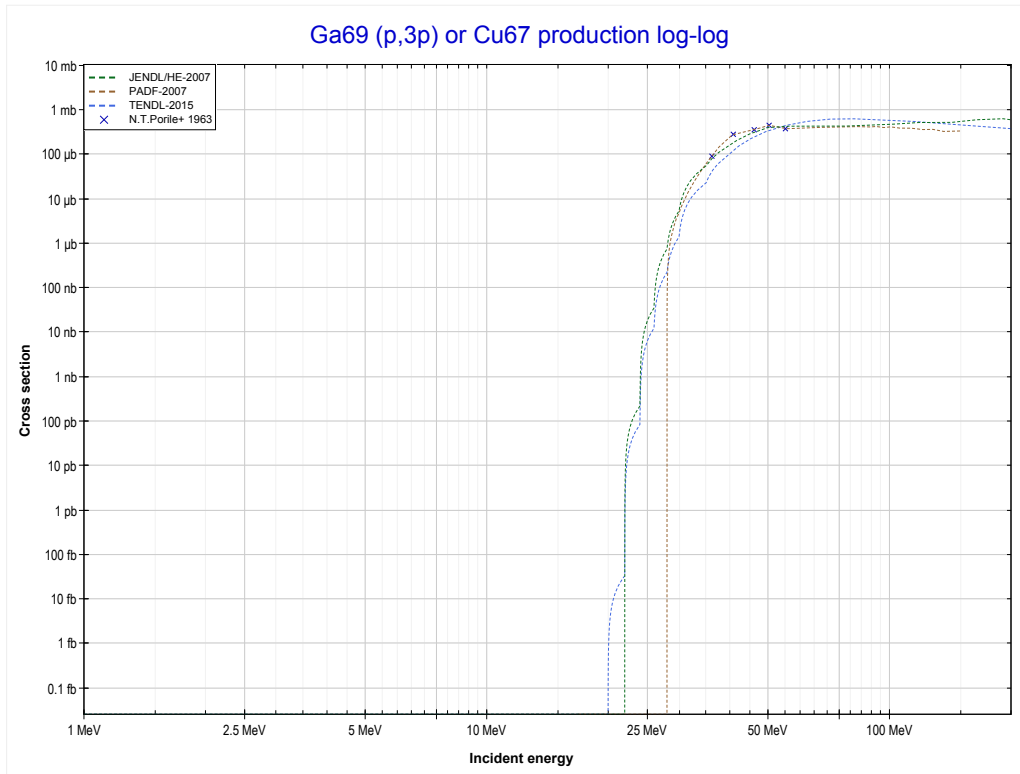
Reaction	Q-Value
Ga69(p,n+t)Ga66	-21335.95 keV
Ga69(p,2n+d)Ga66	-27593.19 keV
Ga69(p,3n+p)Ga66	-29817.75 keV

<< 27-Co-59	31-Ga-69	
<< MT42 (p,3n+p)	MT156 (p,4n+p) or MT5 (Ga65 production)	MT197 (p,3p) >>



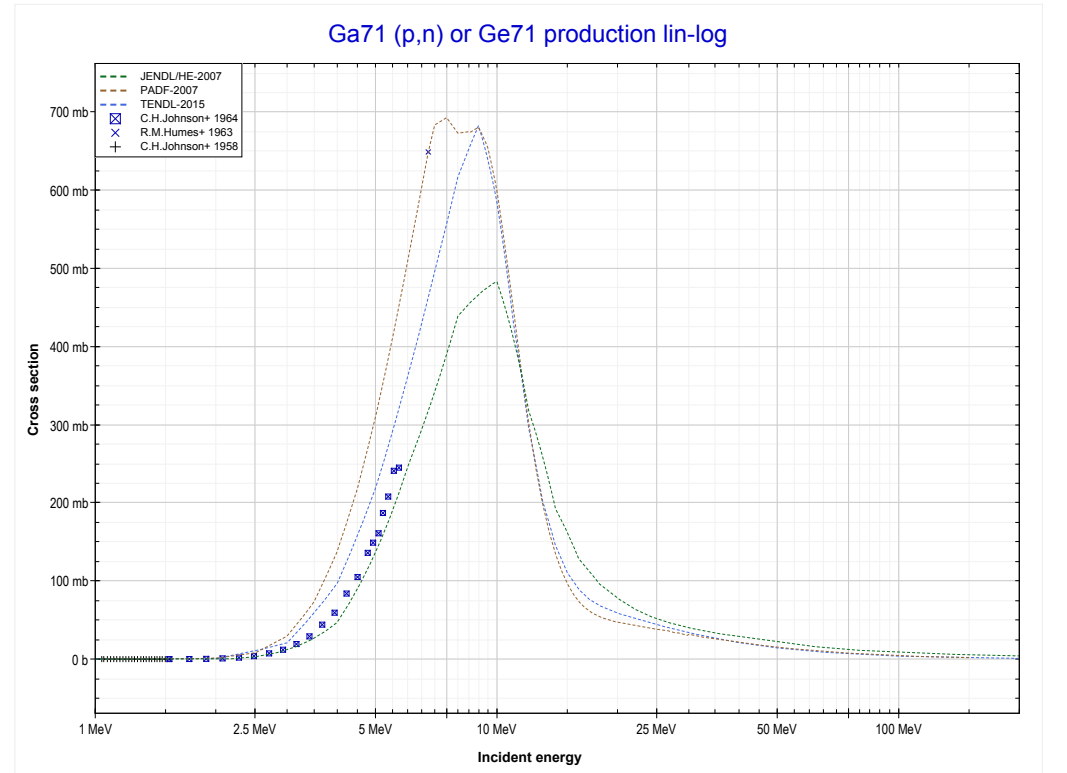
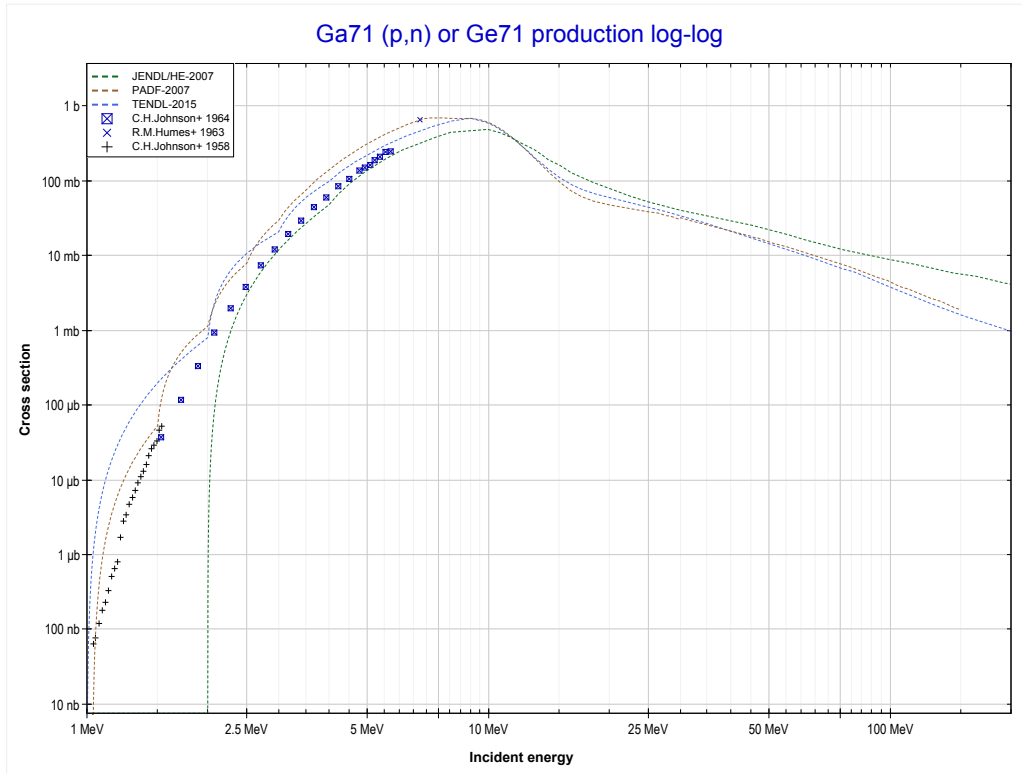
Reaction	Q-Value
Ga69(p,2n+t)Ga65	-30473.97 keV
Ga69(p,3n+d)Ga65	-36731.20 keV
Ga69(p,4n+p)Ga65	-38955.77 keV

<< 23-V-51	31-Ga-69	33-As-75 >>
<< MT156 (p,4n+p)	MT197 (p,3p) or MT5 (Cu67 production)	31-Ga-71 MT4 (p,n) >>



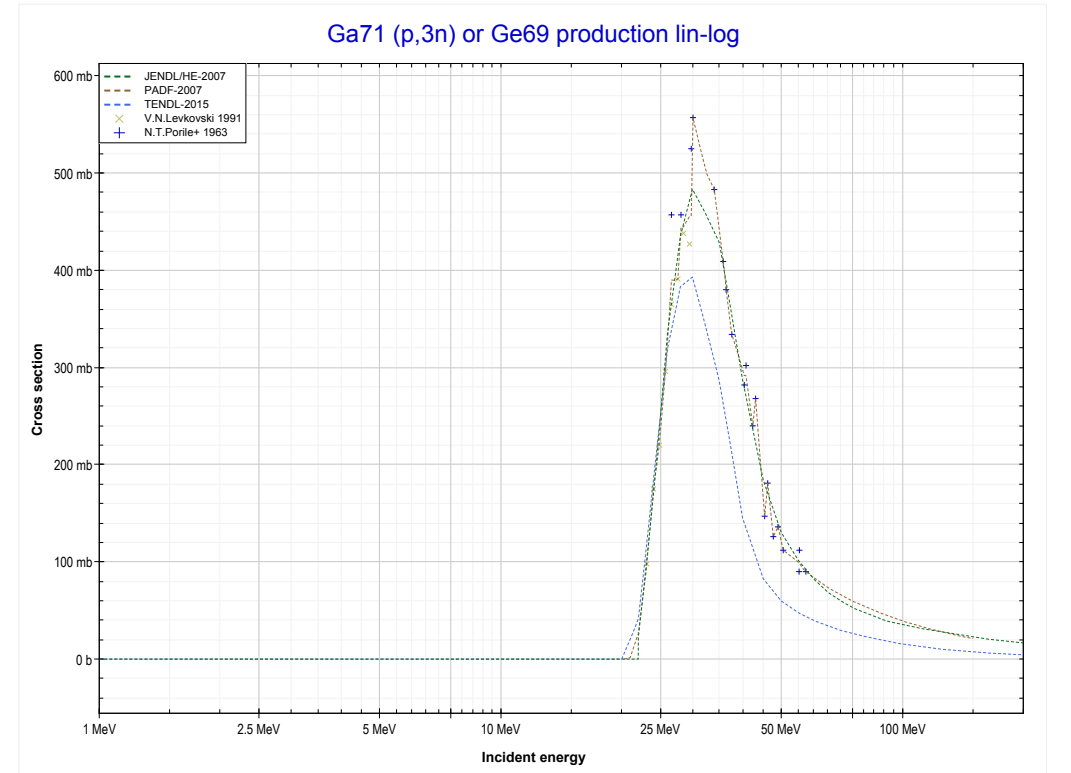
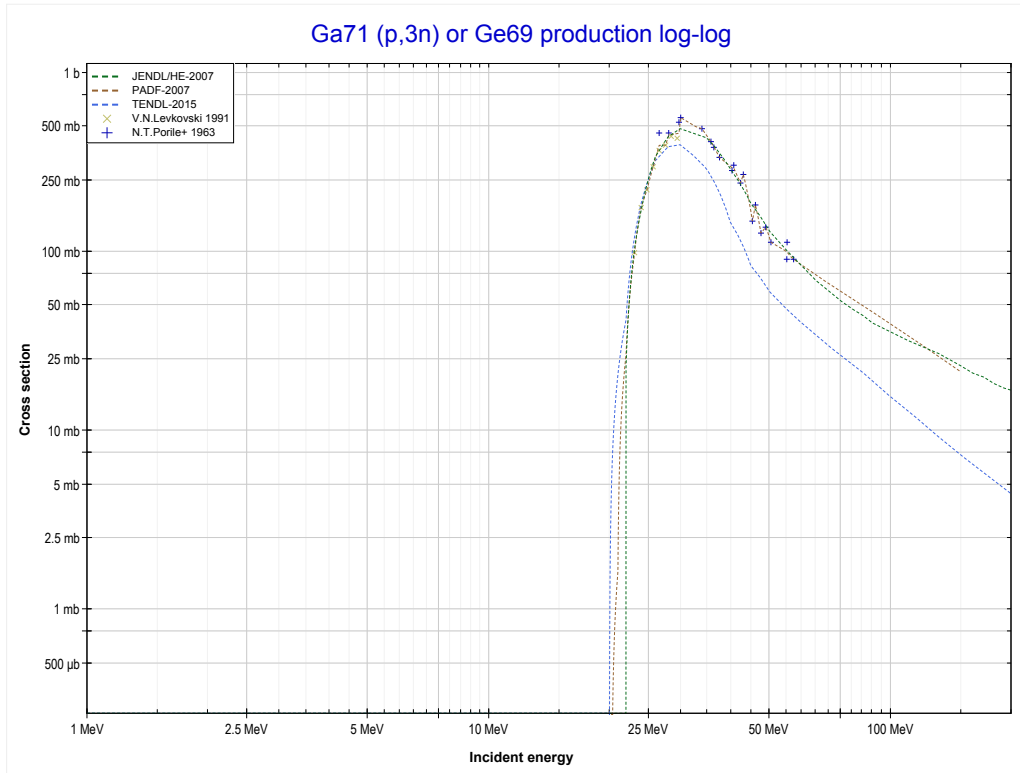
Reaction	Q-Value
Ga69(p,3p)Cu67	-16586.94 keV

<< 31-Ga-69	31-Ga-71	32-Ge-70 >>
<< 31-Ga-69 MT197 (p,3p)	MT4 (p,n) or MT5 (Ge71 production)	MT17 (p,3n) >>



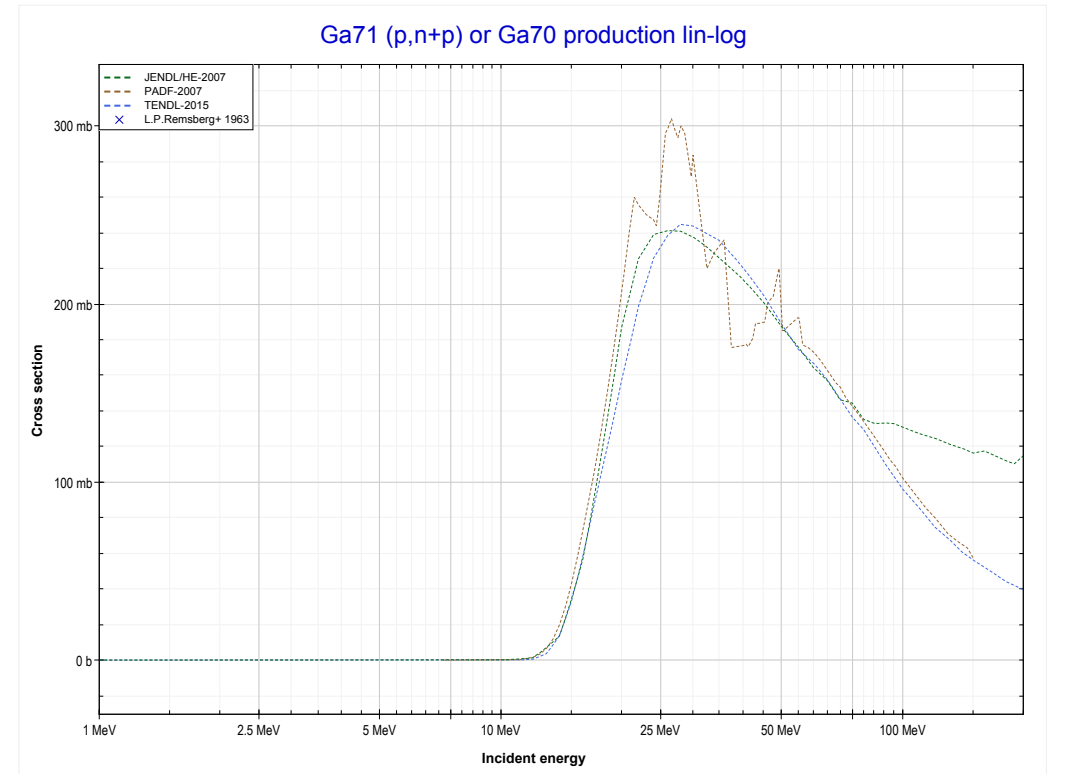
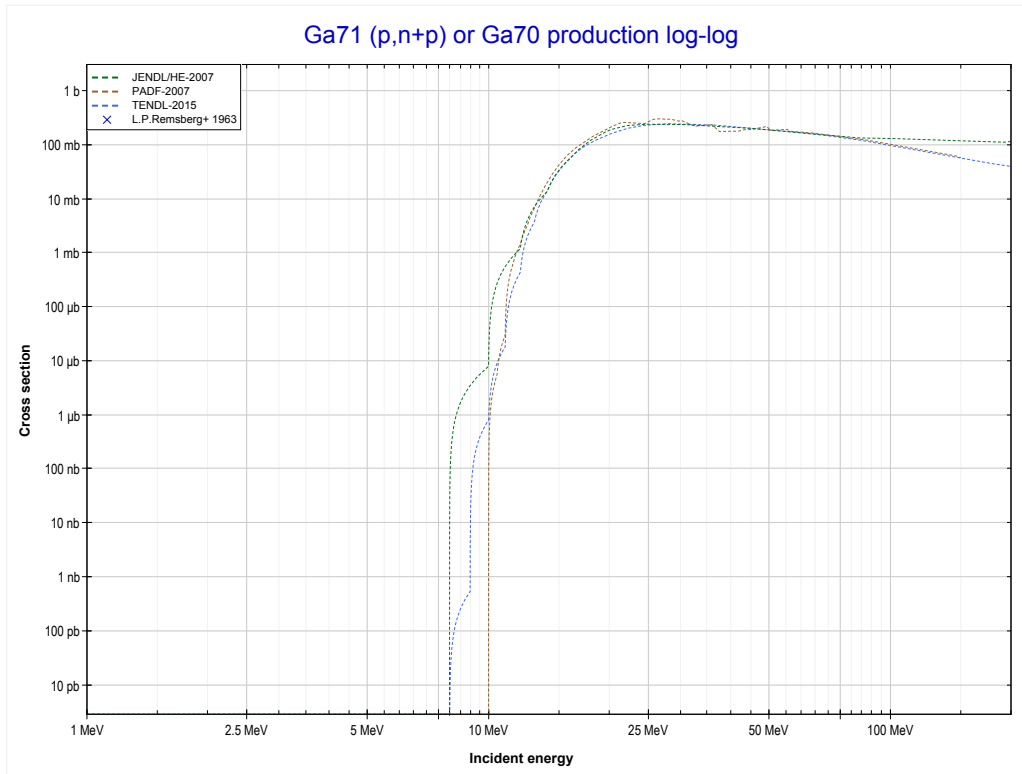
Reaction	Q-Value
Ga71(p,n)Ge71	-1014.95 keV

<< 31-Ga-69	31-Ga-71	32-Ge-72 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Ge69 production)	MT28 (p,n+p) >>



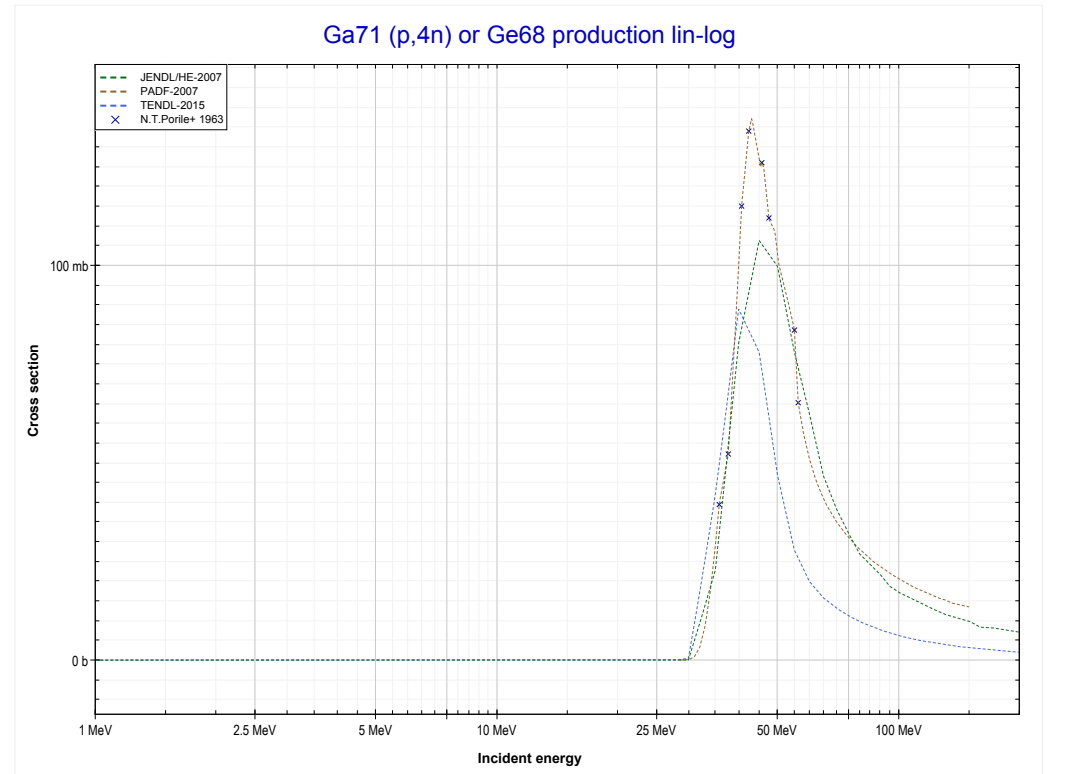
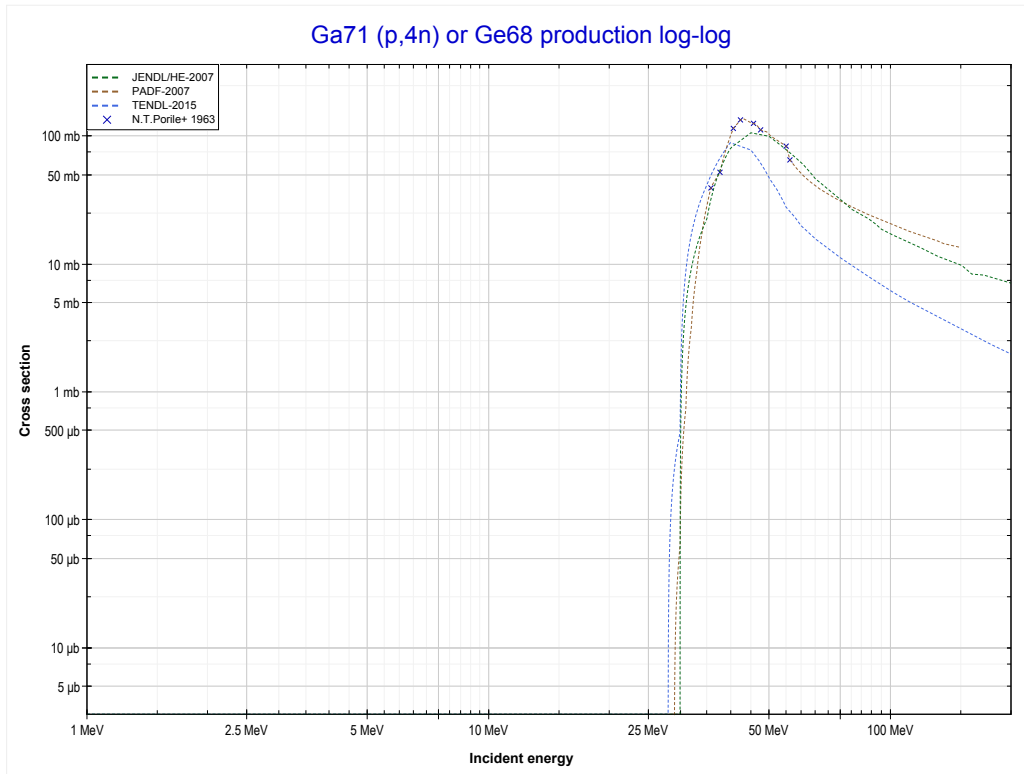
Reaction	Q-Value
Ga71(p,3n)Ge69	-19963.38 keV

<< 31-Ga-69	31-Ga-71	32-Ge-70 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Ga70 production)	MT37 (p,4n) >>



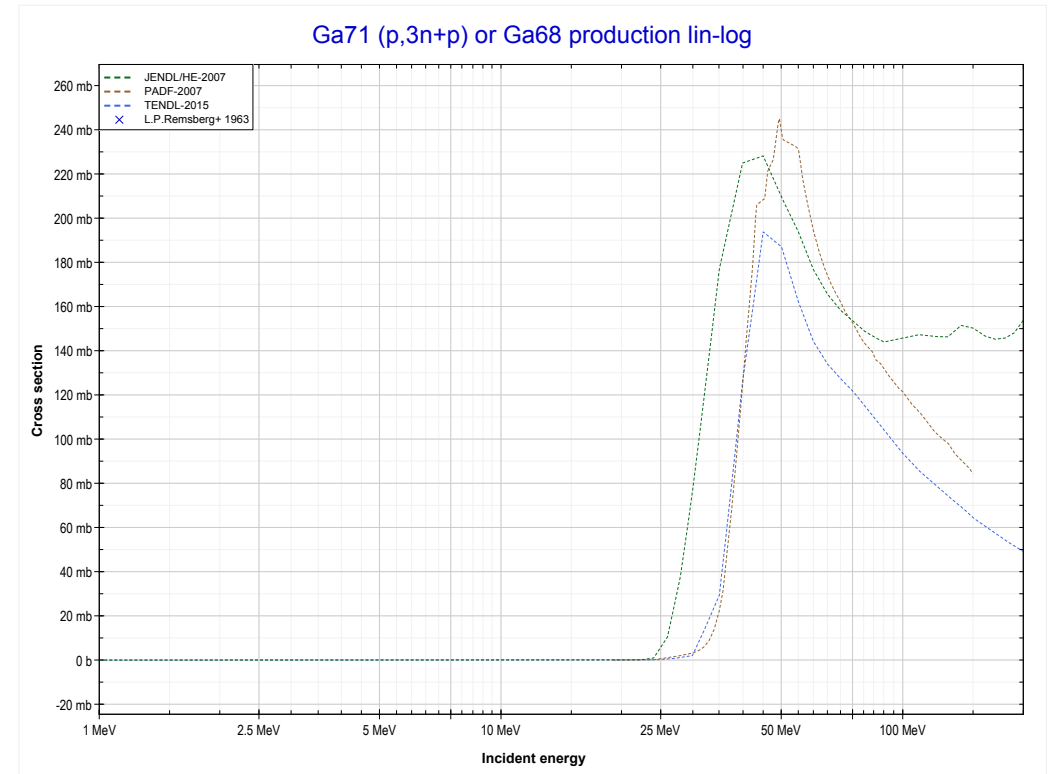
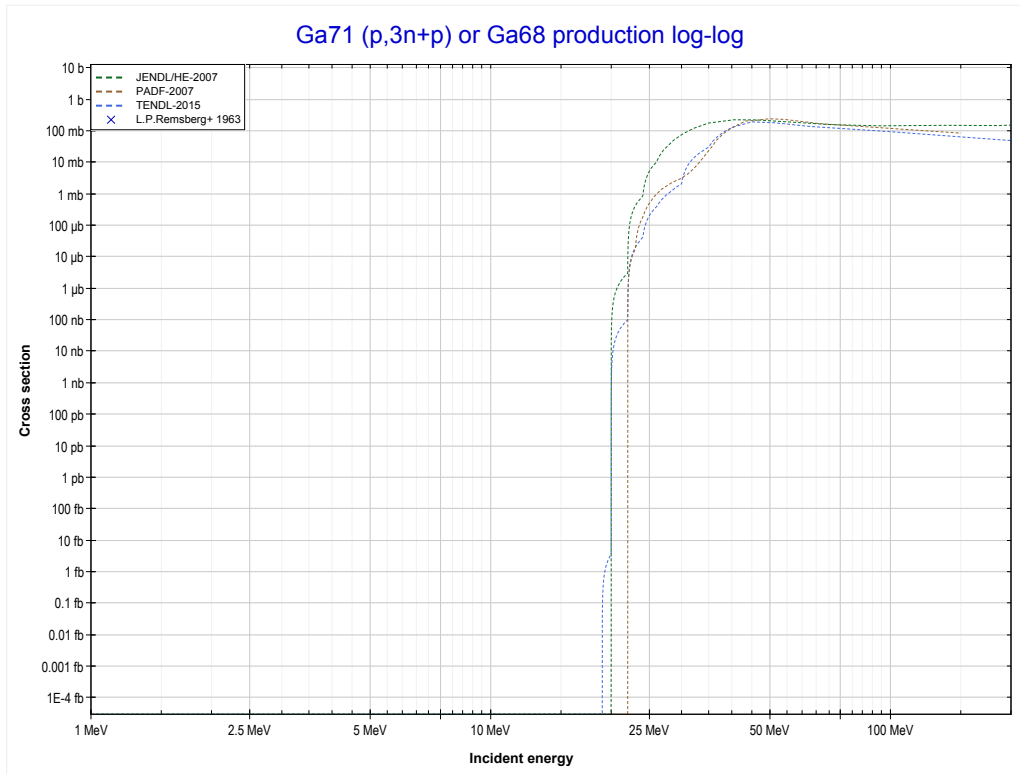
Reaction	Q-Value
Ga71(p,d)Ga70	-7075.75 keV
Ga71(p,n+p)Ga70	-9300.32 keV

<< 31-Ga-69	31-Ga-71	33-As-75 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Ge68 production)	MT42 (p,3n+p) >>



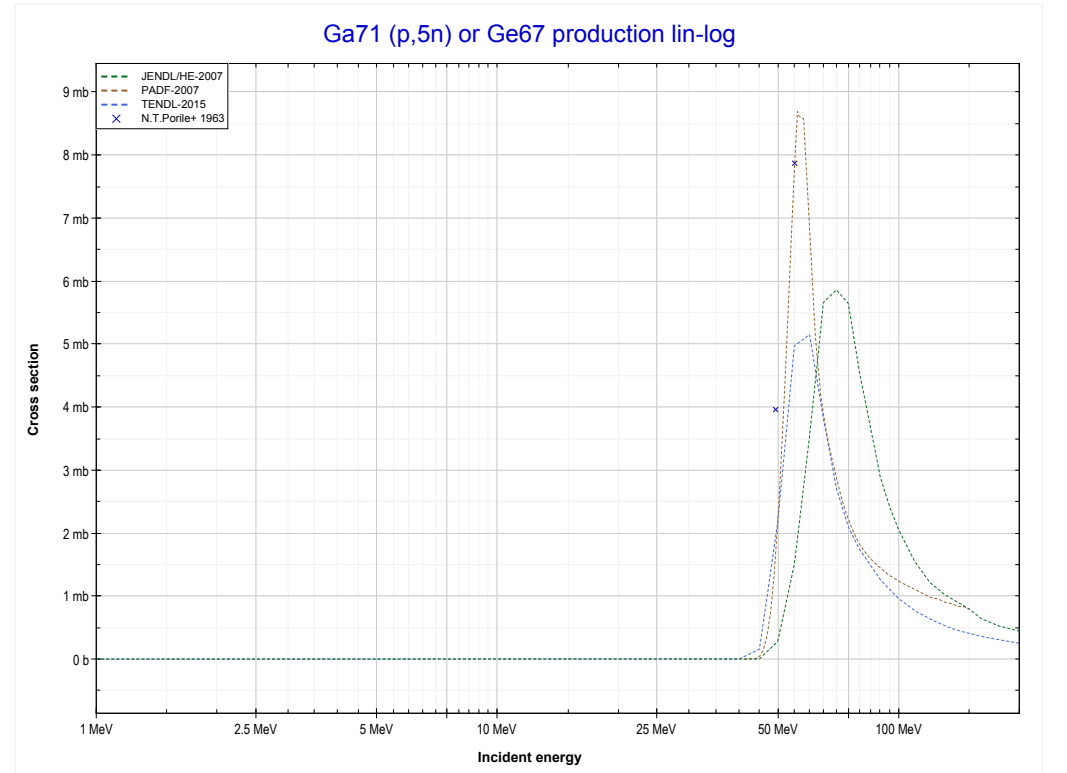
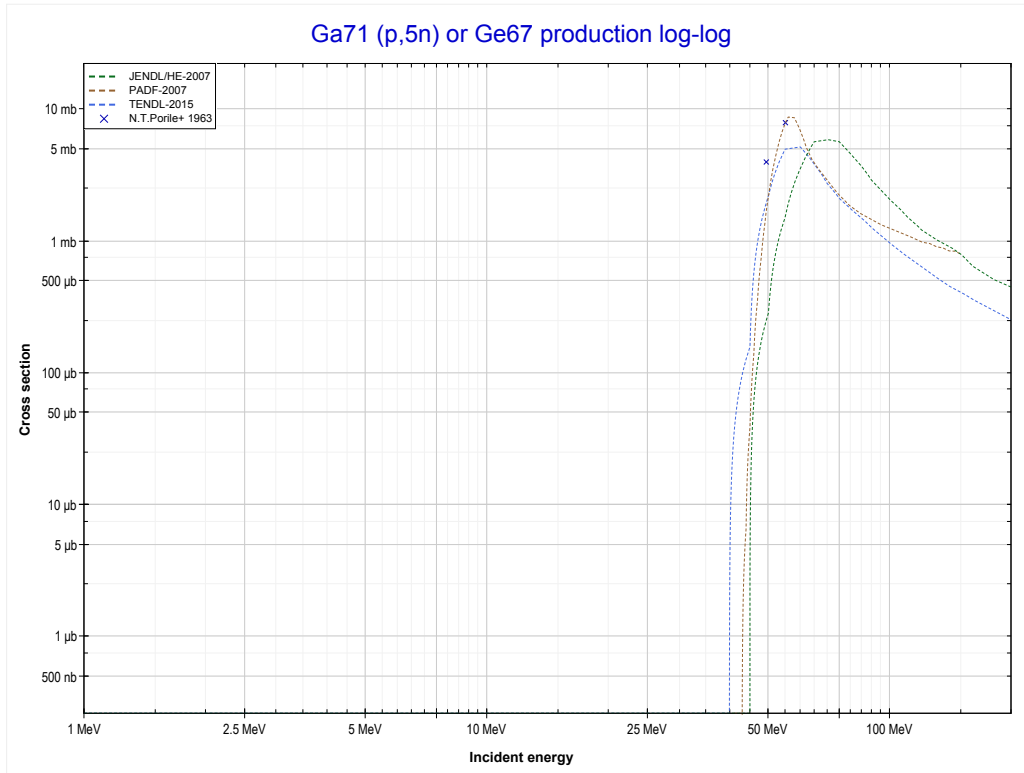
Reaction	Q-Value
Ga71(p,4n)Ge68	-28156.60 keV

<< 31-Ga-69	31-Ga-71	
<< MT37 (p,4n)	MT42 (p,3n+p) or MT5 (Ga68 production)	MT152 (p,5n) >>



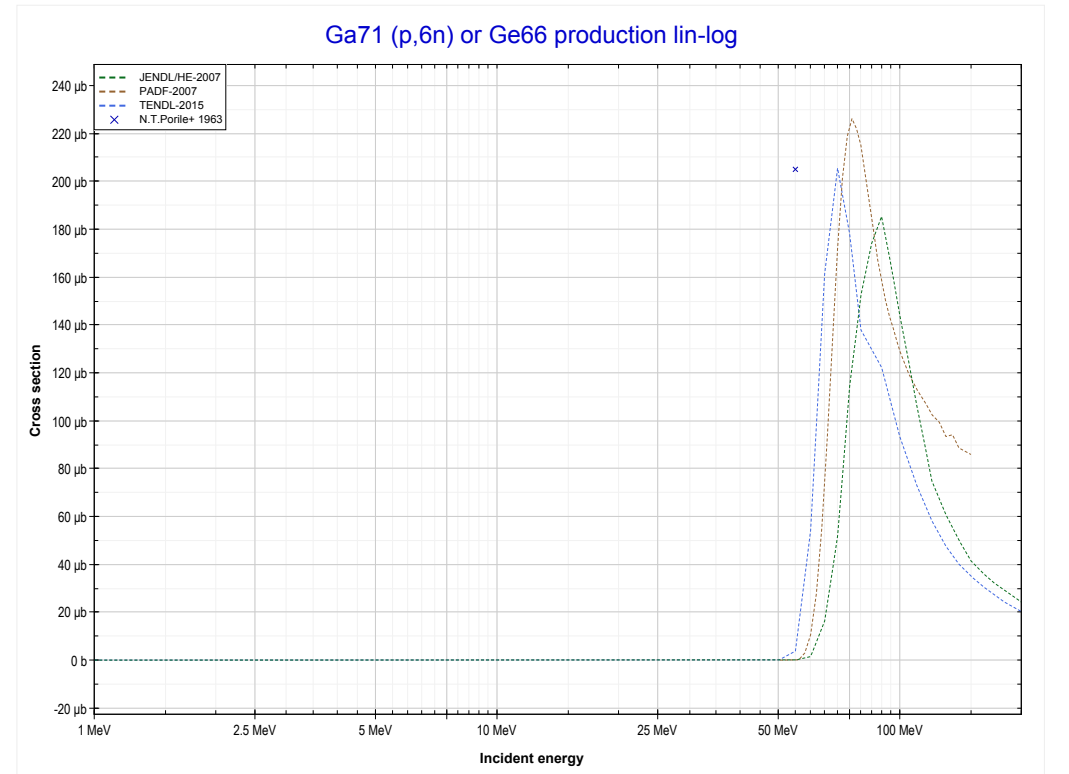
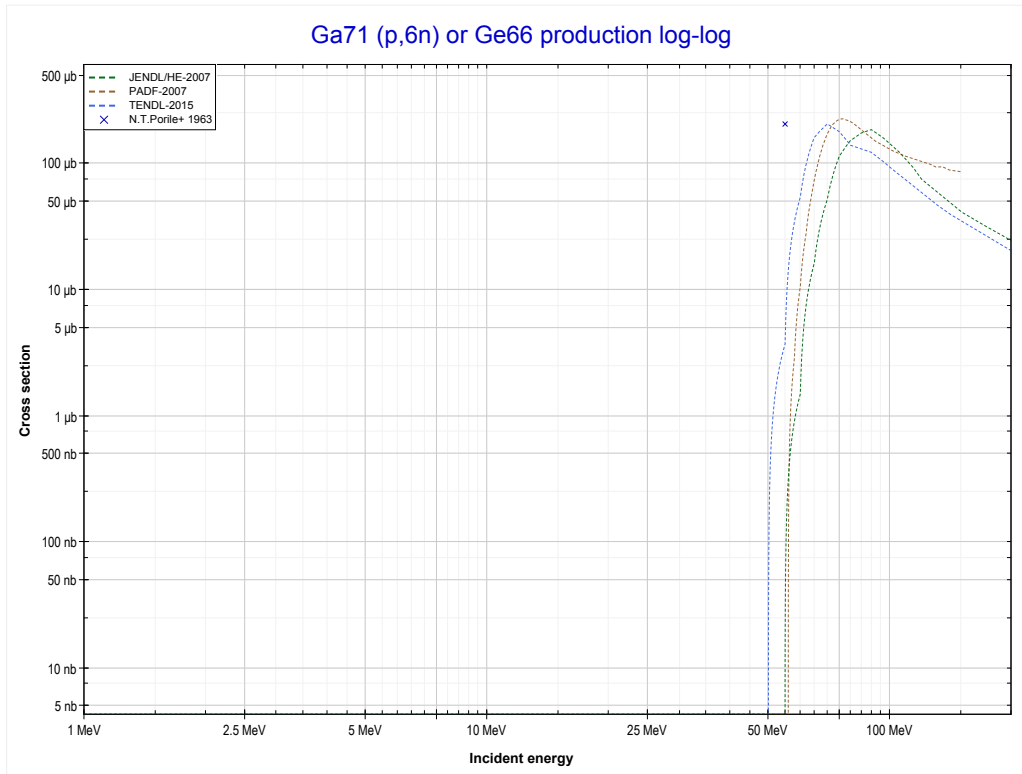
Reaction	Q-Value
Ga71(p,n+t)Ga68	-18785.55 keV
Ga71(p,2n+d)Ga68	-25042.79 keV
Ga71(p,3n+p)Ga68	-27267.35 keV

	31-Ga-71	34-Se-80 >>
<< MT42 (p,3n+p)	MT152 (p,5n) or MT5 (Ge67 production)	MT153 (p,6n) >>



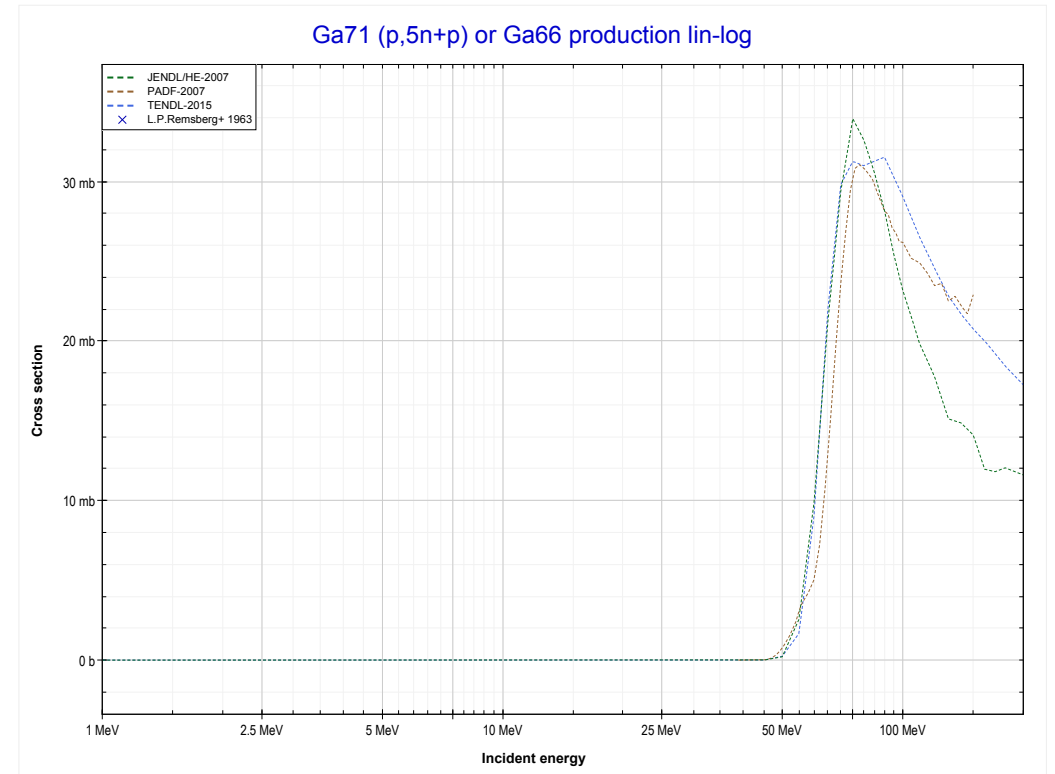
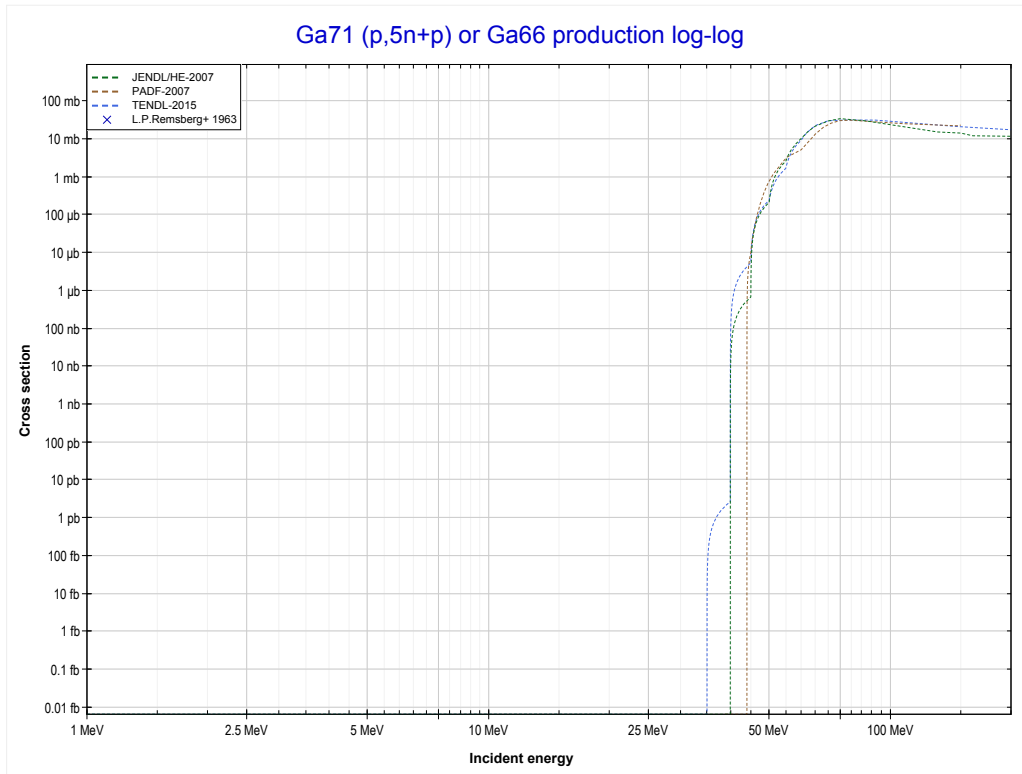
Reaction	Q-Value
Ga71(p,5n)Ge67	-40548.71 keV

	31-Ga-71	35-Br-81 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Ge66 production)	MT162 (p,5n+p) >>



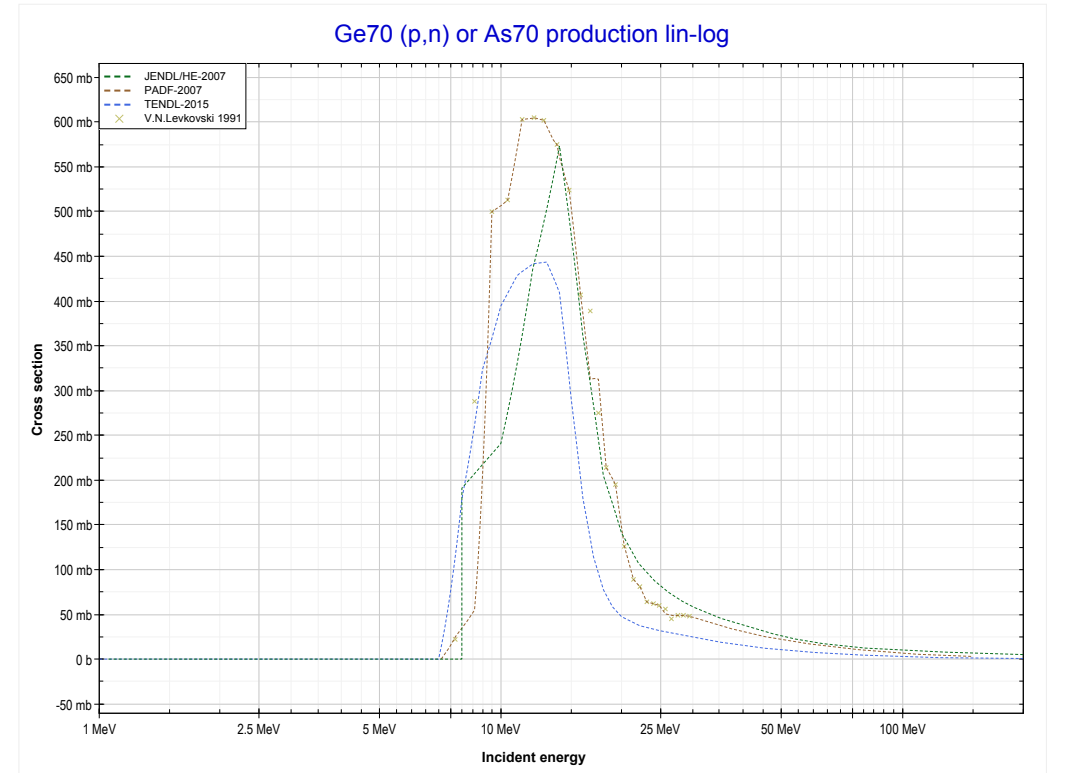
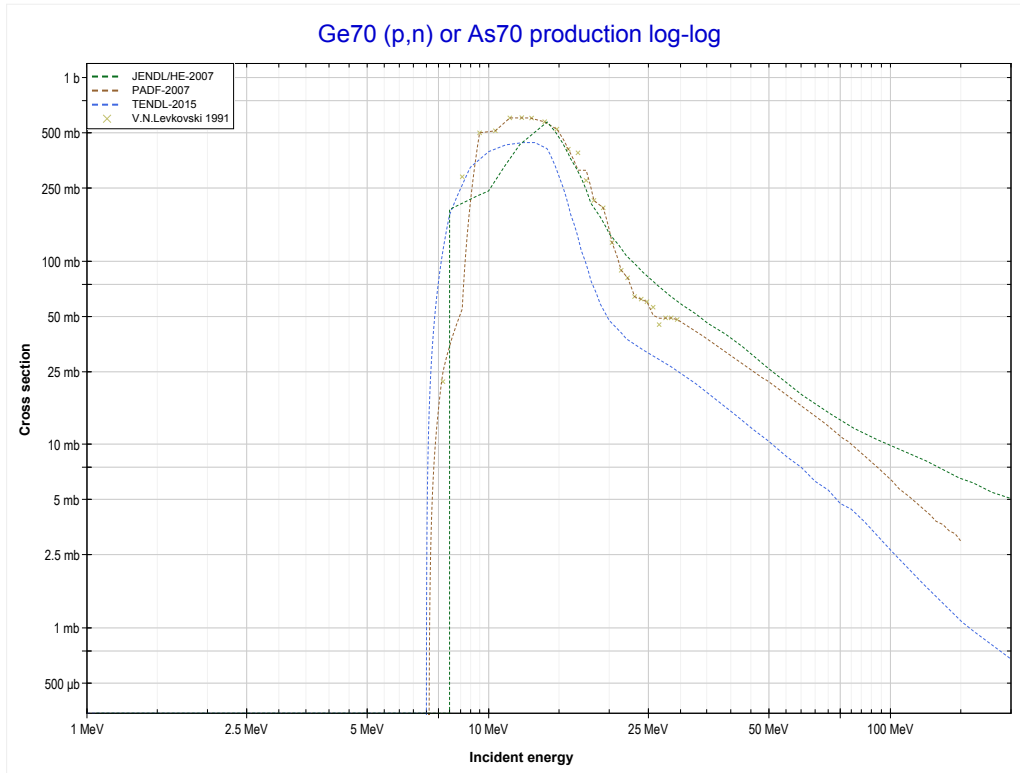
Reaction	Q-Value
Ga71(p,6n)Ge66	-49671.03 keV

	31-Ga-71	
<< MT153 (p,6n)	MT162 (p,5n+p) or MT5 (Ga66 production)	32-Ge-70 MT4 (p,n) >>



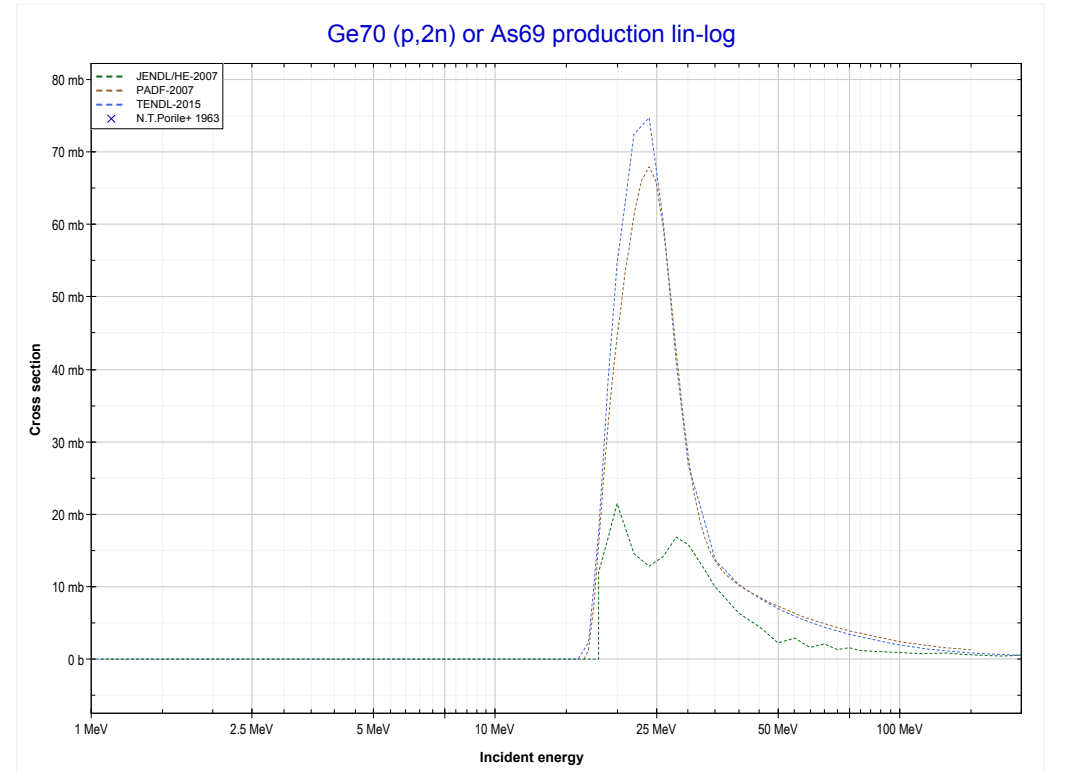
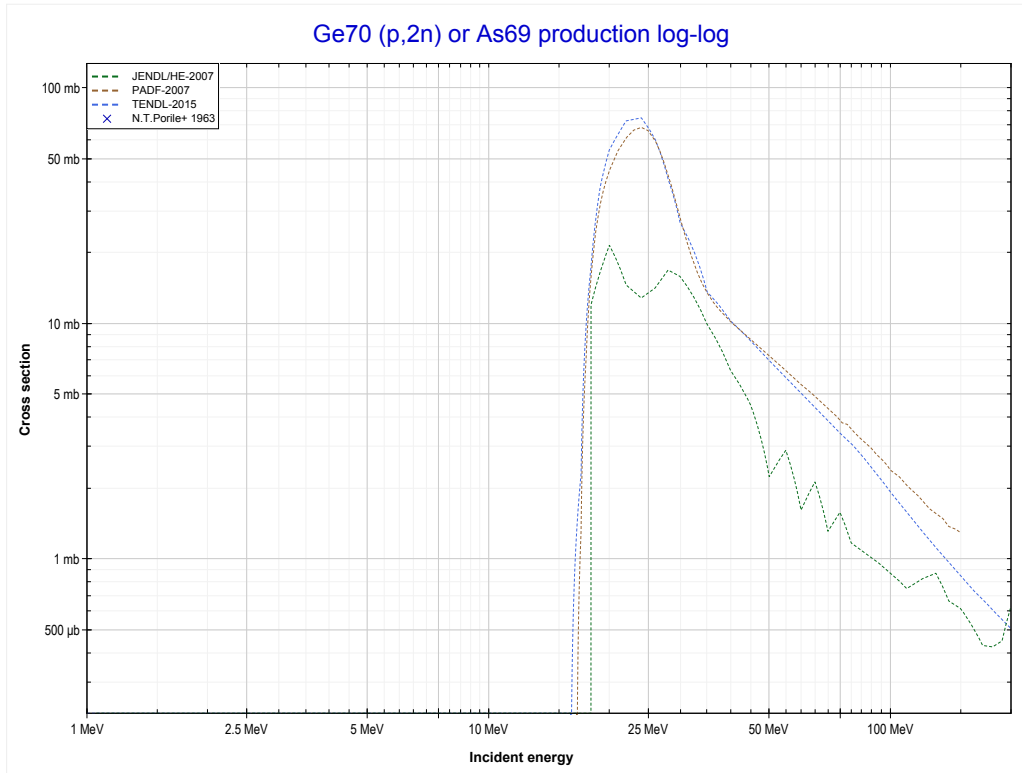
Reaction	Q-Value
Ga71(p,3n+t)Ga66	-38289.89 keV
Ga71(p,4n+d)Ga66	-44547.12 keV
Ga71(p,5n+p)Ga66	-46771.69 keV

<< 31-Ga-71	32-Ge-70	32-Ge-72 >>
<< 31-Ga-71 MT162 (p,5n+p)	MT4 (p,n) or MT5 (As70 production)	MT16 (p,2n) >>



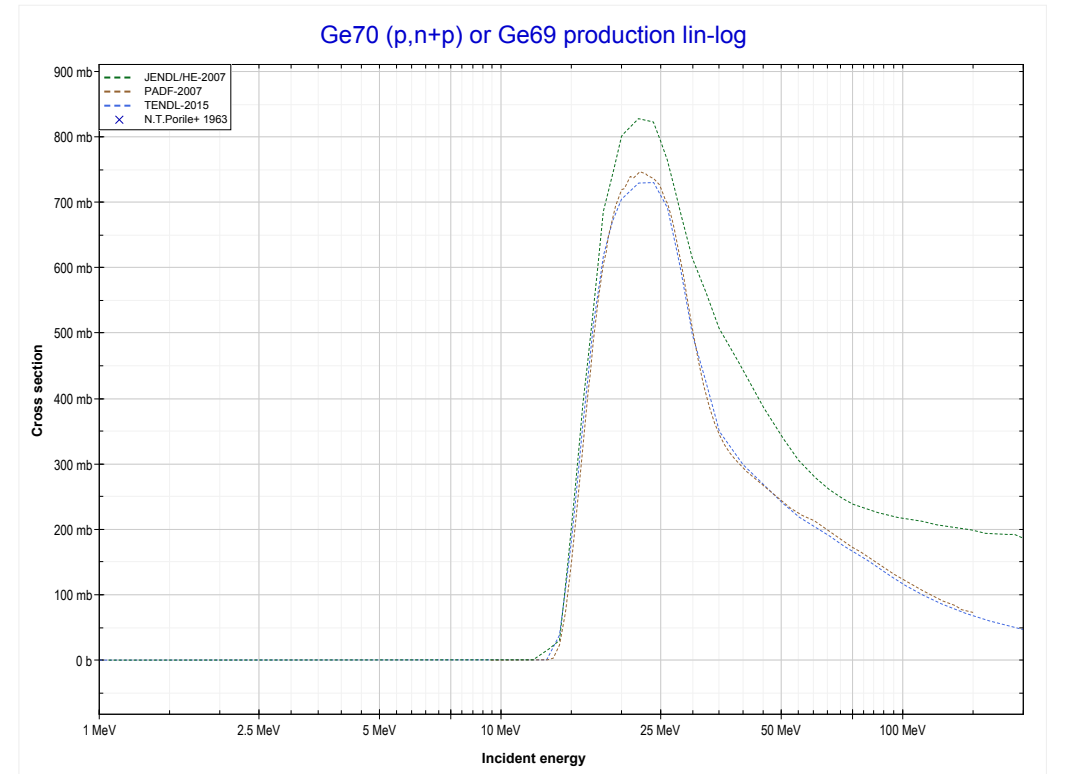
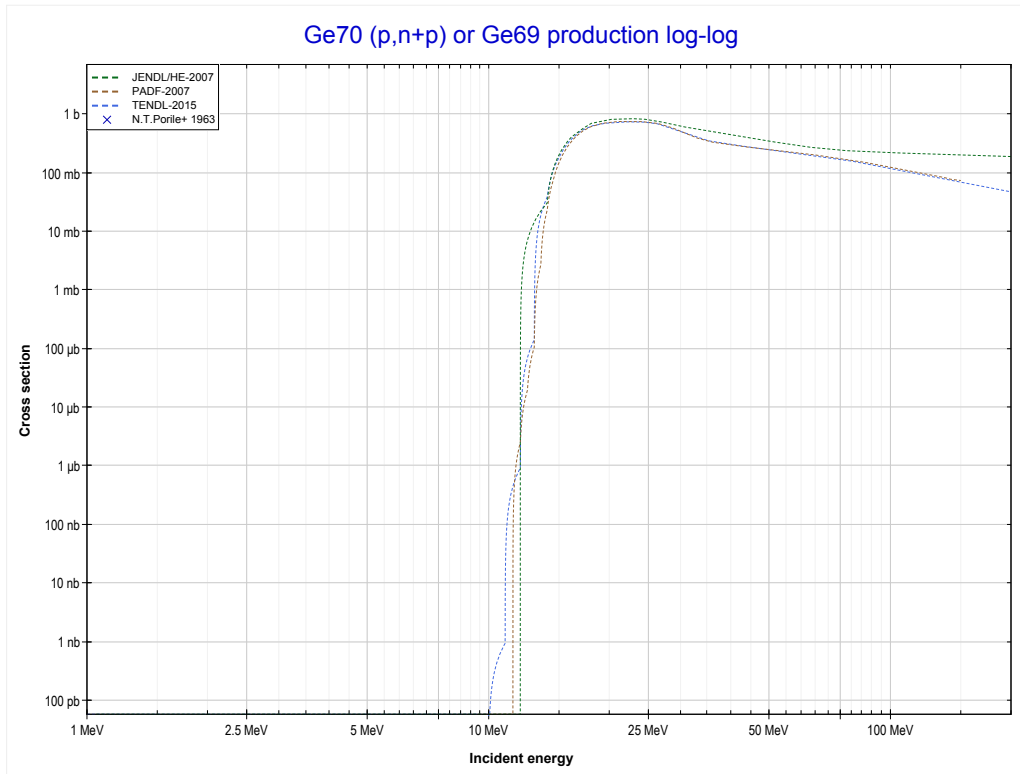
Reaction	Q-Value
Ge70(p,n)As70	-7004.15 keV

<< 31-Ga-69	32-Ge-70	32-Ge-72 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (As69 production)	MT28 (p,n+p) >>



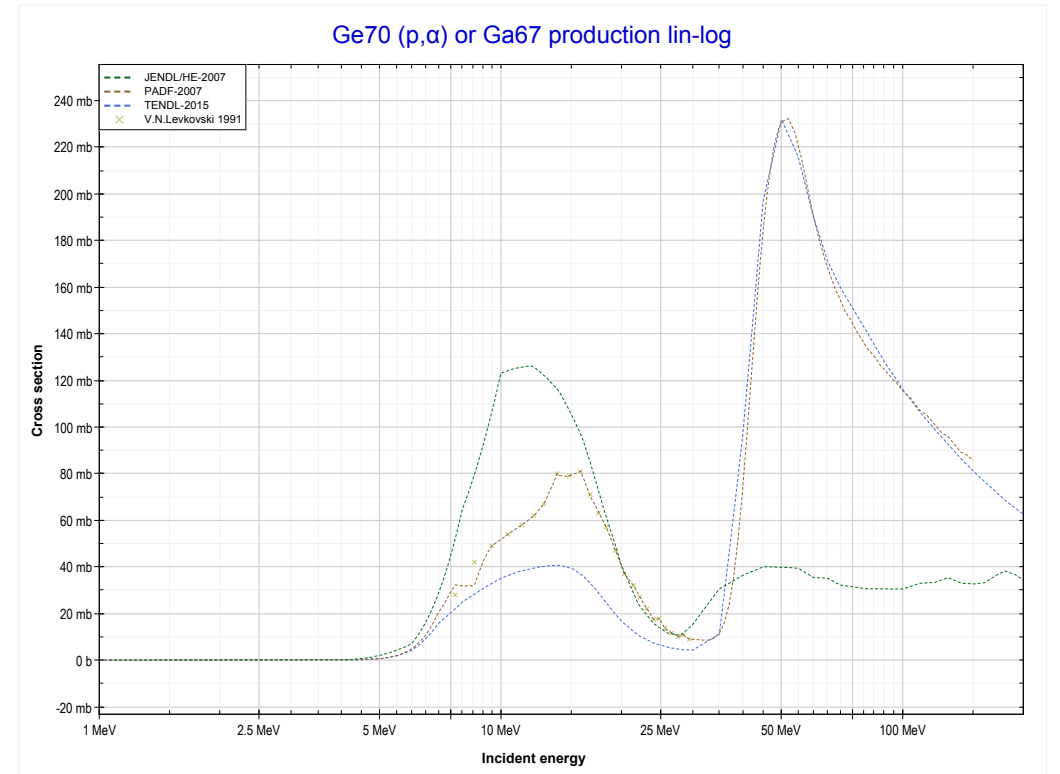
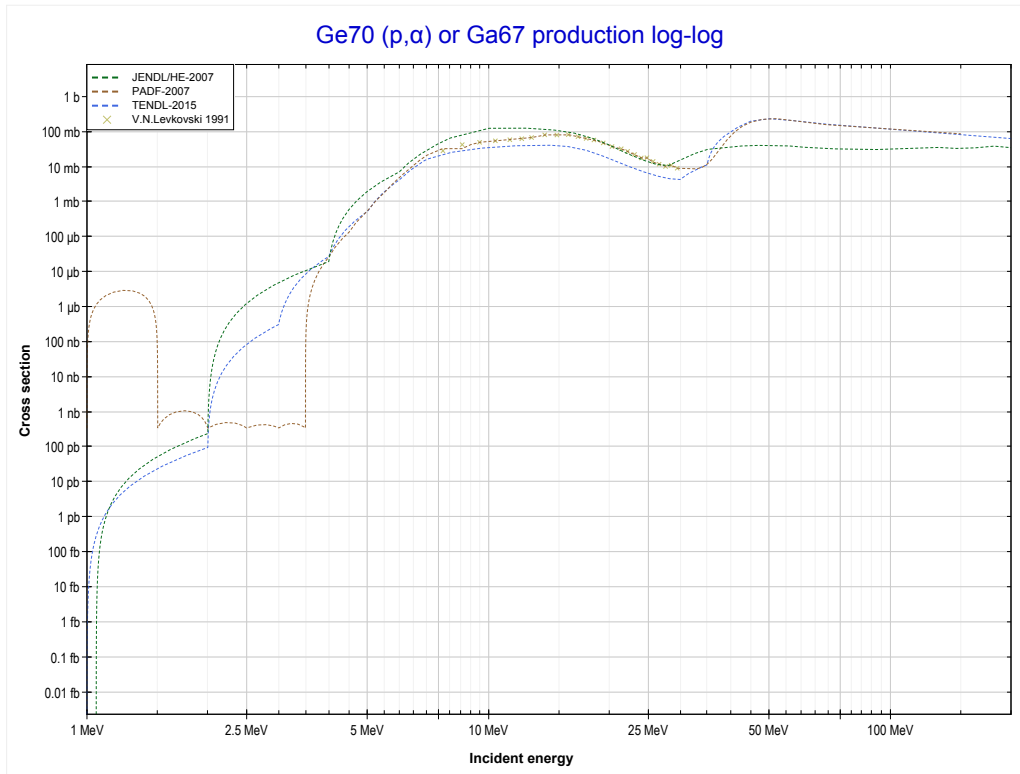
Reaction	Q-Value
Ge70(p,2n)As69	-16305.46 keV

<< 31-Ga-71	32-Ge-70	32-Ge-72 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Ge69 production)	MT107 (p, α) >>



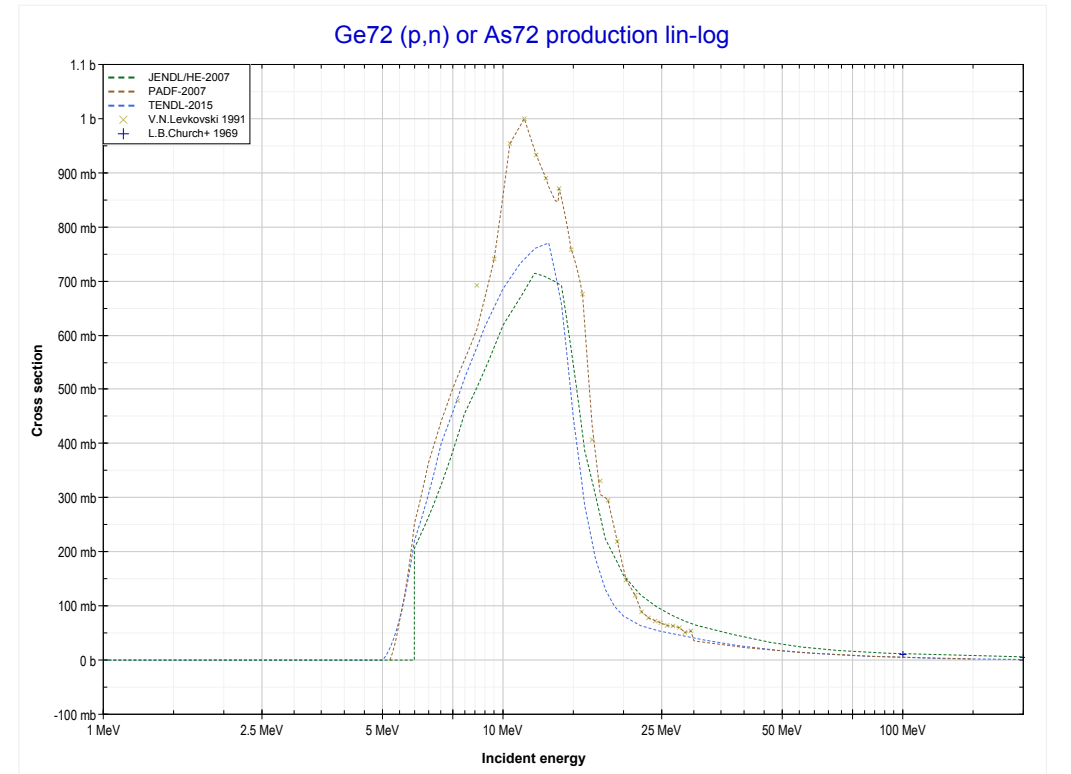
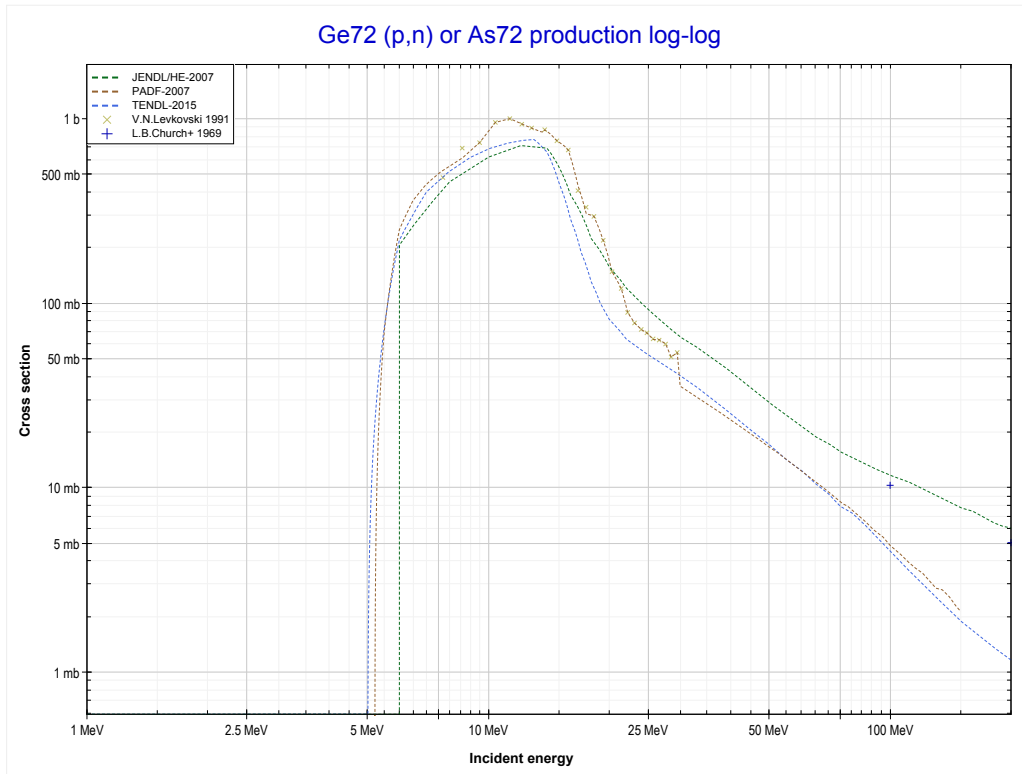
Reaction	Q-Value
Ge70(p,d)Ge69	-9307.85 keV
Ge70(p,n+p)Ge69	-11532.42 keV

<< 30-Zn-70	32-Ge-70	32-Ge-76 >>
<< MT28 (p,n+p)	MT107 (p,α) or MT5 (Ga67 production)	32-Ge-72 MT4 (p,n) >>



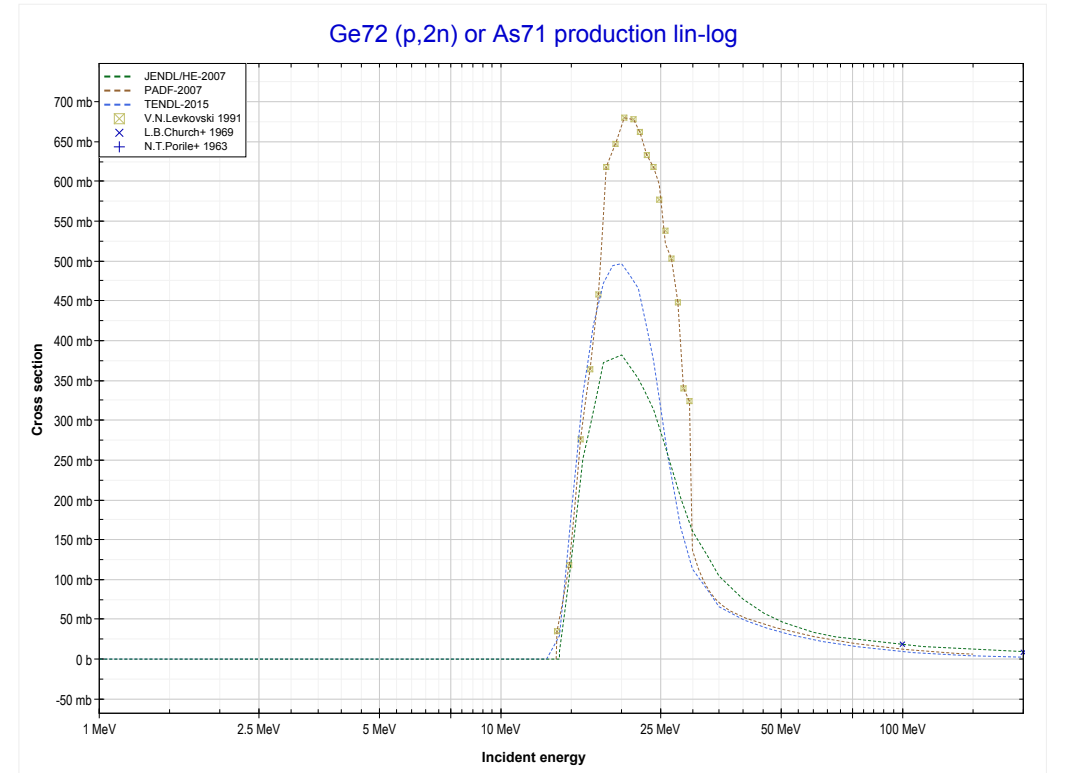
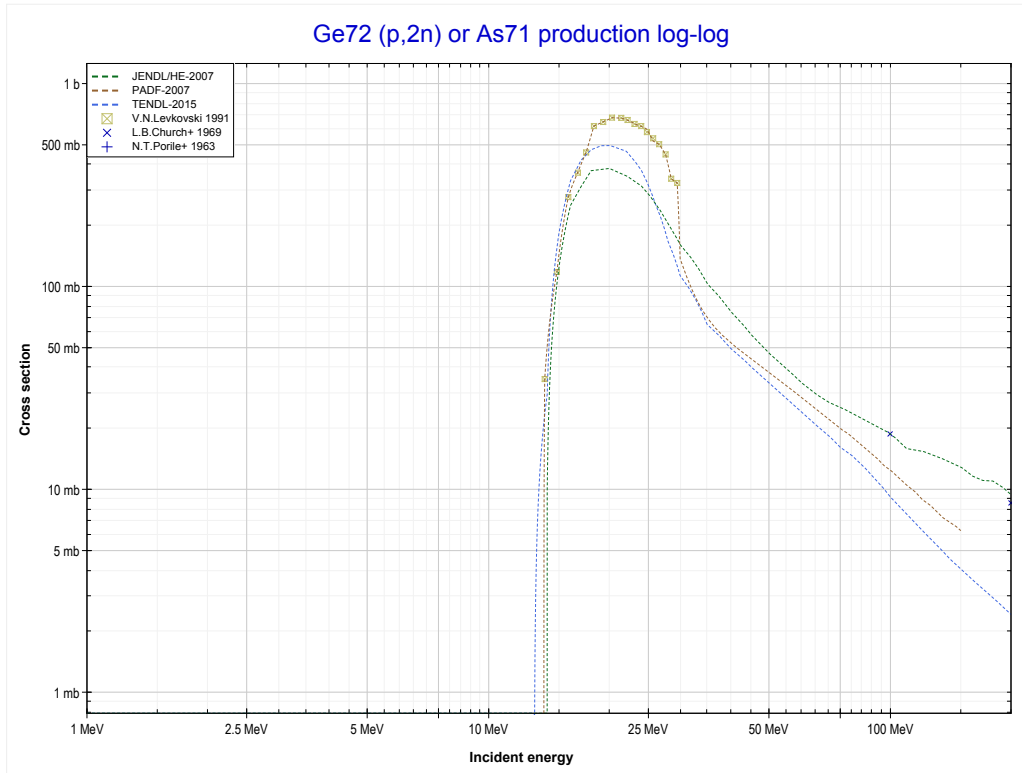
Reaction	Q-Value
Ge70(p, α)Ga67	1181.15 keV
Ge70(p,p+t)Ga67	-18632.71 keV
Ge70(p,n+He3)Ga67	-19396.46 keV
Ge70(p,2d)Ga67	-22665.37 keV
Ge70(p,n+p+d)Ga67	-24889.94 keV
Ge70(p,2n+2p)Ga67	-27114.50 keV

<< 32-Ge-70	32-Ge-72	32-Ge-74 >>
<< 32-Ge-70 MT107 (p, α)	MT4 (p,n) or MT5 (As72 production)	MT16 (p,2n) >>



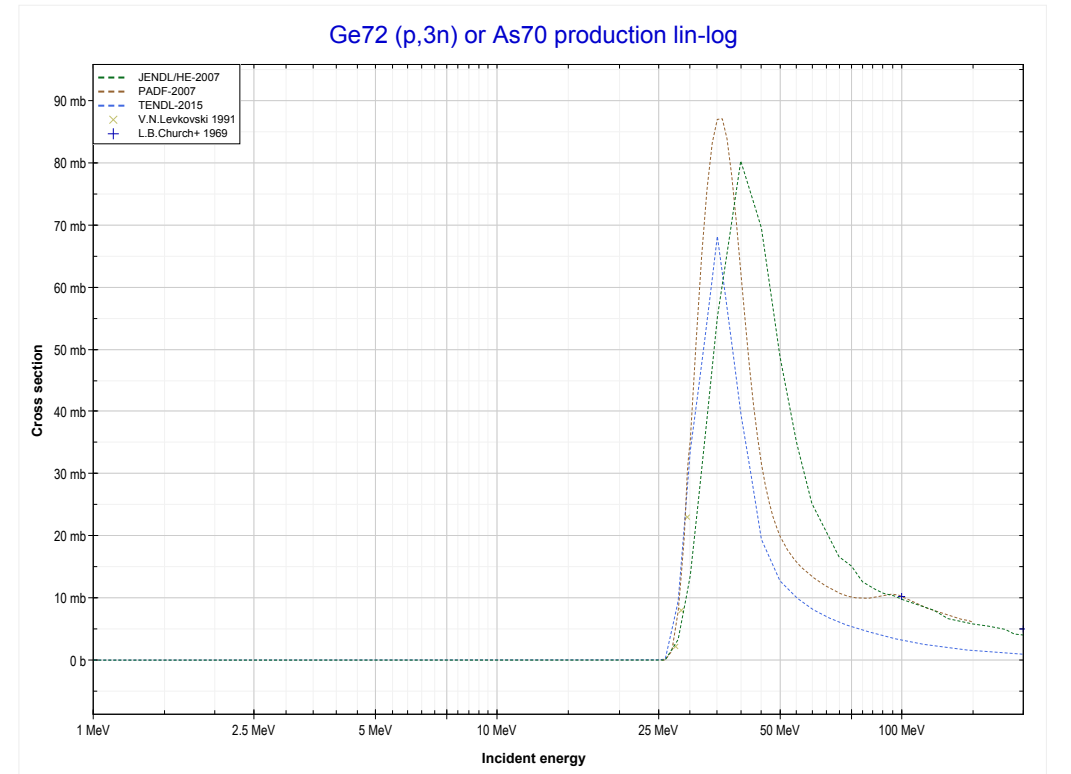
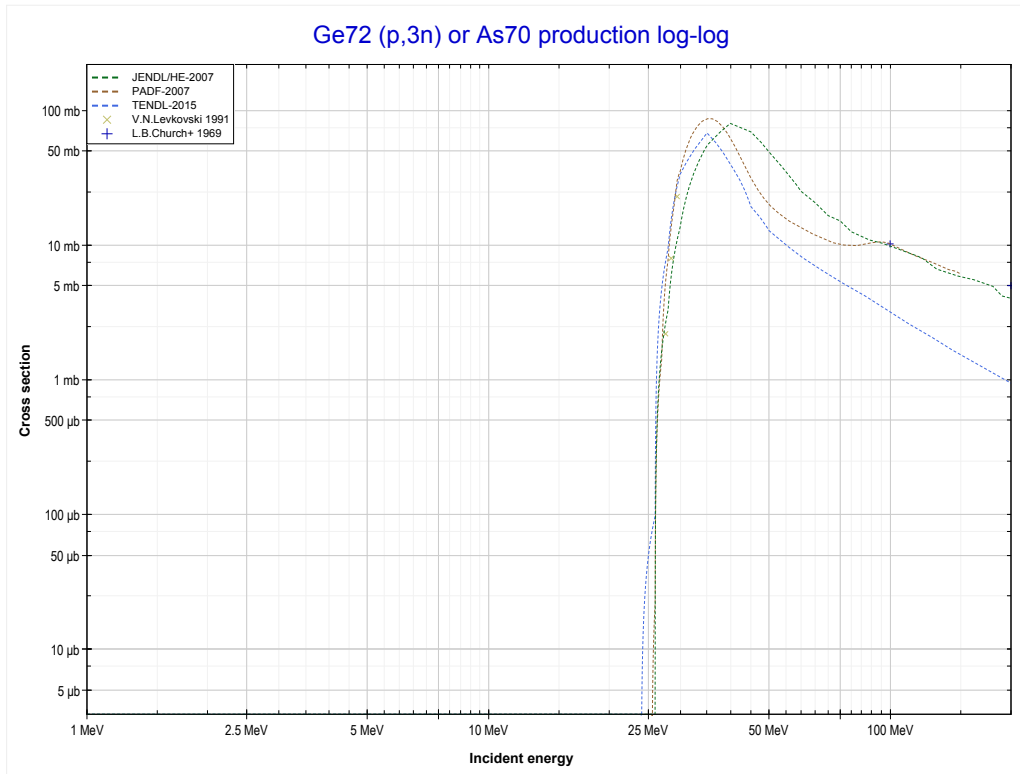
Reaction	Q-Value
Ge72(p,n)As72	-5138.25 keV

<< 32-Ge-70	32-Ge-72	32-Ge-73 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (As71 production)	MT17 (p,3n) >>



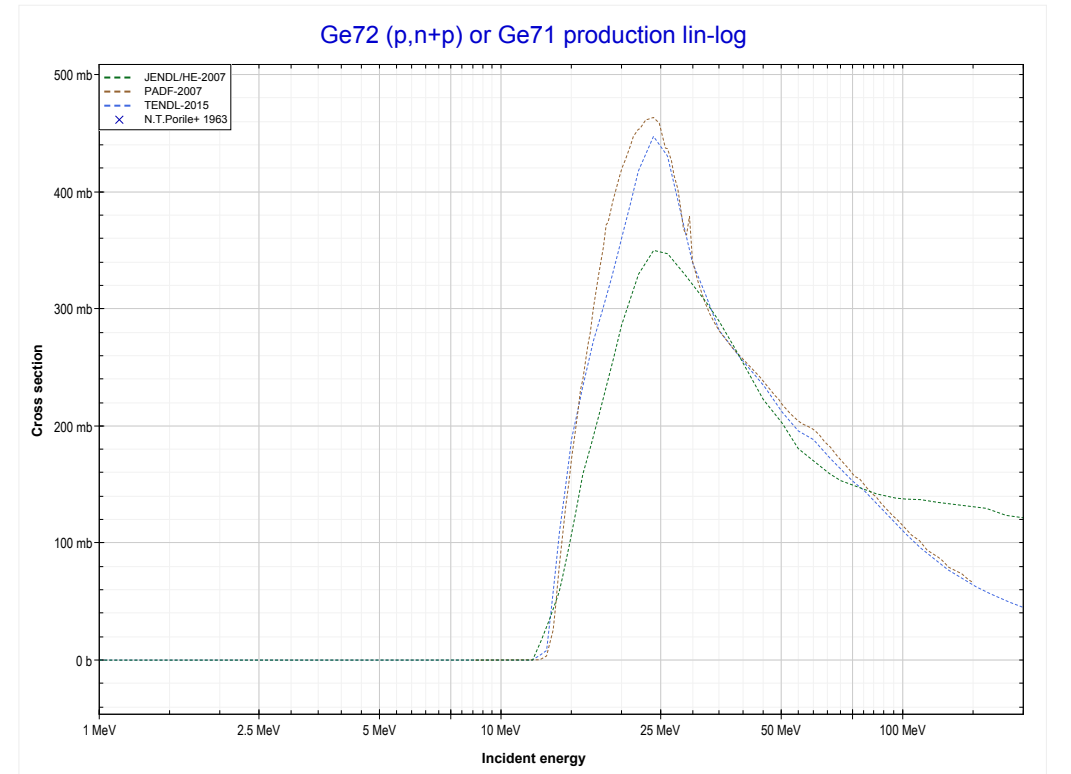
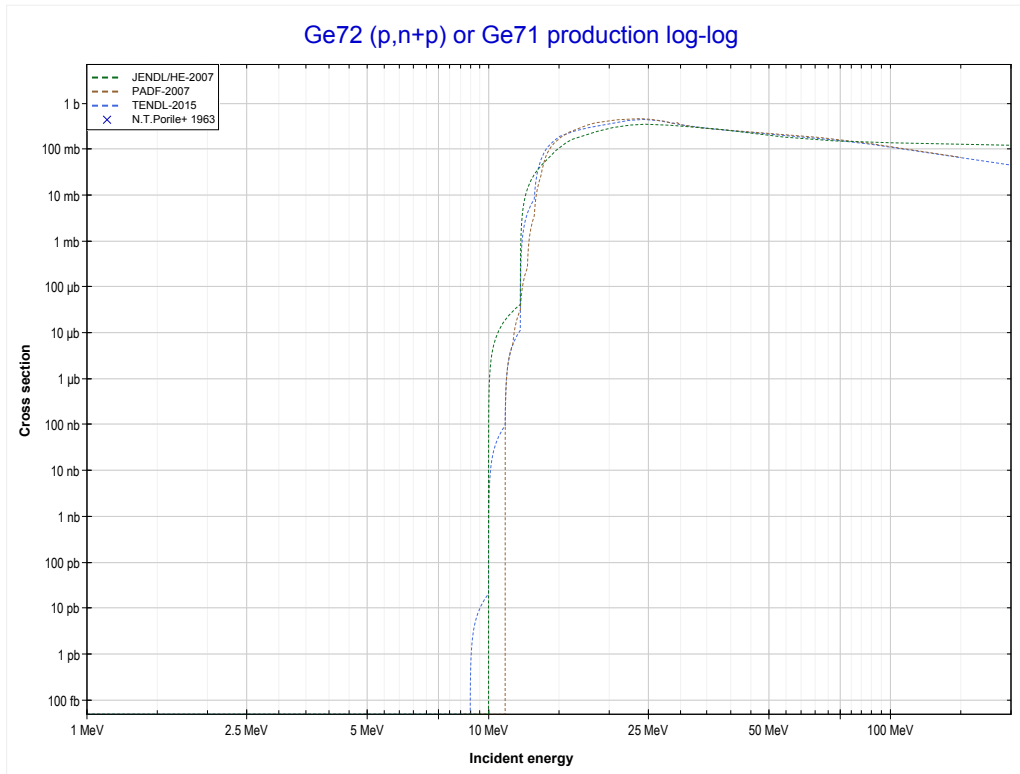
Reaction	Q-Value
Ge72(p,2n)As71	-13546.56 keV

<< 31-Ga-71	32-Ge-72	32-Ge-73 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (As70 production)	MT28 (p,n+p) >>



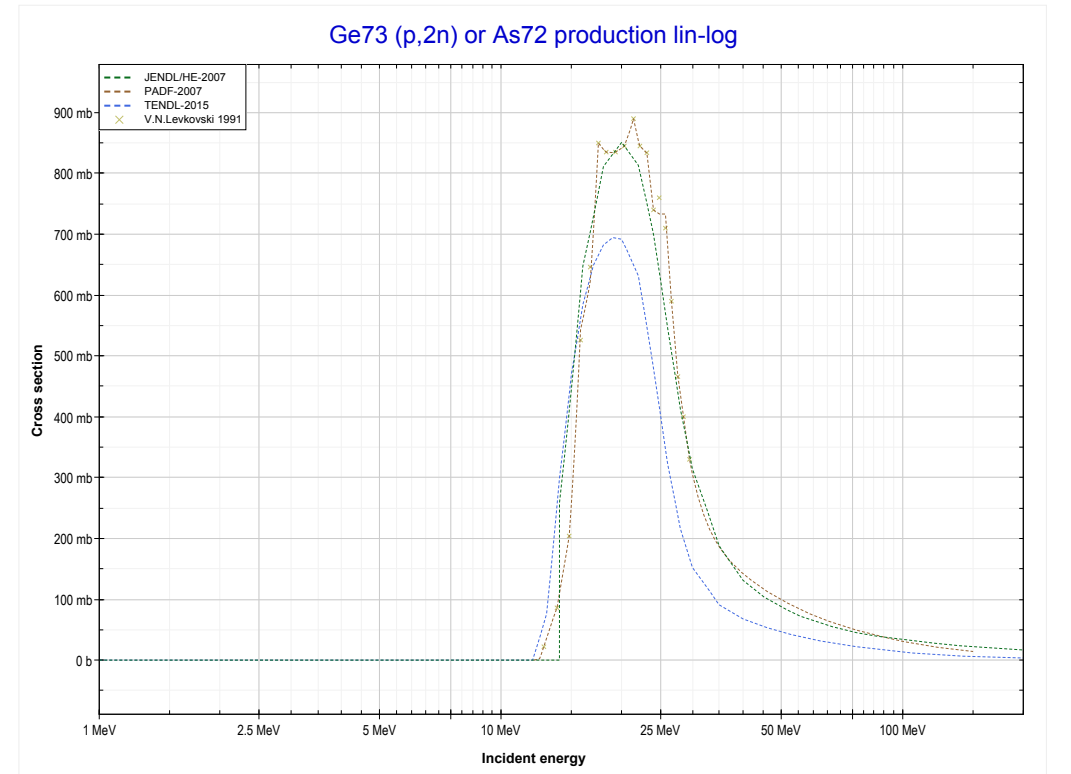
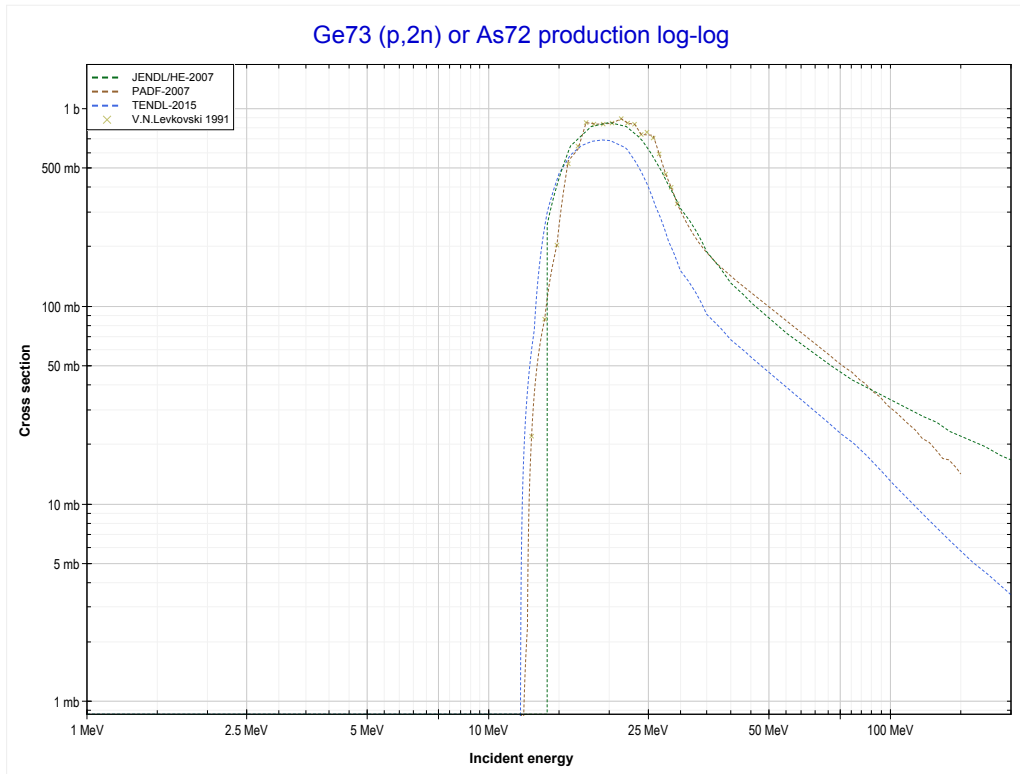
Reaction	Q-Value
Ge72(p,3n)As70	-25170.88 keV

<< 32-Ge-70	32-Ge-72	33-As-75 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Ge71 production)	32-Ge-73 MT16 (p,2n) >>



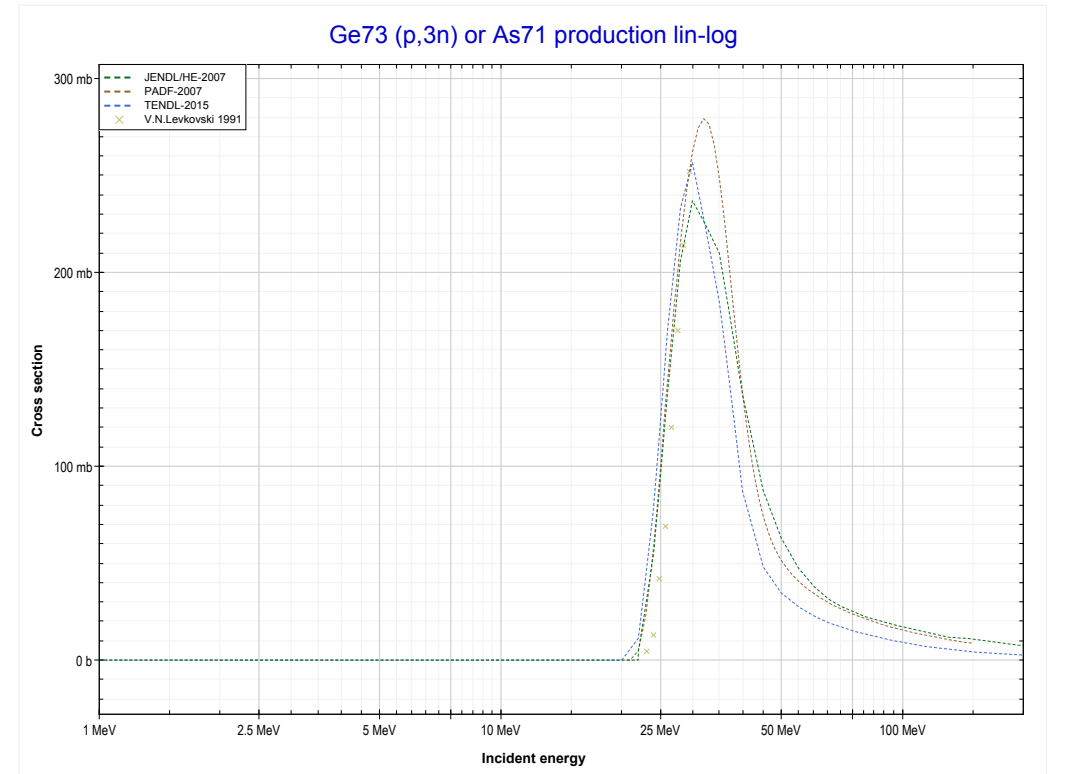
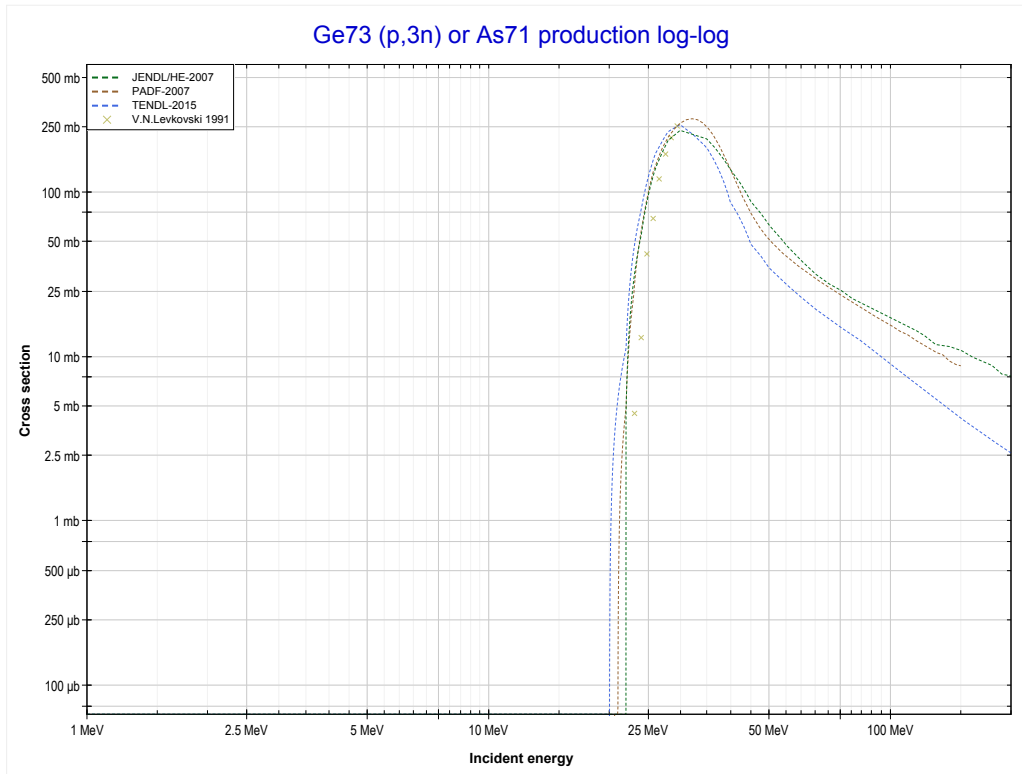
Reaction	Q-Value
Ge72(p,d)Ge71	-8526.15 keV
Ge72(p,n+p)Ge71	-10750.72 keV

<< 32-Ge-72	32-Ge-73	32-Ge-76 >>
<< 32-Ge-72 MT28 (p,n+p)	MT16 (p,2n) or MT5 (As72 production)	MT17 (p,3n) >>



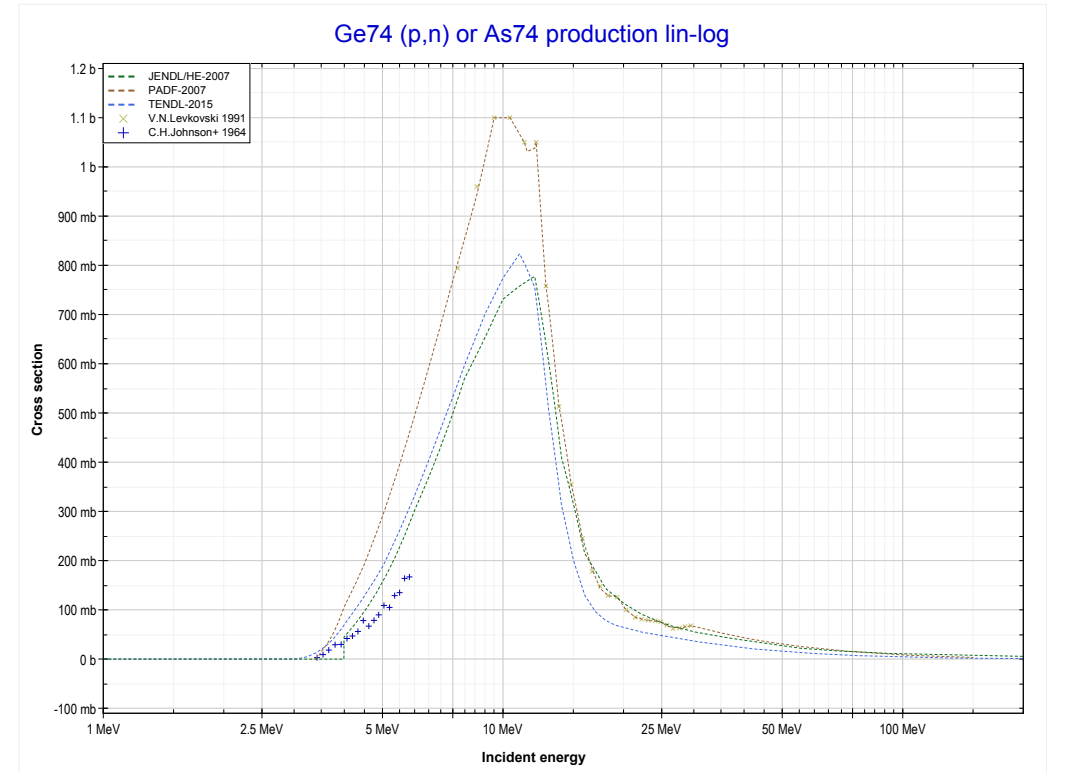
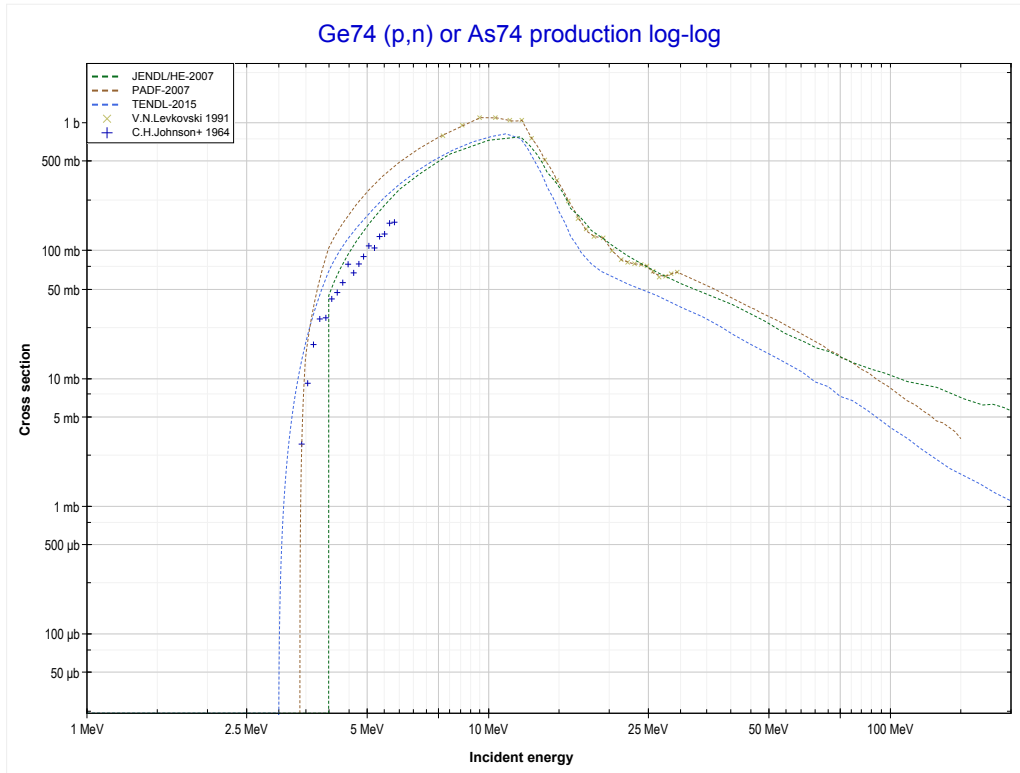
Reaction	Q-Value
Ge73(p,2n)As72	-11921.18 keV

<< 32-Ge-72	32-Ge-73	32-Ge-74 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (As71 production)	32-Ge-74 MT4 (p,n) >>



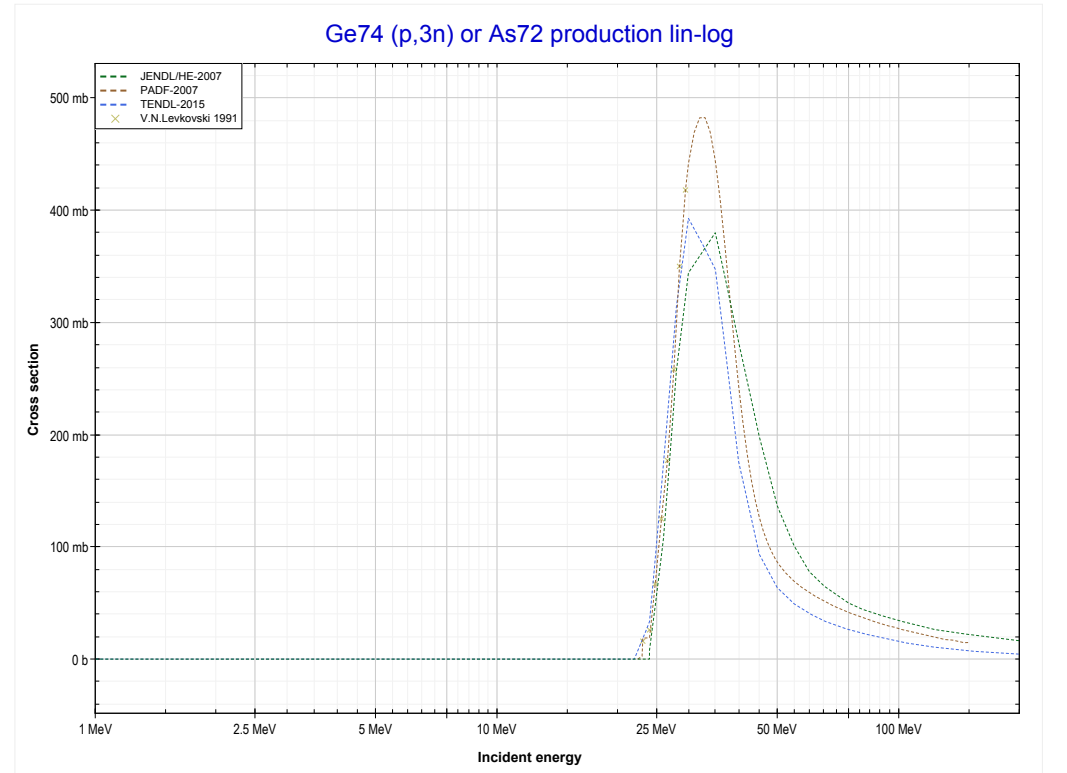
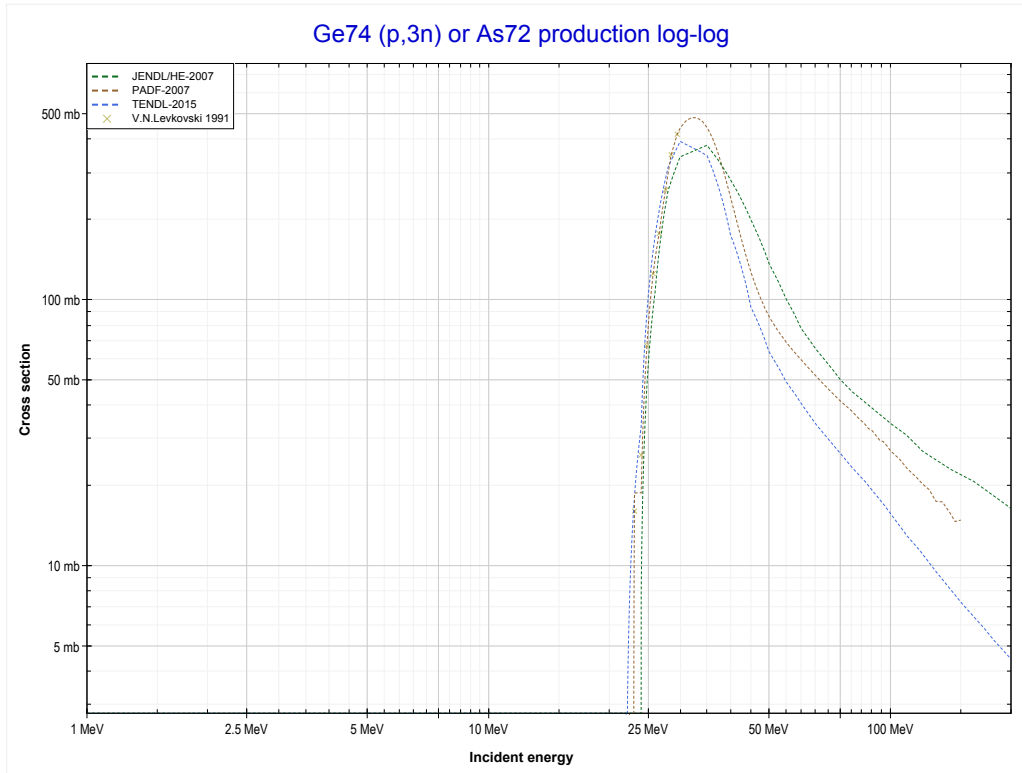
Reaction	Q-Value
Ge73(p,3n)As71	-20329.50 keV

<< 32-Ge-72	32-Ge-74	32-Ge-76 >>
<< 32-Ge-73 MT17 (p,3n)	MT4 (p,n) or MT5 (As74 production)	MT17 (p,3n) >>



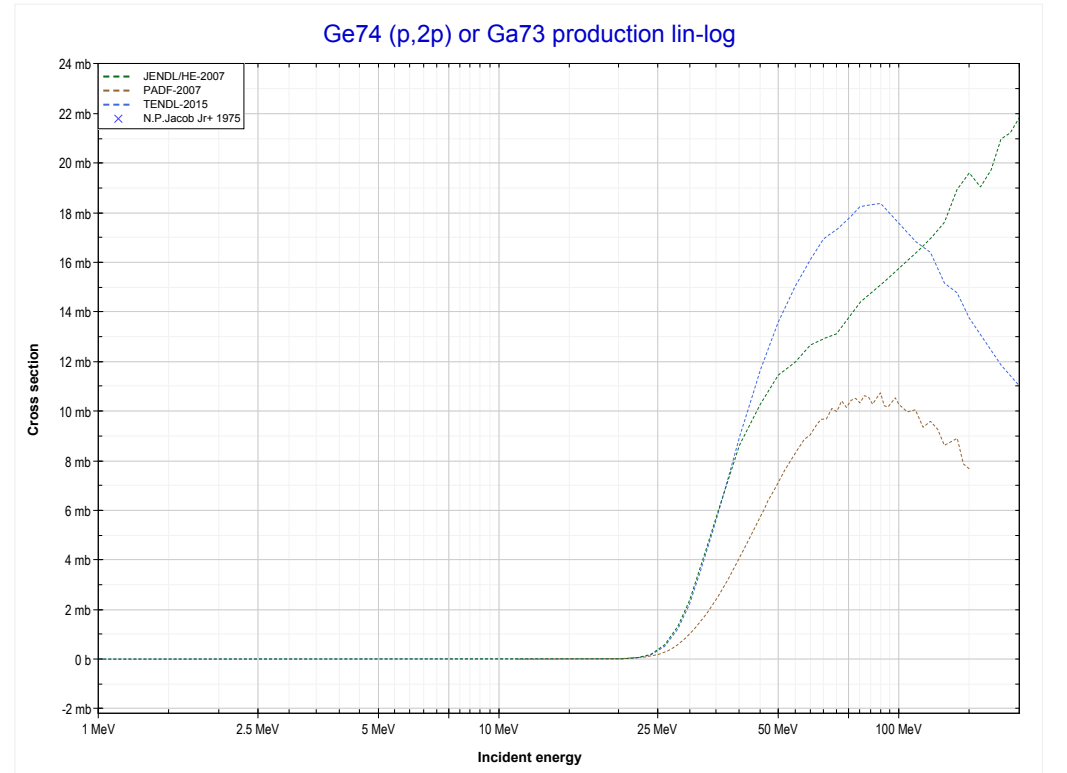
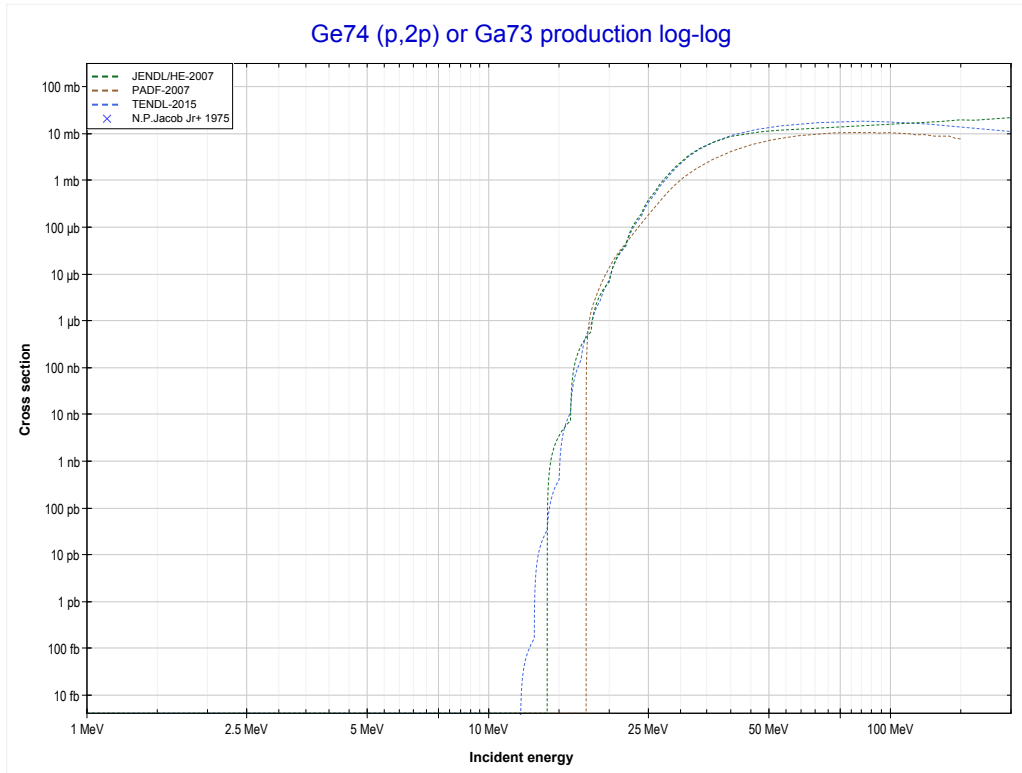
Reaction	Q-Value
Ge74(p,n)As74	-3344.69 keV

<< 32-Ge-73	32-Ge-74	32-Ge-76 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (As72 production)	MT111 (p,2p) >>



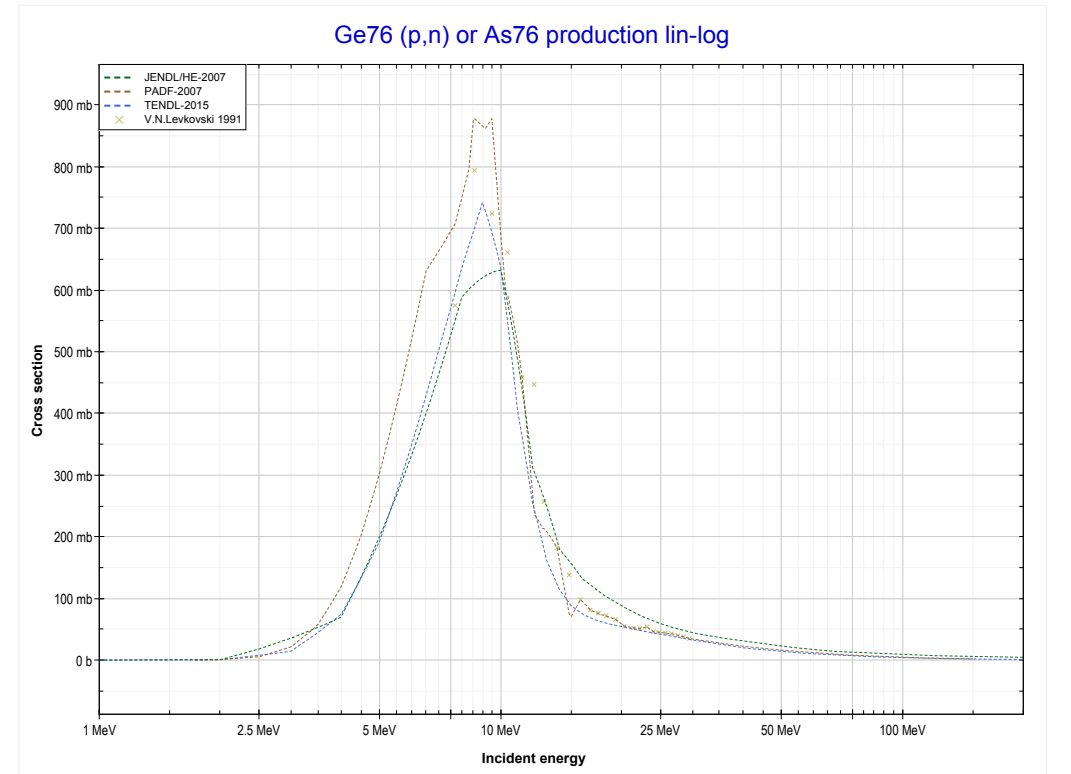
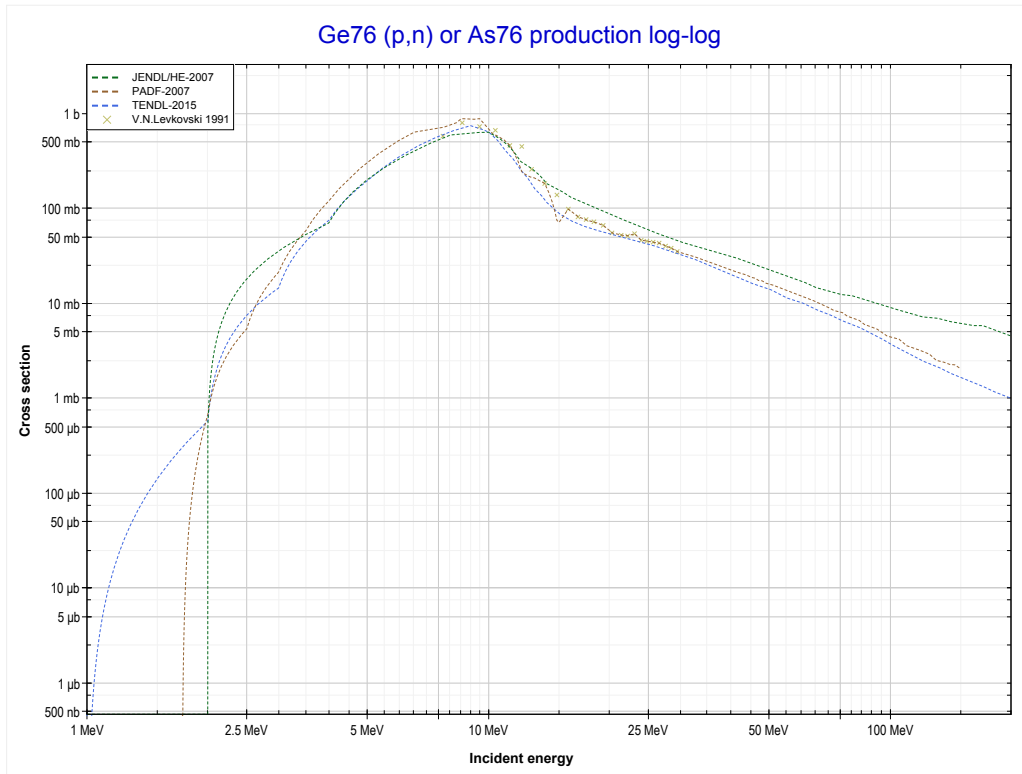
Reaction	Q-Value
Ge74(p,3n)As72	-22117.42 keV

<< 30-Zn-68	32-Ge-74	40-Zr-96 >>
<< MT17 (p,3n)	MT111 (p,2p) or MT5 (Ga73 production)	32-Ge-76 MT4 (p,n) >>



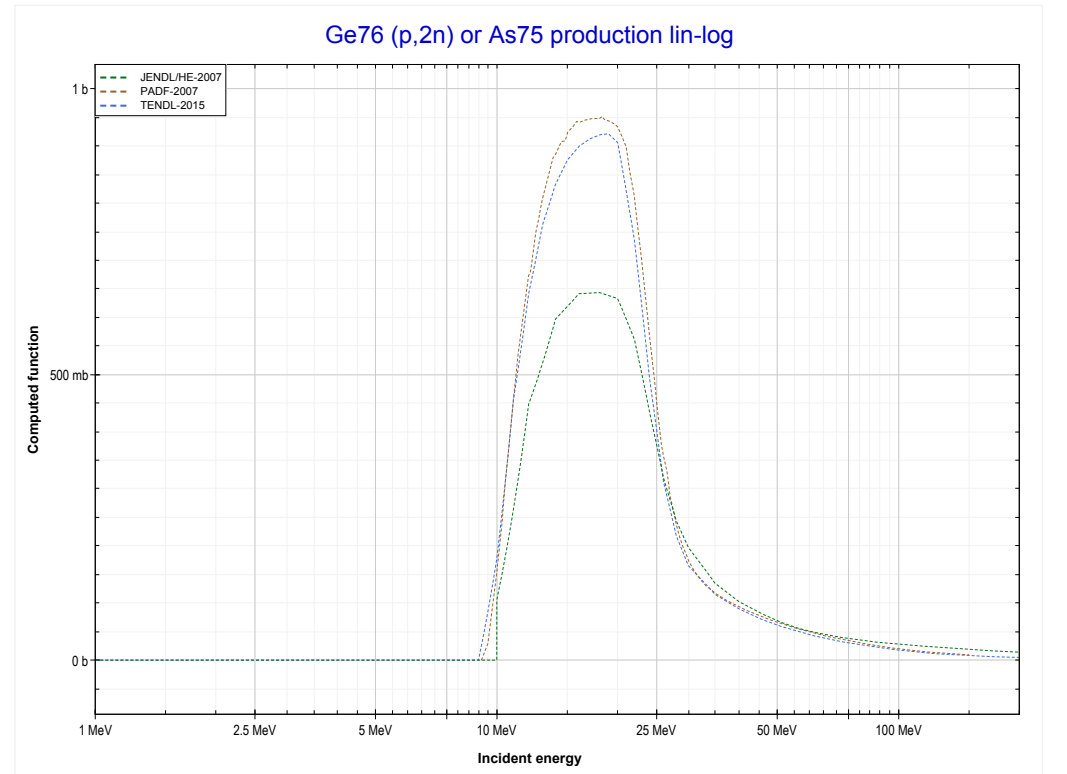
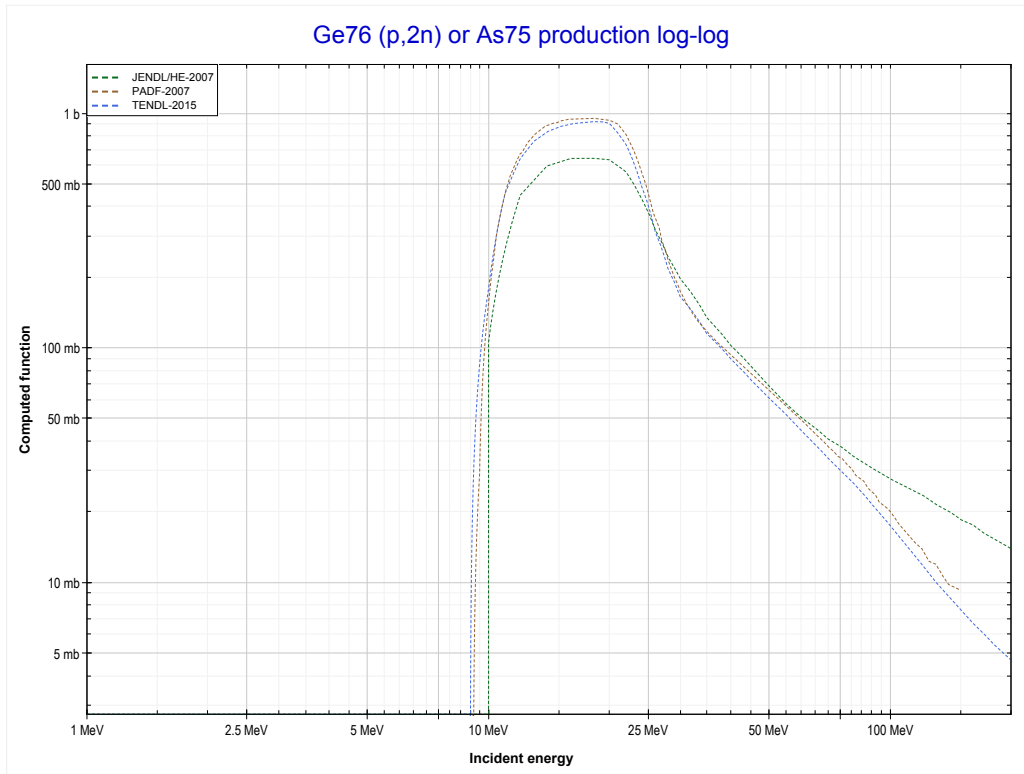
Reaction	Q-Value
Ge74(p,2p)Ga73	-11012.11 keV

<< 32-Ge-74	32-Ge-76	33-As-75 >>
<< 32-Ge-74 MT111 (p,2p)	MT4 (p,n) or MT5 (As76 production)	MT16 (p,2n) >>



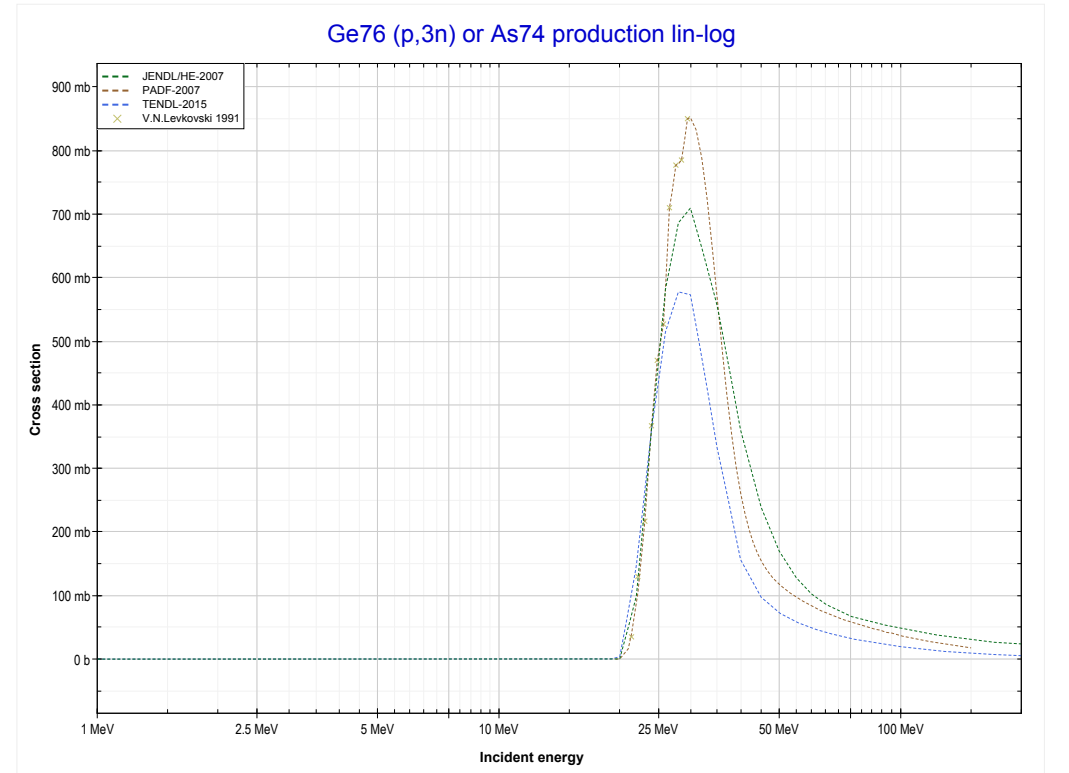
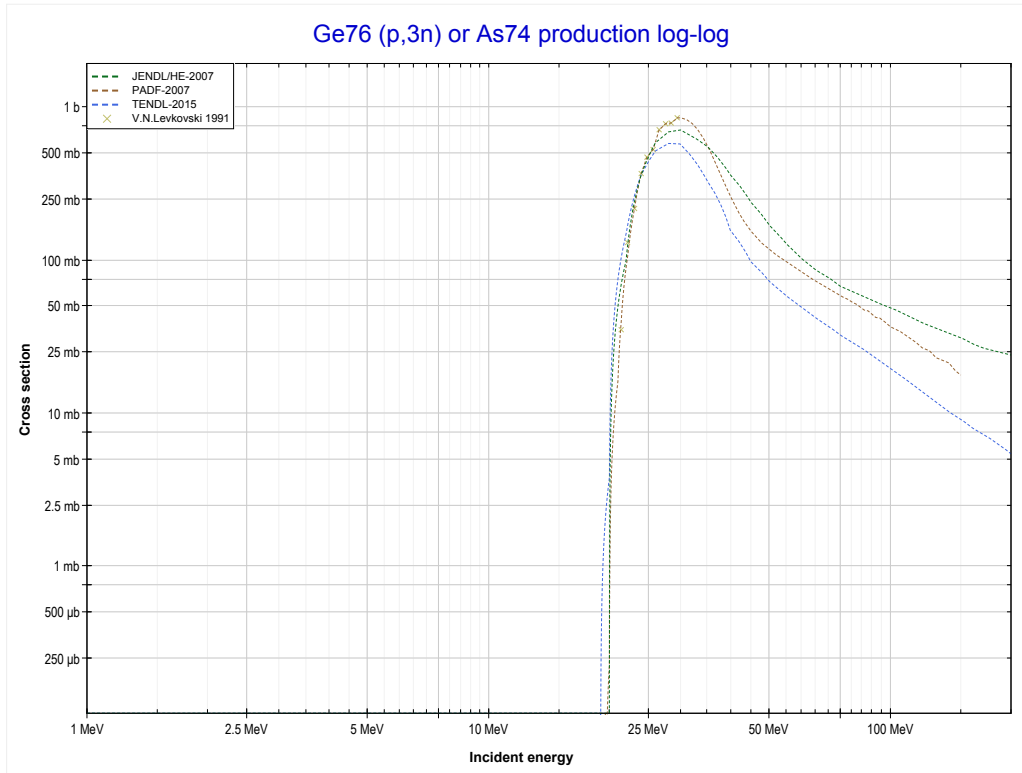
Reaction	Q-Value
Ge76(p,n)As76	-1703.84 keV

<< 32-Ge-73	32-Ge-76	34-Se-76 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (As75 production)	MT17 (p,3n) >>



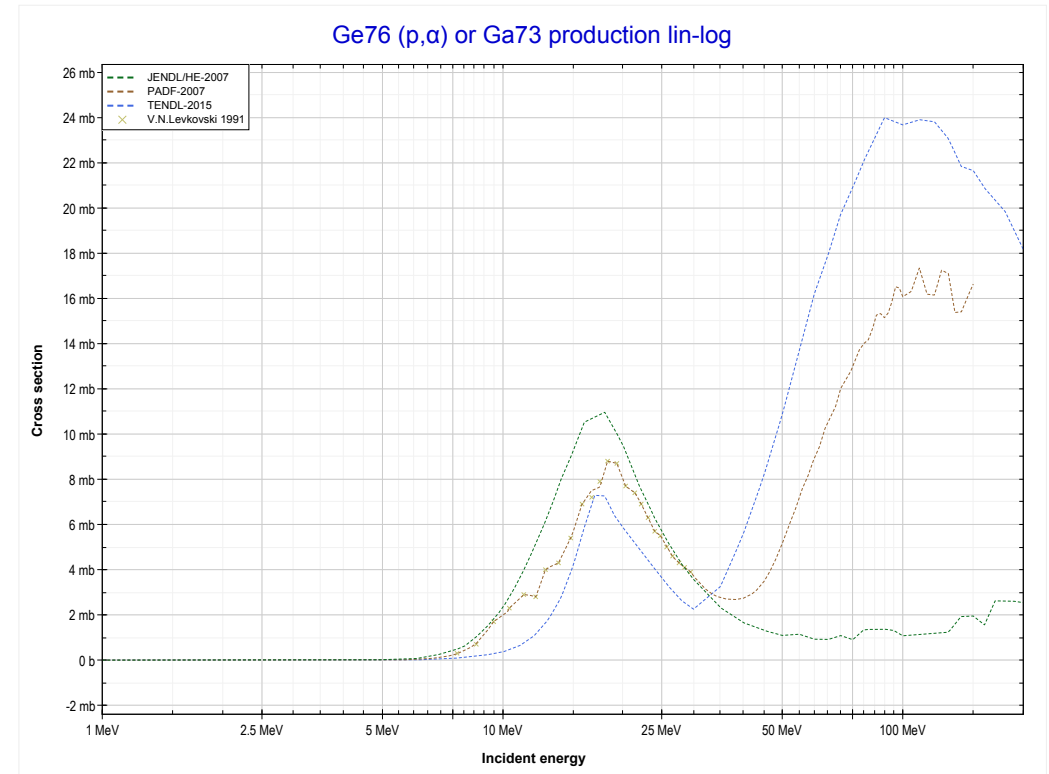
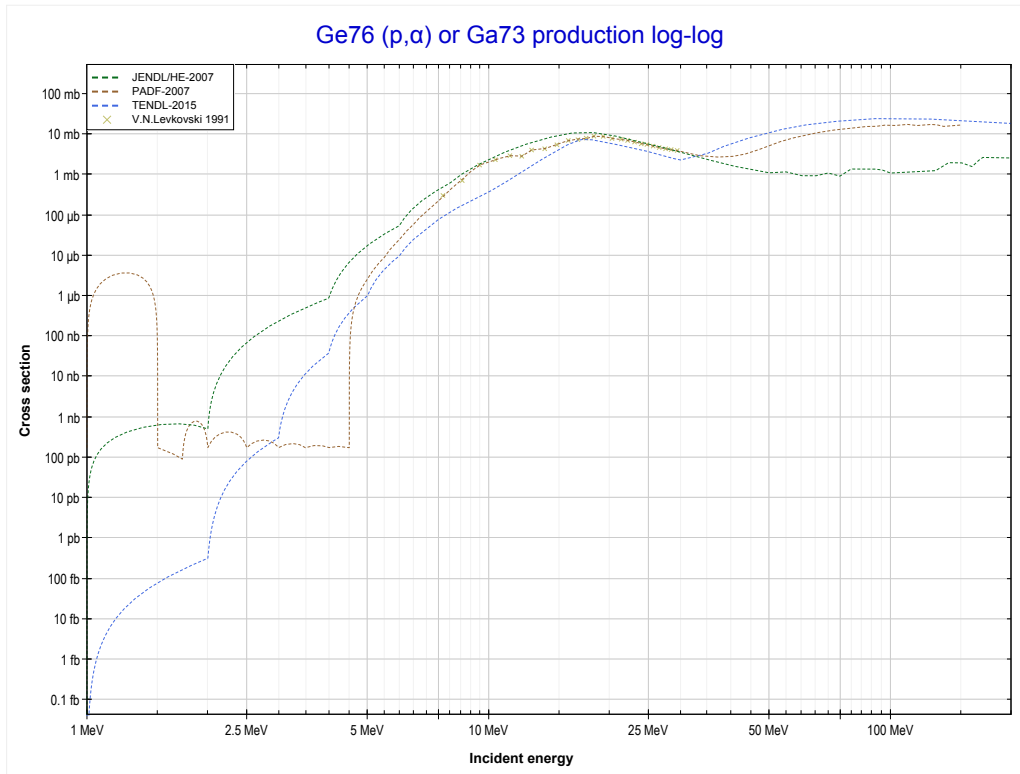
Reaction	Q-Value
Ge76(p,2n)As75	-9032.35 keV

<< 32-Ge-74	32-Ge-76	33-As-75 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (As74 production)	MT107 (p, α) >>



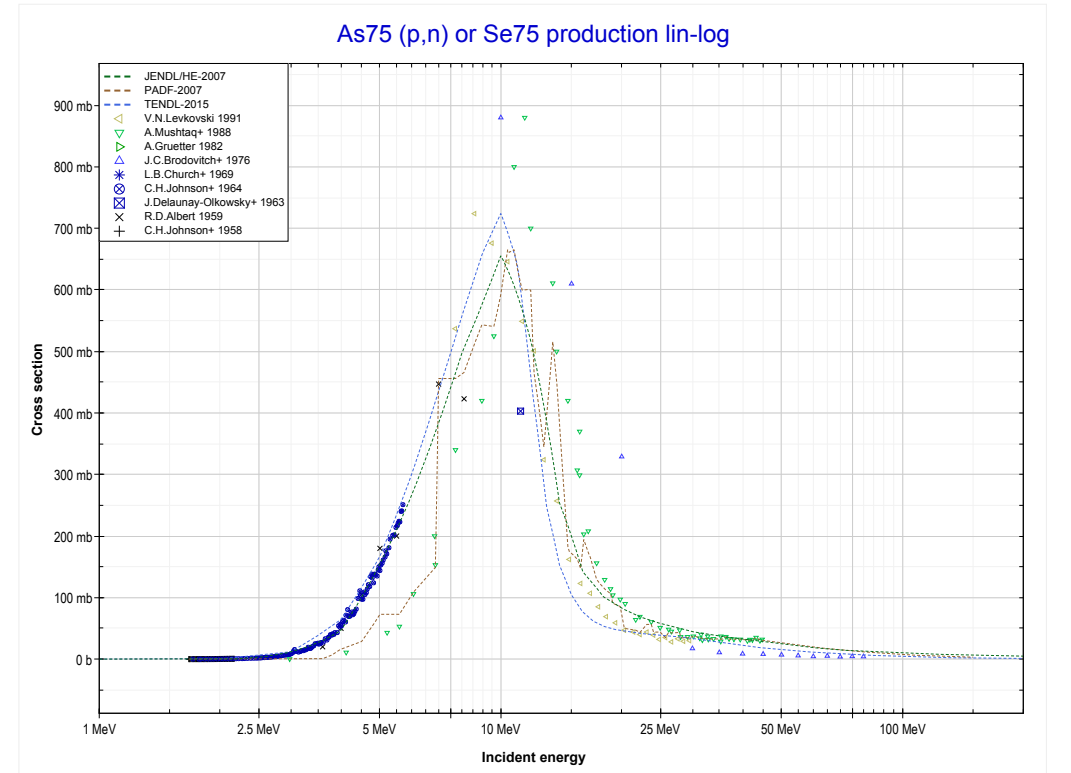
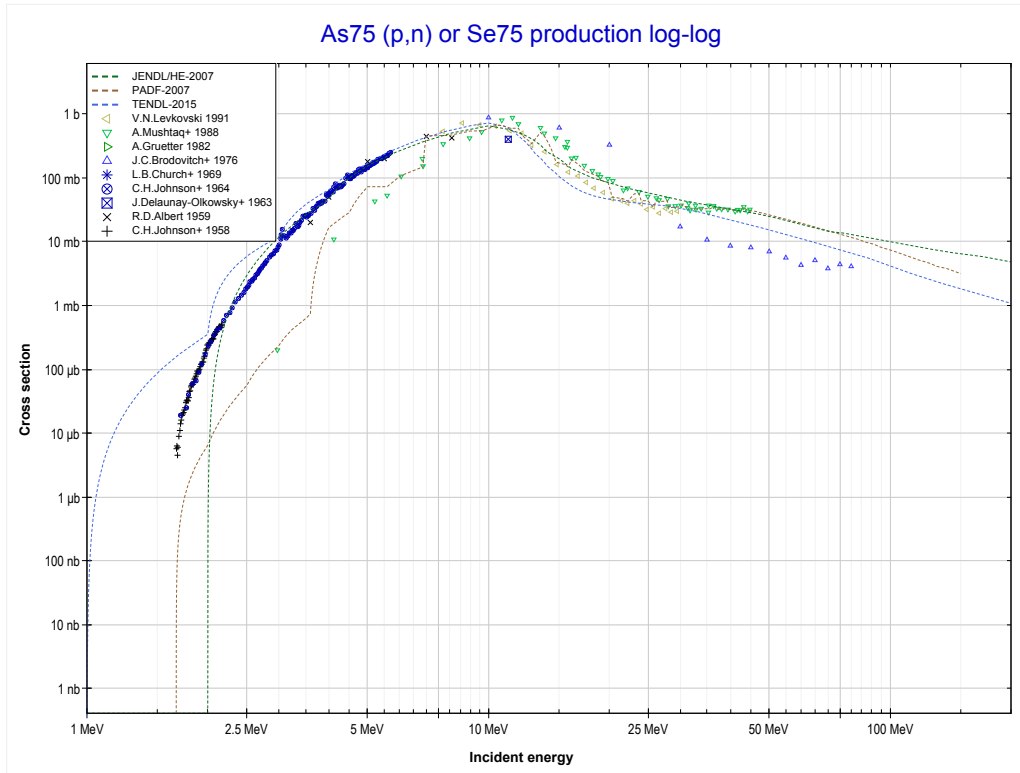
Reaction	Q-Value
Ge76(p,3n)As74	-19277.77 keV

<< 32-Ge-70	32-Ge-76	34-Se-74 >>
<< MT17 (p,3n)	MT107 (p,α) or MT5 (Ga73 production)	33-As-75 MT4 (p,n) >>



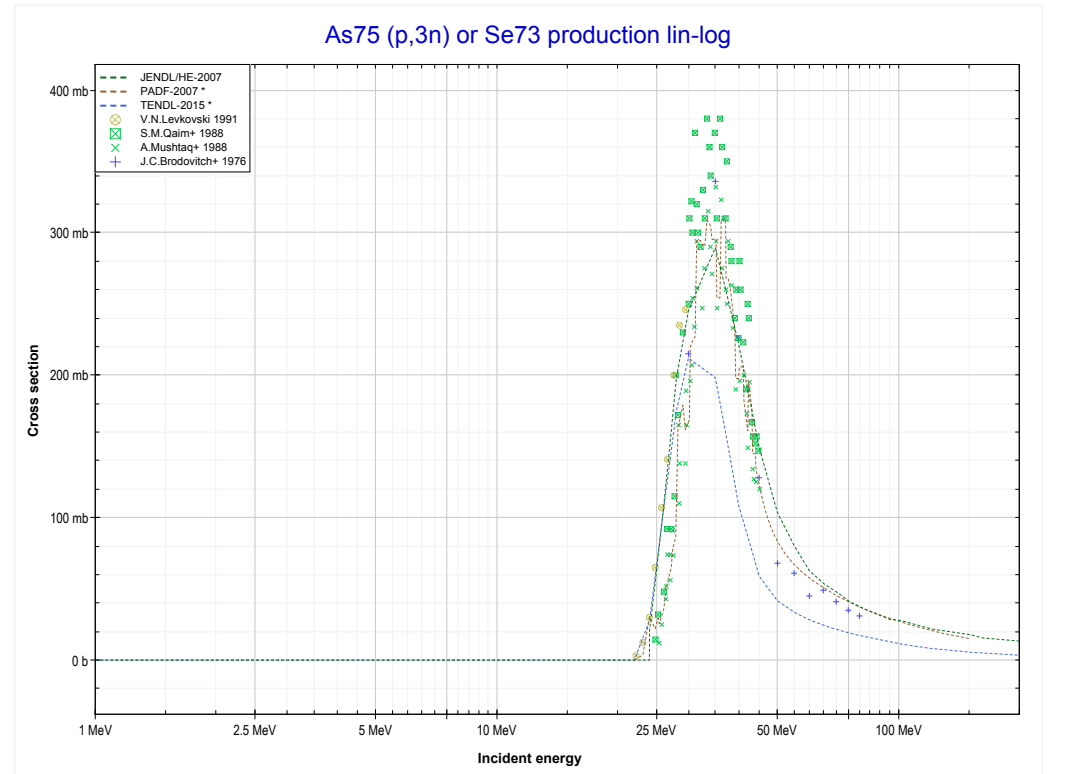
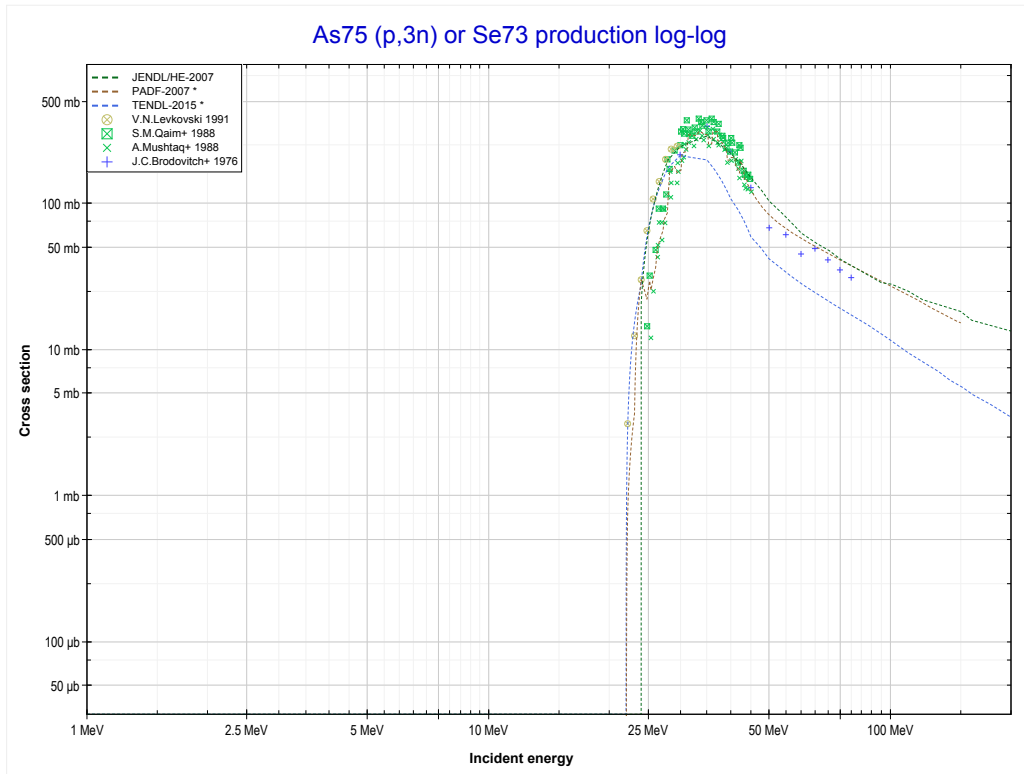
Reaction	Q-Value
Ge76(p, α)Ga73	1350.47 keV
Ge76(p,p+t)Ga73	-18463.40 keV
Ge76(p,n+He3)Ga73	-19227.15 keV
Ge76(p,2d)Ga73	-22496.06 keV
Ge76(p,n+p+d)Ga73	-24720.63 keV
Ge76(p,2n+2p)Ga73	-26945.19 keV

<< 32-Ge-76	33-As-75	34-Se-76 >>
<< 32-Ge-76 MT107 (p, α)	MT4 (p,n) or MT5 (Se75 production)	MT17 (p,3n) >>



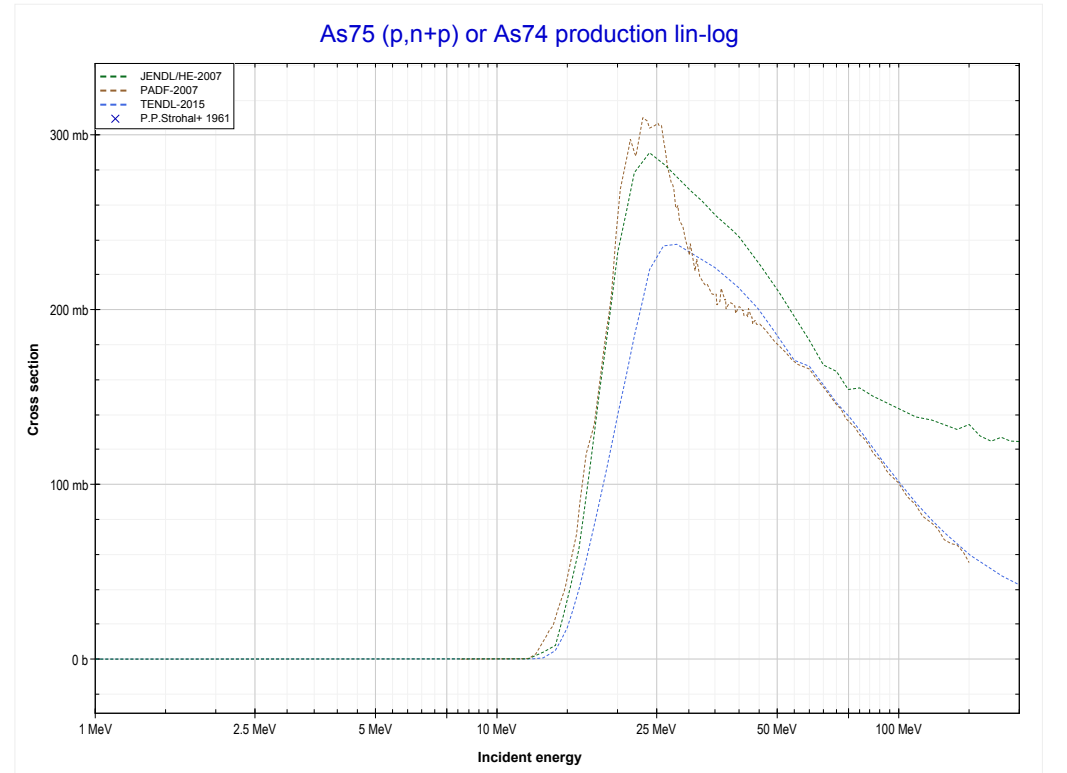
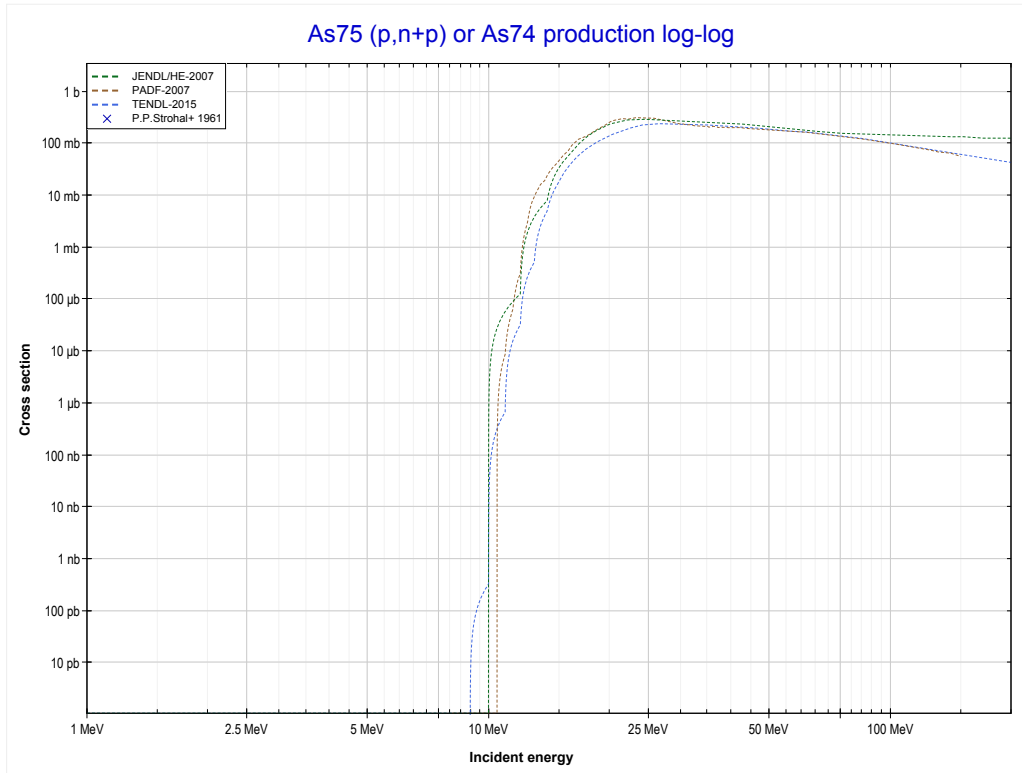
Reaction	Q-Value
As75(p,n)Se75	-1647.07 keV

<< 32-Ge-76	33-As-75	34-Se-76 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Se73 production)	MT28 (p,n+p) >>



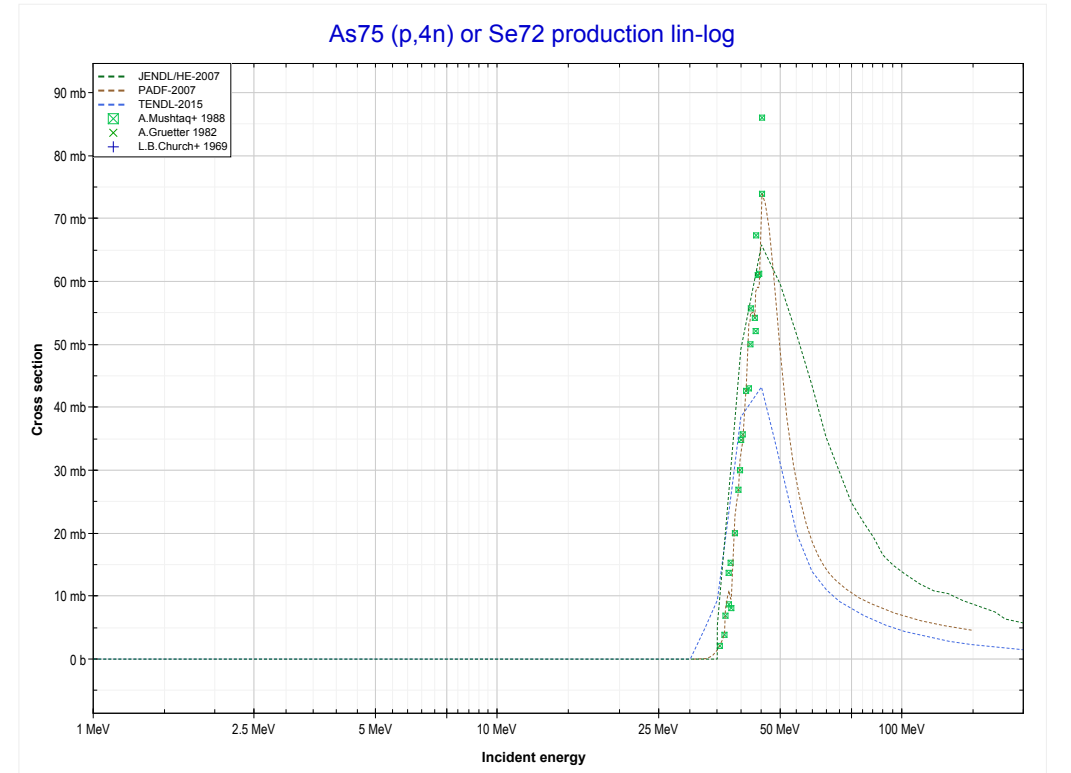
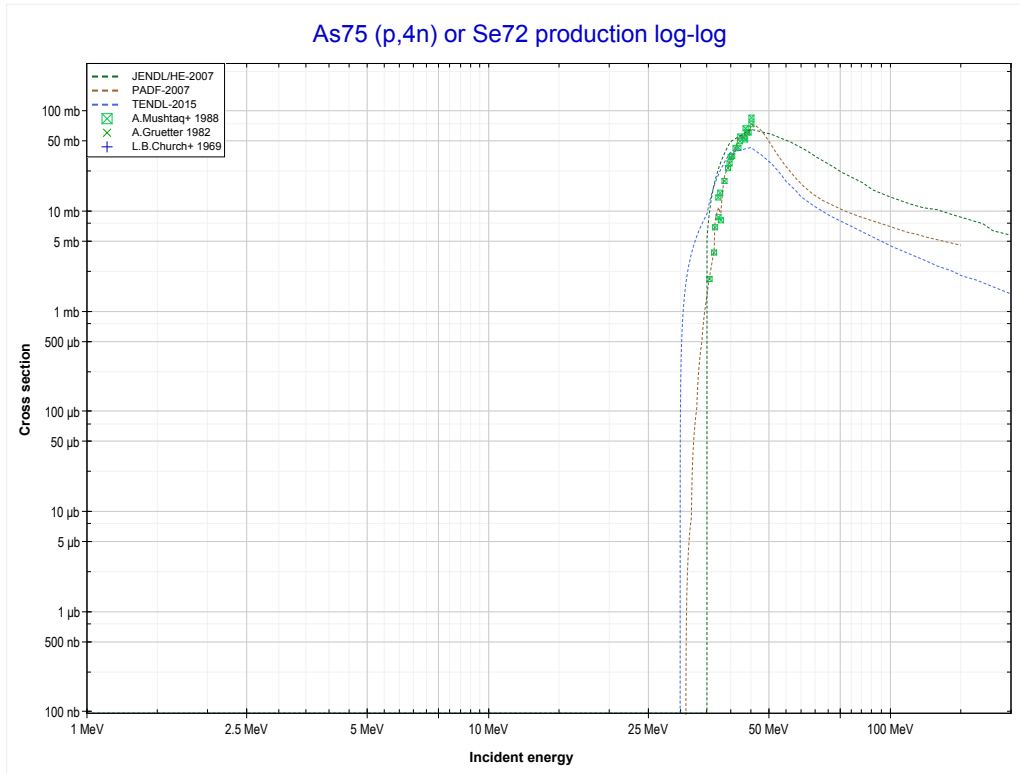
Reaction	Q-Value
As75(p,3n)Se73	-21732.18 keV

<< 32-Ge-72	33-As-75	34-Se-76 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (As74 production)	MT37 (p,4n) >>



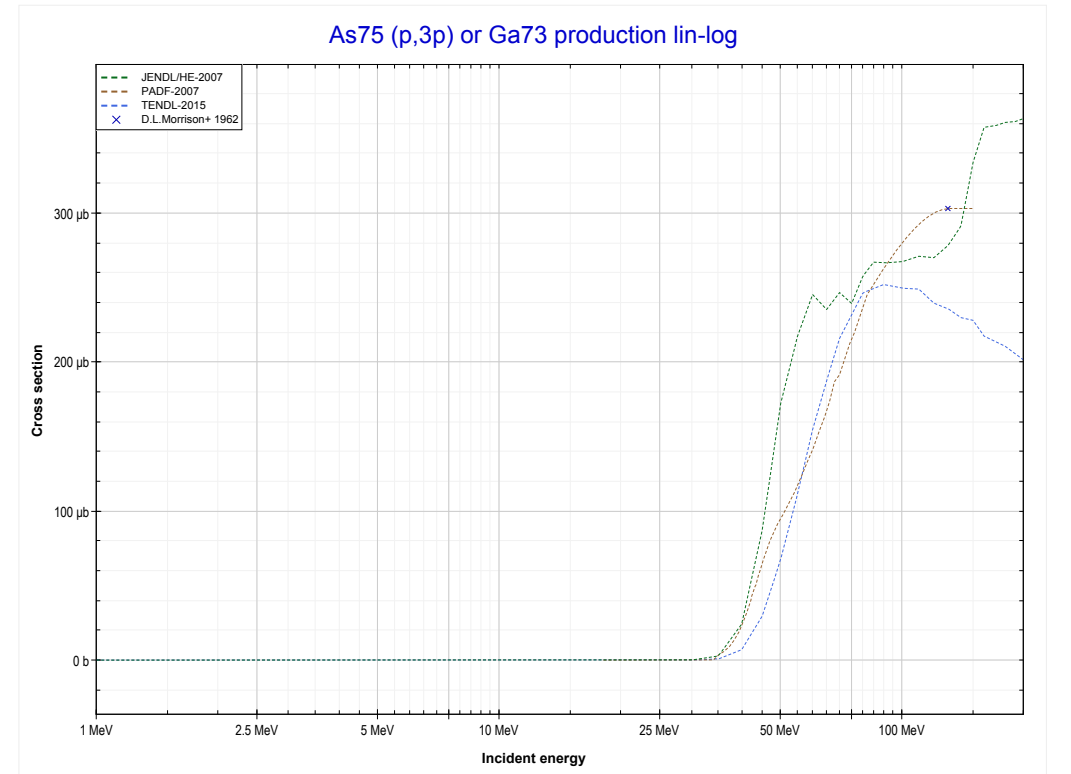
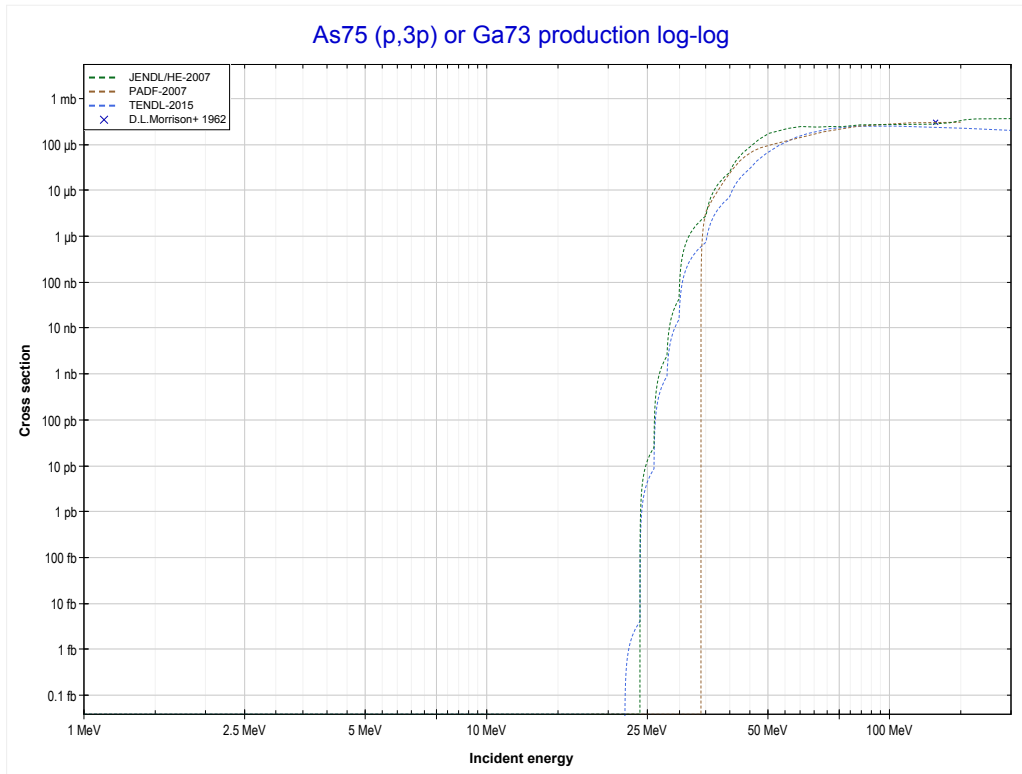
Reaction	Q-Value
As75(p,d)As74	-8020.85 keV
As75(p,n+p)As74	-10245.42 keV

<< 31-Ga-71	33-As-75	34-Se-78 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Se72 production)	MT197 (p,3p) >>



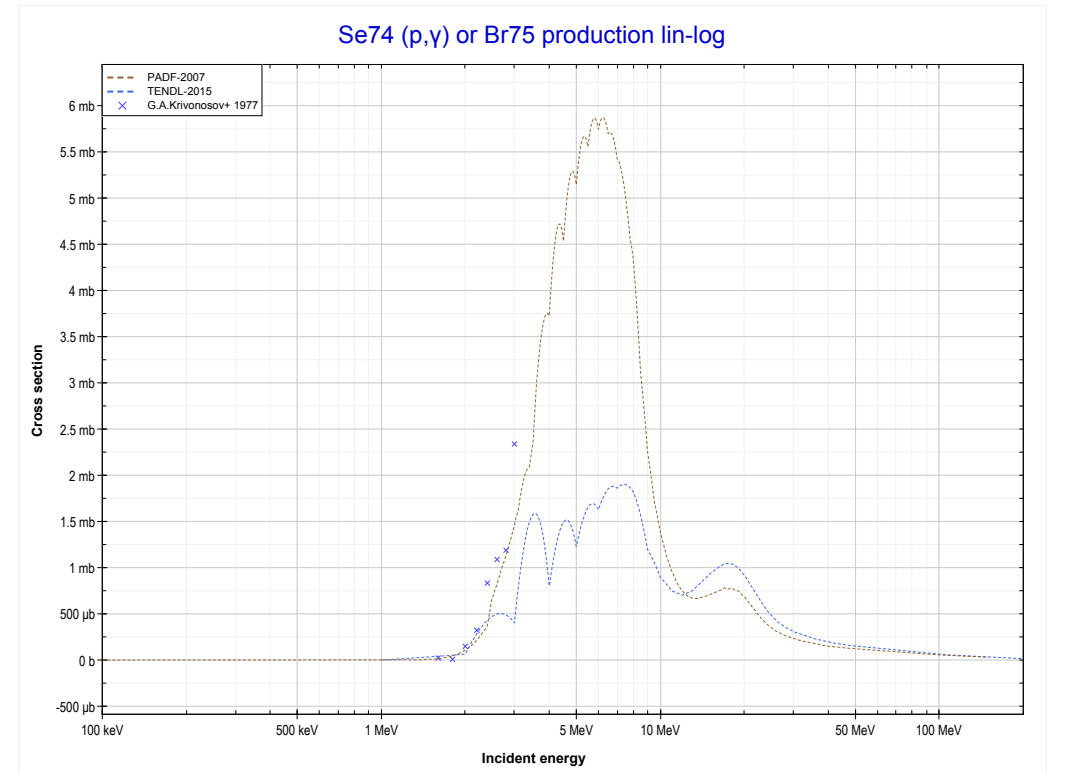
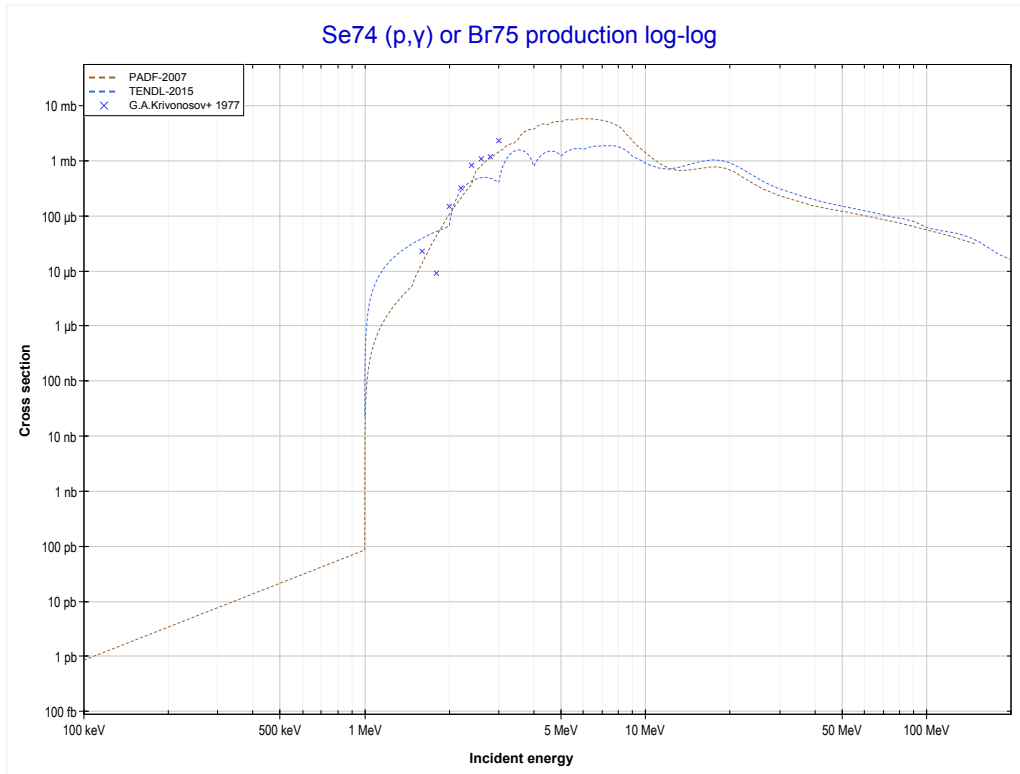
Reaction	Q-Value
As75(p,4n)Se72	-30162.30 keV

<< 31-Ga-69	33-As-75	74-W-186 >>
<< MT37 (p,4n)	MT197 (p,3p) or MT5 (Ga73 production)	34-Se-74 MT102 (p, γ) >>



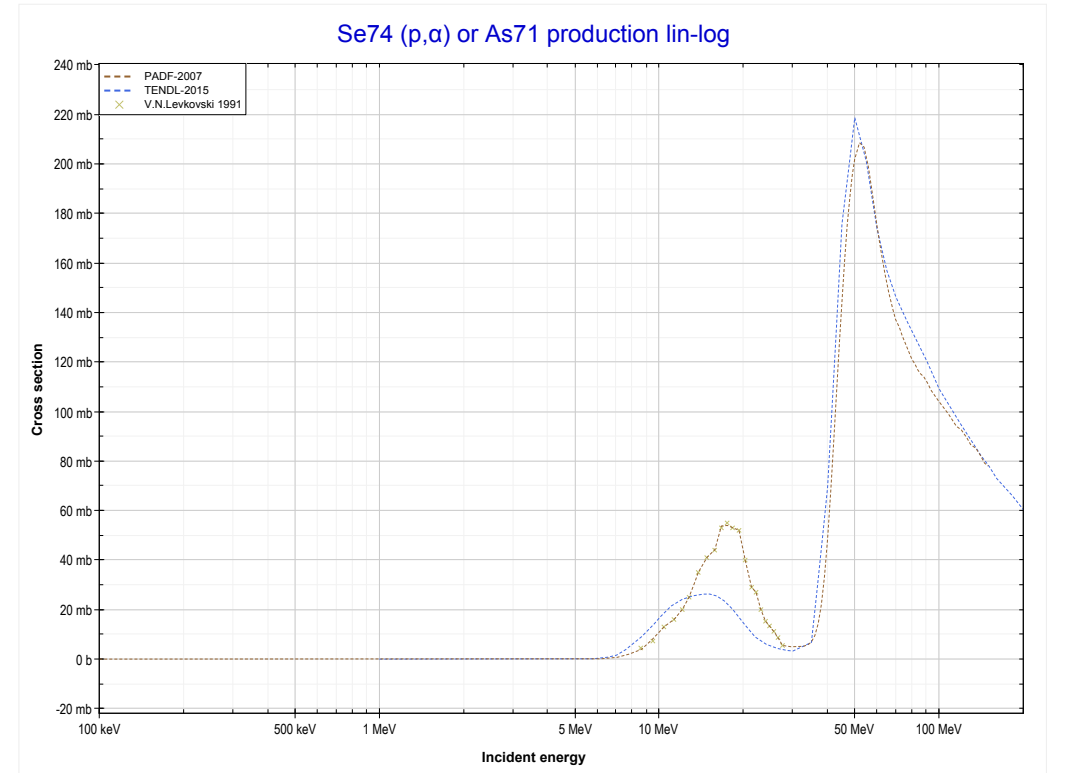
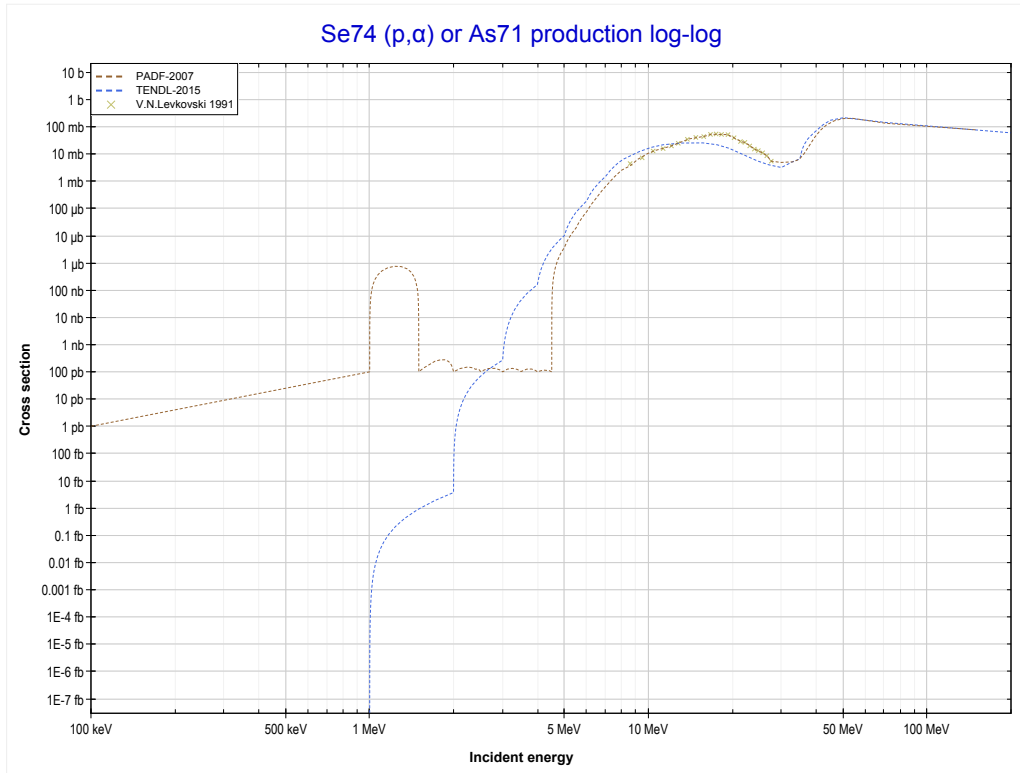
Reaction	Q-Value
As75(p,3p)Ga73	-17912.84 keV

<< 30-Zn-68	34-Se-74	34-Se-77 >>
<< 33-As-75 MT197 (p,3p)	MT102 (p,γ) or MT5 (Br75 production)	MT107 (p, α) >>



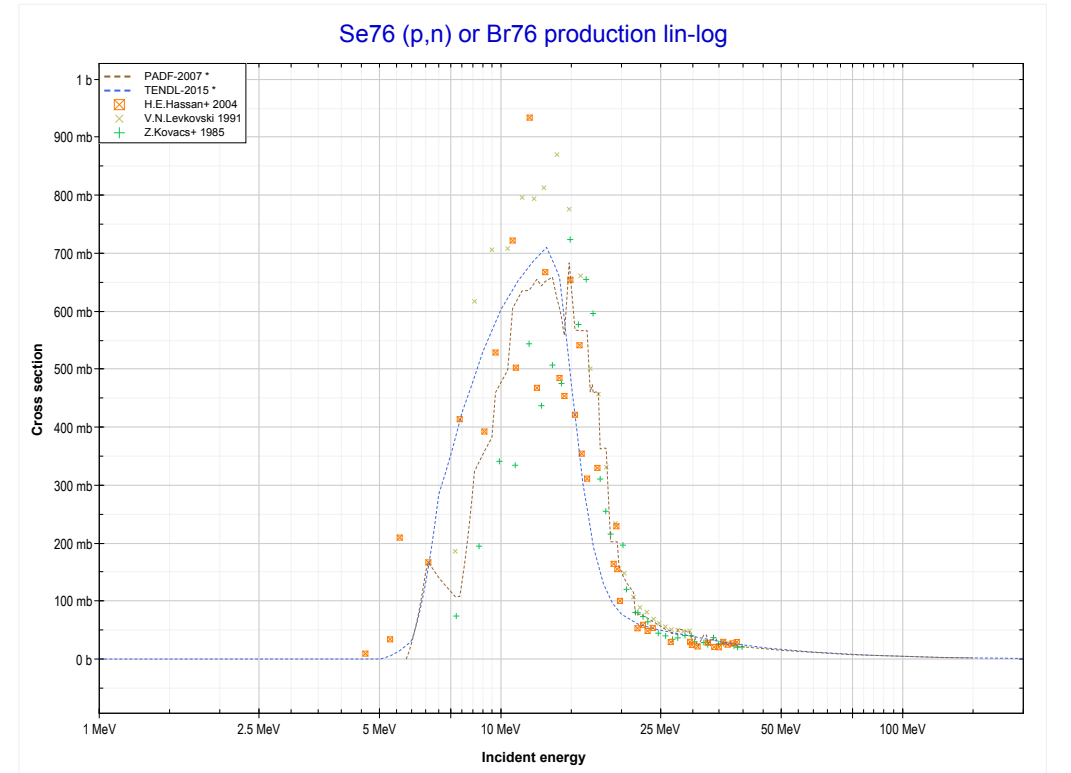
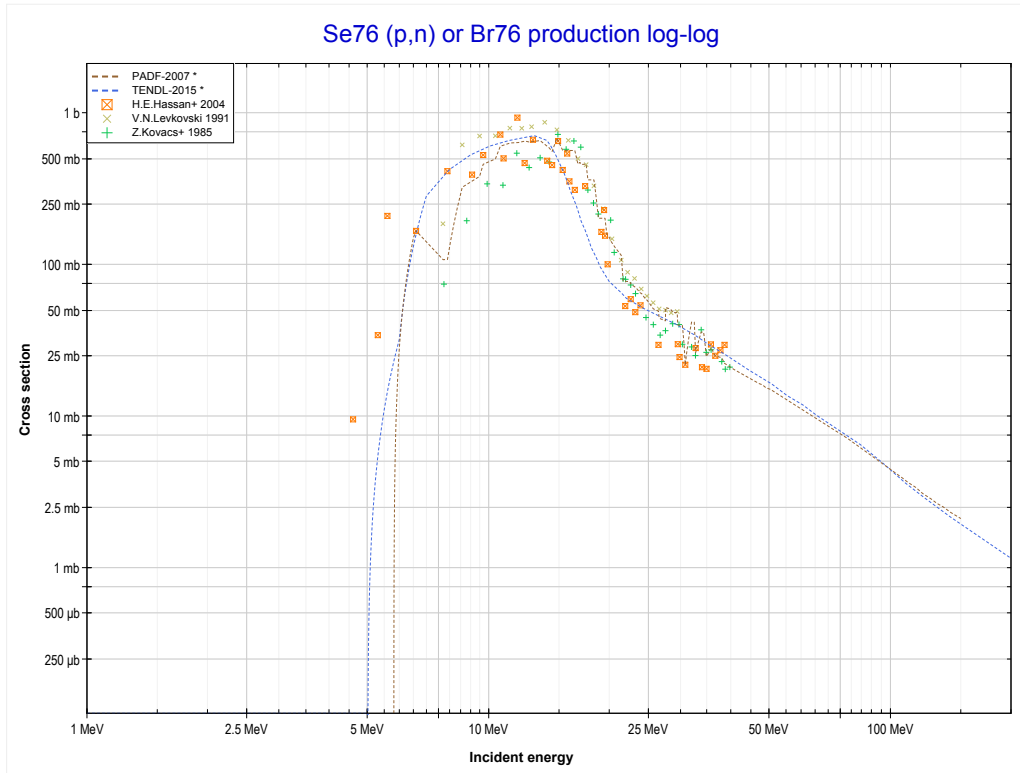
Reaction	Q-Value
Se74(p, γ)Br75	4182.77 keV

<< 32-Ge-76	34-Se-74	34-Se-76 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (As71 production)	34-Se-76 MT4 (p,n) >>



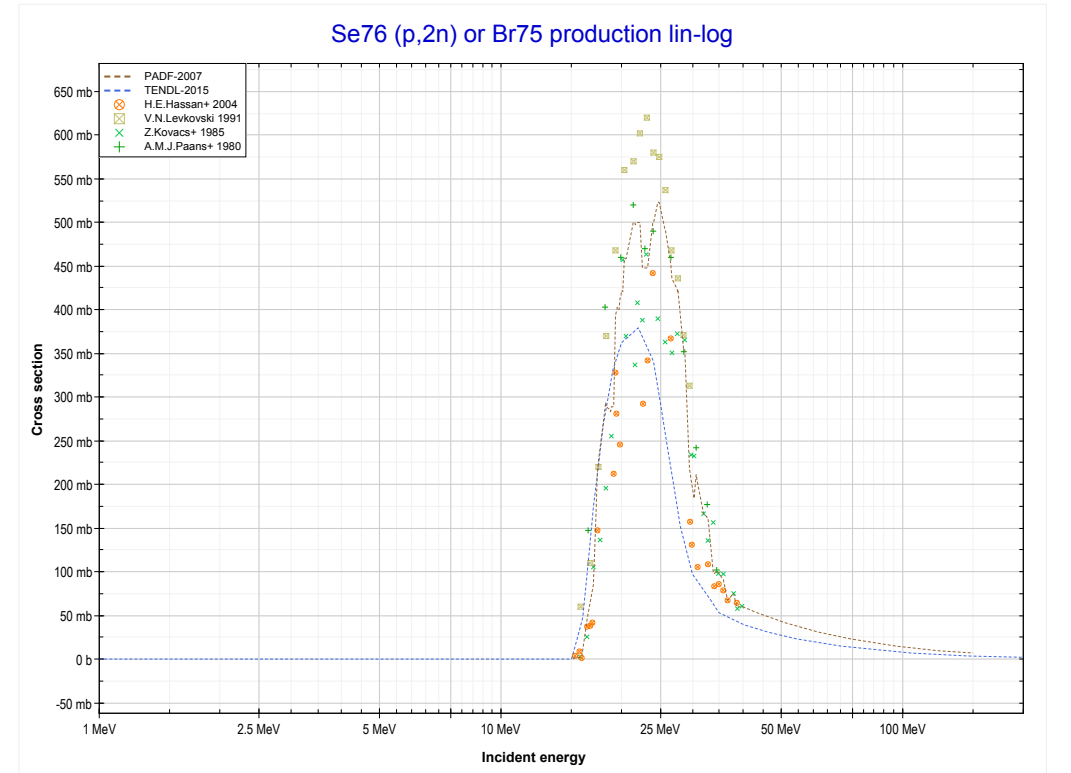
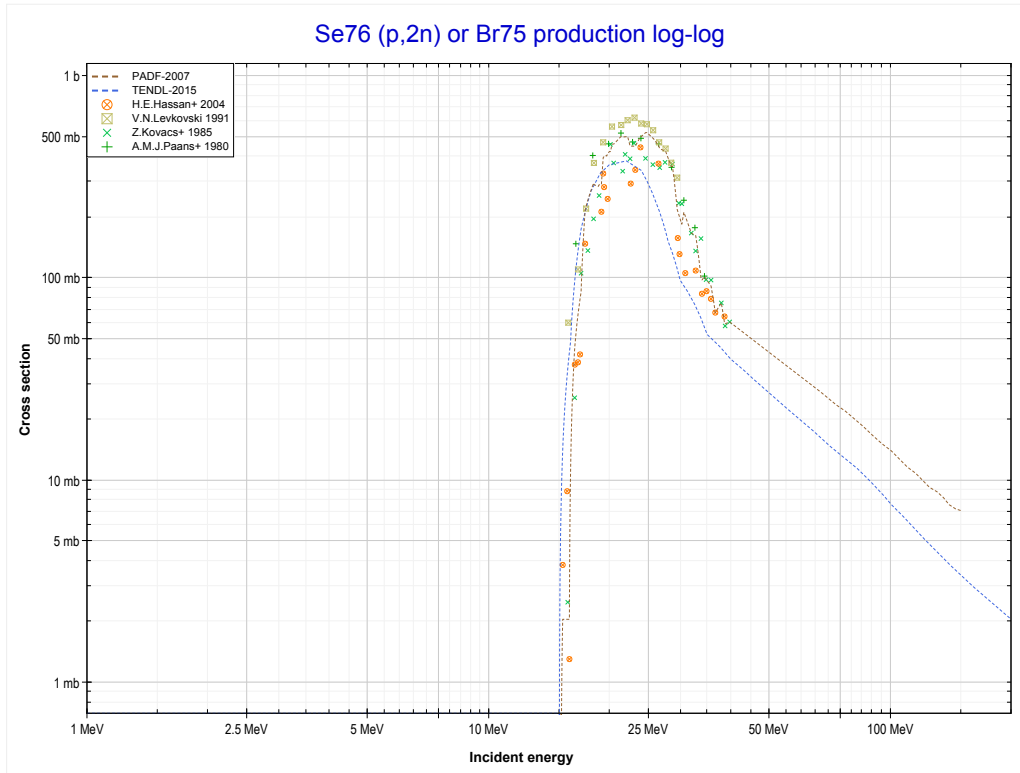
Reaction	Q-Value
Se74(p, α)As71	543.85 keV
Se74(p,p+t)As71	-19270.01 keV
Se74(p,n+He3)As71	-20033.76 keV
Se74(p,2d)As71	-23302.67 keV
Se74(p,n+p+d)As71	-25527.24 keV
Se74(p,2n+2p)As71	-27751.81 keV

<< 33-As-75	34-Se-76	34-Se-77 >>
<< 34-Se-74 MT107 (p, α)	MT4 (p,n) or MT5 (Br76 production)	MT16 (p,2n) >>



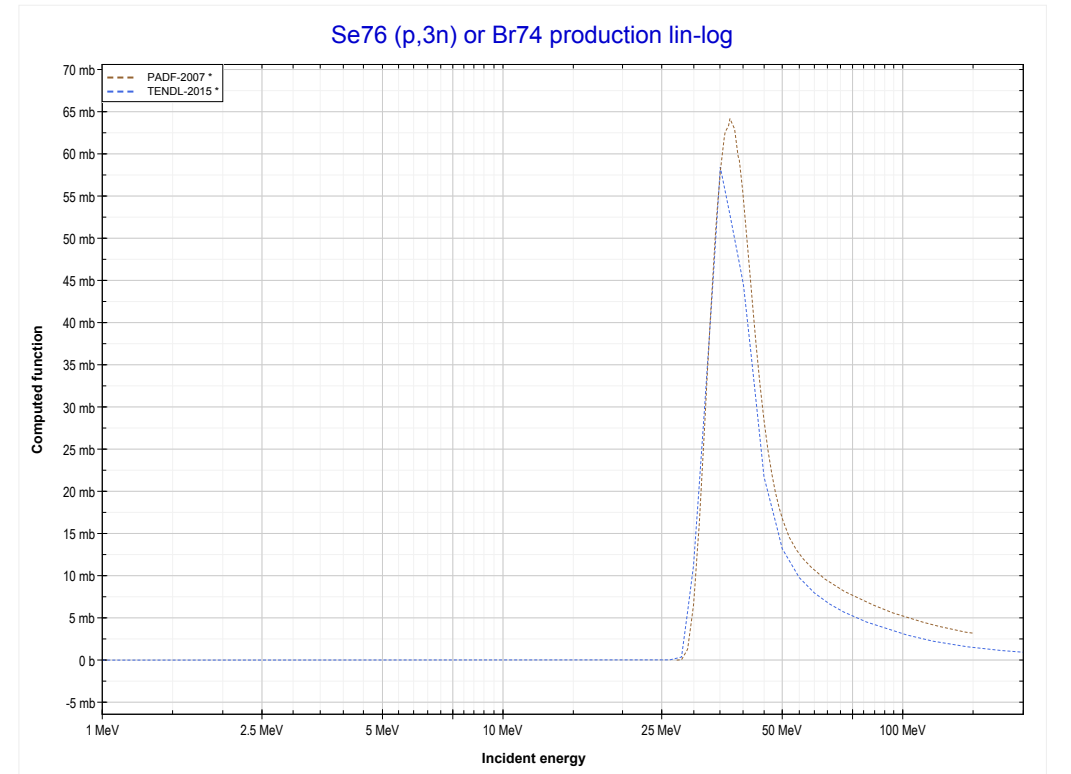
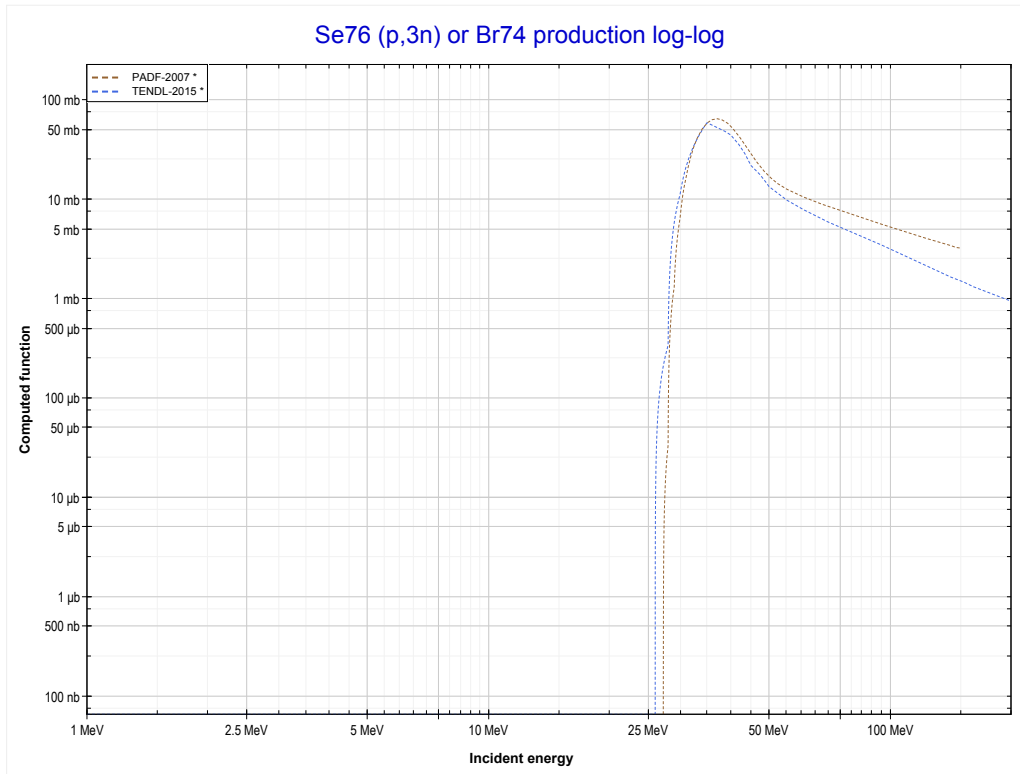
Reaction	Q-Value
Se76(p,n)Br76	-5745.30 keV

<< 32-Ge-76	34-Se-76	34-Se-77 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Br75 production)	MT17 (p,3n) >>



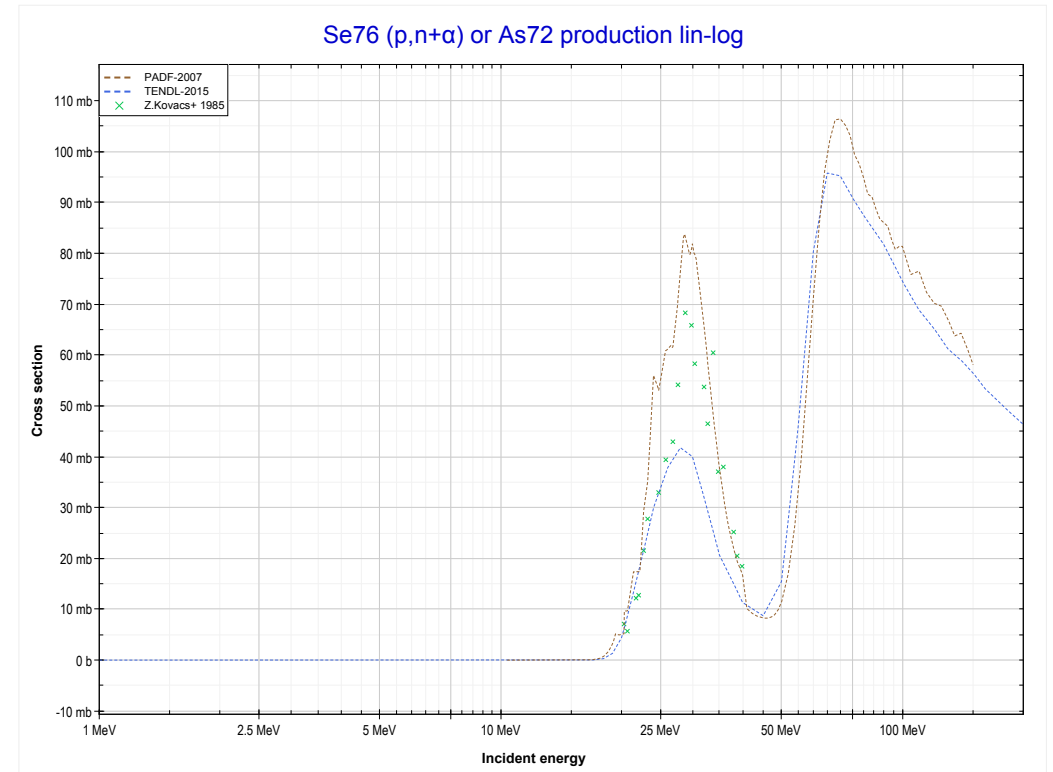
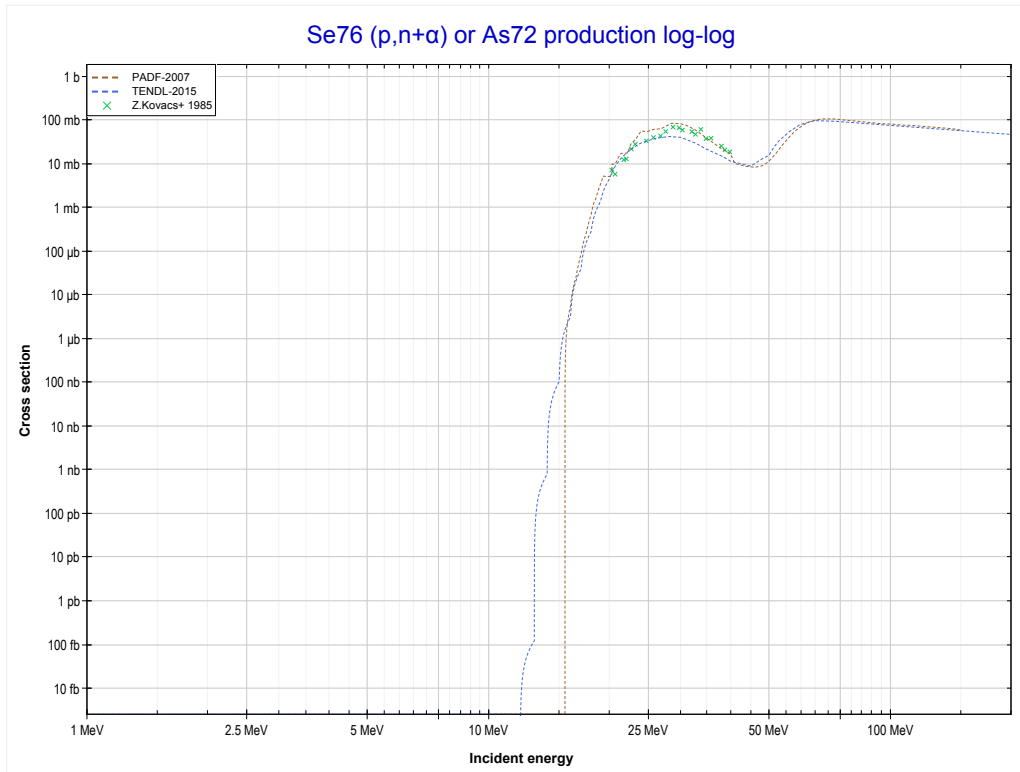
Reaction	Q-Value
Se76(p,2n)Br75	-14998.61 keV

<< 33-As-75	34-Se-76	34-Se-77 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Br74 production)	MT22 (p,n+α) >>



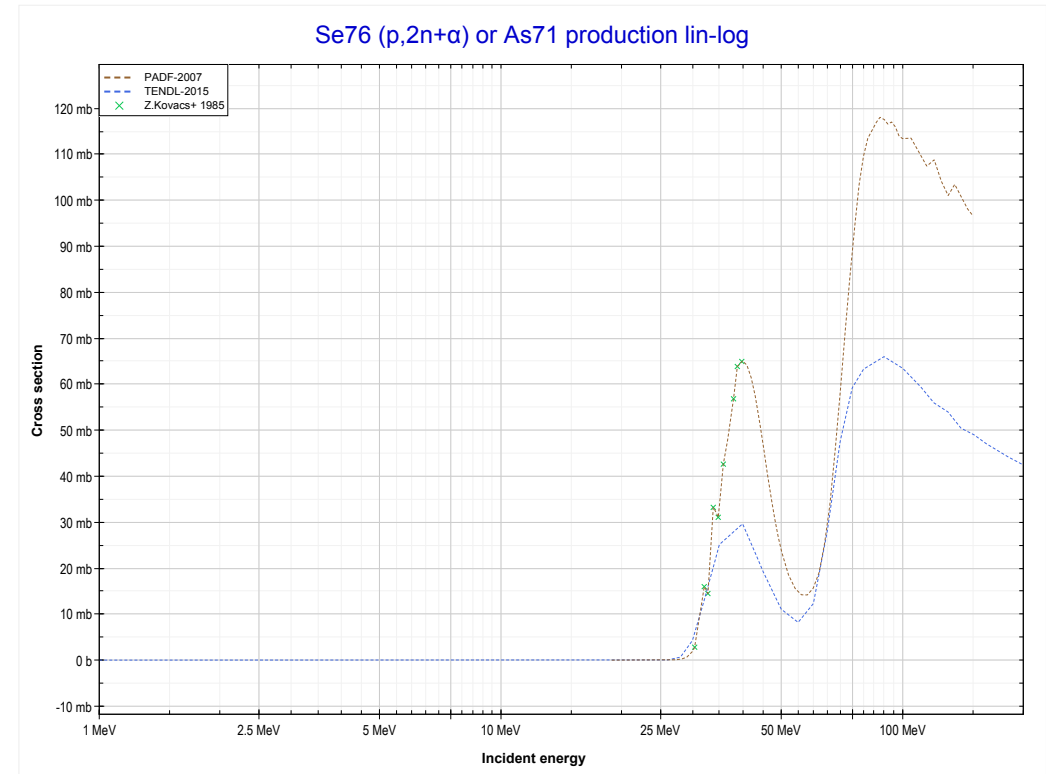
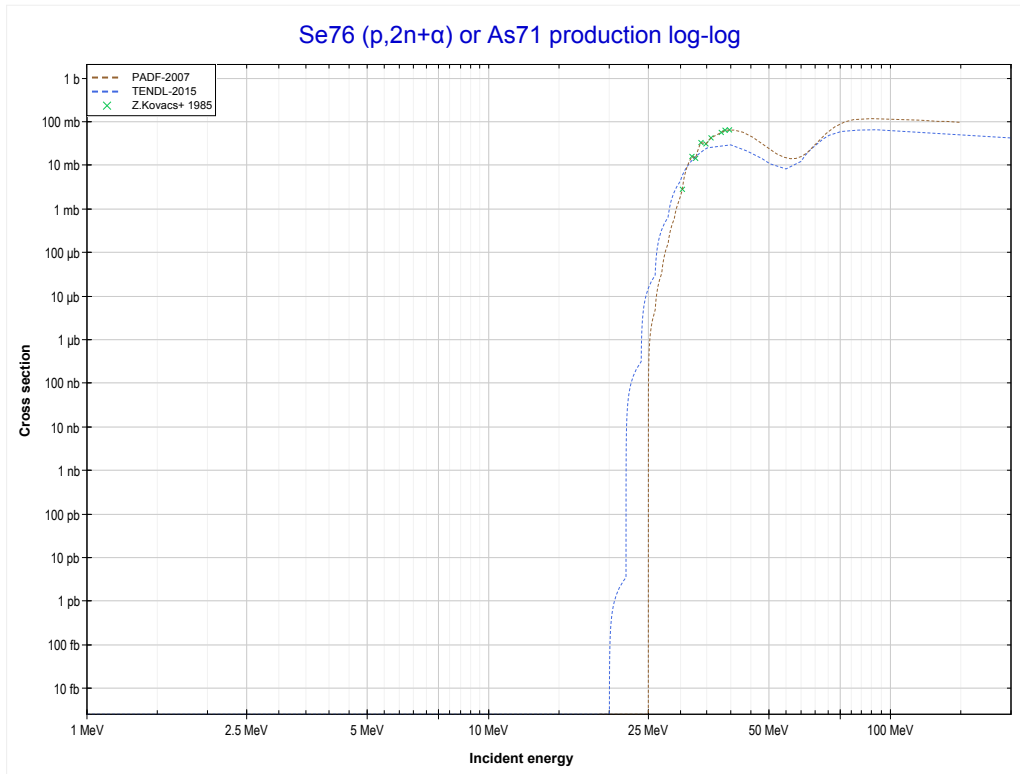
Reaction	Q-Value
Se76(p,3n)Br74	-26888.93 keV

<< 30-Zn-68	34-Se-76	36-Kr-80 >>
<< MT17 (p,3n)	MT22 (p,n+α) or MT5 (As72 production)	MT24 (p,2n+α) >>



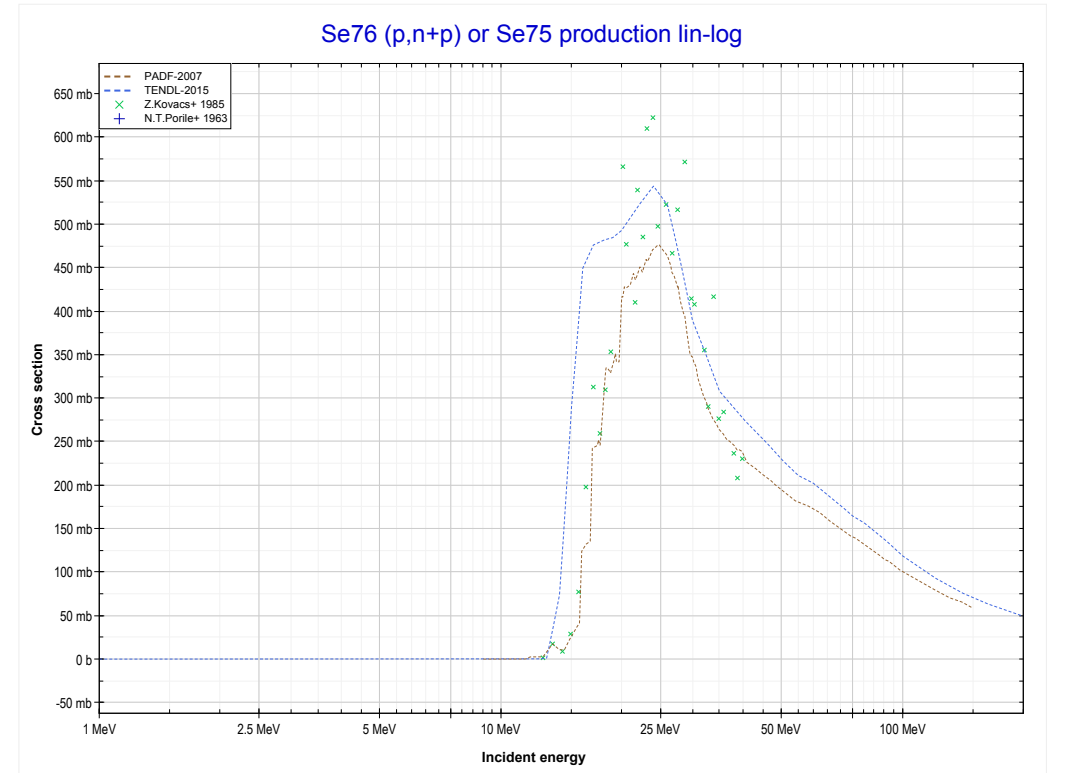
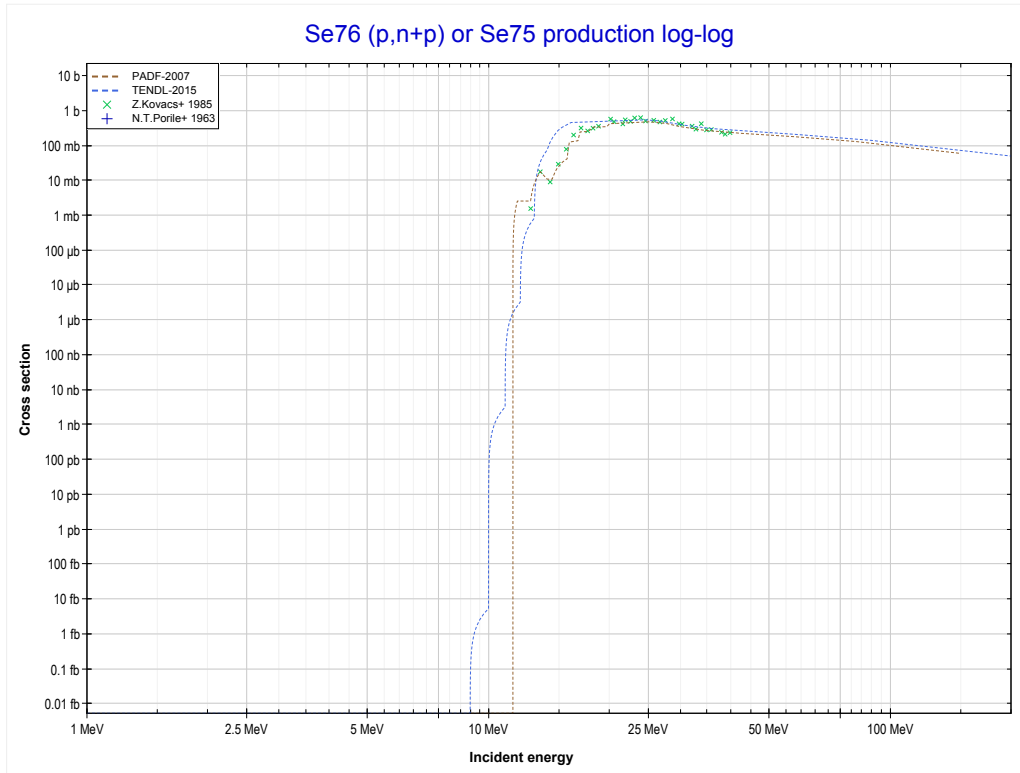
Reaction	Q-Value
Se76(p,n+α)As72	-10229.21 keV
Se76(p,d+t)As72	-27818.51 keV
Se76(p,n+p+t)As72	-30043.07 keV
Se76(p,2n+He3)As72	-30806.83 keV
Se76(p,n+2d)As72	-34075.74 keV
Se76(p,2n+p+d)As72	-36300.31 keV
Se76(p,3n+2p)As72	-38524.87 keV

<< 28-Ni-62	34-Se-76	54-Xe-124 >>
<< MT22 (p,n+α)	MT24 (p,2n+α) or MT5 (As71 production)	MT28 (p,n+p) >>



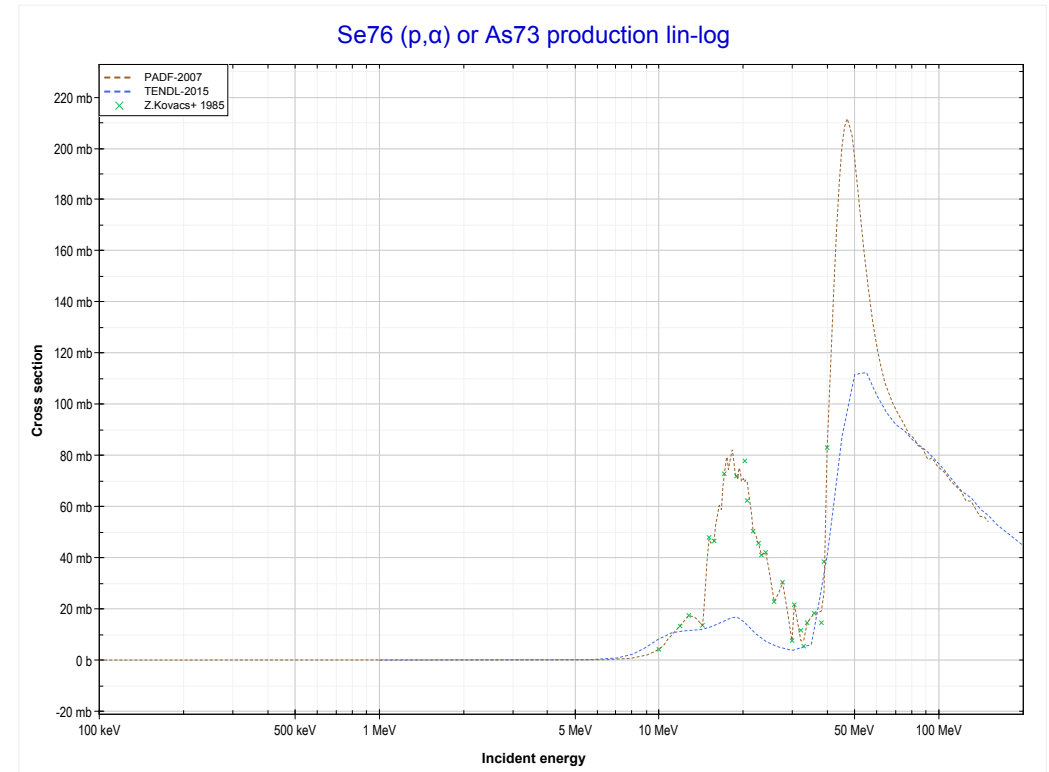
Reaction	Q-Value
Se76(p,2n+α)As71	-18637.53 keV
Se76(p,2t)As71	-29969.59 keV
Se76(p,n+d+t)As71	-36226.82 keV
Se76(p,2n+p+t)As71	-38451.39 keV
Se76(p,3n+He3)As71	-39215.15 keV
Se76(p,2n+2d)As71	-42484.06 keV
Se76(p,3n+p+d)As71	-44708.62 keV
Se76(p,4n+2p)As71	-46933.19 keV

<< 33-As-75	34-Se-76	35-Br-79 >>
<< MT24 (p,2n+α)	MT28 (p,n+p) or MT5 (Se75 production)	MT107 (p,α) >>



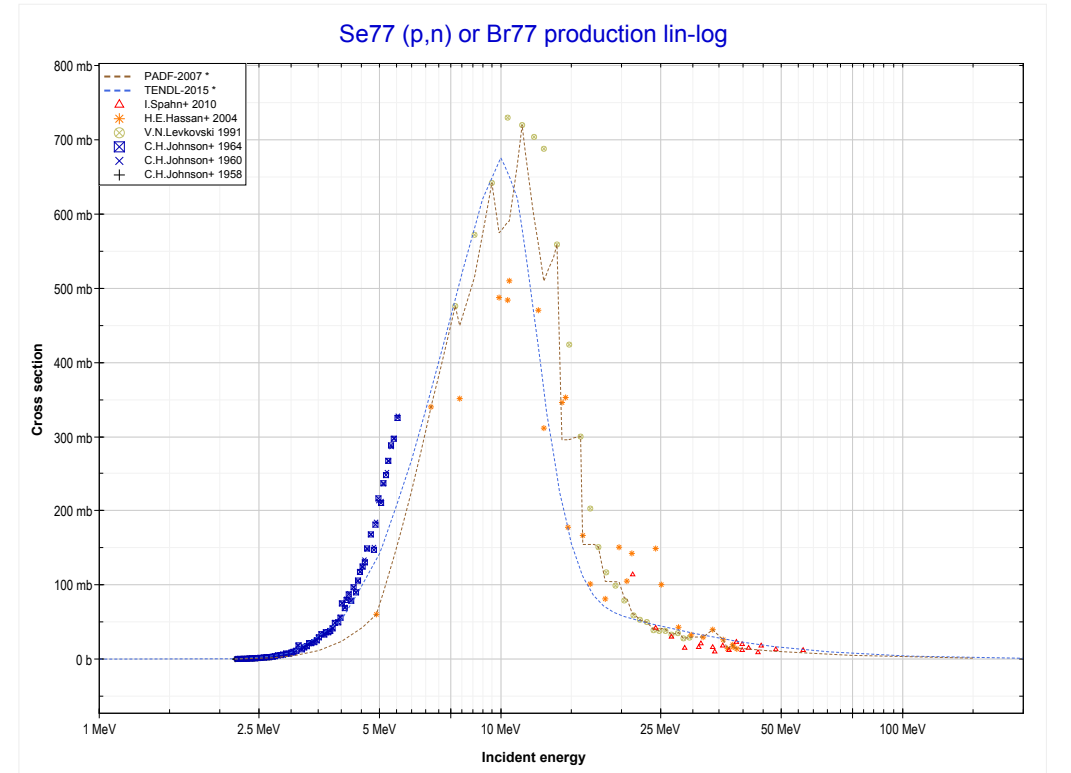
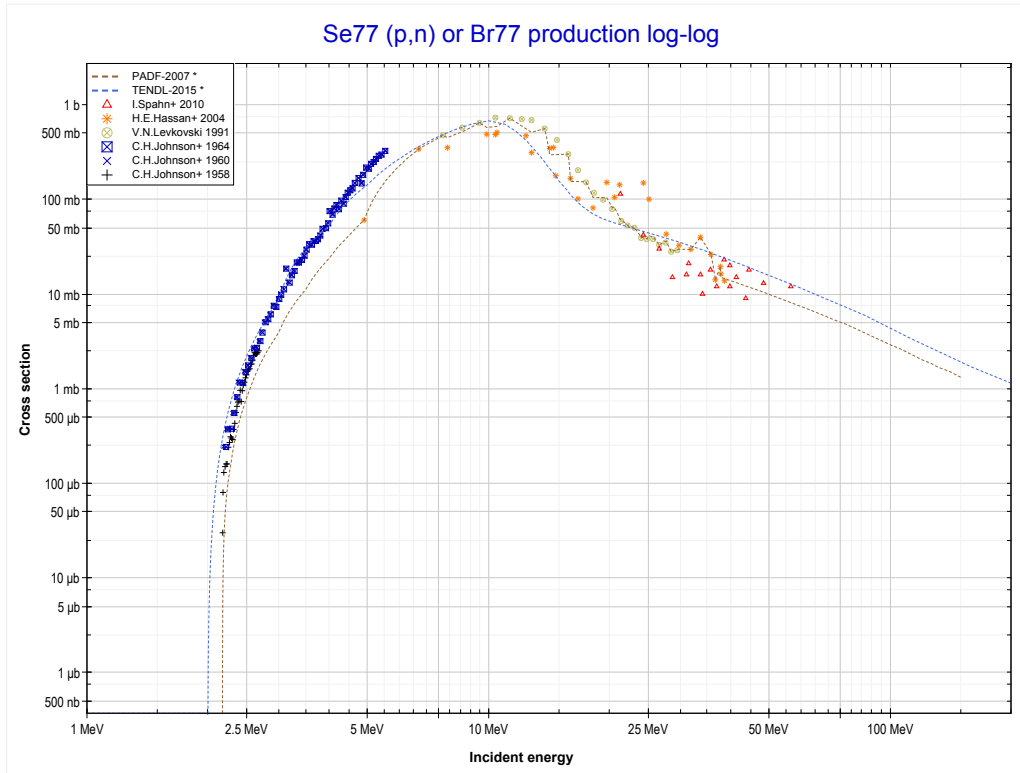
Reaction	Q-Value
Se76(p,d)Se75	-8929.22 keV
Se76(p,n+p)Se75	-11153.79 keV

<< 34-Se-74	34-Se-76	34-Se-77 >>
<< MT28 (p,n+p)	MT107 (p,α) or MT5 (As73 production)	34-Se-77 MT4 (p,n) >>



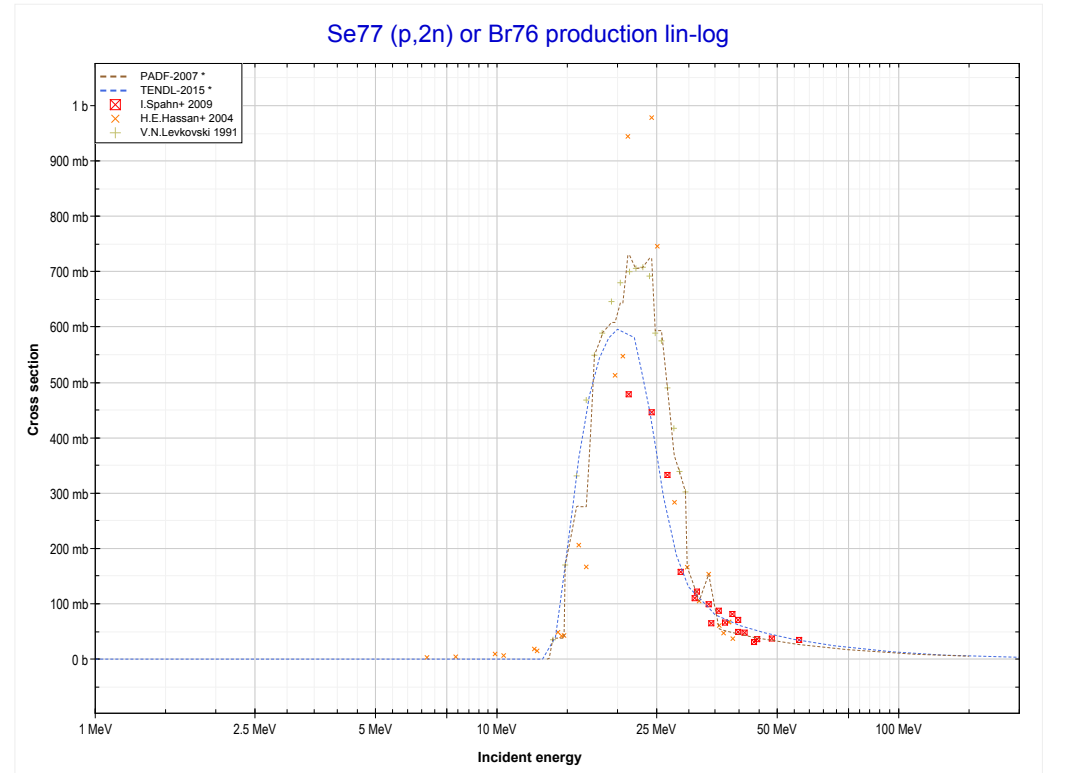
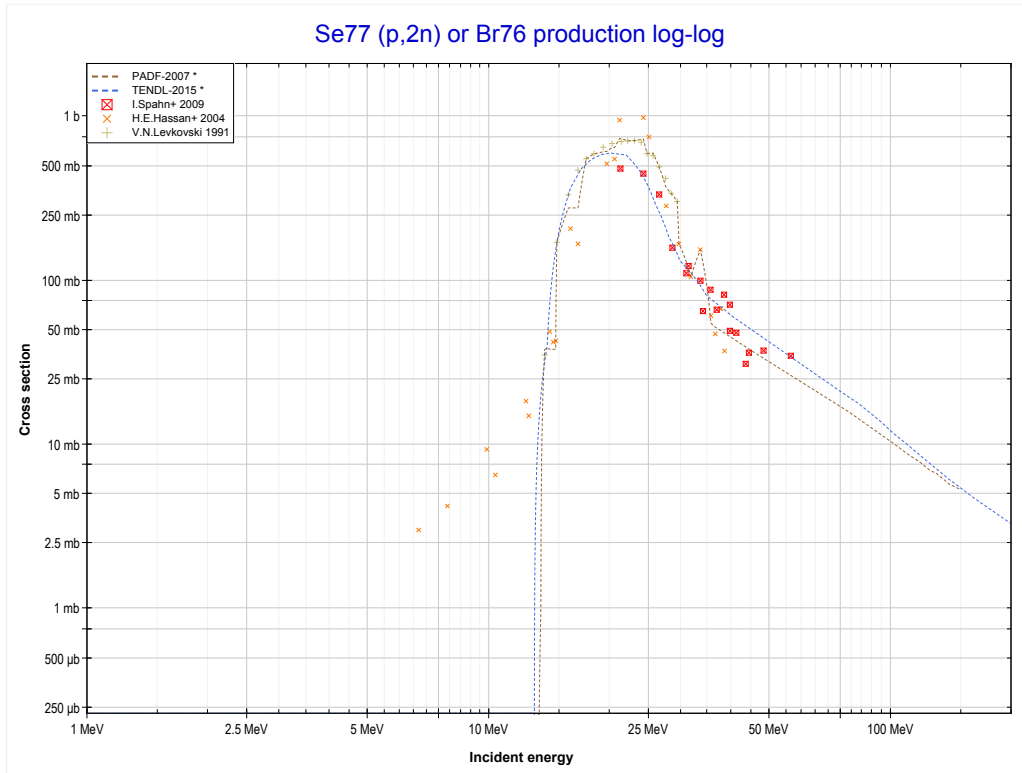
Reaction	Q-Value
Se76(p, α)As73	565.10 keV
Se76(p,p+t)As73	-19248.76 keV
Se76(p,n+He3)As73	-20012.51 keV
Se76(p,2d)As73	-23281.42 keV
Se76(p,n+p+d)As73	-25505.99 keV
Se76(p,2n+2p)As73	-27730.55 keV

<< 34-Se-76	34-Se-77	34-Se-78 >>
<< 34-Se-76 MT107 (p, α)	MT4 (p,n) or MT5 (Br77 production)	MT16 (p,2n) >>



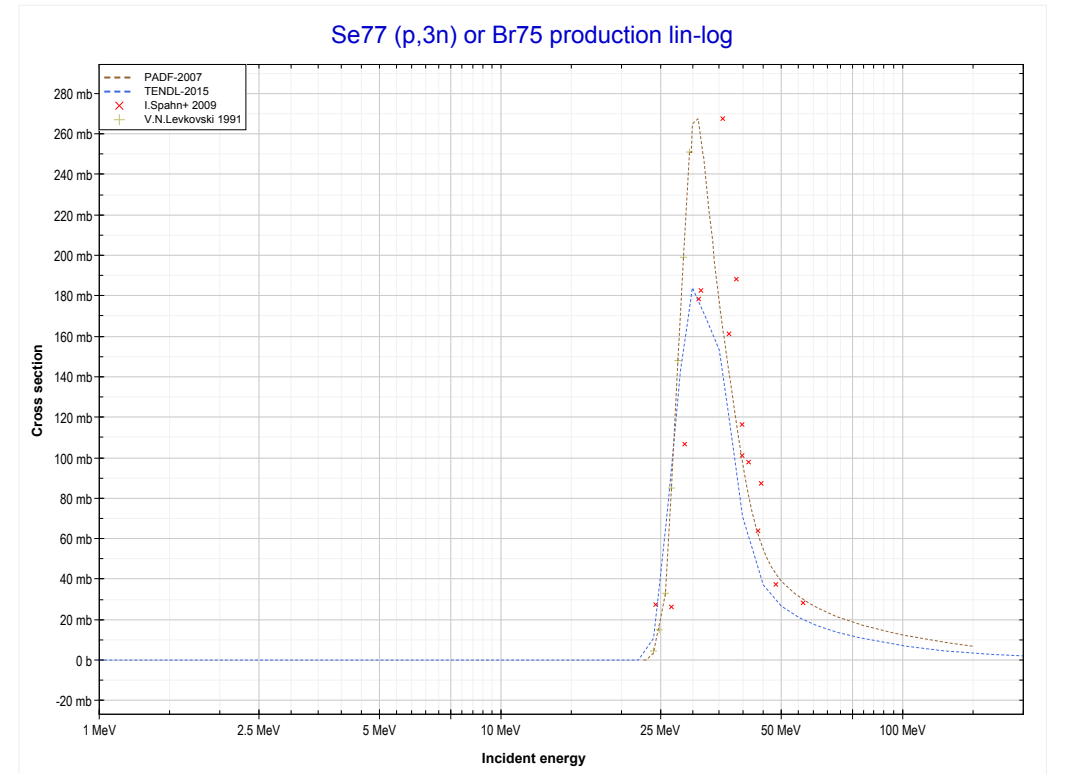
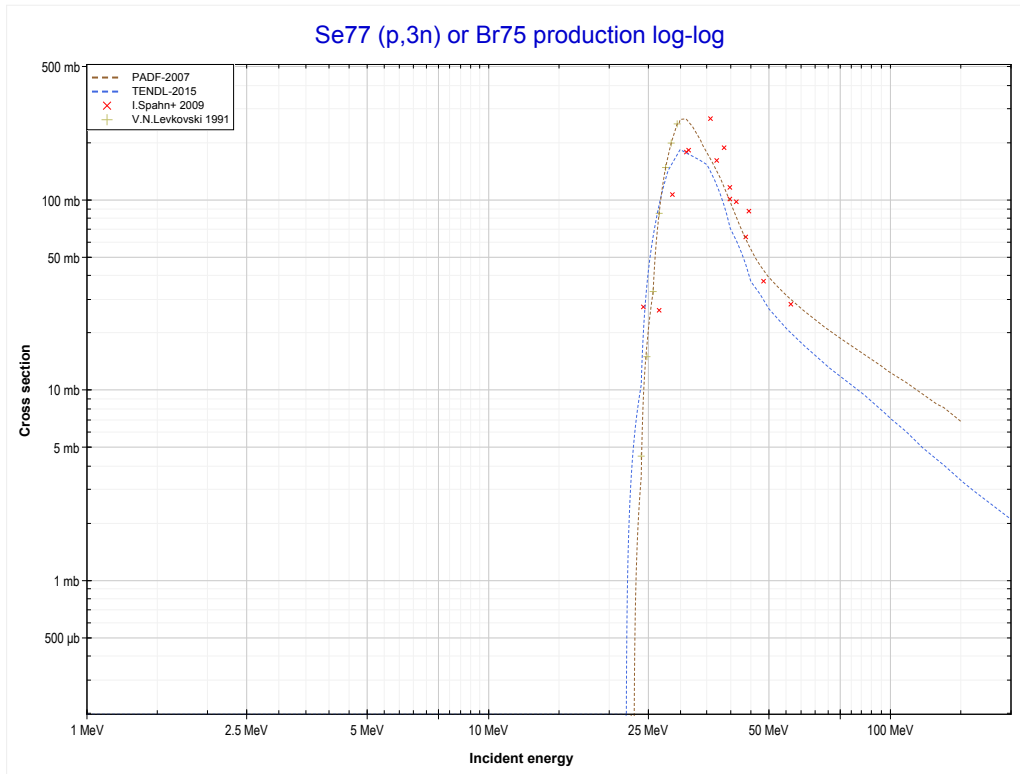
Reaction	Q-Value
Se77(p,n)Br77	-2147.03 keV

<< 34-Se-76	34-Se-77	34-Se-78 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Br76 production)	MT17 (p,3n) >>



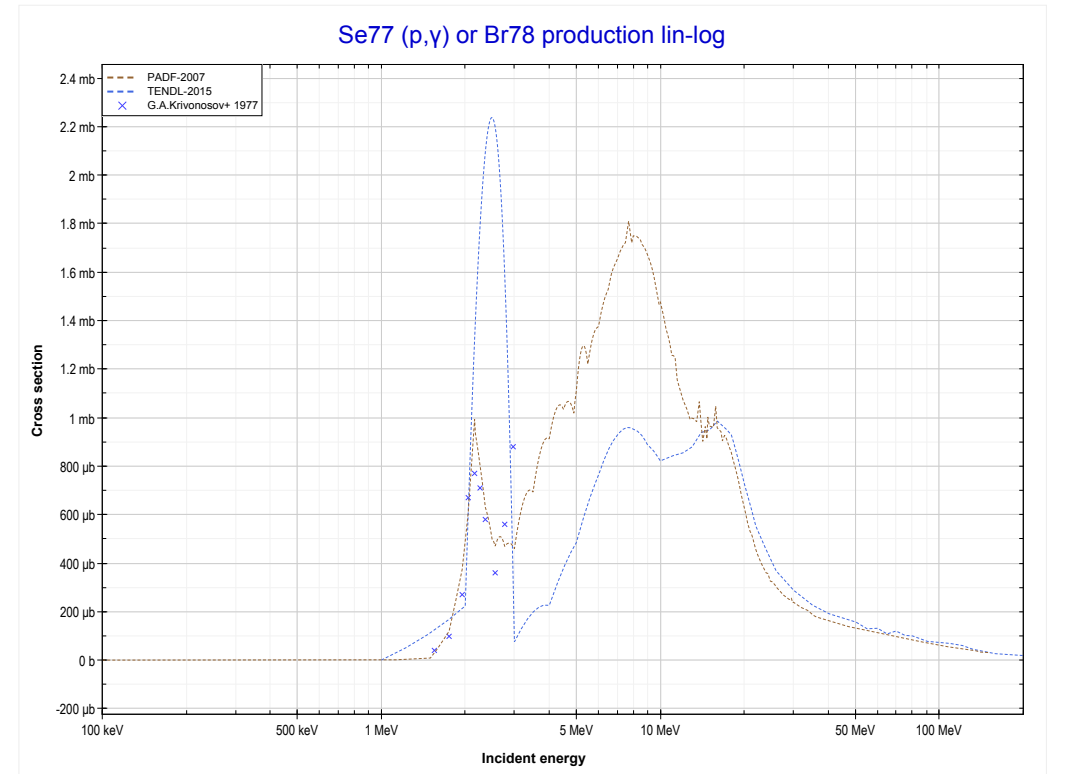
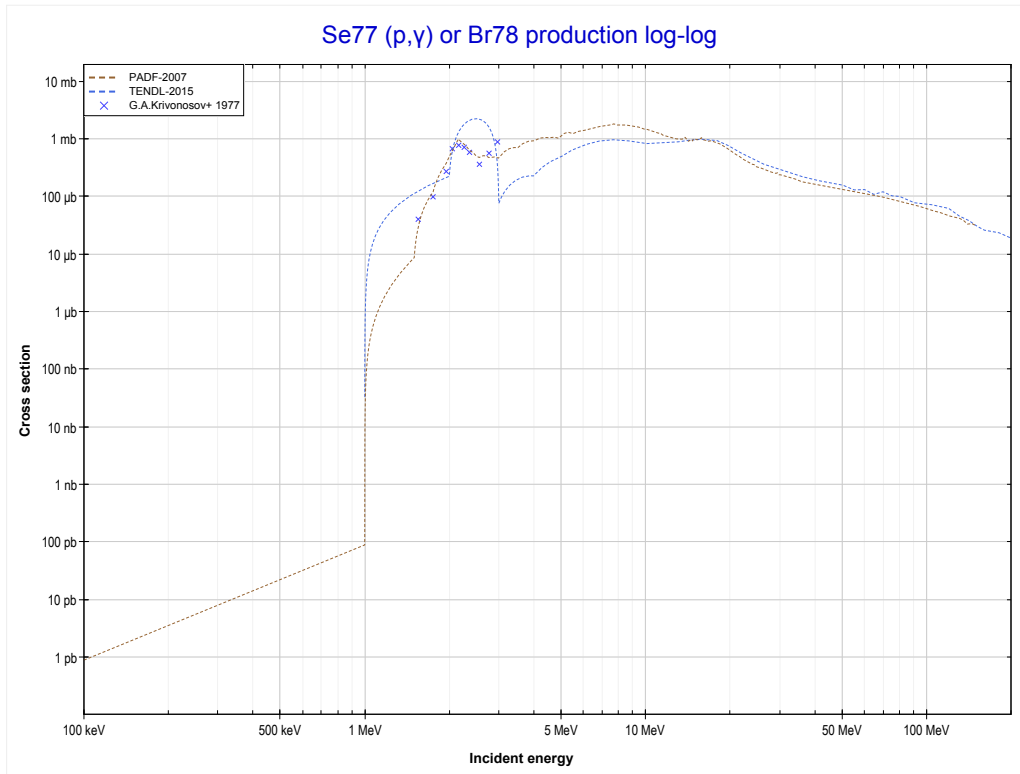
Reaction	Q-Value
Se77(p,2n)Br76	-13164.14 keV

<< 34-Se-76	34-Se-77	34-Se-78 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Br75 production)	MT102 (p, γ) >>



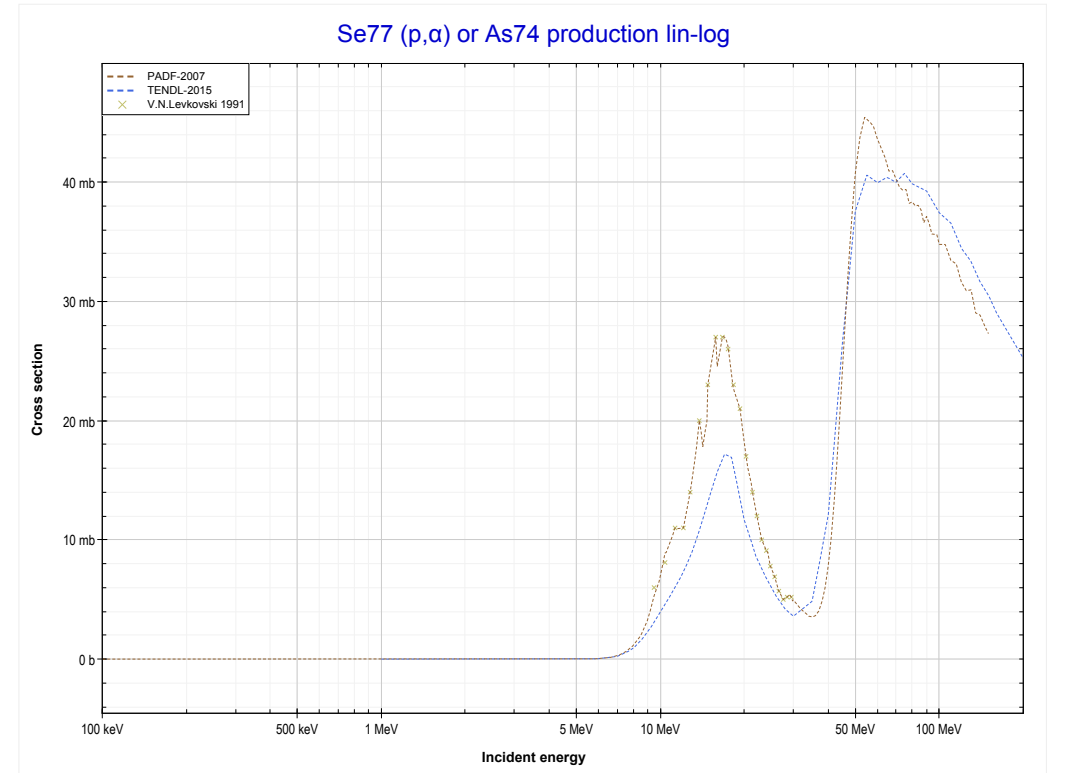
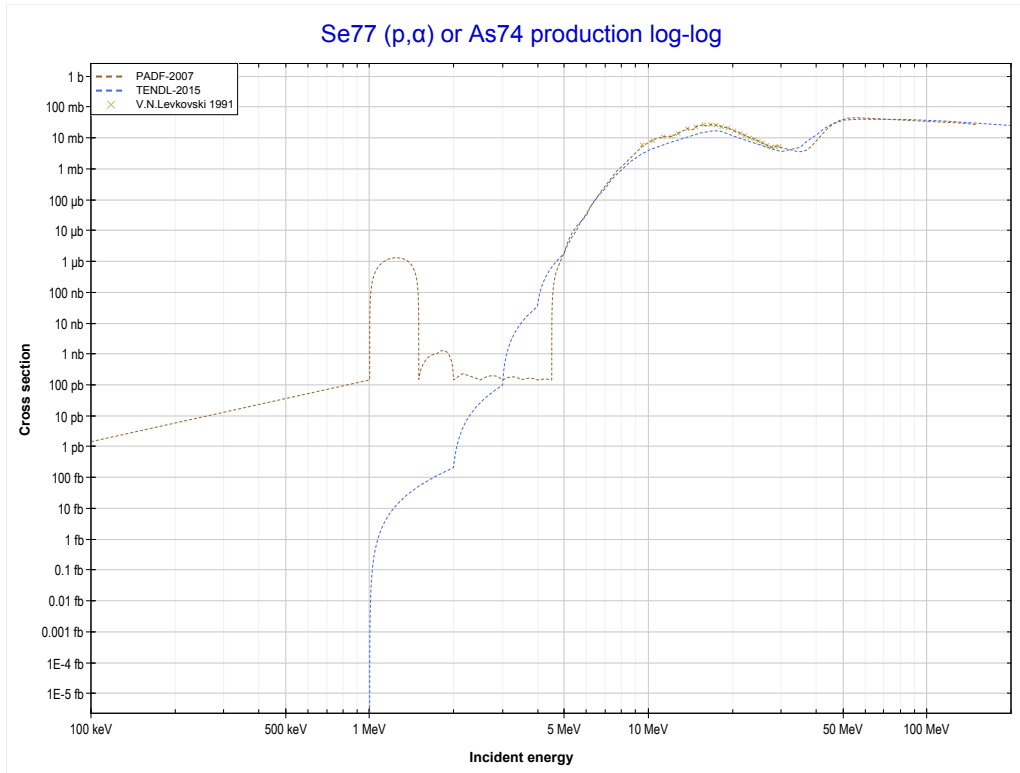
Reaction	Q-Value
Se77(p,3n)Br75	-22417.46 keV

<< 34-Se-74	34-Se-77	34-Se-82 >>
<< MT17 (p,3n)	MT102 (p,γ) or MT5 (Br78 production)	MT107 (p, α) >>



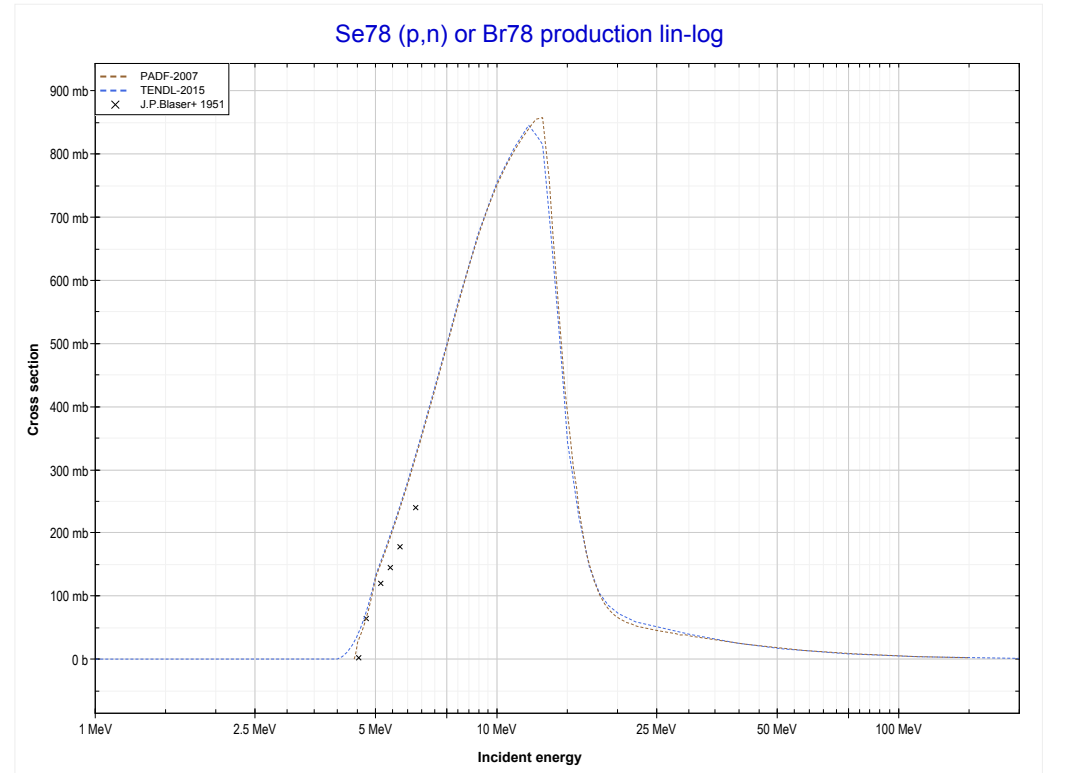
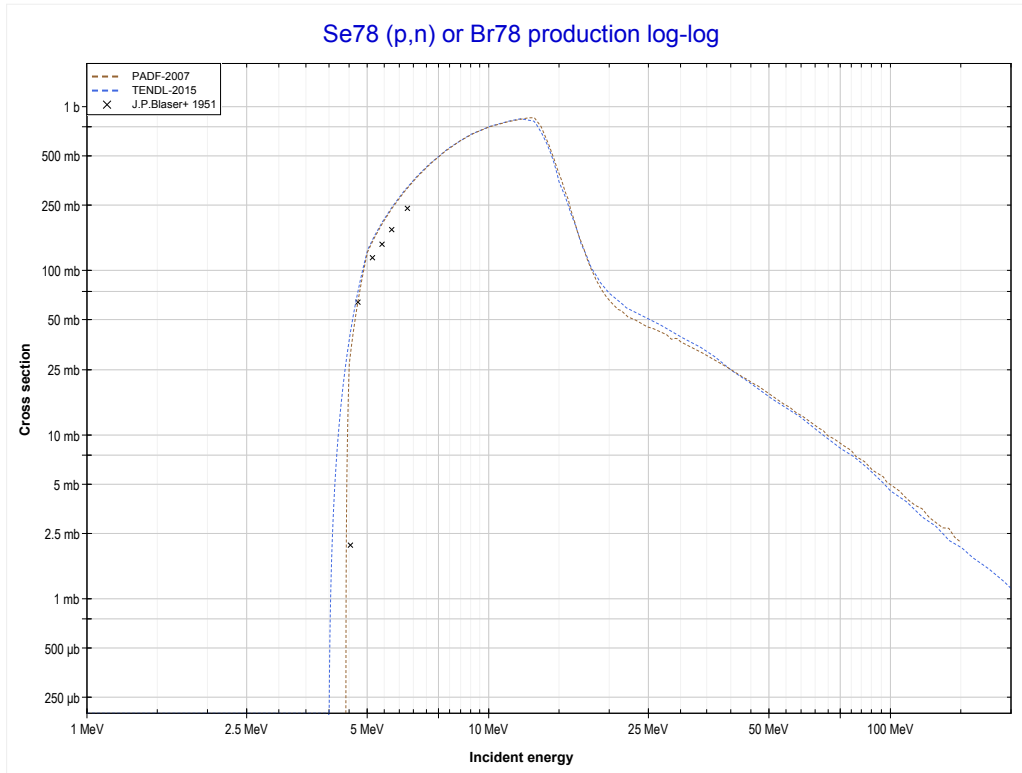
Reaction	Q-Value
Se77(p, γ)Br78	6141.49 keV

<< 34-Se-76	34-Se-77	36-Kr-78 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (As74 production)	34-Se-78 MT4 (p,n) >>



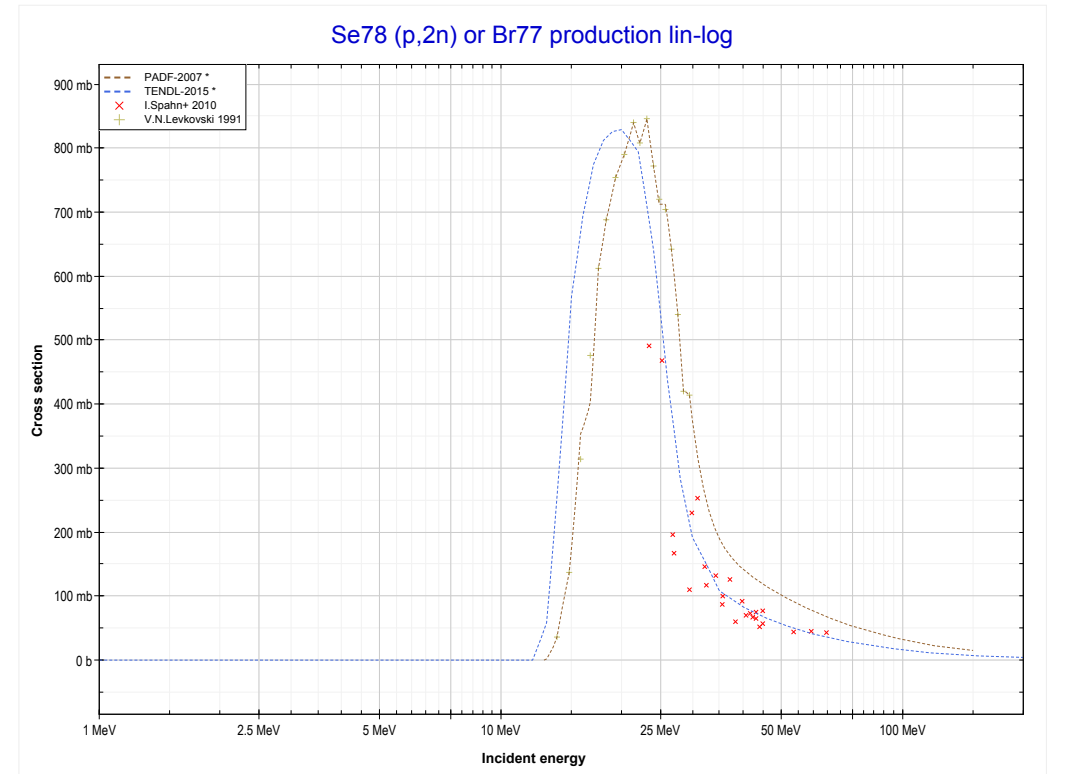
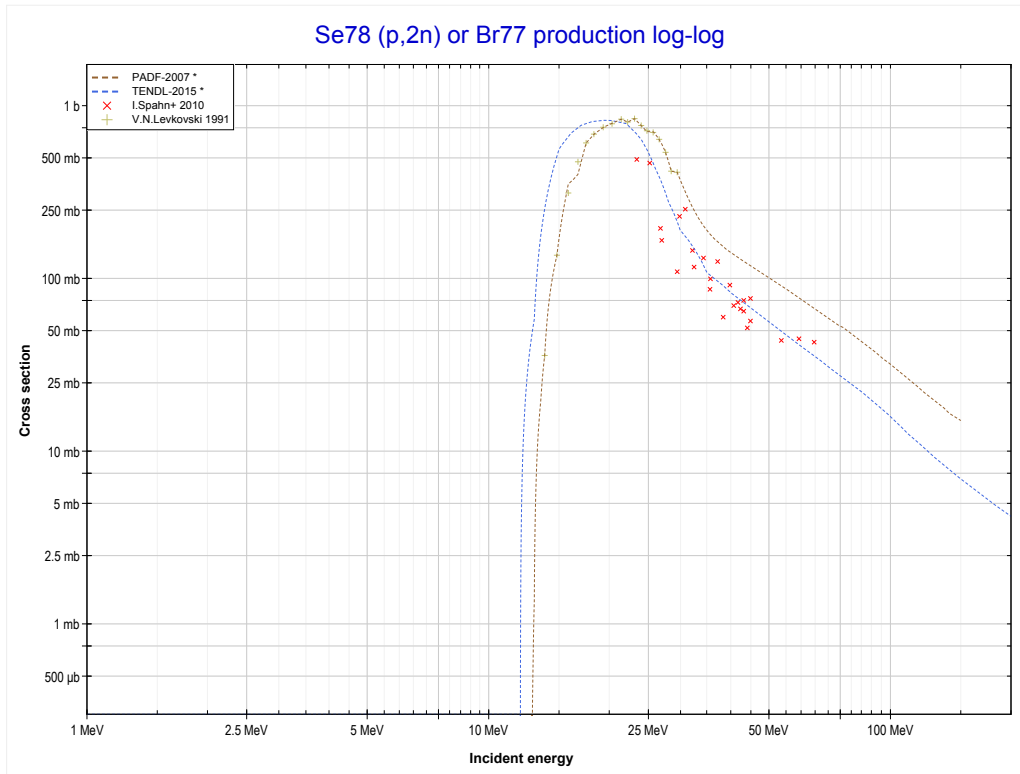
Reaction	Q-Value
Se77(p, α)As74	1124.67 keV
Se77(p,p+t)As74	-18689.19 keV
Se77(p,n+He3)As74	-19452.94 keV
Se77(p,2d)As74	-22721.85 keV
Se77(p,n+p+d)As74	-24946.42 keV
Se77(p,2n+2p)As74	-27170.98 keV

<< 34-Se-77	34-Se-78	34-Se-80 >>
<< 34-Se-77 MT107 (p, α)	MT4 (p,n) or MT5 (Br78 production)	MT16 (p,2n) >>



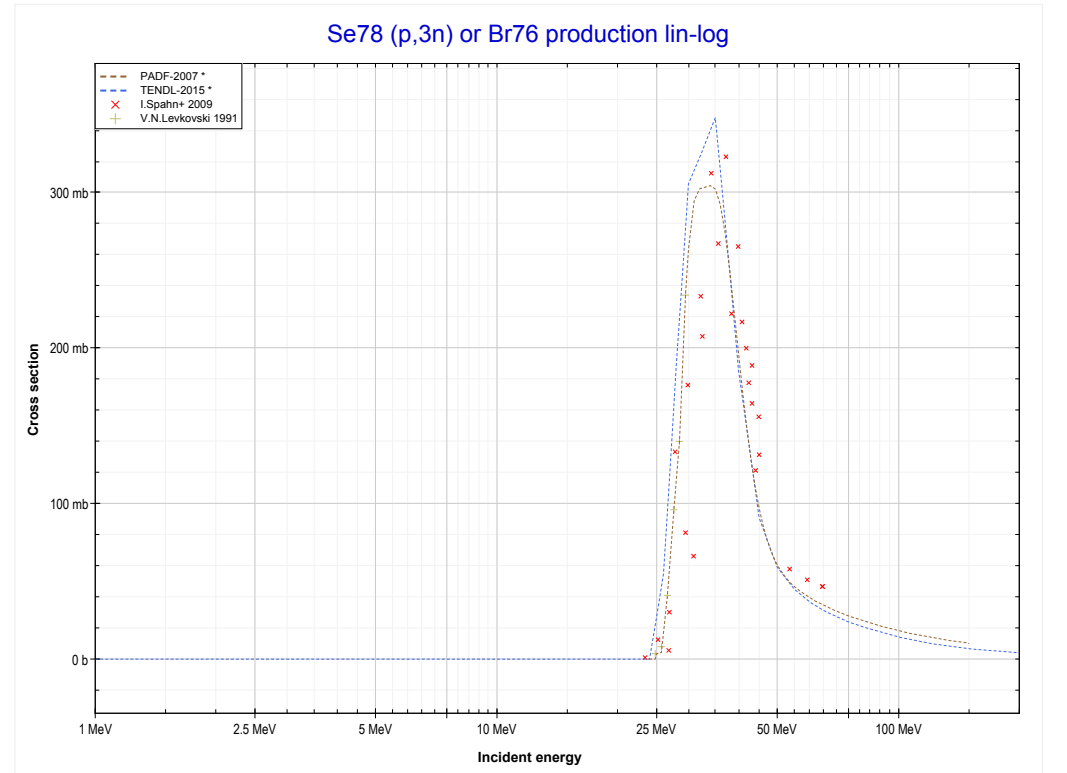
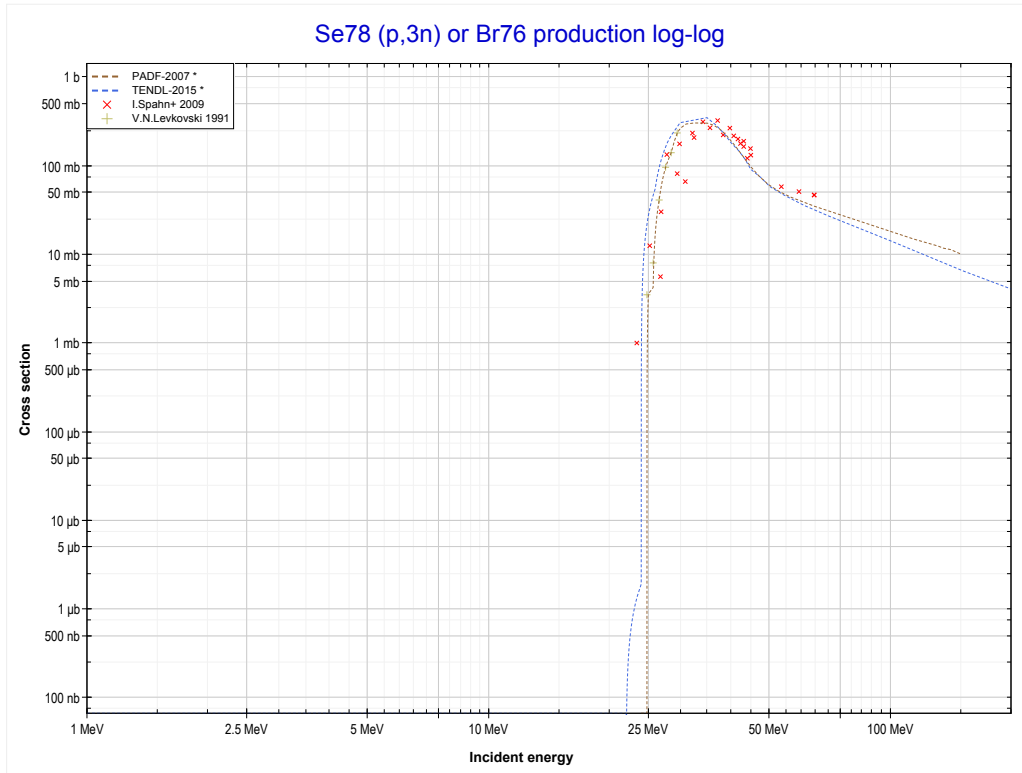
Reaction	Q-Value
Se78(p,n)Br78	-4356.26 keV

<< 34-Se-77	34-Se-78	36-Kr-78 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Br77 production)	MT17 (p,3n) >>



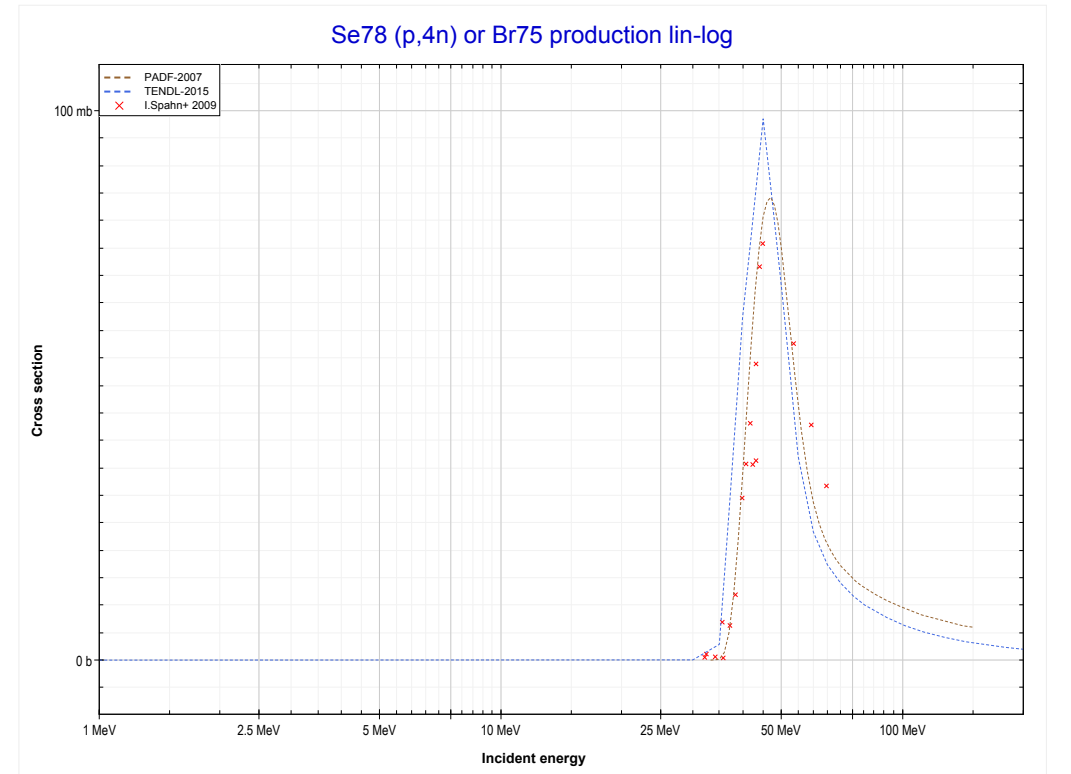
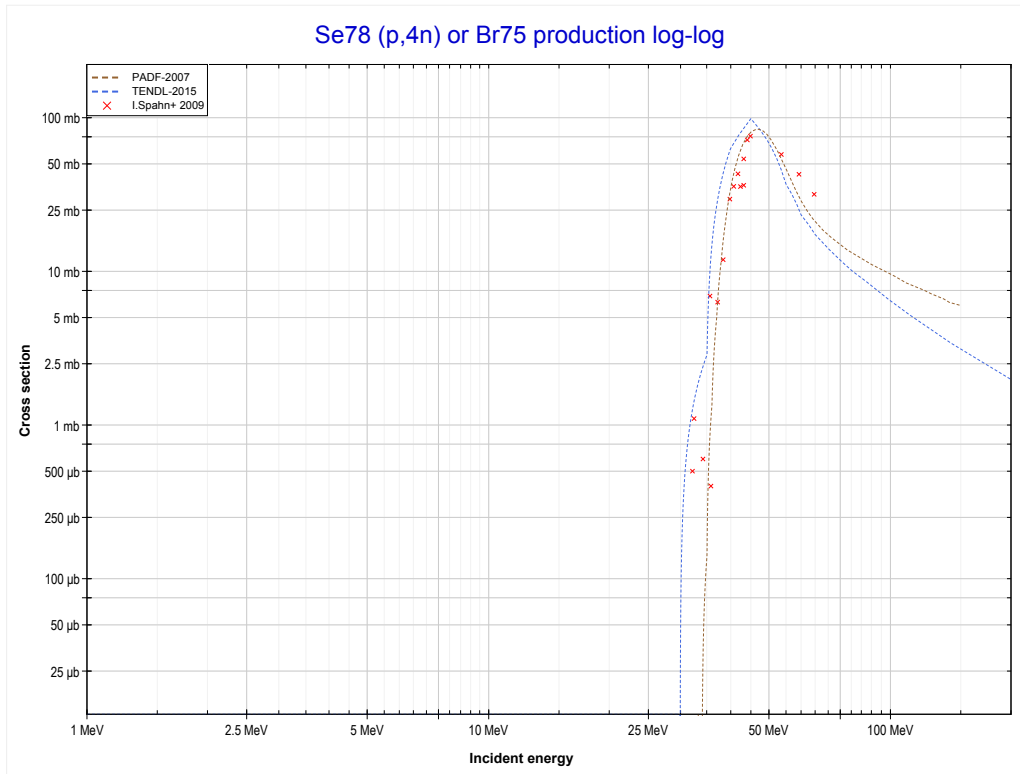
Reaction	Q-Value
Se78(p,2n)Br77	-12644.77 keV

<< 34-Se-77	34-Se-78	35-Br-79 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Br76 production)	MT37 (p,4n) >>



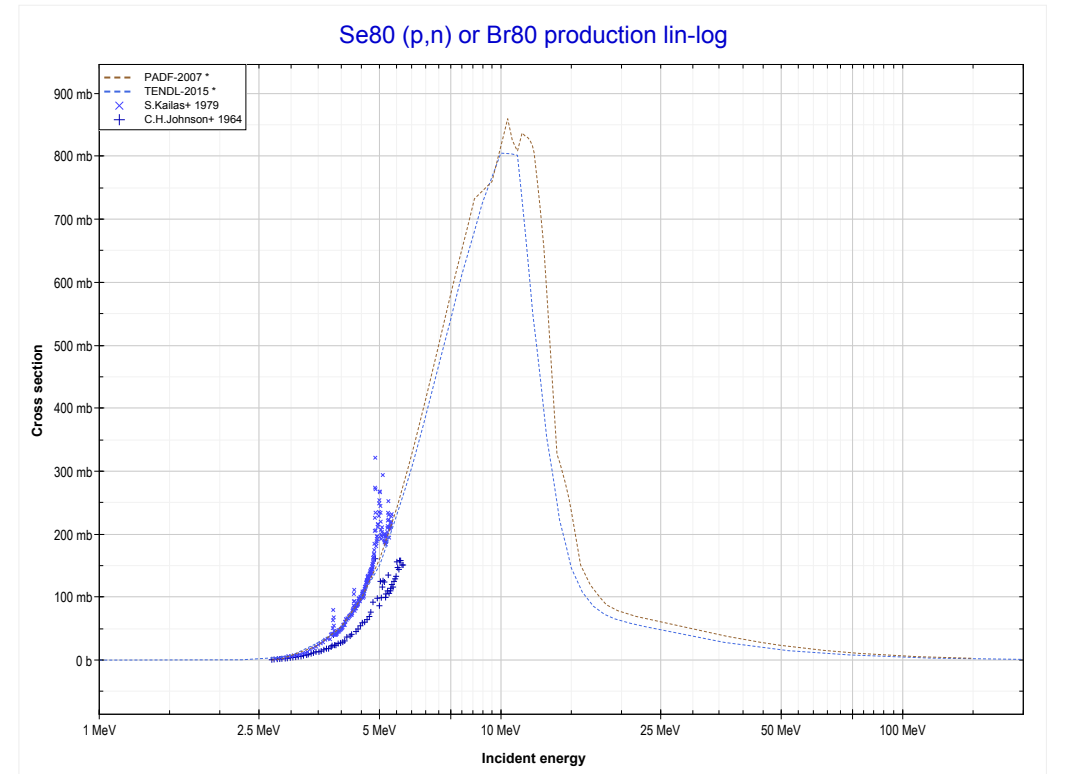
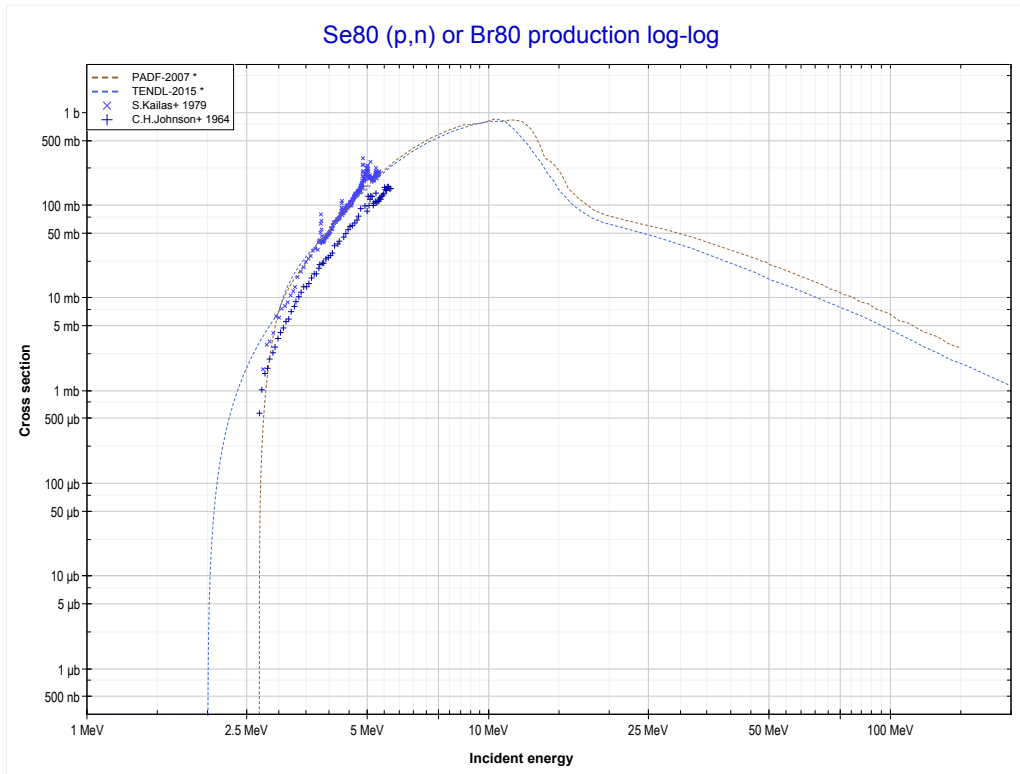
Reaction	Q-Value
Se78(p,3n)Br76	-23661.89 keV

<< 33-As-75	34-Se-78	34-Se-80 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Br75 production)	34-Se-80 MT4 (p,n) >>



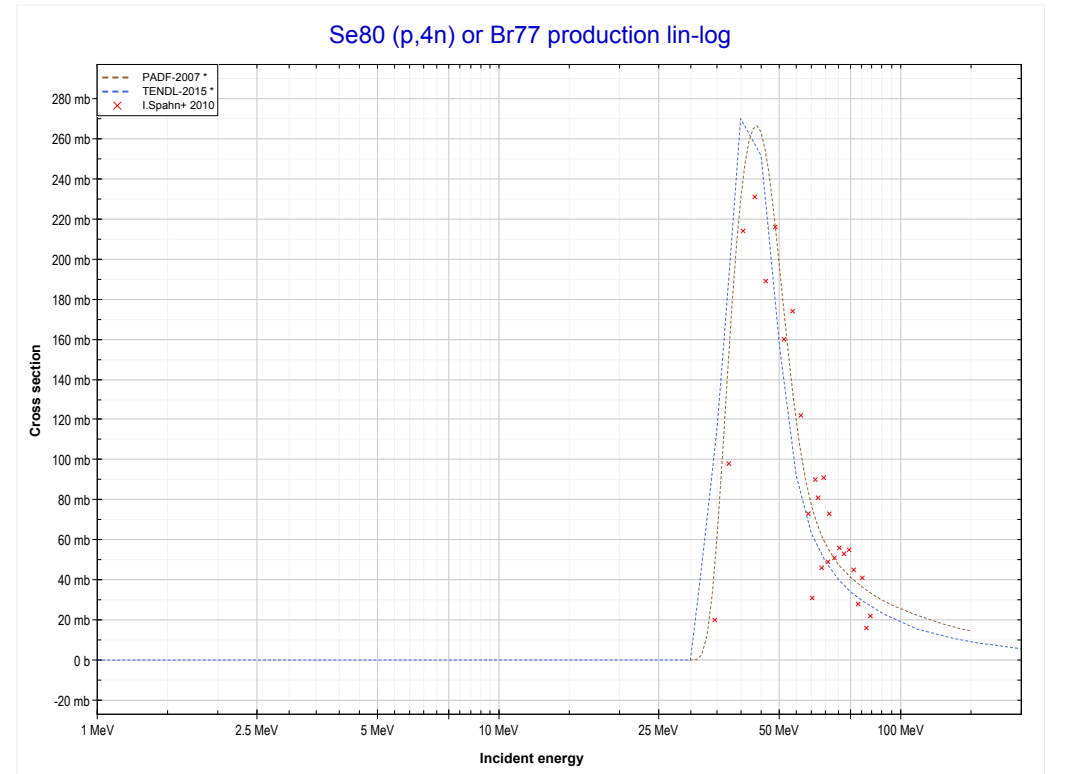
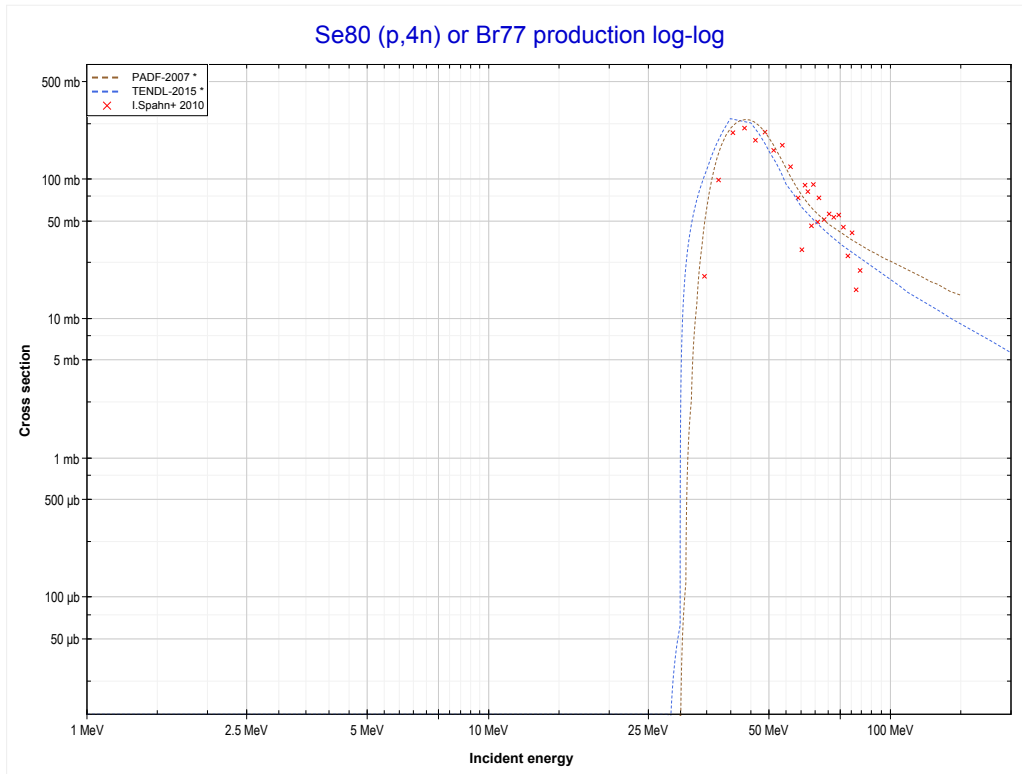
Reaction	Q-Value
Se78(p,4n)Br75	-32915.21 keV

<< 34-Se-78	34-Se-80	34-Se-82 >>
<< 34-Se-78 MT37 (p,4n)	MT4 (p,n) or MT5 (Br80 production)	MT37 (p,4n) >>



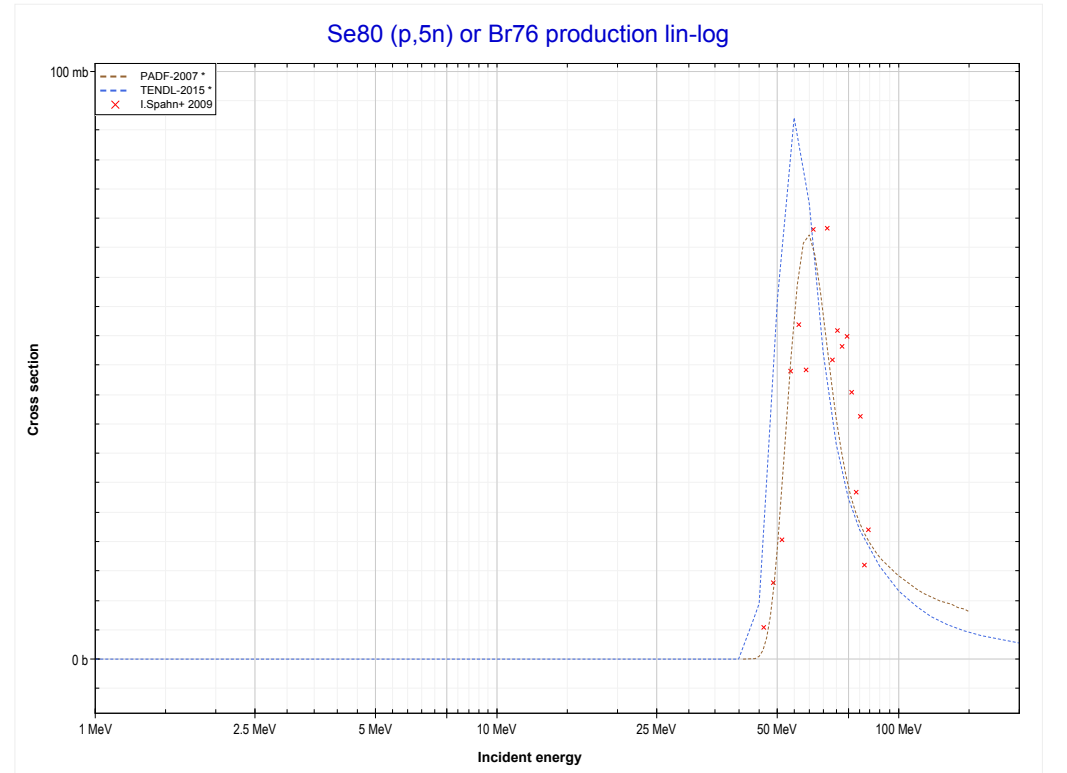
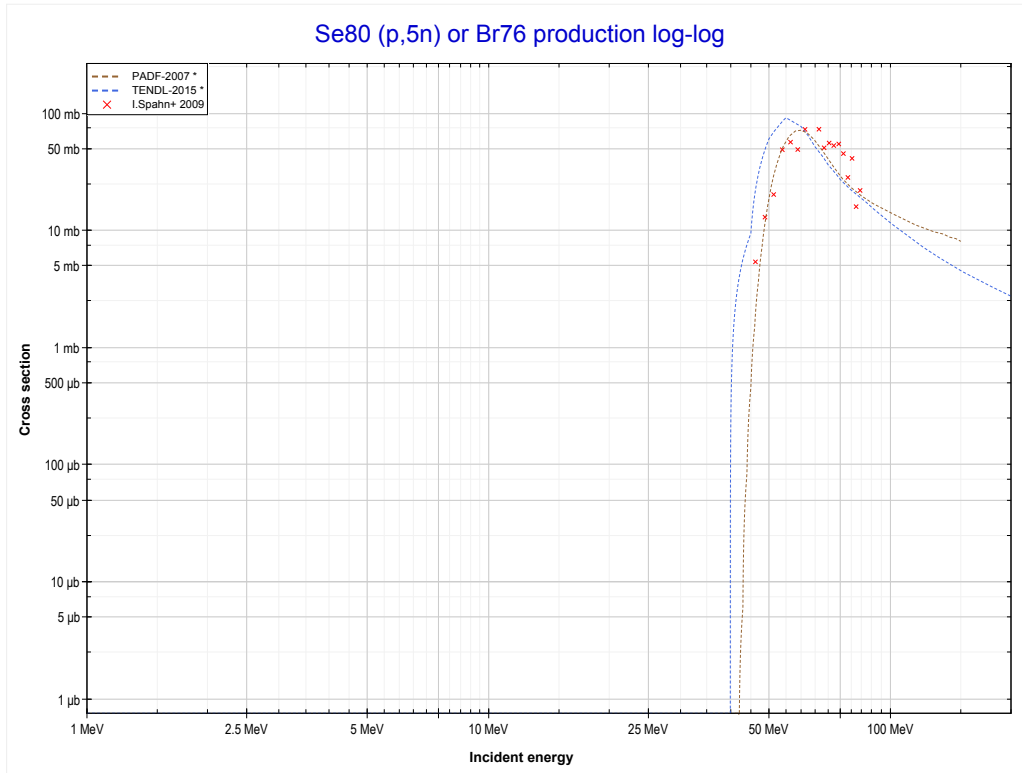
Reaction	Q-Value
Se80(p,n)Br80	-2652.85 keV

<< 34-Se-78	34-Se-80	35-Br-79 >>
<< MT4 (p,n)	MT37 (p,4n) or MT5 (Br77 production)	MT152 (p,5n) >>



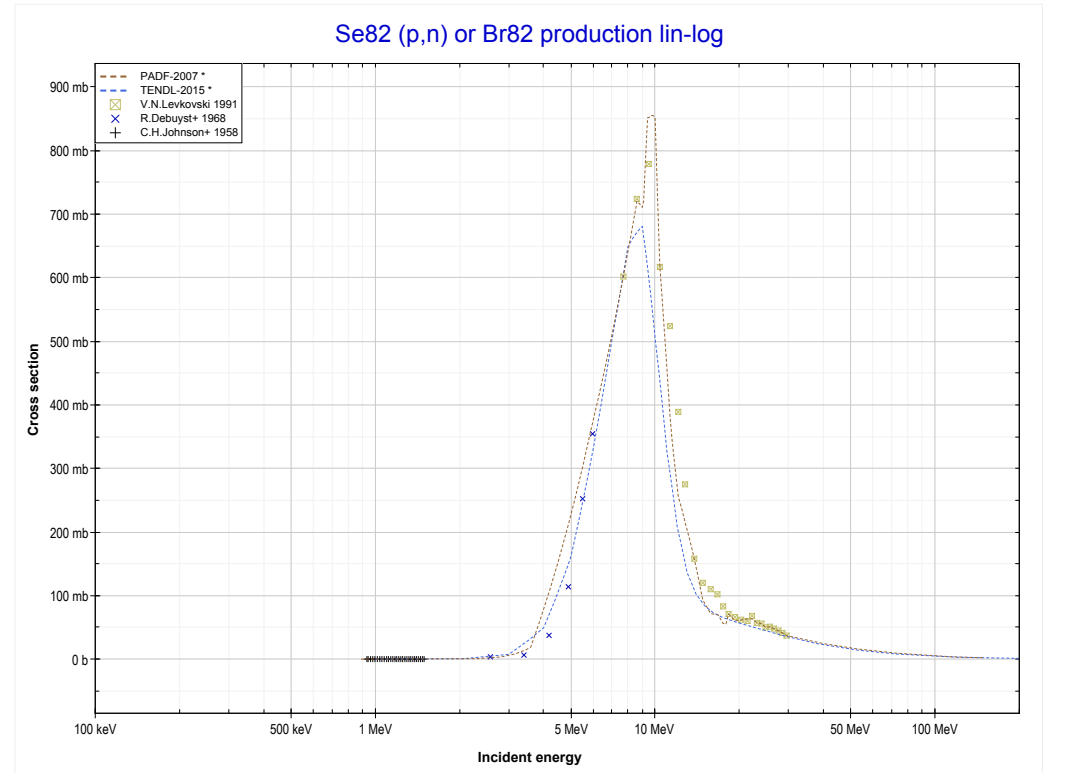
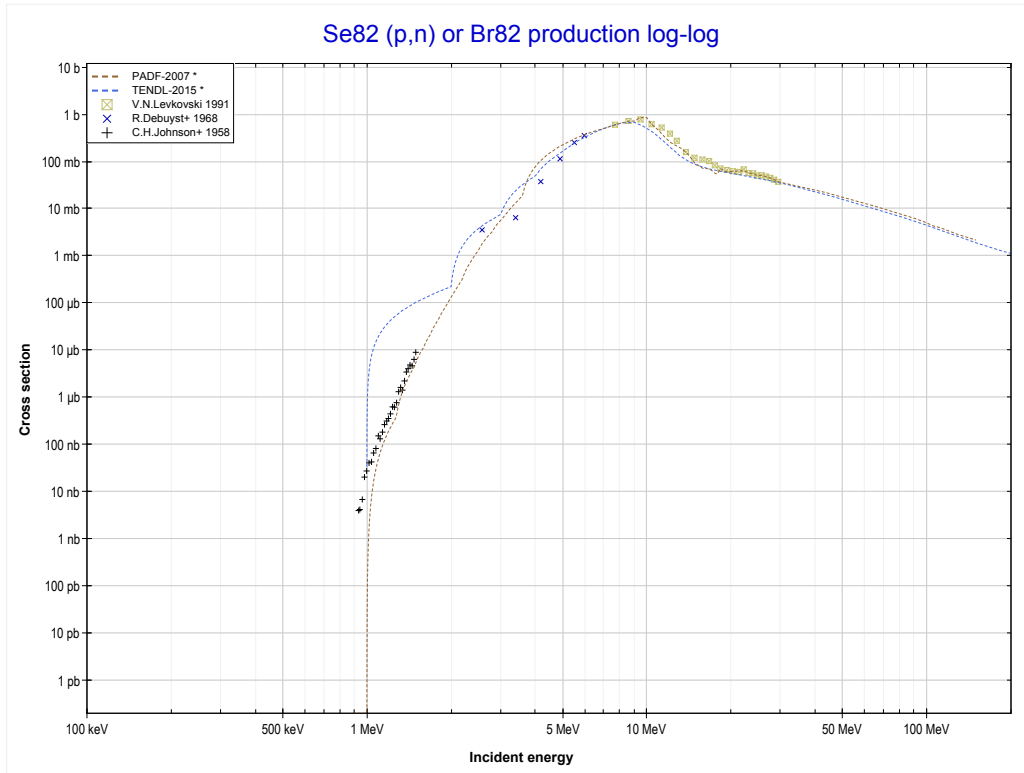
Reaction	Q-Value
Se80(p,4n)Br77	-29521.00 keV

<< 31-Ga-71	34-Se-80	35-Br-81 >>
<< MT37 (p,4n)	MT152 (p,5n) or MT5 (Br76 production)	34-Se-82 MT4 (p,n) >>



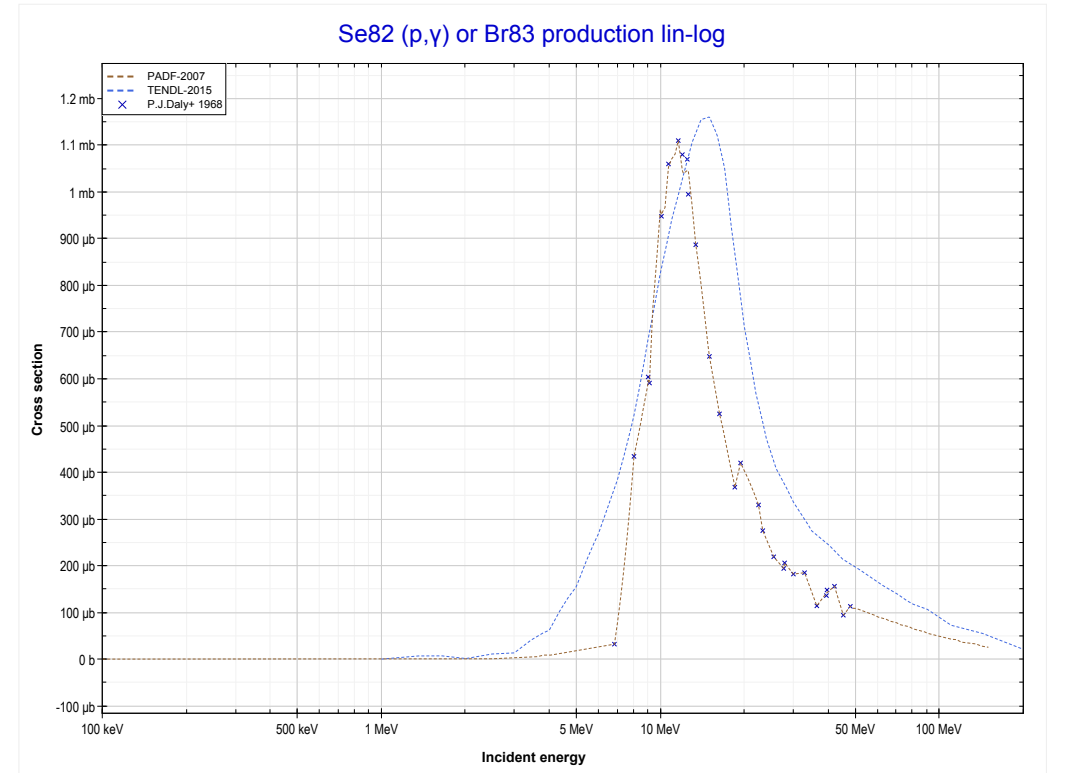
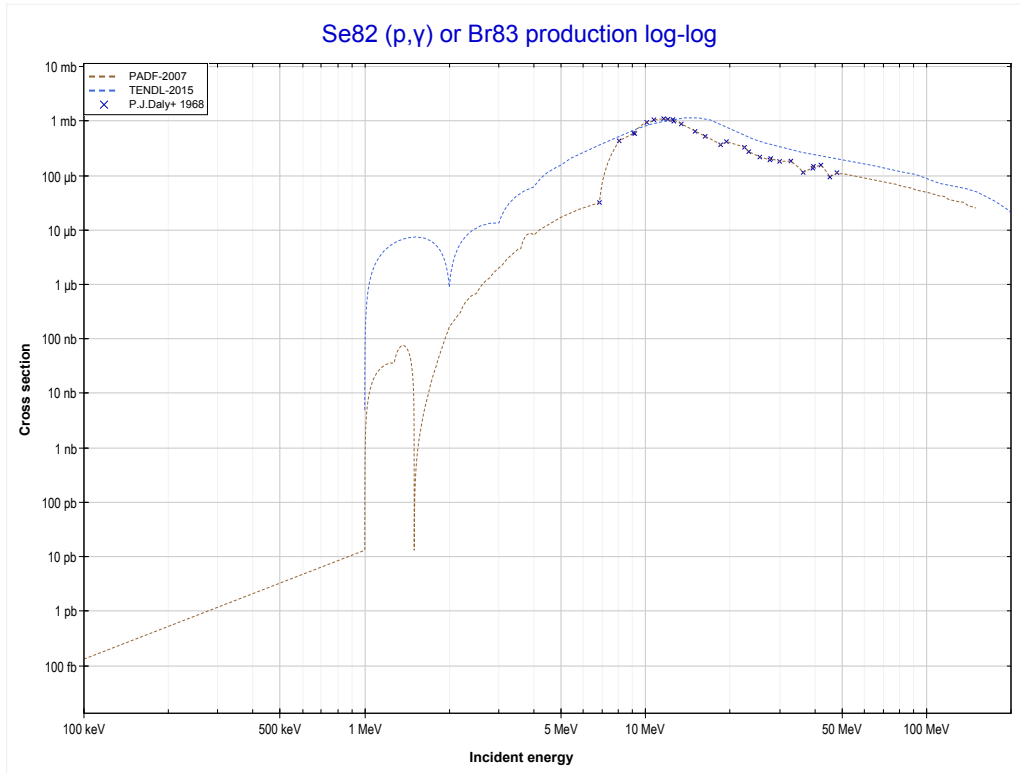
Reaction	Q-Value
Se80(p,5n)Br76	-40538.12 keV

<< 34-Se-80	34-Se-82	35-Br-79 >>
<< 34-Se-80 MT152 (p,5n)	MT4 (p,n) or MT5 (Br82 production)	MT102 (p, γ) >>



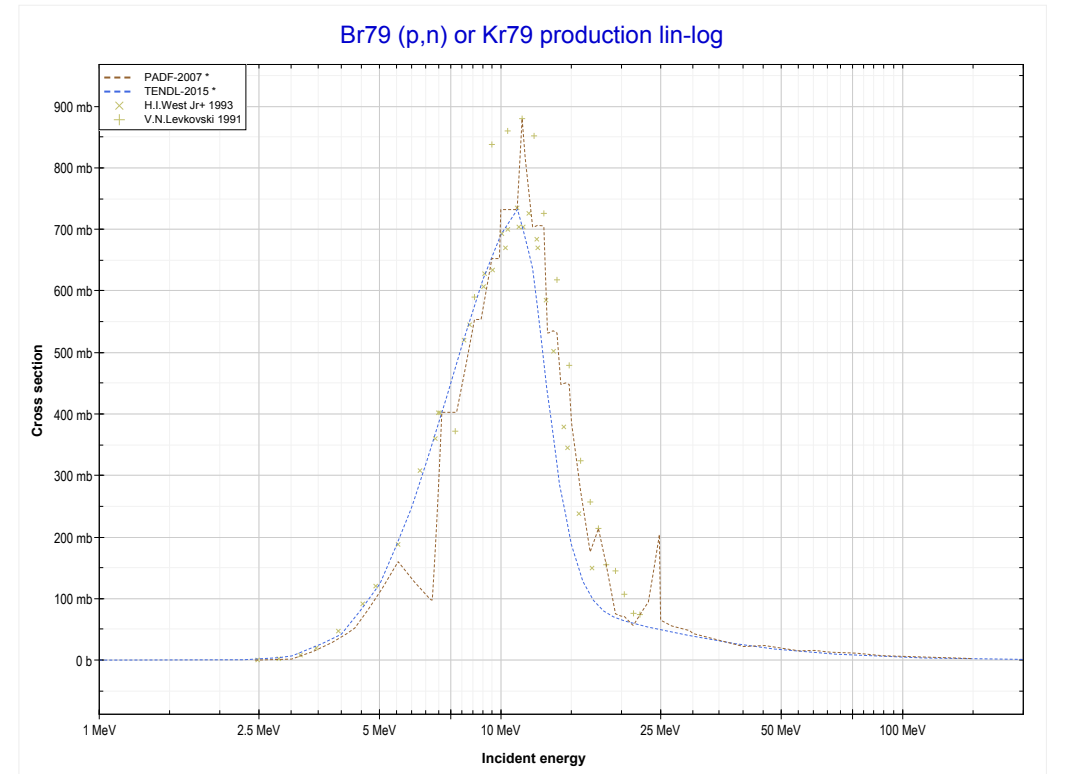
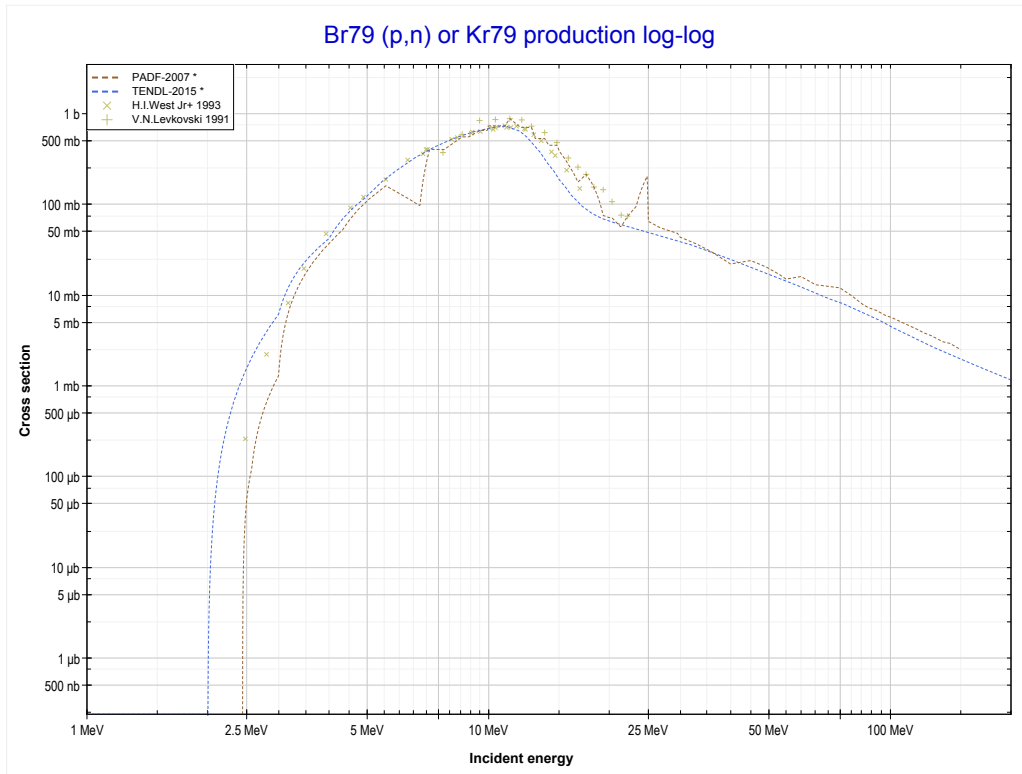
Reaction	Q-Value
Se82(p,n)Br82	-878.95 keV

<< 34-Se-77	34-Se-82	38-Sr-84 >>
<< MT4 (p,n)	MT102 (p,γ) or MT5 (Br83 production)	35-Br-79 MT4 (p,n) >>



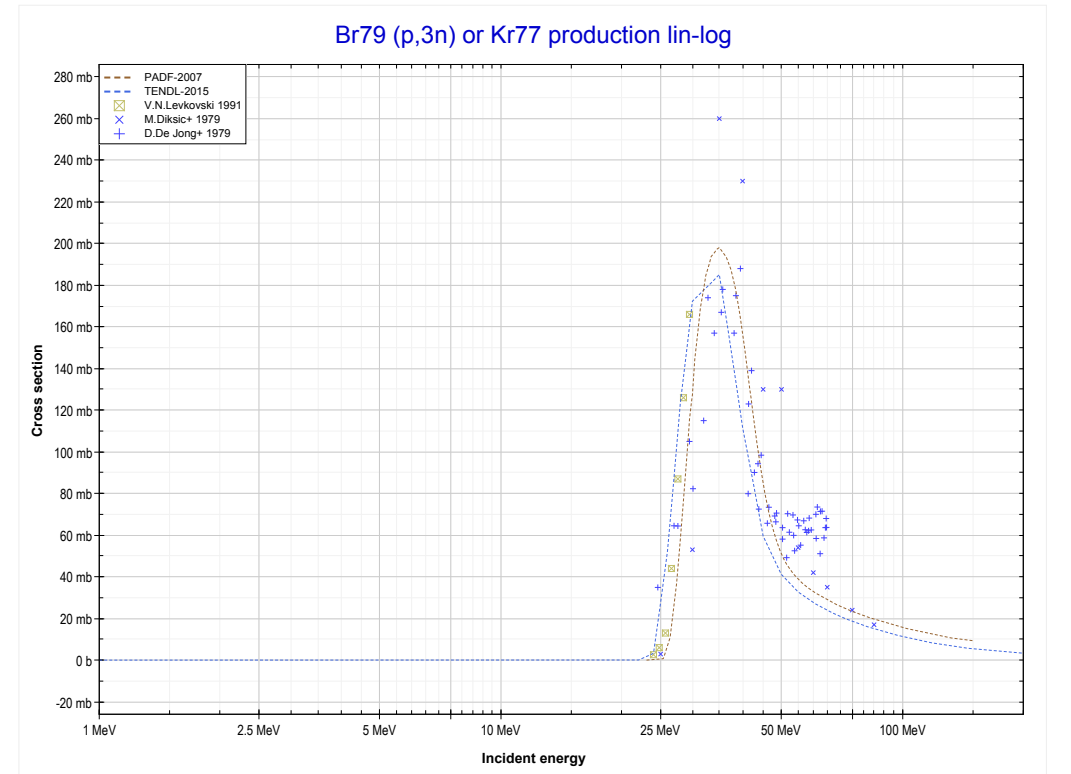
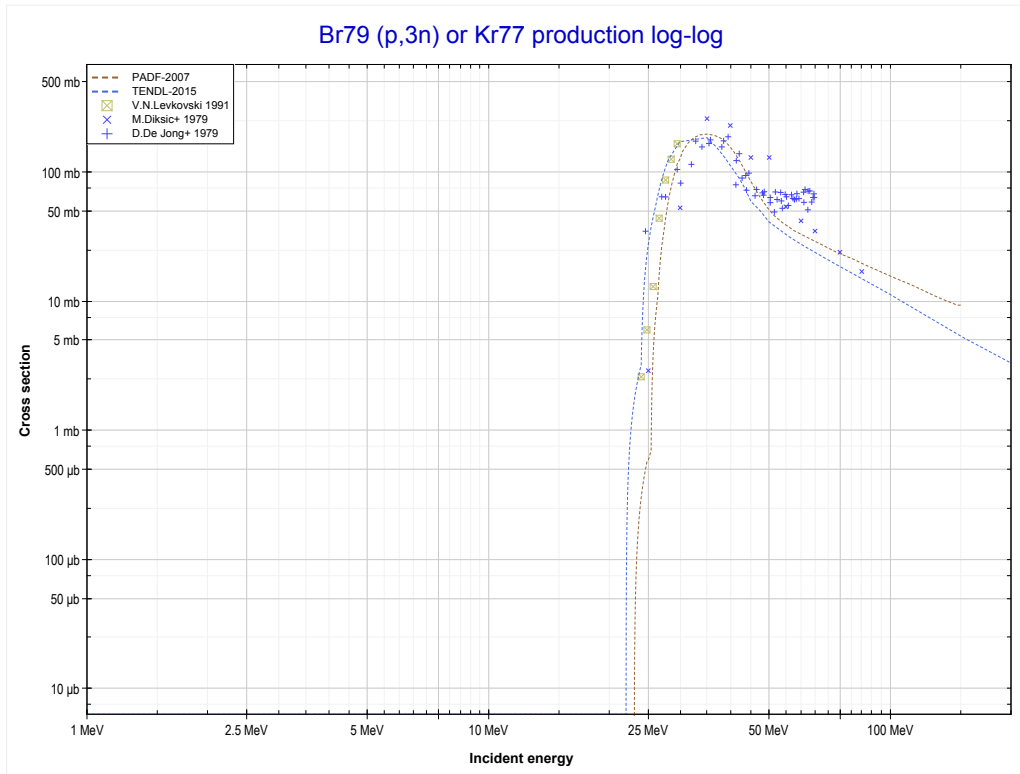
Reaction	Q-Value
Se82(p, γ)Br83	8708.07 keV

<< 34-Se-82	35-Br-79	35-Br-81 >>
<< 34-Se-82 MT102 (p, γ)	MT4 (p,n) or MT5 (Kr79 production)	MT17 (p,3n) >>



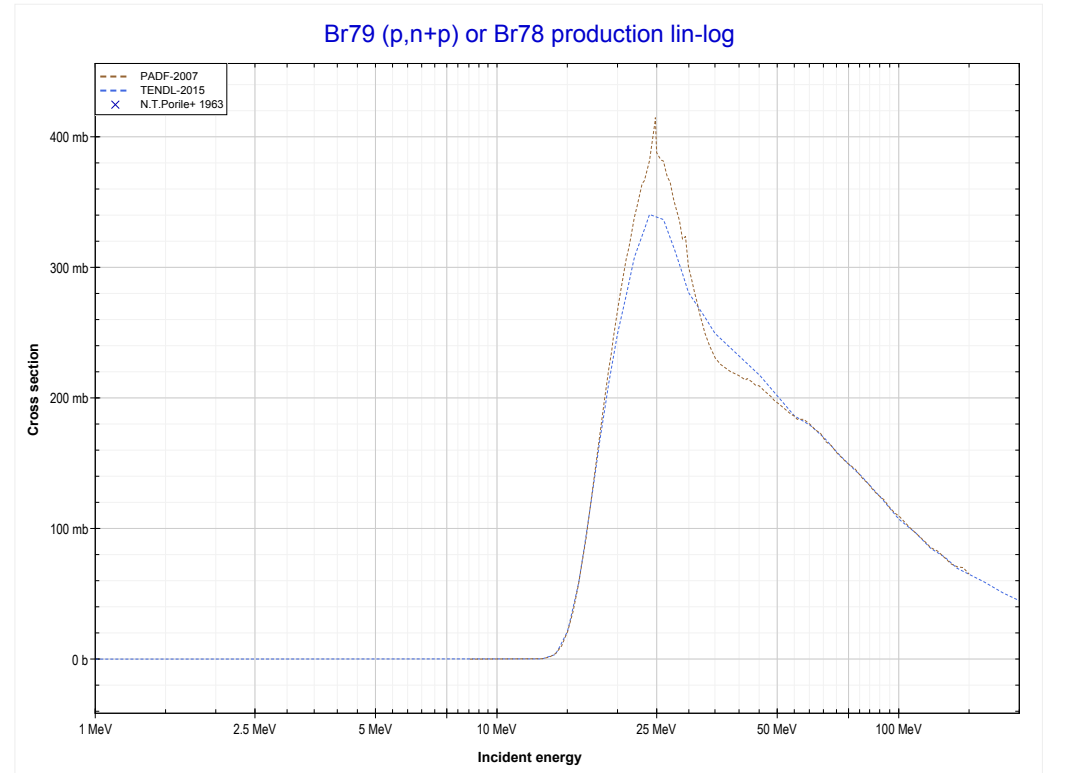
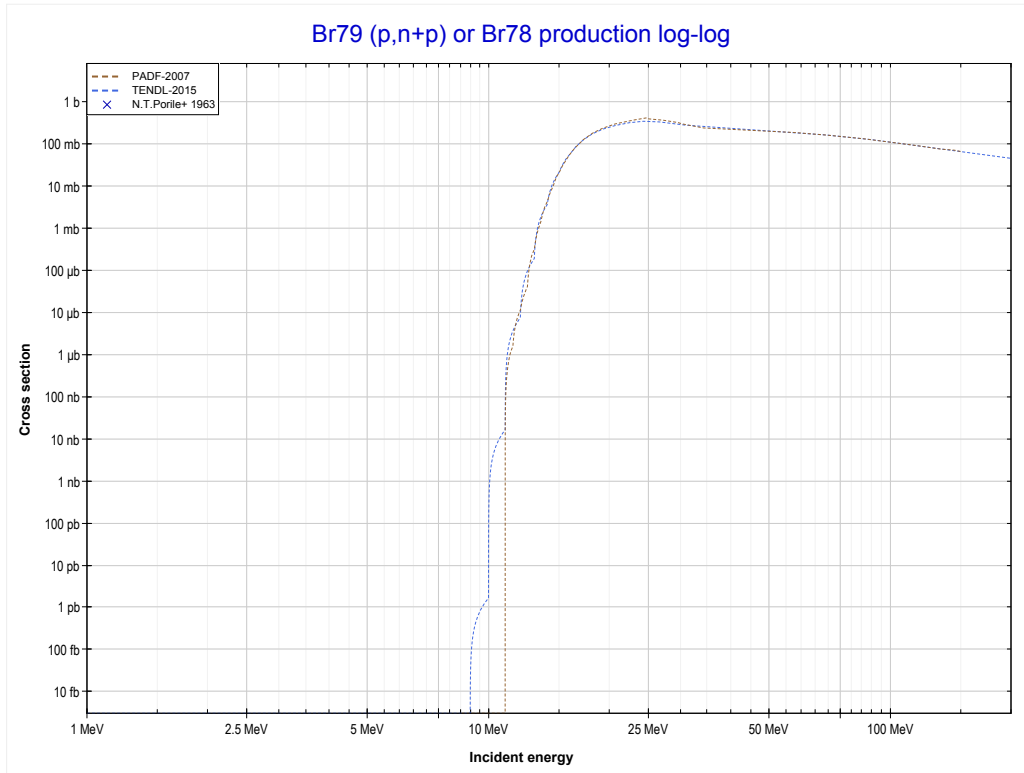
Reaction	Q-Value
Br79(p,n)Kr79	-2408.45 keV

<< 34-Se-78	35-Br-79	35-Br-81 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Kr77 production)	MT28 (p,n+p) >>



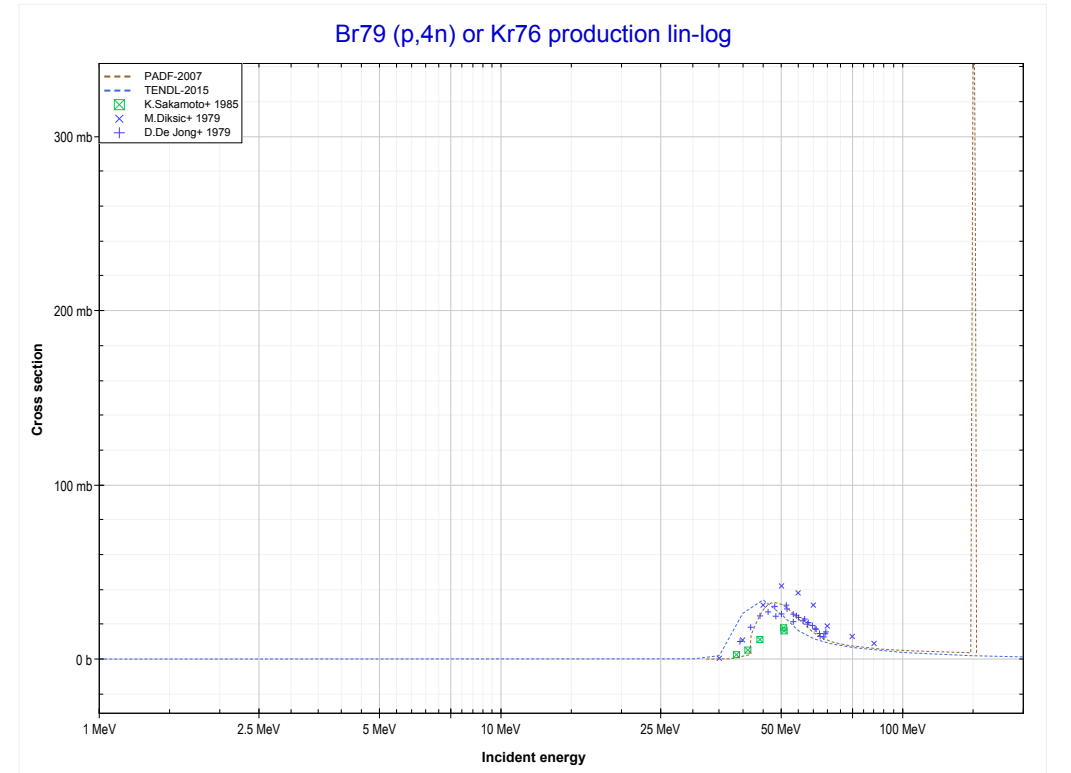
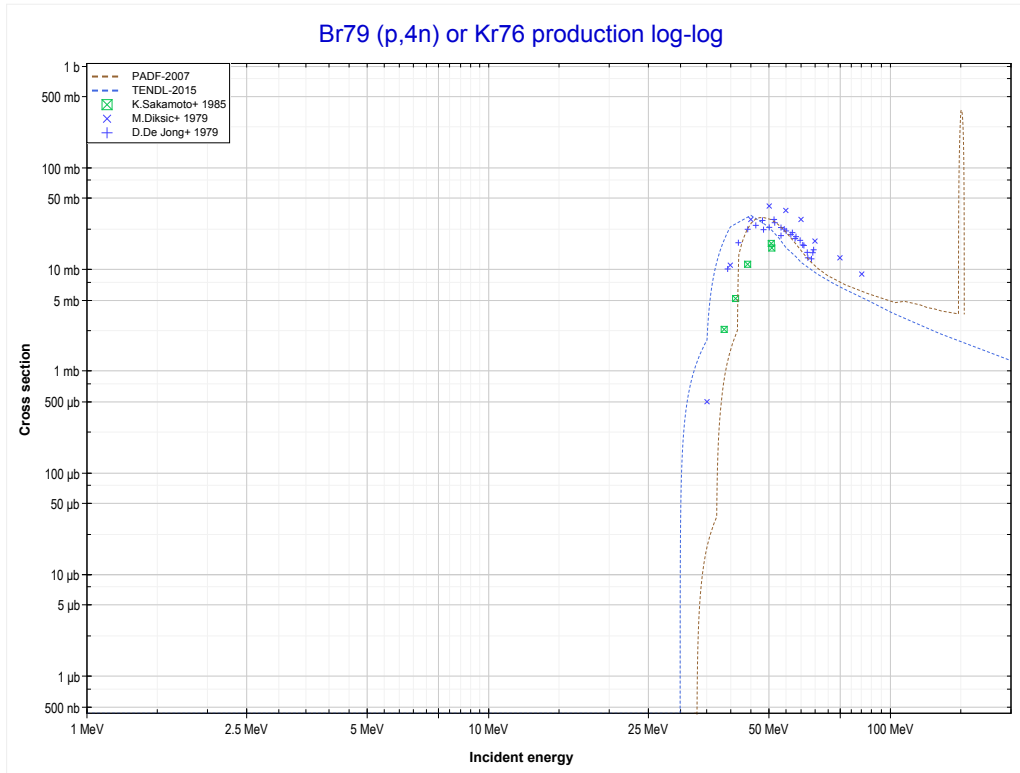
Reaction	Q-Value
Br79(p,3n)Kr77	-22823.68 keV

<< 34-Se-76	35-Br-79	35-Br-81 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Br78 production)	MT37 (p,4n) >>



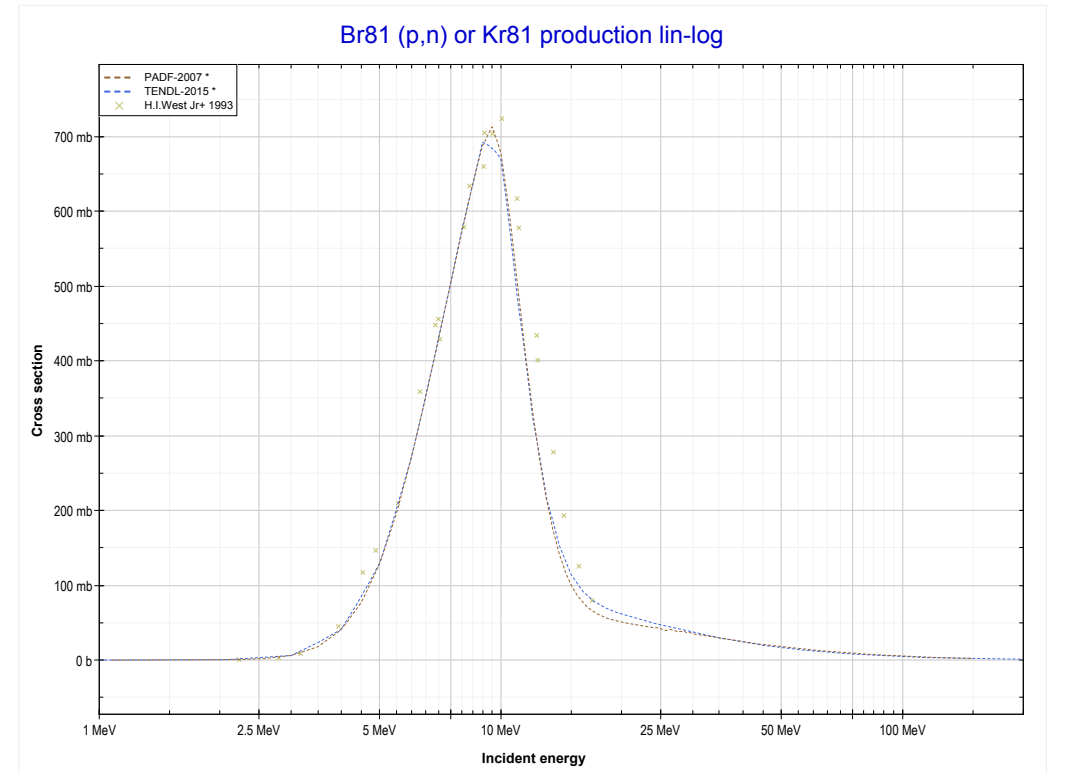
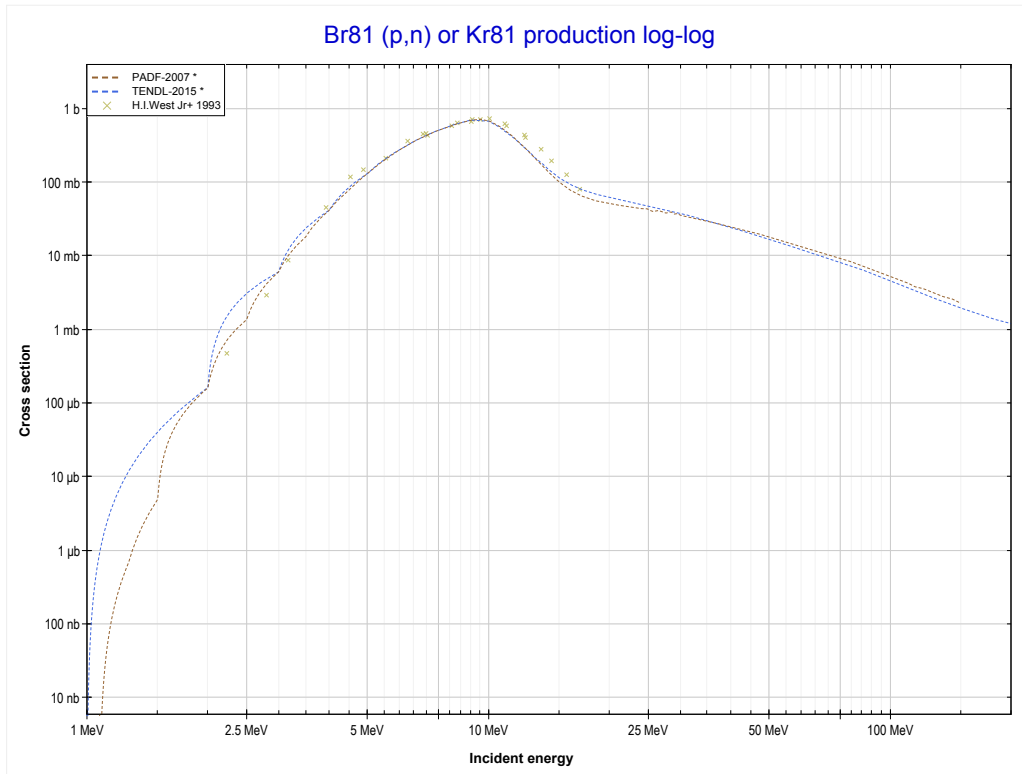
Reaction	Q-Value
Br79(p,d)Br78	-8462.85 keV
Br79(p,n+p)Br78	-10687.42 keV

<< 34-Se-80	35-Br-79	37-Rb-85 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Kr76 production)	35-Br-81 MT4 (p,n) >>



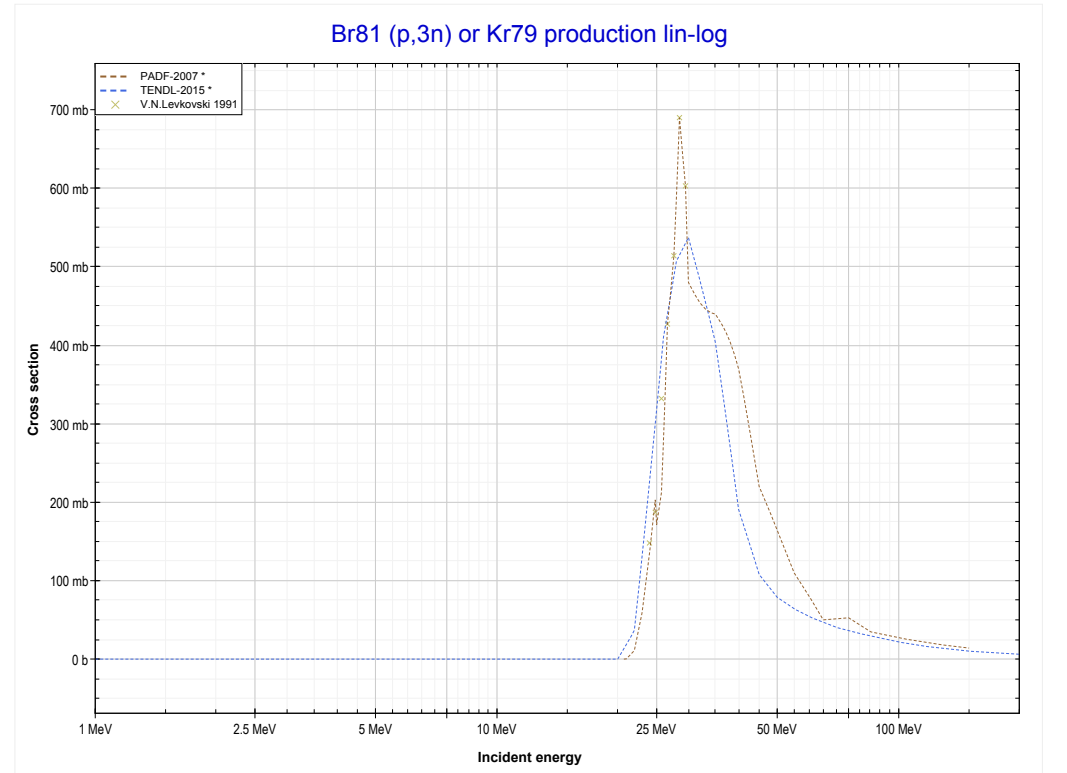
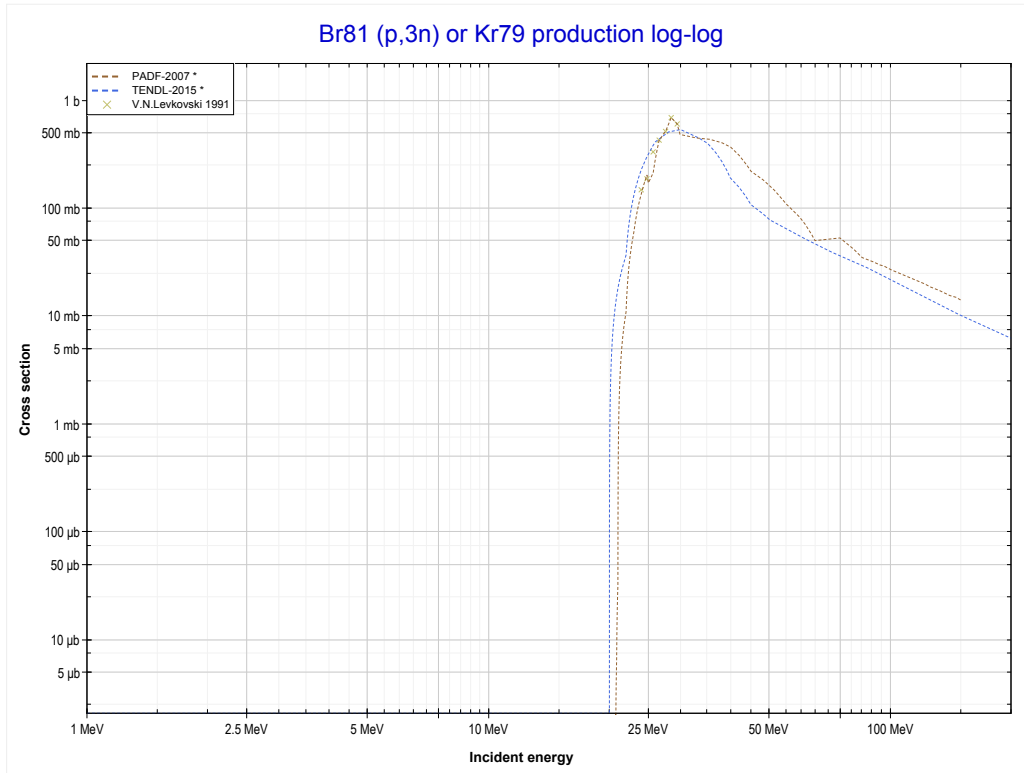
Reaction	Q-Value
Br79(p,4n)Kr76	-32050.40 keV

<< 35-Br-79	35-Br-81	36-Kr-82 >>
<< 35-Br-79 MT37 (p,4n)	MT4 (p,n) or MT5 (Kr81 production)	MT17 (p,3n) >>



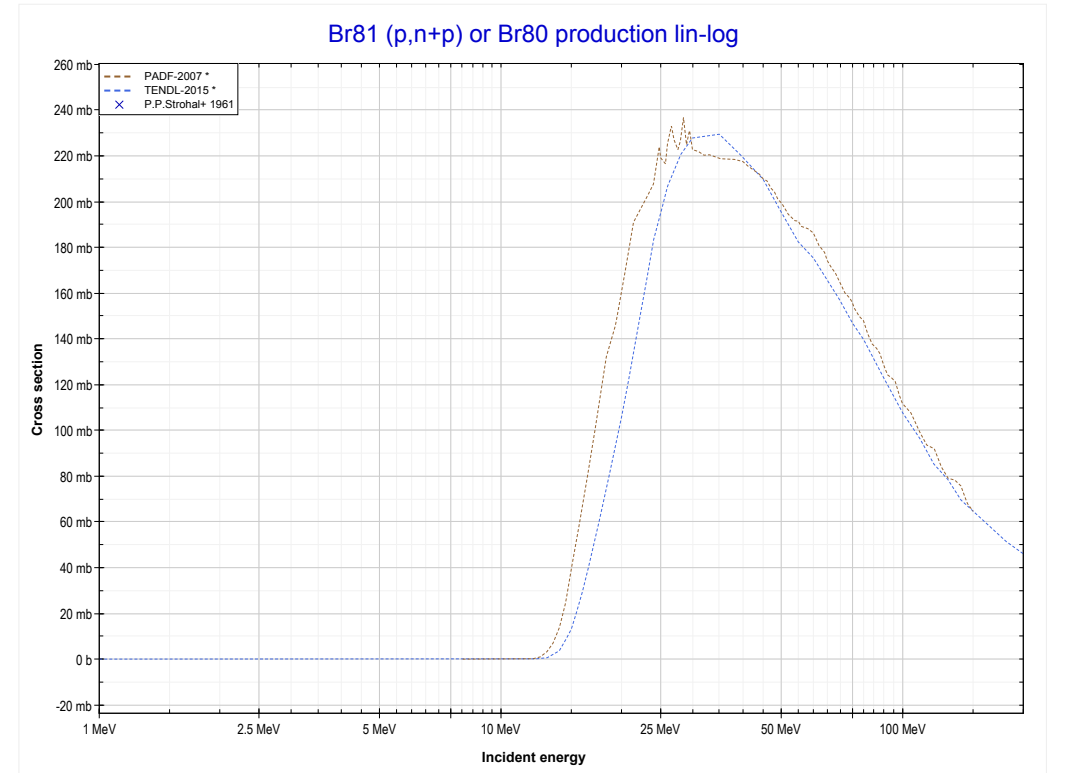
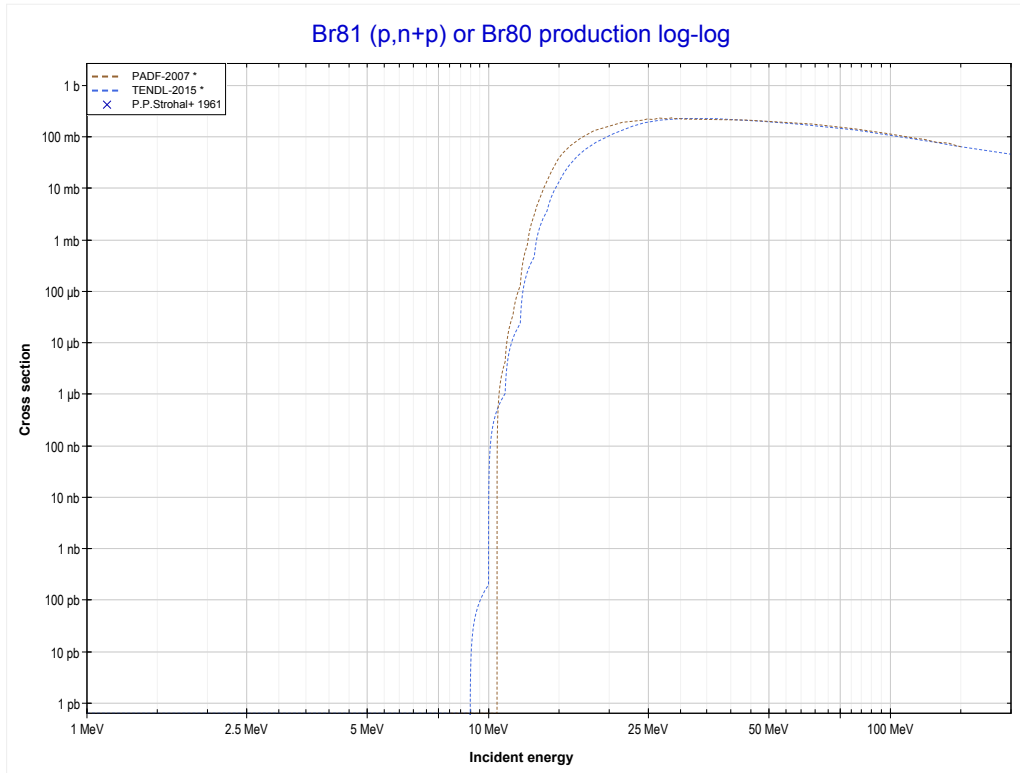
Reaction	Q-Value
Br81(p,n)Kr81	-1063.25 keV

<< 35-Br-79	35-Br-81	36-Kr-83 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Kr79 production)	MT28 (p,n+p) >>



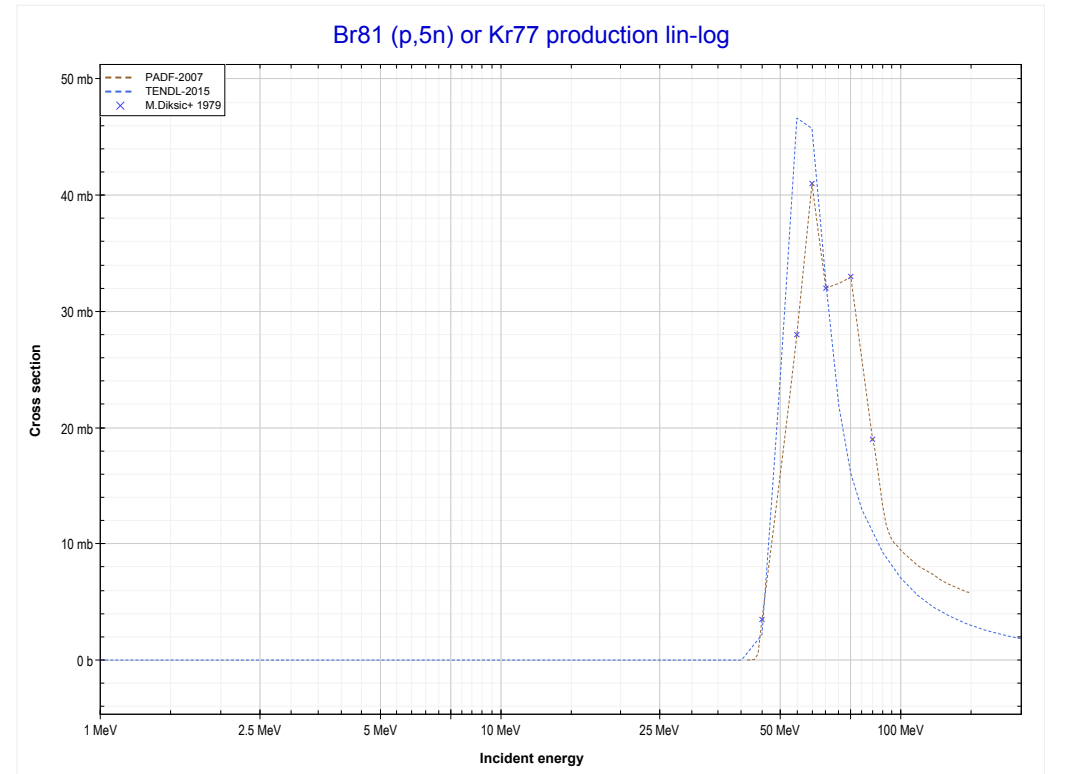
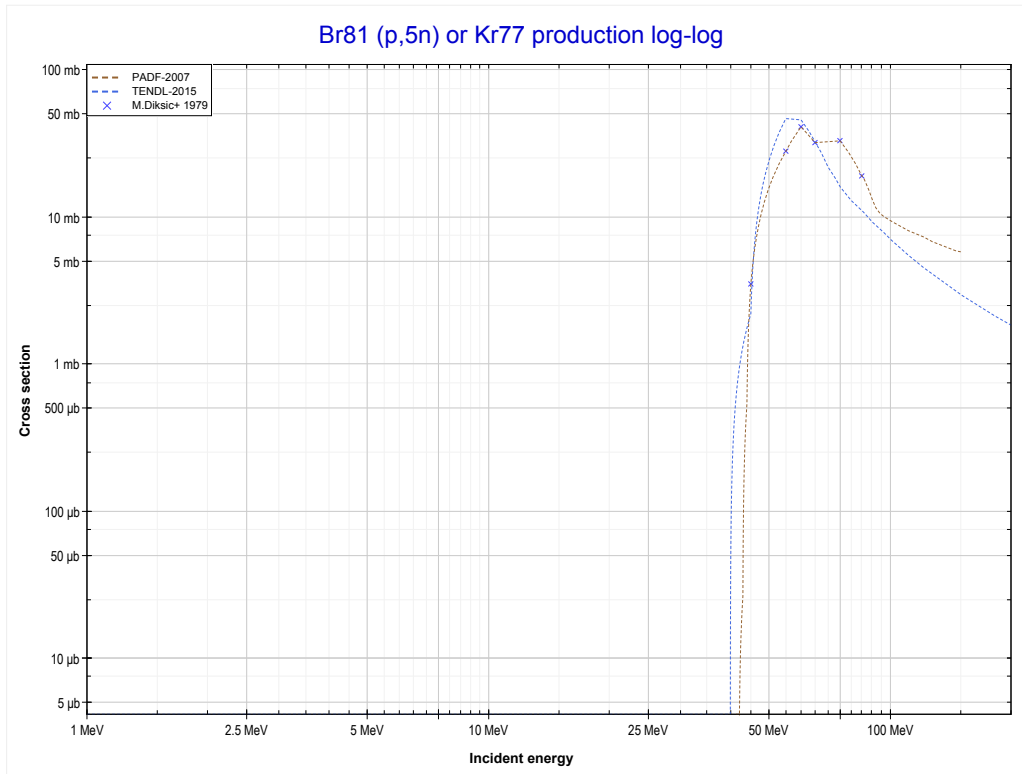
Reaction	Q-Value
Br81(p,3n)Kr79	-20458.68 keV

