



JANIS Book

of proton-induced cross-sections

Comparison of evaluated and experimental data from
ENDF/B-VII.1, JENDL/HE-2007, PADF-2007, TENDL-2011 and EXFOR

N. Soppera, E. Dupont, M. Bossant

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 2). This document was produced using tools based on the NEA Java-based nuclear information software (JANIS) and associated databases [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 their EXFOR entry number. 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 2003 Nubase and Atomic Mass Evaluation [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 of the Korean Physical Society*, 59 (2011) 1329.
See also www.oecd-nea.org/janis.
- [2] G. Audi, A.H. Wapstra, *et al.*, *Nuclear Physics A* 729 (2003) 3-676.

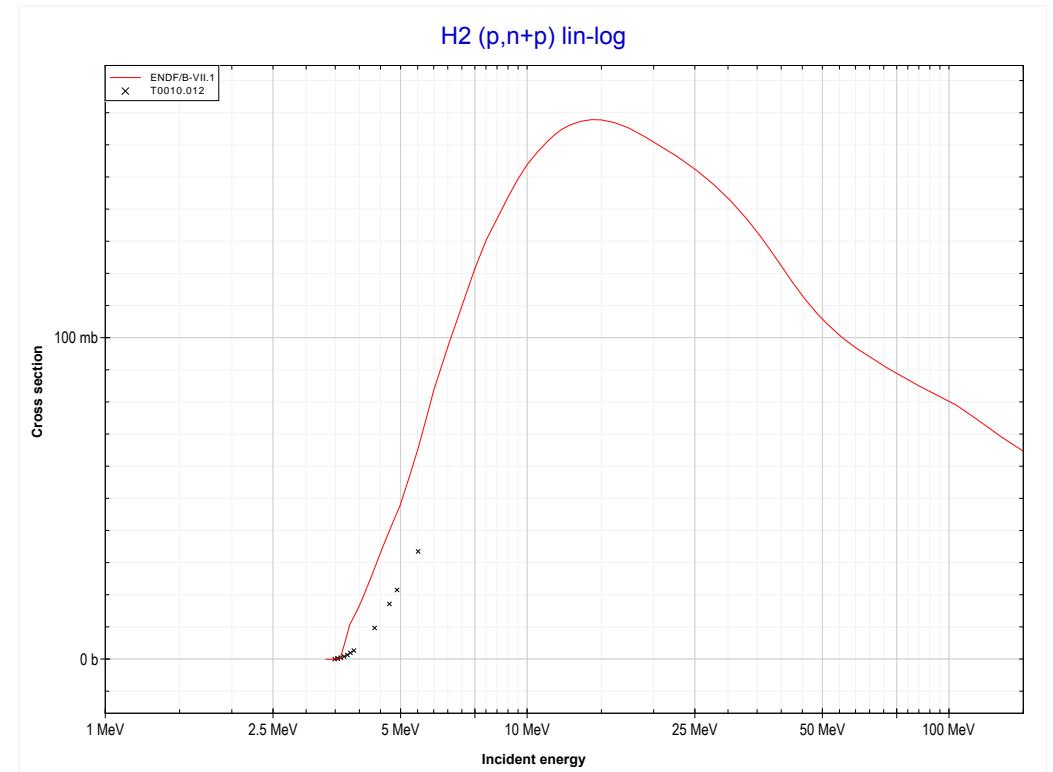
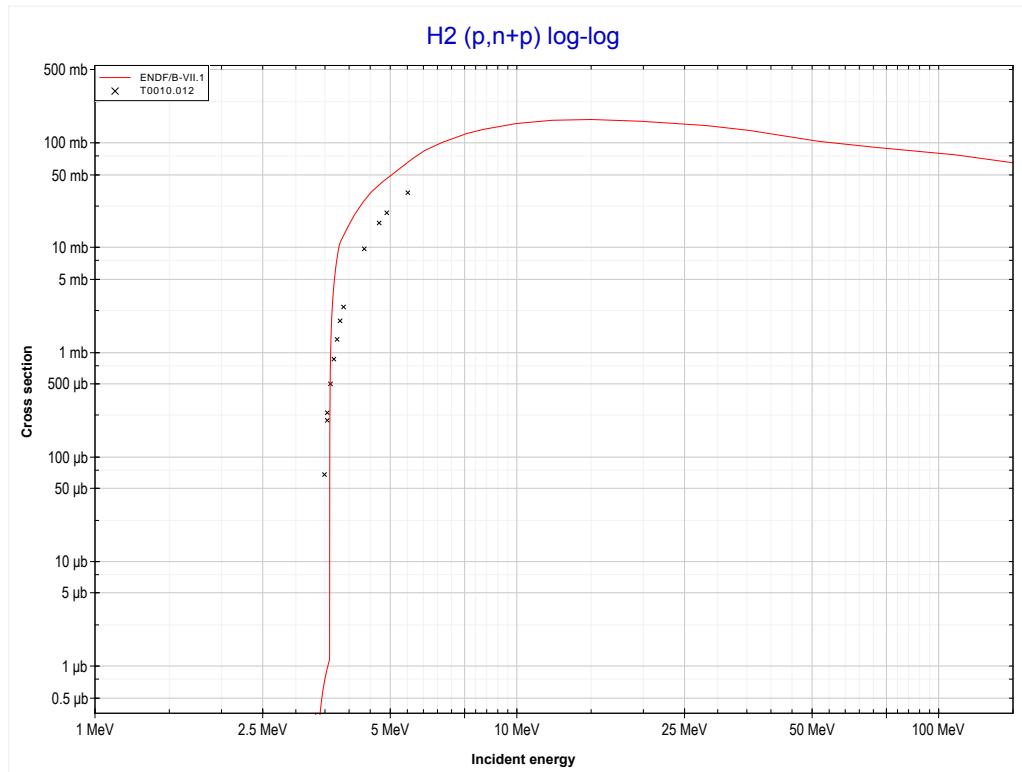
Table 1: list of databases used in the inter-comparison

Library	Release date
ENDF/B-VII.1	December 2011
JENDL/HE-2007	2007
PADF-2007	January 2007
TENDL-2011	December 2011
EXFOR	May 2012

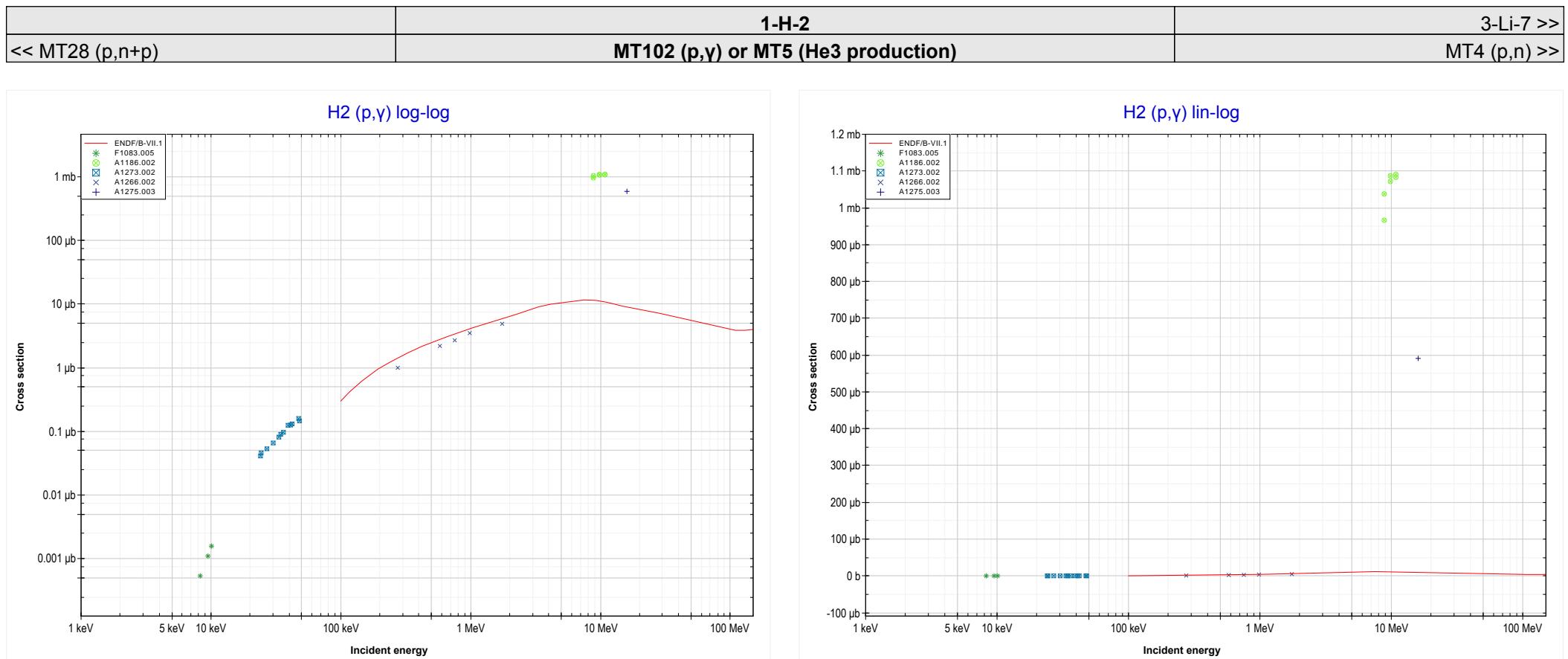
Table 2: list of exclusive reactions used in the inter-comparison

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		

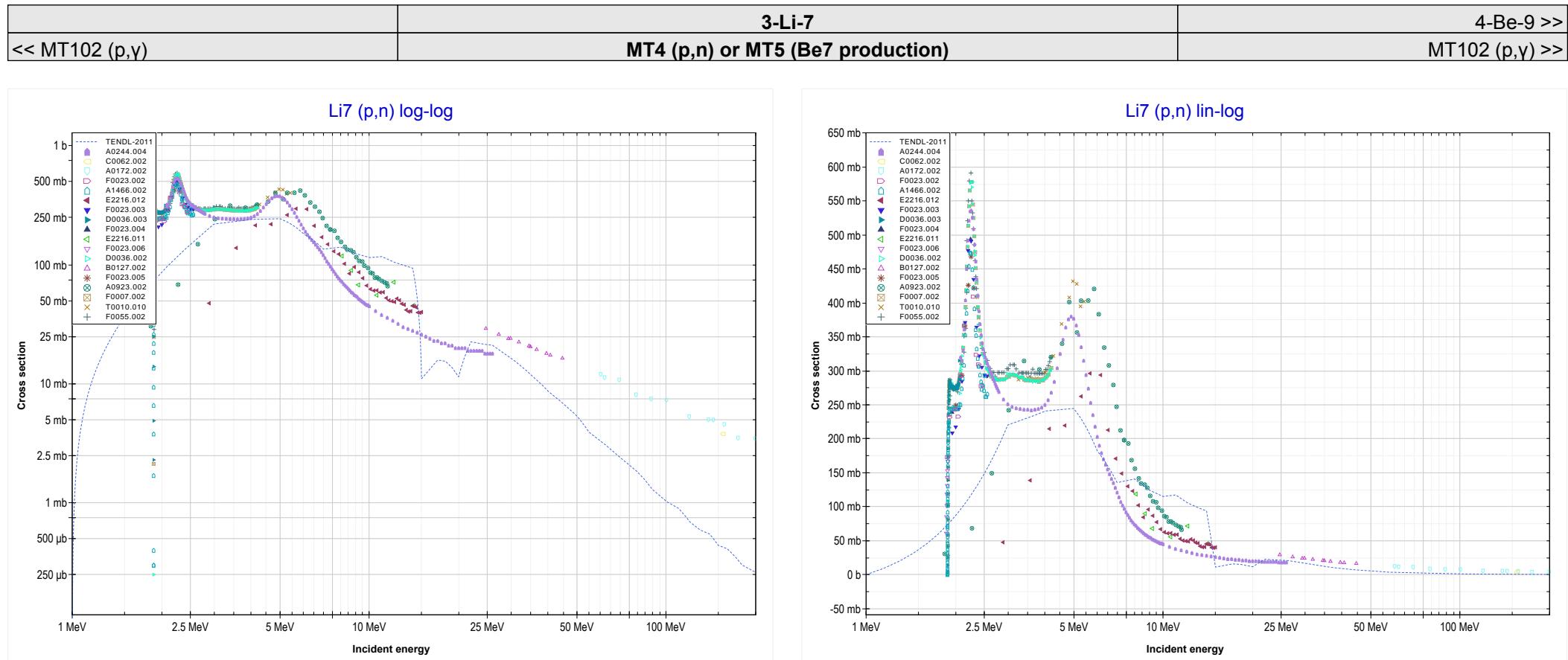
<< MT103 (p,p)	1-H-2 MT28 (p,n+p) or MT5 (H1 production)	6-C-12 >> MT102 (p,y) >>
--------------------------------------	--	---



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

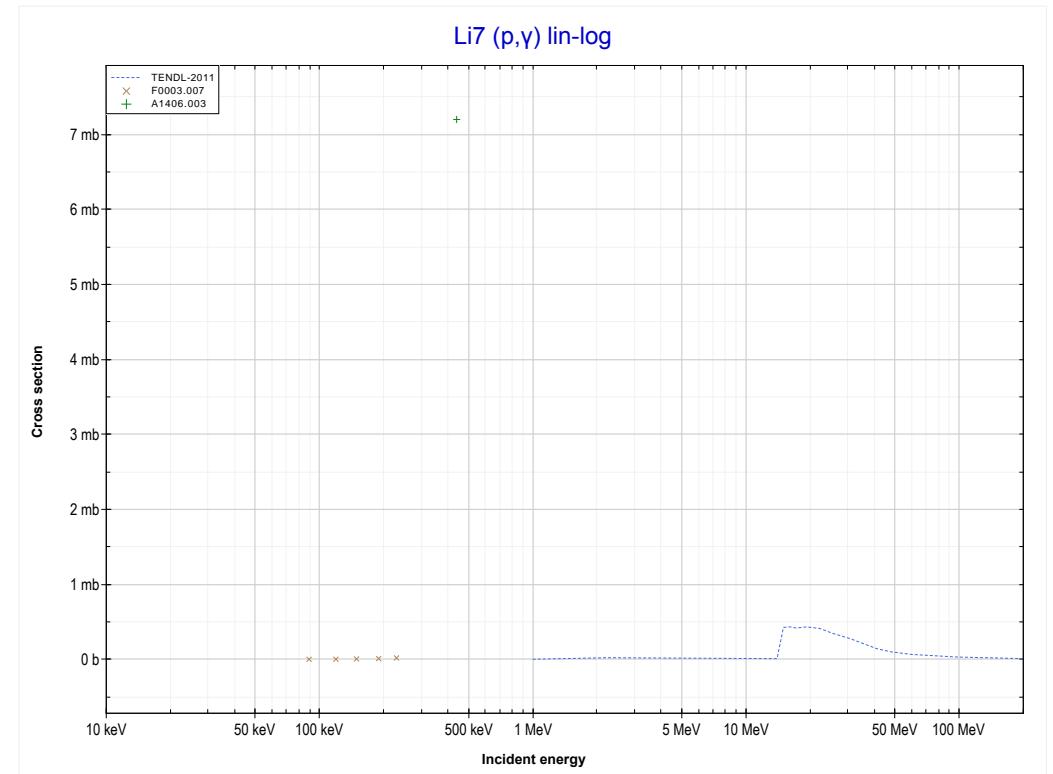
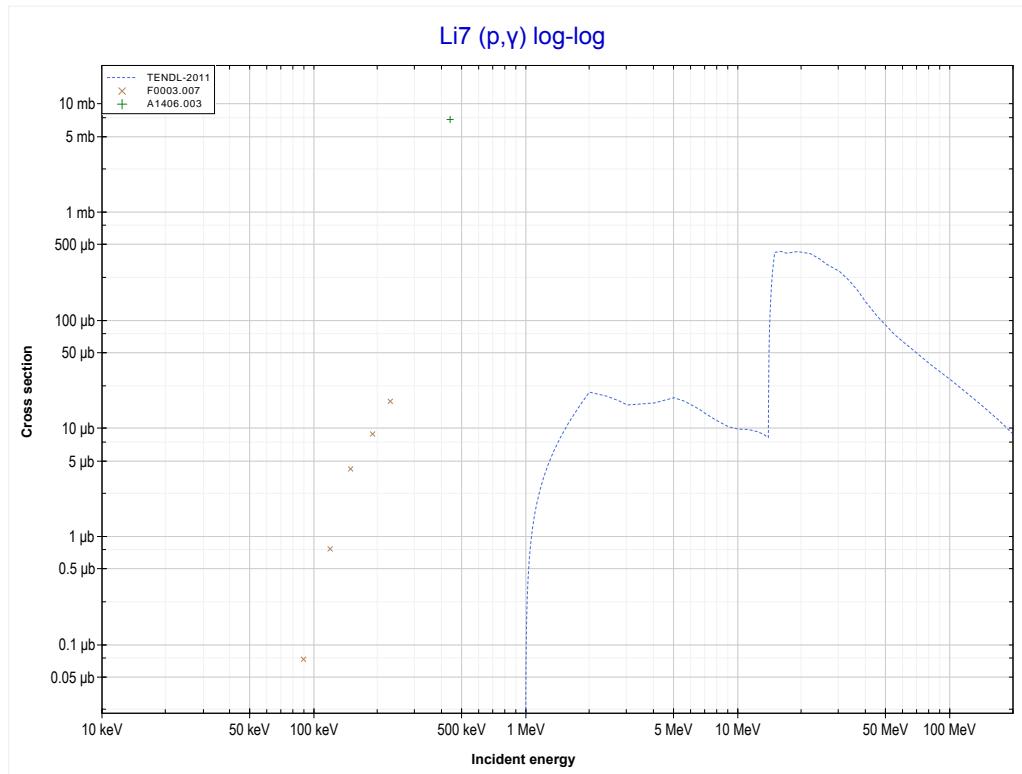


Reaction	Q-Value
H2(p, γ)He3	5493.48 keV



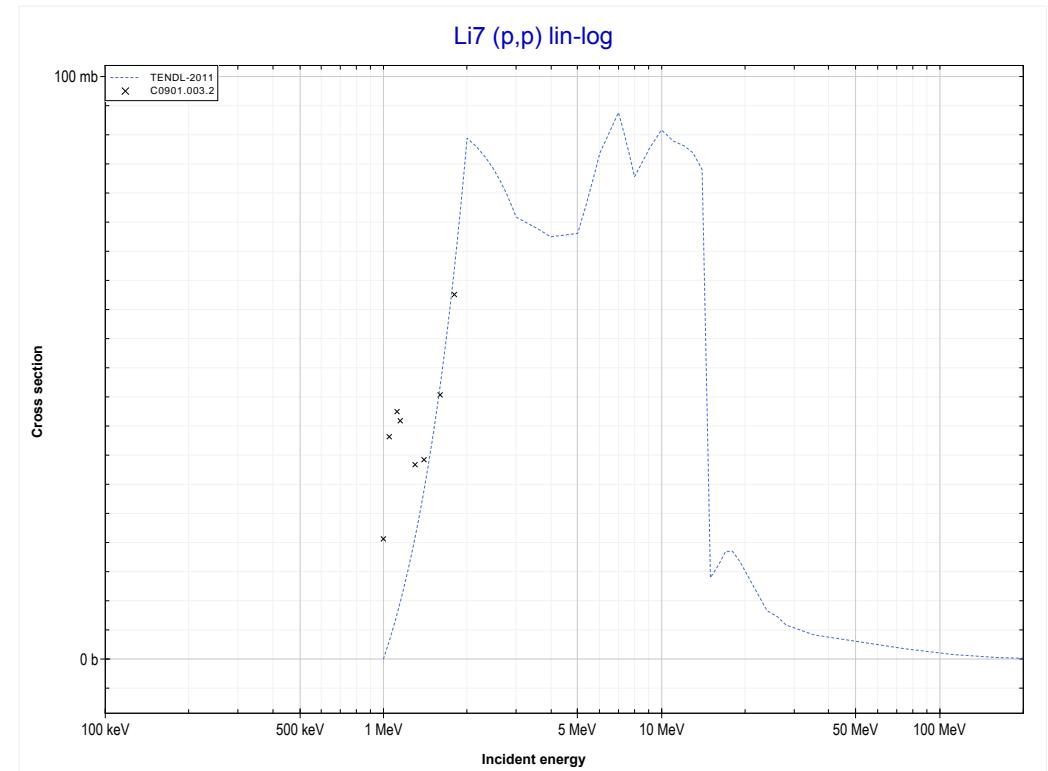
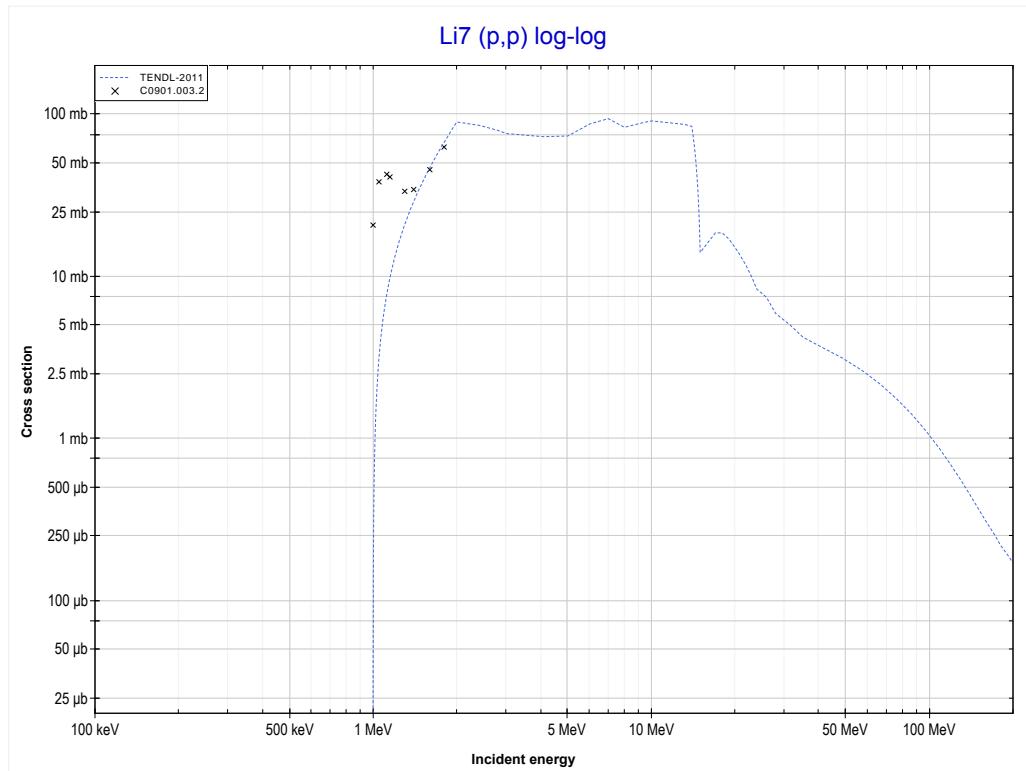
Reaction	Q-Value
Li7(p,n)Be7	-1644.24 keV

<< 1-H-2	3-Li-7 MT102 (p, γ) or MT5 (Be8 production)	4-Be-7 >>
<< MT4 (p,n)		MT103 (p,p) >>

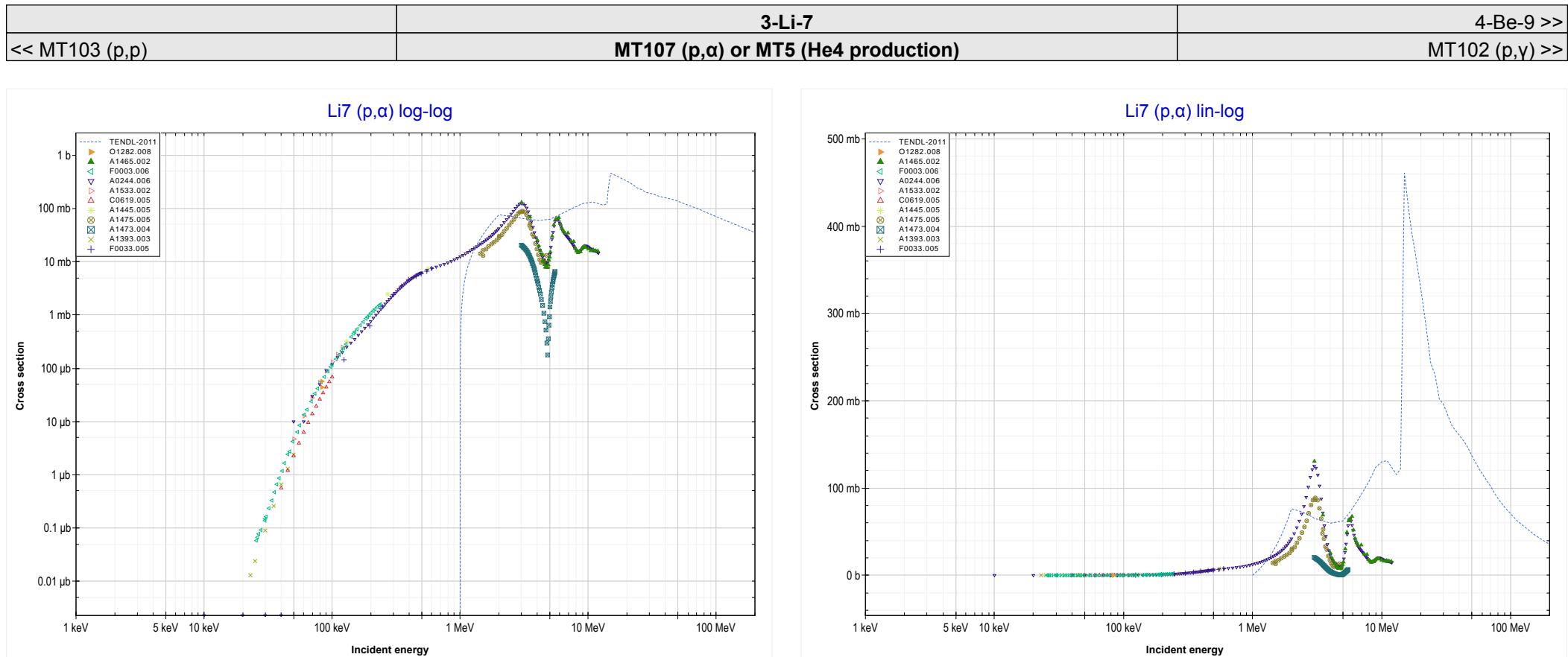


Reaction	Q-Value
Li7(p, γ)Be8	17255.44 keV

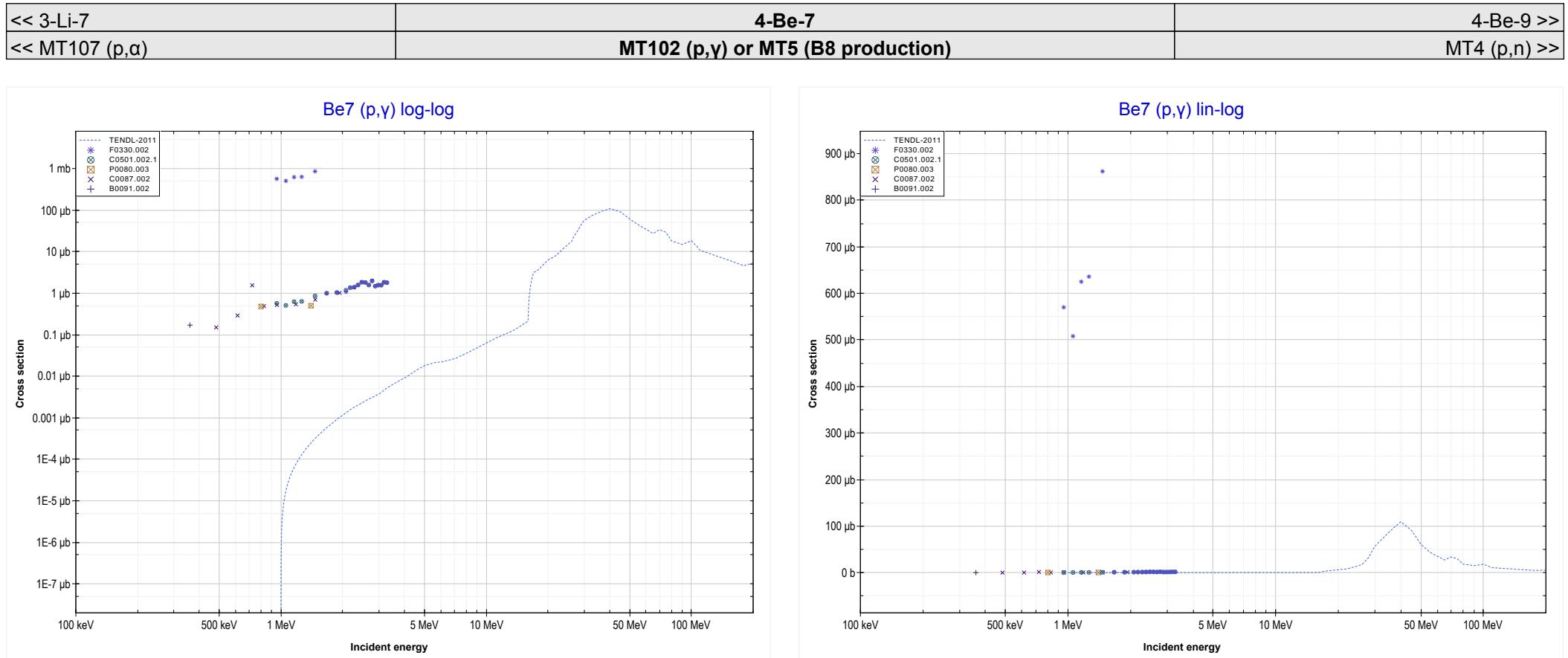
<< 1-H-1	3-Li-7 MT103 (p,p) or MT5 (Li7 production)	4-Be-9 >>
<< MT102 (p, γ)		MT107 (p, α) >>



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

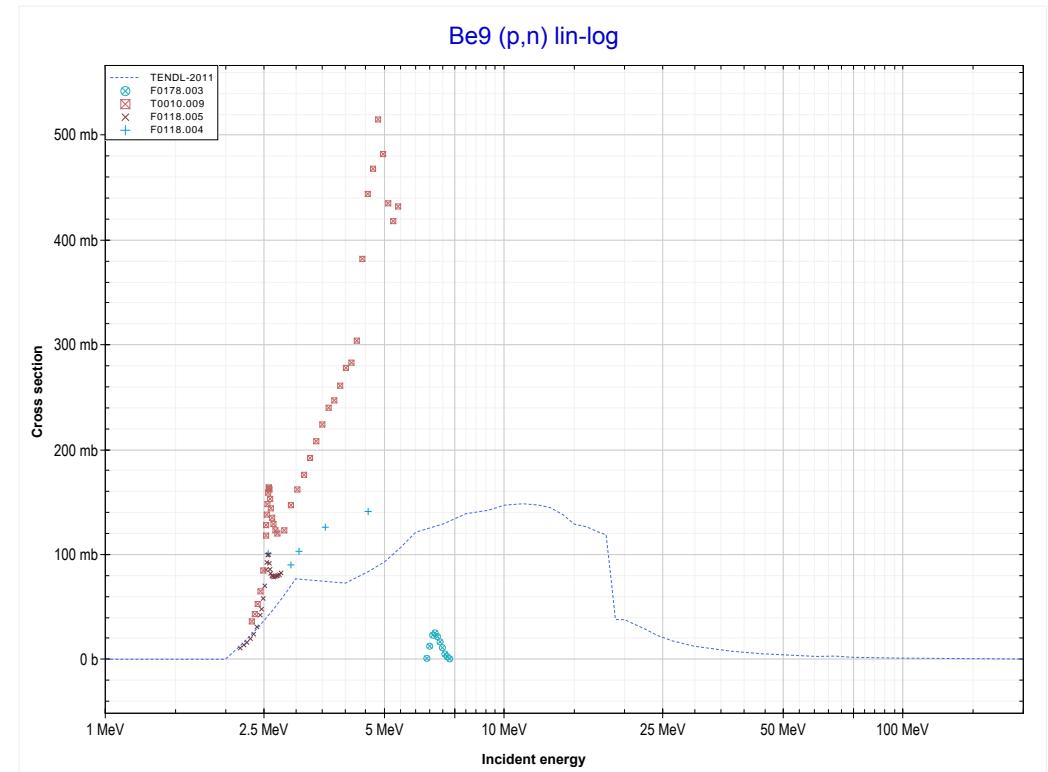
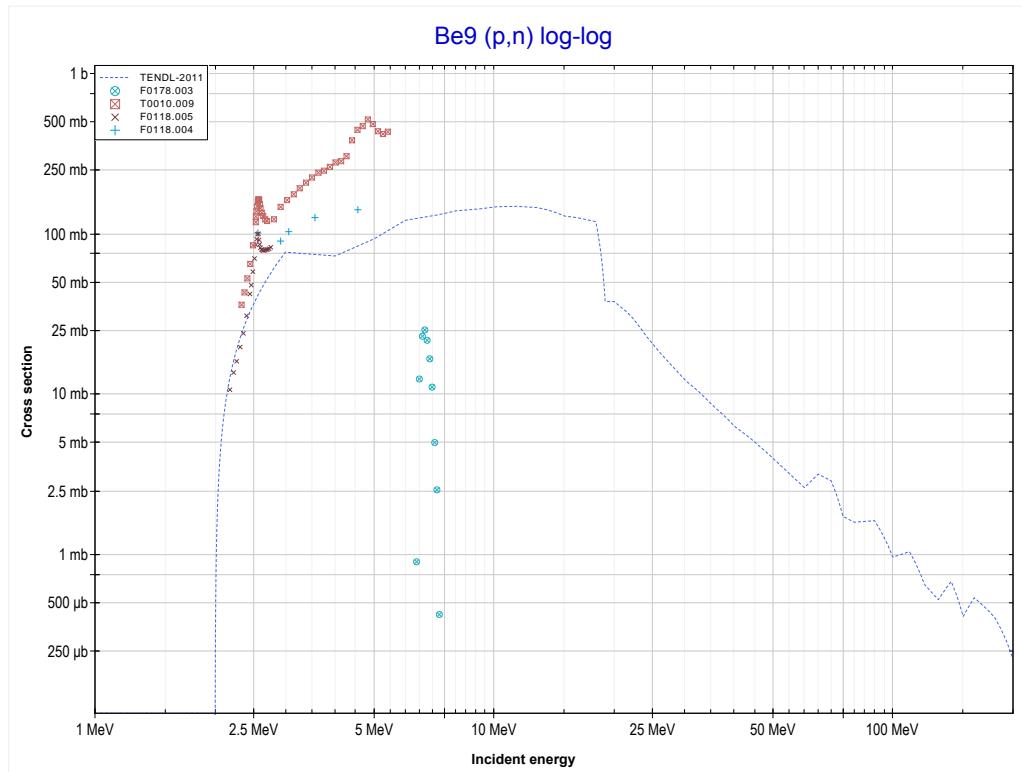


Reaction	Q-Value
Li7(p, α)He4	17347.28 keV
Li7(p,p+t)He4	-2466.58 keV
Li7(p,n+He3)He4	-3230.34 keV
Li7(p,2d)He4	-6499.25 keV
Li7(p,n+p+d)He4	-8723.81 keV
Li7(p,2n+2p)He4	-10948.38 keV



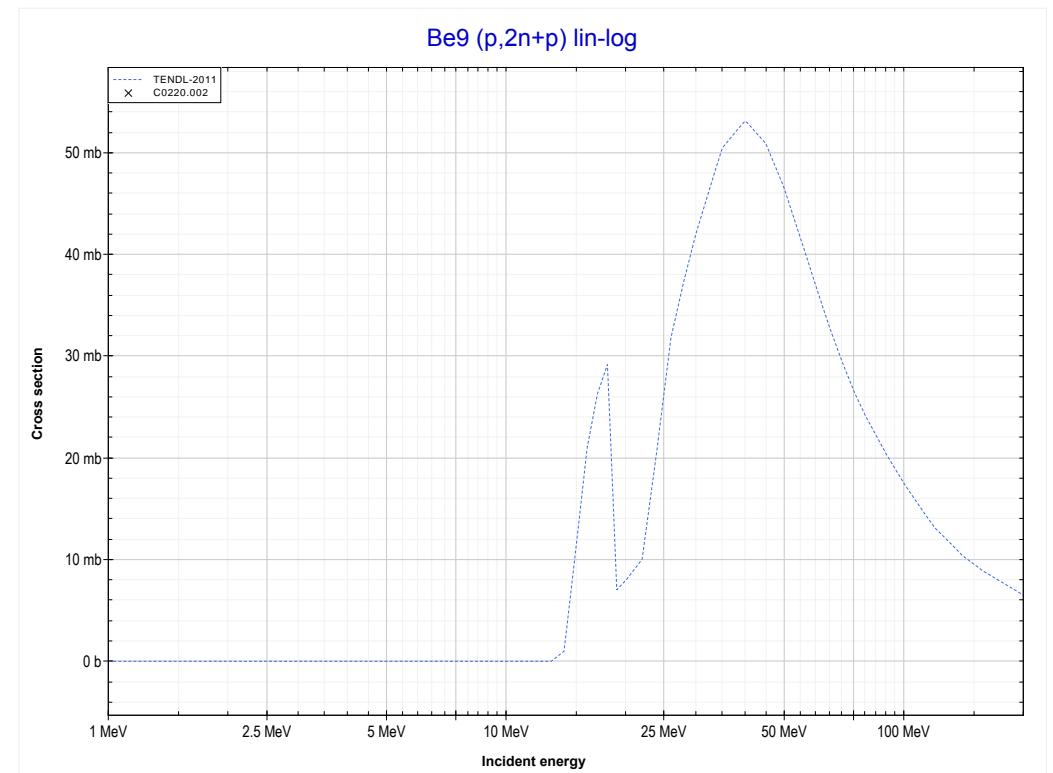
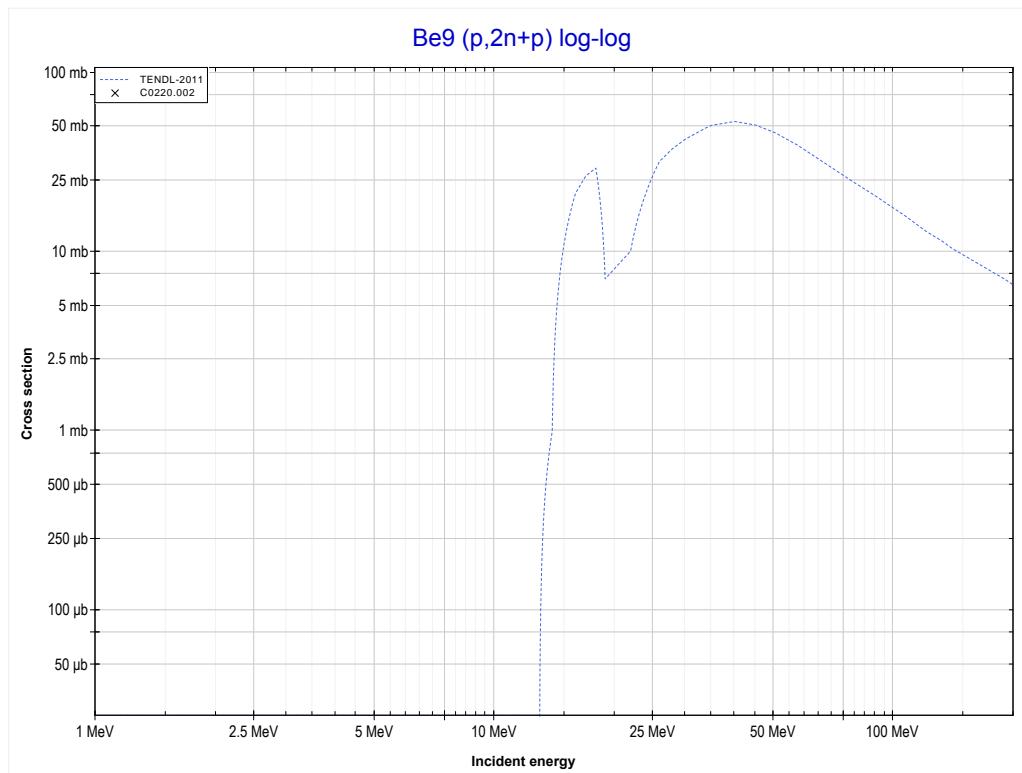
Reaction	Q-Value
Be7(p,γ)B8	137.50 keV

<< 3-Li-7	4-Be-9 MT4 (p,n) or MT5 (B9 production)	4-Be-10 >> MT41 (p,2n+p) >>
<< MT102 (p, γ)		



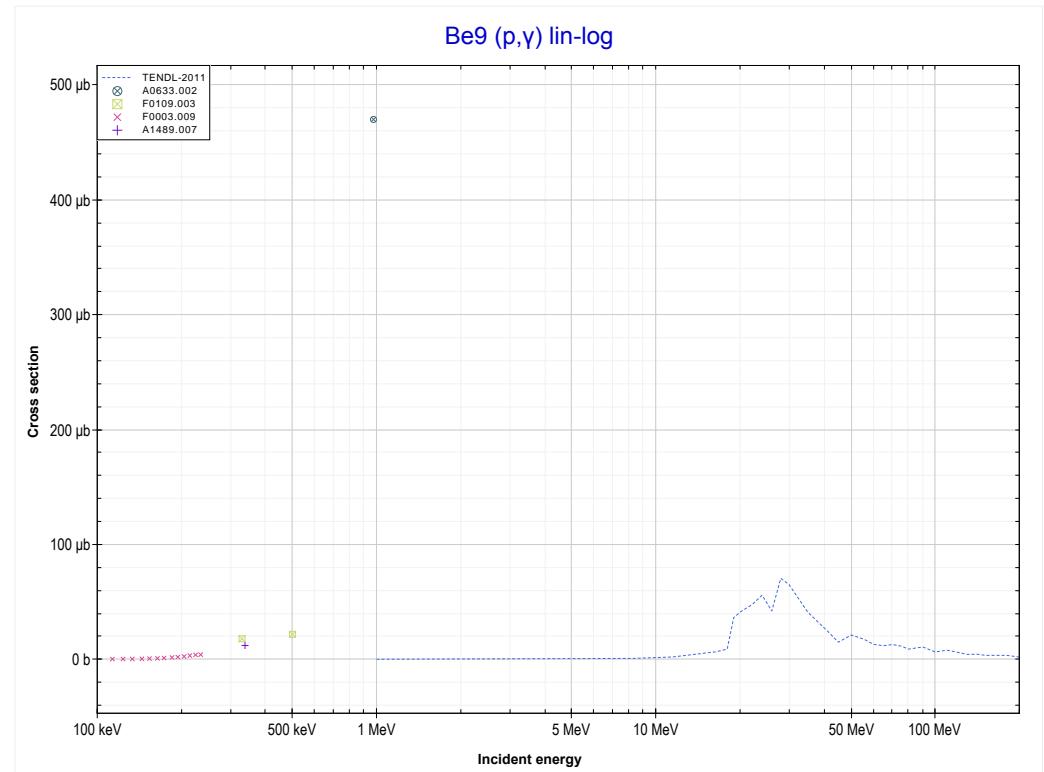
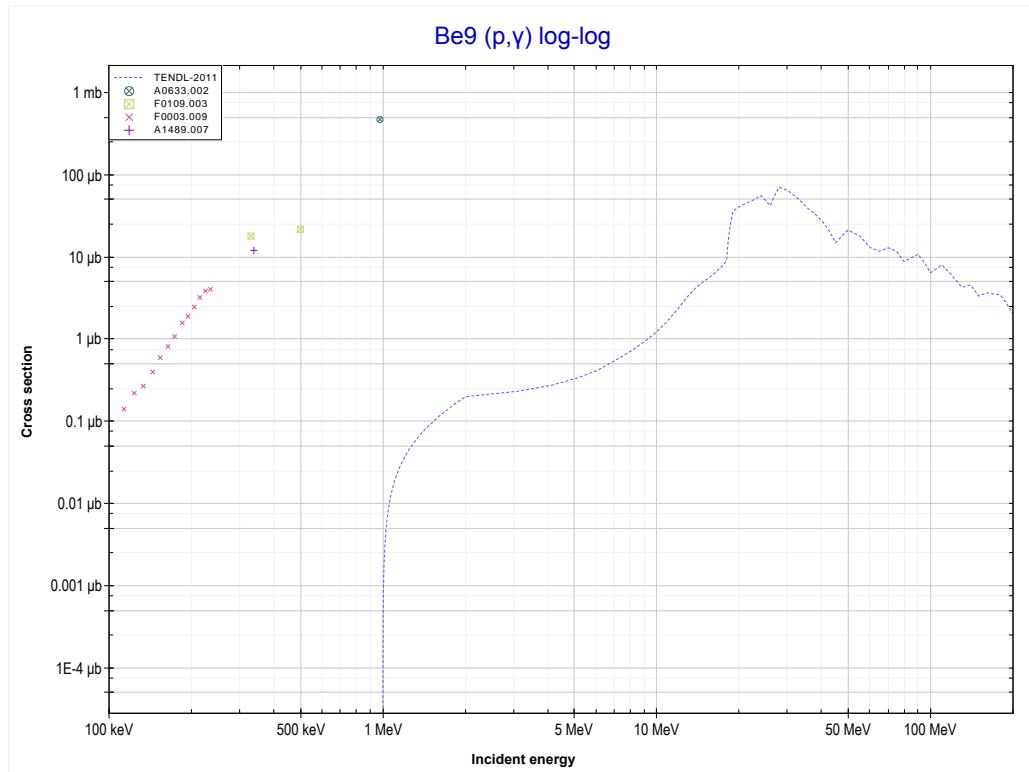
Reaction	Q-Value
Be9(p,n)B9	-1850.45 keV

<< MT4 (p,n)	4-Be-9 MT41 (p,2n+p) or MT5 (Be7 production)	8-O-16 >> MT102 (p,y) >>
---	---	---



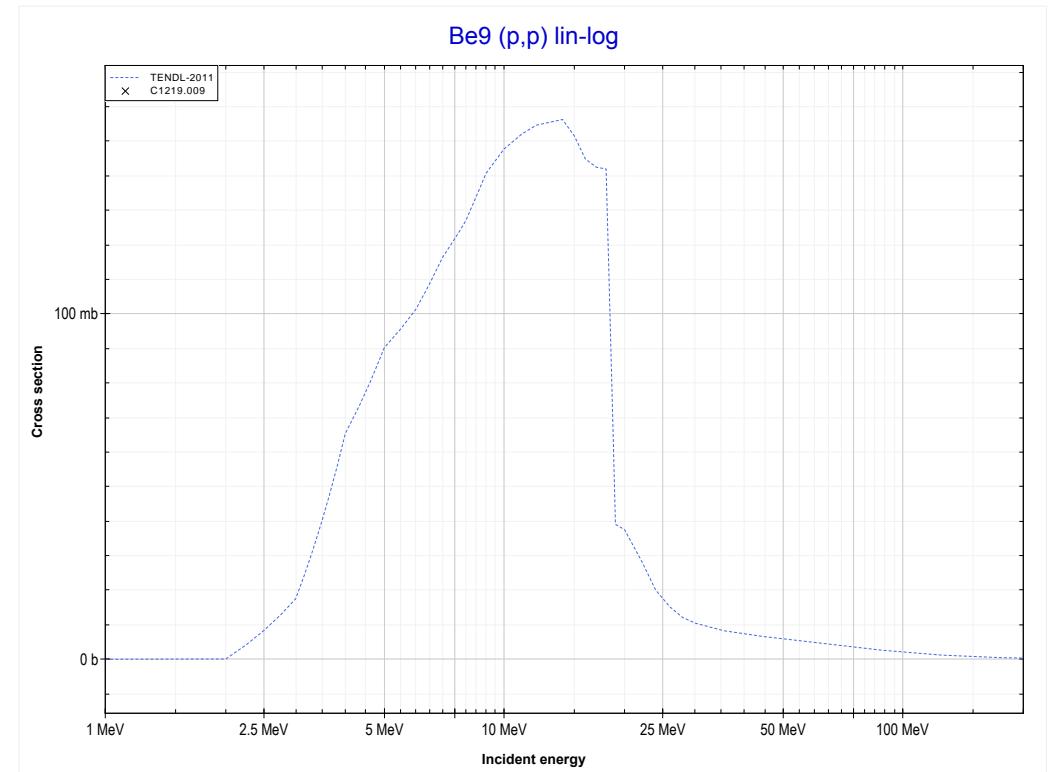
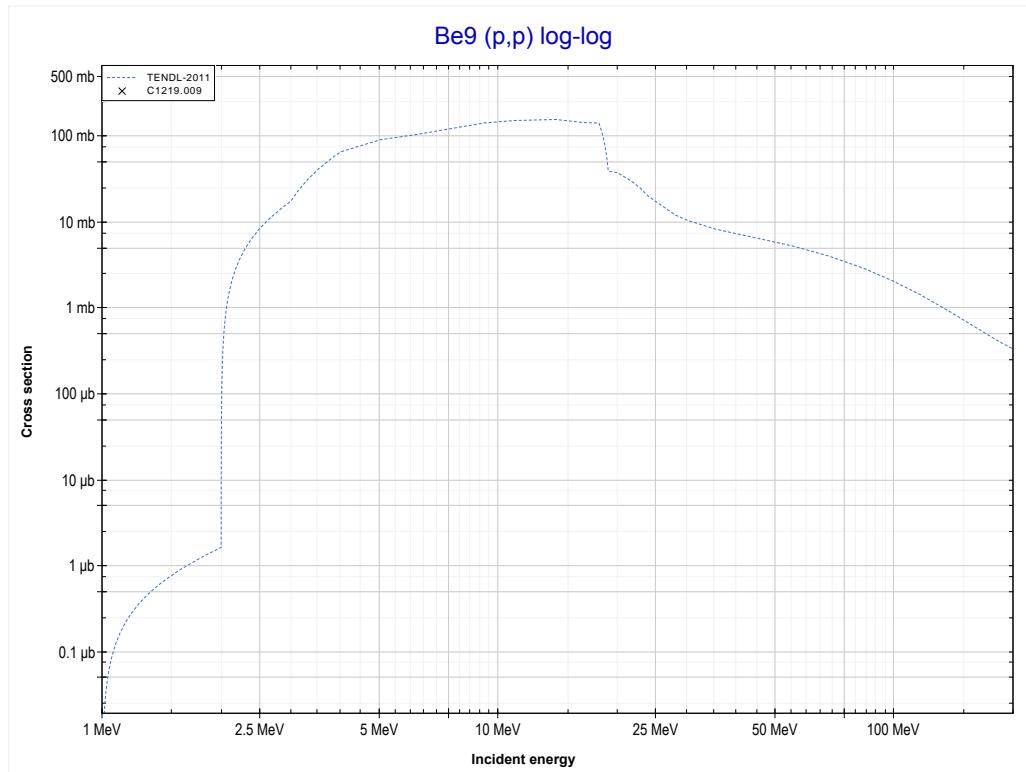
Reaction	Q-Value
$\text{Be}^9(\text{p},\text{t})\text{Be}^7$	-12083.27 keV
$\text{Be}^9(\text{p},\text{n}+\text{d})\text{Be}^7$	-18340.50 keV
$\text{Be}^9(\text{p},\text{2n}+\text{p})\text{Be}^7$	-20565.06 keV

<< 4-Be-7	4-Be-9 MT102 (p, γ) or MT5 (B10 production)	5-B-11 >>
<< MT41 (p,2n+p)		MT103 (p,p) >>



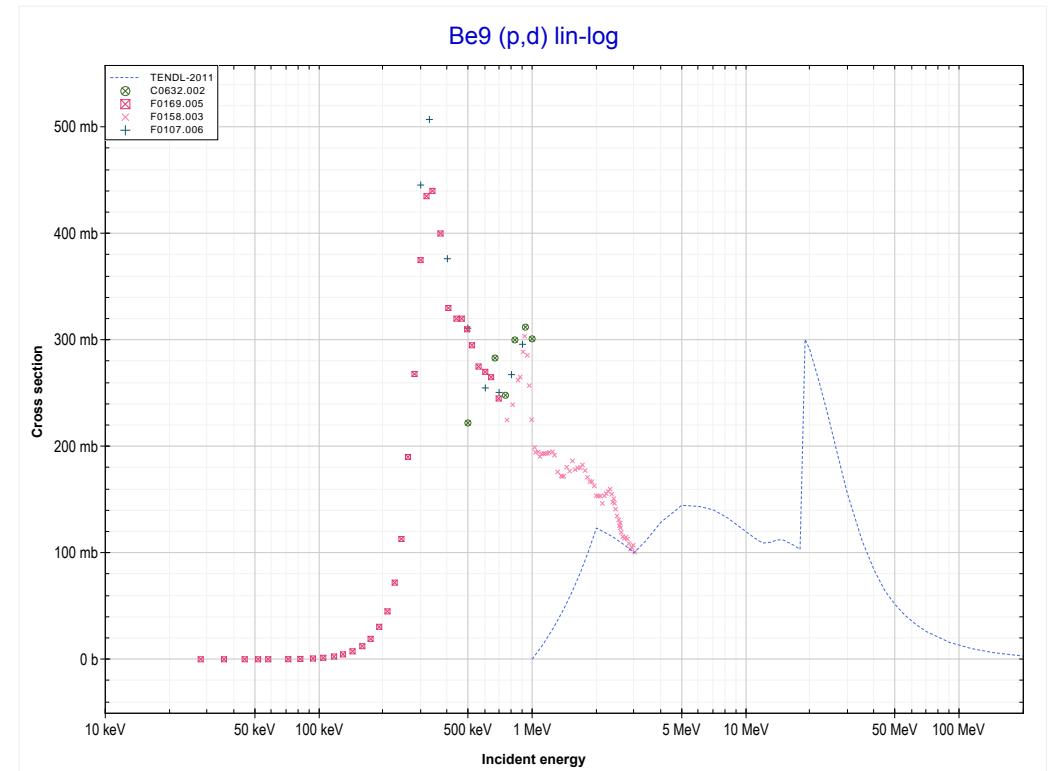
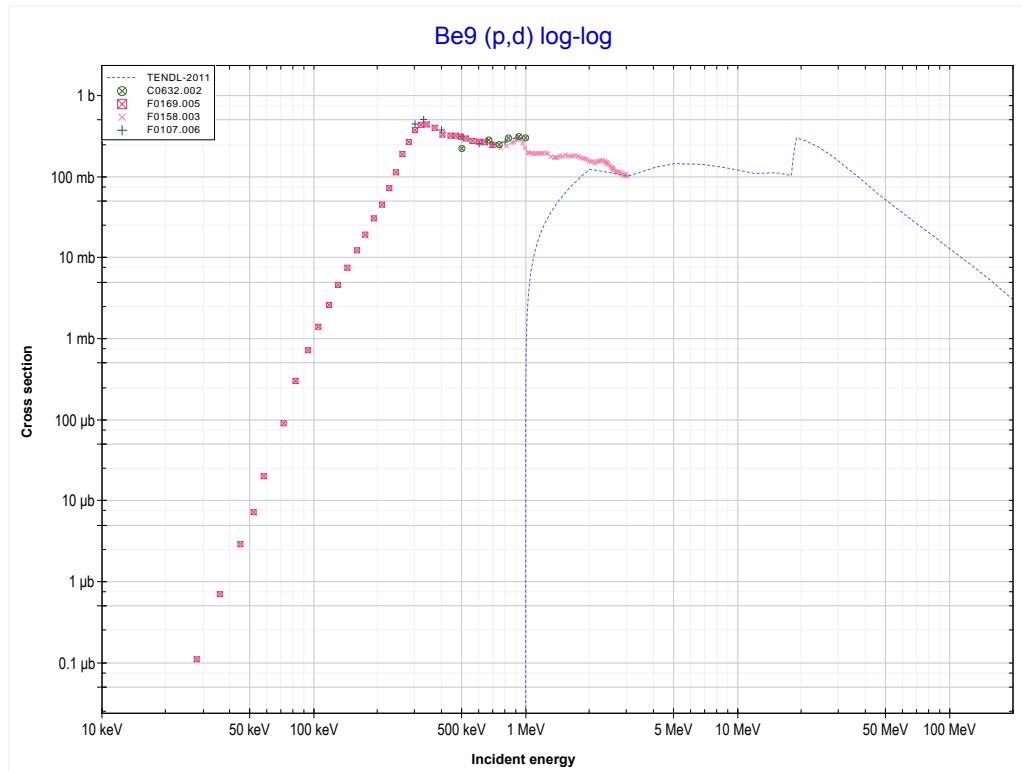
Reaction	Q-Value
Be9(p, γ)B10	6585.87 keV

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



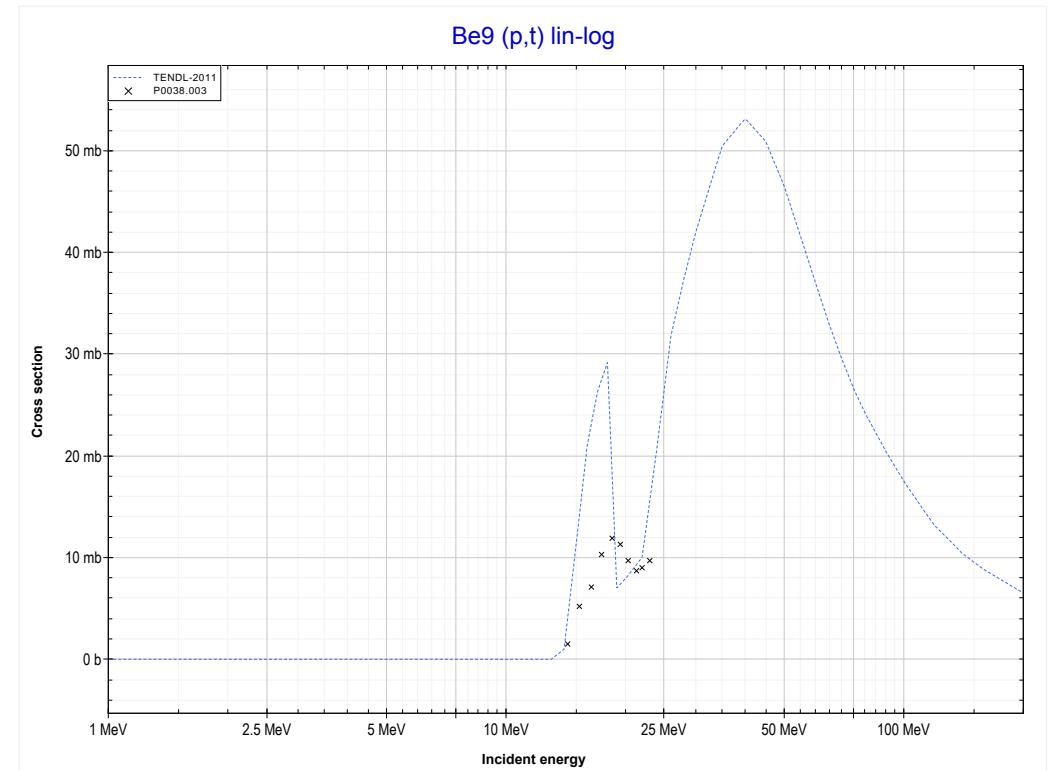
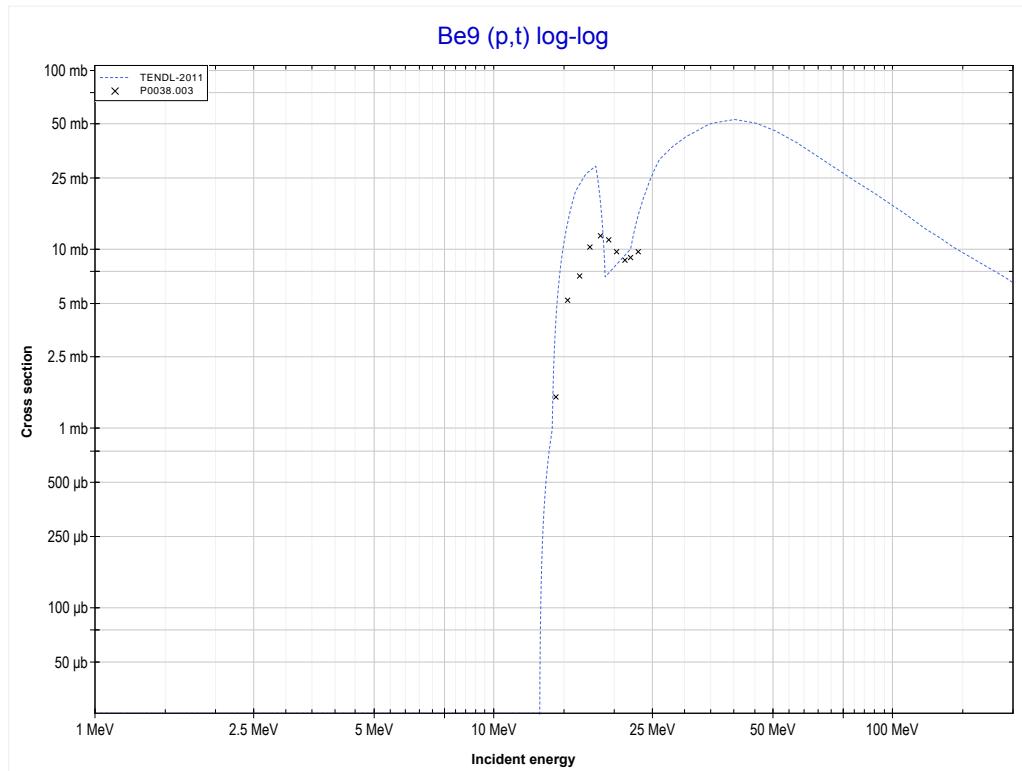
Reaction	Q-Value
Be9(p,p)Be9	0.00 keV

	4-Be-9 MT104 (p,d) or MT5 (Be8 production)	7-N-14 >> MT105 (p,t) >>
<< MT103 (p,p)		



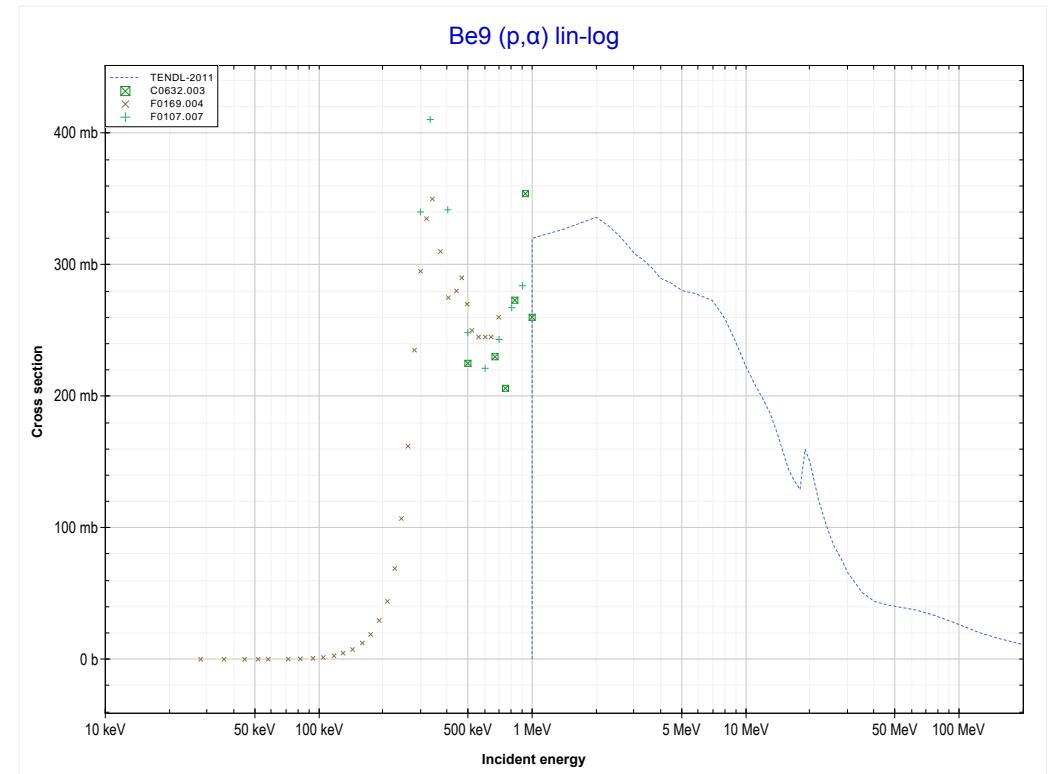
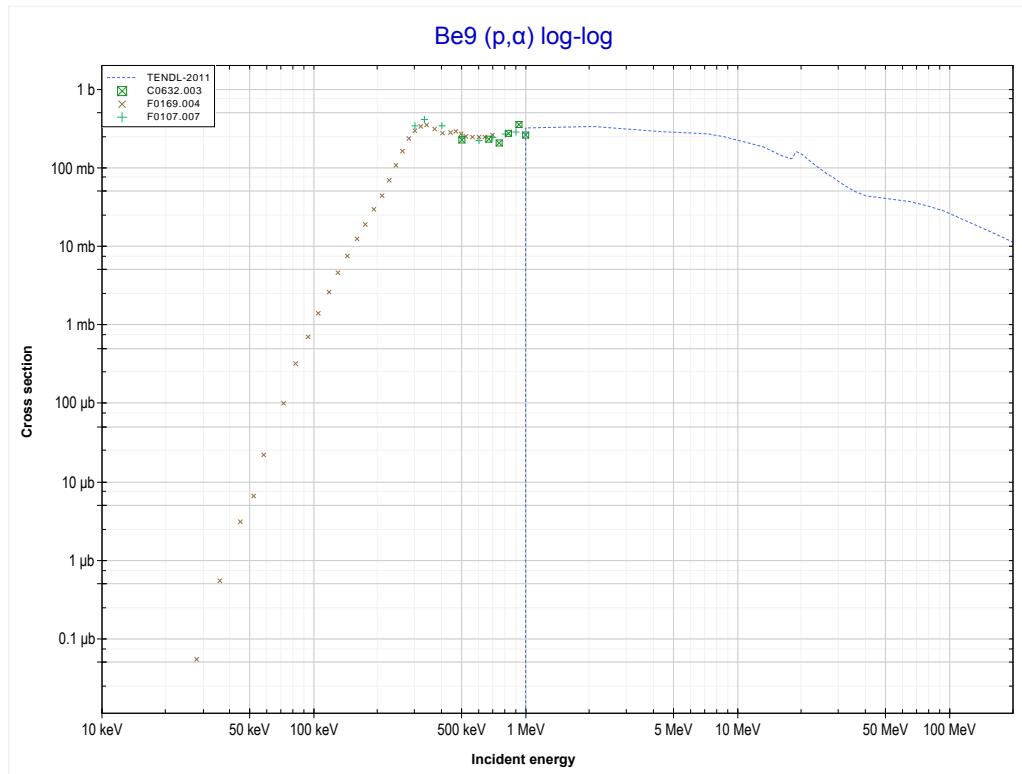
Reaction	Q-Value
Be9(p,d)Be8	559.18 keV
Be9(p,n+p)Be8	-1665.39 keV

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



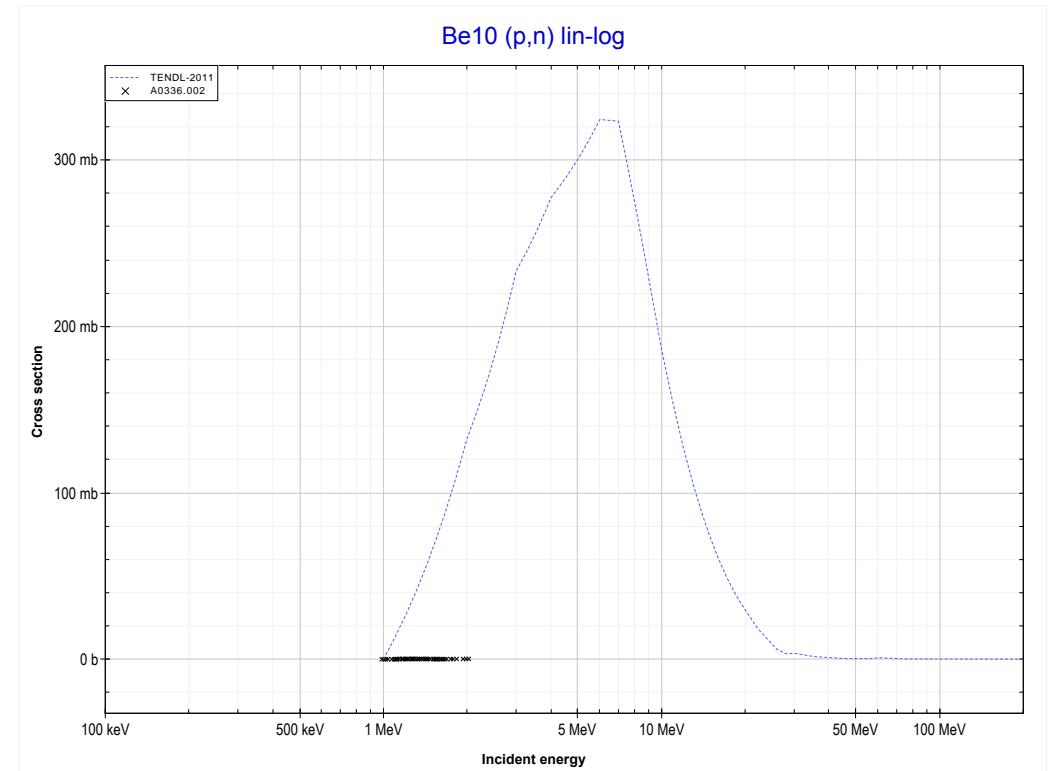
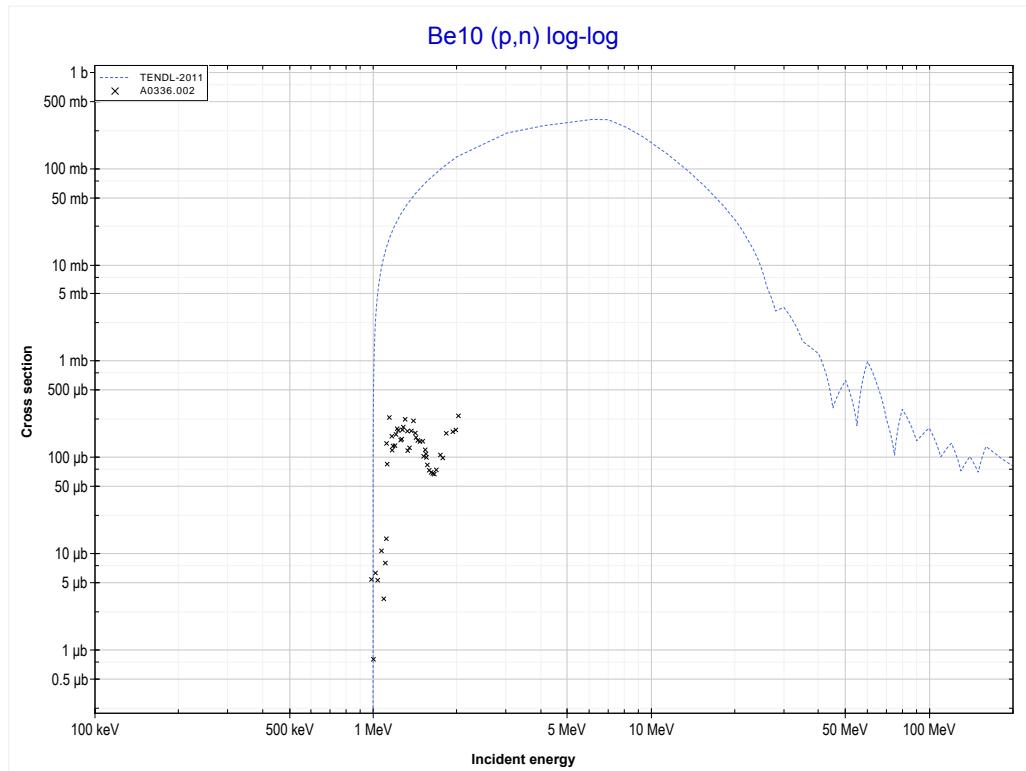
Reaction	Q-Value
Be9(p,t)Be7	-12083.27 keV
Be9(p,n+d)Be7	-18340.50 keV
Be9(p,2n+p)Be7	-20565.06 keV

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



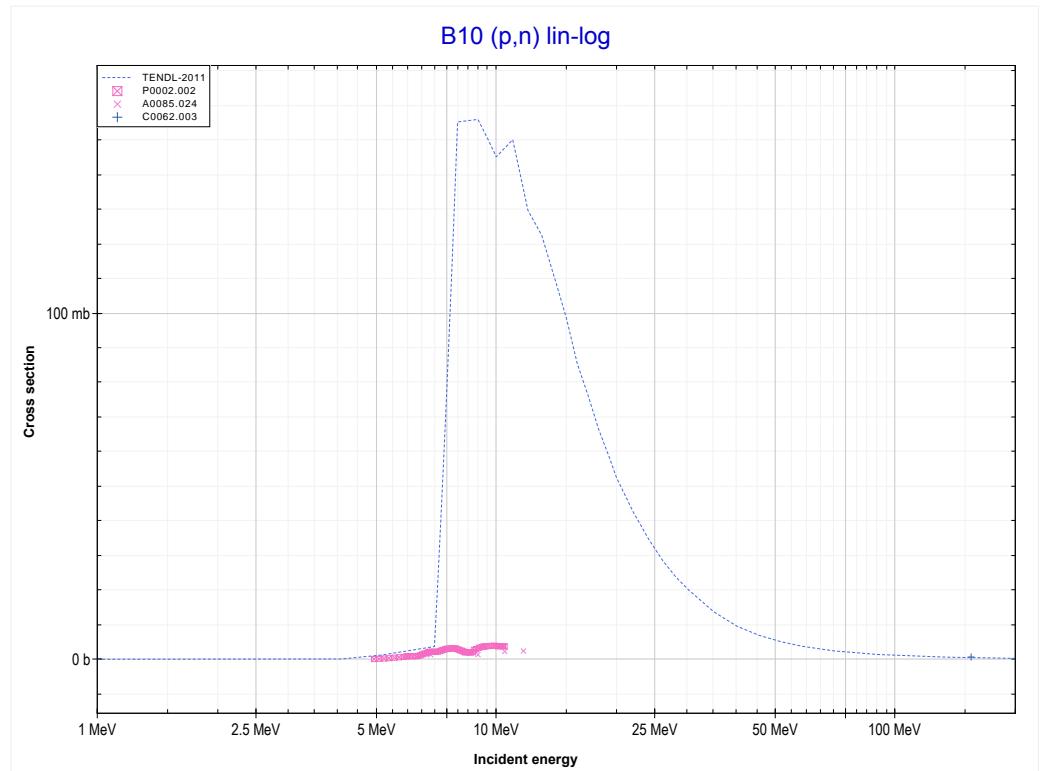
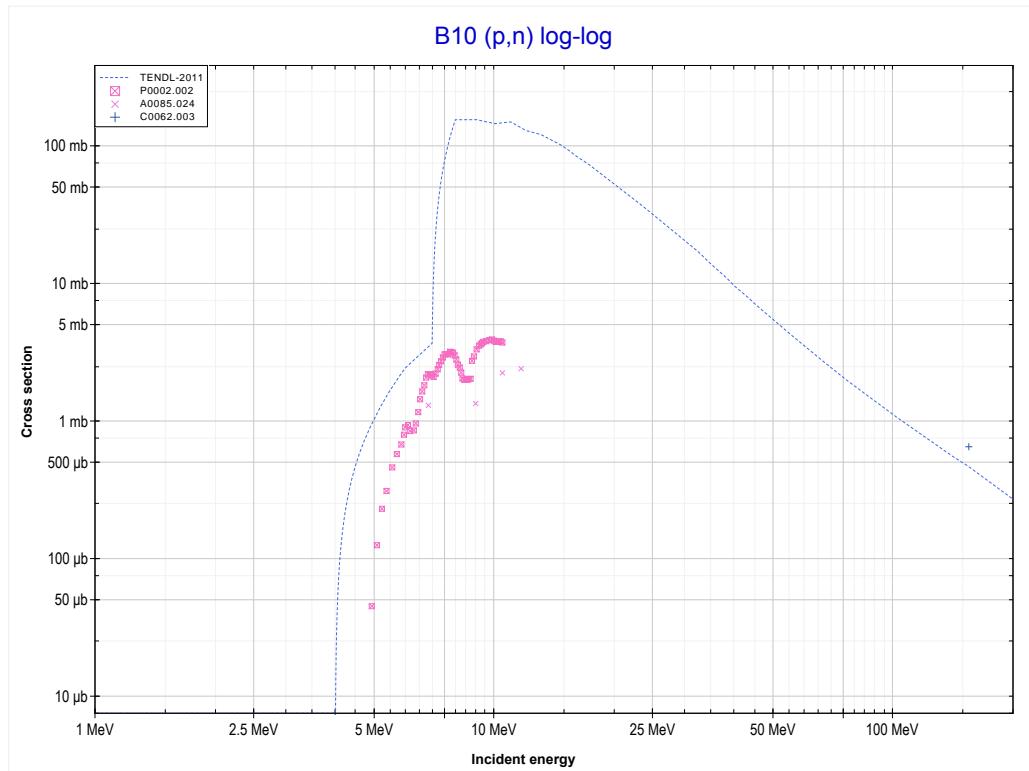
Reaction	Q-Value
Be9(p,α)Li6	2124.86 keV
Be9($p,p+t$)Li6	-17689.00 keV
Be9($p,n+He3$)Li6	-18452.75 keV
Be9($p,2d$)Li6	-21721.67 keV
Be9($p,n+p+d$)Li6	-23946.23 keV
Be9($p,2n+2p$)Li6	-26170.80 keV

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



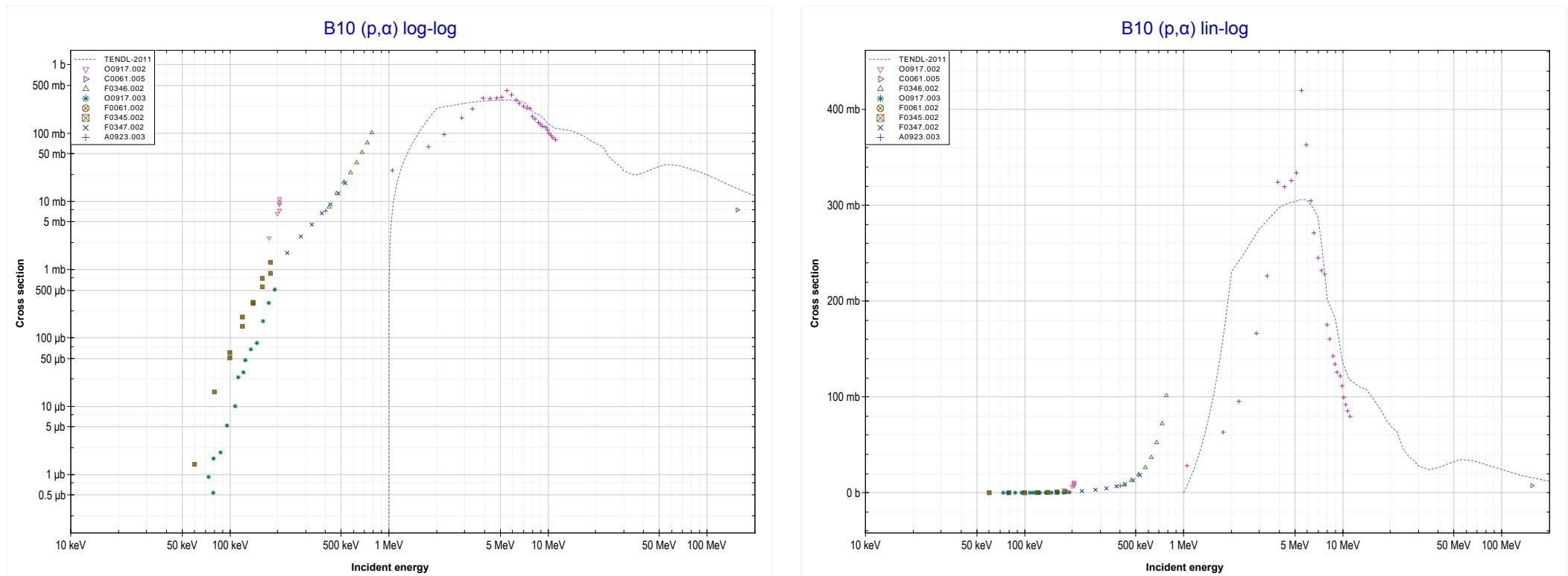
Reaction	Q-Value
Be10(p,n)B10	-226.35 keV

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



Reaction	Q-Value
$B^{10}(p,n)C^{10}$	-4430.35 keV

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

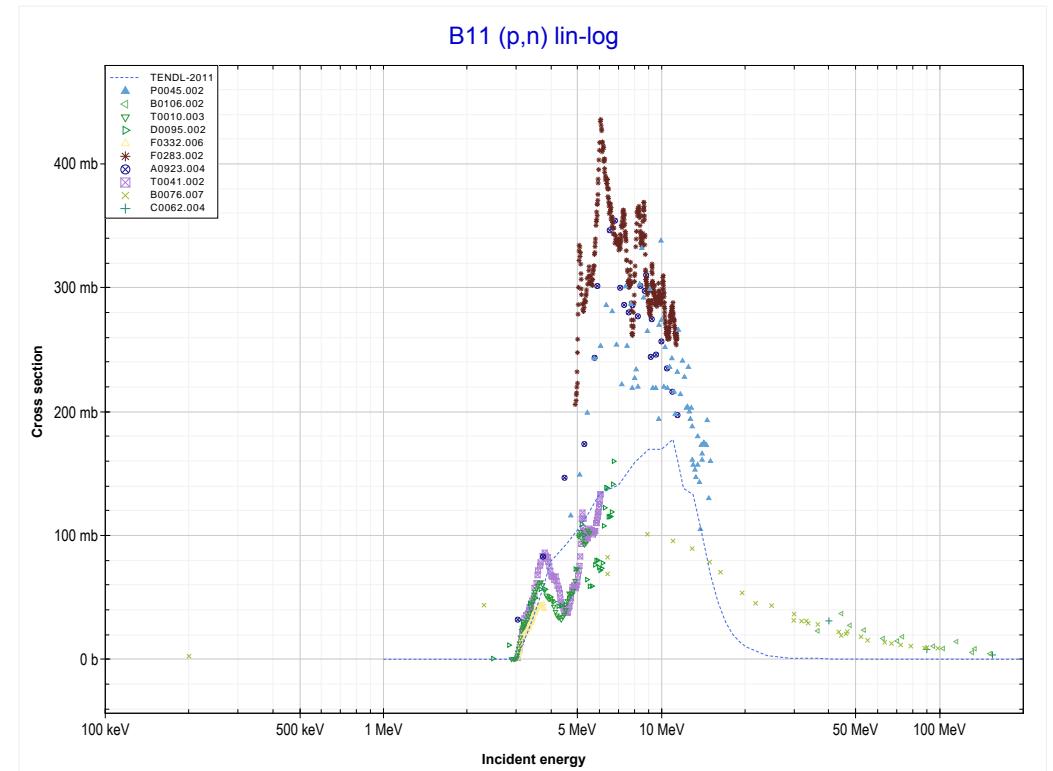
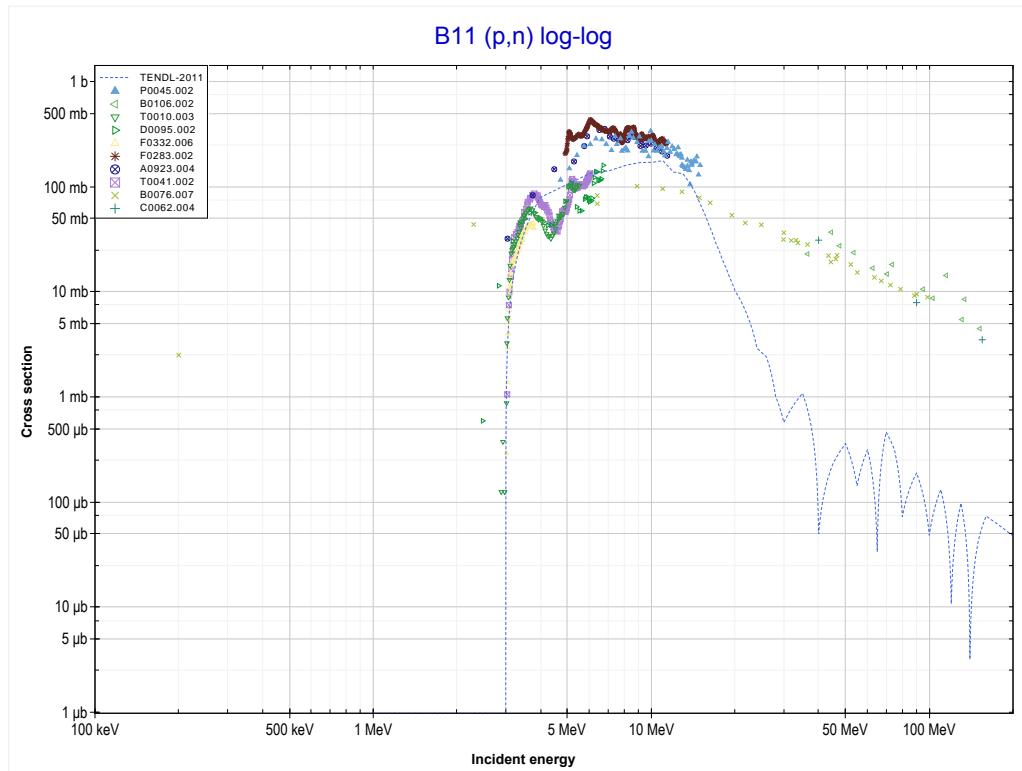


Reaction	Q-Value
B10(p,α)Be7	1144.72 keV
B10($p,p+t$)Be7	-18669.14 keV
B10($p,n+He3$)Be7	-19432.89 keV
B10($p,2d$)Be7	-22701.80 keV
B10($p,n+p+d$)Be7	-24926.37 keV
B10($p,2n+2p$)Be7	-27150.93 keV

<< 5-B-10		
<< MT107 (p, α)		

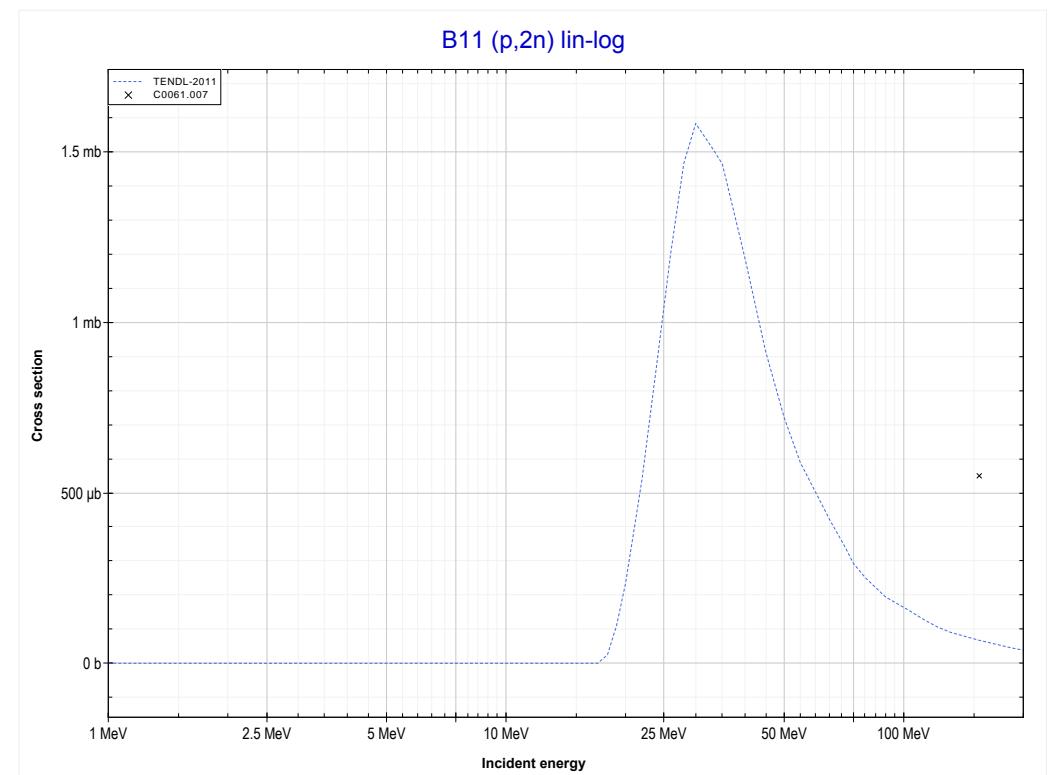
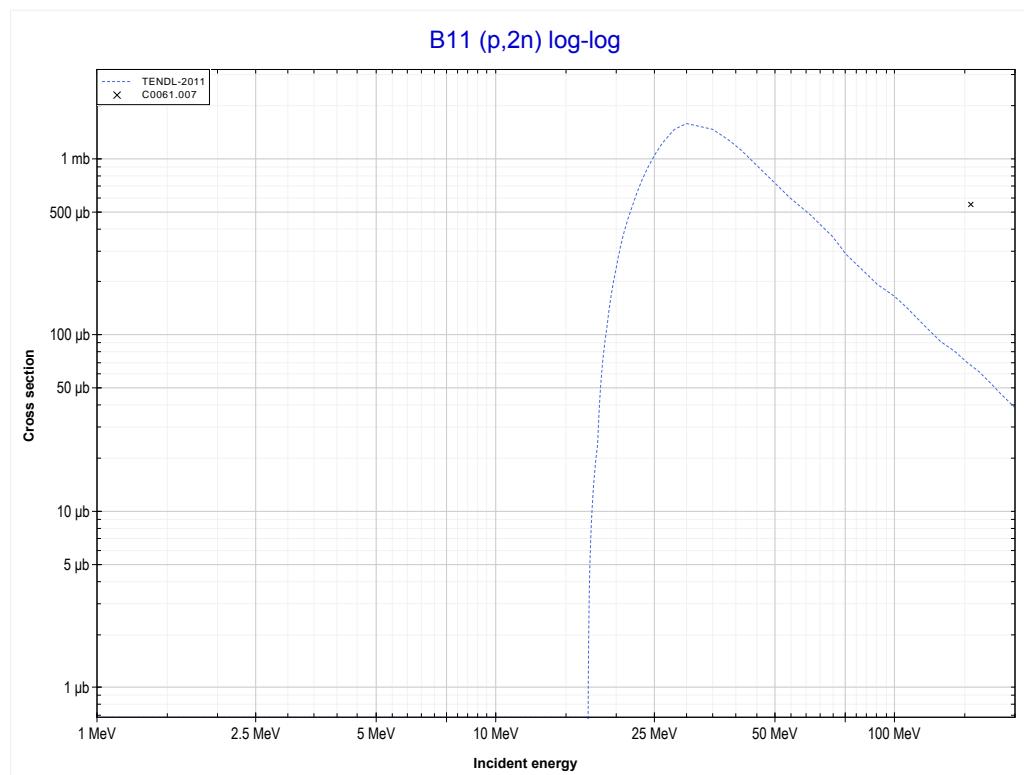
5-B-11	MT4 (p,n) or MT5 (C11 production)
--------	-----------------------------------

	6-C-13 >>
	MT16 (p,2n) >>



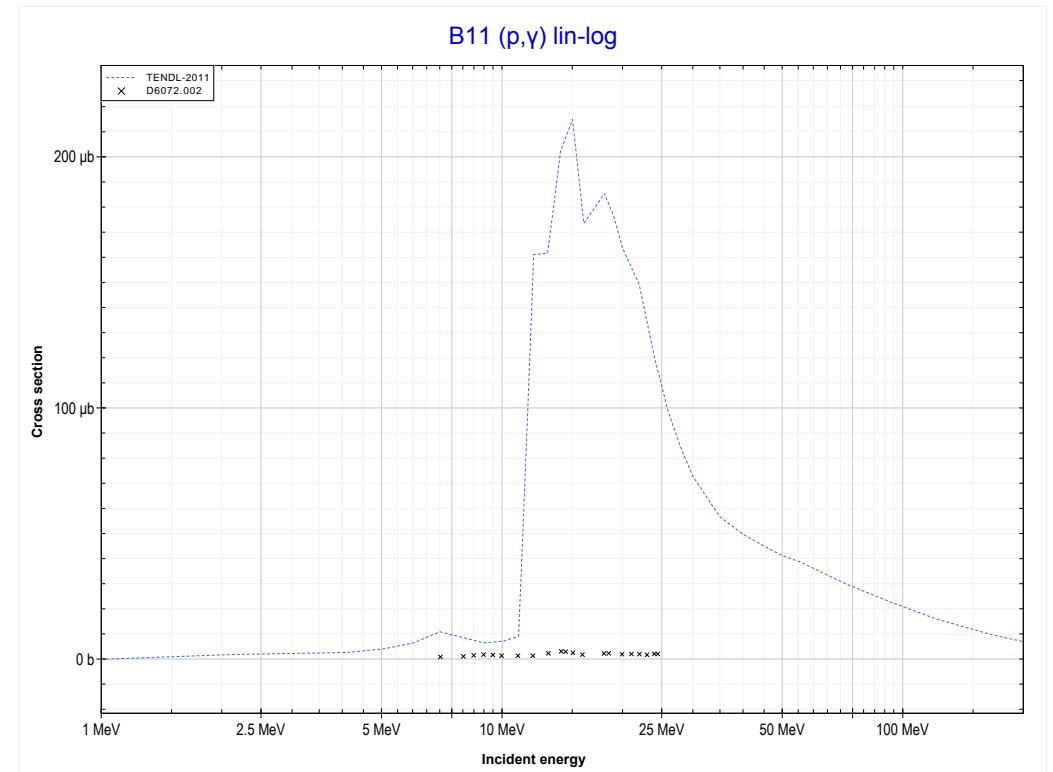
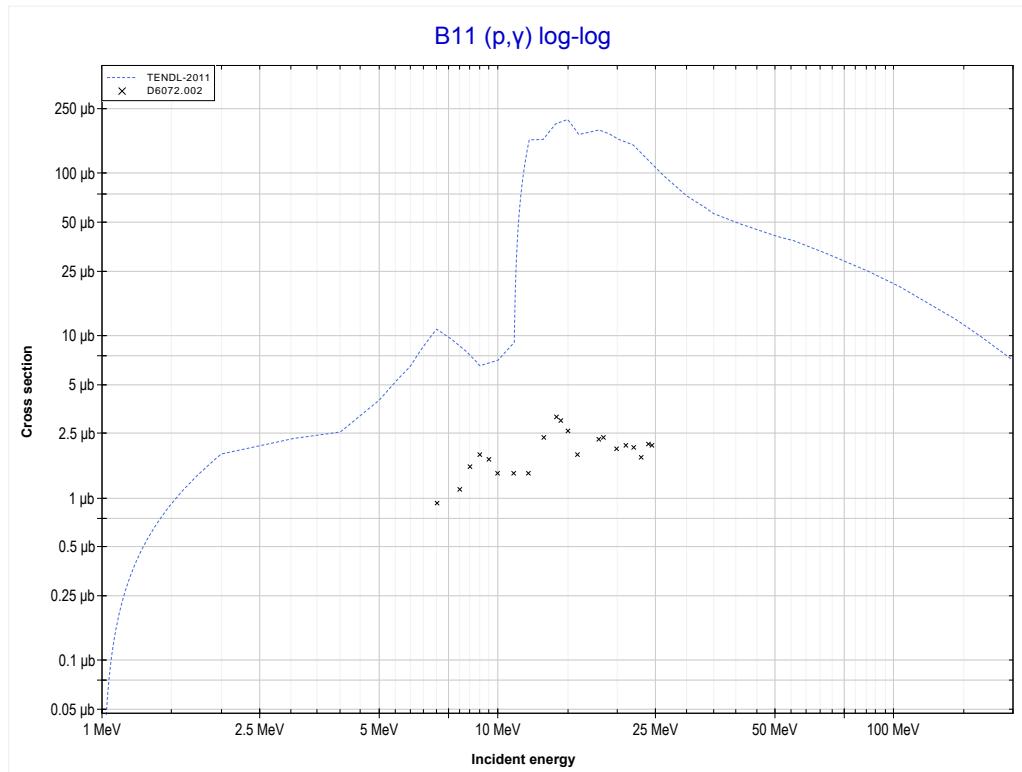
Reaction	Q-Value
B11(p,n)C11	-2764.75 keV

	5-B-11 MT16 (p,2n) or MT5 (C10 production)	9-F-19 >>
<< MT4 (p,n)		MT102 (p,y) >>



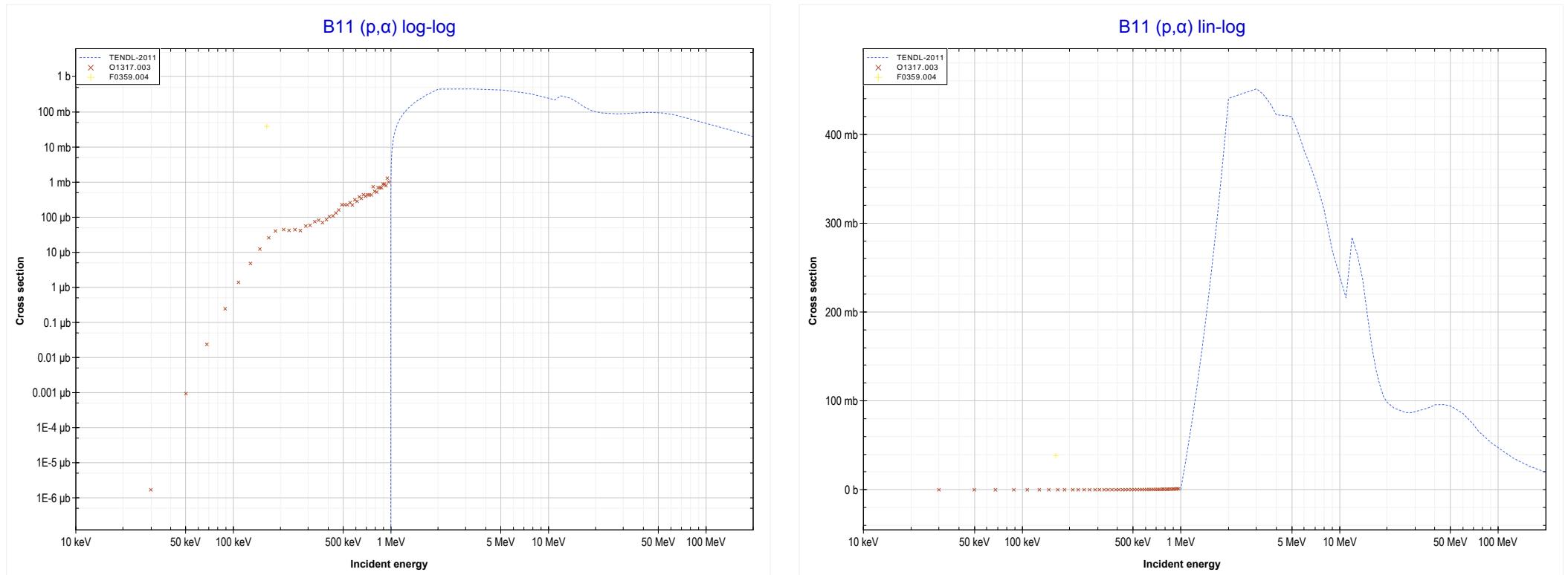
Reaction	Q-Value
B11(p,2n)C10	-15884.46 keV

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



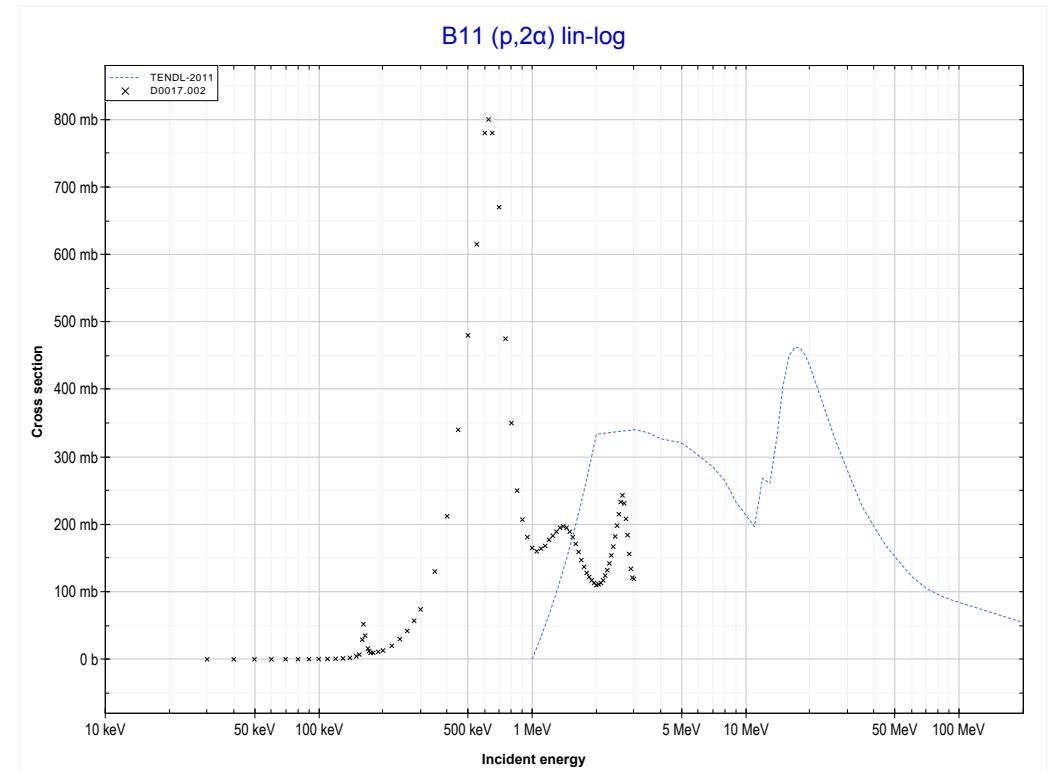
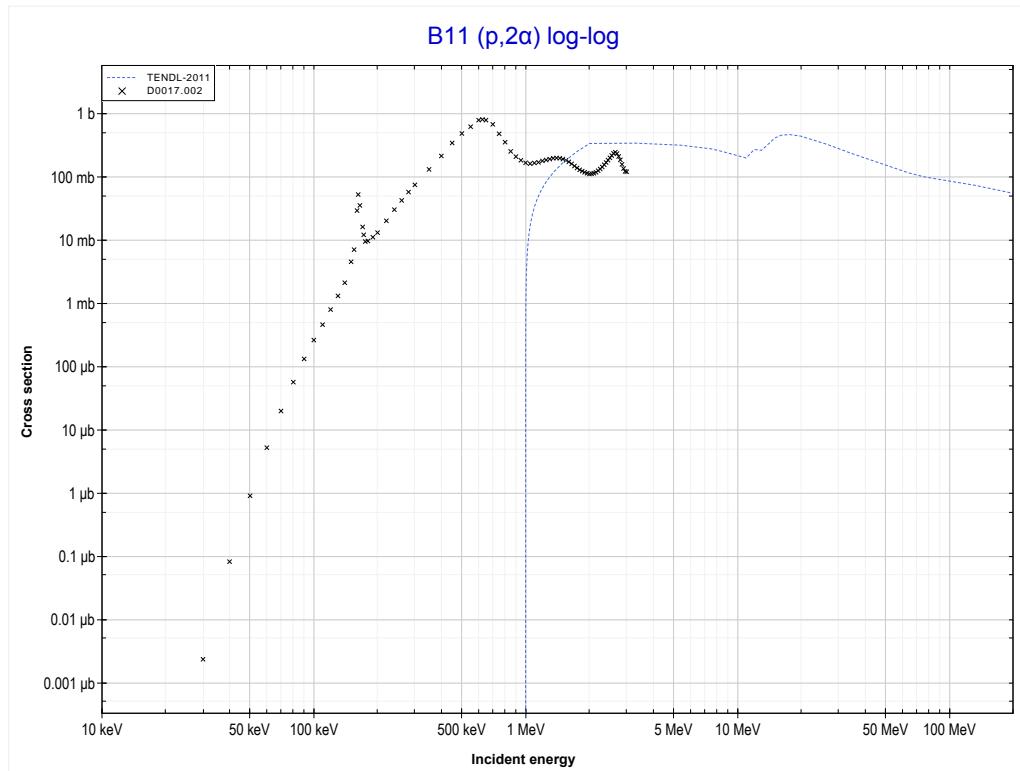
Reaction	Q-Value
B11(p, γ)C12	15956.87 keV

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



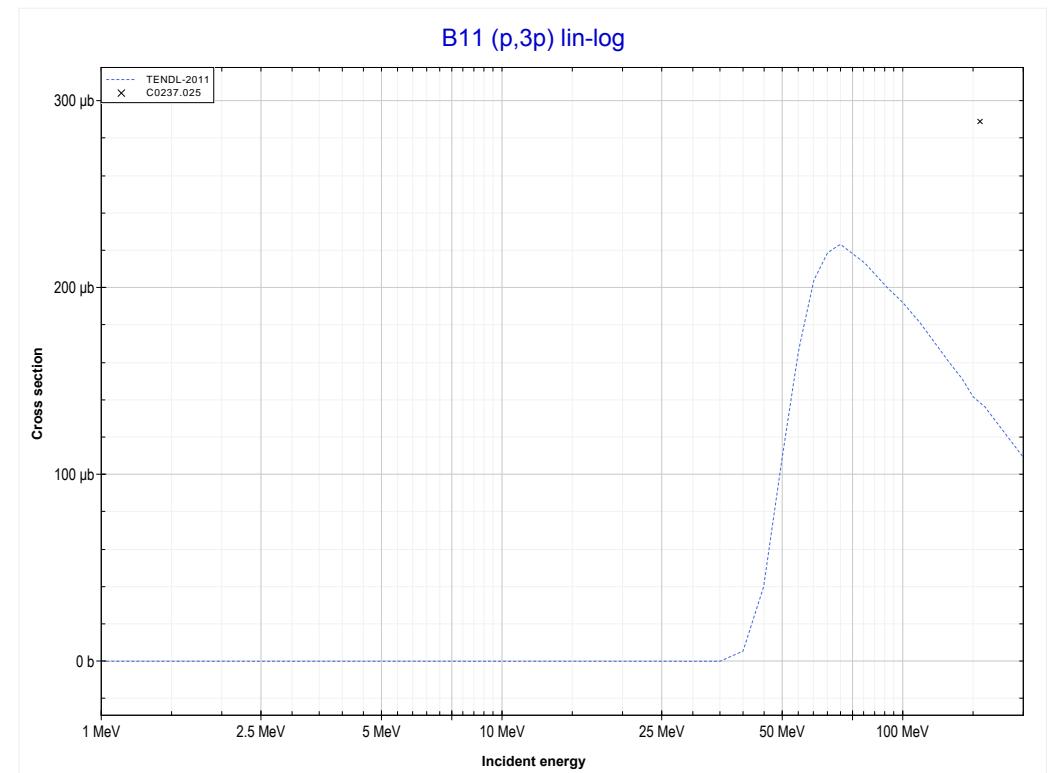
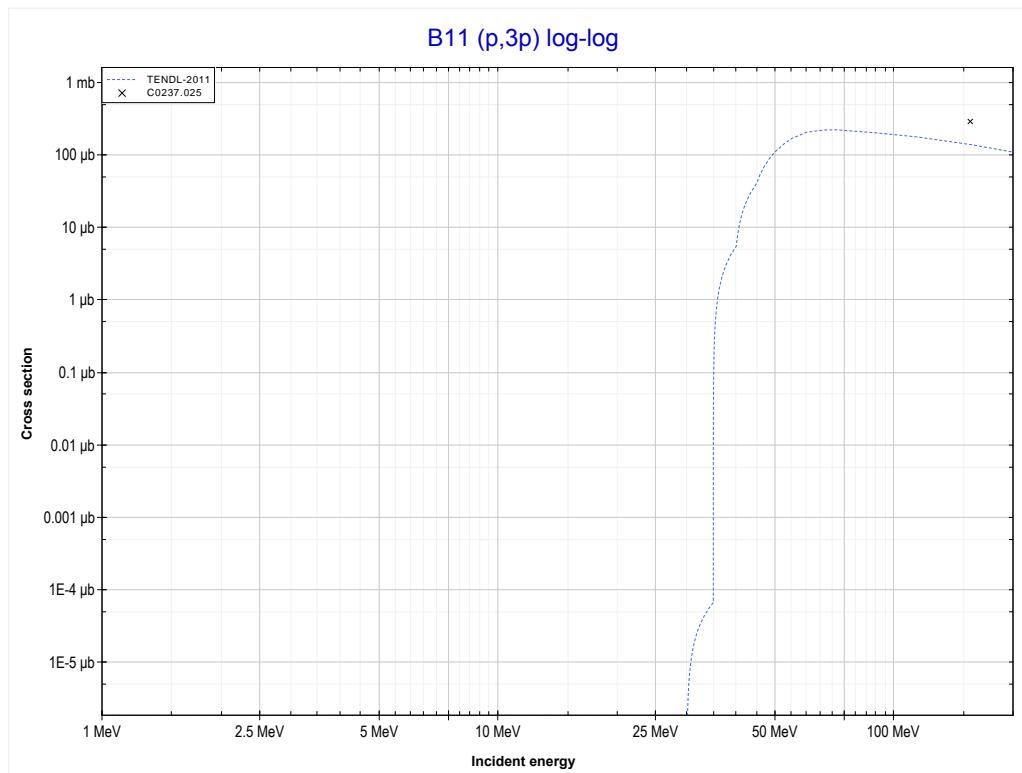
Reaction	Q-Value
B11(p, α)Be8	8590.28 keV
B11(p,p+t)Be8	-11223.58 keV
B11(p,n+He3)Be8	-11987.33 keV
B11(p,2d)Be8	-15256.24 keV
B11(p,n+p+d)Be8	-17480.81 keV
B11(p,2n+2p)Be8	-19705.37 keV

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



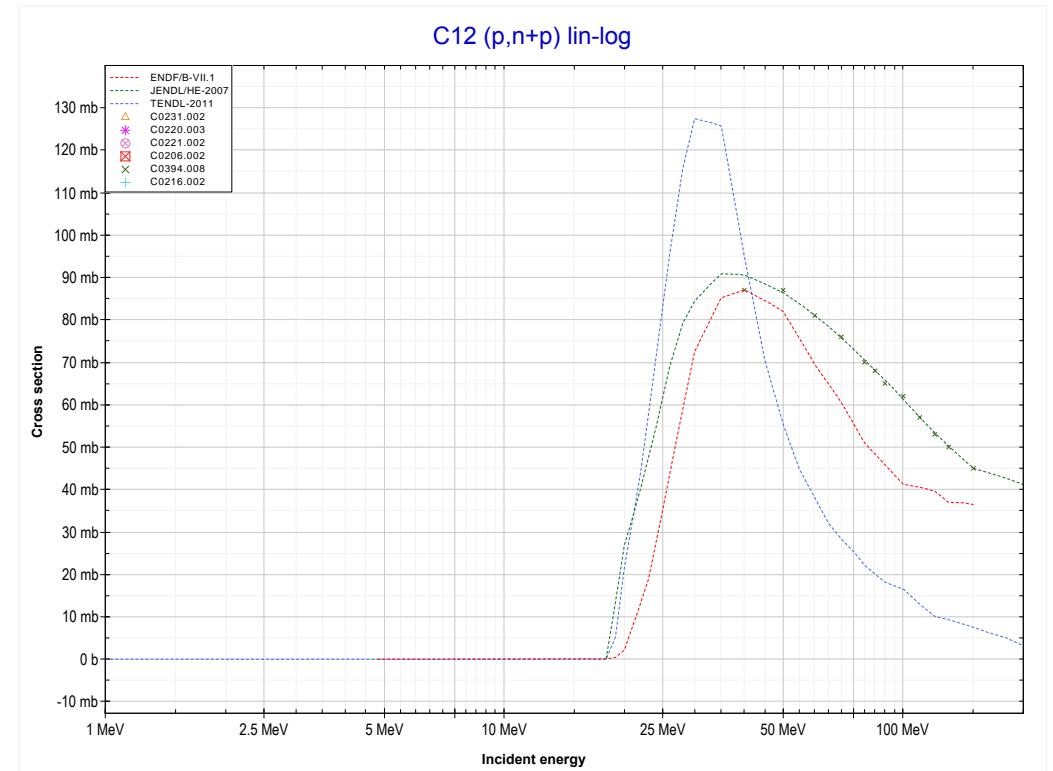
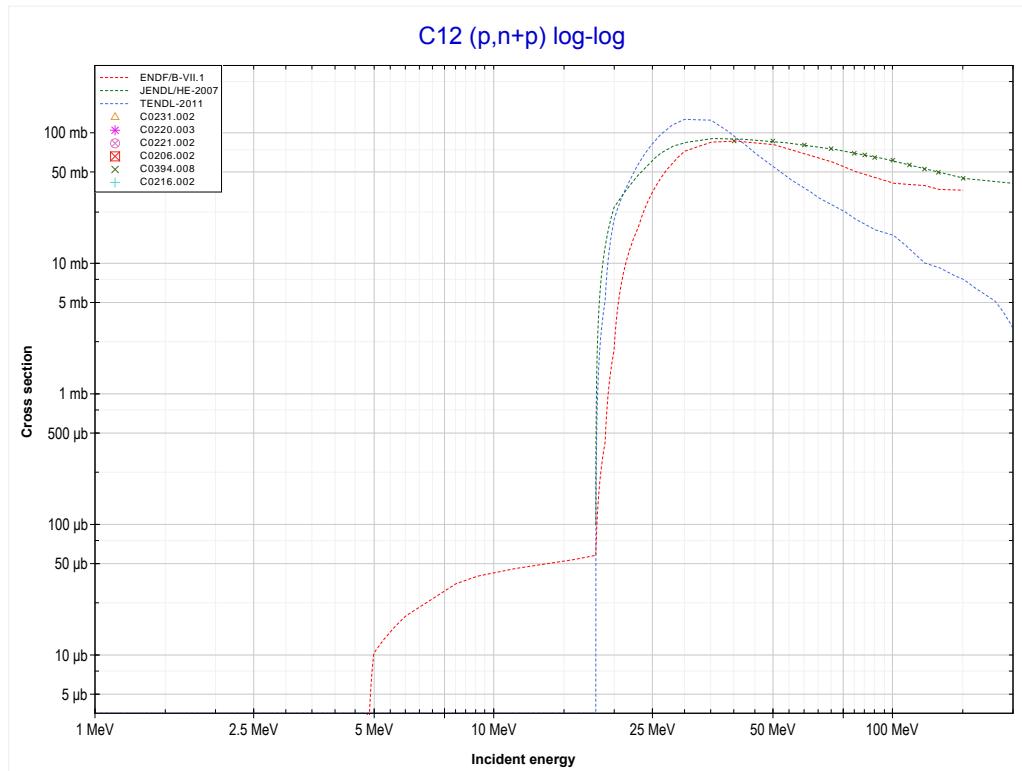
Reaction	Q-Value	Reaction	Q-Value
B11(p,2 α)He4	8682.12 keV	B11(p,n+p+t+He3)He4	-31709.35 keV
B11(p,p+t+ α)He4	-11131.74 keV	B11(p,2n+2He3)He4	-32473.11 keV
B11(p,n+He3+a)He4	-11895.49 keV	B11(p,p+2d+t)He4	-34978.26 keV
B11(p,2d+a)He4	-15164.40 keV	B11(p,n+2d+He3)He4	-35742.02 keV
B11(p,n+p+d+a)He4	-17388.97 keV	B11(p,n+2p+d+t)He4	-37202.83 keV
B11(p,2n+2p+a)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 MT197 (p,3p) or MT5 (Li9 production)	8-O-18 >>
<< MT108 (p,2α)		MT28 (p,n+p) >>

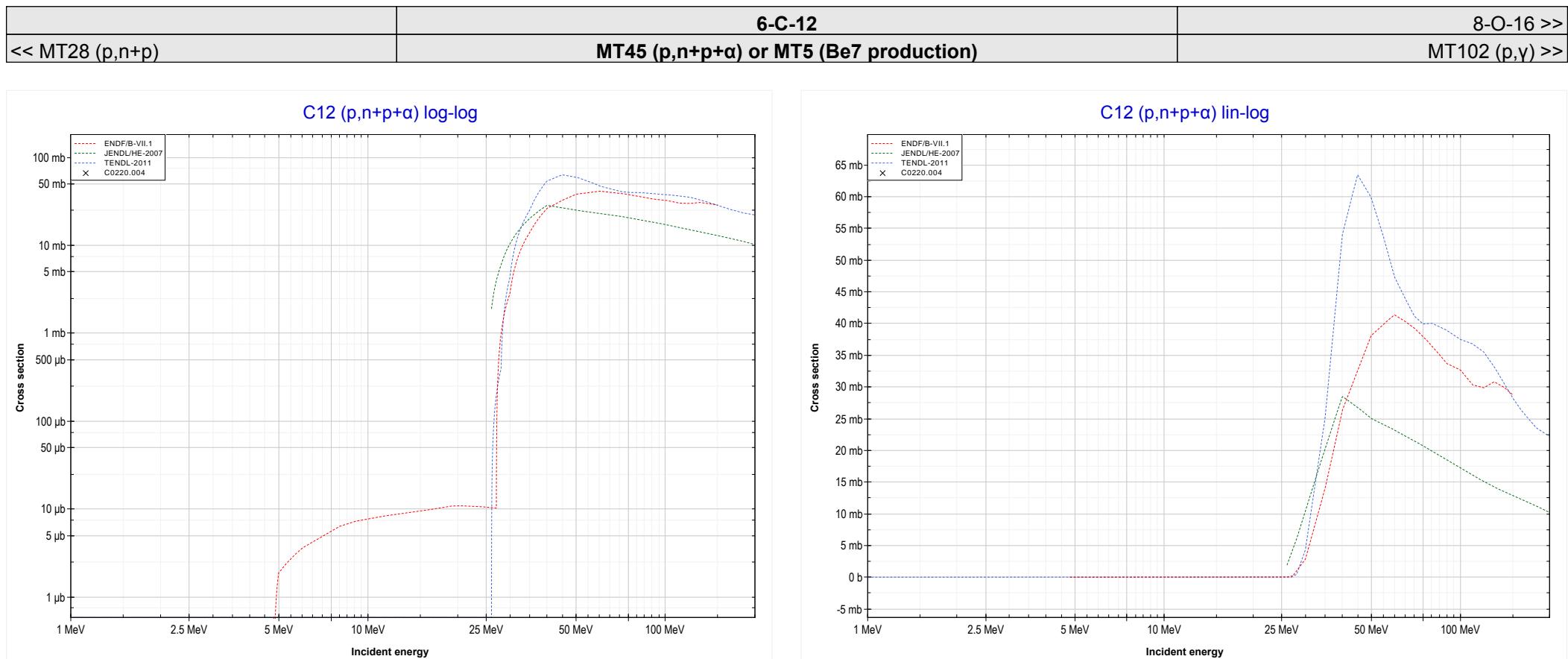


Reaction	Q-Value
B11(p,3p)Li9	-30864.34 keV

<< 1-H-2	6-C-12 MT28 (p,n+p) or MT5 (C11 production)	7-N-14 >>
<< MT197 (p,3p)		MT45 (p,n+p+α) >>



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

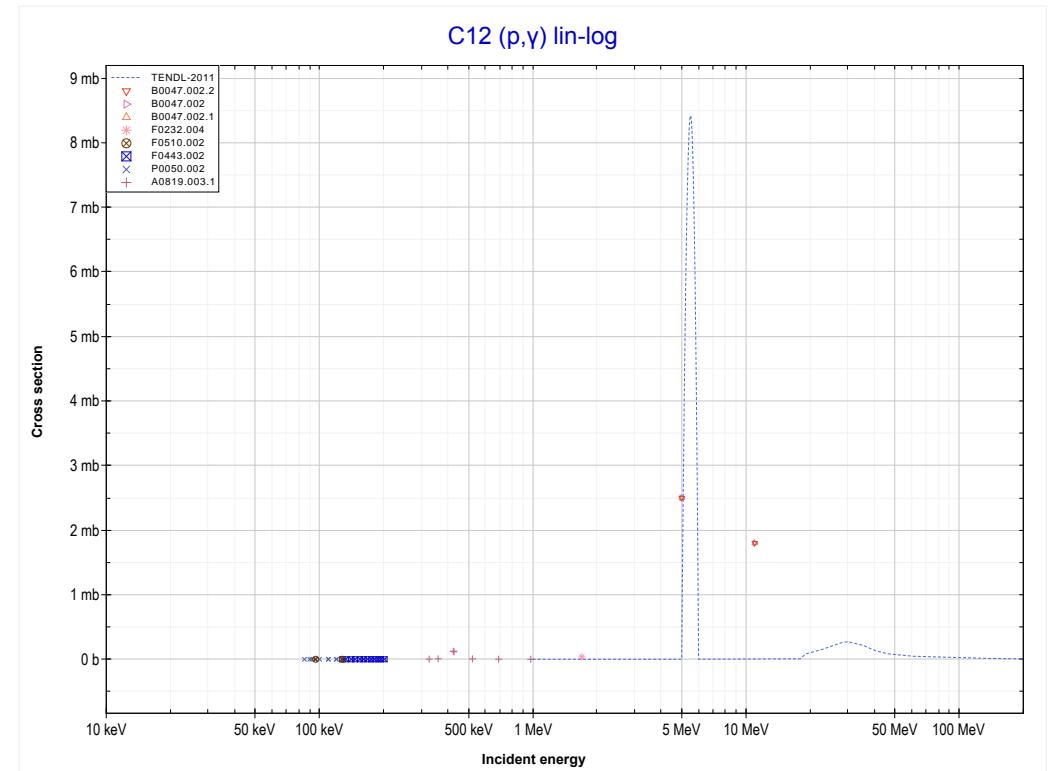
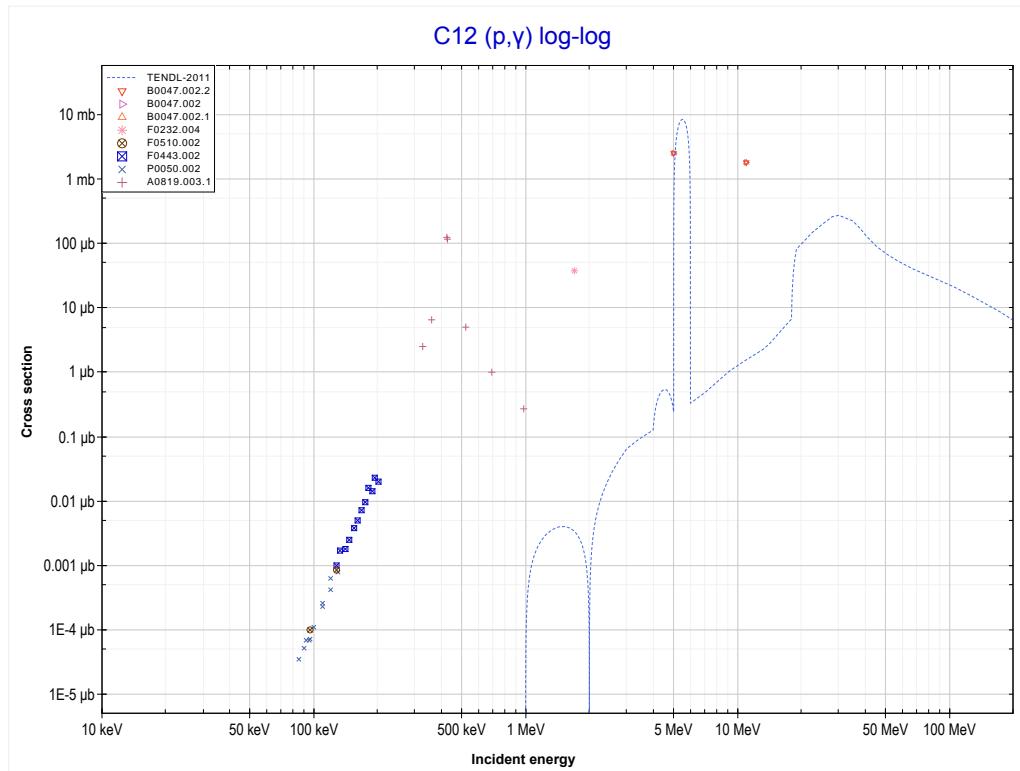


Reaction	Q-Value	Reaction	Q-Value
C12(p,d+α)Be7	-24041.70 keV	C12(p,n+p+2d)Be7	-50112.79 keV
C12(p,n+p+α)Be7	-26266.26 keV	C12(p,2n+2p+d)Be7	-52337.36 keV
C12(p,t+He3)Be7	-38362.08 keV	C12(p,3n+3p)Be7	-54561.92 keV
C12(p,p+d+t)Be7	-43855.56 keV		
C12(p,n+d+He3)Be7	-44619.31 keV		
C12(p,n+2p+t)Be7	-46080.12 keV		
C12(p,2n+p+He3)Be7	-46843.88 keV		
C12(p,3d)Be7	-47888.22 keV		

<< 5-B-11	
<< MT45 (p,n+p+α)	

6-C-12
MT102 (p,γ) or MT5 (N13 production)

8-O-16 >>
MT107 (p,α) >>

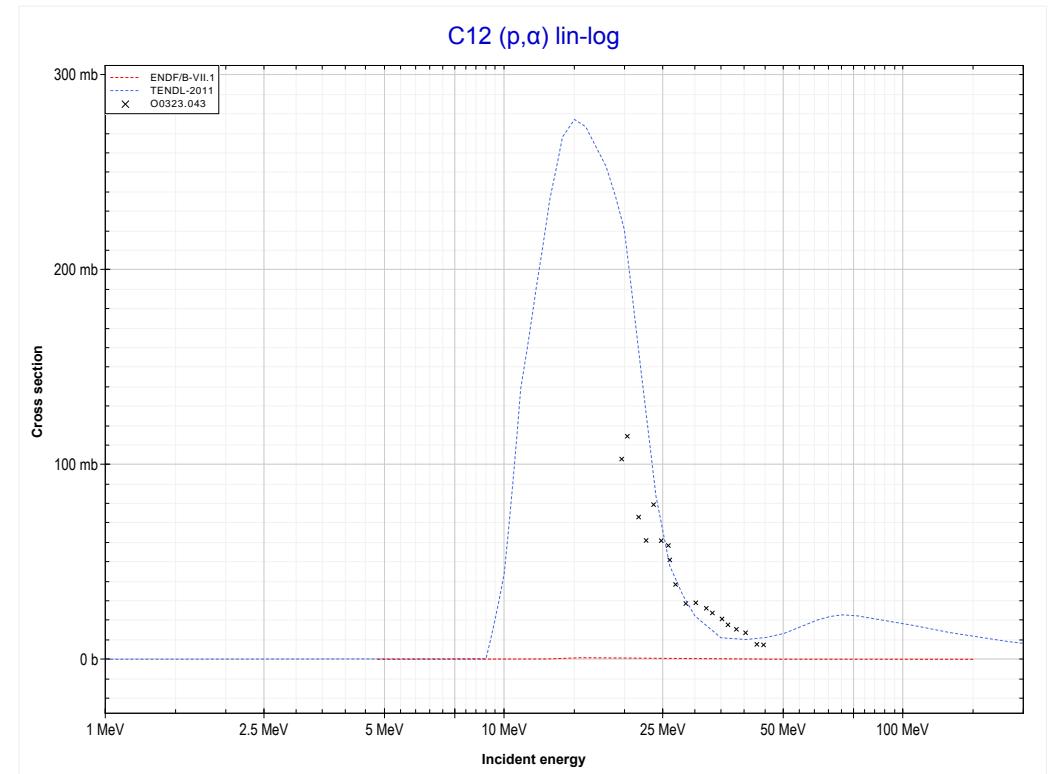
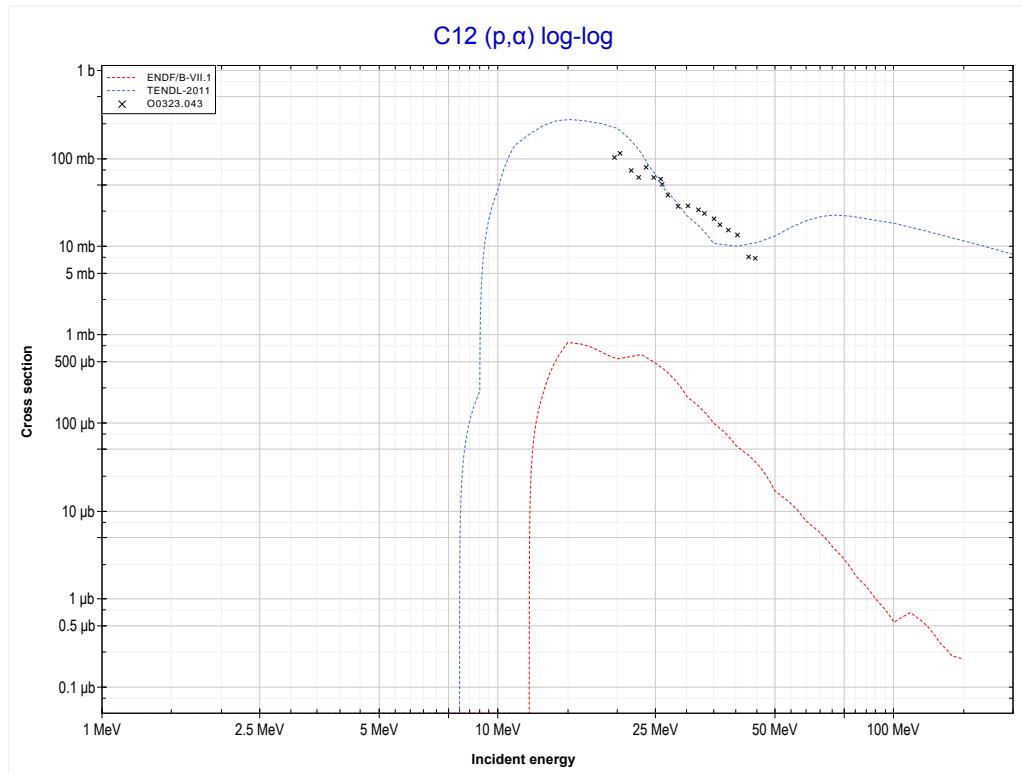


Reaction	Q-Value
C12(p,γ)N13	1943.49 keV

<< 5-B-11		
<< MT102 (p,γ)		

6-C-12
MT107 (p,α) or MT5 (B9 production)

7-N-14 >>
MT4 (p,n) >>

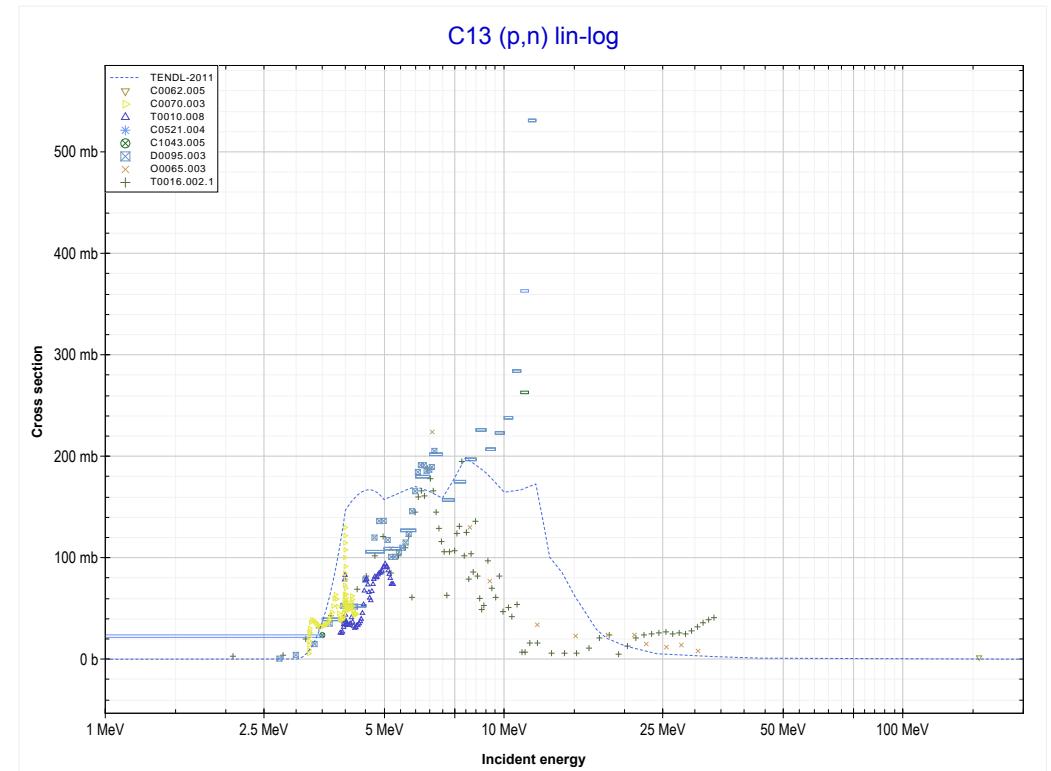
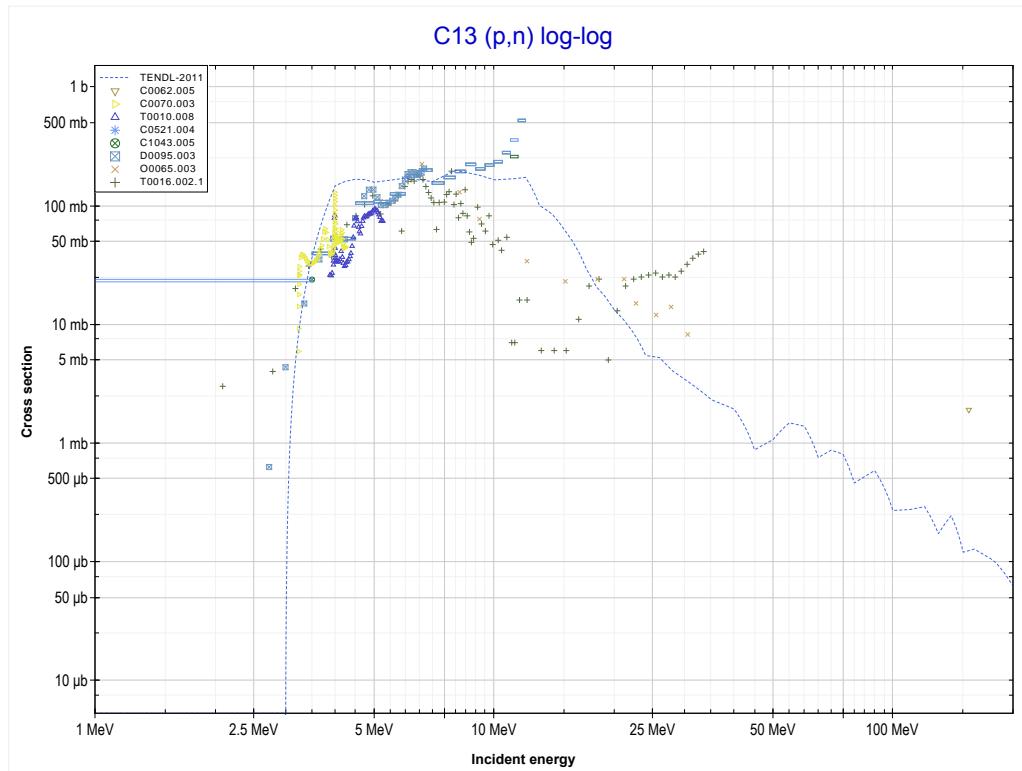


Reaction	Q-Value
C12(p,α)B9	-7551.65 keV
C12($p,p+t$)B9	-27365.51 keV
C12($p,n+He3$)B9	-28129.26 keV
C12($p,2d$)B9	-31398.17 keV
C12($p,n+p+d$)B9	-33622.74 keV
C12($p,2n+2p$)B9	-35847.30 keV

<< 5-B-11	
<< MT107 (p, α)	

6-C-13
MT4 (p,n) or MT5 (N13 production)

6-C-14 >>
MT4 (p,n) >>



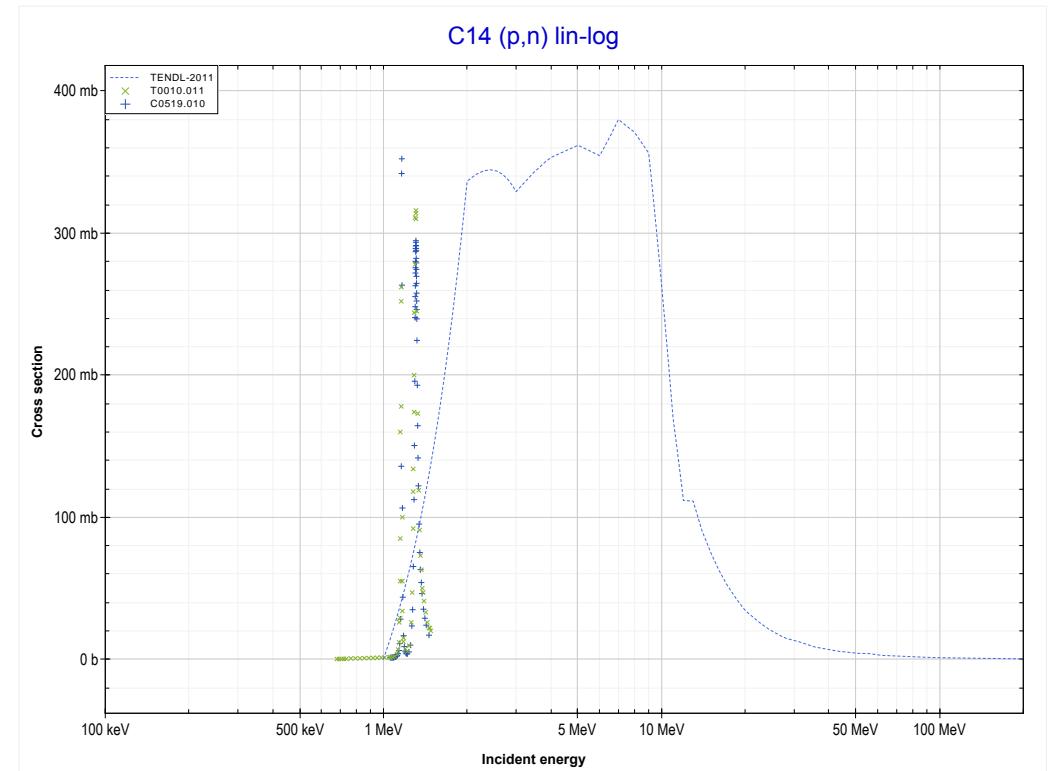
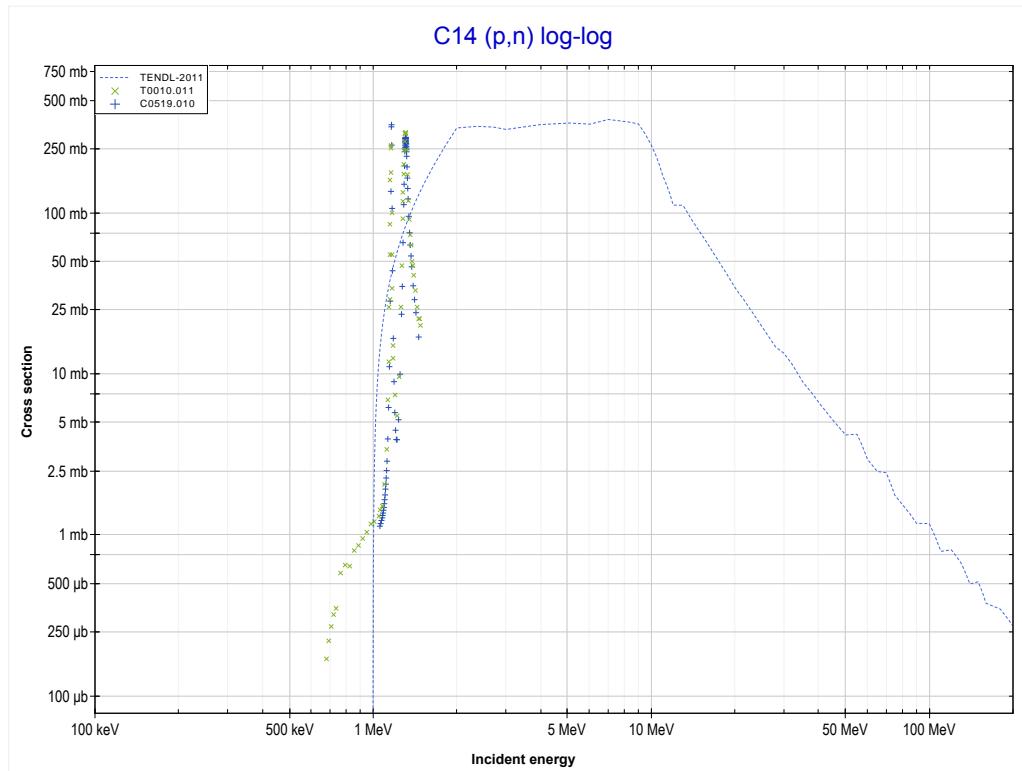
Reaction
C13(p,n)N13

Q-Value
-3002.82 keV

<< 6-C-13	
<< MT4 (p,n)	

6-C-14
MT4 (p,n) or MT5 (N14 production)

7-N-14 >>
MT4 (p,n) >>



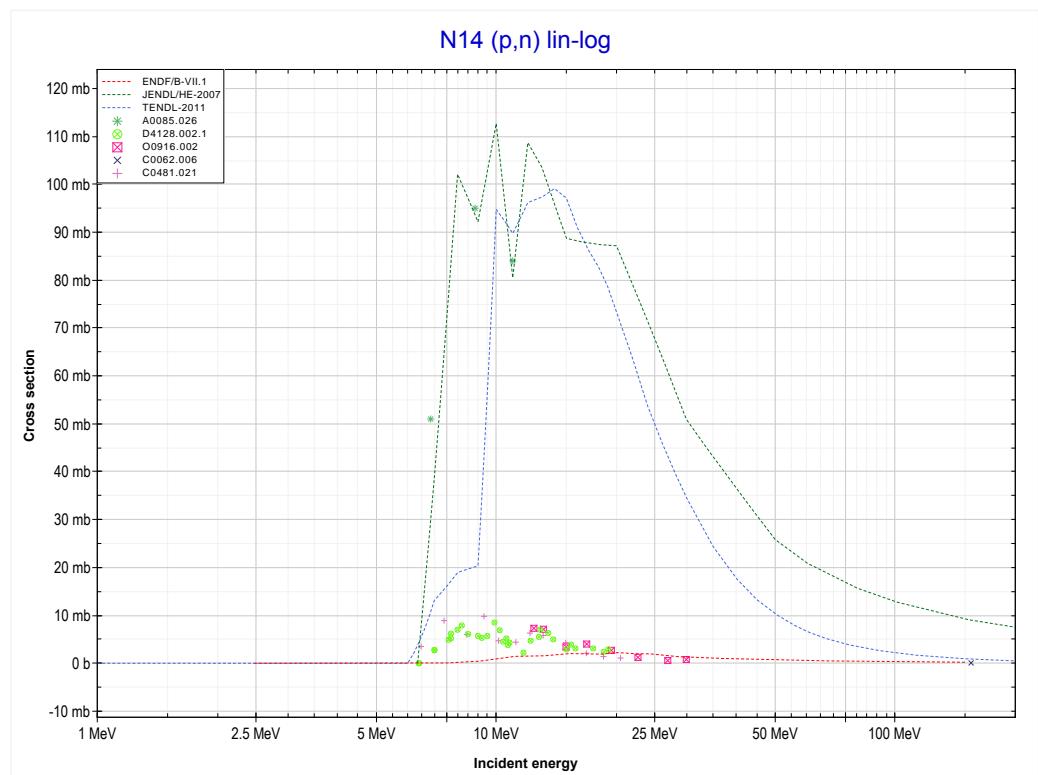
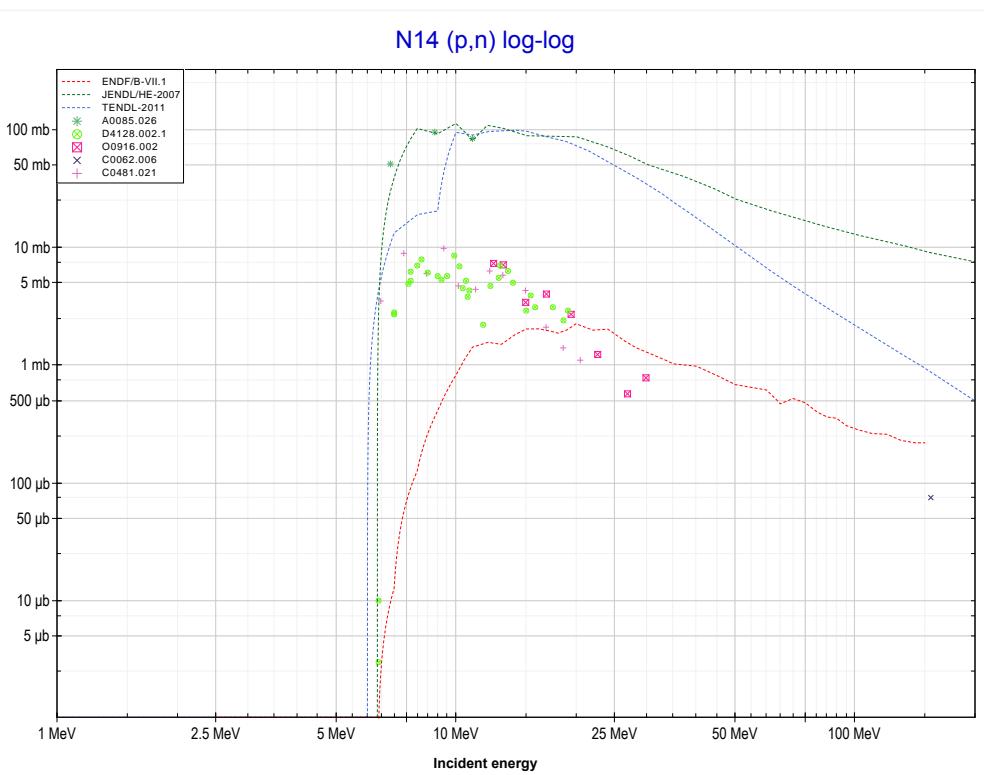
Reaction	Q-Value
C14(p,n)N14	-625.87 keV

<< 6-C-14	
<< MT4 (p,n)	

7-N-14

MT4 (p,n) or MT5 (O14 production)

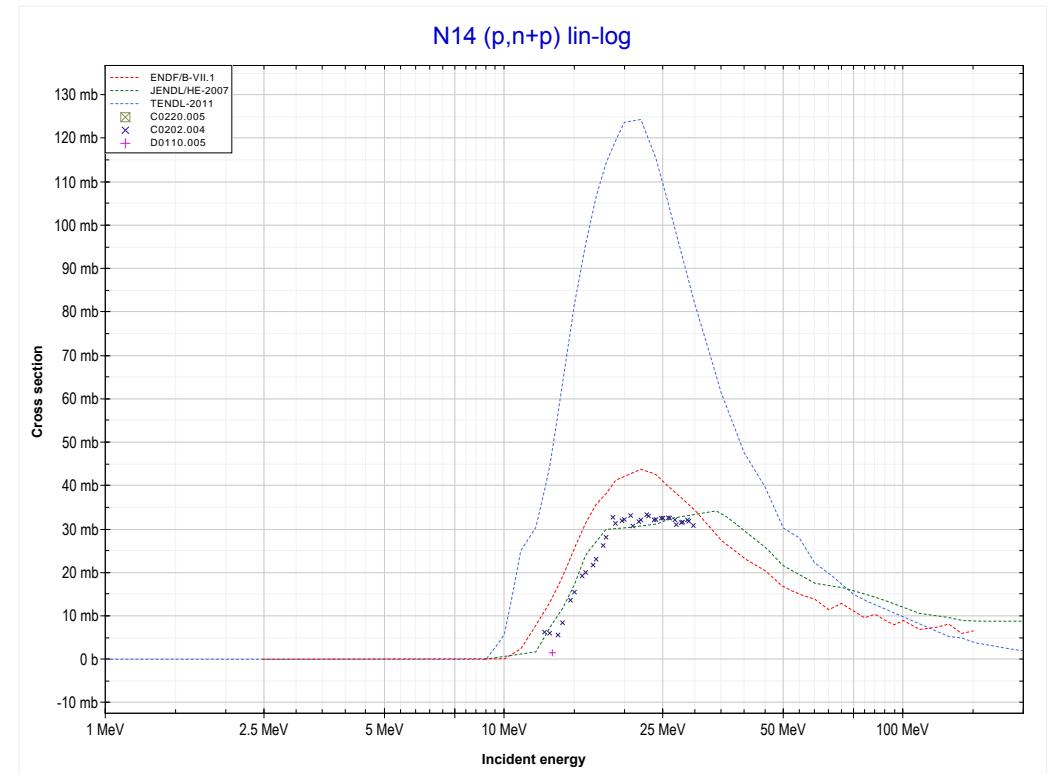
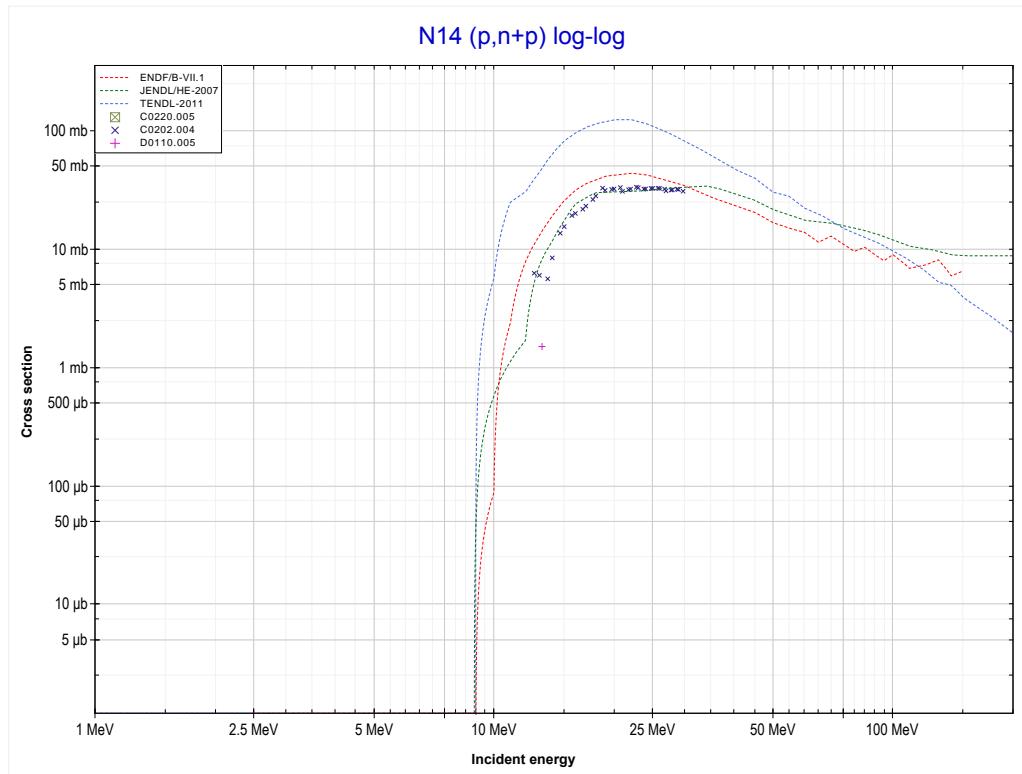
7-N-15 >>



Reaction
$\text{N}^{14}(\text{p},\text{n})\text{O}^{14}$

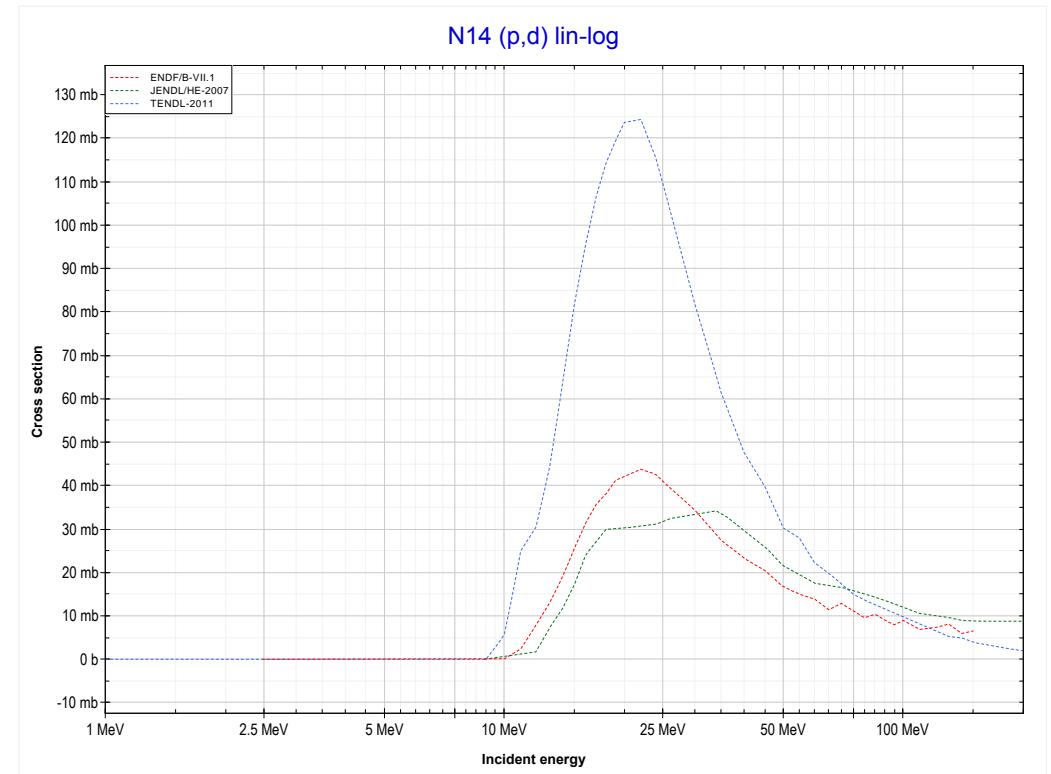
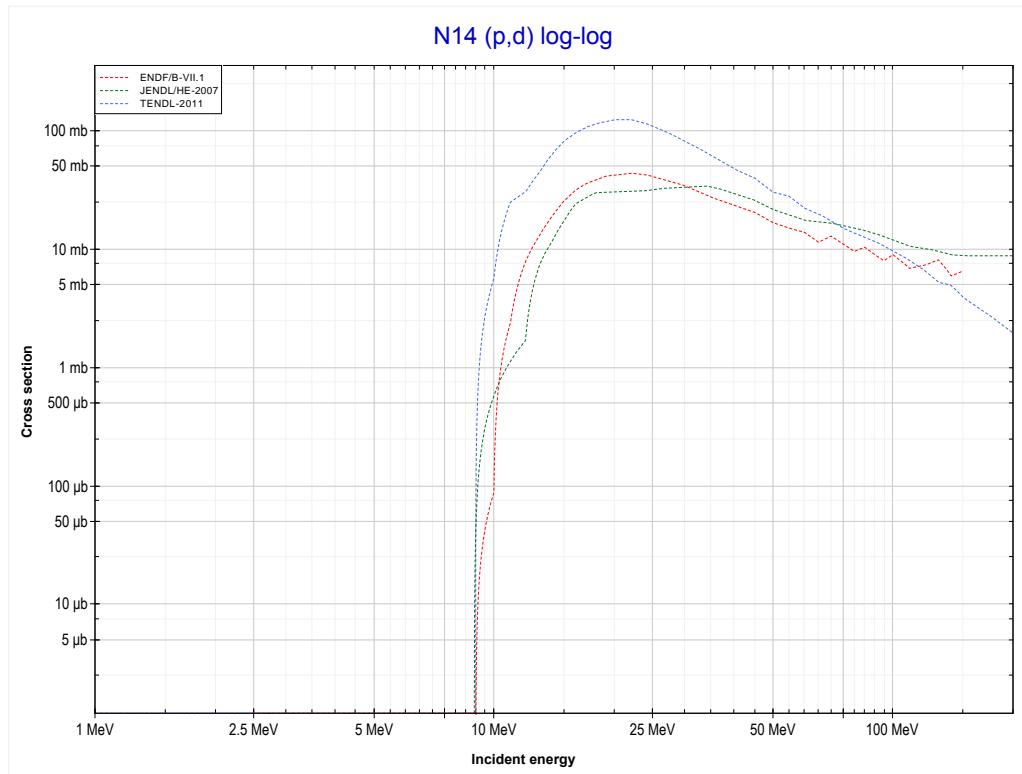
Q-Value
-5926.29 keV

<< 6-C-12	7-N-14 MT28 (p,n+p) or MT5 (N13 production)	8-O-16 >>
<< MT4 (p,n)		MT104 (p,d) >>



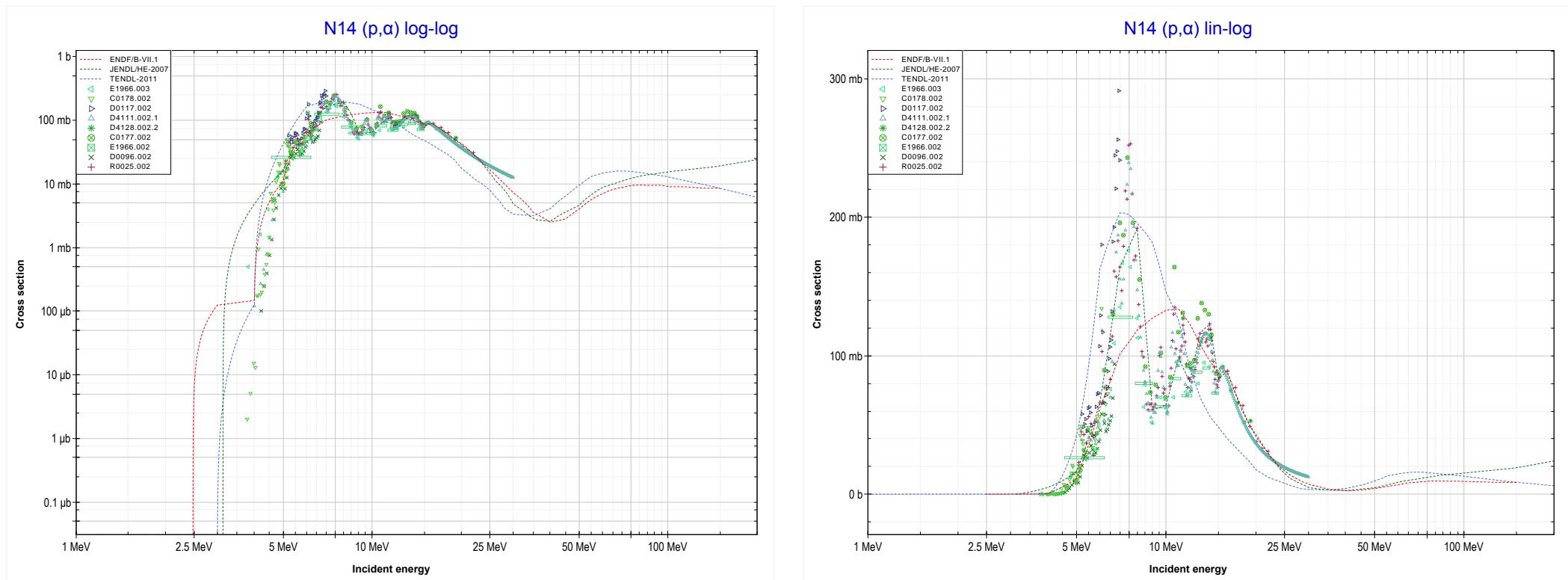
Reaction	Q-Value
N14(p,d)N13	-8328.81 keV
N14(p,n+p)N13	-10553.38 keV

<< 4-Be-9	7-N-14 MT104 (p,d) or MT5 (N13 production)	90-Th-232 >> MT107 (p, α) >>
<< MT28 (p,n+p)		



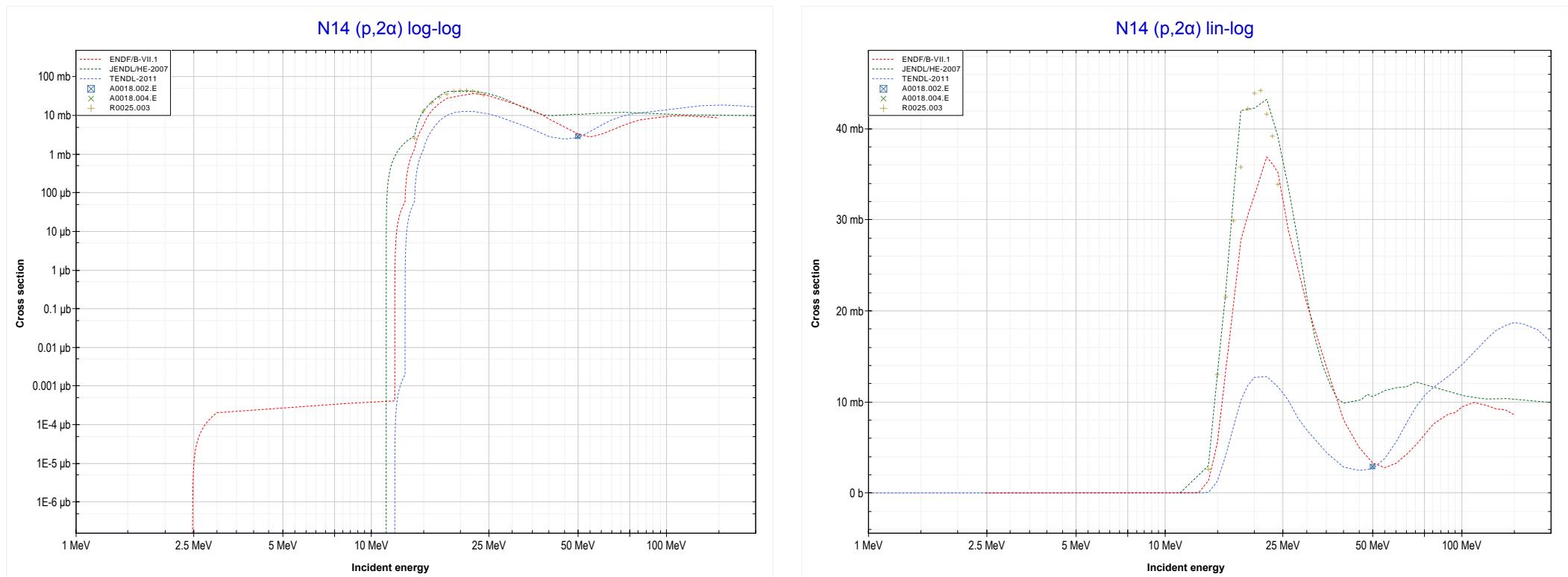
Reaction	Q-Value
N14(p,d)N13	-8328.81 keV
N14(p,n+p)N13	-10553.38 keV

<< 6-C-12	7-N-14	7-N-15 >>
<< MT104 (p,d)	MT107 (p, α) or MT5 (C11 production)	MT108 (p,2 α) >>



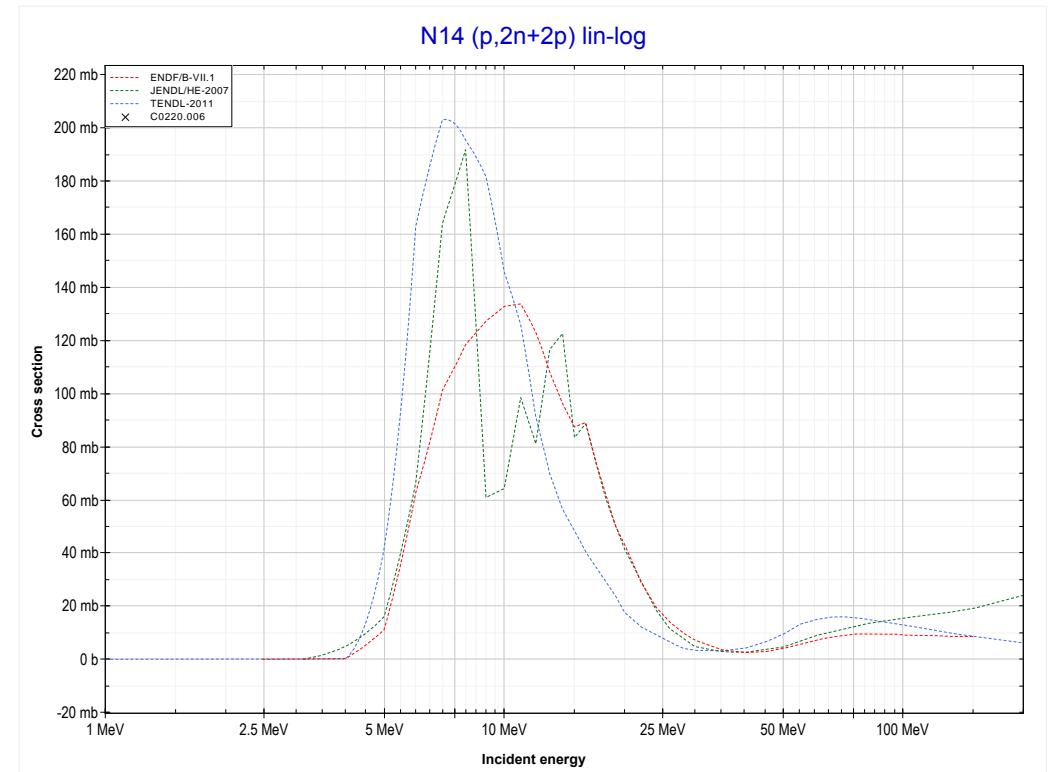
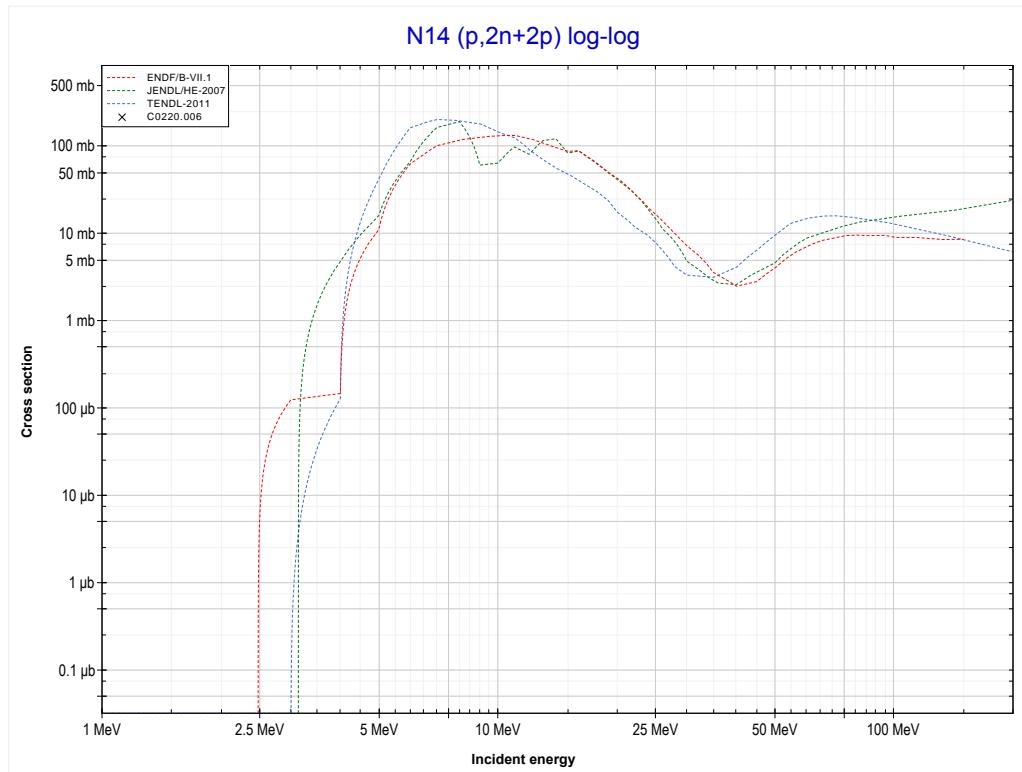
Reaction	Q-Value
$N^{14}(p,\alpha)C^{11}$	-2922.83 keV
$N^{14}(p,p+t)C^{11}$	-22736.69 keV
$N^{14}(p,n+He^3)C^{11}$	-23500.44 keV
$N^{14}(p,2d)C^{11}$	-26769.36 keV
$N^{14}(p,n+p+d)C^{11}$	-28993.92 keV
$N^{14}(p,2n+2p)C^{11}$	-31218.49 keV

<< 5-B-11	7-N-14 MT108 (p,2α) or MT5 (Be7 production)	22-Ti-50 >>
<< MT107 (p,α)		MT190 (p,2n+2p) >>

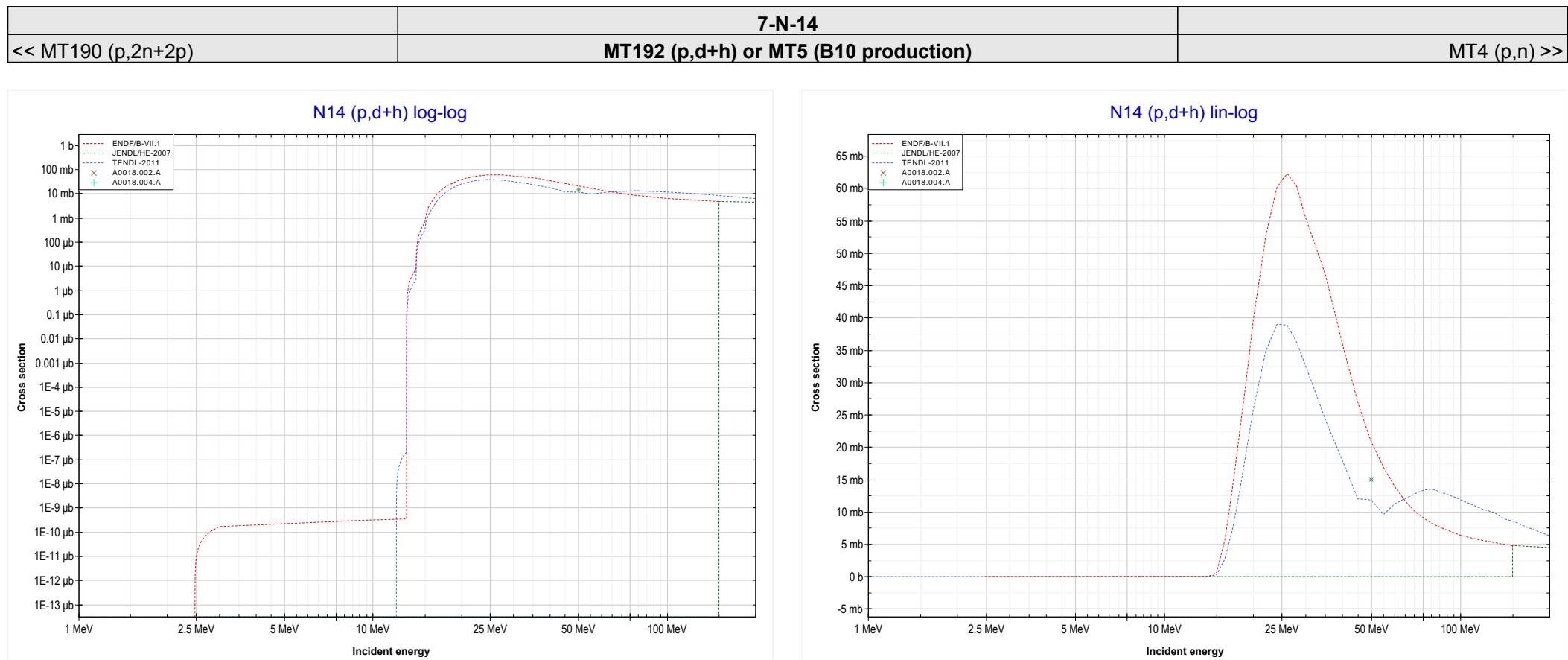


Reaction	Q-Value	Reaction	Q-Value
N14(p,2α)Be7	-10467.47 keV	N14(p,n+p+t+He3)Be7	-50858.95 keV
N14(p,p+t+α)Be7	-30281.33 keV	N14(p,2n+2He3)Be7	-51622.71 keV
N14(p,n+He3+α)Be7	-31045.09 keV	N14(p,p+2d+t)Be7	-54127.86 keV
N14(p,2d+α)Be7	-34314.00 keV	N14(p,n+2d+He3)Be7	-54891.62 keV
N14(p,n+p+d+α)Be7	-36538.57 keV	N14(p,n+2p+d+t)Be7	-56352.43 keV
N14(p,2n+2p+α)Be7	-38763.13 keV	N14(p,2n+p+d+He3)Be7	-57116.18 keV
N14(p,d+t+He3)Be7	-48634.38 keV	N14(p,4d)Be7	-58160.53 keV
N14(p,2p+2t)Be7	-50095.20 keV	N14(p,2n+3p+t)Be7	-58576.99 keV

	7-N-14 MT190 (p,2n+2p) or MT5 (C11 production)	8-O-16 >> MT192 (p,d+h) >>
<< MT108 (p,2α)		

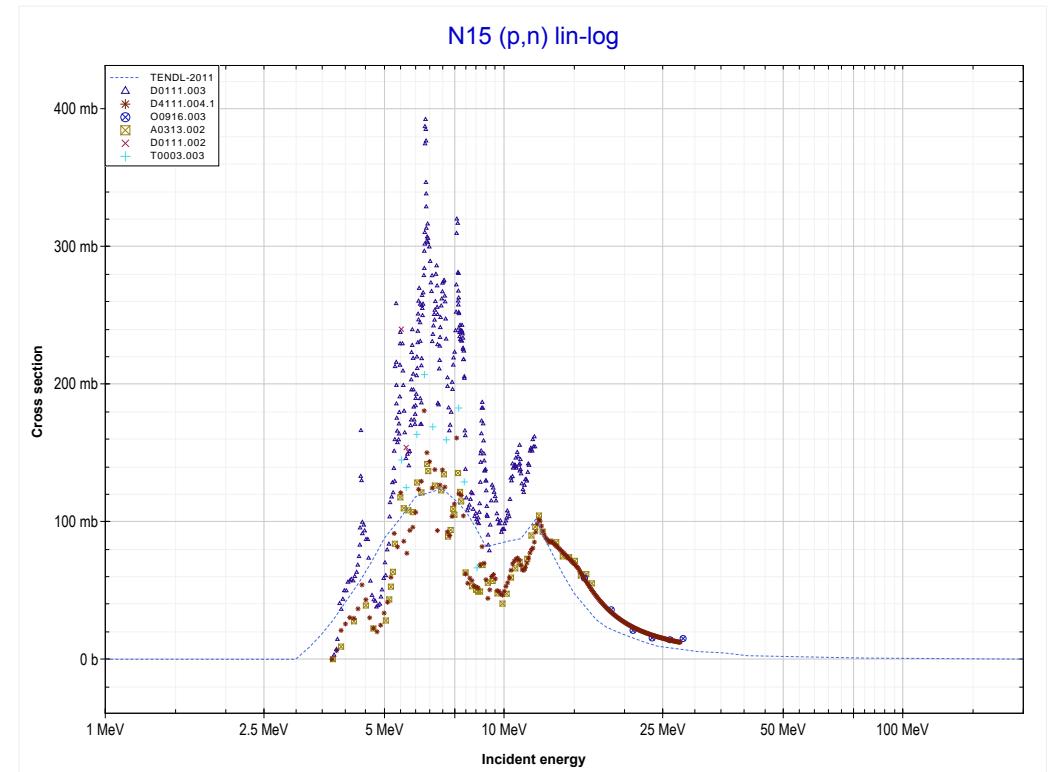
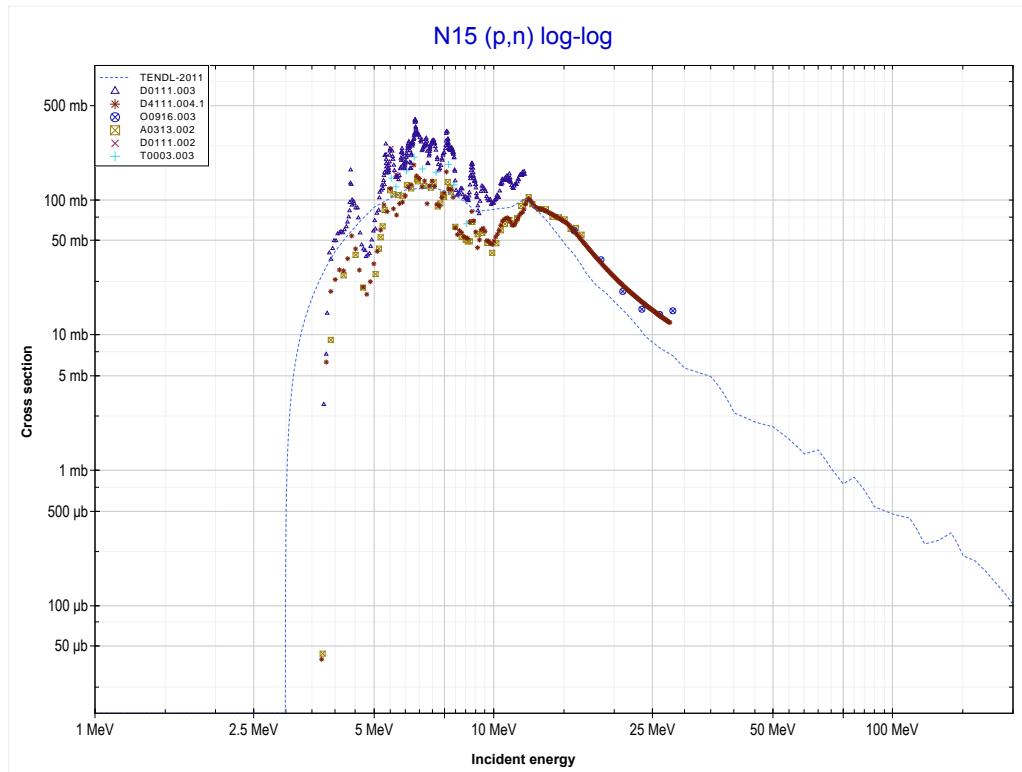


Reaction	Q-Value
$\text{N}^{14}(\text{p},\alpha)\text{C}^{11}$	-2922.83 keV
$\text{N}^{14}(\text{p},\text{p}+\text{t})\text{C}^{11}$	-22736.69 keV
$\text{N}^{14}(\text{p},\text{n}+\text{He}^3)\text{C}^{11}$	-23500.44 keV
$\text{N}^{14}(\text{p},\text{2d})\text{C}^{11}$	-26769.36 keV
$\text{N}^{14}(\text{p},\text{n}+\text{p}+\text{d})\text{C}^{11}$	-28993.92 keV
$\text{N}^{14}(\text{p},\text{2n}+2\text{p})\text{C}^{11}$	-31218.49 keV



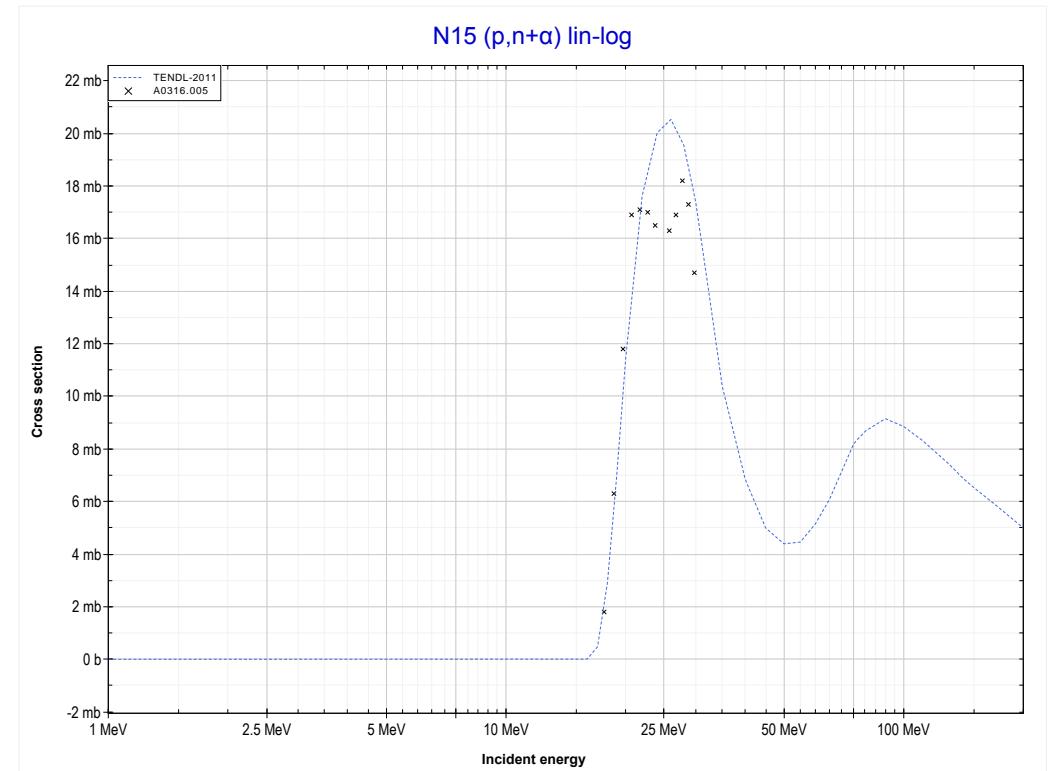
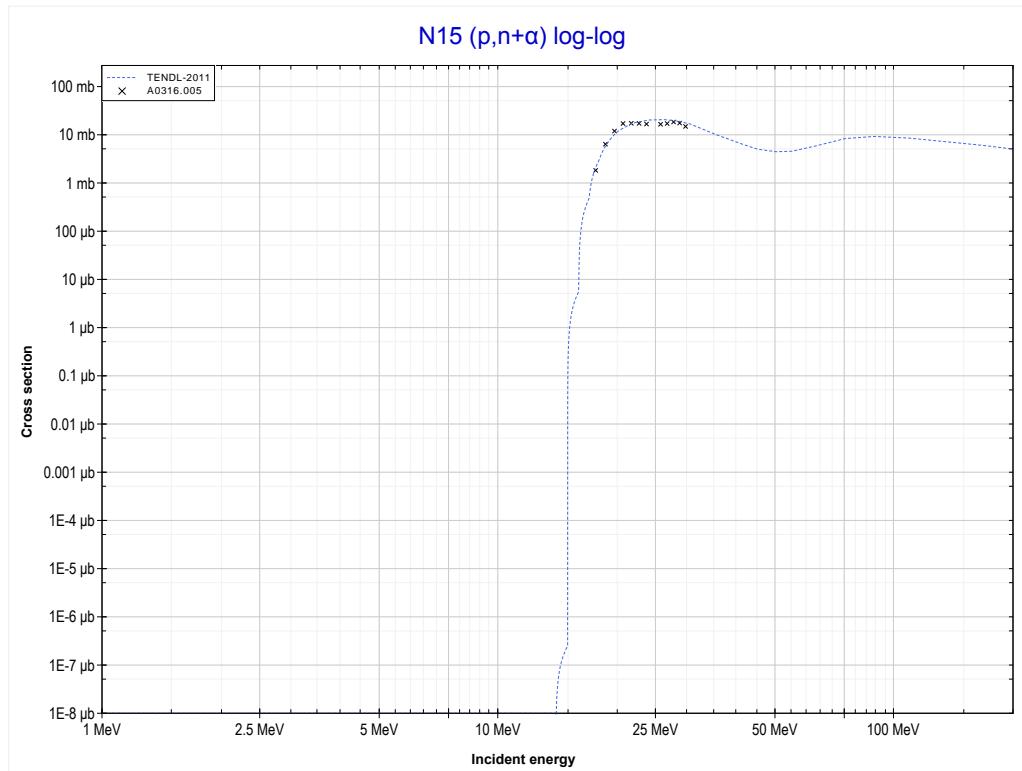
Reaction	Q-Value
N14(p,p+α)B10	-11612.20 keV
N14(p,d+He3)B10	-29965.25 keV
N14(p,2p+t)B10	-31426.06 keV
N14(p,n+p+He3)B10	-32189.81 keV
N14(p,p+2d)B10	-35458.73 keV
N14(p,n+2p+d)B10	-37683.29 keV
N14(p,2n+3p)B10	-39907.86 keV

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



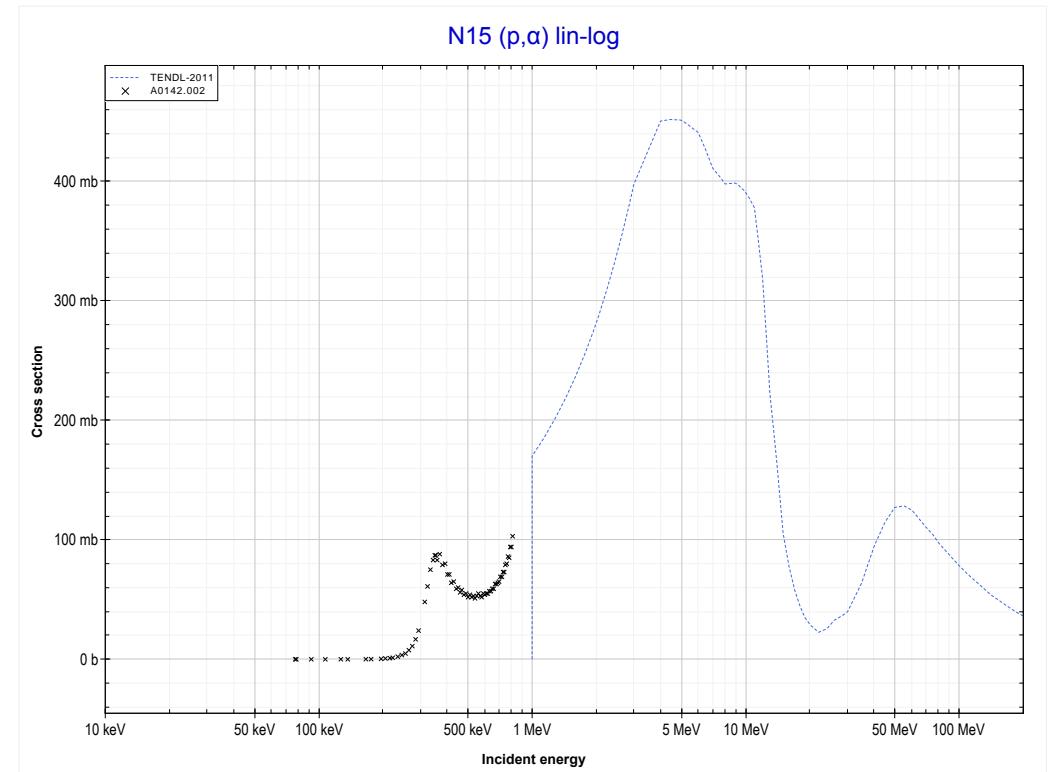
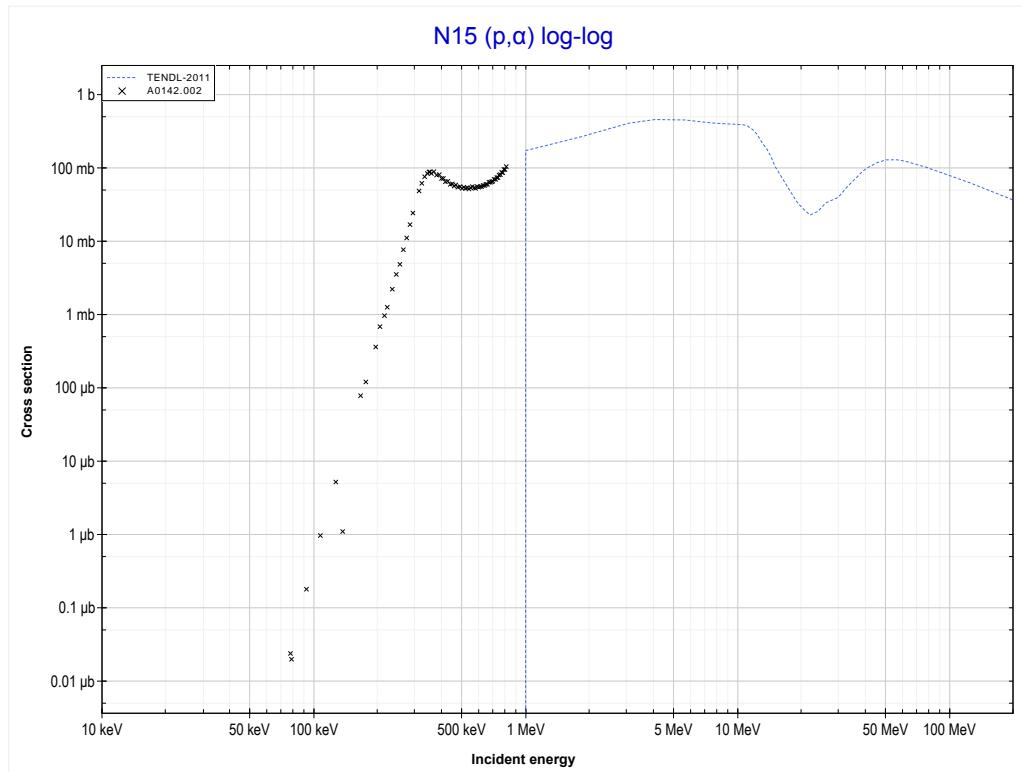
Reaction	Q-Value
N15(p,n)O15	-3536.51 keV

	7-N-15 MT22 (p,n+α) or MT5 (C11 production)	22-Ti-47 >> MT107 (p,α) >>
<< MT4 (p,n)		



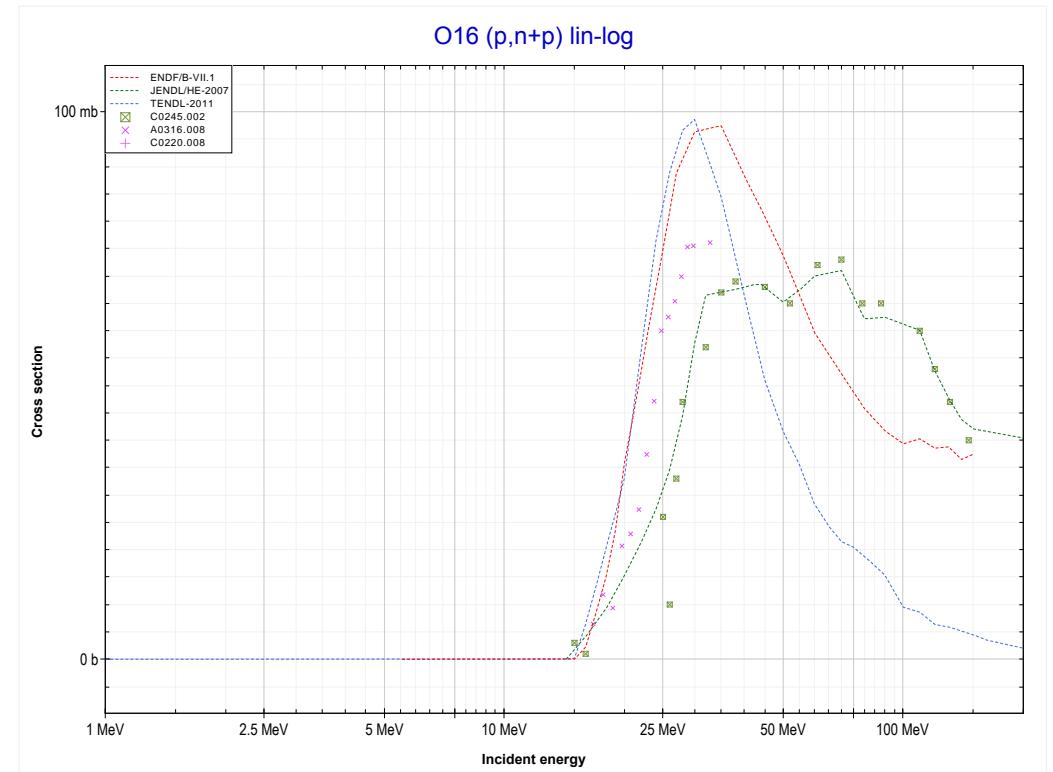
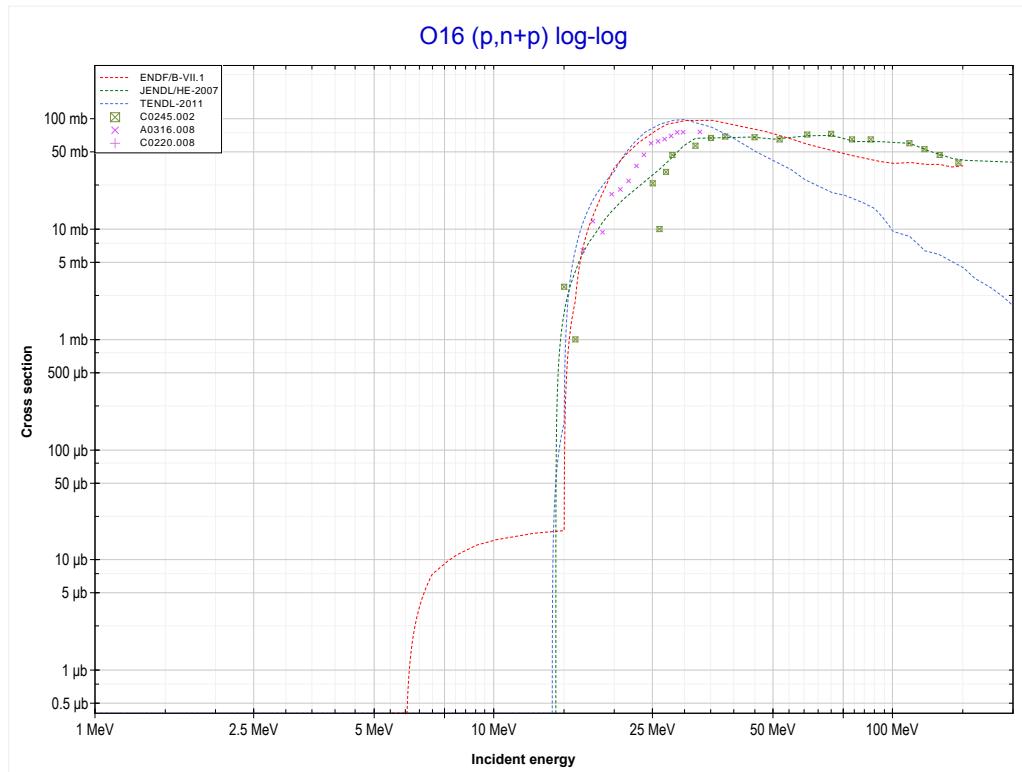
Reaction	Q-Value
N15(p,n+α)C11	-13756.12 keV
N15(p,d+t)C11	-31345.42 keV
N15(p,n+p+t)C11	-33569.99 keV
N15(p,2n+He3)C11	-34333.74 keV
N15(p,n+2d)C11	-37602.65 keV
N15(p,2n+p+d)C11	-39827.22 keV
N15(p,3n+2p)C11	-42051.78 keV

<< 7-N-14	7-N-15	8-O-16 >>
<< MT22 (p,n+α) >>	MT107 (p,α) or MT5 (C12 production)	MT28 (p,n+p) >>



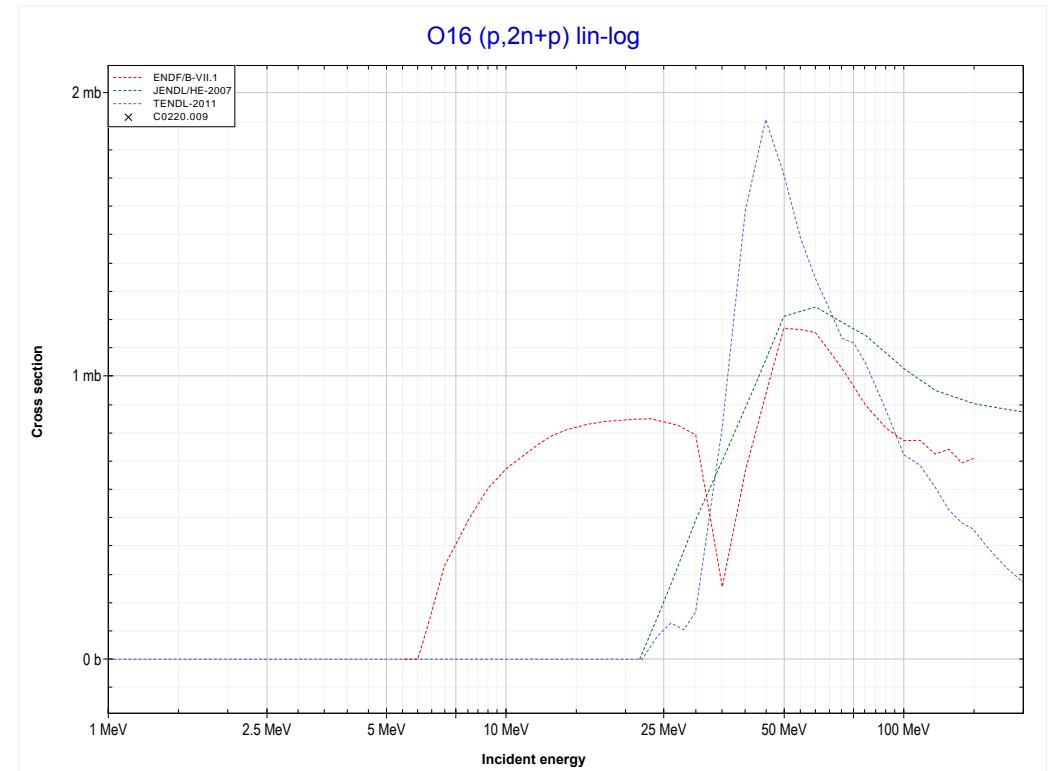
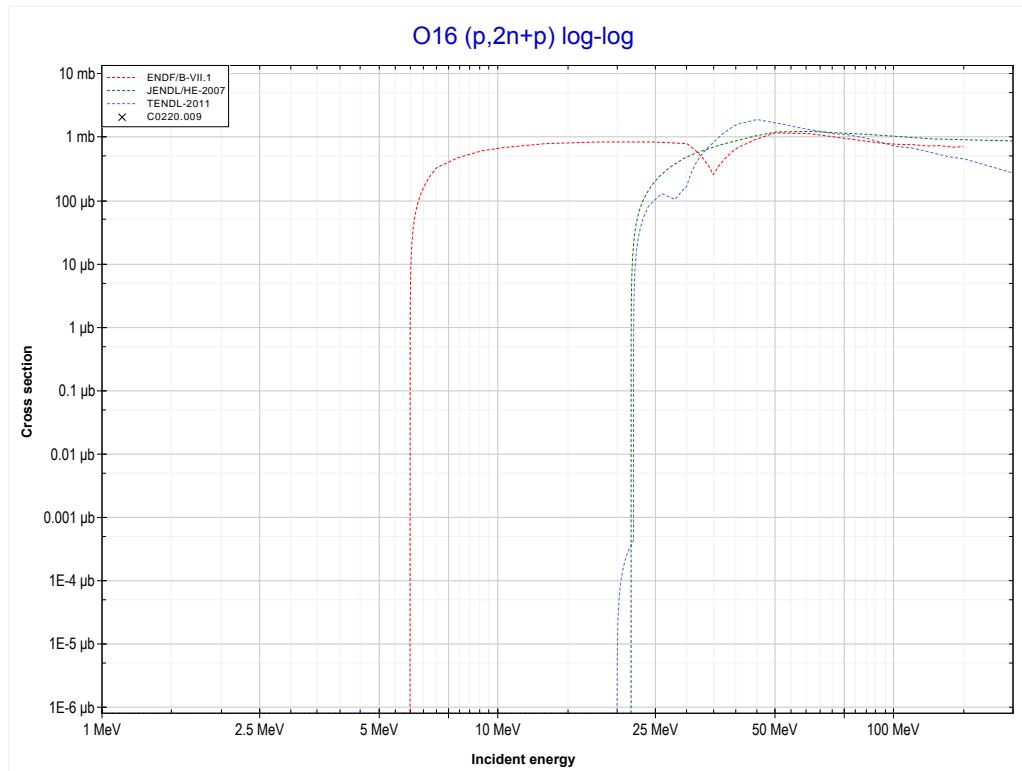
Reaction	Q-Value
N15(p,α)C12	4965.49 keV
N15(p,p+t)C12	-14848.37 keV
N15(p,n+He3)C12	-15612.12 keV
N15(p,2d)C12	-18881.03 keV
N15(p,n+p+d)C12	-21105.60 keV
N15(p,2n+2p)C12	-23330.17 keV

<< 7-N-14	8-O-16	9-F-19 >>
<< MT107 (p,α)	MT28 ($p,n+p$) or MT5 (O15 production)	MT41 ($p,2n+p$) >>



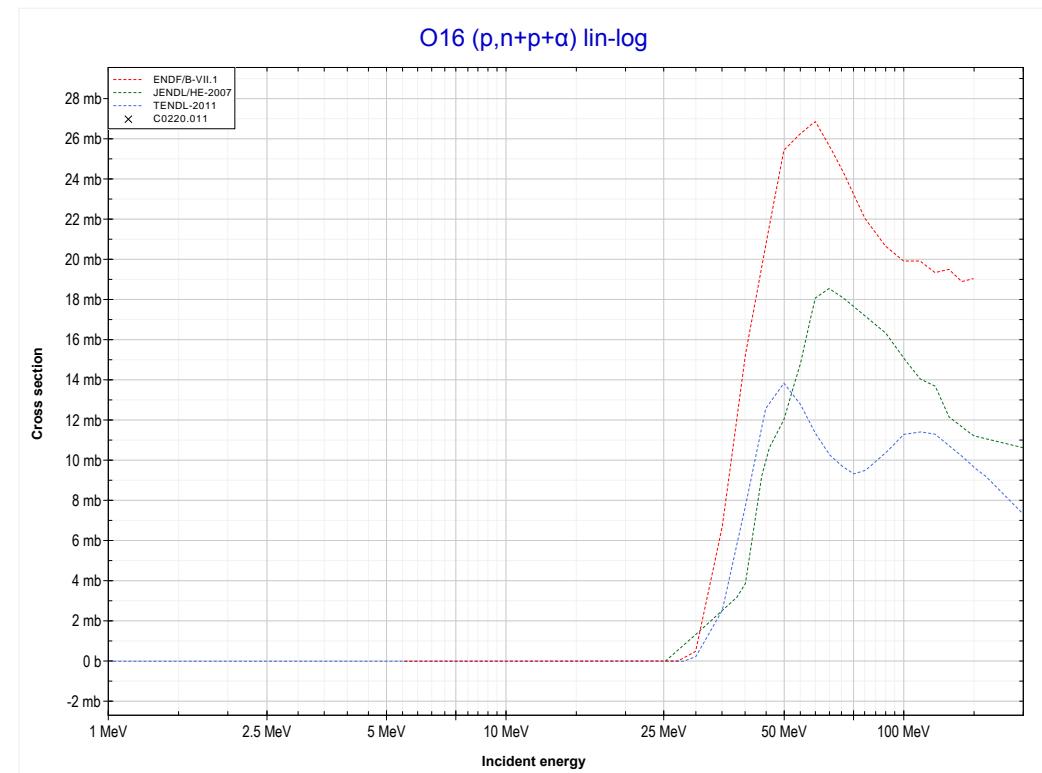
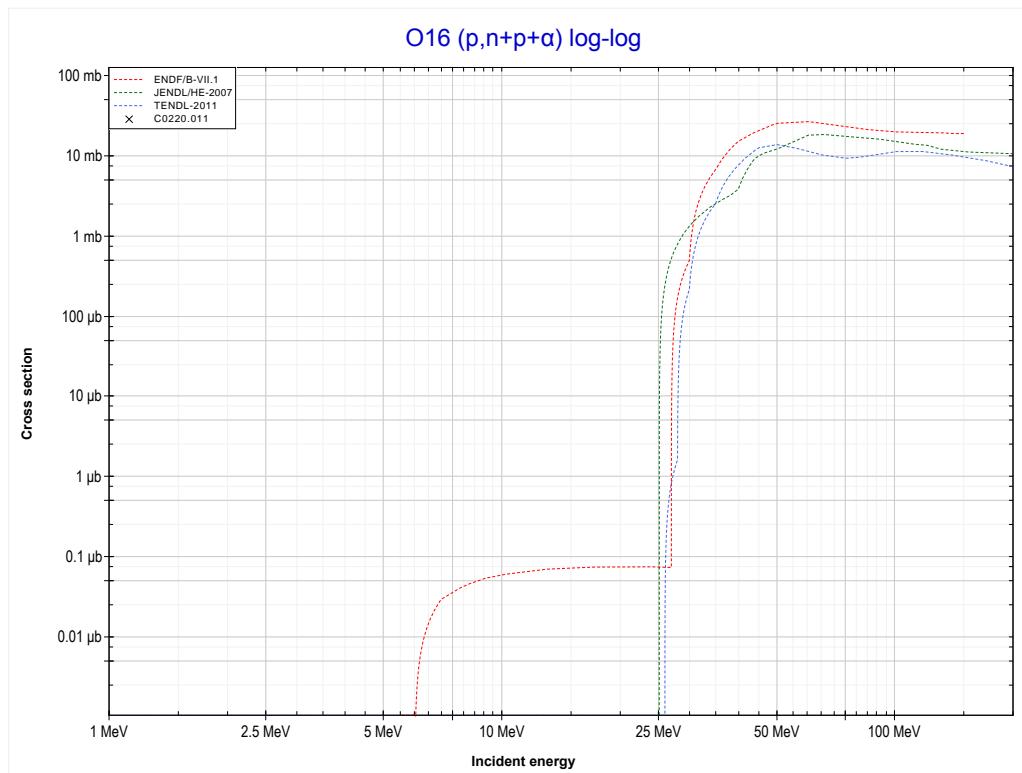
Reaction	Q-Value
O16(p,d)O15	-13439.35 keV
O16($p,n+p$)O15	-15663.92 keV

<< 4-Be-9	8-O-16 MT41 ($p,2n+p$) or MT5 (O14 production)	21-Sc-45 >>
<< MT28 ($p,n+p$)		MT45 ($p,n+p+\alpha$) >>



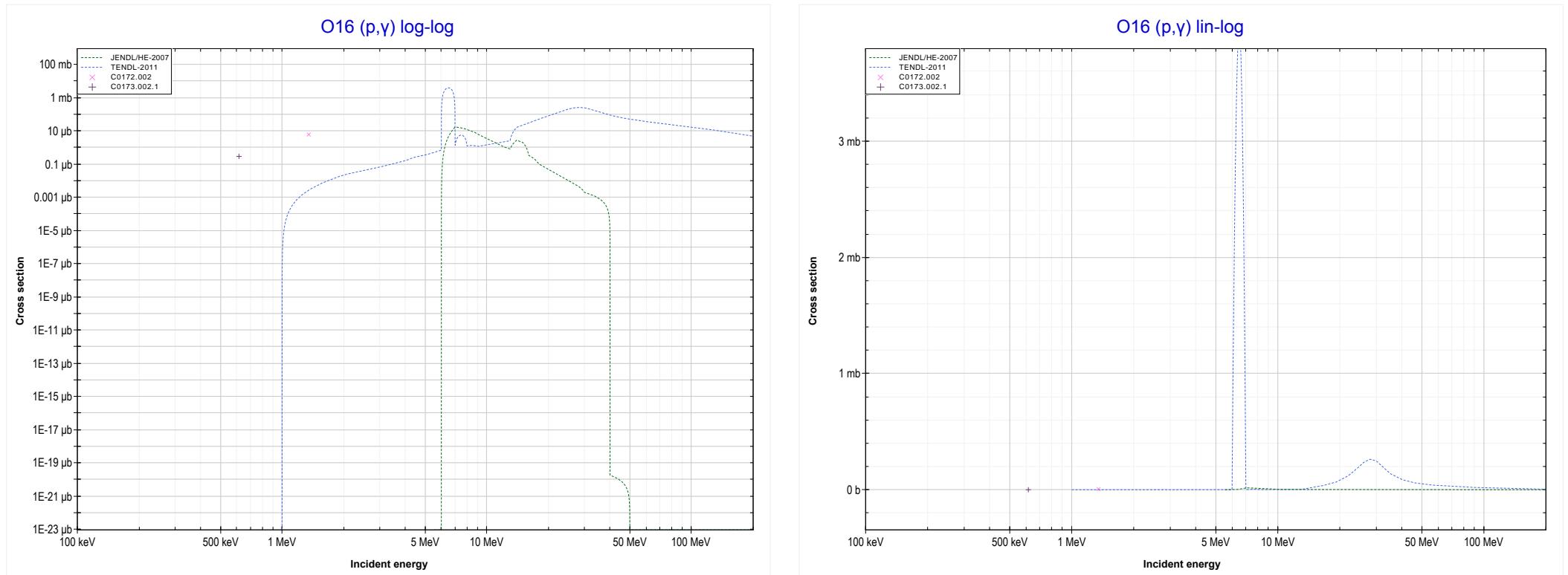
Reaction	Q-Value
O16(p,t)O14	-20405.20 keV
O16($p,n+d$)O14	-26662.43 keV
O16($p,2n+p$)O14	-28887.00 keV

<< 6-C-12	8-O-16 MT45 ($p, n+p+\alpha$) or MT5 (C11 production)	11-Na-23 >> MT102 (p,γ) >>
<< MT41 ($p,2n+p$)		



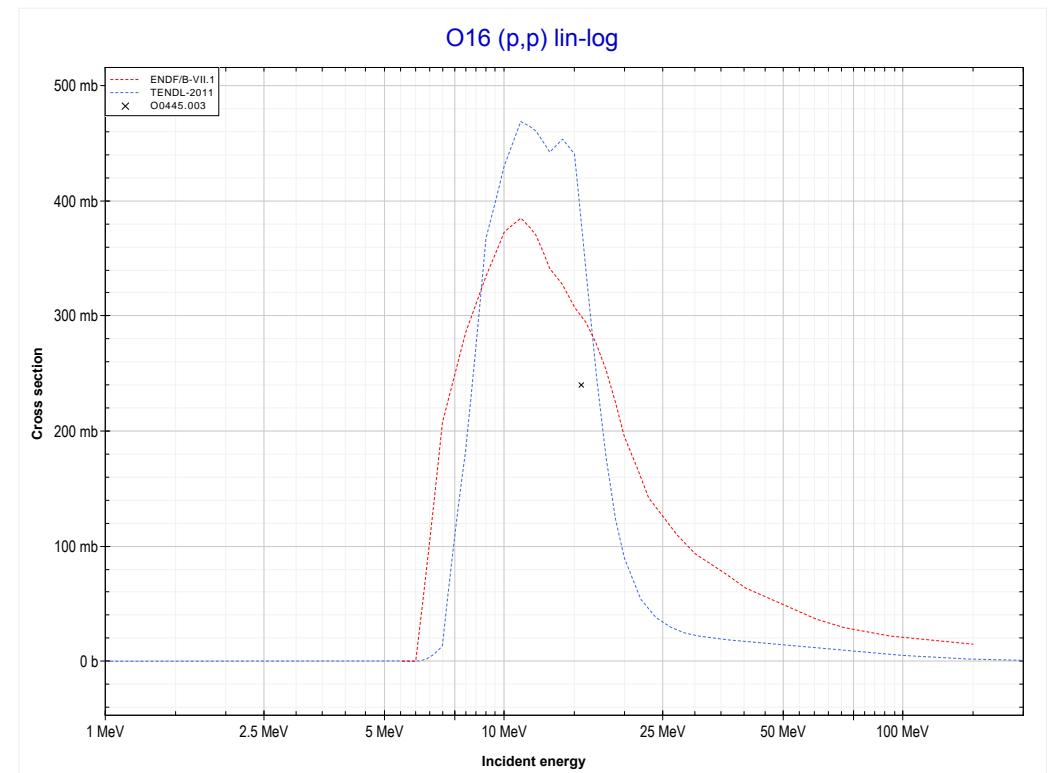
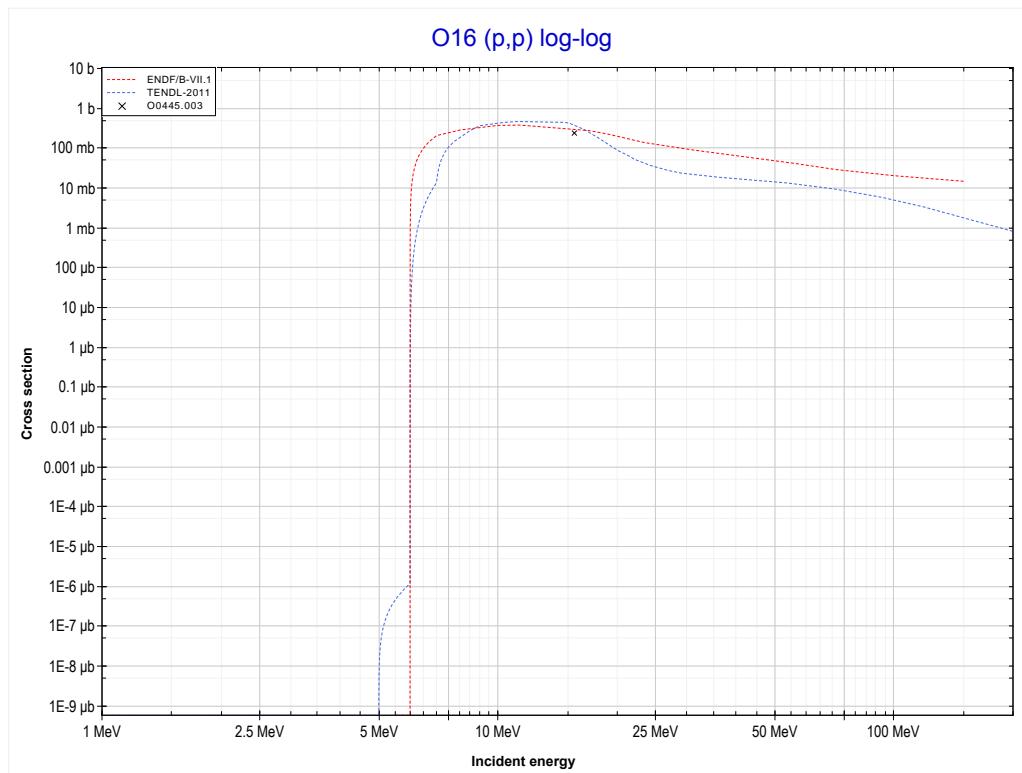
Reaction	Q-Value	Reaction	Q-Value
O16($p,d+\alpha$)C11	-23658.97 keV	O16($p,n+p+2d$)C11	-49730.06 keV
O16($p,n+p+\alpha$)C11	-25883.53 keV	O16($p,2n+2p+d$)C11	-51954.63 keV
O16($p,t+He3$)C11	-37979.35 keV	O16($p,3n+3p$)C11	-54179.19 keV
O16($p,p+d+t$)C11	-43472.83 keV		
O16($p,n+d+He3$)C11	-44236.58 keV		
O16($p,n+2p+t$)C11	-45697.39 keV		
O16($p,2n+p+He3$)C11	-46461.15 keV		
O16($p,3d$)C11	-47505.50 keV		

<< 6-C-12	8-O-16 MT102 (p,γ) or MT5 (F17 production)	8-O-17 >> MT103 (p,p) >>
<< MT45 ($n+p+\alpha$)		



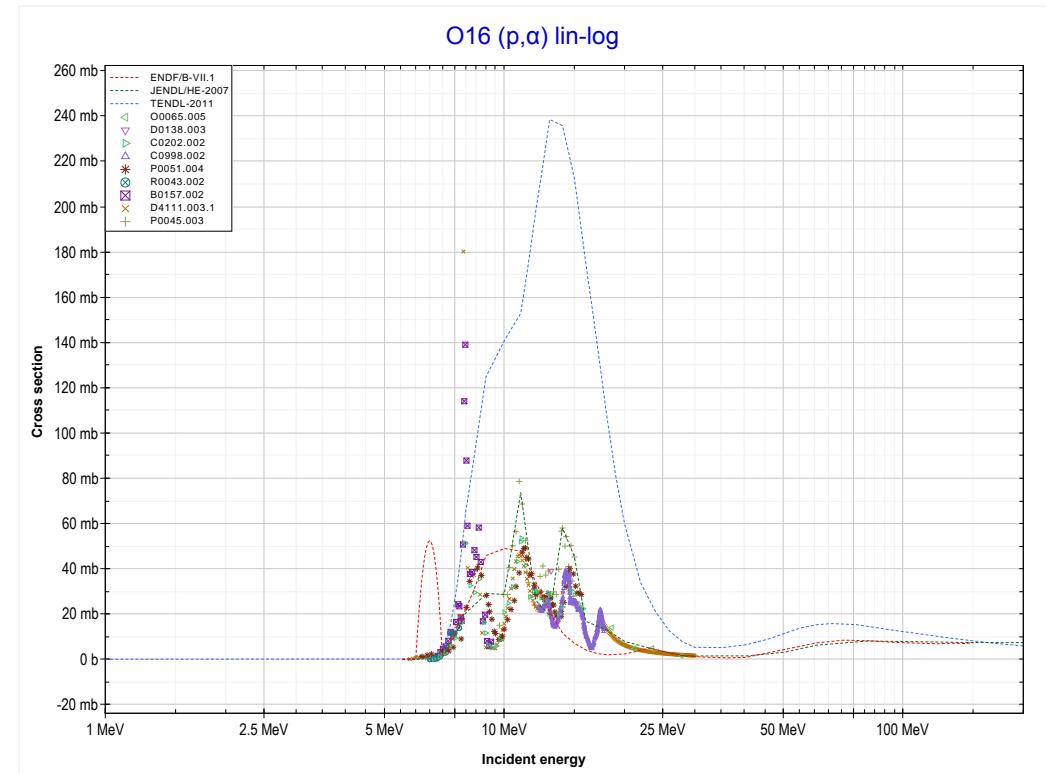
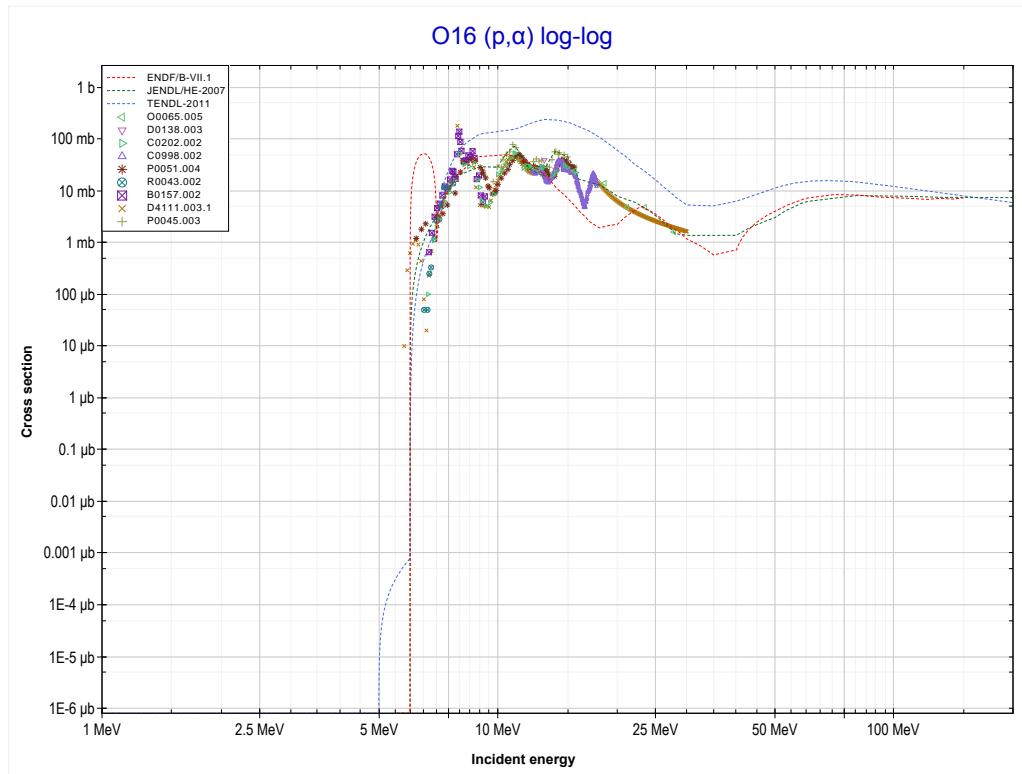
Reaction	Q-Value
O16(p,γ)F17	600.27 keV