<< 35-Br-79	35-Br-81	36-Kr-78 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Br80 production)	MT152 (p,5n) >>



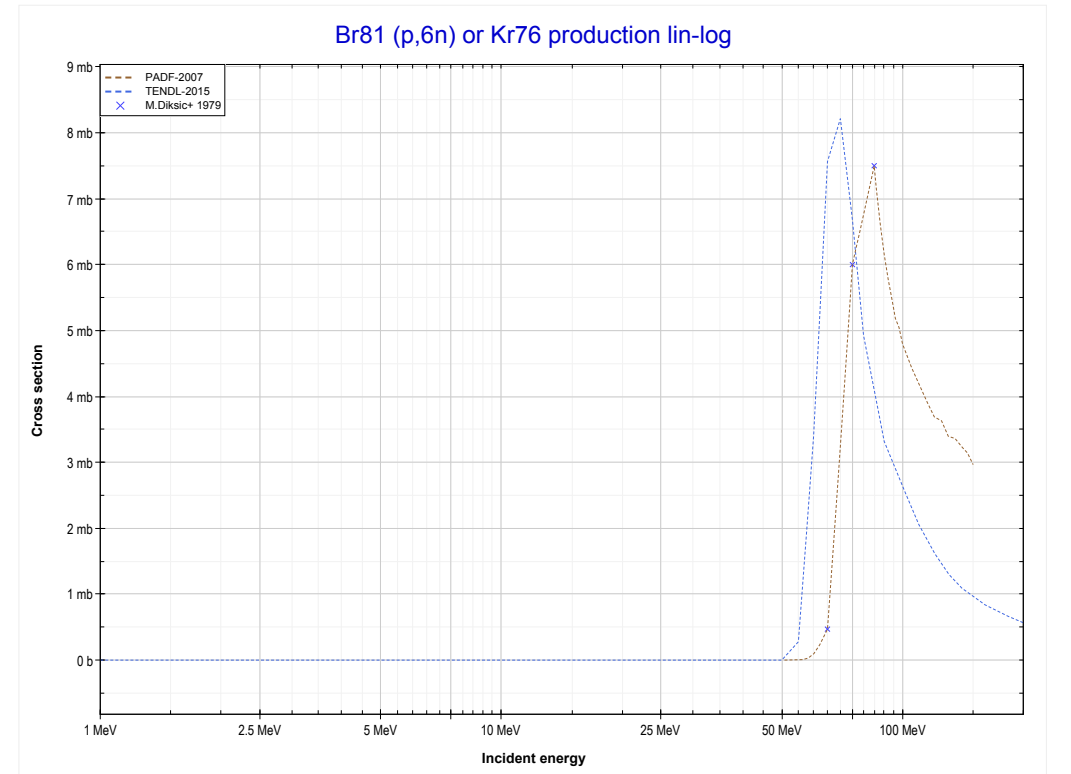
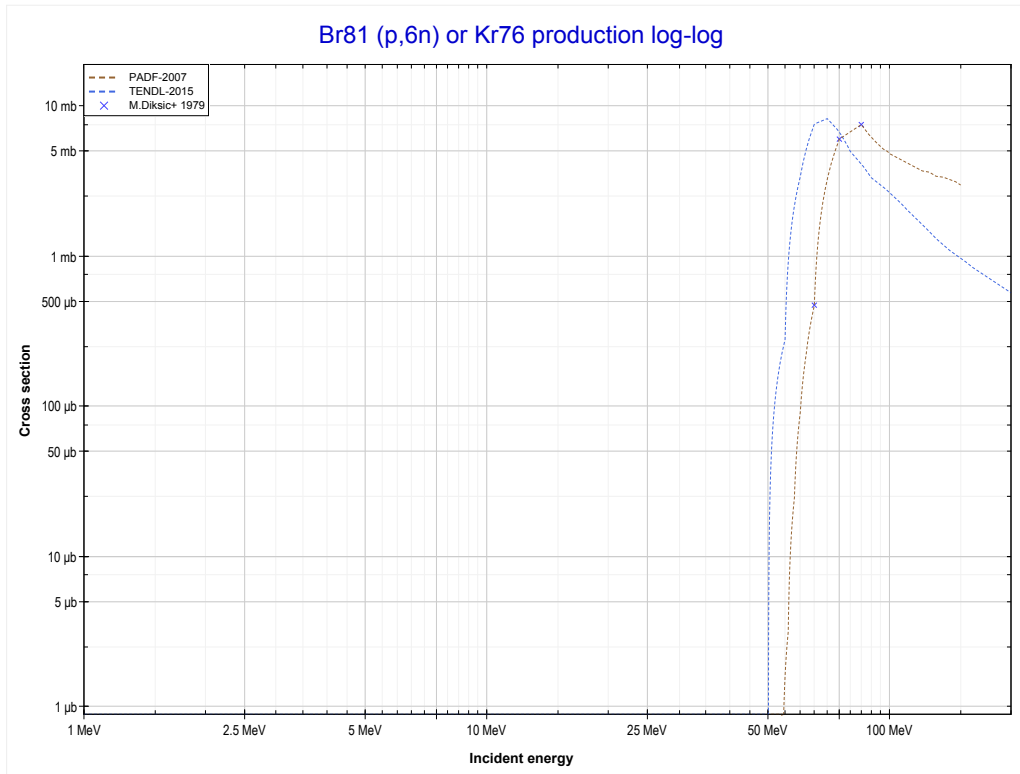
Reaction	Q-Value
Br81(p,d)Br80	-7933.45 keV
Br81(p,n+p)Br80	-10158.02 keV

<< 34-Se-80	35-Br-81	37-Rb-85 >>
<< MT28 (p,n+p)	MT152 (p,5n) or MT5 (Kr77 production)	MT153 (p,6n) >>



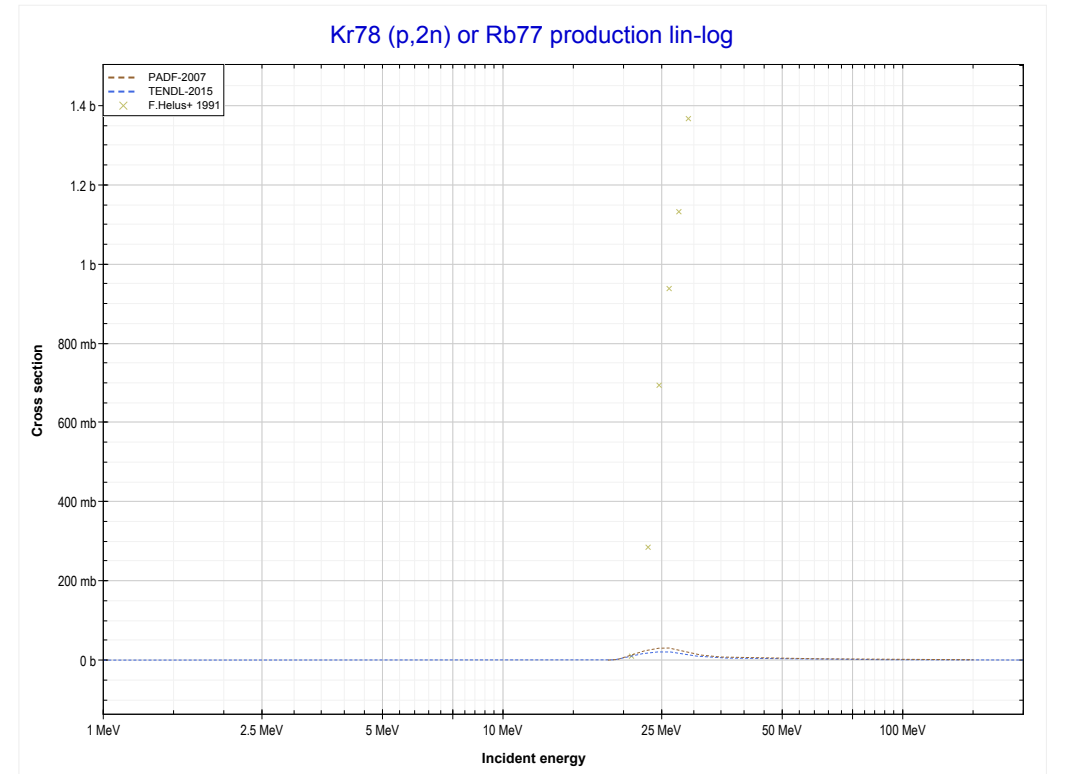
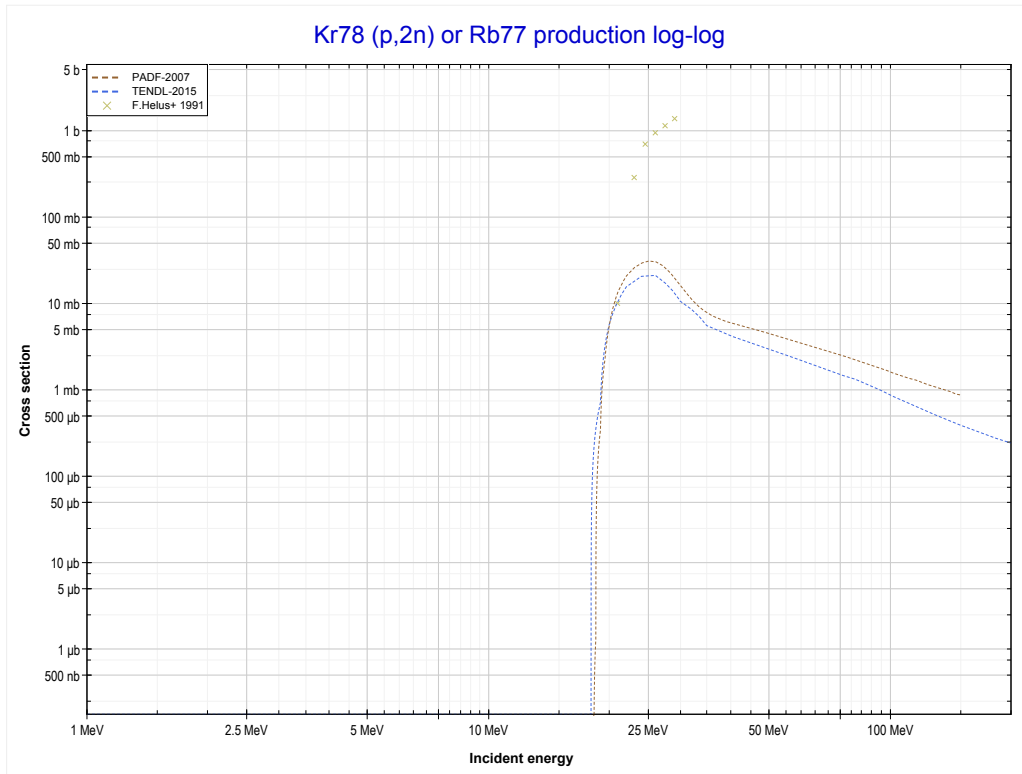
Reaction	Q-Value
Br81(p,5n)Kr77	-40873.92 keV

<< 31-Ga-71	35-Br-81	48-Cd-116 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Kr76 production)	36-Kr-78 MT16 (p,2n) >>



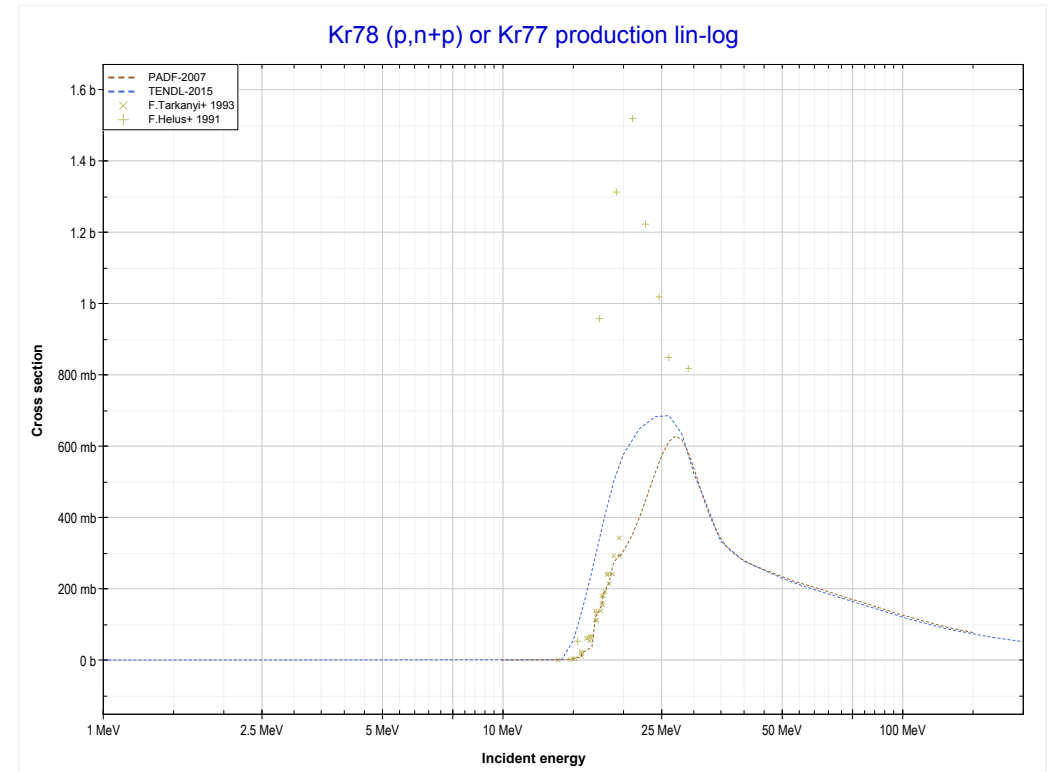
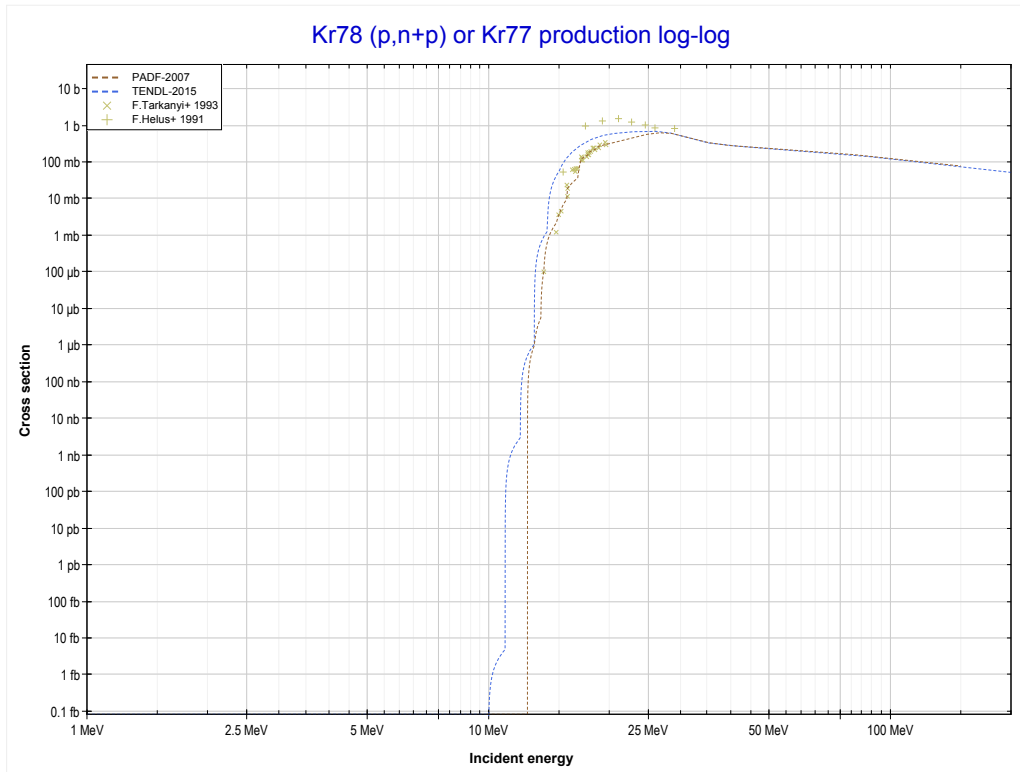
Reaction	Q-Value
Br81(p,6n)Kr76	-50100.63 keV

<< 34-Se-78	36-Kr-78	36-Kr-80 >>
<< 35-Br-81 MT153 (p,6n)	MT16 (p,2n) or MT5 (Rb77 production)	MT28 (p,n+p) >>



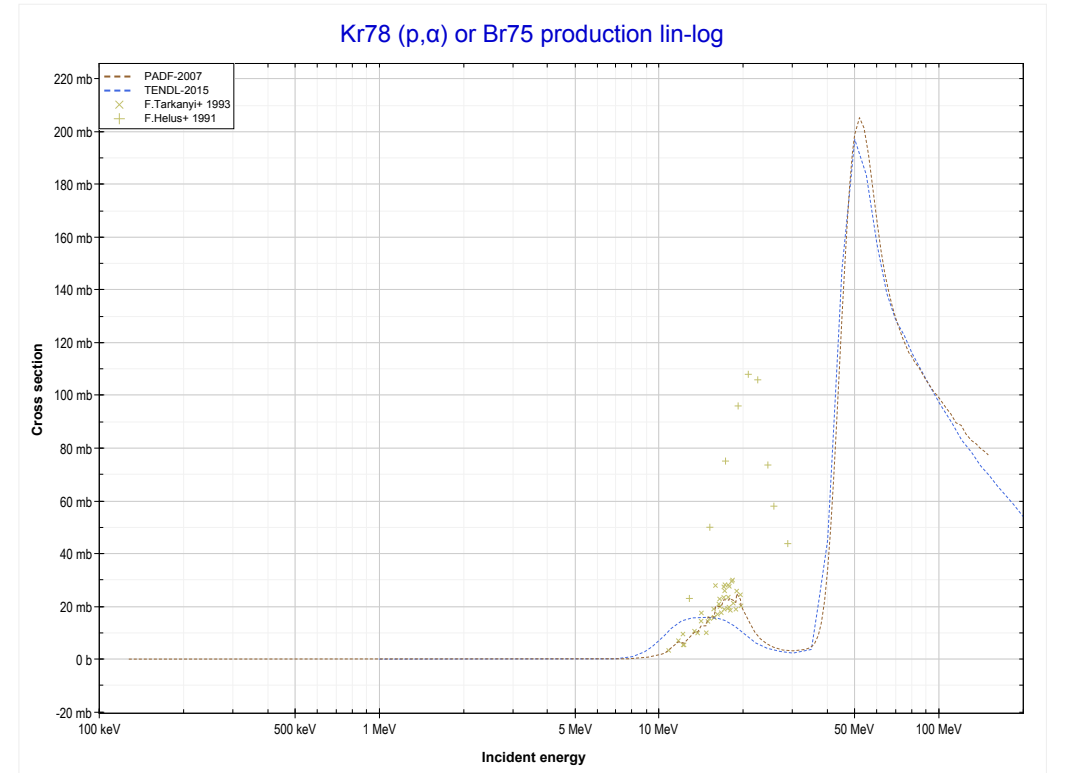
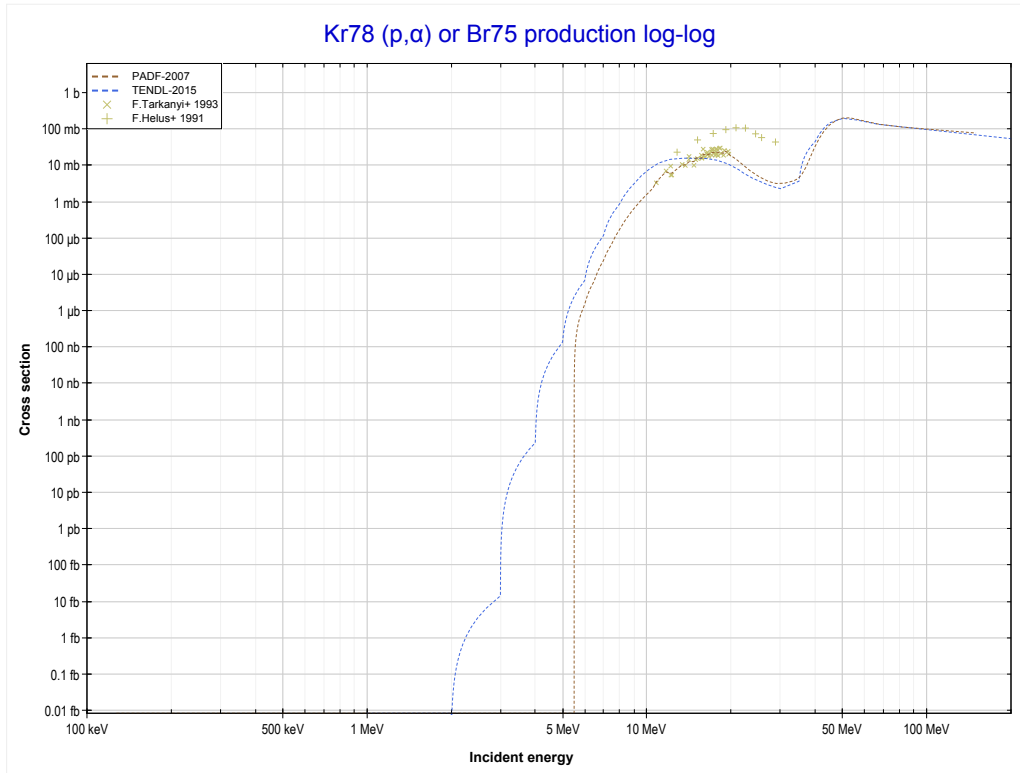
Reaction	Q-Value
Kr78(p,2n)Rb77	-18202.76 keV

<< 35-Br-81	36-Kr-78	39-Y-89 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Kr77 production)	MT107 (p, α) >>



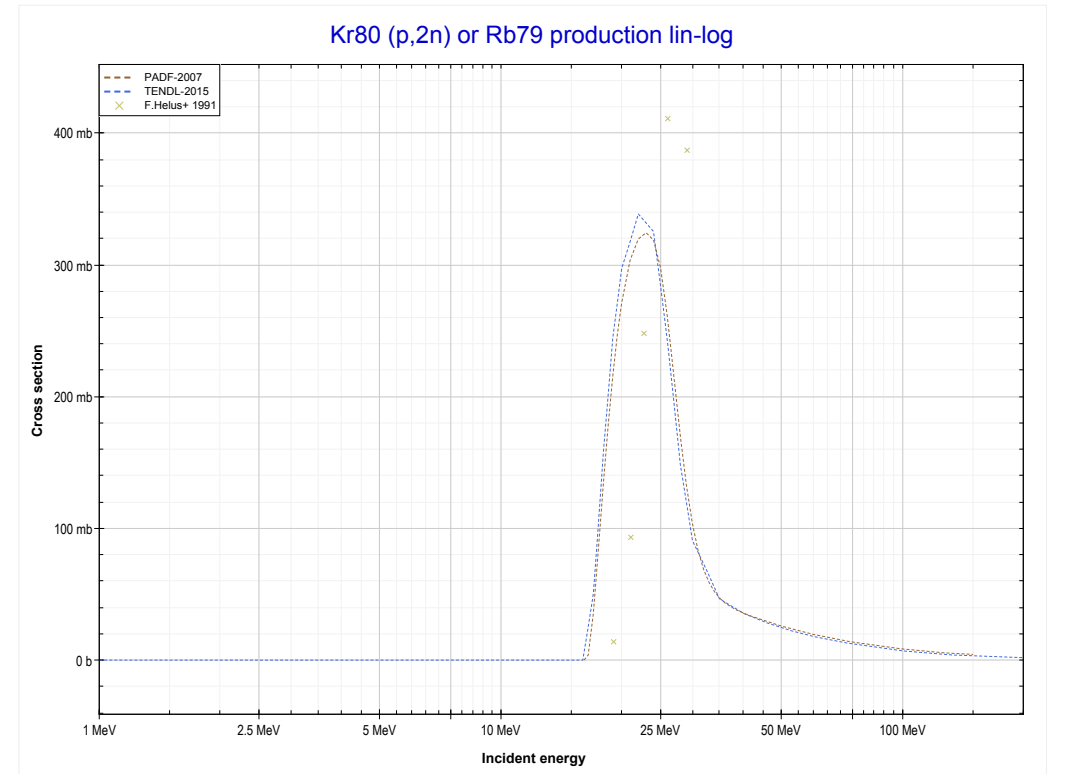
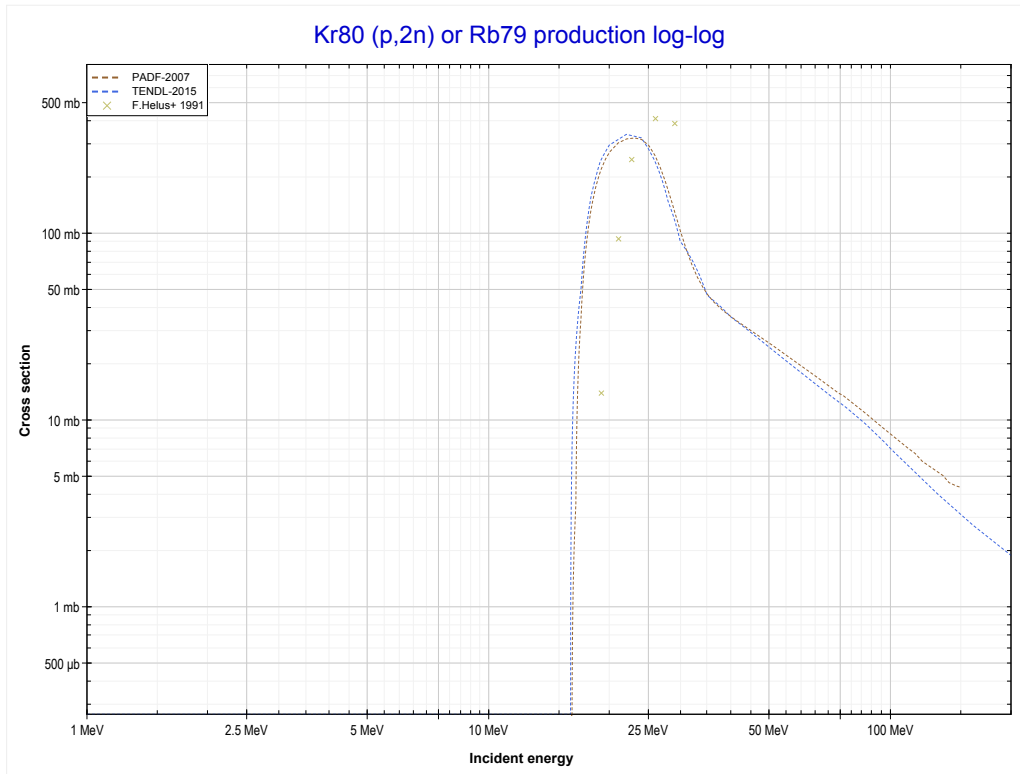
Reaction	Q-Value
Kr78(p,d)Kr77	-9856.95 keV
Kr78(p,n+p)Kr77	-12081.52 keV

<< 34-Se-77	36-Kr-78	36-Kr-80 >>
<< MT28 (p,n+p)	MT107 (p,α) or MT5 (Br75 production)	36-Kr-80 MT16 (p,2n) >>



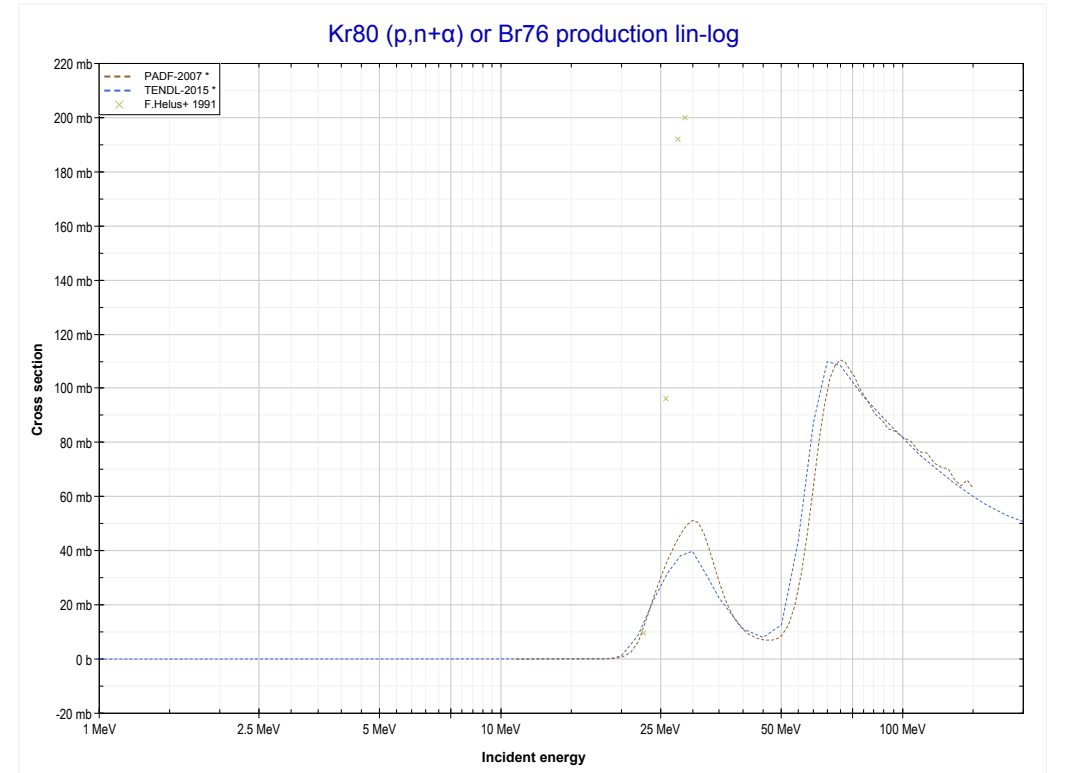
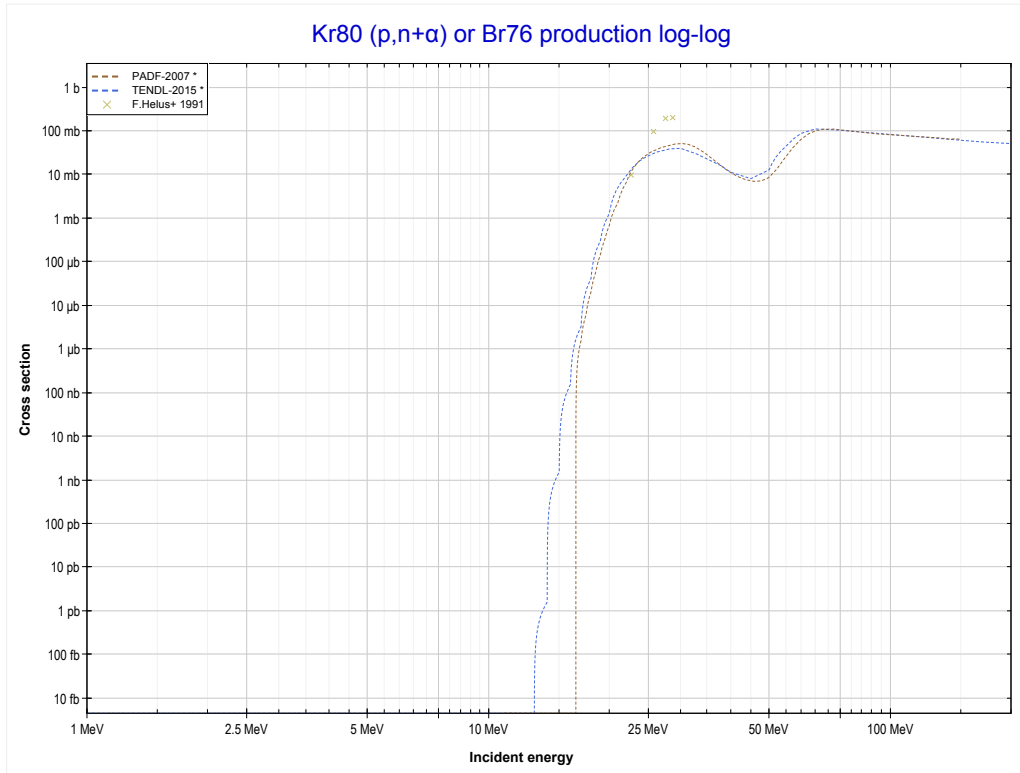
Reaction	Q-Value
Kr78(p, α)Br75	-208.55 keV
Kr78(p,p+t)Br75	-20022.41 keV
Kr78(p,n+He3)Br75	-20786.16 keV
Kr78(p,2d)Br75	-24055.07 keV
Kr78(p,n+p+d)Br75	-26279.64 keV
Kr78(p,2n+2p)Br75	-28504.20 keV

<< 36-Kr-78	36-Kr-80	36-Kr-82 >>
<< 36-Kr-78 MT107 (p, α)	MT16 (p,2n) or MT5 (Rb79 production)	MT22 (p,n+ α) >>



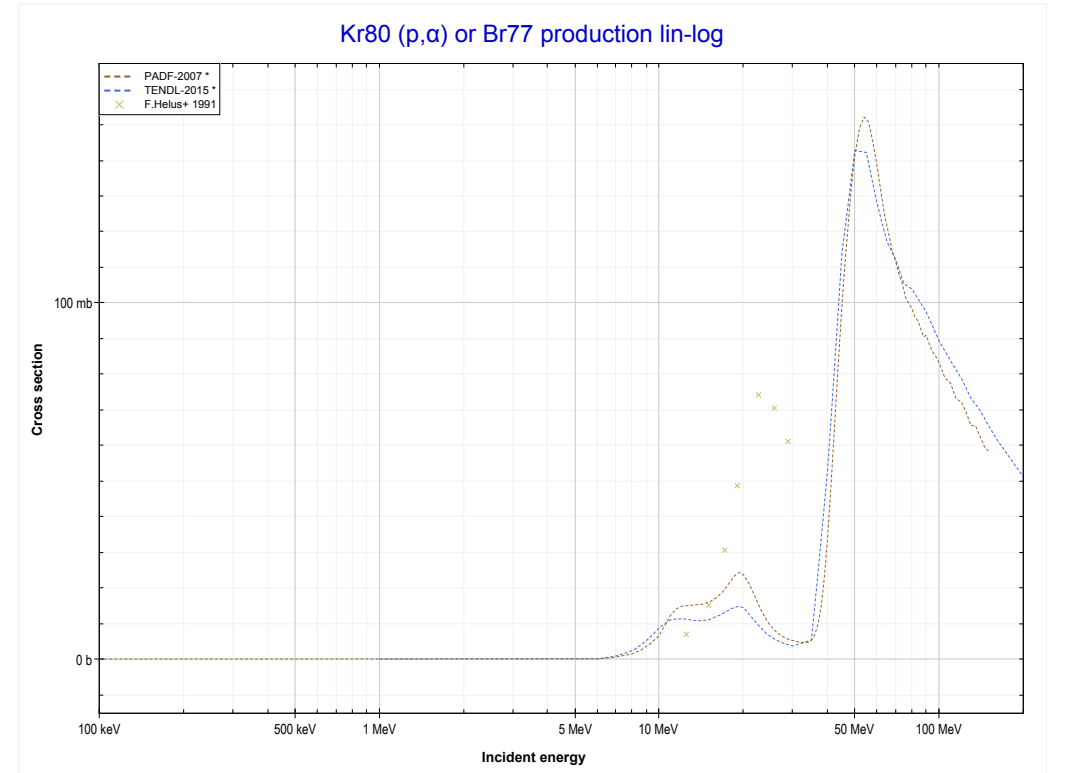
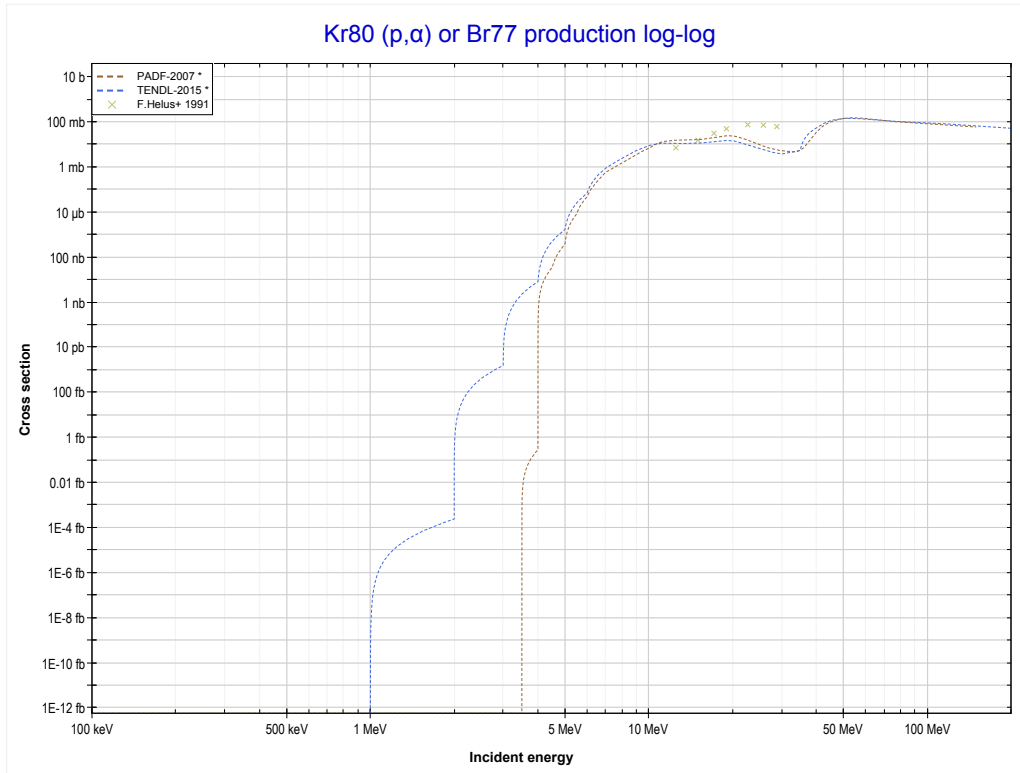
Reaction	Q-Value
Kr80(p,2n)Rb79	-15943.96 keV

<< 34-Se-76	36-Kr-80	39-Y-89 >>
<< MT16 (p,2n)	MT22 (p,n+α) or MT5 (Br76 production)	MT107 (p,α) >>



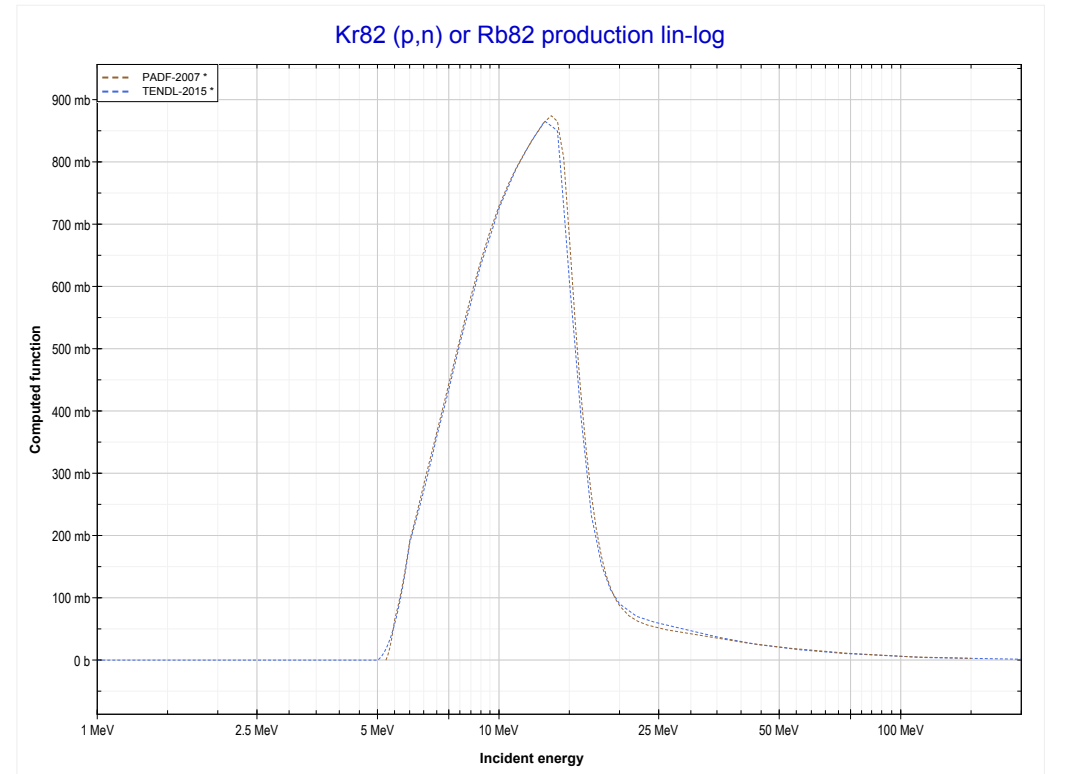
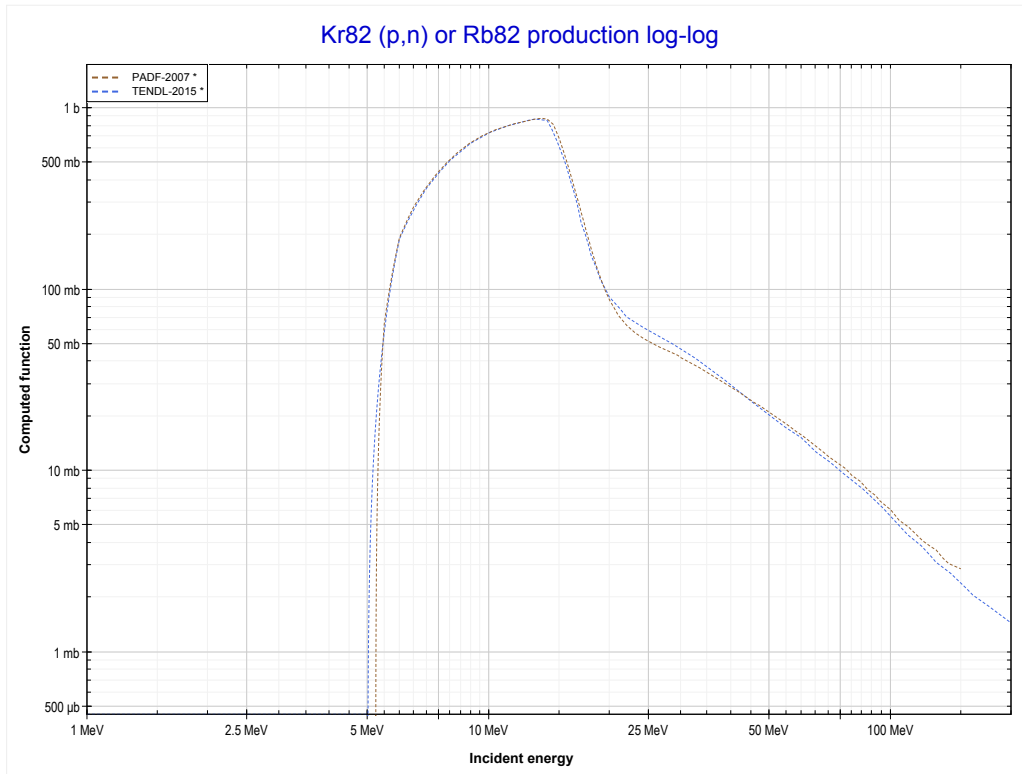
Reaction	Q-Value
Kr80(p,n+α)Br76	-10811.56 keV
Kr80(p,d+t)Br76	-28400.86 keV
Kr80(p,n+p+t)Br76	-30625.42 keV
Kr80(p,2n+He3)Br76	-31389.18 keV
Kr80(p,n+2d)Br76	-34658.09 keV
Kr80(p,2n+p+d)Br76	-36882.66 keV
Kr80(p,3n+2p)Br76	-39107.22 keV

<< 36-Kr-78	36-Kr-80	38-Sr-86 >>
<< MT22 (p,n+α)	MT107 (p,α) or MT5 (Br77 production)	36-Kr-82 MT4 (p,n) >>



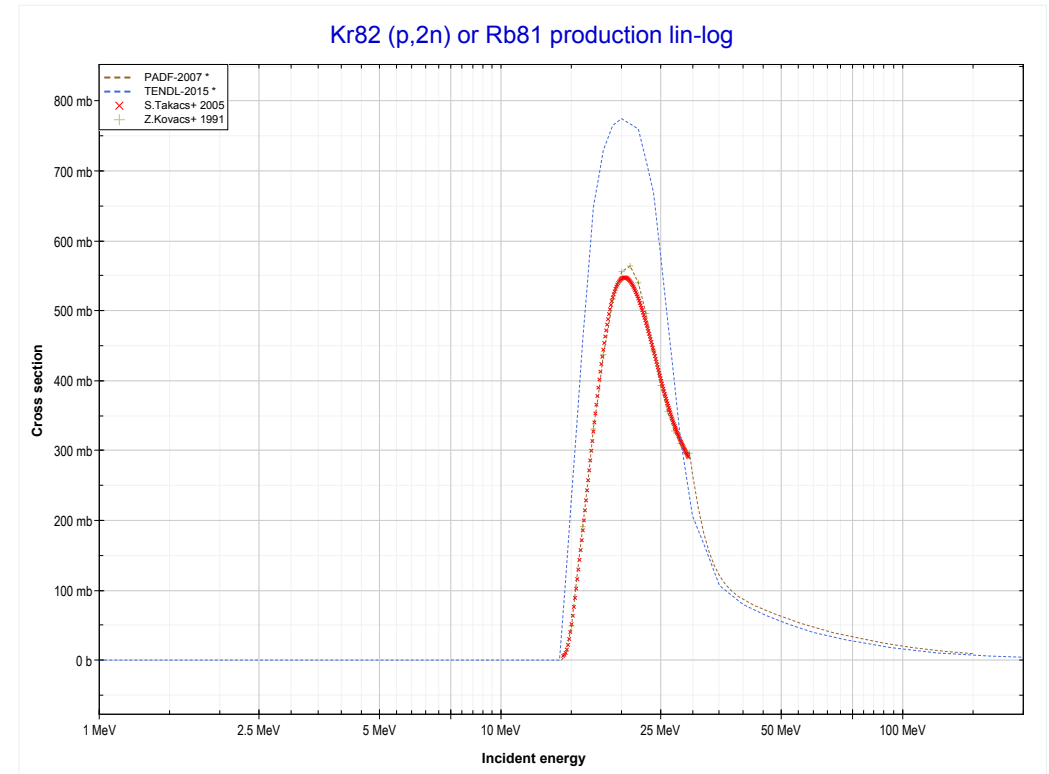
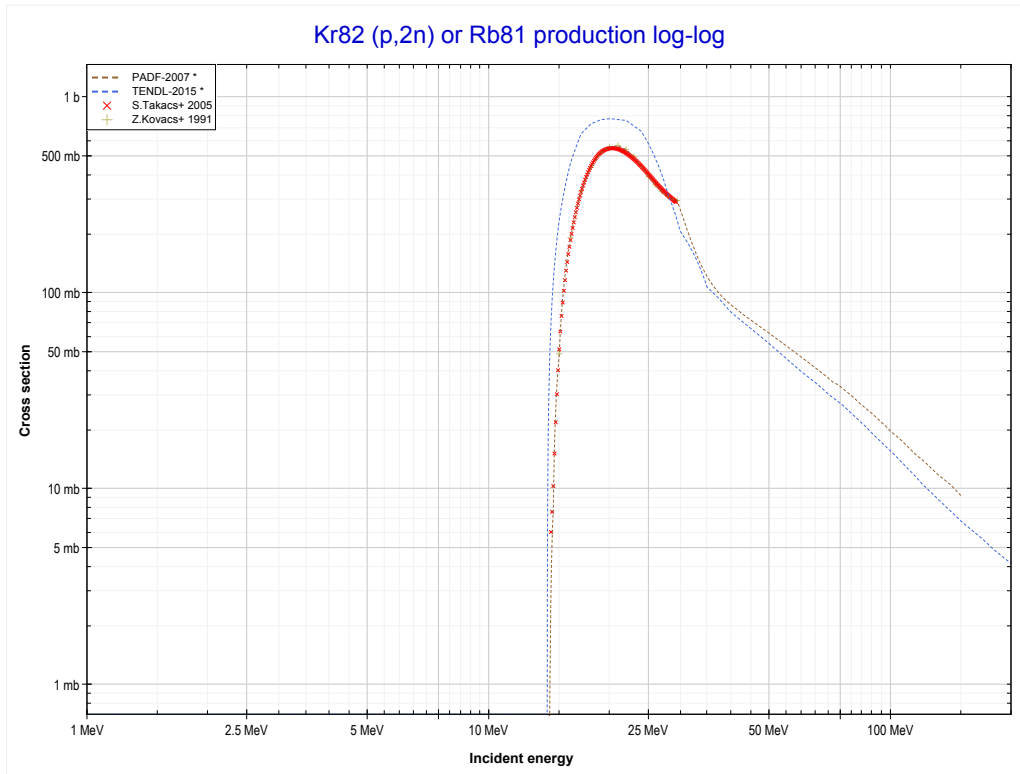
Reaction	Q-Value
Kr80(p,α)Br77	205.55 keV
Kr80(p,p+t)Br77	-19608.31 keV
Kr80(p,n+He3)Br77	-20372.06 keV
Kr80(p,2d)Br77	-23640.97 keV
Kr80(p,n+p+d)Br77	-25865.54 keV
Kr80(p,2n+2p)Br77	-28090.10 keV

<< 35-Br-81	36-Kr-82	36-Kr-83 >>
<< 36-Kr-80 MT107 (p, α)	MT4 (p,n) or MT5 (Rb82 production)	MT16 (p,2n) >>



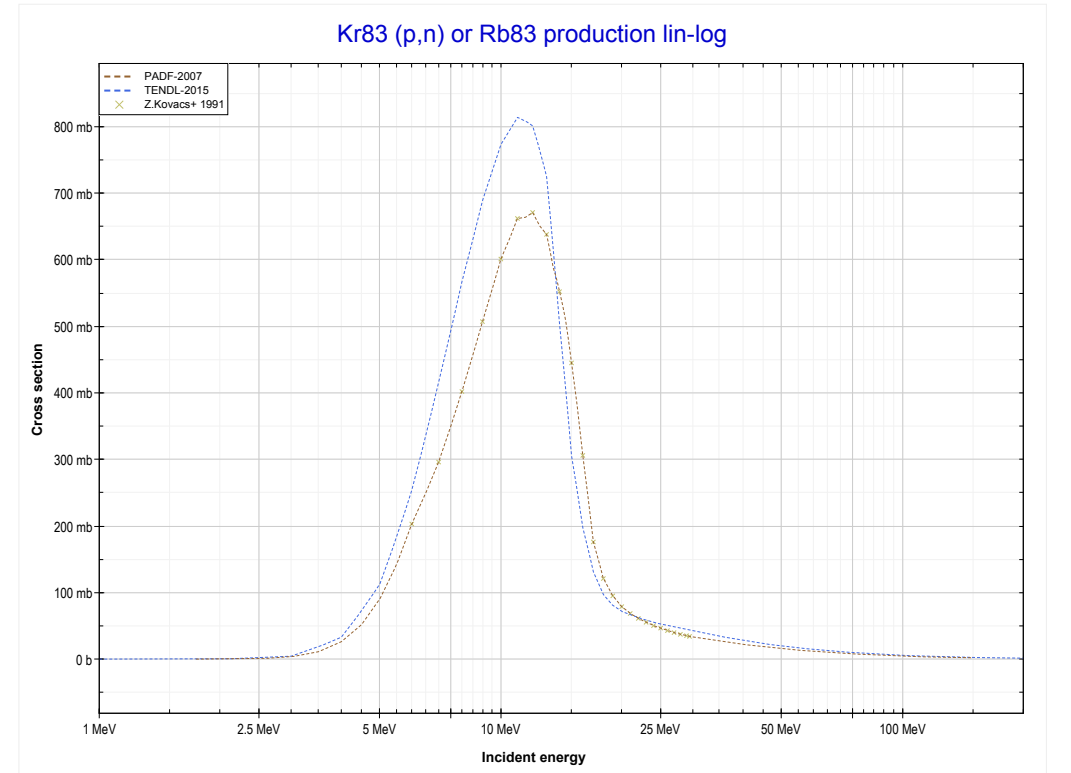
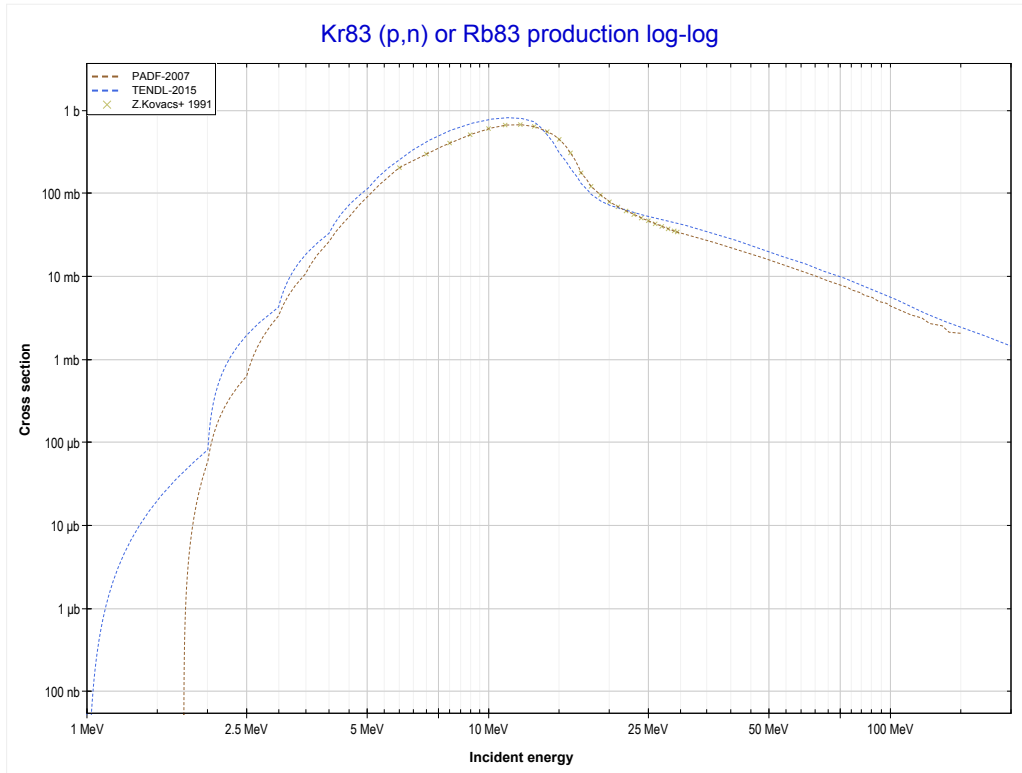
Reaction	Q-Value
Kr82(p,n)Rb82	-5184.65 keV

<< 36-Kr-80	36-Kr-82	36-Kr-83 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Rb81 production)	36-Kr-83 MT4 (p,n) >>



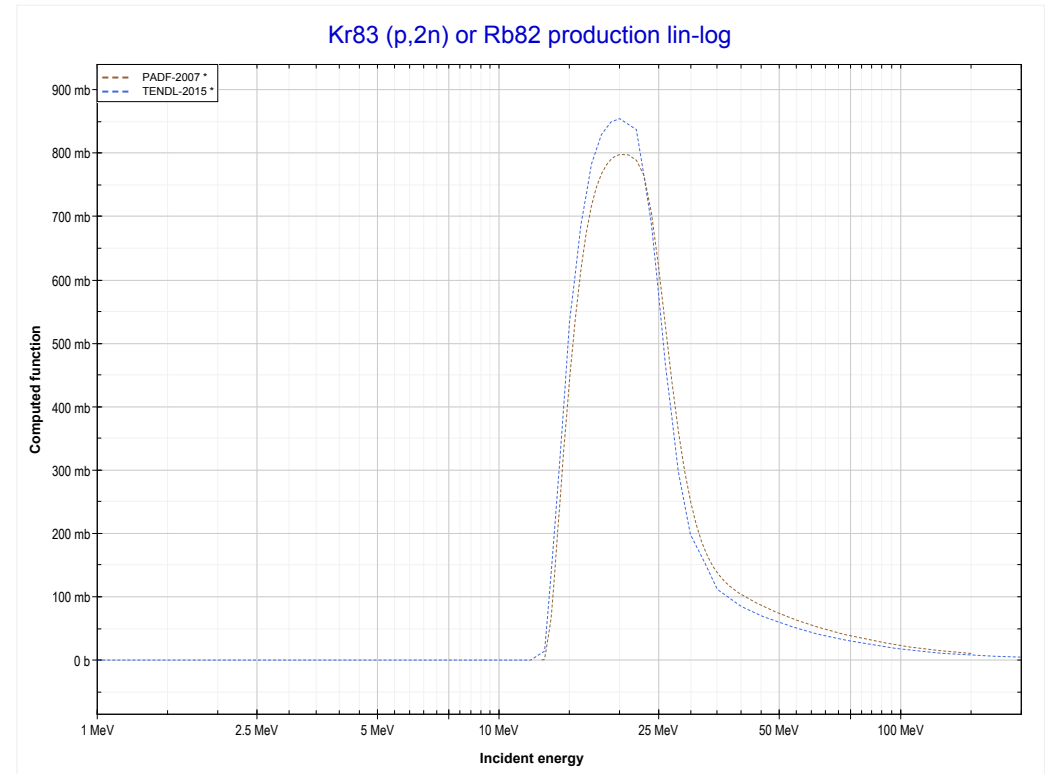
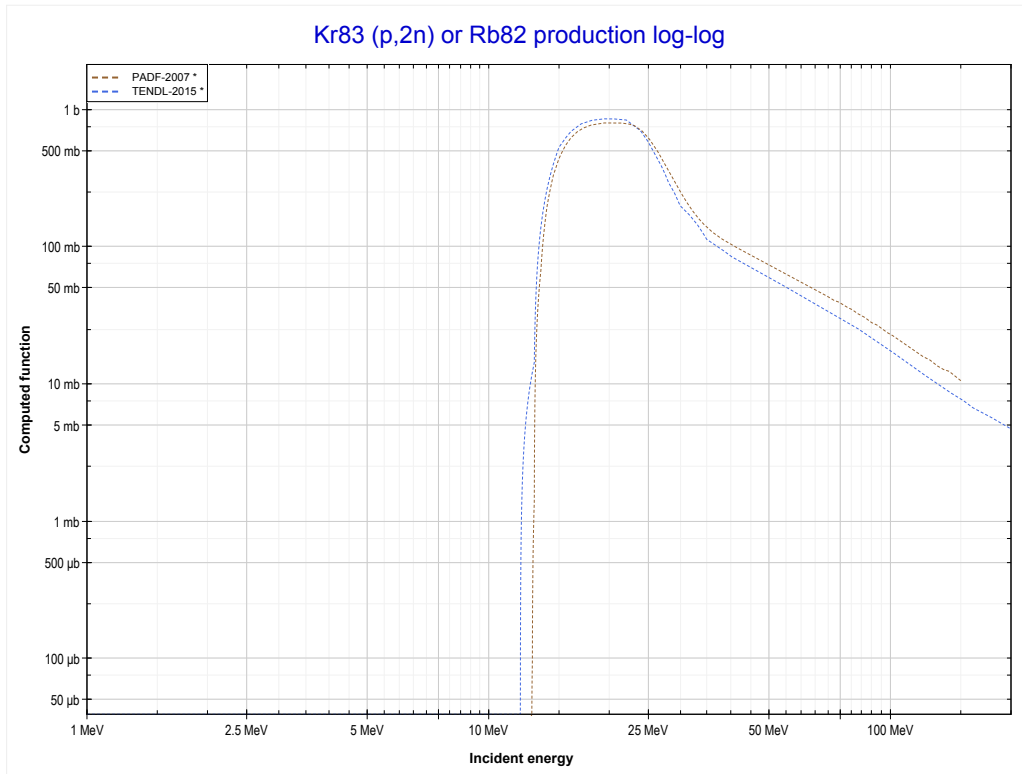
Reaction	Q-Value
Kr82(p,2n)Rb81	-13986.96 keV

<< 36-Kr-82	36-Kr-83	36-Kr-84 >>
<< 36-Kr-82 MT16 (p,2n)	MT4 (p,n) or MT5 (Rb83 production)	MT16 (p,2n) >>



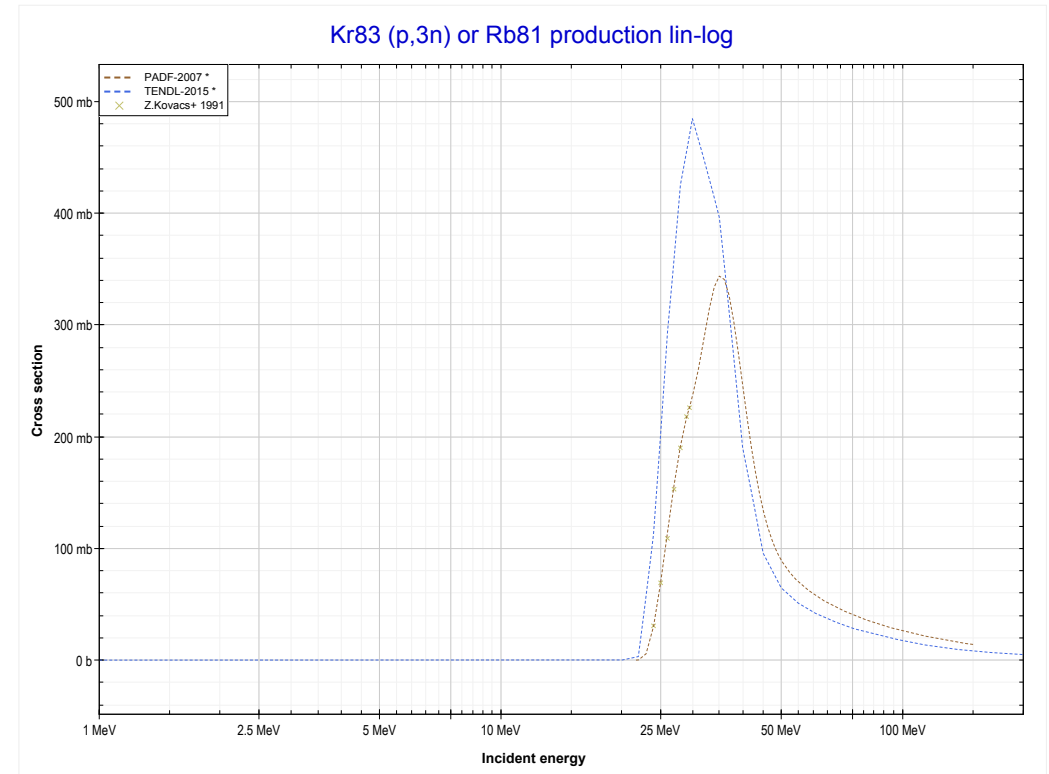
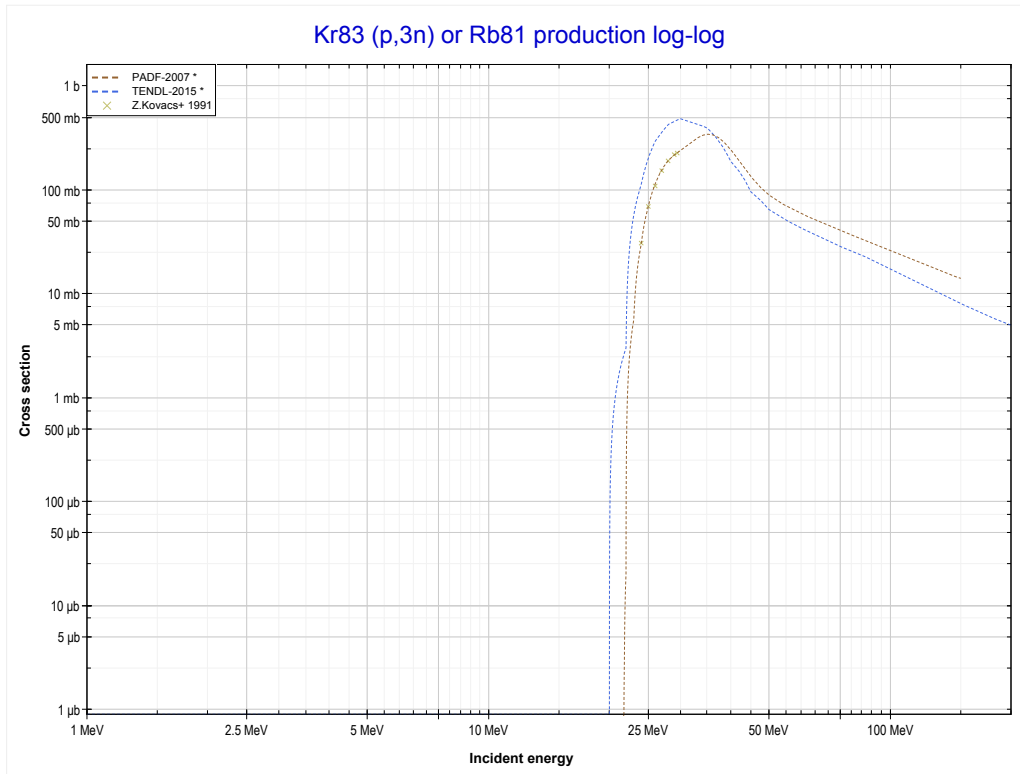
Reaction	Q-Value
Kr83(p,n)Rb83	-1701.78 keV

<< 36-Kr-82	36-Kr-83	36-Kr-84 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Rb82 production)	MT17 (p,3n) >>



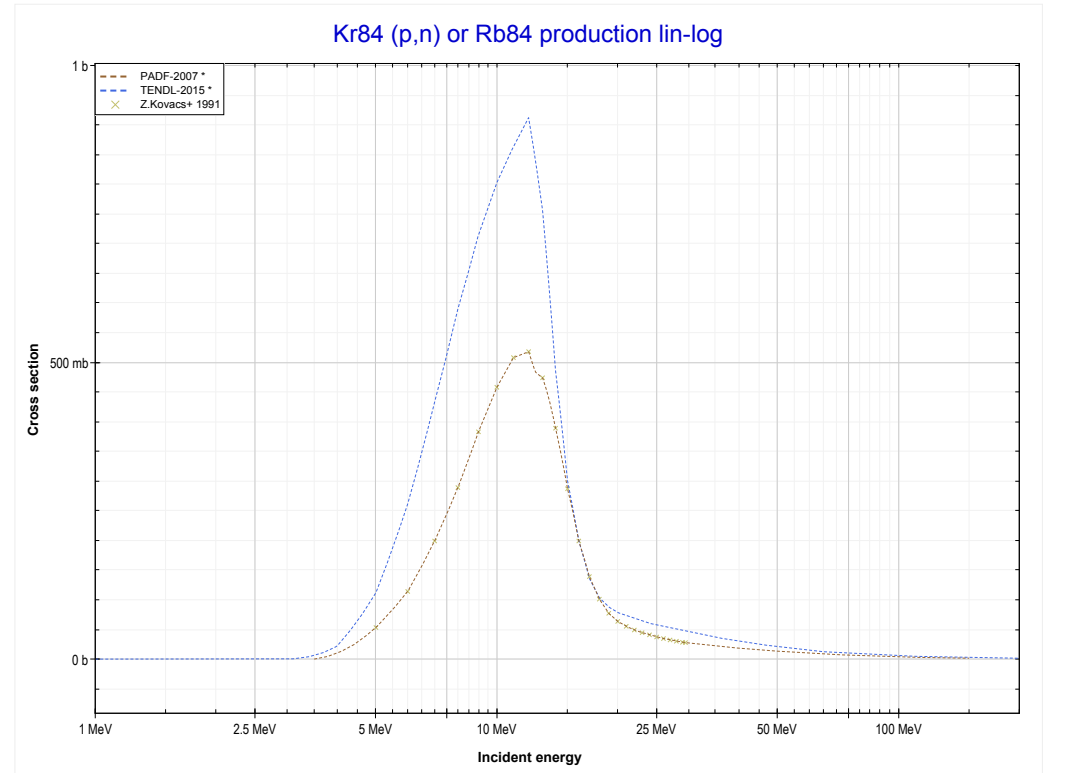
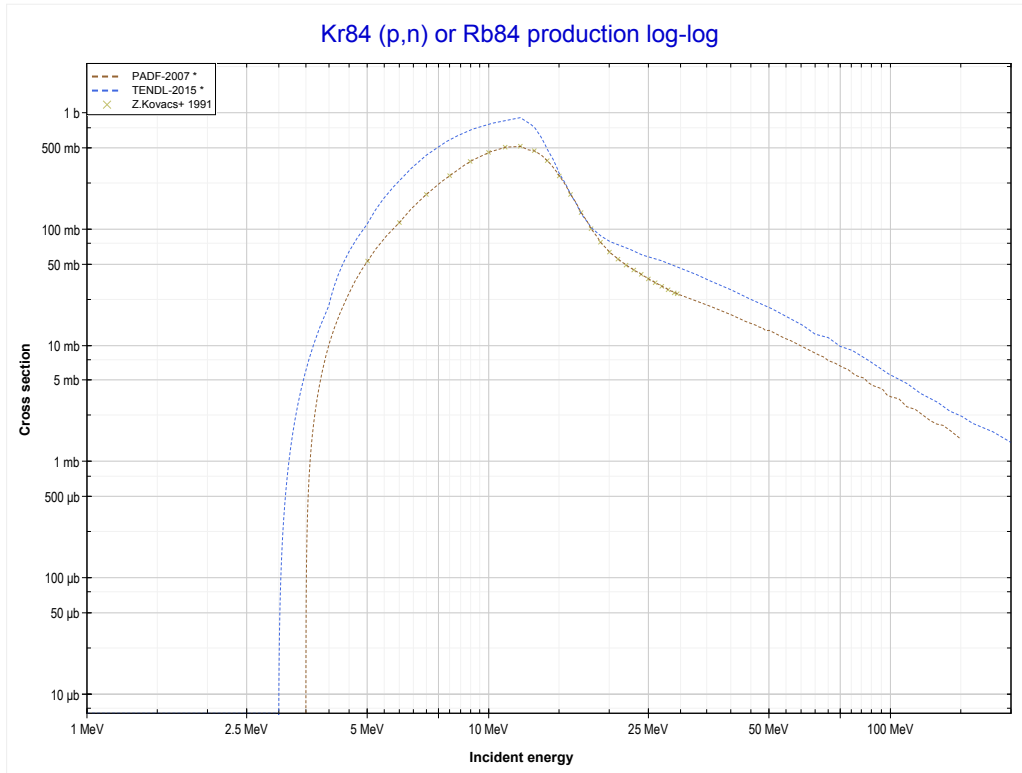
Reaction	Q-Value
Kr83(p,2n)Rb82	-12655.69 keV

<< 35-Br-81	36-Kr-83	36-Kr-84 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Rb81 production)	36-Kr-84 MT4 (p,n) >>



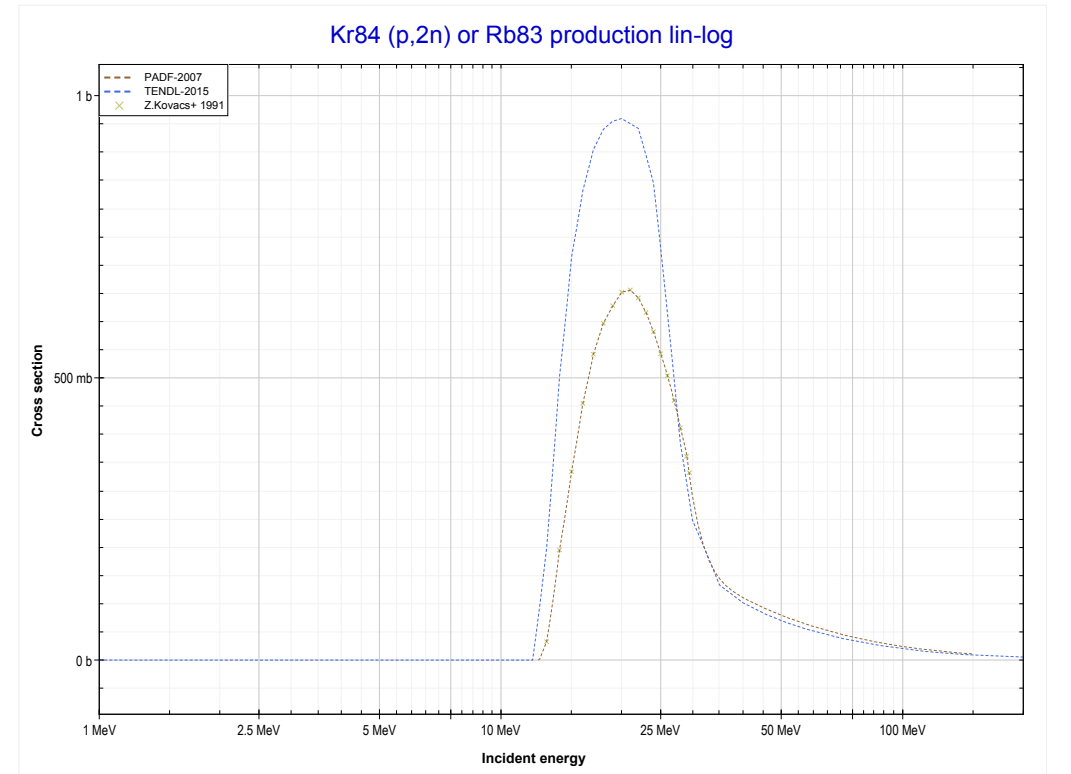
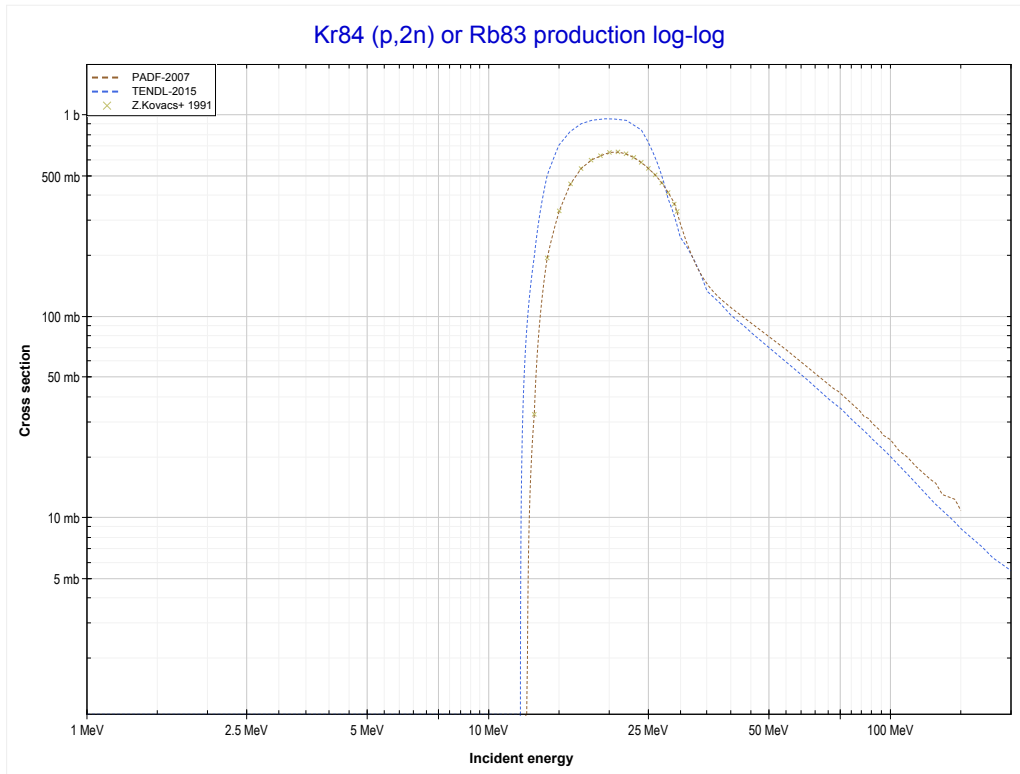
Reaction	Q-Value
Kr83(p,3n)Rb81	-21458.01 keV

<< 36-Kr-83	36-Kr-84	37-Rb-85 >>
<< 36-Kr-83 MT17 (p,3n)	MT4 (p,n) or MT5 (Rb84 production)	MT16 (p,2n) >>



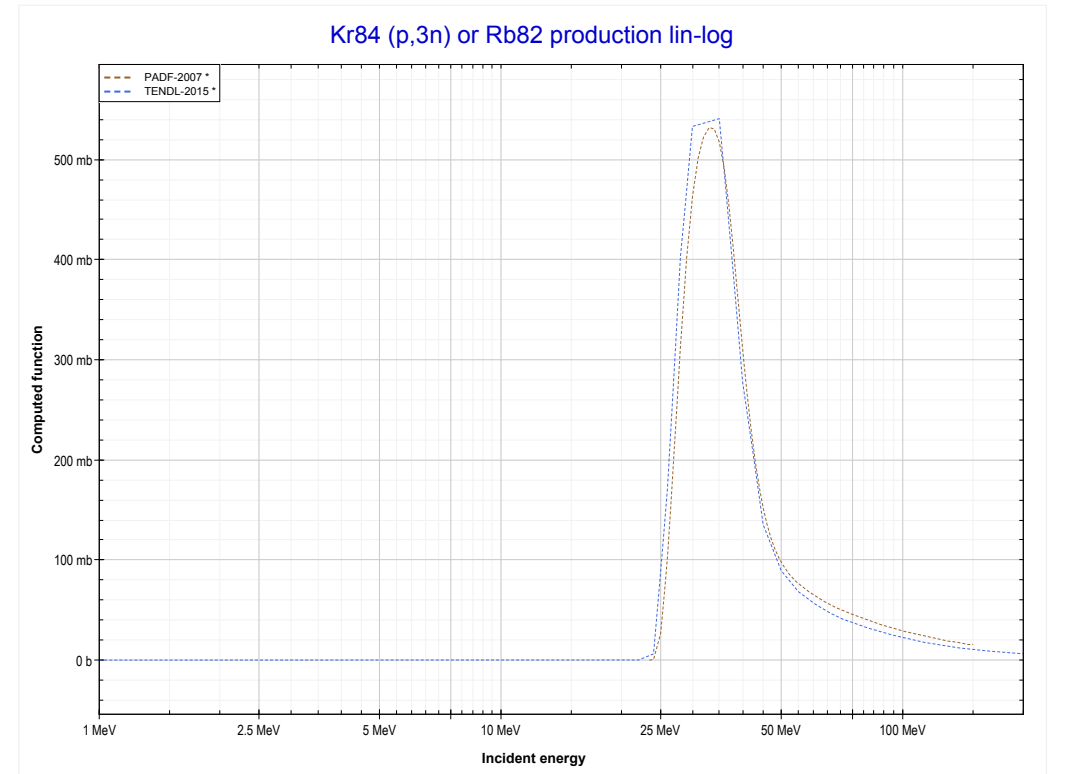
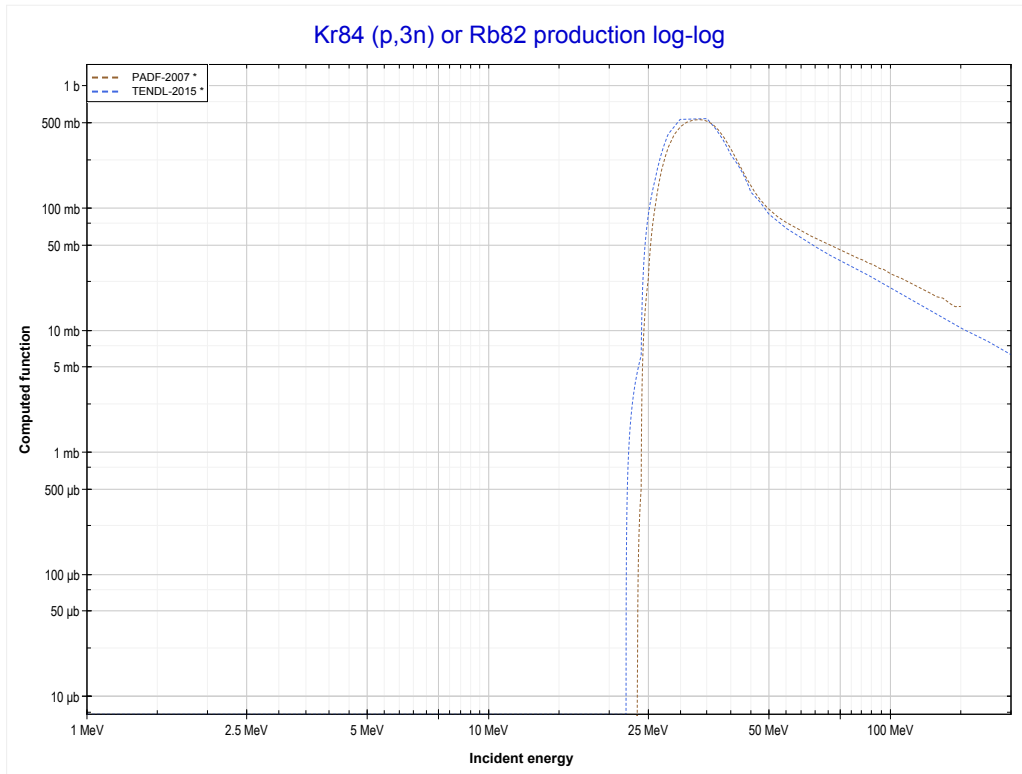
Reaction	Q-Value
Kr84(p,n)Rb84	-3462.68 keV

<< 36-Kr-83	36-Kr-84	38-Sr-86 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Rb83 production)	MT17 (p,3n) >>



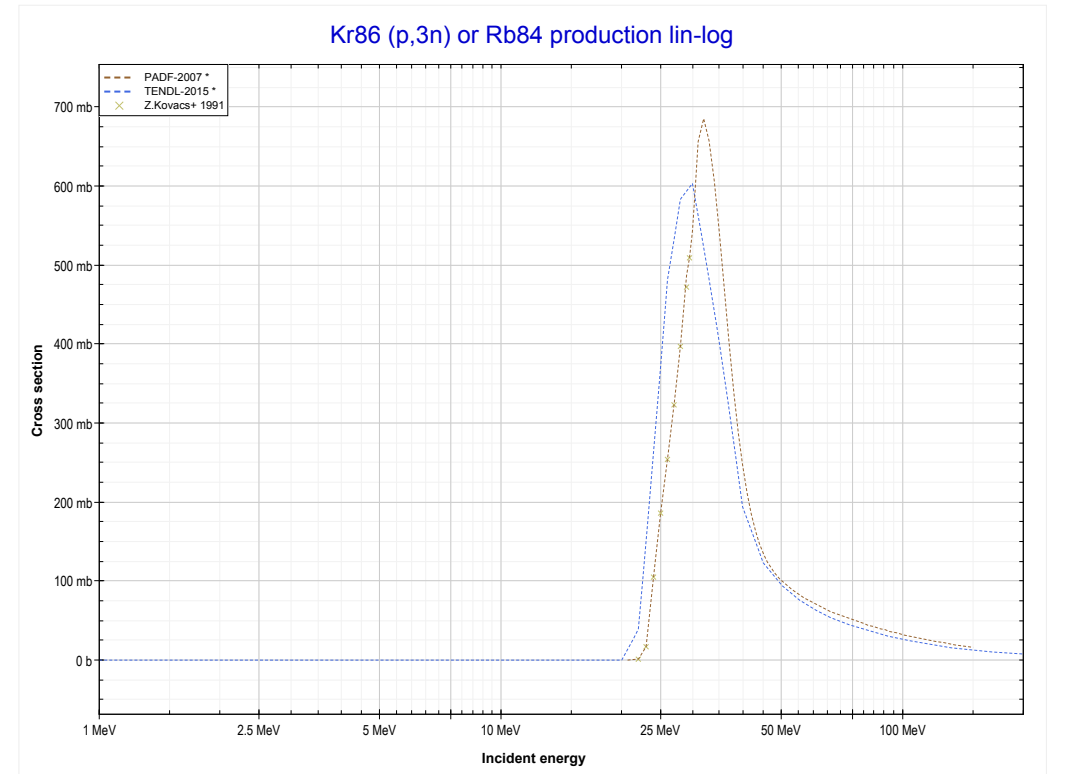
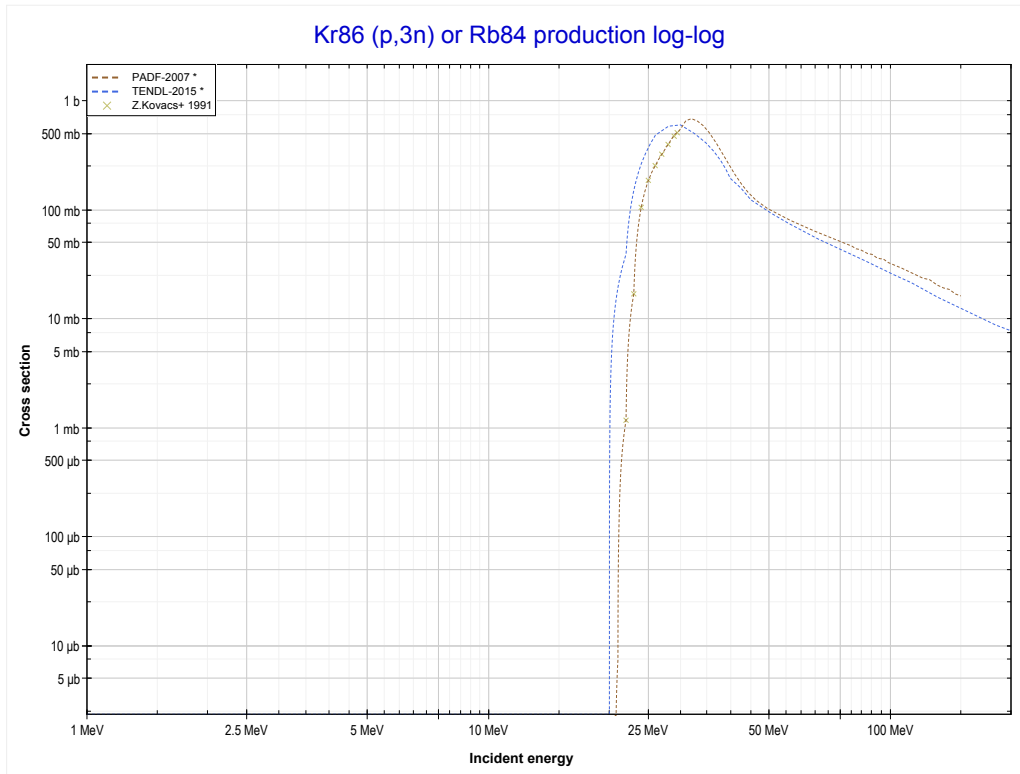
Reaction	Q-Value
Kr84(p,2n)Rb83	-12222.40 keV

<< 36-Kr-83	36-Kr-84	36-Kr-86 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Rb82 production)	36-Kr-86 MT17 (p,3n) >>



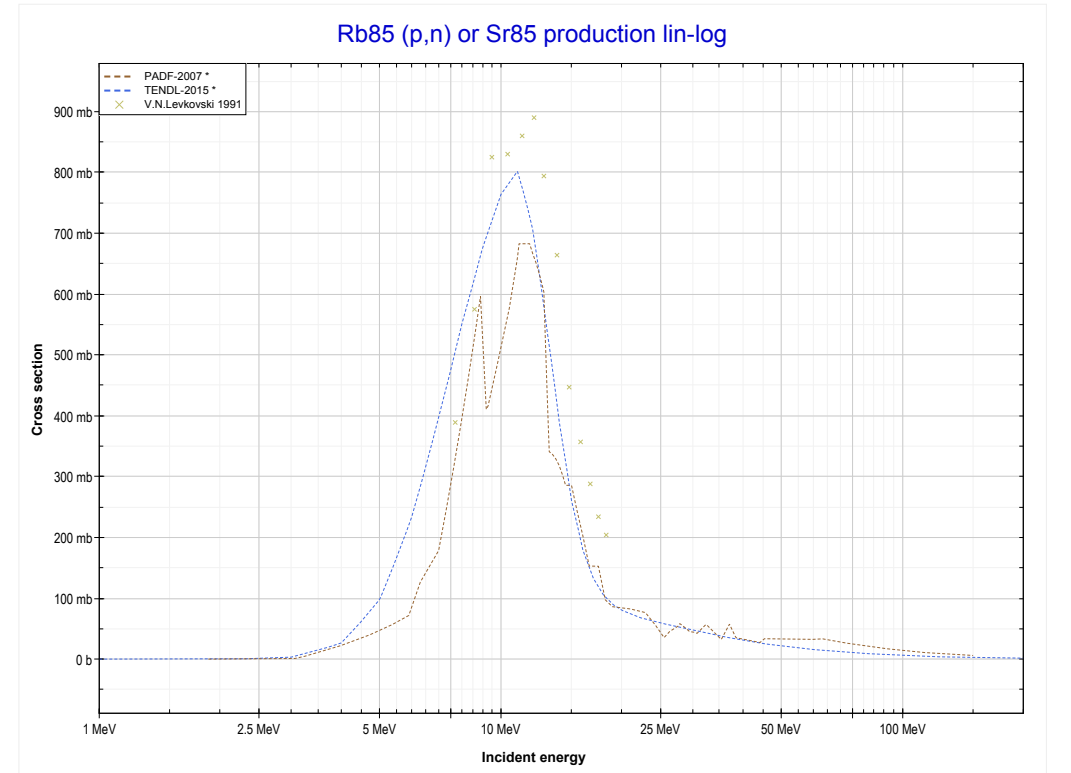
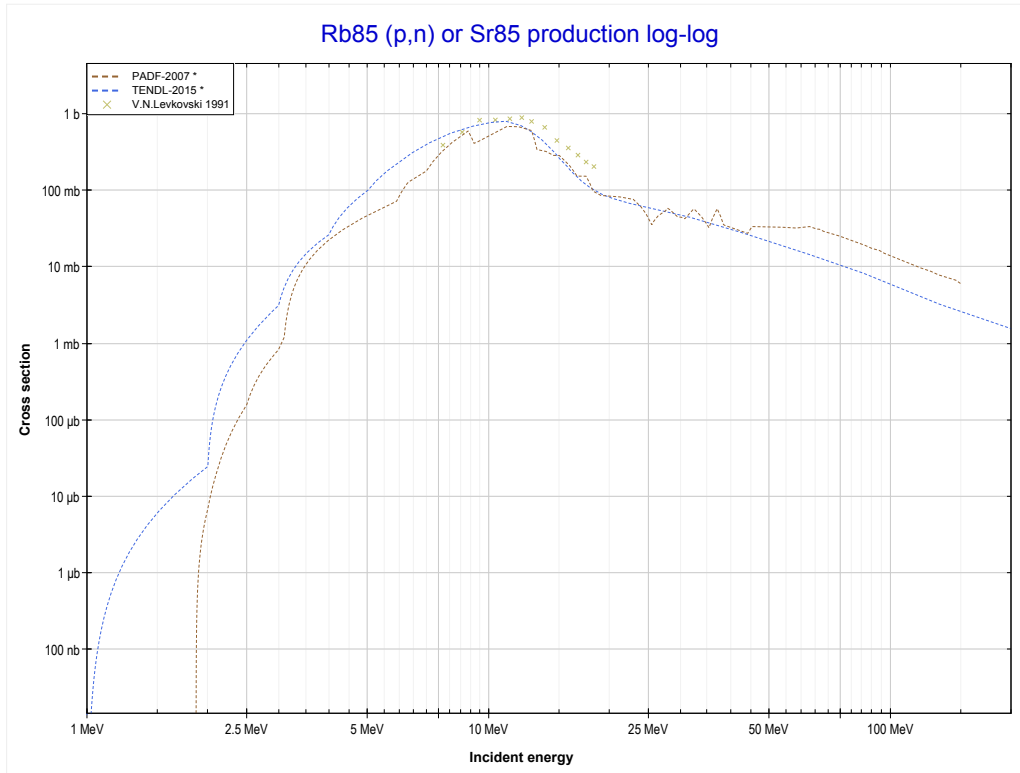
Reaction	Q-Value
Kr84(p,3n)Rb82	-23176.32 keV

<< 36-Kr-84	36-Kr-86	37-Rb-85 >>
<< 36-Kr-84 MT17 (p,3n)	MT17 (p,3n) or MT5 (Rb84 production)	37-Rb-85 MT4 (p,n) >>



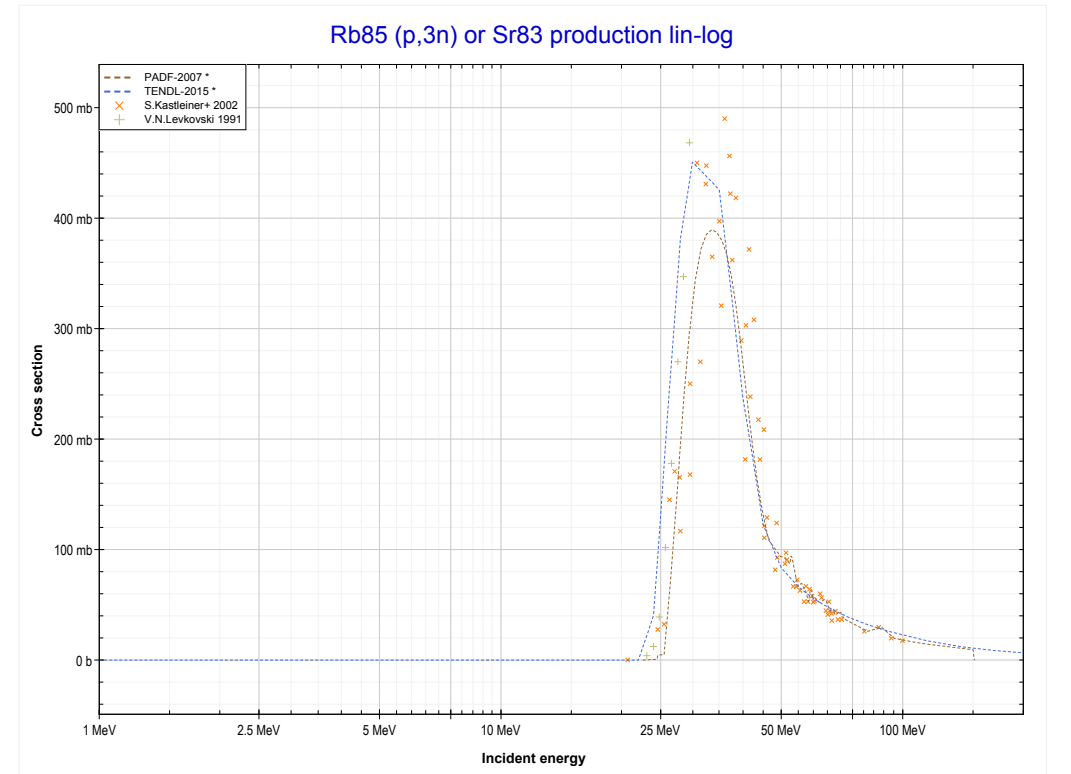
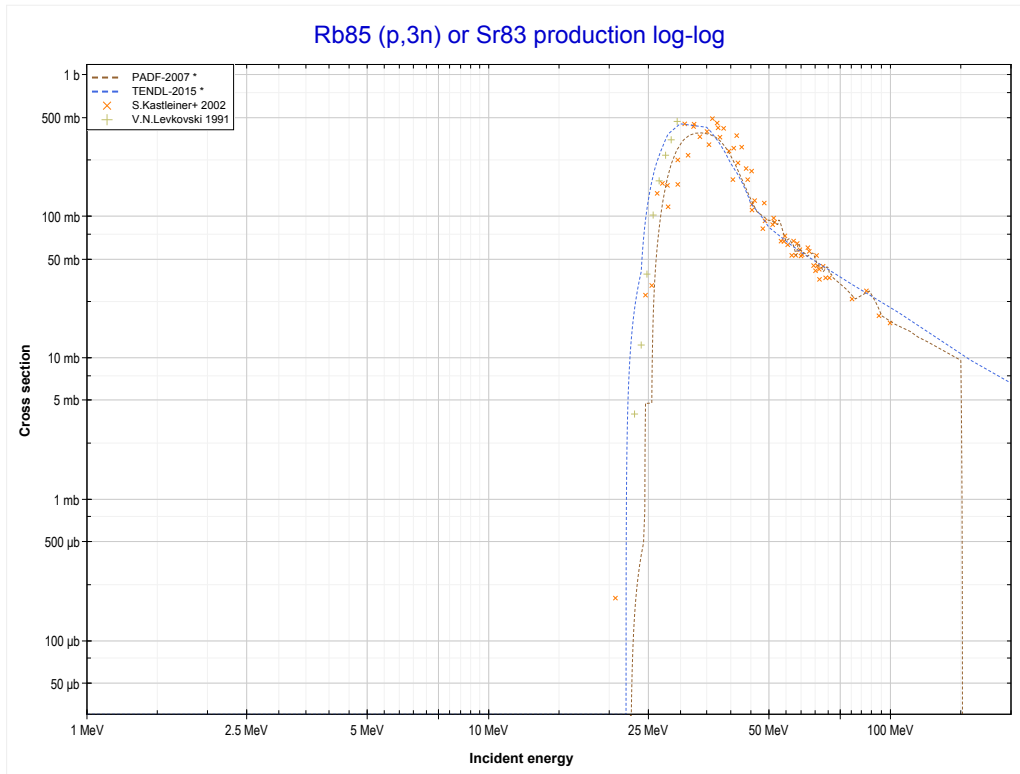
Reaction	Q-Value
Kr86(p,3n)Rb84	-20431.65 keV

<< 36-Kr-84	37-Rb-85	37-Rb-87 >>
<< 36-Kr-86 MT17 (p,3n)	MT4 (p,n) or MT5 (Sr85 production)	MT17 (p,3n) >>



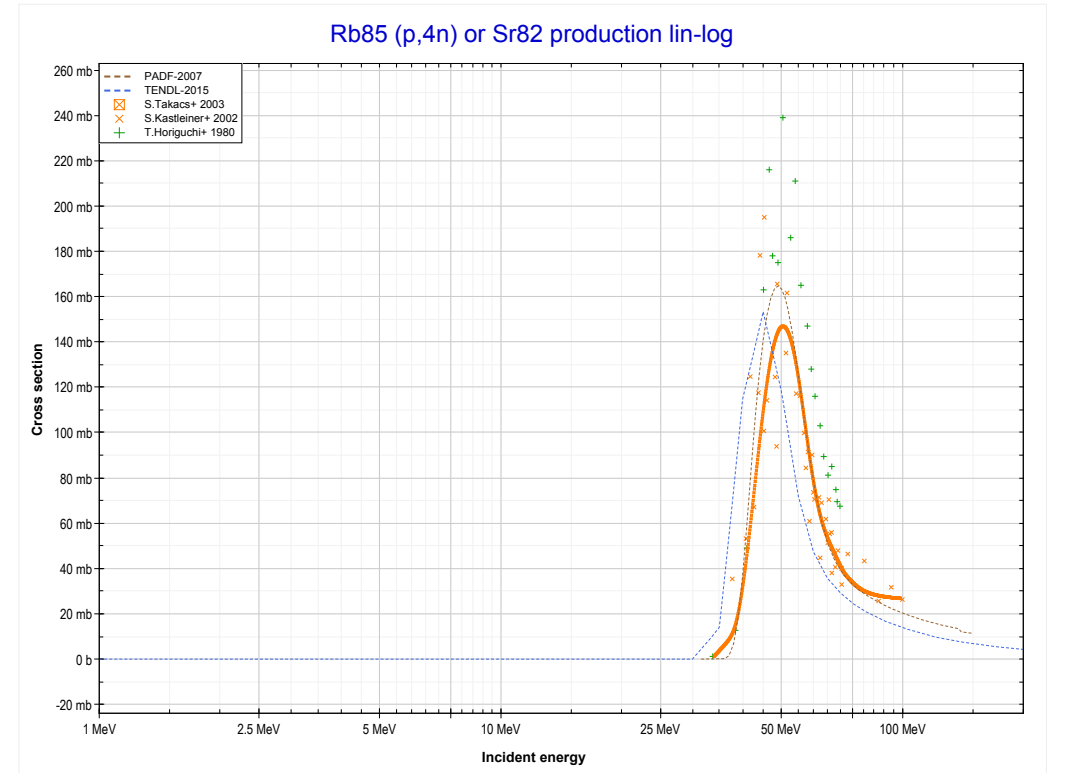
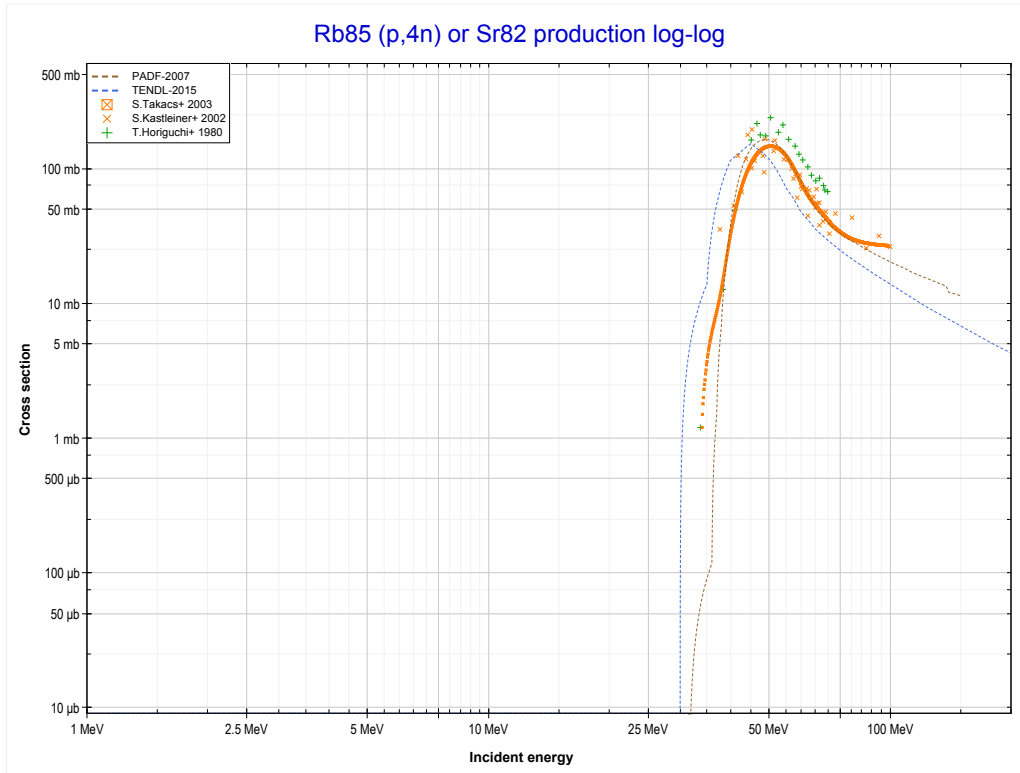
Reaction	Q-Value
Rb85(p,n)Sr85	-1846.38 keV

<< 36-Kr-86	37-Rb-85	38-Sr-88 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Sr83 production)	MT37 (p,4n) >>



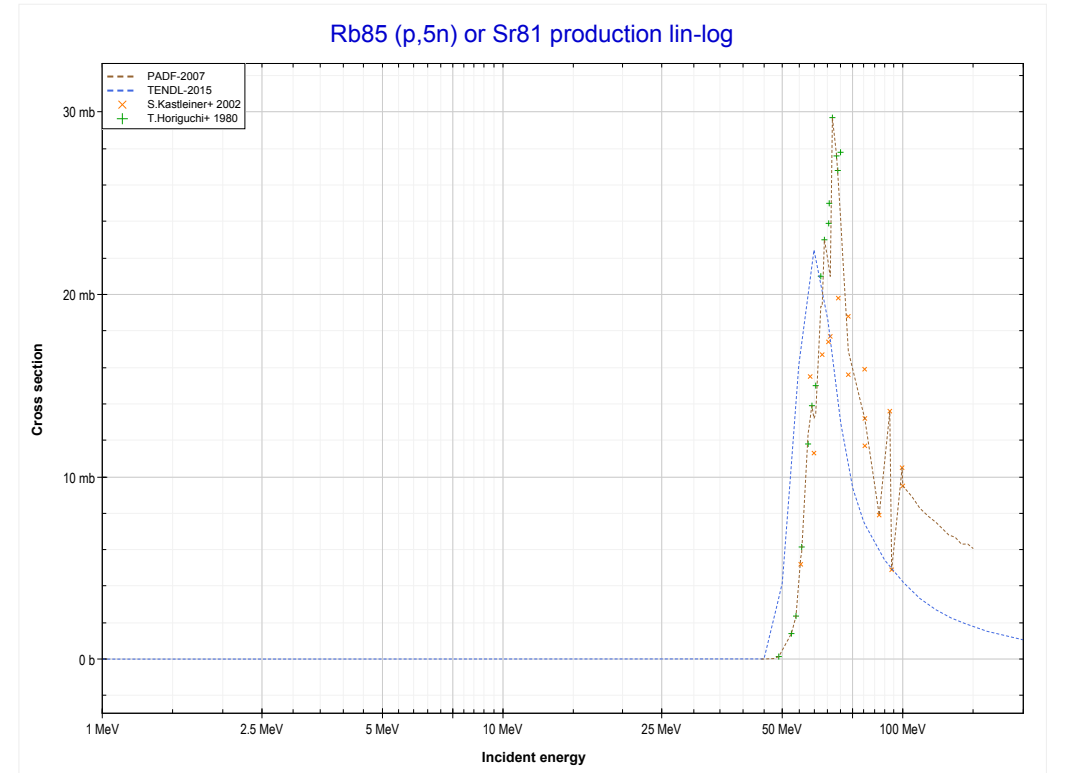
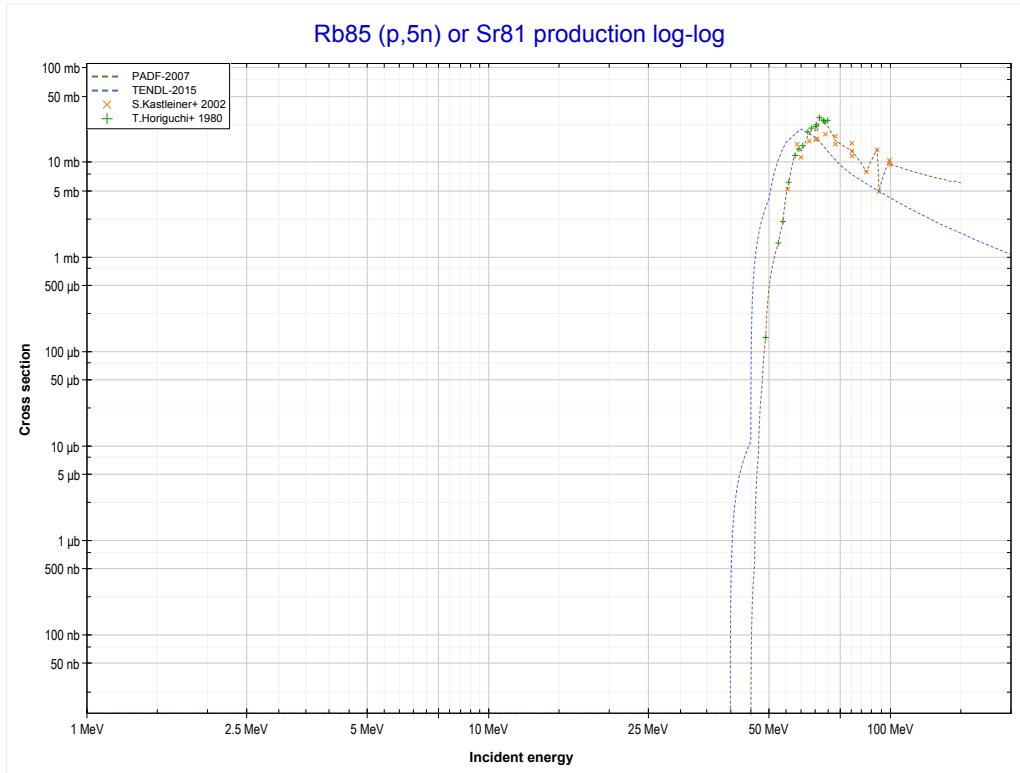
Reaction	Q-Value
Rb85(p,3n)Sr83	-22294.31 keV

<< 35-Br-79	37-Rb-85	38-Sr-88 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Sr82 production)	MT152 (p,5n) >>



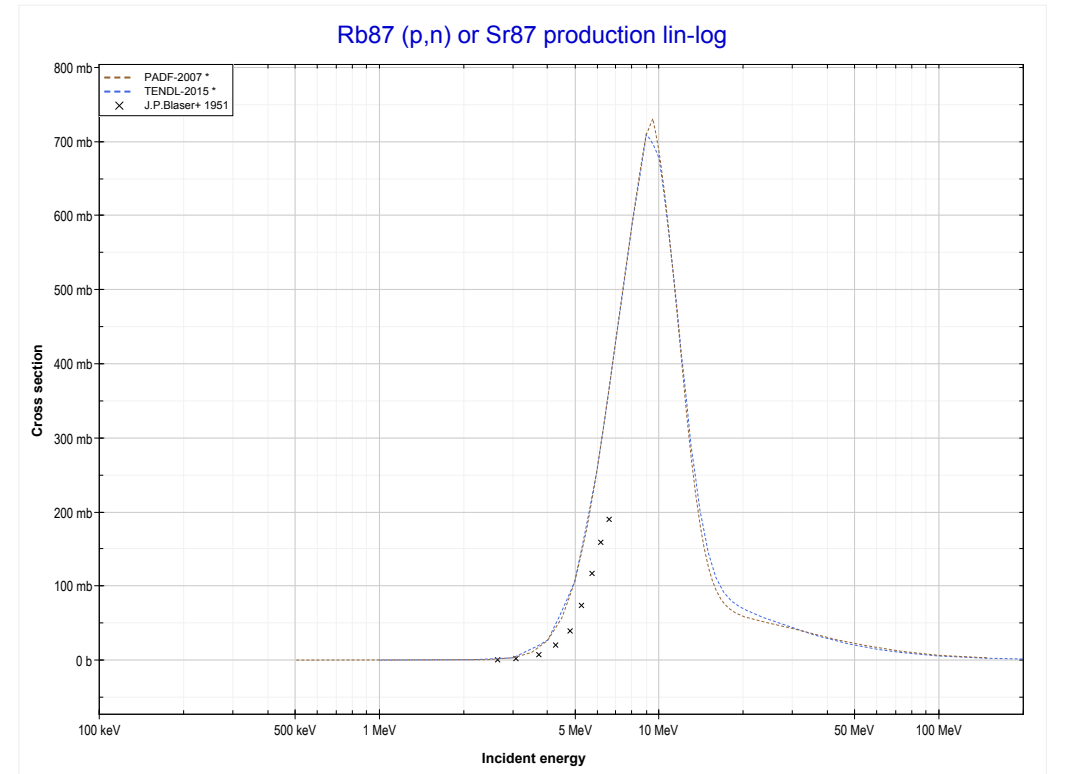
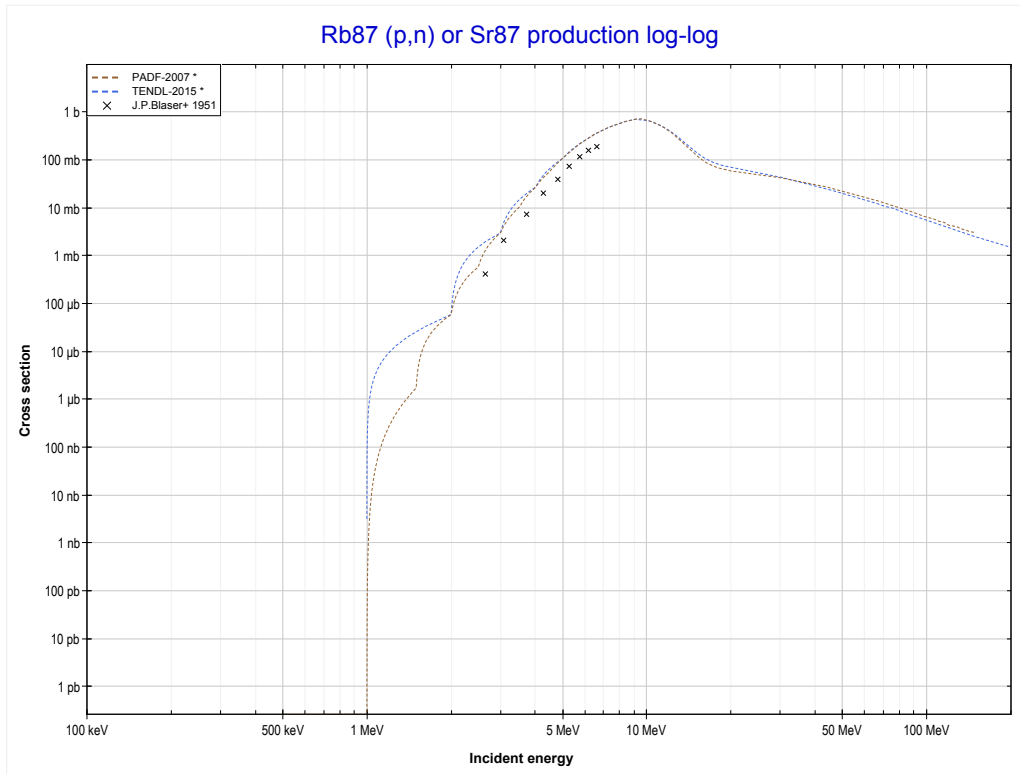
Reaction	Q-Value
Rb85(p,4n)Sr82	-31153.63 keV

<< 35-Br-81	37-Rb-85	38-Sr-88 >>
<< MT37 (p,4n)	MT152 (p,5n) or MT5 (Sr81 production)	37-Rb-87 MT4 (p,n) >>



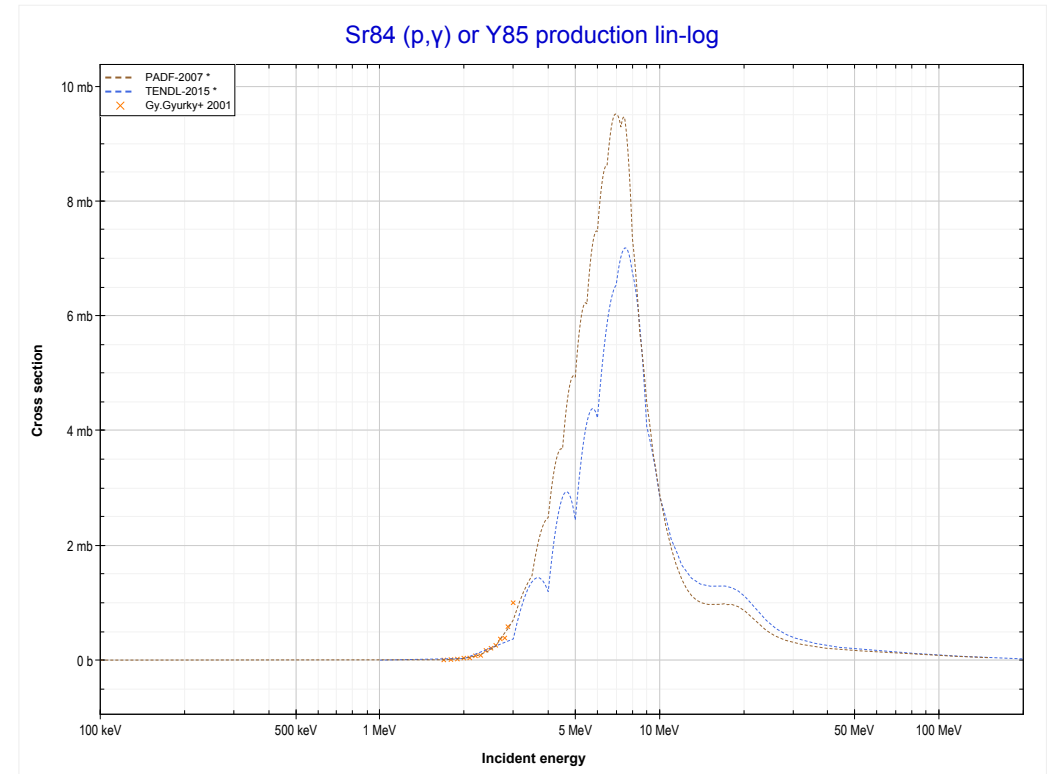
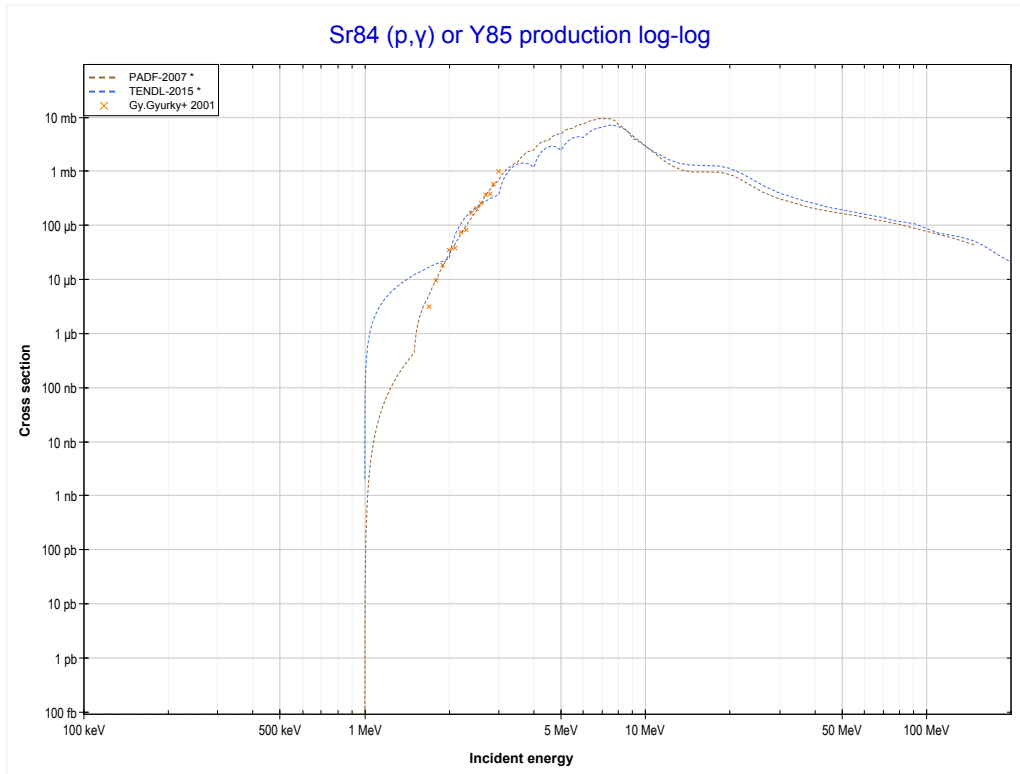
Reaction	Q-Value
Rb85(p,5n)Sr81	-43706.94 keV

<< 37-Rb-85	37-Rb-87	38-Sr-86 >>
<< 37-Rb-85 MT152 (p,5n)	MT4 (p,n) or MT5 (Sr87 production)	38-Sr-84 MT102 (p, γ) >>



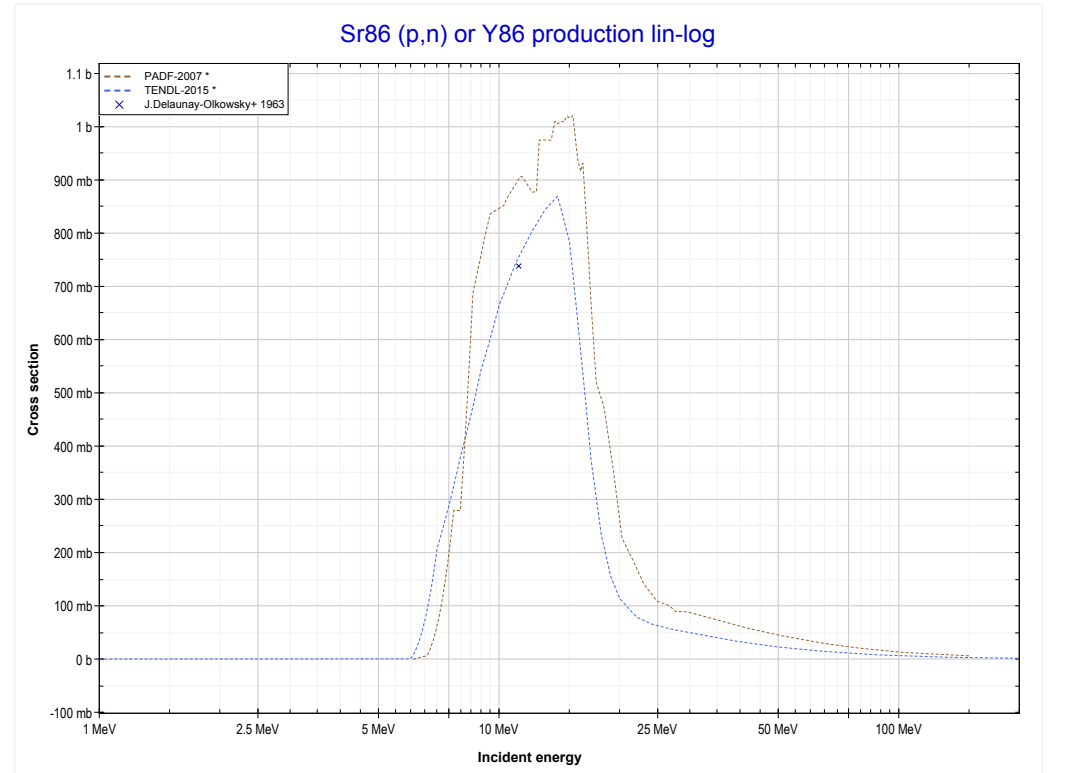
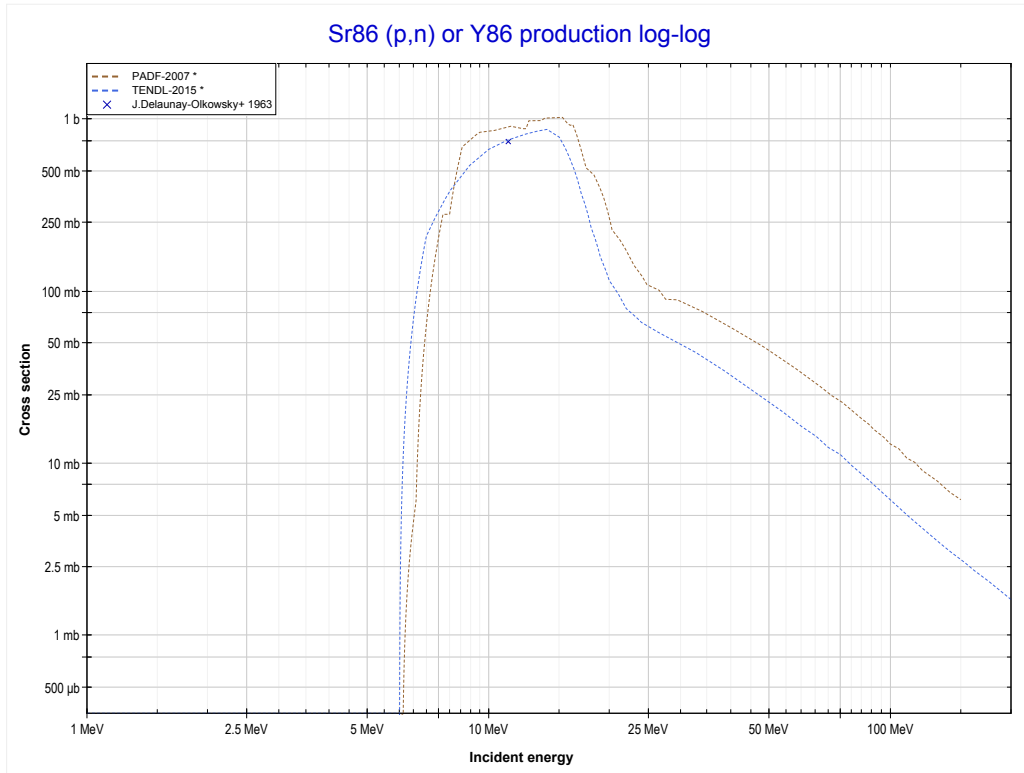
Reaction	Q-Value
Rb87(p,n)Sr87	-500.14 keV

<< 34-Se-82	38-Sr-84	38-Sr-86 >>
<< 37-Rb-87 MT4 (p,n)	MT102 (p,γ) or MT5 (Y85 production)	38-Sr-86 MT4 (p,n) >>



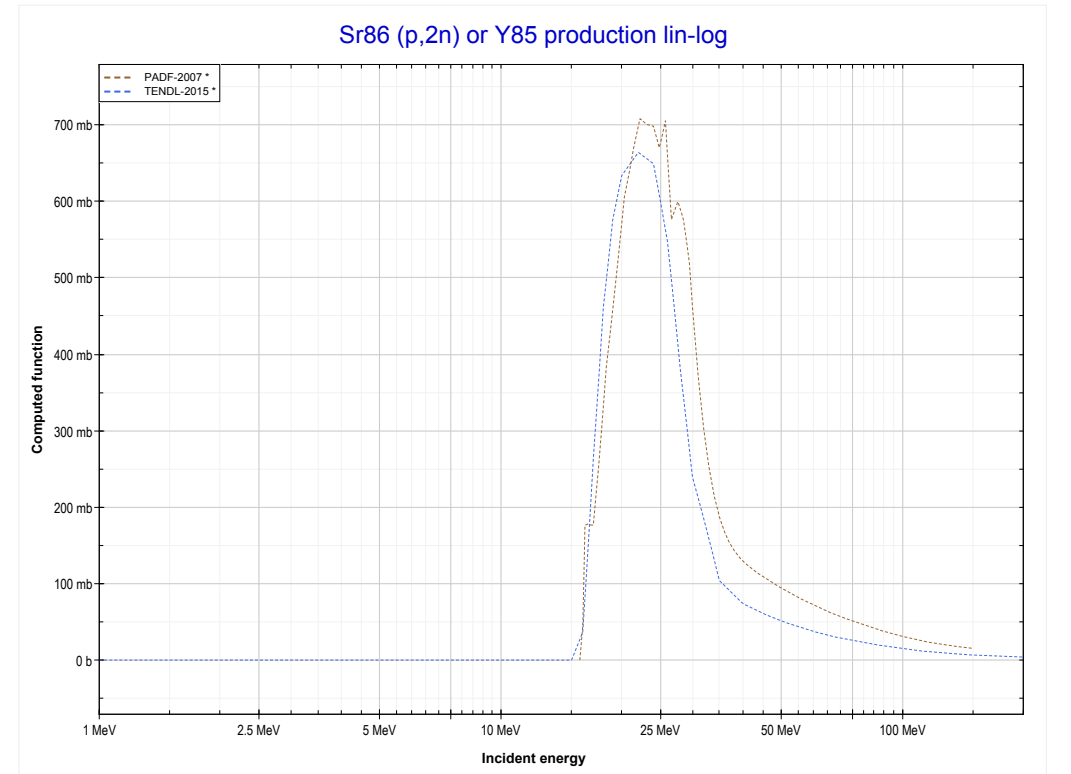
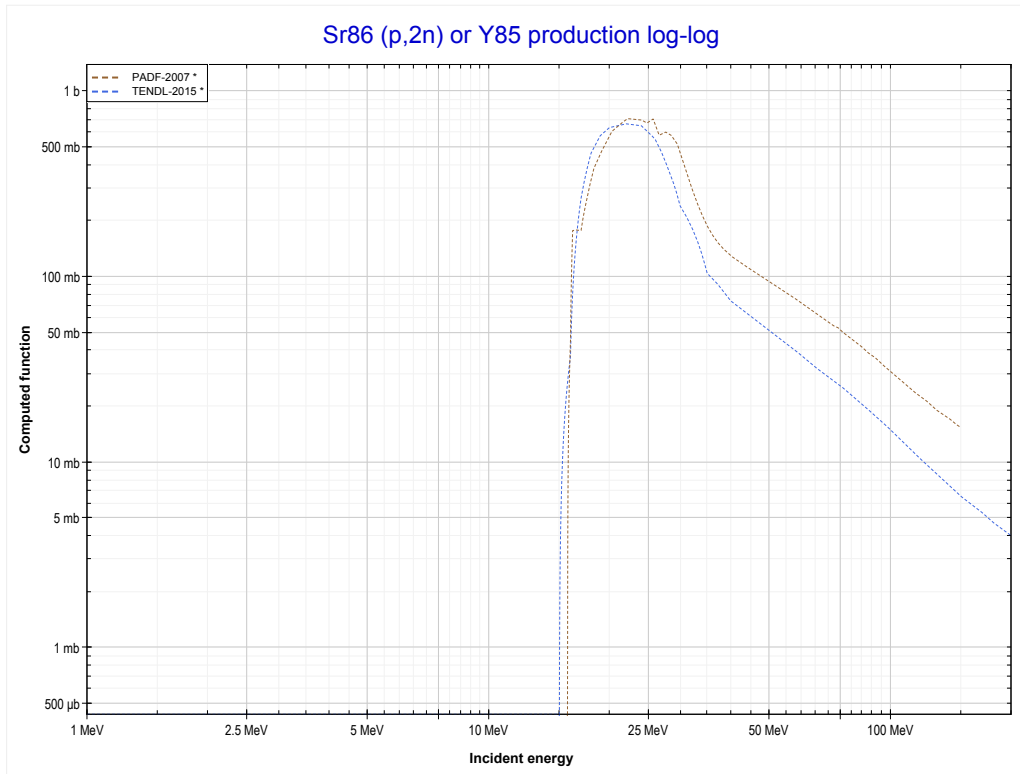
Reaction	Q-Value
Sr84(p, γ)Y85	4481.37 keV

<< 37-Rb-87	38-Sr-86	38-Sr-87 >>
<< 38-Sr-84 MT102 (p, γ)	MT4 (p,n) or MT5 (Y86 production)	MT16 (p,2n) >>



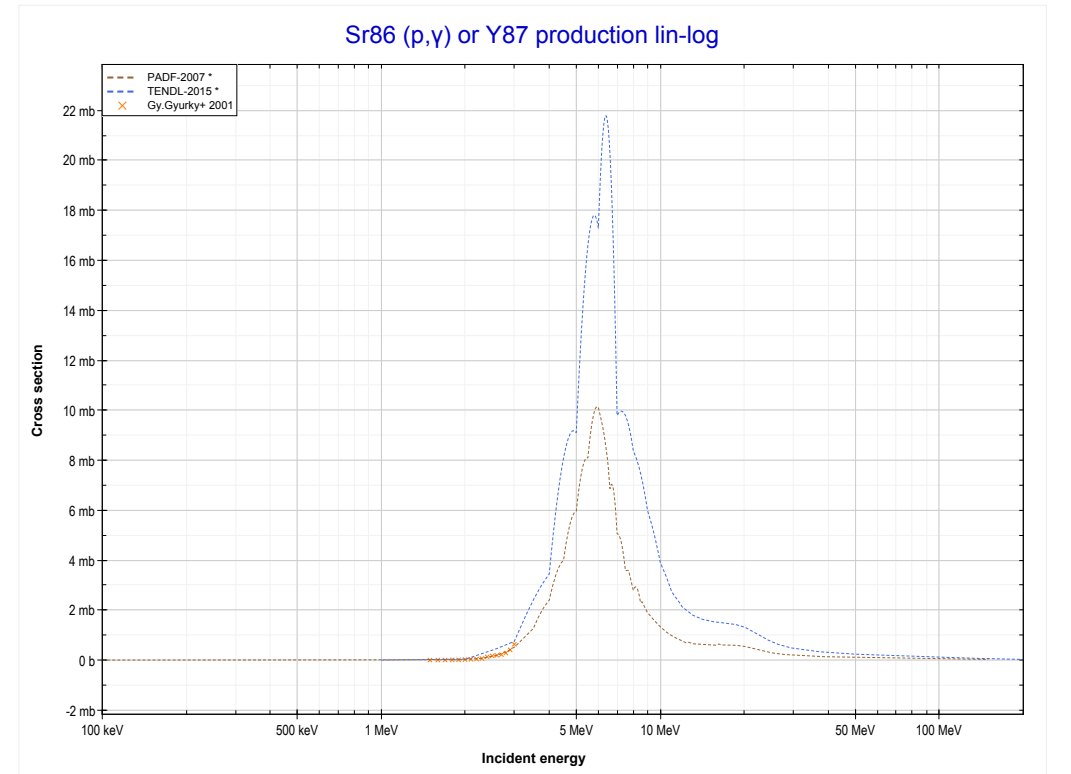
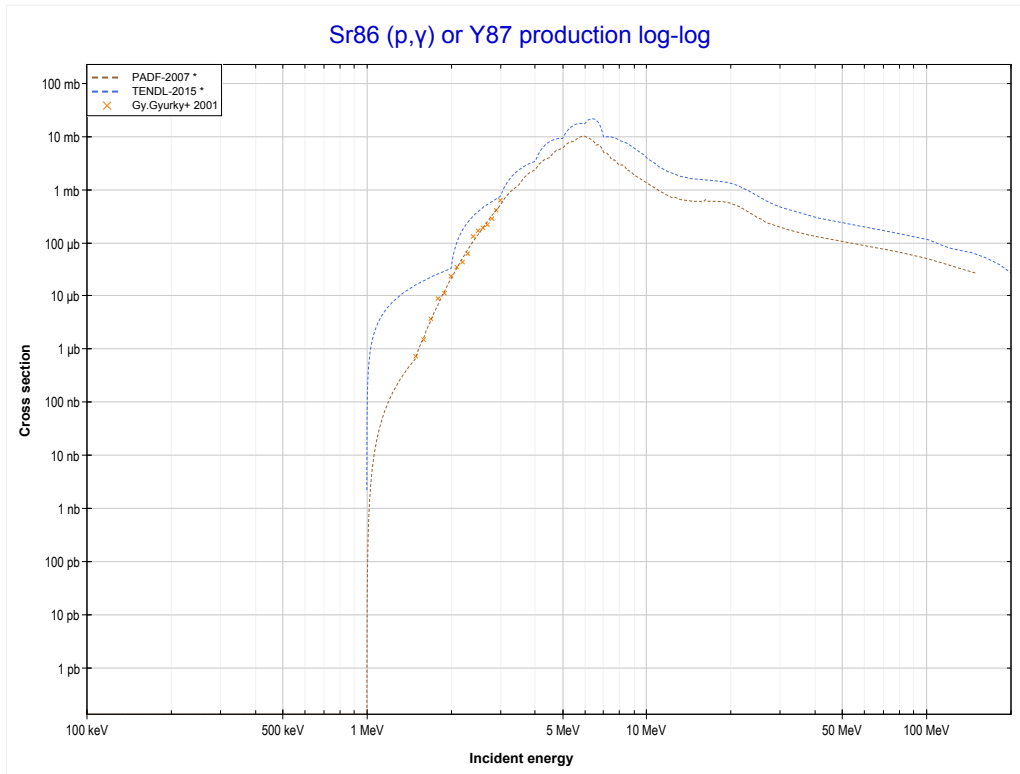
Reaction	Q-Value
Sr86(p,n)Y86	-6022.55 keV

<< 36-Kr-84	38-Sr-86	38-Sr-87 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Y85 production)	MT102 (p, γ) >>



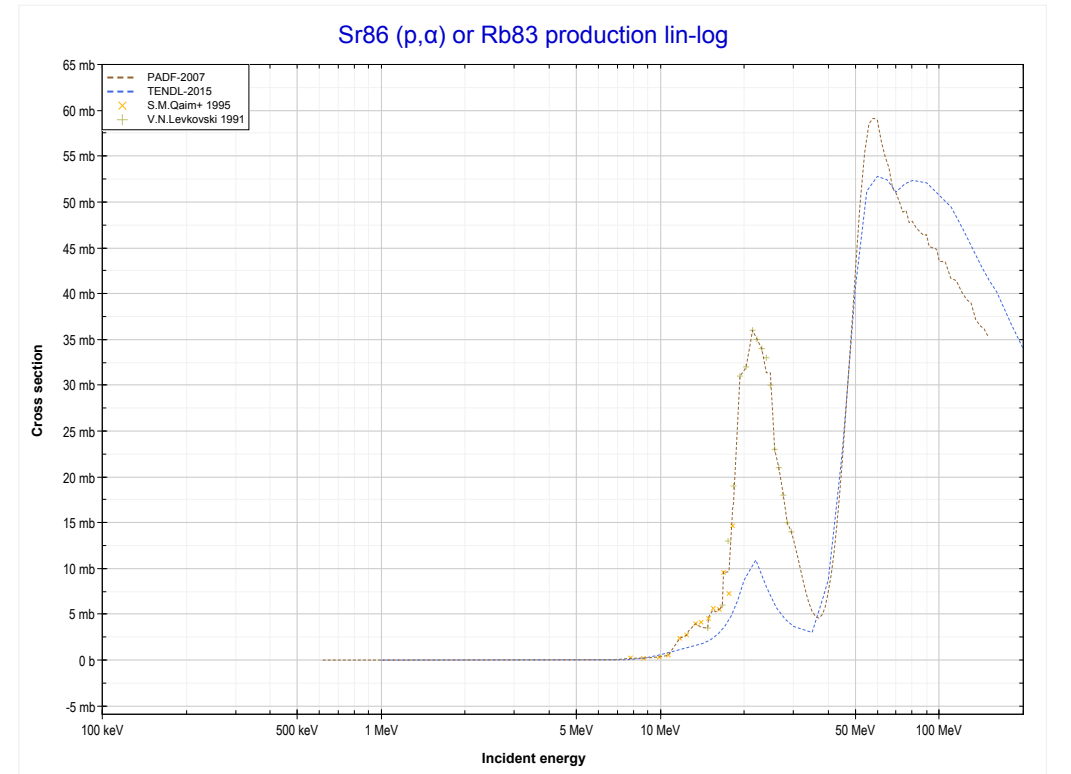
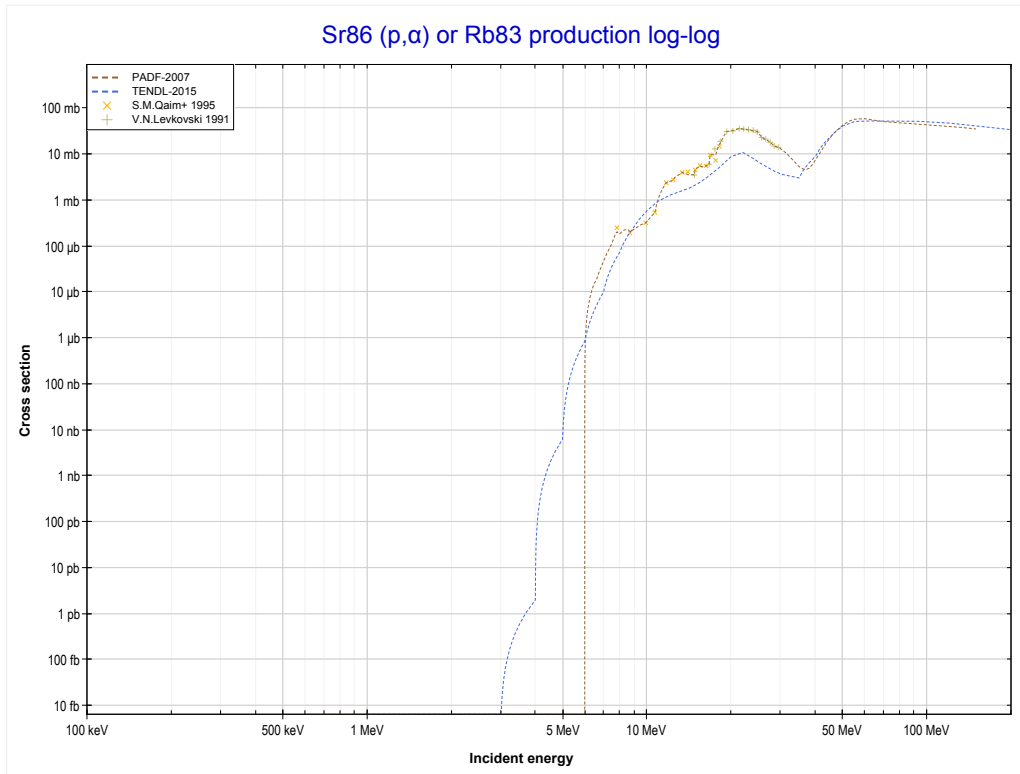
Reaction	Q-Value
Sr86(p,2n)Y85	-15534.86 keV

<< 38-Sr-84	38-Sr-86	38-Sr-87 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (Y87 production)	MT107 (p, α) >>



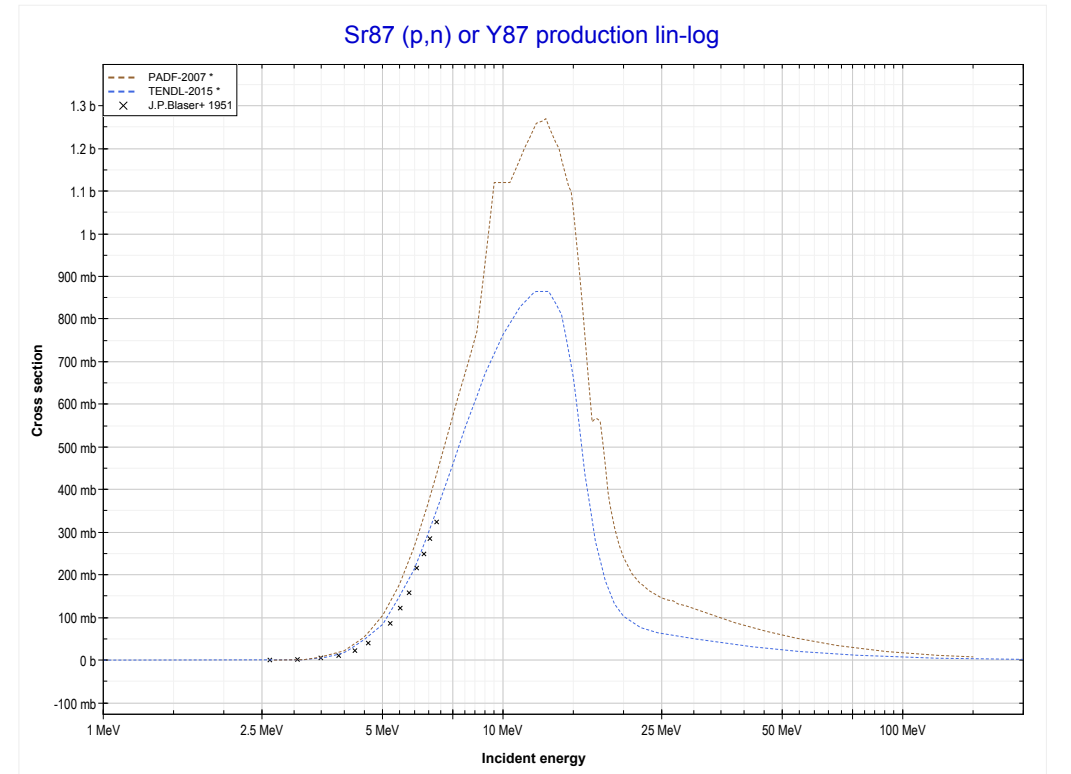
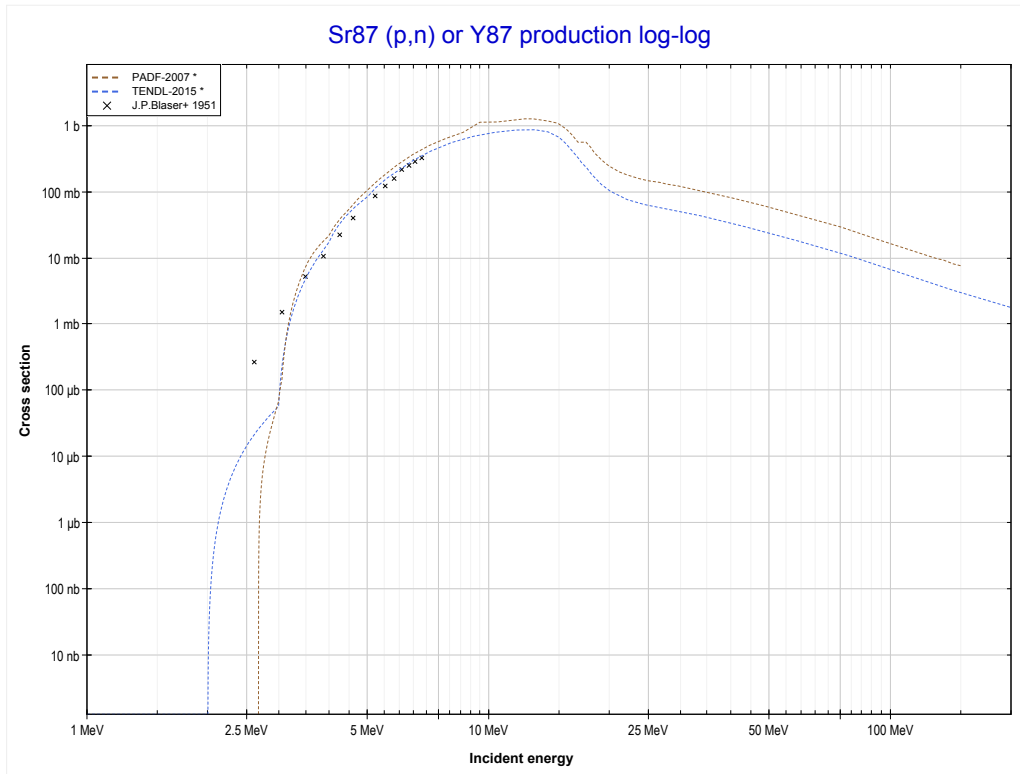
Reaction	Q-Value
Sr86(p, γ)Y87	5784.07 keV

<< 36-Kr-80	38-Sr-86	38-Sr-87 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Rb83 production)	38-Sr-87 MT4 (p,n) >>



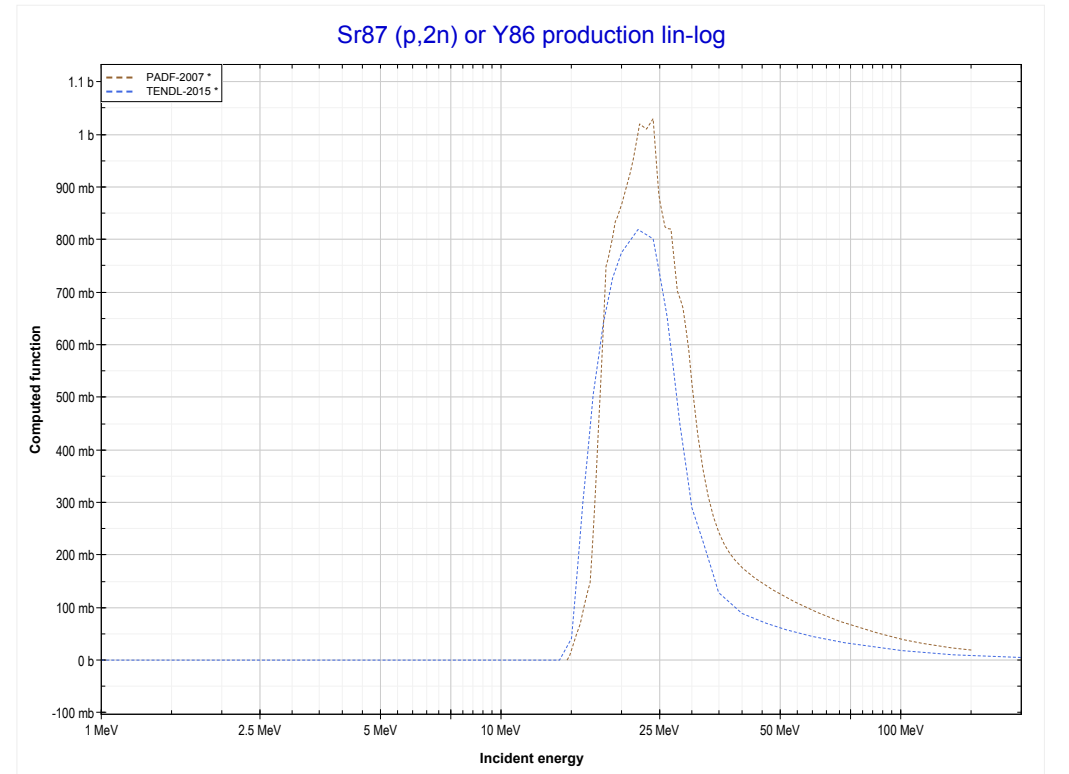
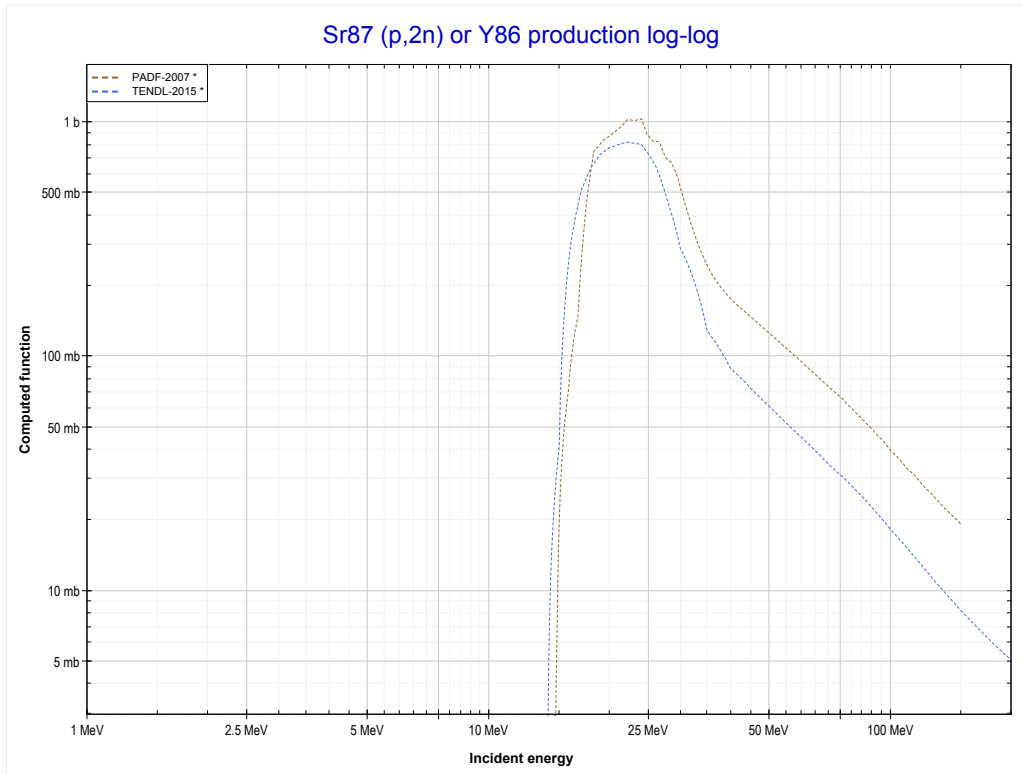
Reaction	Q-Value
Sr86(p, α)Rb83	-588.55 keV
Sr86(p,p+t)Rb83	-20402.41 keV
Sr86(p,n+He3)Rb83	-21166.16 keV
Sr86(p,2d)Rb83	-24435.07 keV
Sr86(p,n+p+d)Rb83	-26659.64 keV
Sr86(p,2n+2p)Rb83	-28884.20 keV

<< 38-Sr-86	38-Sr-87	38-Sr-88 >>
<< 38-Sr-86 MT107 (p, α)	MT4 (p,n) or MT5 (Y87 production)	MT16 (p,2n) >>



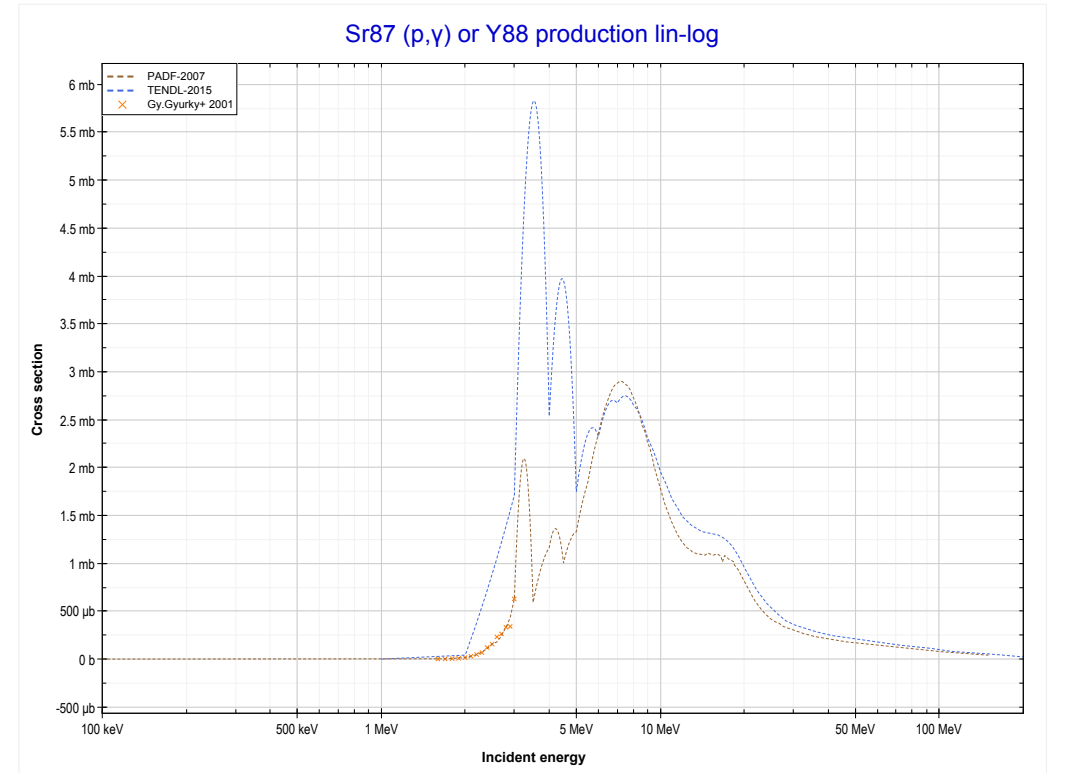
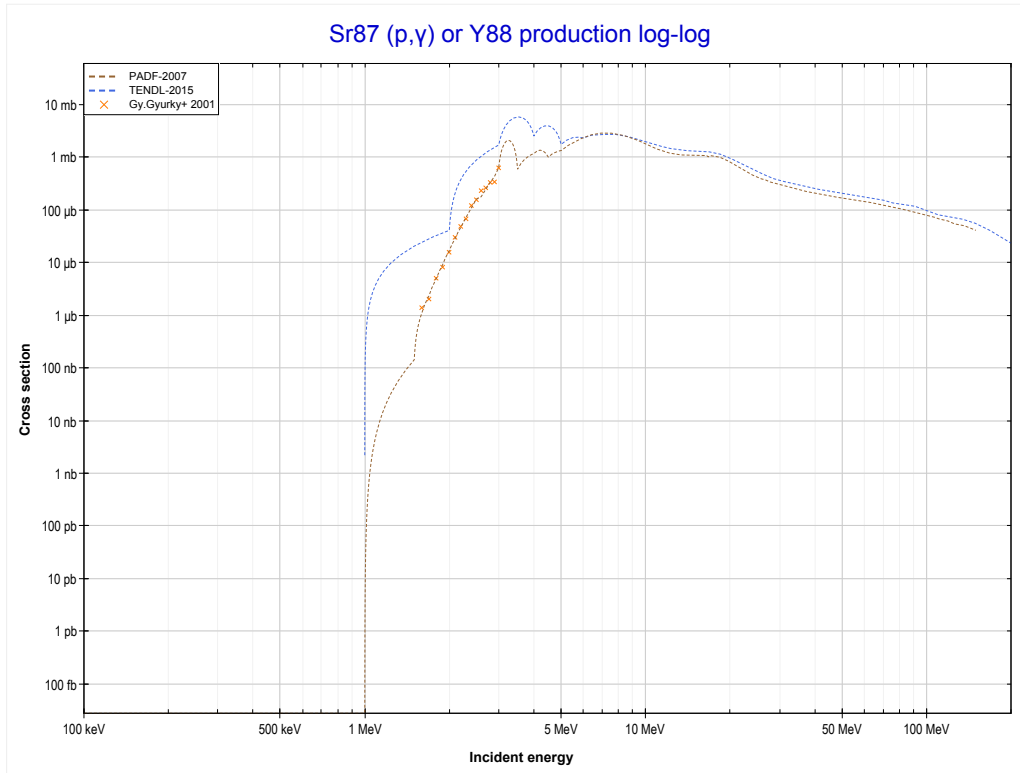
Reaction	Q-Value
Sr87(p,n)Y87	-2644.05 keV

<< 38-Sr-86	38-Sr-87	38-Sr-88 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Y86 production)	MT102 (p, γ) >>



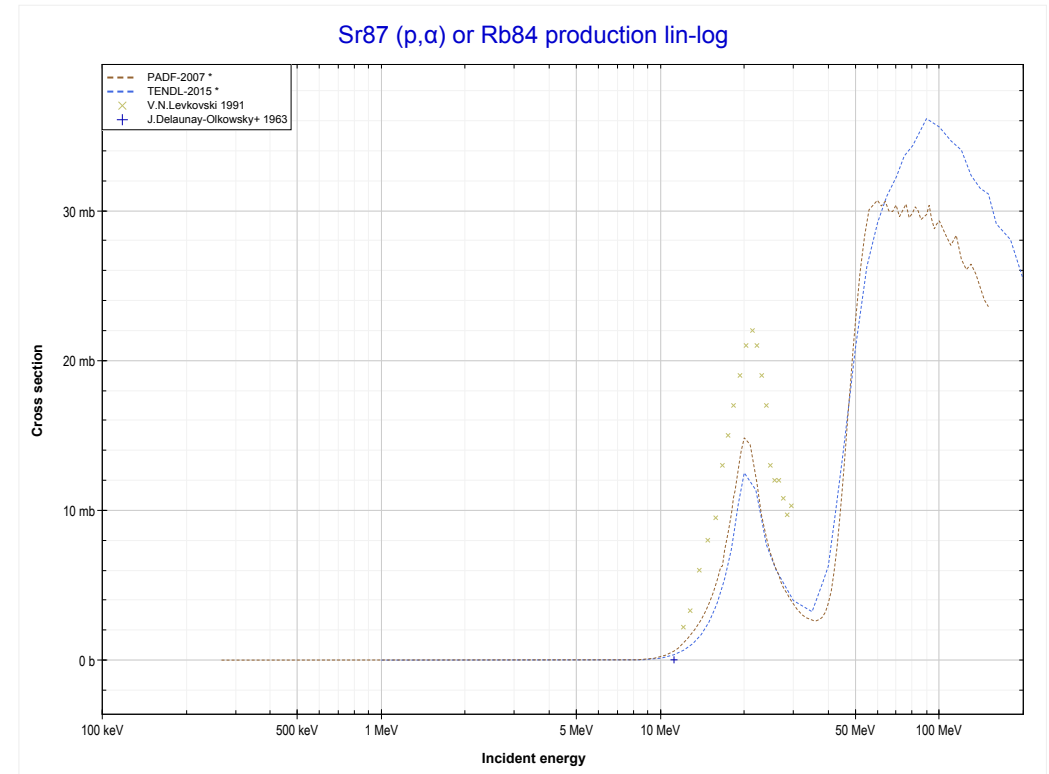
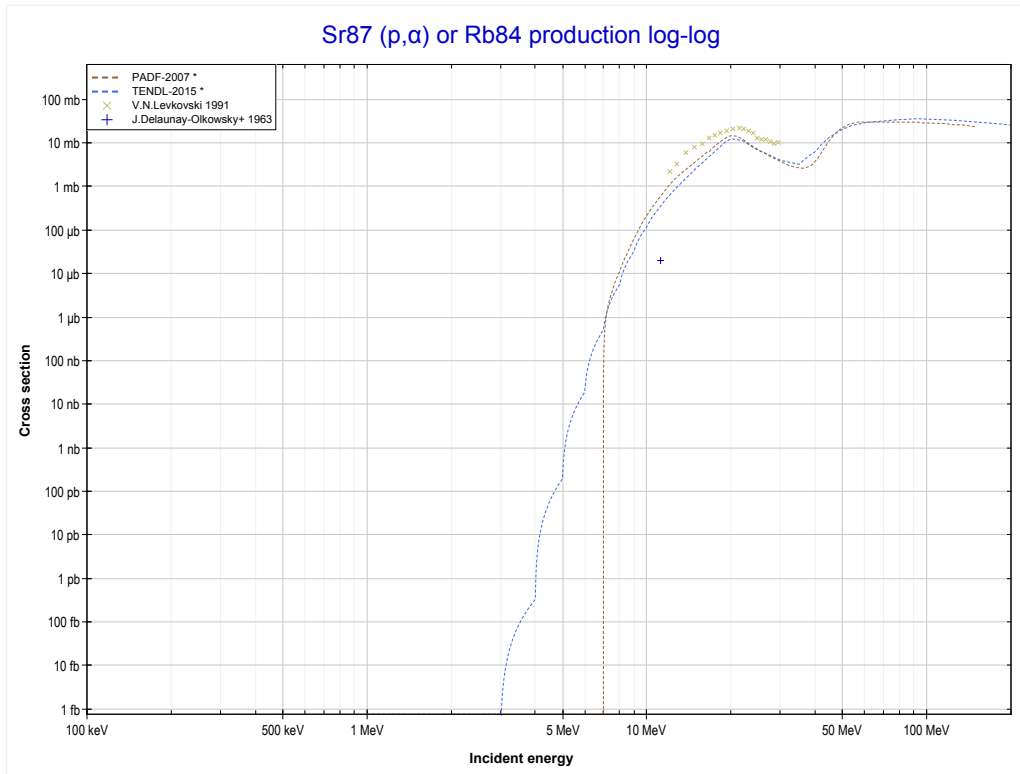
Reaction	Q-Value
Sr87(p,2n)Y86	-14450.66 keV

<< 38-Sr-86	38-Sr-87	42-Mo-92 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (Y88 production)	MT107 (p, α) >>



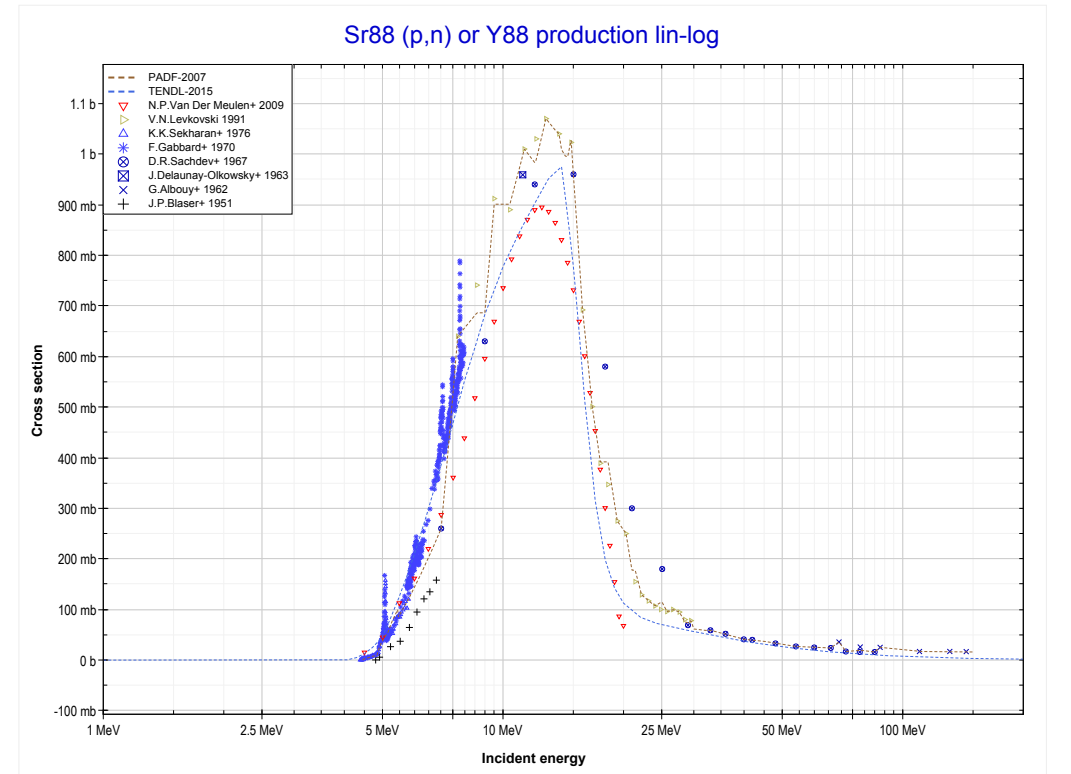
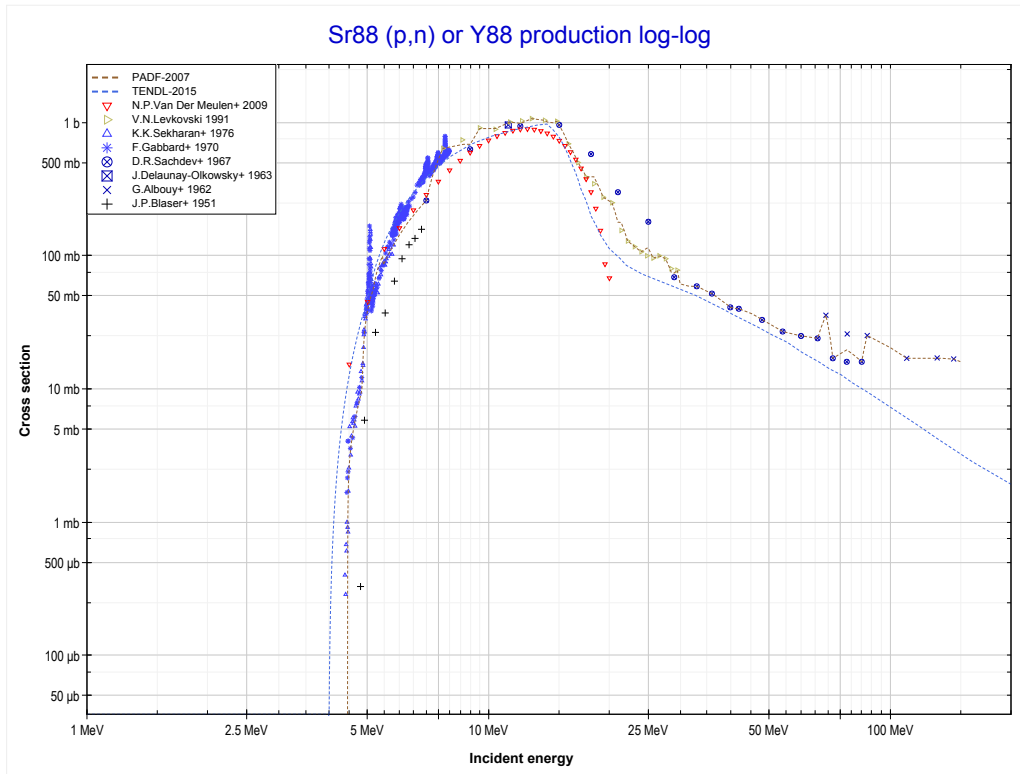
Reaction	Q-Value
Sr87(p, γ)Y88	6707.77 keV

<< 38-Sr-86	38-Sr-87	40-Zr-90 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Rb84 production)	38-Sr-88 MT4 (p,n) >>



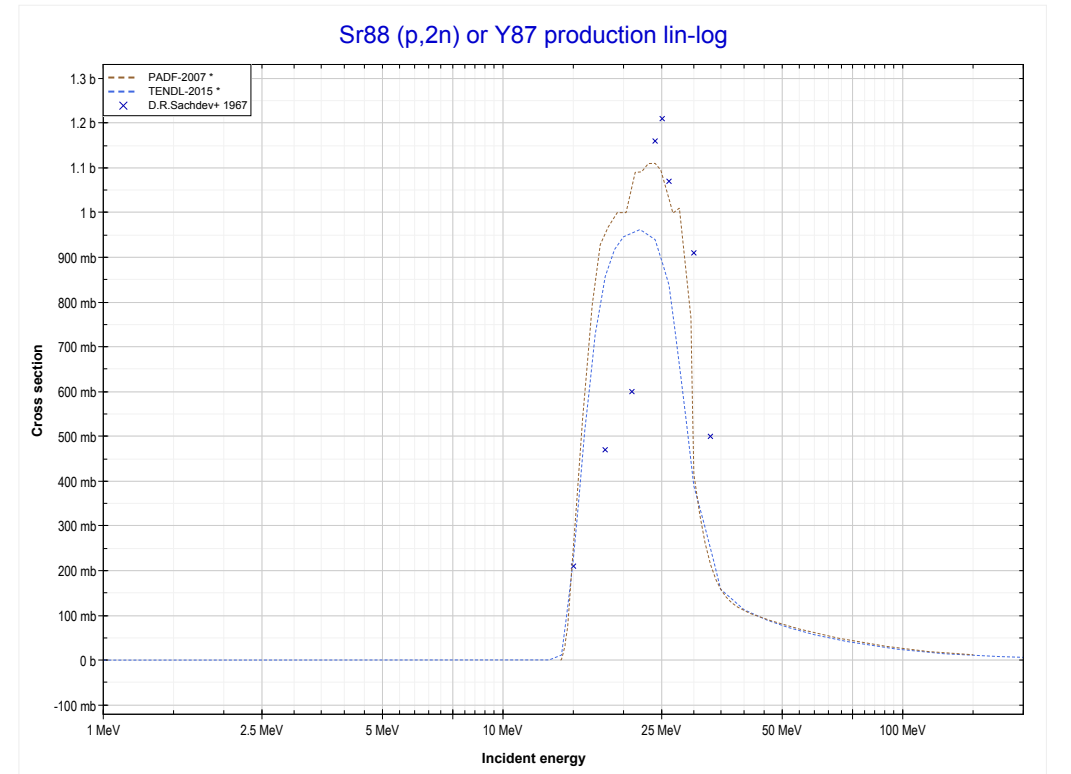
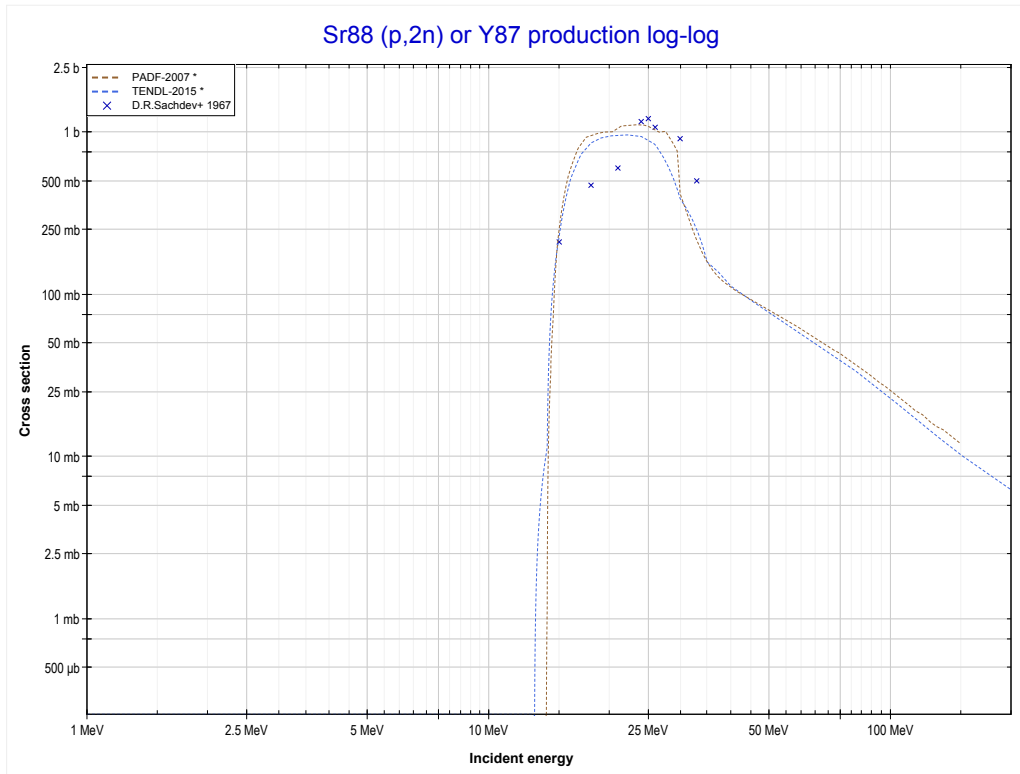
Reaction	Q-Value
Sr87(p, α)Rb84	-256.95 keV
Sr87(p,p+t)Rb84	-20070.81 keV
Sr87(p,n+He3)Rb84	-20834.56 keV
Sr87(p,2d)Rb84	-24103.47 keV
Sr87(p,n+p+d)Rb84	-26328.04 keV
Sr87(p,2n+2p)Rb84	-28552.60 keV

<< 38-Sr-87	38-Sr-88	39-Y-89 >>
<< 38-Sr-87 MT107 (p, α)	MT4 (p,n) or MT5 (Y88 production)	MT16 (p,2n) >>



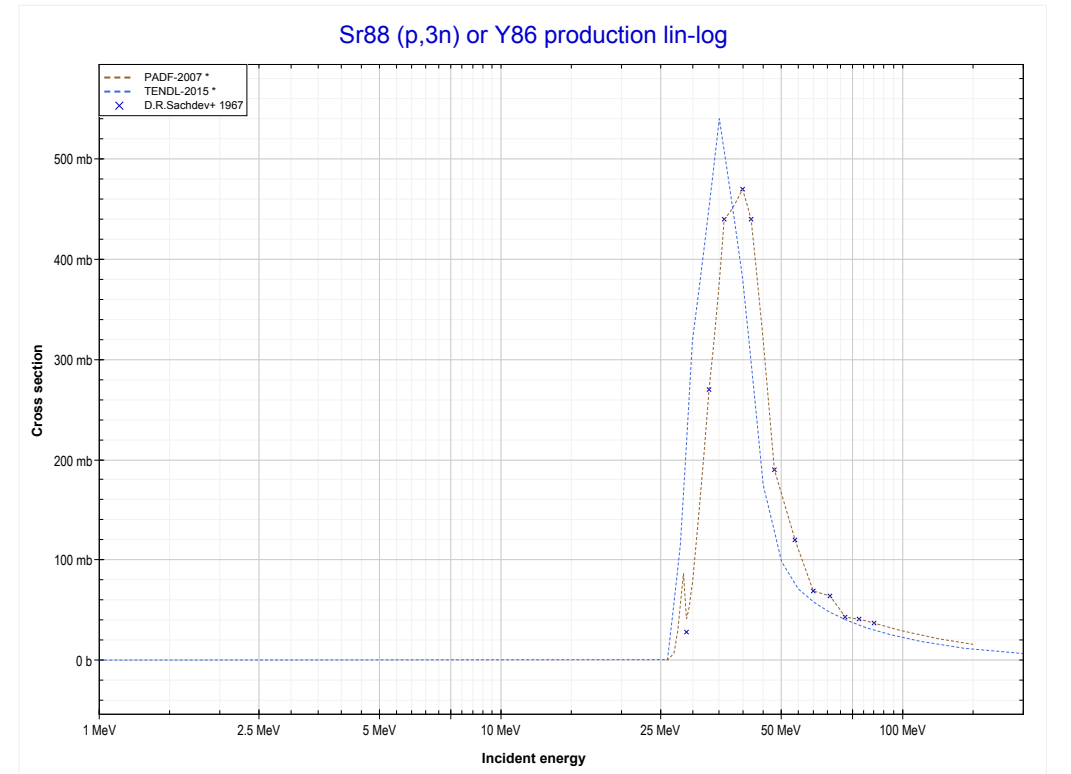
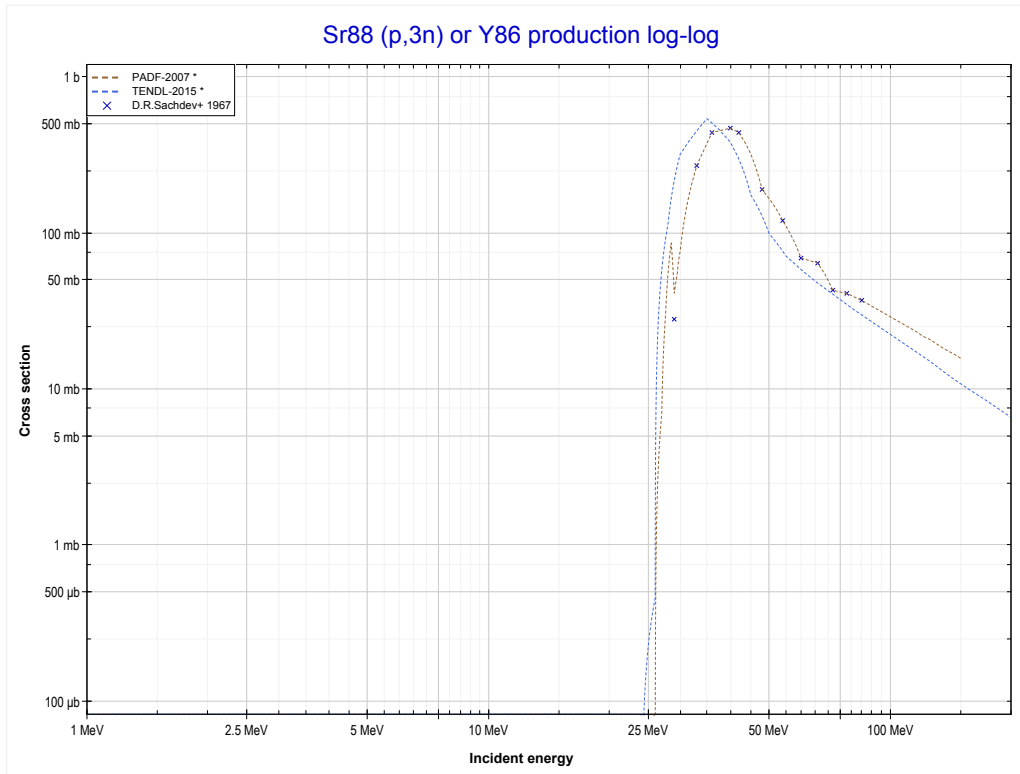
Reaction	Q-Value
Sr88(p,n)Y88	-4404.95 keV

<< 38-Sr-87	38-Sr-88	39-Y-89 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Y87 production)	MT17 (p,3n) >>



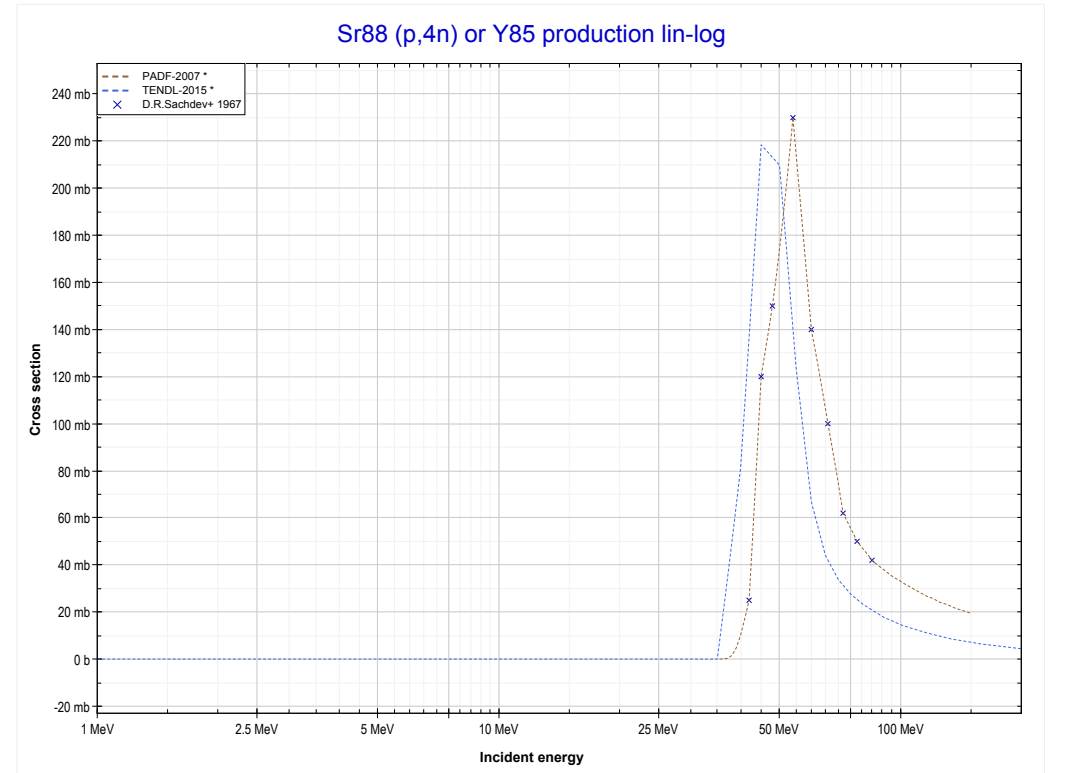
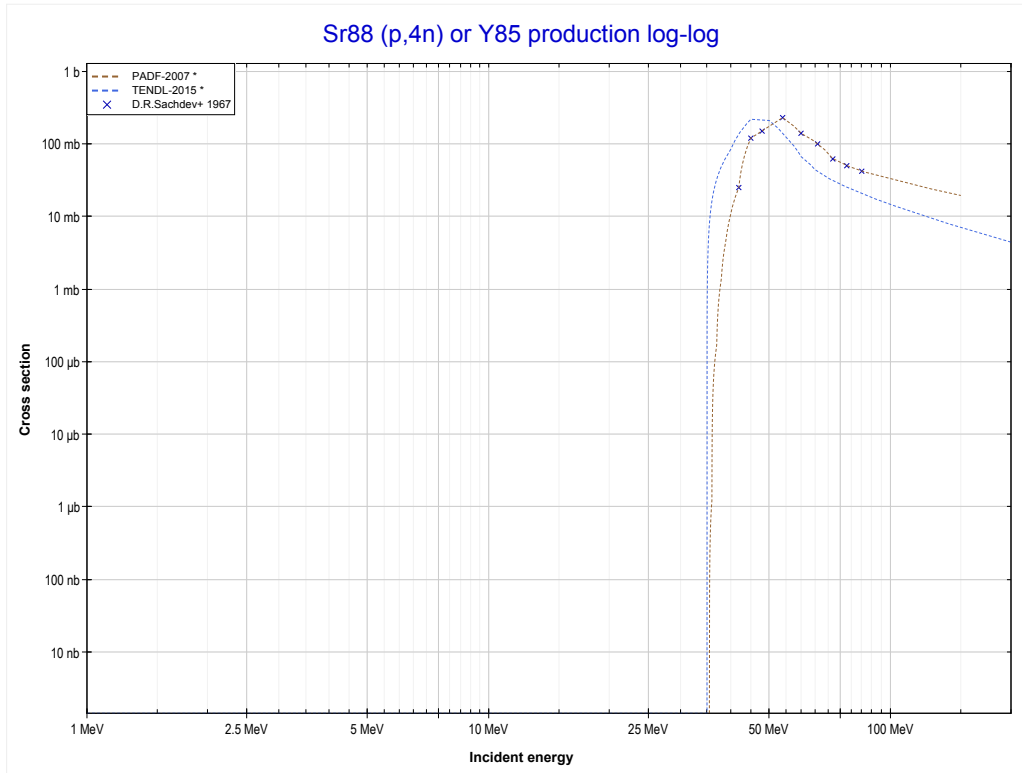
Reaction	Q-Value
Sr88(p,2n)Y87	-13756.76 keV

<< 37-Rb-85	38-Sr-88	39-Y-89 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Y86 production)	MT37 (p,4n) >>



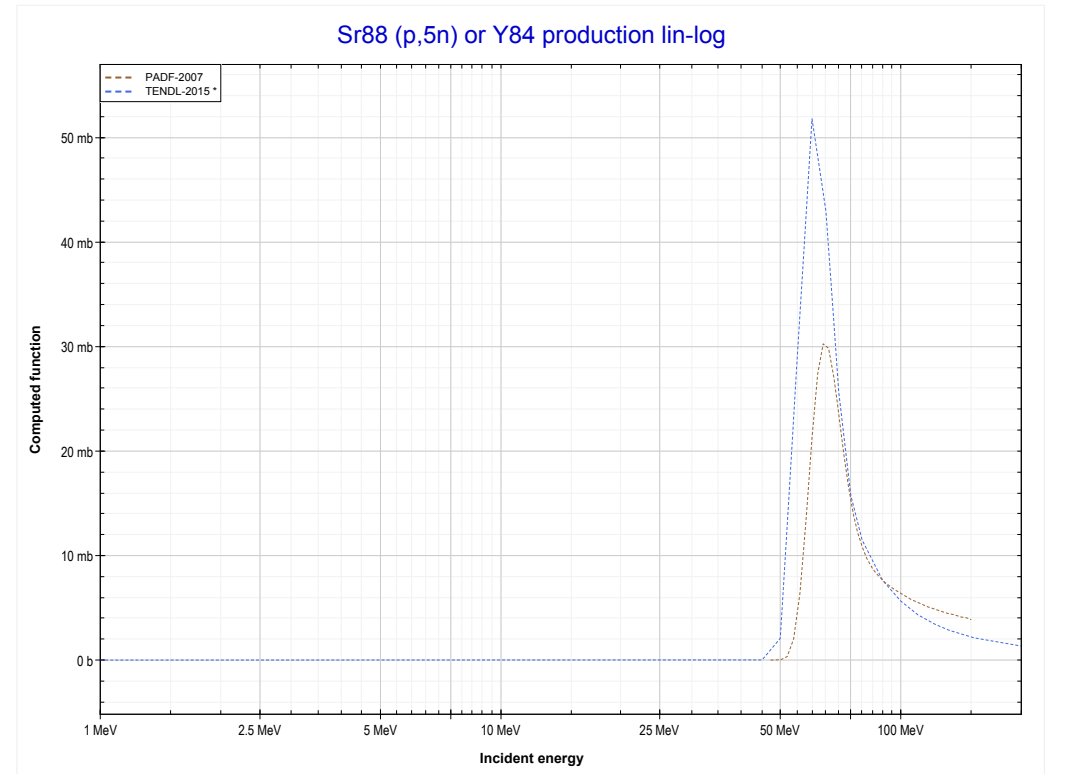
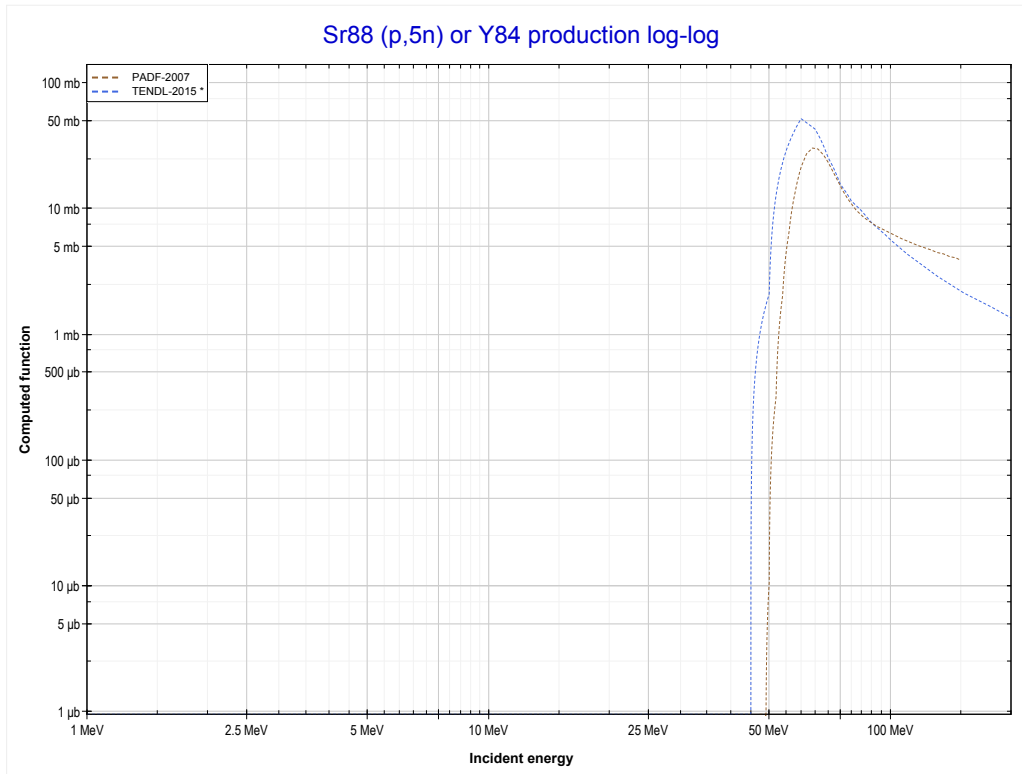
Reaction	Q-Value
Sr88(p,3n)Y86	-25563.38 keV

<< 37-Rb-85	38-Sr-88	39-Y-89 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Y85 production)	MT152 (p,5n) >>



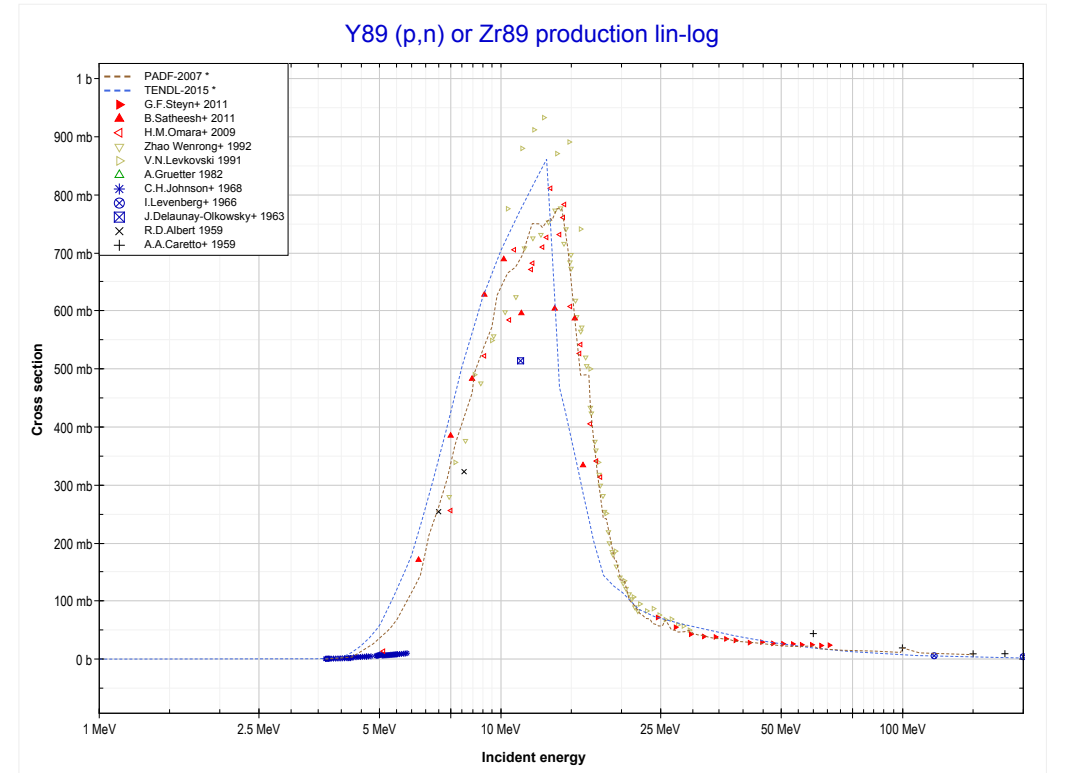
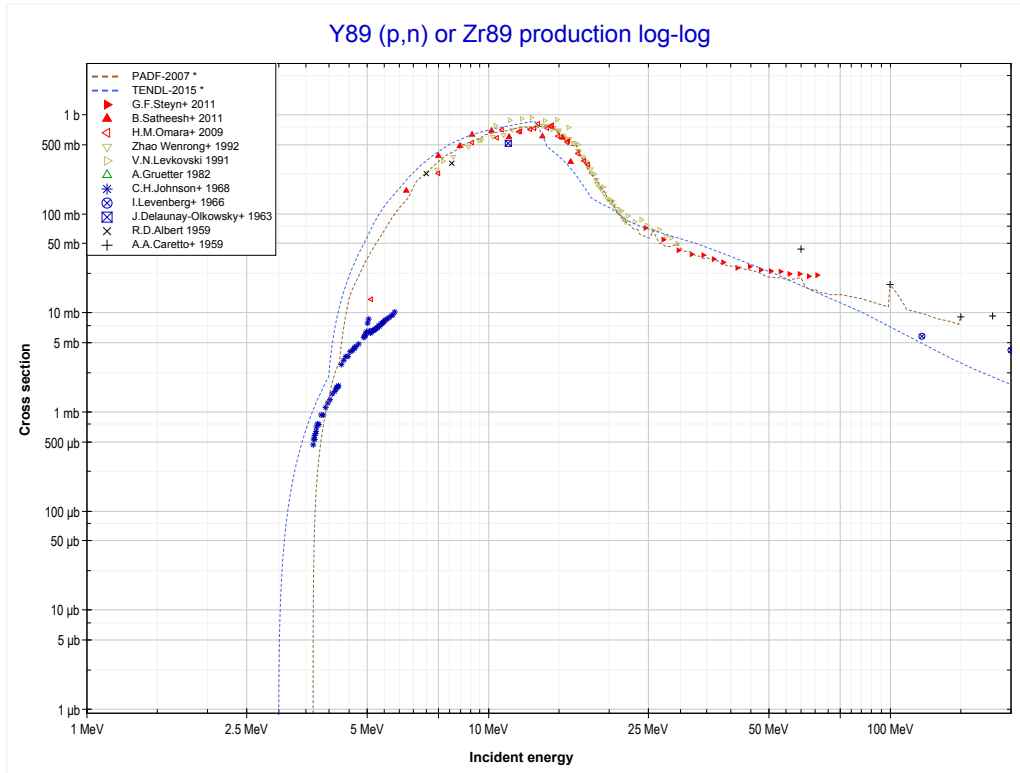
Reaction	Q-Value
Sr88(p,4n)Y85	-35075.70 keV

<< 37-Rb-85	38-Sr-88	50-Sn-124 >>
<< MT37 (p,4n)	MT152 (p,5n) or MT5 (Y84 production)	39-Y-89 MT4 (p,n) >>



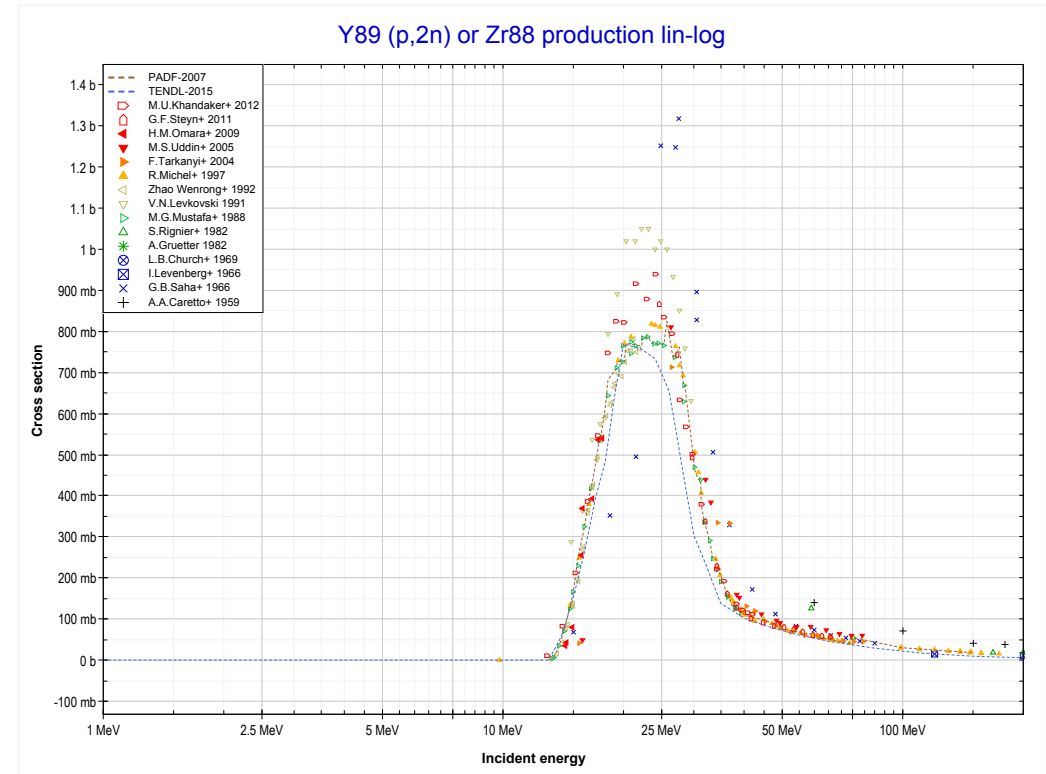
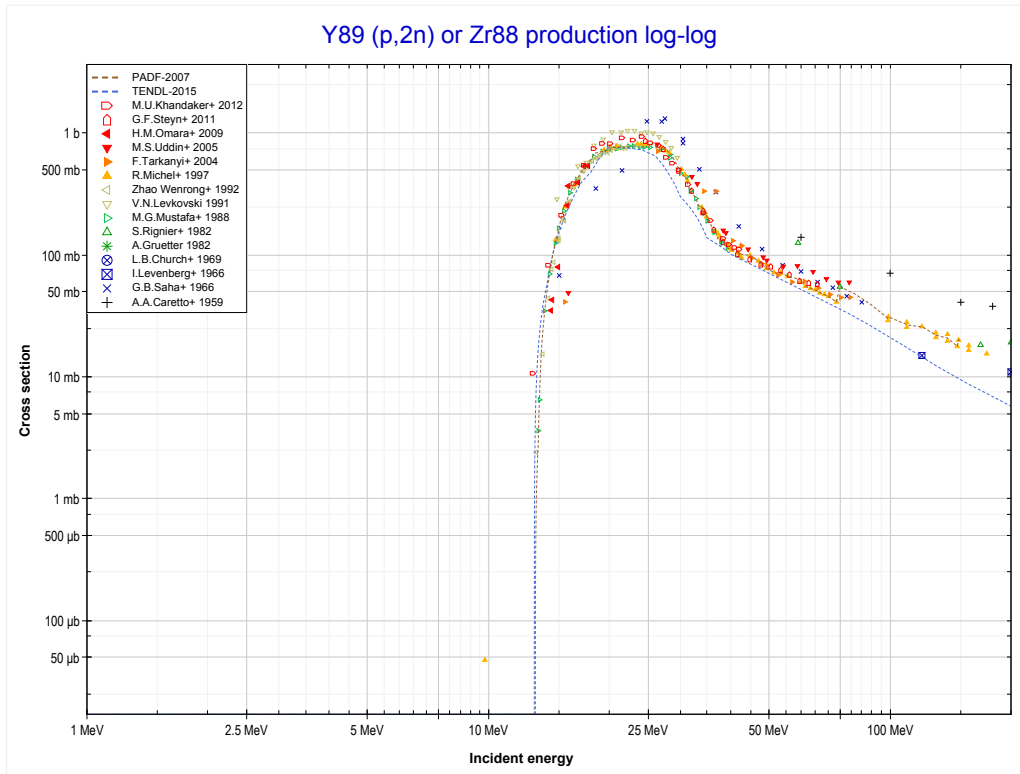
Reaction	Q-Value
Sr88(p,5n)Y84	-47096.01 keV

<< 38-Sr-88	39-Y-89	40-Zr-90 >>
<< 38-Sr-88 MT152 (p,5n)	MT4 (p,n) or MT5 (Zr89 production)	MT16 (p,2n) >>



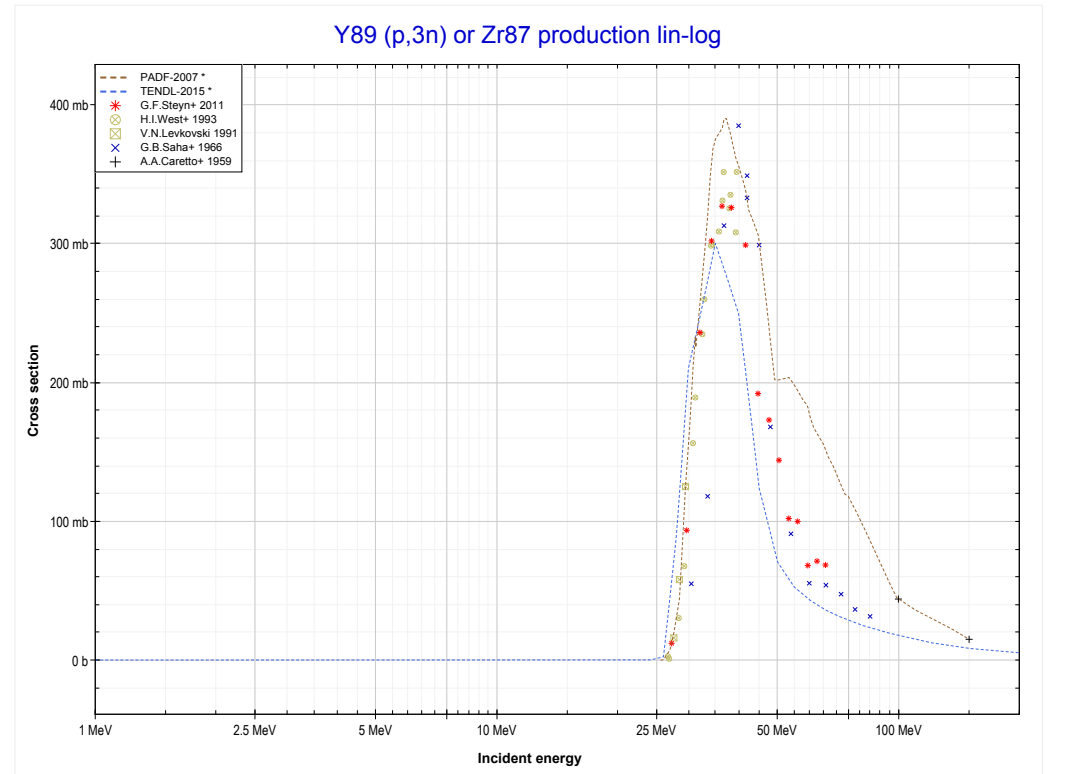
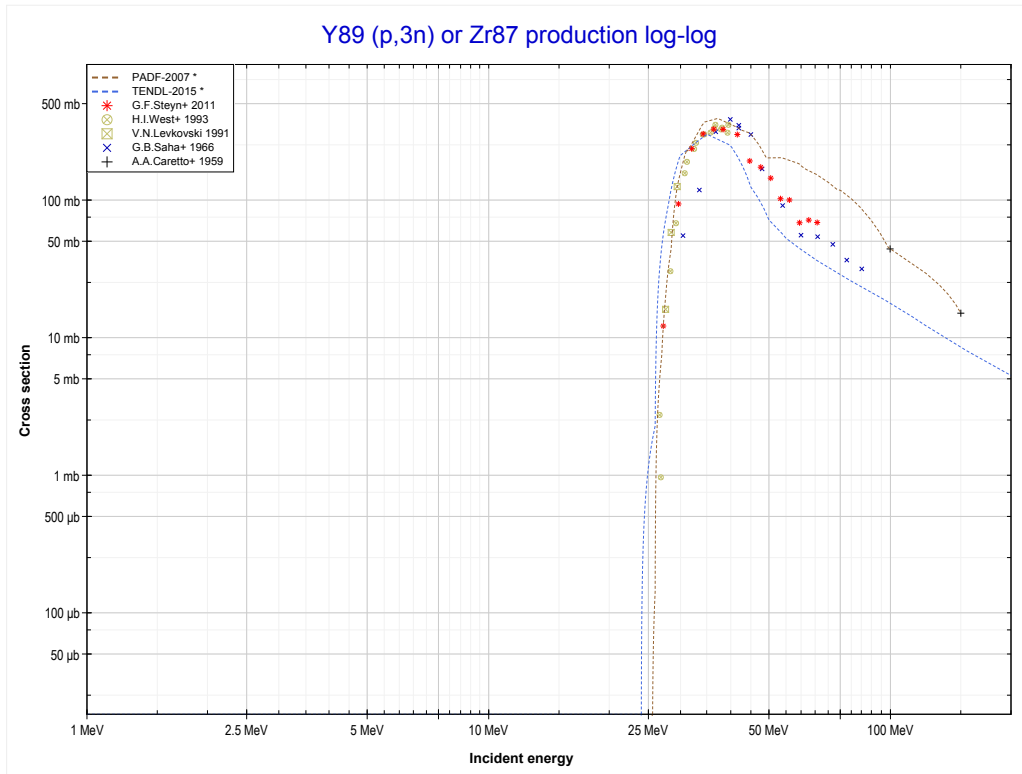
Reaction	Q-Value
Y89(p,n)Zr89	-3615.55 keV

<< 38-Sr-88	39-Y-89	40-Zr-90 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Zr88 production)	MT17 (p,3n) >>



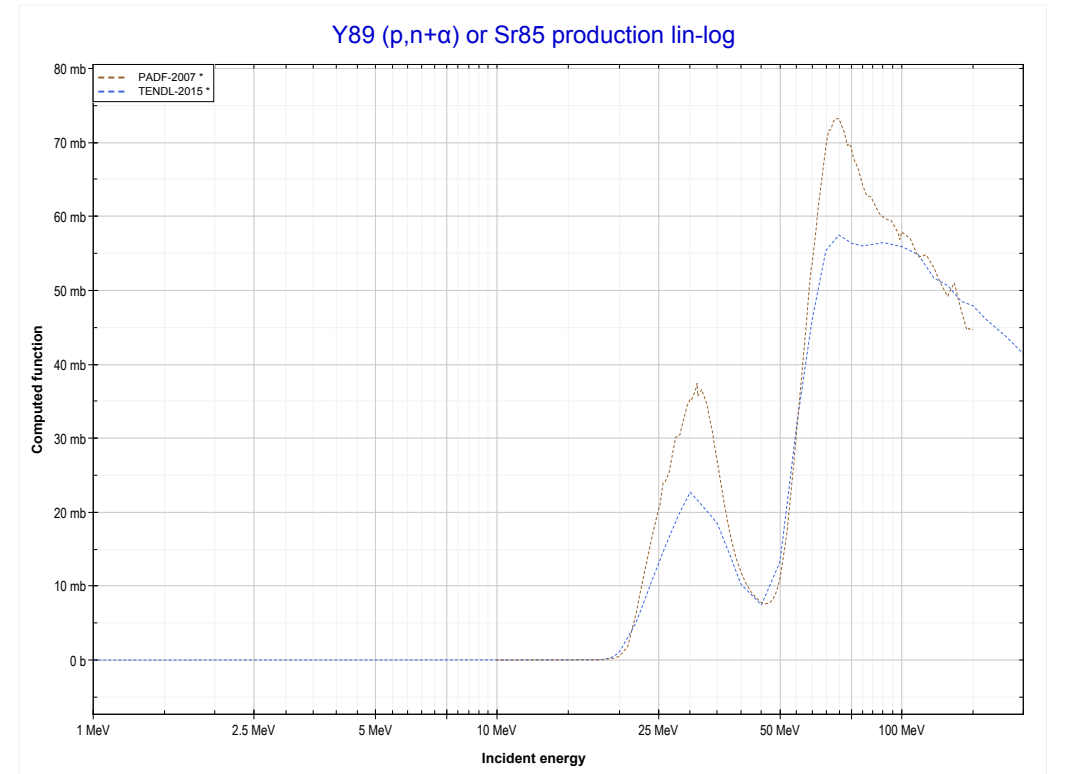
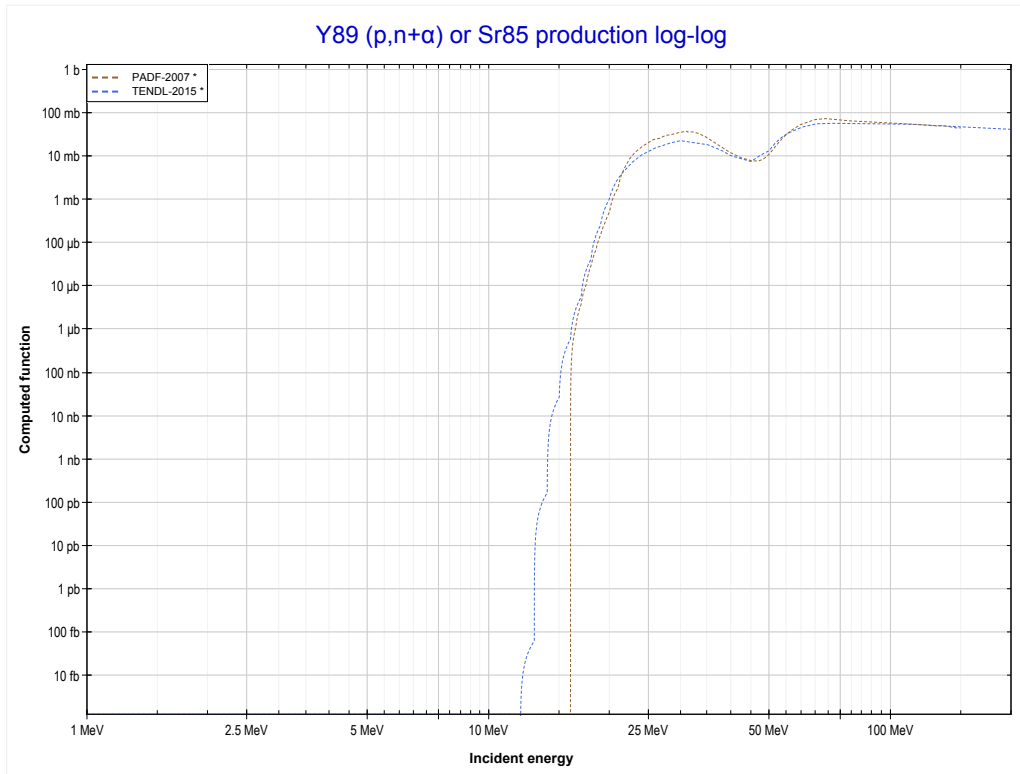
Reaction	Q-Value
Y89(p,2n)Zr88	-12934.86 keV

<< 38-Sr-88	39-Y-89	40-Zr-92 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Zr87 production)	MT22 (p,n+α) >>



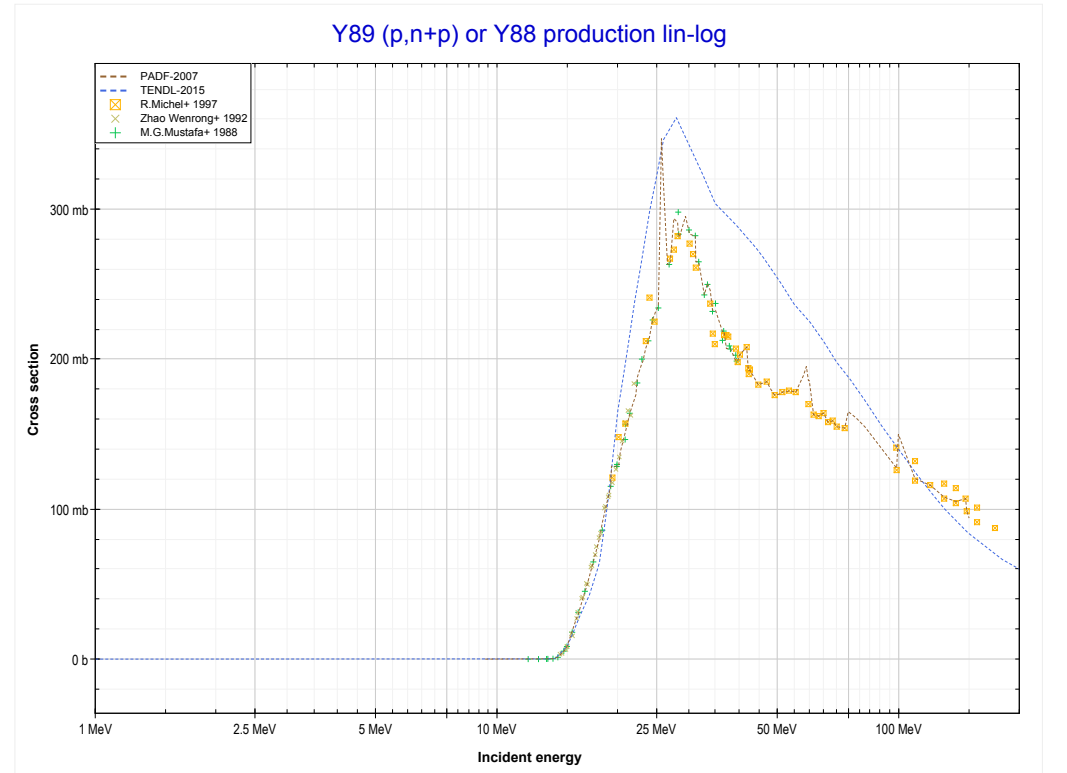
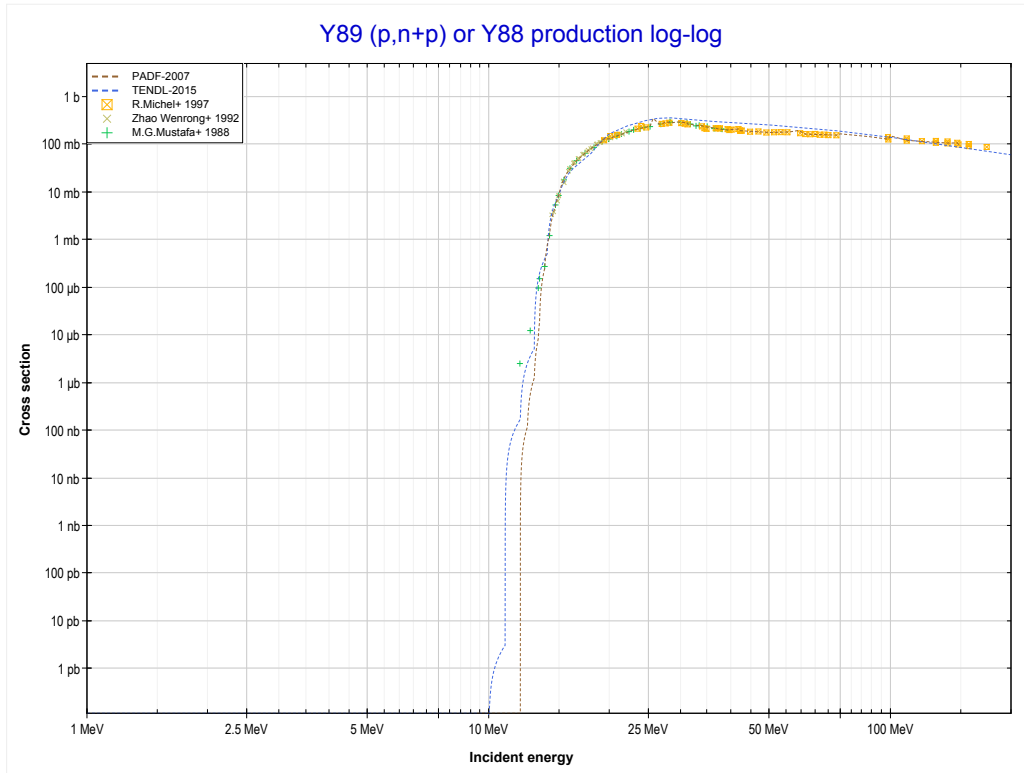
Reaction	Q-Value
Y89(p,3n)Zr87	-25287.18 keV

<< 36-Kr-80	39-Y-89	41-Nb-93 >>
<< MT17 (p,3n)	MT22 (p,n+α) or MT5 (Sr85 production)	MT28 (p,n+p) >>



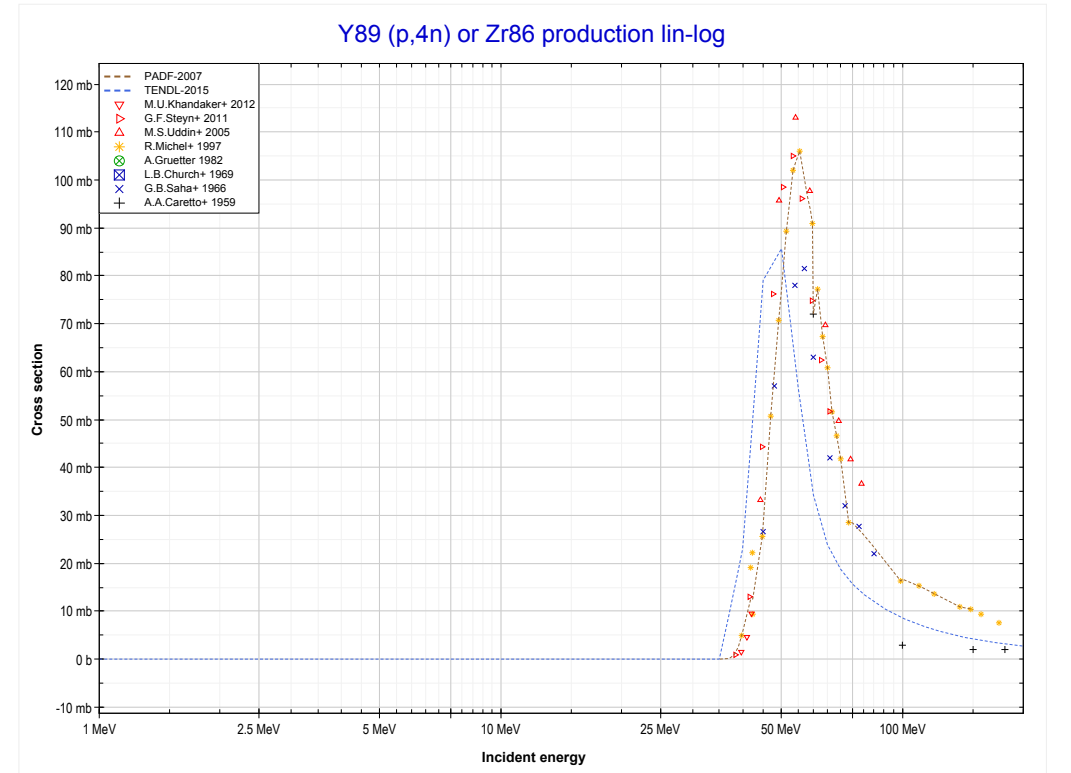
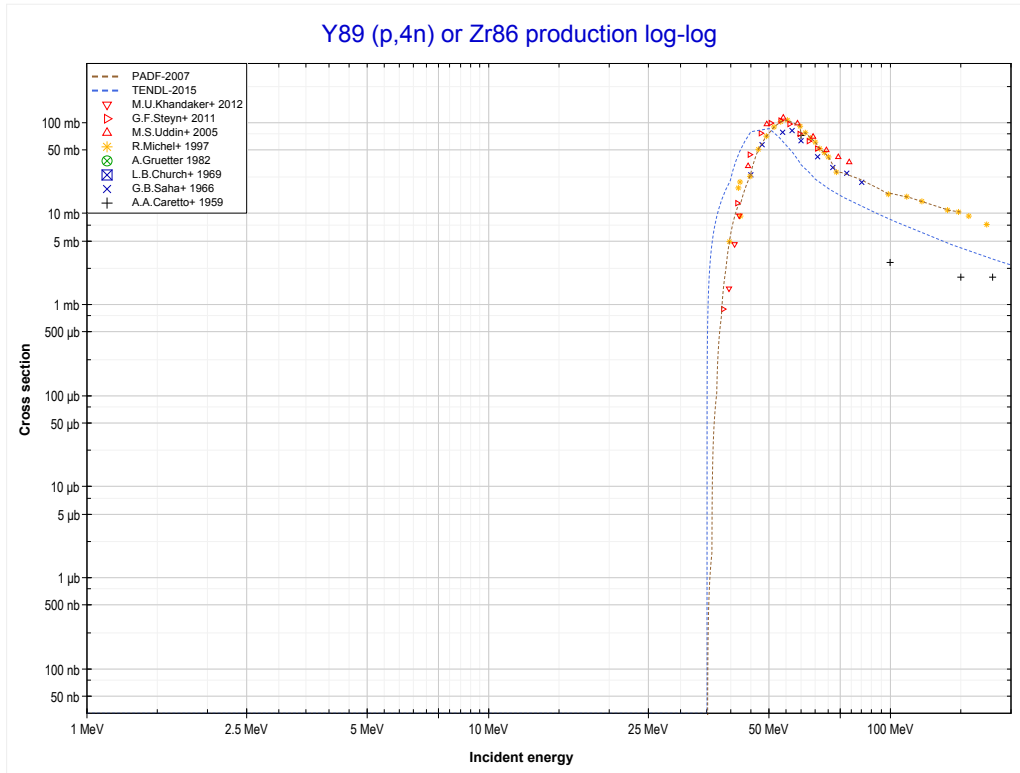
Reaction	Q-Value
Y89(p,n+α)Sr85	-9813.16 keV
Y89(p,d+t)Sr85	-27402.46 keV
Y89(p,n+p+t)Sr85	-29627.02 keV
Y89(p,2n+He3)Sr85	-30390.78 keV
Y89(p,n+2d)Sr85	-33659.69 keV
Y89(p,2n+p+d)Sr85	-35884.26 keV
Y89(p,3n+2p)Sr85	-38108.82 keV

<< 36-Kr-78	39-Y-89	40-Zr-90 >>
<< MT22 (p,n+α)	MT28 (p,n+p) or MT5 (Y88 production)	MT37 (p,4n) >>



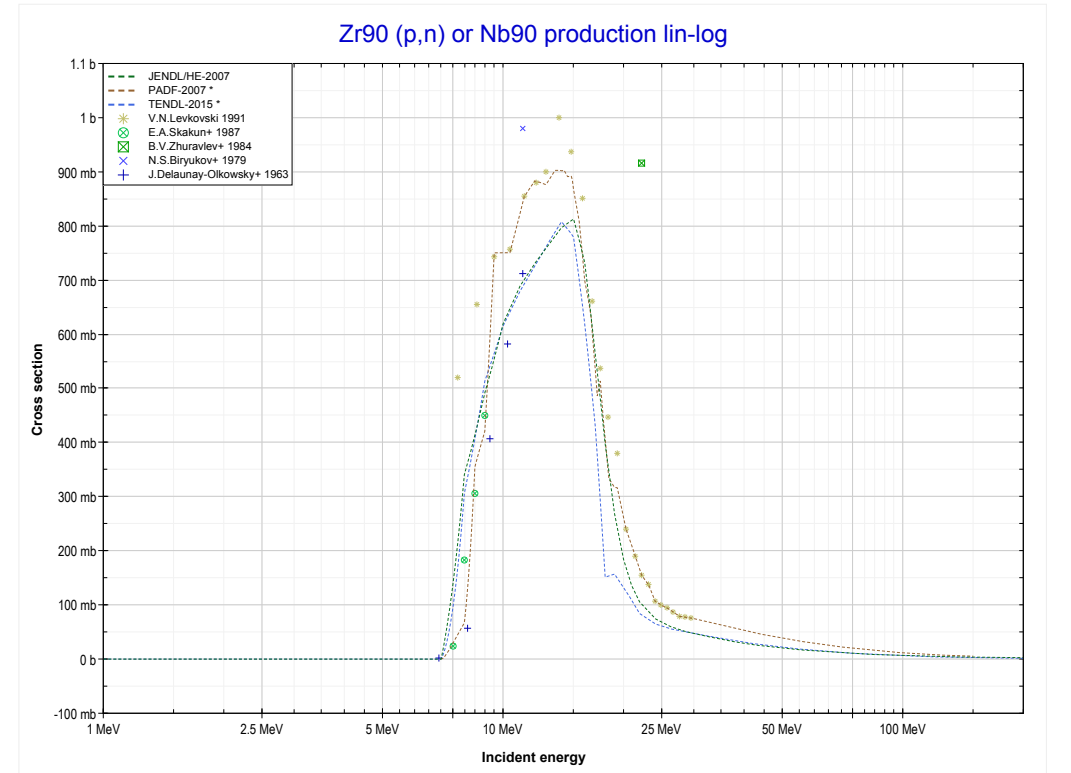
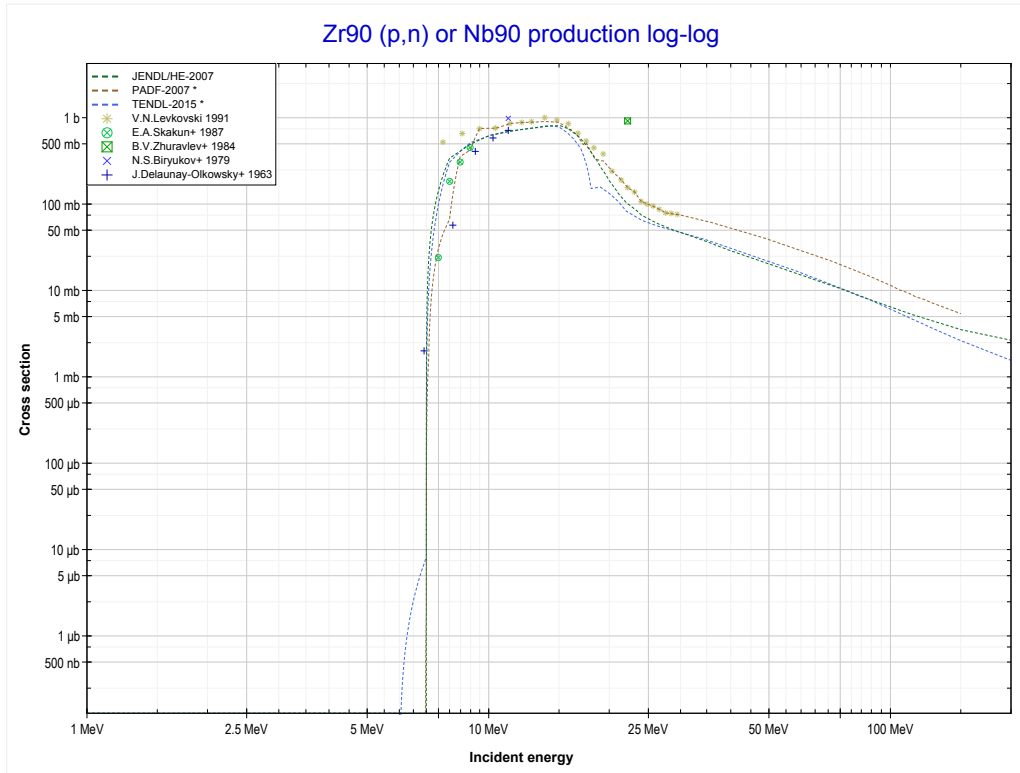
Reaction	Q-Value
Y89(p,d)Y88	-9257.15 keV
Y89(p,n+p)Y88	-11481.72 keV

<< 38-Sr-88	39-Y-89	41-Nb-93 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Zr86 production)	40-Zr-90 MT4 (p,n) >>



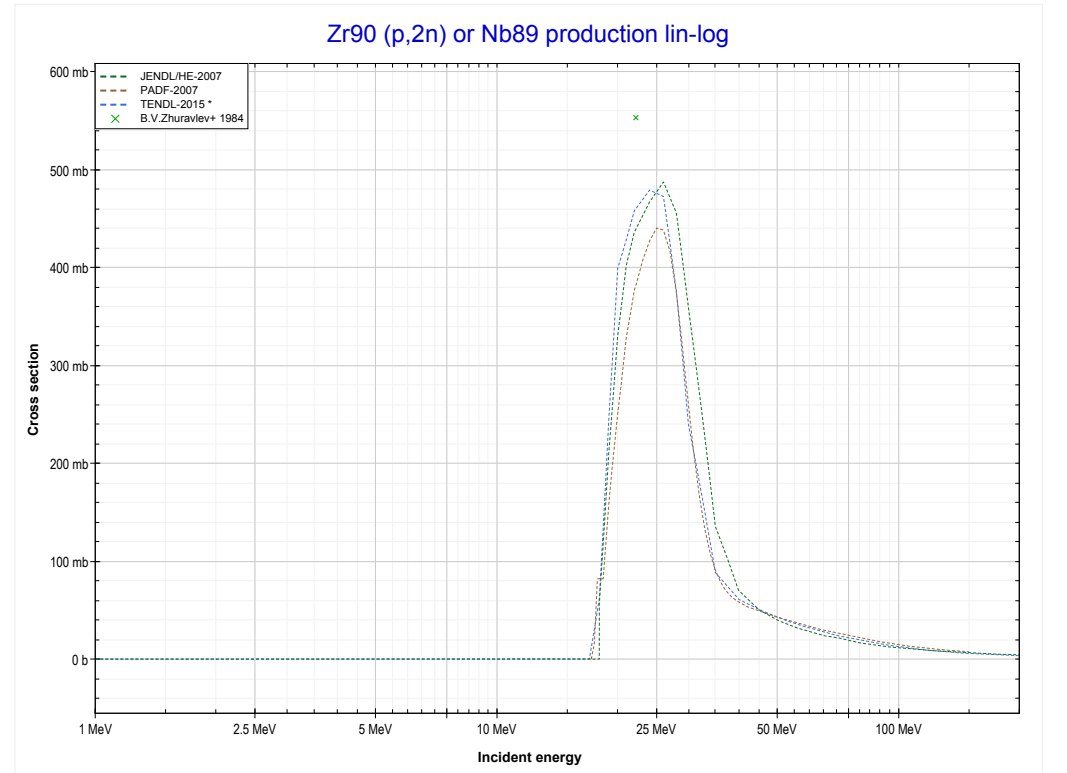
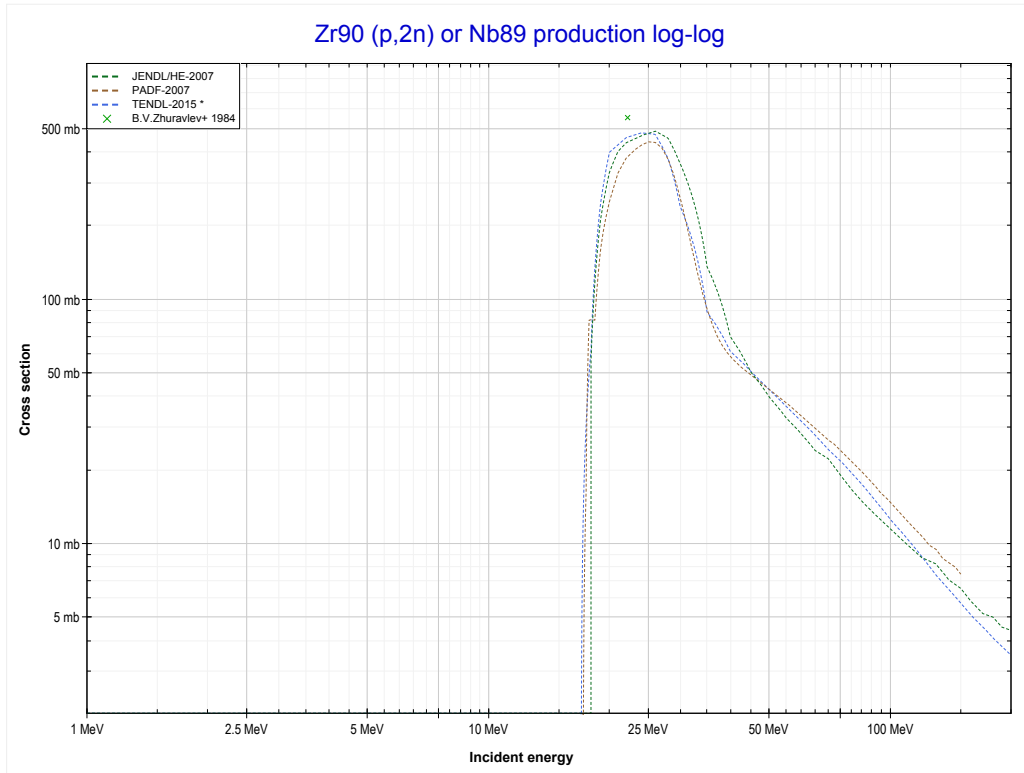
Reaction	Q-Value
Y89(p,4n)Zr86	-34736.50 keV

<< 39-Y-89	40-Zr-90	40-Zr-91 >>
<< 39-Y-89 MT37 (p,4n)	MT4 (p,n) or MT5 (Nb90 production)	MT16 (p,2n) >>



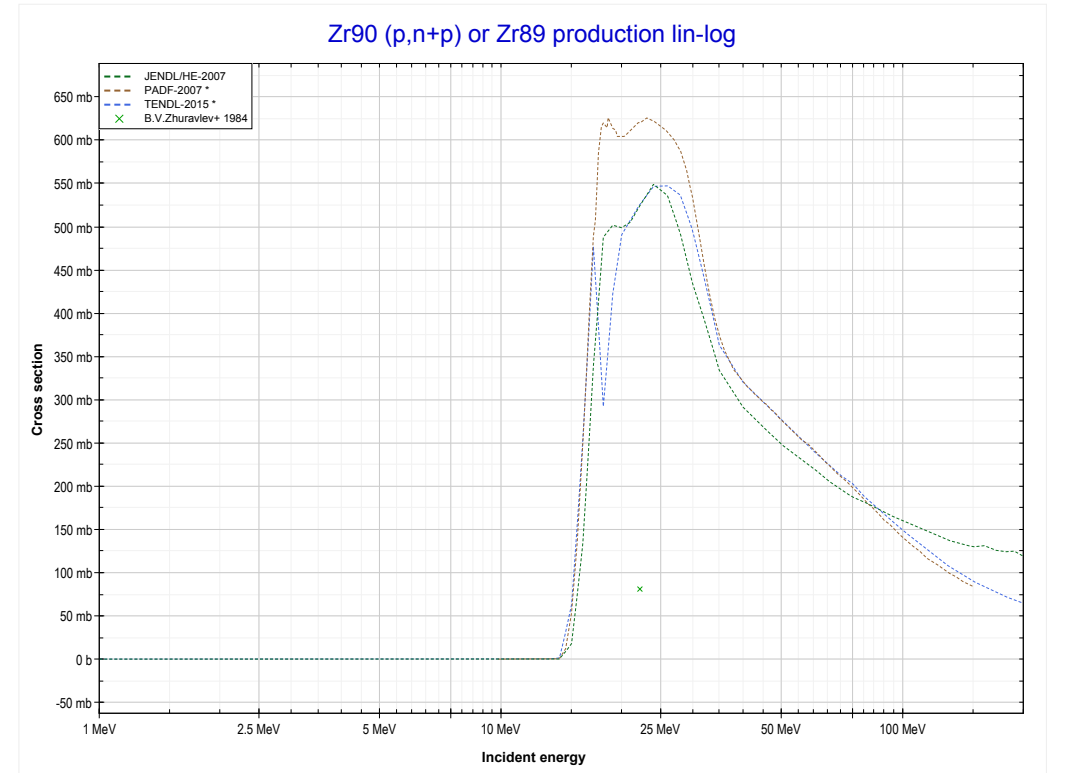
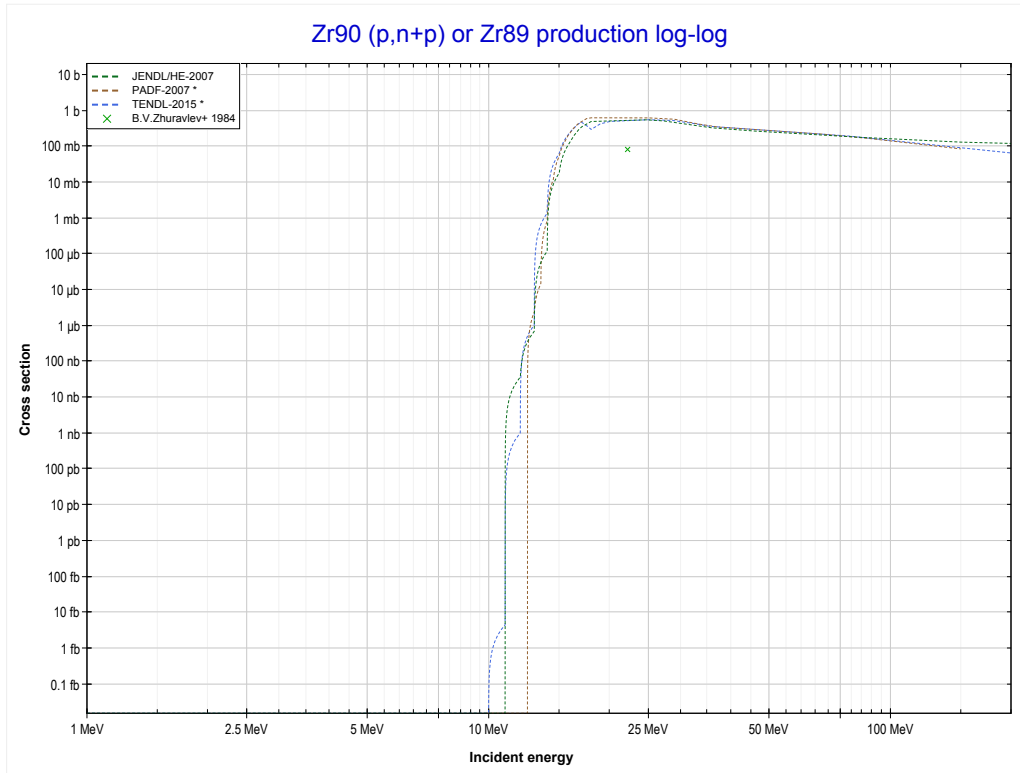
Reaction	Q-Value
Zr90(p,n)Nb90	-6893.95 keV

<< 39-Y-89	40-Zr-90	40-Zr-91 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Nb89 production)	MT28 (p,n+p) >>



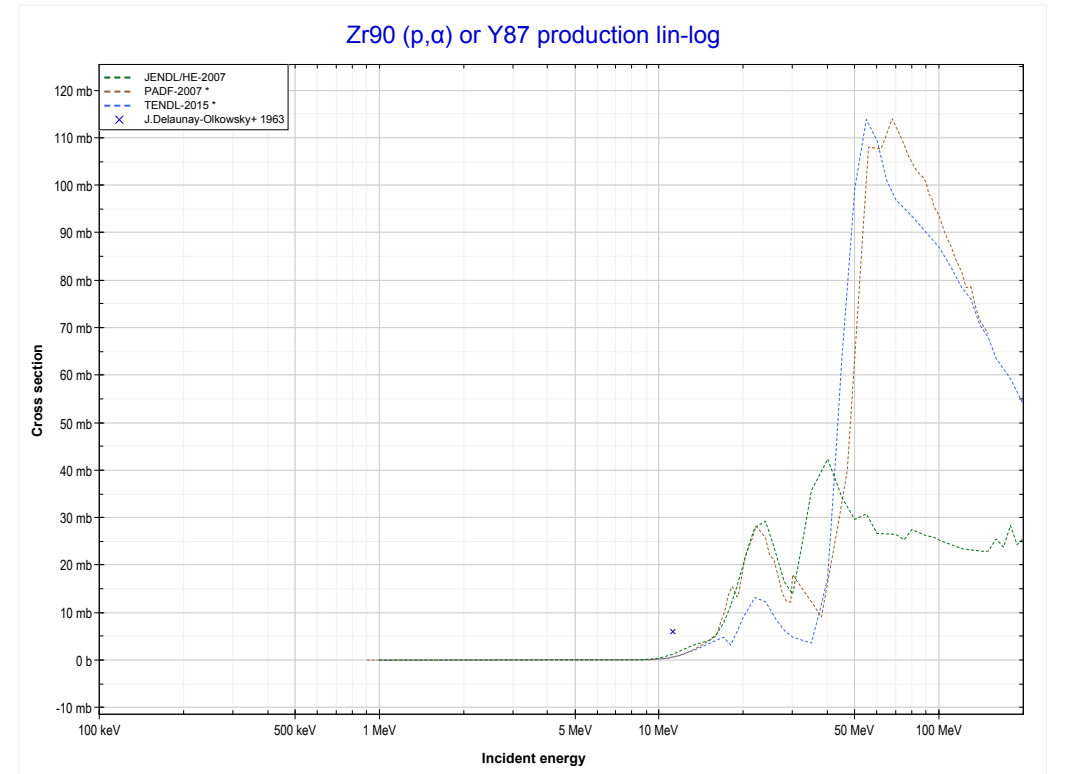
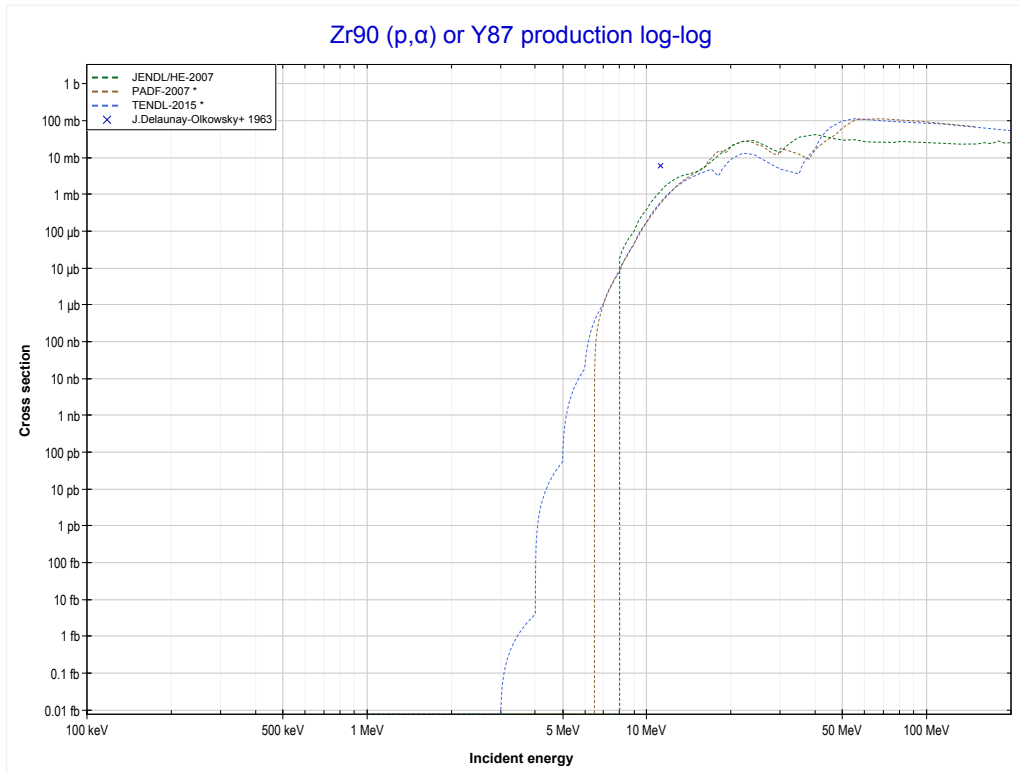
Reaction	Q-Value
Zr90(p,2n)Nb89	-17002.26 keV

<< 39-Y-89	40-Zr-90	40-Zr-96 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Zr89 production)	MT107 (p, α) >>



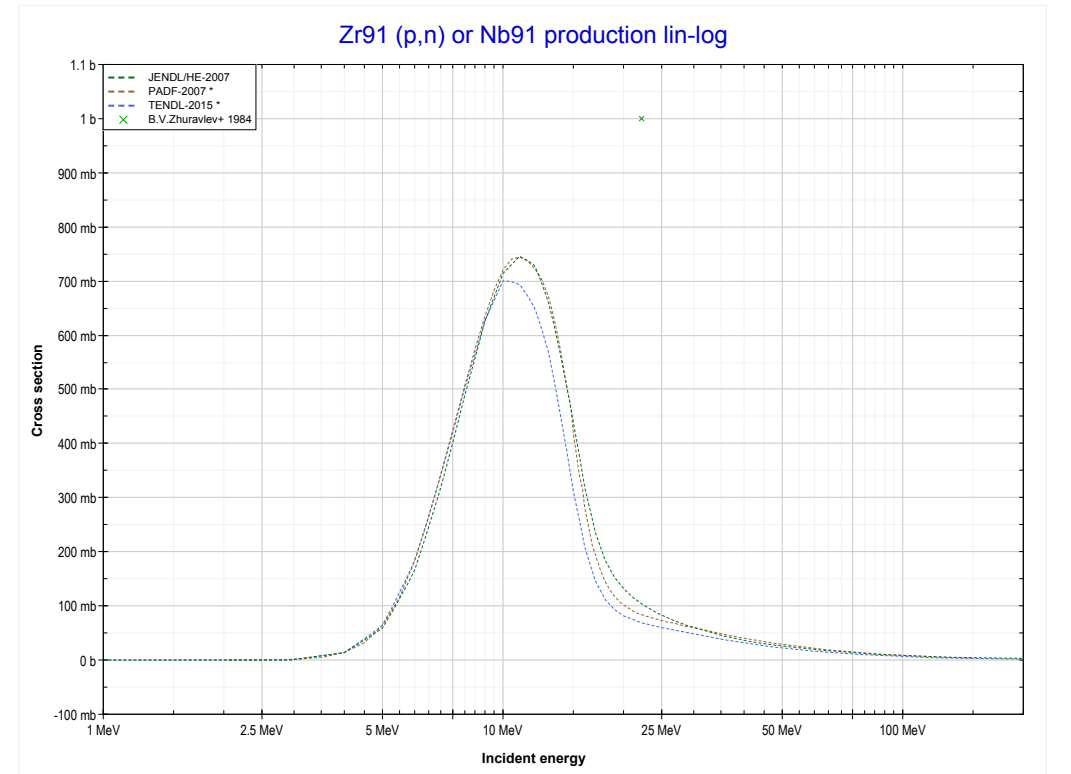
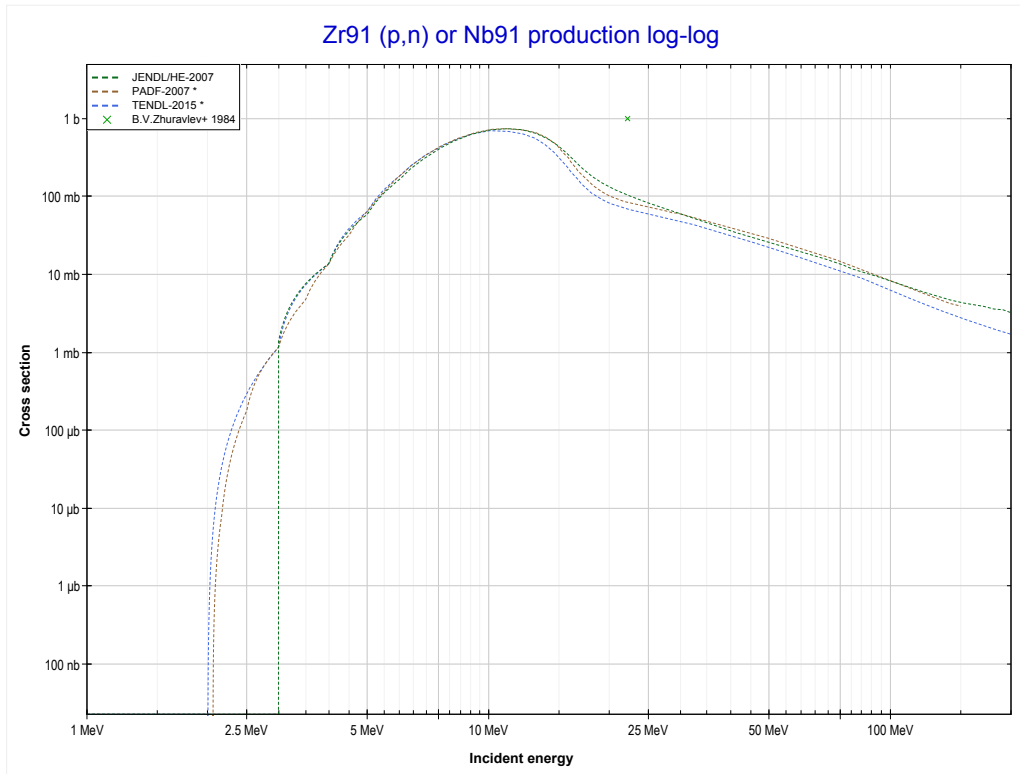
Reaction	Q-Value
Zr90(p,d)Zr89	-9744.35 keV
Zr90(p,n+p)Zr89	-11968.92 keV

<< 38-Sr-87	40-Zr-90	40-Zr-91 >>
<< MT28 (p,n+p)	MT107 (p,α) or MT5 (Y87 production)	40-Zr-91 MT4 (p,n) >>



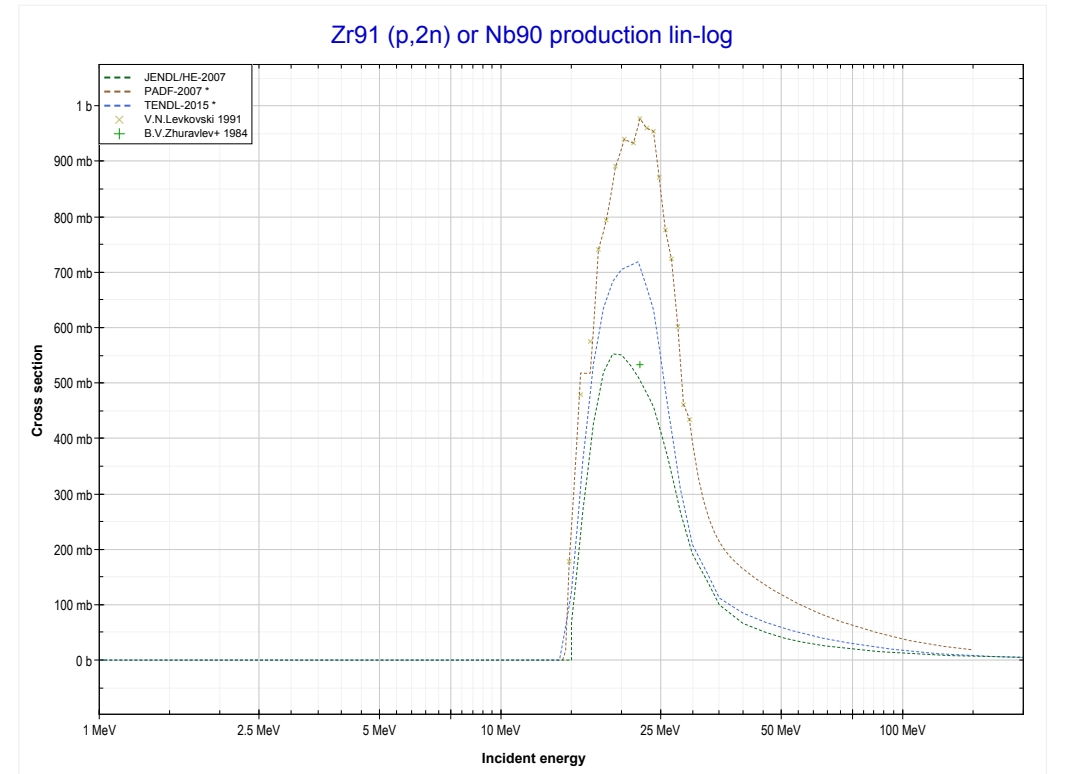
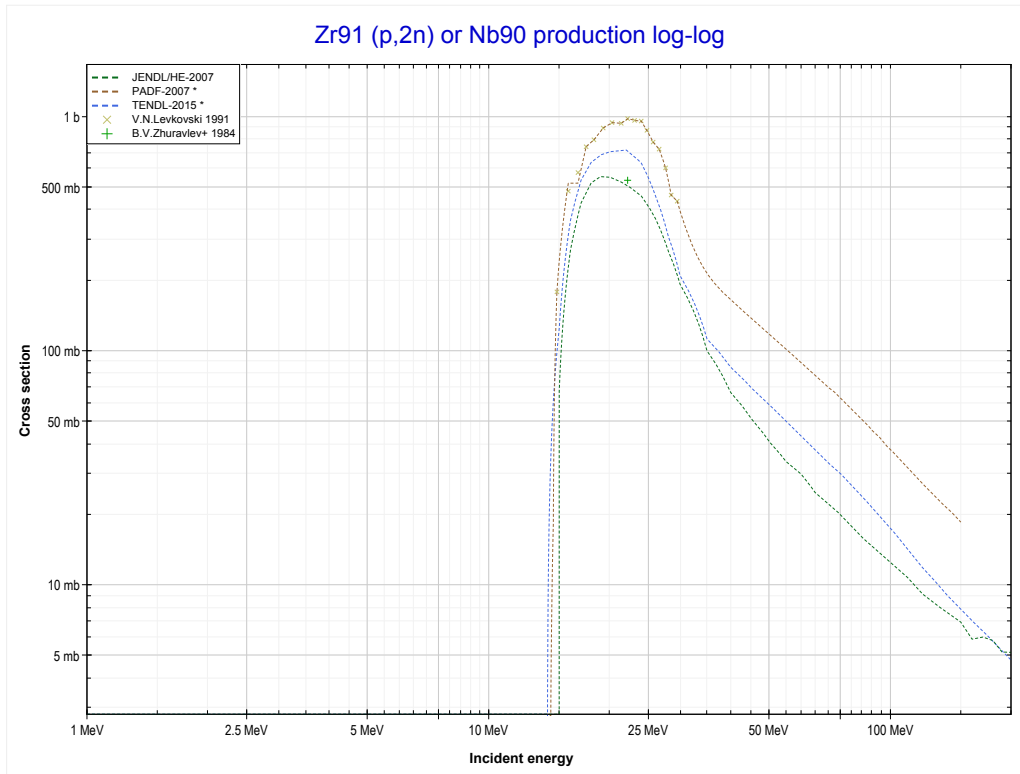
Reaction	Q-Value
Zr90(p, α)Y87	-891.25 keV
Zr90(p,p+t)Y87	-20705.11 keV
Zr90(p,n+He3)Y87	-21468.86 keV
Zr90(p,2d)Y87	-24737.77 keV
Zr90(p,n+p+d)Y87	-26962.34 keV
Zr90(p,2n+2p)Y87	-29186.90 keV

<< 40-Zr-90	40-Zr-91	40-Zr-92 >>
<< 40-Zr-90 MT107 (p, α)	MT4 (p,n) or MT5 (Nb91 production)	MT16 (p,2n) >>



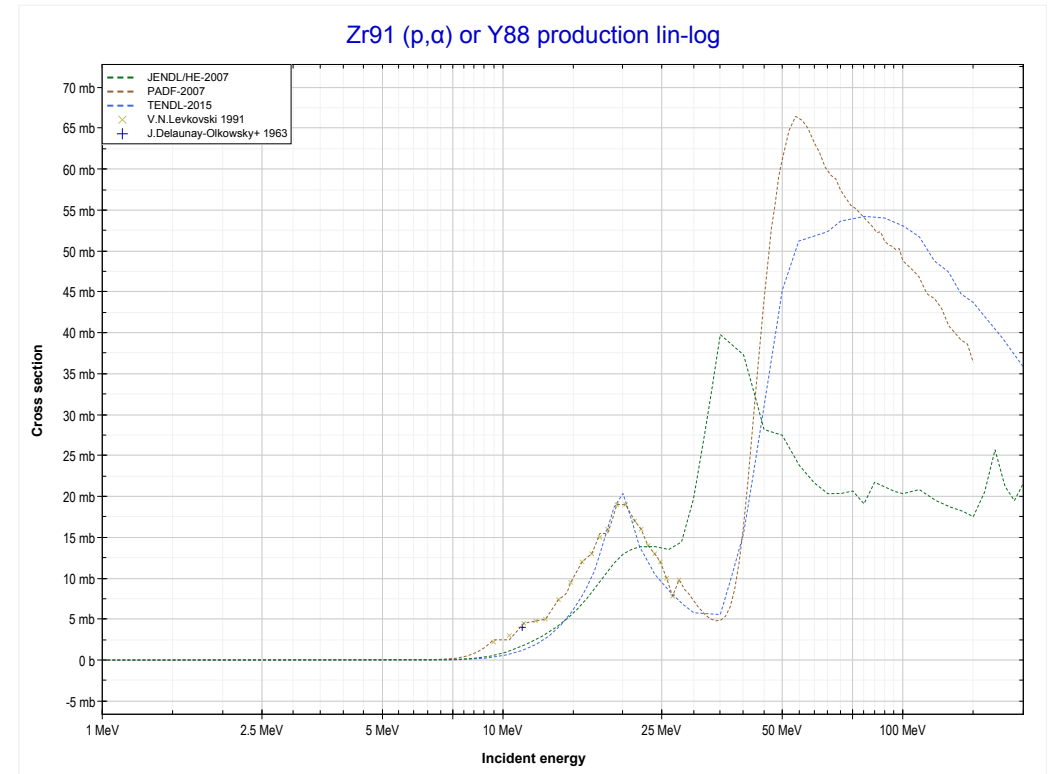
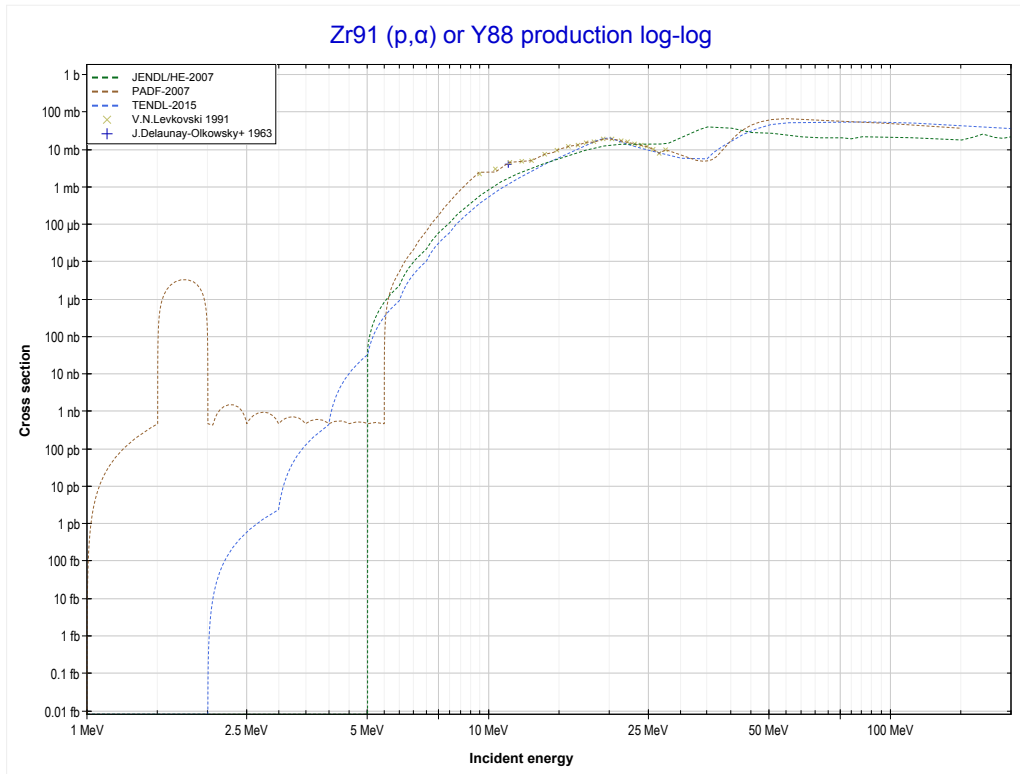
Reaction	Q-Value
Zr91(p,n)Nb91	-2039.55 keV

<< 40-Zr-90	40-Zr-91	40-Zr-94 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Nb90 production)	MT107 (p, α) >>



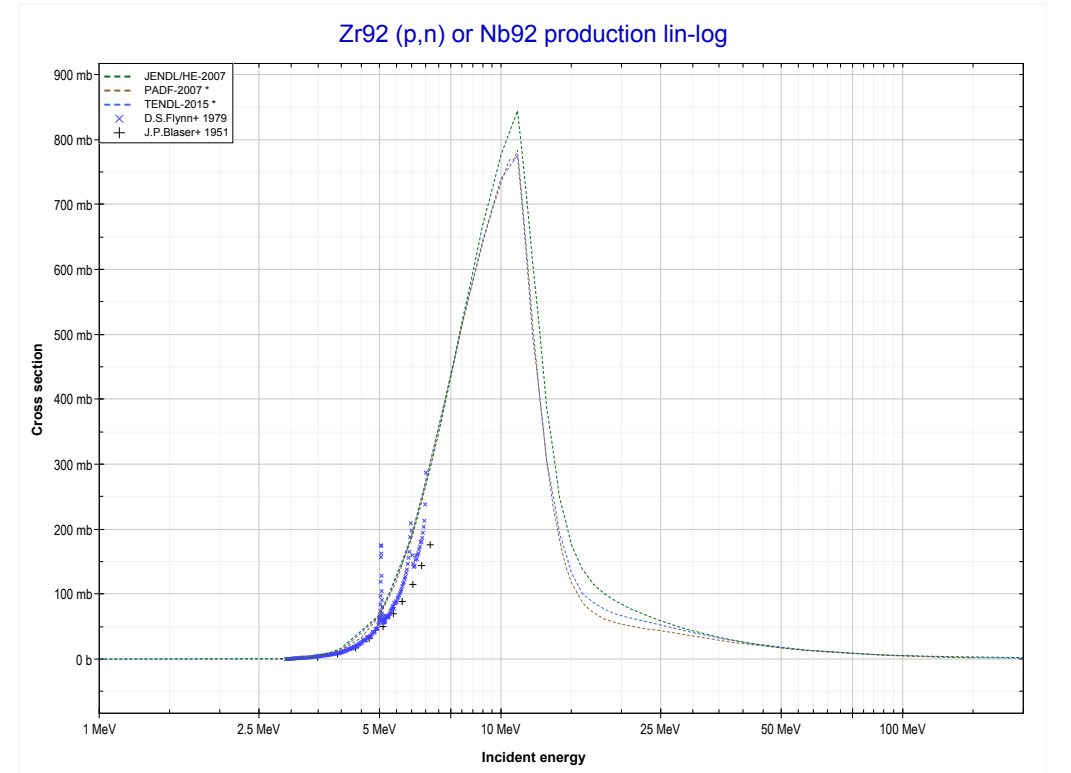
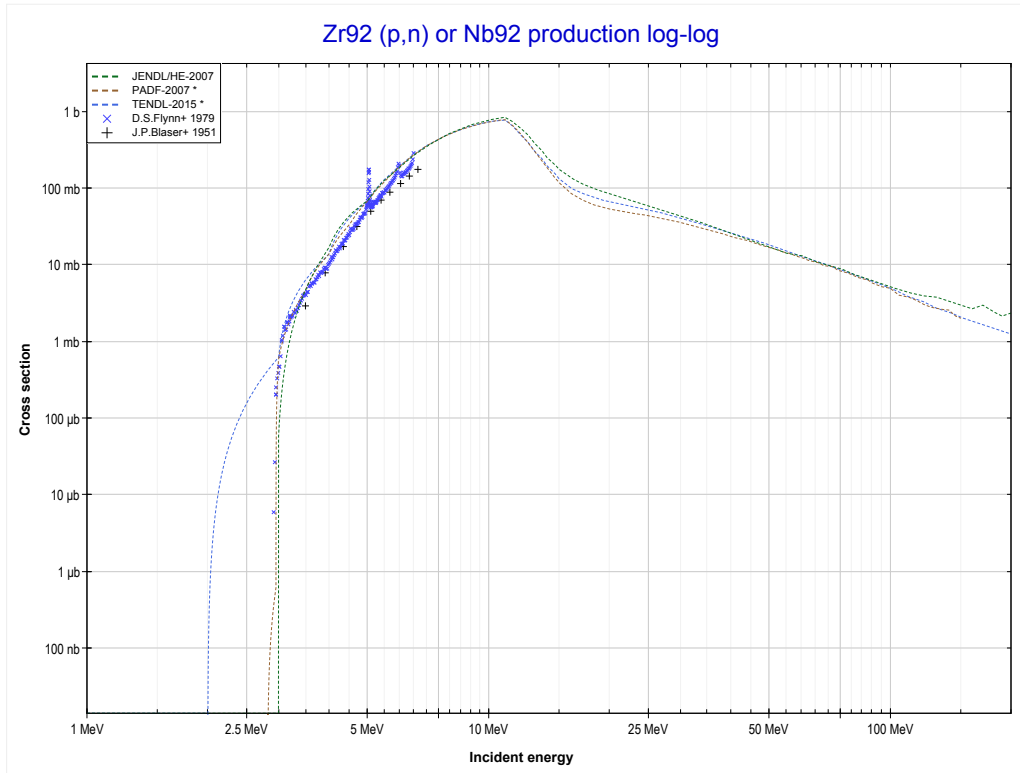
Reaction	Q-Value
Zr91(p,2n)Nb90	-14087.86 keV

<< 40-Zr-90	40-Zr-91	40-Zr-94 >>
<< MT16 (p,2n)	MT107 (p,α) or MT5 (Y88 production)	40-Zr-92 MT4 (p,n) >>



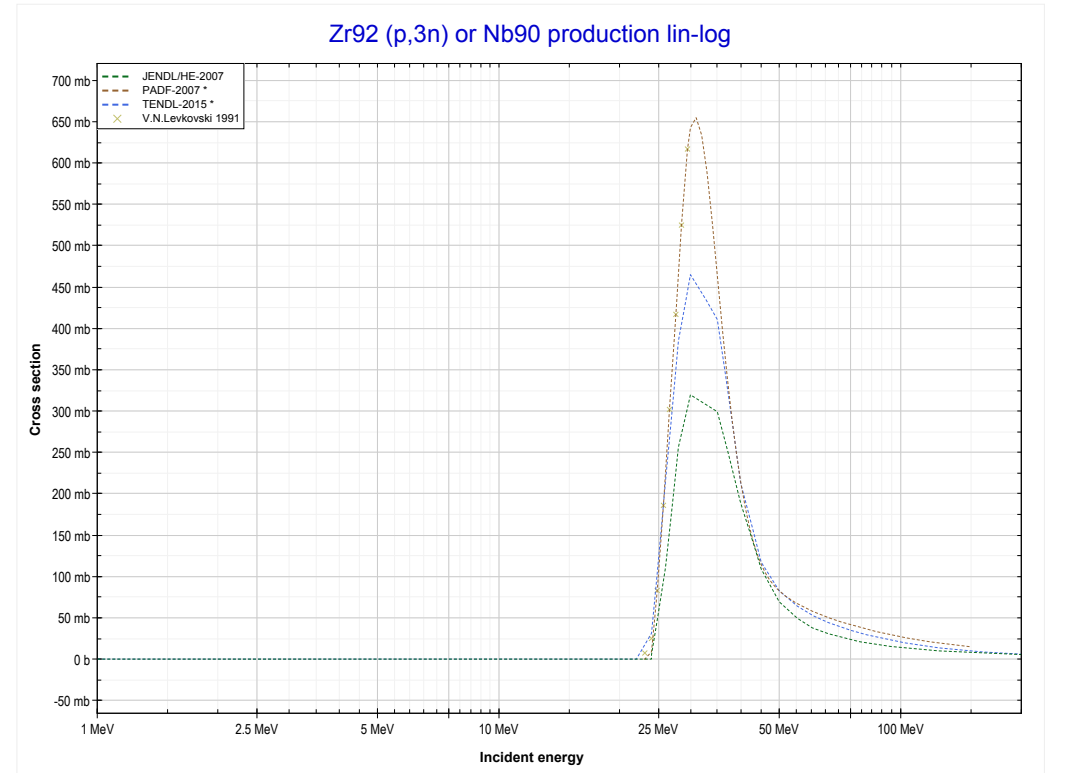
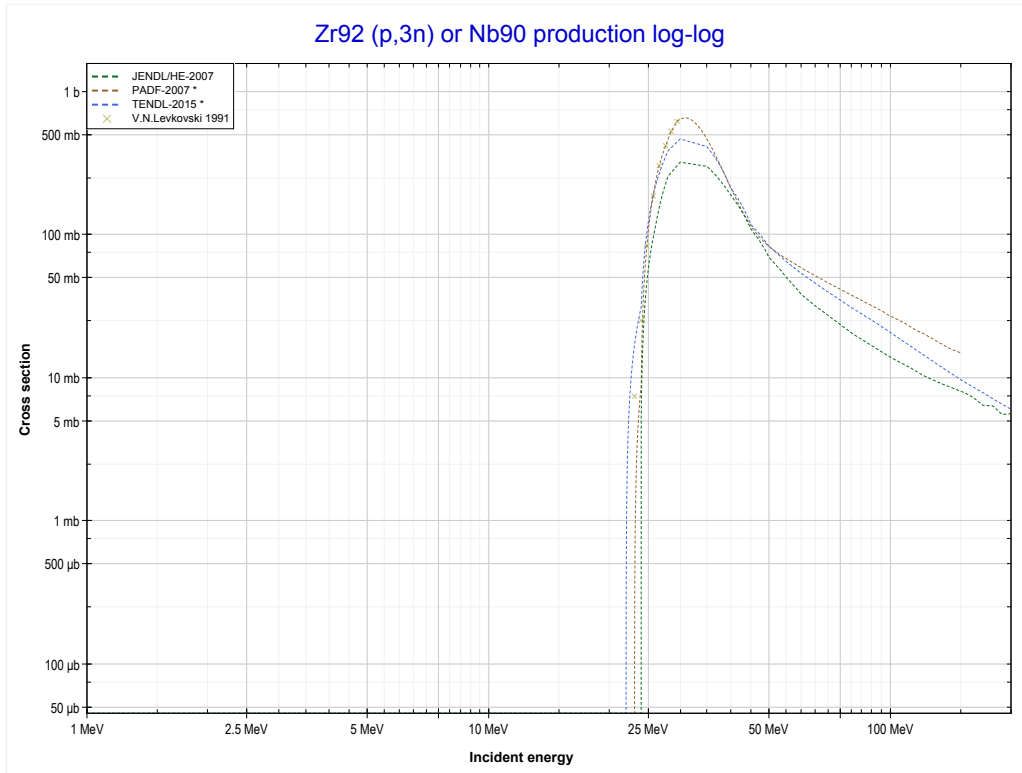
Reaction	Q-Value
Zr91(p, α)Y88	1266.65 keV
Zr91(p,p+t)Y88	-18547.21 keV
Zr91(p,n+He3)Y88	-19310.96 keV
Zr91(p,2d)Y88	-22579.87 keV
Zr91(p,n+p+d)Y88	-24804.44 keV
Zr91(p,2n+2p)Y88	-27029.00 keV

<< 40-Zr-91	40-Zr-92	40-Zr-94 >>
<< 40-Zr-91 MT107 (p, α)	MT4 (p,n) or MT5 (Nb92 production)	MT17 (p,3n) >>



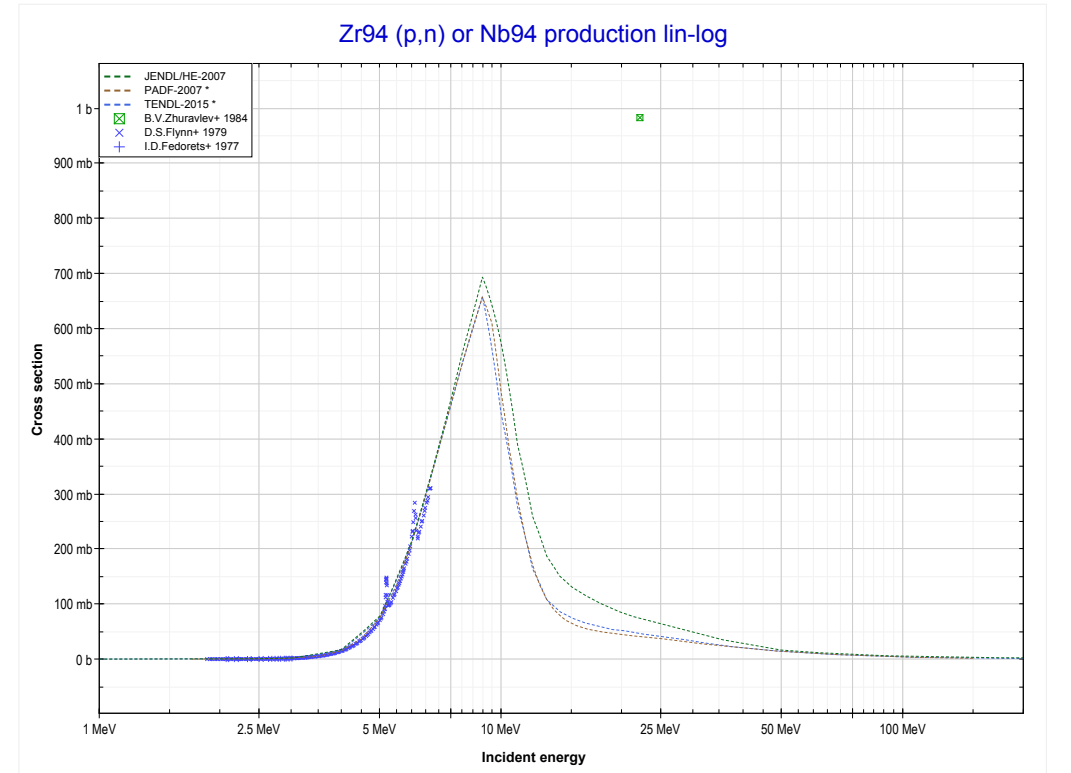
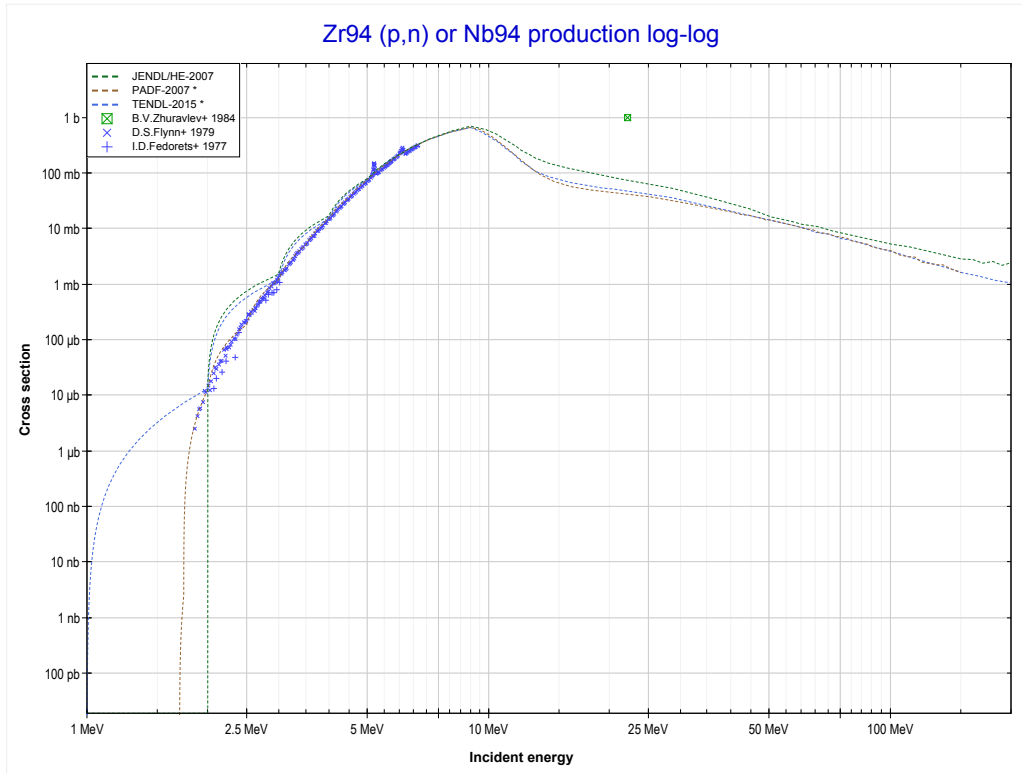
Reaction	Q-Value
Zr92(p,n)Nb92	-2788.25 keV

<< 39-Y-89	40-Zr-92	40-Zr-94 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Nb90 production)	40-Zr-94 MT4 (p,n) >>



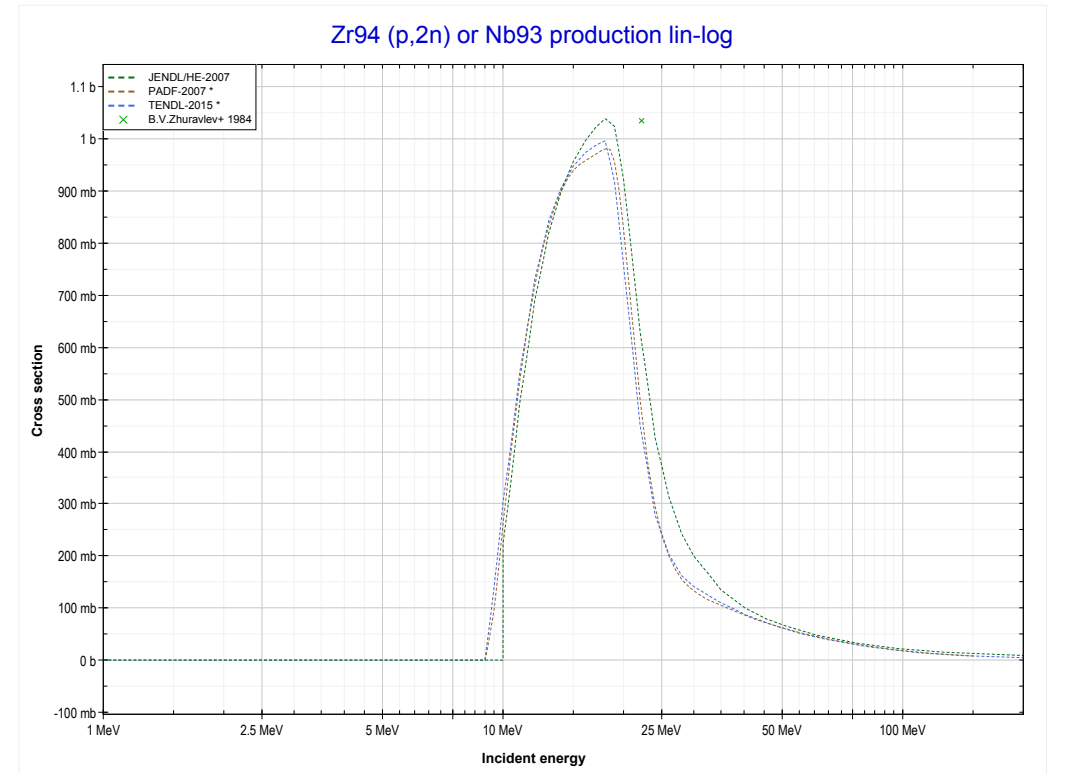
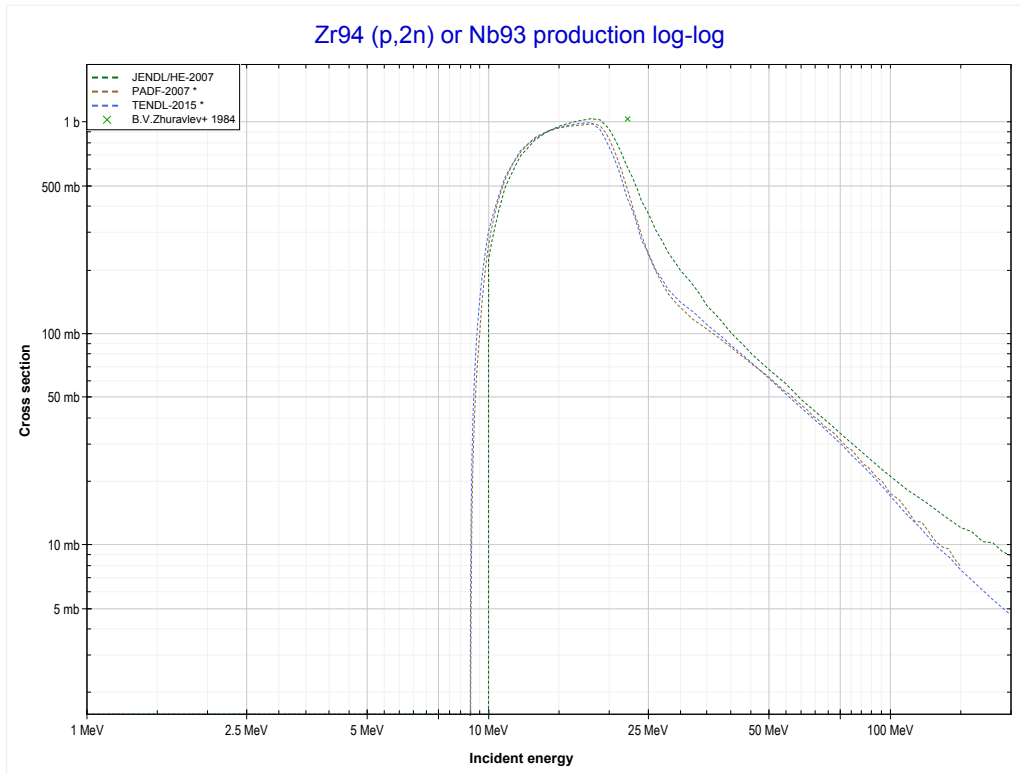
Reaction	Q-Value
Zr92(p,3n)Nb90	-22722.58 keV

<< 40-Zr-92	40-Zr-94	40-Zr-96 >>
<< 40-Zr-92 MT17 (p,3n)	MT4 (p,n) or MT5 (Nb94 production)	MT16 (p,2n) >>



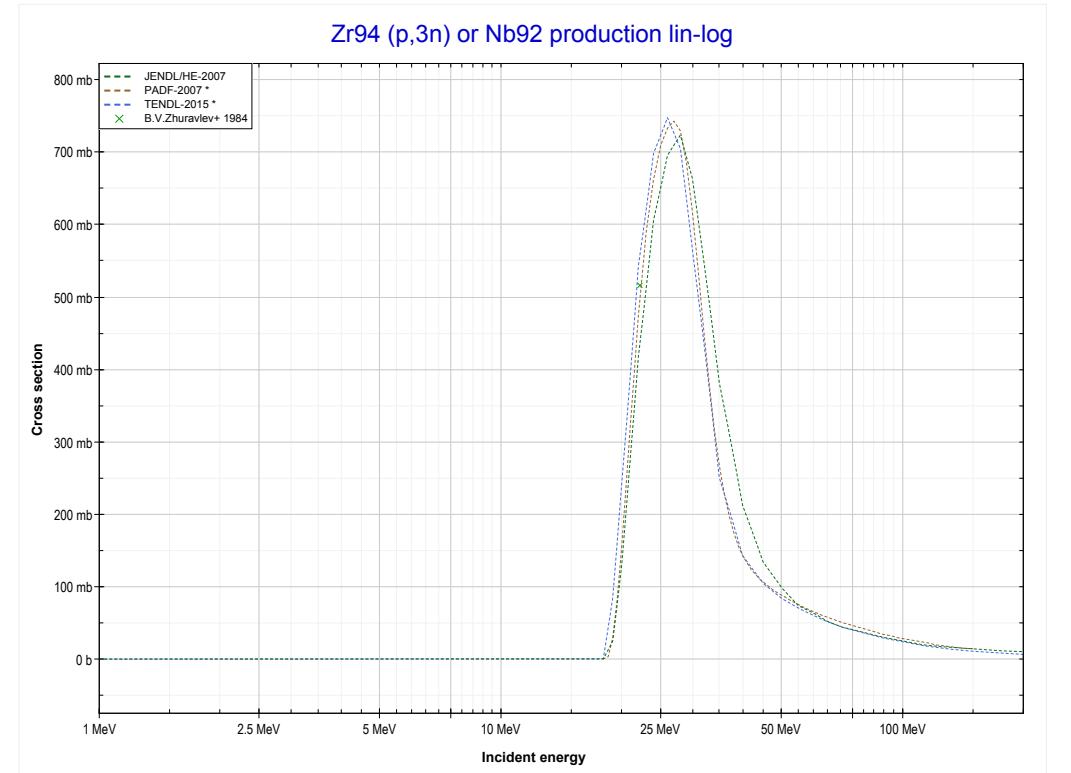
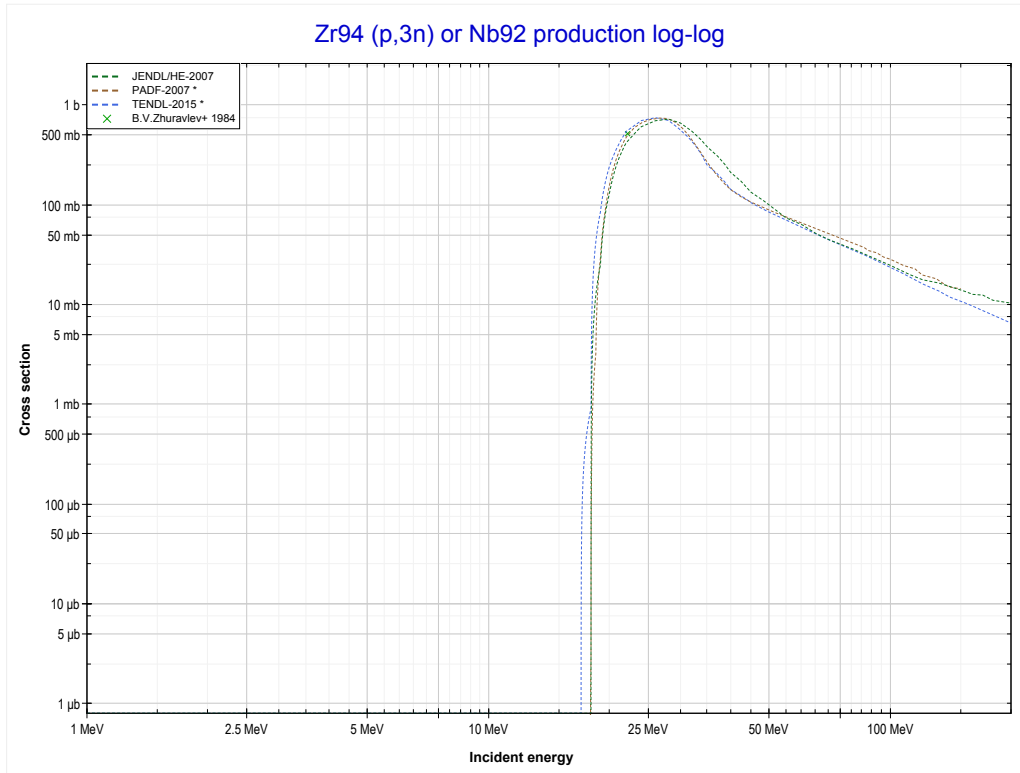
Reaction	Q-Value
Zr94(p,n)Nb94	-1684.05 keV

<< 40-Zr-91	40-Zr-94	40-Zr-96 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Nb93 production)	MT17 (p,3n) >>



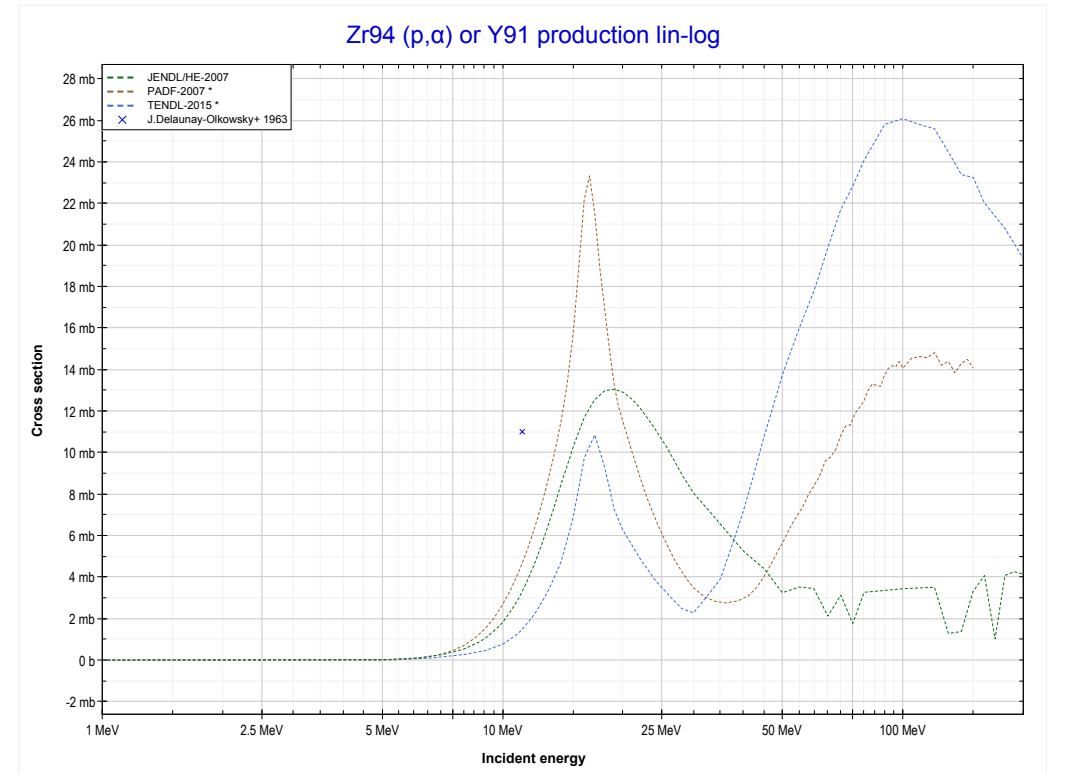
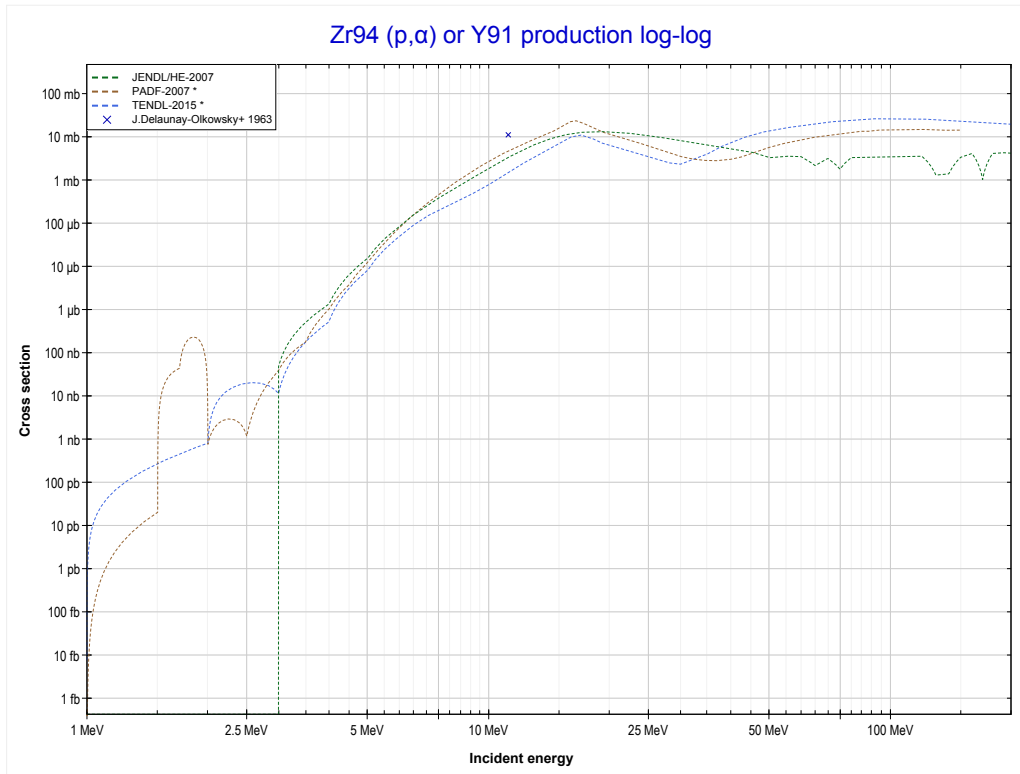
Reaction	Q-Value
Zr94(p,2n)Nb93	-8911.56 keV

<< 40-Zr-92	40-Zr-94	42-Mo-95 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Nb92 production)	MT107 (p, α) >>



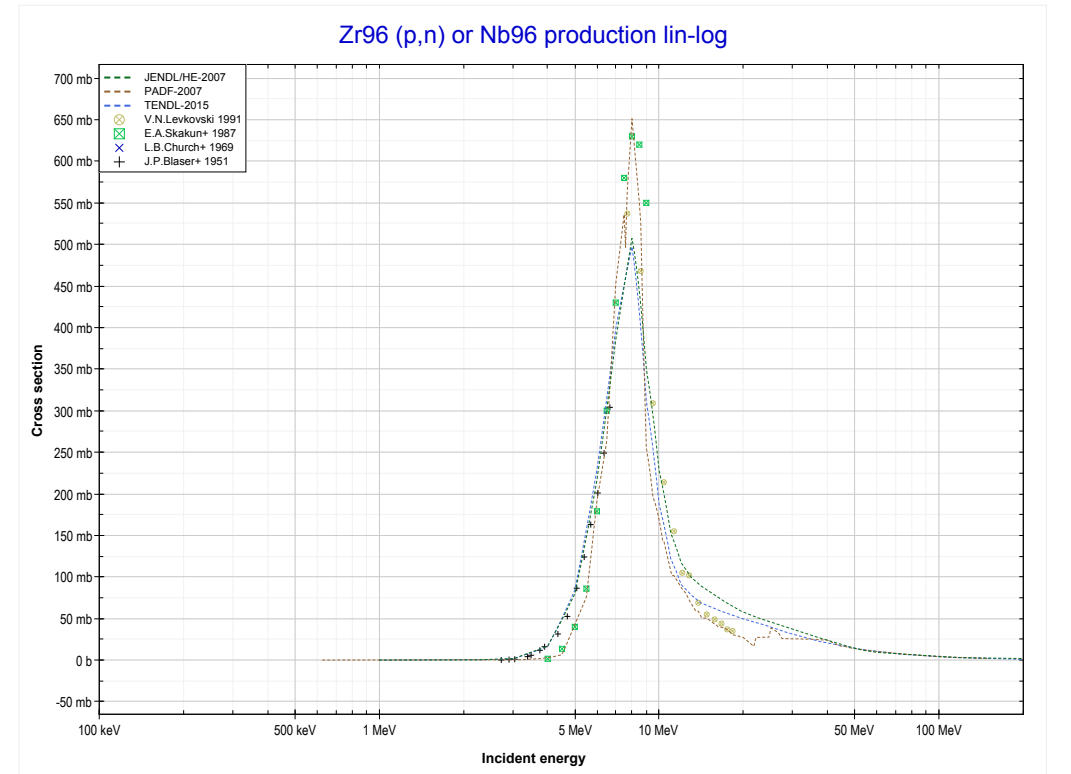
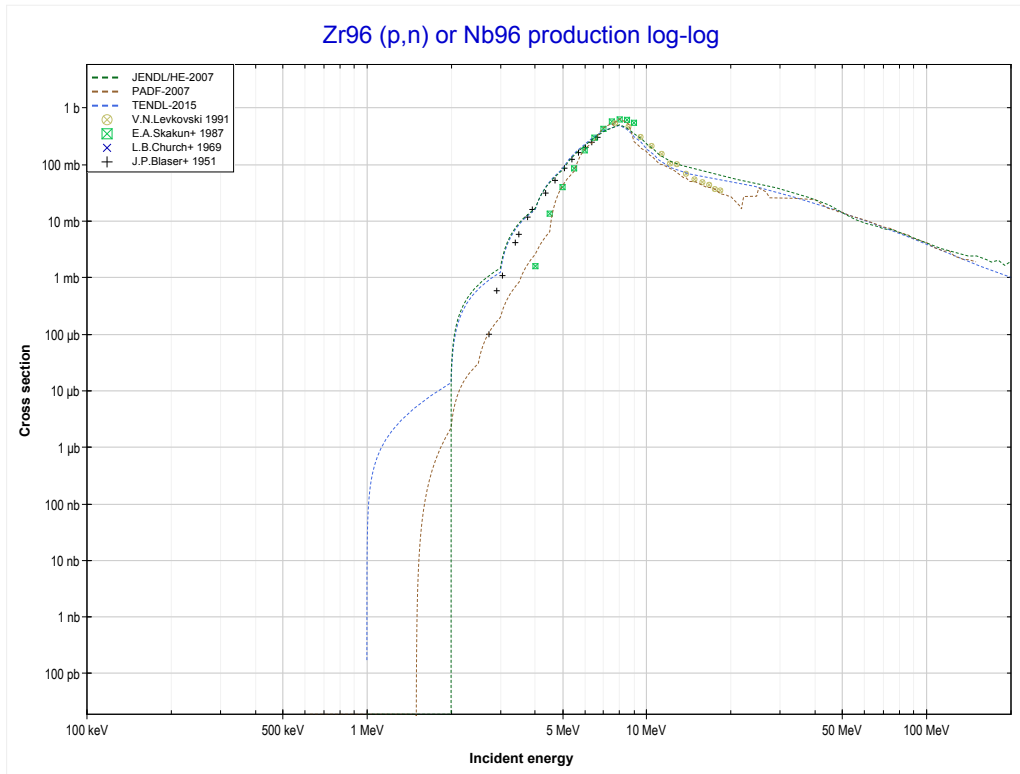
Reaction	Q-Value
Zr94(p,3n)Nb92	-17742.18 keV

<< 40-Zr-91	40-Zr-94	42-Mo-92 >>
<< MT17 (p,3n)	MT107 (p,α) or MT5 (Y91 production)	40-Zr-96 MT4 (p,n) >>



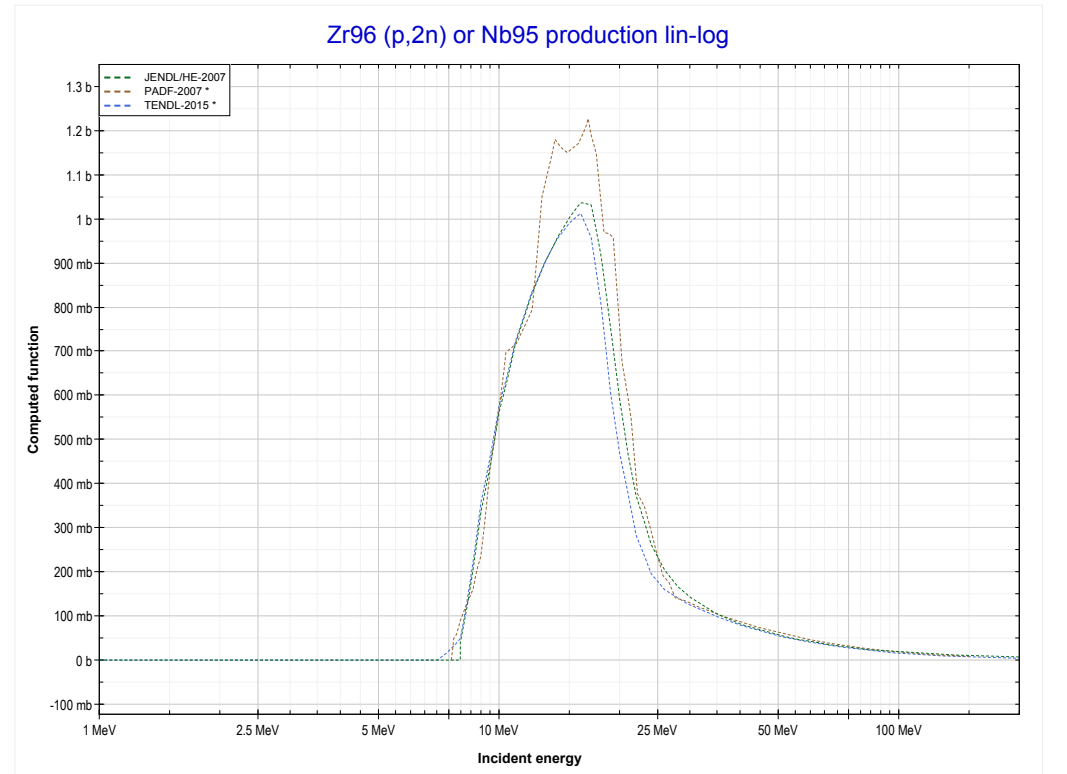
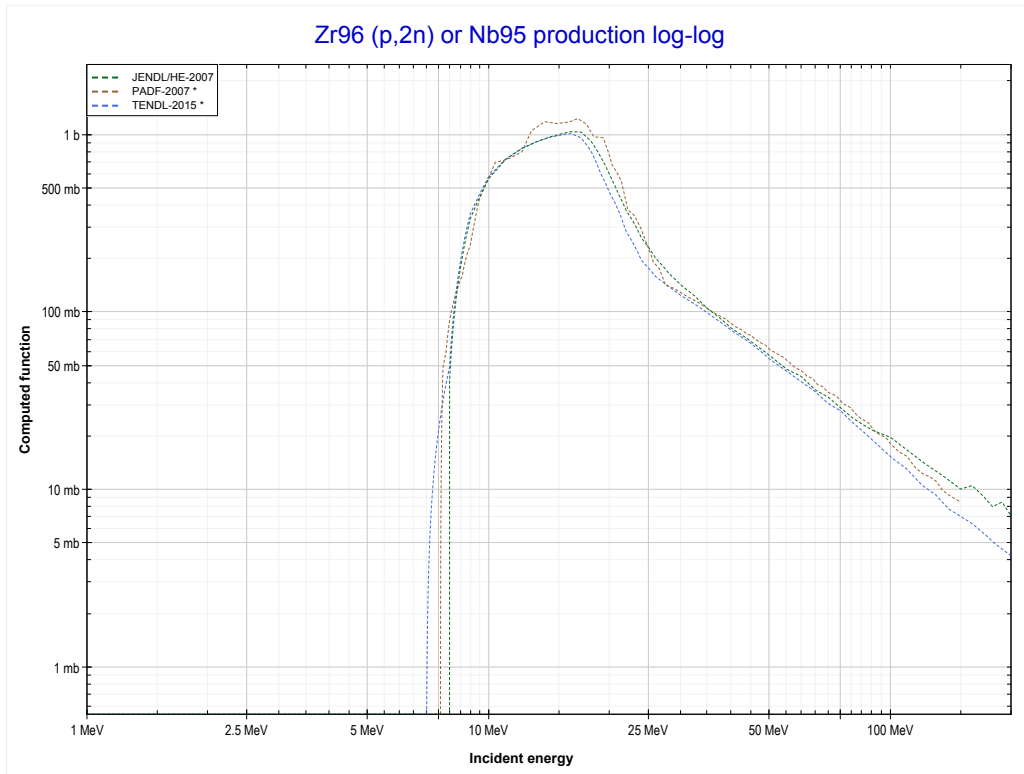
Reaction	Q-Value
Zr94(p, α)Y91	3945.05 keV
Zr94(p,p+t)Y91	-15868.81 keV
Zr94(p,n+He3)Y91	-16632.56 keV
Zr94(p,2d)Y91	-19901.47 keV
Zr94(p,n+p+d)Y91	-22126.04 keV
Zr94(p,2n+2p)Y91	-24350.60 keV

<< 40-Zr-94	40-Zr-96	41-Nb-93 >>
<< 40-Zr-94 MT107 (p, α)	MT4 (p,n) or MT5 (Nb96 production)	MT16 (p,2n) >>



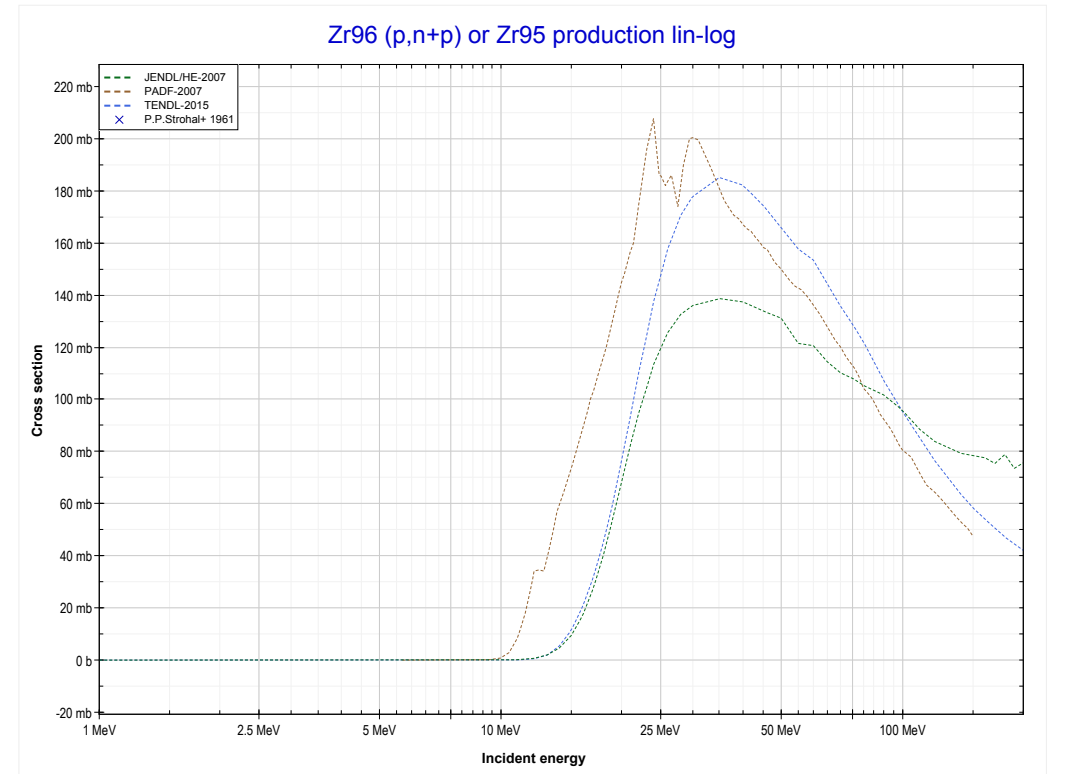
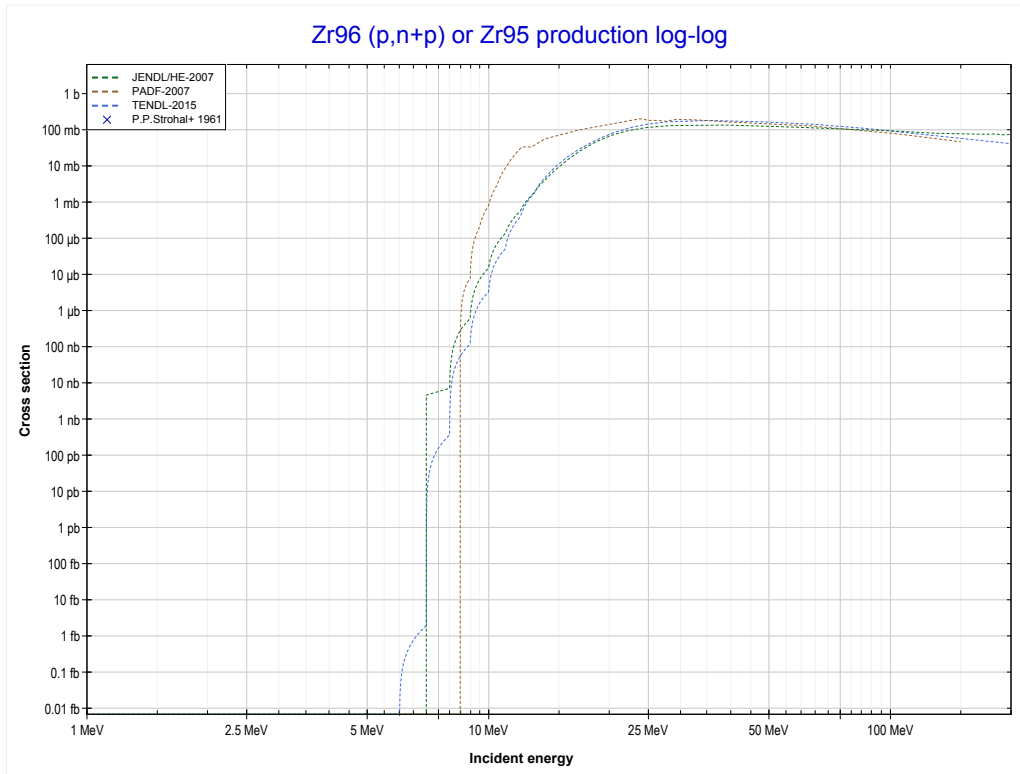
Reaction	Q-Value
Zr96(p,n)Nb96	-619.95 keV

<< 40-Zr-94	40-Zr-96	42-Mo-94 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Nb95 production)	MT28 (p,n+p) >>



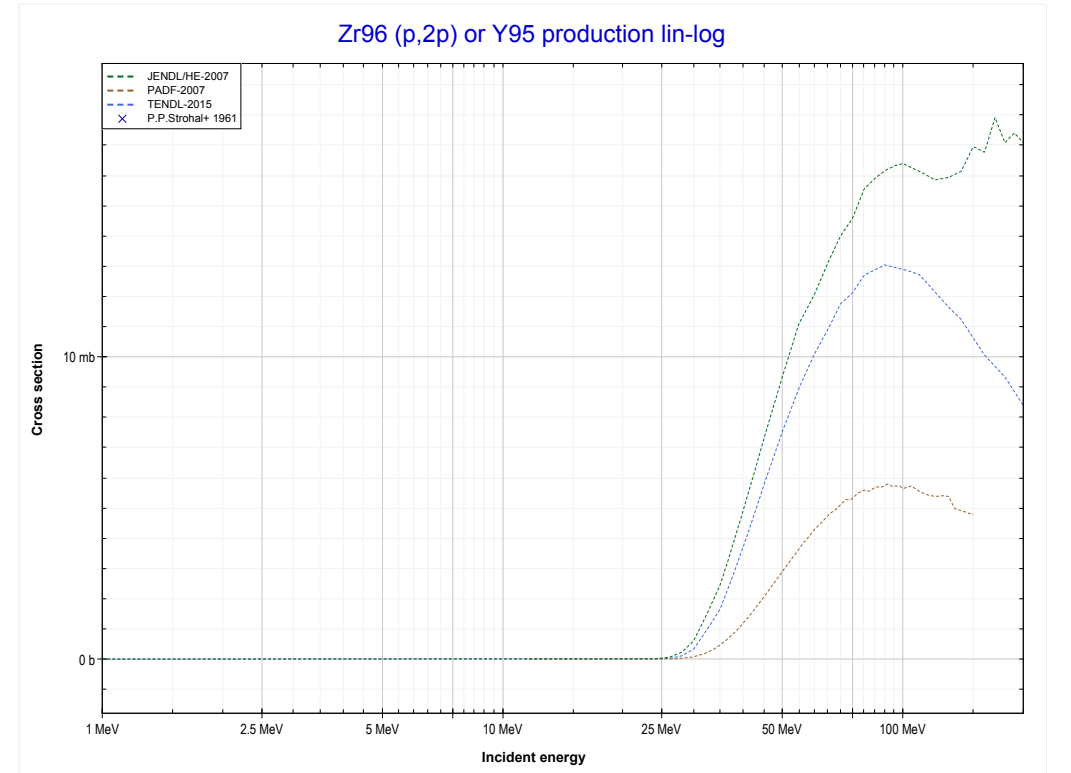
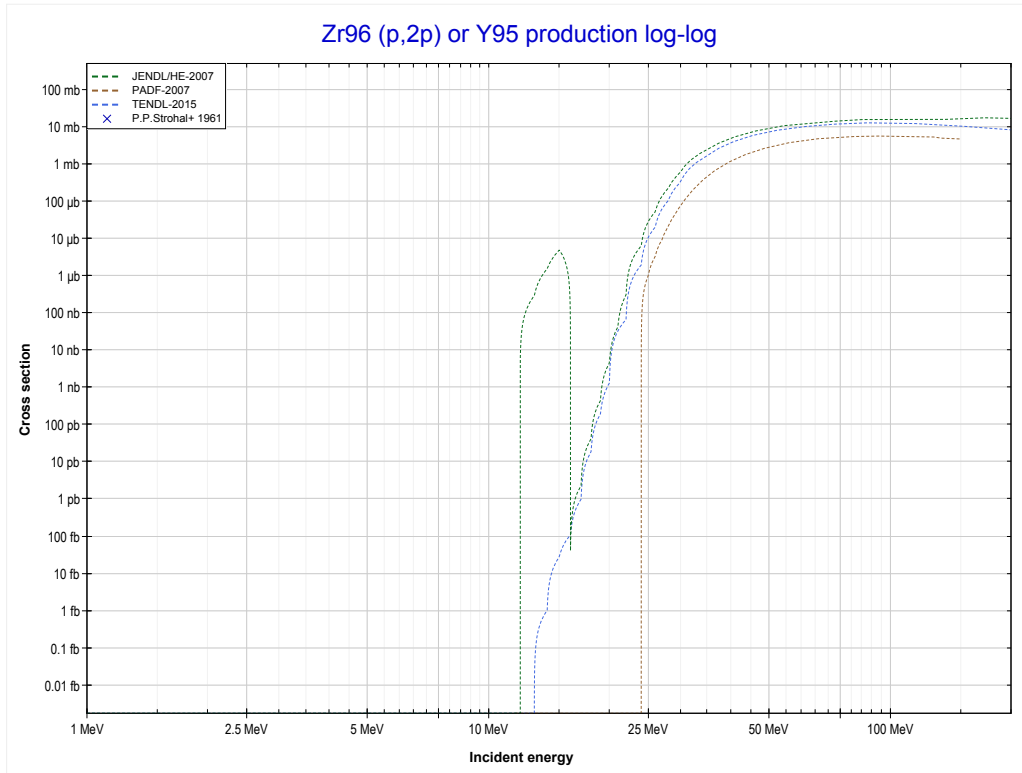
Reaction	Q-Value
Zr96(p,2n)Nb95	-7513.16 keV

<< 40-Zr-90	40-Zr-96	41-Nb-93 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Zr95 production)	MT111 (p,2p) >>



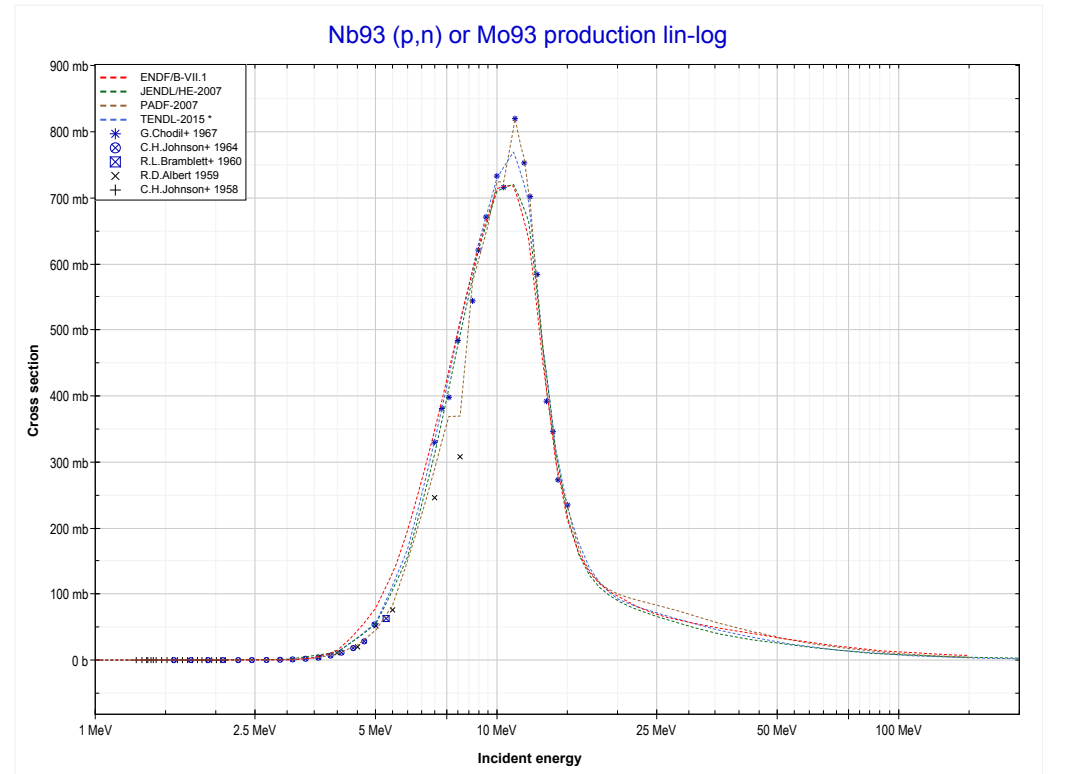
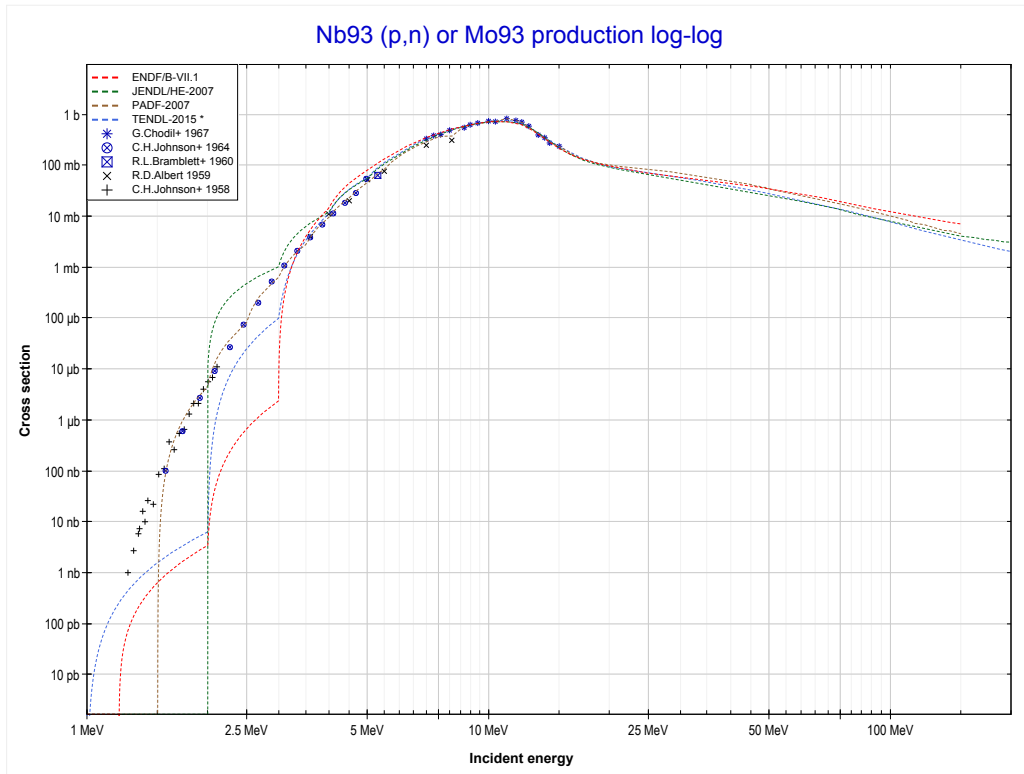
Reaction	Q-Value
Zr96(p,d)Zr95	-5629.75 keV
Zr96(p,n+p)Zr95	-7854.32 keV

<< 32-Ge-74	40-Zr-96	42-Mo-96 >>
<< MT28 (p,n+p)	MT111 (p,2p) or MT5 (Y95 production)	41-Nb-93 MT4 (p,n) >>



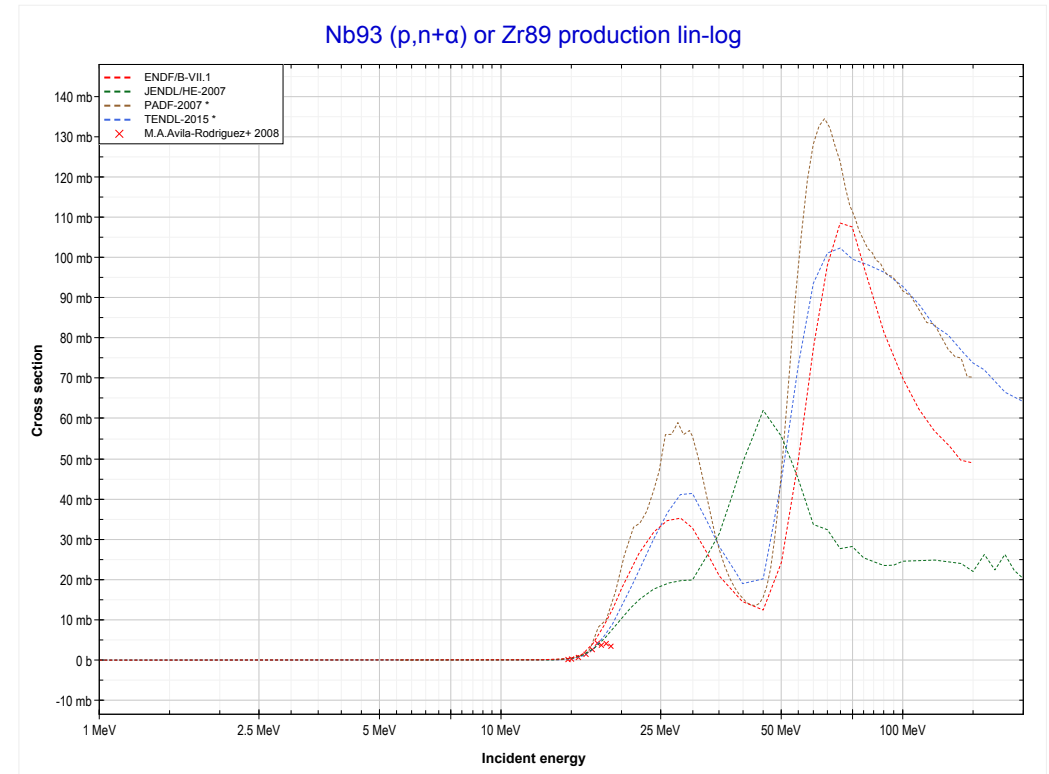
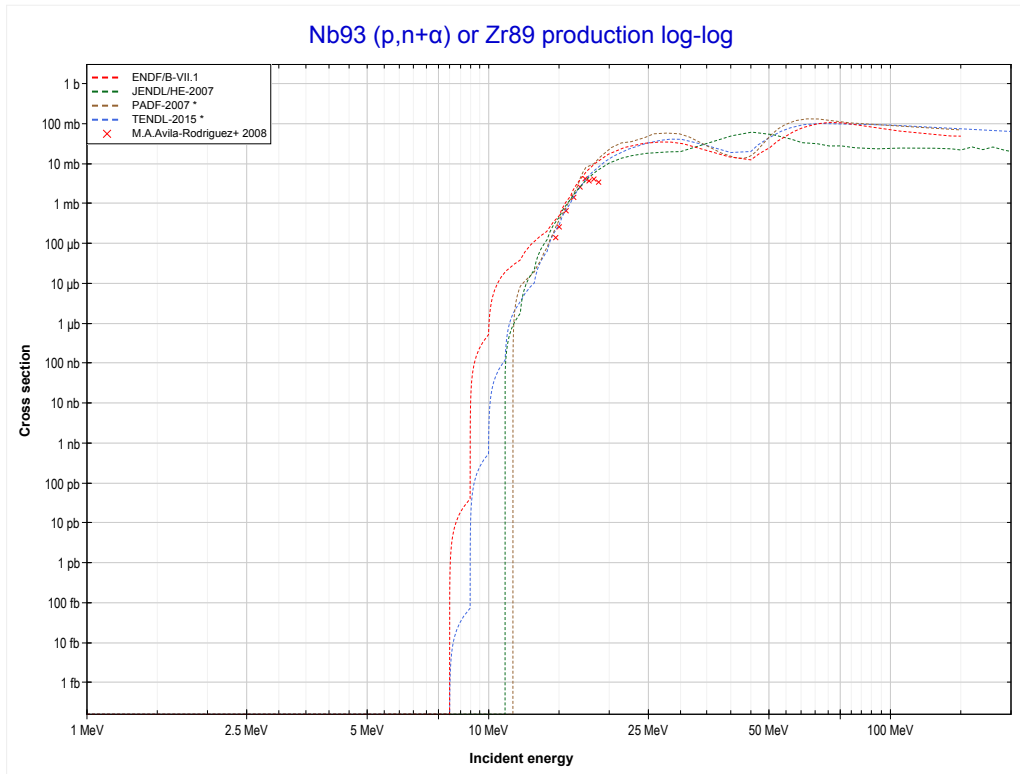
Reaction	Q-Value
Zr96(p,2p)Y95	-11522.57 keV

<< 40-Zr-96	41-Nb-93	42-Mo-94 >>
<< 40-Zr-96 MT111 (p,2p)	MT4 (p,n) or MT5 (Mo93 production)	MT22 (p,n+α) >>