<< 4-Be-9	8-O-16 MT103 (p,p) or MT5 (O16 production)	13-Al-27 >>
<< MT102 (p, γ)		MT107 (p, α) >>

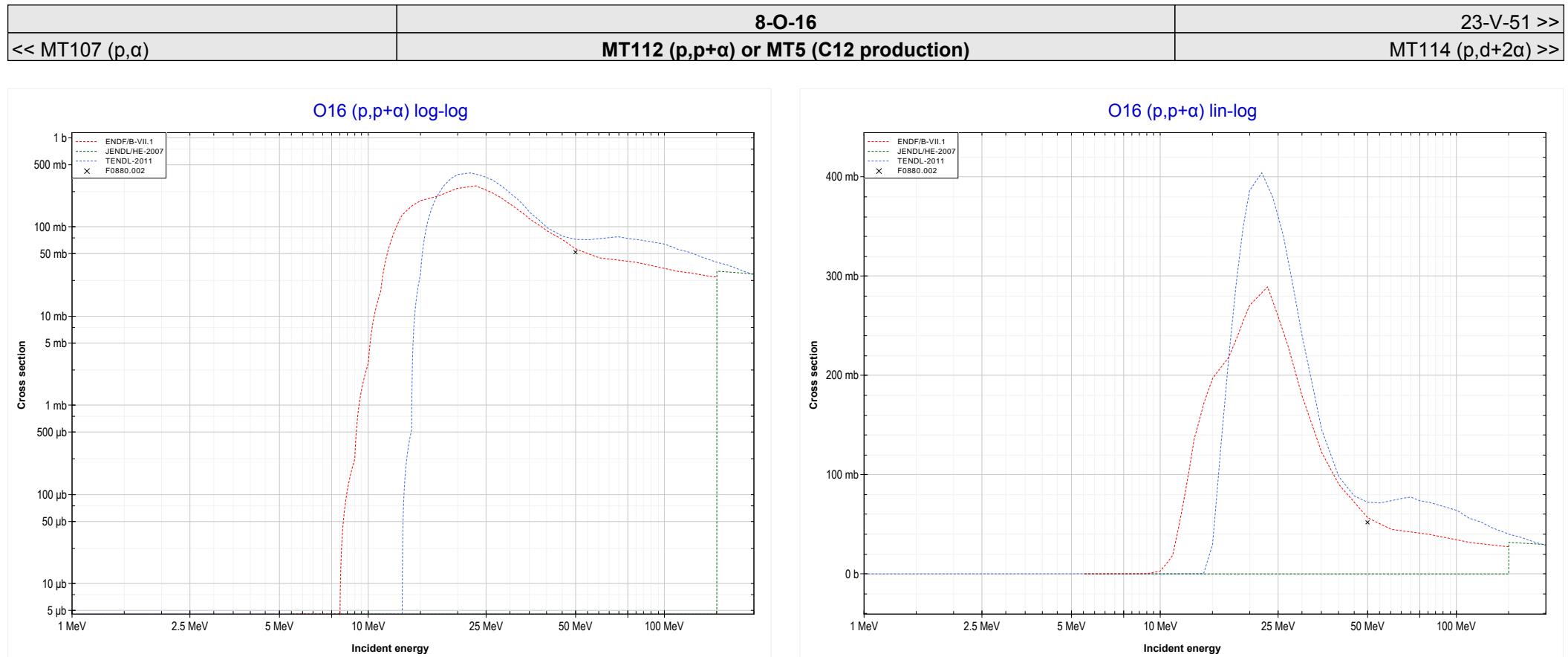


Reaction	Q-Value
O16(p,p)O16	0.00 keV

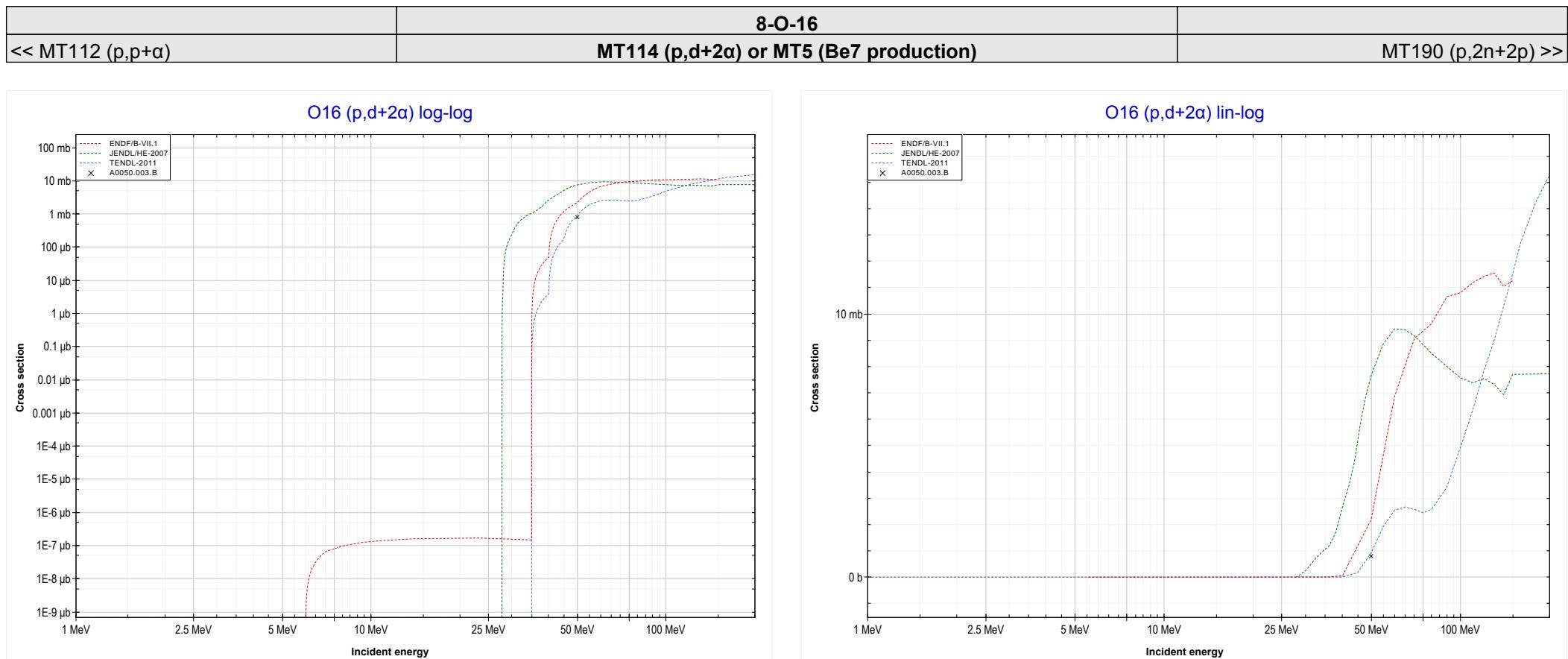
<< 7-N-15	8-O-16	8-O-18 >>
<< MT103 (p,p)	MT107 (p, α) or MT5 (N13 production)	MT112 (p,p+ α) >>



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

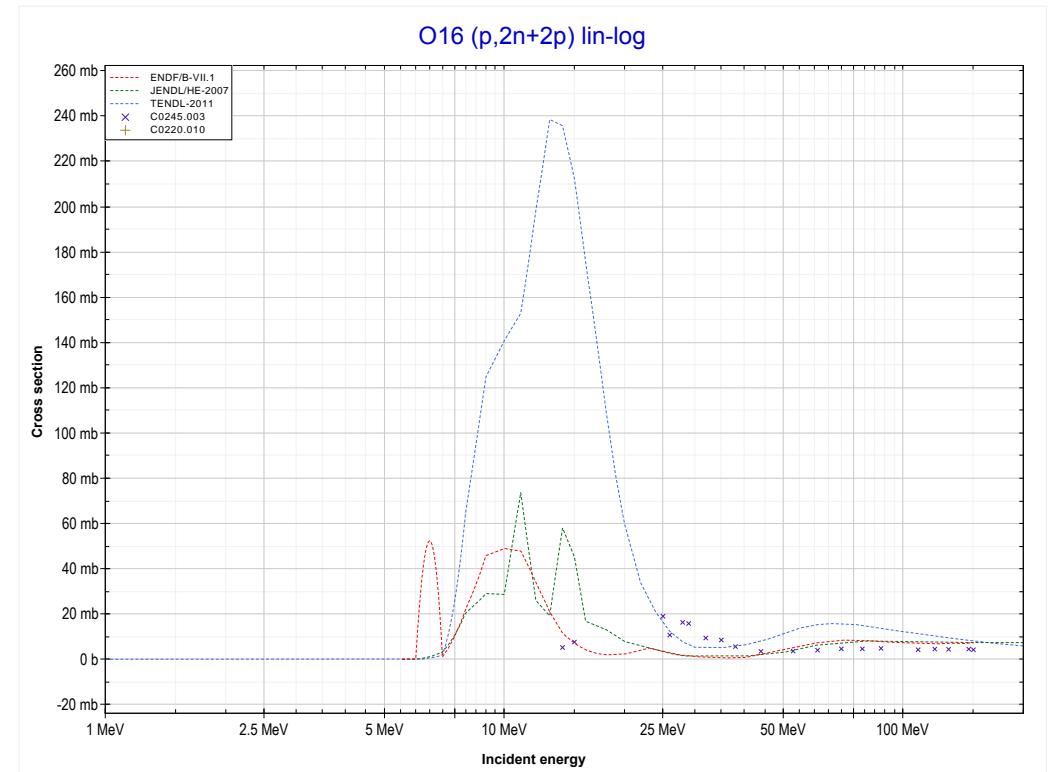
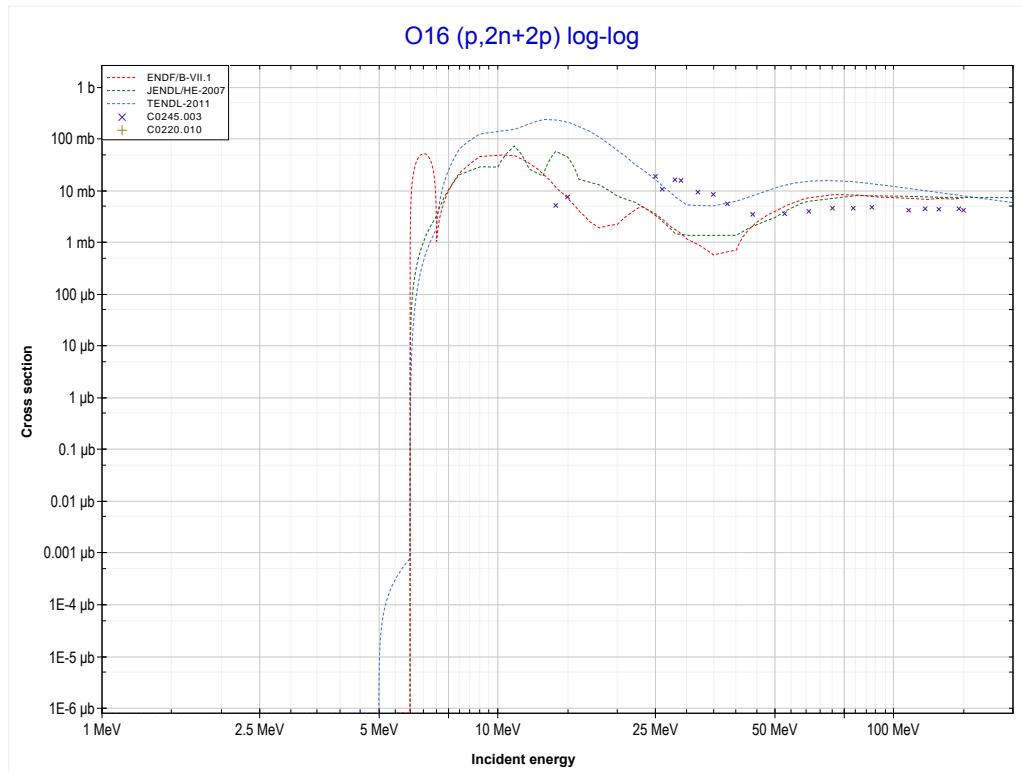


Reaction	Q-Value
O16($p,p+\alpha$)C12	-7161.92 keV
O16($p,d+He3$)C12	-25514.97 keV
O16($p,2p+t$)C12	-26975.78 keV
O16($p,n+p+He3$)C12	-27739.53 keV
O16($p,p+2d$)C12	-31008.44 keV
O16($p,n+2p+d$)C12	-33233.01 keV
O16($p,2n+3p$)C12	-35457.58 keV

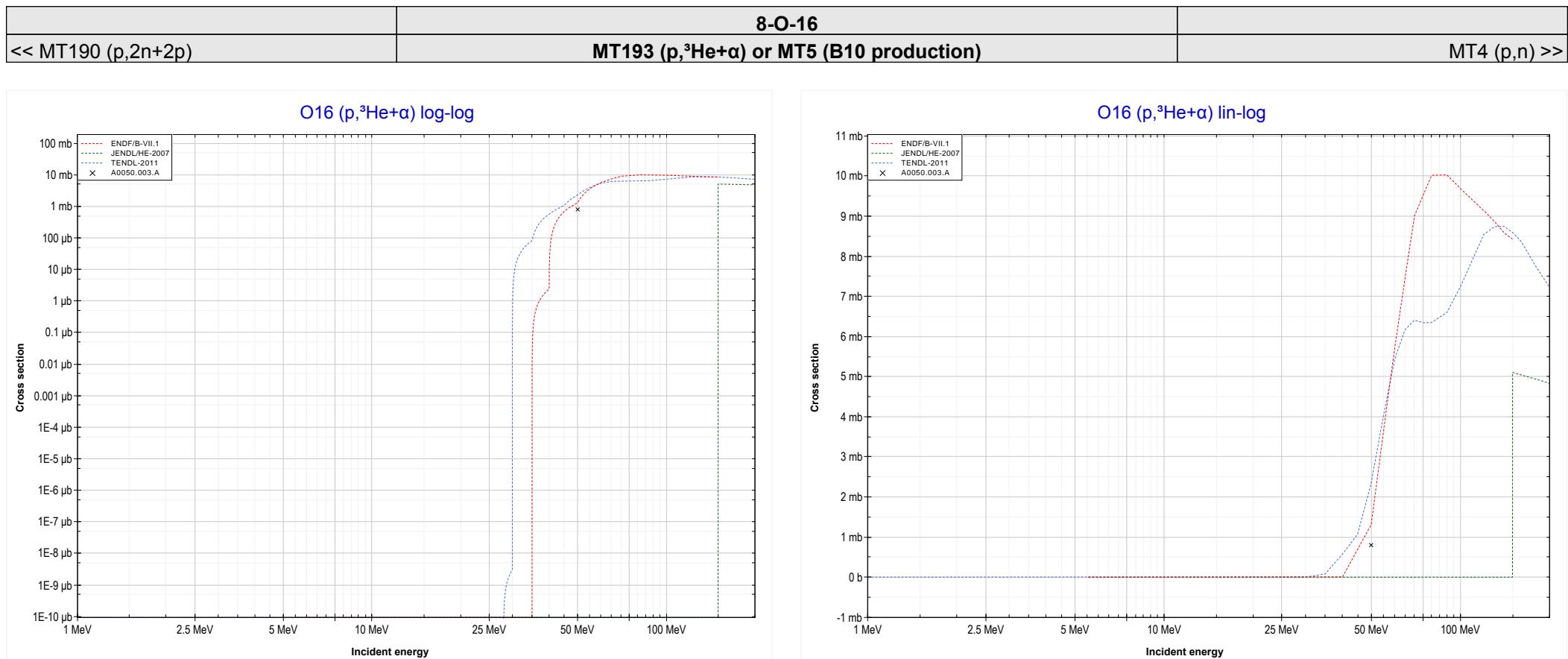


Reaction	Q-Value	Reaction	Q-Value
O16(p,d+2α)Be7	-31203.61 keV	O16(p,n+p+2d+α)Be7	-57274.71 keV
O16(p,n+p+2α)Be7	-33428.18 keV	O16(p,2n+2p+d+α)Be7	-59499.27 keV
O16(p,t+He3+α)Be7	-45524.00 keV	O16(p,3n+3p+α)Be7	-61723.84 keV
O16(p,p+d+t+α)Be7	-51017.47 keV	O16(p,p+2t+He3)Be7	-65337.86 keV
O16(p,n+d+He3+α)Be7	-51781.23 keV	O16(p,n+t+2He3)Be7	-66101.61 keV
O16(p,n+2p+t+α)Be7	-53242.04 keV	O16(p,2d+t+He3)Be7	-69370.52 keV
O16(p,2n+p+He3+α)Be7	-54005.80 keV	O16(p,2p+d+2t)Be7	-70831.34 keV
O16(p,3d+α)Be7	-55050.14 keV	O16(p,n+p+d+t+He3)Be7	-71595.09 keV

<< 7-N-14	8-O-16	12-Mg-25 >>
<< MT114 (p,d+2α) >>	MT190 (p,2n+2p) or MT5 (N13 production)	MT193 (p, ³ He+α) >>

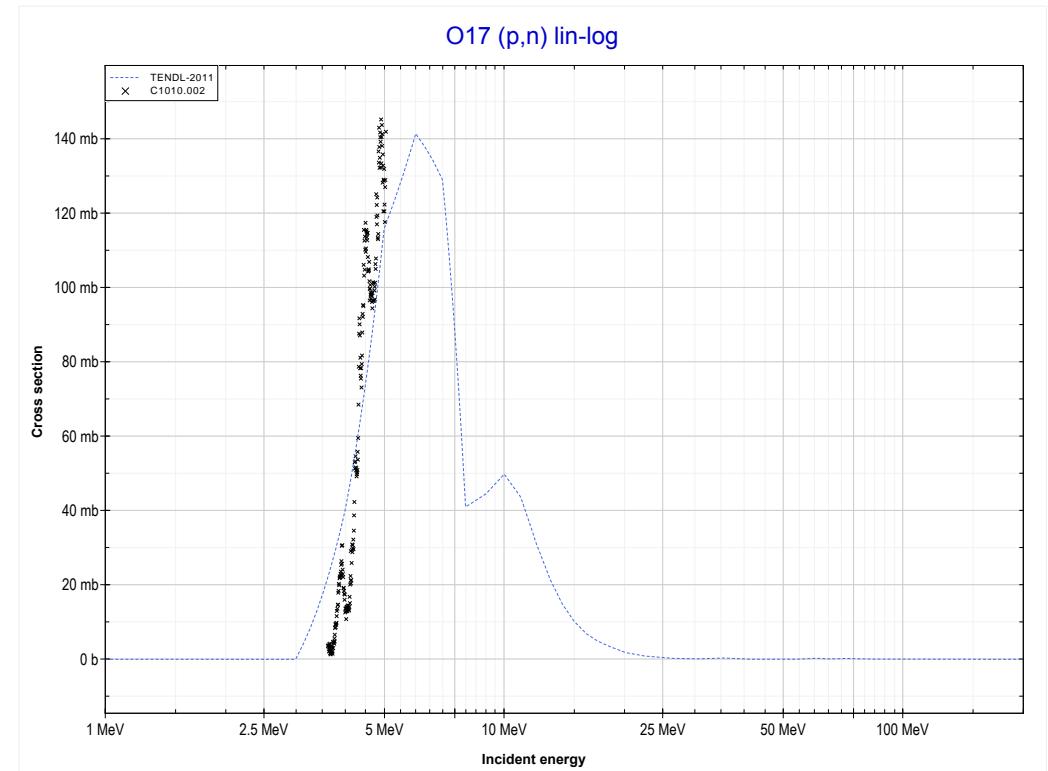
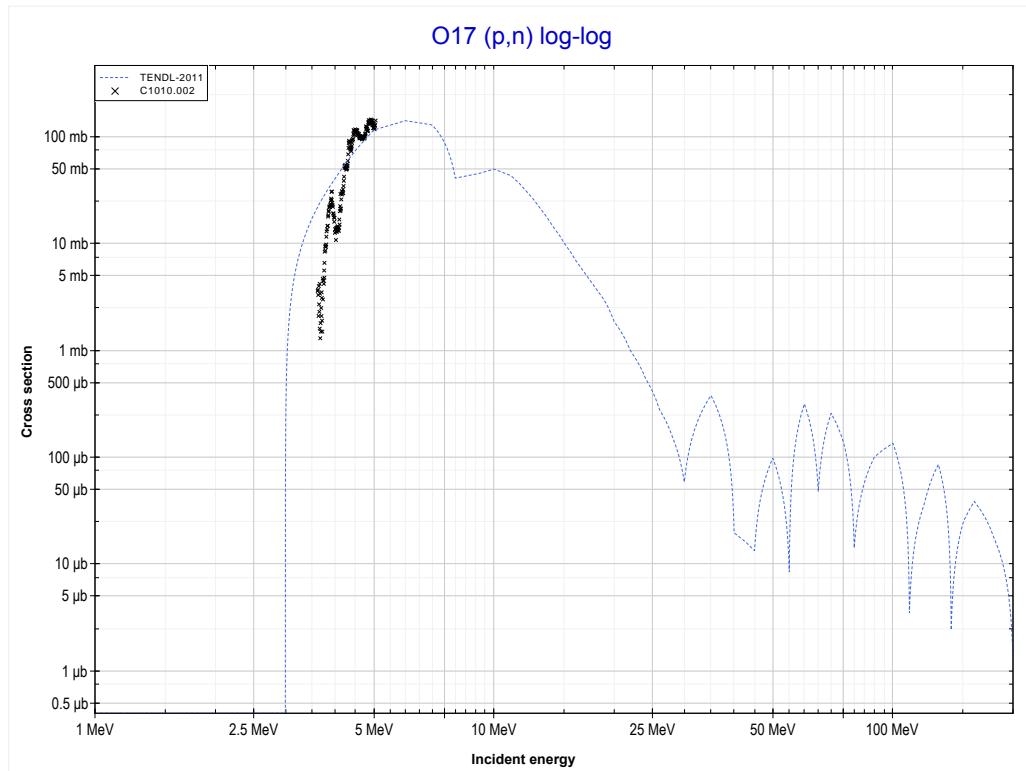


Reaction	Q-Value
O16(p,α)N13	-5218.43 keV
O16(p,p+t)N13	-25032.29 keV
O16(p,n+He3)N13	-25796.04 keV
O16(p,2d)N13	-29064.95 keV
O16(p,n+p+d)N13	-31289.52 keV
O16(p,2n+2p)N13	-33514.09 keV



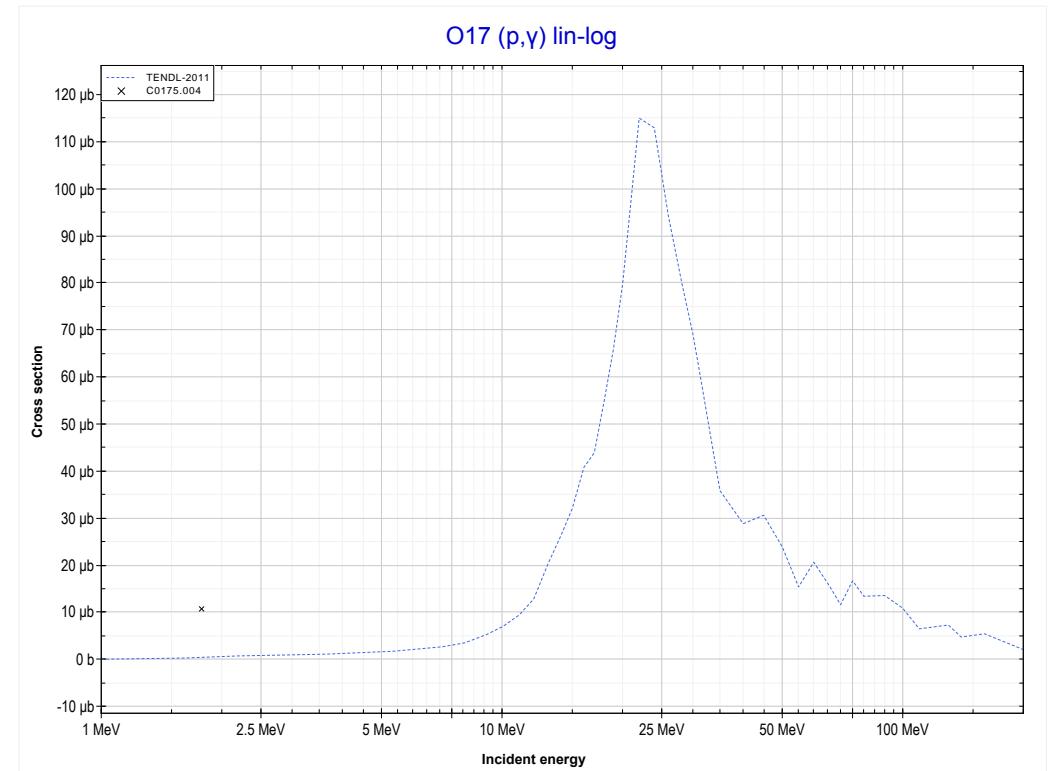
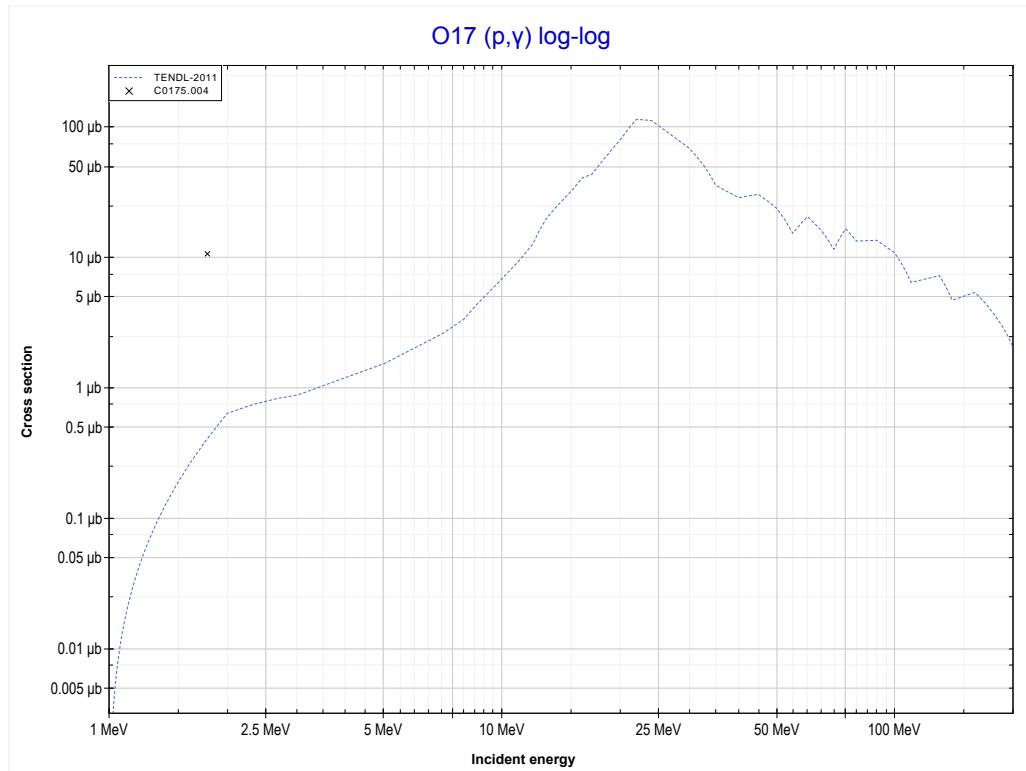
Reaction	Q-Value	Reaction	Q-Value
O16(p,He3+ α)B10	-26854.86 keV	O16(p,n+3p+t)B10	-54386.77 keV
O16(p,p+d+ α)B10	-32348.34 keV	O16(p,2n+2p+He3)B10	-55150.52 keV
O16(p,n+2p+ α)B10	-34572.90 keV	O16(p,p+3d)B10	-56194.87 keV
O16(p,p+t+He3)B10	-46668.72 keV	O16(p,n+2p+2d)B10	-58419.43 keV
O16(p,n+2He3)B10	-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	-52925.95 keV		

<< 7-N-15	8-O-17	8-O-18 >>
<< MT193 ($p, {}^3\text{He} + \alpha$)	MT4 (p, n) or MT5 (F17 production)	MT102 (p, γ) >>



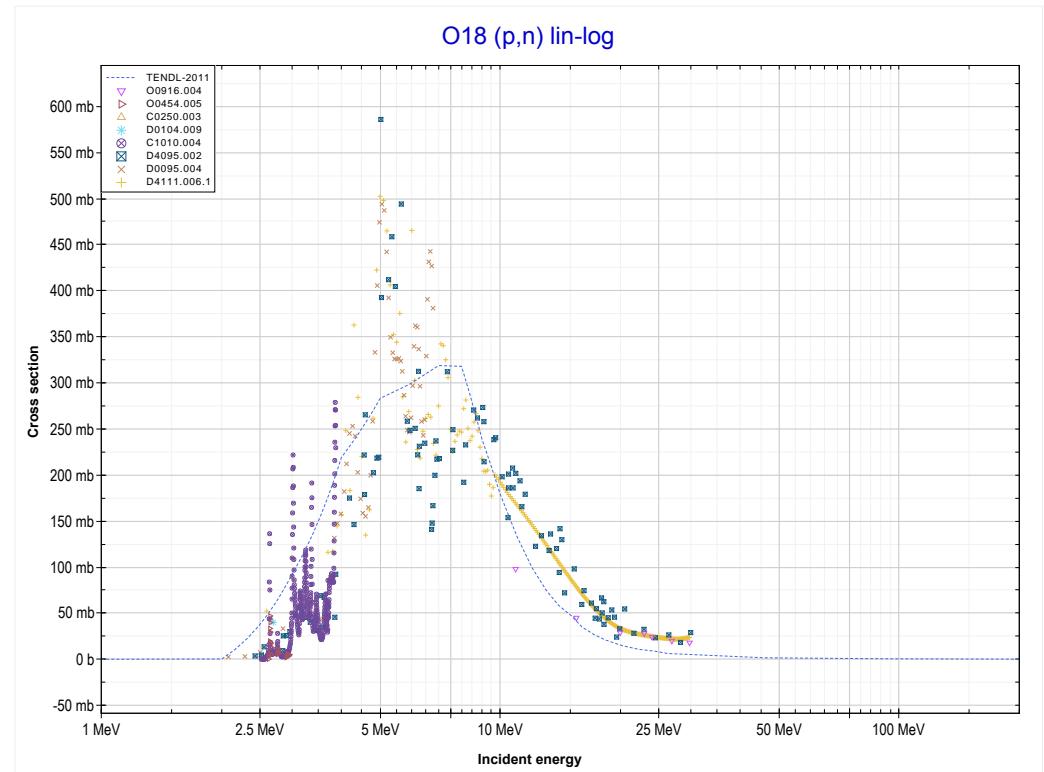
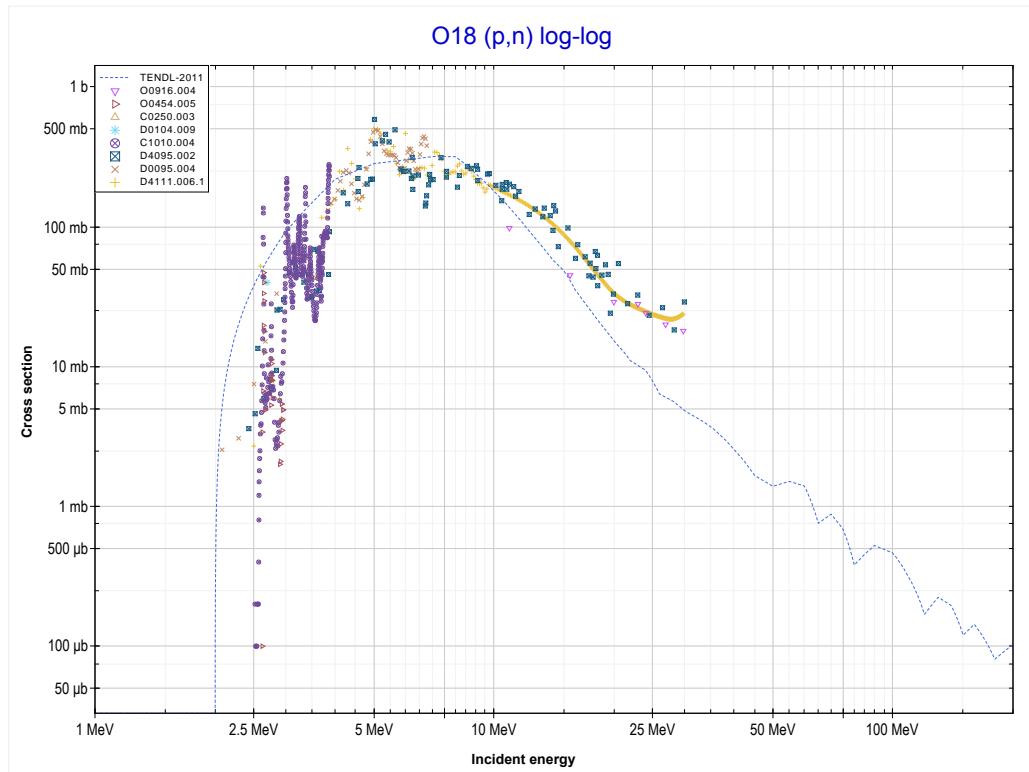
Reaction	Q-Value
O17(p, n)F17	-3542.86 keV

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



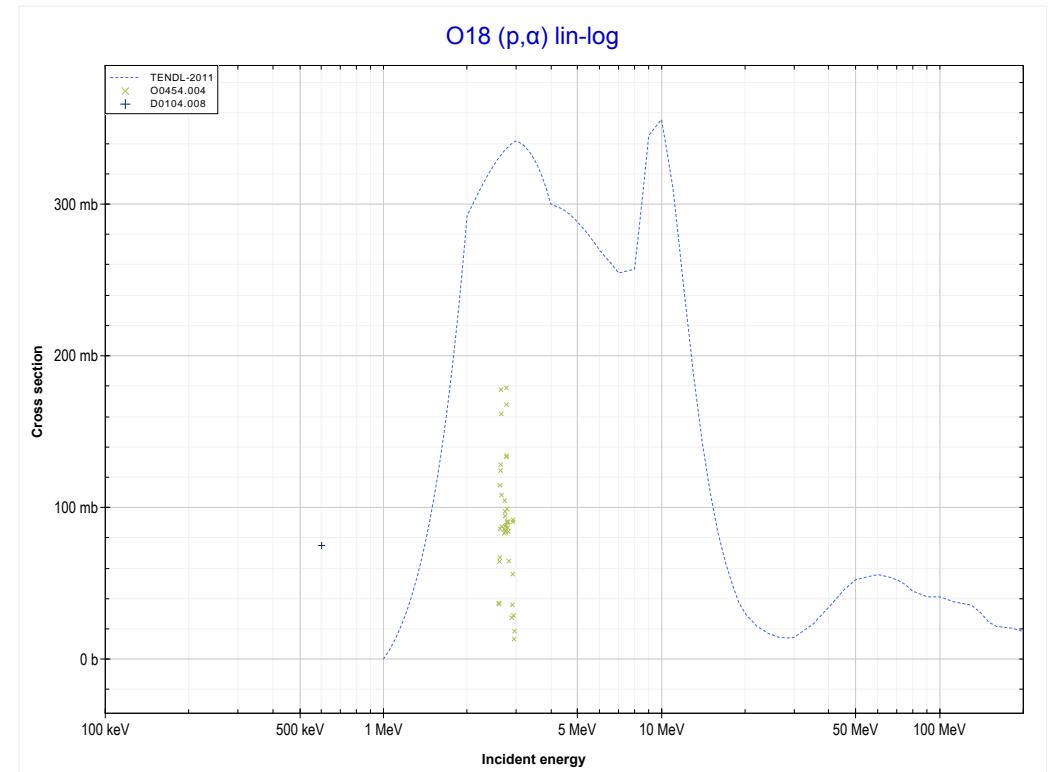
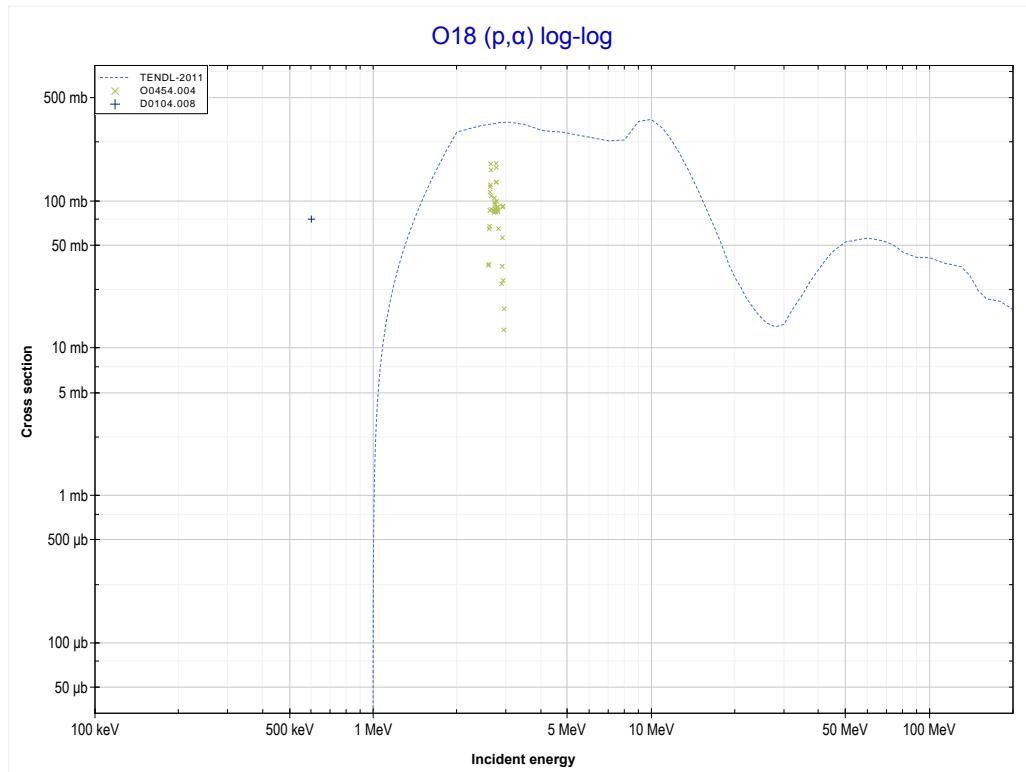
Reaction	Q-Value
O17(p, γ)F18	5606.46 keV

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



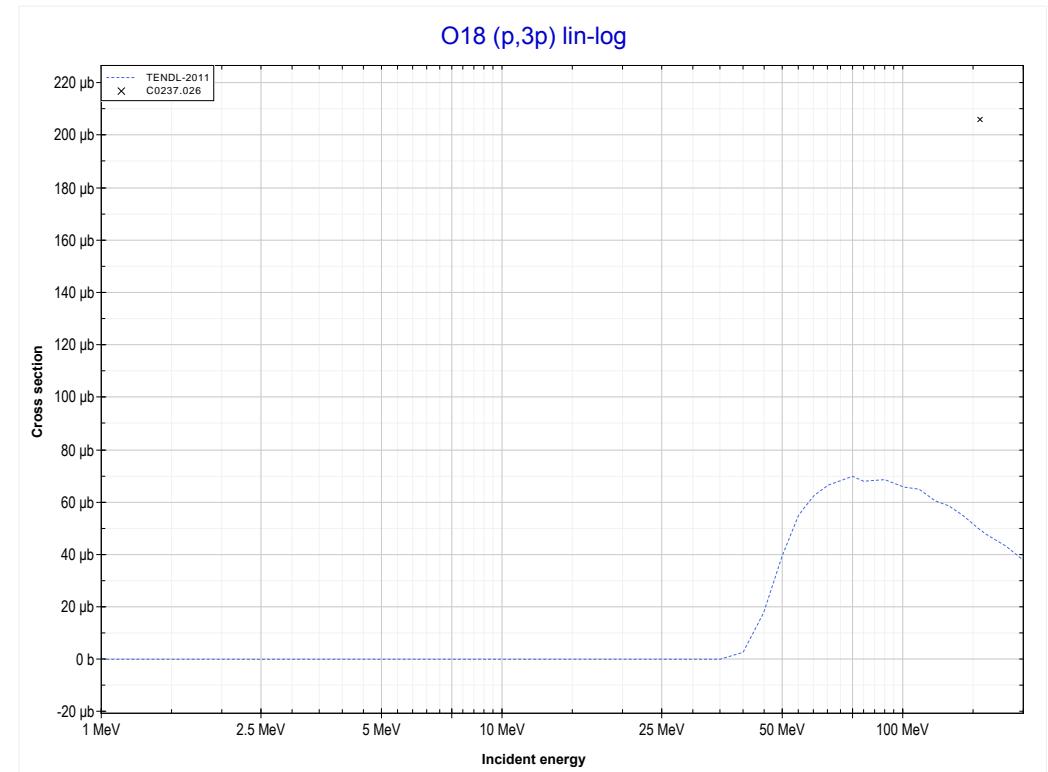
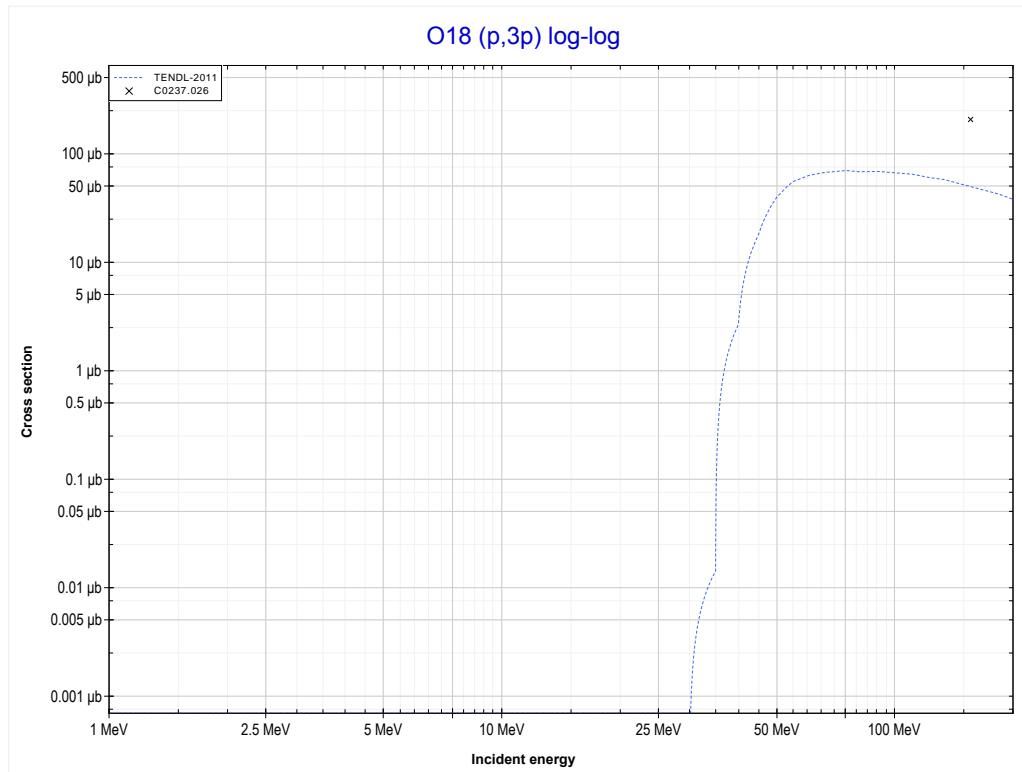
Reaction	Q-Value
O18(p,n)F18	-2437.55 keV

<< 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	3981.12 keV
O18(p,p+t)N15	-15832.74 keV
O18(p,n+He3)N15	-16596.50 keV
O18(p,2d)N15	-19865.41 keV
O18(p,n+p+d)N15	-22089.98 keV
O18(p,2n+2p)N15	-24314.54 keV

<< 5-B-11	8-O-18 MT197 (p,3p) or MT5 (C16 production)	9-F-19 >> MT107 (p, α) >>
<< MT107 (p, α)		



Reaction	Q-Value
O18(p,3p)C16	-29053.44 keV

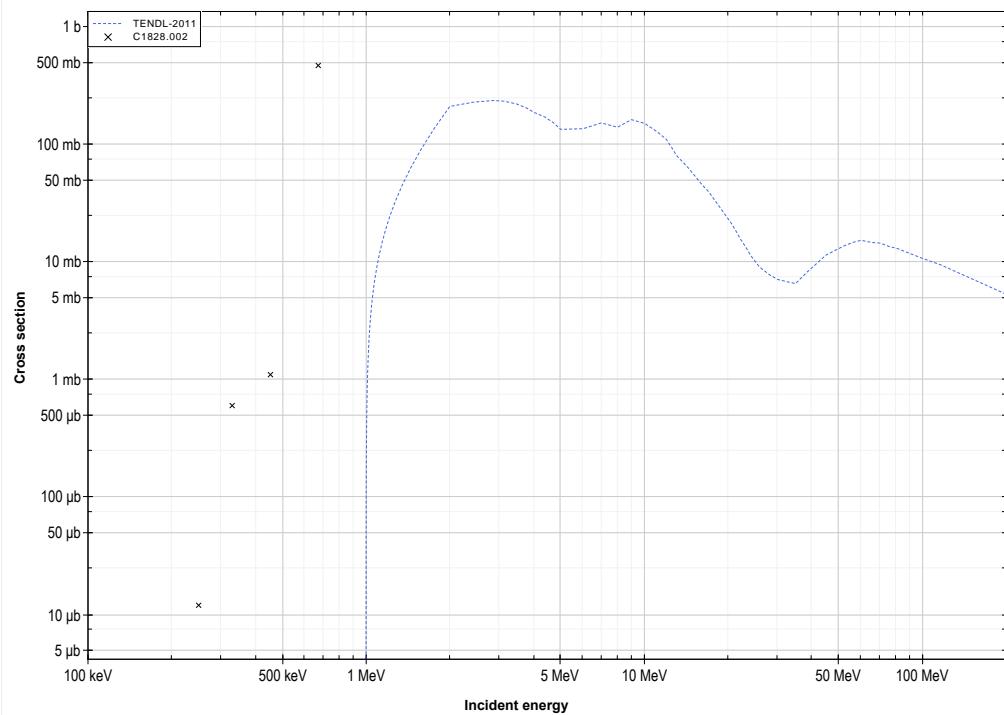
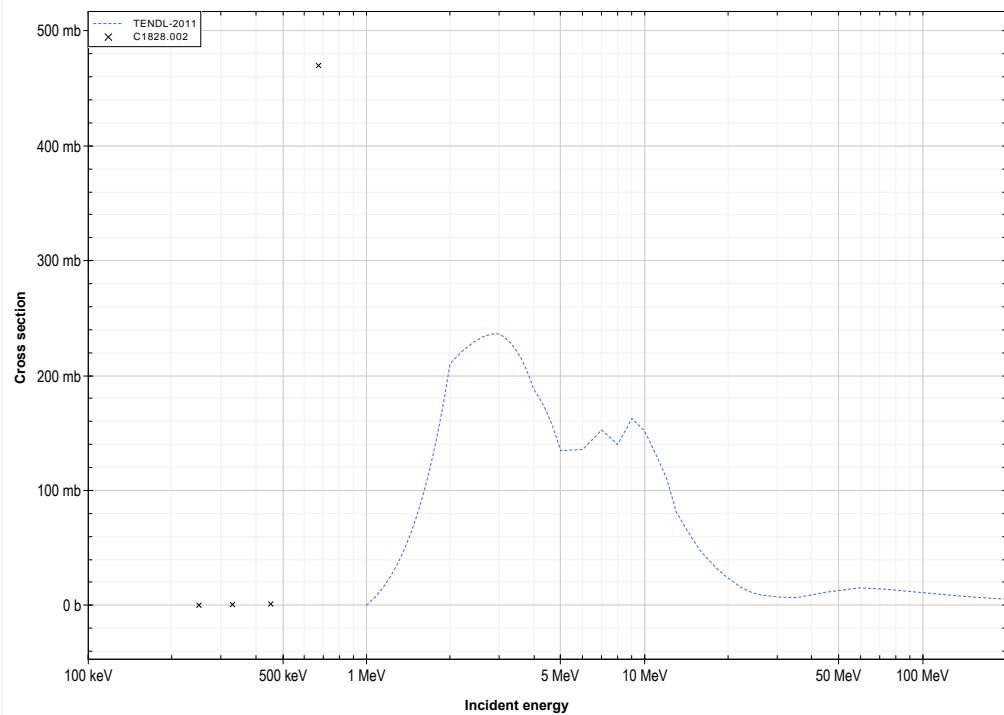
<< 8-O-18	
<< MT197 (p,3p)	

9-F-18

MT107 (p, α) or MT5 (O15 production)

9-F-19 >>

MT4 (p,n) >>

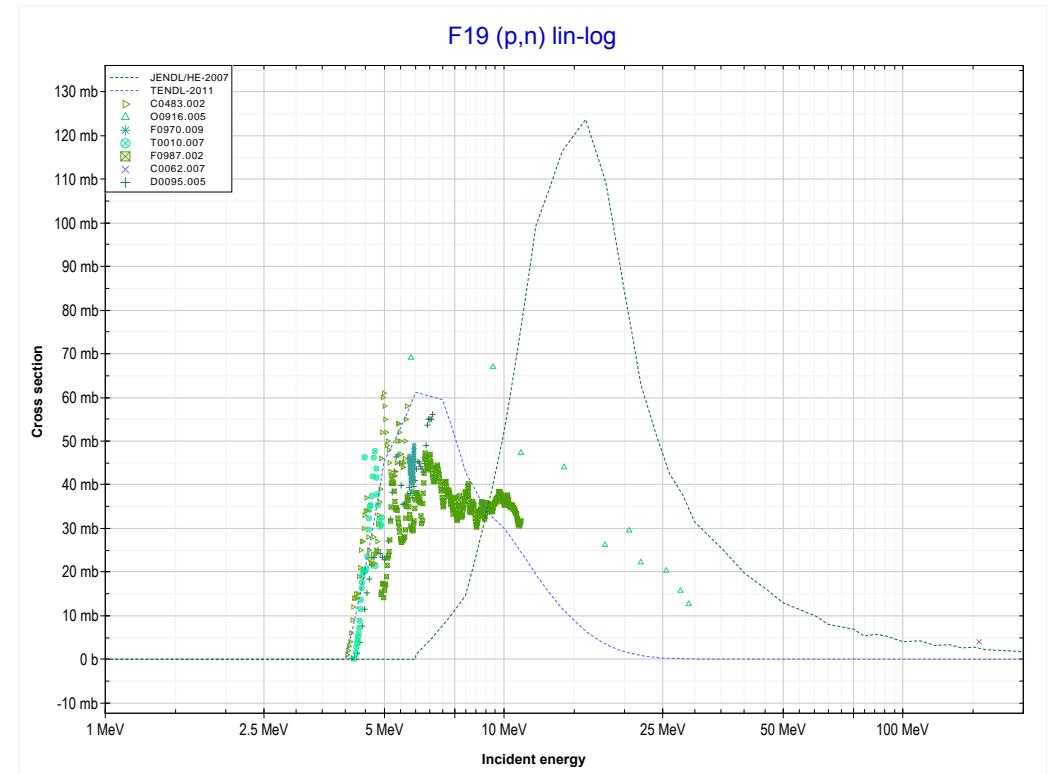
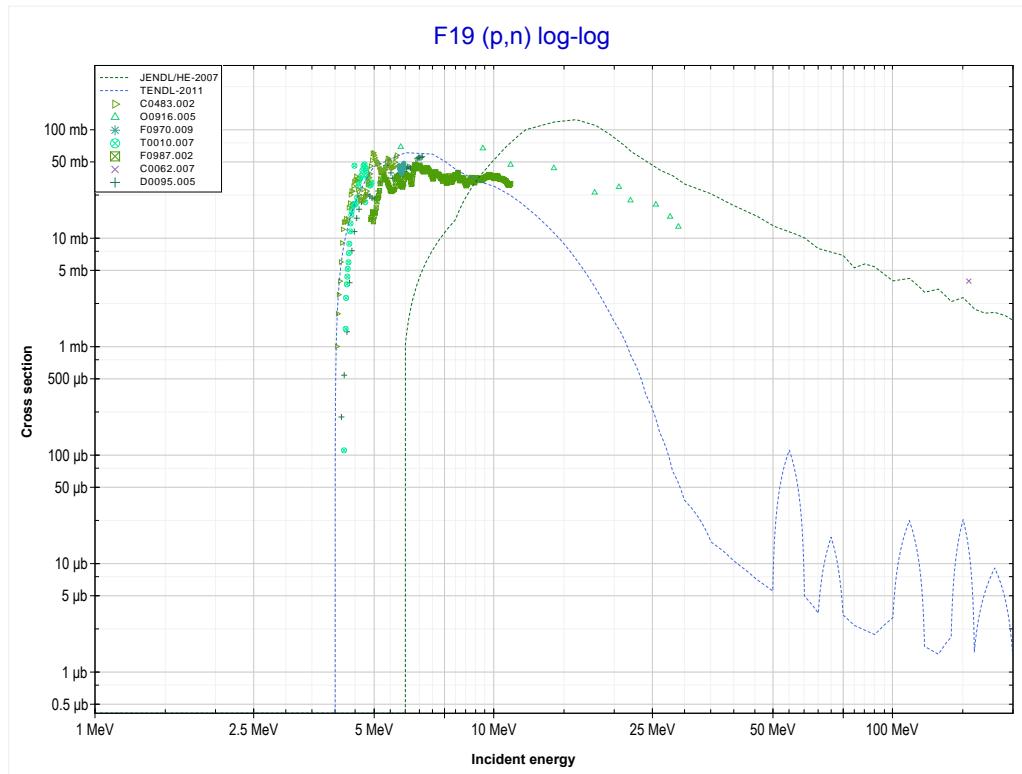
F18 (p, α) log-logF18 (p, α) lin-log

Reaction
F18(p, α)O15
F18(p,p+t)O15
F18(p,n+He3)O15
F18(p,2d)O15
F18(p,n+p+d)O15
F18(p,2n+2p)O15

Q-Value

2882.15 keV
-16931.71 keV
-17695.46 keV
-20964.37 keV
-23188.94 keV
-25413.50 keV

<< 8-O-18	9-F-19 MT4 (p,n) or MT5 (Ne19 production)	10-Ne-22 >>
<< MT107 (p, α)		MT16 (p,2n) >>

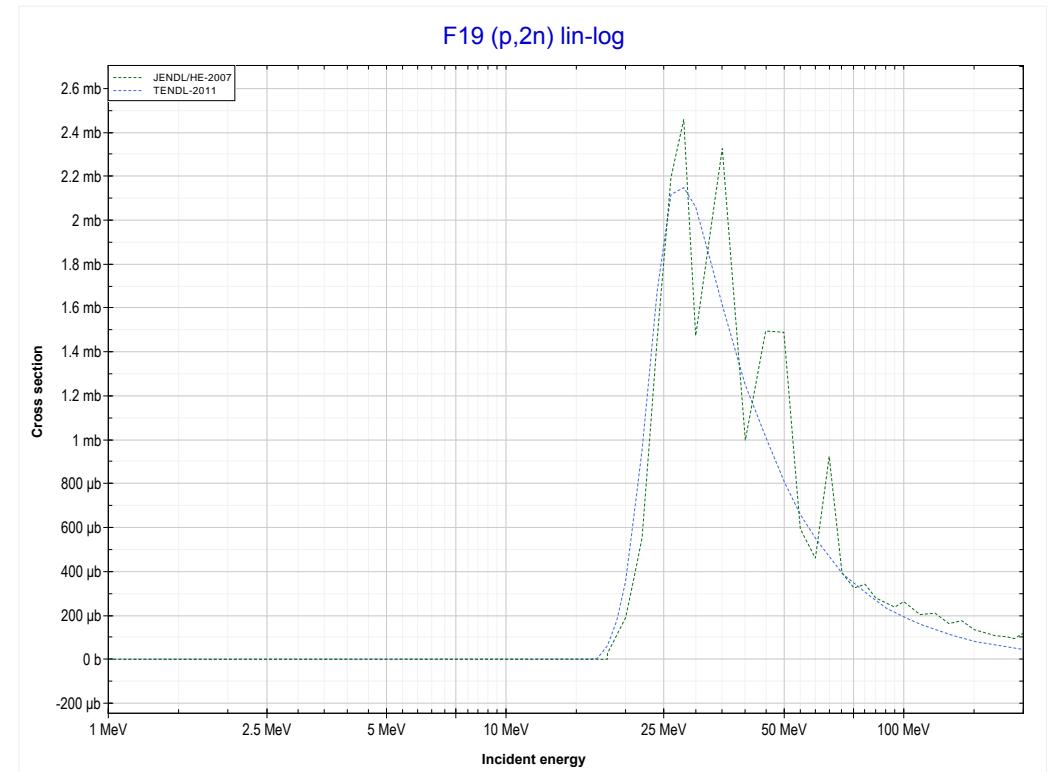
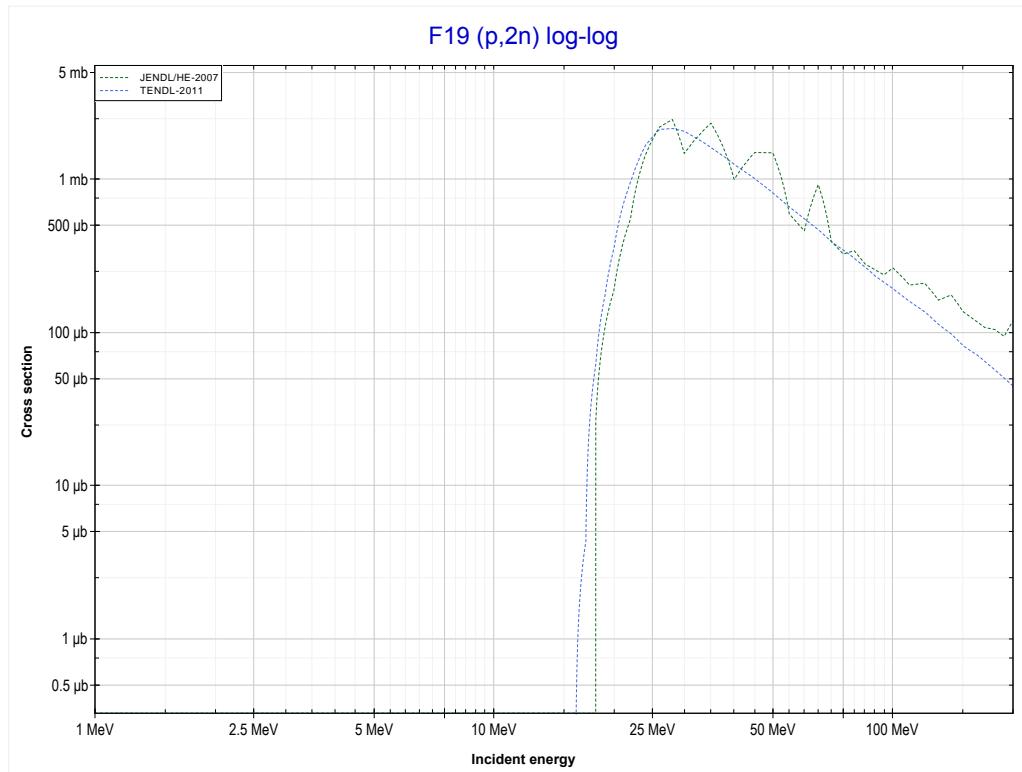


Reaction	Q-Value
F19(p,n)Ne19	-4021.18 keV

<< 5-B-11	
<< MT4 (p,n)	

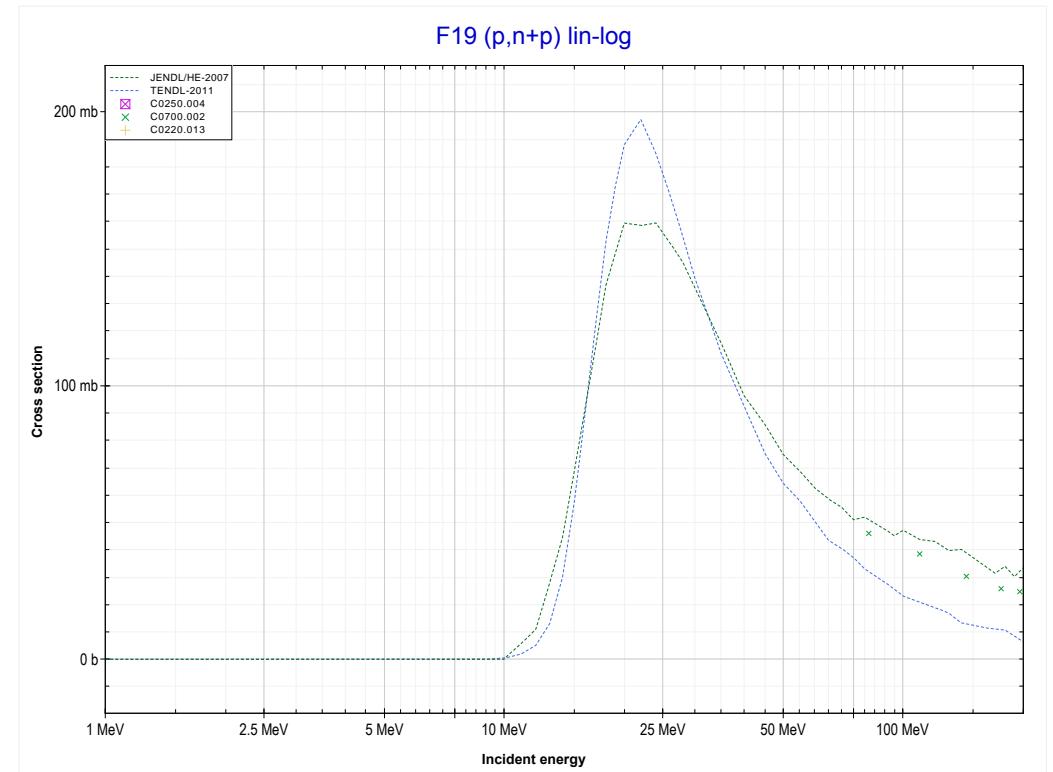
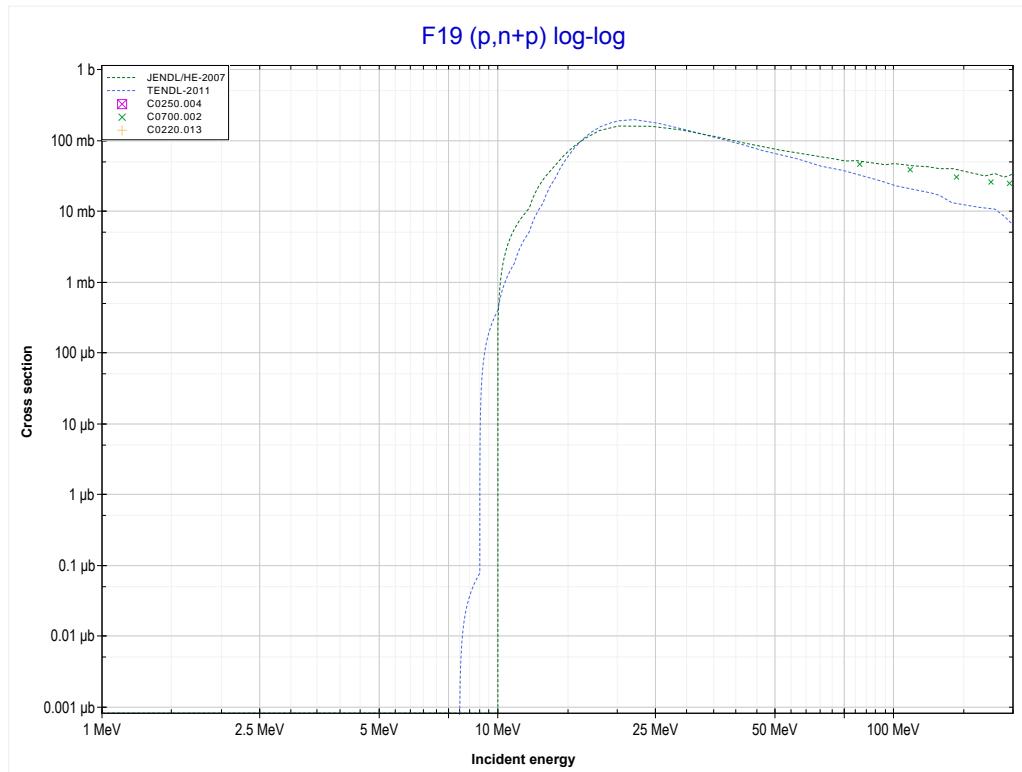
9-F-19
MT16 (p,2n) or MT5 (Ne18 production)

11-Na-23 >>
MT28 (p,n+p) >>



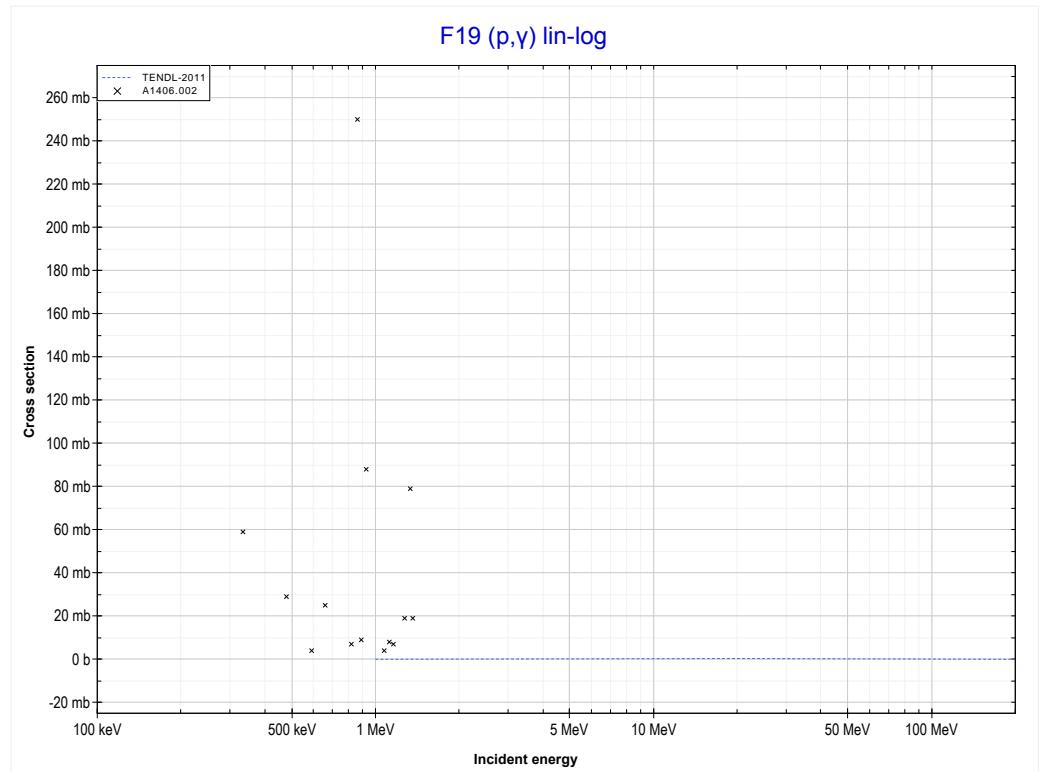
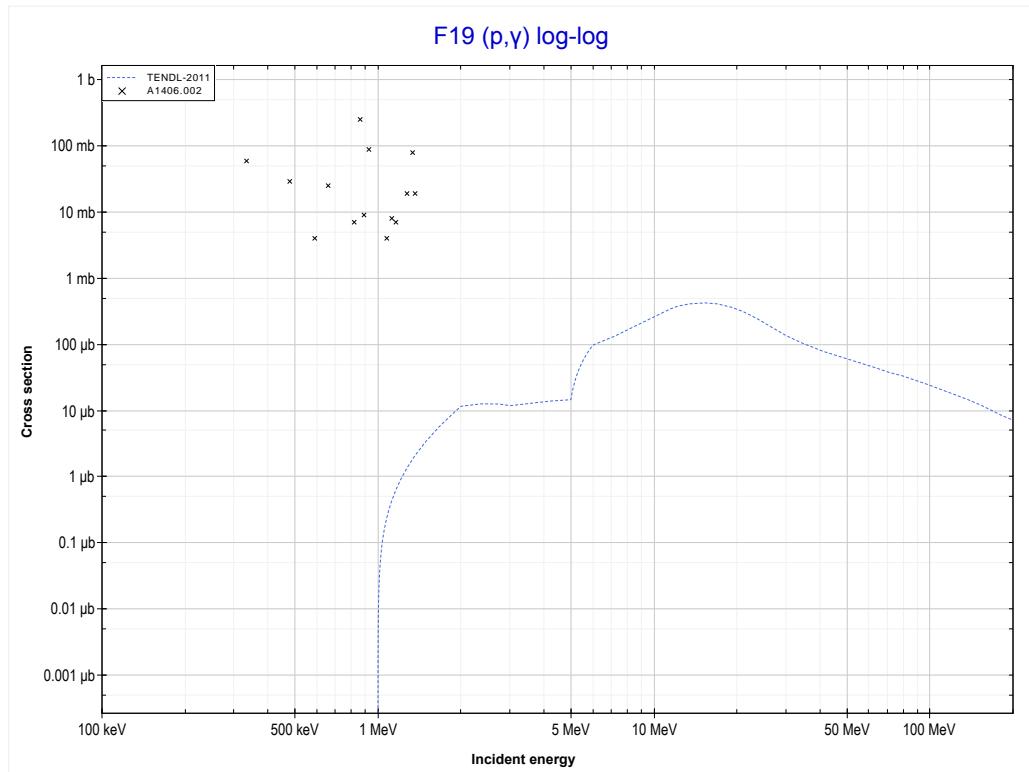
Reaction	Q-Value
F19(p,2n)Ne18	-15658.22 keV

<< 8-O-16	9-F-19 MT28 (p,n+p) or MT5 (F18 production)	11-Na-23 >> MT102 (p,y) >>
<< MT16 (p,2n)		



Reaction	Q-Value
F19(p,d)F18	-8207.84 keV
F19(p,n+p)F18	-10432.41 keV

<< 8-O-17	9-F-19 MT102 (p,γ) or MT5 (Ne20 production)	20-Ca-42 >>
<< MT28 ($p,n+p$)		MT107 (p,α) >>

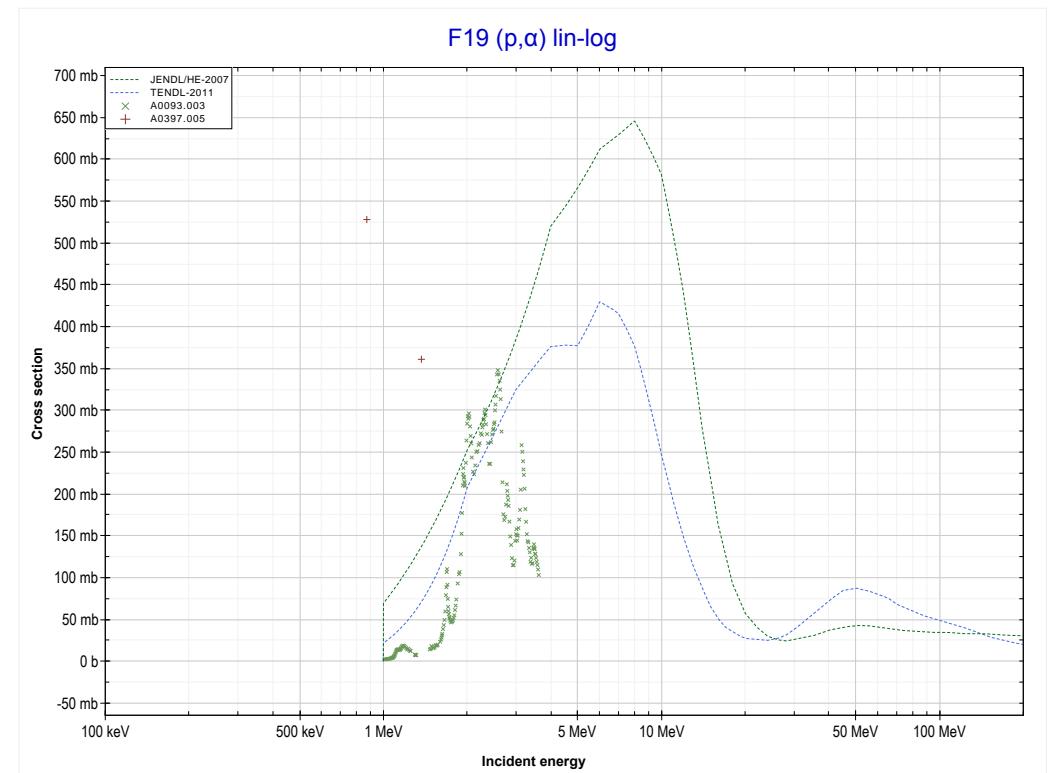
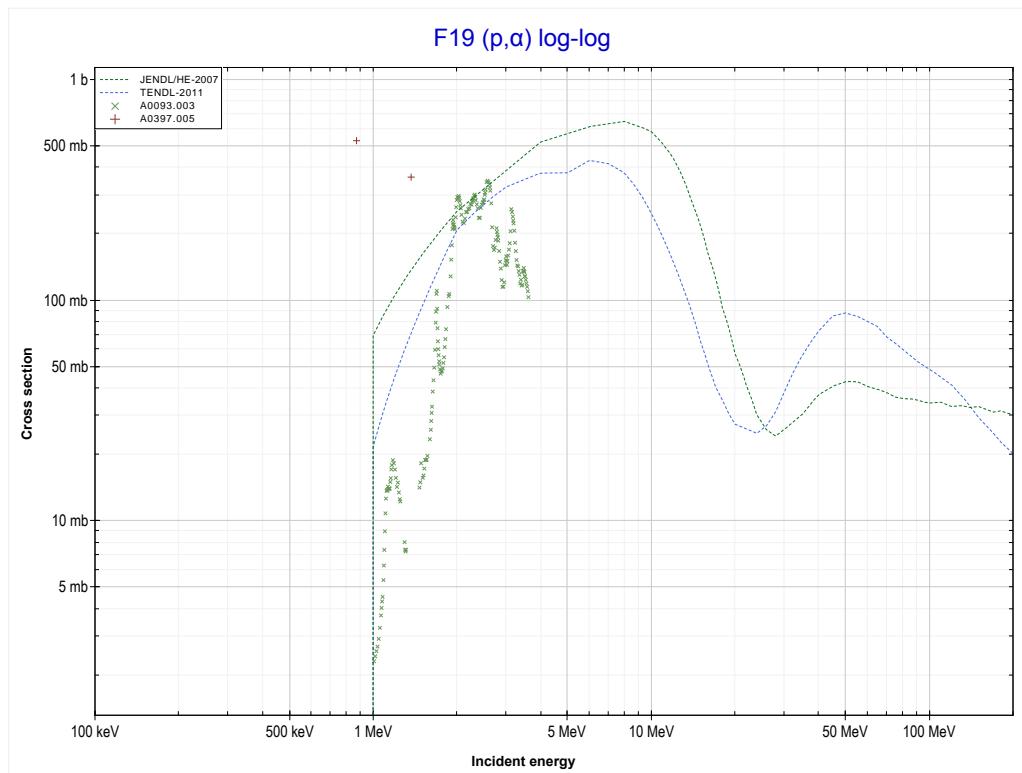


Reaction	Q-Value
F19(p,γ)Ne20	12843.51 keV

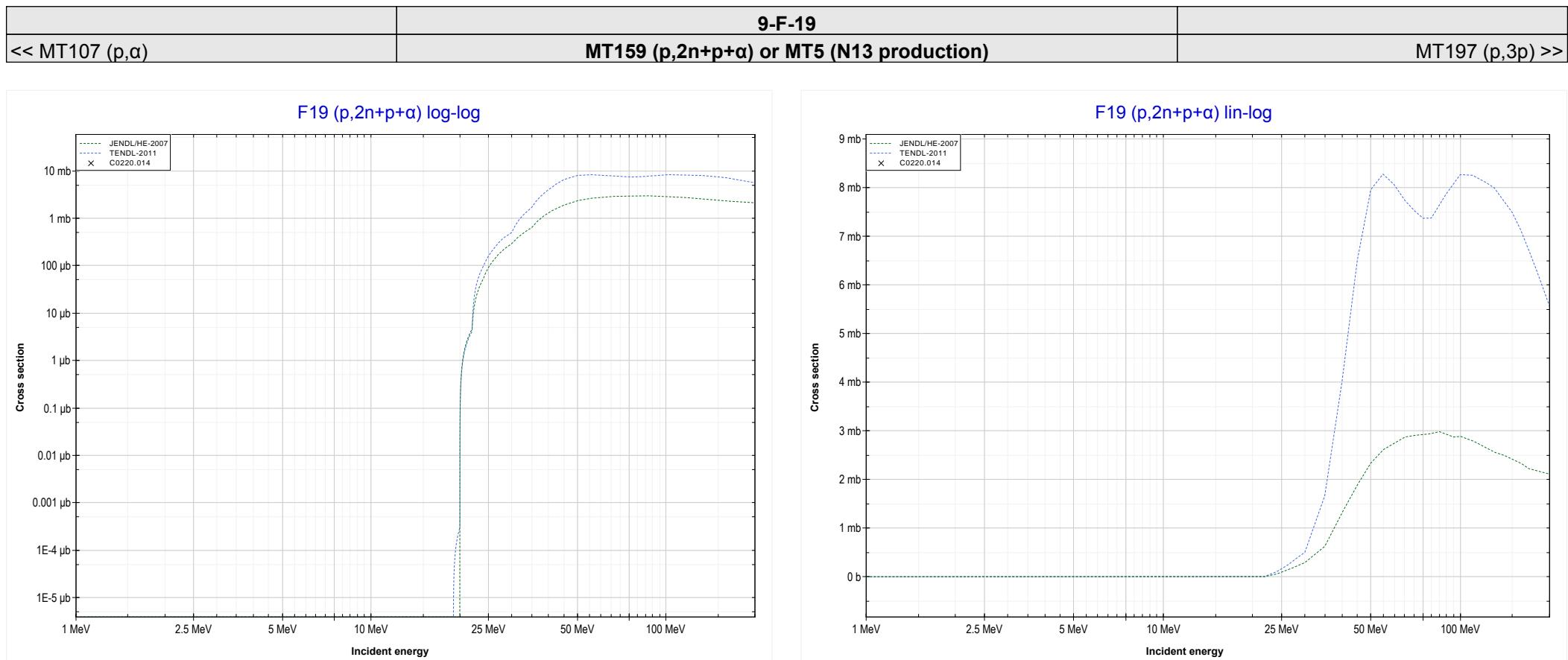
<< 9-F-18		
<< MT102 (p,γ)		

9-F-19
MT107 (p,α) or MT5 (O16 production)

10-Ne-20 >>
MT159 ($p,2n+p+\alpha$) >>

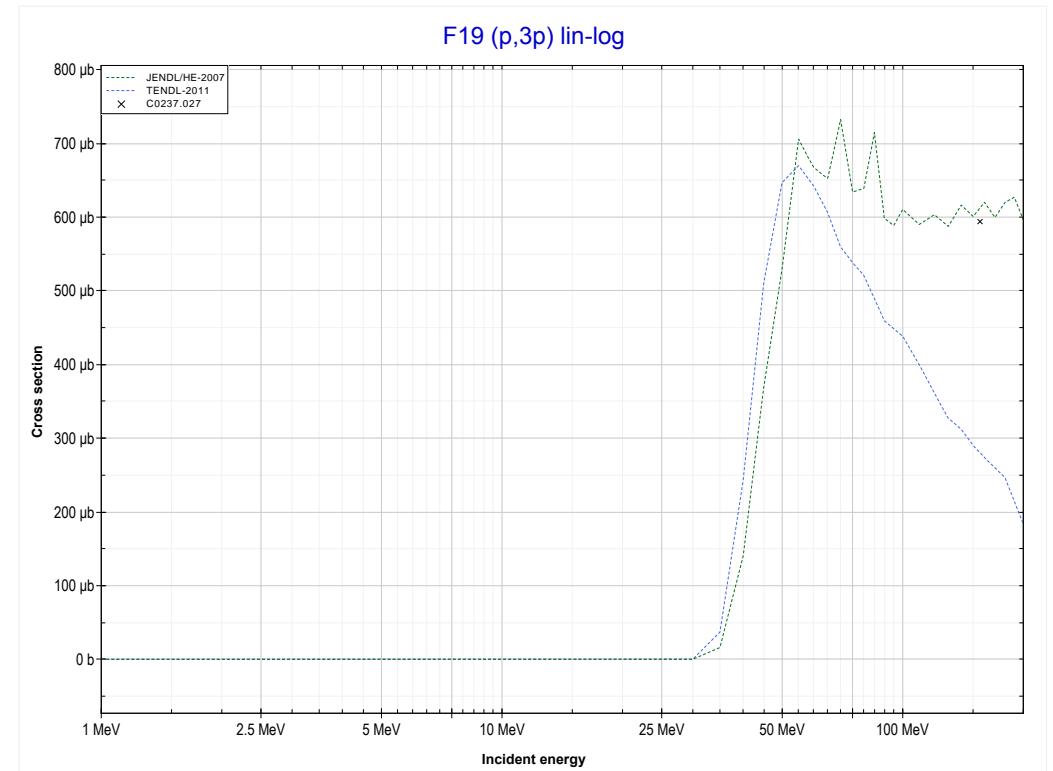
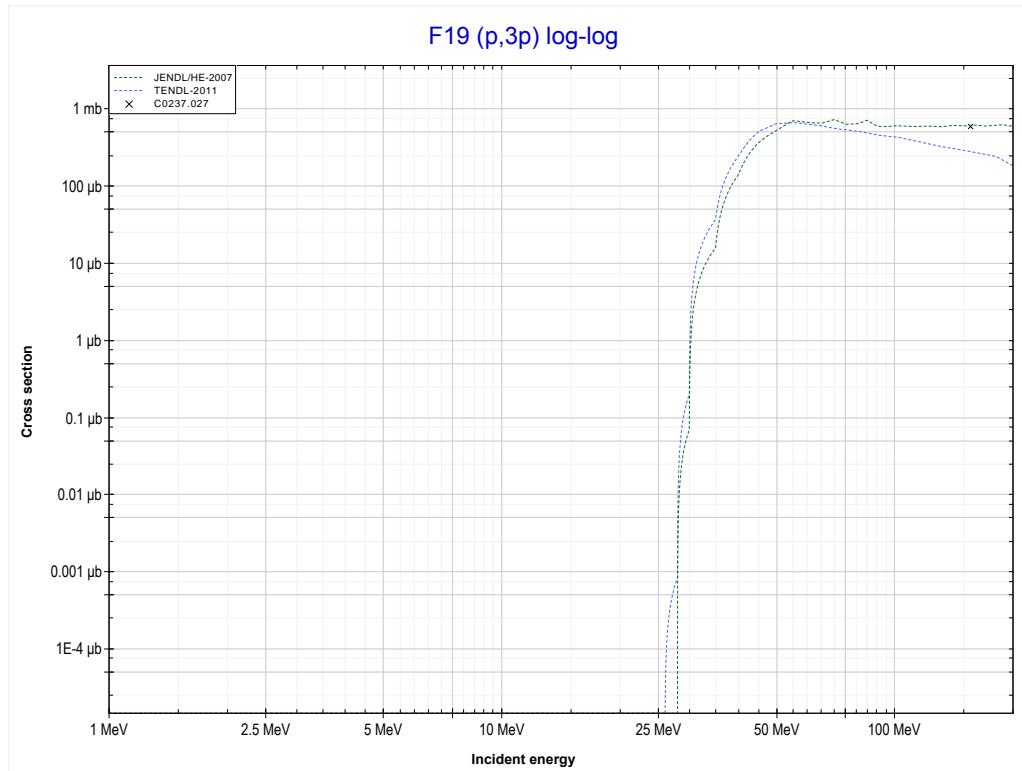


Reaction	Q-Value
F19(p,α)O16	8113.67 keV
F19($p,p+t$)O16	-11700.19 keV
F19($p,n+He3$)O16	-12463.95 keV
F19($p,2d$)O16	-15732.86 keV
F19($p,n+p+d$)O16	-17957.43 keV
F19($p,2n+2p$)O16	-20181.99 keV



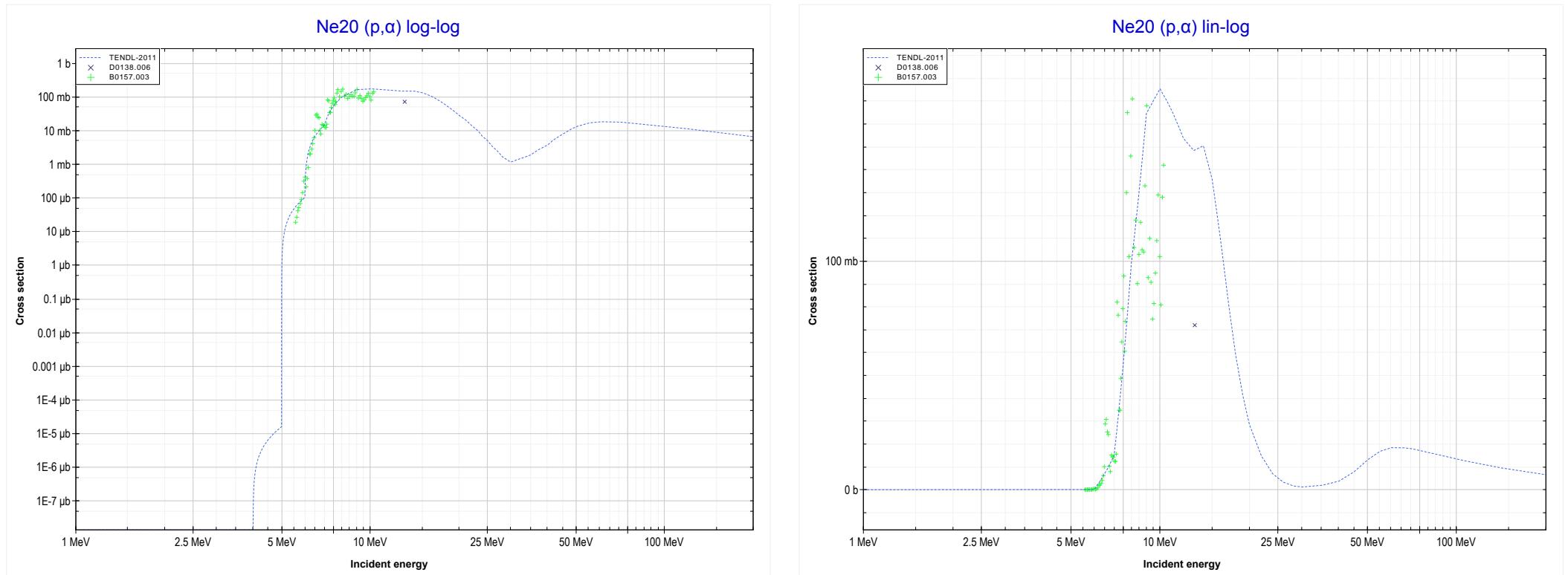
Reaction	Q-Value	Reaction	Q-Value
F19($p,t+\alpha$)N13	-16918.62 keV	F19($p,2n+p+\alpha$)N13	-45214.28 keV
F19($p,n+d+\alpha$)N13	-23175.85 keV	F19($p,3n+p+He3$)N13	-45978.04 keV
F19($p,2n+p+\alpha$)N13	-25400.42 keV	F19($p,n+3d$)N13	-47022.38 keV
F19($p,p+2t$)N13	-36732.48 keV	F19($p,2n+p+2d$)N13	-49246.95 keV
F19($p,n+t+He3$)N13	-37496.24 keV	F19($p,3n+2p+d$)N13	-51471.51 keV
F19($p,2d+t$)N13	-40765.15 keV	F19($p,4n+3p$)N13	-53696.08 keV
F19($p,n+p+d+t$)N13	-42989.71 keV		
F19($p,2n+d+He3$)N13	-43753.47 keV		

<< 8-O-18	9-F-19 MT197 (p,3p) or MT5 (N17 production)	14-Si-30 >>
<< MT159 (p,2n+p+α)		MT107 (p,α) >>



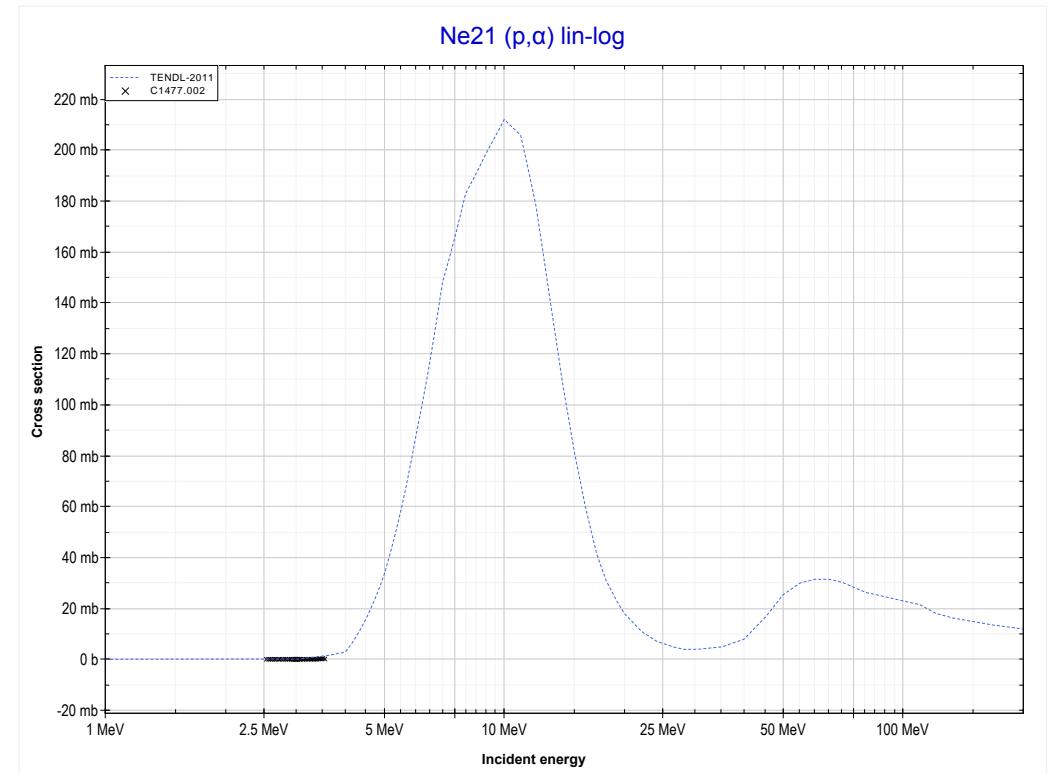
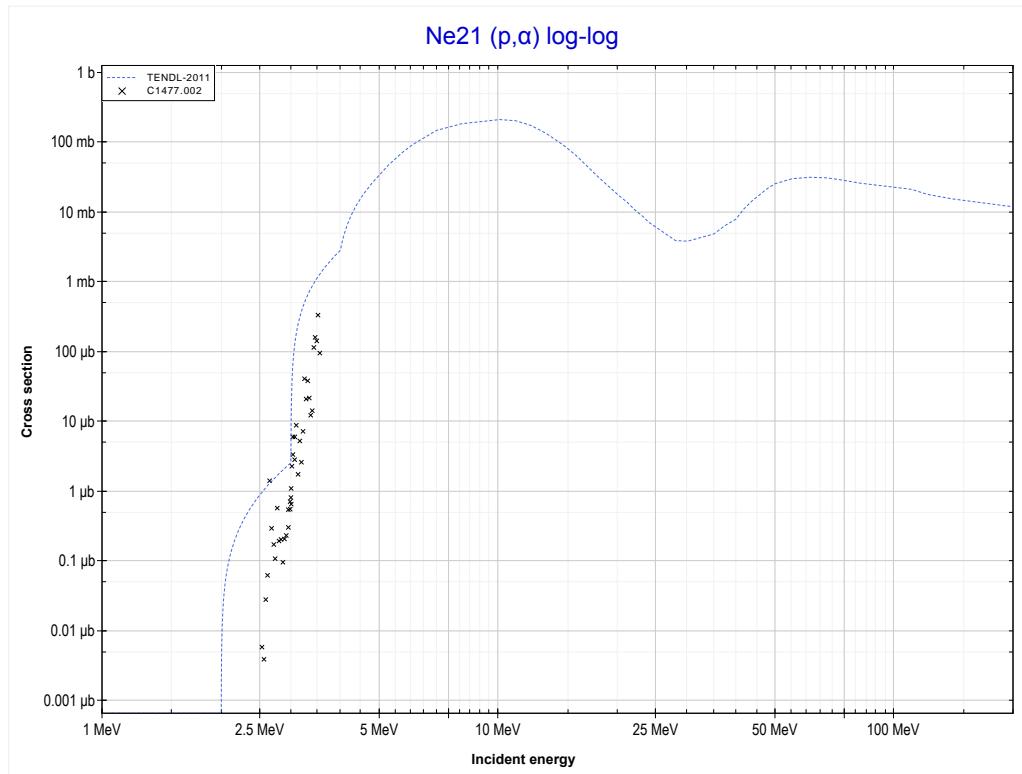
Reaction	Q-Value
F19(p,3p)N17	-23936.33 keV

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



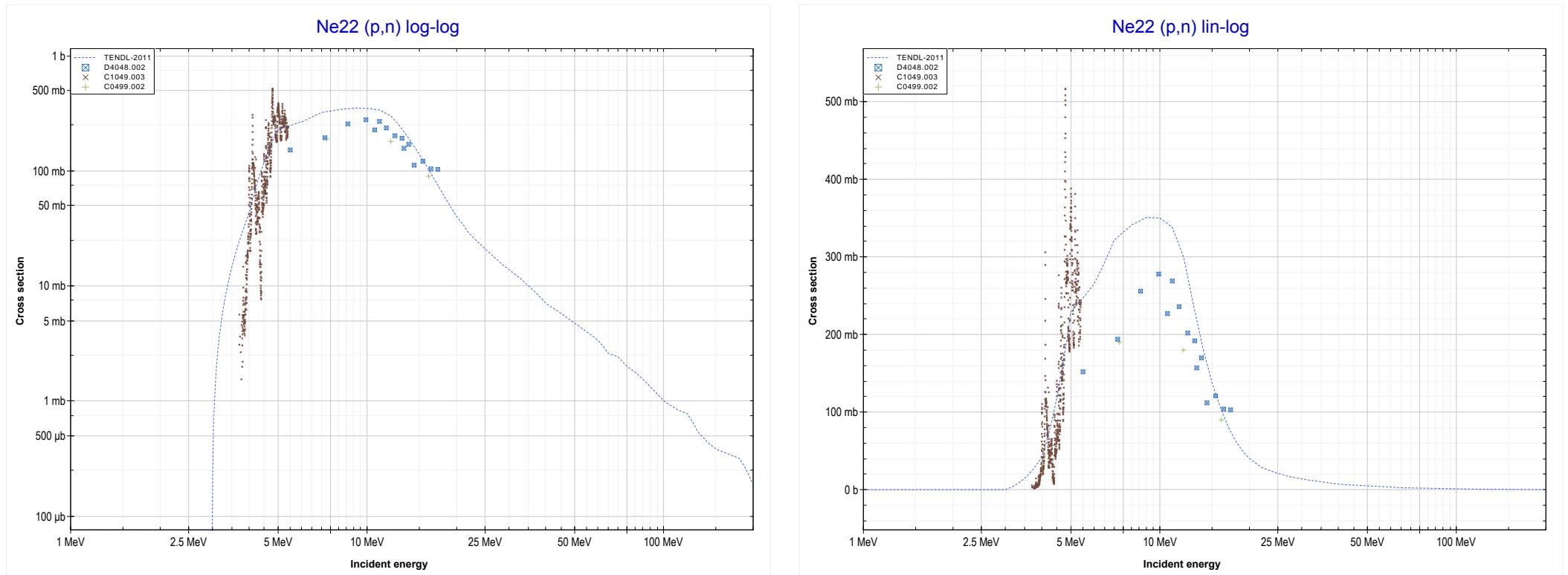
Reaction	Q-Value
$\text{Ne}^{20}(p,\alpha)\text{F}^{17}$	-4129.58 keV
$\text{Ne}^{20}(p,p+t)\text{F}^{17}$	-23943.44 keV
$\text{Ne}^{20}(p,n+\text{He}^3)\text{F}^{17}$	-24707.19 keV
$\text{Ne}^{20}(p,2d)\text{F}^{17}$	-27976.10 keV
$\text{Ne}^{20}(p,n+p+d)\text{F}^{17}$	-30200.67 keV
$\text{Ne}^{20}(p,2n+2p)\text{F}^{17}$	-32425.24 keV

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



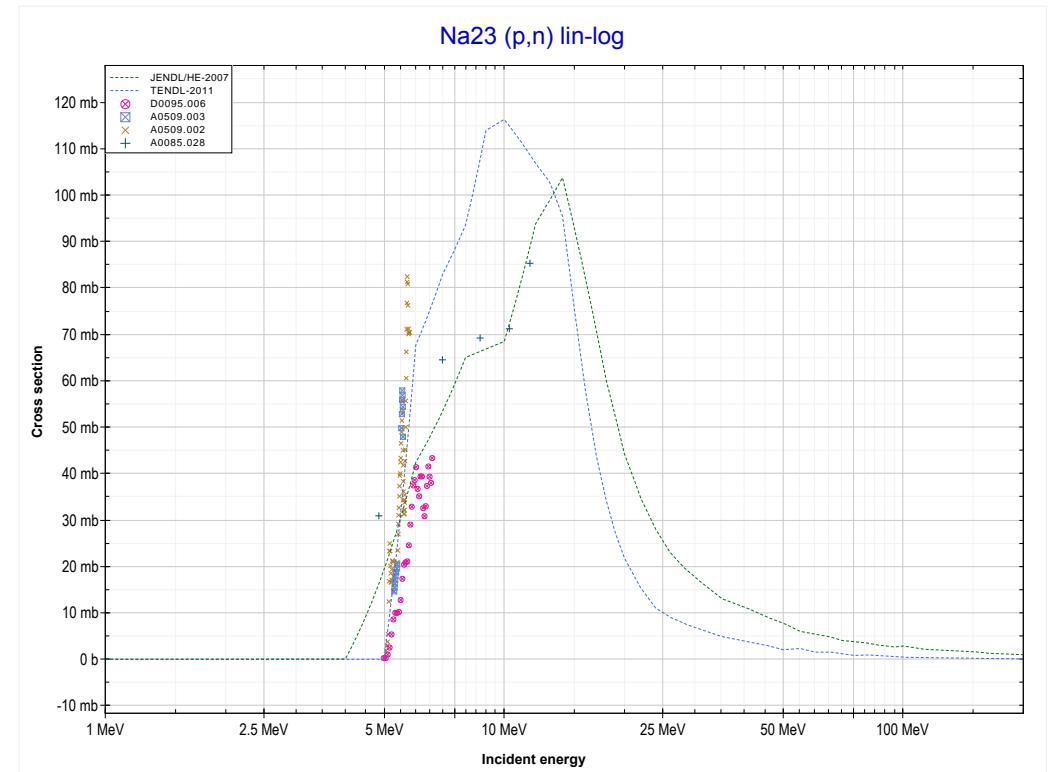
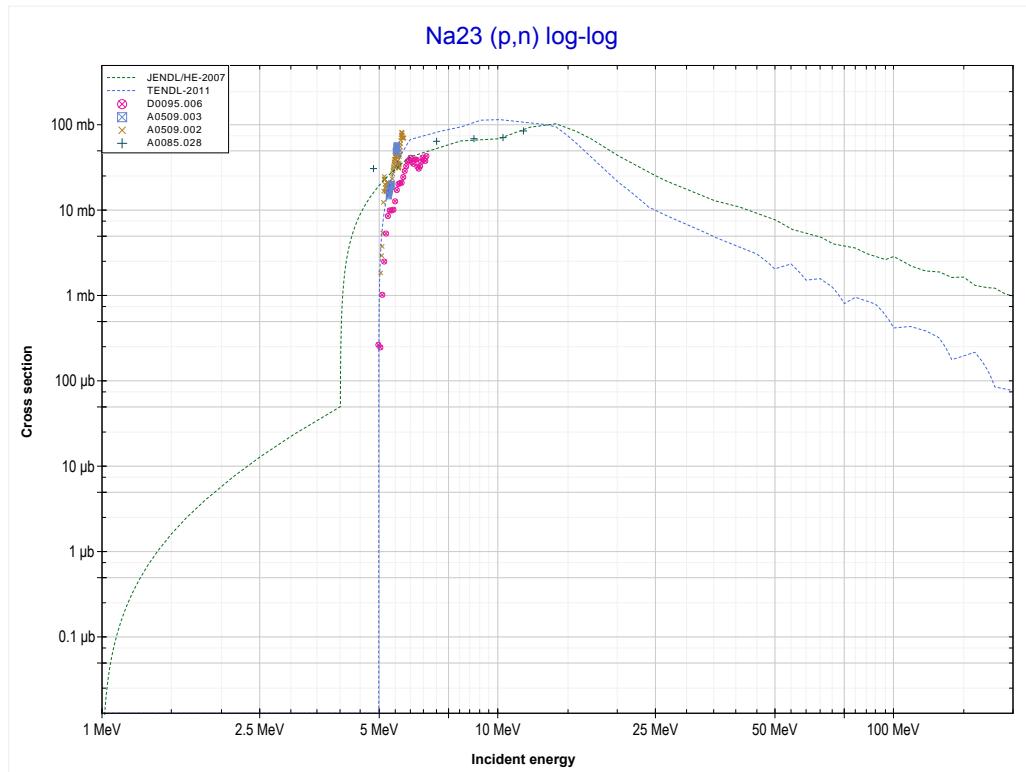
Reaction	Q-Value
Ne21(p, α)F18	-1741.43 keV
Ne21(p,p+t)F18	-21555.29 keV
Ne21(p,n+He3)F18	-22319.04 keV
Ne21(p,2d)F18	-25587.95 keV
Ne21(p,n+p+d)F18	-27812.52 keV
Ne21(p,2n+2p)F18	-30037.08 keV

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



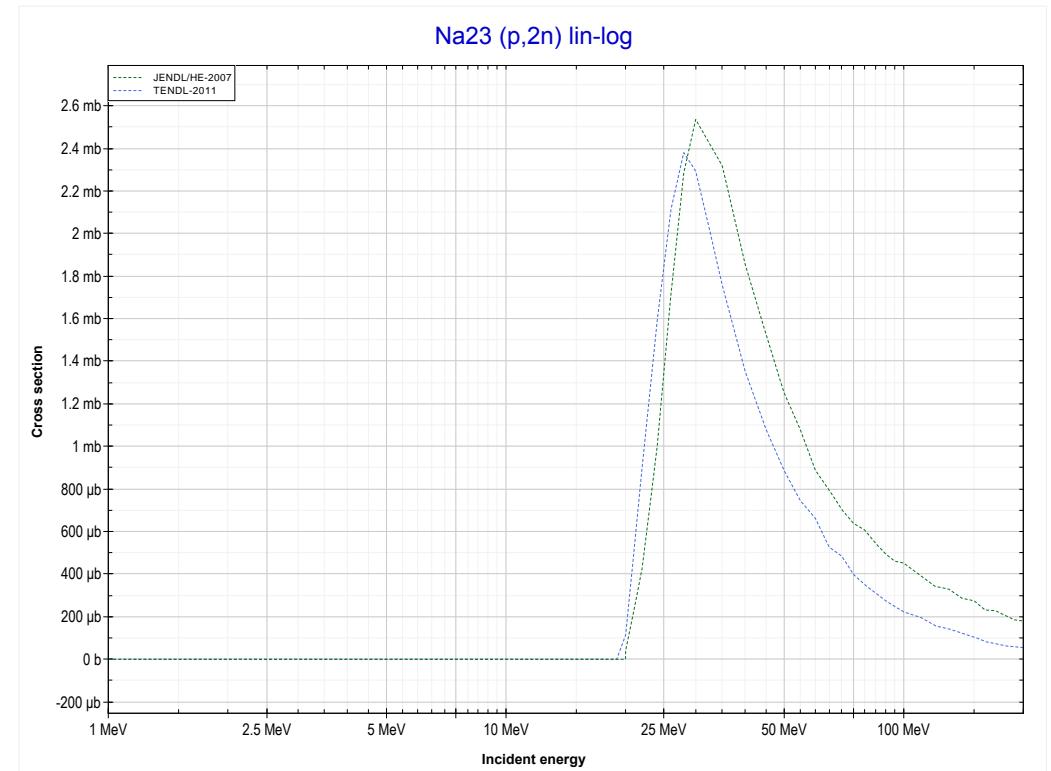
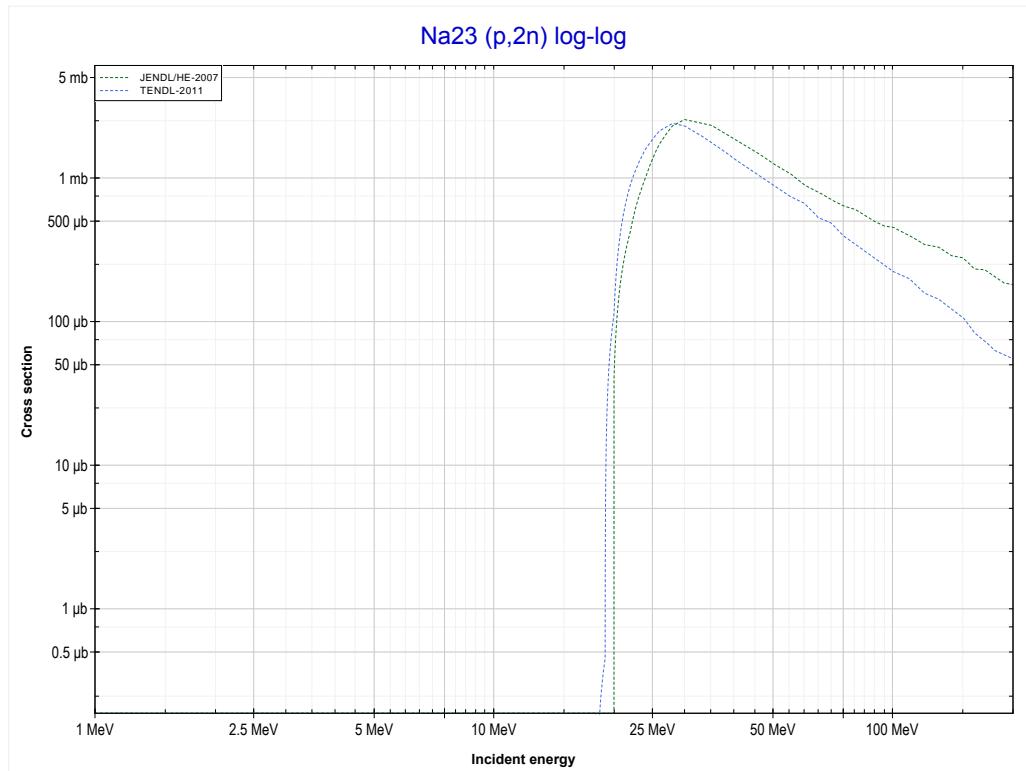
Reaction	Q-Value
Ne22(p,n)Na22	-3624.66 keV

<< 10-Ne-22	11-Na-23 MT4 (p,n) or MT5 (Mg23 production)	12-Mg-25 >>
<< MT4 (p,n)		MT16 (p,2n) >>



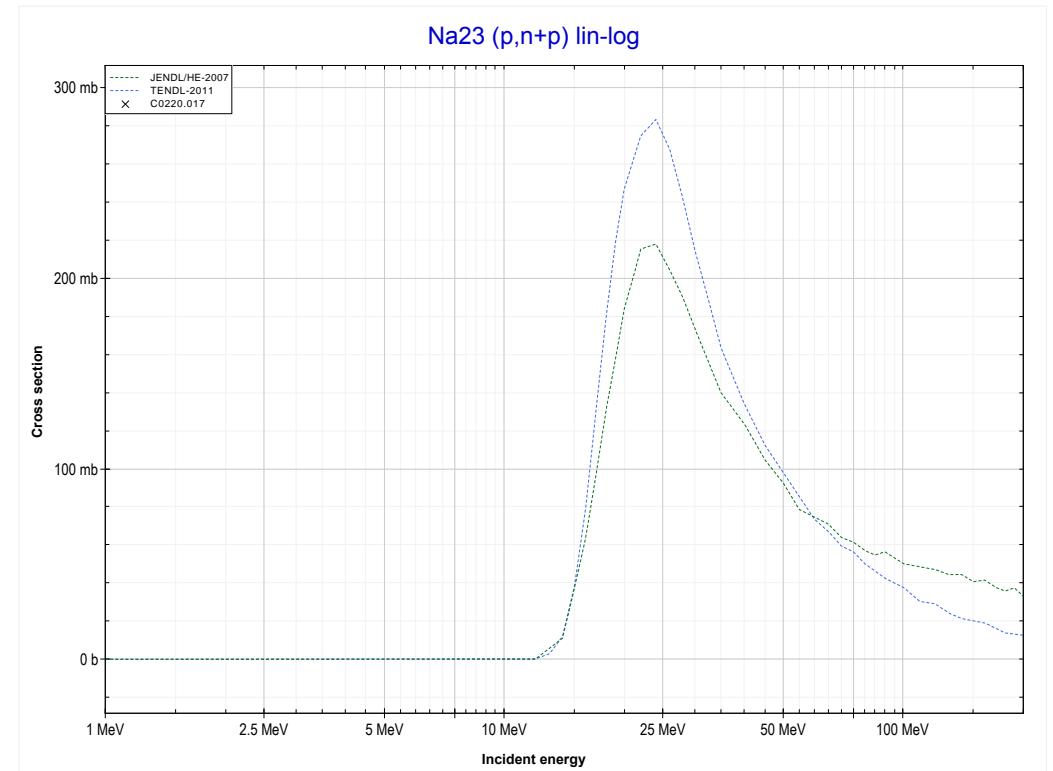
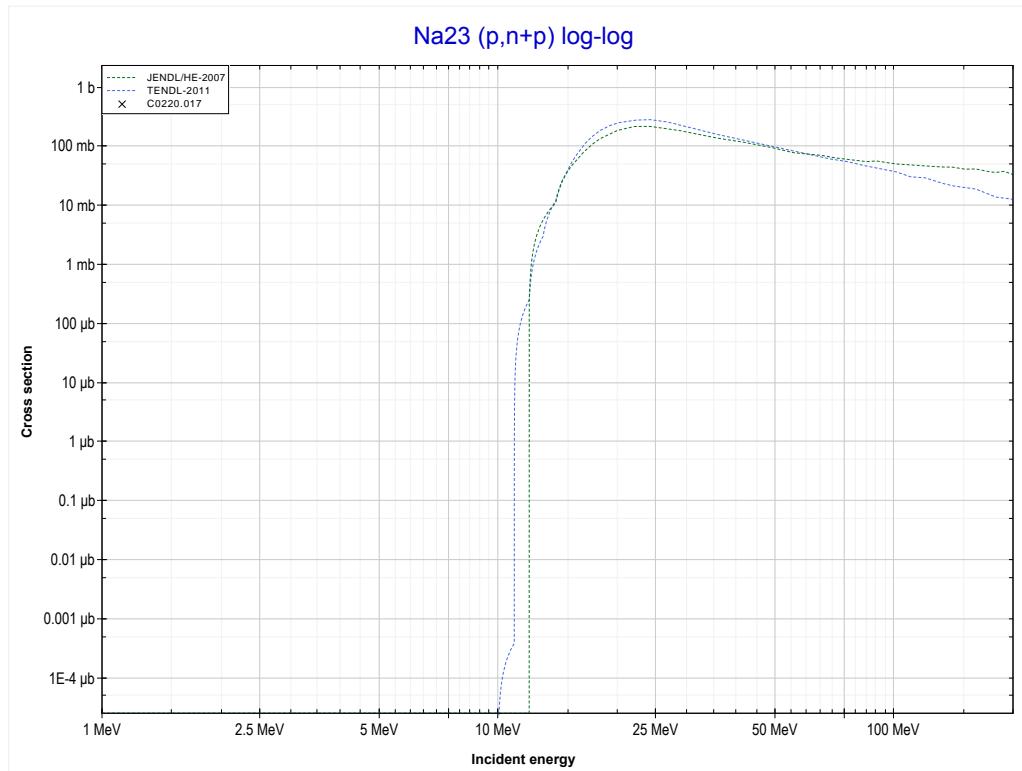
Reaction	Q-Value
Na23(p,n)Mg23	-4838.40 keV

<< 9-F-19	11-Na-23 MT16 (p,2n) or MT5 (Mg22 production)	20-Ca-44 >>
<< MT4 (p,n)		MT28 (p,n+p) >>



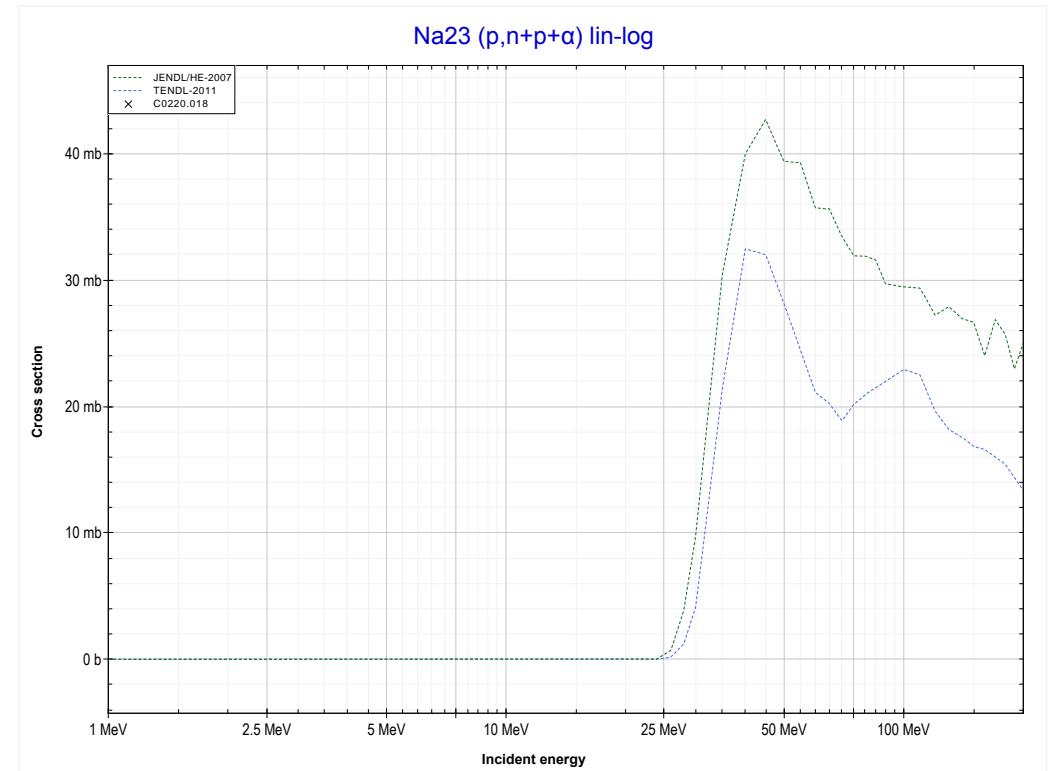
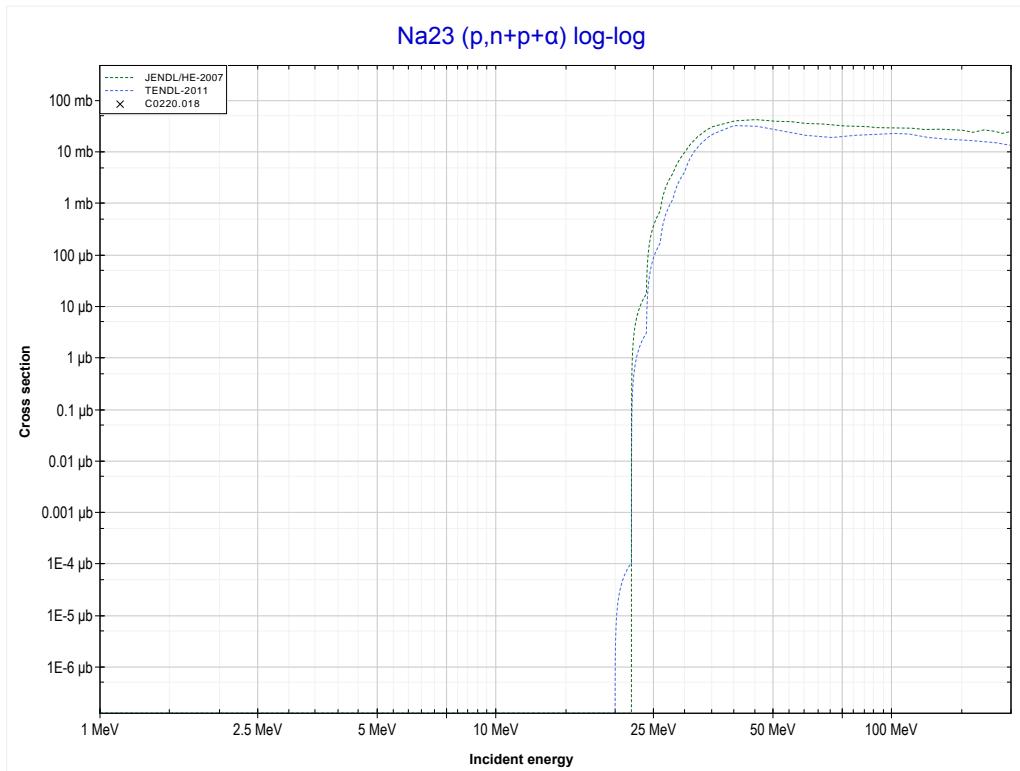
Reaction	Q-Value
Na23(p,2n)Mg22	-17986.52 keV

<< 9-F-19	11-Na-23 MT28 (p,n+p) or MT5 (Na22 production)	13-AI-27 >>
<< MT16 (p,2n)		MT45 (p,n+p+α) >>

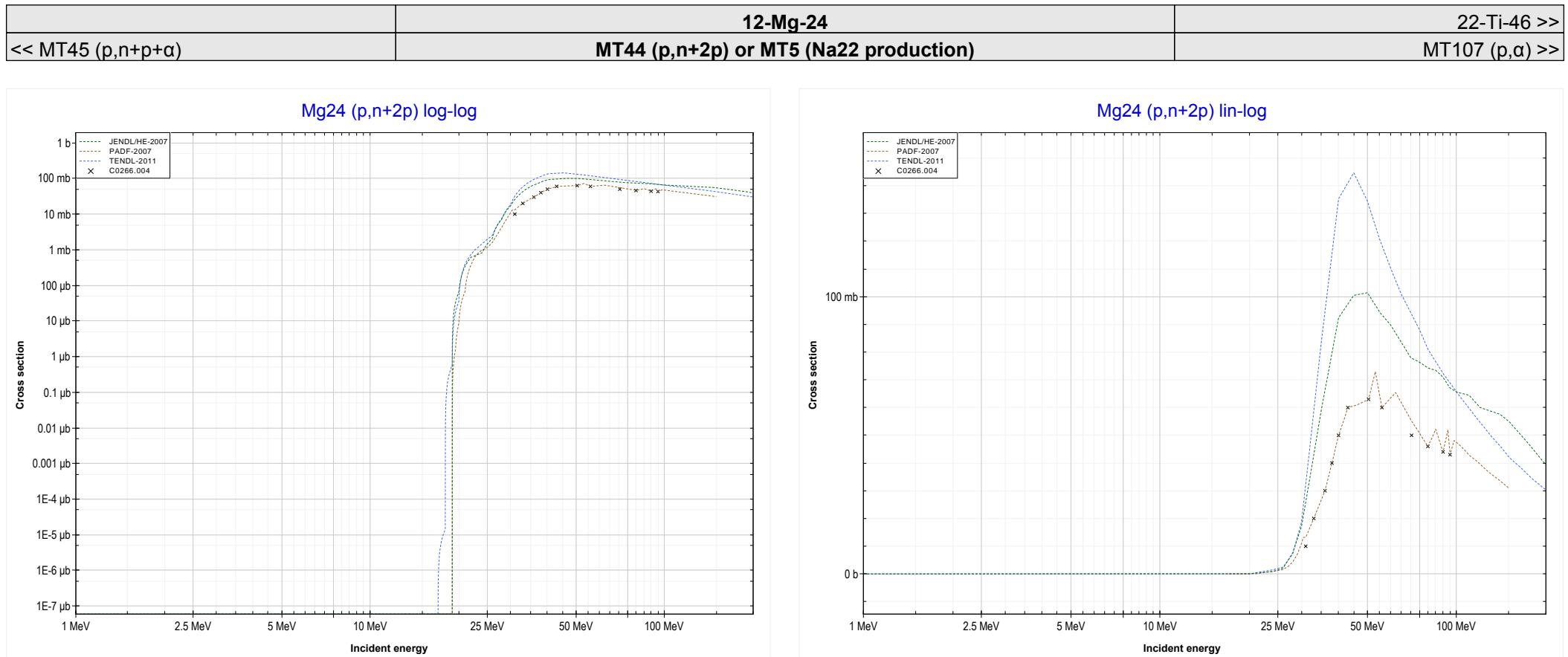


Reaction	Q-Value
Na23(p,d)Na22	-10194.20 keV
Na23(p,n+p)Na22	-12418.77 keV

<< 8-O-16	11-Na-23 MT45 ($p,n+p+\alpha$) or MT5 (F18 production)	13-AI-27 >>
<< MT28 ($p,n+p$)		MT44 ($p,n+2p$) >>

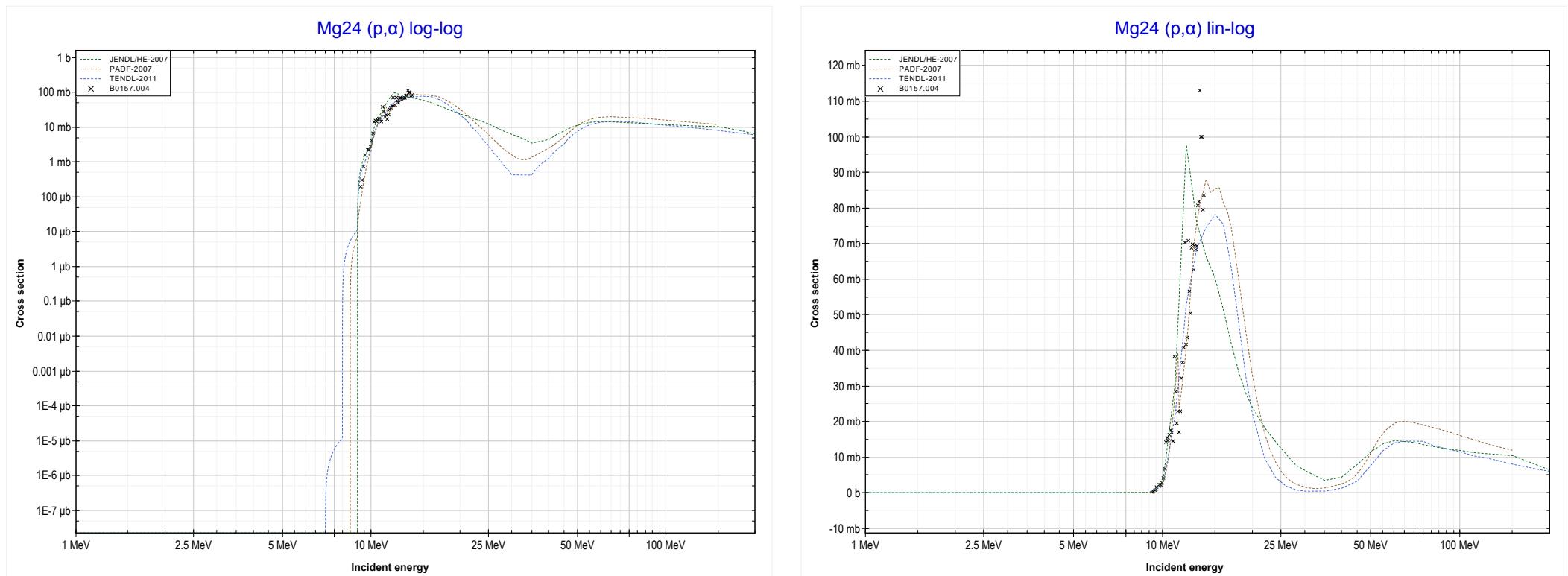


Reaction	Q-Value	Reaction	Q-Value
$^{23}\text{Na}(p,d+\alpha)^{18}\text{F}$	-18675.22 keV	$^{23}\text{Na}(p,n+p+2d)^{18}\text{F}$	-44746.31 keV
$^{23}\text{Na}(p,n+p+\alpha)^{18}\text{F}$	-20899.79 keV	$^{23}\text{Na}(p,2n+2p+d)^{18}\text{F}$	-46970.88 keV
$^{23}\text{Na}(p,t+\text{He}3)^{18}\text{F}$	-32995.60 keV	$^{23}\text{Na}(p,3n+3p)^{18}\text{F}$	-49195.45 keV
$^{23}\text{Na}(p,p+d+t)^{18}\text{F}$	-38489.08 keV		
$^{23}\text{Na}(p,n+d+\text{He}3)^{18}\text{F}$	-39252.84 keV		
$^{23}\text{Na}(p,n+2p+t)^{18}\text{F}$	-40713.65 keV		
$^{23}\text{Na}(p,2n+p+\text{He}3)^{18}\text{F}$	-41477.40 keV		
$^{23}\text{Na}(p,3d)^{18}\text{F}$	-42521.75 keV		



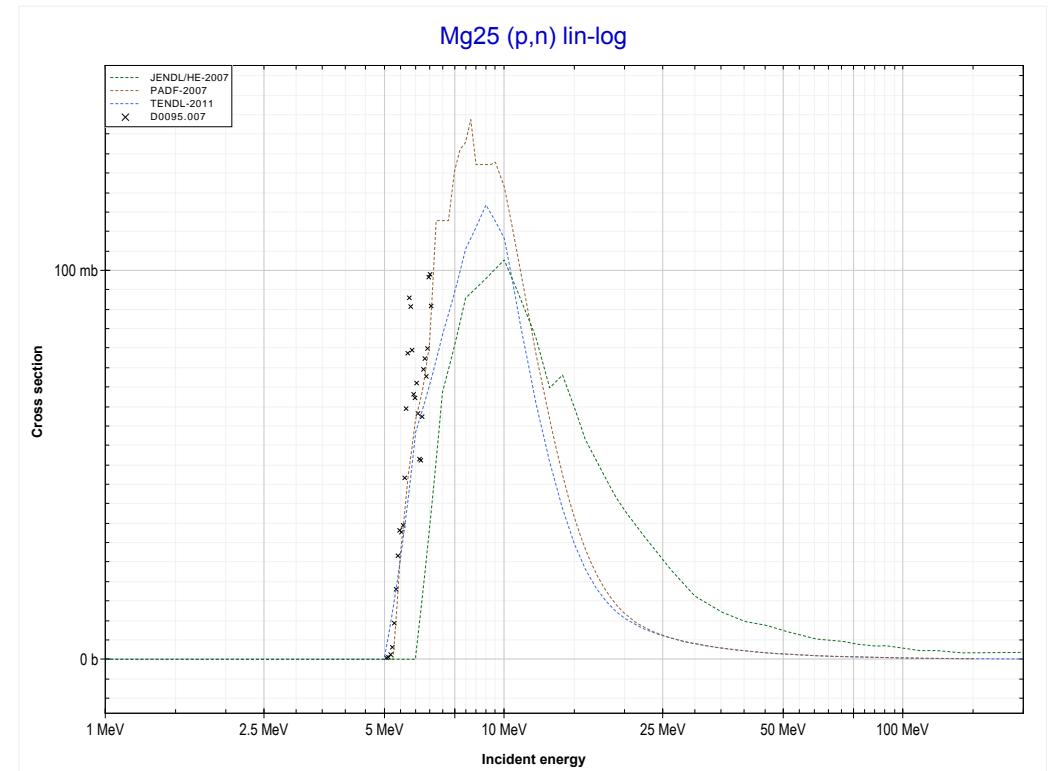
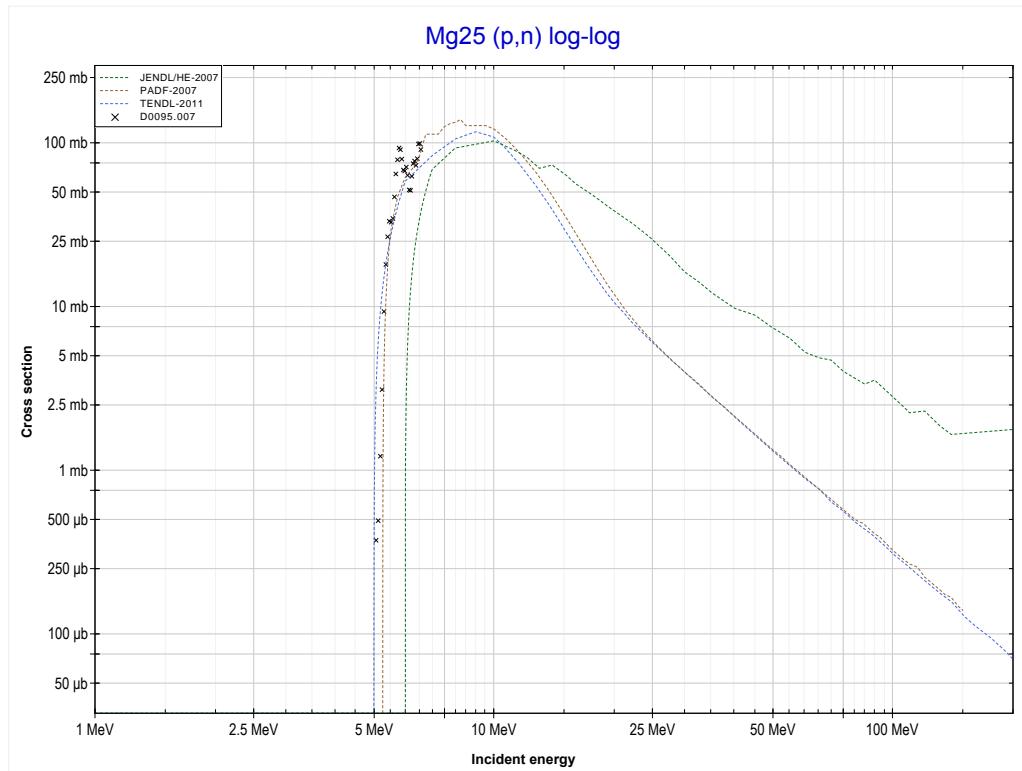
Reaction	Q-Value
Mg24(p,He3)Na22	-16393.41 keV
Mg24(p,p+d)Na22	-21886.89 keV
Mg24(p,n+2p)Na22	-24111.45 keV

<< 10-Ne-21	12-Mg-24 MT107 (p,α) or MT5 (Na21 production)	22-Ti-46 >>
<< MT44 ($p,n+2p$)		MT4 (p,n) >>



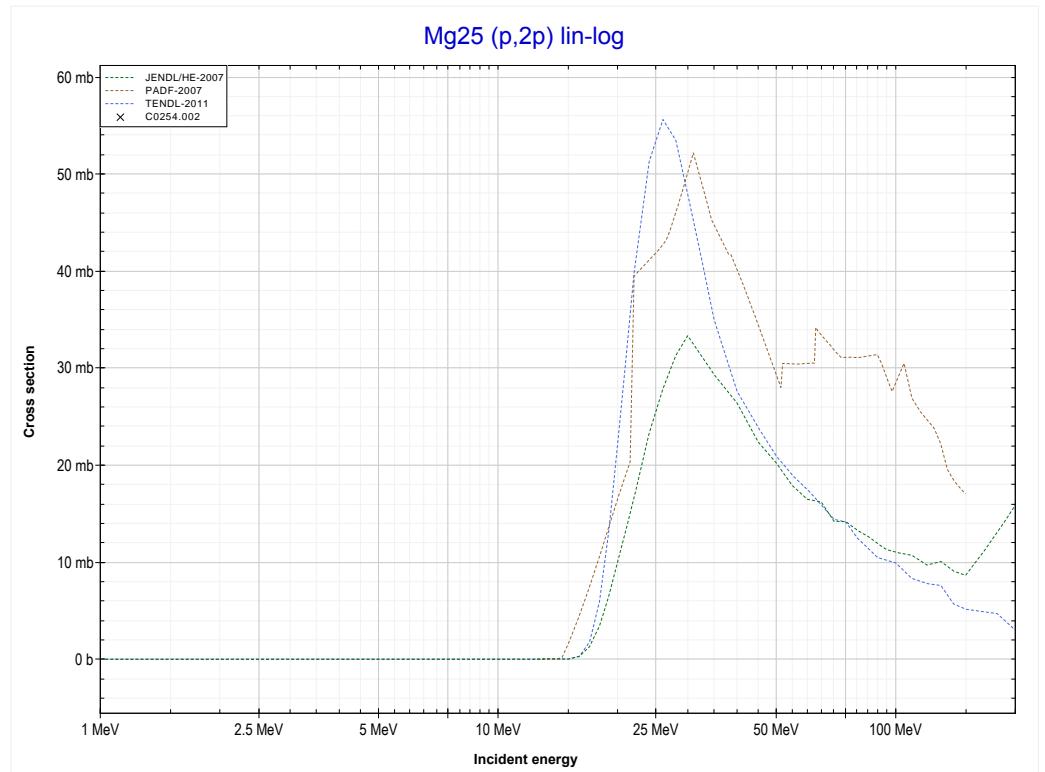
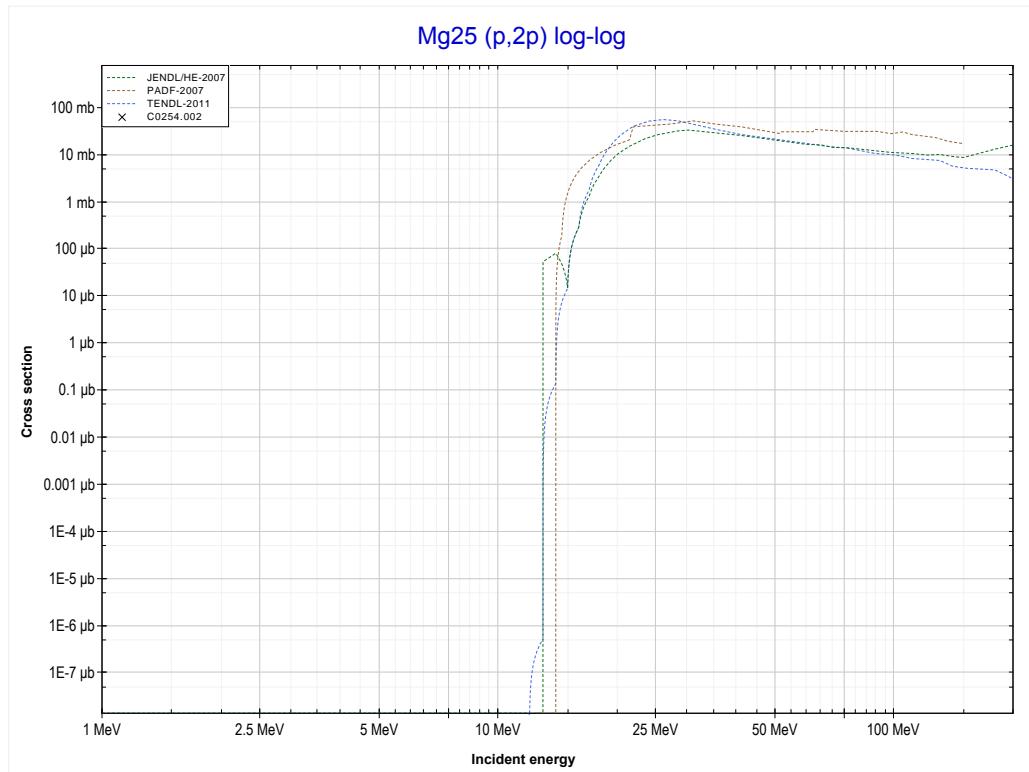
Reaction	Q-Value
Mg24(p,α)Na21	-6885.31 keV
Mg24($p,p+t$)Na21	-26699.17 keV
Mg24($p,n+He3$)Na21	-27462.93 keV
Mg24($p,2d$)Na21	-30731.84 keV
Mg24($p,n+p+d$)Na21	-32956.41 keV
Mg24($p,2n+2p$)Na21	-35180.97 keV

<< 11-Na-23	12-Mg-25 MT4 (p,n) or MT5 (Al25 production)	12-Mg-26 >>
<< MT107 (p, α)		MT111 (p,2p) >>



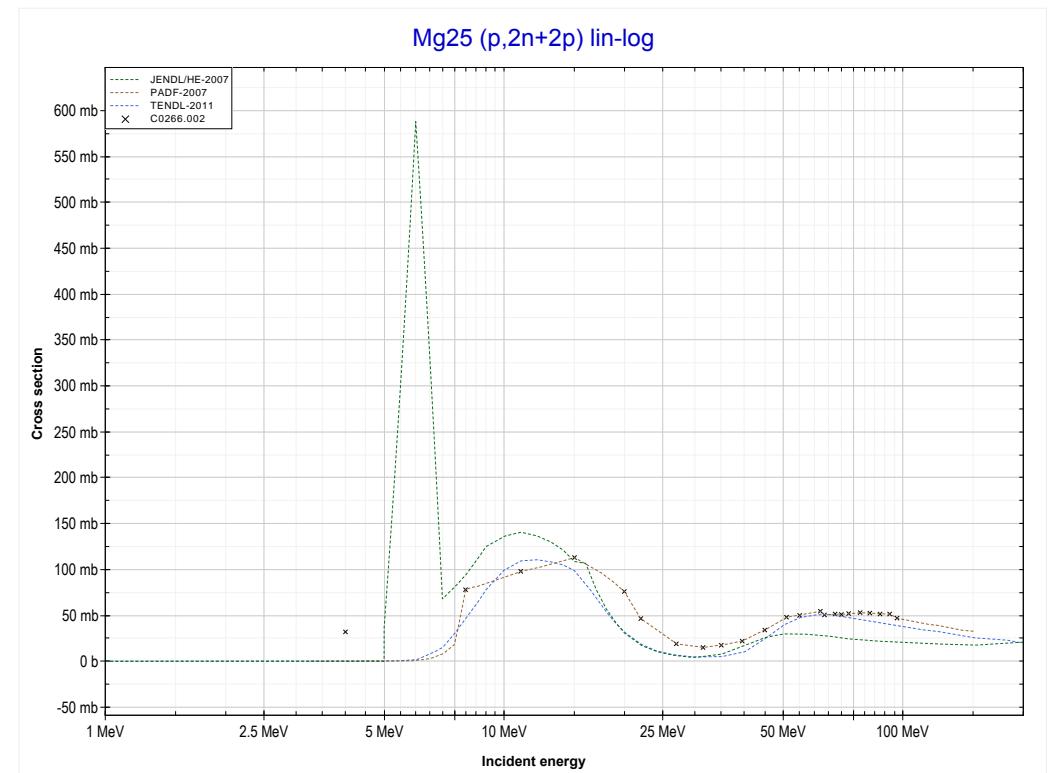
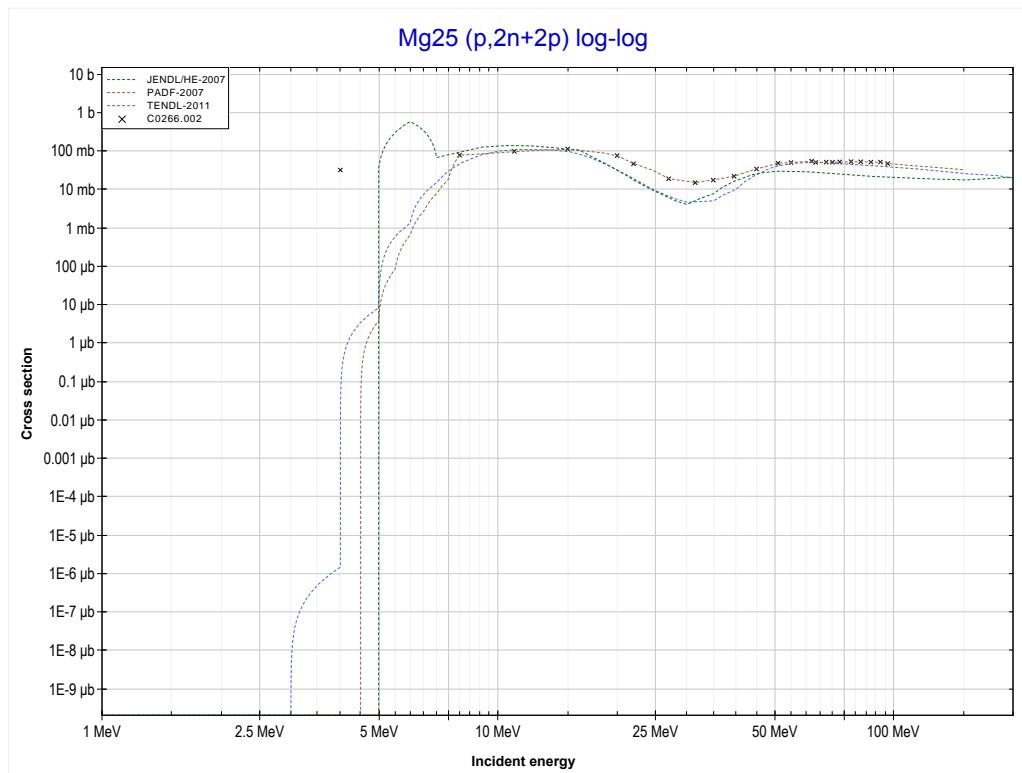
Reaction	Q-Value
Mg25(p,n)Al25	-5058.98 keV

<< MT4 (p,n)	12-Mg-25 MT111 (p,2p) or MT5 (Na24 production)	14-Si-29 >> MT190 (p,2n+2p) >>
--------------	--	-----------------------------------



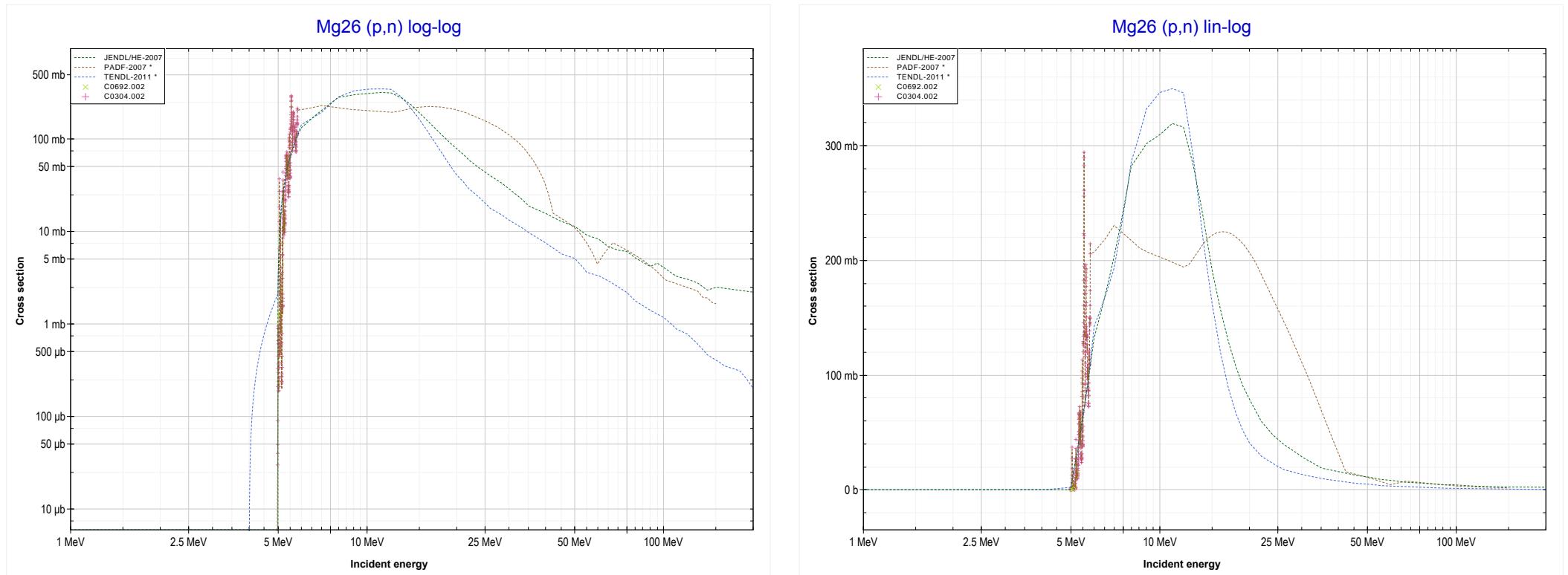
Reaction	Q-Value
Mg25(p,2p)Na24	-12063.69 keV

<< 8-O-16	12-Mg-25 MT190 ($p,2n+2p$) or MT5 (Na22 production)	24-Cr-50 >>
<< MT111 ($p,2p$)		MT4 (p,n) >>

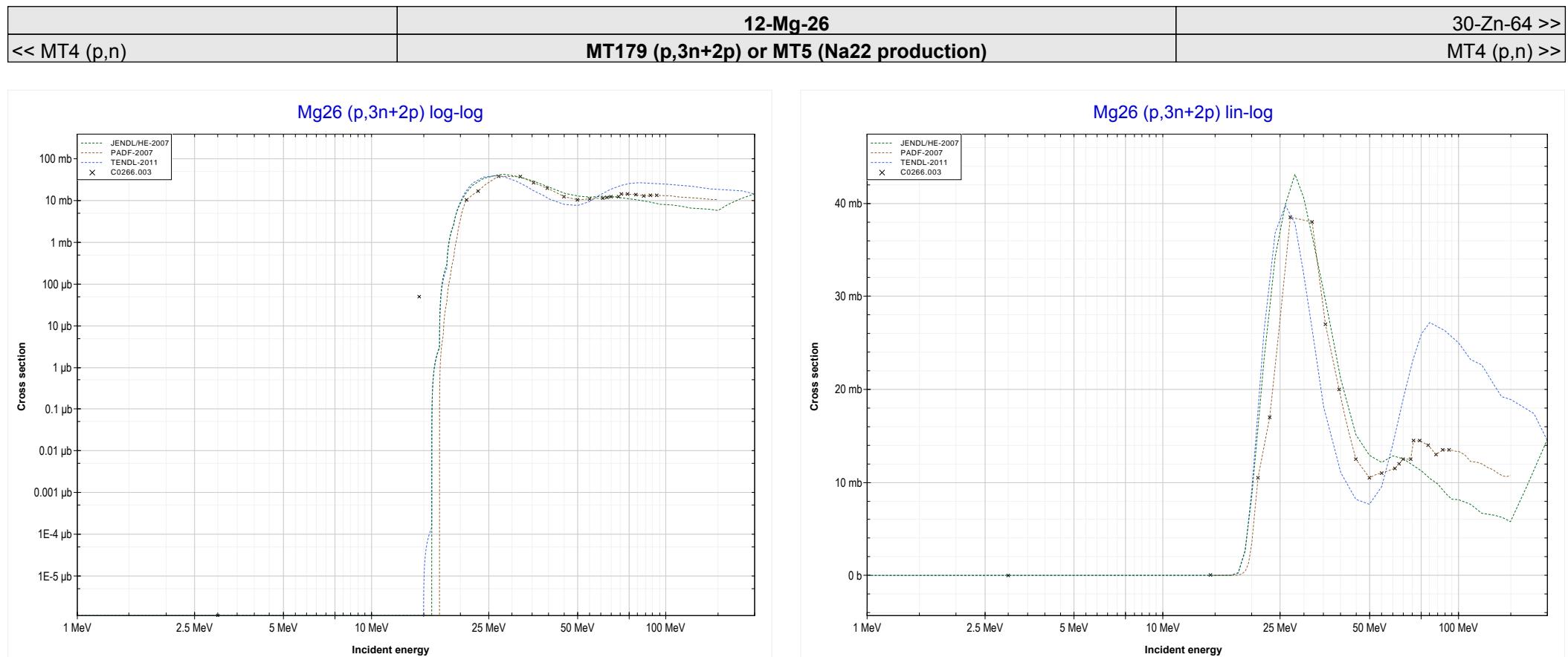


Reaction	Q-Value
Mg25(p,α)Na22	-3146.38 keV
Mg25($p,p+t$)Na22	-22960.24 keV
Mg25($p,n+He3$)Na22	-23723.99 keV
Mg25($p,2d$)Na22	-26992.90 keV
Mg25($p,n+p+d$)Na22	-29217.47 keV
Mg25($p,2n+2p$)Na22	-31442.03 keV

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

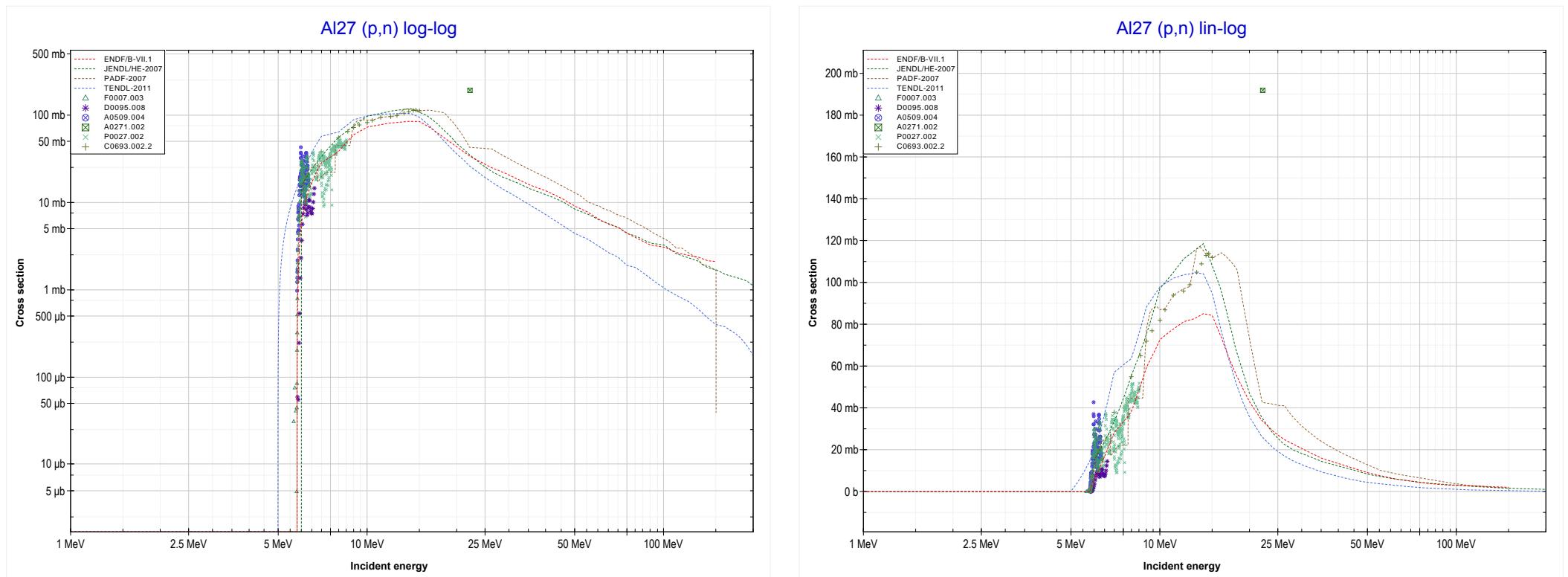


Reaction	Q-Value
Mg26(p,n)Al26	-4786.62 keV



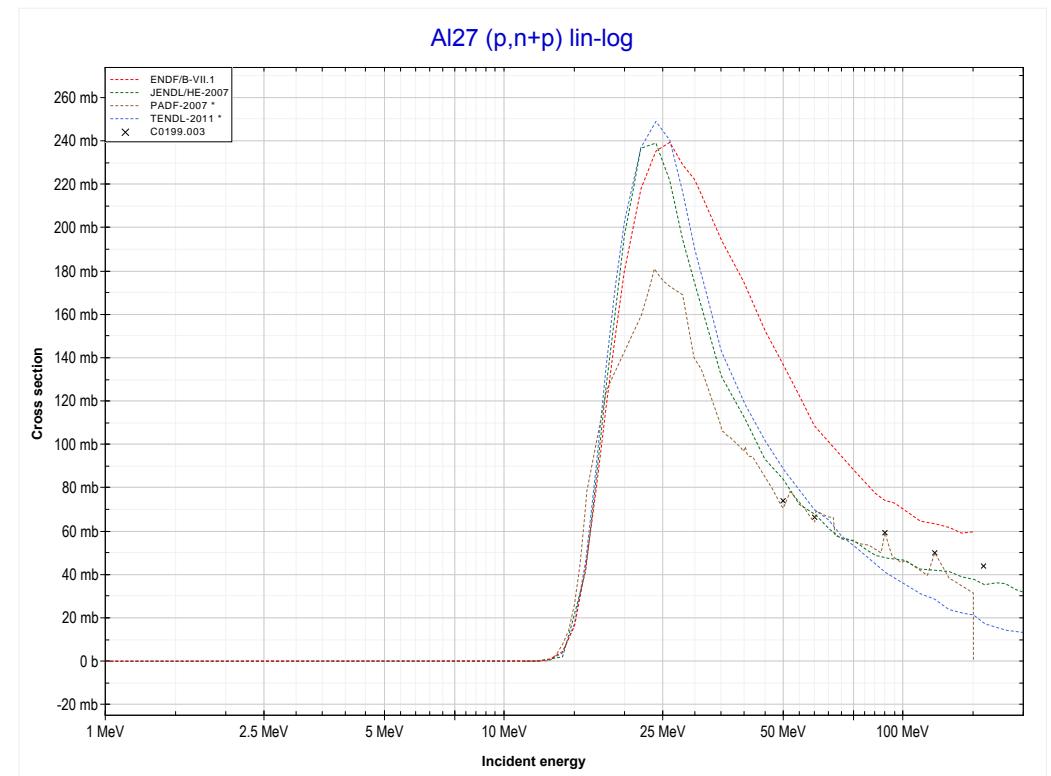
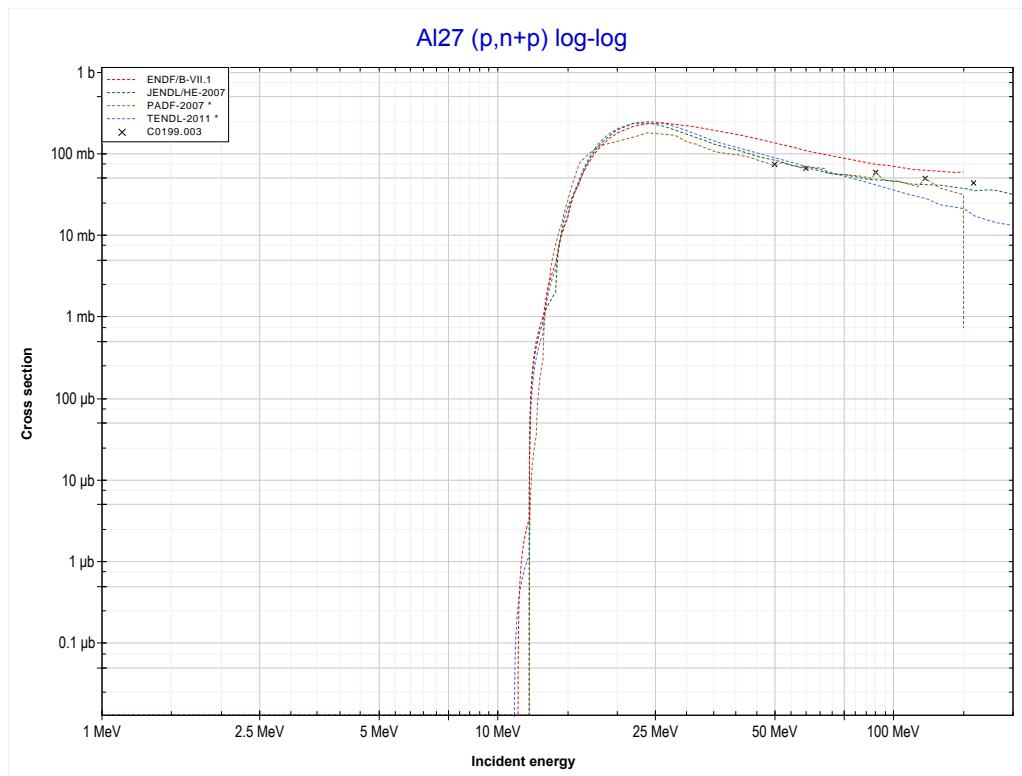
Reaction	Q-Value
Mg26(p,n+α)Na22	-14239.44 keV
Mg26(p,d+t)Na22	-31828.74 keV
Mg26(p,n+p+t)Na22	-34053.31 keV
Mg26(p,2n+He3)Na22	-34817.06 keV
Mg26(p,n+2d)Na22	-38085.97 keV
Mg26(p,2n+p+d)Na22	-40310.54 keV
Mg26(p,3n+2p)Na22	-42535.10 keV

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



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

<< 11-Na-23	13-Al-27 MT28 (p,n+p) or MT5 (Al26 production)	20-Ca-48 >>
<< MT4 (p,n)		MT45 (p,n+p+α) >>



Reaction	Q-Value
Al27(p,d)Al26	-10833.10 keV
Al27(p,n+p)Al26	-13057.67 keV

<< 11-Na-23	
<< MT28 (p,n+p)	

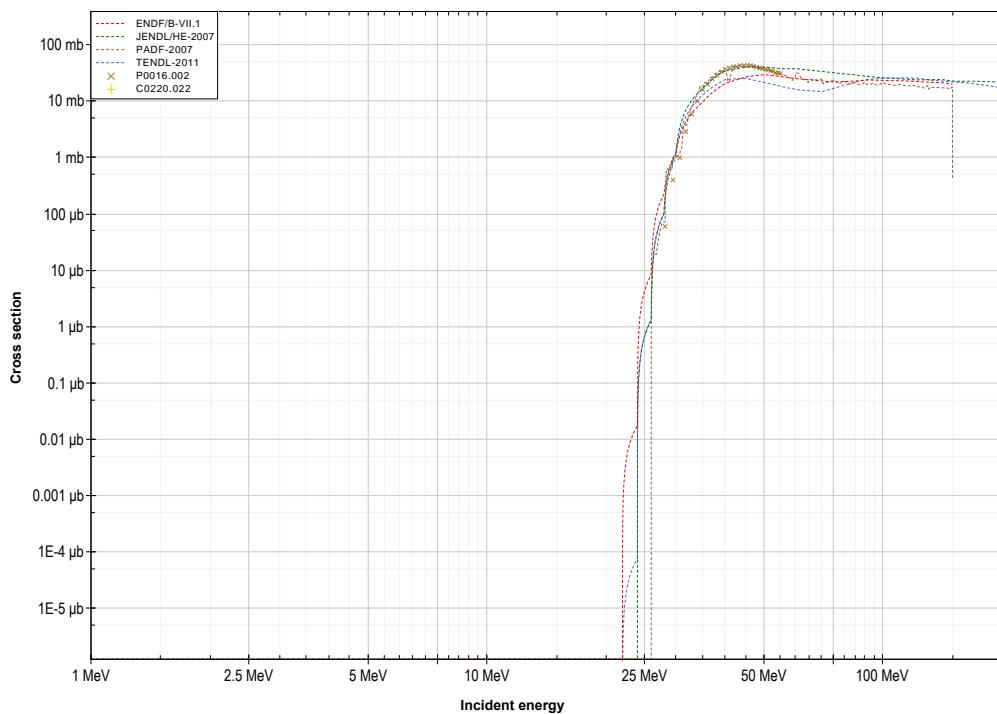
13-Al-27

MT45 (p,n+p+α) or MT5 (Na22 production)

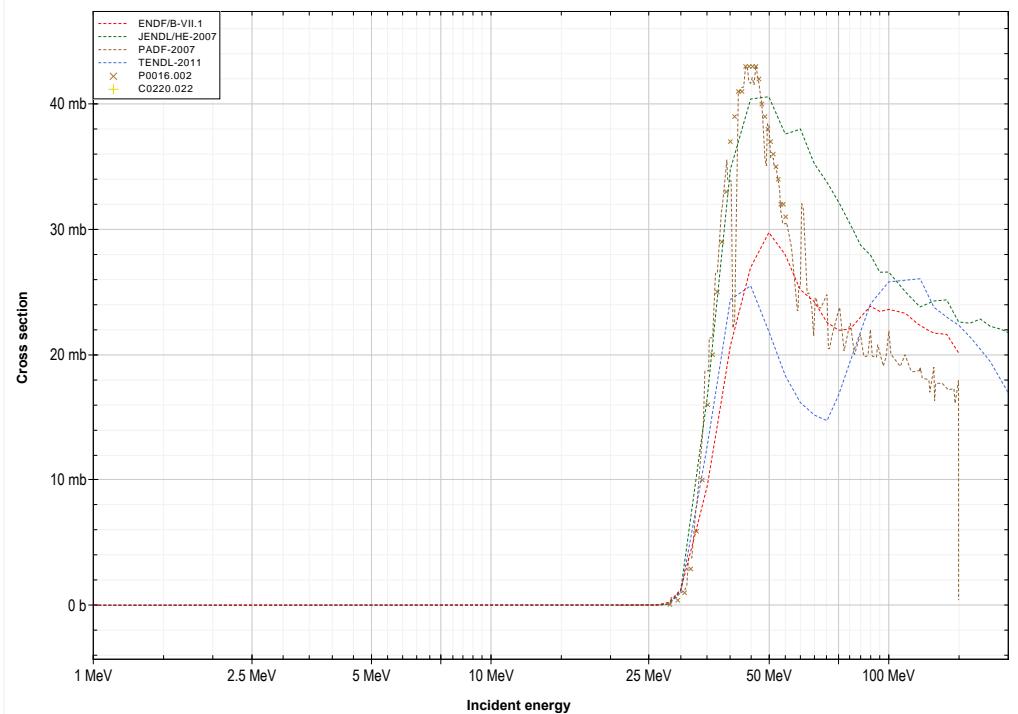
29-Cu-63 >>

MT103 (p,p) >>

Al27 (p,n+p+α) log-log

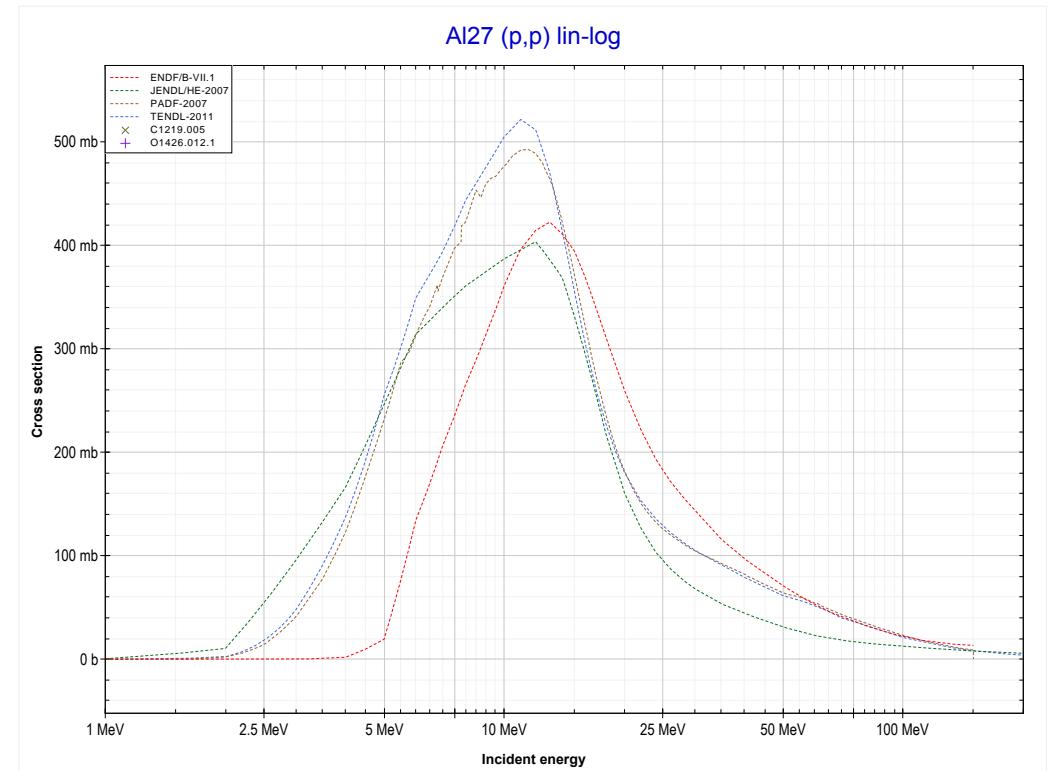
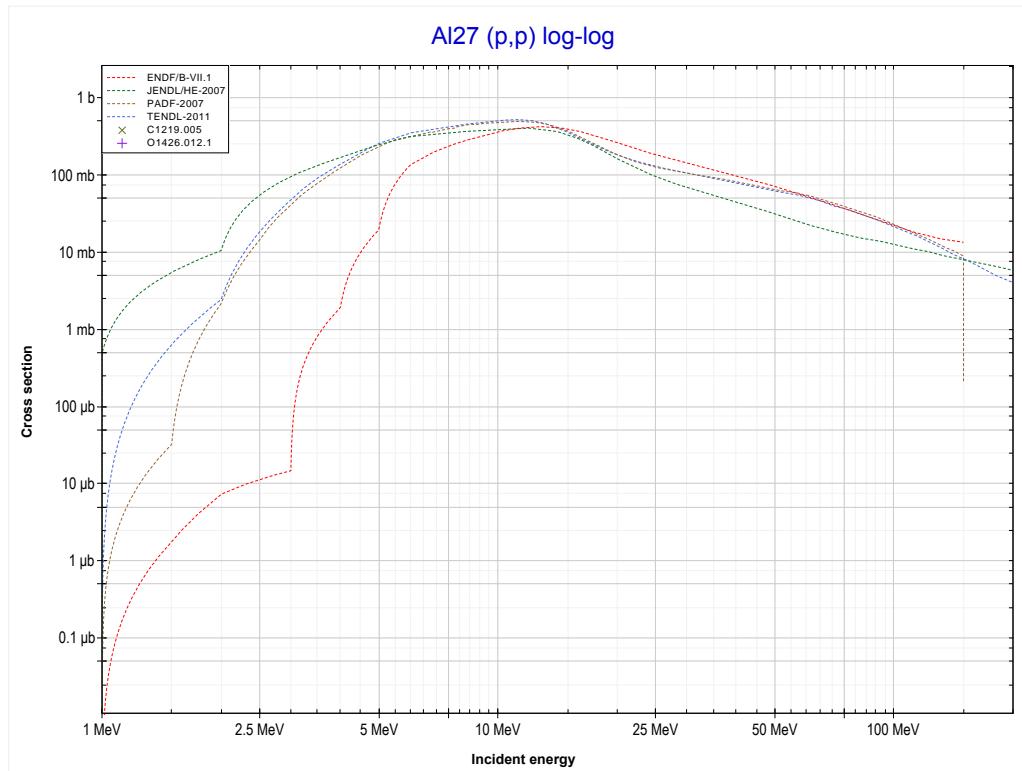


Al27 (p,n+p+α) lin-log



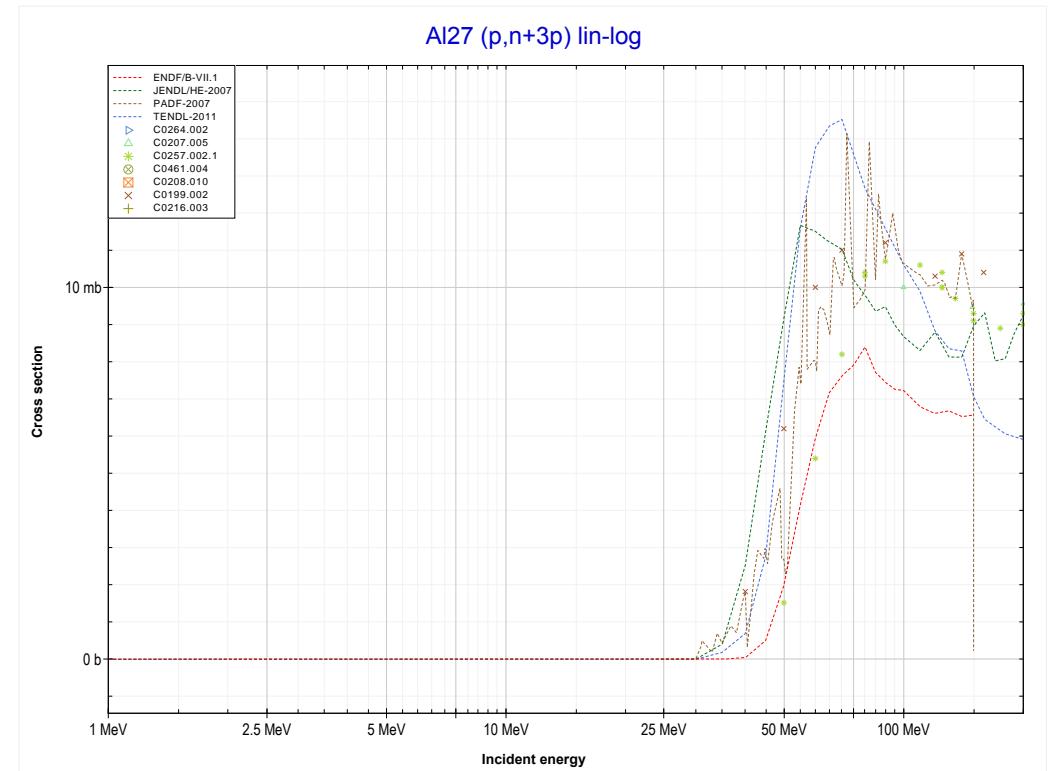
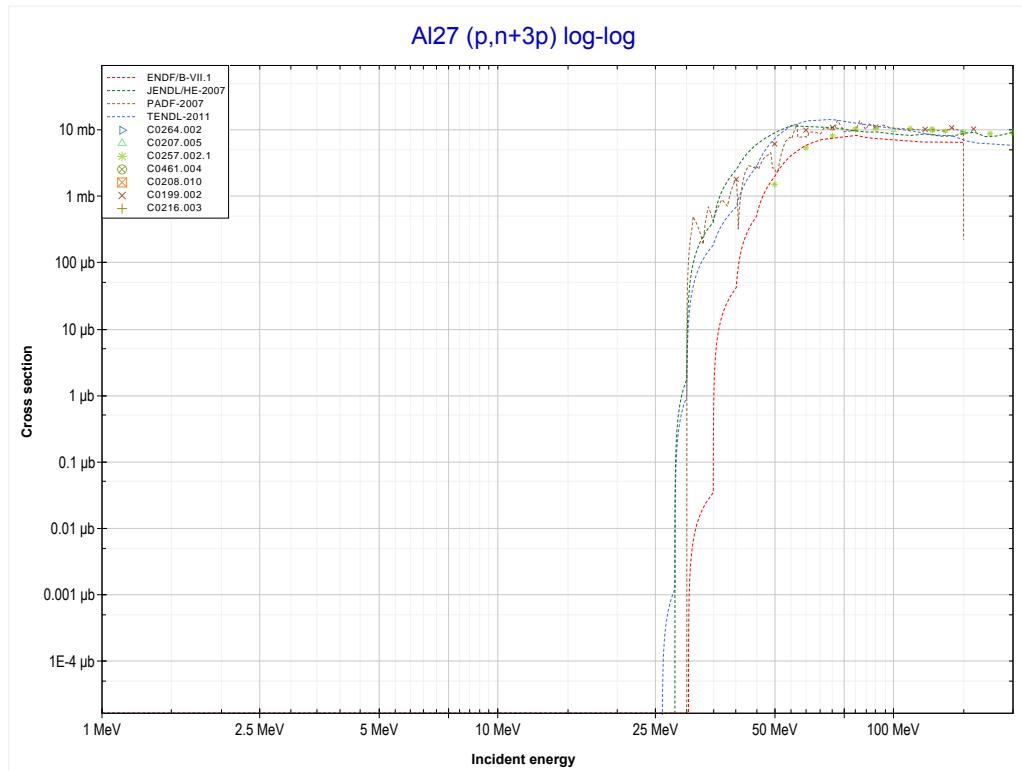
Reaction	Q-Value	Reaction	Q-Value
Al27(p,d+α)Na22	-20285.93 keV	Al27(p,n+p+2d)Na22	-46357.02 keV
Al27(p,n+p+α)Na22	-22510.49 keV	Al27(p,2n+2p+d)Na22	-48581.59 keV
Al27(p,t+He3)Na22	-34606.31 keV	Al27(p,3n+3p)Na22	-50806.15 keV
Al27(p,p+d+t)Na22	-40099.79 keV		
Al27(p,n+d+He3)Na22	-40863.54 keV		
Al27(p,n+2p+t)Na22	-42324.35 keV		
Al27(p,2n+p+He3)Na22	-43088.11 keV		
Al27(p,3d)Na22	-44132.45 keV		

<< 8-O-16	13-Al-27 MT103 (p,p) or MT5 (Al27 production)	14-Si-28 >> MT198 (p,n+3p) >>
<< MT45 (p,n+p+α)		



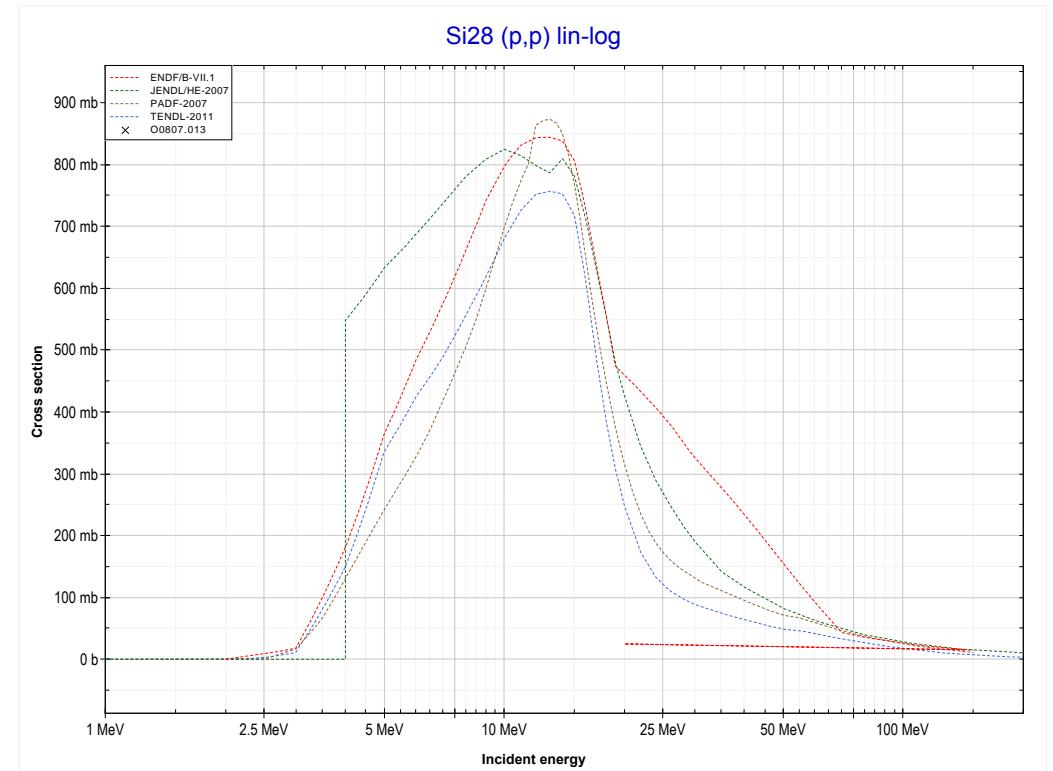
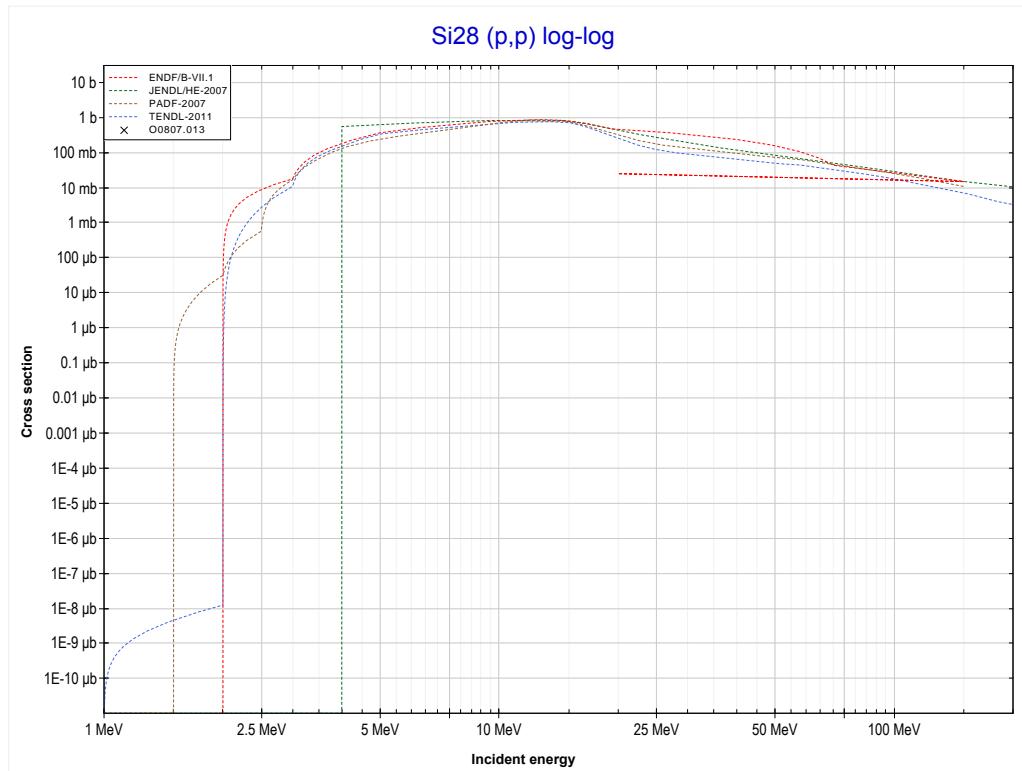
Reaction	Q-Value
Al27(p,p)Al27	0.00 keV

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



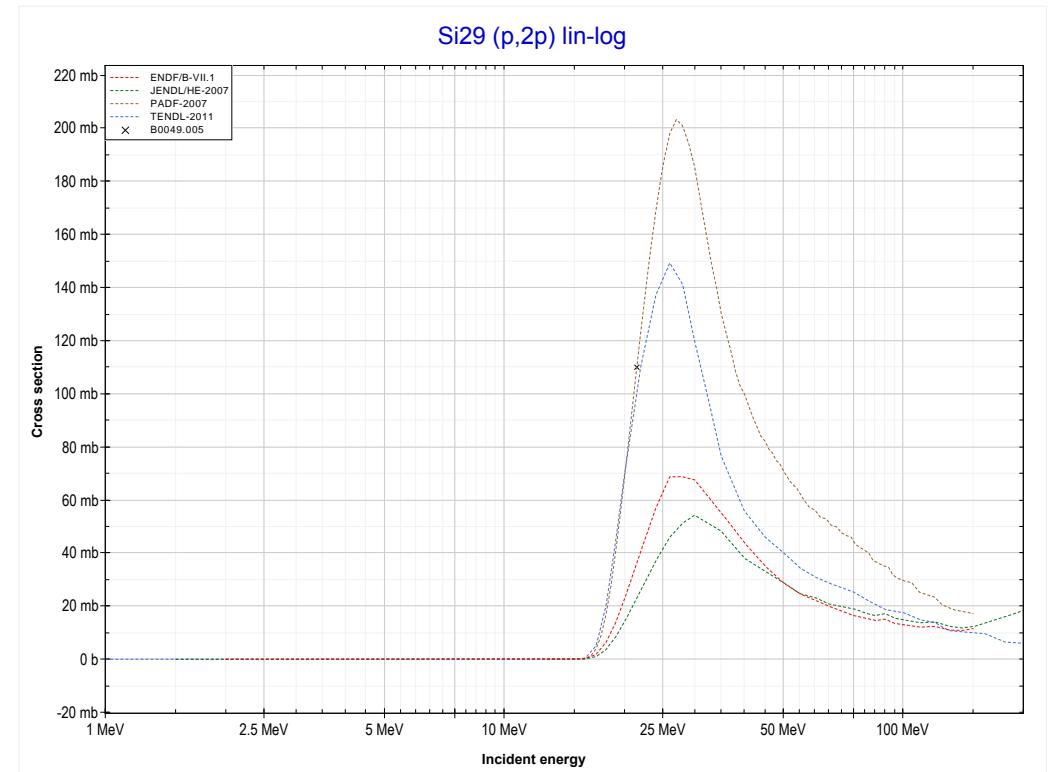
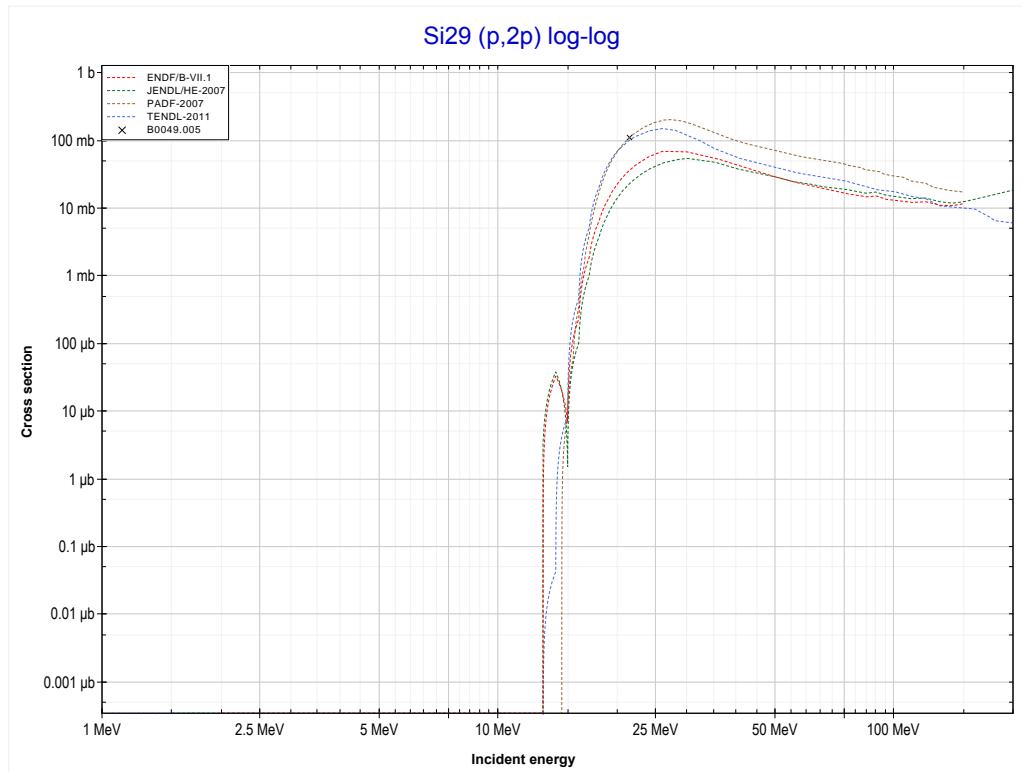
Reaction	Q-Value
Al27(p,p+He3)Na24	-23709.76 keV
Al27(p,2p+d)Na24	-29203.24 keV
Al27(p,n+3p)Na24	-31427.81 keV

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



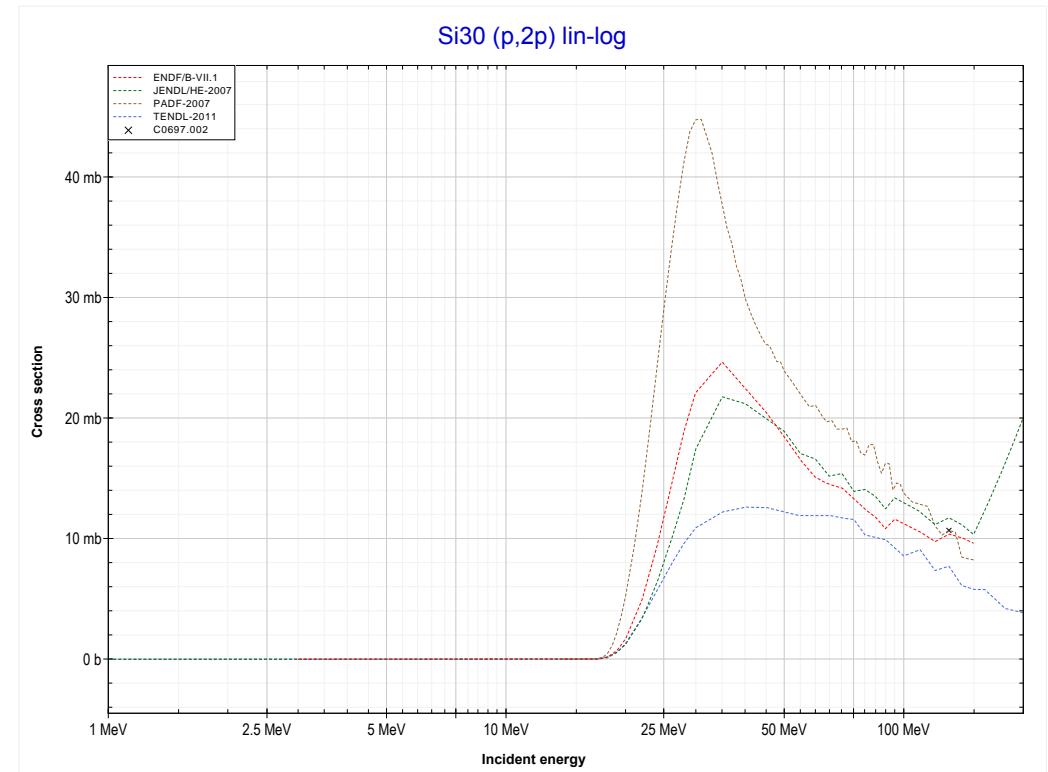
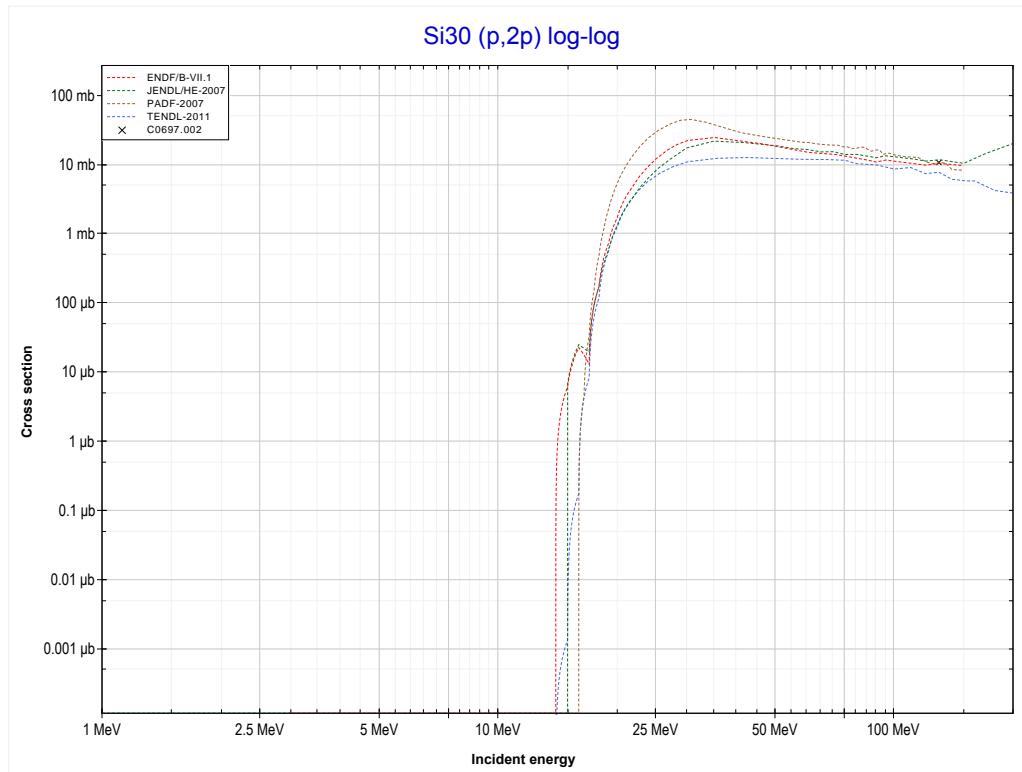
Reaction	Q-Value
Si28(p,p)Si28	0.00 keV

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



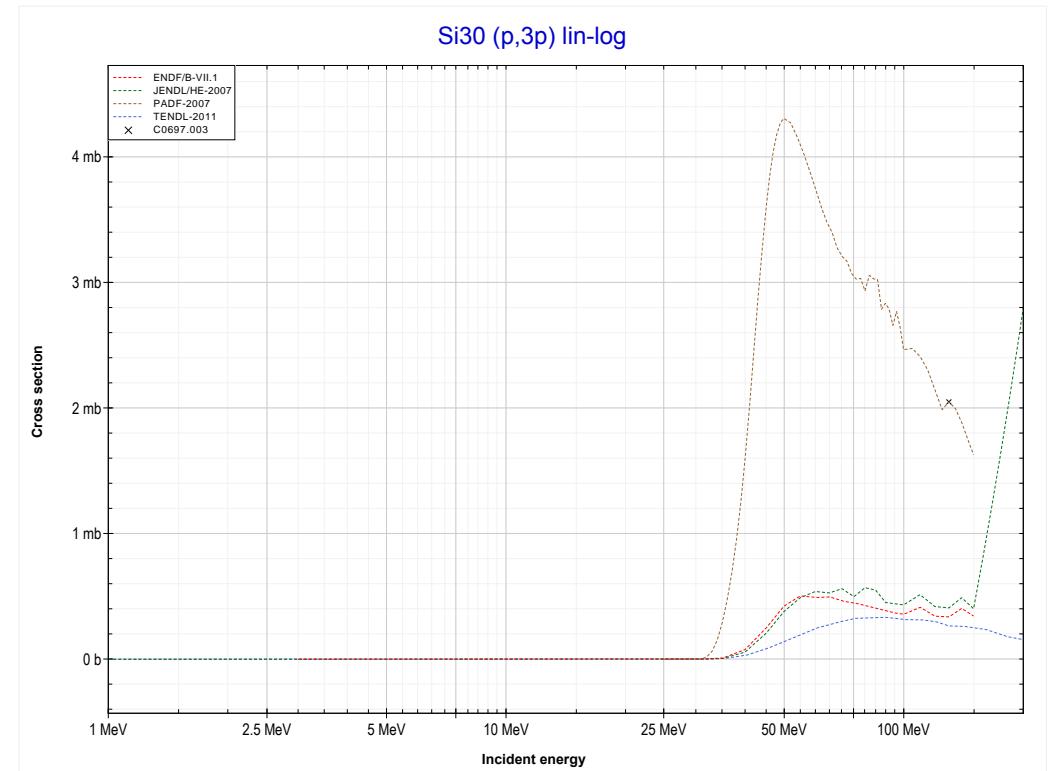
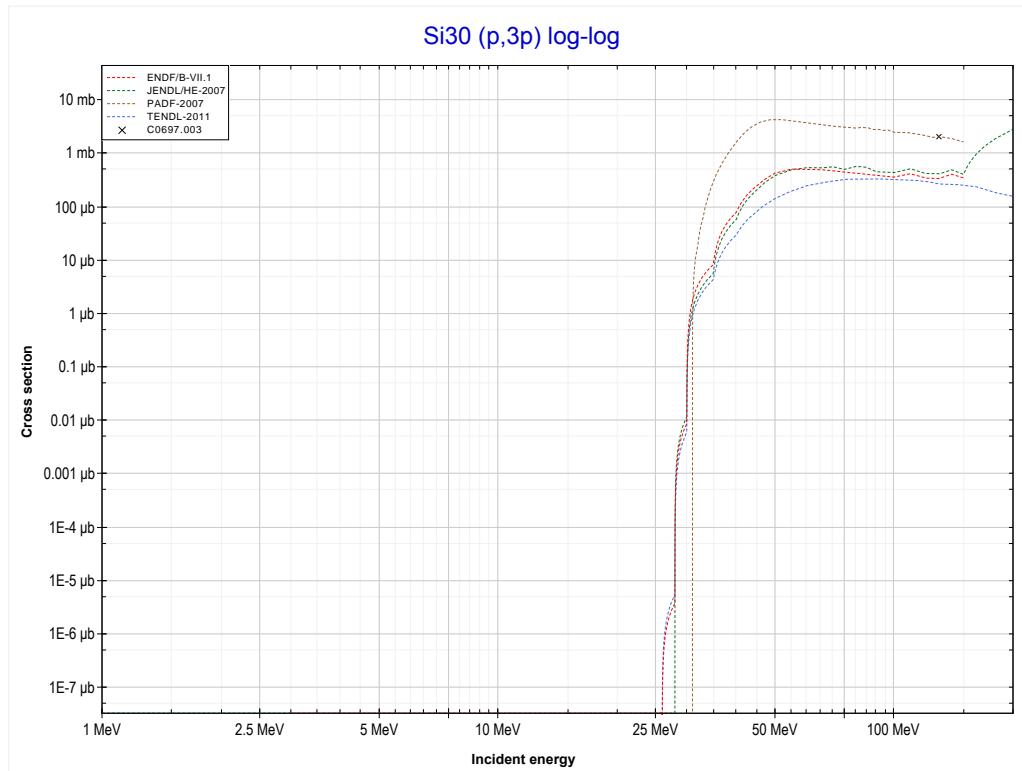
Reaction	Q-Value
$\text{Si}^{29}(\text{p},\text{2p})\text{Al}^{28}$	-12333.58 keV

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



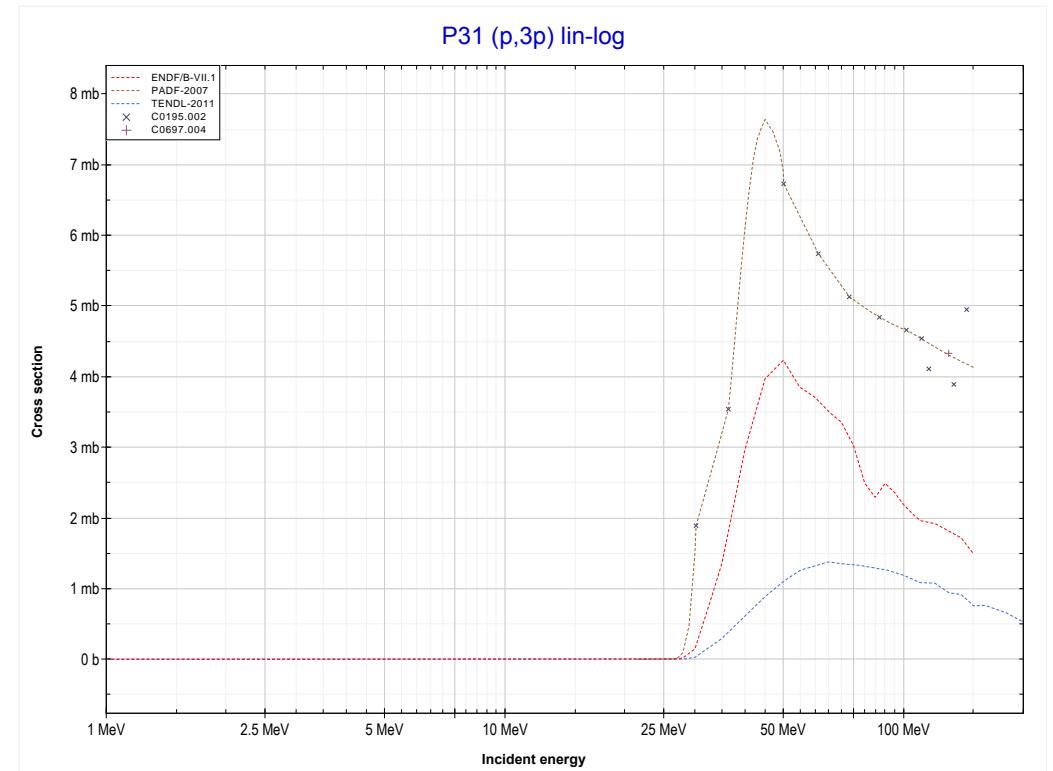
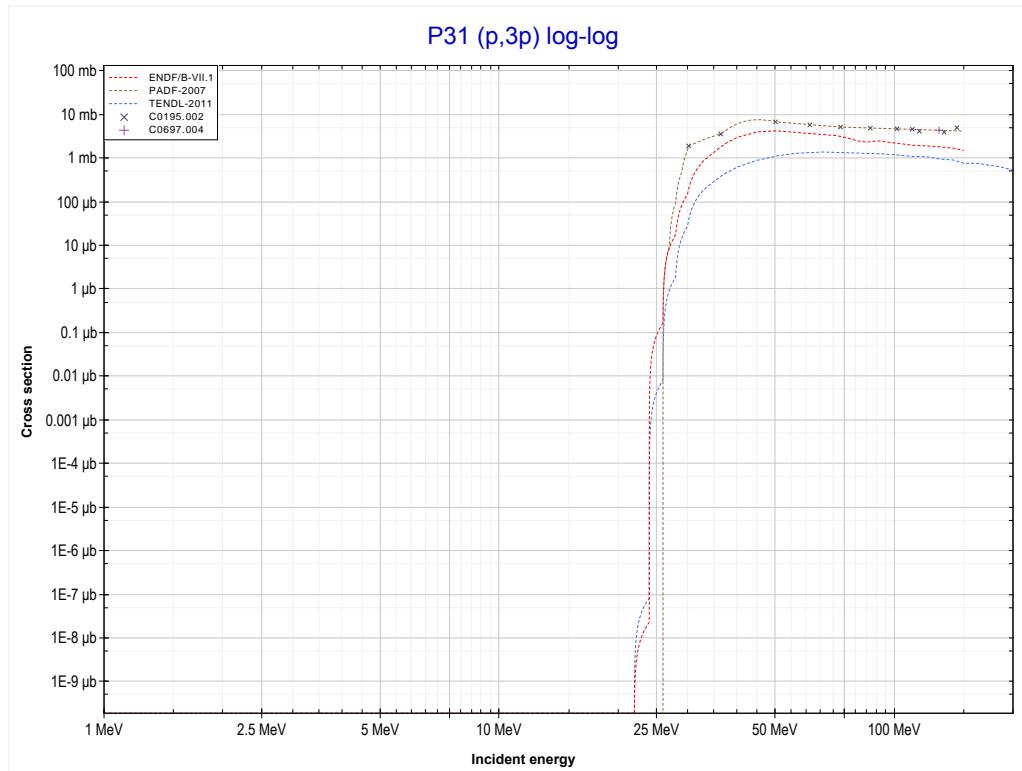
Reaction	Q-Value
Si30(p,2p)Al29	-13506.60 keV

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



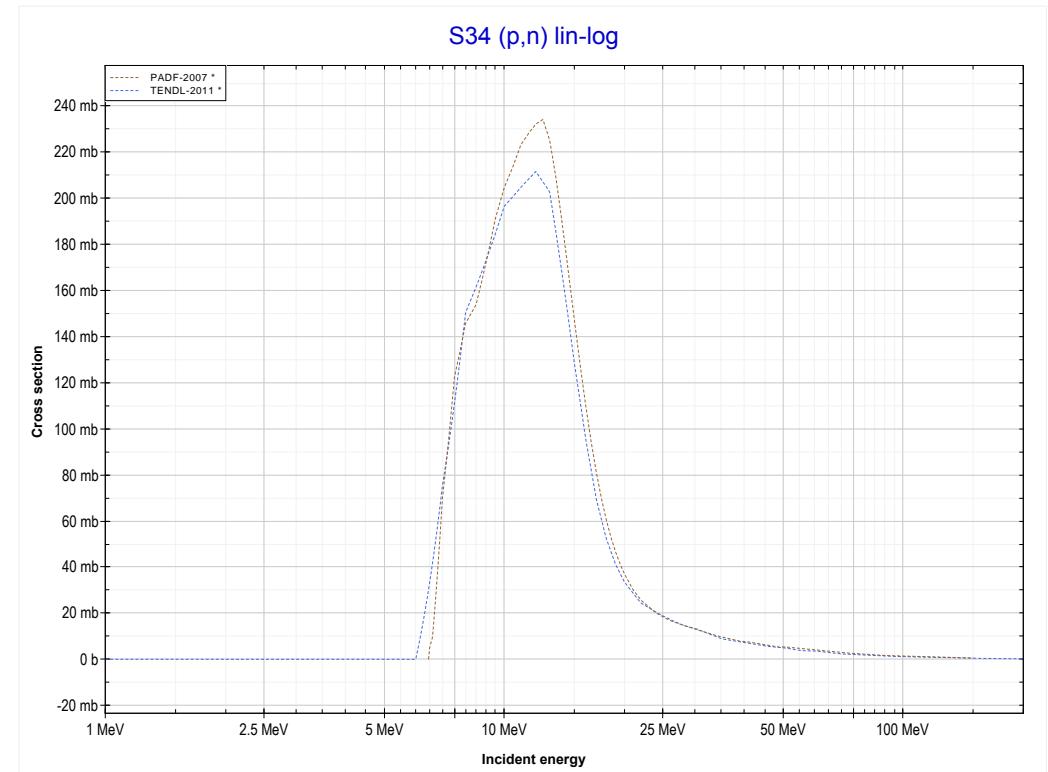
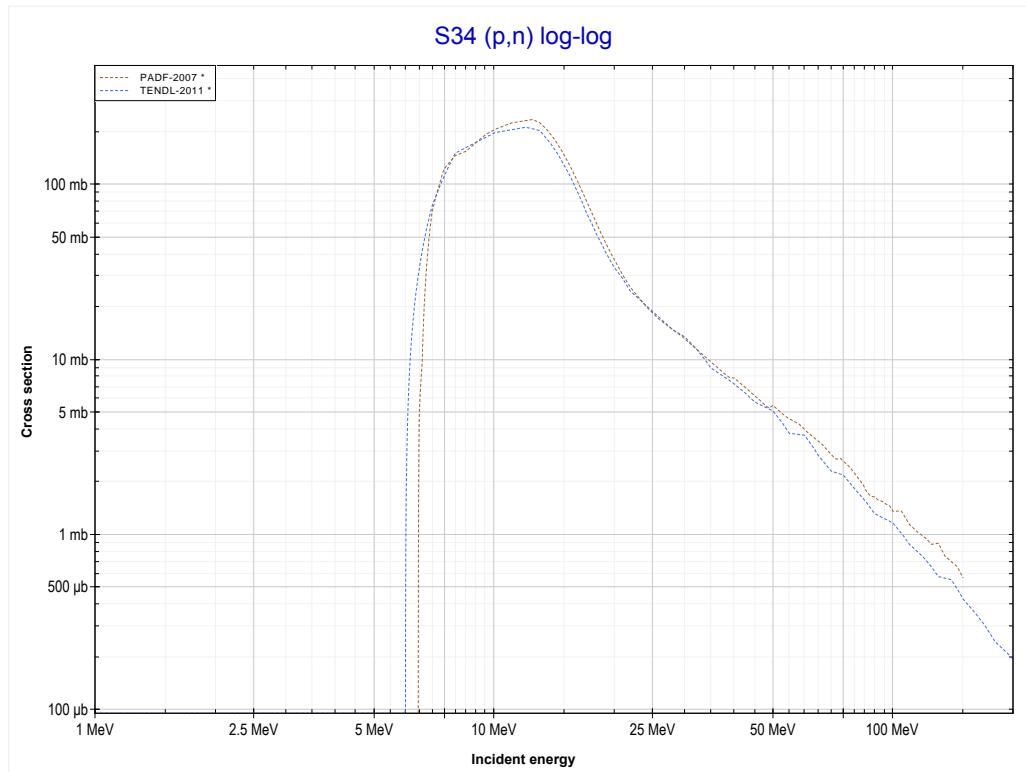
Reaction	Q-Value
Si30(p,3p)Mg28	-23992.27 keV

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



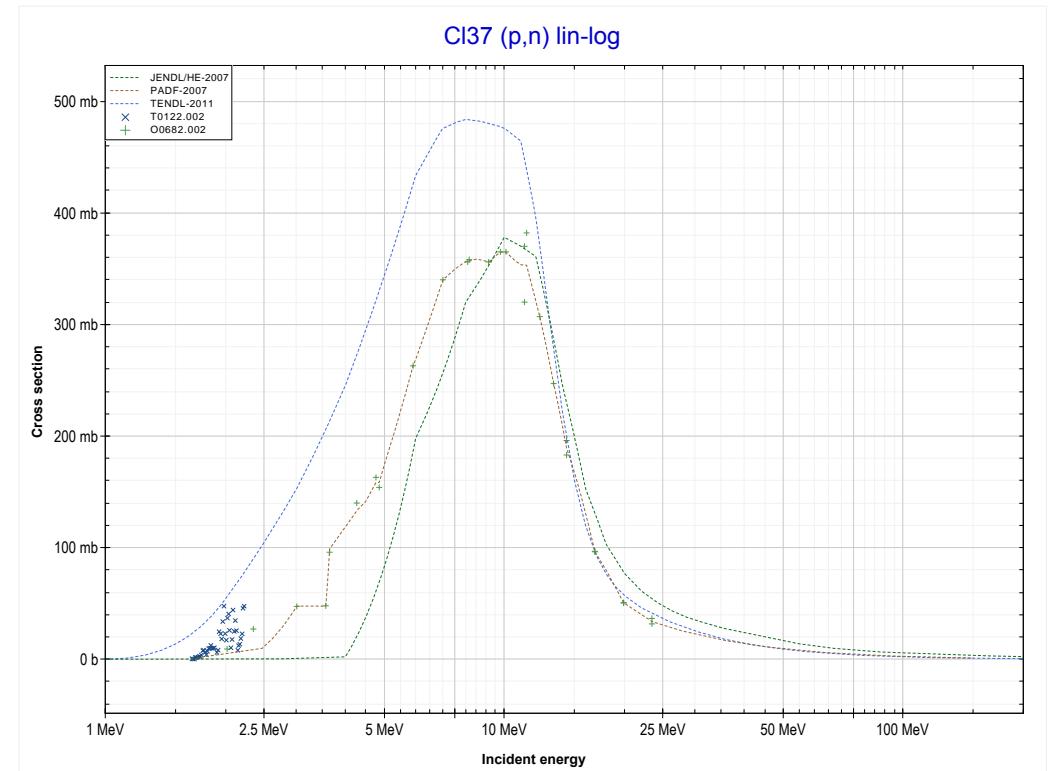
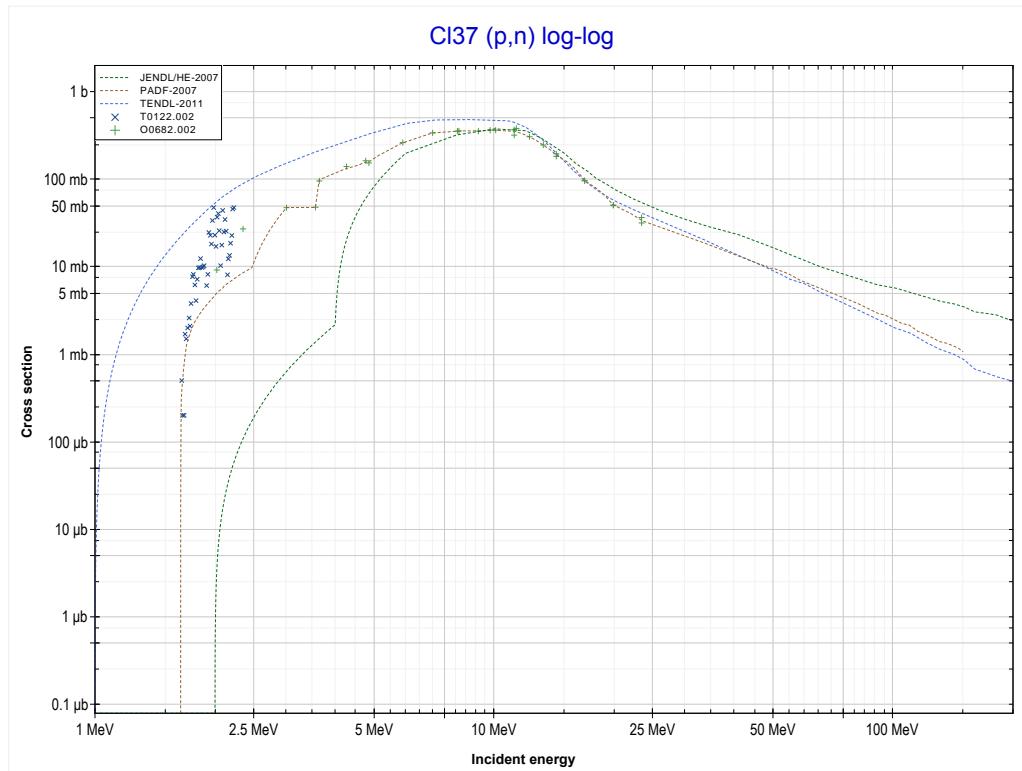
Reaction	Q-Value
P31(p,3p)Al29	-20803.52 keV

<< 13-Al-27	16-S-34 MT4 (p,n) or MT5 (Cl34 production)	>> 17-CI-37
<< MT197 (p,3p)		MT4 (p,n) >>



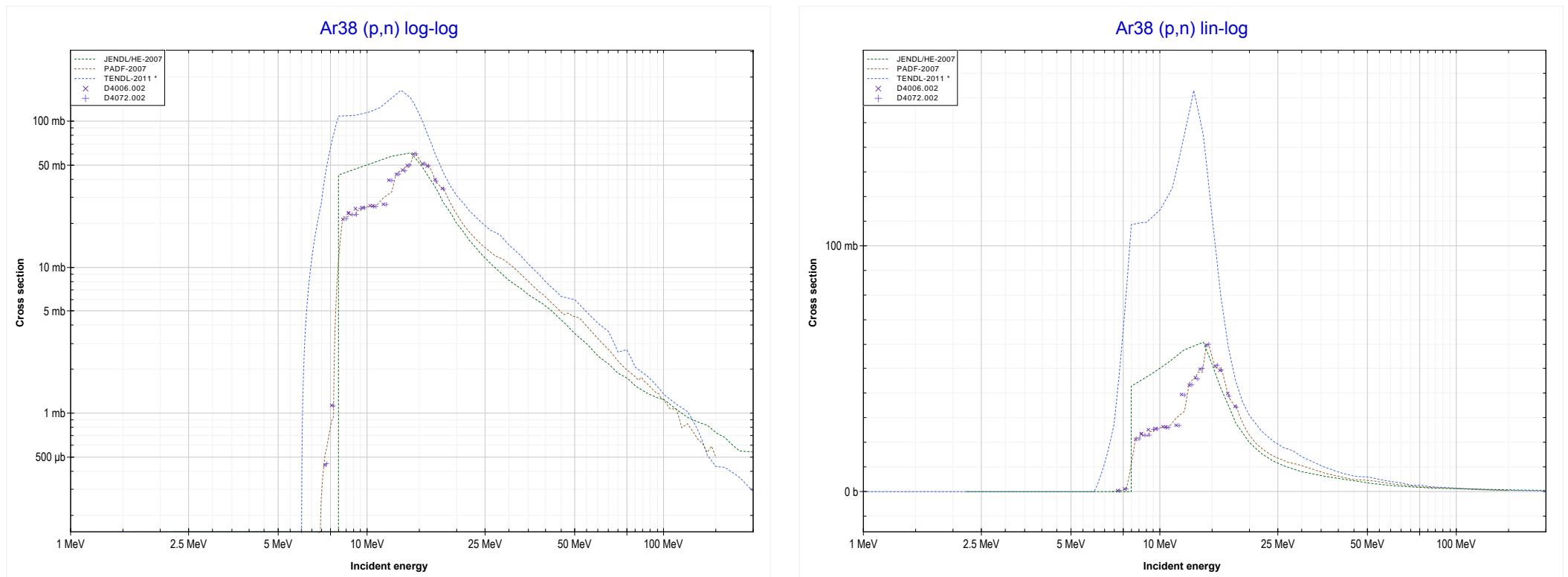
Reaction	Q-Value
$\text{S}^{34}(\text{p},\text{n})\text{Cl}^{34}$	-6274.36 keV

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



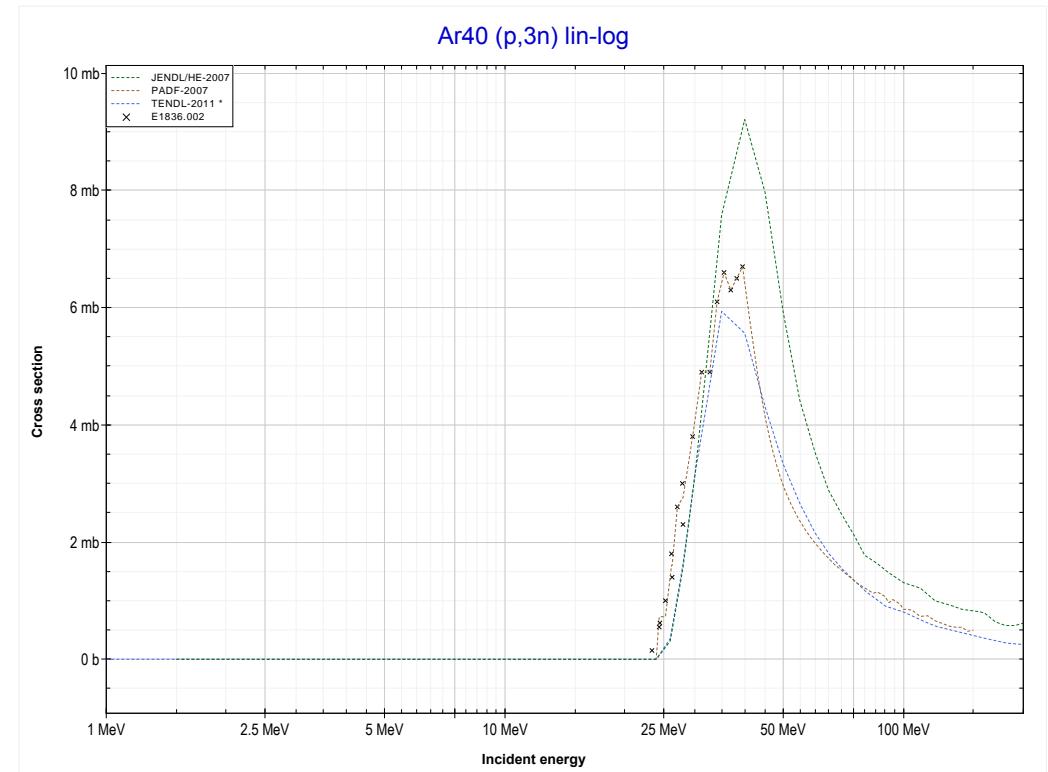
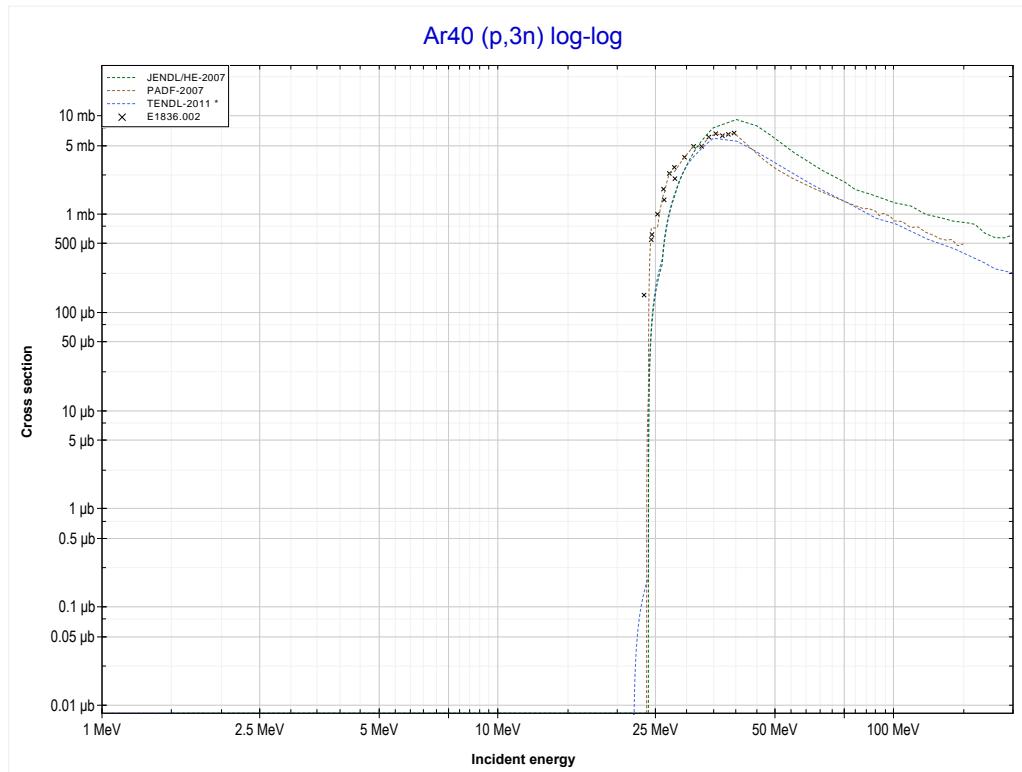
Reaction	Q-Value
Cl37(p,n)Ar37	-1596.22 keV