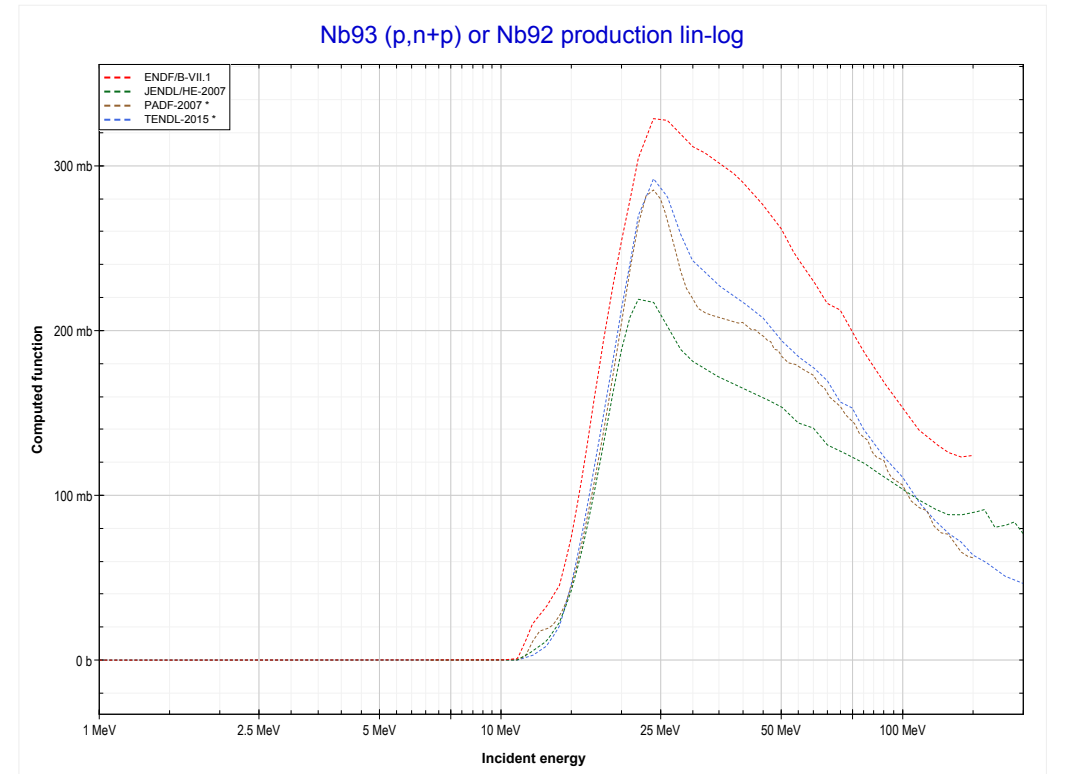
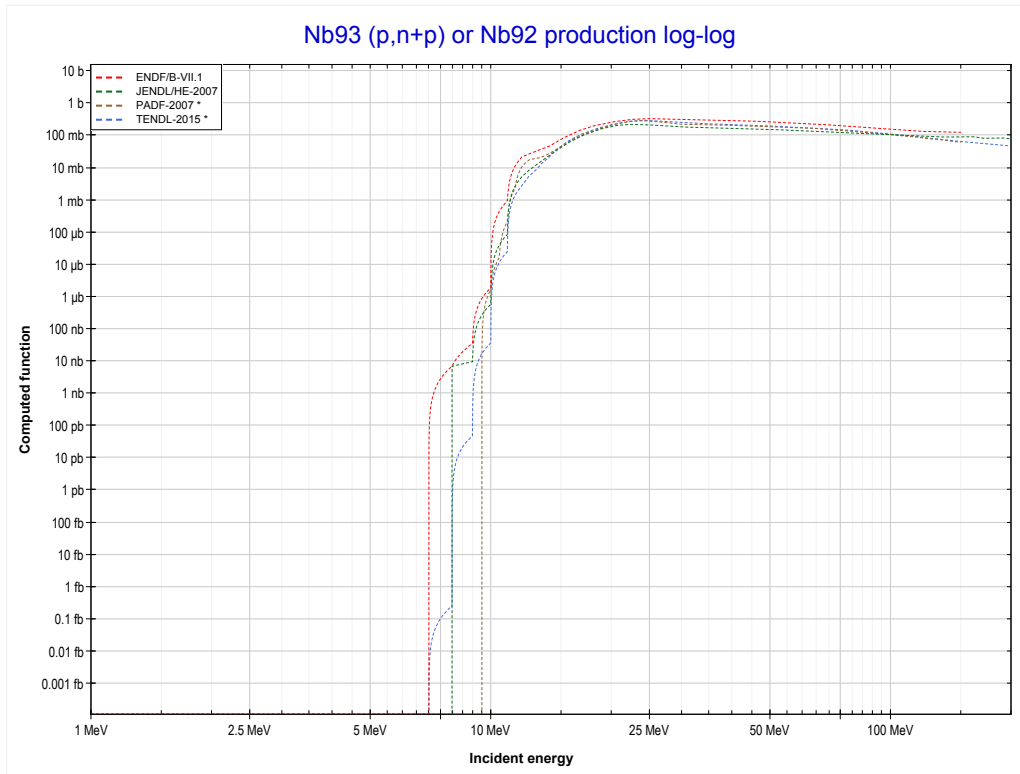
Reaction	Q-Value
Nb93(p,n)Mo93	-1189.05 keV

<< 39-Y-89	41-Nb-93	48-Cd-114 >>
<< MT4 (p,n)	MT22 (p,n+α) or MT5 (Zr89 production)	MT28 (p,n+p) >>



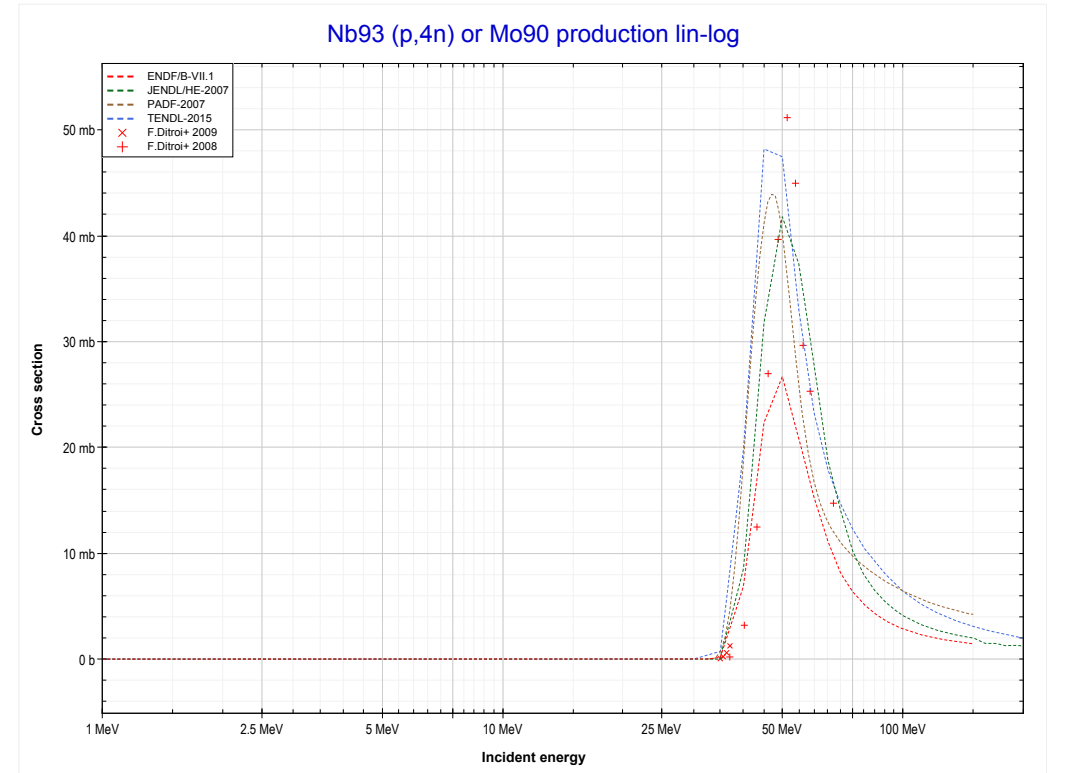
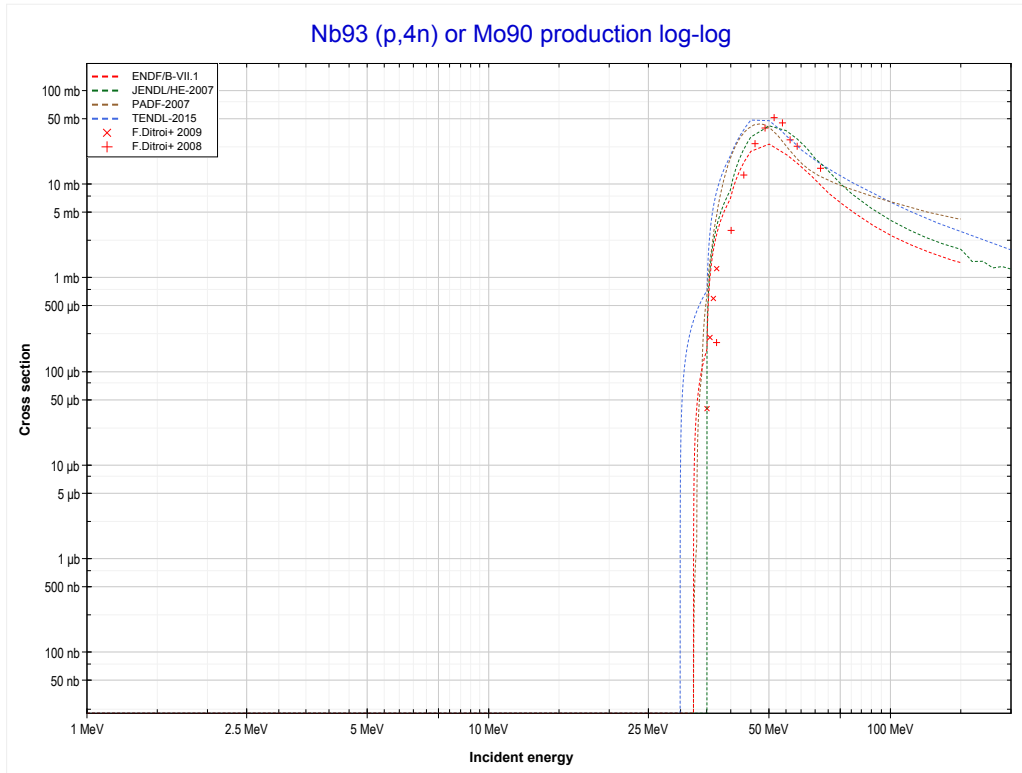
Reaction	Q-Value
Nb93(p,n+α)Zr89	-5544.26 keV
Nb93(p,d+t)Zr89	-23133.56 keV
Nb93(p,n+p+t)Zr89	-25358.12 keV
Nb93(p,2n+He3)Zr89	-26121.88 keV
Nb93(p,n+2d)Zr89	-29390.79 keV
Nb93(p,2n+p+d)Zr89	-31615.36 keV
Nb93(p,3n+2p)Zr89	-33839.92 keV

<< 40-Zr-96	41-Nb-93	48-Cd-106 >>
<< MT22 (p,n+α)	MT28 (p,n+p) or MT5 (Nb92 production)	MT37 (p,4n) >>



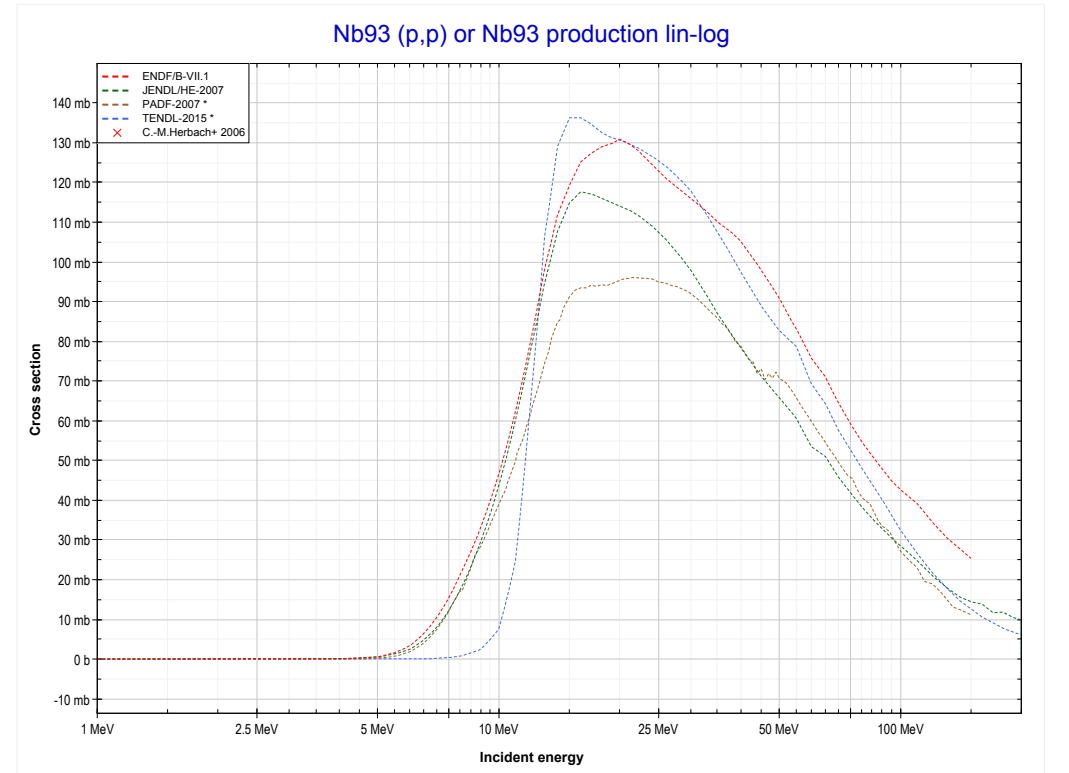
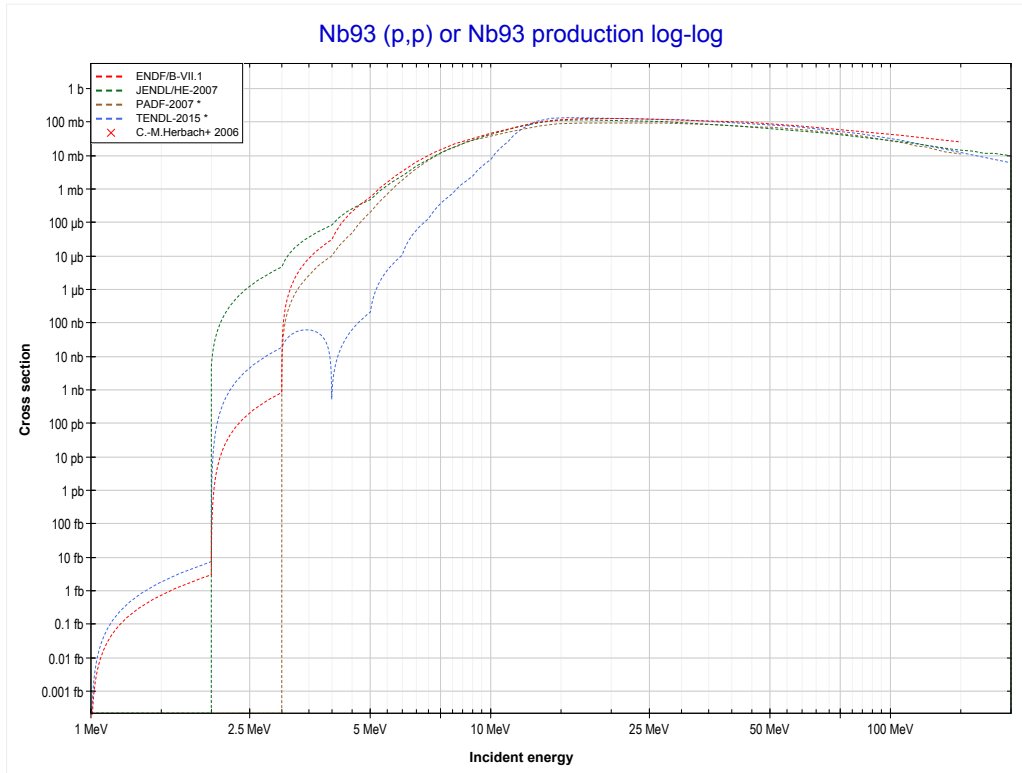
Reaction	Q-Value
Nb93(p,d)Nb92	-6606.05 keV
Nb93(p,n+p)Nb92	-8830.62 keV

<< 39-Y-89	41-Nb-93	42-Mo-96 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Mo90 production)	MT103 (p,p) >>



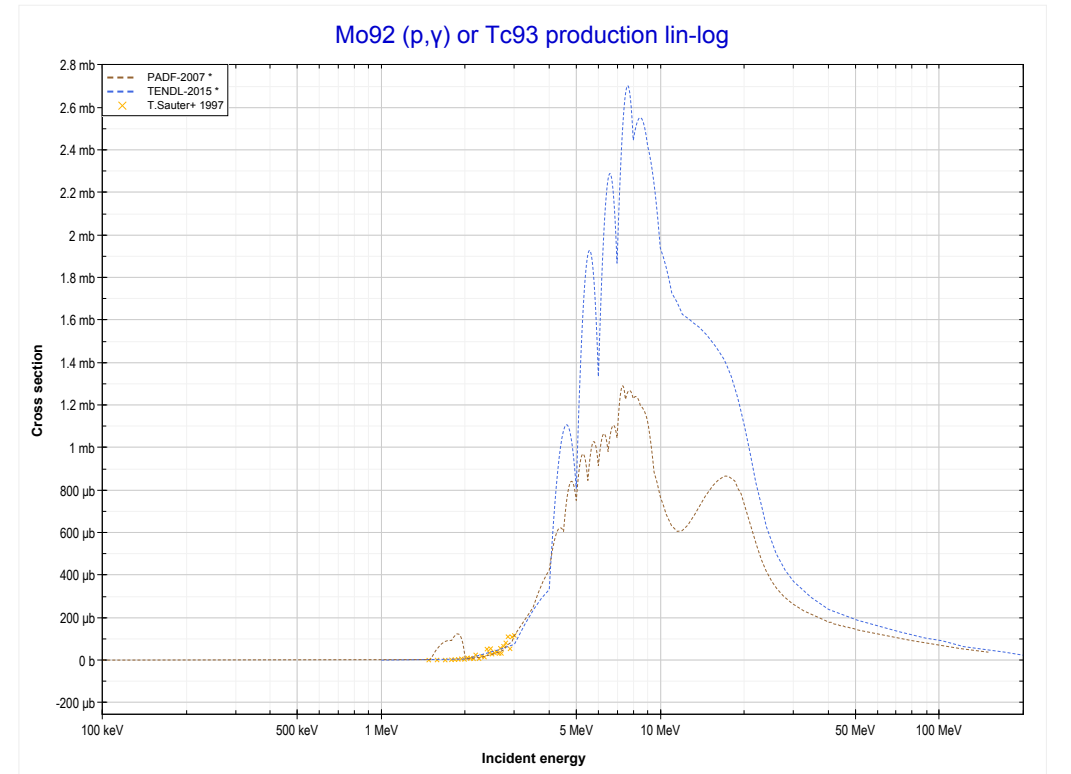
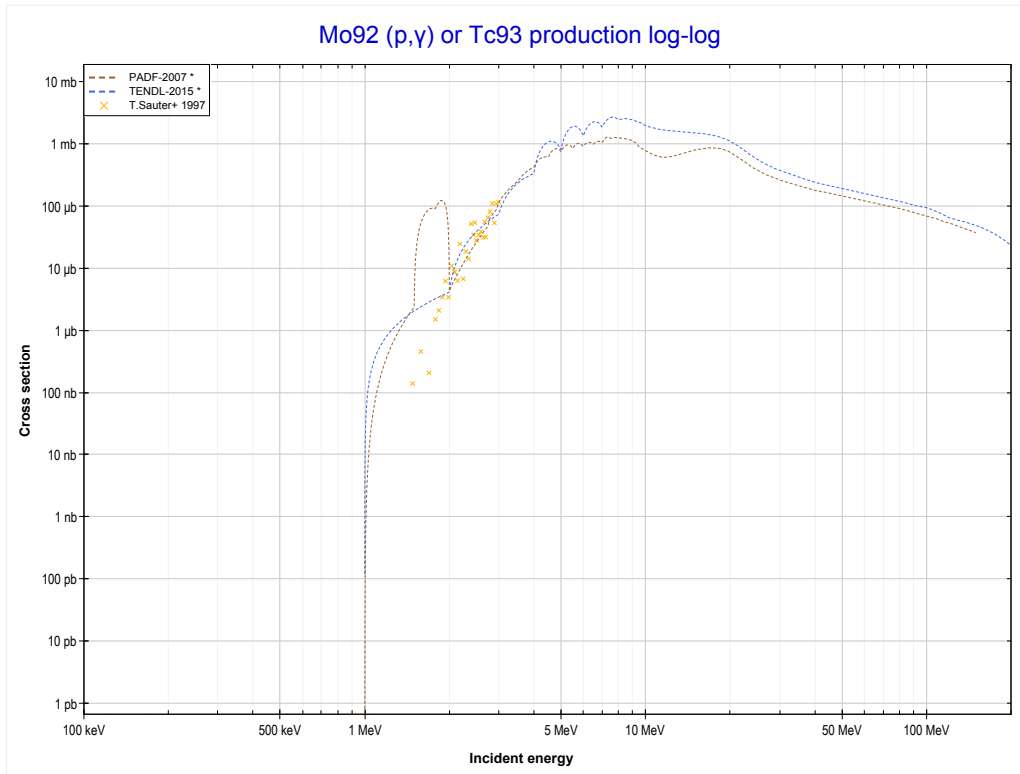
Reaction	Q-Value
Nb93(p,4n)Mo90	-32036.30 keV

<< 29-Cu-65	41-Nb-93	49-In-115 >>
<< MT37 (p,4n)	MT103 (p,p) or MT5 (Nb93 production)	42-Mo-92 MT102 (p, γ) >>



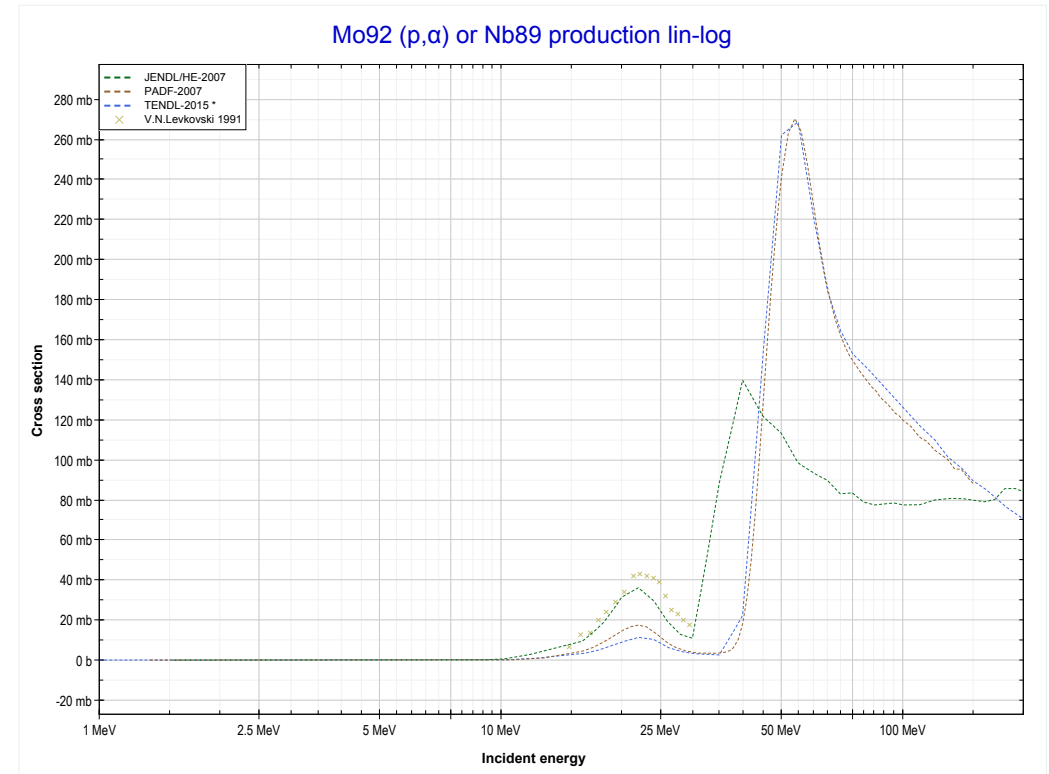
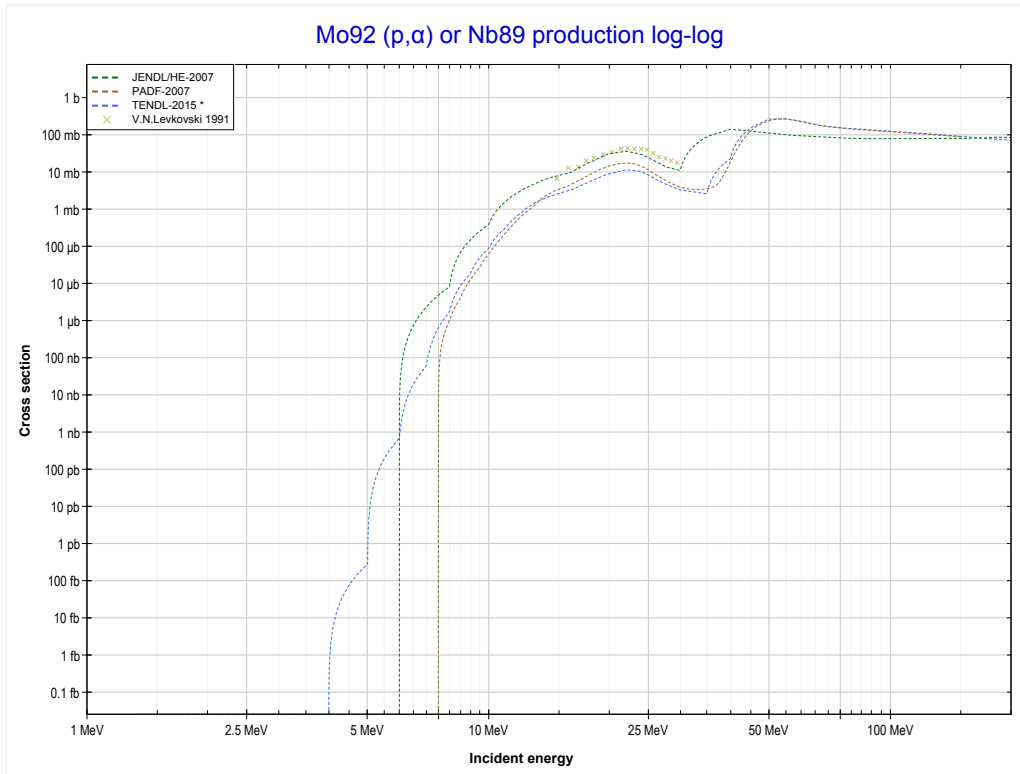
Reaction	Q-Value
Nb93(p,p)Nb93	0.00 keV

<< 38-Sr-87	42-Mo-92	42-Mo-94 >>
<< 41-Nb-93 MT103 (p,p)	MT102 (p,γ) or MT5 (Tc93 production)	MT107 (p, α) >>



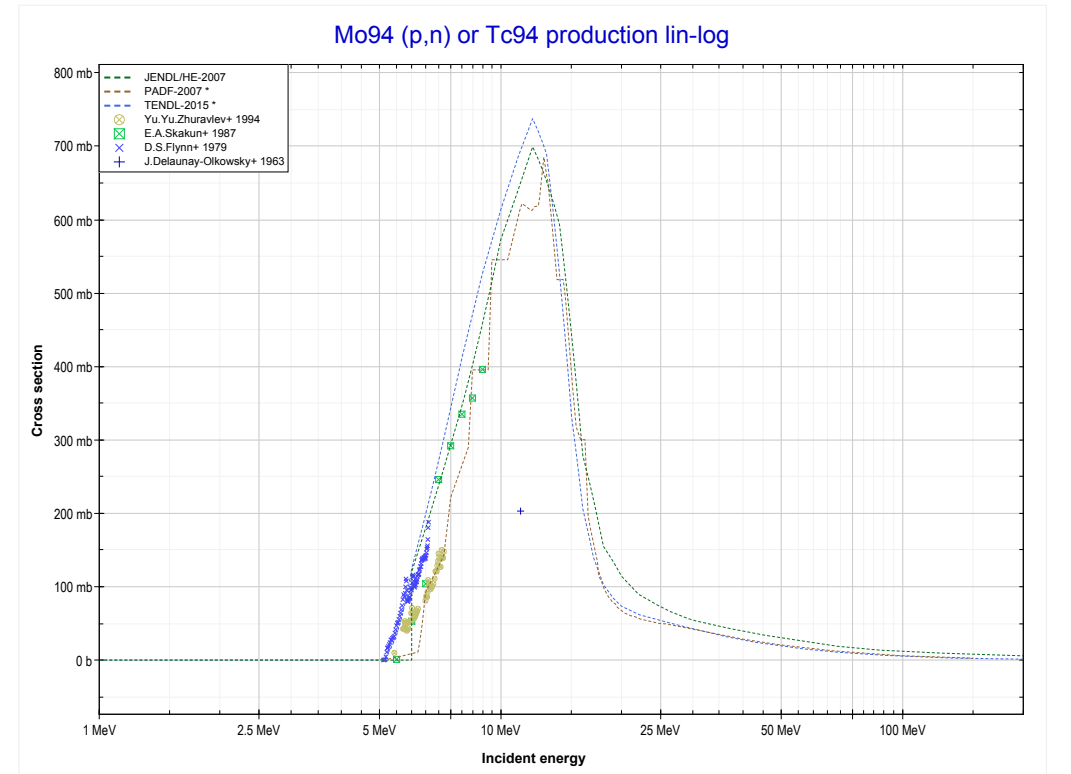
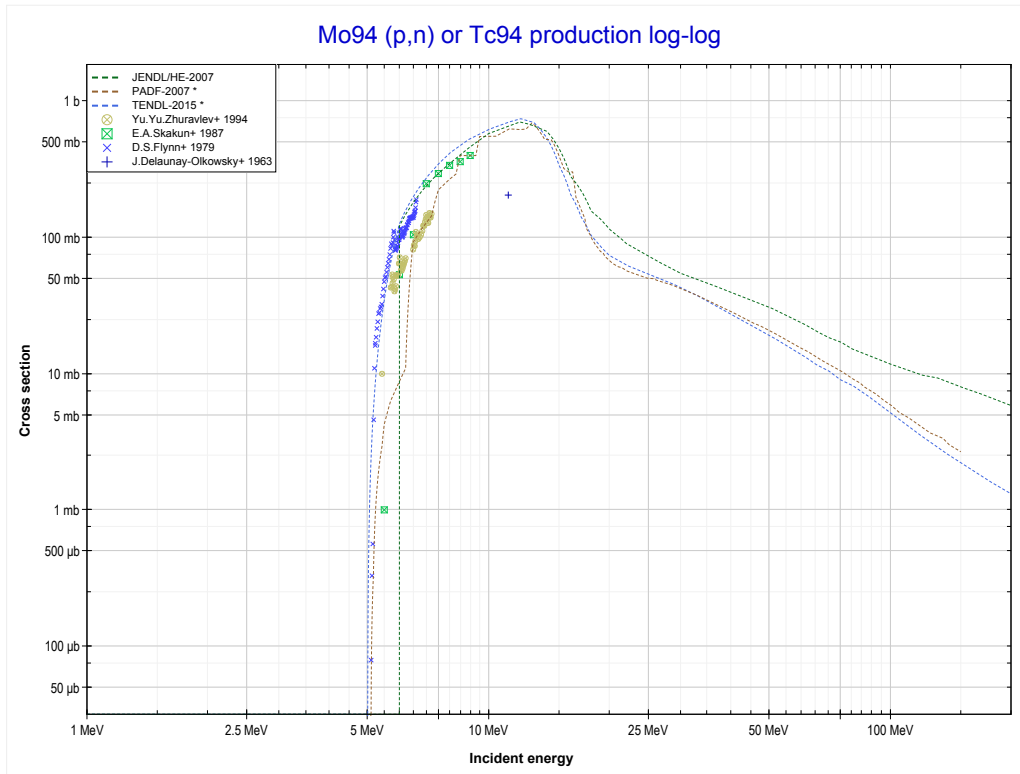
Reaction	Q-Value
Mo92(p, γ)Tc93	4086.57 keV

<< 40-Zr-94	42-Mo-92	42-Mo-94 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Nb89 production)	42-Mo-94 MT4 (p,n) >>



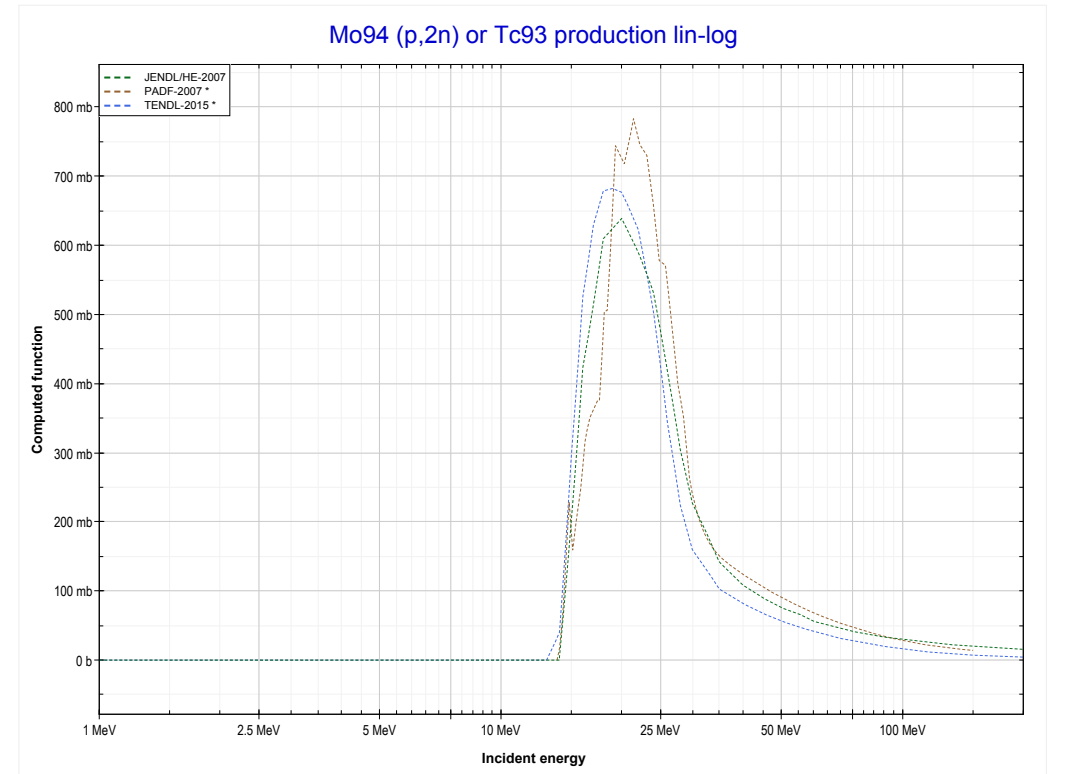
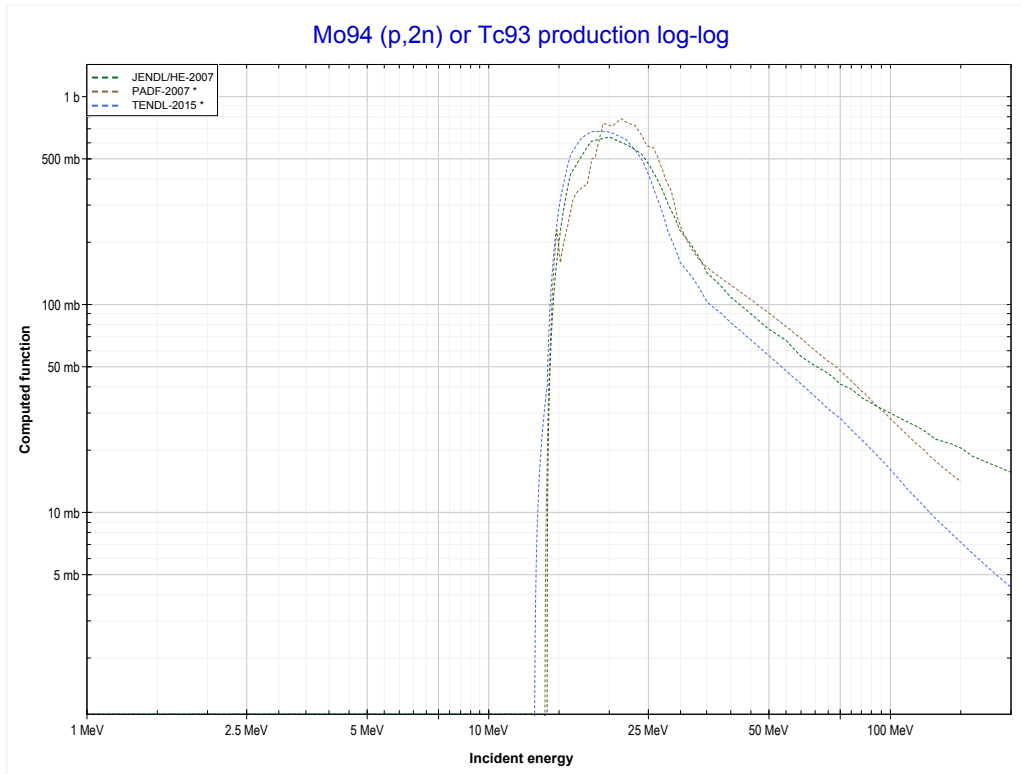
Reaction	Q-Value
Mo92(p, α)Nb89	-1318.75 keV
Mo92(p,p+t)Nb89	-21132.61 keV
Mo92(p,n+He3)Nb89	-21896.36 keV
Mo92(p,2d)Nb89	-25165.27 keV
Mo92(p,n+p+d)Nb89	-27389.84 keV
Mo92(p,2n+2p)Nb89	-29614.40 keV

<< 41-Nb-93	42-Mo-94	42-Mo-95 >>
<< 42-Mo-92 MT107 (p, α)	MT4 (p,n) or MT5 (Tc94 production)	MT16 (p,2n) >>



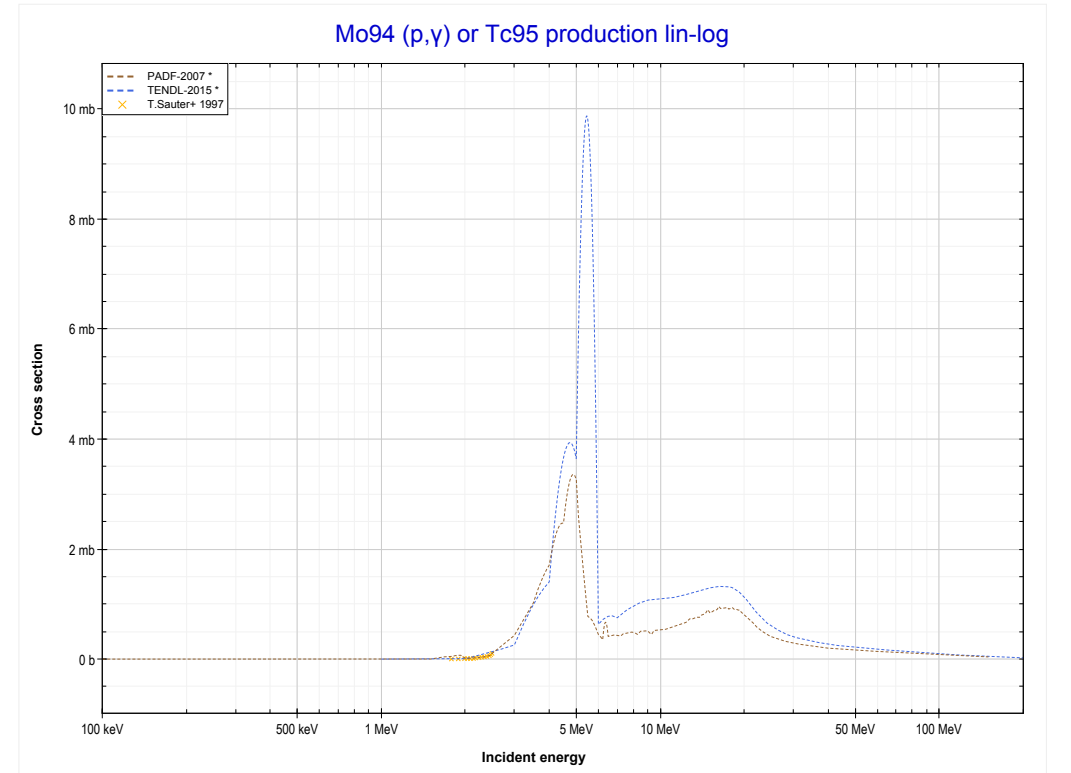
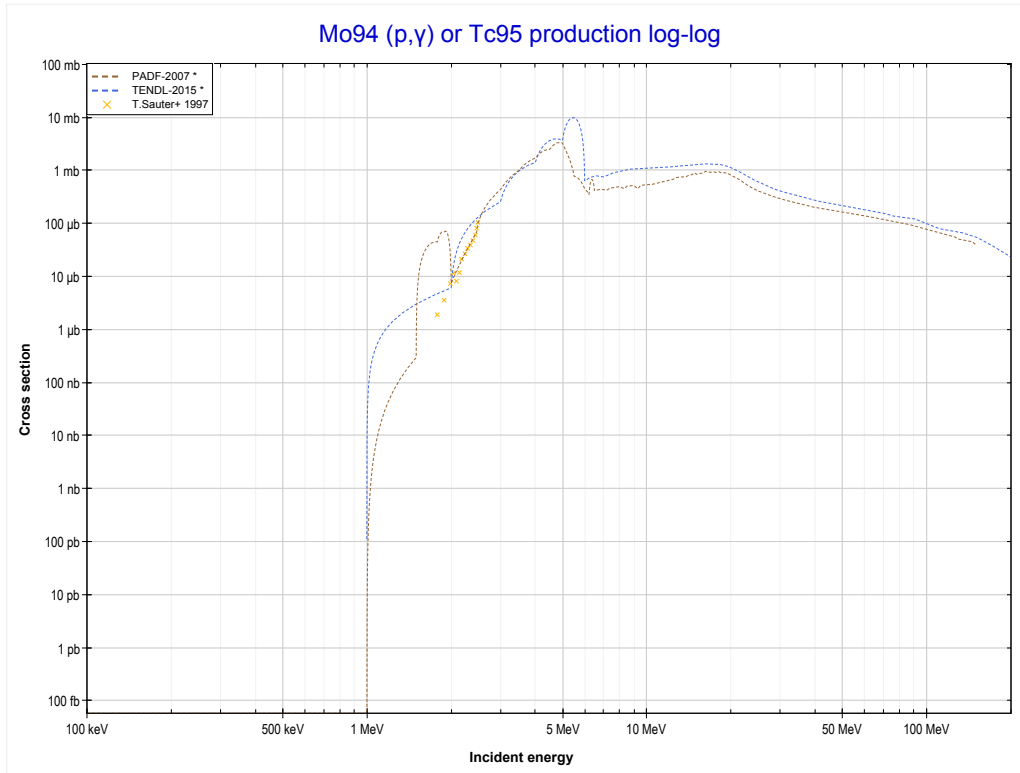
Reaction	Q-Value
Mo94(p,n)Tc94	-5038.15 keV

<< 40-Zr-96	42-Mo-94	42-Mo-95 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Tc93 production)	MT102 (p, γ) >>



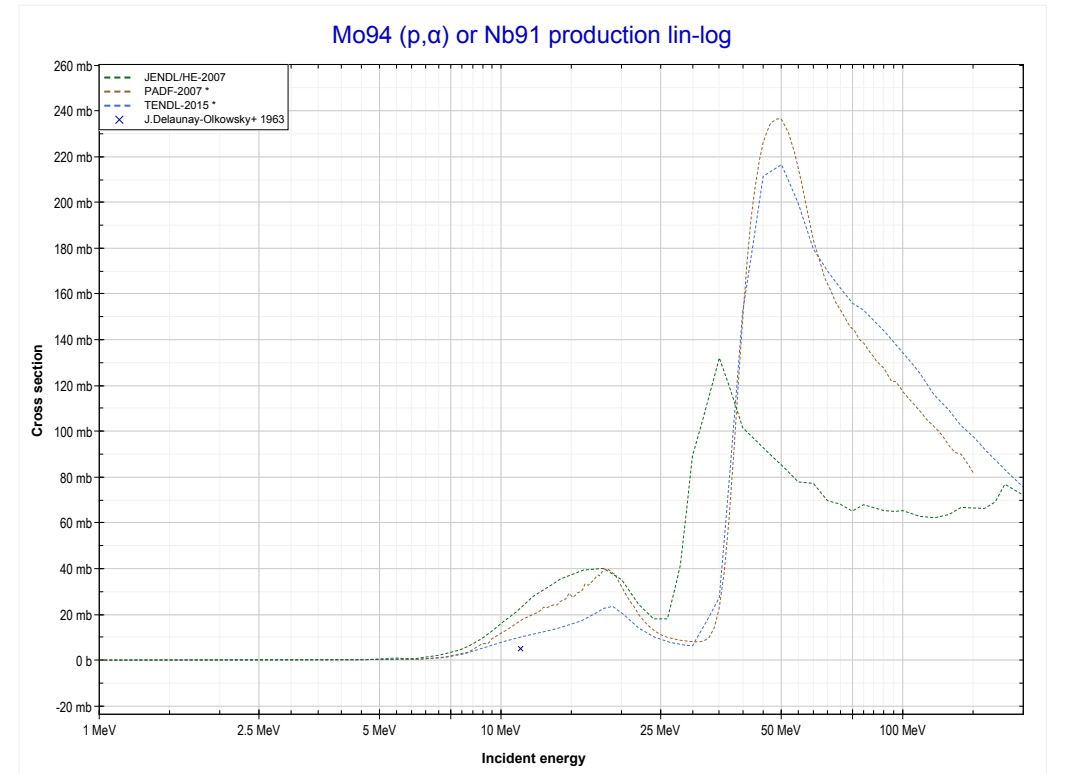
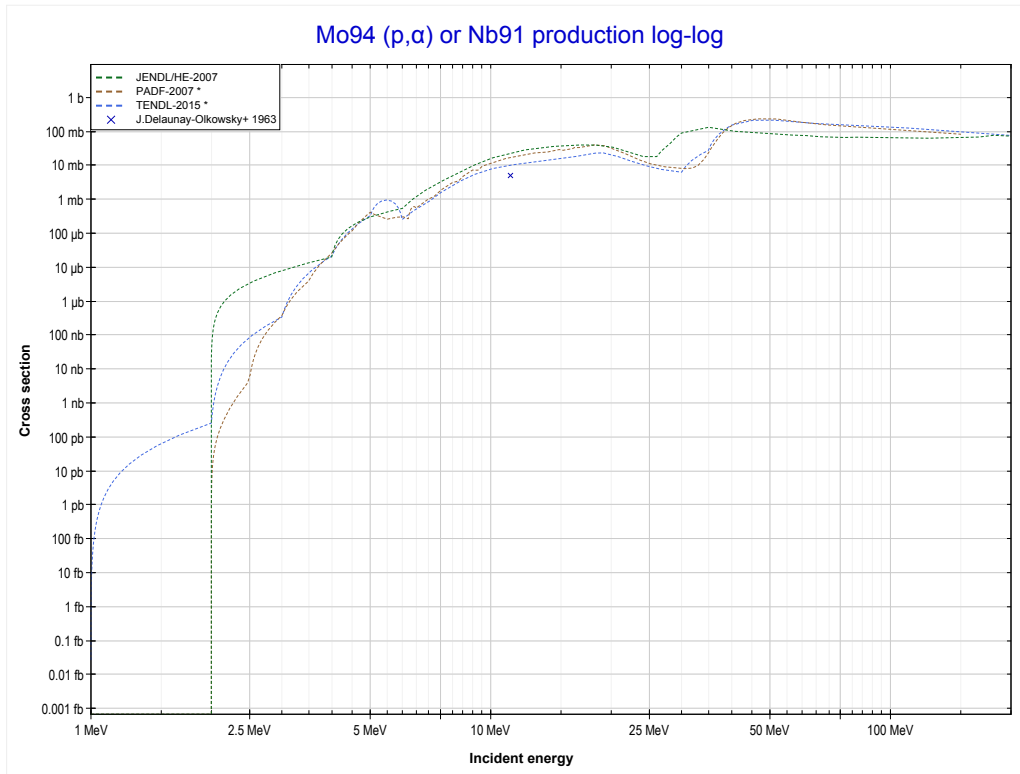
Reaction	Q-Value
Mo94(p,2n)Tc93	-13661.06 keV

<< 42-Mo-92	42-Mo-94	42-Mo-98 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (Tc95 production)	MT107 (p, α) >>



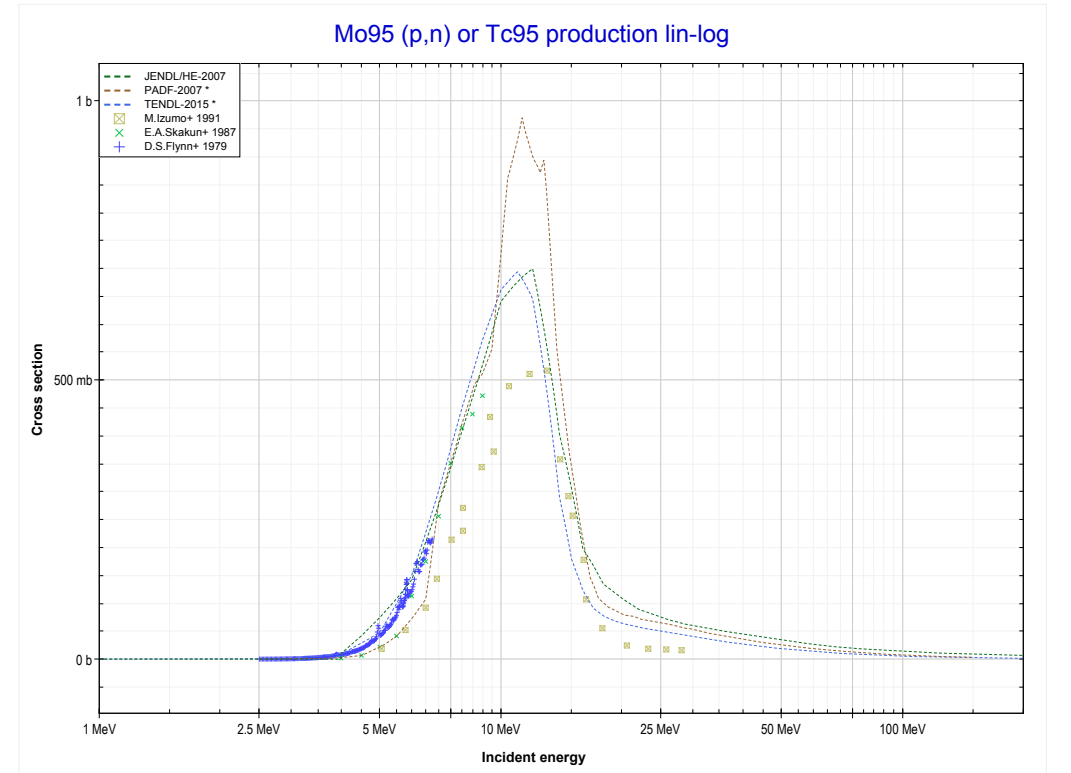
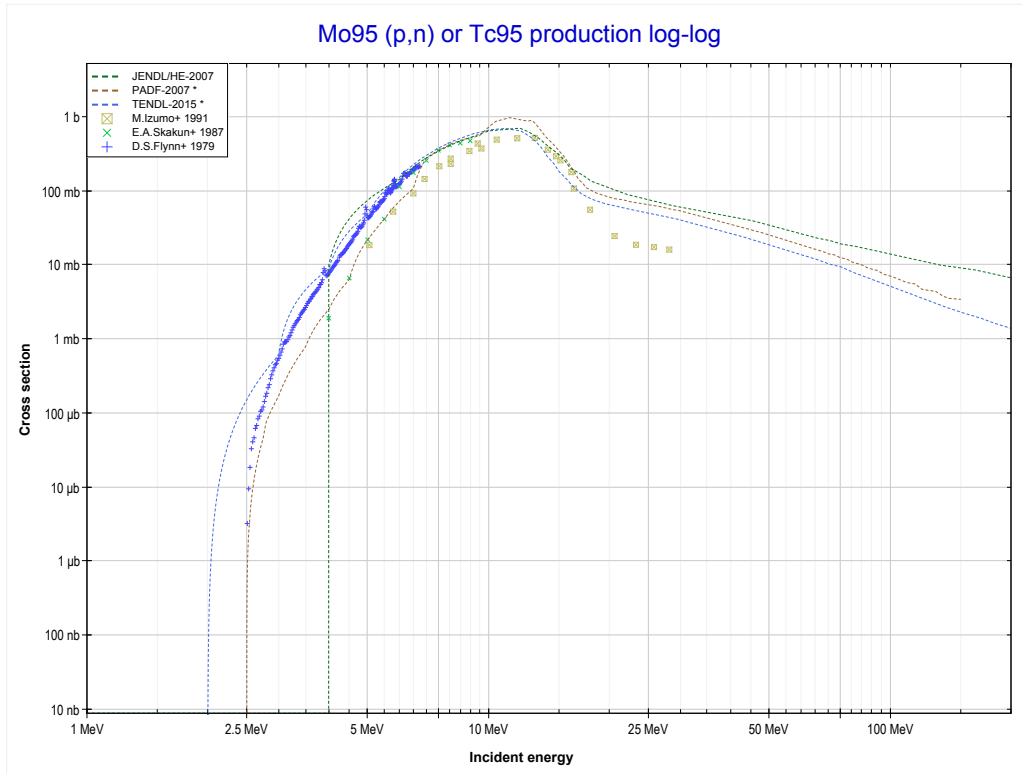
Reaction	Q-Value
Mo94(p, γ)Tc95	4896.17 keV

<< 42-Mo-92	42-Mo-94	42-Mo-95 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Nb91 production)	42-Mo-95 MT4 (p,n) >>



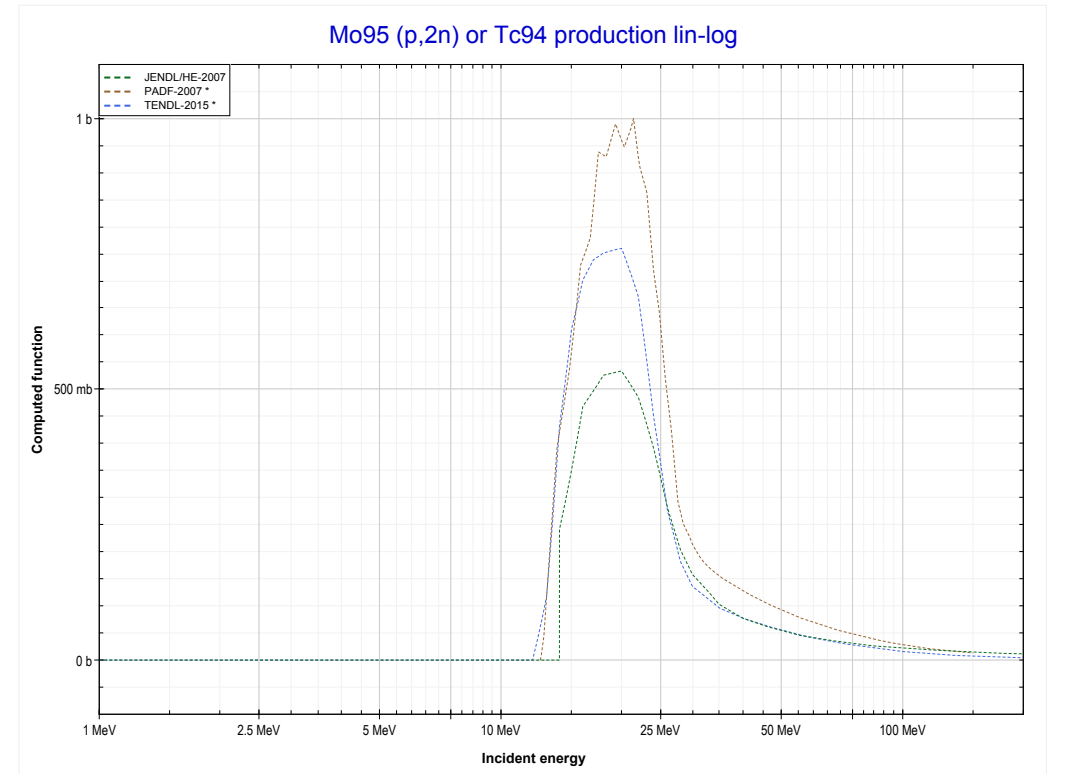
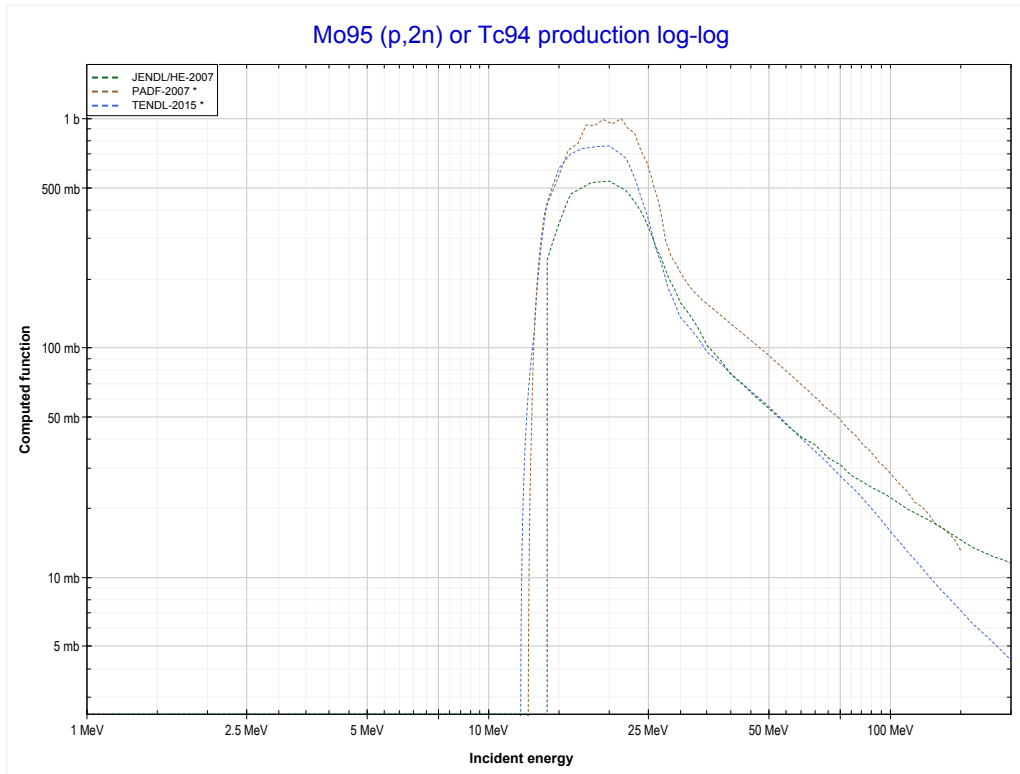
Reaction	Q-Value
Mo94(p, α)Nb91	3090.25 keV
Mo94(p,p+t)Nb91	-16723.61 keV
Mo94(p,n+He3)Nb91	-17487.36 keV
Mo94(p,2d)Nb91	-20756.27 keV
Mo94(p,n+p+d)Nb91	-22980.84 keV
Mo94(p,2n+2p)Nb91	-25205.40 keV

<< 42-Mo-94	42-Mo-95	42-Mo-96 >>
<< 42-Mo-94 MT107 (p, α)	MT4 (p,n) or MT5 (Tc95 production)	MT16 (p,2n) >>



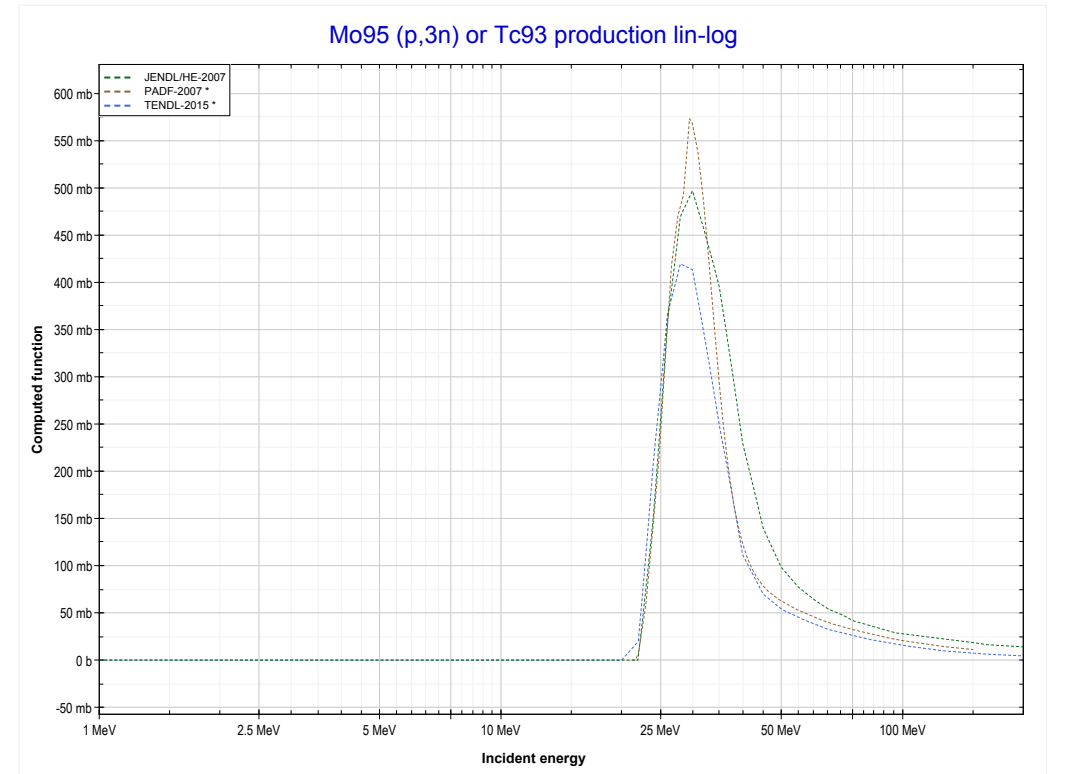
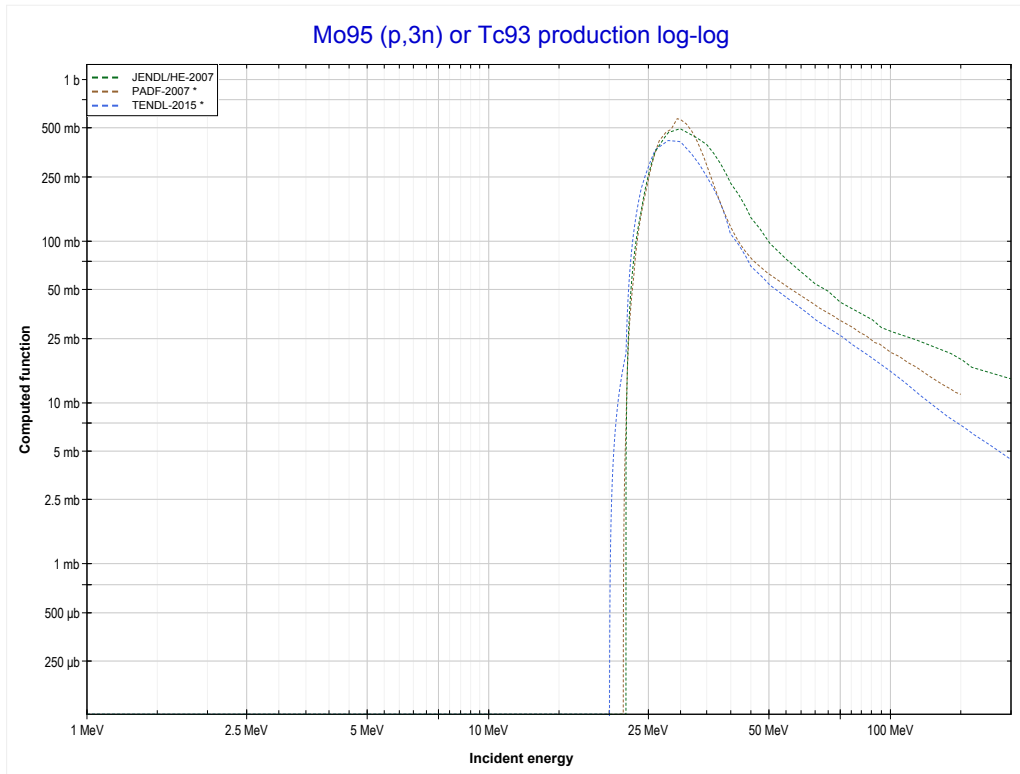
Reaction	Q-Value
Mo95(p,n)Tc95	-2472.95 keV

<< 42-Mo-94	42-Mo-95	42-Mo-96 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Tc94 production)	MT17 (p,3n) >>



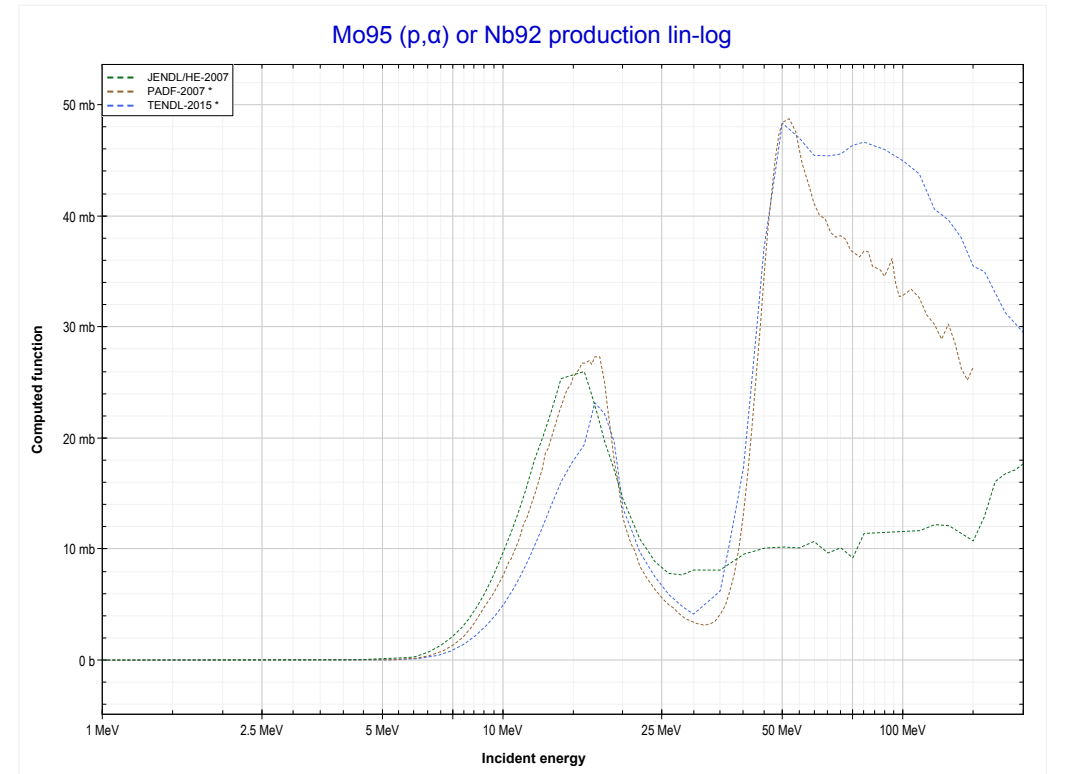
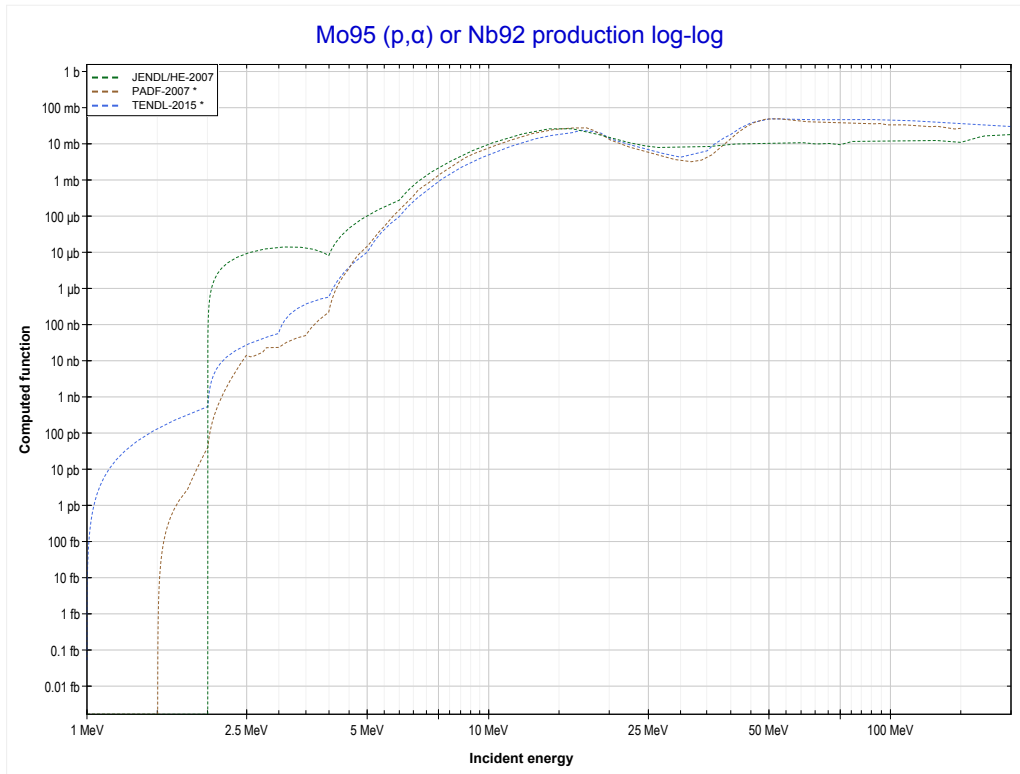
Reaction	Q-Value
Mo95(p,2n)Tc94	-12407.26 keV

<< 40-Zr-94	42-Mo-95	42-Mo-96 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Tc93 production)	MT107 (p, α) >>



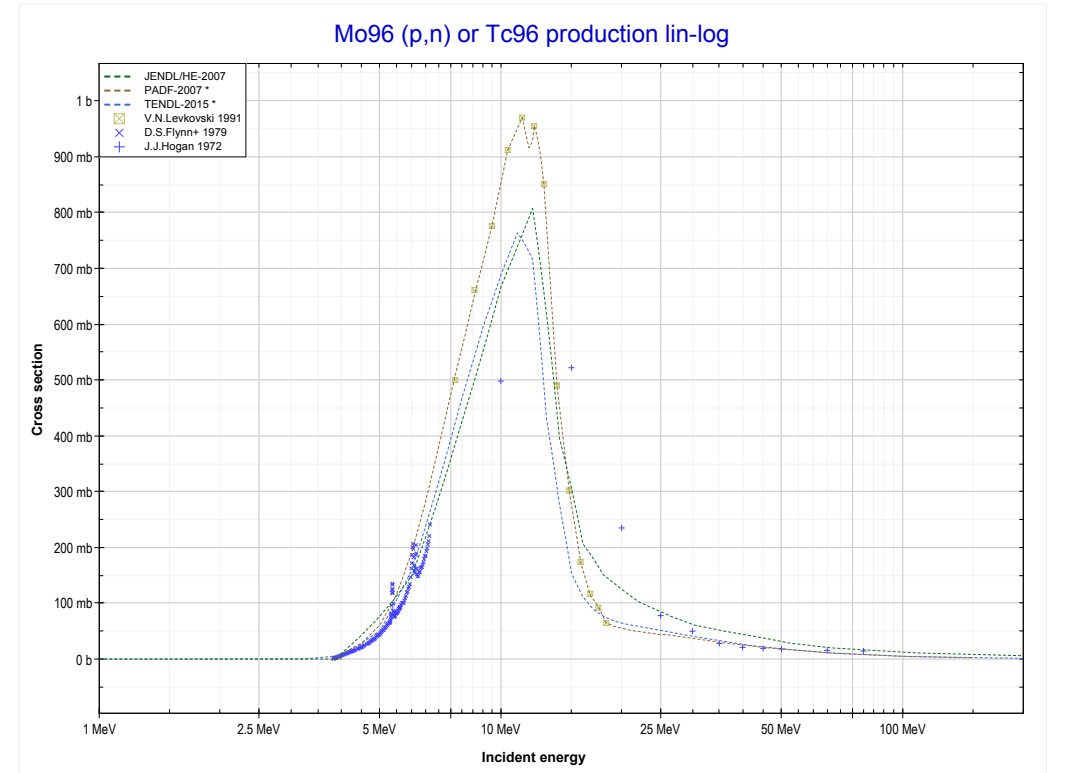
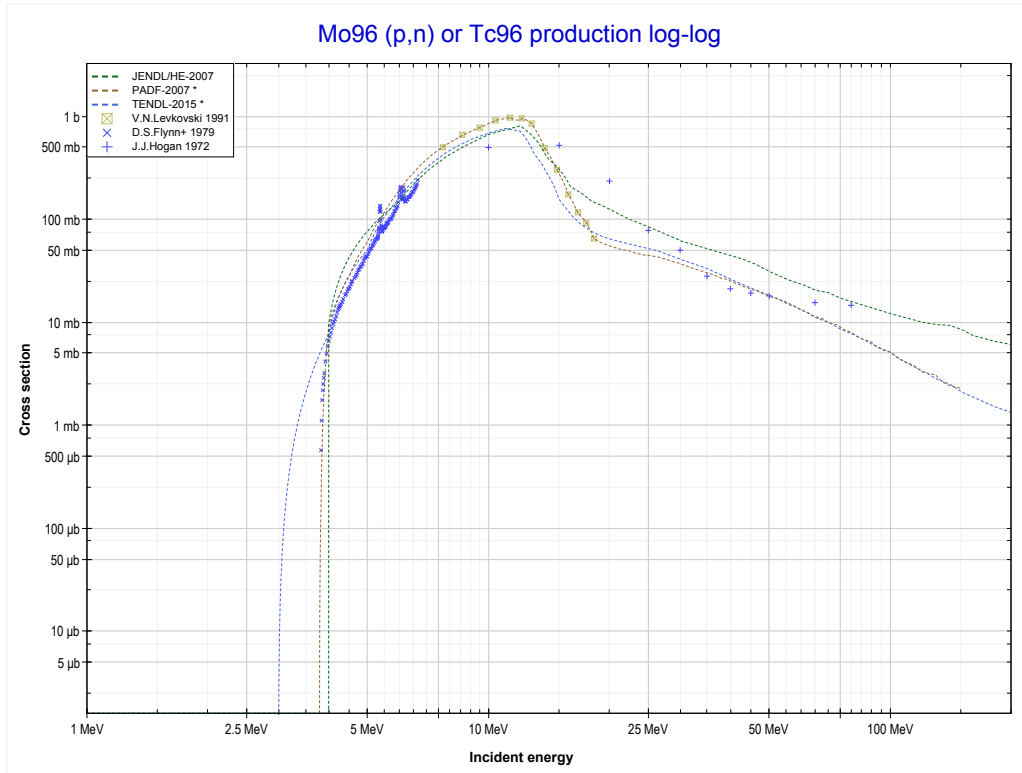
Reaction	Q-Value
Mo95(p,3n)Tc93	-21030.18 keV

<< 42-Mo-94	42-Mo-95	42-Mo-98 >>
<< MT17 (p,3n)	MT107 (p,α) or MT5 (Nb92 production)	42-Mo-96 MT4 (p,n) >>



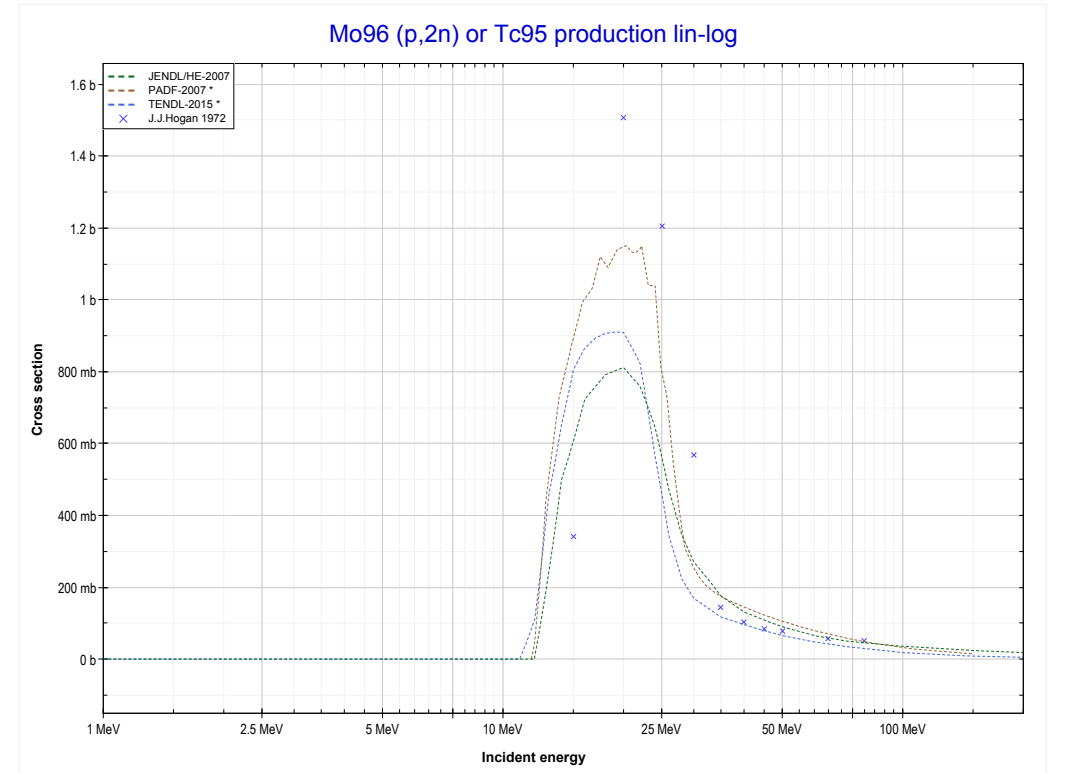
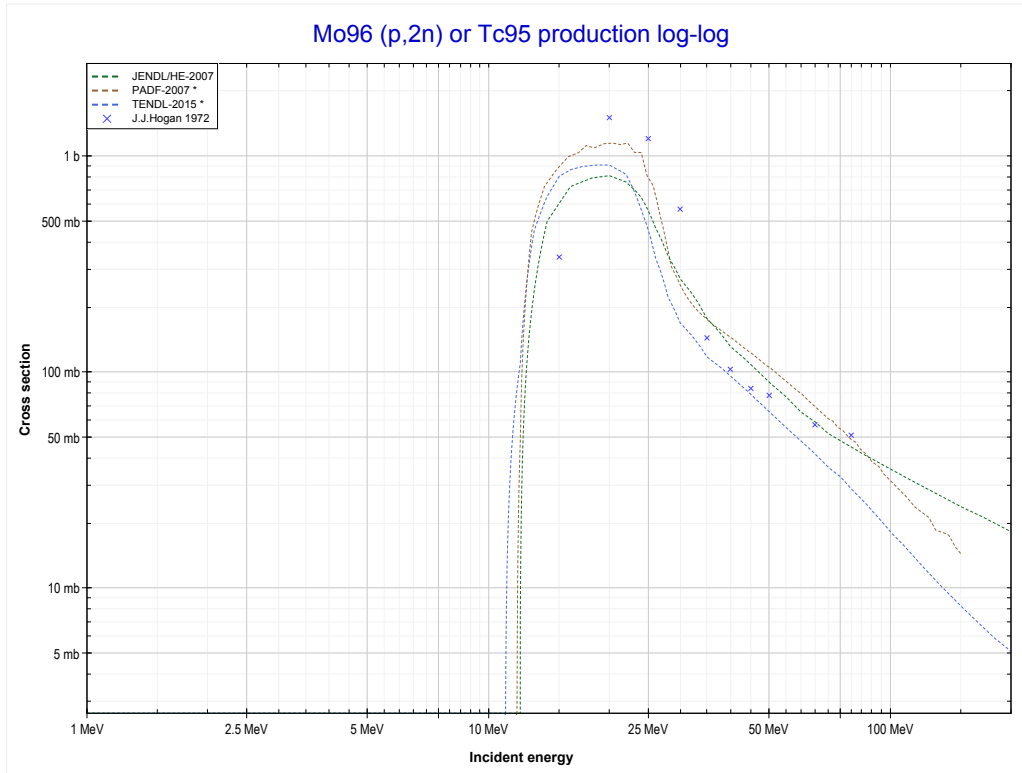
Reaction	Q-Value
Mo95(p, α)Nb92	3607.15 keV
Mo95(p,p+t)Nb92	-16206.71 keV
Mo95(p,n+He3)Nb92	-16970.46 keV
Mo95(p,2d)Nb92	-20239.37 keV
Mo95(p,n+p+d)Nb92	-22463.94 keV
Mo95(p,2n+2p)Nb92	-24688.50 keV

<< 42-Mo-95	42-Mo-96	42-Mo-98 >>
<< 42-Mo-95 MT107 (p, α)	MT4 (p,n) or MT5 (Tc96 production)	MT16 (p,2n) >>



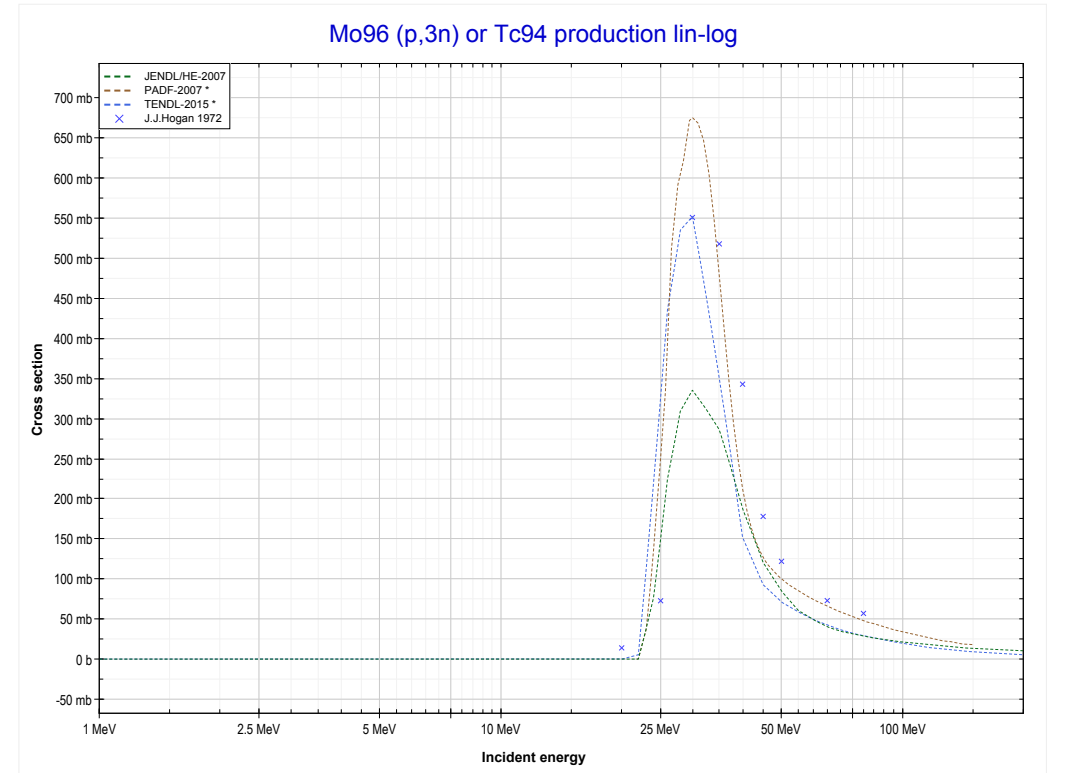
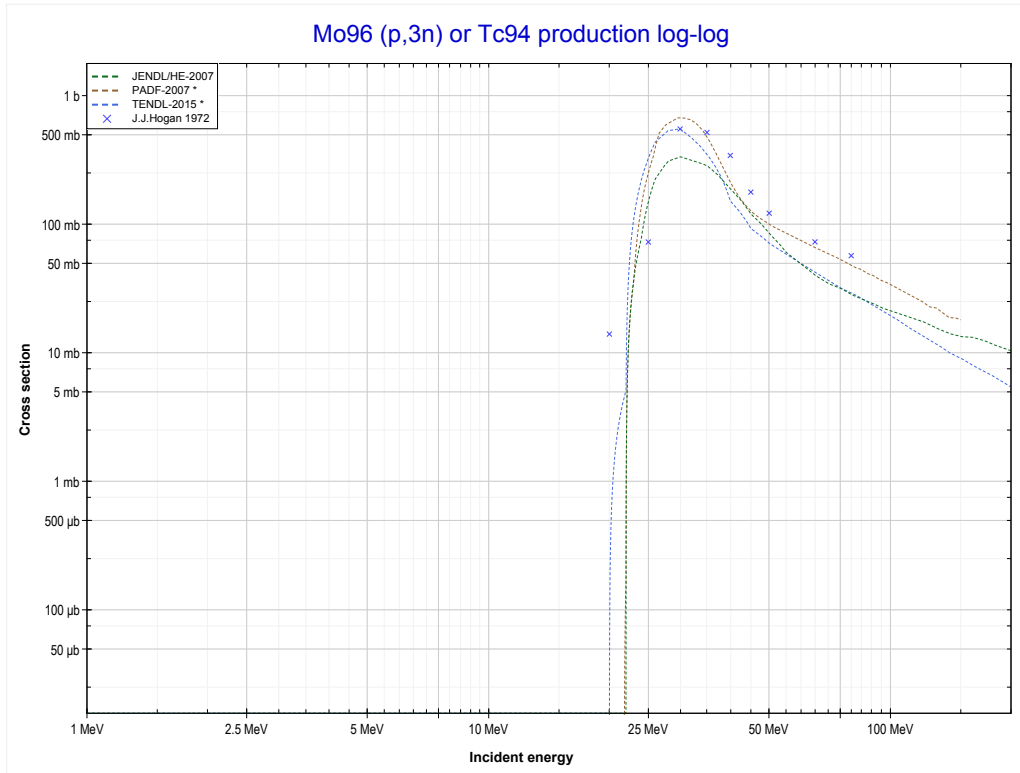
Reaction	Q-Value
Mo96(p,n)Tc96	-3755.95 keV

<< 42-Mo-95	42-Mo-96	42-Mo-97 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Tc95 production)	MT17 (p,3n) >>



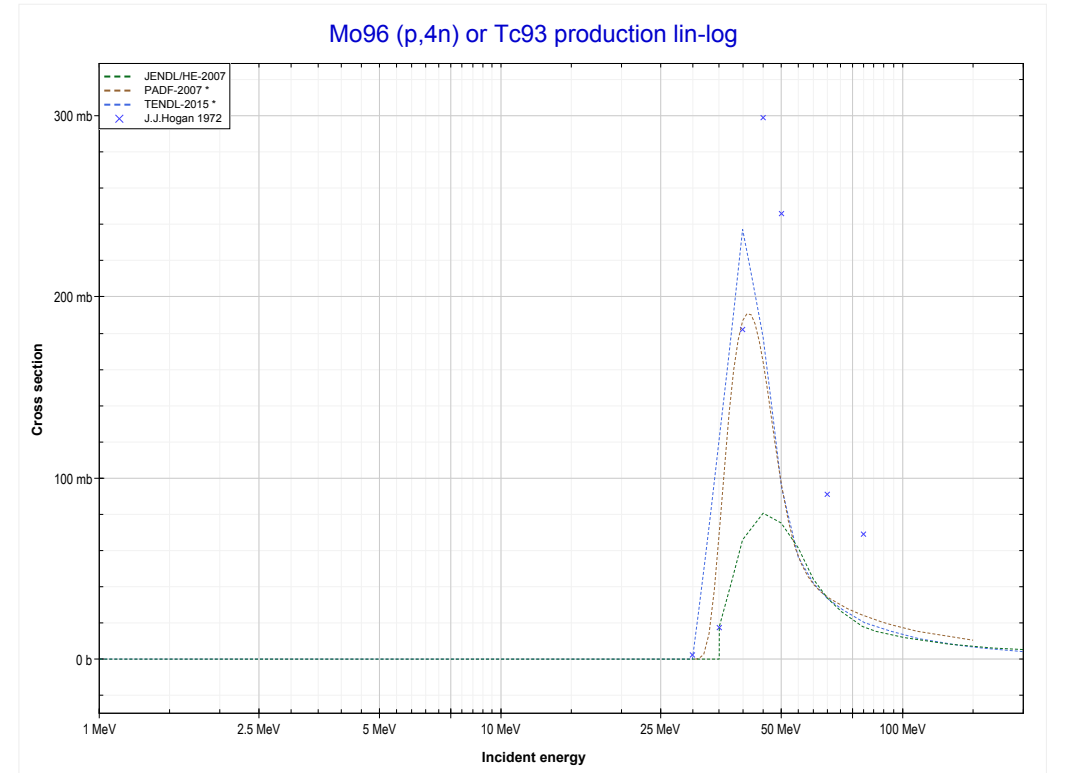
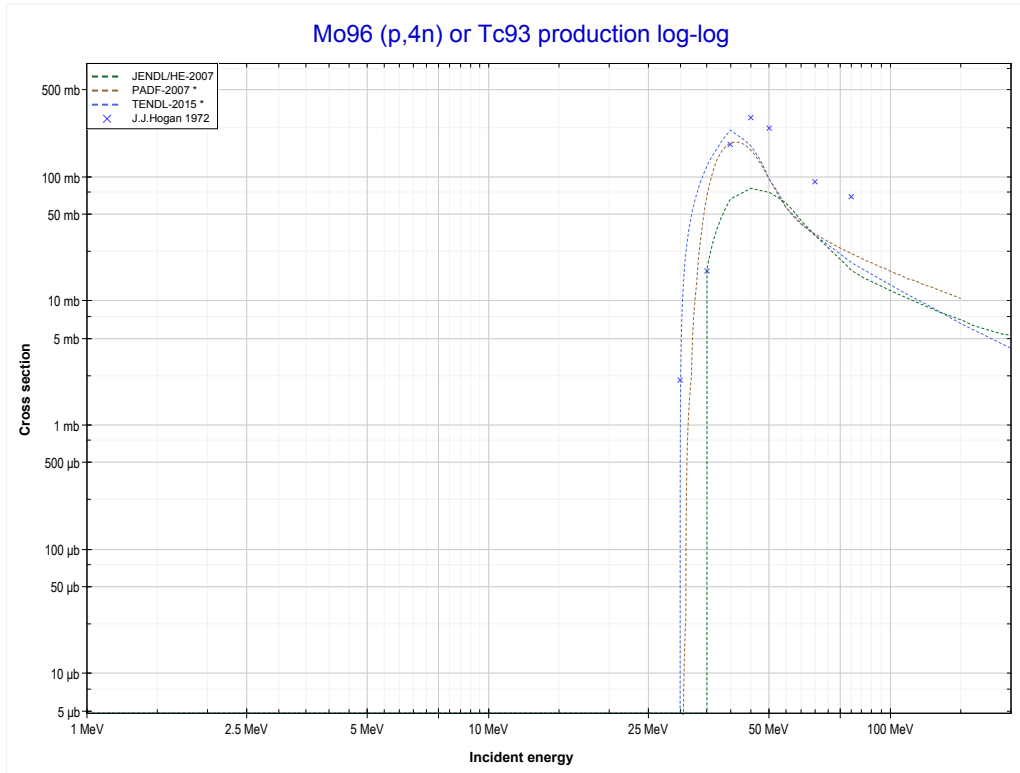
Reaction	Q-Value
Mo96(p,2n)Tc95	-11627.26 keV

<< 42-Mo-95	42-Mo-96	42-Mo-97 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Tc94 production)	MT37 (p,4n) >>



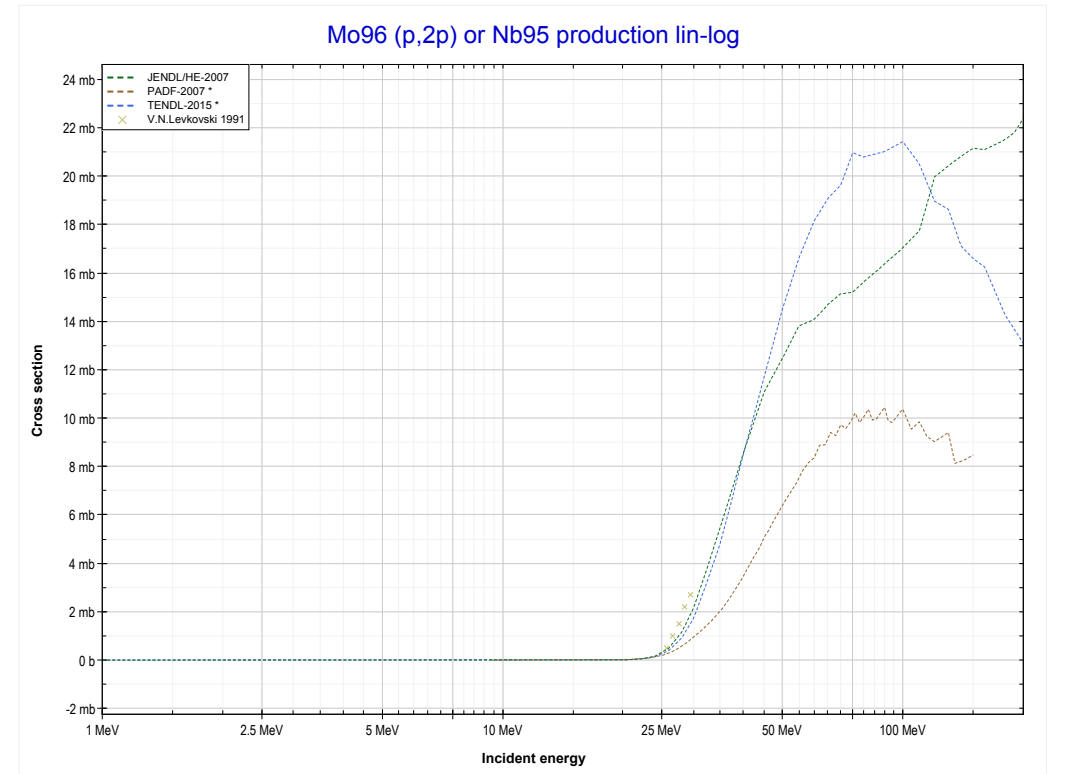
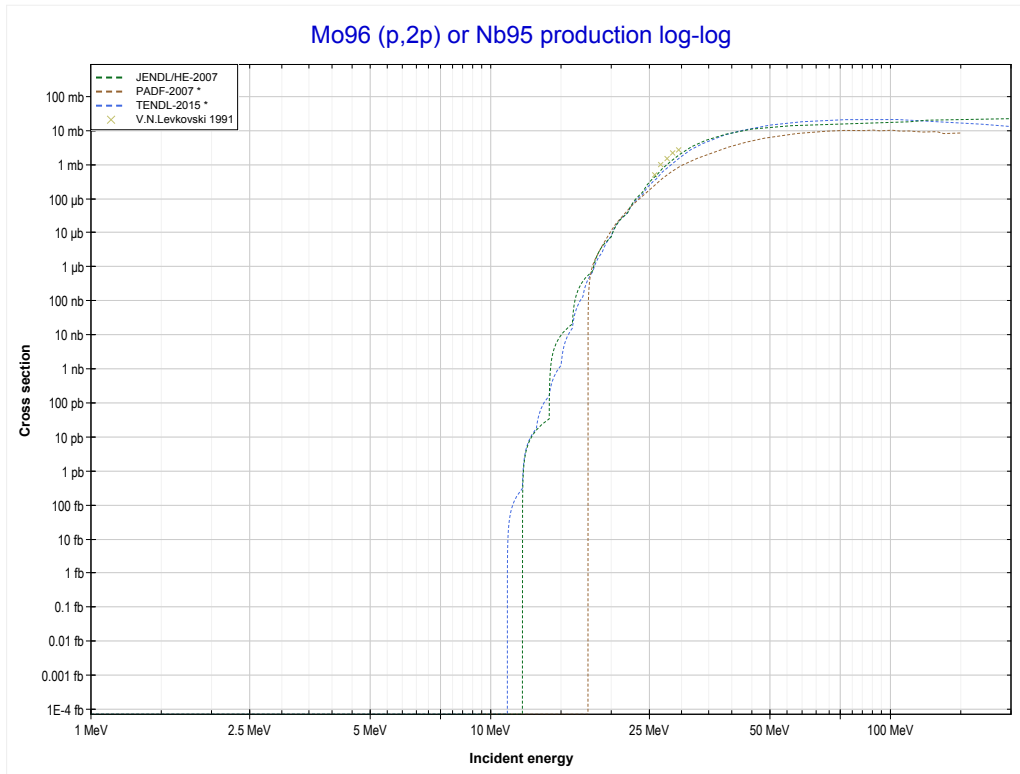
Reaction	Q-Value
Mo96(p,3n)Tc94	-21561.58 keV

<< 41-Nb-93	42-Mo-96	45-Rh-103 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Tc93 production)	MT111 (p,2p) >>



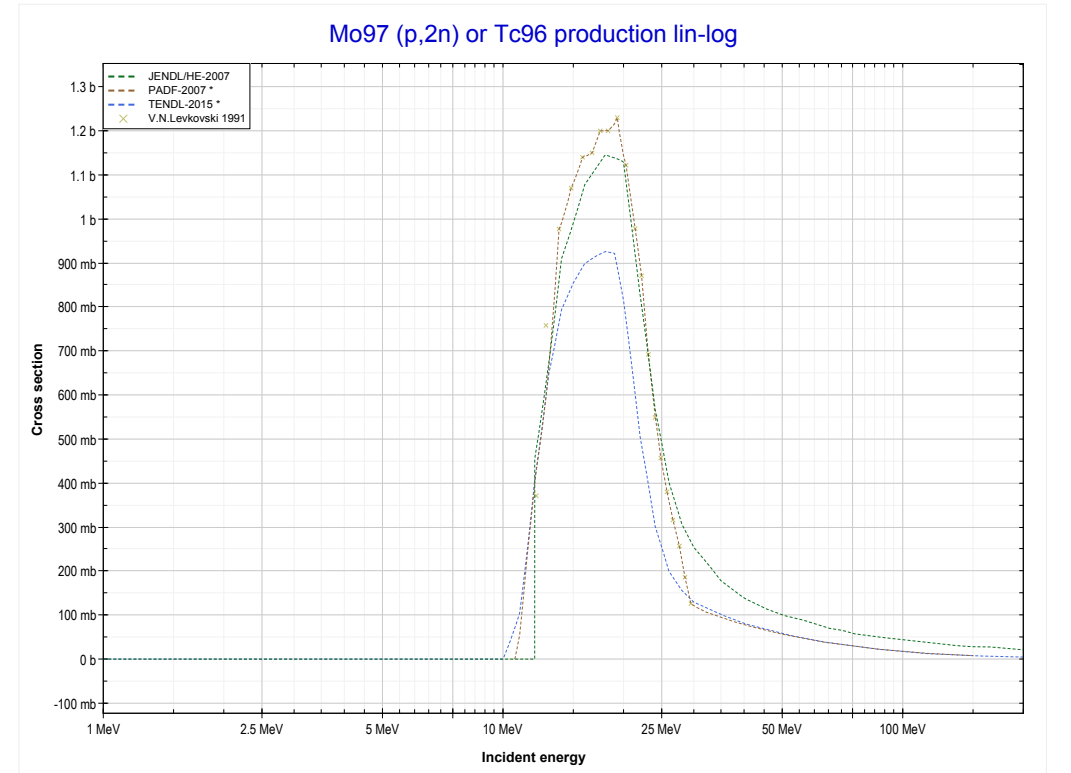
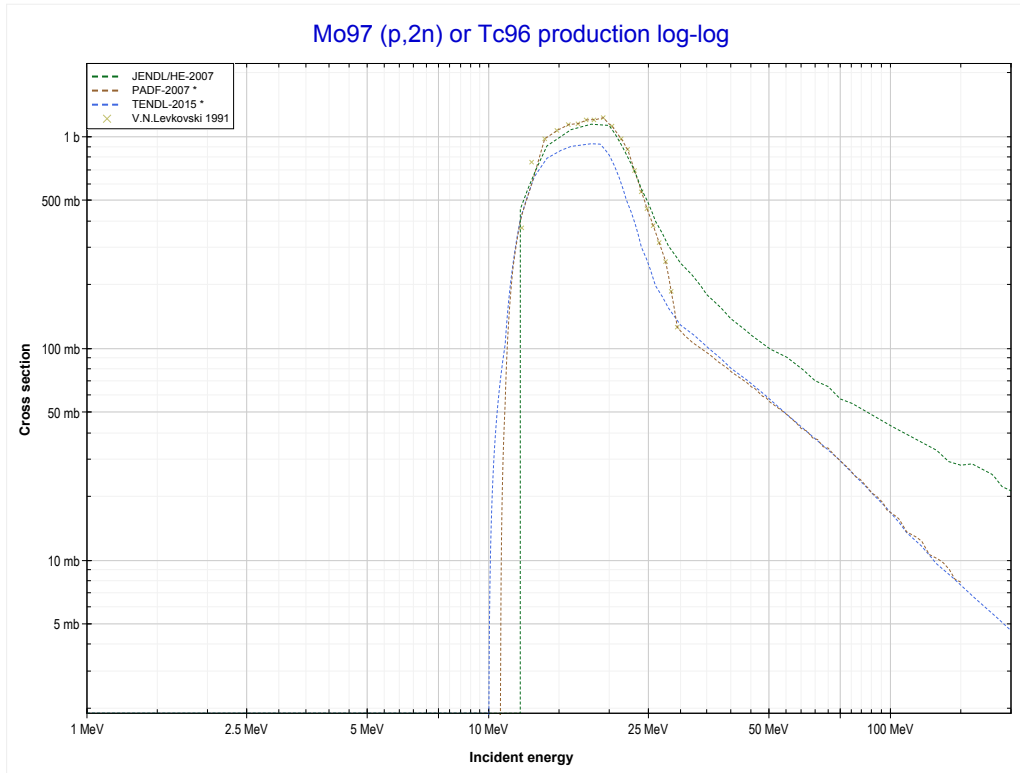
Reaction	Q-Value
Mo96(p,4n)Tc93	-30184.50 keV

<< 40-Zr-96	42-Mo-96	42-Mo-97 >>
<< MT37 (p,4n)	MT111 (p,2p) or MT5 (Nb95 production)	42-Mo-97 MT16 (p,2n) >>



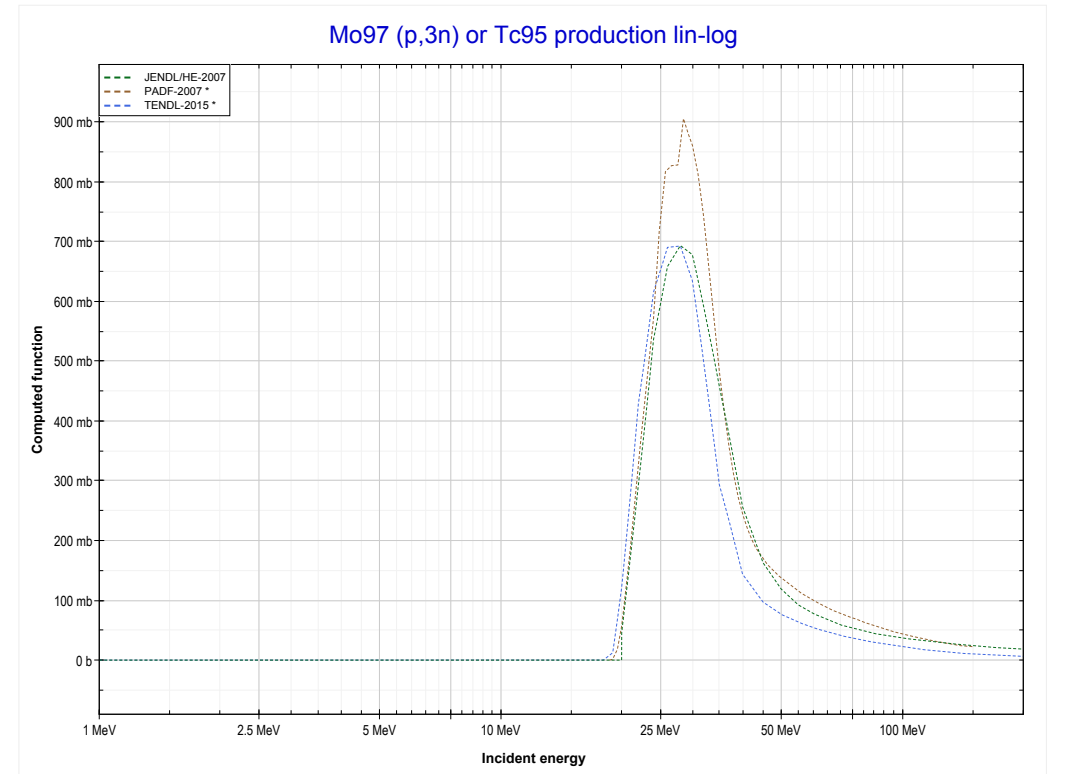
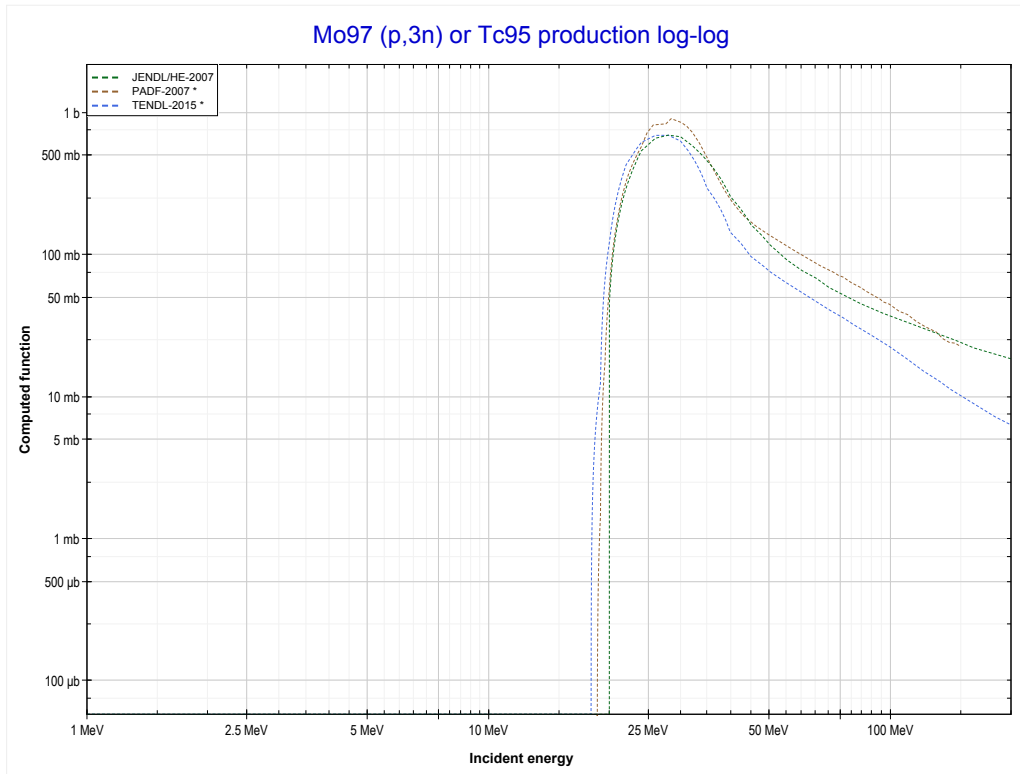
Reaction	Q-Value
Mo96(p,2p)Nb95	-9297.47 keV

<< 42-Mo-96	42-Mo-97	42-Mo-100 >>
<< 42-Mo-96 MT111 (p,2p)	MT16 (p,2n) or MT5 (Tc96 production)	MT17 (p,3n) >>



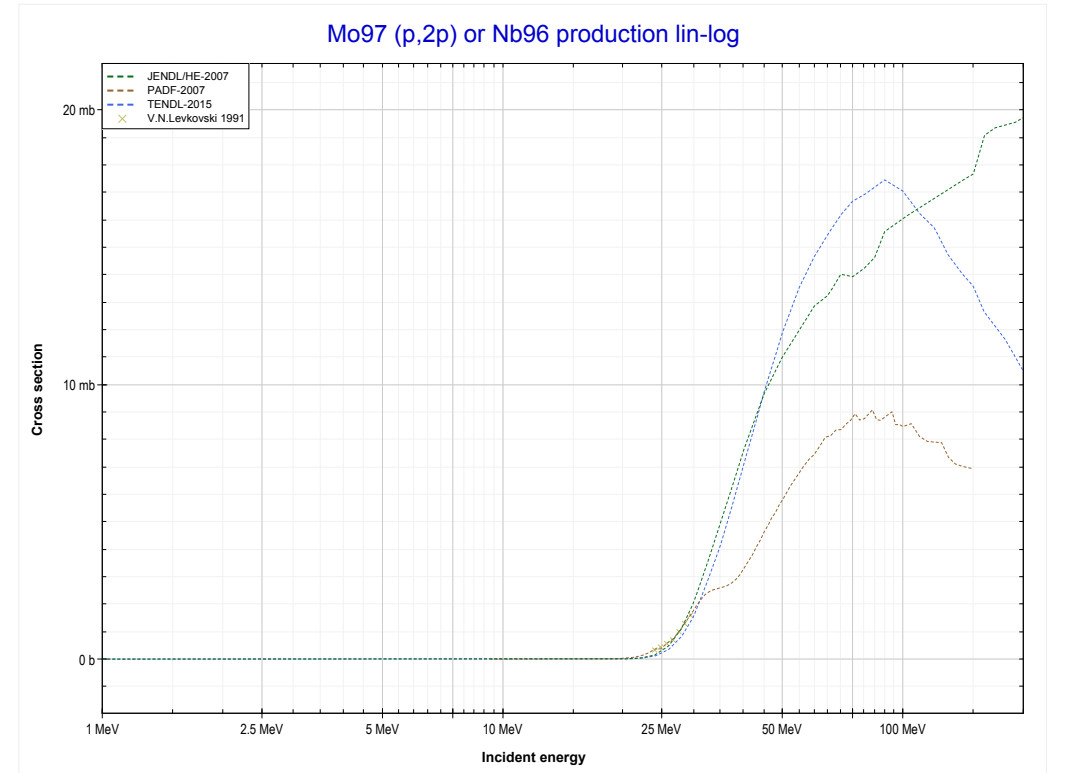
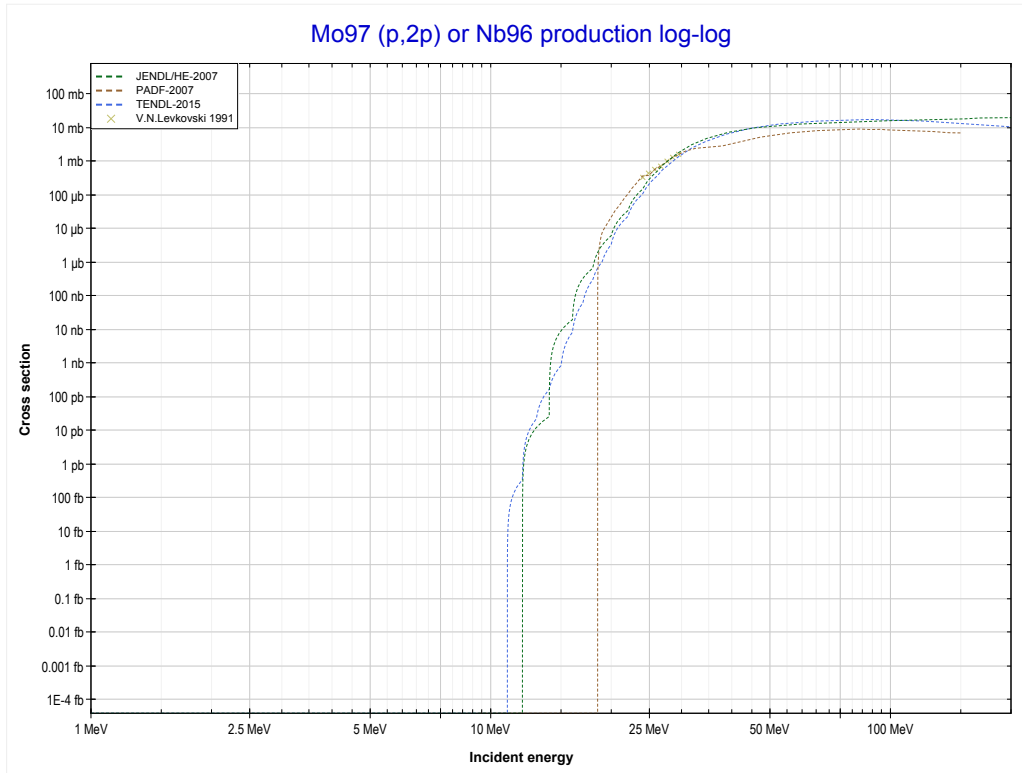
Reaction	Q-Value
Mo97(p,2n)Tc96	-10577.26 keV

<< 42-Mo-96	42-Mo-97	42-Mo-98 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Tc95 production)	MT111 (p,2p) >>



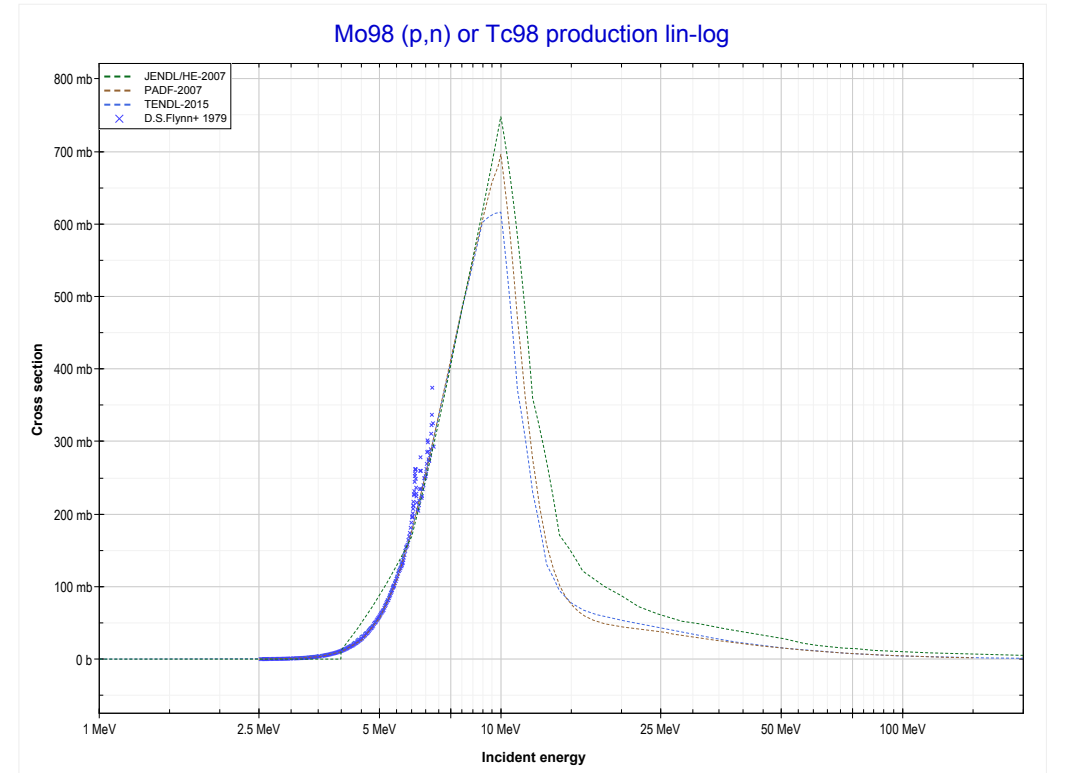
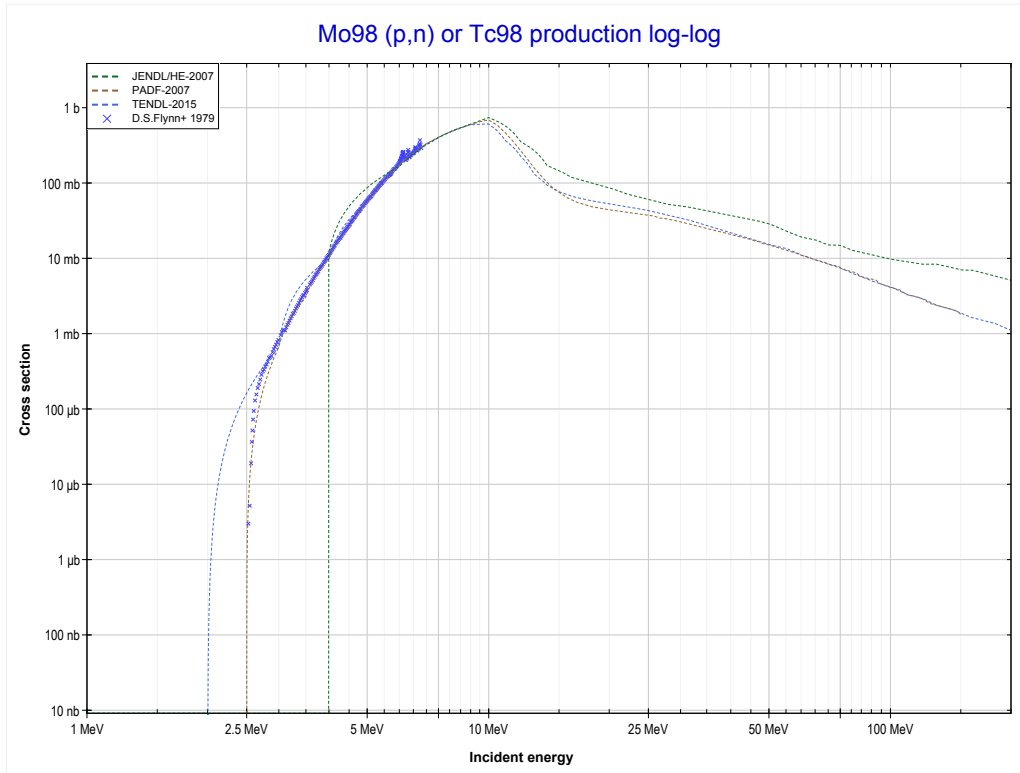
Reaction	Q-Value
Mo97(p,3n)Tc95	-18448.58 keV

<< 42-Mo-96	42-Mo-97	42-Mo-98 >>
<< MT17 (p,3n)	MT111 (p,2p) or MT5 (Nb96 production)	42-Mo-98 MT4 (p,n) >>



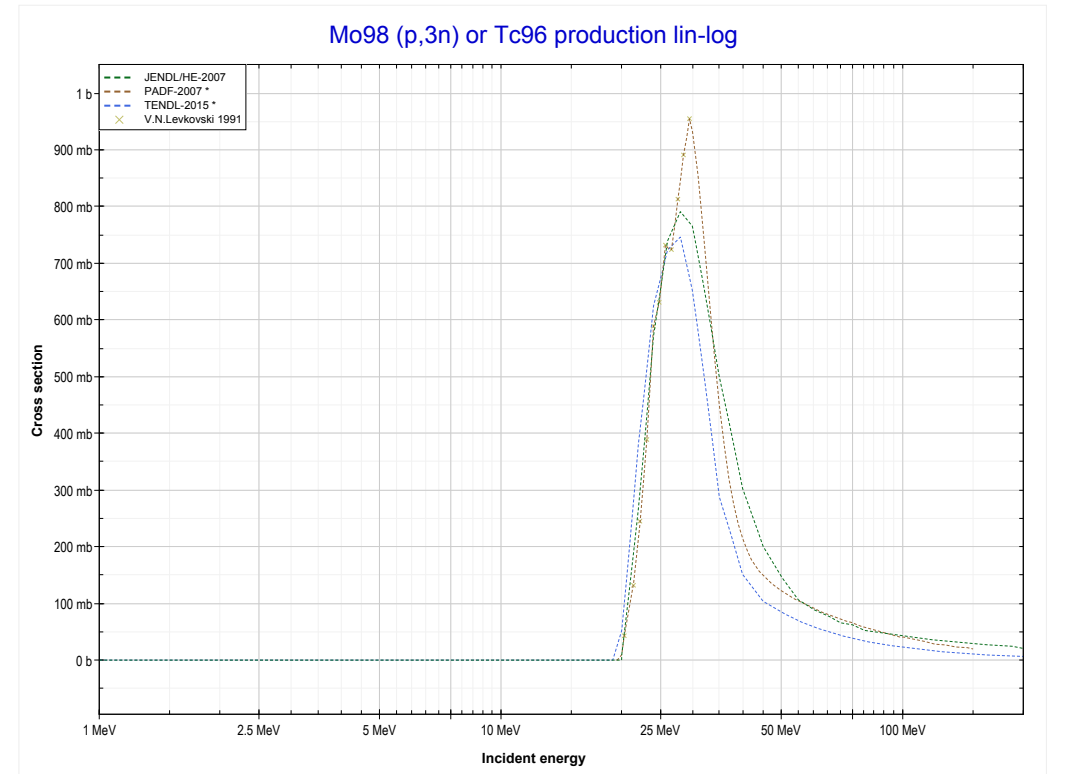
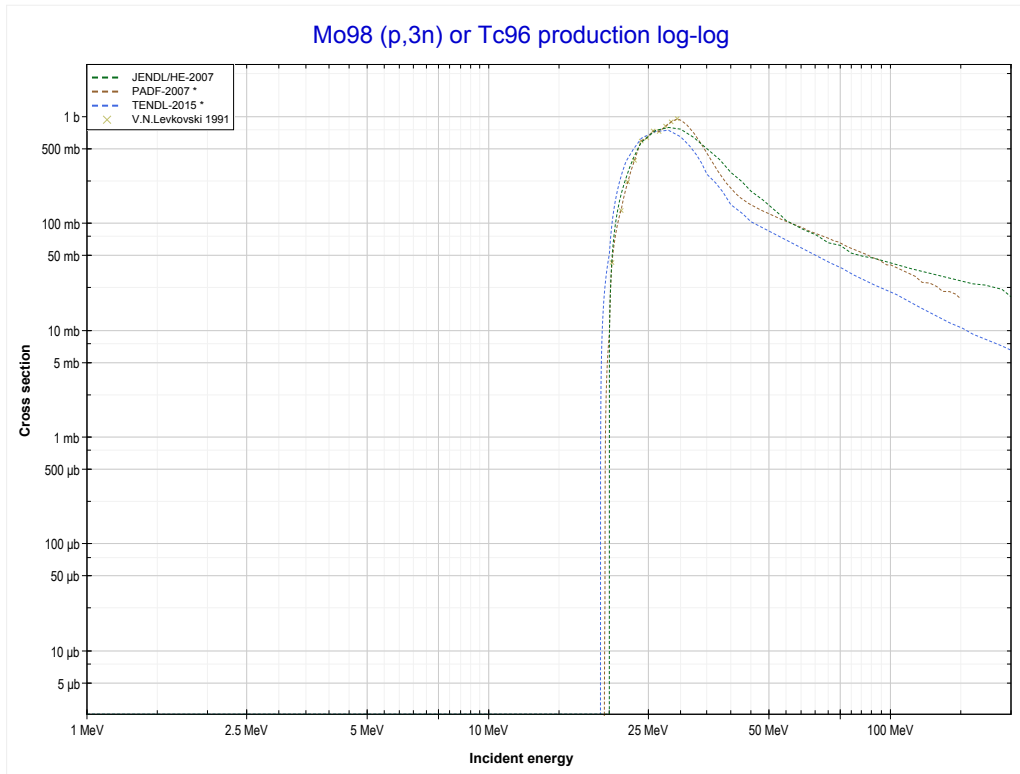
Reaction	Q-Value
Mo97(p,2p)Nb96	-9225.57 keV

<< 42-Mo-96	42-Mo-98	42-Mo-100 >>
<< 42-Mo-97 MT111 (p,2p)	MT4 (p,n) or MT5 (Tc98 production)	MT17 (p,3n) >>



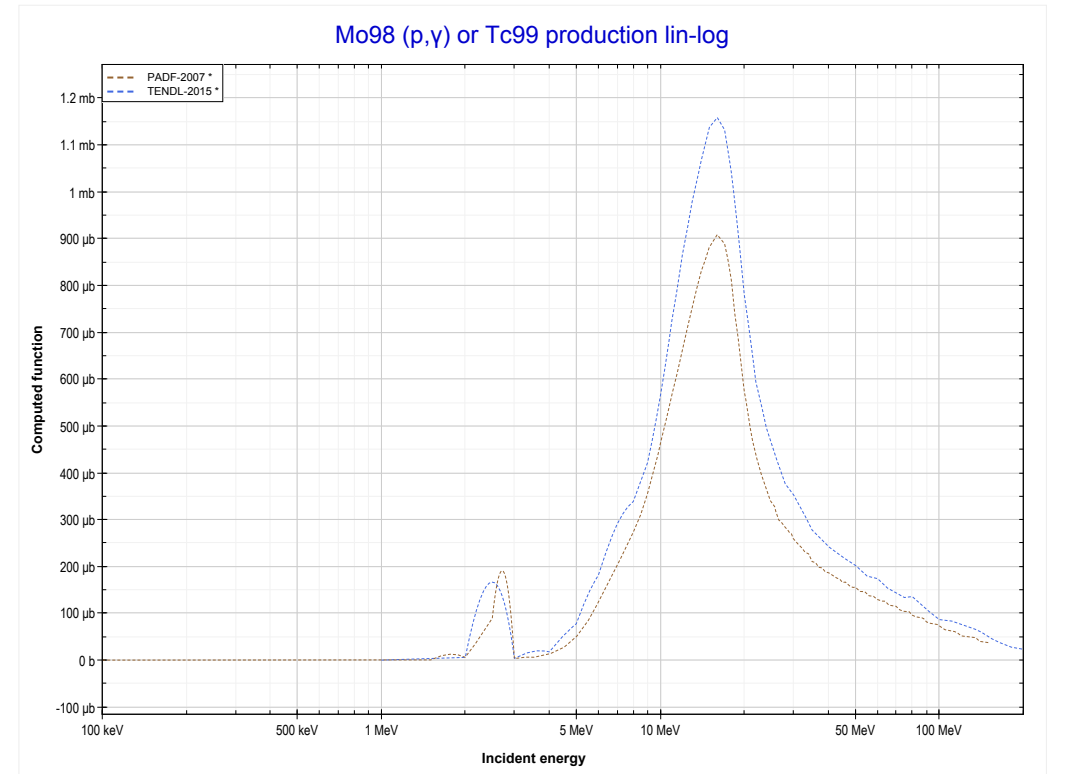
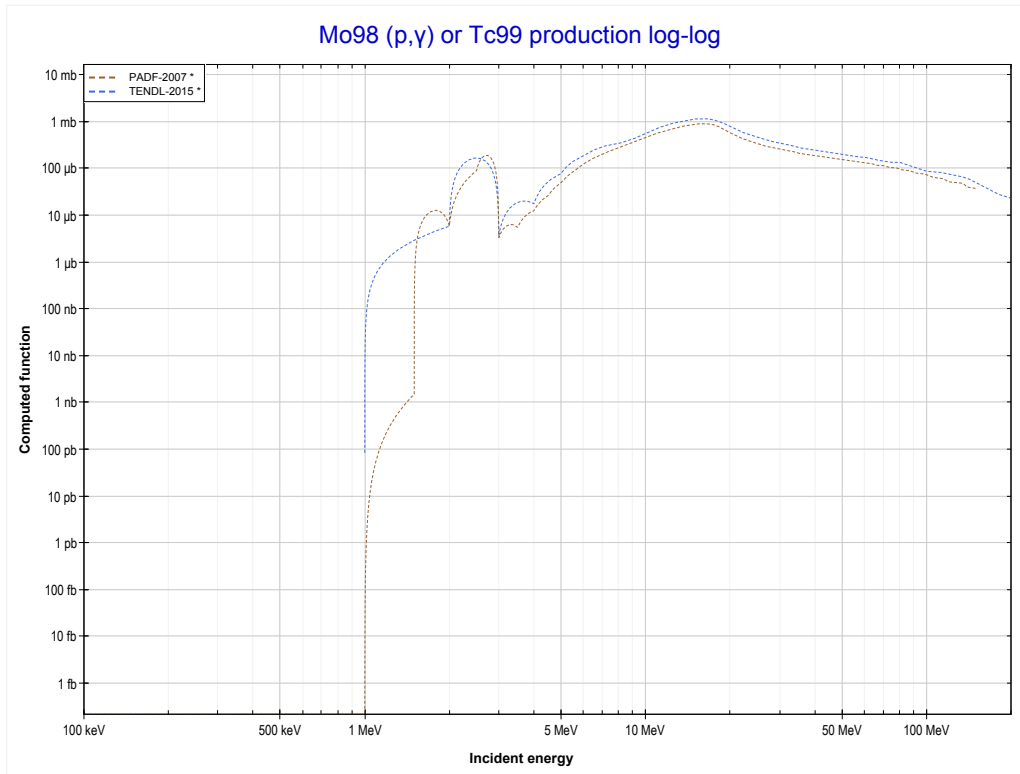
Reaction	Q-Value
Mo98(p,n)Tc98	-2466.15 keV

<< 42-Mo-97	42-Mo-98	43-Tc-99 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Tc96 production)	MT102 (p,γ) >>



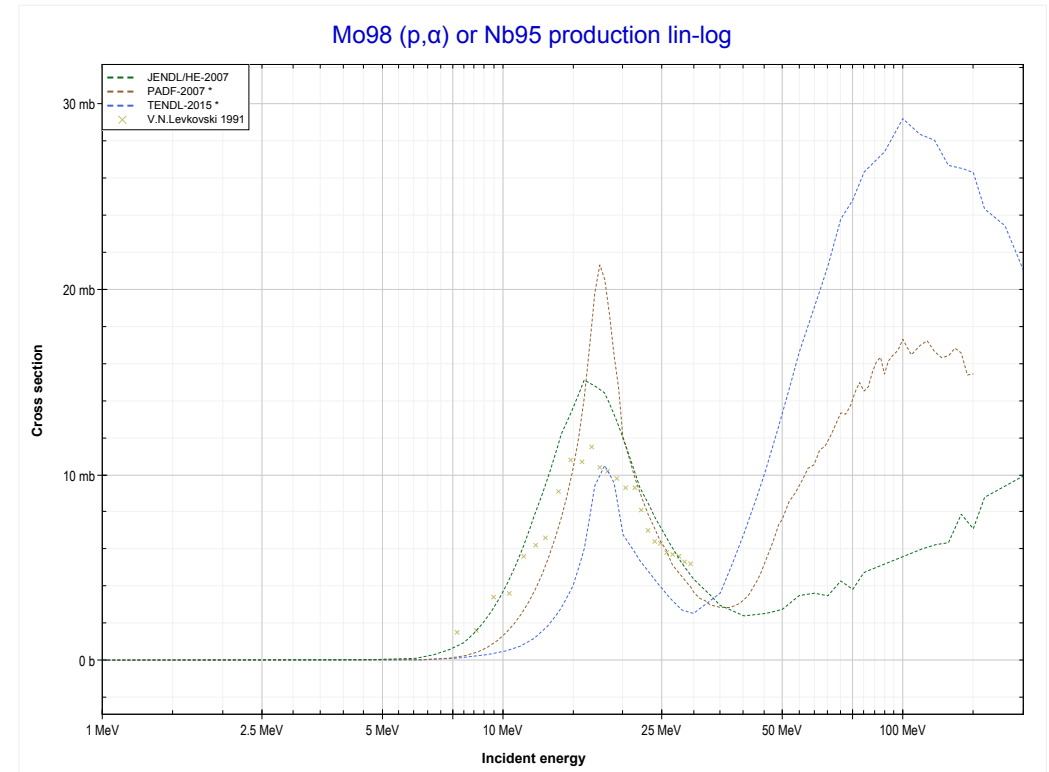
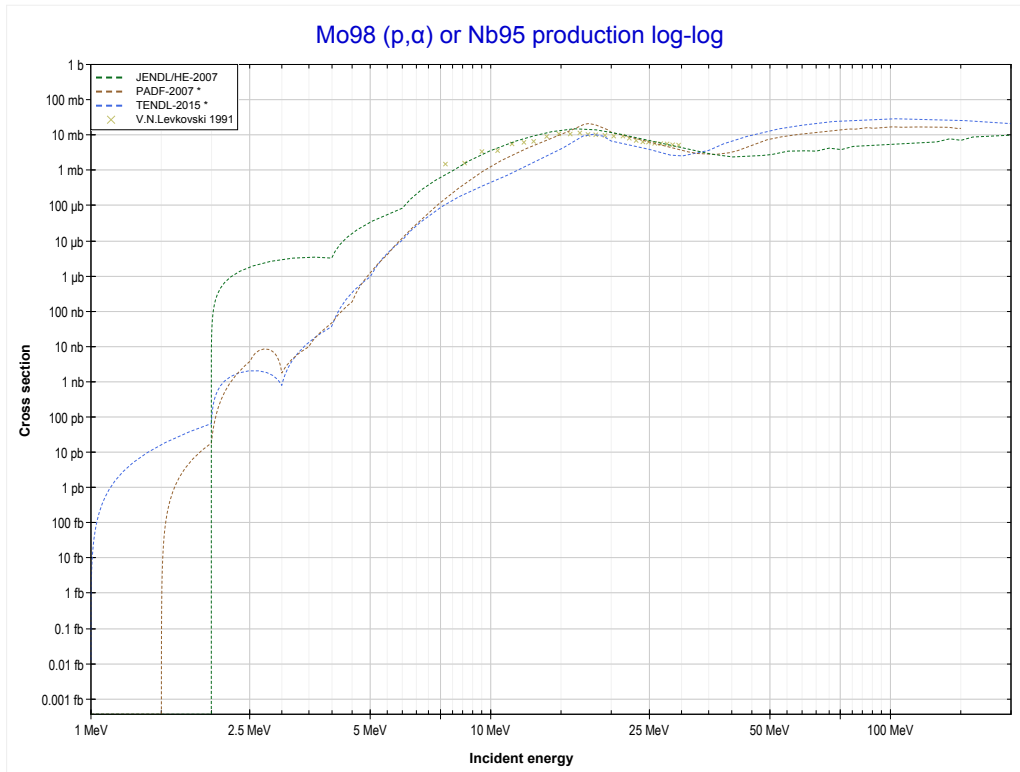
Reaction	Q-Value
Mo98(p,3n)Tc96	-19219.78 keV

<< 42-Mo-94	42-Mo-98	42-Mo-100 >>
<< MT17 (p,3n)	MT102 (p,γ) or MT5 (Tc99 production)	MT107 (p, α) >>



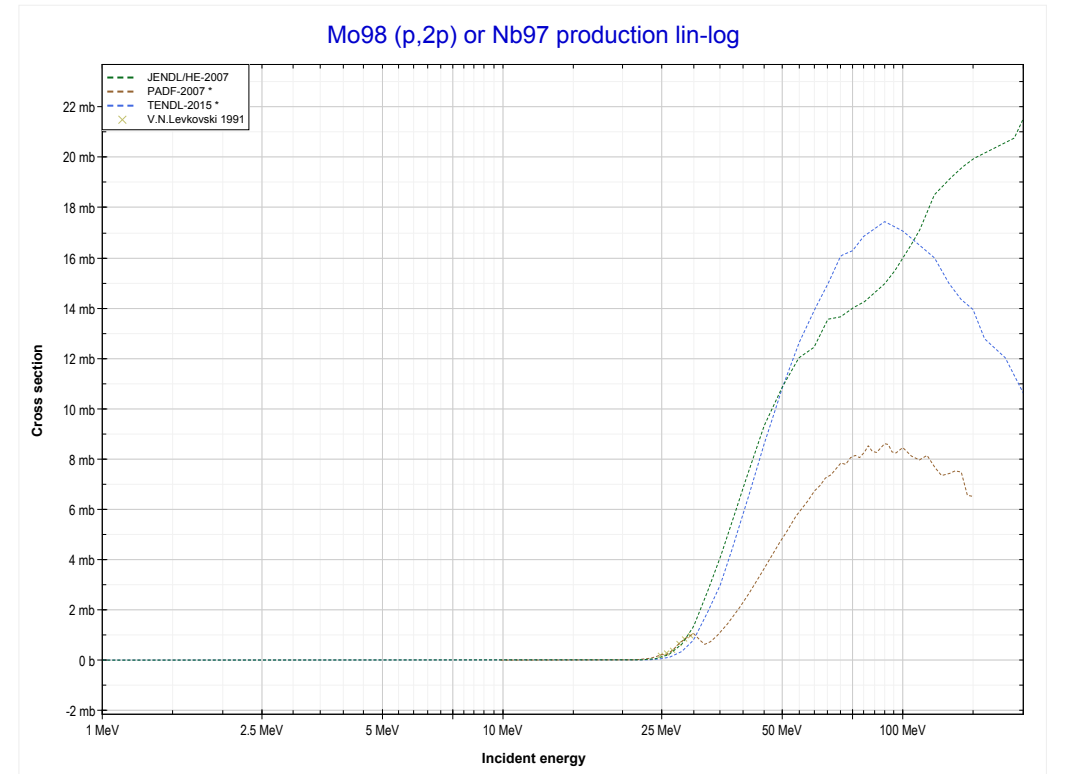
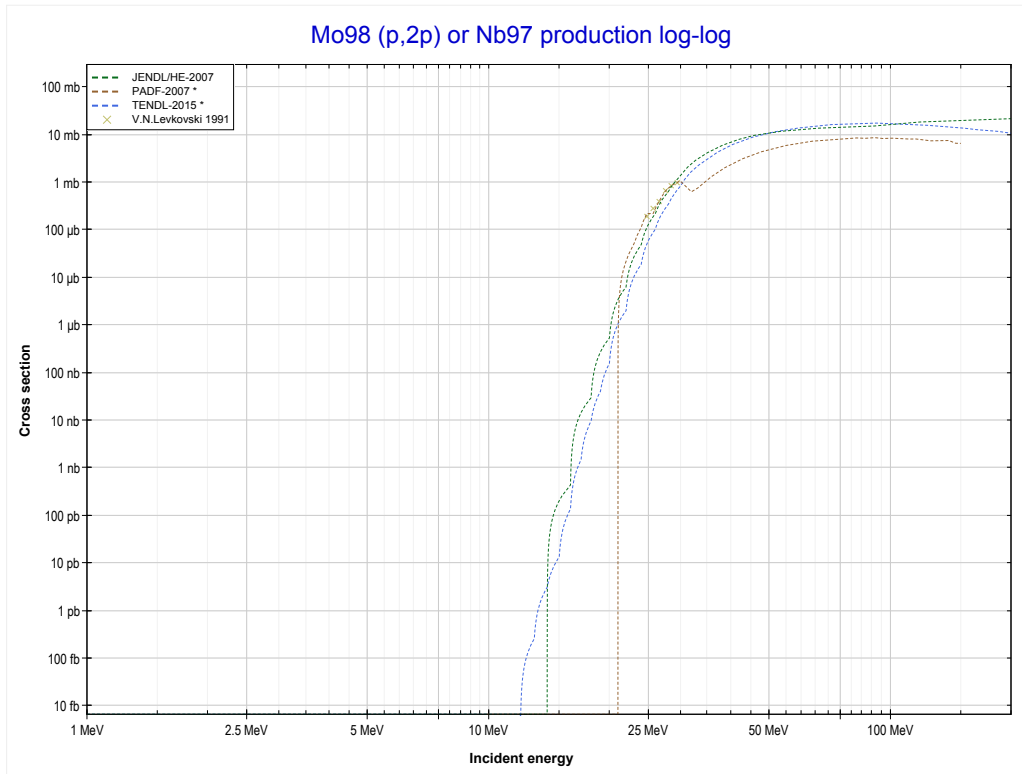
Reaction	Q-Value
Mo98(p, γ)Tc99	6500.97 keV

<< 42-Mo-95	42-Mo-98	42-Mo-100 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Nb95 production)	MT111 (p,2p) >>



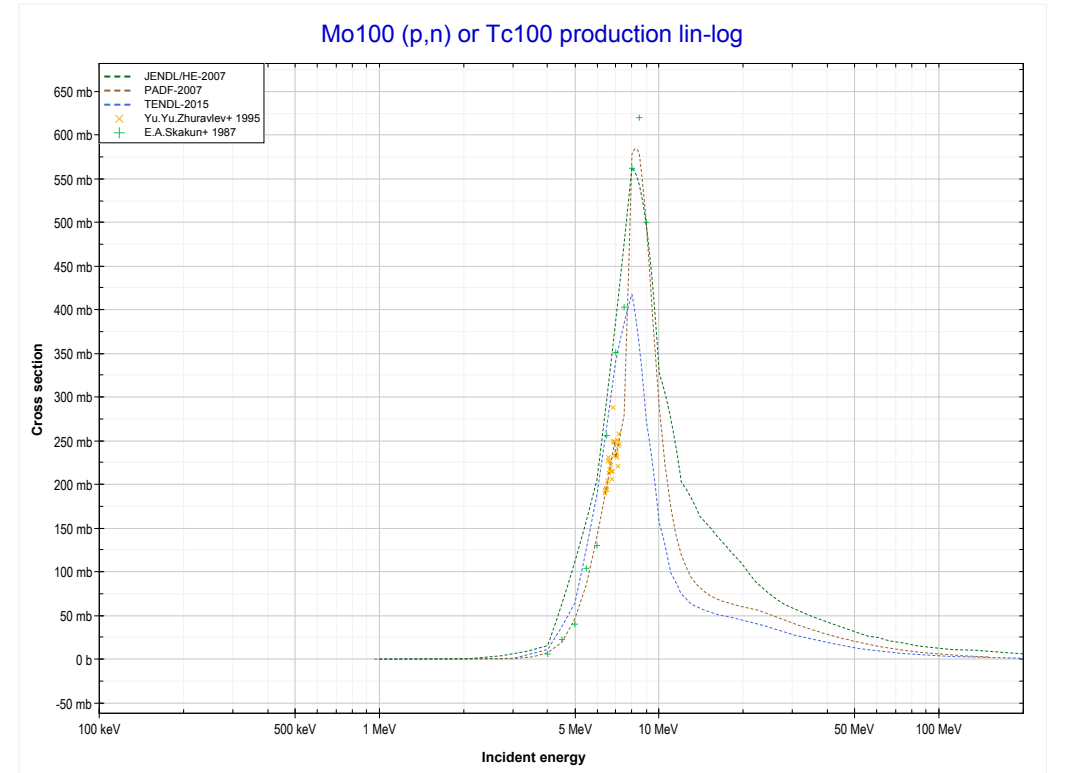
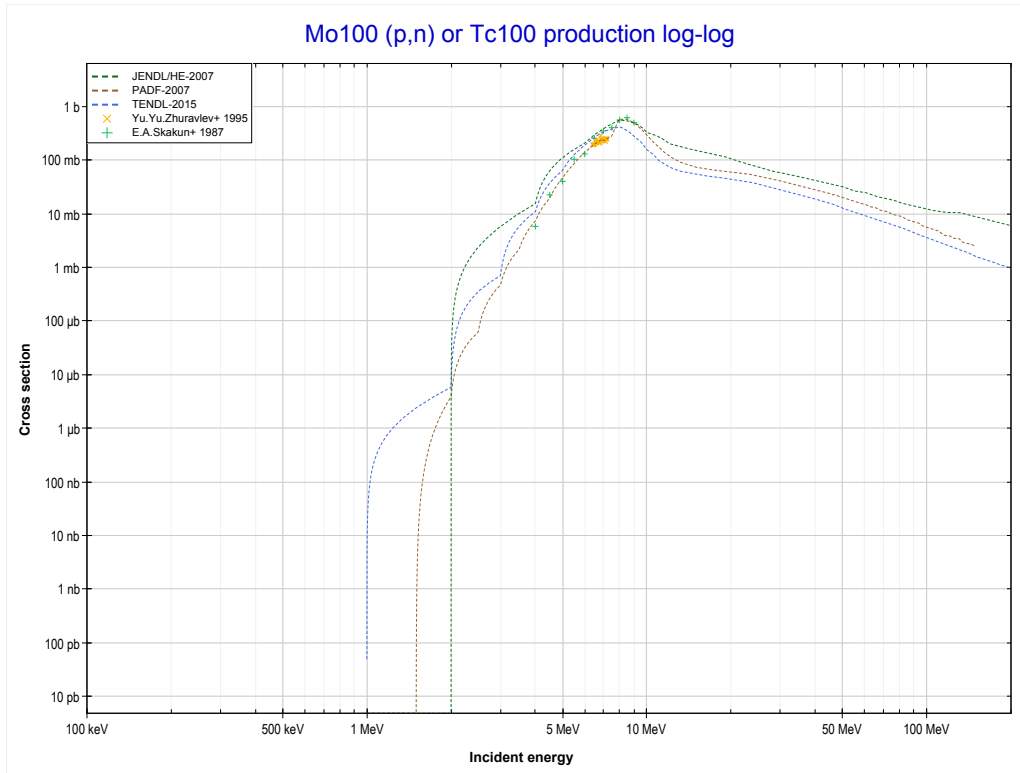
Reaction	Q-Value
Mo98(p, α)Nb95	3534.35 keV
Mo98(p,p+t)Nb95	-16279.51 keV
Mo98(p,n+He3)Nb95	-17043.26 keV
Mo98(p,2d)Nb95	-20312.17 keV
Mo98(p,n+p+d)Nb95	-22536.74 keV
Mo98(p,2n+2p)Nb95	-24761.30 keV

<< 42-Mo-97	42-Mo-98	48-Cd-106 >>
<< MT107 (p, α)	MT111 (p,2p) or MT5 (Nb97 production)	42-Mo-100 MT4 (p,n) >>



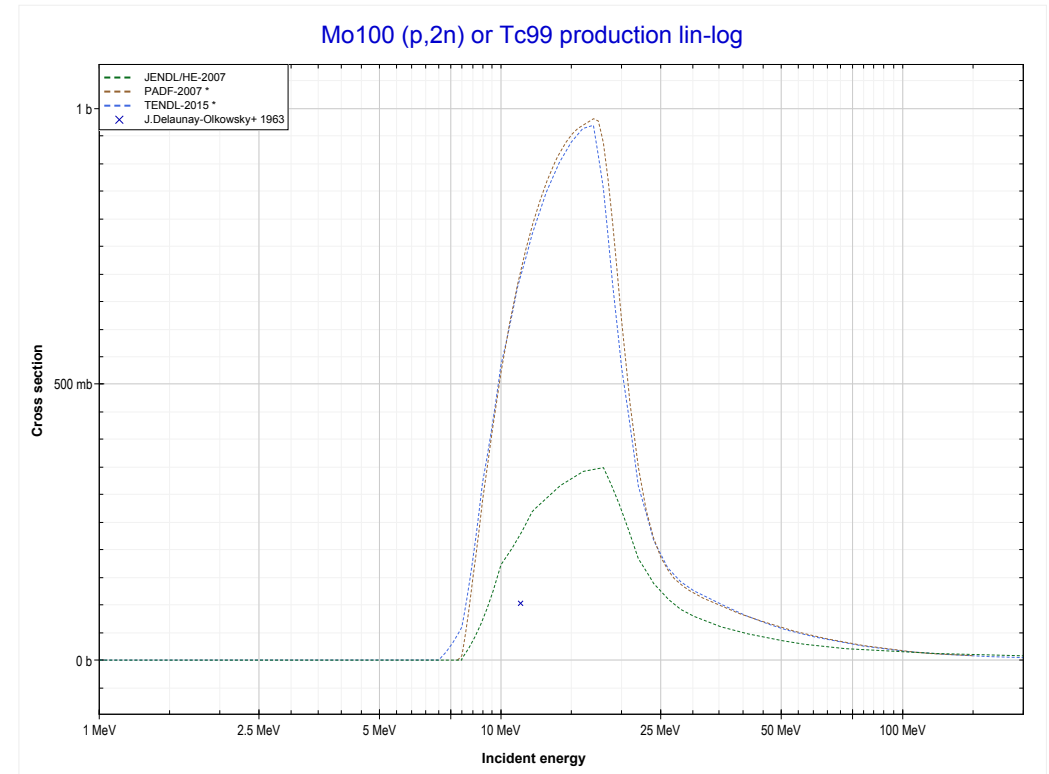
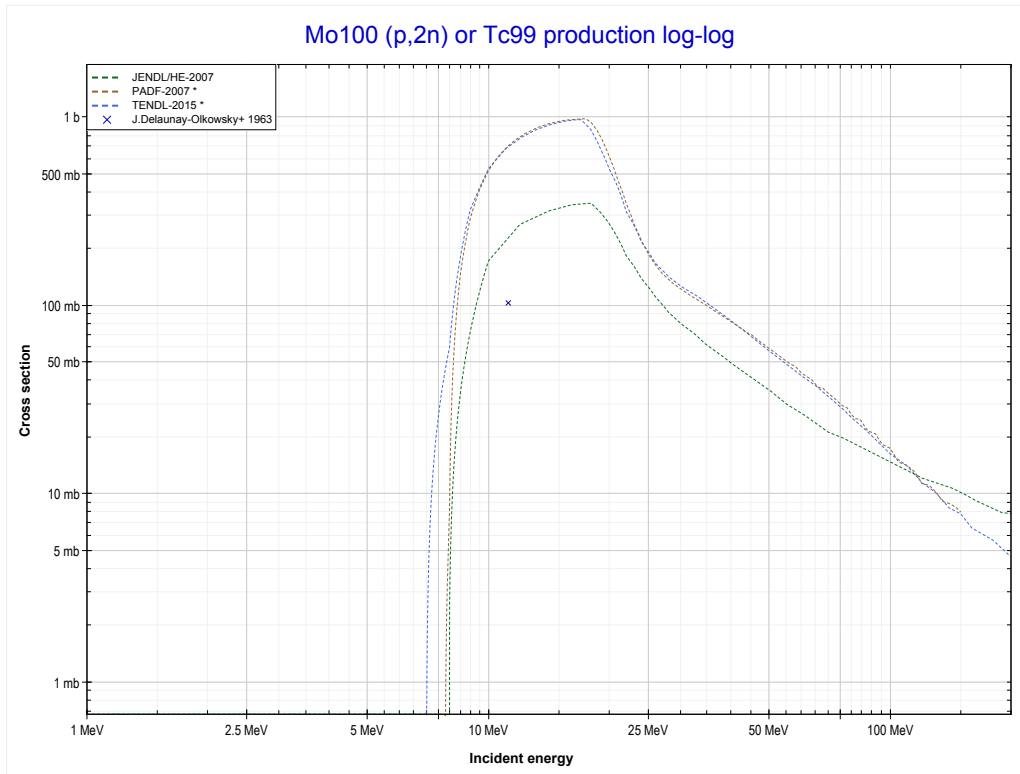
Reaction	Q-Value
Mo98(p,2p)Nb97	-9795.67 keV

<< 42-Mo-98	42-Mo-100	44-Ru-99 >>
<< 42-Mo-98 MT111 (p,2p)	MT4 (p,n) or MT5 (Tc100 production)	MT16 (p,2n) >>



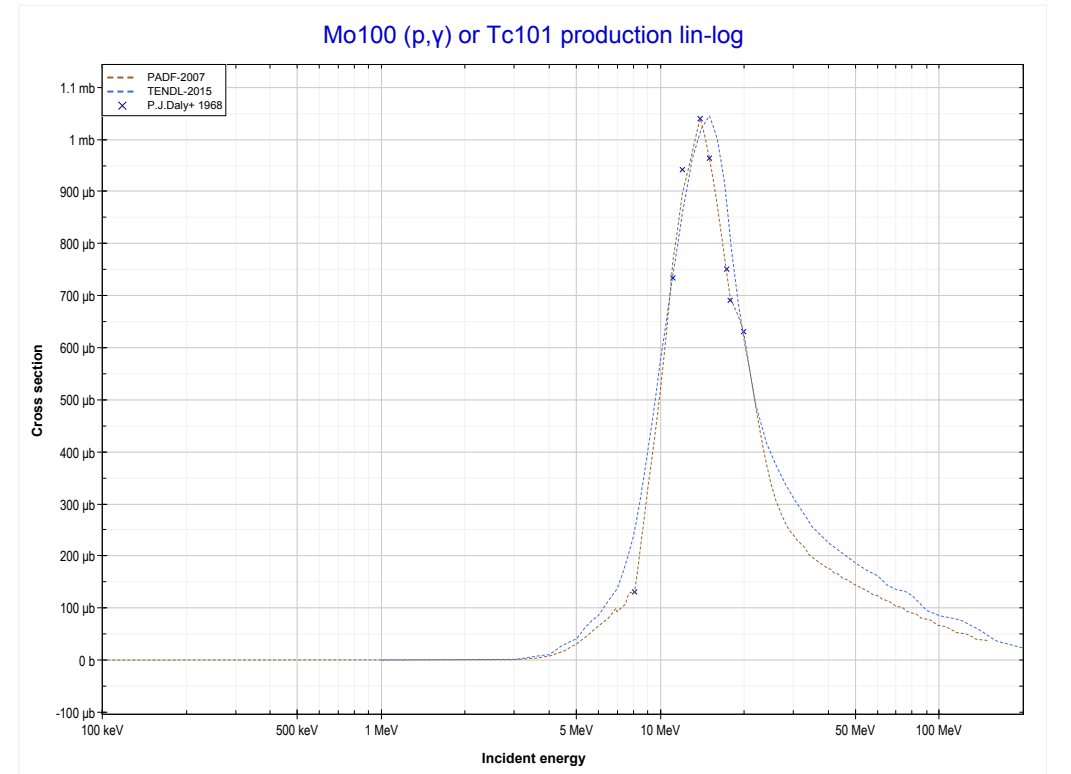
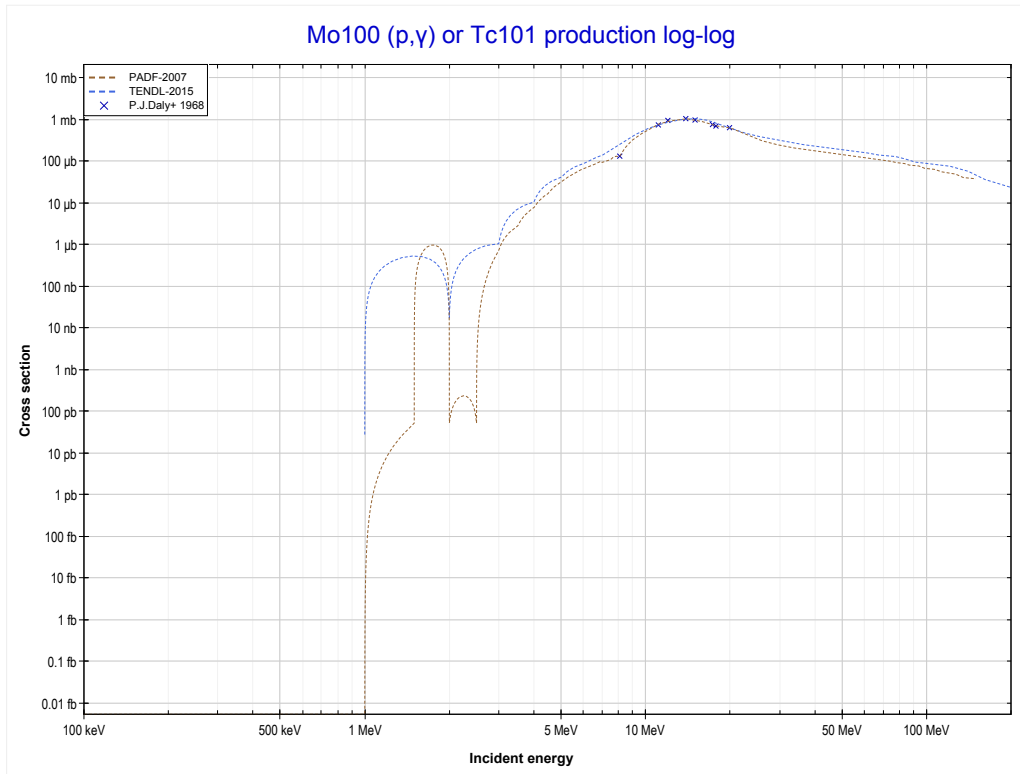
Reaction	Q-Value
Mo100(p,n)Tc100	-951.95 keV

<< 42-Mo-97	42-Mo-100	48-Cd-108 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Tc99 production)	MT102 (p, γ) >>



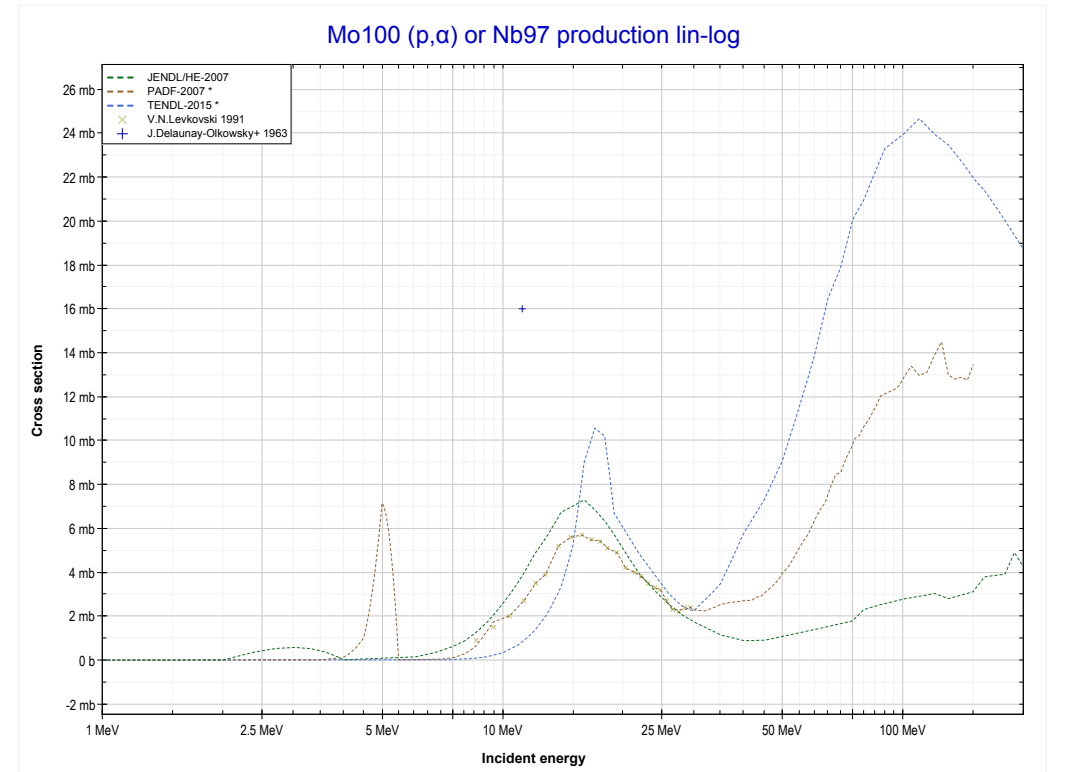
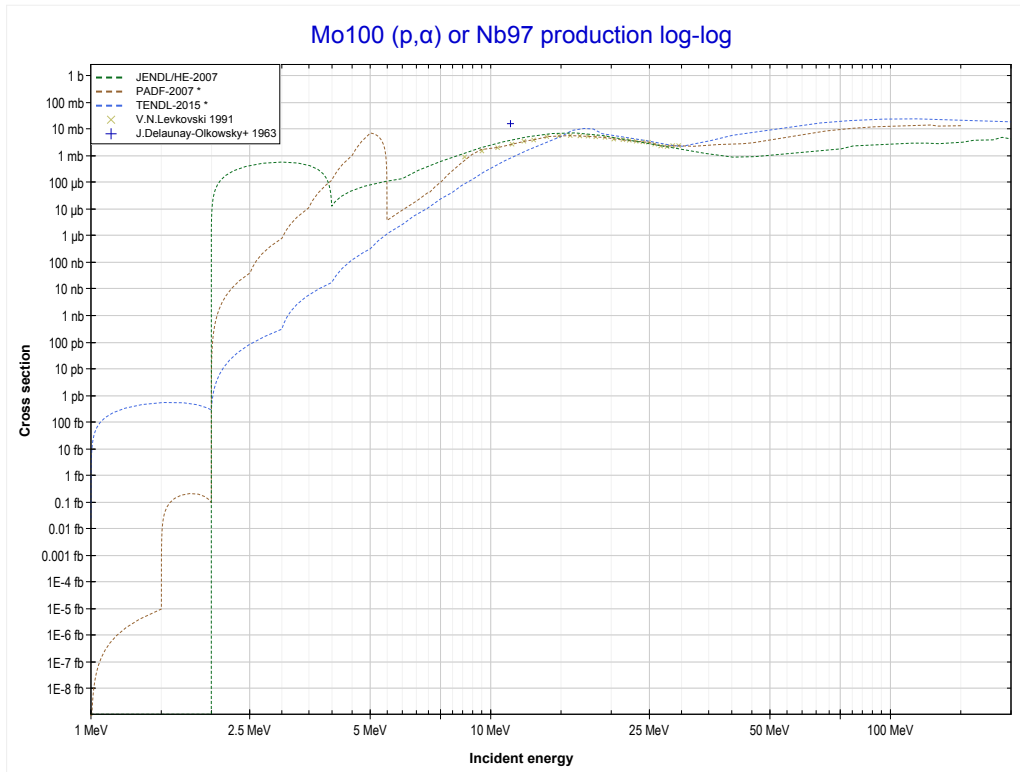
Reaction	Q-Value
Mo100(p,2n)Tc99	-7716.36 keV

<< 42-Mo-98	42-Mo-100	44-Ru-96 >>
<< MT16 (p,2n)	MT102 (p,γ) or MT5 (Tc101 production)	MT107 (p, α) >>



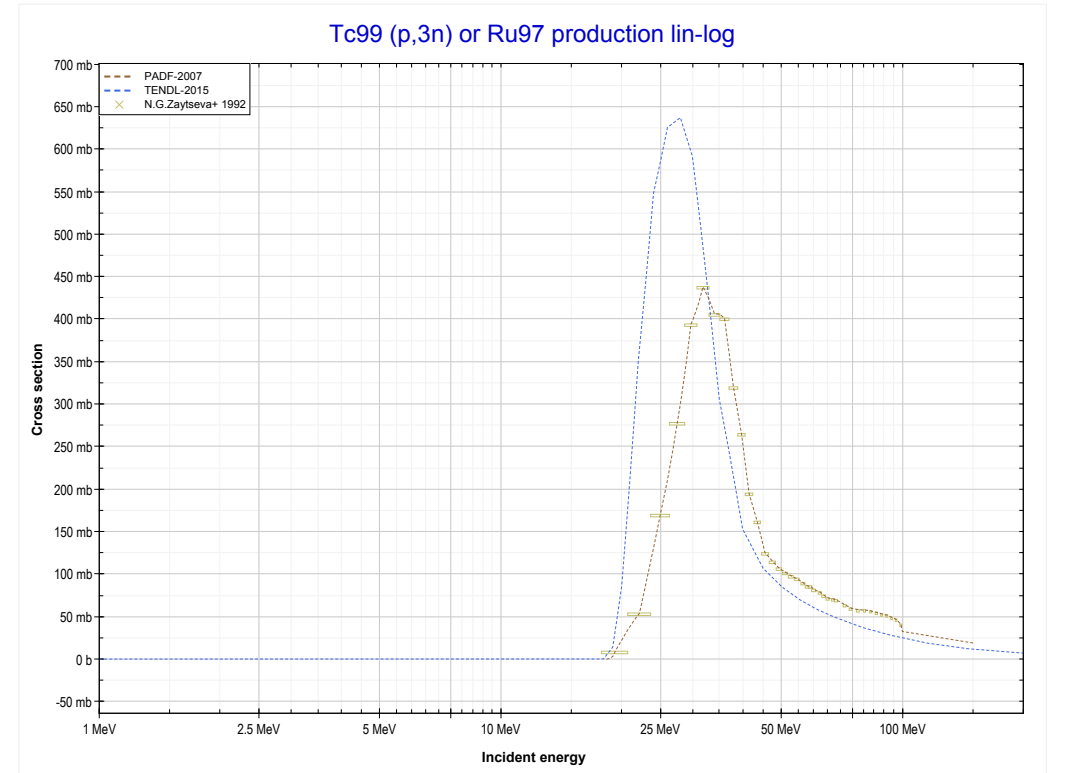
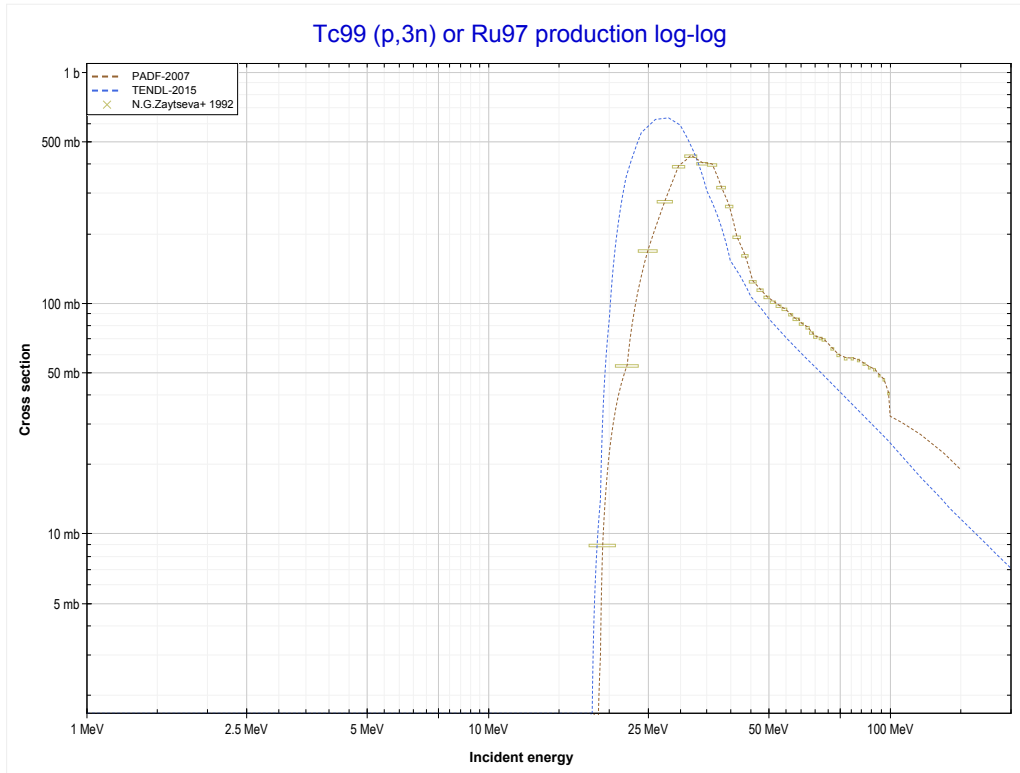
Reaction	Q-Value
Mo100(p, γ)Tc101	7440.47 keV

<< 42-Mo-98	42-Mo-100	48-Cd-114 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Nb97 production)	43-Tc-99 MT17 (p,3n) >>



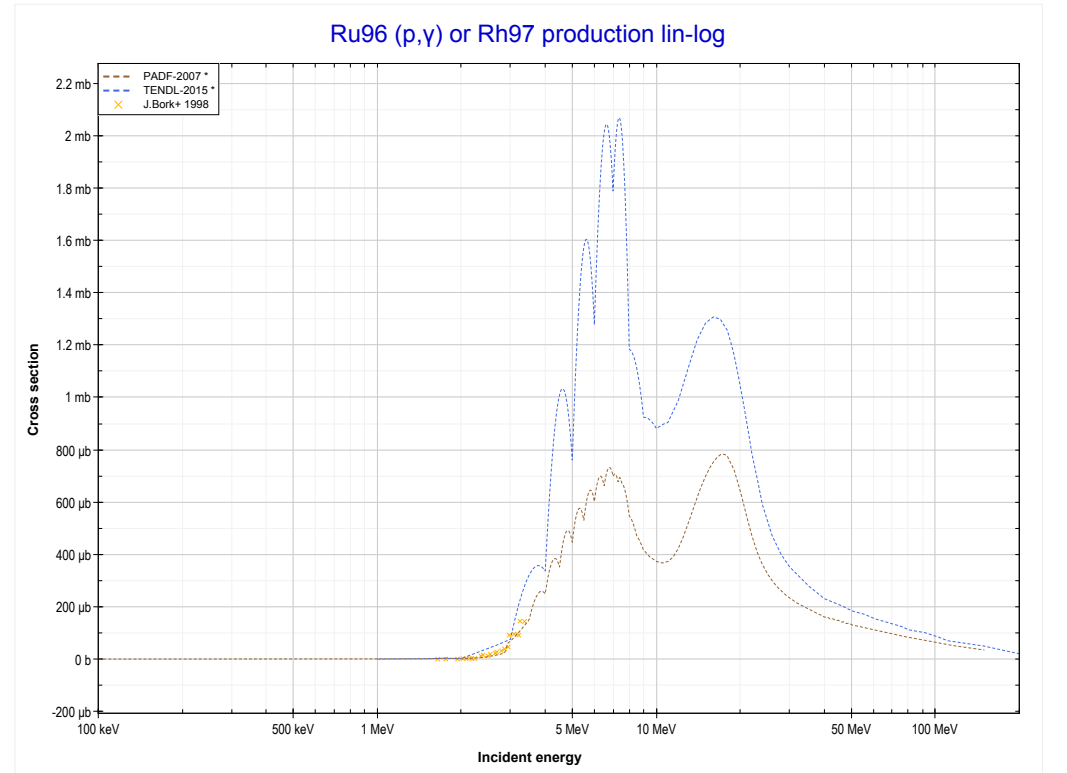
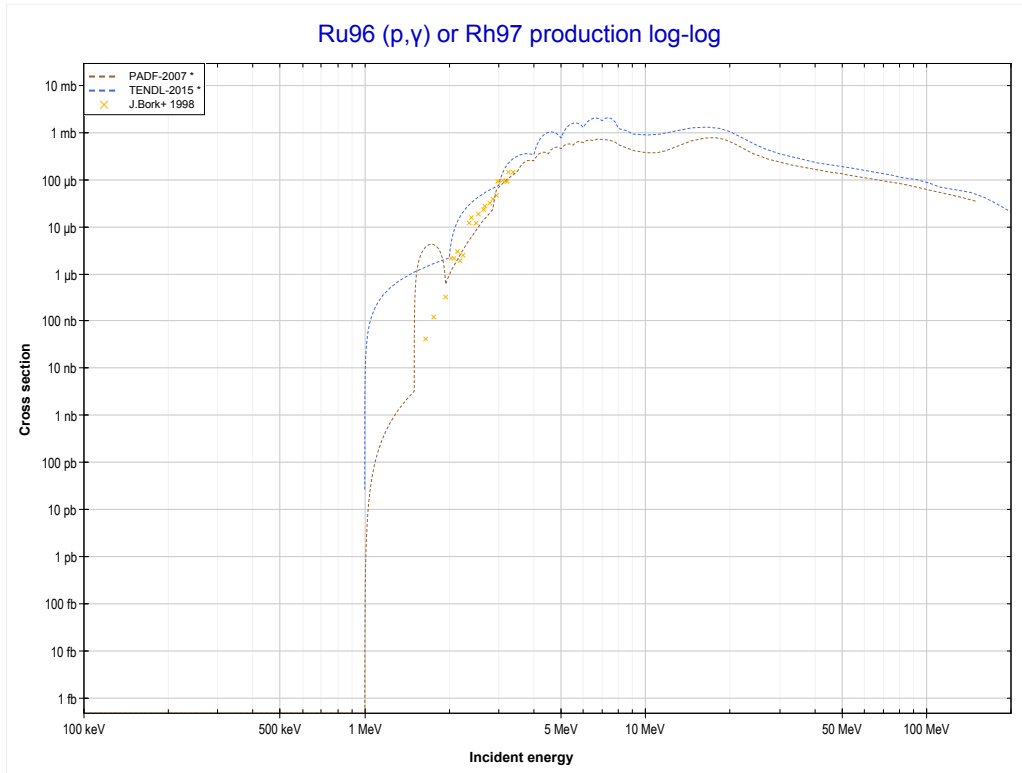
Reaction	Q-Value
Mo100(p, α)Nb97	4282.65 keV
Mo100(p,p+t)Nb97	-15531.21 keV
Mo100(p,n+He3)Nb97	-16294.96 keV
Mo100(p,2d)Nb97	-19563.87 keV
Mo100(p,n+p+d)Nb97	-21788.44 keV
Mo100(p,2n+2p)Nb97	-24013.00 keV

<< 42-Mo-98	43-Tc-99	45-Rh-103 >>
<< 42-Mo-100 MT107 (p, α)	MT17 (p,3n) or MT5 (Ru97 production)	44-Ru-96 MT102 (p, γ) >>



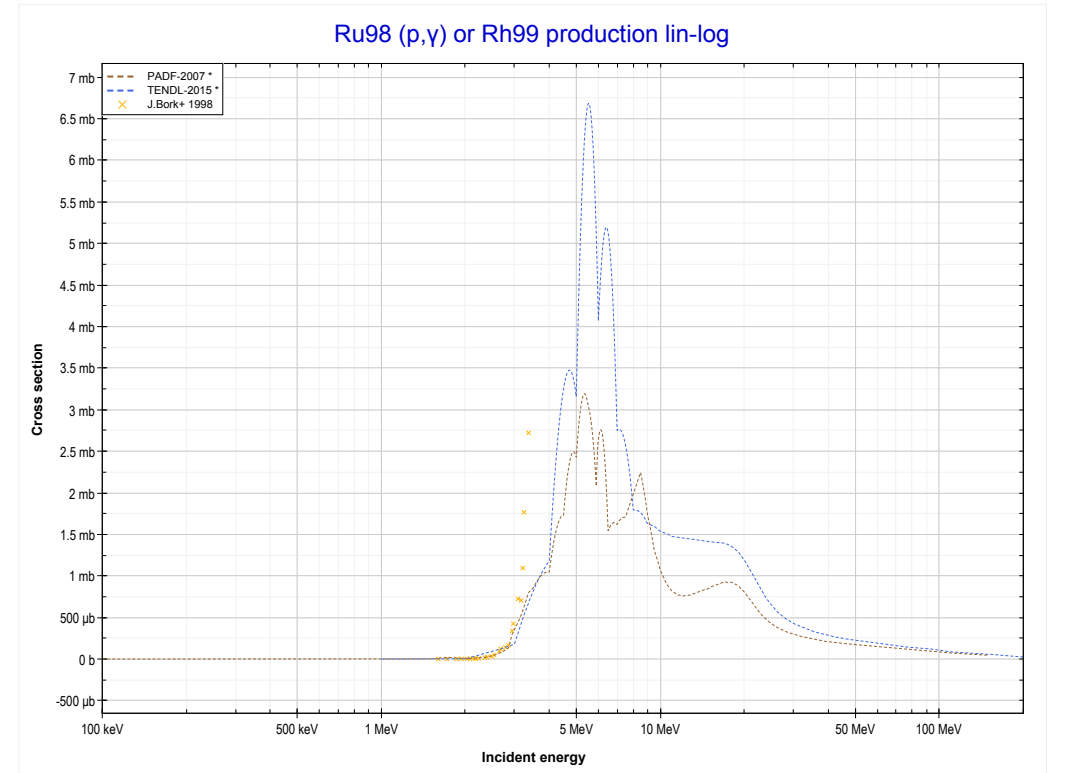
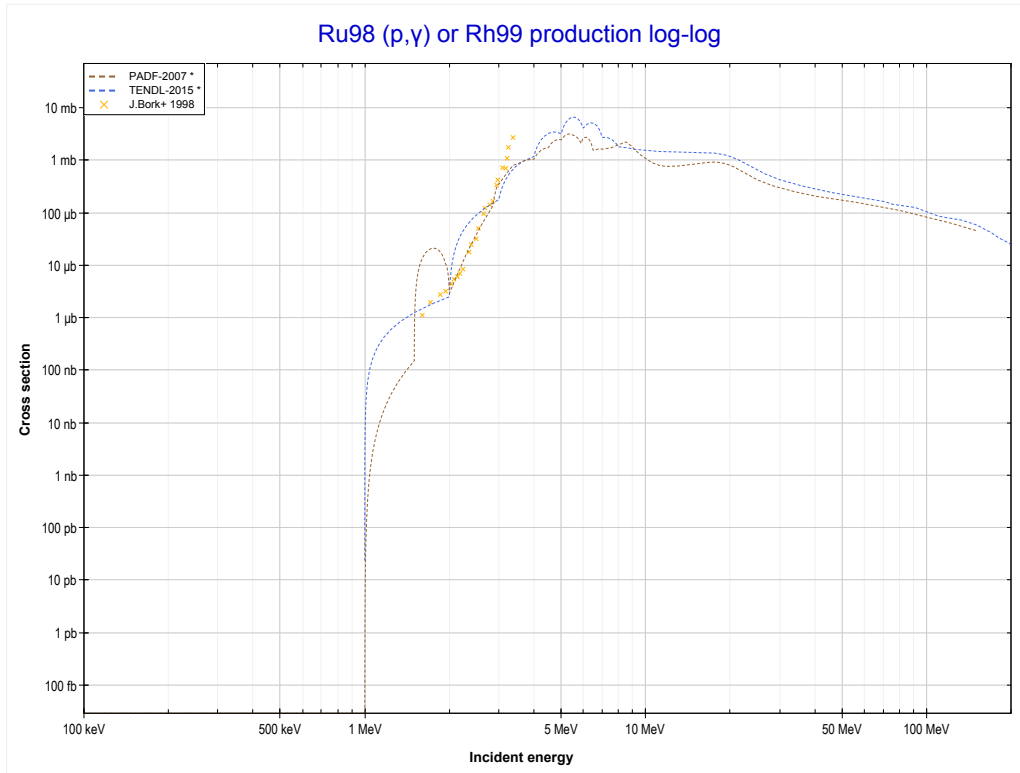
Reaction	Q-Value
Tc99(p,3n)Ru97	-18132.48 keV

<< 42-Mo-100	44-Ru-96	44-Ru-98 >>
<< 43-Tc-99 MT17 (p,3n)	MT102 (p,y) or MT5 (Rh97 production)	44-Ru-98 MT102 (p,y) >>



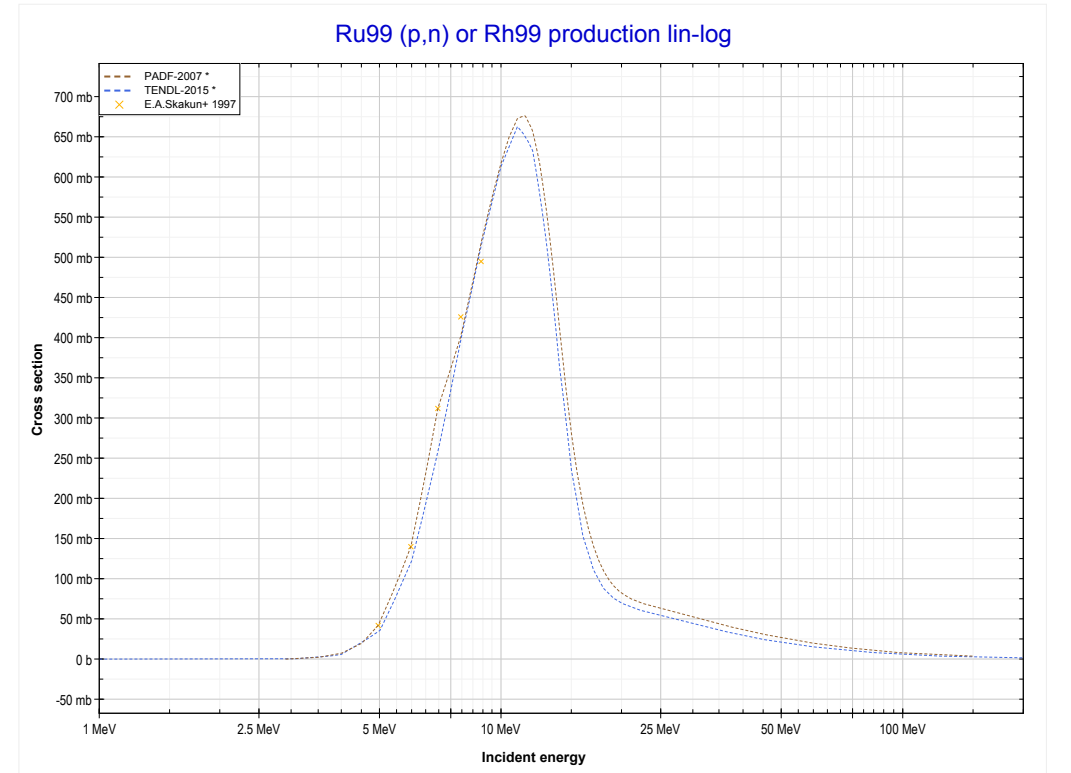
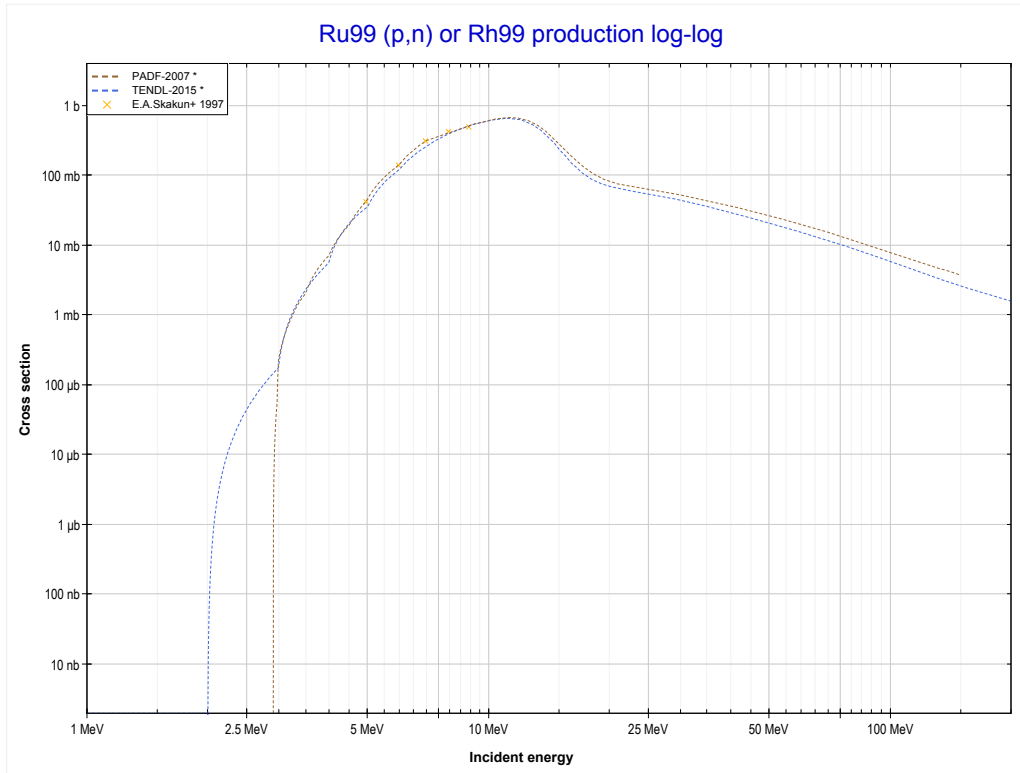
Reaction	Q-Value
Ru96(p,y)Rh97	3809.87 keV

<< 44-Ru-96	44-Ru-98	48-Cd-114 >>
<< 44-Ru-96 MT102 (p, γ)	MT102 (p,γ) or MT5 (Rh99 production)	44-Ru-99 MT4 (p,n) >>



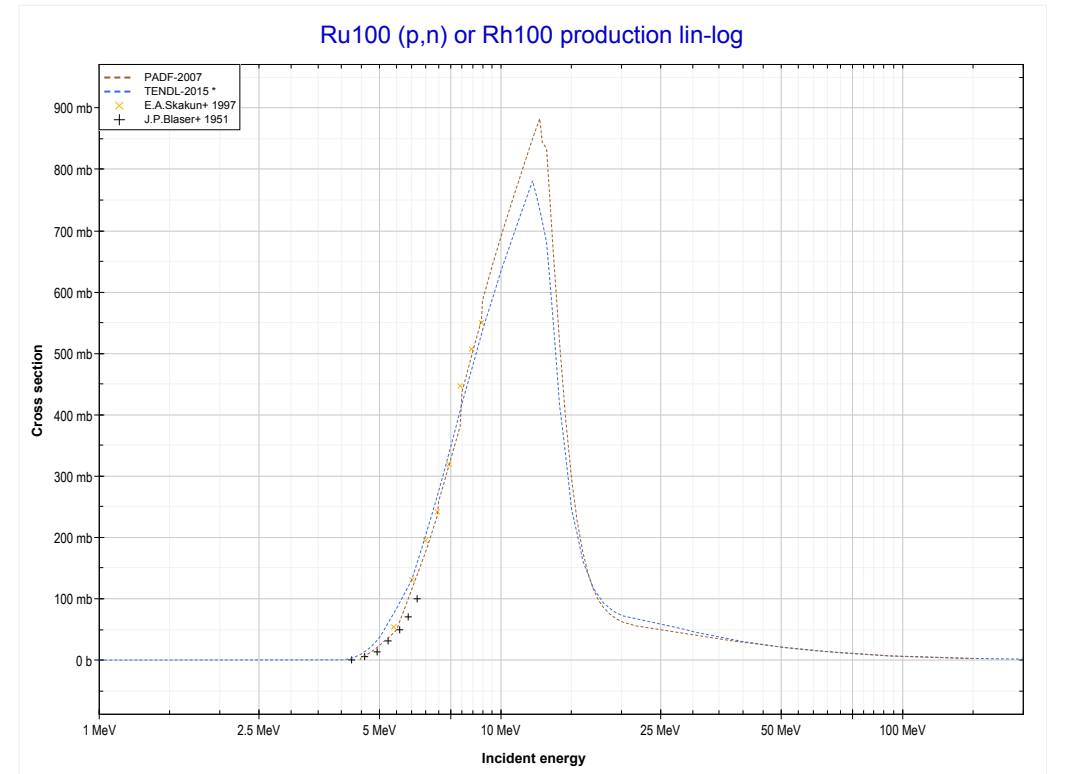
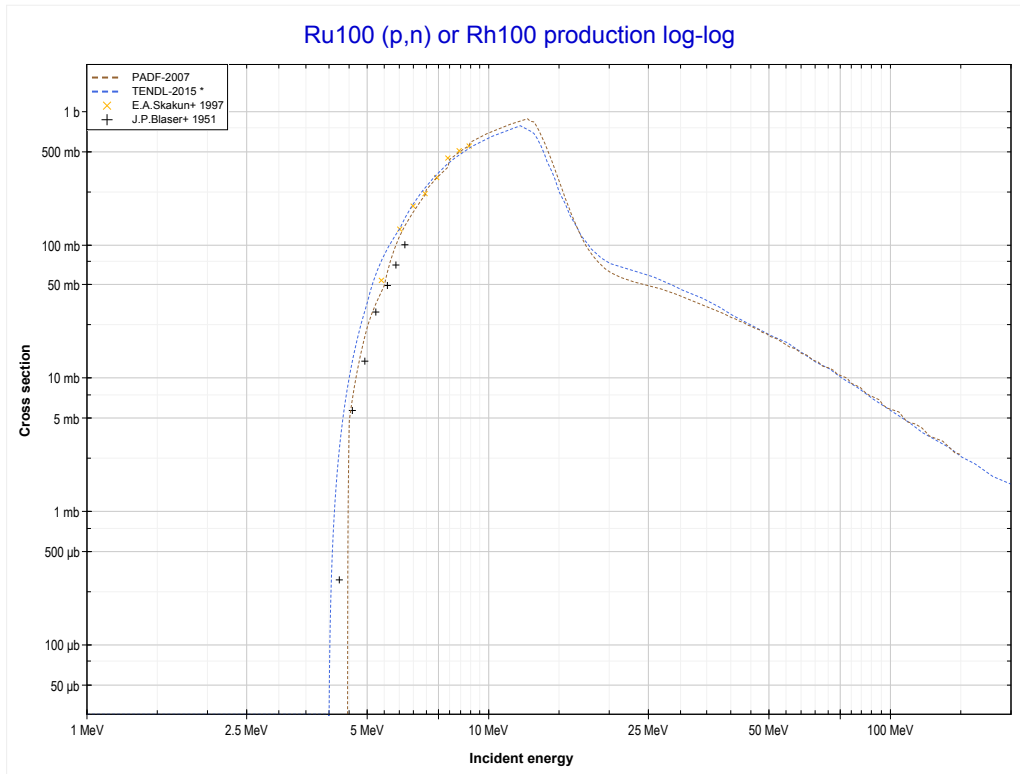
Reaction	Q-Value
Ru98(p, γ)Rh99	4641.97 keV

<< 42-Mo-100	44-Ru-99	44-Ru-100 >>
<< 44-Ru-98 MT102 (p, γ)	MT4 (p,n) or MT5 (Rh99 production)	44-Ru-100 MT4 (p,n) >>



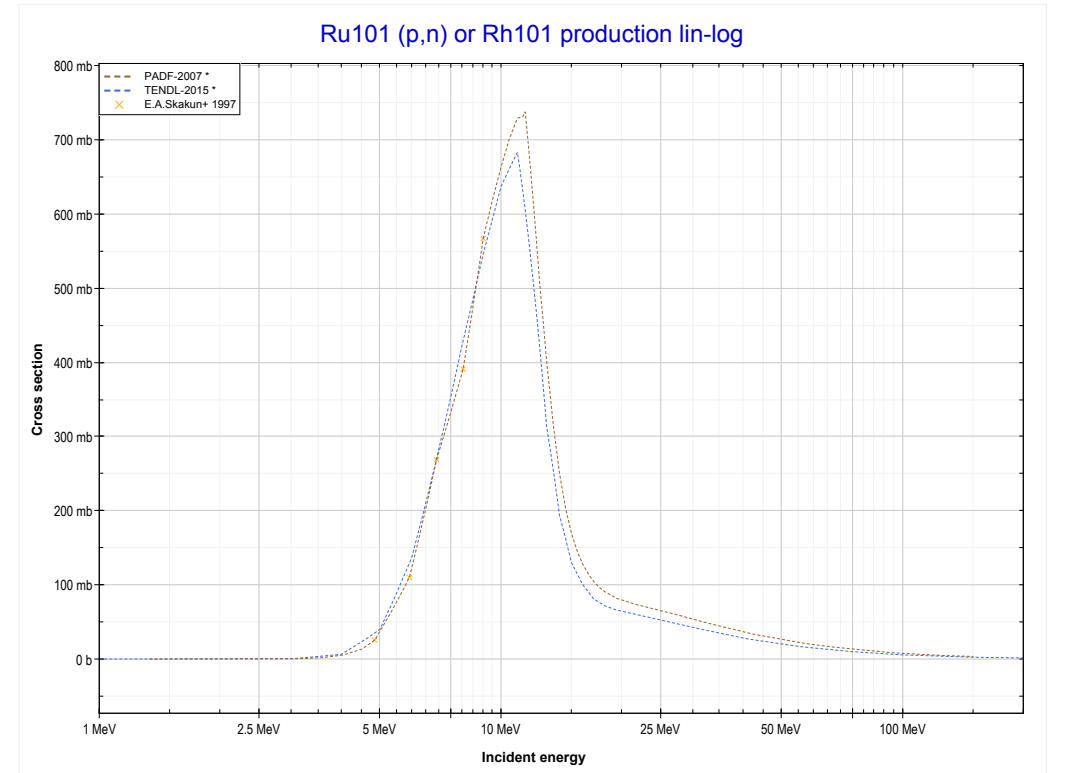
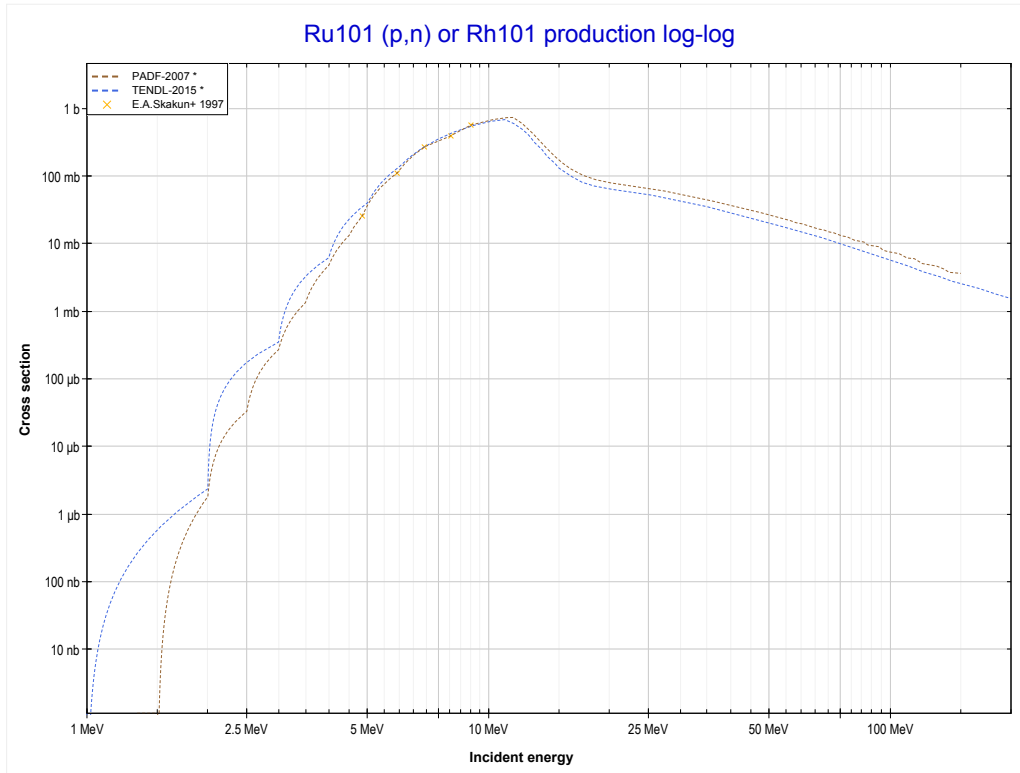
Reaction	Q-Value
Ru99(p,n)Rh99	-2826.15 keV

<< 44-Ru-99	44-Ru-100	44-Ru-101 >>
<< 44-Ru-99 MT4 (p,n)	MT4 (p,n) or MT5 (Rh100 production)	44-Ru-101 MT4 (p,n) >>



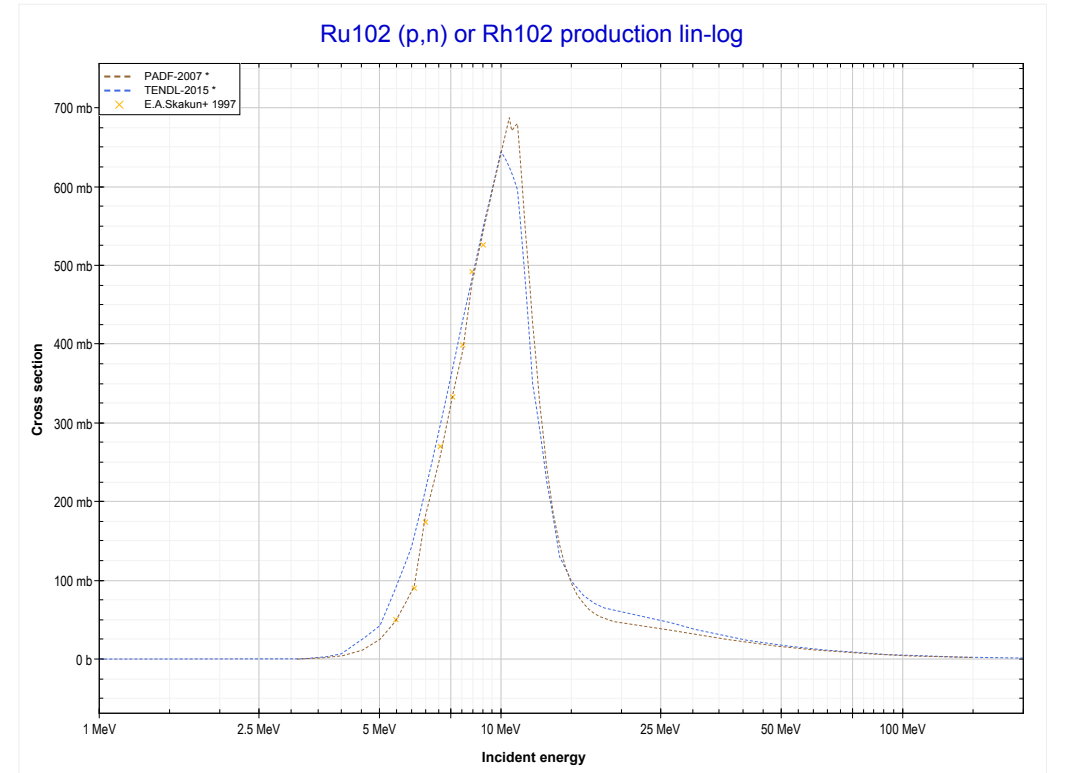
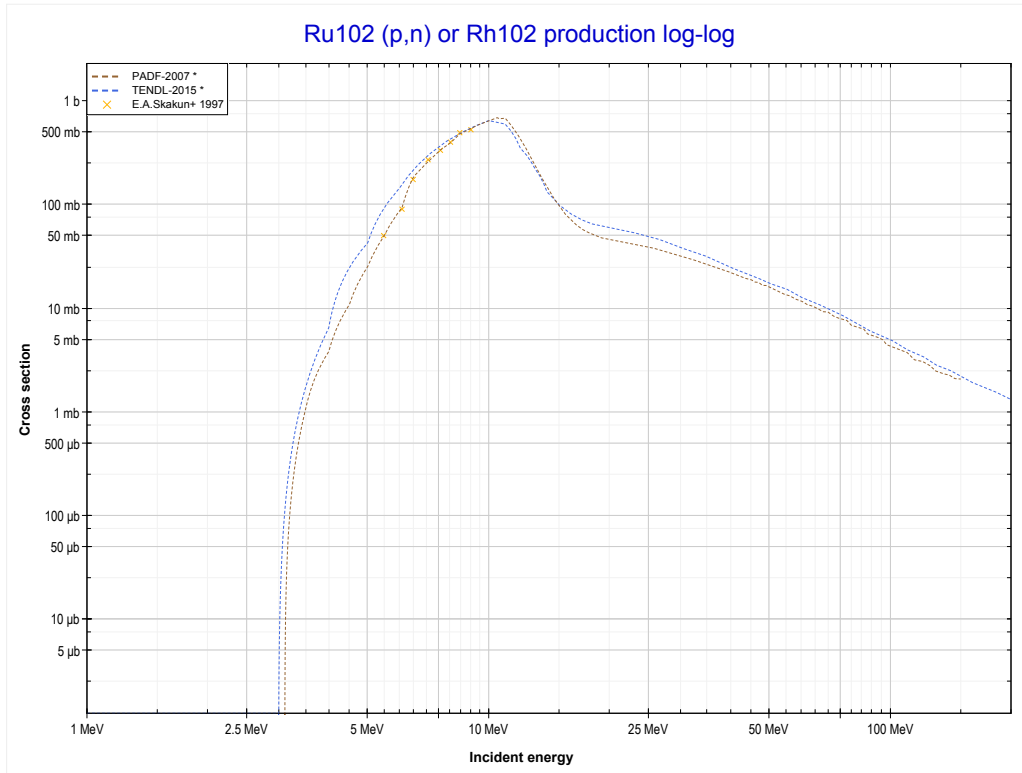
Reaction	Q-Value
Ru100(p,n)Rh100	-4418.15 keV

<< 44-Ru-100	44-Ru-101	44-Ru-102 >>
<< 44-Ru-100 MT4 (p,n)	MT4 (p,n) or MT5 (Rh101 production)	44-Ru-102 MT4 (p,n) >>



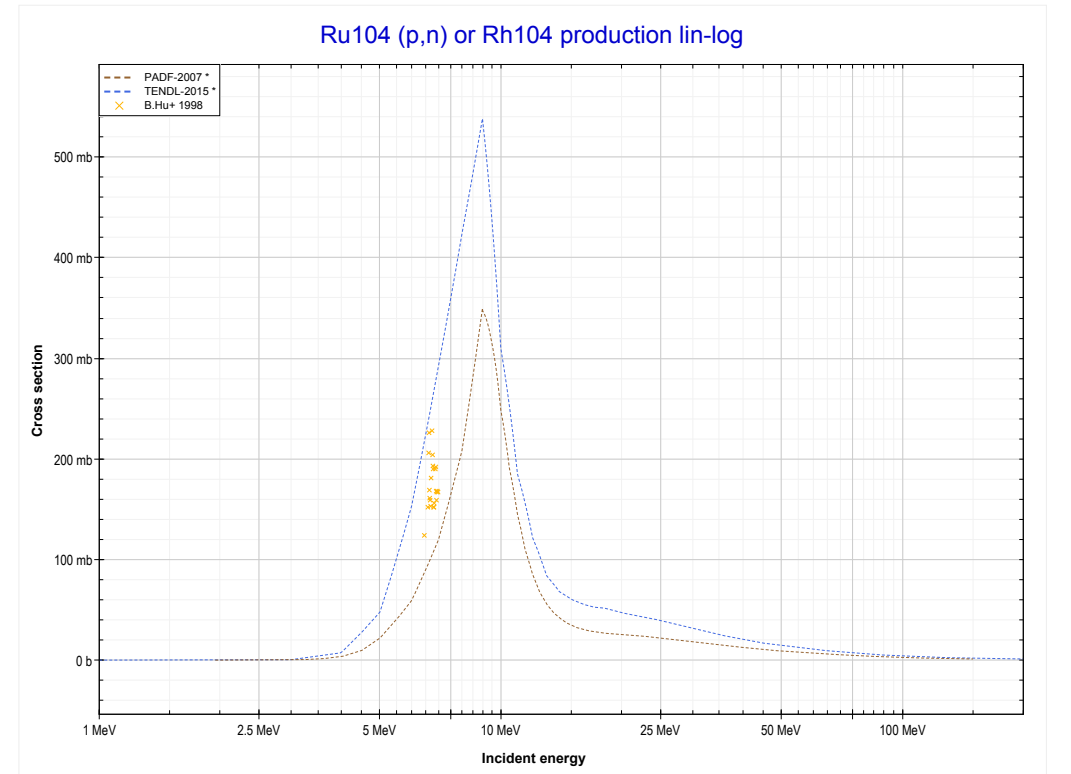
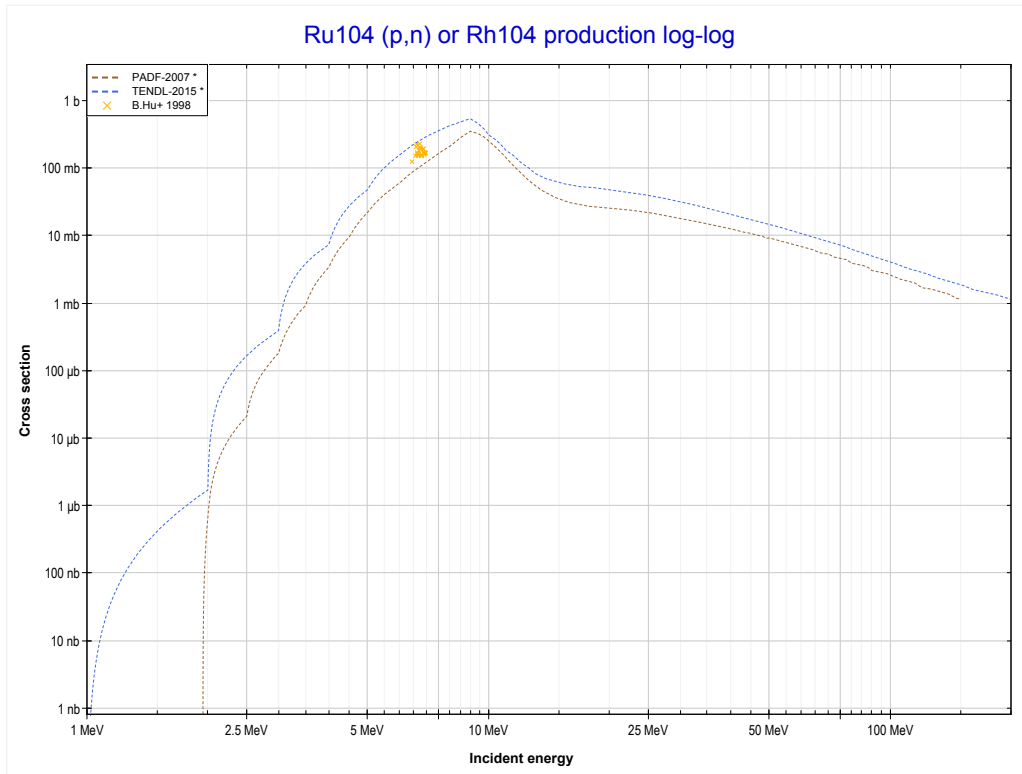
Reaction	Q-Value
Ru101(p,n)Rh101	-1325.95 keV

<< 44-Ru-101	44-Ru-102	44-Ru-104 >>
<< 44-Ru-101 MT4 (p,n)	MT4 (p,n) or MT5 (Rh102 production)	44-Ru-104 MT4 (p,n) >>



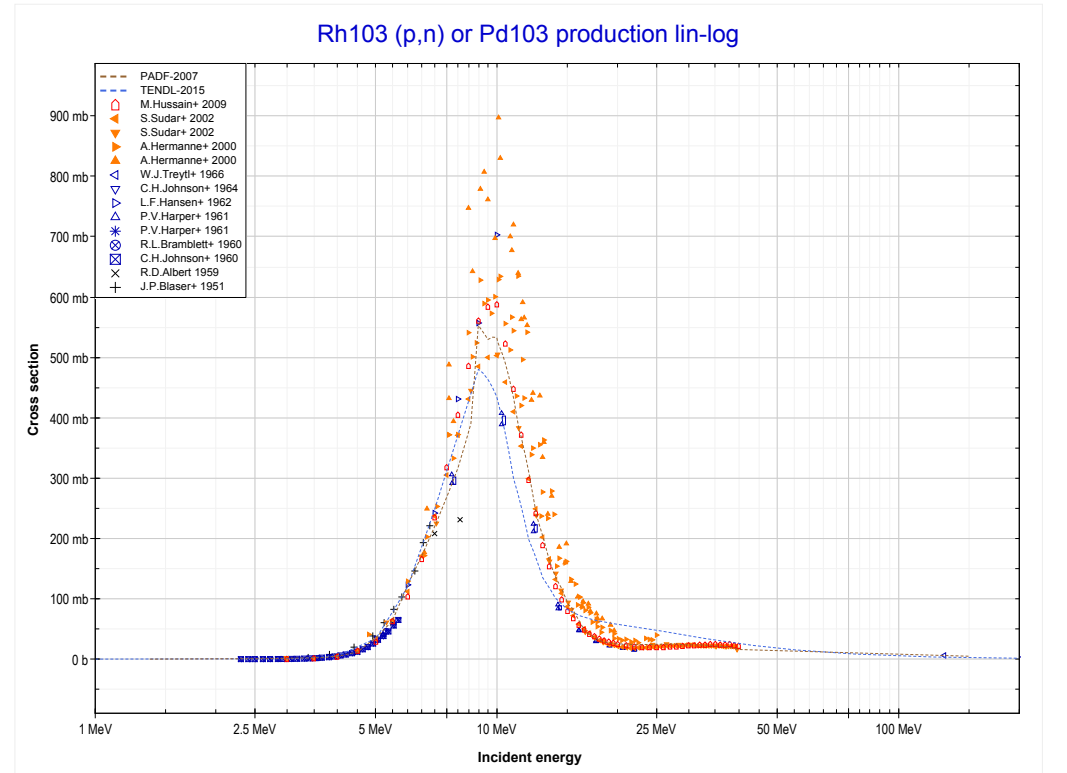
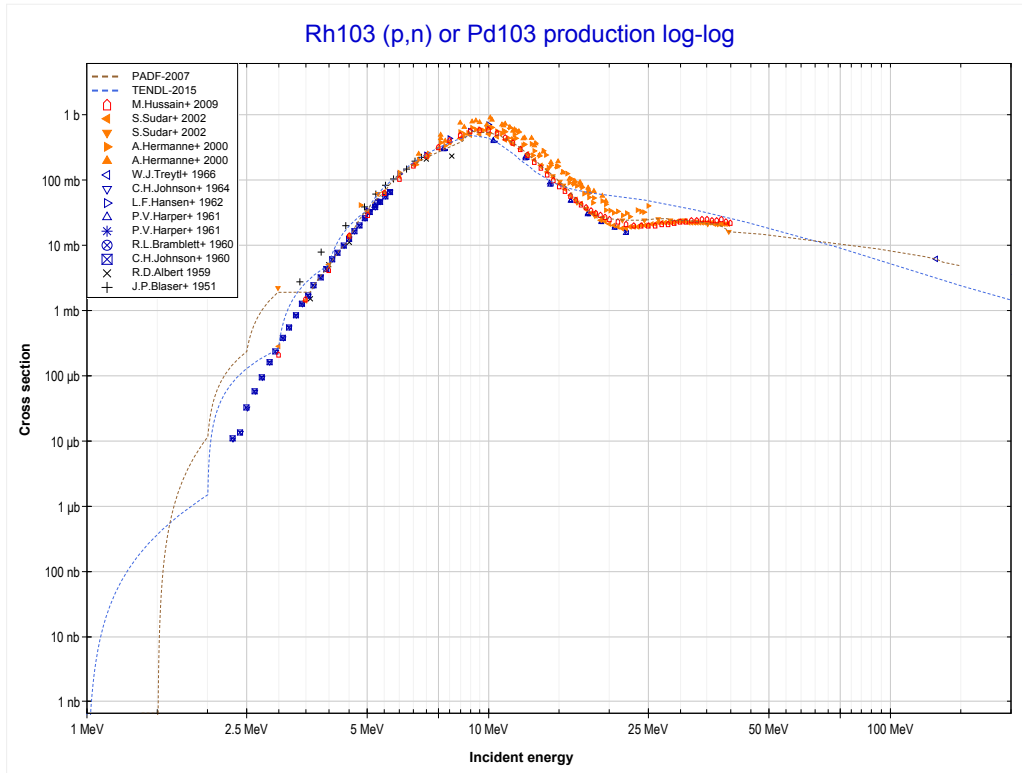
Reaction	Q-Value
Ru102(p,n)Rh102	-3105.25 keV

<< 44-Ru-102	44-Ru-104	45-Rh-103 >>
<< 44-Ru-102 MT4 (p,n)	MT4 (p,n) or MT5 (Rh104 production)	45-Rh-103 MT4 (p,n) >>



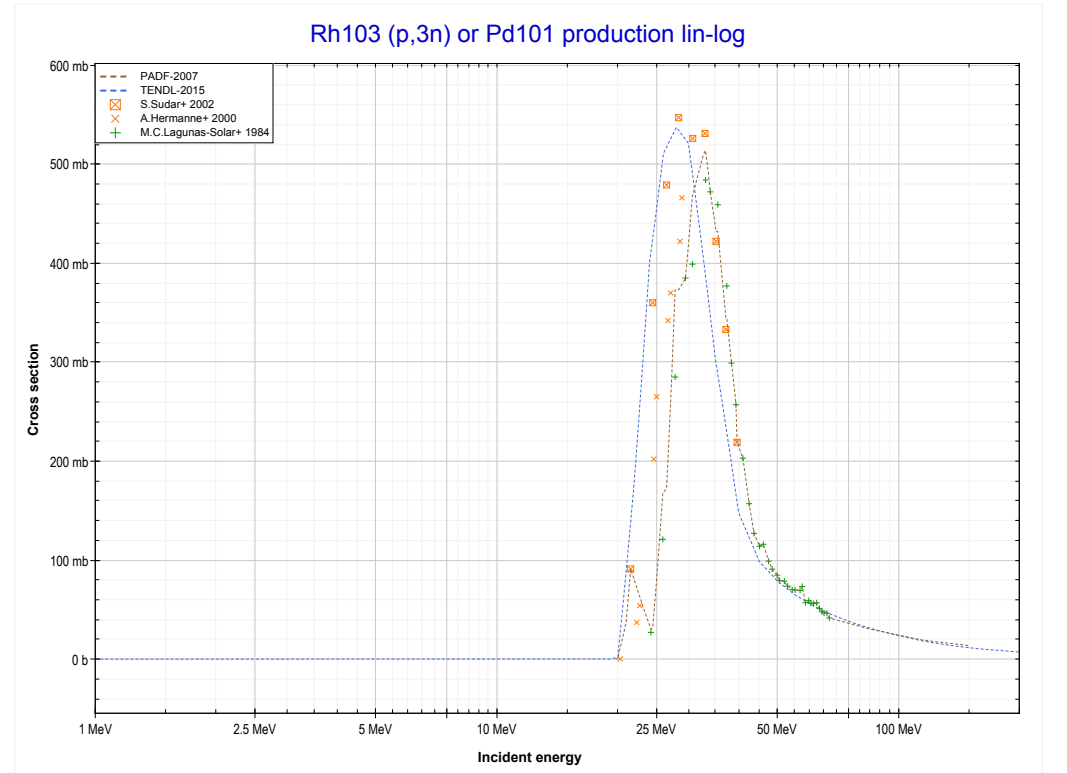
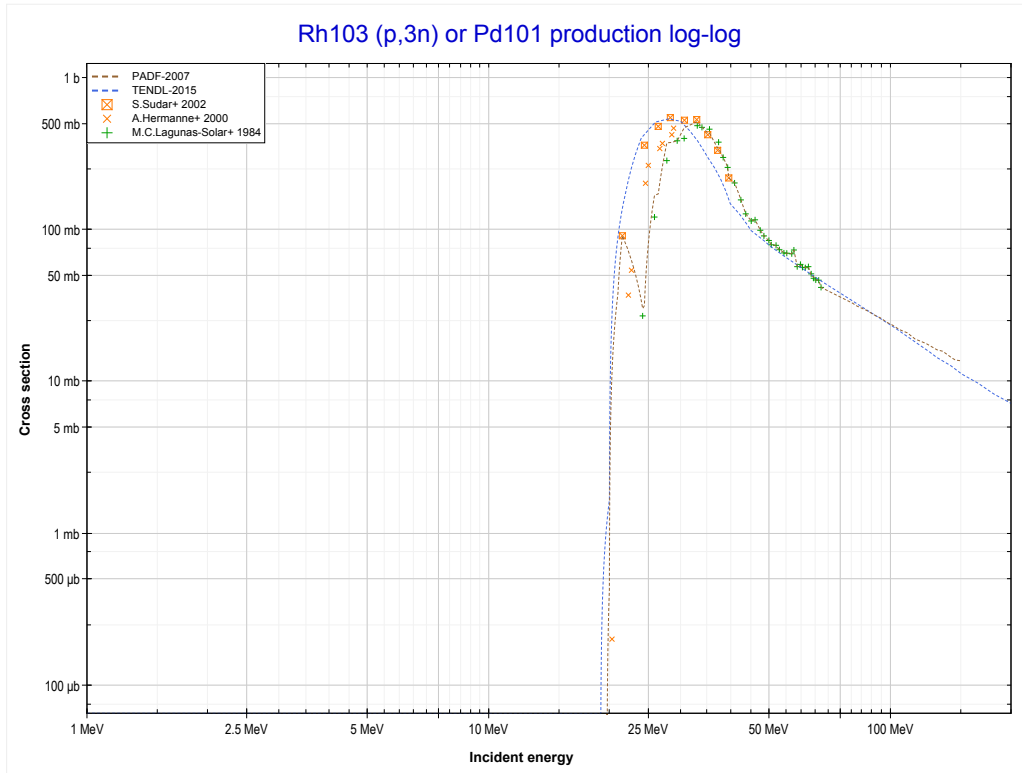
Reaction	Q-Value
Ru104(p,n)Rh104	-1920.35 keV

<< 44-Ru-104	45-Rh-103	46-Pd-104 >>
<< 44-Ru-104 MT4 (p,n)	MT4 (p,n) or MT5 (Pd103 production)	MT17 (p,3n) >>



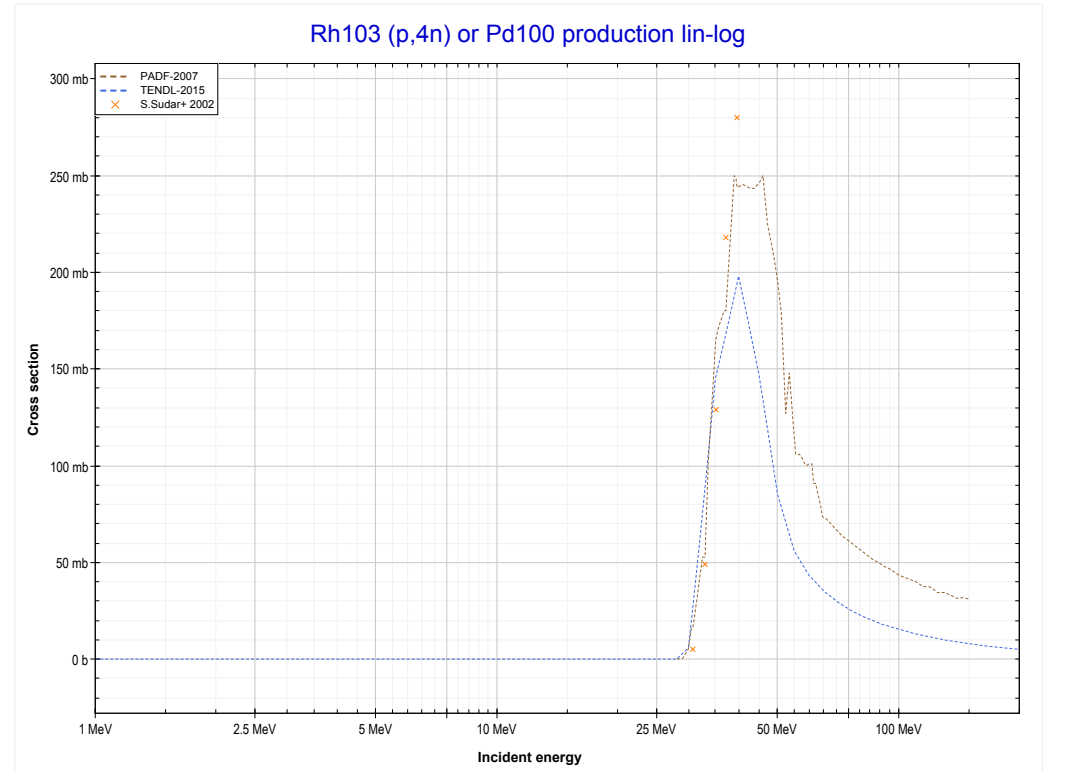
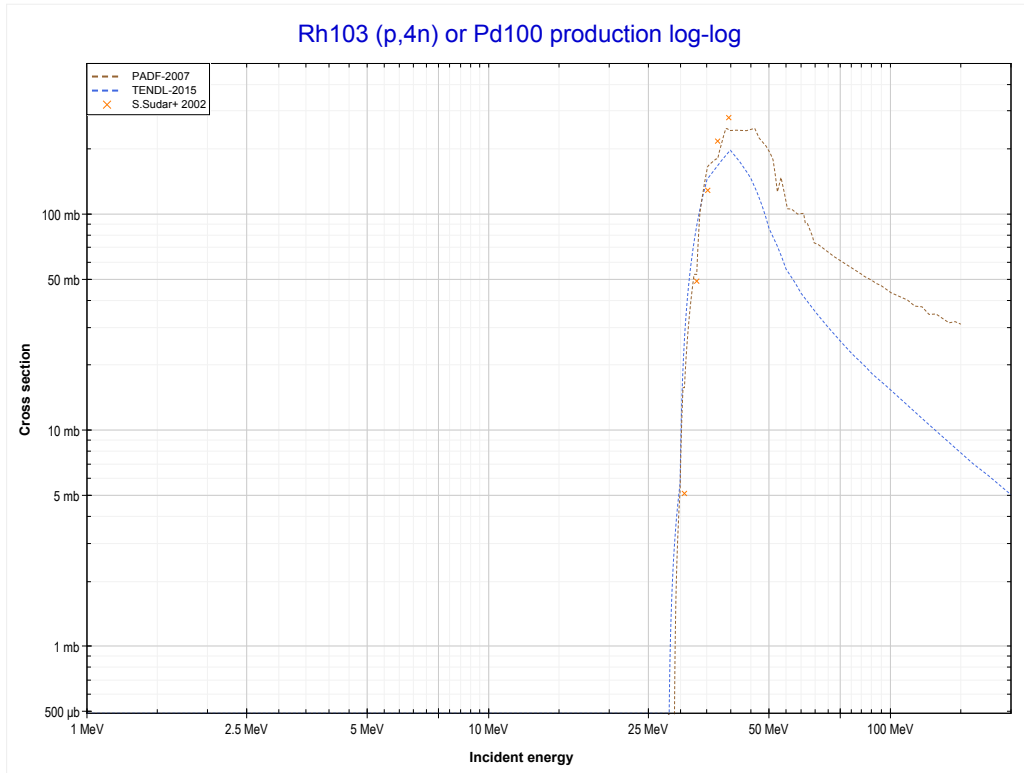
Reaction	Q-Value
Rh103(p,n)Pd103	-1325.45 keV

<< 43-Tc-99	45-Rh-103	48-Cd-111 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Pd101 production)	MT37 (p,4n) >>



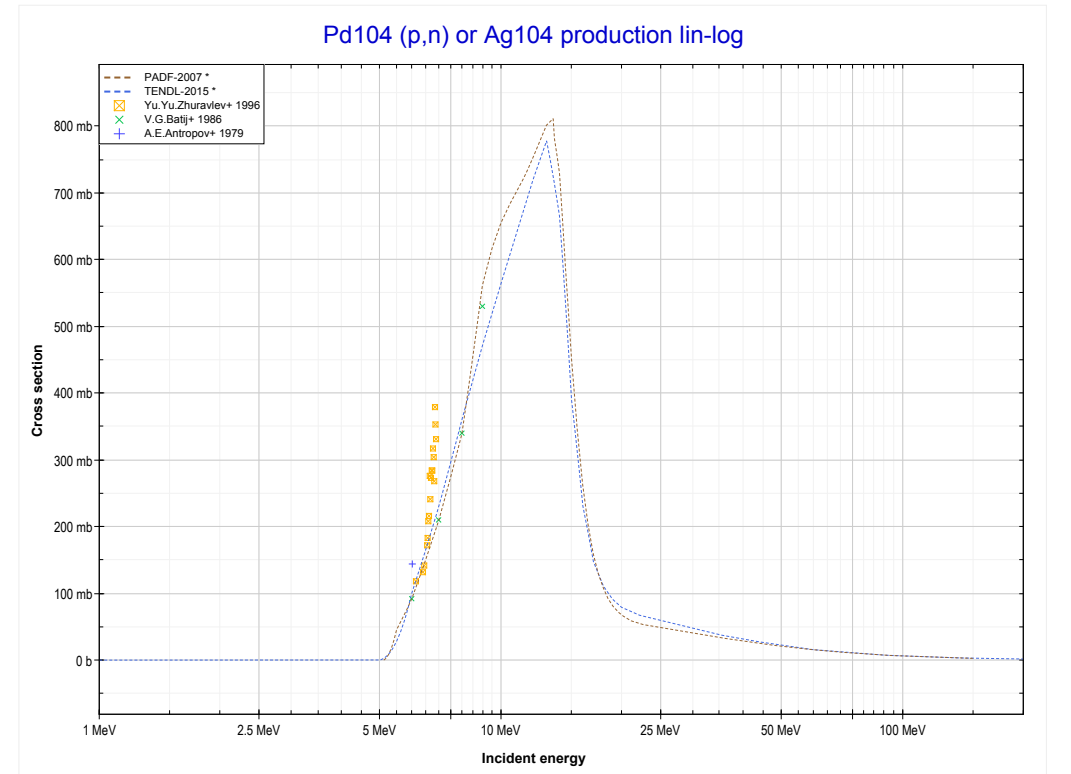
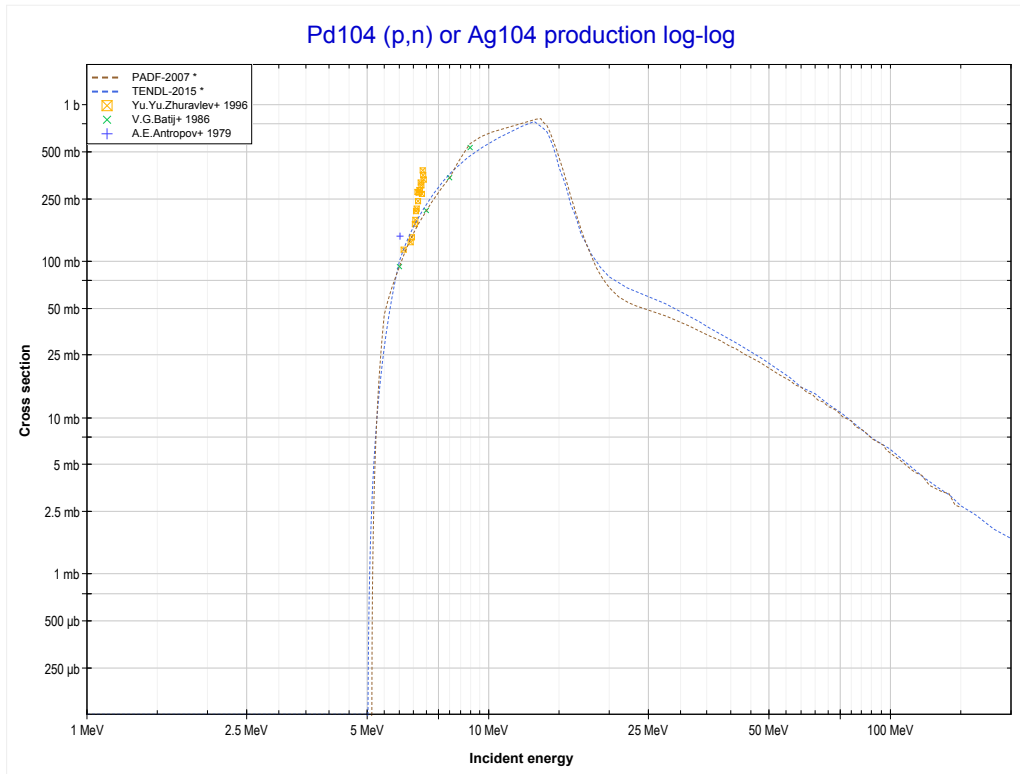
Reaction	Q-Value
Rh103(p,3n)Pd101	-19522.08 keV

<< 42-Mo-96	45-Rh-103	48-Cd-111 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Pd100 production)	46-Pd-104 MT4 (p,n) >>



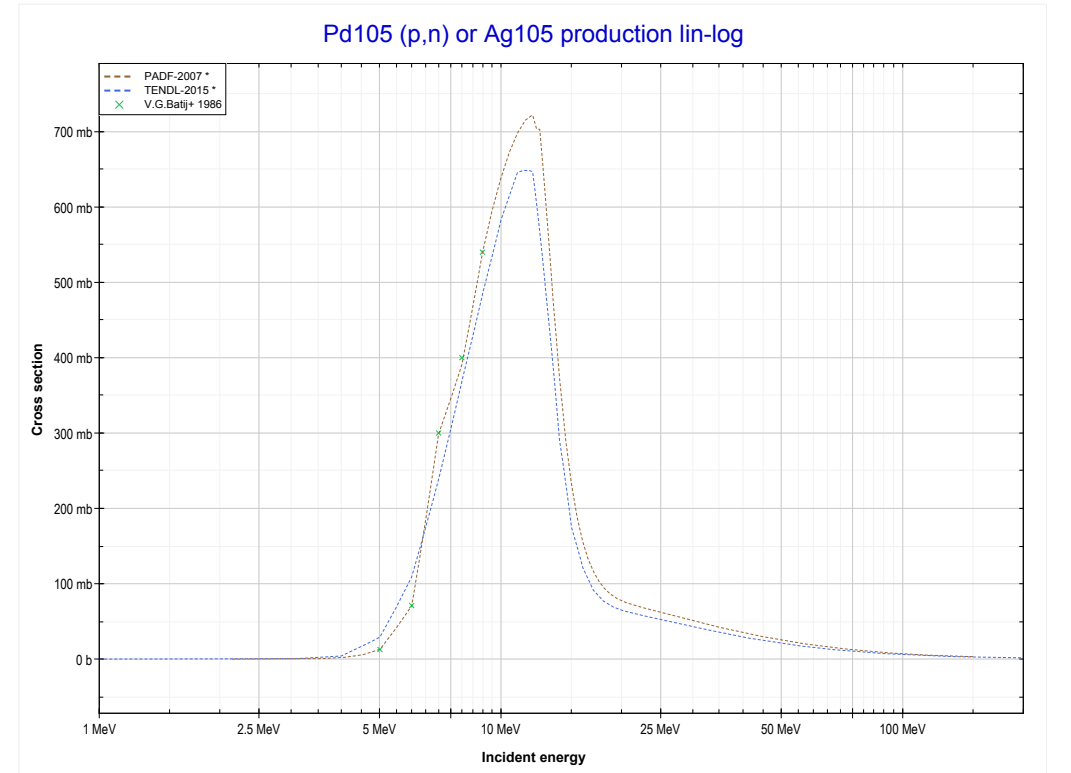
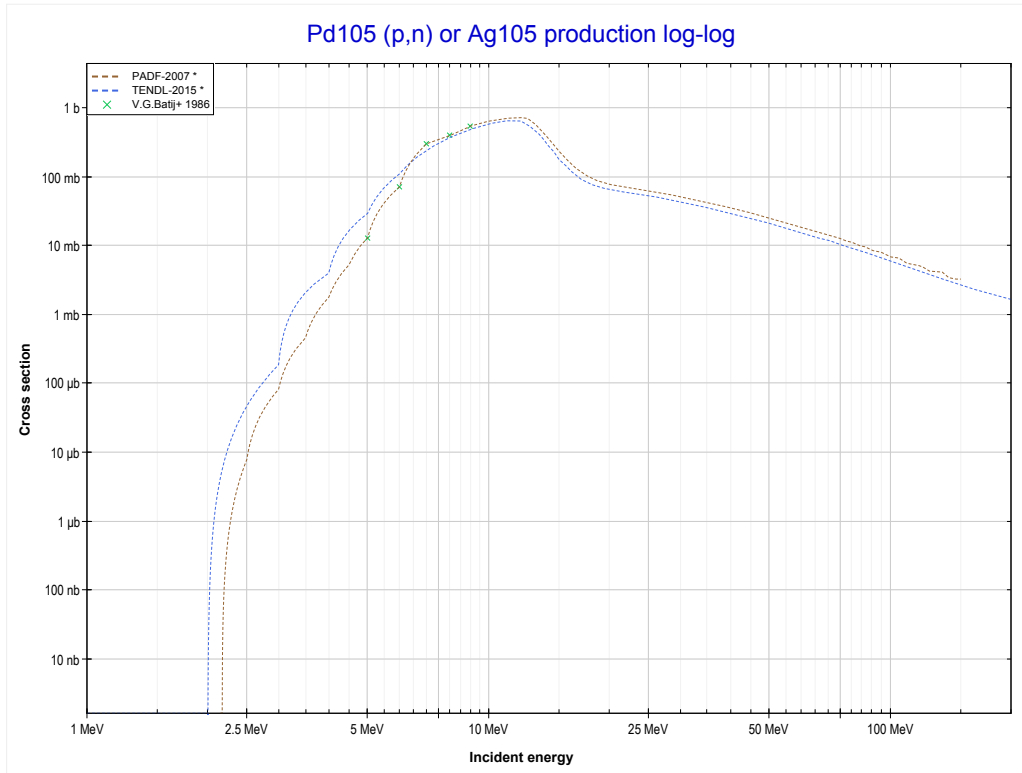
Reaction	Q-Value
Rh103(p,4n)Pd100	-27797.40 keV

<< 45-Rh-103	46-Pd-104	46-Pd-105 >>
<< 45-Rh-103 MT37 (p,4n)	MT4 (p,n) or MT5 (Ag104 production)	46-Pd-105 MT4 (p,n) >>



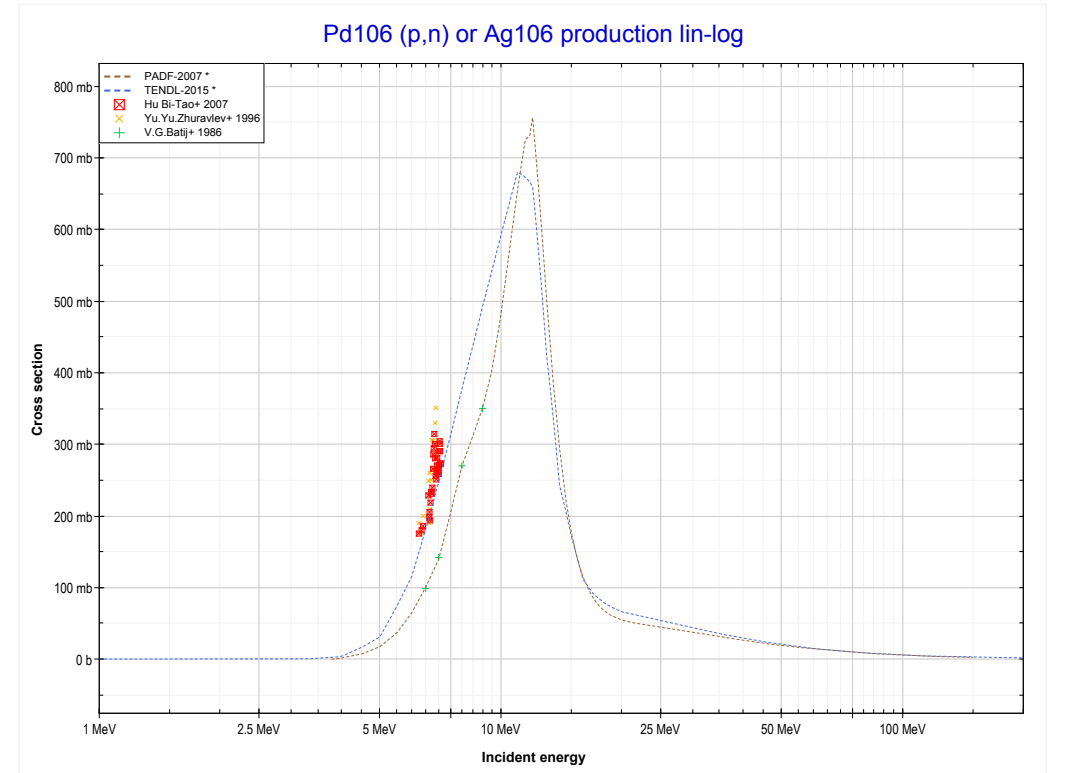
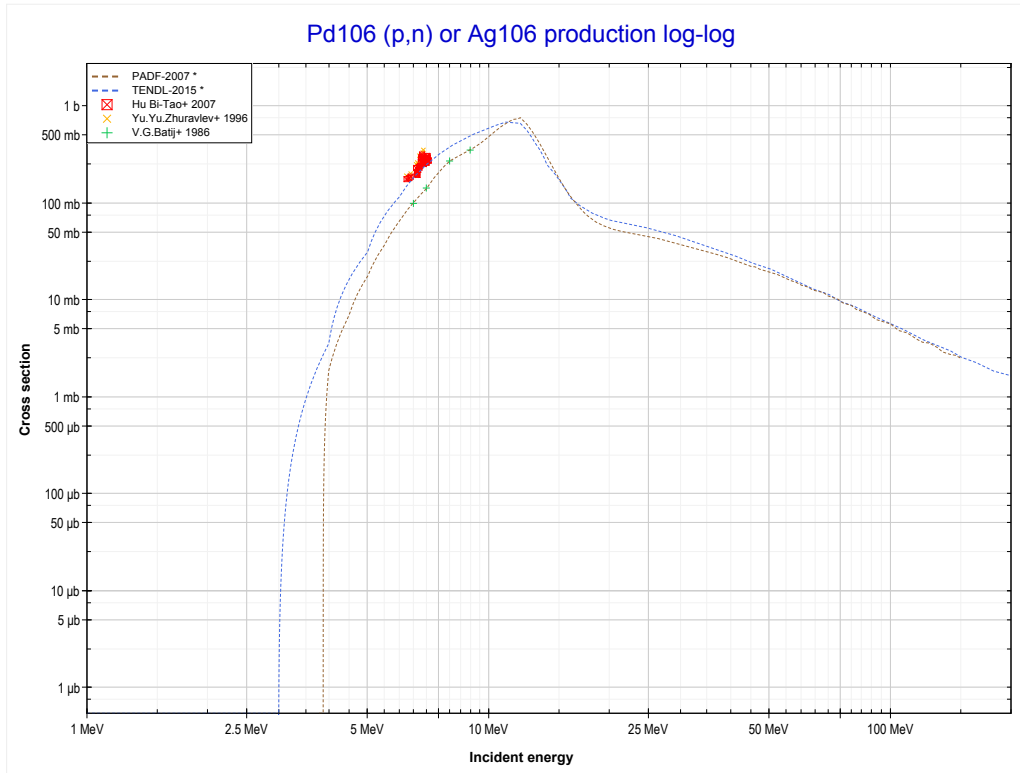
Reaction	Q-Value
Pd104(p,n)Ag104	-5061.35 keV

<< 46-Pd-104	46-Pd-105	46-Pd-106 >>
<< 46-Pd-104 MT4 (p,n)	MT4 (p,n) or MT5 (Ag105 production)	46-Pd-106 MT4 (p,n) >>



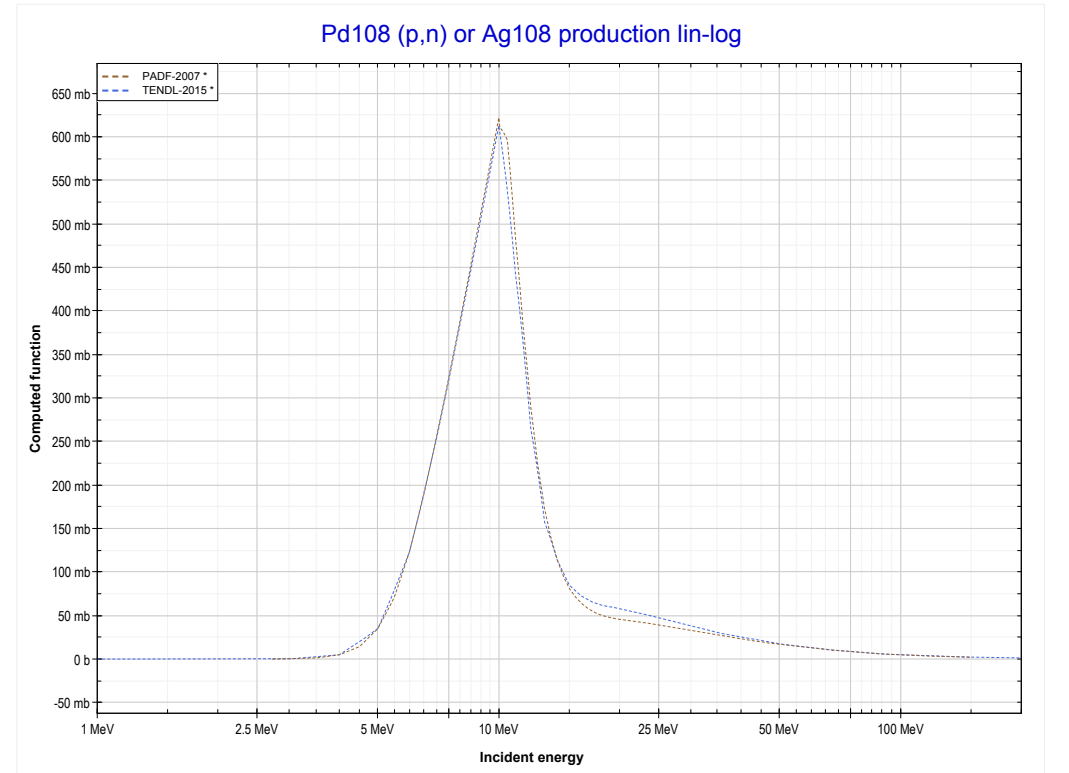
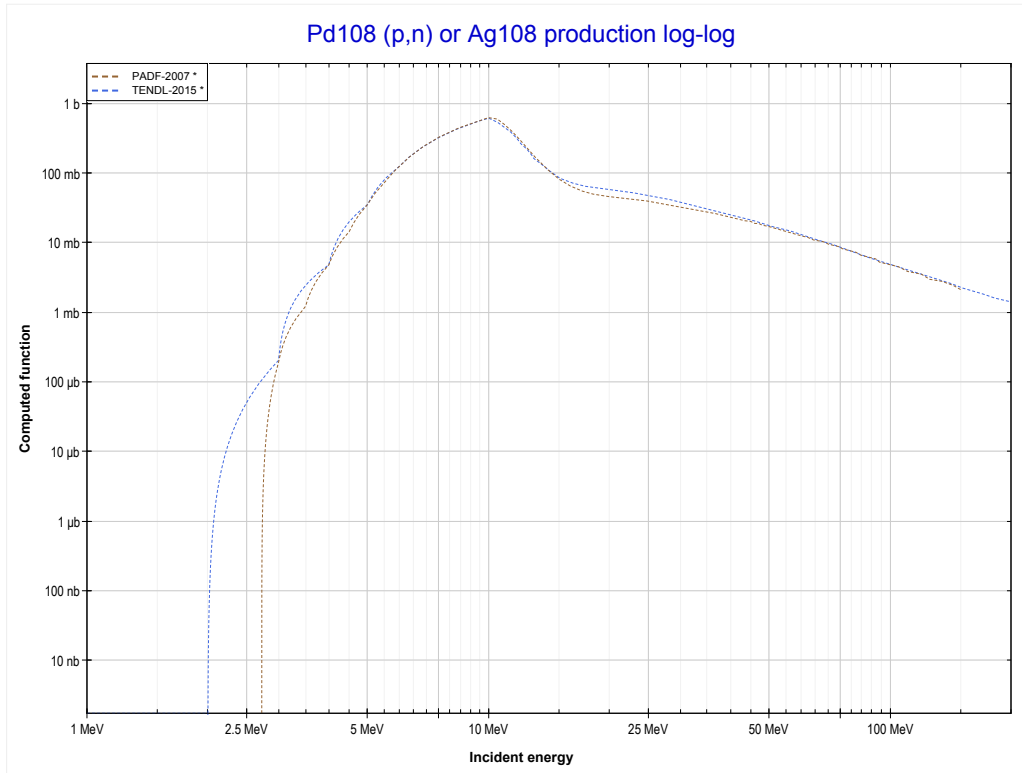
Reaction	Q-Value
Pd105(p,n)Ag105	-2129.15 keV

<< 46-Pd-105	46-Pd-106	46-Pd-108 >>
<< 46-Pd-105 MT4 (p,n)	MT4 (p,n) or MT5 (Ag106 production)	46-Pd-108 MT4 (p,n) >>



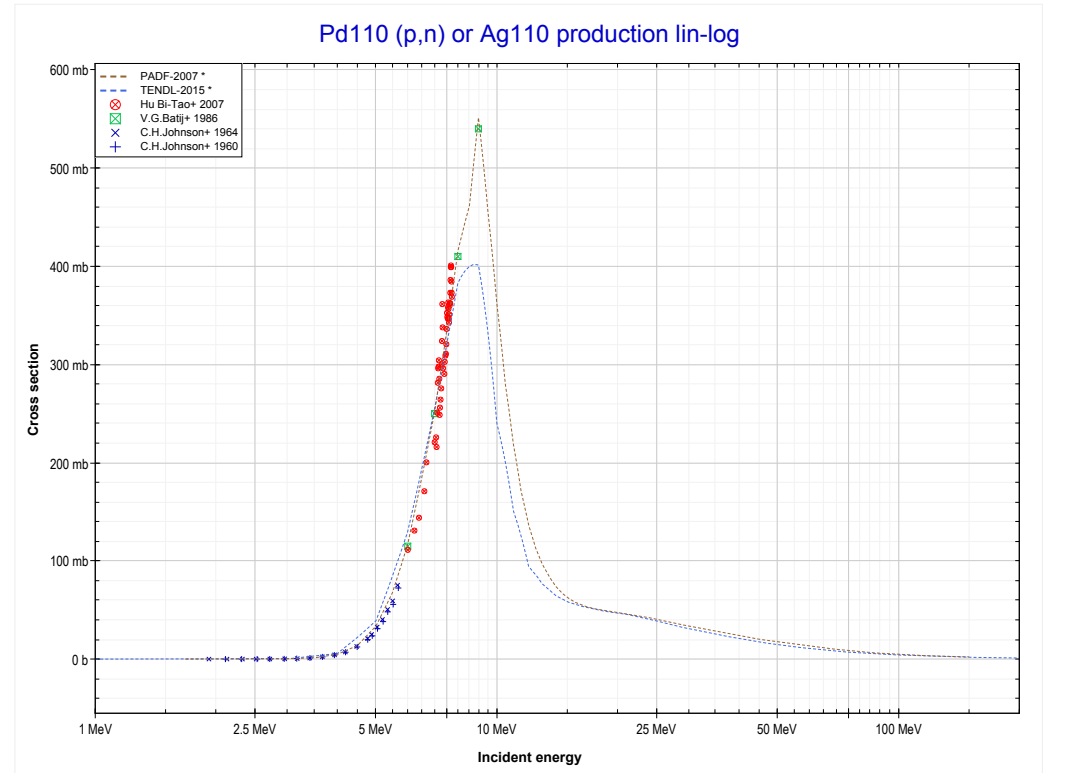
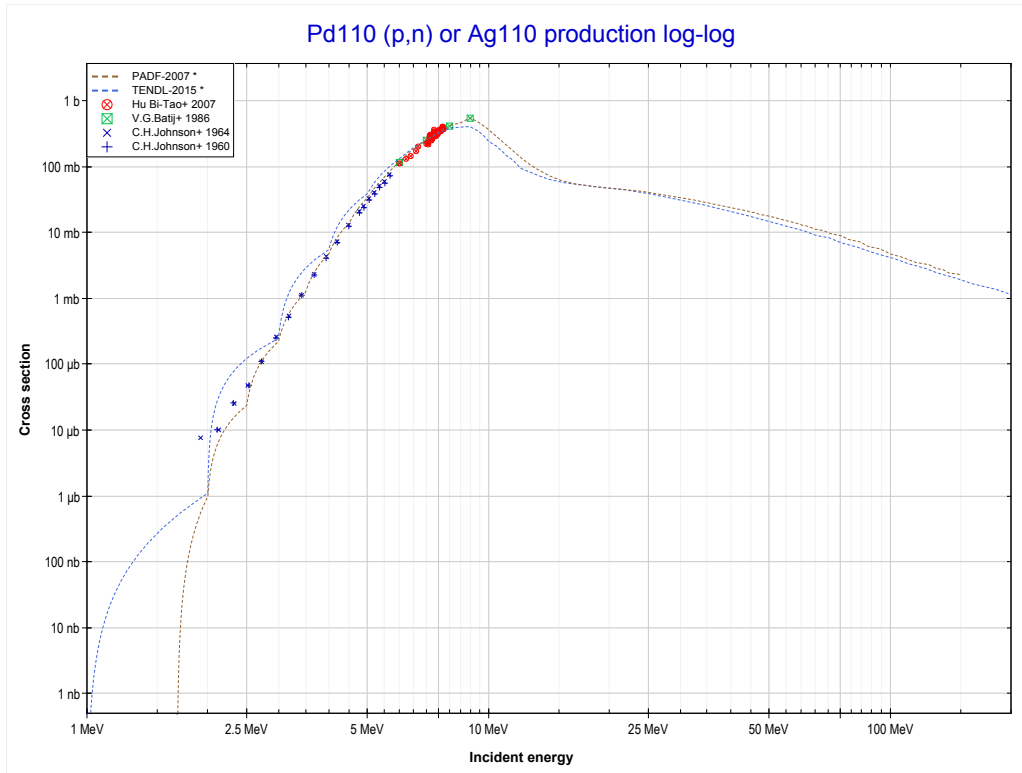
Reaction	Q-Value
Pd106(p,n)Ag106	-3747.75 keV

<< 46-Pd-106	46-Pd-108	46-Pd-110 >>
<< 46-Pd-106 MT4 (p,n)	MT4 (p,n) or MT5 (Ag108 production)	46-Pd-110 MT4 (p,n) >>



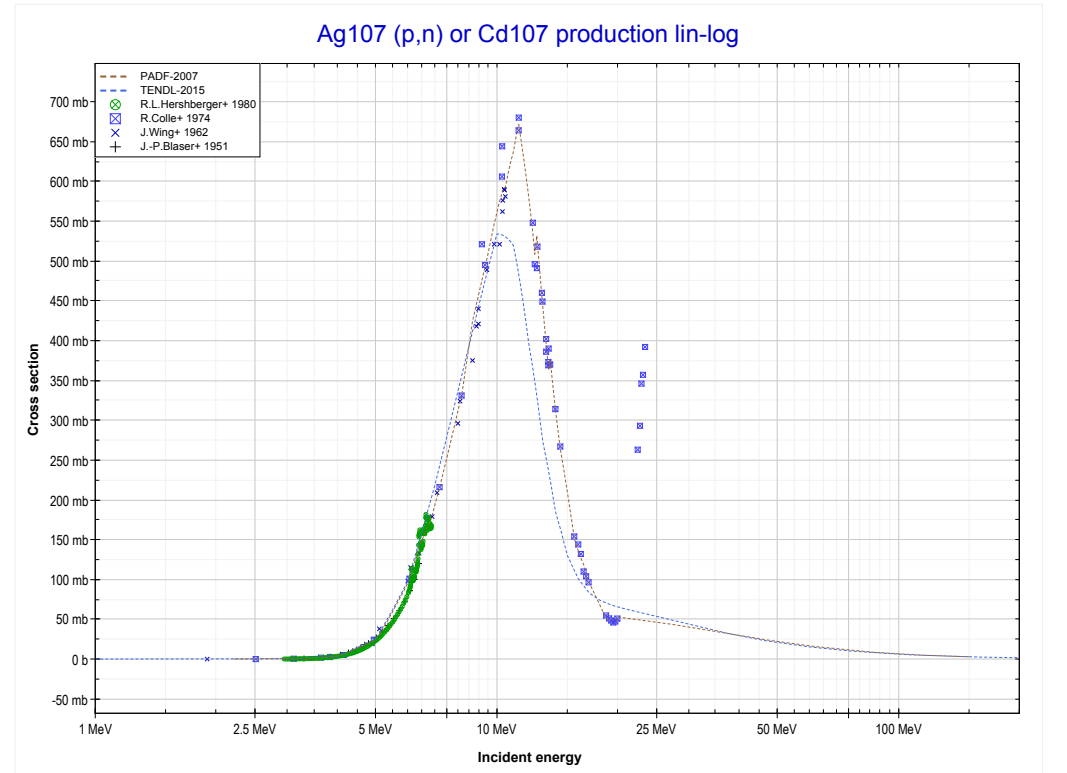
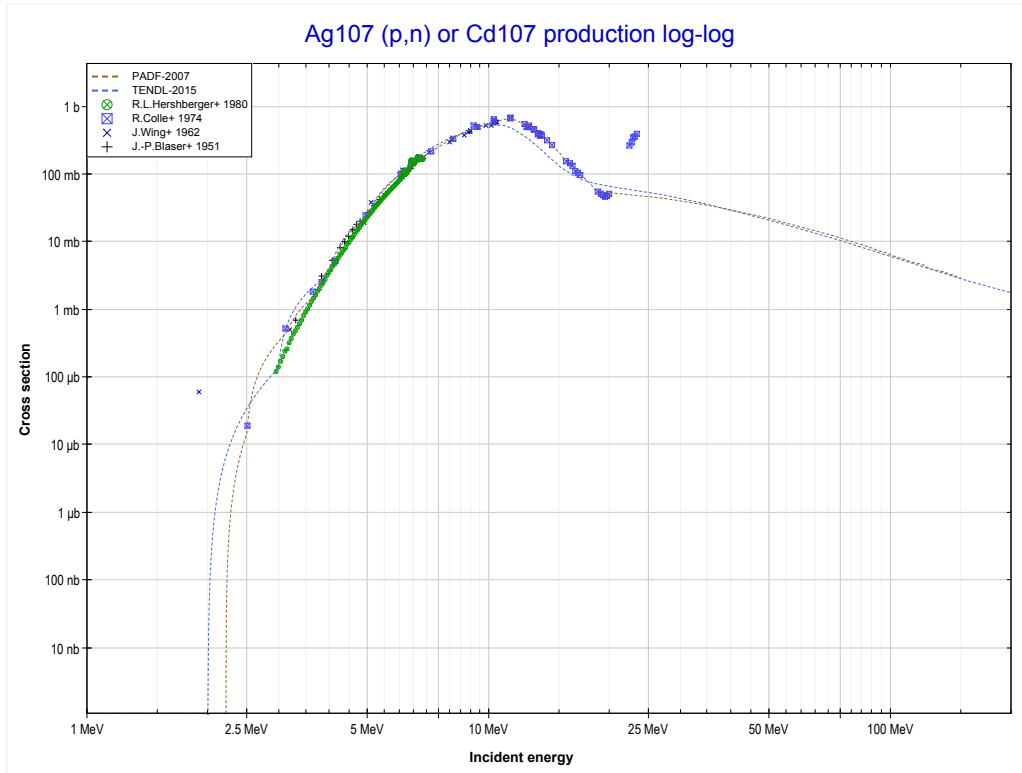
Reaction	Q-Value
Pd108(p,n)Ag108	-2700.05 keV

<< 46-Pd-108	46-Pd-110	47-Ag-107 >>
<< 46-Pd-108 MT4 (p,n)	MT4 (p,n) or MT5 (Ag110 production)	47-Ag-107 MT4 (p,n) >>



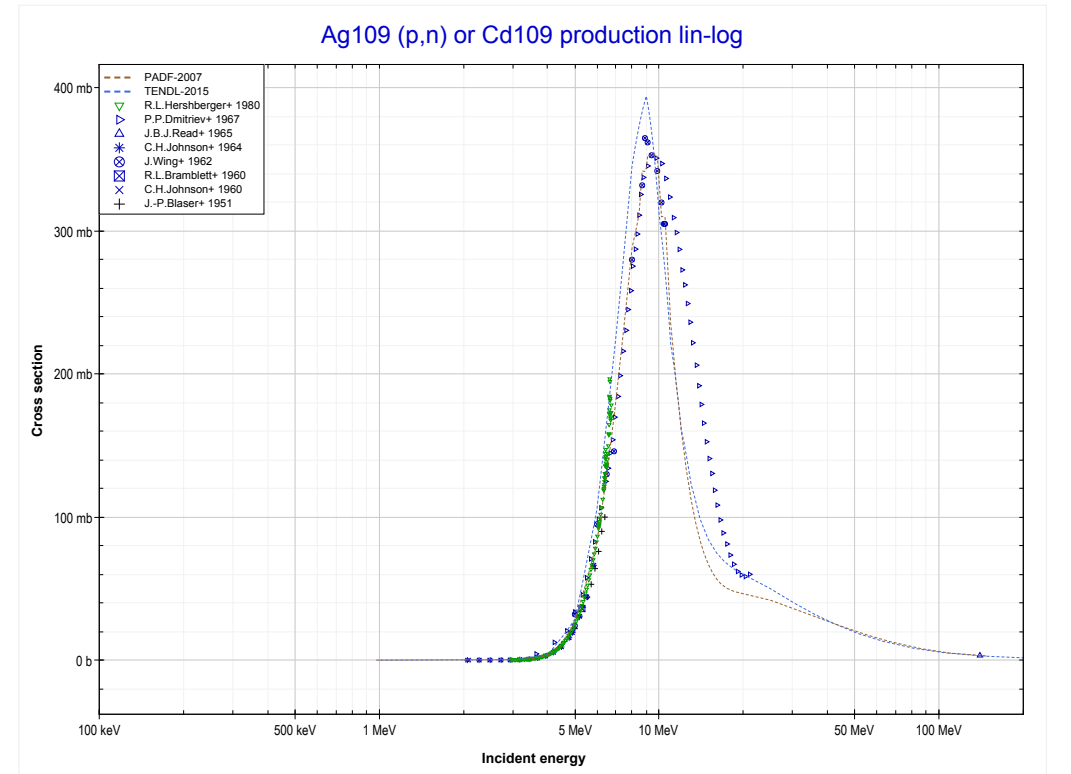
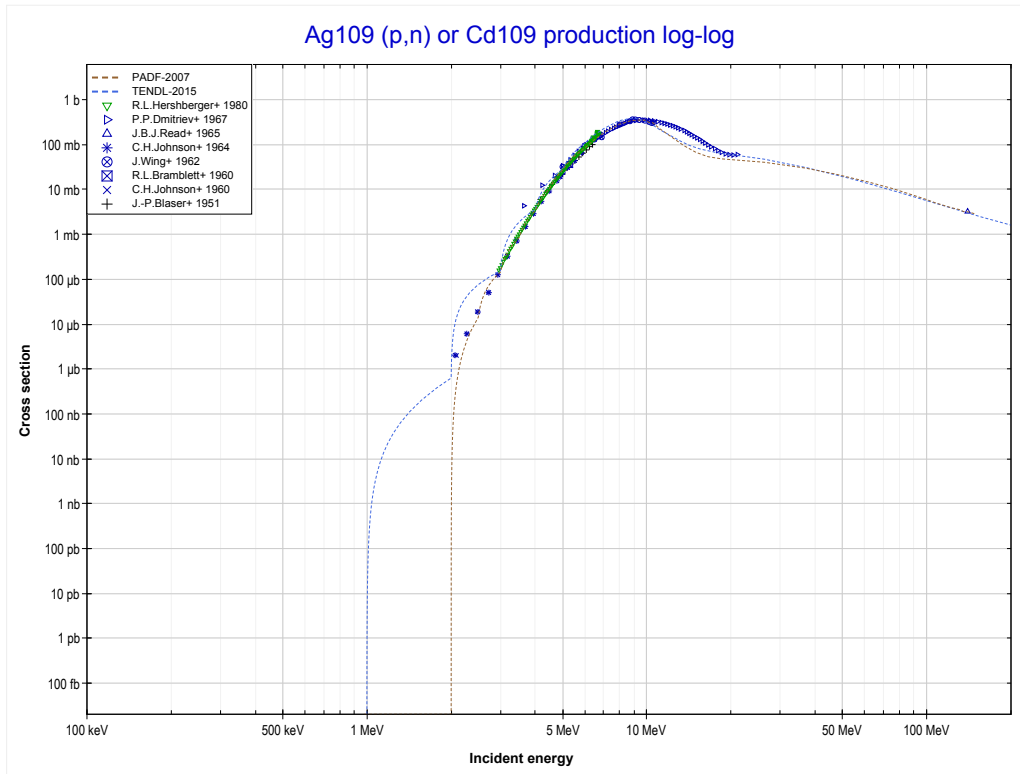
Reaction	Q-Value
Pd110(p,n)Ag110	-1656.05 keV

<< 46-Pd-110	47-Ag-107	47-Ag-109 >>
<< 46-Pd-110 MT4 (p,n)	MT4 (p,n) or MT5 (Cd107 production)	47-Ag-109 MT4 (p,n) >>



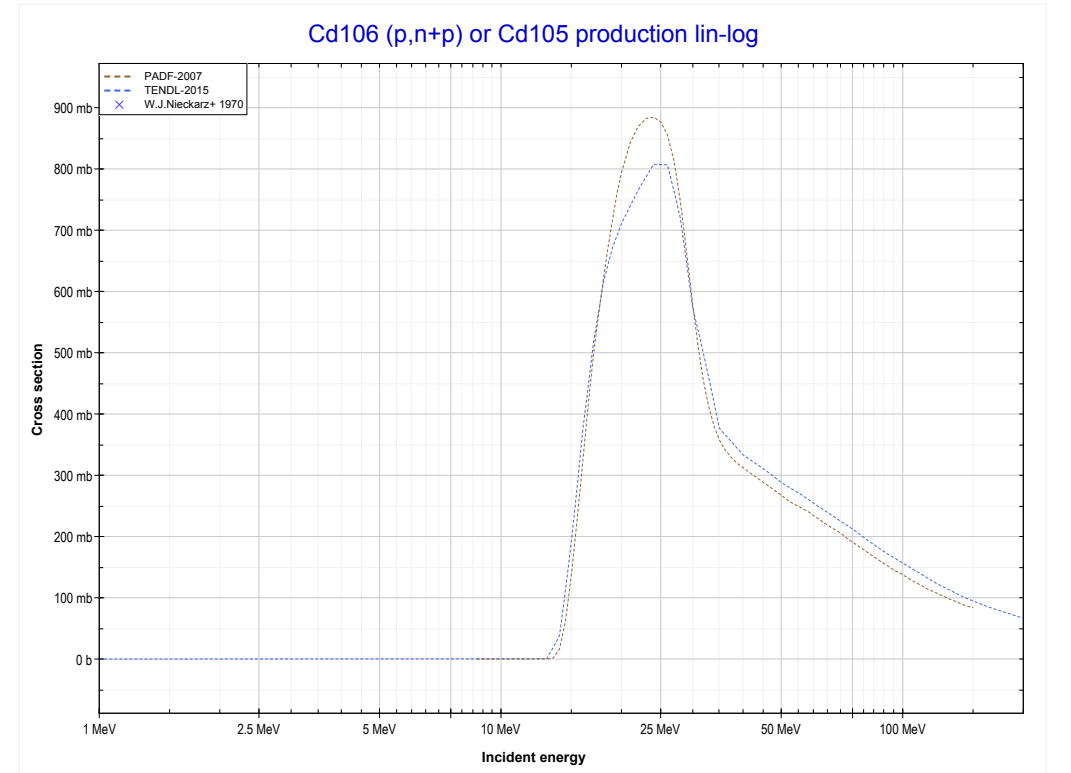
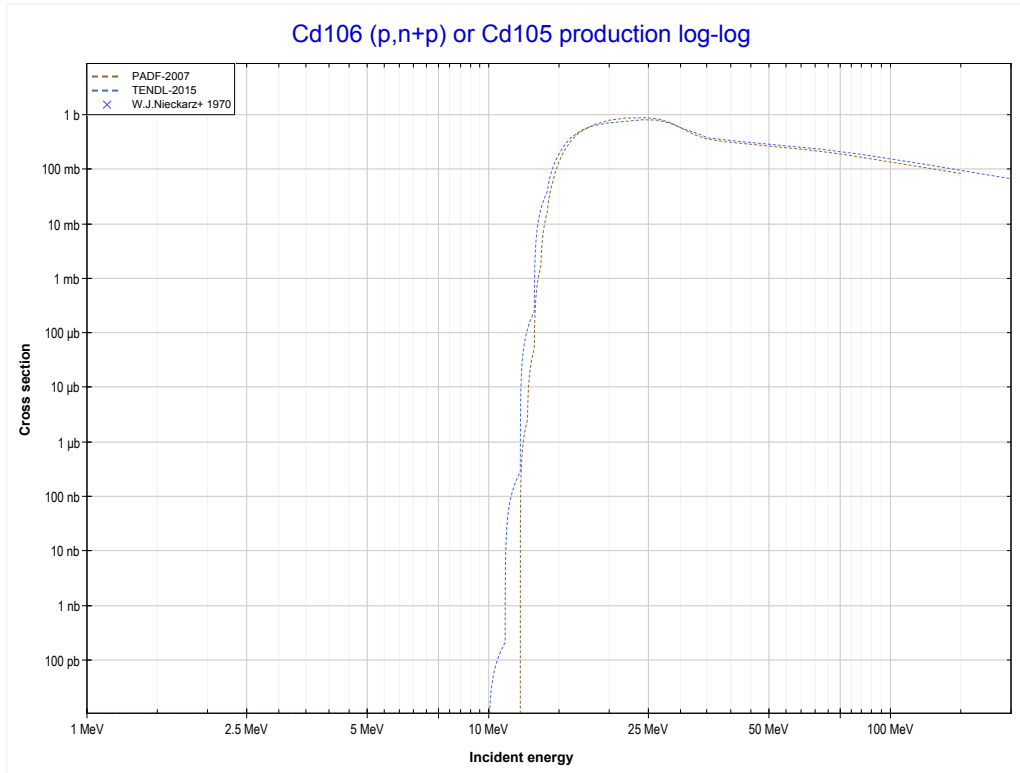
Reaction	Q-Value
Ag107(p,n)Cd107	-2198.75 keV

<< 47-Ag-107	47-Ag-109	48-Cd-110 >>
<< 47-Ag-107 MT4 (p,n)	MT4 (p,n) or MT5 (Cd109 production)	48-Cd-106 MT28 (p,n+p) >>



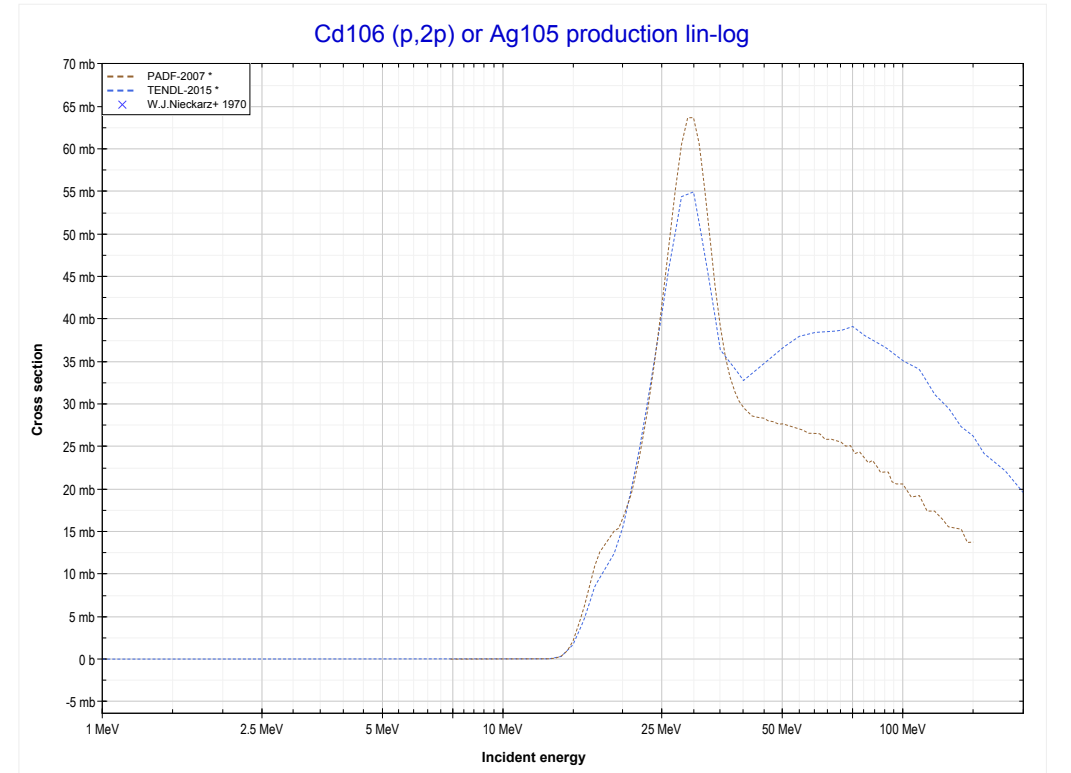
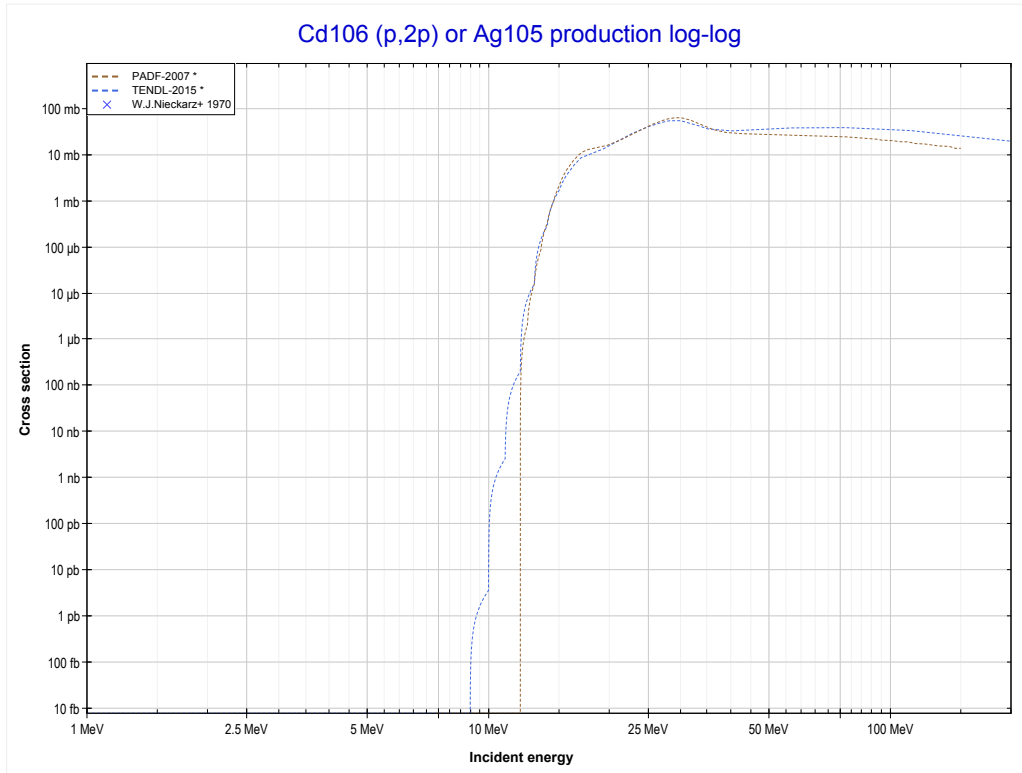
Reaction	Q-Value
Ag109(p,n)Cd109	-997.85 keV

<< 41-Nb-93	48-Cd-106	48-Cd-108 >>
<< 47-Ag-109 MT4 (p,n)	MT28 (p,n+p) or MT5 (Cd105 production)	MT111 (p,2p) >>



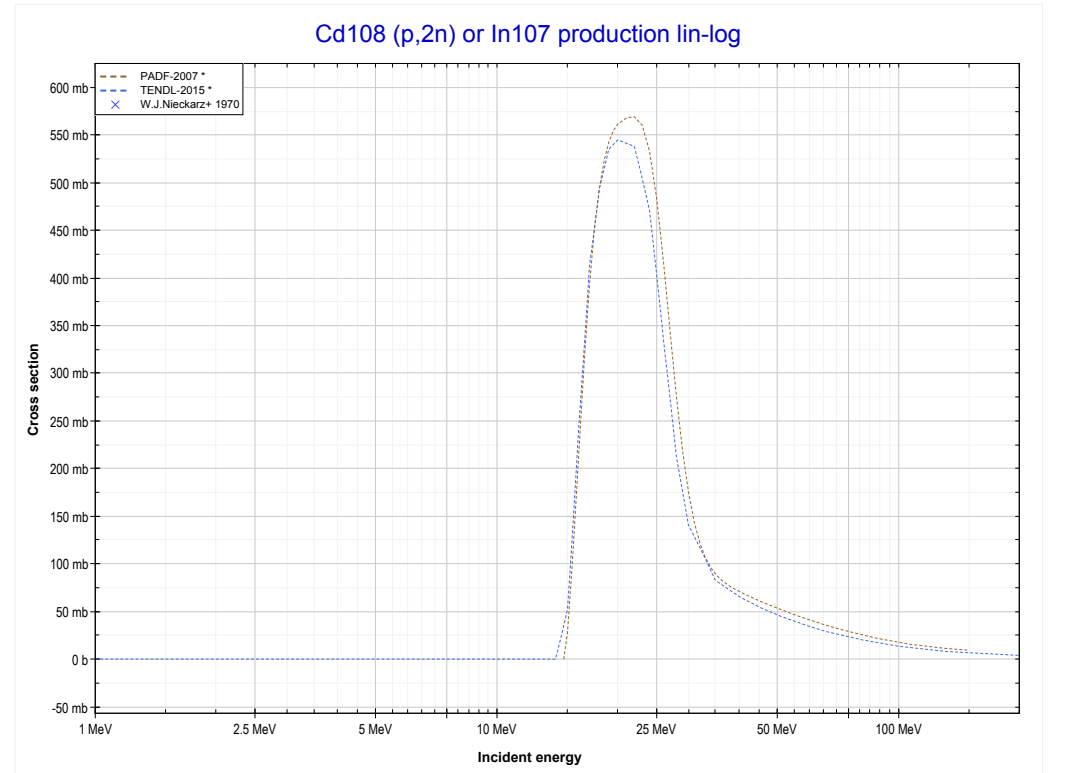
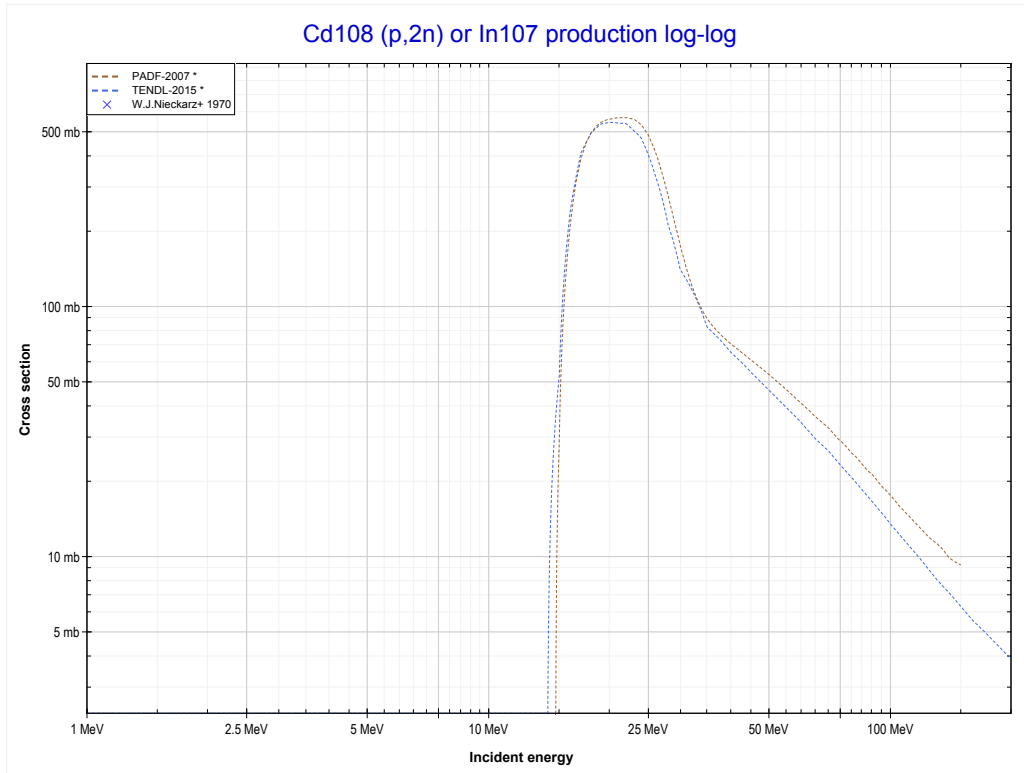
Reaction	Q-Value
Cd106(p,d)Cd105	-8644.95 keV
Cd106(p,n+p)Cd105	-10869.52 keV

<< 42-Mo-98	48-Cd-106	48-Cd-112 >>
<< MT28 (p,n+p)	MT111 (p,2p) or MT5 (Ag105 production)	48-Cd-108 MT16 (p,2n) >>



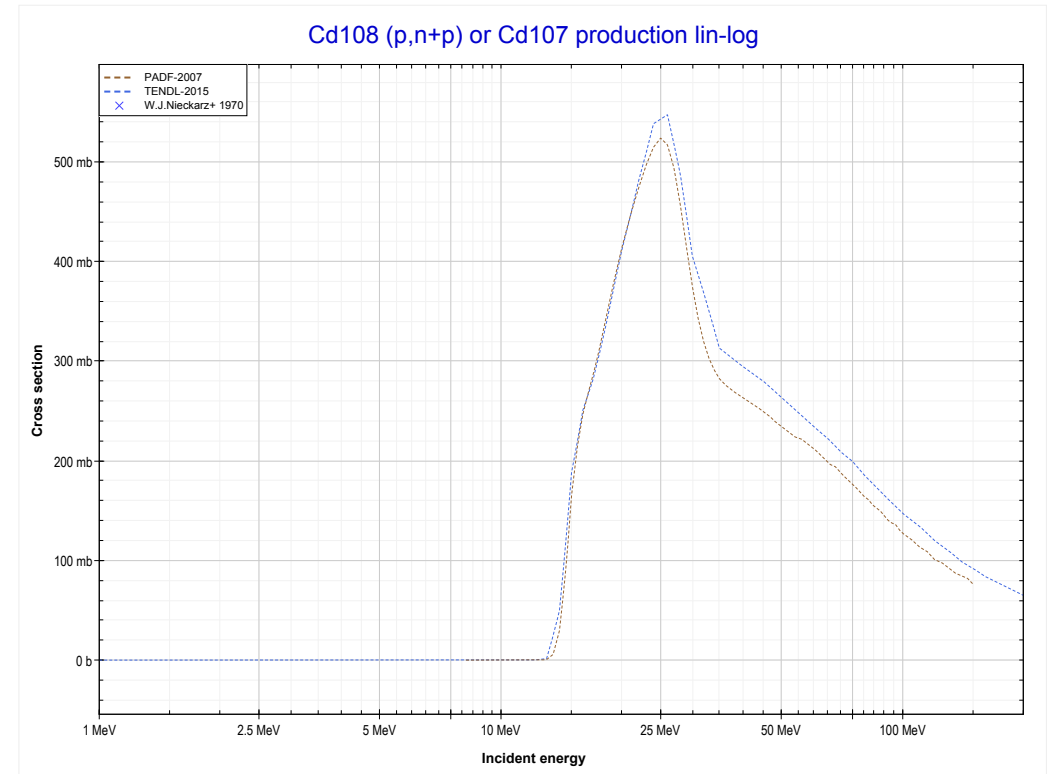
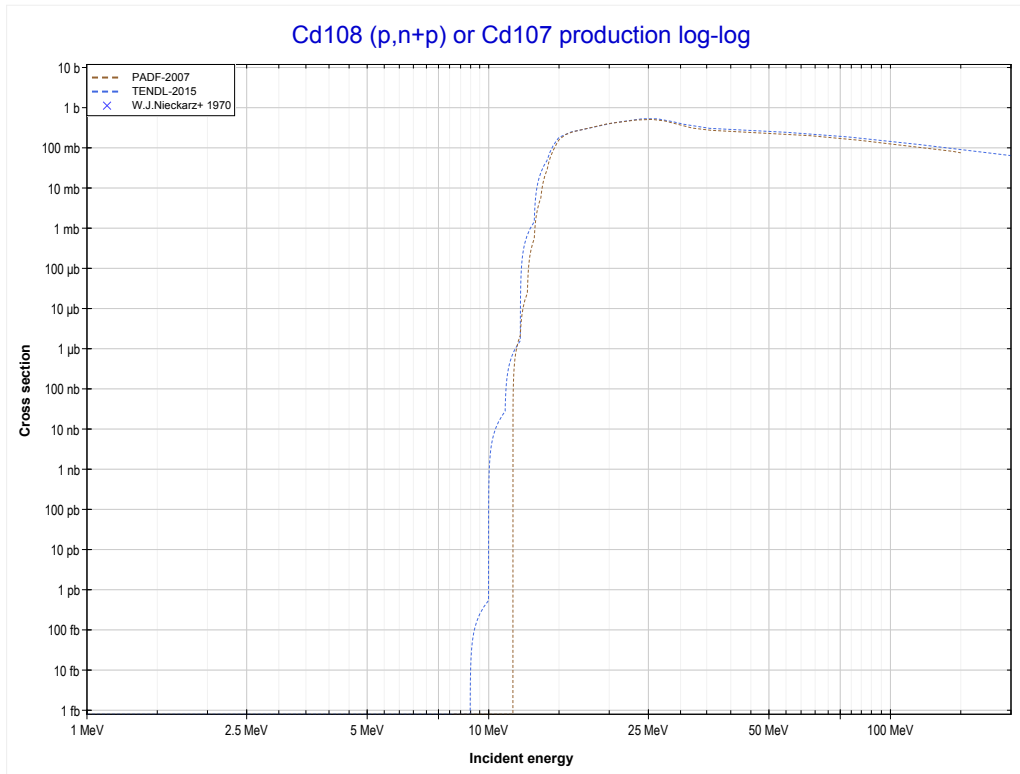
Reaction	Q-Value
Cd106(p,2p)Ag105	-7349.97 keV

<< 42-Mo-100	48-Cd-108	48-Cd-110 >>
<< 48-Cd-106 MT111 (p,2p)	MT16 (p,2n) or MT5 (In107 production)	MT28 (p,n+p) >>



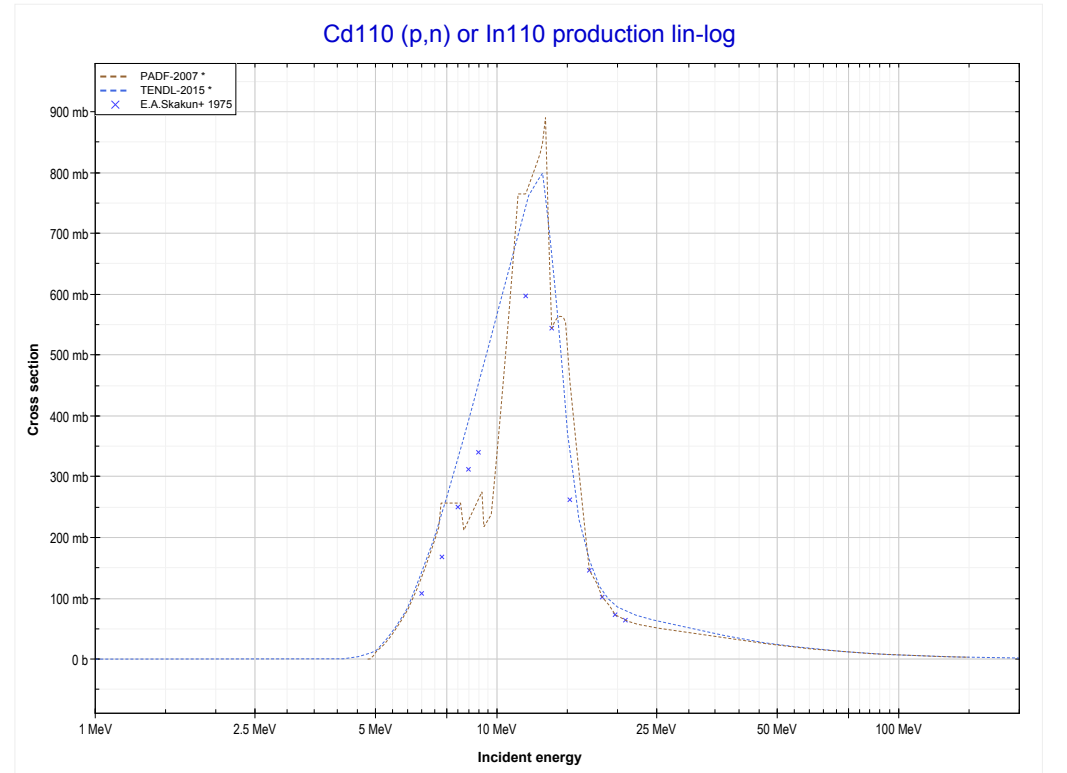
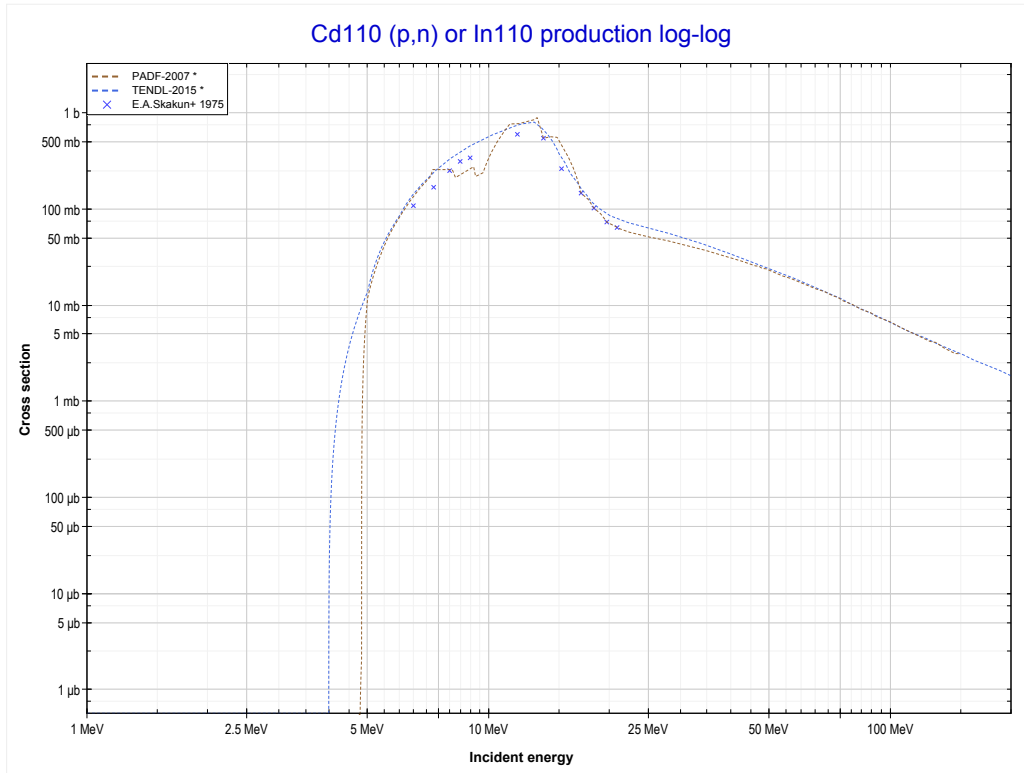
Reaction	Q-Value
Cd108(p,2n)In107	-14542.26 keV

<< 48-Cd-106	48-Cd-108	48-Cd-110 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Cd107 production)	48-Cd-110 MT4 (p,n) >>



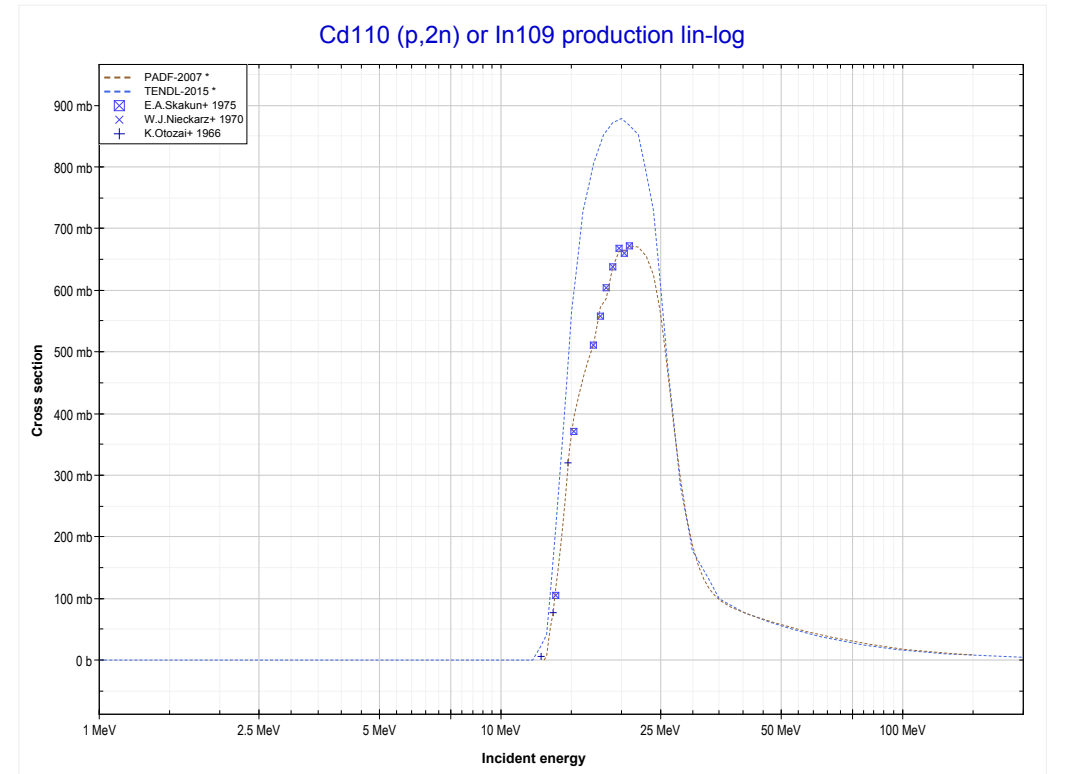
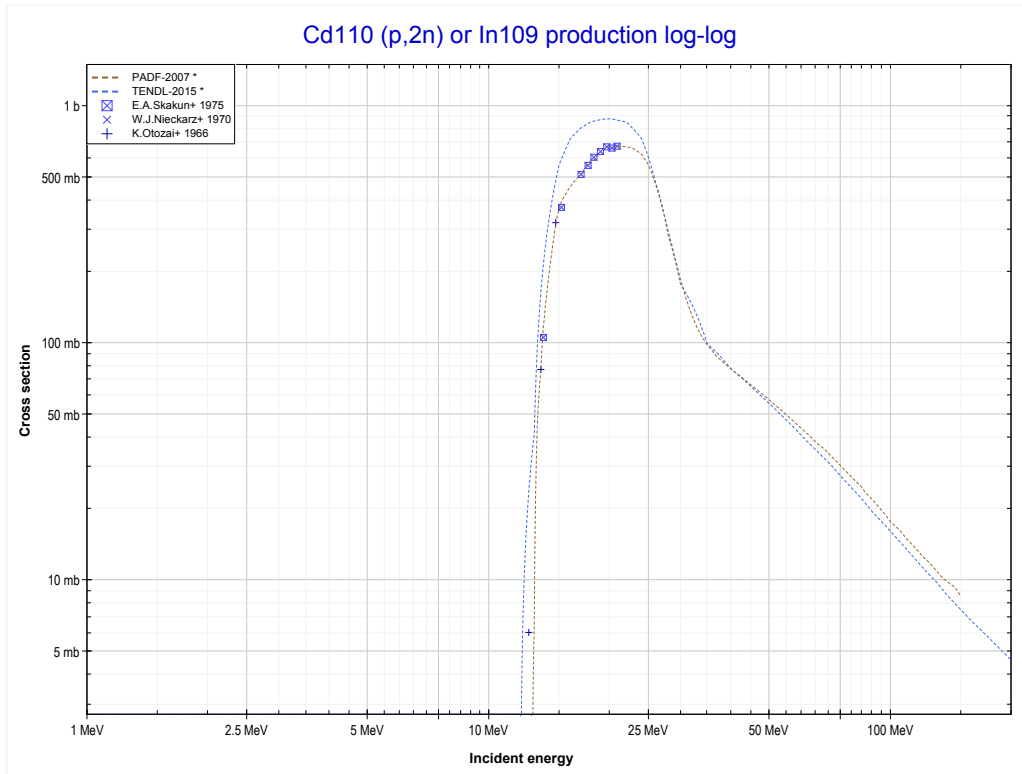
Reaction	Q-Value
Cd108(p,d)Cd107	-8109.15 keV
Cd108(p,n+p)Cd107	-10333.72 keV

<< 47-Ag-109	48-Cd-110	48-Cd-111 >>
<< 48-Cd-108 MT28 (p,n+p)	MT4 (p,n) or MT5 (In110 production)	MT16 (p,2n) >>



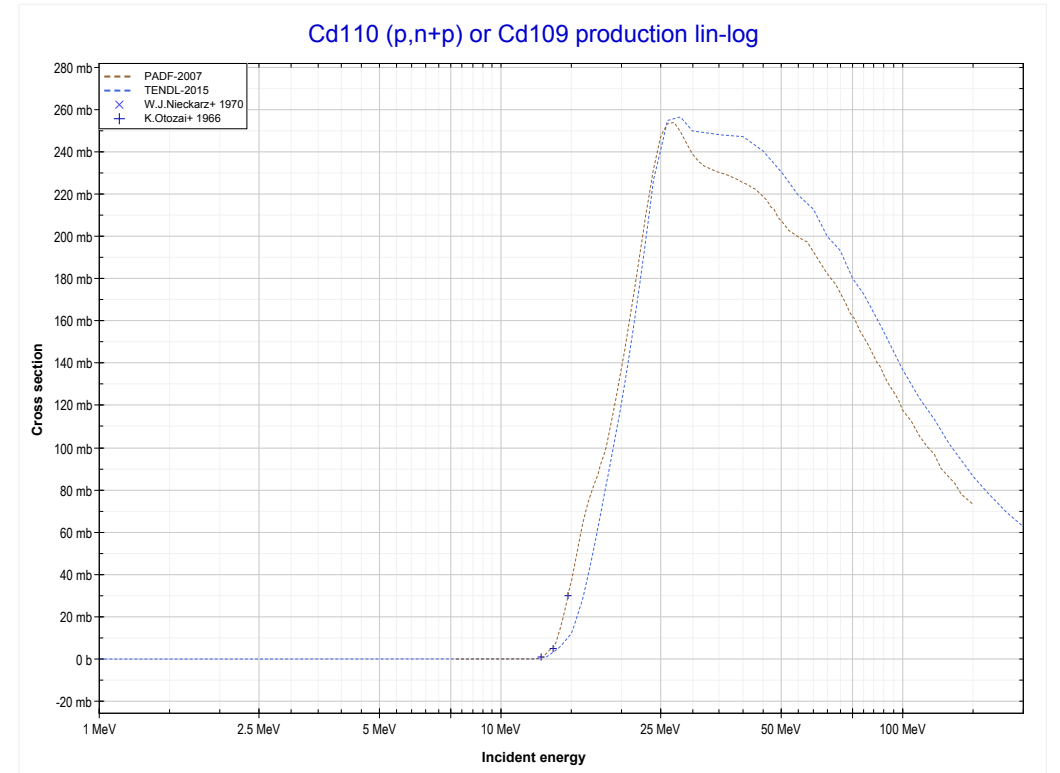
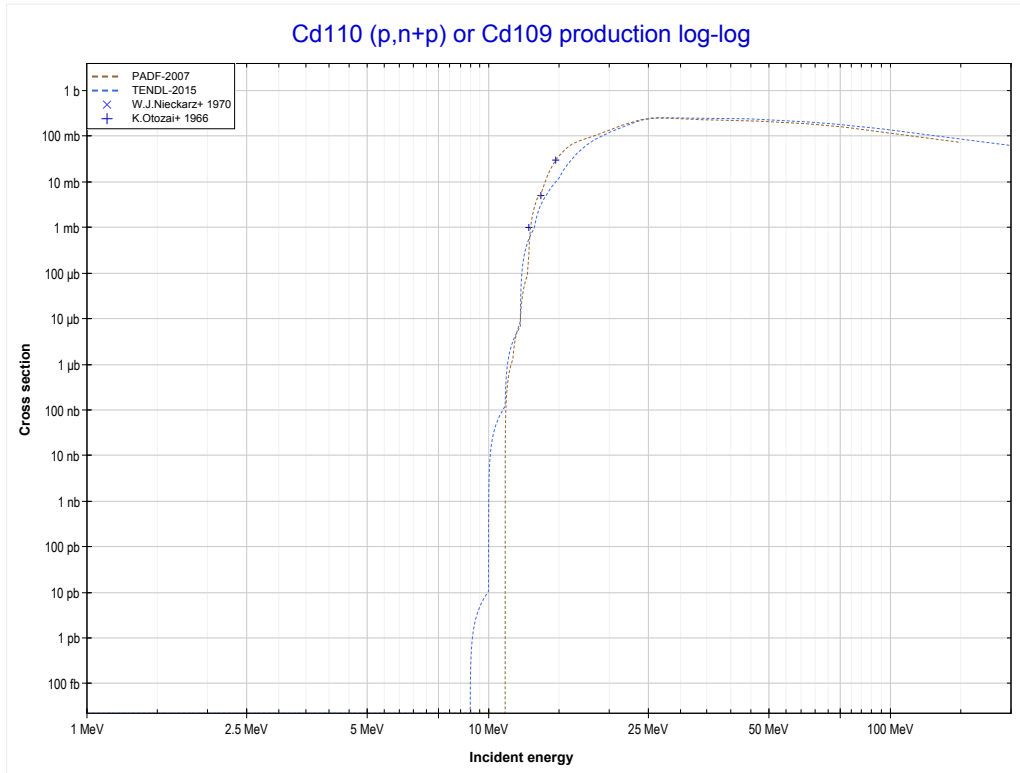
Reaction	Q-Value
Cd110(p,n)In110	-4660.15 keV

<< 48-Cd-108	48-Cd-110	48-Cd-111 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (In109 production)	MT28 (p,n+p) >>



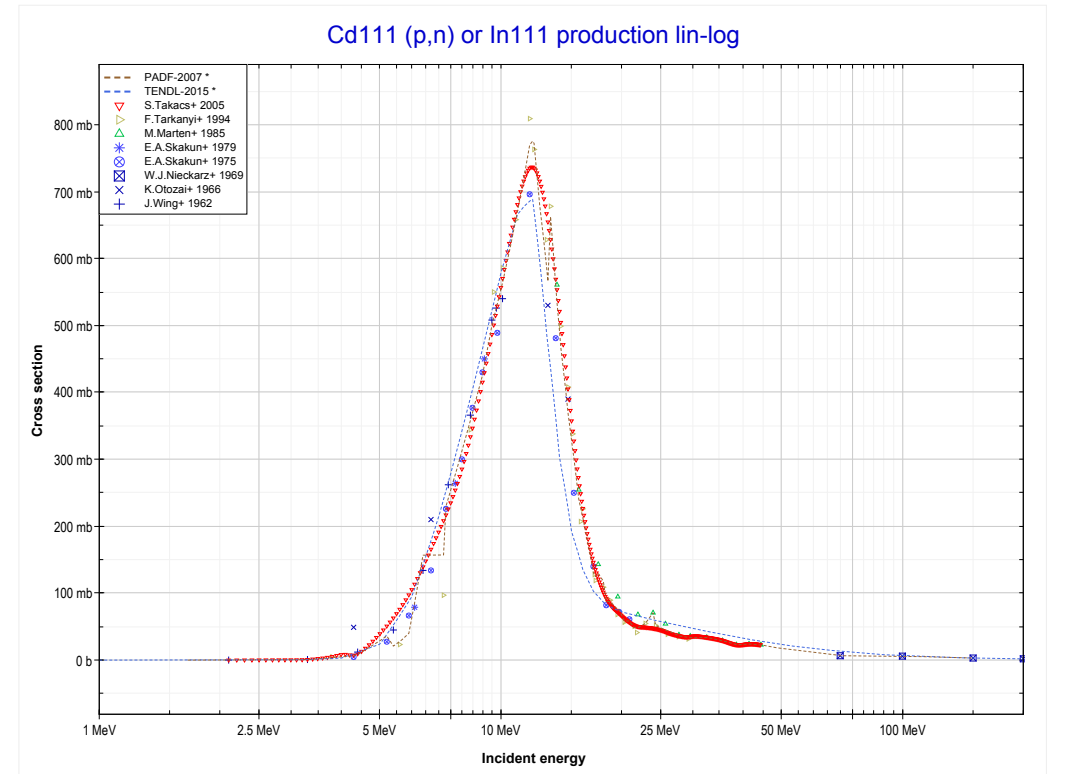
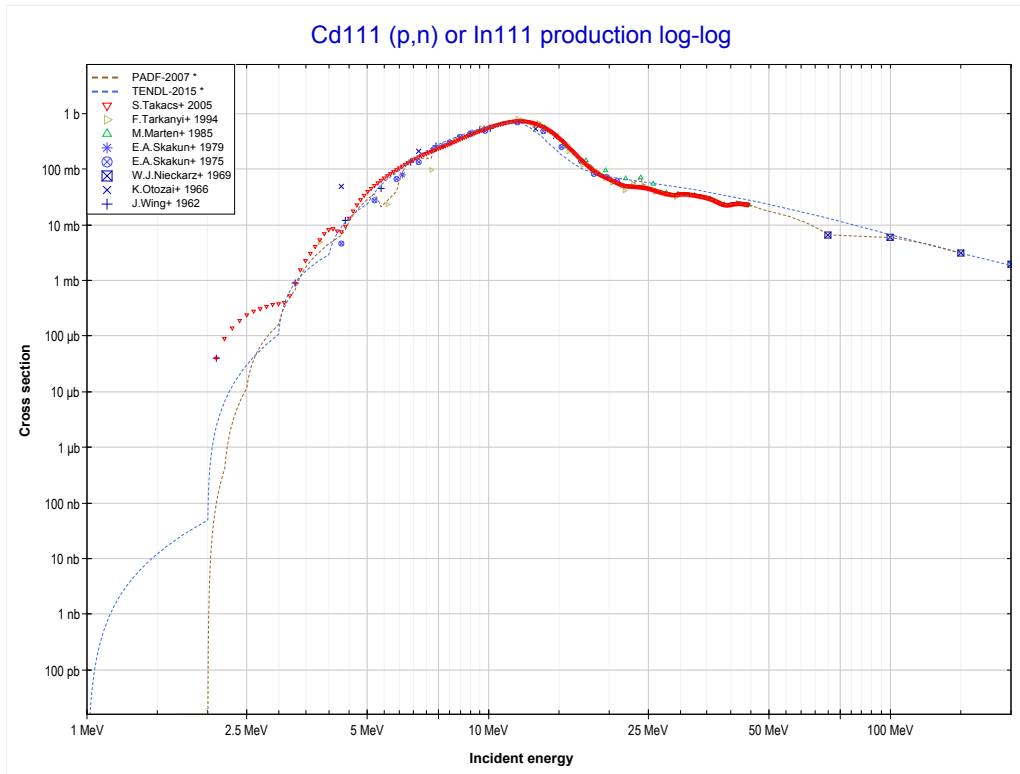
Reaction	Q-Value
Cd110(p,2n)In109	-12714.46 keV

<< 48-Cd-108	48-Cd-110	49-In-115 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Cd109 production)	48-Cd-111 MT4 (p,n) >>



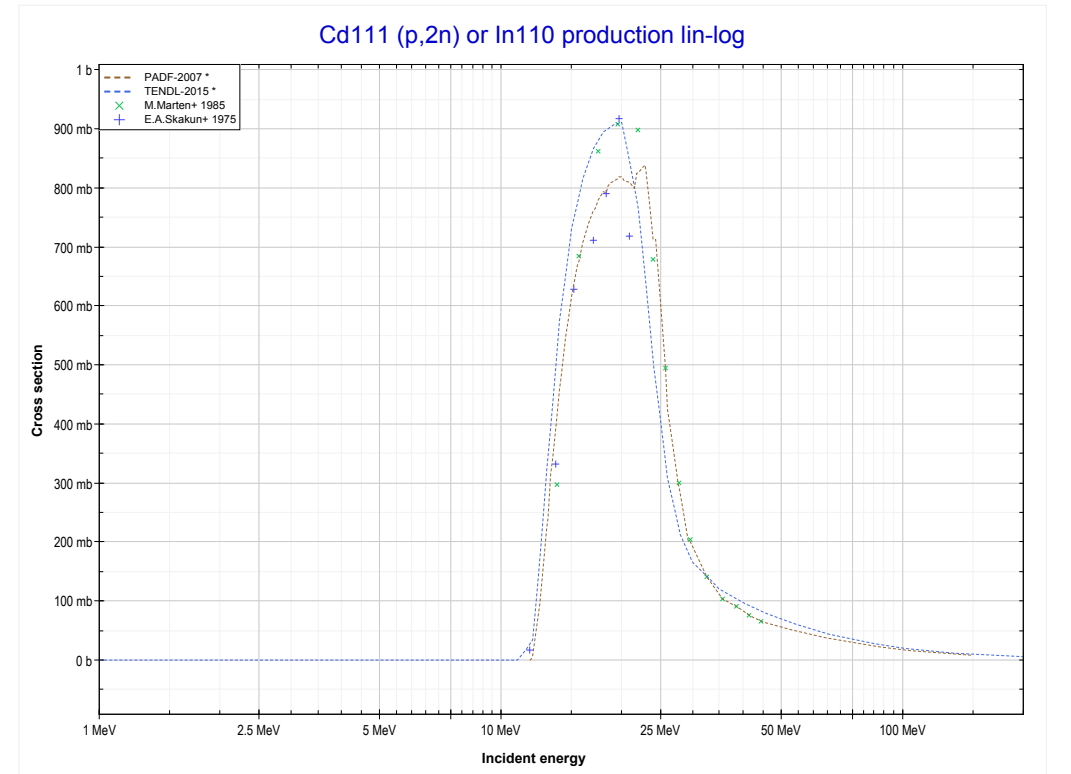
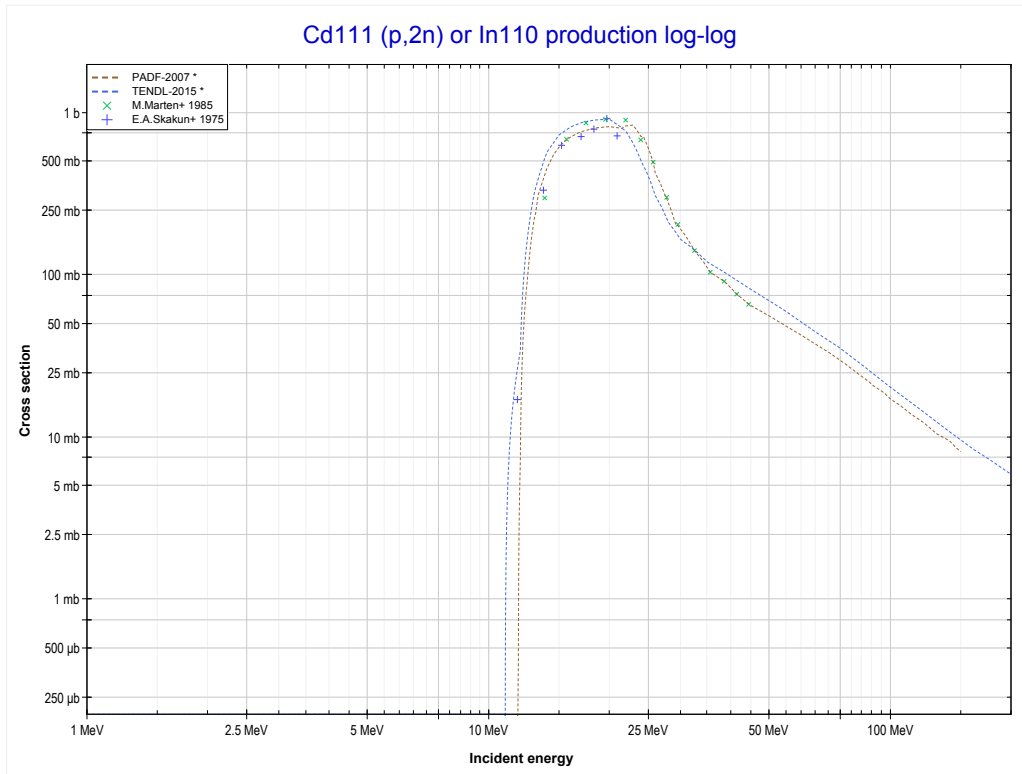
Reaction	Q-Value
Cd110(p,d)Cd109	-7691.15 keV
Cd110(p,n+p)Cd109	-9915.72 keV

<< 48-Cd-110	48-Cd-111	48-Cd-112 >>
<< 48-Cd-110 MT28 (p,n+p)	MT4 (p,n) or MT5 (In111 production)	MT16 (p,2n) >>



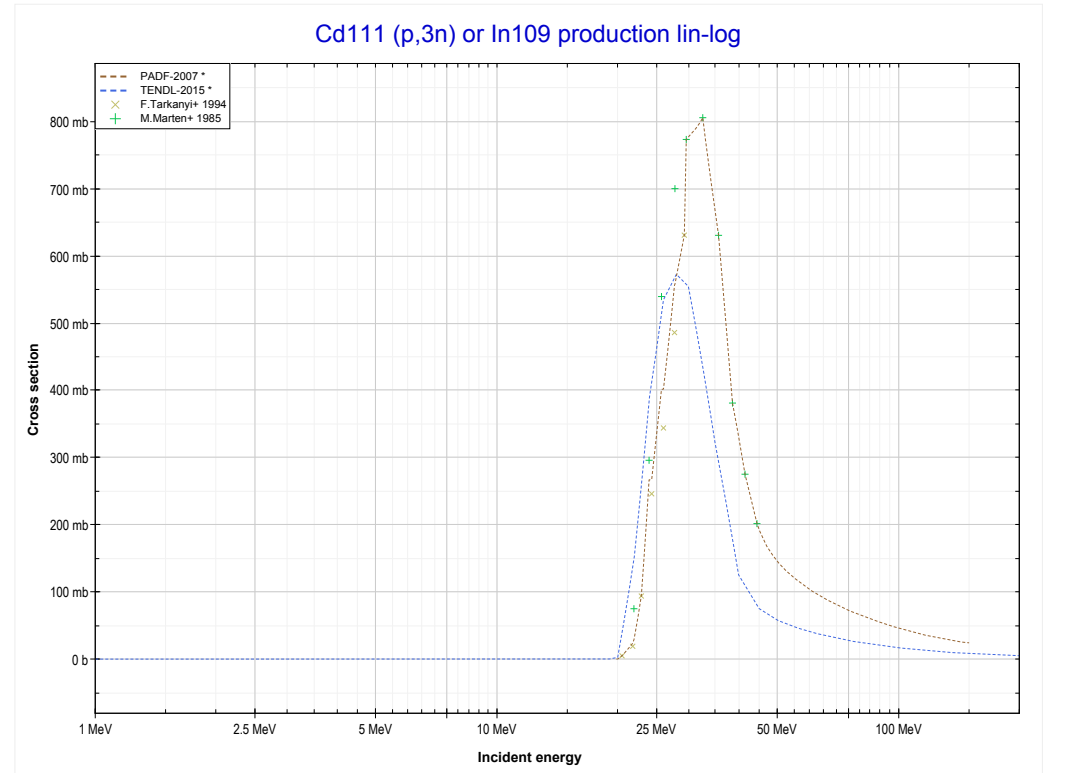
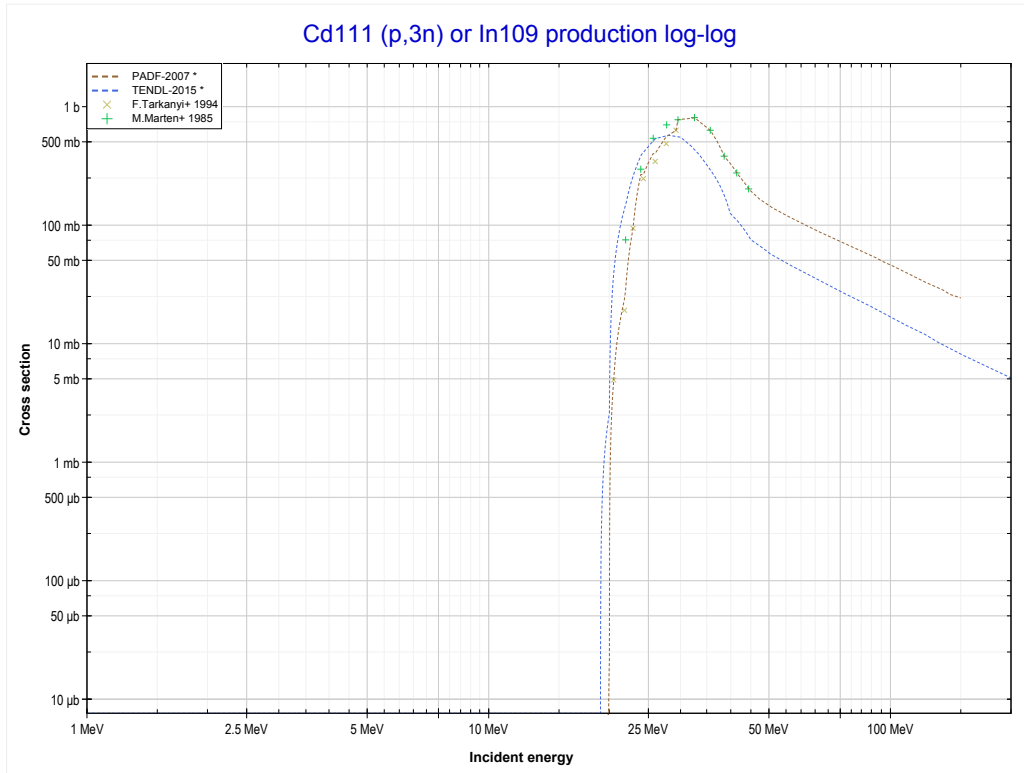
Reaction	Q-Value
Cd111(p,n)In111	-1644.45 keV

<< 48-Cd-110	48-Cd-111	48-Cd-112 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (In110 production)	MT17 (p,3n) >>



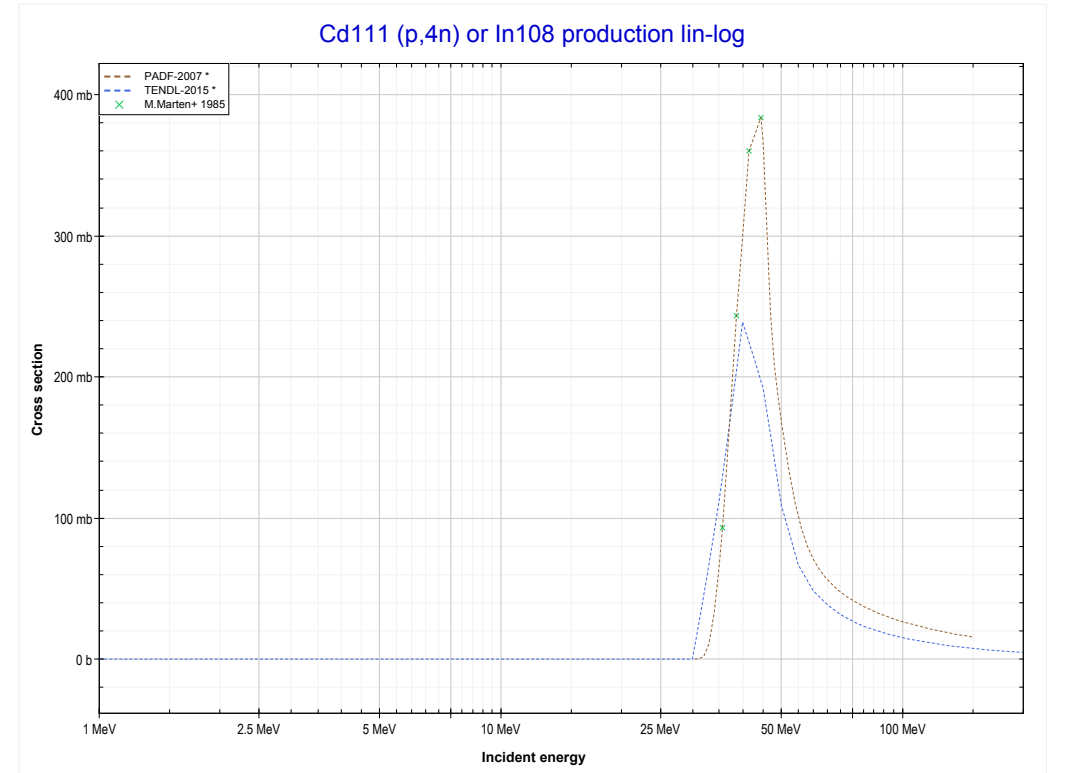
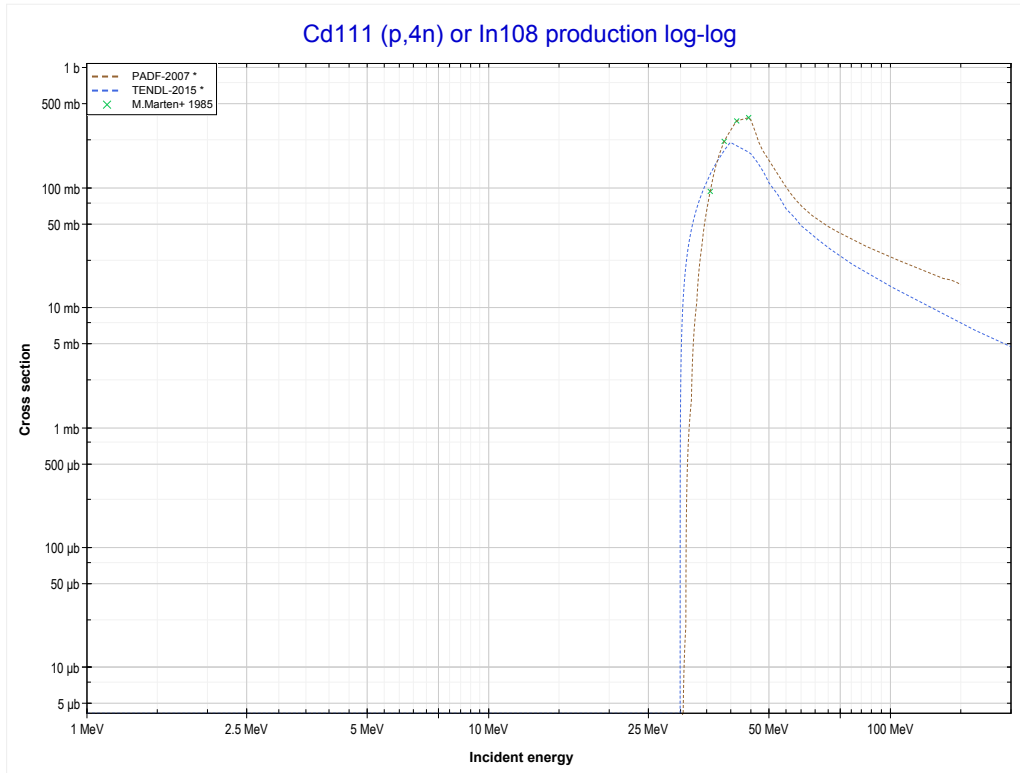
Reaction	Q-Value
Cd111(p,2n)In110	-11635.76 keV

<< 45-Rh-103	48-Cd-111	48-Cd-112 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (In109 production)	MT37 (p,4n) >>



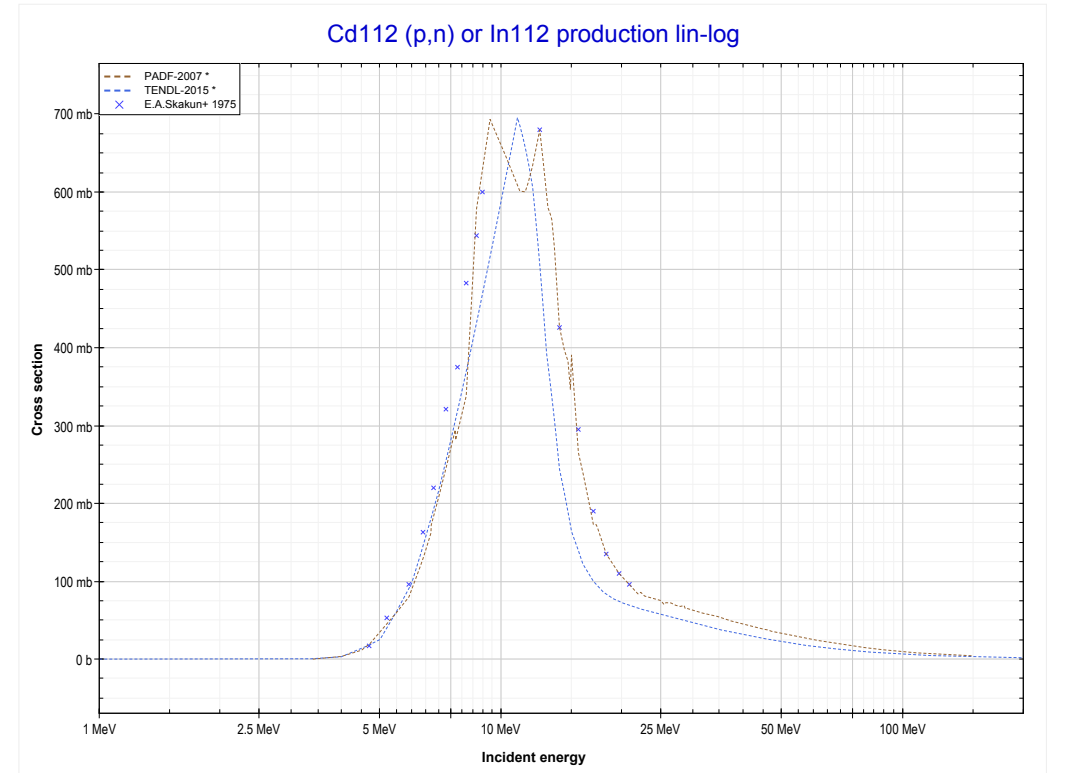
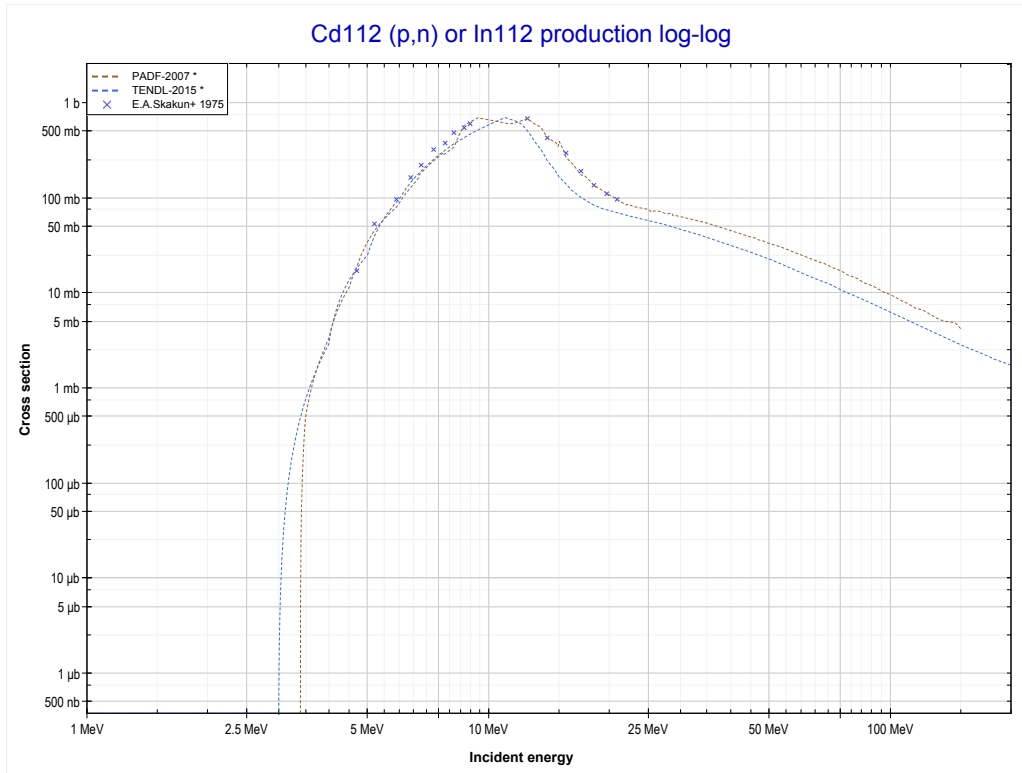
Reaction	Q-Value
Cd111(p,3n)In109	-19690.08 keV

<< 45-Rh-103	48-Cd-111	48-Cd-112 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (In108 production)	48-Cd-112 MT4 (p,n) >>



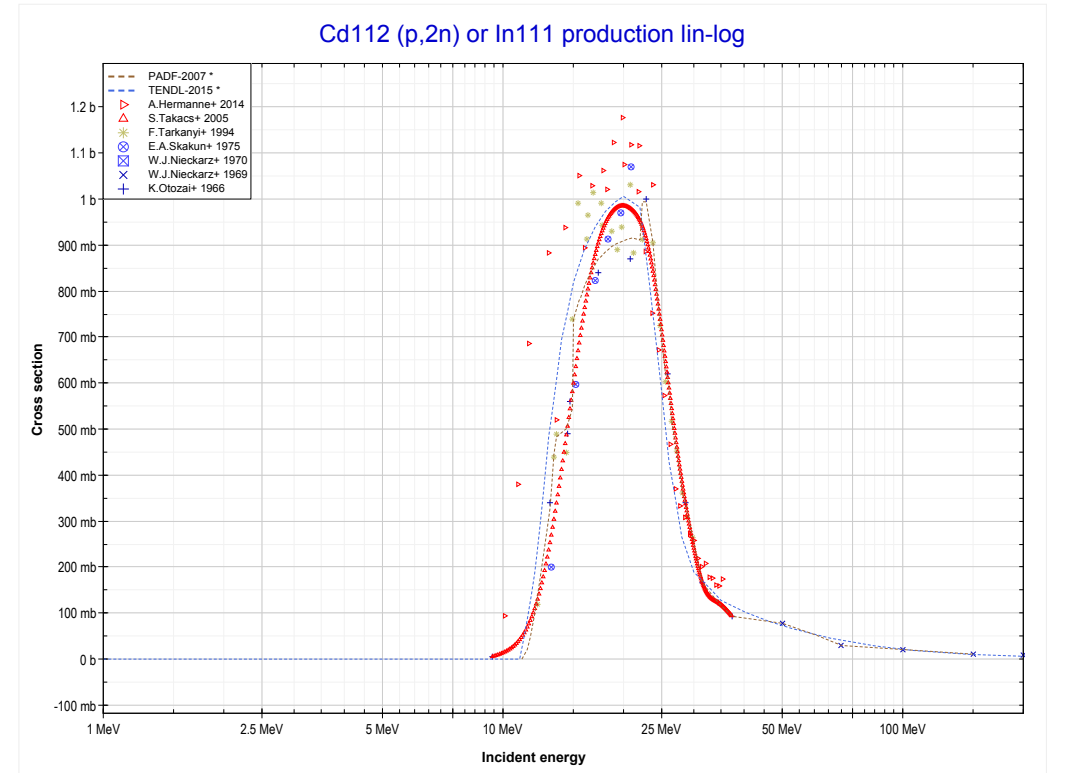
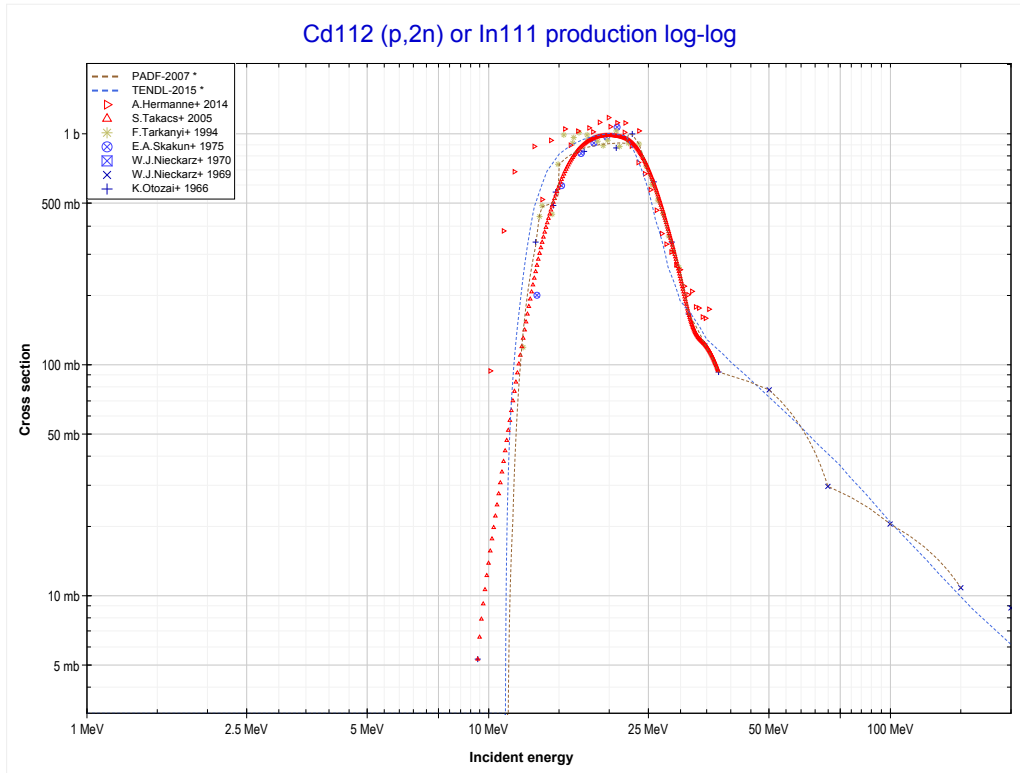
Reaction	Q-Value
Cd111(p,4n)In108	-30129.40 keV