<< 17-CI-37	18-Ar-38 MT4 (p,n) or MT5 (K38 production)	19-K-41 >>
<< MT4 (p,n)		MT17 (p,3n) >>



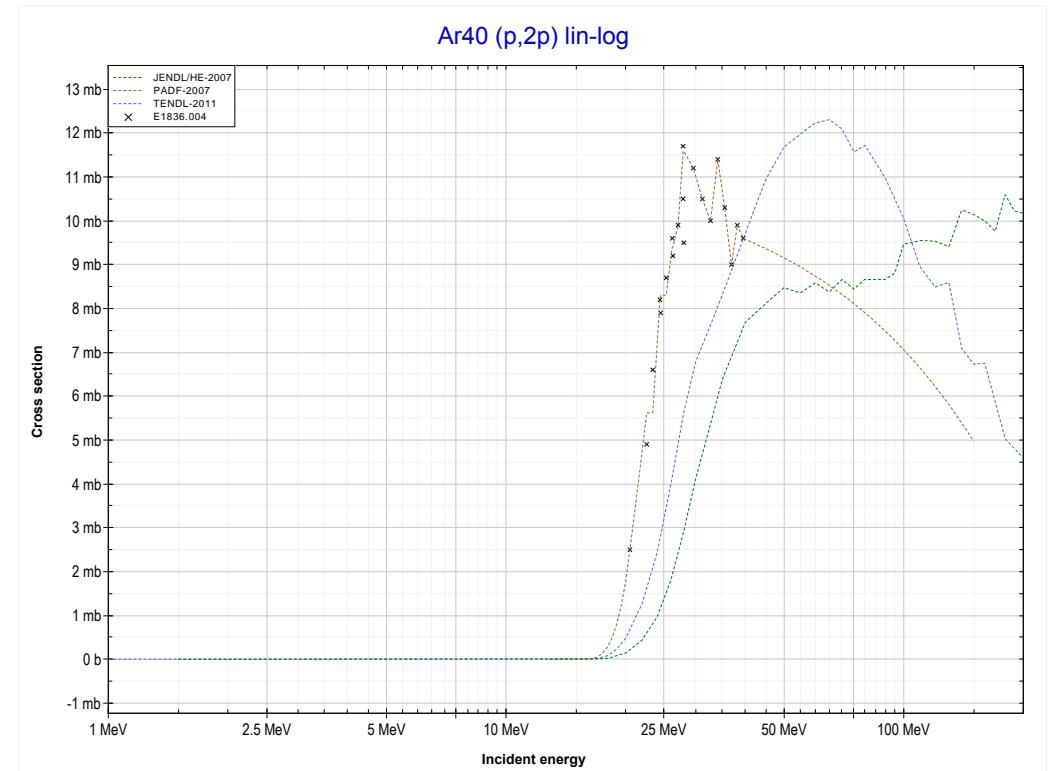
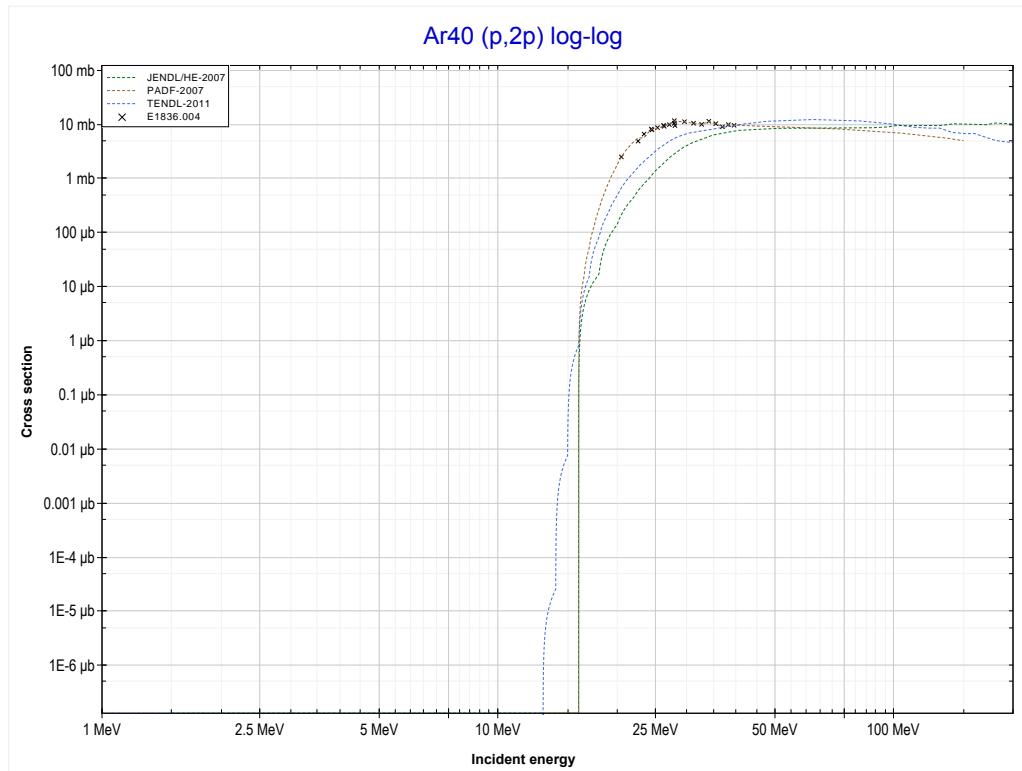
Reaction	Q-Value
Ar38(p,n)K38	-6696.25 keV

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



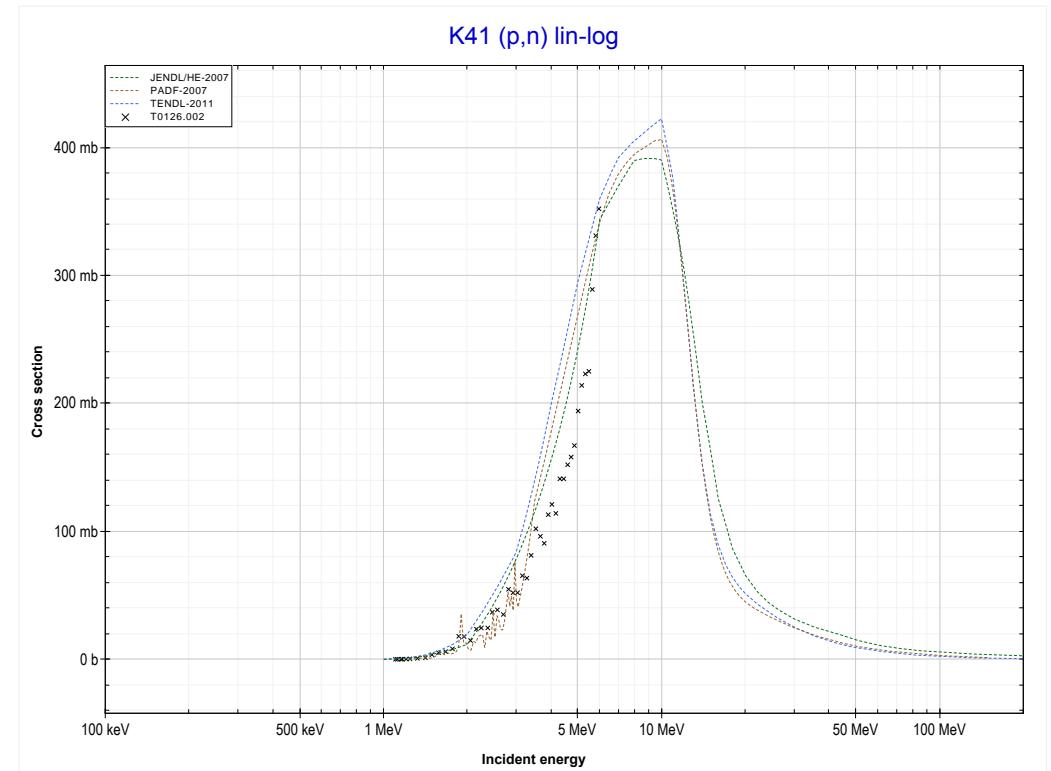
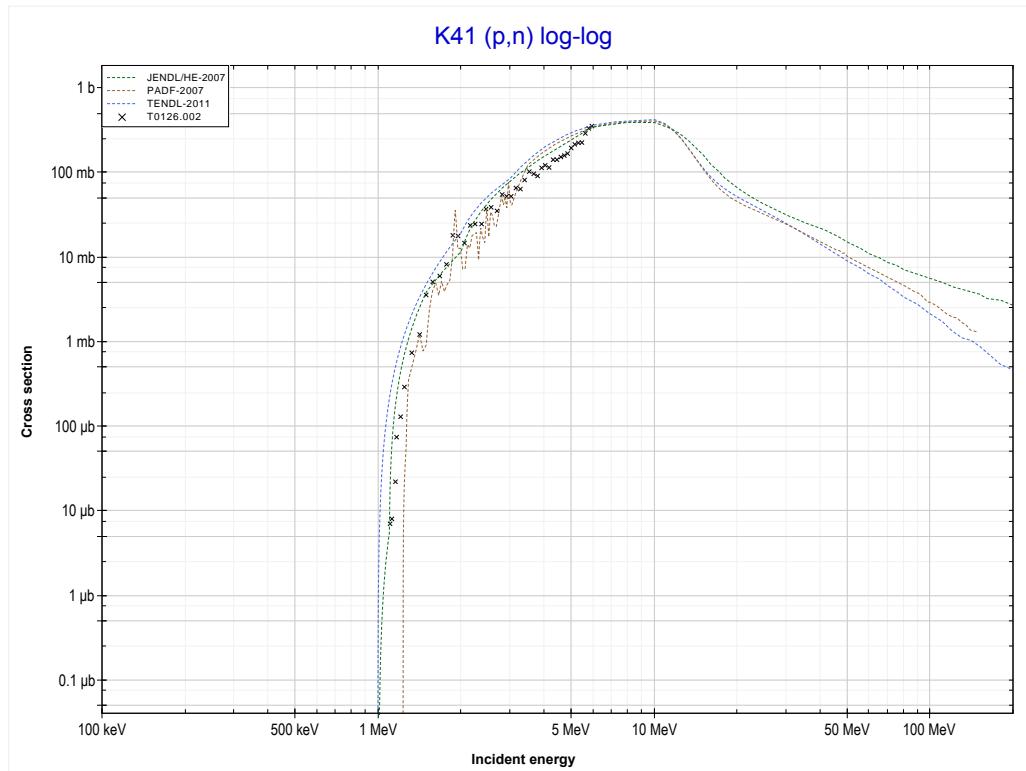
Reaction	Q-Value
Ar40(p,3n)K38	-23164.18 keV

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



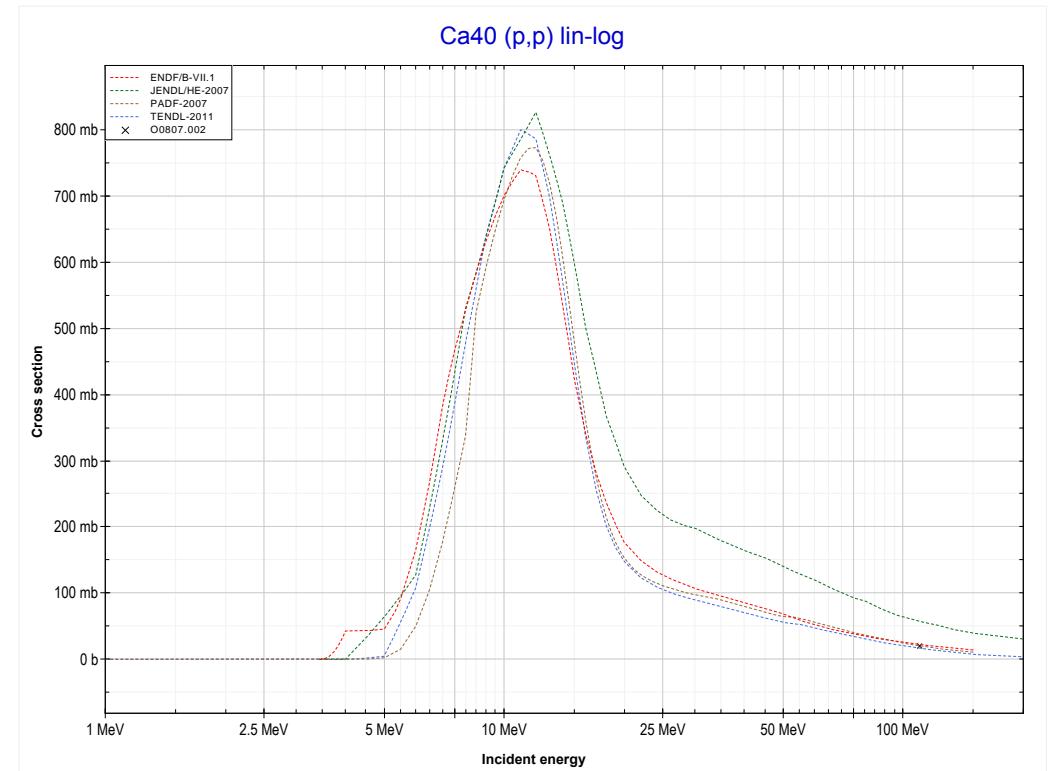
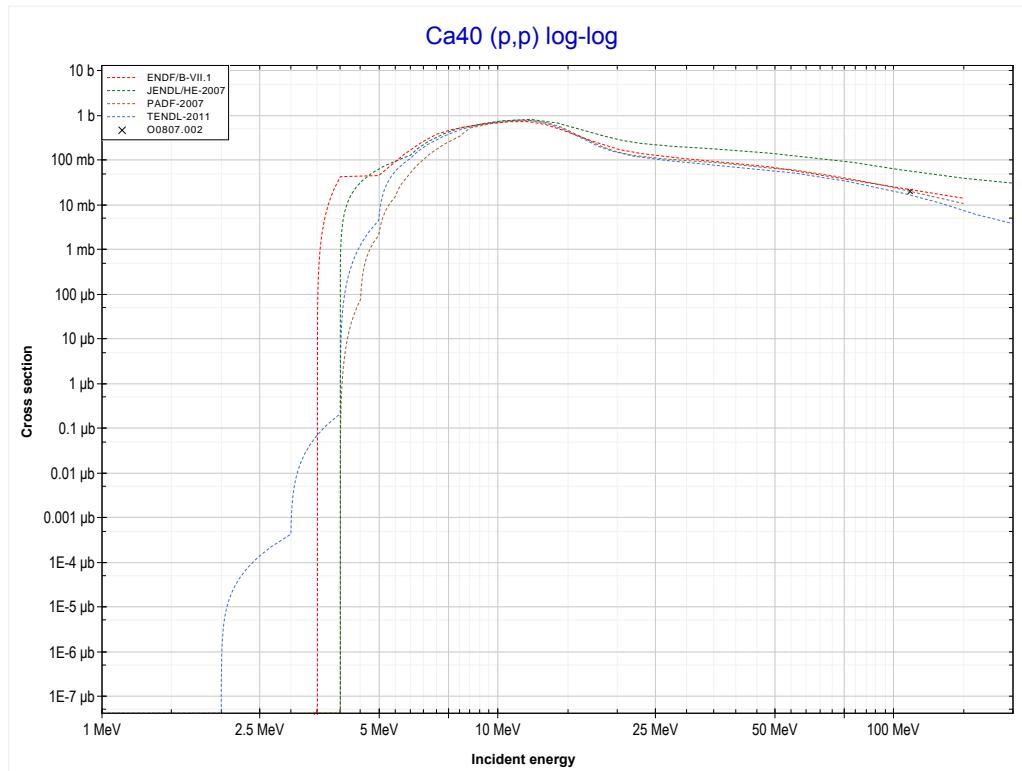
Reaction	Q-Value
Ar40(p,2p)Cl39	-12528.67 keV

<< 18-Ar-38	19-K-41 MT4 (p,n) or MT5 (Ca41 production)	20-Ca-43 >>
<< MT111 (p,2p)		MT103 (p,p) >>

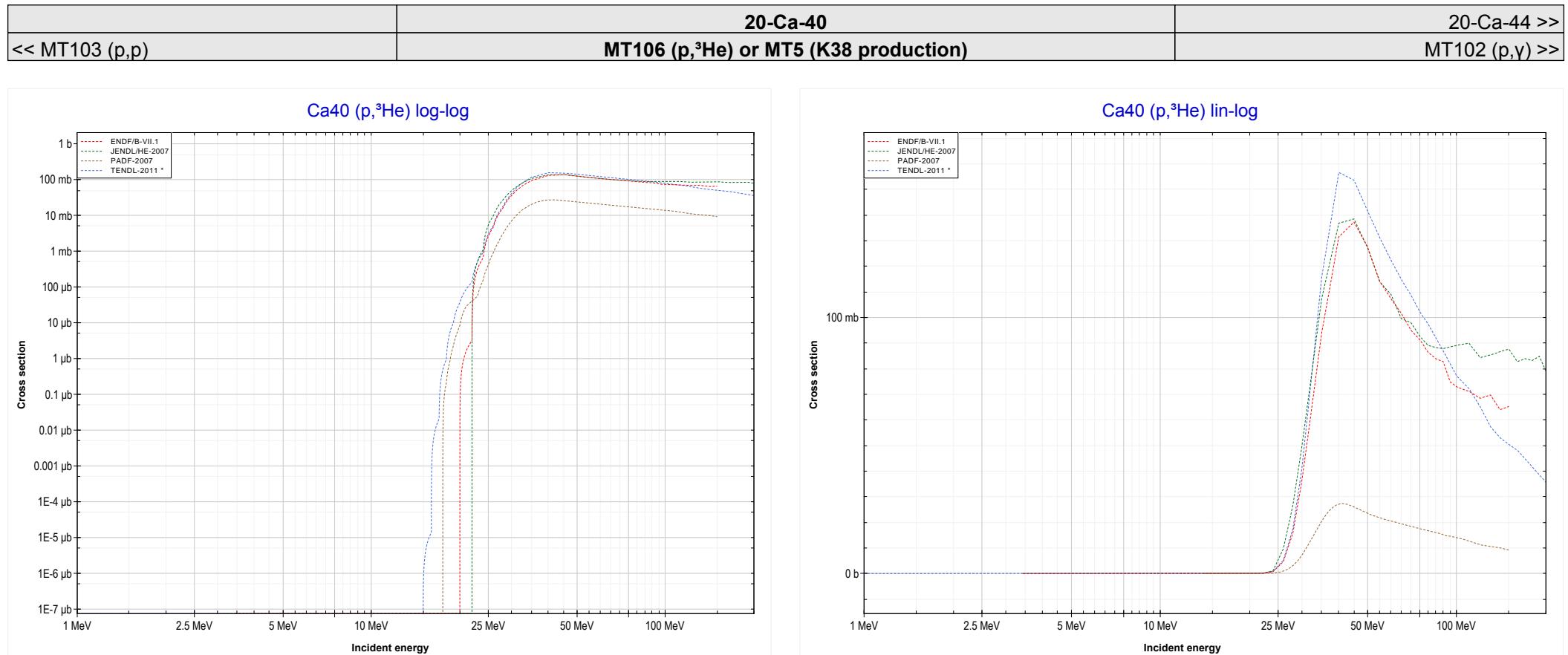


Reaction	Q-Value
K41(p,n)Ca41	-1203.66 keV

<< 14-Si-28	20-Ca-40 MT103 (p,p) or MT5 (Ca40 production)	28-Ni-58 >>
<< MT4 (p,n)		MT106 (p, ${}^3\text{He}$) >>

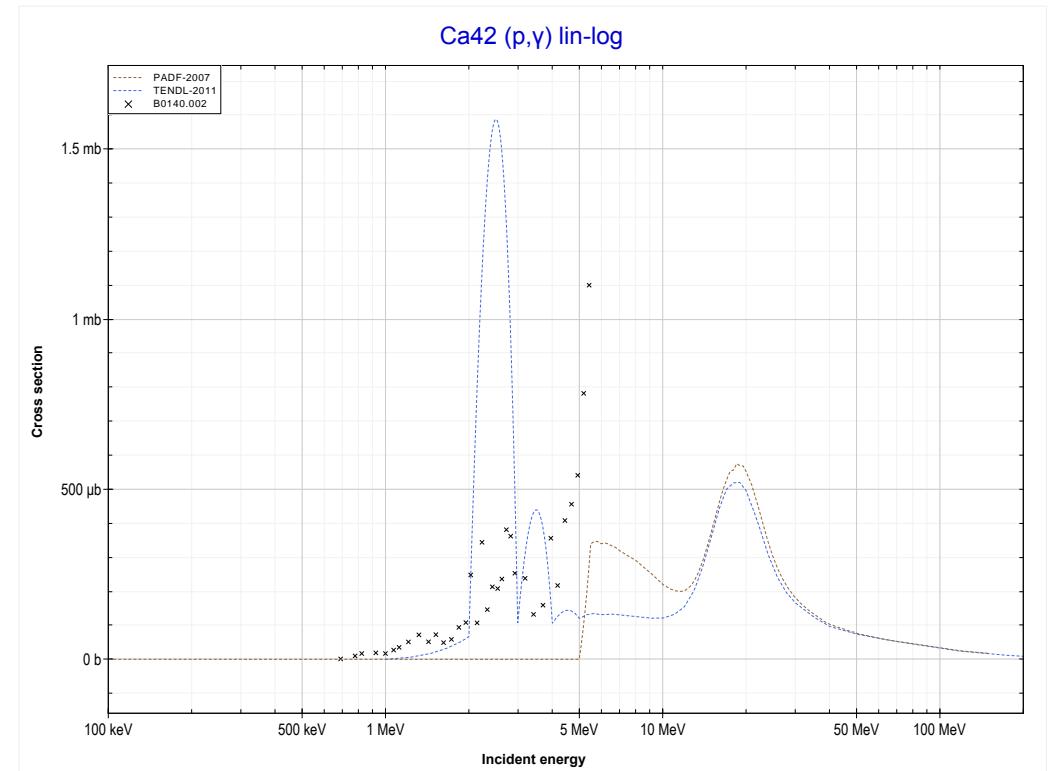
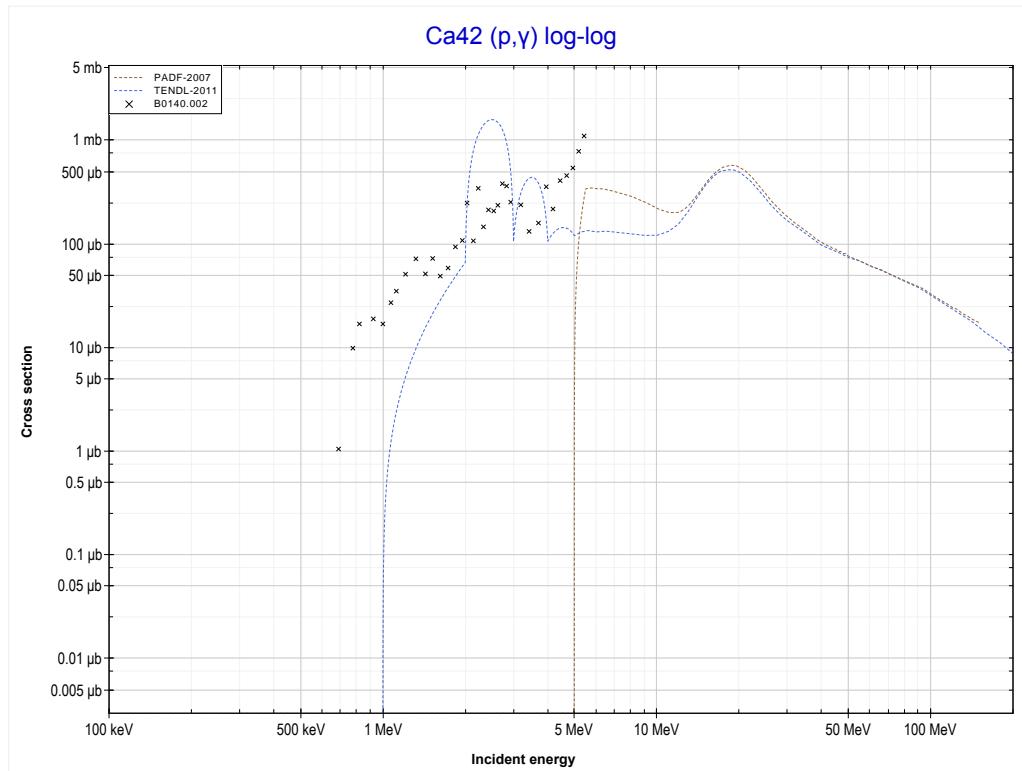


Reaction	Q-Value
Ca40(p,p)Ca40	0.00 keV



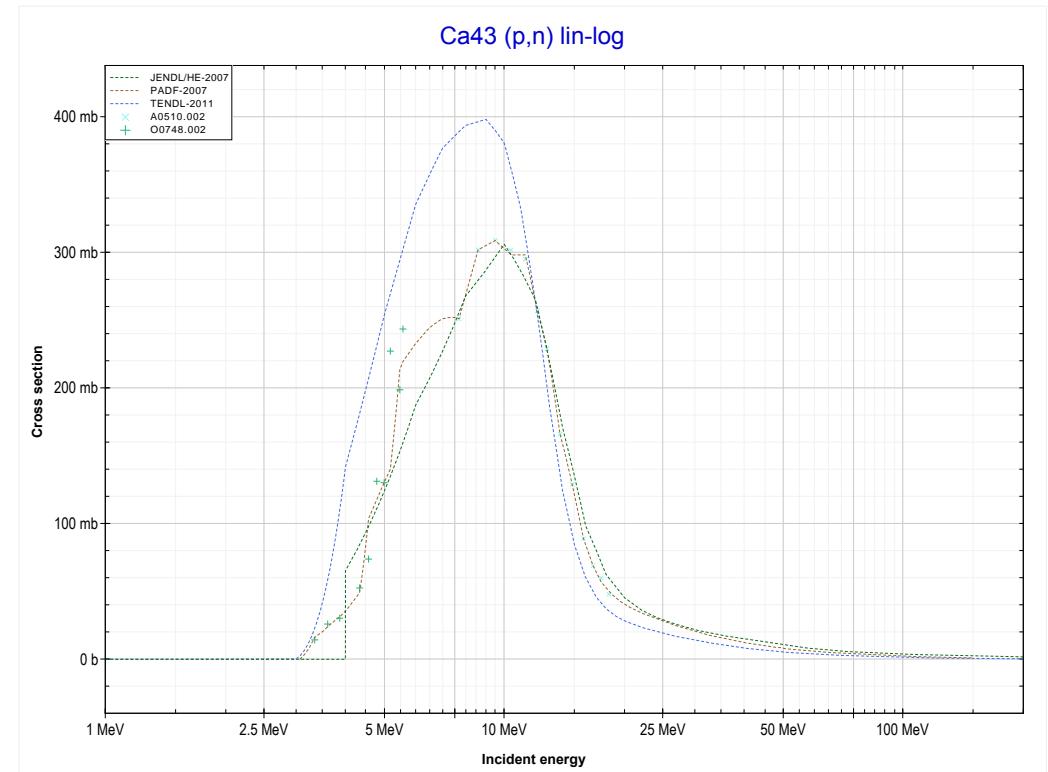
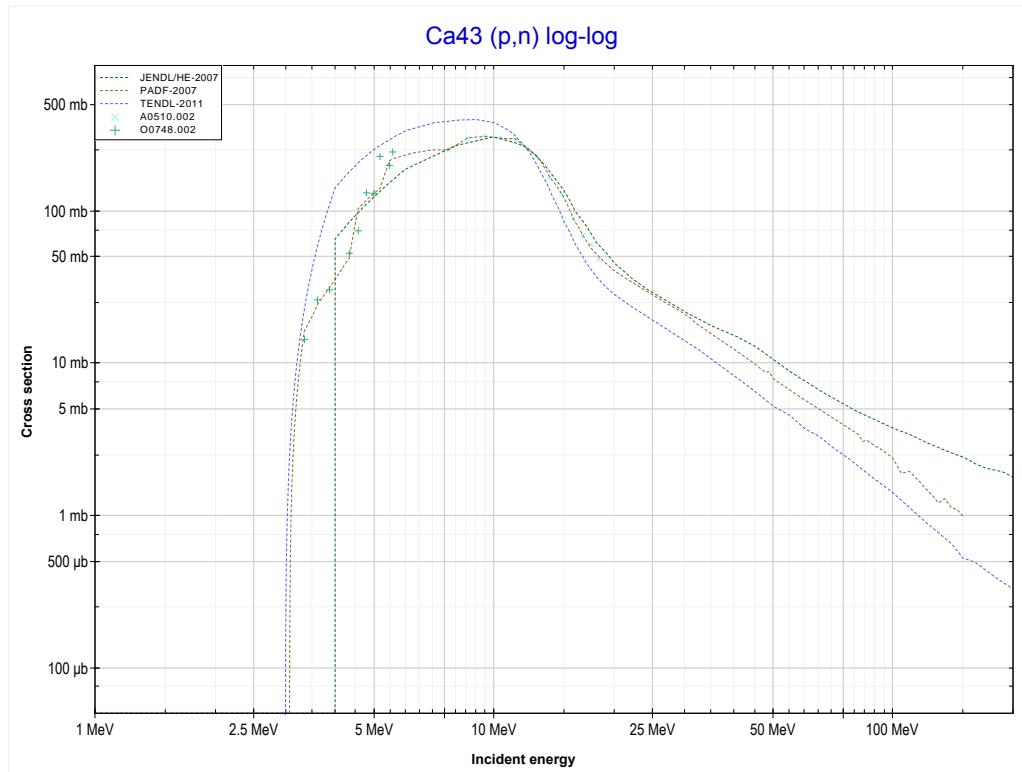
Reaction	Q-Value
Ca40(p,He3)K38	-13687.81 keV
Ca40(p,p+d)K38	-19181.29 keV
Ca40(p,n+2p)K38	-21405.86 keV

<< 9-F-19	20-Ca-42 MT102 (p, γ) or MT5 (Sc43 production)	20-Ca-44 >>
<< MT106 (p, ^3He)		MT4 (p,n) >>



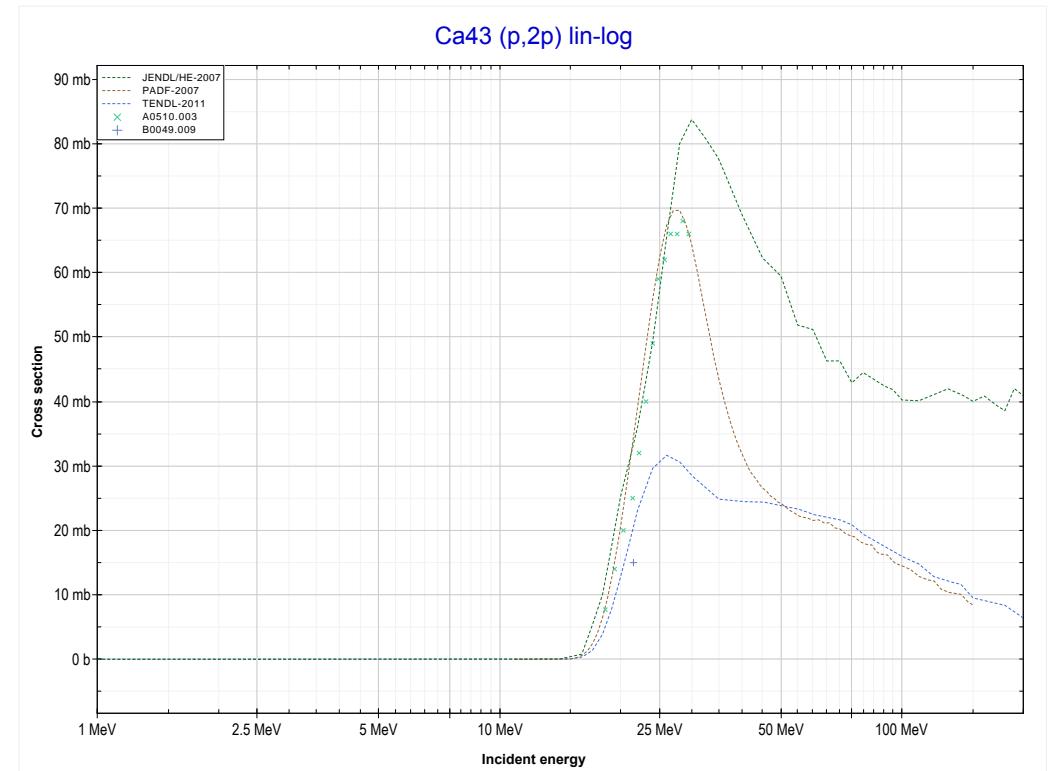
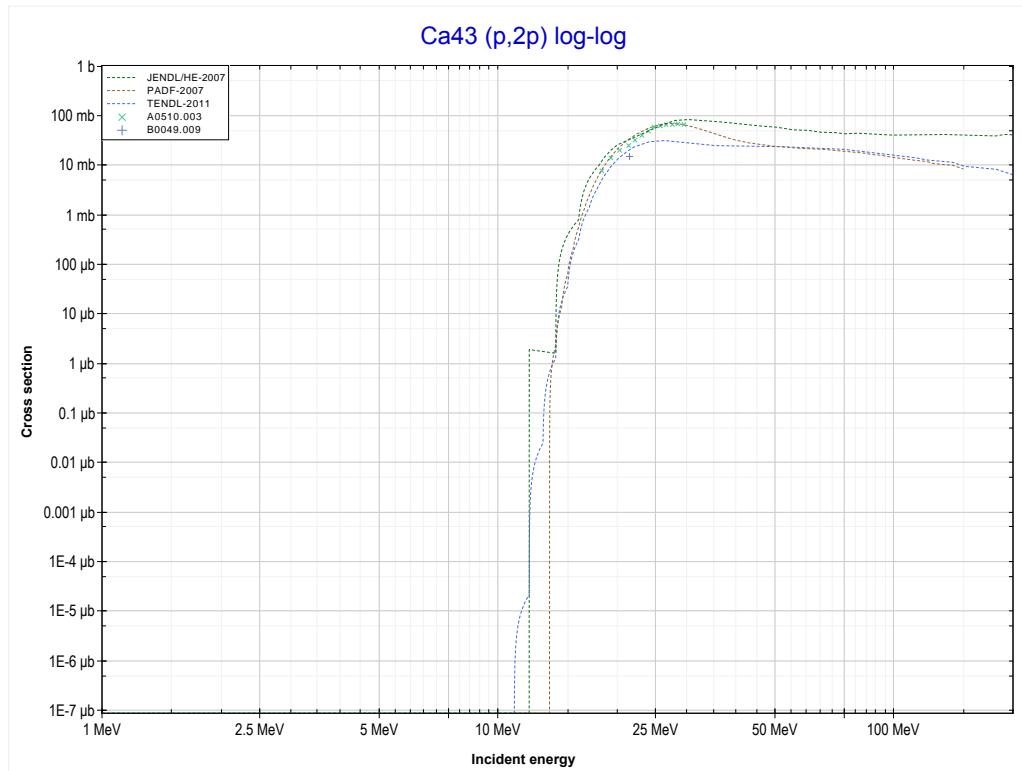
Reaction	Q-Value
Ca42(p, γ)Sc43	4929.80 keV

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



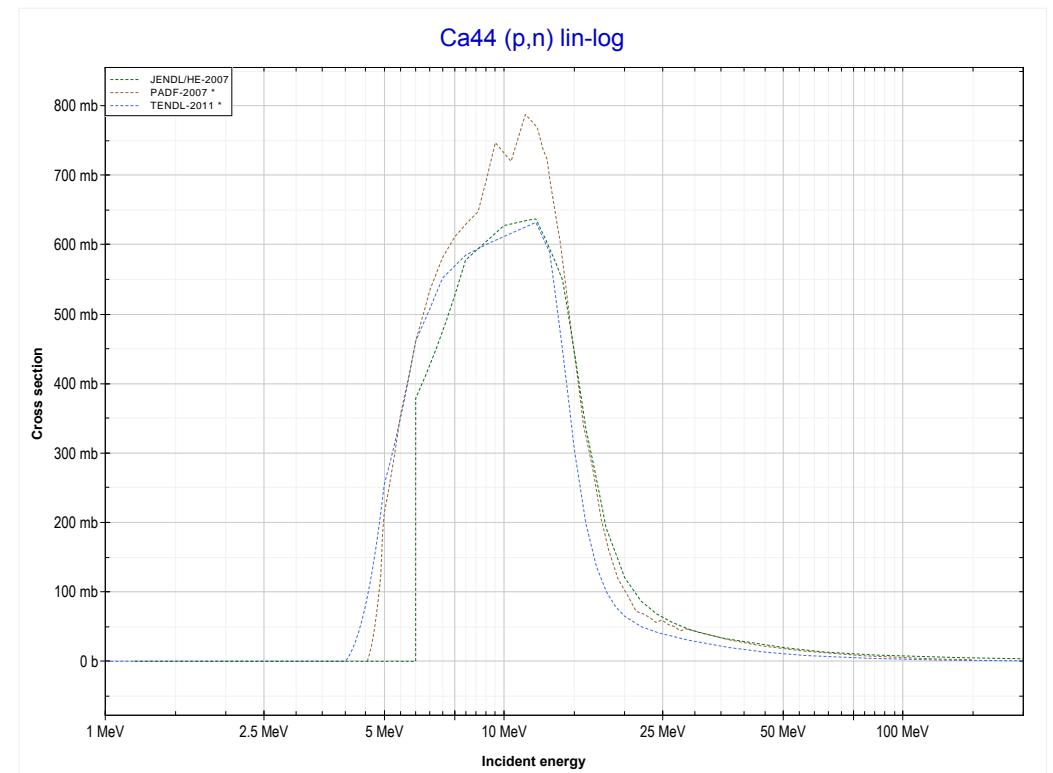
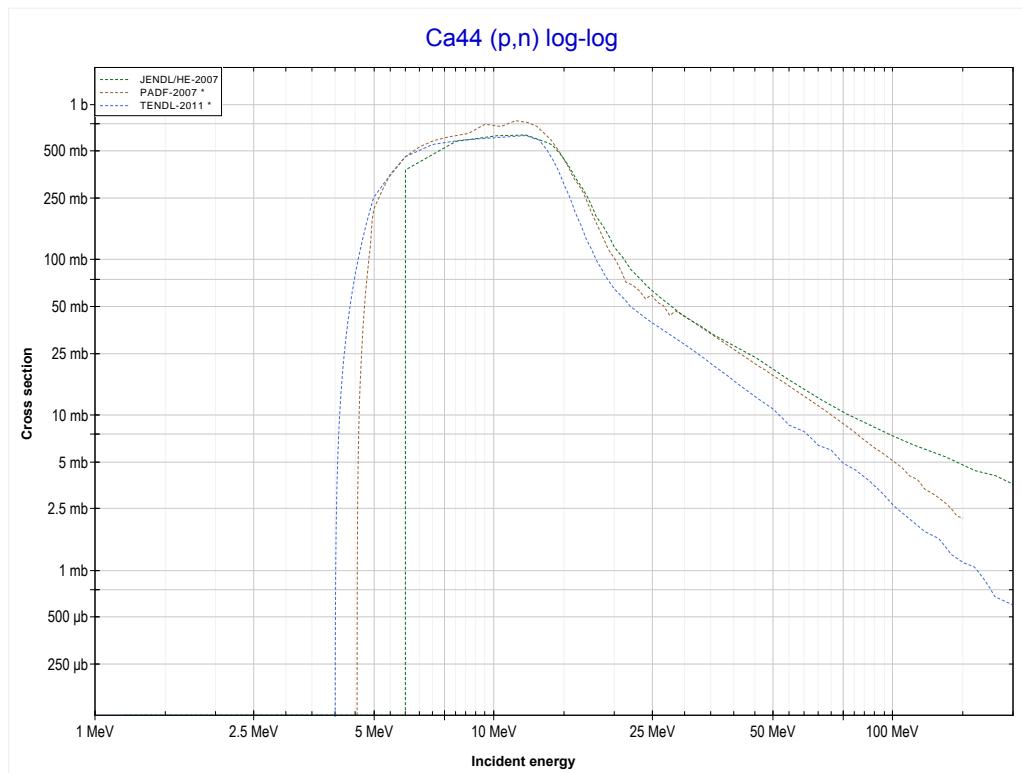
Reaction	Q-Value
Ca43(p,n)Sc43	-3003.05 keV

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



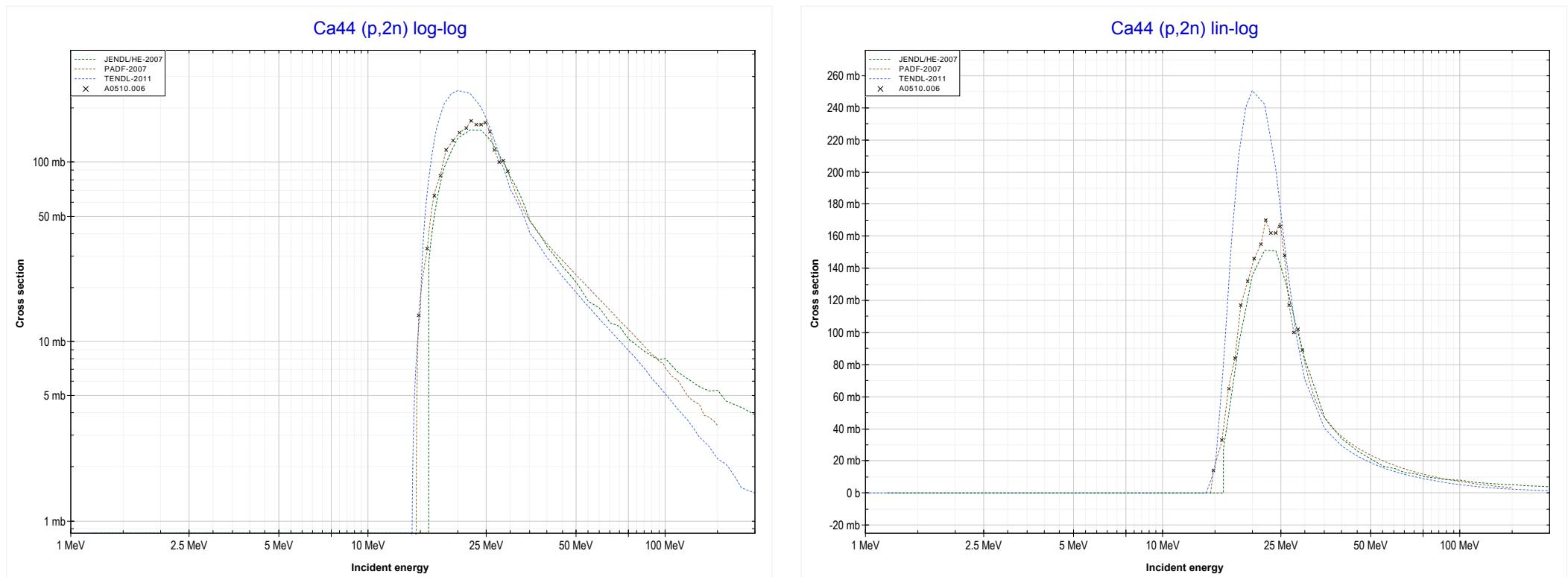
Reaction	Q-Value
Ca43(p,2p)K42	-10676.01 keV

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



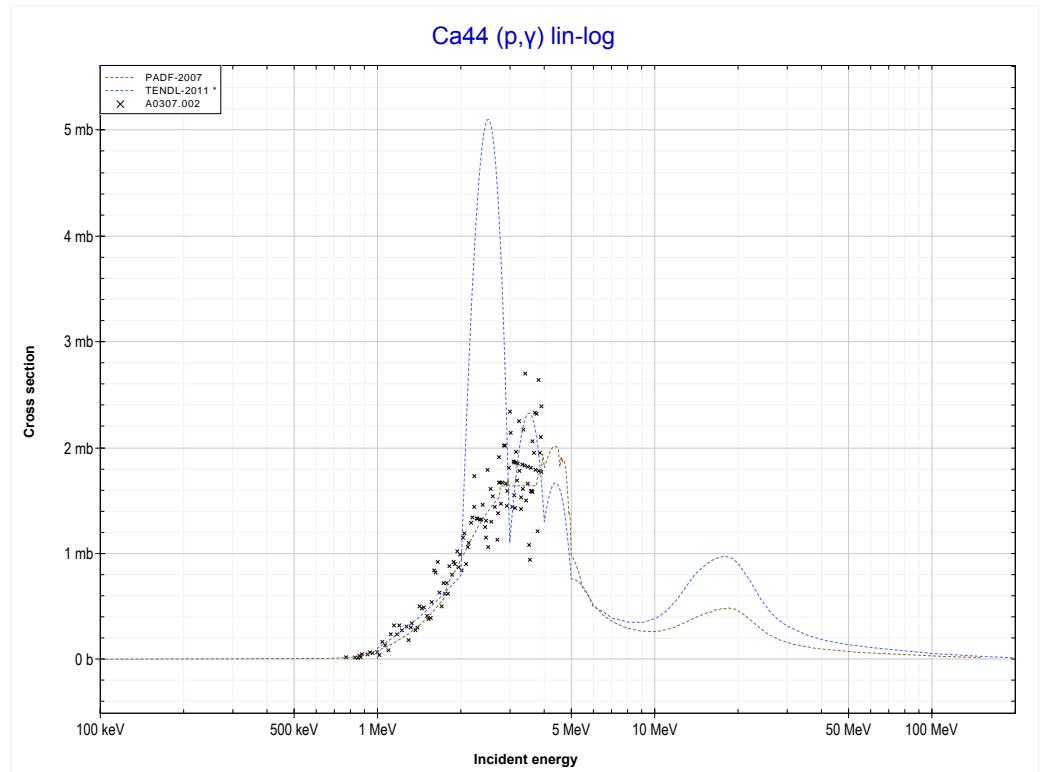
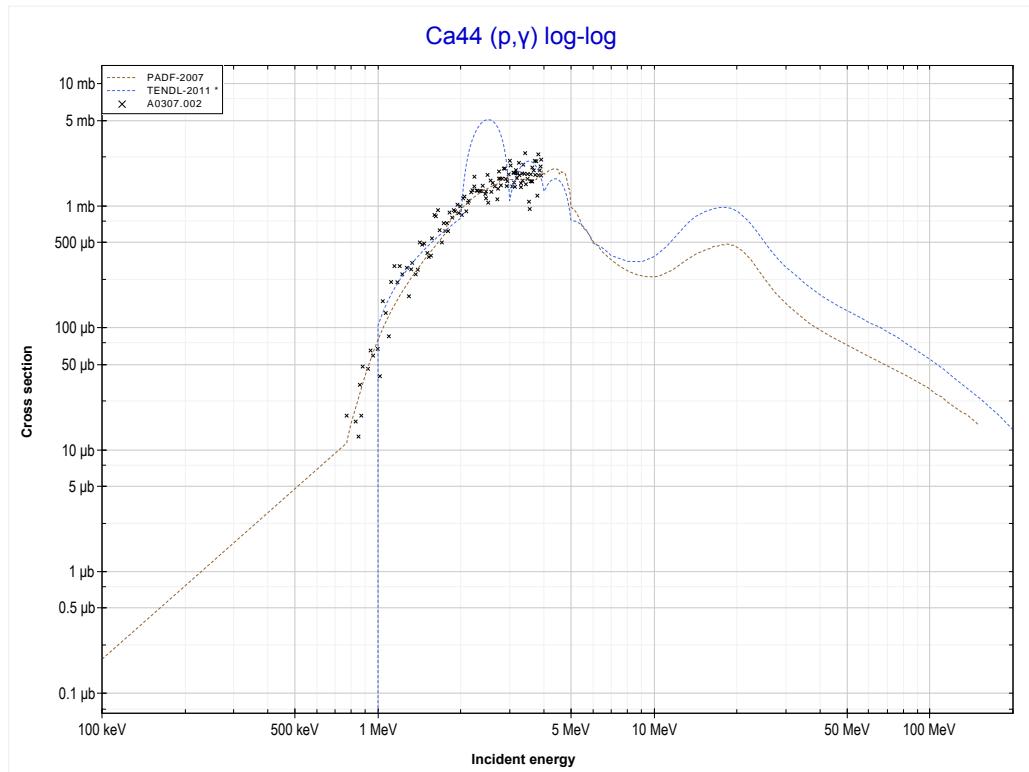
Reaction	Q-Value
Ca44(p,n)Sc44	-4434.75 keV

<< 11-Na-23	20-Ca-44 MT16 (p,2n) or MT5 (Sc43 production)	20-Ca-48 >>
<< MT4 (p,n)		MT102 (p,y) >>

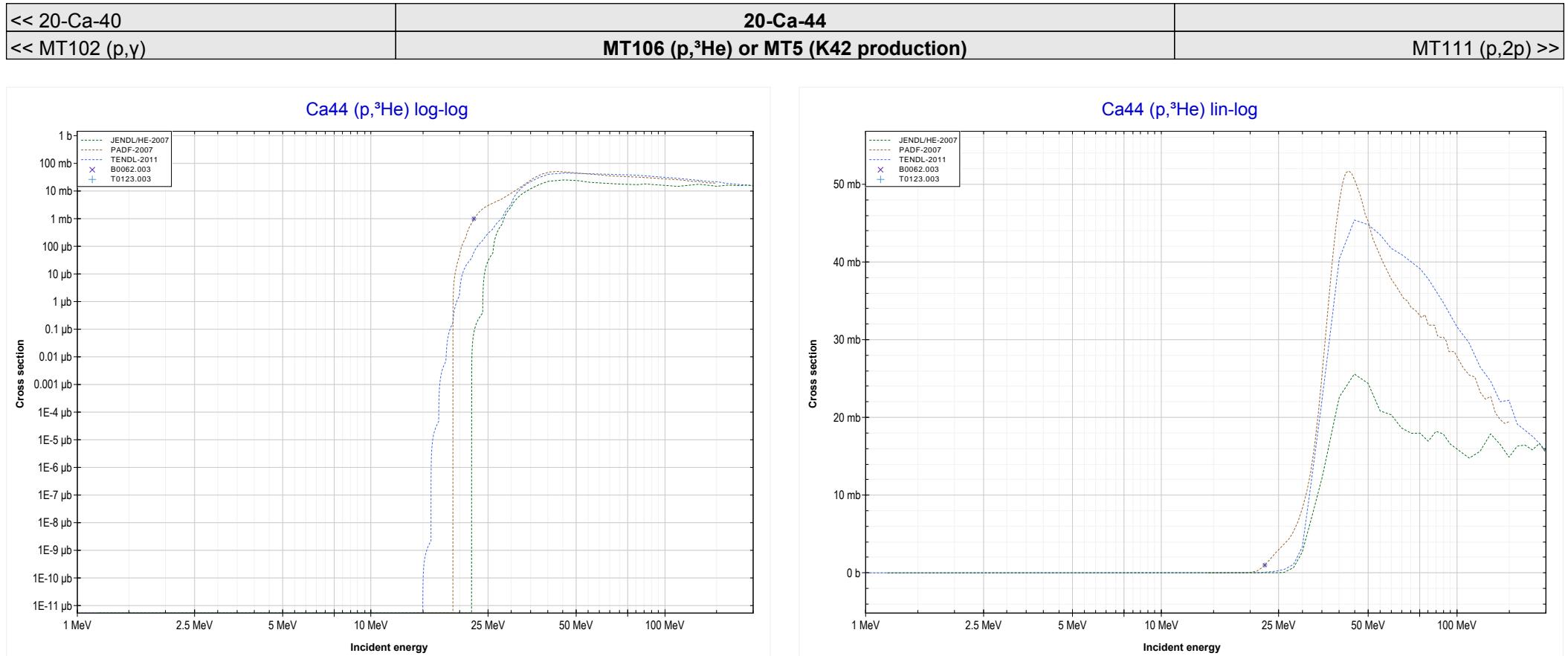


Reaction	Q-Value
Ca44(p,2n)Sc43	-14134.26 keV

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

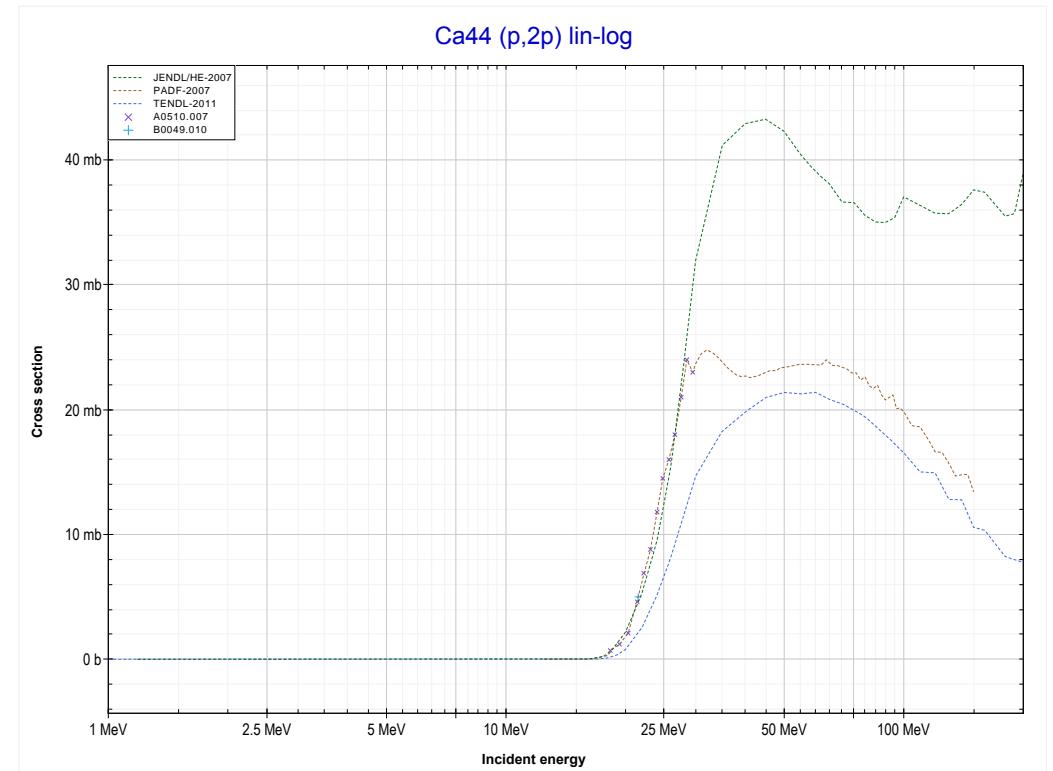
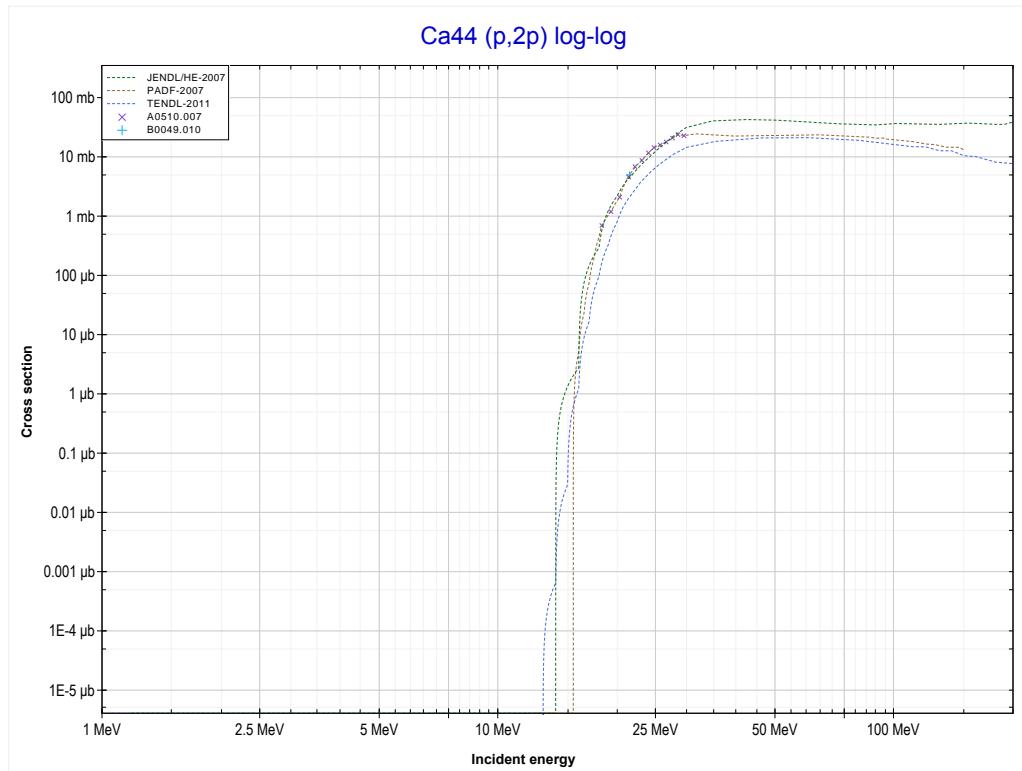


Reaction	Q-Value
Ca44(p, γ)Sc45	6888.27 keV



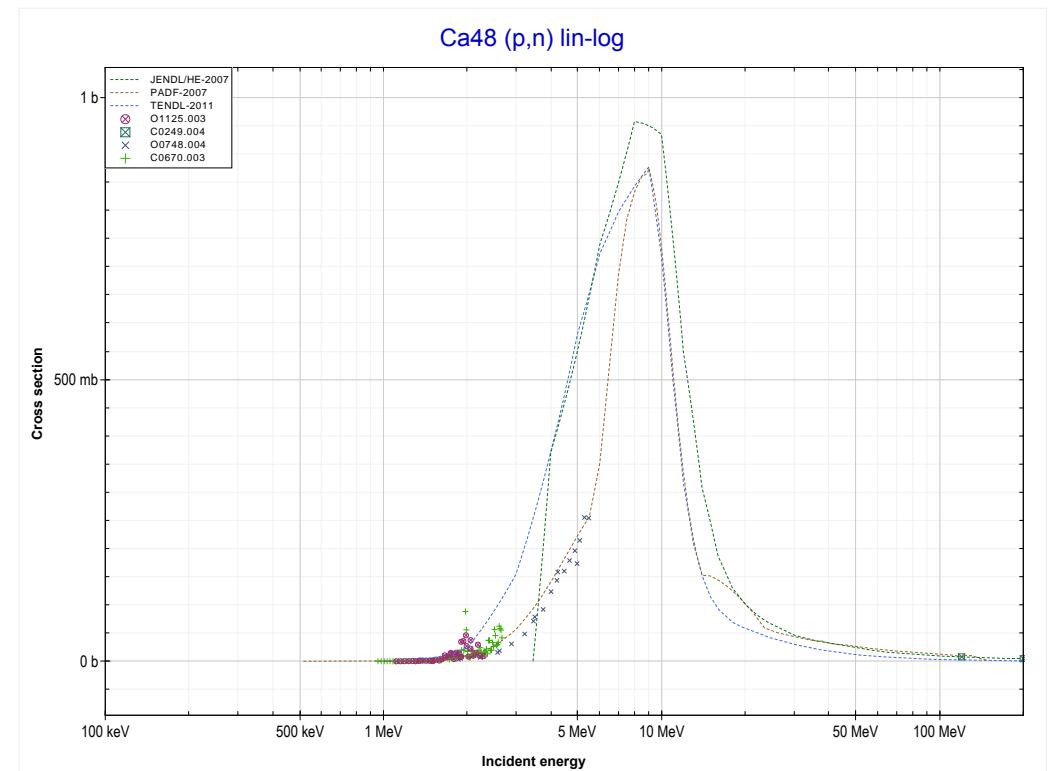
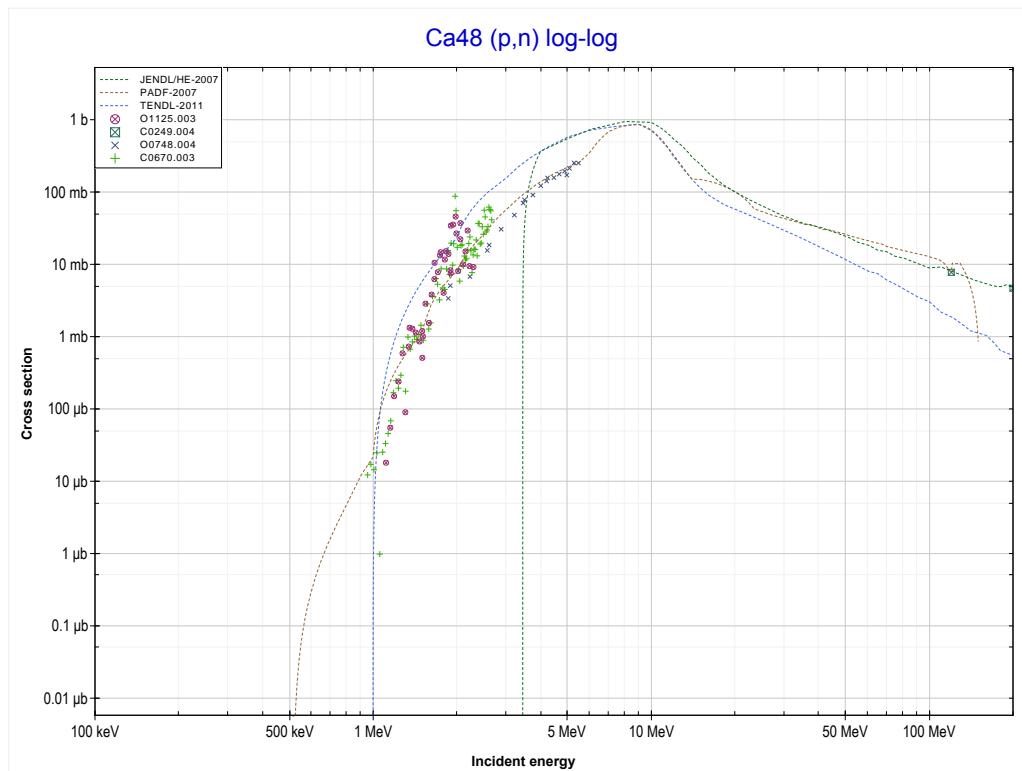
Reaction	Q-Value
Ca44(p,He3)K42	-14089.18 keV
Ca44(p,p+d)K42	-19582.66 keV
Ca44(p,n+2p)K42	-21807.23 keV

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



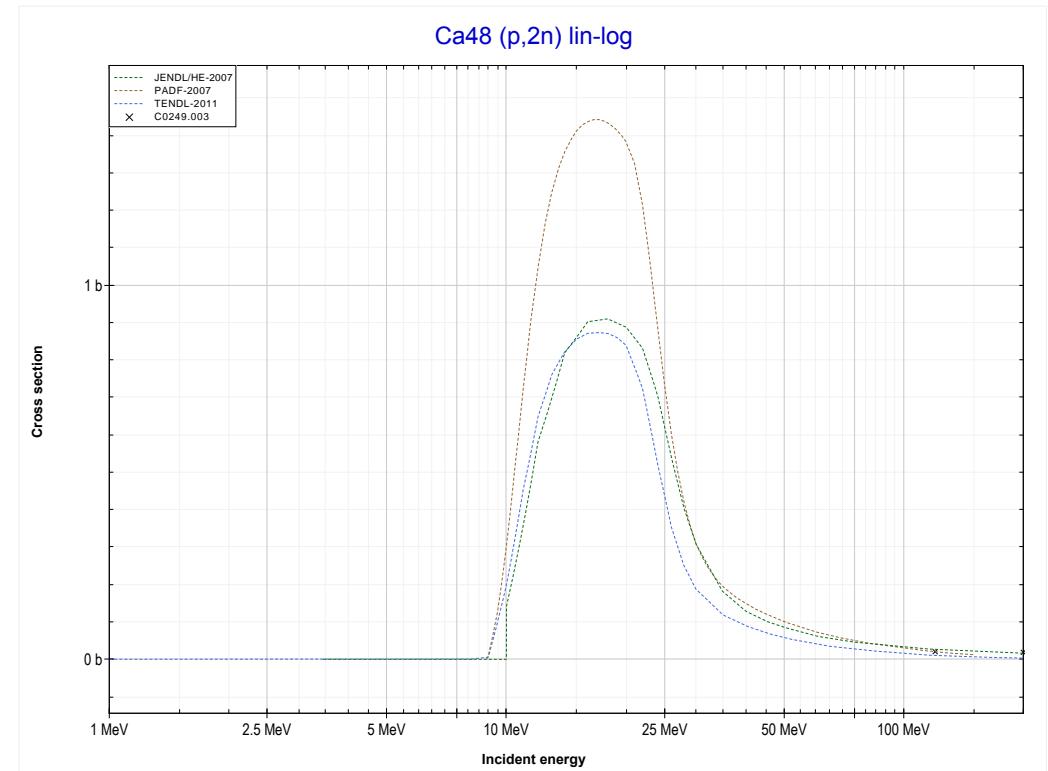
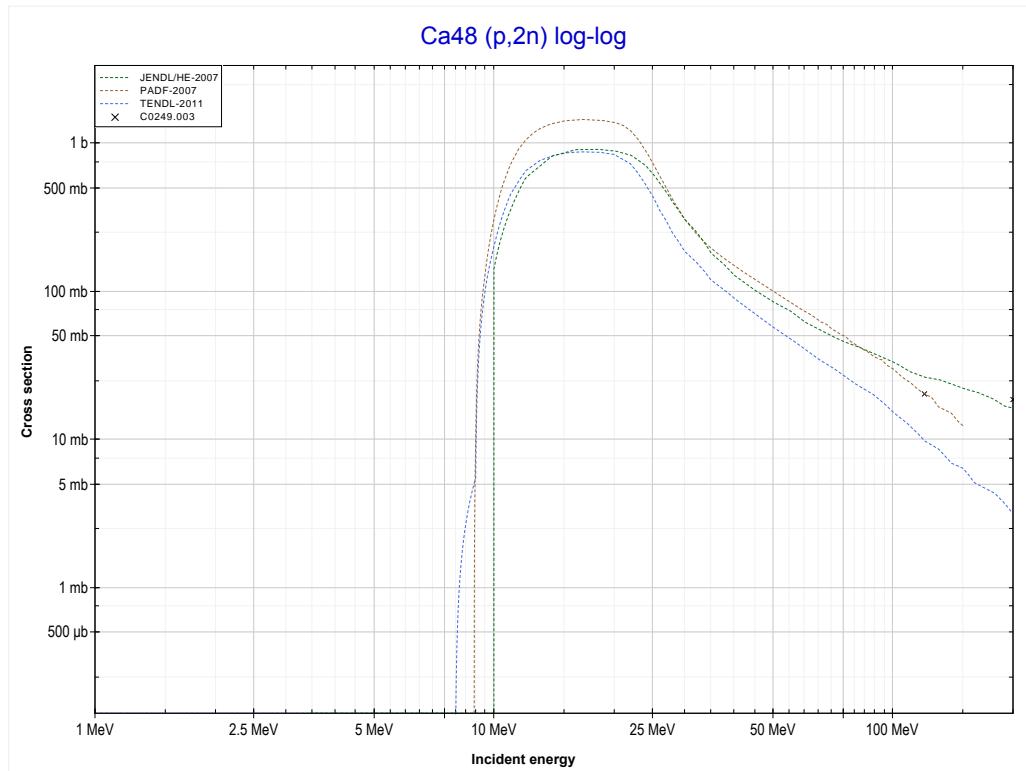
Reaction	Q-Value
Ca44(p,2p)K43	-12164.47 keV

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



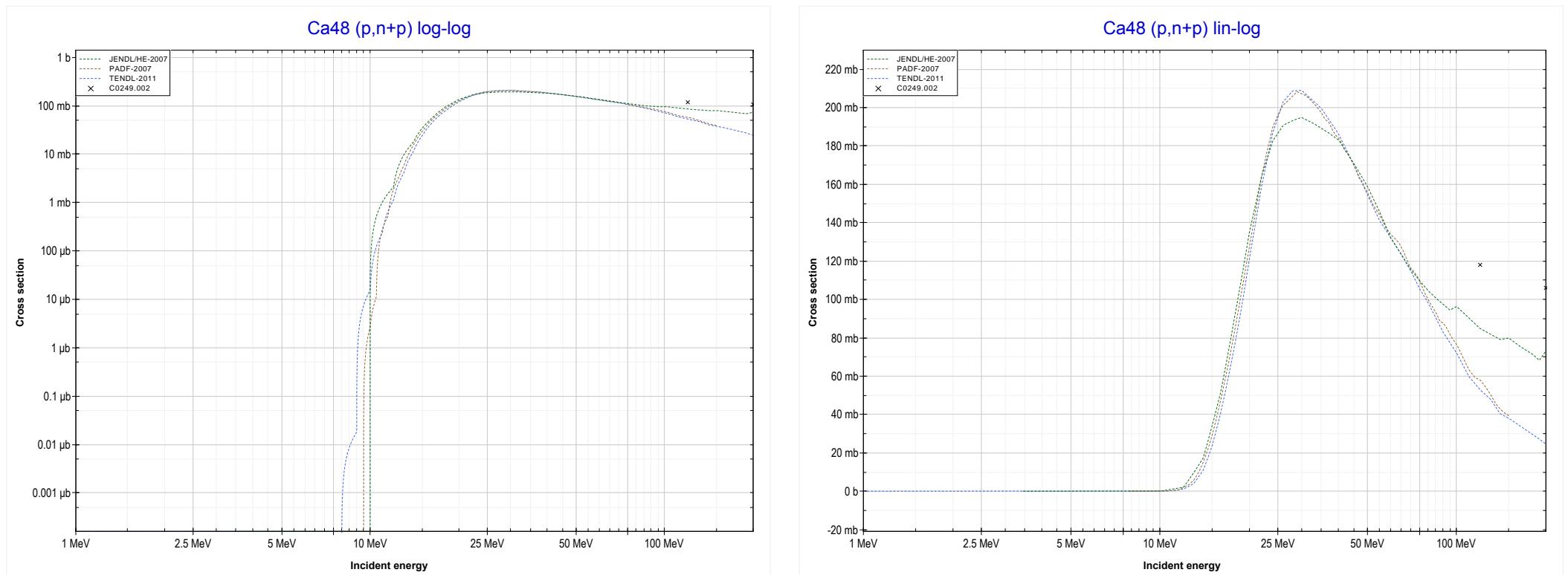
Reaction	Q-Value
$\text{Ca}^{48}(\text{p},\text{n})\text{Sc}^{48}$	-500.35 keV

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



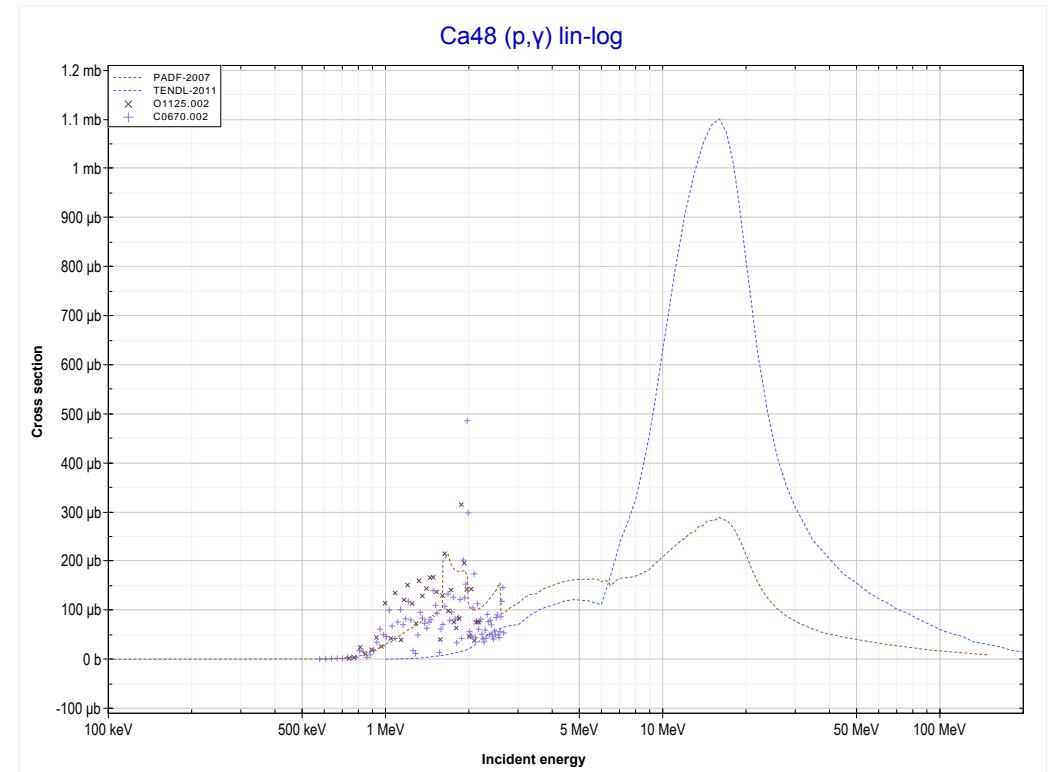
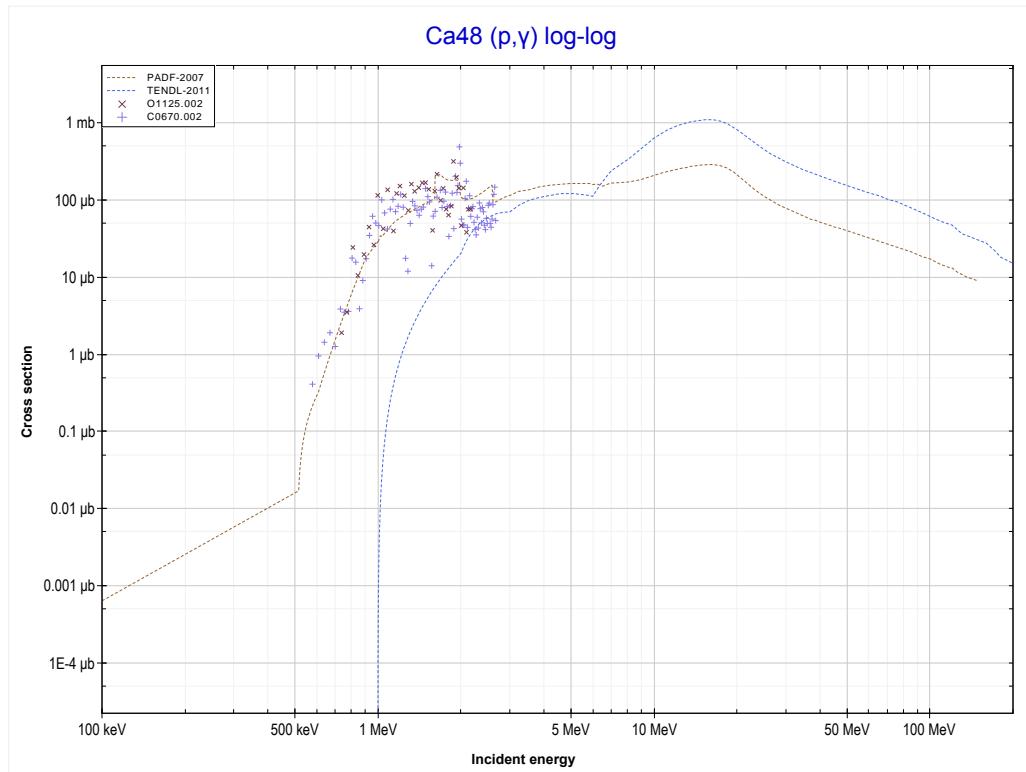
Reaction	Q-Value
Ca48(p,2n)Sc47	-8735.56 keV

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



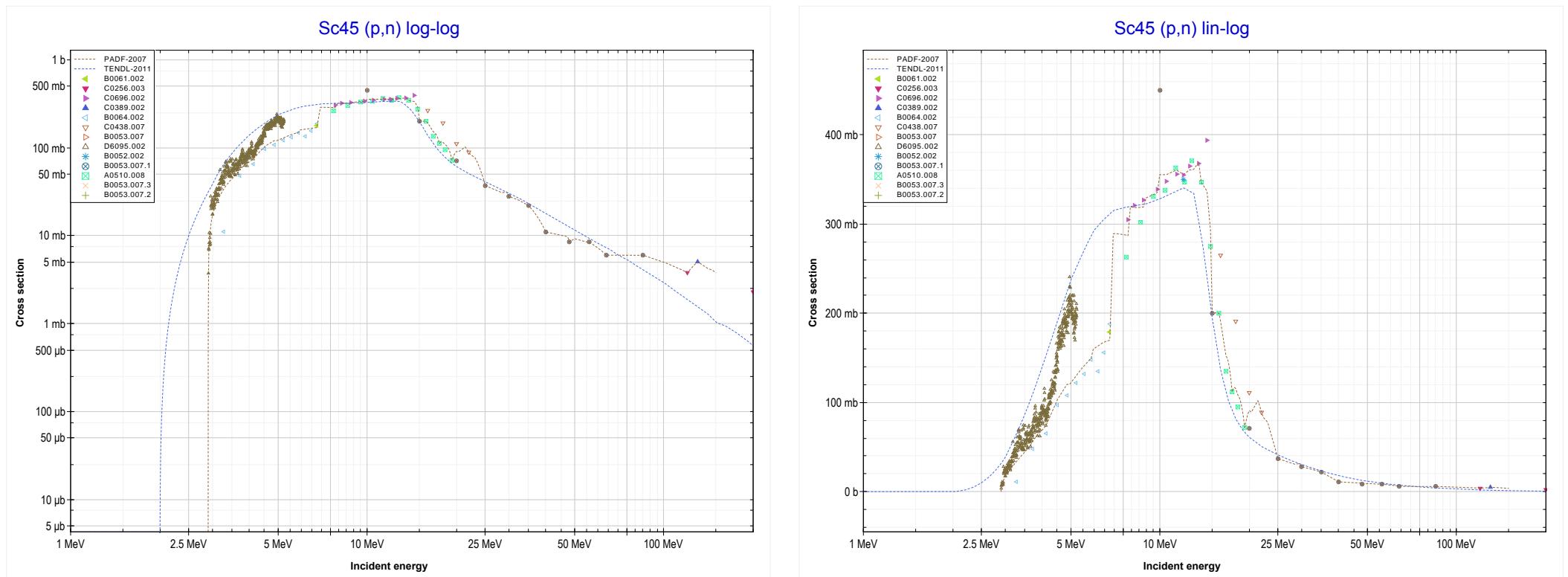
Reaction	Q-Value
Ca48(p,d)Ca47	-7720.65 keV
Ca48(p,n+p)Ca47	-9945.22 keV

<< 20-Ca-44	20-Ca-48 MT102 (p, γ) or MT5 (Sc49 production)	22-Ti-49 >>
<< MT28 (p,n+p) >>		MT4 (p,n) >>



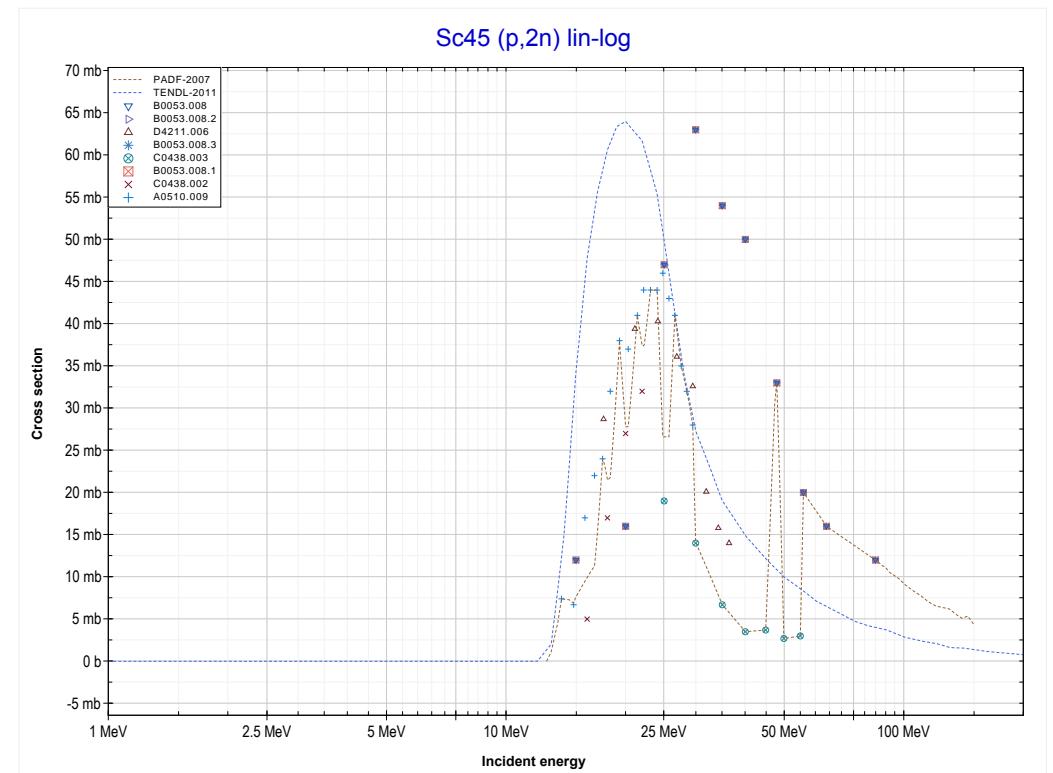
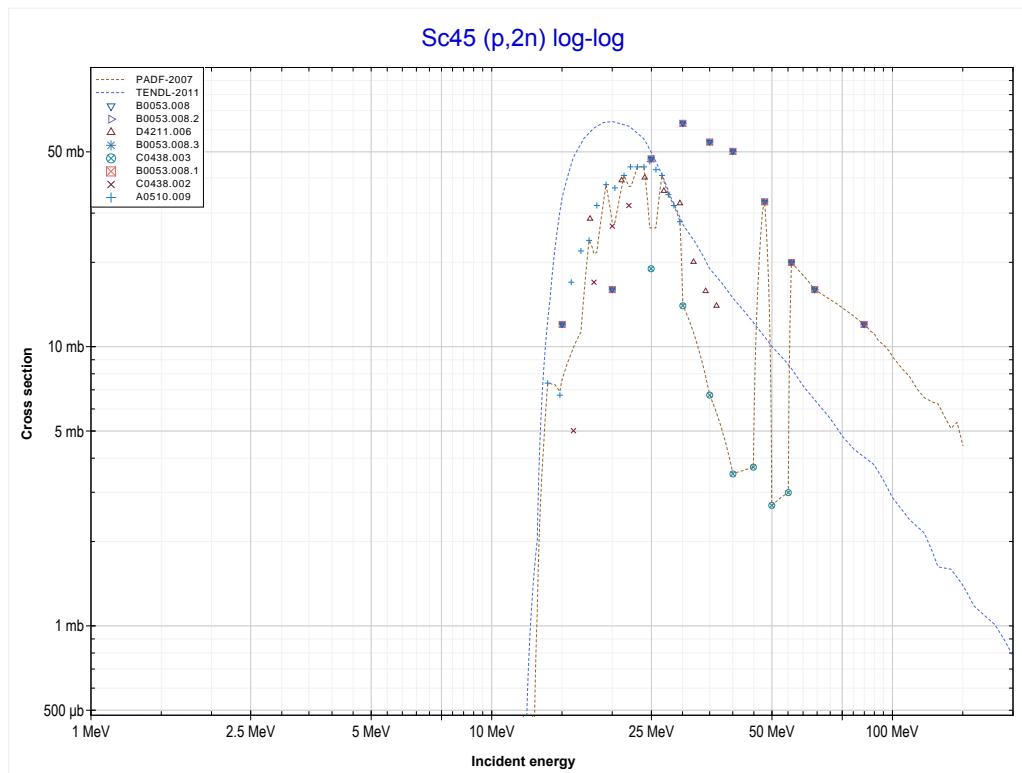
Reaction	Q-Value
Ca48(p, γ)Sc49	9626.97 keV

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



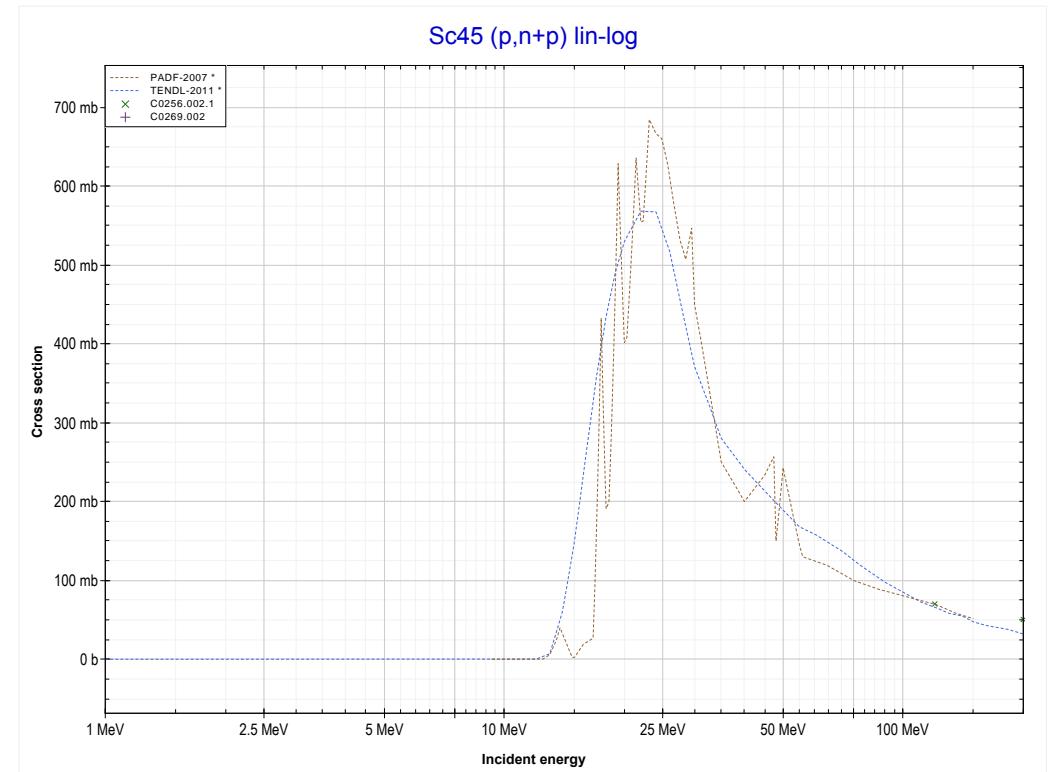
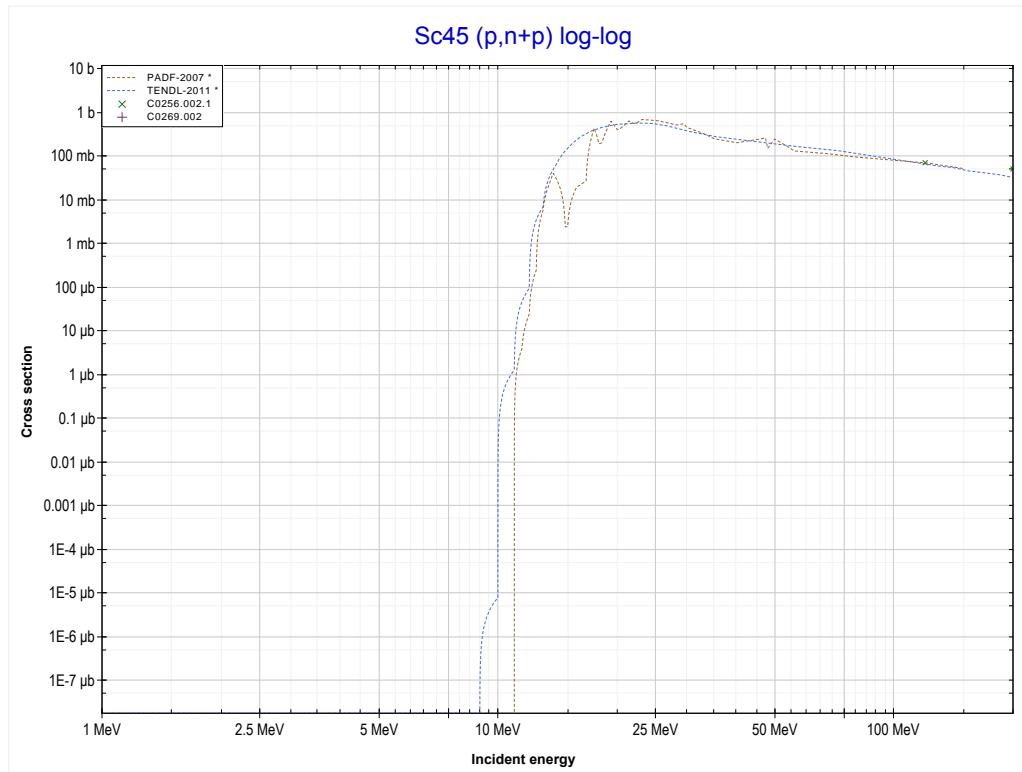
Reaction	Q-Value
Sc45(p,n)Ti45	-2844.45 keV

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



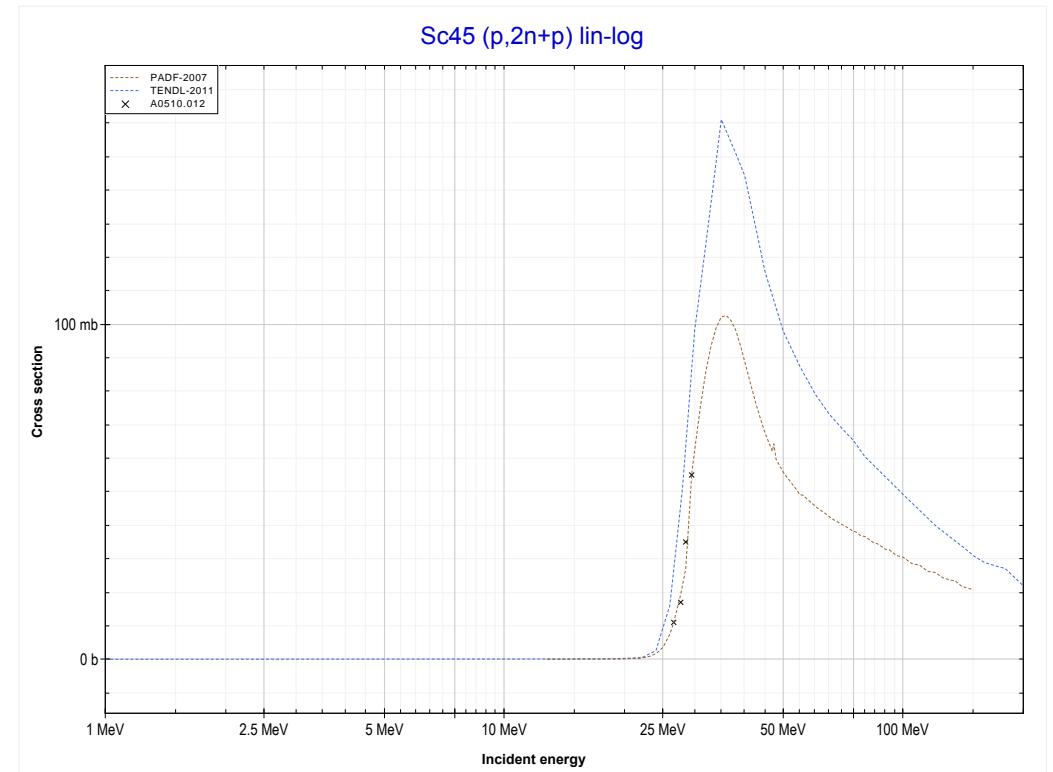
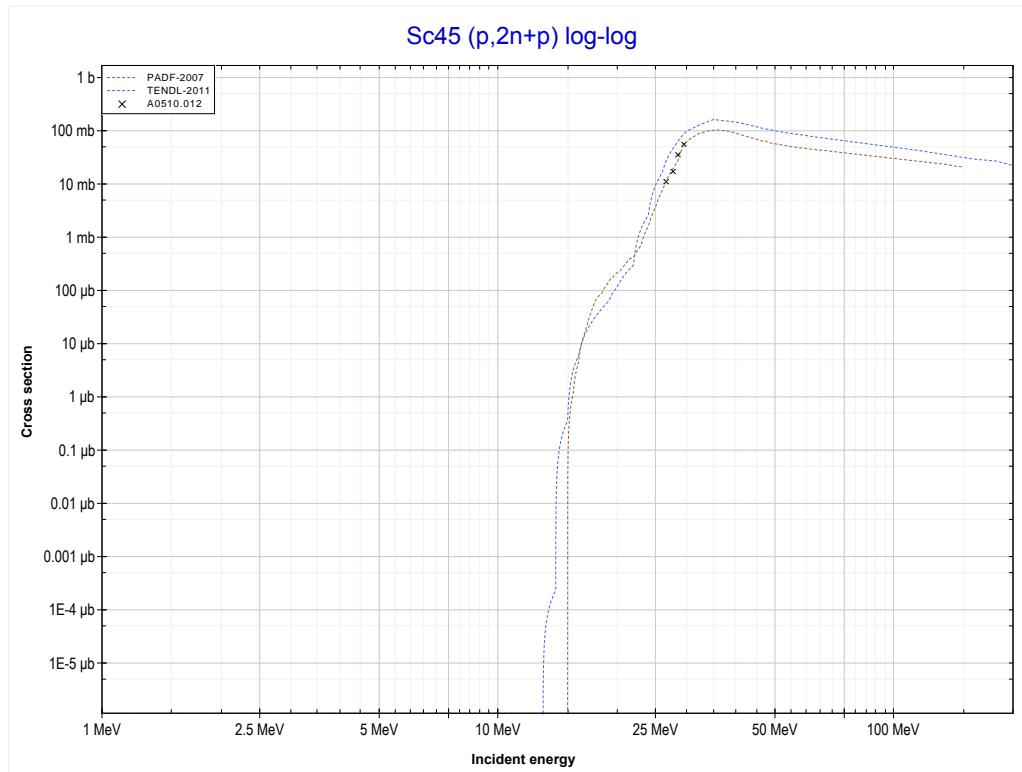
Reaction	Q-Value
Sc45(p,2n)Ti44	-12372.96 keV

<< 20-Ca-48	21-Sc-45 MT28 (p,n+p) or MT5 (Sc44 production)	22-Ti-46 >>
<< MT16 (p,2n)		MT41 (p,2n+p) >>



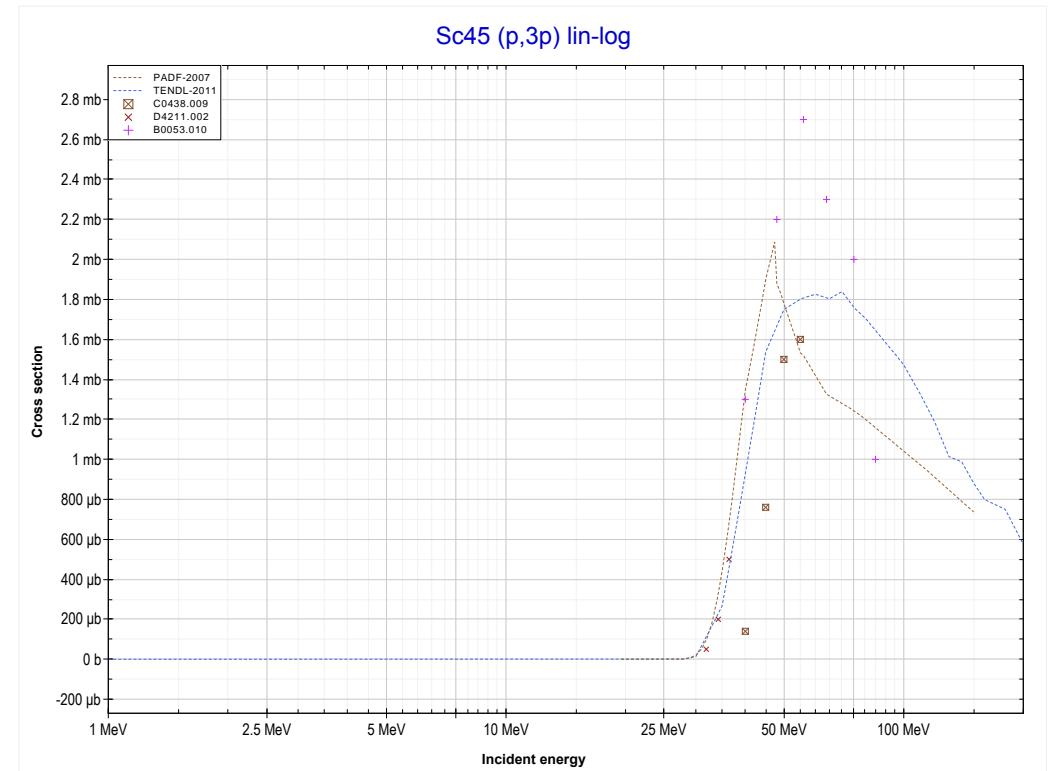
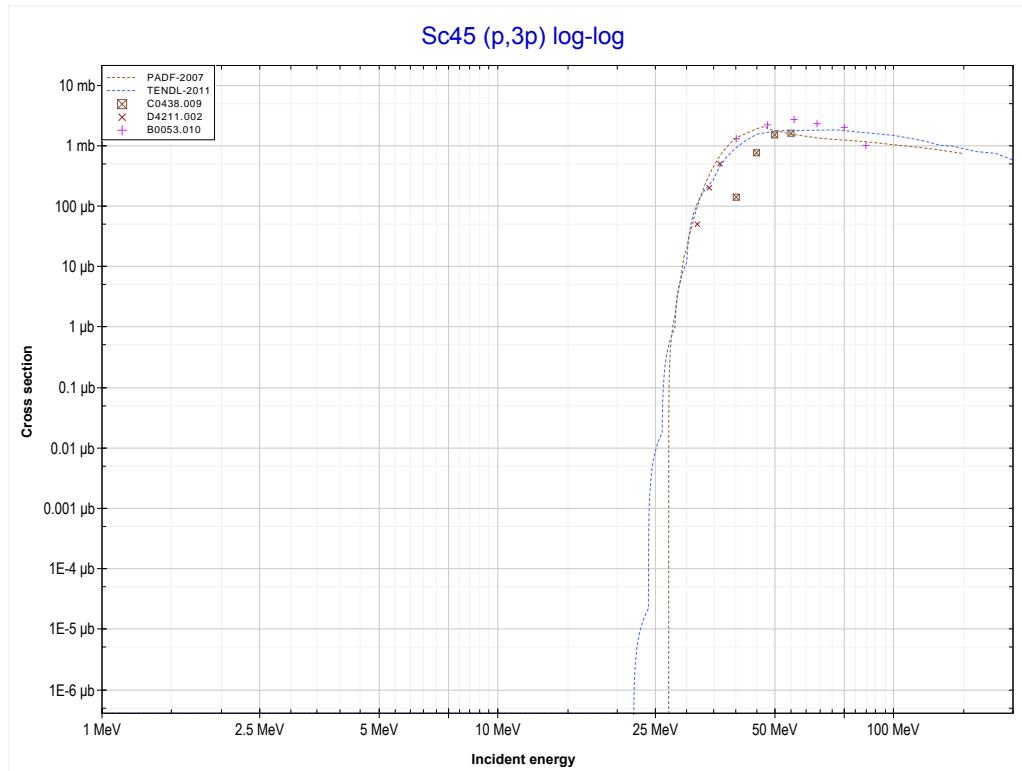
Reaction	Q-Value
Sc45(p,d)Sc44	-9098.45 keV
Sc45(p,n+p)Sc44	-11323.02 keV

<< 8-O-16	21-Sc-45 MT41 (p,2n+p) or MT5 (Sc43 production)	24-Cr-50 >>
<< MT28 (p,n+p)		MT197 (p,3p) >>



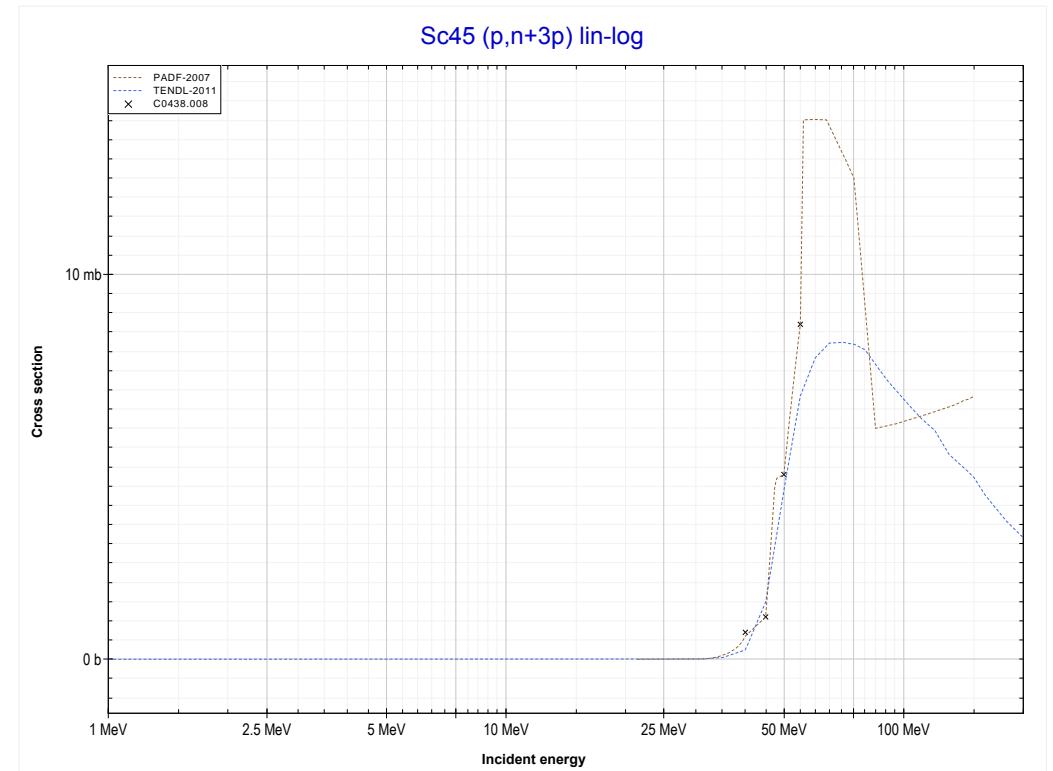
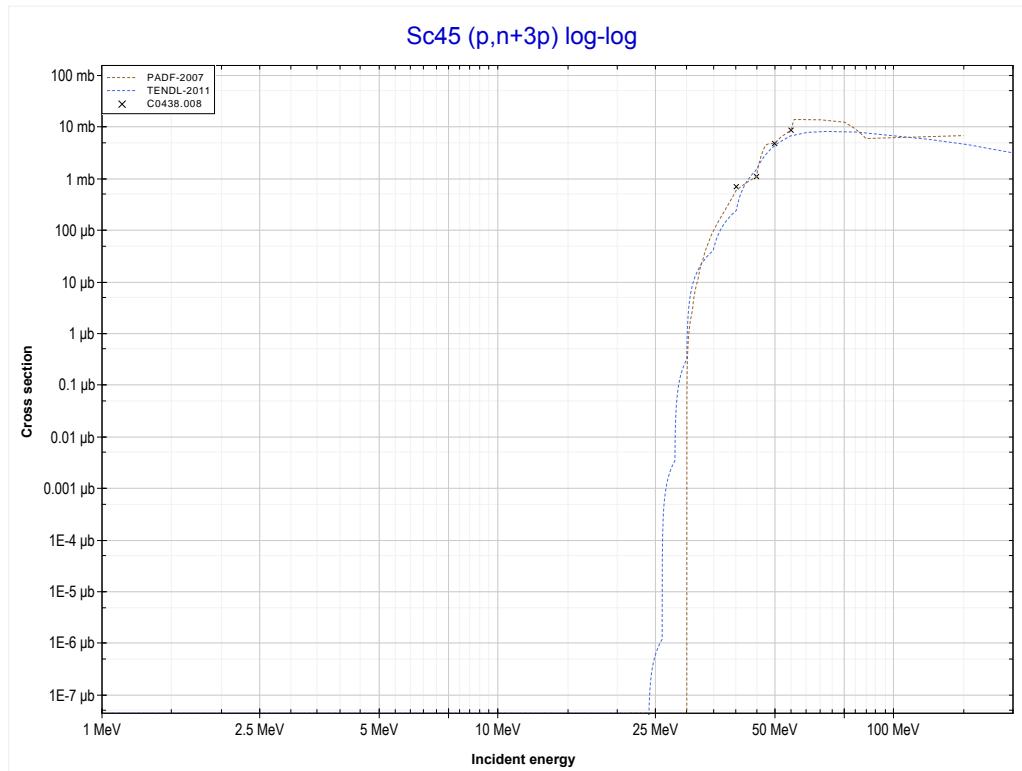
Reaction	Q-Value
$\text{Sc}^{45}(\text{p},\text{t})\text{Sc}^{43}$	-12540.74 keV
$\text{Sc}^{45}(\text{p},\text{n}+\text{d})\text{Sc}^{43}$	-18797.97 keV
$\text{Sc}^{45}(\text{p},\text{2n}+\text{p})\text{Sc}^{43}$	-21022.53 keV

<< 15-P-31	21-Sc-45 MT197 (p,3p) or MT5 (K43 production)	23-V-51 >>
<< MT41 (p,2n+p) >>		MT198 (p,n+3p) >>



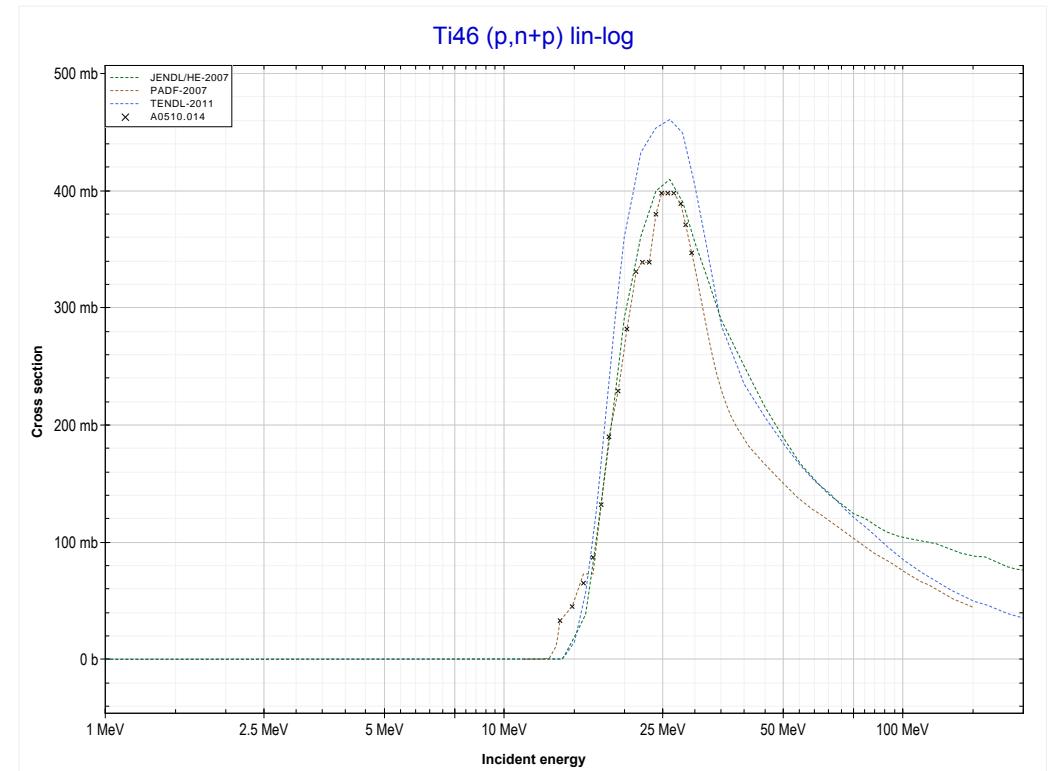
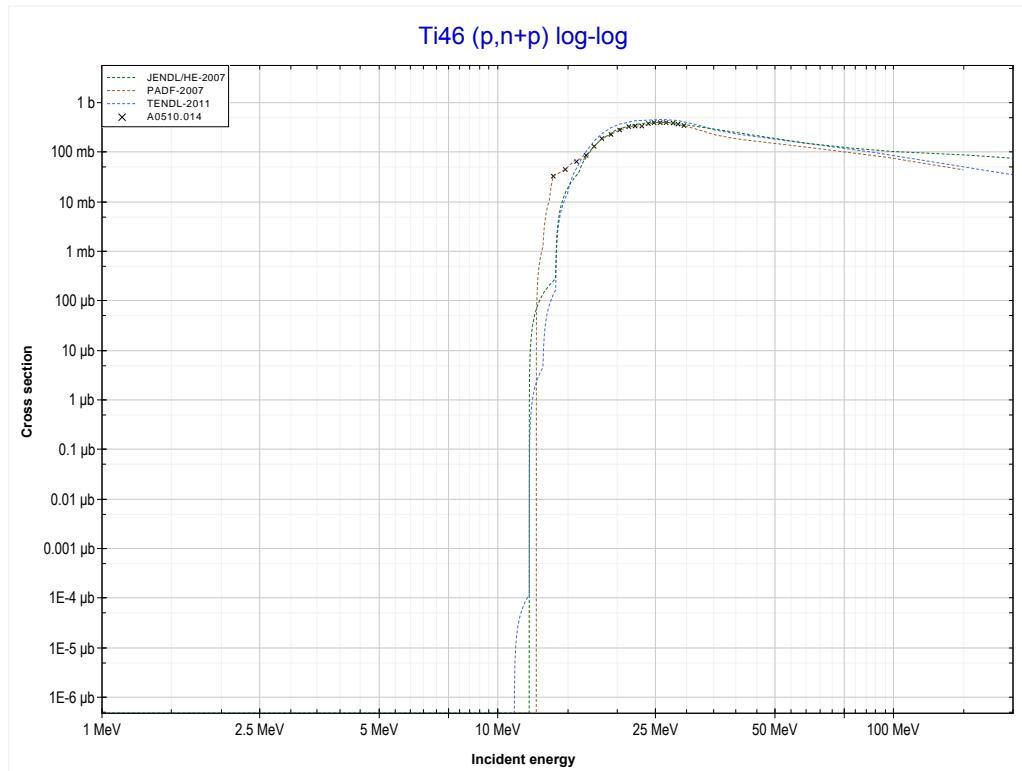
Reaction	Q-Value
Sc45(p,3p)K43	-19052.74 keV

<< 13-Al-27	21-Sc-45 MT198 (p,n+3p) or MT5 (K42 production)	27-Co-59 >>
<< MT197 (p,3p) >>		MT28 (p,n+p) >>



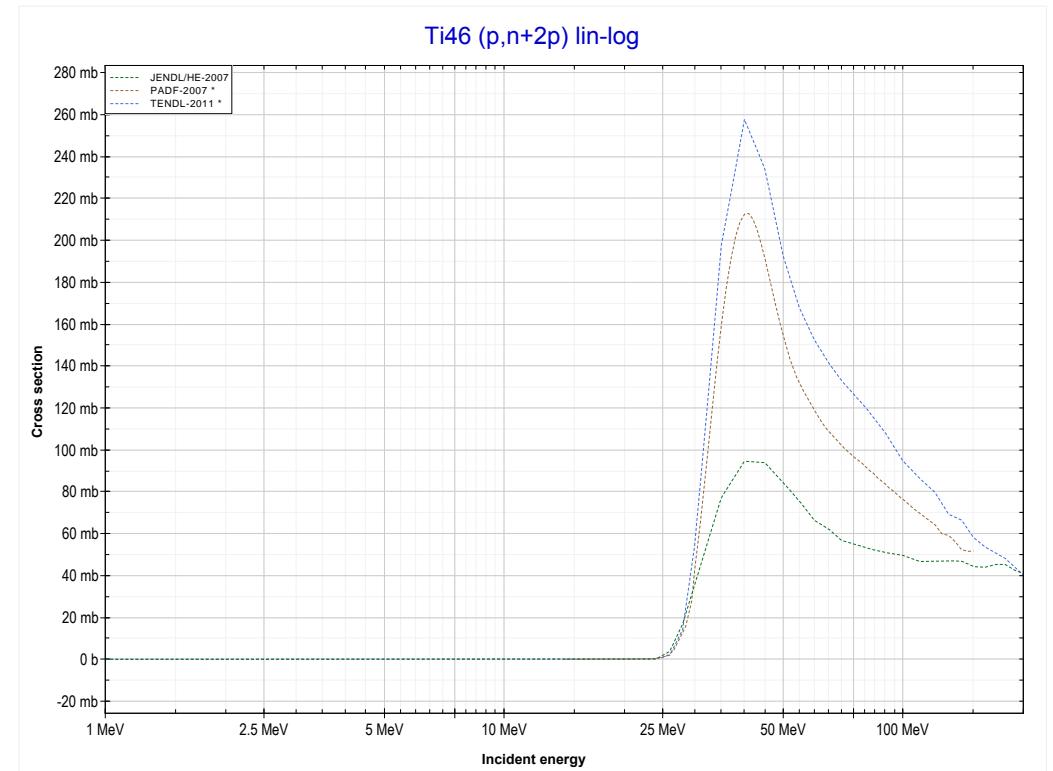
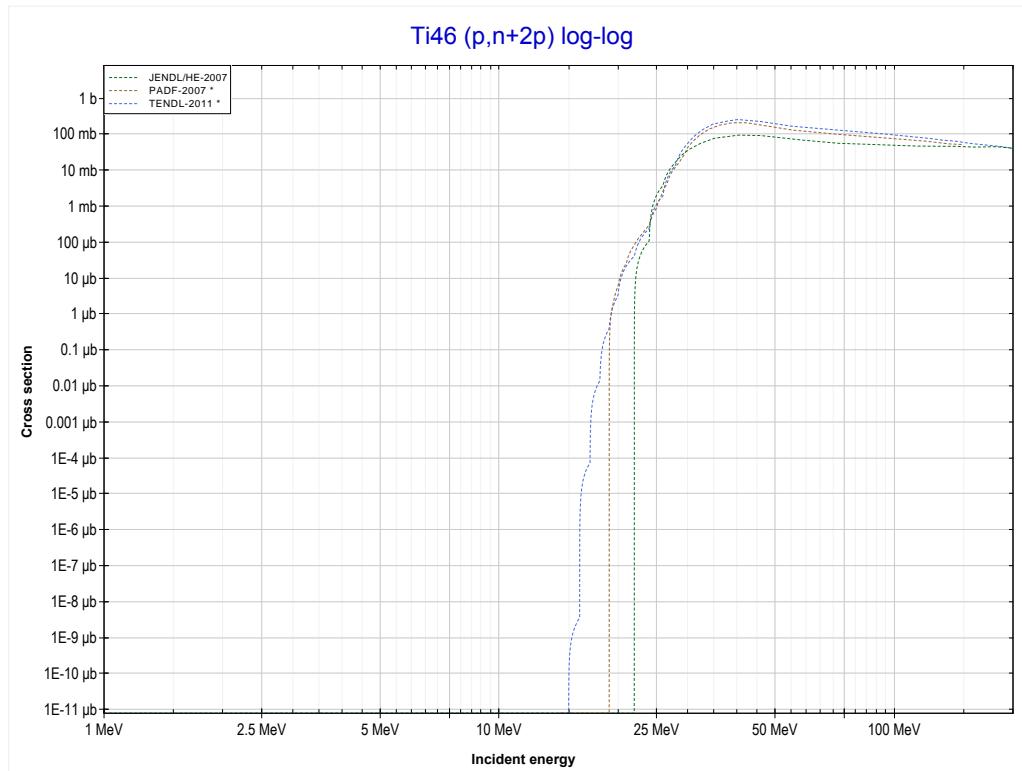
Reaction	Q-Value
$\text{Sc}^{45}(\text{p},\text{p}+\text{He}^3)\text{K}42$	-20977.45 keV
$\text{Sc}^{45}(\text{p},2\text{p}+\text{d})\text{K}42$	-26470.93 keV
$\text{Sc}^{45}(\text{p},\text{n}+3\text{p})\text{K}42$	-28695.50 keV

<< 21-Sc-45	22-Ti-46 MT28 (p,n+p) or MT5 (Ti45 production)	24-Cr-50 >>
<< MT198 (p,n+3p)		MT44 (p,n+2p) >>



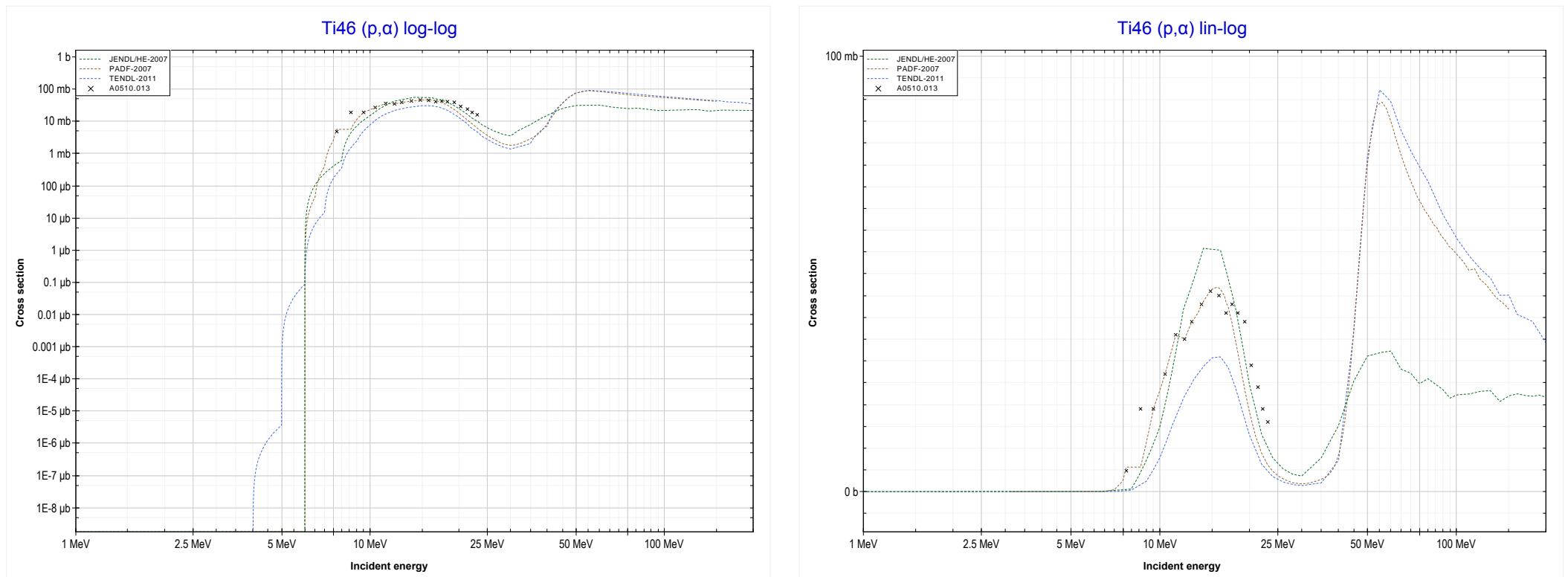
Reaction	Q-Value
Ti46(p,d)Ti45	-10964.45 keV
Ti46(p,n+p)Ti45	-13189.02 keV

<< 12-Mg-24	22-Ti-46	22-Ti-48 >>
<< MT28 (p,n+p) >>	MT44 (p,n+2p) or MT5 (Sc44 production)	MT107 (p, α) >>



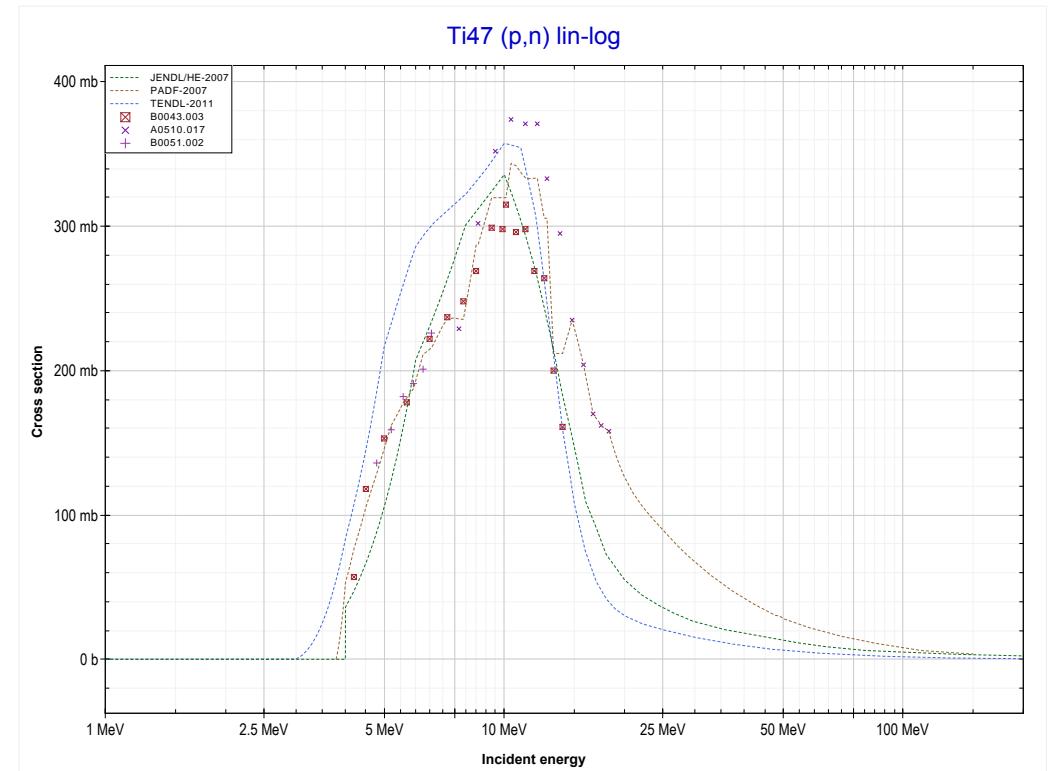
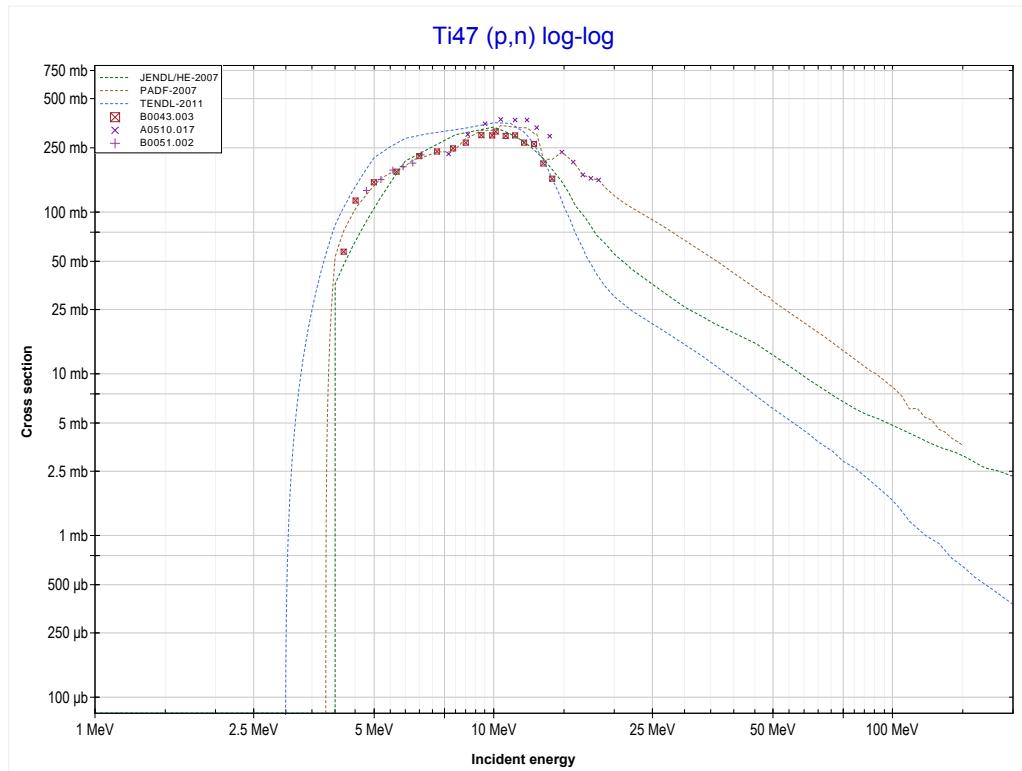
Reaction	Q-Value
$\text{Ti}^{46}(\text{p},\text{He}^3)\text{Sc}^{44}$	-13949.54 keV
$\text{Ti}^{46}(\text{p},\text{p}+\text{d})\text{Sc}^{44}$	-19443.02 keV
$\text{Ti}^{46}(\text{p},\text{n}+2\text{p})\text{Sc}^{44}$	-21667.59 keV

<< 12-Mg-24	22-Ti-46 MT107 (p,α) or MT5 (Sc43 production)	22-Ti-47 >>
<< MT44 ($p,n+2p$)		MT4 (p,n) >>



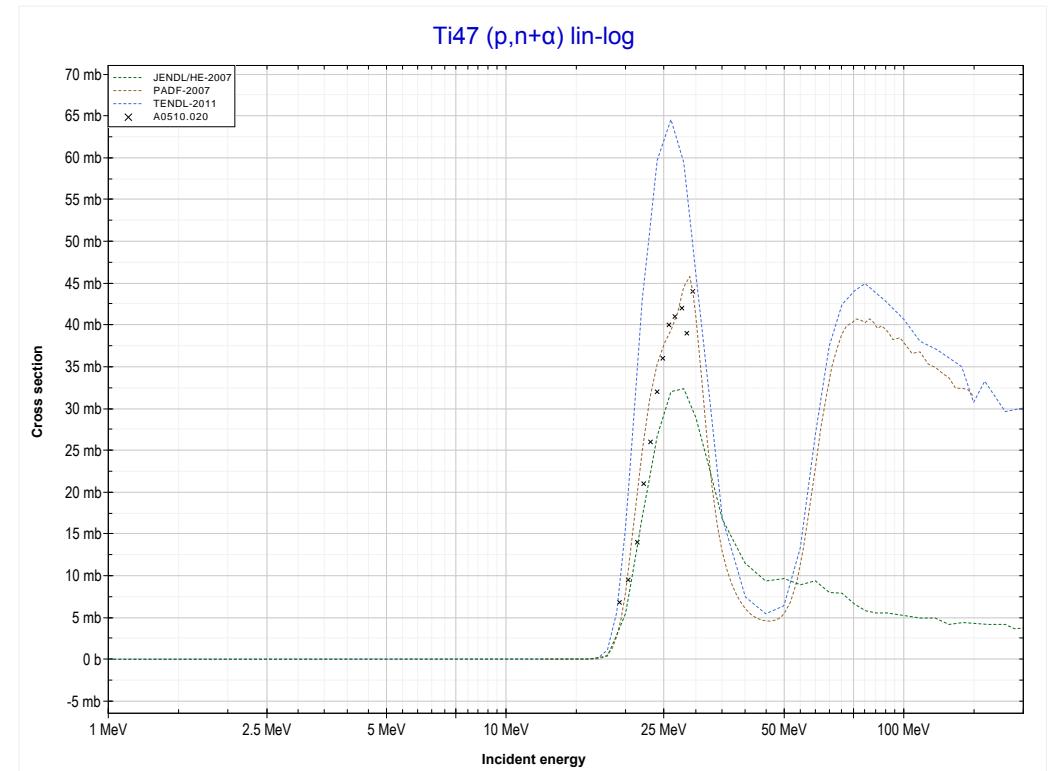
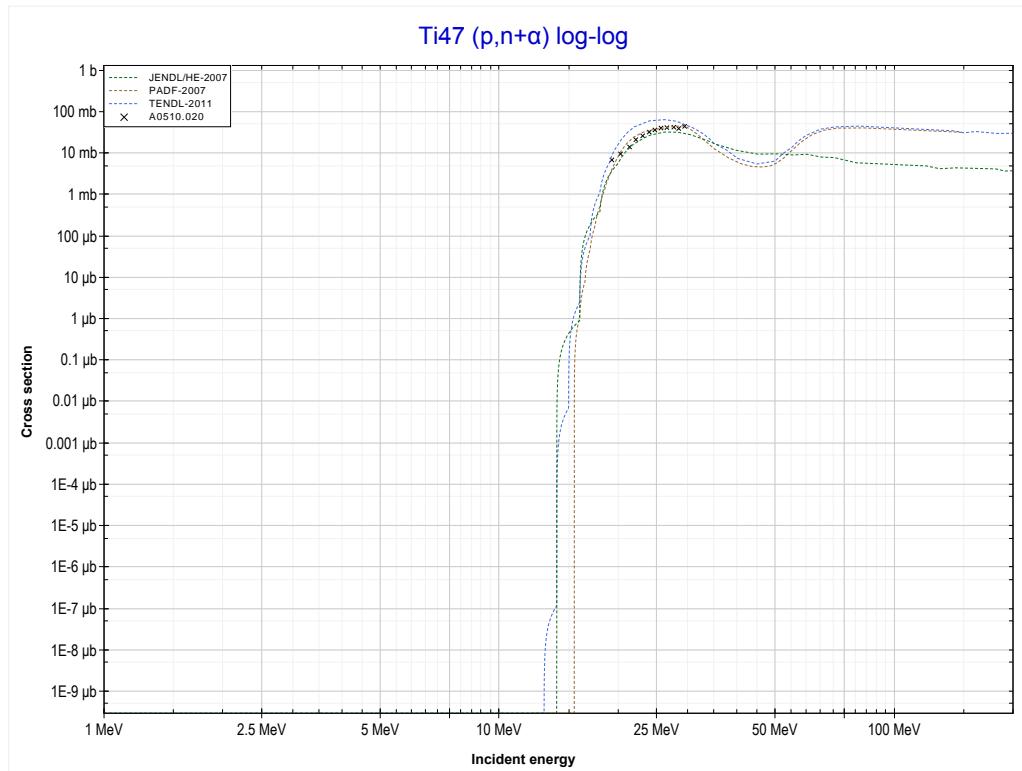
Reaction	Q-Value
Ti46(p,α)Sc43	-3071.45 keV
Ti46($p,p+t$)Sc43	-22885.31 keV
Ti46($p,n+He3$)Sc43	-23649.06 keV
Ti46($p,2d$)Sc43	-26917.97 keV
Ti46($p,n+p+d$)Sc43	-29142.54 keV
Ti46($p,2n+2p$)Sc43	-31367.10 keV

<< 21-Sc-45	22-Ti-47 MT4 (p,n) or MT5 (V47 production)	22-Ti-48 >>
<< MT107 (p, α)		MT22 (p,n+ α) >>



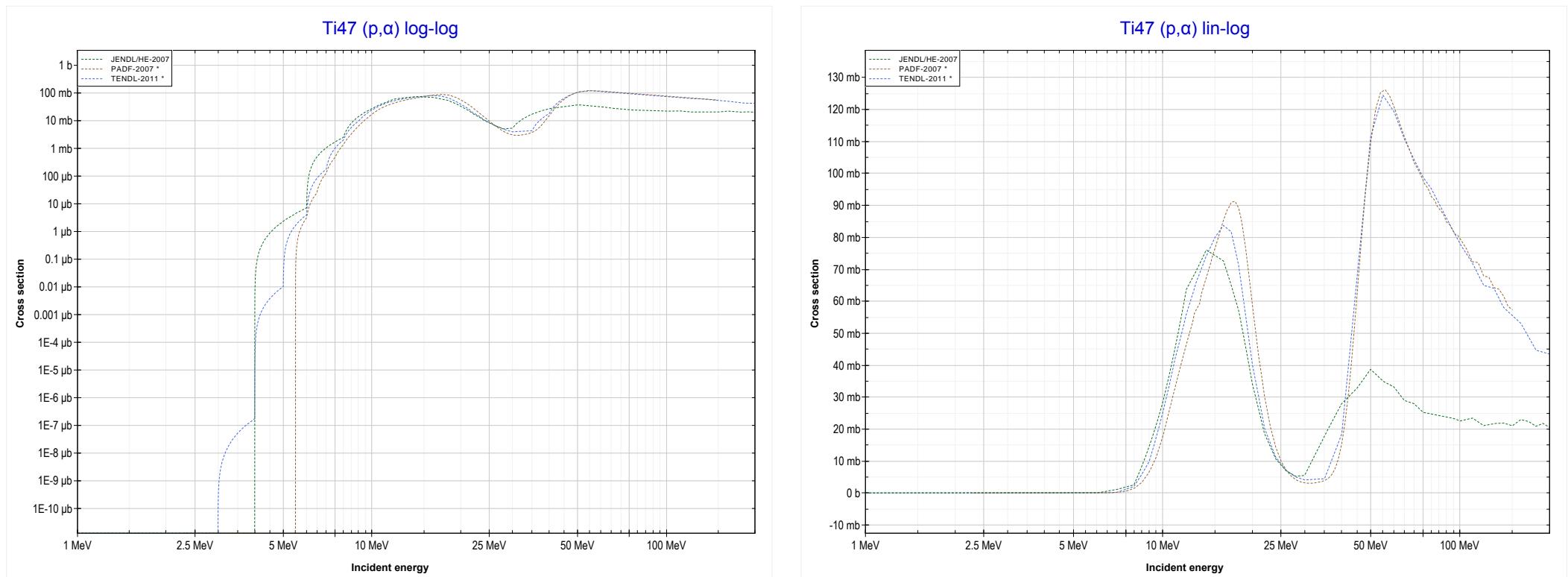
Reaction	Q-Value
Ti47(p,n)V47	-3712.65 keV

<< 7-N-15	22-Ti-47 MT22 (p,n+α) or MT5 (Sc43 production)	22-Ti-48 >> MT107 (p,α) >>
<< MT4 (p,n)		



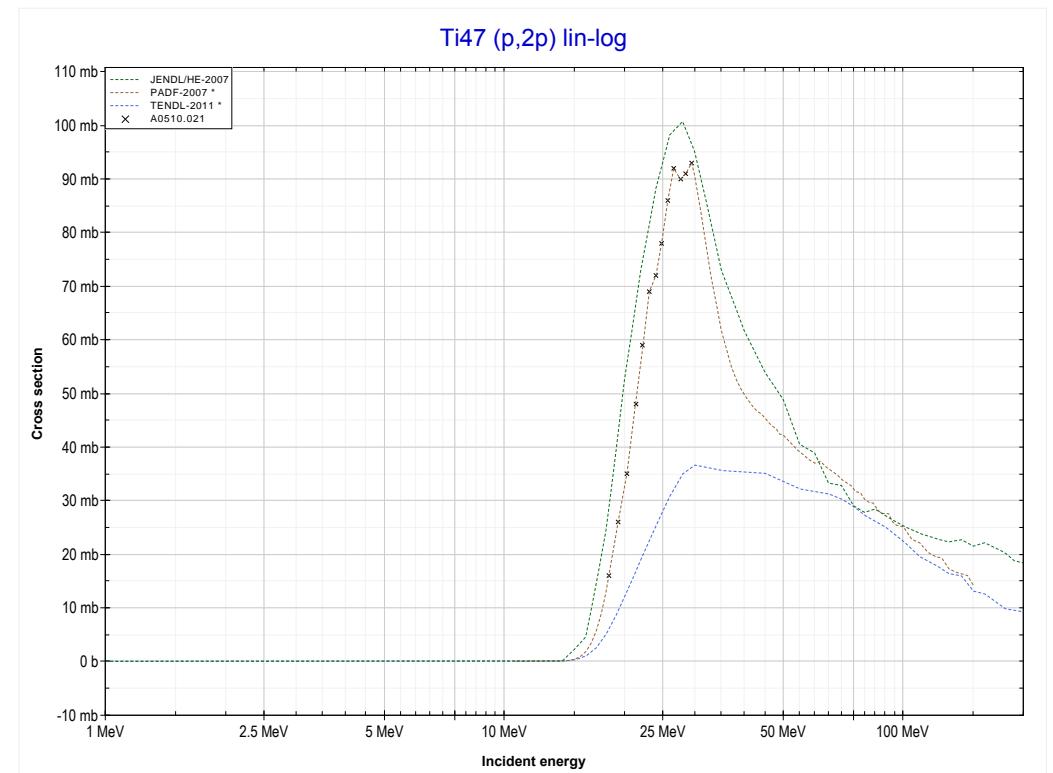
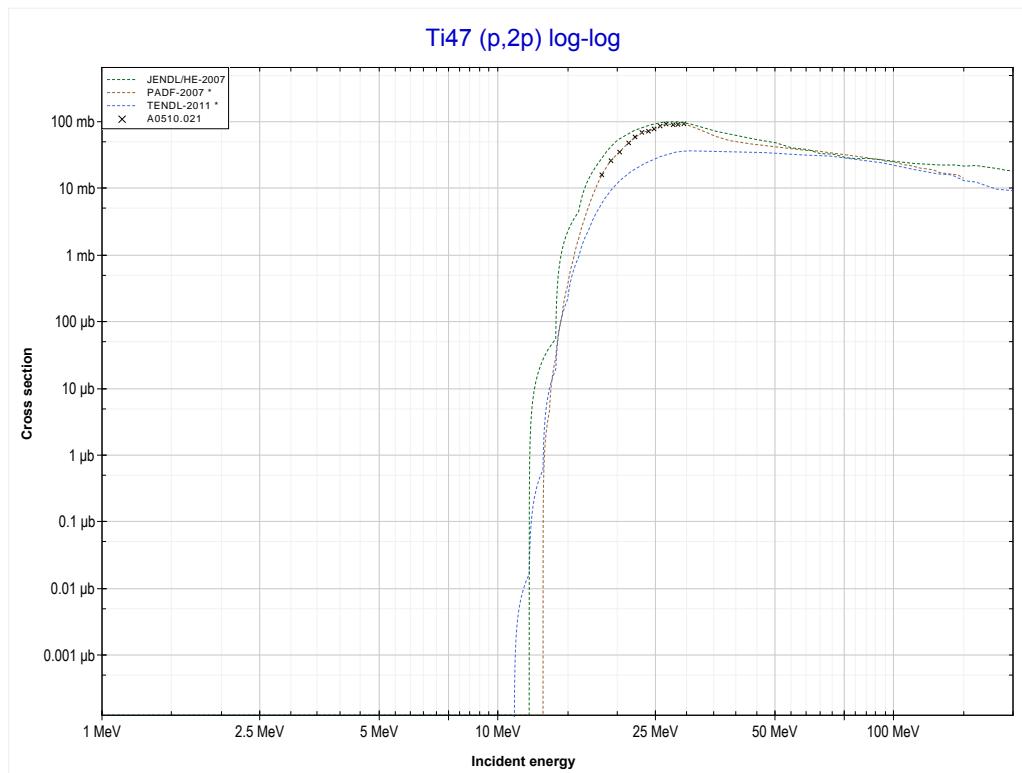
Reaction	Q-Value
Ti47(p,n+α)Sc43	-11951.76 keV
Ti47(p,d+t)Sc43	-29541.06 keV
Ti47(p,n+p+t)Sc43	-31765.62 keV
Ti47(p,2n+He3)Sc43	-32529.38 keV
Ti47(p,n+2d)Sc43	-35798.29 keV
Ti47(p,2n+p+d)Sc43	-38022.86 keV
Ti47(p,3n+2p)Sc43	-40247.42 keV

<< 22-Ti-46	22-Ti-47 MT107 (p,α) or MT5 (Sc44 production)	22-Ti-49 >>
<< MT22 ($p,n+\alpha$)		MT111 ($p,2p$) >>



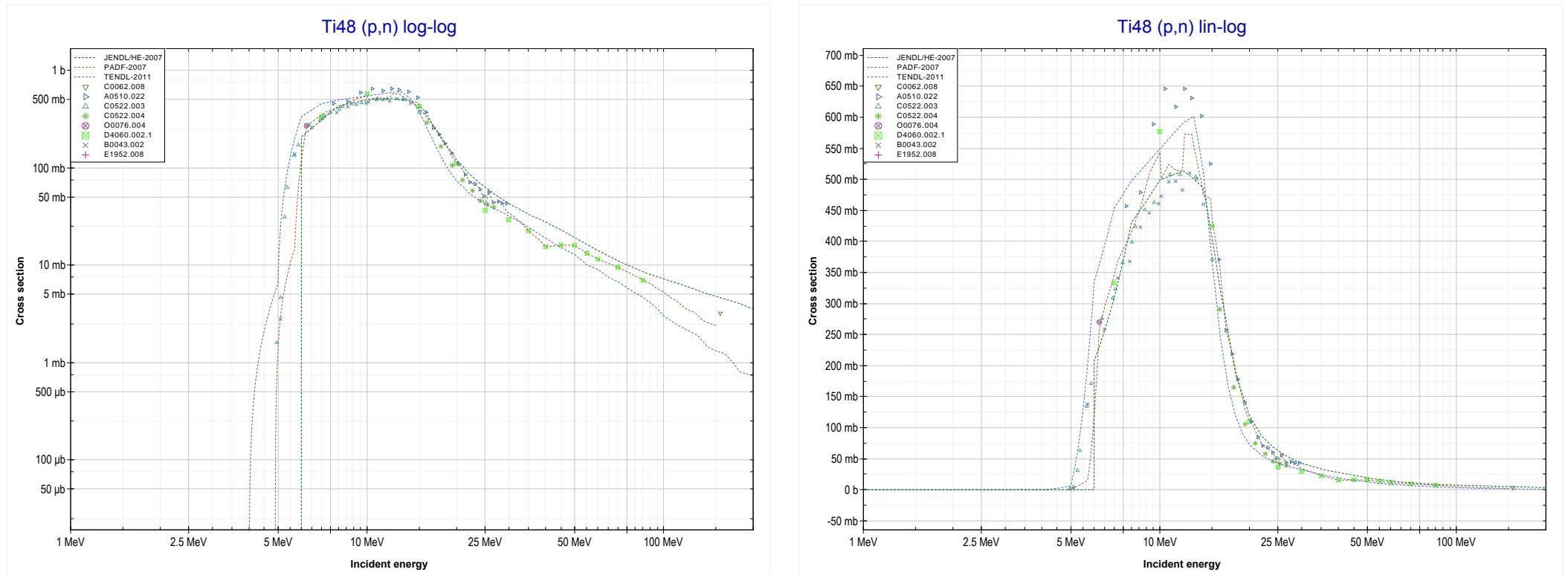
Reaction	Q-Value
Ti47(p,α)Sc44	-2252.25 keV
Ti47($p,p+t$)Sc44	-22066.11 keV
Ti47($p,n+He3$)Sc44	-22829.86 keV
Ti47($p,2d$)Sc44	-26098.77 keV
Ti47($p,n+p+d$)Sc44	-28323.34 keV
Ti47($p,2n+2p$)Sc44	-30547.90 keV

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



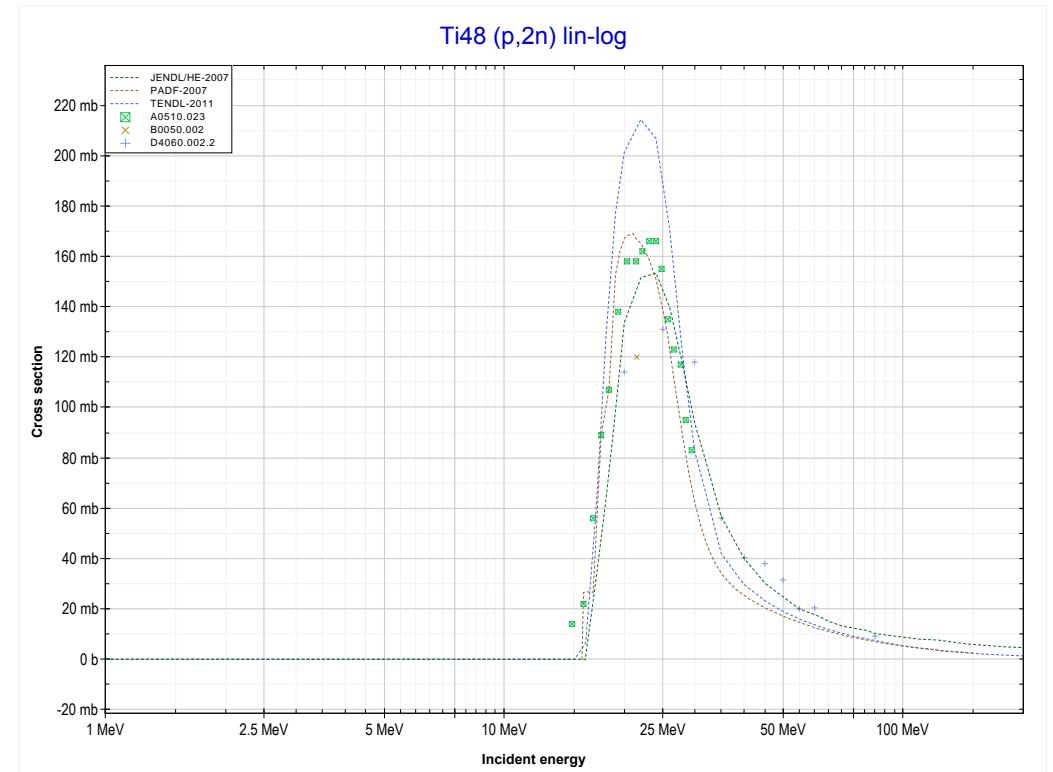
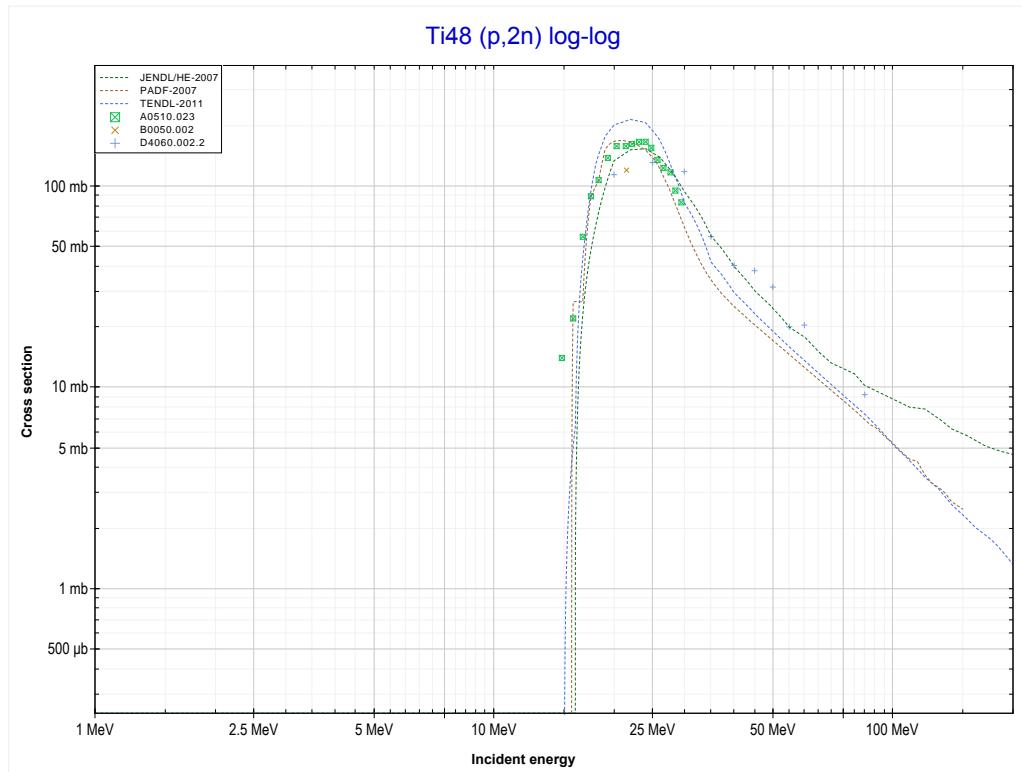
Reaction	Q-Value
$\text{Ti}^{47}(\text{p},2\text{p})\text{Sc}^{46}$	-10464.27 keV

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



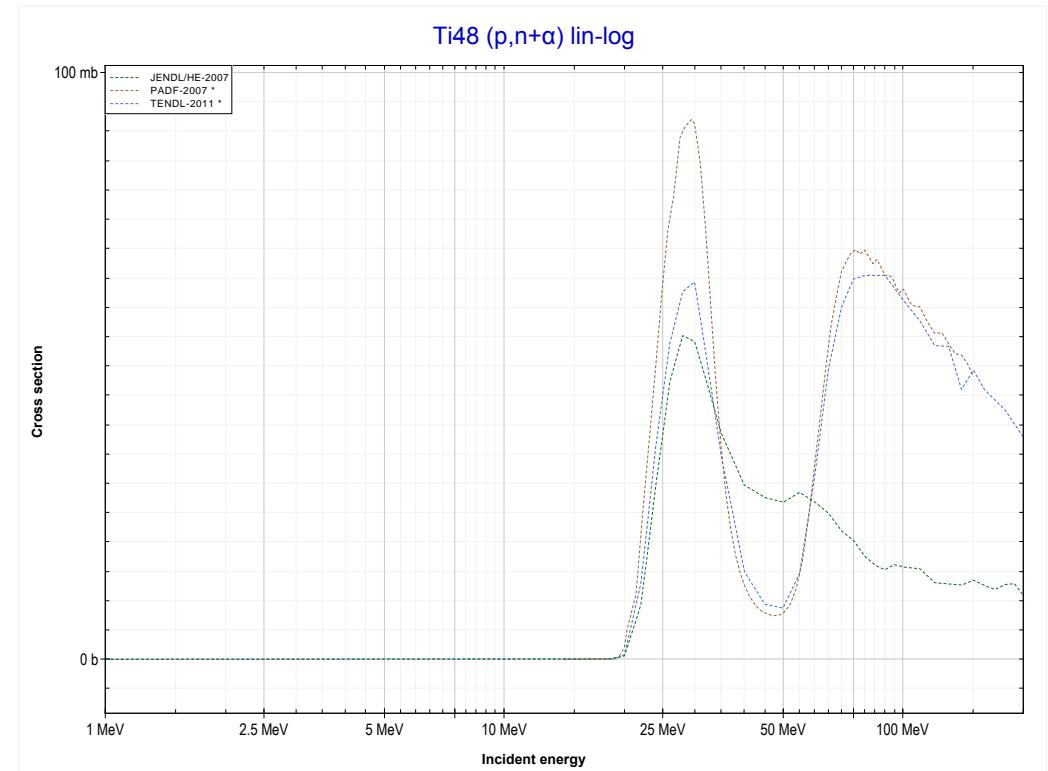
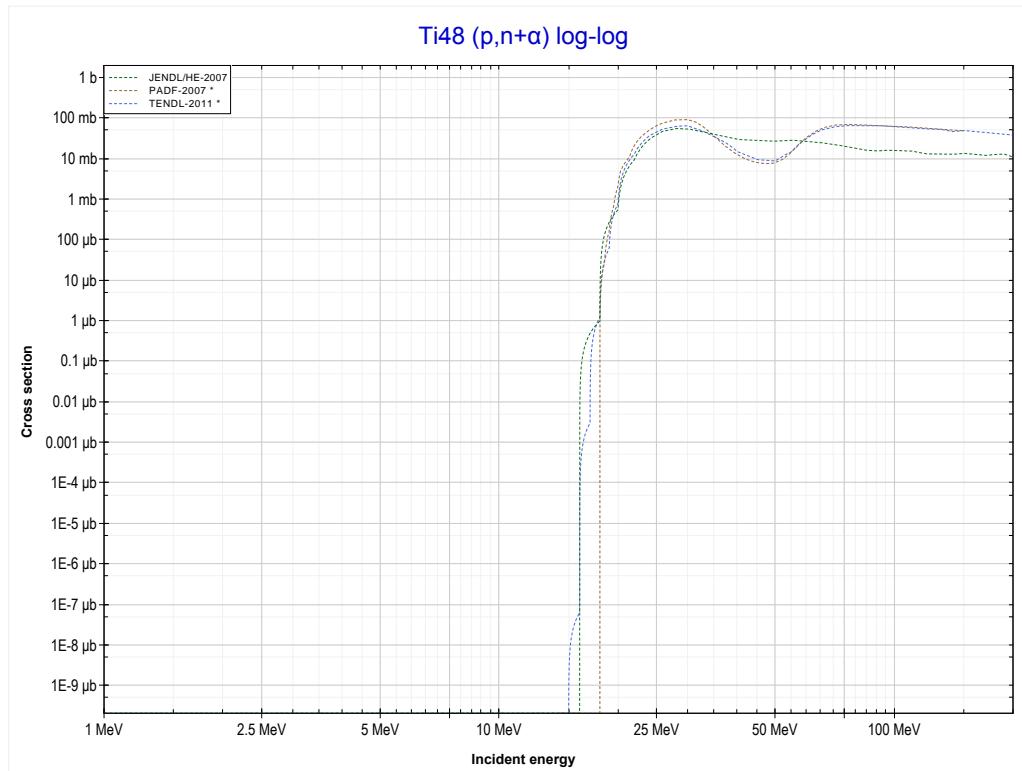
Reaction	Q-Value
Ti48(p,n)V48	-4794.65 keV

<< 21-Sc-45	22-Ti-48 MT16 (p,2n) or MT5 (V47 production)	>> 22-Ti-49
<< MT4 (p,n)		>> MT22 (p,n+α) >>



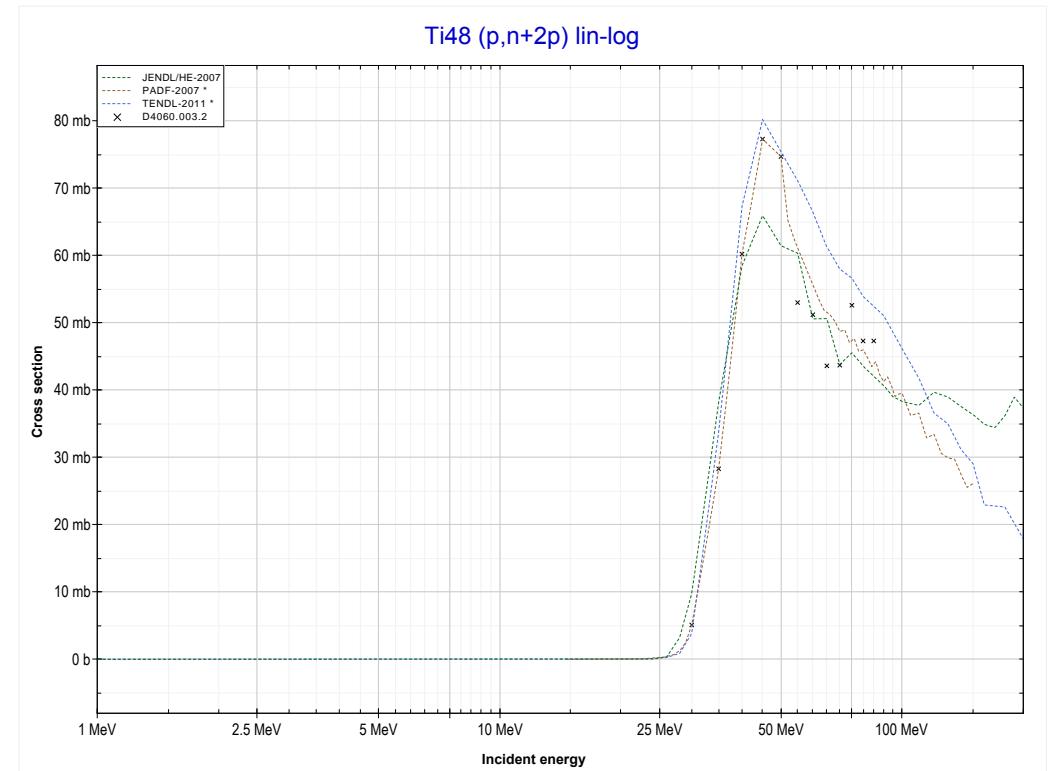
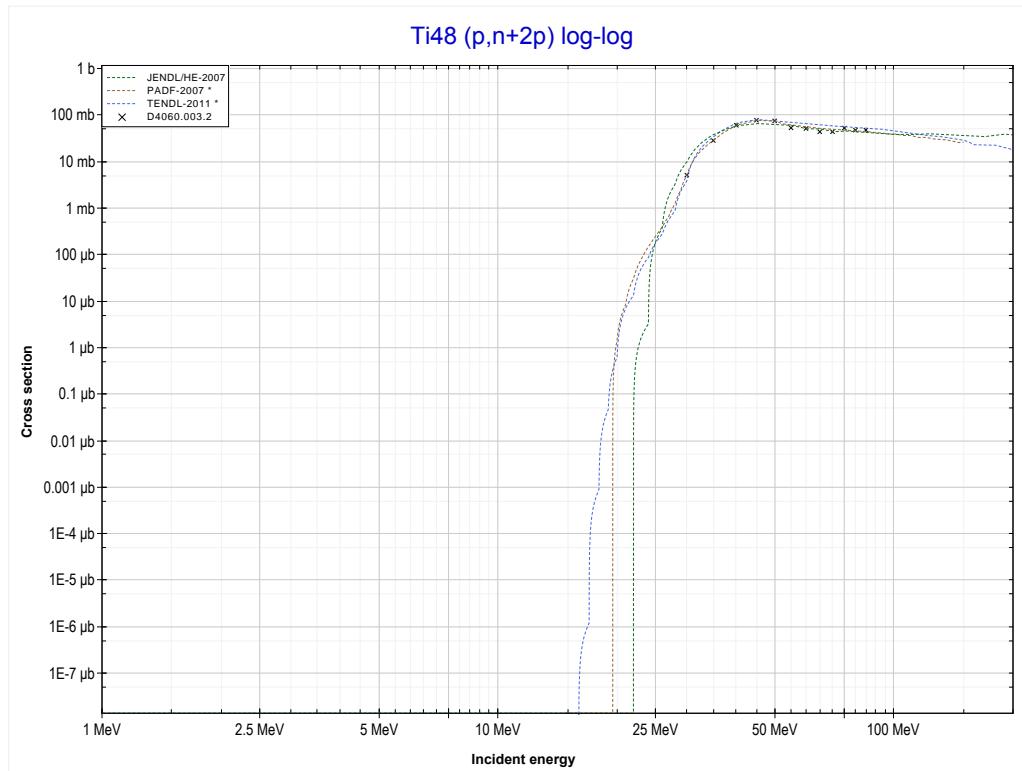
Reaction	Q-Value
Ti48(p,2n)V47	-15339.26 keV

<< 22-Ti-47	22-Ti-48 MT22 (p,n+α) or MT5 (Sc44 production)	22-Ti-50 >>
<< MT16 (p,2n)		MT44 (p,n+2p) >>



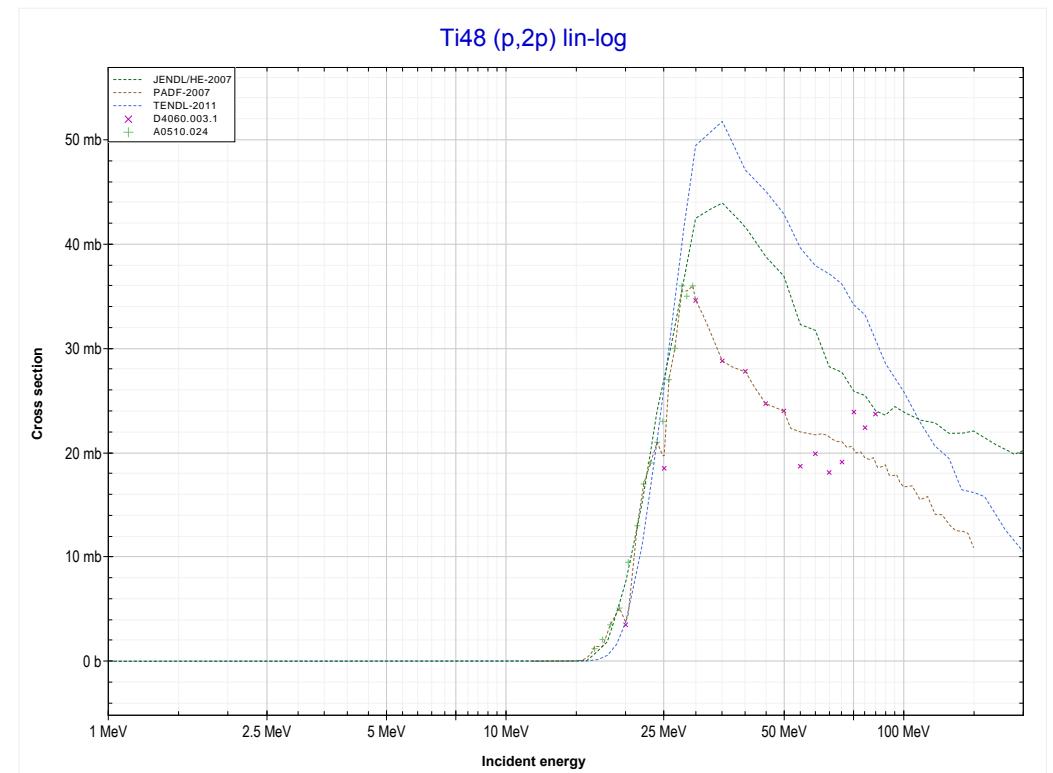
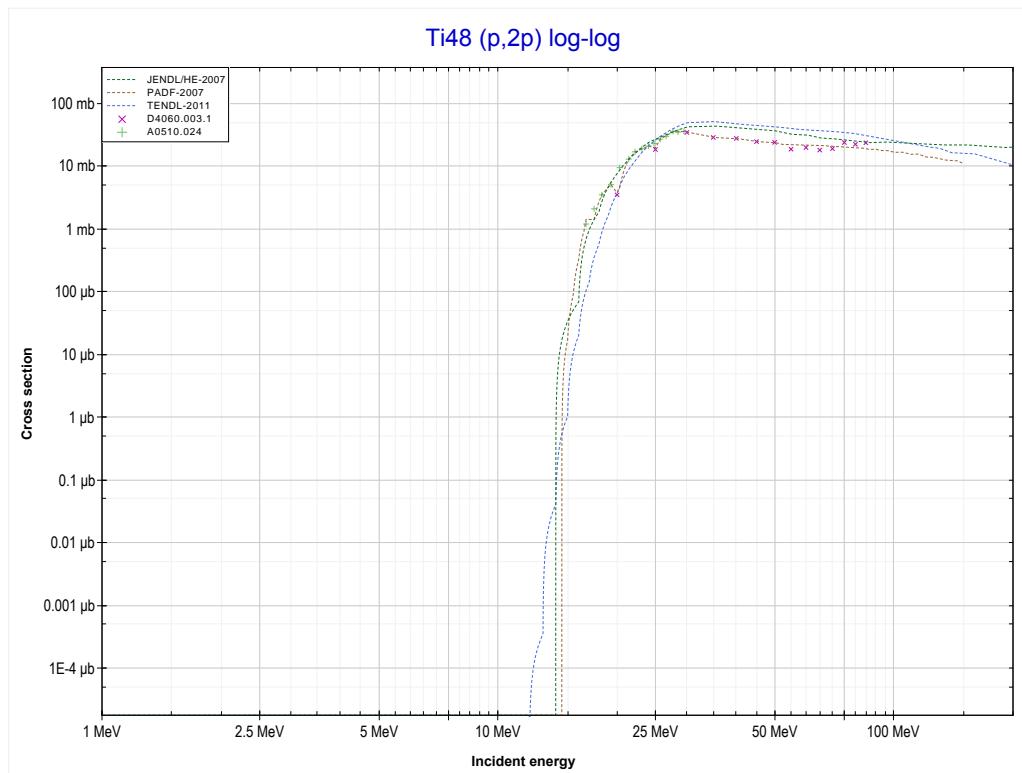
Reaction	Q-Value
Ti48(p,n+α)Sc44	-13878.86 keV
Ti48(p,d+t)Sc44	-31468.16 keV
Ti48(p,n+p+t)Sc44	-33692.72 keV
Ti48(p,2n+He3)Sc44	-34456.48 keV
Ti48(p,n+2d)Sc44	-37725.39 keV
Ti48(p,2n+p+d)Sc44	-39949.96 keV
Ti48(p,3n+2p)Sc44	-42174.52 keV

<< 22-Ti-46	22-Ti-48 MT44 (p,n+2p) or MT5 (Sc46 production)	22-Ti-50 >>
<< MT22 (p,n+α)		MT111 (p,2p) >>



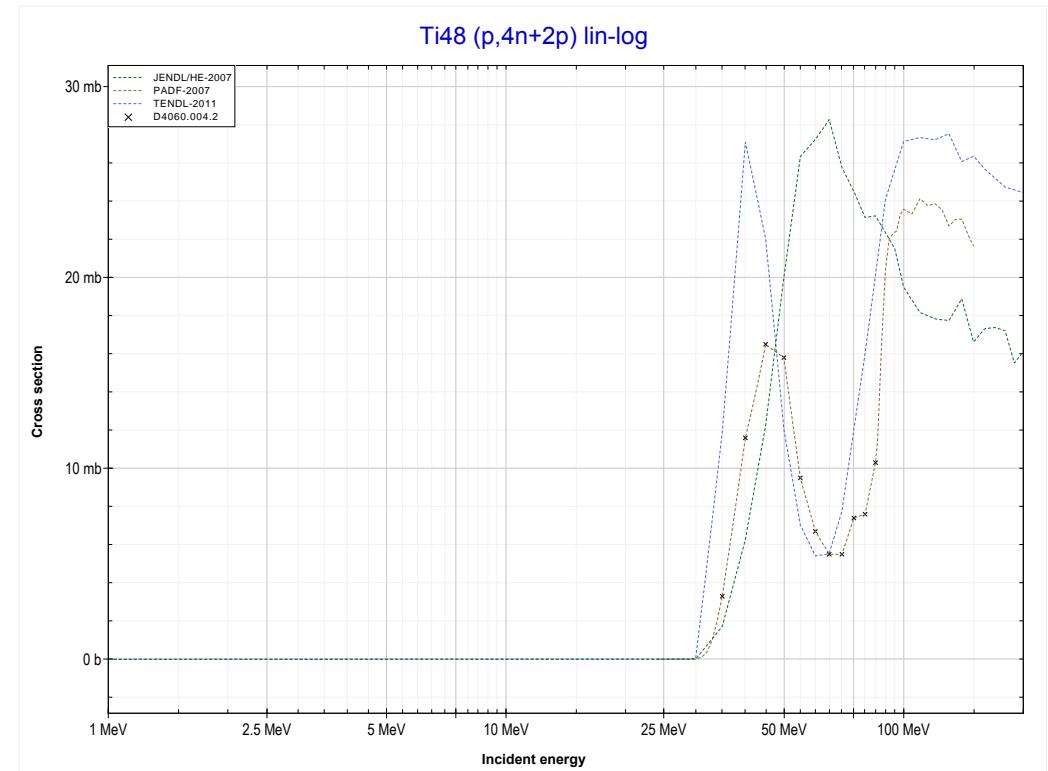
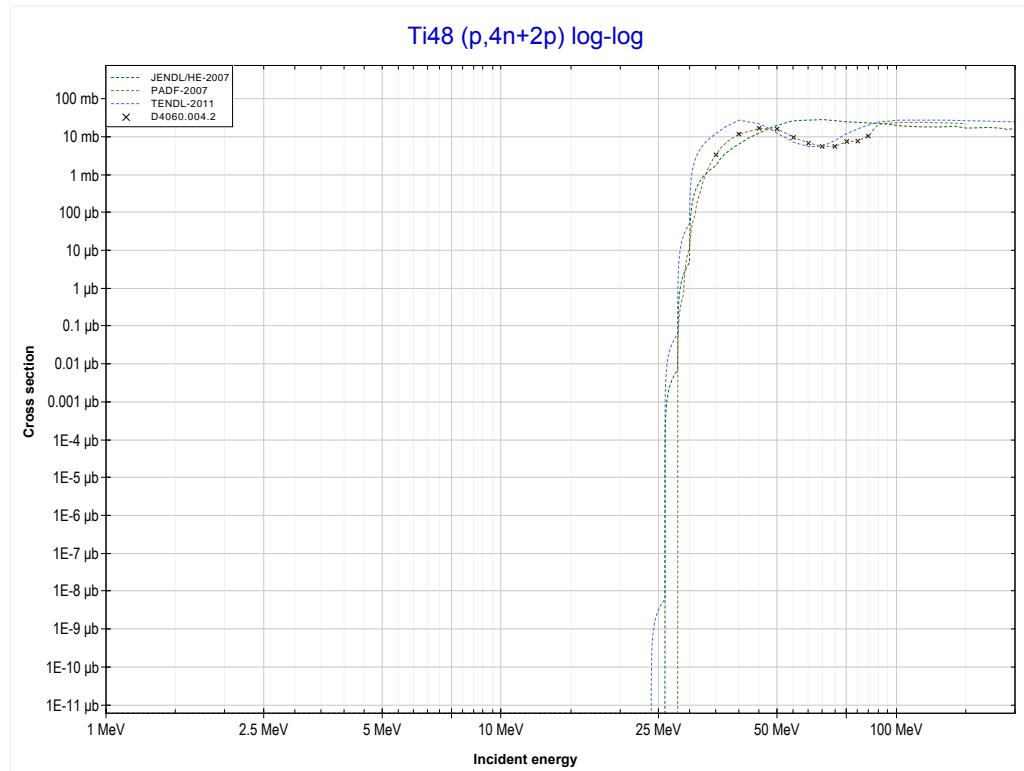
Reaction	Q-Value
$\text{Ti}^{48}(\text{p},\text{He}^3)\text{Sc}^{46}$	-14372.84 keV
$\text{Ti}^{48}(\text{p},\text{p}+\text{d})\text{Sc}^{46}$	-19866.32 keV
$\text{Ti}^{48}(\text{p},\text{n}+2\text{p})\text{Sc}^{46}$	-22090.89 keV

<< 22-Ti-47	22-Ti-48 MT111 (p,2p) or MT5 (Sc47 production)	>> 22-Ti-49 >>
<< MT44 (p,n+2p) >>		MT194 (p,4n+2p) >>



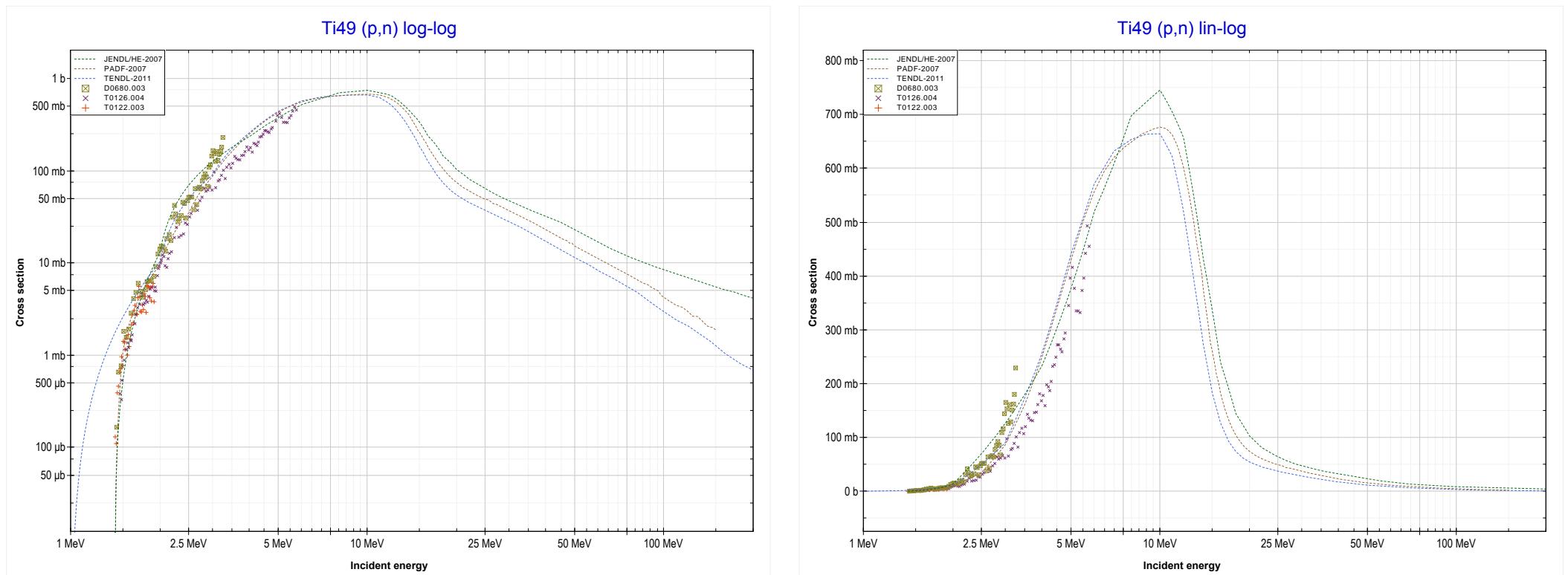
Reaction	Q-Value
Ti48(p,2p)Sc47	-11444.57 keV

	22-Ti-48 MT194 (p,4n+2p) or MT5 (Sc43 production)	90-Th-232 >>
<< MT111 (p,2p)		MT4 (p,n) >>



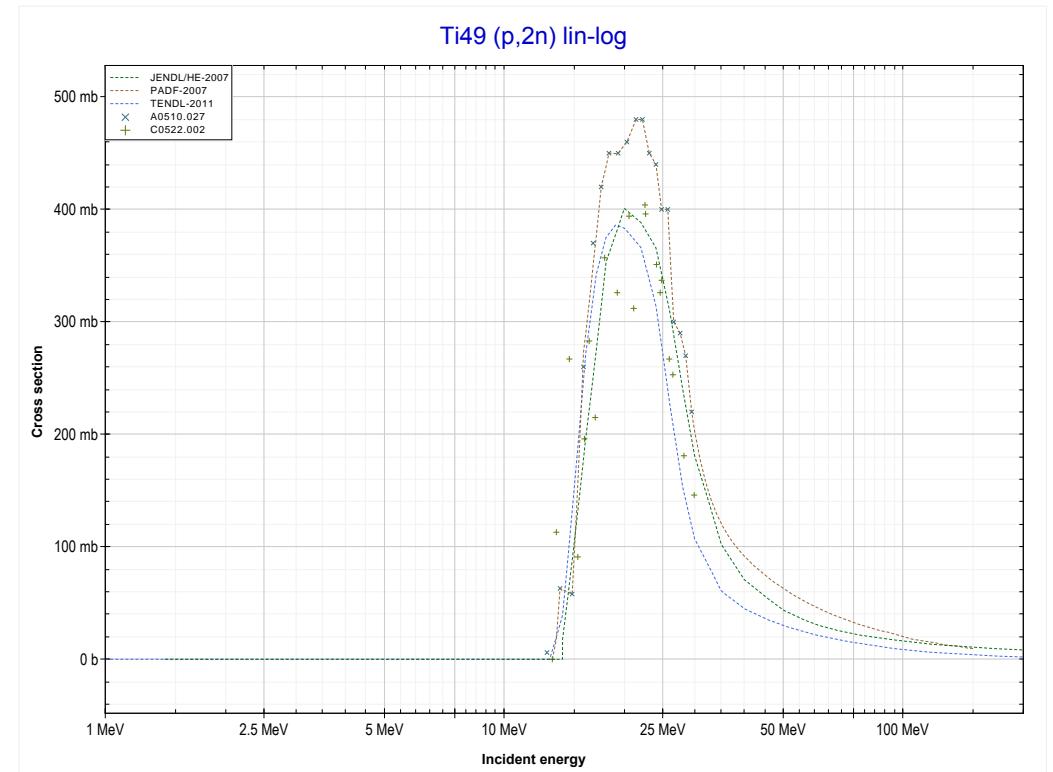
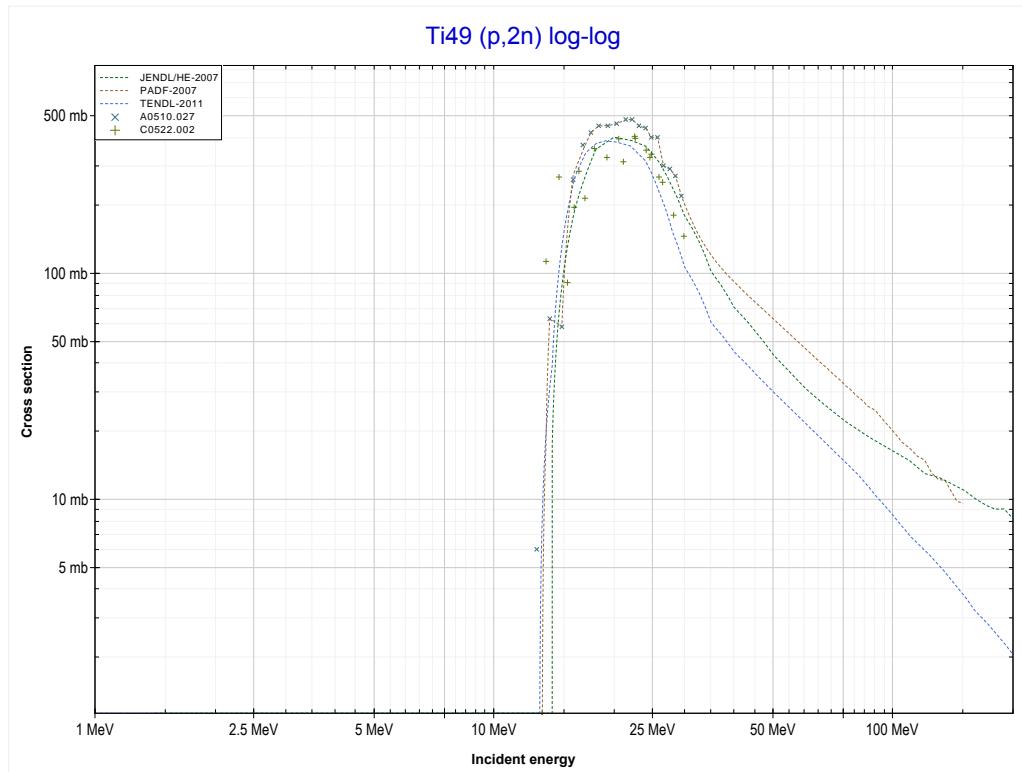
Reaction	Q-Value
$\text{Ti}^{48}(\text{p},2\text{n}+\alpha)\text{Sc}^{43}$	-23578.38 keV
$\text{Ti}^{48}(\text{p},2\text{t})\text{Sc}^{43}$	-34910.44 keV
$\text{Ti}^{48}(\text{p},\text{n}+\text{d}+\text{t})\text{Sc}^{43}$	-41167.67 keV
$\text{Ti}^{48}(\text{p},2\text{n}+\text{p}+\text{t})\text{Sc}^{43}$	-43392.24 keV
$\text{Ti}^{48}(\text{p},3\text{n}+\text{He}^3)\text{Sc}^{43}$	-44156.00 keV
$\text{Ti}^{48}(\text{p},2\text{n}+2\text{d})\text{Sc}^{43}$	-47424.91 keV
$\text{Ti}^{48}(\text{p},3\text{n}+\text{p}+\text{d})\text{Sc}^{43}$	-49649.47 keV
$\text{Ti}^{48}(\text{p},4\text{n}+2\text{p})\text{Sc}^{43}$	-51874.04 keV

<< 22-Ti-48	22-Ti-49 MT4 (p,n) or MT5 (V49 production)	22-Ti-50 >>
<< MT194 (p,4n+2p)		MT16 (p,2n) >>



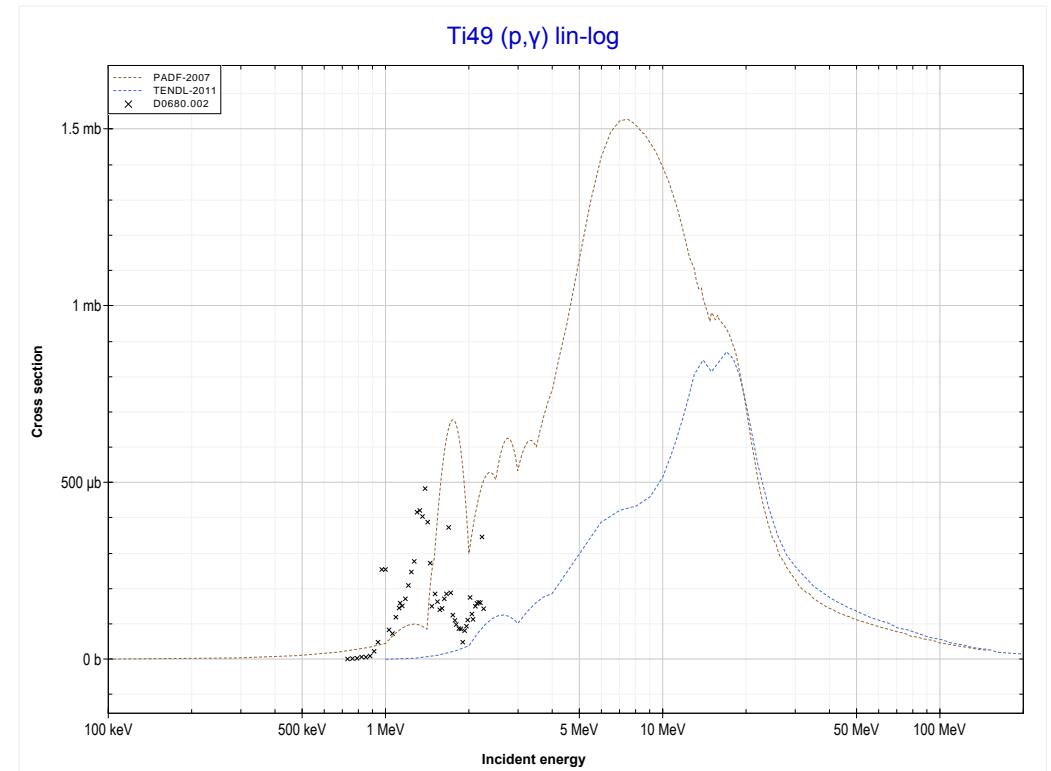
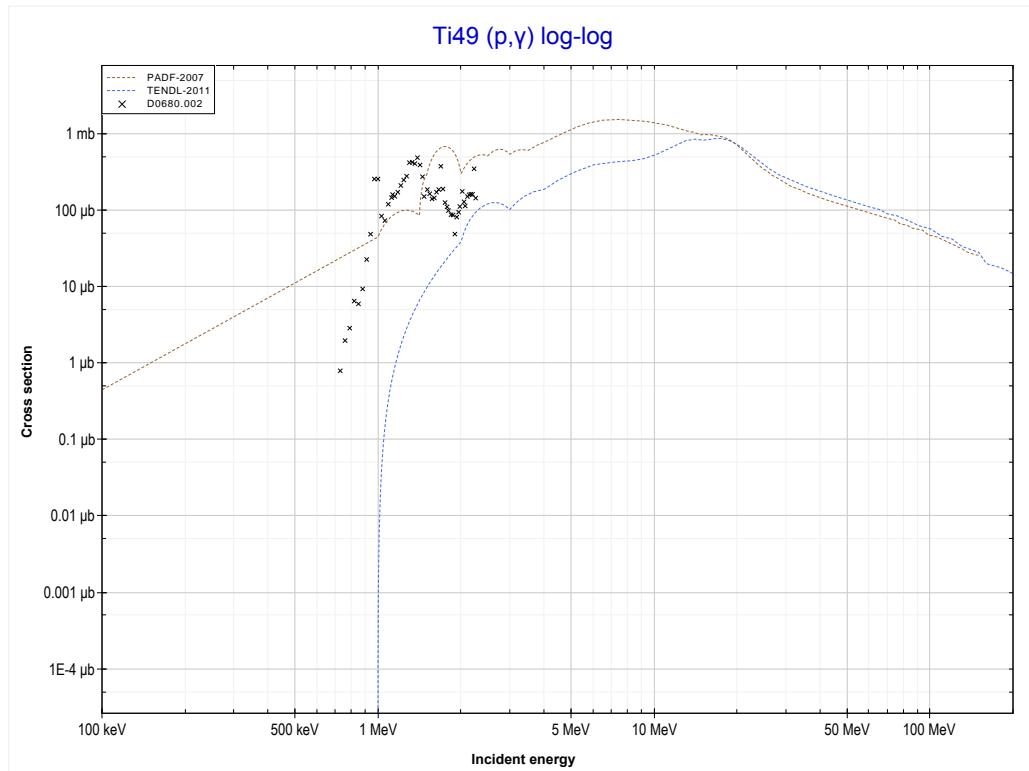
Reaction	Q-Value
Ti49(p,n)V49	-1384.25 keV

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



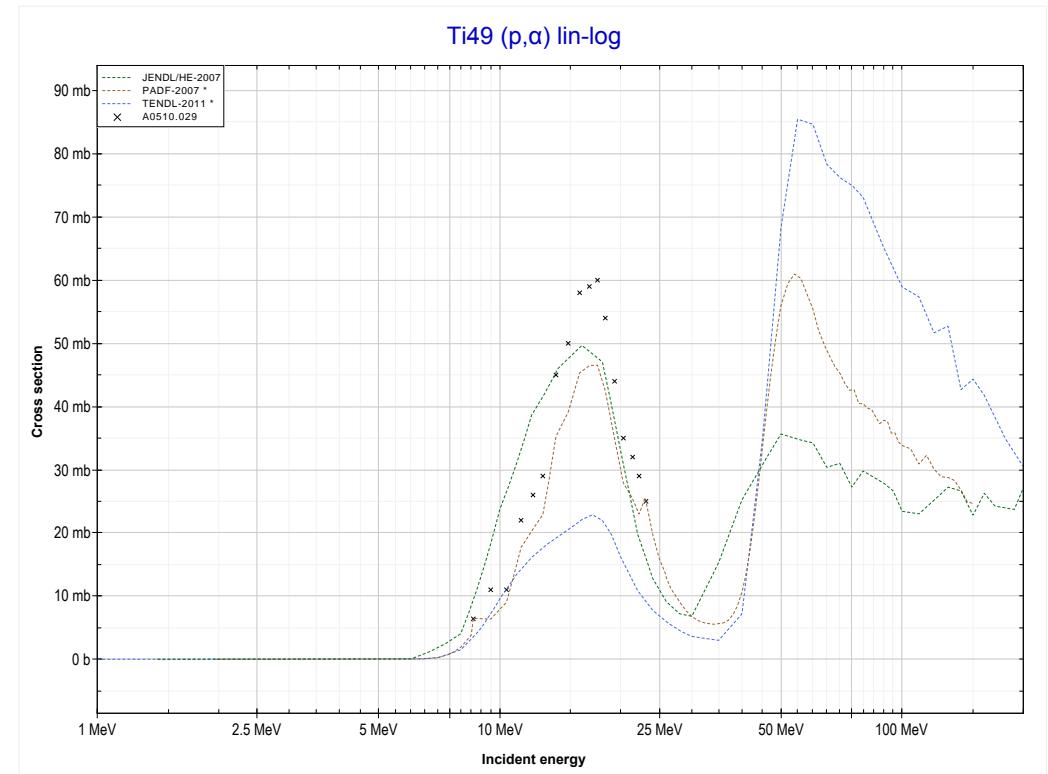
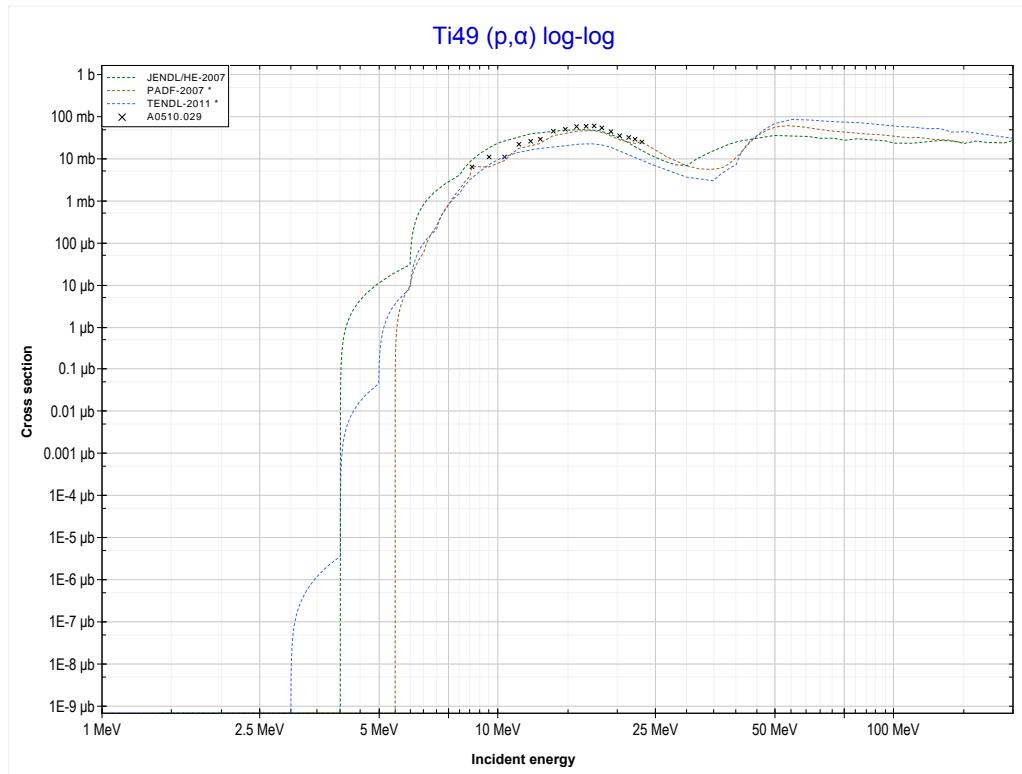
Reaction	Q-Value
Ti49(p,2n)V48	-12937.06 keV

<< 20-Ca-48	22-Ti-49 MT102 (p,γ) or MT5 (V50 production)	22-Ti-50 >>
<< MT16 ($p,2n$)		MT107 (p,α) >>



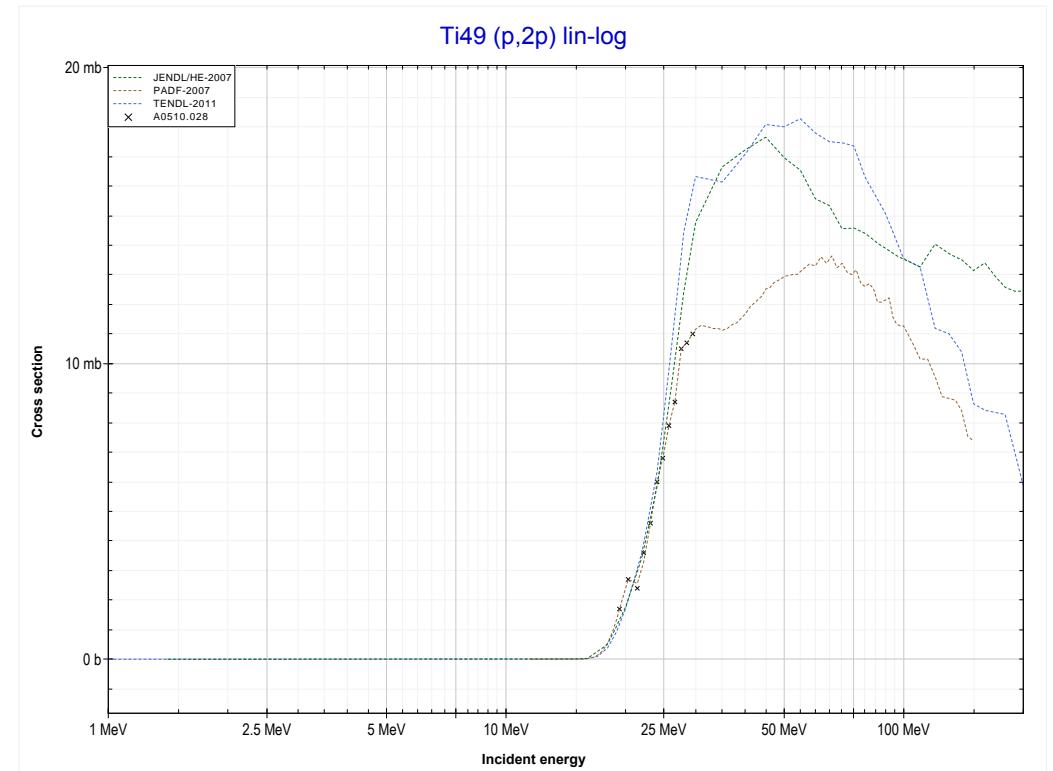
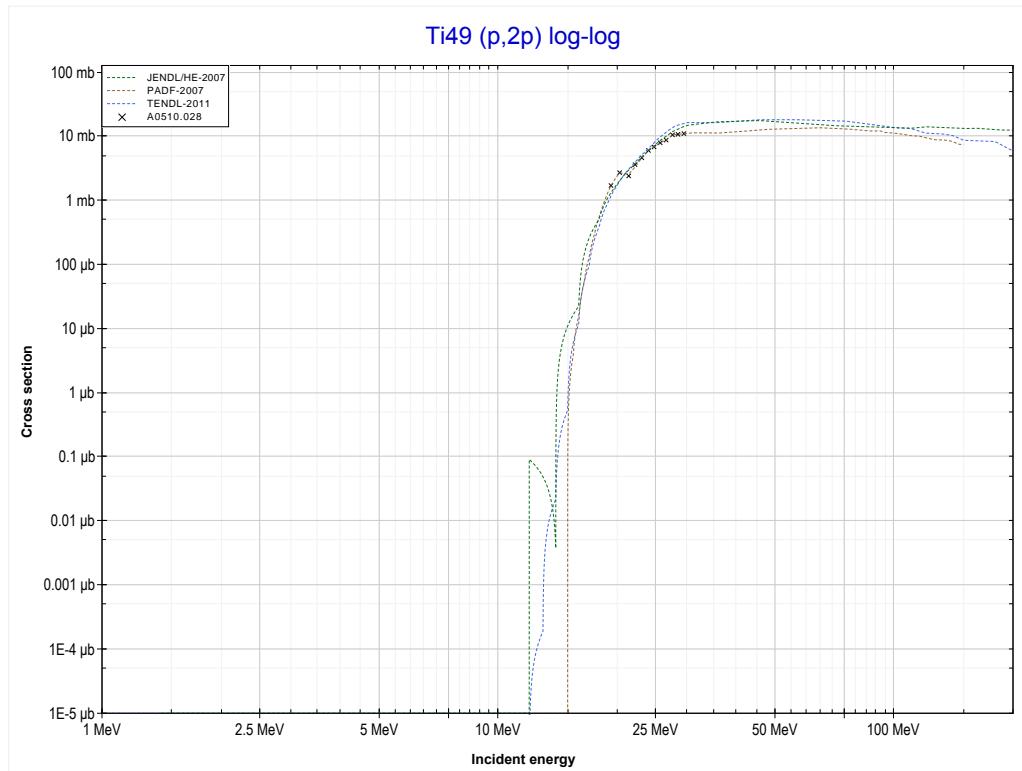
Reaction	Q-Value
$\text{Ti}^{49}(\text{p},\gamma)\text{V50}$	7951.77 keV

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



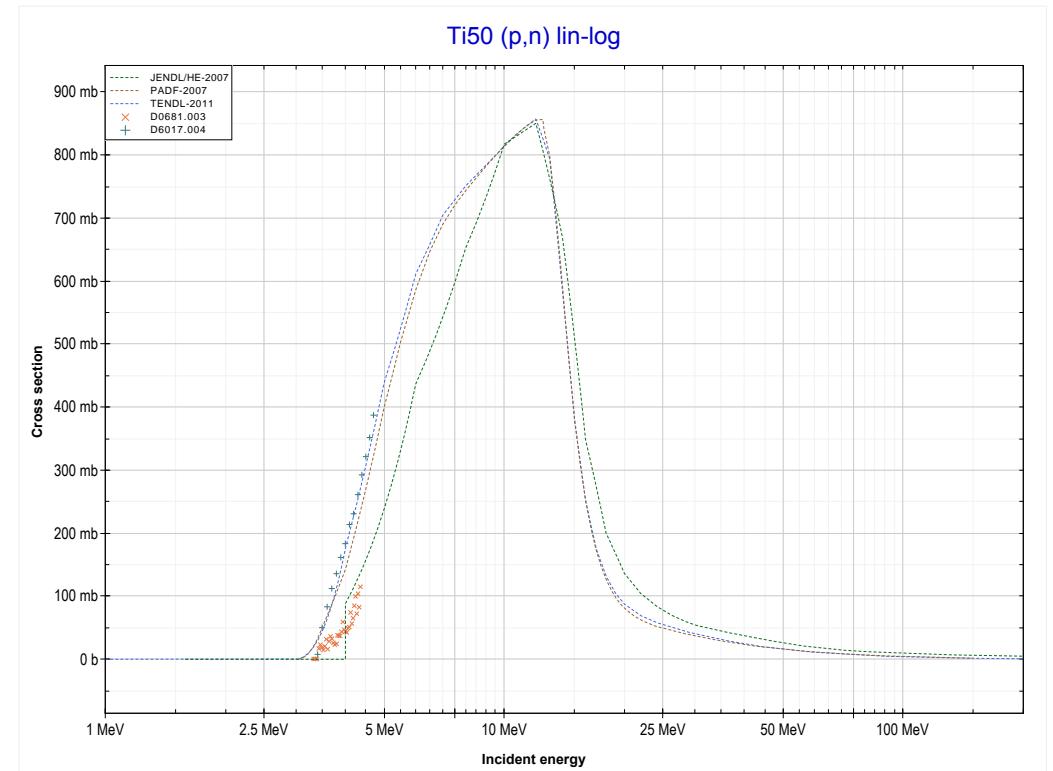
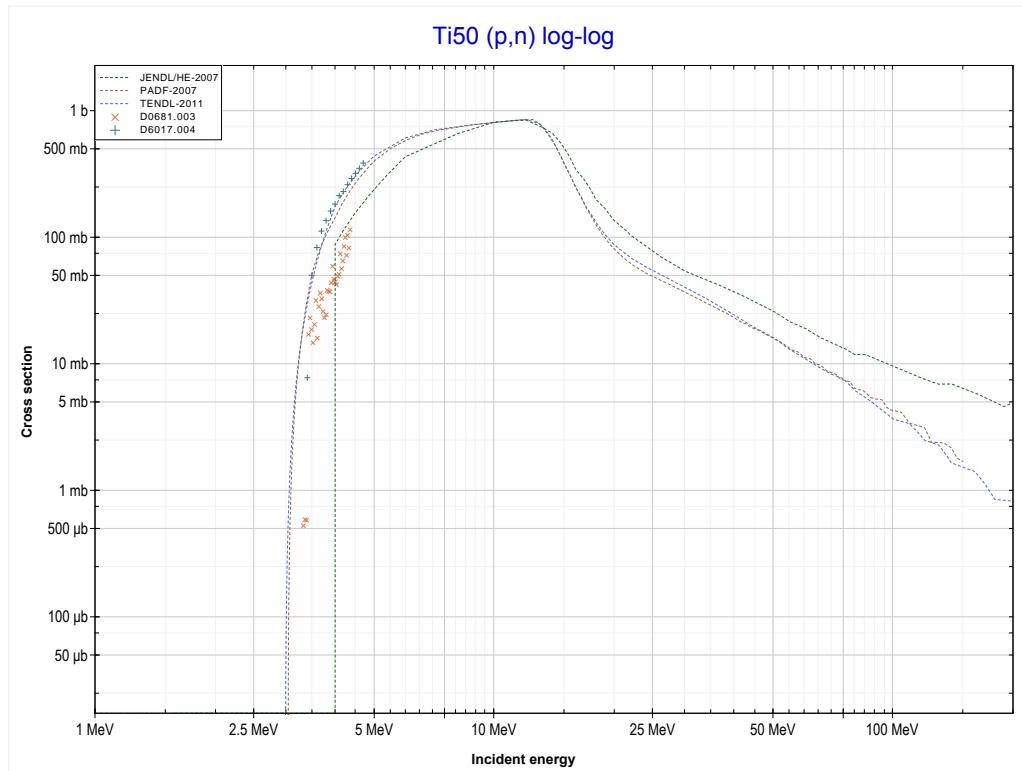
Reaction	Q-Value
Ti49(p,α)Sc46	-1937.65 keV
Ti49($p,p+t$)Sc46	-21751.51 keV
Ti49($p,n+He3$)Sc46	-22515.26 keV
Ti49($p,2d$)Sc46	-25784.17 keV
Ti49($p,n+p+d$)Sc46	-28008.74 keV
Ti49($p,2n+2p$)Sc46	-30233.30 keV

<< 22-Ti-48	22-Ti-49 MT111 (p,2p) or MT5 (Sc48 production)	>> 24-Cr-50
<< MT107 (p, α)		MT4 (p,n) >>



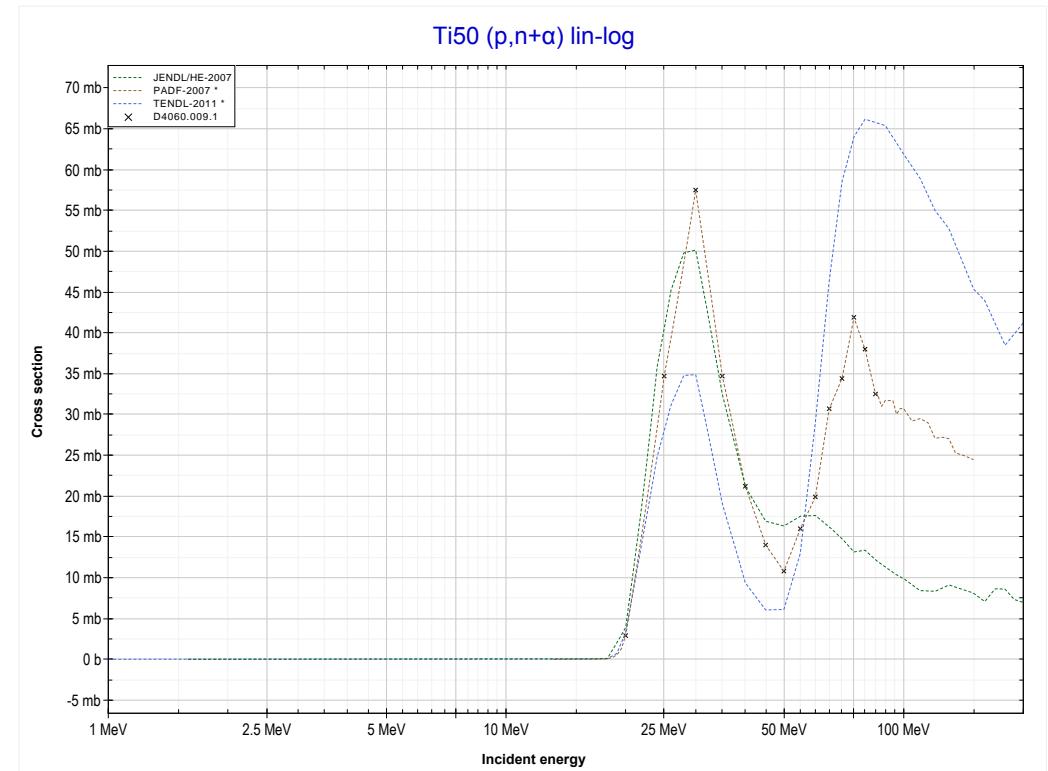
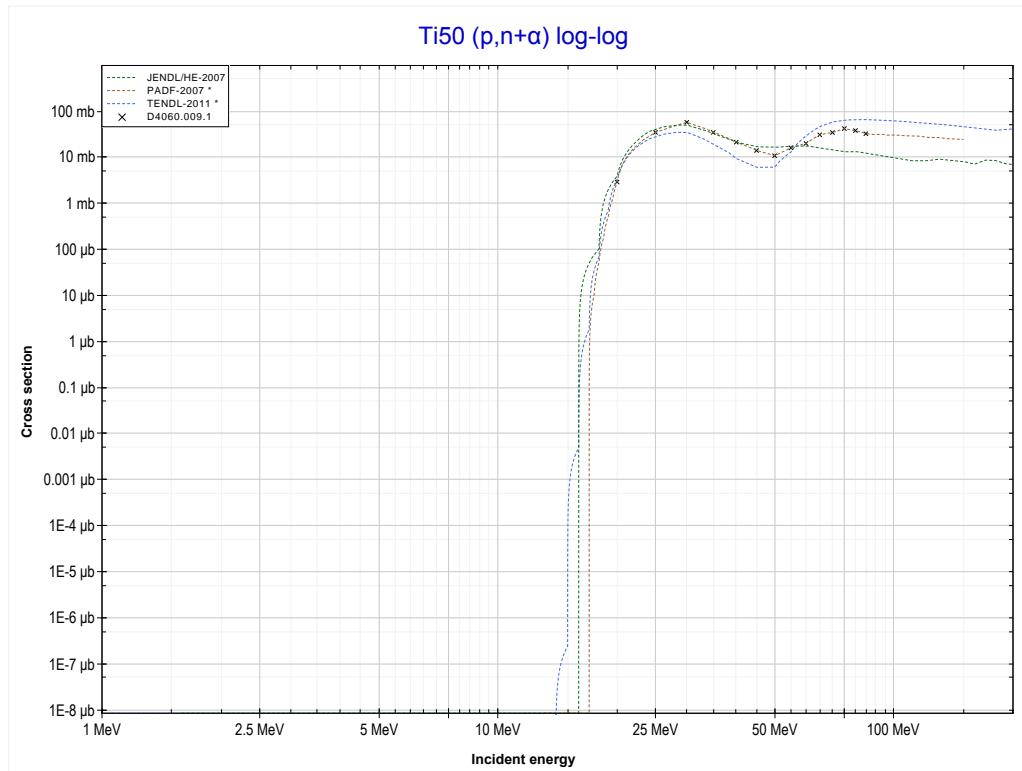
Reaction	Q-Value
$\text{Ti}^{49}(\text{p},\text{2p})\text{Sc}^{48}$	-11351.77 keV

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

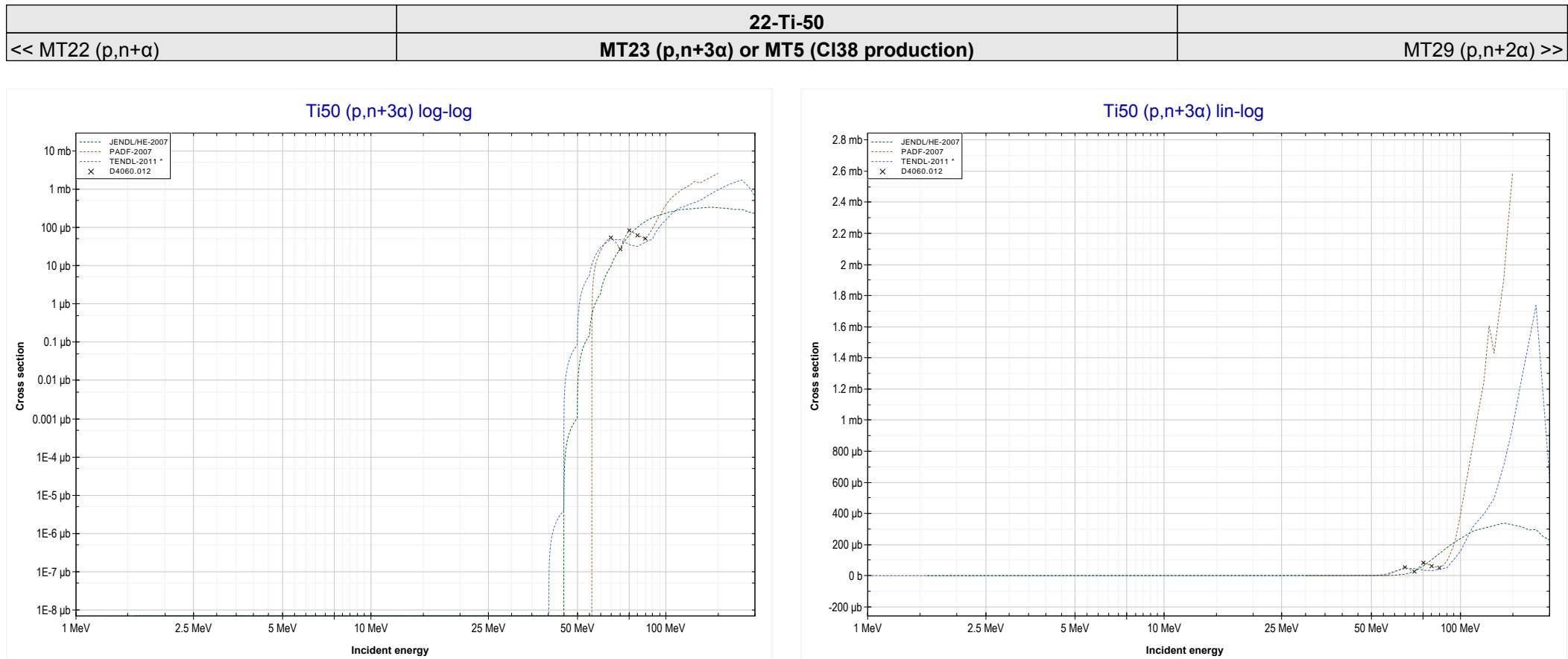


Reaction	Q-Value
$\text{Ti}^{50}(\text{p},\text{n})\text{V}50$	-2987.45 keV

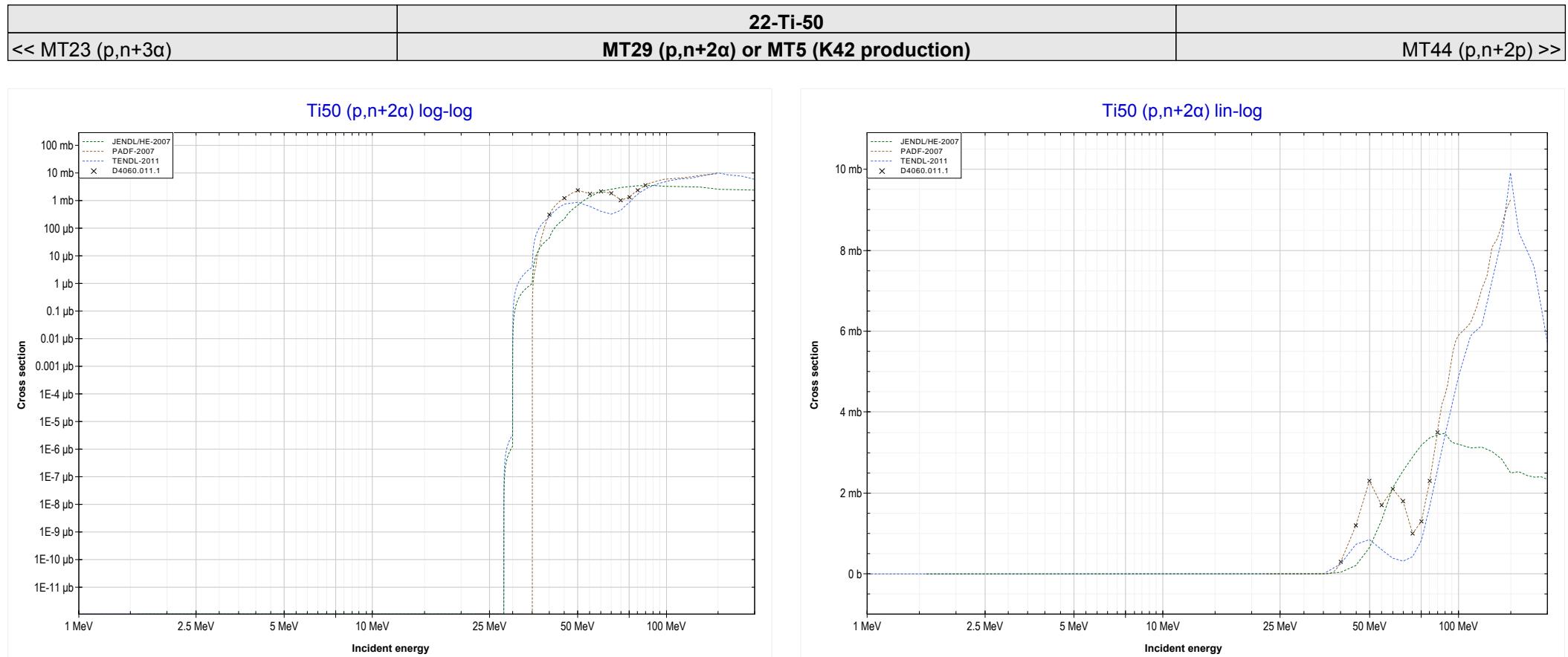
<< 22-Ti-48	22-Ti-50 MT22 (p,n+α) or MT5 (Sc46 production)	>> 24-Cr-52
<< MT4 (p,n)		MT23 (p,n+3α) >>



Reaction	Q-Value
Ti50(p,n+α)Sc46	-12876.86 keV
Ti50(p,d+t)Sc46	-30466.16 keV
Ti50(p,n+p+t)Sc46	-32690.72 keV
Ti50(p,2n+He3)Sc46	-33454.48 keV
Ti50(p,n+2d)Sc46	-36723.39 keV
Ti50(p,2n+p+d)Sc46	-38947.96 keV
Ti50(p,3n+2p)Sc46	-41172.52 keV

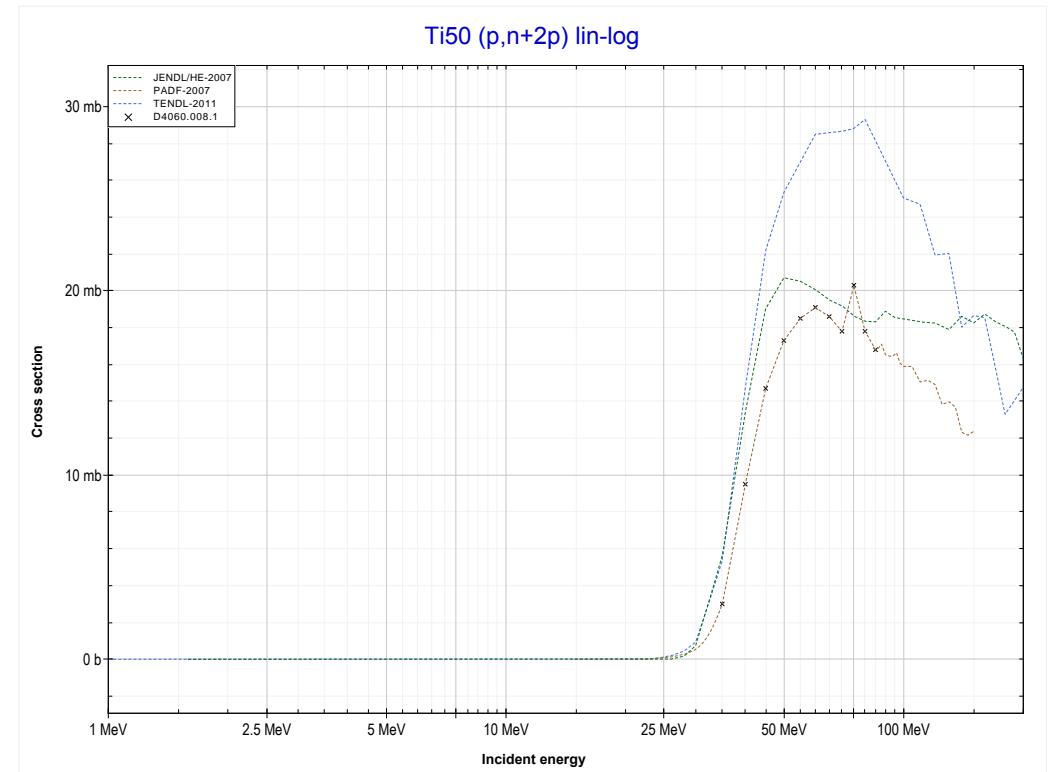
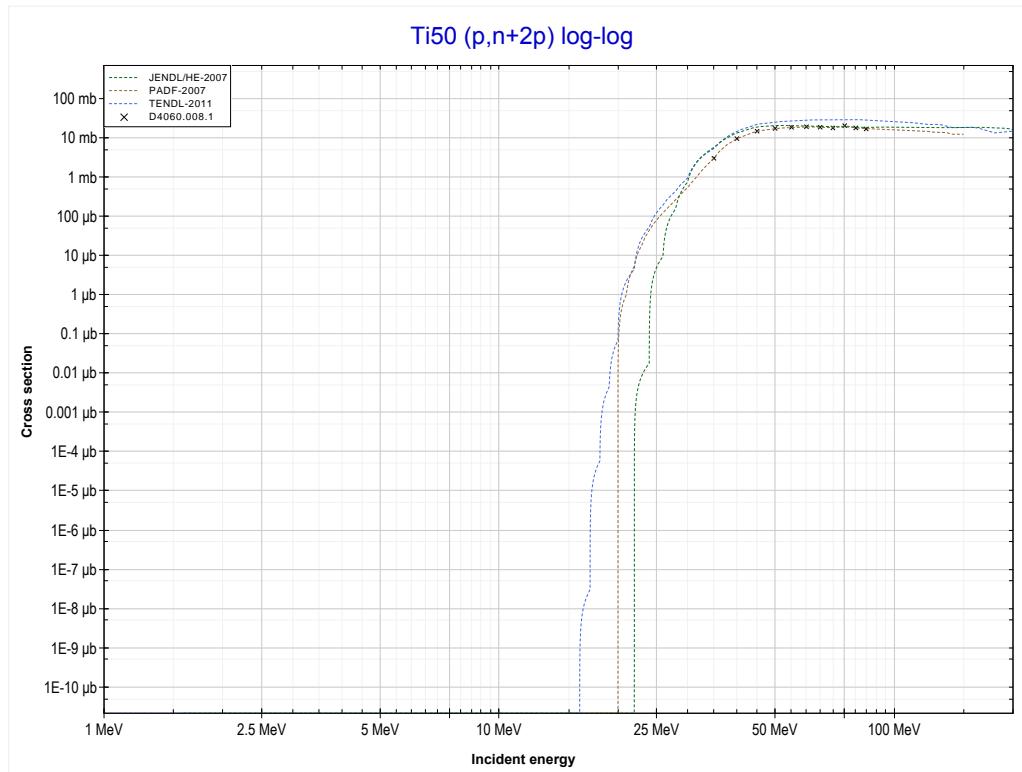