<< 48-Cd-111	48-Cd-112	48-Cd-113 >>
<< 48-Cd-111 MT37 (p,4n)	MT4 (p,n) or MT5 (In112 production)	MT16 (p,2n) >>



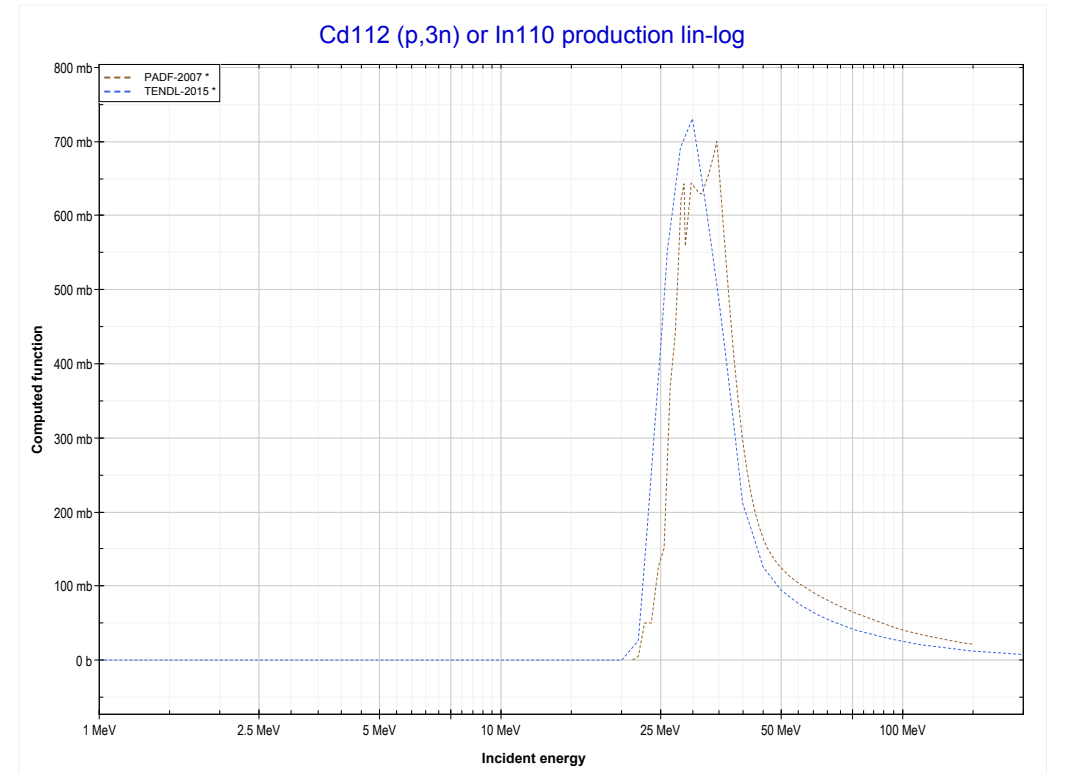
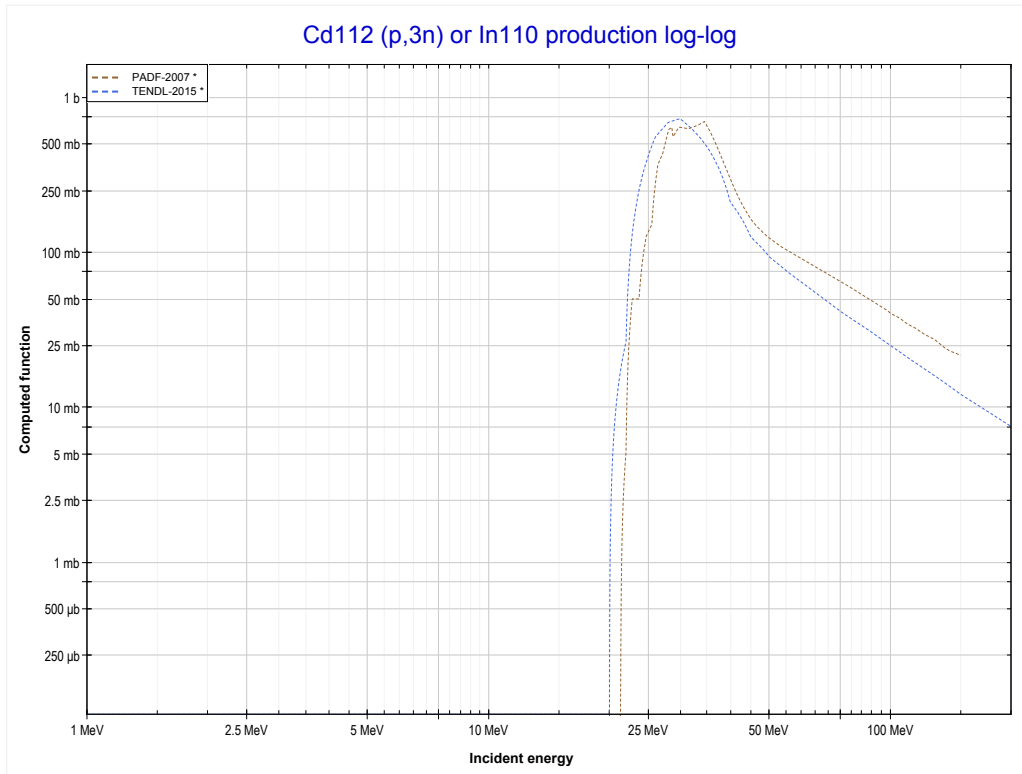
Reaction	Q-Value
Cd112(p,n)In112	-3367.15 keV

<< 48-Cd-111	48-Cd-112	48-Cd-113 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (In111 production)	MT17 (p,3n) >>



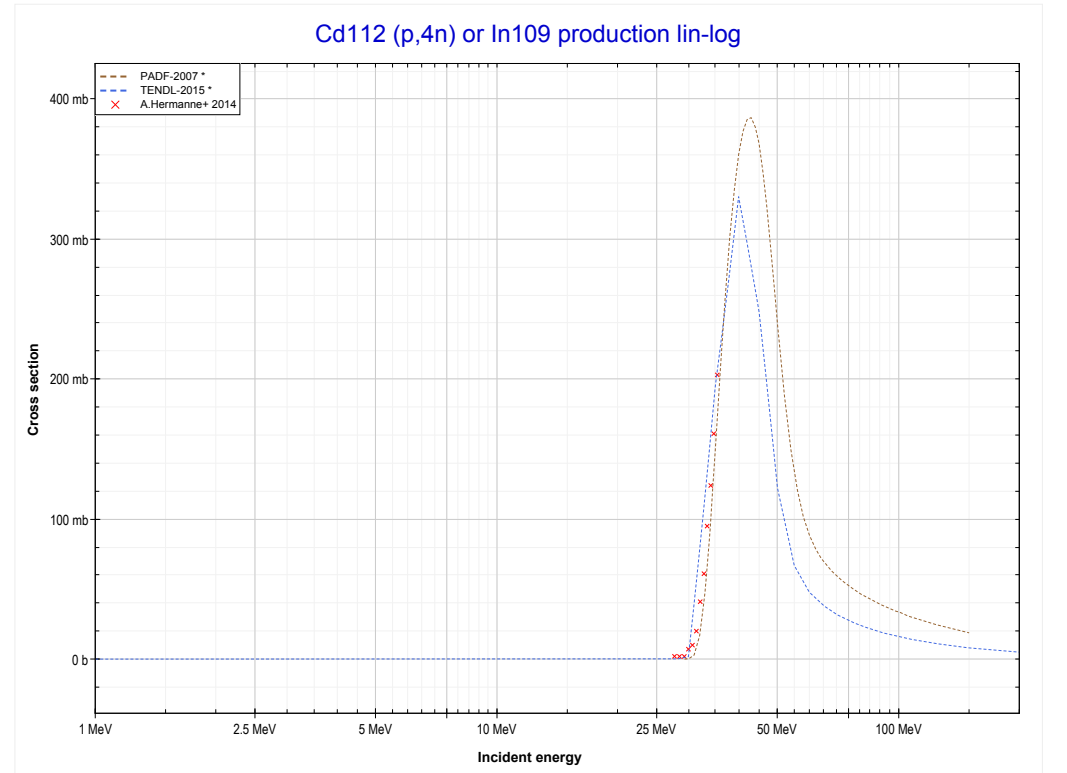
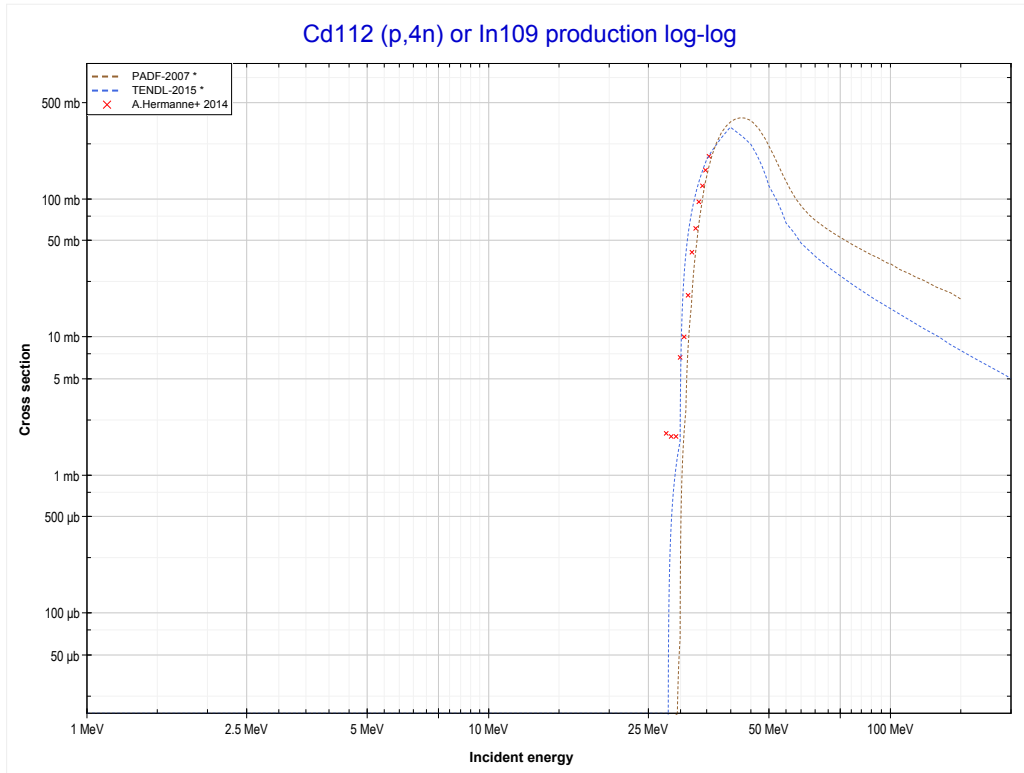
Reaction	Q-Value
Cd112(p,2n)In111	-11038.46 keV

<< 48-Cd-111	48-Cd-112	48-Cd-113 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (In110 production)	MT37 (p,4n) >>



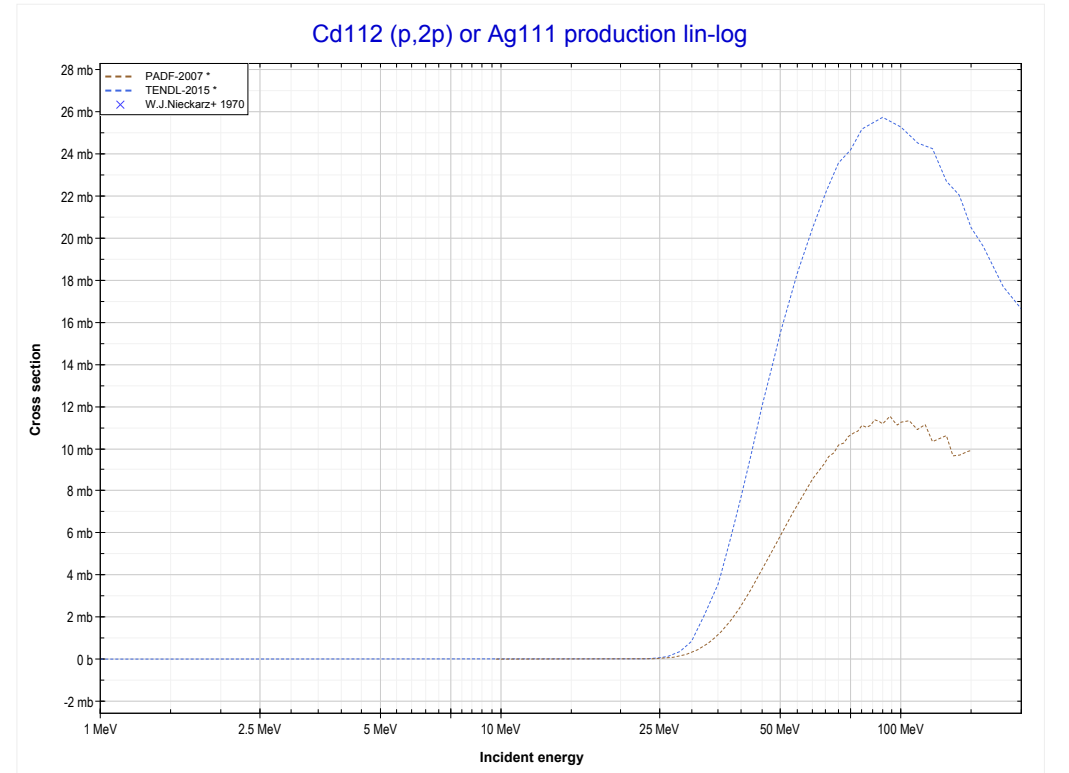
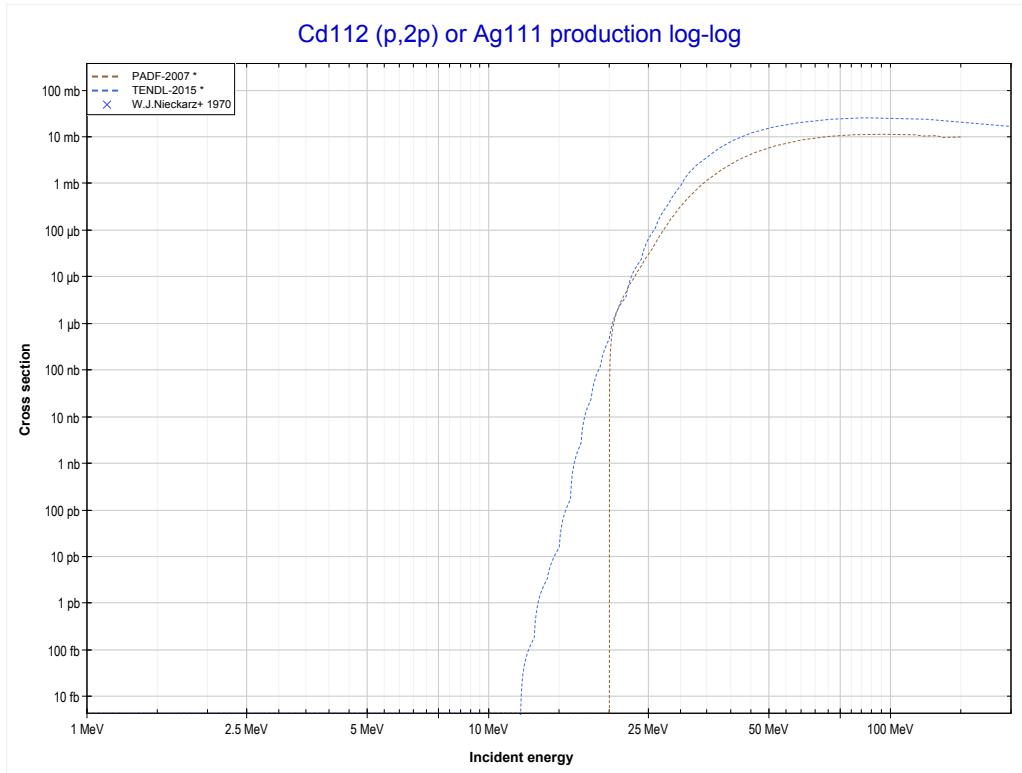
Reaction	Q-Value
Cd112(p,3n)In110	-21029.78 keV

<< 48-Cd-111	48-Cd-112	48-Cd-114 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (In109 production)	MT111 (p,2p) >>



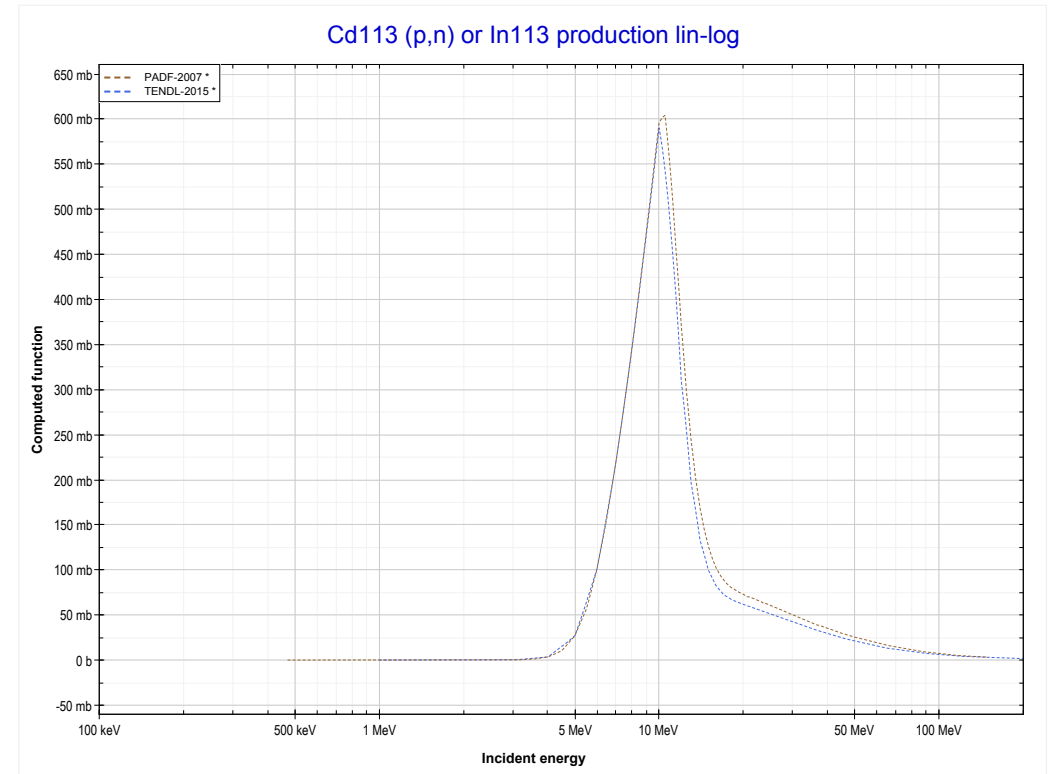
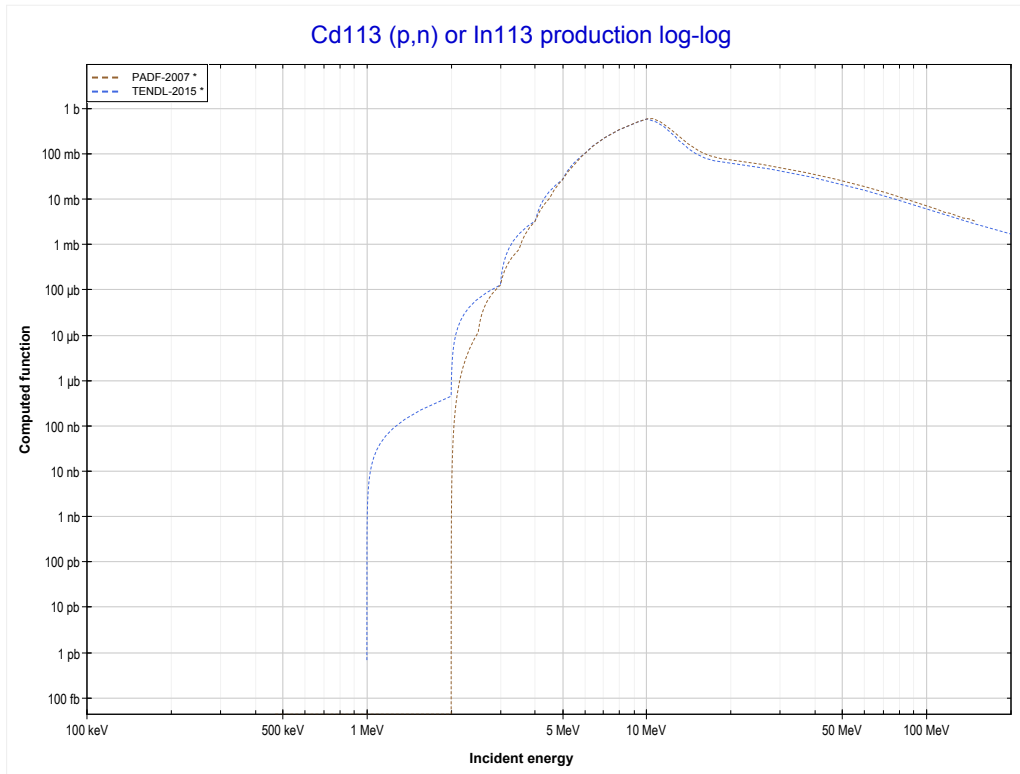
Reaction	Q-Value
Cd112(p,4n)In109	-29084.10 keV

<< 48-Cd-106	48-Cd-112	48-Cd-113 >>
<< MT37 (p,4n)	MT111 (p,2p) or MT5 (Ag111 production)	48-Cd-113 MT4 (p,n) >>



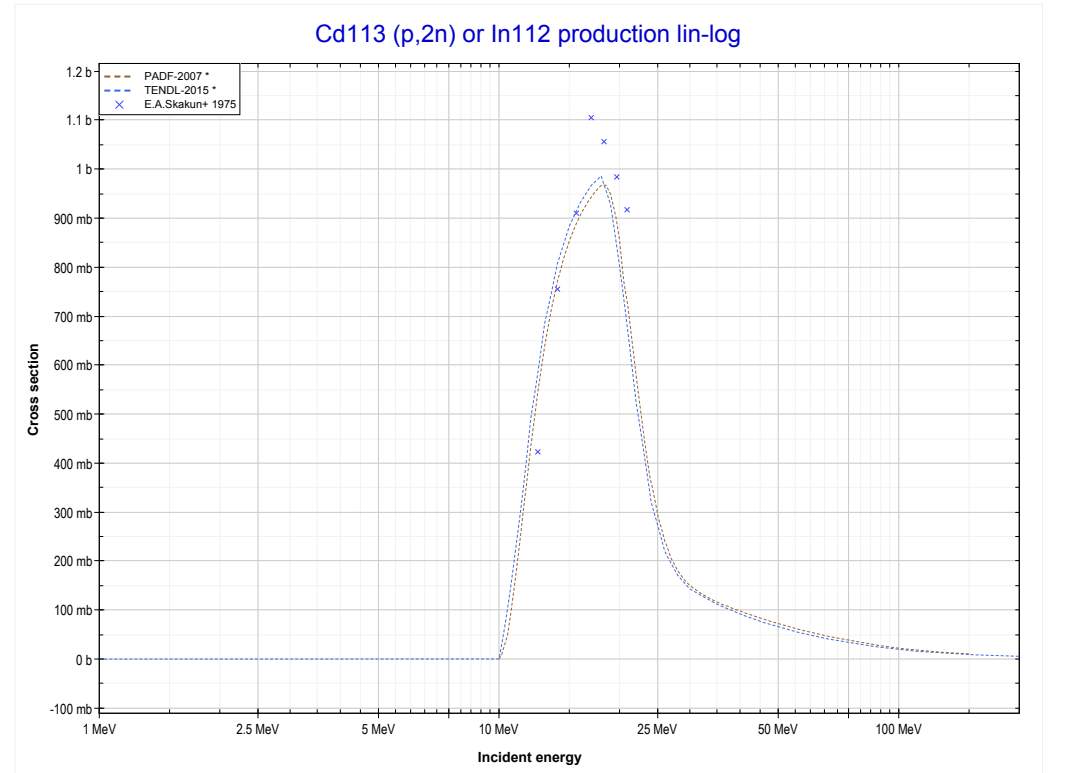
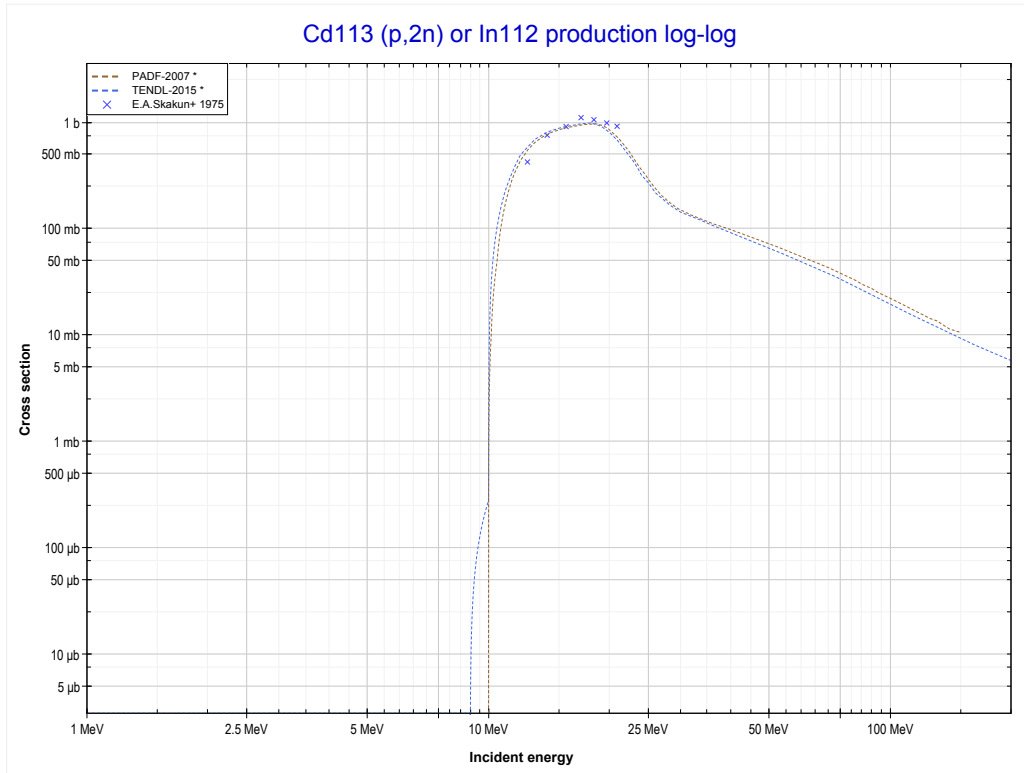
Reaction	Q-Value
Cd112(p,2p)Ag111	-9648.47 keV

<< 48-Cd-112	48-Cd-113	48-Cd-114 >>
<< 48-Cd-112 MT111 (p,2p)	MT4 (p,n) or MT5 (In113 production)	MT16 (p,2n) >>



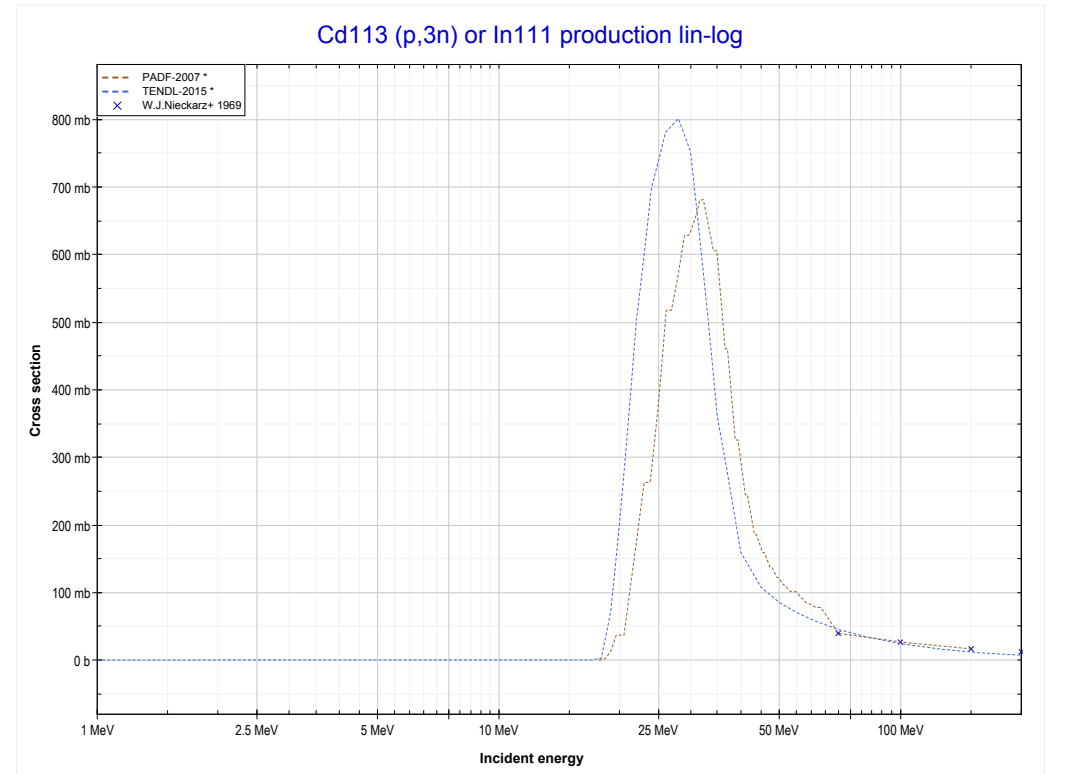
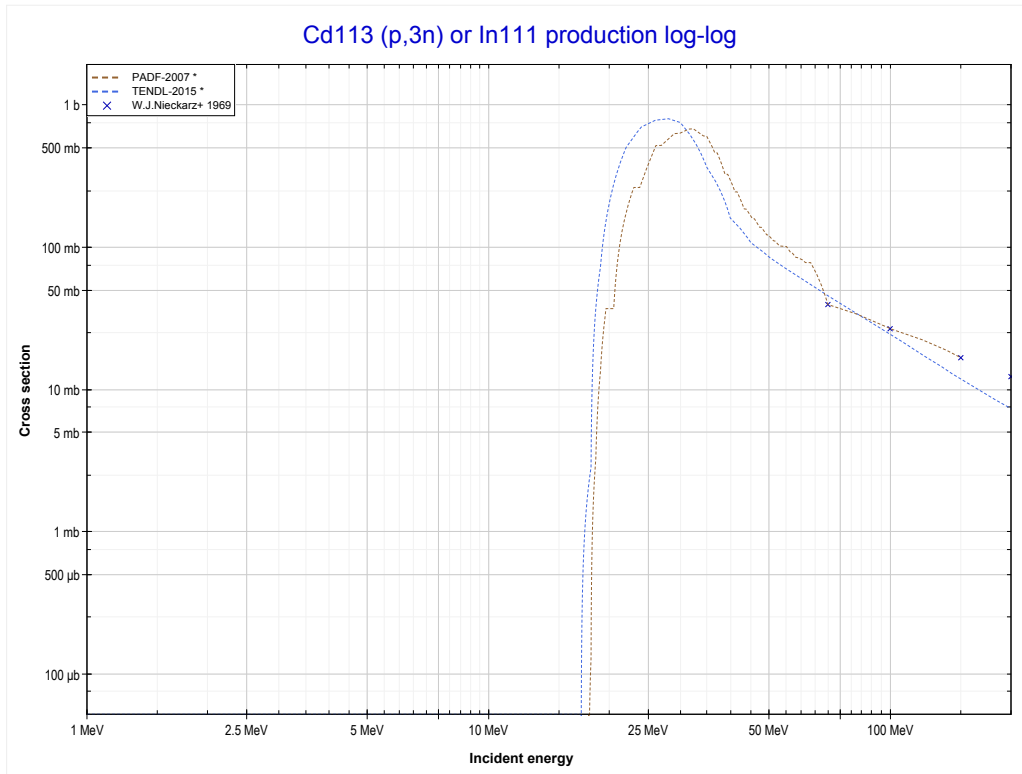
Reaction	Q-Value
Cd113(p,n)In113	-459.85 keV

<< 48-Cd-112	48-Cd-113	48-Cd-114 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (In112 production)	MT17 (p,3n) >>



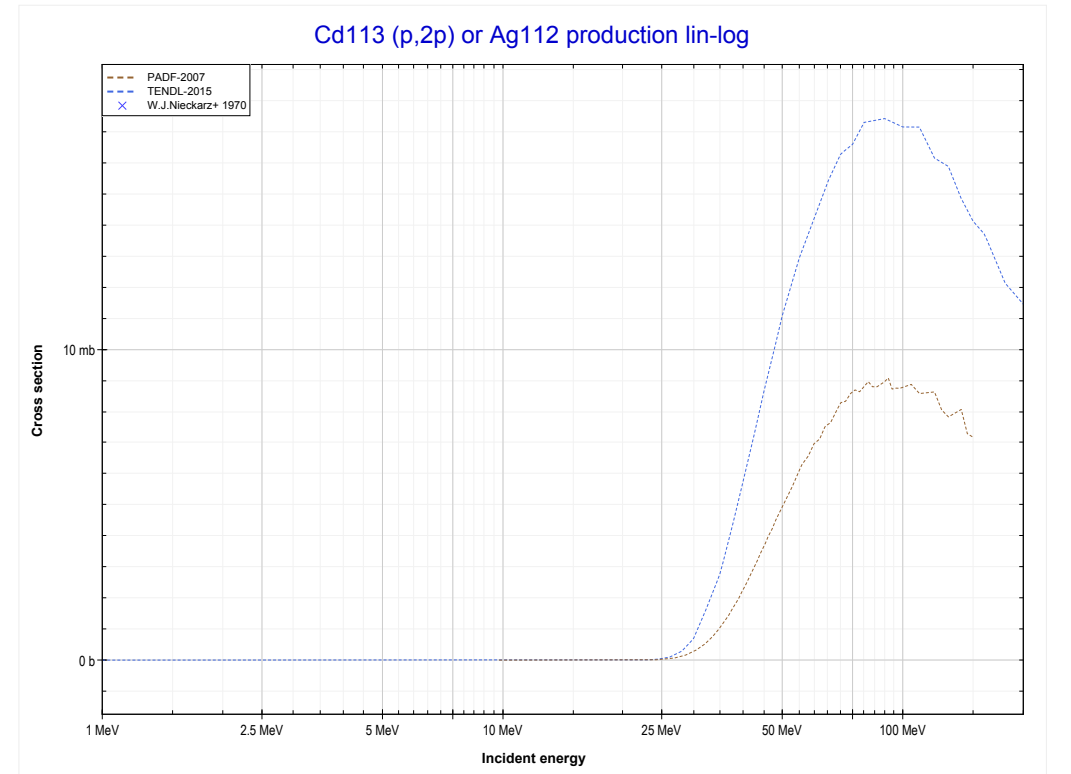
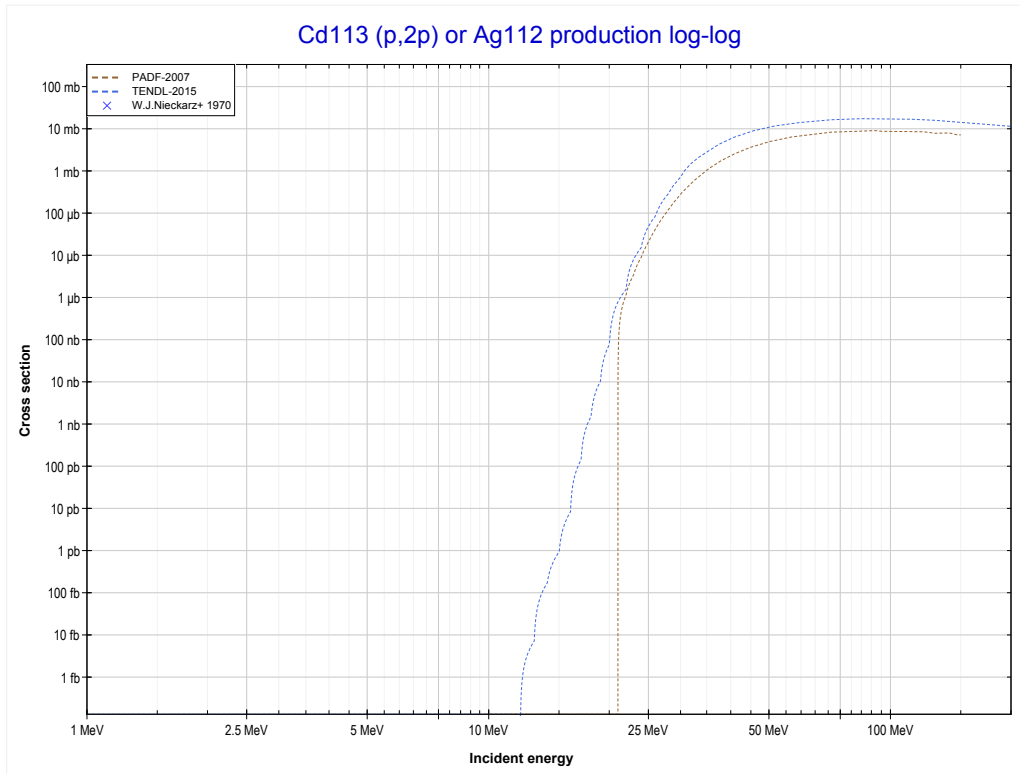
Reaction	Q-Value
Cd113(p,2n)In112	-9905.96 keV

<< 48-Cd-112	48-Cd-113	48-Cd-116 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (In111 production)	MT111 (p,2p) >>



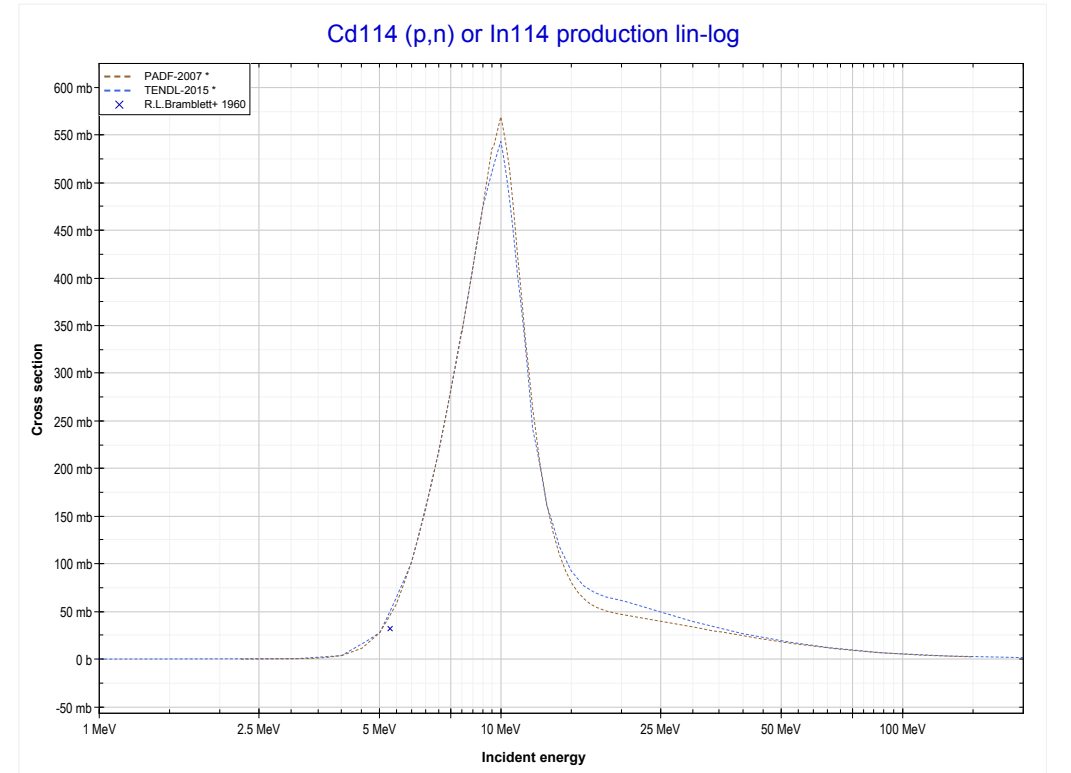
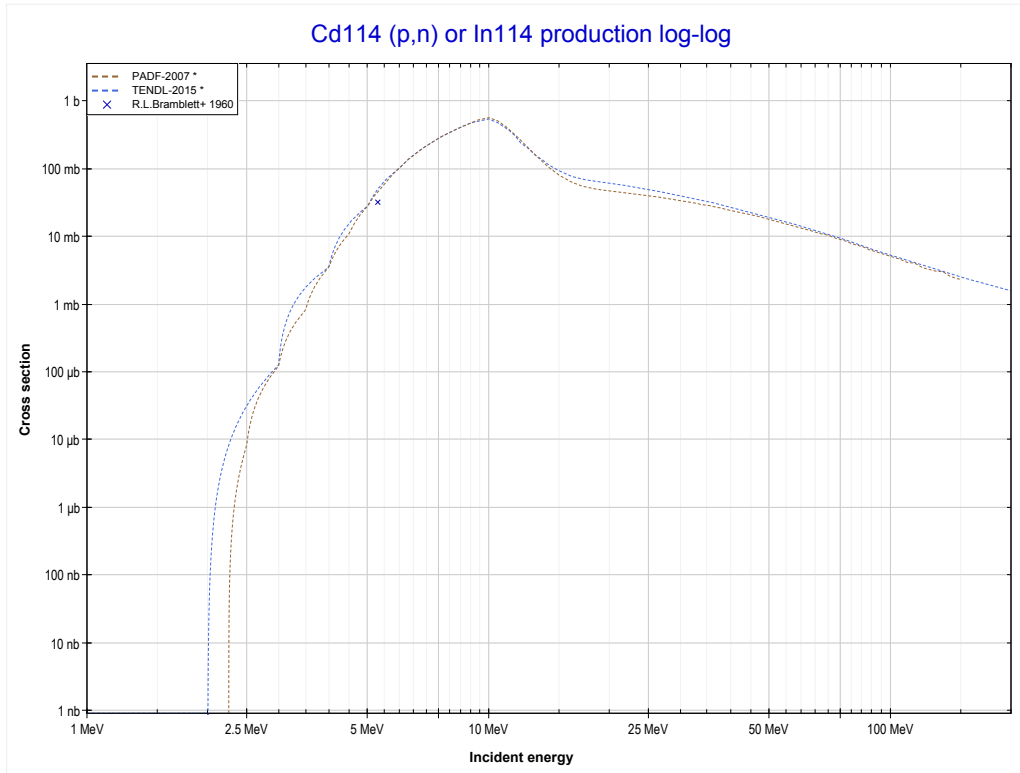
Reaction	Q-Value
Cd113(p,3n)In111	-17577.28 keV

<< 48-Cd-112	48-Cd-113	50-Sn-112 >>
<< MT17 (p,3n)	MT111 (p,2p) or MT5 (Ag112 production)	48-Cd-114 MT4 (p,n) >>



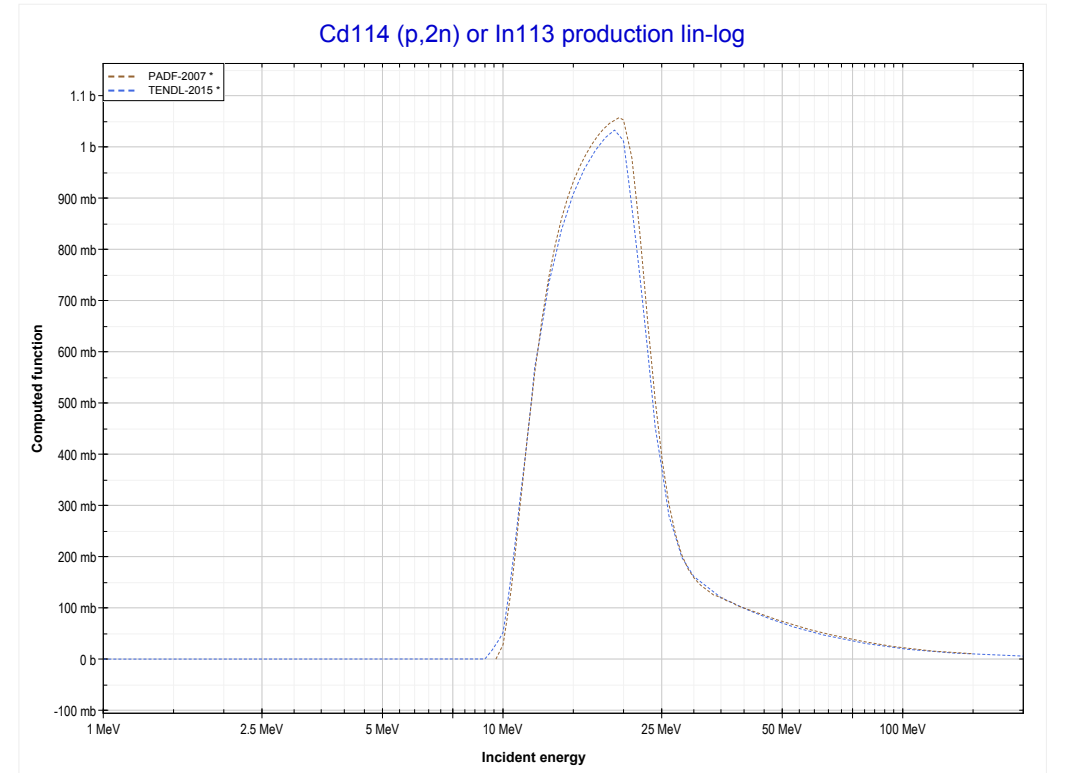
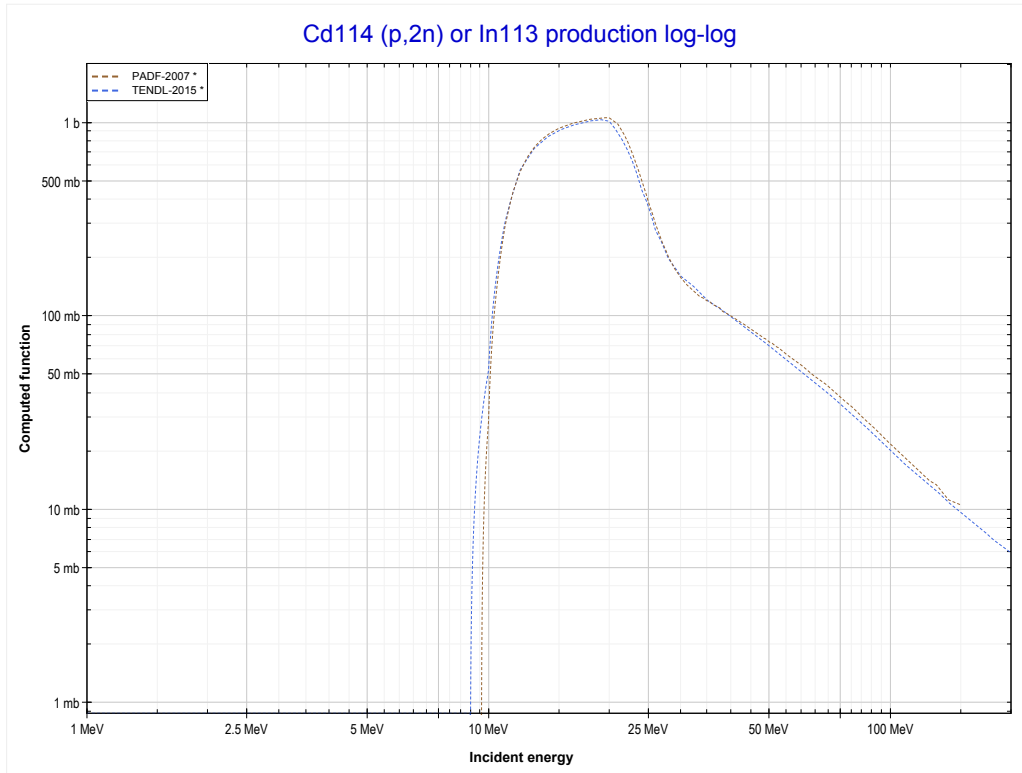
Reaction	Q-Value
Cd113(p,2p)Ag112	-9748.57 keV

<< 48-Cd-113	48-Cd-114	48-Cd-116 >>
<< 48-Cd-113 MT111 (p,2p)	MT4 (p,n) or MT5 (In114 production)	MT16 (p,2n) >>



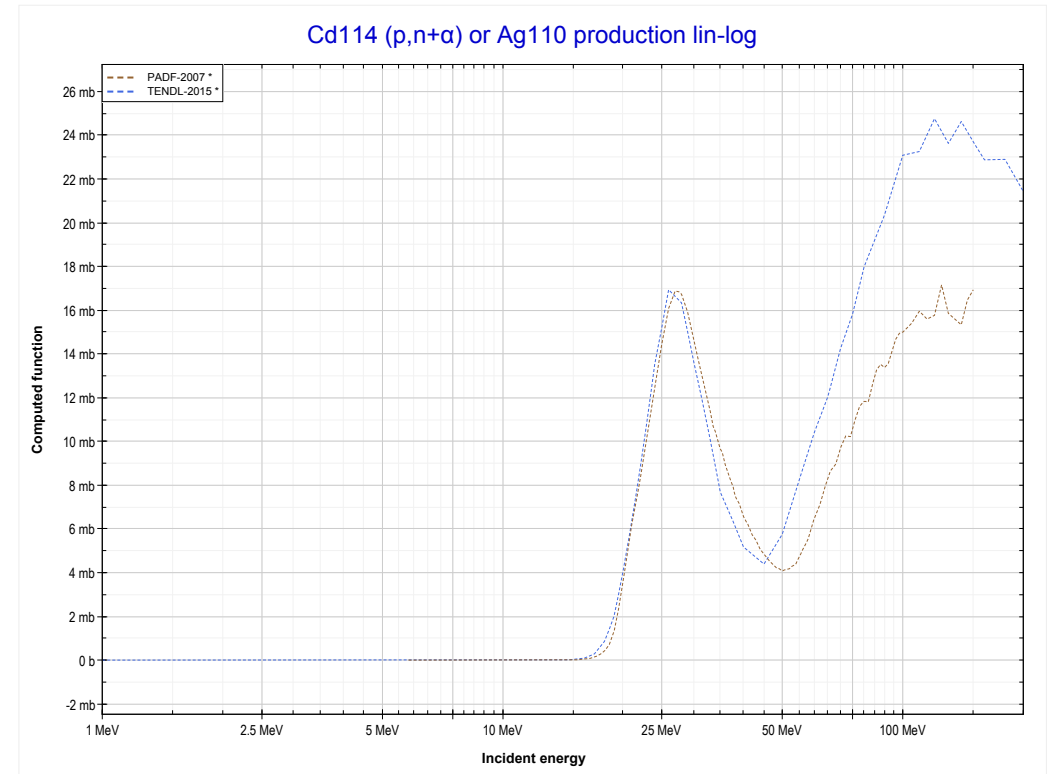
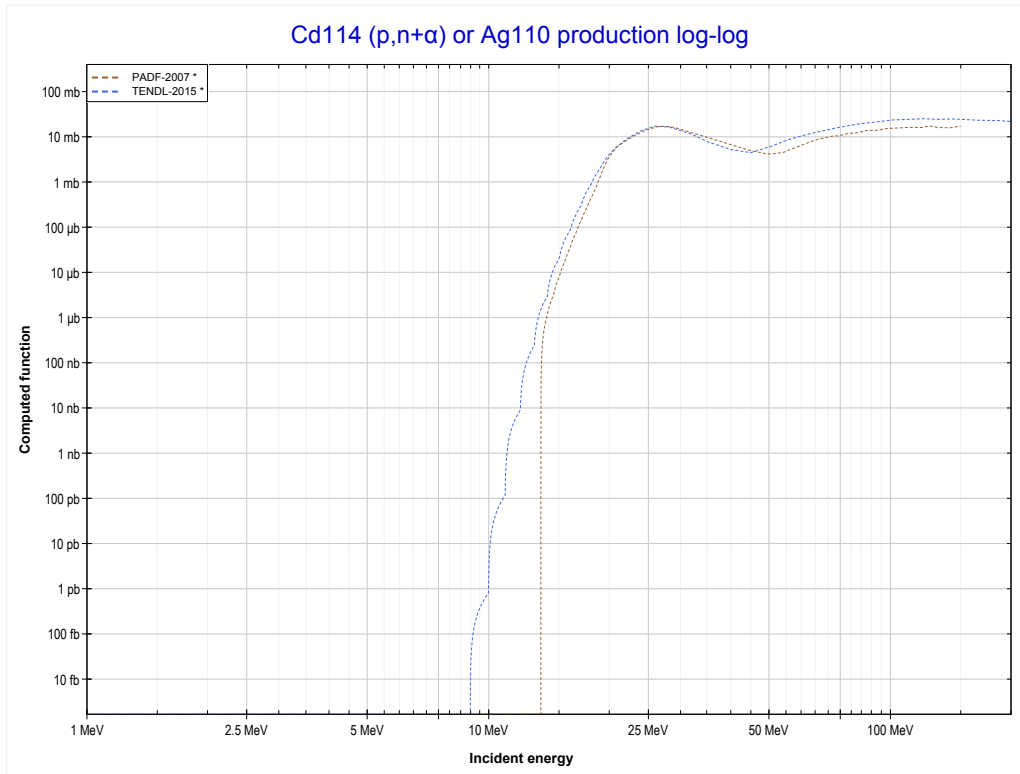
Reaction	Q-Value
Cd114(p,n)In114	-2228.75 keV

<< 48-Cd-113	48-Cd-114	48-Cd-116 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (In113 production)	MT22 (p,n+α) >>



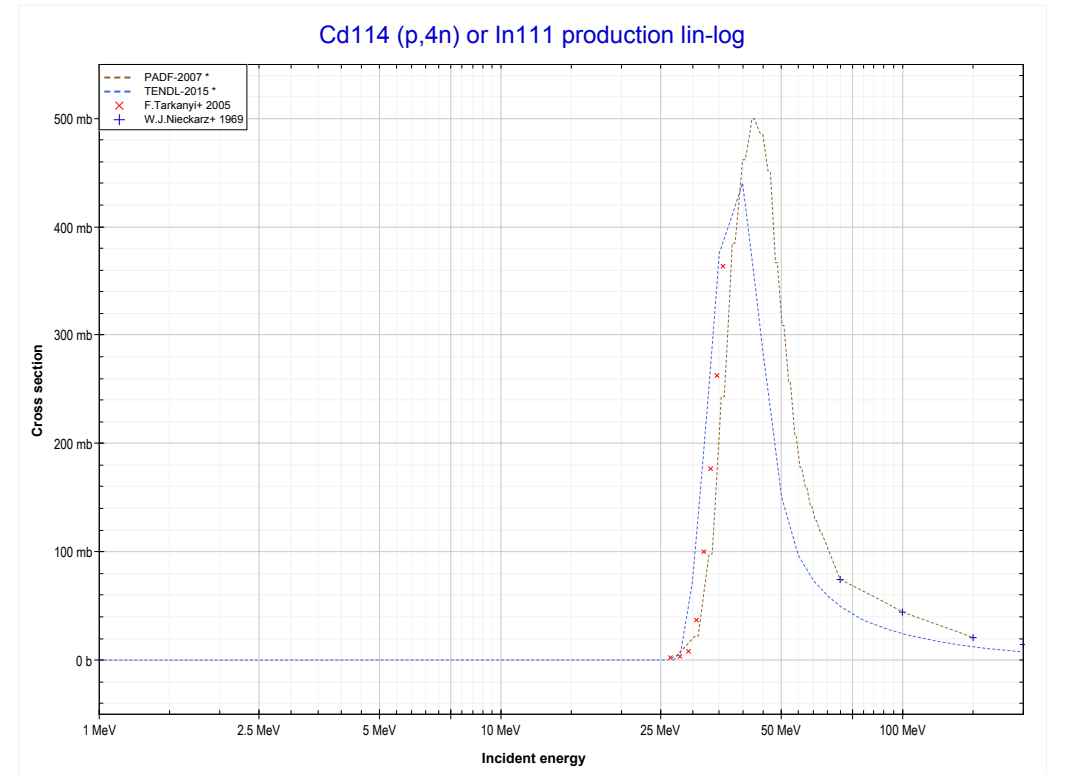
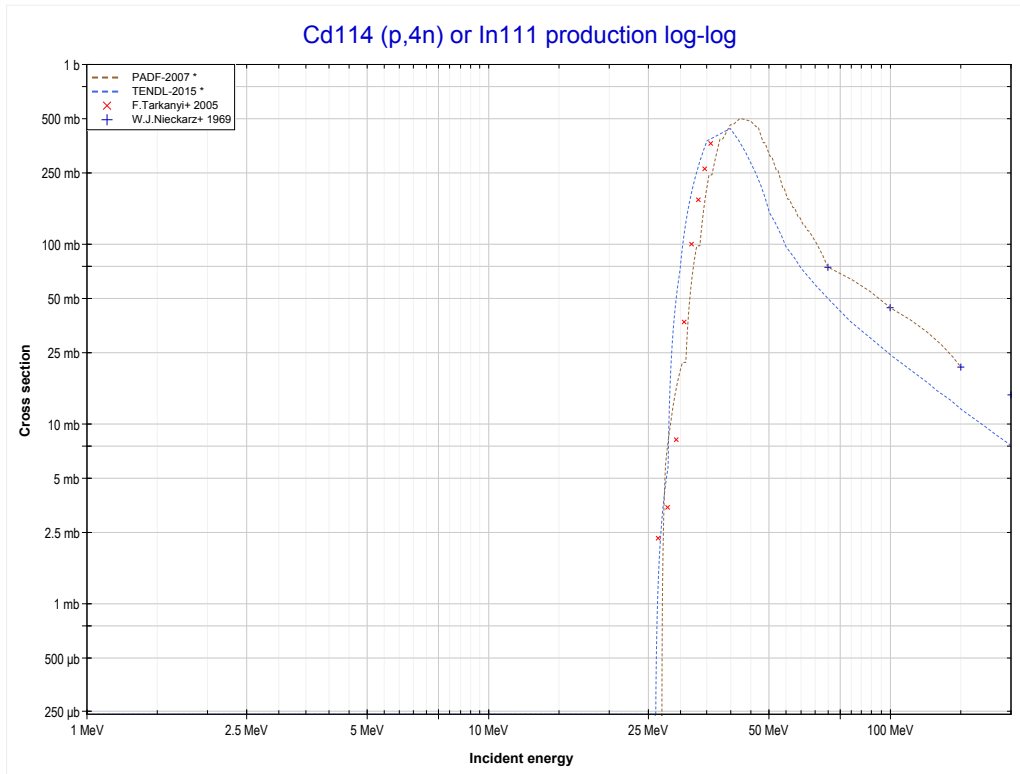
Reaction	Q-Value
Cd114(p,2n)In113	-9502.66 keV

<< 41-Nb-93	48-Cd-114	54-Xe-124 >>
<< MT16 (p,2n)	MT22 (p,n+α) or MT5 (Ag110 production)	MT37 (p,4n) >>



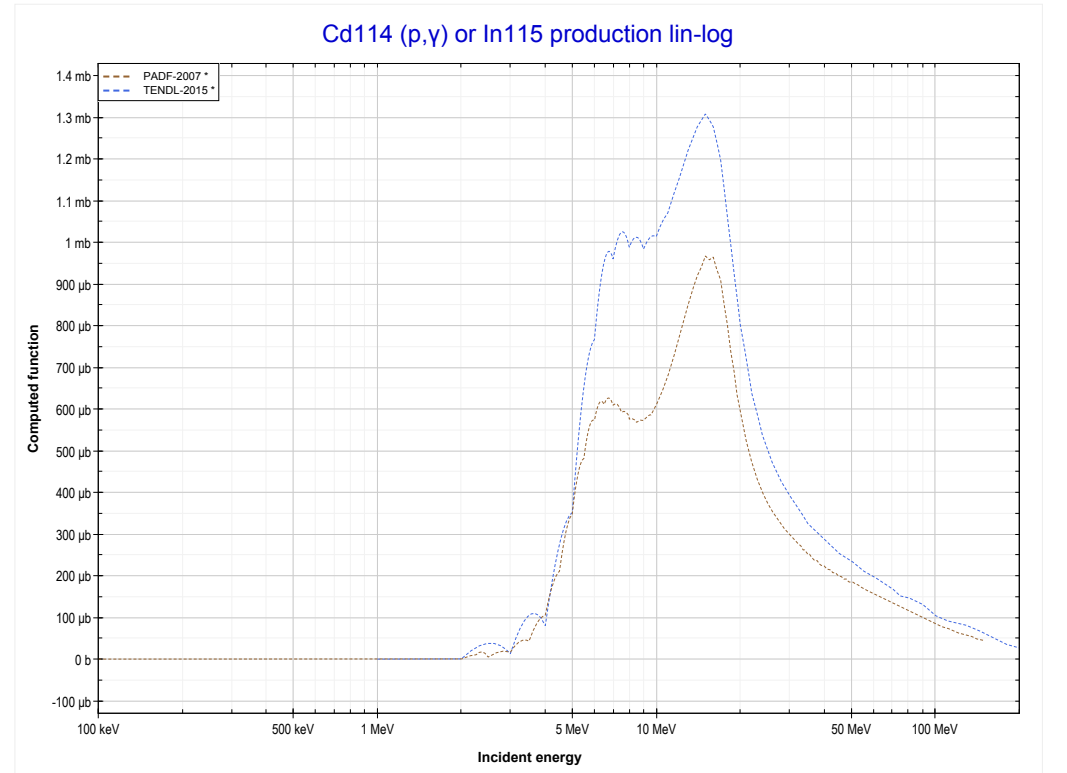
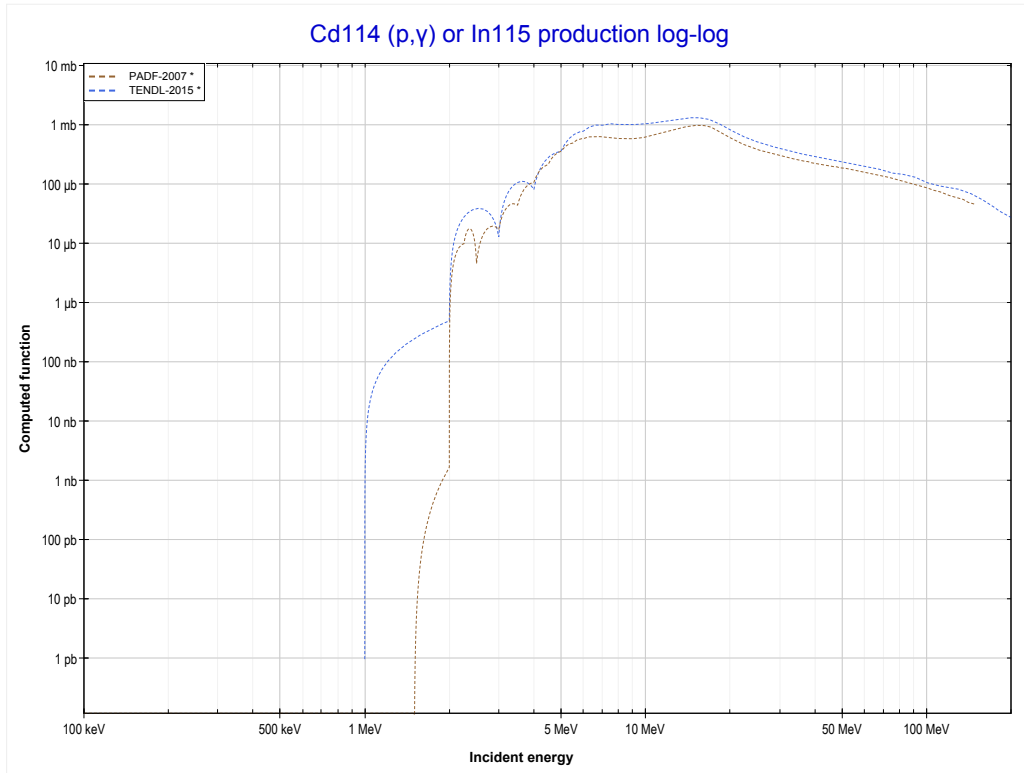
Reaction	Q-Value
Cd114(p,n+α)Ag110	-5764.26 keV
Cd114(p,d+t)Ag110	-23353.56 keV
Cd114(p,n+p+t)Ag110	-25578.12 keV
Cd114(p,2n+He3)Ag110	-26341.88 keV
Cd114(p,n+2d)Ag110	-29610.79 keV
Cd114(p,2n+p+d)Ag110	-31835.36 keV
Cd114(p,3n+2p)Ag110	-34059.92 keV

<< 48-Cd-112	48-Cd-114	48-Cd-116 >>
<< MT22 (p,n+α)	MT37 (p,4n) or MT5 (In111 production)	MT102 (p,γ) >>



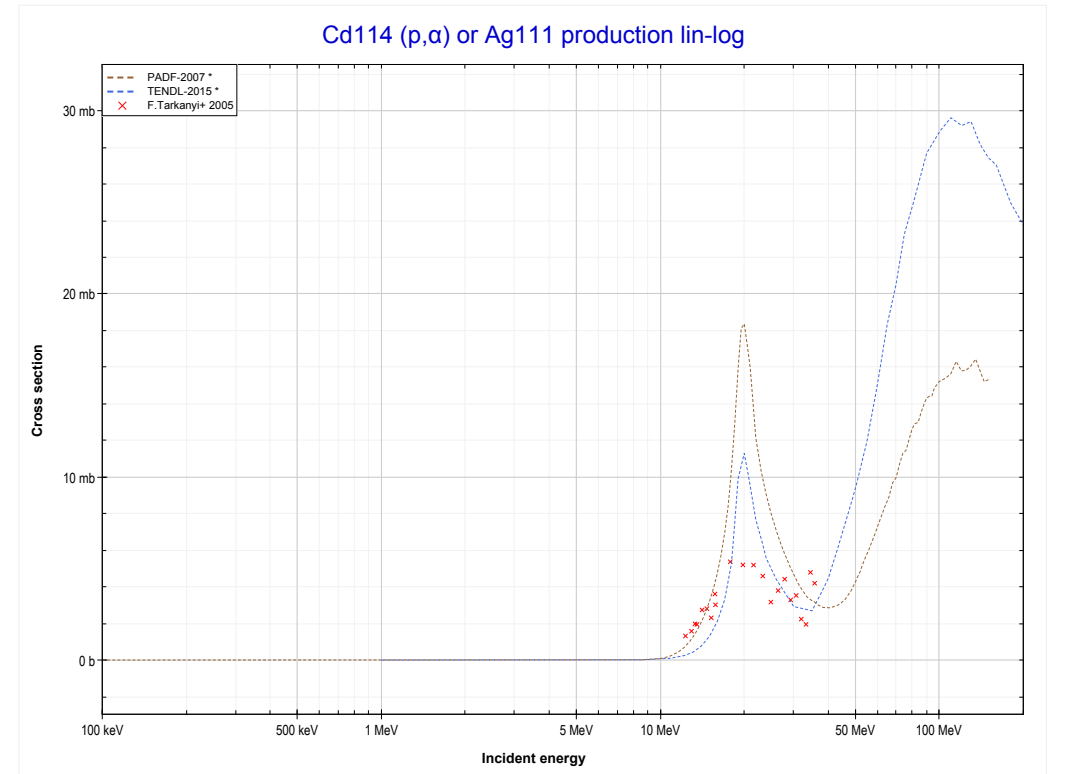
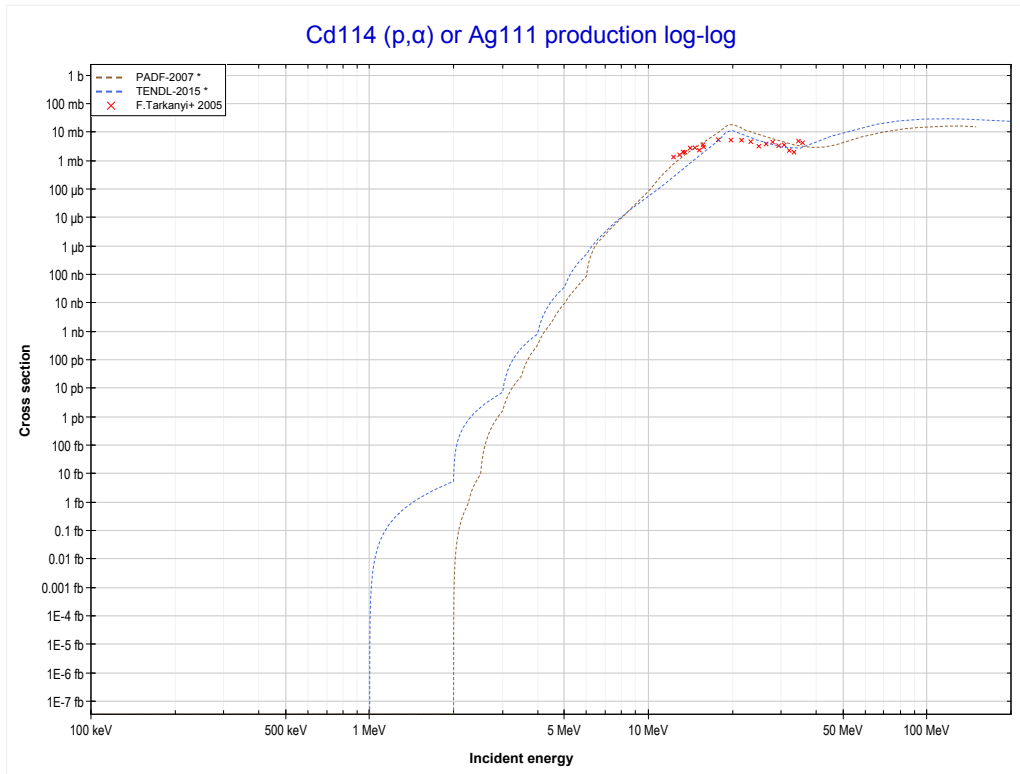
Reaction	Q-Value
Cd114(p,4n)In111	-26620.10 keV

<< 44-Ru-98	48-Cd-114	49-In-115 >>
<< MT37 (p,4n)	MT102 (p,γ) or MT5 (In115 production)	MT107 (p, α) >>



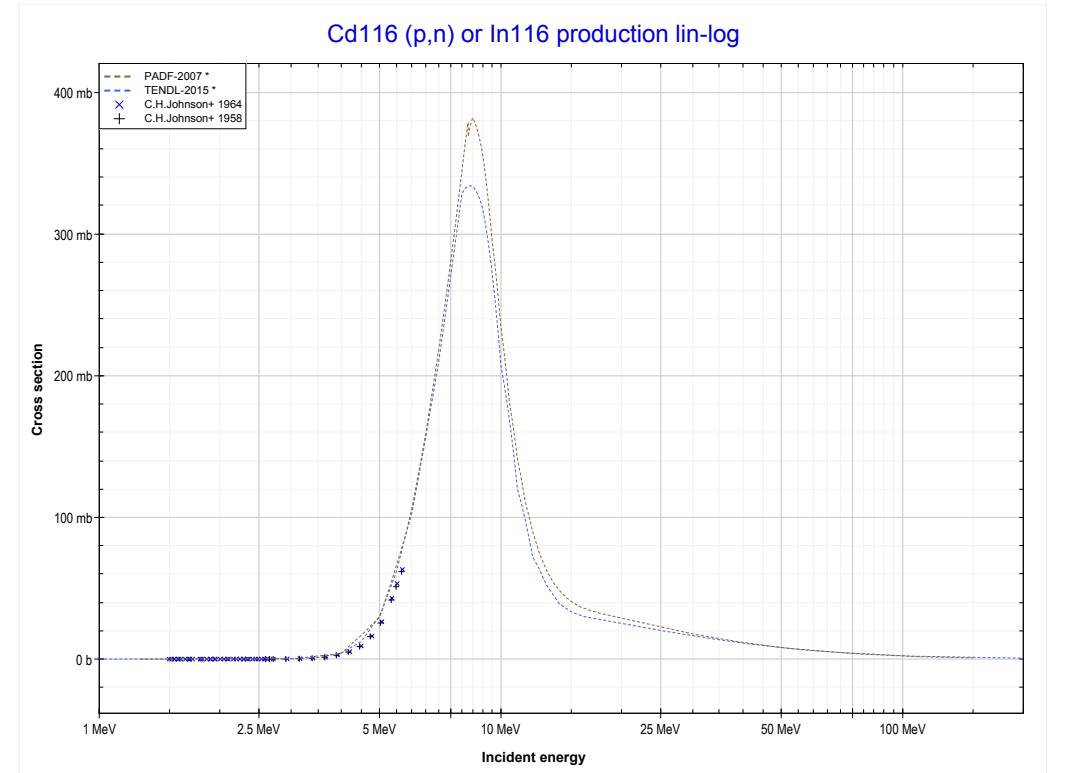
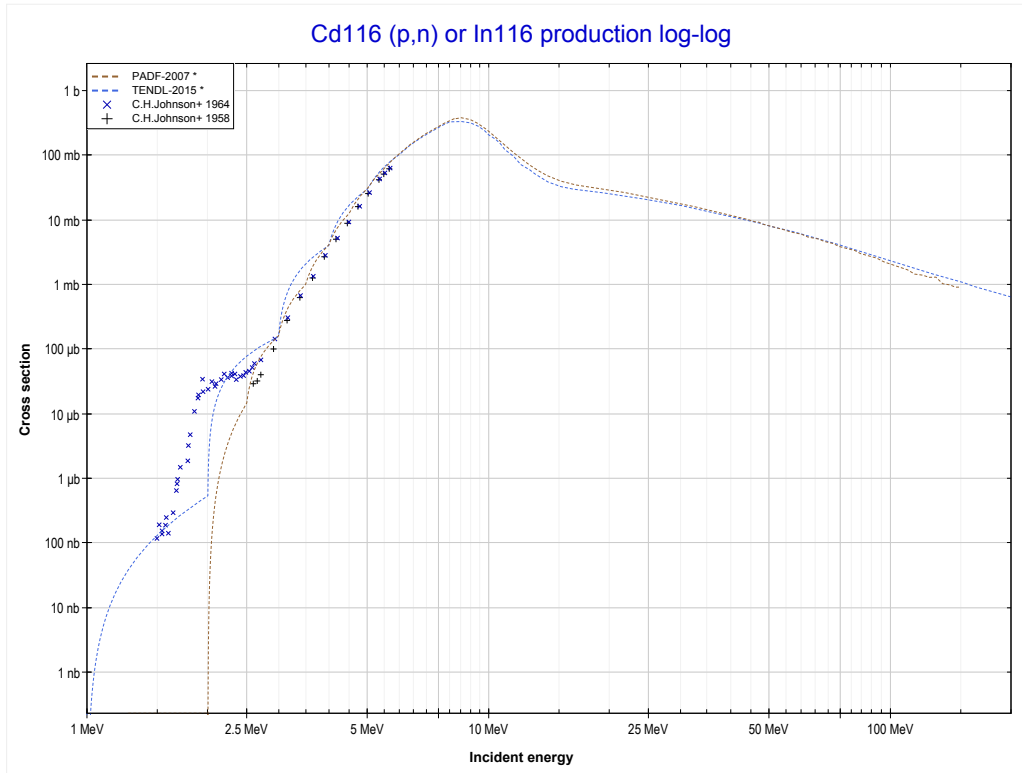
Reaction	Q-Value
Cd114(p, γ)In115	6810.51 keV

<< 42-Mo-100	48-Cd-114	50-Sn-120 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Ag111 production)	48-Cd-116 MT4 (p,n) >>



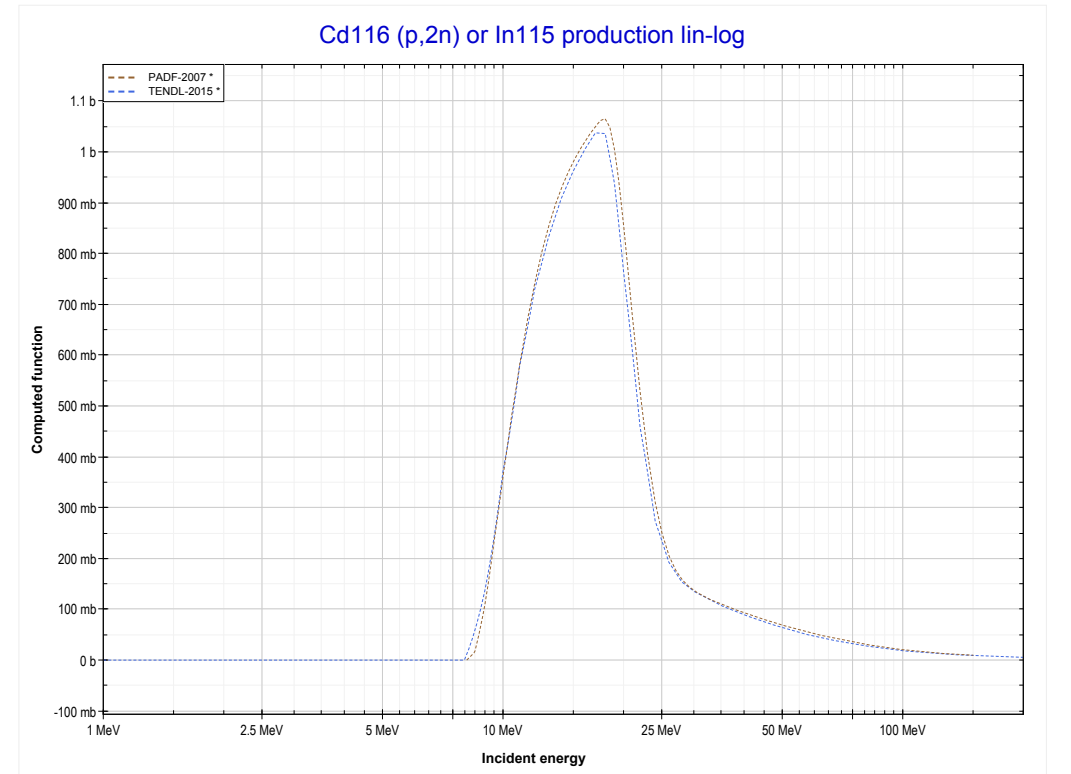
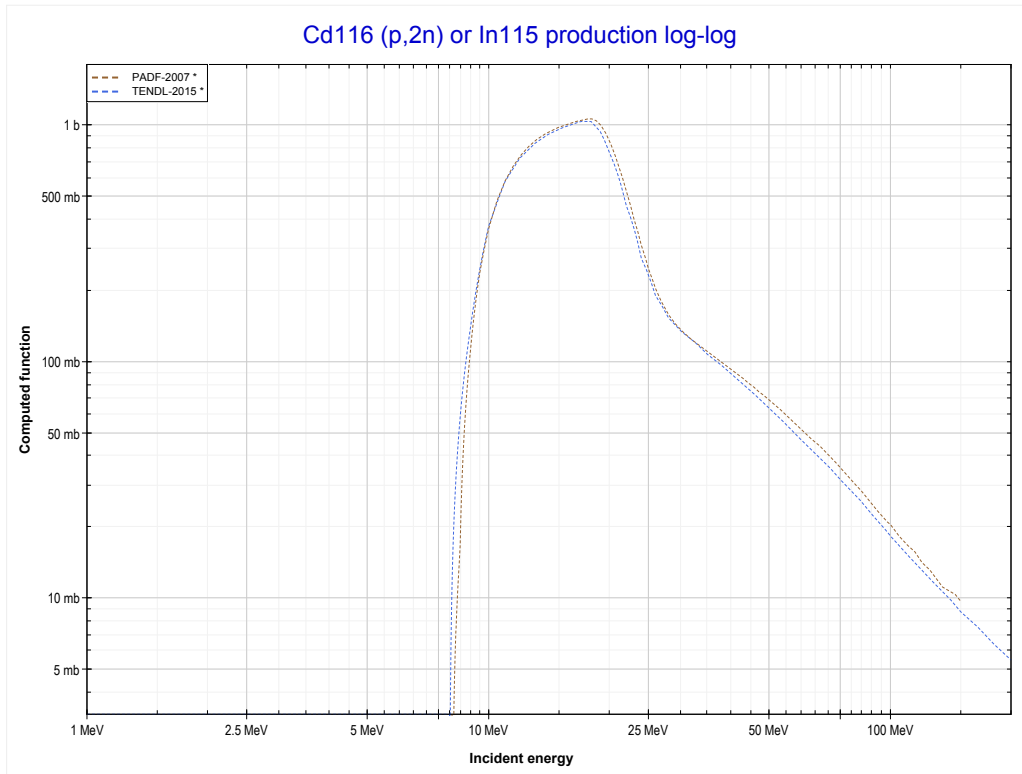
Reaction	Q-Value
Cd114(p, α)Ag111	3065.55 keV
Cd114(p,p+t)Ag111	-16748.31 keV
Cd114(p,n+He3)Ag111	-17512.06 keV
Cd114(p,2d)Ag111	-20780.97 keV
Cd114(p,n+p+d)Ag111	-23005.54 keV
Cd114(p,2n+2p)Ag111	-25230.10 keV

<< 48-Cd-114	48-Cd-116	49-In-113 >>
<< 48-Cd-114 MT107 (p, α)	MT4 (p,n) or MT5 (In116 production)	MT16 (p,2n) >>



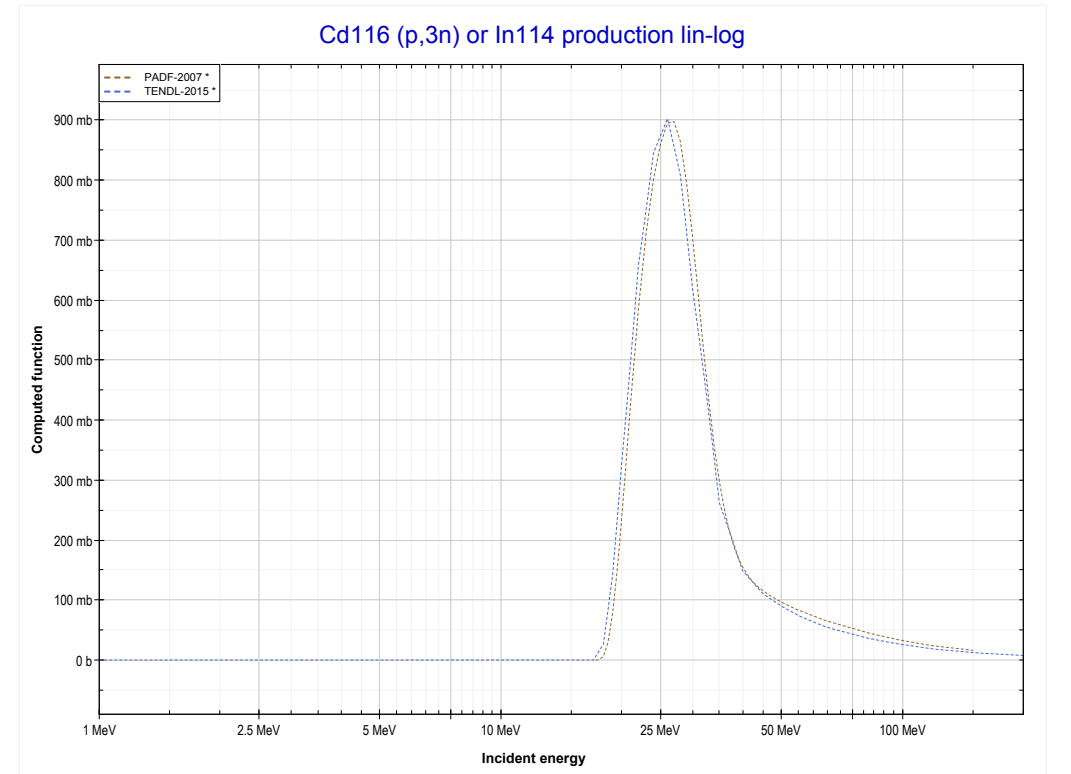
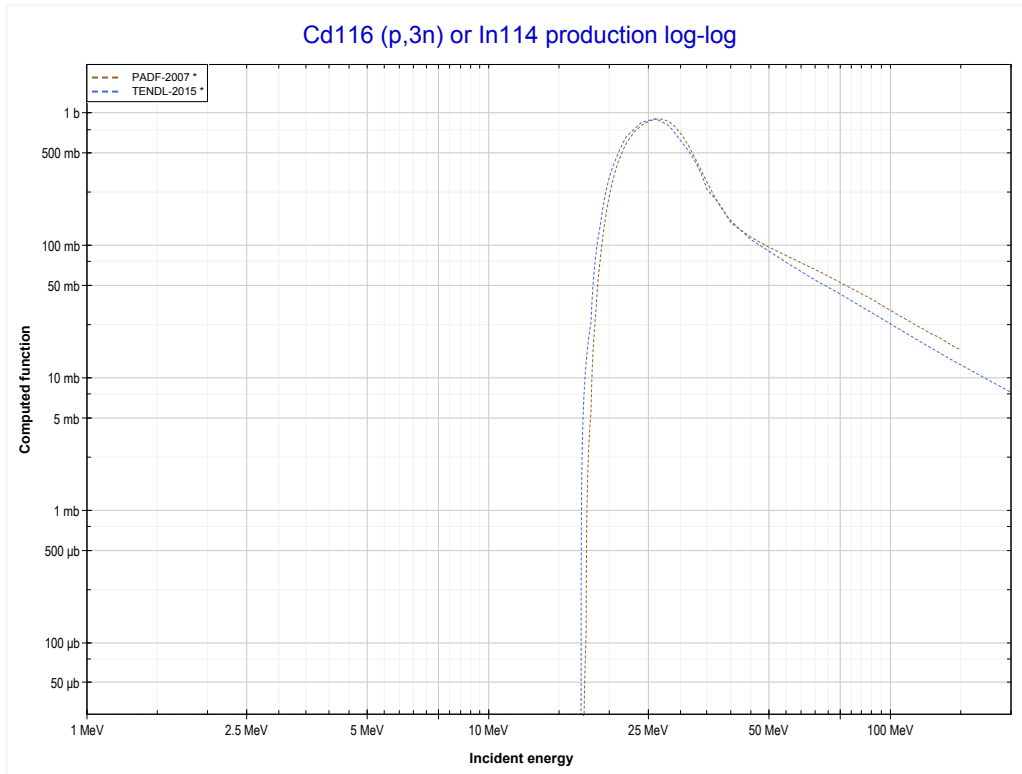
Reaction	Q-Value
Cd116(p,n)In116	-1245.16 keV

<< 48-Cd-114	48-Cd-116	49-In-115 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (In115 production)	MT17 (p,3n) >>



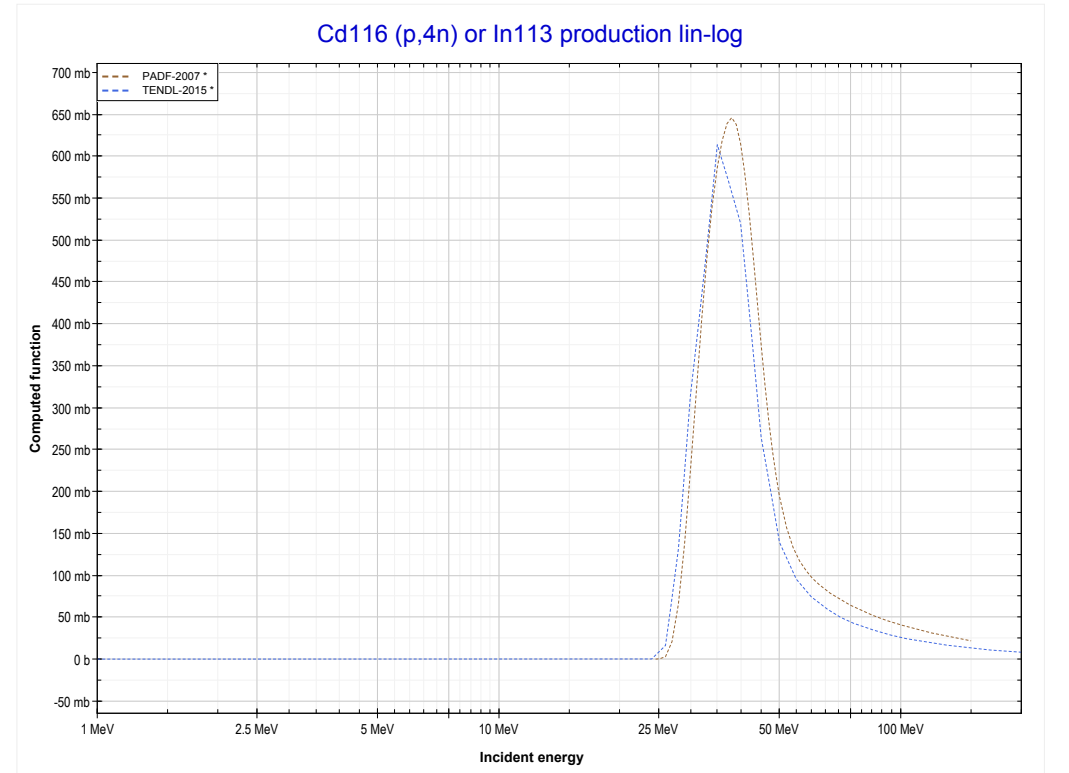
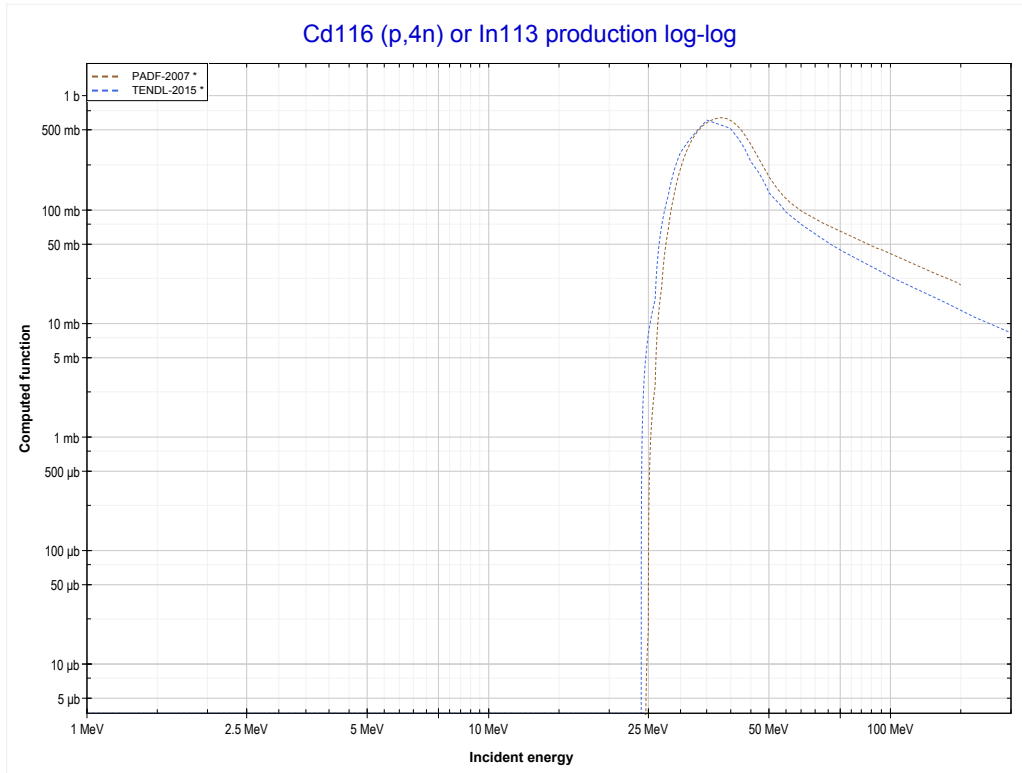
Reaction	Q-Value
Cd116(p,2n)In115	-8029.88 keV

<< 48-Cd-113	48-Cd-116	49-In-115 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (In114 production)	MT37 (p,4n) >>



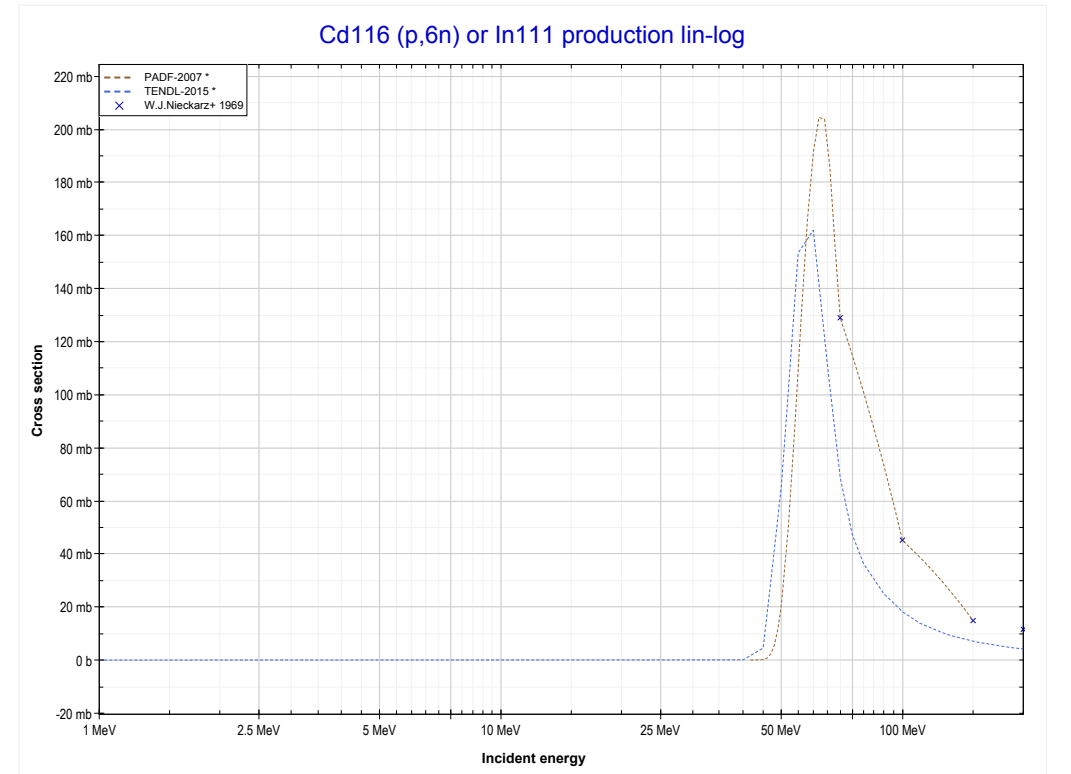
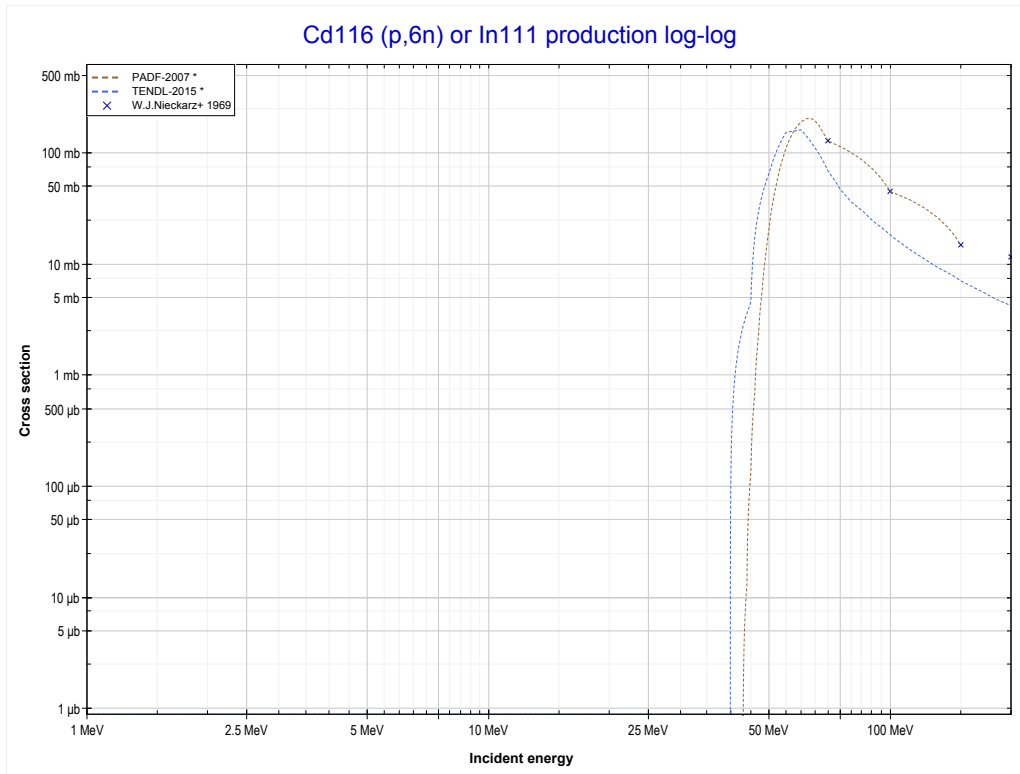
Reaction	Q-Value
Cd116(p,3n)In114	-17069.14 keV

<< 48-Cd-114	48-Cd-116	50-Sn-118 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (In113 production)	MT153 (p,6n) >>



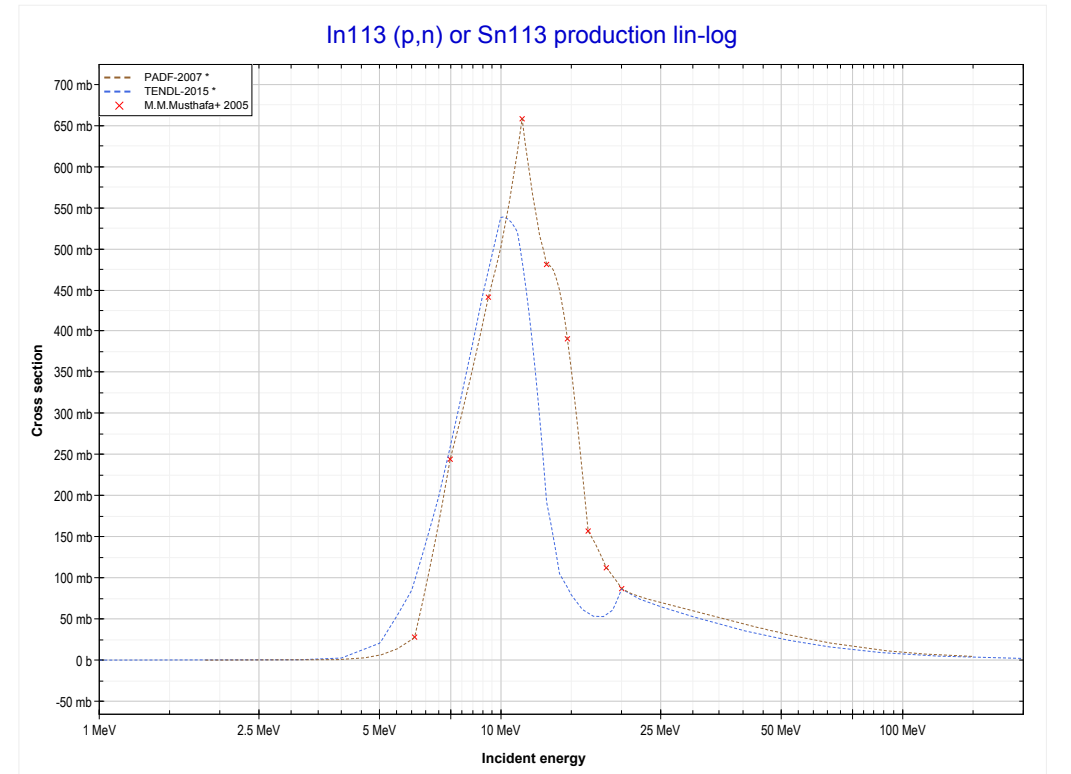
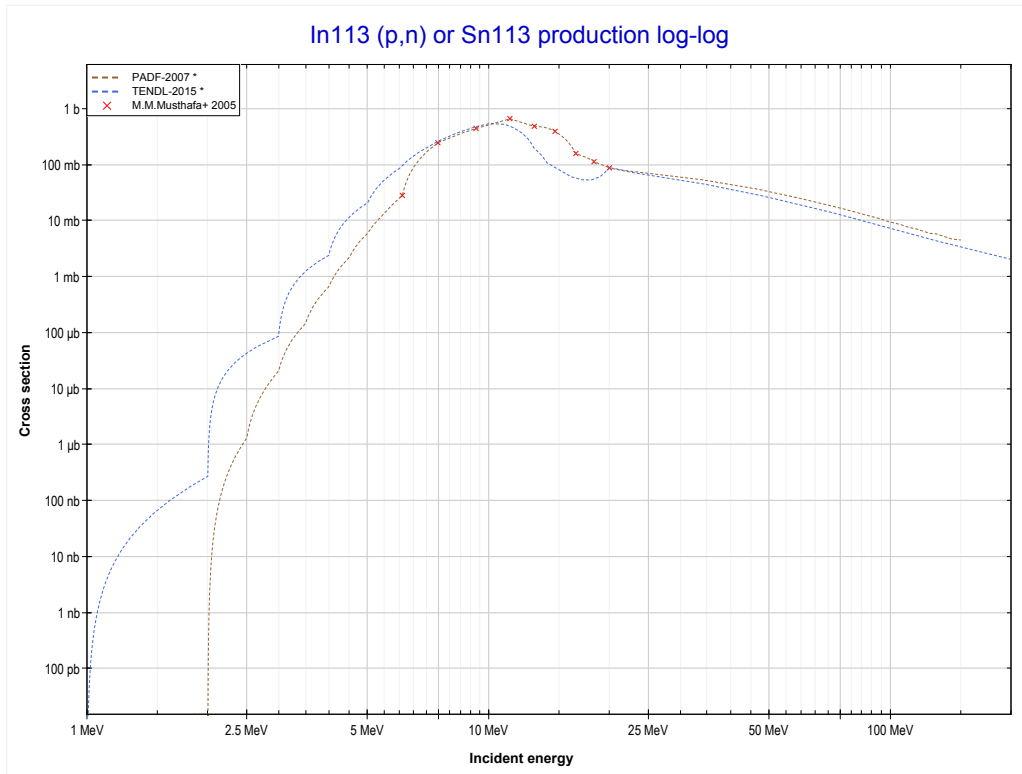
Reaction	Q-Value
Cd116(p,4n)In113	-24343.06 keV

<< 35-Br-81	48-Cd-116	52-Te-125 >>
<< MT37 (p,4n)	MT153 (p,6n) or MT5 (In111 production)	49-In-113 MT4 (p,n) >>



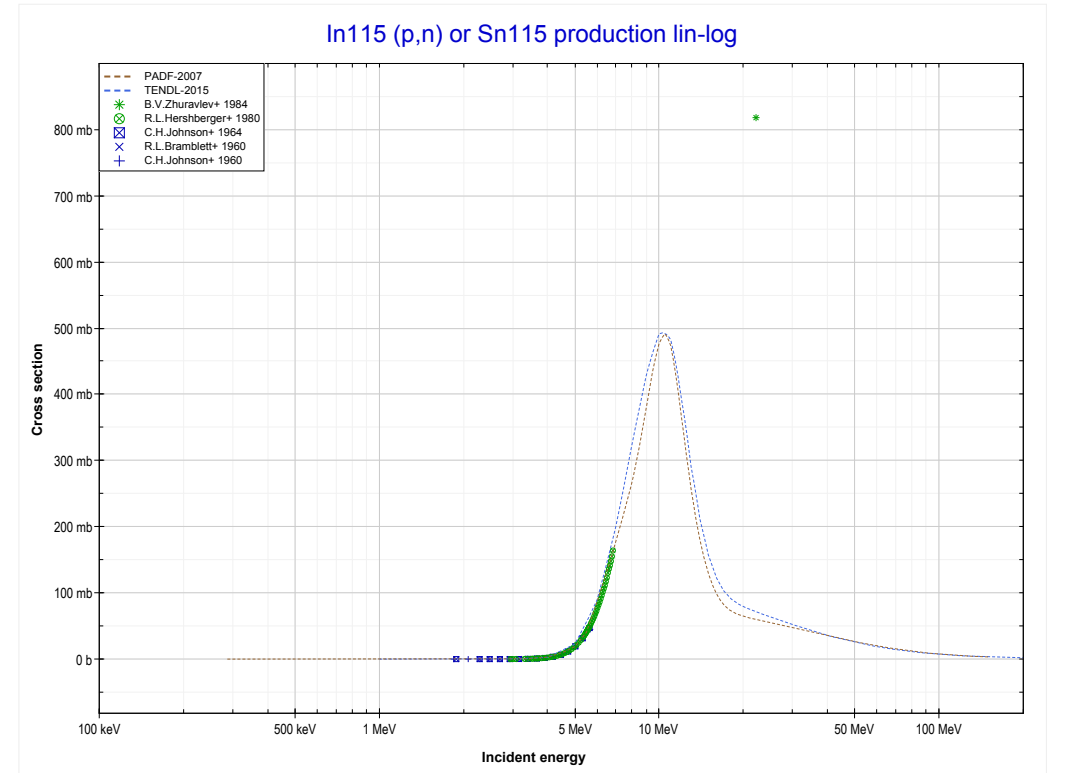
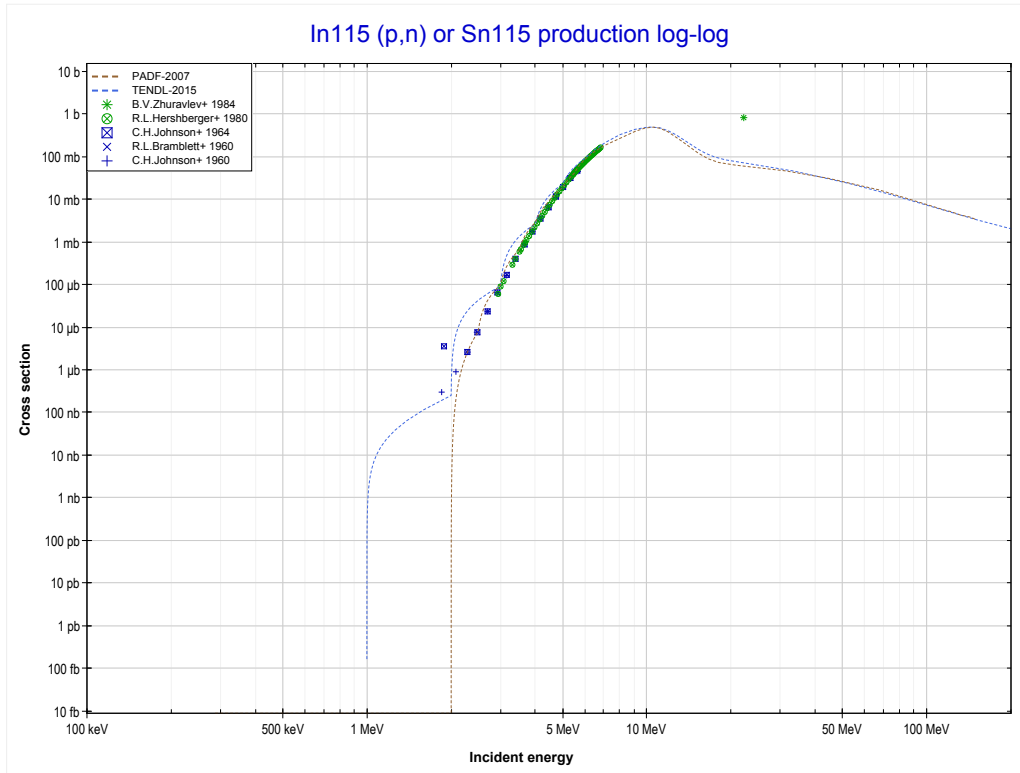
Reaction	Q-Value
Cd116(p,6n)In111	-41460.49 keV

<< 48-Cd-116	49-In-113	49-In-115 >>
<< 48-Cd-116 MT153 (p,6n)	MT4 (p,n) or MT5 (Sn113 production)	49-In-115 MT4 (p,n) >>



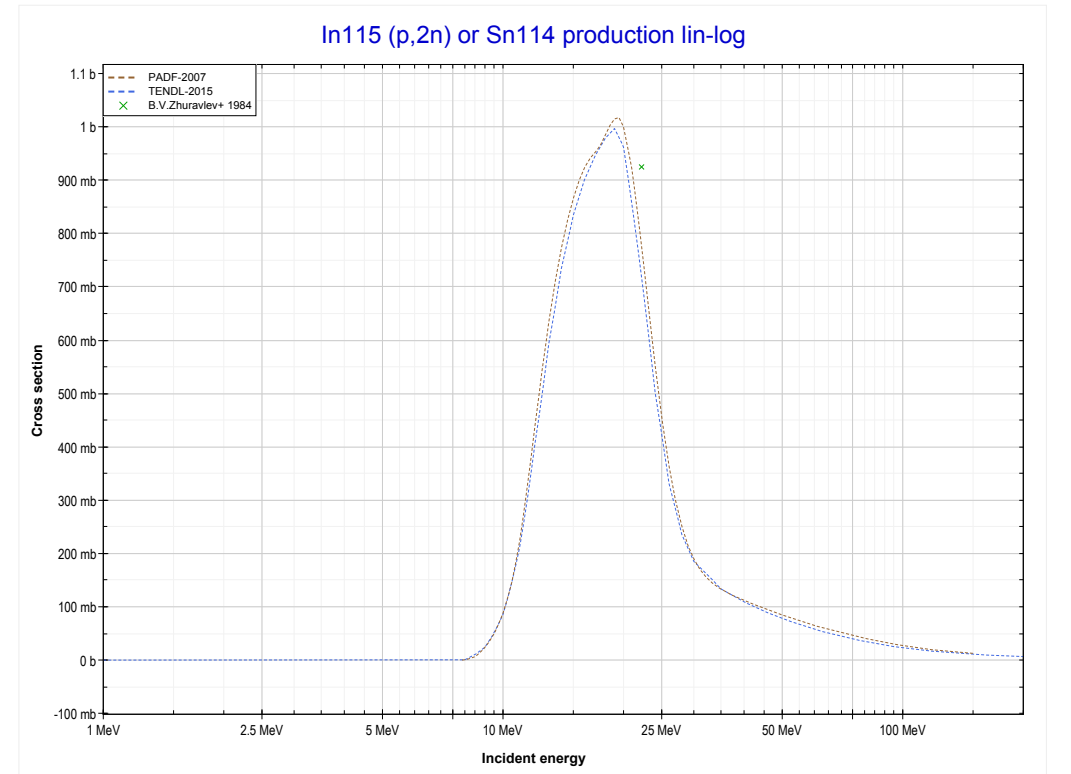
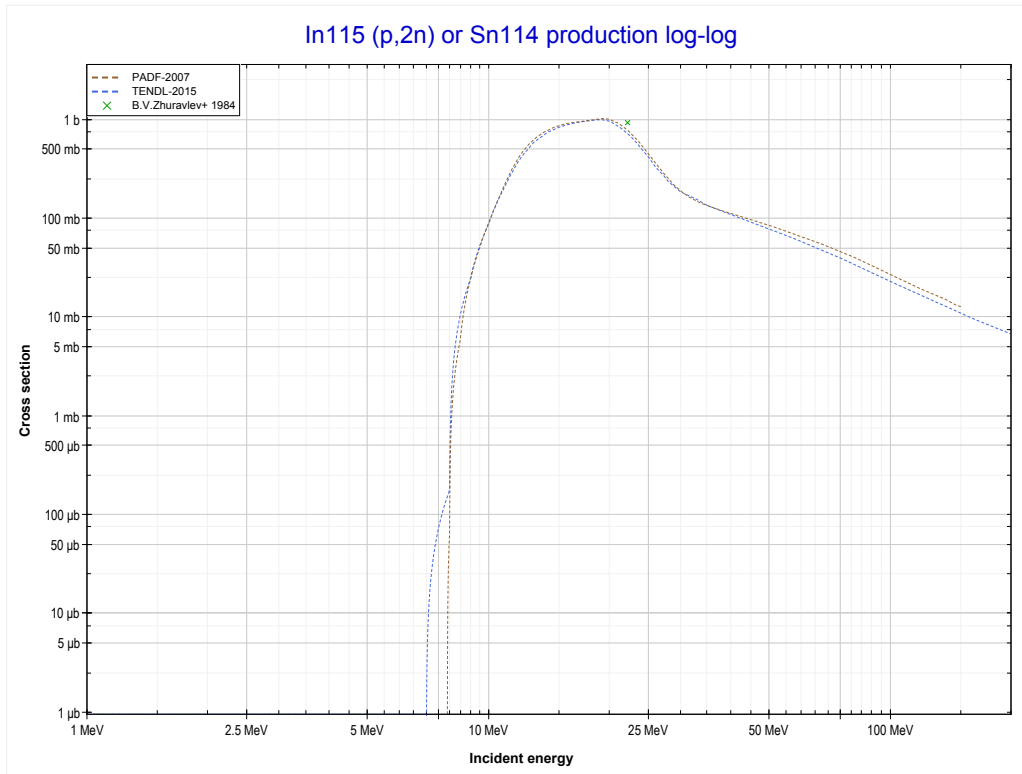
Reaction	Q-Value
In113(p,n)Sn113	-1819.95 keV

<< 49-In-113	49-In-115	50-Sn-115 >>
<< 49-In-113 MT4 (p,n)	MT4 (p,n) or MT5 (Sn115 production)	MT16 (p,2n) >>



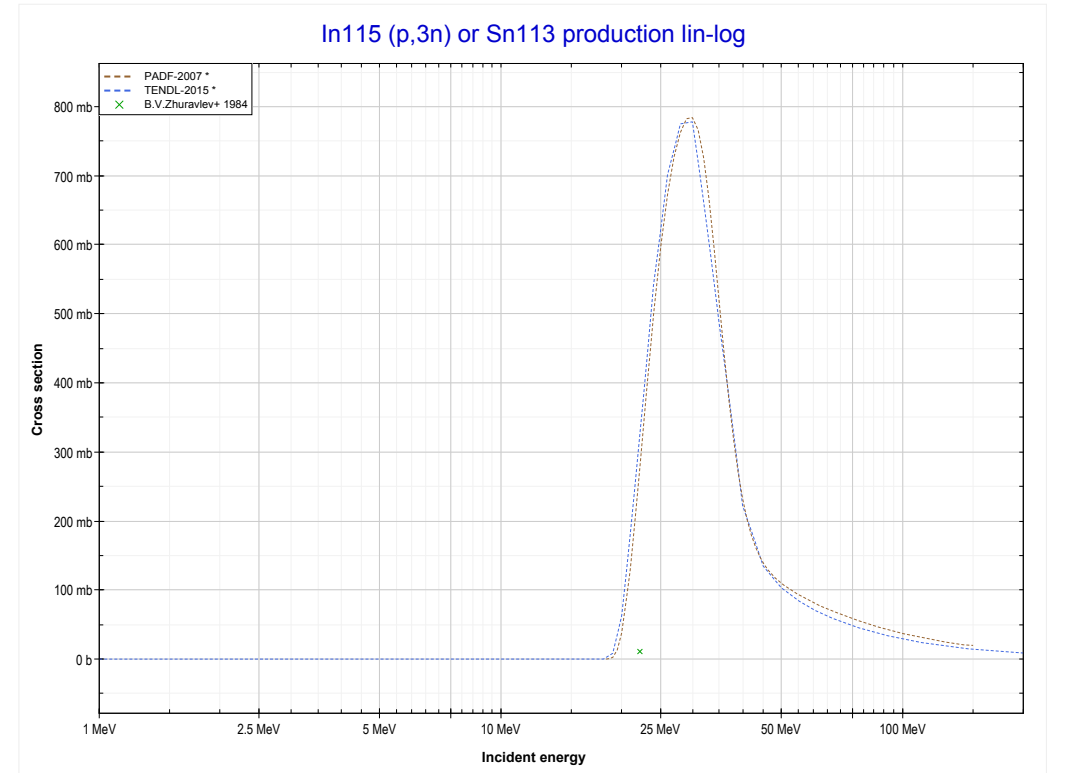
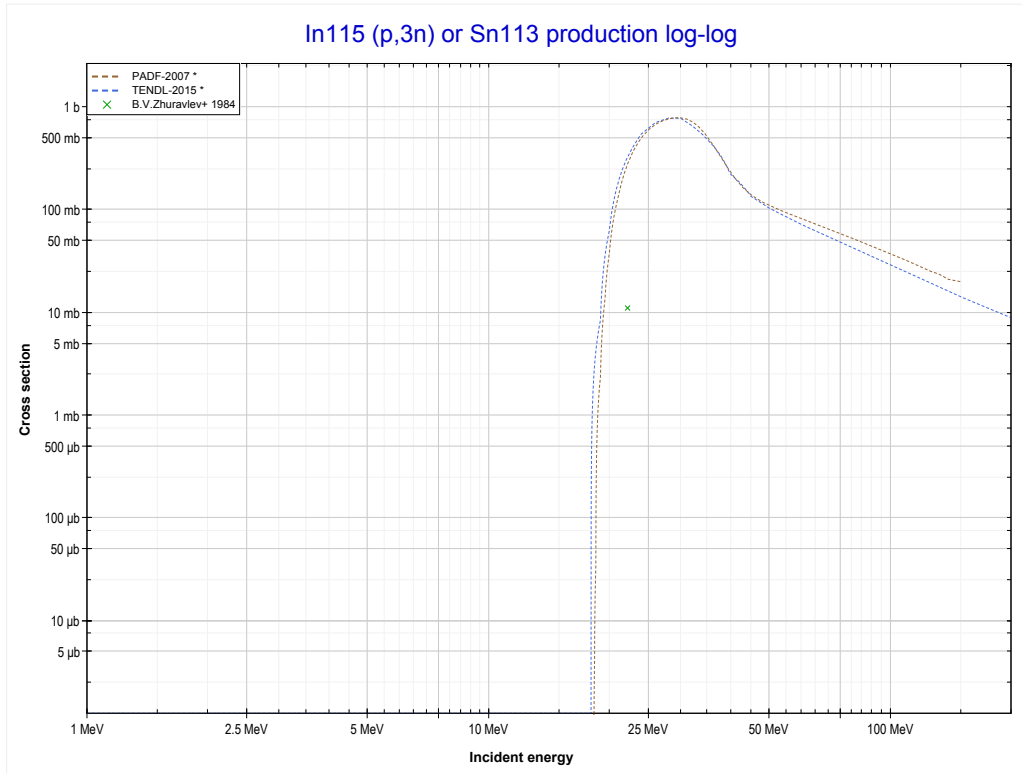
Reaction	Q-Value
In115(p,n)Sn115	-284.86 keV

<< 48-Cd-116	49-In-115	50-Sn-118 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Sn114 production)	MT17 (p,3n) >>



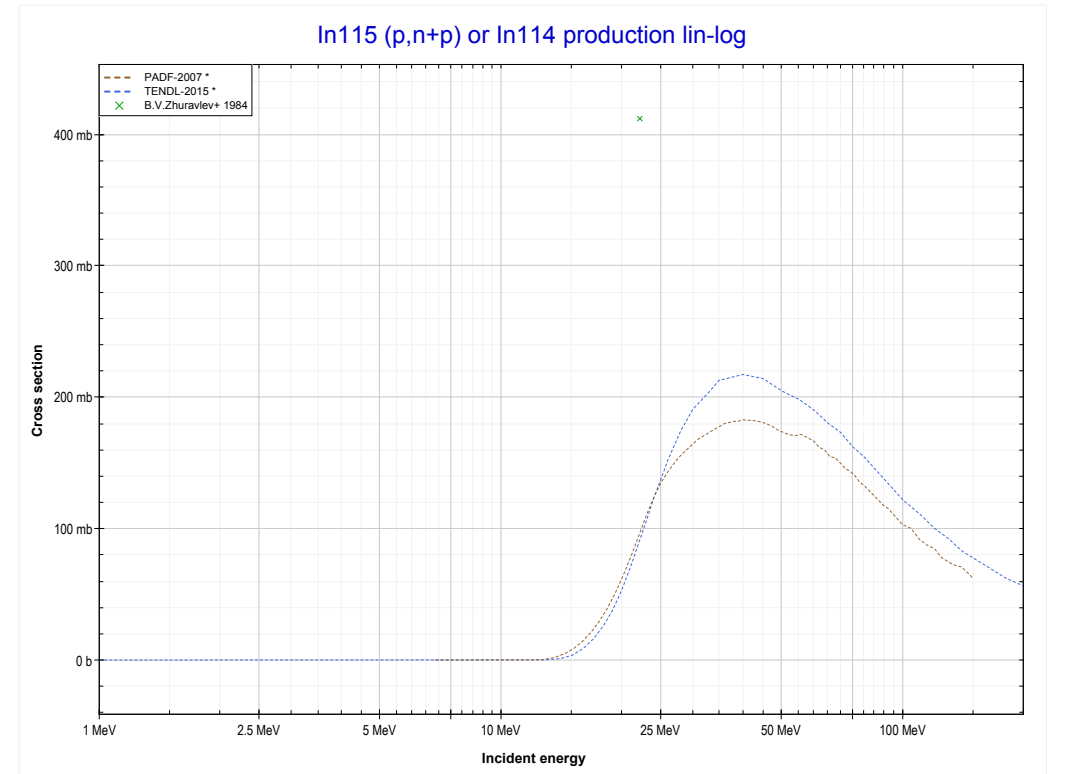
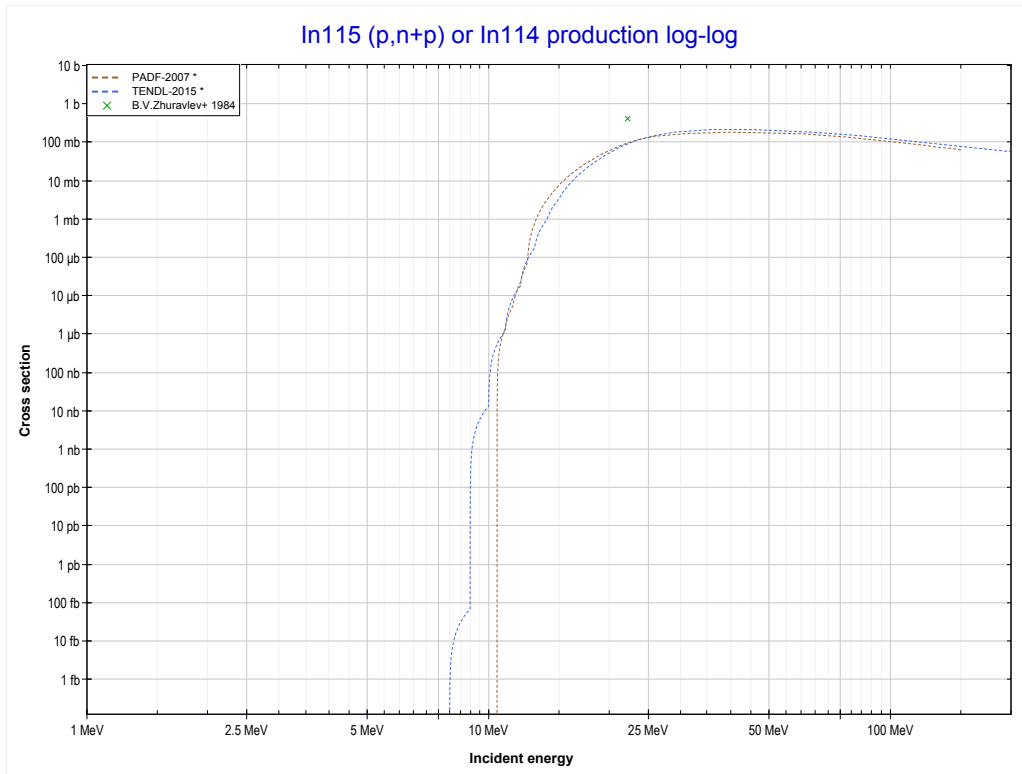
Reaction	Q-Value
In115(p,2n)Sn114	-7832.71 keV

<< 48-Cd-116	49-In-115	50-Sn-118 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Sn113 production)	MT28 (p,n+p) >>



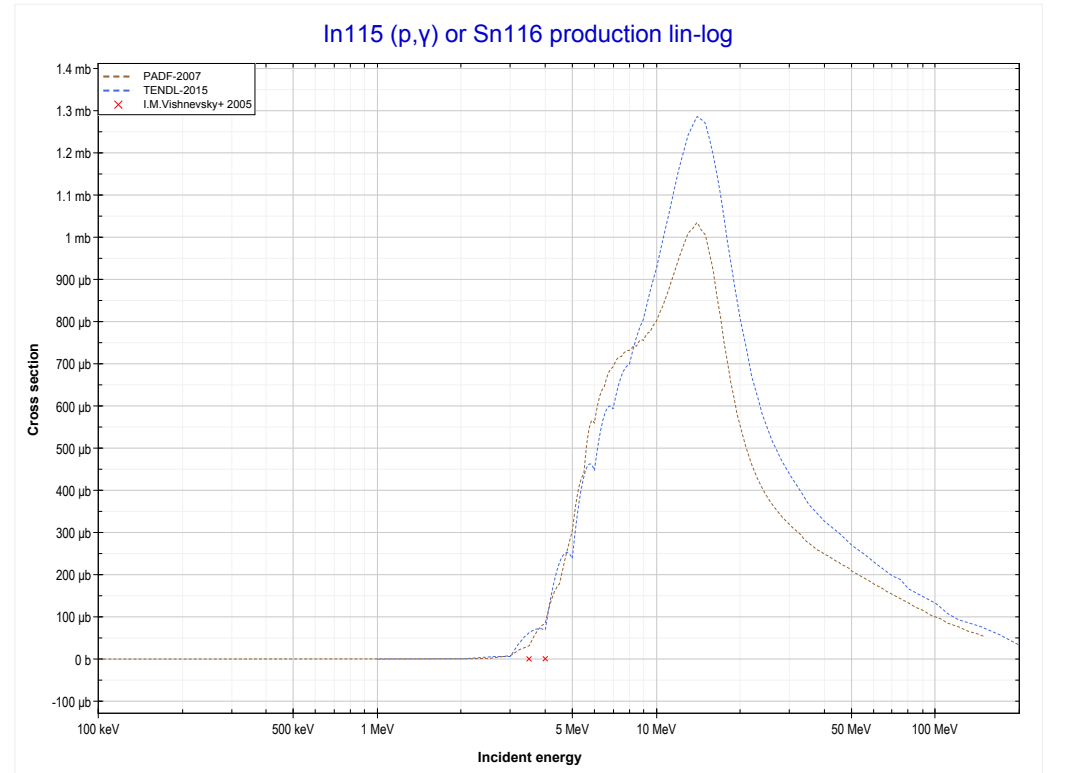
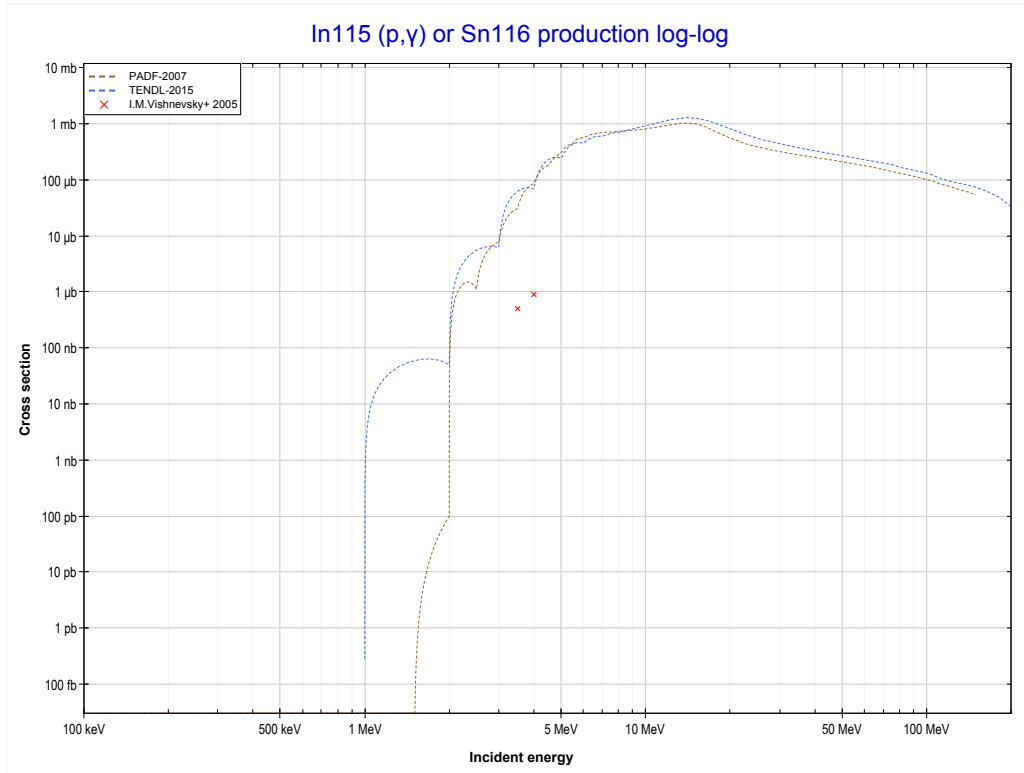
Reaction	Q-Value
In115(p,3n)Sn113	-18133.12 keV

<< 48-Cd-110	49-In-115	51-Sb-123 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (In114 production)	MT102 (p, γ) >>



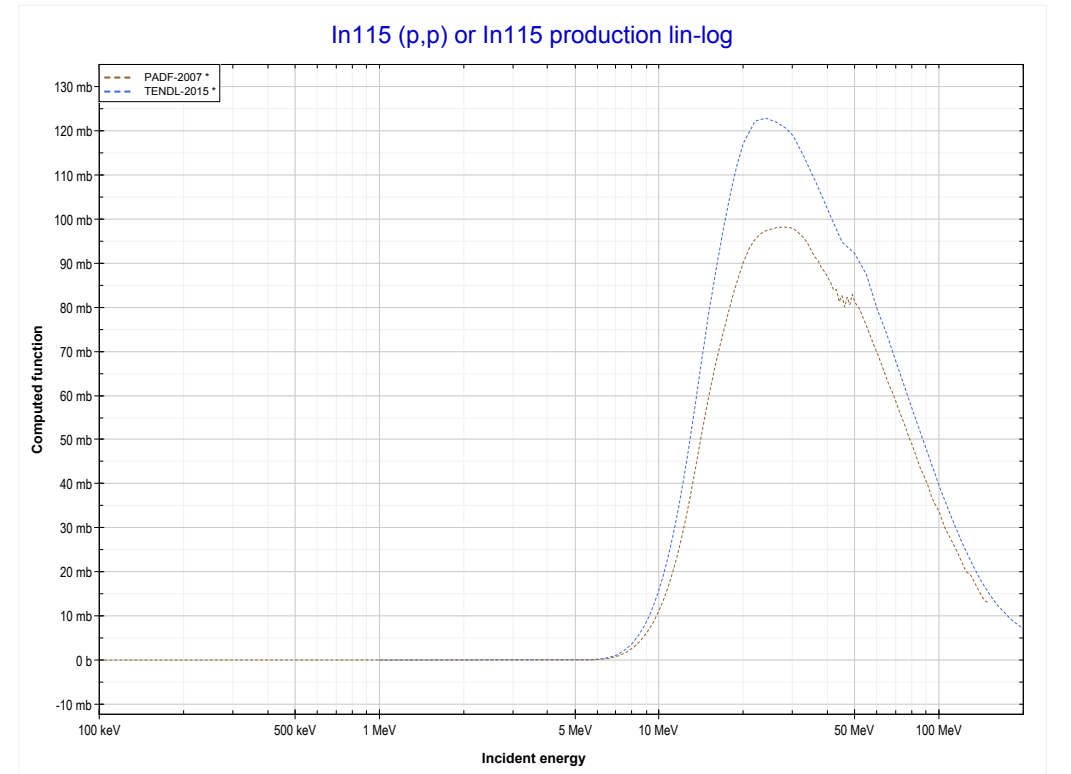
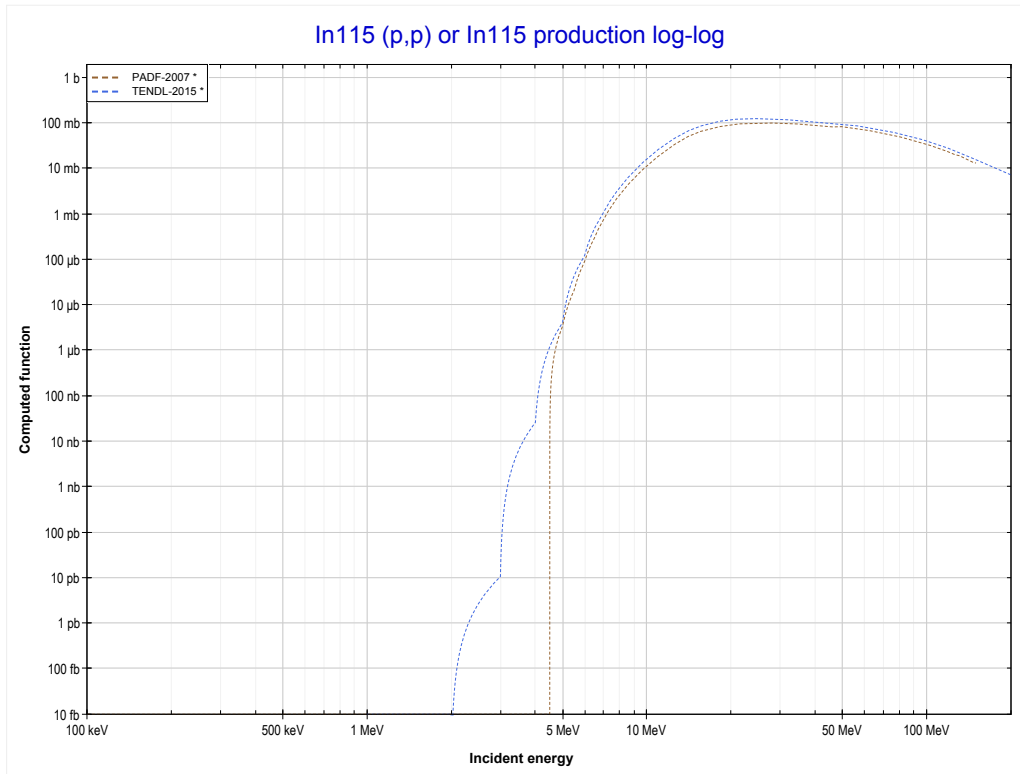
Reaction	Q-Value
In115(p,d)In114	-6814.69 keV
In115(p,n+p)In114	-9039.26 keV

<< 48-Cd-114	49-In-115	50-Sn-112 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (Sn116 production)	MT103 (p,p) >>



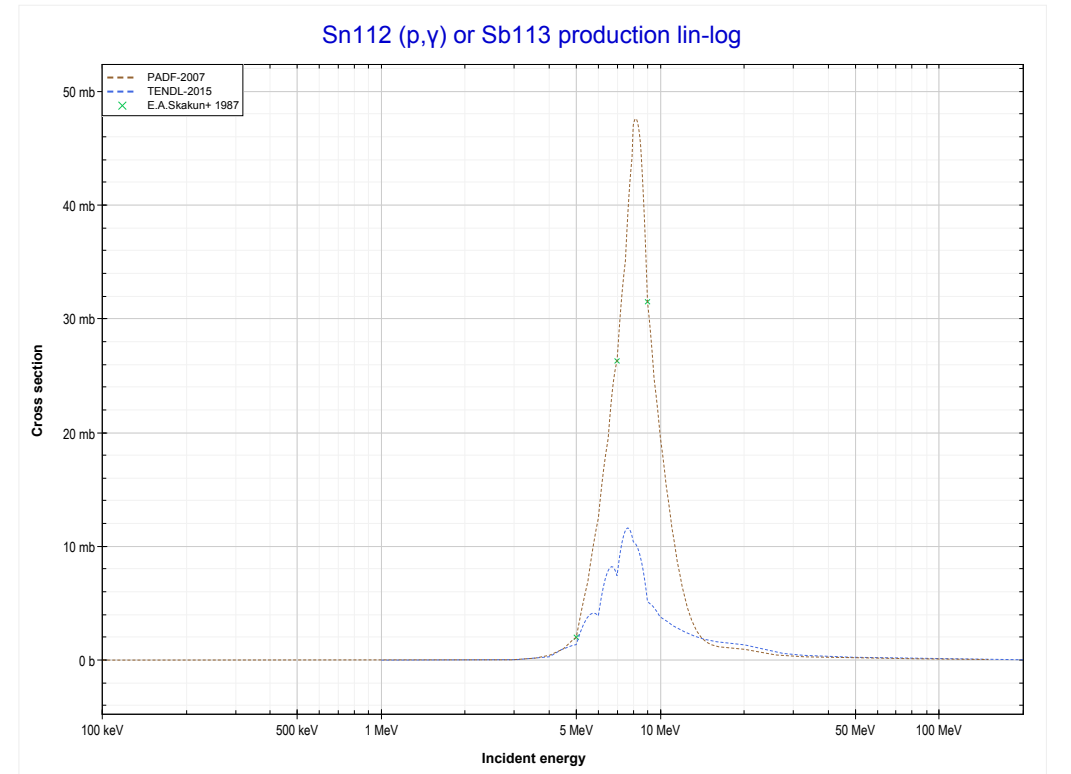
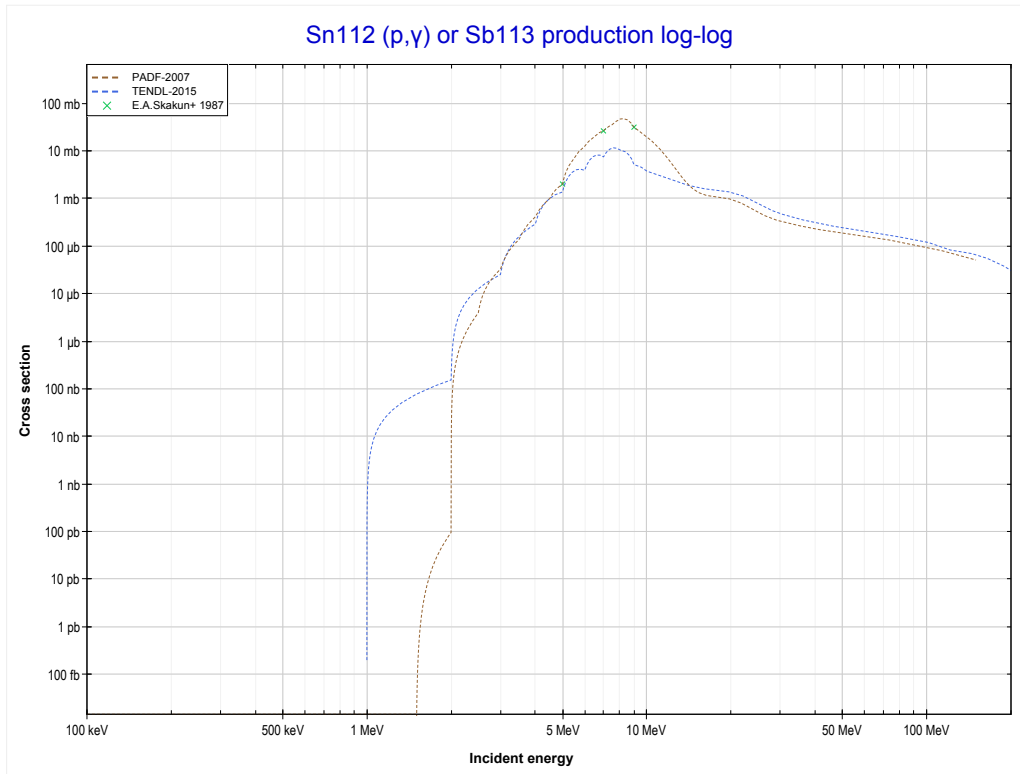
Reaction	Q-Value
In115(p, γ)Sn116	9278.62 keV

<< 41-Nb-93	49-In-115	67-Ho-165 >>
<< MT102 (p, γ)	MT103 (p,p) or MT5 (In115 production)	50-Sn-112 MT102 (p, γ) >>



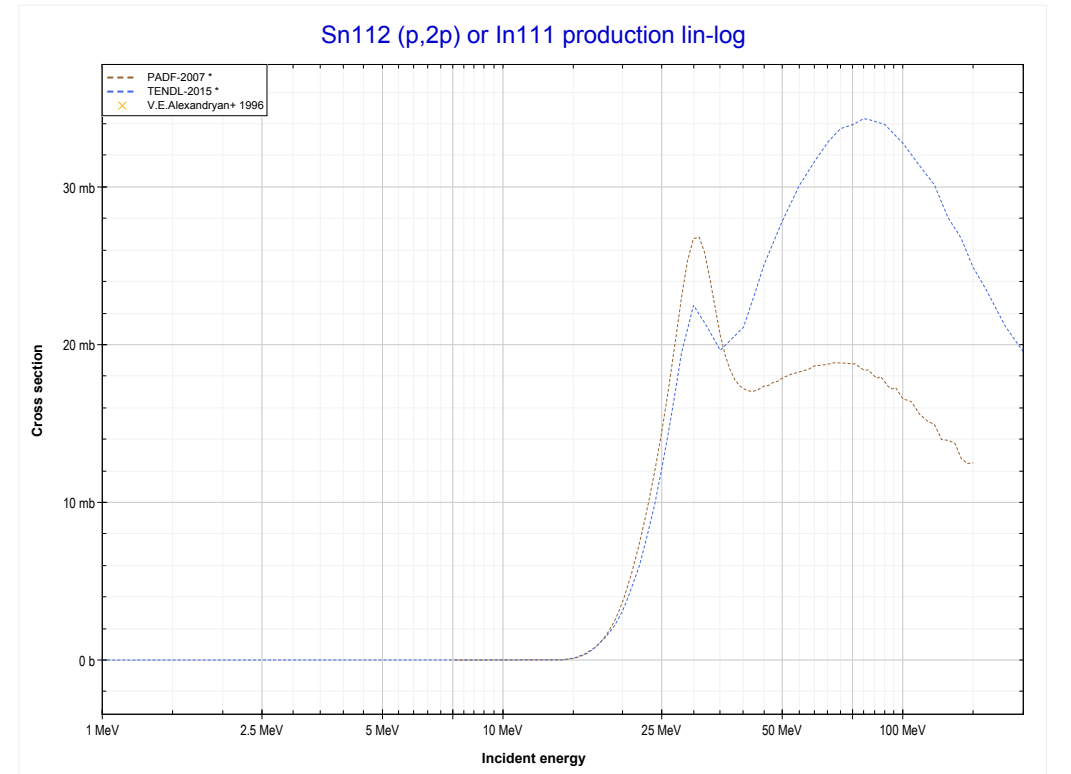
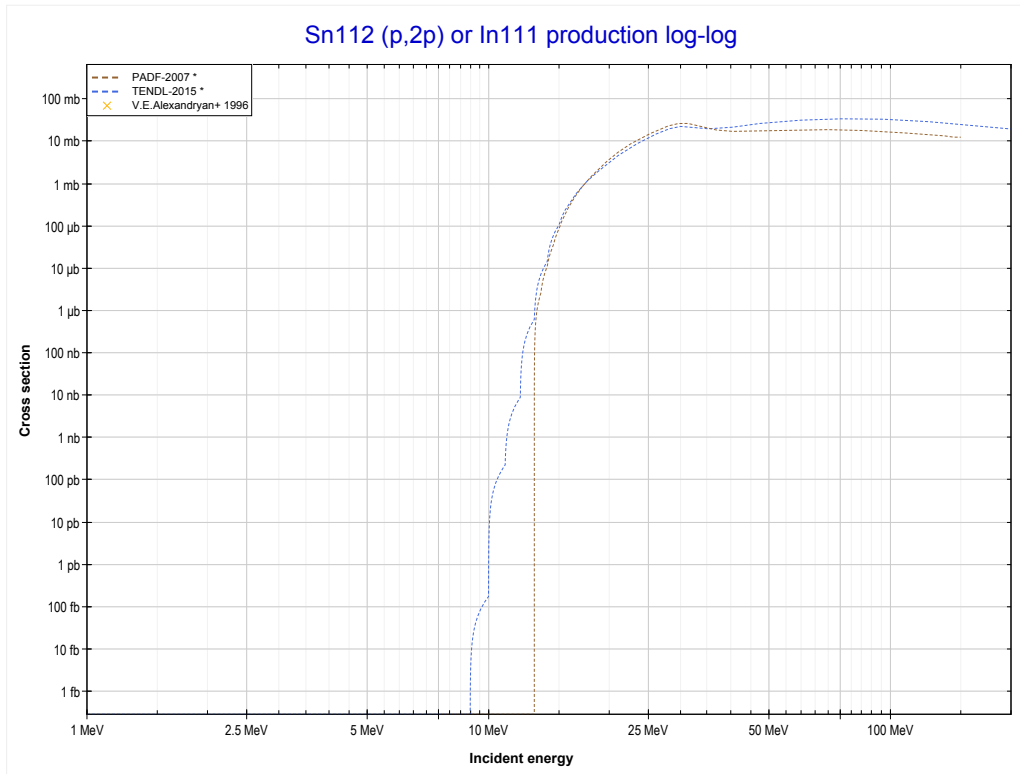
Reaction	Q-Value
In115(p,p)In115	0.00 keV

<< 49-In-115	50-Sn-112	52-Te-130 >>
<< 49-In-115 MT103 (p,p)	MT102 (p,γ) or MT5 (Sb113 production)	MT111 (p,2p) >>



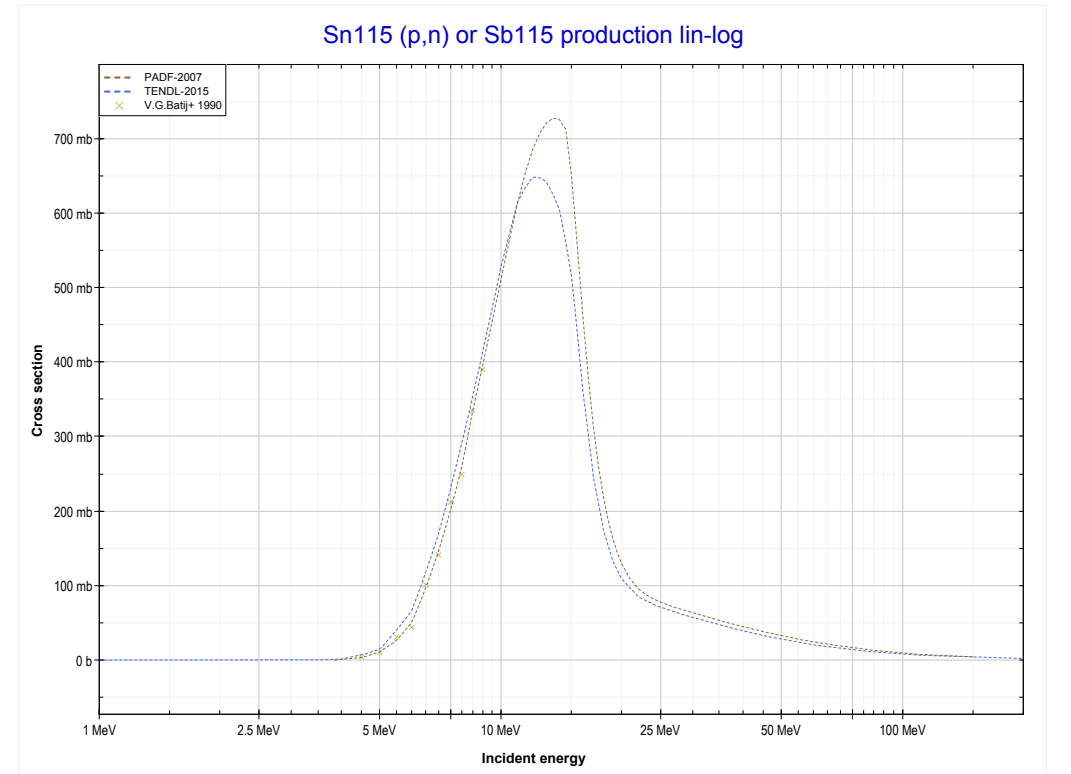
Reaction	Q-Value
Sn112(p, γ)Sb113	3049.97 keV

<< 48-Cd-113	50-Sn-112	50-Sn-118 >>
<< MT102 (p, γ)	MT111 (p,2p) or MT5 (In111 production)	50-Sn-115 MT4 (p,n) >>



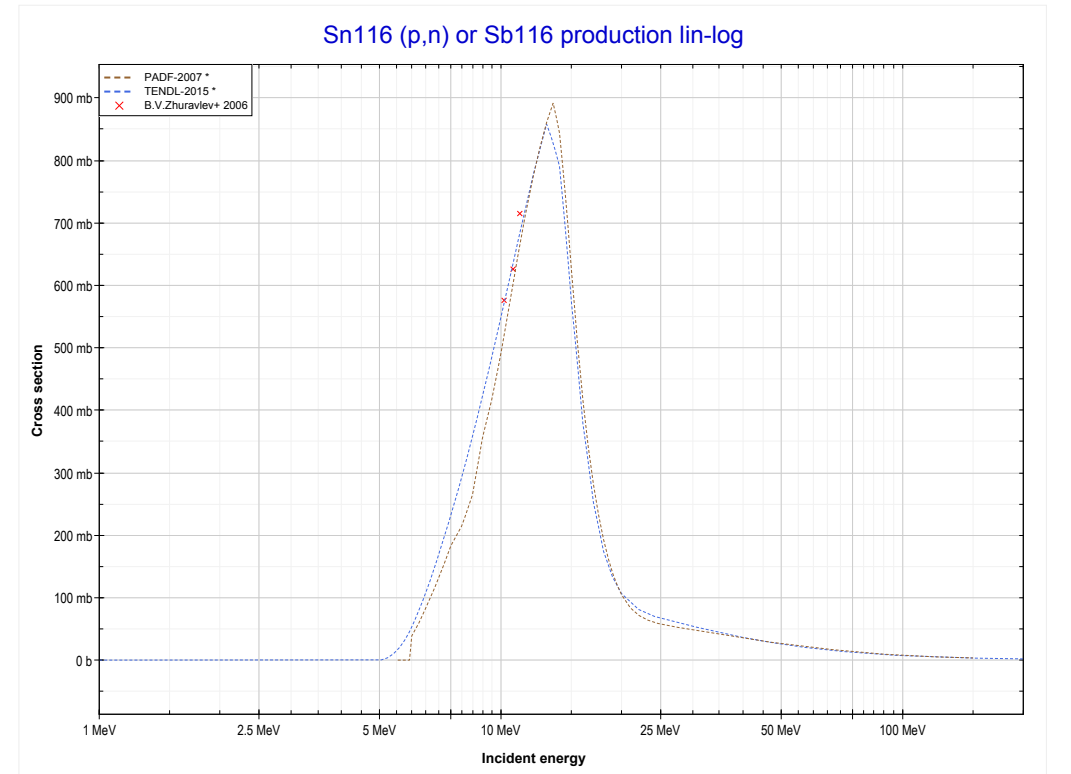
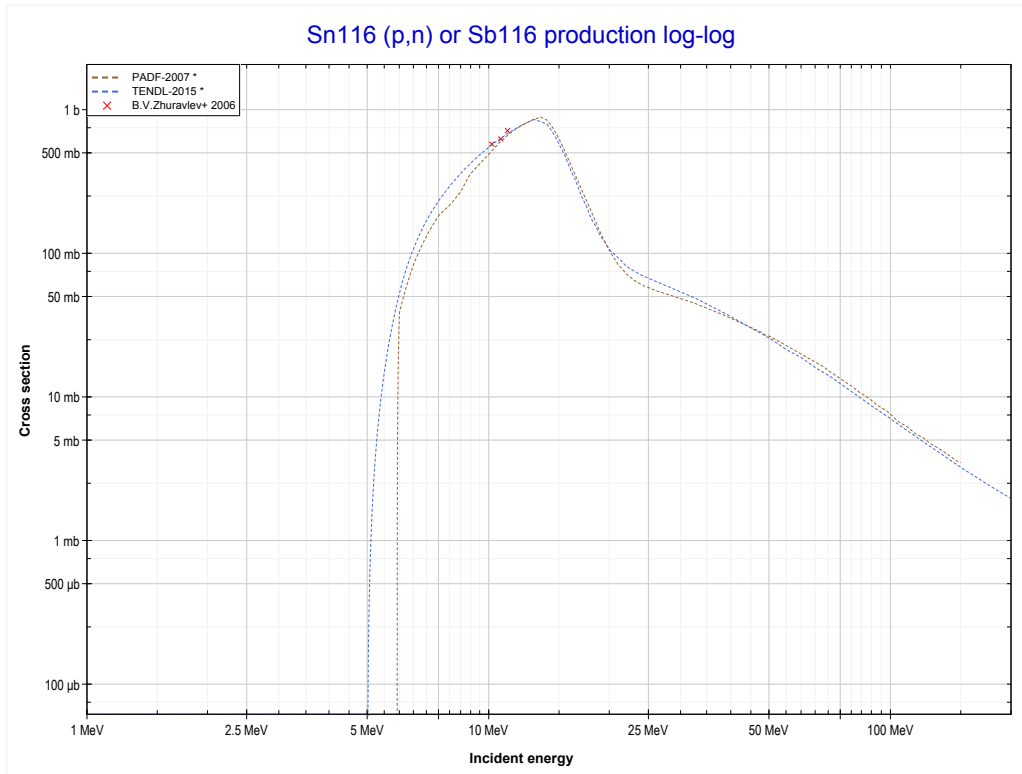
Reaction	Q-Value
Sn112(p,2p)In111	-7553.97 keV

<< 49-In-115	50-Sn-115	50-Sn-116 >>
<< 50-Sn-112 MT111 (p,2p)	MT4 (p,n) or MT5 (Sb115 production)	50-Sn-116 MT4 (p,n) >>



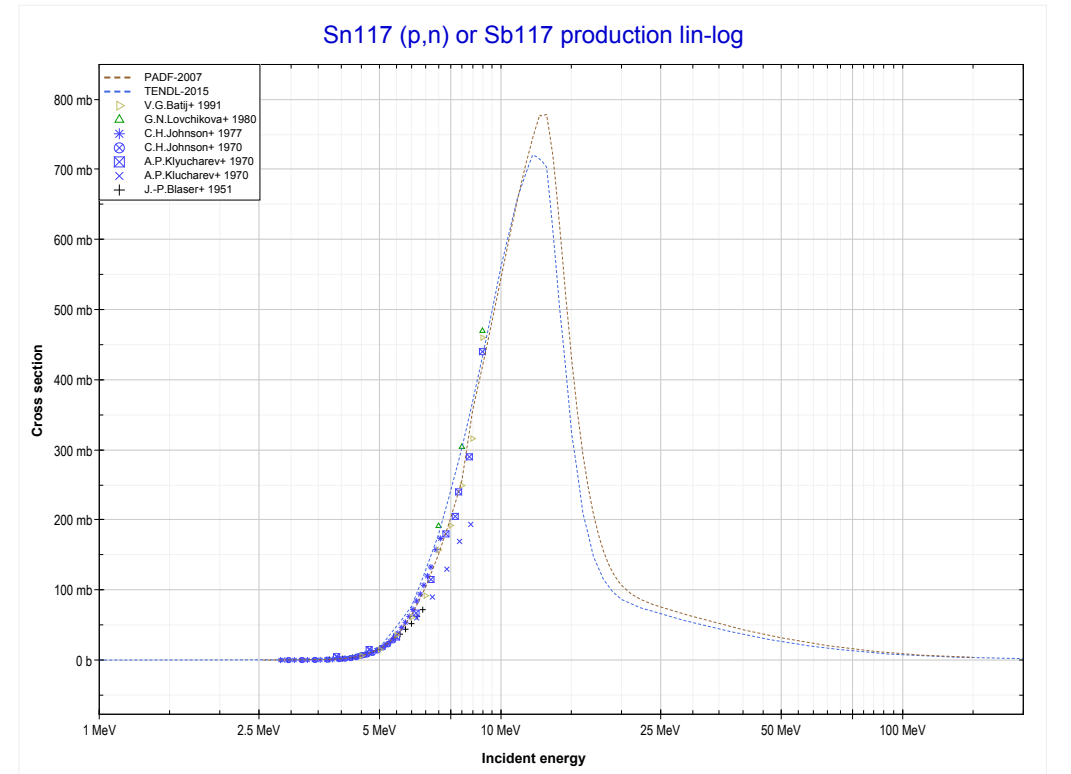
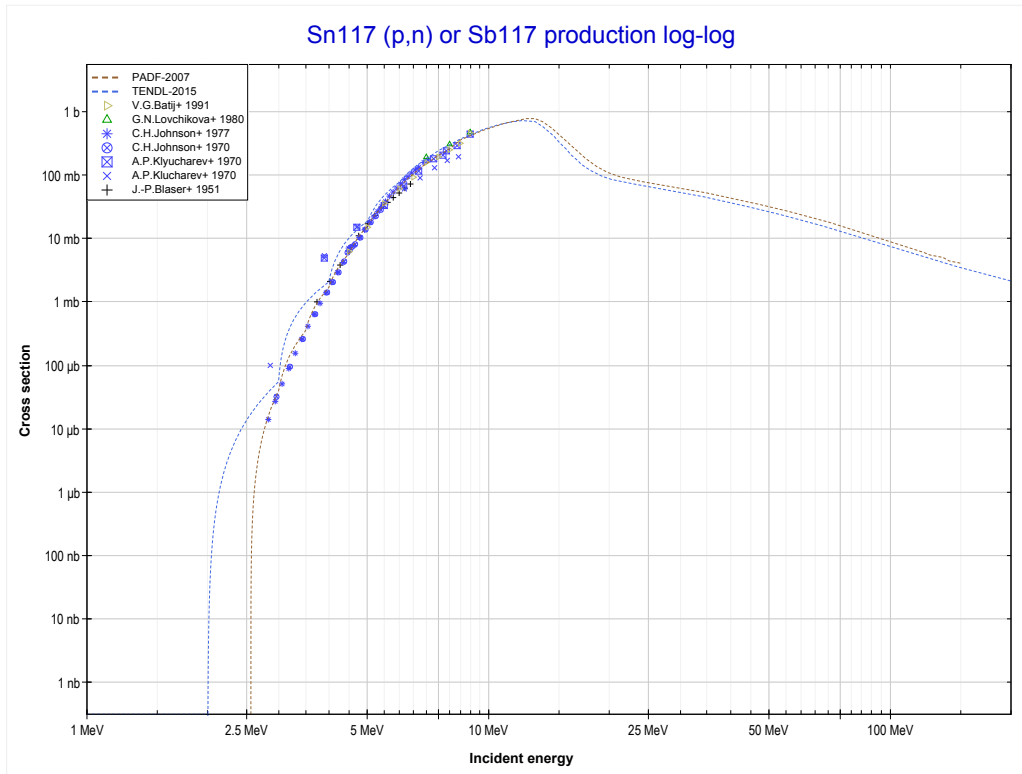
Reaction	Q-Value
Sn115(p,n)Sb115	-3813.18 keV

<< 50-Sn-115	50-Sn-116	50-Sn-117 >>
<< 50-Sn-115 MT4 (p,n)	MT4 (p,n) or MT5 (Sb116 production)	50-Sn-117 MT4 (p,n) >>



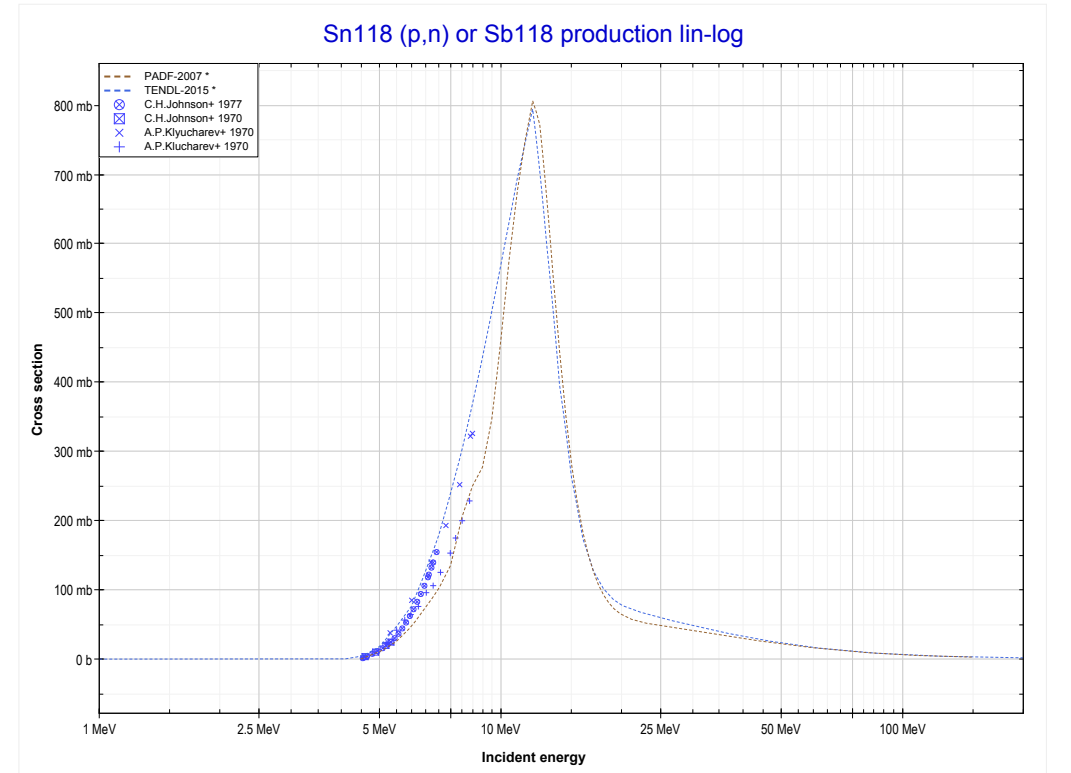
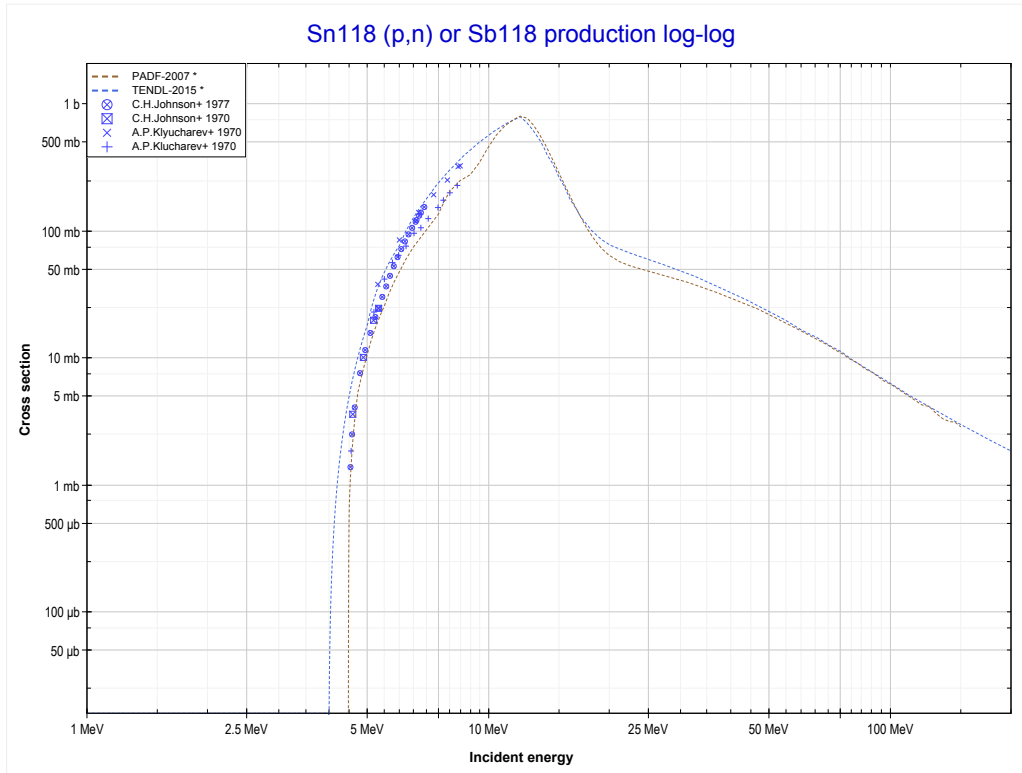
Reaction	Q-Value
Sn116(p,n)Sb116	-5486.34 keV

<< 50-Sn-116	50-Sn-117	50-Sn-118 >>
<< 50-Sn-116 MT4 (p,n)	MT4 (p,n) or MT5 (Sb117 production)	50-Sn-118 MT4 (p,n) >>



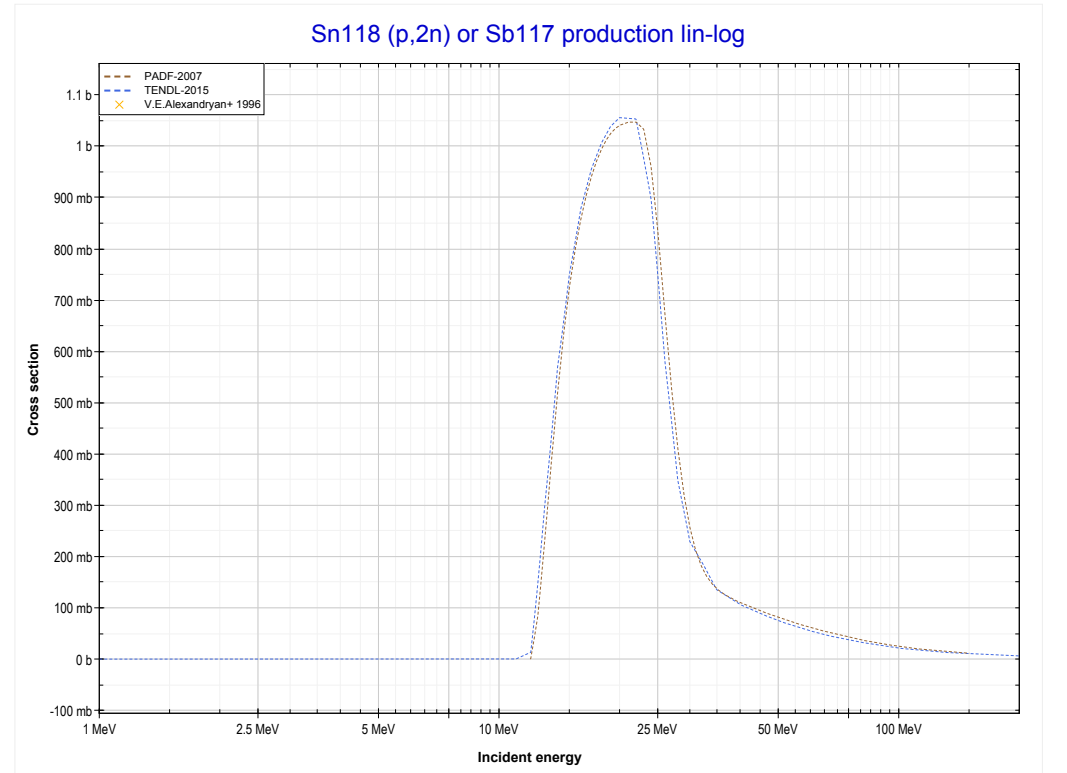
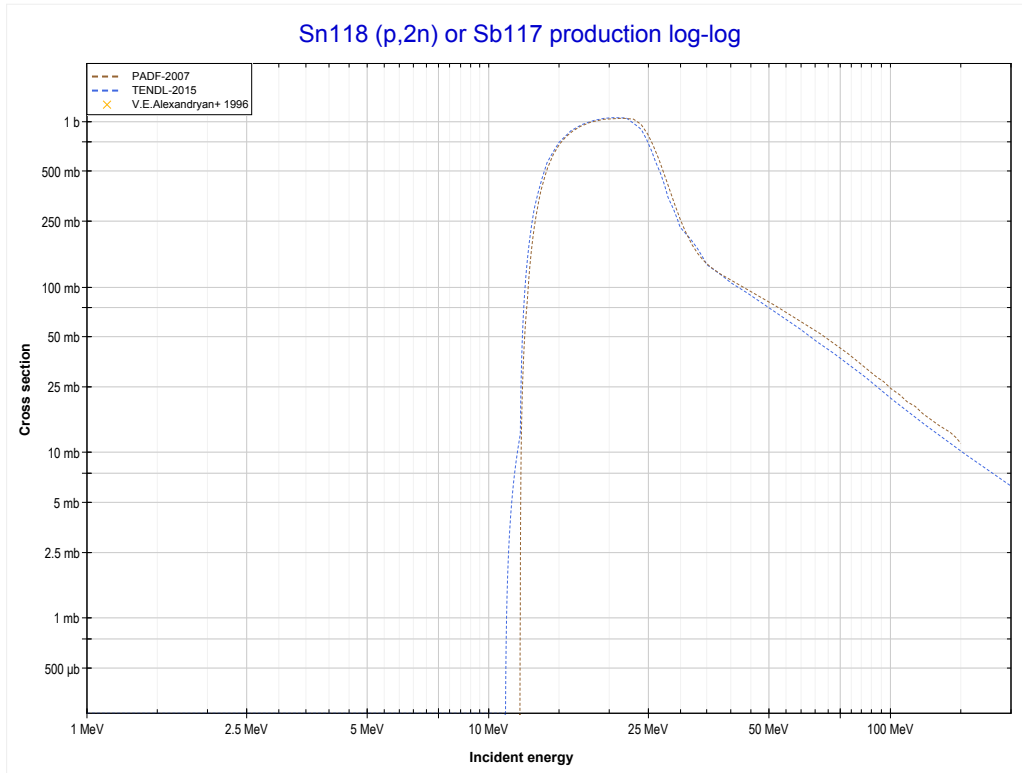
Reaction	Q-Value
Sn117(p,n)Sb117	-2540.15 keV

<< 50-Sn-117	50-Sn-118	50-Sn-119 >>
<< 50-Sn-117 MT4 (p,n)	MT4 (p,n) or MT5 (Sb118 production)	MT16 (p,2n) >>



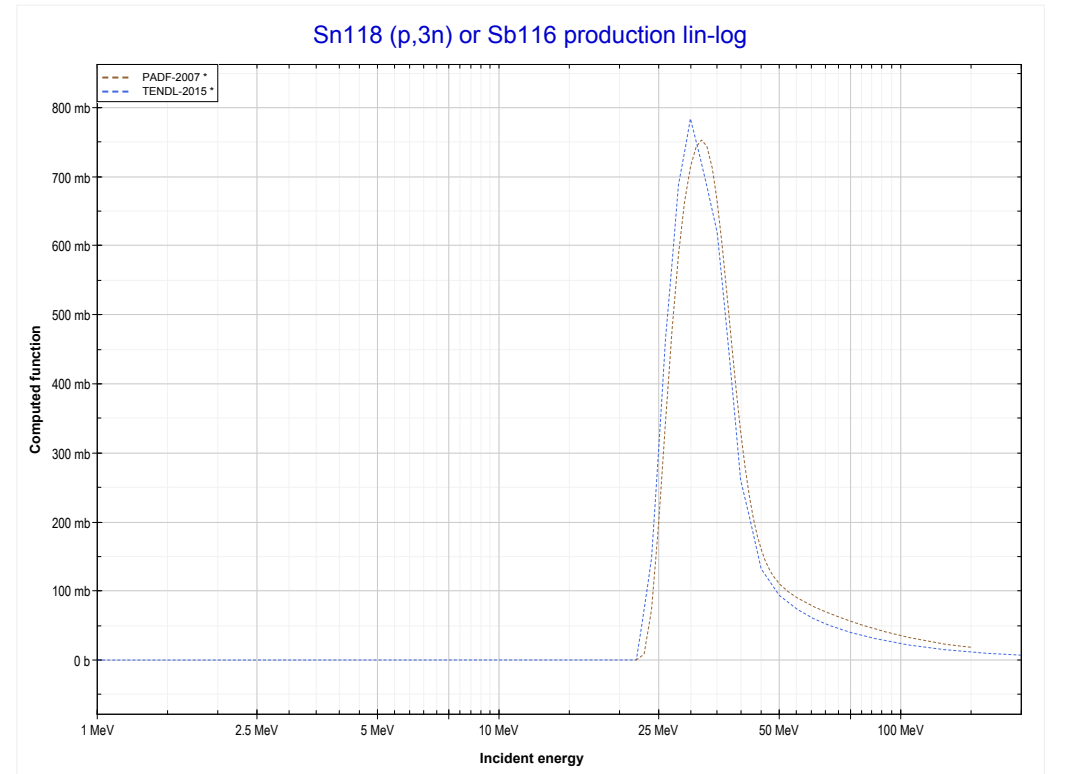
Reaction	Q-Value
Sn118(p,n)Sb118	-4439.25 keV

<< 49-In-115	50-Sn-118	50-Sn-119 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Sb117 production)	MT17 (p,3n) >>



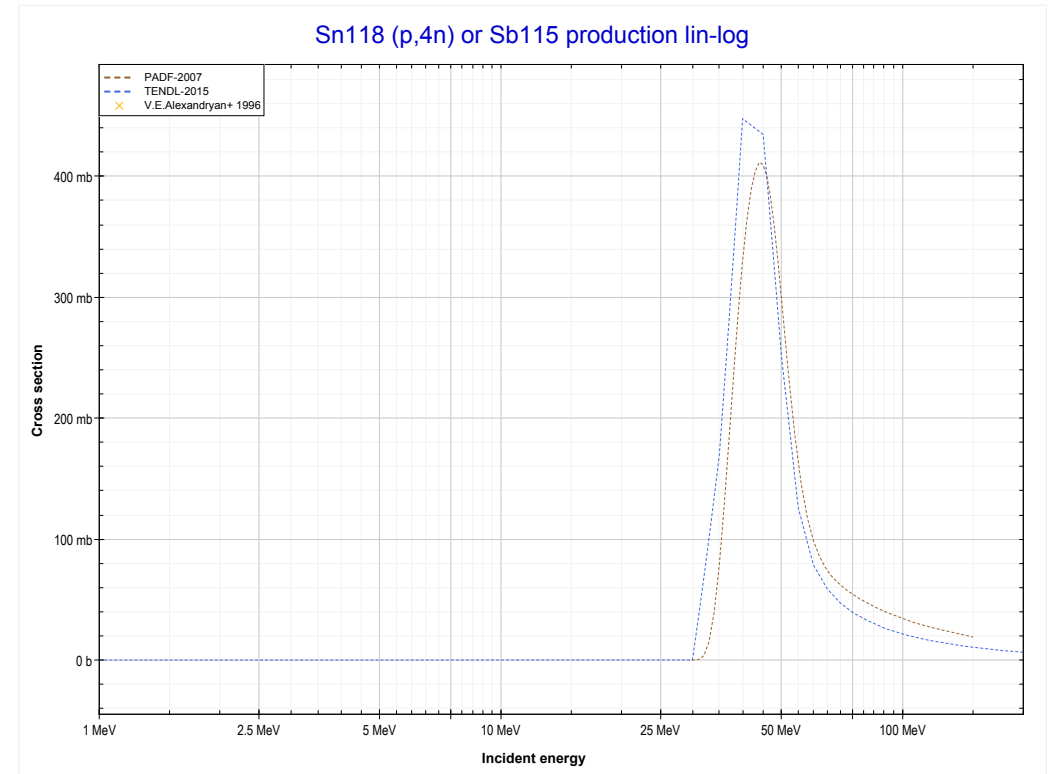
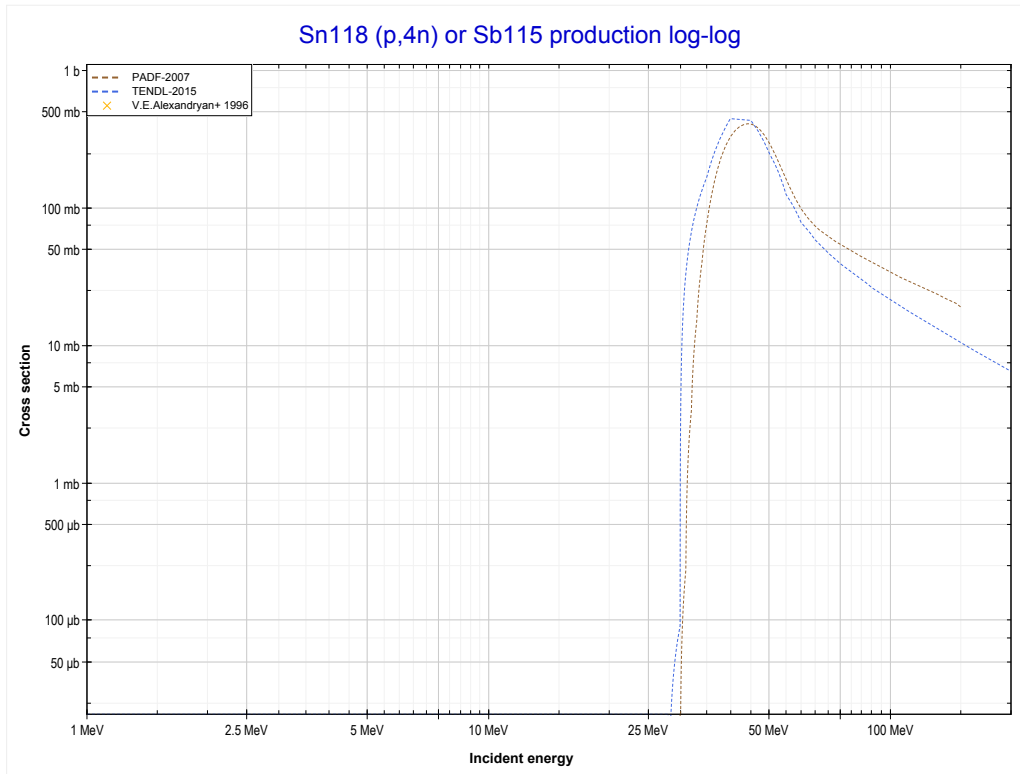
Reaction	Q-Value
Sn118(p,2n)Sb117	-11866.56 keV

<< 49-In-115	50-Sn-118	50-Sn-124 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Sb116 production)	MT37 (p,4n) >>



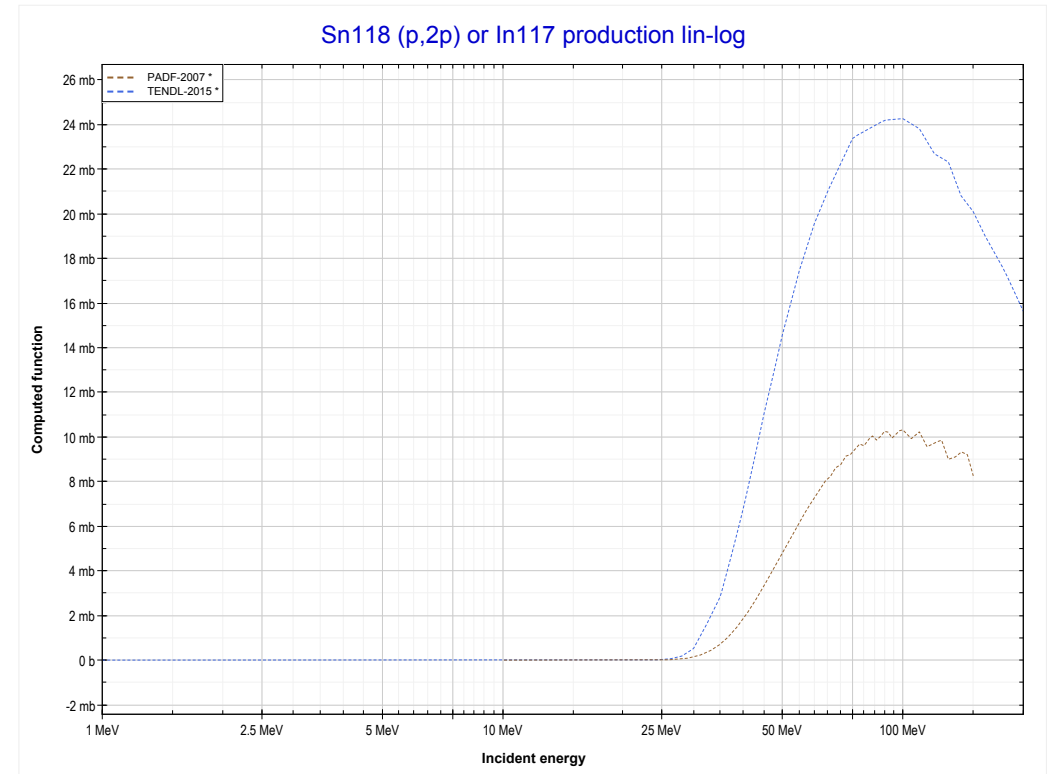
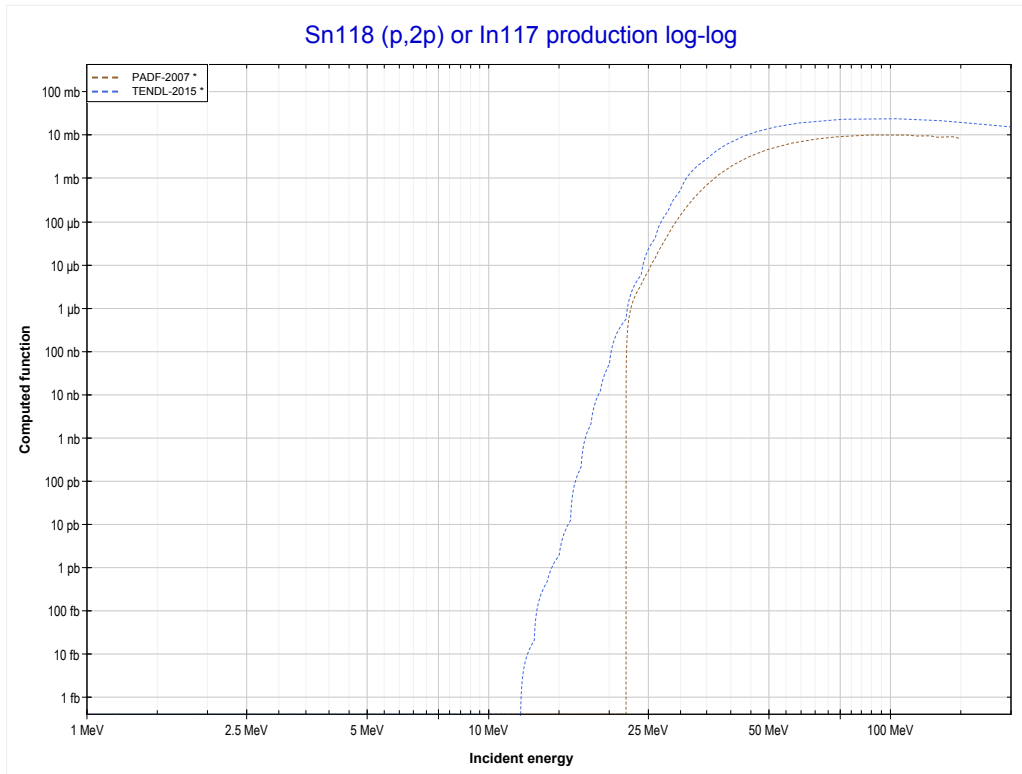
Reaction	Q-Value
Sn118(p,3n)Sb116	-21755.88 keV

<< 48-Cd-116	50-Sn-118	51-Sb-121 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Sb115 production)	MT111 (p,2p) >>



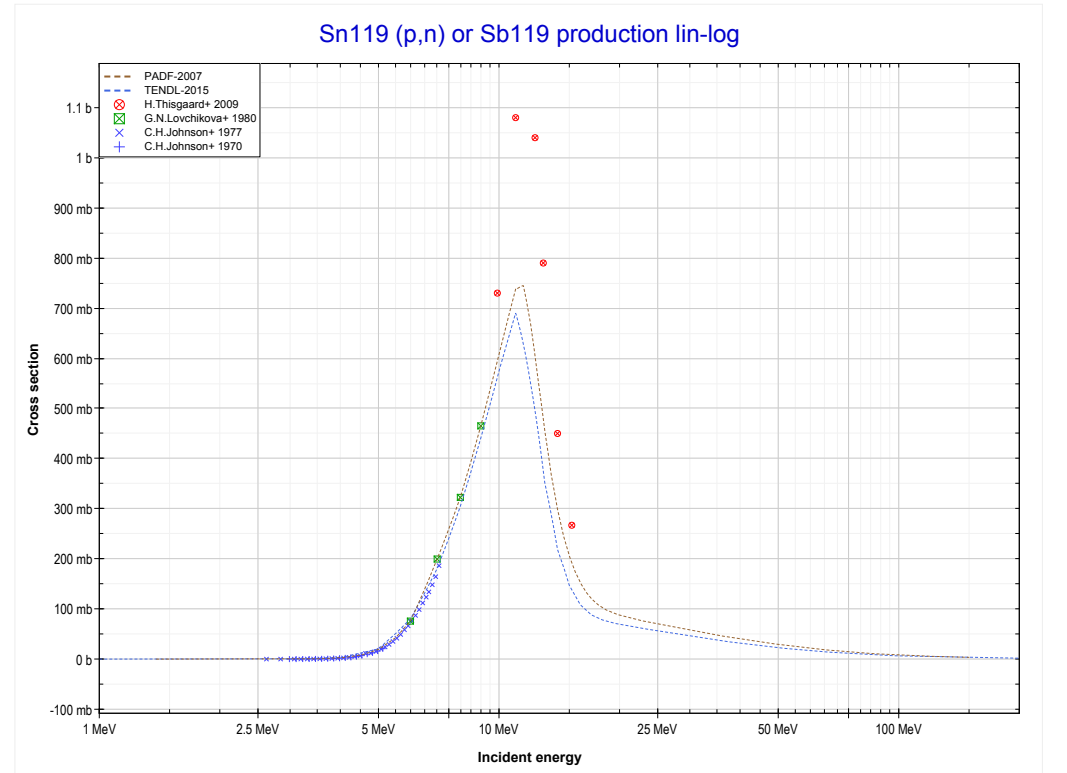
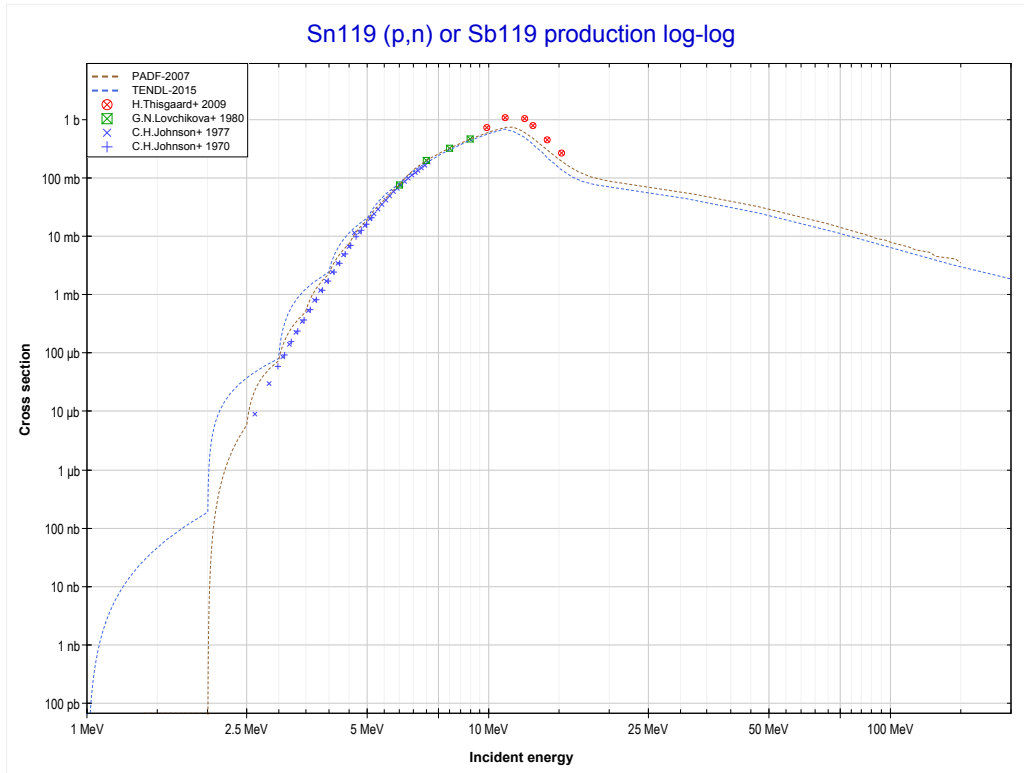
Reaction	Q-Value
Sn118(p,4n)Sb115	-29646.20 keV

<< 50-Sn-112	50-Sn-118	52-Te-123 >>
<< MT37 (p,4n)	MT111 (p,2p) or MT5 (In117 production)	50-Sn-119 MT4 (p,n) >>



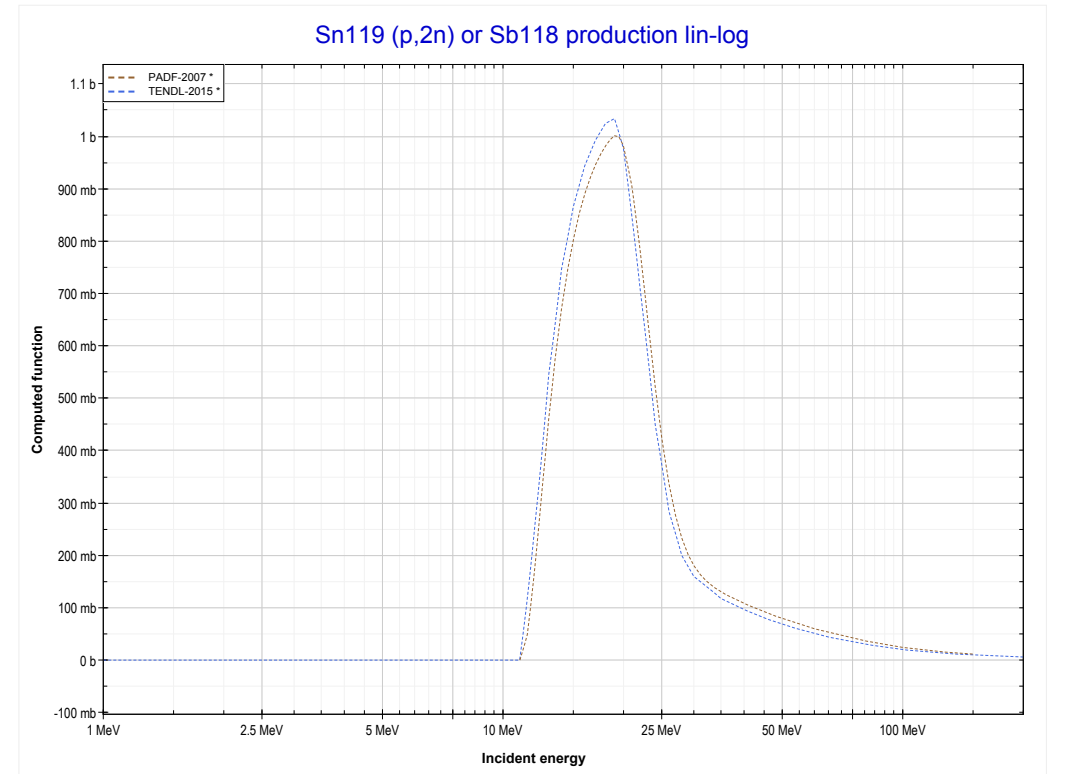
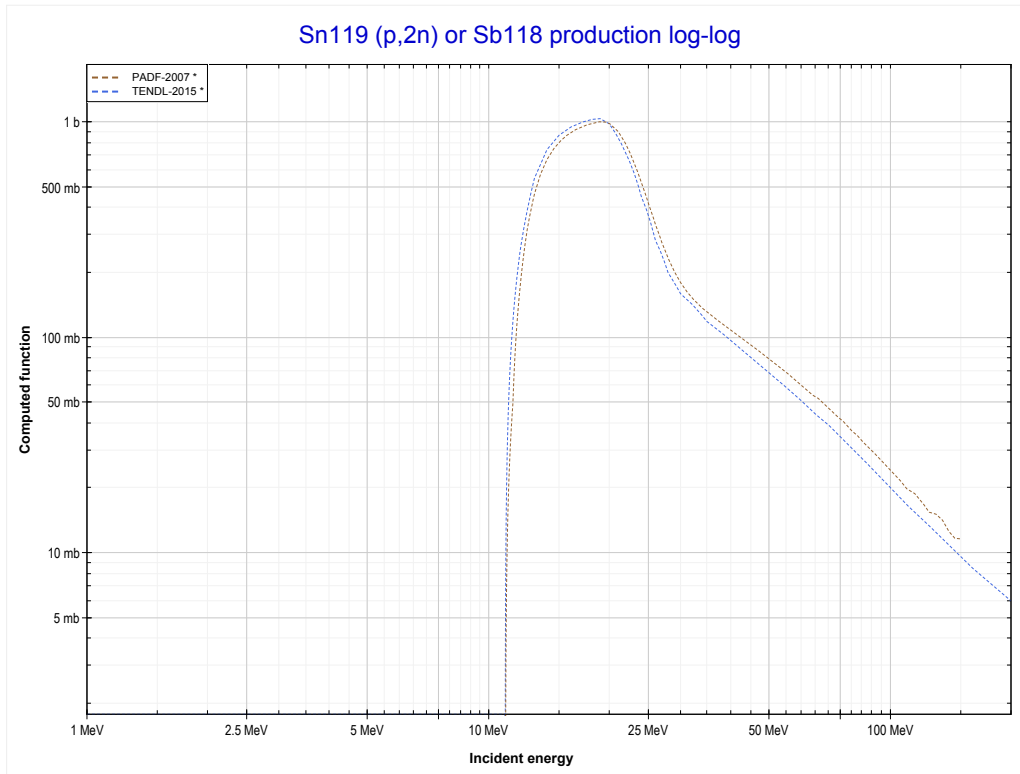
Reaction	Q-Value
Sn118(p,2p)In117	-9998.87 keV

<< 50-Sn-118	50-Sn-119	50-Sn-120 >>
<< 50-Sn-118 MT111 (p,2p)	MT4 (p,n) or MT5 (Sb119 production)	MT16 (p,2n) >>



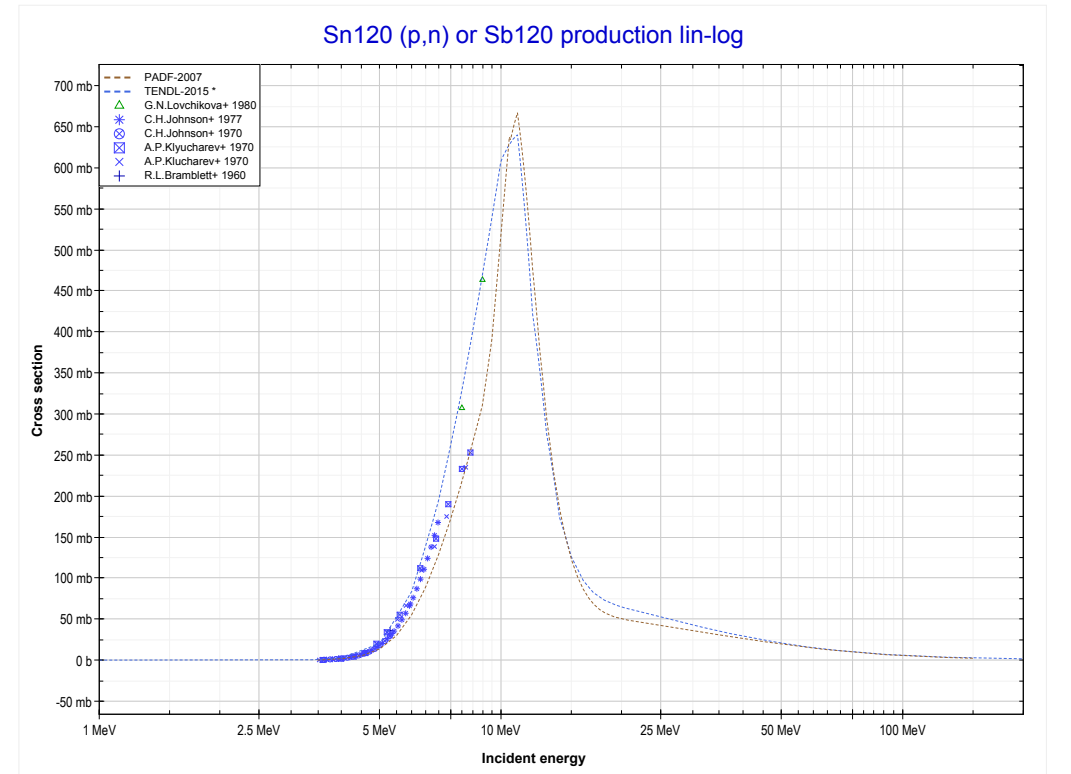
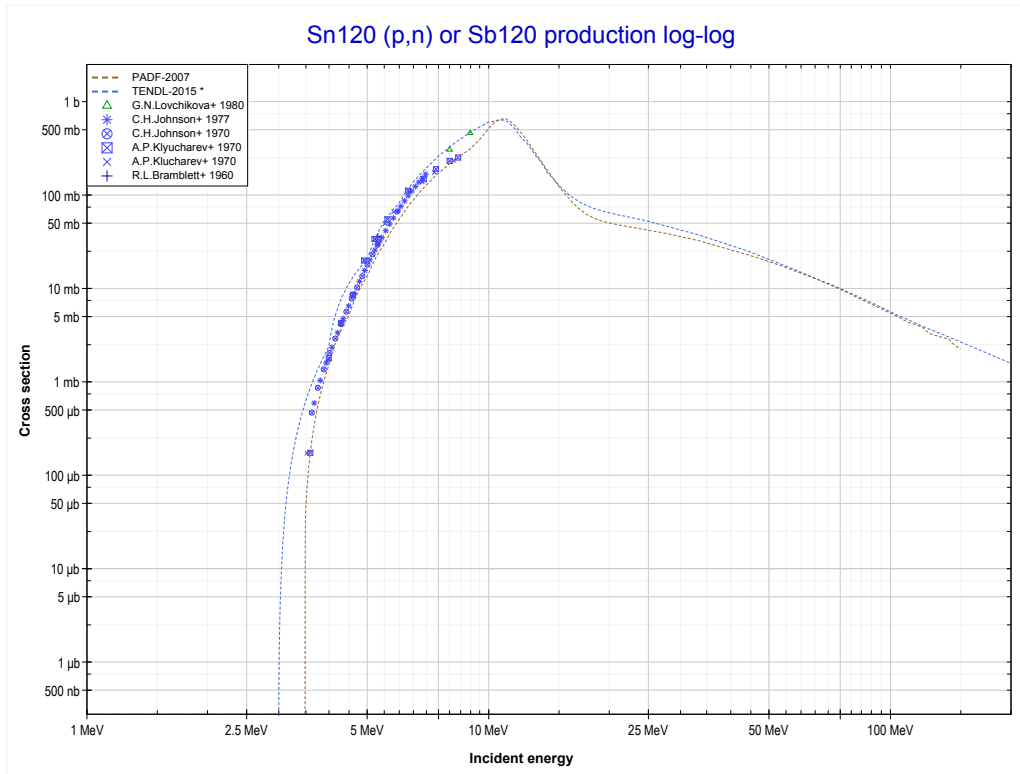
Reaction	Q-Value
Sn119(p,n)Sb119	-1373.45 keV

<< 50-Sn-118	50-Sn-119	52-Te-120 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Sb118 production)	50-Sn-120 MT4 (p,n) >>



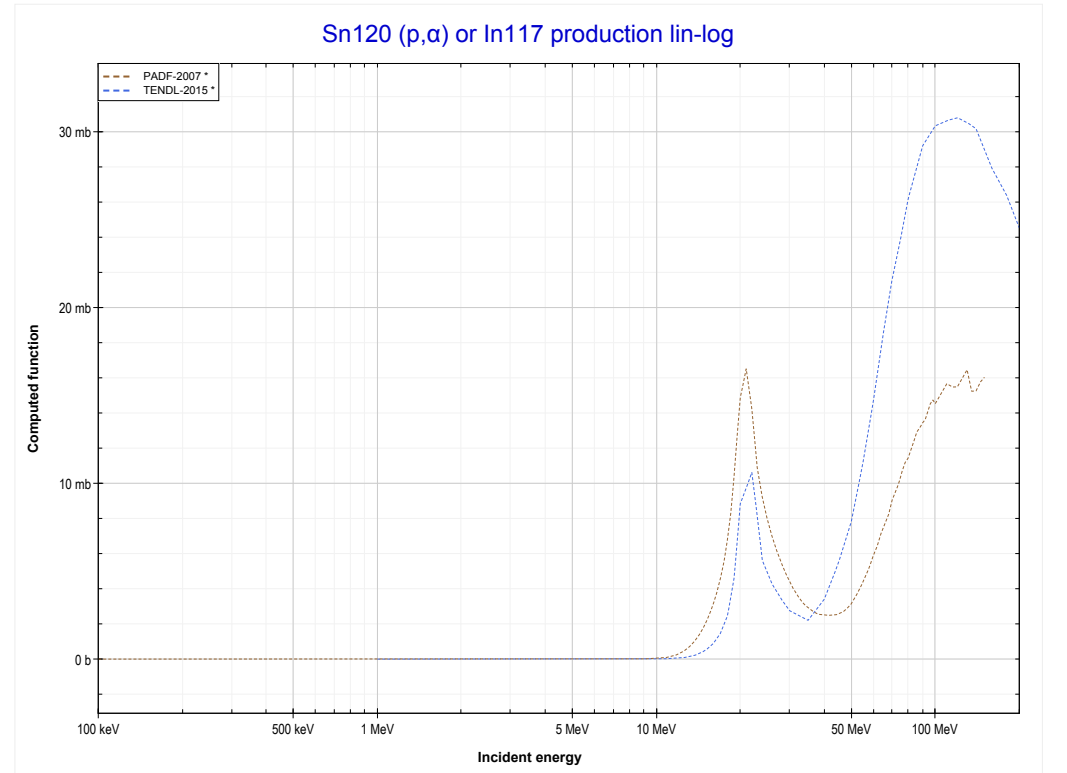
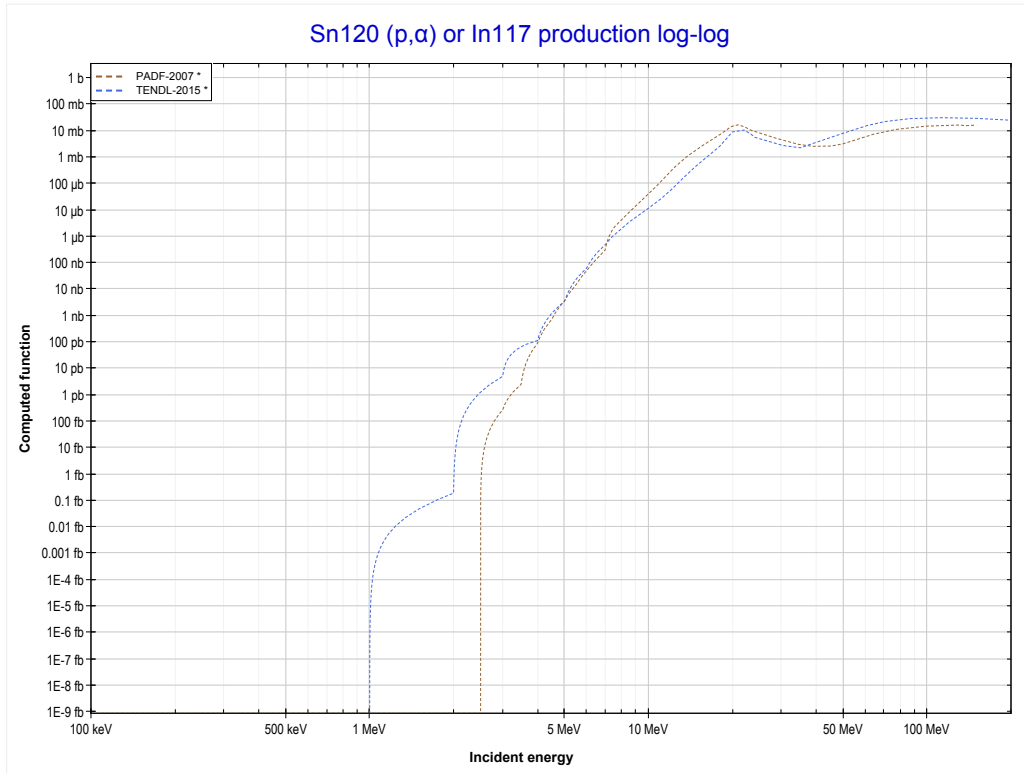
Reaction	Q-Value
Sn119(p,2n)Sb118	-10922.76 keV

<< 50-Sn-119	50-Sn-120	50-Sn-122 >>
<< 50-Sn-119 MT16 (p,2n)	MT4 (p,n) or MT5 (Sb120 production)	MT107 (p, α) >>



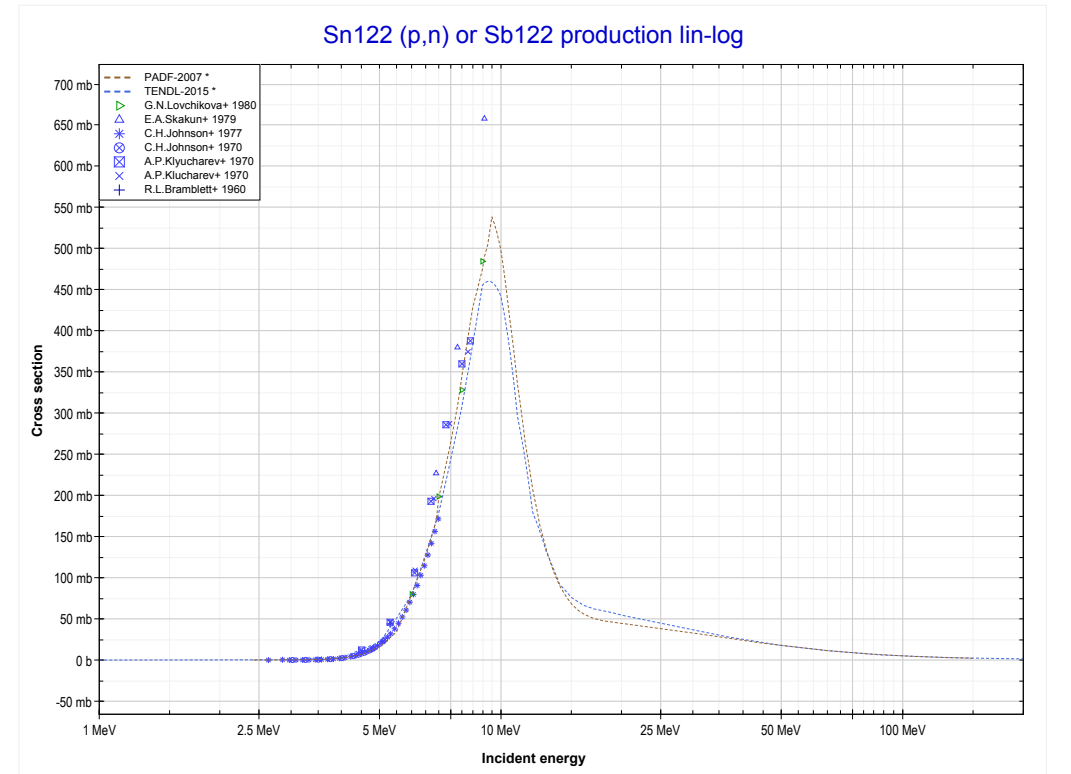
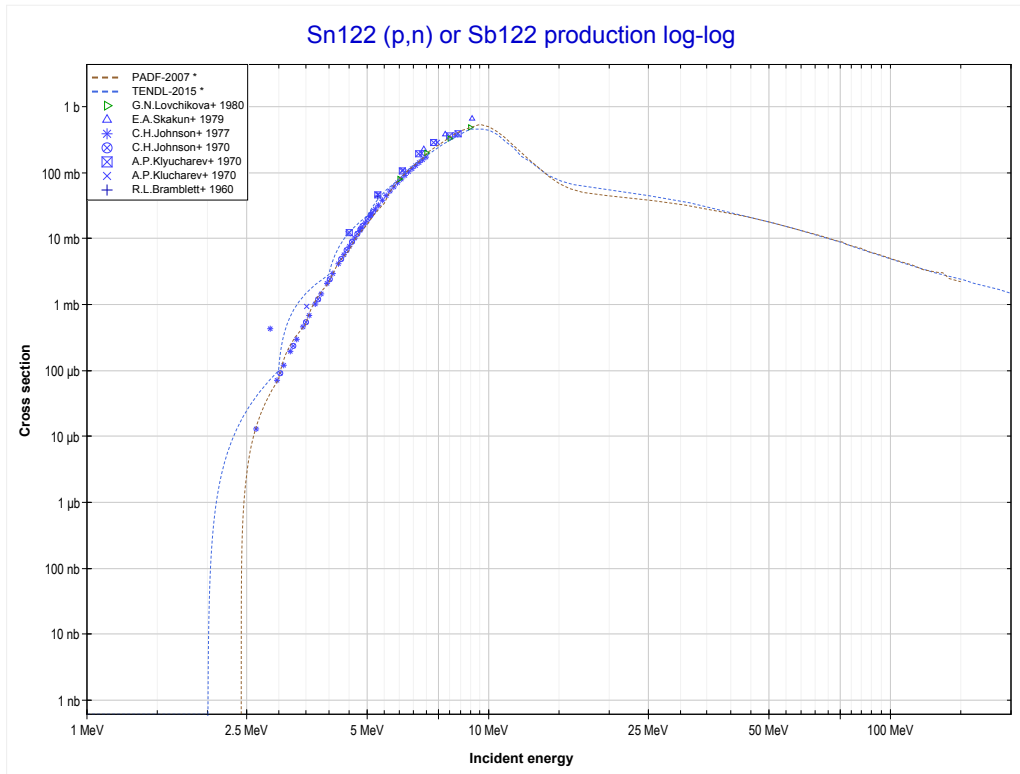
Reaction	Q-Value
Sn120(p,n)Sb120	-3462.95 keV

<< 48-Cd-114	50-Sn-120	54-Xe-124 >>
<< MT4 (p,n)	MT107 (p,α) or MT5 (In117 production)	50-Sn-122 MT4 (p,n) >>



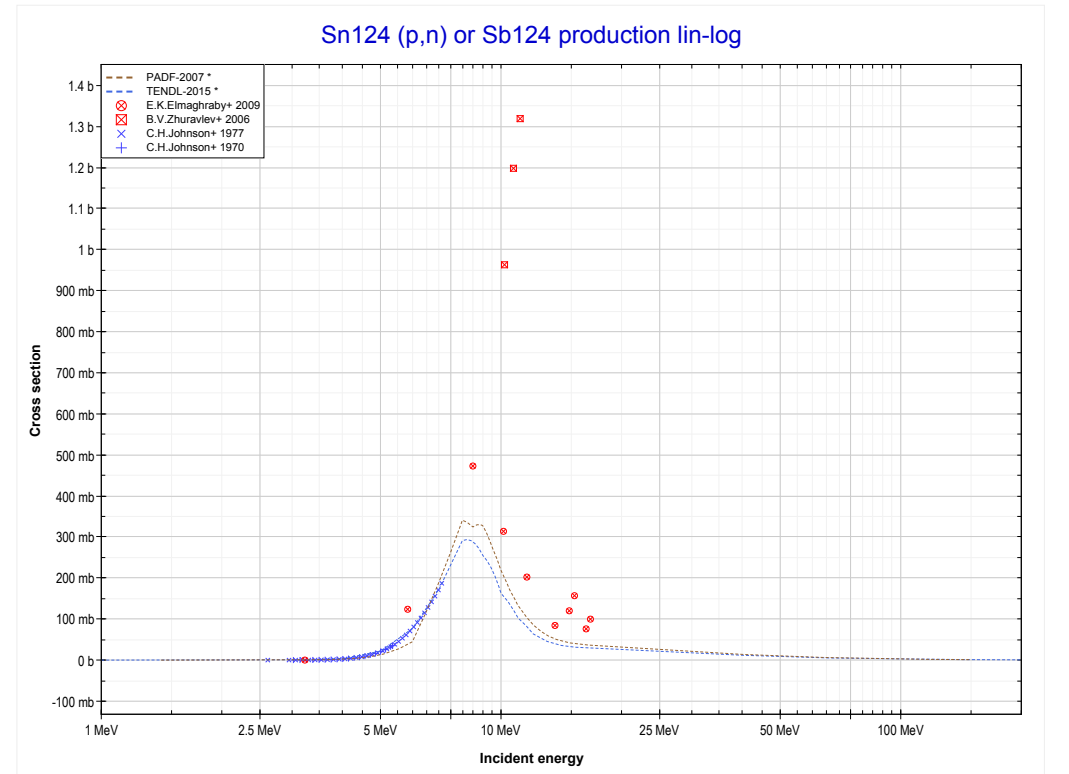
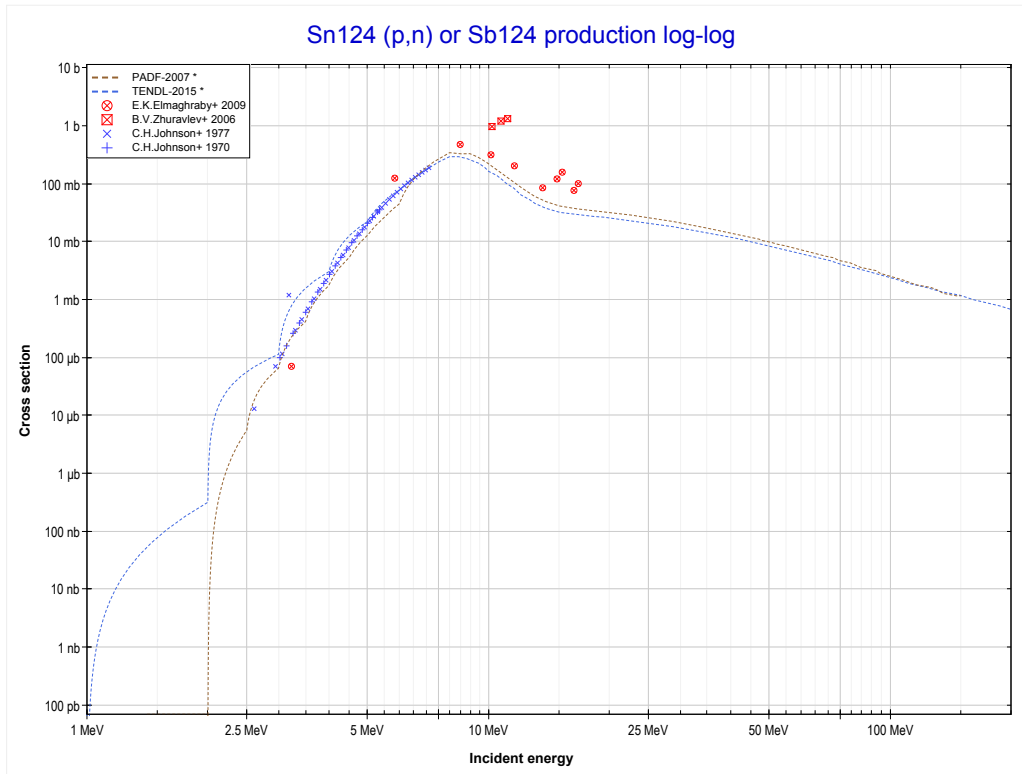
Reaction	Q-Value
Sn120(p, α)In117	2708.45 keV
Sn120(p,p+t)In117	-17105.41 keV
Sn120(p,n+He3)In117	-17869.16 keV
Sn120(p,2d)In117	-21138.07 keV
Sn120(p,n+p+d)In117	-23362.64 keV
Sn120(p,2n+2p)In117	-25587.20 keV

<< 50-Sn-120	50-Sn-122	50-Sn-124 >>
<< 50-Sn-120 MT107 (p, α)	MT4 (p,n) or MT5 (Sb122 production)	50-Sn-124 MT4 (p,n) >>



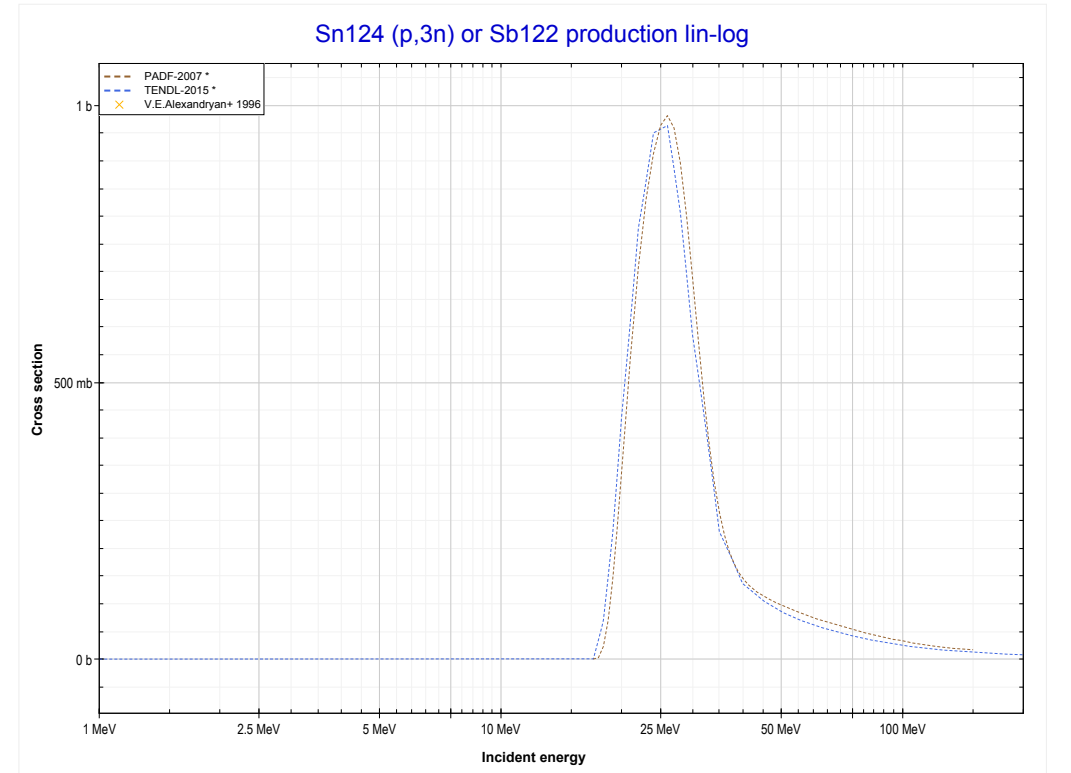
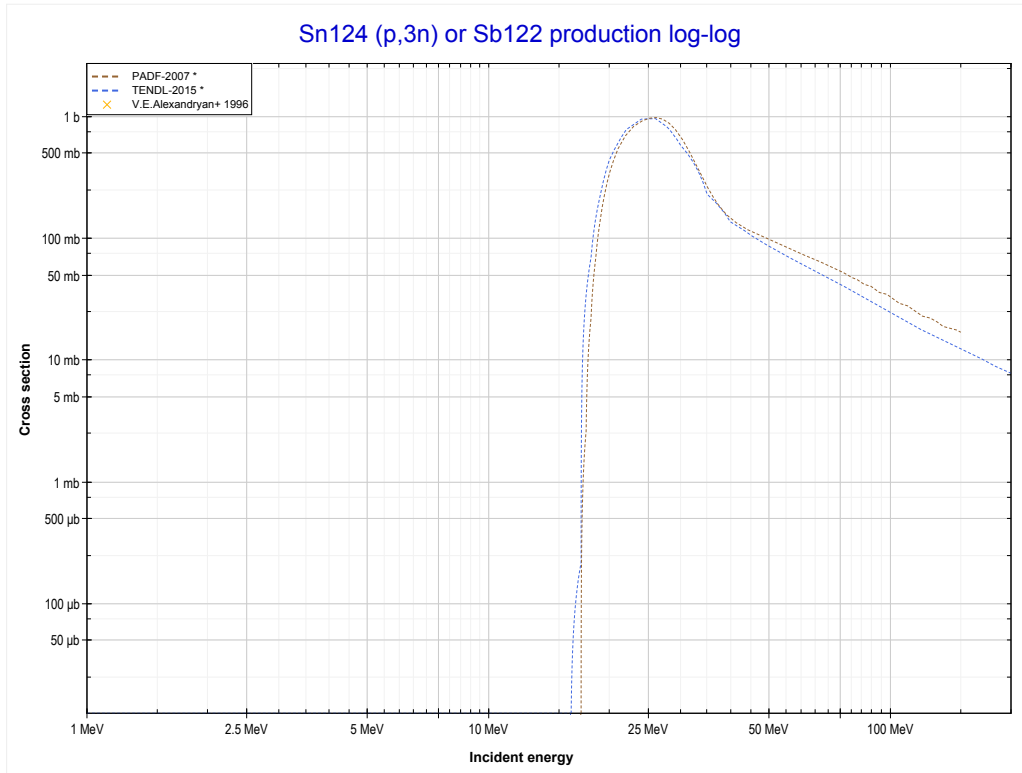
Reaction	Q-Value
Sn122(p,n)Sb122	-2390.25 keV

<< 50-Sn-122	50-Sn-124	51-Sb-121 >>
<< 50-Sn-122 MT4 (p,n)	MT4 (p,n) or MT5 (Sb124 production)	MT17 (p,3n) >>



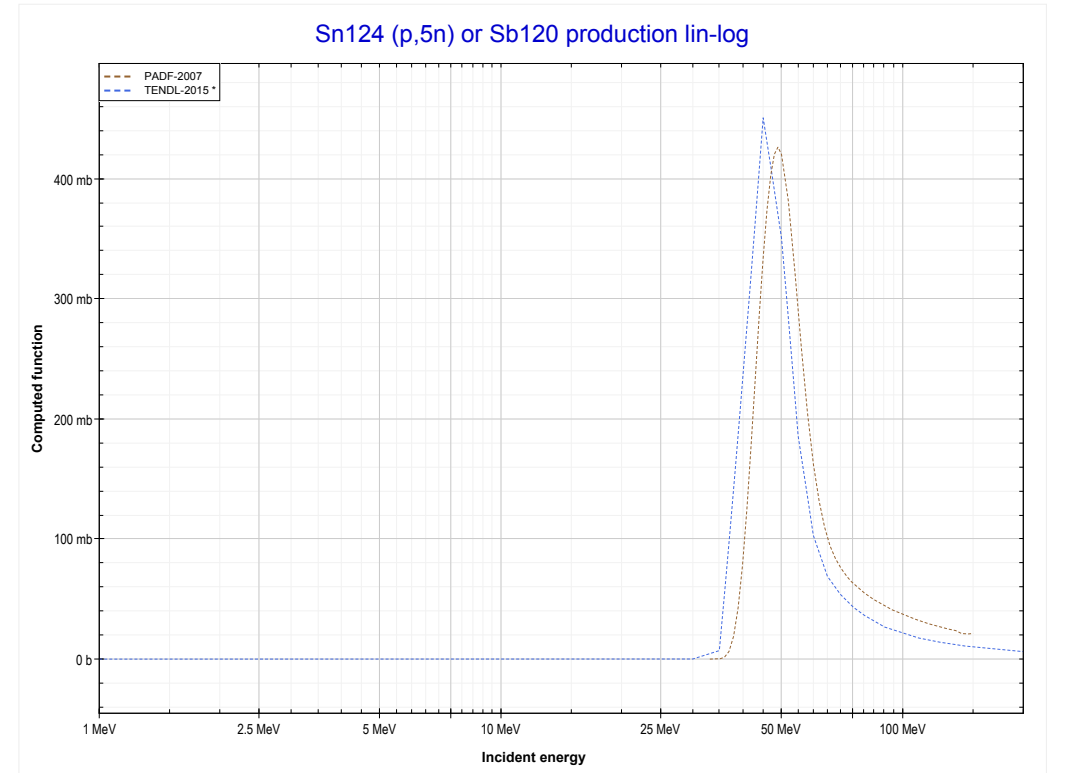
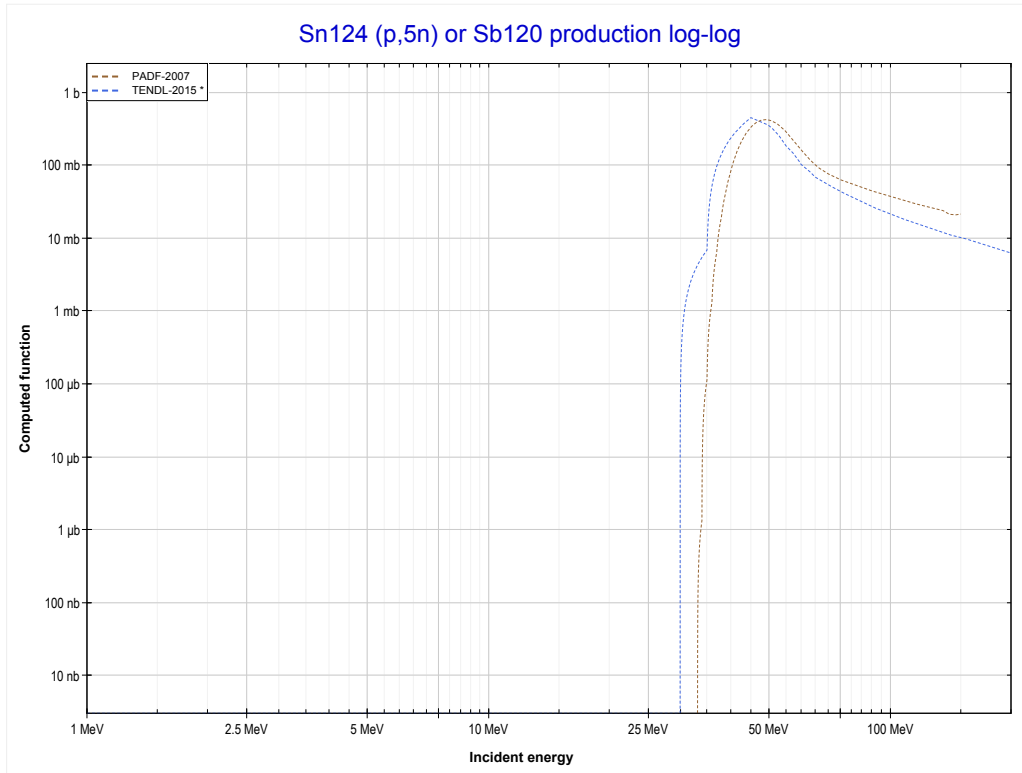
Reaction	Q-Value
Sn124(p,n)Sb124	-1395.55 keV

<< 50-Sn-118	50-Sn-124	52-Te-122 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Sb122 production)	MT152 (p,5n) >>



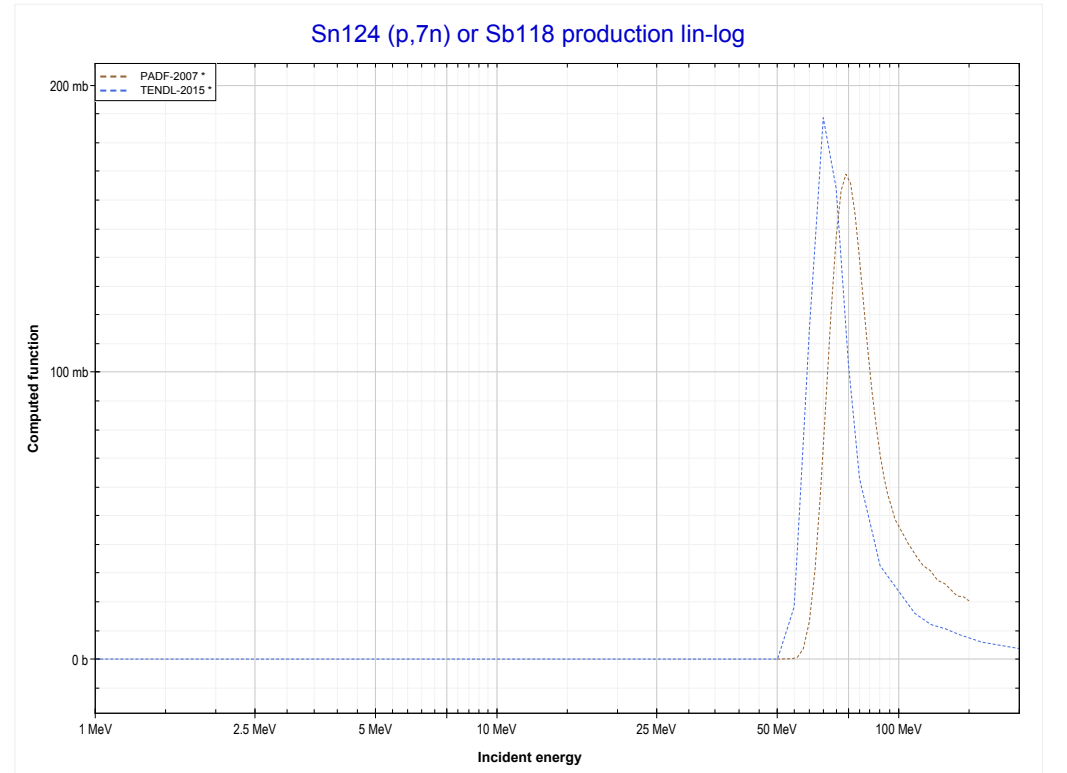
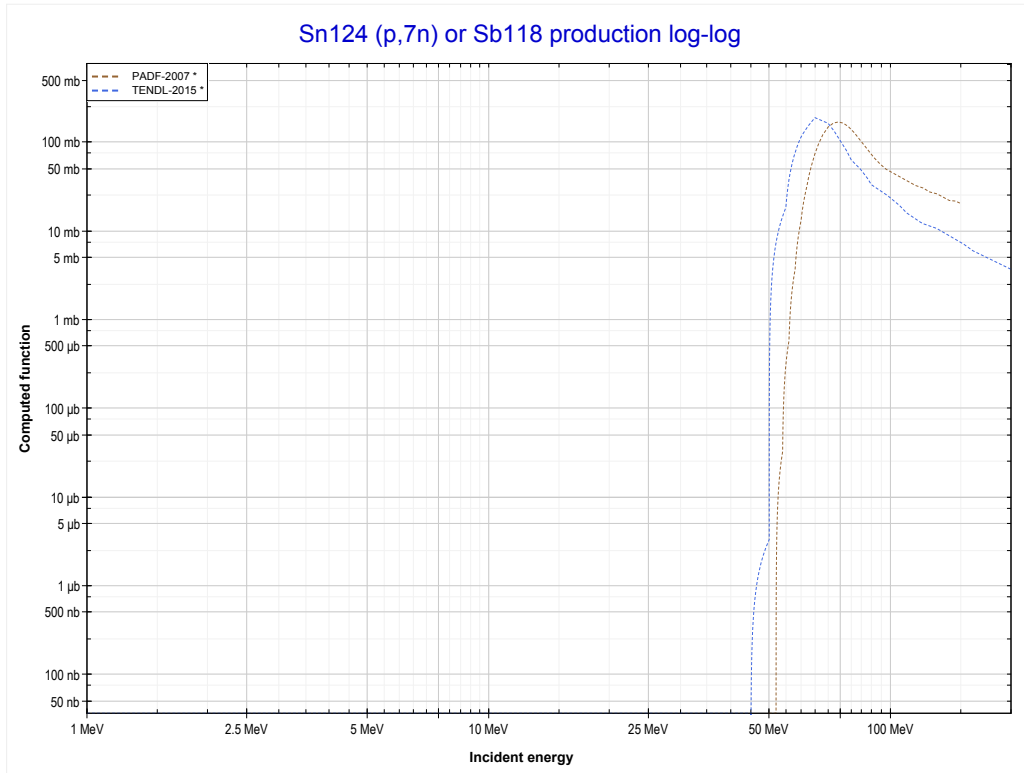
Reaction	Q-Value
Sn124(p,3n)Sb122	-16825.58 keV

<< 38-Sr-88	50-Sn-124	52-Te-125 >>
<< MT17 (p,3n)	MT152 (p,5n) or MT5 (Sb120 production)	MT160 (p,7n) >>



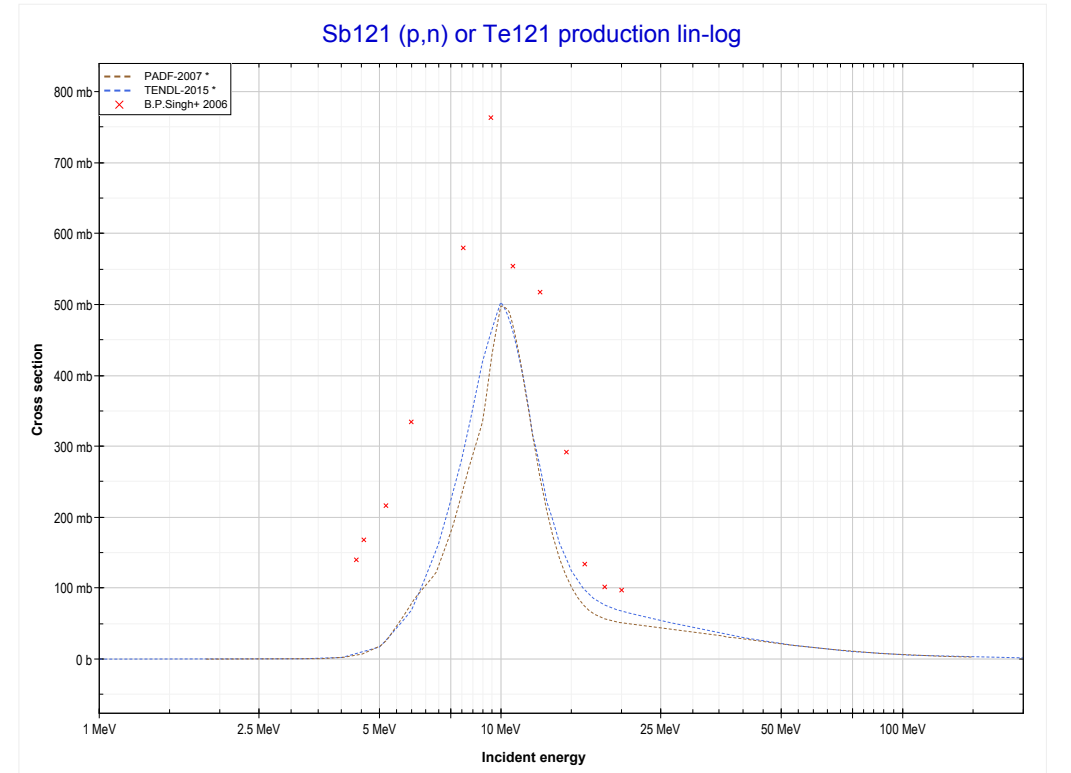
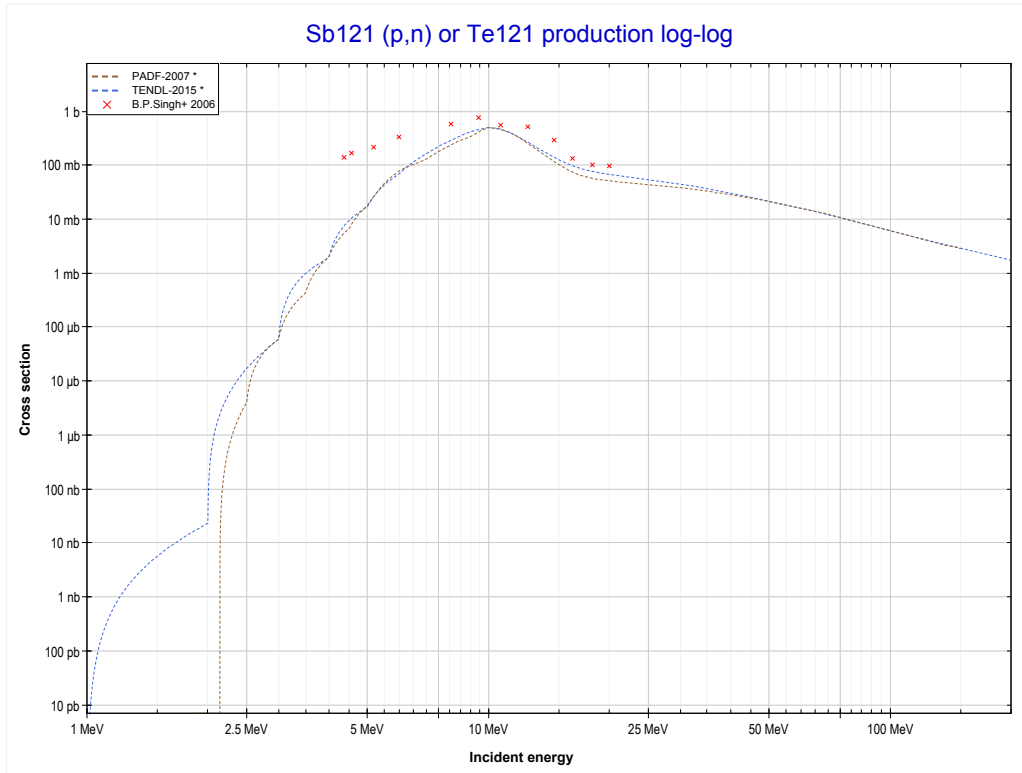
Reaction	Q-Value
Sn124(p,5n)Sb120	-32883.81 keV

	50-Sn-124	52-Te-125 >>
<< MT152 (p,5n)	MT160 (p,7n) or MT5 (Sb118 production)	51-Sb-121 MT4 (p,n) >>



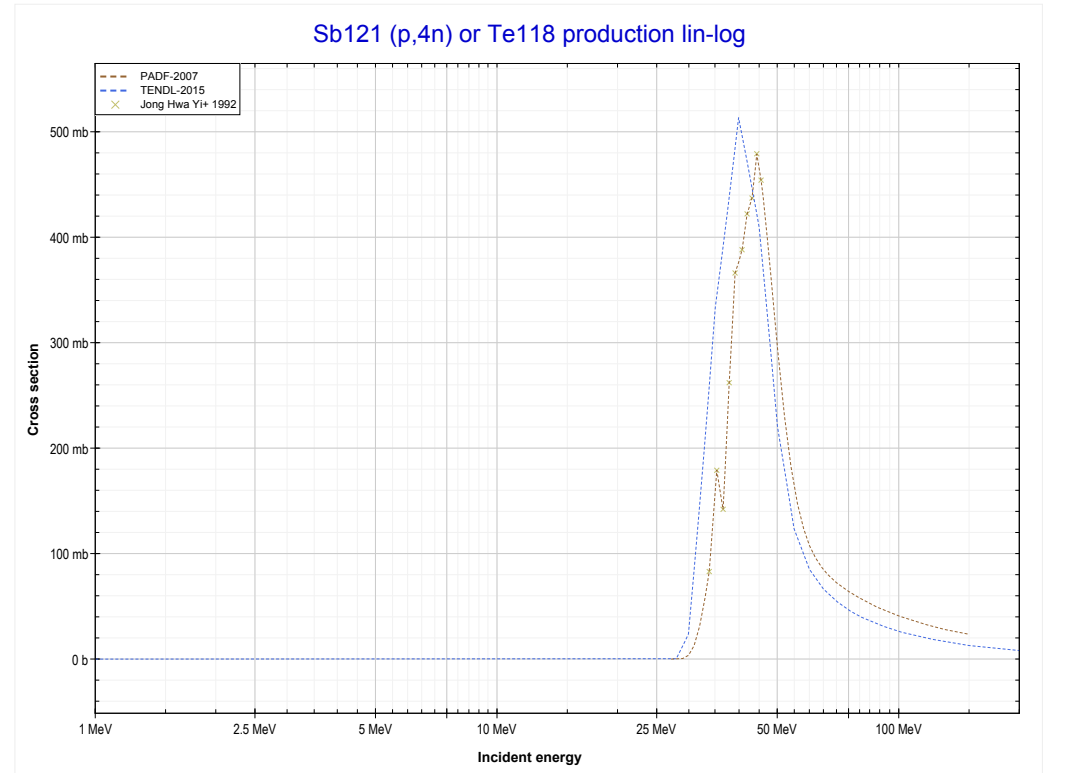
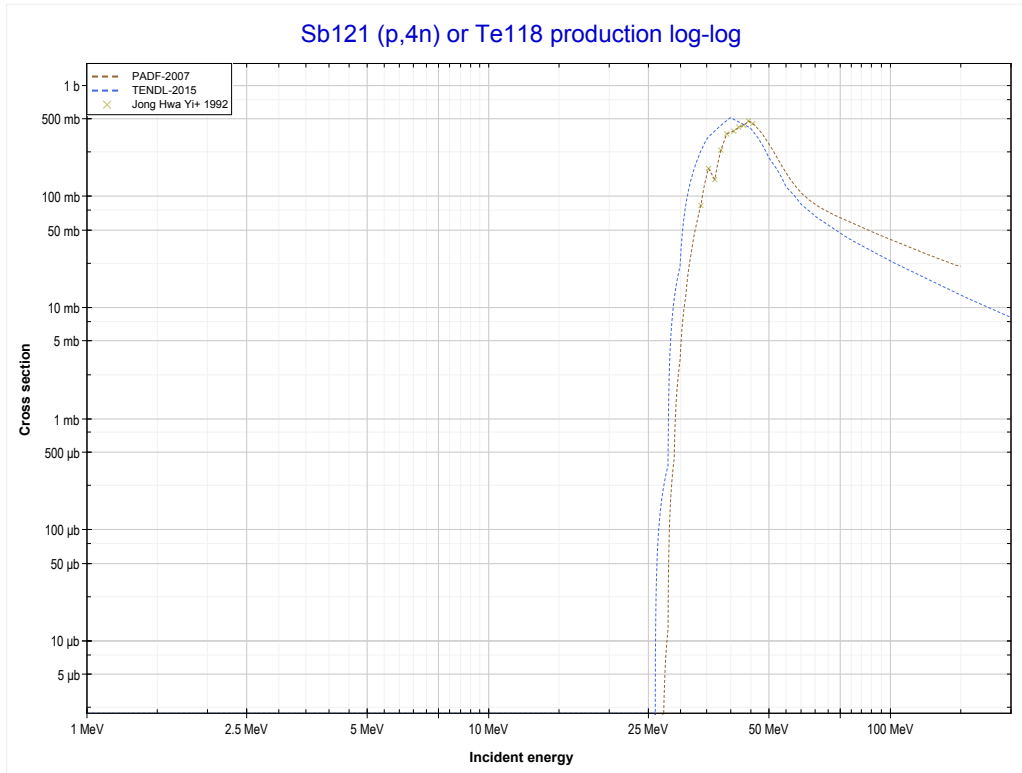
Reaction	Q-Value
Sn124(p,7n)Sb118	-49448.45 keV

<< 50-Sn-124	51-Sb-121	51-Sb-123 >>
<< 50-Sn-124 MT160 (p,7n)	MT4 (p,n) or MT5 (Te121 production)	MT37 (p,4n) >>



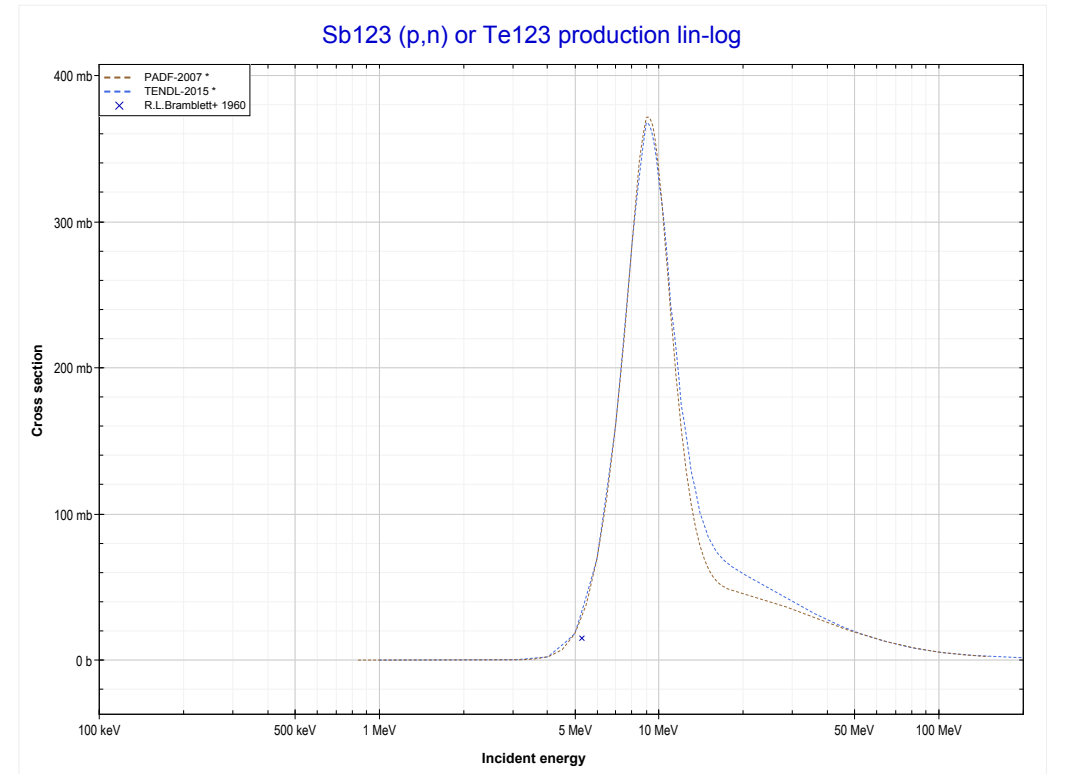
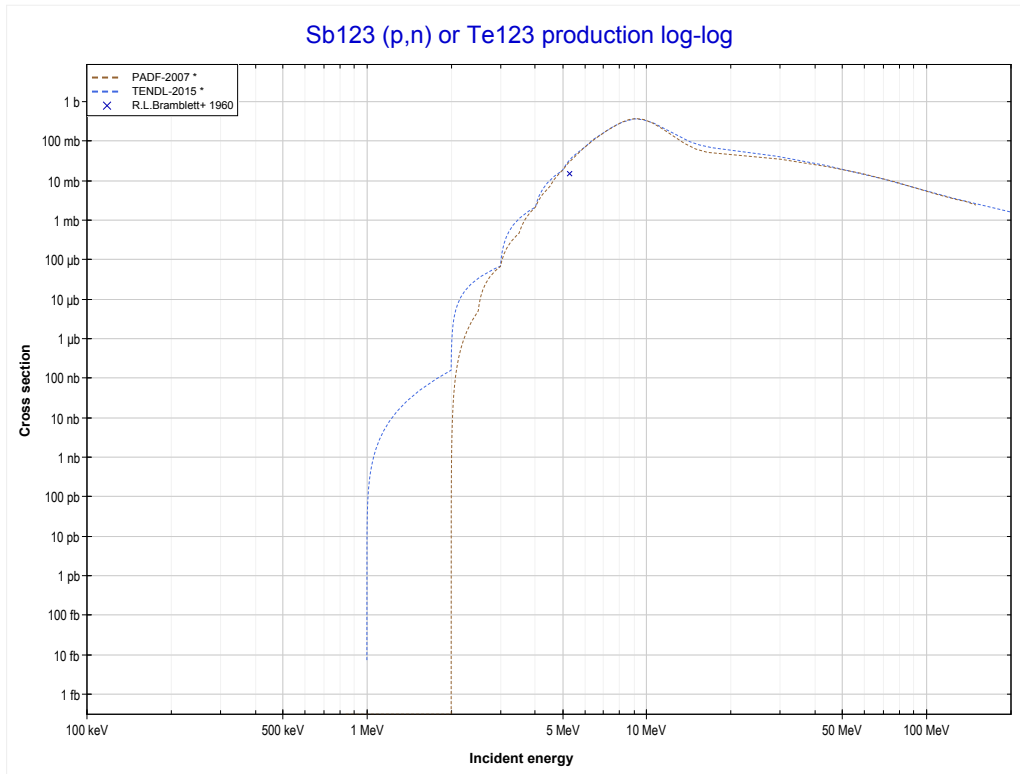
Reaction	Q-Value
Sb121(p,n)Te121	-1836.95 keV

<< 50-Sn-118	51-Sb-121	52-Te-122 >>
<< MT4 (p,n)	MT37 (p,4n) or MT5 (Te118 production)	51-Sb-123 MT4 (p,n) >>



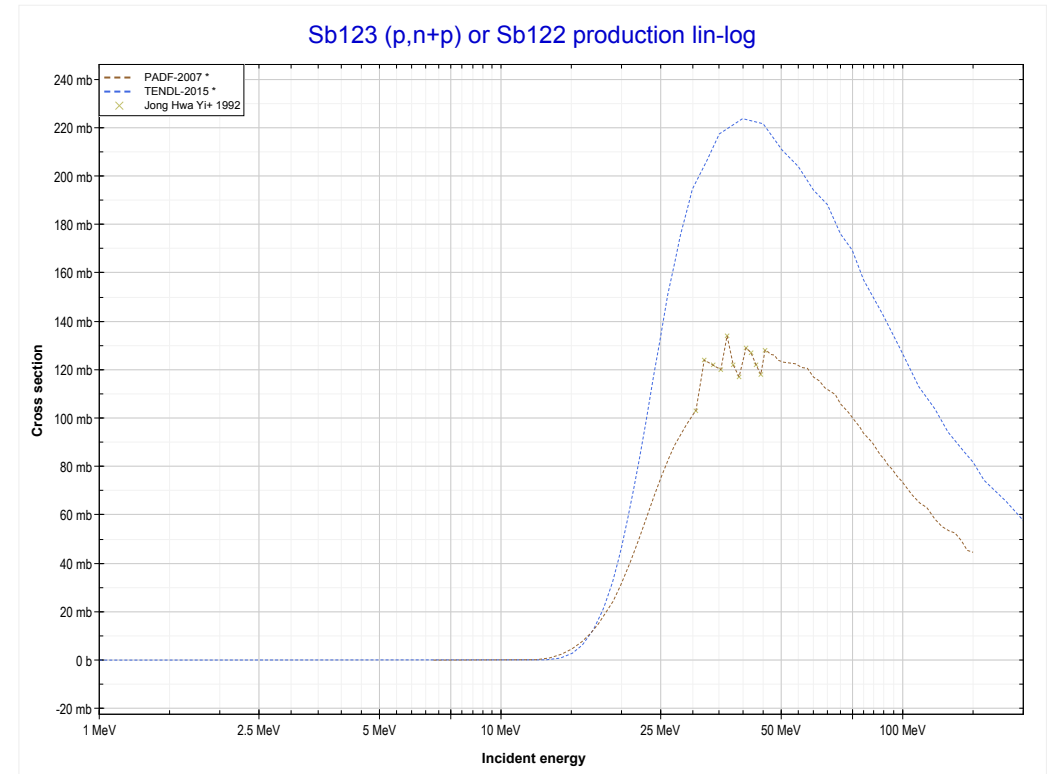
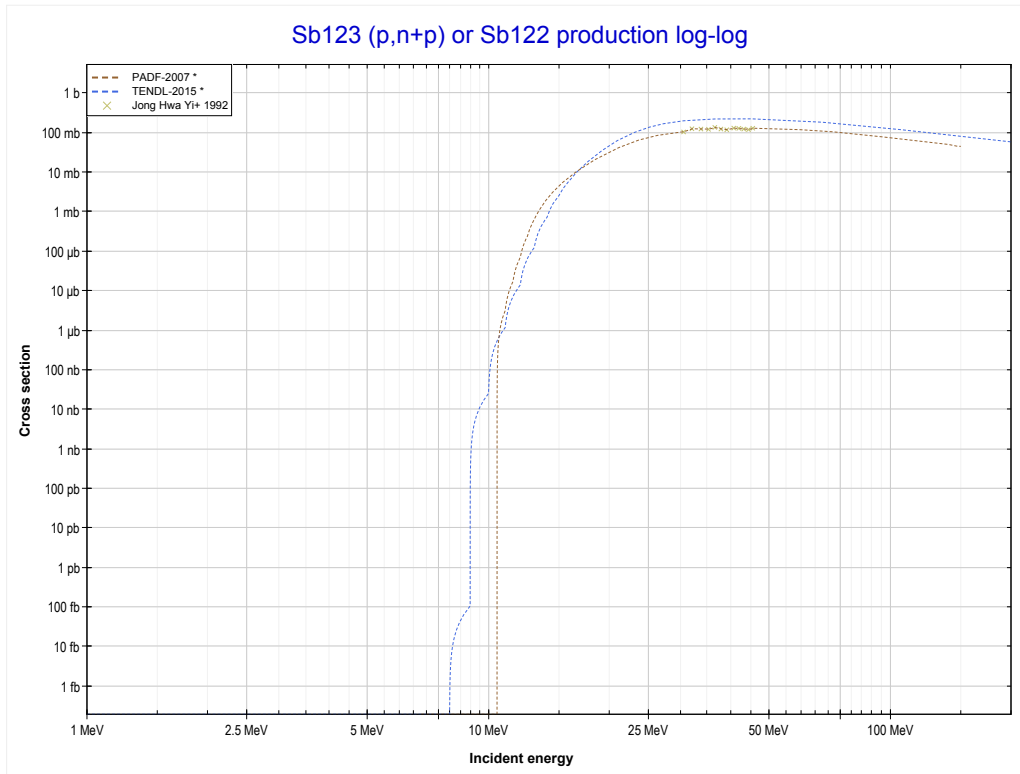
Reaction	Q-Value
Sb121(p,4n)Te118	-26897.90 keV

<< 51-Sb-121	51-Sb-123	52-Te-120 >>
<< 51-Sb-121 MT37 (p,4n)	MT4 (p,n) or MT5 (Te123 production)	MT28 (p,n+p) >>



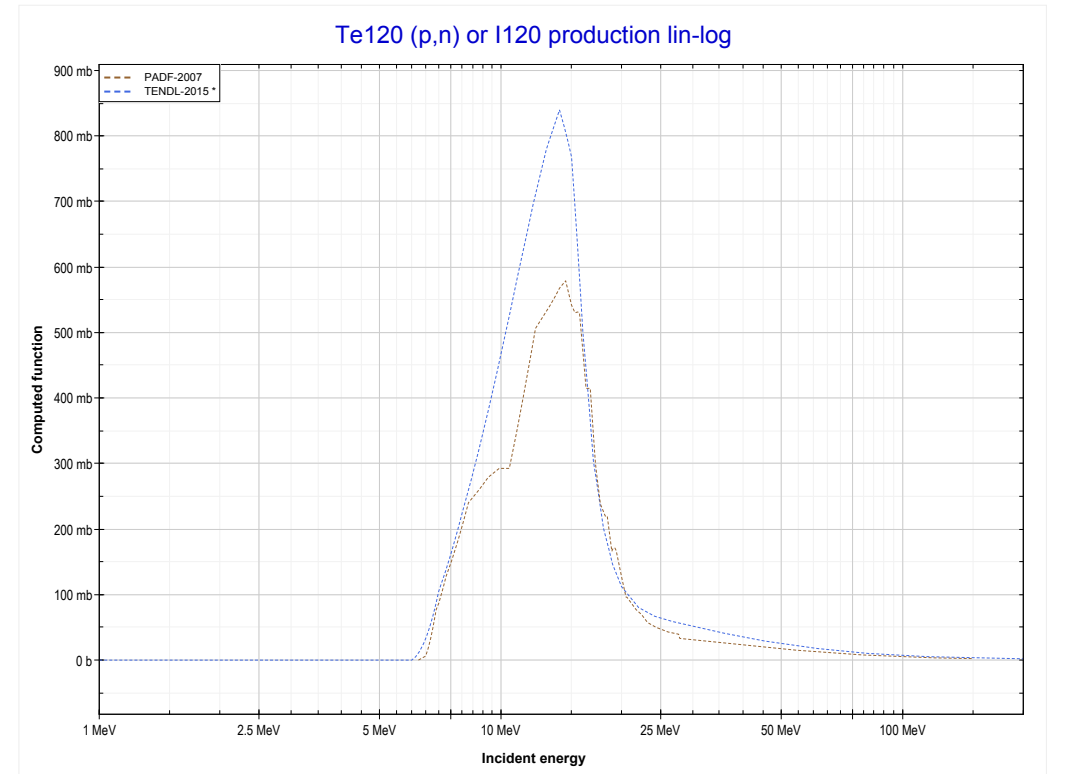
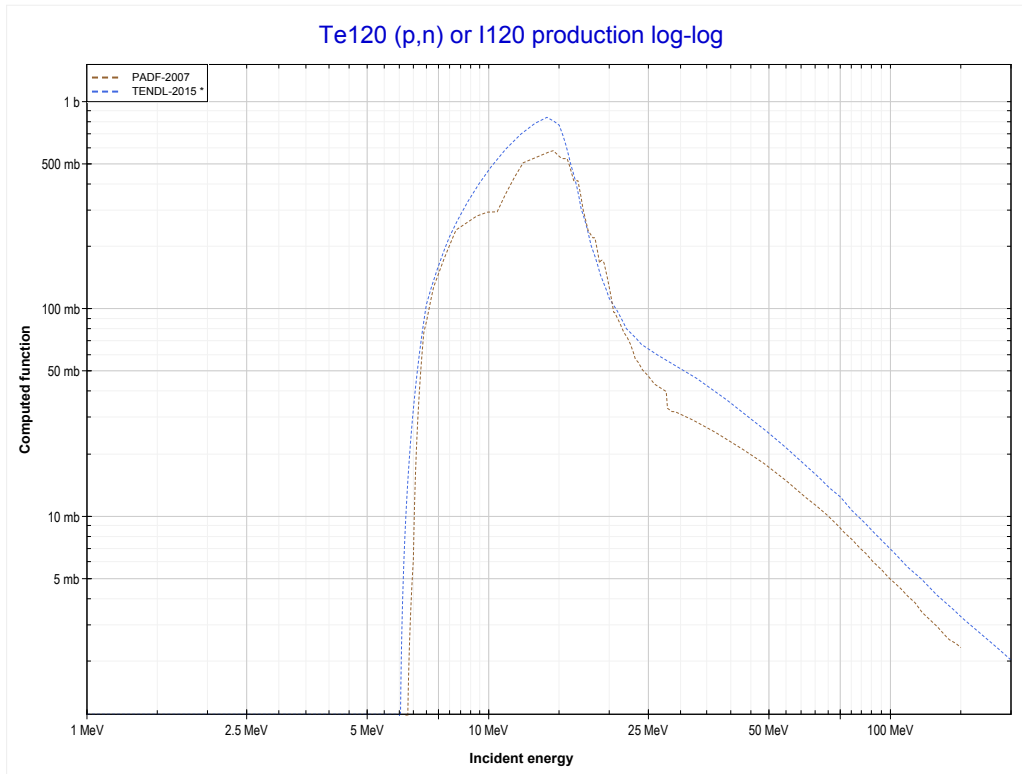
Reaction	Q-Value
Sb123(p,n)Te123	-835.05 keV

<< 49-In-115	51-Sb-123	52-Te-124 >>
<< MT4 (p,n)	MT28 (p,n+p) or MT5 (Sb122 production)	52-Te-120 MT4 (p,n) >>



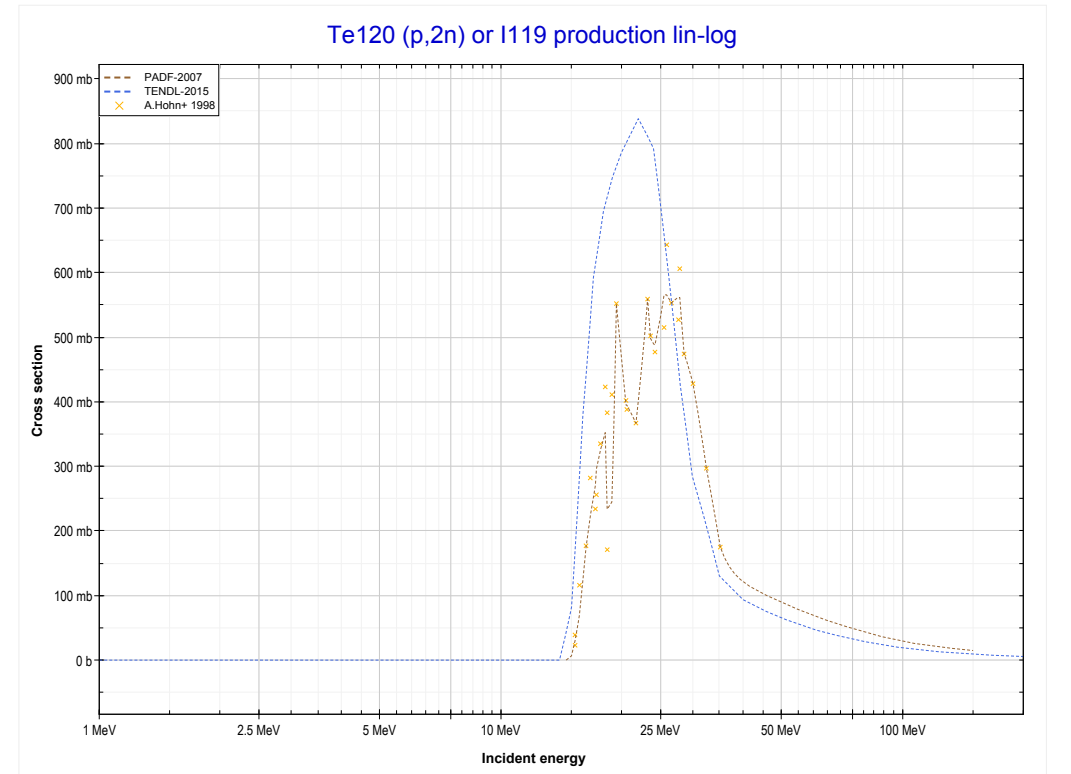
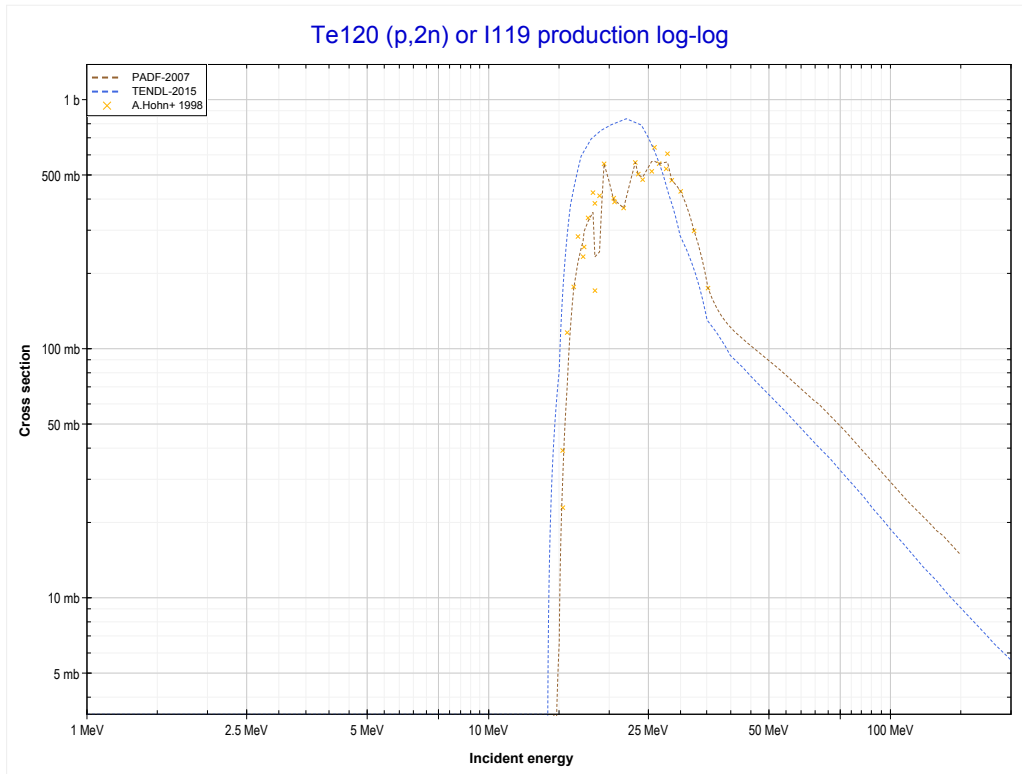
Reaction	Q-Value
Sb123(p,d)Sb122	-6737.95 keV
Sb123(p,n+p)Sb122	-8962.52 keV

<< 51-Sb-123	52-Te-120	52-Te-122 >>
<< 51-Sb-123 MT28 (p,n+p)	MT4 (p,n) or MT5 (I120 production)	MT16 (p,2n) >>



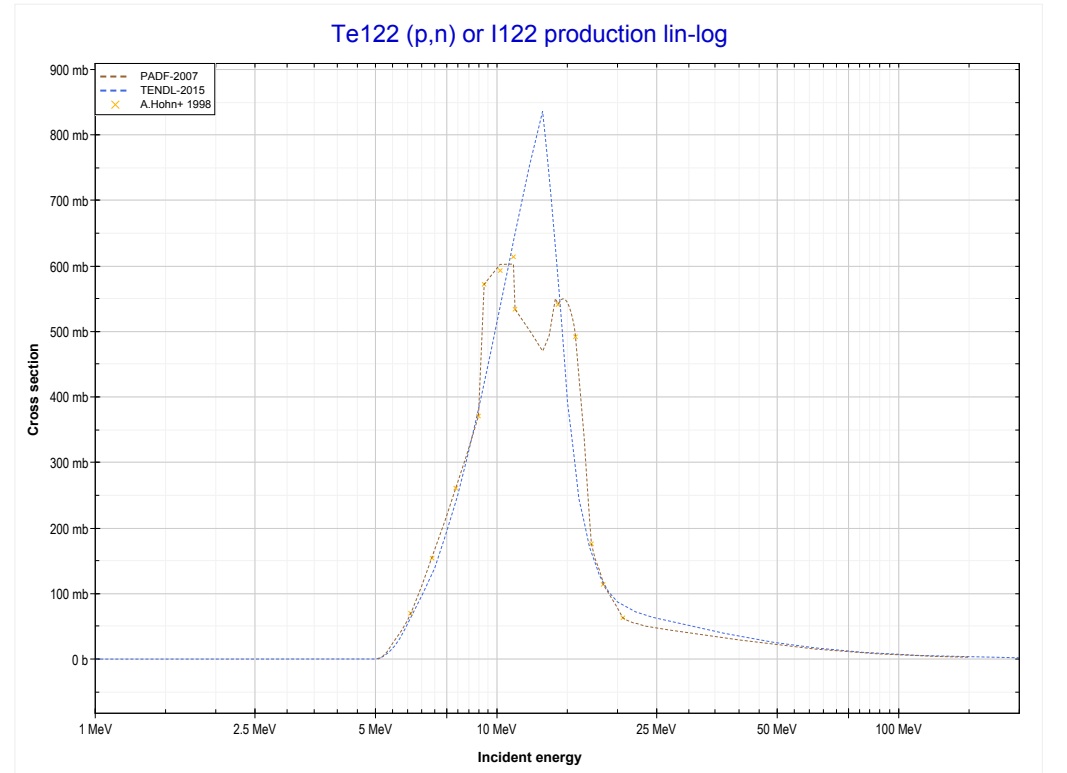
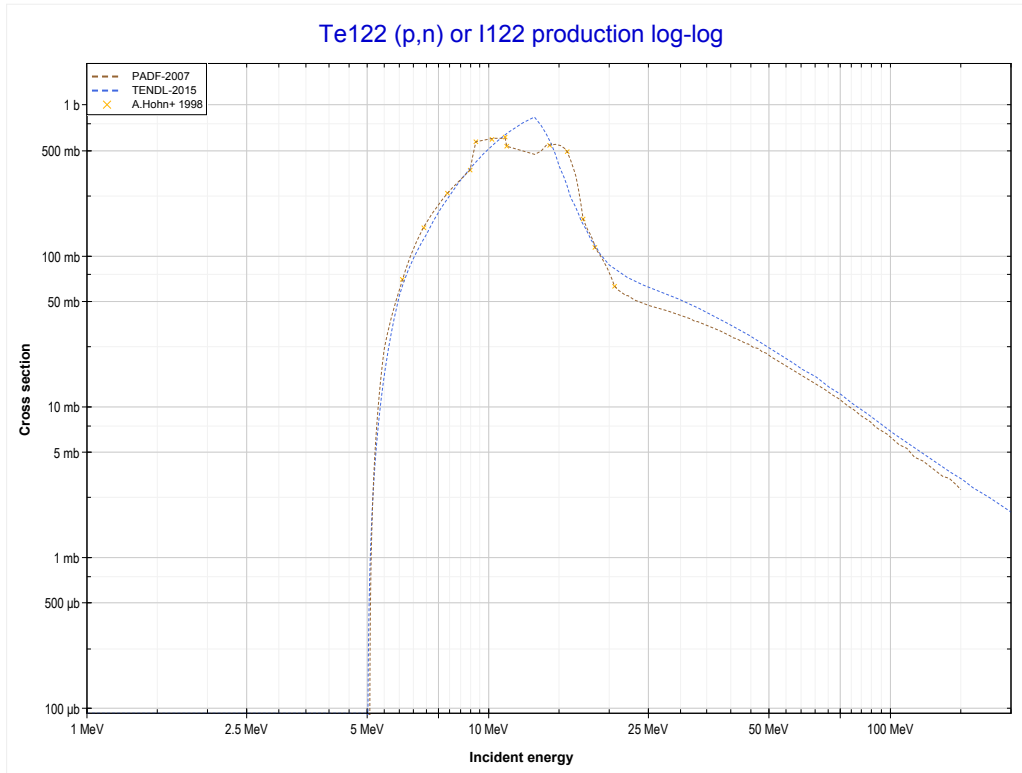
Reaction	Q-Value
Te120(p,n)I120	-6397.35 keV

<< 50-Sn-119	52-Te-120	52-Te-122 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (I119 production)	52-Te-122 MT4 (p,n) >>



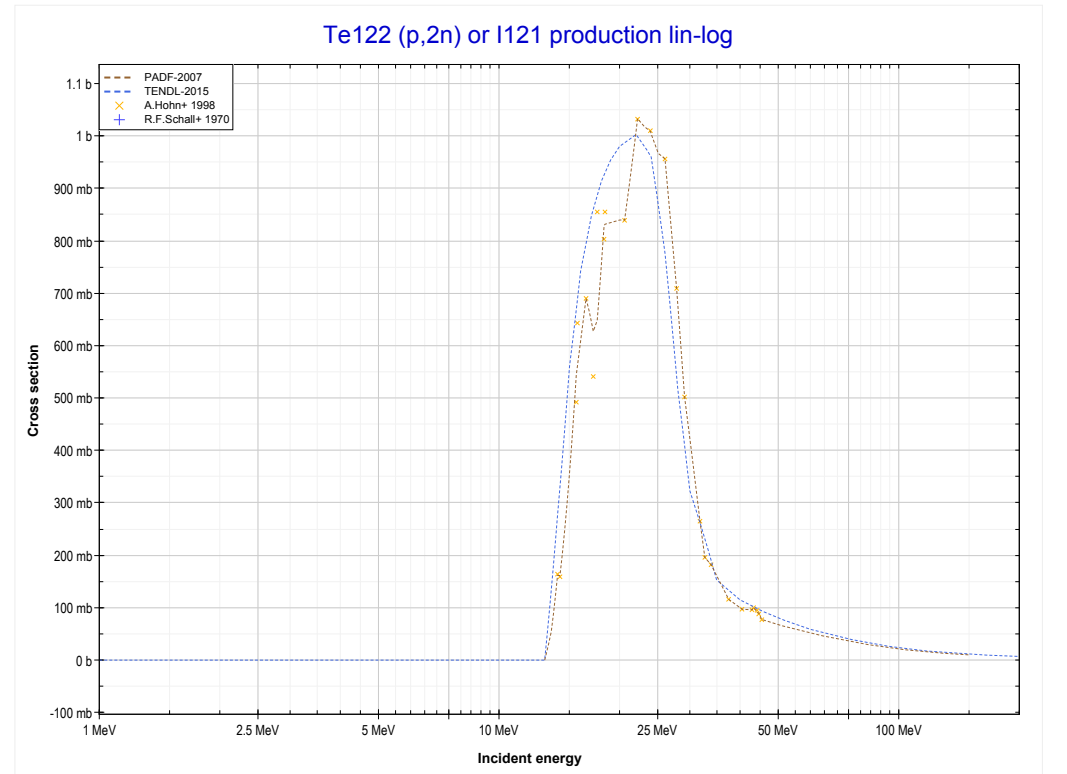
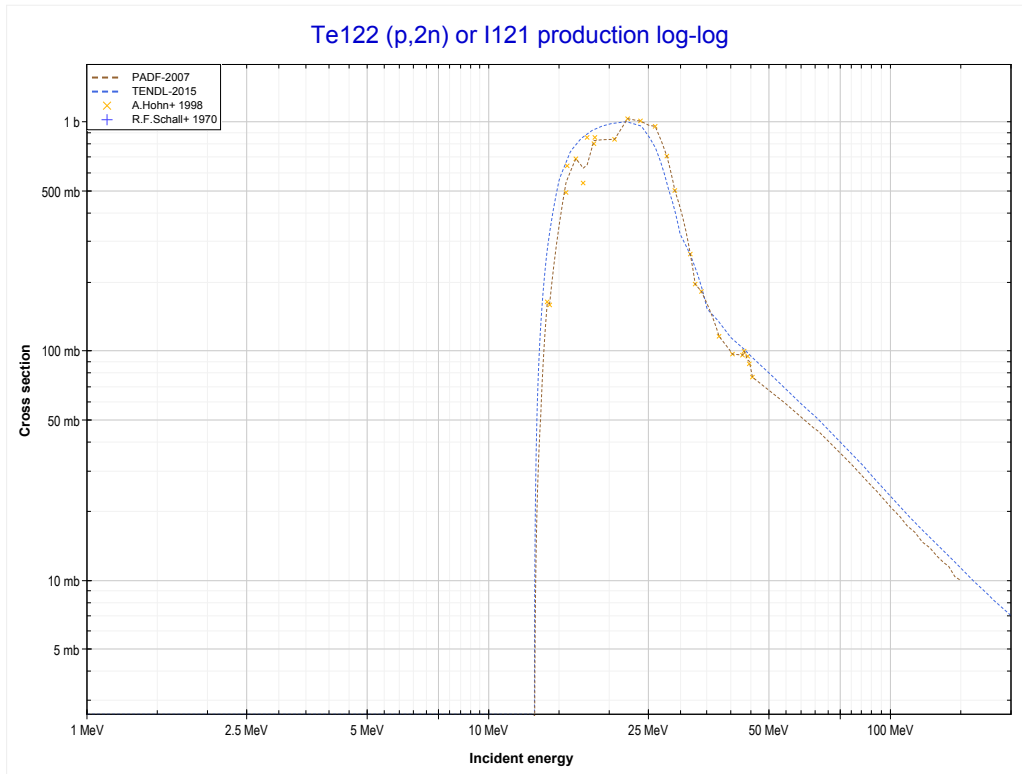
Reaction	Q-Value
Te120(p,2n)I119	-14455.66 keV

<< 52-Te-120	52-Te-122	52-Te-123 >>
<< 52-Te-120 MT16 (p,2n)	MT4 (p,n) or MT5 (I122 production)	MT16 (p,2n) >>



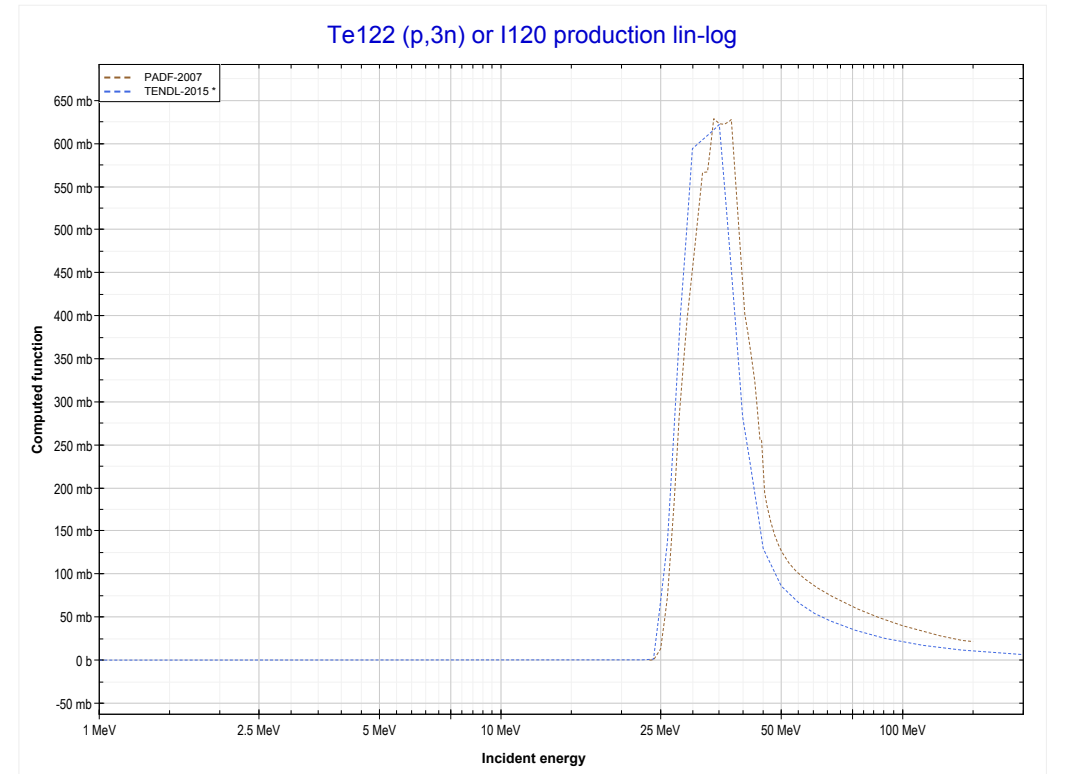
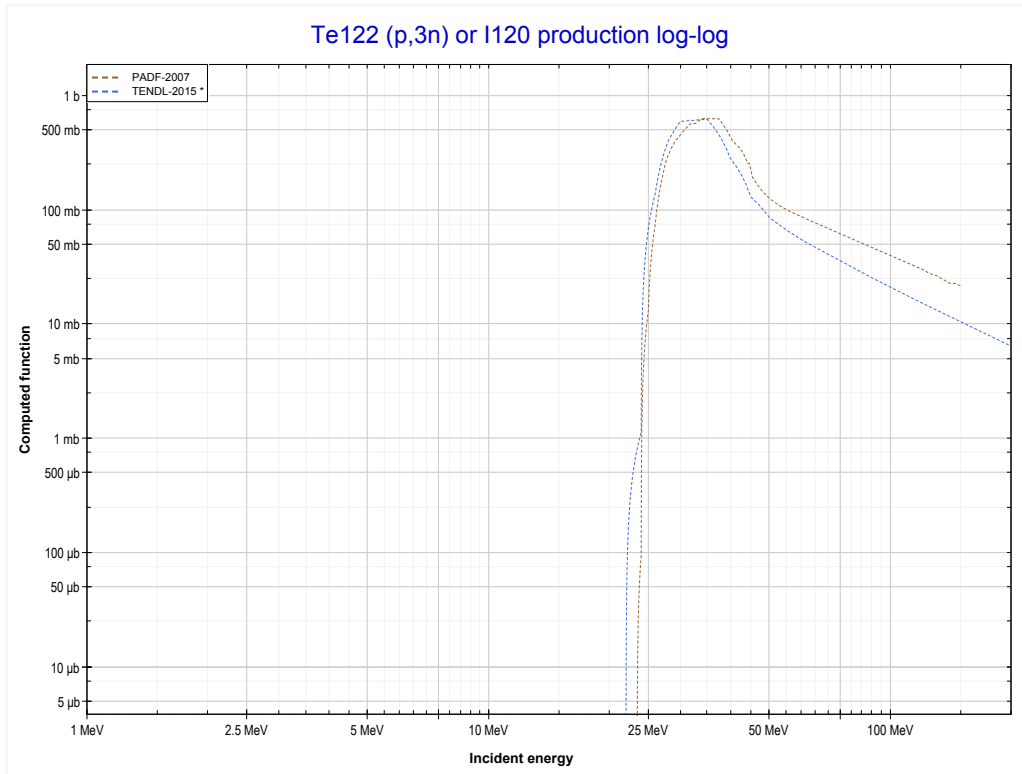
Reaction	Q-Value
Te122(p,n)I122	-5016.75 keV

<< 52-Te-120	52-Te-122	52-Te-123 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (I121 production)	MT17 (p,3n) >>



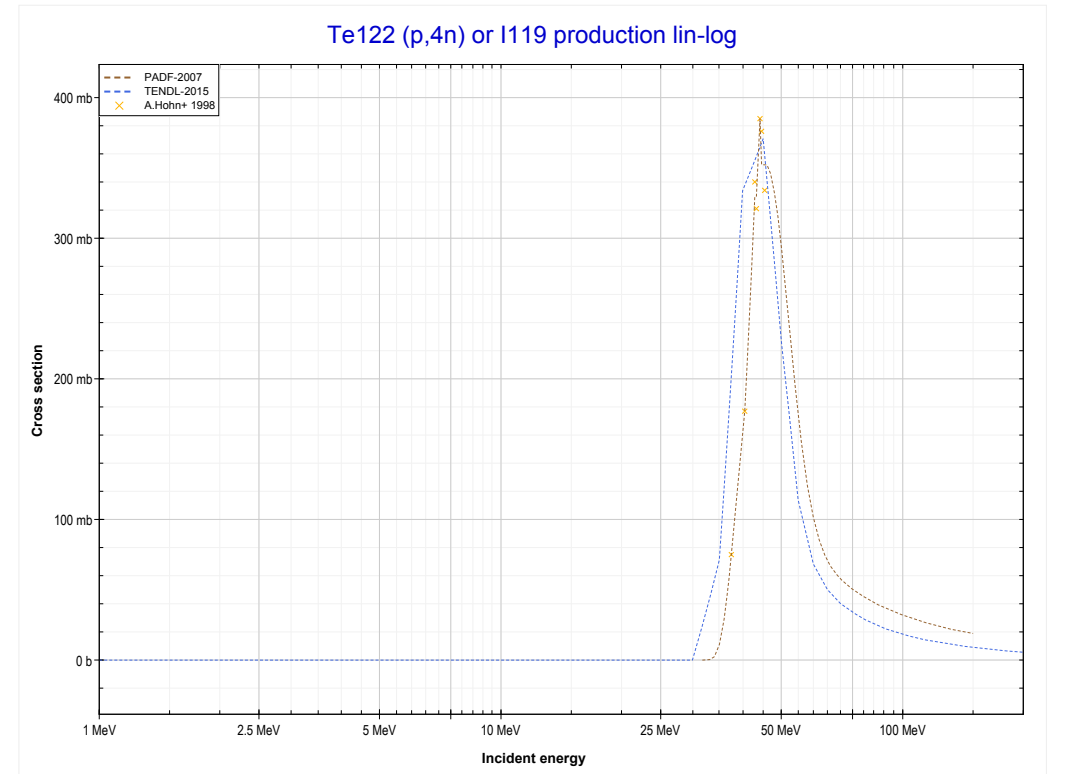
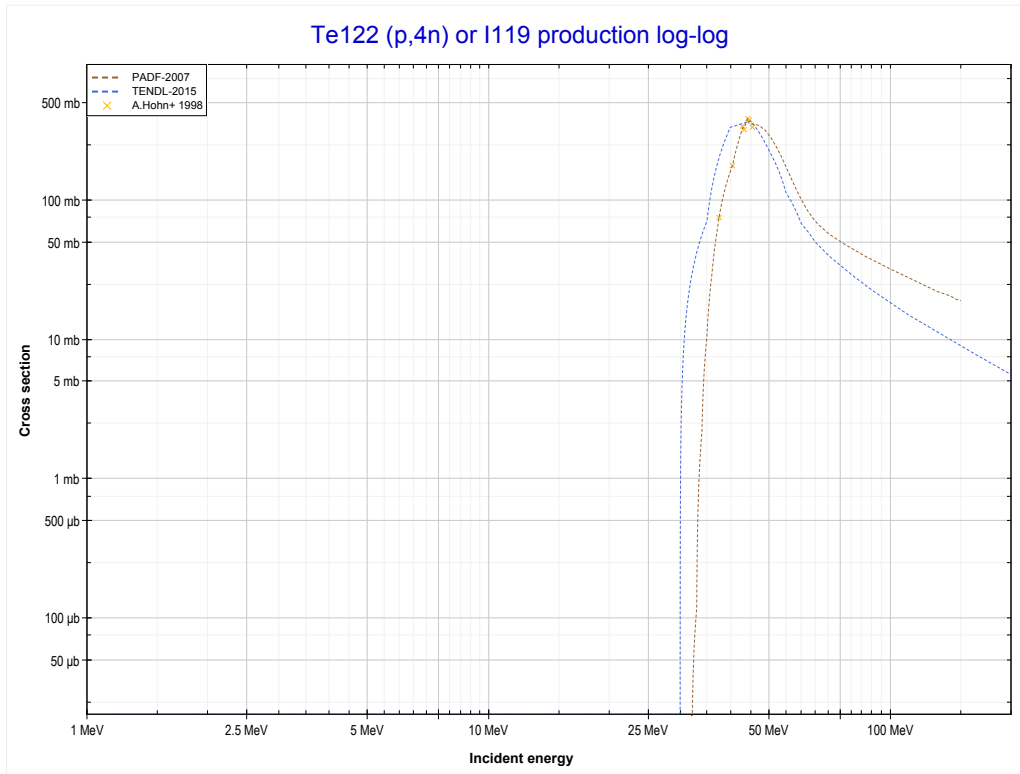
Reaction	Q-Value
Te122(p,2n)I121	-12916.06 keV

<< 50-Sn-124	52-Te-122	52-Te-125 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (I120 production)	MT37 (p,4n) >>



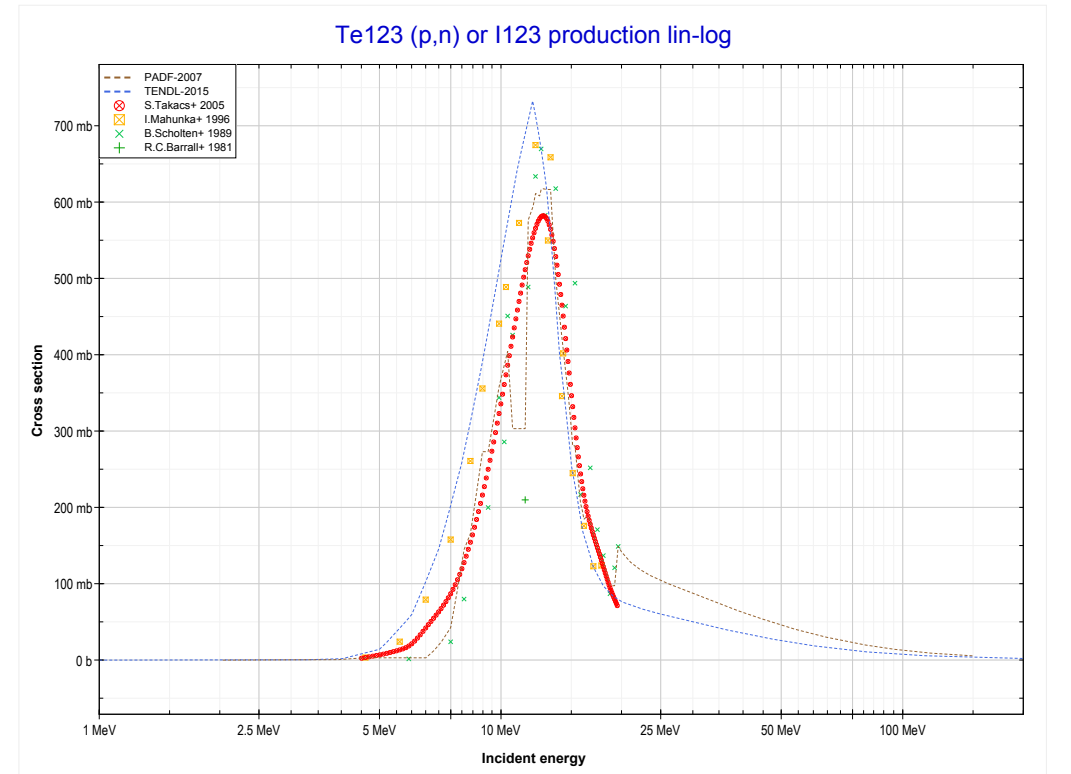
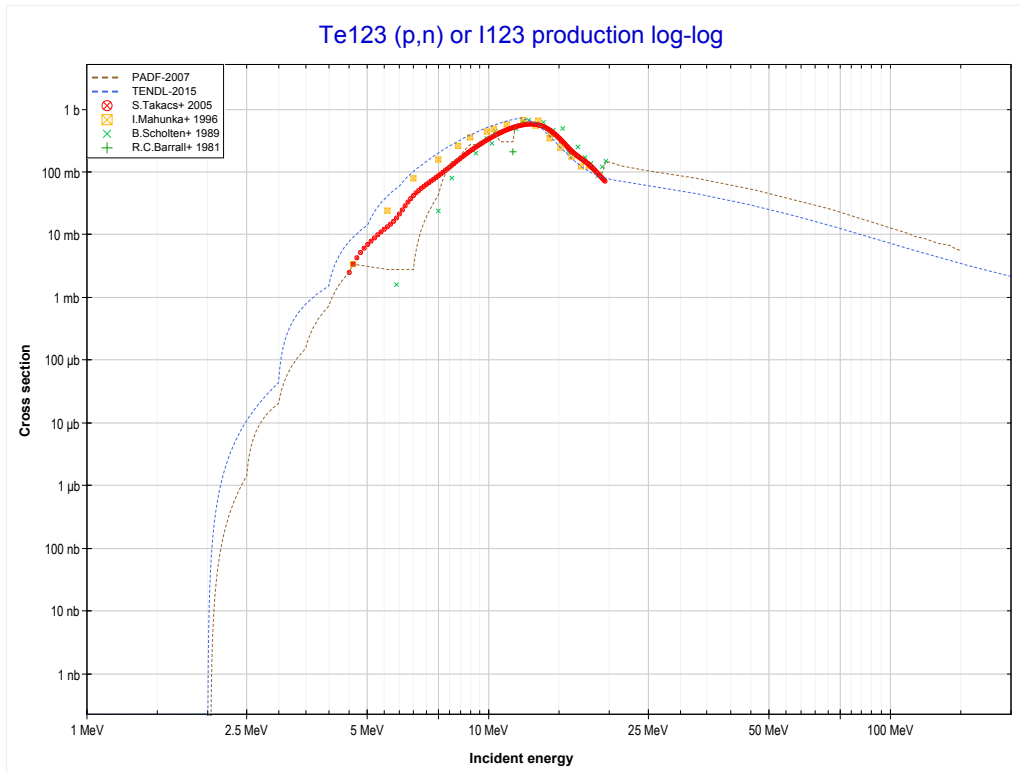
Reaction	Q-Value
Te122(p,3n)I120	-23486.38 keV

<< 51-Sb-121	52-Te-122	52-Te-125 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (I119 production)	52-Te-123 MT4 (p,n) >>



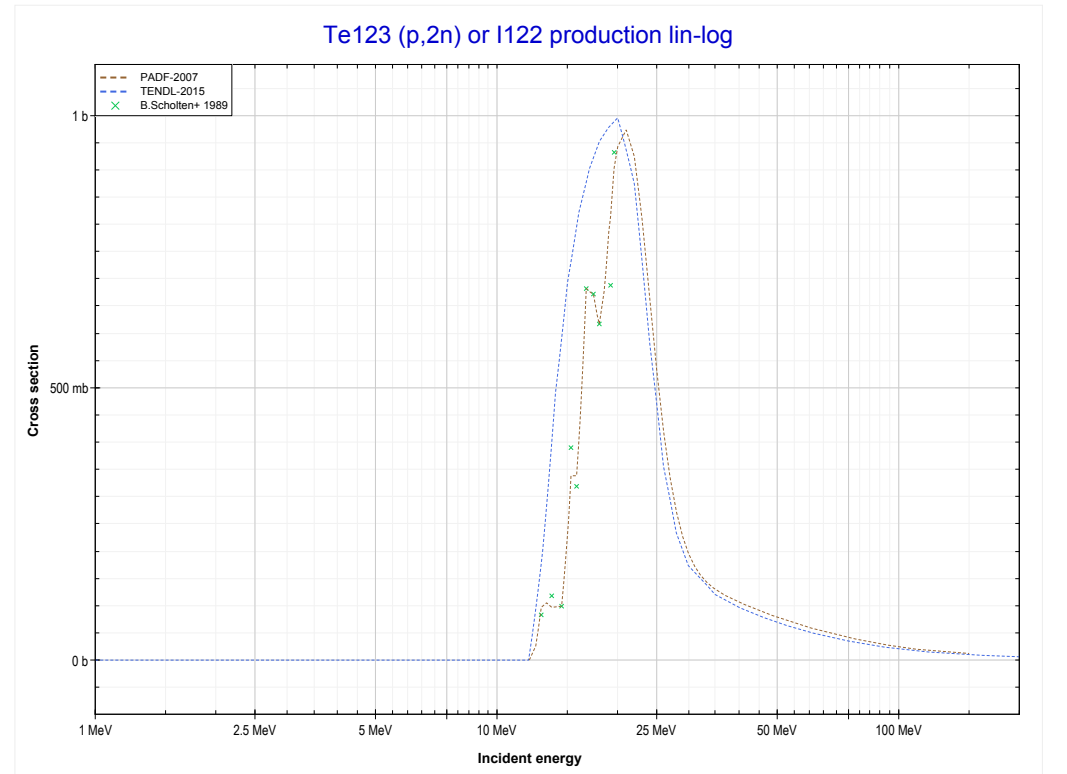
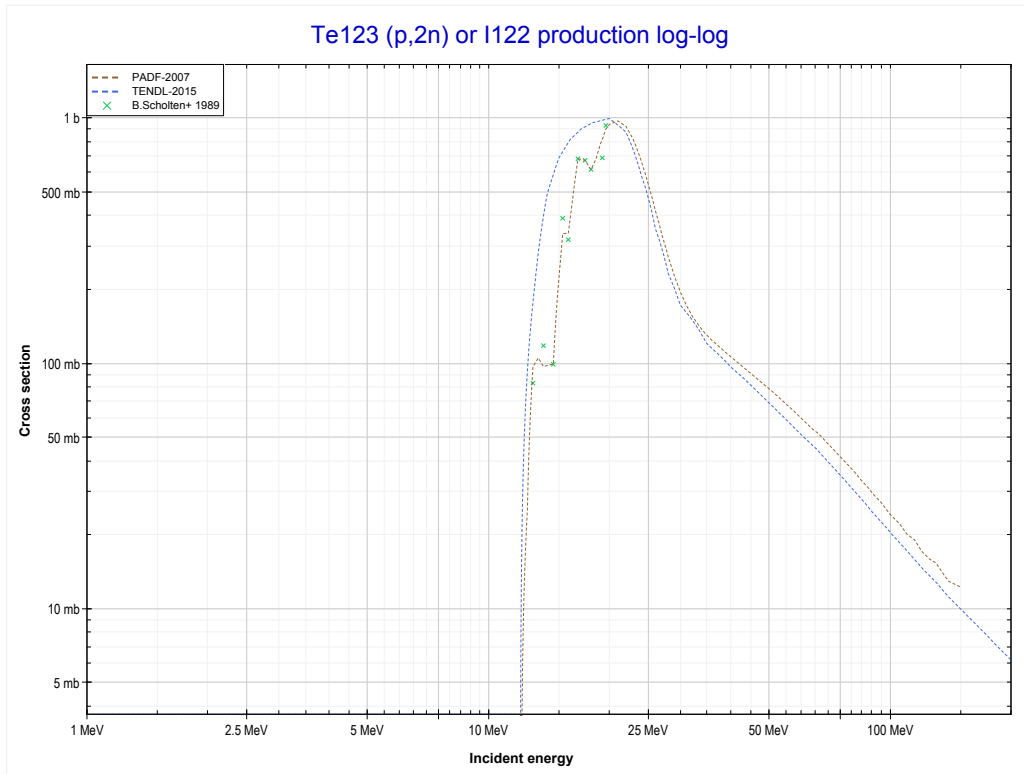
Reaction	Q-Value
Te122(p,4n)I119	-31544.70 keV

<< 52-Te-122	52-Te-123	52-Te-124 >>
<< 52-Te-122 MT37 (p,4n)	MT4 (p,n) or MT5 (I123 production)	MT16 (p,2n) >>



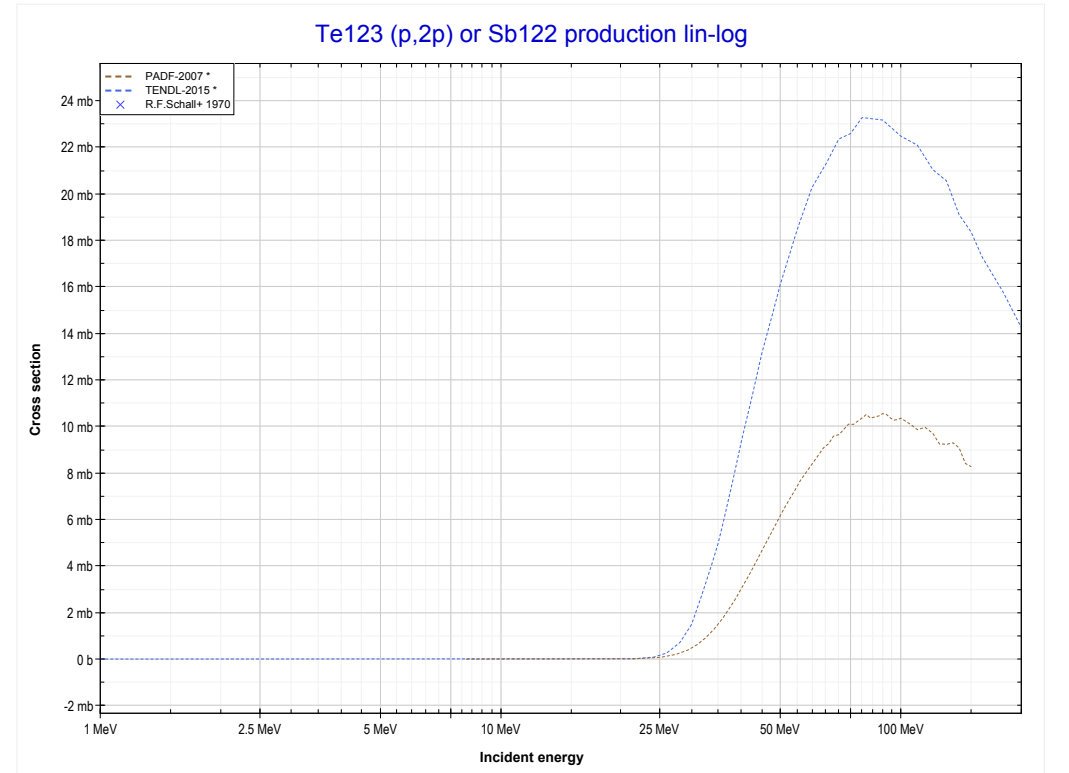
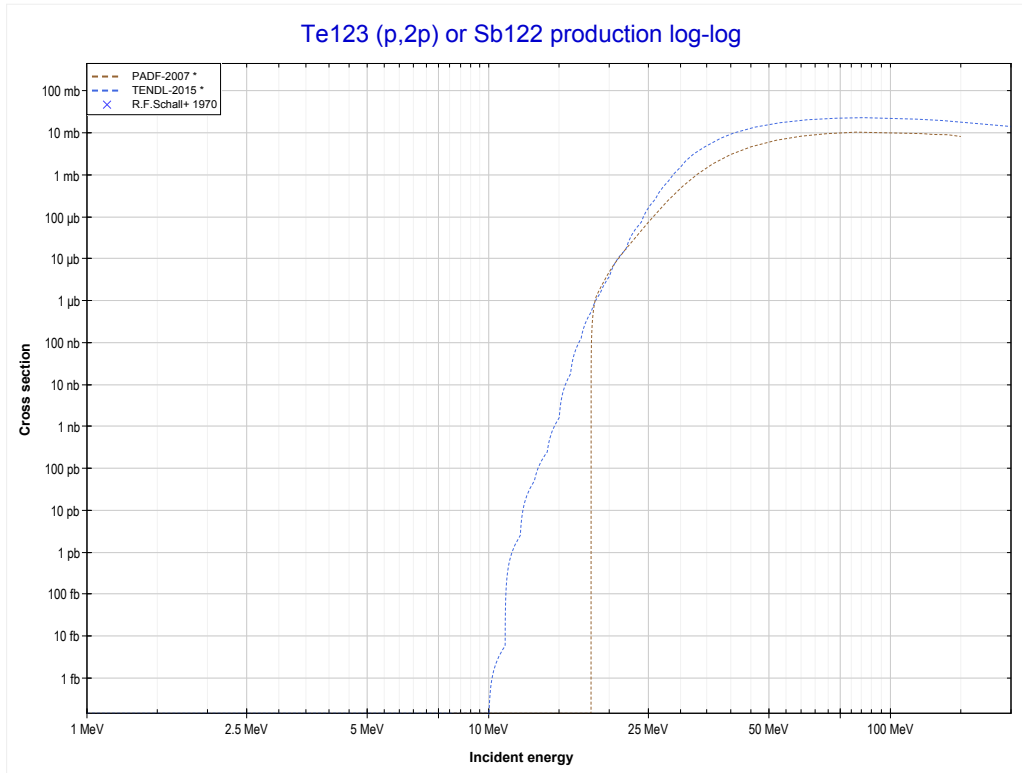
Reaction	Q-Value
Te123(p,n)I123	-2010.45 keV

<< 52-Te-122	52-Te-123	52-Te-124 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (I122 production)	MT111 (p,2p) >>



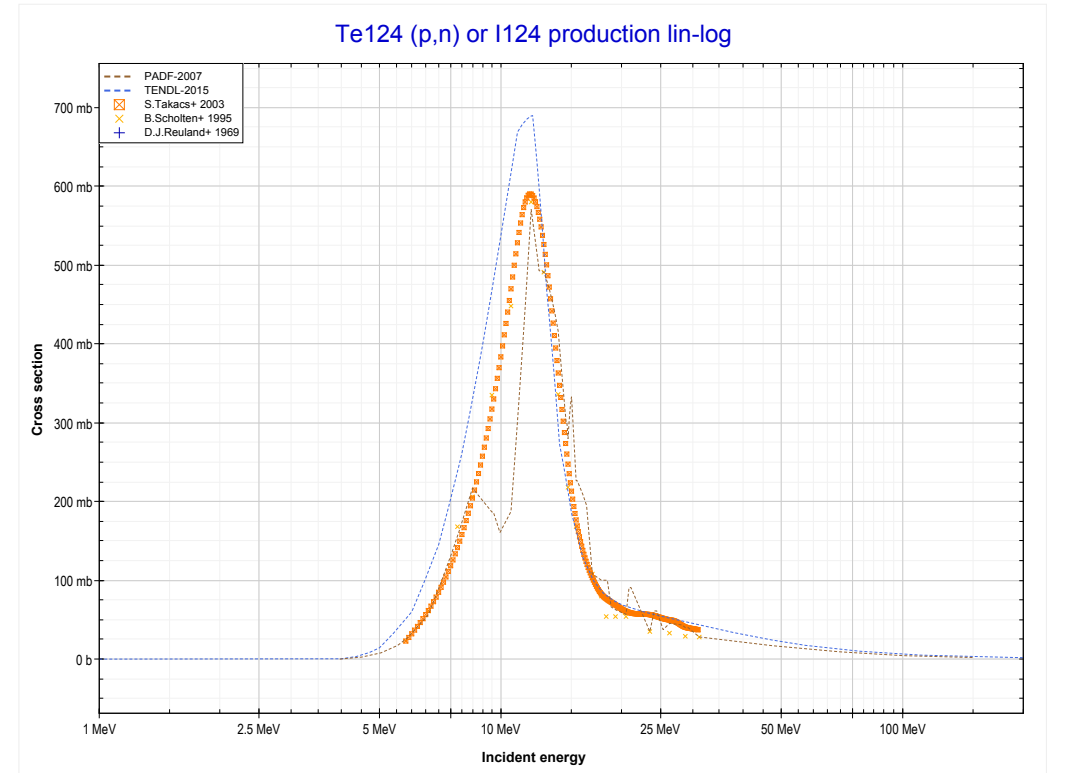
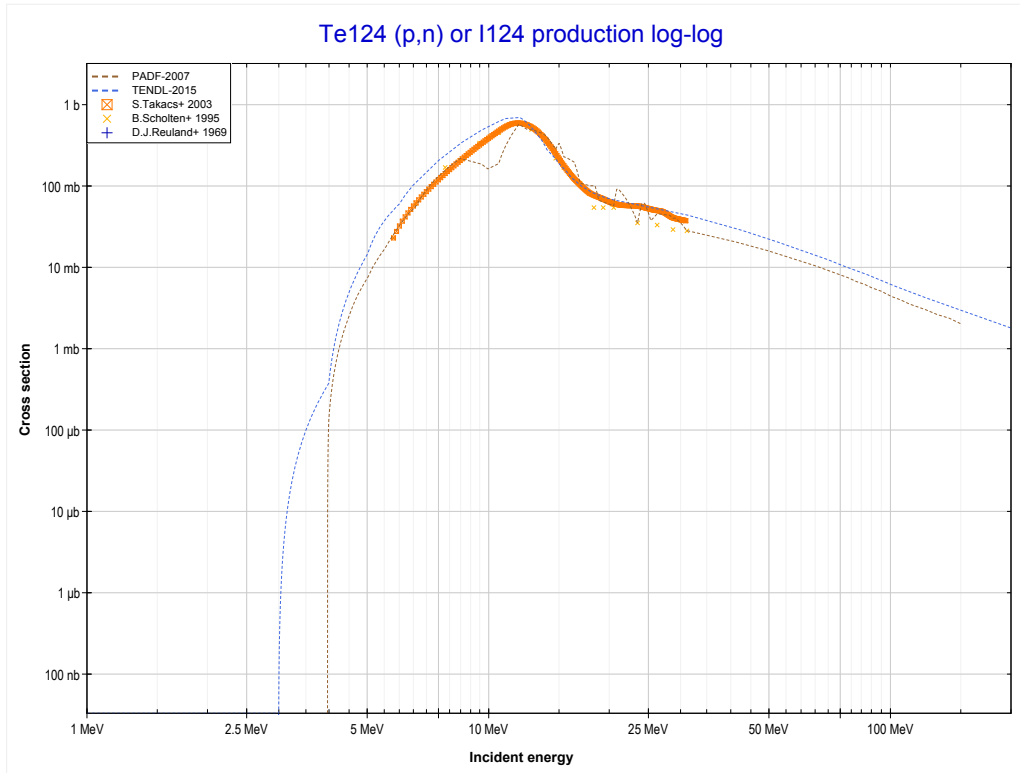
Reaction	Q-Value
Te123(p,2n)I122	-11945.76 keV

<< 50-Sn-118	52-Te-123	52-Te-125 >>
<< MT16 (p,2n)	MT111 (p,2p) or MT5 (Sb122 production)	52-Te-124 MT4 (p,n) >>



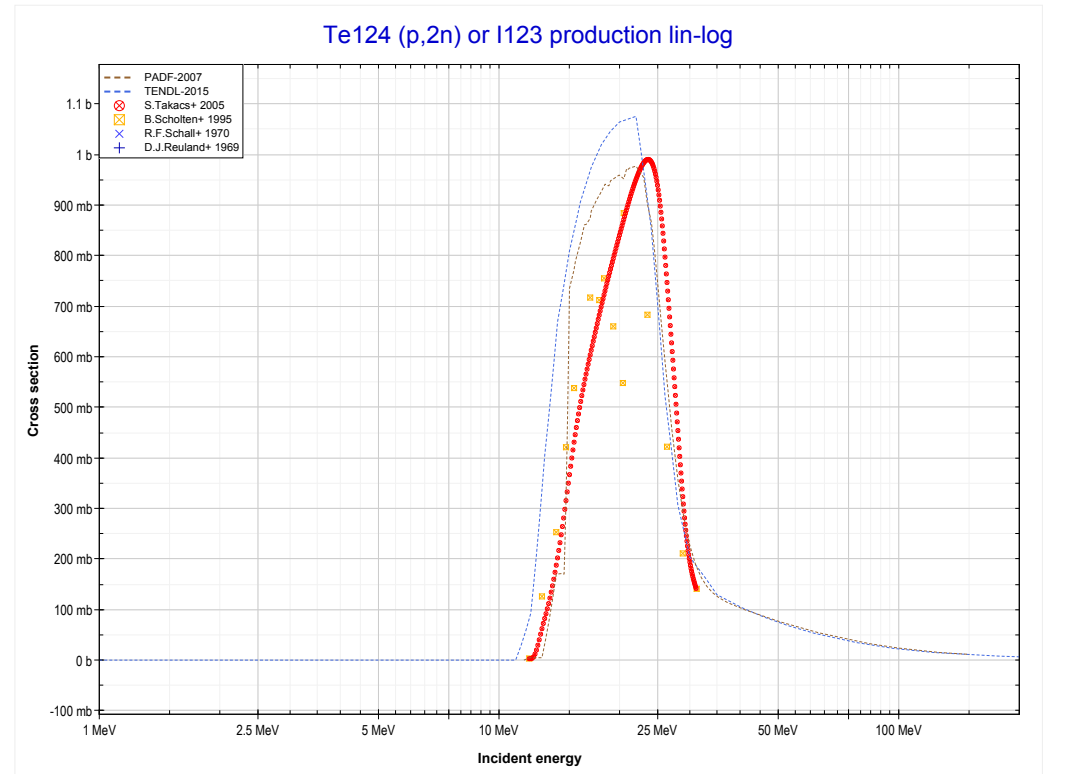
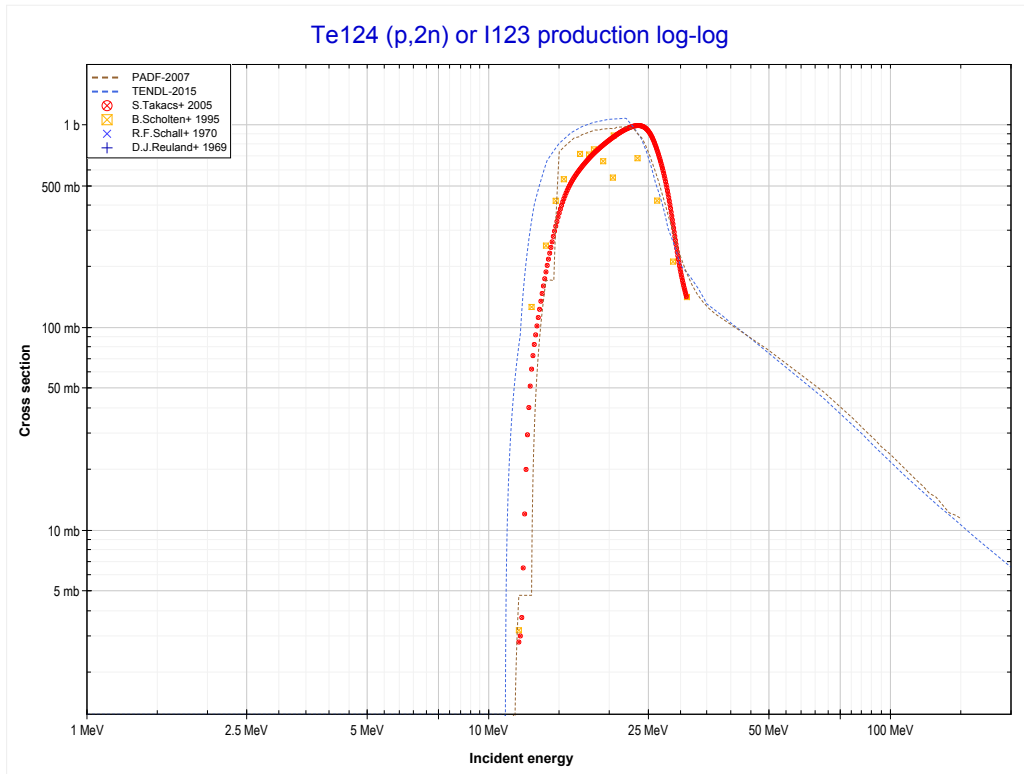
Reaction	Q-Value
Te123(p,2p)Sb122	-8127.47 keV

<< 52-Te-123	52-Te-124	52-Te-125 >>
<< 52-Te-123 MT111 (p,2p)	MT4 (p,n) or MT5 (I124 production)	MT16 (p,2n) >>



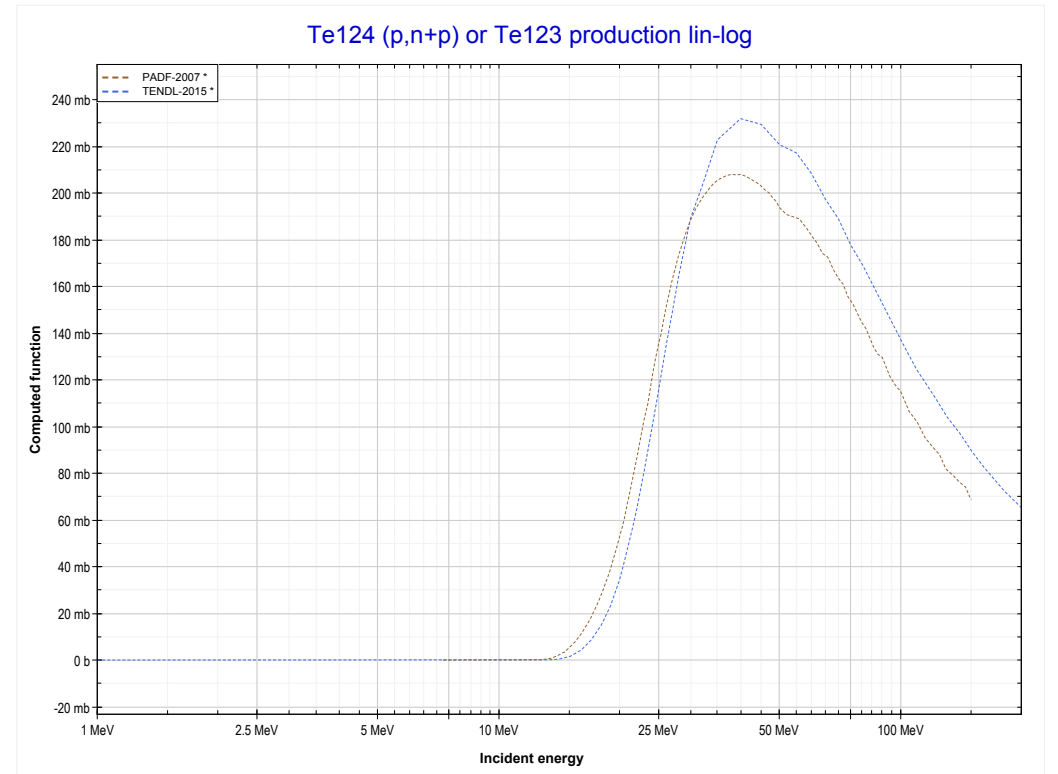
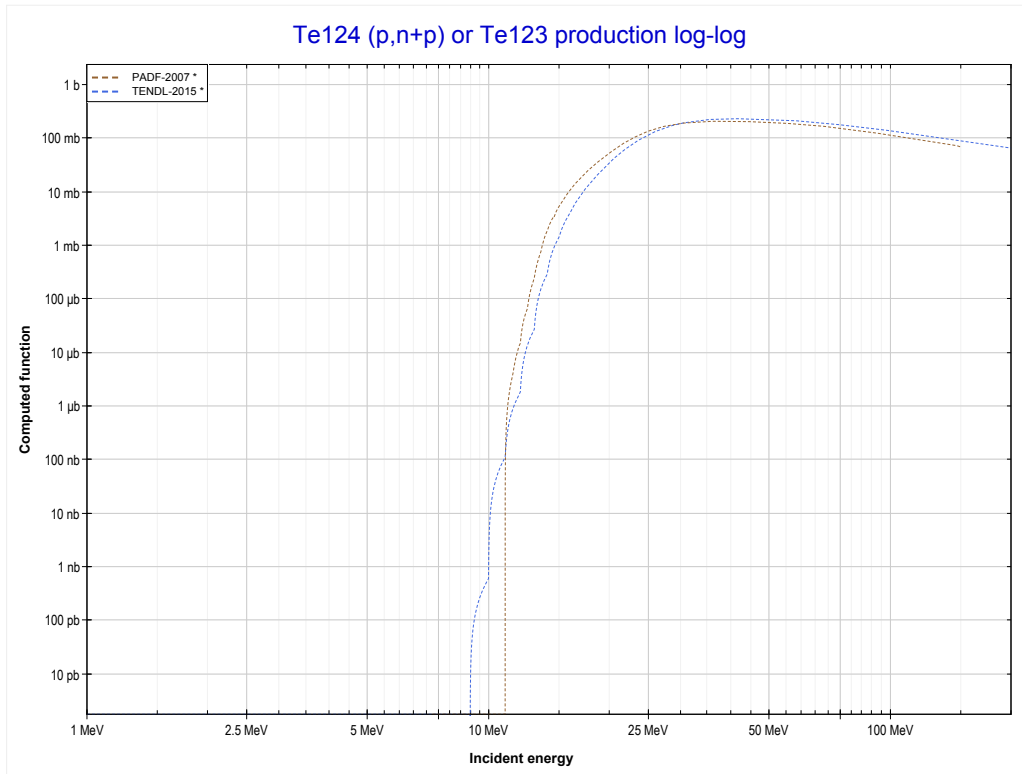
Reaction	Q-Value
Te124(p,n)I124	-3941.95 keV

<< 52-Te-123	52-Te-124	52-Te-125 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (I123 production)	MT28 (p,n+p) >>



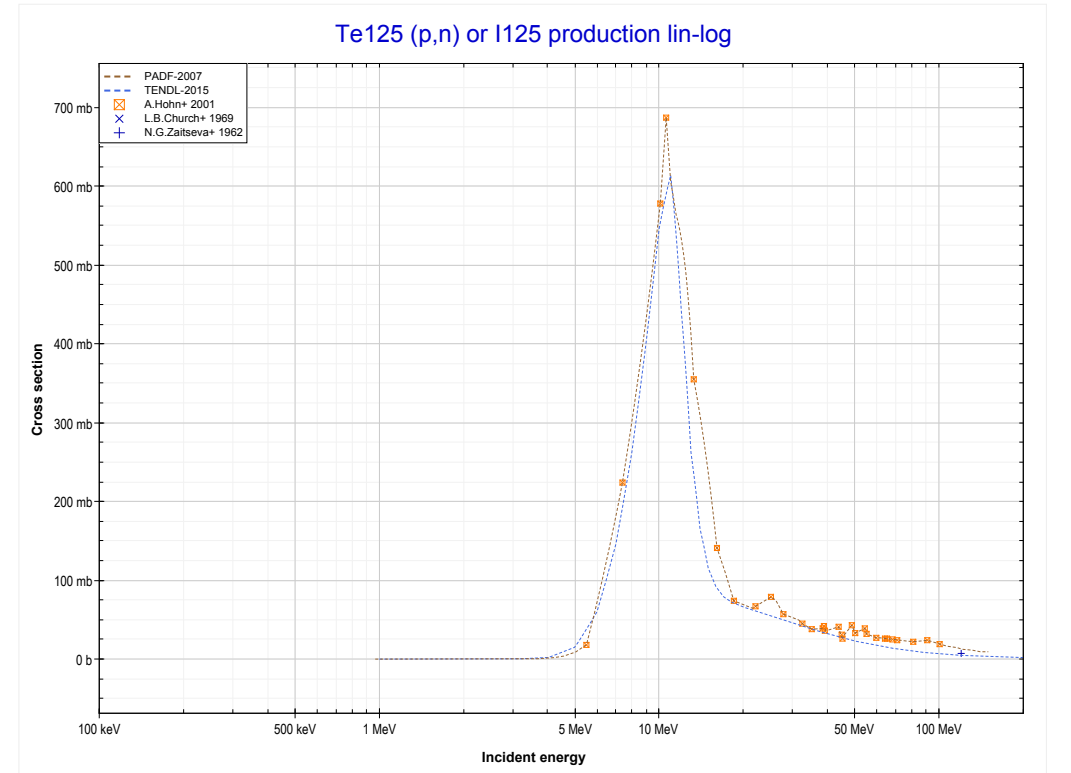
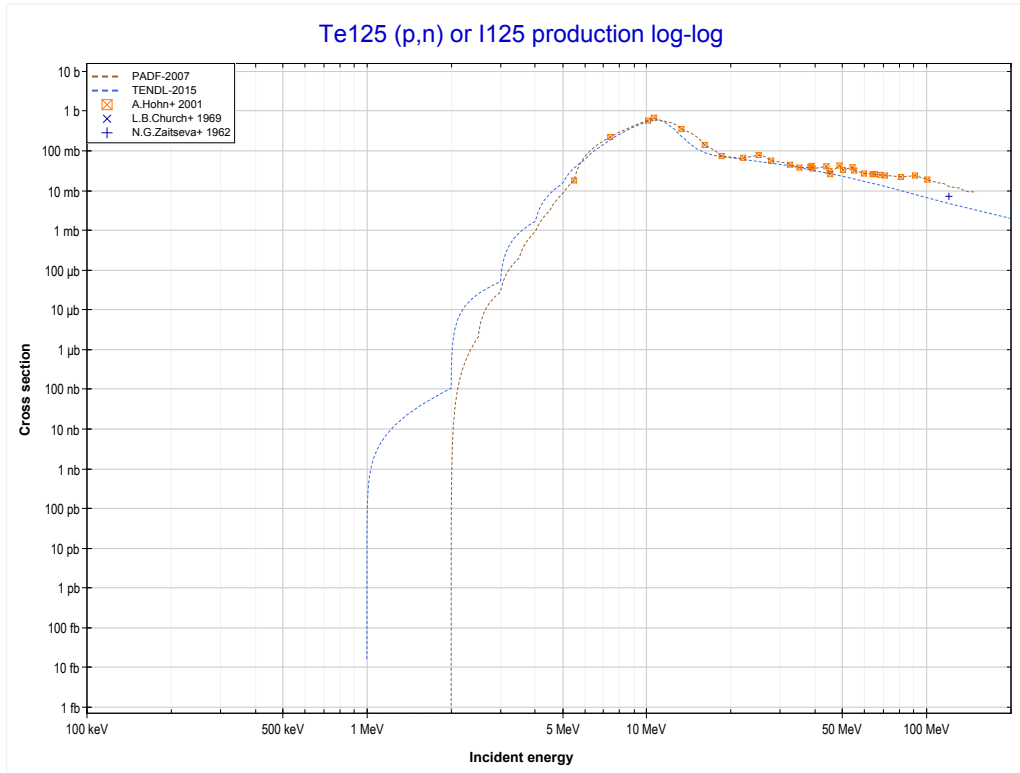
Reaction	Q-Value
Te124(p,2n)I123	-11434.96 keV

<< 51-Sb-123	52-Te-124	52-Te-126 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Te123 production)	52-Te-125 MT4 (p,n) >>



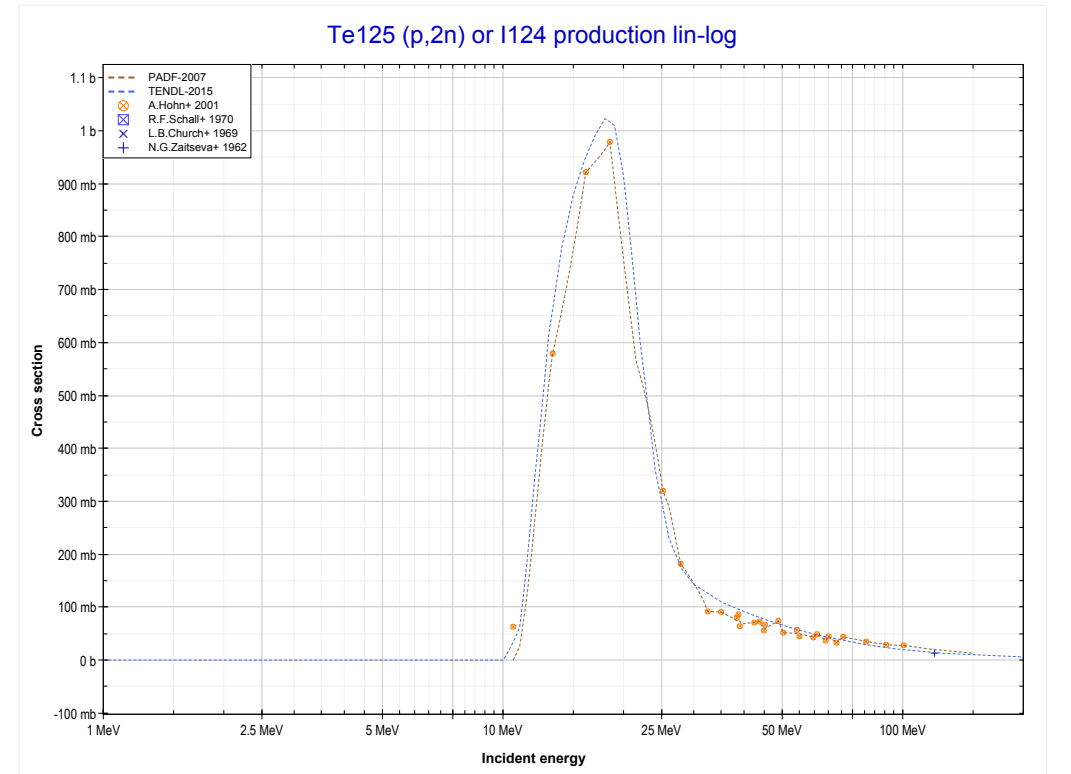
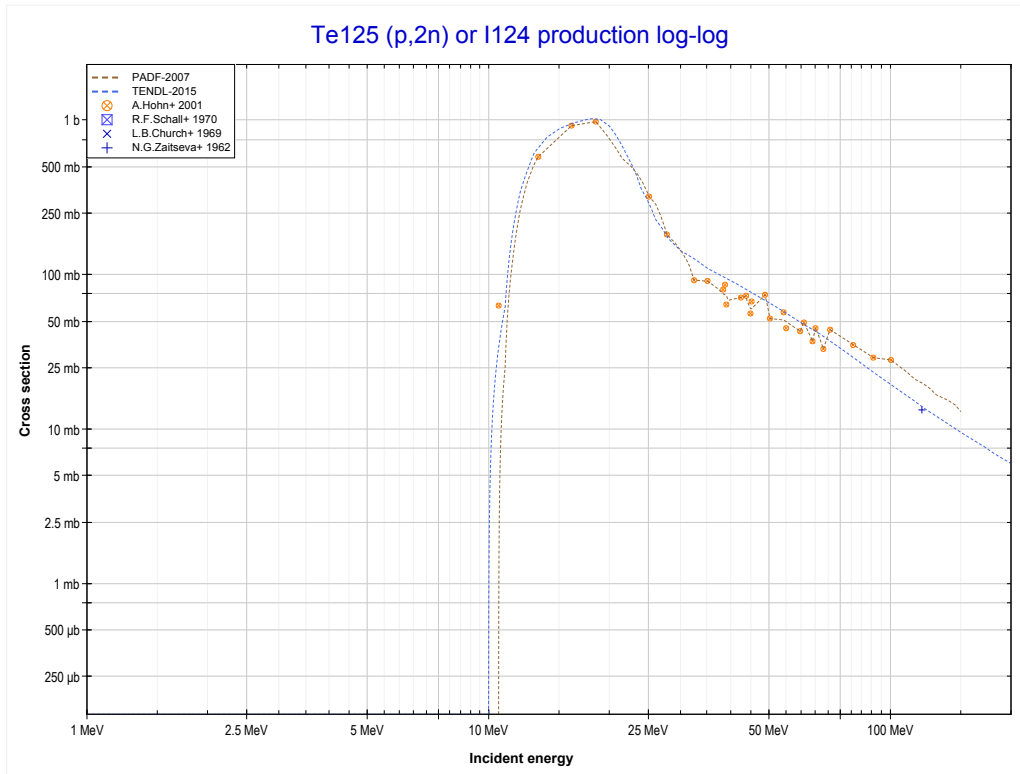
Reaction	Q-Value
Te124(p,d)Te123	-7199.95 keV
Te124(p,n+p)Te123	-9424.52 keV