Reaction	Q-Value
Ti50(p,n+3α)Cl38	-29685.69 keV
Ti50(p,d+t+2α)Cl38	-47274.99 keV
Ti50(p,n+p+t+2α)Cl38	-49499.55 keV
Ti50(p,2n+He3+2α)Cl38	-50263.31 keV
Ti50(p,n+2d+2α)Cl38	-53532.22 keV
Ti50(p,2n+p+d+2α)Cl38	-55756.79 keV
Ti50(p,3n+2p+2α)Cl38	-57981.35 keV
Ti50(p,2t+He3+α)Cl38	-61595.37 keV
Reaction	Q-Value
Ti50(p,p+d+2t+α)Cl38	-67088.85 keV
Ti50(p,n+d+t+He3+α)Cl38	-67852.60 keV
Ti50(p,n+2p+2t+α)Cl38	-69313.42 keV
Ti50(p,2n+p+t+He3+α)Cl38	-70077.17 keV
Ti50(p,3n+2He3+α)Cl38	-70840.93 keV
Ti50(p,3d+t+α)Cl38	-71121.52 keV
Ti50(p,n+p+2d+t+α)Cl38	-73346.08 keV
Ti50(p,2n+2d+He3+α)Cl38	-74109.84 keV



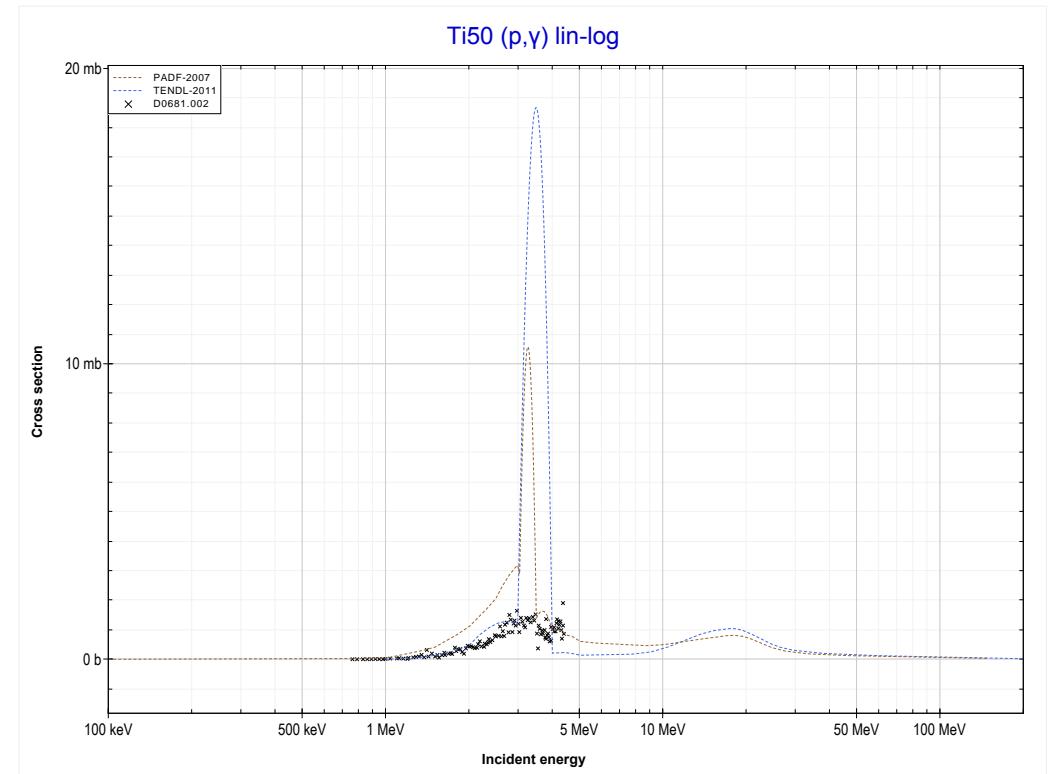
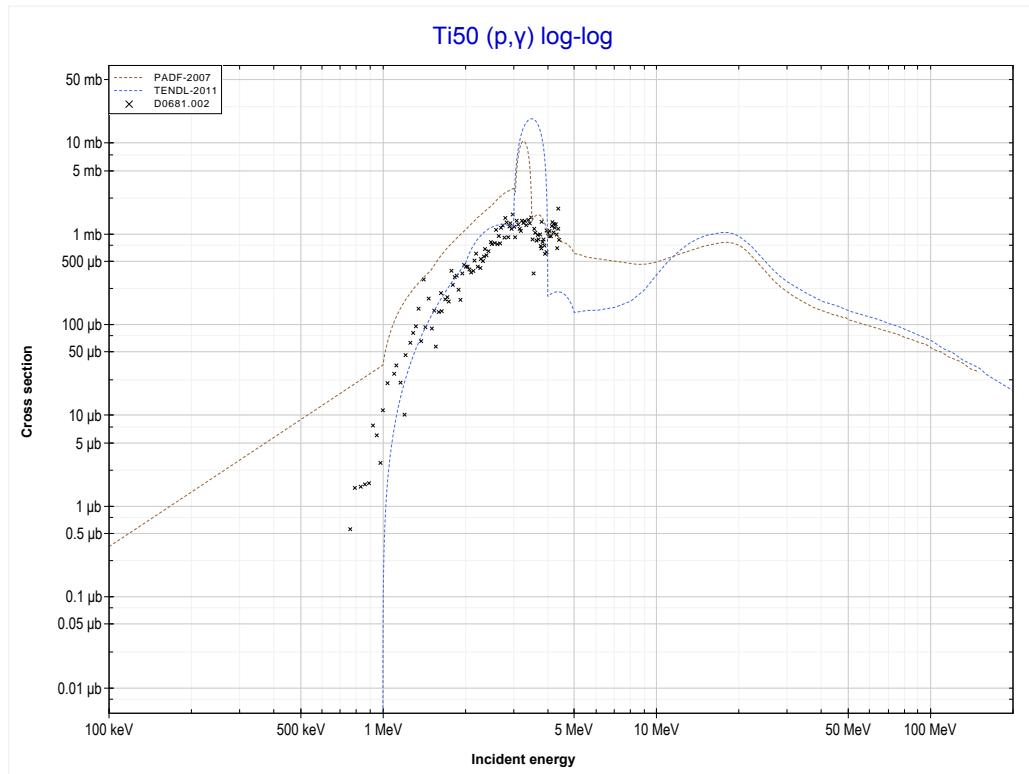
Reaction	Q-Value	Reaction	Q-Value
Ti50(p,n+2α)K42	-22037.32 keV	Ti50(p,p+d+2t)K42	-59440.47 keV
Ti50(p,d+t+α)K42	-39626.61 keV	Ti50(p,n+d+t+He3)K42	-60204.23 keV
Ti50(p,n+p+t+α)K42	-41851.18 keV	Ti50(p,n+2p+2t)K42	-61665.04 keV
Ti50(p,2n+He3+α)K42	-42614.93 keV	Ti50(p,2n+p+t+He3)K42	-62428.79 keV
Ti50(p,n+2d+α)K42	-45883.85 keV	Ti50(p,3n+2He3)K42	-63192.55 keV
Ti50(p,2n+p+d+α)K42	-48108.41 keV	Ti50(p,3d+t)K42	-63473.14 keV
Ti50(p,3n+2p+α)K42	-50332.98 keV	Ti50(p,n+p+2d+t)K42	-65697.71 keV
Ti50(p,2t+He3)K42	-53947.00 keV	Ti50(p,2n+2d+He3)K42	-66461.46 keV

<< 22-Ti-48	22-Ti-50 MT44 (p,n+2p) or MT5 (Sc48 production)	>> 24-Cr-50
<< MT29 (p,n+2α)		>> MT102 (p,y) >>



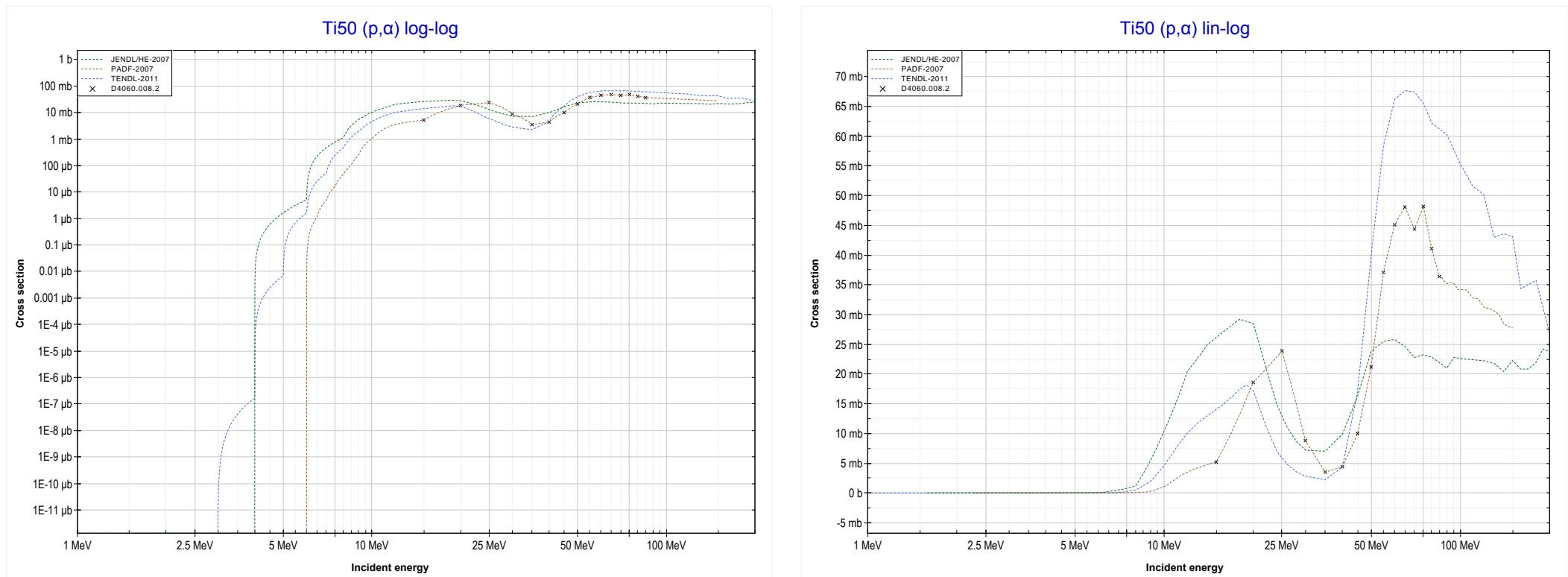
Reaction	Q-Value
Ti50(p,He3)Sc48	-14572.94 keV
Ti50(p,p+d)Sc48	-20066.42 keV
Ti50(p,n+2p)Sc48	-22290.99 keV

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

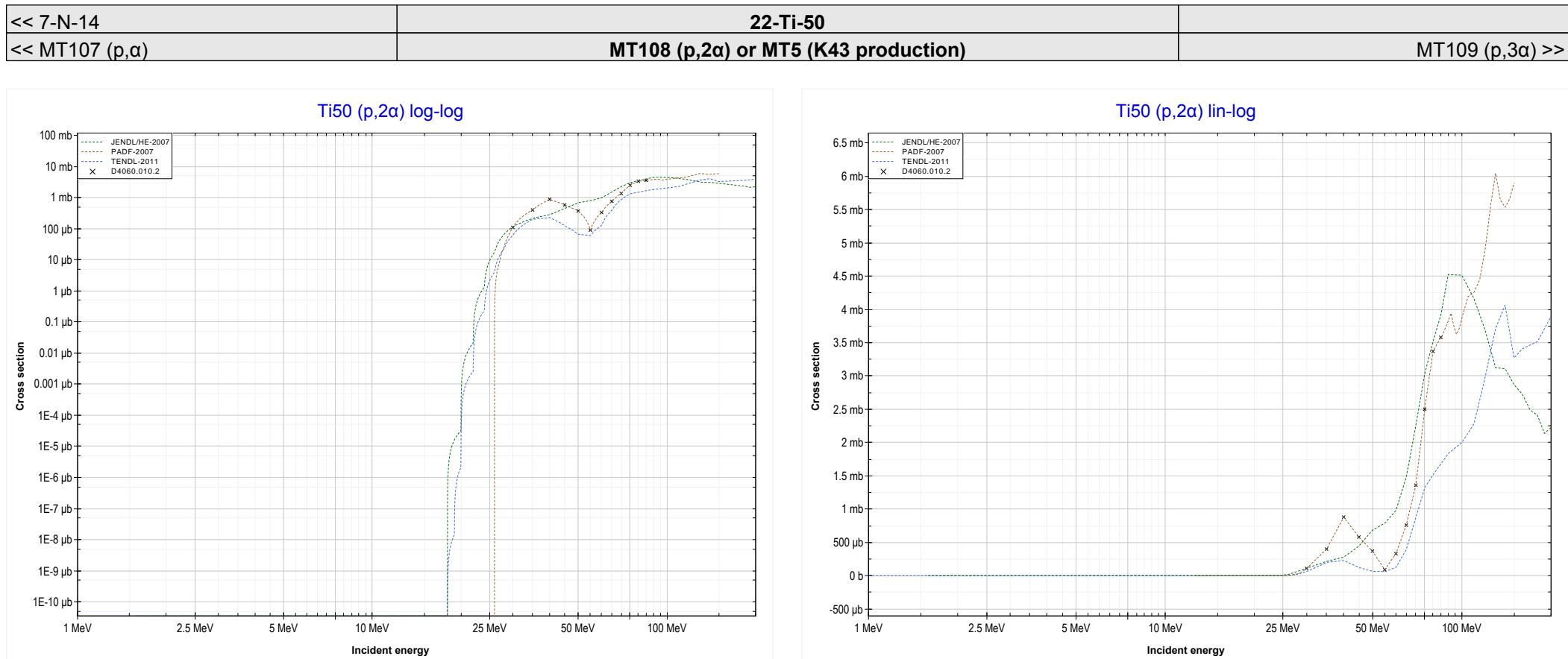


Reaction	Q-Value
$\text{Ti}^{50}(\text{p},\gamma)\text{V}51$	8063.67 keV

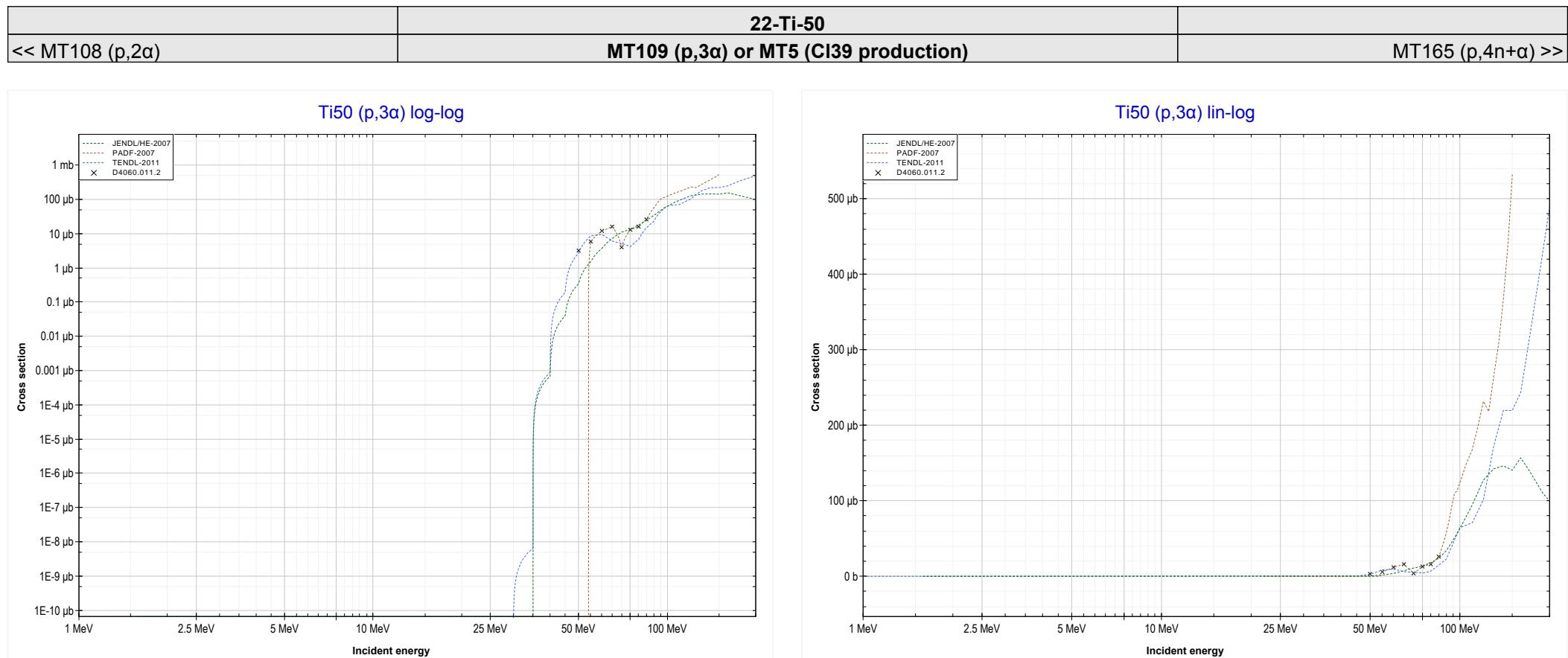
<< 22-Ti-49	22-Ti-50 MT107 (p,α) or MT5 (Sc47 production)	>> 26-Fe-54
<< MT102 (p,γ)		>> MT108 ($p,2\alpha$)



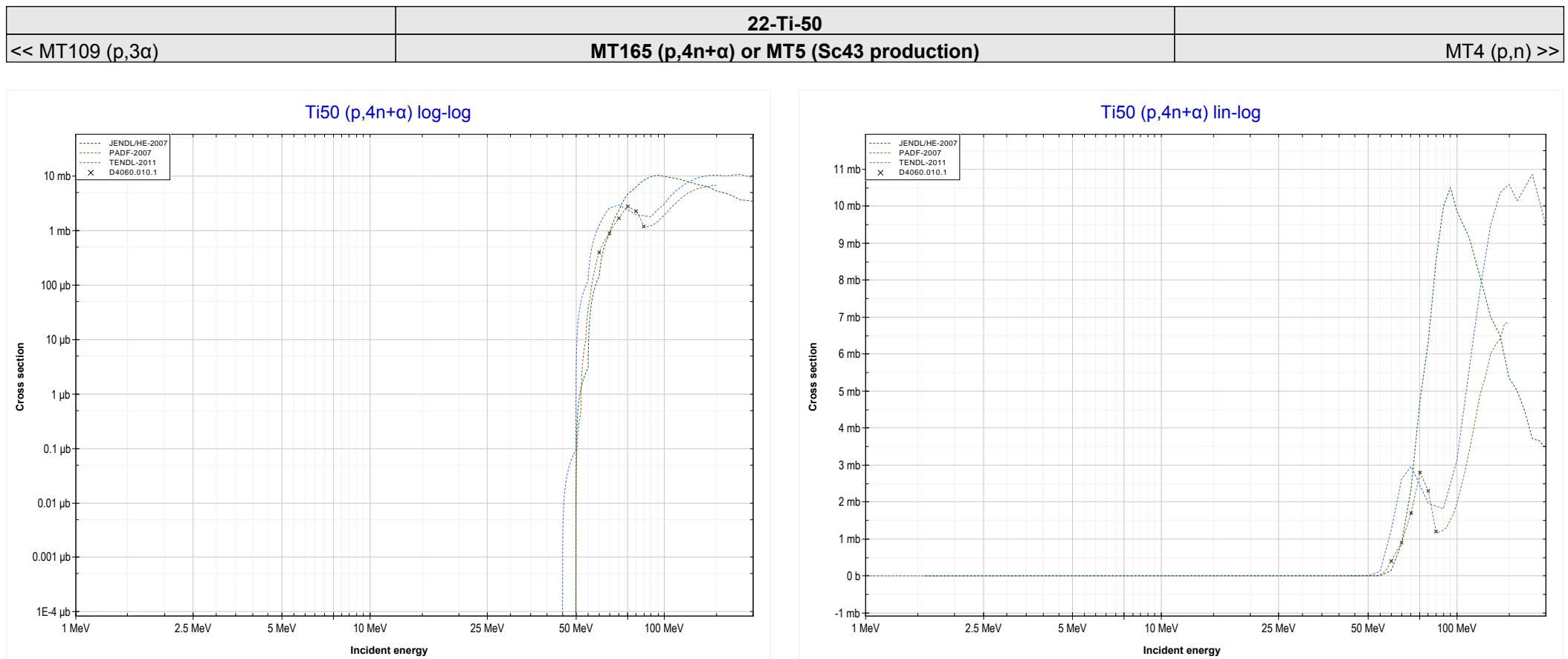
Reaction	Q-Value
Ti50(p,α)Sc47	-2230.55 keV
Ti50($p,p+t$)Sc47	-22044.41 keV
Ti50($p,n+He3$)Sc47	-22808.16 keV
Ti50($p,2d$)Sc47	-26077.07 keV
Ti50($p,n+p+d$)Sc47	-28301.64 keV
Ti50($p,2n+2p$)Sc47	-30526.20 keV



Reaction	Q-Value	Reaction	Q-Value
Ti50(p,2α)K43	-12394.56 keV	Ti50(p,n+p+t+He3)K43	-52786.04 keV
Ti50(p,p+t+α)K43	-32208.42 keV	Ti50(p,2n+2He3)K43	-53549.79 keV
Ti50(p,n+He3+α)K43	-32972.18 keV	Ti50(p,p+2d+t)K43	-56054.95 keV
Ti50(p,2d+α)K43	-36241.09 keV	Ti50(p,n+2d+He3)K43	-56818.70 keV
Ti50(p,n+p+d+α)K43	-38465.65 keV	Ti50(p,n+2p+d+t)K43	-58279.52 keV
Ti50(p,2n+2p+α)K43	-40690.22 keV	Ti50(p,2n+p+d+He3)K43	-59043.27 keV
Ti50(p,d+t+He3)K43	-50561.47 keV	Ti50(p,4d)K43	-60087.62 keV
Ti50(p,2p+2t)K43	-52022.28 keV	Ti50(p,2n+3p+t)K43	-60504.08 keV

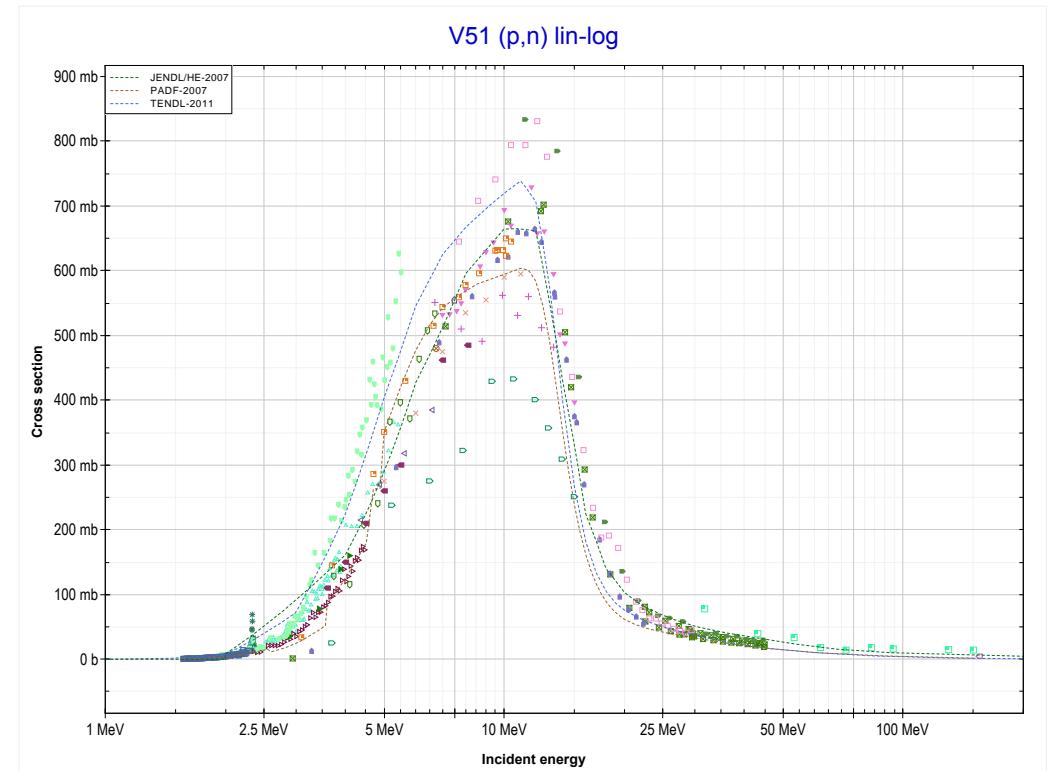
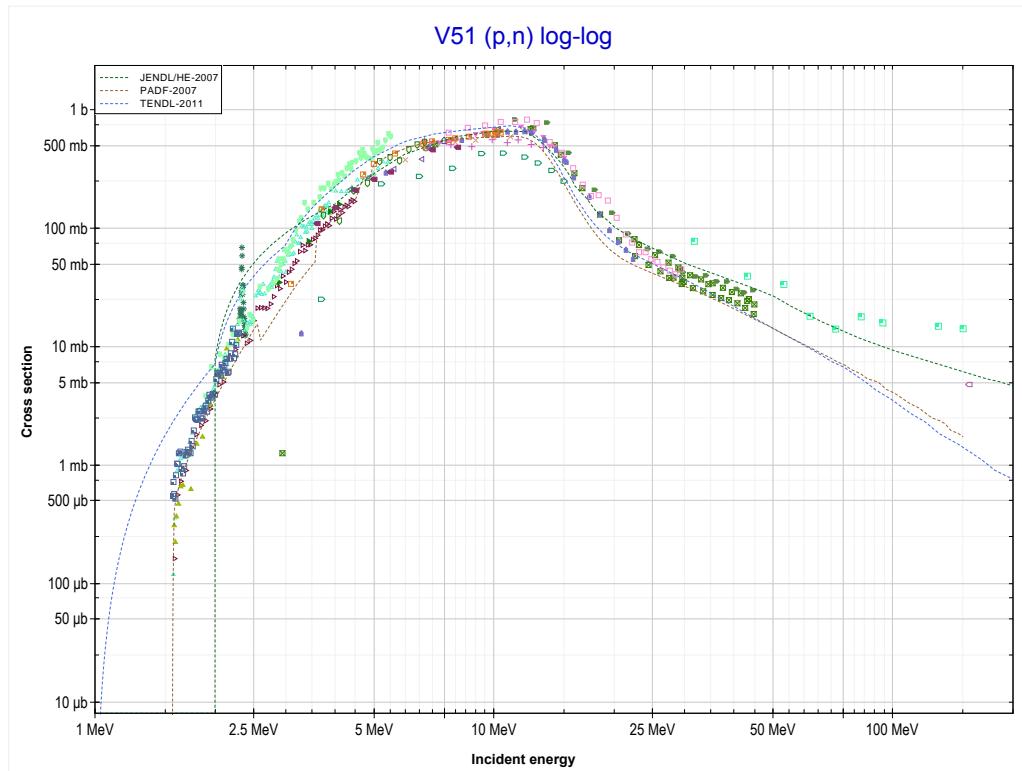


Reaction	Q-Value	Reaction	Q-Value
Ti50(p,3α)Cl39	-21612.28 keV	Ti50(p,n+p+t+He3+α)Cl39	-62003.75 keV
Ti50(p,p+t+2α)Cl39	-41426.14 keV	Ti50(p,2n+2He3+α)Cl39	-62767.51 keV
Ti50(p,n+He3+2α)Cl39	-42189.89 keV	Ti50(p,p+2d+t+α)Cl39	-65272.66 keV
Ti50(p,2d+2α)Cl39	-45458.80 keV	Ti50(p,n+2d+He3+α)Cl39	-66036.42 keV
Ti50(p,n+p+d+2α)Cl39	-47683.37 keV	Ti50(p,n+2p+d+t+α)Cl39	-67497.23 keV
Ti50(p,2n+2p+2α)Cl39	-49907.94 keV	Ti50(p,2n+p+d+He3+α)Cl39	-68260.99 keV
Ti50(p,d+t+He3+α)Cl39	-59779.19 keV	Ti50(p,4d+α)Cl39	-69305.33 keV
Ti50(p,2p+2t+α)Cl39	-61240.00 keV	Ti50(p,2n+3p+t+α)Cl39	-69721.80 keV



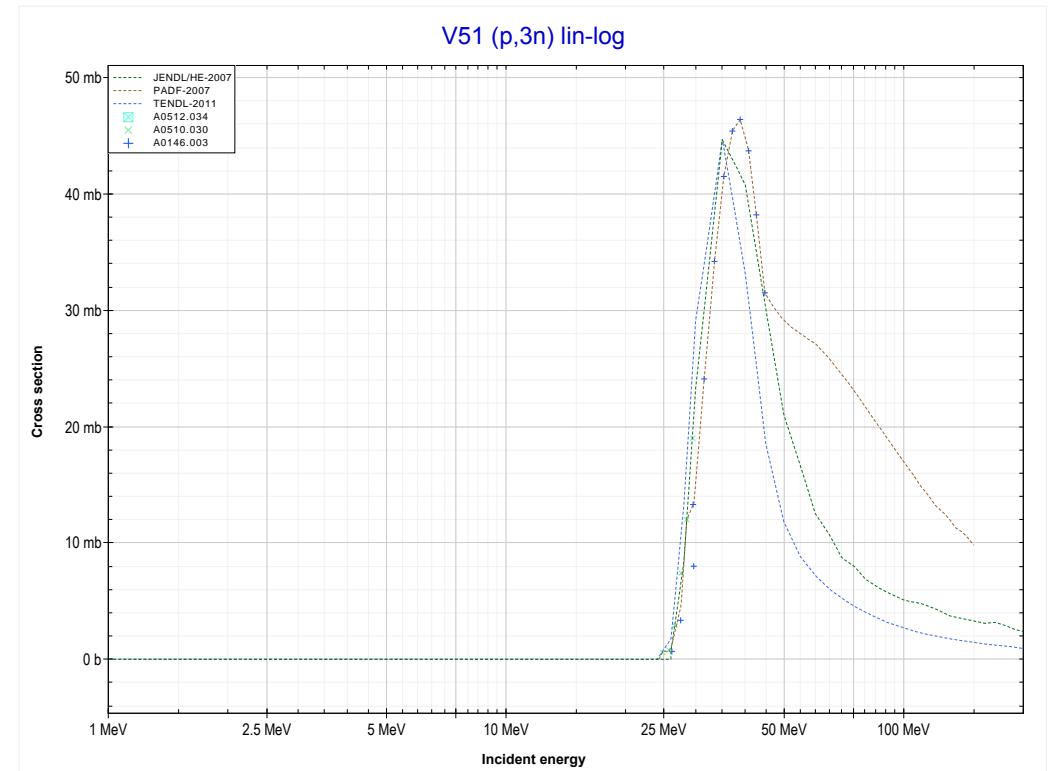
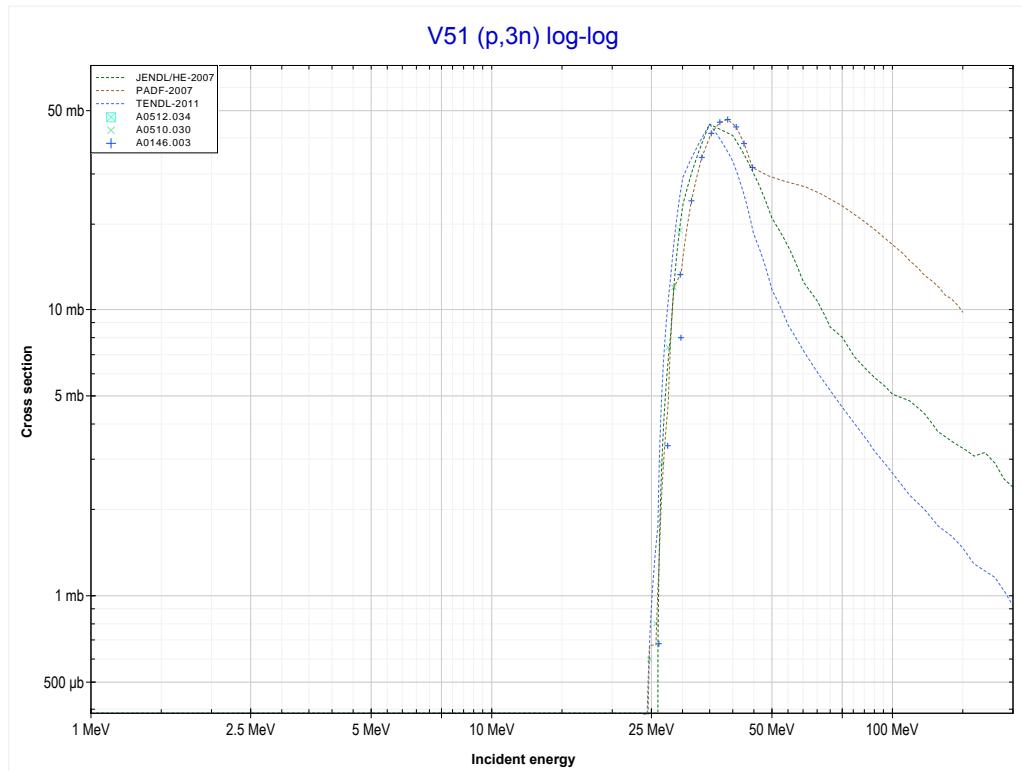
Reaction	Q-Value
Ti50(p,4n+ α)Sc43	-42660.01 keV
Ti50(p,2n+2t)Sc43	-53992.08 keV
Ti50(p,3n+d+t)Sc43	-60249.31 keV
Ti50(p,4n+p+t)Sc43	-62473.87 keV
Ti50(p,5n+He3)Sc43	-63237.63 keV
Ti50(p,4n+2d)Sc43	-66506.54 keV
Ti50(p,5n+p+d)Sc43	-68731.11 keV
Ti50(p,6n+2p)Sc43	-70955.67 keV

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



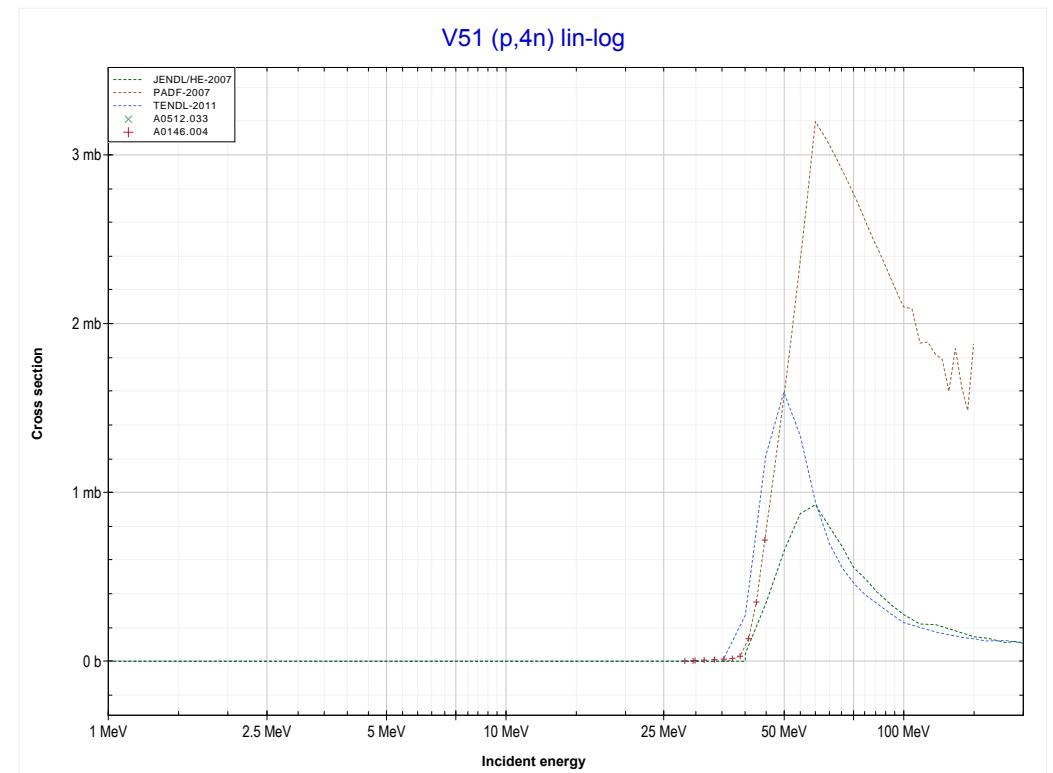
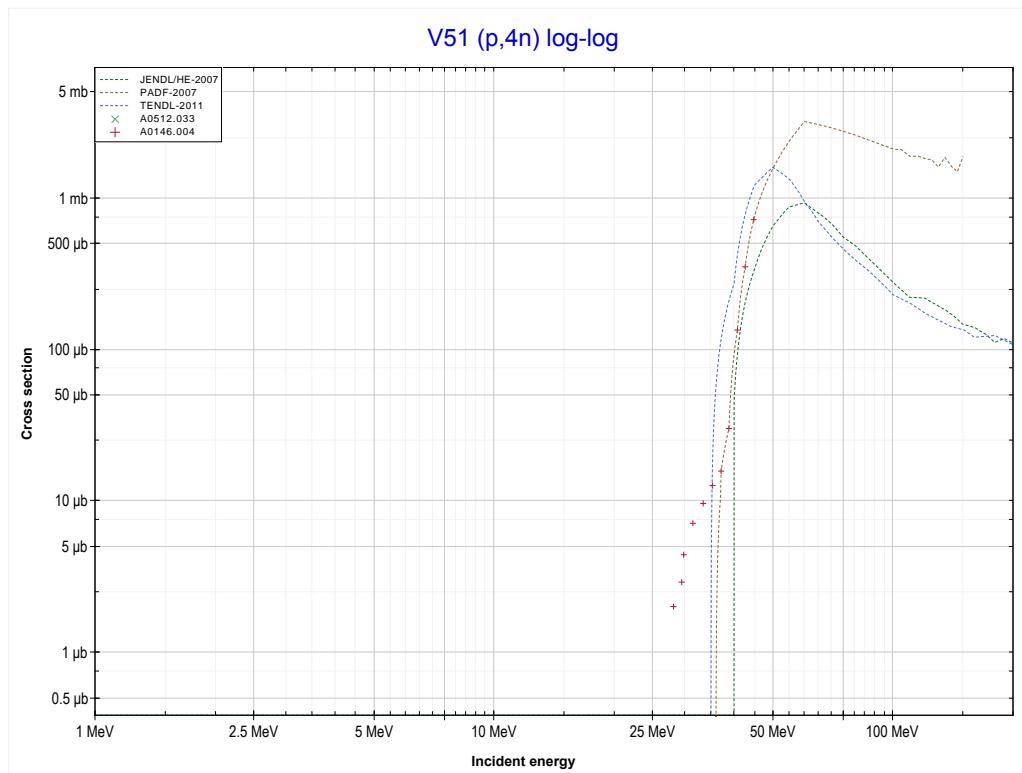
Reaction	Q-Value
V51(p,n)Cr51	-1534.95 keV

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



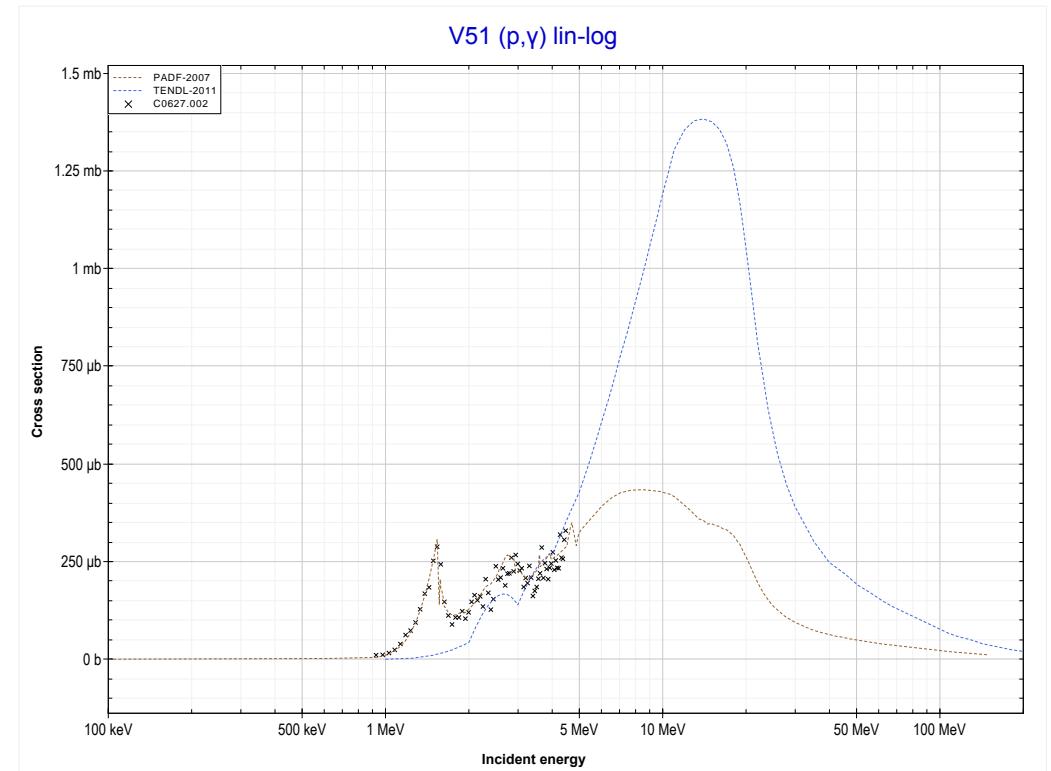
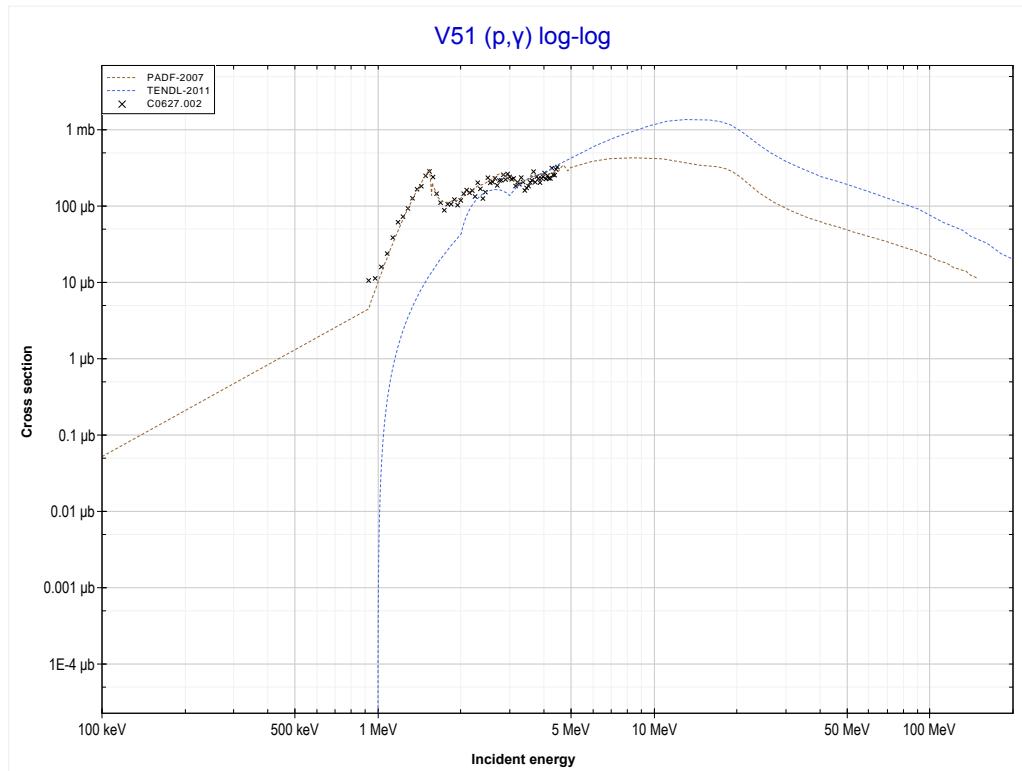
Reaction	Q-Value
V51(p,3n)Cr49	-23795.88 keV

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



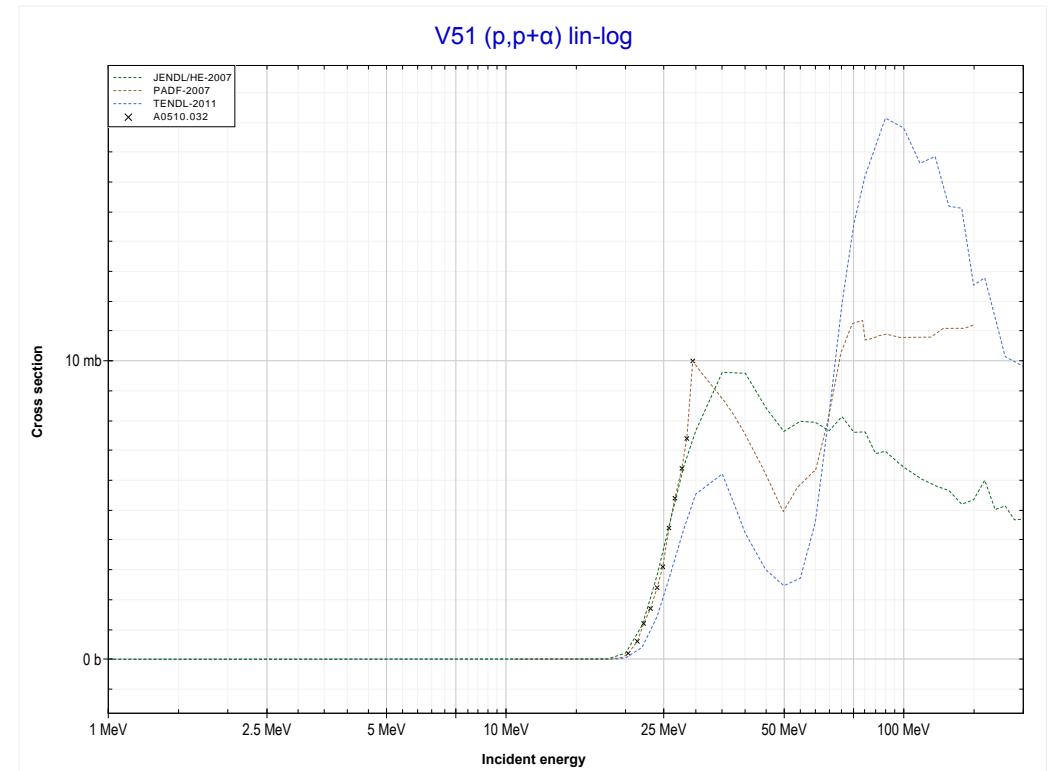
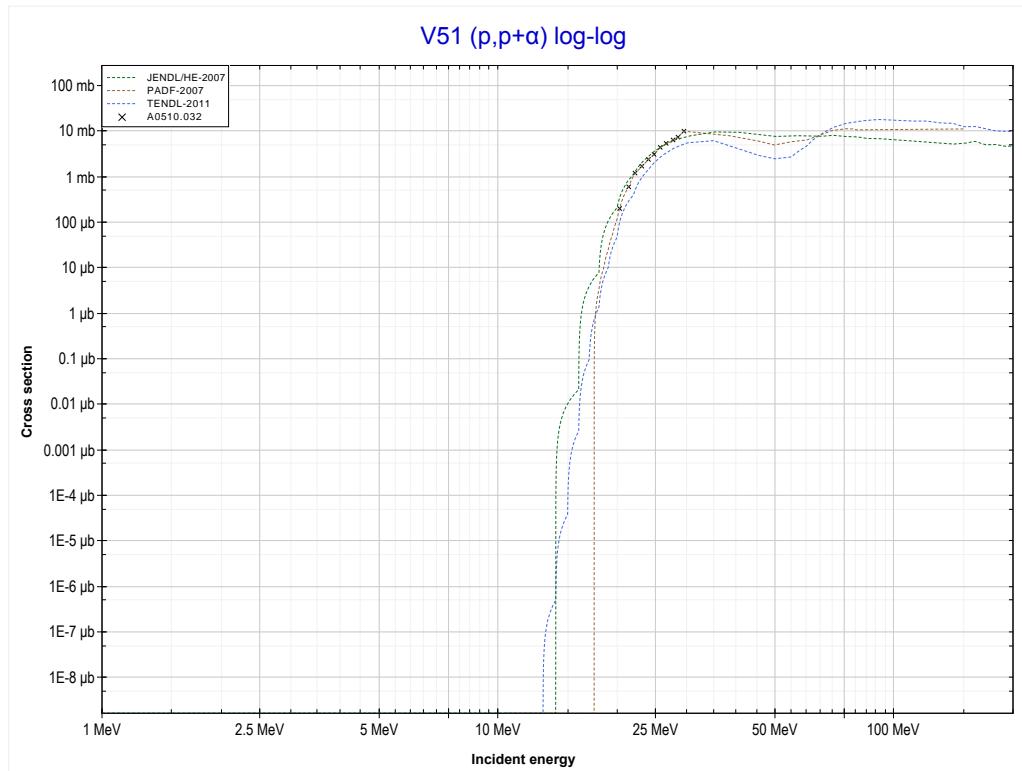
Reaction	Q-Value
V51(p,4n)Cr48	-34378.70 keV

<< 22-Ti-50	23-V-51 MT102 (p,γ) or MT5 (Cr52 production)	24-Cr-50 >>
<< MT37 ($p,4n$)		MT112 ($p,p+\alpha$) >>



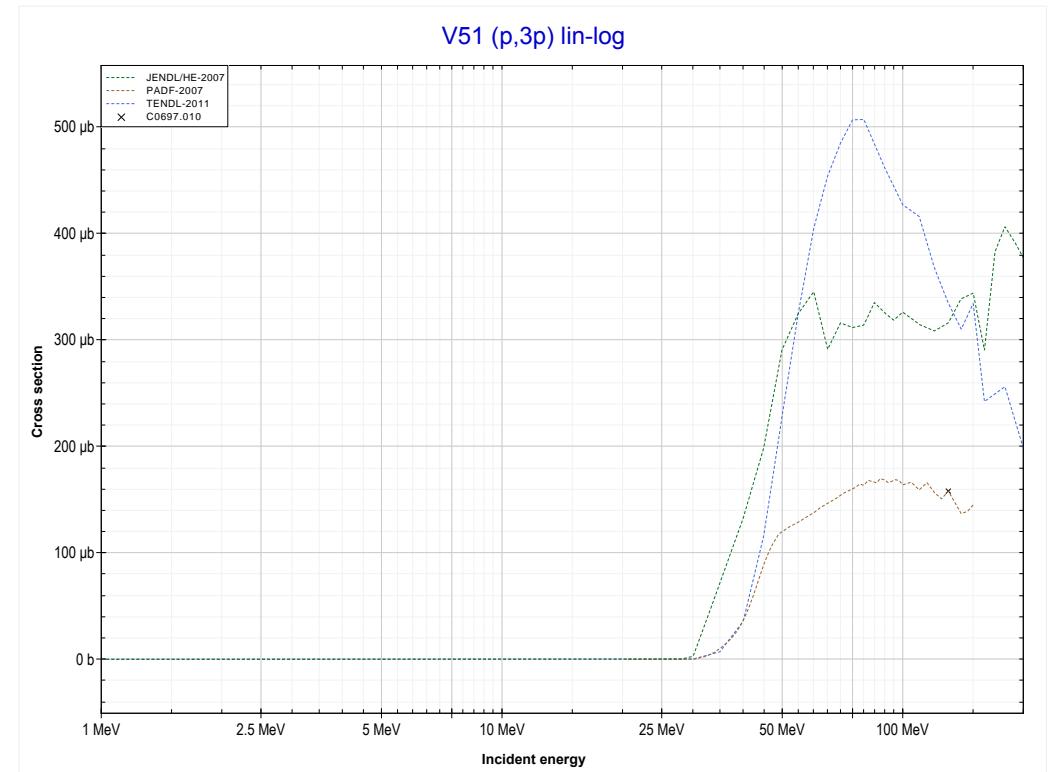
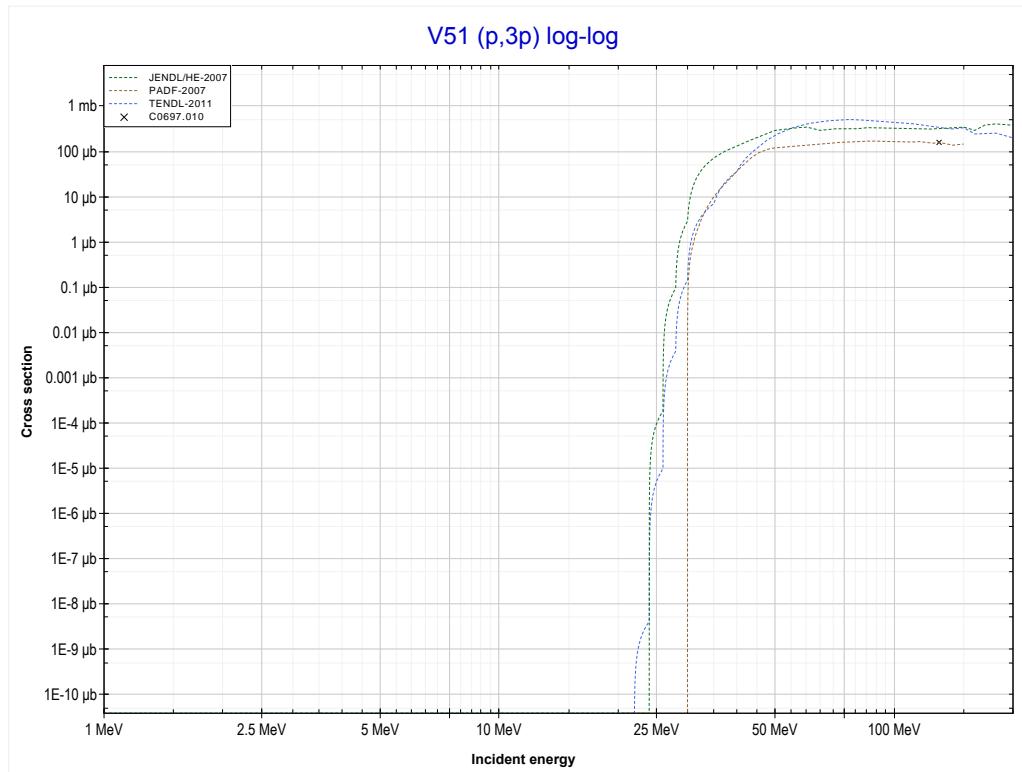
Reaction	Q-Value
V51(p,γ)Cr52	10504.47 keV

<< 8-O-16	23-V-51 MT112 ($p,p+\alpha$) or MT5 (Sc47 production)	42-Mo-92 >> MT197 ($p,3p$) >>
<< MT102 (p,γ)		



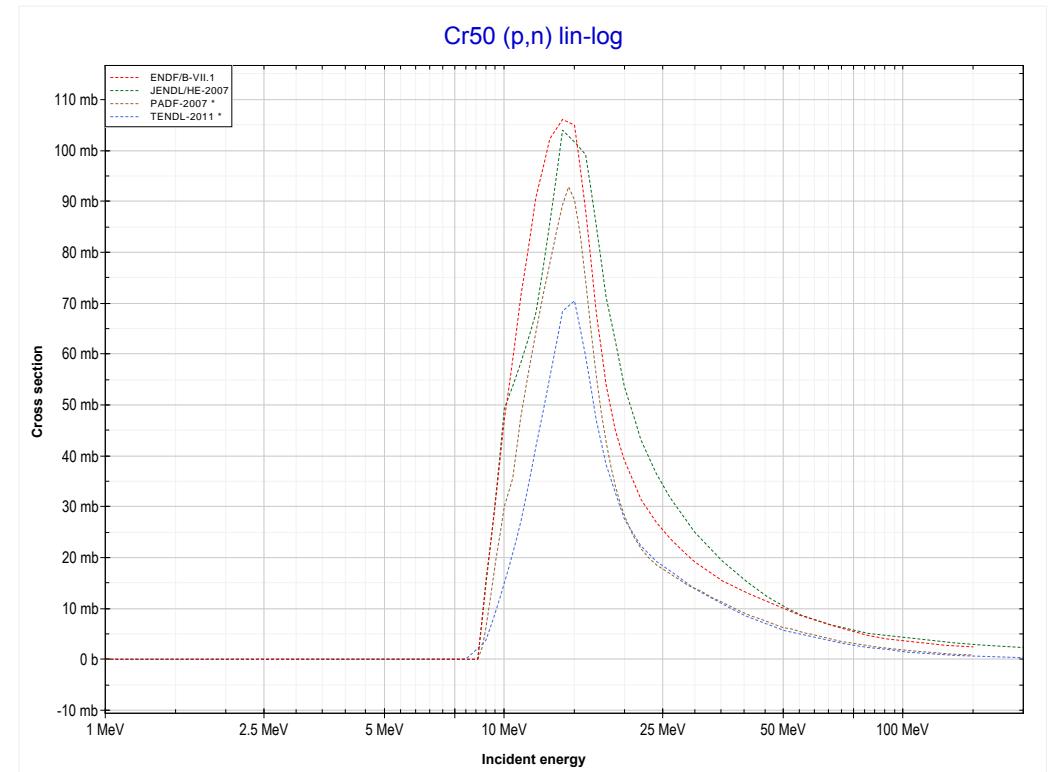
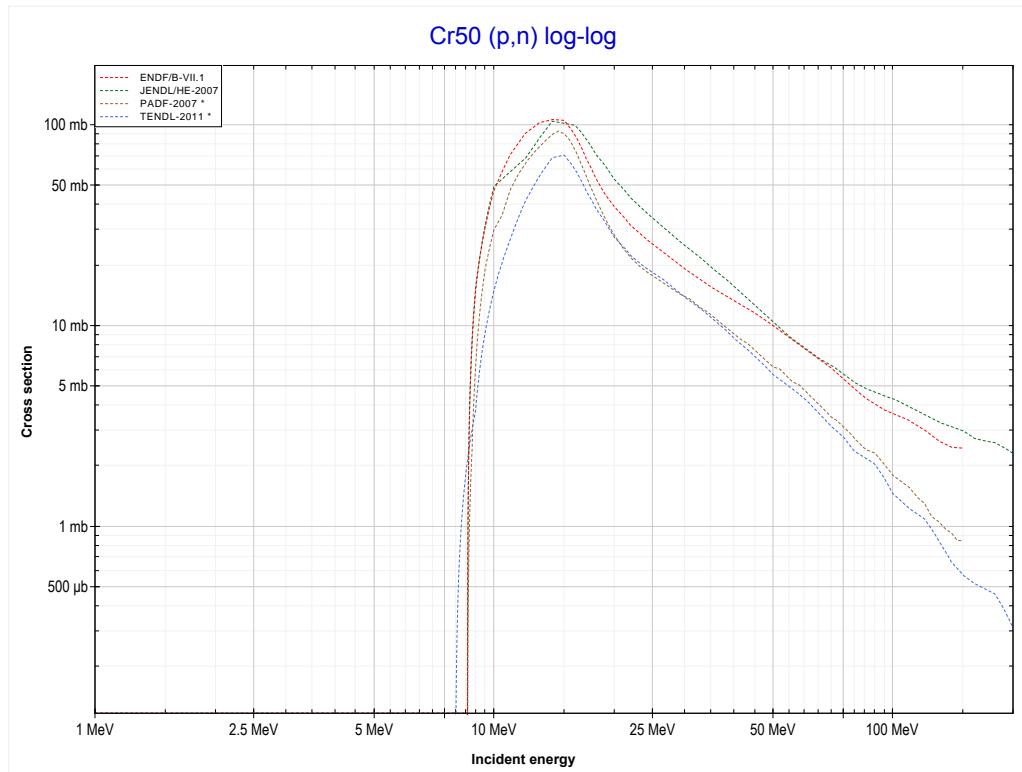
Reaction	Q-Value
V51($p,p+\alpha$)Sc47	-10294.22 keV
V51($p,d+\text{He}3$)Sc47	-28647.27 keV
V51($p,2p+t$)Sc47	-30108.08 keV
V51($p,n+p+\text{He}3$)Sc47	-30871.83 keV
V51($p,p+2d$)Sc47	-34140.74 keV
V51($p,n+2p+d$)Sc47	-36365.31 keV
V51($p,2n+3p$)Sc47	-38589.88 keV

<< 21-Sc-45	23-V-51 MT197 (p,3p) or MT5 (Sc49 production)	31-Ga-69 >>
<< MT112 (p,p+α)		MT4 (p,n) >>



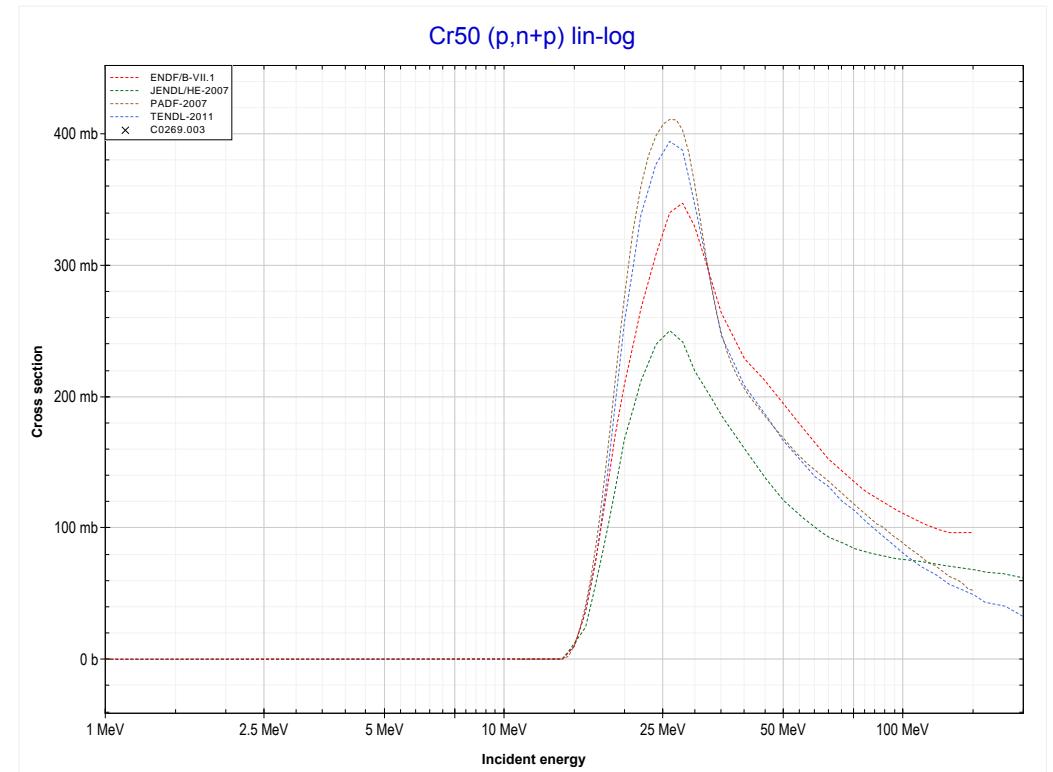
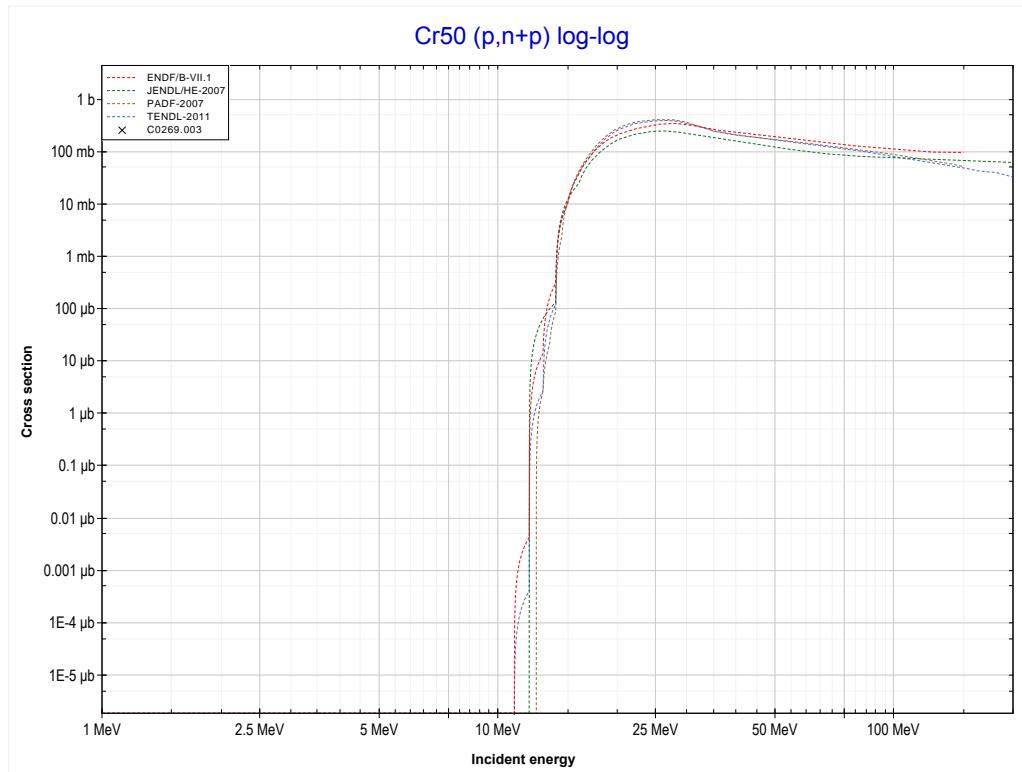
Reaction	Q-Value
V51(p,3p)Sc49	-20227.34 keV

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



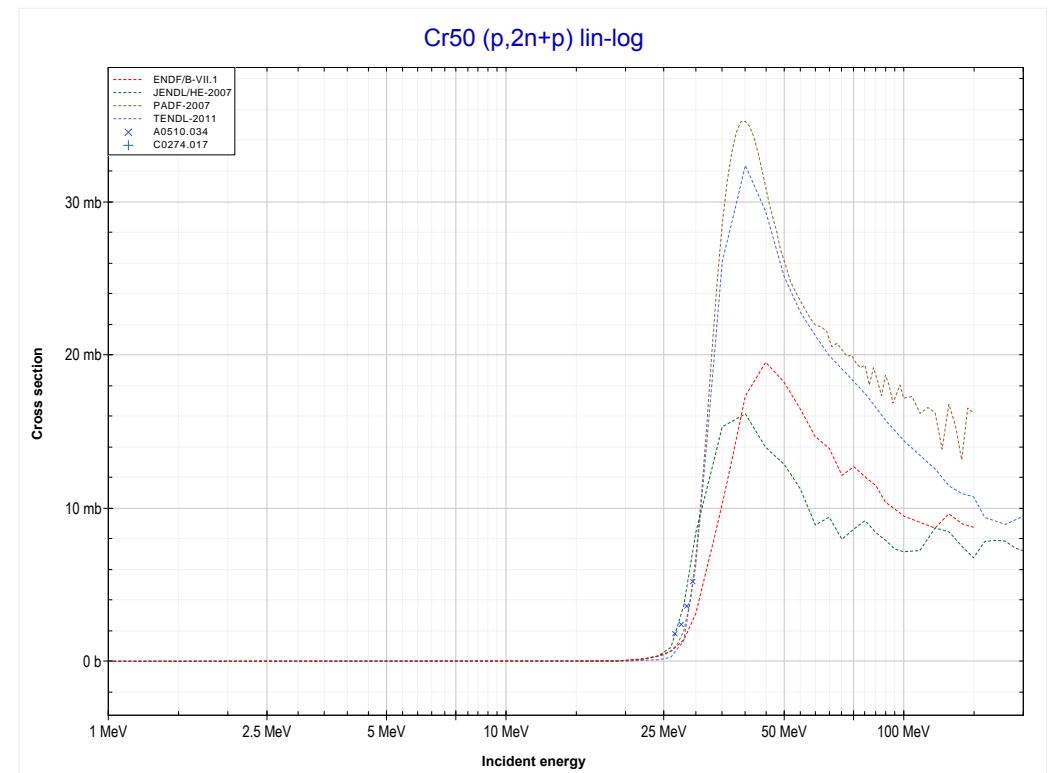
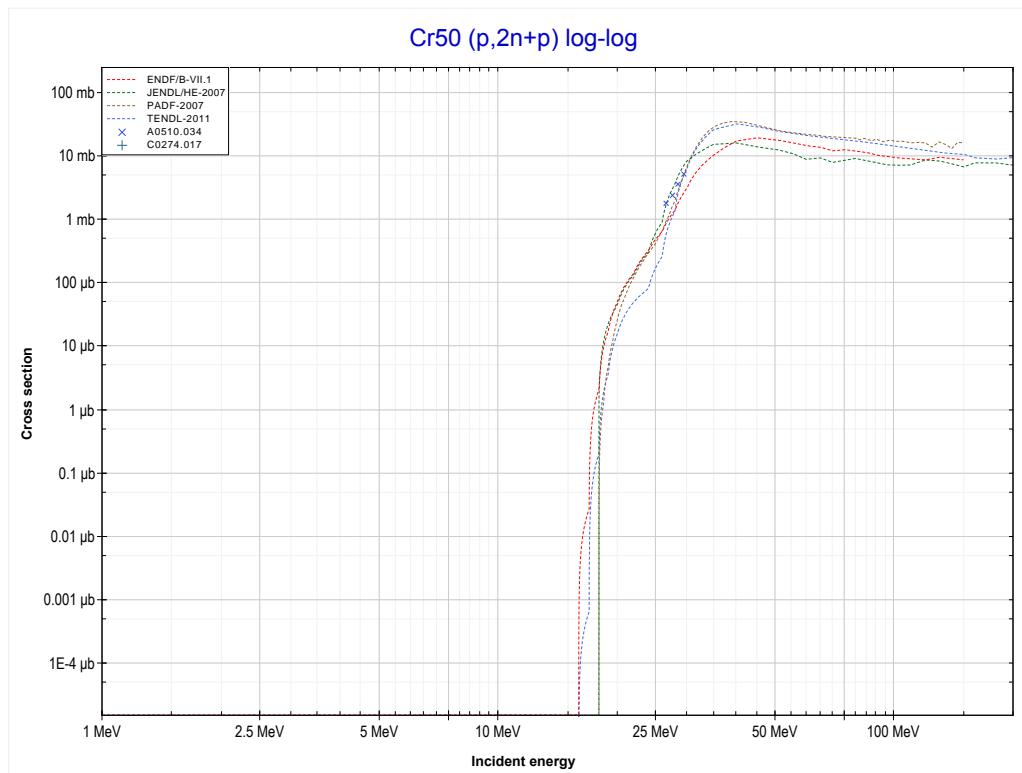
Reaction	Q-Value
Cr50(p,n)Mn50	-8415.05 keV

<< 22-Ti-46	24-Cr-50 MT28 (p,n+p) or MT5 (Cr49 production)	24-Cr-52 >>
<< MT4 (p,n)		MT41 (p,2n+p) >>



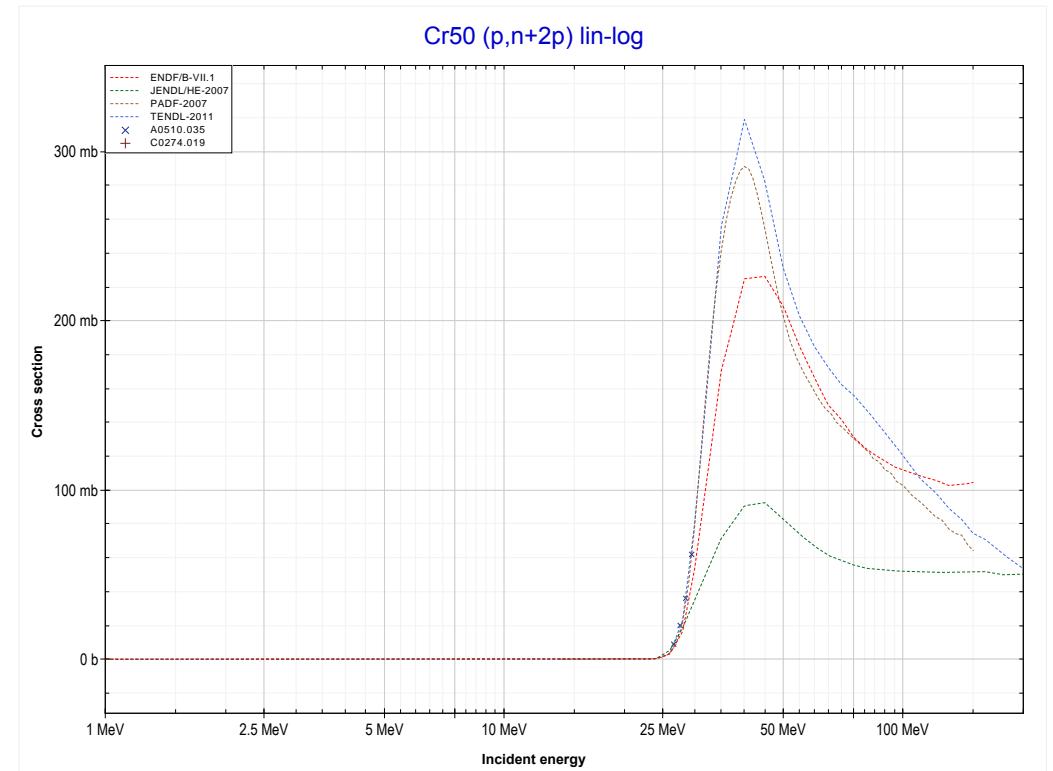
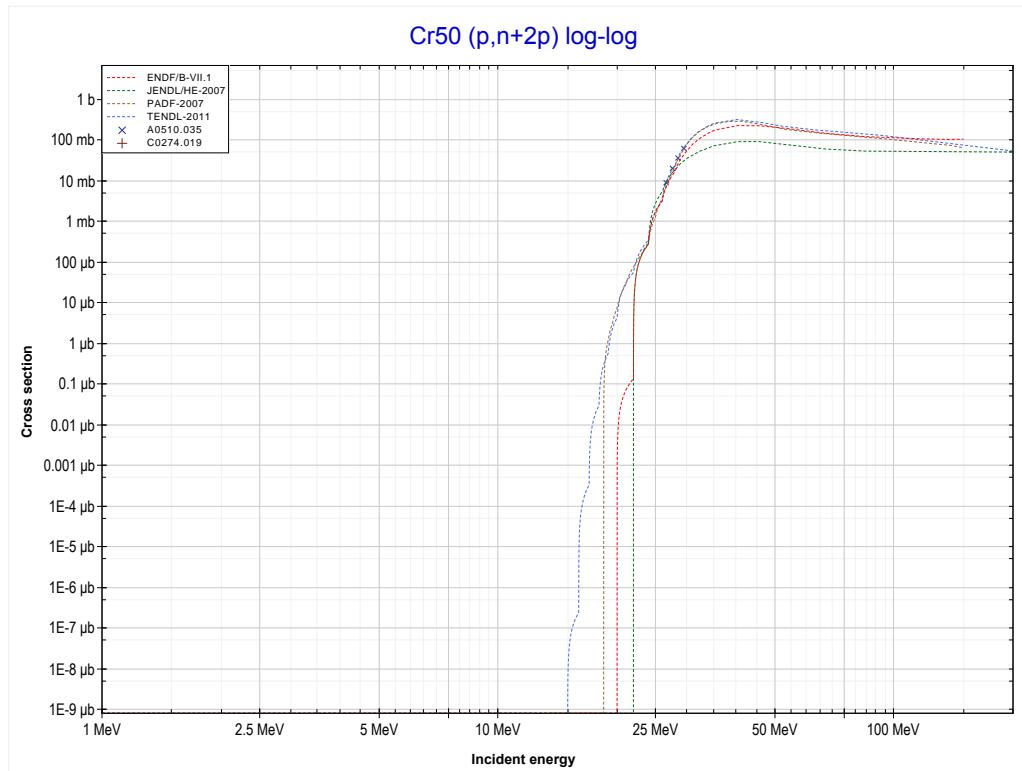
Reaction	Q-Value
Cr50(p,d)Cr49	-10775.75 keV
Cr50(p,n+p)Cr49	-13000.32 keV

<< 21-Sc-45	24-Cr-50 MT41 (p,2n+p) or MT5 (Cr48 production)	26-Fe-57 >>
<< MT28 (p,n+p) >>		MT44 (p,n+2p) >>



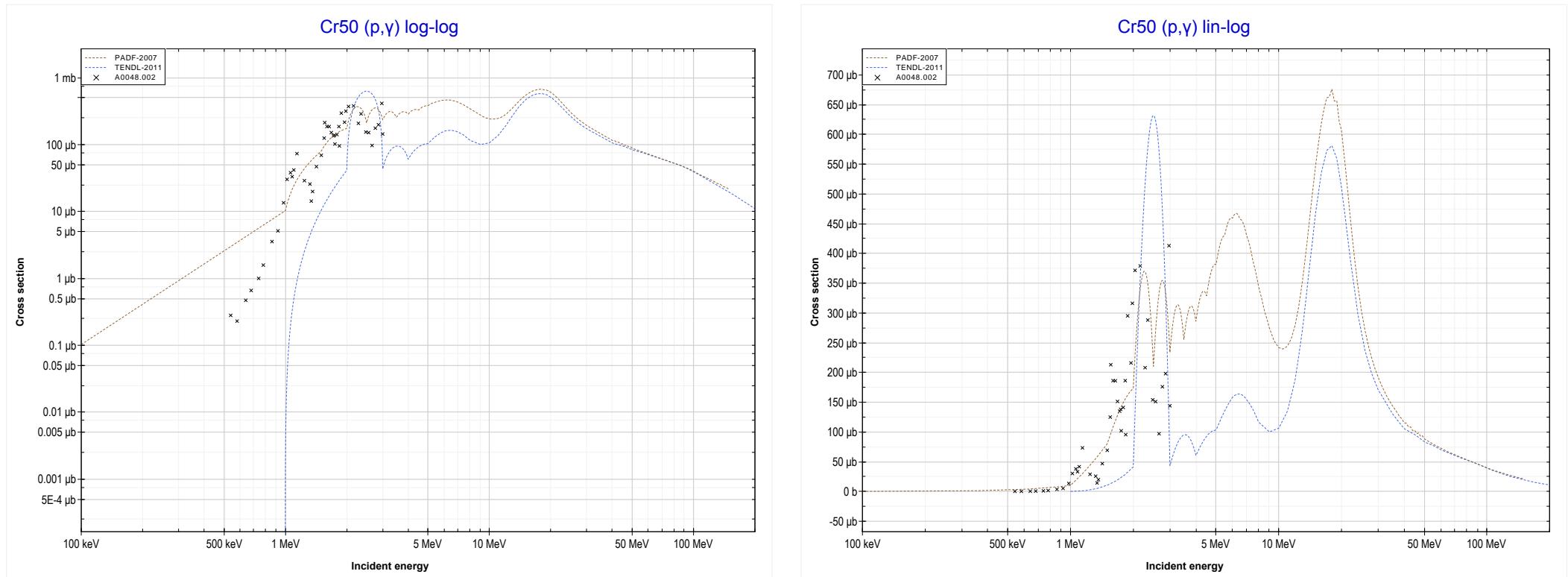
Reaction	Q-Value
Cr50(p,t)Cr48	-15101.34 keV
Cr50(p,n+d)Cr48	-21358.57 keV
Cr50(p,2n+p)Cr48	-23583.13 keV

<< 22-Ti-50	24-Cr-50 MT44 (p,n+2p) or MT5 (V48 production)	>> 28-Ni-58
<< MT41 (p,2n+p)		MT102 (p,y) >>



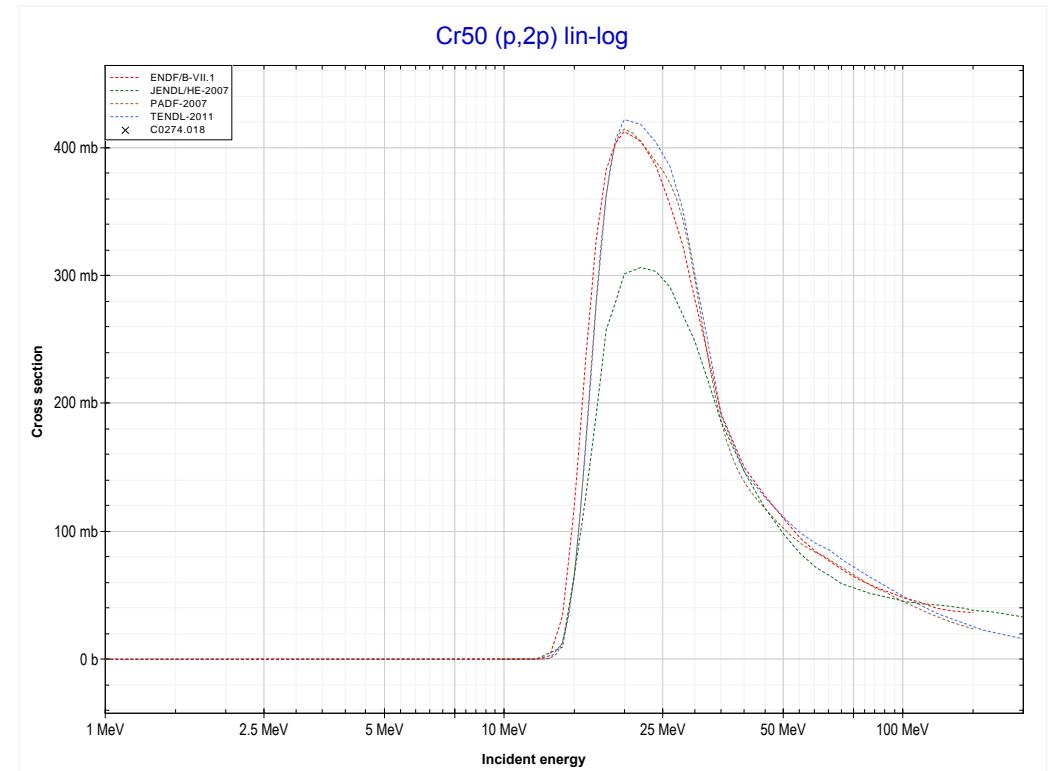
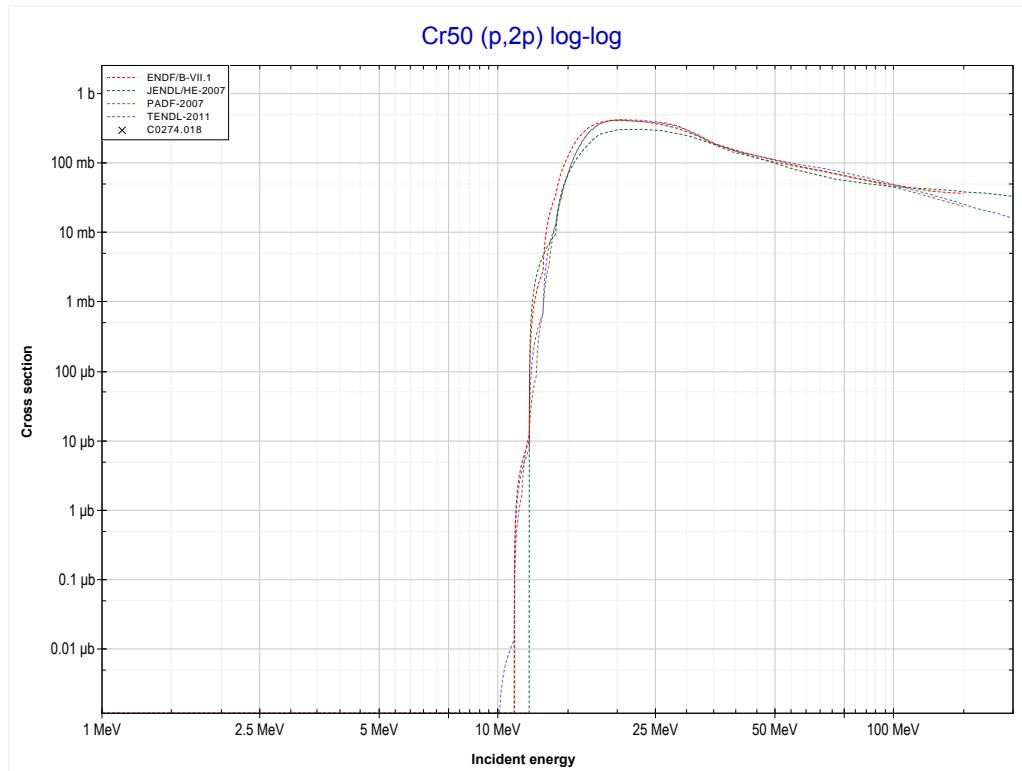
Reaction	Q-Value
Cr50(p,He3)V48	-13426.34 keV
Cr50(p,p+d)V48	-18919.82 keV
Cr50(p,n+2p)V48	-21144.39 keV

<< 23-V-51	24-Cr-50 MT102 (p, γ) or MT5 (Mn51 production)	>> 24-Cr-52 >>
<< MT44 (p,n+2p) >>		MT111 (p,2p) >>



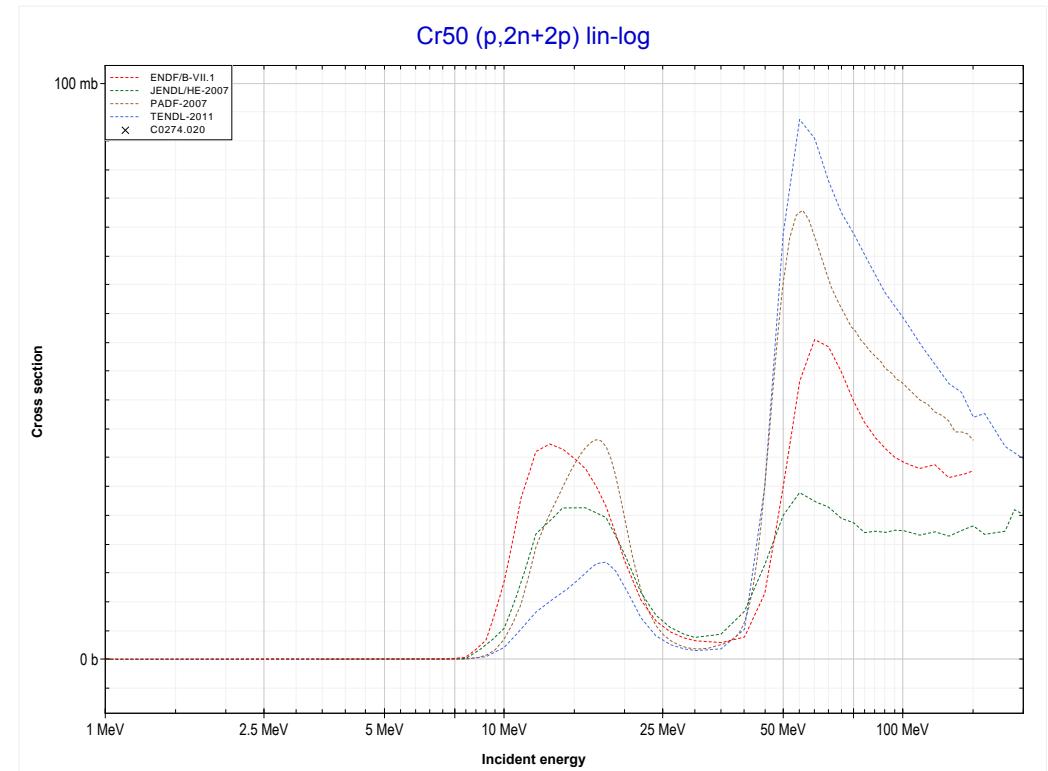
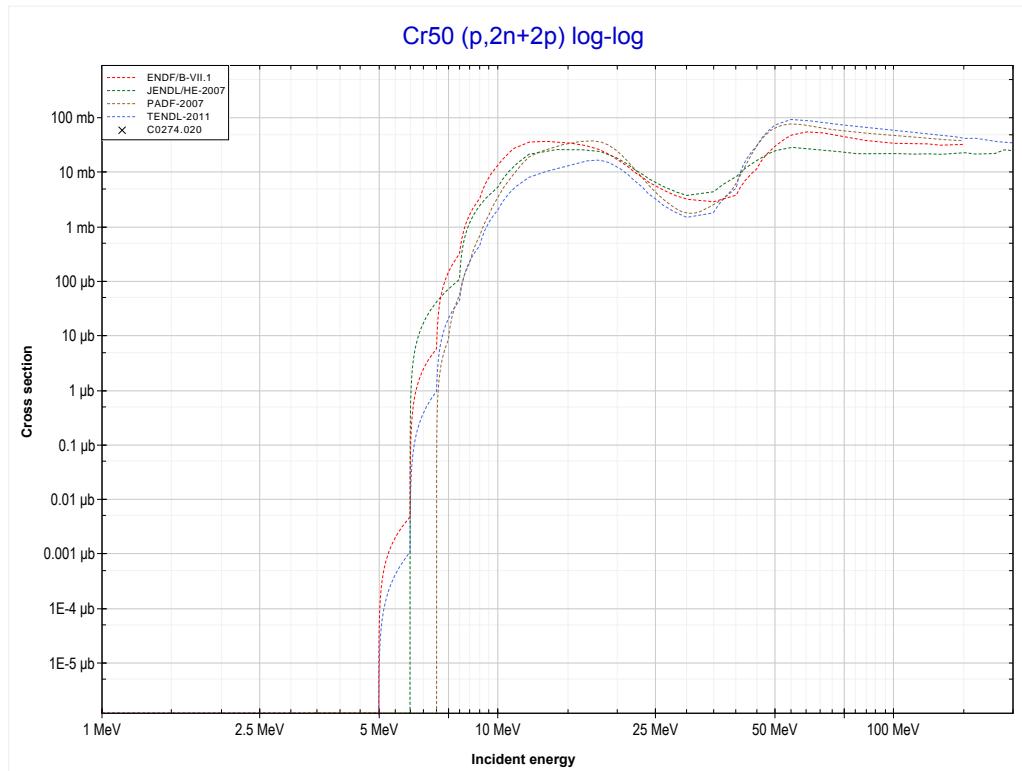
Reaction	Q-Value
Cr50(p, γ)Mn51	5270.77 keV

<< 22-Ti-49	24-Cr-50 MT111 (p,2p) or MT5 (V49 production)	26-Fe-57 >>
<< MT102 (p, γ)		MT190 (p,2n+2p) >>



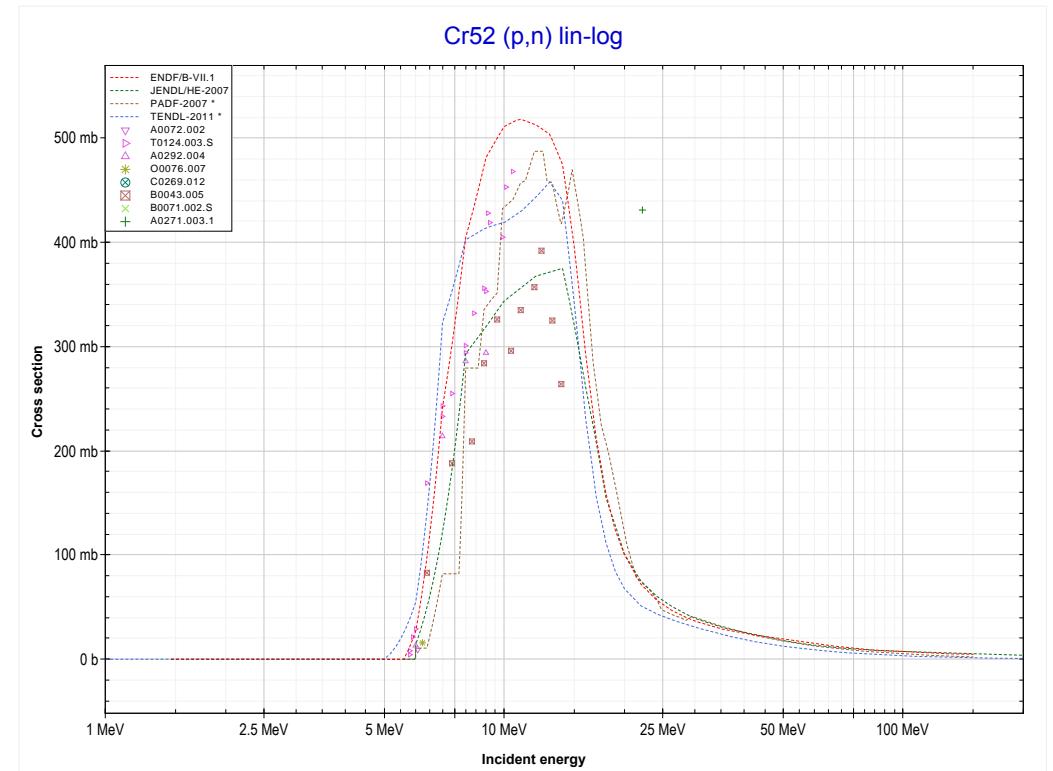
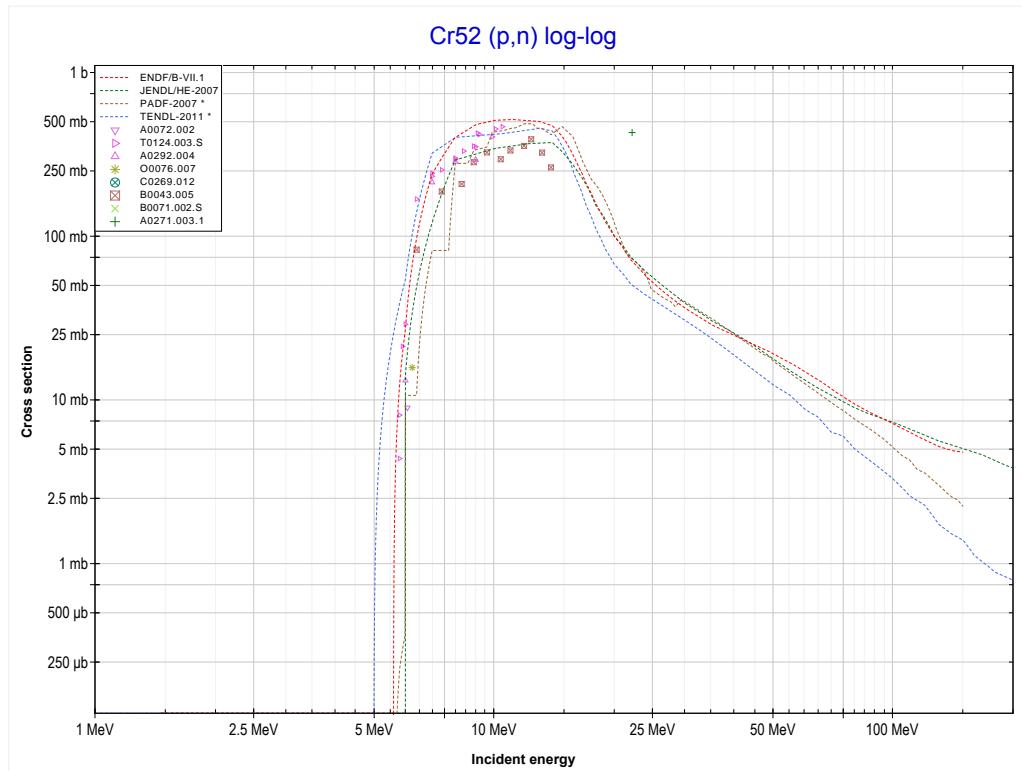
Reaction	Q-Value
Cr50(p,2p)V49	-9591.57 keV

<< 12-Mg-25	24-Cr-50 MT190 (p,2n+2p) or MT5 (V47 production)	28-Ni-58 >>
<< MT111 (p,2p)		MT4 (p,n) >>



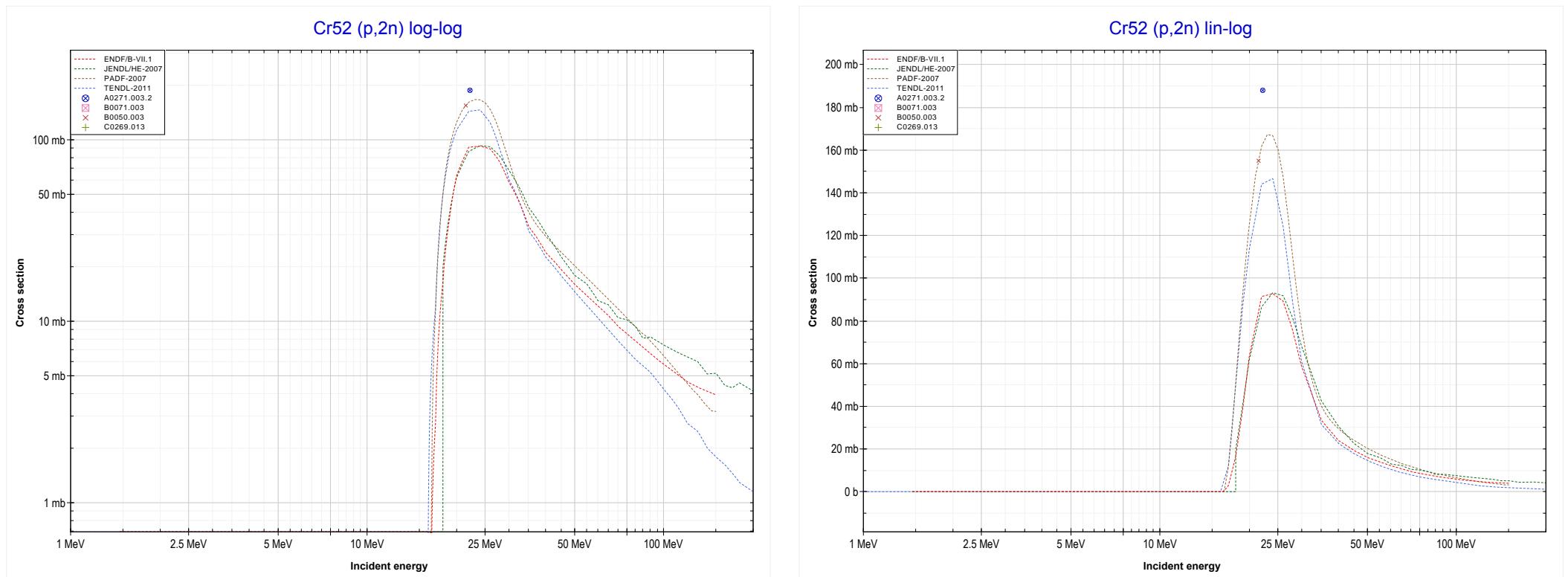
Reaction	Q-Value
$\text{Cr}^{50}(\text{p},\alpha)\text{V47}$	-3393.35 keV
$\text{Cr}^{50}(\text{p},\text{p+t})\text{V47}$	-23207.21 keV
$\text{Cr}^{50}(\text{p},\text{n+He3})\text{V47}$	-23970.96 keV
$\text{Cr}^{50}(\text{p},\text{2d})\text{V47}$	-27239.87 keV
$\text{Cr}^{50}(\text{p},\text{n+p+d})\text{V47}$	-29464.44 keV
$\text{Cr}^{50}(\text{p},\text{2n+2p})\text{V47}$	-31689.00 keV

<< 24-Cr-50	24-Cr-52 MT4 (p,n) or MT5 (Mn52 production)	>> 24-Cr-53 >>
<< MT190 (p,2n+2p)		MT16 (p,2n) >>



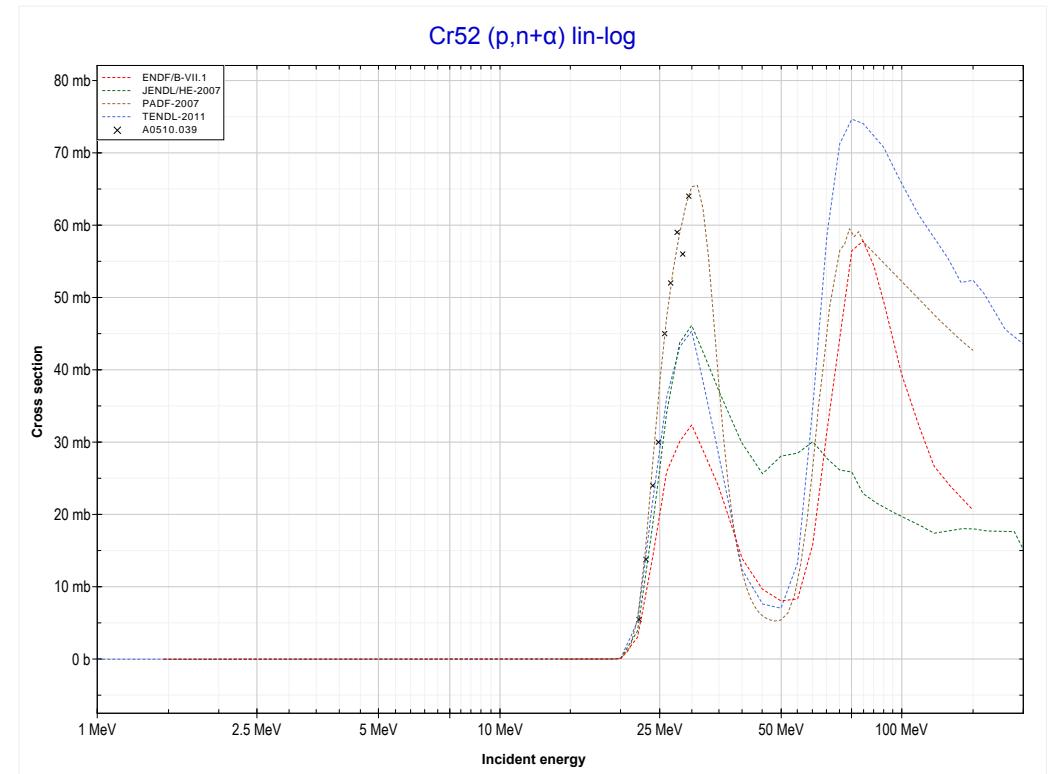
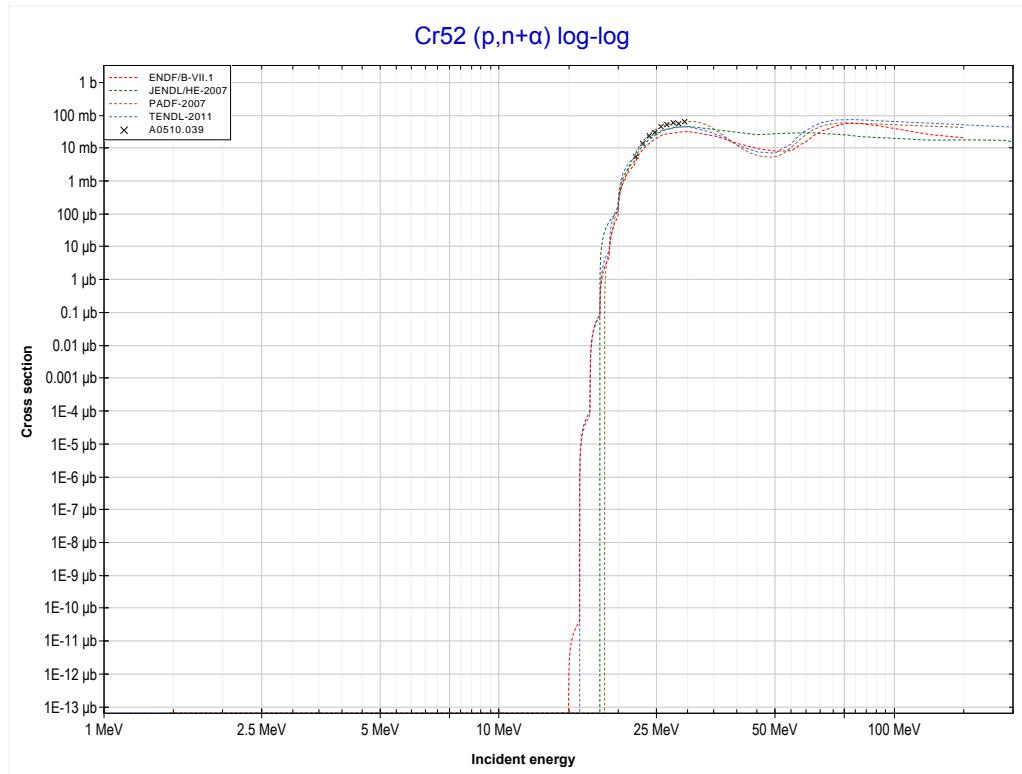
Reaction	Q-Value
Cr52(p,n)Mn52	-5493.85 keV

<< 22-Ti-49	24-Cr-52 MT16 (p,2n) or MT5 (Mn51 production)	24-Cr-53 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



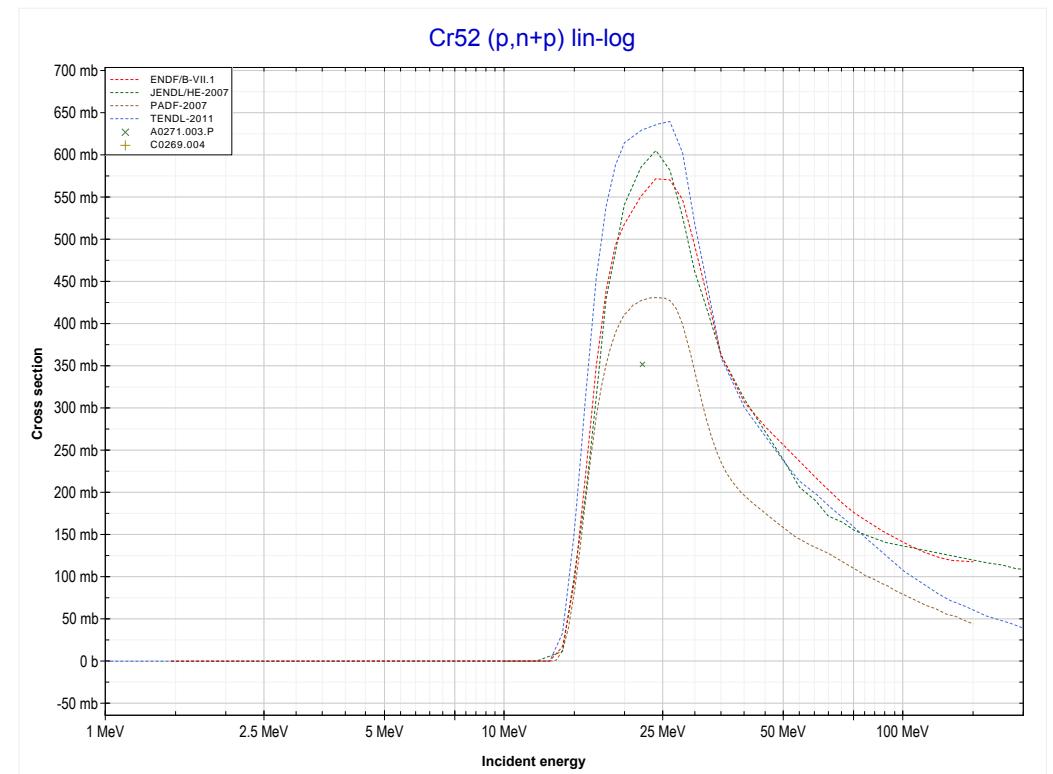
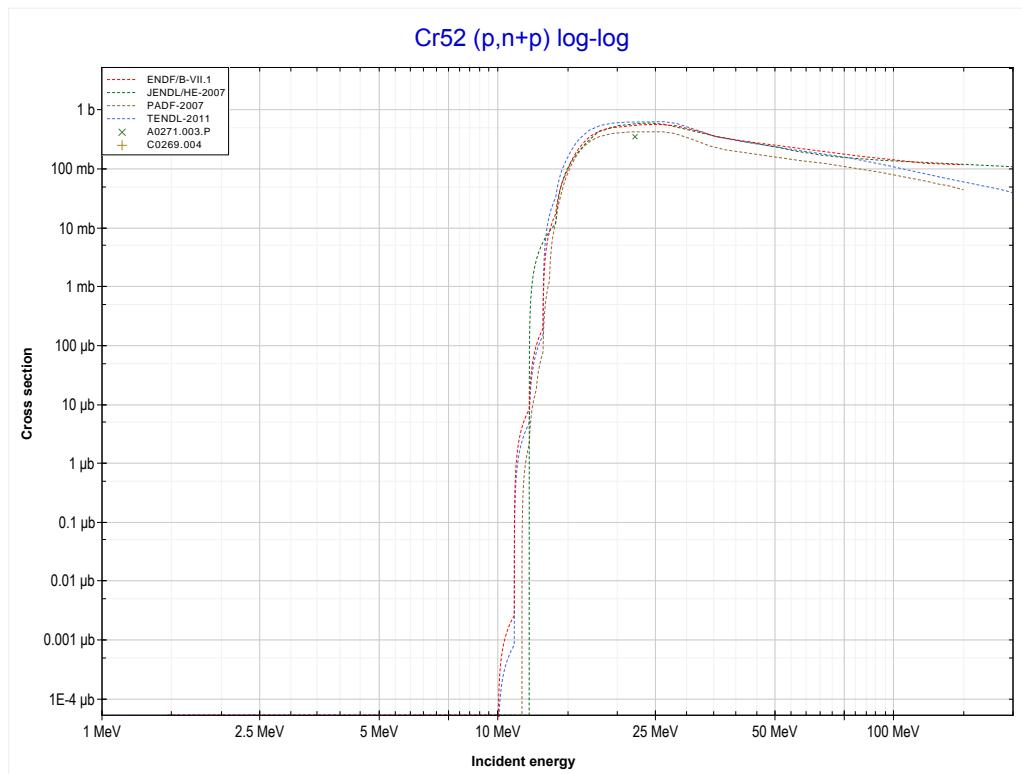
Reaction	Q-Value
Cr52(p,2n)Mn51	-16029.26 keV