<< 52-Te-124	52-Te-125	52-Te-126 >>
<< 52-Te-124 MT28 (p,n+p)	MT4 (p,n) or MT5 (I125 production)	MT16 (p,2n) >>



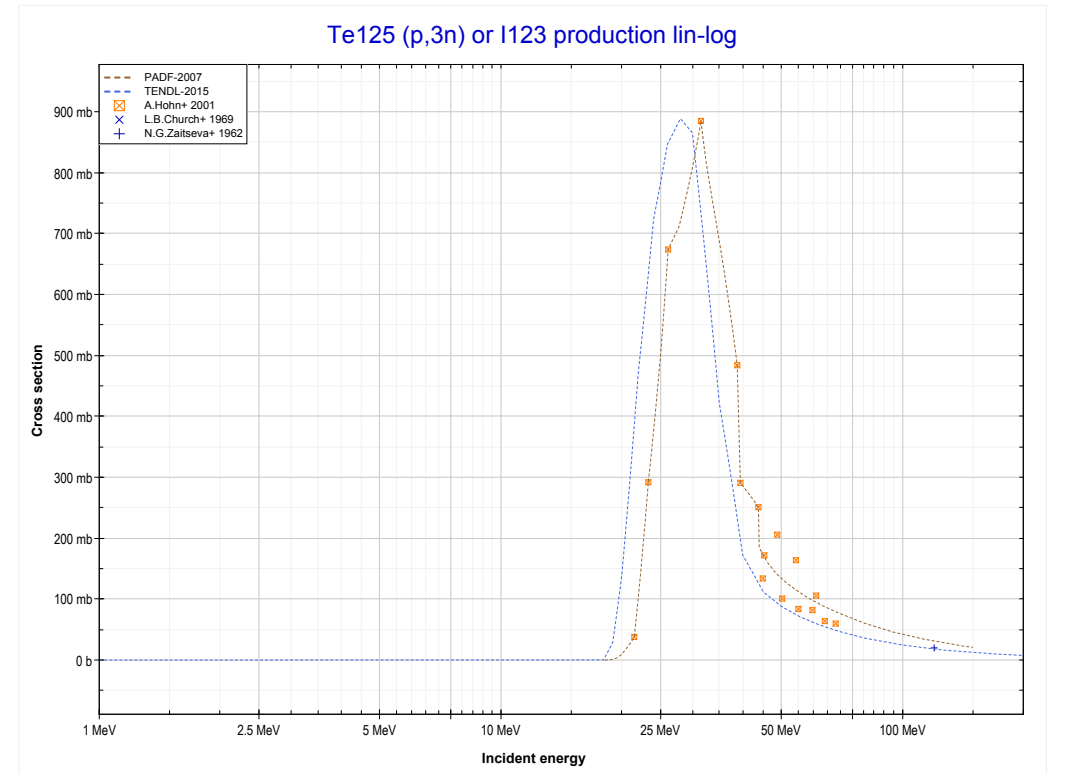
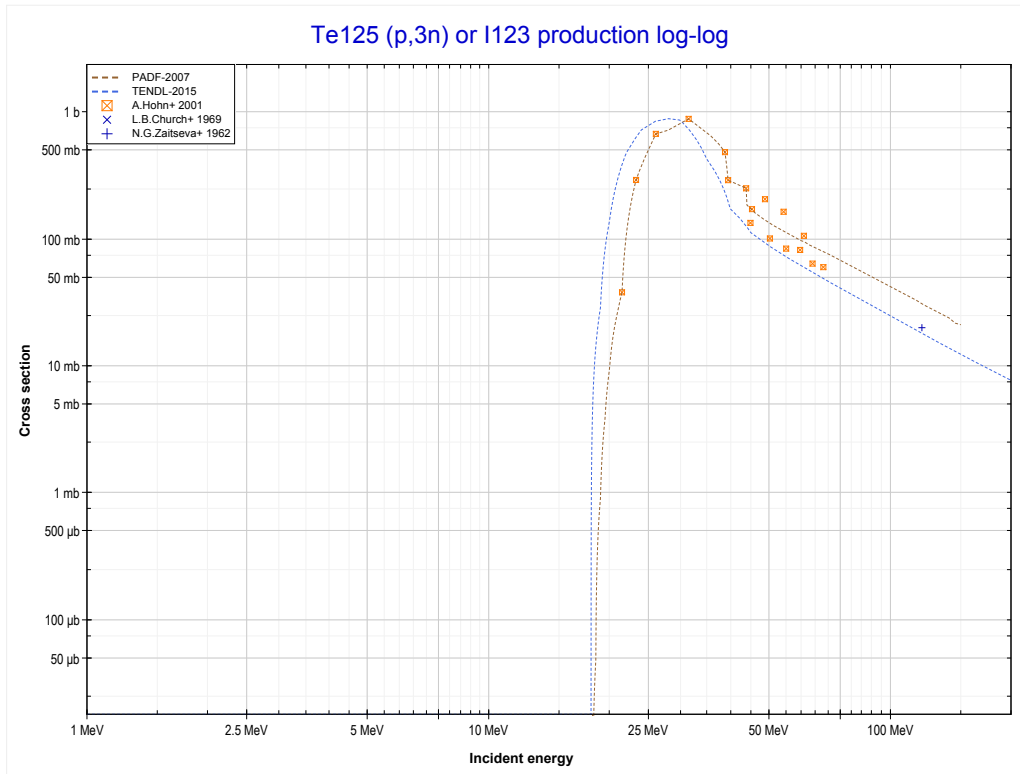
Reaction	Q-Value
Te125(p,n)I125	-968.15 keV

<< 52-Te-124	52-Te-125	52-Te-126 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (I124 production)	MT17 (p,3n) >>



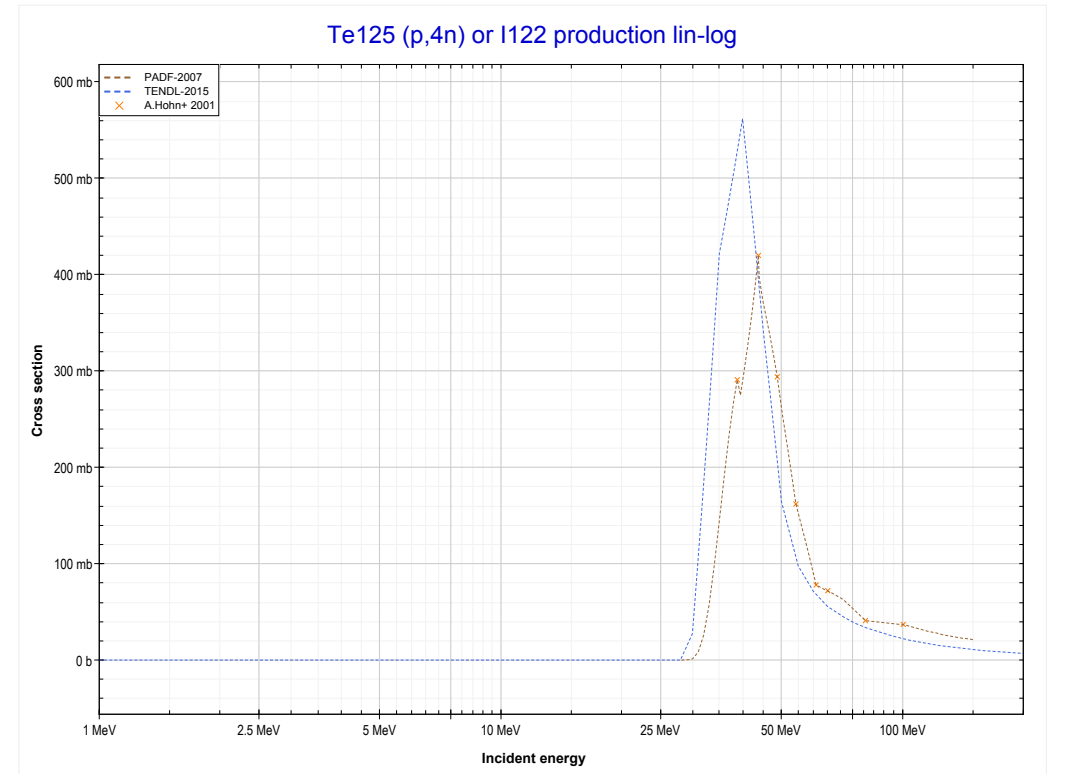
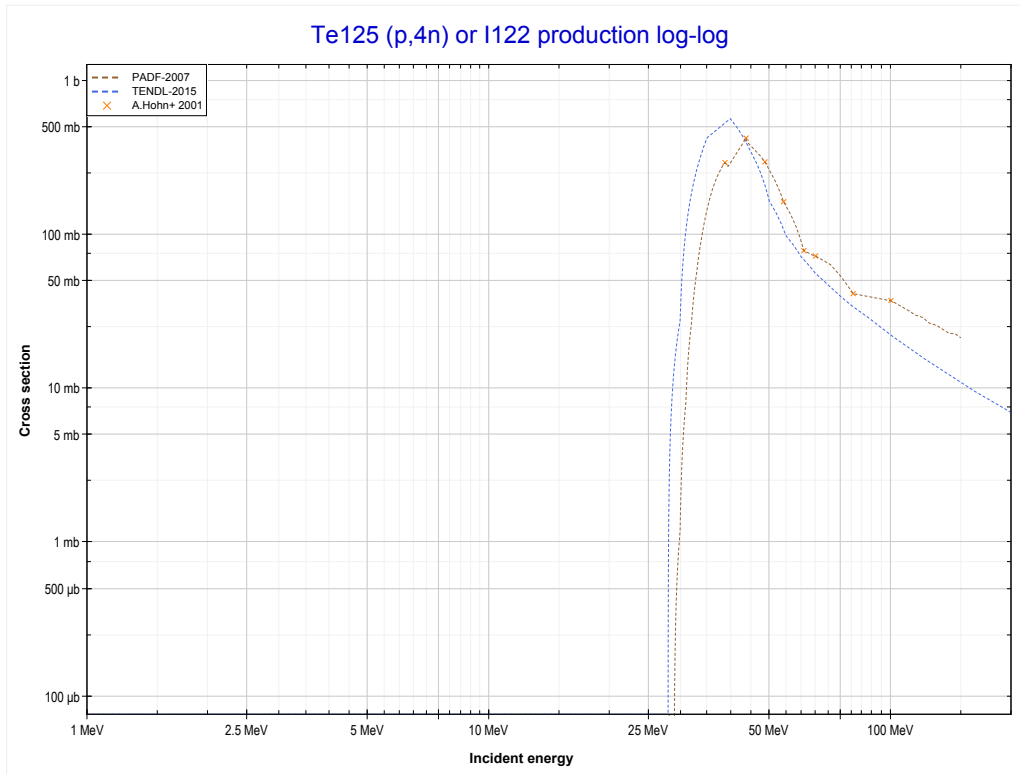
Reaction	Q-Value
Te125(p,2n)I124	-10510.96 keV

<< 52-Te-122	52-Te-125	52-Te-126 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (I123 production)	MT37 (p,4n) >>



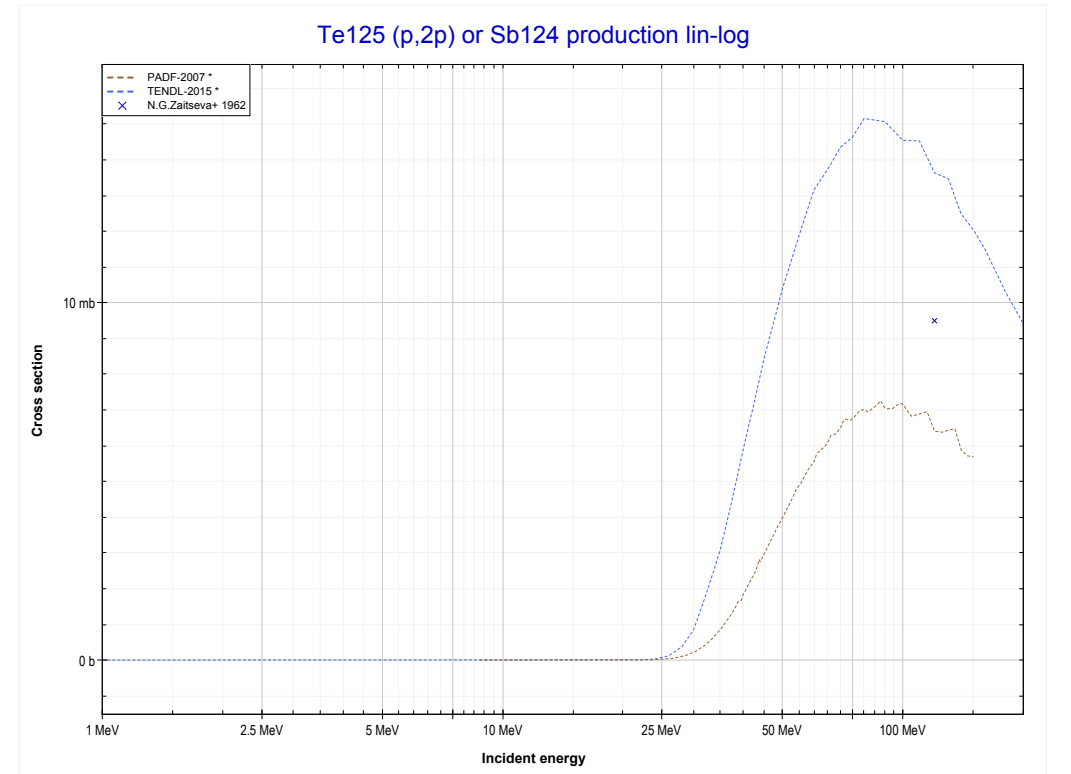
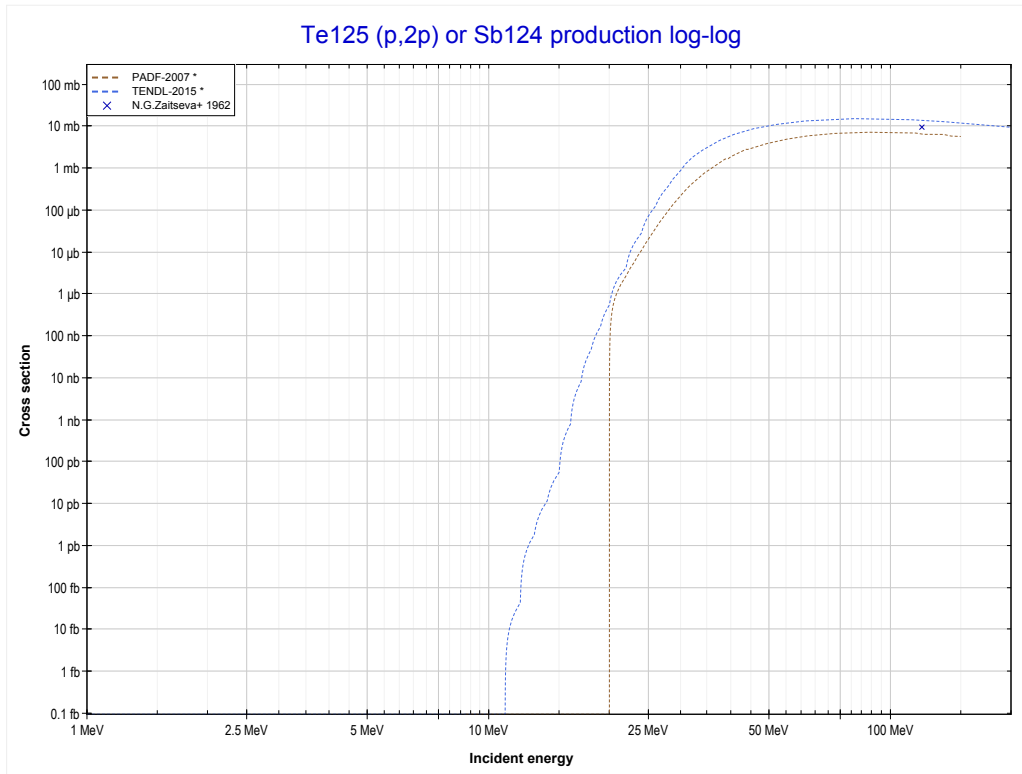
Reaction	Q-Value
Te125(p,3n)I123	-18003.98 keV

<< 52-Te-122	52-Te-125	52-Te-126 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (I122 production)	MT111 (p,2p) >>



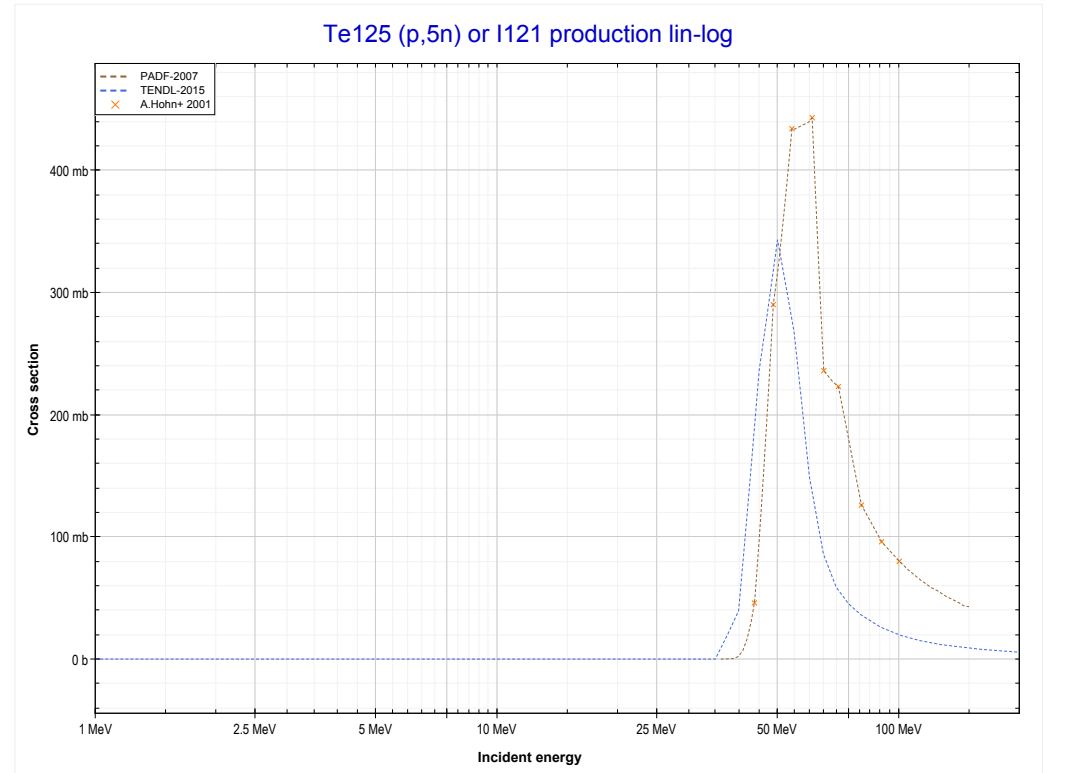
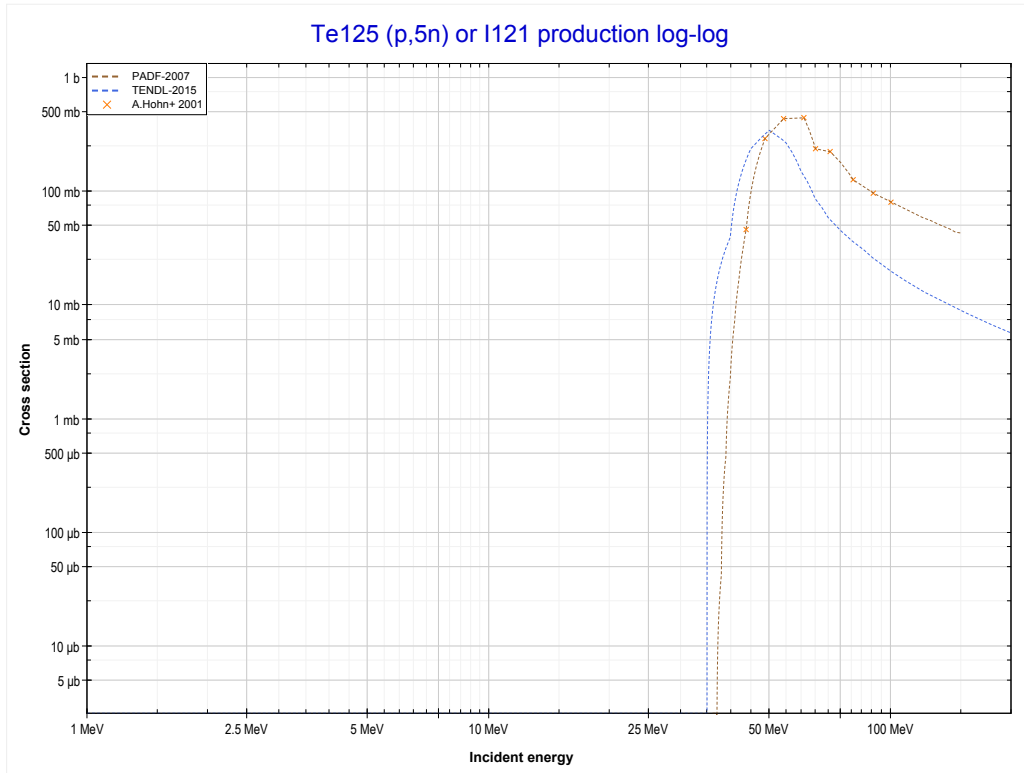
Reaction	Q-Value
Te125(p,4n)I122	-27939.30 keV

<< 52-Te-123	52-Te-125	52-Te-126 >>
<< MT37 (p,4n)	MT111 (p,2p) or MT5 (Sb124 production)	MT152 (p,5n) >>



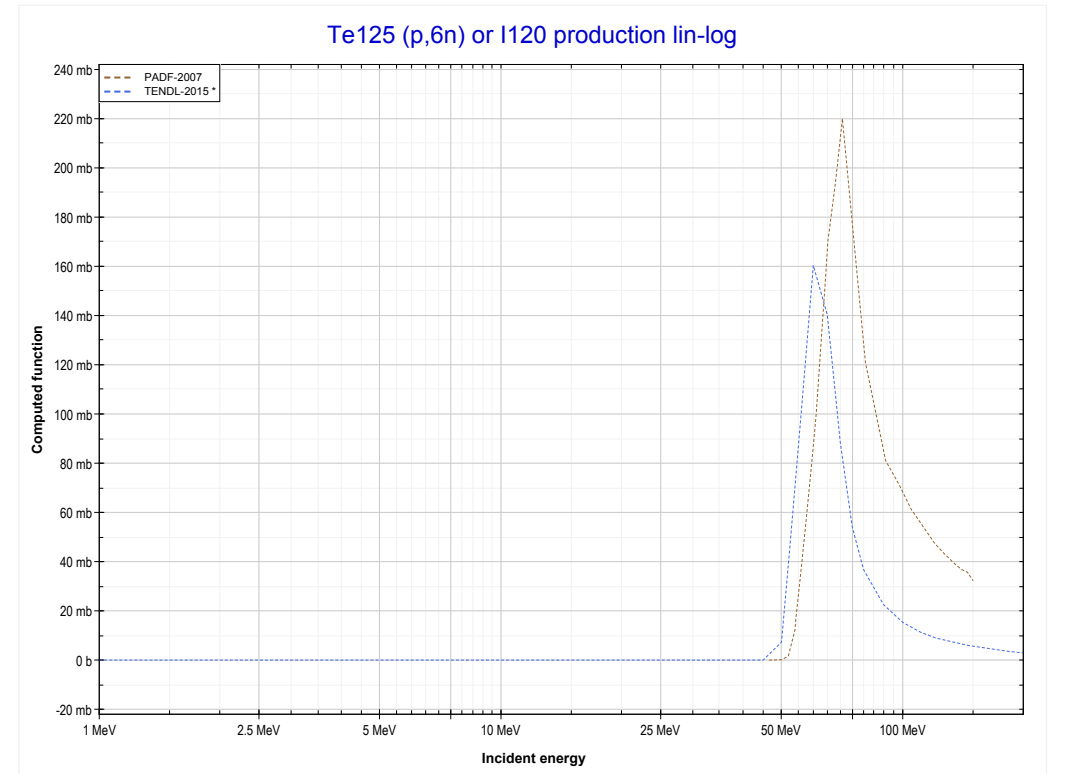
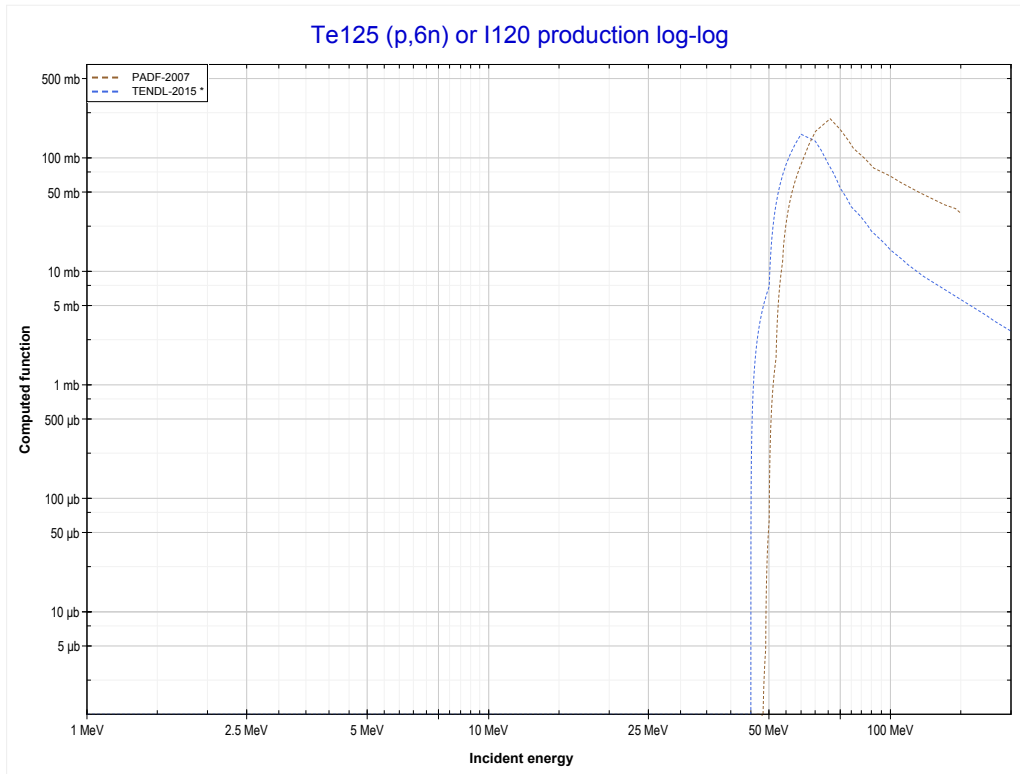
Reaction	Q-Value
Te125(p,2p)Sb124	-8690.97 keV

<< 50-Sn-124	52-Te-125	53-I-127 >>
<< MT111 (p,2p)	MT152 (p,5n) or MT5 (I121 production)	MT153 (p,6n) >>



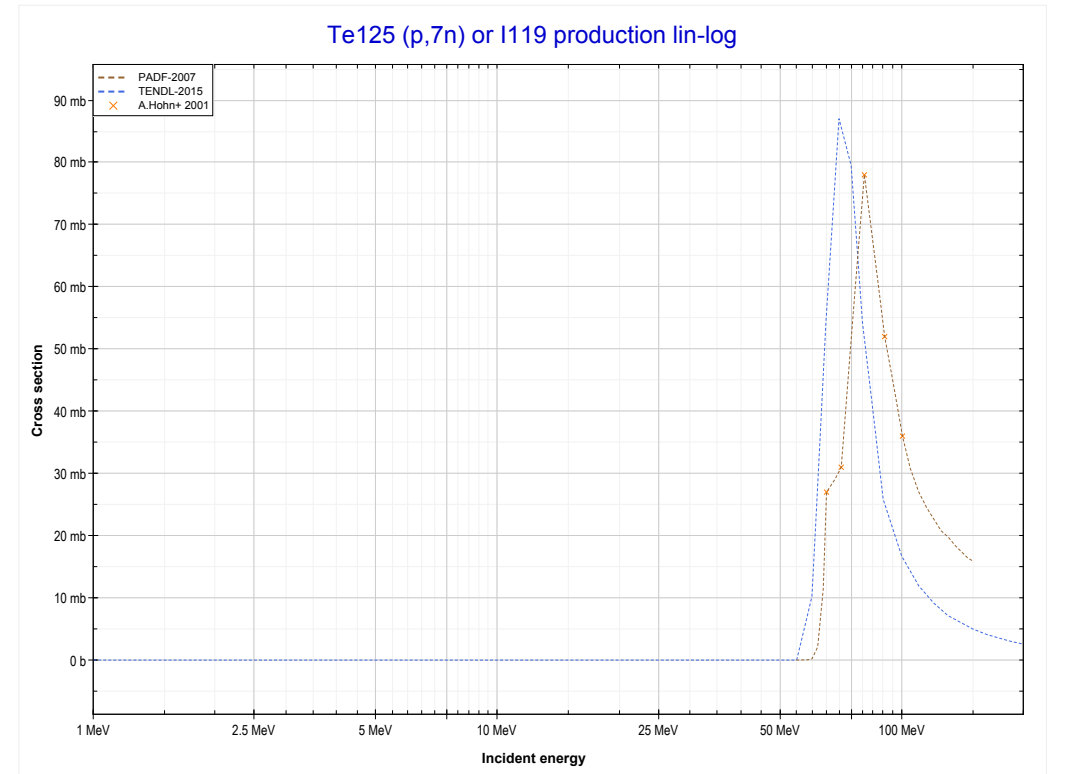
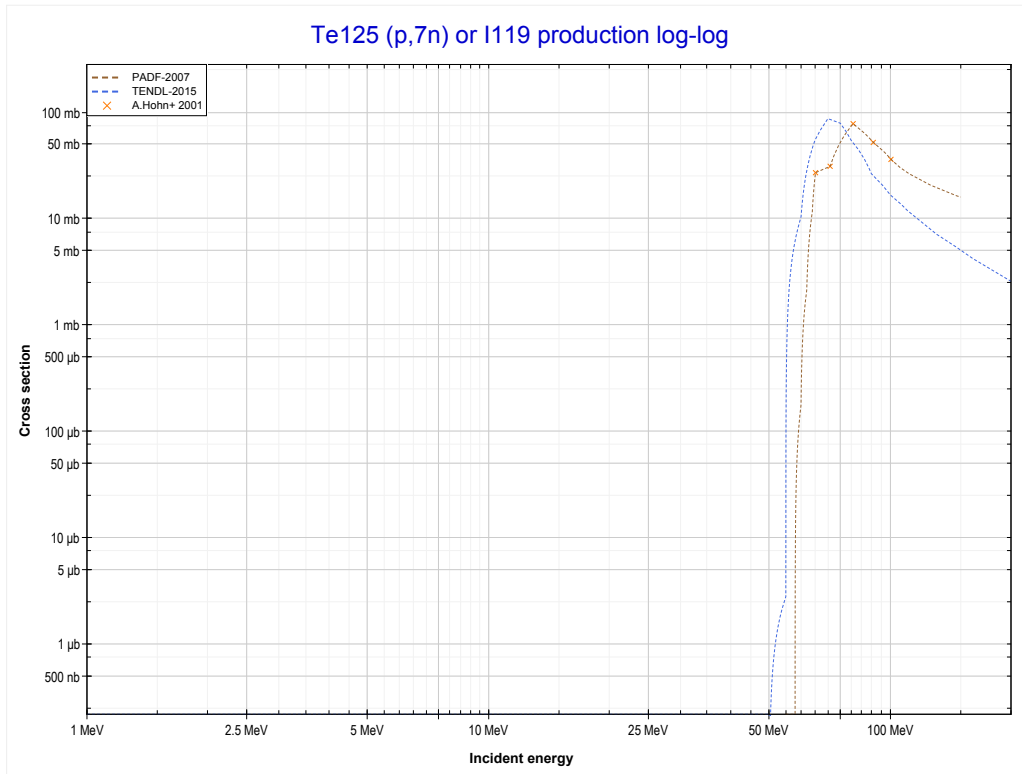
Reaction	Q-Value
Te125(p,5n)I121	-35838.62 keV

<< 48-Cd-116	52-Te-125	53-I-127 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (I120 production)	MT160 (p,7n) >>



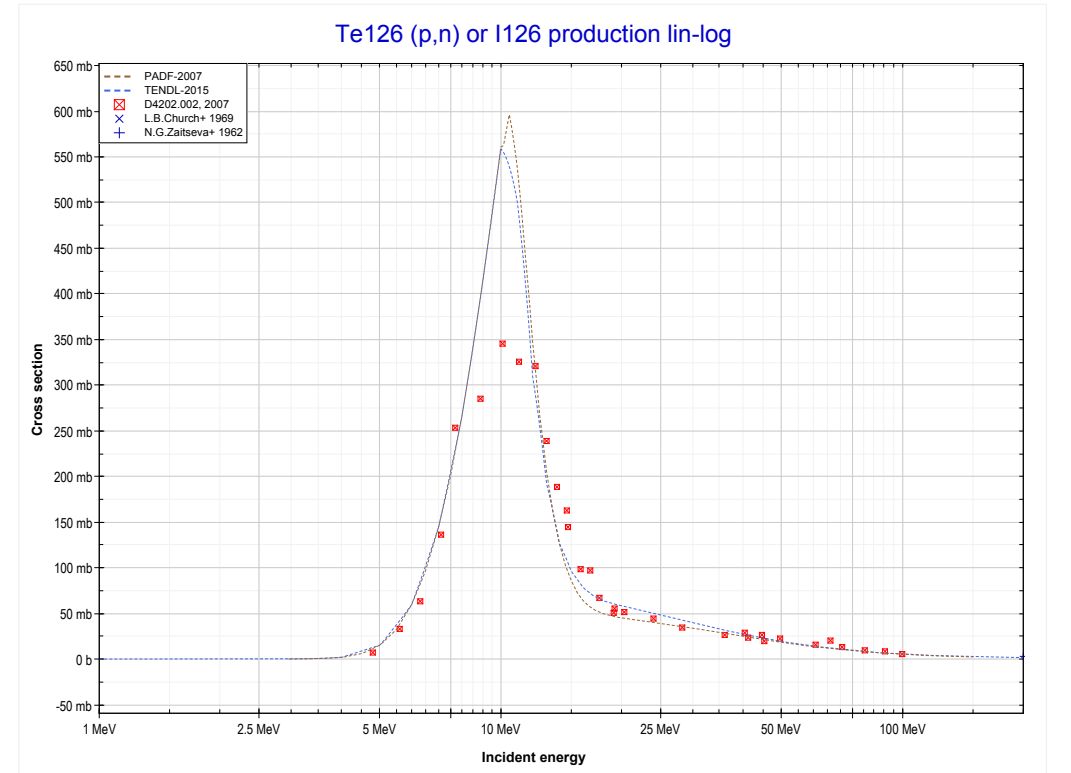
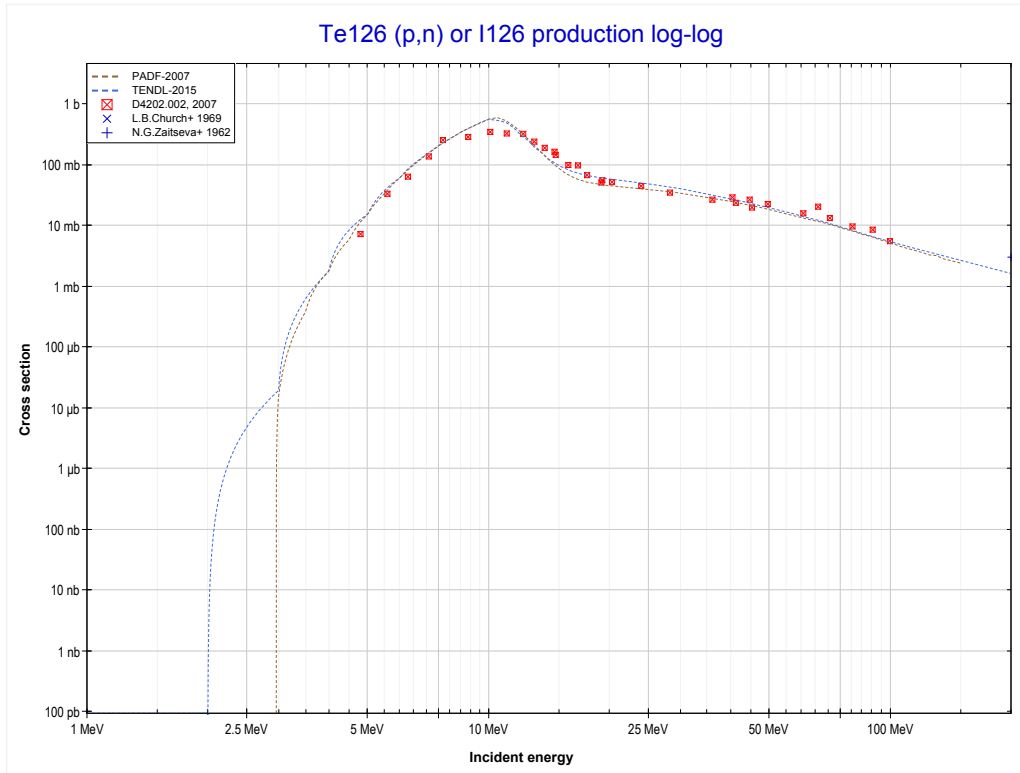
Reaction	Q-Value
Te125(p,6n)I120	-46408.93 keV

<< 50-Sn-124	52-Te-125	53-I-127 >>
<< MT153 (p,6n)	MT160 (p,7n) or MT5 (I119 production)	52-Te-126 MT4 (p,n) >>



Reaction	Q-Value
Te125(p,7n)I119	-54467.25 keV

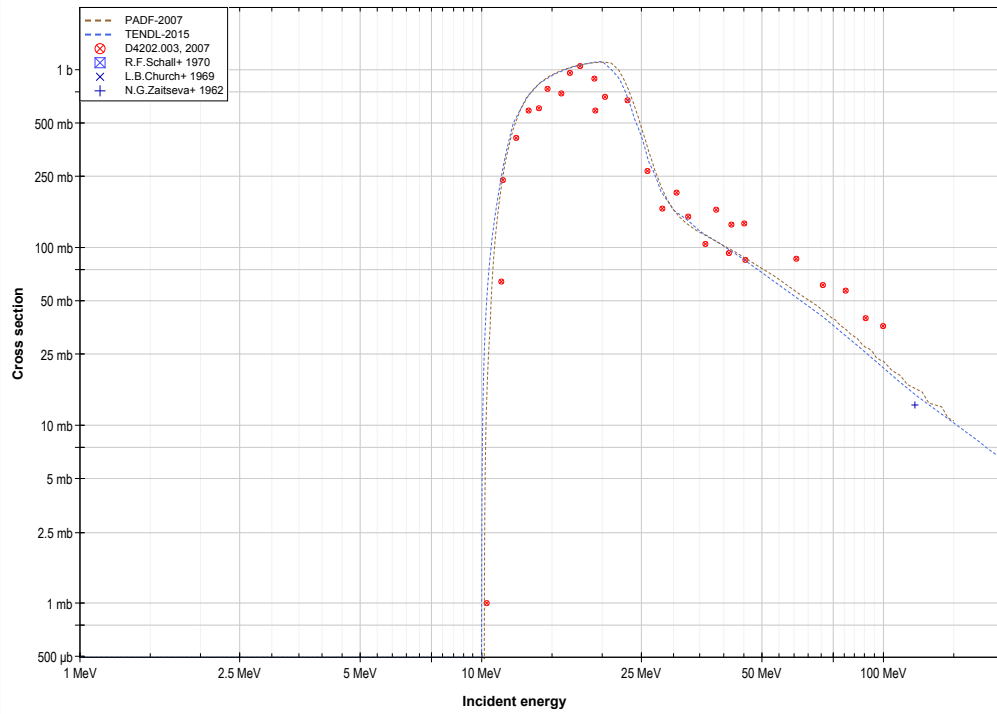
<< 52-Te-125	52-Te-126	52-Te-128 >>
<< 52-Te-125 MT160 (p,7n)	MT4 (p,n) or MT5 (I126 production)	MT16 (p,2n) >>



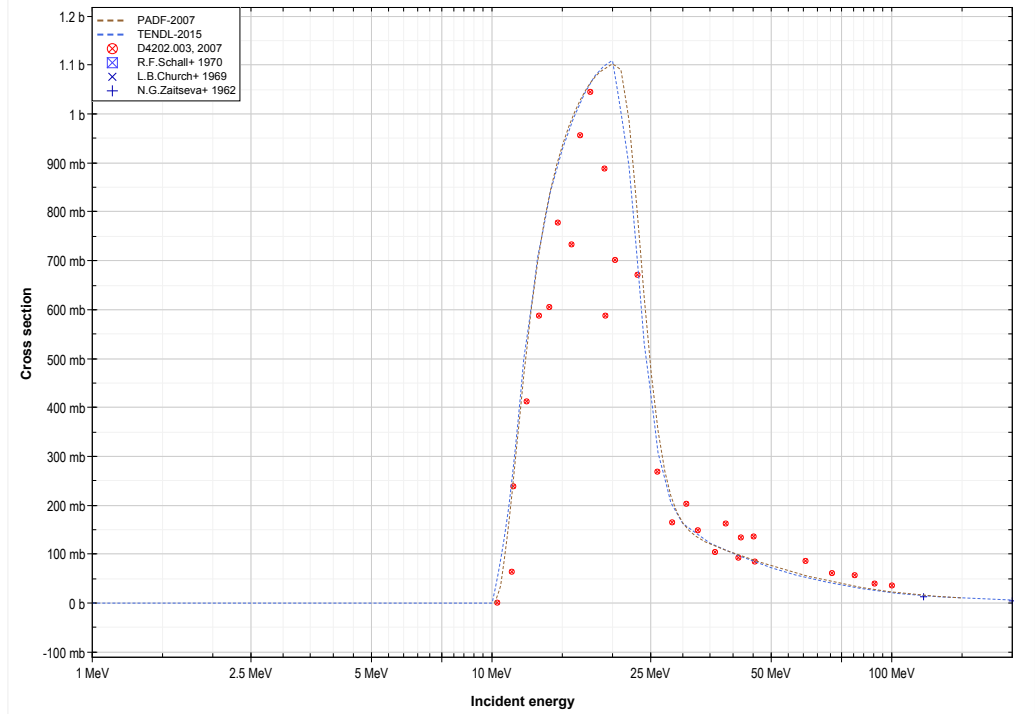
Reaction	Q-Value
Te126(p,n)I126	-2936.65 keV

<< 52-Te-125	52-Te-126	54-Xe-124 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (I125 production)	MT17 (p,3n) >>

Te126 (p,2n) or I125 production log-log

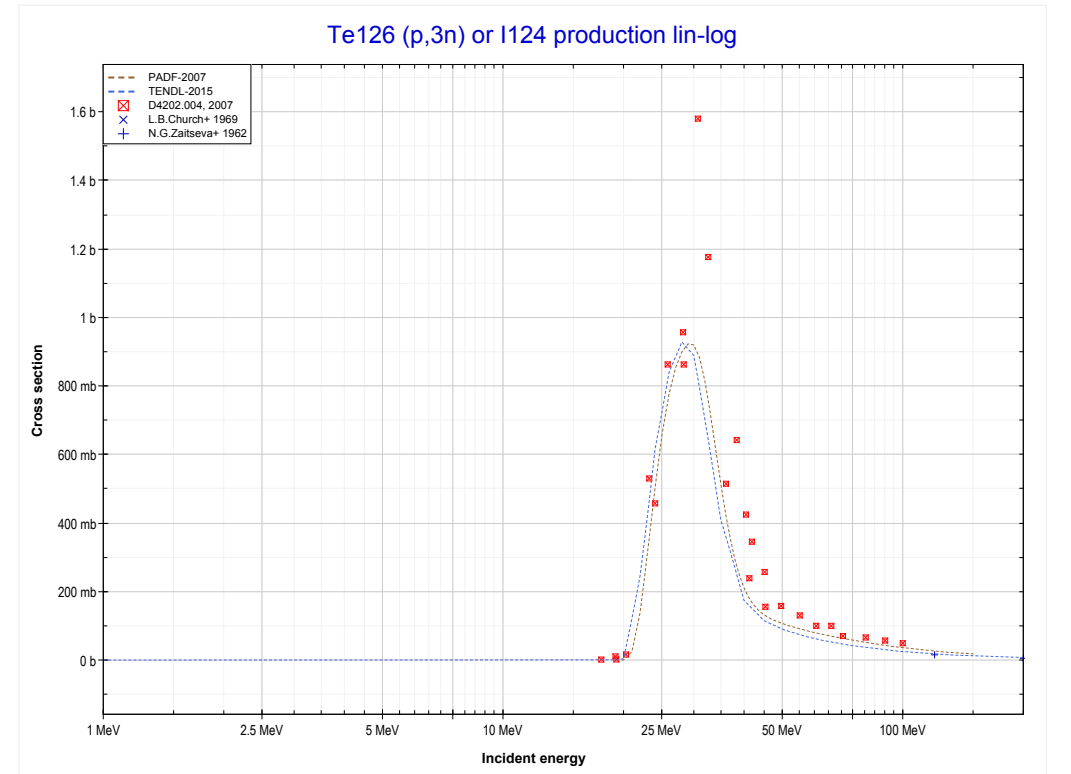
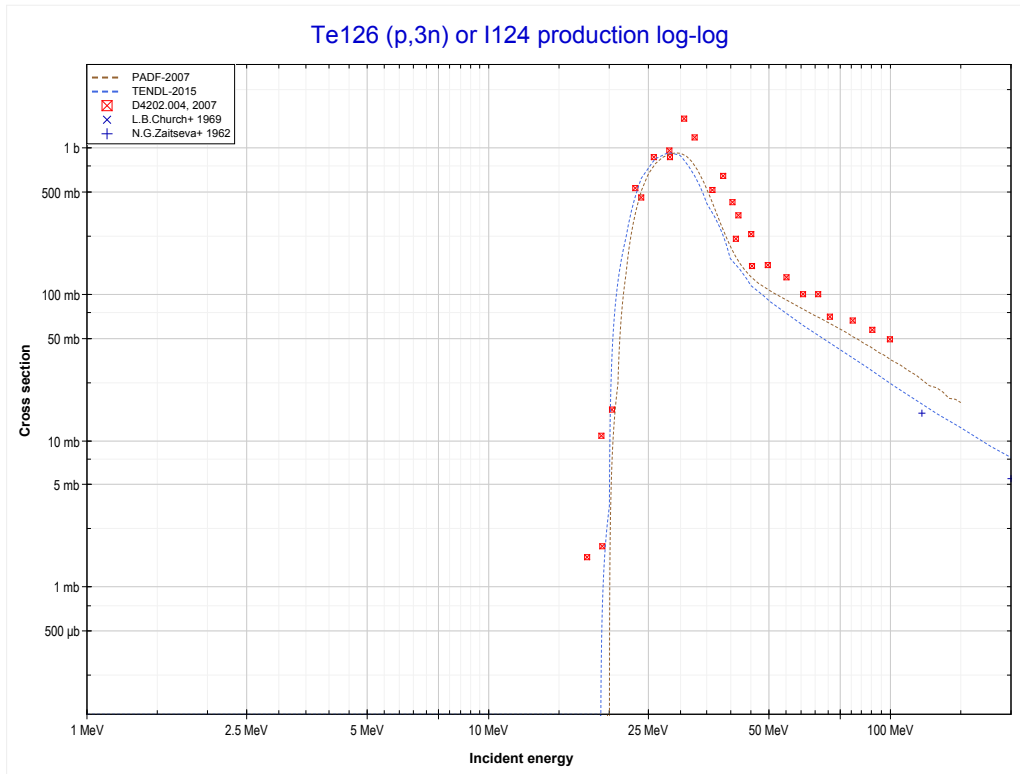


Te126 (p,2n) or I125 production lin-log



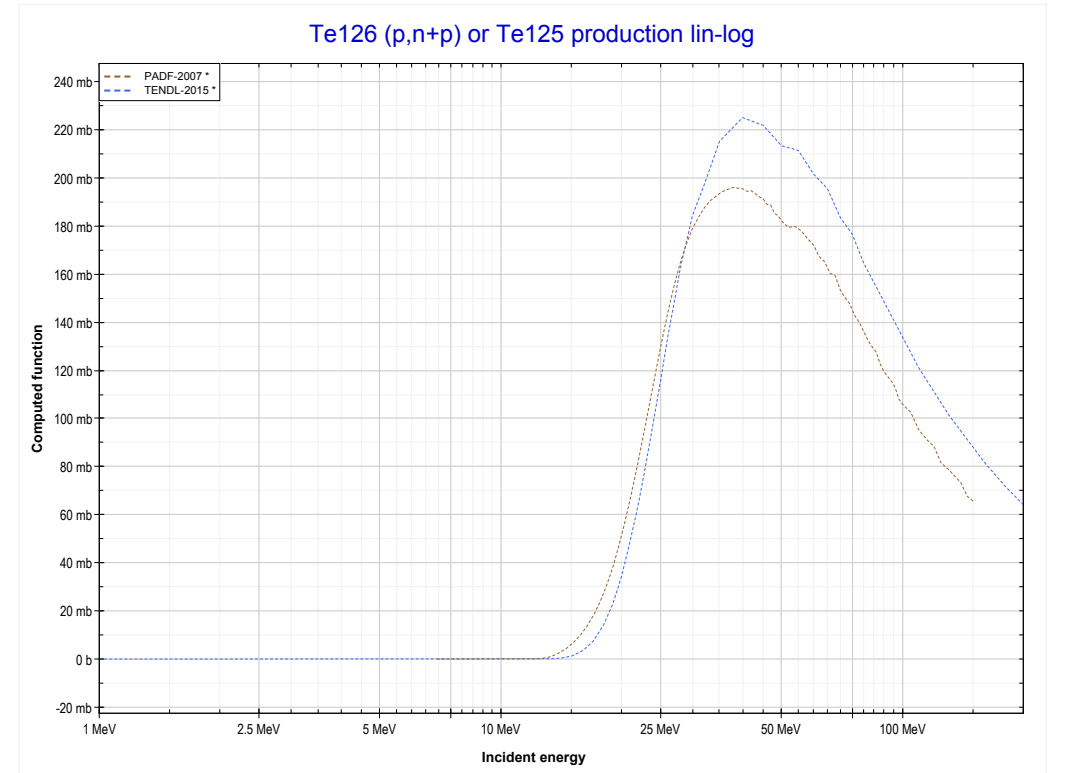
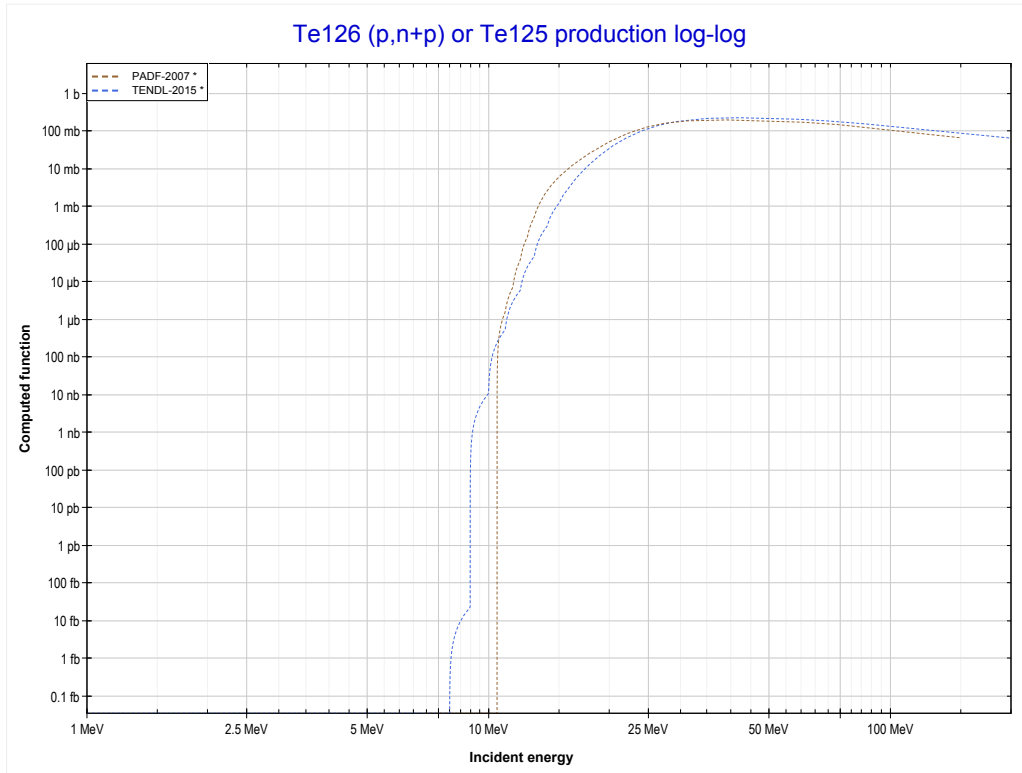
Reaction	Q-Value
Te126(p,2n)I125	-10081.76 keV

<< 52-Te-125	52-Te-126	53-I-127 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (I124 production)	MT28 (p,n+p) >>



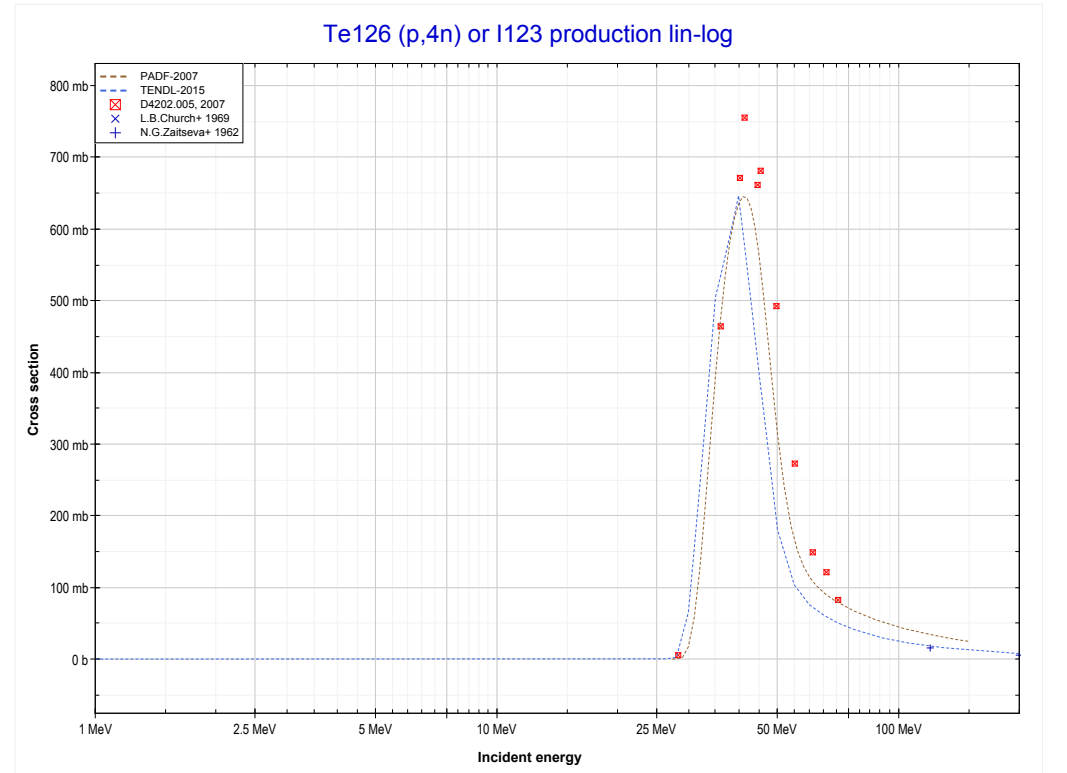
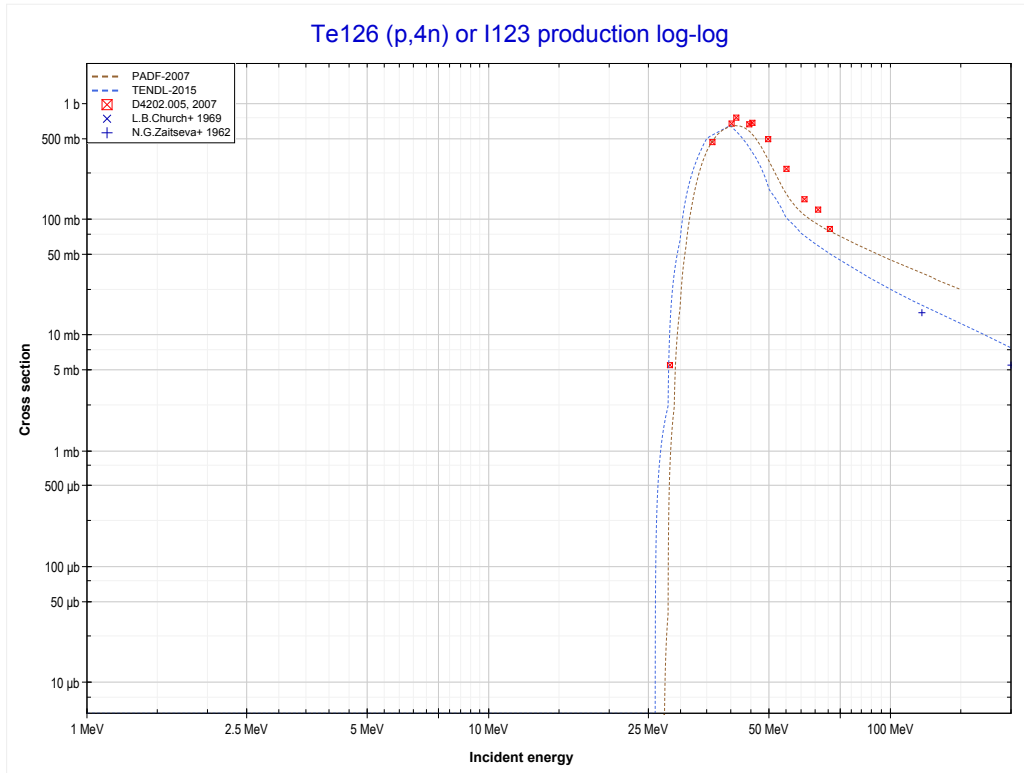
Reaction	Q-Value
Te126(p,3n)I124	-19624.58 keV

<< 52-Te-124	52-Te-126	52-Te-128 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Te125 production)	MT37 (p,4n) >>



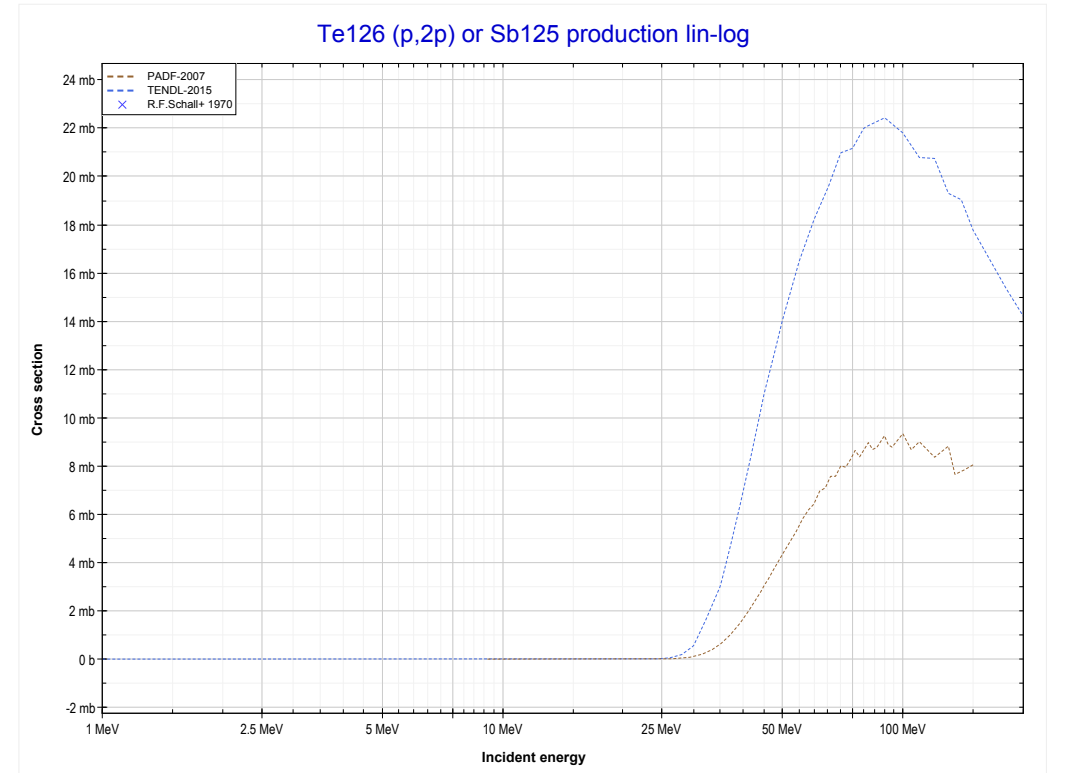
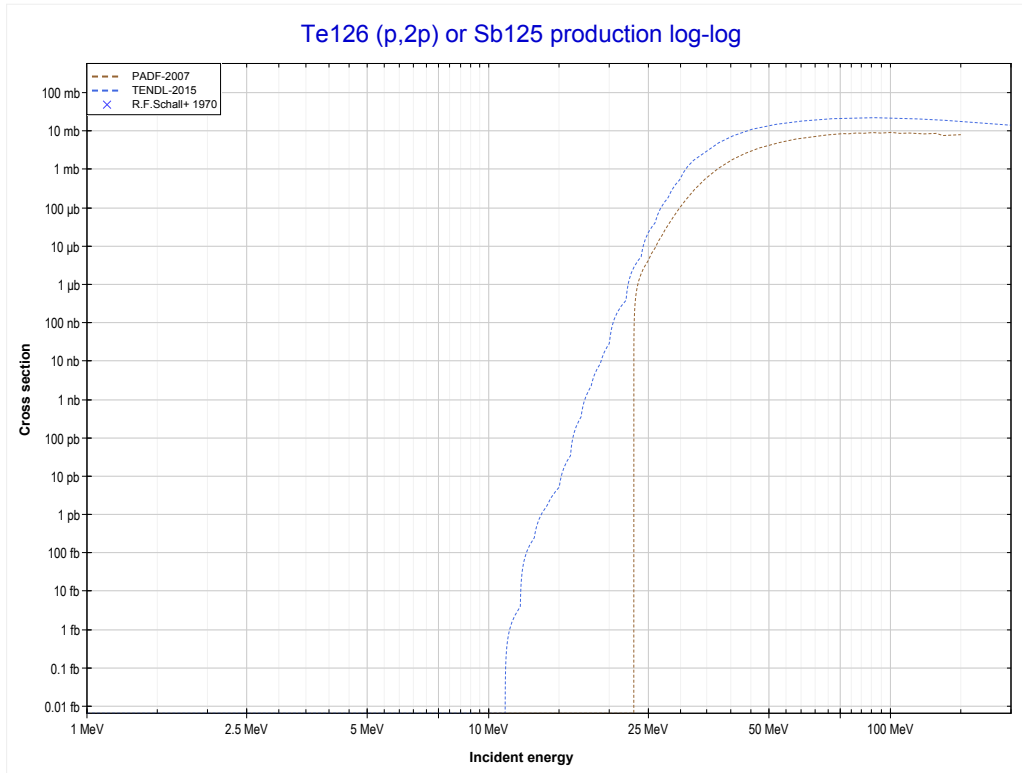
Reaction	Q-Value
Te126(p,d)Te125	-6889.05 keV
Te126(p,n+p)Te125	-9113.62 keV

<< 52-Te-125	52-Te-126	59-Pr-141 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (I123 production)	MT111 (p,2p) >>



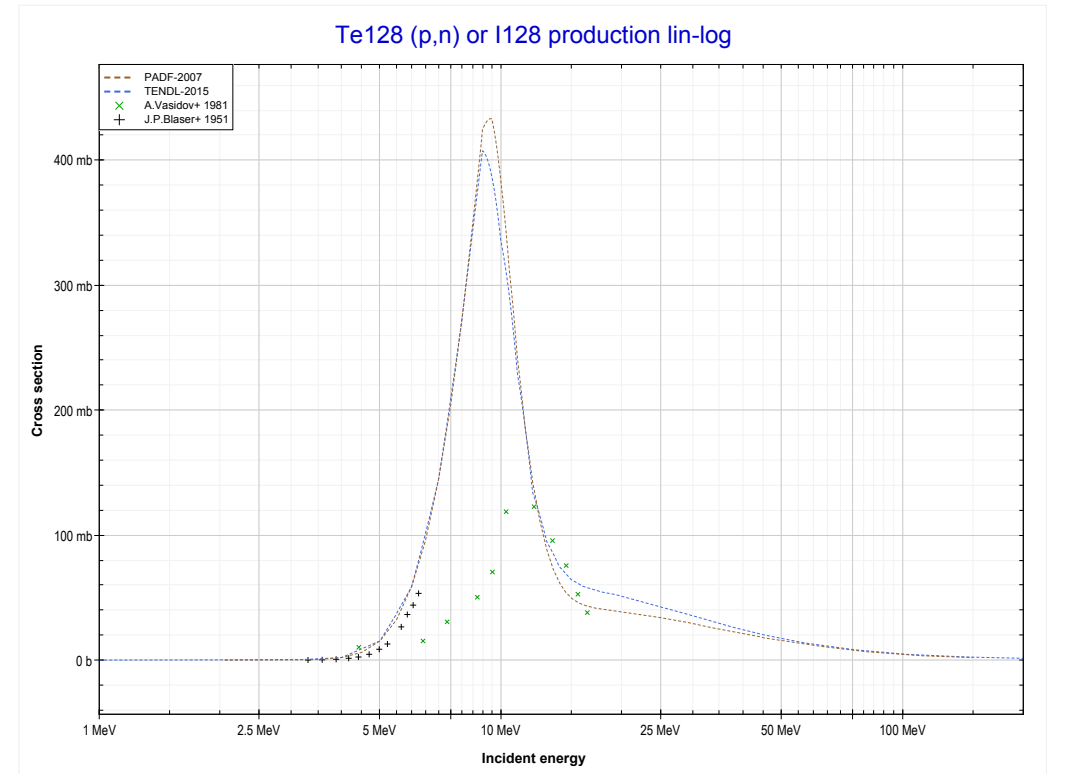
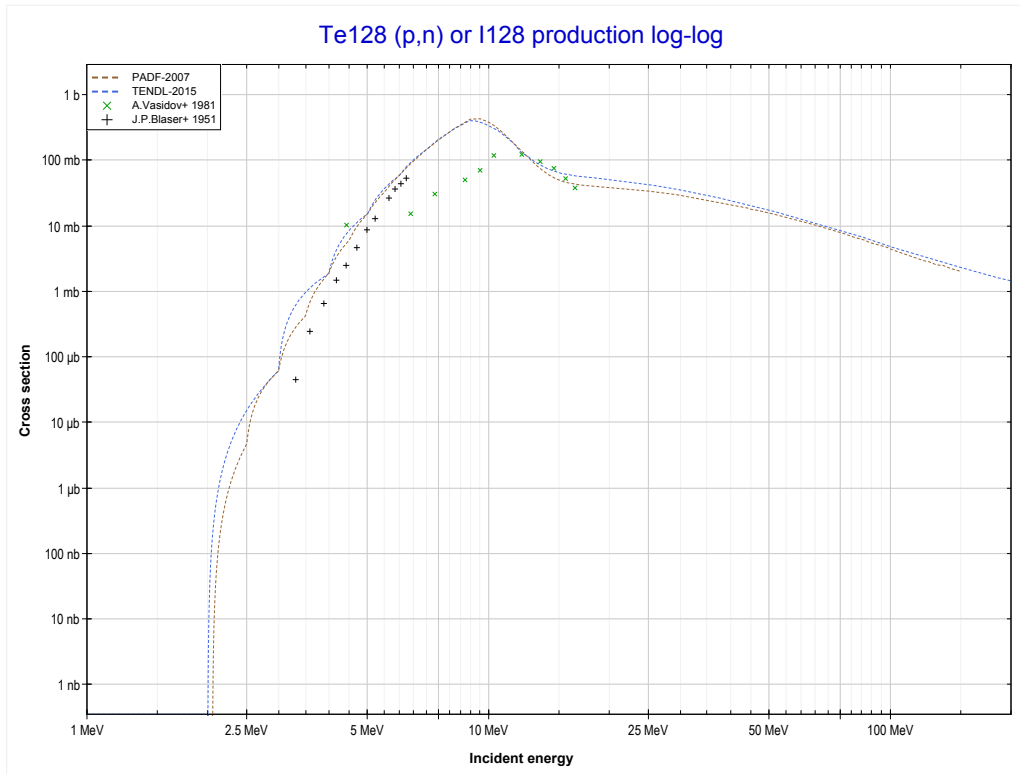
Reaction	Q-Value
Te126(p,4n)I123	-27117.60 keV

<< 52-Te-125	52-Te-126	52-Te-128 >>
<< MT37 (p,4n)	MT111 (p,2p) or MT5 (Sb125 production)	52-Te-128 MT4 (p,n) >>



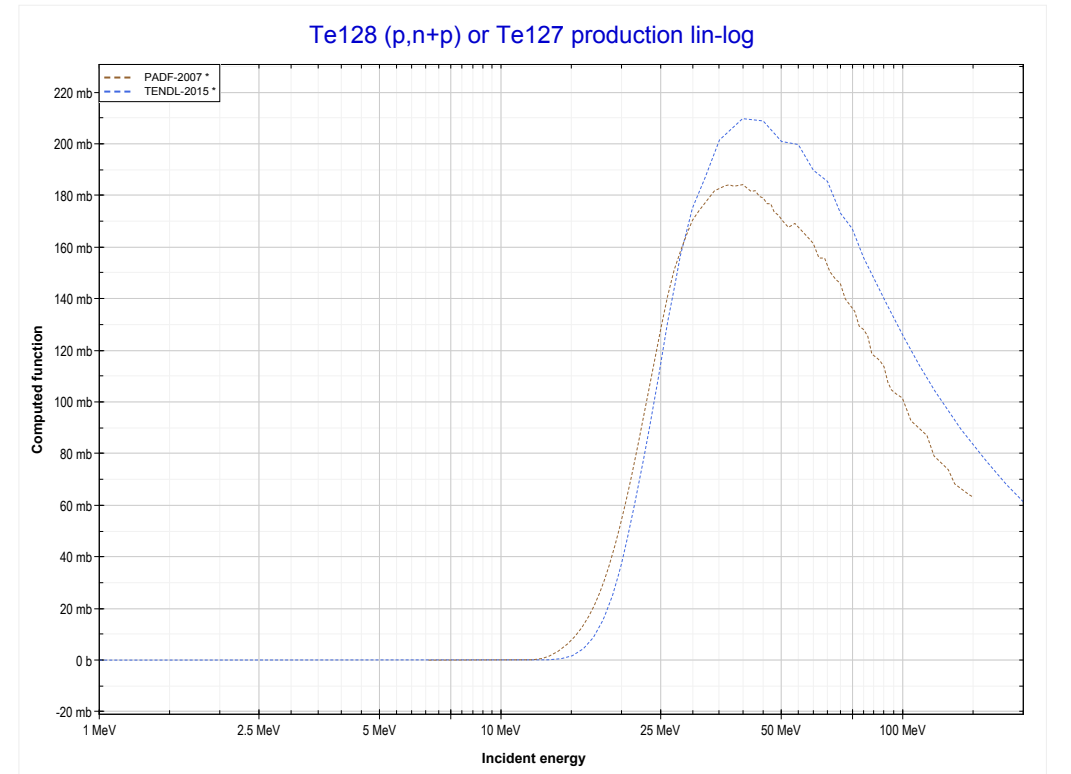
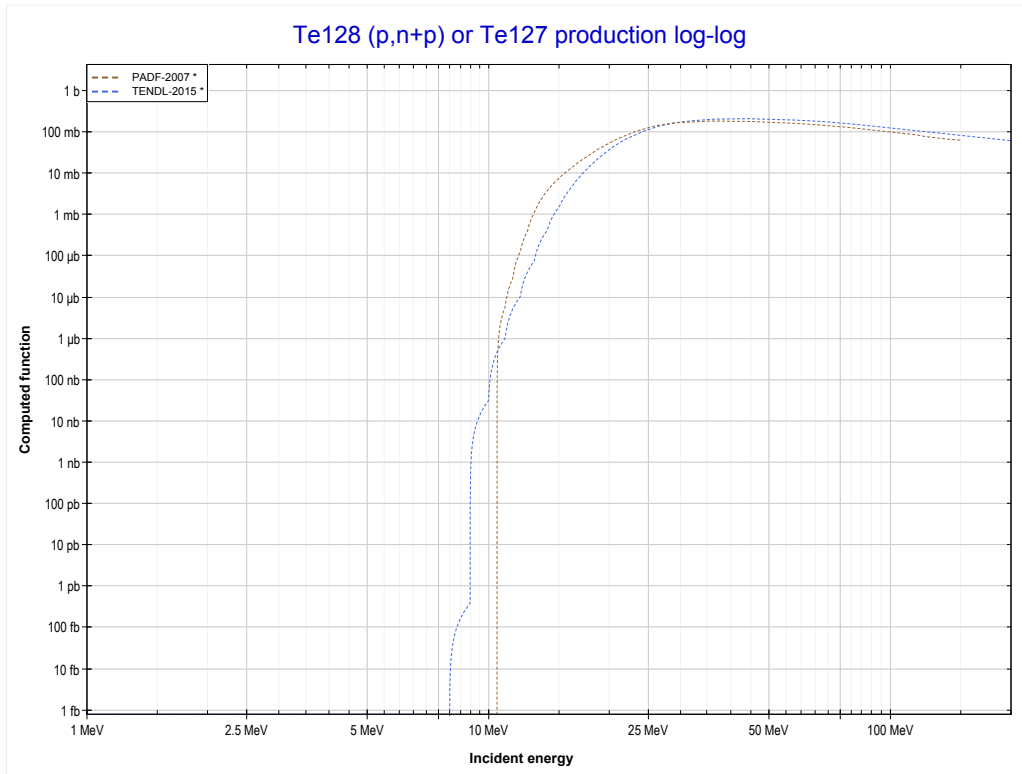
Reaction	Q-Value
Te126(p,2p)Sb125	-9097.97 keV

<< 52-Te-126	52-Te-128	52-Te-130 >>
<< 52-Te-126 MT111 (p,2p)	MT4 (p,n) or MT5 (I128 production)	MT28 (p,n+p) >>



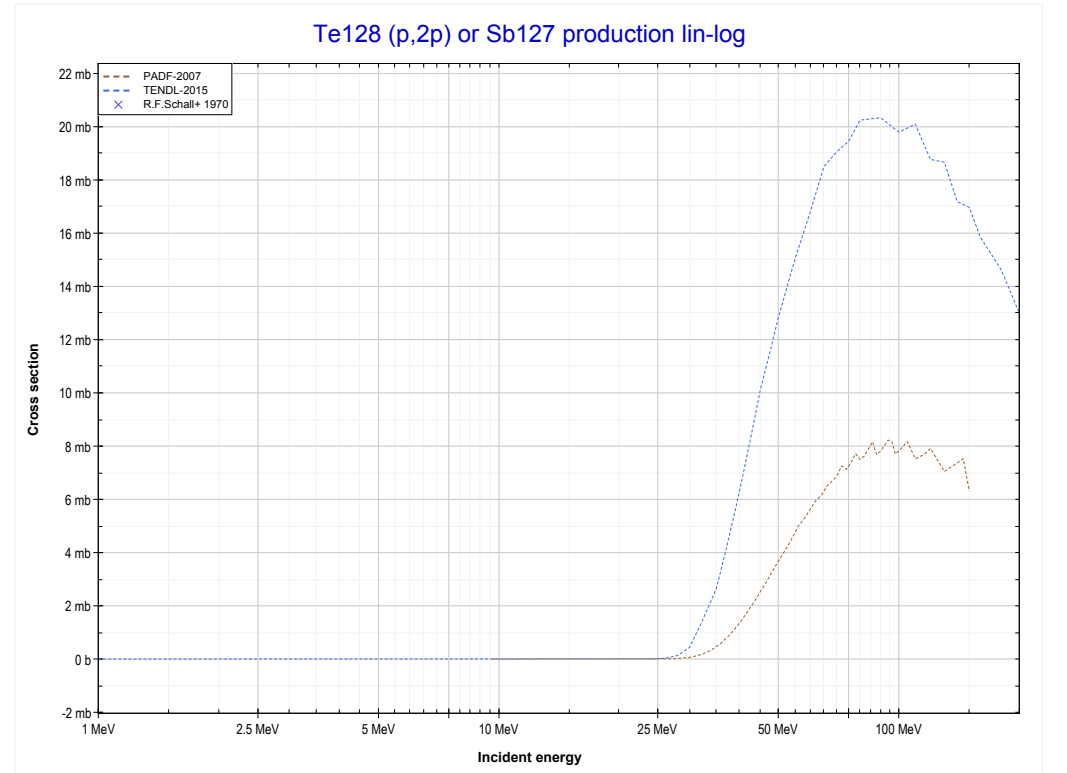
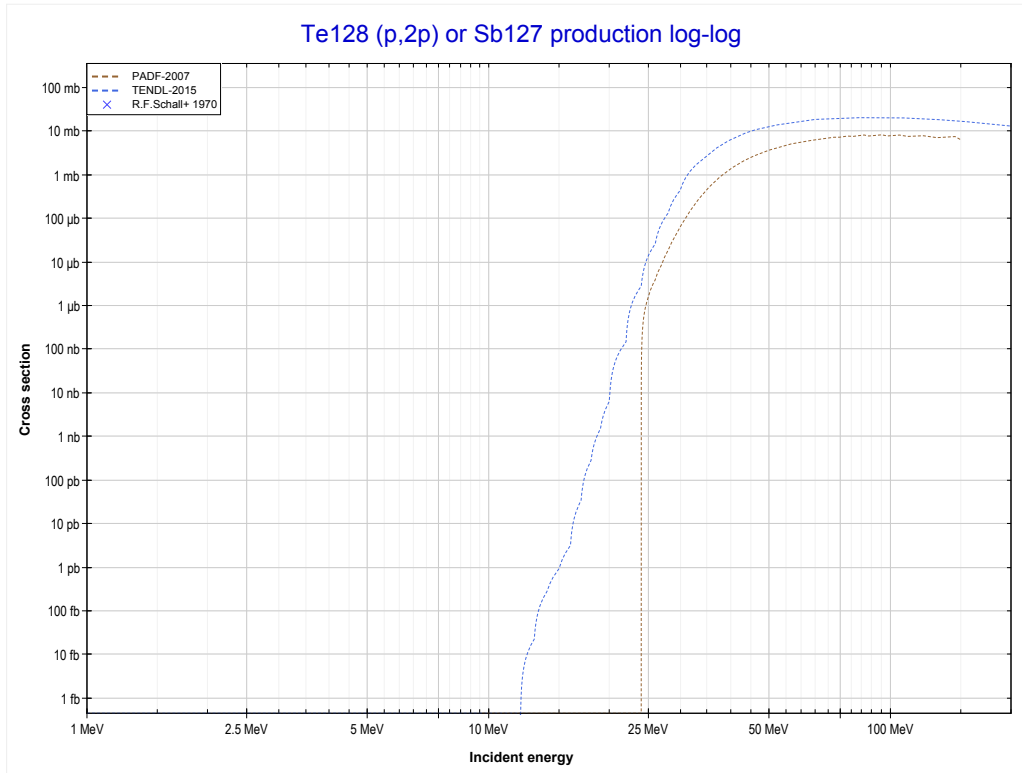
Reaction	Q-Value
Te128(p,n)I128	-2037.05 keV

<< 52-Te-126	52-Te-128	52-Te-130 >>
<< MT4 (p,n)	MT28 (p,n+p) or MT5 (Te127 production)	MT111 (p,2p) >>



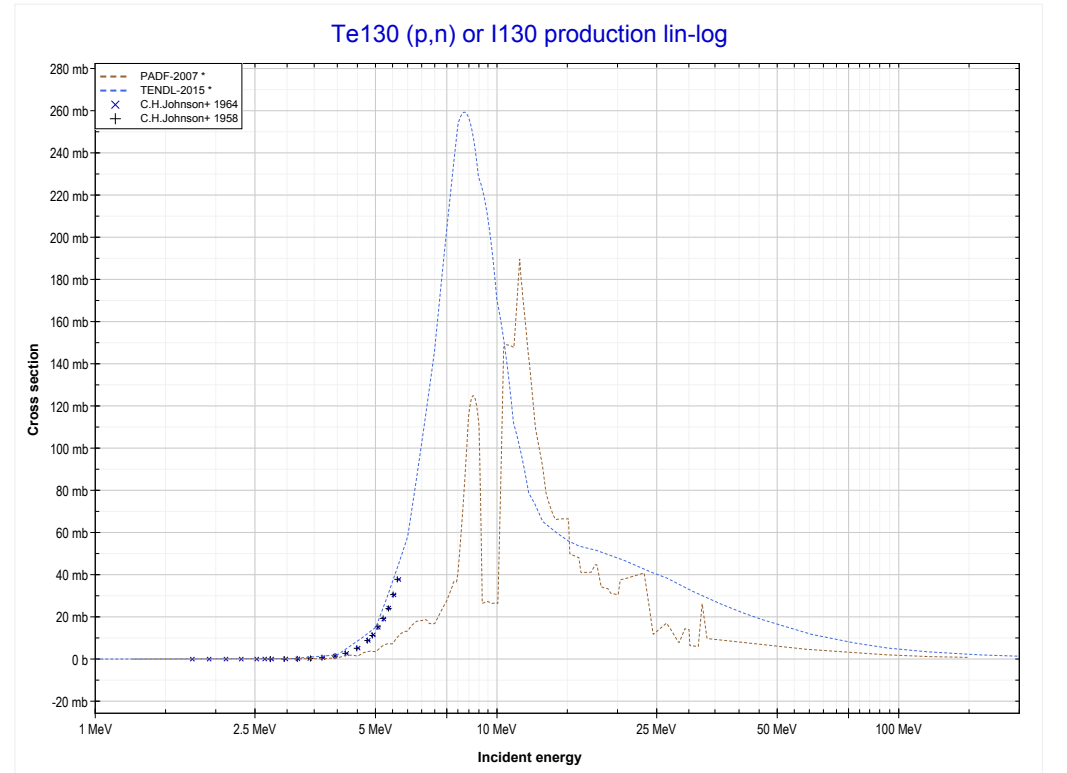
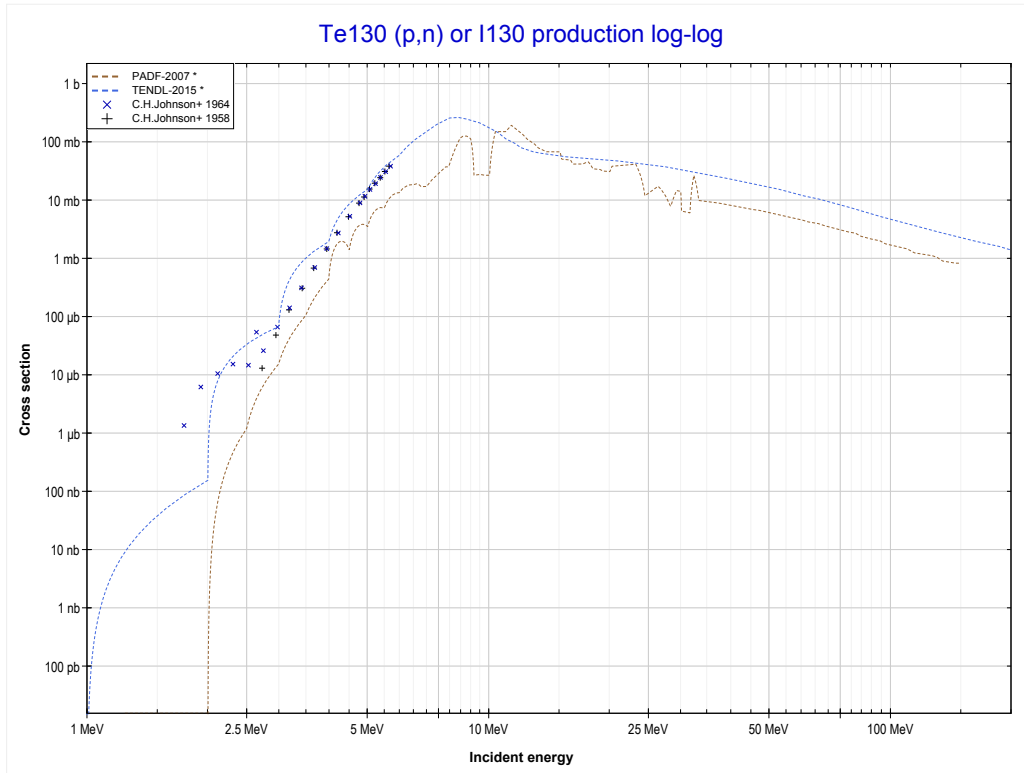
Reaction	Q-Value
Te128(p,d)Te127	-6558.75 keV
Te128(p,n+p)Te127	-8783.32 keV

<< 52-Te-126	52-Te-128	52-Te-130 >>
<< MT28 (p,n+p)	MT111 (p,2p) or MT5 (Sb127 production)	52-Te-130 MT4 (p,n) >>



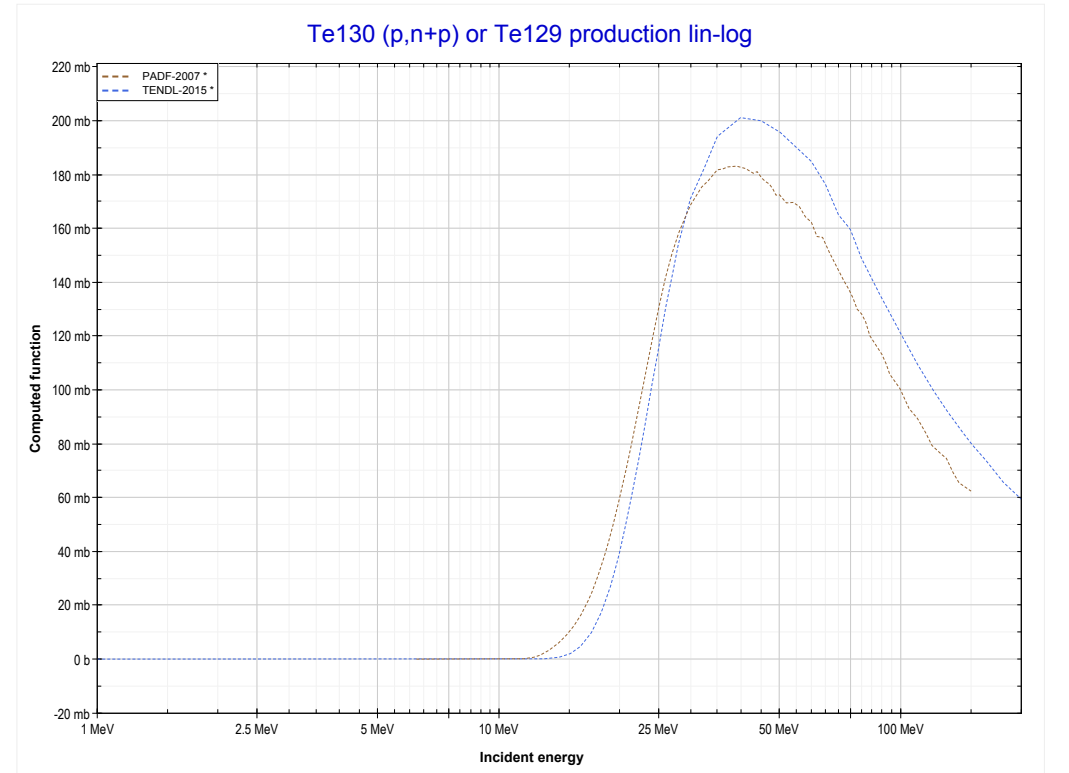
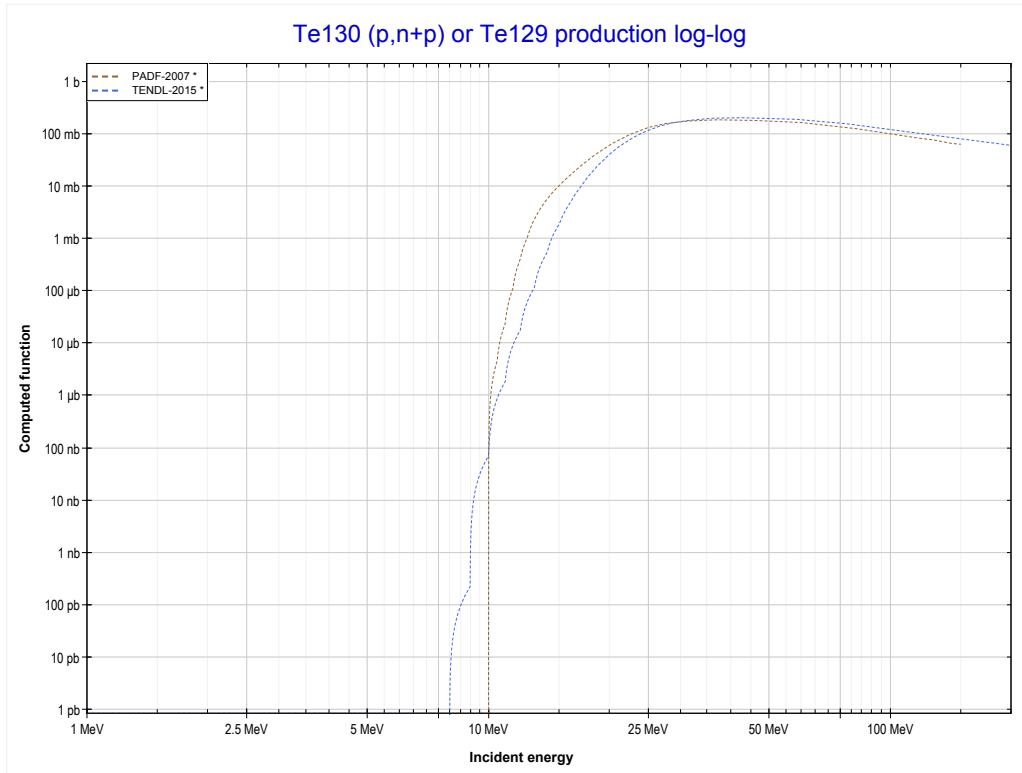
Reaction	Q-Value
Te128(p,2p)Sb127	-9583.67 keV

<< 52-Te-128	52-Te-130	53-I-127 >>
<< 52-Te-128 MT111 (p,2p)	MT4 (p,n) or MT5 (I130 production)	MT28 (p,n+p) >>



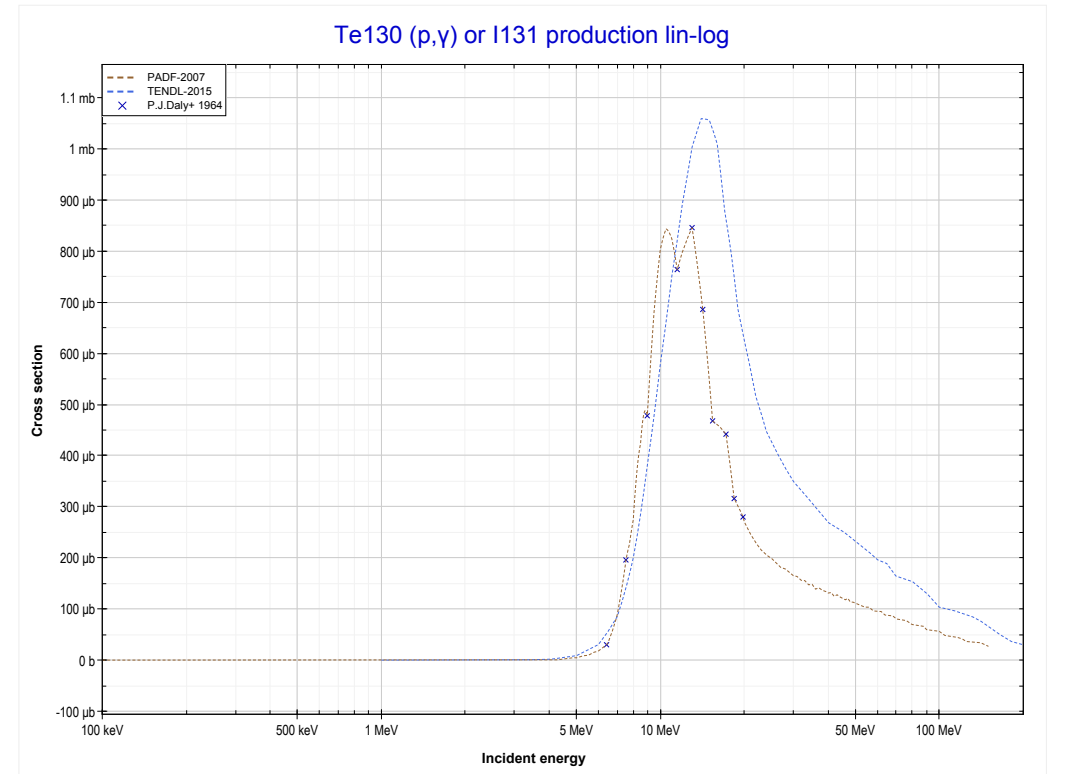
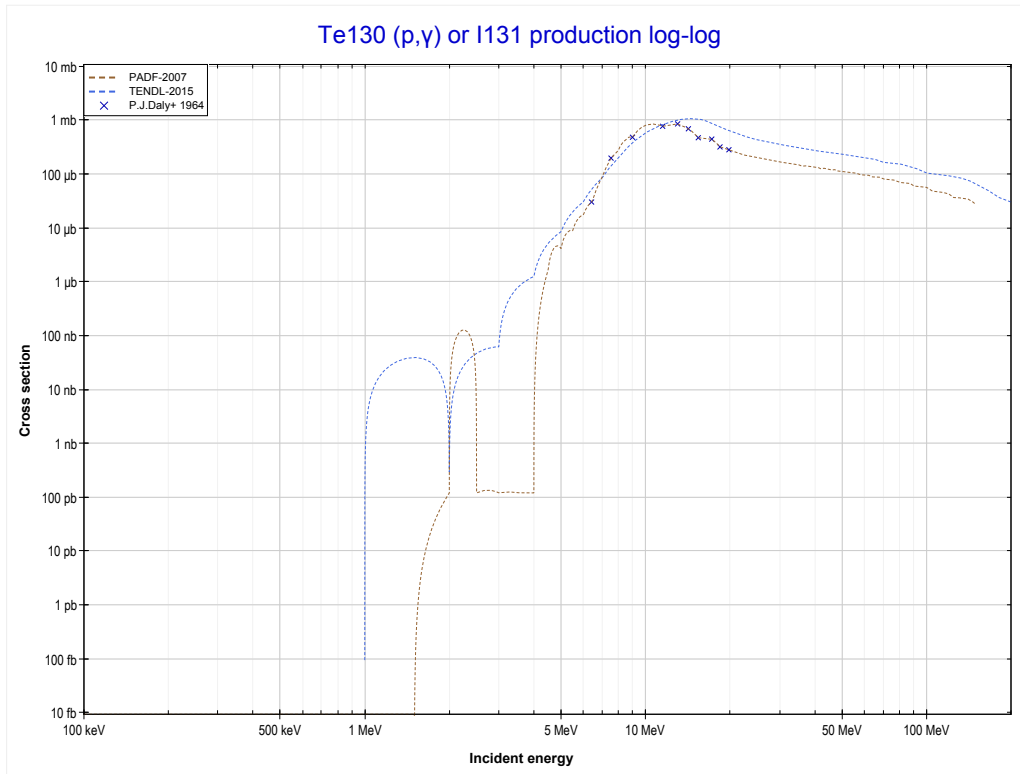
Reaction	Q-Value
Te130(p,n)I130	-1199.29 keV

<< 52-Te-128	52-Te-130	53-I-127 >>
<< MT4 (p,n)	MT28 (p,n+p) or MT5 (Te129 production)	MT102 (p, γ) >>



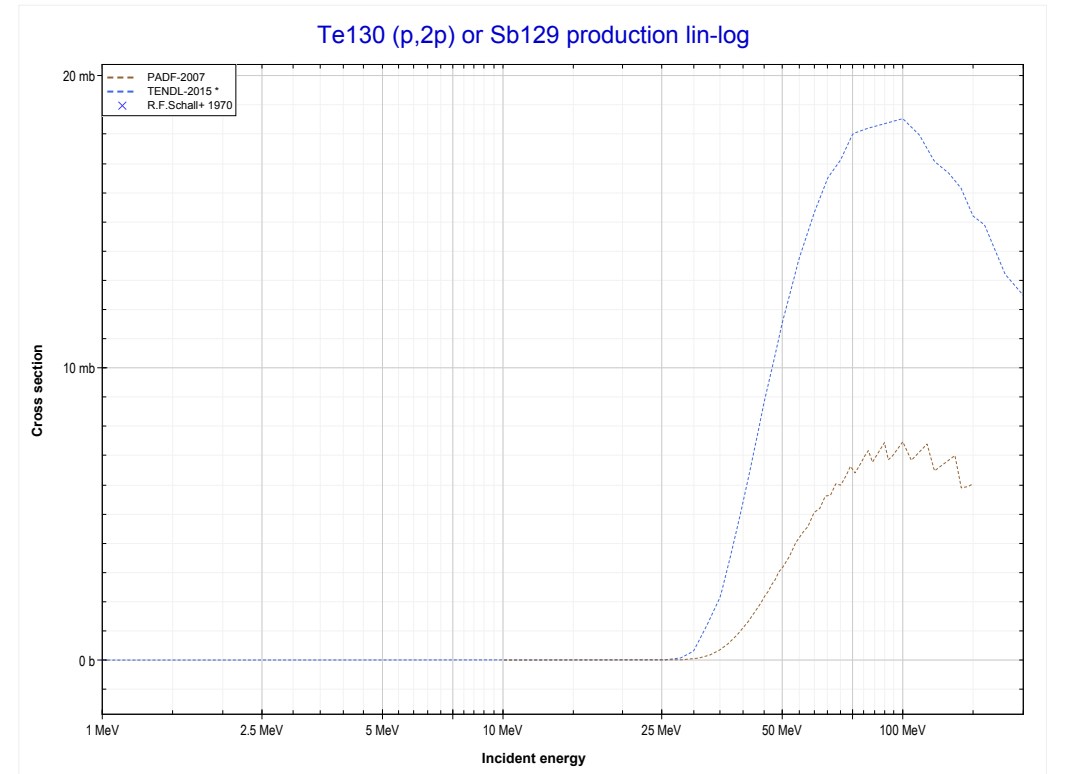
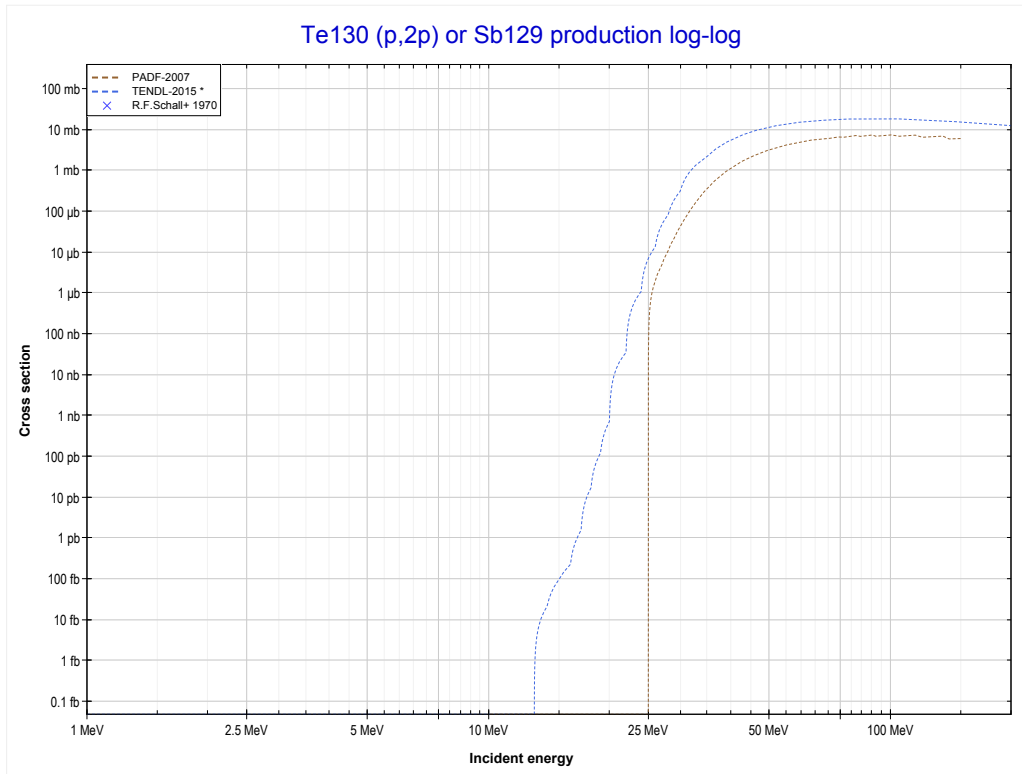
Reaction	Q-Value
Te130(p,d)Te129	-6194.90 keV
Te130(p,n+p)Te129	-8419.46 keV

<< 50-Sn-112	52-Te-130	58-Ce-142 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (I131 production)	MT111 (p,2p) >>



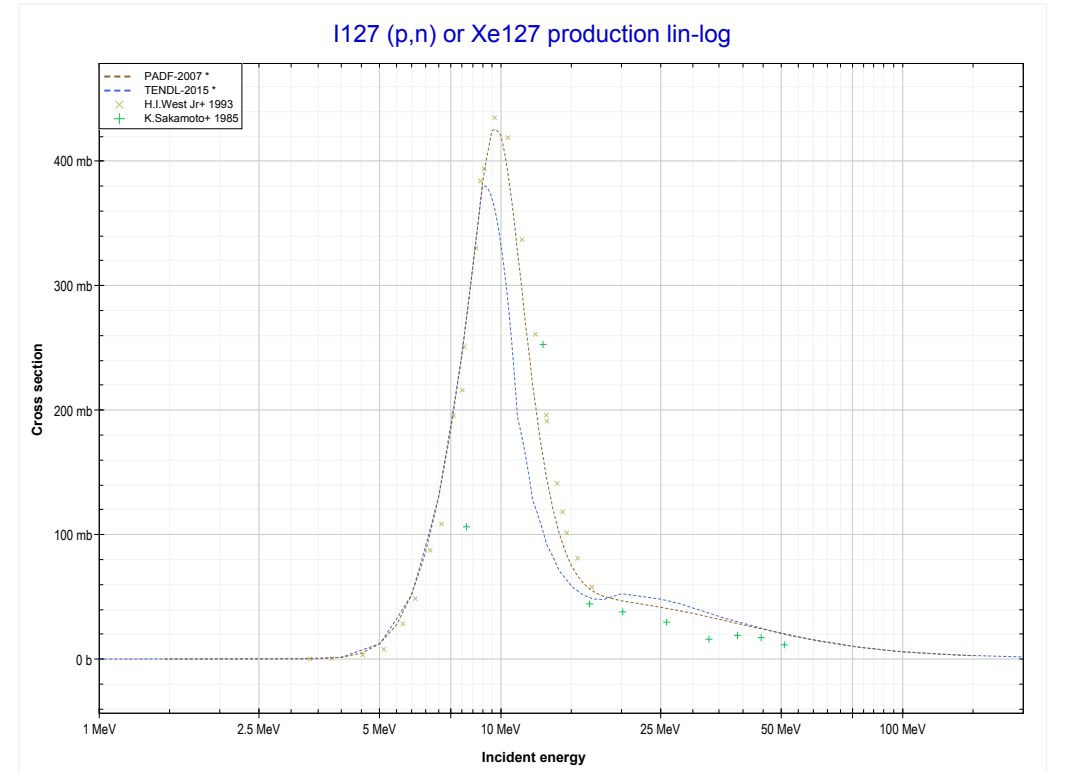
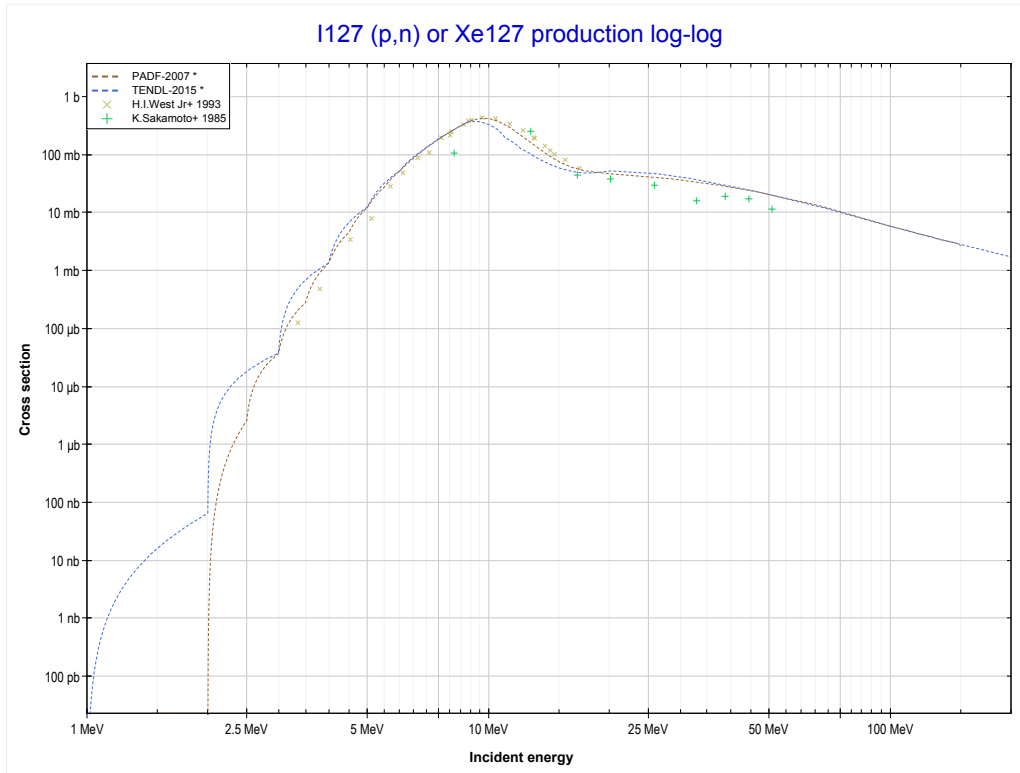
Reaction	Q-Value
Te130(p, γ)I131	7378.82 keV

<< 52-Te-128	52-Te-130	58-Ce-142 >>
<< MT102 (p, γ)	MT111 (p,2p) or MT5 (Sb129 production)	53-I-127 MT4 (p,n) >>



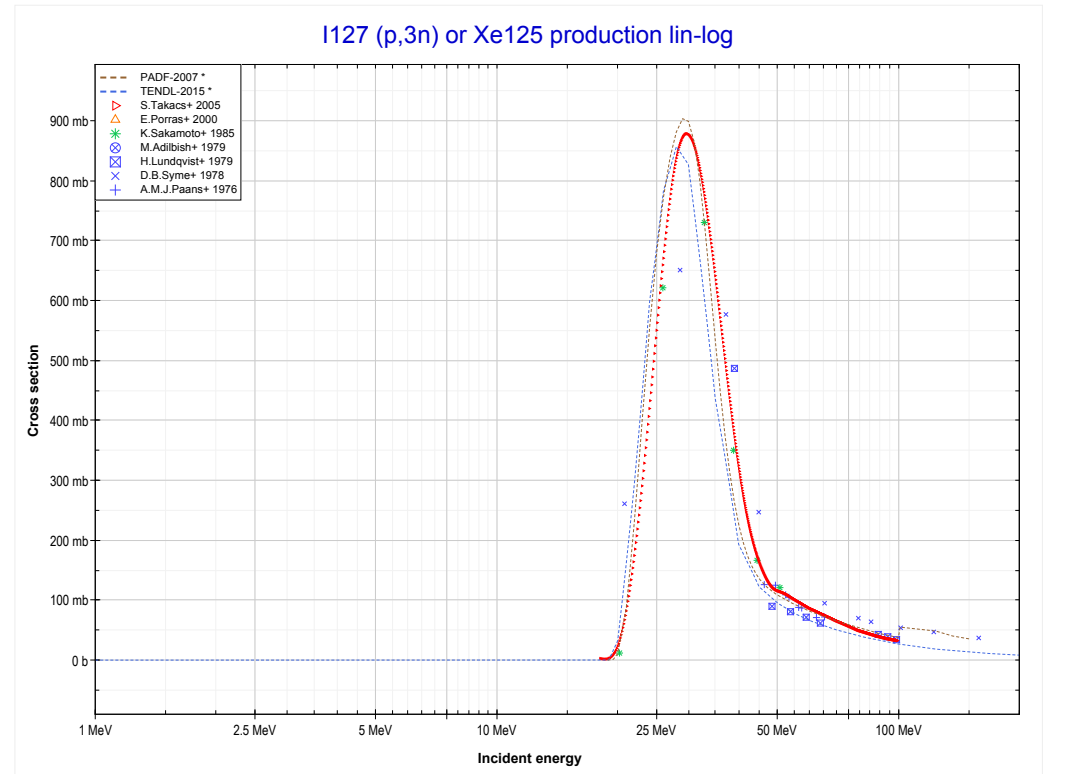
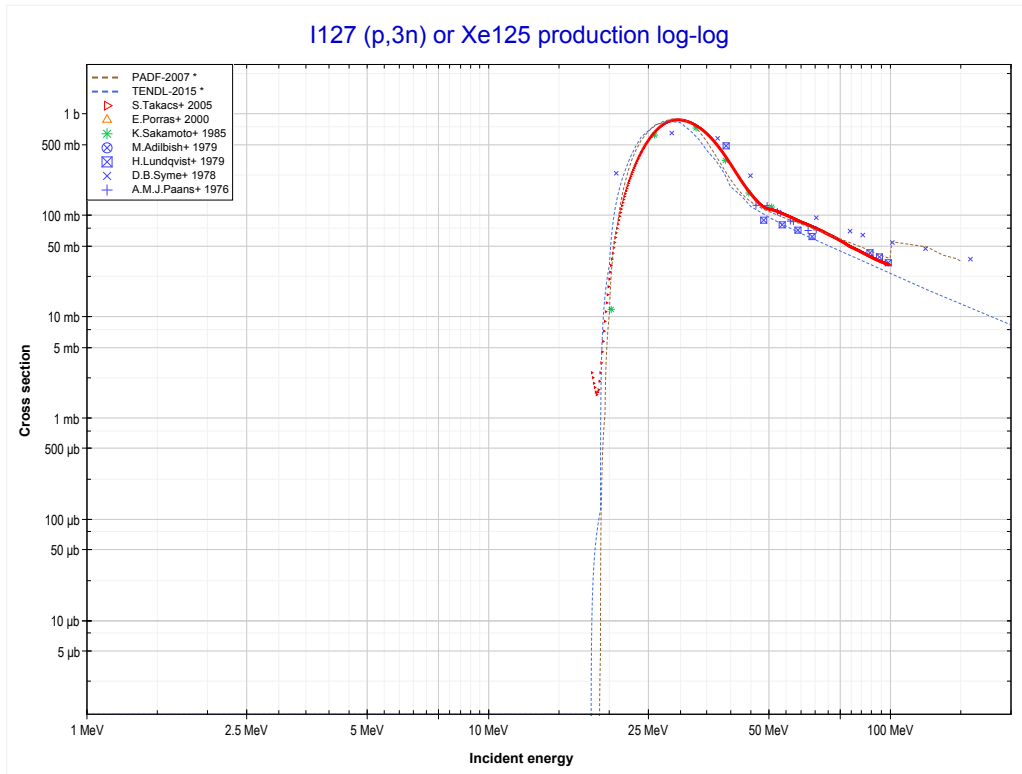
Reaction	Q-Value
Te130(p,2p)Sb129	-10012.92 keV

<< 52-Te-130	53-I-127	54-Xe-131 >>
<< 52-Te-130 MT111 (p,2p)	MT4 (p,n) or MT5 (Xe127 production)	MT17 (p,3n) >>



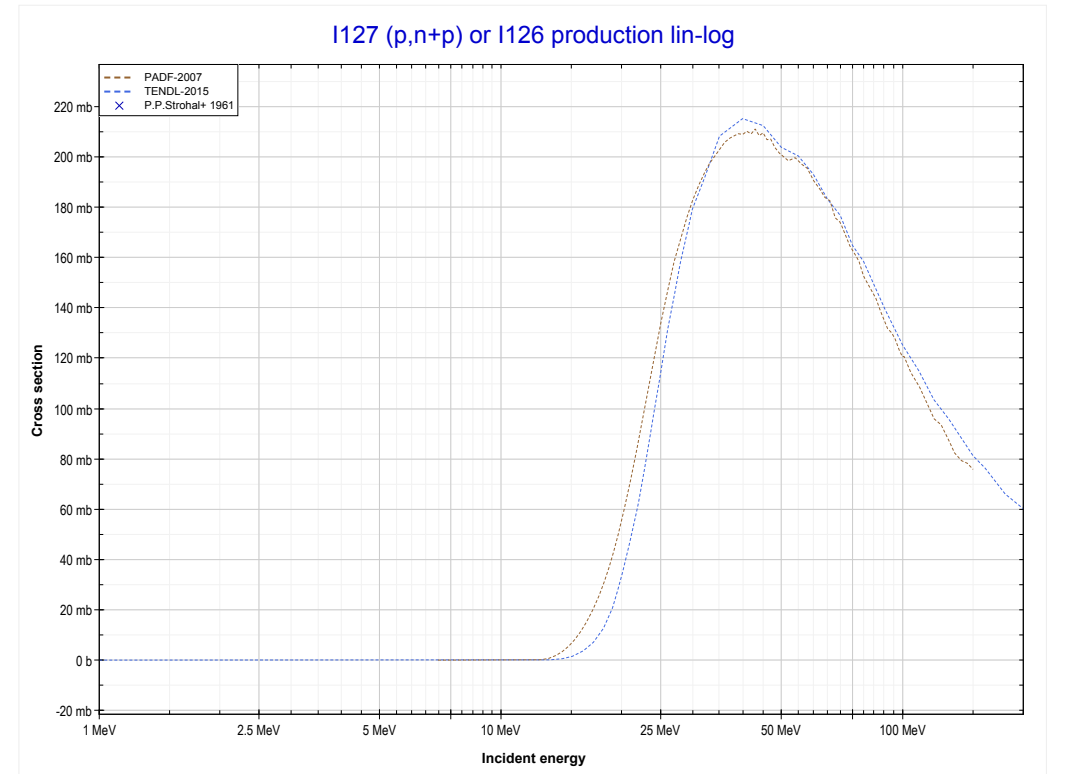
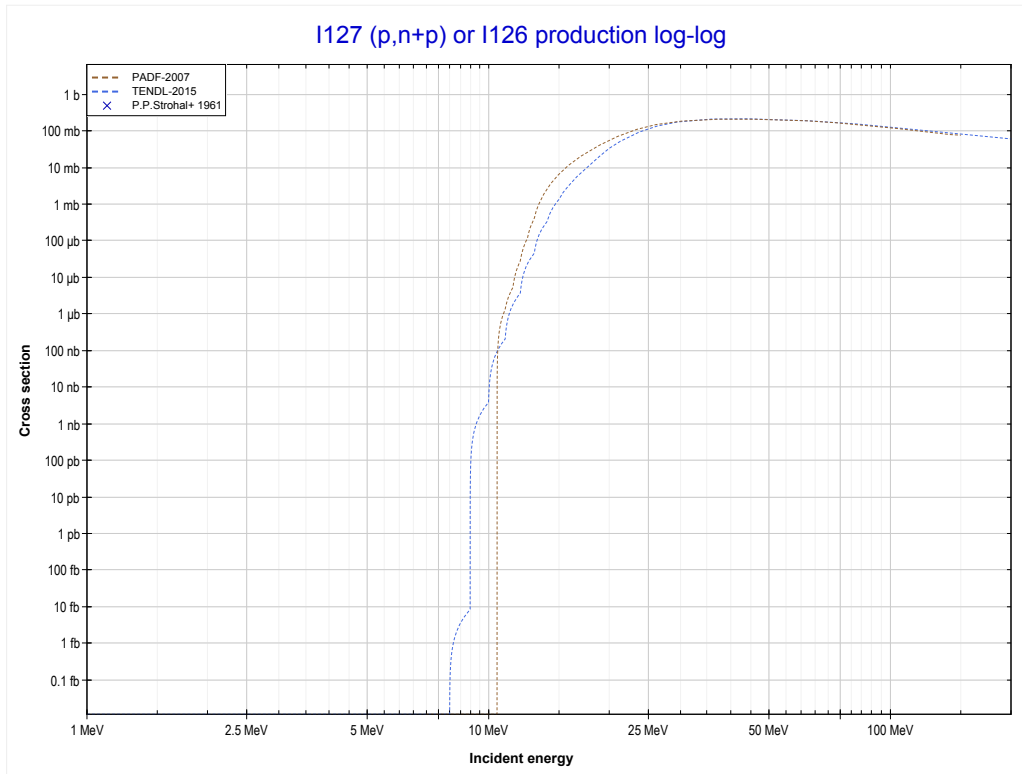
Reaction	Q-Value
I127(p,n)Xe127	-1444.35 keV

<< 52-Te-126	53-I-127	54-Xe-124 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Xe125 production)	MT28 (p,n+p) >>



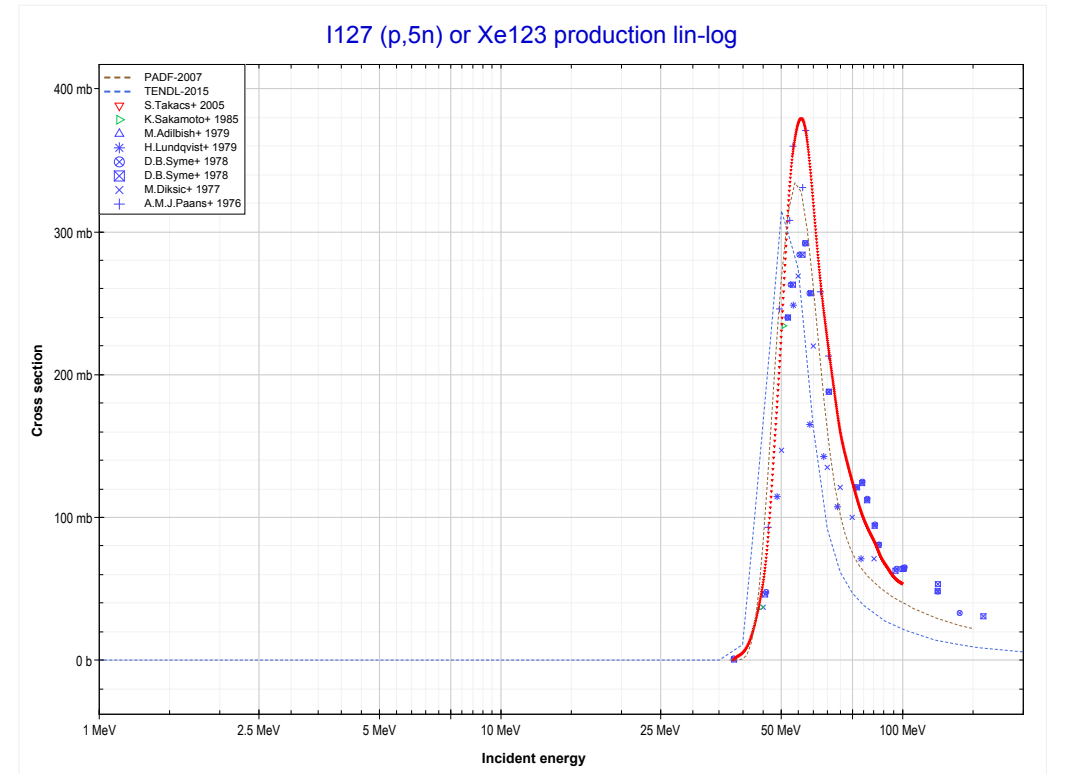
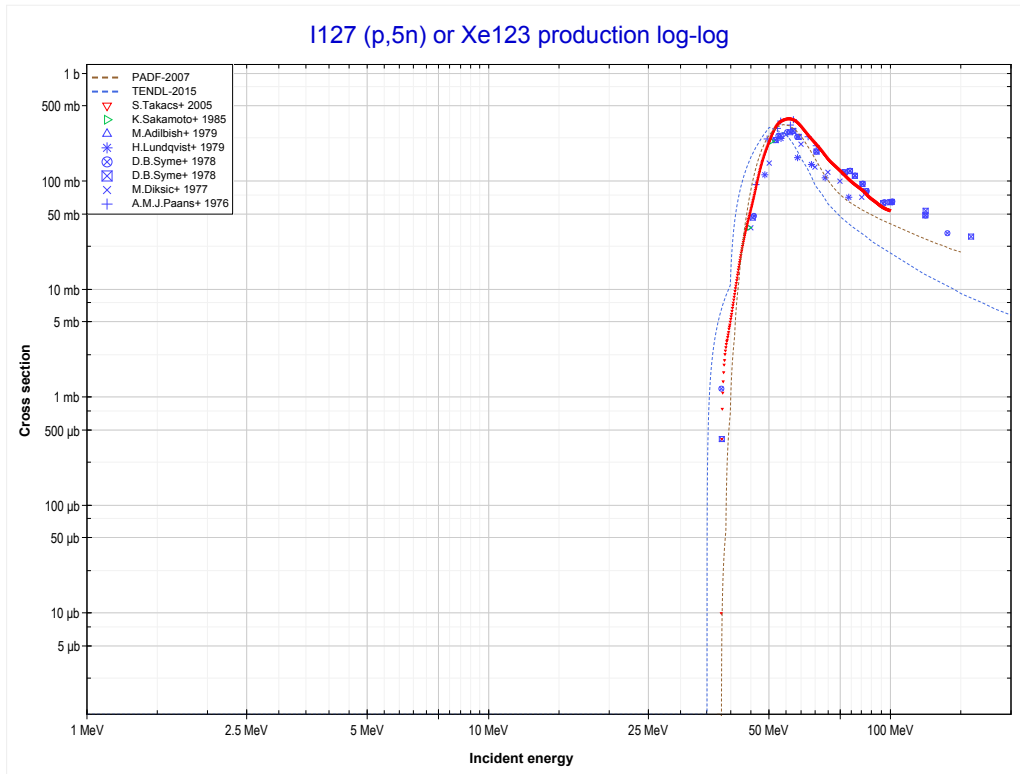
Reaction	Q-Value
I127(p,3n)Xe125	-18715.98 keV

<< 52-Te-130	53-I-127	54-Xe-124 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (I126 production)	MT152 (p,5n) >>



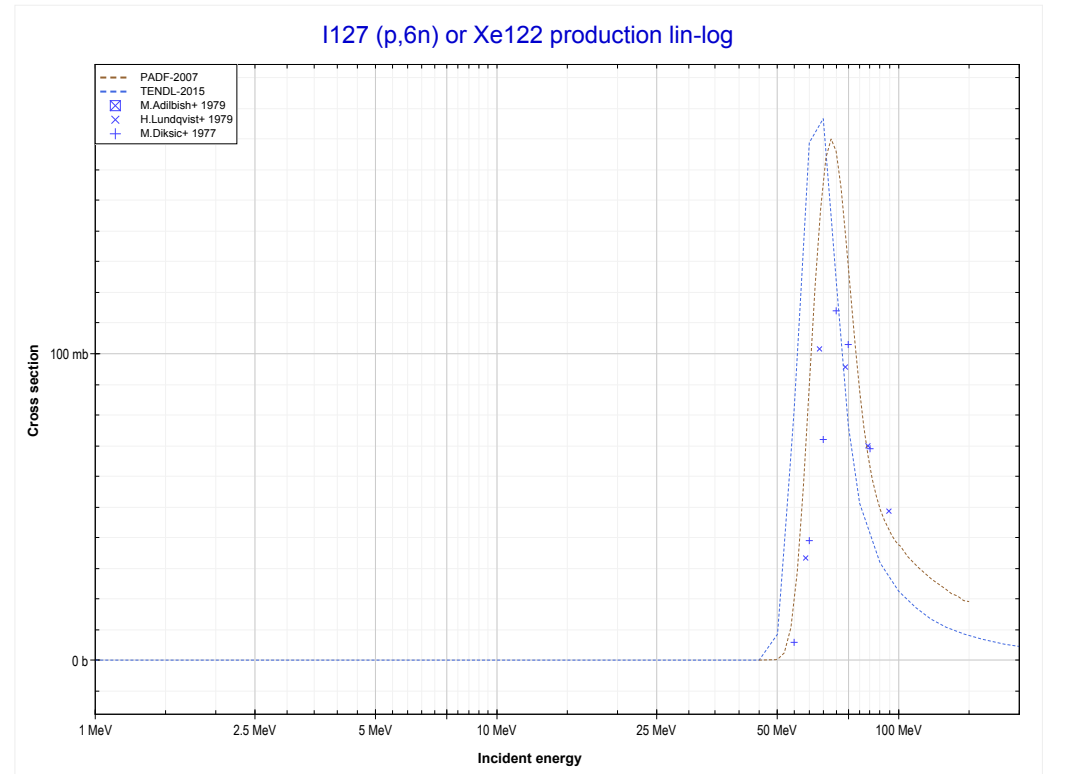
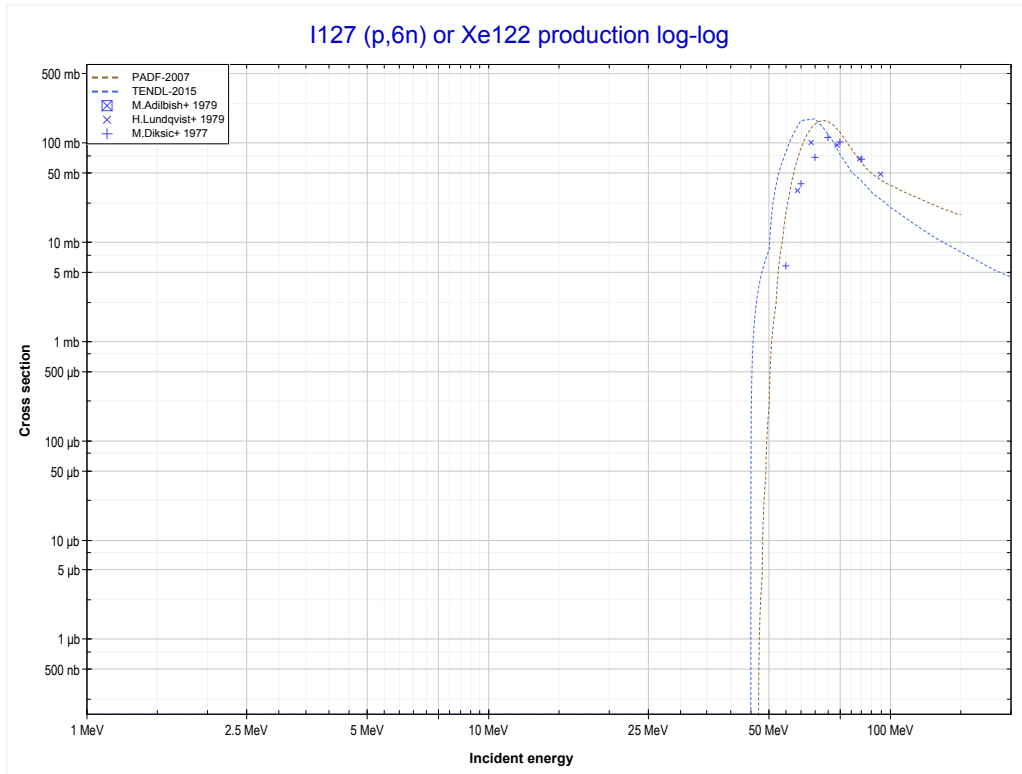
Reaction	Q-Value
I127(p,d)I126	-6919.75 keV
I127(p,n+p)I126	-9144.32 keV

<< 52-Te-125	53-I-127	55-Cs-133 >>
<< MT28 (p,n+p)	MT152 (p,5n) or MT5 (Xe123 production)	MT153 (p,6n) >>



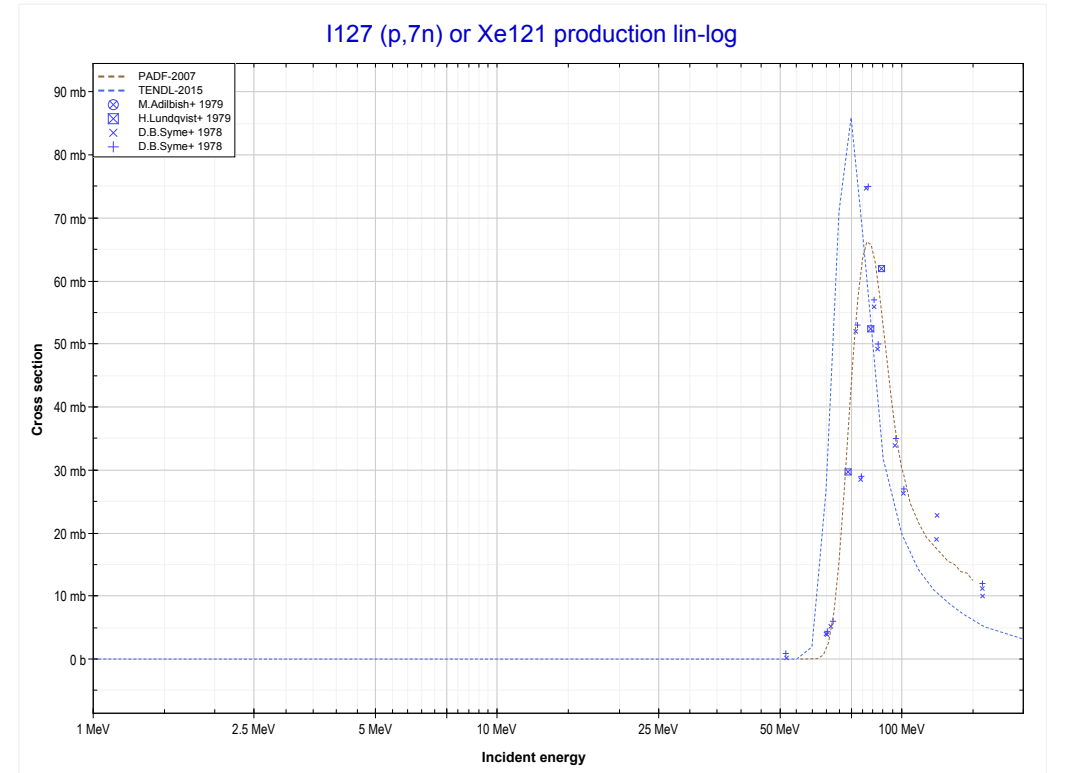
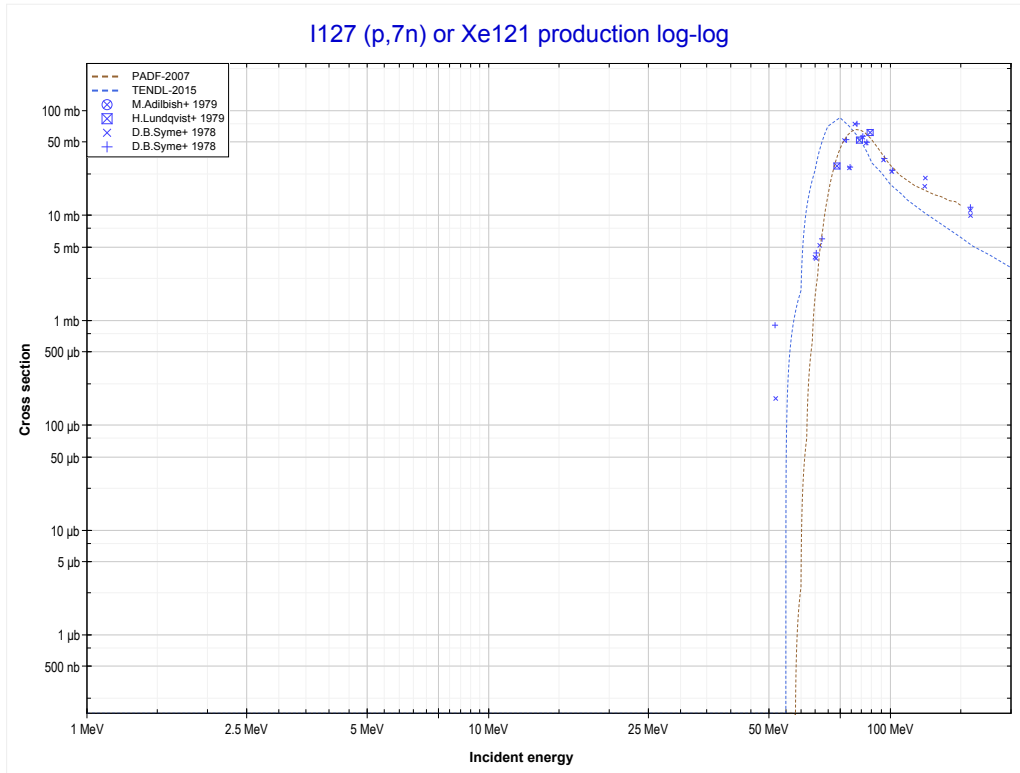
Reaction	Q-Value
I127(p,5n)Xe123	-36802.62 keV

<< 52-Te-125	53-I-127	55-Cs-133 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Xe122 production)	MT160 (p,7n) >>



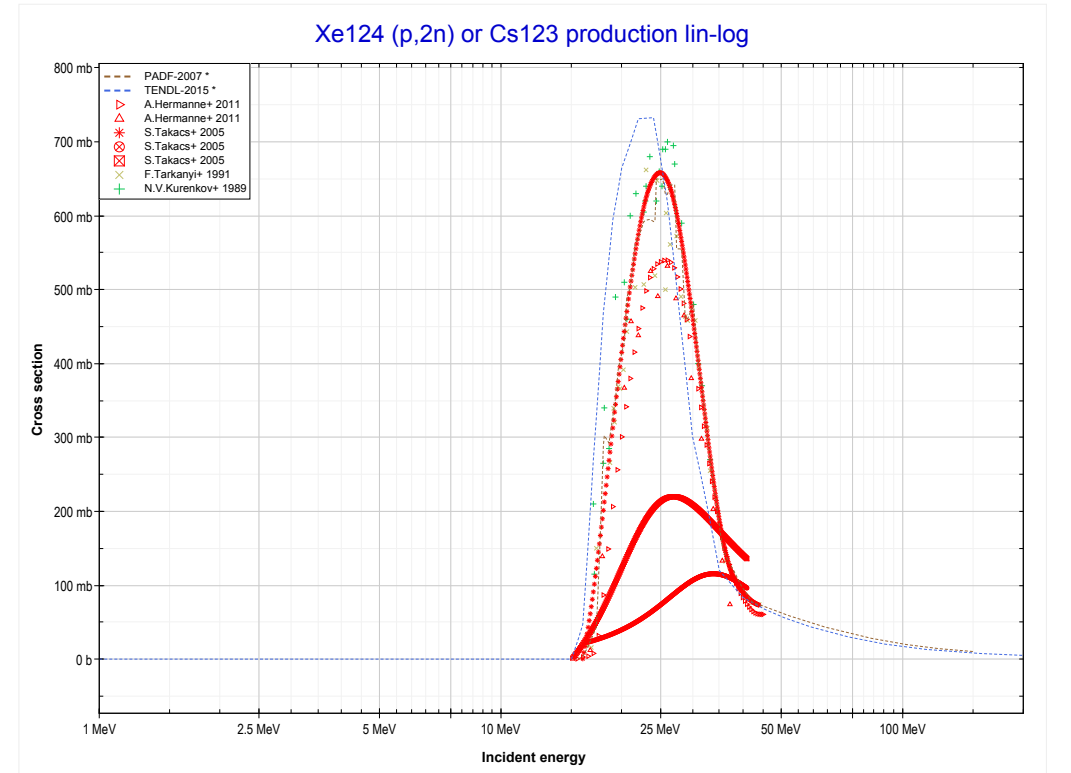
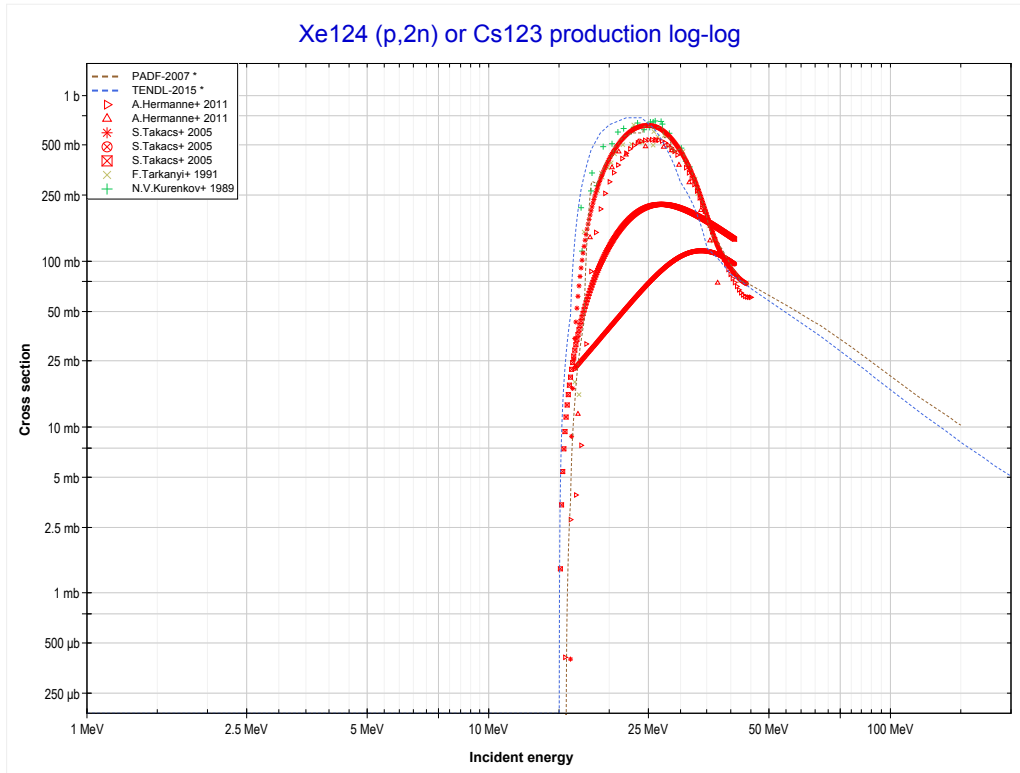
Reaction	Q-Value
I127(p,6n)Xe122	-44767.93 keV

<< 52-Te-125	53-I-127	59-Pr-141 >>
<< MT153 (p,6n)	MT160 (p,7n) or MT5 (Xe121 production)	54-Xe-124 MT16 (p,2n) >>



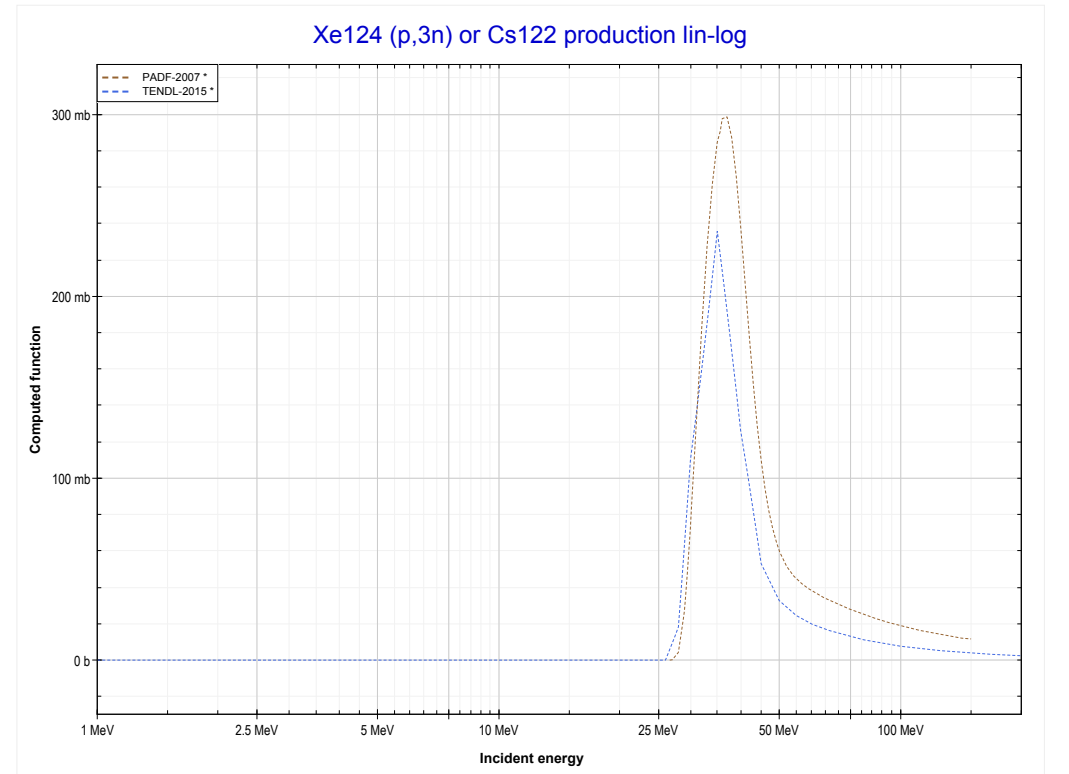
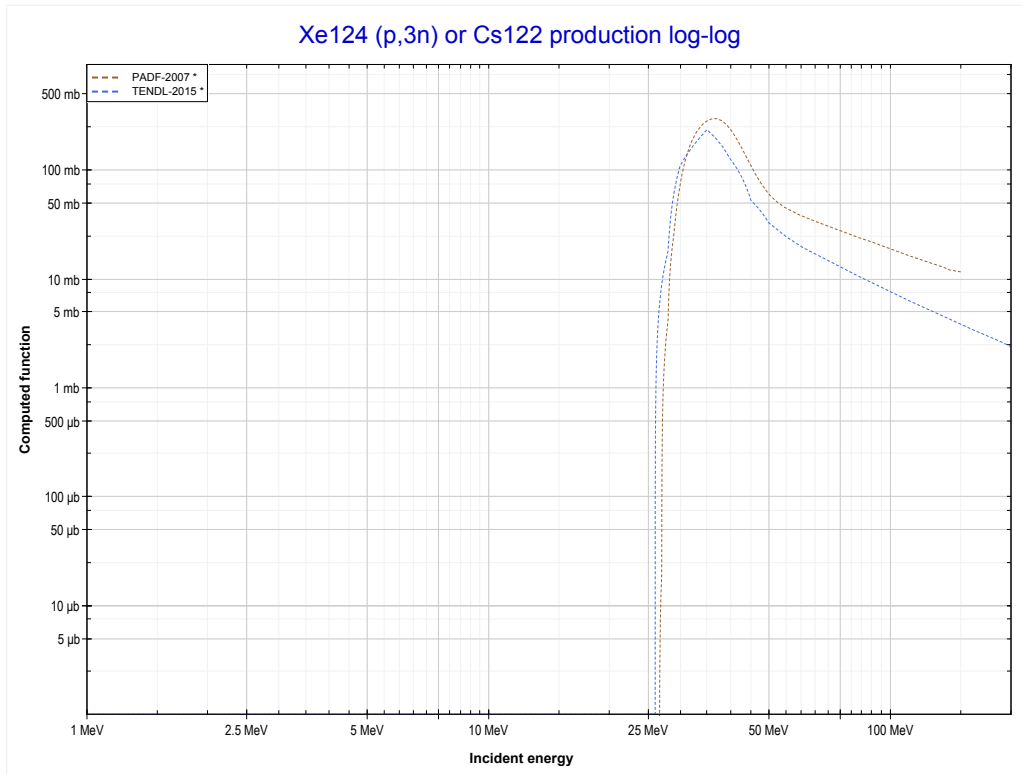
Reaction	Q-Value
I127(p,7n)Xe121	-55713.25 keV

<< 52-Te-126	54-Xe-124	54-Xe-126 >>
<< 53-I-127 MT160 (p,7n)	MT16 (p,2n) or MT5 (Cs123 production)	MT17 (p,3n) >>



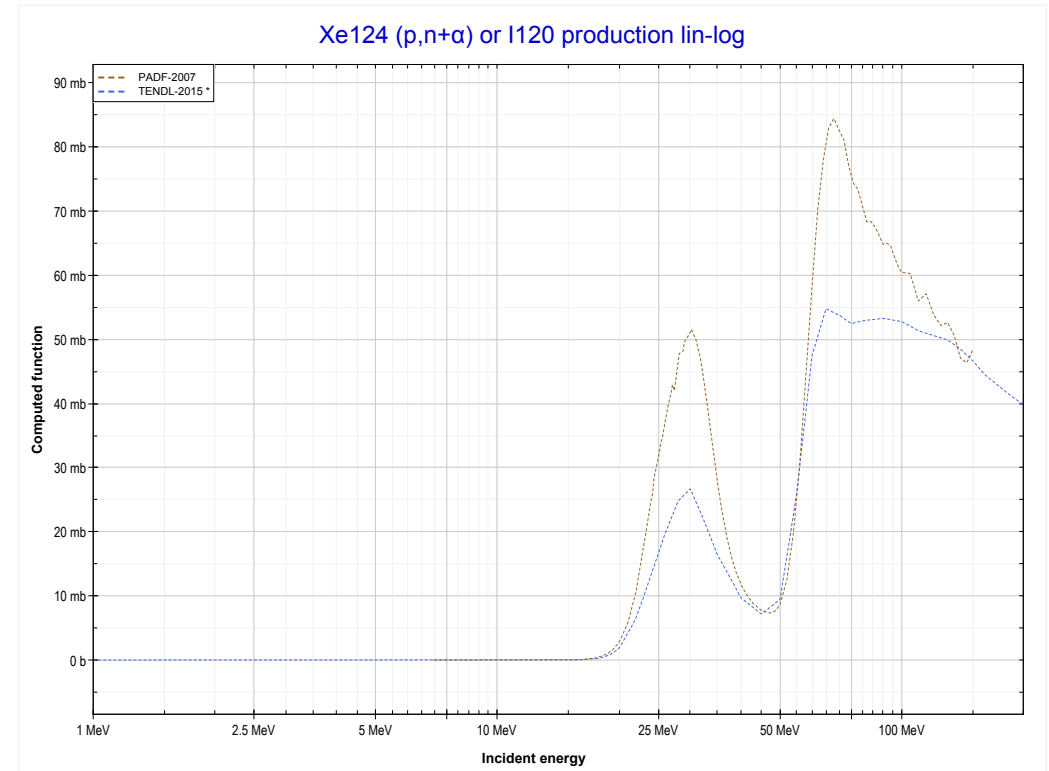
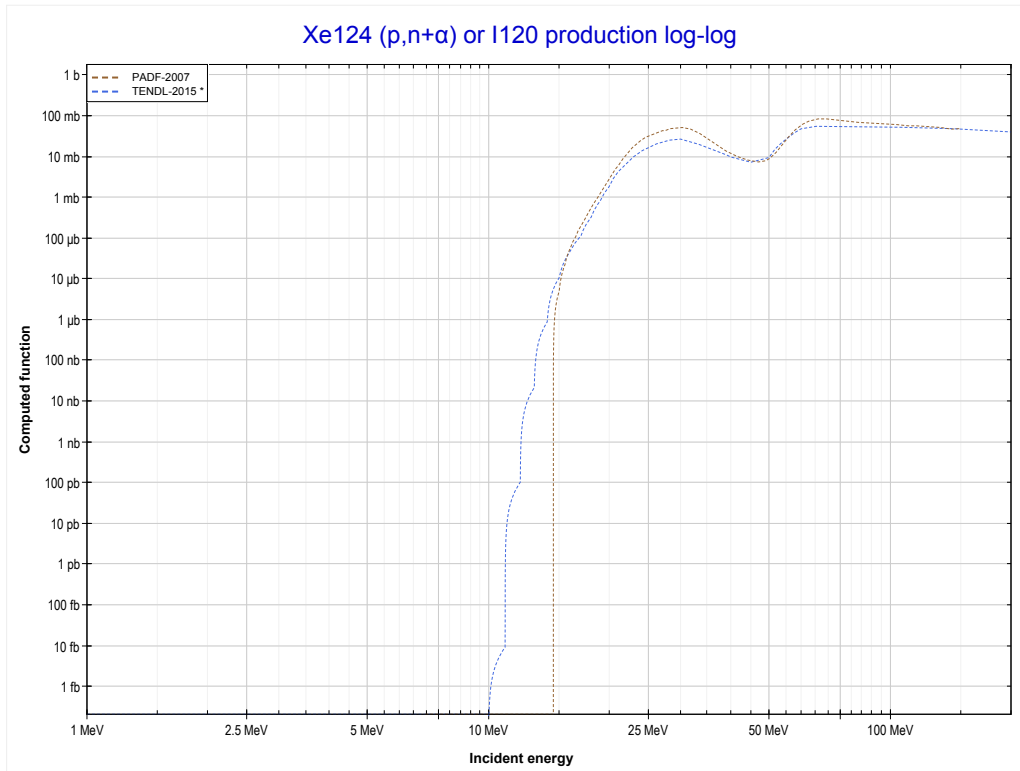
Reaction	Q-Value
Xe124(p,2n)Cs123	-15470.76 keV

<< 53-I-127	54-Xe-124	54-Xe-131 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Cs122 production)	MT22 (p,n+α) >>



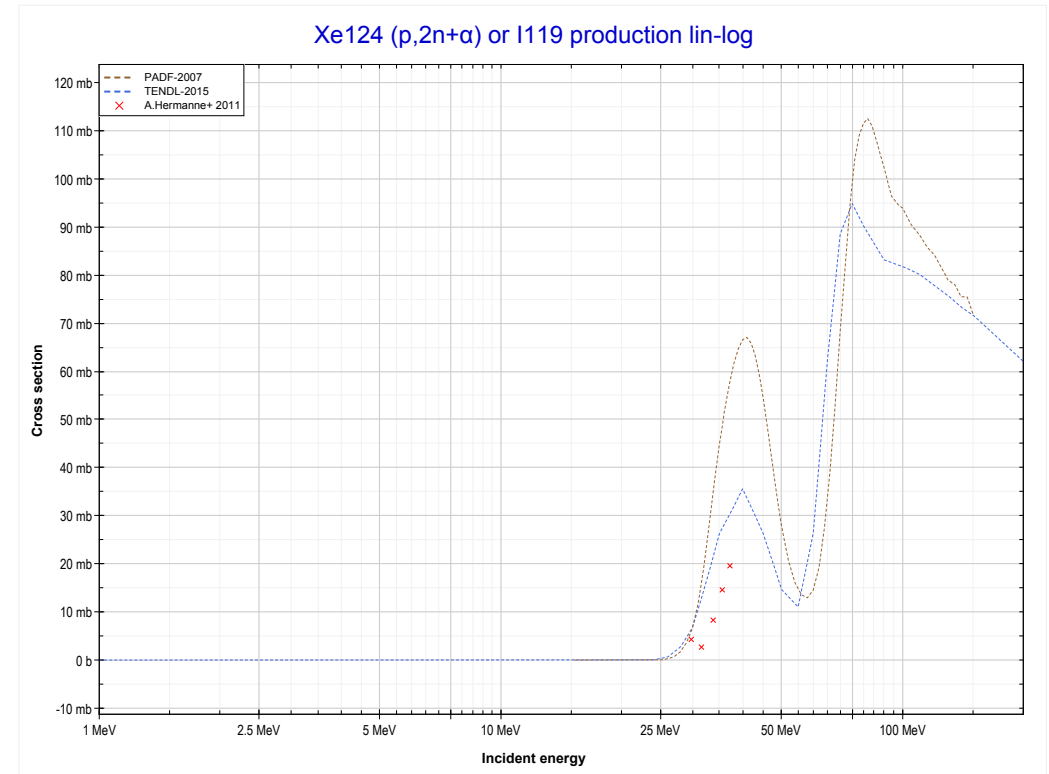
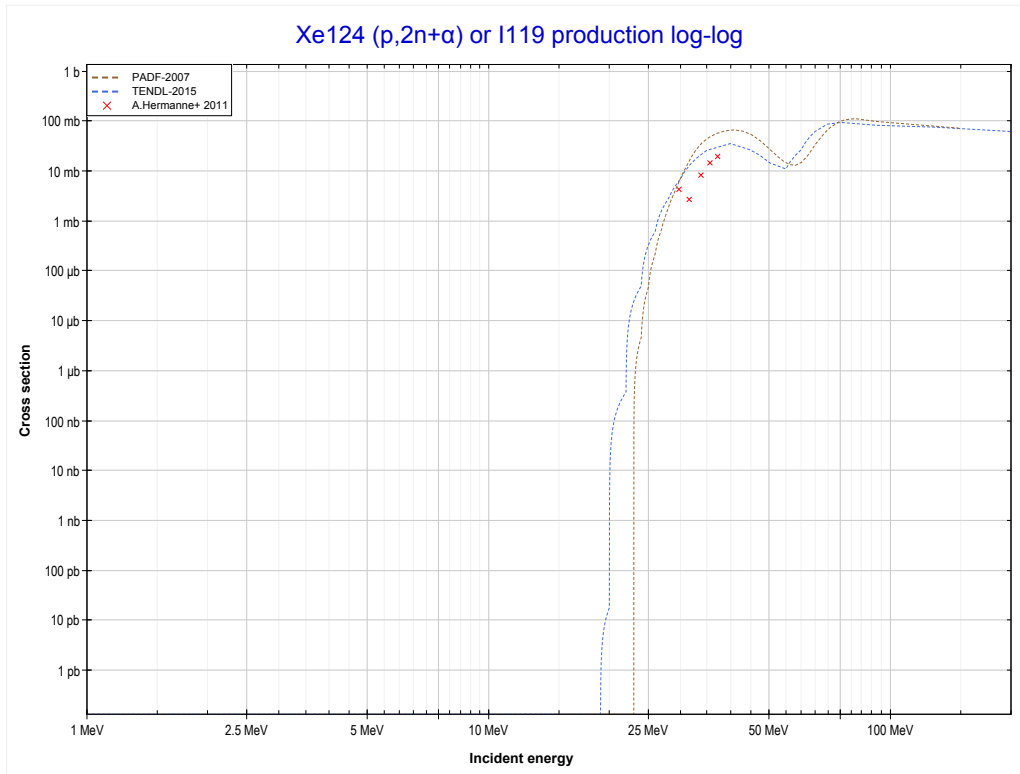
Reaction	Q-Value
Xe124(p,3n)Cs122	-26446.08 keV

<< 48-Cd-114	54-Xe-124	
<< MT17 (p,3n)	MT22 (p,n+α) or MT5 (I120 production)	MT24 (p,2n+α) >>



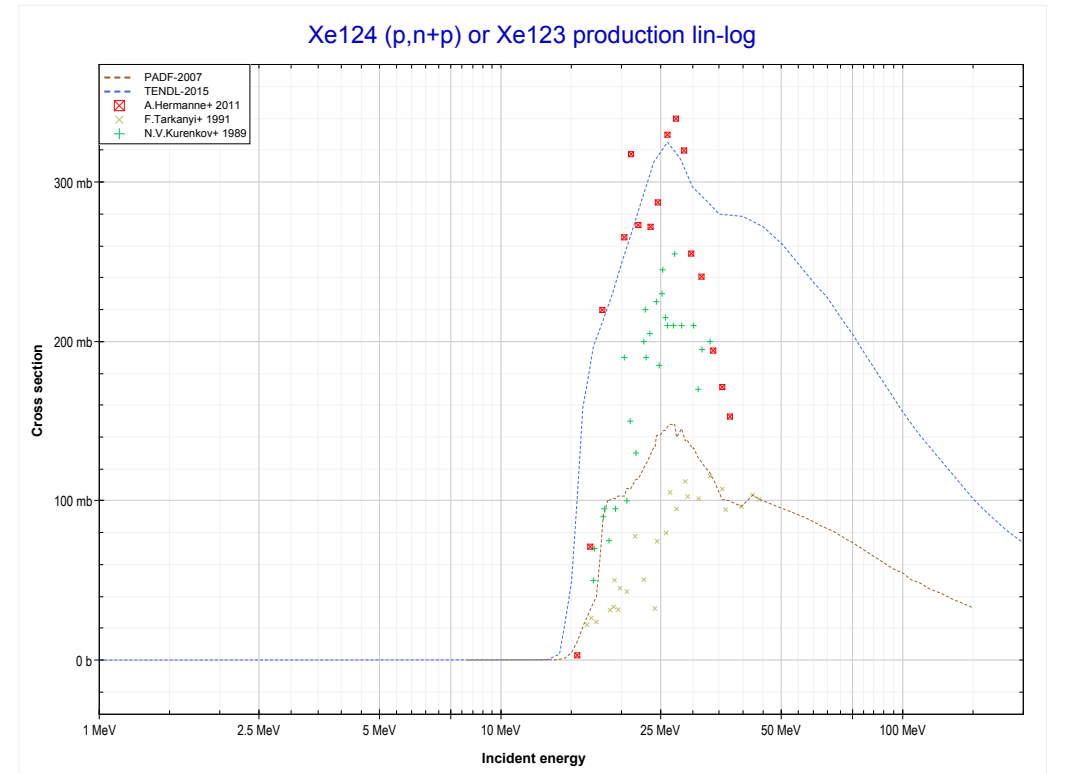
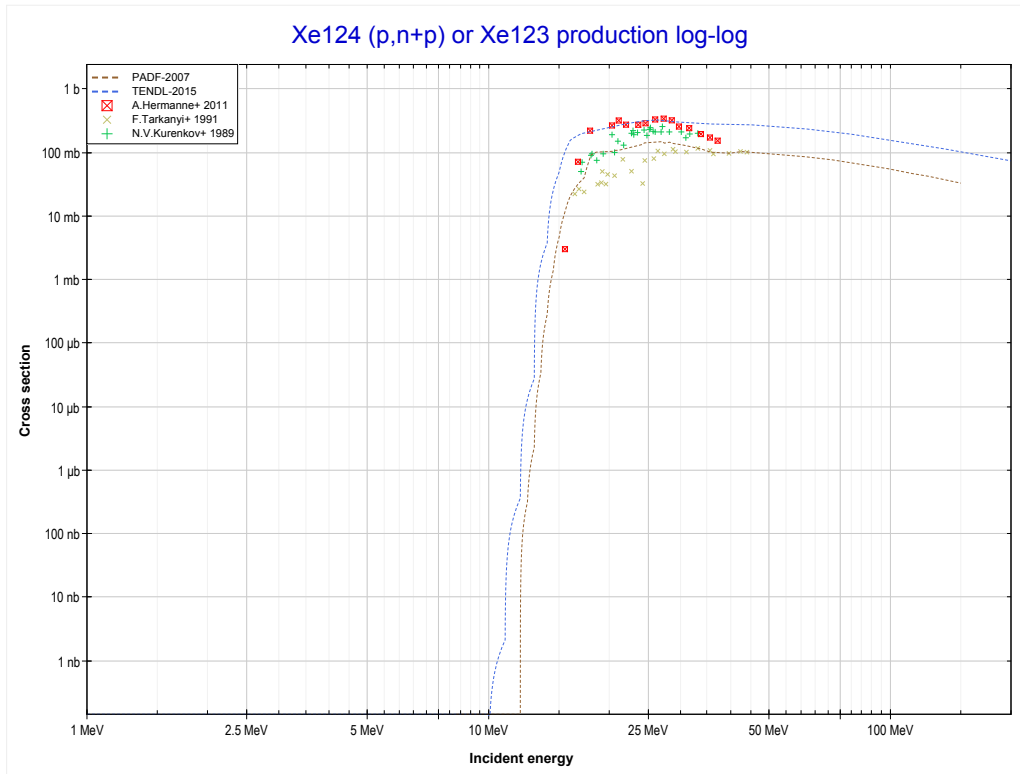
Reaction	Q-Value
Xe124(p,n+α)I120	-7115.36 keV
Xe124(p,d+t)I120	-24704.66 keV
Xe124(p,n+p+t)I120	-26929.22 keV
Xe124(p,2n+He3)I120	-27692.98 keV
Xe124(p,n+2d)I120	-30961.89 keV
Xe124(p,2n+p+d)I120	-33186.46 keV
Xe124(p,3n+2p)I120	-35411.02 keV

<< 34-Se-76	54-Xe-124	92-U-238 >>
<< MT22 (p,n+α)	MT24 (p,2n+α) or MT5 (I119 production)	MT28 (p,n+p) >>



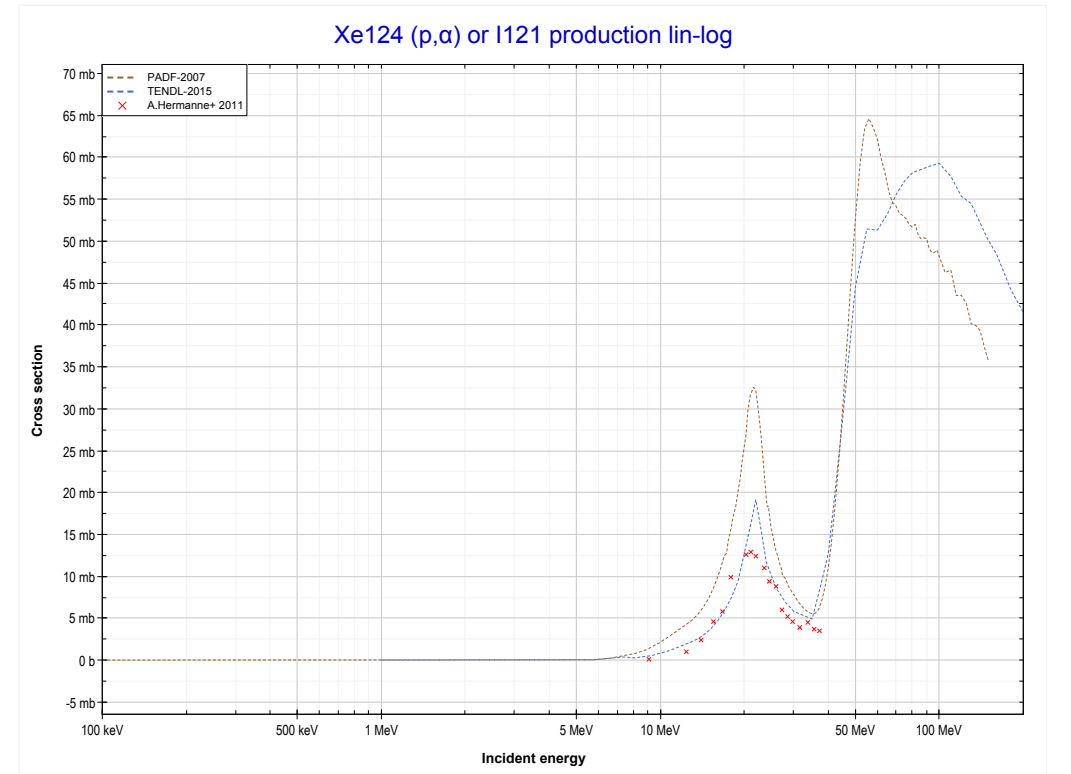
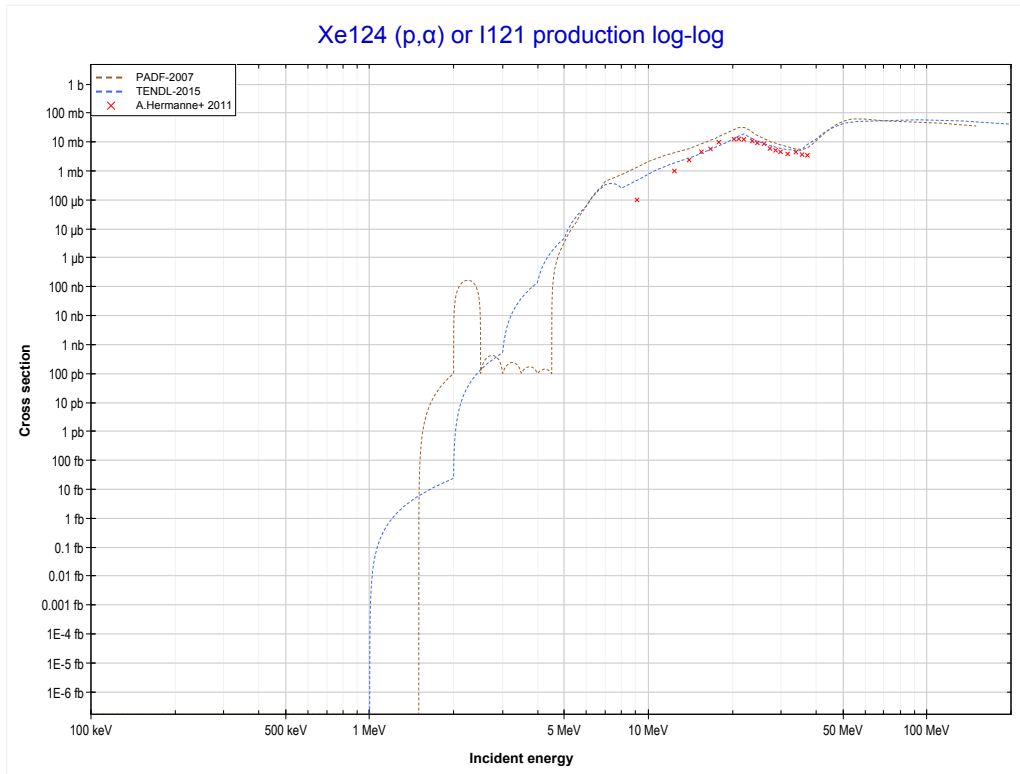
Reaction	Q-Value
Xe124(p,2n+α)I119	-15173.68 keV
Xe124(p,2t)I119	-26505.74 keV
Xe124(p,n+d+t)I119	-32762.97 keV
Xe124(p,2n+p+t)I119	-34987.54 keV
Xe124(p,3n+He3)I119	-35751.30 keV
Xe124(p,2n+2d)I119	-39020.21 keV
Xe124(p,3n+p+d)I119	-41244.77 keV
Xe124(p,4n+2p)I119	-43469.34 keV

<< 53-I-127	54-Xe-124	54-Xe-126 >>
<< MT24 (p,2n+α)	MT28 (p,n+p) or MT5 (Xe123 production)	MT107 (p,α) >>



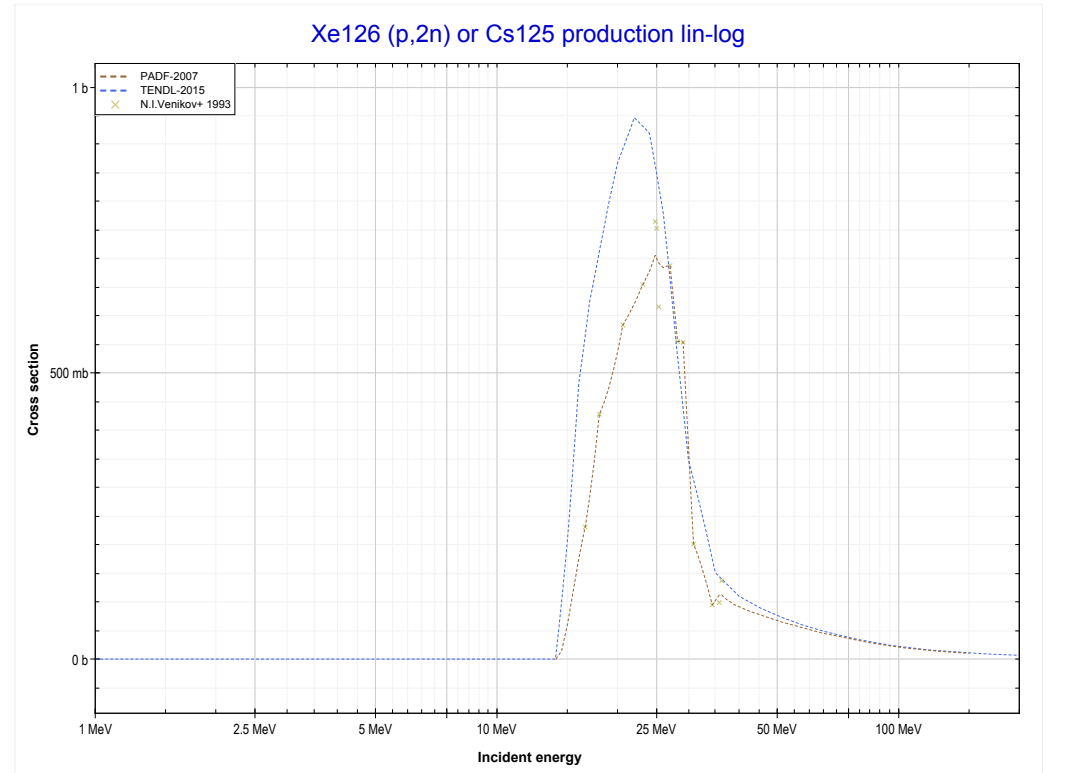
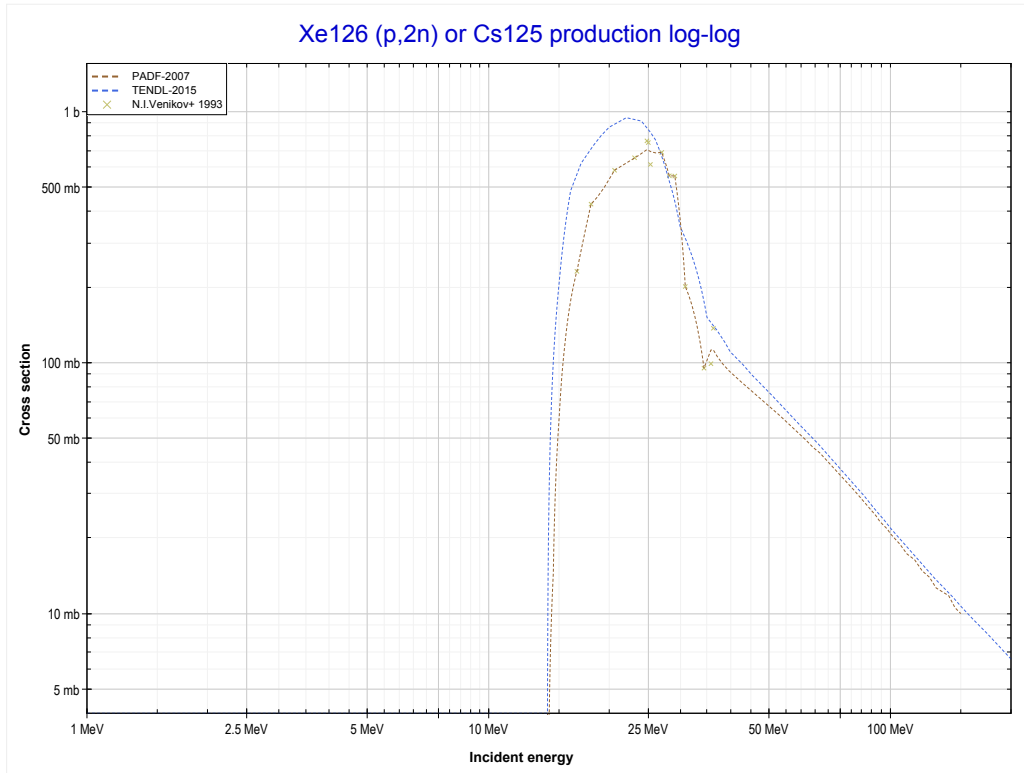
Reaction	Q-Value
Xe124(p,d)Xe123	-8258.85 keV
Xe124(p,n+p)Xe123	-10483.42 keV

<< 50-Sn-120	54-Xe-124	57-La-139 >>
<< MT28 (p,n+p)	MT107 (p,α) or MT5 (I121 production)	54-Xe-126 MT16 (p,2n) >>



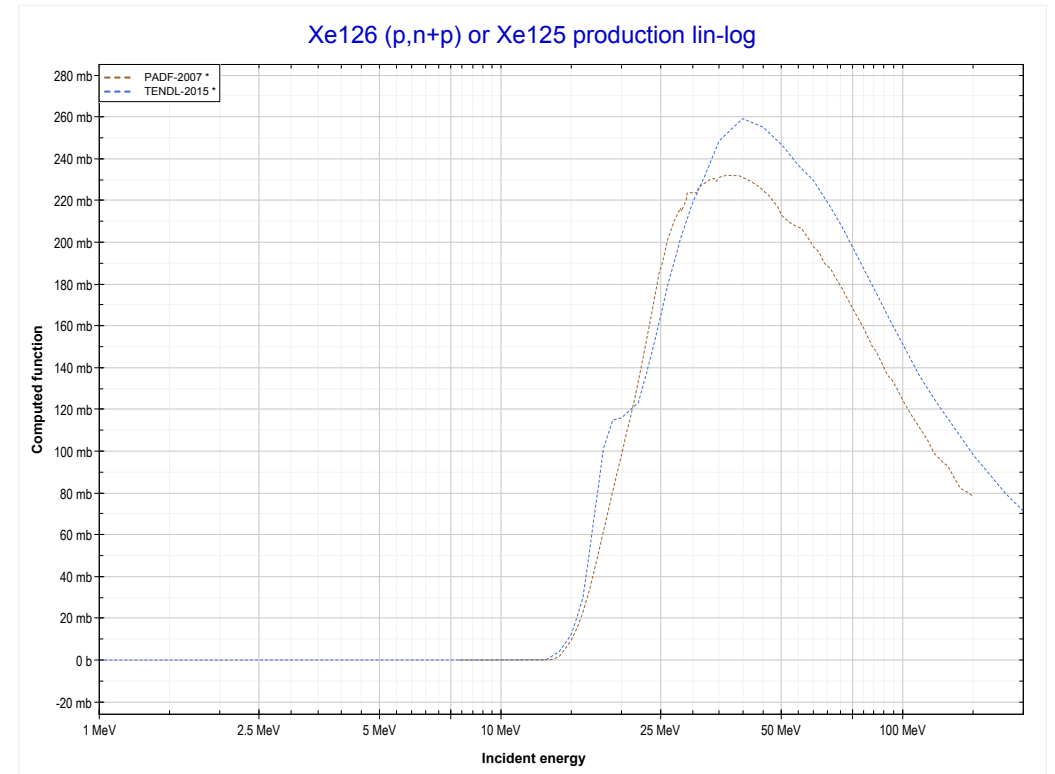
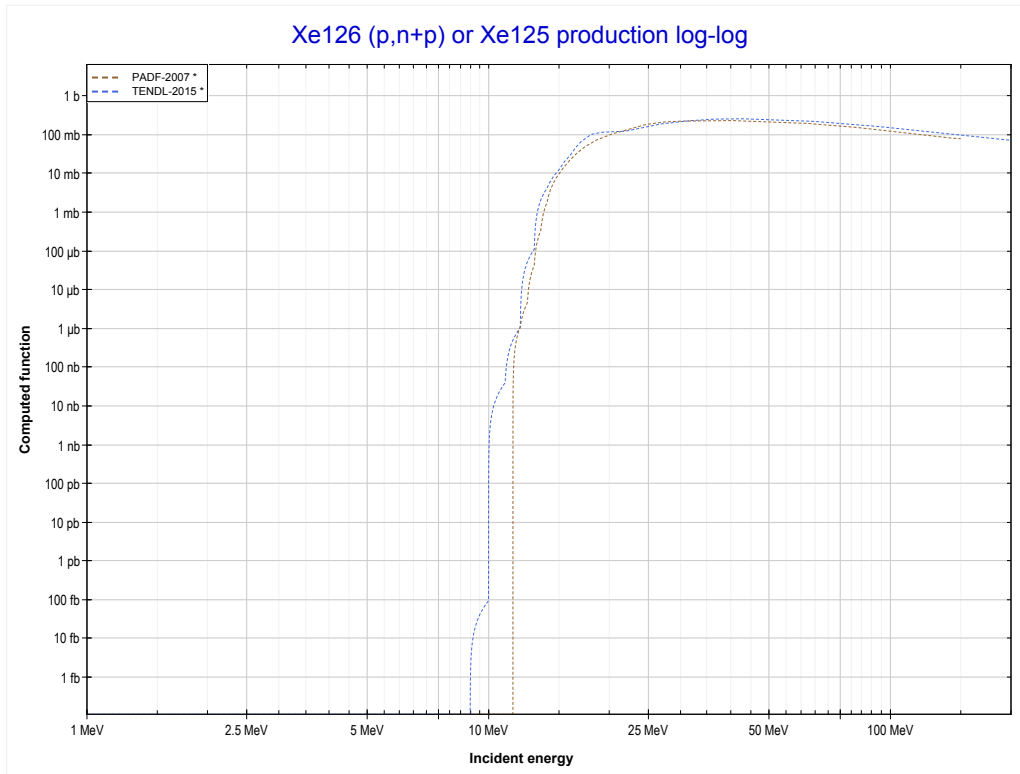
Reaction	Q-Value
Xe124(p, α)I121	3454.95 keV
Xe124(p,p+t)I121	-16358.91 keV
Xe124(p,n+He3)I121	-17122.66 keV
Xe124(p,2d)I121	-20391.57 keV
Xe124(p,n+p+d)I121	-22616.14 keV
Xe124(p,2n+2p)I121	-24840.70 keV

<< 54-Xe-124	54-Xe-126	58-Ce-140 >>
<< 54-Xe-124 MT107 (p, α)	MT16 (p,2n) or MT5 (Cs125 production)	MT28 (p,n+p) >>



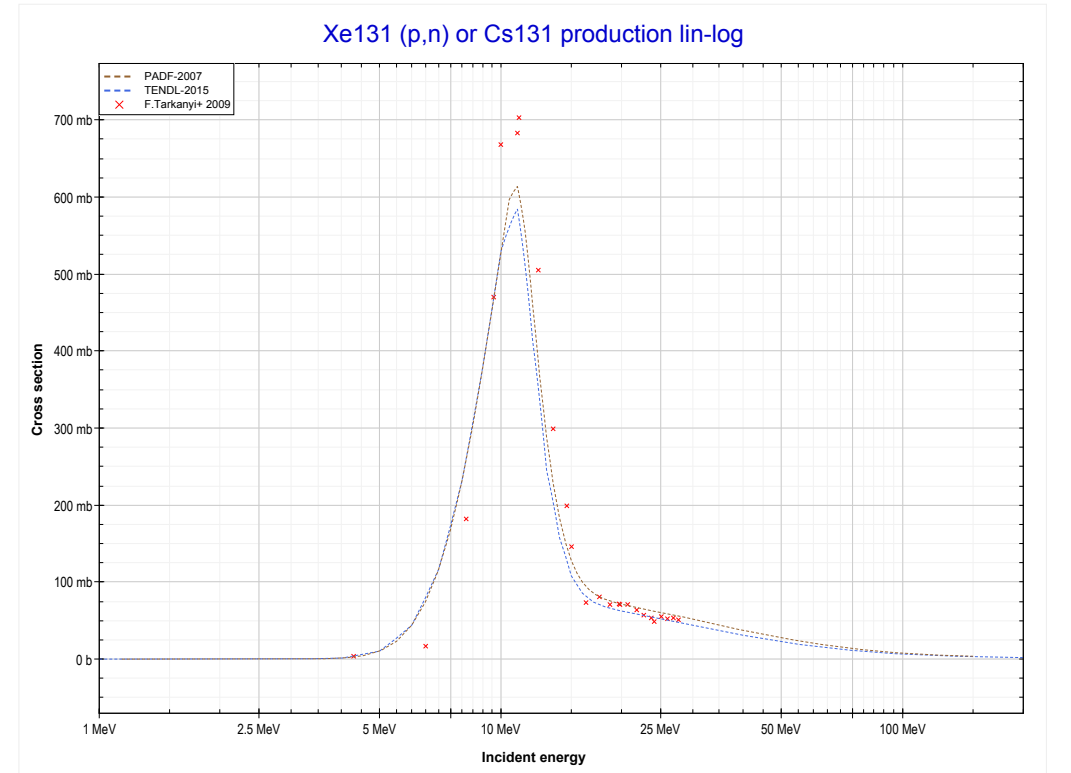
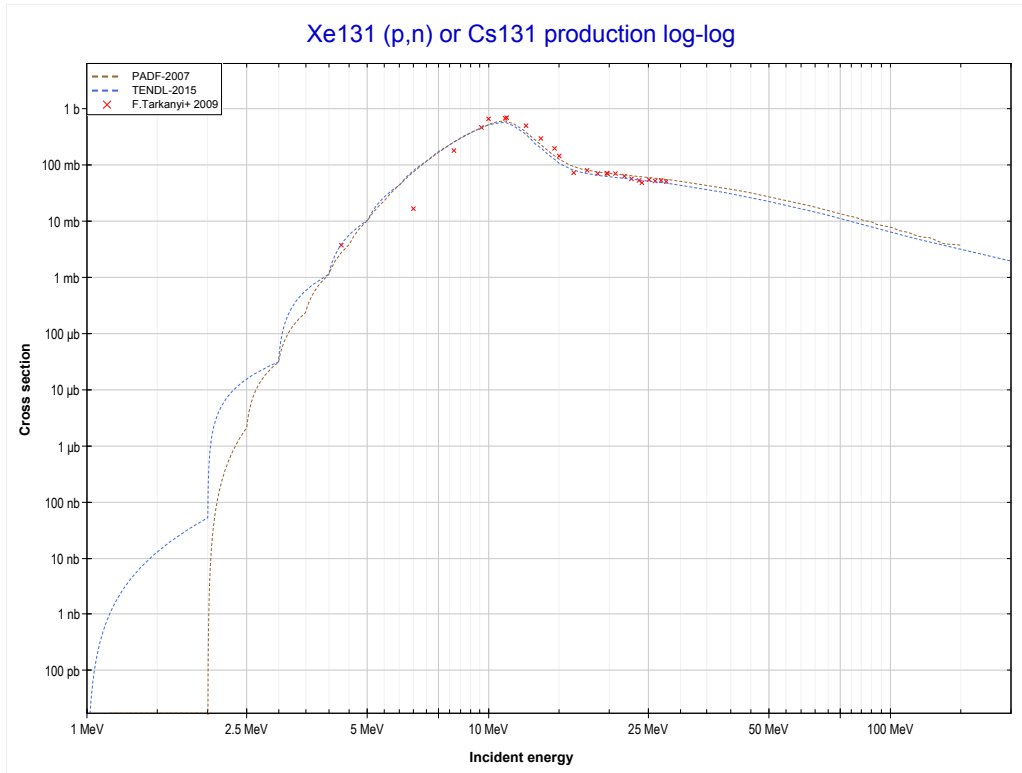
Reaction	Q-Value
Xe126(p,2n)Cs125	-13911.66 keV

<< 54-Xe-124	54-Xe-126	55-Cs-133 >>
<< MT16 (p,2n)	MT28 (p,n+p) or MT5 (Xe125 production)	54-Xe-131 MT4 (p,n) >>



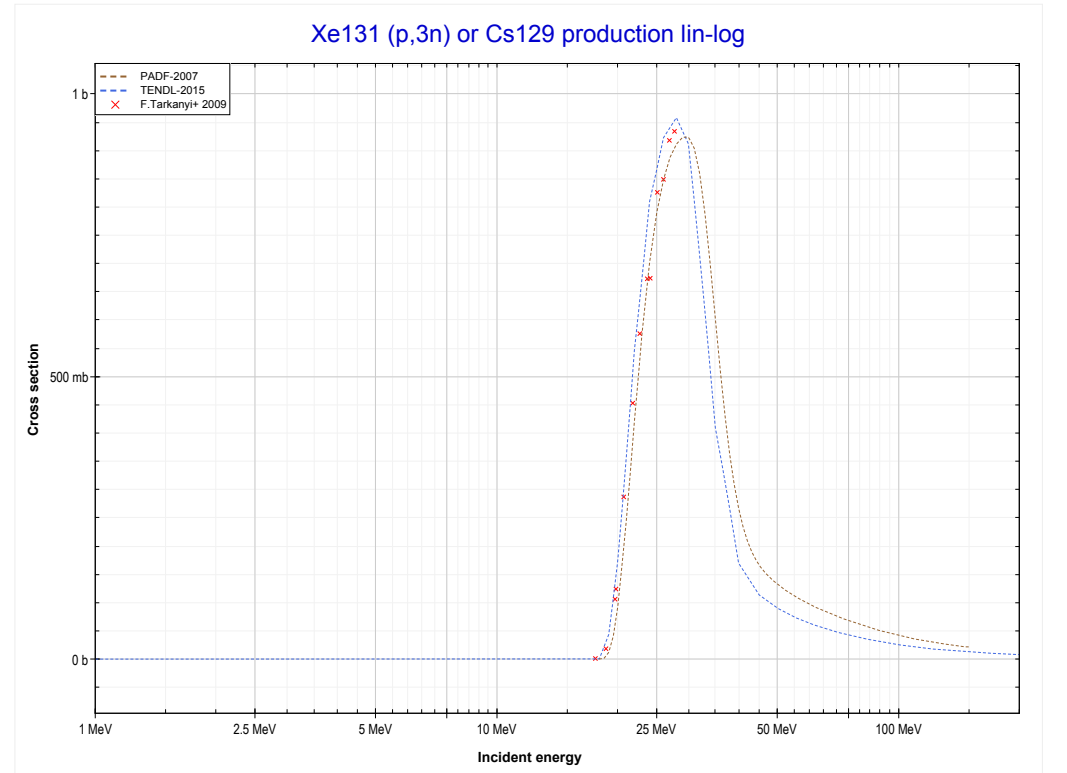
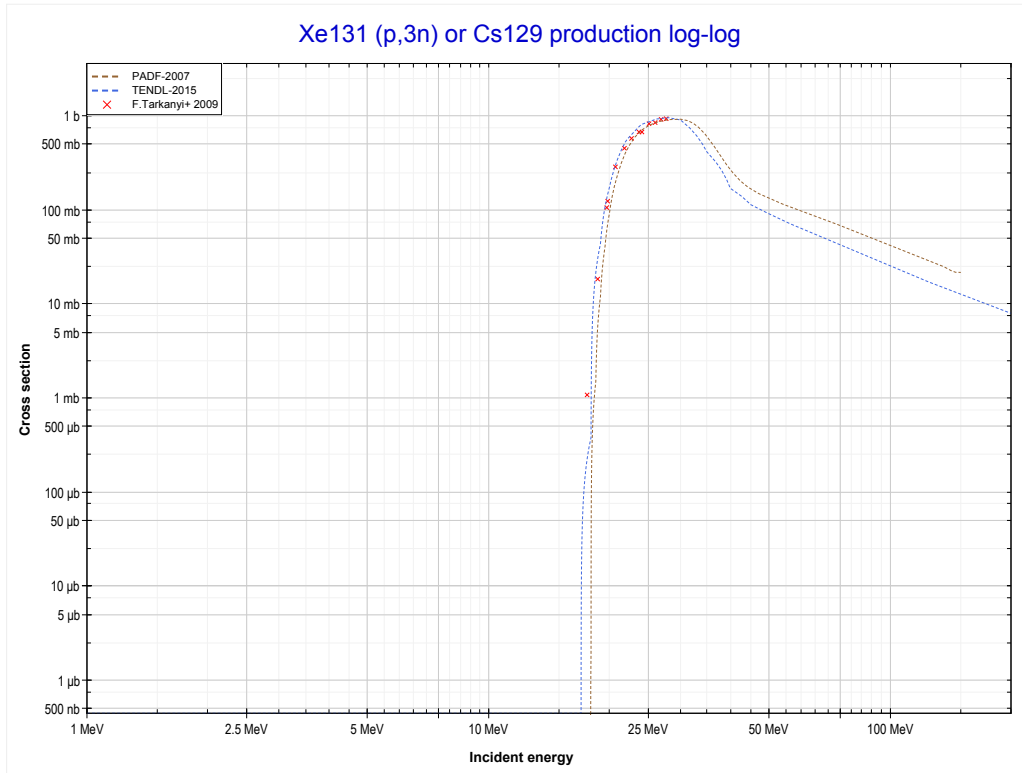
Reaction	Q-Value
Xe126(p,d)Xe125	-7799.75 keV
Xe126(p,n+p)Xe125	-10024.32 keV

<< 53-I-127	54-Xe-131	55-Cs-133 >>
<< 54-Xe-126 MT28 (p,n+p)	MT4 (p,n) or MT5 (Cs131 production)	MT17 (p,3n) >>



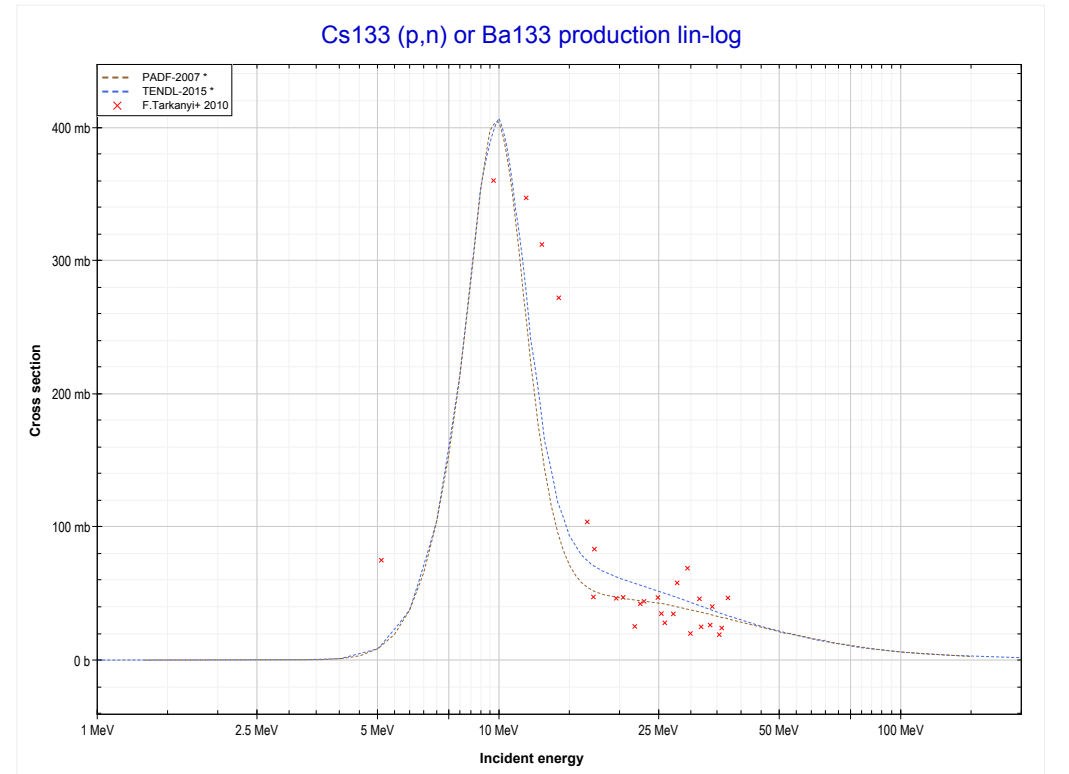
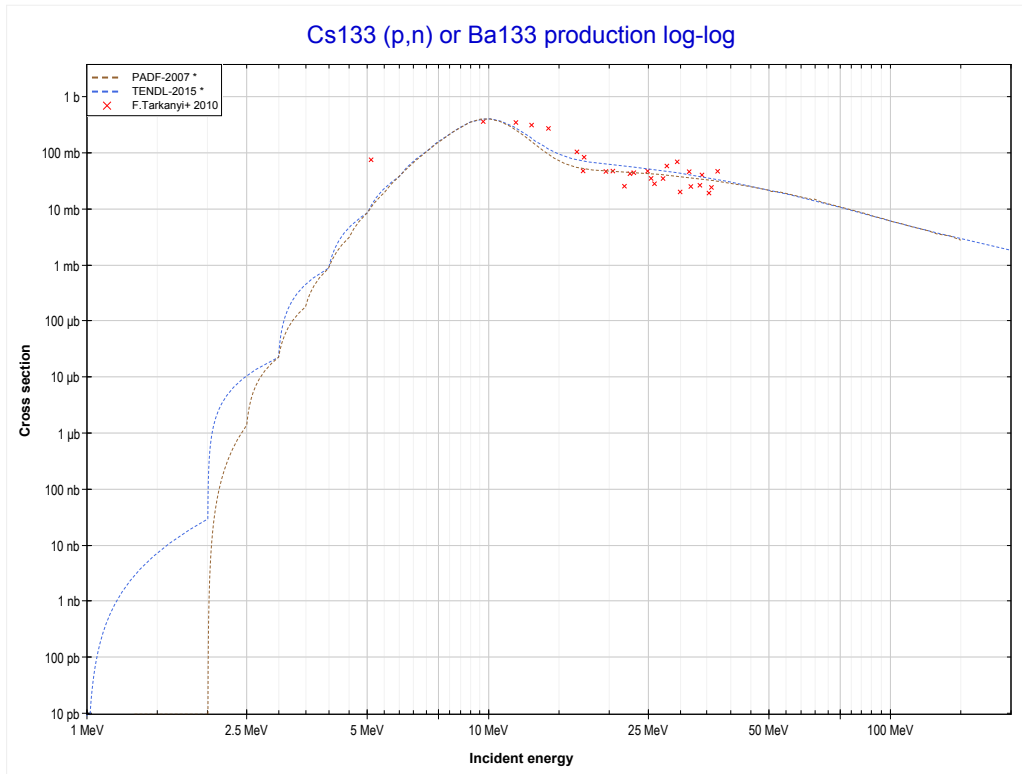
Reaction	Q-Value
Xe131(p,n)Cs131	-1136.98 keV

<< 54-Xe-124	54-Xe-131	55-Cs-133 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Cs129 production)	55-Cs-133 MT4 (p,n) >>



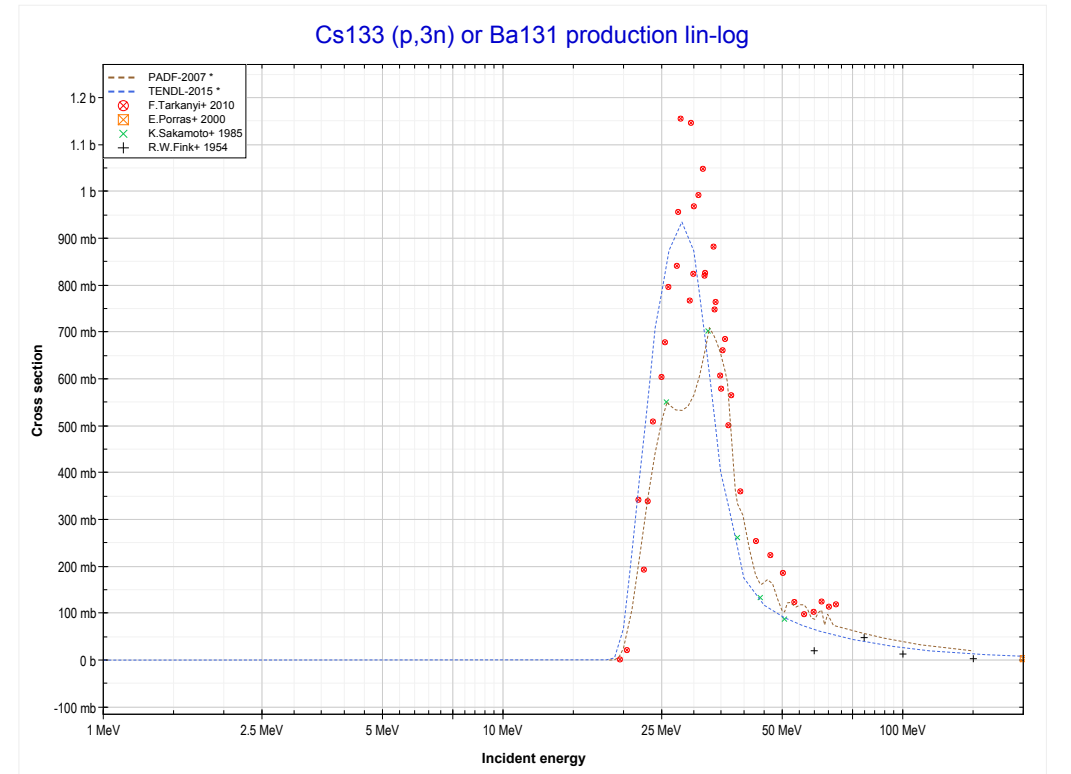
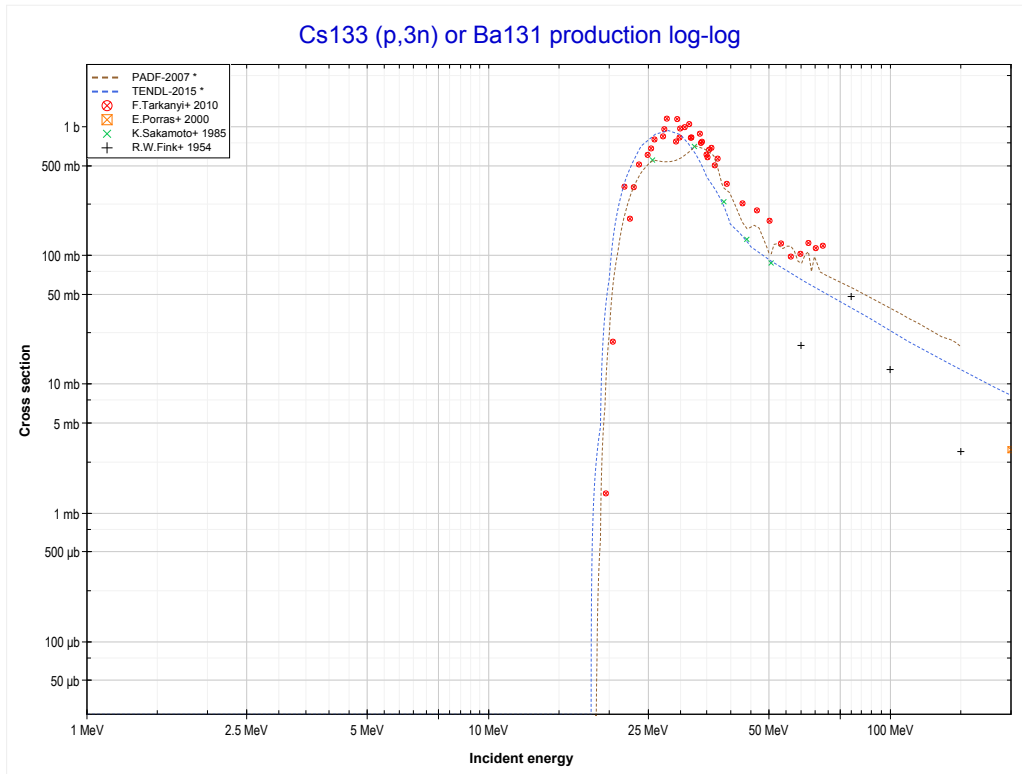
Reaction	Q-Value
Xe131(p,3n)Cs129	-17839.61 keV

<< 54-Xe-131	55-Cs-133	56-Ba-134 >>
<< 54-Xe-131 MT17 (p,3n)	MT4 (p,n) or MT5 (Ba133 production)	MT17 (p,3n) >>



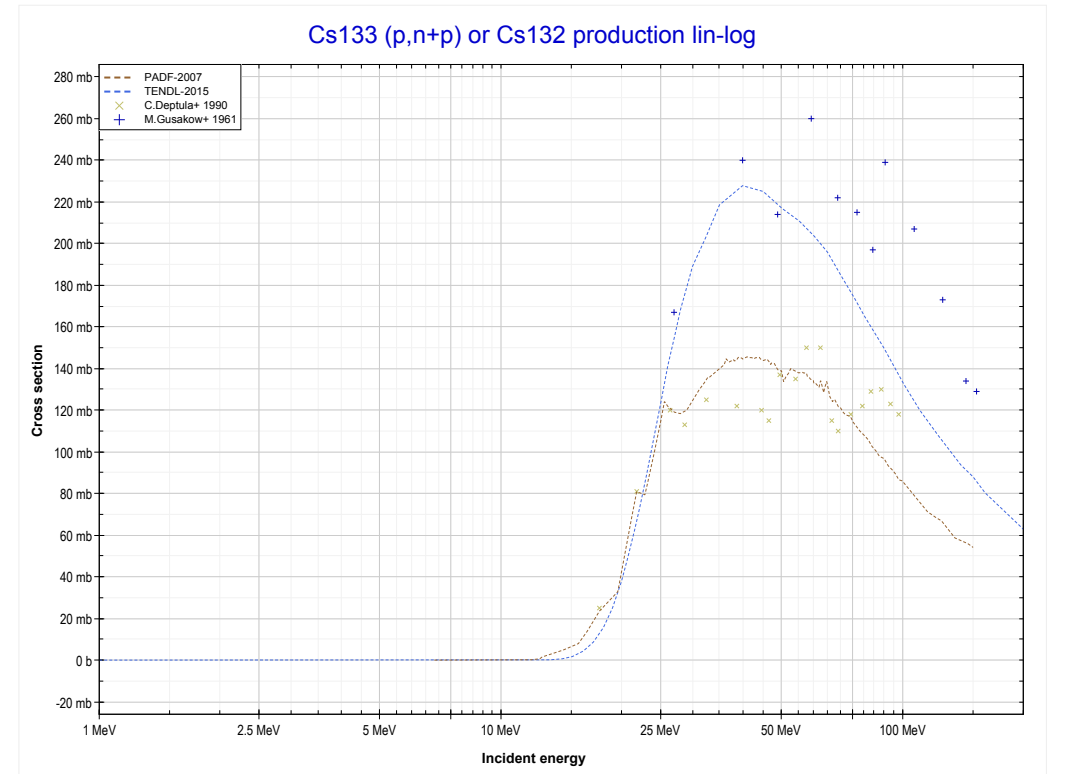
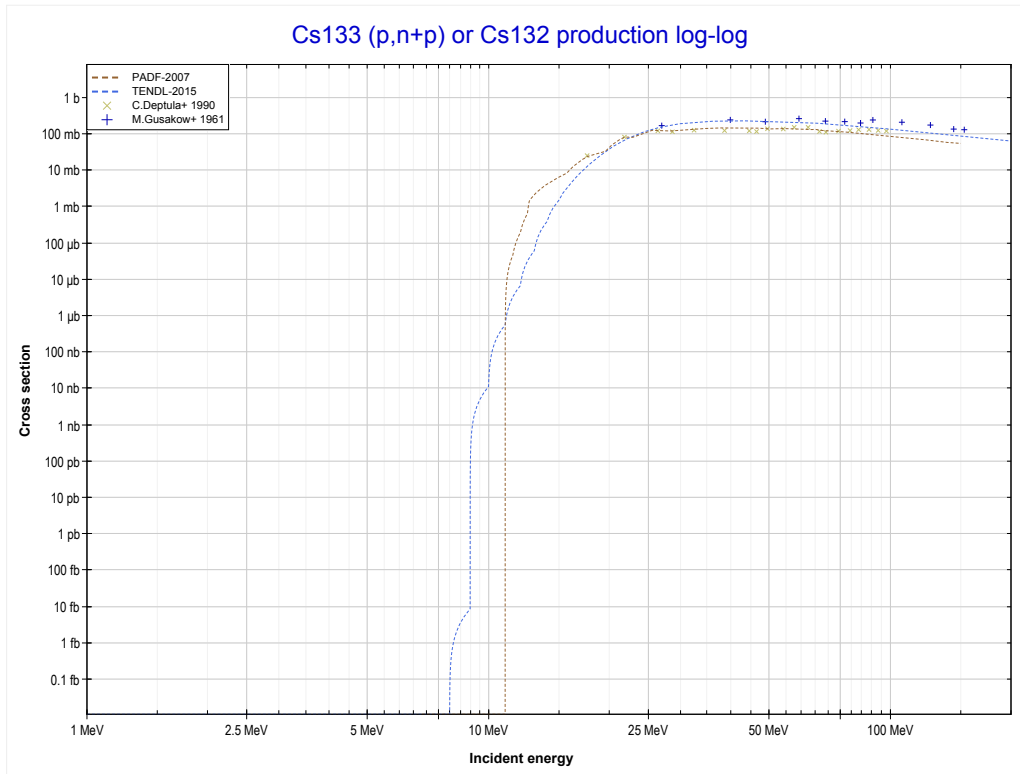
Reaction	Q-Value
Cs133(p,n)Ba133	-1299.68 keV

<< 54-Xe-131	55-Cs-133	58-Ce-140 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Ba131 production)	MT28 (p,n+p) >>



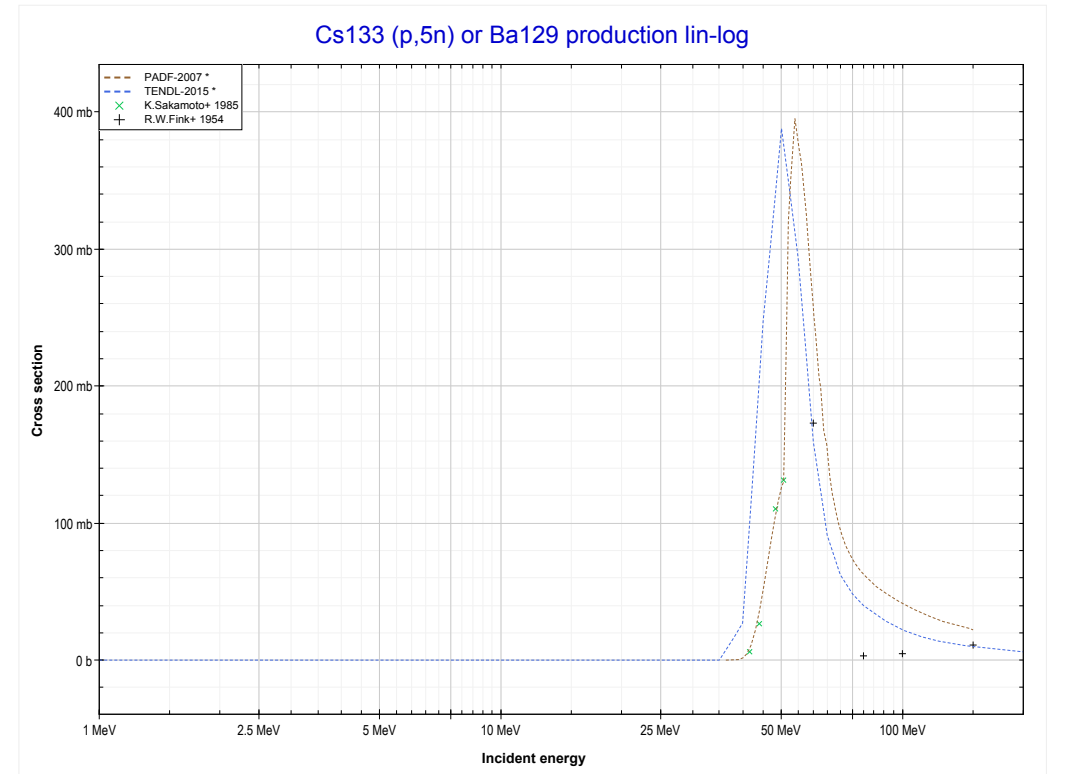
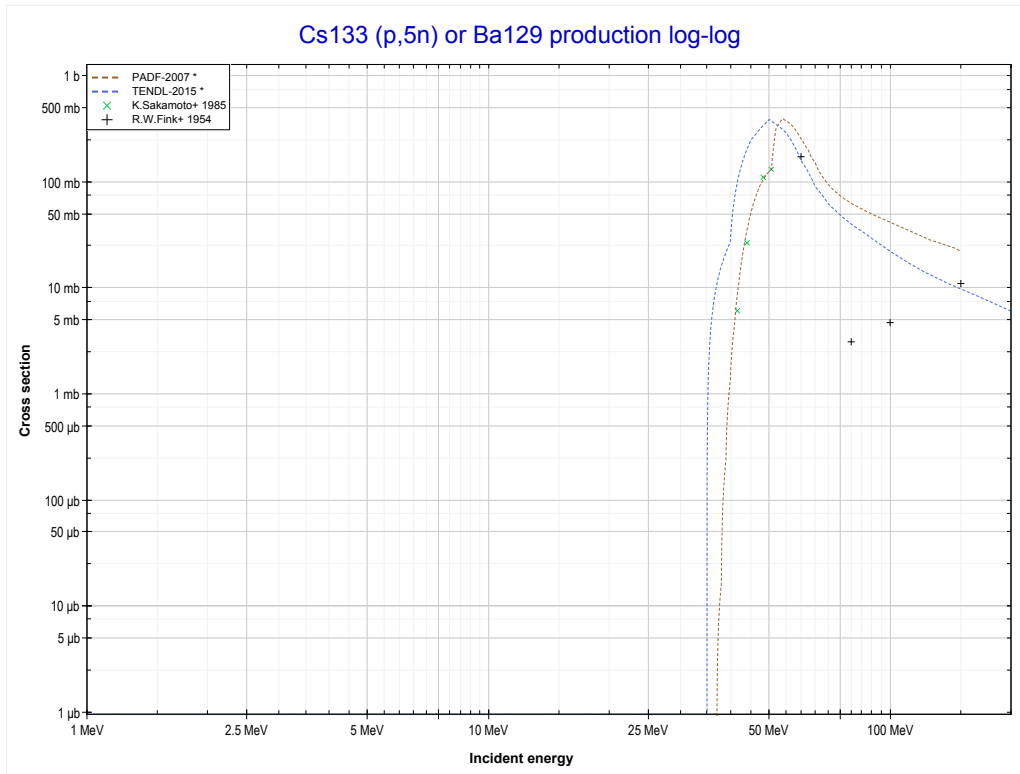
Reaction	Q-Value
Cs133(p,3n)Ba131	-18312.01 keV

<< 54-Xe-126	55-Cs-133	58-Ce-142 >>
<< MT17 (p,3n)	MT28 (p,n+p) or MT5 (Cs132 production)	MT152 (p,5n) >>



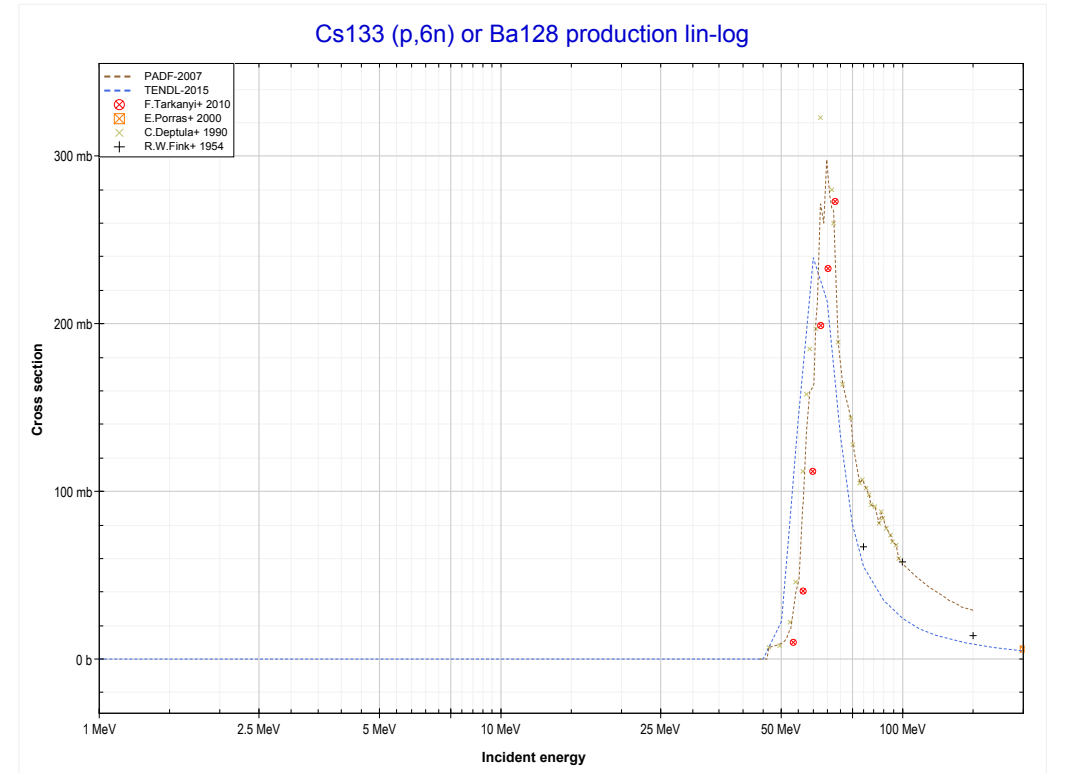
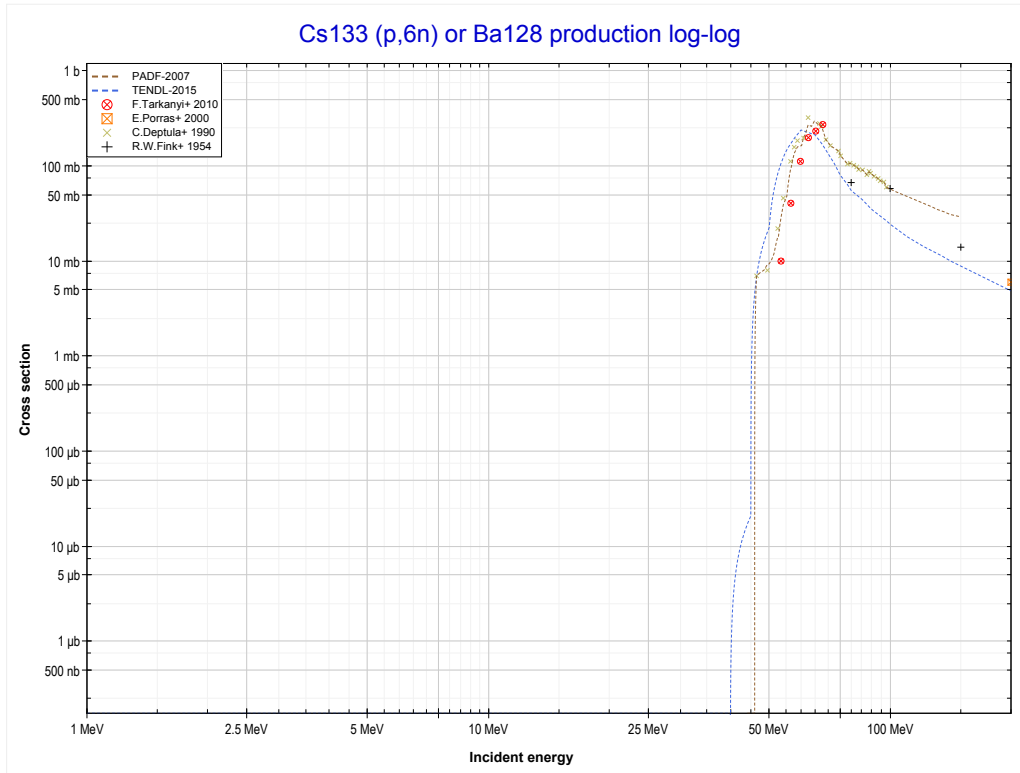
Reaction	Q-Value
Cs133(p,d)Cs132	-6761.48 keV
Cs133(p,n+p)Cs132	-8986.05 keV

<< 53-I-127	55-Cs-133	59-Pr-141 >>
<< MT28 (p,n+p)	MT152 (p,5n) or MT5 (Ba129 production)	MT153 (p,6n) >>



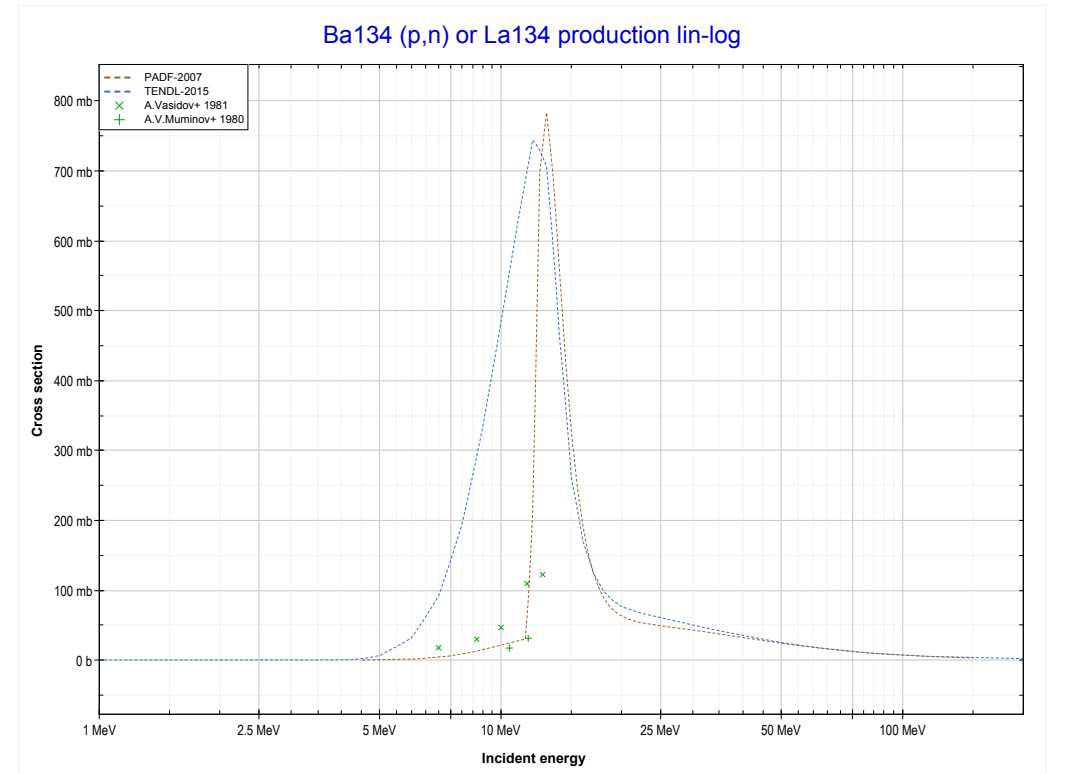
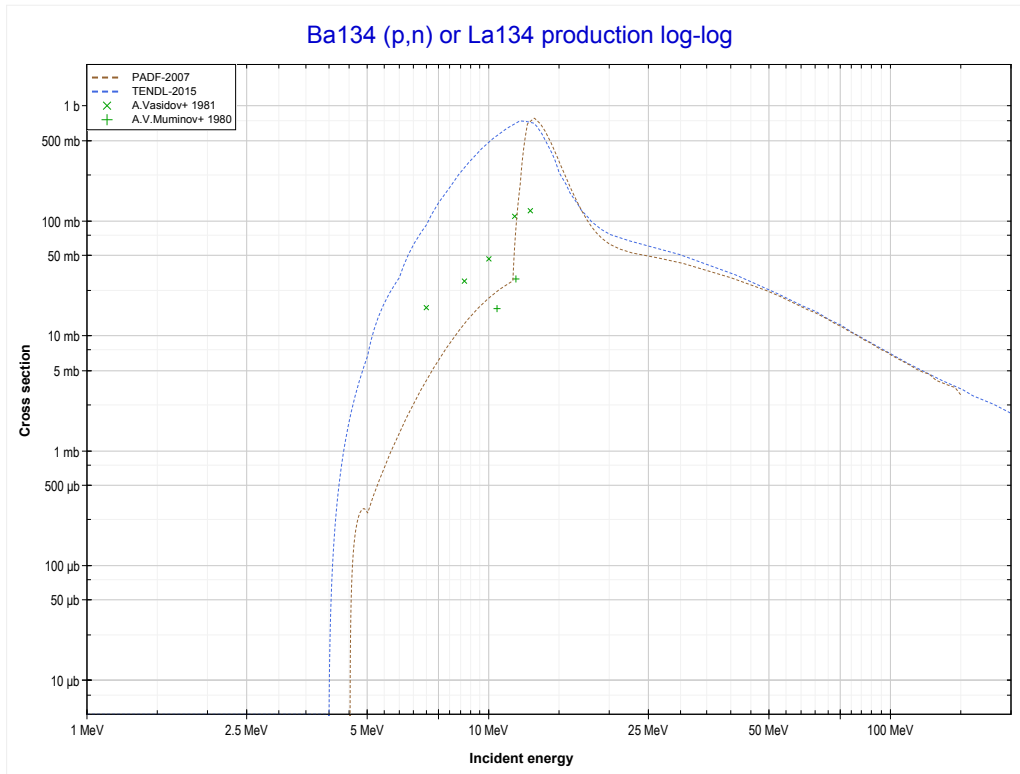
Reaction	Q-Value
Cs133(p,5n)Ba129	-36075.55 keV

<< 53-I-127	55-Cs-133	59-Pr-141 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Ba128 production)	56-Ba-134 MT4 (p,n) >>



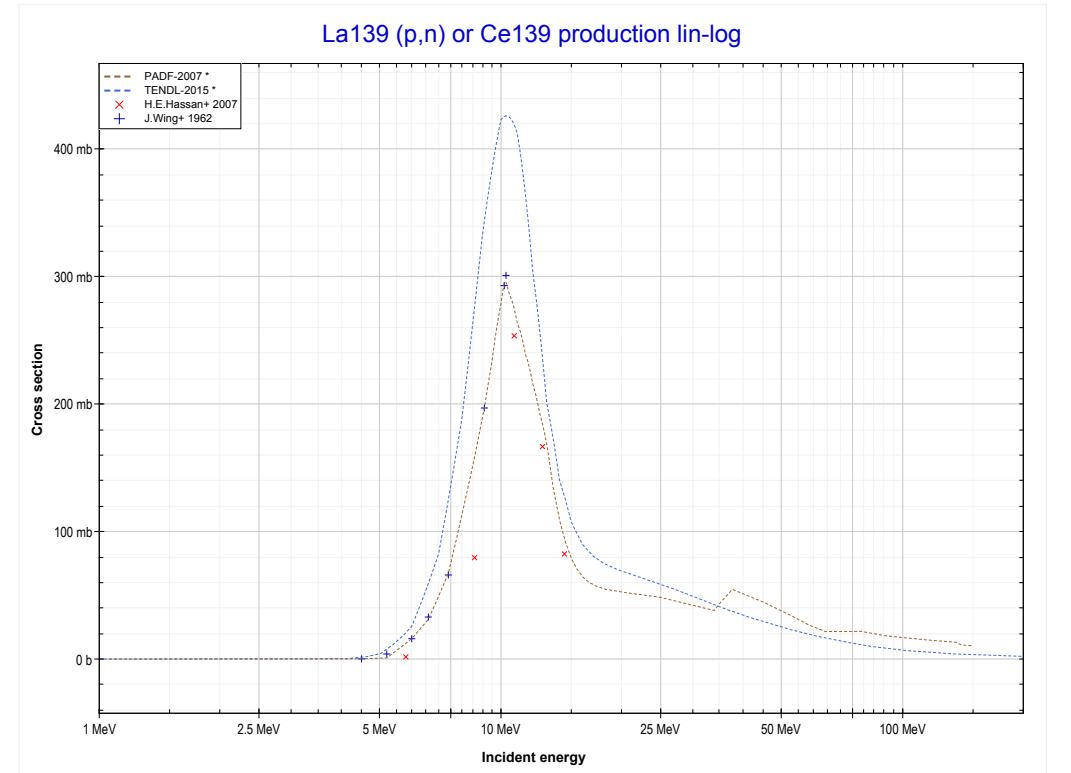
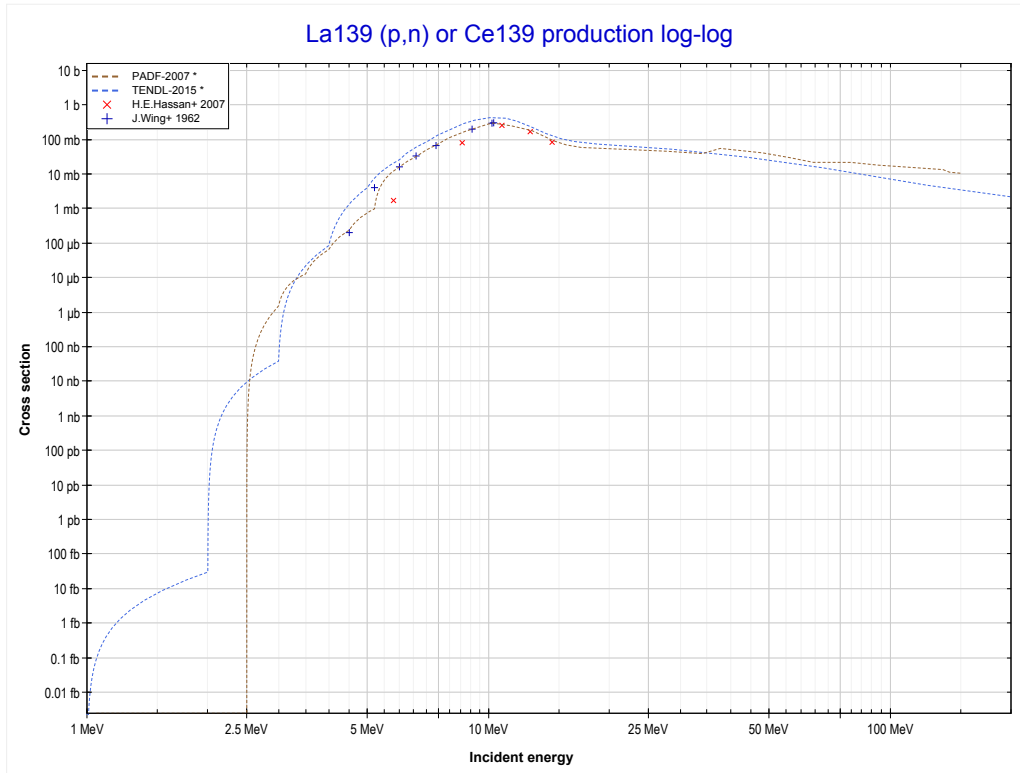
Reaction	Q-Value
Cs133(p,6n)Ba128	-43830.86 keV

<< 55-Cs-133	56-Ba-134	57-La-139 >>
<< 55-Cs-133 MT153 (p,6n)	MT4 (p,n) or MT5 (La134 production)	57-La-139 MT4 (p,n) >>



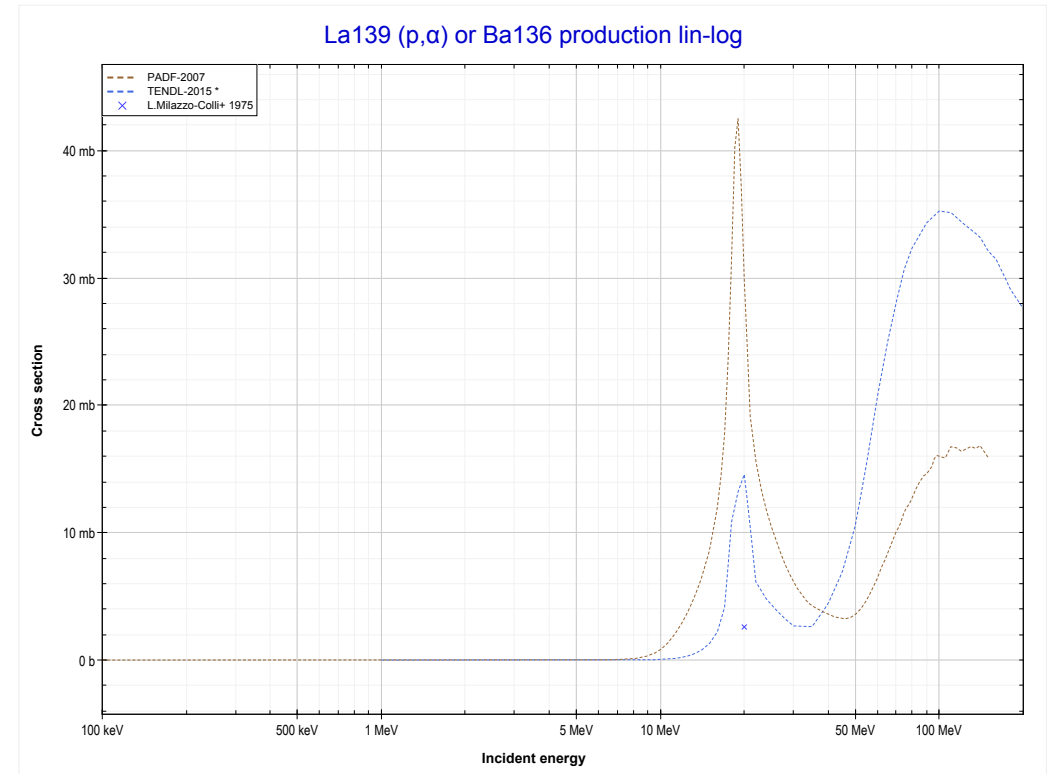
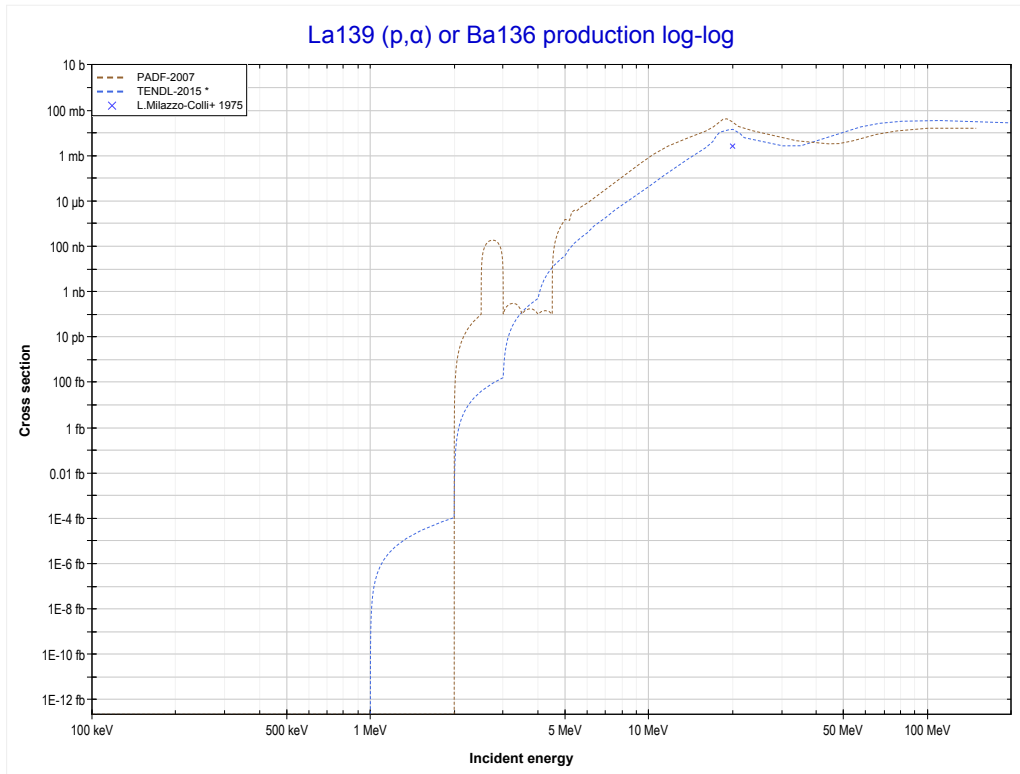
Reaction	Q-Value
Ba134(p,n)La134	-4513.40 keV

<< 56-Ba-134	57-La-139	58-Ce-140 >>
<< 56-Ba-134 MT4 (p,n)	MT4 (p,n) or MT5 (Ce139 production)	MT107 (p, α) >>



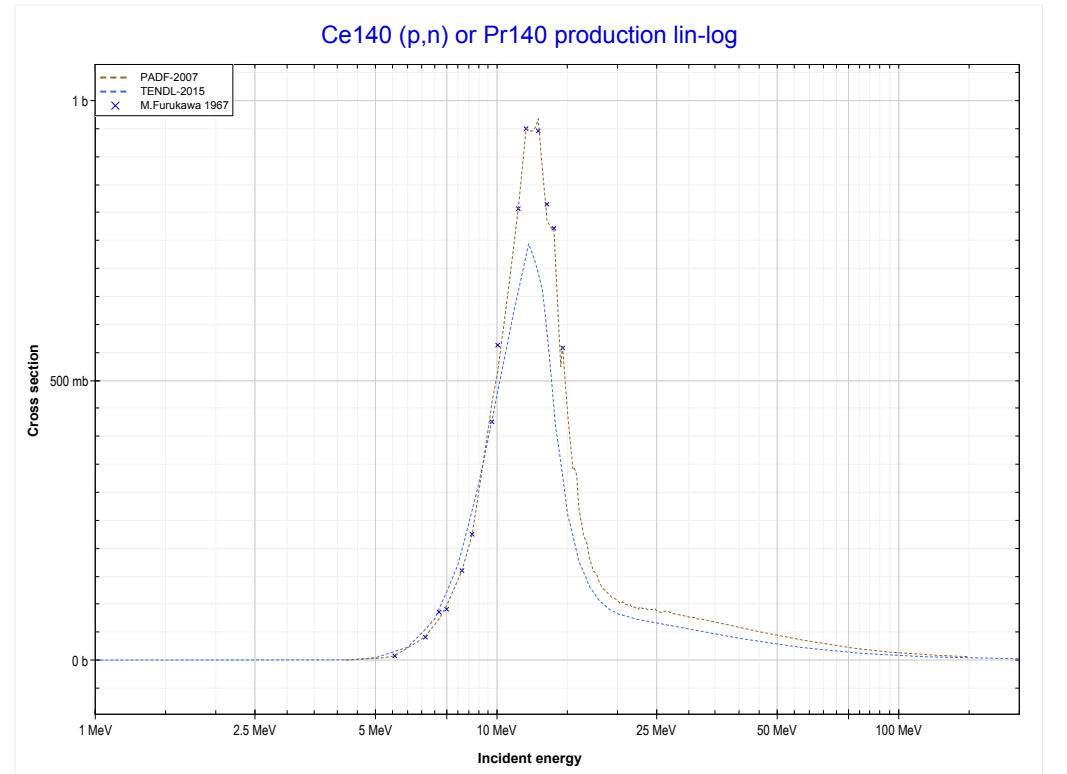
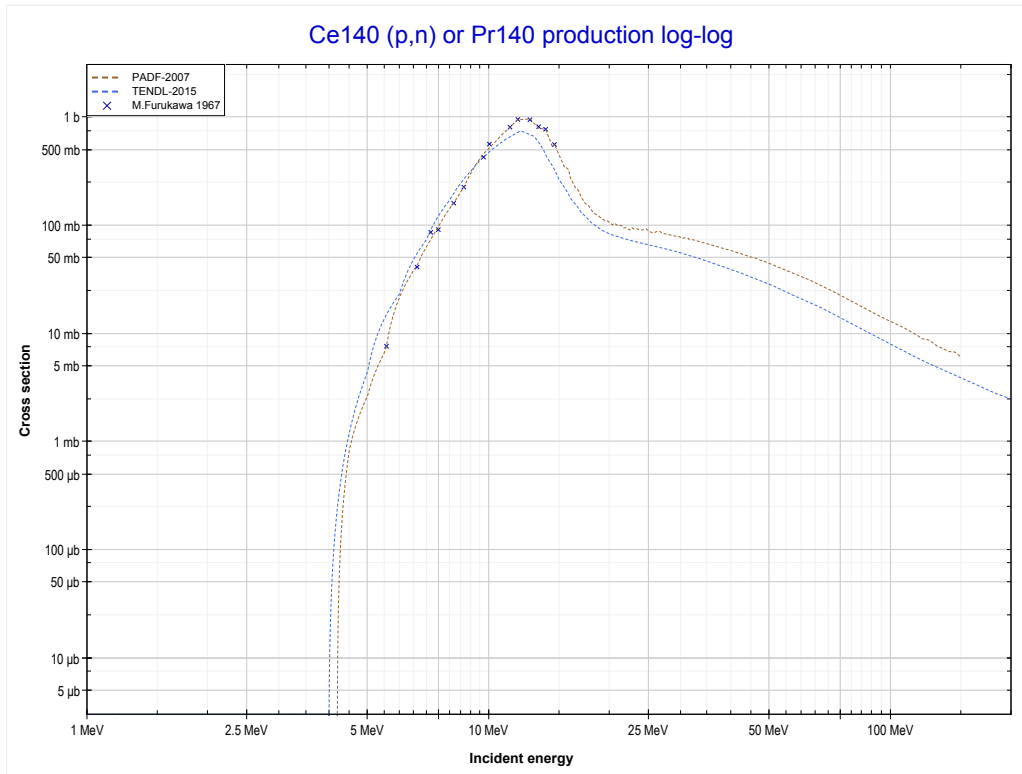
Reaction	Q-Value
La139(p,n)Ce139	-1060.95 keV

<< 54-Xe-124	57-La-139	58-Ce-140 >>
<< MT4 (p,n)	MT107 (p,α) or MT5 (Ba136 production)	58-Ce-140 MT4 (p,n) >>



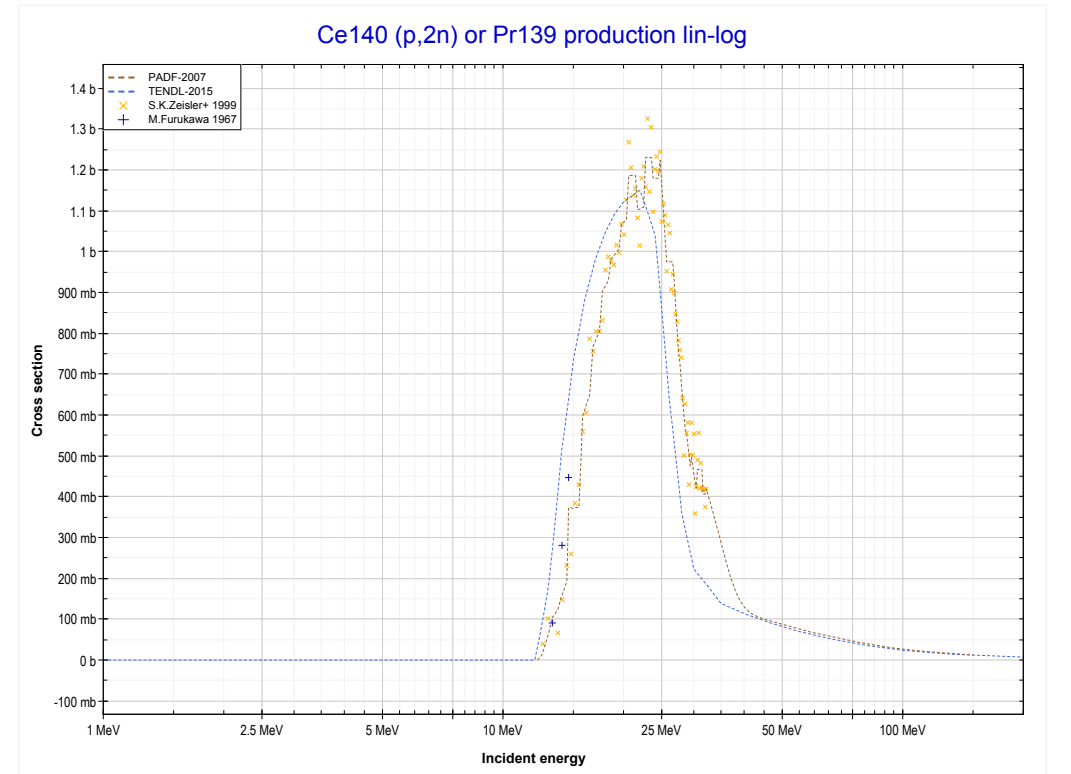
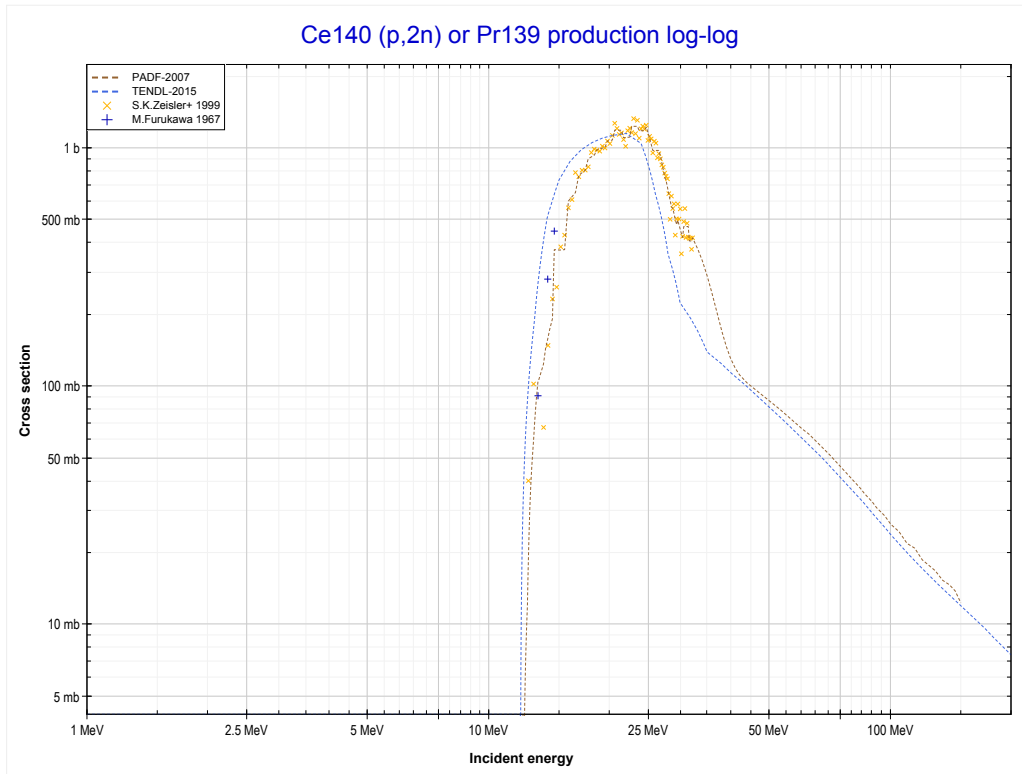
Reaction	Q-Value
La139(p, α)Ba136	6522.59 keV
La139(p,p+t)Ba136	-13291.27 keV
La139(p,n+He3)Ba136	-14055.02 keV
La139(p,2d)Ba136	-17323.93 keV
La139(p,n+p+d)Ba136	-19548.50 keV
La139(p,2n+2p)Ba136	-21773.06 keV

<< 57-La-139	58-Ce-140	58-Ce-142 >>
<< 57-La-139 MT107 (p, α)	MT4 (p,n) or MT5 (Pr140 production)	MT16 (p,2n) >>



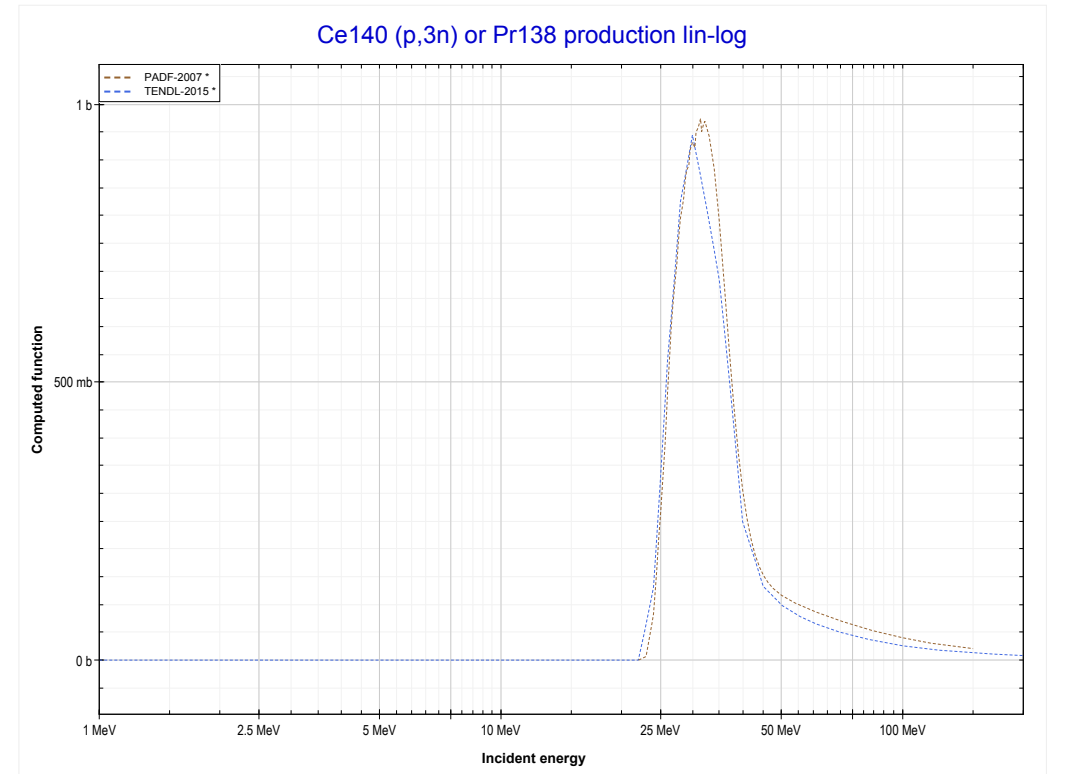
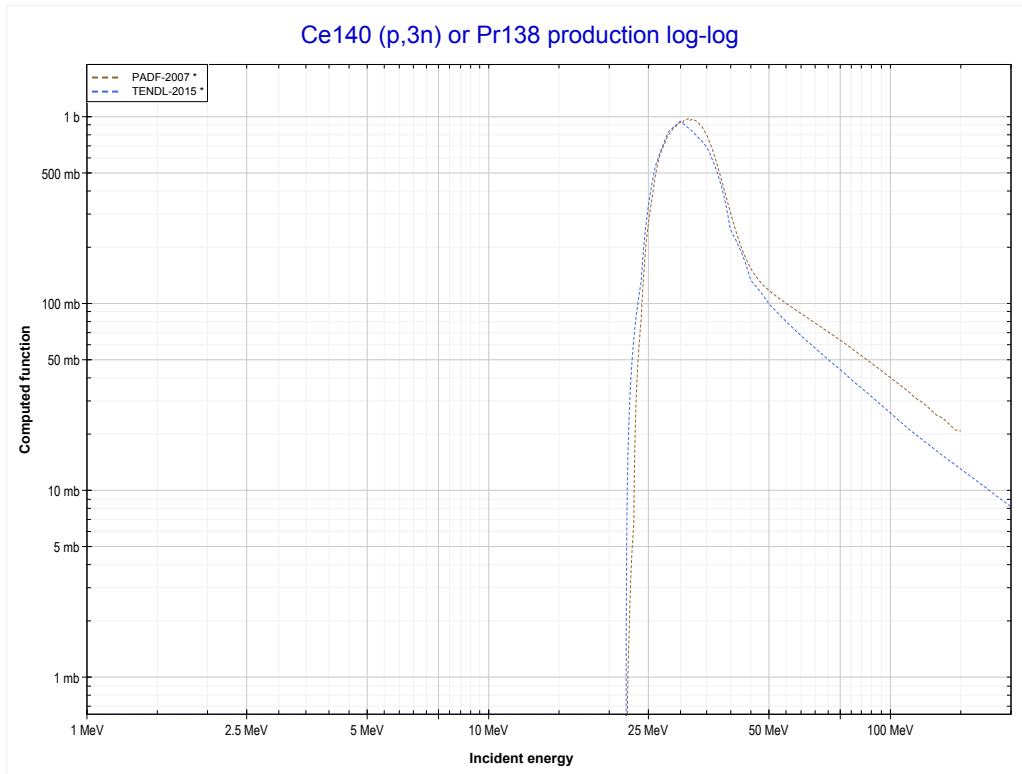
Reaction	Q-Value
Ce140(p,n)Pr140	-4170.55 keV

<< 54-Xe-126	58-Ce-140	59-Pr-141 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Pr139 production)	MT17 (p,3n) >>



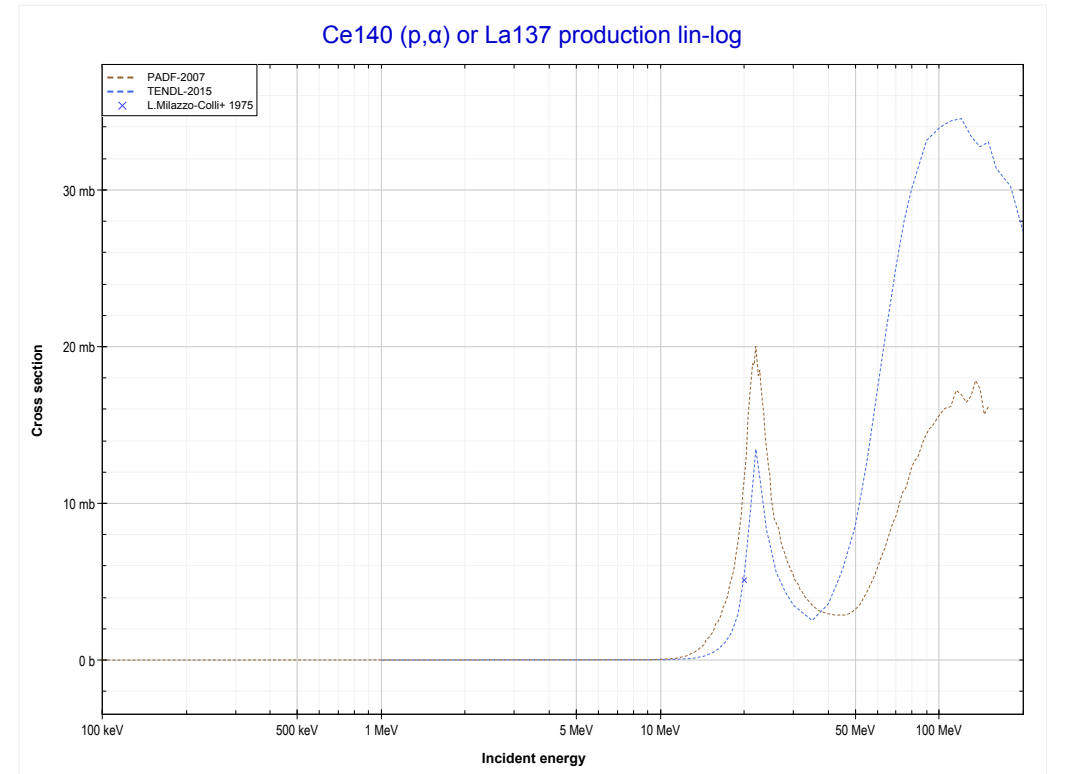
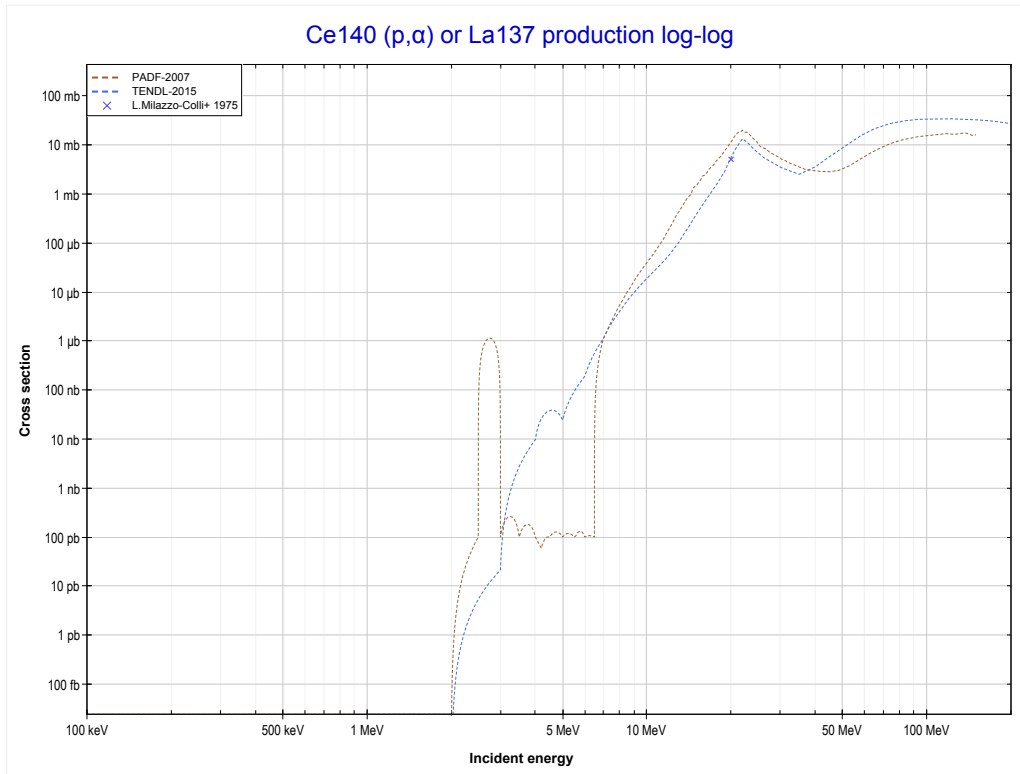
Reaction	Q-Value
Ce140(p,2n)Pr139	-12111.86 keV

<< 55-Cs-133	58-Ce-140	59-Pr-141 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Pr138 production)	MT107 (p, α) >>



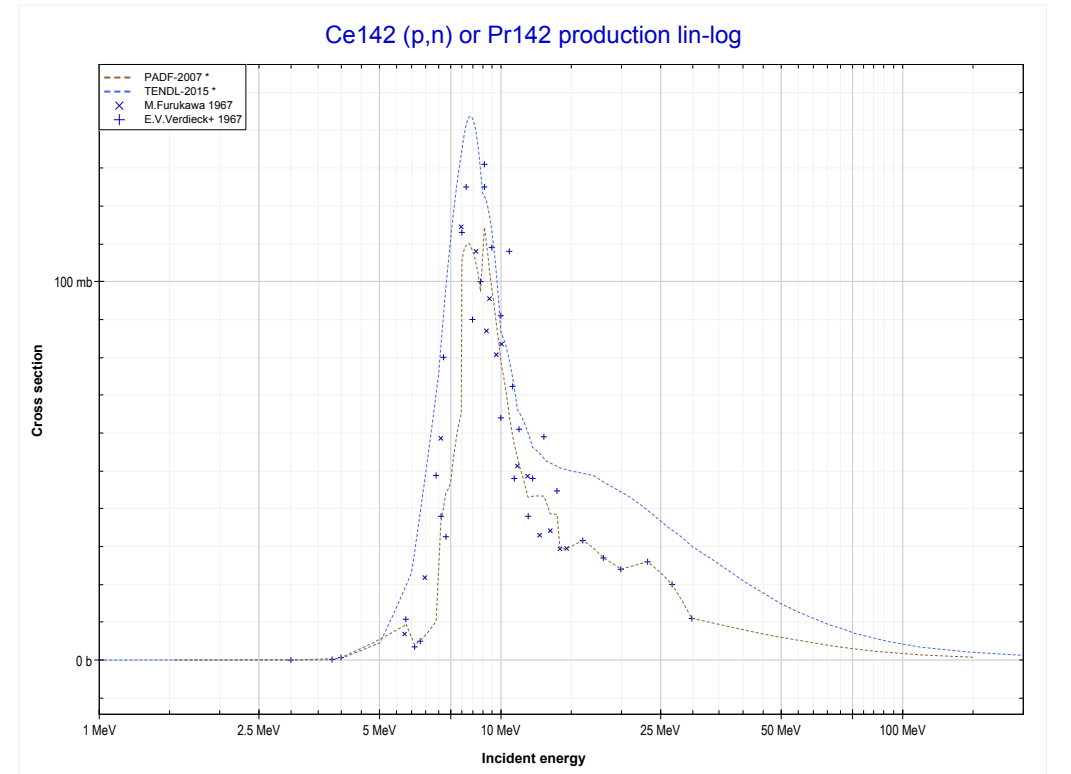
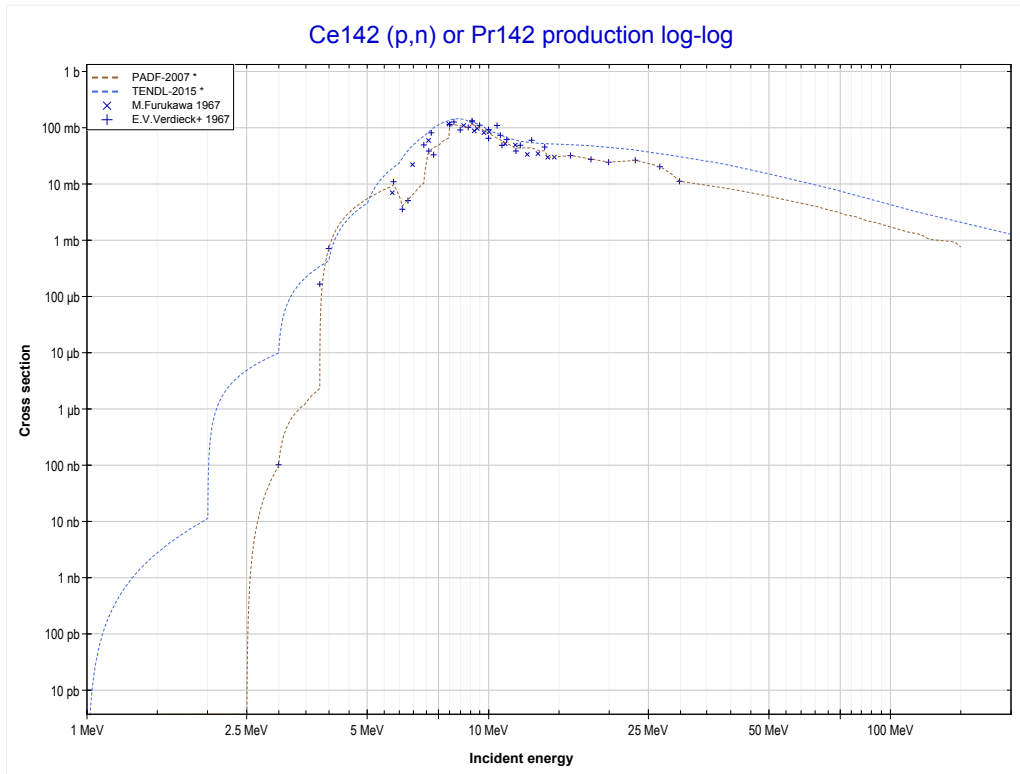
Reaction	Q-Value
Ce140(p,3n)Pr138	-21872.18 keV

<< 57-La-139	58-Ce-140	60-Nd-150 >>
<< MT17 (p,3n)	MT107 (p,α) or MT5 (La137 production)	58-Ce-142 MT4 (p,n) >>



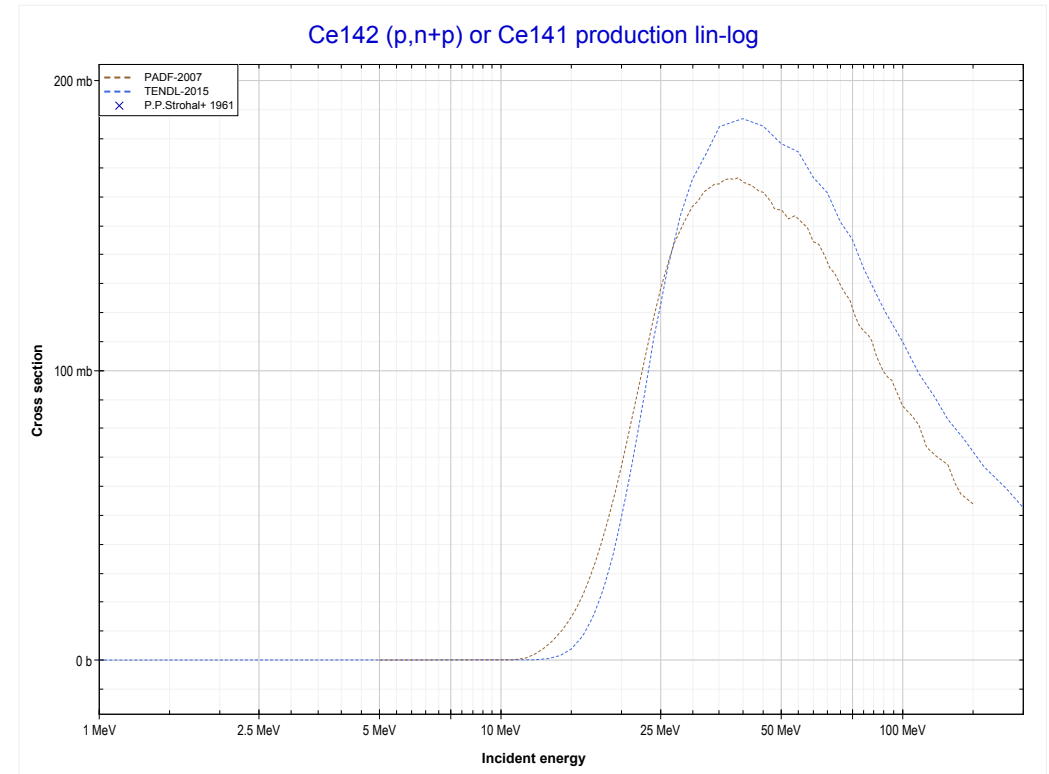
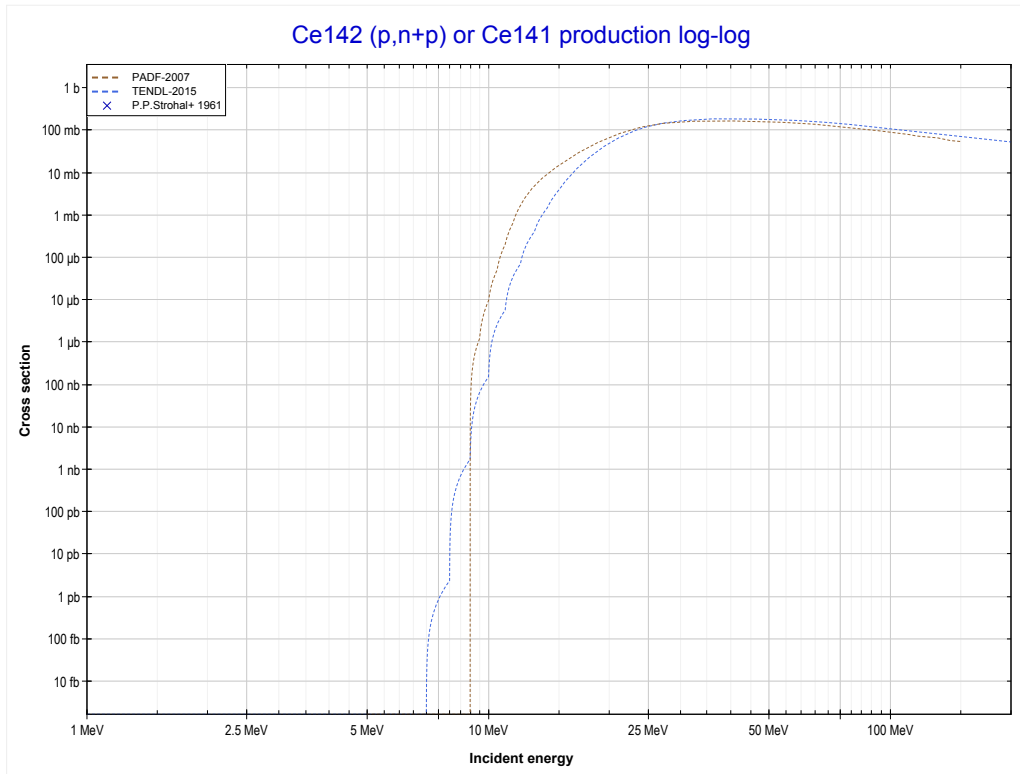
Reaction	Q-Value
Ce140(p, α)La137	3925.75 keV
Ce140(p,p+t)La137	-15888.11 keV
Ce140(p,n+He3)La137	-16651.86 keV
Ce140(p,2d)La137	-19920.77 keV
Ce140(p,n+p+d)La137	-22145.34 keV
Ce140(p,2n+2p)La137	-24369.90 keV

<< 58-Ce-140	58-Ce-142	59-Pr-141 >>
<< 58-Ce-140 MT107 (p, α)	MT4 (p,n) or MT5 (Pr142 production)	MT28 (p,n+p) >>



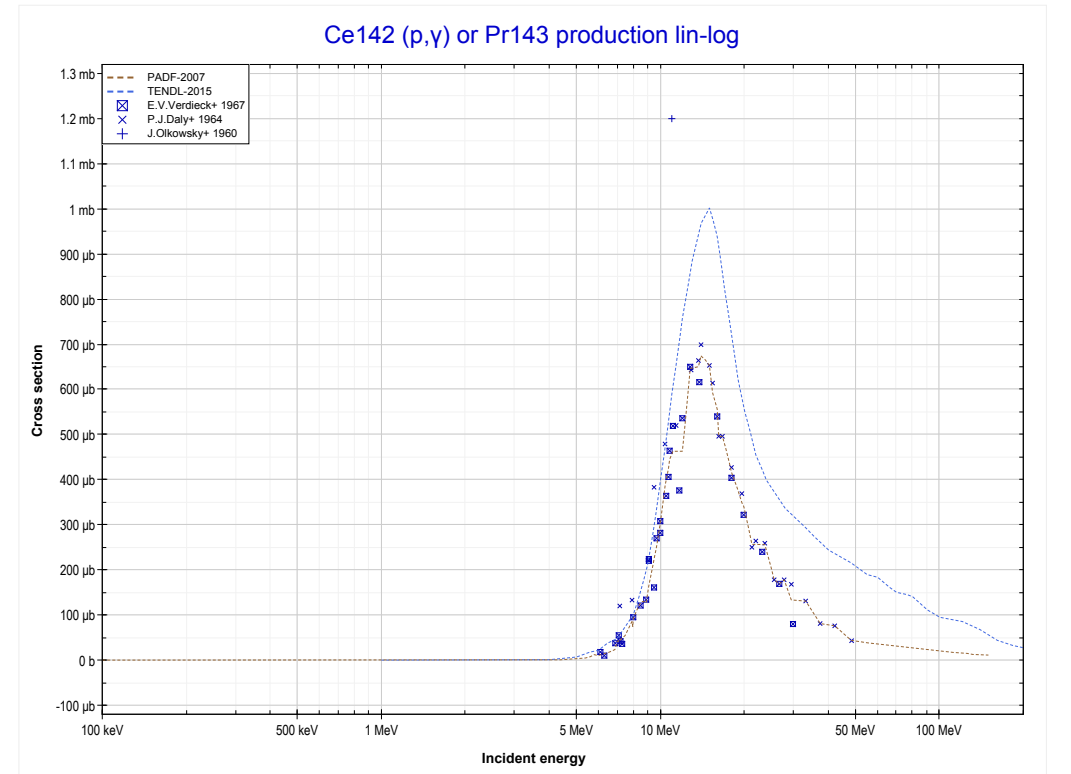
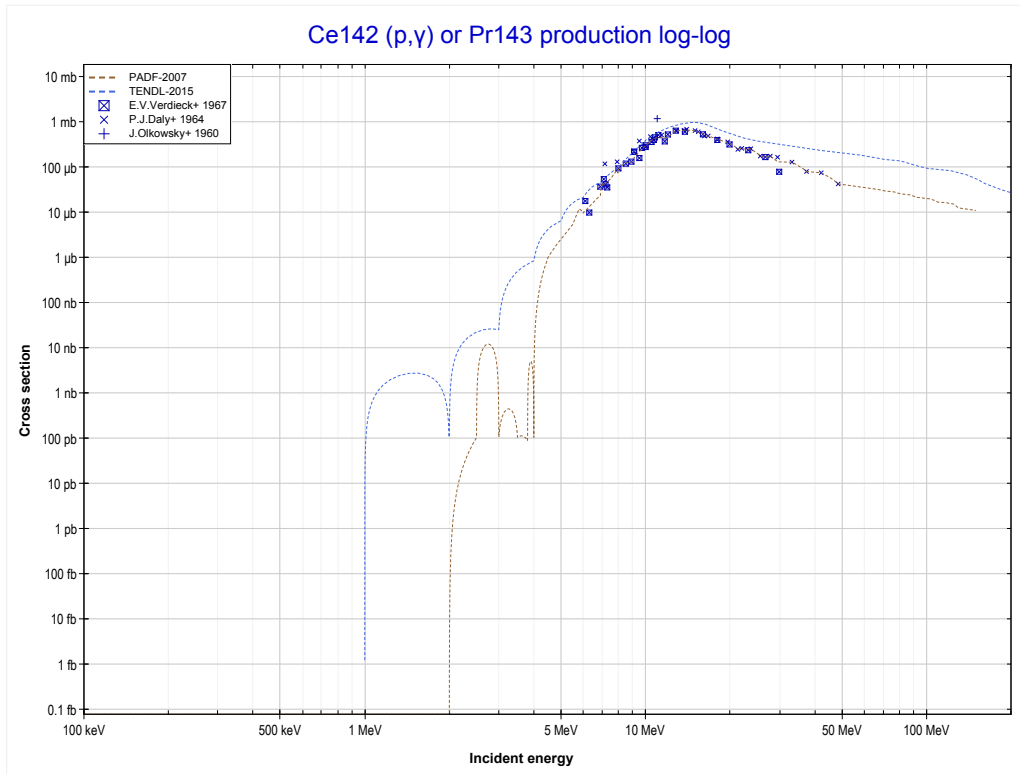
Reaction	Q-Value
Ce142(p,n)Pr142	-1526.75 keV

<< 55-Cs-133	58-Ce-142	74-W-186 >>
<< MT4 (p,n)	MT28 (p,n+p) or MT5 (Ce141 production)	MT102 (p, γ) >>



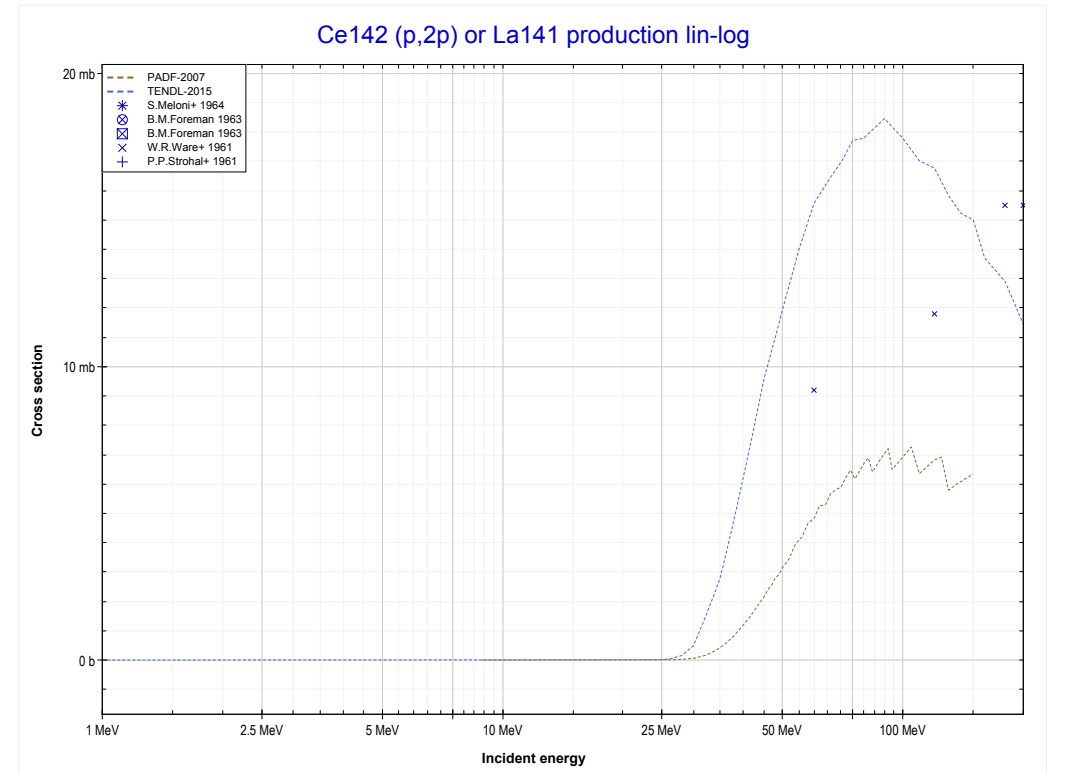
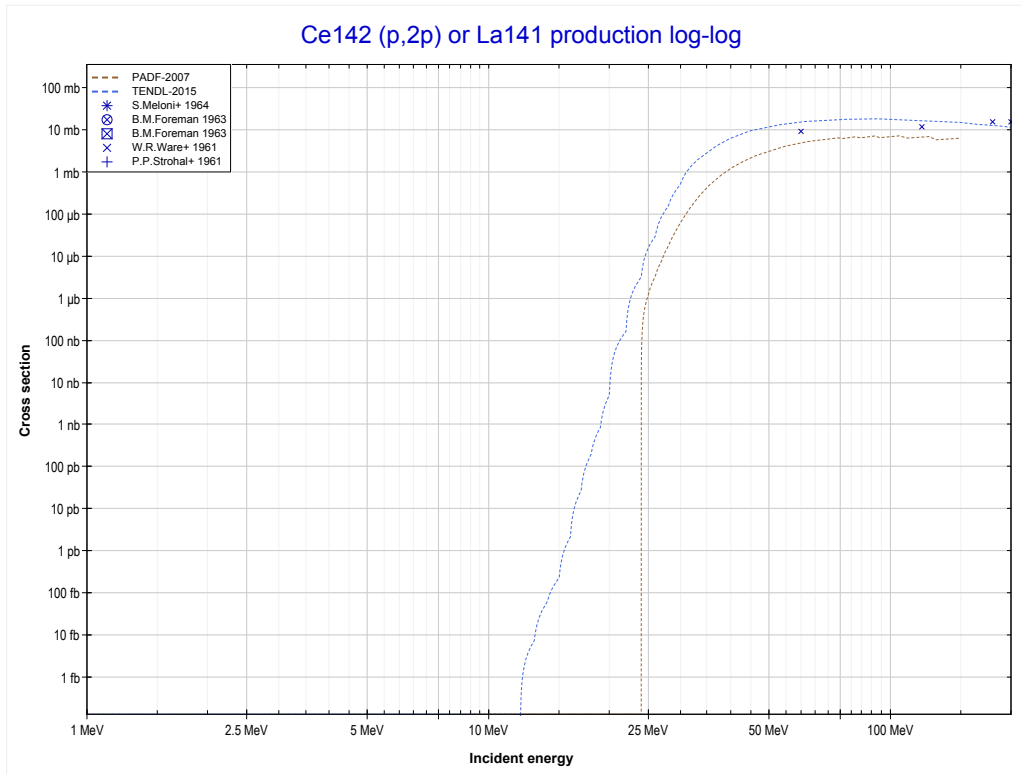
Reaction	Q-Value
Ce142(p,d)Ce141	-4943.45 keV
Ce142(p,n+p)Ce141	-7168.02 keV

<< 52-Te-130	58-Ce-142	83-Bi-209 >>
<< MT28 (p,n+p)	MT102 (p,γ) or MT5 (Pr143 production)	MT111 (p,2p) >>



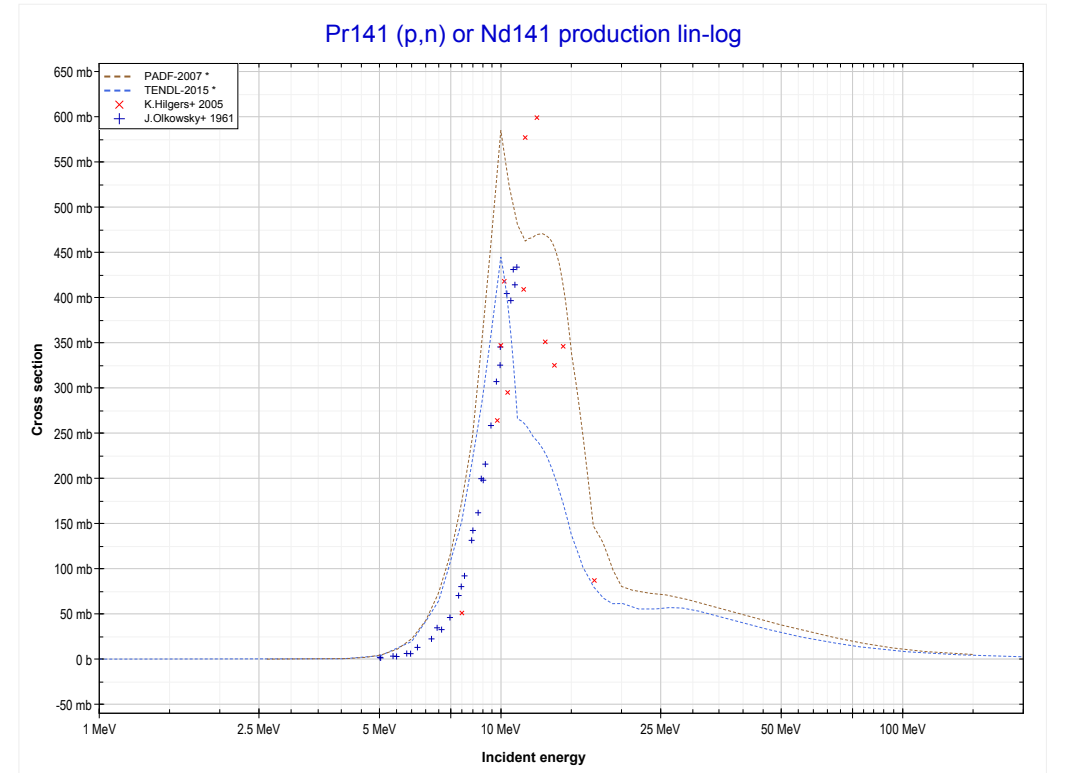
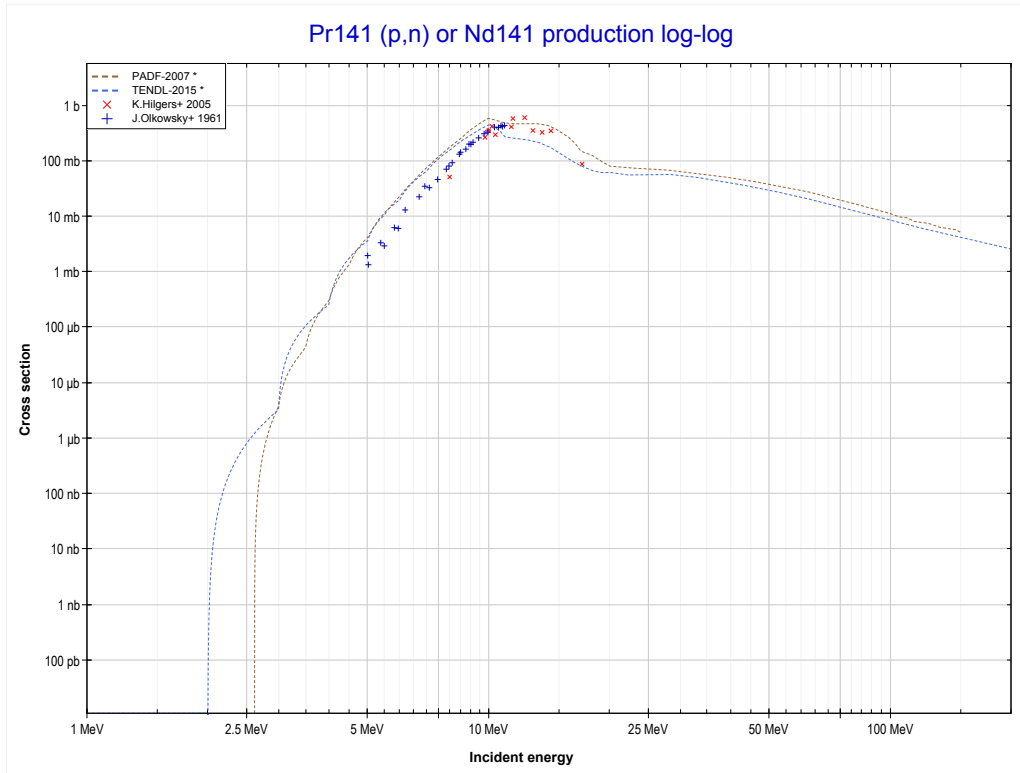
Reaction	Q-Value
Ce142(p, γ)Pr143	5824.27 keV

<< 52-Te-130	58-Ce-142	74-W-186 >>
<< MT102 (p, γ)	MT111 (p,2p) or MT5 (La141 production)	59-Pr-141 MT4 (p,n) >>



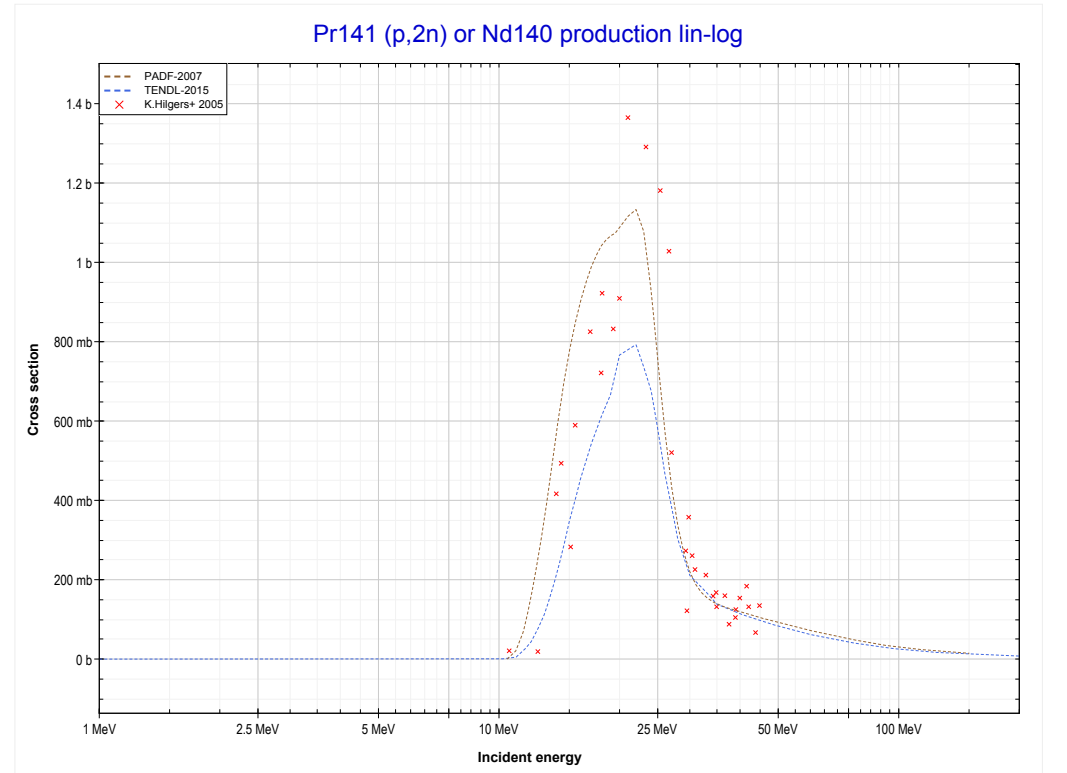
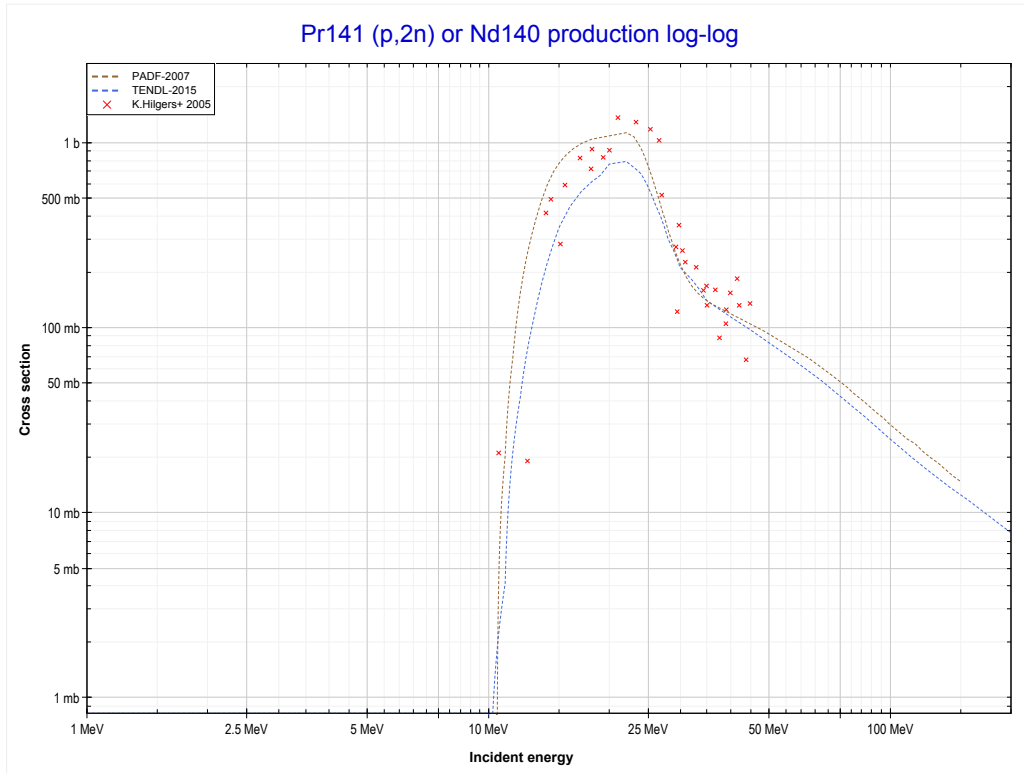
Reaction	Q-Value
Ce142(p,2p)La141	-8886.67 keV

<< 58-Ce-142	59-Pr-141	60-Nd-148 >>
<< 58-Ce-142 MT111 (p,2p)	MT4 (p,n) or MT5 (Nd141 production)	MT16 (p,2n) >>



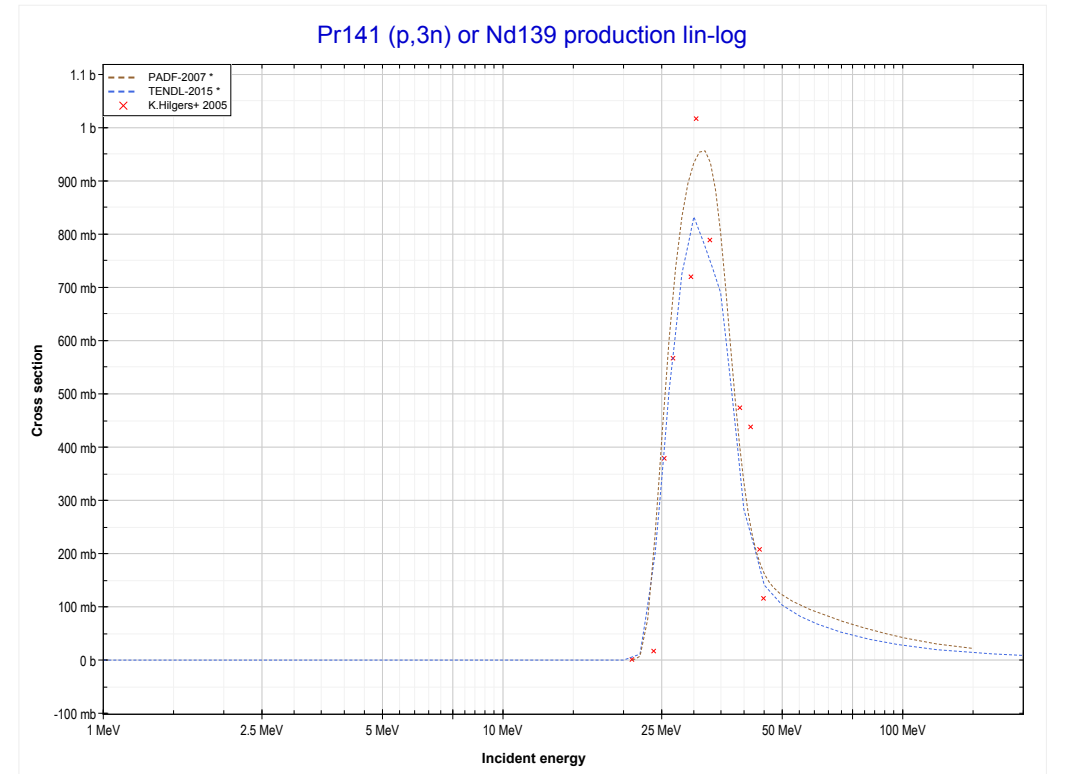
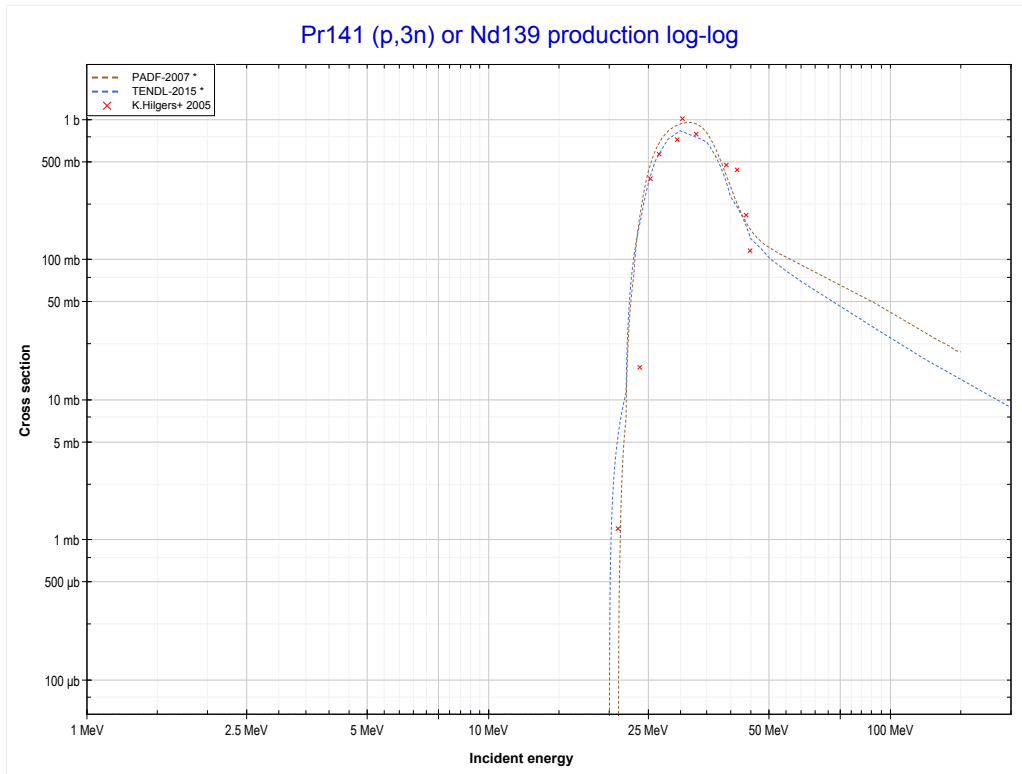
Reaction	Q-Value
Pr141(p,n)Nd141	-2605.75 keV

<< 58-Ce-140	59-Pr-141	60-Nd-150 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Nd140 production)	MT17 (p,3n) >>



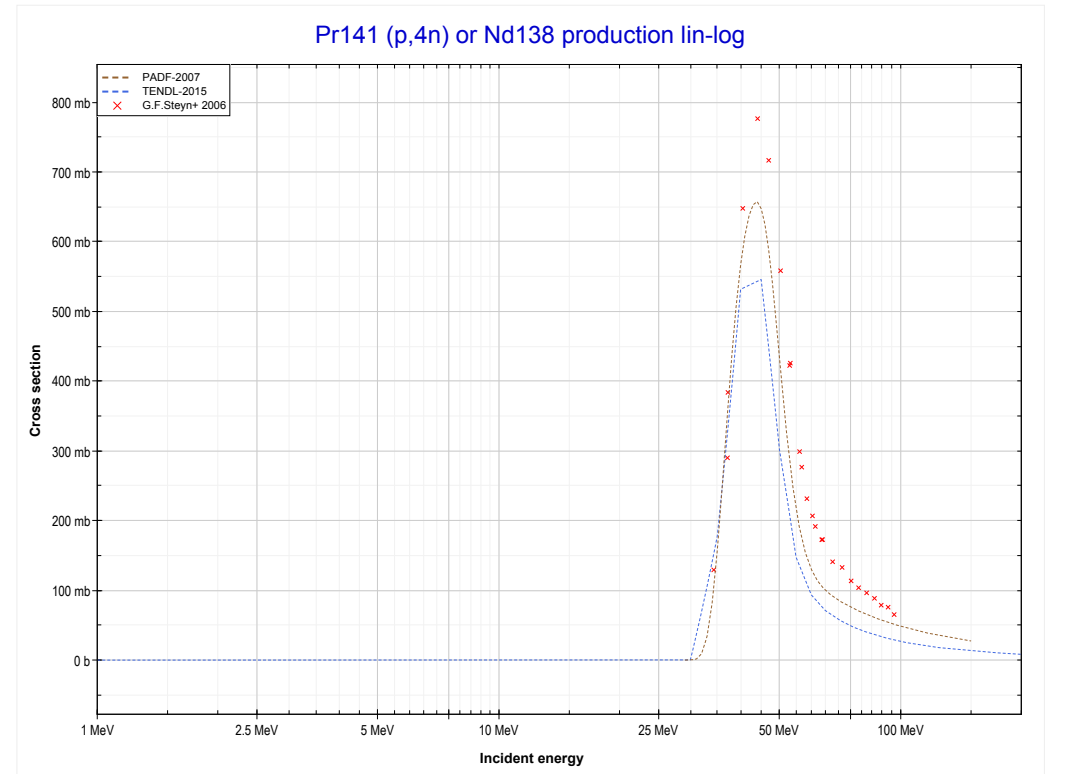
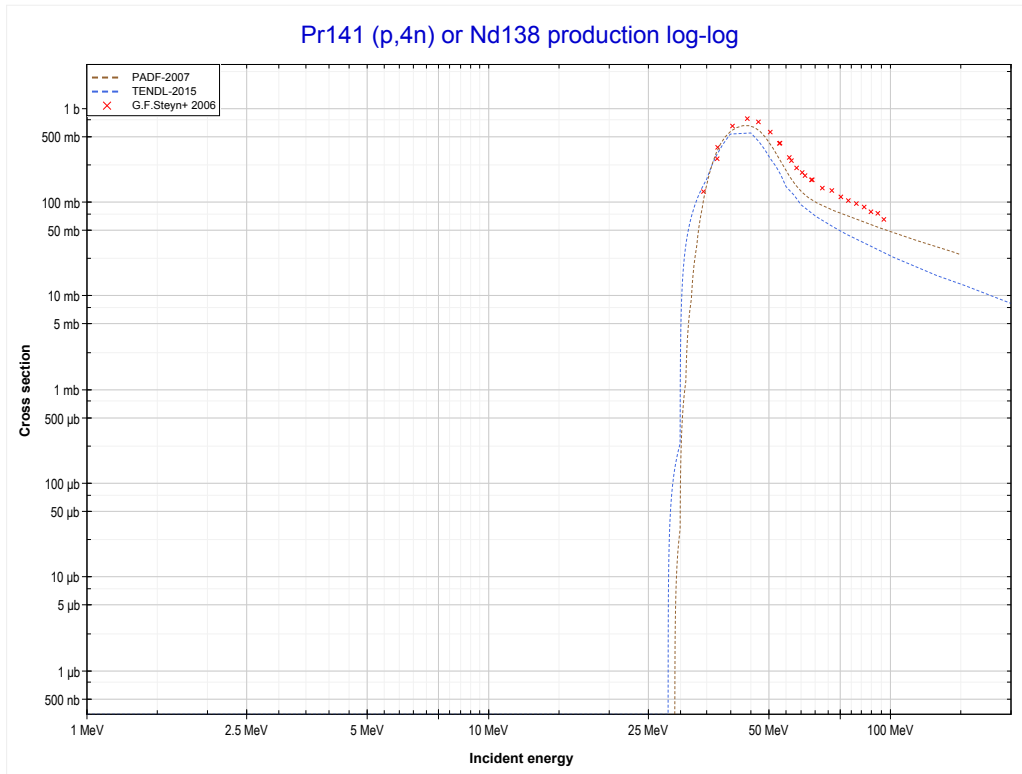
Reaction	Q-Value
Pr141(p,2n)Nd140	-10616.06 keV

<< 58-Ce-140	59-Pr-141	63-Eu-151 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Nd139 production)	MT37 (p,4n) >>



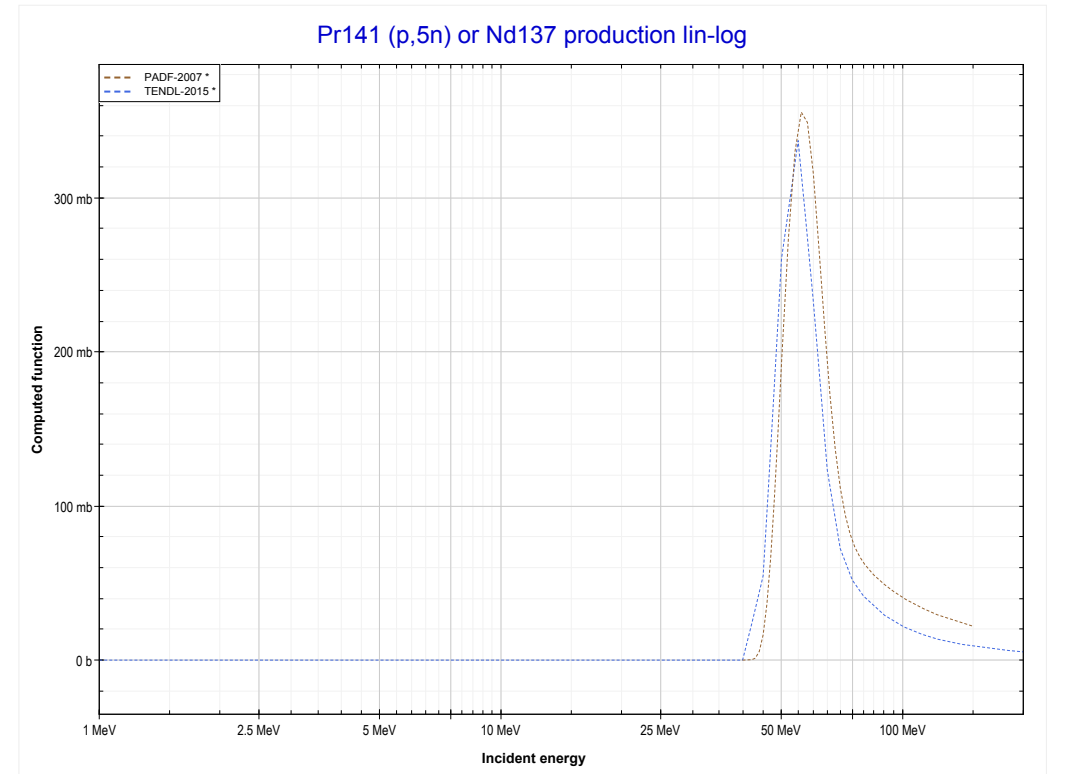
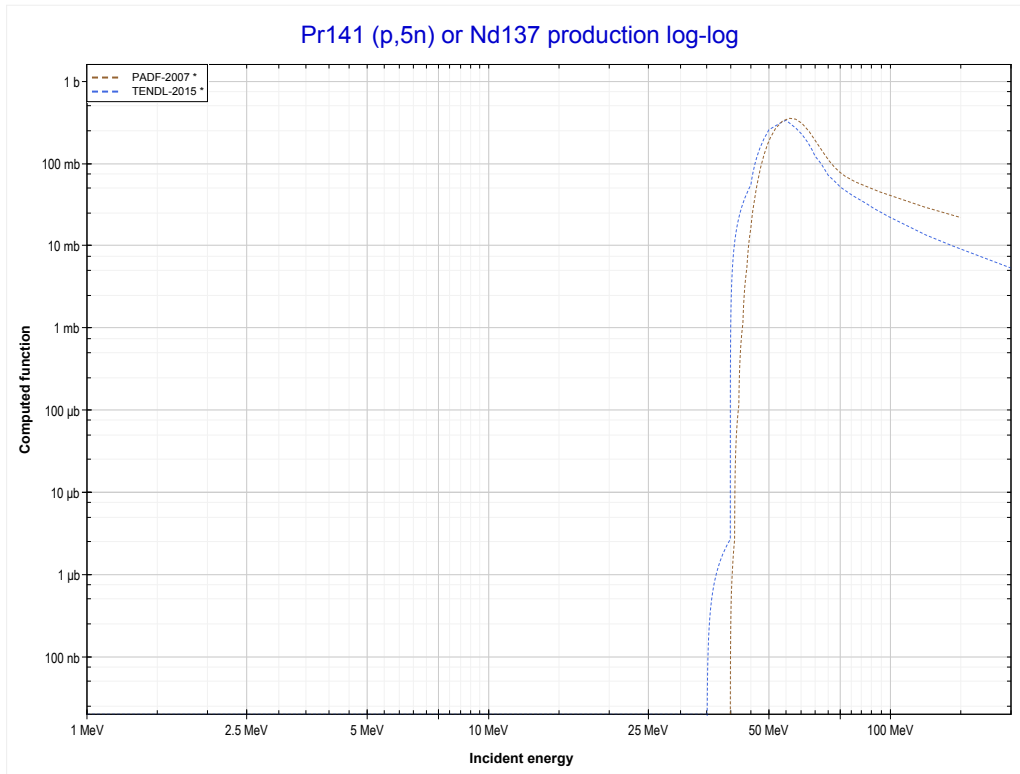
Reaction	Q-Value
Pr141(p,3n)Nd139	-20926.38 keV

<< 52-Te-126	59-Pr-141	66-Dy-163 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Nd138 production)	MT152 (p,5n) >>



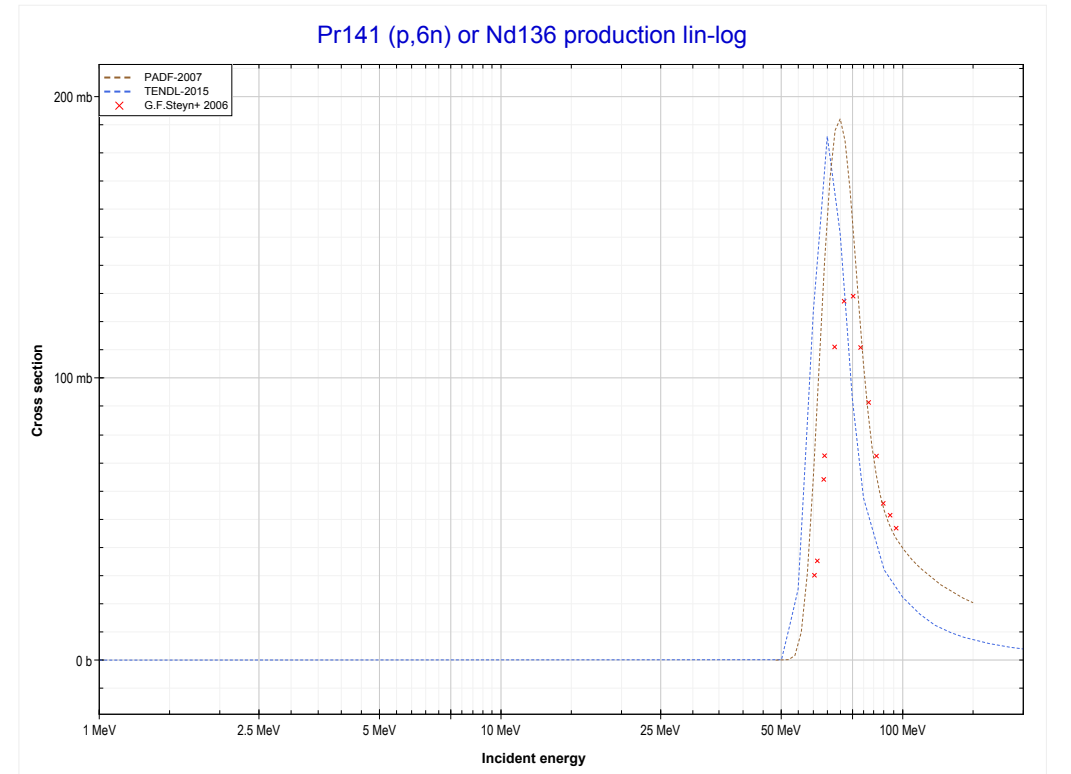
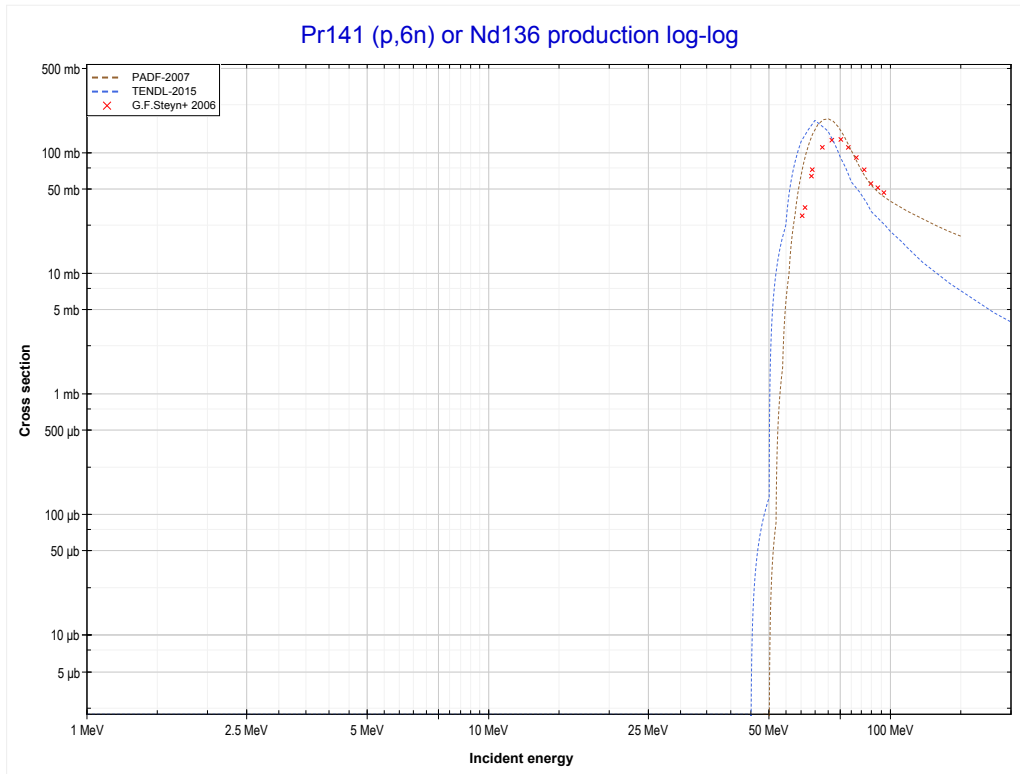
Reaction	Q-Value
Pr141(p,4n)Nd138	-28994.70 keV

<< 55-Cs-133	59-Pr-141	67-Ho-165 >>
<< MT37 (p,4n)	MT152 (p,5n) or MT5 (Nd137 production)	MT153 (p,6n) >>



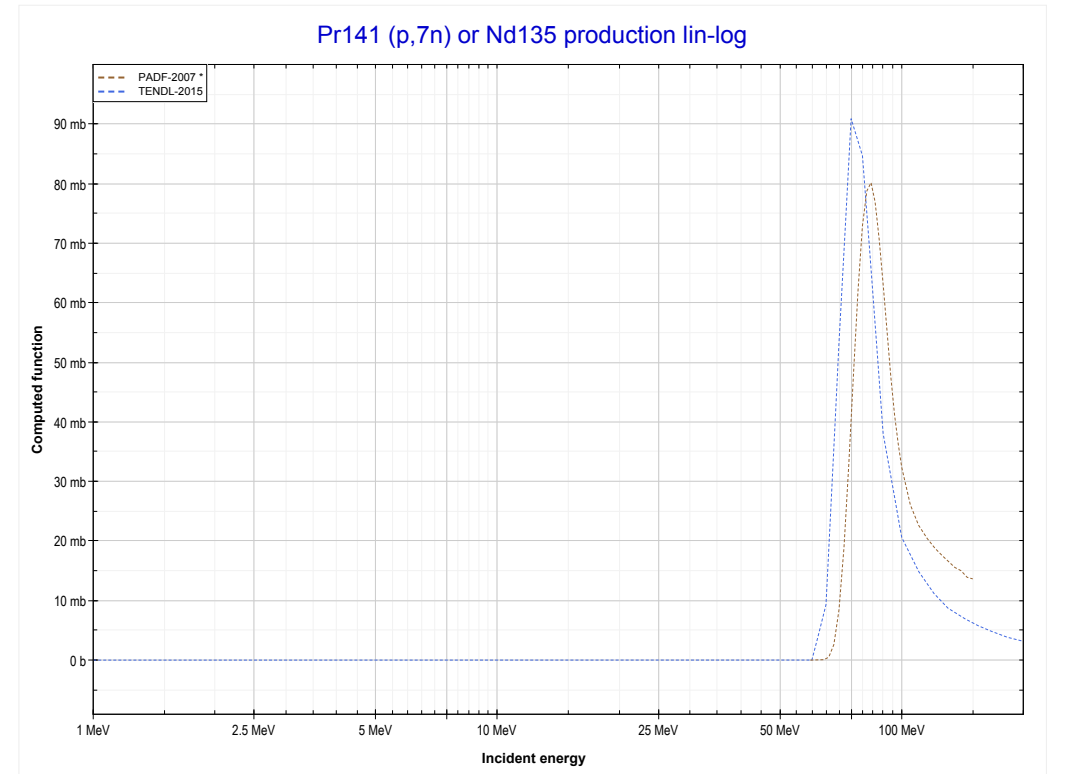
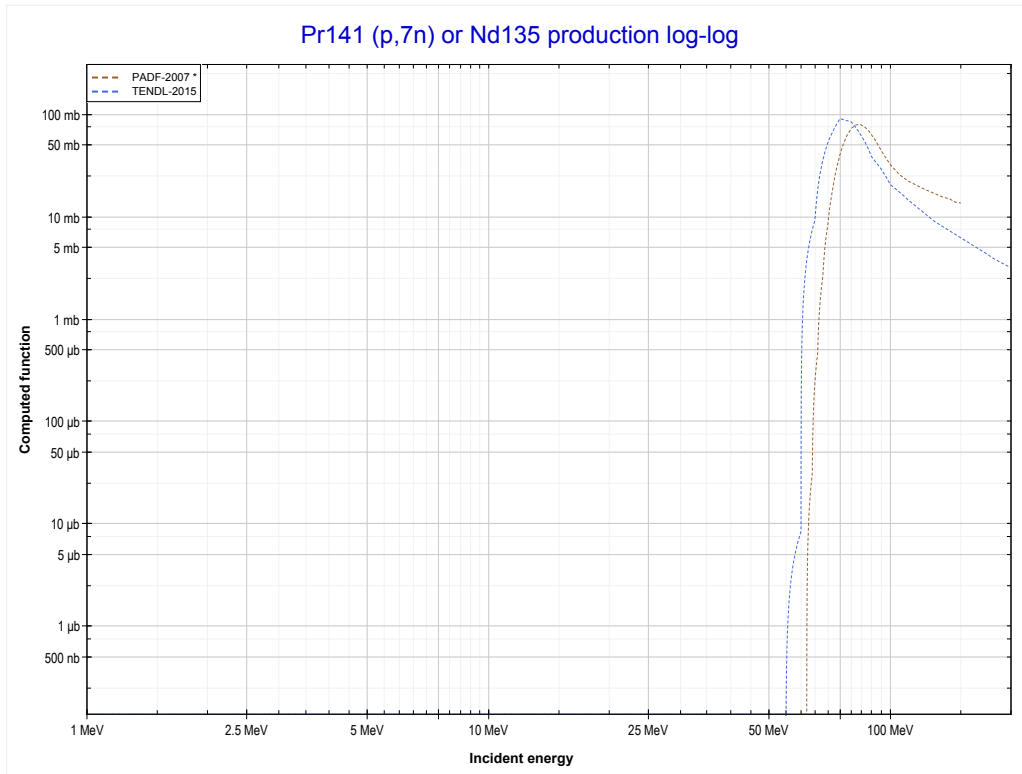
Reaction	Q-Value
Pr141(p,5n)Nd137	-39499.01 keV

<< 55-Cs-133	59-Pr-141	67-Ho-165 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Nd136 production)	MT160 (p,7n) >>



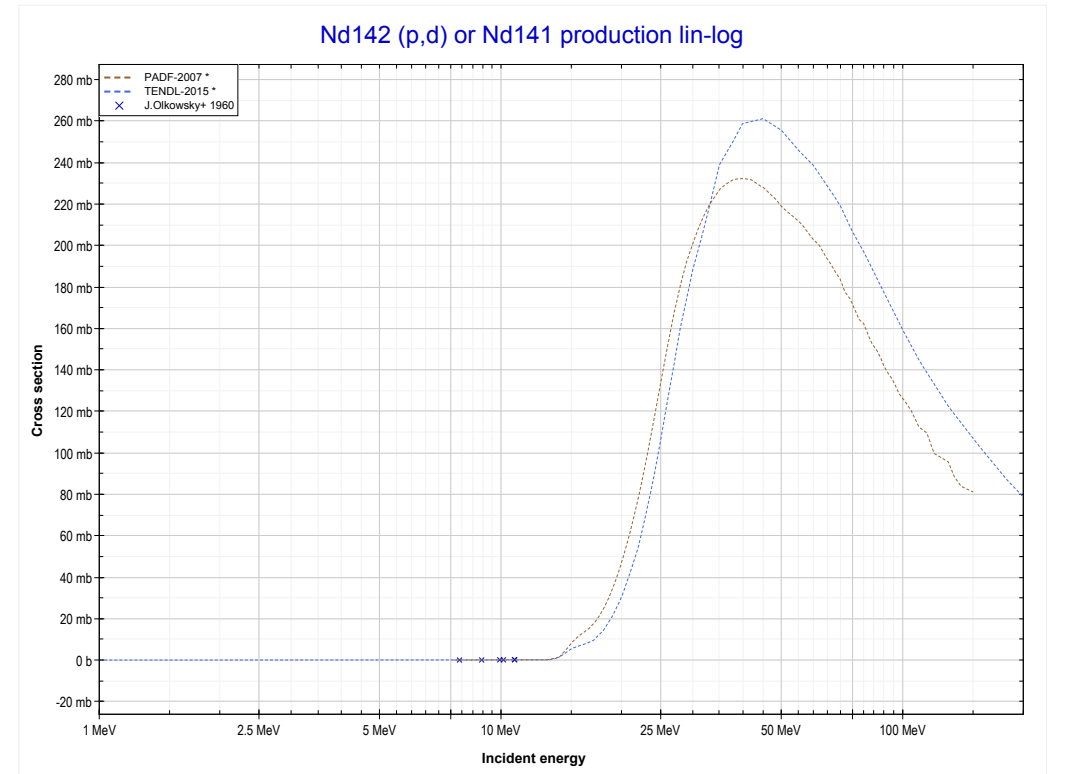
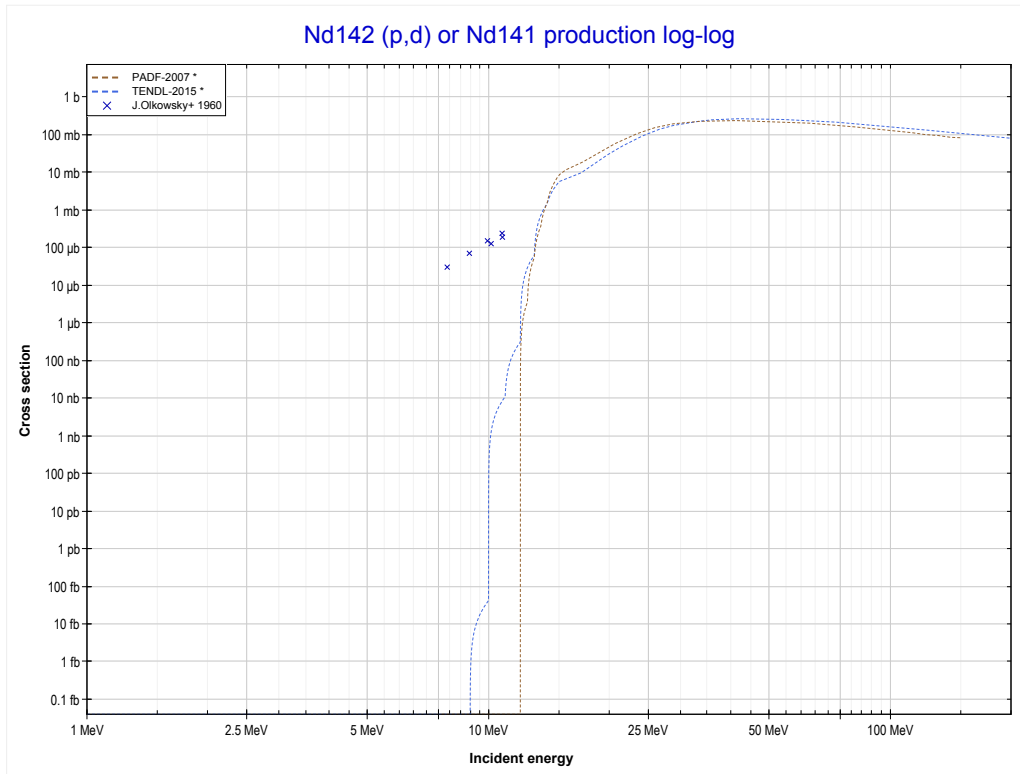
Reaction	Q-Value
Pr141(p,6n)Nd136	-47956.33 keV

<< 53-I-127	59-Pr-141	76-Os-192 >>
<< MT153 (p,6n)	MT160 (p,7n) or MT5 (Nd135 production)	60-Nd-142 MT104 (p,d) >>



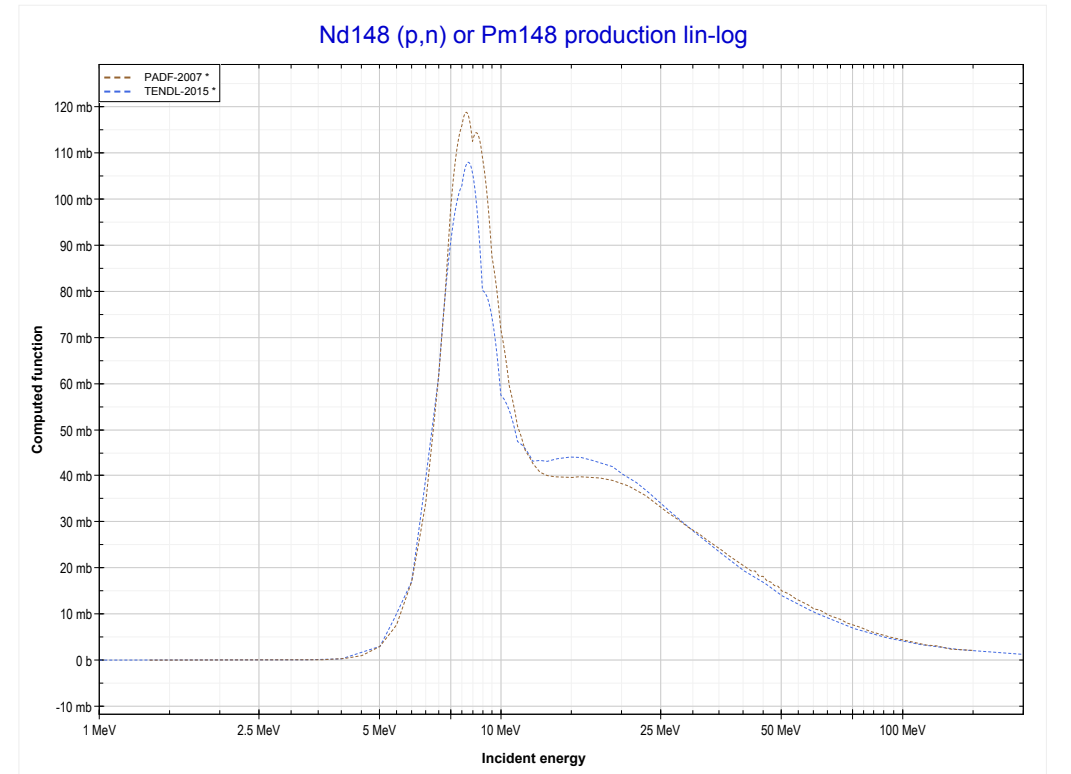
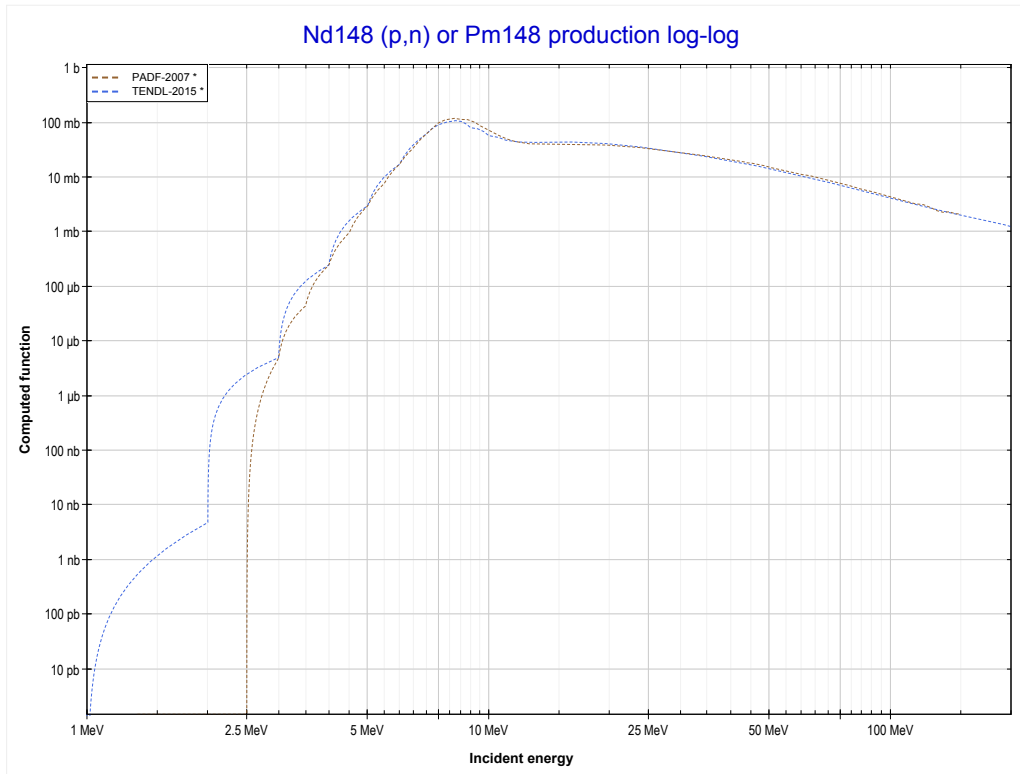
Reaction	Q-Value
Pr141(p,7n)Nd135	-59012.65 keV

<< 4-Be-9	60-Nd-142	92-U-235 >>
<< 59-Pr-141 MT160 (p,7n)	MT104 (p,d) or MT5 (Nd141 production)	60-Nd-148 MT4 (p,n) >>



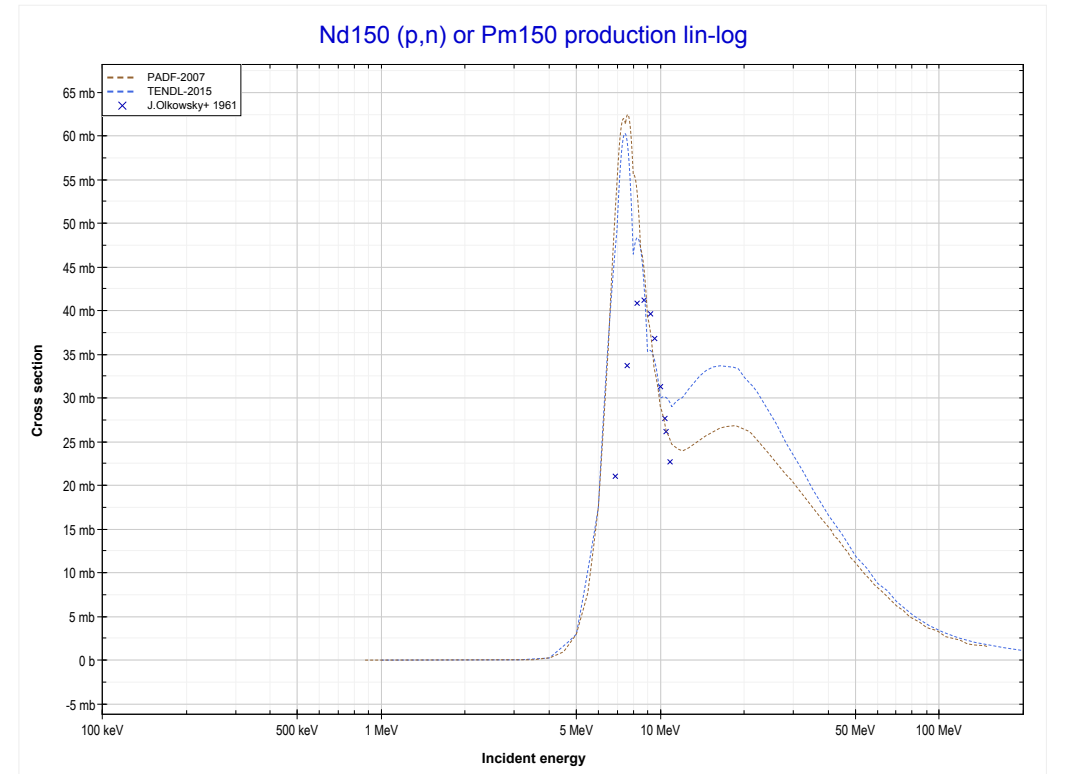
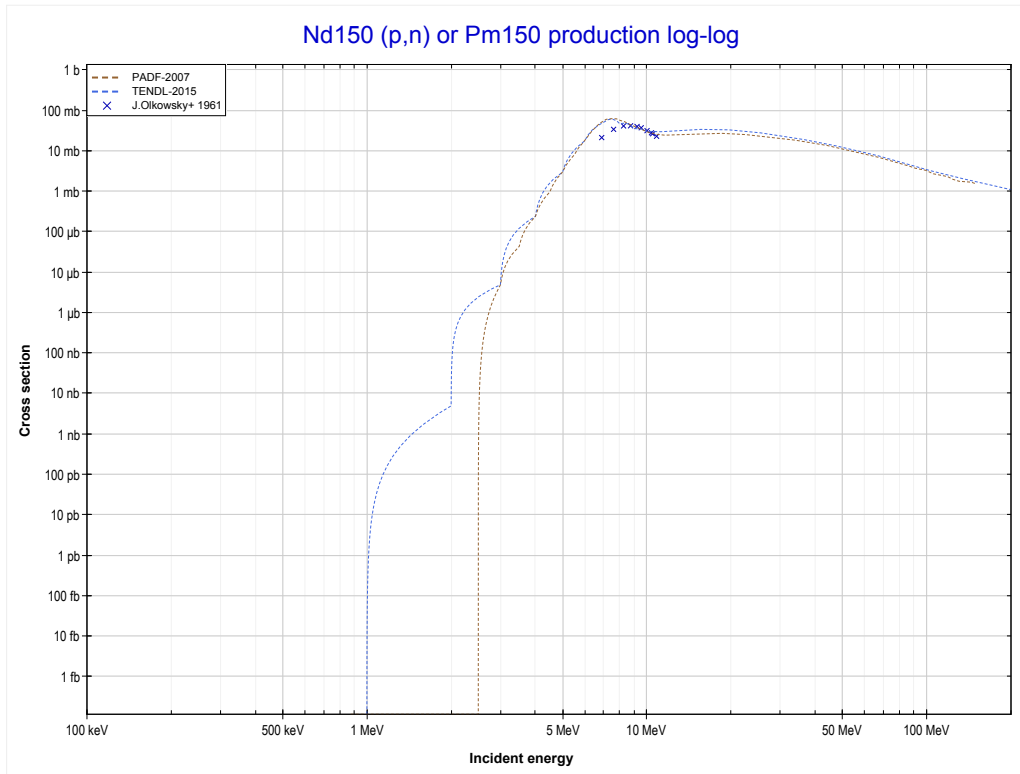
Reaction	Q-Value
Nd142(p,d)Nd141	-7603.65 keV
Nd142(p,n+p)Nd141	-9828.22 keV

<< 59-Pr-141	60-Nd-148	60-Nd-150 >>
<< 60-Nd-142 MT104 (p,d)	MT4 (p,n) or MT5 (Pm148 production)	60-Nd-150 MT4 (p,n) >>



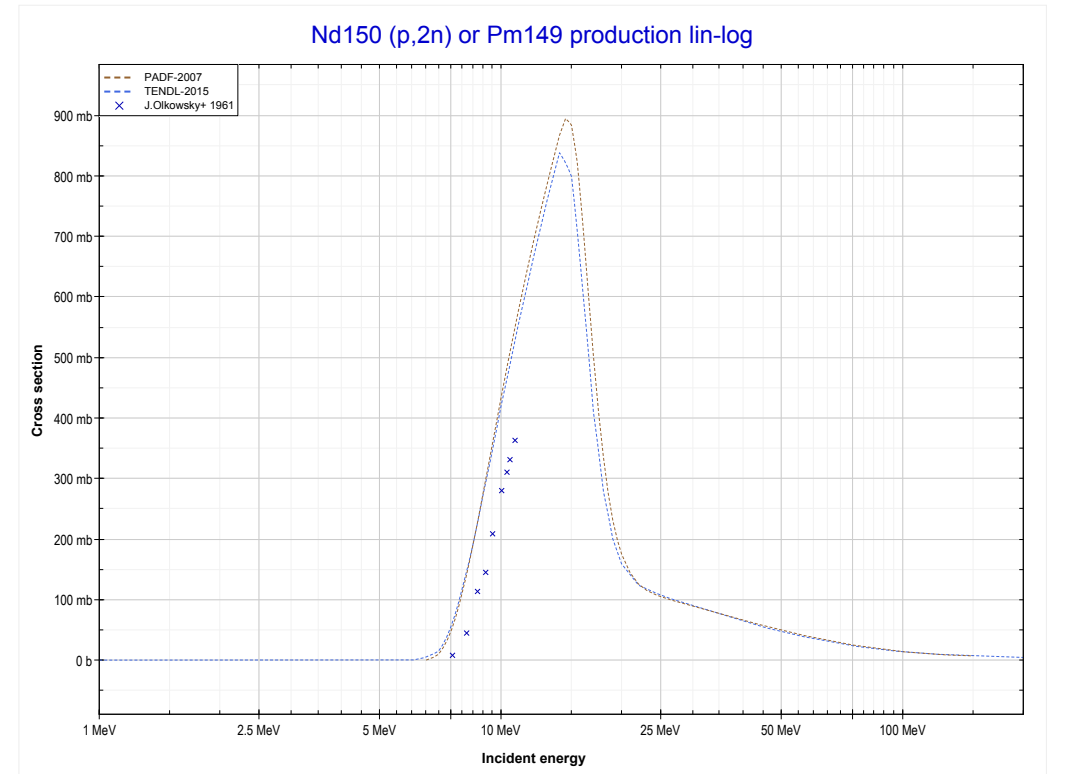
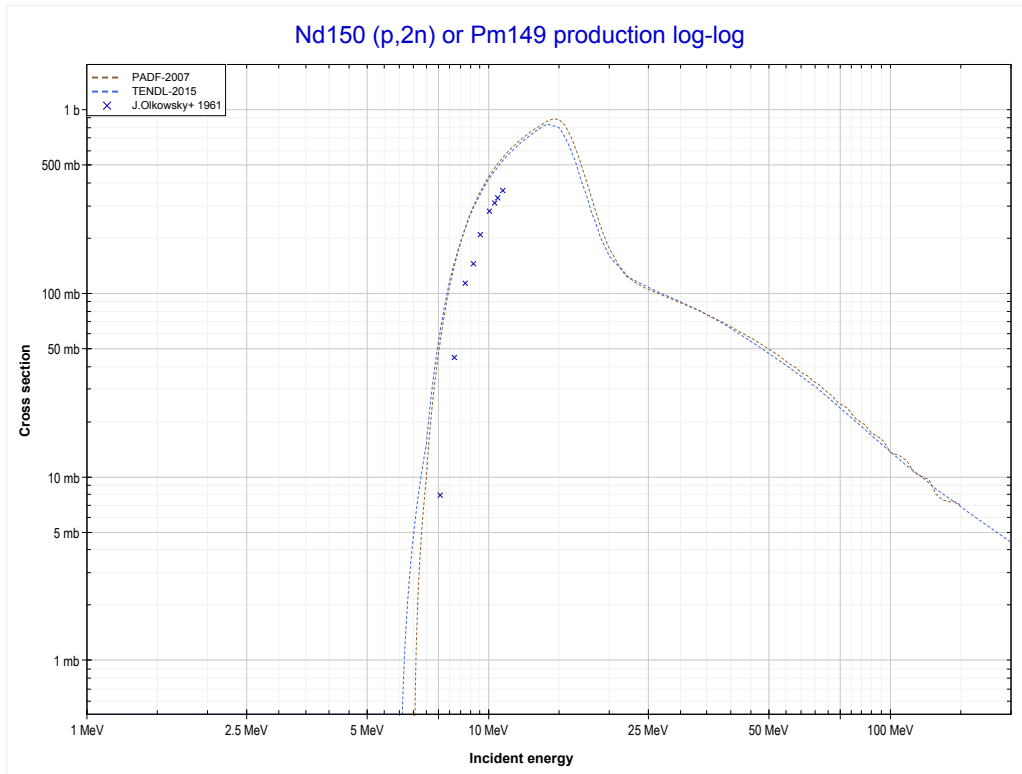
Reaction	Q-Value
Nd148(p,n)Pm148	-1325.15 keV

<< 60-Nd-148	60-Nd-150	62-Sm-147 >>
<< 60-Nd-148 MT4 (p,n)	MT4 (p,n) or MT5 (Pm150 production)	MT16 (p,2n) >>



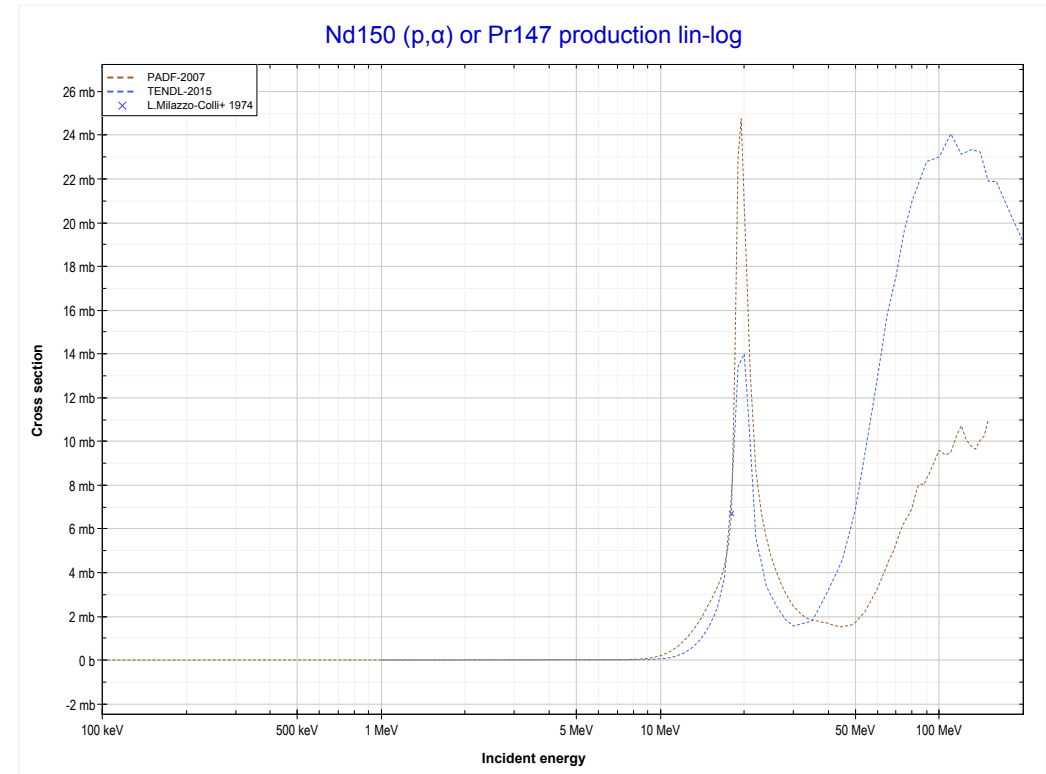
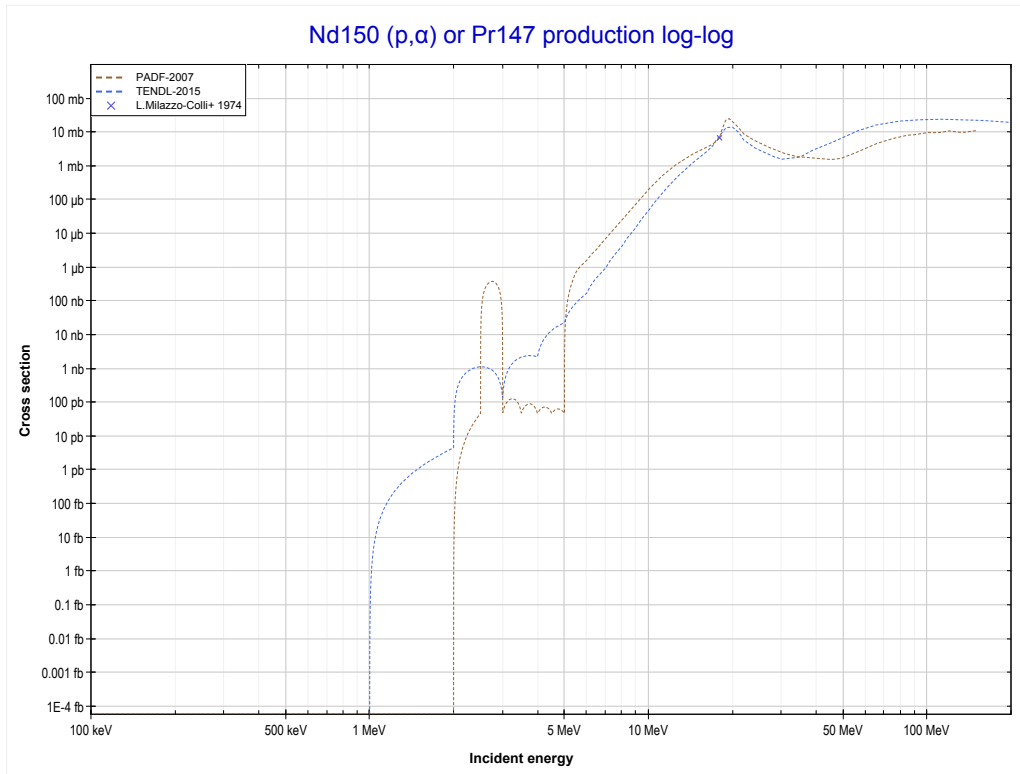
Reaction	Q-Value
Nd150(p,n)Pm150	-865.45 keV

<< 59-Pr-141	60-Nd-150	62-Sm-147 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Pm149 production)	MT107 (p, α) >>



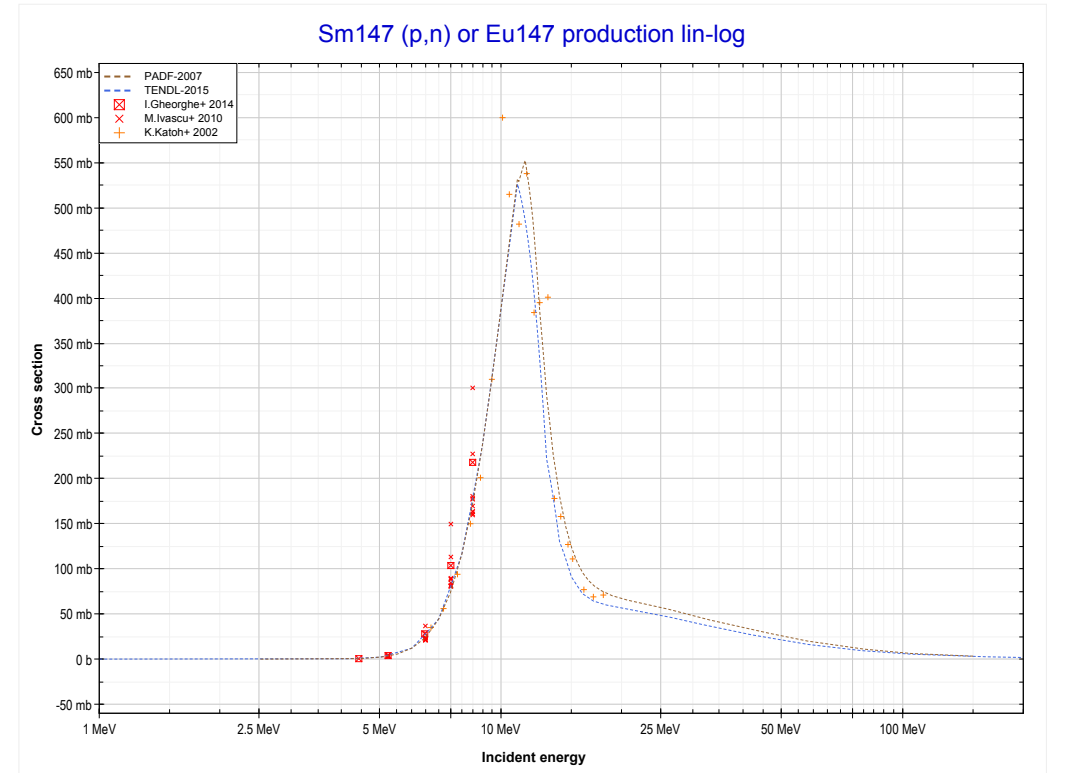
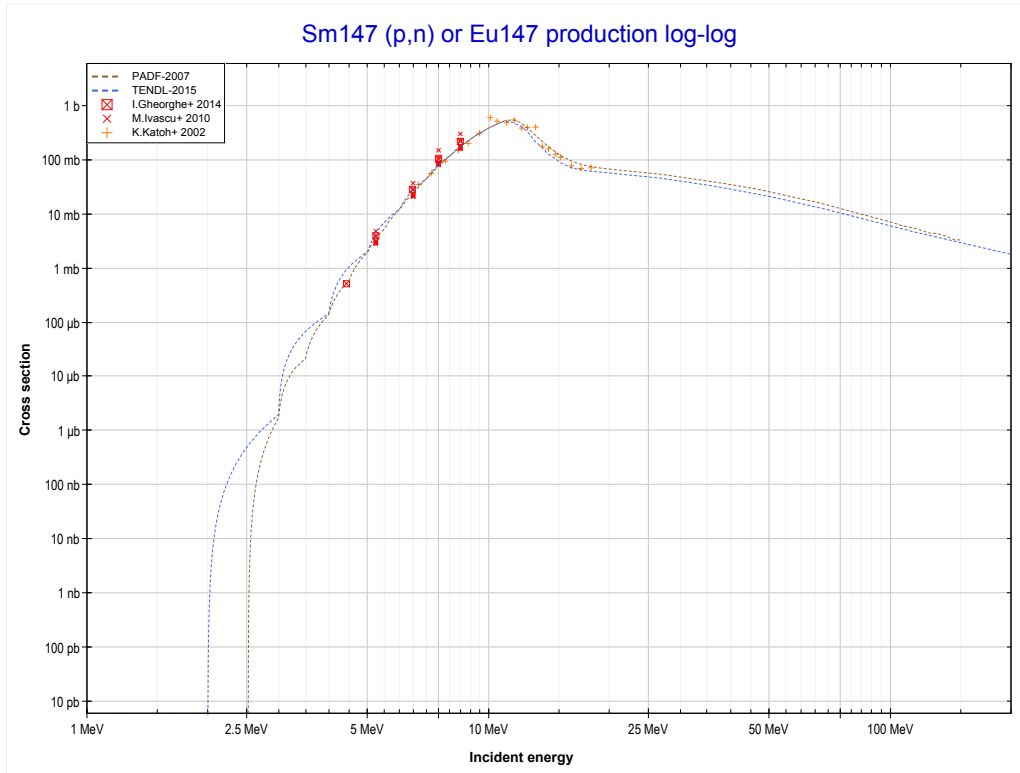
Reaction	Q-Value
Nd150(p,2n)Pm149	-6469.06 keV

<< 58-Ce-140	60-Nd-150	62-Sm-147 >>
<< MT16 (p,2n)	MT107 (p,α) or MT5 (Pr147 production)	62-Sm-147 MT4 (p,n) >>



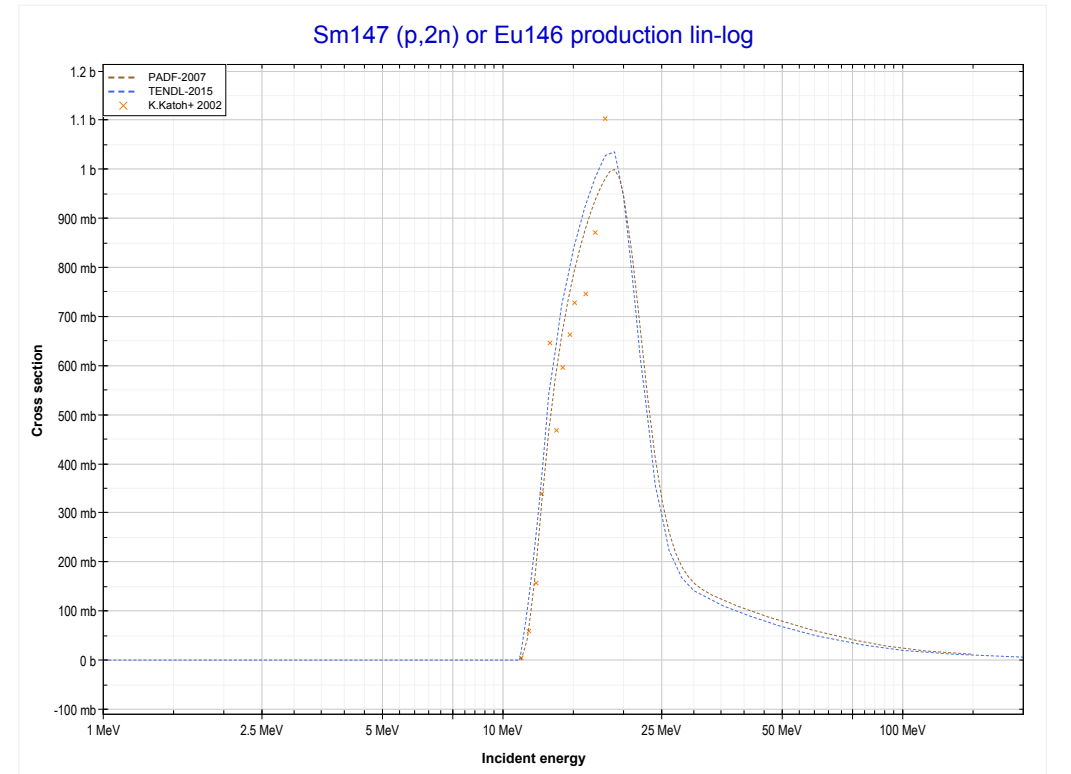
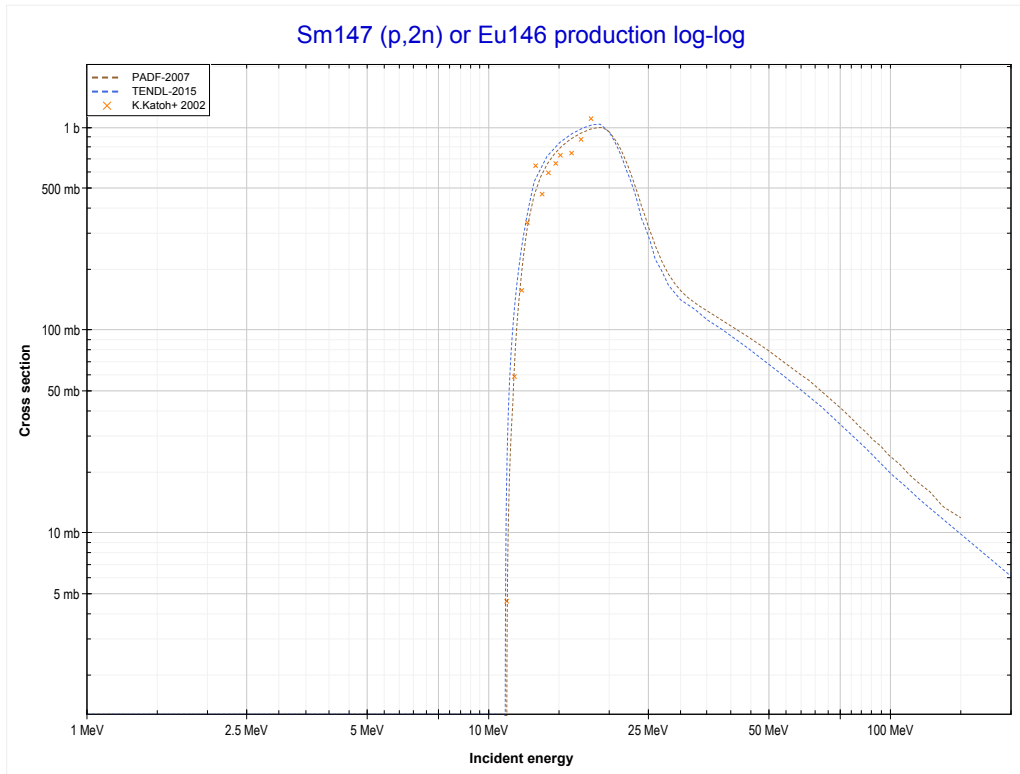
Reaction	Q-Value
Nd150(p, α)Pr147	6628.95 keV
Nd150(p,p+t)Pr147	-13184.91 keV
Nd150(p,n+He3)Pr147	-13948.66 keV
Nd150(p,2d)Pr147	-17217.57 keV
Nd150(p,n+p+d)Pr147	-19442.14 keV
Nd150(p,2n+2p)Pr147	-21666.70 keV

<< 60-Nd-150	62-Sm-147	62-Sm-149 >>
<< 60-Nd-150 MT107 (p, α)	MT4 (p,n) or MT5 (Eu147 production)	MT16 (p,2n) >>



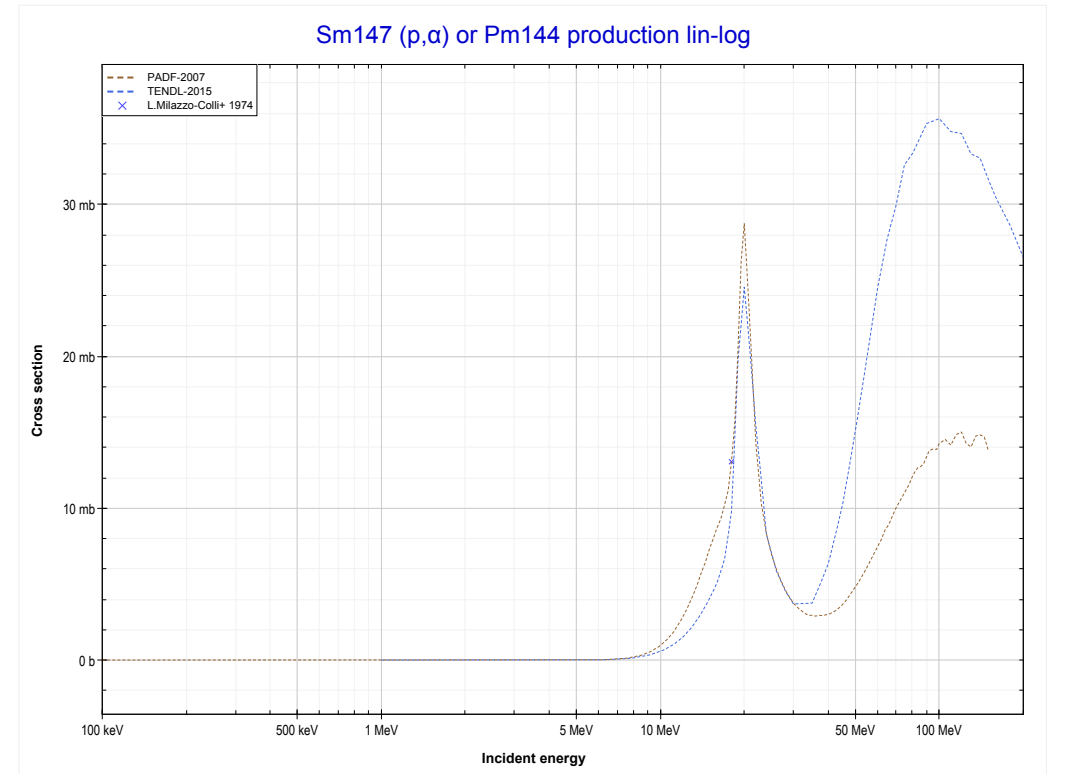
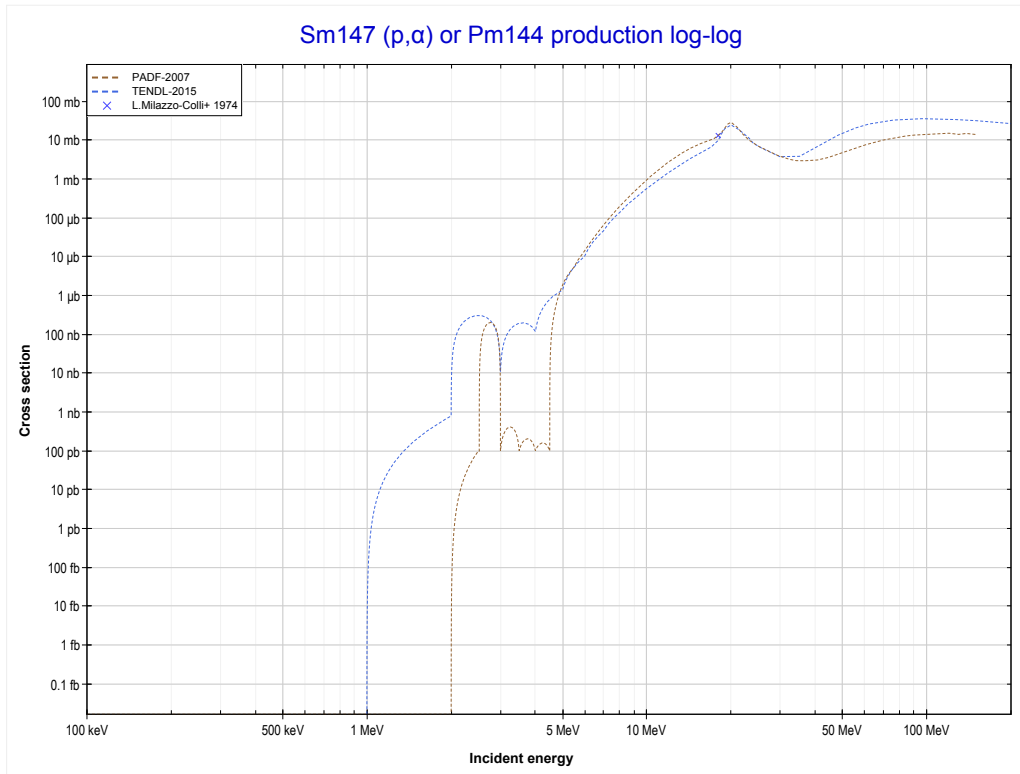
Reaction	Q-Value
Sm147(p,n)Eu147	-2503.95 keV

<< 60-Nd-150	62-Sm-147	66-Dy-161 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Eu146 production)	MT107 (p, α) >>



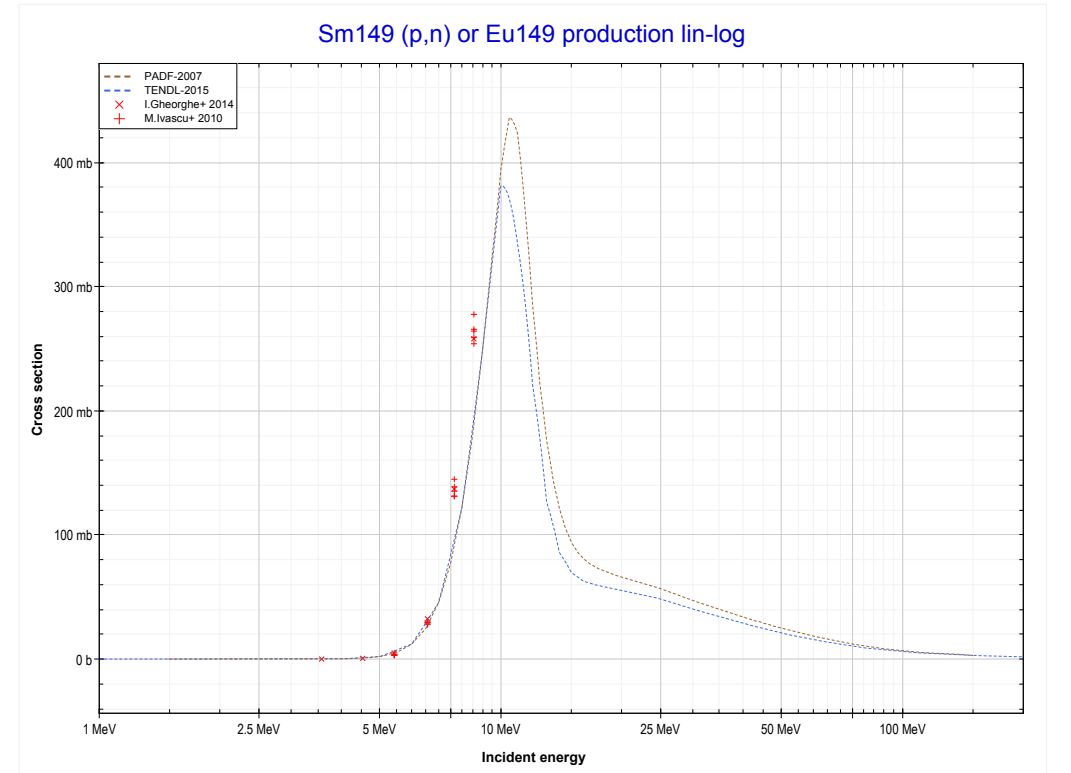
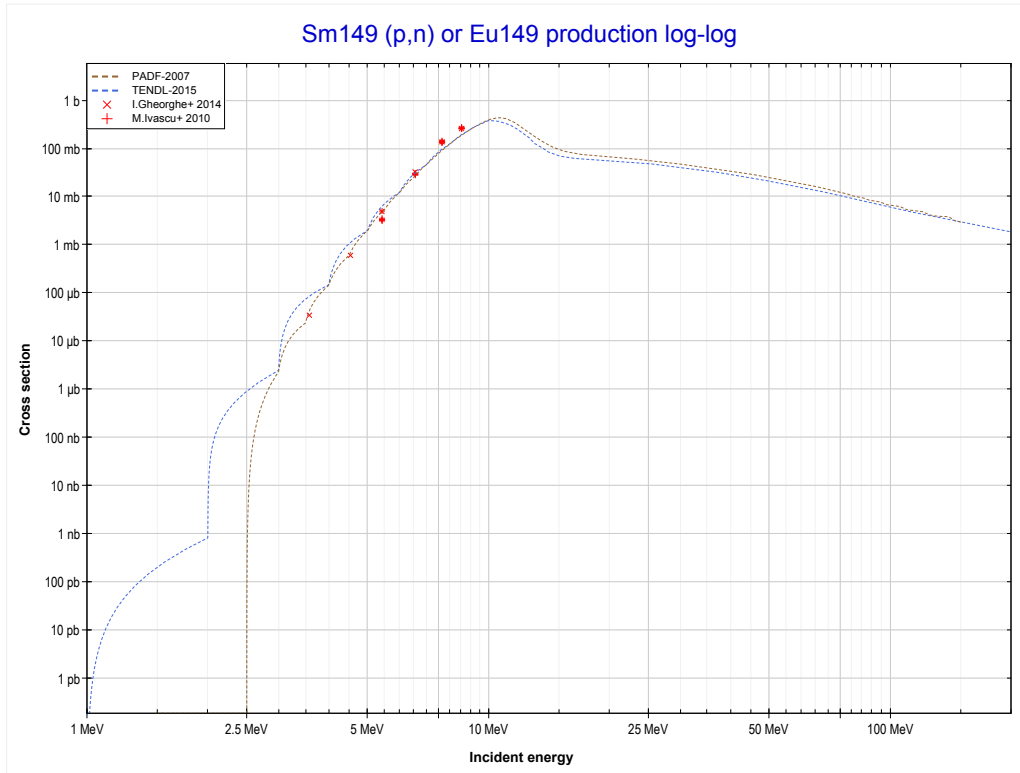
Reaction	Q-Value
Sm147(p,2n)Eu146	-11002.66 keV

<< 60-Nd-150	62-Sm-147	62-Sm-150 >>
<< MT16 (p,2n)	MT107 (p,α) or MT5 (Pm144 production)	62-Sm-149 MT4 (p,n) >>



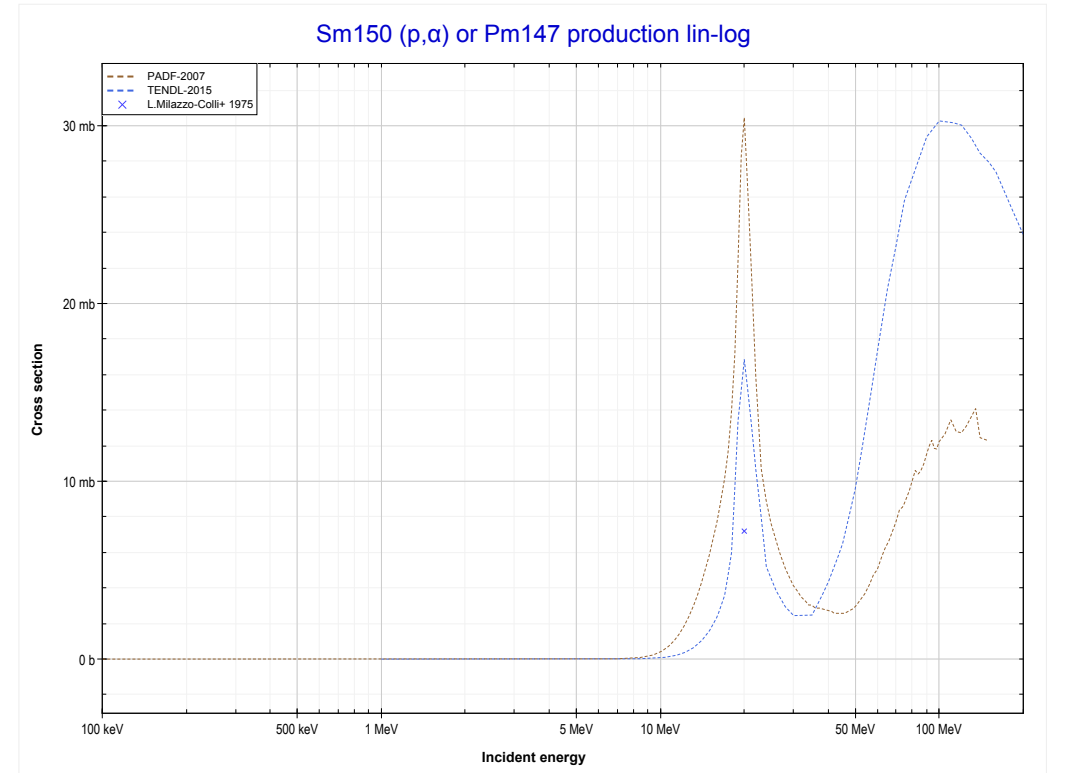
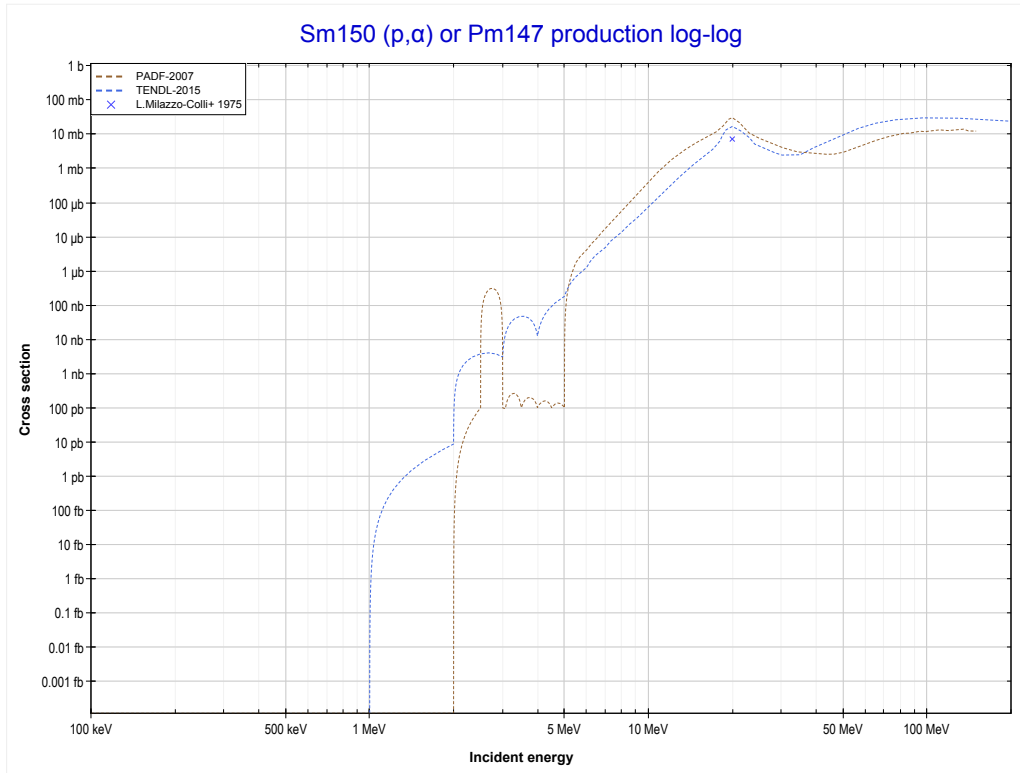
Reaction	Q-Value
Sm147(p, α)Pm144	7014.05 keV
Sm147(p,p+t)Pm144	-12799.81 keV
Sm147(p,n+He3)Pm144	-13563.56 keV
Sm147(p,2d)Pm144	-16832.47 keV
Sm147(p,n+p+d)Pm144	-19057.04 keV
Sm147(p,2n+2p)Pm144	-21281.60 keV

<< 62-Sm-147	62-Sm-149	63-Eu-151 >>
<< 62-Sm-147 MT107 (p, α)	MT4 (p,n) or MT5 (Eu149 production)	62-Sm-150 MT107 (p, α) >>



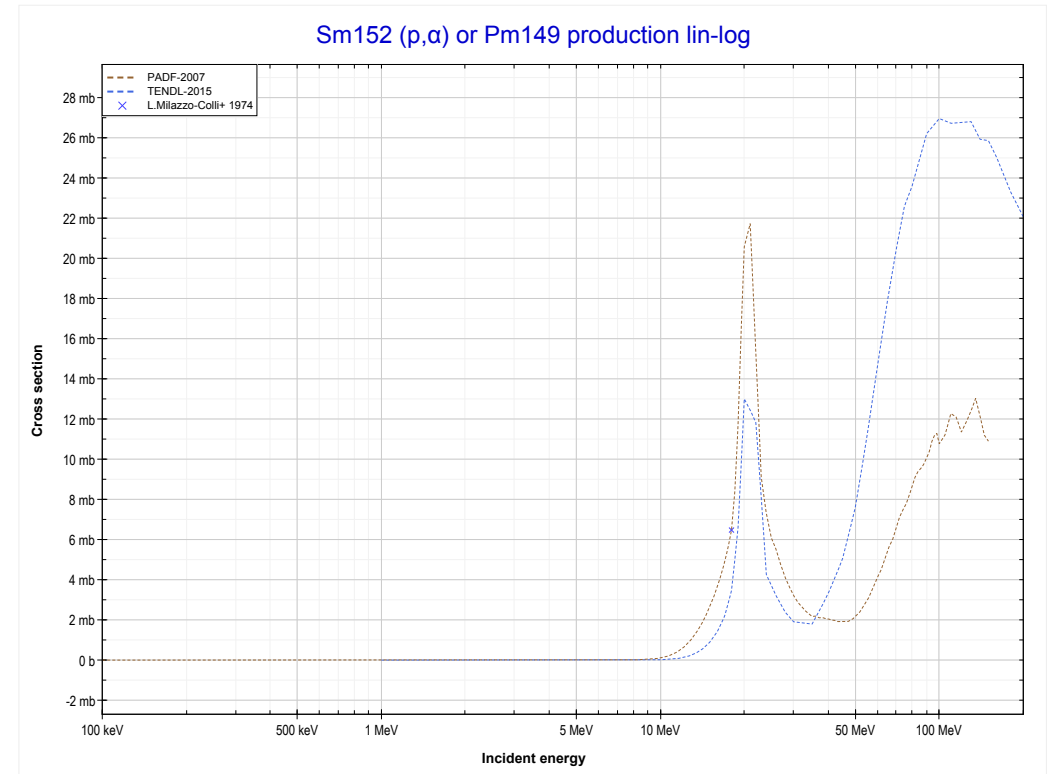
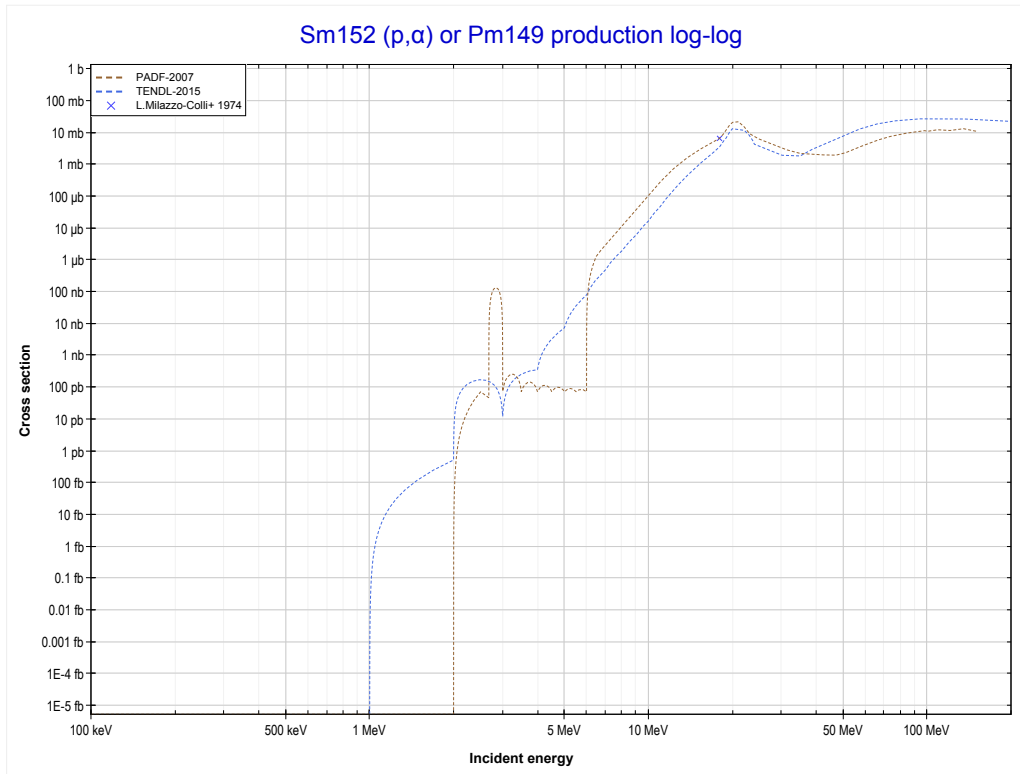
Reaction	Q-Value
Sm149(p,n)Eu149	-1477.45 keV

<< 62-Sm-147	62-Sm-150	62-Sm-152 >>
<< 62-Sm-149 MT4 (p,n)	MT107 (p,α) or MT5 (Pm147 production)	62-Sm-152 MT107 (p, α) >>



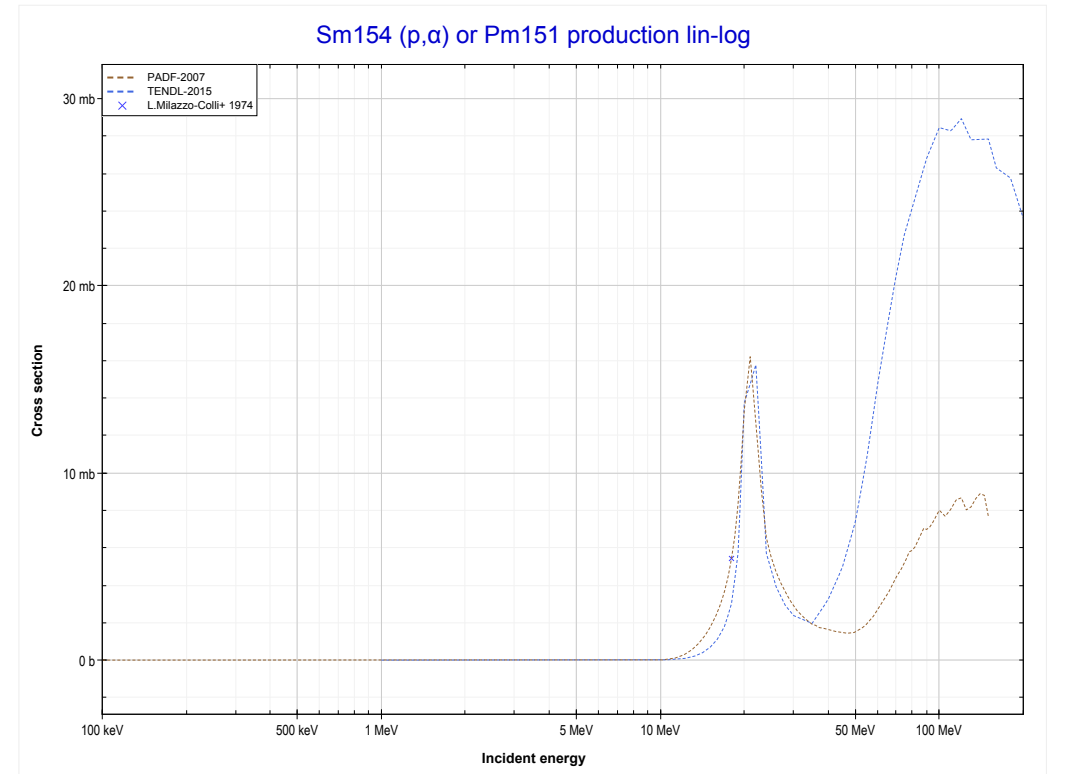
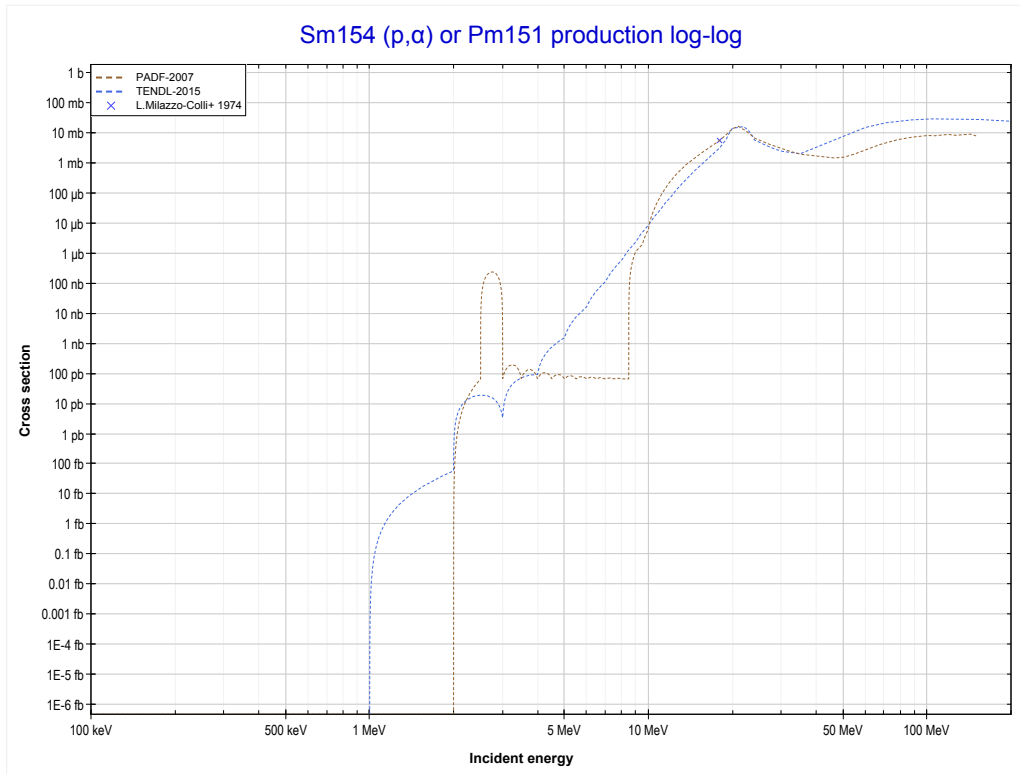
Reaction	Q-Value
Sm150(p, α)Pm147	6855.45 keV
Sm150(p,p+t)Pm147	-12958.41 keV
Sm150(p,n+He3)Pm147	-13722.16 keV
Sm150(p,2d)Pm147	-16991.07 keV
Sm150(p,n+p+d)Pm147	-19215.64 keV
Sm150(p,2n+2p)Pm147	-21440.20 keV

<< 62-Sm-150	62-Sm-152	62-Sm-154 >>
<< 62-Sm-150 MT107 (p, α)	MT107 (p,α) or MT5 (Pm149 production)	62-Sm-154 MT107 (p, α) >>



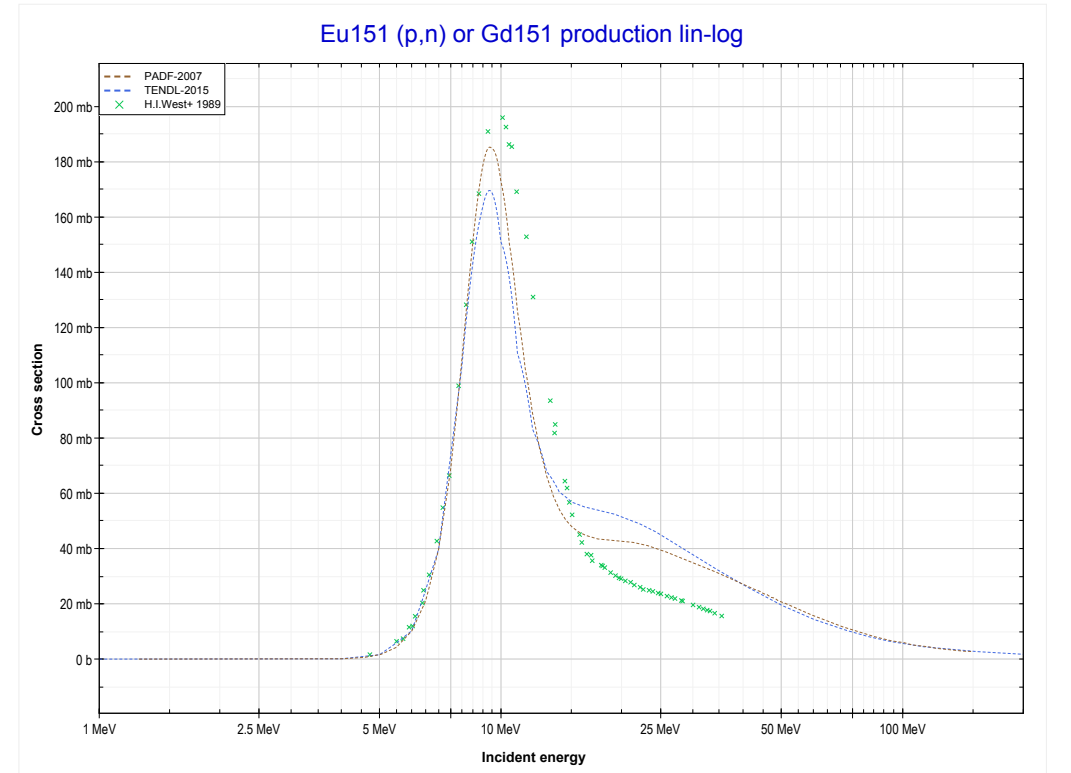
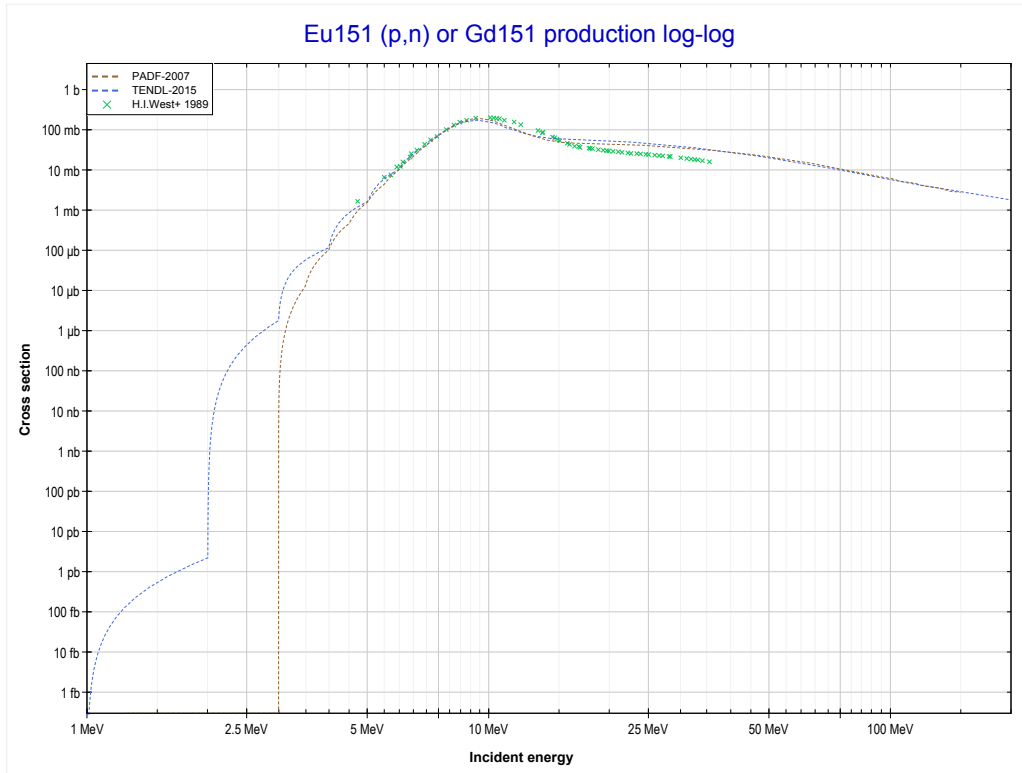
Reaction	Q-Value
Sm152(p, α)Pm149	6165.75 keV
Sm152(p,p+t)Pm149	-13648.11 keV
Sm152(p,n+He3)Pm149	-14411.86 keV
Sm152(p,2d)Pm149	-17680.77 keV
Sm152(p,n+p+d)Pm149	-19905.34 keV
Sm152(p,2n+2p)Pm149	-22129.90 keV

<< 62-Sm-152	62-Sm-154	64-Gd-156 >>
<< 62-Sm-152 MT107 (p, α)	MT107 (p,α) or MT5 (Pm151 production)	63-Eu-151 MT4 (p,n) >>



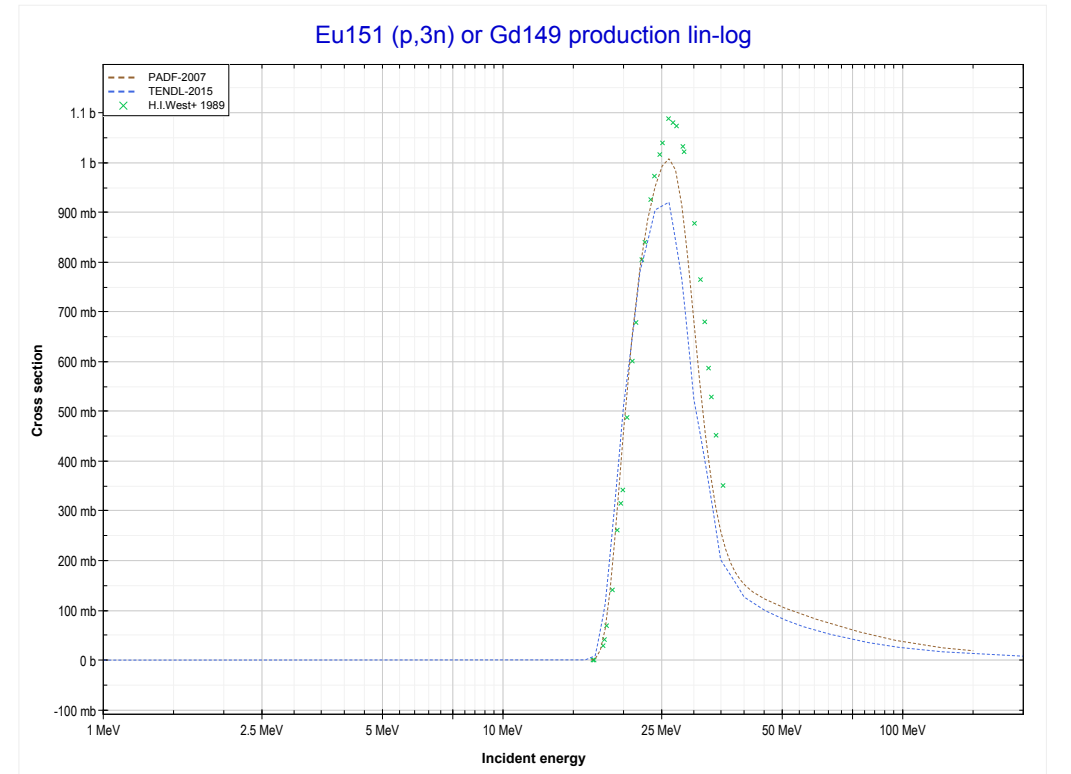
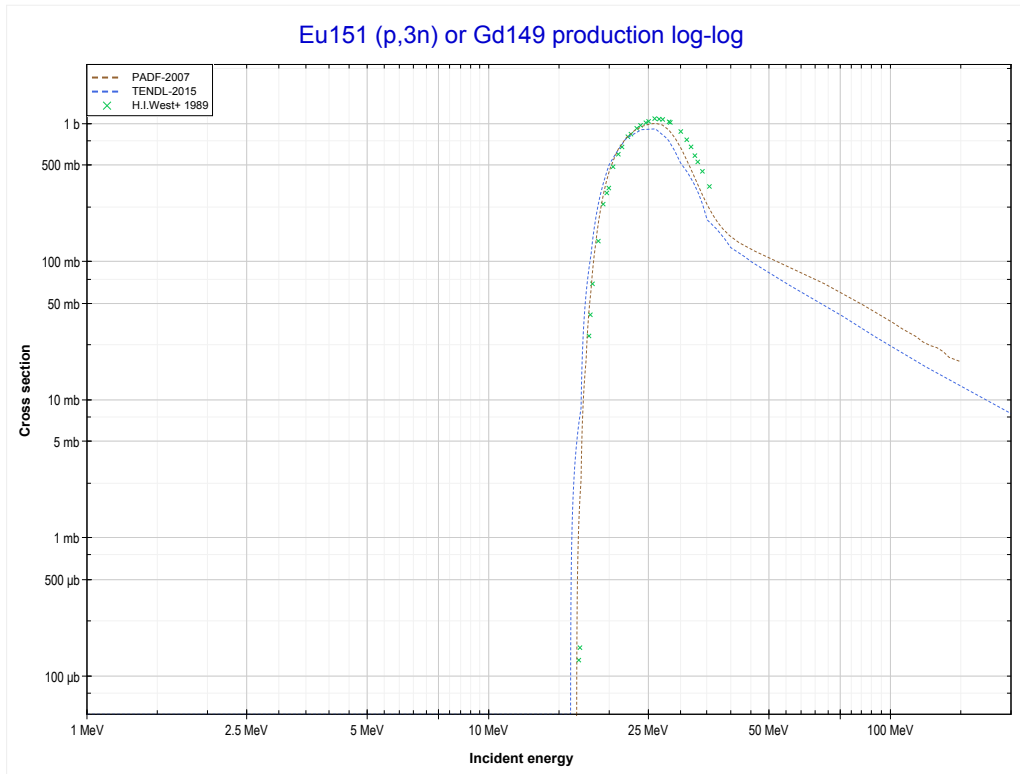
Reaction	Q-Value
Sm154(p, α)Pm151	5794.55 keV
Sm154(p,p+t)Pm151	-14019.31 keV
Sm154(p,n+He3)Pm151	-14783.06 keV
Sm154(p,2d)Pm151	-18051.97 keV
Sm154(p,n+p+d)Pm151	-20276.54 keV
Sm154(p,2n+2p)Pm151	-22501.10 keV

<< 62-Sm-149	63-Eu-151	63-Eu-153 >>
<< 62-Sm-154 MT107 (p, α)	MT4 (p,n) or MT5 (Gd151 production)	MT17 (p,3n) >>



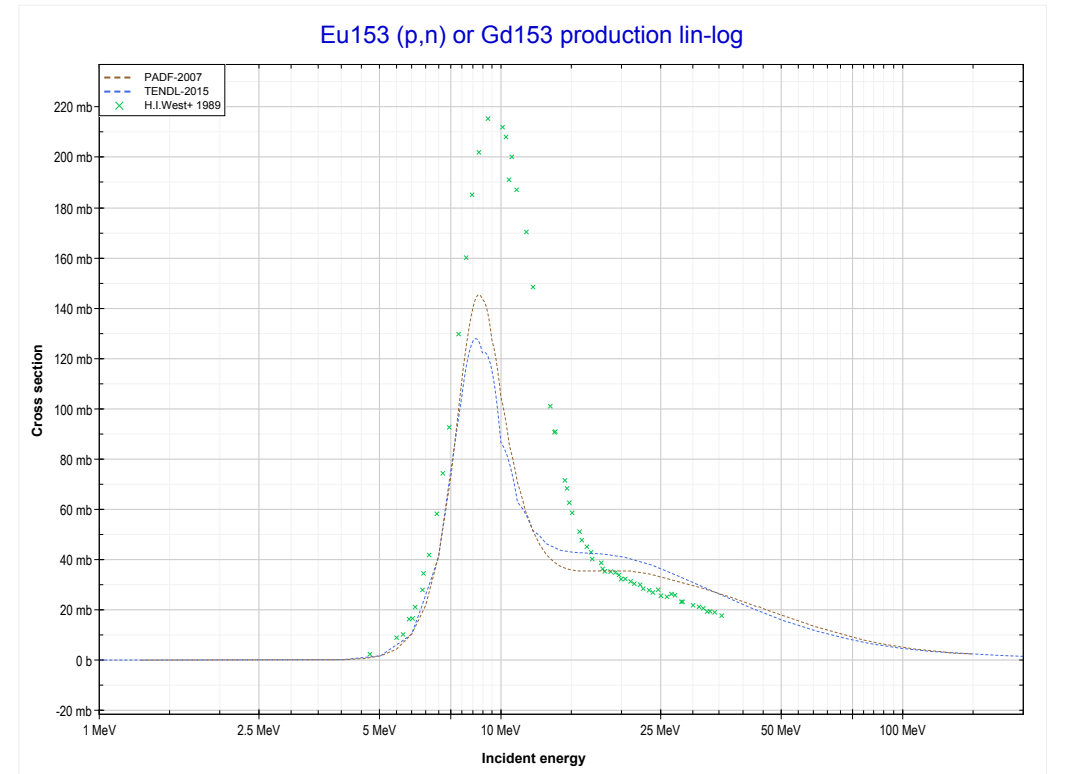
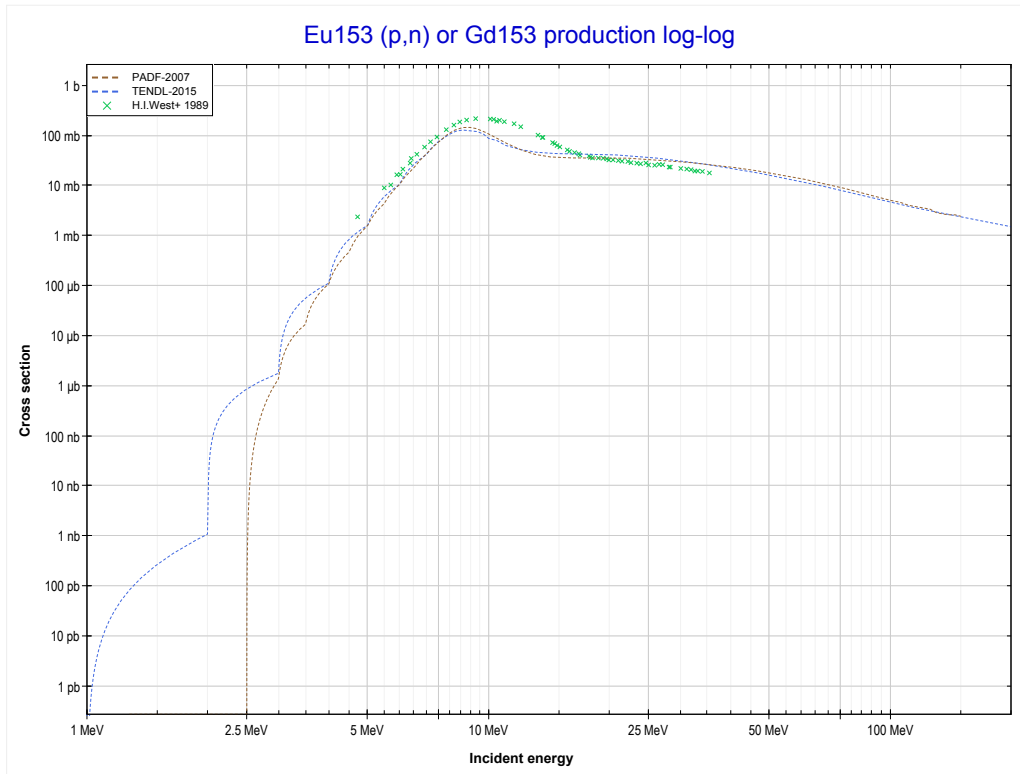
Reaction	Q-Value
Eu151(p,n)Gd151	-1246.35 keV

<< 59-Pr-141	63-Eu-151	63-Eu-153 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Gd149 production)	63-Eu-153 MT4 (p,n) >>



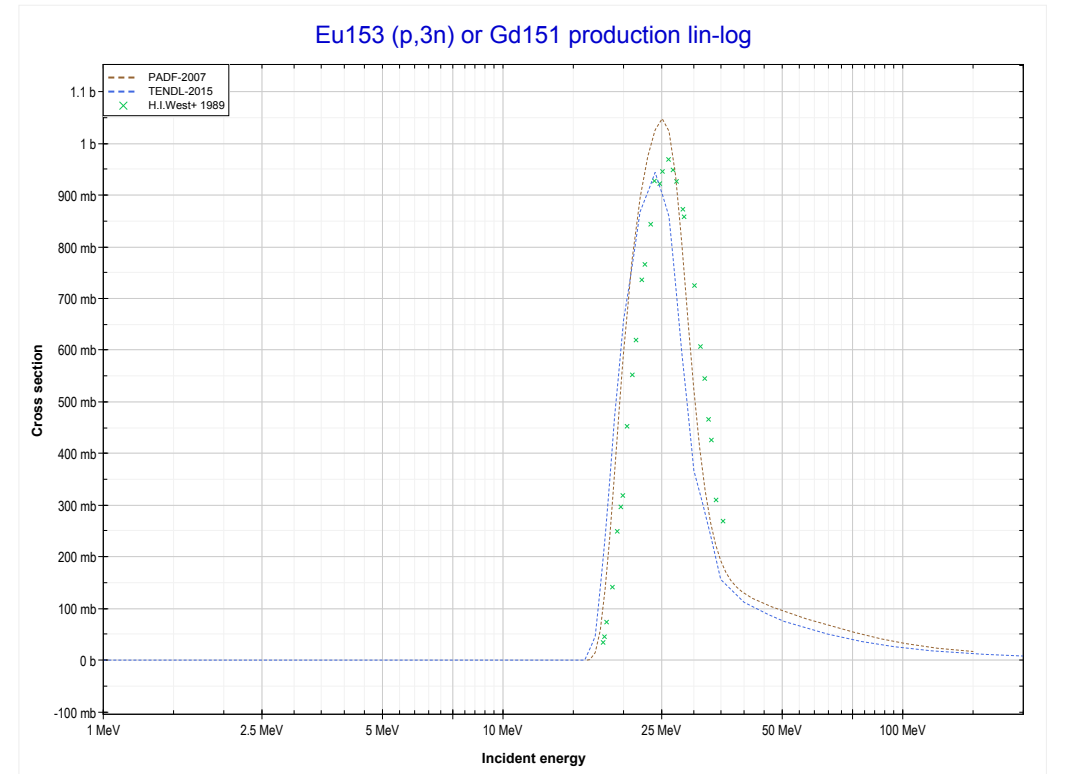
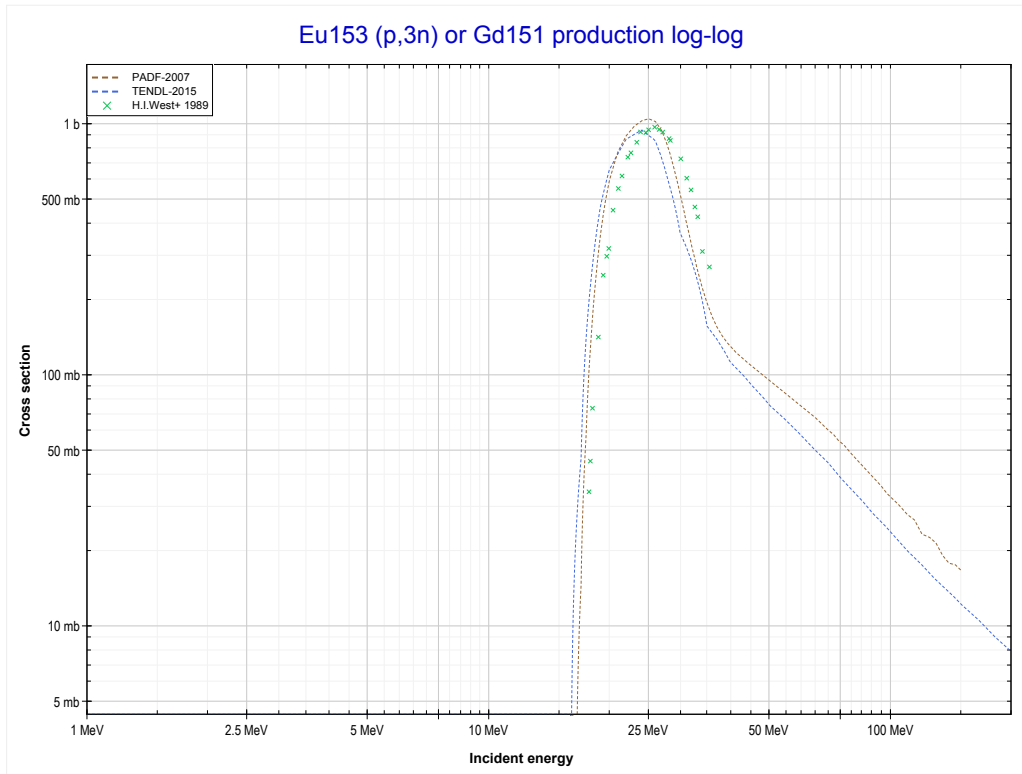
Reaction	Q-Value
Eu151(p,3n)Gd149	-16449.98 keV

<< 63-Eu-151	63-Eu-153	64-Gd-154 >>
<< 63-Eu-151 MT17 (p,3n)	MT4 (p,n) or MT5 (Gd153 production)	MT17 (p,3n) >>



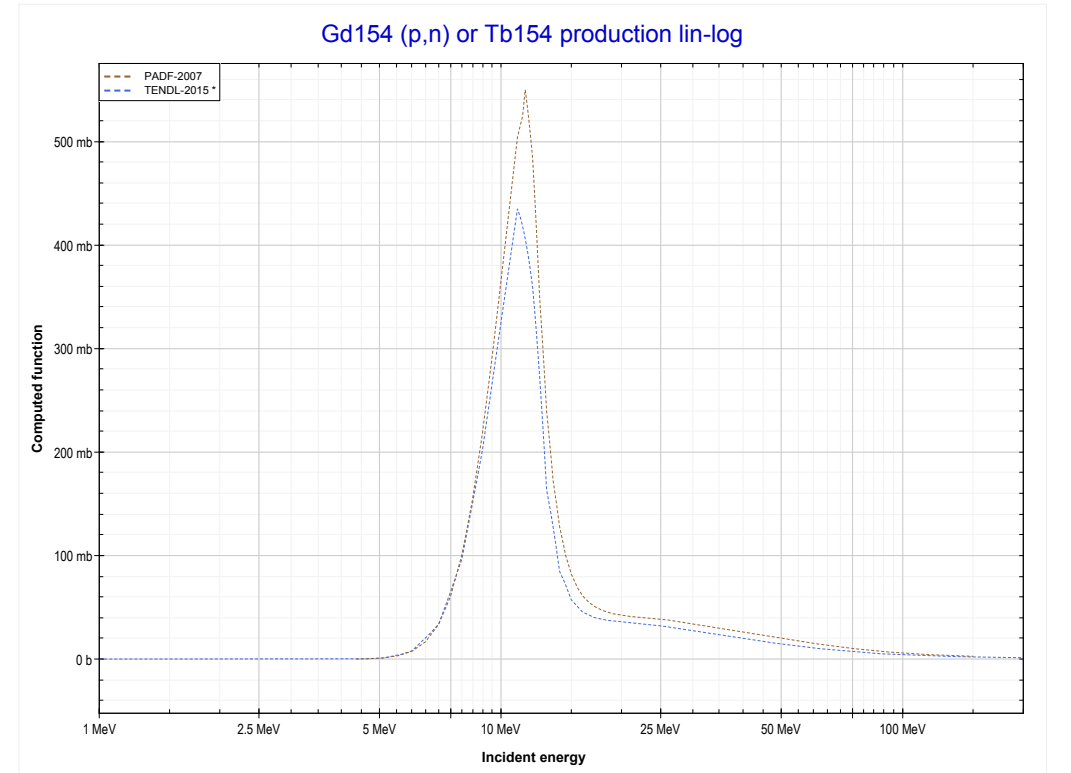
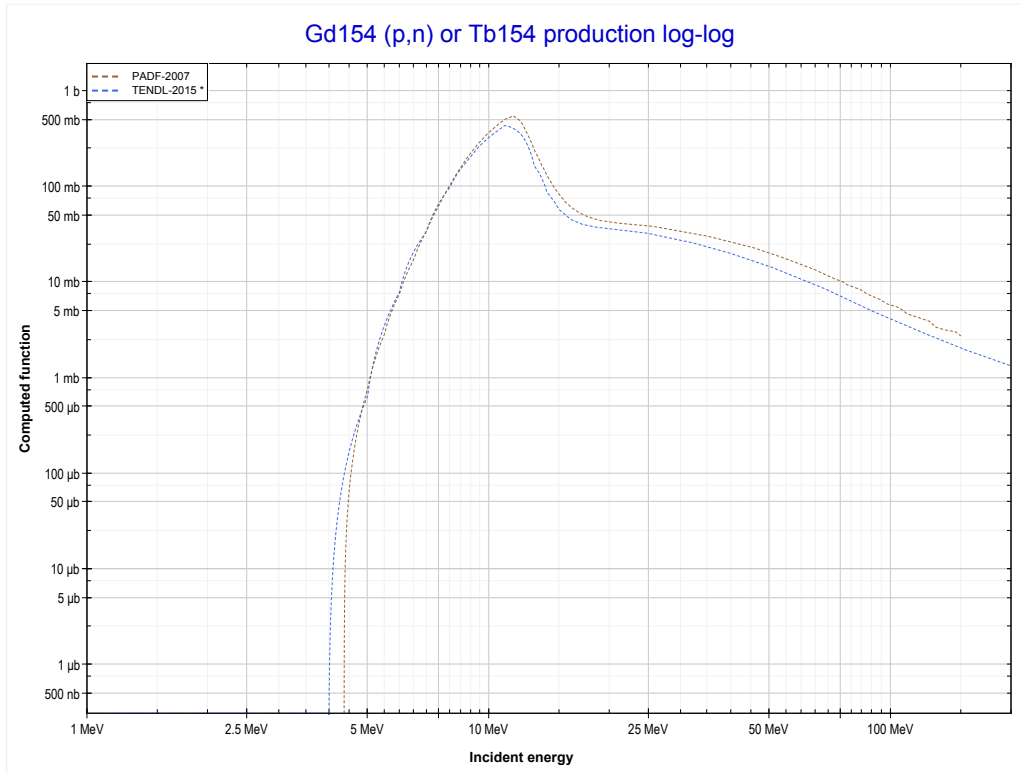
Reaction	Q-Value
Eu153(p,n)Gd153	-1266.75 keV

<< 63-Eu-151	63-Eu-153	66-Dy-162 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Gd151 production)	64-Gd-154 MT4 (p,n) >>



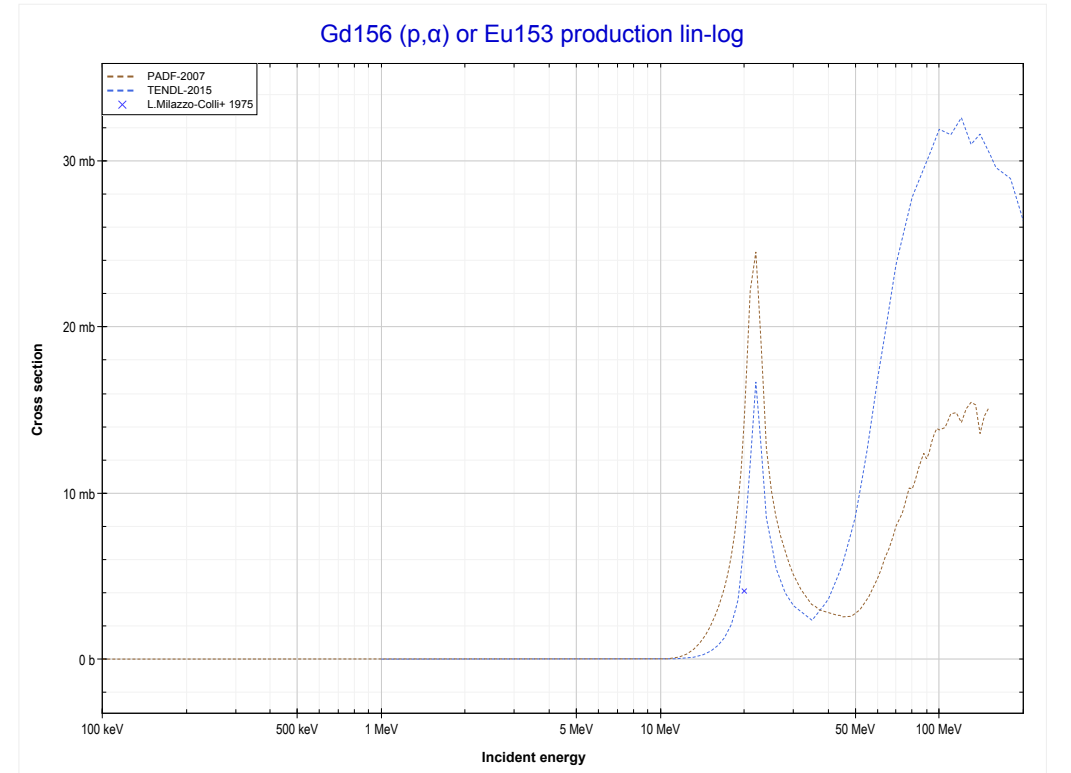
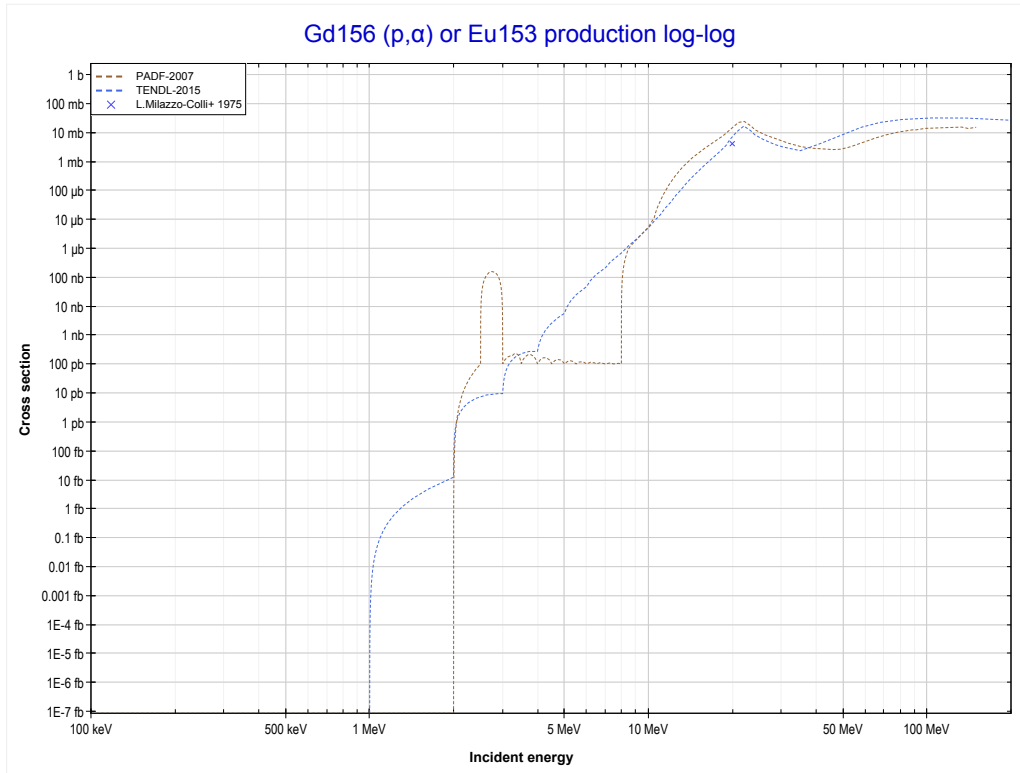
Reaction	Q-Value
Eu153(p,3n)Gd151	-16103.28 keV

<< 63-Eu-153	64-Gd-154	64-Gd-160 >>
<< 63-Eu-153 MT17 (p,3n)	MT4 (p,n) or MT5 (Tb154 production)	64-Gd-156 MT107 (p, α) >>



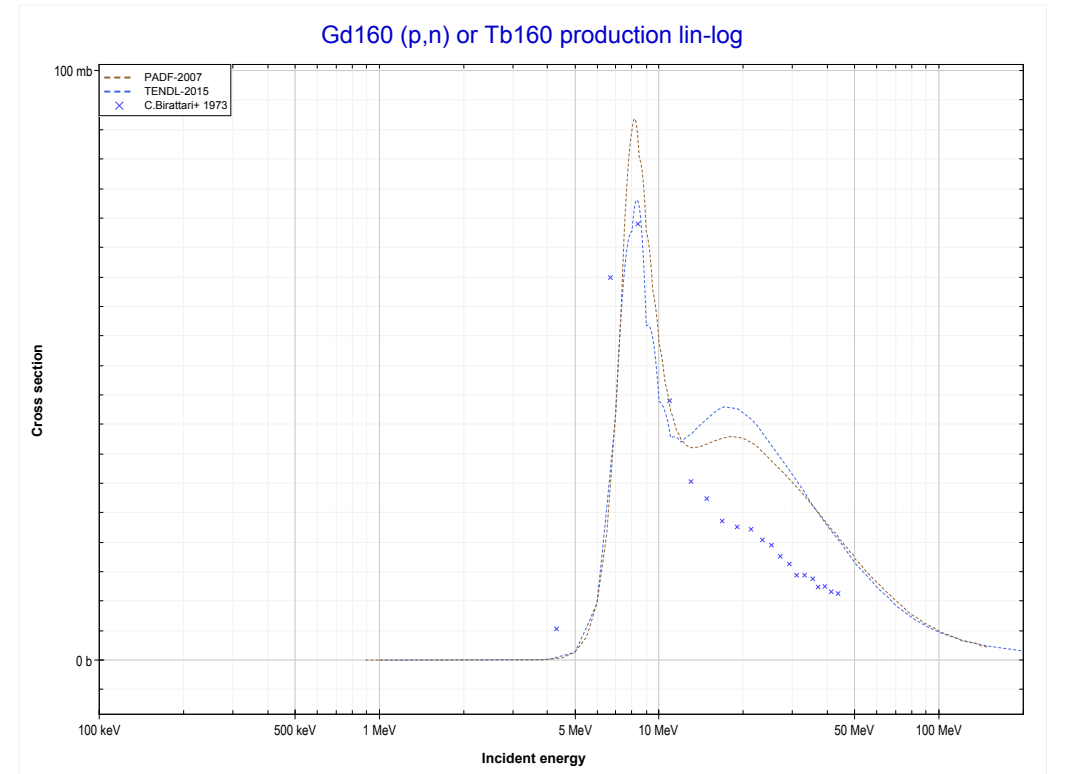
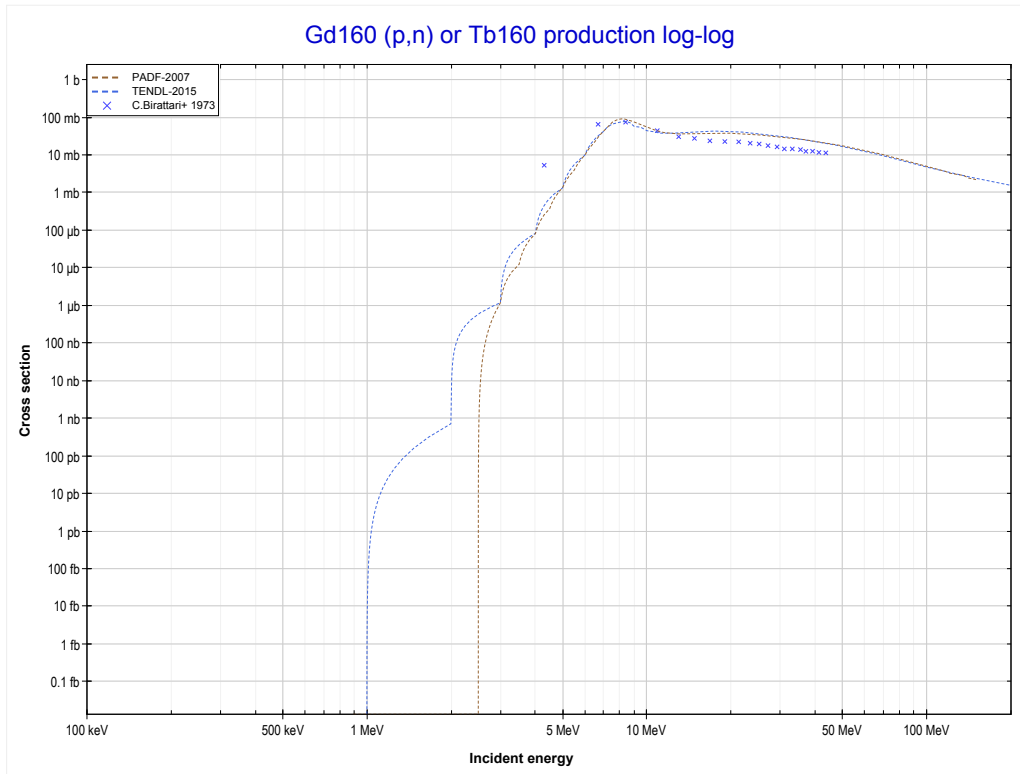
Reaction	Q-Value
Gd154(p,n)Tb154	-4327.65 keV

<< 62-Sm-154	64-Gd-156	70-Yb-171 >>
<< 64-Gd-154 MT4 (p,n)	MT107 (p,α) or MT5 (Eu153 production)	64-Gd-160 MT4 (p,n) >>



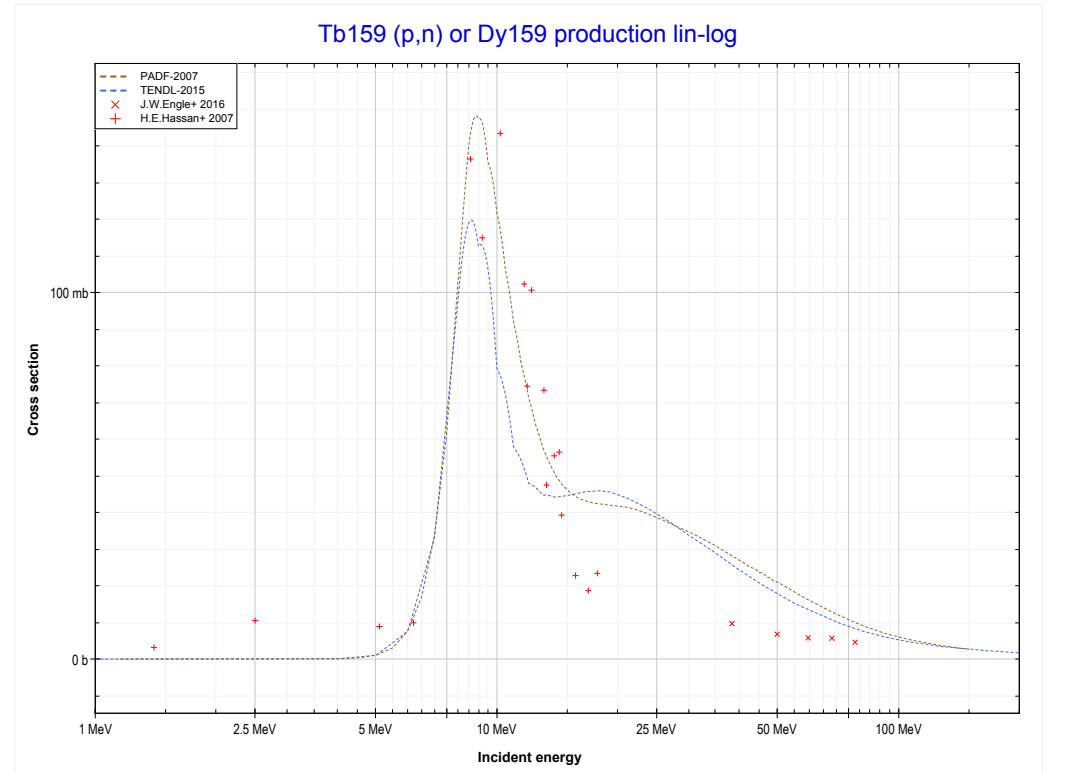
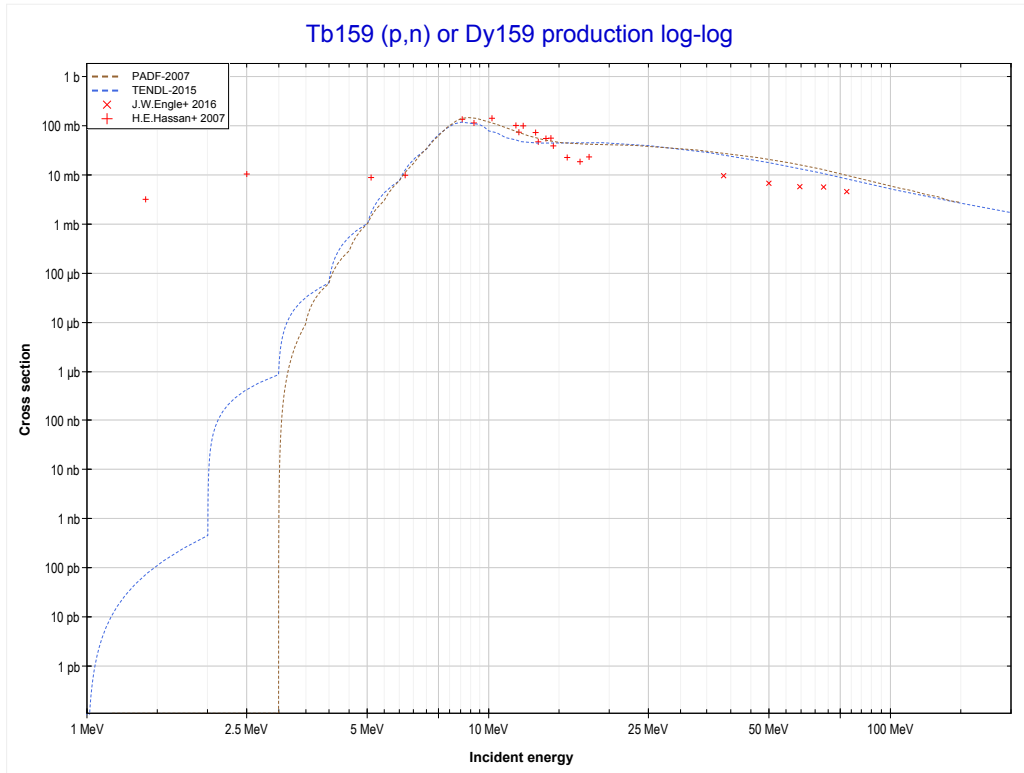
Reaction	Q-Value
Gd156(p, α)Eu153	5696.05 keV
Gd156(p,p+t)Eu153	-14117.81 keV
Gd156(p,n+He3)Eu153	-14881.56 keV
Gd156(p,2d)Eu153	-18150.47 keV
Gd156(p,n+p+d)Eu153	-20375.04 keV
Gd156(p,2n+2p)Eu153	-22599.60 keV

<< 64-Gd-154	64-Gd-160	65-Tb-159 >>
<< 64-Gd-156 MT107 (p, α)	MT4 (p,n) or MT5 (Tb160 production)	65-Tb-159 MT4 (p,n) >>



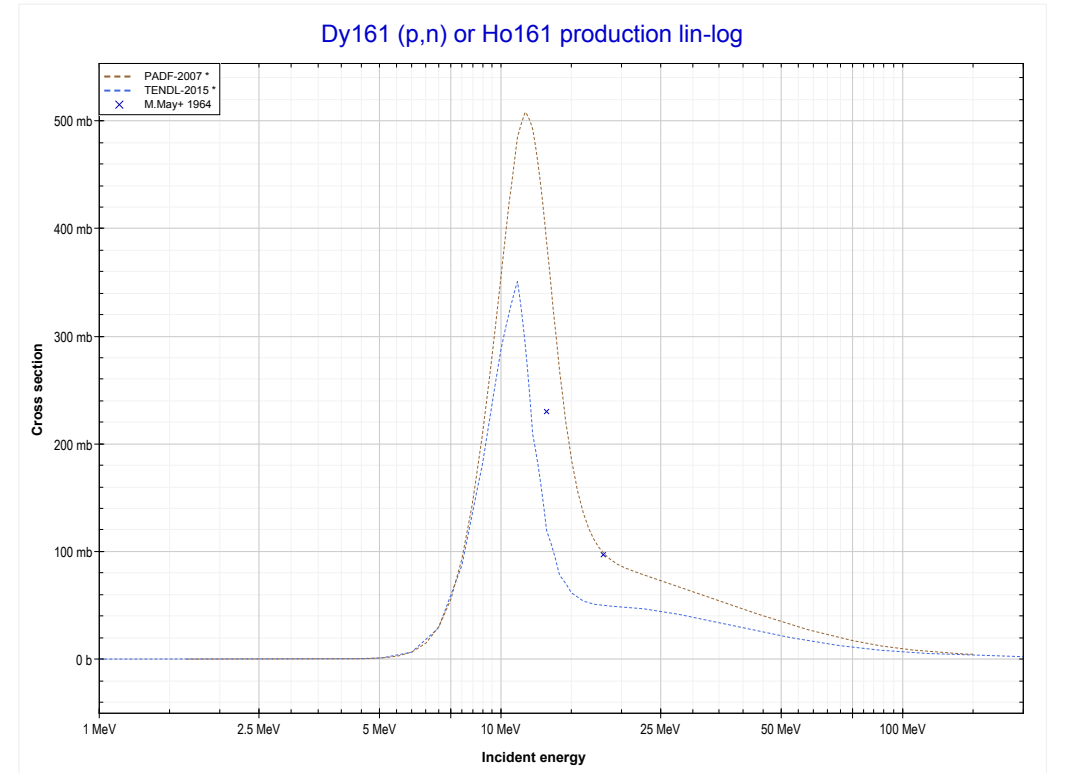
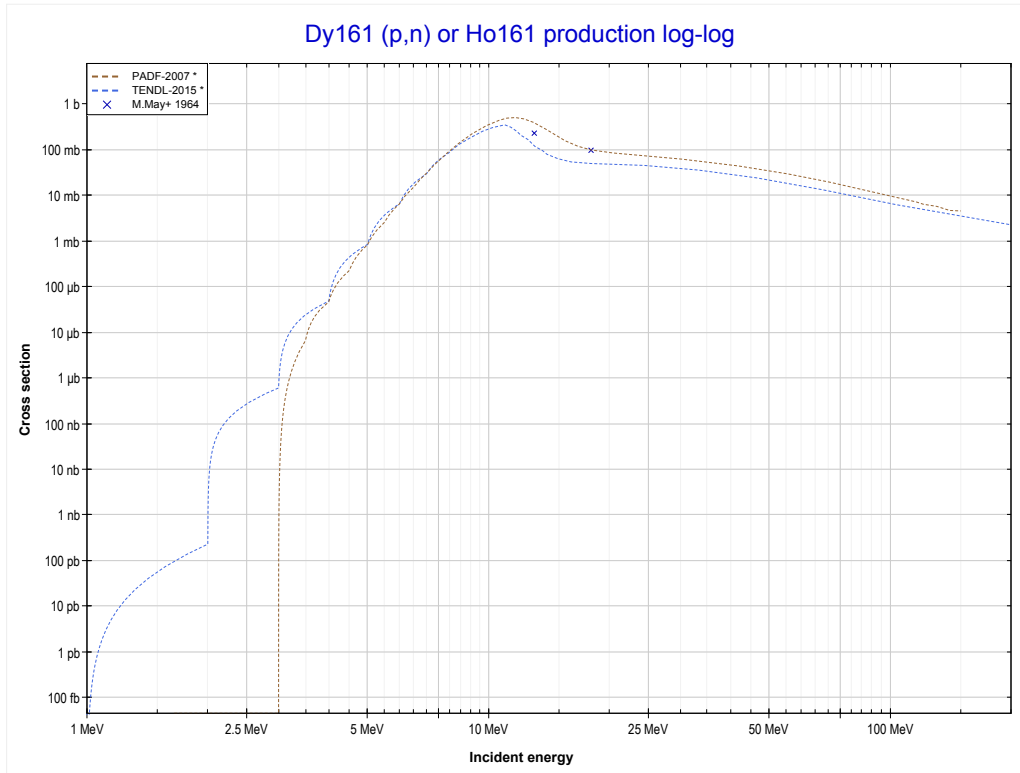
Reaction	Q-Value
Gd160(p,n)Tb160	-887.75 keV

<< 64-Gd-160	65-Tb-159	66-Dy-161 >>
<< 64-Gd-160 MT4 (p,n)	MT4 (p,n) or MT5 (Dy159 production)	66-Dy-161 MT4 (p,n) >>



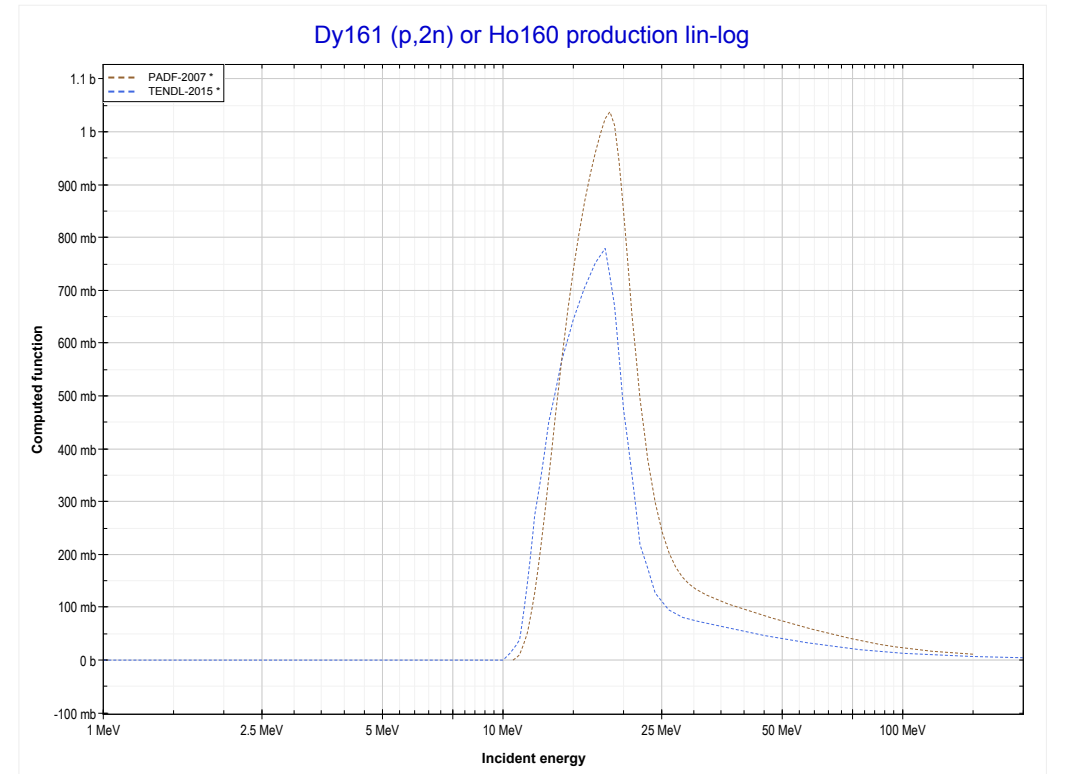
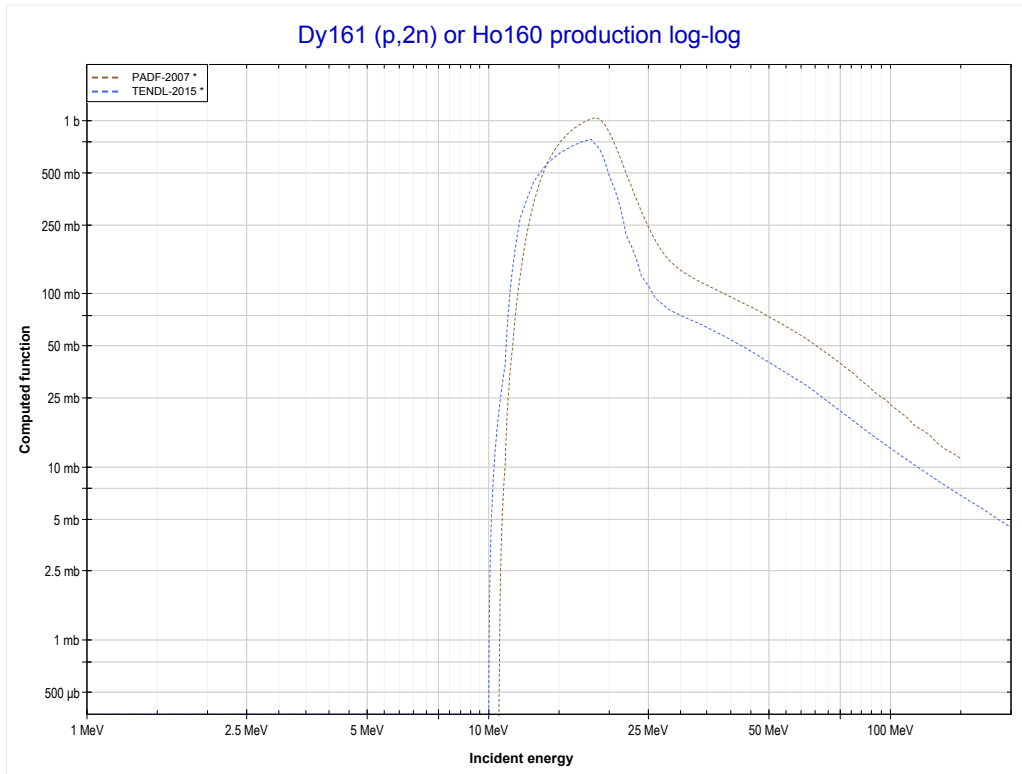
Reaction	Q-Value
Tb159(p,n)Dy159	-1147.65 keV

<< 65-Tb-159	66-Dy-161	66-Dy-162 >>
<< 65-Tb-159 MT4 (p,n)	MT4 (p,n) or MT5 (Ho161 production)	MT16 (p,2n) >>



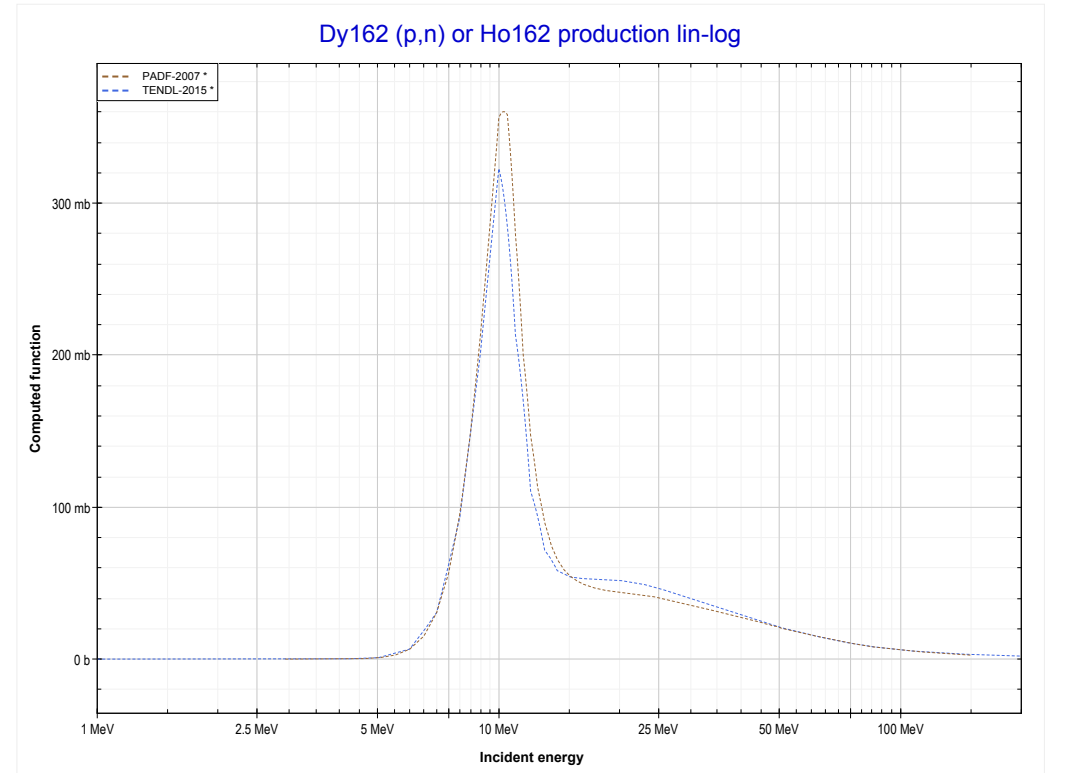
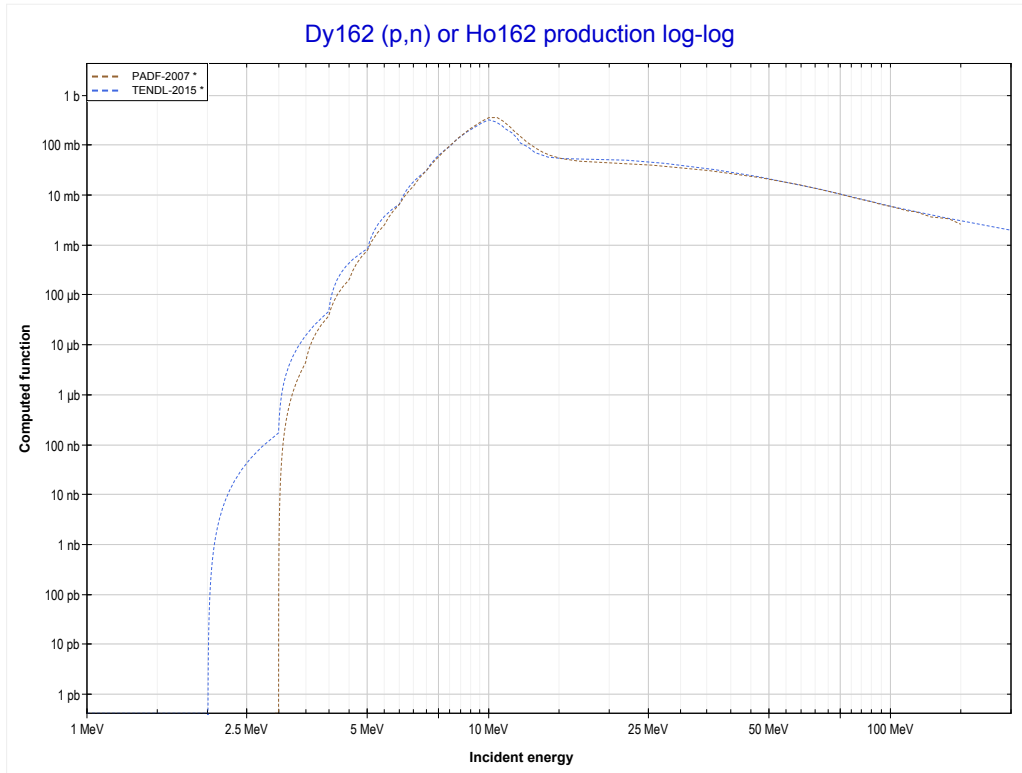
Reaction	Q-Value
Dy161(p,n)Ho161	-1640.35 keV

<< 62-Sm-147	66-Dy-161	66-Dy-162 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Ho160 production)	66-Dy-162 MT4 (p,n) >>



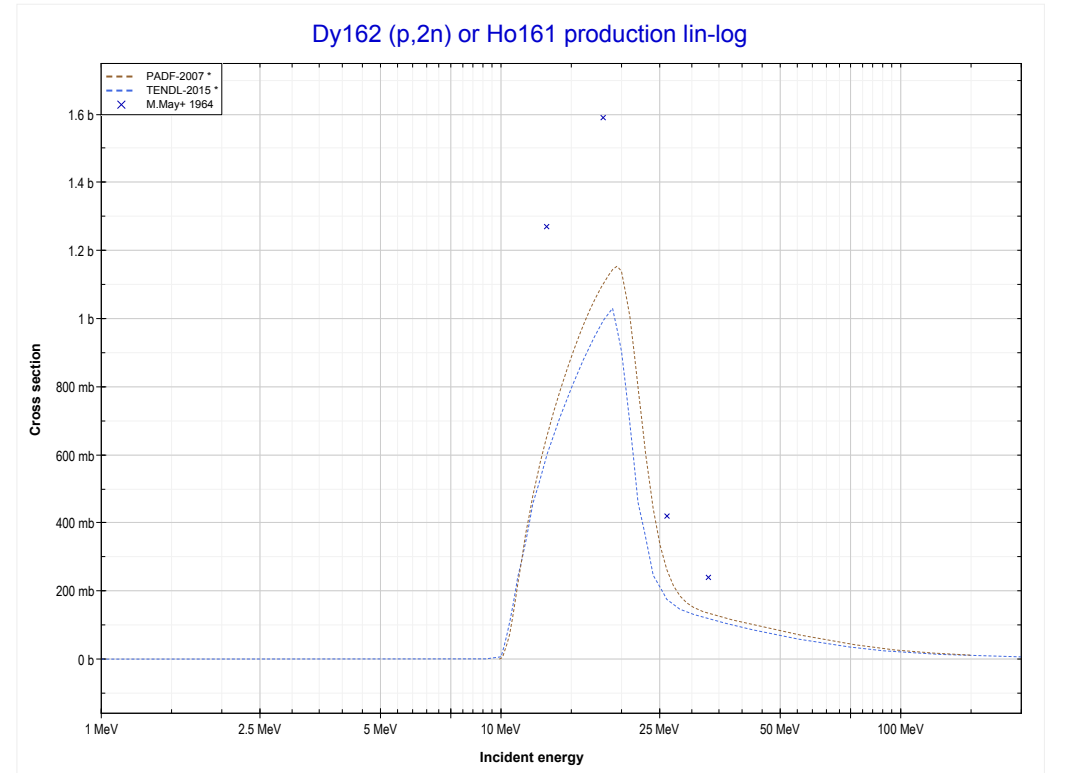
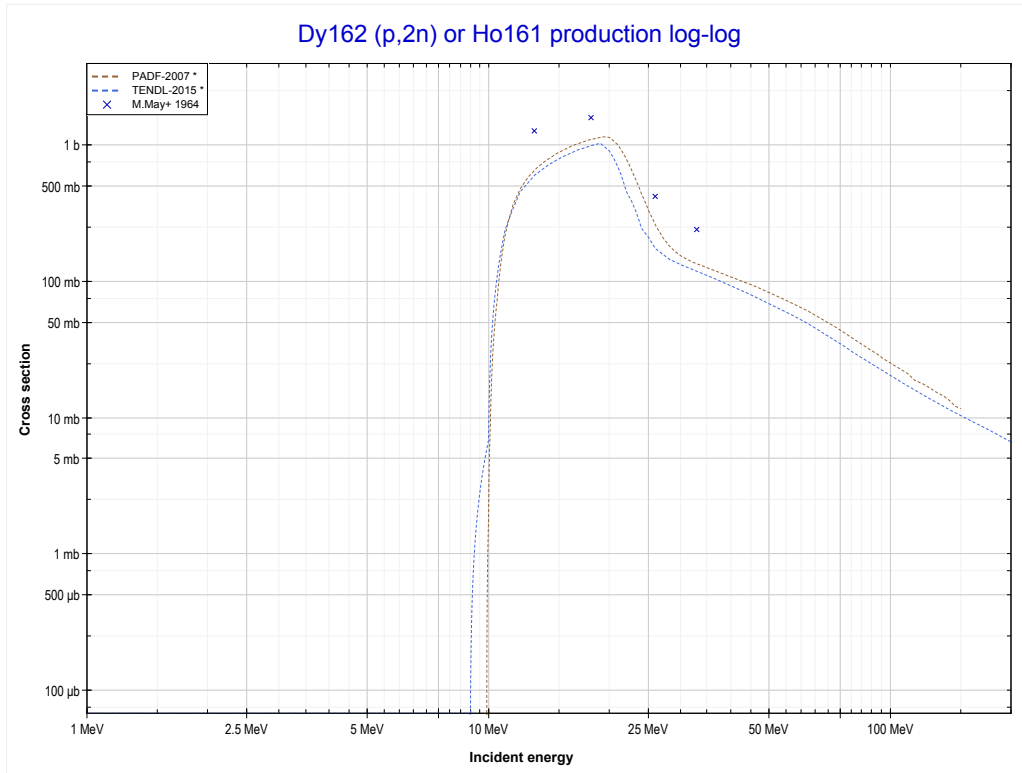
Reaction	Q-Value
Dy161(p,2n)Ho160	-10527.16 keV

<< 66-Dy-161	66-Dy-162	67-Ho-165 >>
<< 66-Dy-161 MT16 (p,2n)	MT4 (p,n) or MT5 (Ho162 production)	MT16 (p,2n) >>



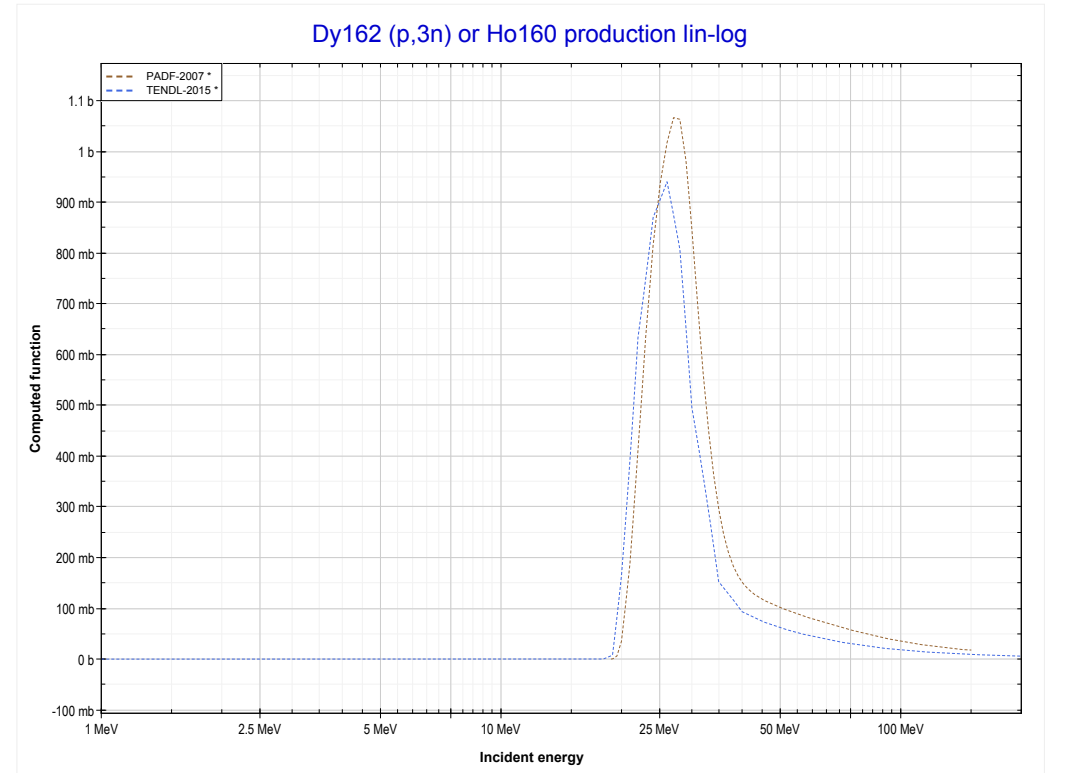
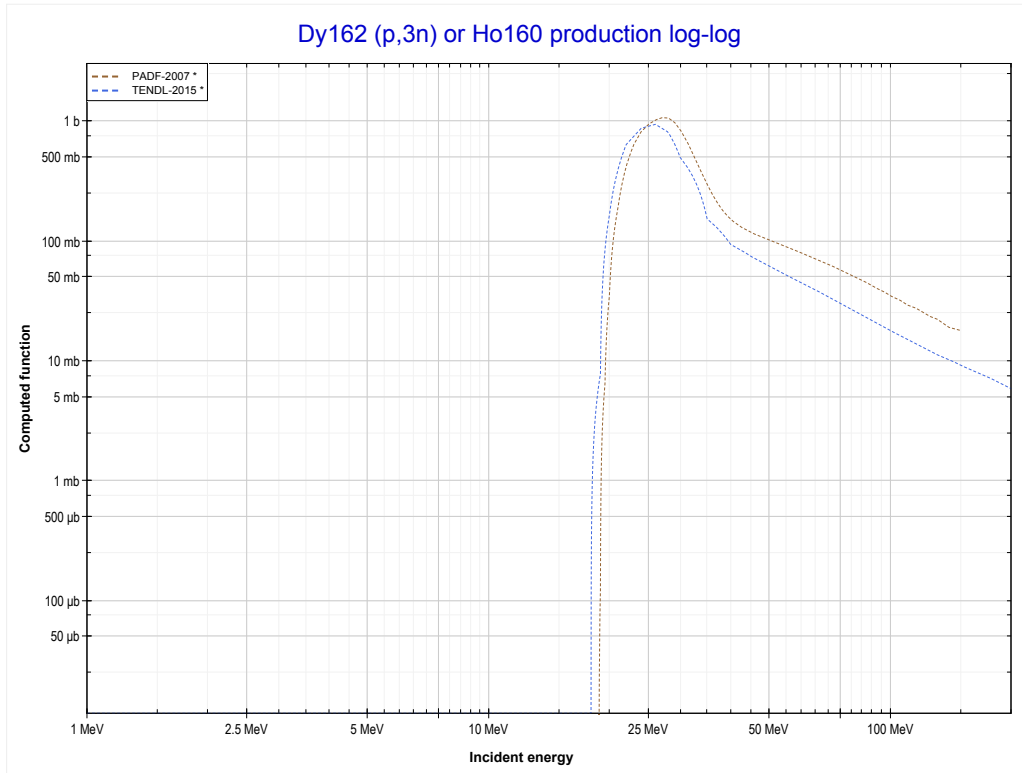
Reaction	Q-Value
Dy162(p,n)Ho162	-2921.55 keV

<< 66-Dy-161	66-Dy-162	66-Dy-163 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Ho161 production)	MT17 (p,3n) >>



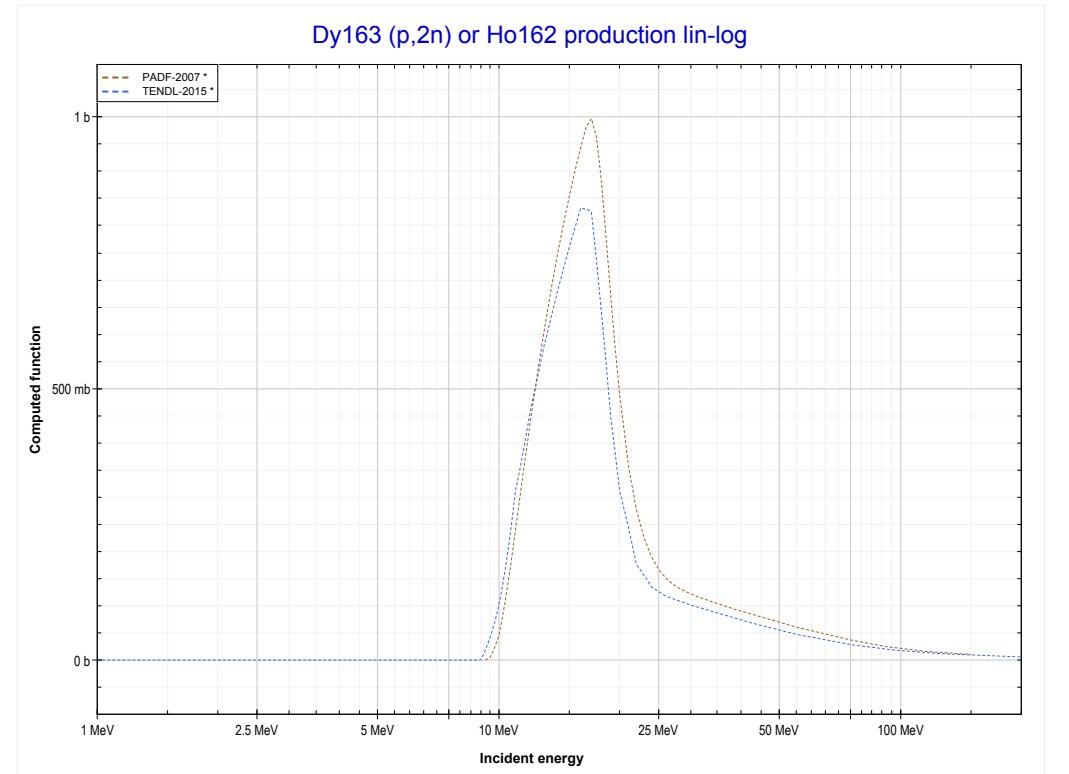
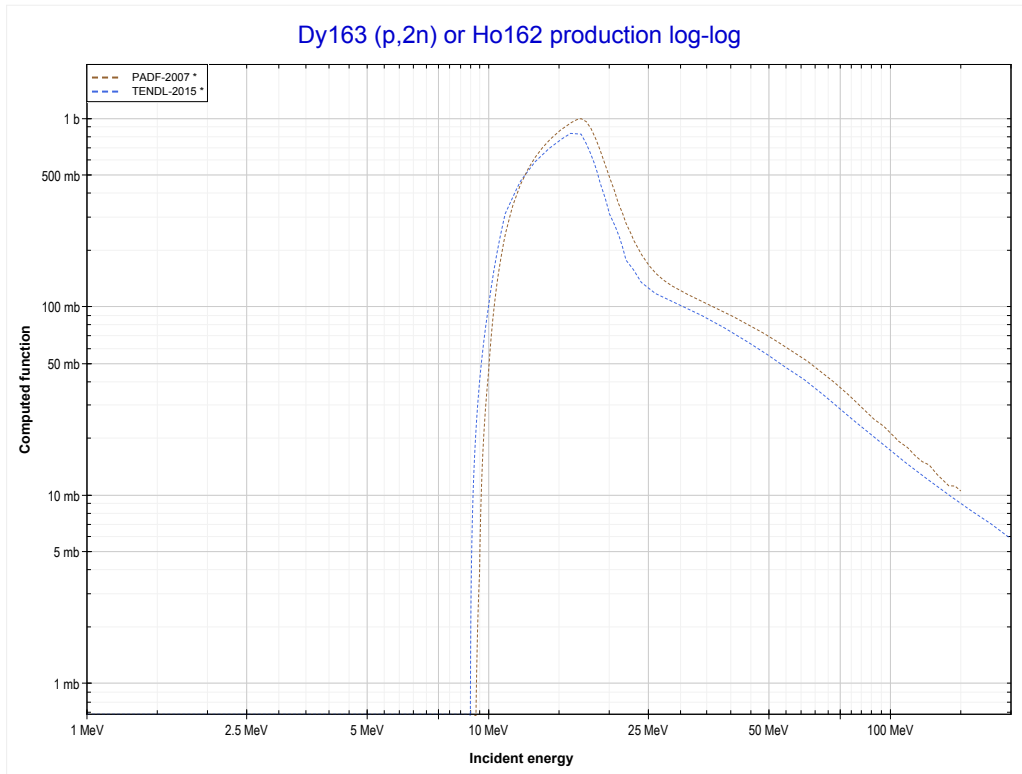
Reaction	Q-Value
Dy162(p,2n)Ho161	-9837.36 keV

<< 63-Eu-153	66-Dy-162	66-Dy-163 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Ho160 production)	66-Dy-163 MT16 (p,2n) >>



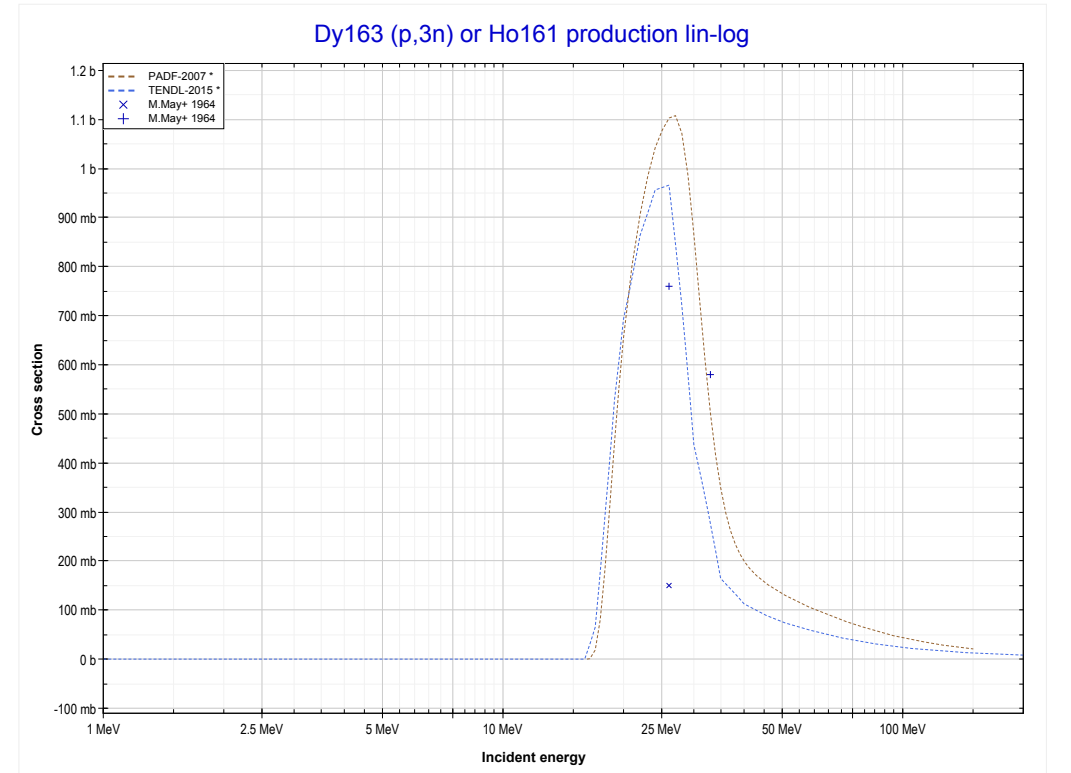
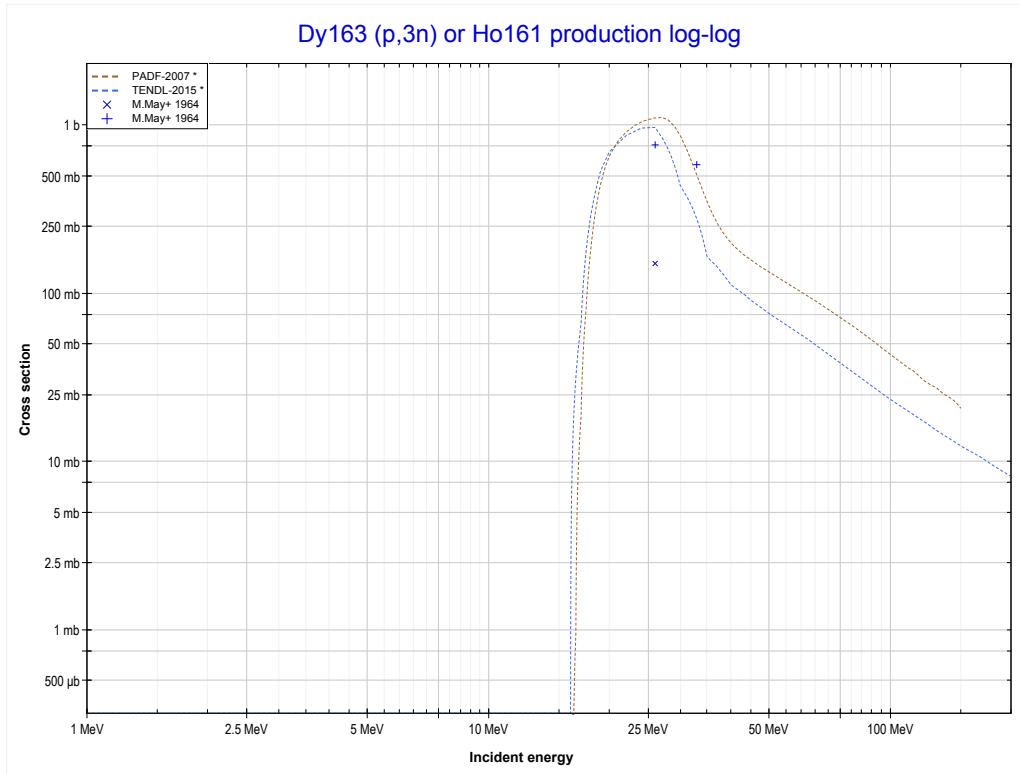
Reaction	Q-Value
Dy162(p,3n)Ho160	-18724.18 keV

<< 66-Dy-162	66-Dy-163	68-Er-166 >>
<< 66-Dy-162 MT17 (p,3n)	MT16 (p,2n) or MT5 (Ho162 production)	MT17 (p,3n) >>



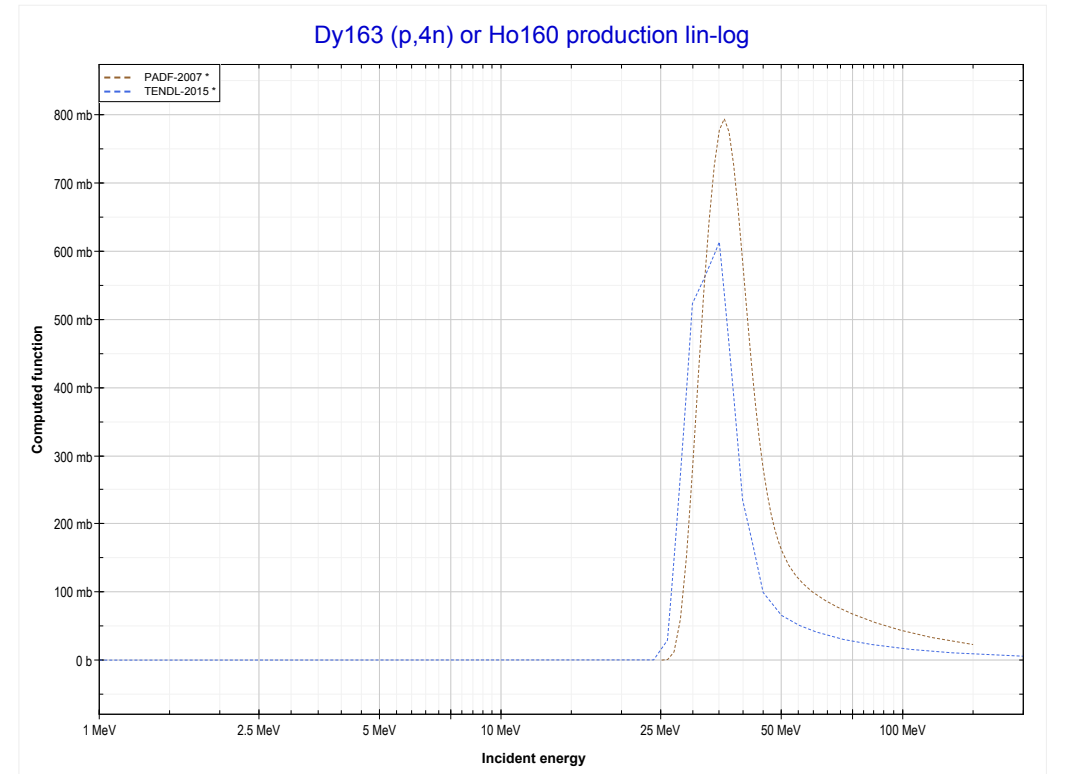
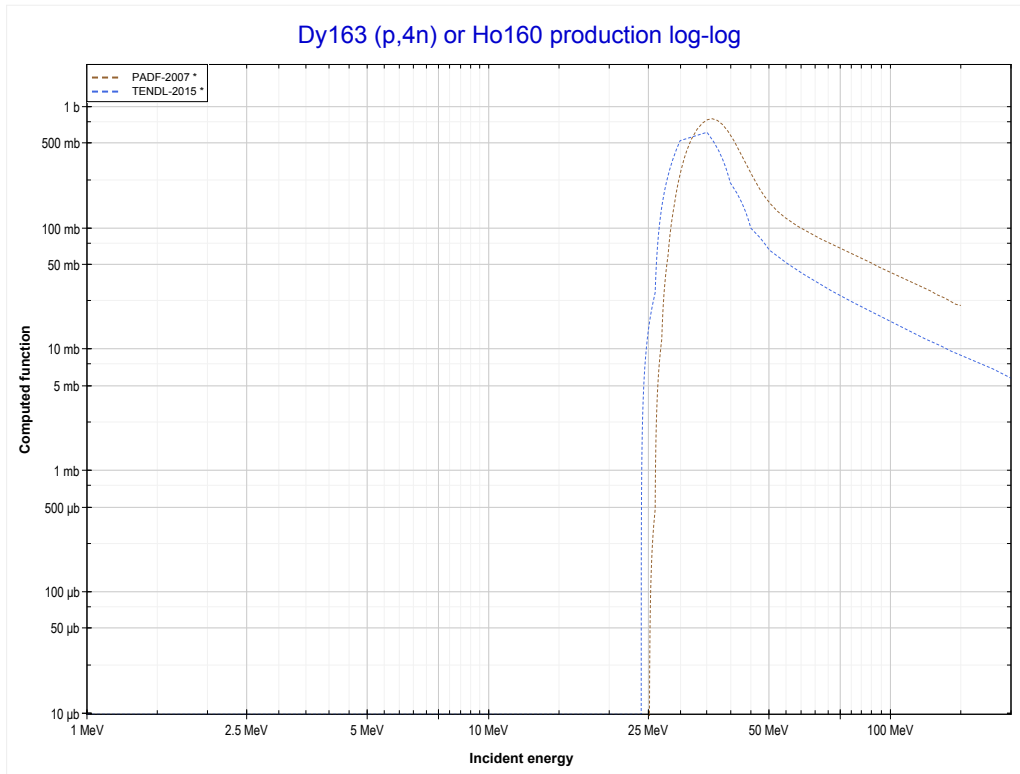
Reaction	Q-Value
Dy163(p,2n)Ho162	-9192.56 keV

<< 66-Dy-162	66-Dy-163	69-Tm-169 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Ho161 production)	MT37 (p,4n) >>



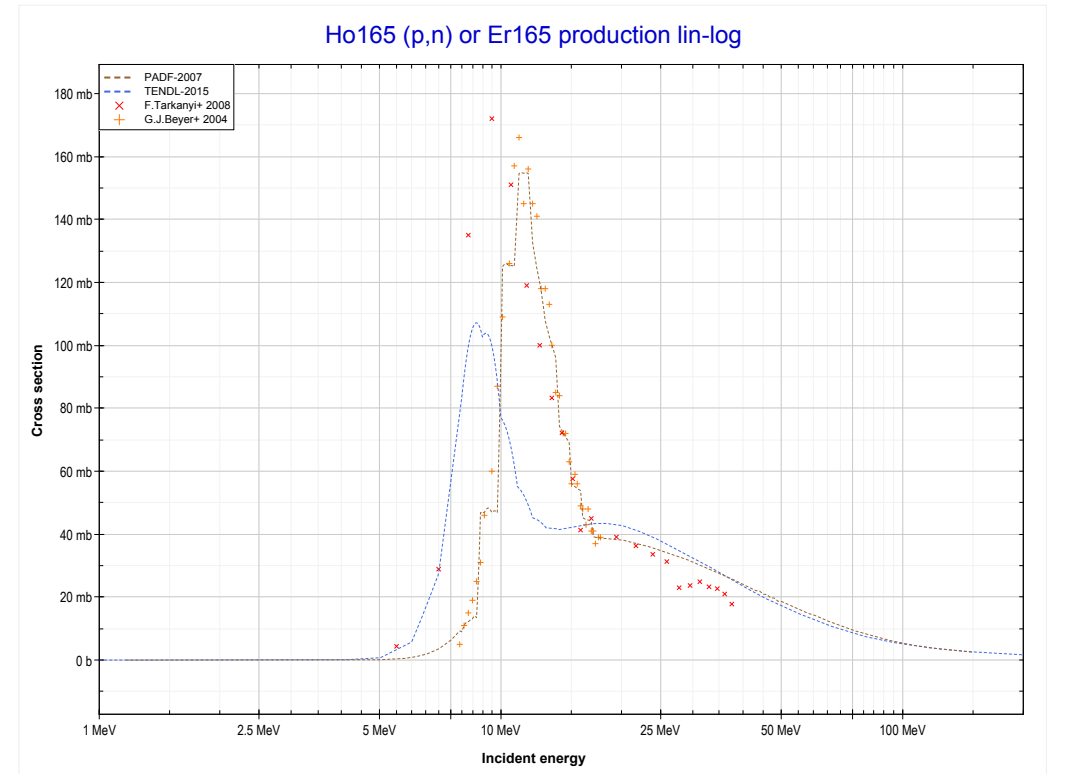
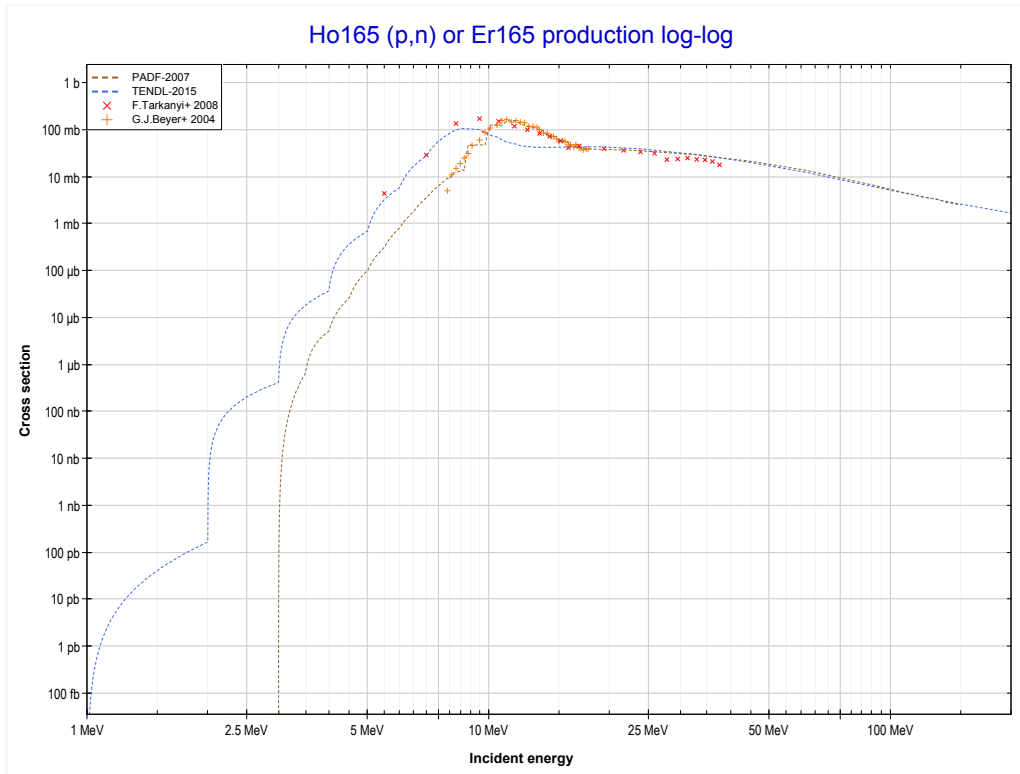
Reaction	Q-Value
Dy163(p,3n)Ho161	-16108.38 keV

<< 59-Pr-141	66-Dy-163	69-Tm-169 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Ho160 production)	67-Ho-165 MT4 (p,n) >>



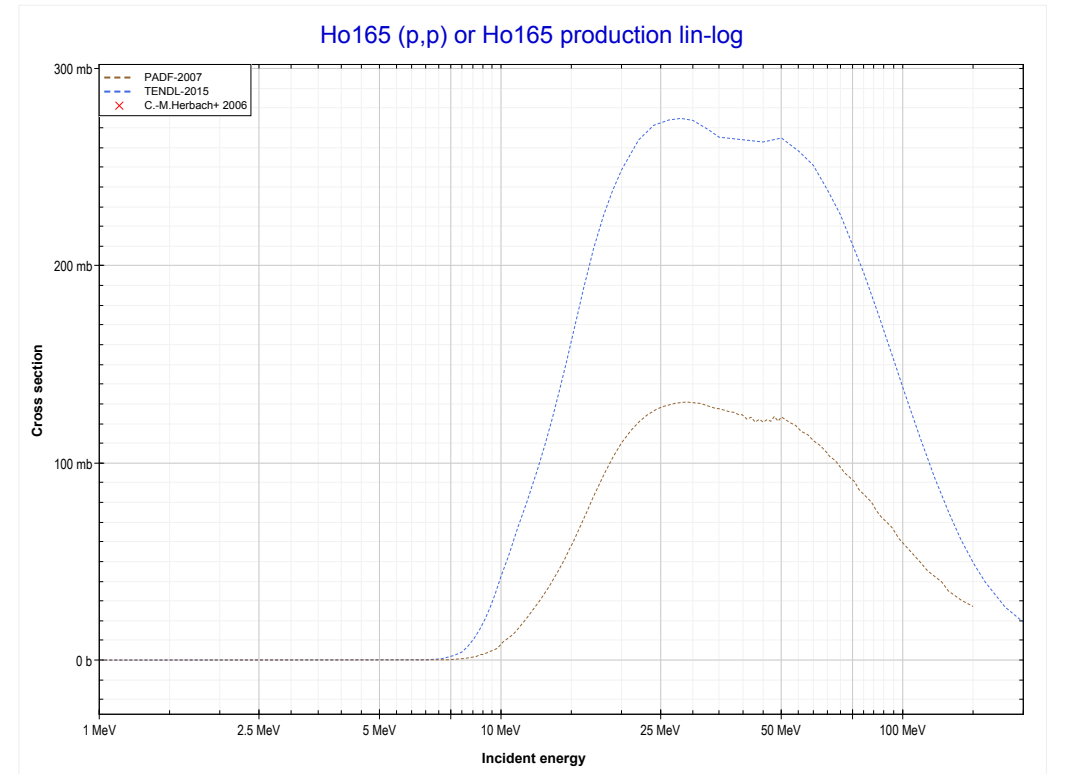
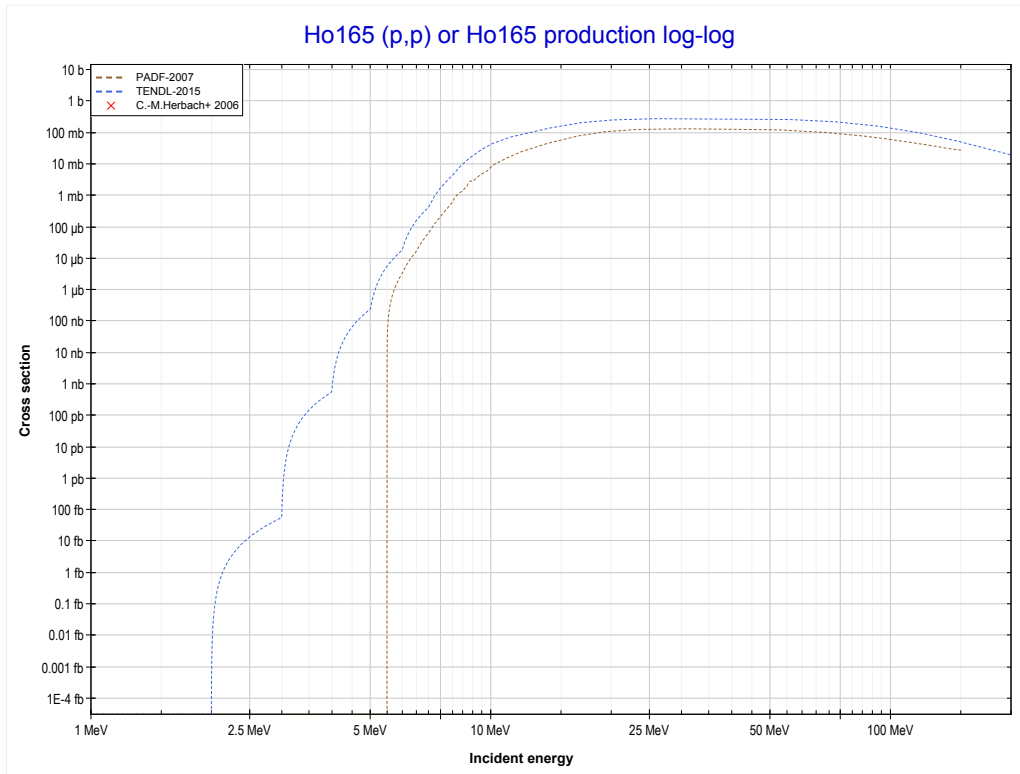
Reaction	Q-Value
Dy163(p,4n)Ho160	-24995.20 keV

<< 66-Dy-162	67-Ho-165	68-Er-167 >>
<< 66-Dy-163 MT37 (p,4n)	MT4 (p,n) or MT5 (Er165 production)	MT103 (p,p) >>



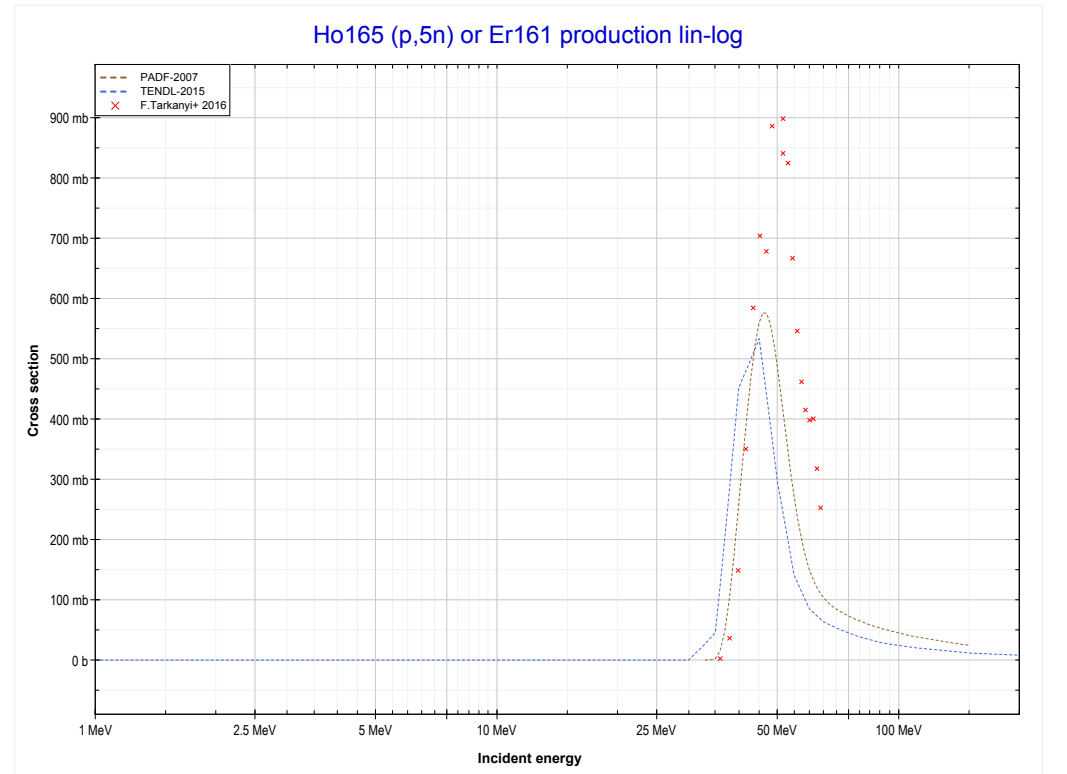
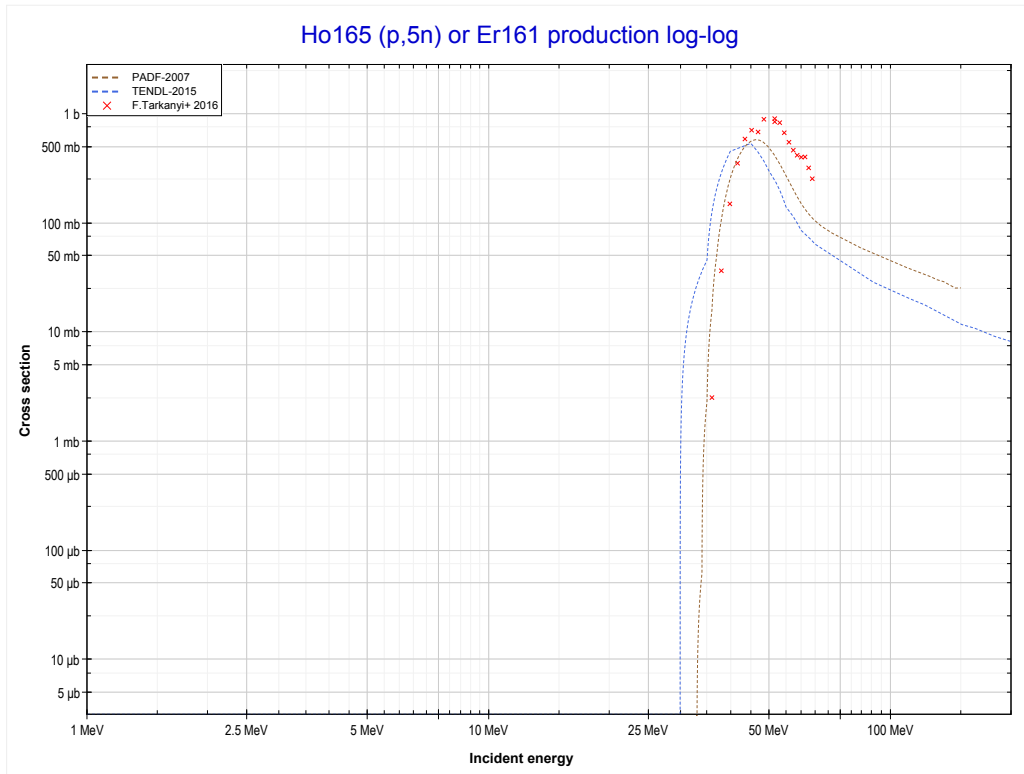
Reaction	Q-Value
Ho165(p,n)Er165	-1160.25 keV

<< 49-In-115	67-Ho-165	92-U-235 >>
<< MT4 (p,n)	MT103 (p,p) or MT5 (Ho165 production)	MT152 (p,5n) >>



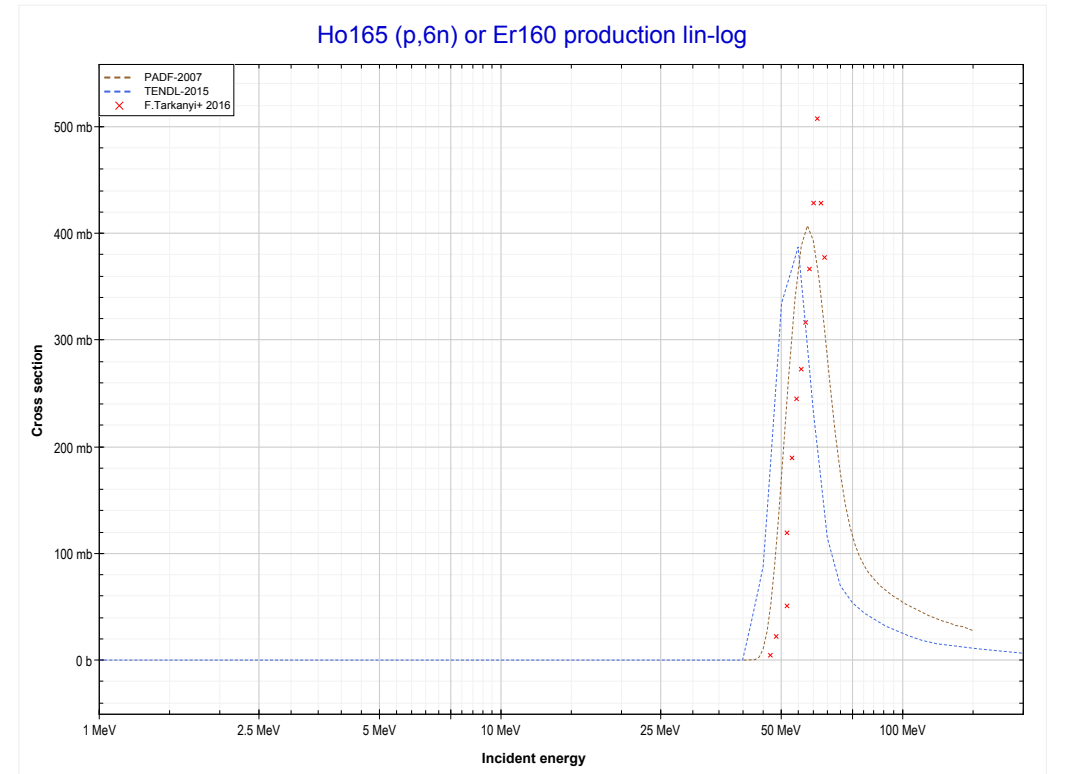
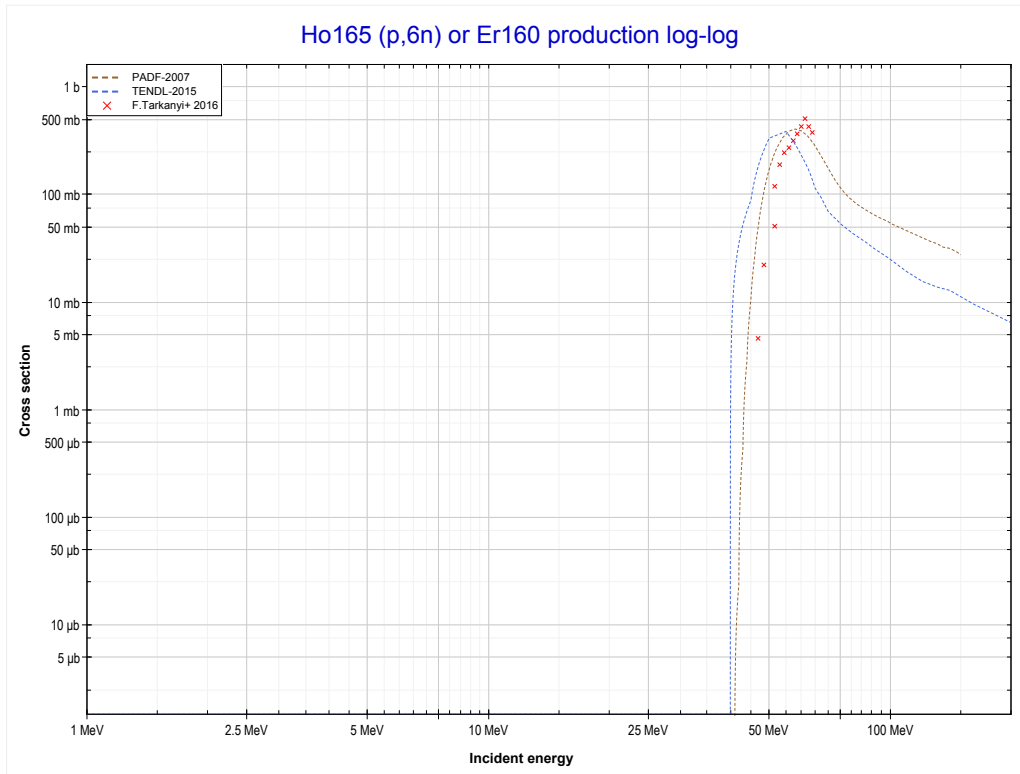
Reaction	Q-Value
$^{67}\text{Ho}(p,p)^{67}\text{Ho}$	0.00 keV

<< 59-Pr-141	67-Ho-165	73-Ta-181 >>
<< MT103 (p,p)	MT152 (p,5n) or MT5 (Er161 production)	MT153 (p,6n) >>



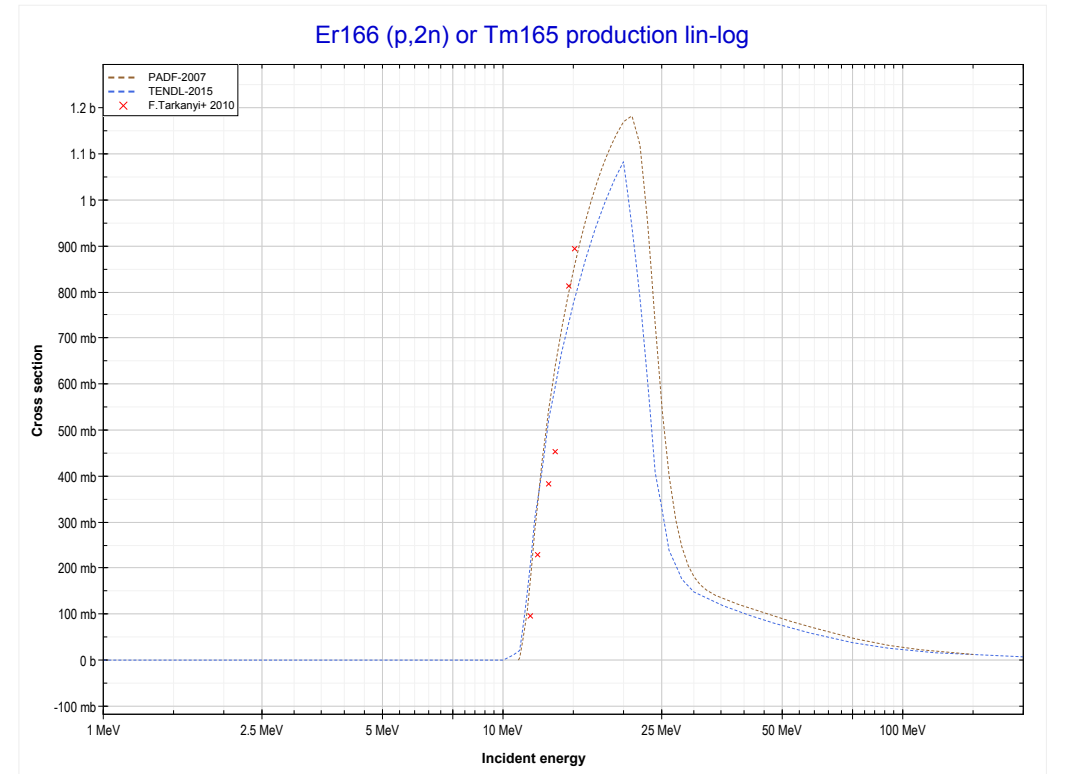
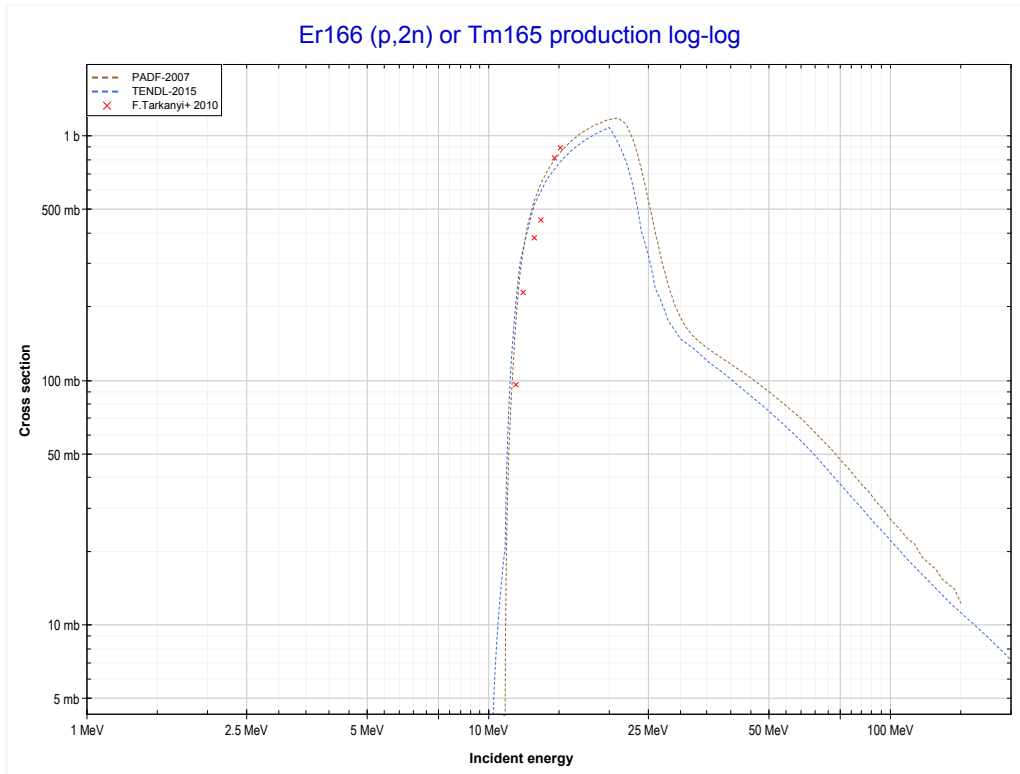
Reaction	Q-Value
Ho165(p,5n)Er161	-32765.91 keV

<< 59-Pr-141	67-Ho-165	76-Os-192 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Er160 production)	68-Er-166 MT16 (p,2n) >>



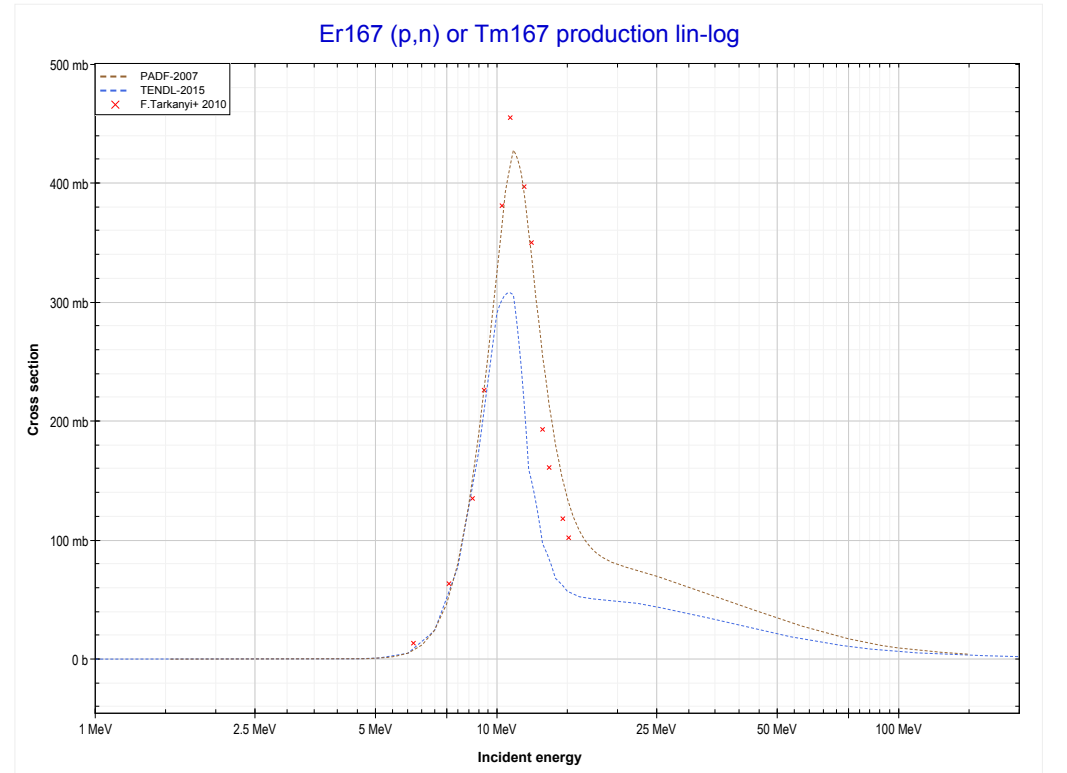
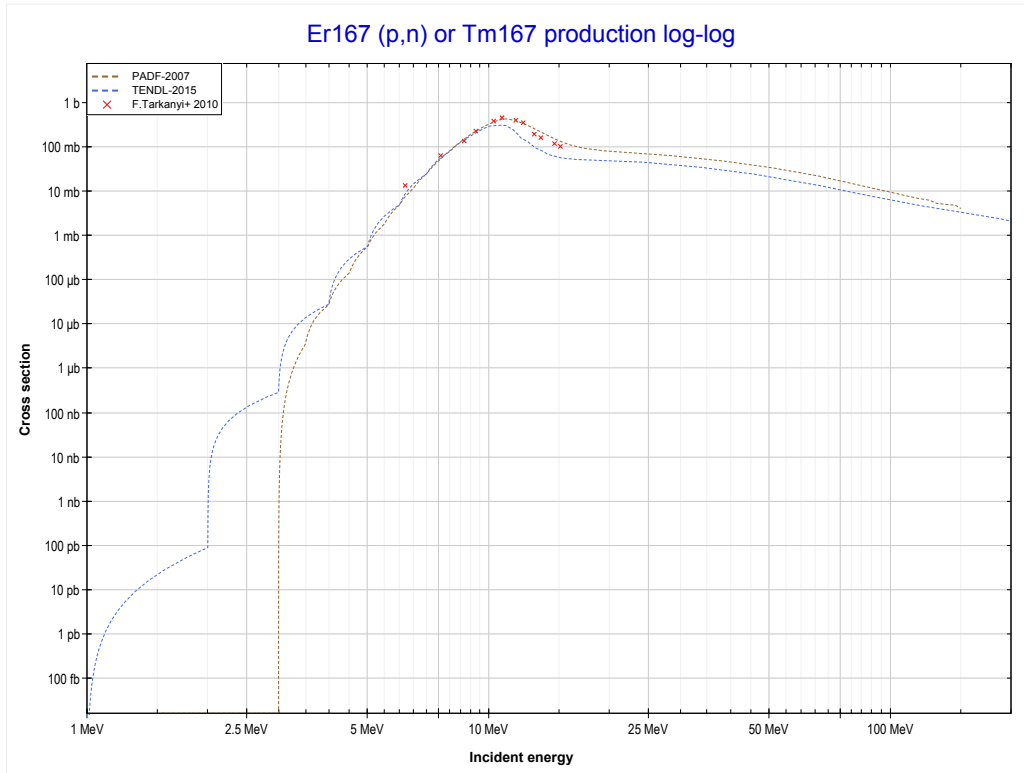
Reaction	Q-Value
Ho165(p,6n)Er160	-39973.23 keV

<< 66-Dy-163	68-Er-166	68-Er-167 >>
<< 67-Ho-165 MT153 (p,6n)	MT16 (p,2n) or MT5 (Tm165 production)	68-Er-167 MT4 (p,n) >>



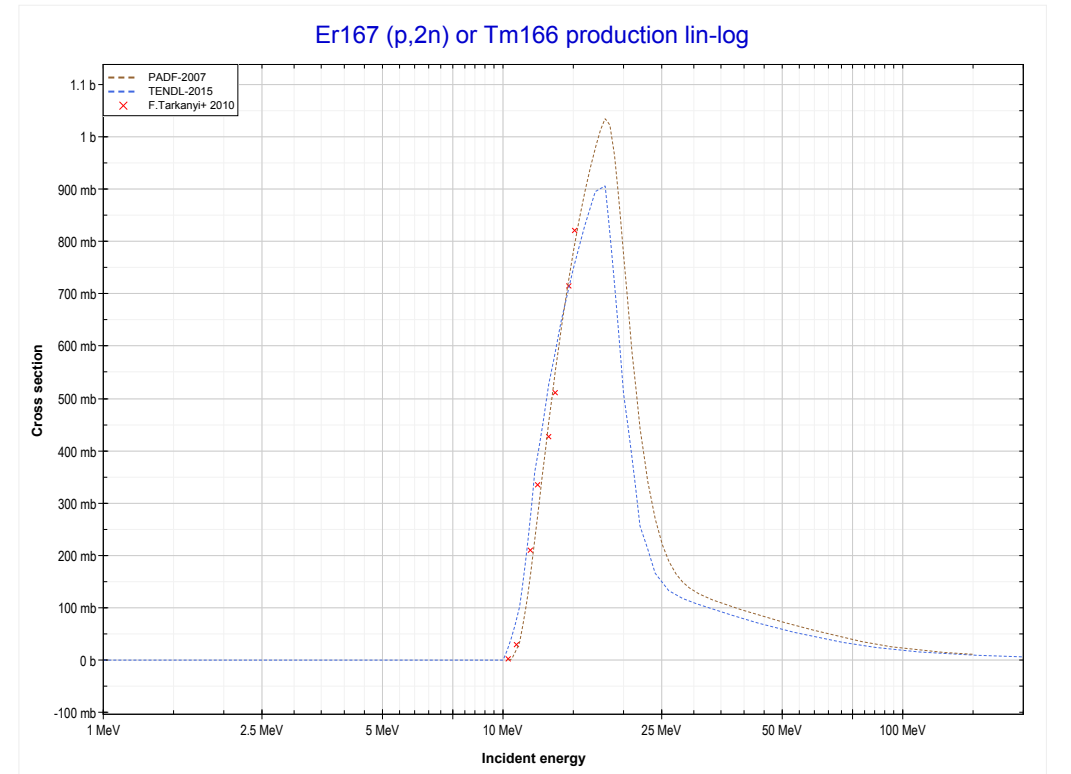
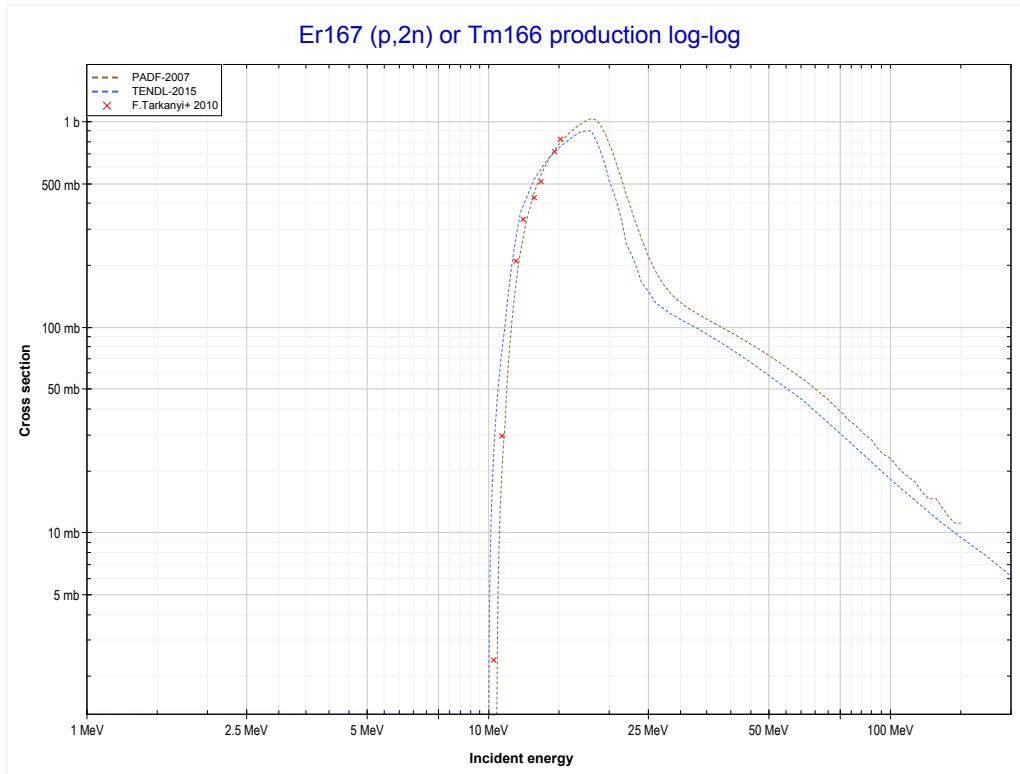
Reaction	Q-Value
Er166(p,2n)Tm165	-10850.46 keV

<< 67-Ho-165	68-Er-167	68-Er-168 >>
<< 68-Er-166 MT16 (p,2n)	MT4 (p,n) or MT5 (Tm167 production)	MT16 (p,2n) >>



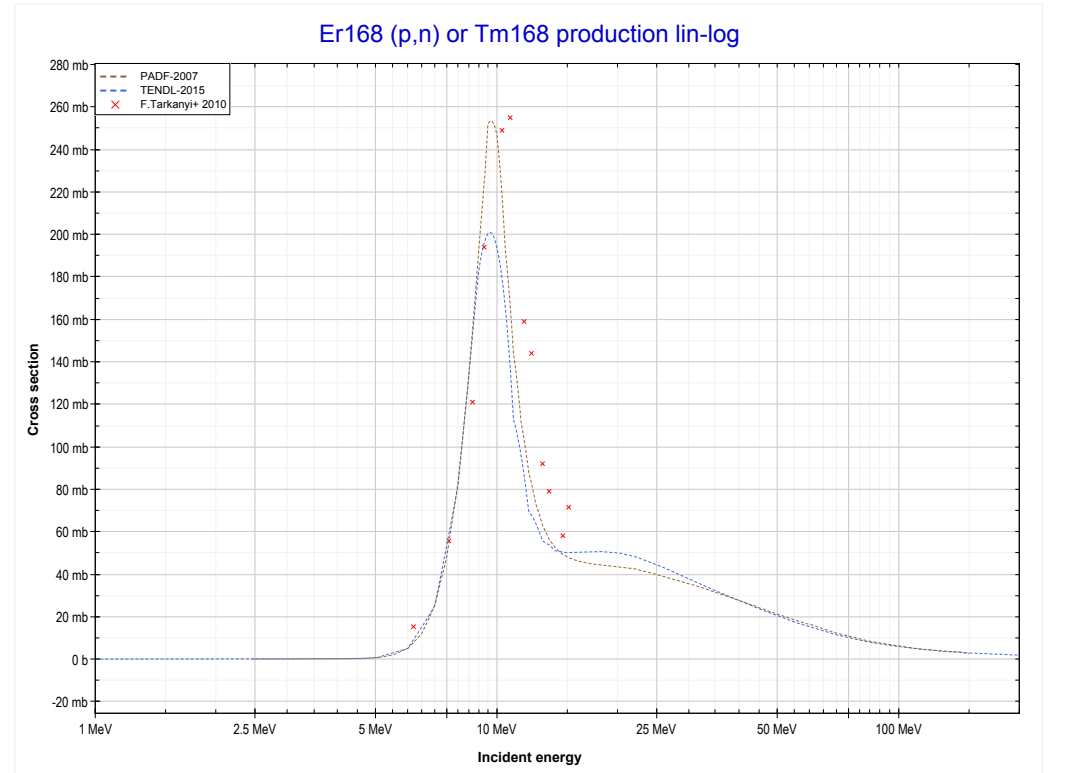
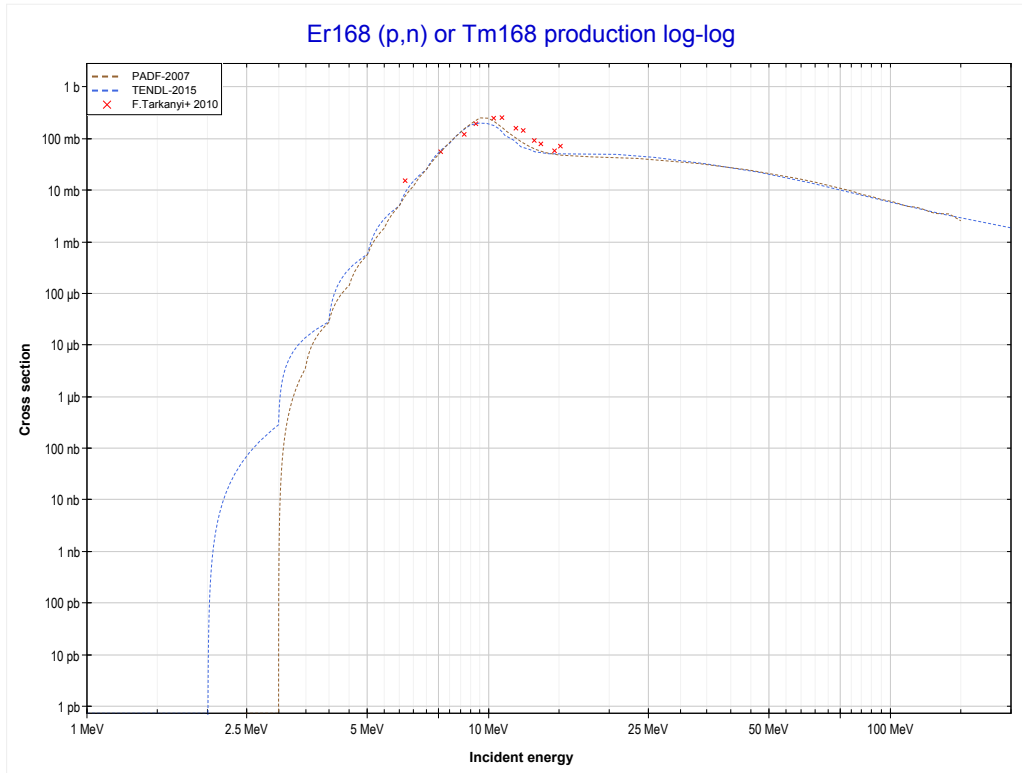
Reaction	Q-Value
Er167(p,n)Tm167	-1528.95 keV

<< 68-Er-166	68-Er-167	73-Ta-181 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Tm166 production)	68-Er-168 MT4 (p,n) >>



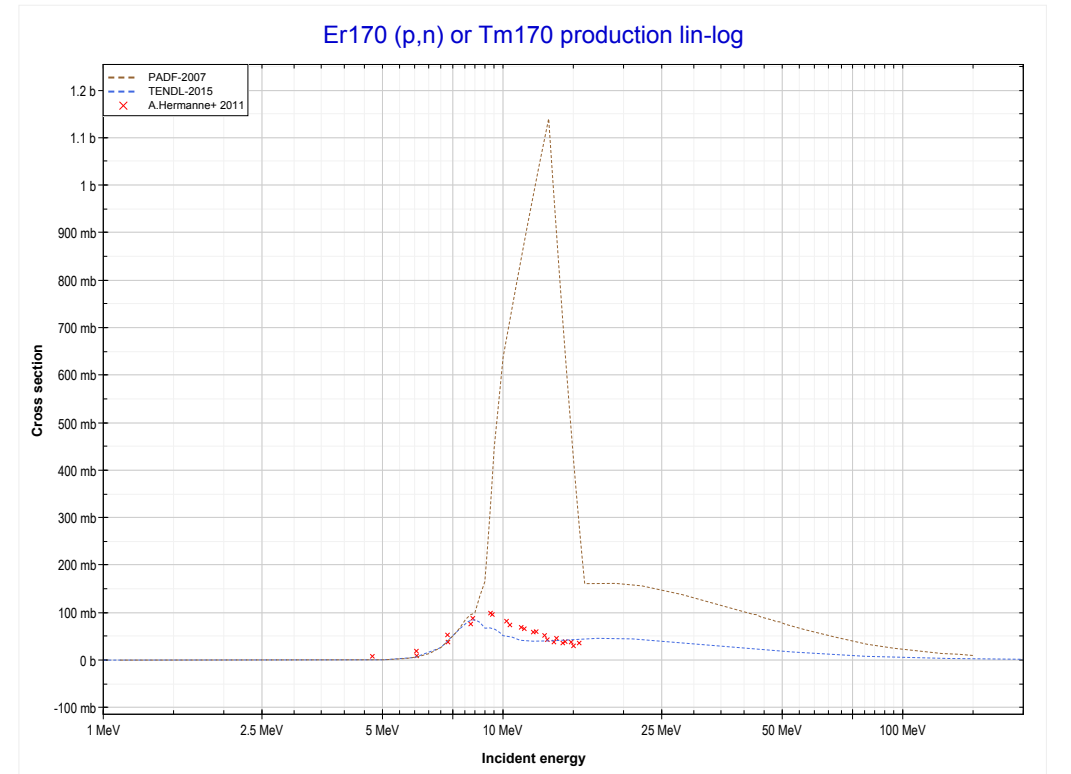
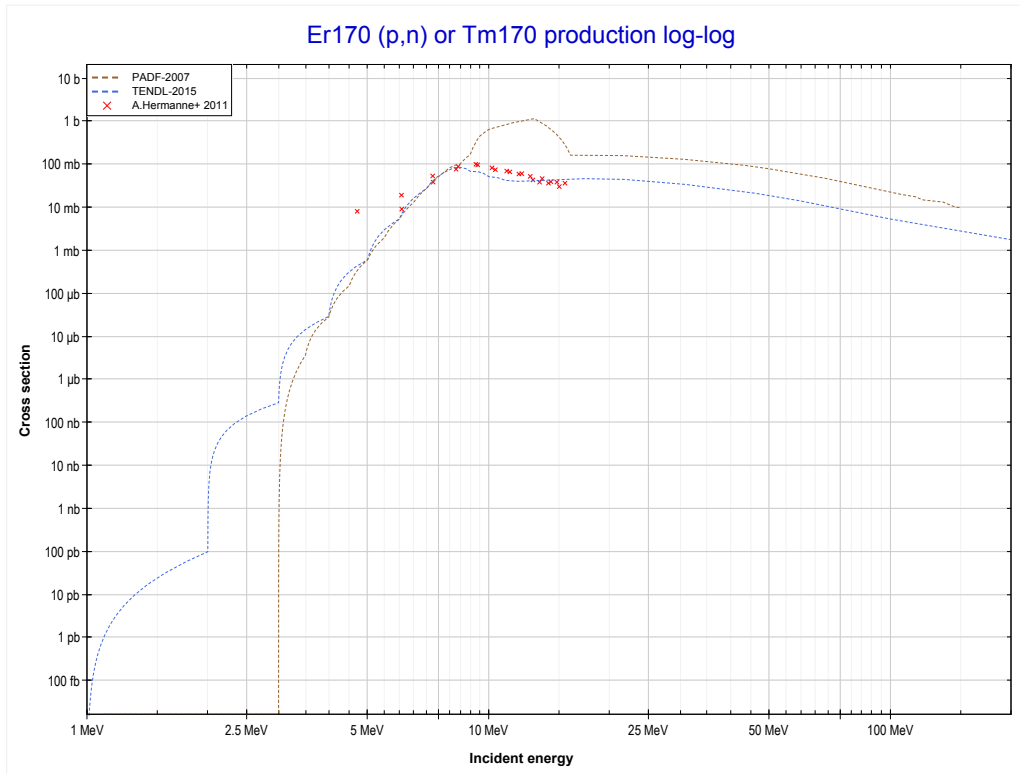
Reaction	Q-Value
Er167(p,2n)Tm166	-10256.36 keV

<< 68-Er-167	68-Er-168	68-Er-170 >>
<< 68-Er-167 MT16 (p,2n)	MT4 (p,n) or MT5 (Tm168 production)	68-Er-170 MT4 (p,n) >>



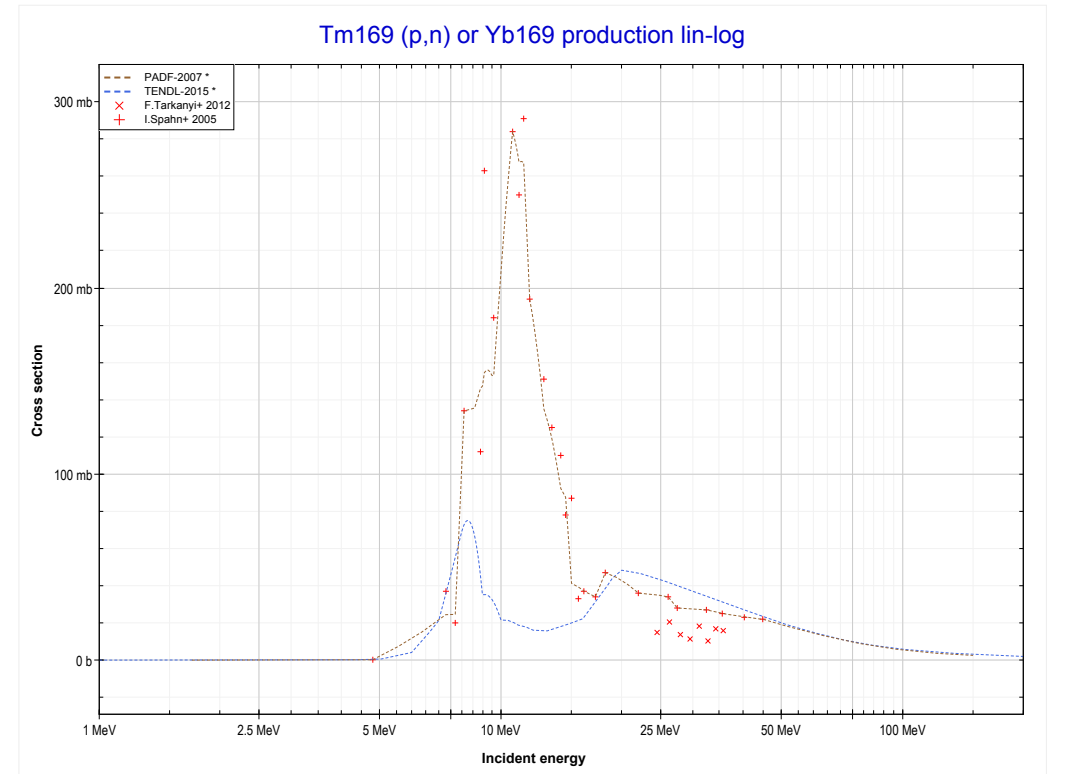
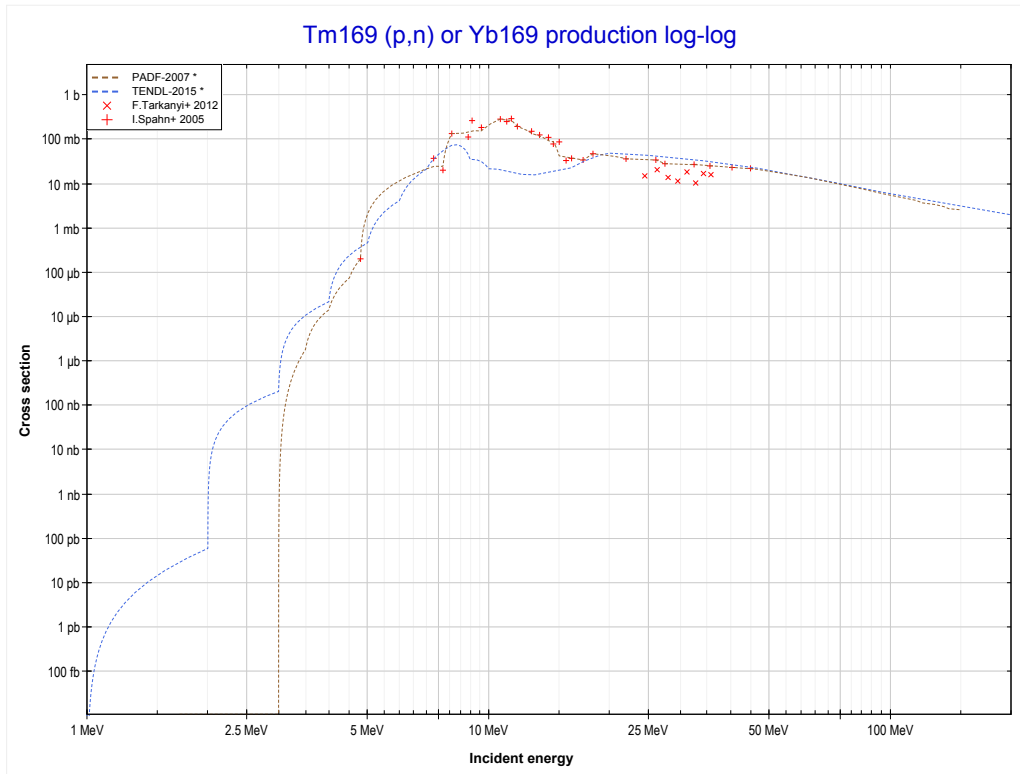
Reaction	Q-Value
Er168(p,n)Tm168	-2459.75 keV

<< 68-Er-168	68-Er-170	69-Tm-169 >>
<< 68-Er-168 MT4 (p,n)	MT4 (p,n) or MT5 (Tm170 production)	69-Tm-169 MT4 (p,n) >>



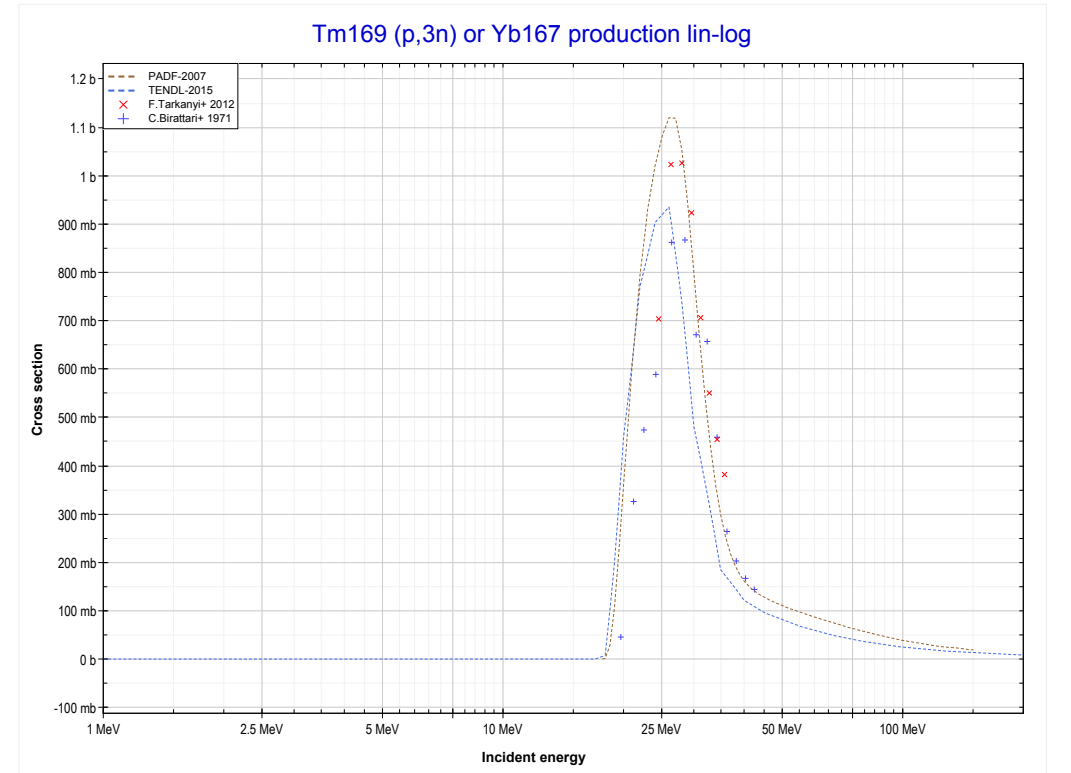
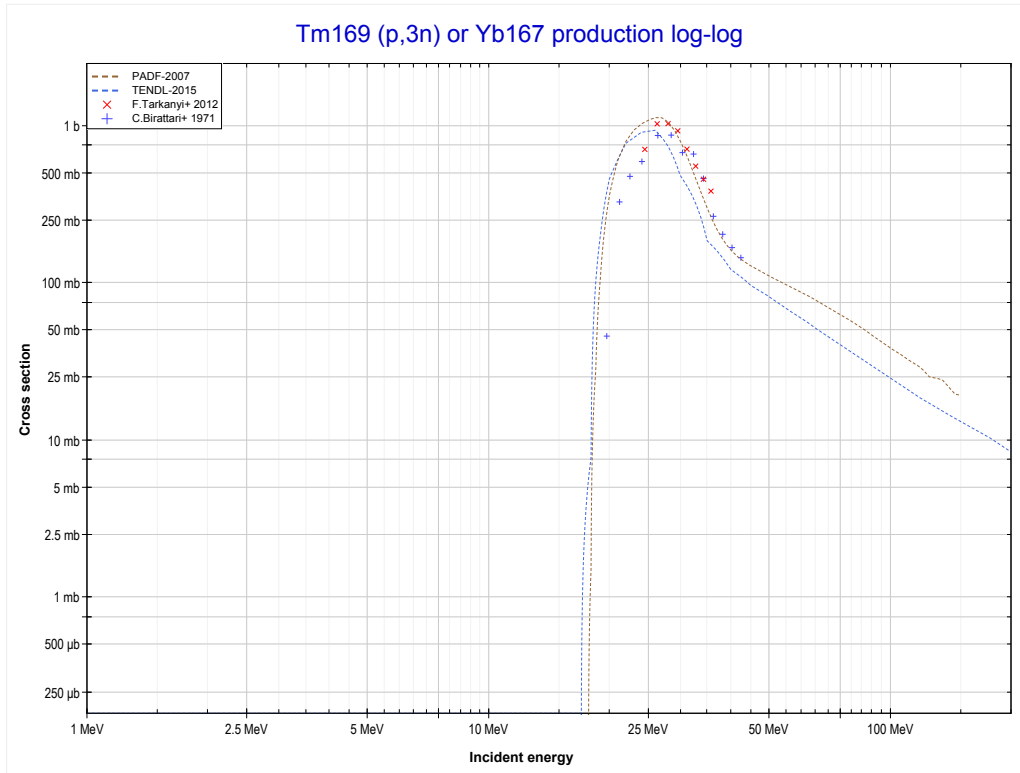
Reaction	Q-Value
Er170(p,n)Tm170	-1095.15 keV

<< 68-Er-170	69-Tm-169	72-Hf-178 >>
<< 68-Er-170 MT4 (p,n)	MT4 (p,n) or MT5 (Yb169 production)	MT17 (p,3n) >>



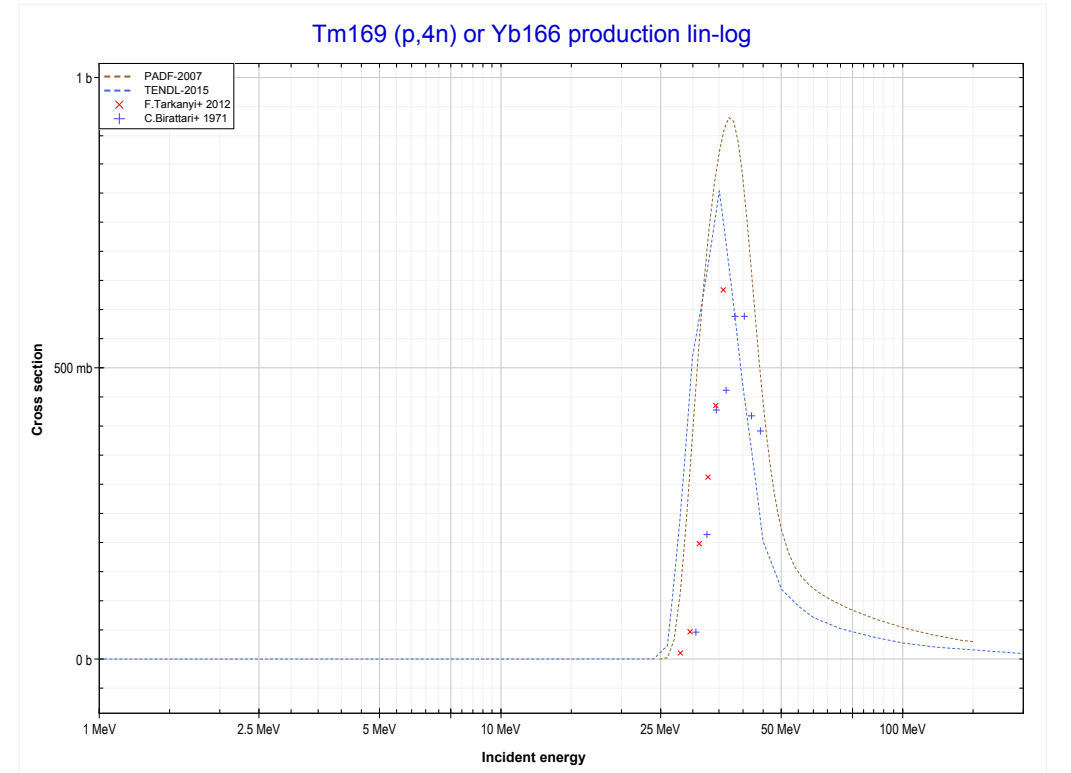
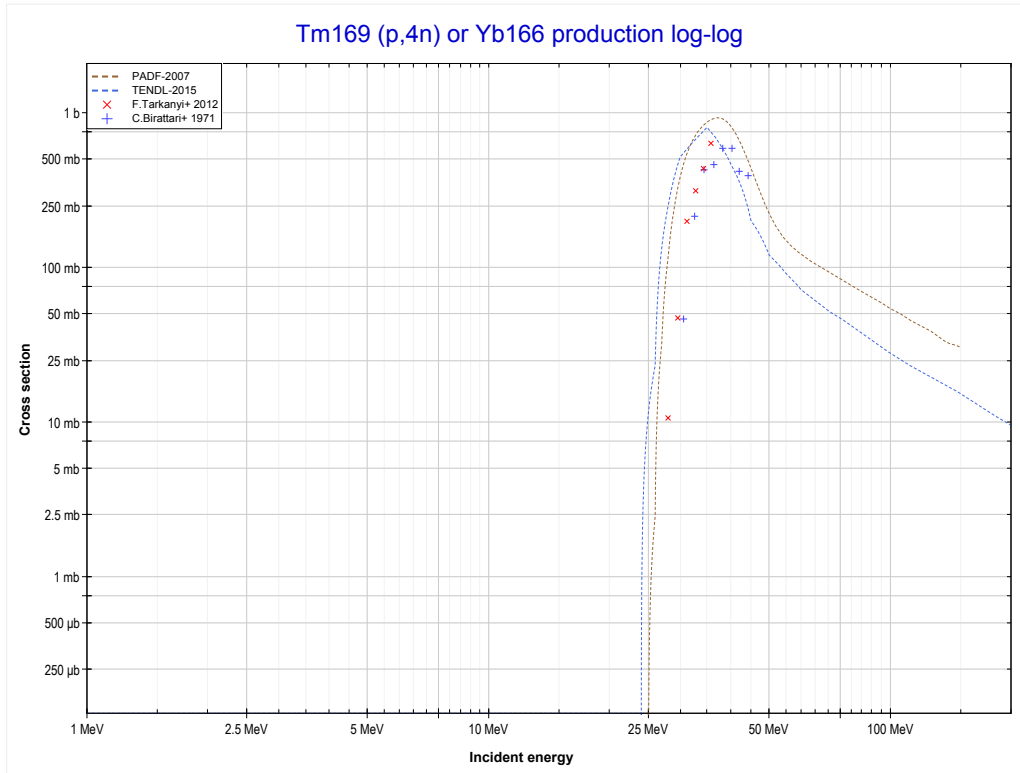
Reaction	Q-Value
Tm169(p,n)Yb169	-1680.85 keV

<< 66-Dy-163	69-Tm-169	73-Ta-181 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Yb167 production)	MT37 (p,4n) >>



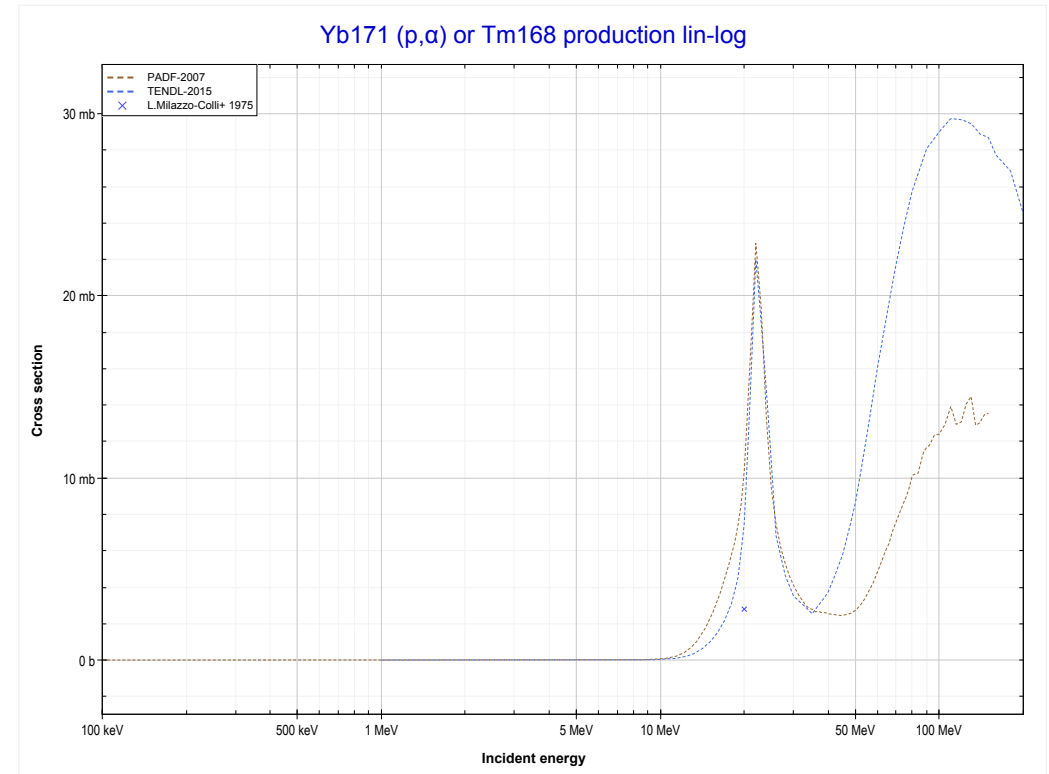
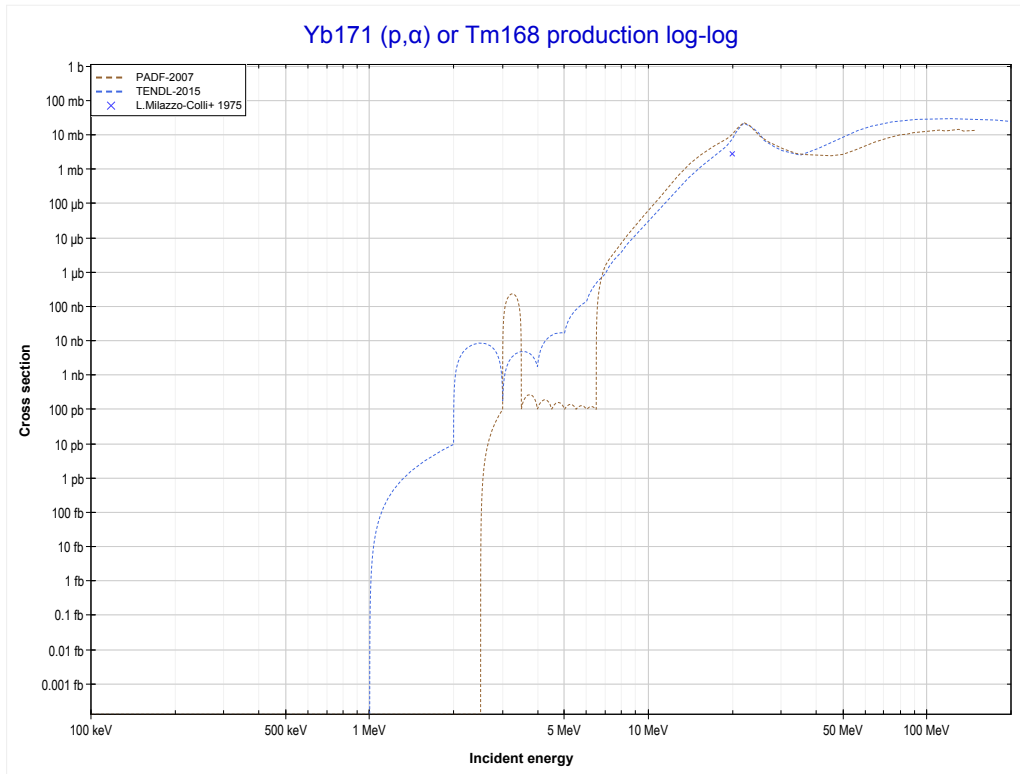
Reaction	Q-Value
Tm169(p,3n)Yb167	-17609.58 keV

<< 66-Dy-163	69-Tm-169	73-Ta-181 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Yb166 production)	70-Yb-171 MT107 (p, α) >>



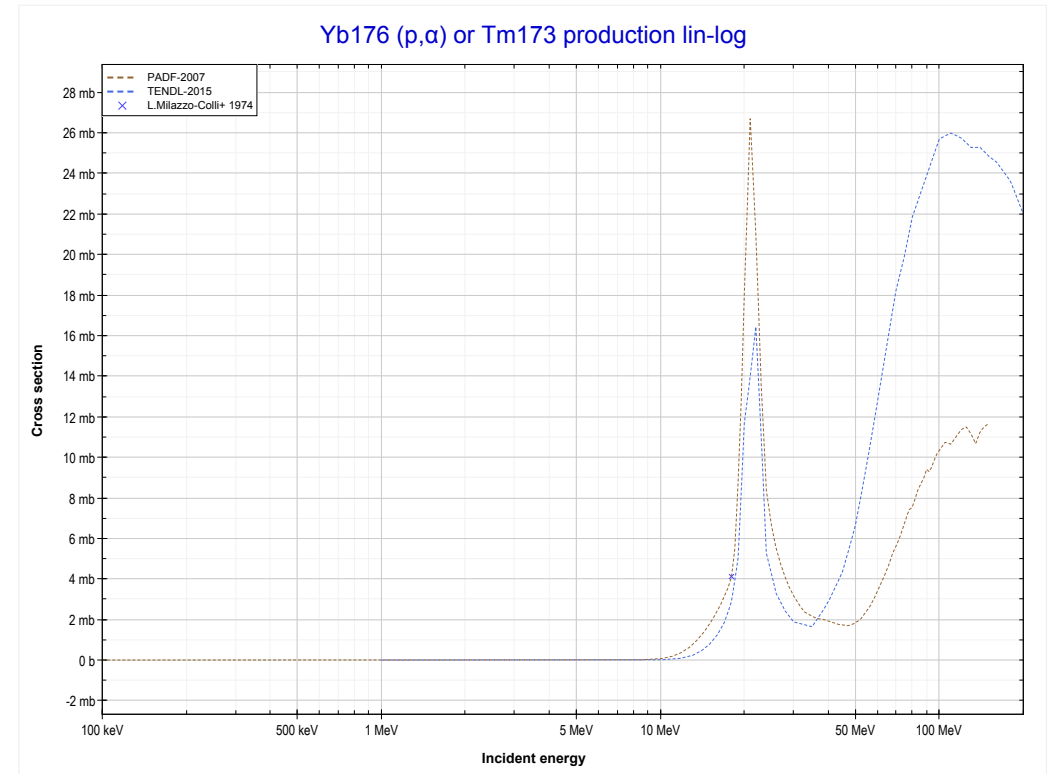
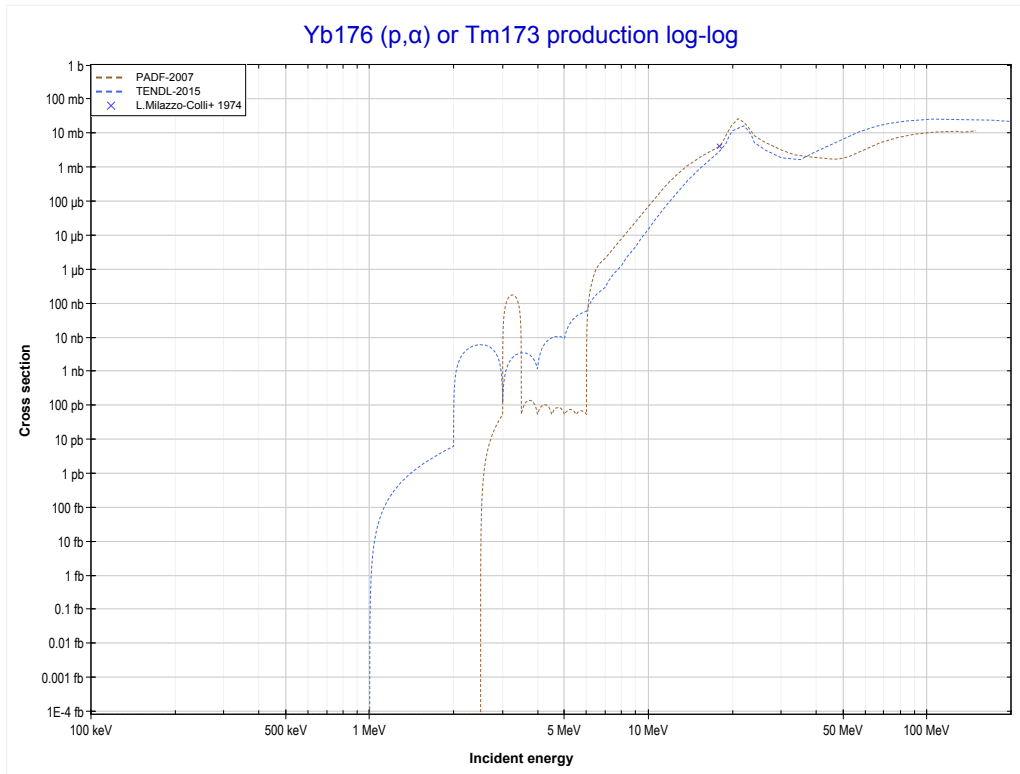
Reaction	Q-Value
Tm169(p,4n)Yb166	-24676.90 keV

<< 64-Gd-156	70-Yb-171	70-Yb-176 >>
<< 69-Tm-169 MT37 (p,4n)	MT107 (p,α) or MT5 (Tm168 production)	70-Yb-176 MT107 (p, α) >>



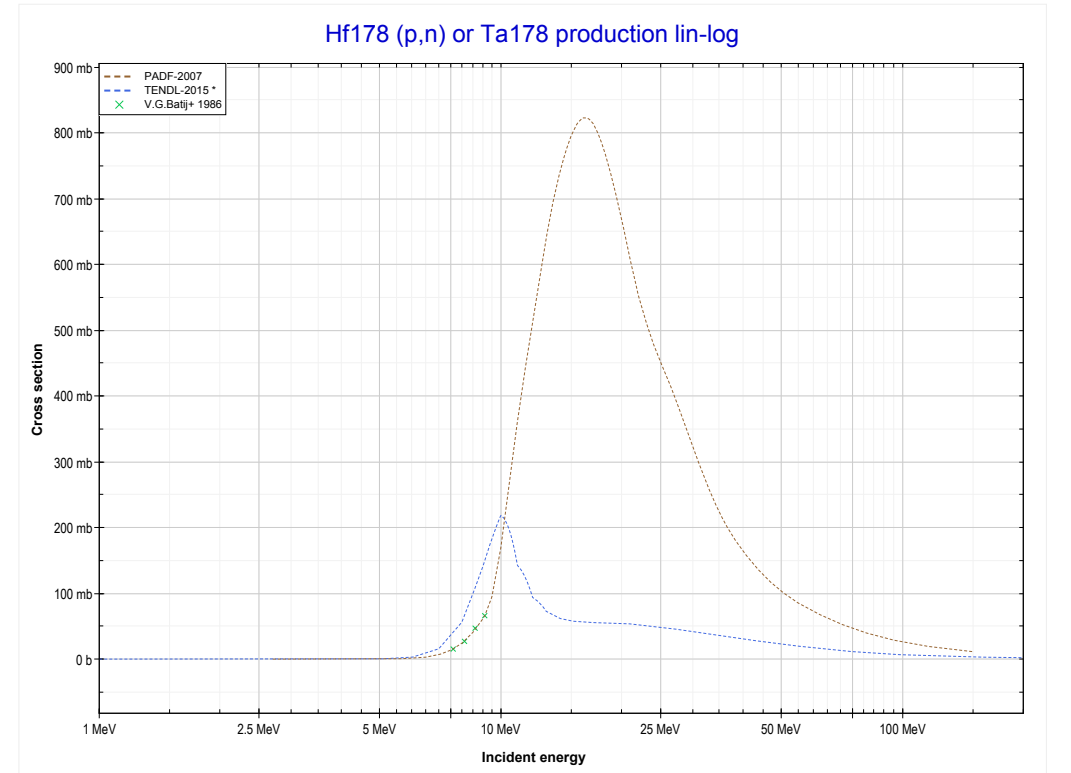
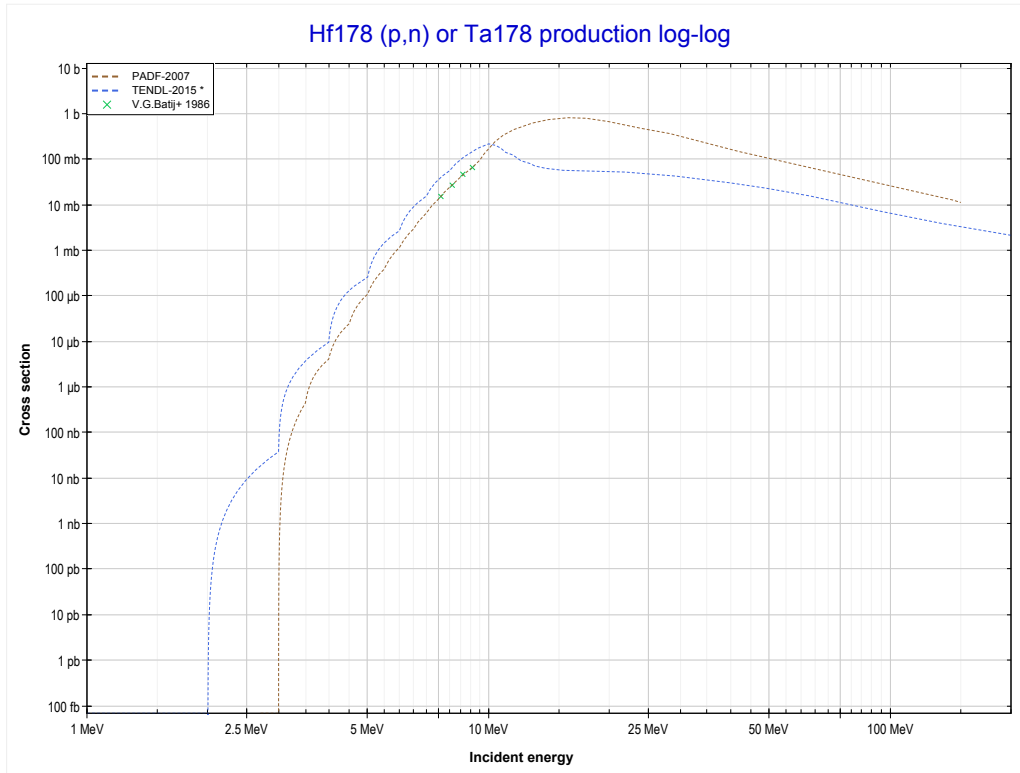
Reaction	Q-Value
Yb171(p, α)Tm168	6869.35 keV
Yb171(p,p+t)Tm168	-12944.51 keV
Yb171(p,n+He3)Tm168	-13708.26 keV
Yb171(p,2d)Tm168	-16977.17 keV
Yb171(p,n+p+d)Tm168	-19201.74 keV
Yb171(p,2n+2p)Tm168	-21426.30 keV

<< 70-Yb-171	70-Yb-176	79-Au-197 >>
<< 70-Yb-171 MT107 (p, α)	MT107 (p,α) or MT5 (Tm173 production)	72-Hf-178 MT4 (p,n) >>



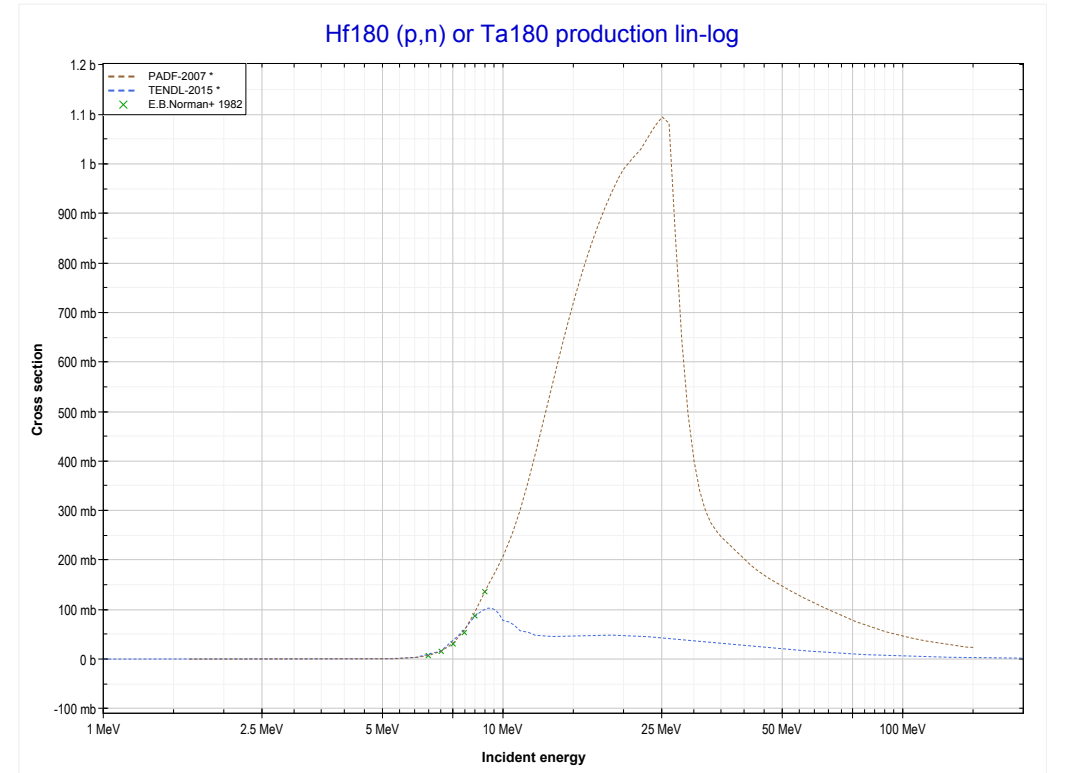
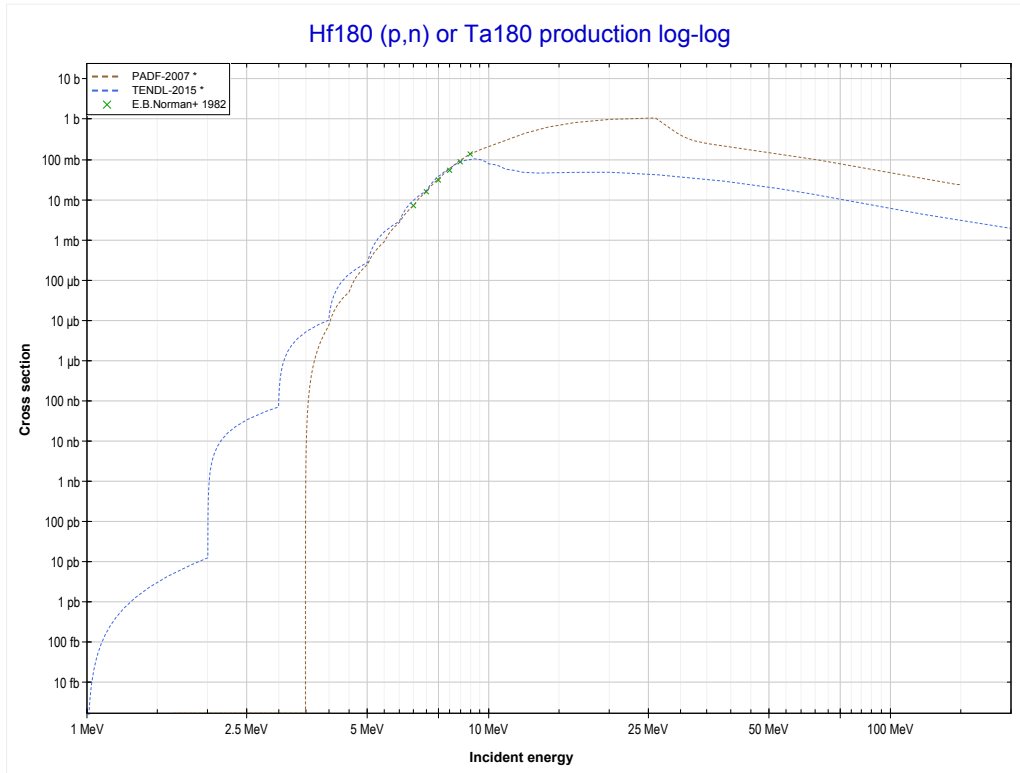
Reaction	Q-Value
Yb176(p, α)Tm173	7628.35 keV
Yb176(p,p+t)Tm173	-12185.51 keV
Yb176(p,n+He3)Tm173	-12949.26 keV
Yb176(p,2d)Tm173	-16218.17 keV
Yb176(p,n+p+d)Tm173	-18442.74 keV
Yb176(p,2n+2p)Tm173	-20667.30 keV

<< 69-Tm-169	72-Hf-178	72-Hf-180 >>
<< 70-Yb-176 MT107 (p, α)	MT4 (p,n) or MT5 (Ta178 production)	72-Hf-180 MT4 (p,n) >>



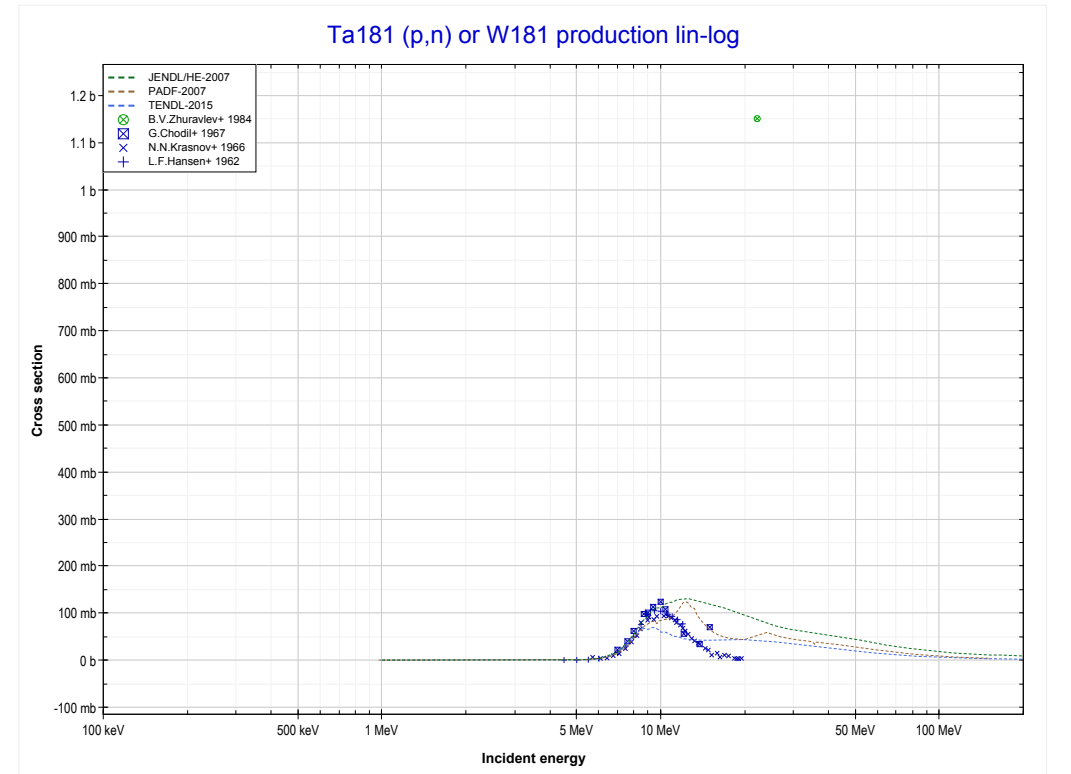
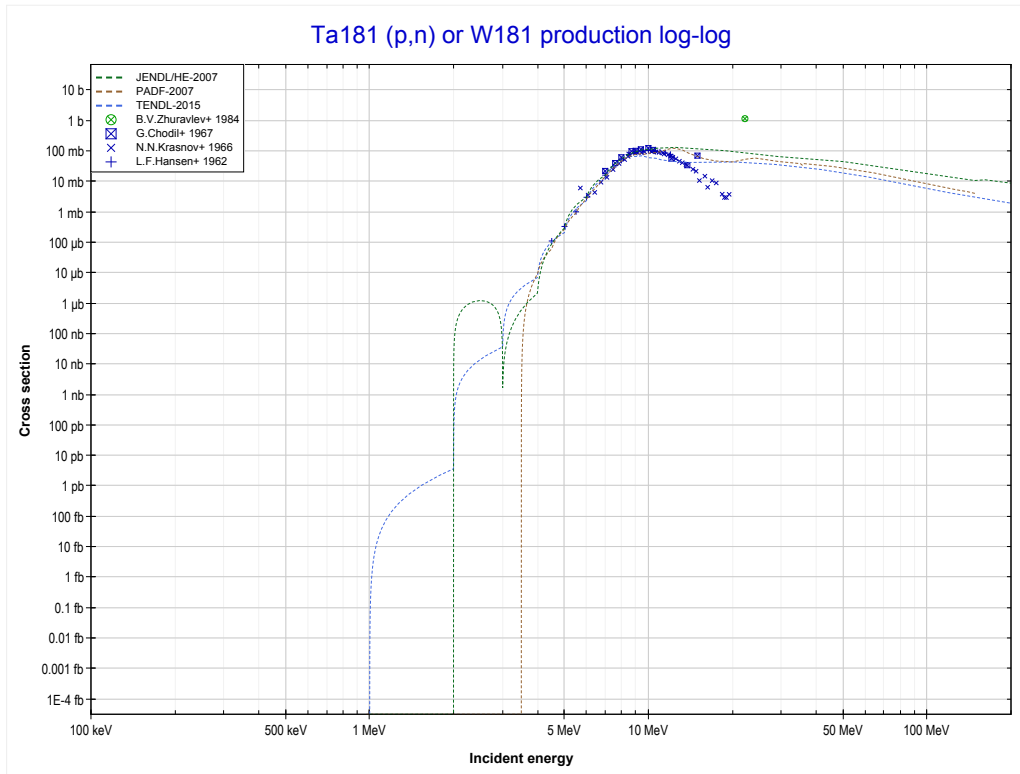
Reaction	Q-Value
Hf178(p,n)Ta178	-2620.05 keV

<< 72-Hf-178	72-Hf-180	73-Ta-181 >>
<< 72-Hf-178 MT4 (p,n)	MT4 (p,n) or MT5 (Ta180 production)	73-Ta-181 MT4 (p,n) >>



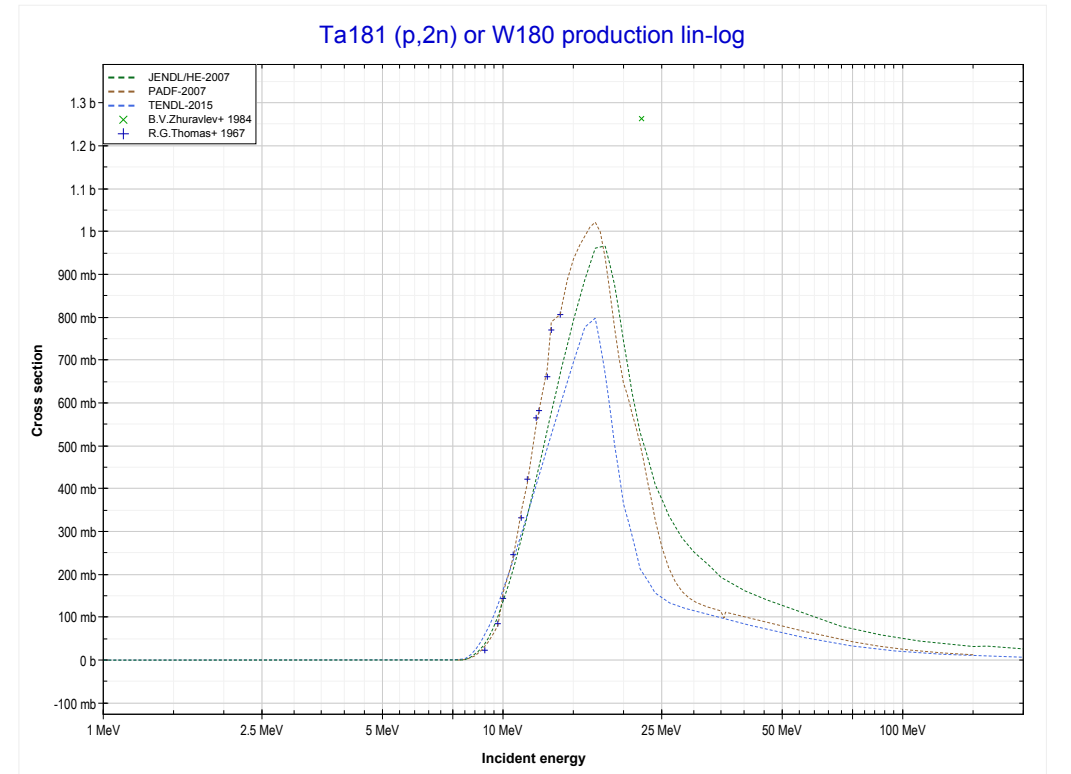
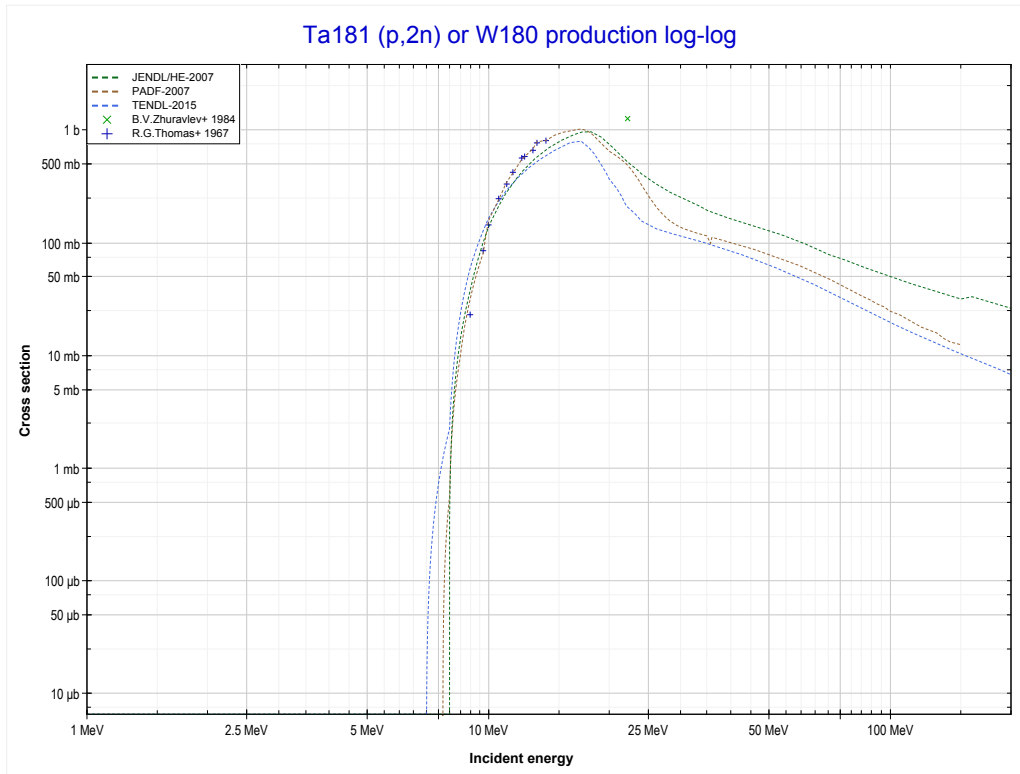
Reaction	Q-Value
Hf180(p,n)Ta180	-1627.95 keV

<< 72-Hf-180	73-Ta-181	74-W-186 >>
<< 72-Hf-180 MT4 (p,n)	MT4 (p,n) or MT5 (W181 production)	MT16 (p,2n) >>



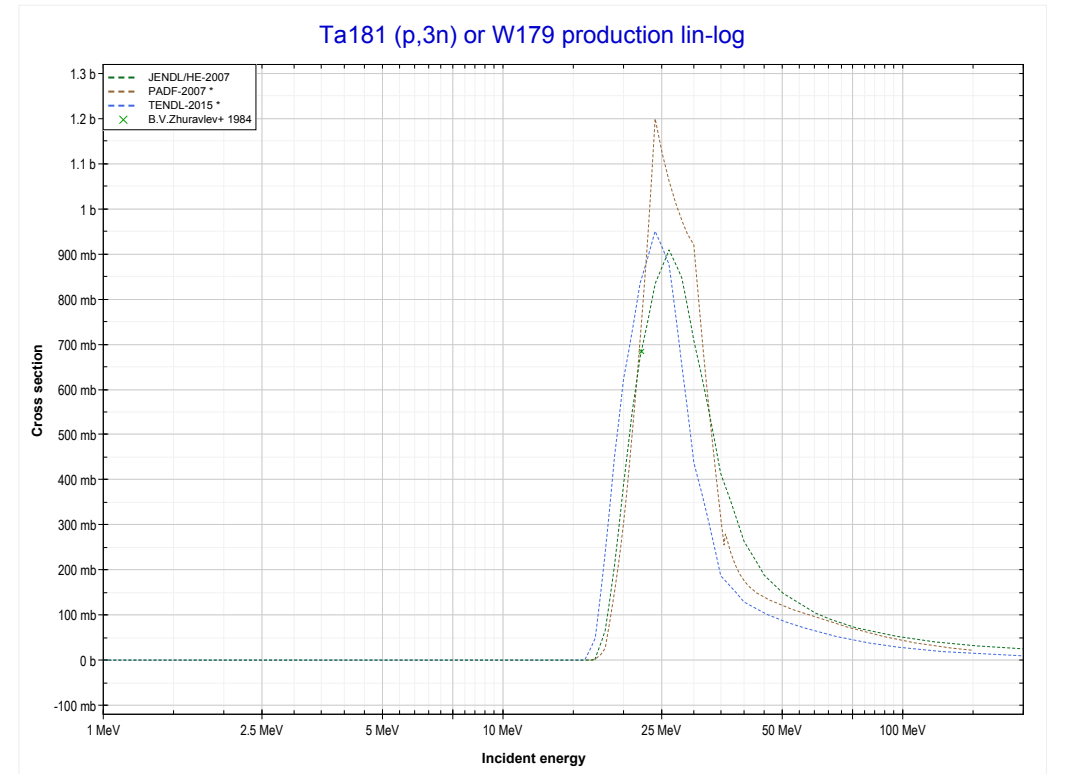
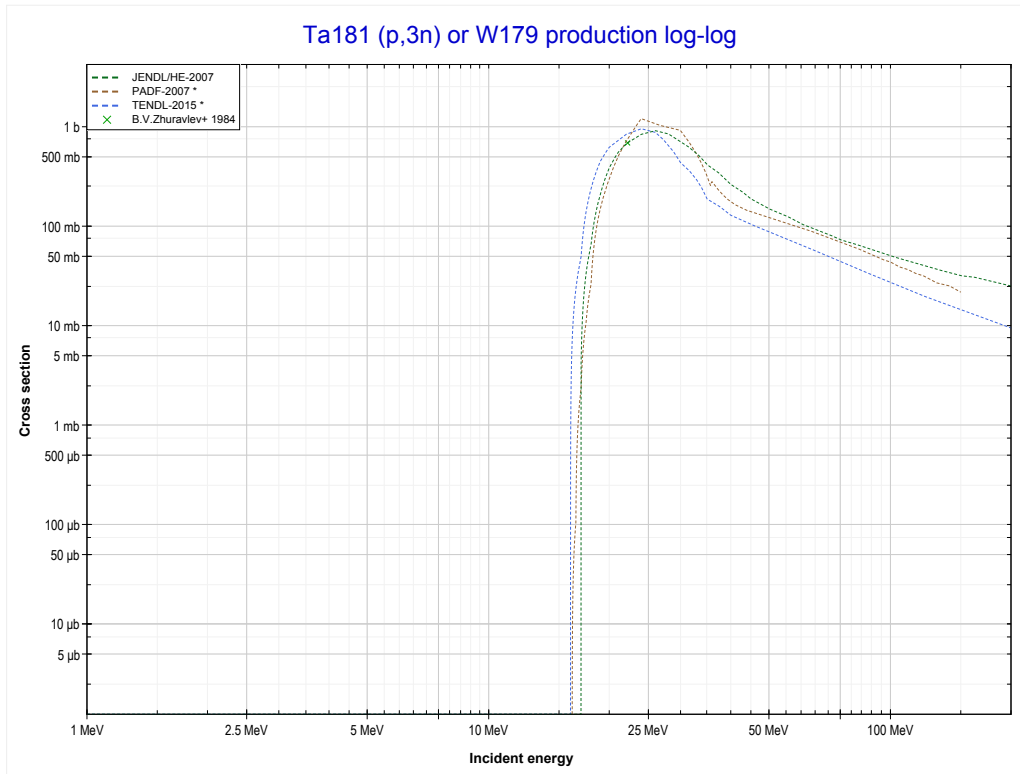
Reaction	Q-Value
Ta181(p,n)W181	-970.95 keV

<< 68-Er-167	73-Ta-181	74-W-182 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (W180 production)	MT17 (p,3n) >>



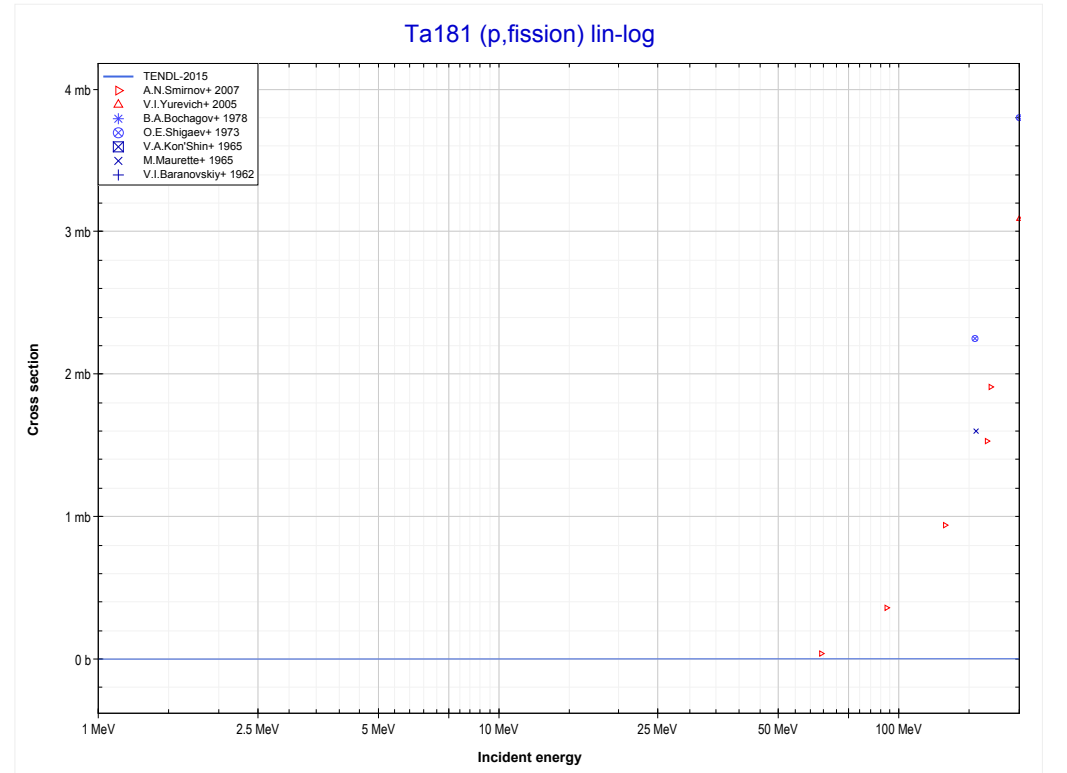
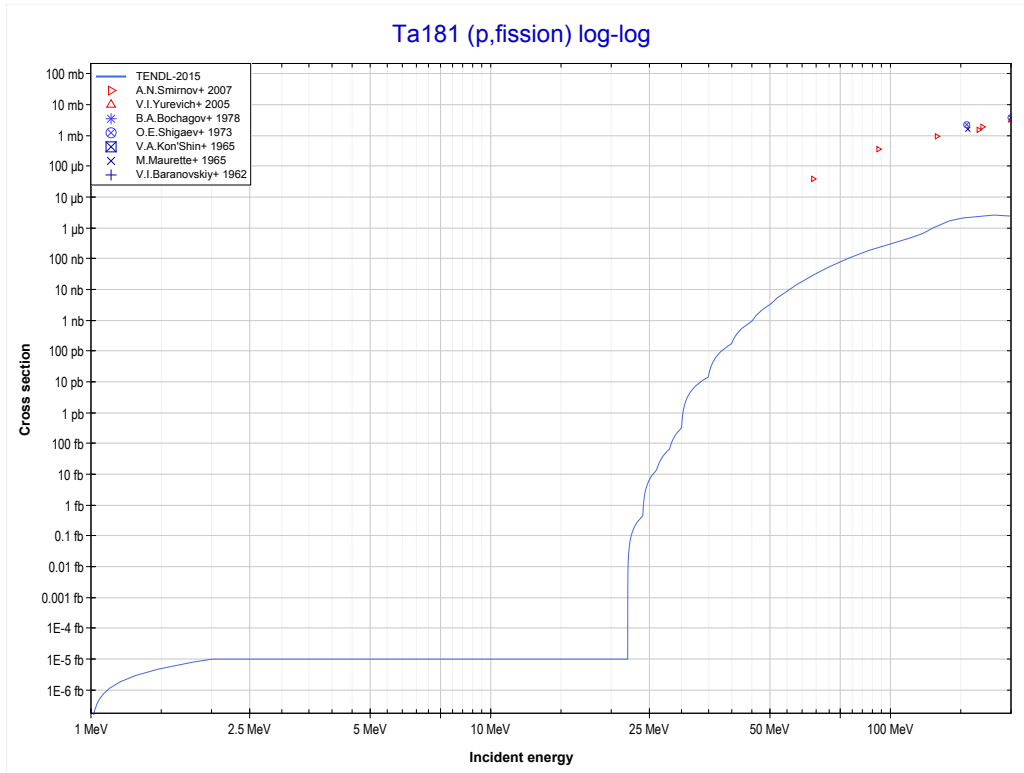
Reaction	Q-Value
Ta181(p,2n)W180	-7656.66 keV

<< 69-Tm-169	73-Ta-181	76-Os-192 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (W179 production)	MT18 (p,fission) >>

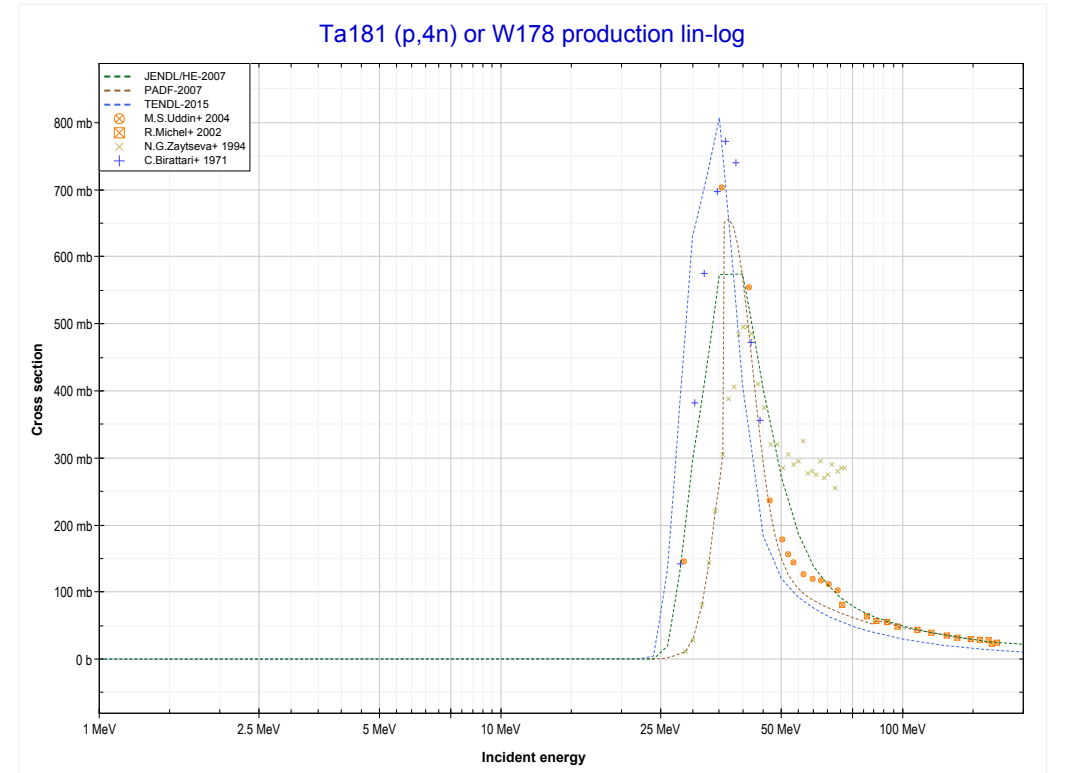
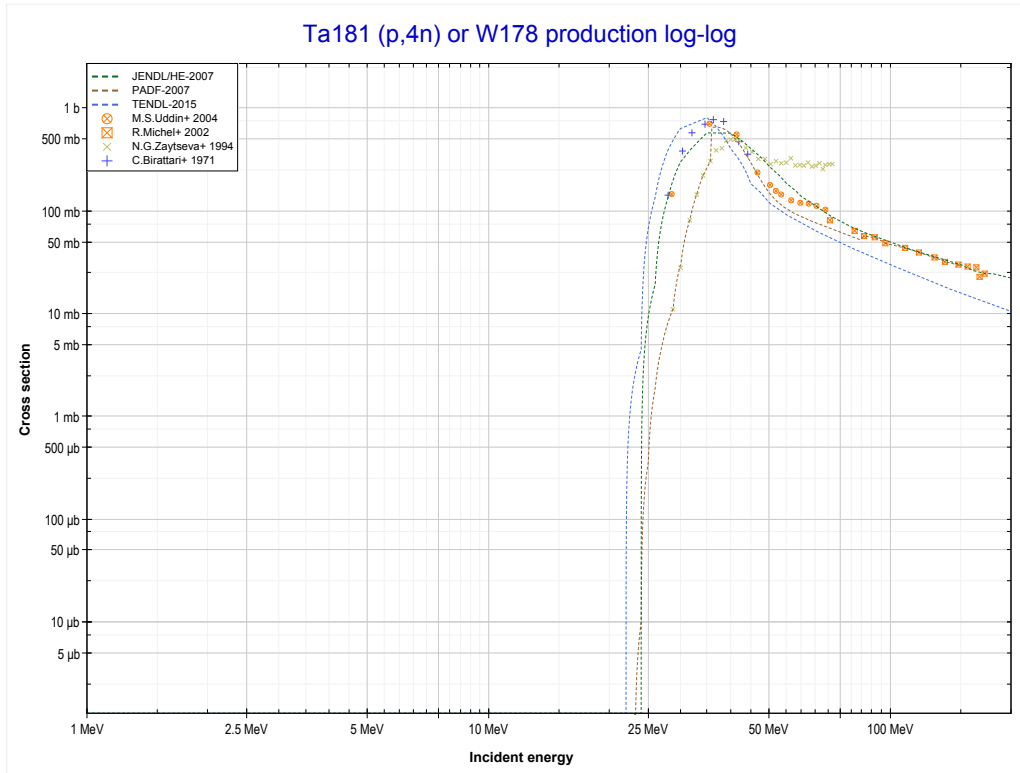


Reaction	Q-Value
Ta181(p,3n)W179	-16069.58 keV

	73-Ta-181	74-W-182 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

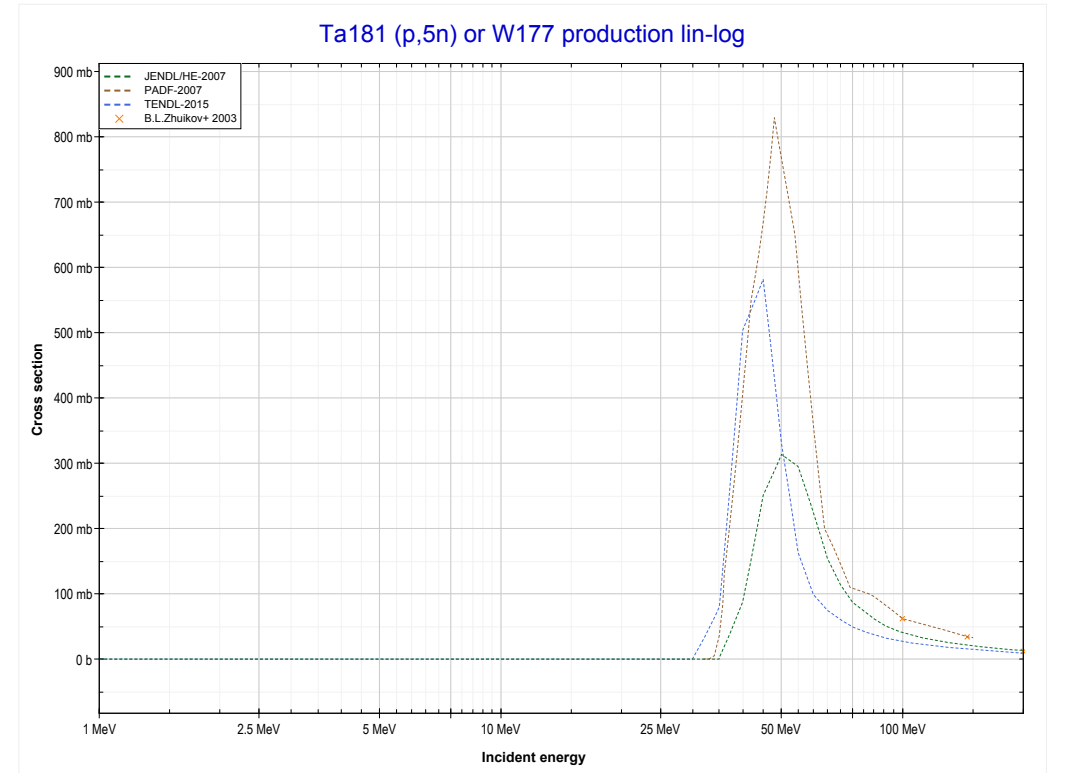
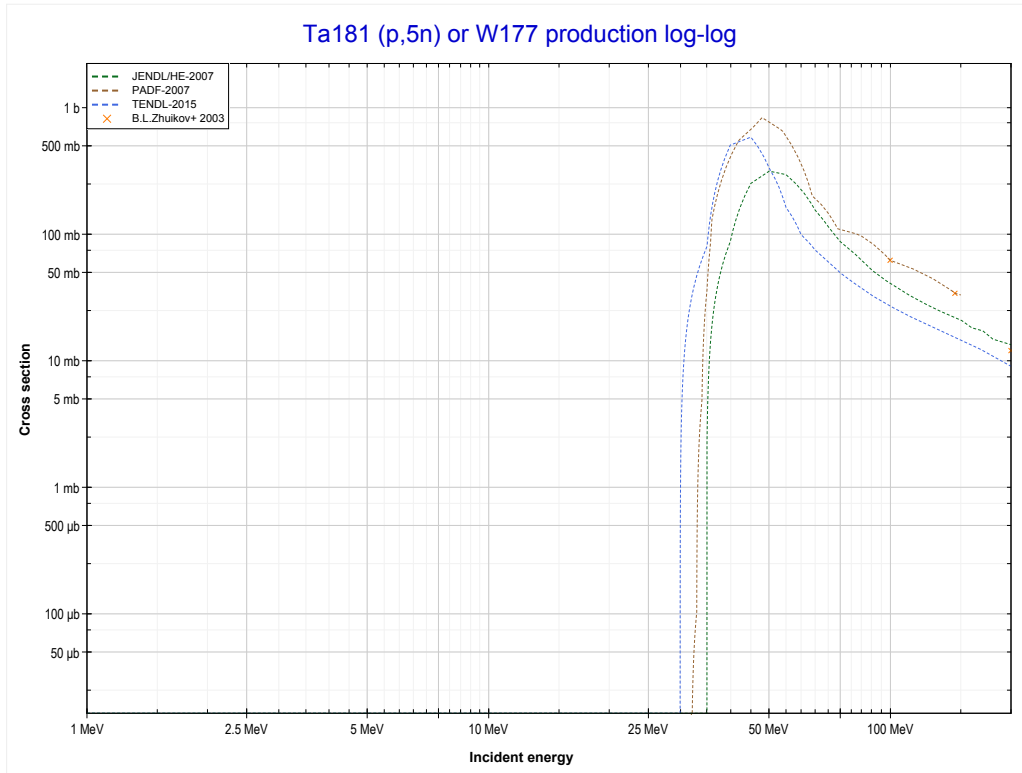


<< 69-Tm-169	73-Ta-181	76-Os-192 >>
<< MT18 (p,fission)	MT37 (p,4n) or MT5 (W178 production)	MT152 (p,5n) >>



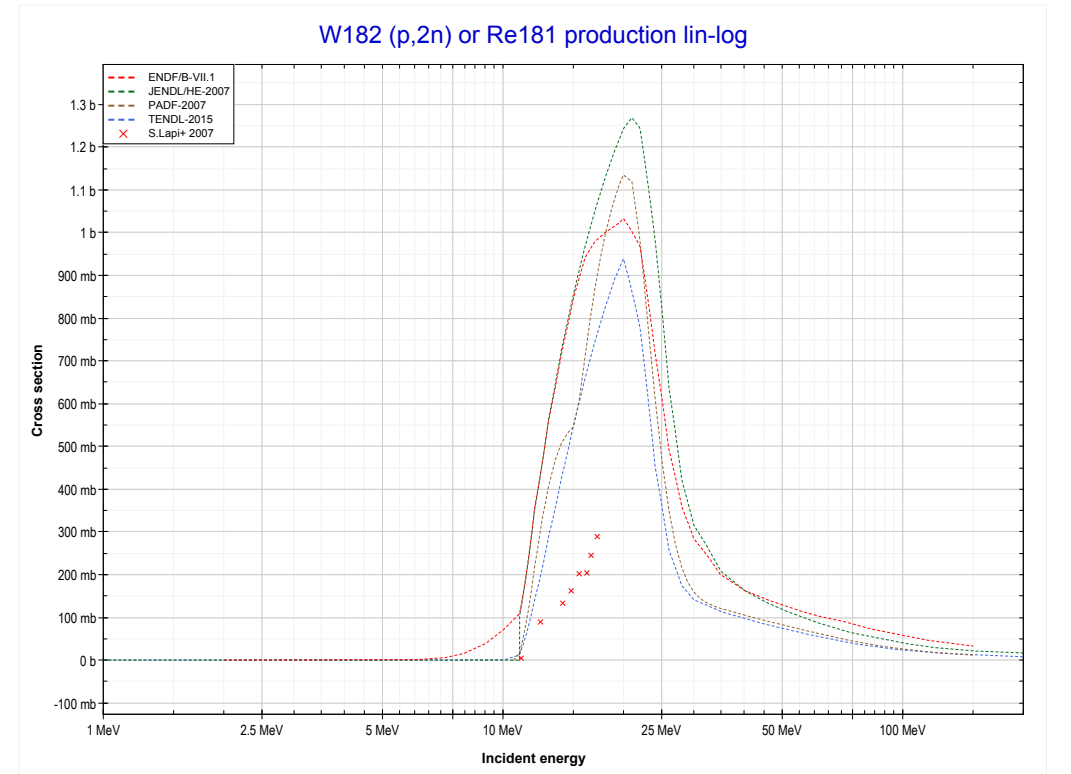
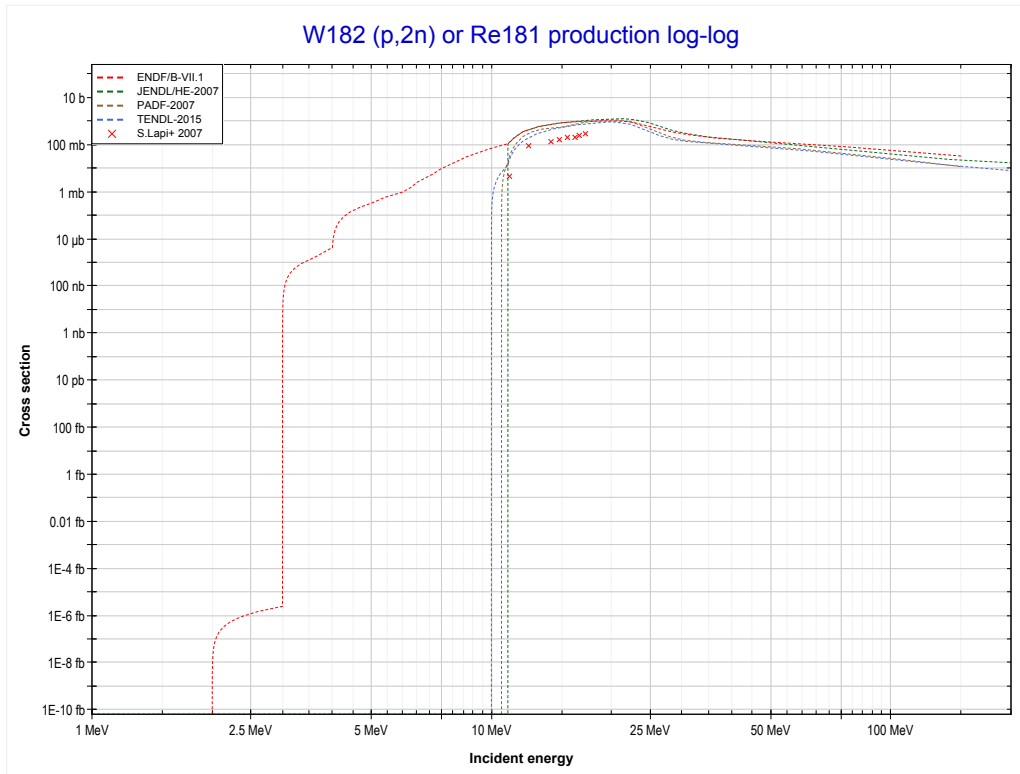
Reaction	Q-Value
Ta181(p,4n)W178	-23028.90 keV

<< 67-Ho-165	73-Ta-181	76-Os-192 >>
<< MT37 (p,4n)	MT152 (p,5n) or MT5 (W177 production)	74-W-182 MT16 (p,2n) >>



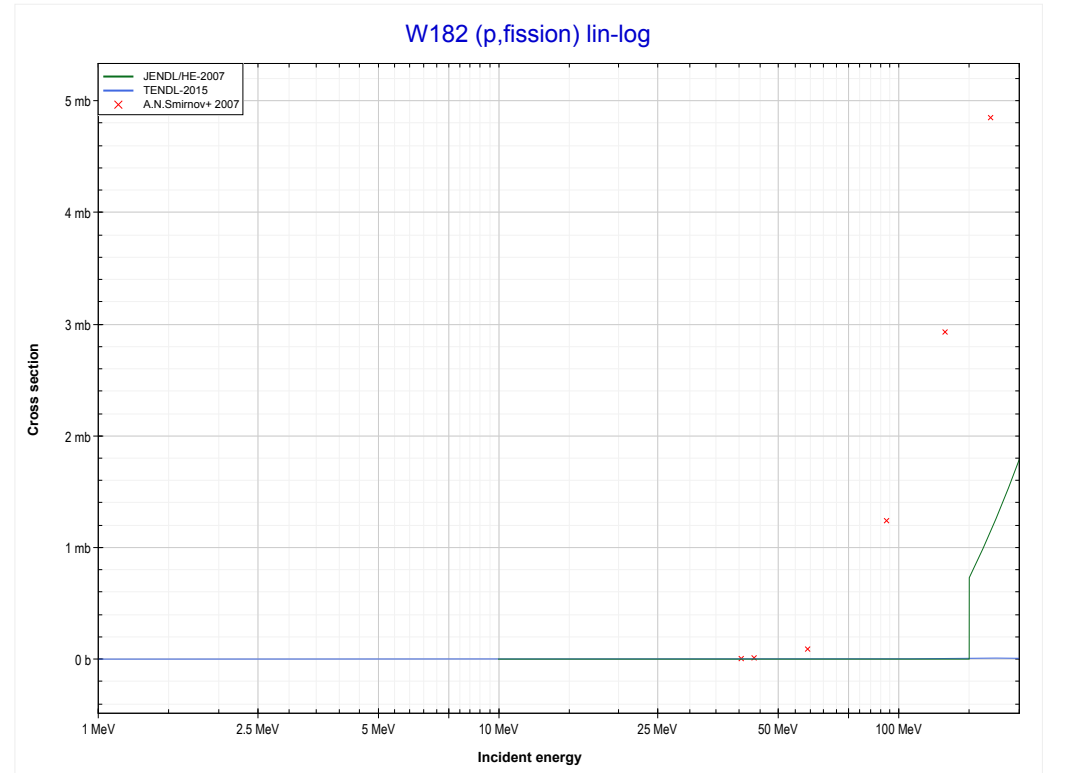
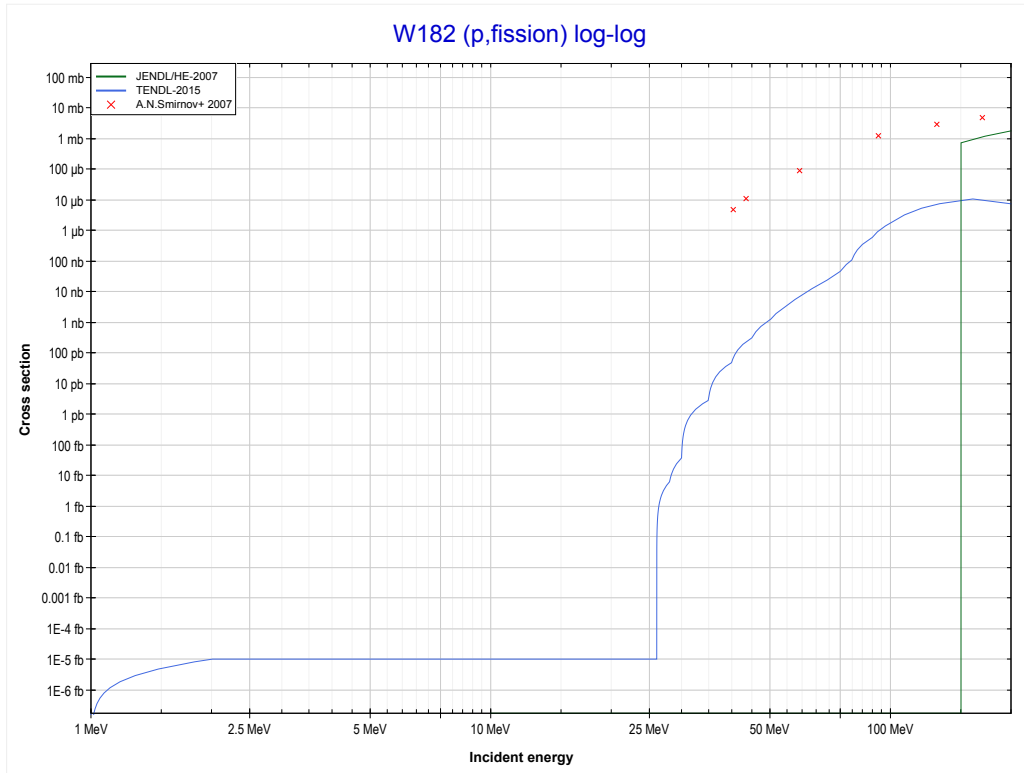
Reaction	Q-Value
Ta181(p,5n)W177	-31807.21 keV

<< 73-Ta-181	74-W-182	79-Au-197 >>
<< 73-Ta-181 MT152 (p,5n)	MT16 (p,2n) or MT5 (Re181 production)	MT18 (p,fission) >>

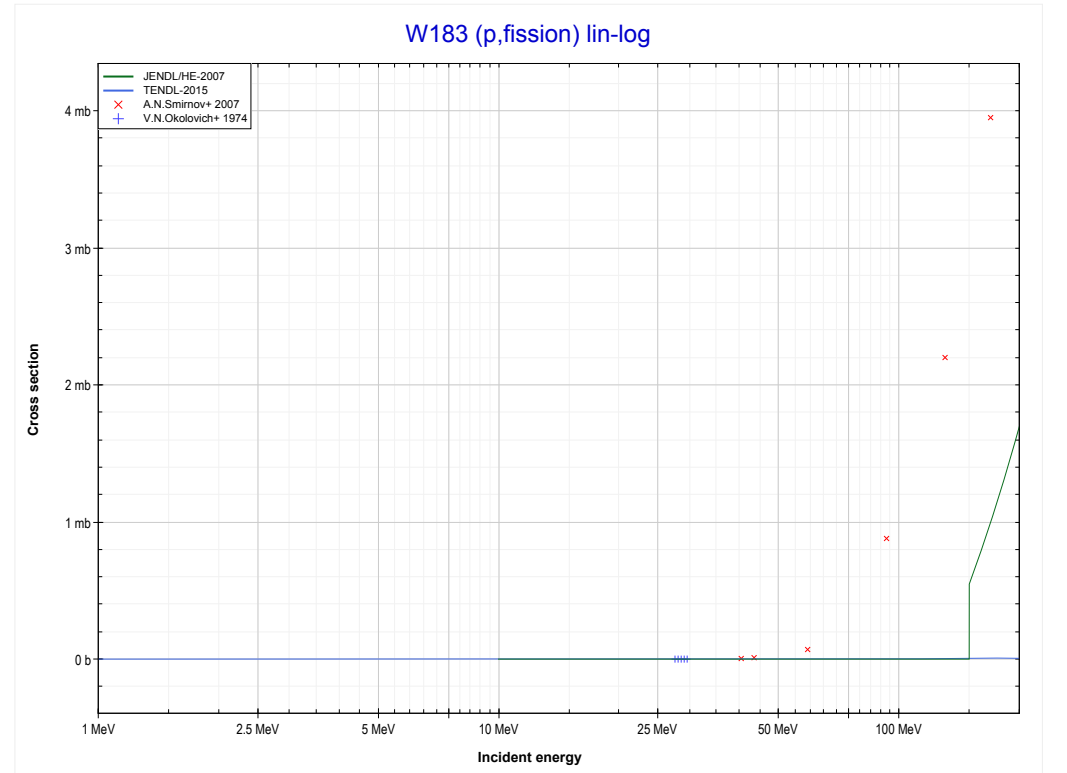
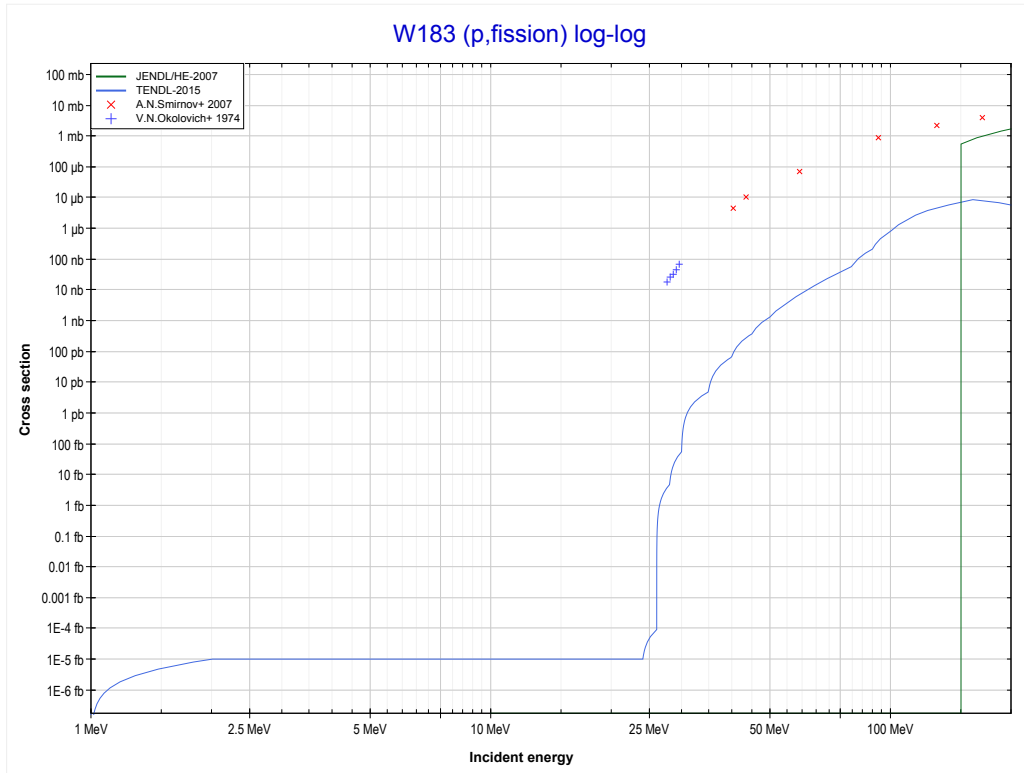


Reaction	Q-Value
W182(p,2n)Re181	-10580.36 keV

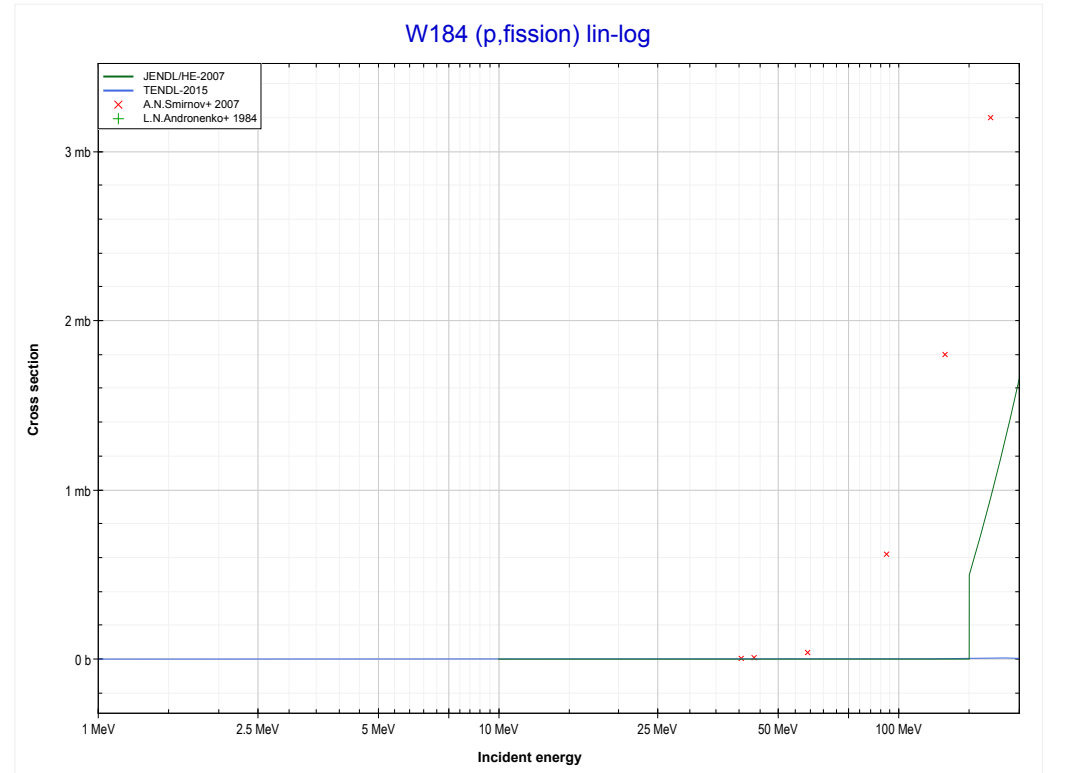
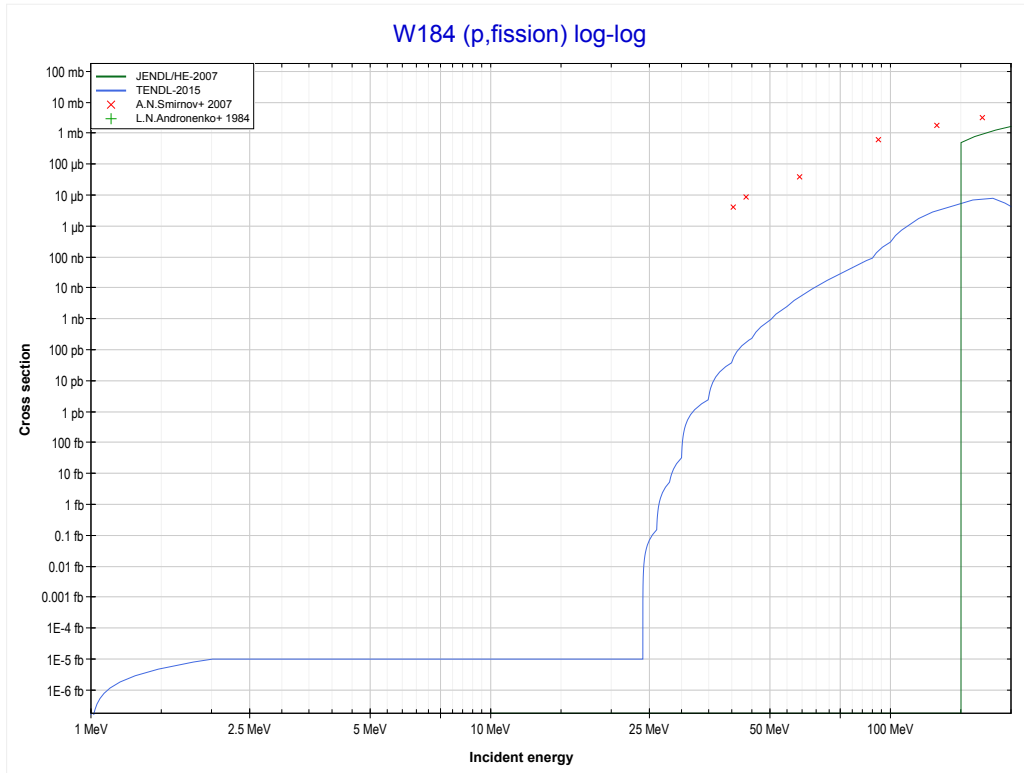
<< 73-Ta-181	74-W-182	74-W-183 >>
<< MT16 (p,2n)	MT18 (p,fission)	74-W-183 MT18 (p,fission) >>



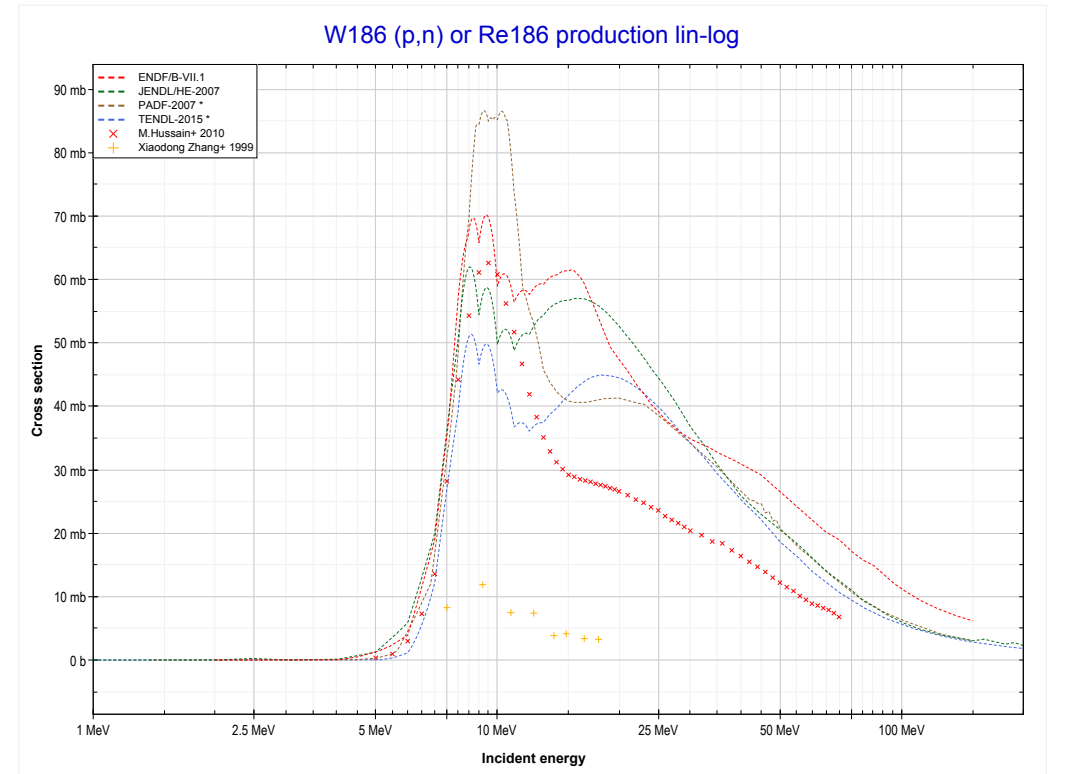
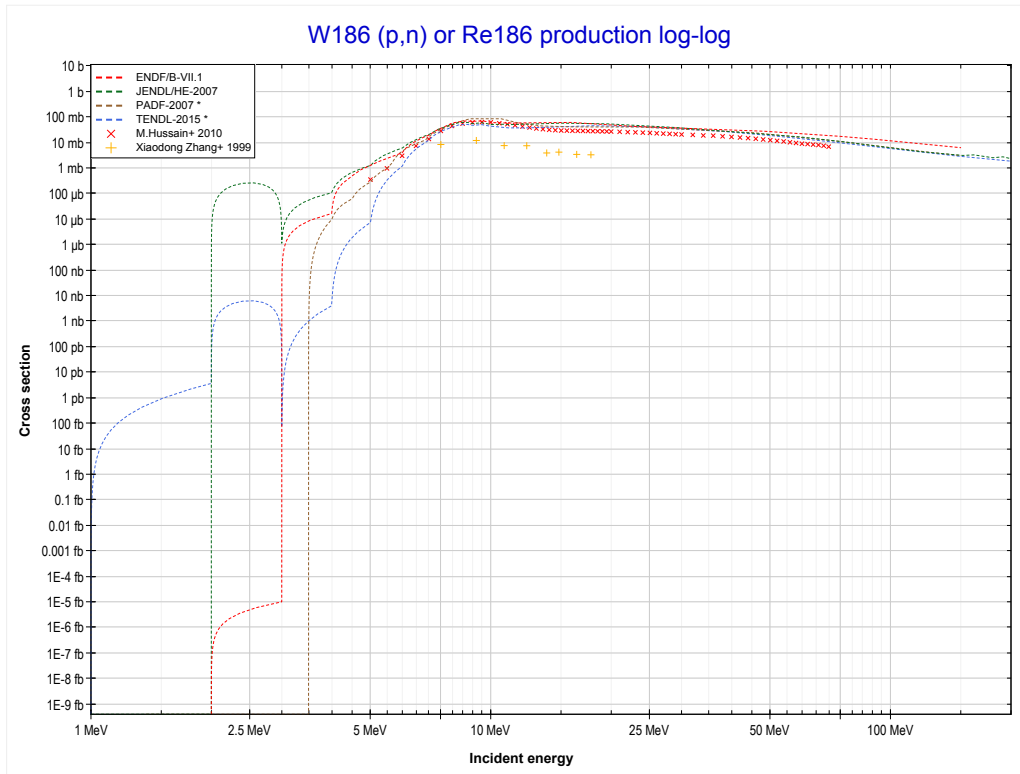
<< 74-W-182	74-W-183	74-W-184 >>
<< 74-W-182 MT18 (p,fission)	MT18 (p,fission)	74-W-184 MT18 (p,fission) >>



<< 74-W-183	74-W-184	74-W-186 >>
<< 74-W-183 MT18 (p,fission)	MT18 (p,fission)	74-W-186 MT4 (p,n) >>

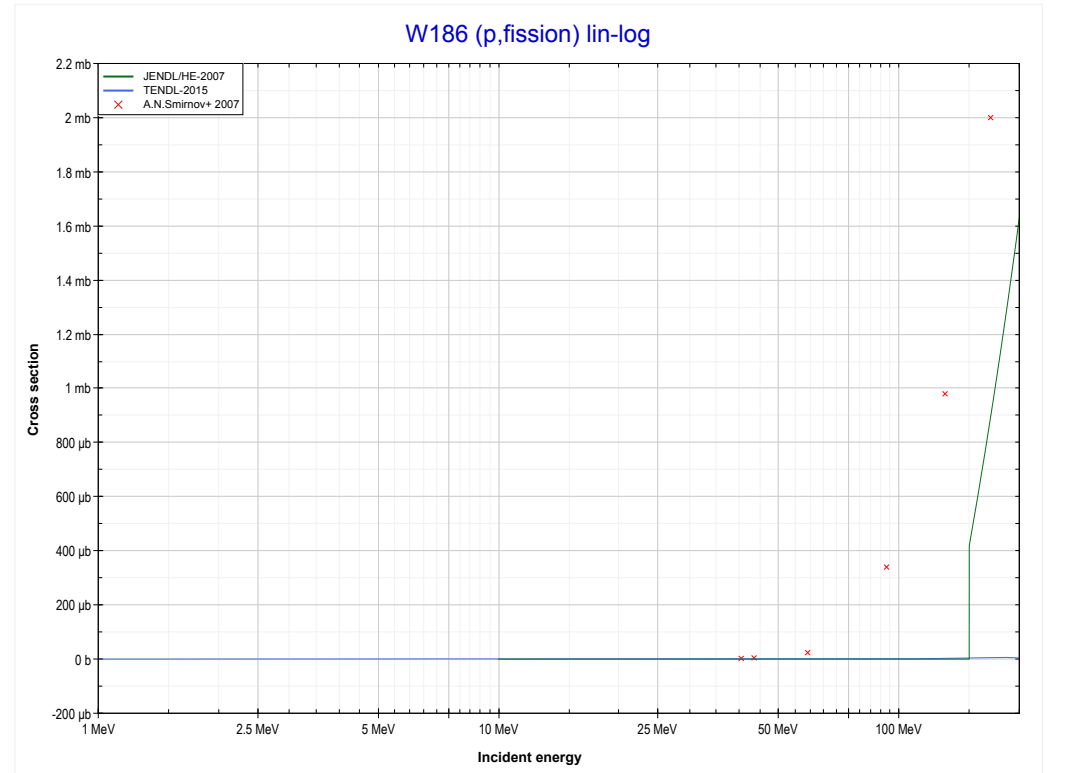
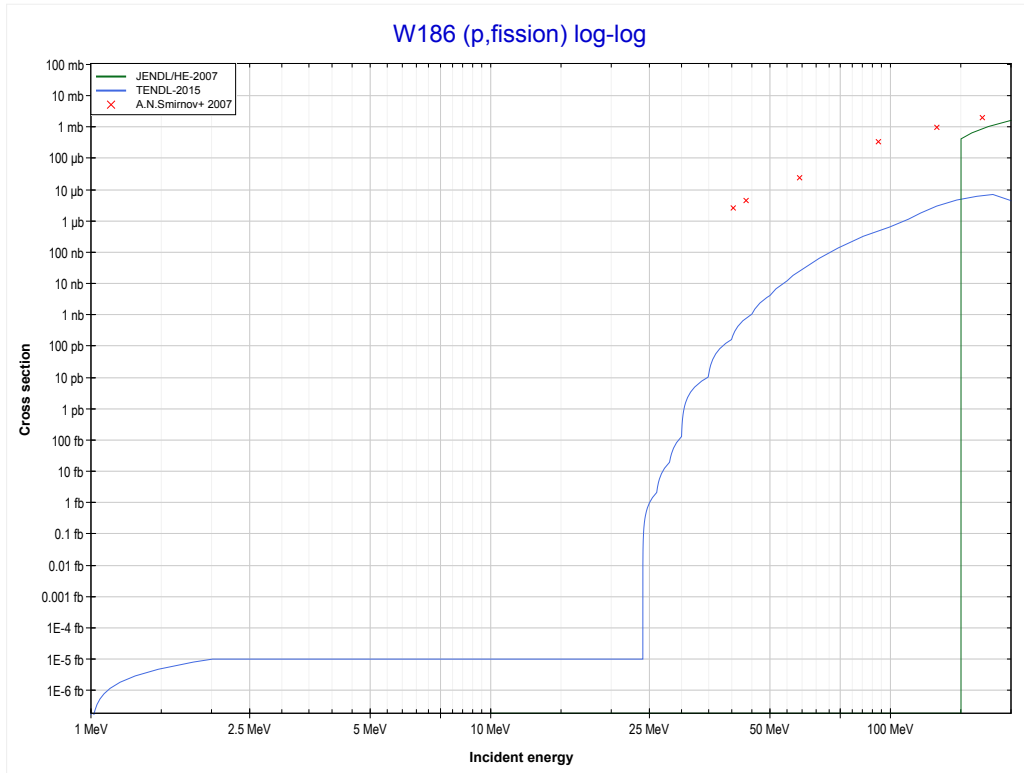


<< 73-Ta-181	74-W-186	76-Os-192 >>
<< 74-W-184 MT18 (p,fission)	MT4 (p,n) or MT5 (Re186 production)	MT18 (p,fission) >>

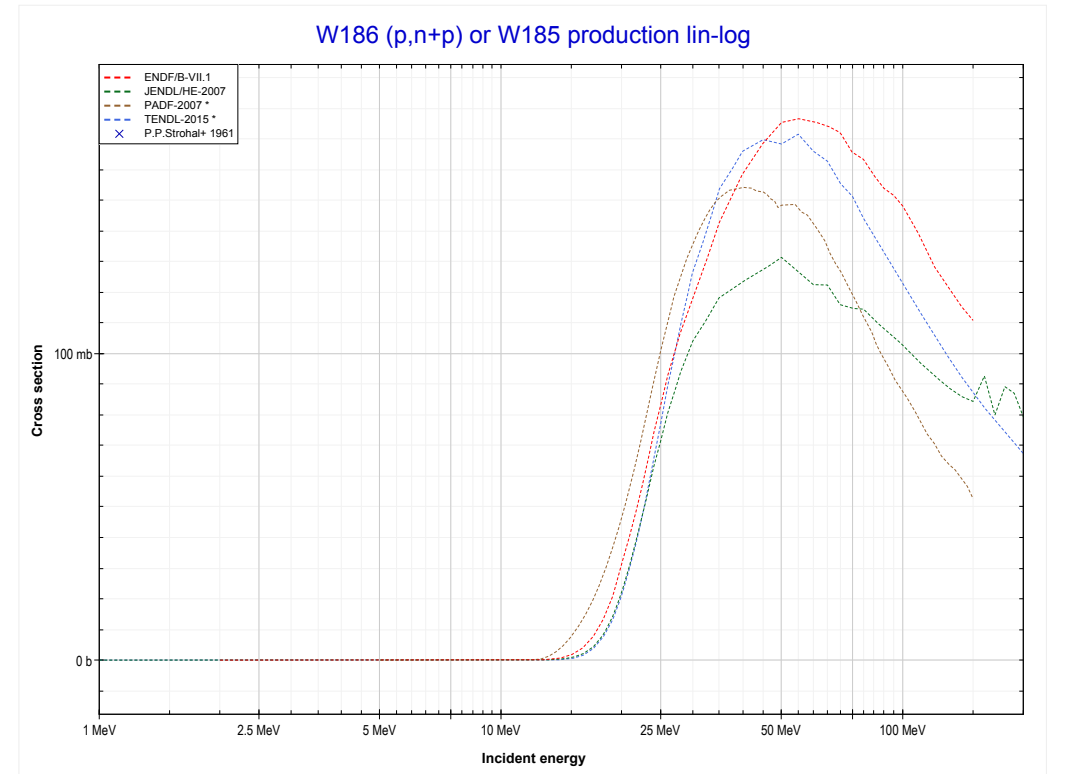
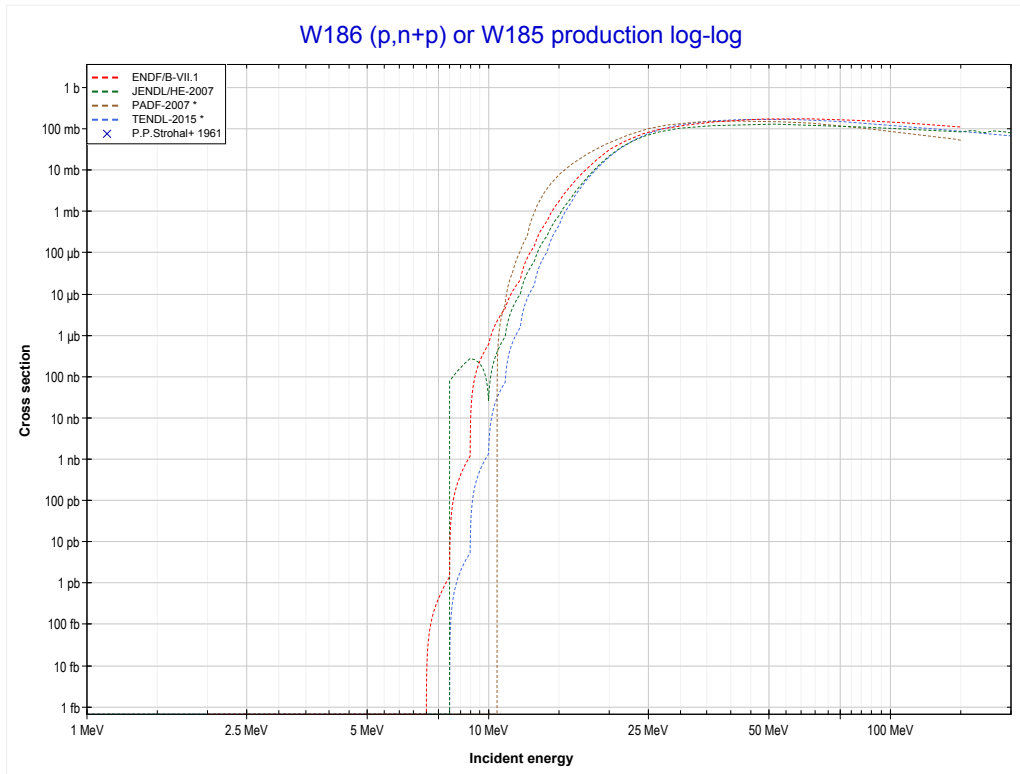


Reaction	Q-Value
W186(p,n)Re186	-1362.55 keV

<< 74-W-184	74-W-186	75-Re-185 >>
<< MT4 (p,n)	MT18 (p,fission)	MT28 (p,n+p) >>

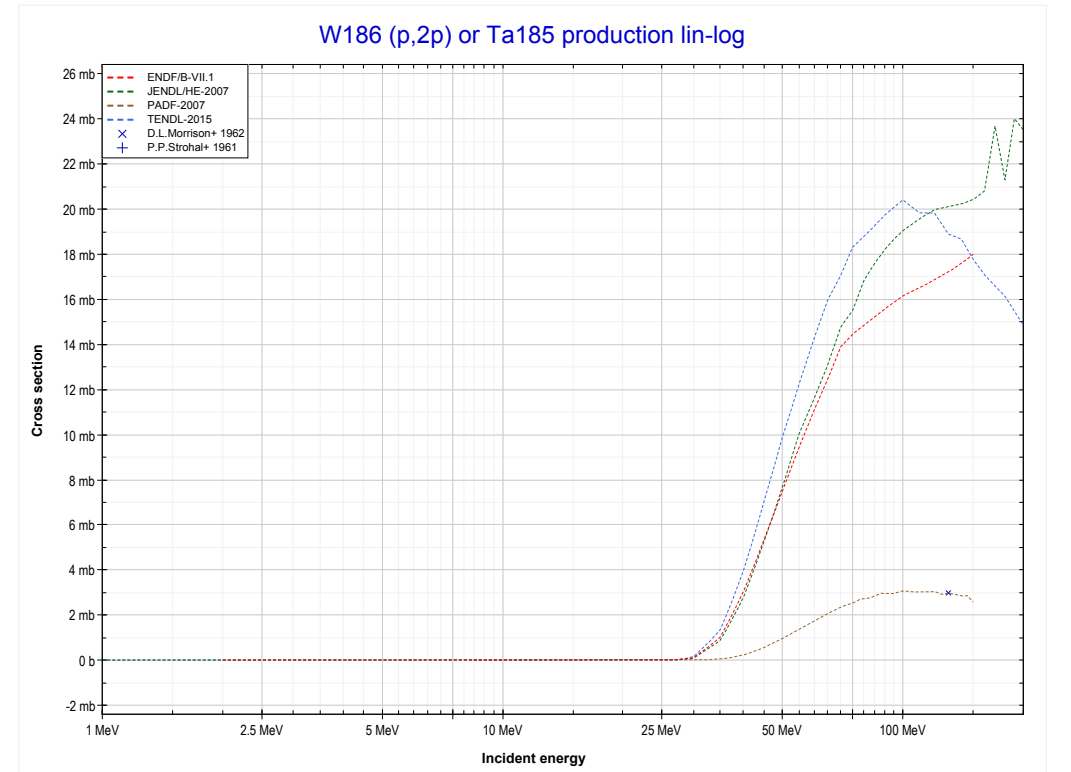
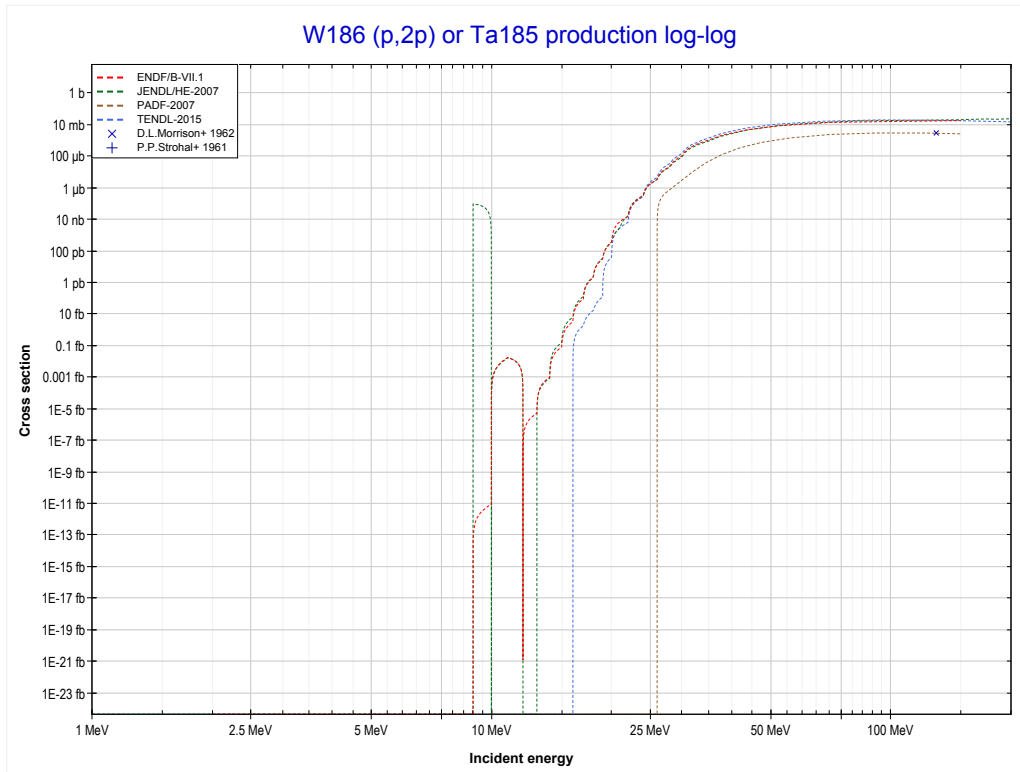


<< 58-Ce-142	74-W-186	75-Re-187 >>
<< MT18 (p,fission)	MT28 (p,n+p) or MT5 (W185 production)	MT111 (p,2p) >>



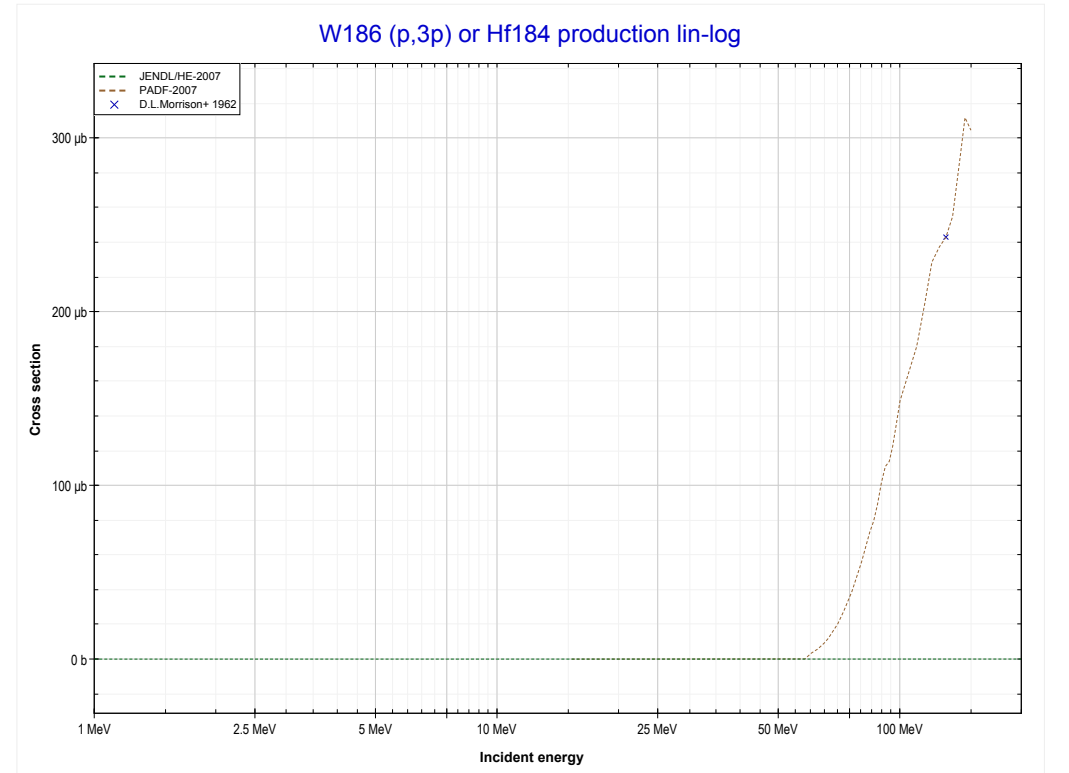
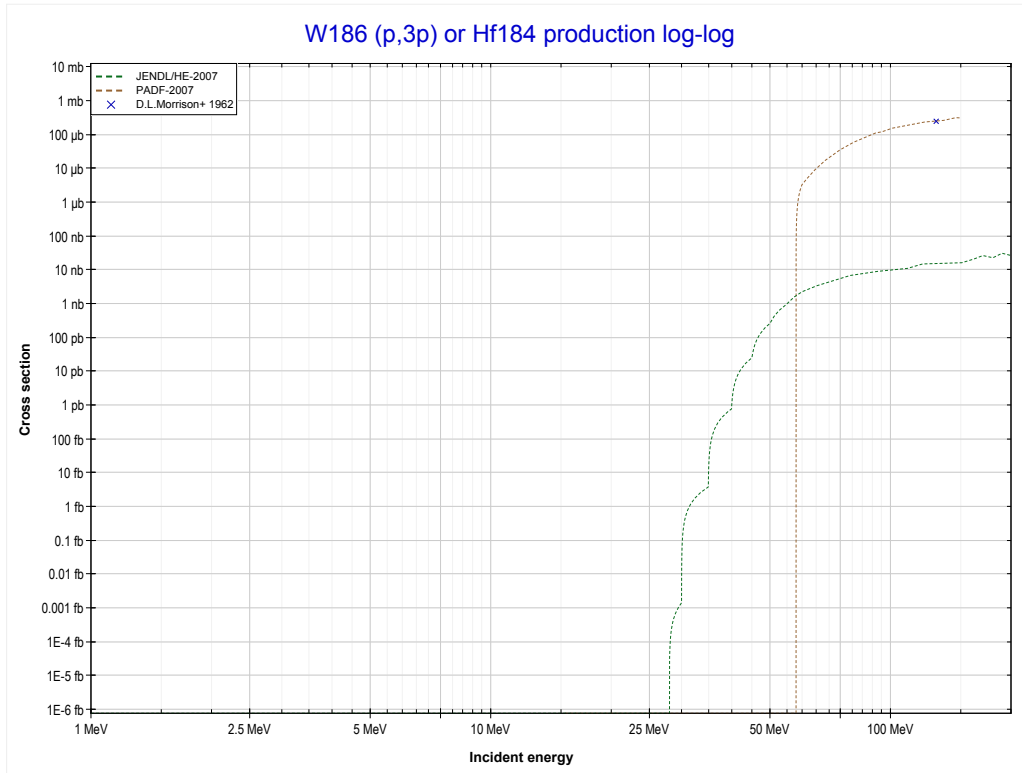
Reaction	Q-Value
W186(p,d)W185	-4967.65 keV
W186(p,n+p)W185	-7192.22 keV

<< 58-Ce-142	74-W-186	80-Hg-202 >>
<< MT28 (p,n+p)	MT111 (p,2p) or MT5 (Ta185 production)	MT197 (p,3p) >>



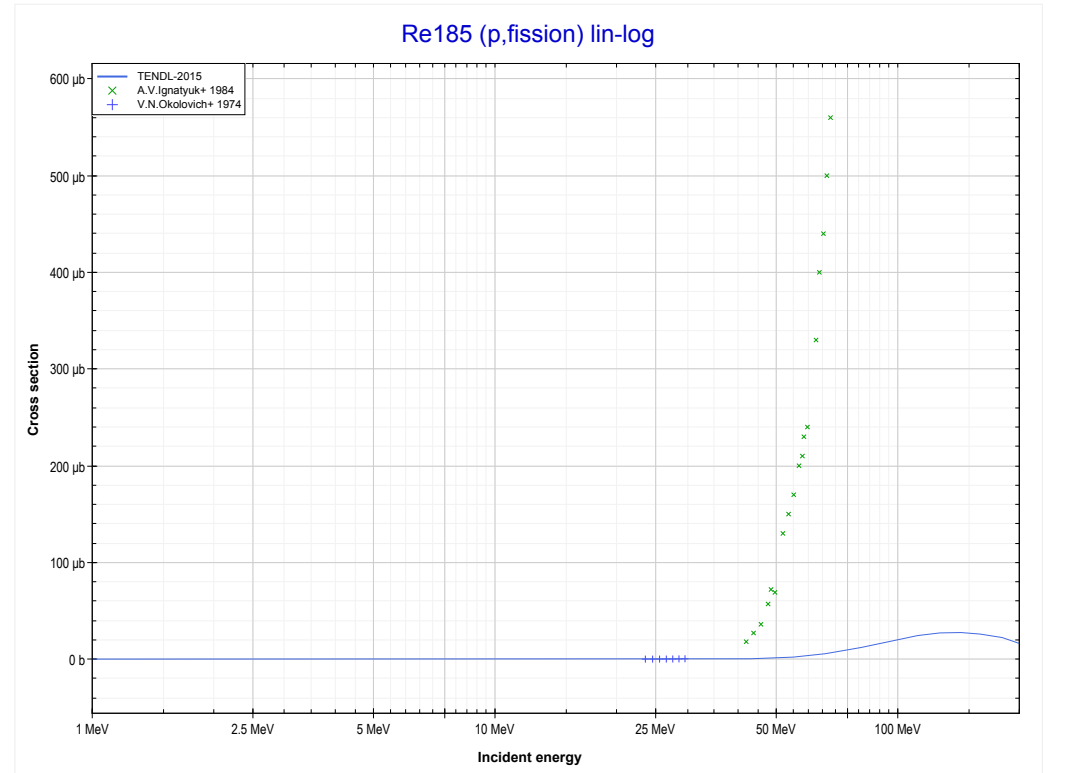
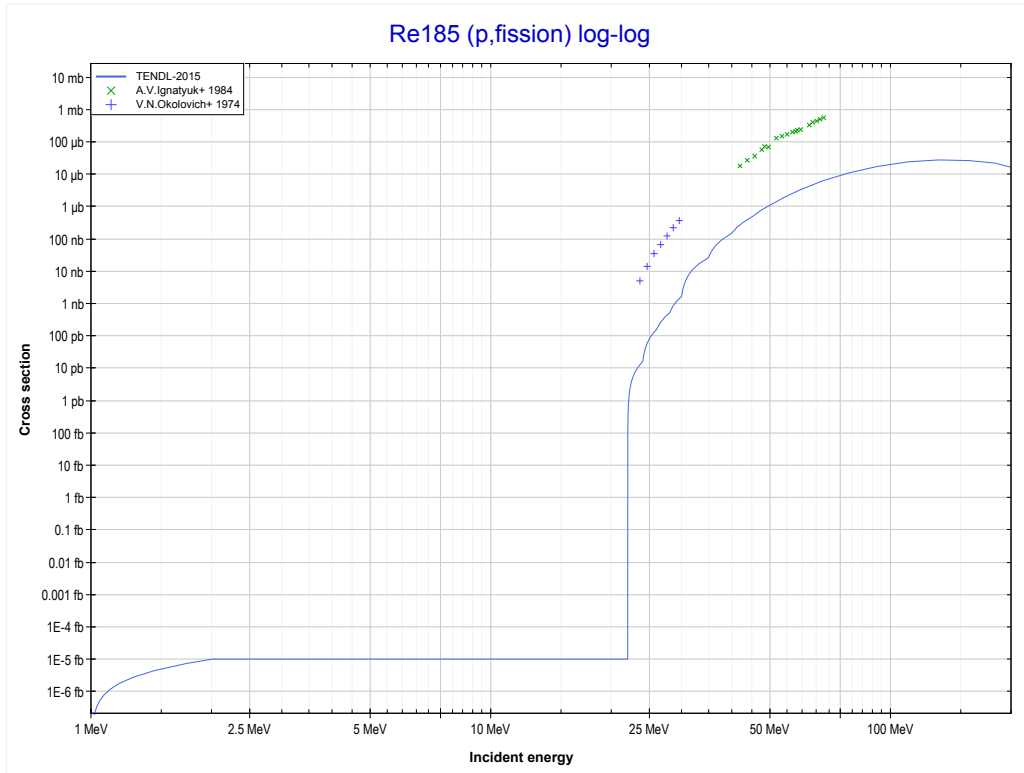
Reaction	Q-Value
W186(p,2p)Ta185	-8403.77 keV

<< 33-As-75	74-W-186	75-Re-187 >>
<< MT111 (p,2p)	MT197 (p,3p) or MT5 (Hf184 production)	75-Re-185 MT18 (p,fission) >>

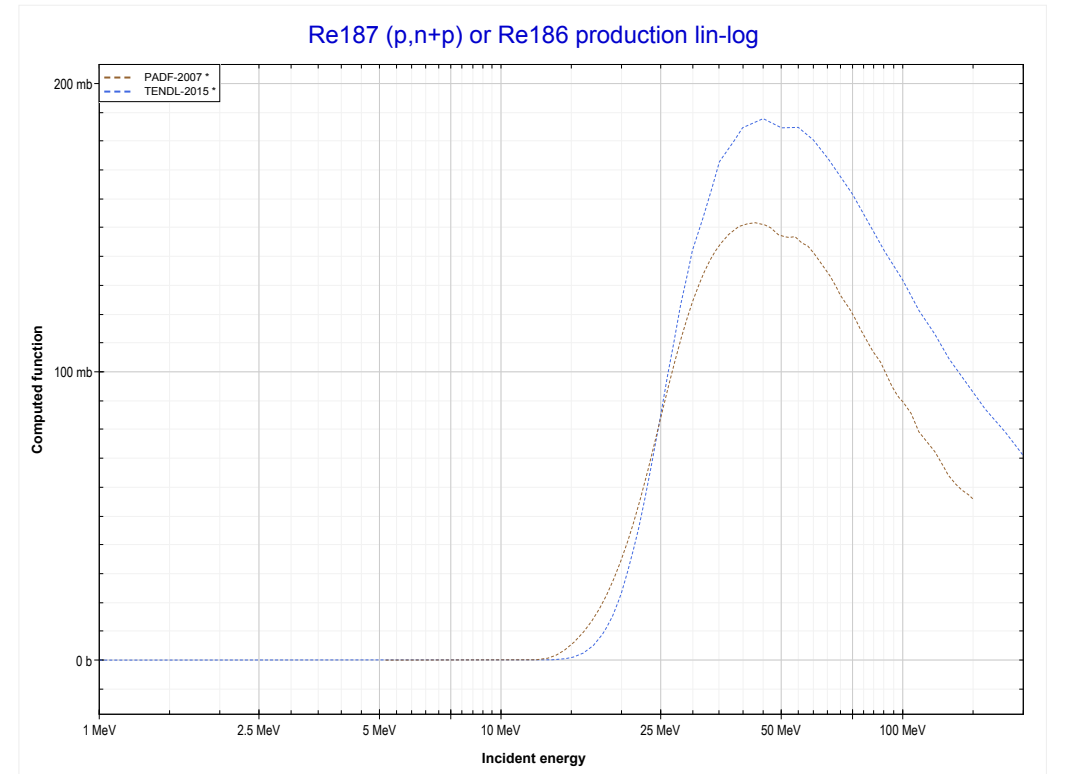
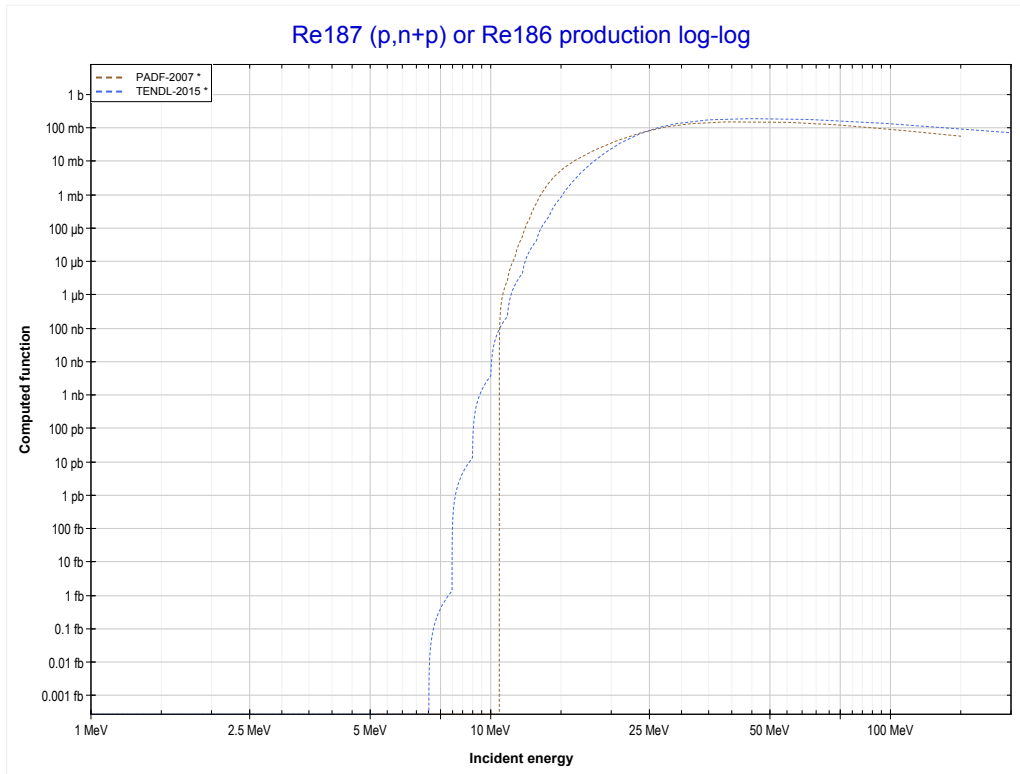


Reaction	Q-Value
W186(p,3p)Hf184	-15588.74 keV

<< 74-W-186	75-Re-185	76-Os-188 >>
<< 74-W-186 MT197 (p,3p)	MT18 (p,fission)	75-Re-187 MT28 (p,n+p) >>

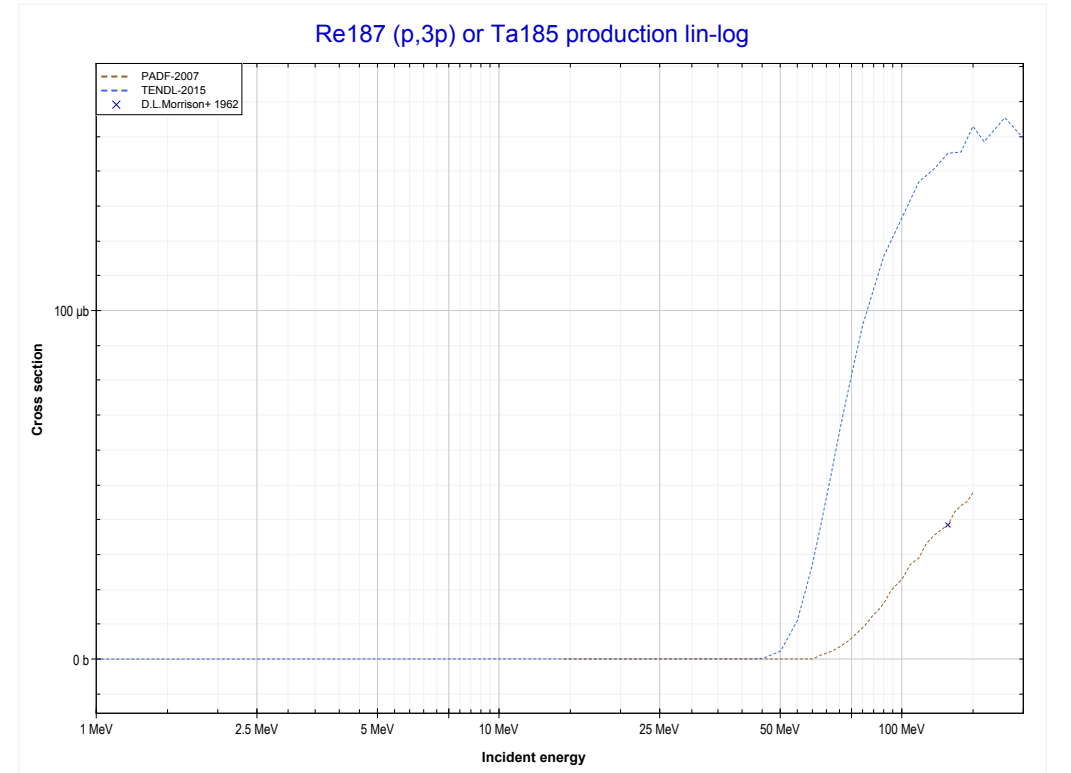
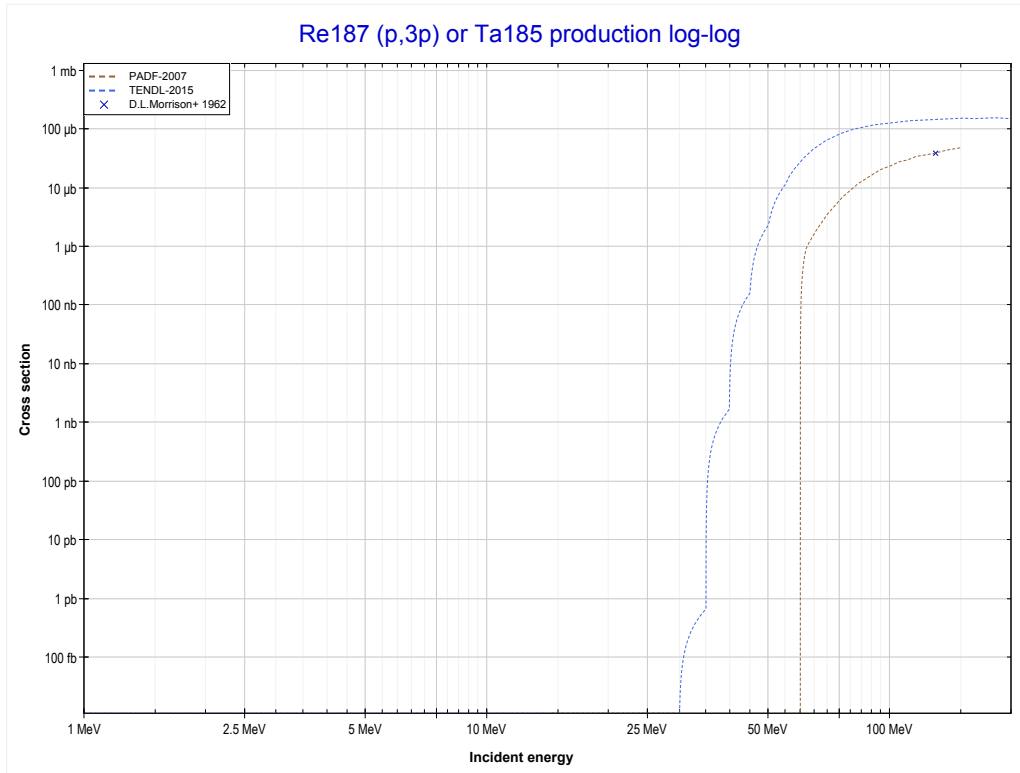


<< 74-W-186	75-Re-187	79-Au-197 >>
<< 75-Re-185 MT18 (p,fission)	MT28 (p,n+p) or MT5 (Re186 production)	MT197 (p,3p) >>



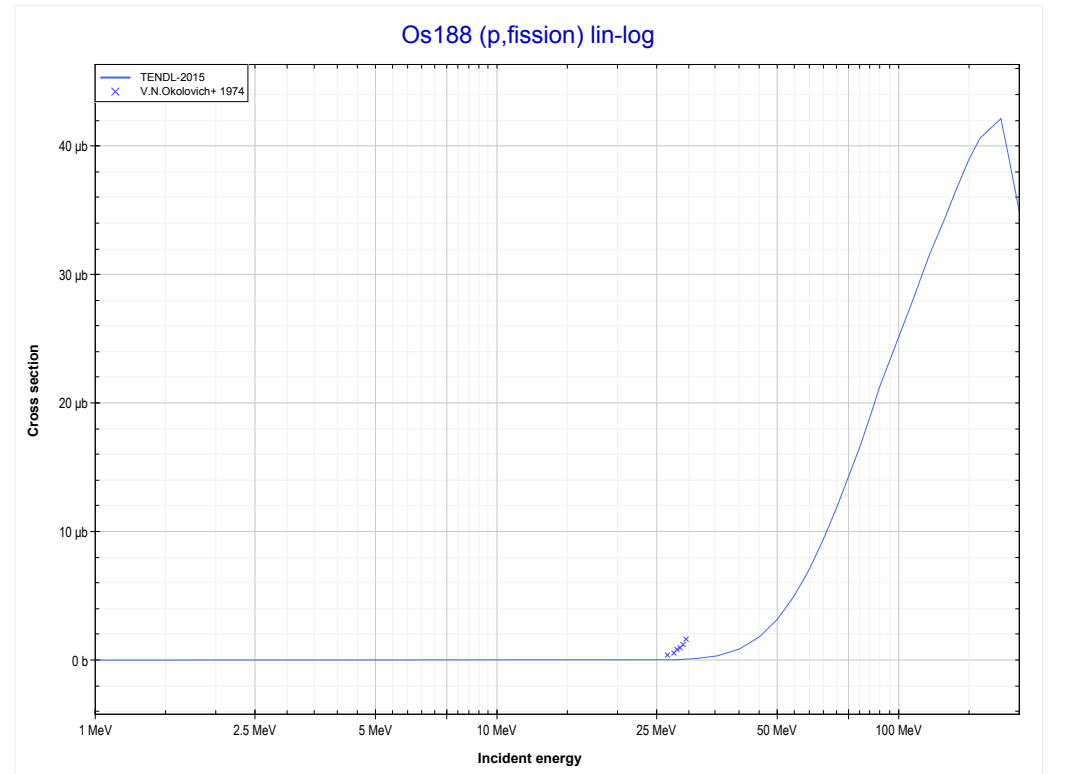
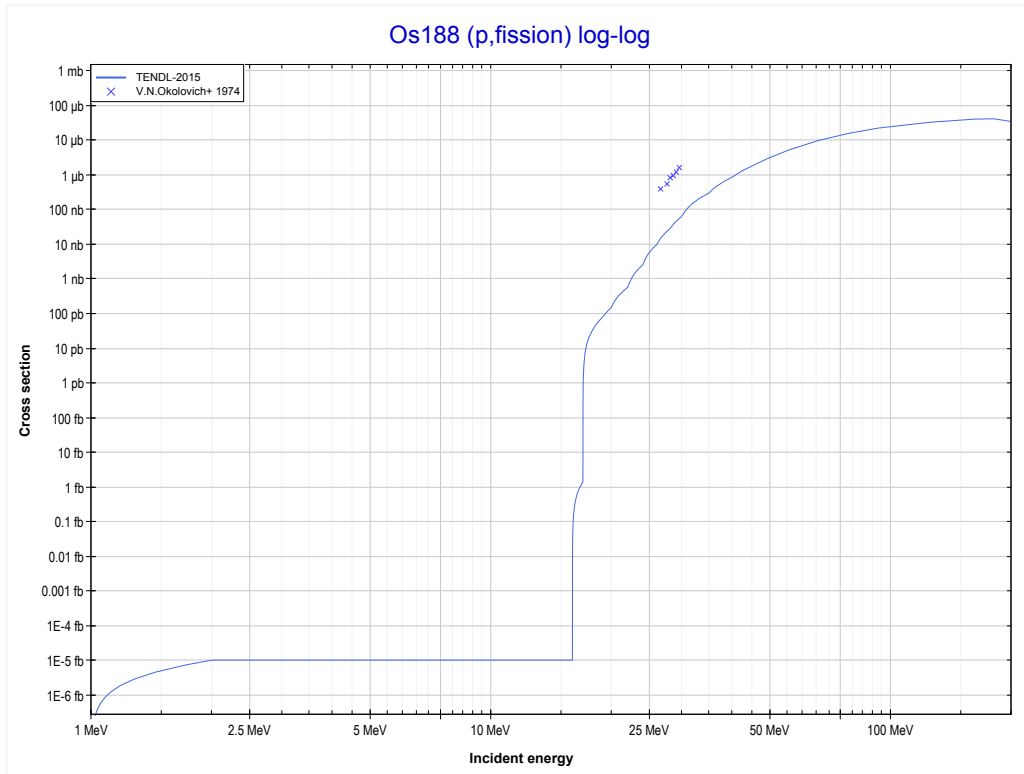
Reaction	Q-Value
Re187(p,d)Re186	-5134.65 keV
Re187(p,n+p)Re186	-7359.22 keV

<< 74-W-186	75-Re-187	
<< MT28 (p,n+p)	MT197 (p,3p) or MT5 (Ta185 production)	76-Os-188 MT18 (p,fission) >>

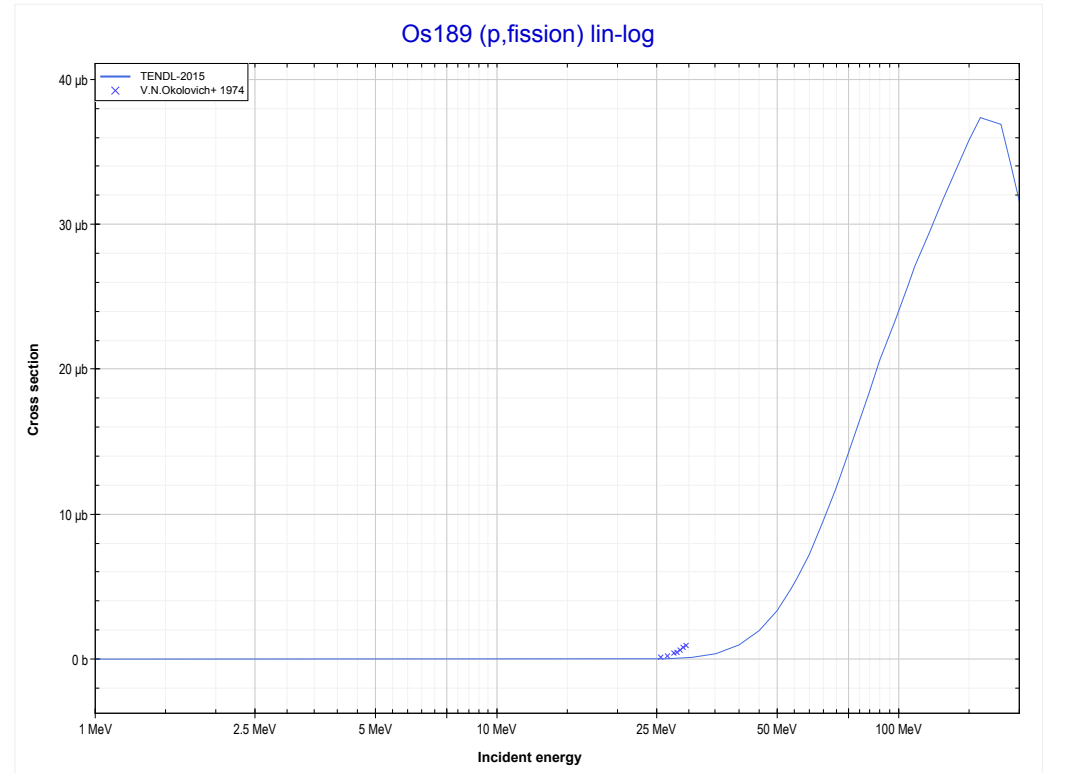
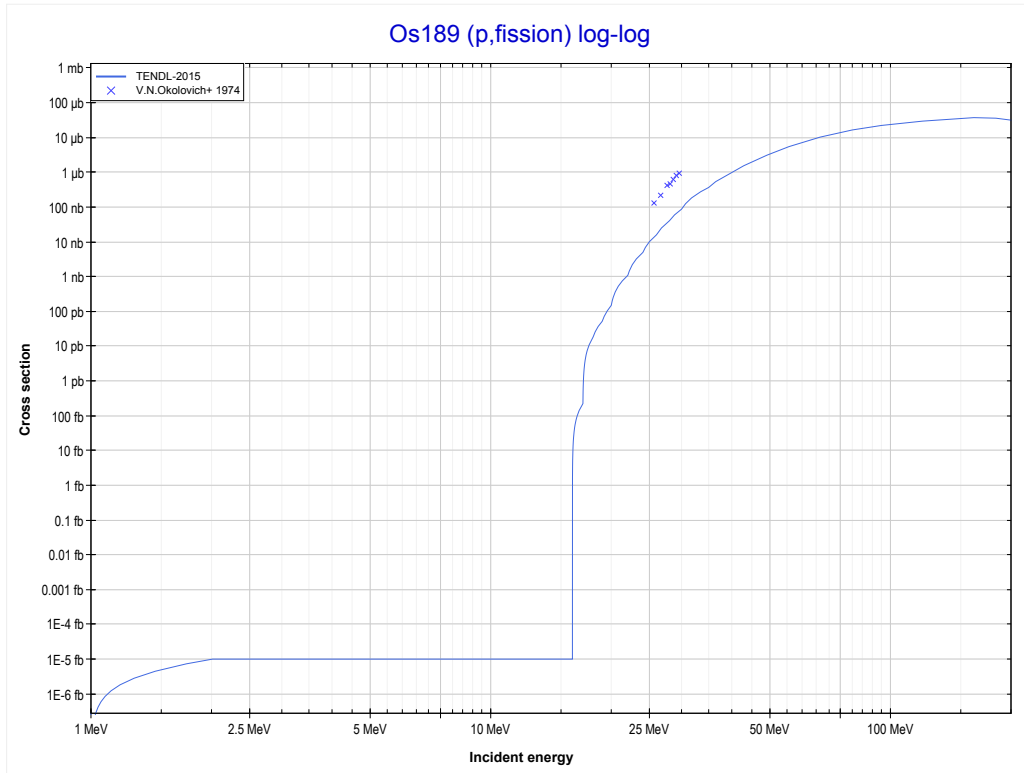


Reaction	Q-Value
Re187(p,3p)Ta185	-14400.44 keV

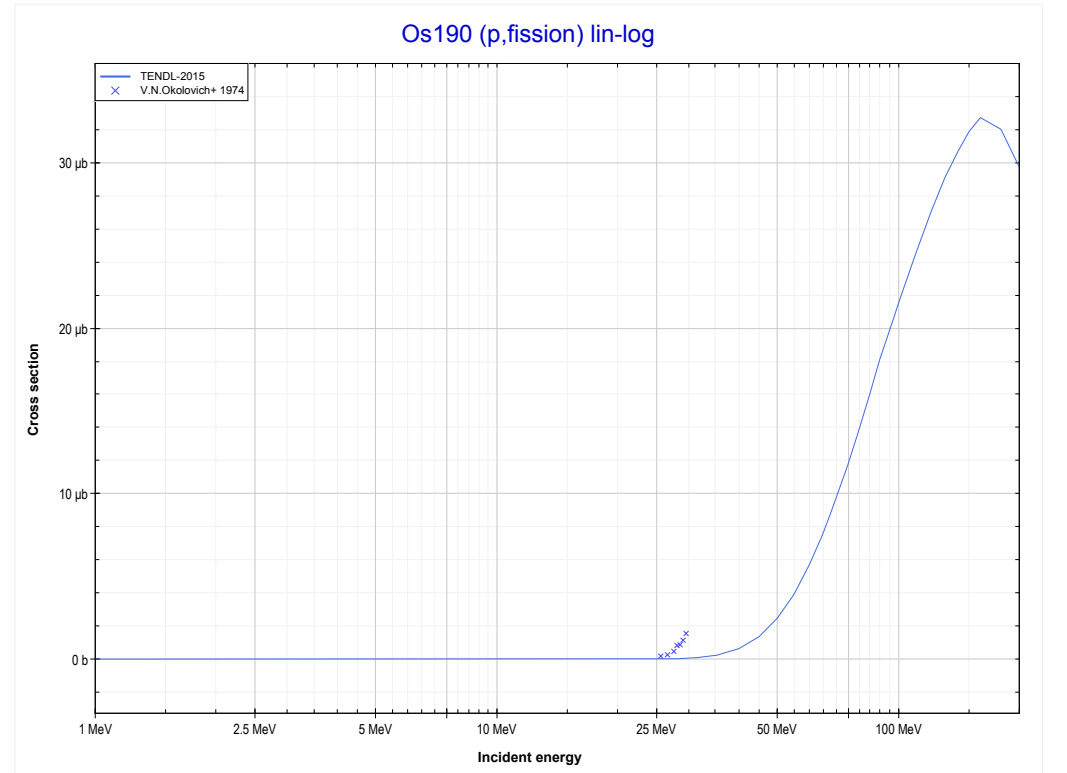
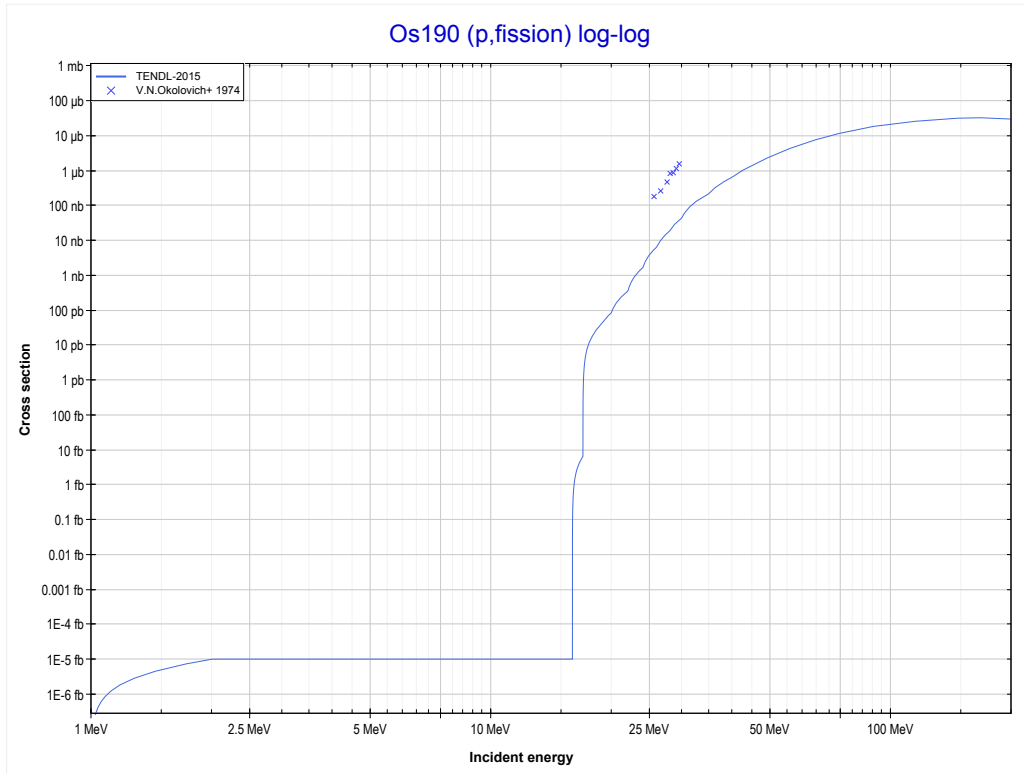
<< 75-Re-185	76-Os-188	76-Os-189 >>
<< 75-Re-187 MT197 (p,3p)	MT18 (p,fission)	76-Os-189 MT18 (p,fission) >>



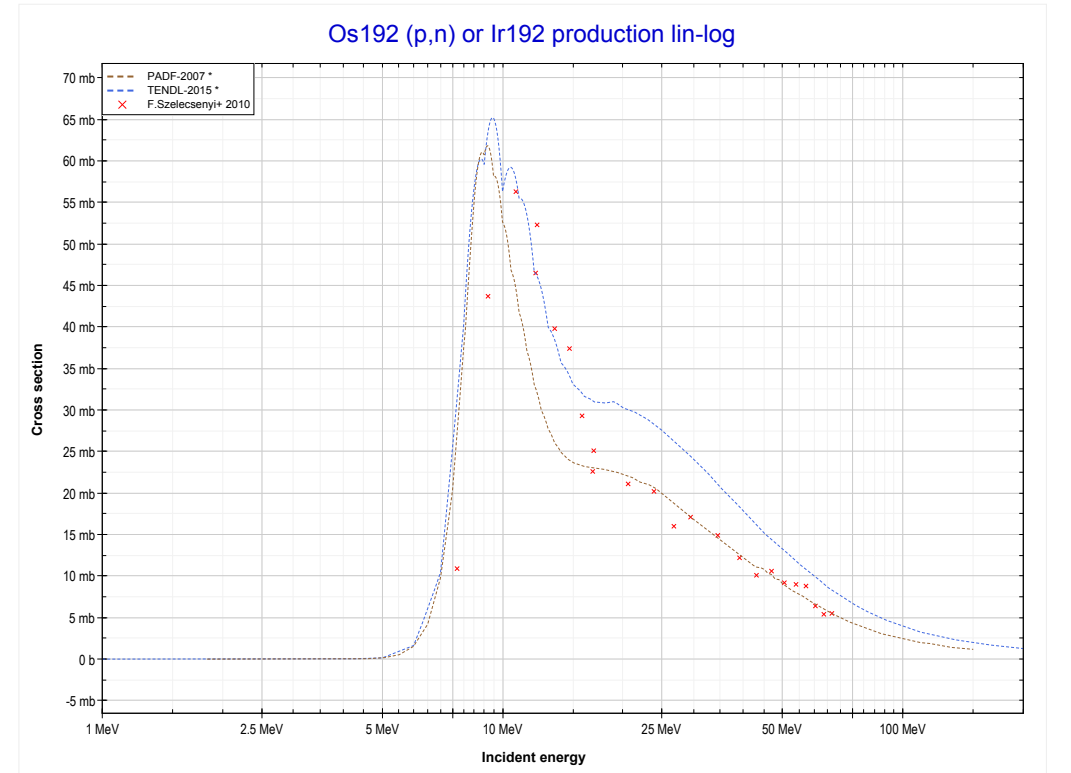
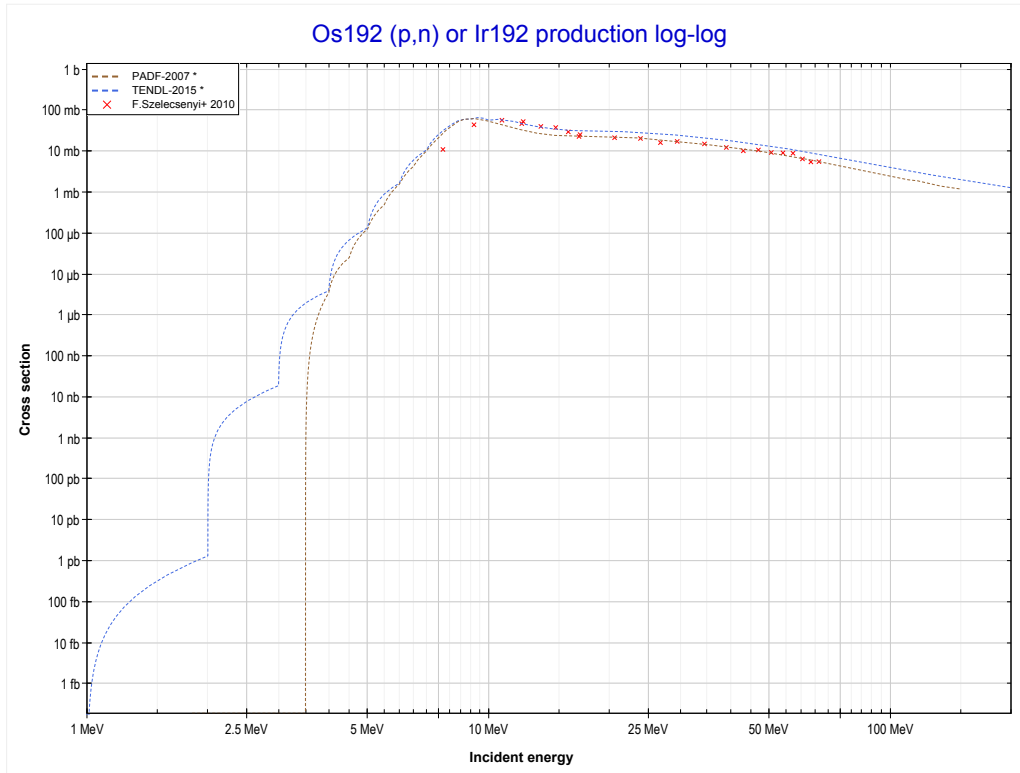
<< 76-Os-188	76-Os-189	76-Os-190 >>
<< 76-Os-188 MT18 (p,fission)	MT18 (p,fission)	76-Os-190 MT18 (p,fission) >>



<< 76-Os-189	76-Os-190	78-Pt-194 >>
<< 76-Os-189 MT18 (p,fission)	MT18 (p,fission)	76-Os-192 MT4 (p,n) >>

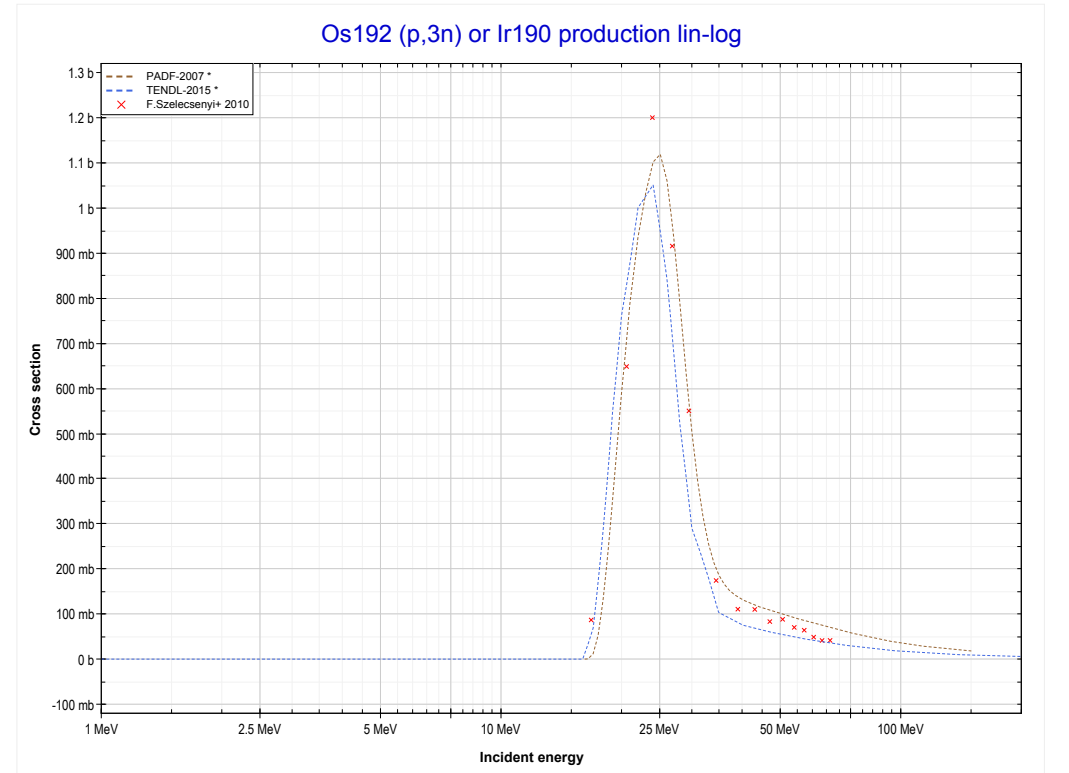
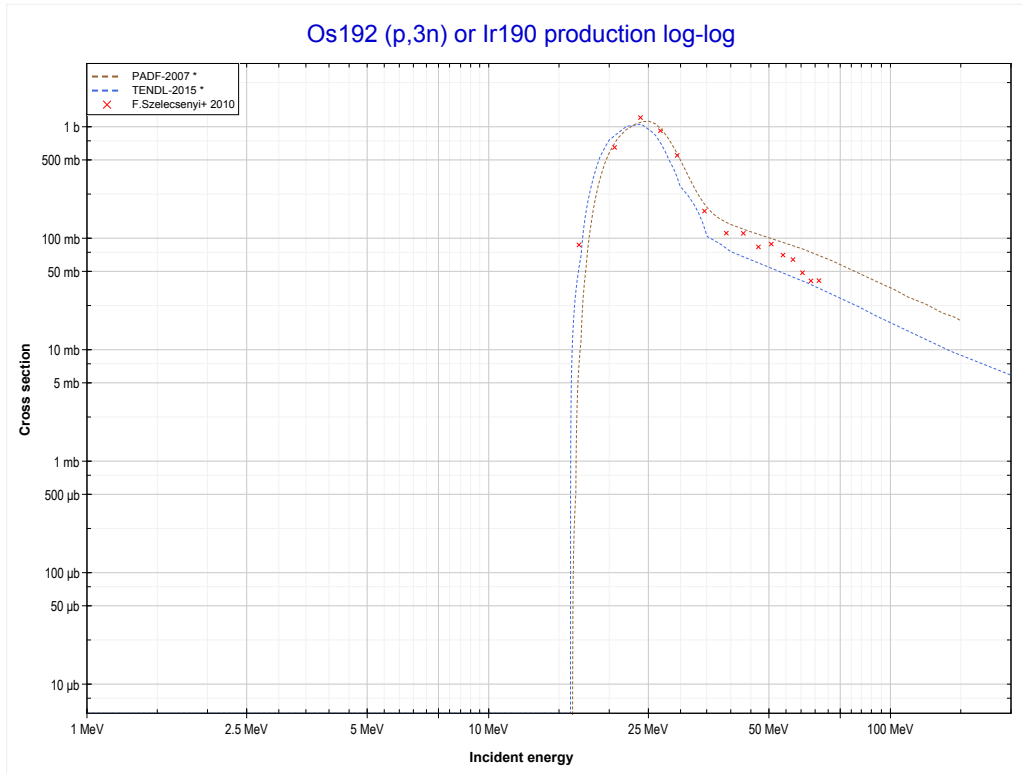


<< 74-W-186	76-Os-192	78-Pt-198 >>
<< 76-Os-190 MT18 (p,fission)	MT4 (p,n) or MT5 (Ir192 production)	MT17 (p,3n) >>



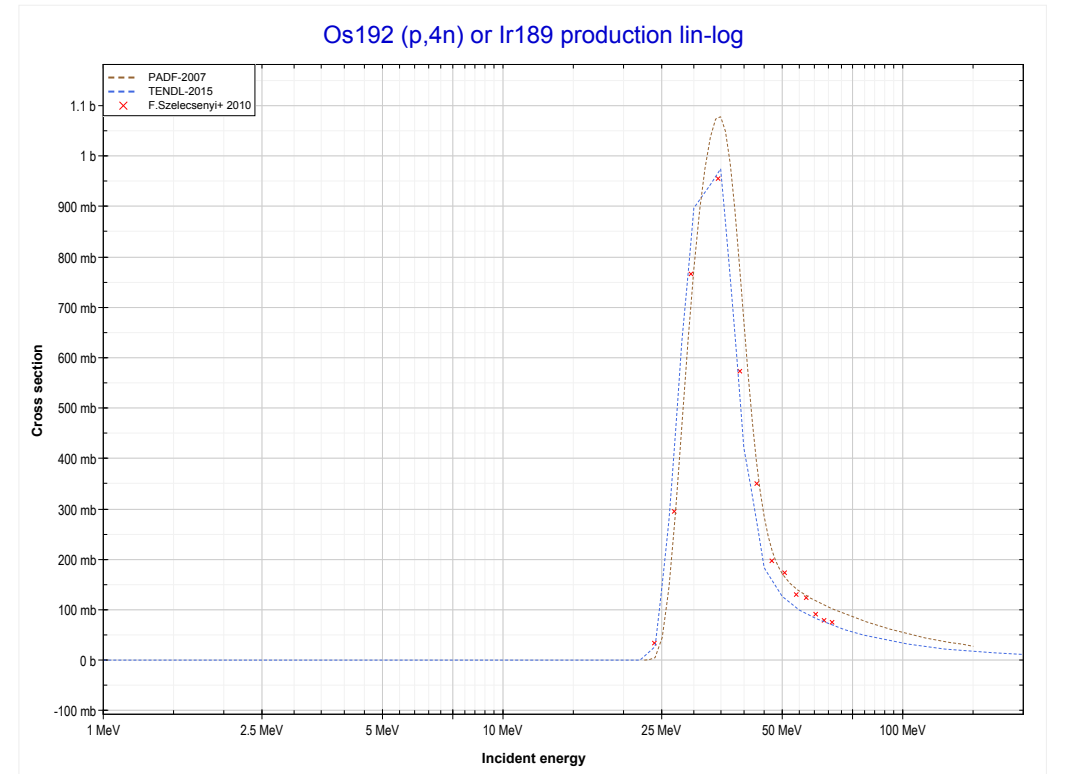
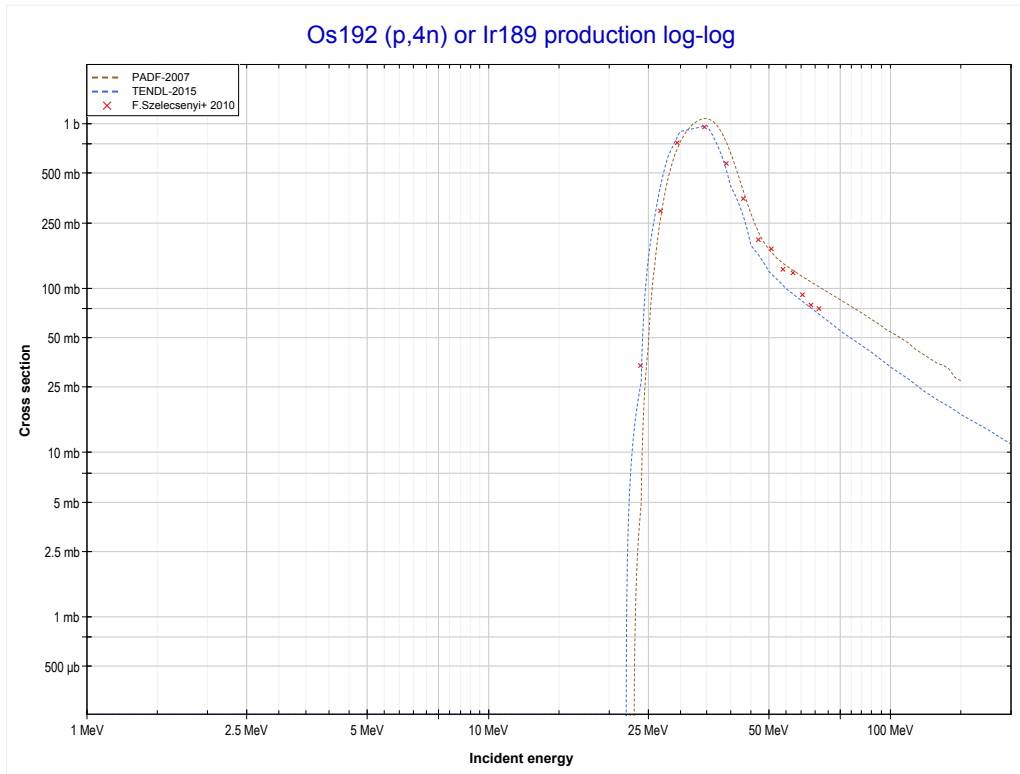
Reaction	Q-Value
Os192(p,n)Ir192	-1828.65 keV

<< 73-Ta-181	76-Os-192	79-Au-197 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Ir190 production)	MT37 (p,4n) >>



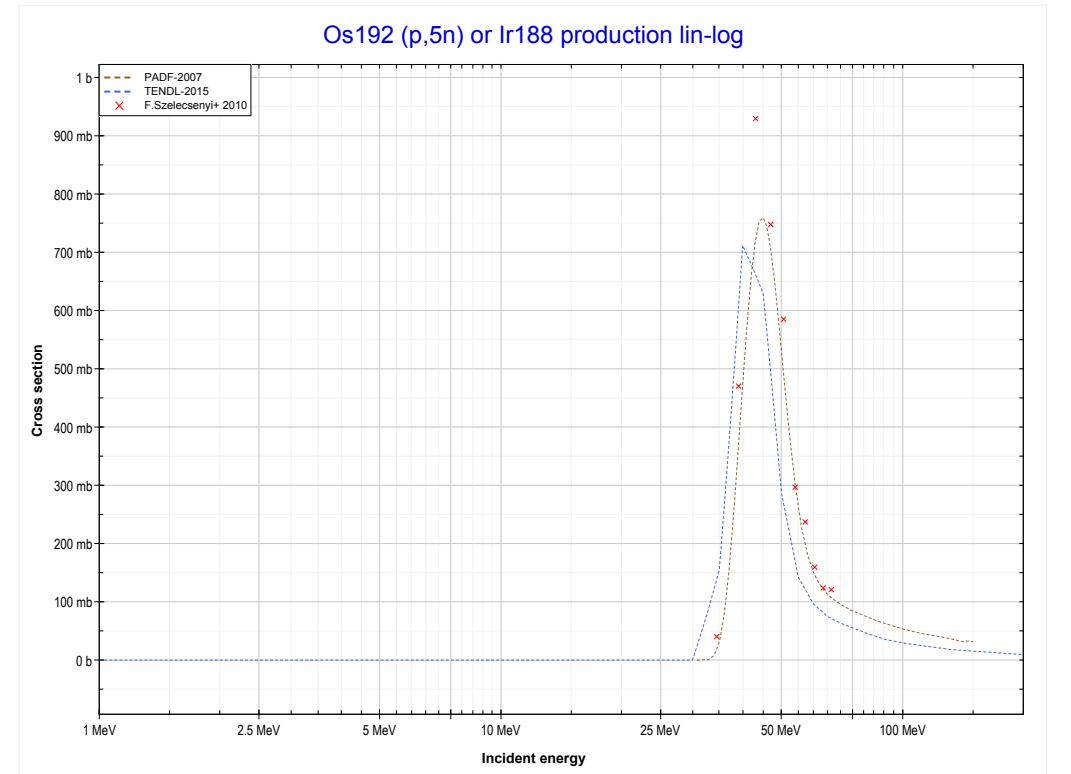
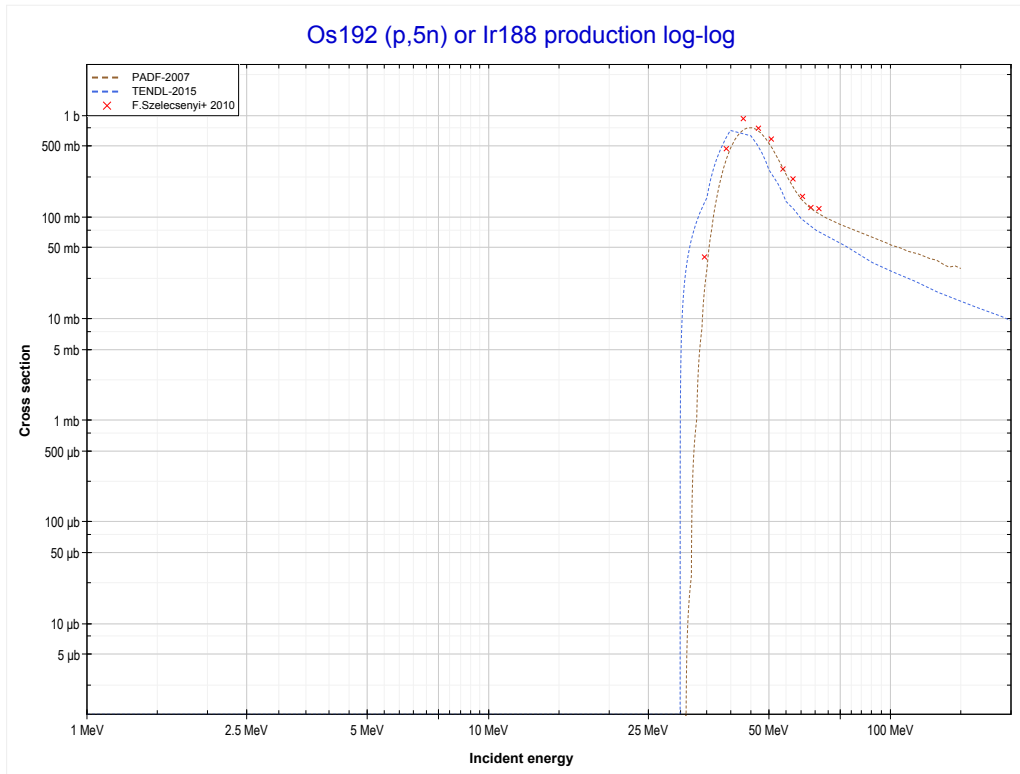
Reaction	Q-Value
Os192(p,3n)Ir190	-16053.28 keV

<< 73-Ta-181	76-Os-192	79-Au-197 >>
<< MT17 (p,3n)	MT37 (p,4n) or MT5 (Ir189 production)	MT152 (p,5n) >>



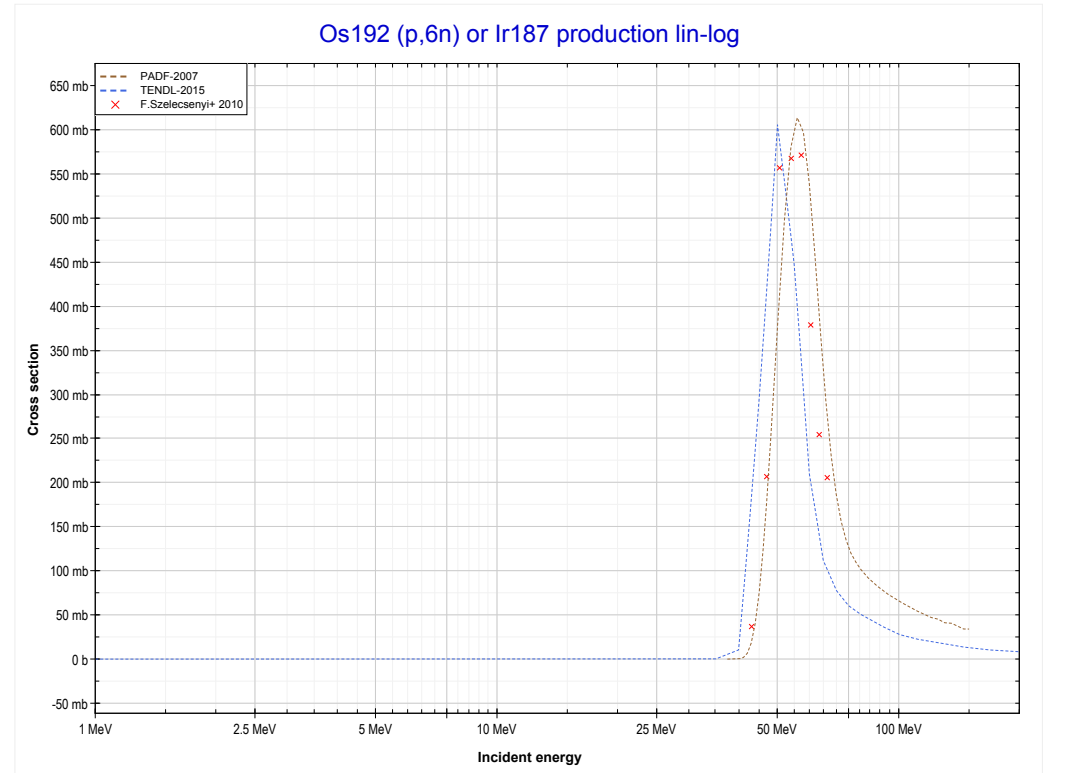
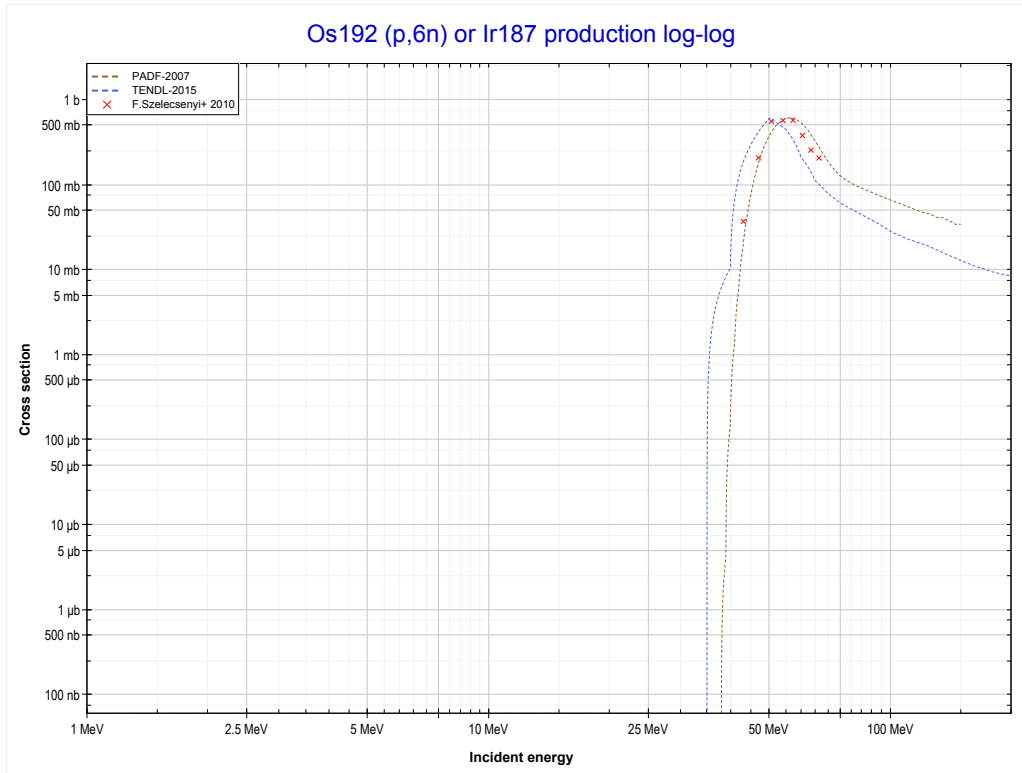
Reaction	Q-Value
Os192(p,4n)Ir189	-22423.20 keV

<< 73-Ta-181	76-Os-192	79-Au-197 >>
<< MT37 (p,4n)	MT152 (p,5n) or MT5 (Ir188 production)	MT153 (p,6n) >>



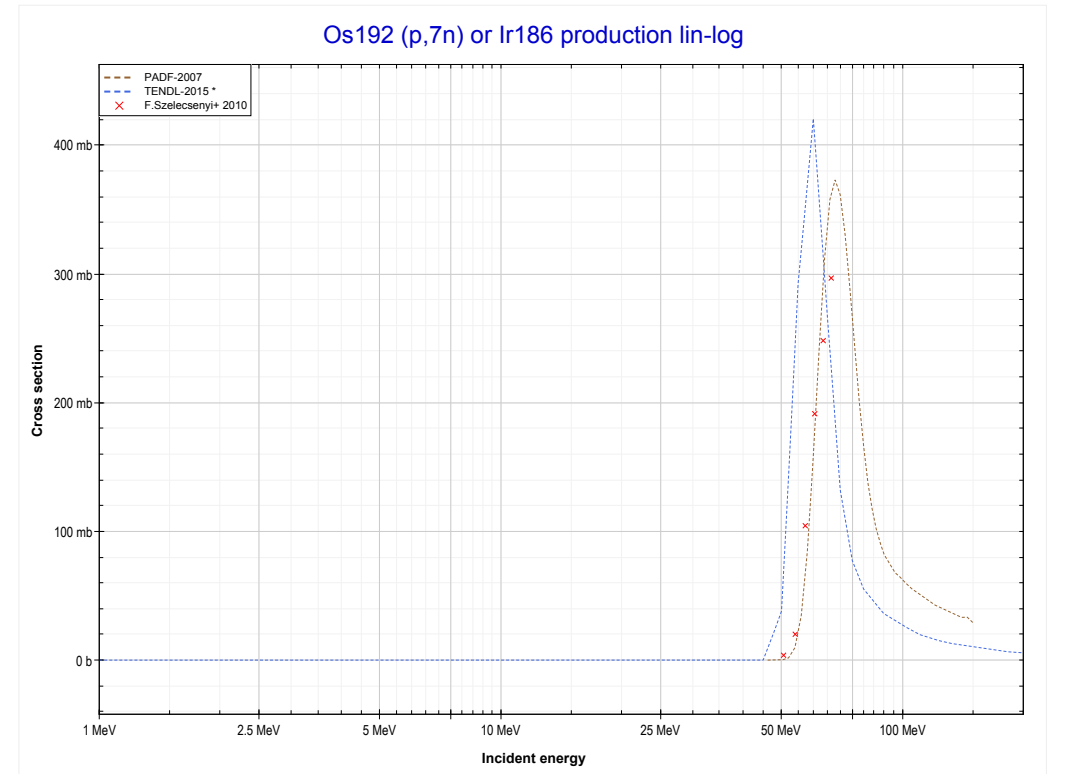
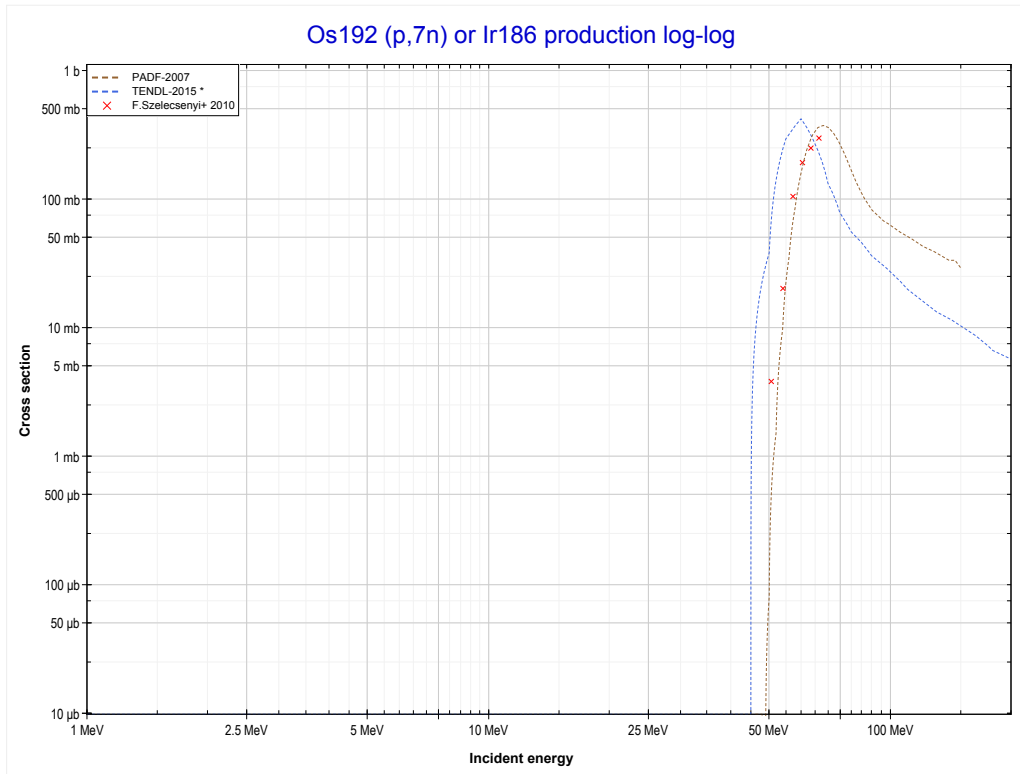
Reaction	Q-Value
Os192(p,5n)Ir188	-30600.51 keV

<< 67-Ho-165	76-Os-192	79-Au-197 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Ir187 production)	MT160 (p,7n) >>



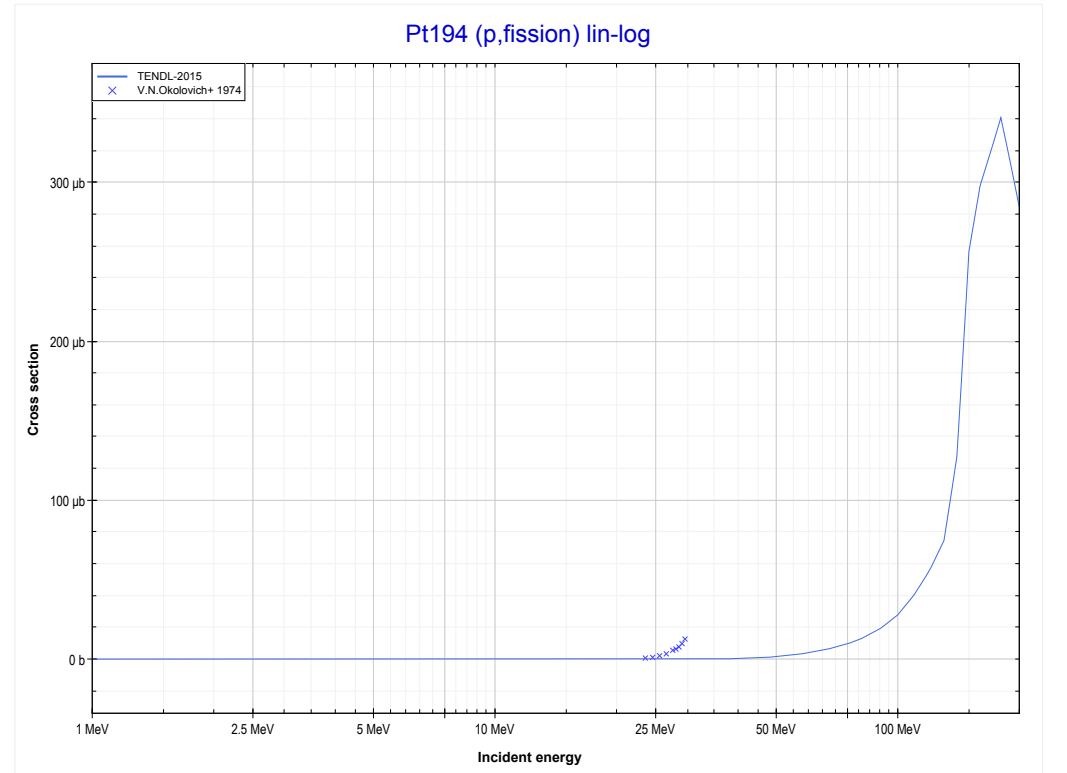
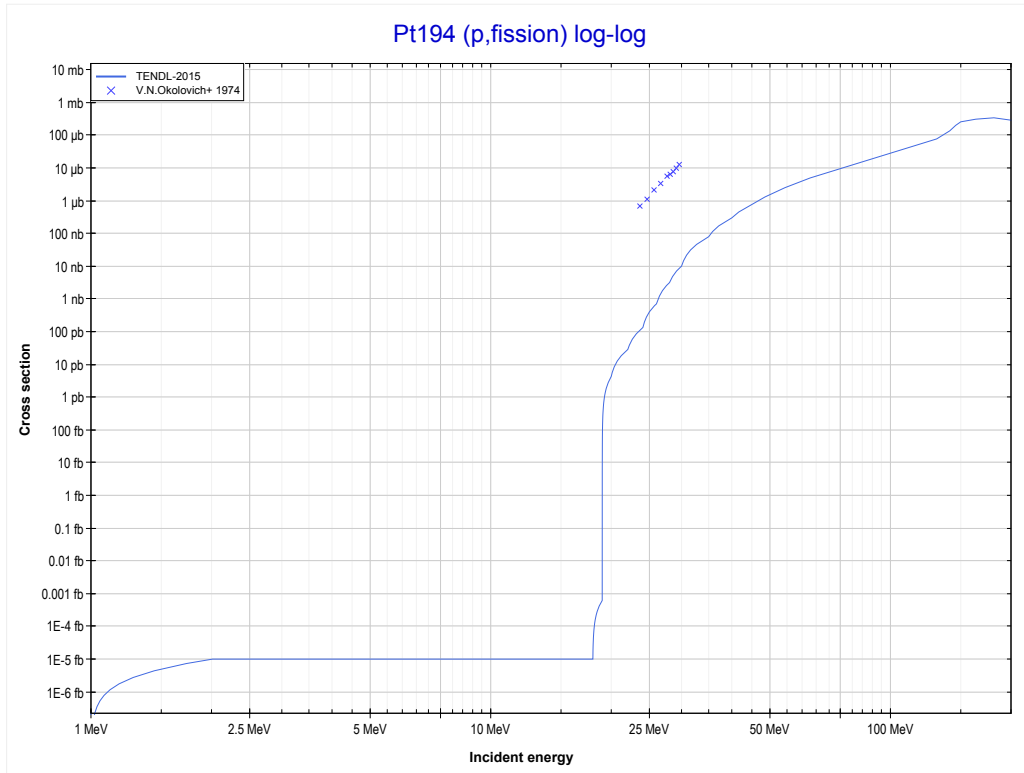
Reaction	Q-Value
Os192(p,6n)Ir187	-37473.83 keV

<< 59-Pr-141	76-Os-192	79-Au-197 >>
<< MT153 (p,6n)	MT160 (p,7n) or MT5 (Ir186 production)	78-Pt-194 MT18 (p,fission) >>

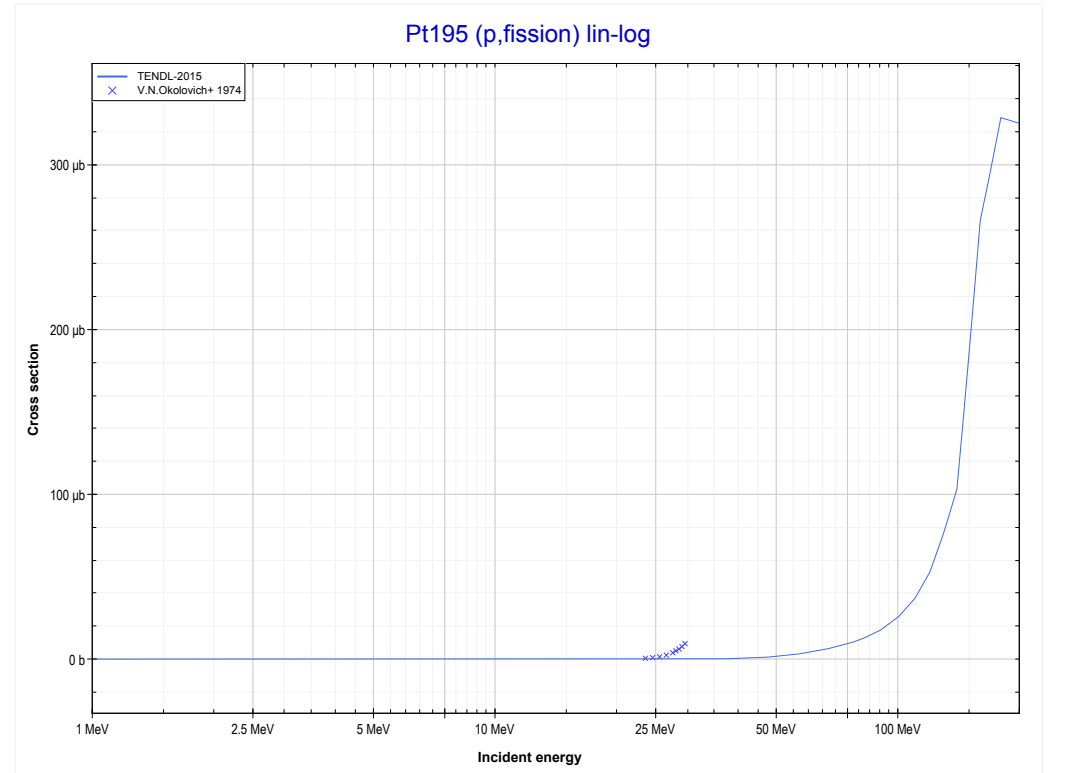
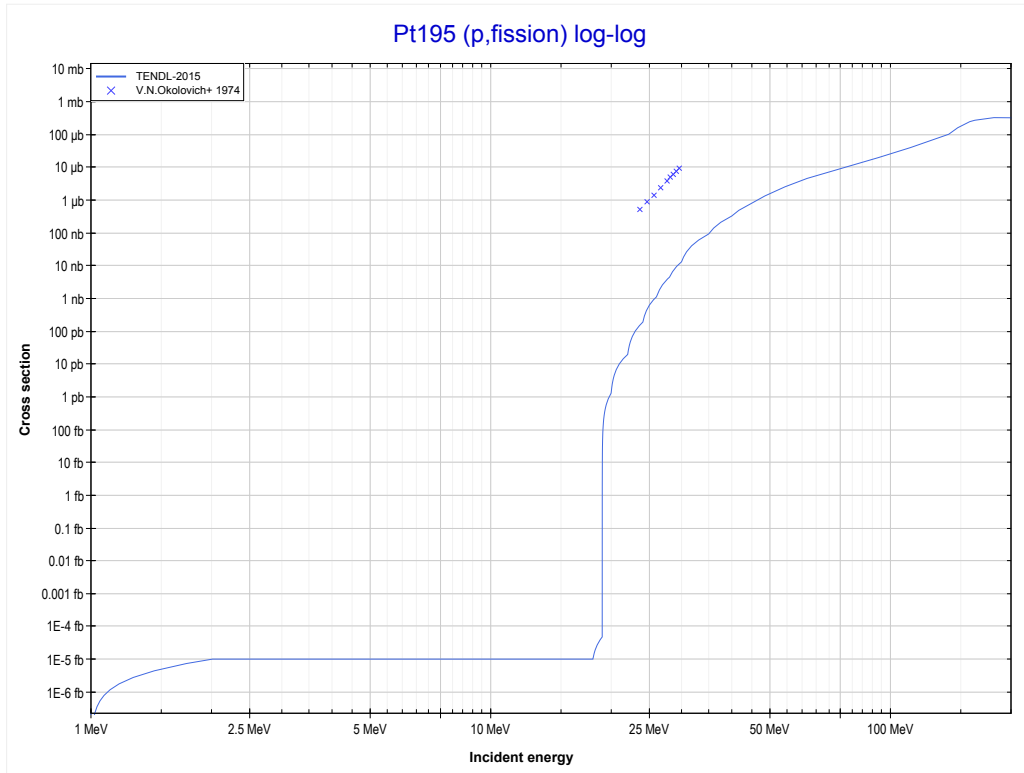


Reaction	Q-Value
Os192(p,7n)Ir186	-45919.15 keV

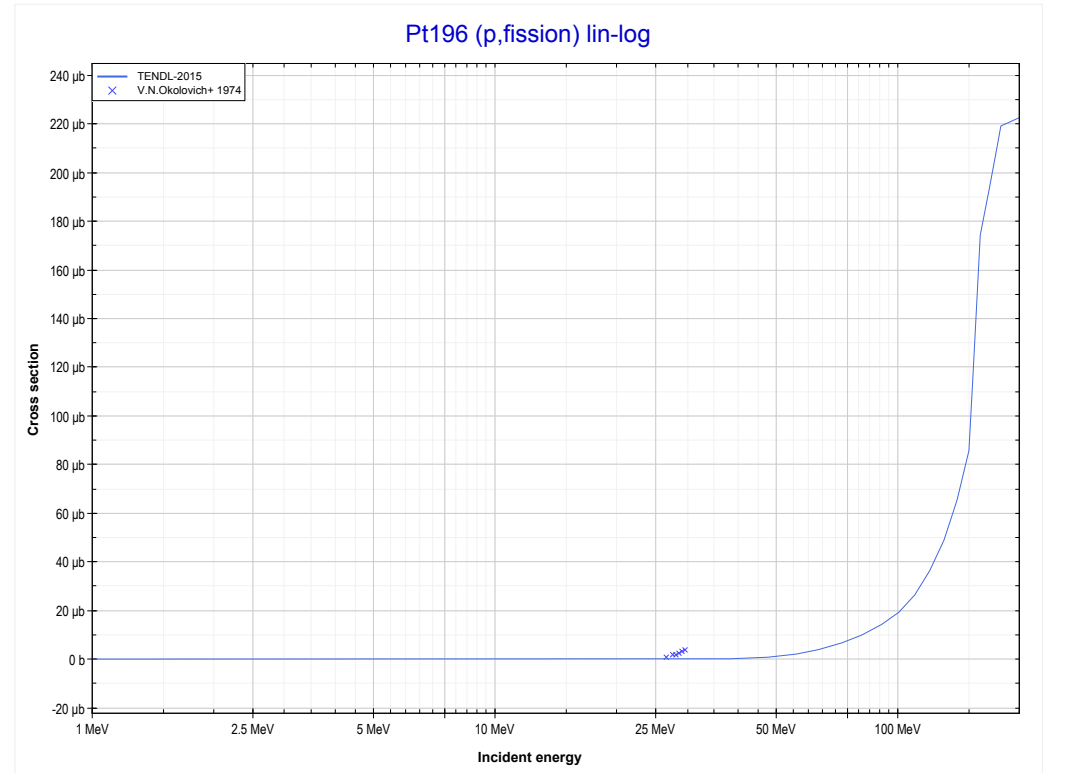
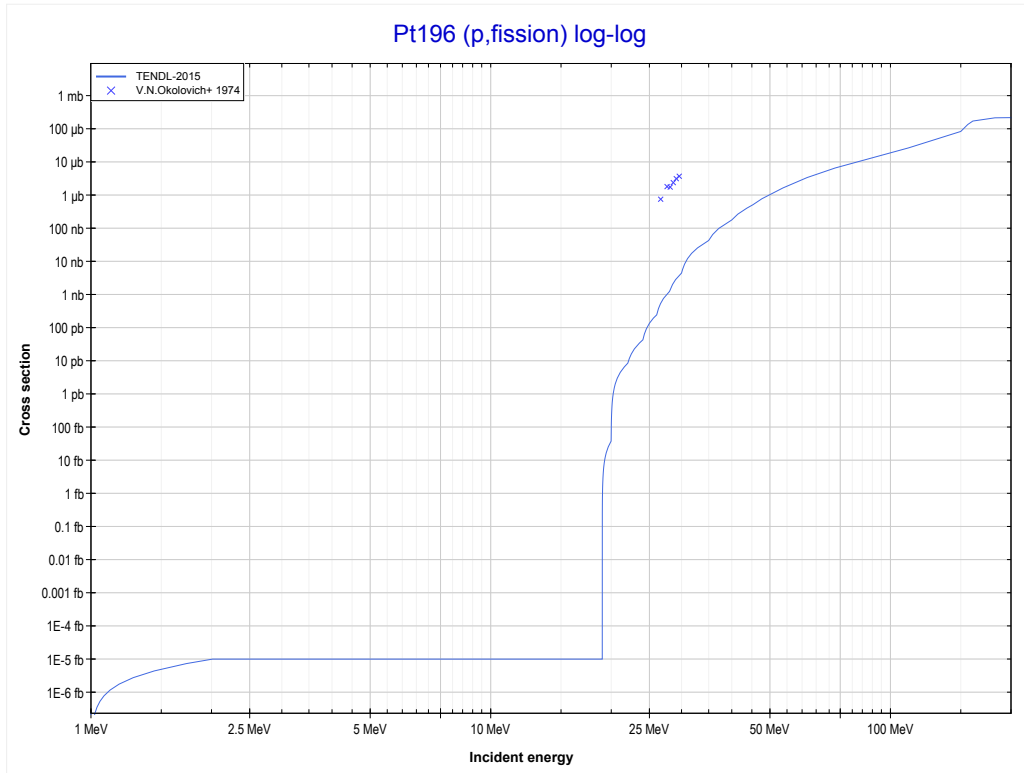
<< 76-Os-190	78-Pt-194	78-Pt-195 >>
<< 76-Os-192 MT160 (p,7n)	MT18 (p,fission)	78-Pt-195 MT18 (p,fission) >>



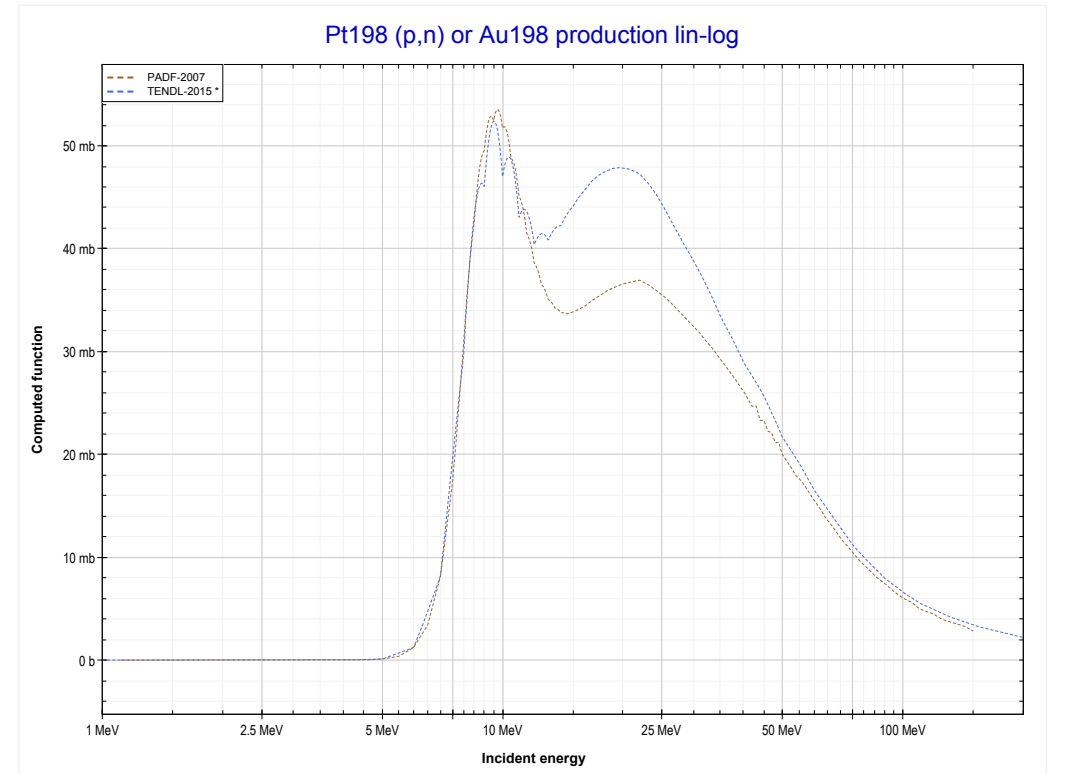
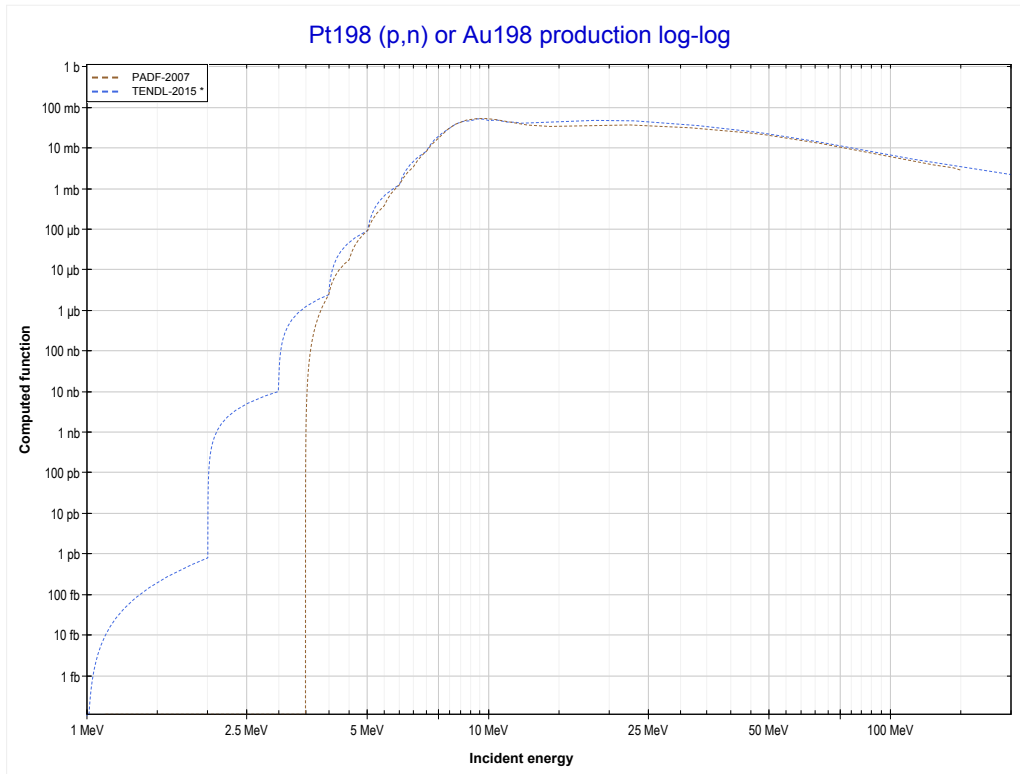
<< 78-Pt-194	78-Pt-195	78-Pt-196 >>
<< 78-Pt-194 MT18 (p,fission)	MT18 (p,fission)	78-Pt-196 MT18 (p,fission) >>



<< 78-Pt-195	78-Pt-196	79-Au-197 >>
<< 78-Pt-195 MT18 (p,fission)	MT18 (p,fission)	78-Pt-198 MT4 (p,n) >>

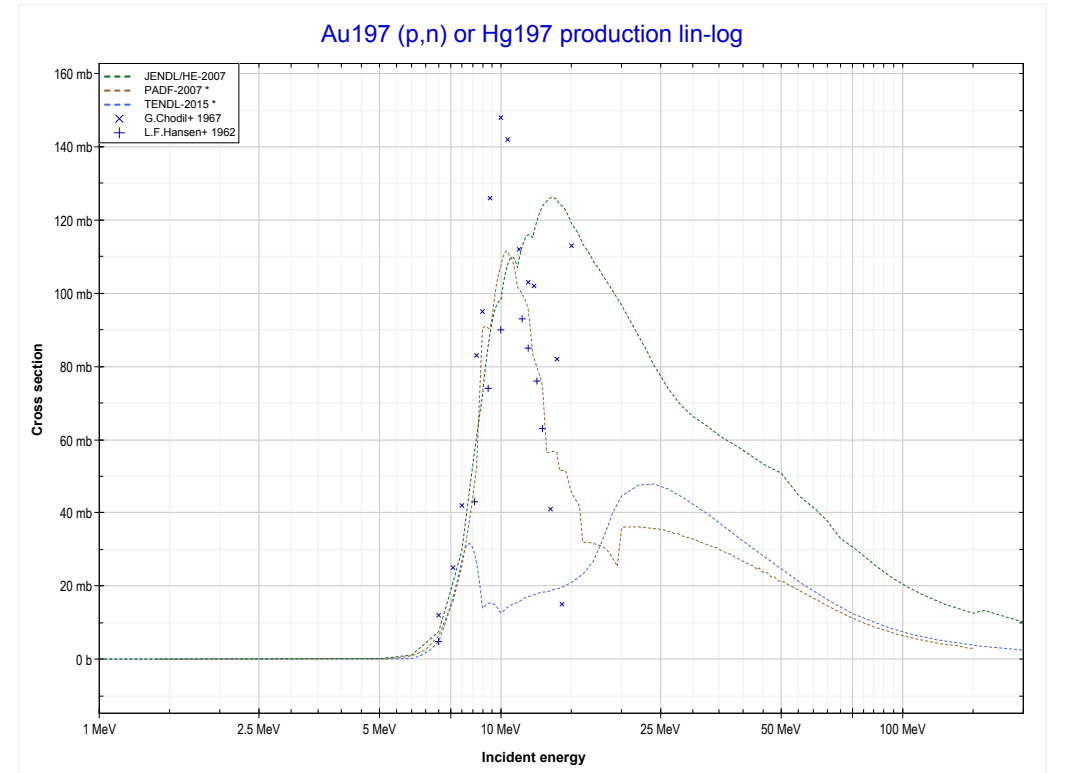
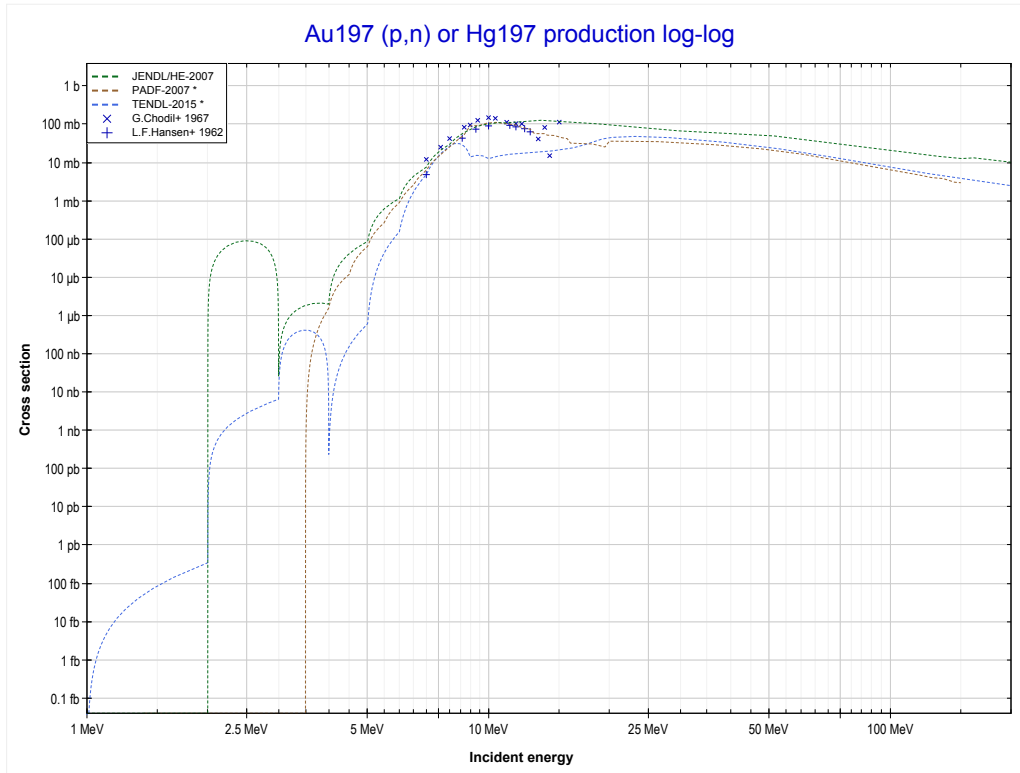


<< 76-Os-192	78-Pt-198	79-Au-197 >>
<< 78-Pt-196 MT18 (p,fission)	MT4 (p,n) or MT5 (Au198 production)	79-Au-197 MT4 (p,n) >>



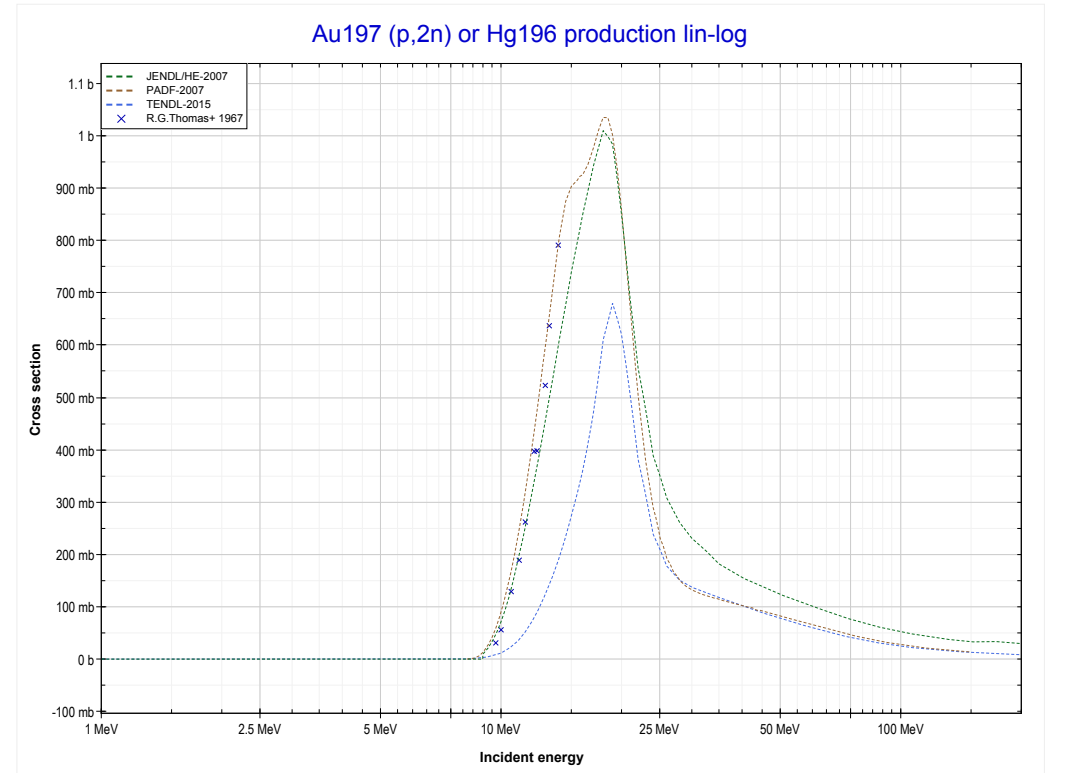
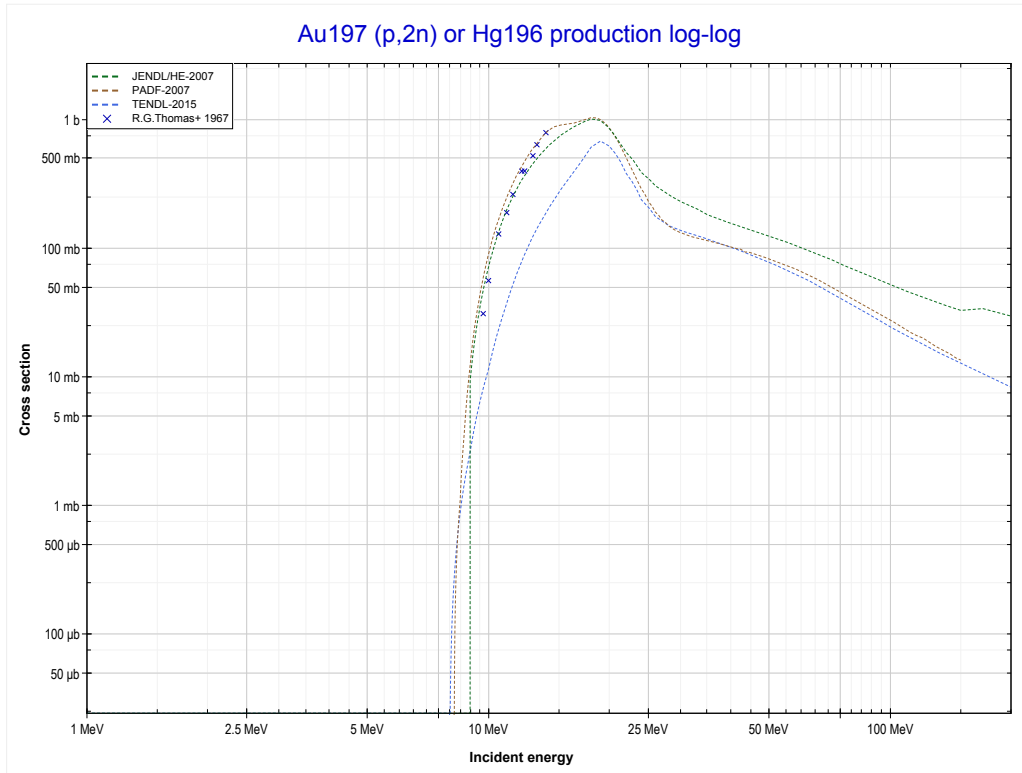
Reaction	Q-Value
Pt198(p,n)Au198	-1105.95 keV

<< 78-Pt-198	79-Au-197	80-Hg-202 >>
<< 78-Pt-198 MT4 (p,n)	MT4 (p,n) or MT5 (Hg197 production)	MT16 (p,2n) >>



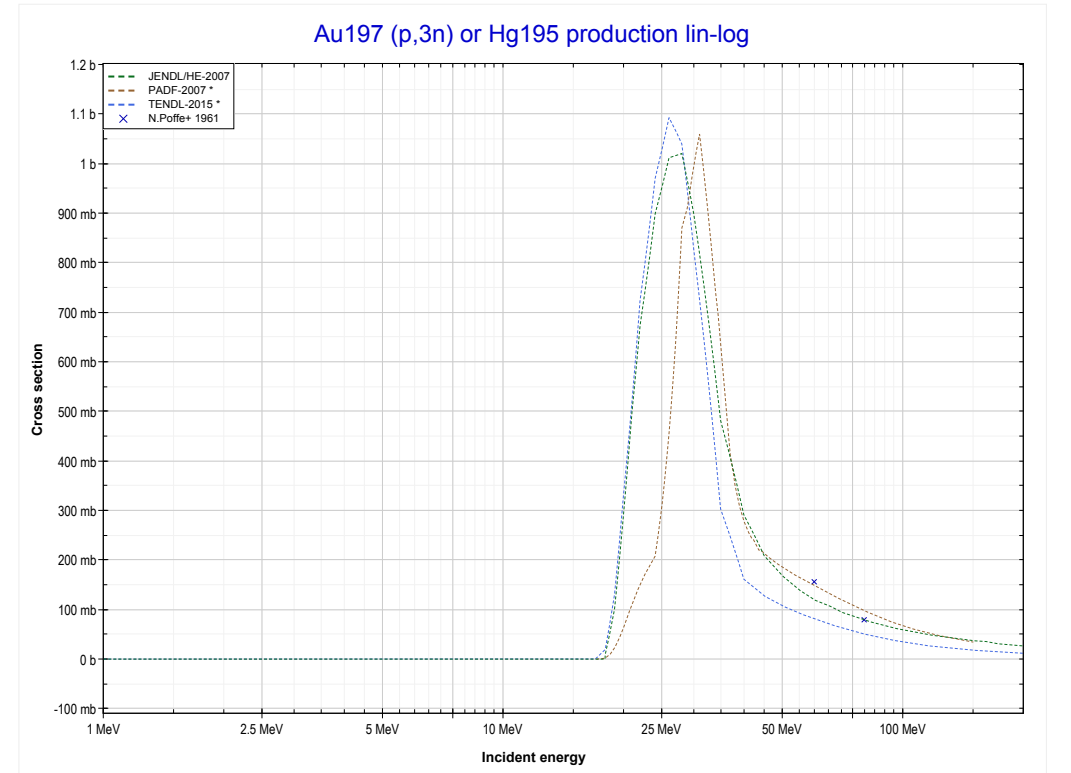
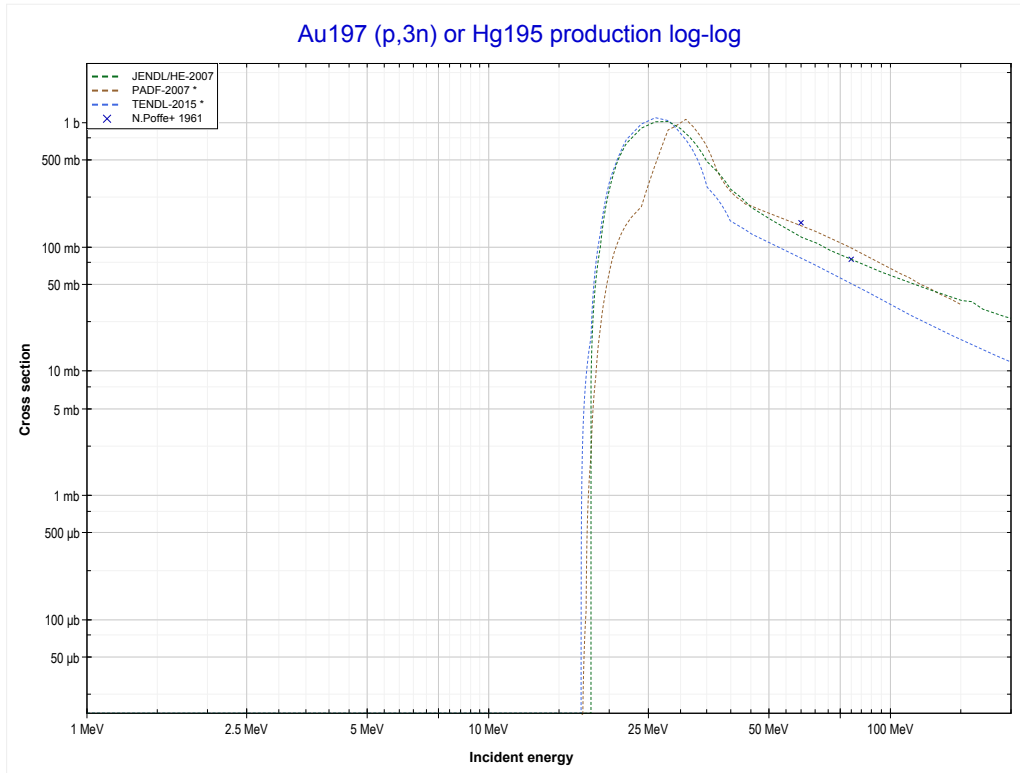
Reaction	Q-Value
Au197(p,n)Hg197	-1382.35 keV

<< 74-W-182	79-Au-197	80-Hg-202 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Hg196 production)	MT17 (p,3n) >>



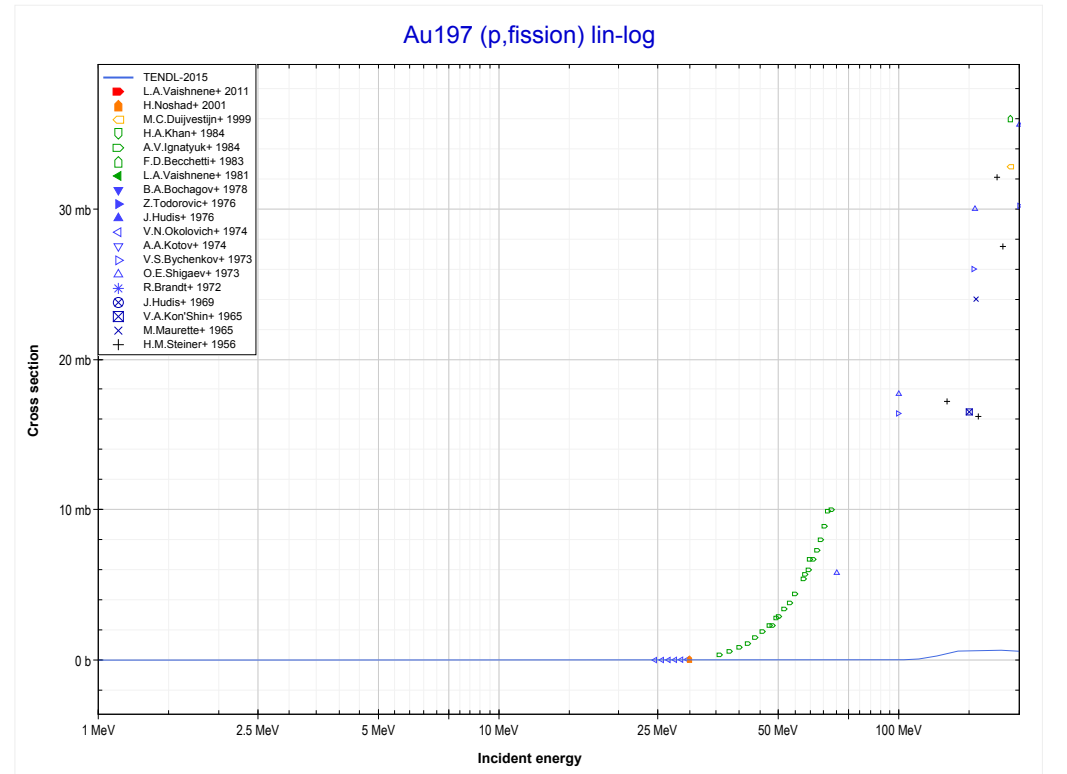
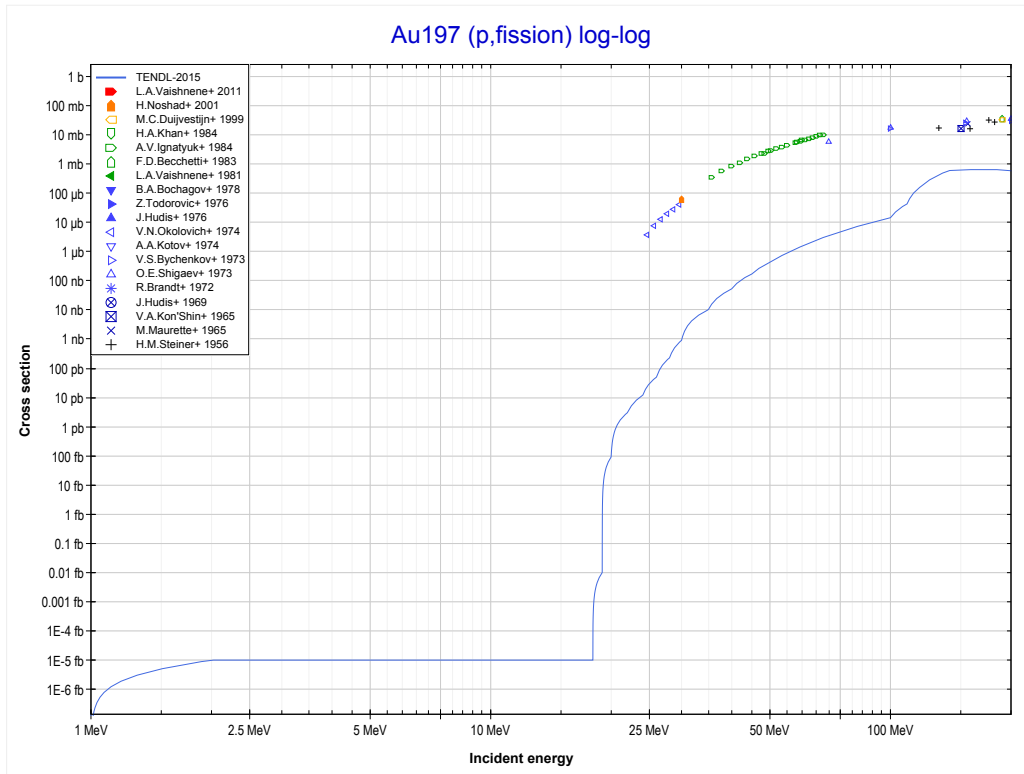
Reaction	Q-Value
Au197(p,2n)Hg196	-8167.86 keV

<< 76-Os-192	79-Au-197	81-Tl-203 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Hg195 production)	MT18 (p,fission) >>

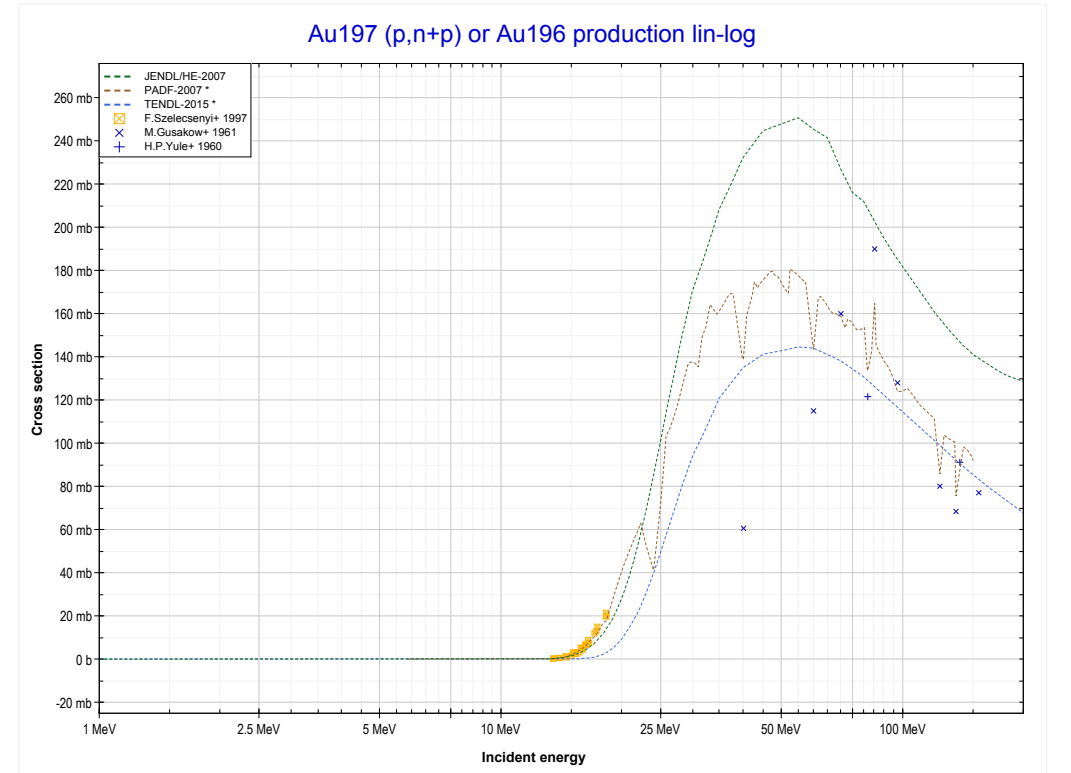
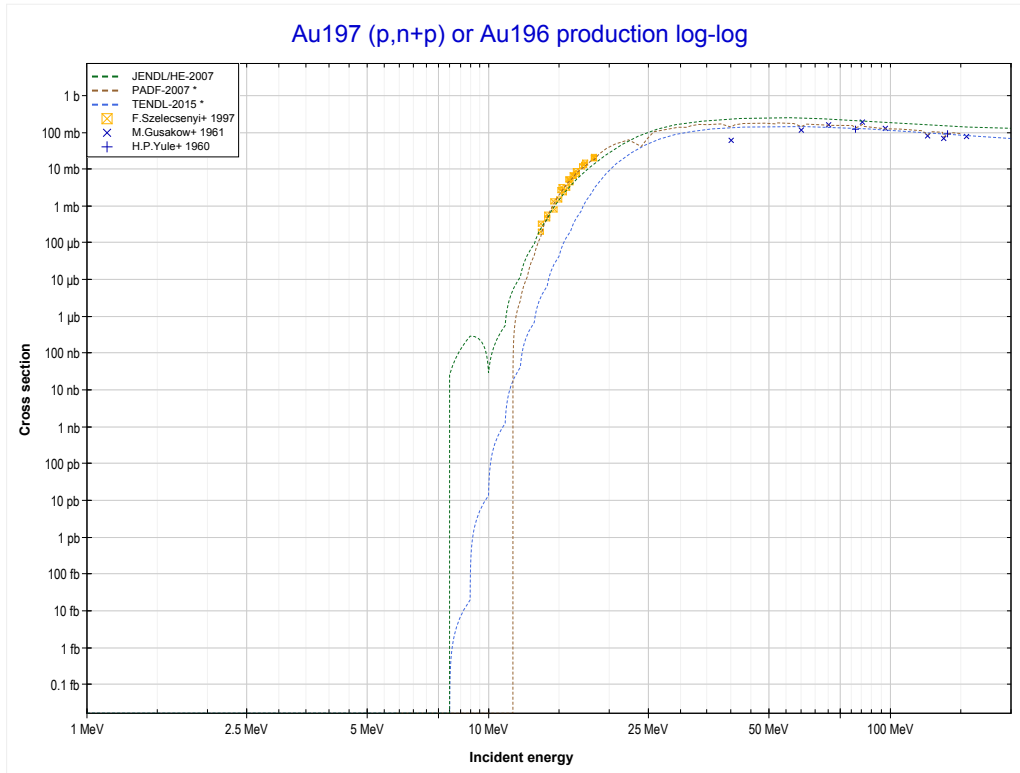


Reaction	Q-Value
Au197(p,3n)Hg195	-17065.98 keV

<< 78-Pt-196	79-Au-197	81-Tl-203 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT28 (p,n+p) >>

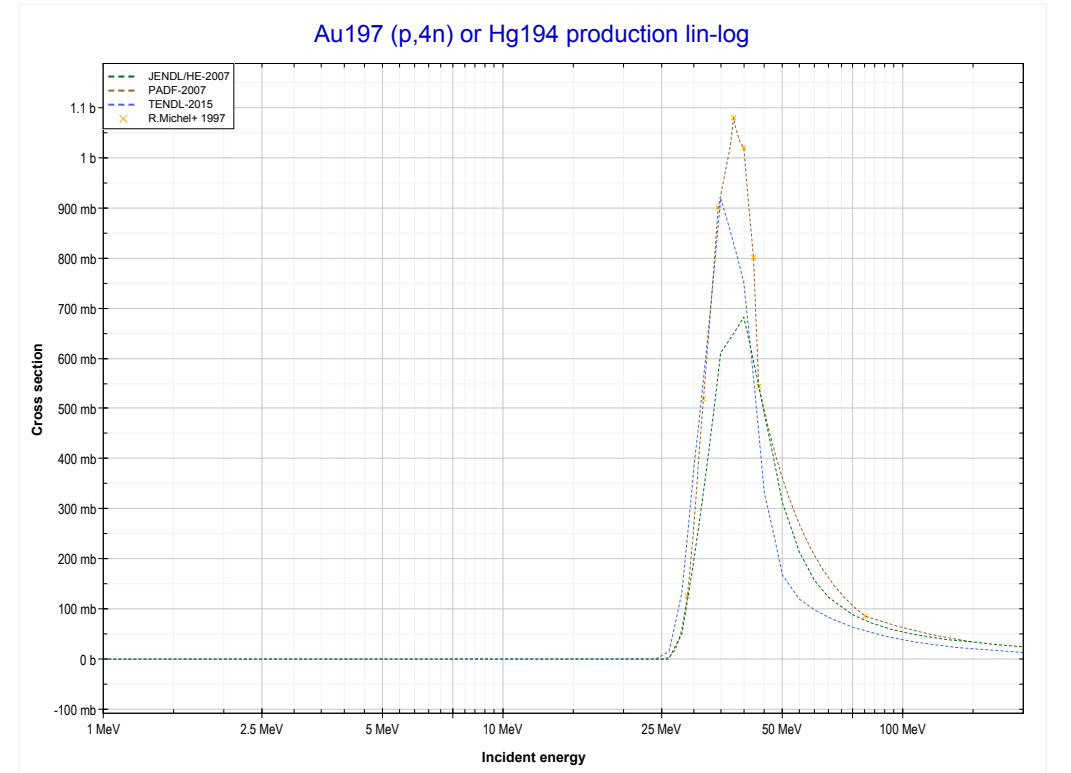
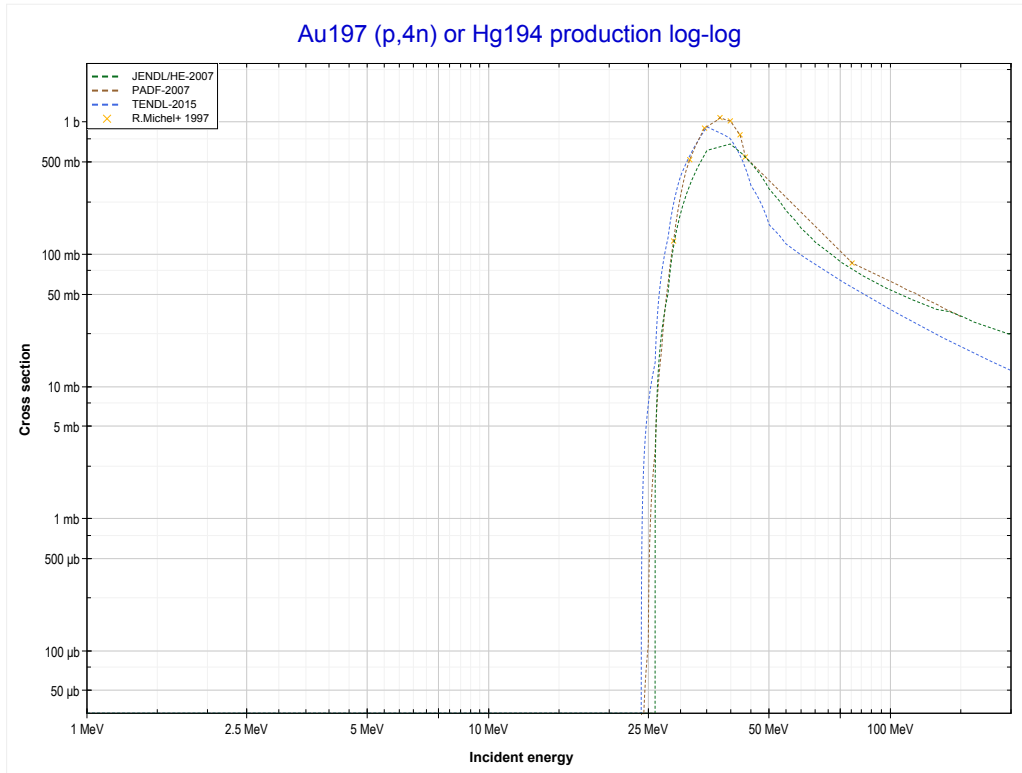


<< 75-Re-187	79-Au-197	
<< MT18 (p,fission)	MT28 (p,n+p) or MT5 (Au196 production)	MT37 (p,4n) >>



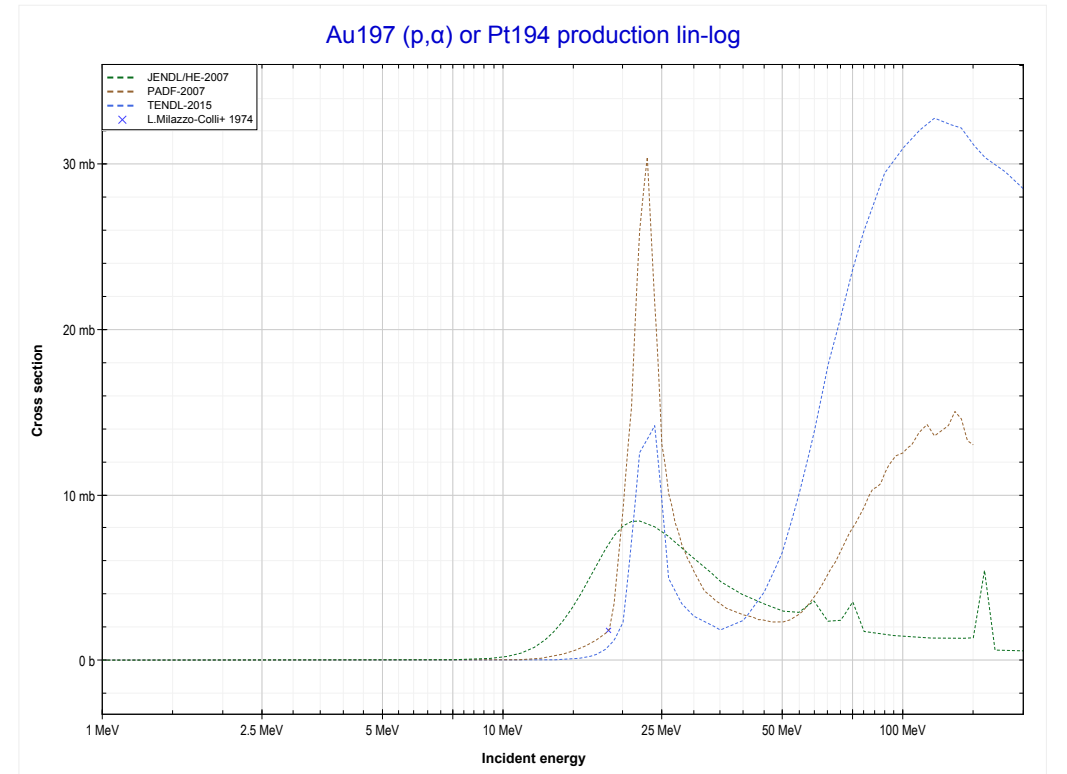
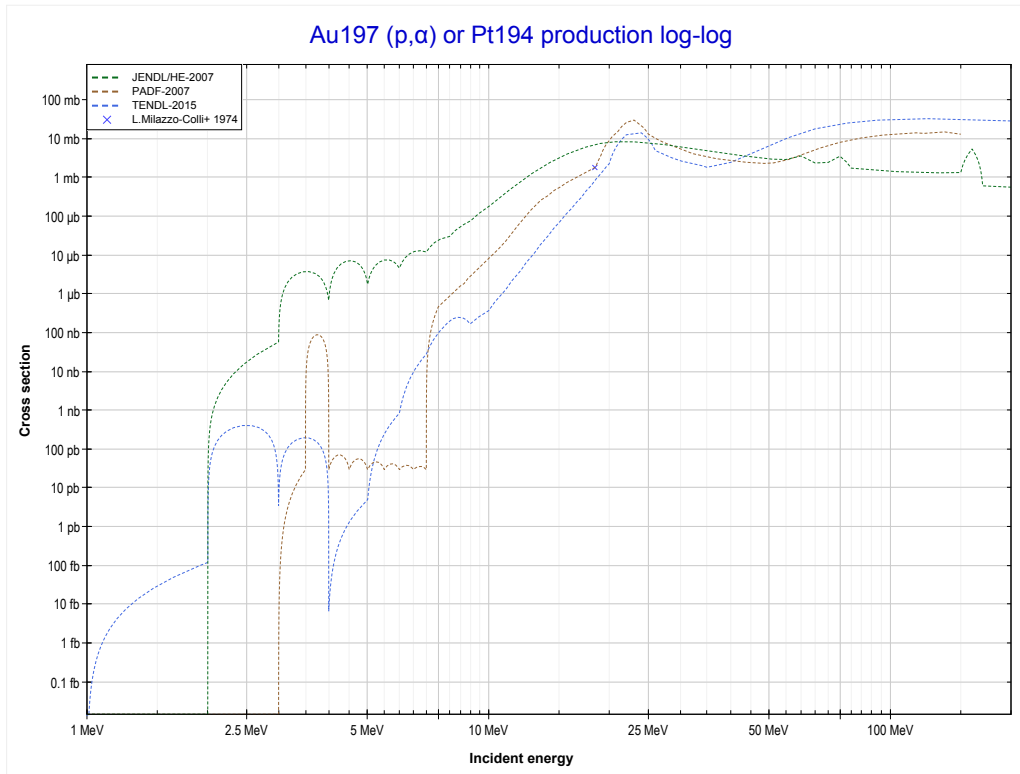
Reaction	Q-Value
Au197(p,d)Au196	-5847.85 keV
Au197(p,n+p)Au196	-8072.42 keV

<< 76-Os-192	79-Au-197	81-Tl-203 >>
<< MT28 (p,n+p)	MT37 (p,4n) or MT5 (Hg194 production)	MT107 (p, α) >>



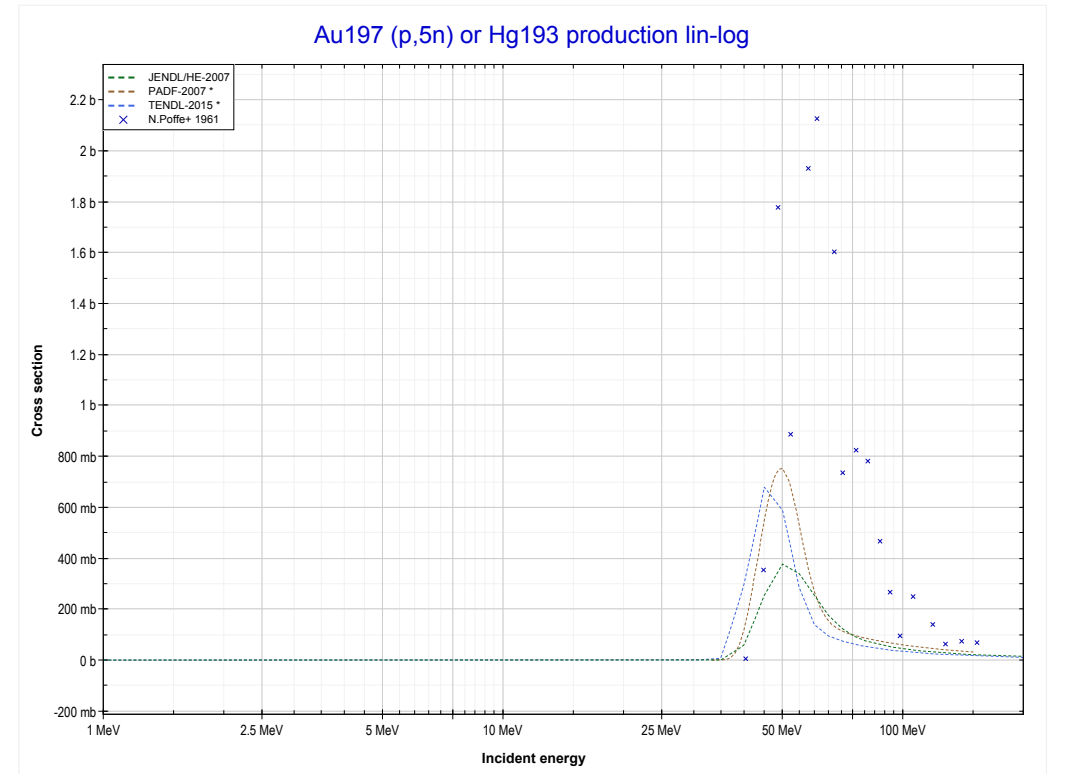
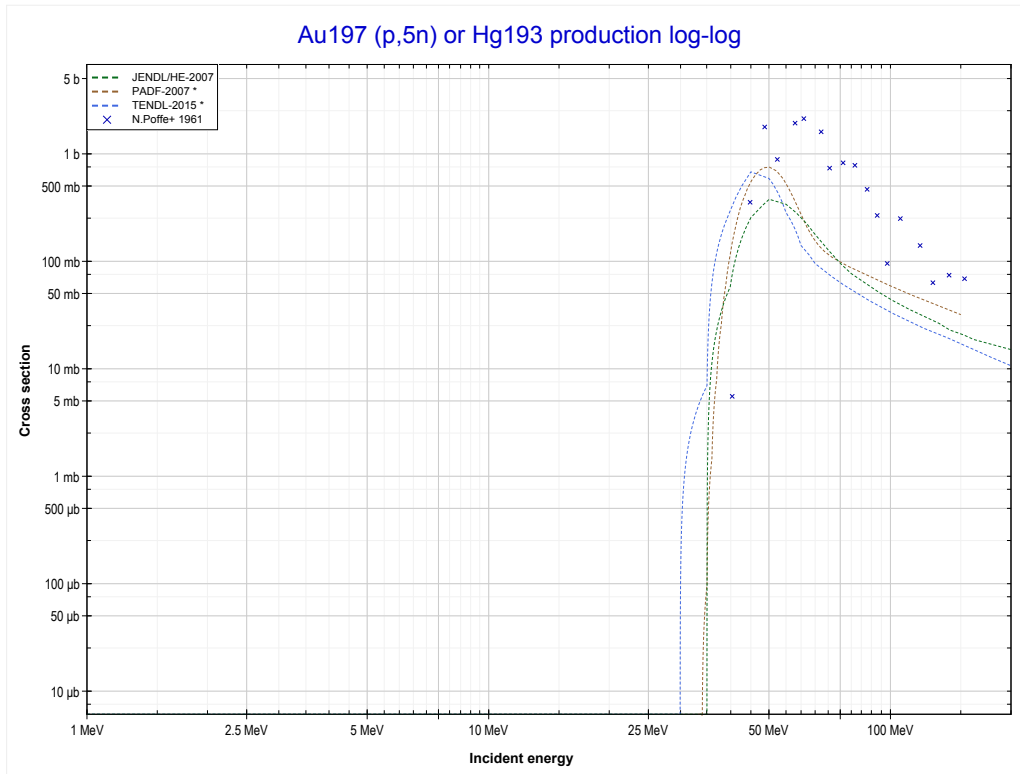
Reaction	Q-Value
Au197(p,4n)Hg194	-23953.40 keV

<< 70-Yb-176	79-Au-197	81-Tl-203 >>
<< MT37 (p,4n)	MT107 (p,α) or MT5 (Pt194 production)	MT152 (p,5n) >>



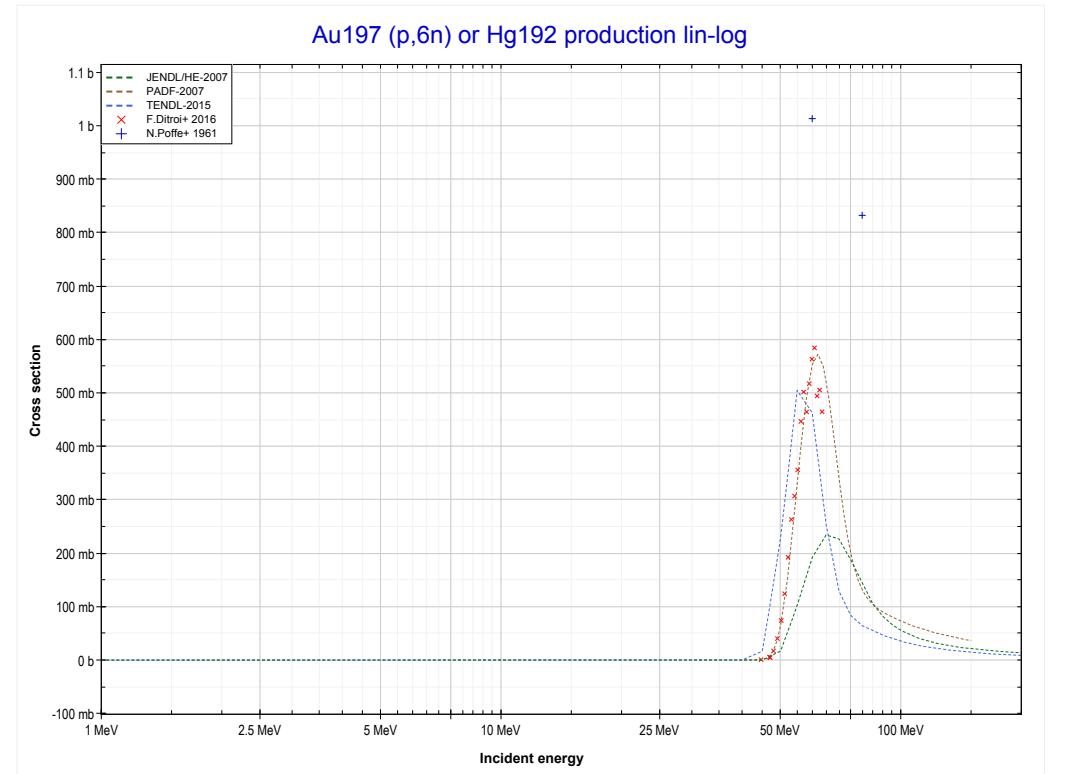
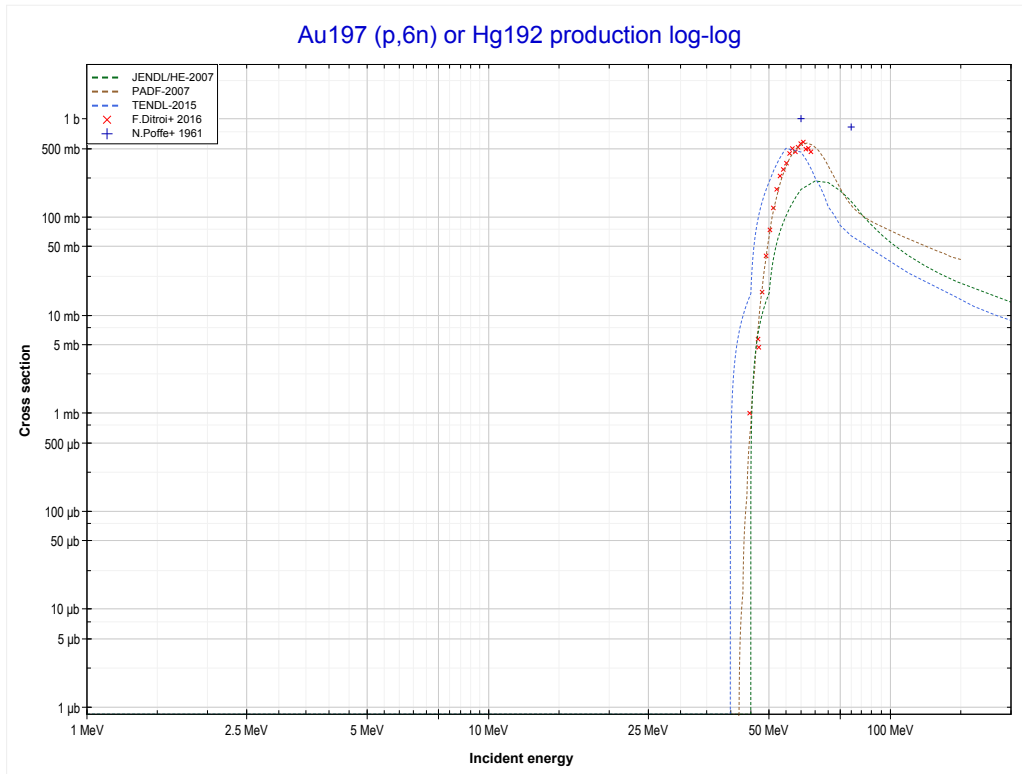
Reaction	Q-Value
Au197(p, α)Pt194	8485.65 keV
Au197(p,p+t)Pt194	-11328.21 keV
Au197(p,n+He3)Pt194	-12091.96 keV
Au197(p,2d)Pt194	-15360.87 keV
Au197(p,n+p+d)Pt194	-17585.44 keV
Au197(p,2n+2p)Pt194	-19810.00 keV

<< 76-Os-192	79-Au-197	81-Tl-205 >>
<< MT107 (p, α)	MT152 (p,5n) or MT5 (Hg193 production)	MT153 (p,6n) >>



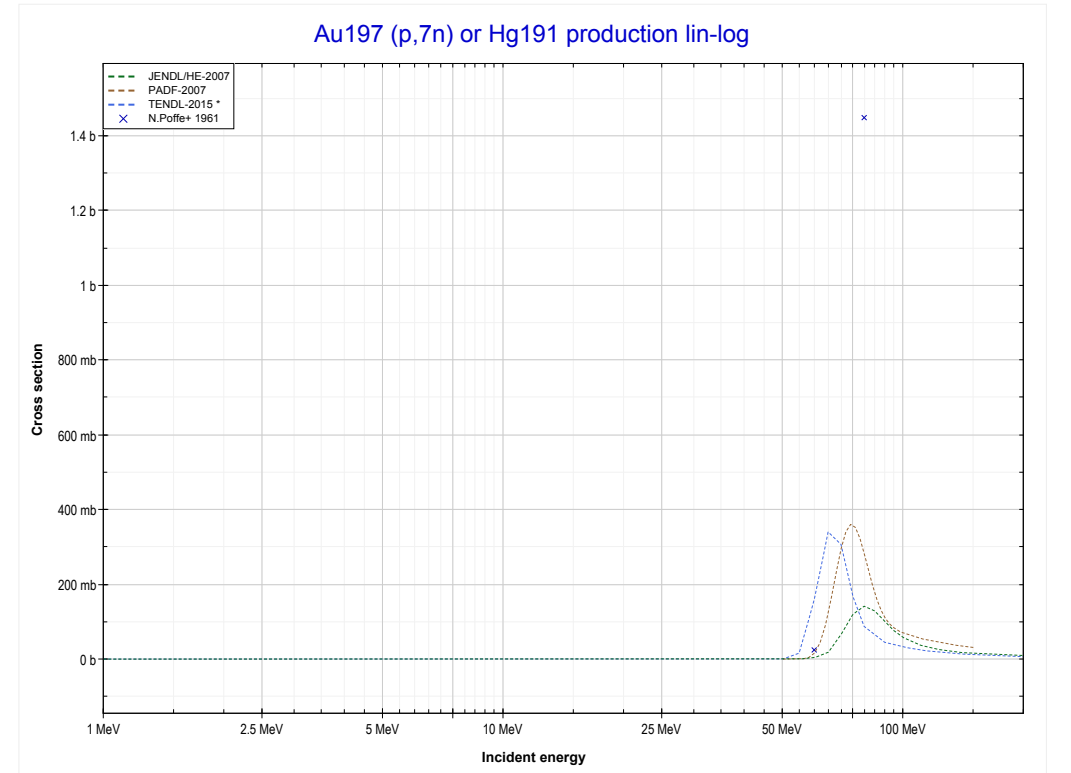
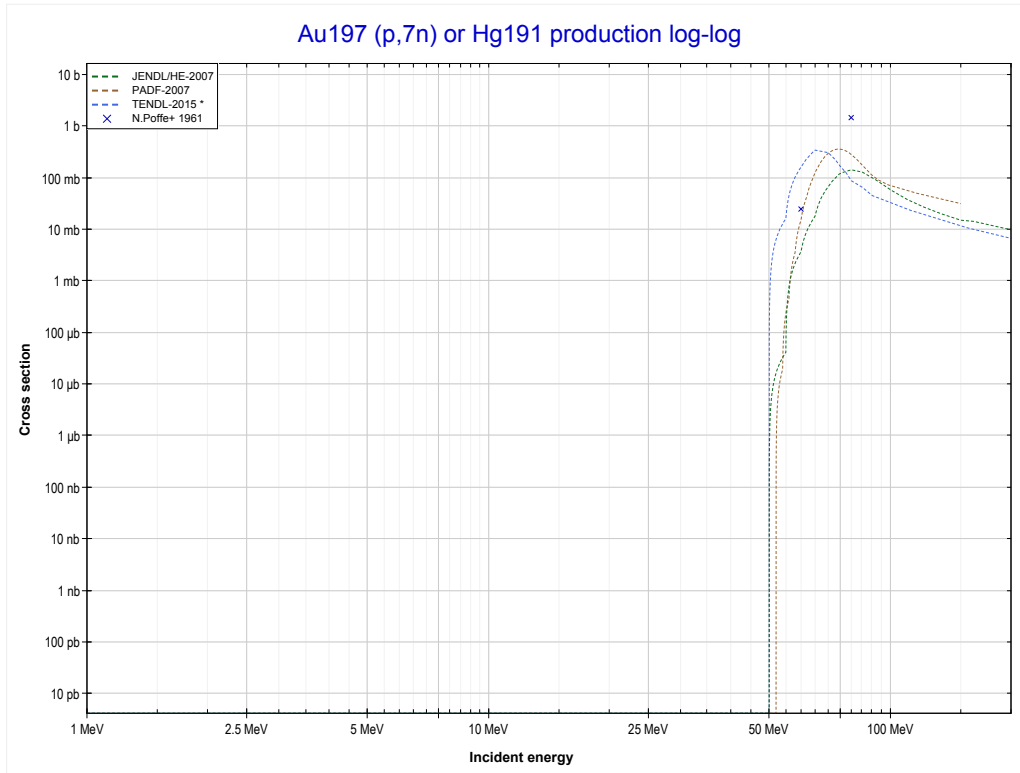
Reaction	Q-Value
Au197(p,5n)Hg193	-33145.61 keV

<< 76-Os-192	79-Au-197	83-Bi-209 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Hg192 production)	MT160 (p,7n) >>



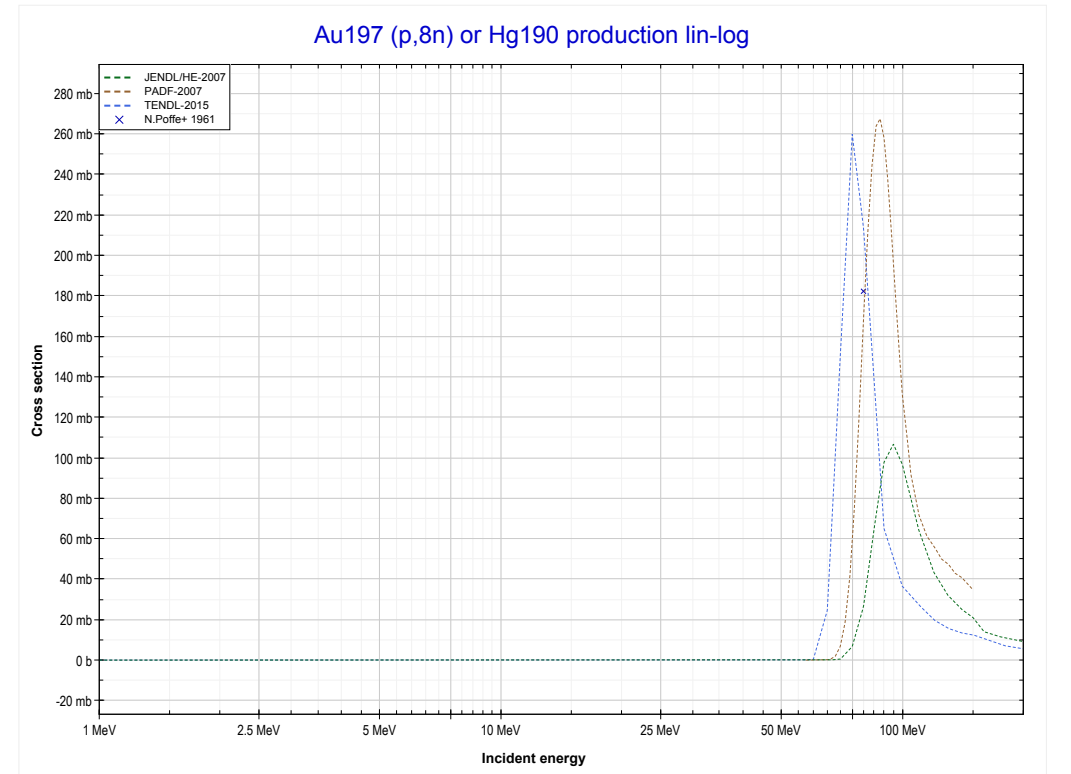
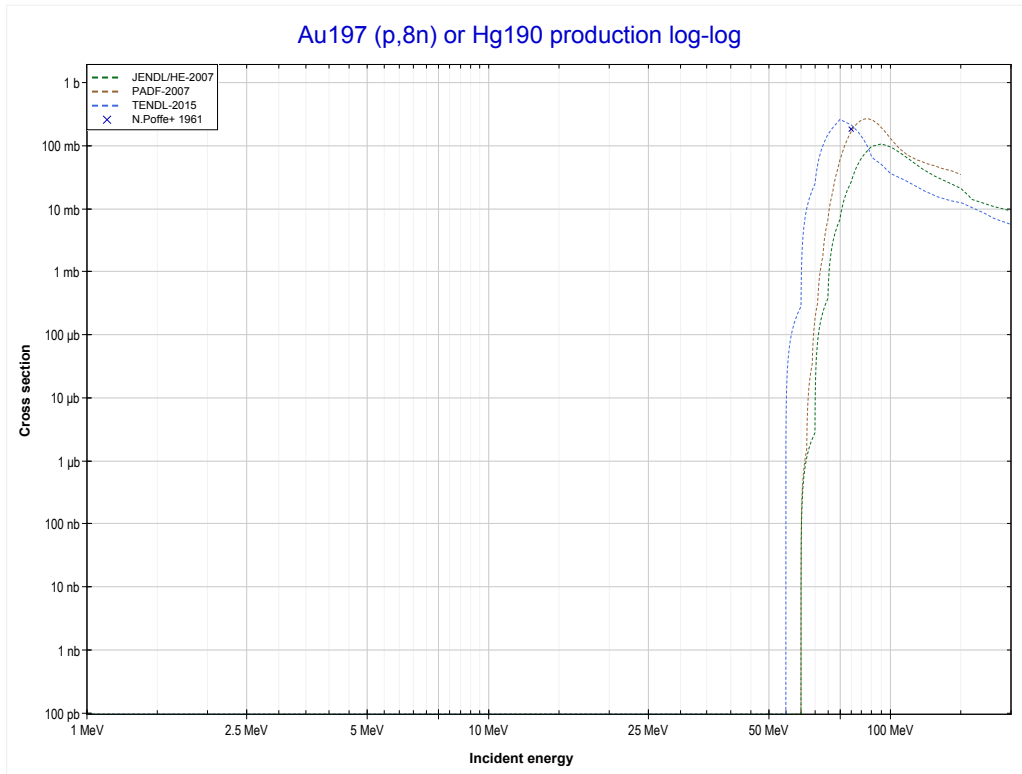
Reaction	Q-Value
Au197(p,6n)Hg192	-40268.93 keV

<< 76-Os-192	79-Au-197	82-Pb-206 >>
<< MT153 (p,6n)	MT160 (p,7n) or MT5 (Hg191 production)	MT161 (p,8n) >>



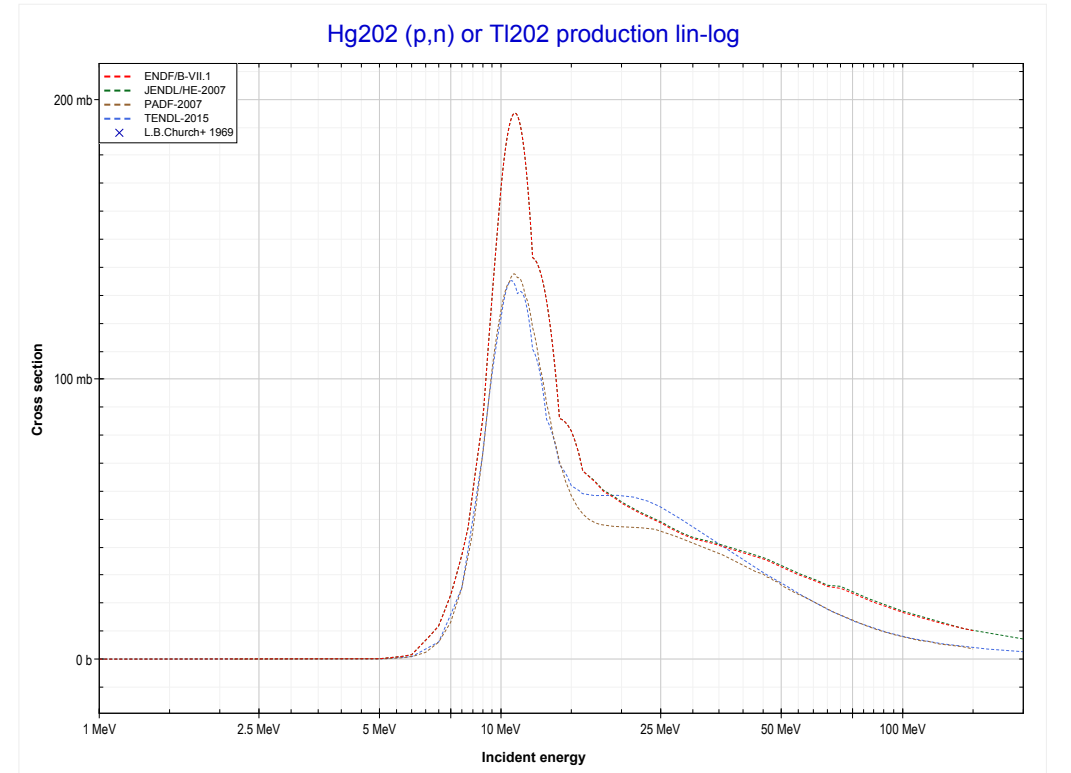
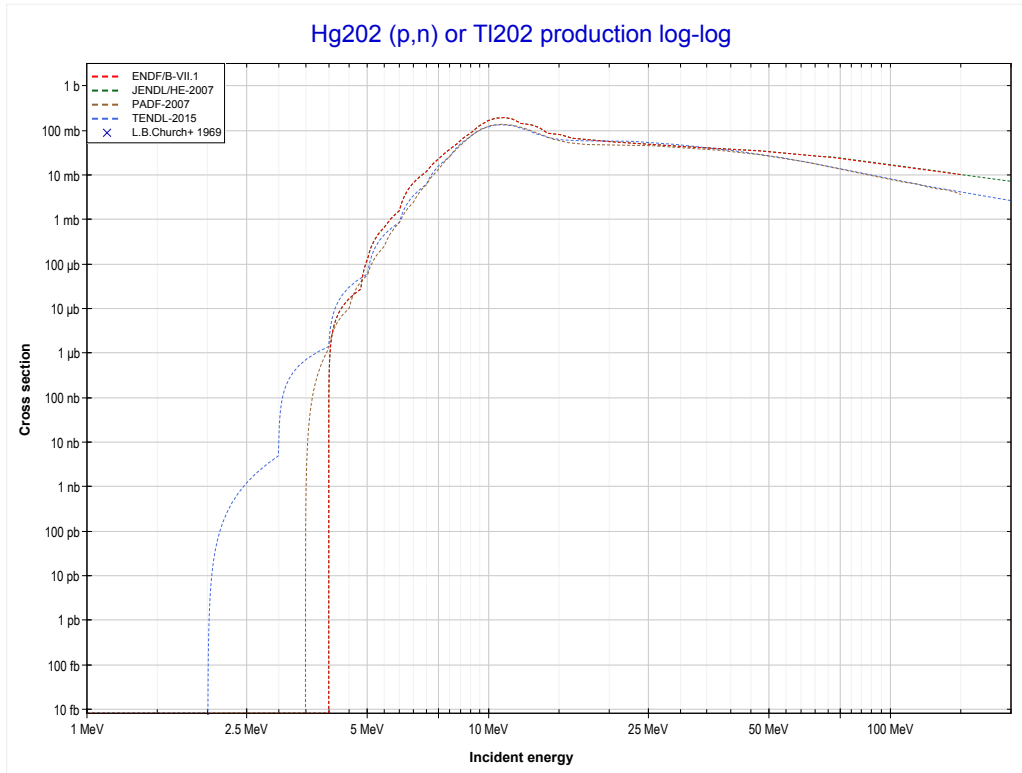
Reaction	Q-Value
Au197(p,7n)Hg191	-49758.25 keV

	79-Au-197	83-Bi-209 >>
<< MT160 (p,7n)	MT161 (p,8n) or MT5 (Hg190 production)	80-Hg-202 MT4 (p,n) >>



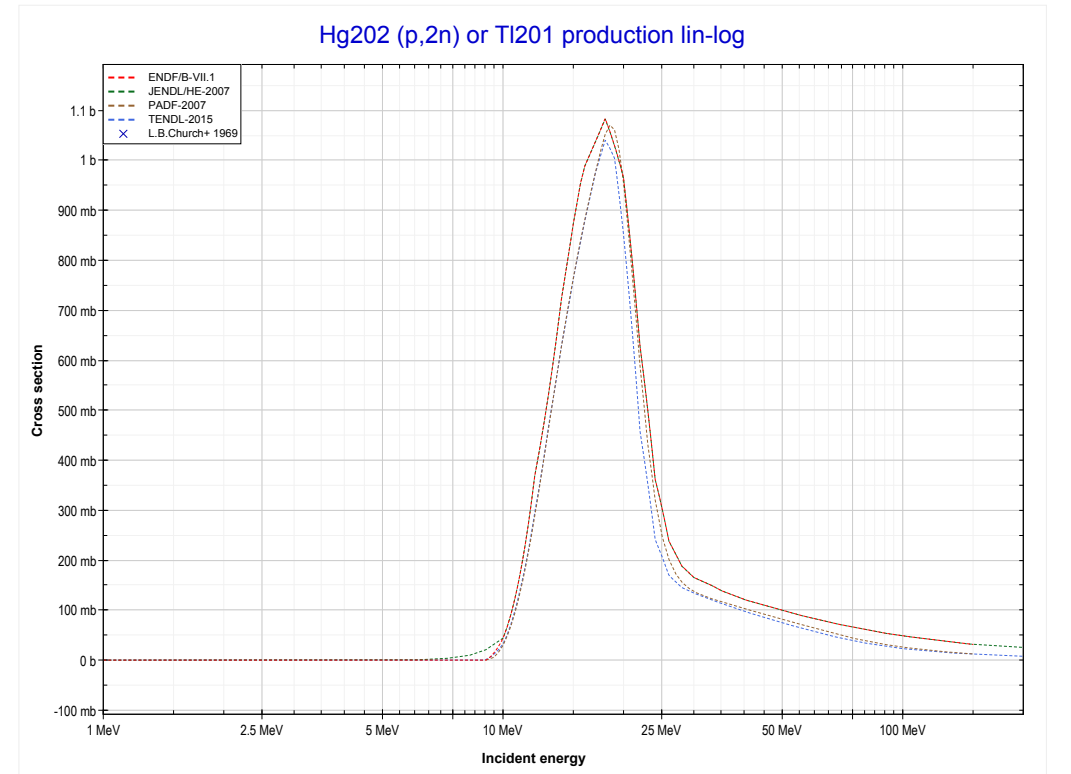
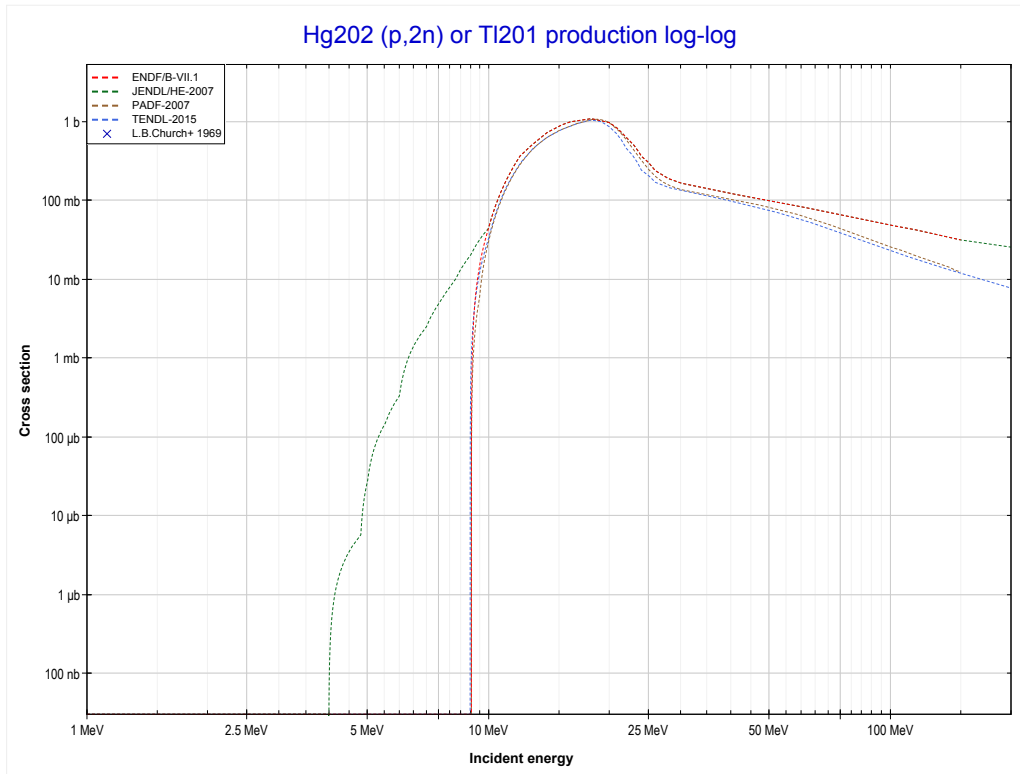
Reaction	Q-Value
Au197(p,8n)Hg190	-57052.57 keV

<< 79-Au-197	80-Hg-202	82-Pb-206 >>
<< 79-Au-197 MT161 (p,8n)	MT4 (p,n) or MT5 (TI202 production)	MT16 (p,2n) >>



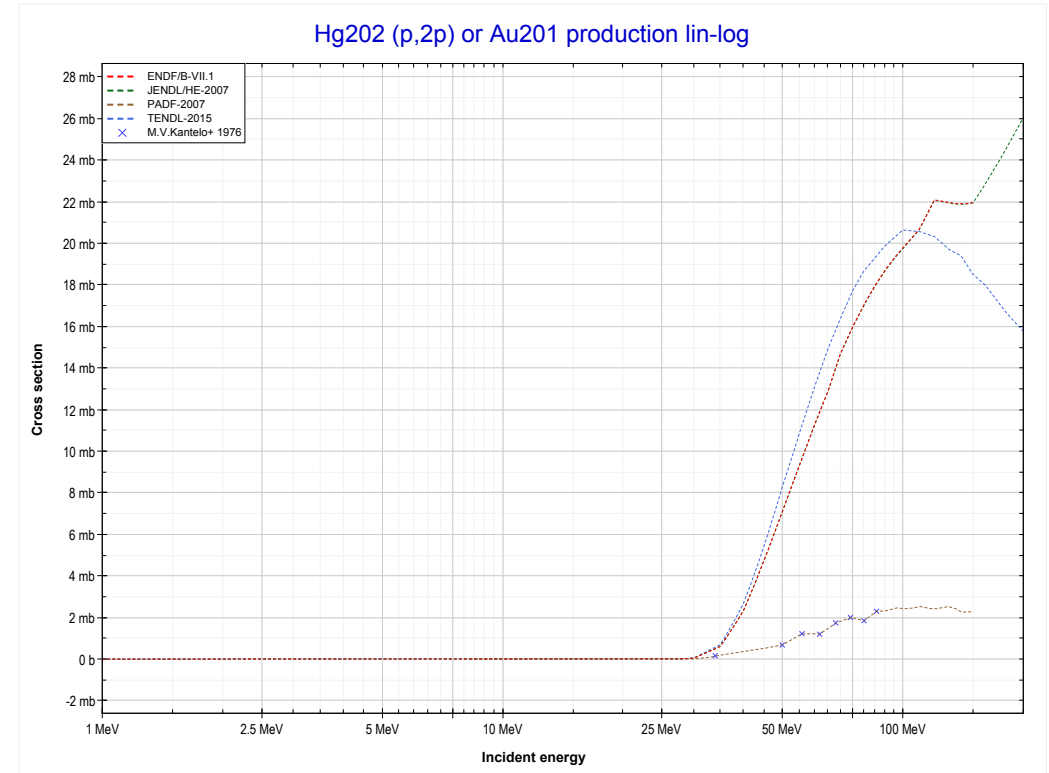
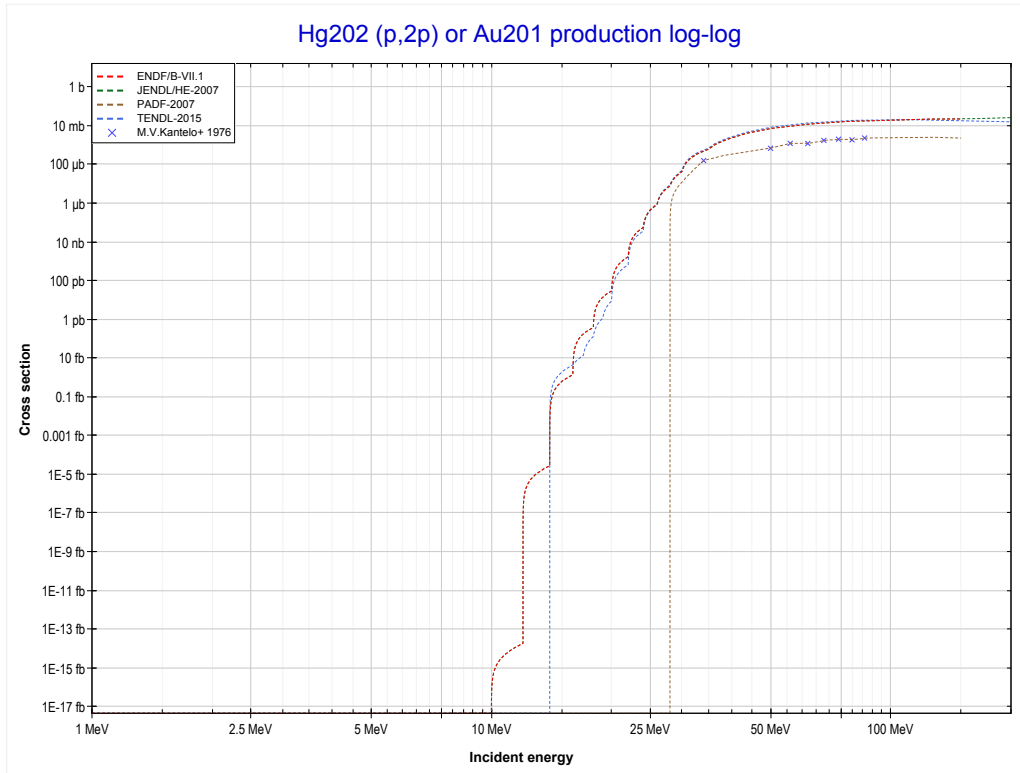
Reaction	Q-Value
Hg202(p,n)TI202	-2141.85 keV

<< 79-Au-197	80-Hg-202	81-Tl-203 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (TI201 production)	MT111 (p,2p) >>



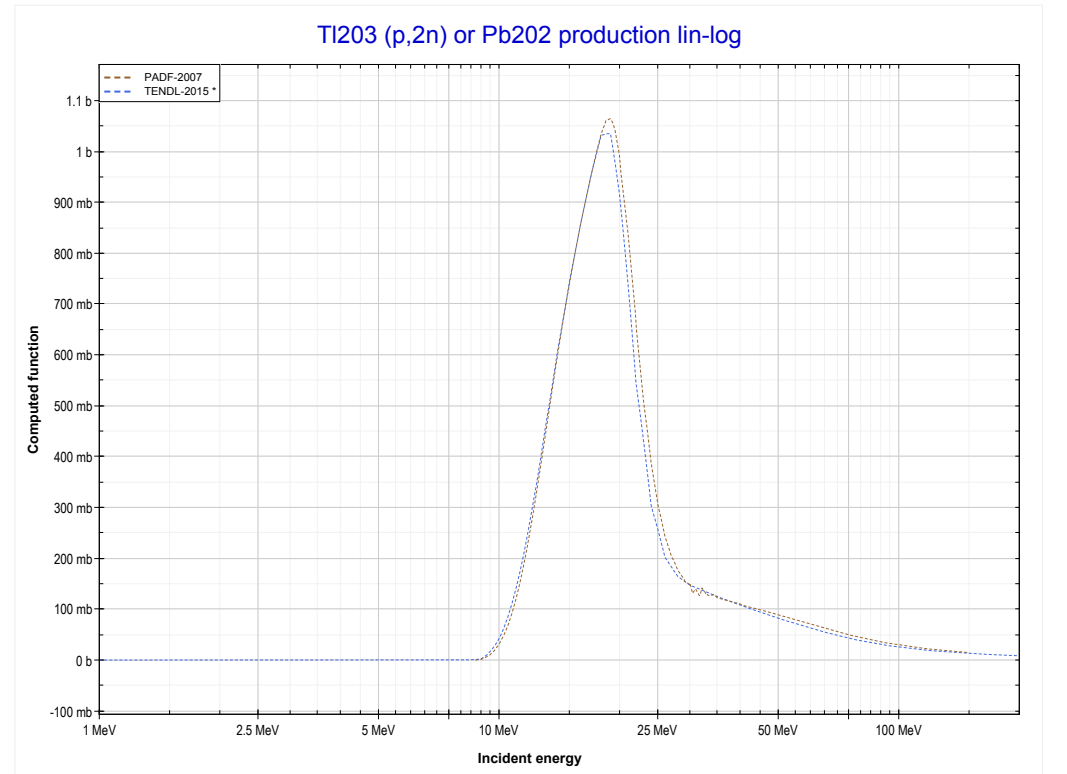
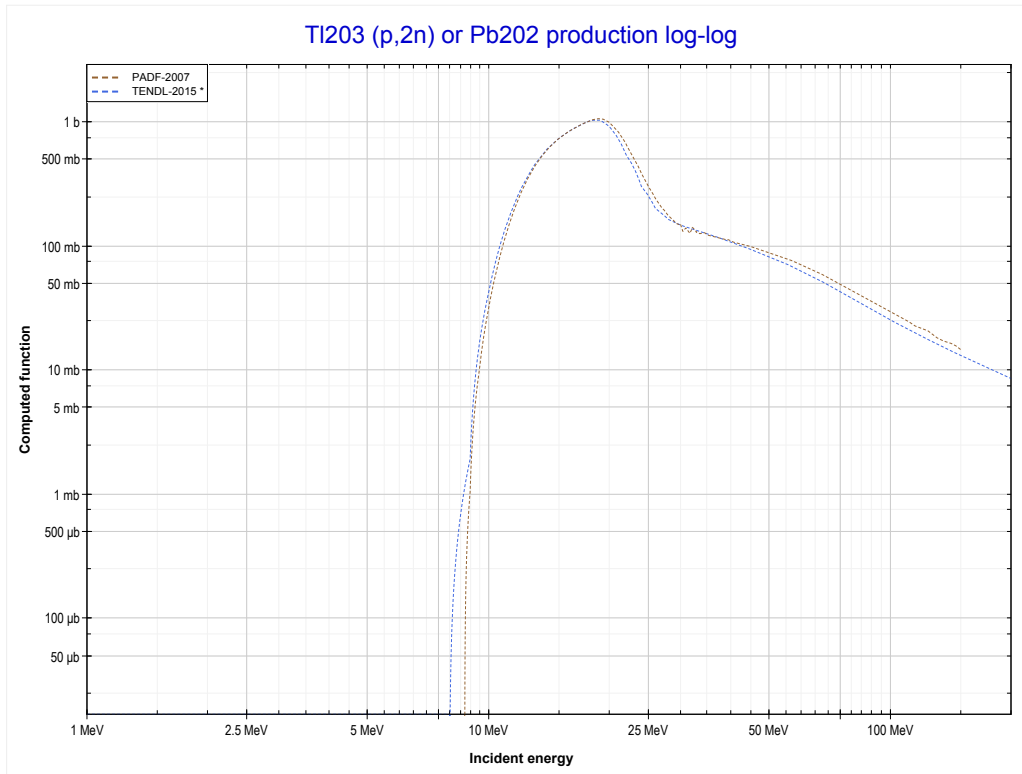
Reaction	Q-Value
Hg202(p,2n)TI201	-9020.16 keV

<< 74-W-186	80-Hg-202	
<< MT16 (p,2n)	MT111 (p,2p) or MT5 (Au201 production)	81-Tl-203 MT16 (p,2n) >>



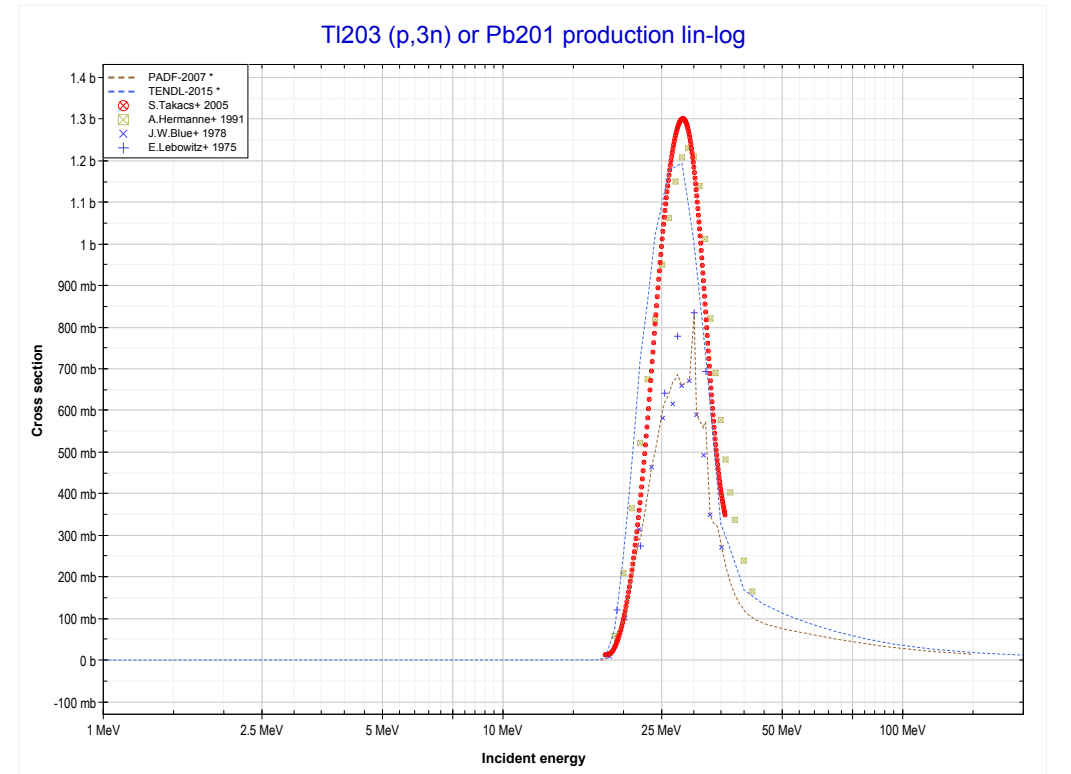
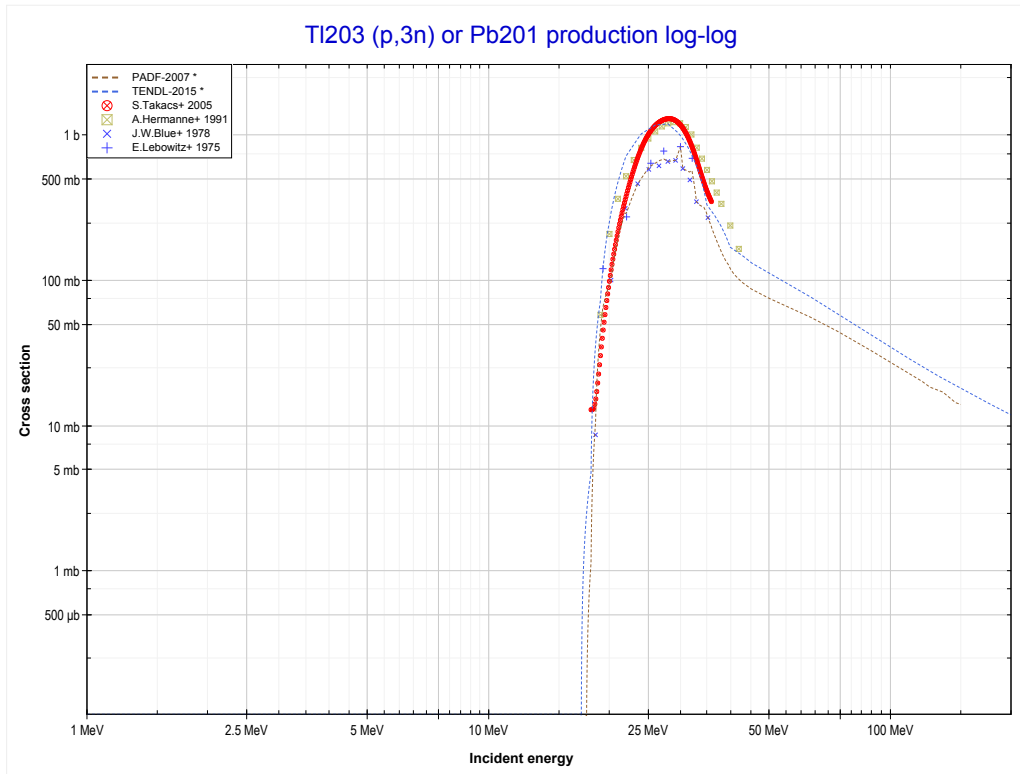
Reaction	Q-Value
Hg202(p,2p)Au201	-8233.47 keV

<< 80-Hg-202	81-Tl-203	81-Tl-205 >>
<< 80-Hg-202 MT111 (p,2p)	MT16 (p,2n) or MT5 (Pb202 production)	MT17 (p,3n) >>



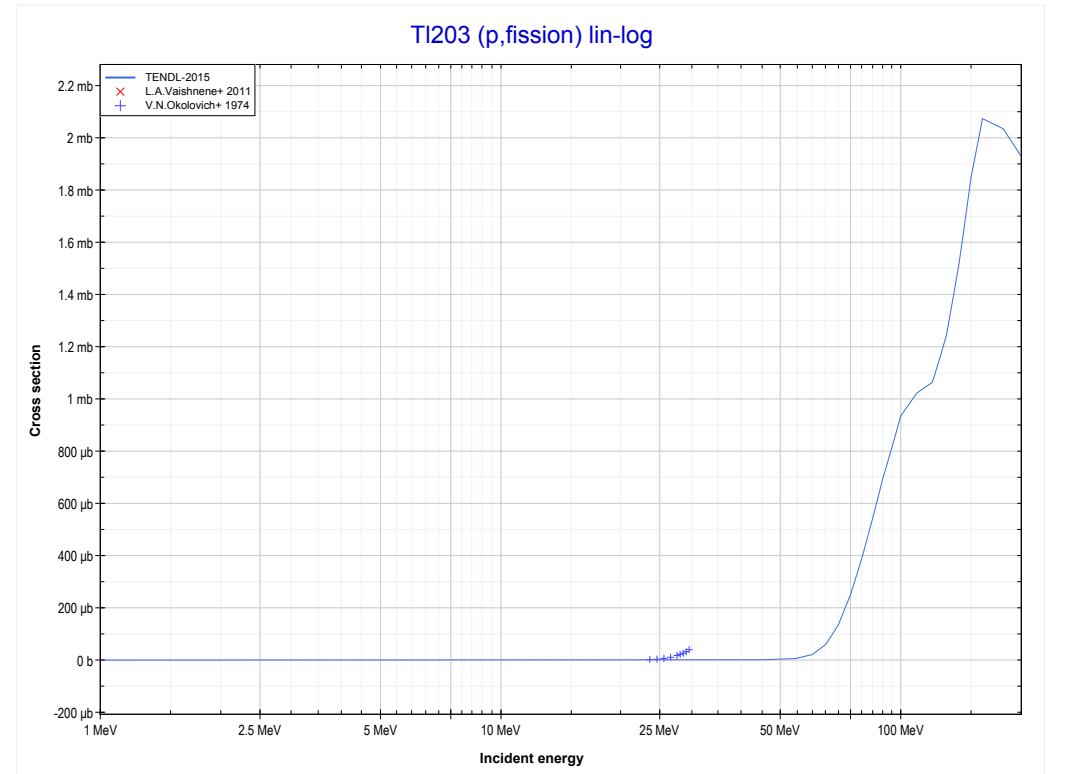
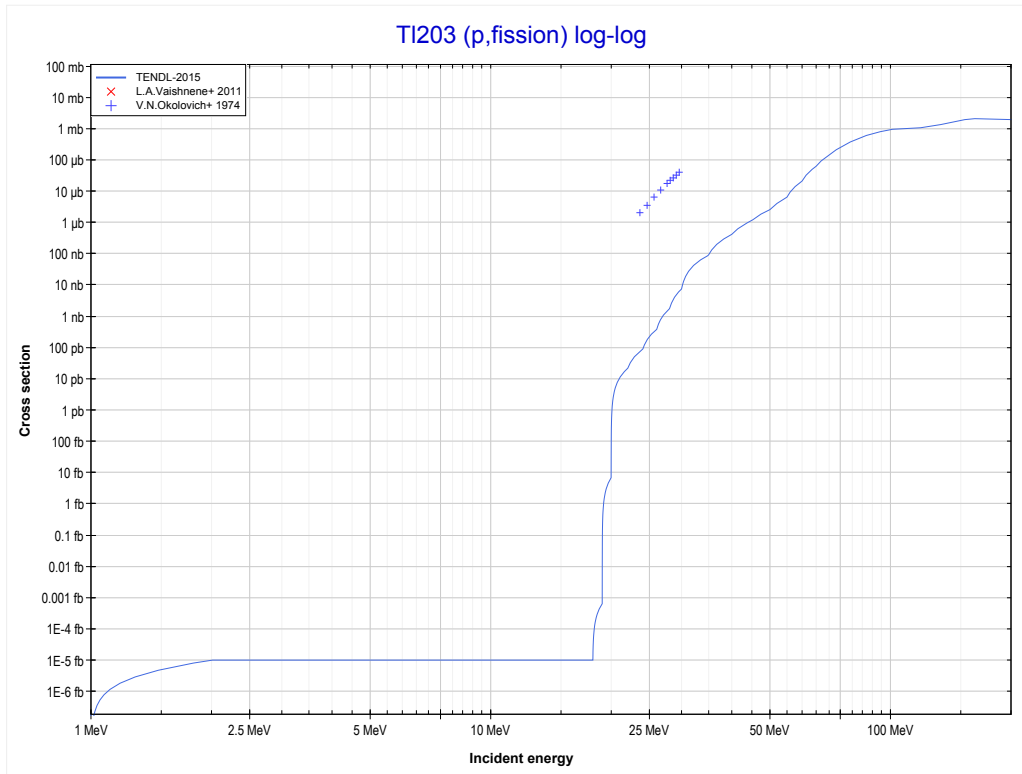
Reaction	Q-Value
Tl203(p,2n)Pb202	-8674.46 keV

<< 79-Au-197	81-Tl-203	81-Tl-205 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Pb201 production)	MT18 (p,fission) >>

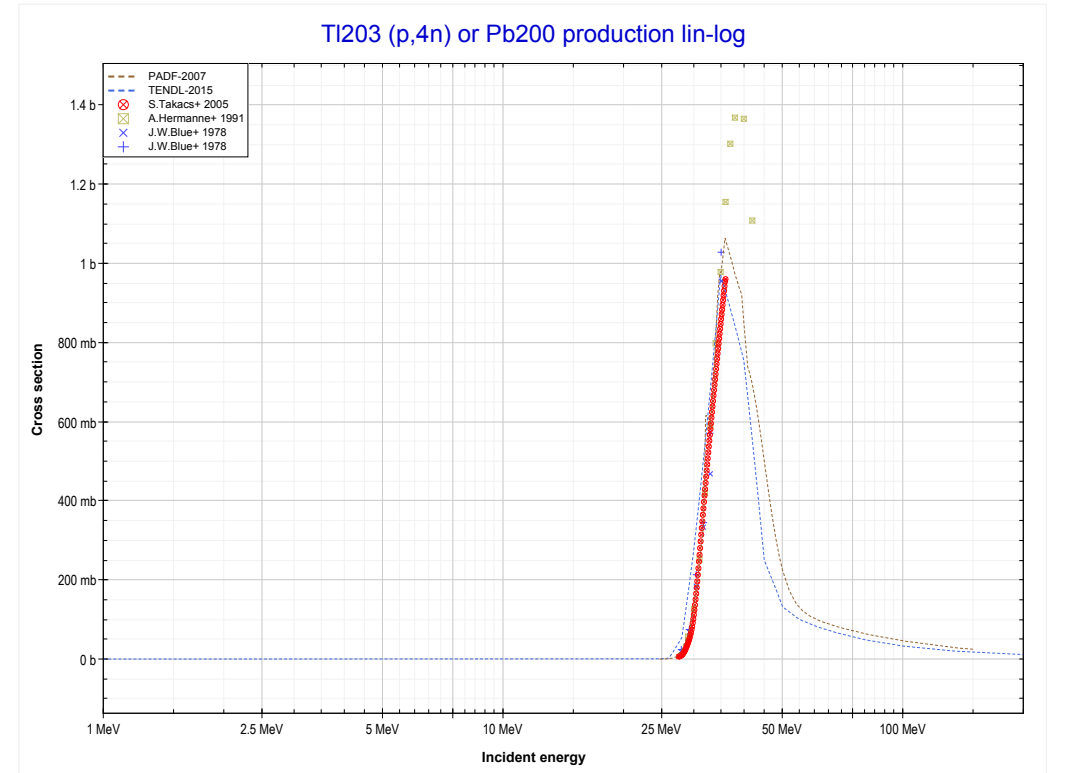
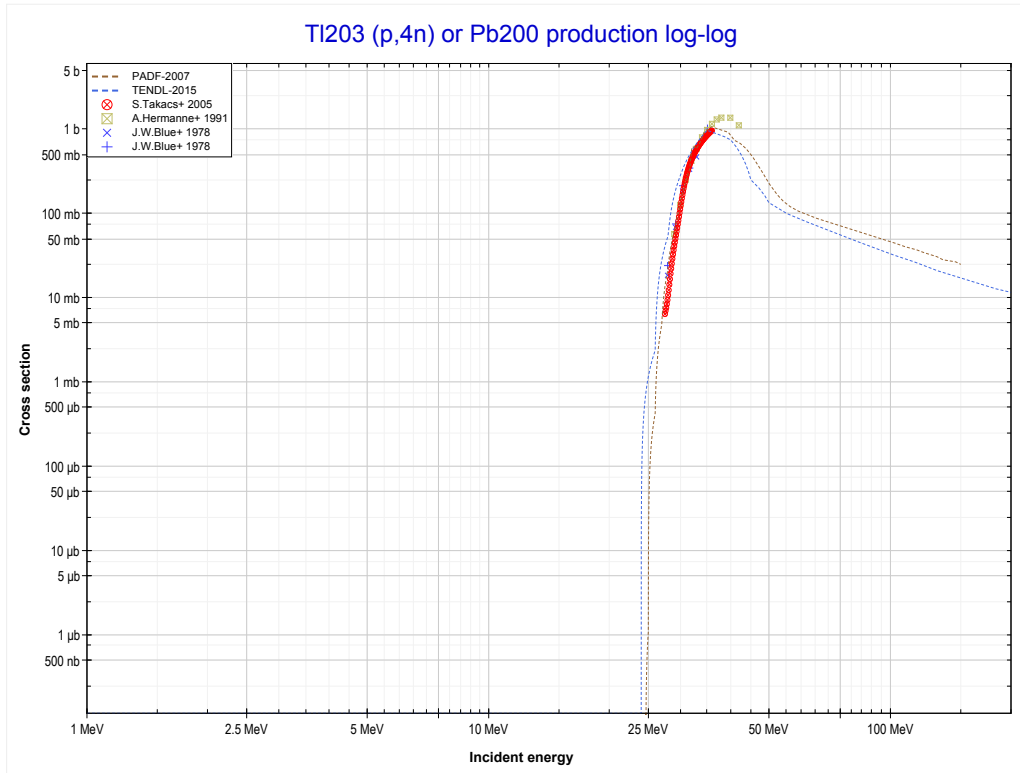


Reaction	Q-Value
Tl203(p,3n)Pb201	-17426.78 keV

<< 79-Au-197	81-Tl-203	81-Tl-205 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

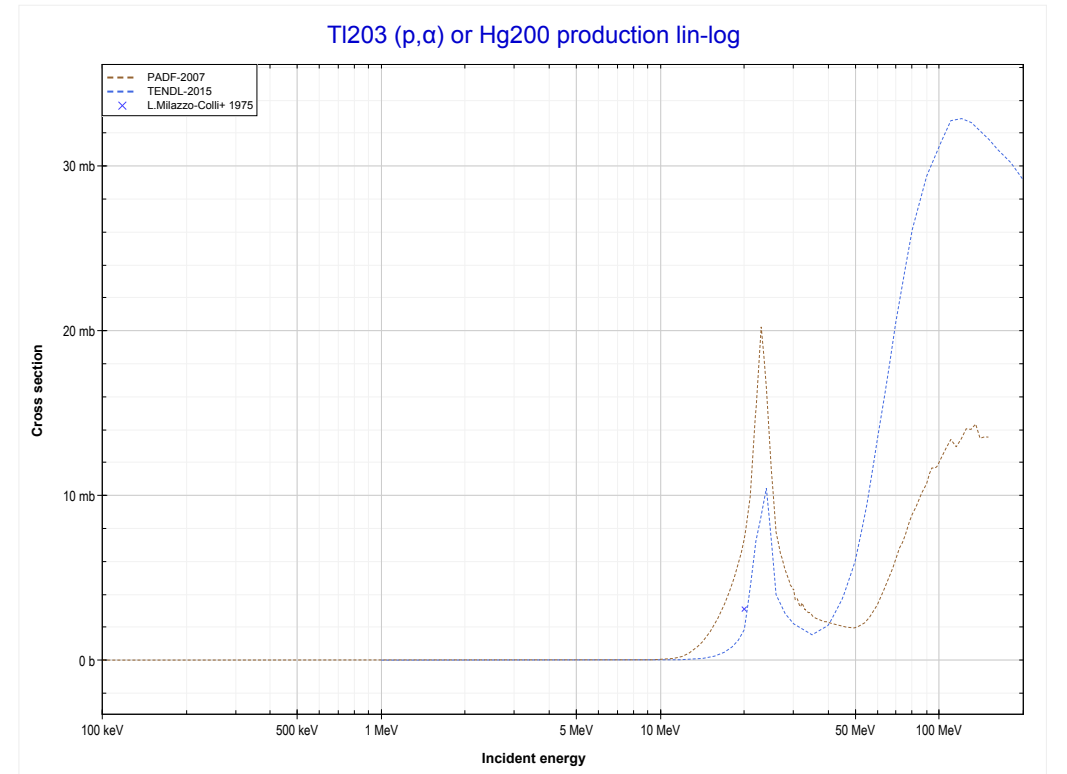
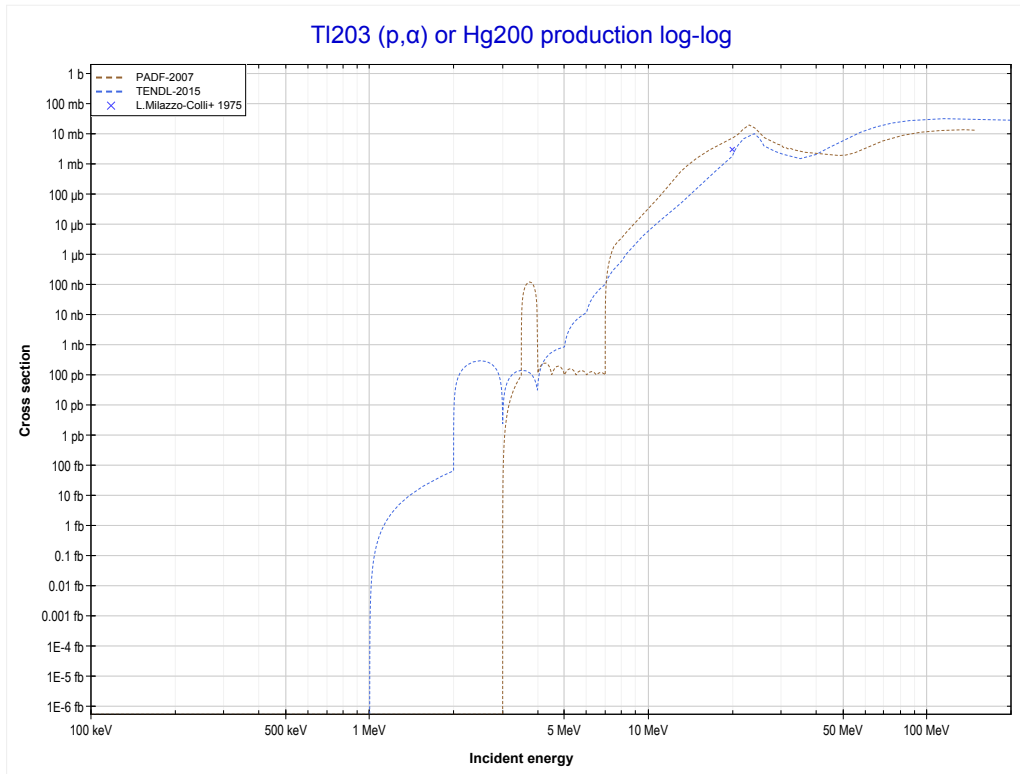


<< 79-Au-197	81-Tl-203	81-Tl-205 >>
<< MT18 (p,fission)	MT37 (p,4n) or MT5 (Pb200 production)	MT107 (p, α) >>



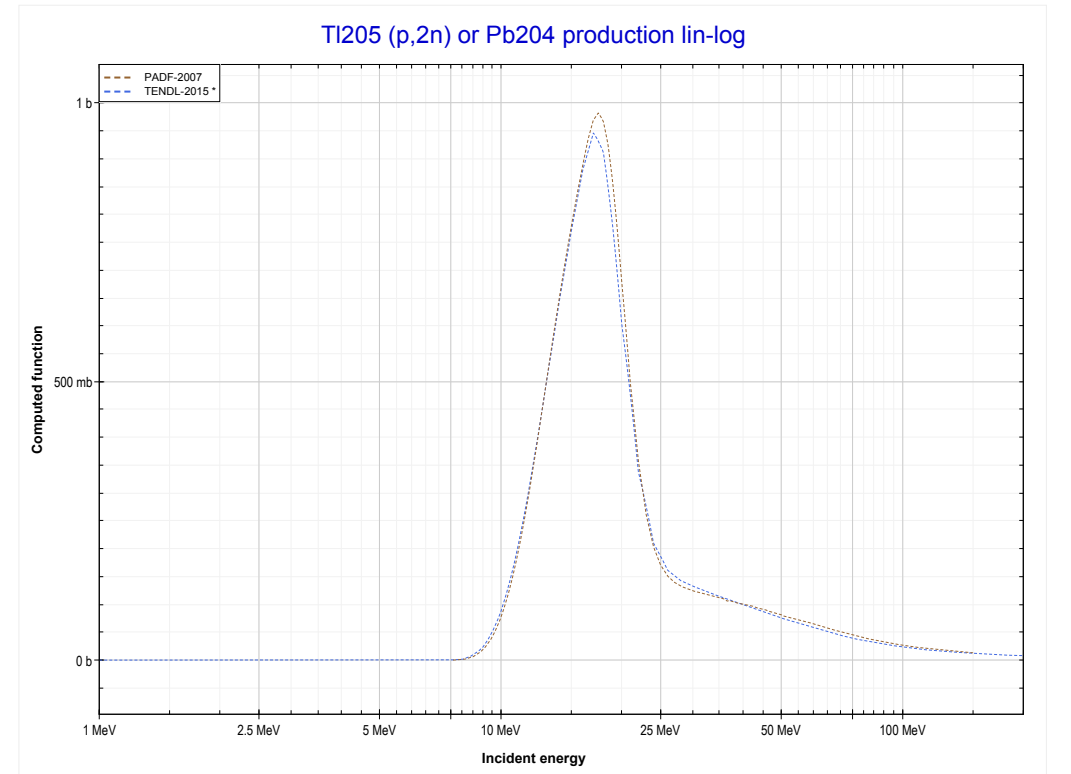
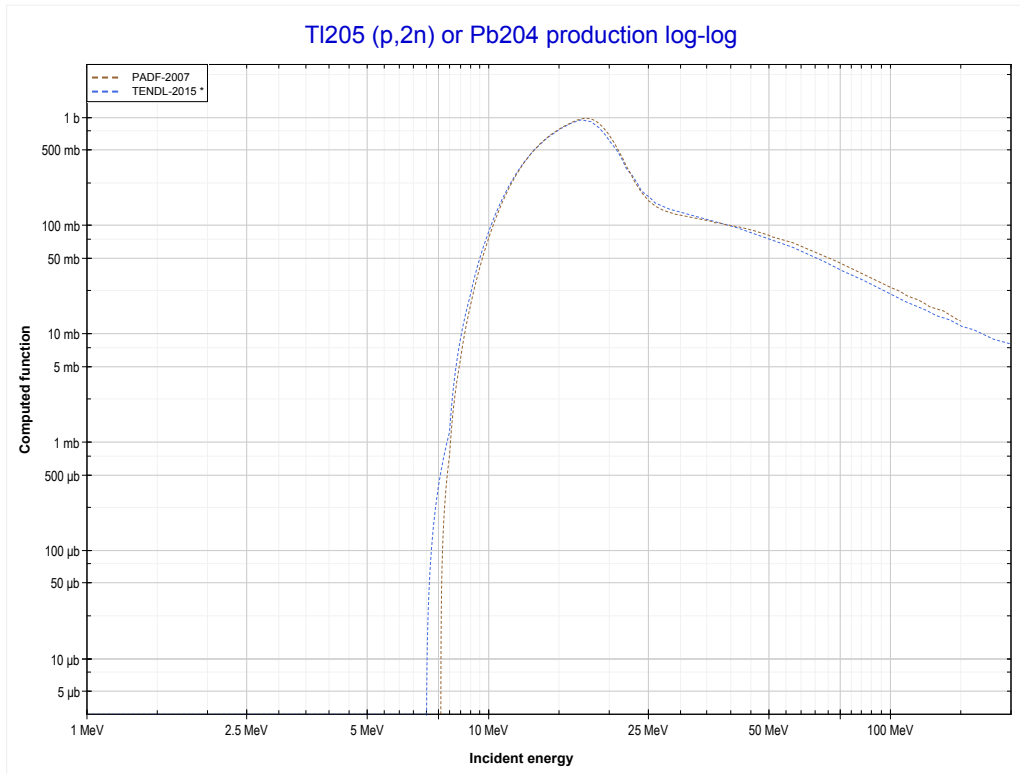
Reaction	Q-Value
Tl203(p,4n)Pb200	-24506.10 keV

<< 79-Au-197	81-Tl-203	81-Tl-205 >>
<< MT37 (p,4n)	MT107 (p,α) or MT5 (Hg200 production)	81-Tl-205 MT16 (p,2n) >>



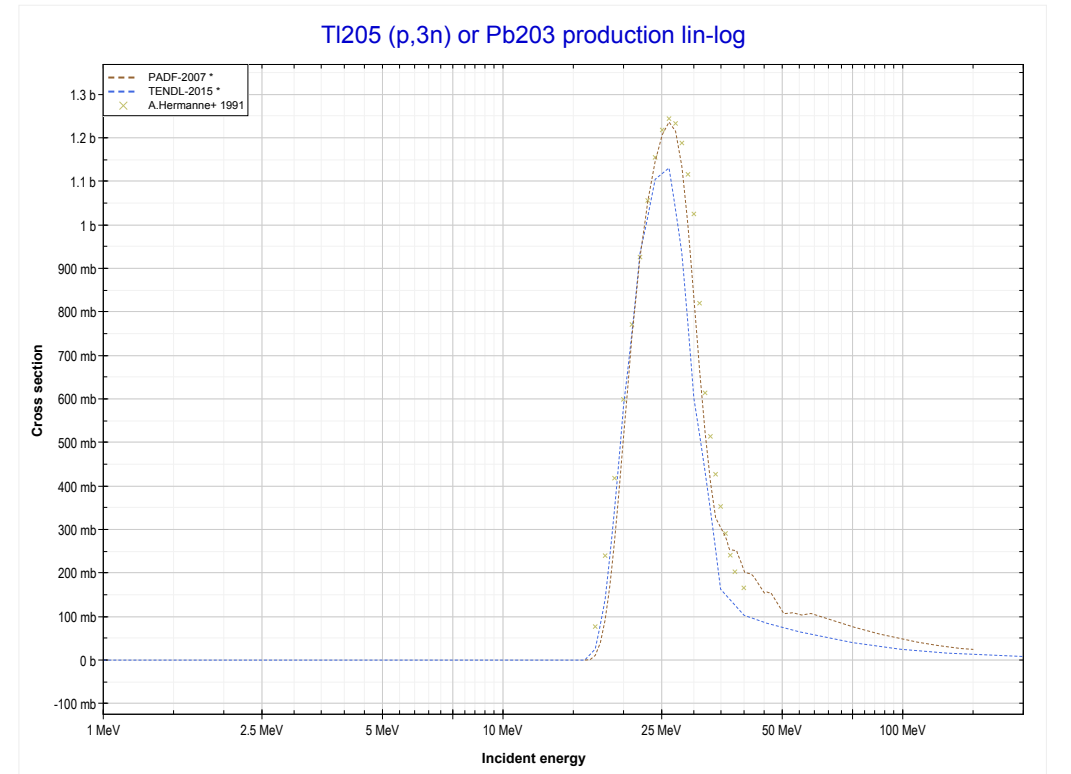
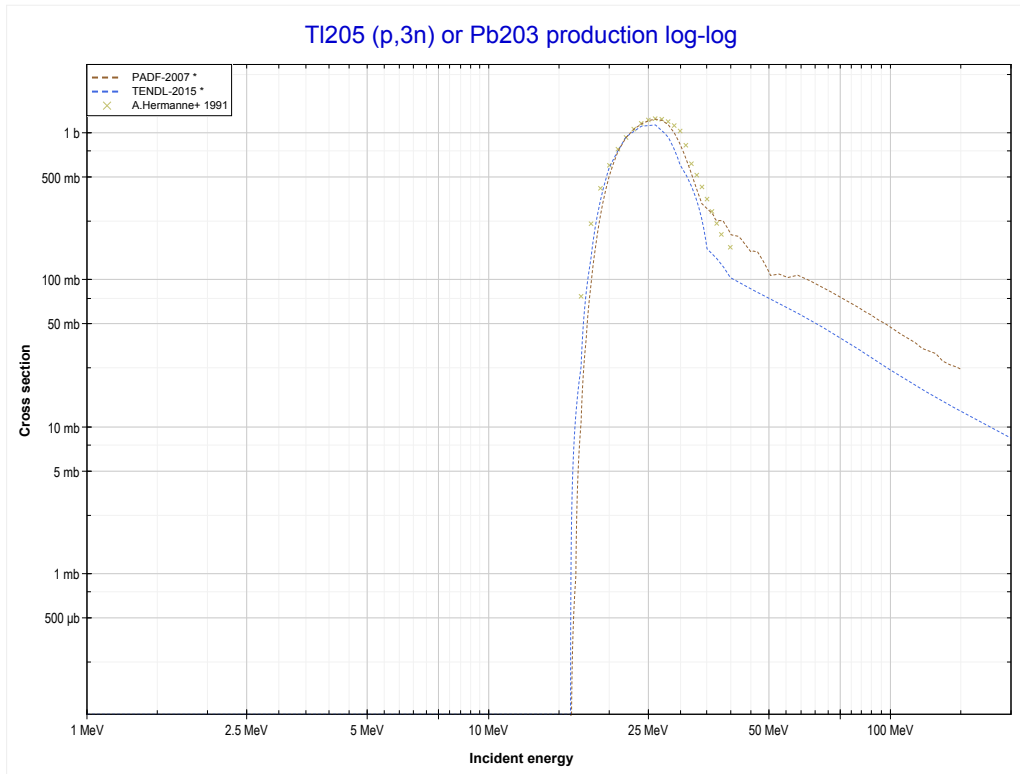
Reaction	Q-Value
Tl203(p, α)Hg200	8606.85 keV
Tl203(p,p+t)Hg200	-11207.01 keV
Tl203(p,n+He3)Hg200	-11970.76 keV
Tl203(p,2d)Hg200	-15239.67 keV
Tl203(p,n+p+d)Hg200	-17464.24 keV
Tl203(p,2n+2p)Hg200	-19688.80 keV

<< 81-Tl-203	81-Tl-205	82-Pb-206 >>
<< 81-Tl-203 MT107 (p, α)	MT16 (p,2n) or MT5 (Pb204 production)	MT17 (p,3n) >>



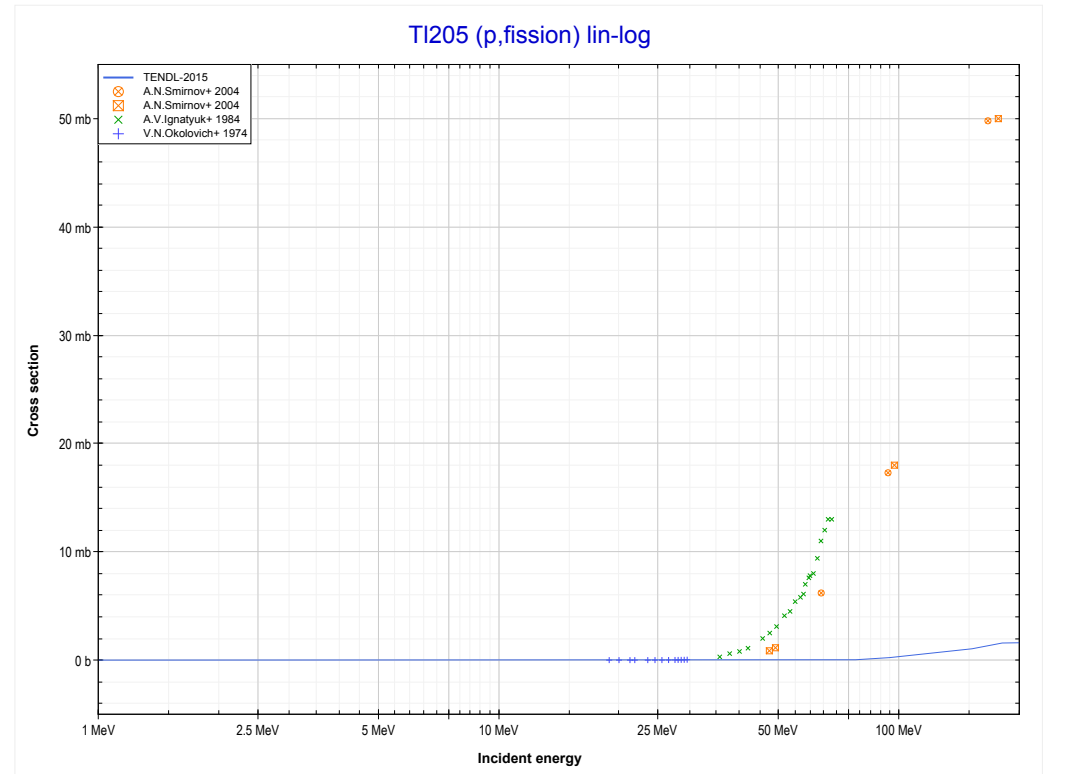
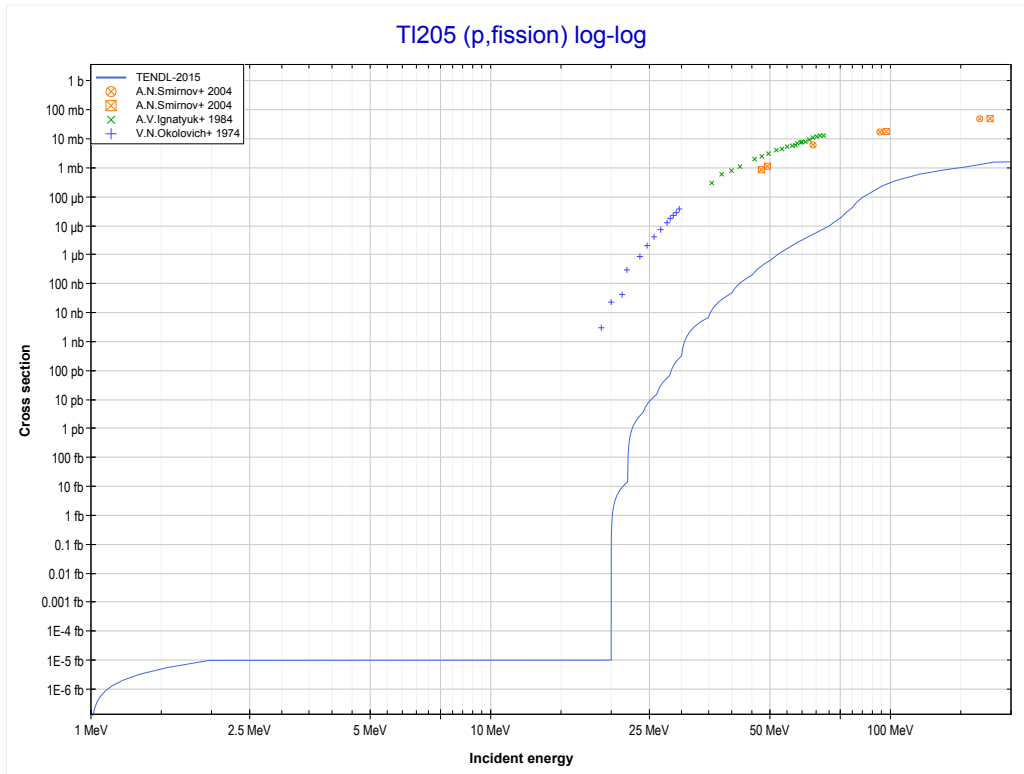
Reaction	Q-Value
Tl205(p,2n)Pb204	-7564.56 keV

<< 81-Tl-203	81-Tl-205	82-Pb-206 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Pb203 production)	MT18 (p,fission) >>

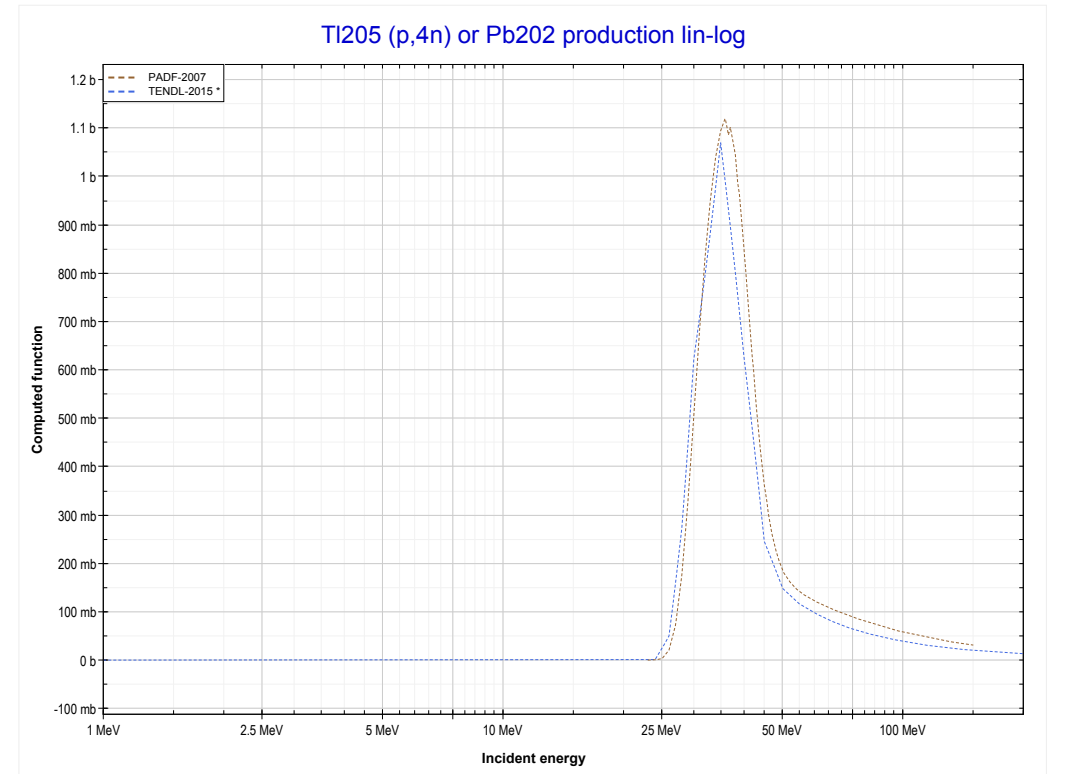
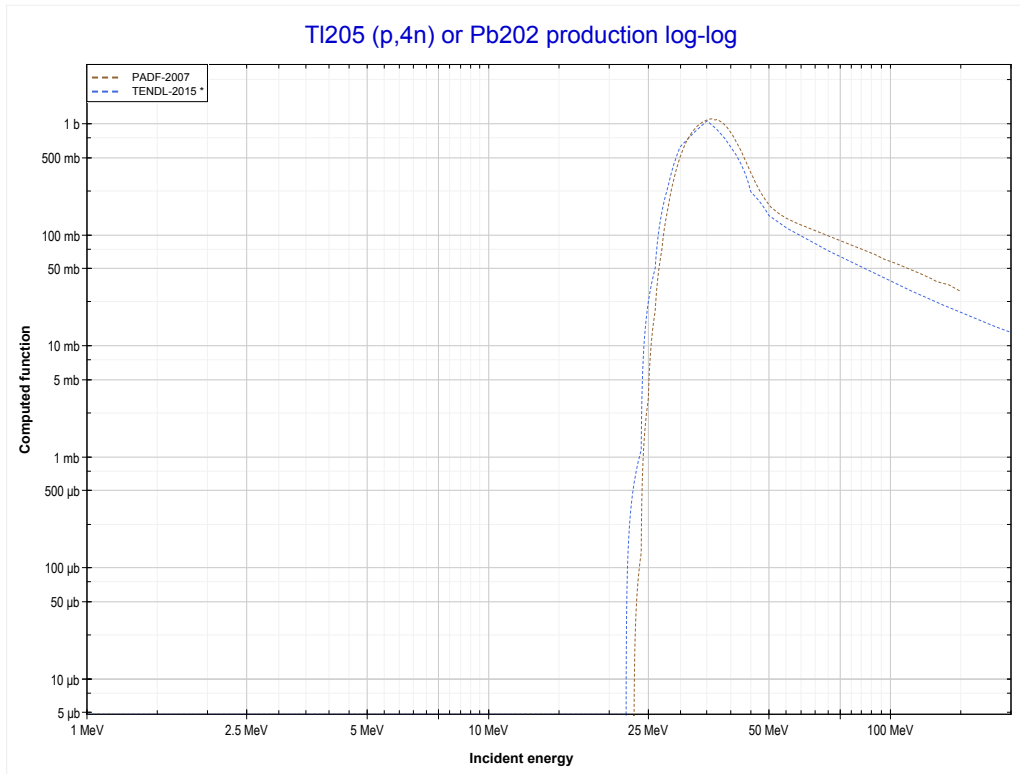


Reaction	Q-Value
Tl205(p,3n)Pb203	-15959.28 keV

<< 81-Tl-203	81-Tl-205	82-Pb-204 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

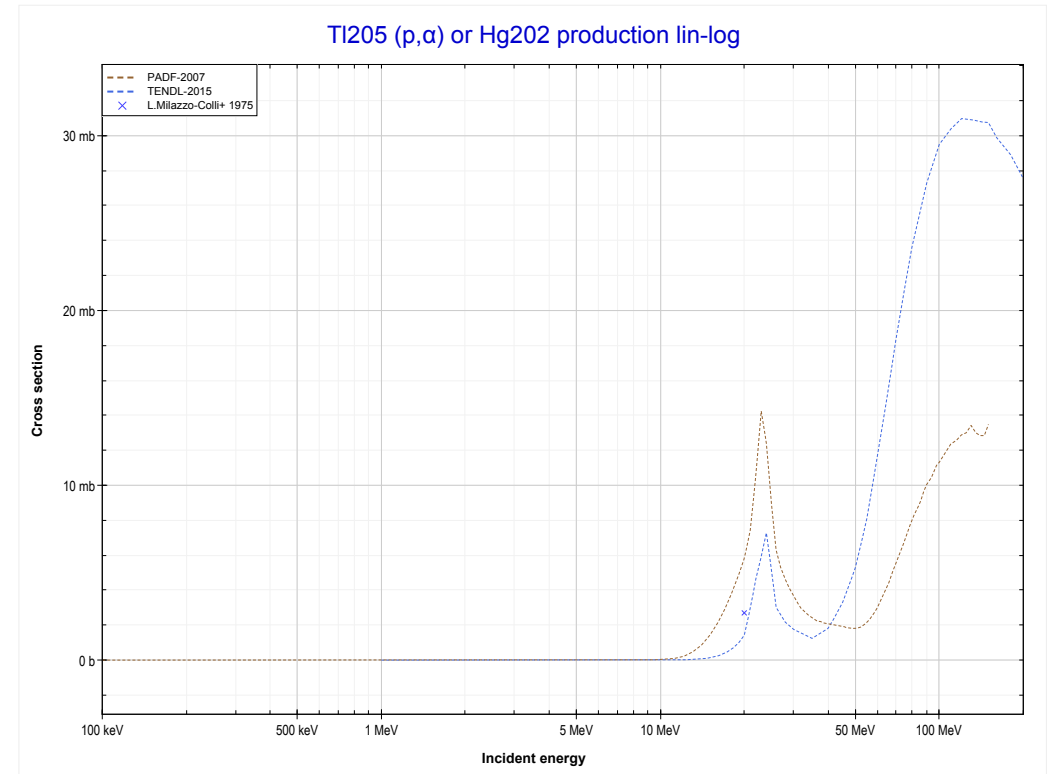
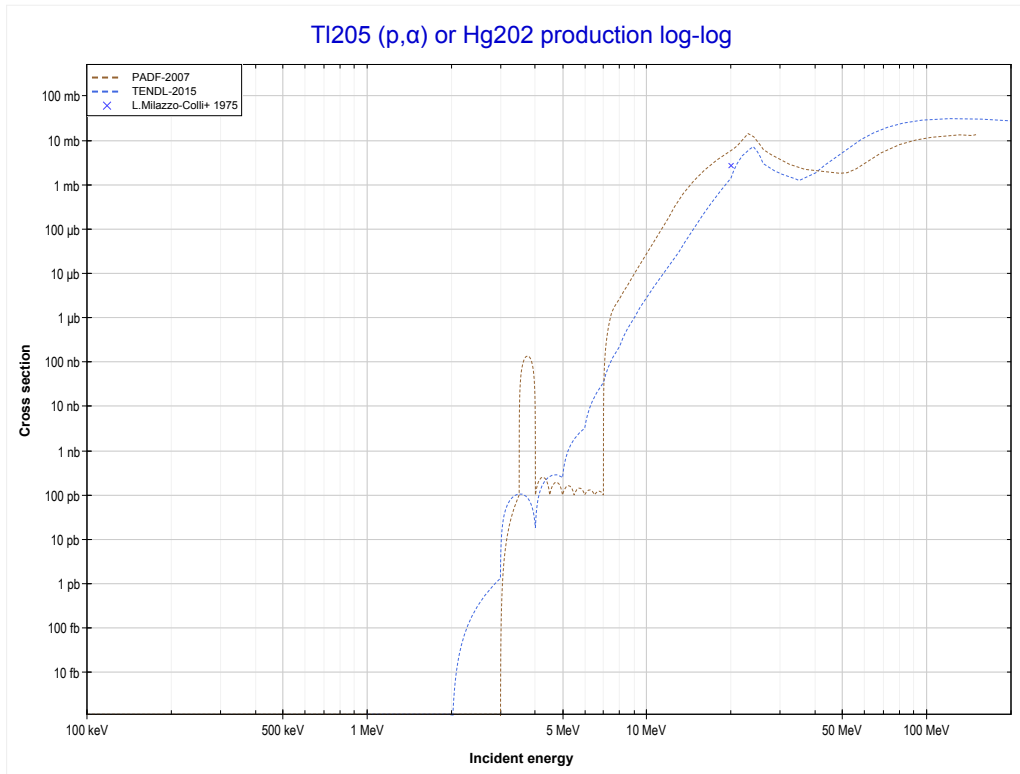


<< 81-Tl-203	81-Tl-205	82-Pb-207 >>
<< MT18 (p,fission)	MT37 (p,4n) or MT5 (Pb202 production)	MT107 (p, α) >>



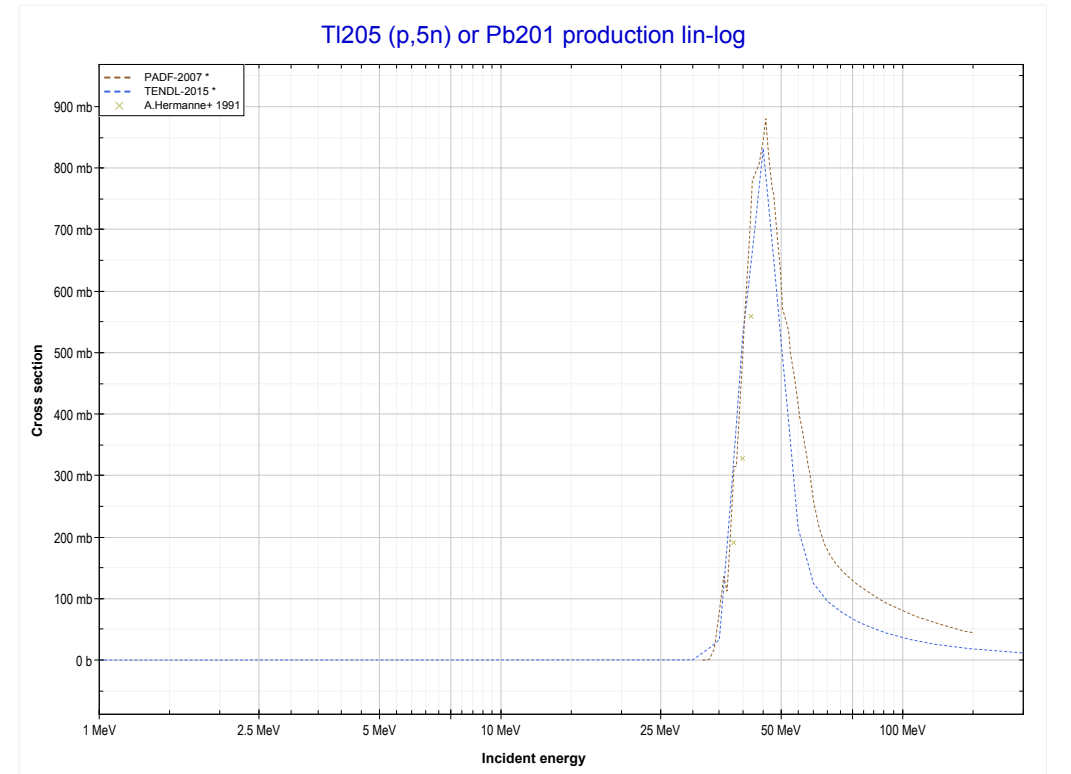
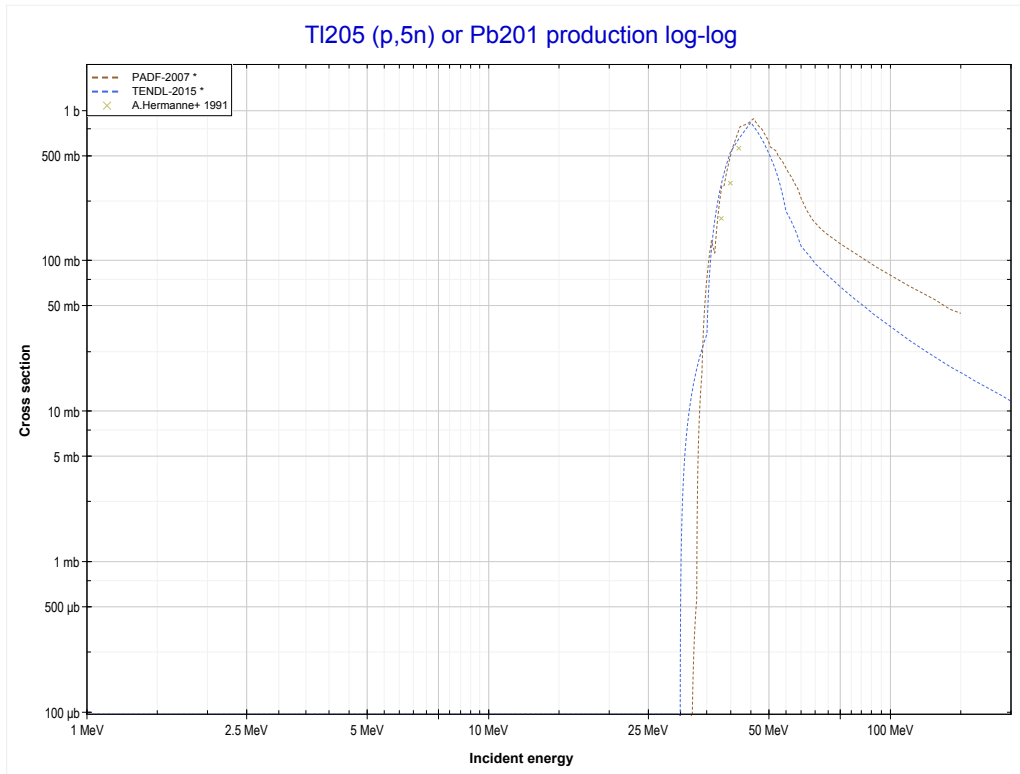
Reaction	Q-Value
Tl205(p,4n)Pb202	-22876.60 keV

<< 81-Tl-203	81-Tl-205	82-Pb-206 >>
<< MT37 (p,4n)	MT107 (p,α) or MT5 (Hg202 production)	MT152 (p,5n) >>



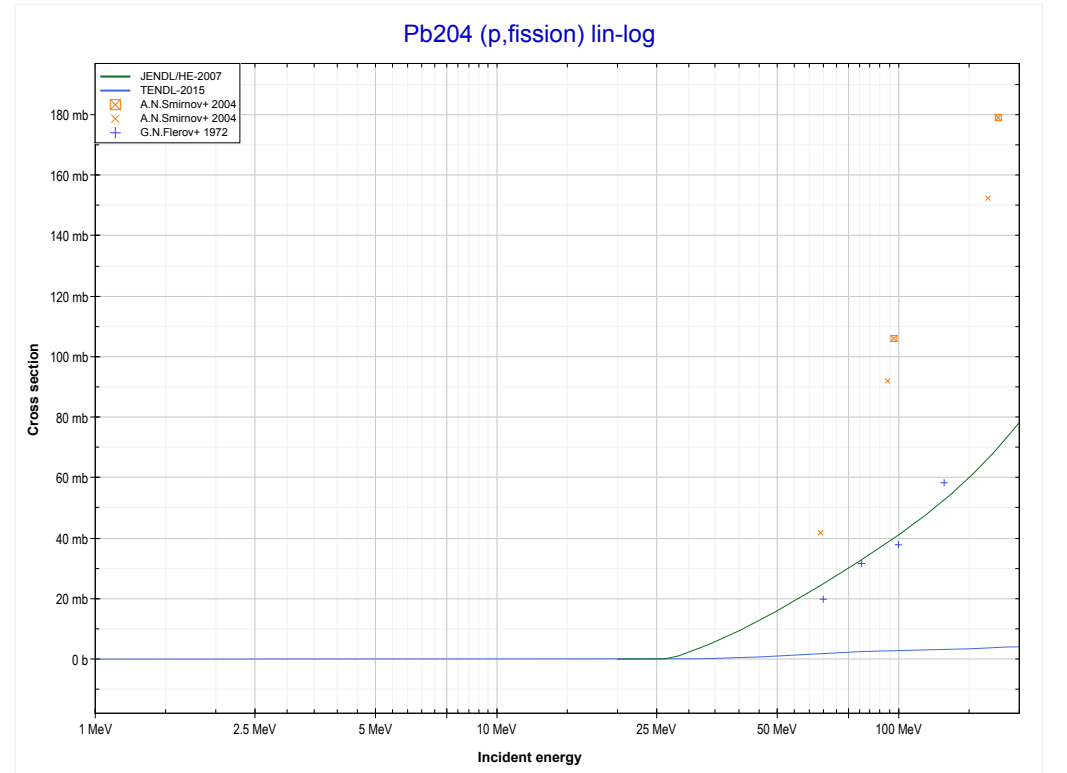
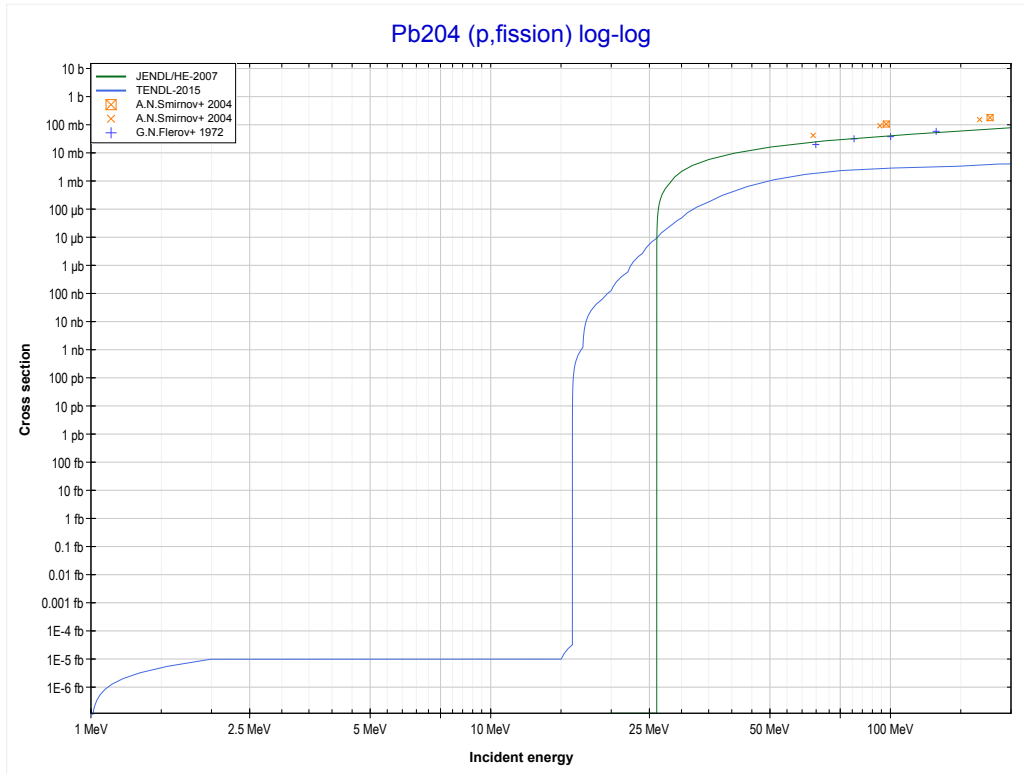
Reaction	Q-Value
Tl205(p, α)Hg202	8389.25 keV
Tl205(p,p+t)Hg202	-11424.61 keV
Tl205(p,n+He3)Hg202	-12188.36 keV
Tl205(p,2d)Hg202	-15457.27 keV
Tl205(p,n+p+d)Hg202	-17681.84 keV
Tl205(p,2n+2p)Hg202	-19906.40 keV

<< 79-Au-197	81-Tl-205	82-Pb-206 >>
<< MT107 (p, α)	MT152 (p,5n) or MT5 (Pb201 production)	82-Pb-204 MT18 (p,fission) >>

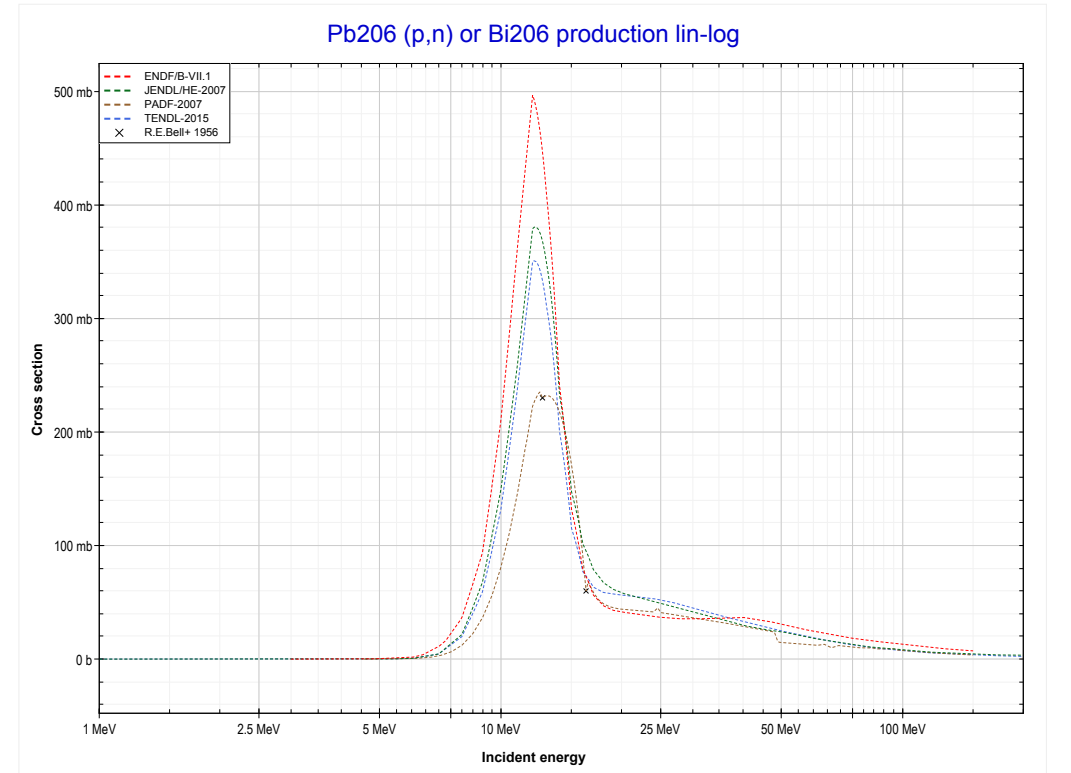
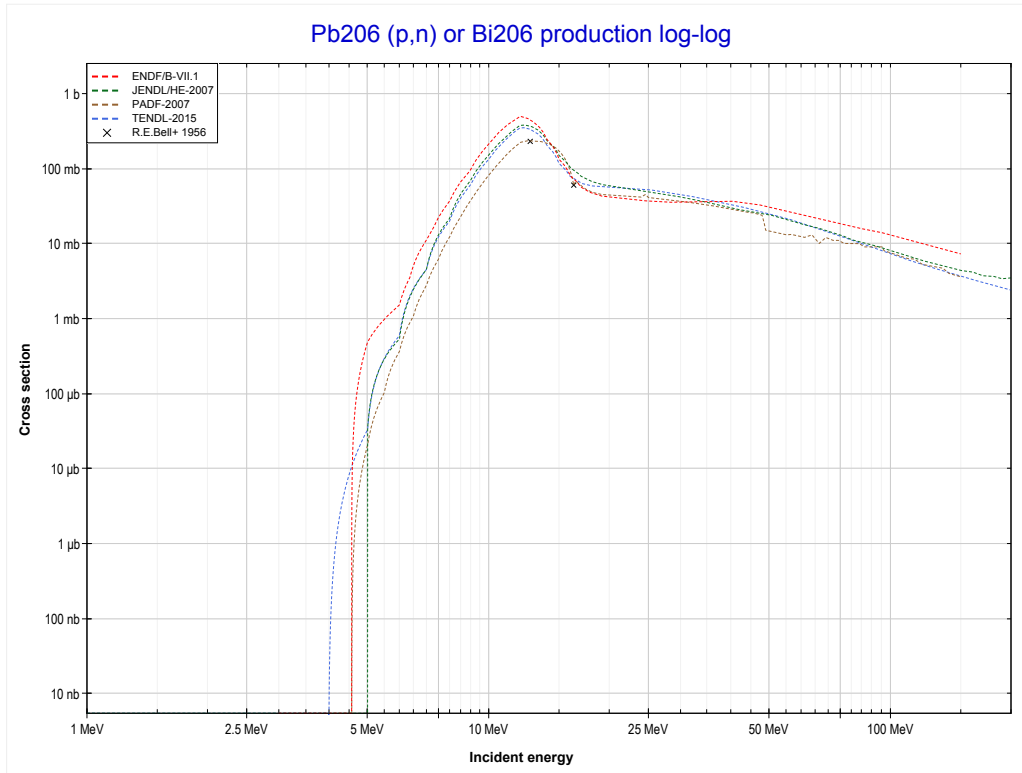


Reaction	Q-Value
Tl205(p,5n)Pb201	-31628.91 keV

<< 81-Tl-205	82-Pb-204	82-Pb-206 >>
<< 81-Tl-205 MT152 (p,5n)	MT18 (p,fission)	82-Pb-206 MT4 (p,n) >>

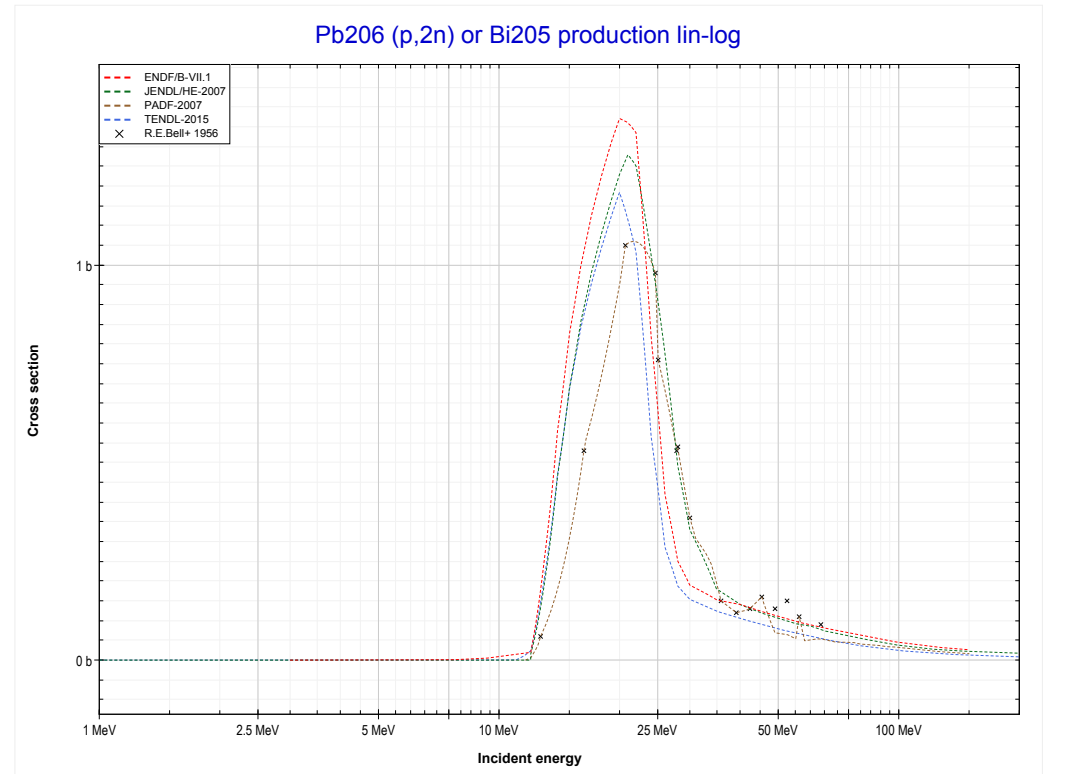
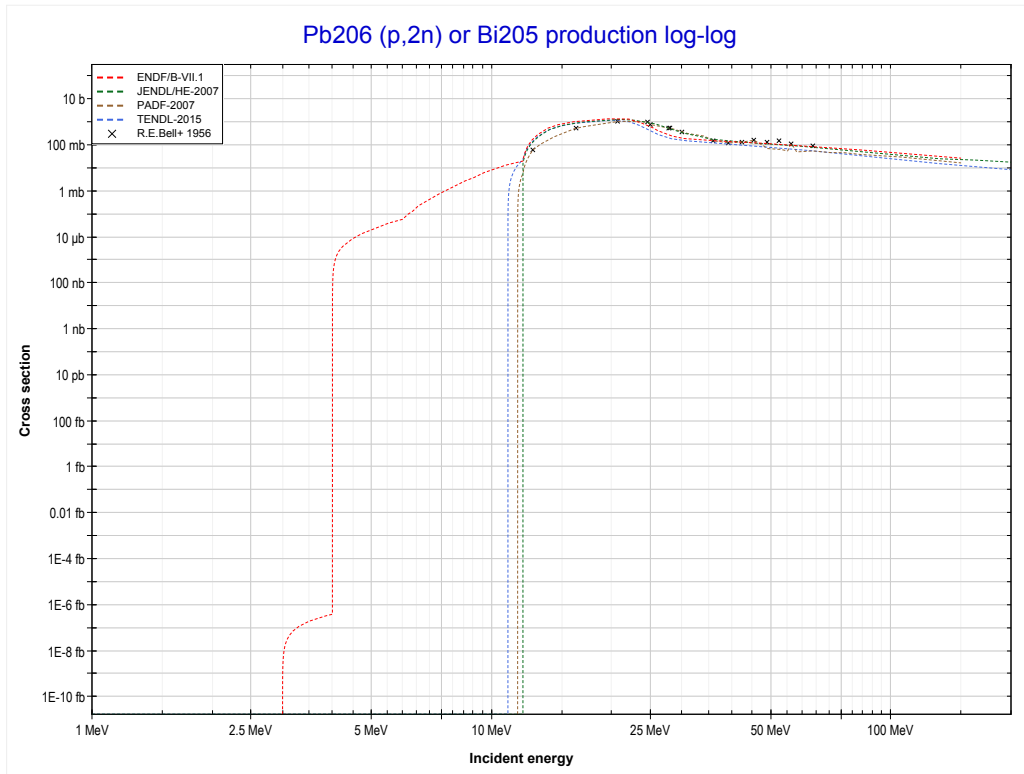


<< 80-Hg-202	82-Pb-206	83-Bi-209 >>
<< 82-Pb-204 MT18 (p,fission)	MT4 (p,n) or MT5 (Bi206 production)	MT16 (p,2n) >>



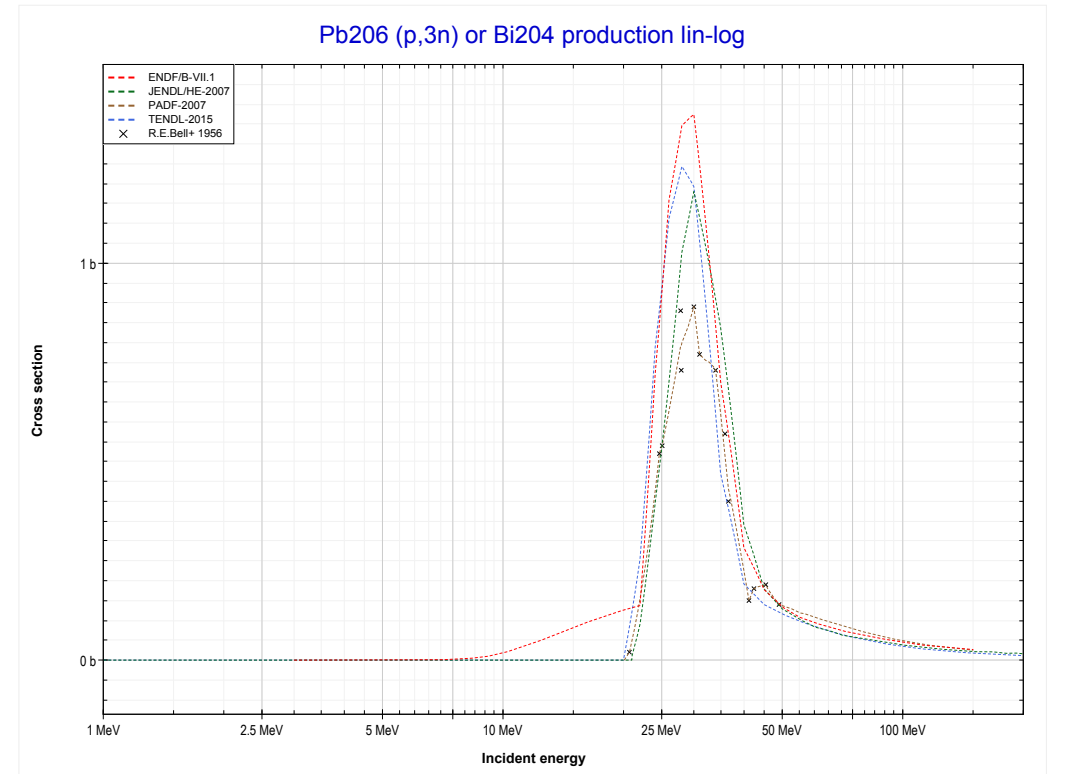
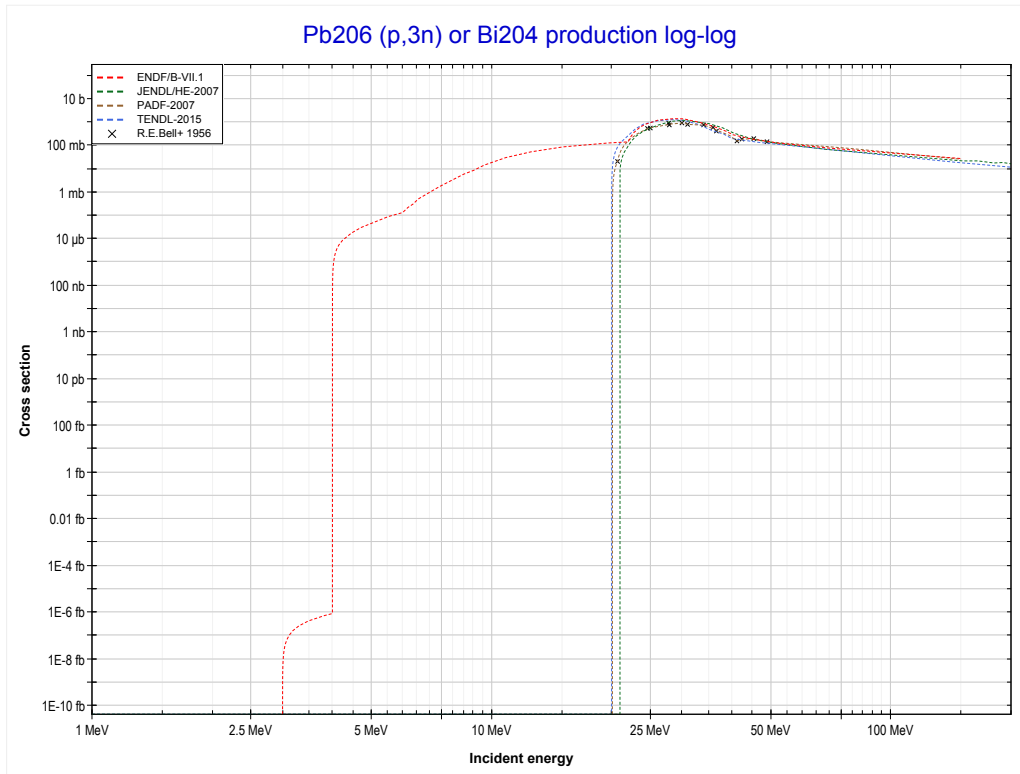
Reaction	Q-Value
Pb206(p,n)Bi206	-4539.45 keV

<< 81-Tl-205	82-Pb-206	82-Pb-207 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Bi205 production)	MT17 (p,3n) >>



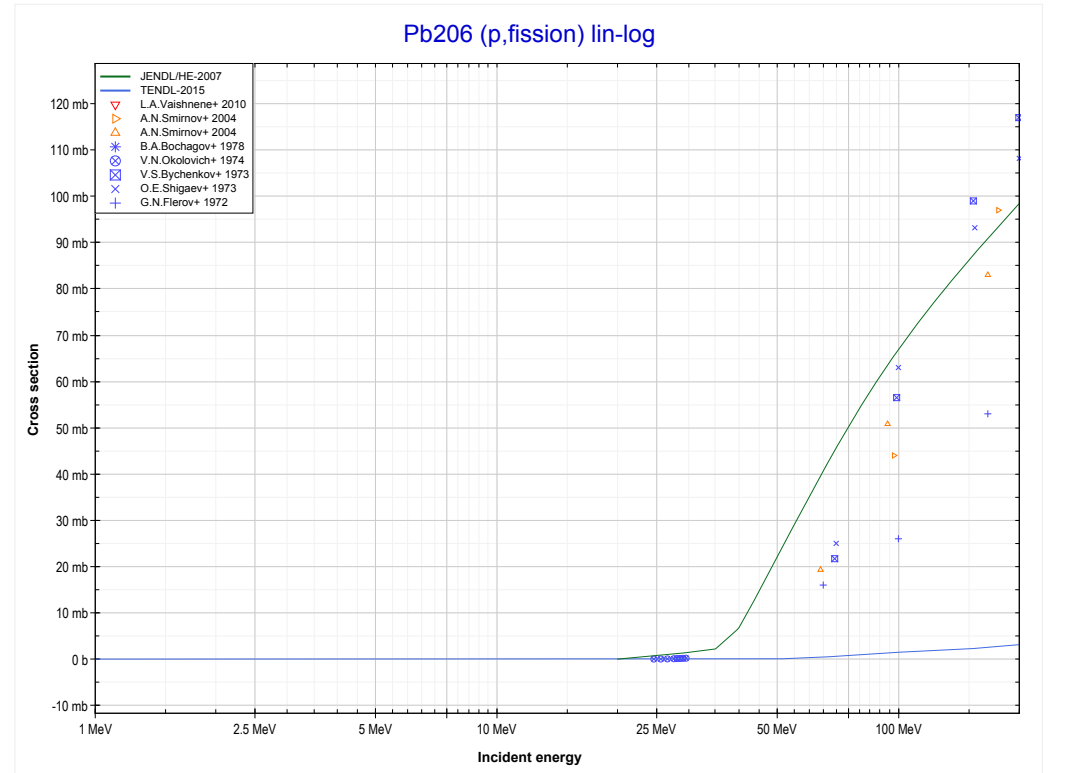
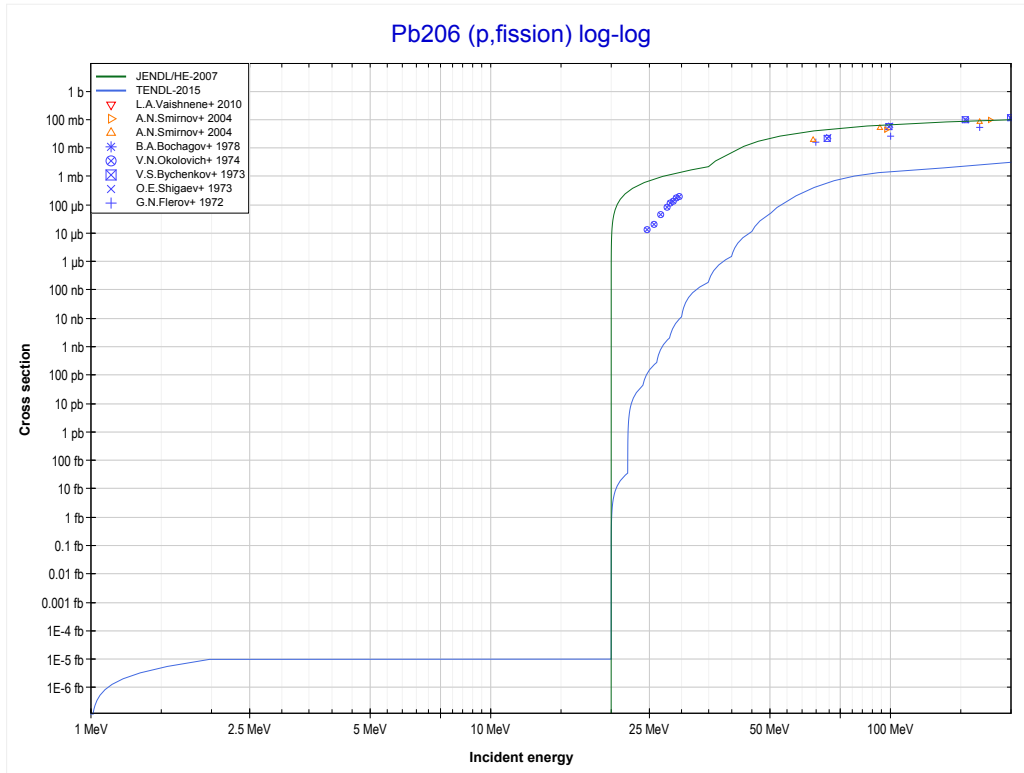
Reaction	Q-Value
Pb206(p,2n)Bi205	-11574.76 keV

<< 81-Tl-205	82-Pb-206	82-Pb-207 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Bi204 production)	MT18 (p,fission) >>

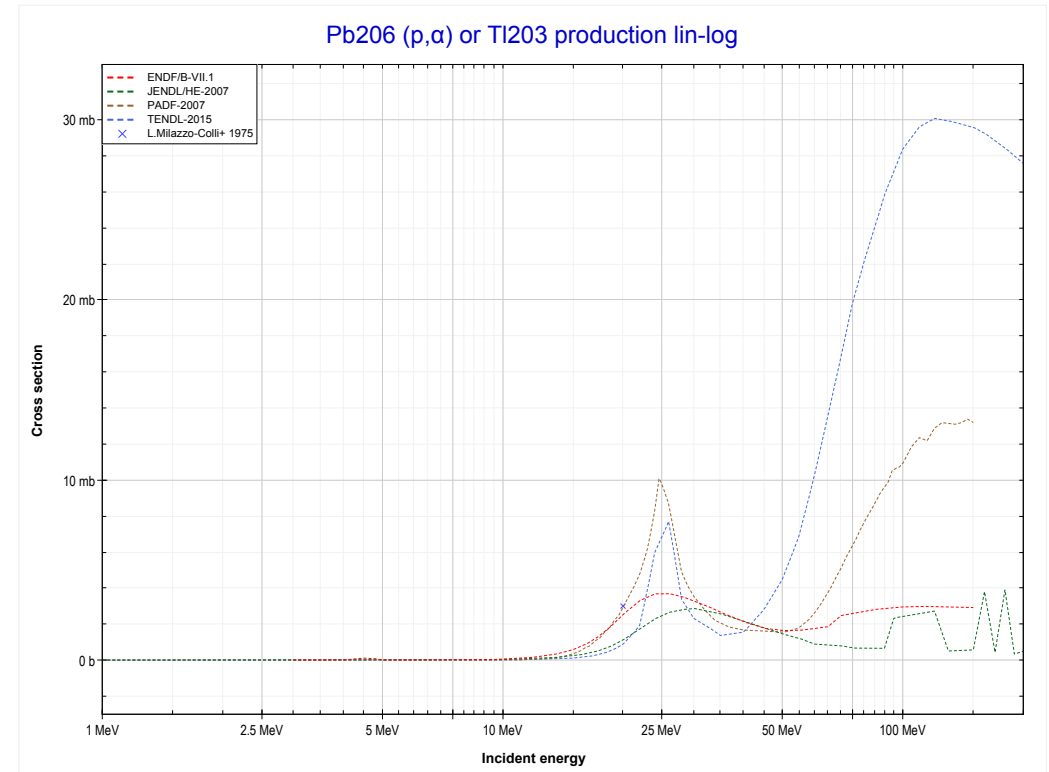
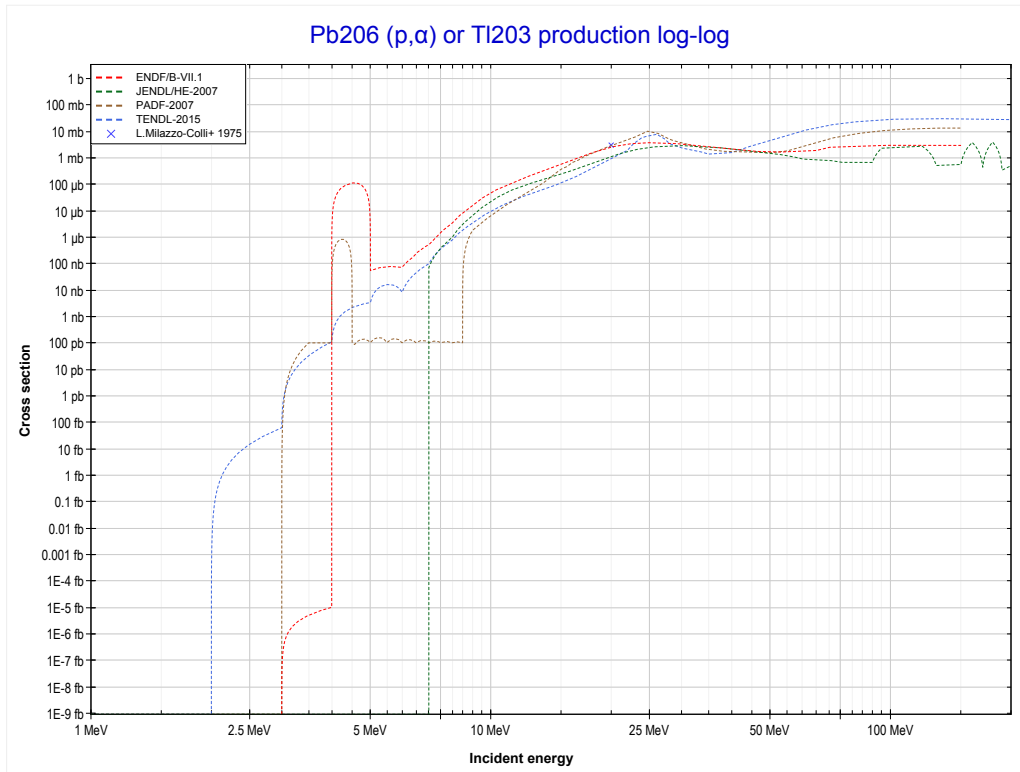


Reaction	Q-Value
Pb206(p,3n)Bi204	-20064.08 keV

<< 82-Pb-204	82-Pb-206	82-Pb-207 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT107 (p, α) >>

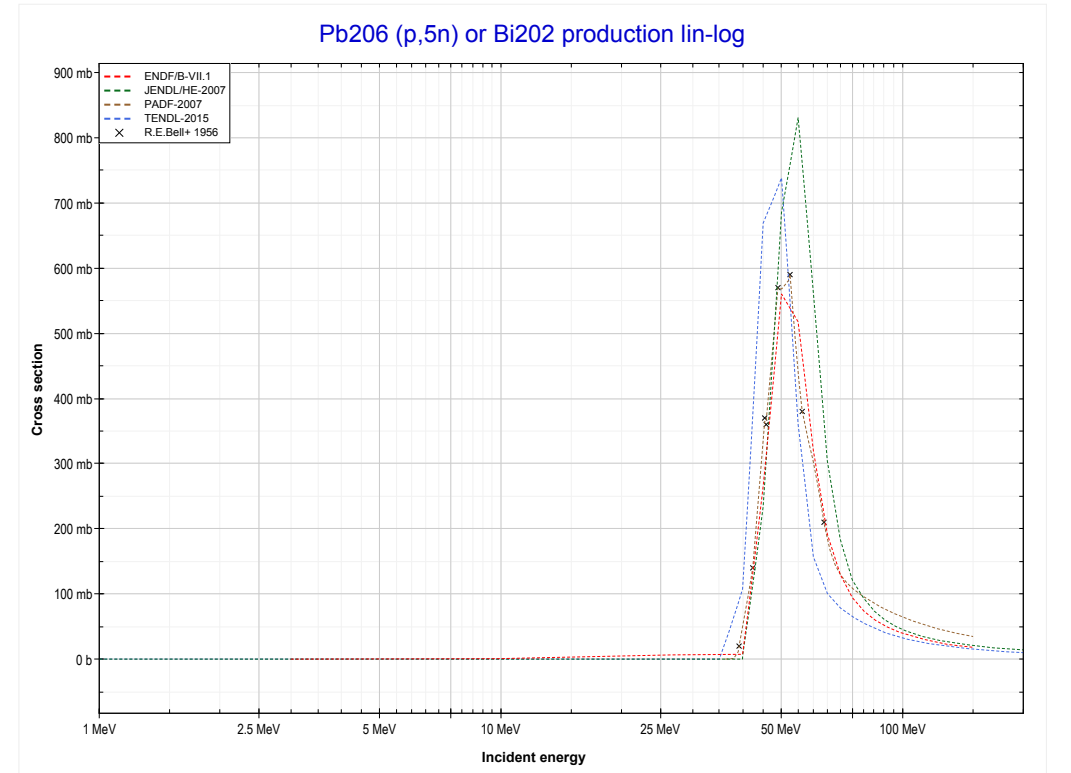
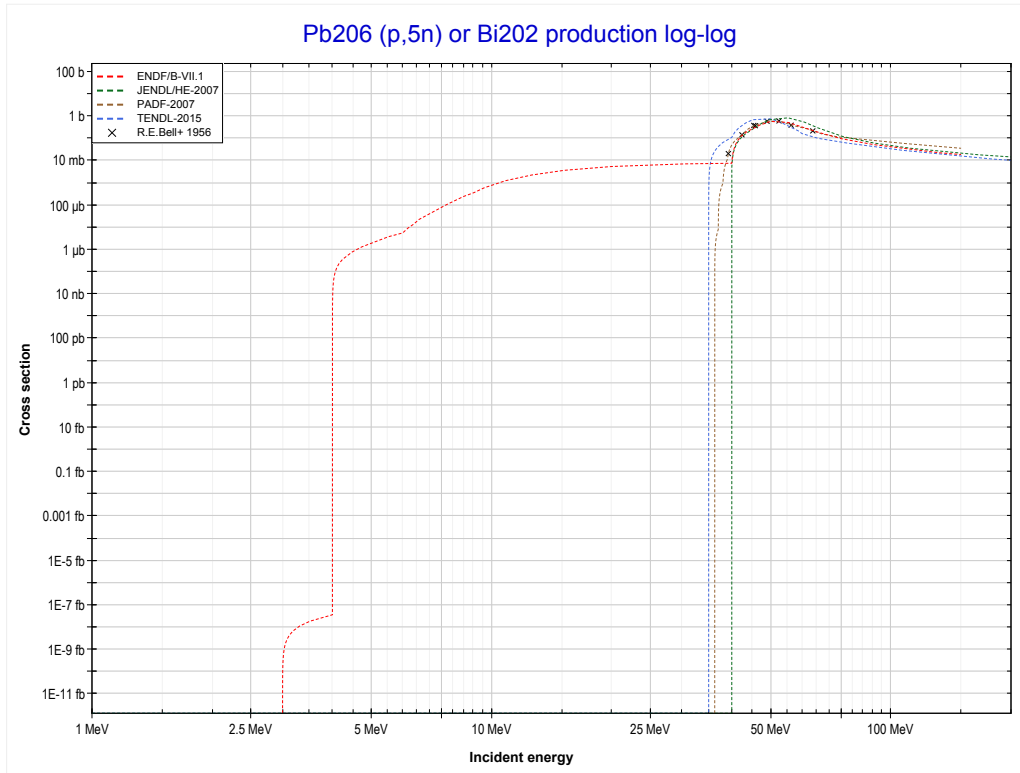


<< 81-Tl-205	82-Pb-206	82-Pb-207 >>
<< MT18 (p,fission)	MT107 (p,α) or MT5 (Tl203 production)	MT152 (p,5n) >>



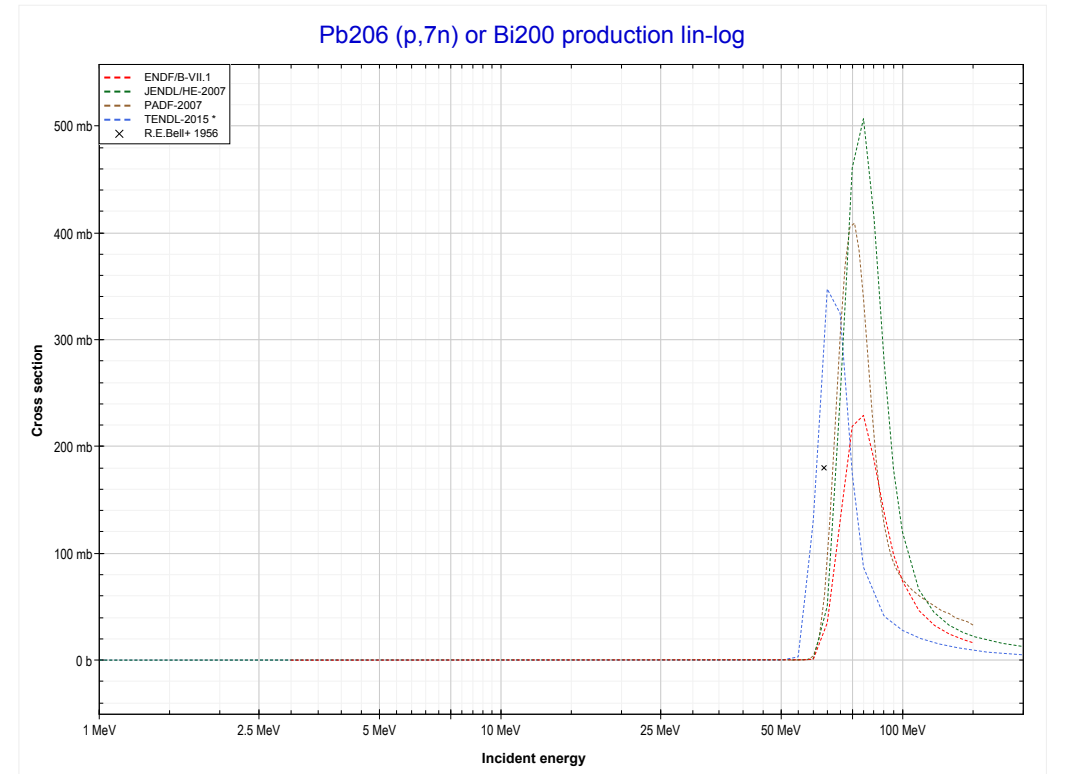
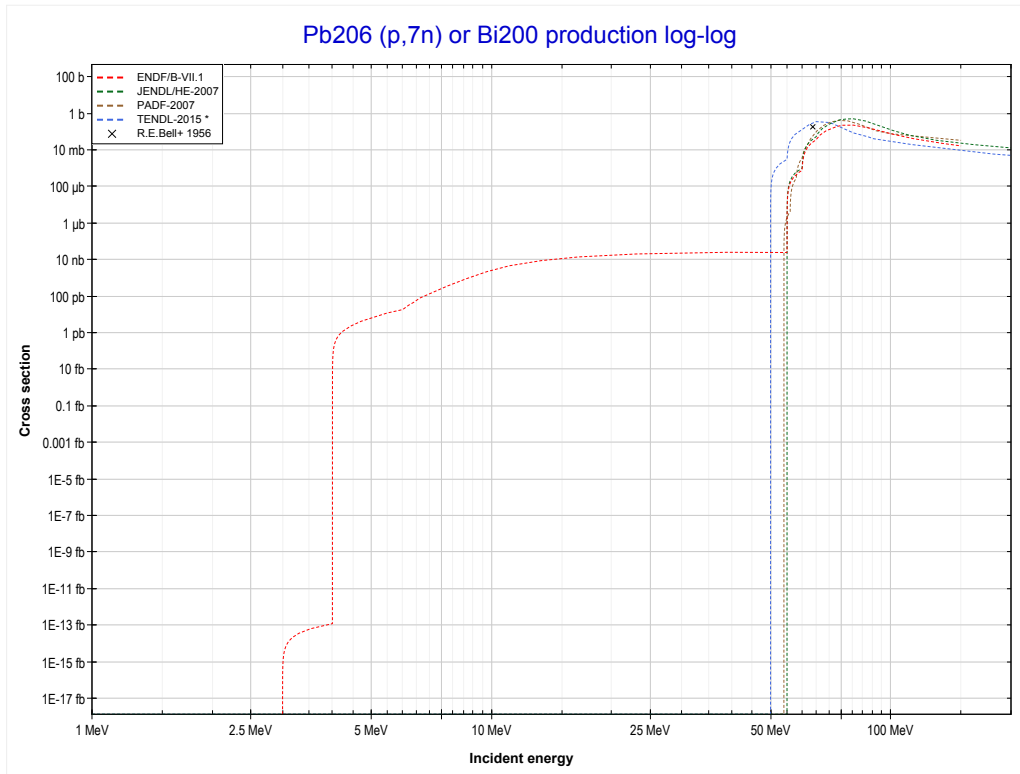
Reaction	Q-Value
Pb206(p, α)Tl203	6839.75 keV
Pb206(p,p+t)Tl203	-12974.11 keV
Pb206(p,n+He3)Tl203	-13737.86 keV
Pb206(p,2d)Tl203	-17006.77 keV
Pb206(p,n+p+d)Tl203	-19231.34 keV
Pb206(p,2n+2p)Tl203	-21455.90 keV

<< 81-Tl-205	82-Pb-206	82-Pb-208 >>
<< MT107 (p, α)	MT152 (p,5n) or MT5 (Bi202 production)	MT160 (p,7n) >>



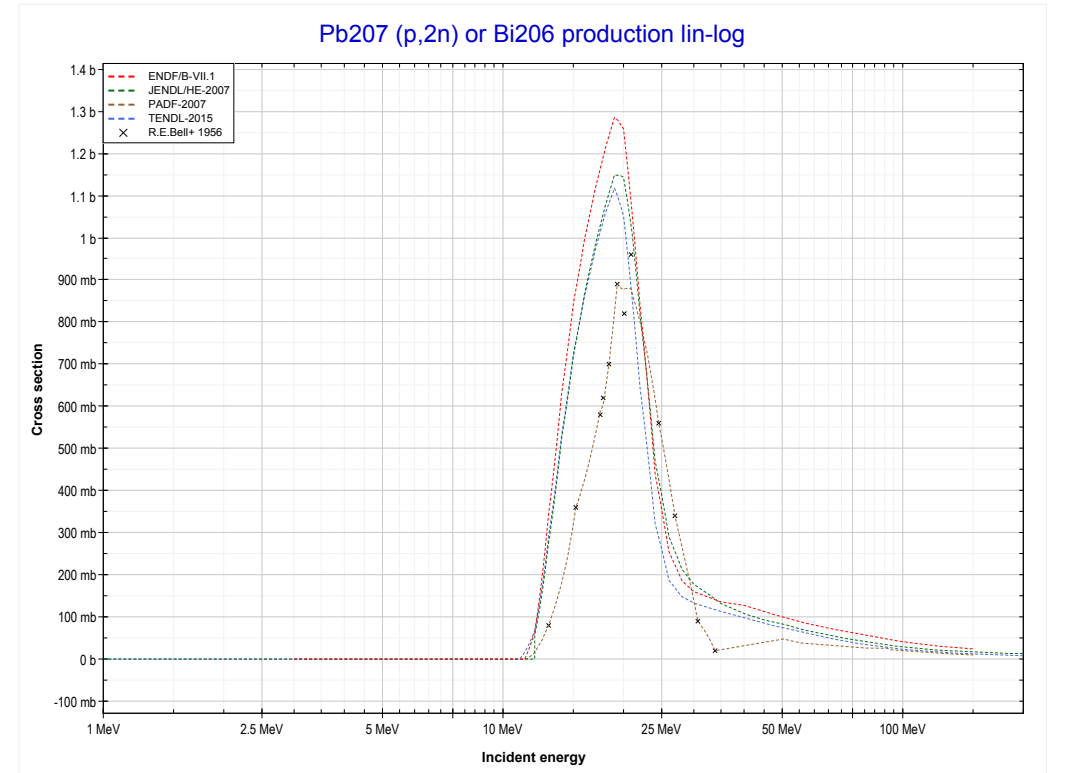
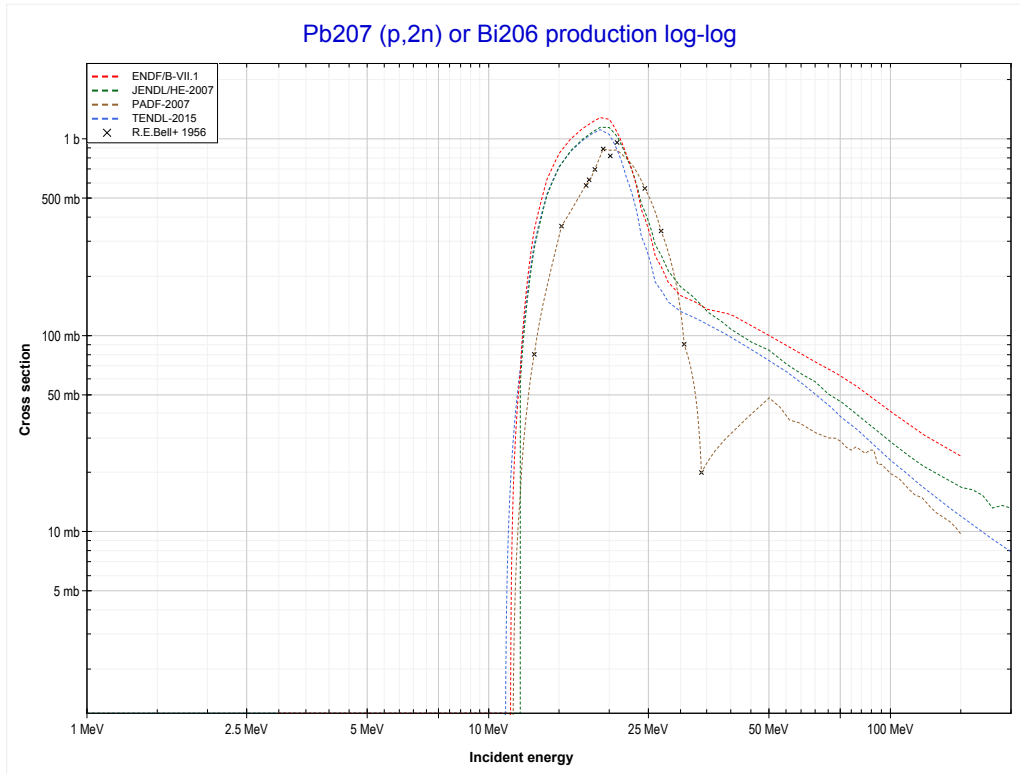
Reaction	Q-Value
Pb206(p,5n)Bi202	-36111.71 keV

<< 79-Au-197	82-Pb-206	83-Bi-209 >>
<< MT152 (p,5n)	MT160 (p,7n) or MT5 (Bi200 production)	82-Pb-207 MT16 (p,2n) >>



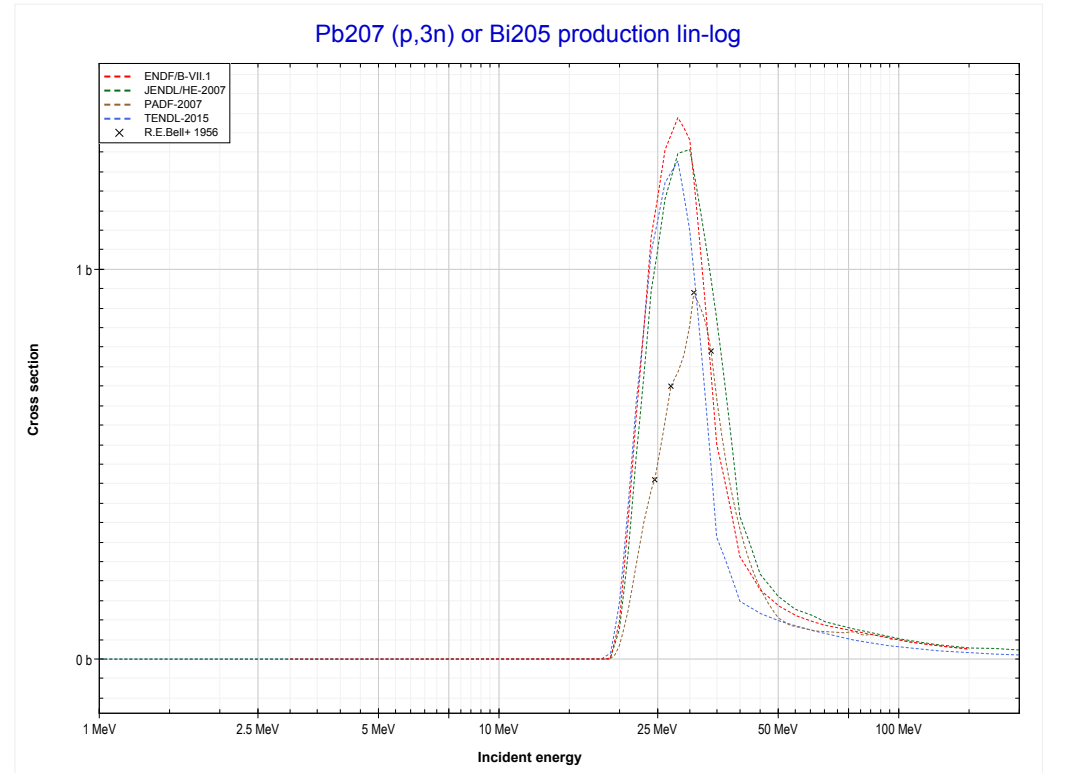
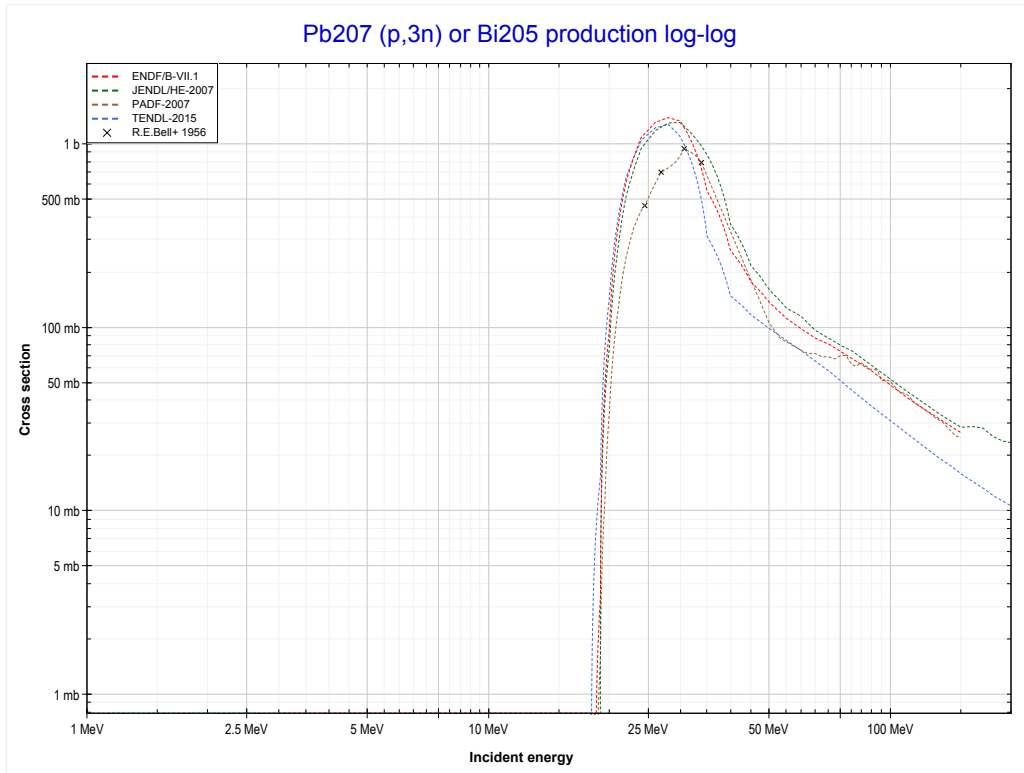
Reaction	Q-Value
Pb206(p,7n)Bi200	-52624.35 keV

<< 82-Pb-206	82-Pb-207	83-Bi-209 >>
<< 82-Pb-206 MT160 (p,7n)	MT16 (p,2n) or MT5 (Bi206 production)	MT17 (p,3n) >>



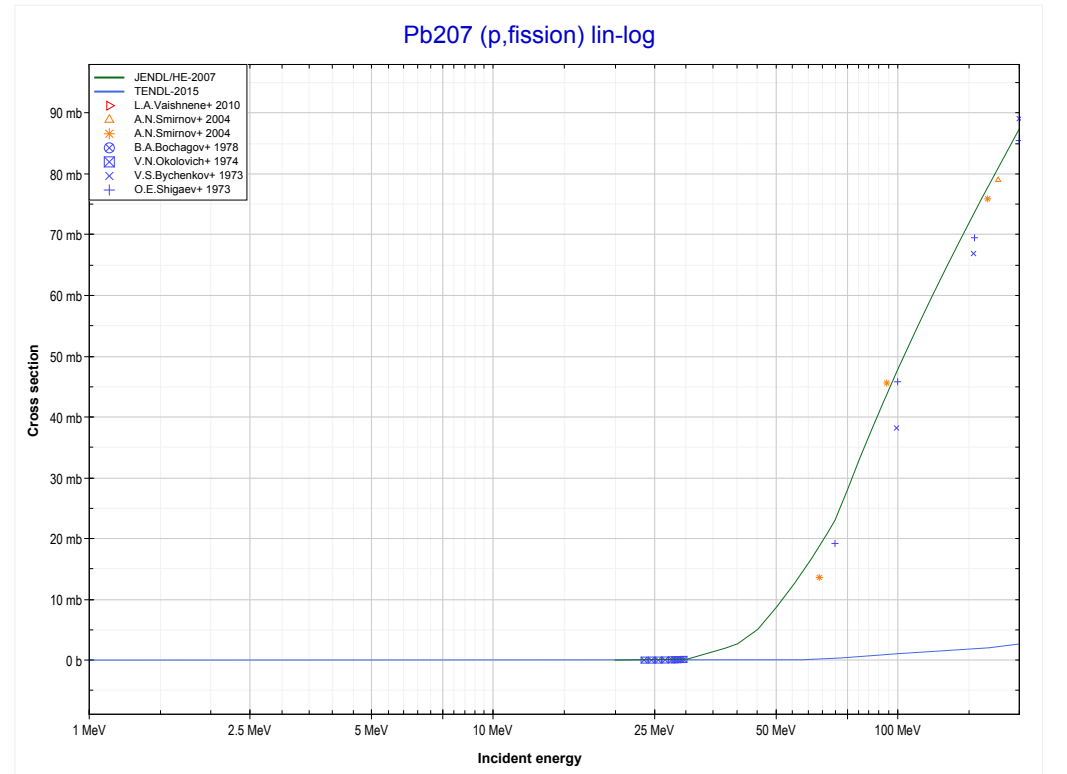
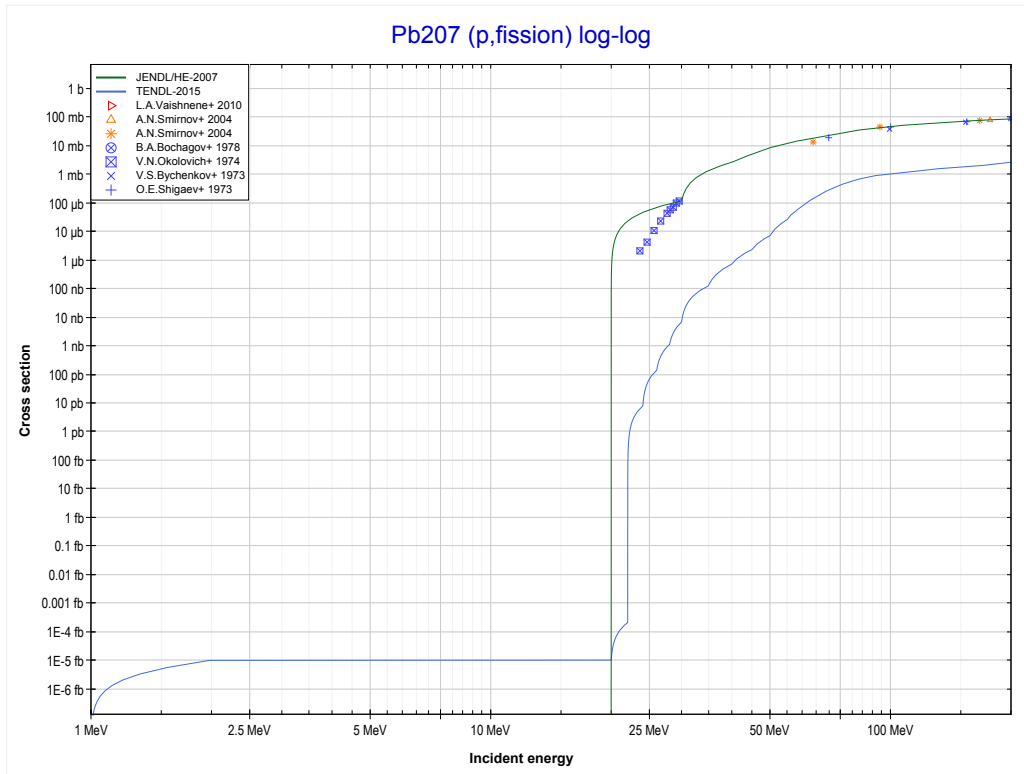
Reaction	Q-Value
Pb207(p,2n)Bi206	-11277.16 keV

<< 82-Pb-206	82-Pb-207	82-Pb-208 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Bi205 production)	MT18 (p,fission) >>

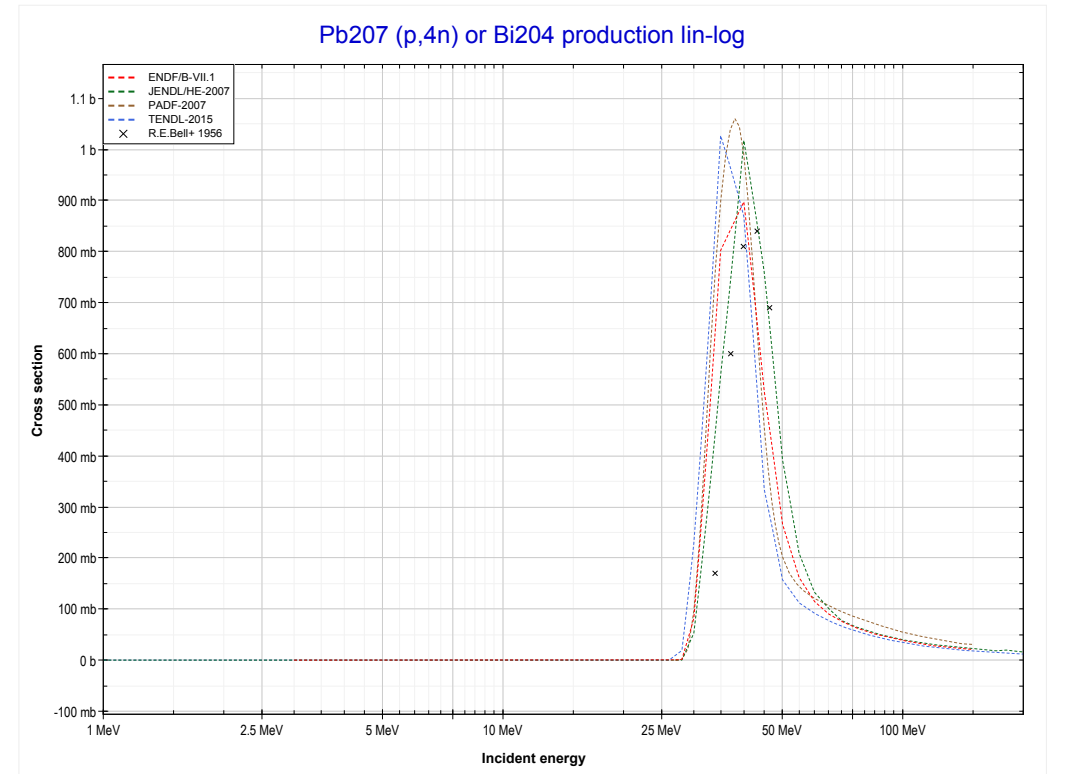
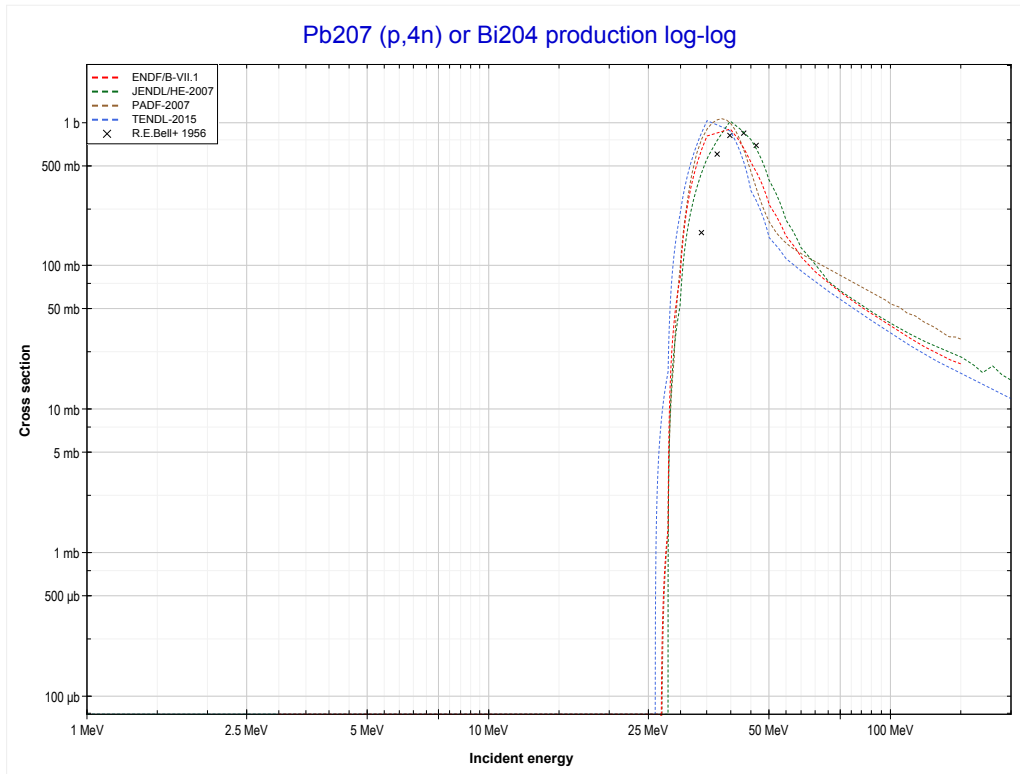


Reaction	Q-Value
Pb207(p,3n)Bi205	-18312.48 keV

<< 82-Pb-206	82-Pb-207	82-Pb-208 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

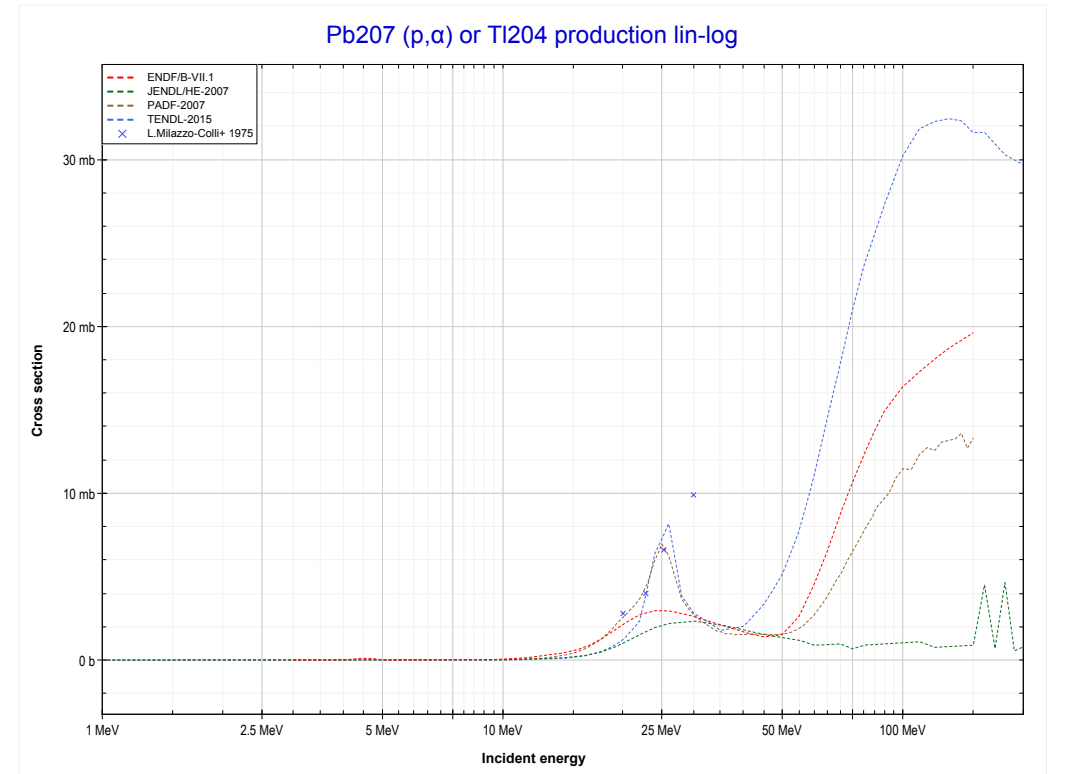
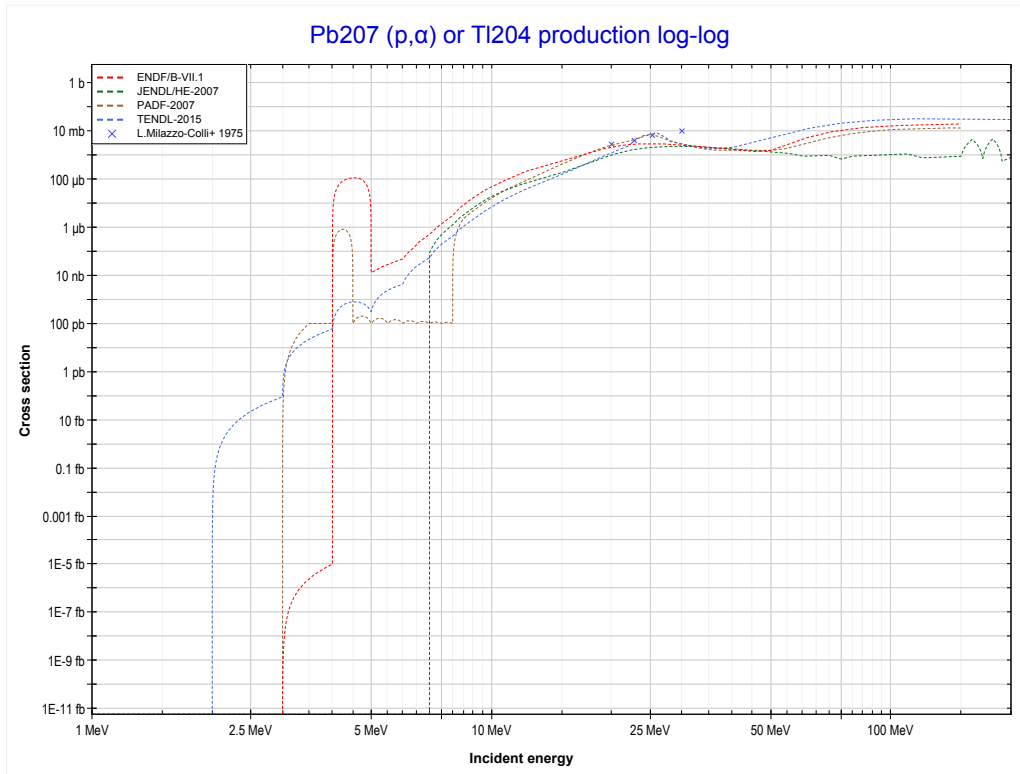


<< 81-Tl-205	82-Pb-207	82-Pb-208 >>
<< MT18 (p,fission)	MT37 (p,4n) or MT5 (Bi204 production)	MT107 (p, α) >>



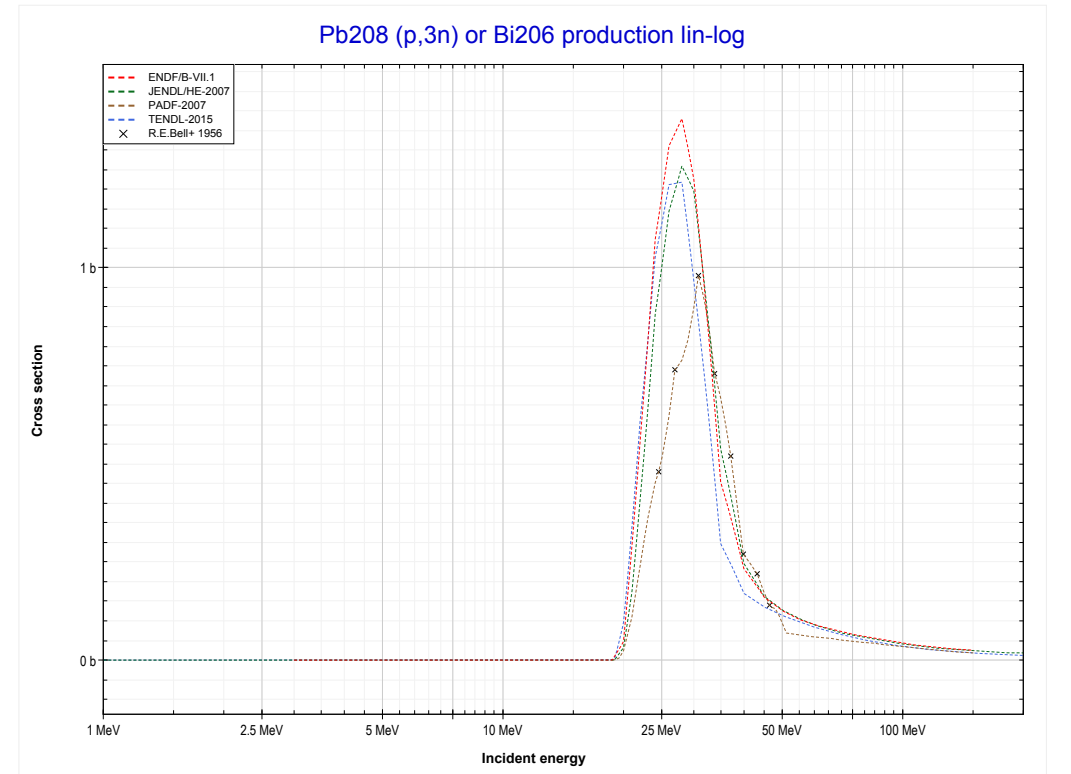
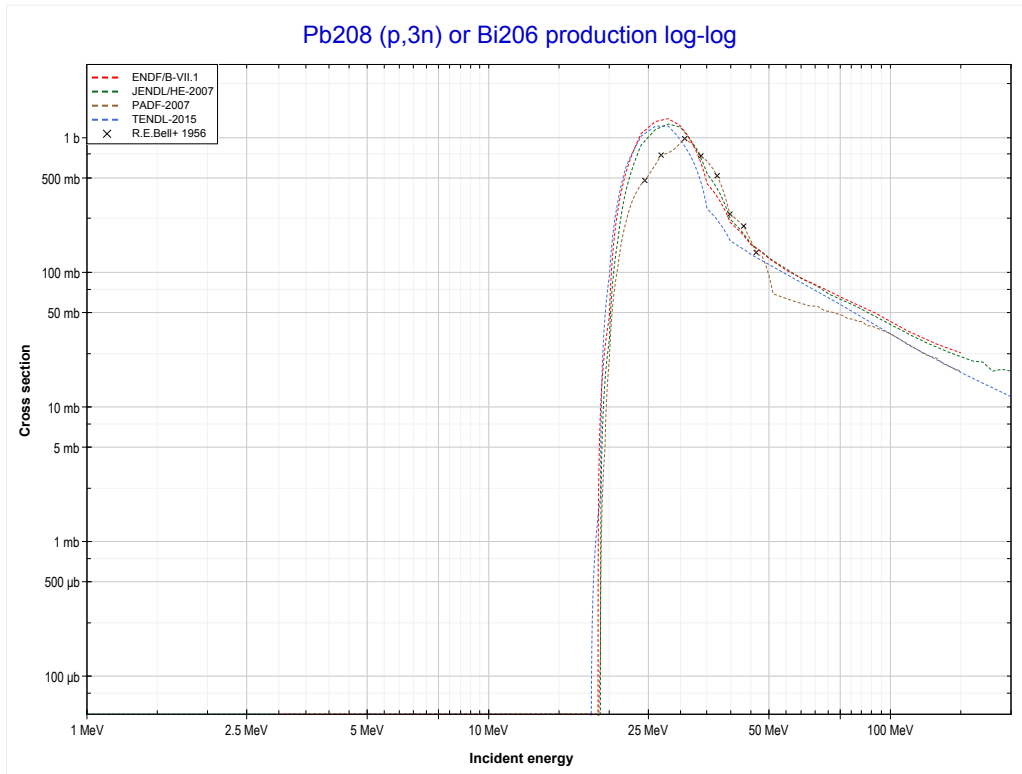
Reaction	Q-Value
Pb207(p,4n)Bi204	-26801.80 keV

<< 82-Pb-206	82-Pb-207	82-Pb-208 >>
<< MT37 (p,4n)	MT107 (p,α) or MT5 (TI204 production)	82-Pb-208 MT17 (p,3n) >>



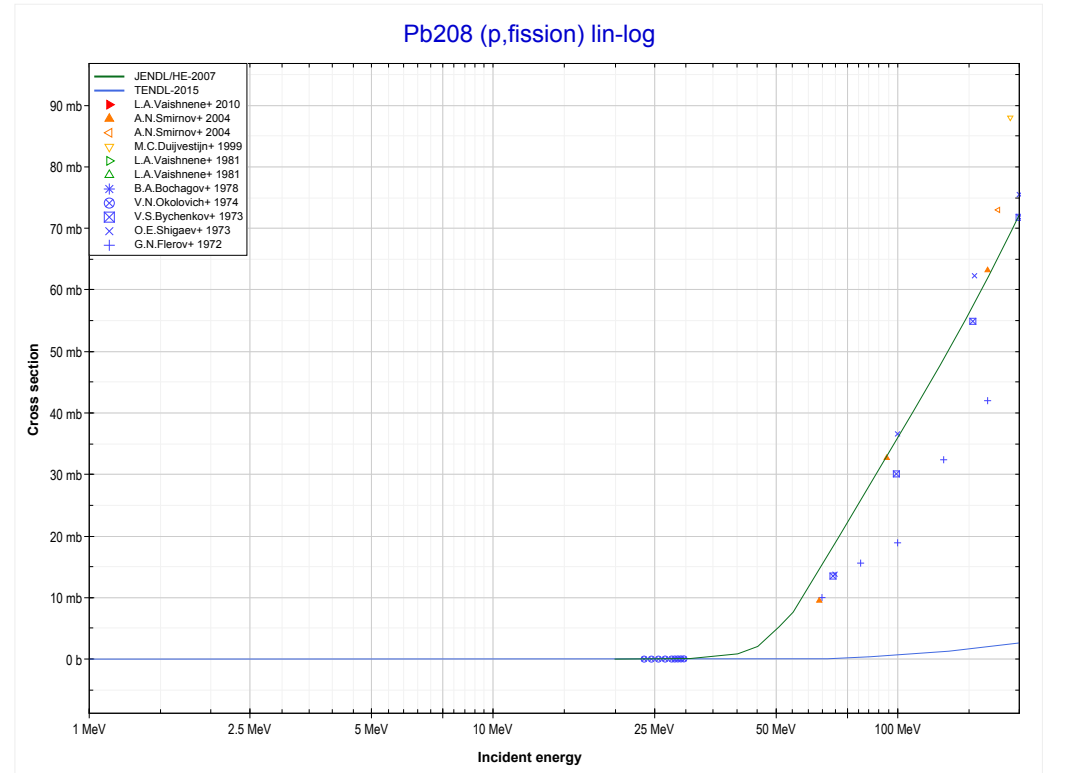
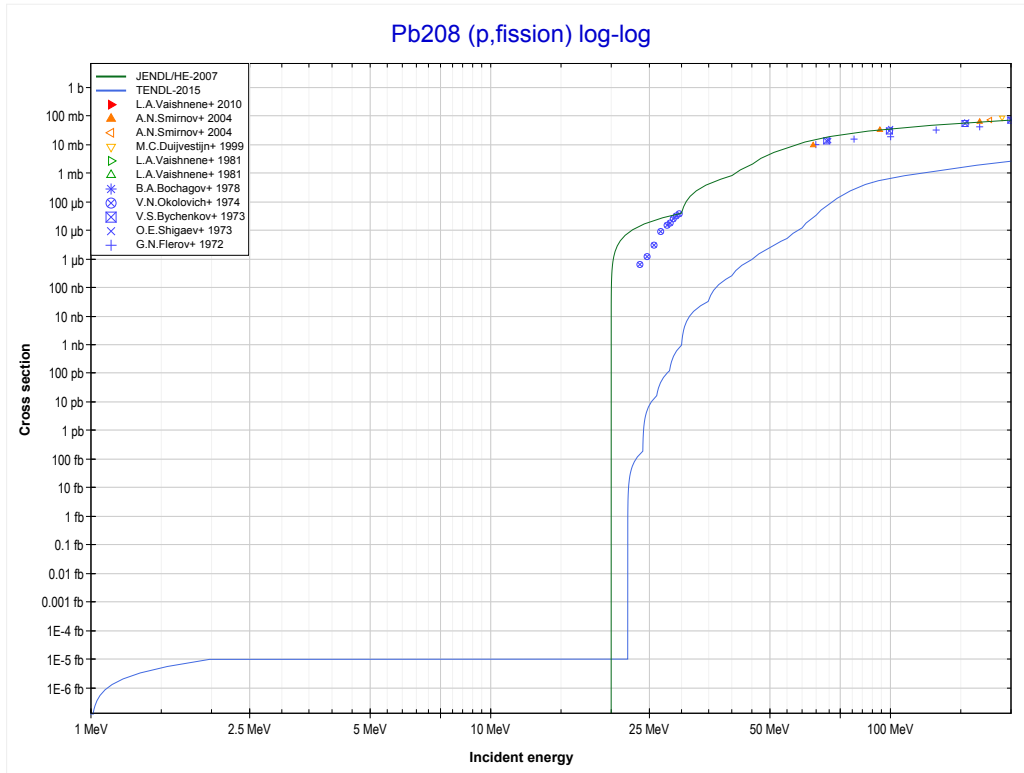
Reaction	Q-Value
Pb207(p, α)TI204	6758.15 keV
Pb207(p,p+t)TI204	-13055.71 keV
Pb207(p,n+He3)TI204	-13819.46 keV
Pb207(p,2d)TI204	-17088.37 keV
Pb207(p,n+p+d)TI204	-19312.94 keV
Pb207(p,2n+2p)TI204	-21537.50 keV

<< 82-Pb-207	82-Pb-208	83-Bi-209 >>
<< 82-Pb-207 MT107 (p, α)	MT17 (p,3n) or MT5 (Bi206 production)	MT18 (p,fission) >>

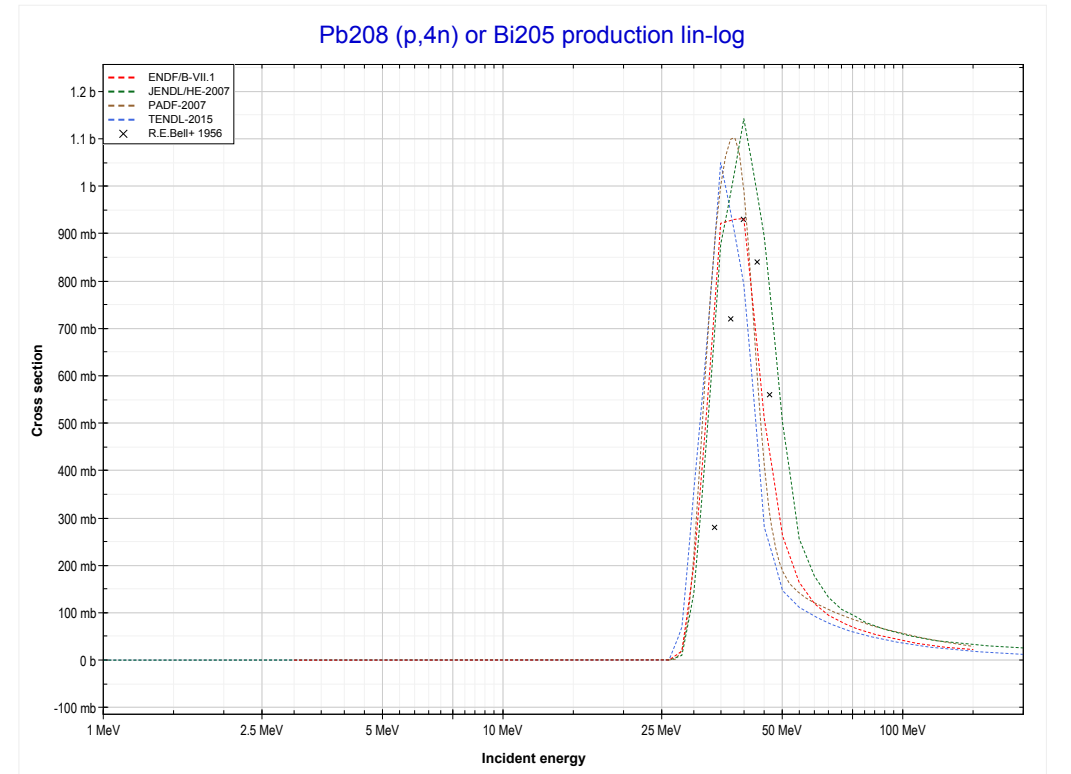
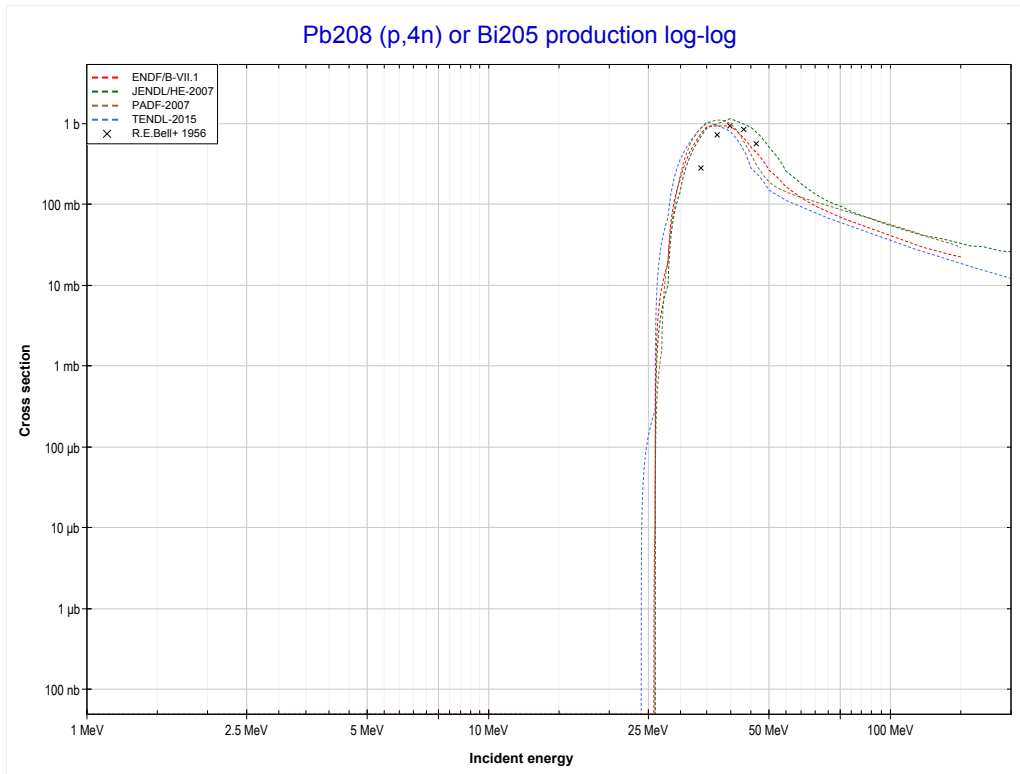


Reaction	Q-Value
Pb208(p,3n)Bi206	-18645.08 keV

<< 82-Pb-207	82-Pb-208	83-Bi-209 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

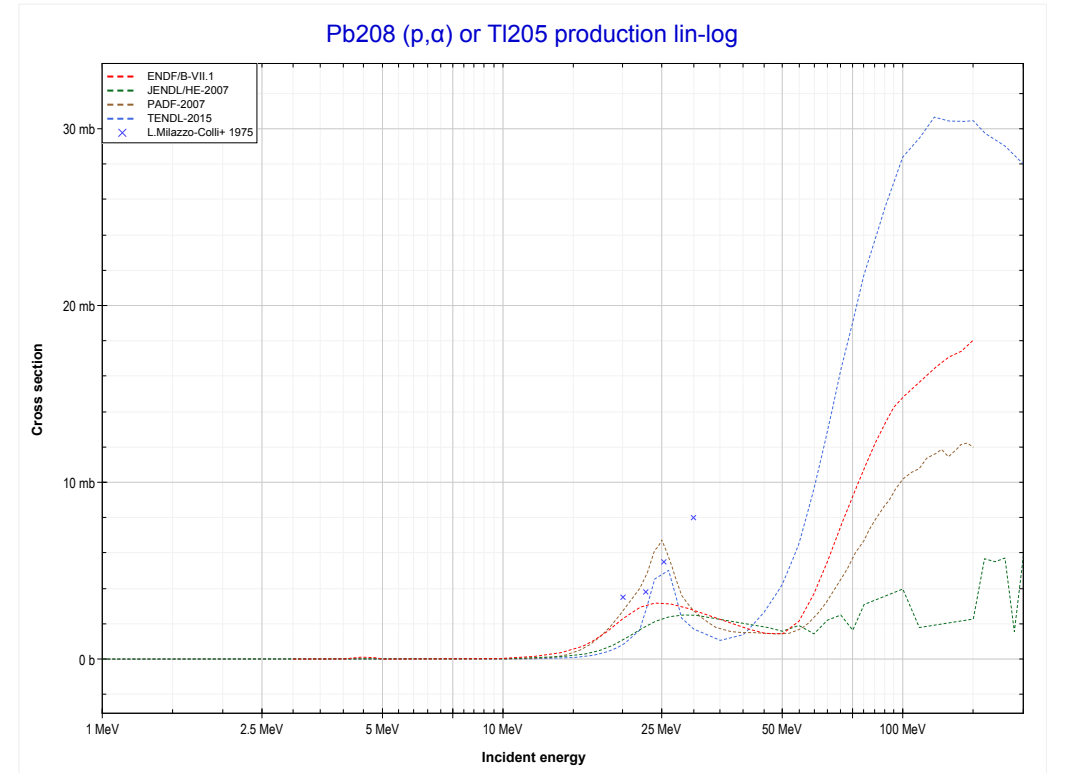
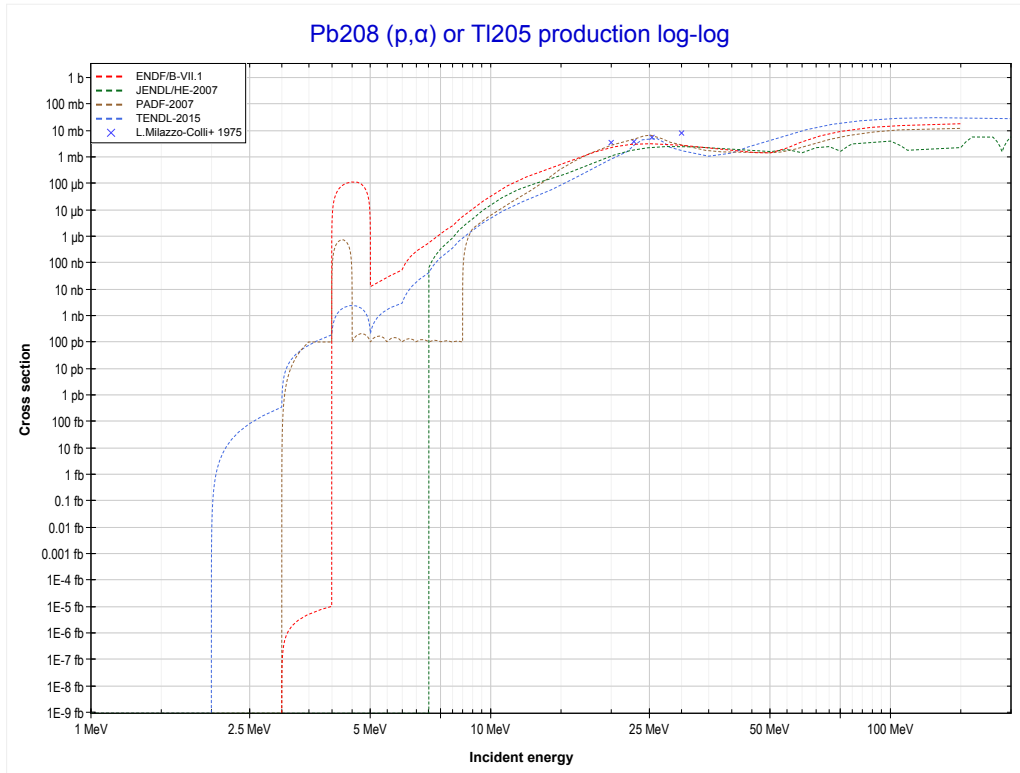


<< 82-Pb-207	82-Pb-208	83-Bi-209 >>
<< MT18 (p,fission)	MT37 (p,4n) or MT5 (Bi205 production)	MT107 (p, α) >>



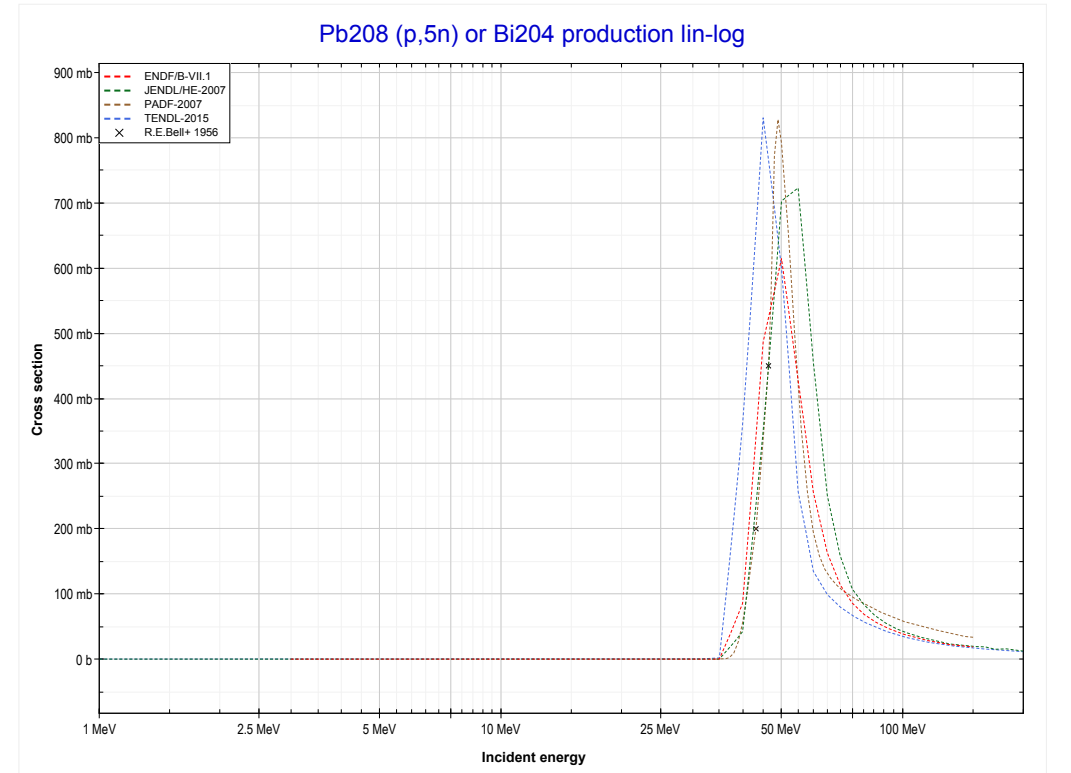
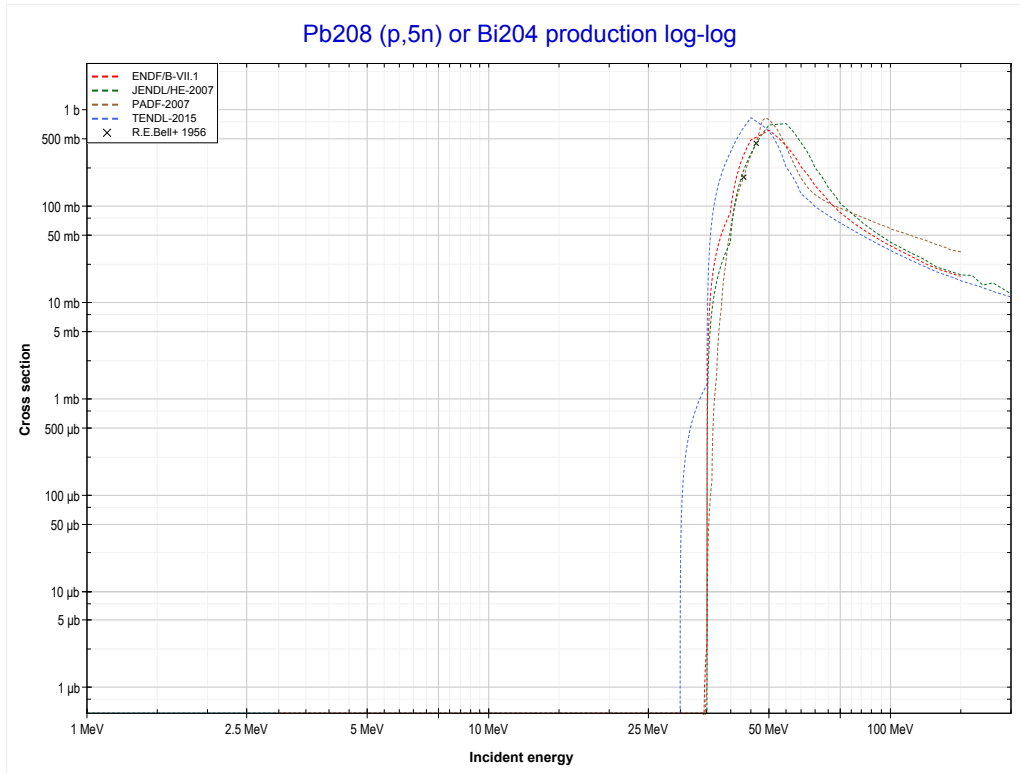
Reaction	Q-Value
Pb208(p,4n)Bi205	-25680.40 keV

<< 82-Pb-207	82-Pb-208	83-Bi-209 >>
<< MT37 (p,4n)	MT107 (p,α) or MT5 (TI205 production)	MT152 (p,5n) >>



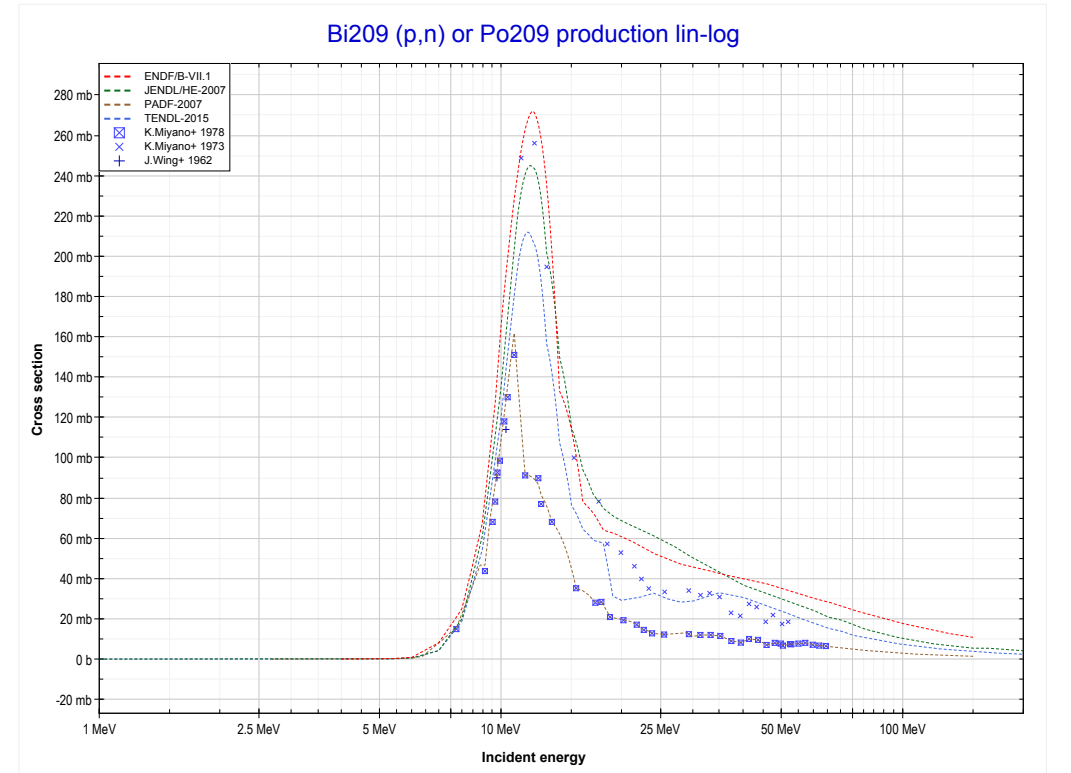
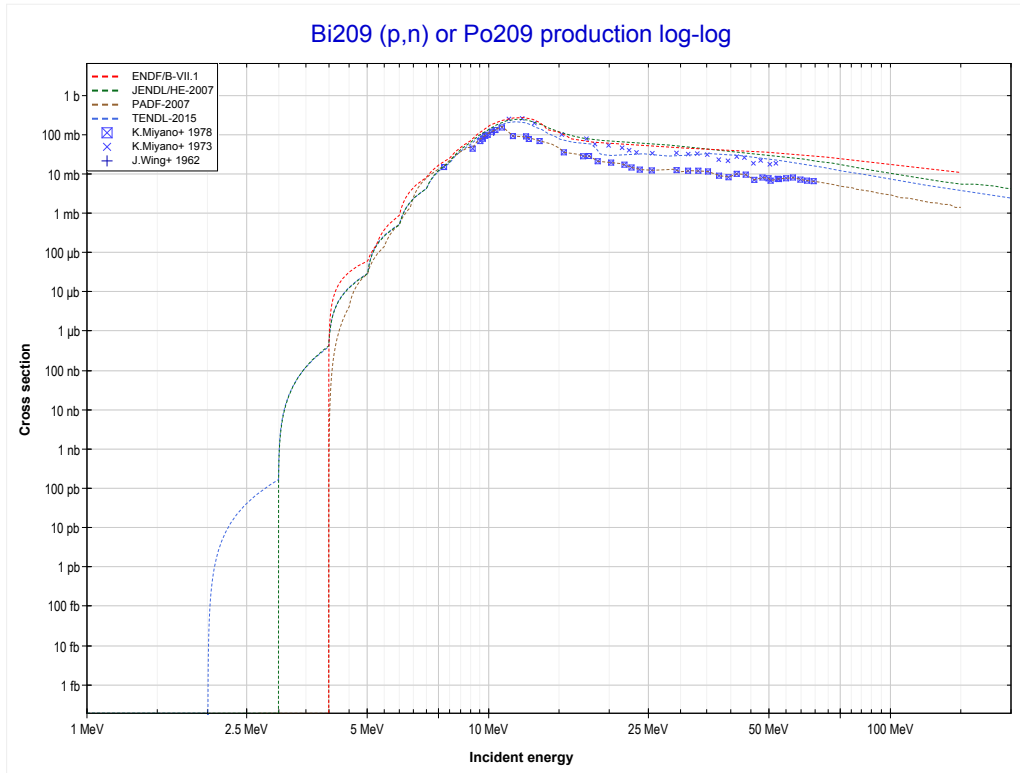
Reaction	Q-Value
Pb208(p, α)TI205	6936.25 keV
Pb208(p,p+t)TI205	-12877.61 keV
Pb208(p,n+He3)TI205	-13641.36 keV
Pb208(p,2d)TI205	-16910.27 keV
Pb208(p,n+p+d)TI205	-19134.84 keV
Pb208(p,2n+2p)TI205	-21359.40 keV

<< 82-Pb-206	82-Pb-208	83-Bi-209 >>
<< MT107 (p, α)	MT152 (p,5n) or MT5 (Bi204 production)	83-Bi-209 MT4 (p,n) >>



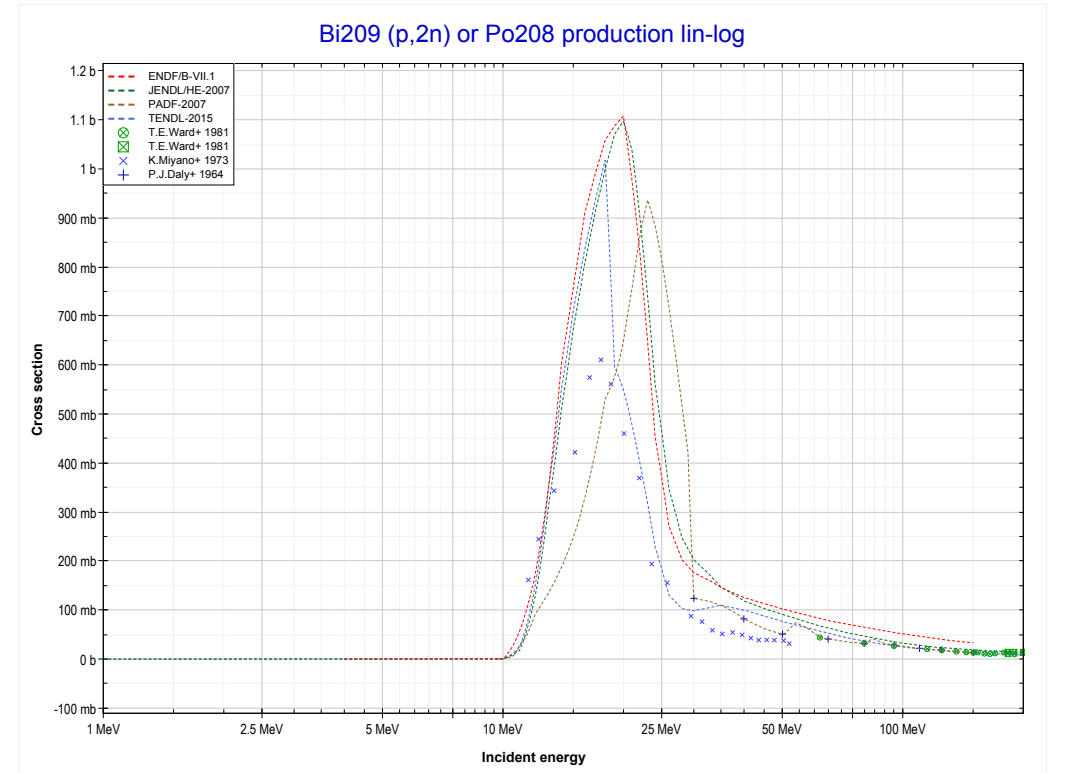
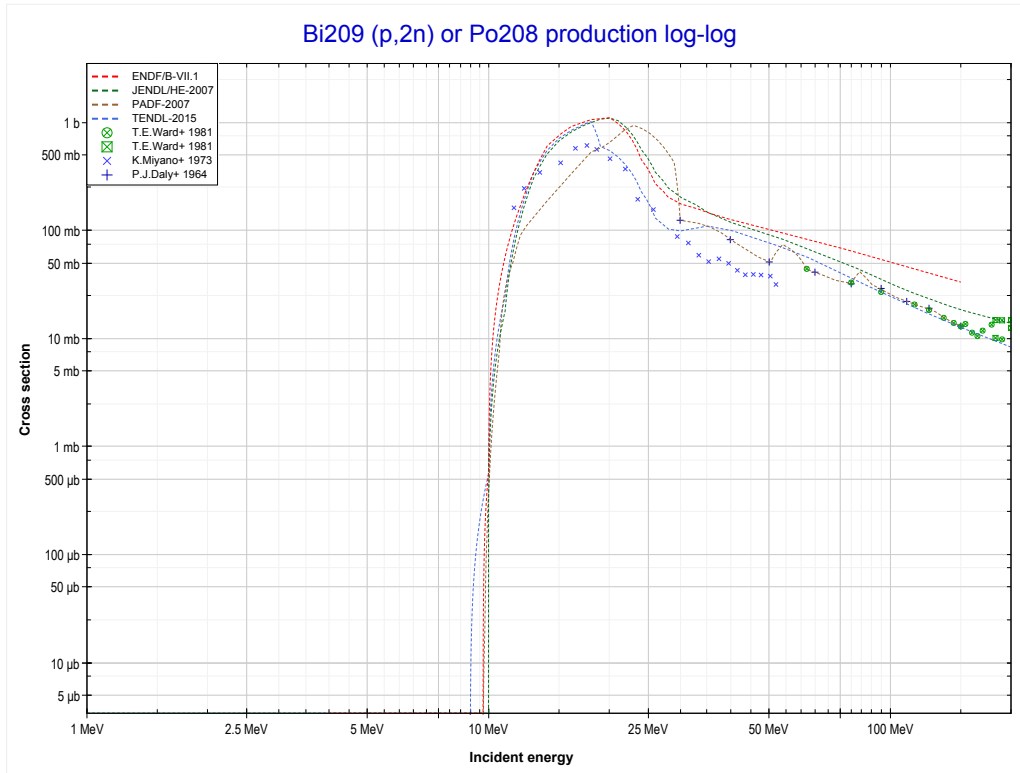
Reaction	Q-Value
Pb208(p,5n)Bi204	-34169.71 keV

<< 82-Pb-206	83-Bi-209	90-Th-232 >>
<< 82-Pb-208 MT152 (p,5n)	MT4 (p,n) or MT5 (Po209 production)	MT16 (p,2n) >>



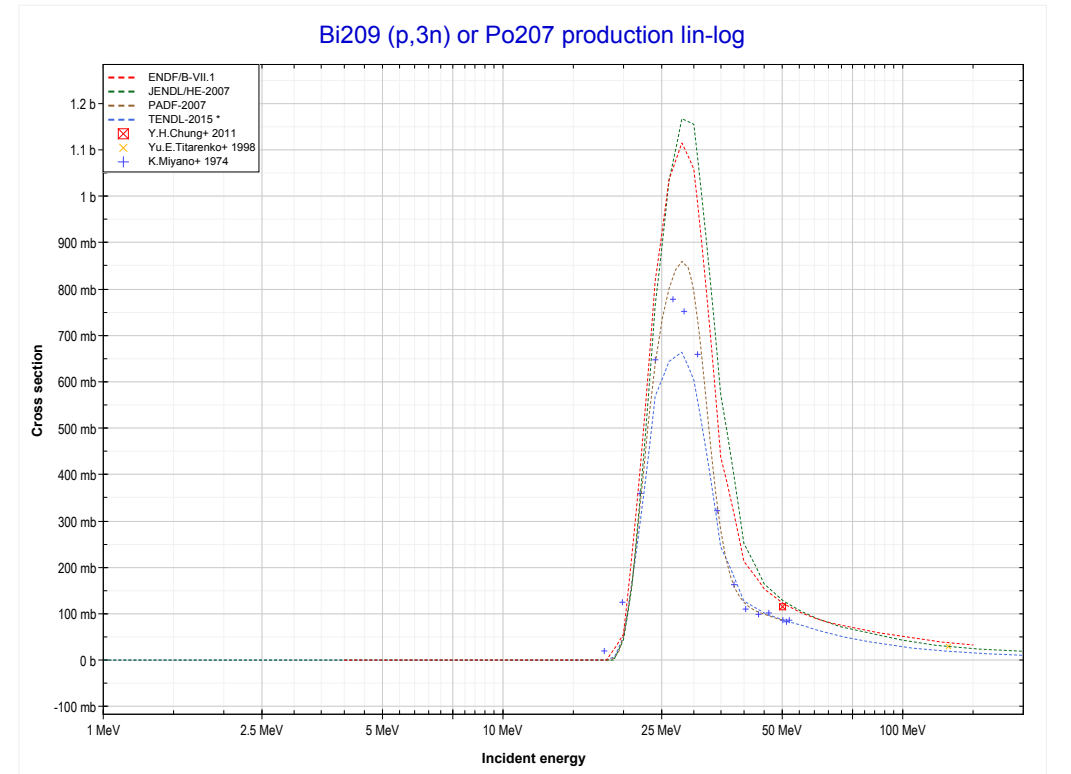
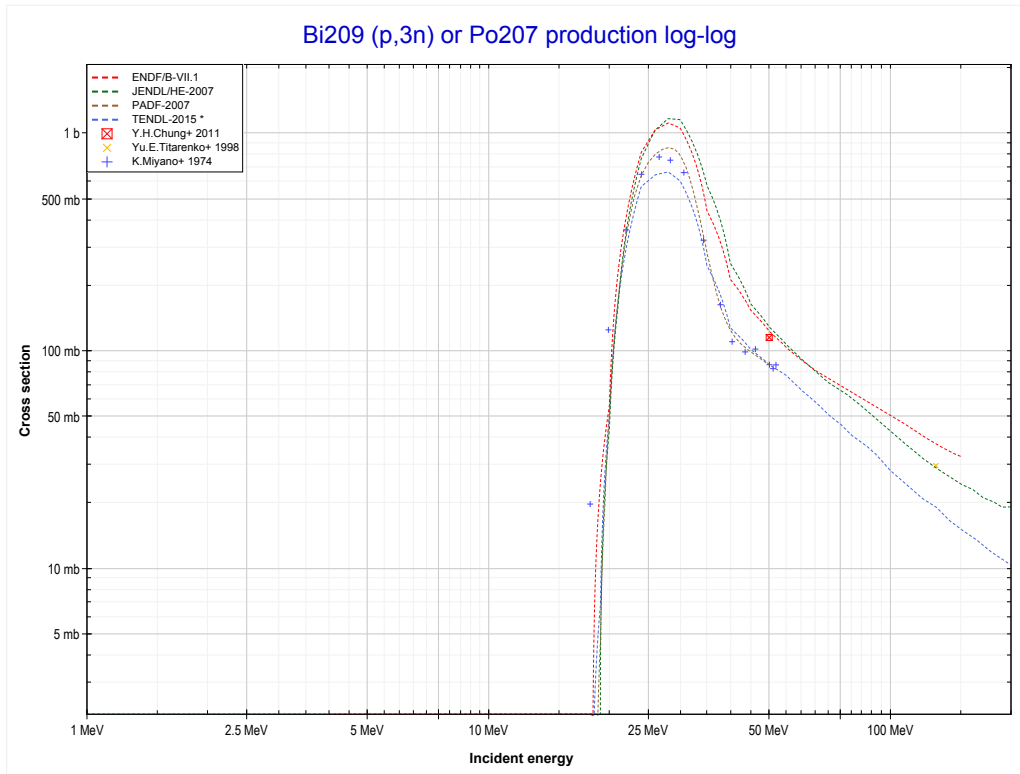
Reaction	Q-Value
Bi209(p,n)Po209	-2674.95 keV

<< 82-Pb-207	83-Bi-209	88-Ra-226 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Po208 production)	MT17 (p,3n) >>



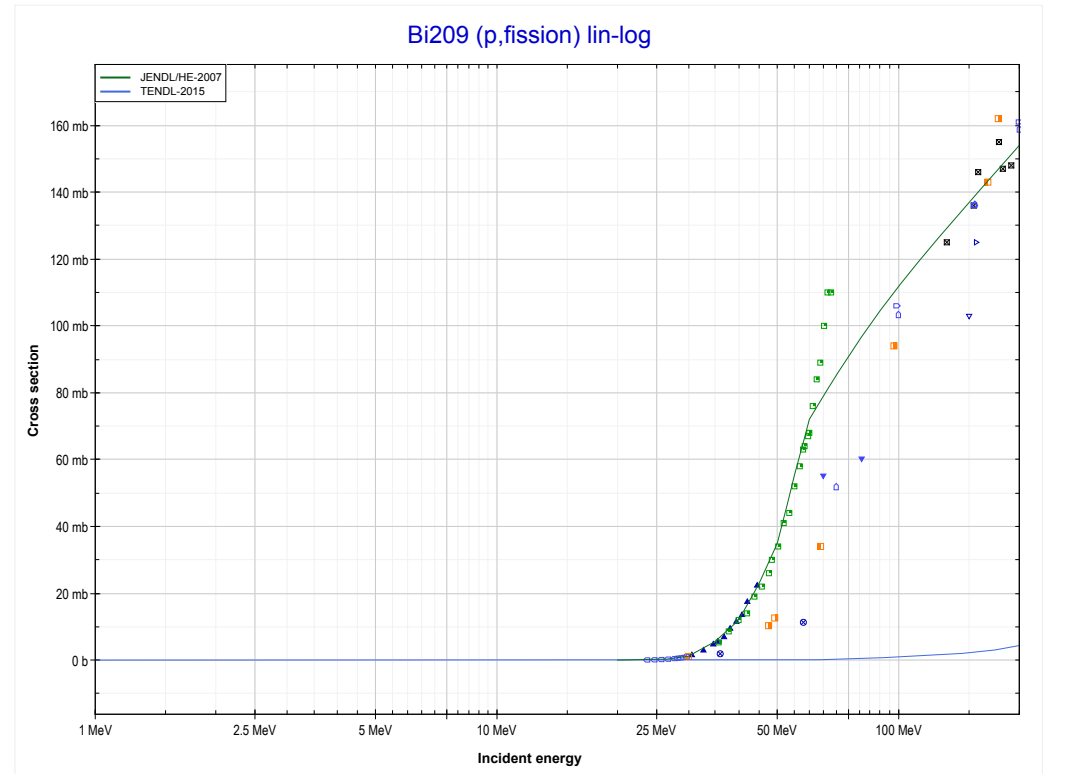
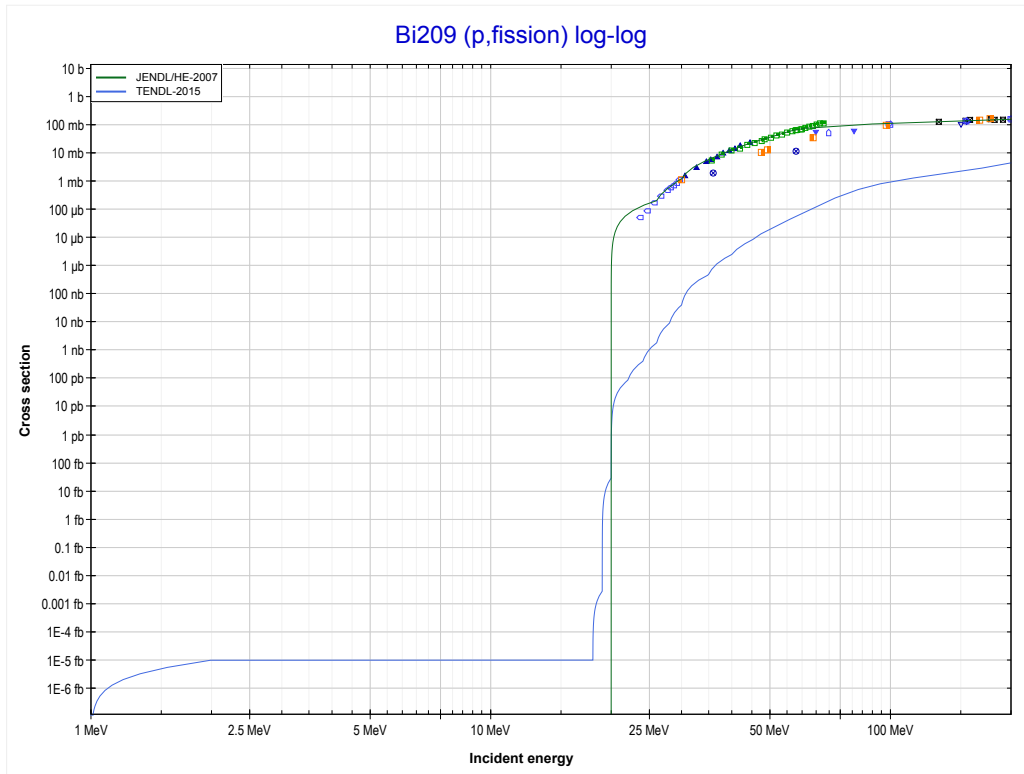
Reaction	Q-Value
Bi209(p,2n)Po208	-9642.66 keV

<< 82-Pb-208	83-Bi-209	90-Th-232 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Po207 production)	MT18 (p,fission) >>

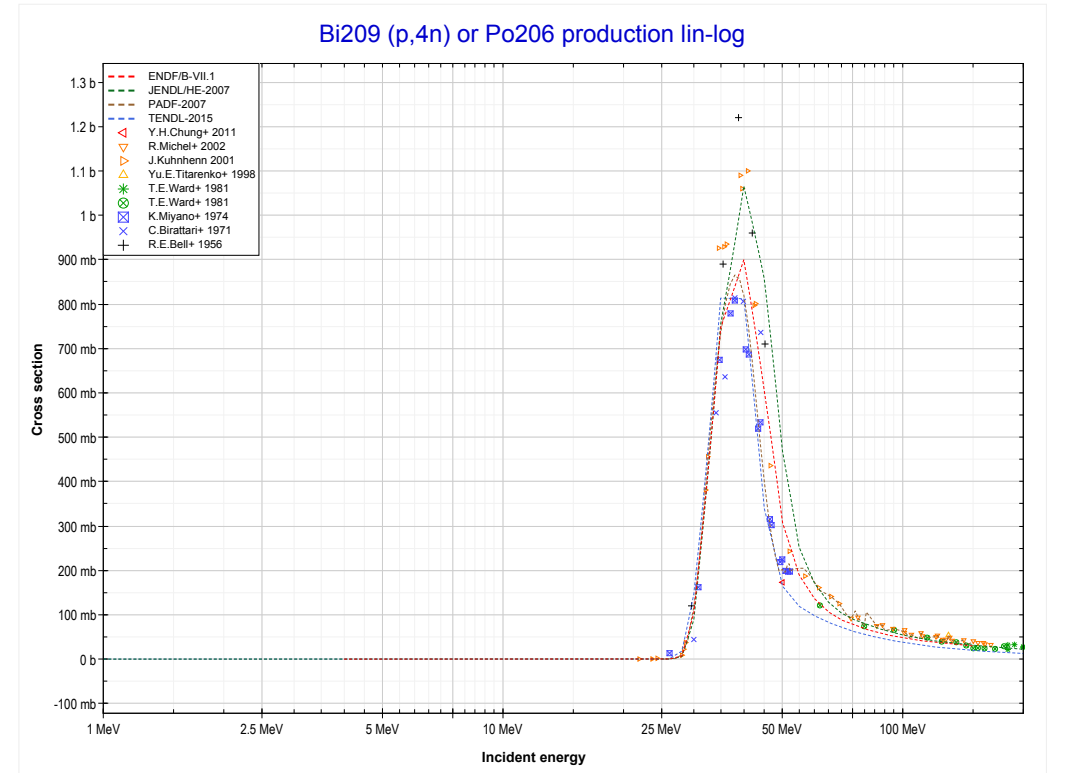
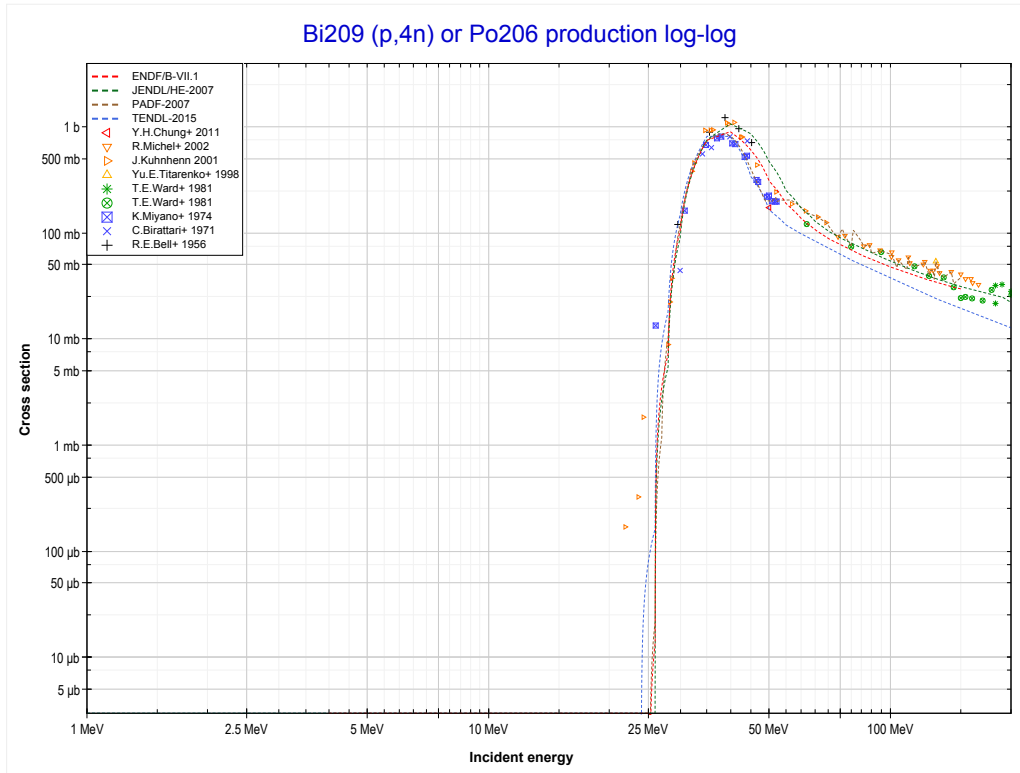


Reaction	Q-Value
Bi209(p,3n)Po207	-18038.18 keV

<< 82-Pb-208	83-Bi-209	88-Ra-226 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

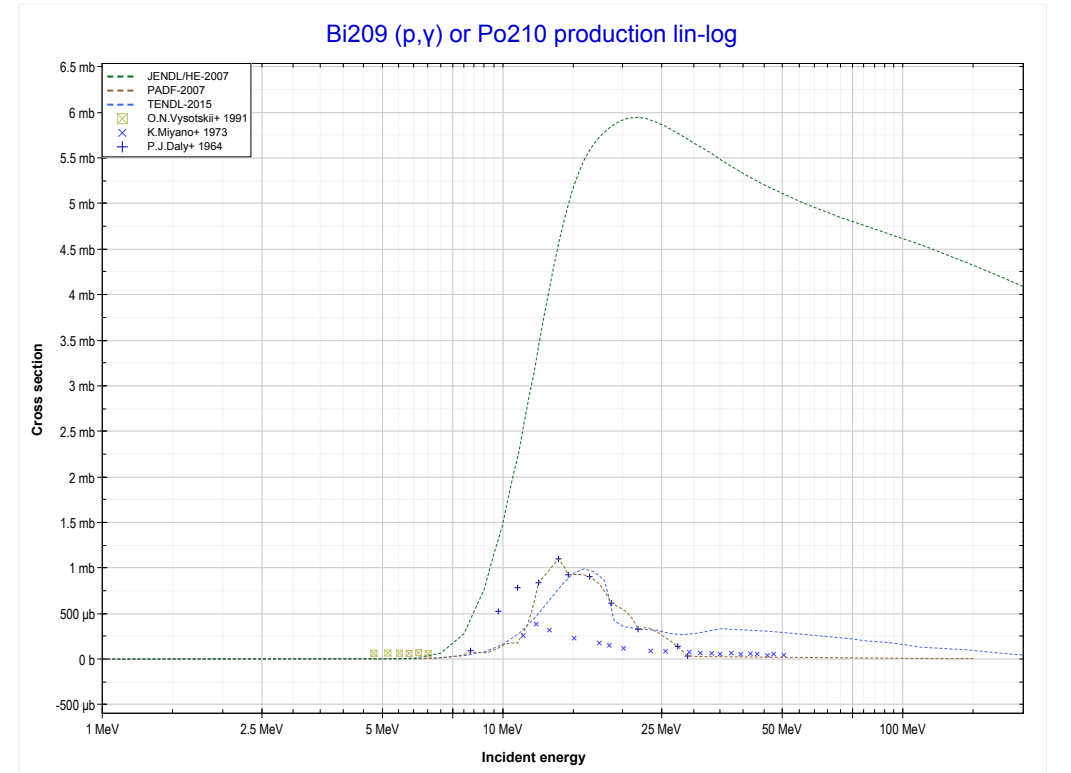
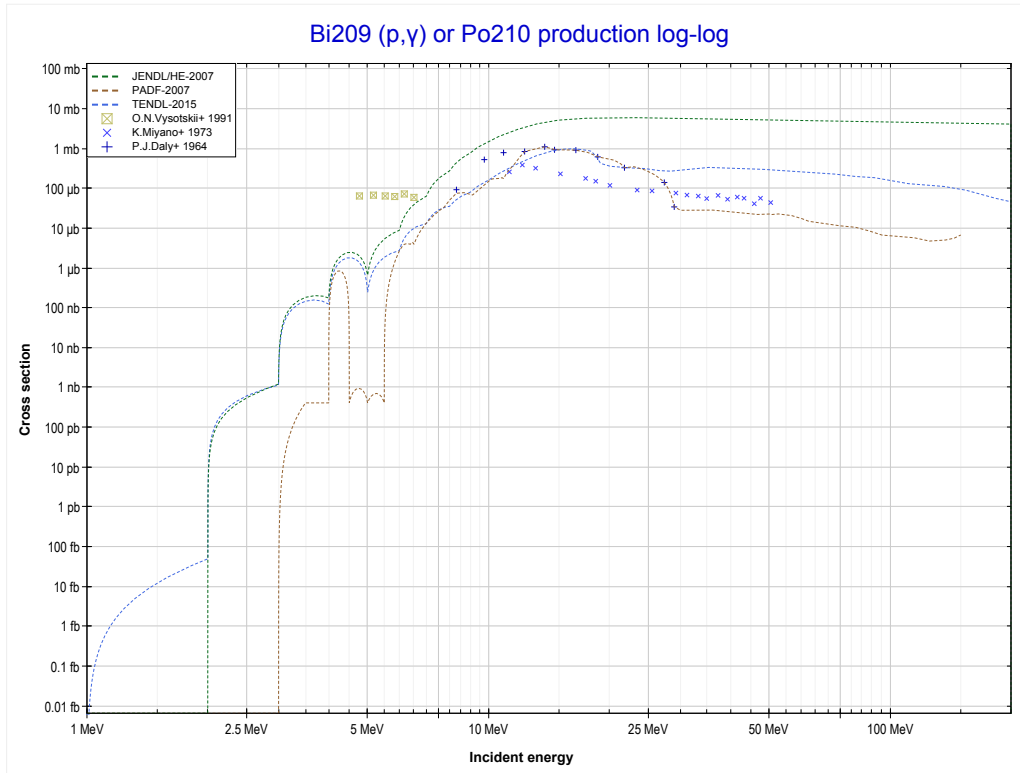


<< 82-Pb-208	83-Bi-209	90-Th-232 >>
<< MT18 (p,fission)	MT37 (p,4n) or MT5 (Po206 production)	MT102 (p, γ) >>



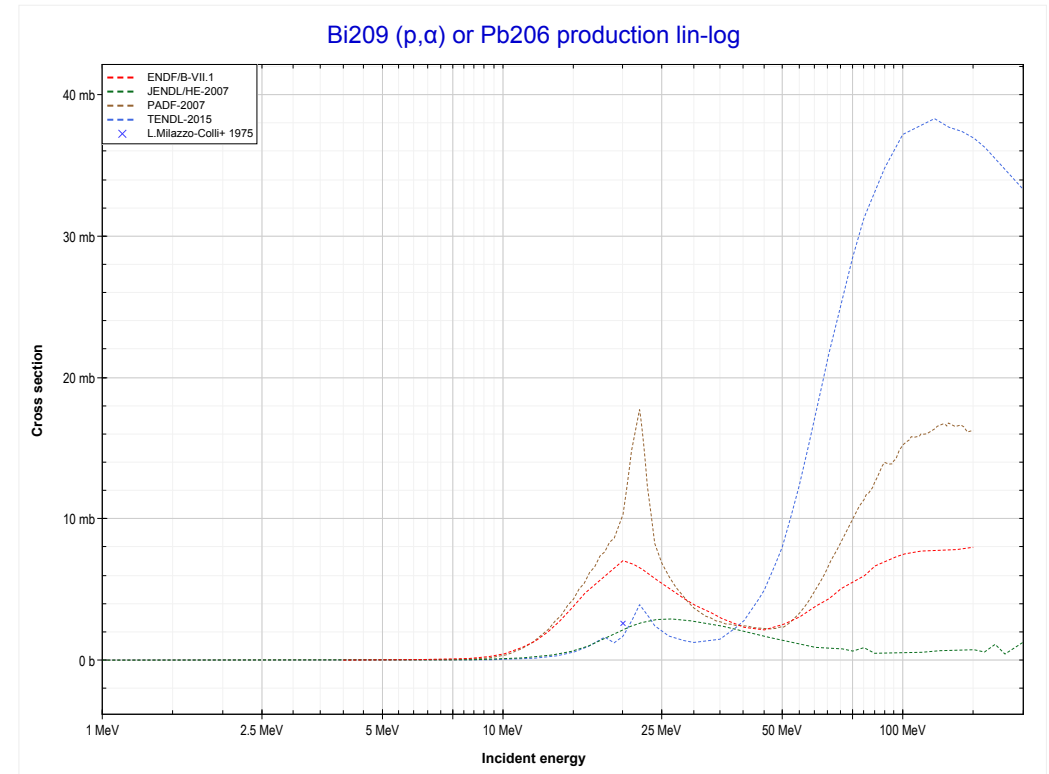
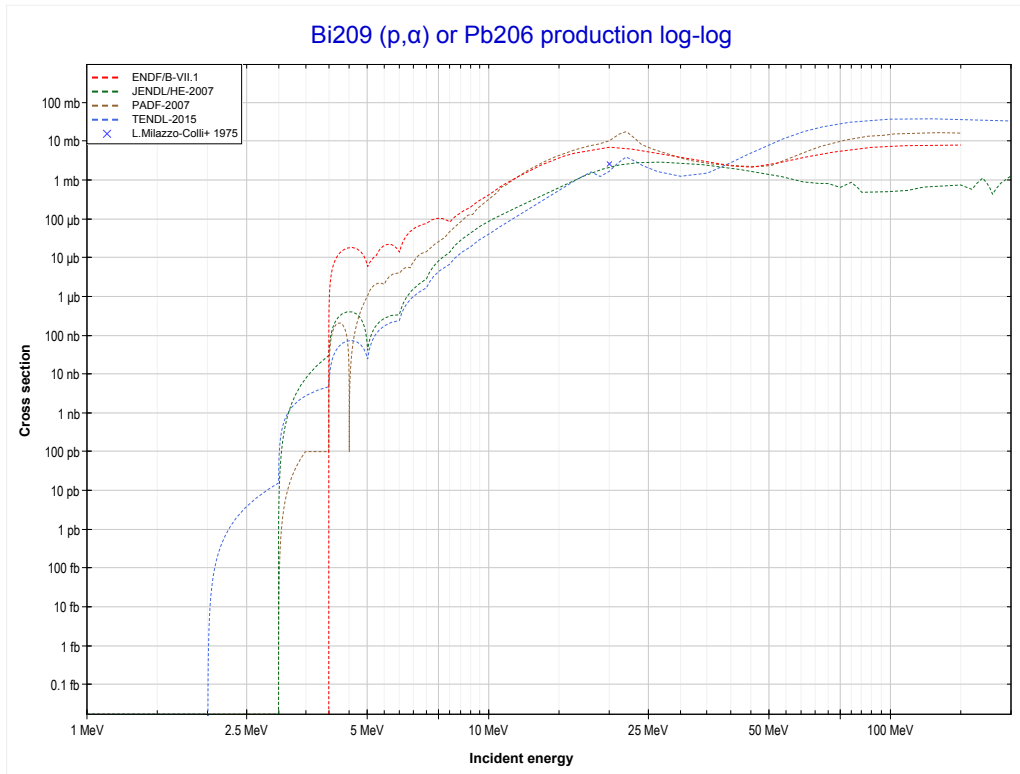
Reaction	Q-Value
Bi209(p,4n)Po206	-25066.50 keV

<< 58-Ce-142	83-Bi-209	92-U-238 >>
<< MT37 (p,4n)	MT102 (p,γ) or MT5 (Po210 production)	MT107 (p, α) >>



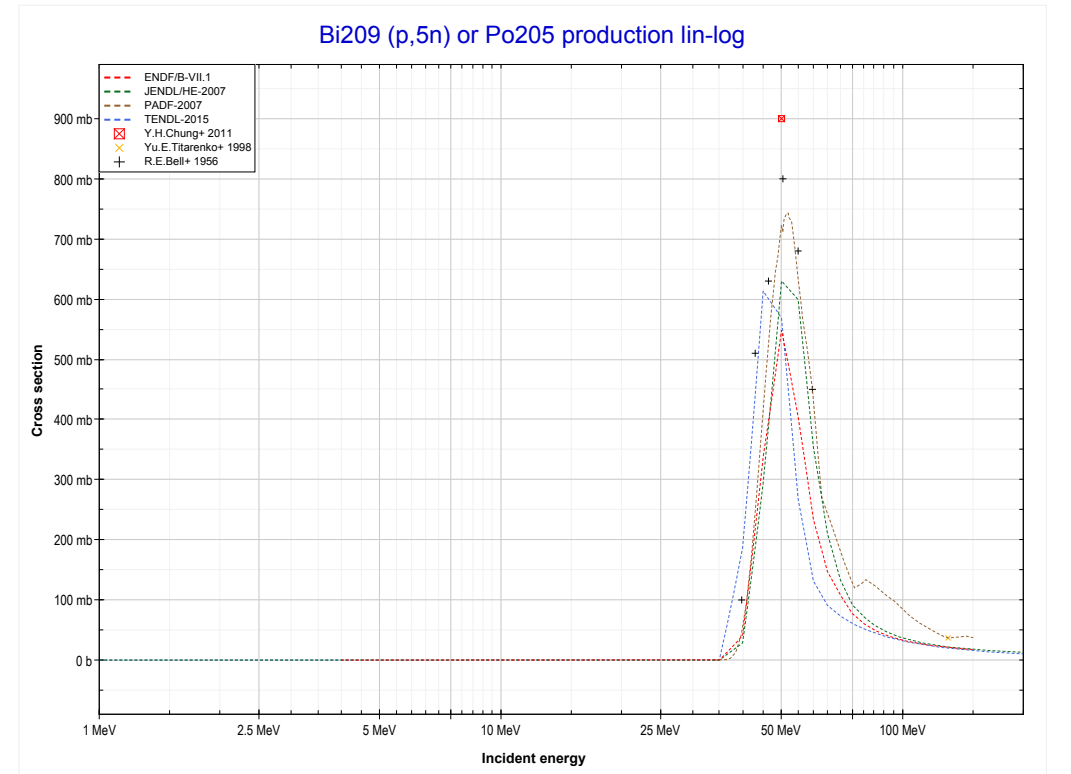
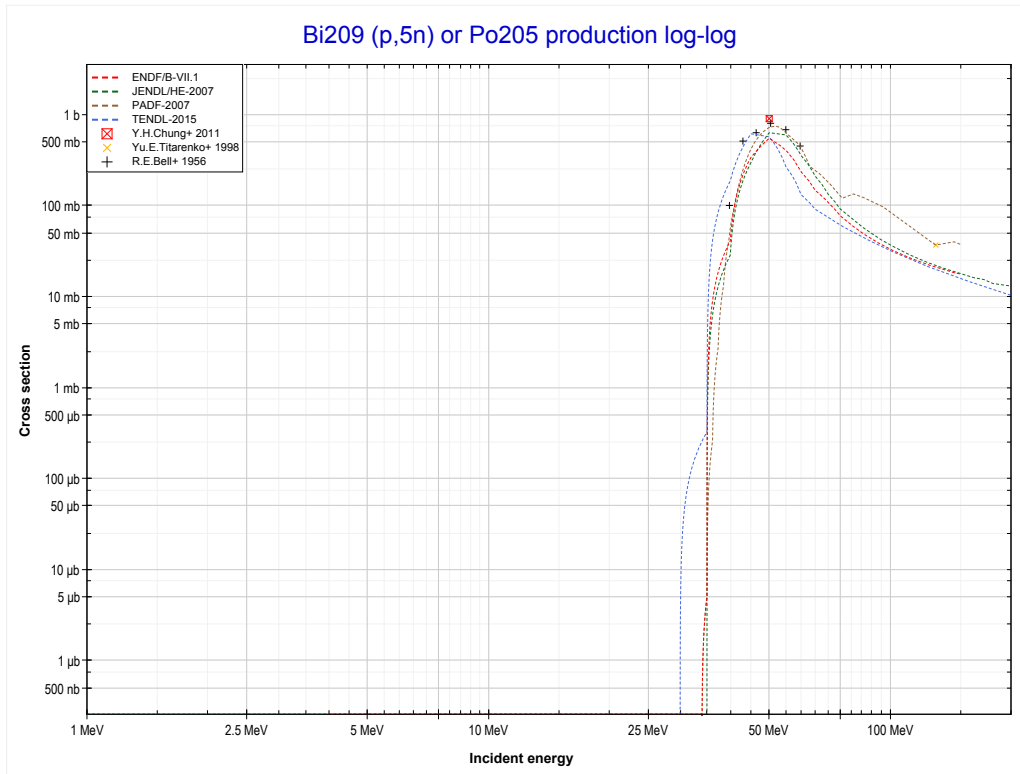
Reaction	Q-Value
Bi209(p, γ)Po210	4983.47 keV

<< 82-Pb-208	83-Bi-209	90-Th-232 >>
<< MT102 (p, γ)	MT107 (p,α) or MT5 (Pb206 production)	MT152 (p,5n) >>



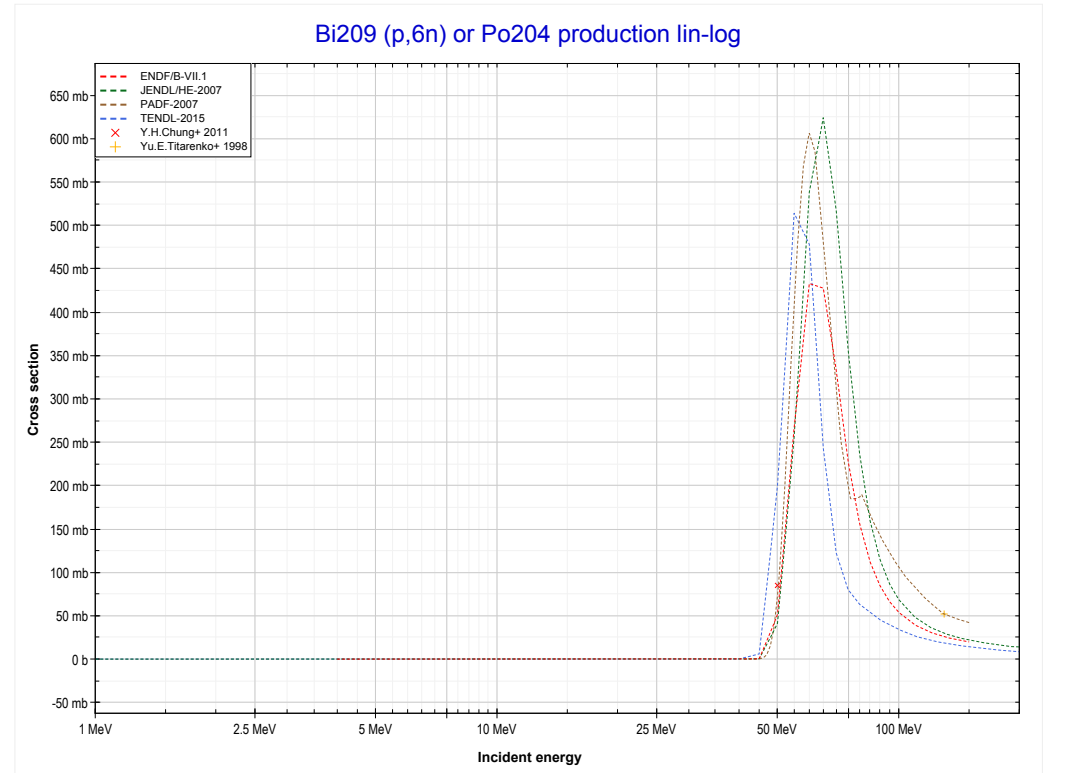
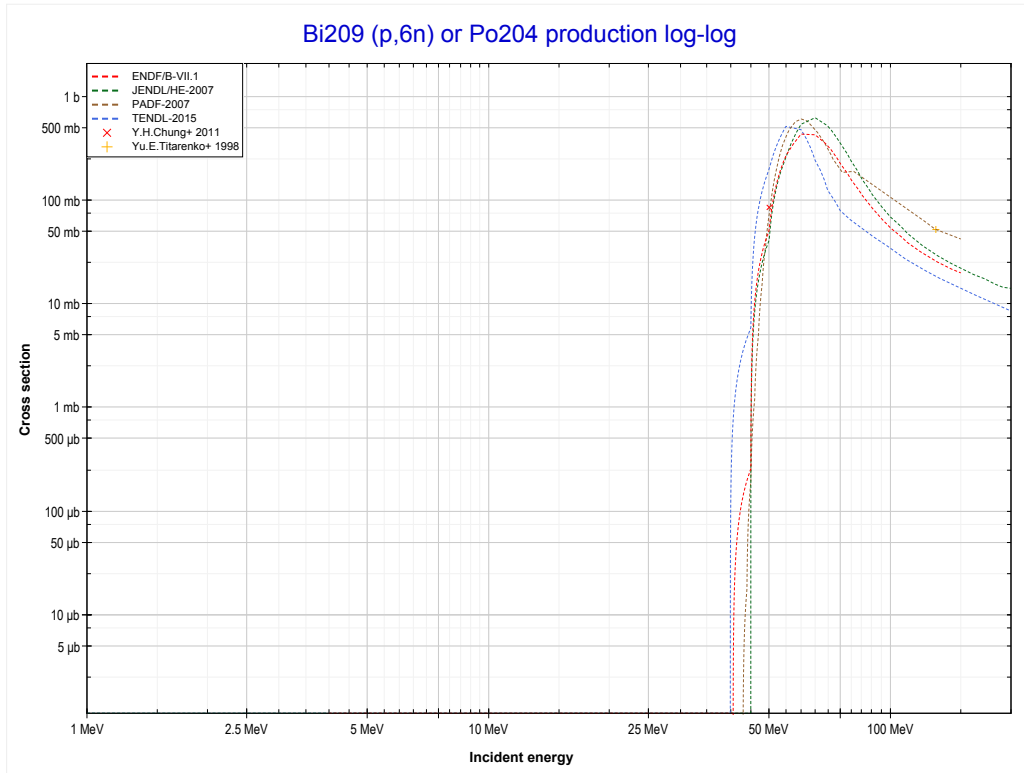
Reaction	Q-Value
Bi209(p, α)Pb206	10390.95 keV
Bi209(p,p+t)Pb206	-9422.91 keV
Bi209(p,n+He3)Pb206	-10186.66 keV
Bi209(p,2d)Pb206	-13455.57 keV
Bi209(p,n+p+d)Pb206	-15680.14 keV
Bi209(p,2n+2p)Pb206	-17904.70 keV

<< 82-Pb-208	83-Bi-209	90-Th-232 >>
<< MT107 (p, α)	MT152 (p,5n) or MT5 (Po205 production)	MT153 (p,6n) >>



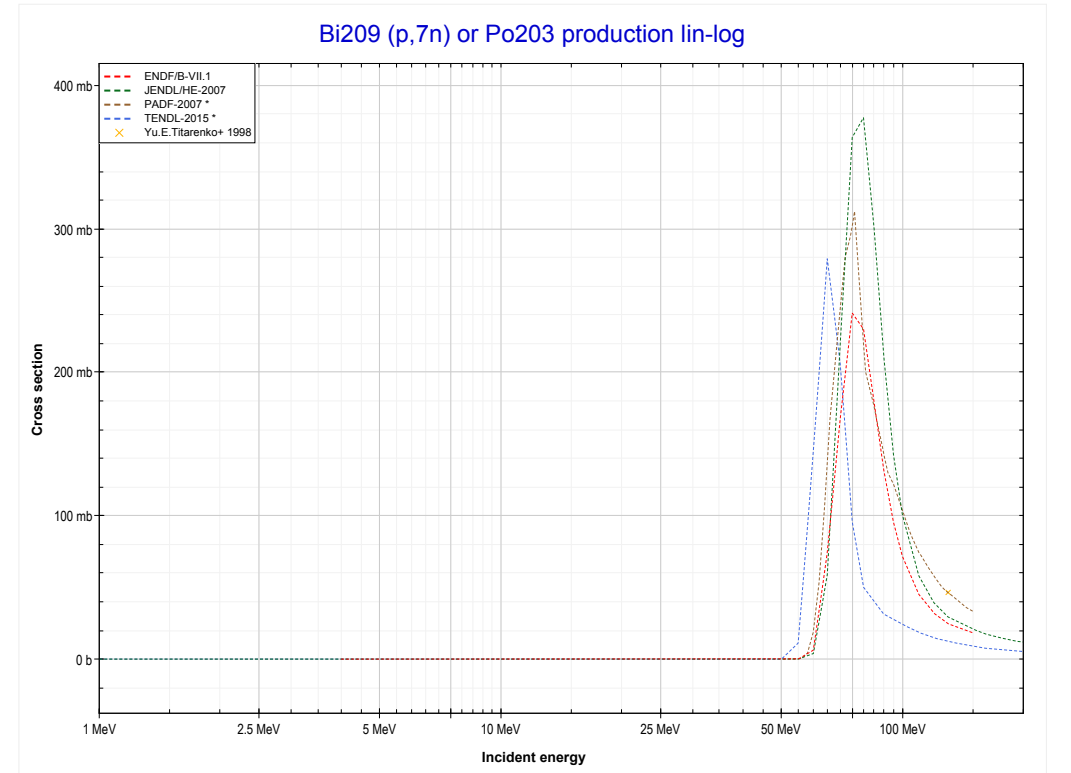
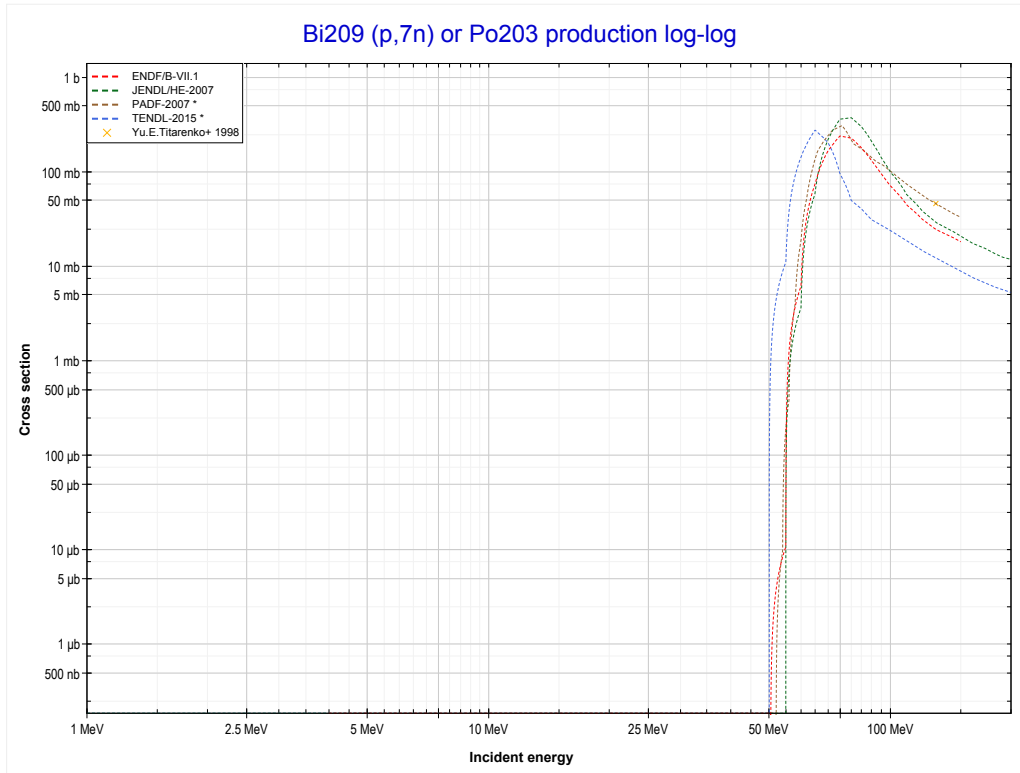
Reaction	Q-Value
Bi209(p,5n)Po205	-33816.81 keV

<< 79-Au-197	83-Bi-209	90-Th-232 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Po204 production)	MT160 (p,7n) >>



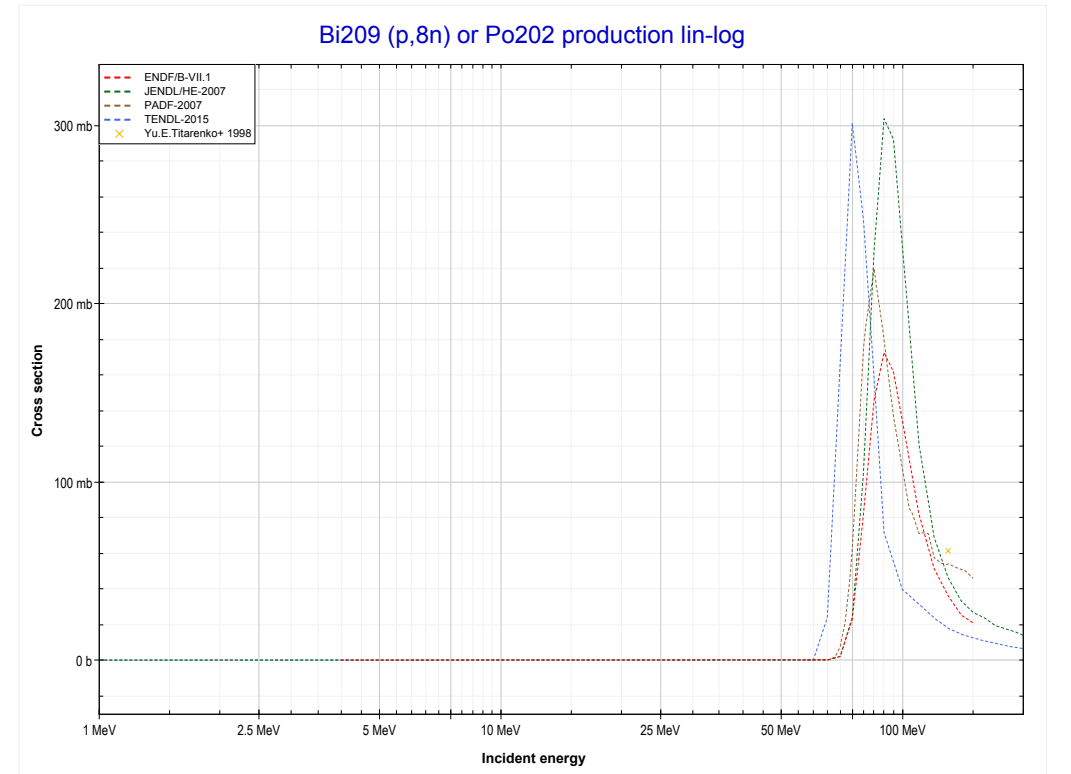
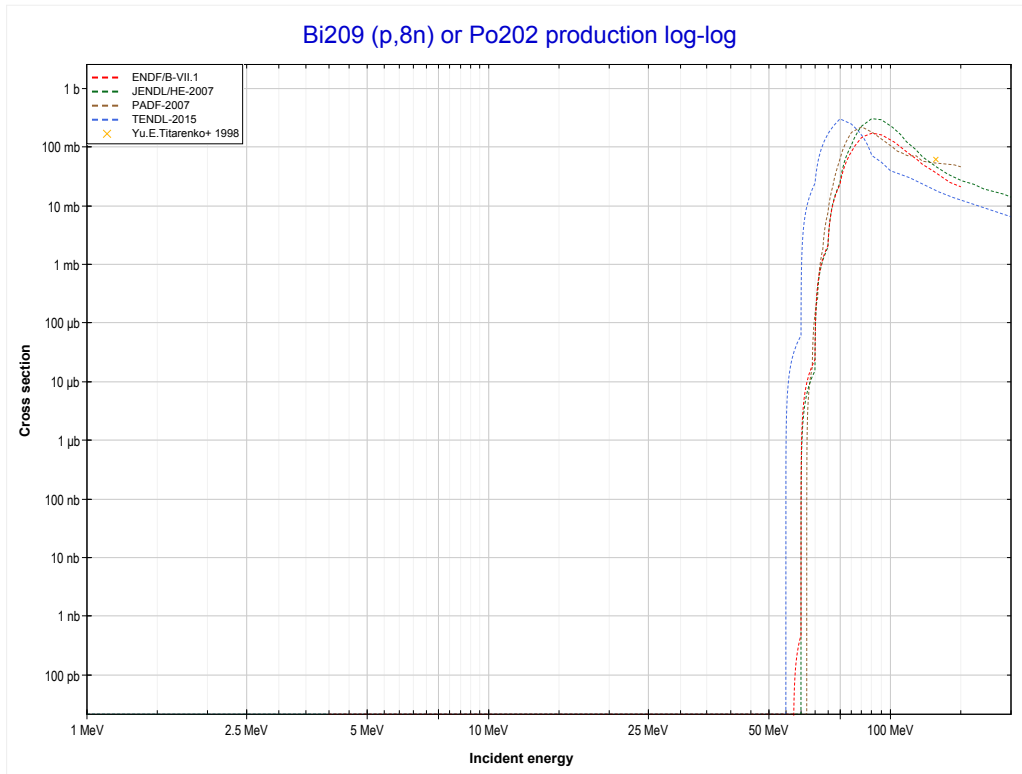
Reaction	Q-Value
Bi209(p,6n)Po204	-41056.13 keV

<< 82-Pb-206	83-Bi-209	90-Th-232 >>
<< MT153 (p,6n)	MT160 (p,7n) or MT5 (Po203 production)	MT161 (p,8n) >>



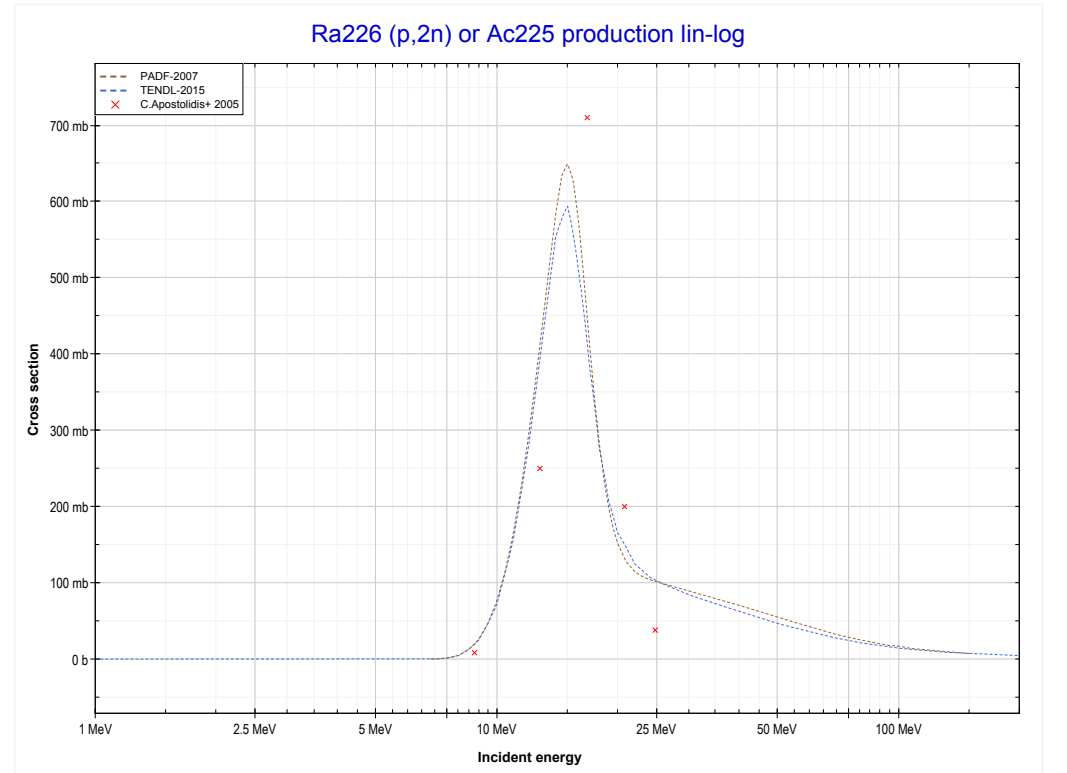
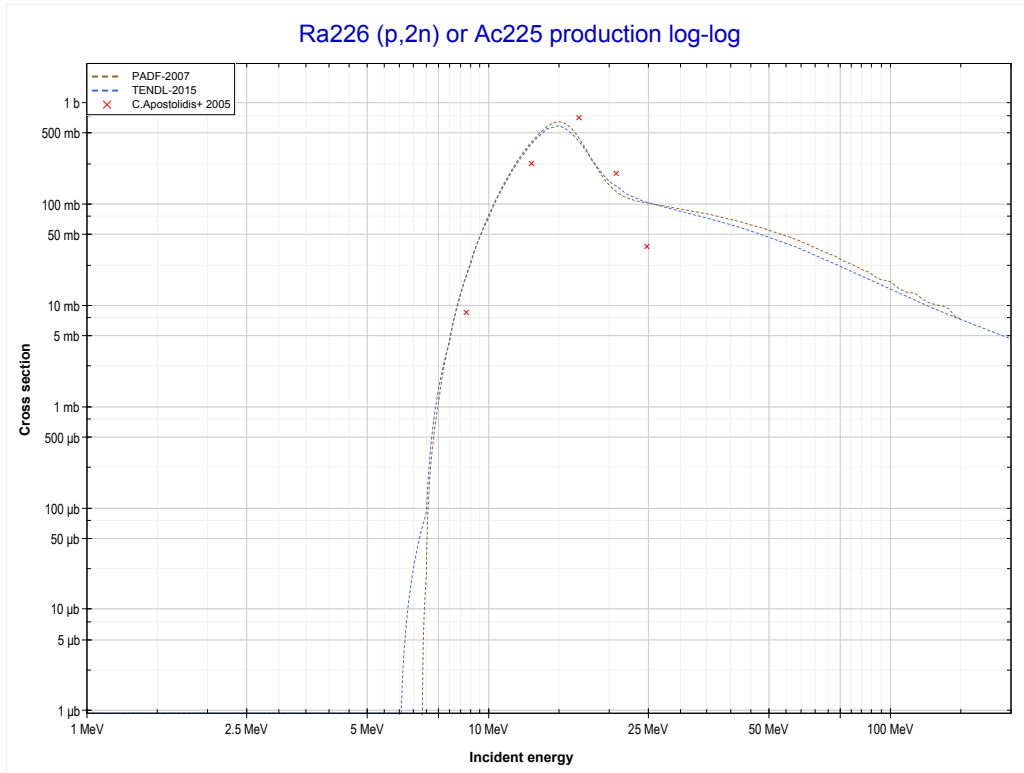
Reaction	Q-Value
Bi209(p,7n)Po203	-50157.45 keV

<< 79-Au-197	83-Bi-209	92-U-238 >>
<< MT160 (p,7n)	MT161 (p,8n) or MT5 (Po202 production)	88-Ra-226 MT16 (p,2n) >>



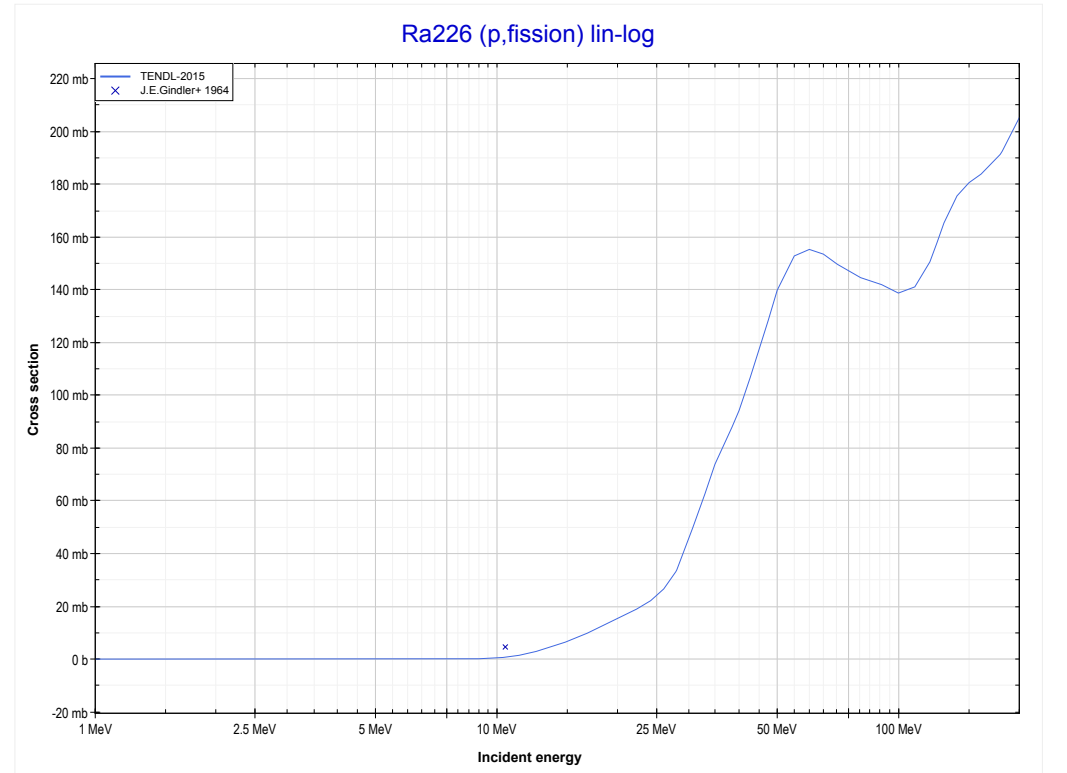
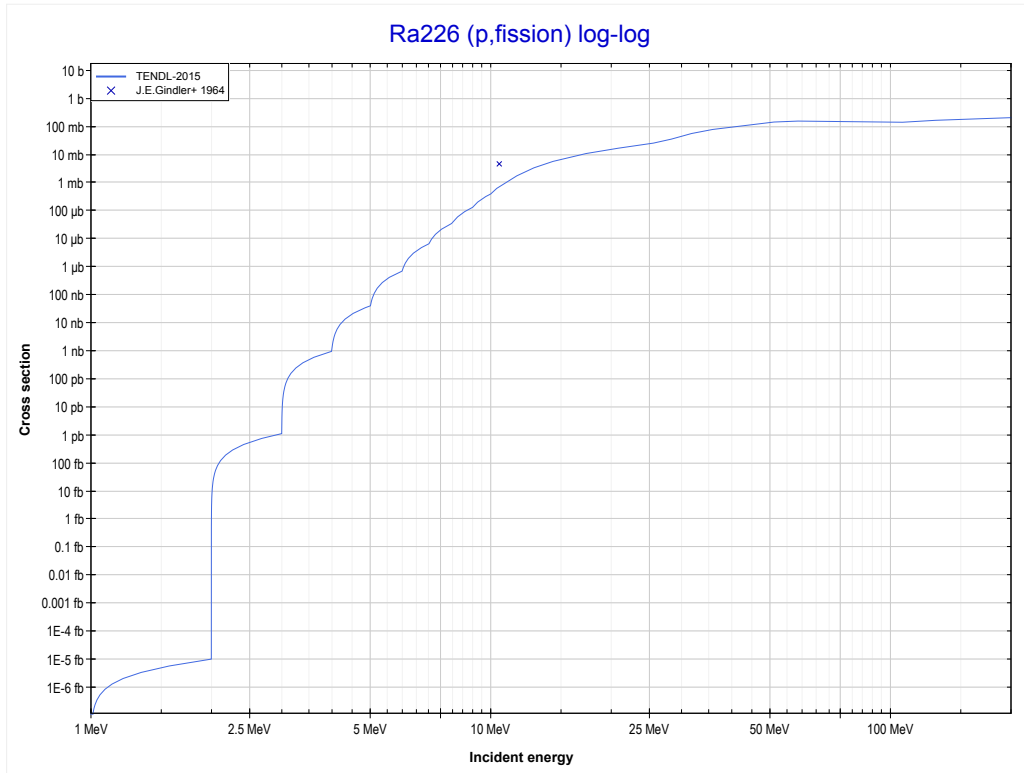
Reaction	Q-Value
Bi209(p,8n)Po202	-57615.77 keV

<< 83-Bi-209	88-Ra-226	90-Th-232 >>
<< 83-Bi-209 MT161 (p,8n)	MT16 (p,2n) or MT5 (Ac225 production)	MT18 (p,fission) >>

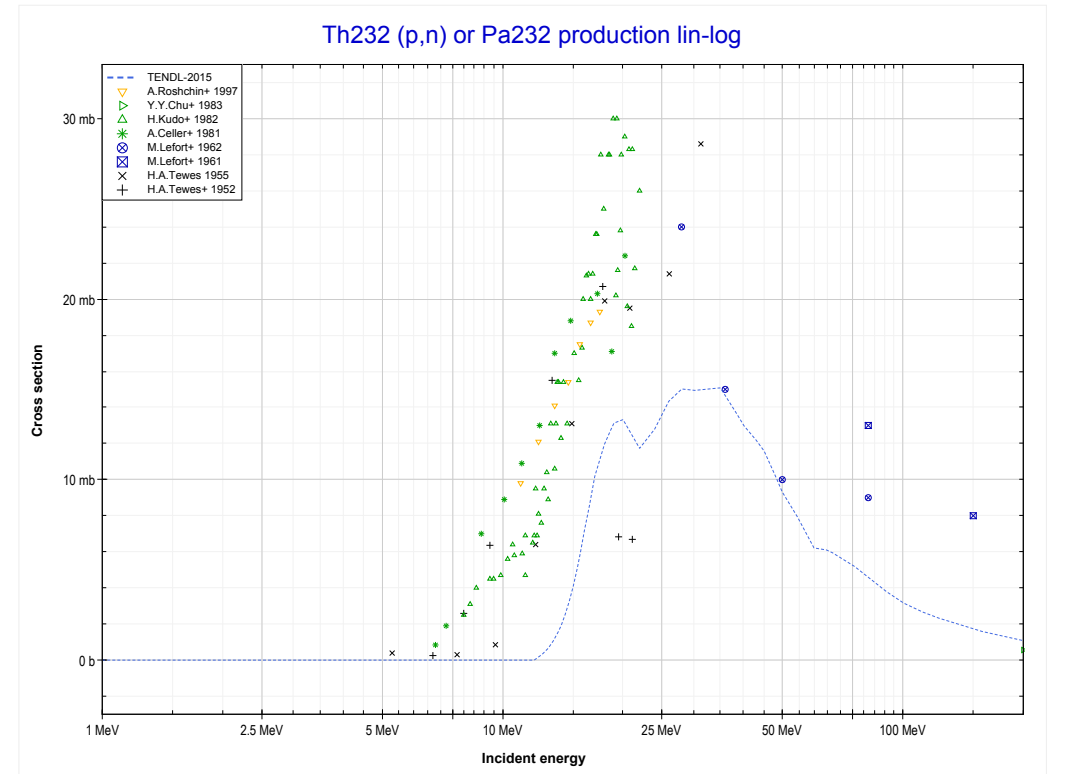
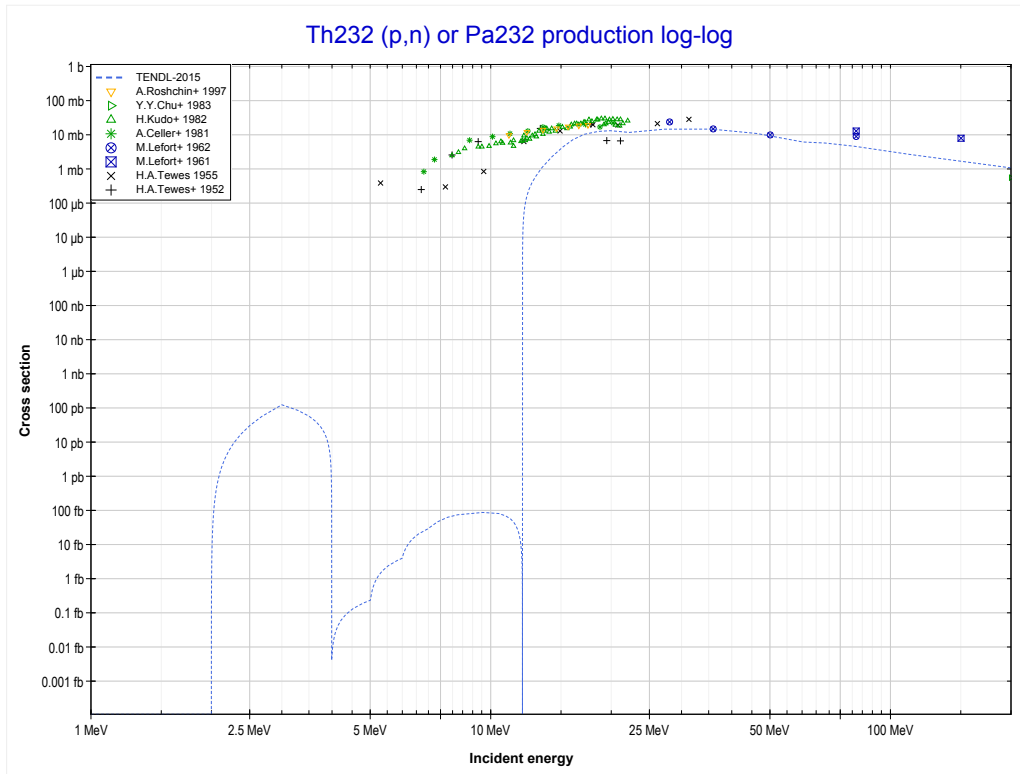


Reaction	Q-Value
Ra226(p,2n)Ac225	-6823.06 keV

<< 83-Bi-209	88-Ra-226	90-Th-232 >>
<< MT16 (p,2n)	MT18 (p,fission)	90-Th-232 MT4 (p,n) >>

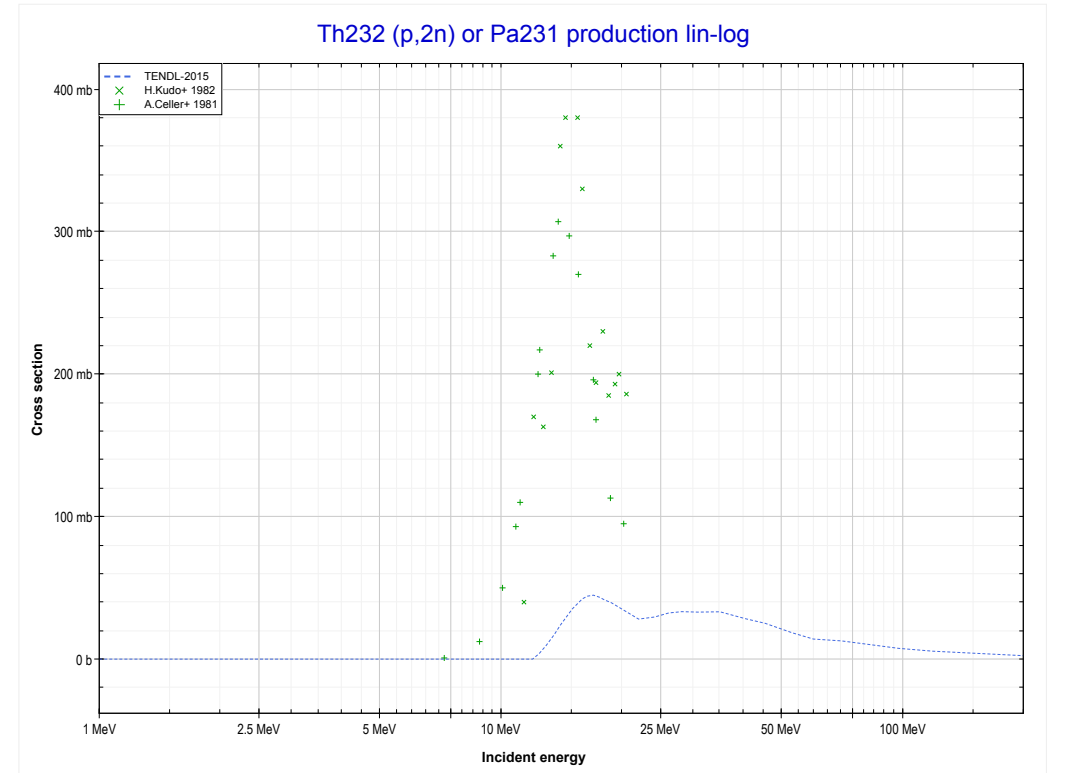
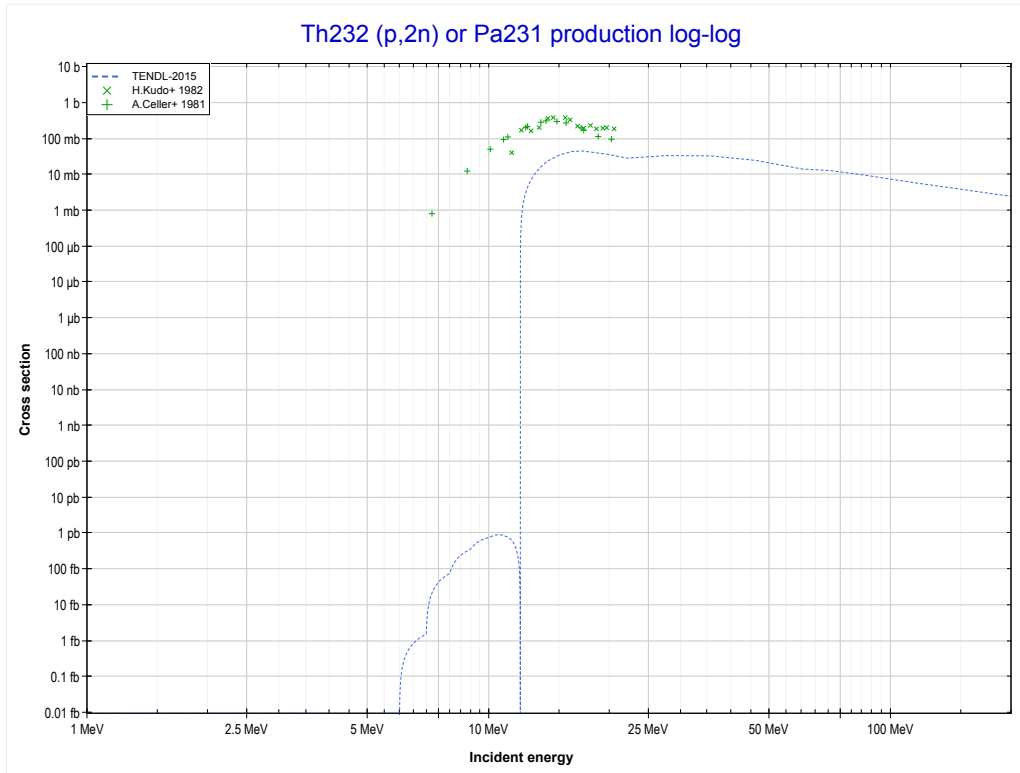


<< 83-Bi-209	90-Th-232	92-U-235 >>
<< 88-Ra-226 MT18 (p,fission)	MT4 (p,n) or MT5 (Pa232 production)	MT16 (p,2n) >>



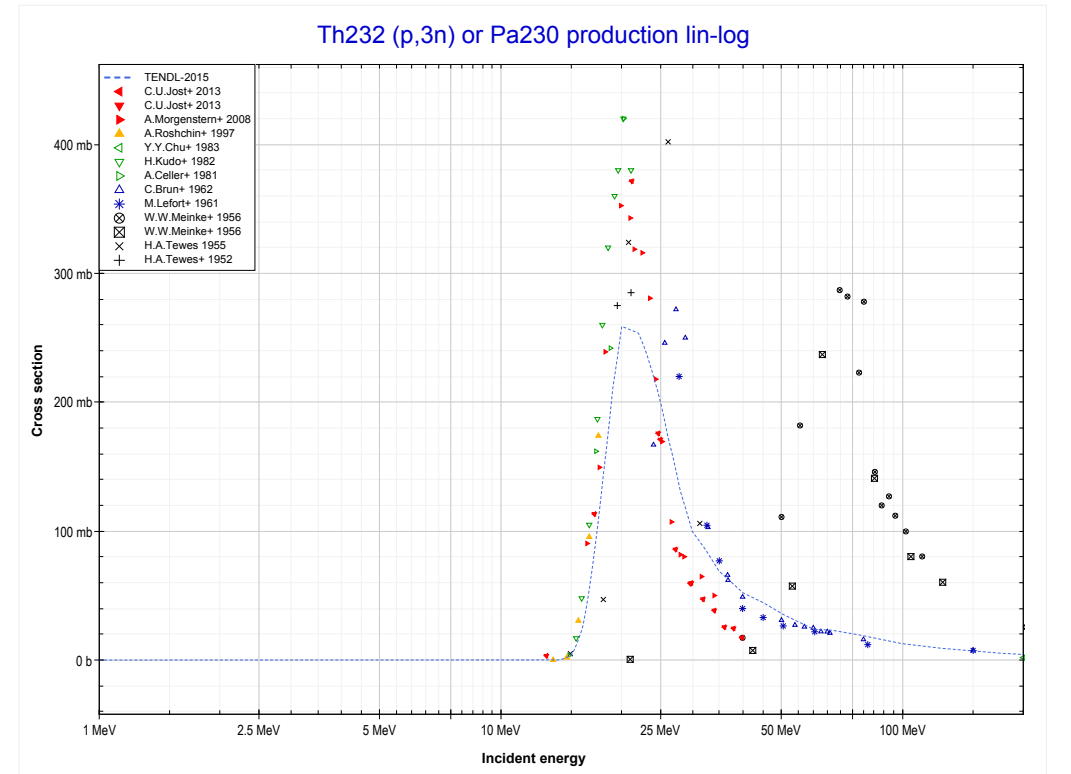
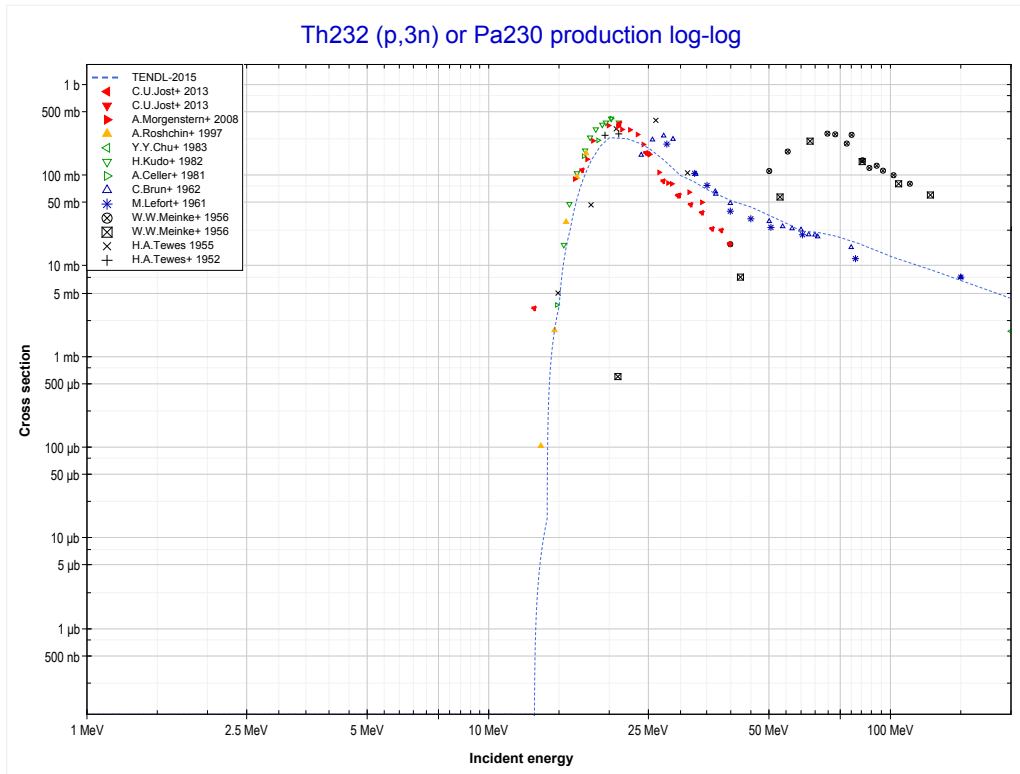
Reaction	Q-Value
Th232(p,n)Pa232	-1281.65 keV

<< 88-Ra-226	90-Th-232	91-Pa-231 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Pa231 production)	MT17 (p,3n) >>



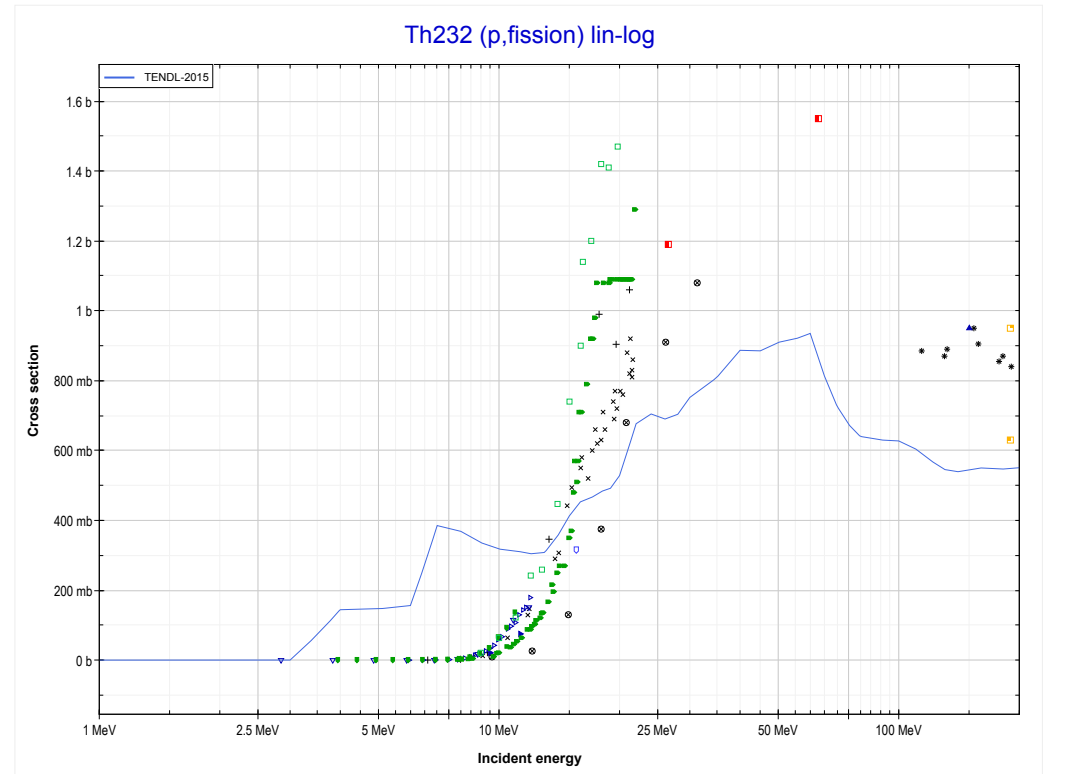
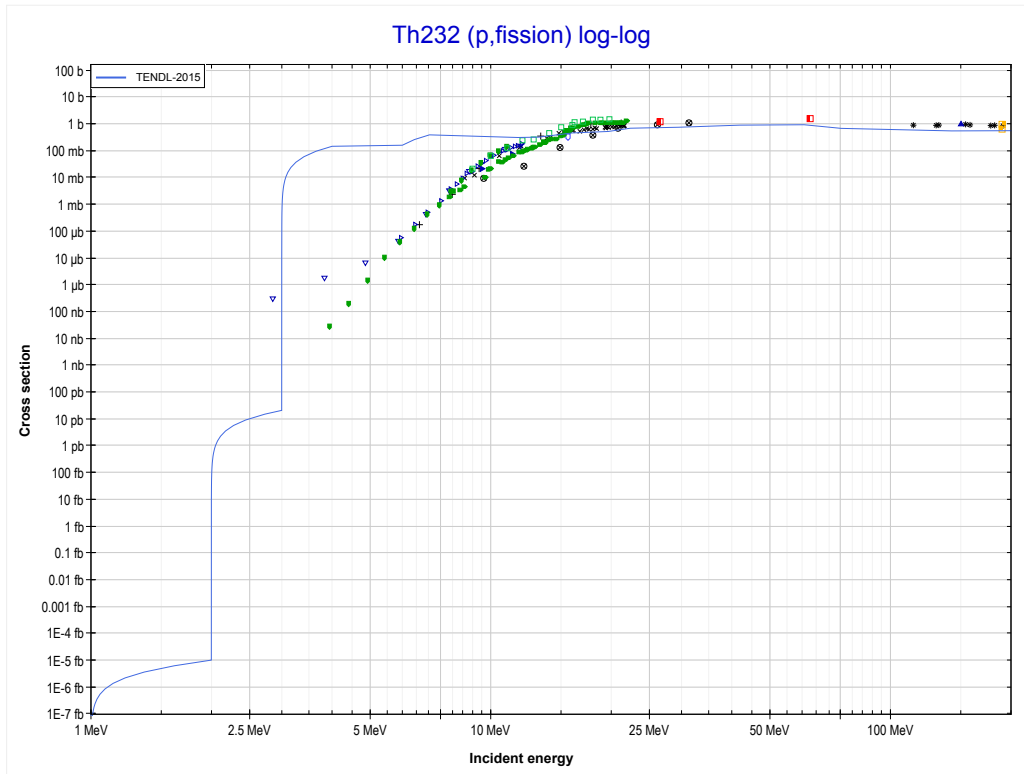
Reaction	Q-Value
Th232(p,2n)Pa231	-6830.96 keV

<< 83-Bi-209	90-Th-232	92-U-235 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Pa230 production)	MT18 (p,fission) >>

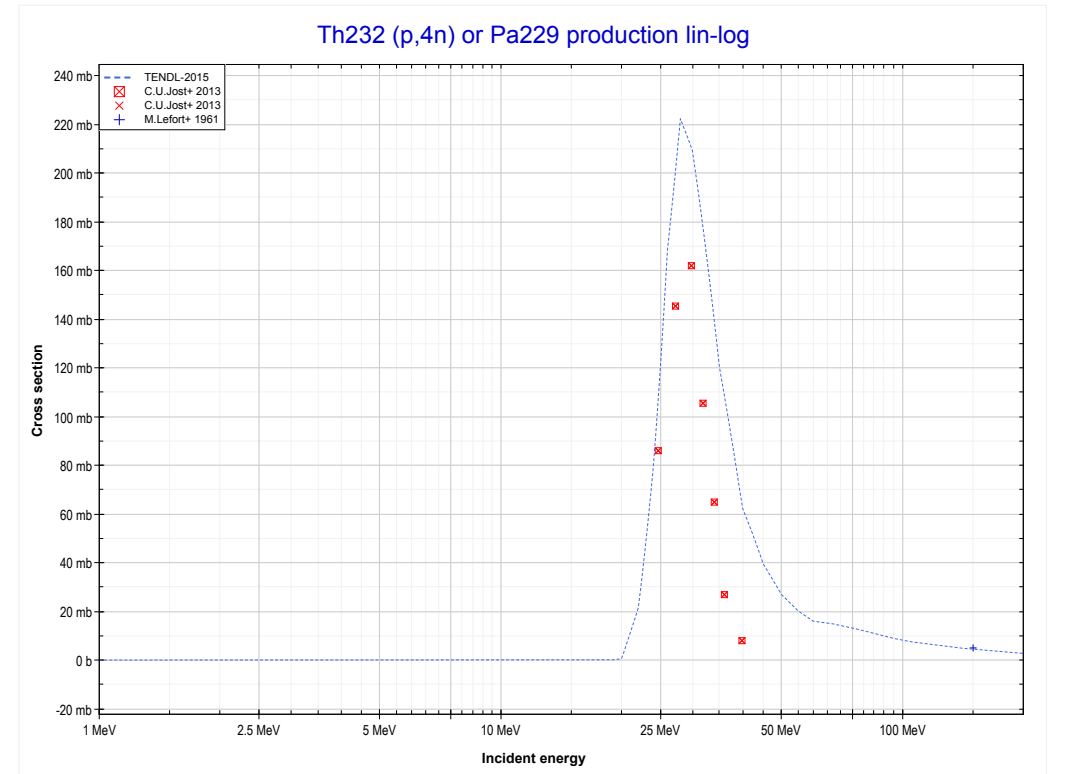
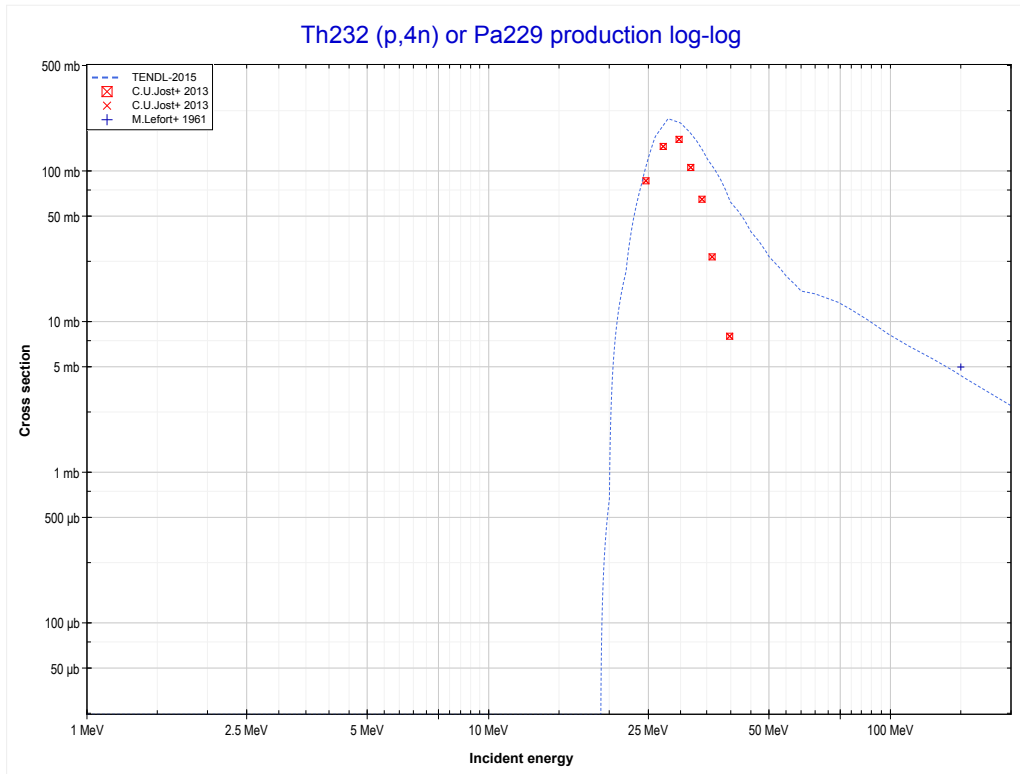


Reaction	Q-Value
Th232(p,3n)Pa230	-13651.28 keV

<< 88-Ra-226	90-Th-232	92-U-233 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

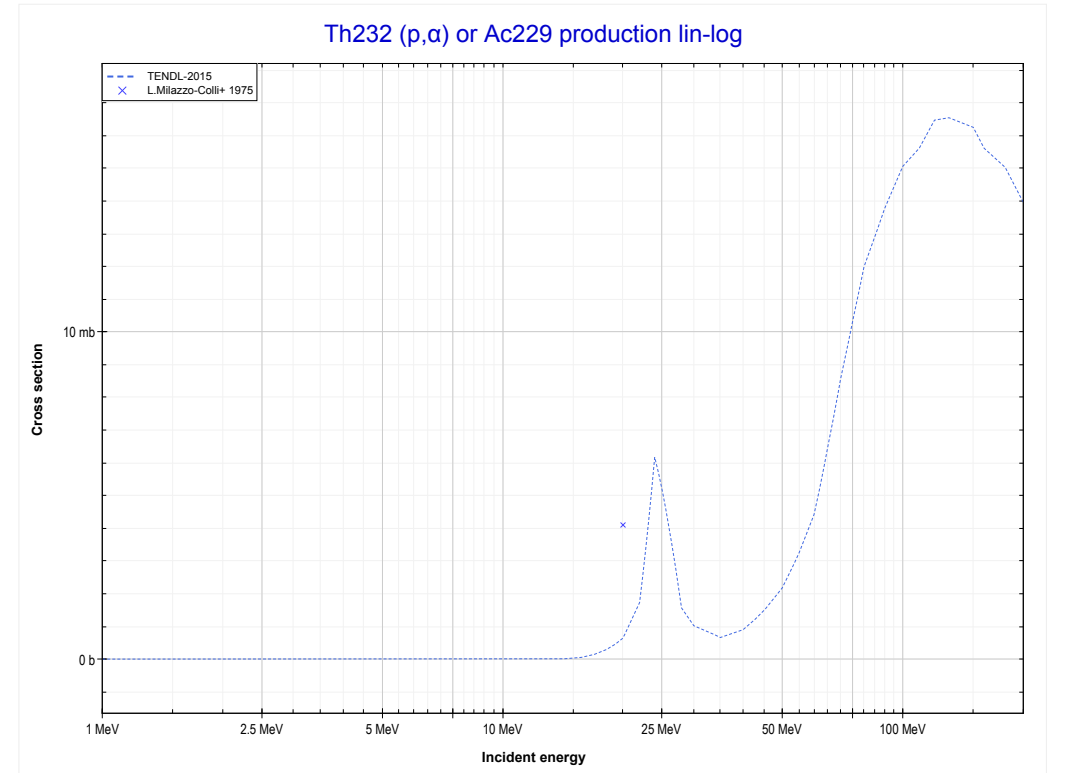
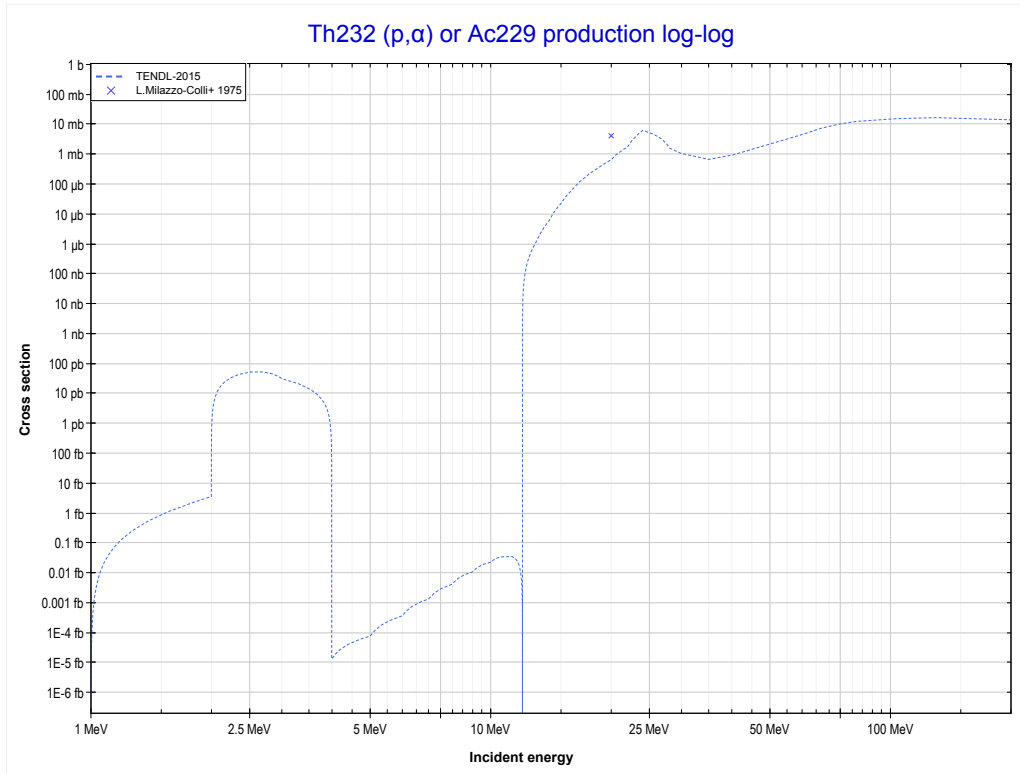


<< 83-Bi-209	90-Th-232	92-U-235 >>
<< MT18 (p,fission)	MT37 (p,4n) or MT5 (Pa229 production)	MT107 (p, α) >>



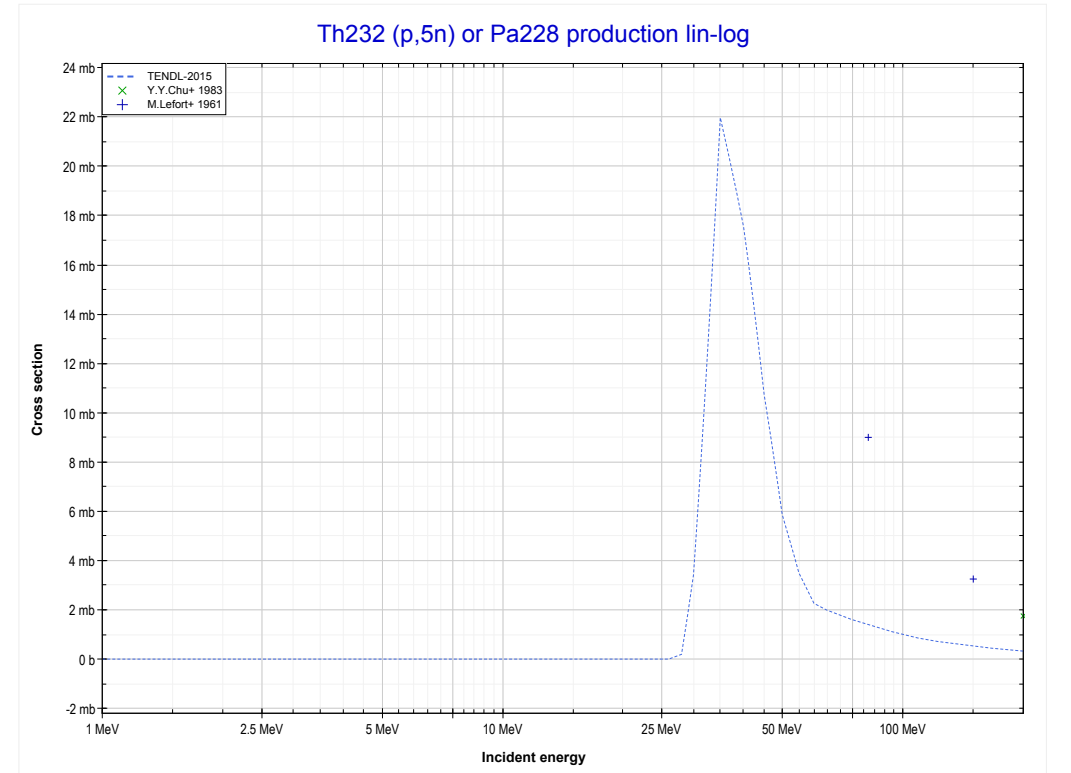
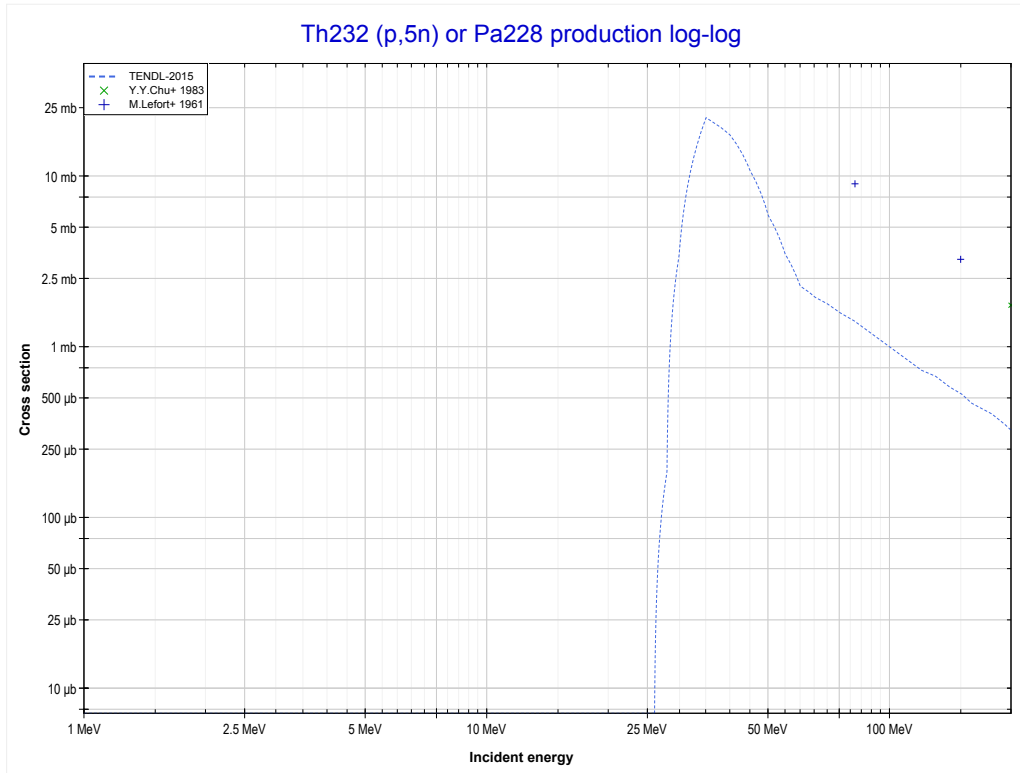
Reaction	Q-Value
Th232(p,4n)Pa229	-19445.60 keV

<< 83-Bi-209	90-Th-232	92-U-235 >>
<< MT37 (p,4n)	MT107 (p,α) or MT5 (Ac229 production)	MT152 (p,5n) >>



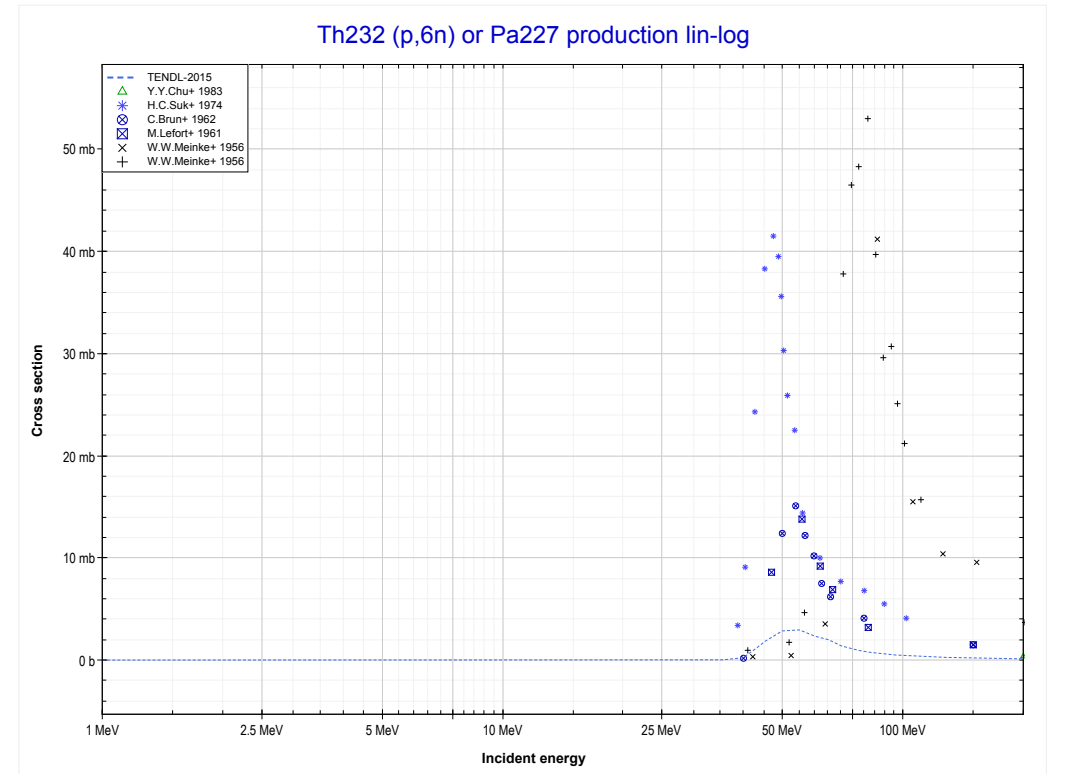
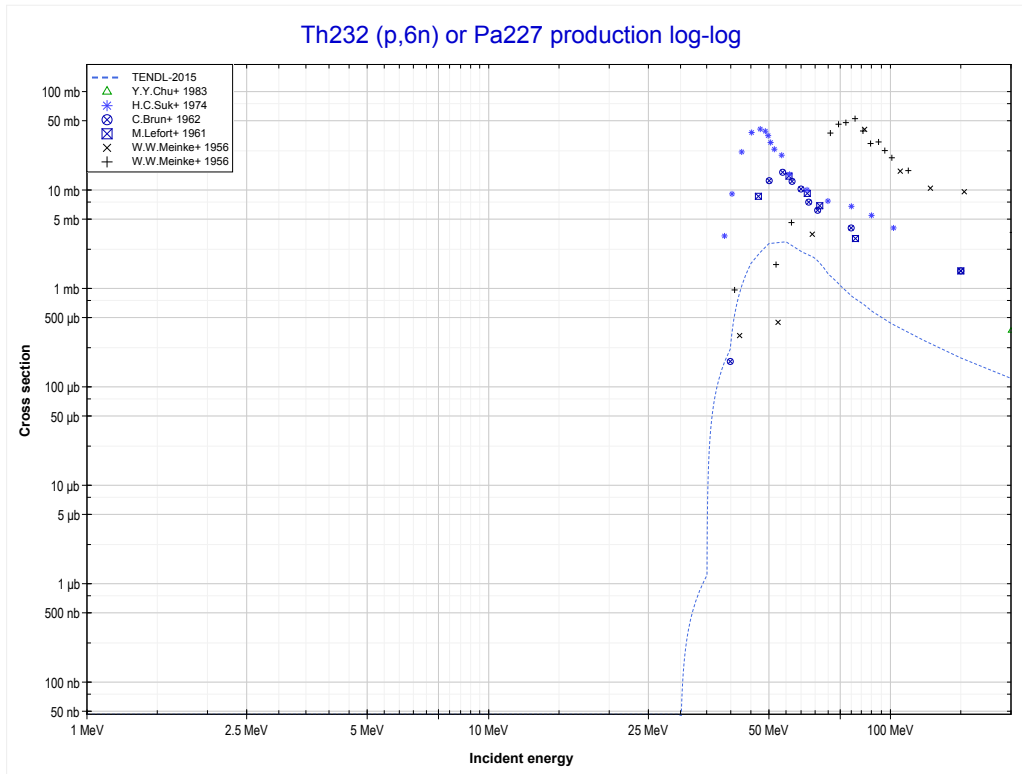
Reaction	Q-Value
Th232(p, α)Ac229	9614.75 keV
Th232(p,p+t)Ac229	-10199.11 keV
Th232(p,n+He3)Ac229	-10962.86 keV
Th232(p,2d)Ac229	-14231.77 keV
Th232(p,n+p+d)Ac229	-16456.34 keV
Th232(p,2n+2p)Ac229	-18680.90 keV

<< 83-Bi-209	90-Th-232	92-U-235 >>
<< MT107 (p, α)	MT152 (p,5n) or MT5 (Pa228 production)	MT153 (p,6n) >>



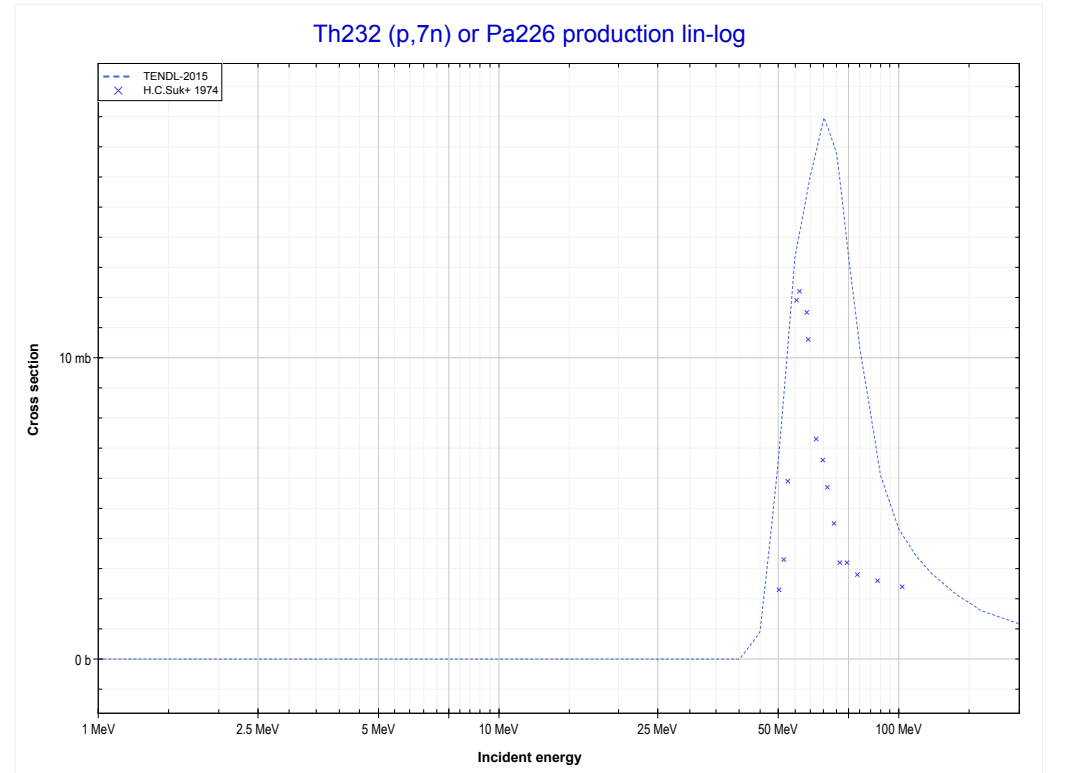
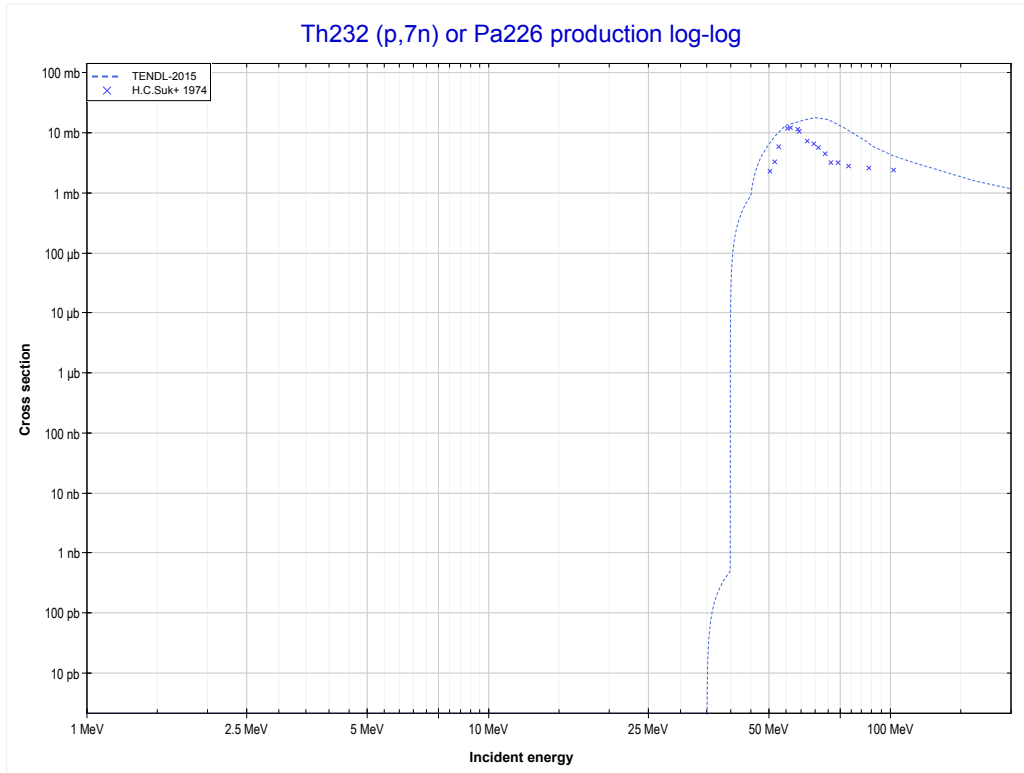
Reaction	Q-Value
Th232(p,5n)Pa228	-26542.91 keV

<< 83-Bi-209	90-Th-232	92-U-238 >>
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Pa227 production)	MT160 (p,7n) >>



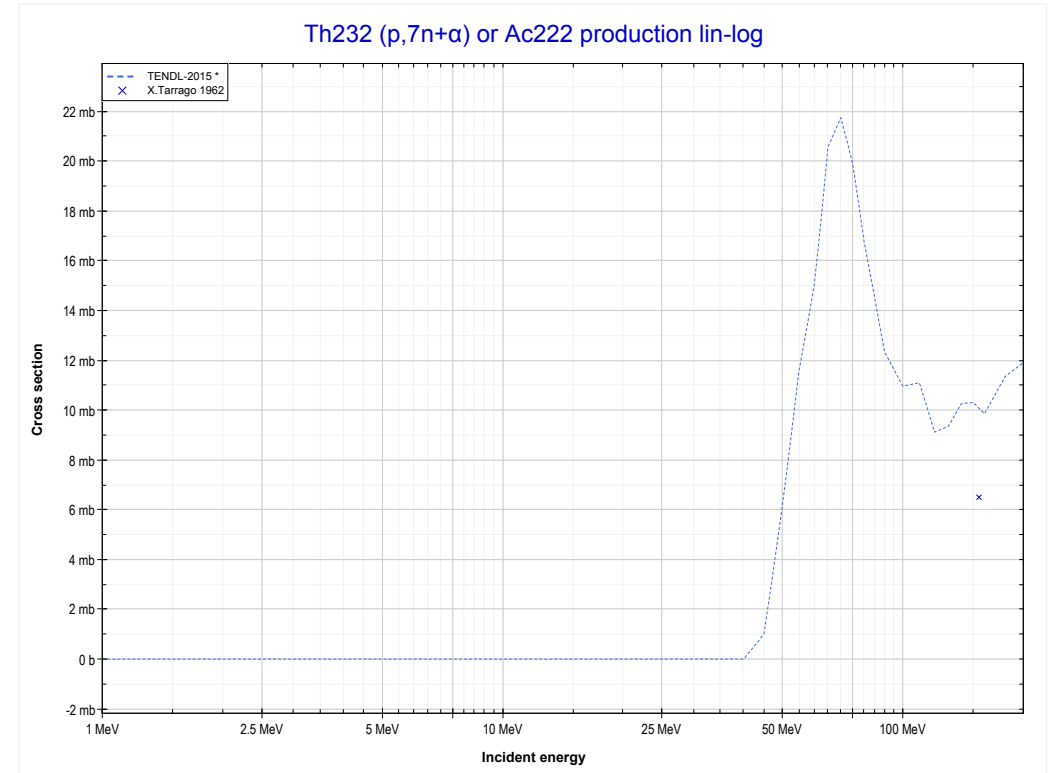
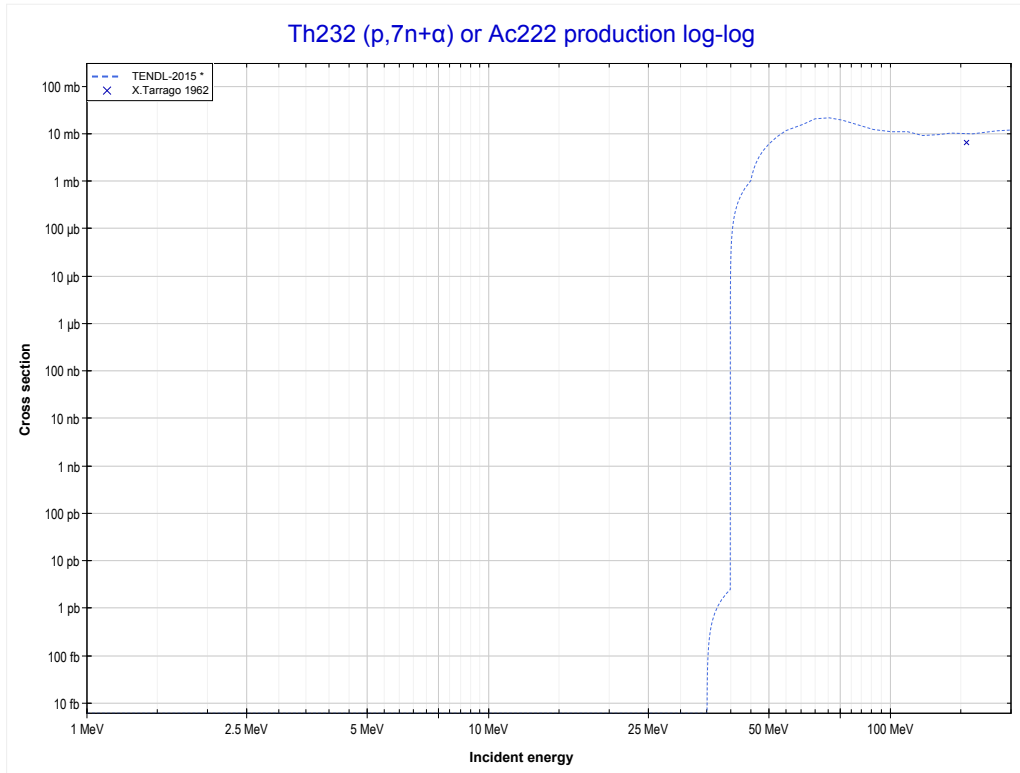
Reaction	Q-Value
Th232(p,6n)Pa227	-32522.23 keV

<< 83-Bi-209	90-Th-232	92-U-238 >>
<< MT153 (p,6n)	MT160 (p,7n) or MT5 (Pa226 production)	MT168 (p,7n+α) >>



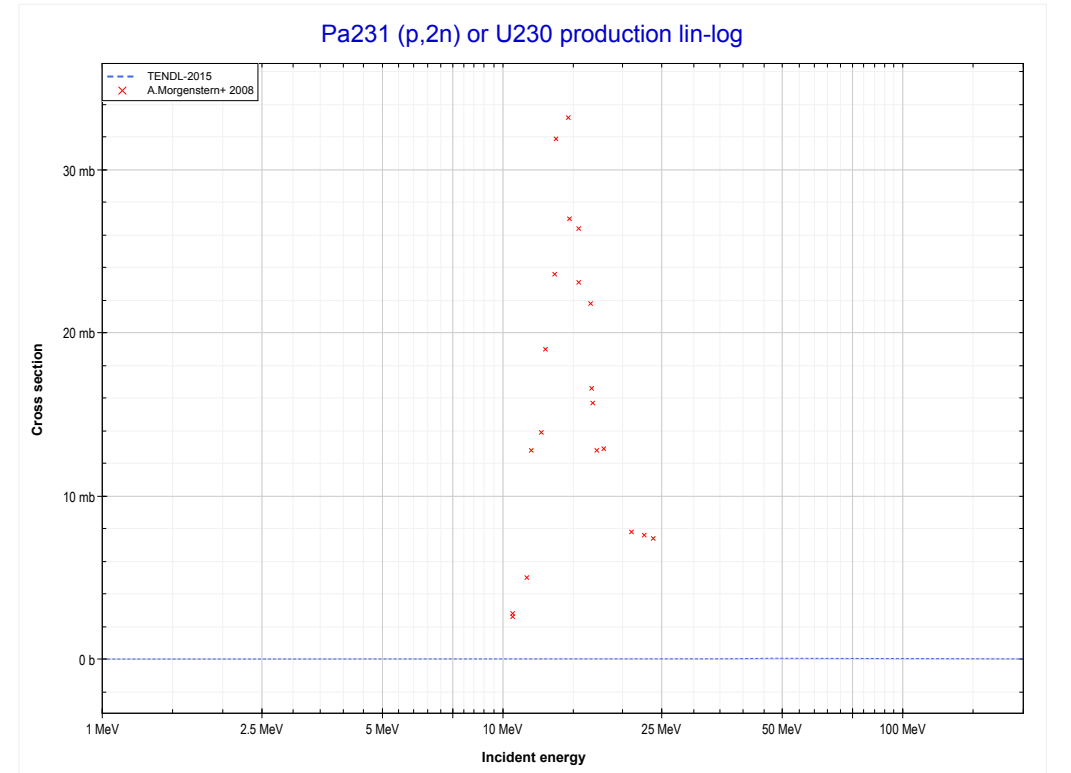
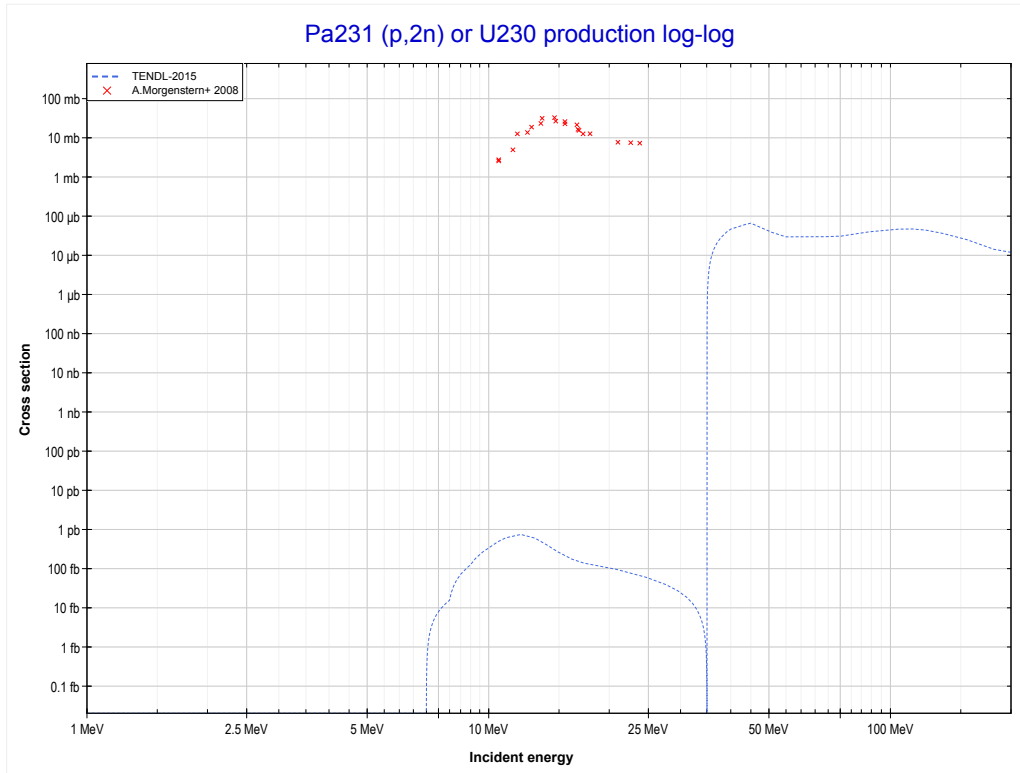
Reaction	Q-Value
Th232(p,7n)Pa226	-39794.55 keV

	90-Th-232	
<< MT160 (p,7n)	MT168 (p,7n+α) or MT5 (Ac222 production)	91-Pa-231 MT16 (p,2n) >>



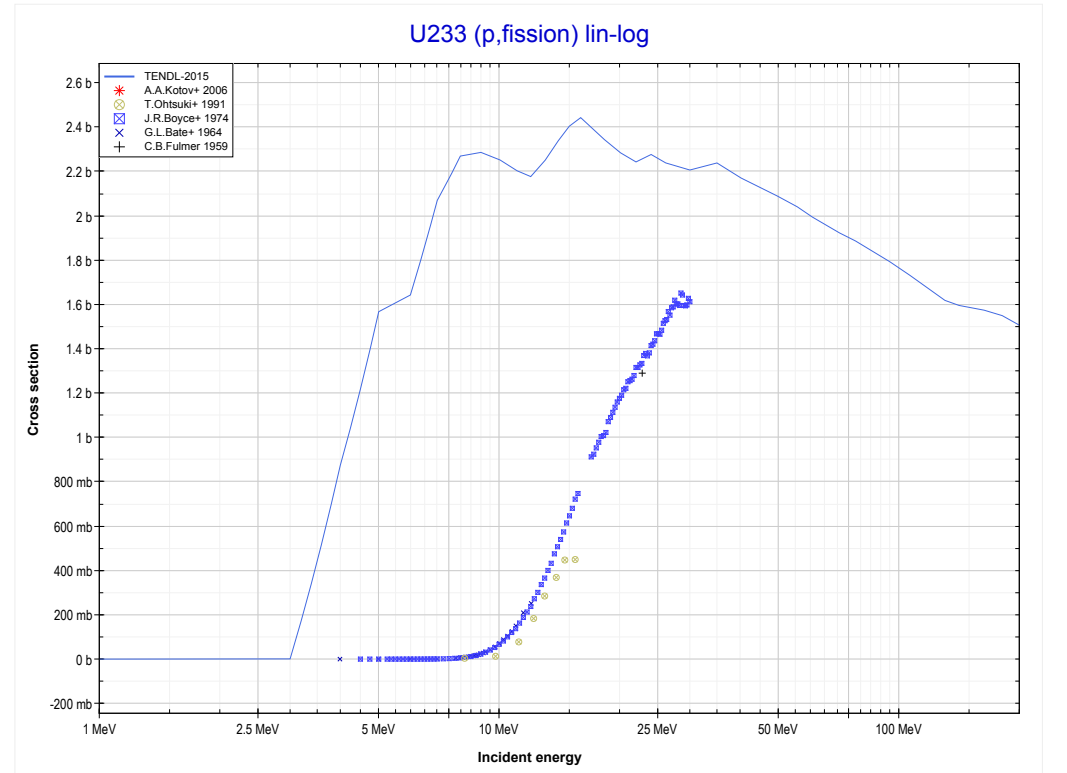
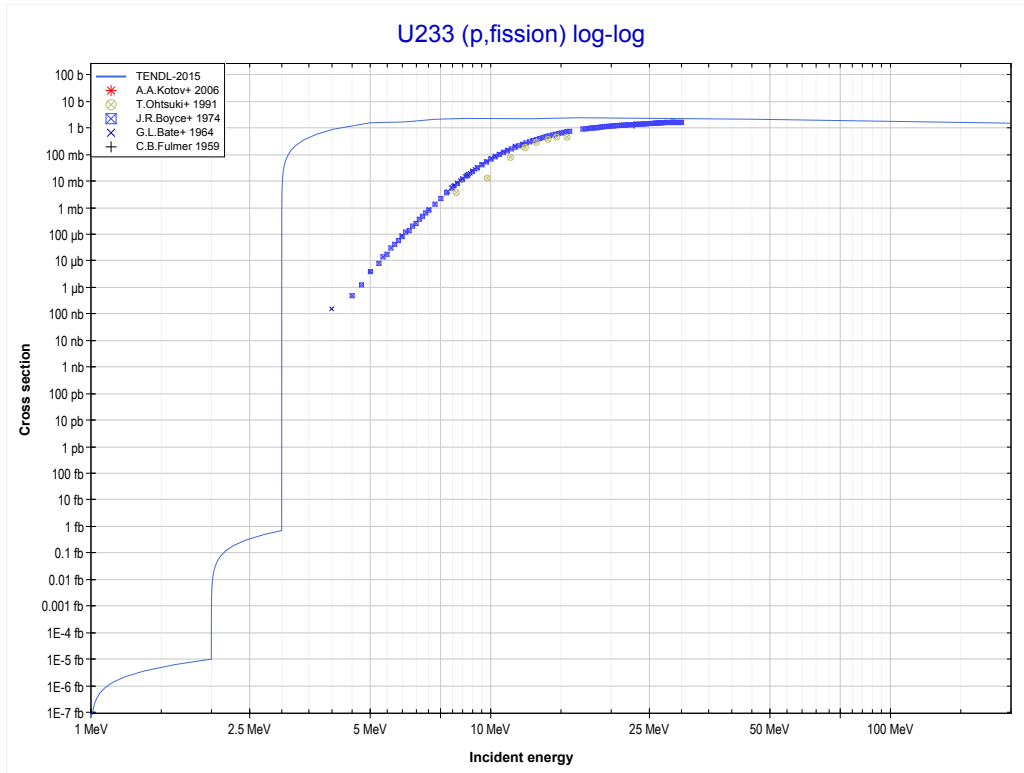
Reaction	Q-Value
Th232(p,7n+α)Ac222	-32808.46 keV
Th232(p,5n+2t)Ac222	-44140.53 keV
Th232(p,6n+d+t)Ac222	-50397.76 keV
Th232(p,7n+p+t)Ac222	-52622.33 keV
Th232(p,8n+He3)Ac222	-53386.08 keV
Th232(p,7n+2d)Ac222	-56654.99 keV
Th232(p,8n+p+d)Ac222	-58879.56 keV

<< 90-Th-232	91-Pa-231	92-U-235 >>
<< 90-Th-232 MT168 (p,7n+α)	MT16 (p,2n) or MT5 (U230 production)	92-U-233 MT18 (p,fission) >>

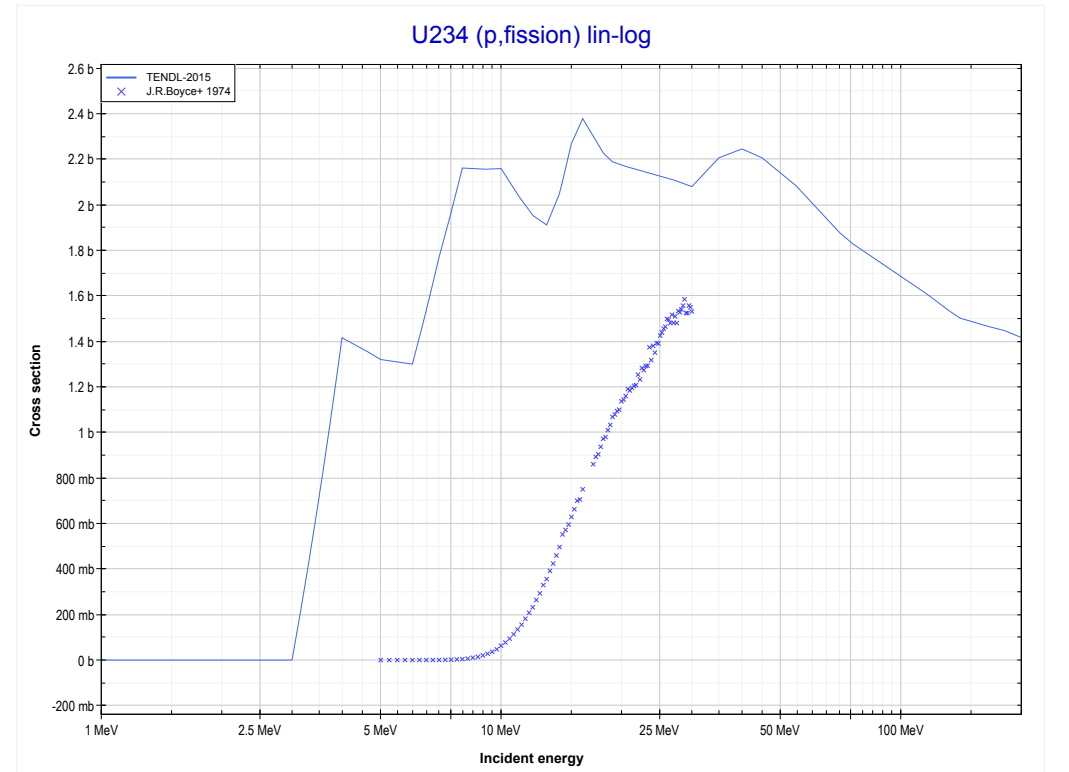
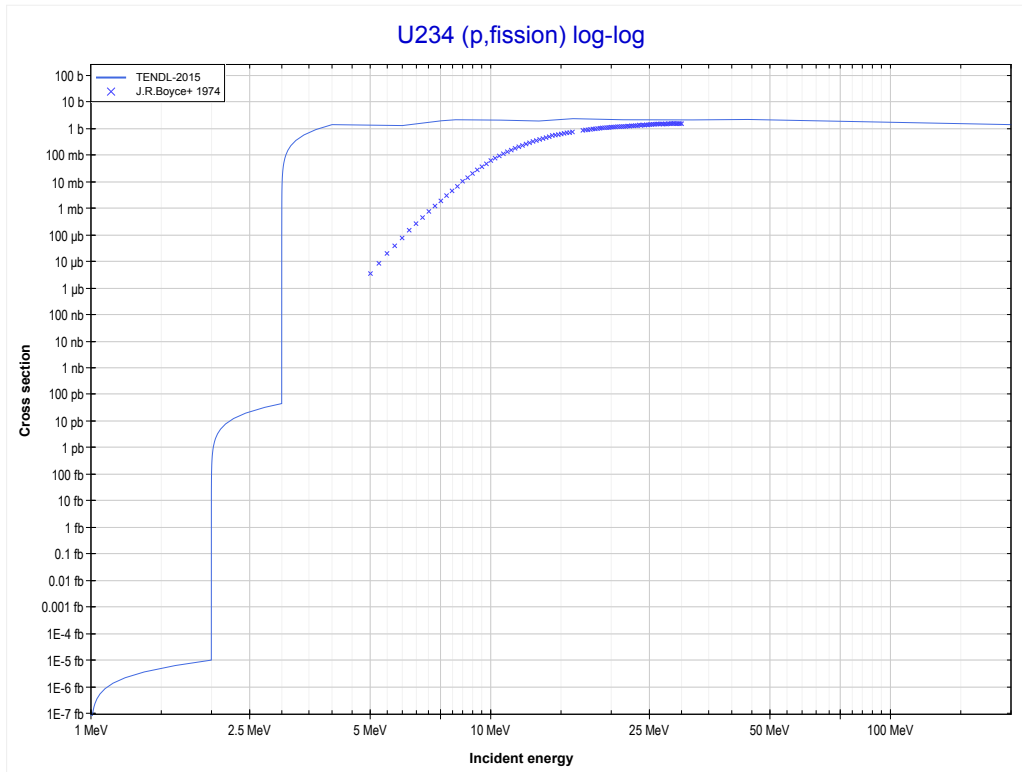


Reaction	Q-Value
Pa231(p,2n)U230	-7042.66 keV

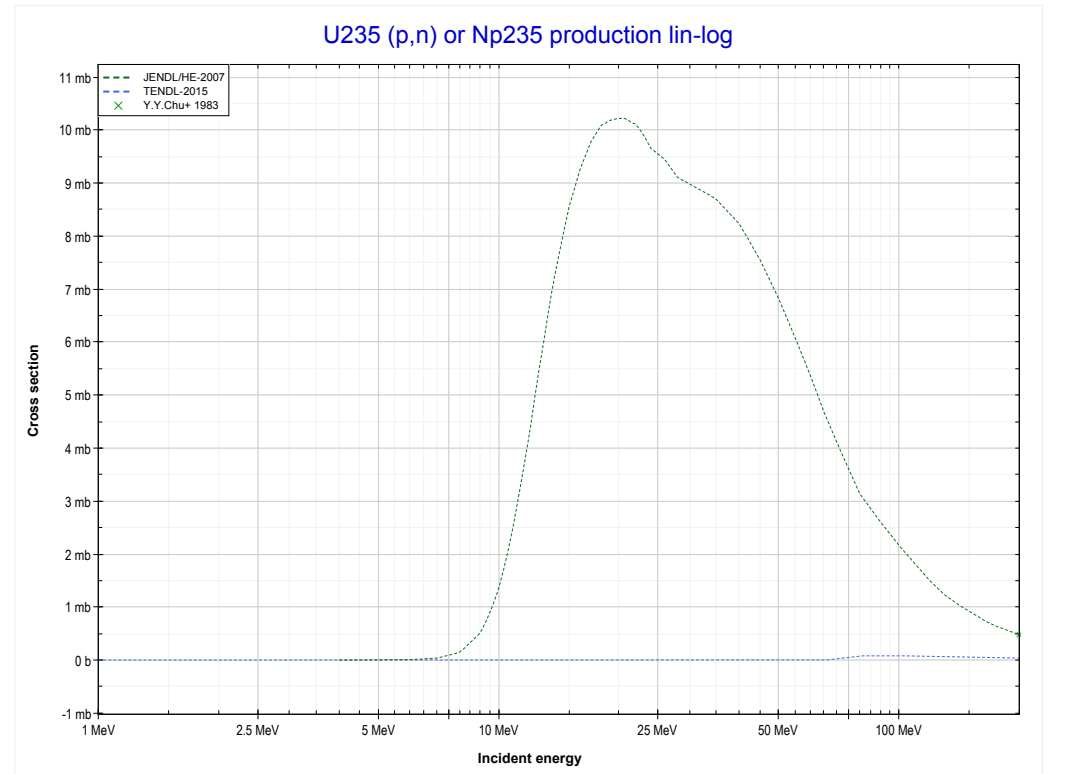
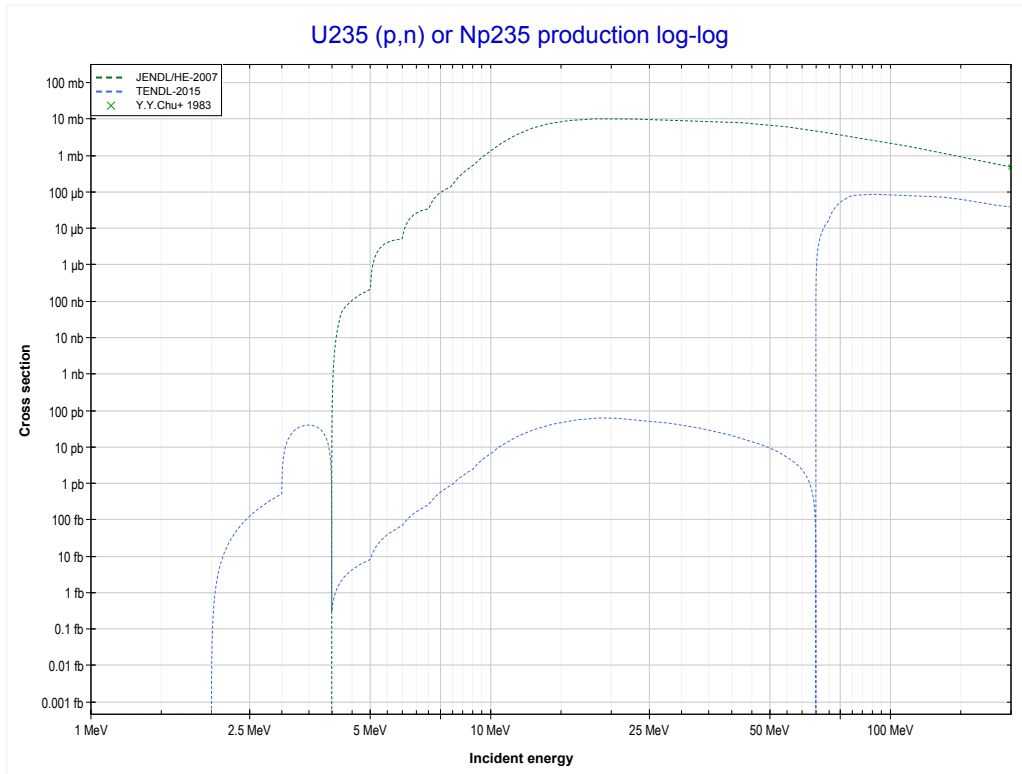
<< 90-Th-232	92-U-233	92-U-234 >>
<< 91-Pa-231 MT16 (p,2n)	MT18 (p,fission)	92-U-234 MT18 (p,fission) >>



<< 92-U-233	92-U-234	92-U-235 >>
<< 92-U-233 MT18 (p,fission)	MT18 (p,fission)	92-U-235 MT4 (p,n) >>

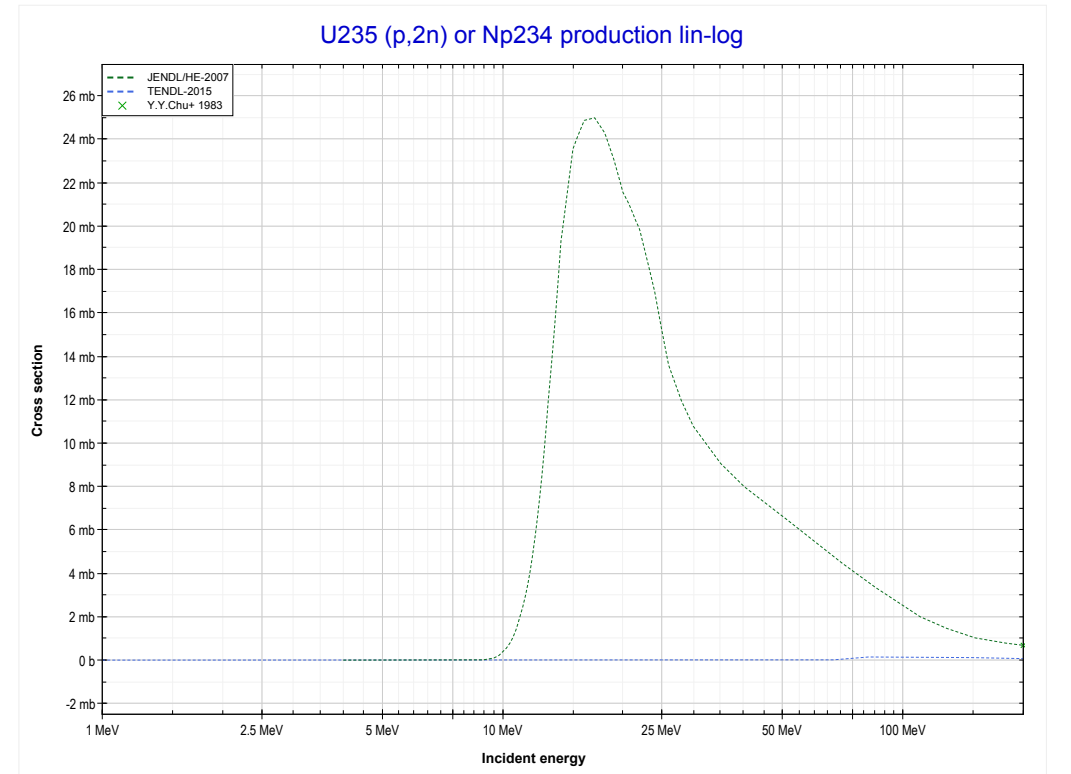
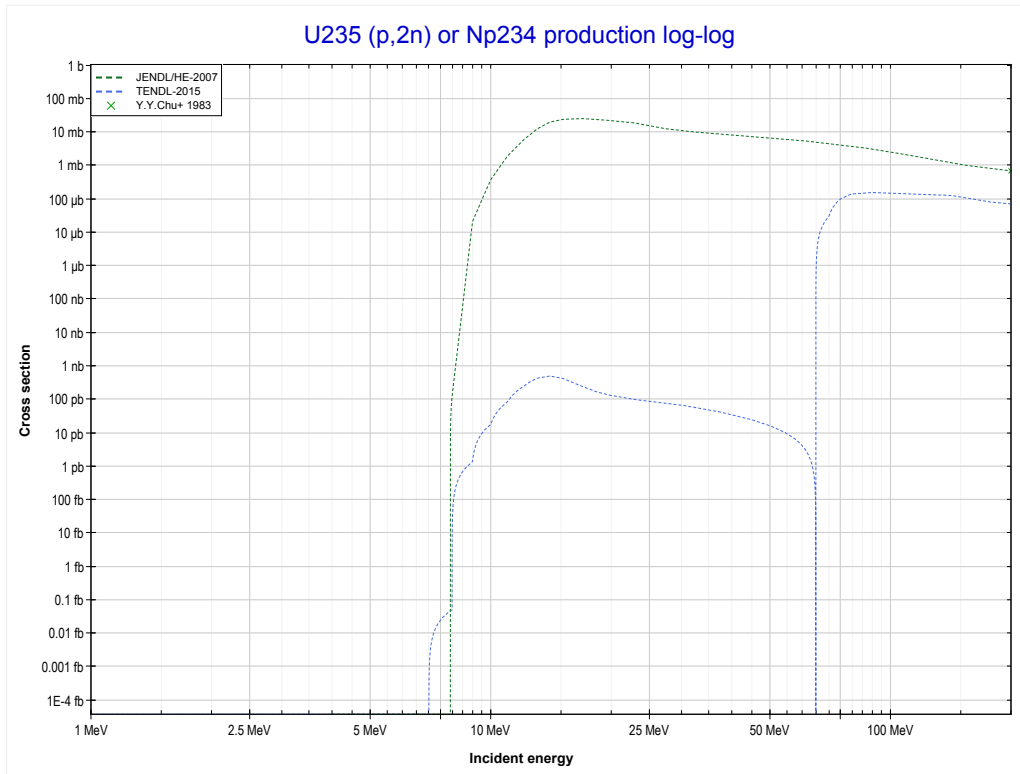


<< 90-Th-232	92-U-235	92-U-236 >>
<< 92-U-234 MT18 (p,fission)	MT4 (p,n) or MT5 (Np235 production)	MT16 (p,2n) >>



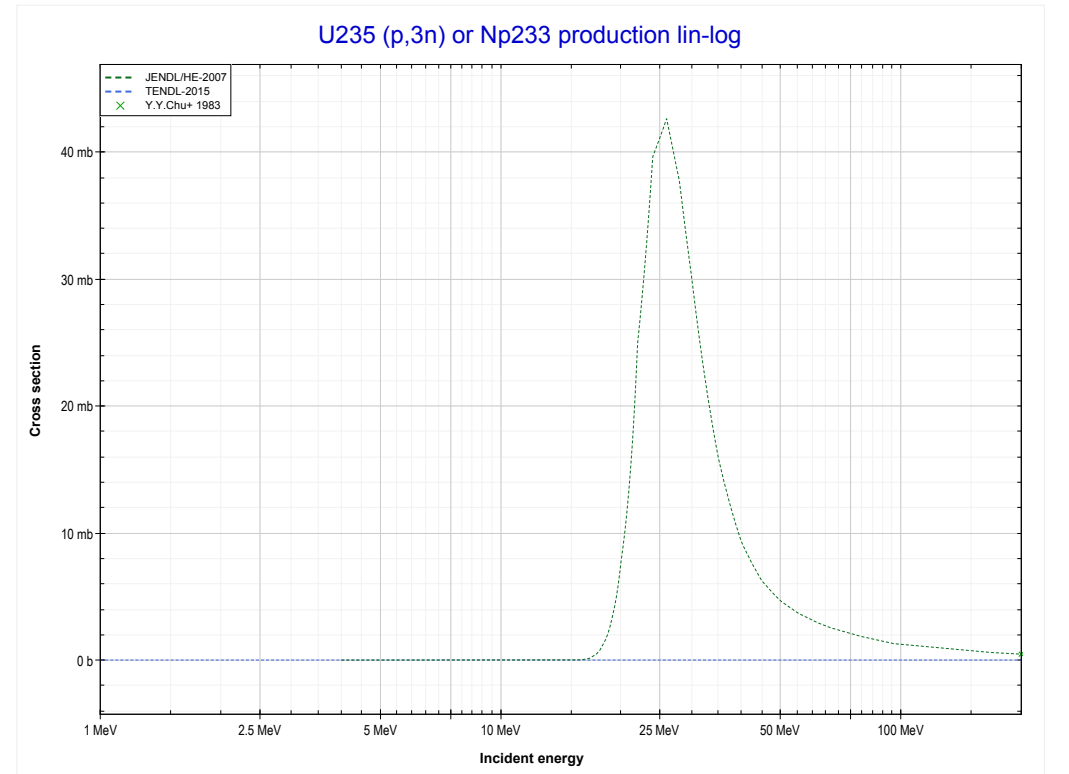
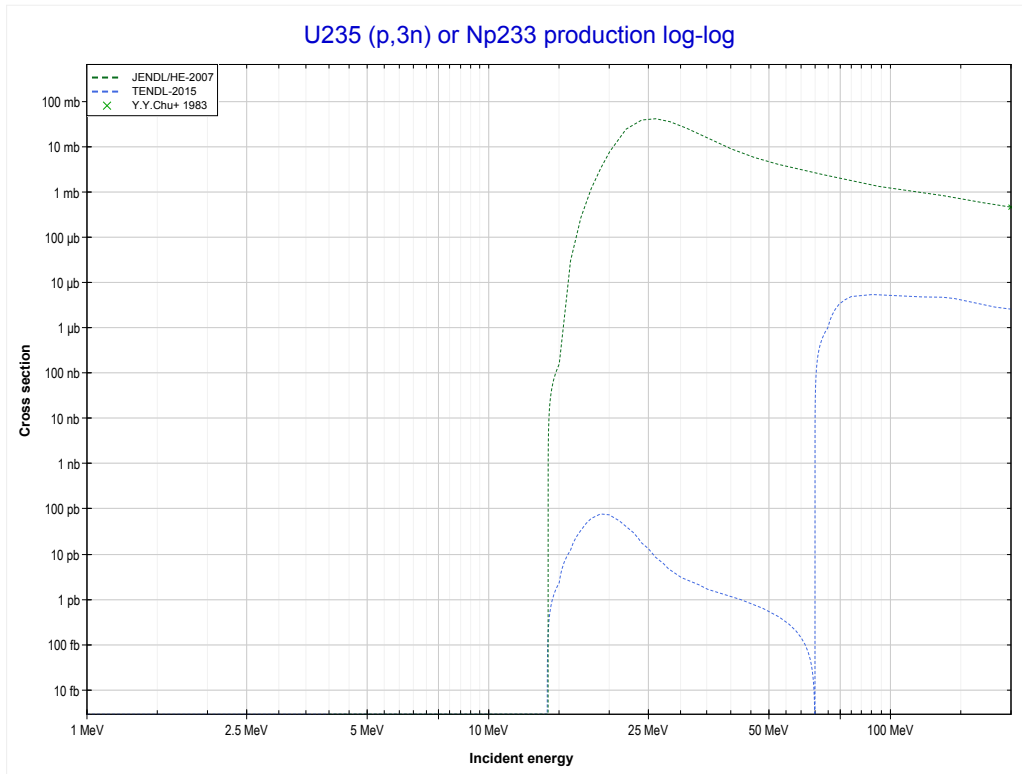
Reaction	Q-Value
U235(p,n)Np235	-906.55 keV

<< 91-Pa-231	92-U-235	92-U-236 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Np234 production)	MT17 (p,3n) >>



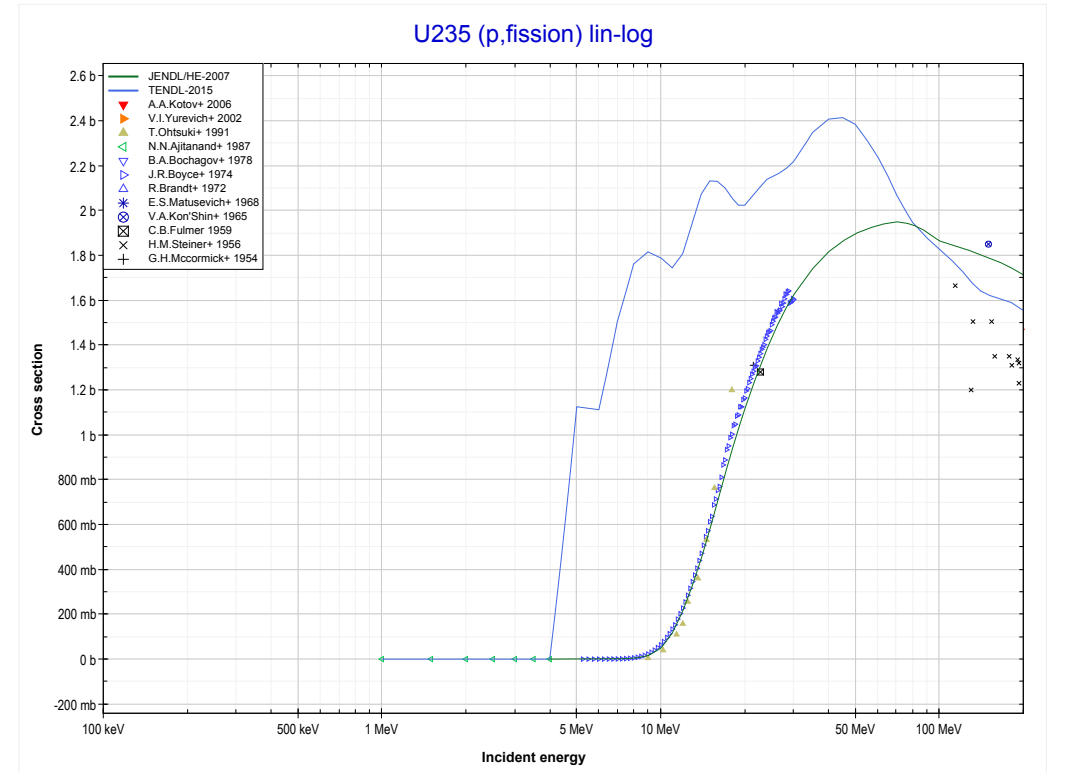
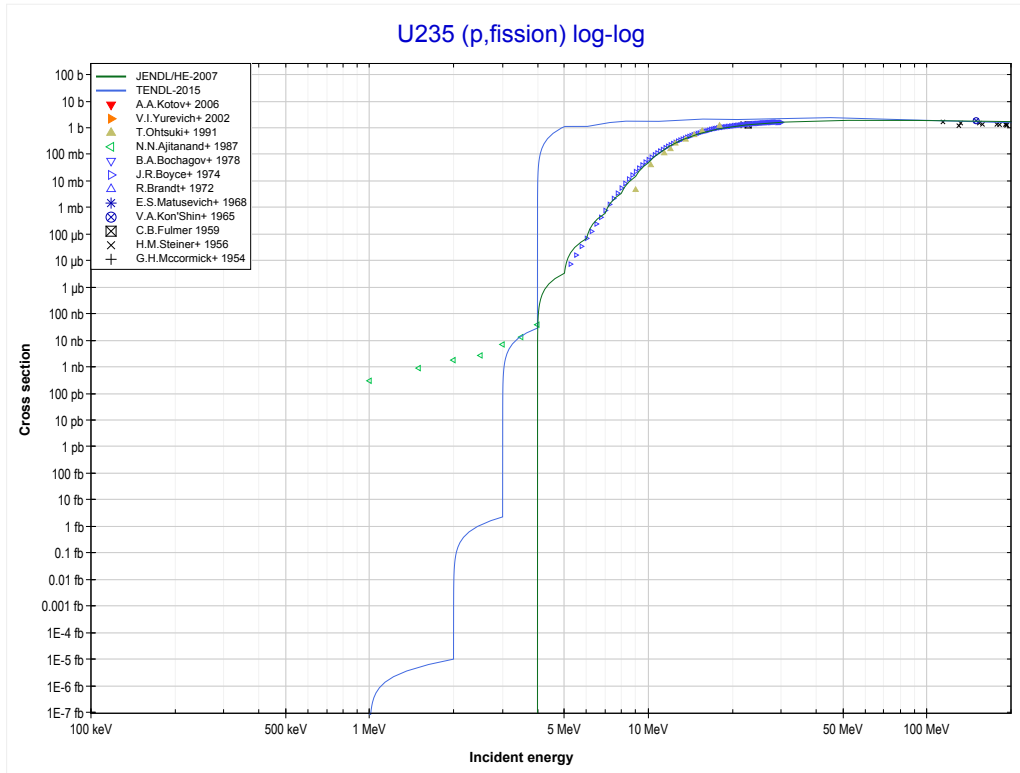
Reaction	Q-Value
U235(p,2n)Np234	-7889.96 keV

<< 90-Th-232	92-U-235	92-U-236 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Np233 production)	MT18 (p,fission) >>

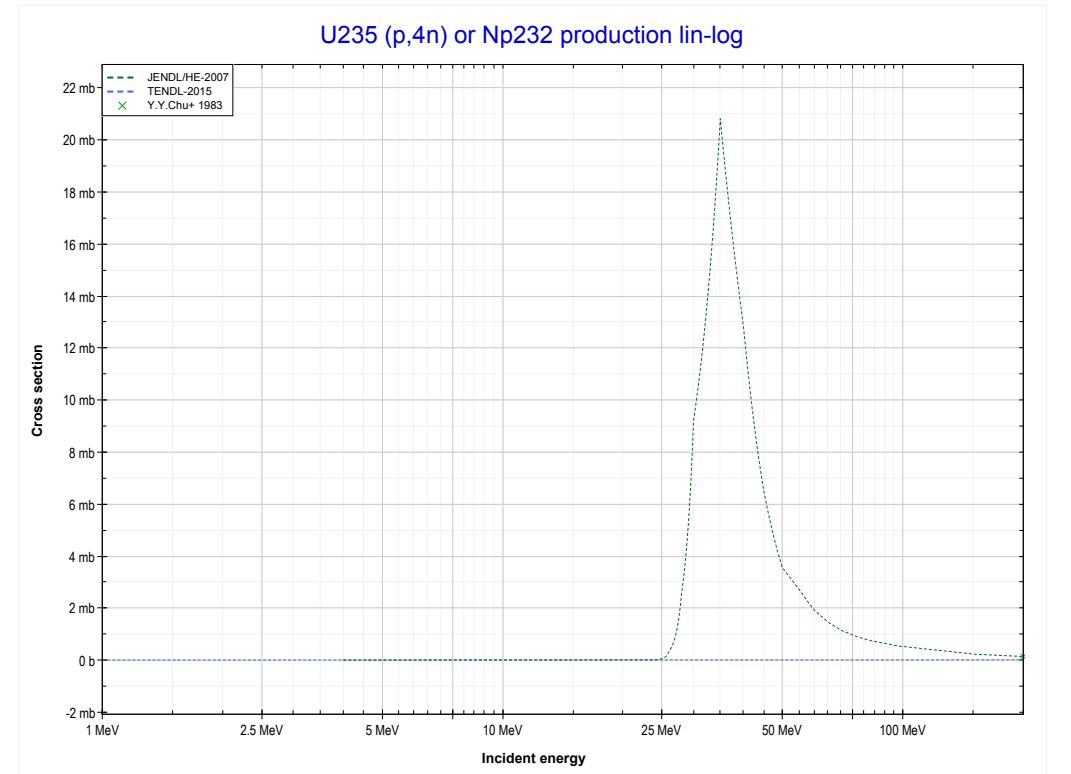
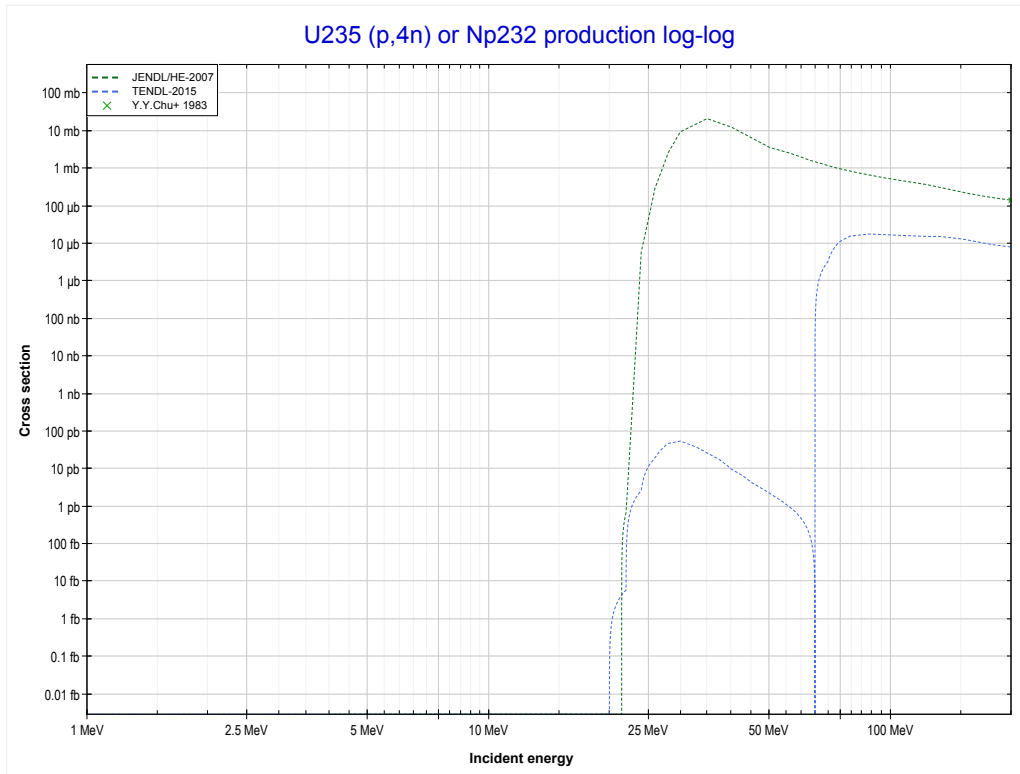


Reaction	Q-Value
U235(p,3n)Np233	-13954.28 keV

<< 92-U-234	92-U-235	92-U-236 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

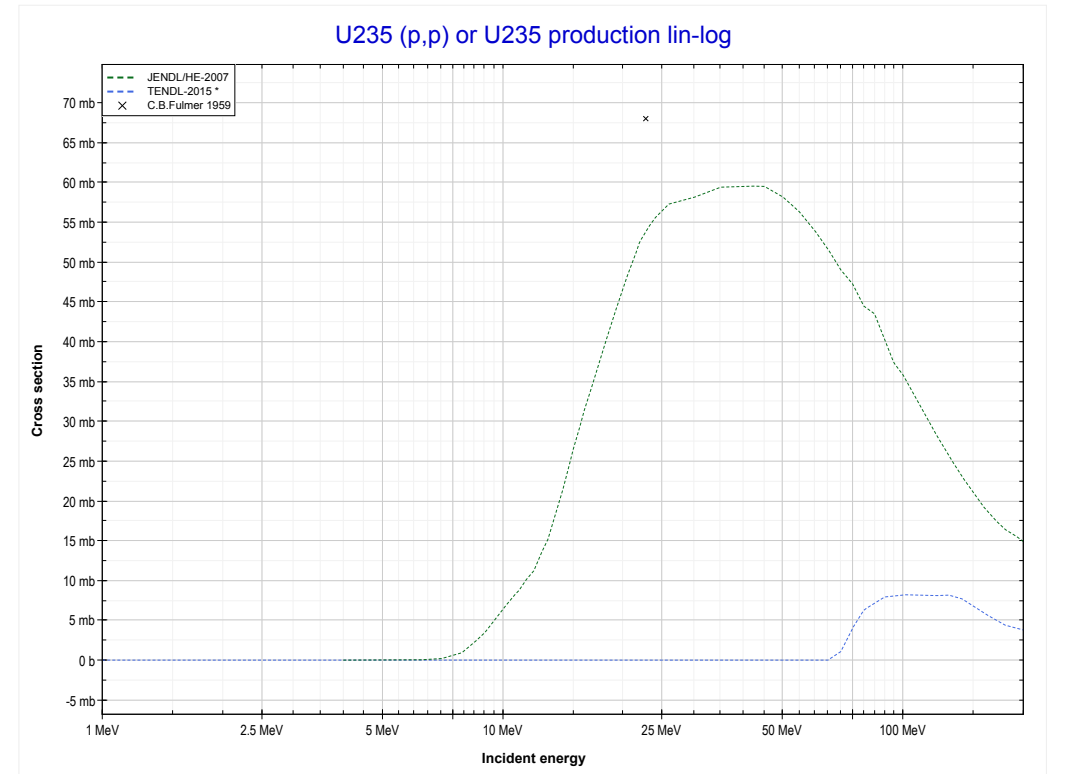
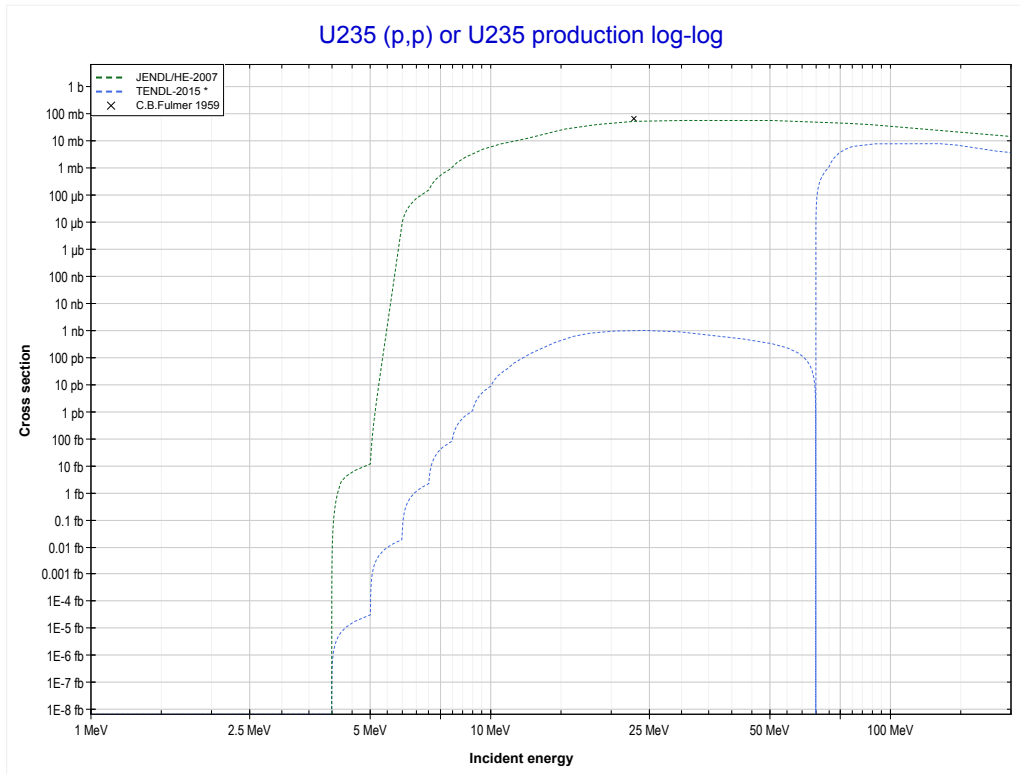


<< 90-Th-232	92-U-235	92-U-238 >>
<< MT18 (p,fission)	MT37 (p,4n) or MT5 (Np232 production)	MT103 (p,p) >>



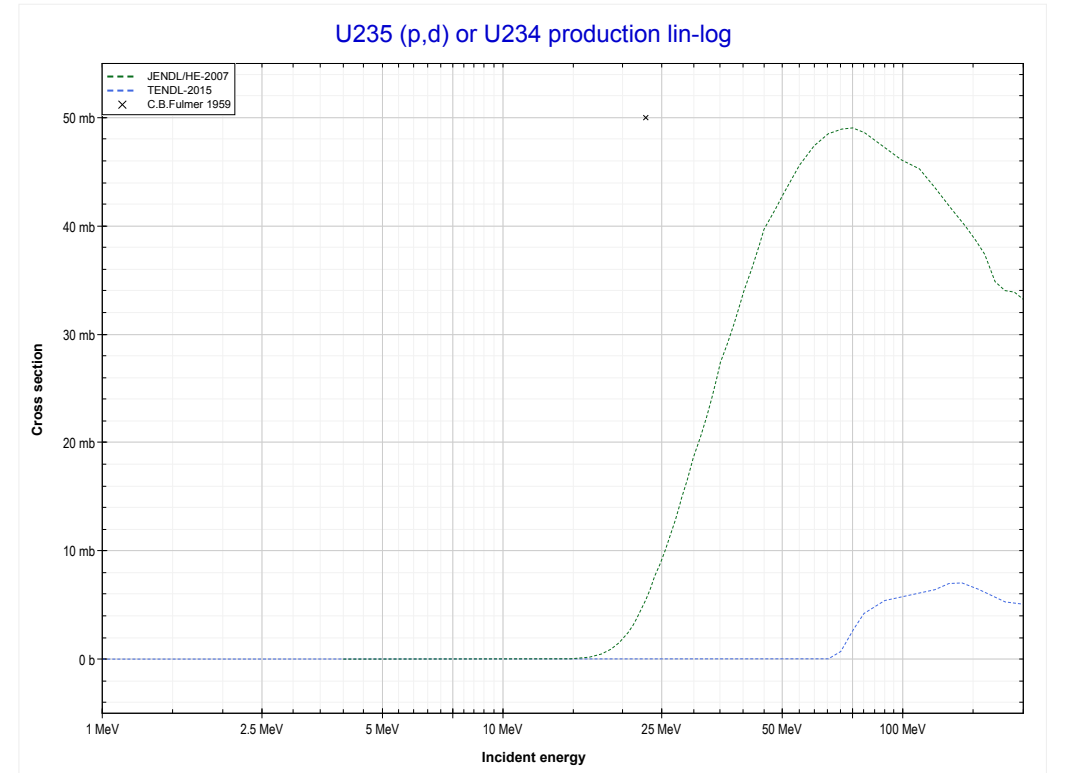
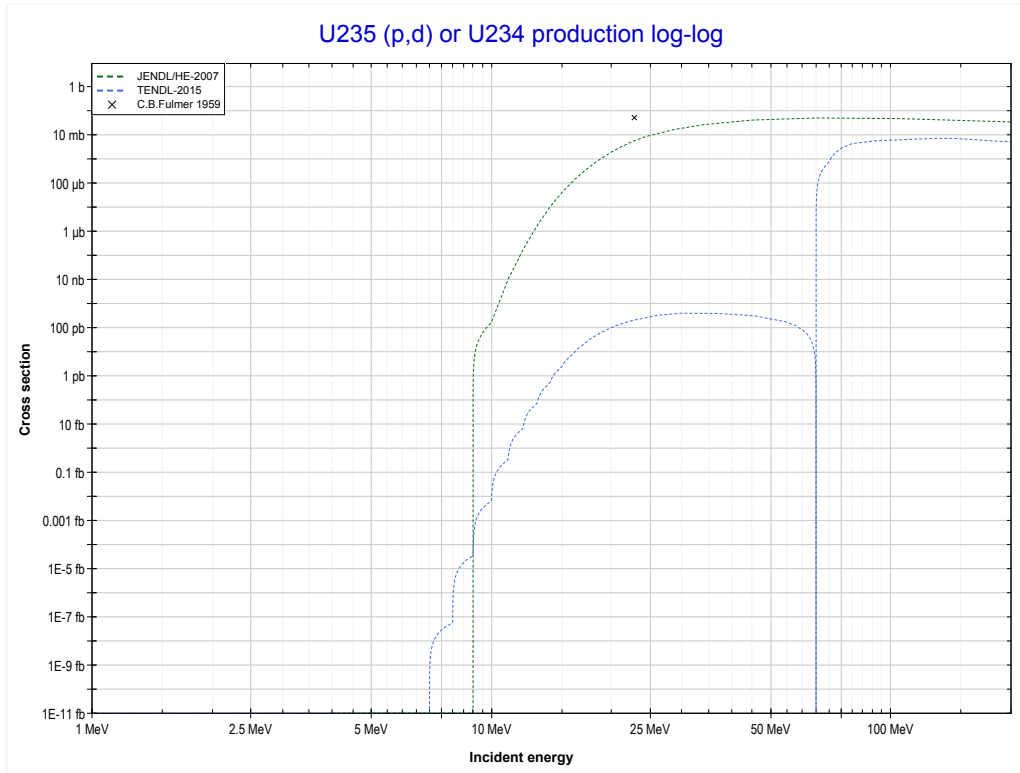
Reaction	Q-Value
U235(p,4n)Np232	-21435.60 keV

<< 67-Ho-165	92-U-235	92-U-238 >>
<< MT37 (p,4n)	MT103 (p,p) or MT5 (U235 production)	MT104 (p,d) >>



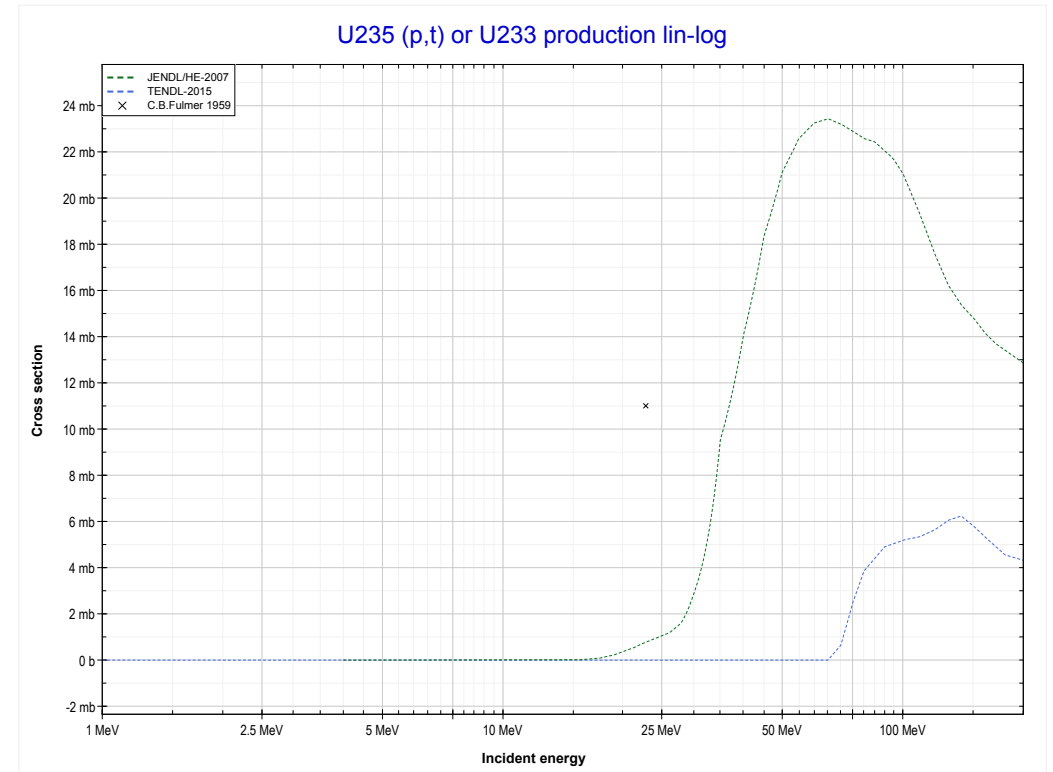
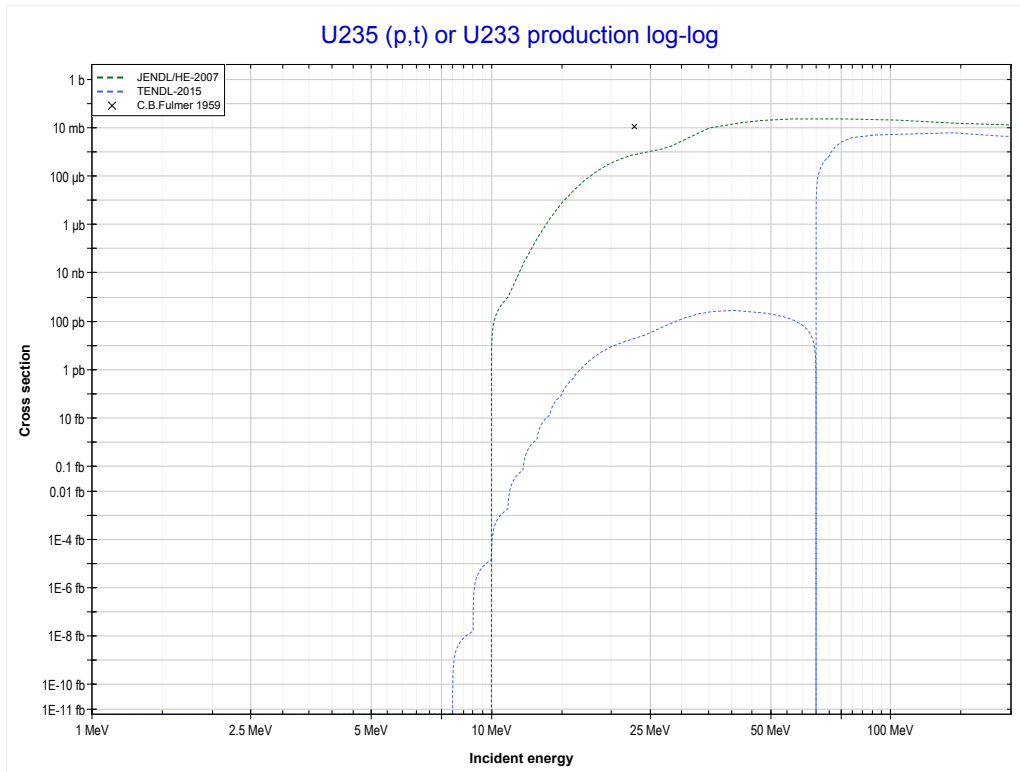
Reaction	Q-Value
U235(p,p)U235	0.00 keV

<< 60-Nd-142	92-U-235	92-U-238 >>
<< MT103 (p,p)	MT104 (p,d) or MT5 (U234 production)	MT105 (p,t) >>



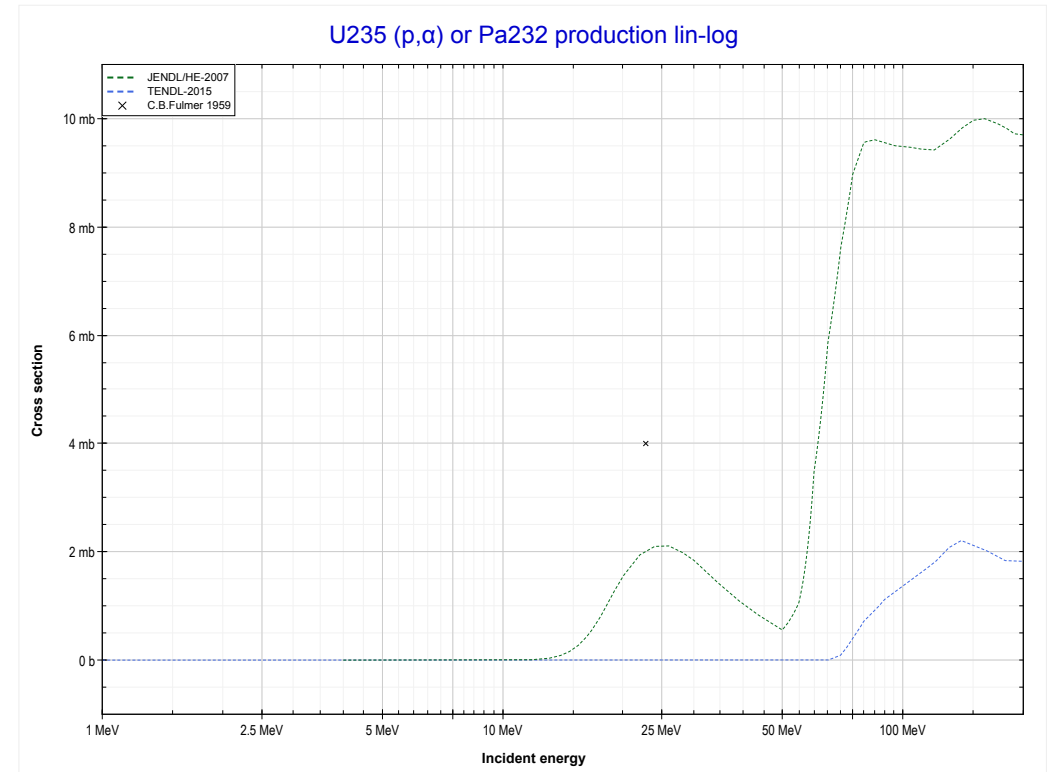
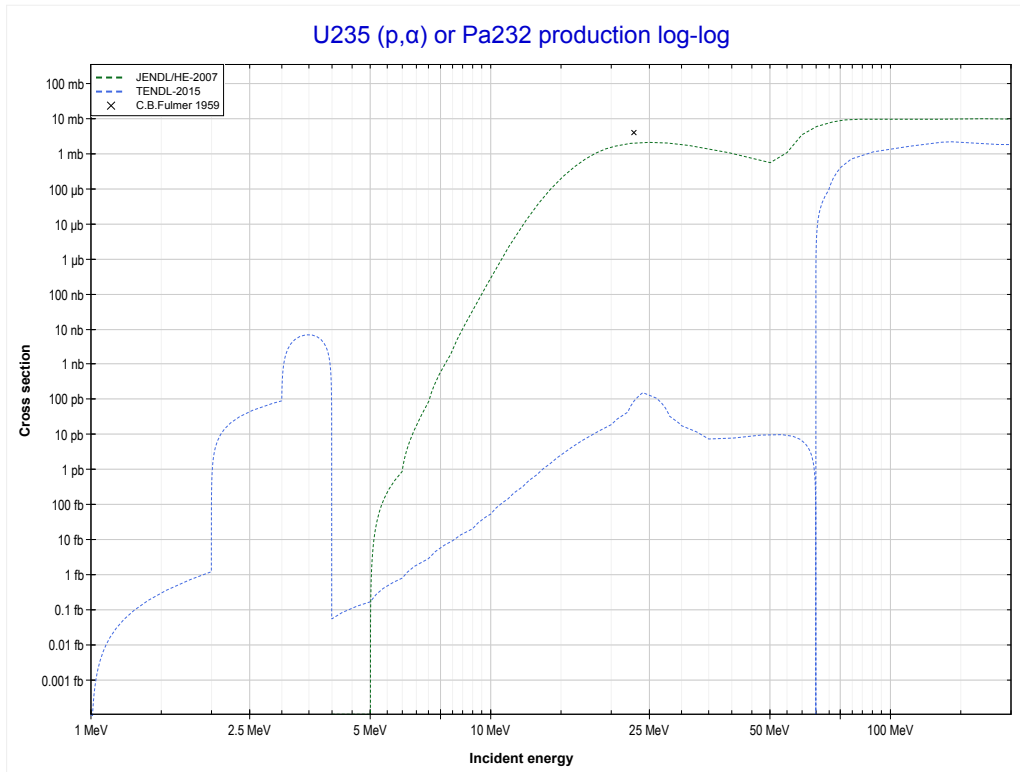
Reaction	Q-Value
U235(p,d)U234	-3072.85 keV
U235(p,n+p)U234	-5297.42 keV

<< 26-Fe-54	92-U-235	92-U-238 >>
<< MT104 (p,d)	MT105 (p,t) or MT5 (U233 production)	MT107 (p, α) >>



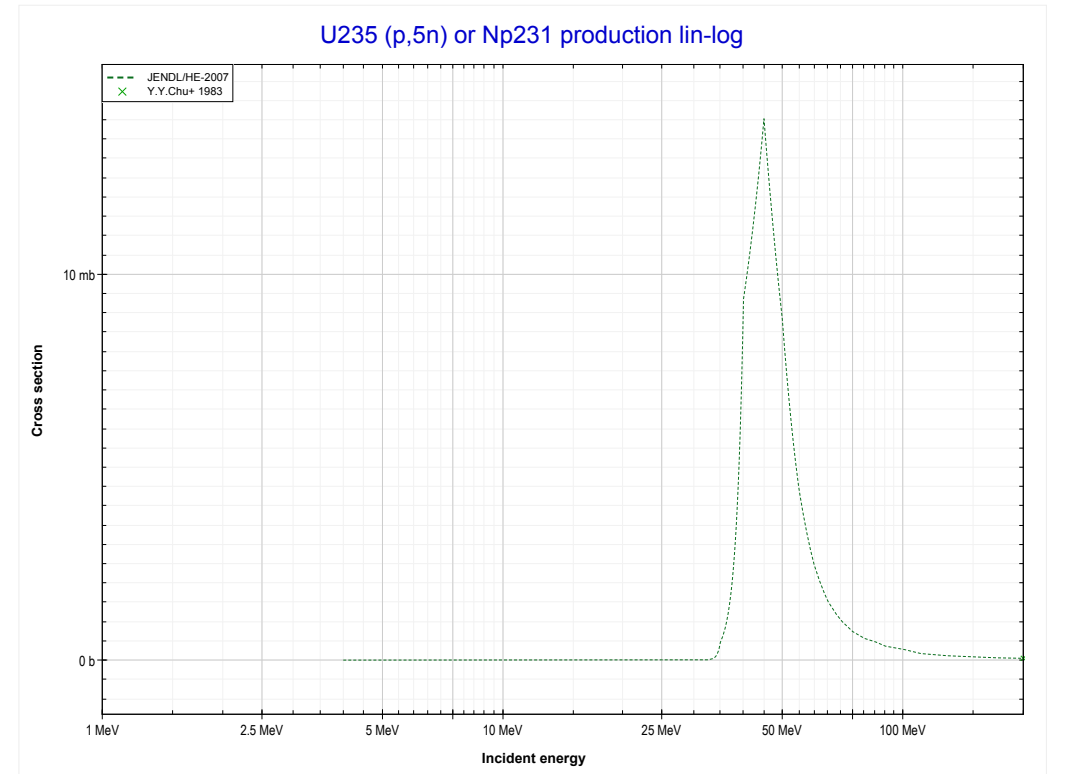
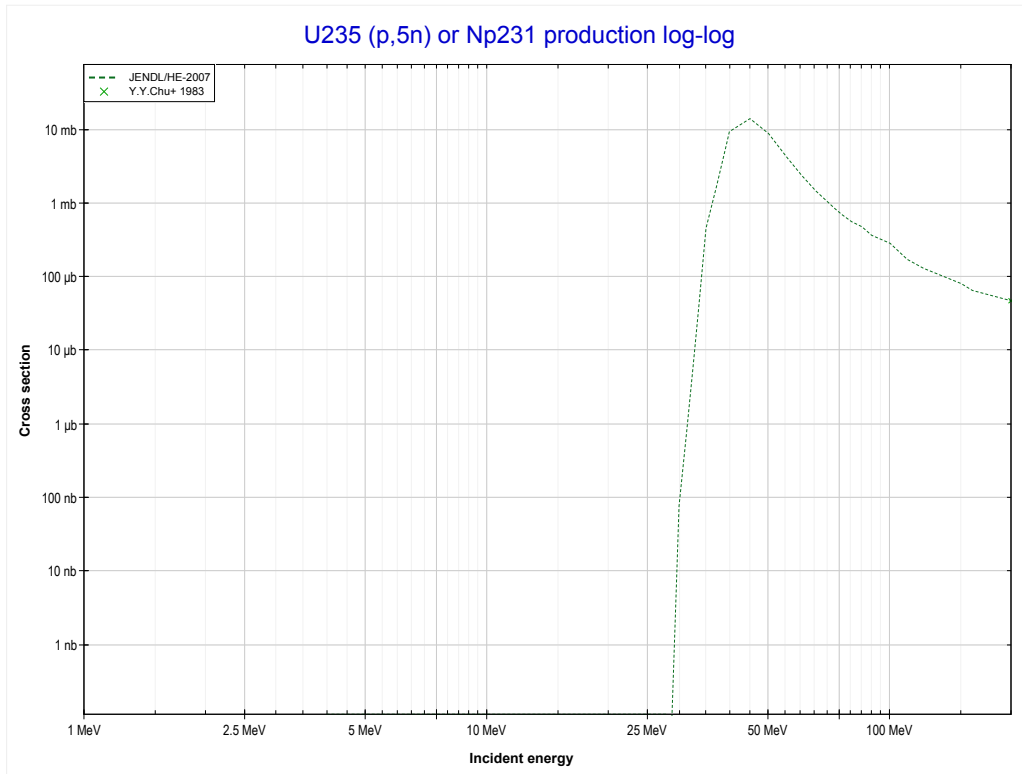
Reaction	Q-Value
U235(p,t)U233	-3660.44 keV
U235(p,n+d)U233	-9917.67 keV
U235(p,2n+p)U233	-12142.23 keV

<< 90-Th-232	92-U-235	92-U-238 >>
<< MT105 (p,t)	MT107 (p,α) or MT5 (Pa232 production)	MT152 (p,5n) >>



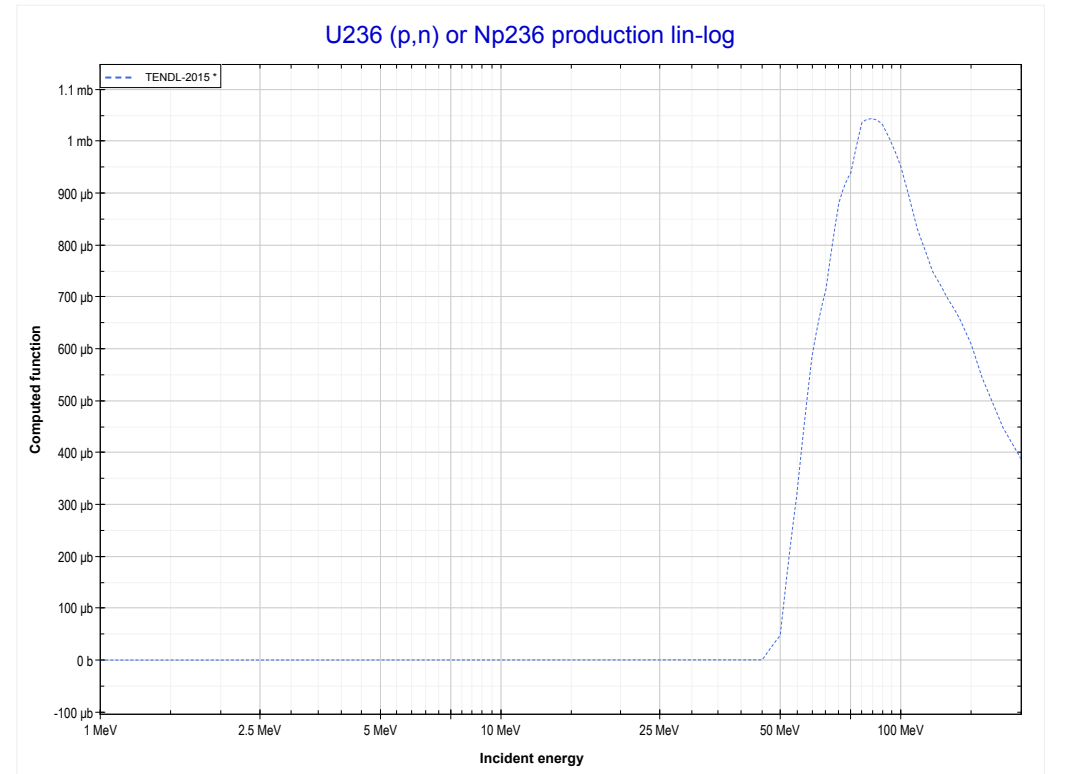
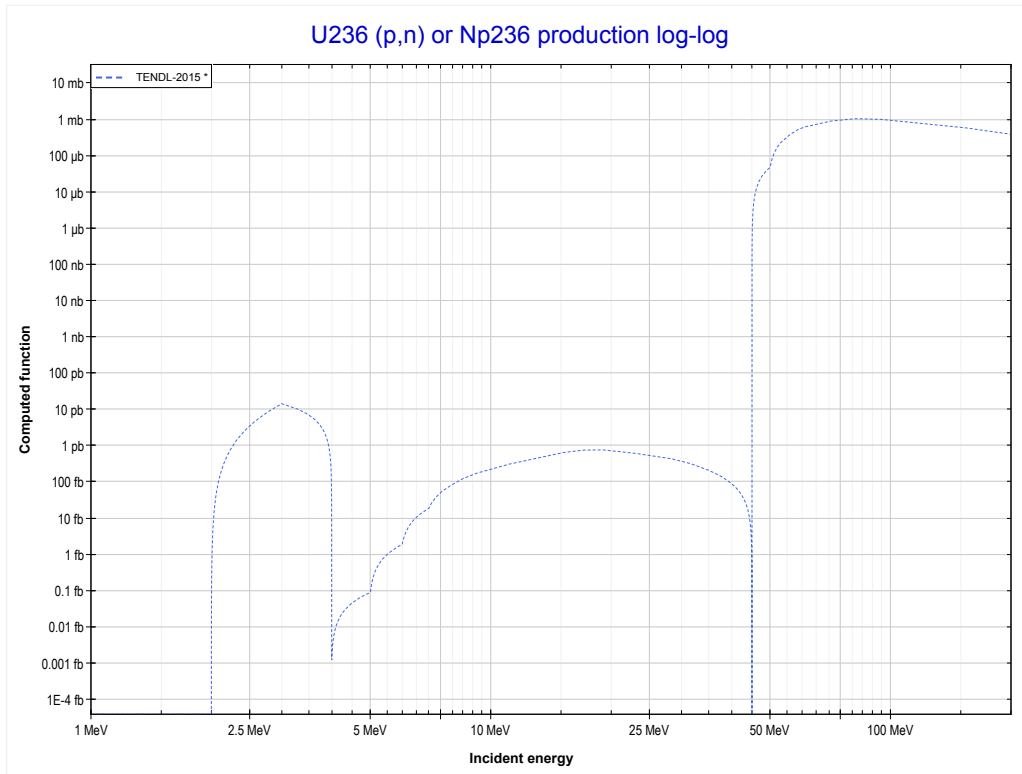
Reaction	Q-Value
U235(p, α)Pa232	9836.75 keV
U235(p,p+t)Pa232	-9977.11 keV
U235(p,n+He3)Pa232	-10740.86 keV
U235(p,2d)Pa232	-14009.77 keV
U235(p,n+p+d)Pa232	-16234.34 keV
U235(p,2n+2p)Pa232	-18458.90 keV

<< 90-Th-232	92-U-235	92-U-238 >>
<< MT107 (p, α)	MT152 (p,5n) or MT5 (Np231 production)	92-U-236 MT4 (p,n) >>



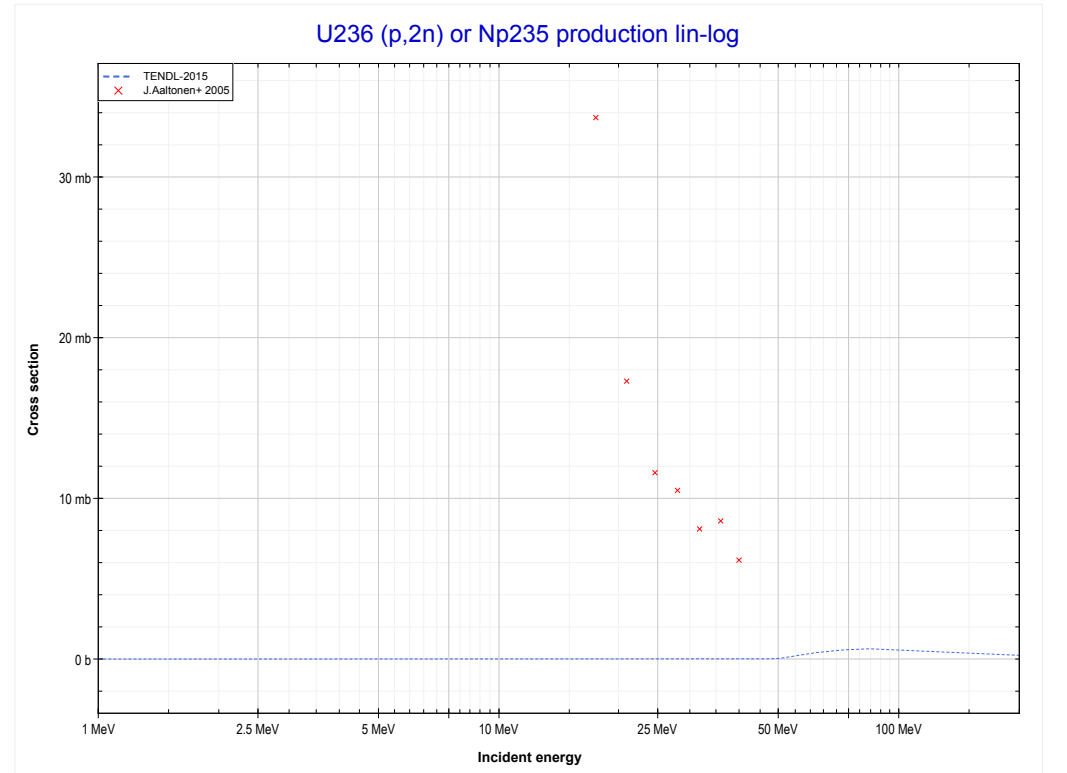
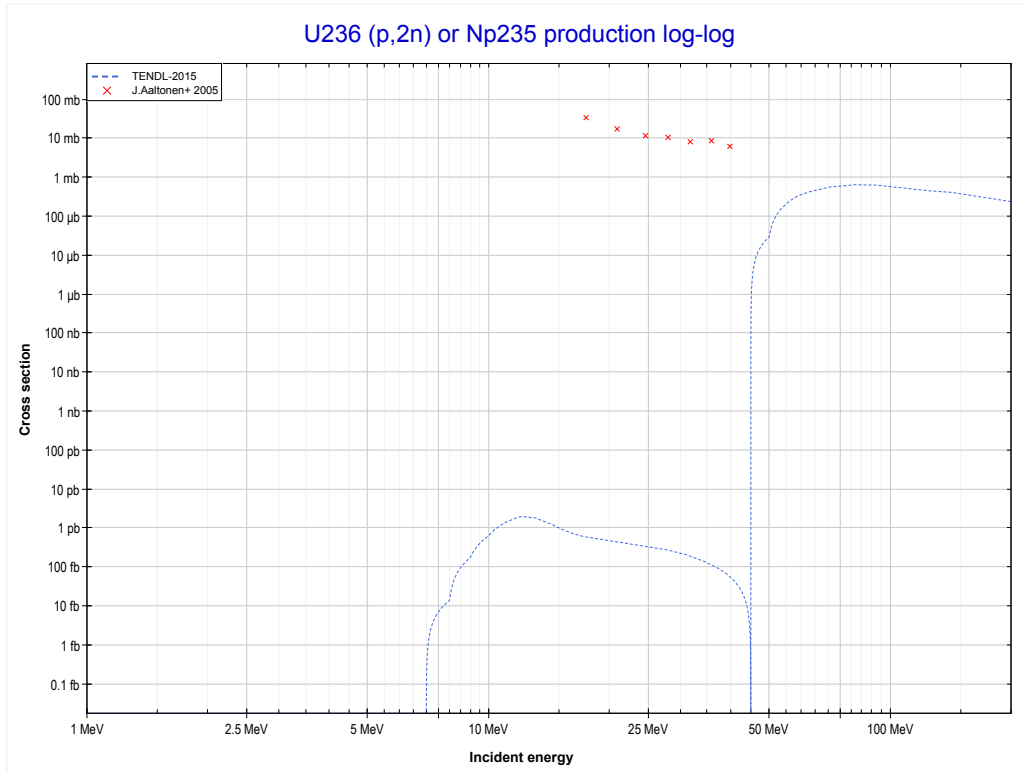
Reaction	Q-Value
U235(p,5n)Np231	-27776.91 keV

<< 92-U-235	92-U-236	92-U-238 >>
<< 92-U-235 MT152 (p,5n)	MT4 (p,n) or MT5 (Np236 production)	MT16 (p,2n) >>



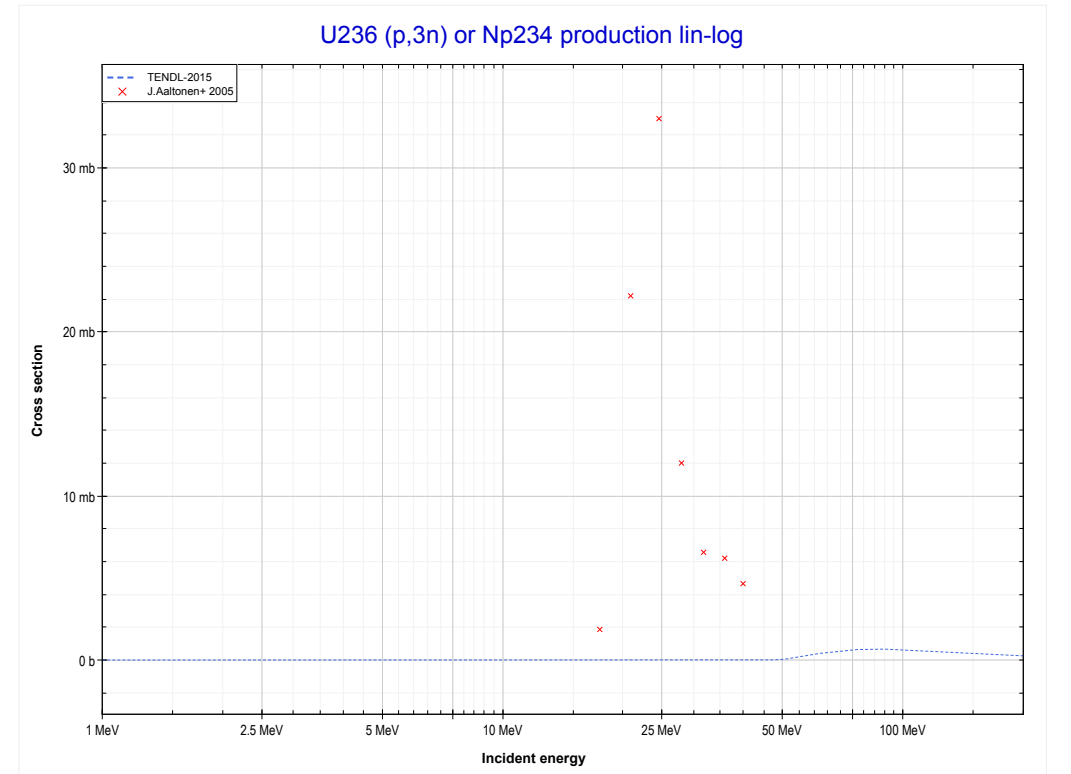
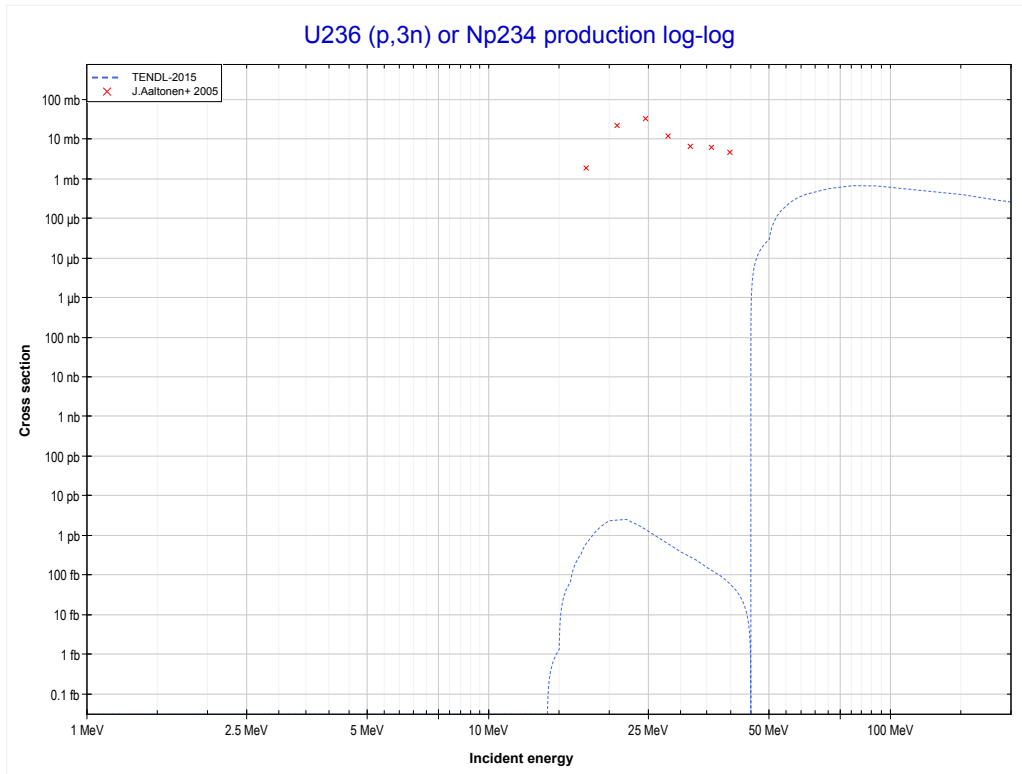
Reaction	Q-Value
U236(p,n)Np236	-1715.85 keV

<< 92-U-235	92-U-236	94-Pu-241 >>
<< MT4 (p,n)	MT16 (p,2n) or MT5 (Np235 production)	MT17 (p,3n) >>



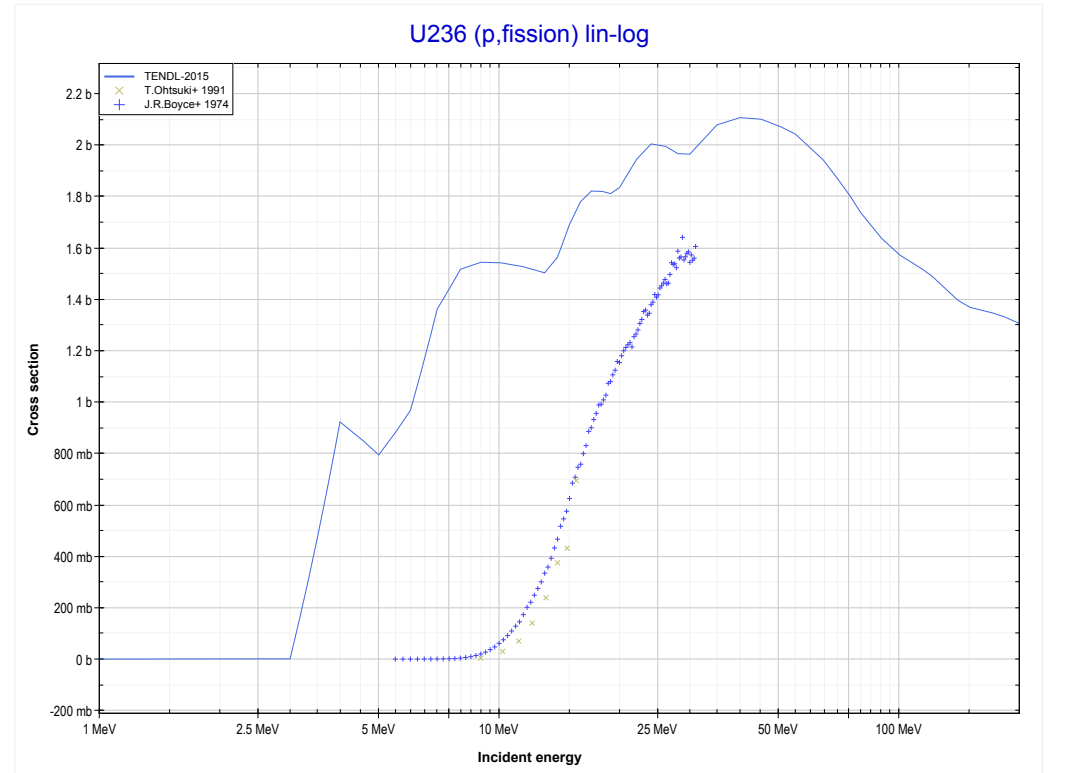
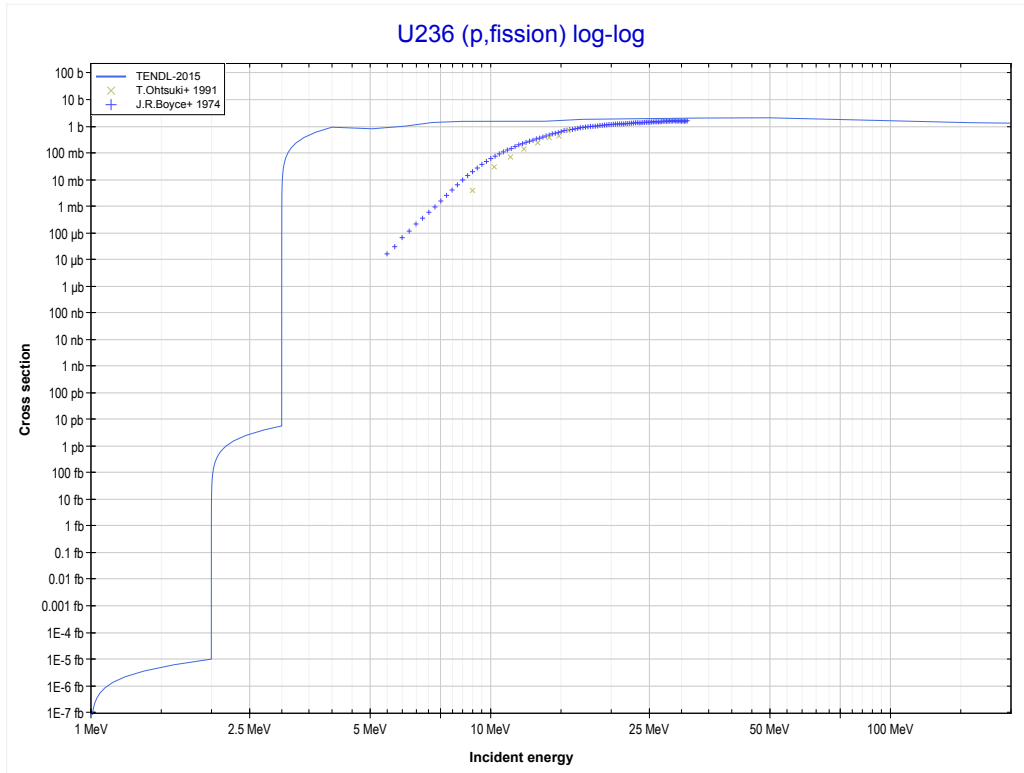
Reaction	Q-Value
U236(p,2n)Np235	-7452.06 keV

<< 92-U-235	92-U-236	92-U-238 >>
<< MT16 (p,2n)	MT17 (p,3n) or MT5 (Np234 production)	MT18 (p,fission) >>

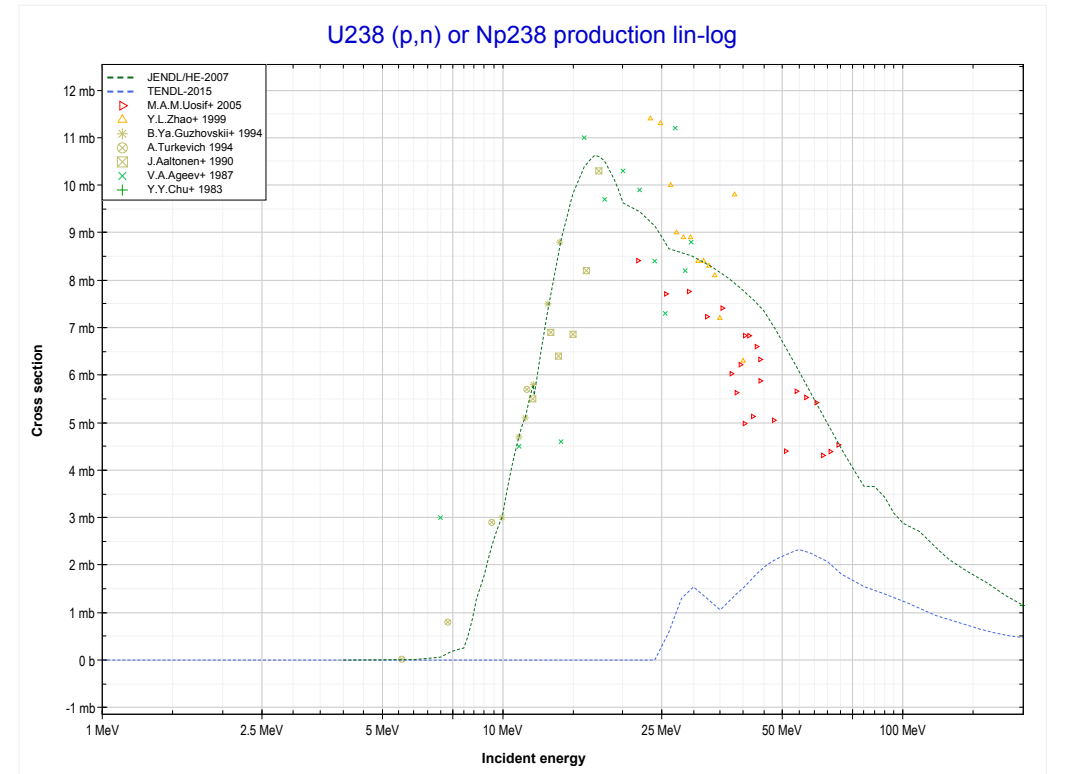
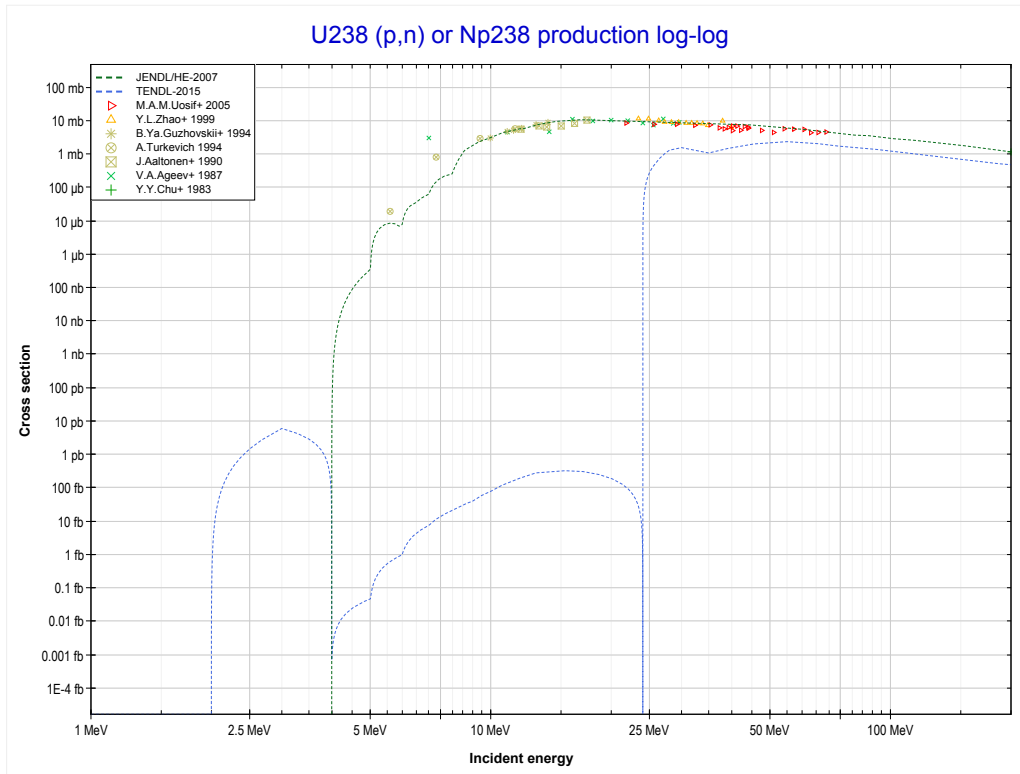


Reaction	Q-Value
U236(p,3n)Np234	-14435.48 keV

<< 92-U-235	92-U-236	92-U-238 >>
<< MT17 (p,3n)	MT18 (p,fission)	92-U-238 MT4 (p,n) >>

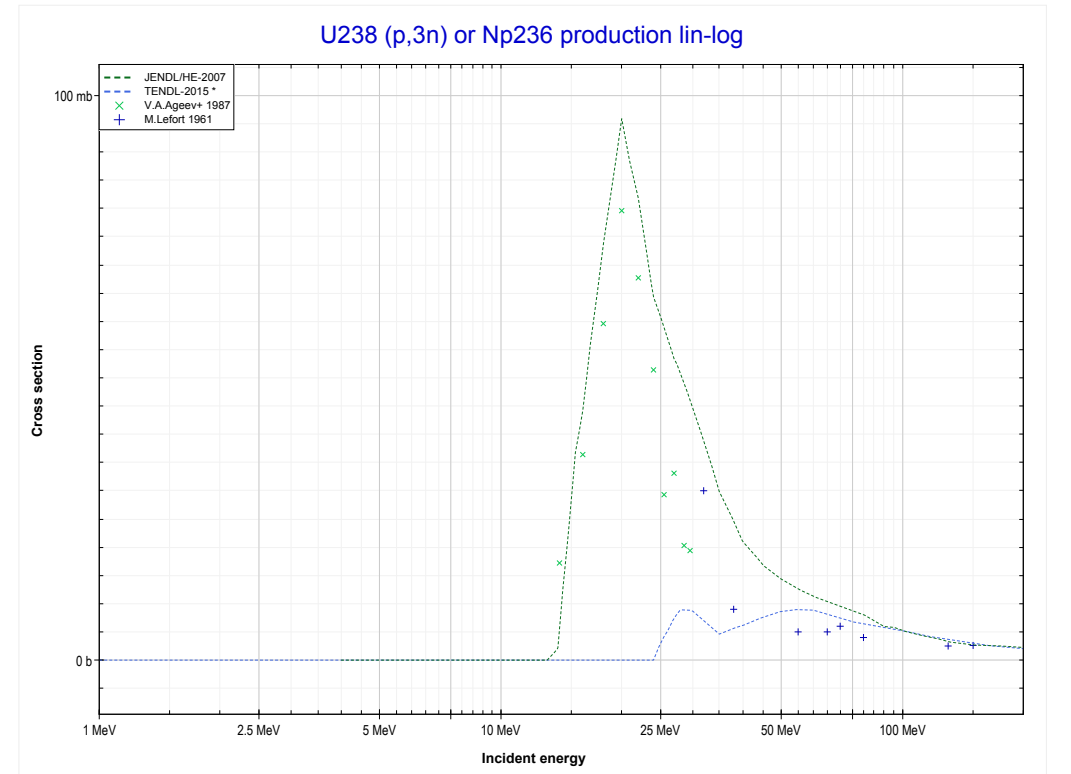
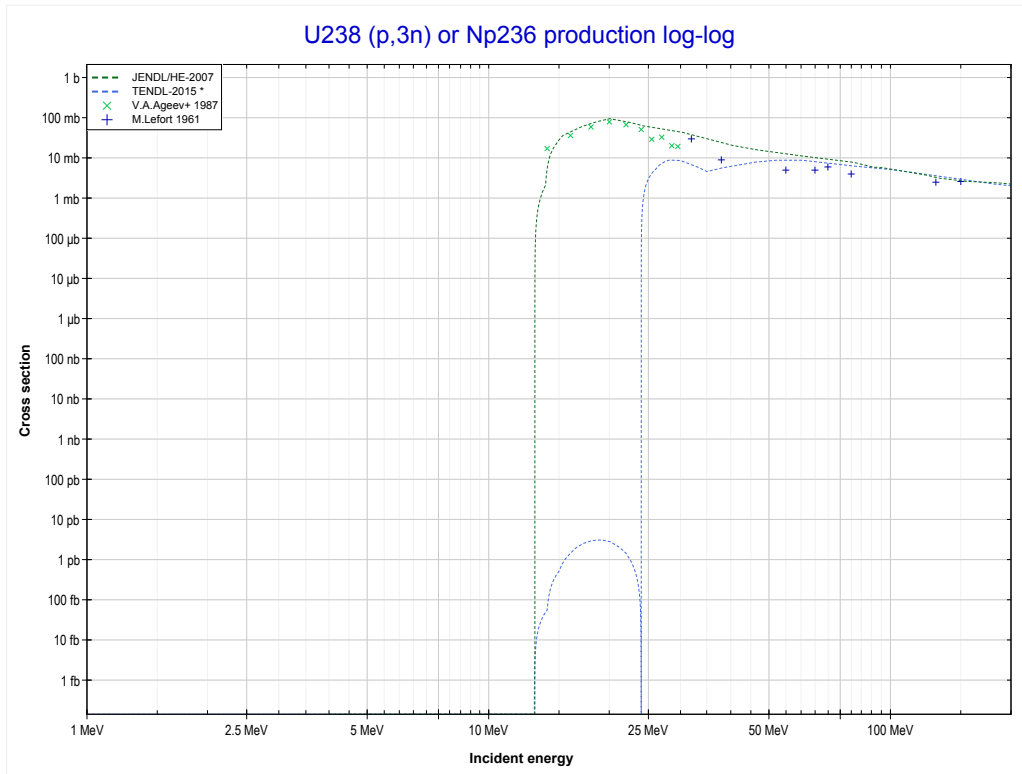


<< 92-U-236	92-U-238	93-Np-237 >>
<< 92-U-236 MT18 (p,fission)	MT4 (p,n) or MT5 (Np238 production)	MT17 (p,3n) >>



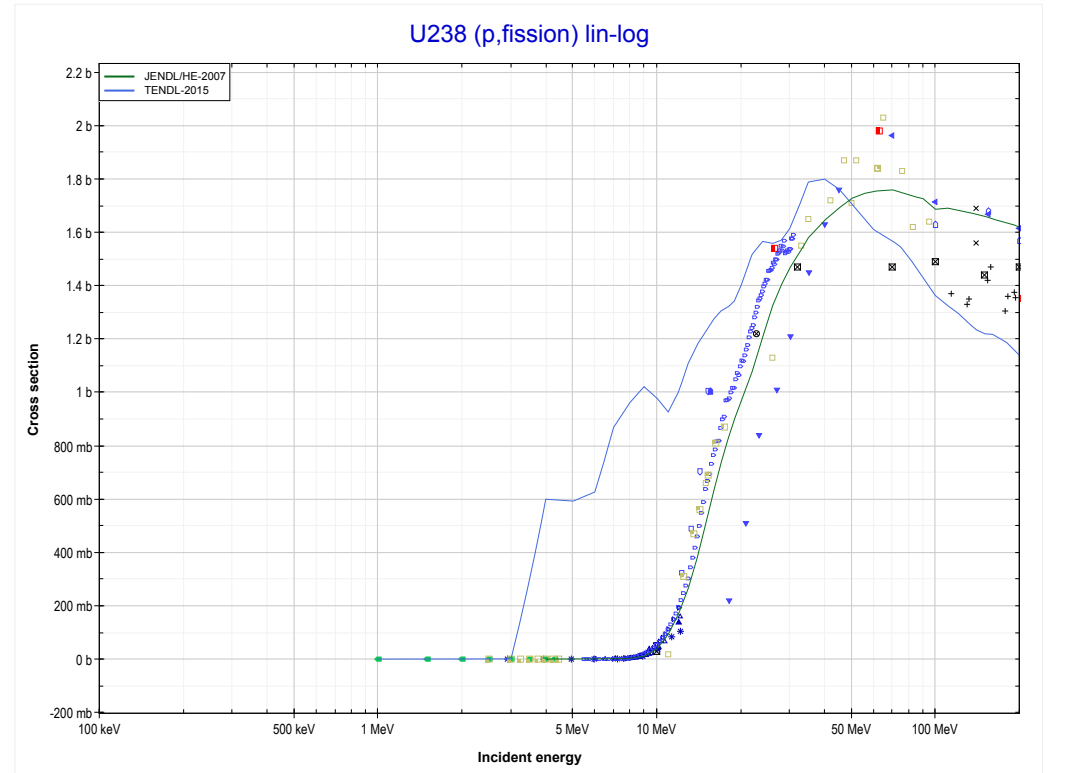
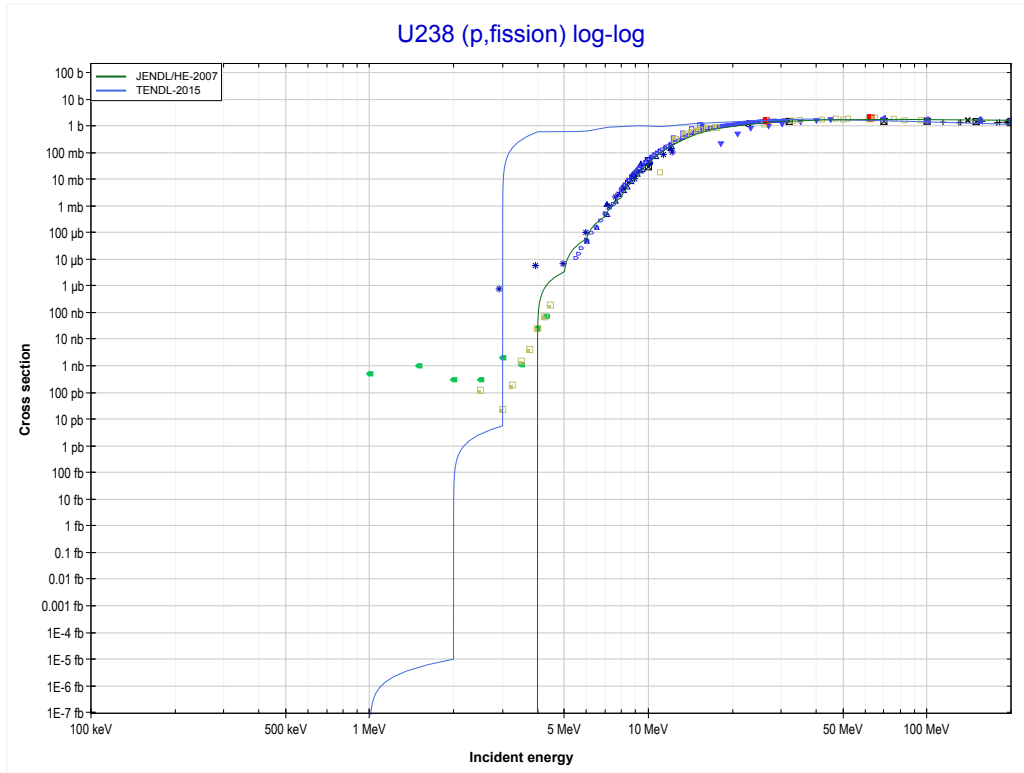
Reaction	Q-Value
U238(p,n)Np238	-929.75 keV

<< 92-U-236	92-U-238	94-Pu-242 >>
<< MT4 (p,n)	MT17 (p,3n) or MT5 (Np236 production)	MT18 (p,fission) >>

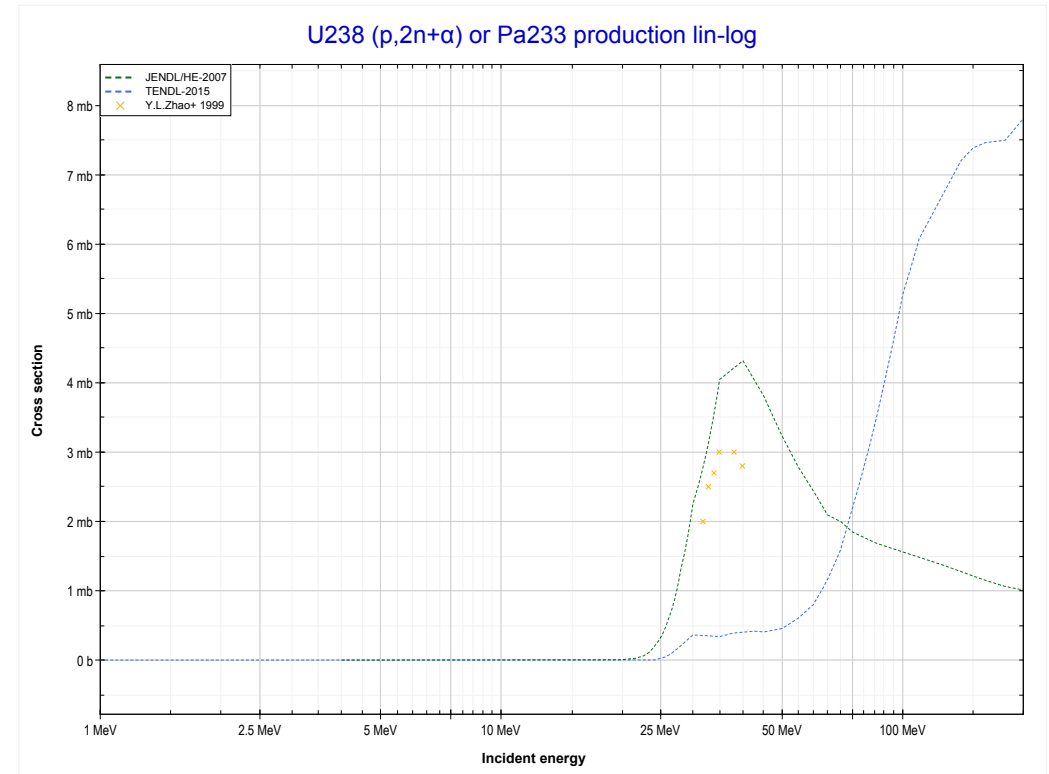
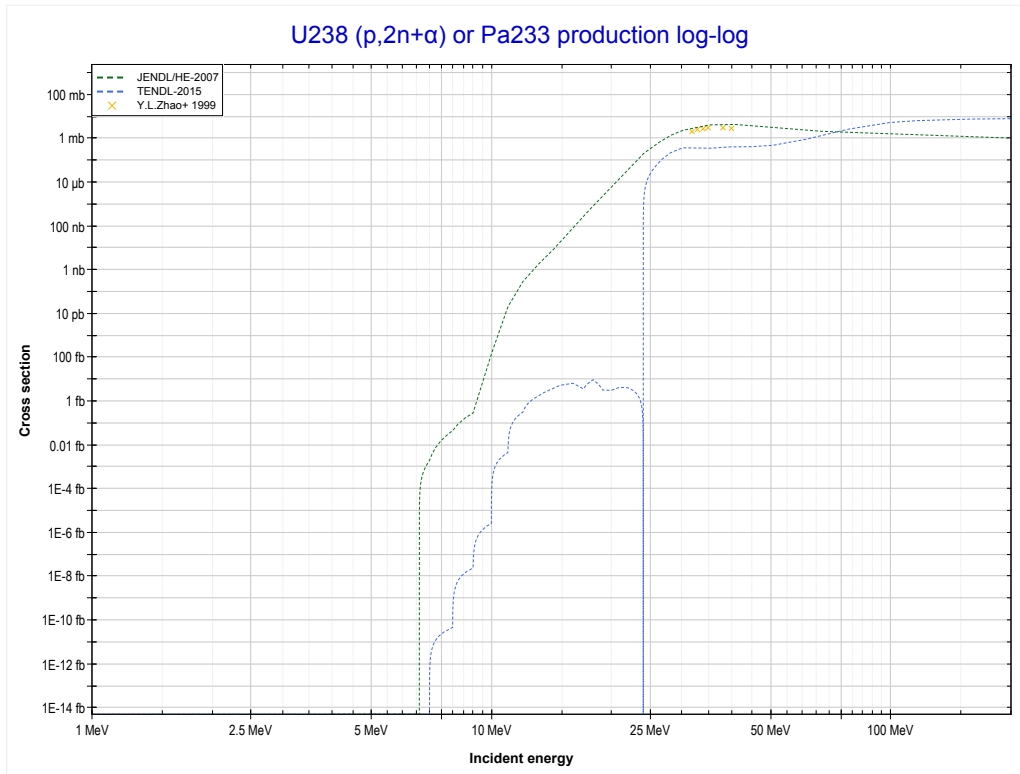


Reaction	Q-Value
U238(p,3n)Np236	-12995.88 keV

<< 92-U-236	92-U-238	93-Np-237 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT24 (p,2n+α) >>

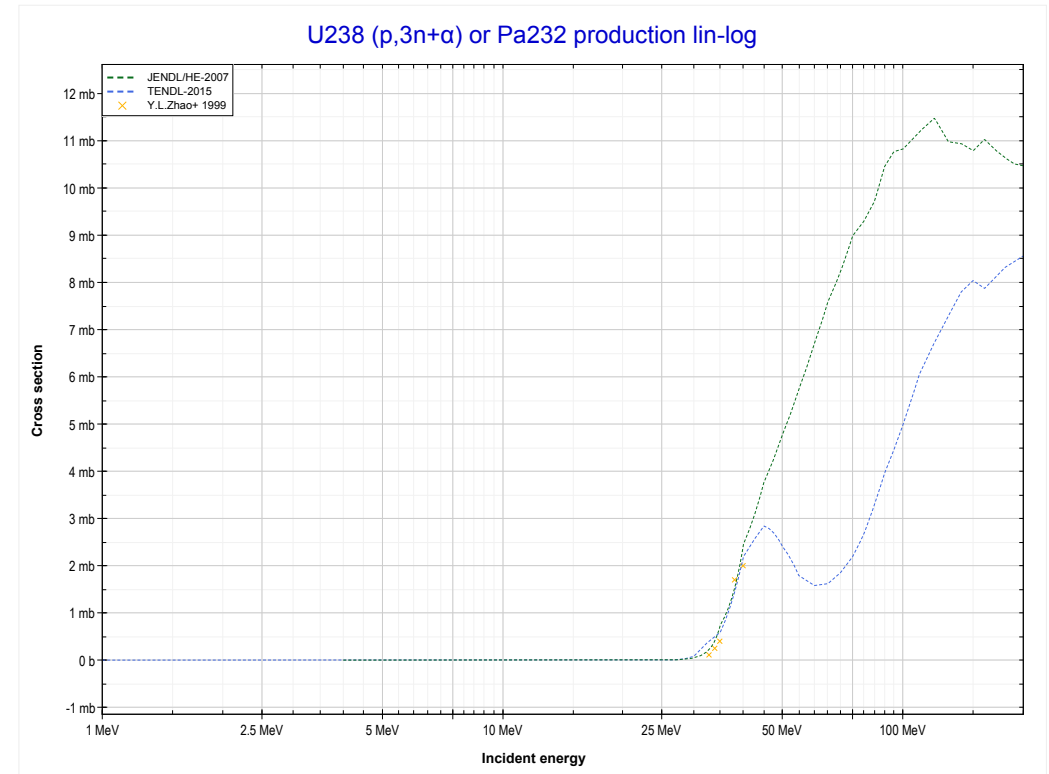
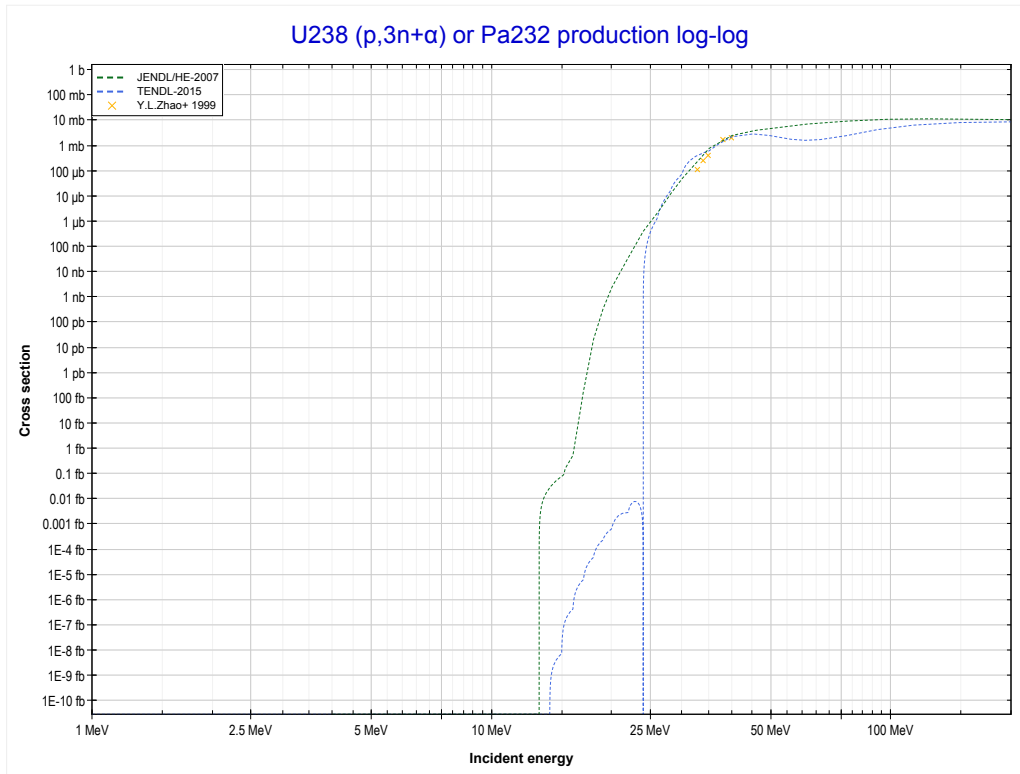


<< 54-Xe-124	92-U-238	
<< MT18 (p,fission)	MT24 (p,2n+α) or MT5 (Pa233 production)	MT25 (p,3n+α) >>



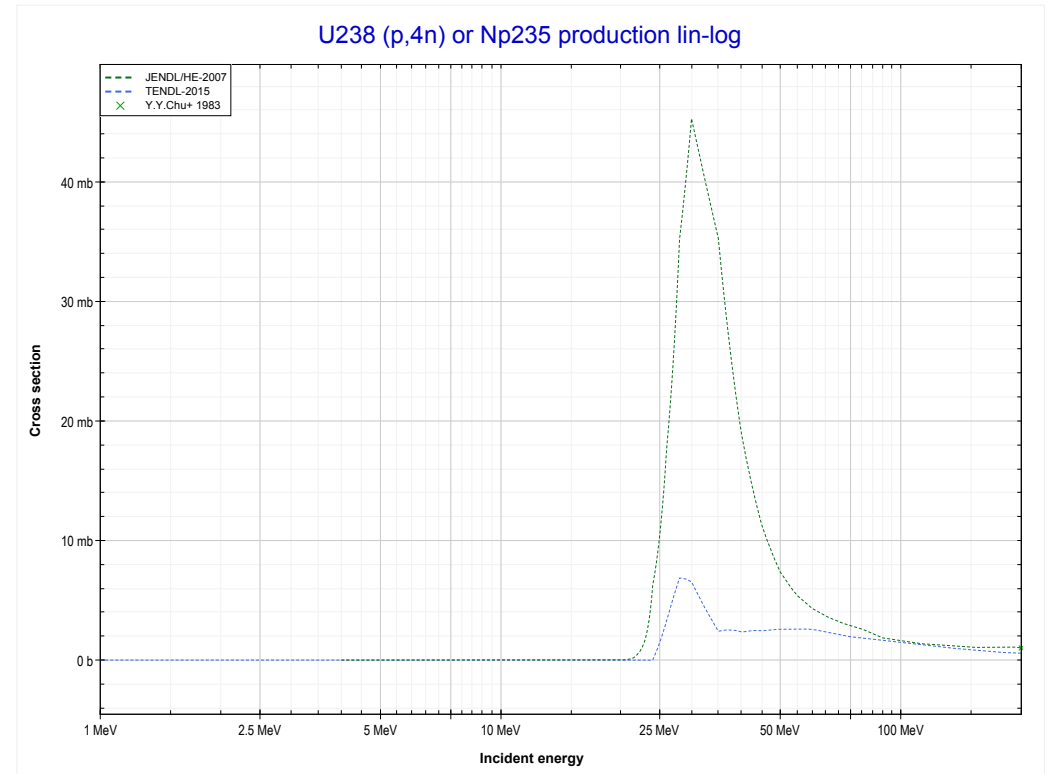
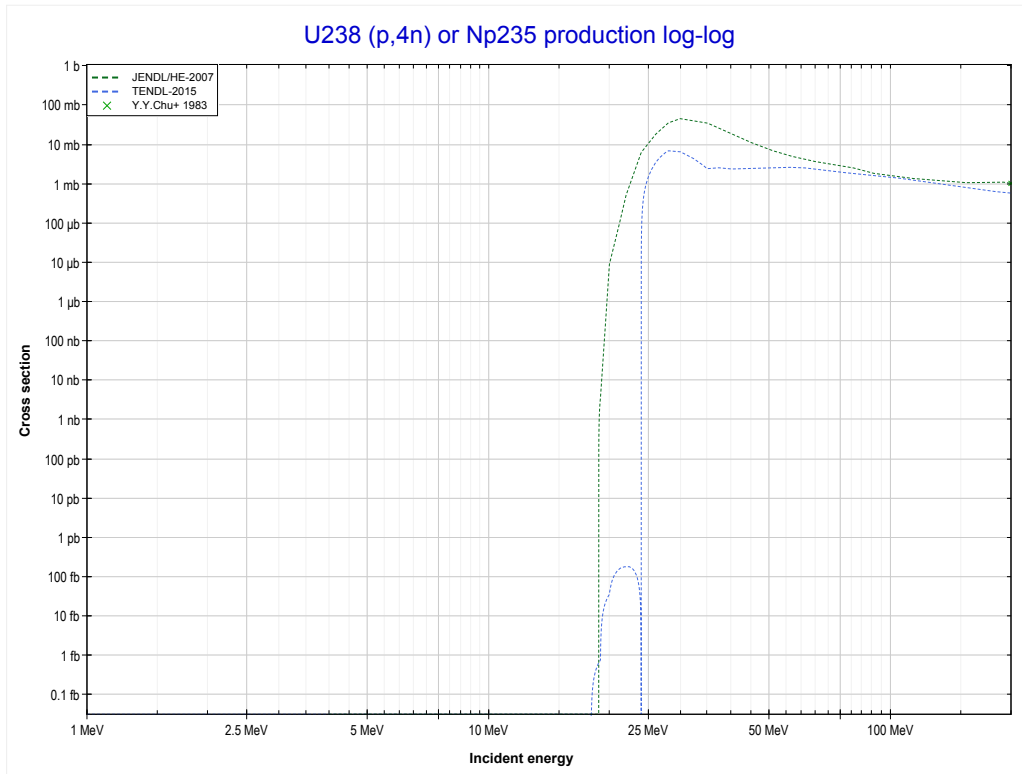
Reaction	Q-Value
U238(p,2n+α)Pa233	-1459.48 keV
U238(p,2t)Pa233	-12791.54 keV
U238(p,n+d+t)Pa233	-19048.77 keV
U238(p,2n+p+t)Pa233	-21273.34 keV
U238(p,3n+He3)Pa233	-22037.10 keV
U238(p,2n+2d)Pa233	-25306.01 keV
U238(p,3n+p+d)Pa233	-27530.57 keV
U238(p,4n+2p)Pa233	-29755.14 keV

	92-U-238	
<< MT24 (p,2n+α)	MT25 (p,3n+α) or MT5 (Pa232 production)	MT37 (p,4n) >>



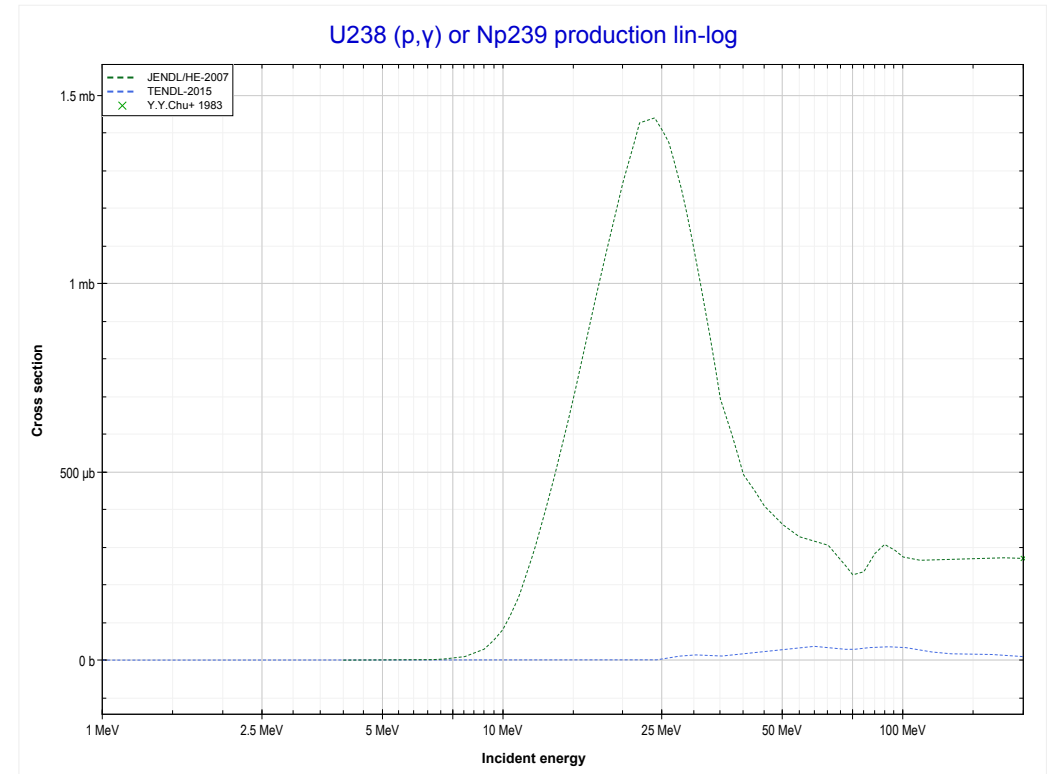
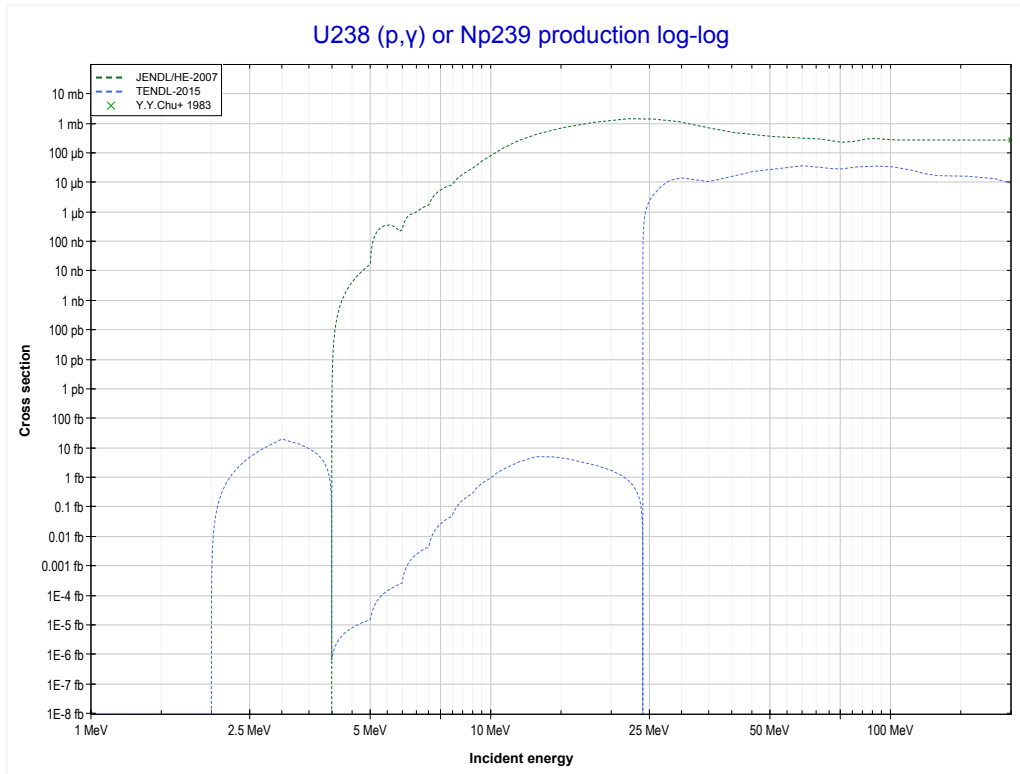
Reaction	Q-Value
U238(p,3n+α)Pa232	-7988.80 keV
U238(p,n+2t)Pa232	-19320.86 keV
U238(p,2n+d+t)Pa232	-25578.09 keV
U238(p,3n+p+t)Pa232	-27802.66 keV
U238(p,4n+He3)Pa232	-28566.41 keV
U238(p,3n+2d)Pa232	-31835.32 keV
U238(p,4n+p+d)Pa232	-34059.89 keV
U238(p,5n+2p)Pa232	-36284.46 keV

<< 92-U-235	92-U-238	
<< MT25 (p,3n+α)	MT37 (p,4n) or MT5 (Np235 production)	MT102 (p,γ) >>



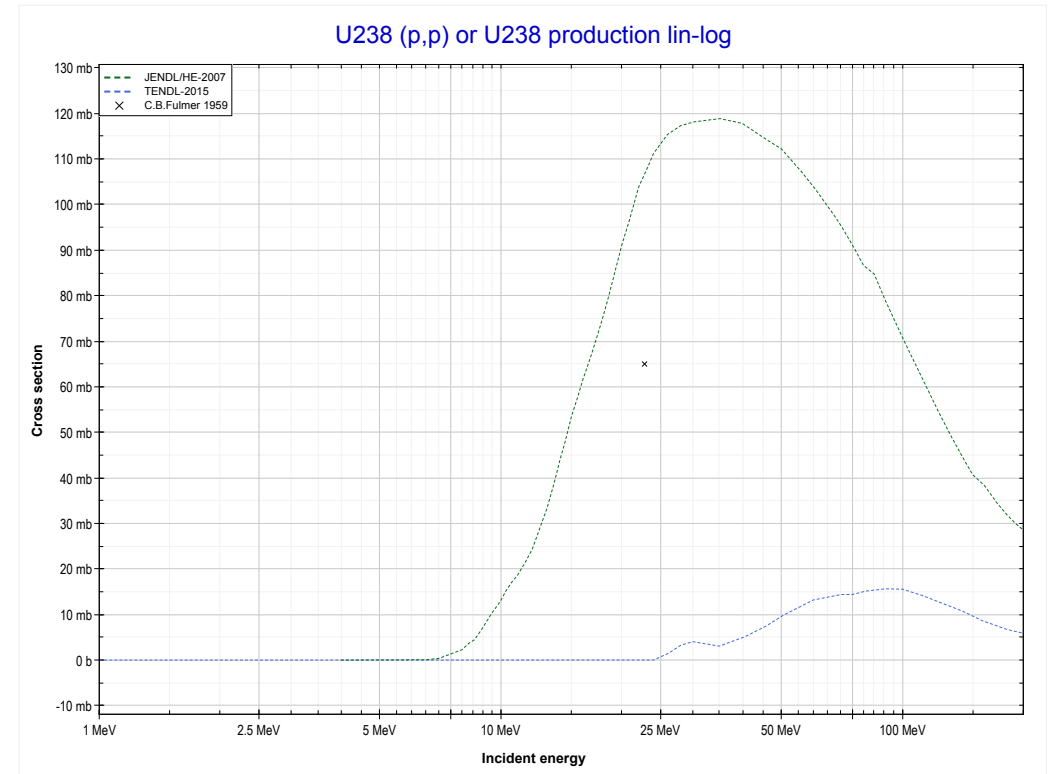
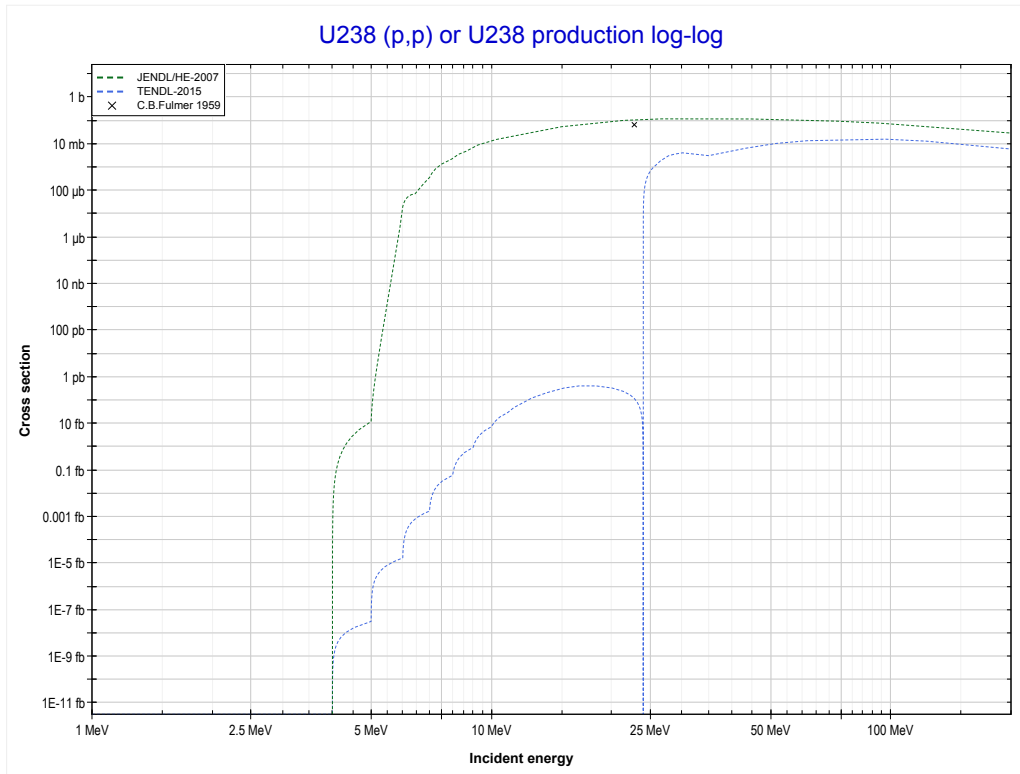
Reaction	Q-Value
U238(p,4n)Np235	-18732.10 keV

<< 83-Bi-209	92-U-238	
<< MT37 (p,4n)	MT102 (p,γ) or MT5 (Np239 production)	MT103 (p,p) >>



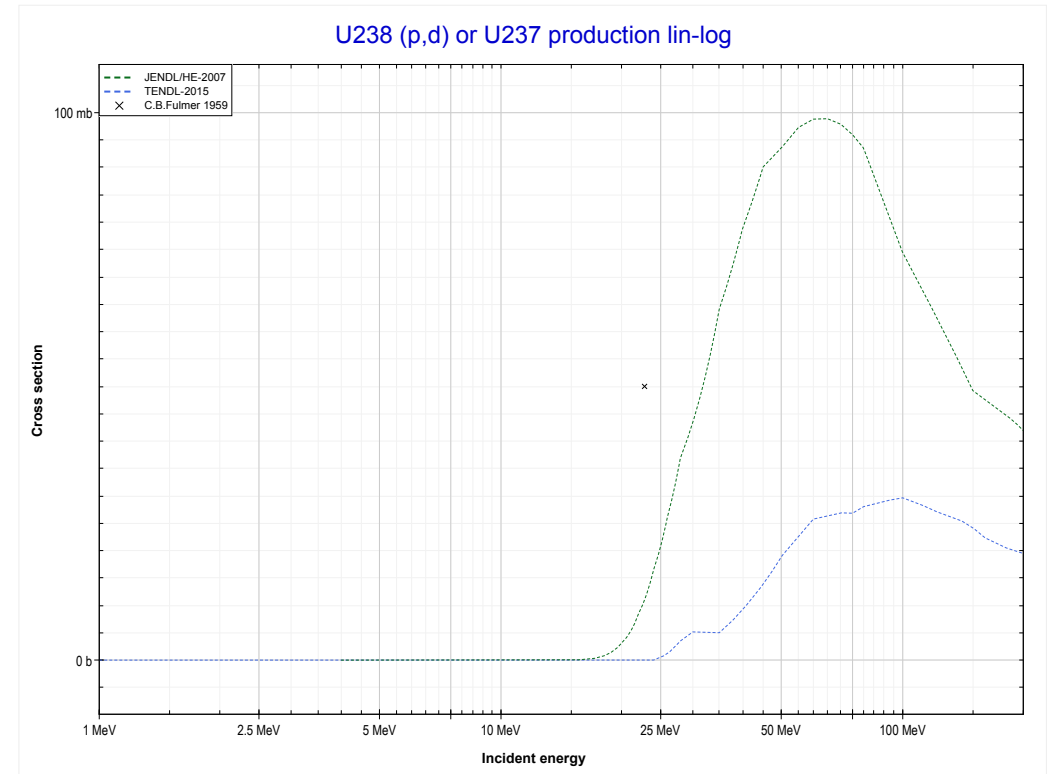
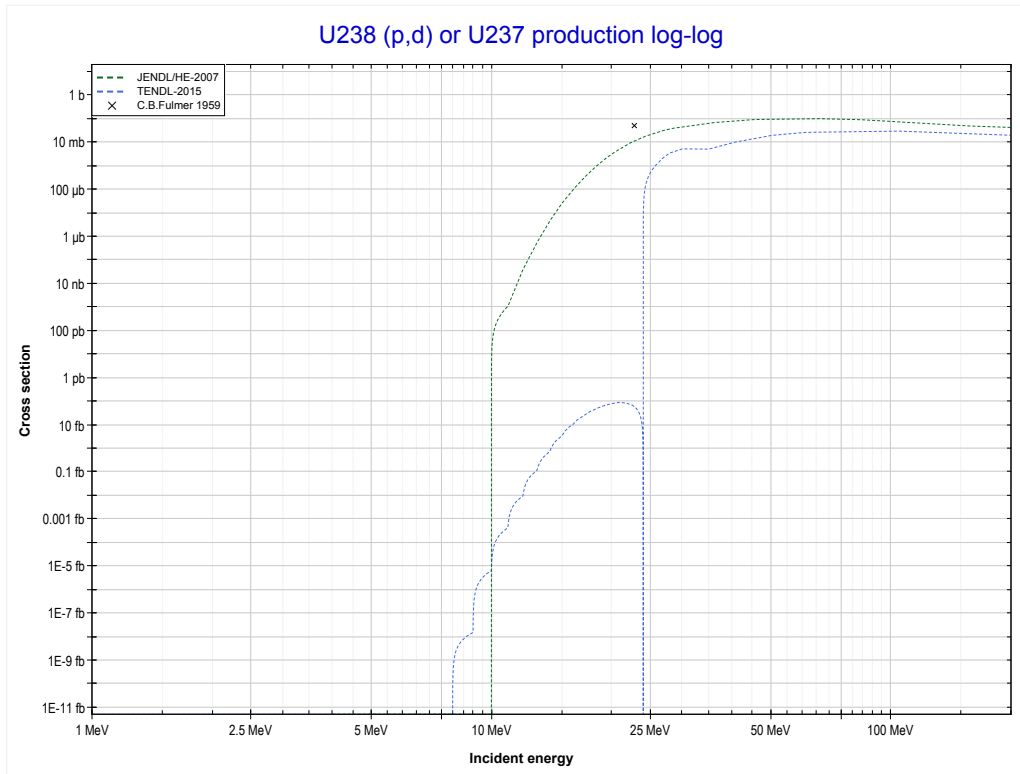
Reaction	Q-Value
U238(p, γ)Np239	5285.47 keV

<< 92-U-235	92-U-238	
<< MT102 (p, γ)	MT103 (p,p) or MT5 (U238 production)	MT104 (p,d) >>



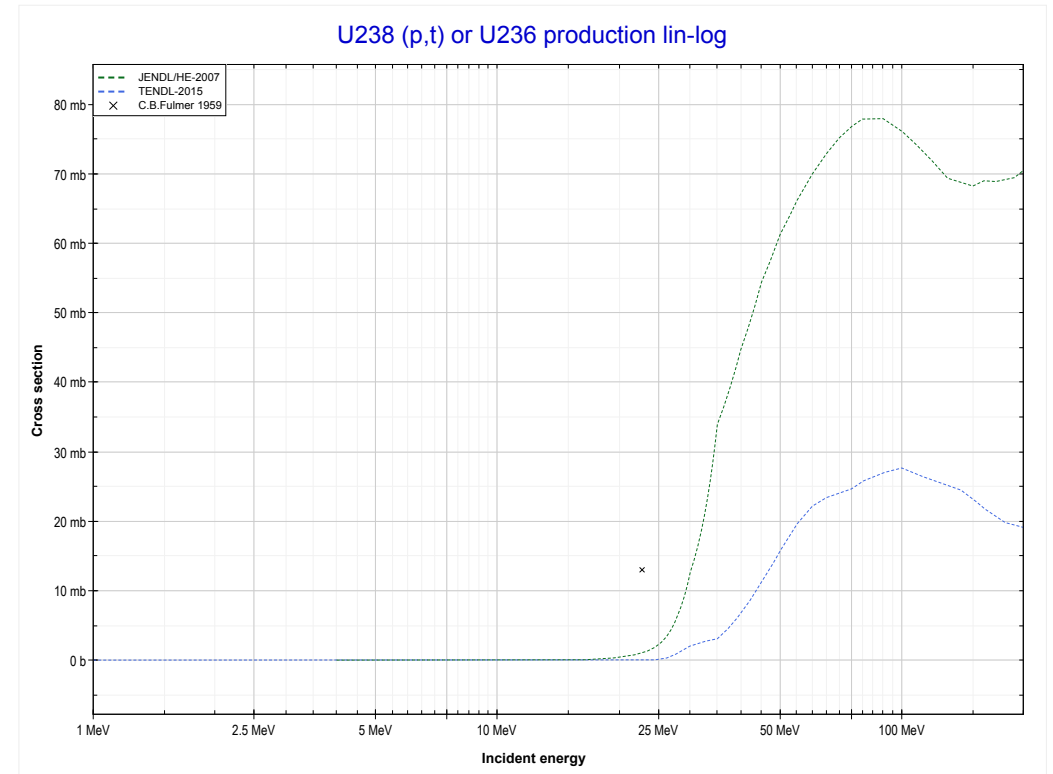
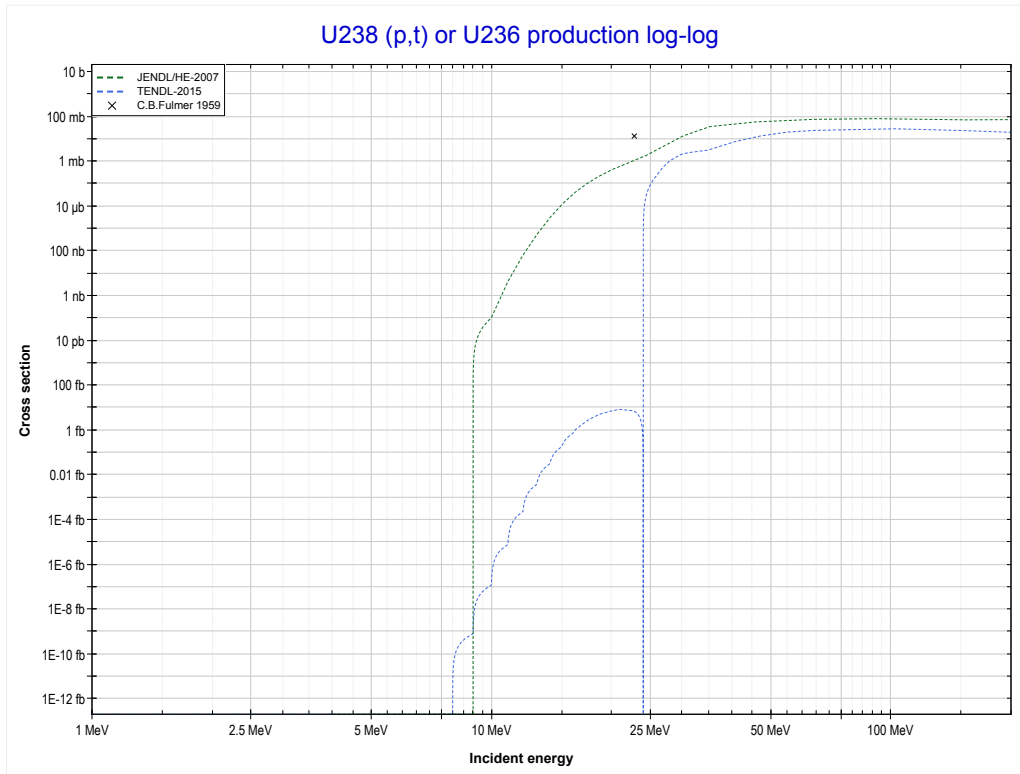
Reaction	Q-Value
U238(p,p)U238	0.00 keV

<< 92-U-235	92-U-238	
<< MT103 (p,p)	MT104 (p,d) or MT5 (U237 production)	MT105 (p,t) >>



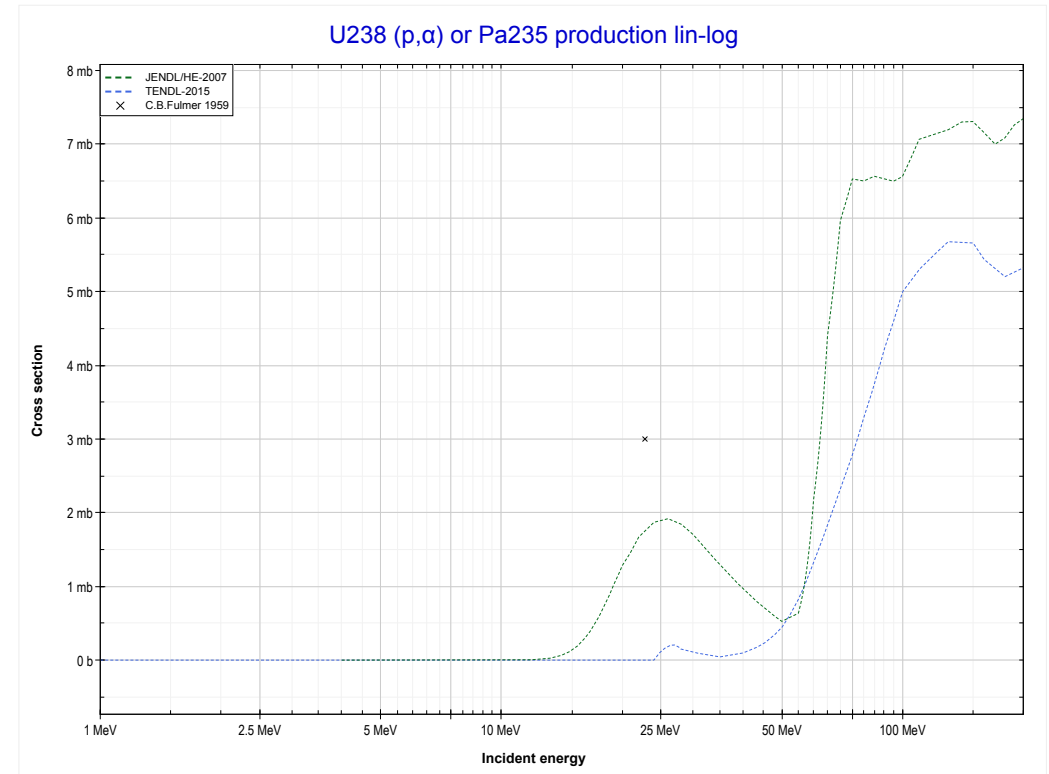
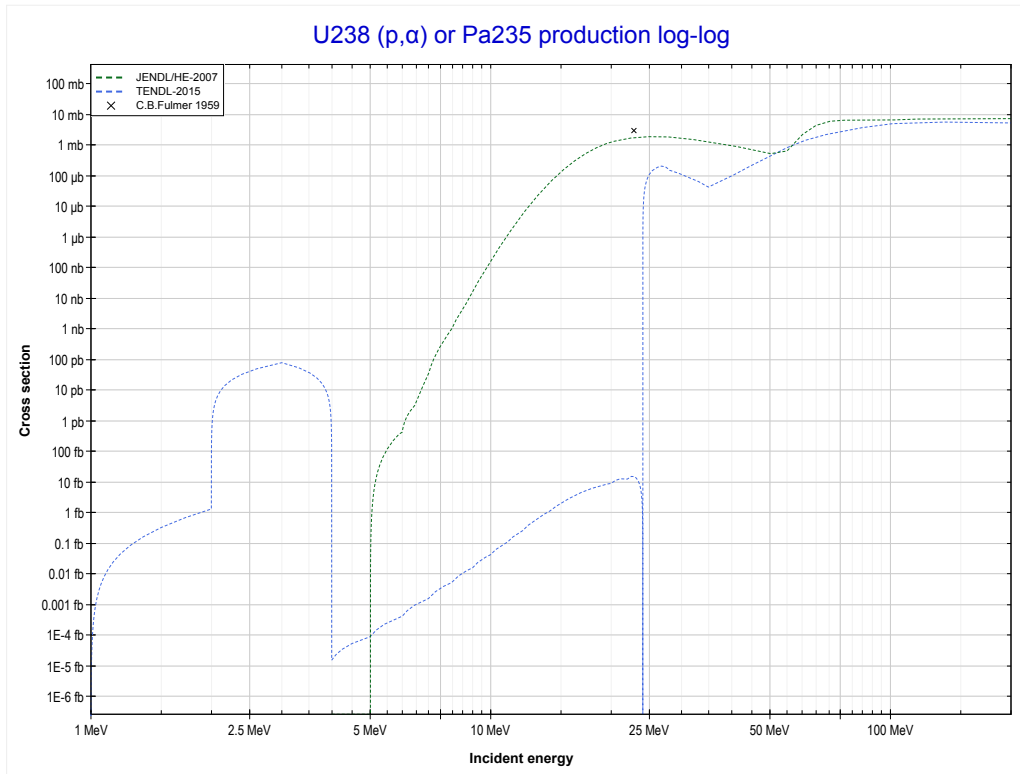
Reaction	Q-Value
U238(p,d)U237	-3929.75 keV
U238(p,n+p)U237	-6154.32 keV

<< 92-U-235	92-U-238	
<< MT104 (p,d)	MT105 (p,t) or MT5 (U236 production)	MT107 (p, α) >>



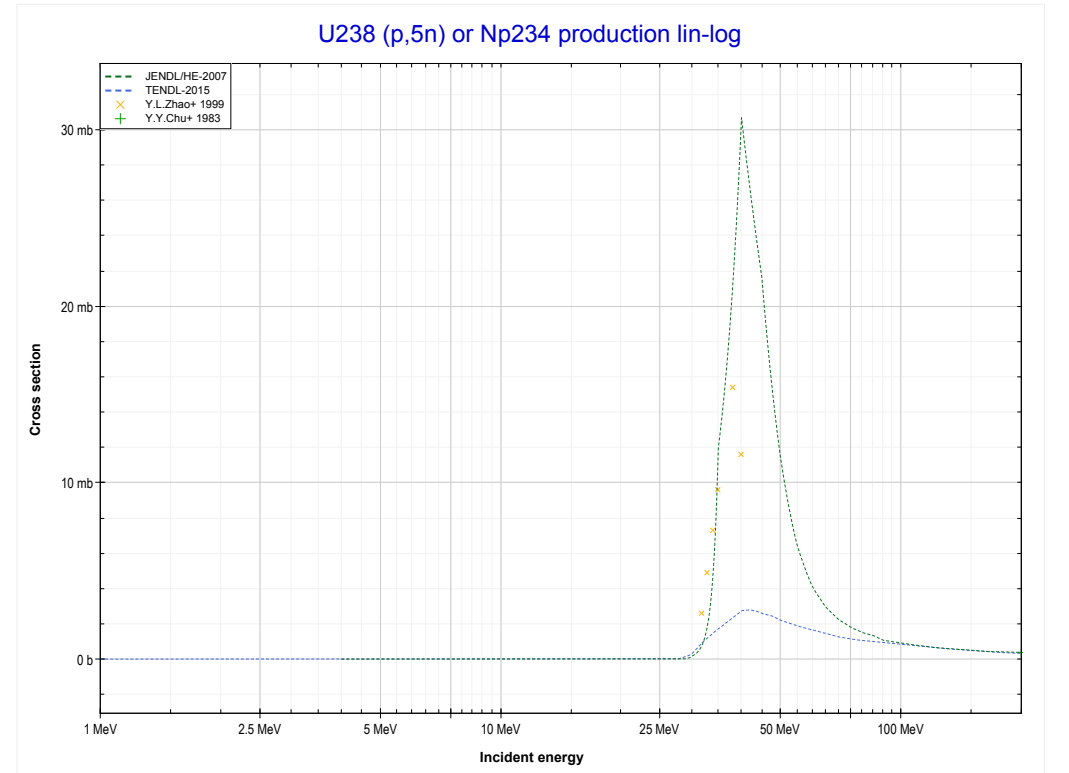
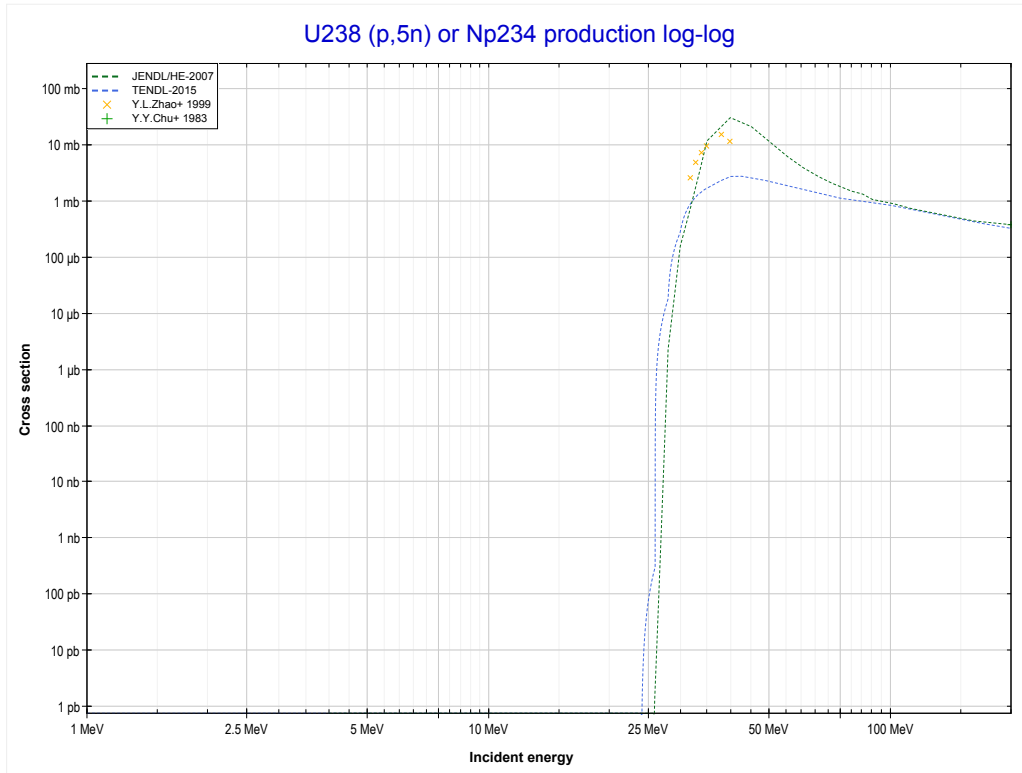
Reaction	Q-Value
U238(p,t)U236	-2798.24 keV
U238(p,n+d)U236	-9055.47 keV
U238(p,2n+p)U236	-11280.03 keV

<< 92-U-235	92-U-238	
<< MT105 (p,t)	MT107 (p,α) or MT5 (Pa235 production)	MT152 (p,5n) >>



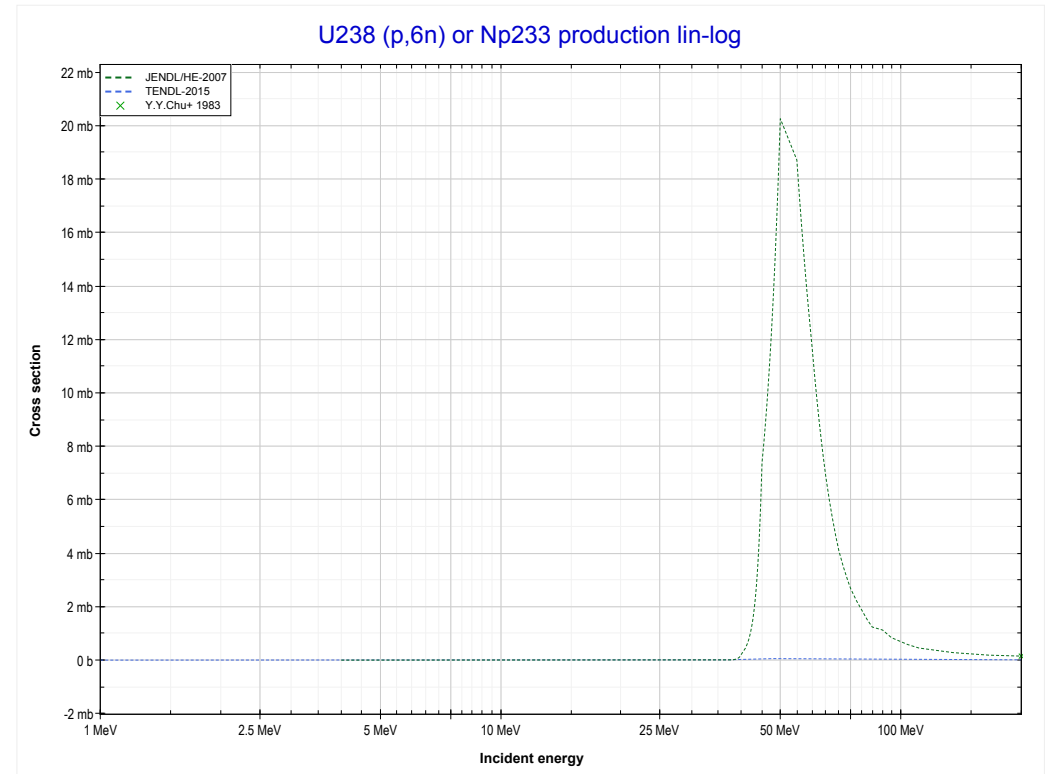
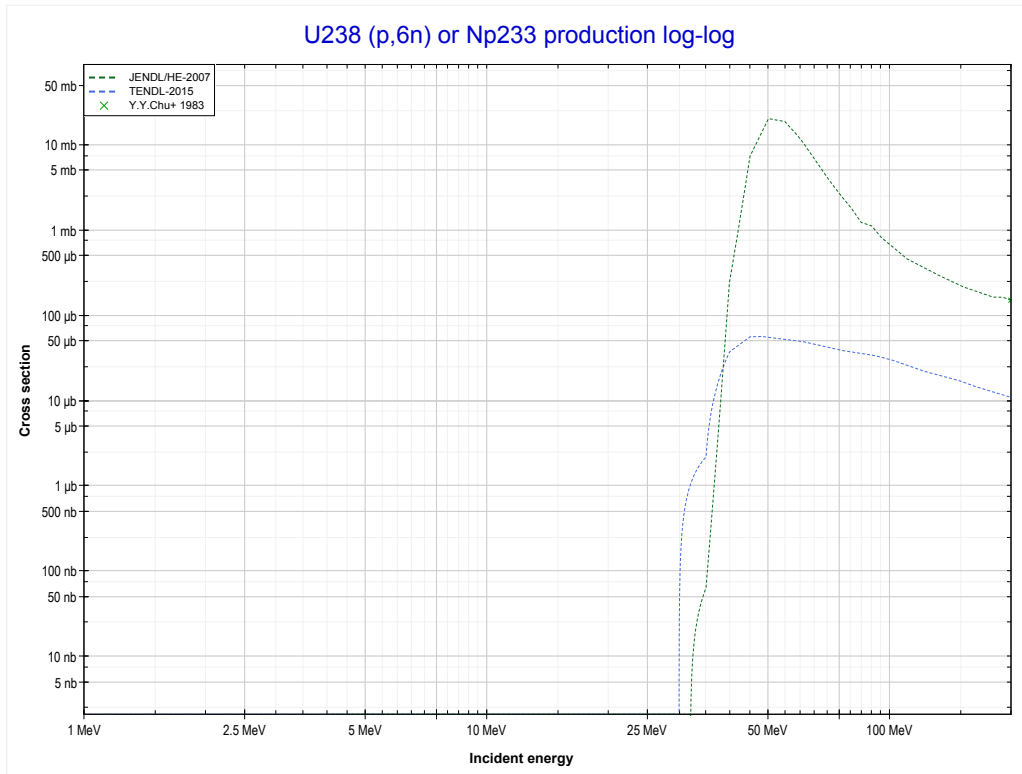
Reaction	Q-Value
U238(p, α)Pa235	9884.15 keV
U238(p,p+t)Pa235	-9929.71 keV
U238(p,n+He3)Pa235	-10693.46 keV
U238(p,2d)Pa235	-13962.37 keV
U238(p,n+p+d)Pa235	-16186.94 keV
U238(p,2n+2p)Pa235	-18411.50 keV

<< 92-U-235	92-U-238	
<< MT107 (p, α)	MT152 (p,5n) or MT5 (Np234 production)	MT153 (p,6n) >>



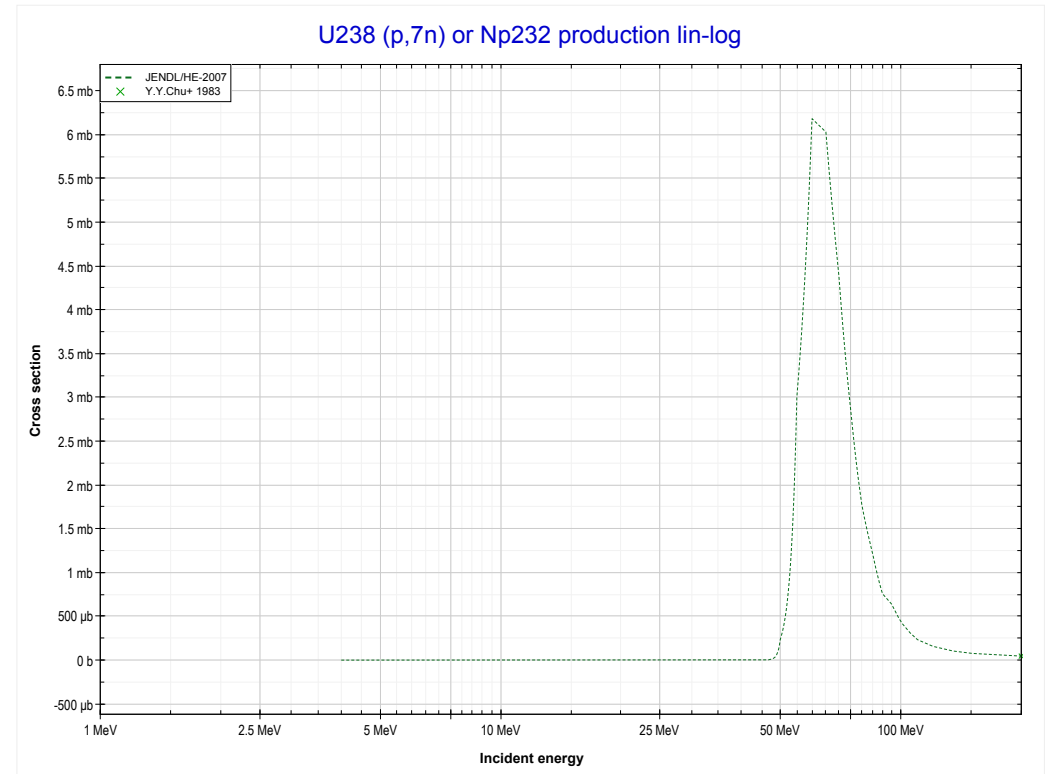
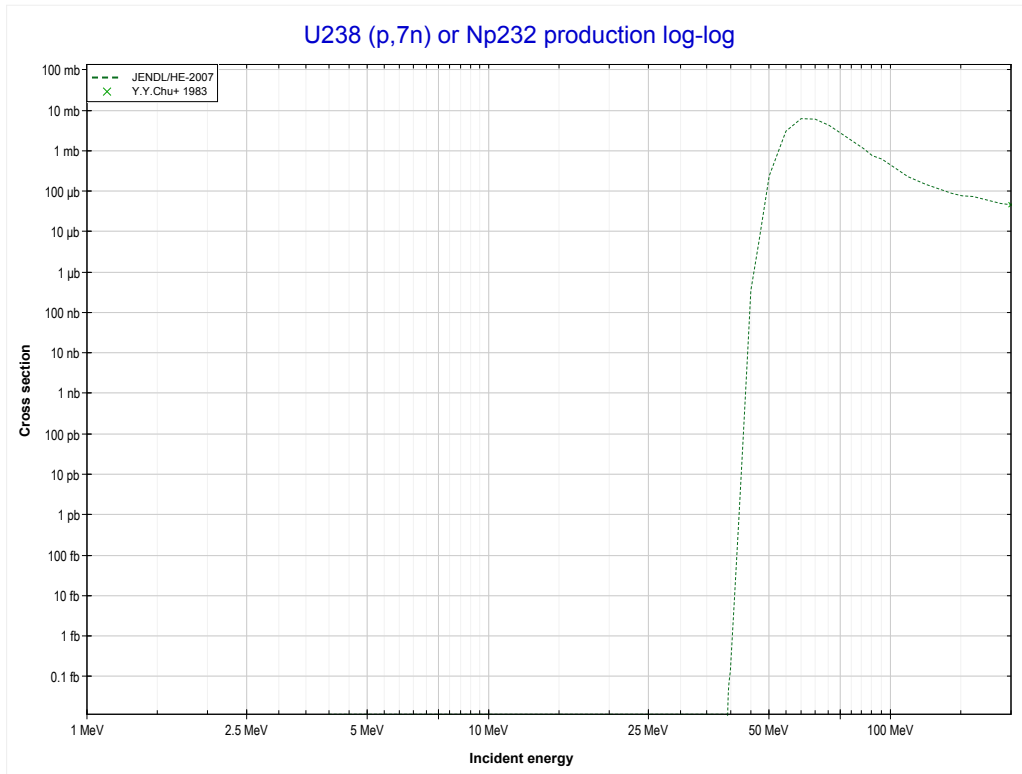
Reaction	Q-Value
U238(p,5n)Np234	-25715.51 keV

<< 90-Th-232	92-U-238	
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Np233 production)	MT160 (p,7n) >>



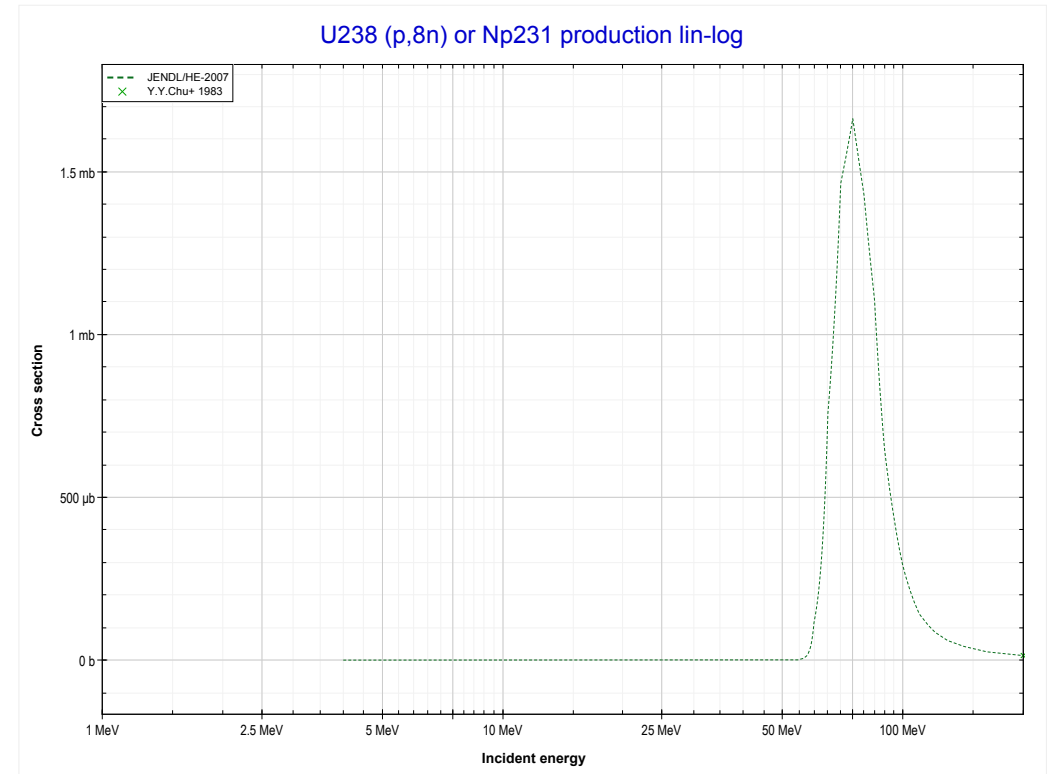
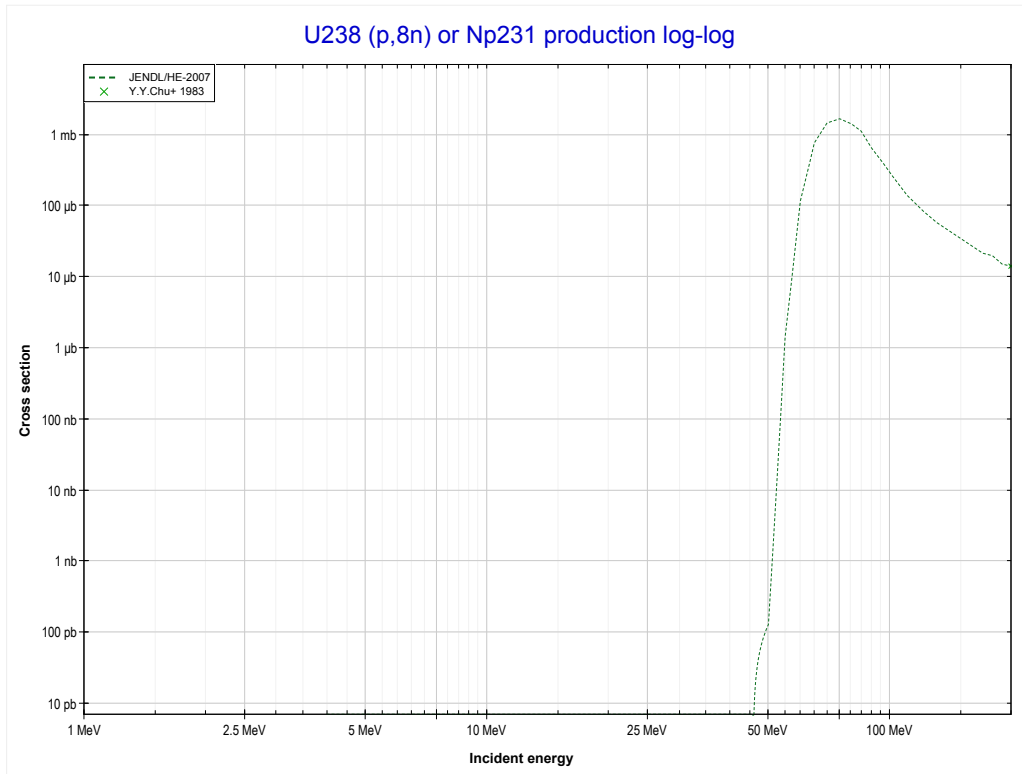
Reaction	Q-Value
U238(p,6n)Np233	-31779.83 keV

<< 90-Th-232	92-U-238	
<< MT153 (p,6n)	MT160 (p,7n) or MT5 (Np232 production)	MT161 (p,8n) >>



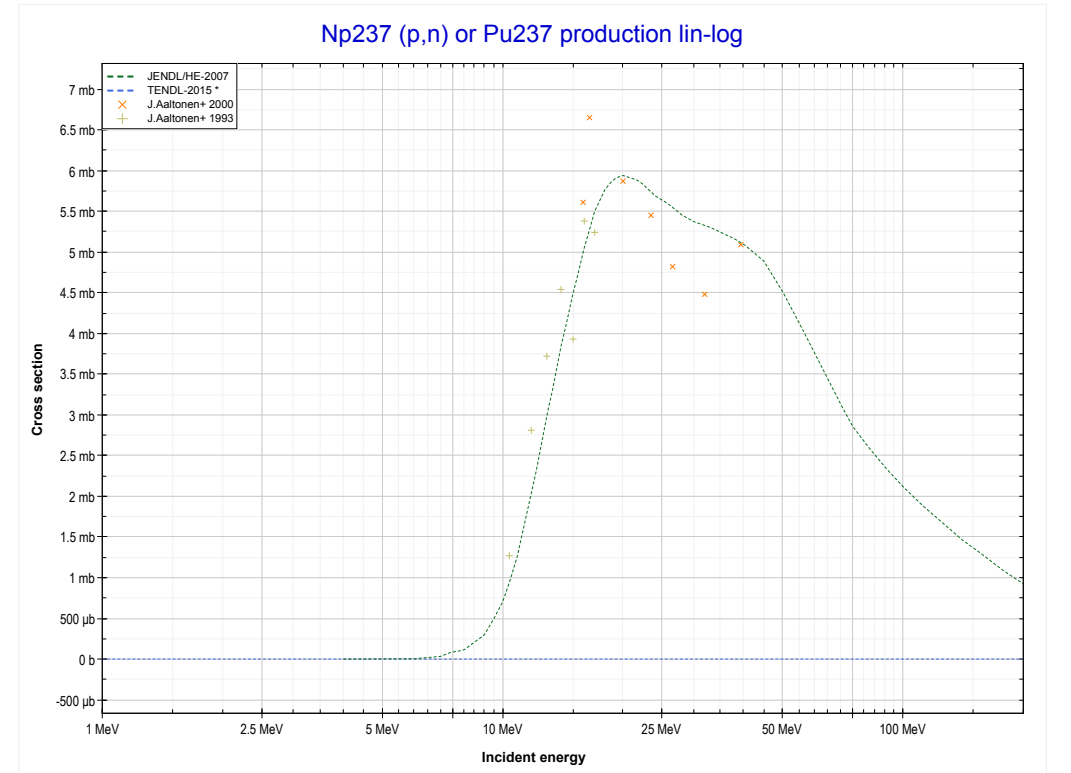
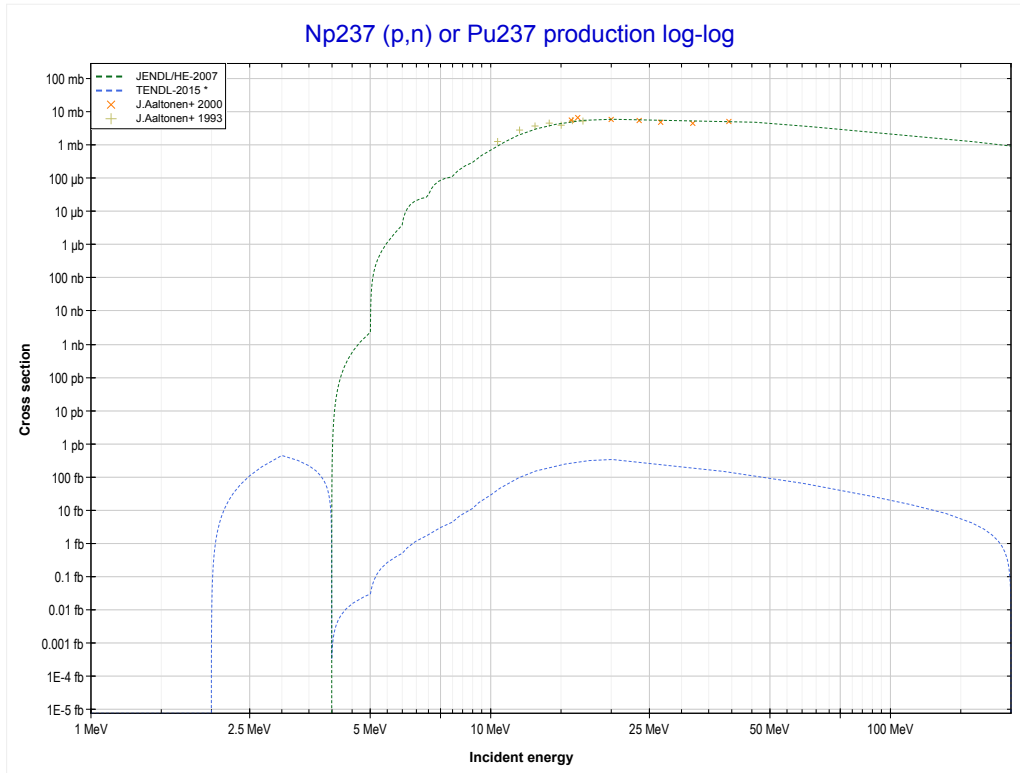
Reaction	Q-Value
U238(p,7n)Np232	-39261.15 keV

<< 83-Bi-209	92-U-238	
<< MT160 (p,7n)	MT161 (p,8n) or MT5 (Np231 production)	93-Np-237 MT4 (p,n) >>



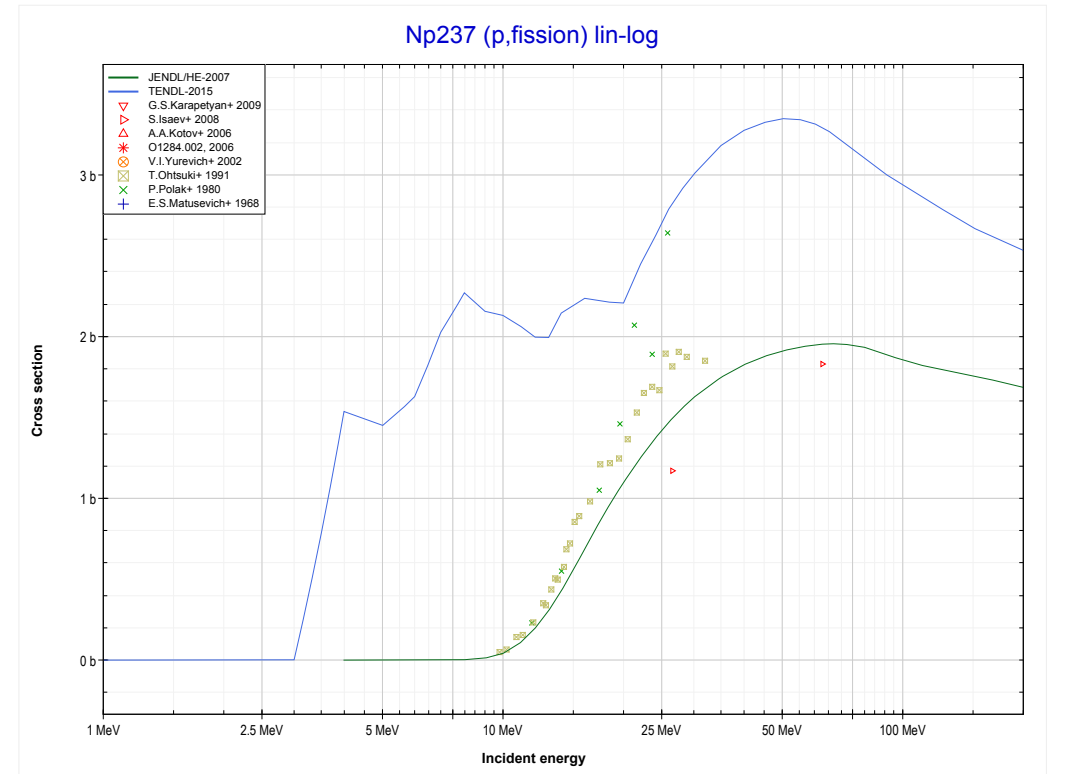
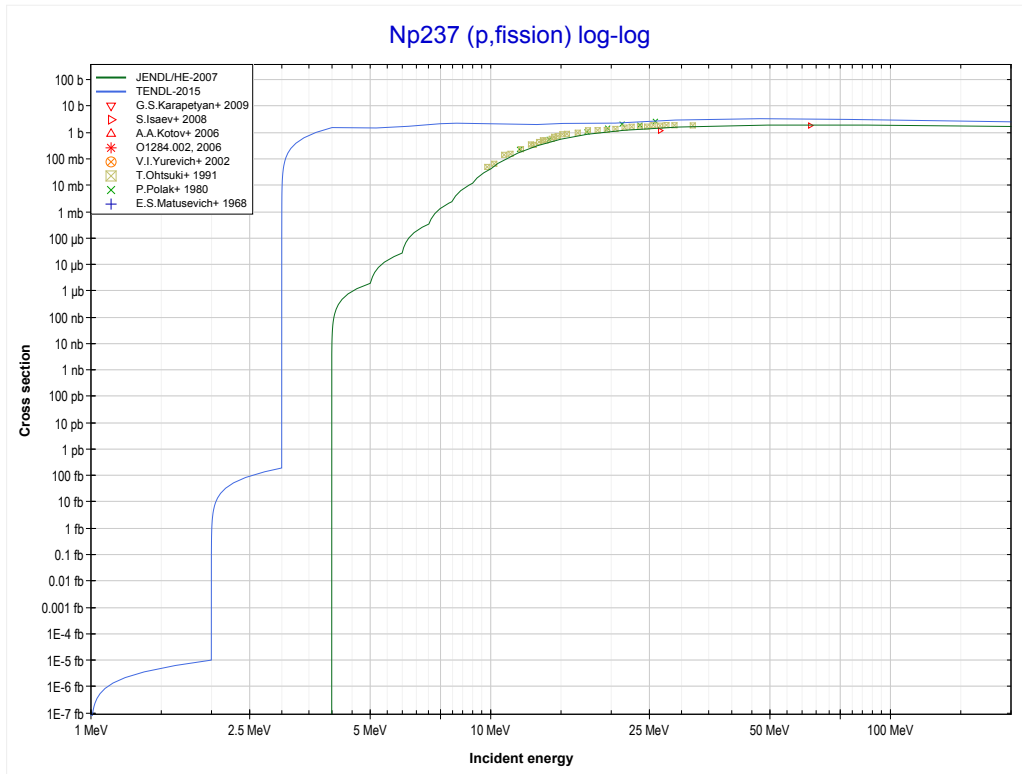
Reaction	Q-Value
U238(p,8n)Np231	-45602.47 keV

<< 92-U-238	93-Np-237	94-Pu-240 >>
<< 92-U-238 MT161 (p,8n)	MT4 (p,n) or MT5 (Pu237 production)	MT18 (p,fission) >>

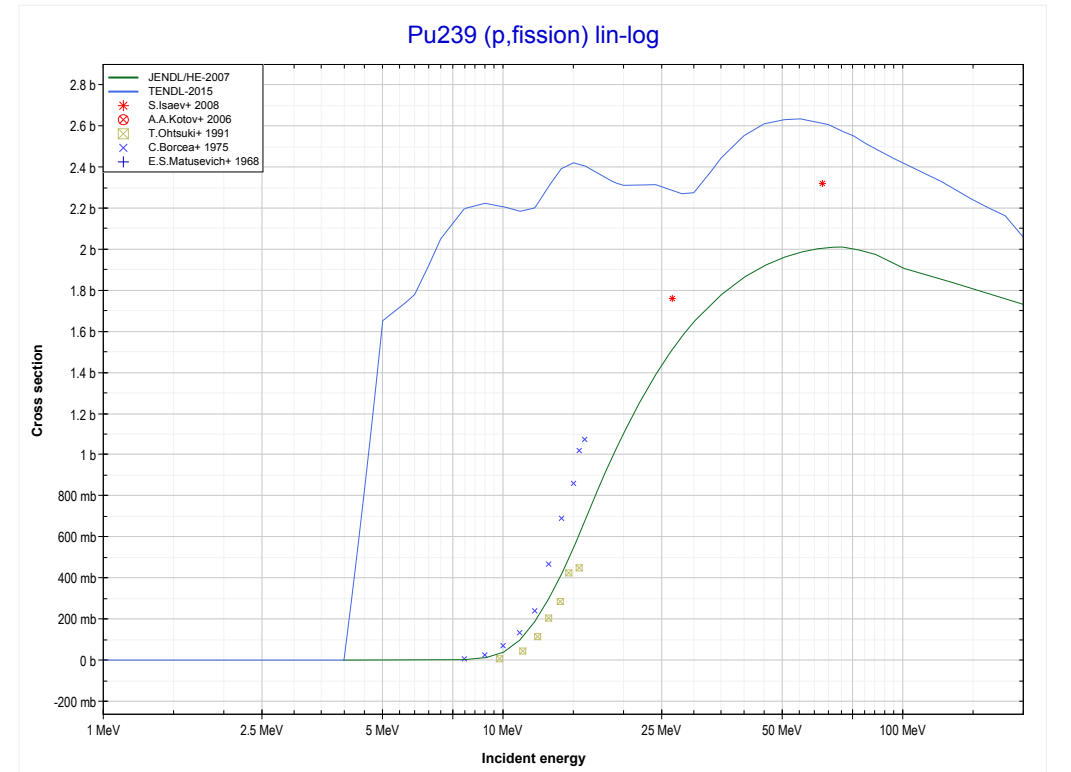
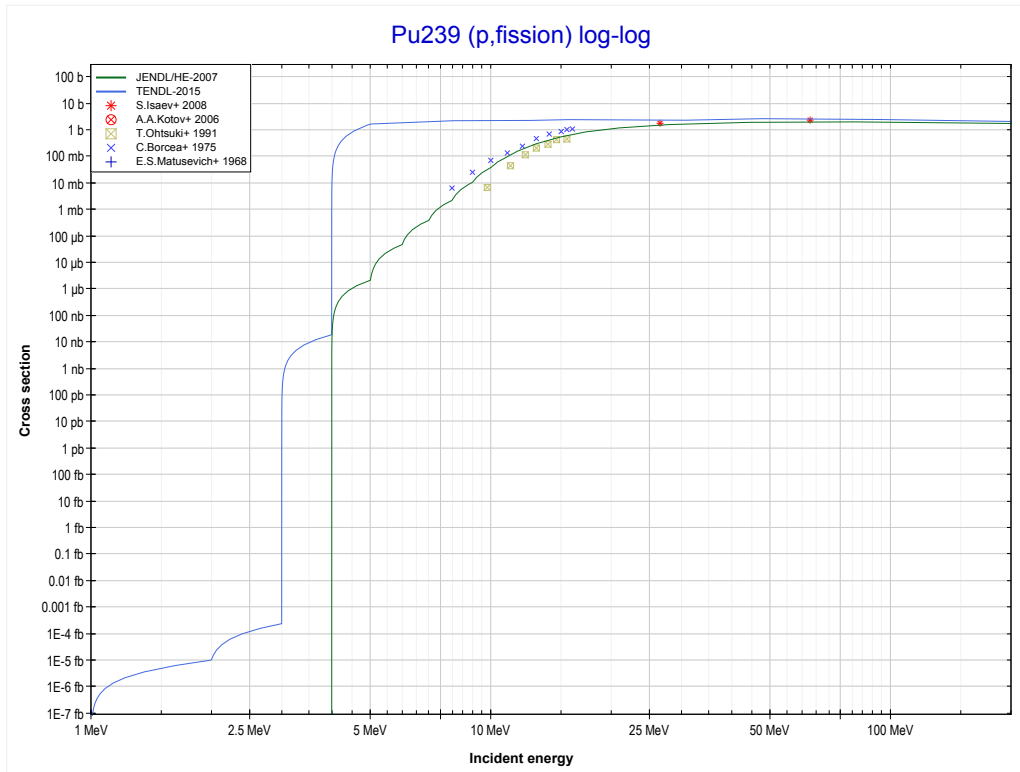


Reaction	Q-Value
Np237(p,n)Pu237	-1002.35 keV

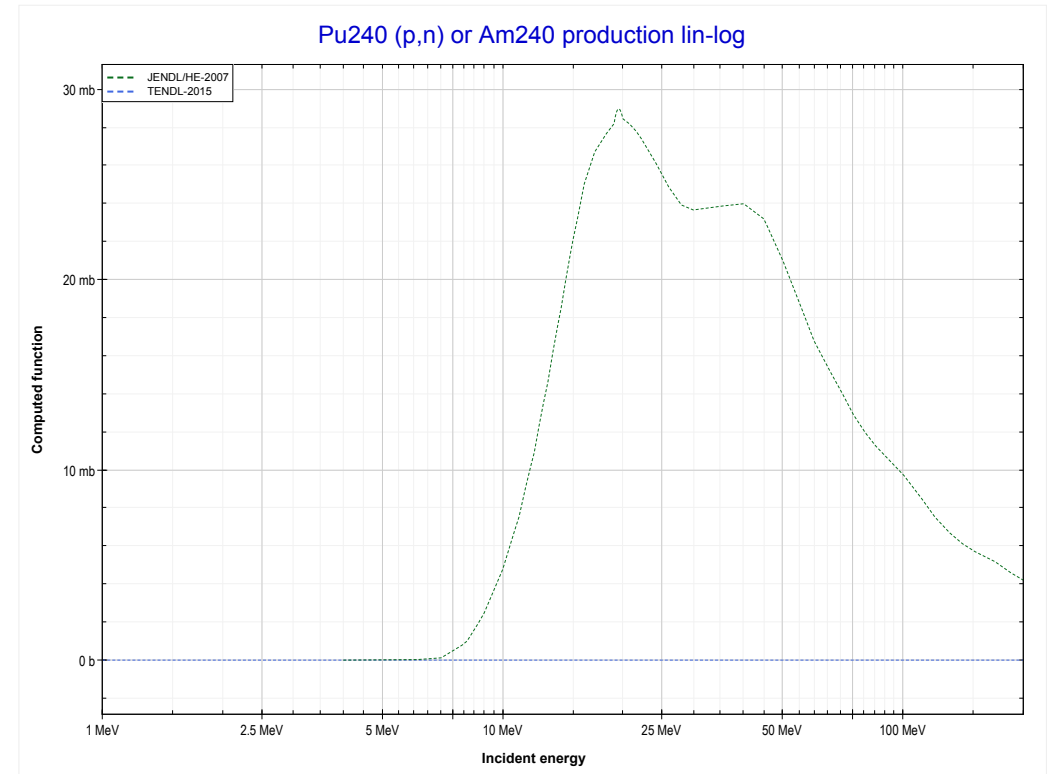
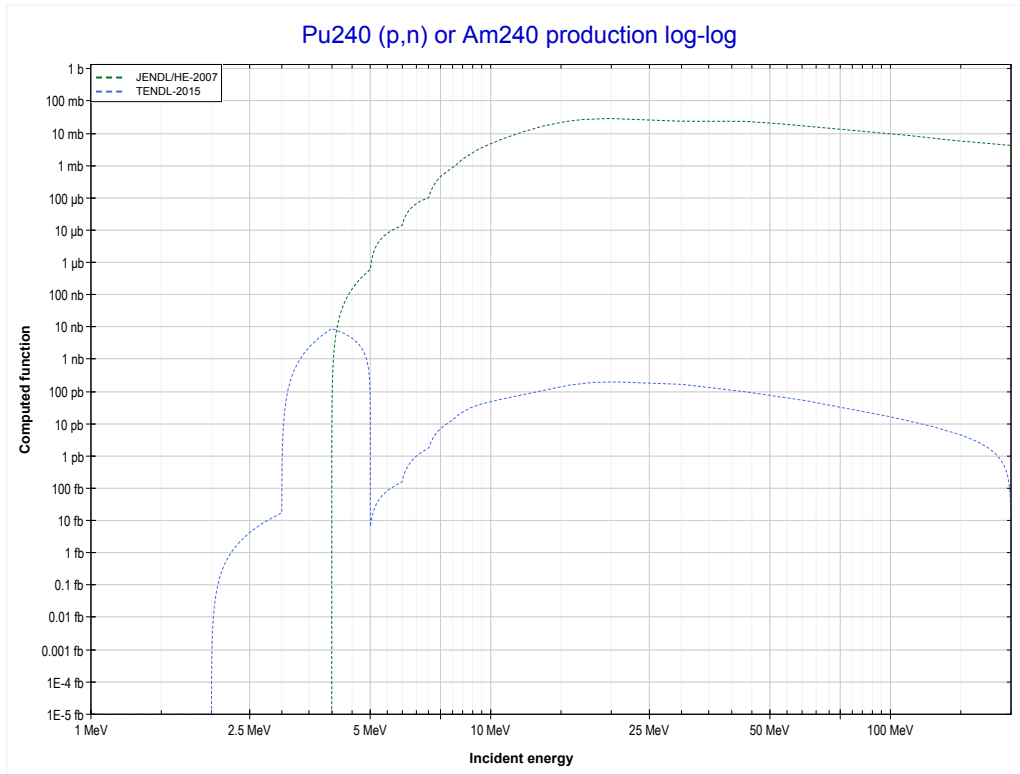
<< 92-U-238	93-Np-237	94-Pu-239 >>
<< MT4 (p,n)	MT18 (p,fission)	94-Pu-239 MT18 (p,fission) >>



<< 93-Np-237	94-Pu-239	94-Pu-240 >>
<< 93-Np-237 MT18 (p,fission)	MT18 (p,fission)	94-Pu-240 MT4 (p,n) >>

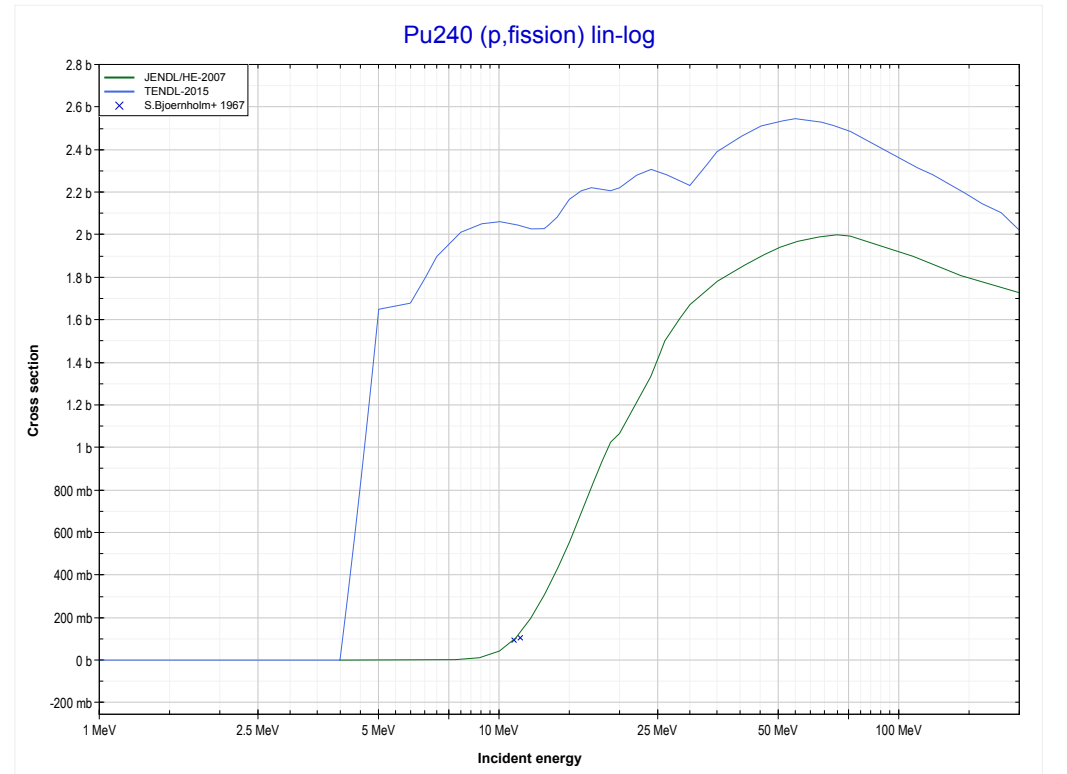
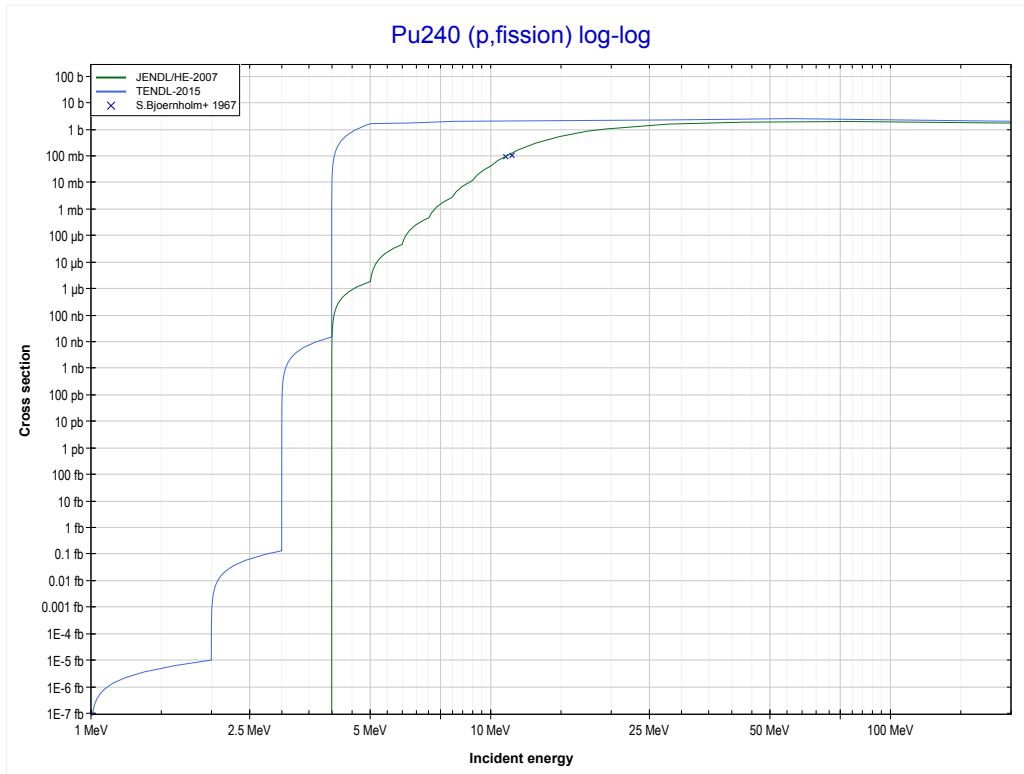


<< 93-Np-237	94-Pu-240	
<< 94-Pu-239 MT18 (p,fission)	MT4 (p,n) or MT5 (Am240 production)	MT18 (p,fission) >>

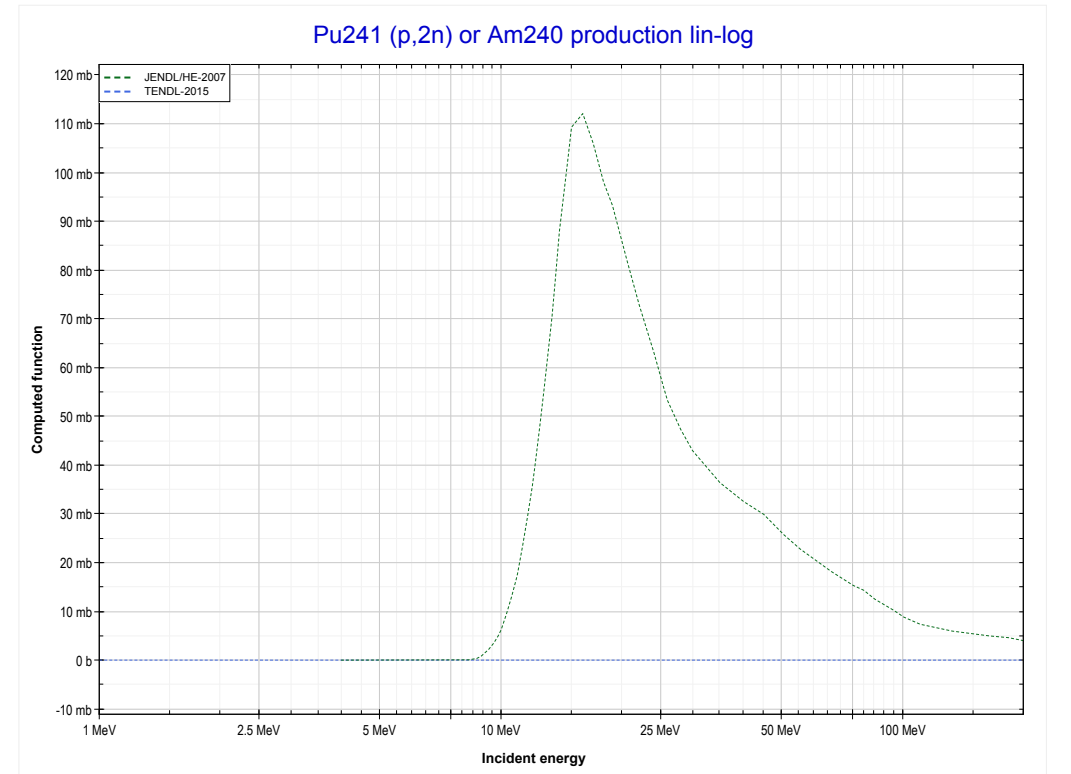
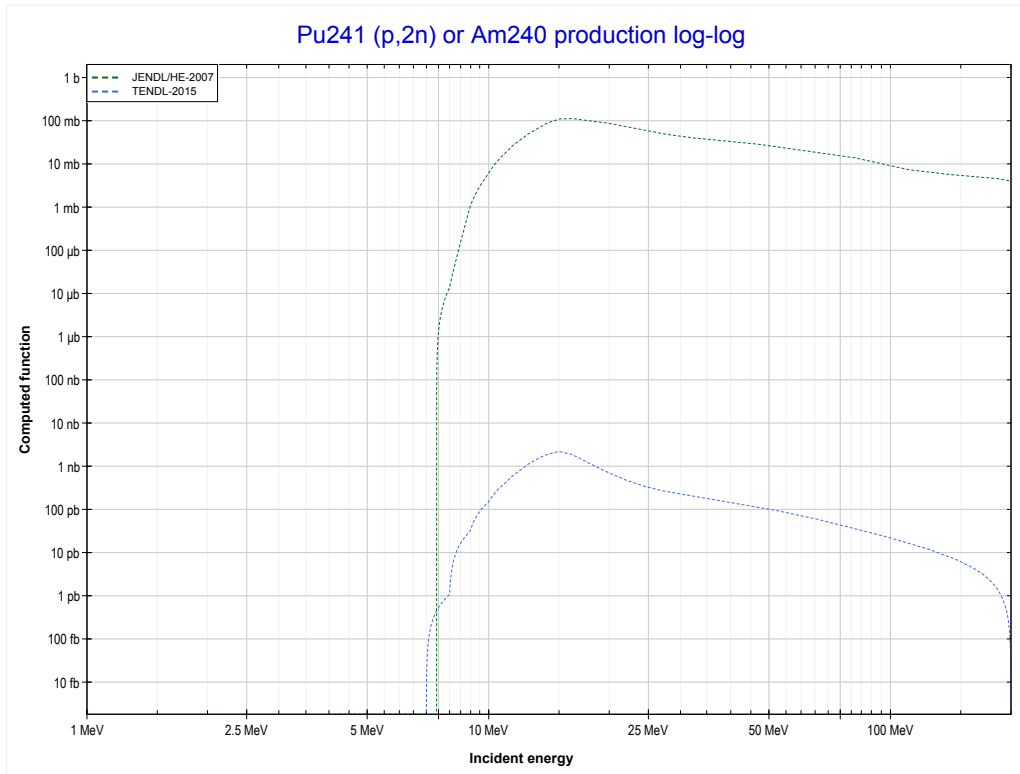


Reaction	Q-Value
Pu240(p,n)Am240	-2167.15 keV

<< 94-Pu-239	94-Pu-240	94-Pu-241 >>
<< MT4 (p,n)	MT18 (p,fission)	94-Pu-241 MT16 (p,2n) >>

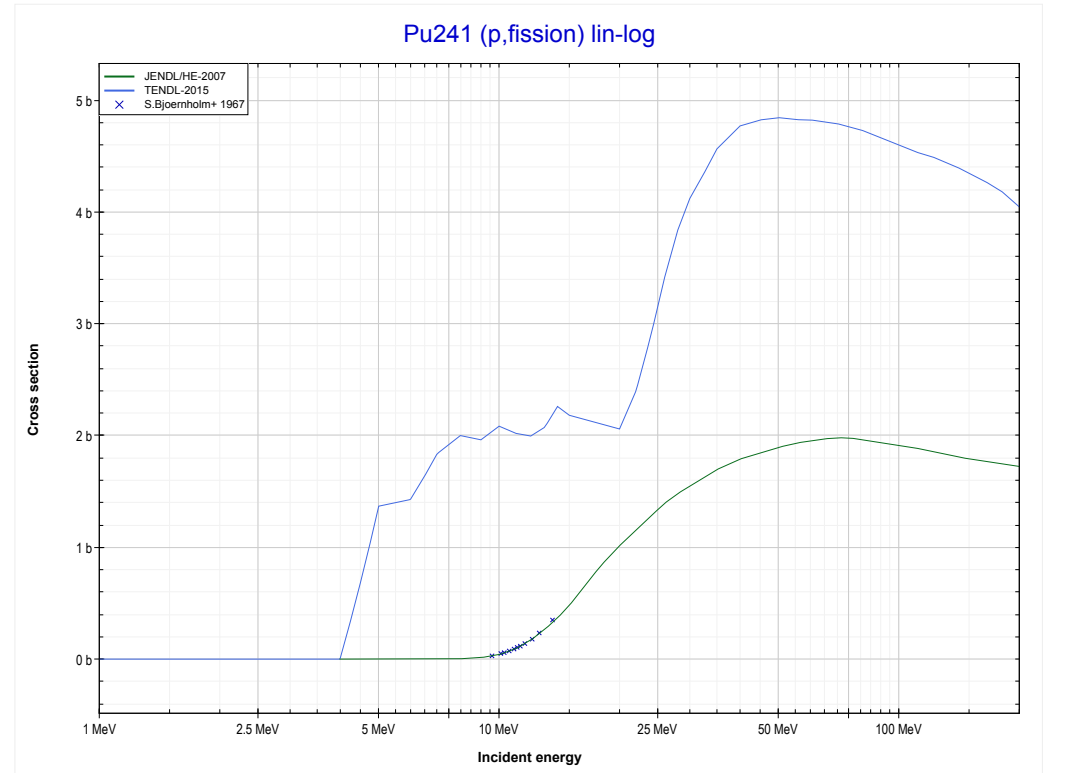
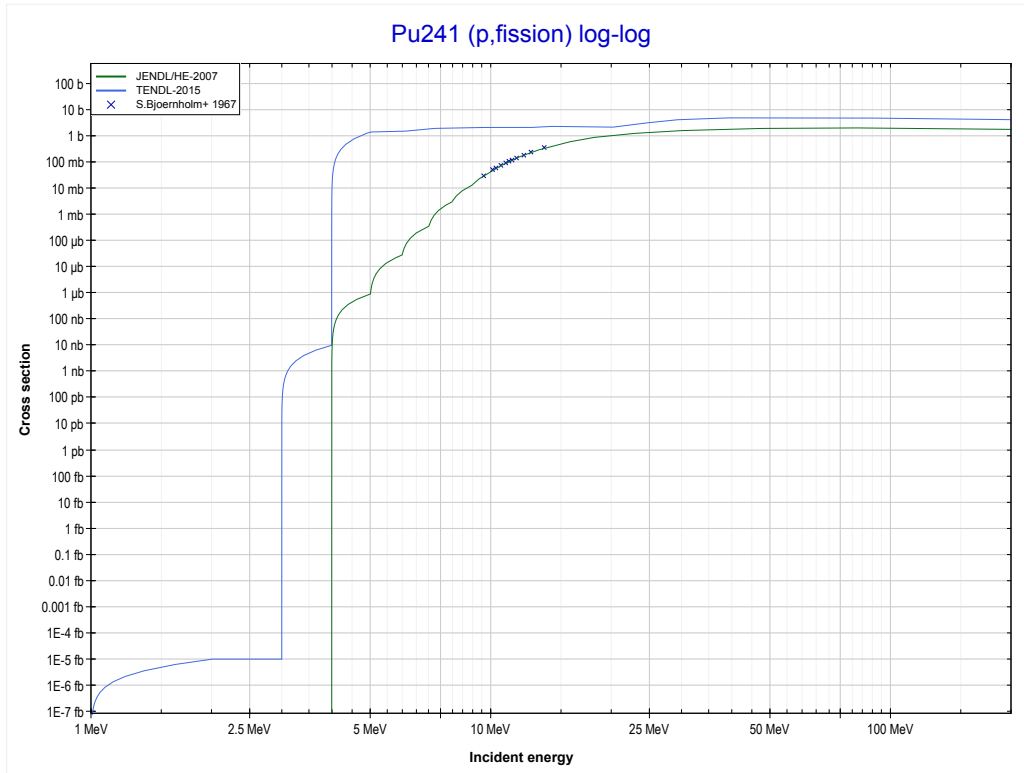


<< 92-U-236	94-Pu-241	95-Am-241 >>
<< 94-Pu-240 MT18 (p,fission)	MT16 (p,2n) or MT5 (Am240 production)	MT18 (p,fission) >>

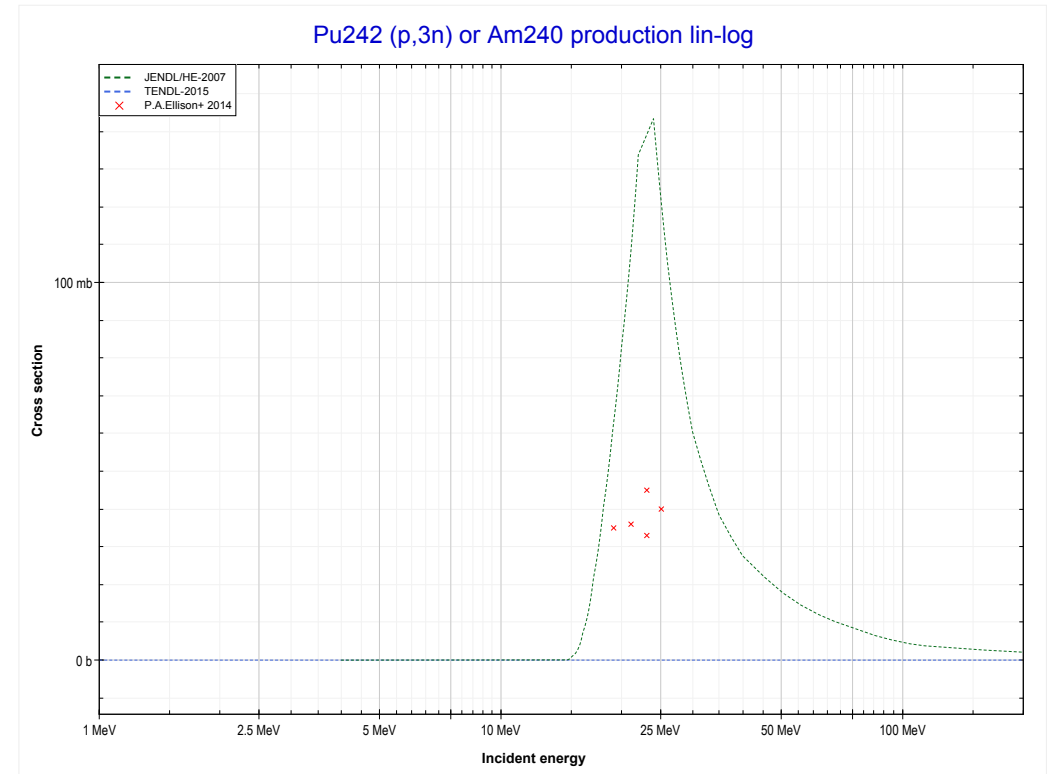
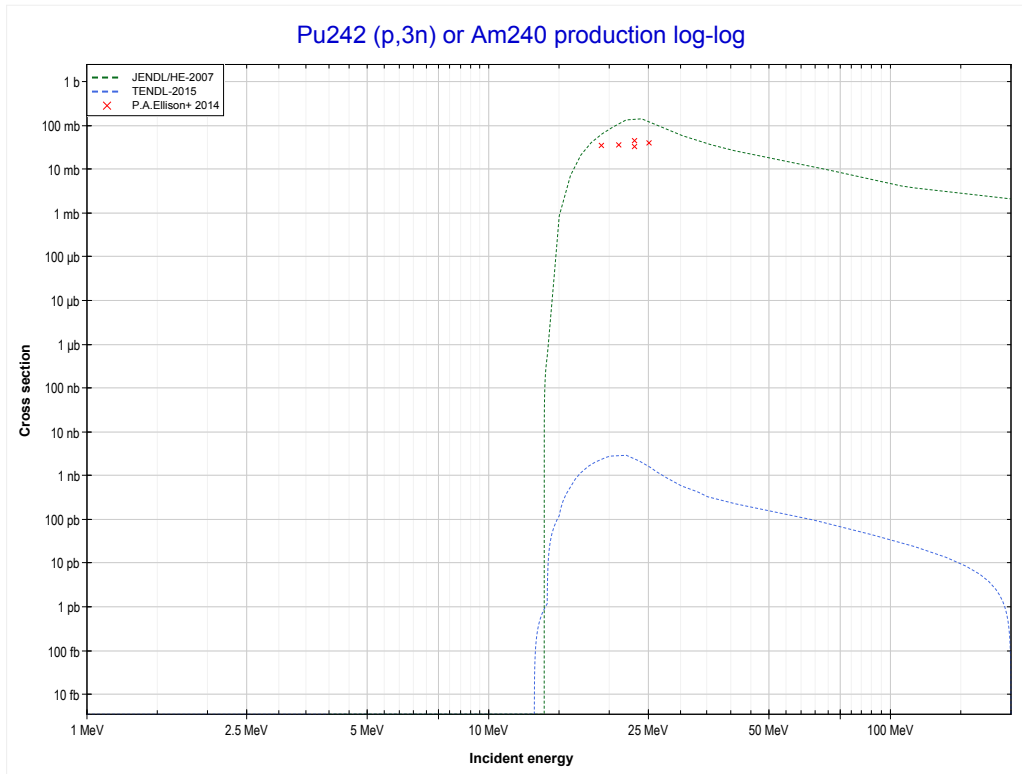


Reaction	Q-Value
Pu241(p,2n)Am240	-7408.66 keV

<< 94-Pu-240	94-Pu-241	94-Pu-242 >>
<< MT16 (p,2n)	MT18 (p,fission)	94-Pu-242 MT17 (p,3n) >>

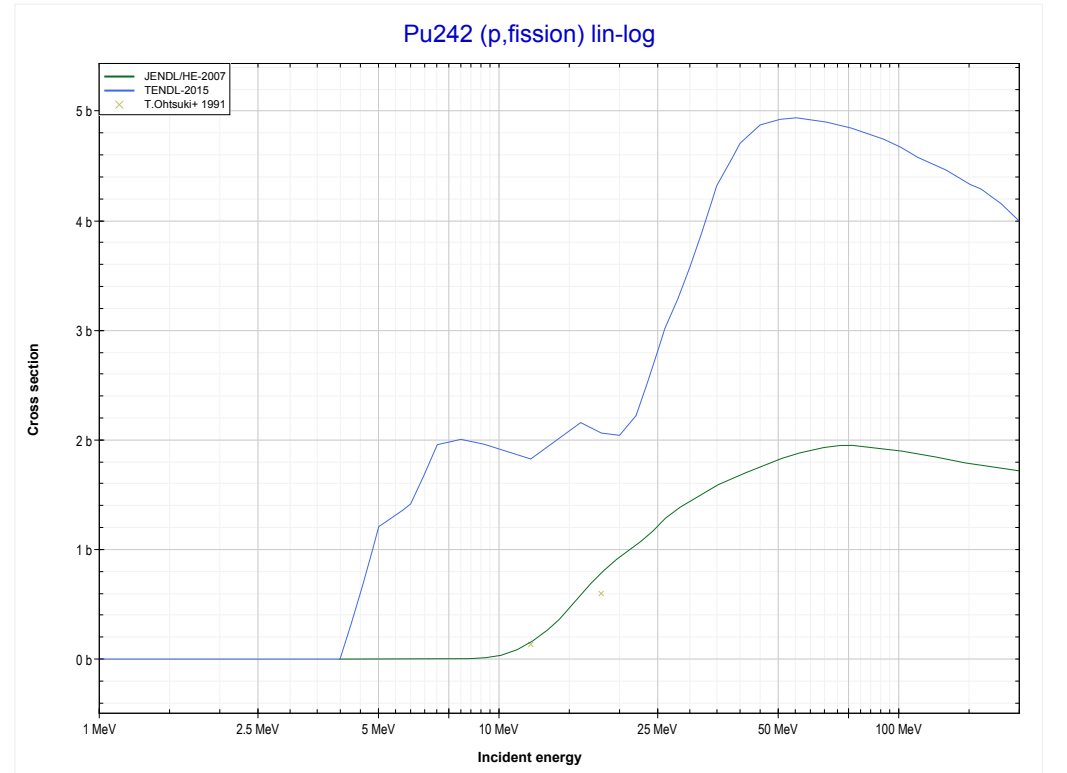
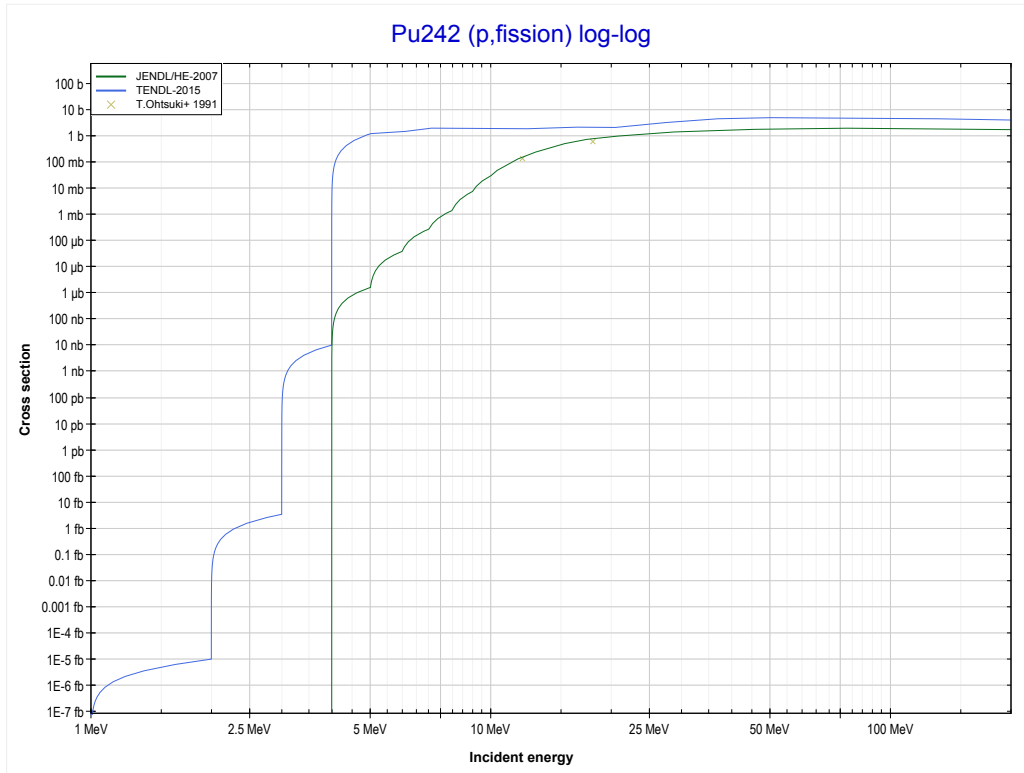


<< 92-U-238	94-Pu-242	
<< 94-Pu-241 MT18 (p,fission)	MT17 (p,3n) or MT5 (Am240 production)	MT18 (p,fission) >>

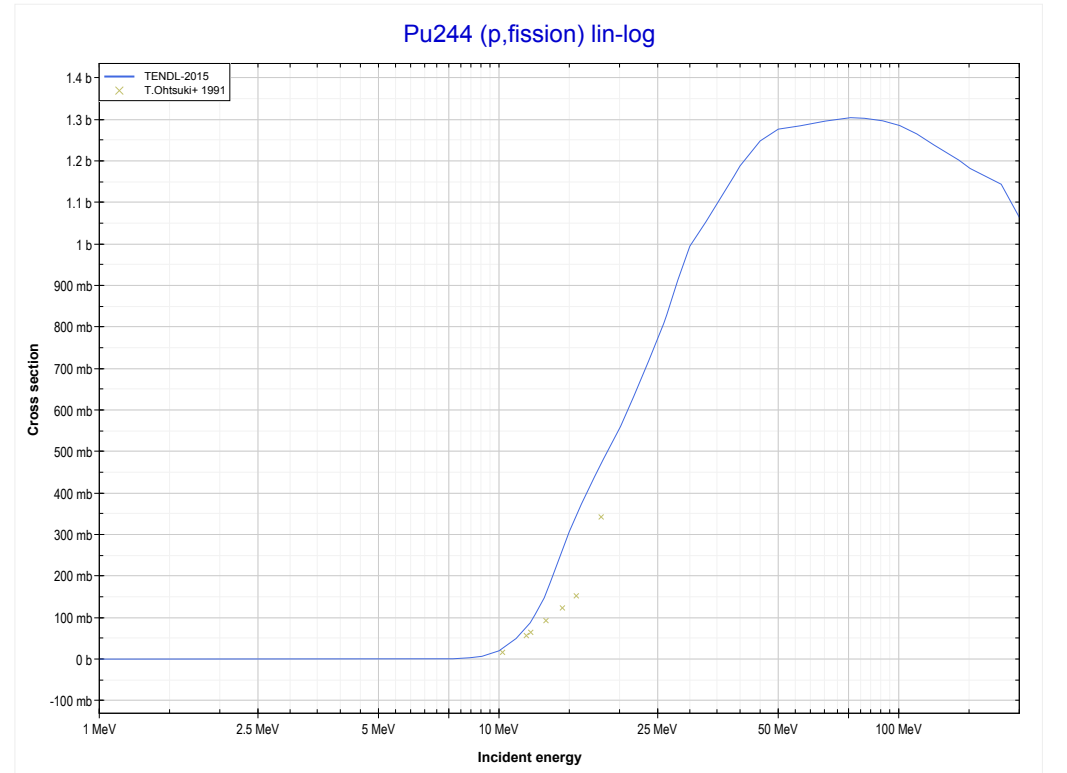
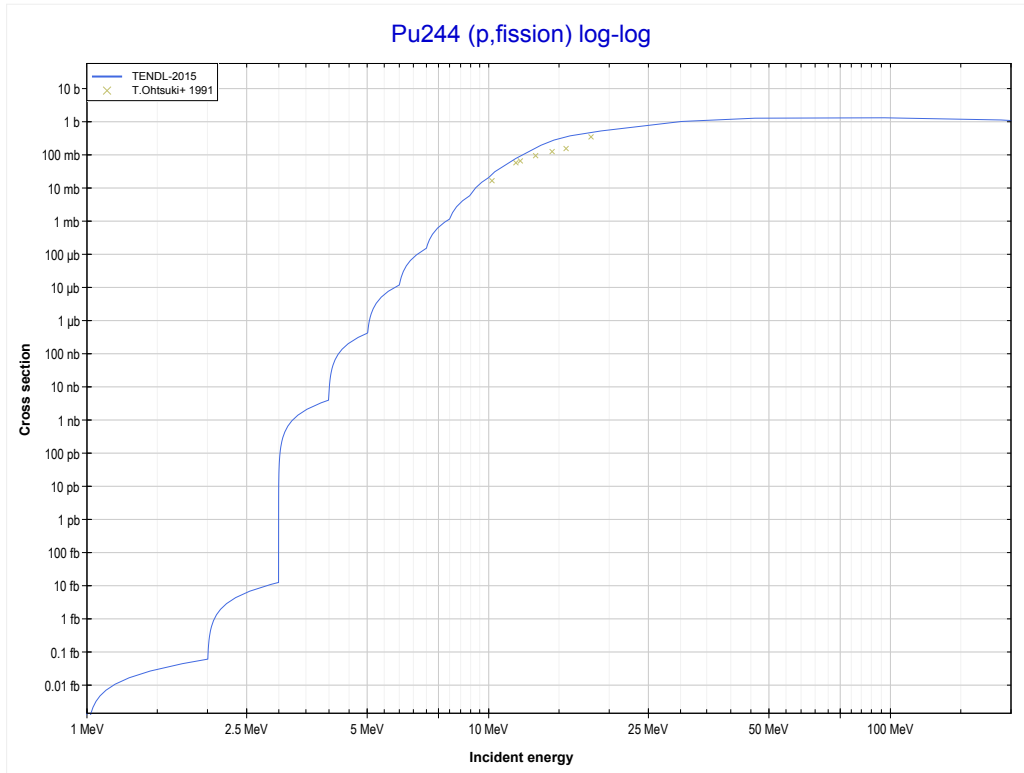


Reaction	Q-Value
Pu242(p,3n)Am240	-13718.38 keV

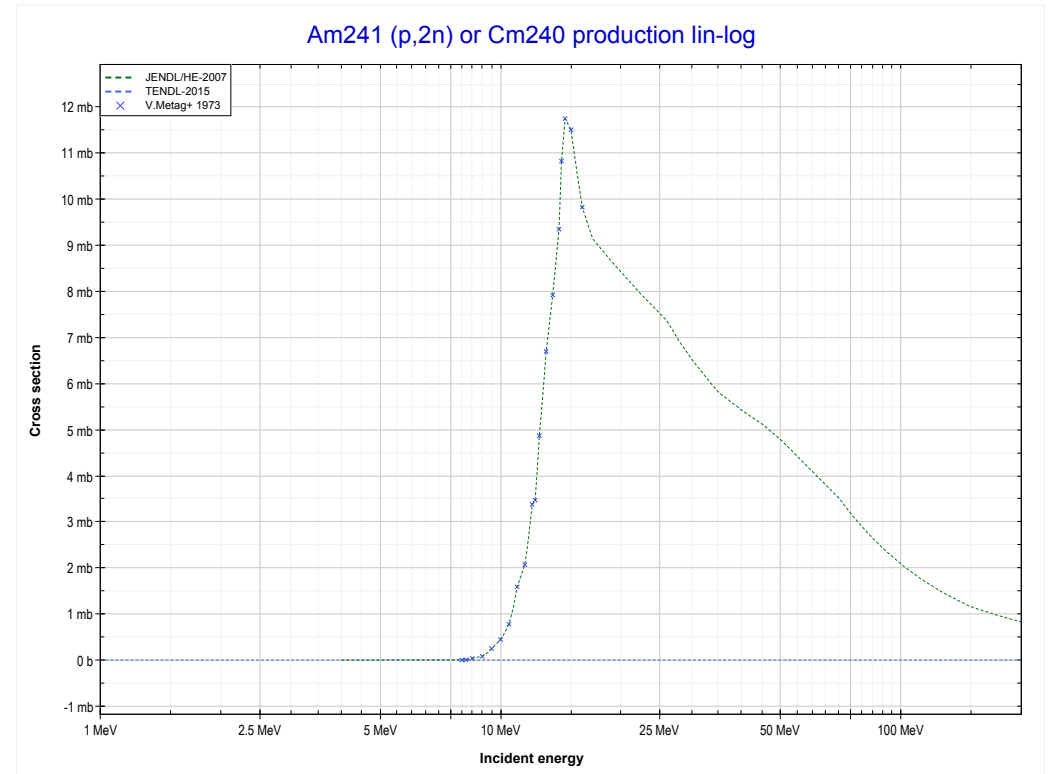
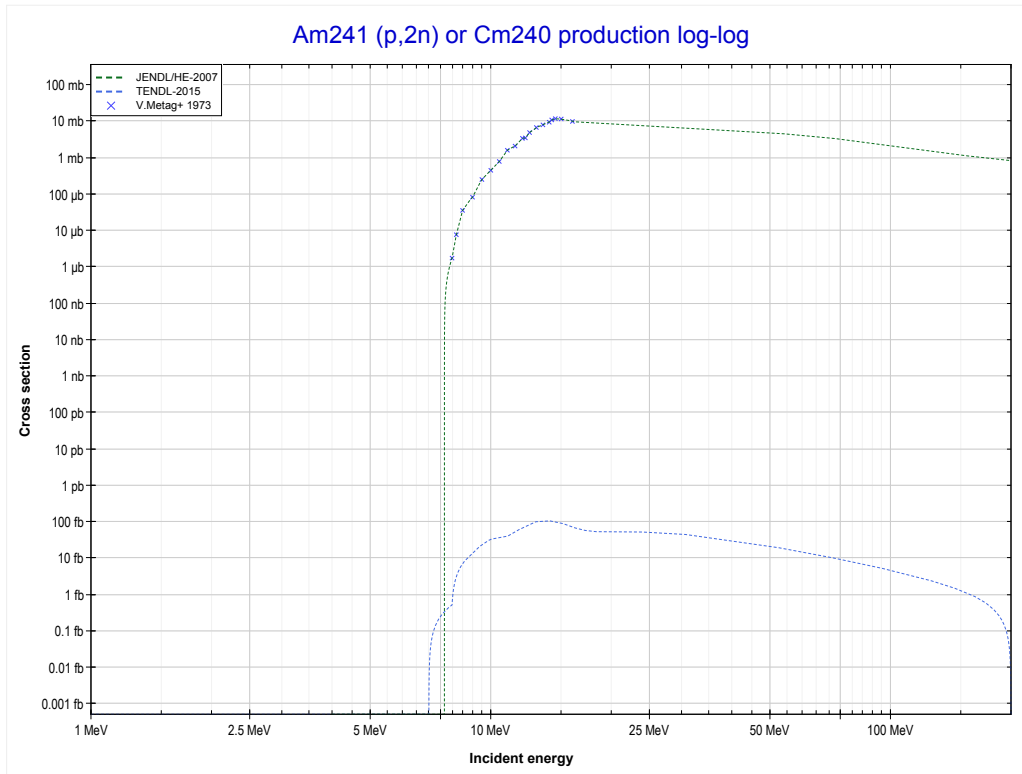
<< 94-Pu-241	94-Pu-242	94-Pu-244 >>
<< MT17 (p,3n)	MT18 (p,fission)	94-Pu-244 MT18 (p,fission) >>



<< 94-Pu-242	94-Pu-244	95-Am-241 >>
<< 94-Pu-242 MT18 (p,fission)	MT18 (p,fission)	95-Am-241 MT16 (p,2n) >>

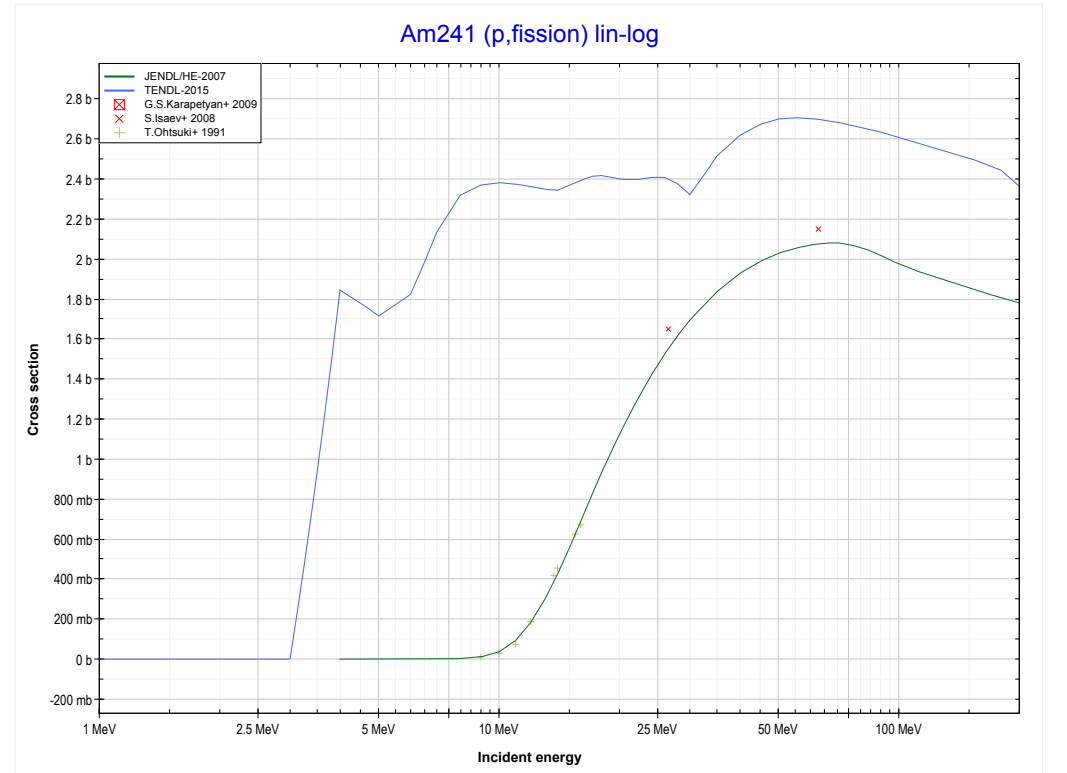
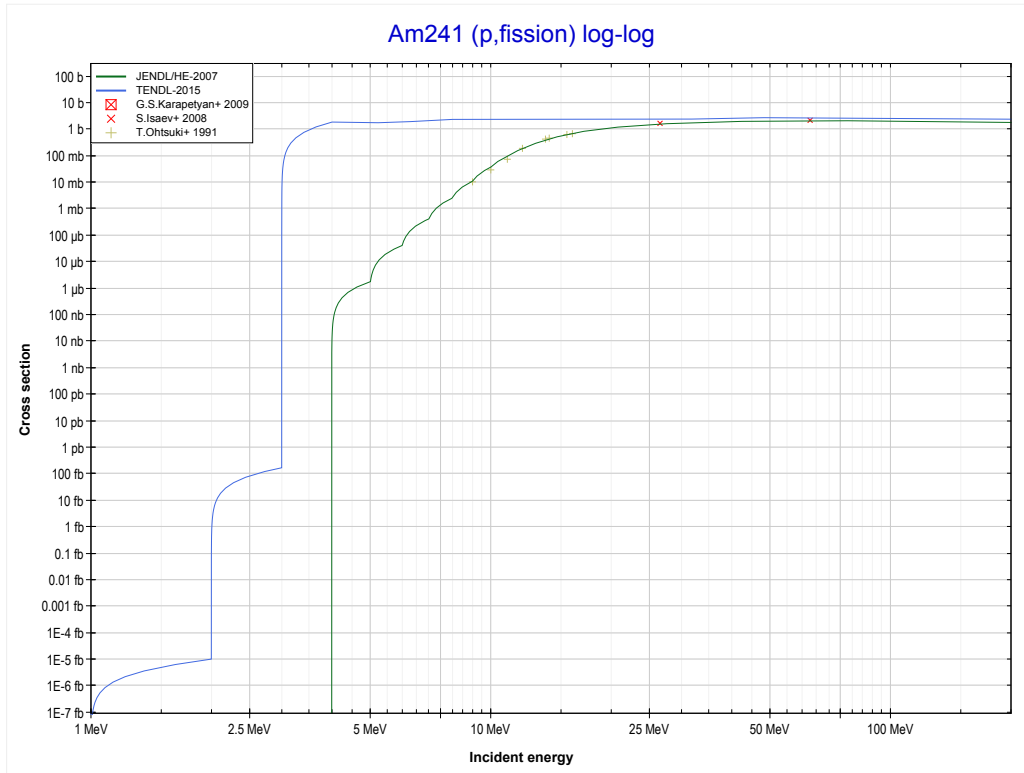


<< 94-Pu-241	95-Am-241	
<< 94-Pu-244 MT18 (p,fission)	MT16 (p,2n) or MT5 (Cm240 production)	MT18 (p,fission) >>



Reaction	Q-Value
Am241(p,2n)Cm240	-7643.06 keV

<< 94-Pu-244	95-Am-241	95-Am-243 >>
<< MT16 (p,2n)	MT18 (p,fission)	95-Am-243 MT18 (p,fission) >>



<< 95-Am-241	95-Am-243	
<< 95-Am-241 MT18 (p,fission)	MT18 (p,fission)	