<< 22-Ti-50	24-Cr-52 MT22 (p,n+α) or MT5 (V48 production)	25-Mn-55 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>

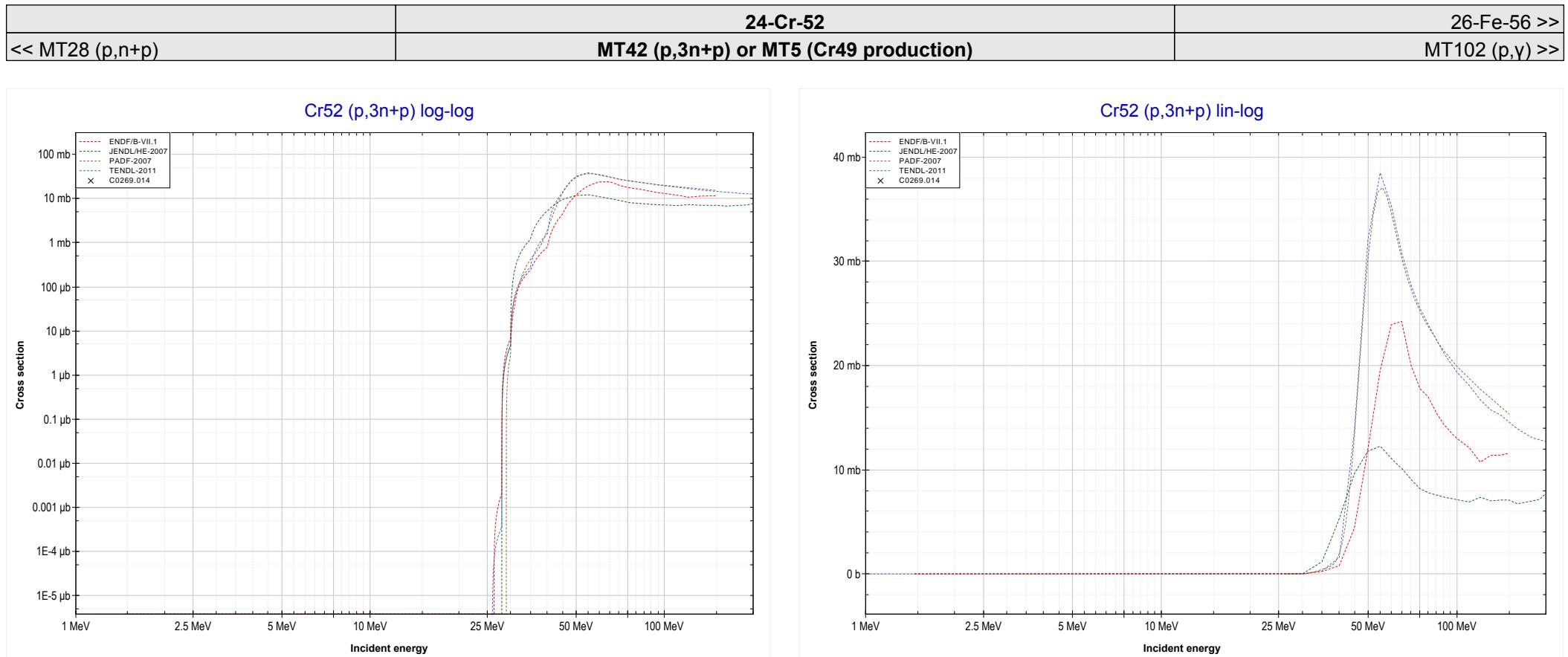


Reaction	Q-Value
Cr52(p,n+α)V48	-14148.76 keV
Cr52(p,d+t)V48	-31738.06 keV
Cr52(p,n+p+t)V48	-33962.62 keV
Cr52(p,2n+He3)V48	-34726.38 keV
Cr52(p,n+2d)V48	-37995.29 keV
Cr52(p,2n+p+d)V48	-40219.86 keV
Cr52(p,3n+2p)V48	-42444.42 keV

<< 24-Cr-50	24-Cr-52 MT28 (p,n+p) or MT5 (Cr51 production)	25-Mn-55 >>
<< MT22 (p,n+α)		MT42 (p,3n+p) >>

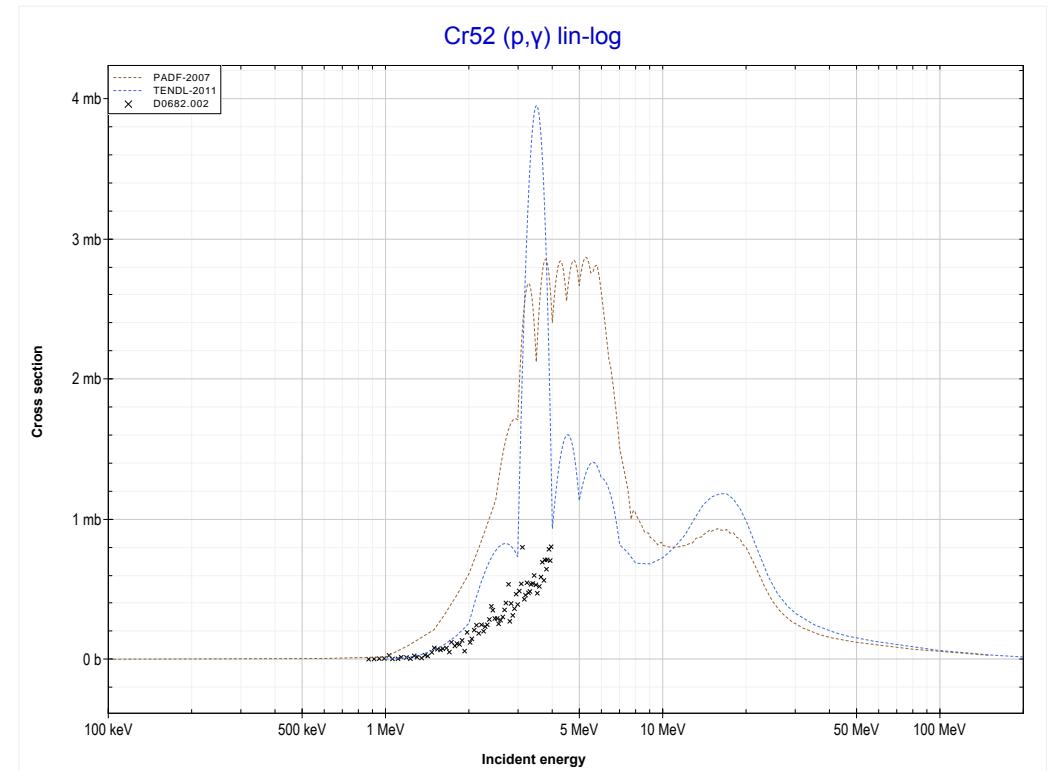
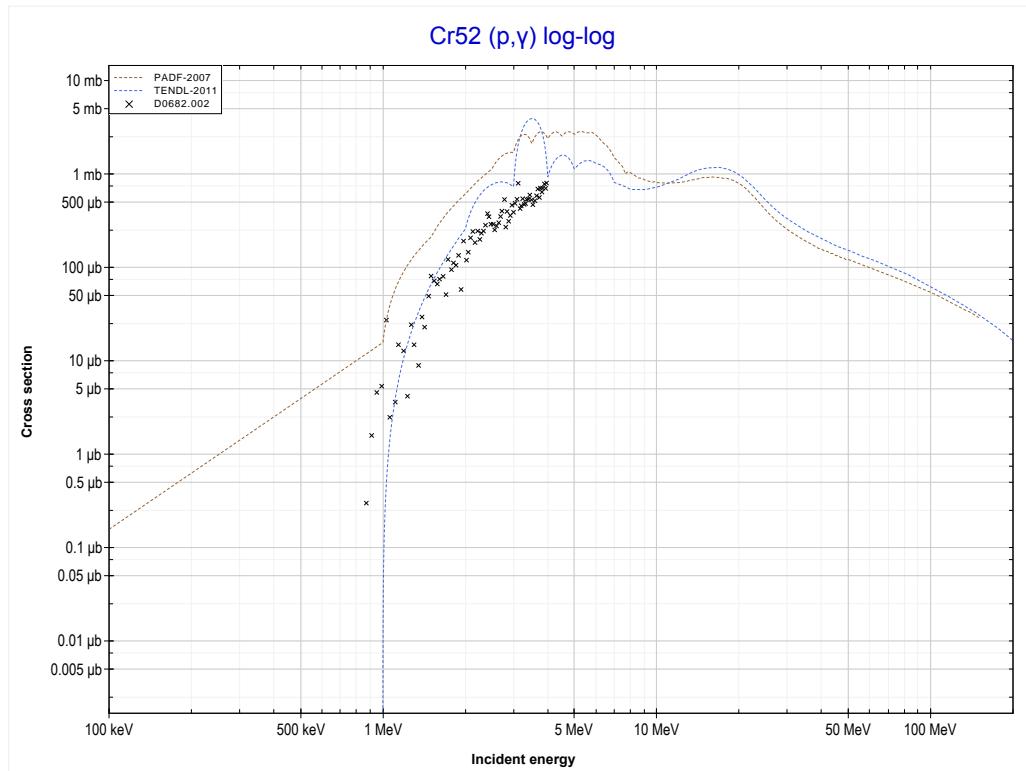


Reaction	Q-Value
Cr52(p,d)Cr51	-9814.85 keV
Cr52(p,n+p)Cr51	-12039.42 keV



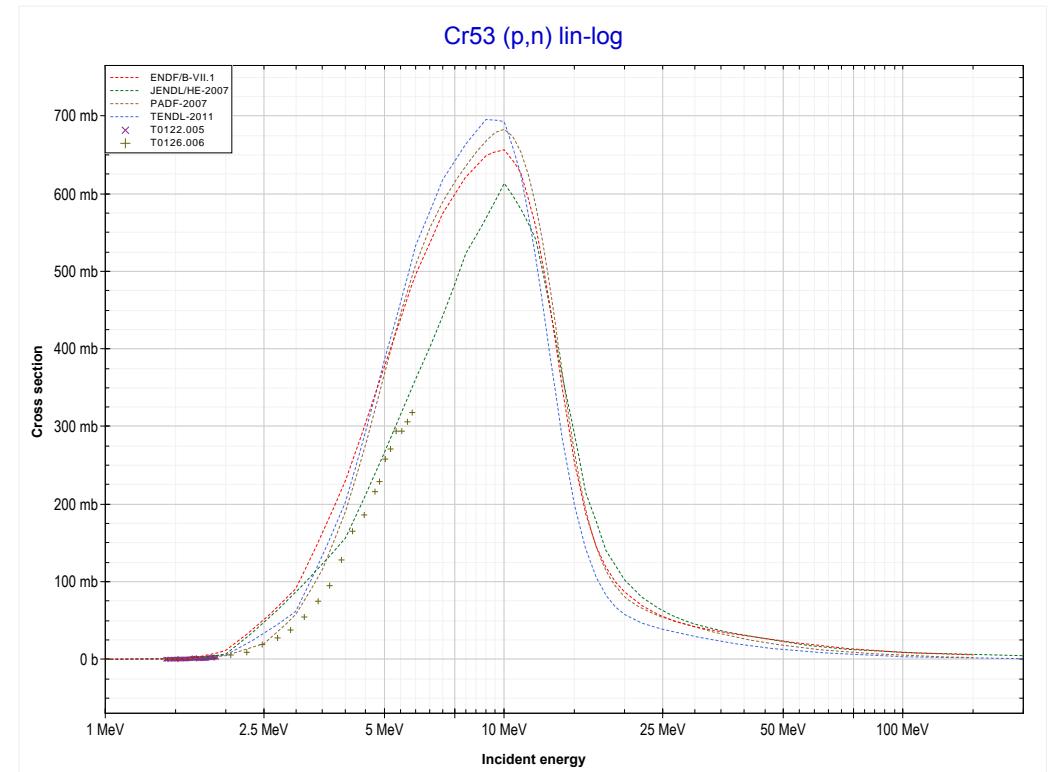
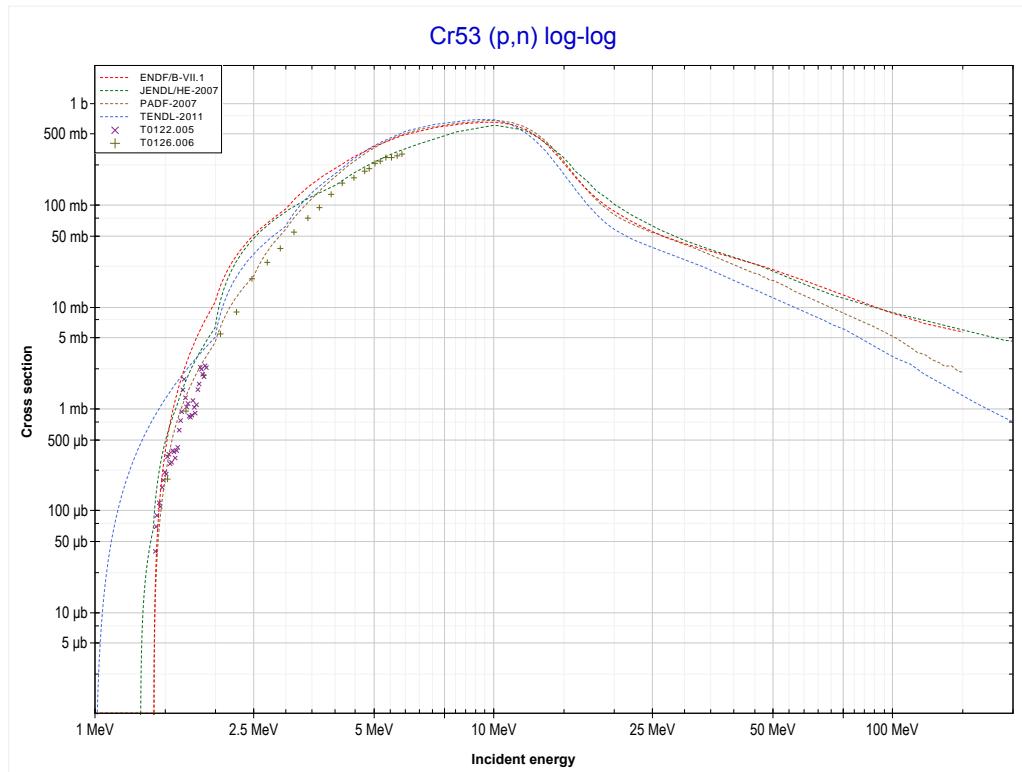
Reaction	Q-Value
Cr52(p,n+t)Cr49	-25818.55 keV
Cr52(p,2n+d)Cr49	-32075.79 keV
Cr52(p,3n+p)Cr49	-34300.35 keV

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



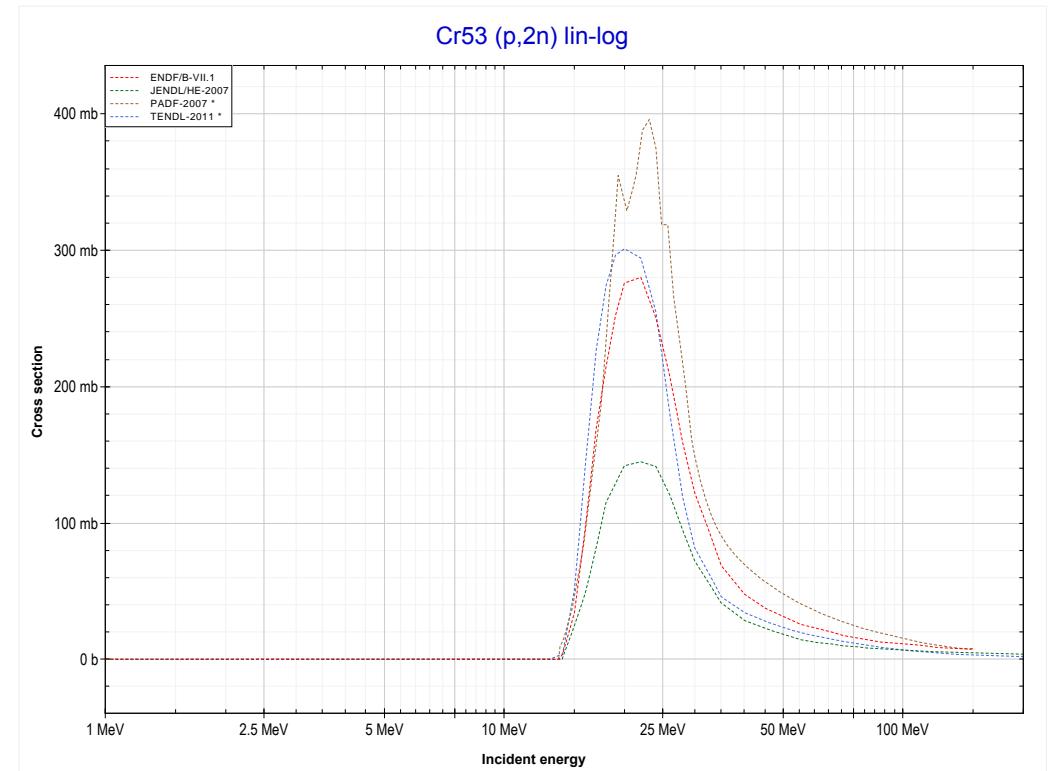
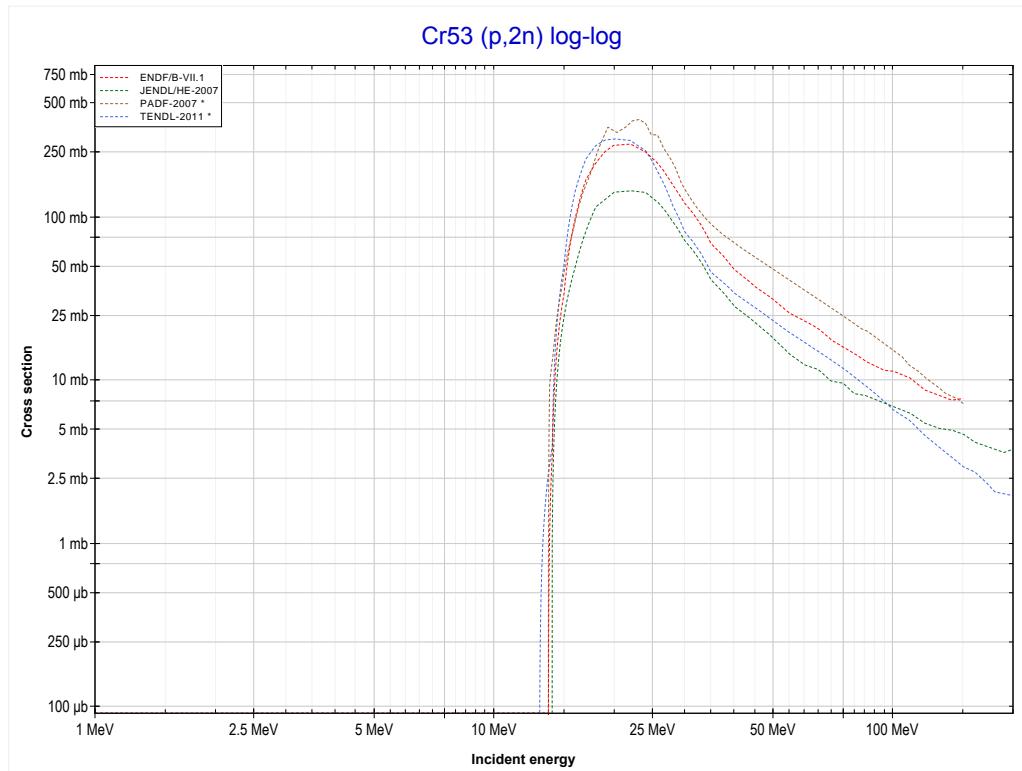
Reaction	Q-Value
Cr52(p, γ)Mn53	6559.97 keV

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



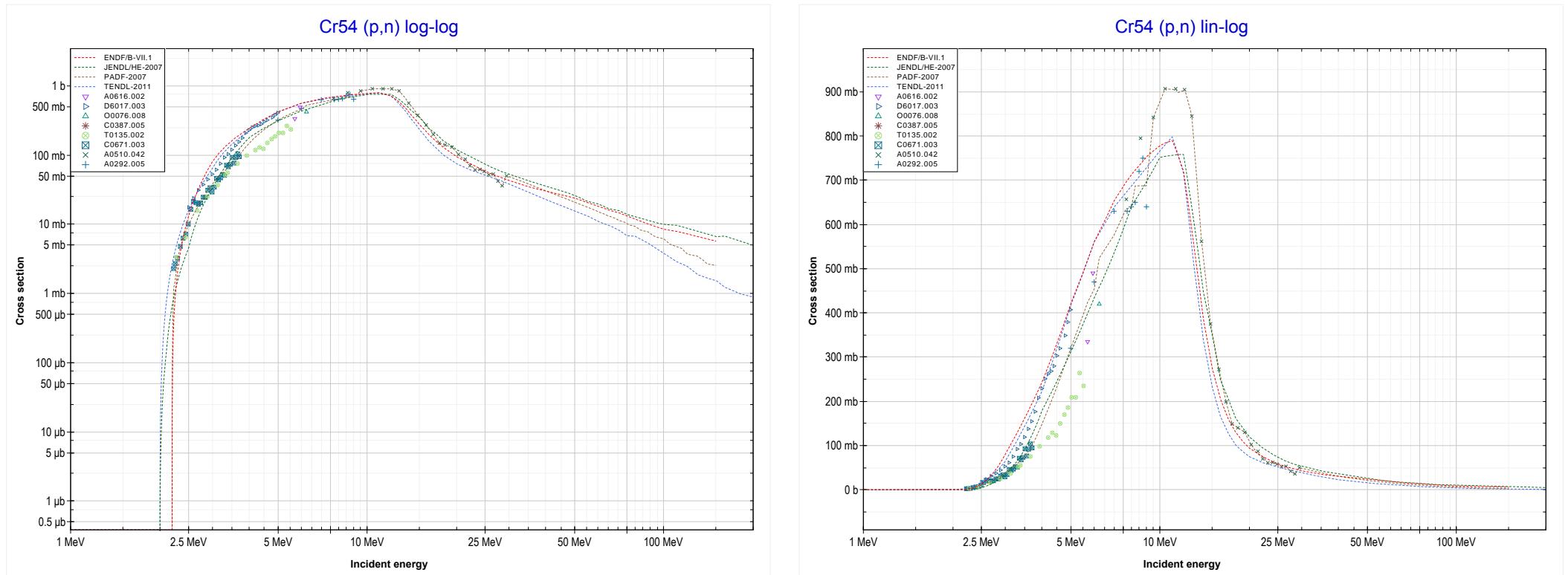
Reaction	Q-Value
Cr53(p,n)Mn53	-1379.15 keV

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



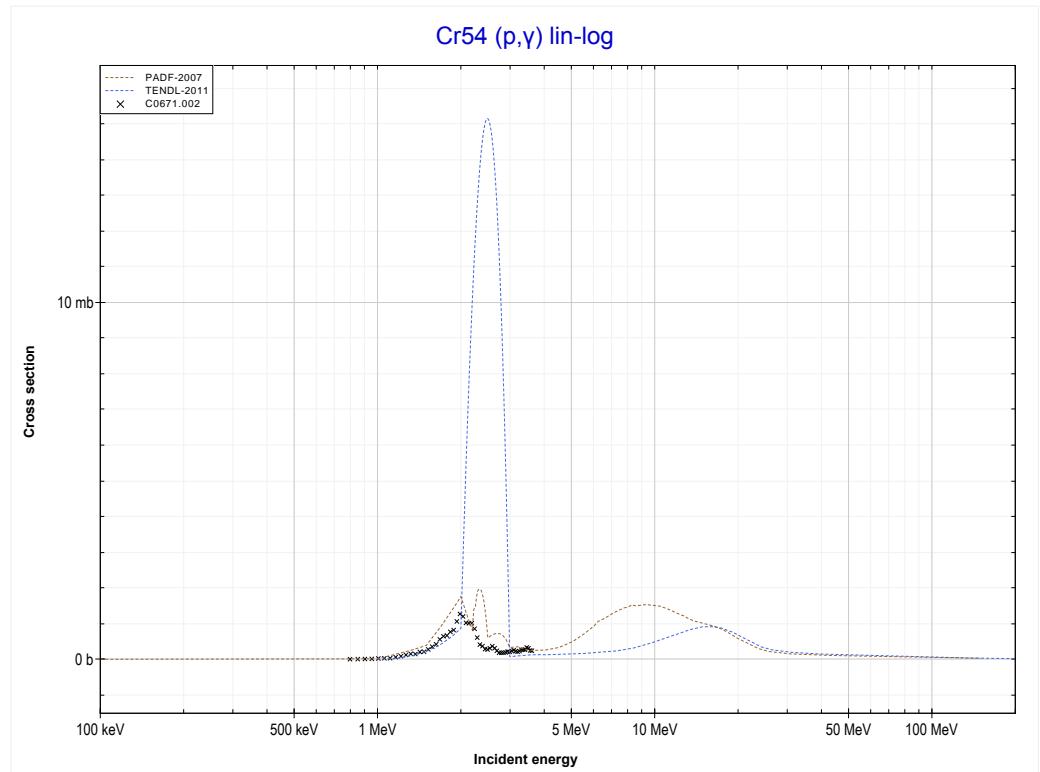
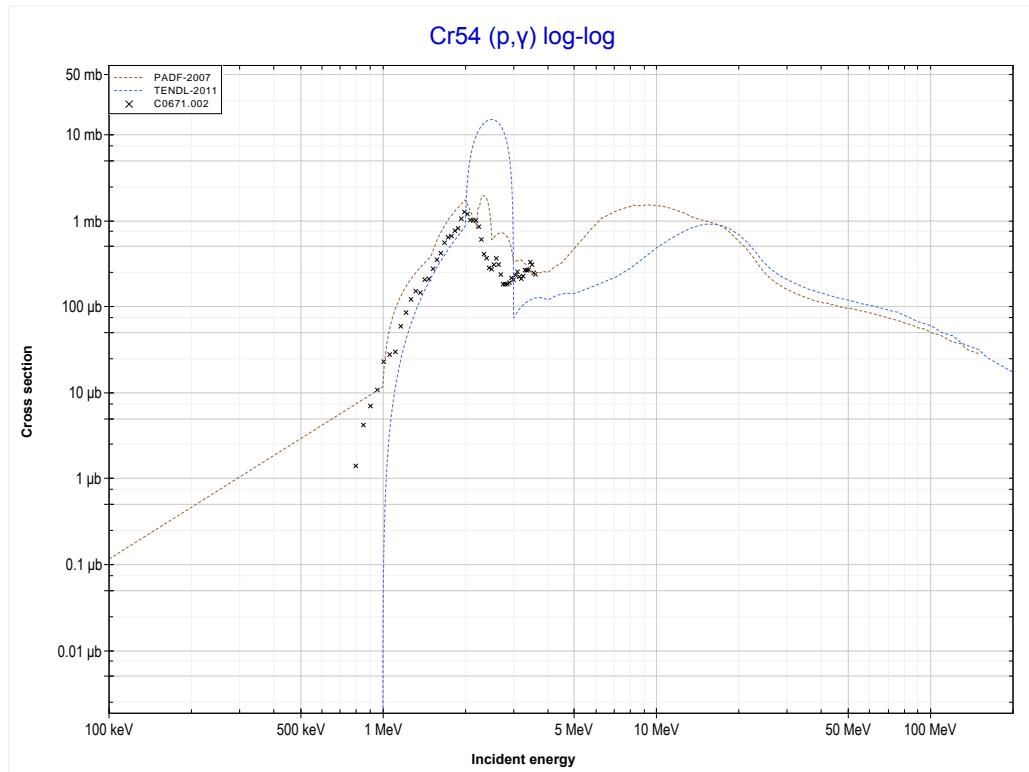
Reaction	Q-Value
$\text{Cr}^{53}(\text{p},2\text{n})\text{Mn}^{52}$	-13432.96 keV

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



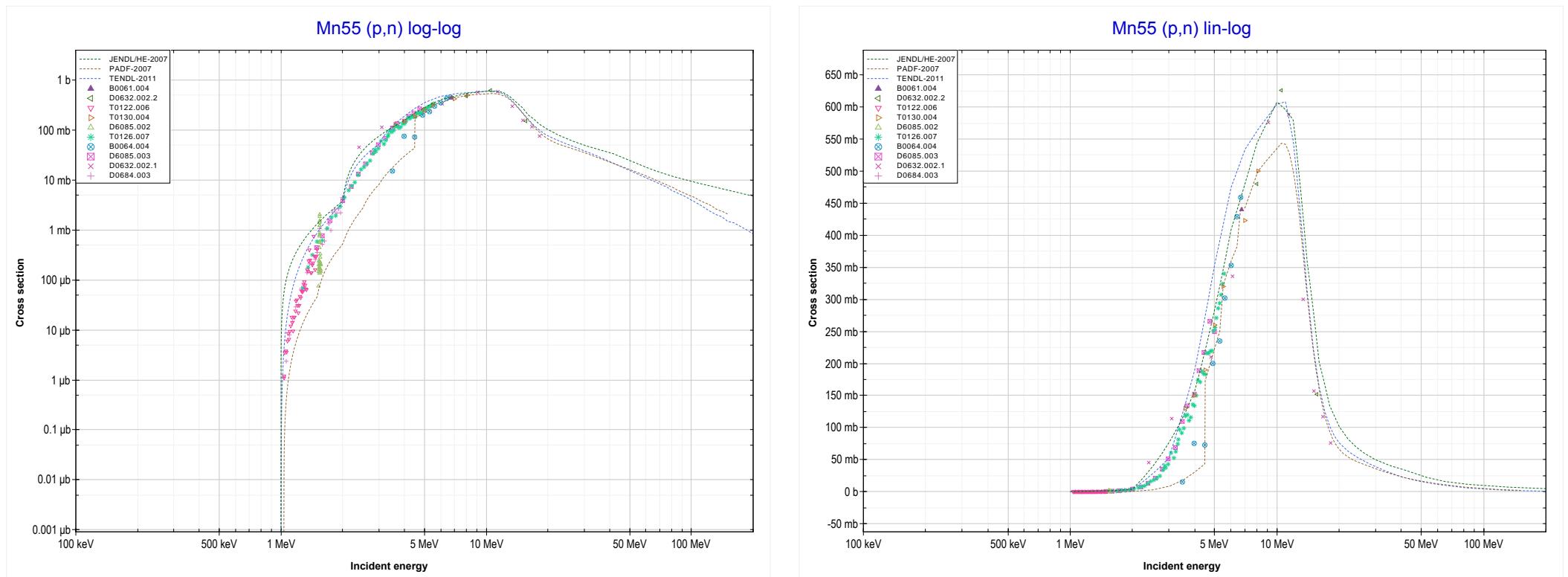
Reaction	Q-Value
Cr54(p,n)Mn54	-2159.45 keV

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



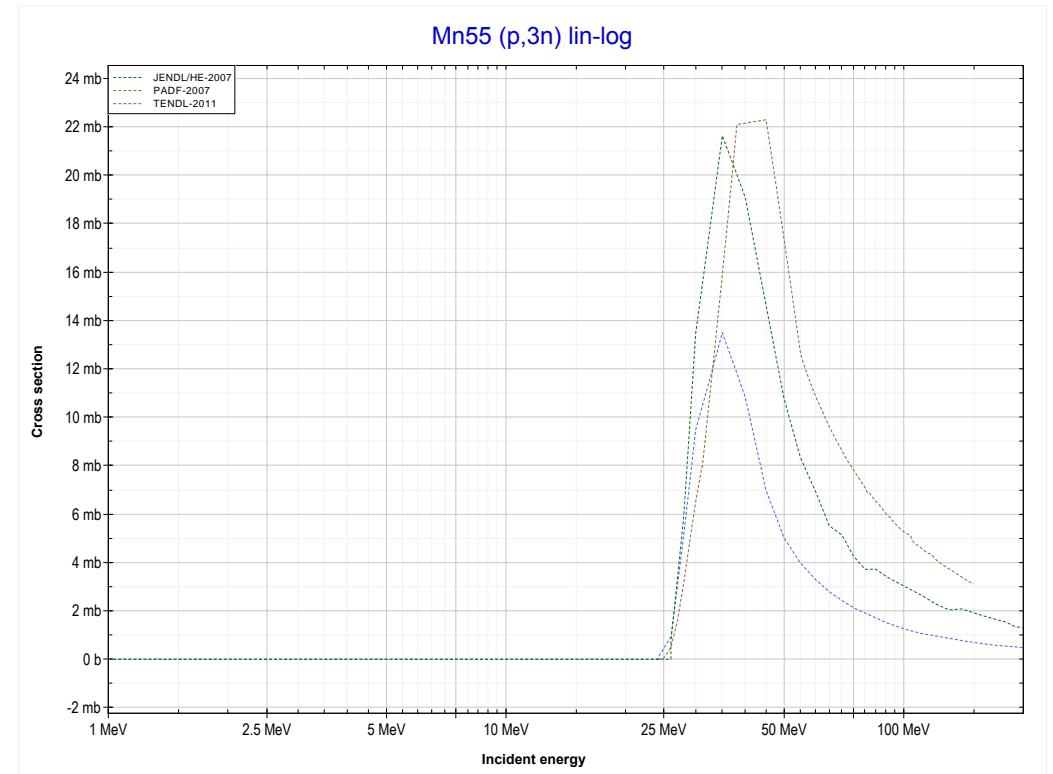
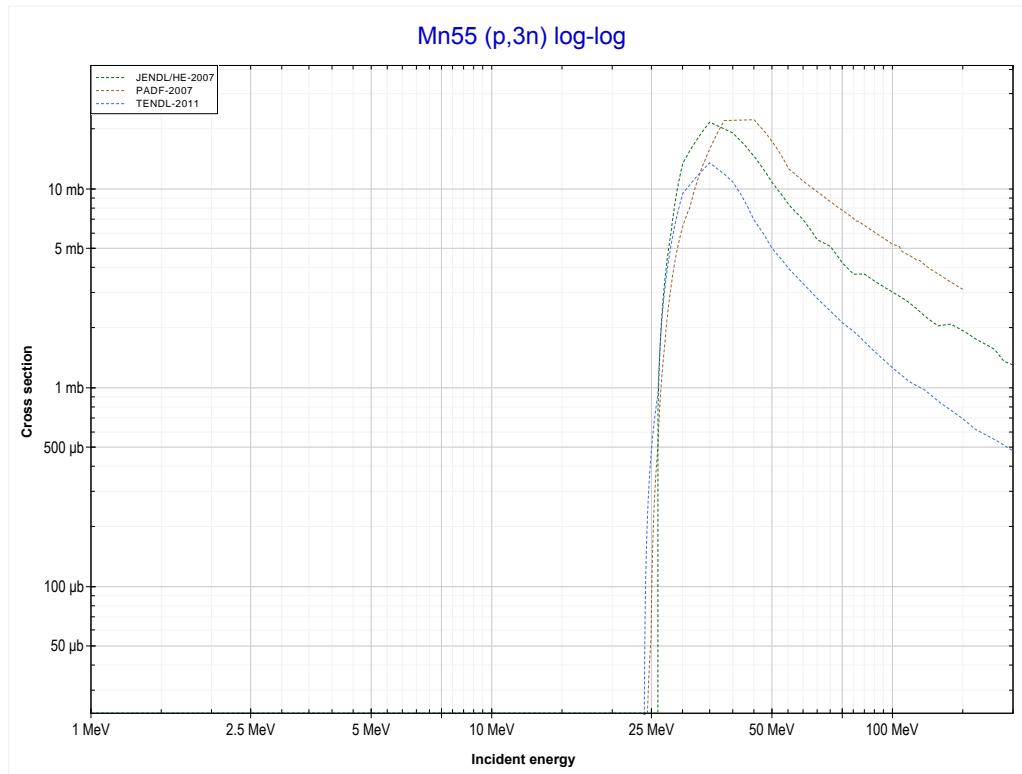
Reaction	Q-Value
Cr54(p,γ)Mn55	8067.07 keV

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



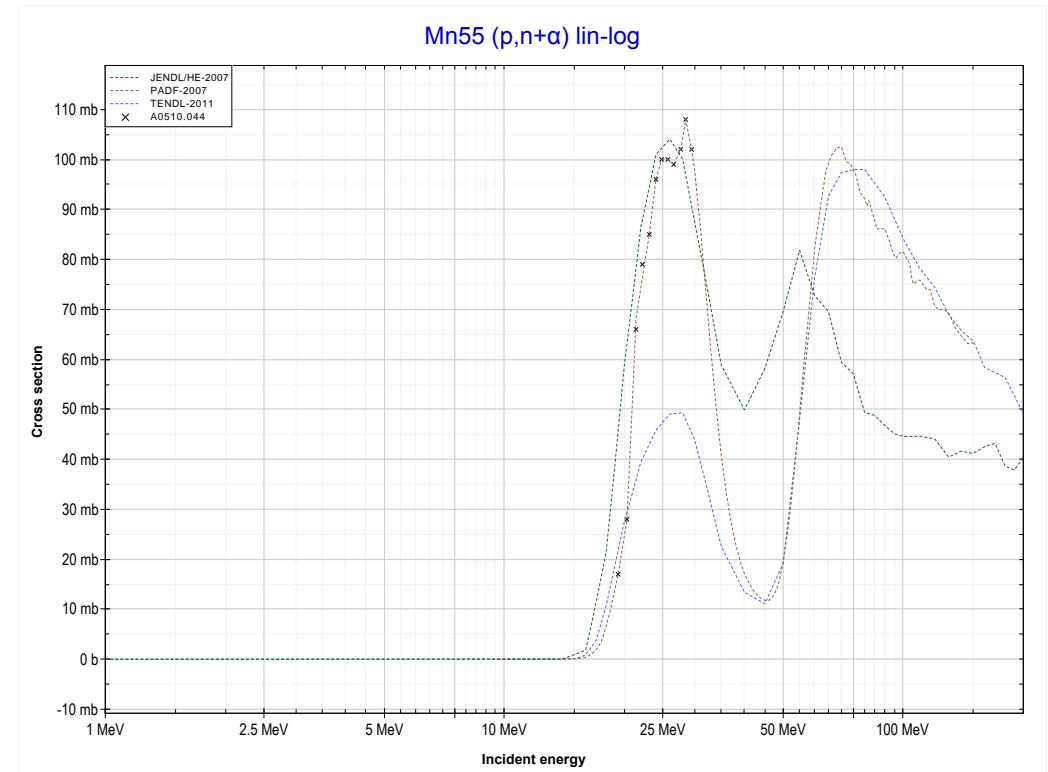
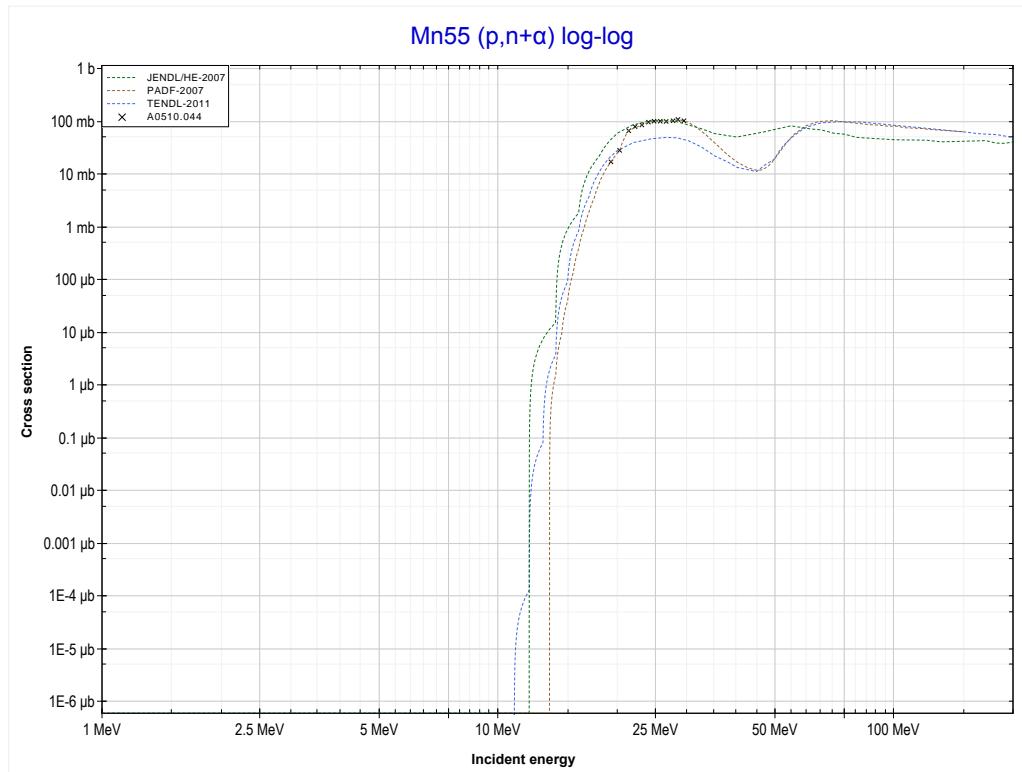
Reaction	Q-Value
Mn55(p,n)Fe55	-1013.55 keV

<< 23-V-51	25-Mn-55 MT17 (p,3n) or MT5 (Fe53 production)	26-Fe-57 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



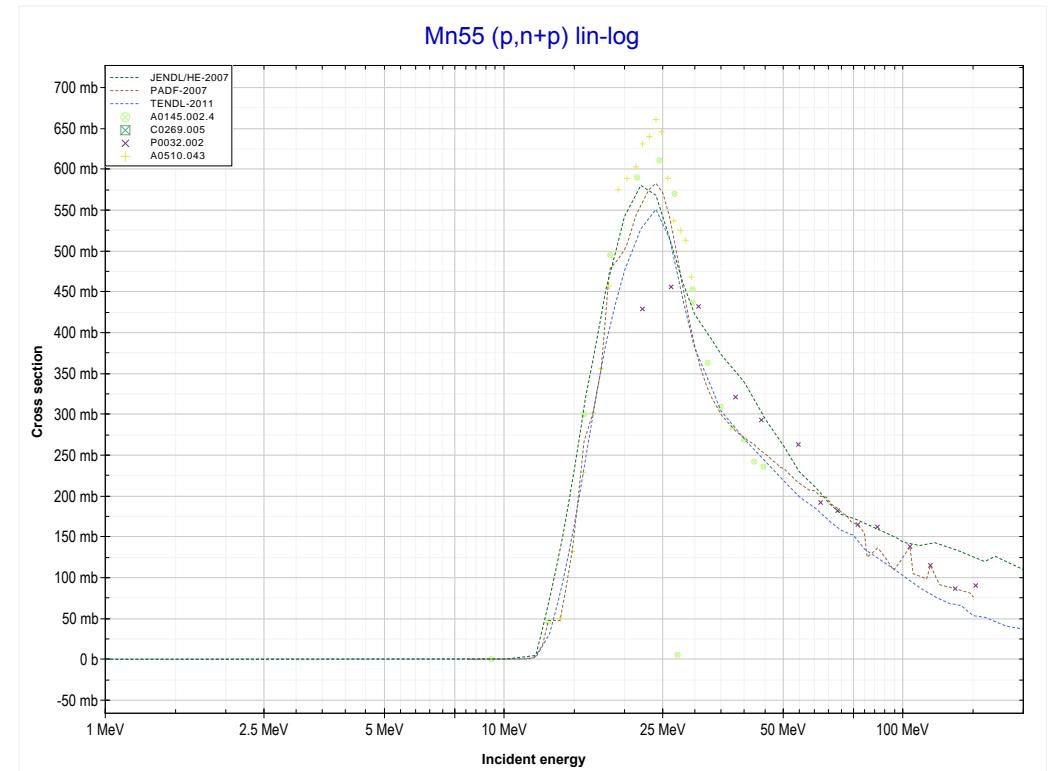
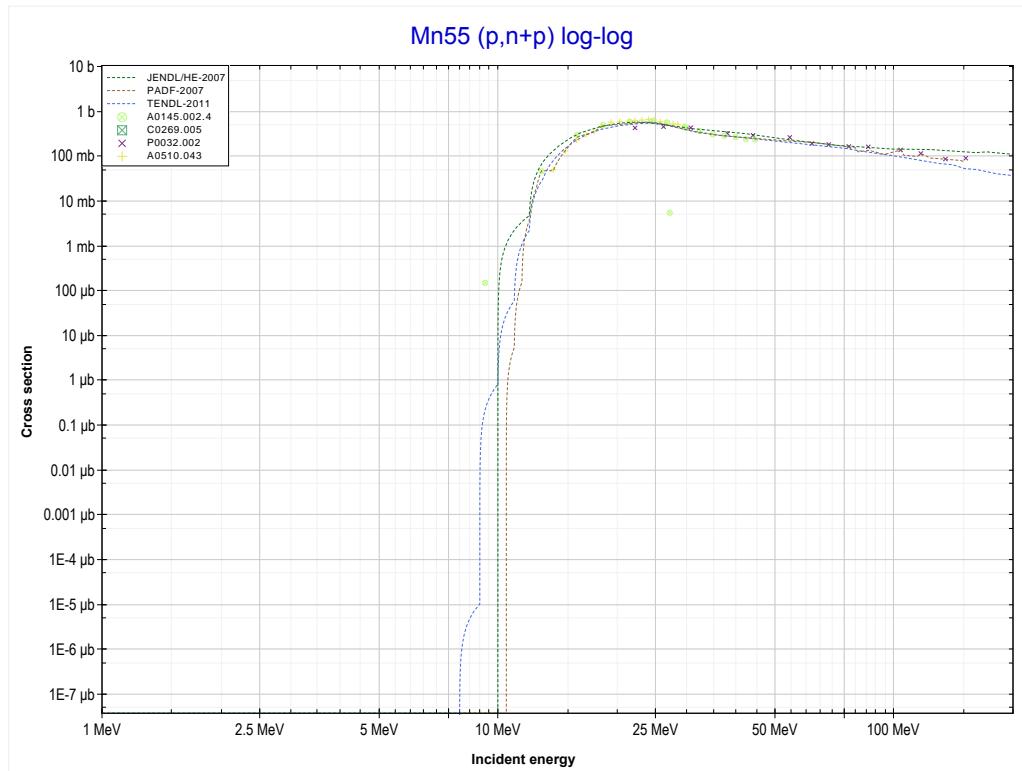
Reaction	Q-Value
Mn55(p,3n)Fe53	-23690.28 keV

<< 24-Cr-52	25-Mn-55 MT22 (p,n+α) or MT5 (Cr51 production)	26-Fe-56 >>
<< MT17 (p,3n)		MT28 (p,n+p) >>



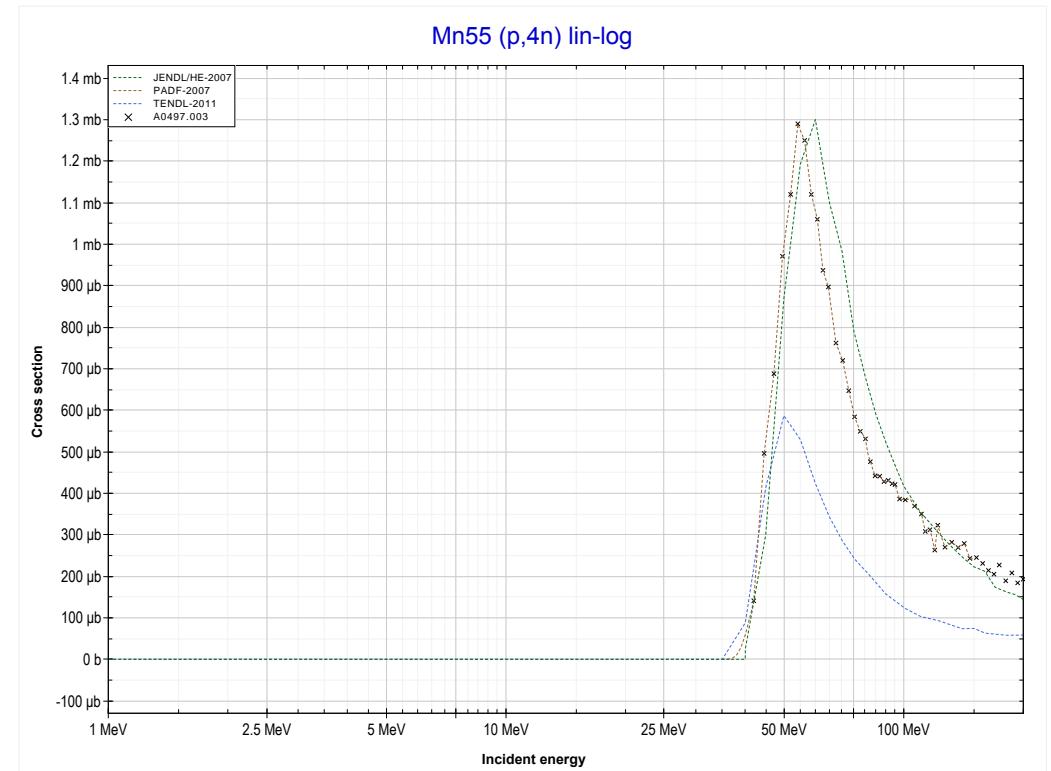
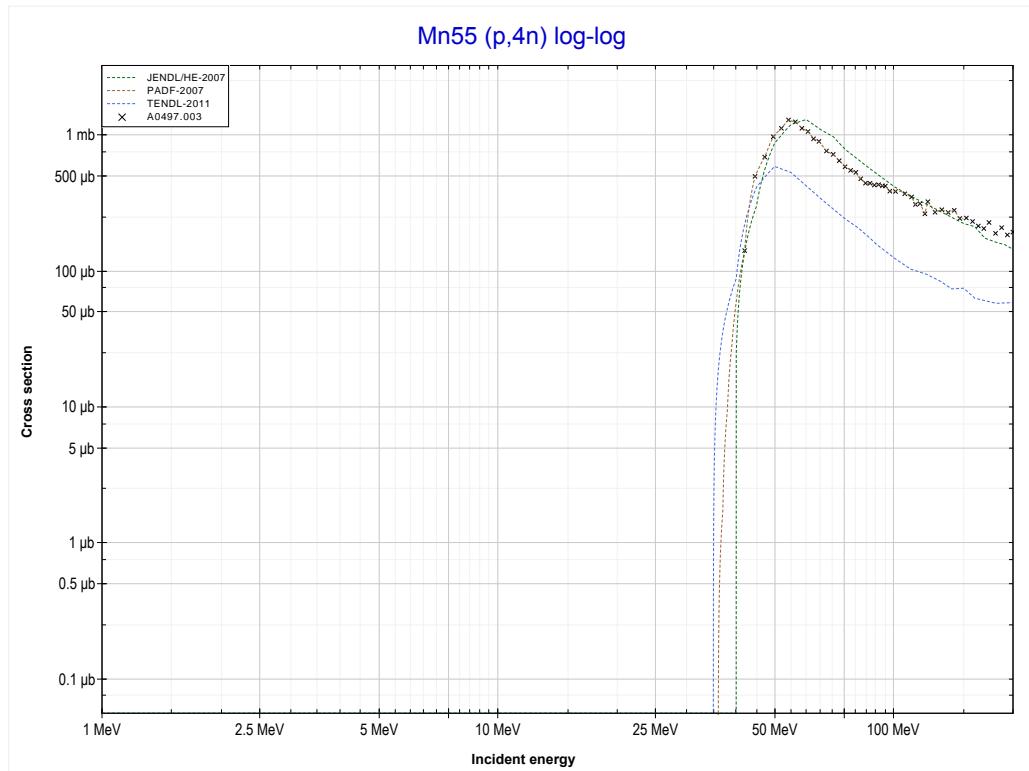
Reaction	Q-Value
Mn55(p,n+α)Cr51	-9469.06 keV
Mn55(p,d+t)Cr51	-27058.36 keV
Mn55(p,n+p+t)Cr51	-29282.92 keV
Mn55(p,2n+He3)Cr51	-30046.68 keV
Mn55(p,n+2d)Cr51	-33315.59 keV
Mn55(p,2n+p+d)Cr51	-35540.16 keV
Mn55(p,3n+2p)Cr51	-37764.72 keV

<< 24-Cr-52	25-Mn-55 MT28 (p,n+p) or MT5 (Mn54 production)	26-Fe-54 >>
<< MT22 (p,n+α)		MT37 (p,4n) >>



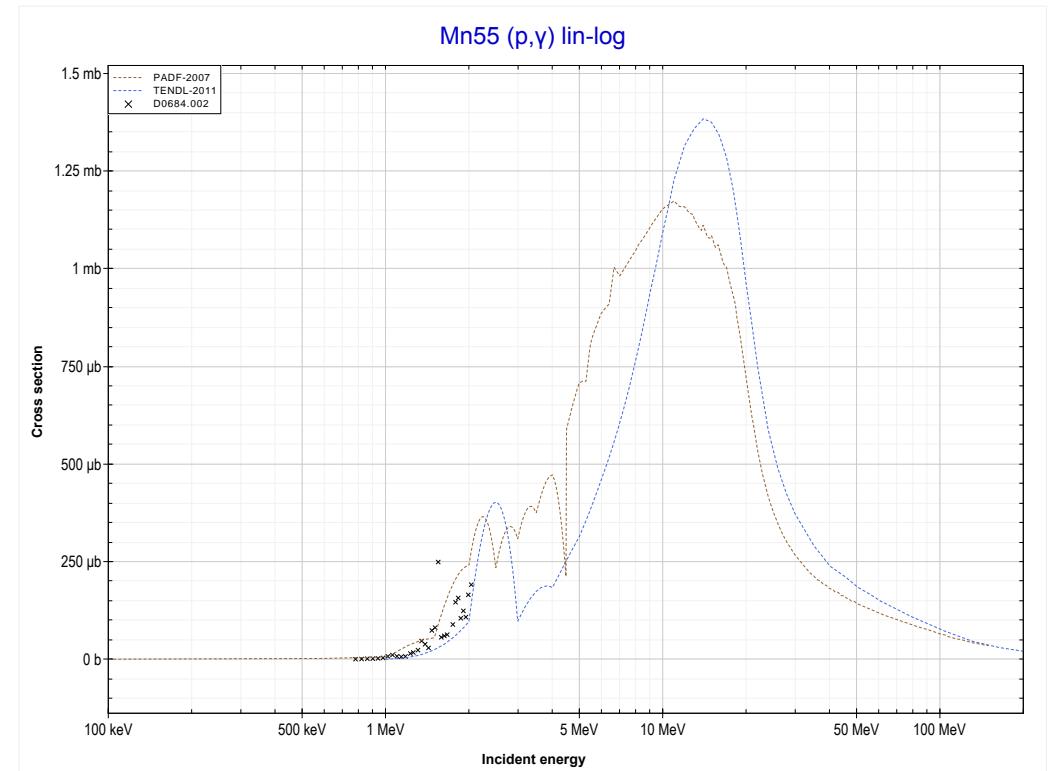
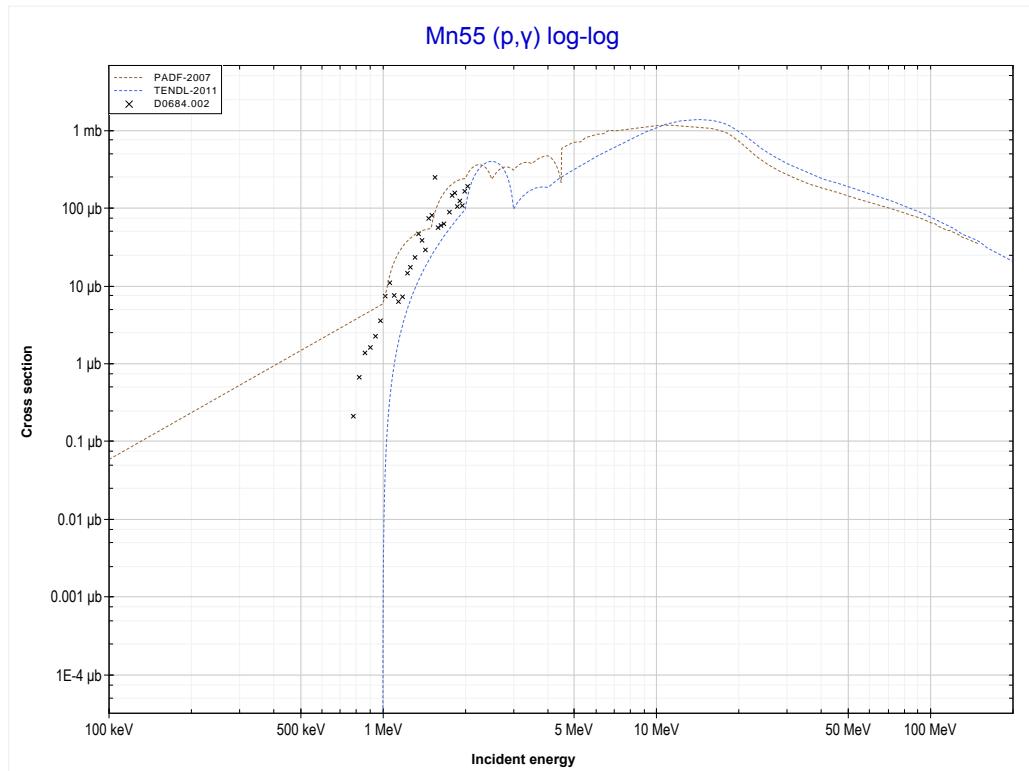
Reaction	Q-Value
Mn55(p,d)Mn54	-8001.95 keV
Mn55(p,n+p)Mn54	-10226.52 keV

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



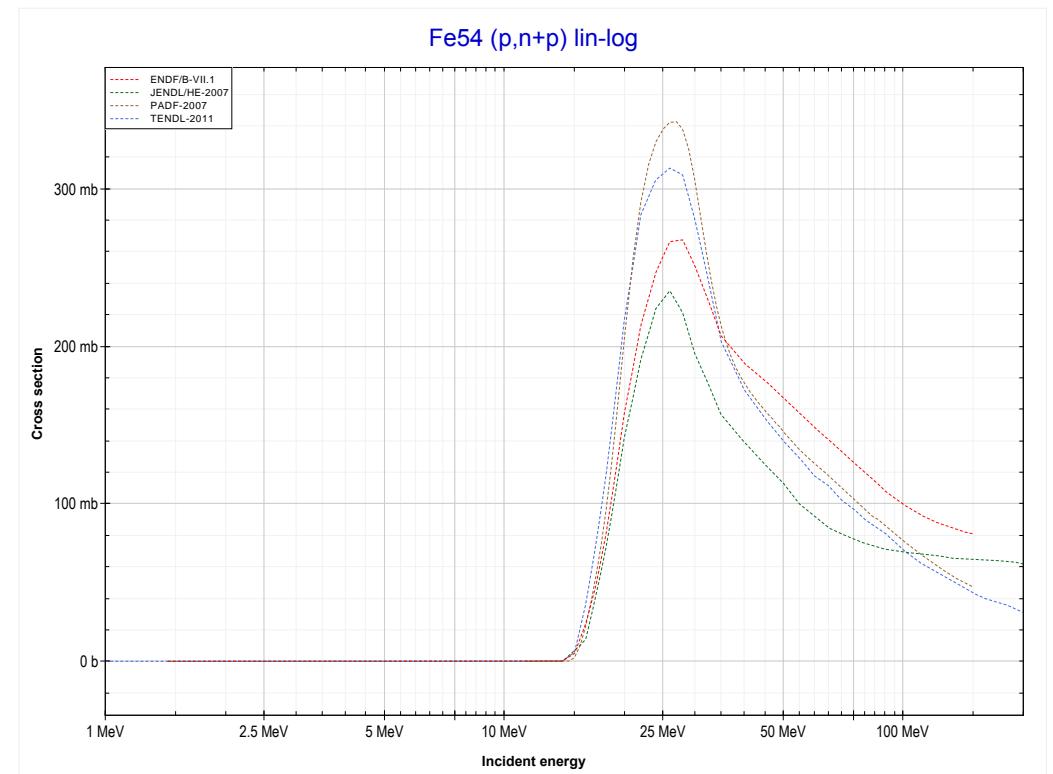
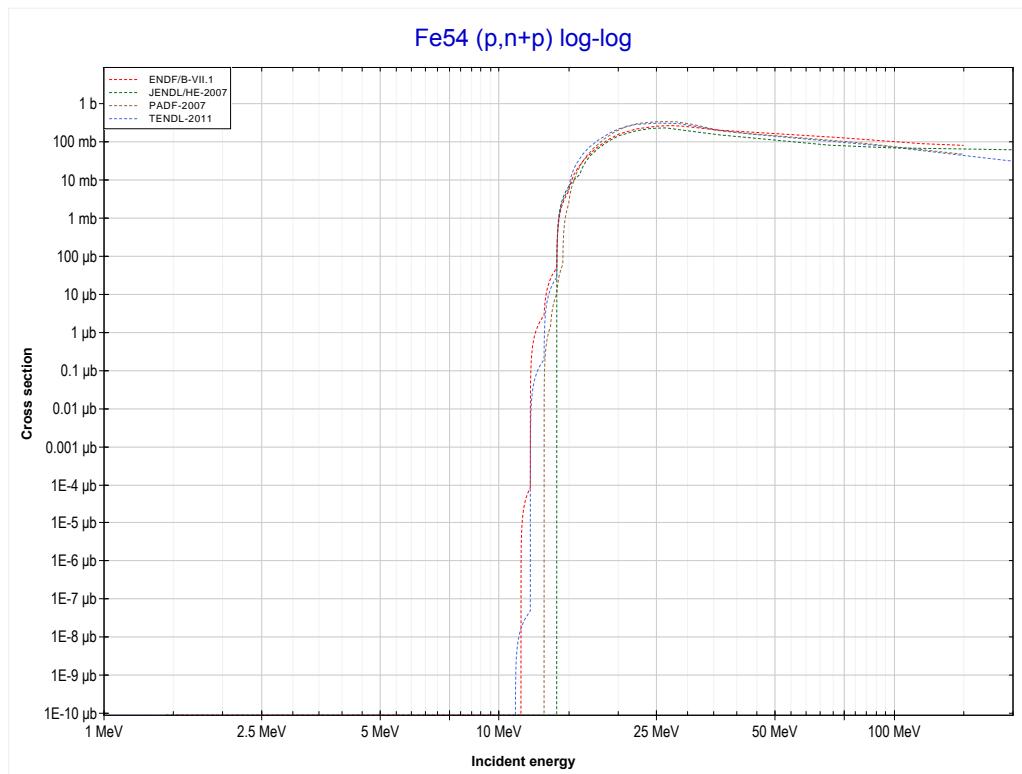
Reaction	Q-Value
Mn55(p,4n)Fe52	-34374.90 keV

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



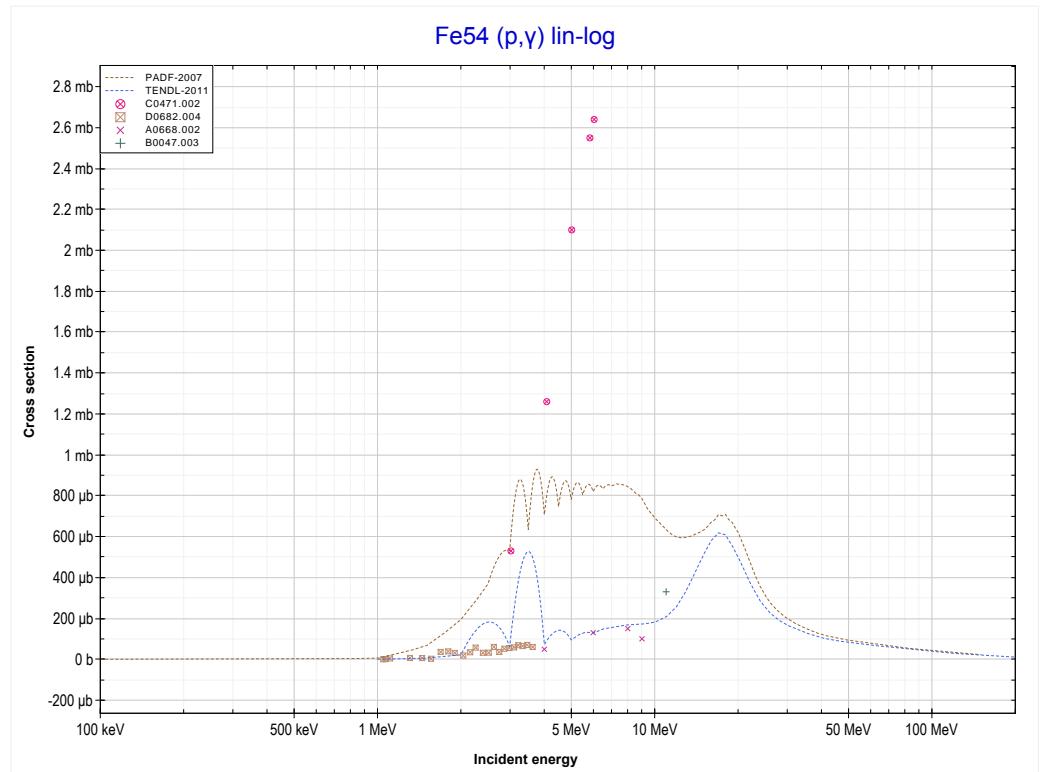
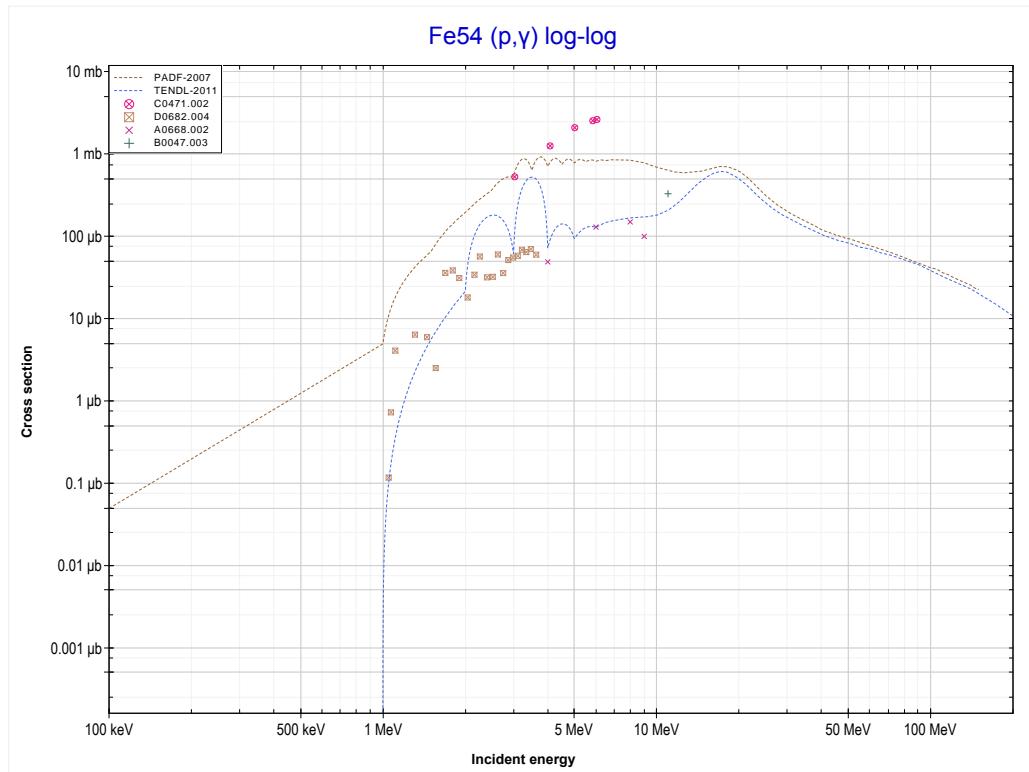
Reaction	Q-Value
Mn55(p,γ)Fe56	10183.77 keV

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



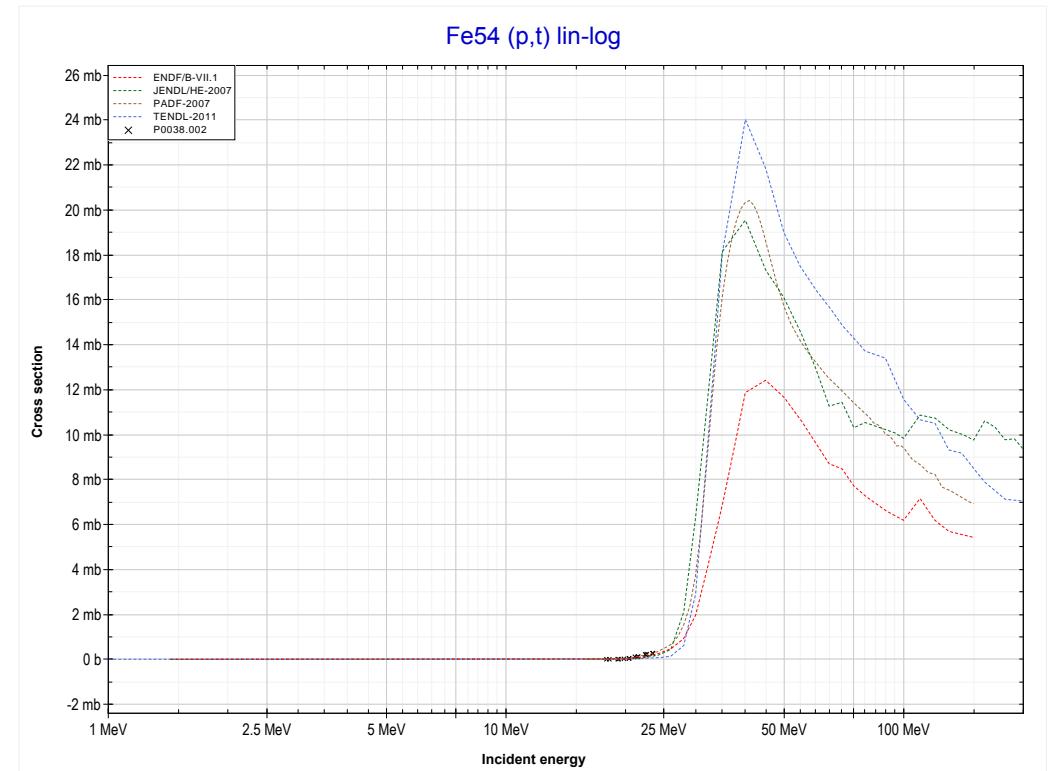
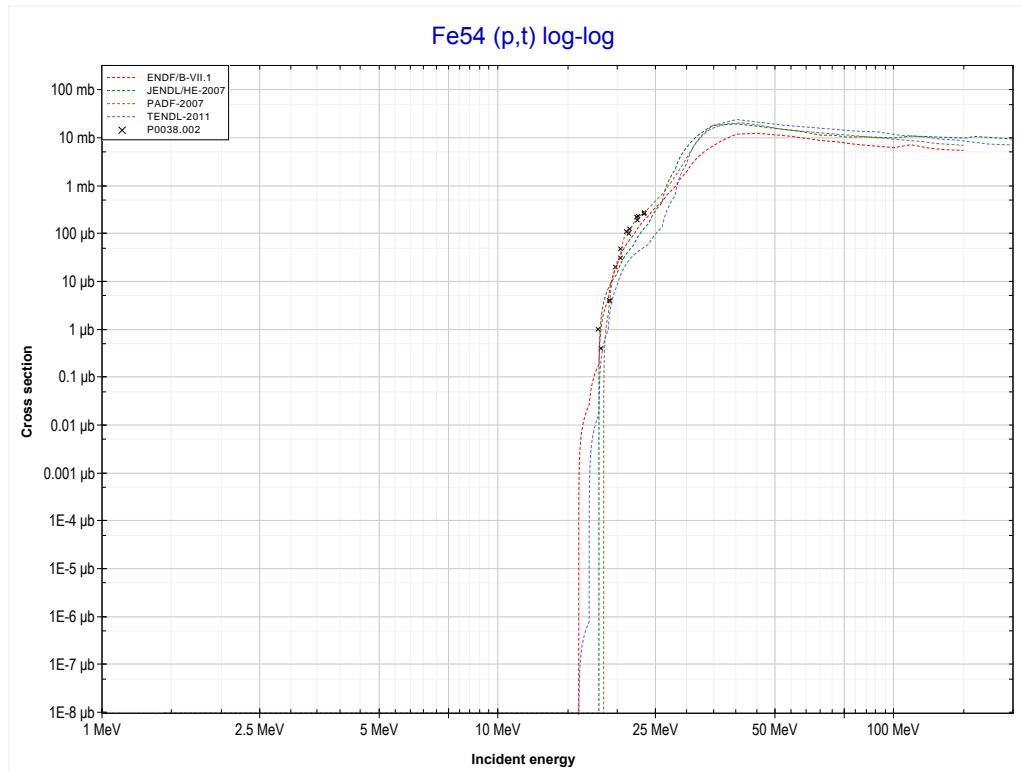
Reaction	Q-Value
Fe54(p,d)Fe53	-11153.95 keV
Fe54(p,n+p)Fe53	-13378.52 keV

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



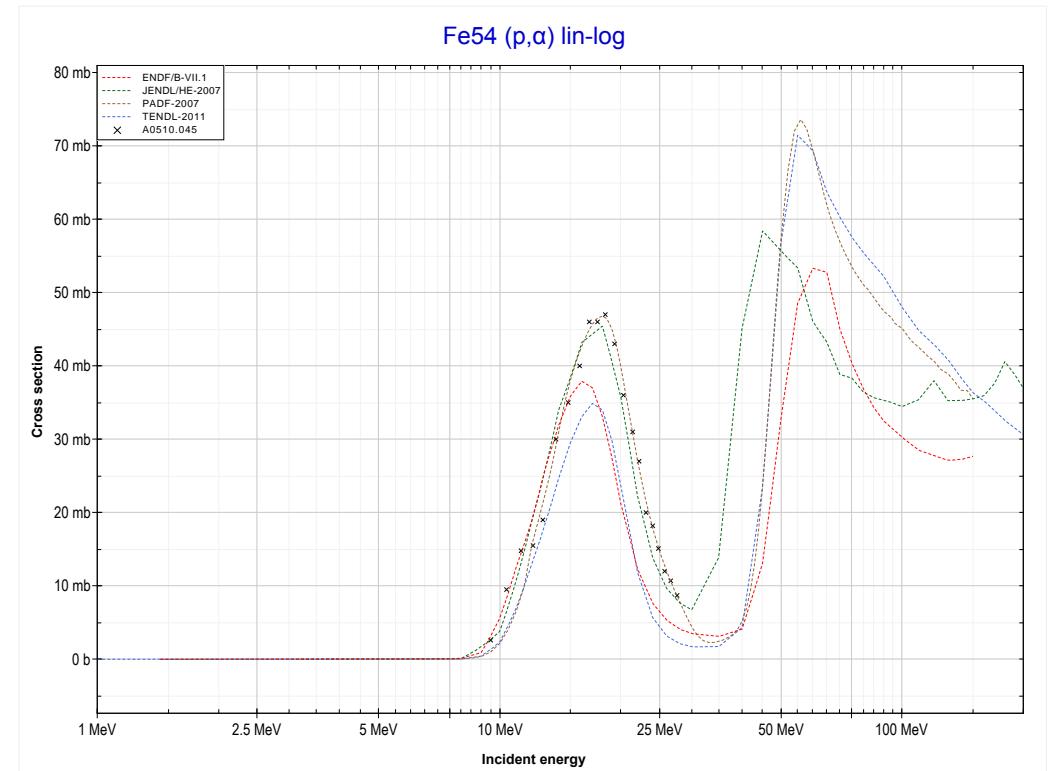
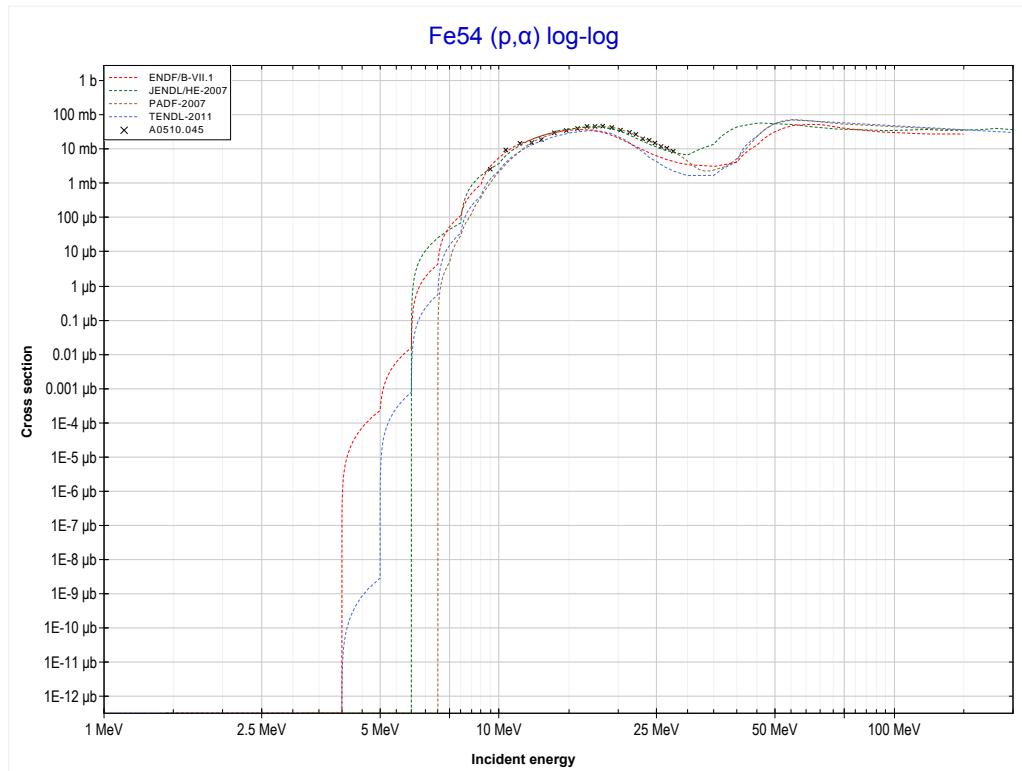
Reaction	Q-Value
Fe54(p,y)Co55	5064.07 keV

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



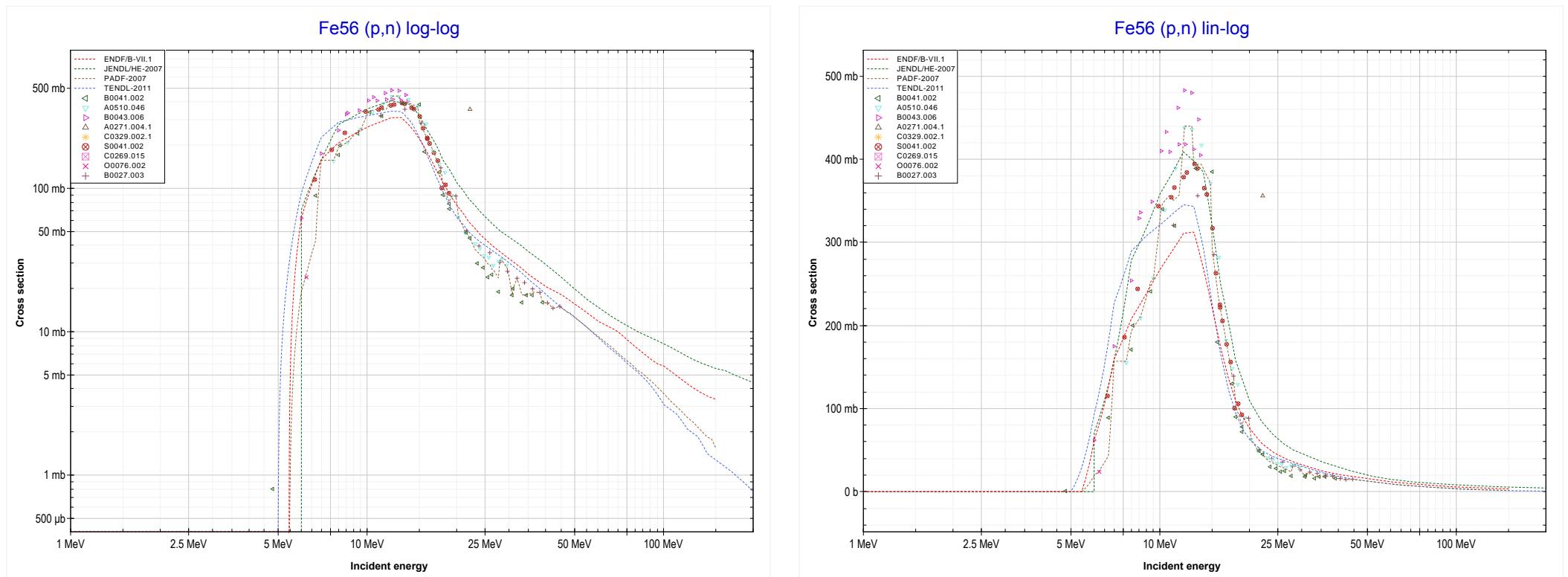
Reaction	Q-Value
Fe54(p,t)Fe52	-15581.34 keV
Fe54(p,n+d)Fe52	-21838.57 keV
Fe54(p,2n+p)Fe52	-24063.13 keV

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



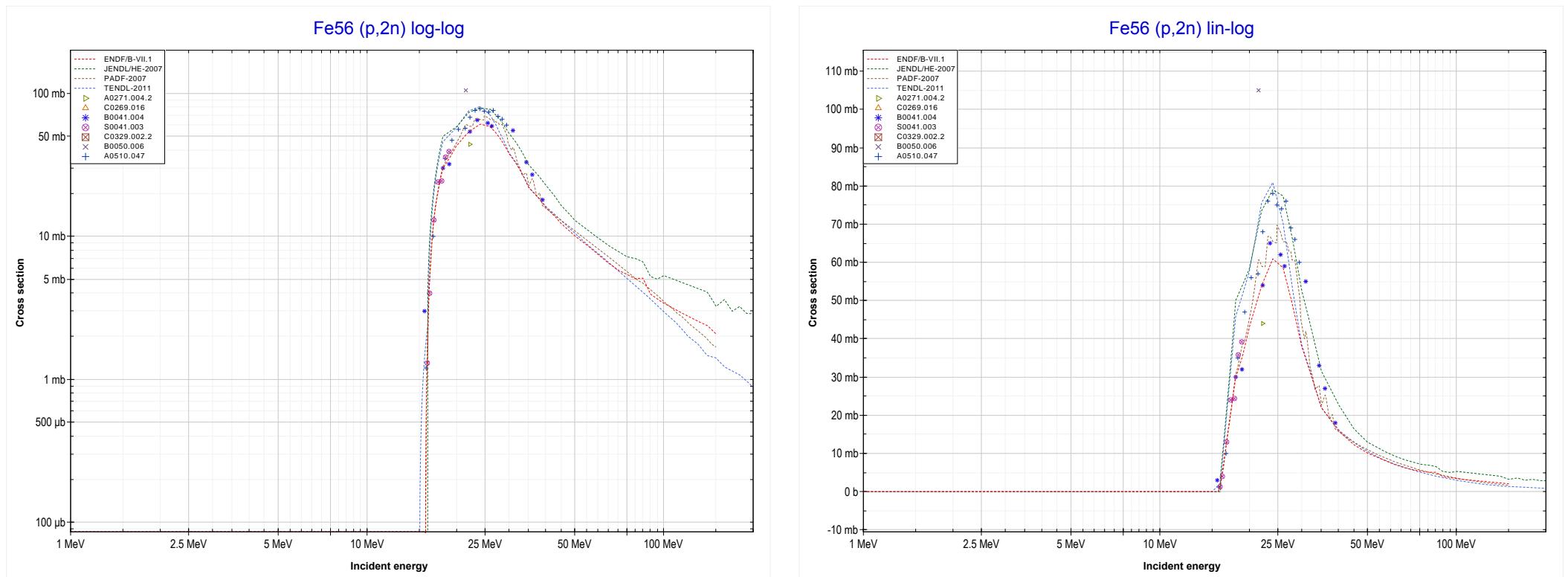
Reaction	Q-Value
Fe54(p,α)Mn51	-3147.15 keV
Fe54($p,p+t$)Mn51	-22961.01 keV
Fe54($p,n+He3$)Mn51	-23724.76 keV
Fe54($p,2d$)Mn51	-26993.67 keV
Fe54($p,n+p+d$)Mn51	-29218.24 keV
Fe54($p,2n+2p$)Mn51	-31442.80 keV

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



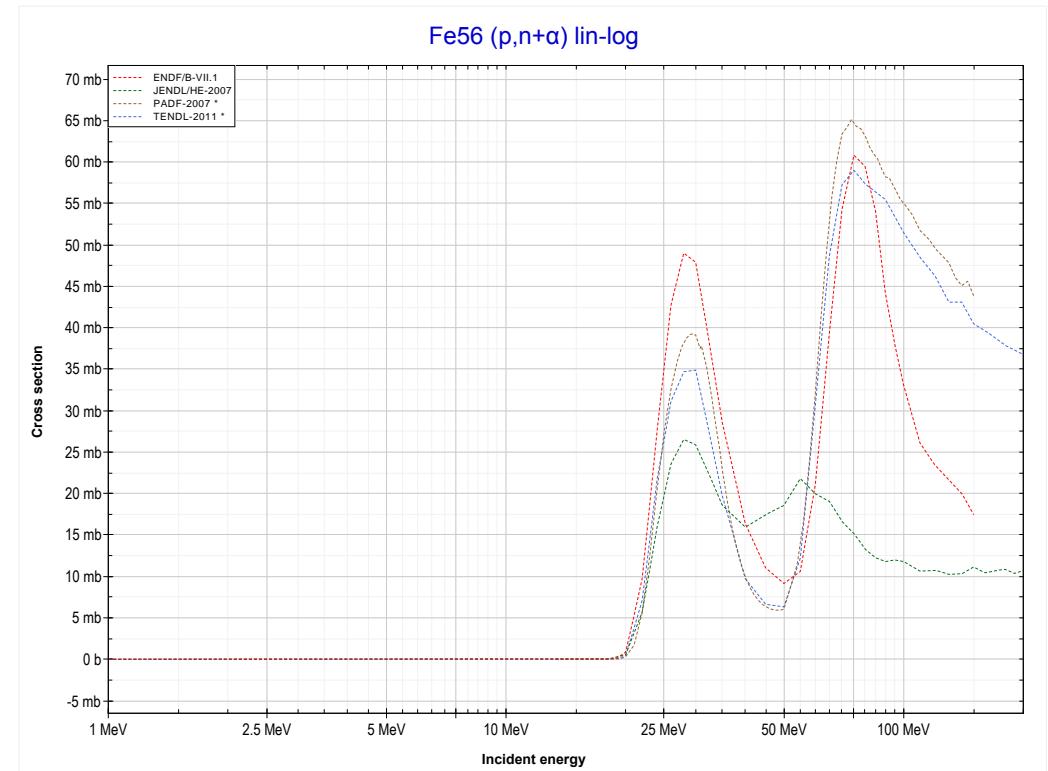
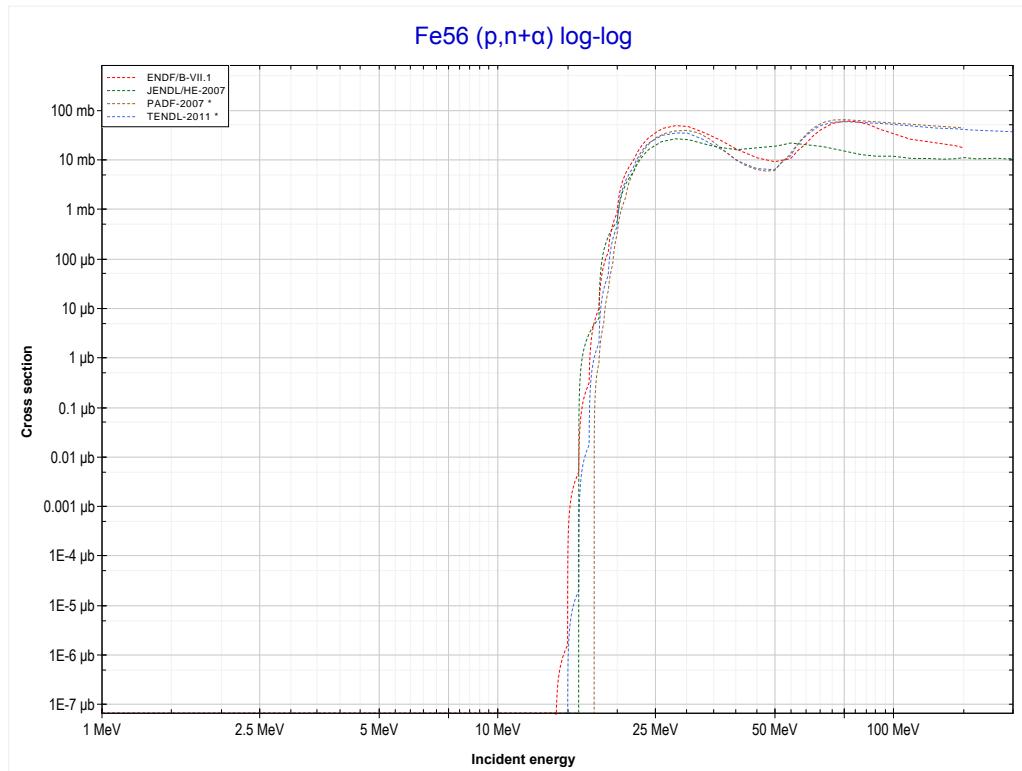
Reaction	Q-Value
Fe56(p,n)Co56	-5348.35 keV

<< 24-Cr-53	26-Fe-56 MT16 (p,2n) or MT5 (Co55 production)	26-Fe-57 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



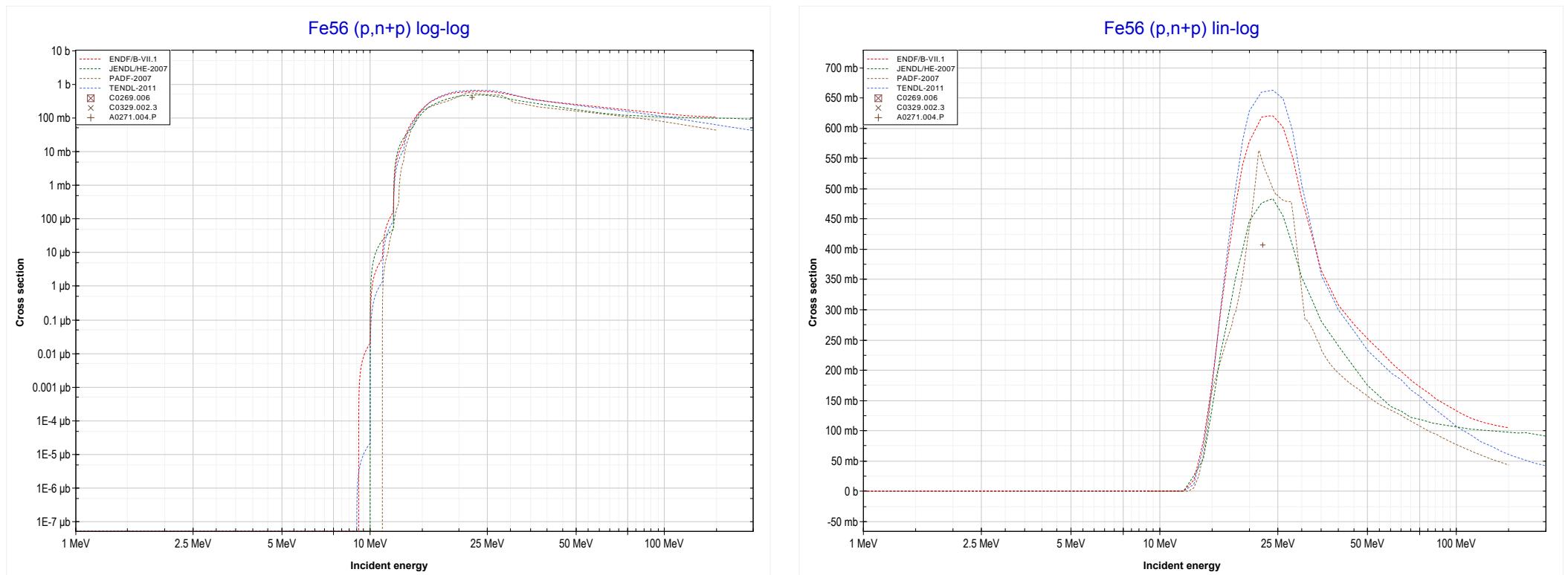
Reaction	Q-Value
Fe56(p,2n)Co55	-15431.46 keV

<< 25-Mn-55	26-Fe-56 MT22 (p,n+α) or MT5 (Mn52 production)	26-Fe-58 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>



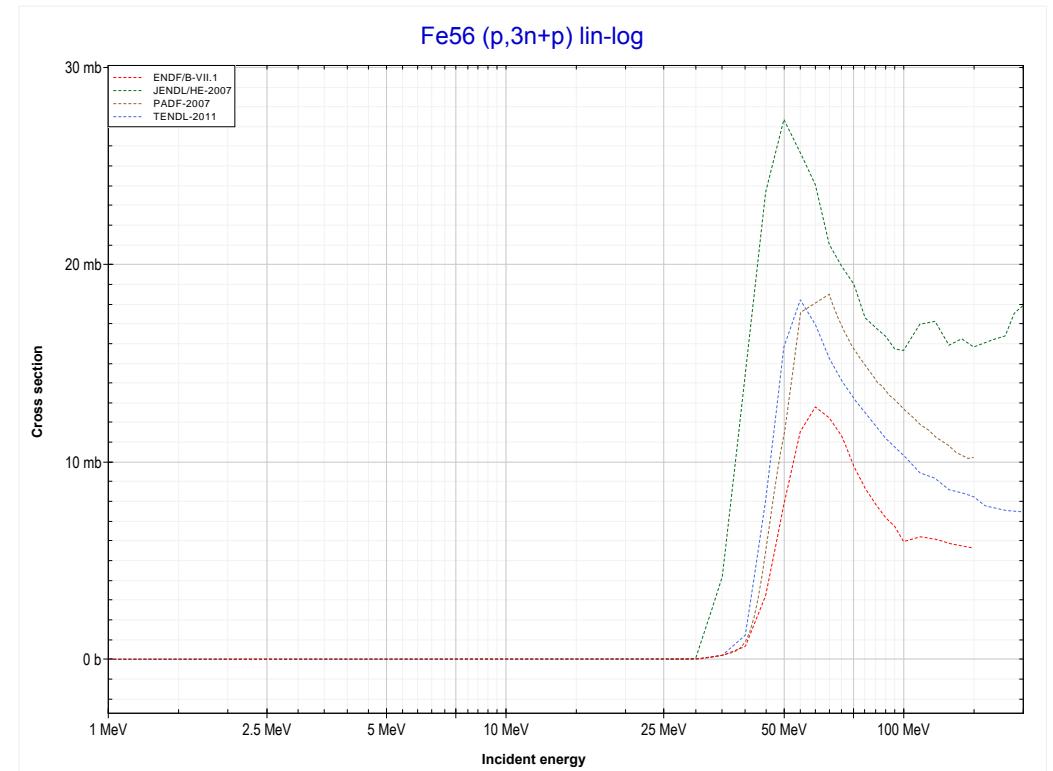
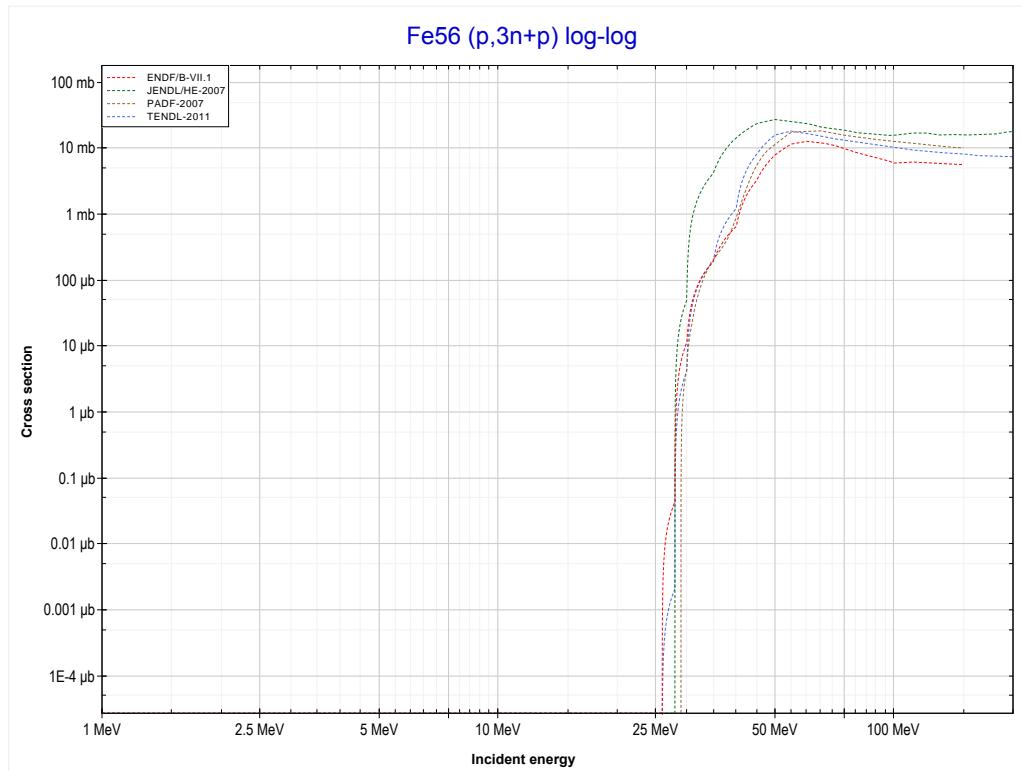
Reaction	Q-Value
Fe56(p,n+α)Mn52	-13107.26 keV
Fe56(p,d+t)Mn52	-30696.56 keV
Fe56(p,n+p+t)Mn52	-32921.12 keV
Fe56(p,2n+He3)Mn52	-33684.88 keV
Fe56(p,n+2d)Mn52	-36953.79 keV
Fe56(p,2n+p+d)Mn52	-39178.36 keV
Fe56(p,3n+2p)Mn52	-41402.92 keV

<< 26-Fe-54	26-Fe-56 MT28 (p,n+p) or MT5 (Fe55 production)	27-Co-59 >>
<< MT22 (p,n+α)		MT42 (p,3n+p) >>



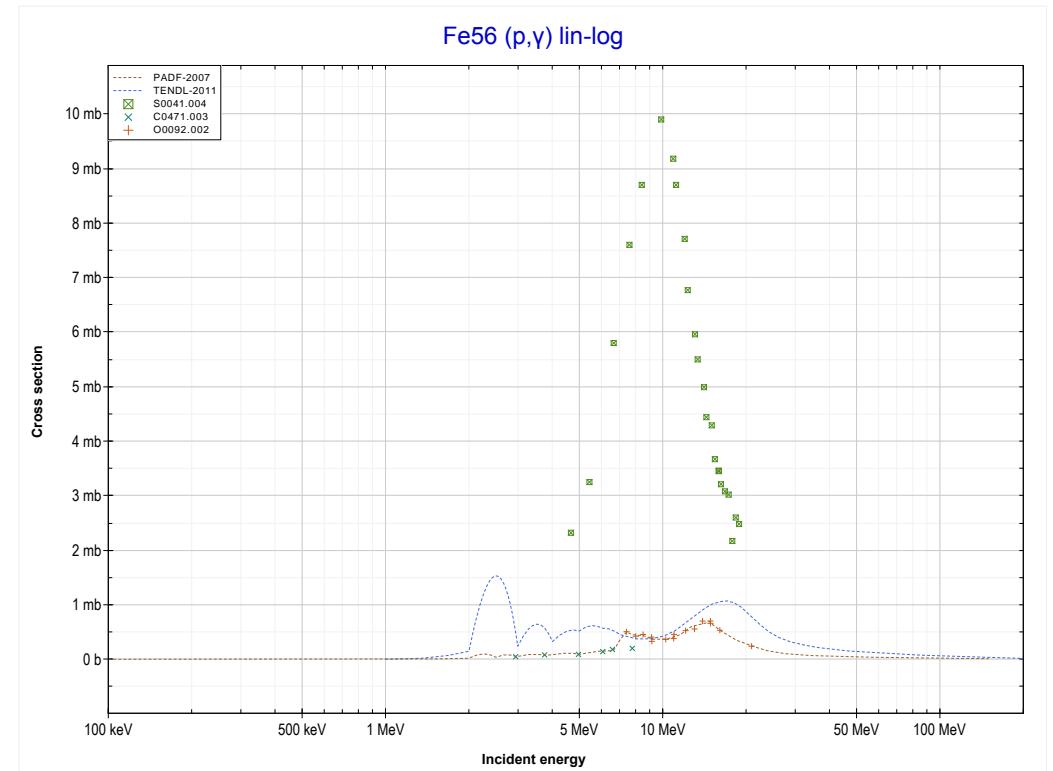
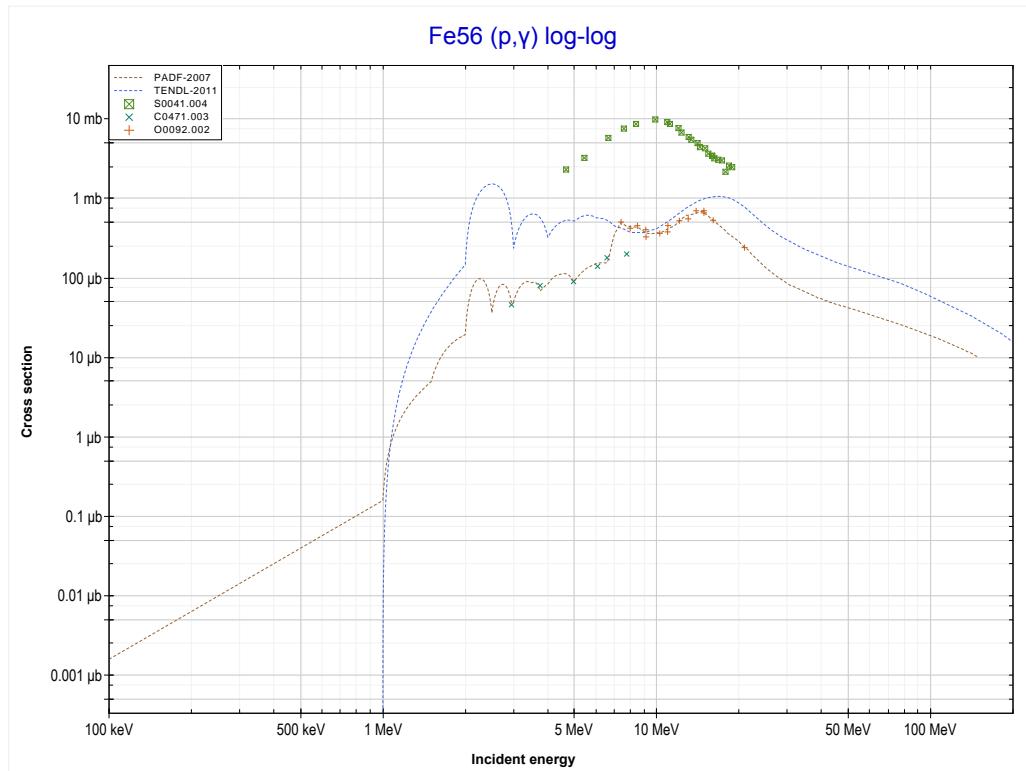
Reaction	Q-Value
$\text{Fe}^{56}(\text{p},\text{d})\text{Fe}^{55}$	-8972.75 keV
$\text{Fe}^{56}(\text{p},\text{n}+\text{p})\text{Fe}^{55}$	-11197.32 keV

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



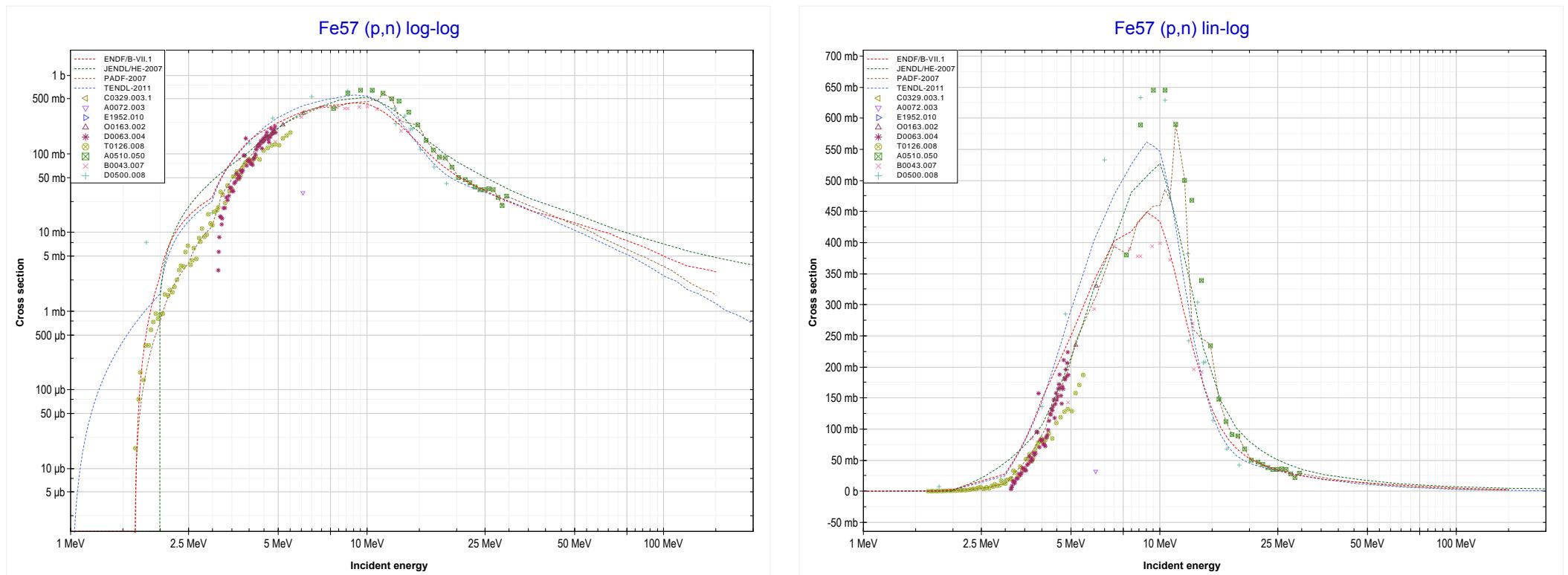
Reaction	Q-Value
Fe56(p,n+t)Fe53	-25392.25 keV
Fe56(p,2n+d)Fe53	-31649.49 keV
Fe56(p,3n+p)Fe53	-33874.05 keV

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



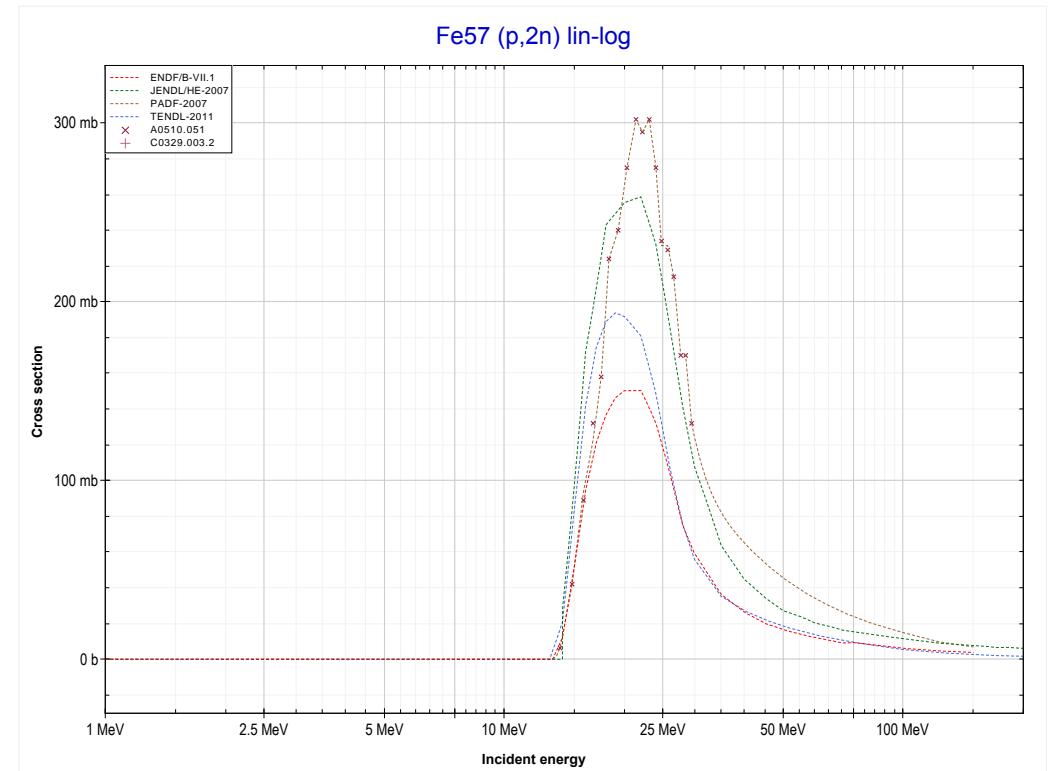
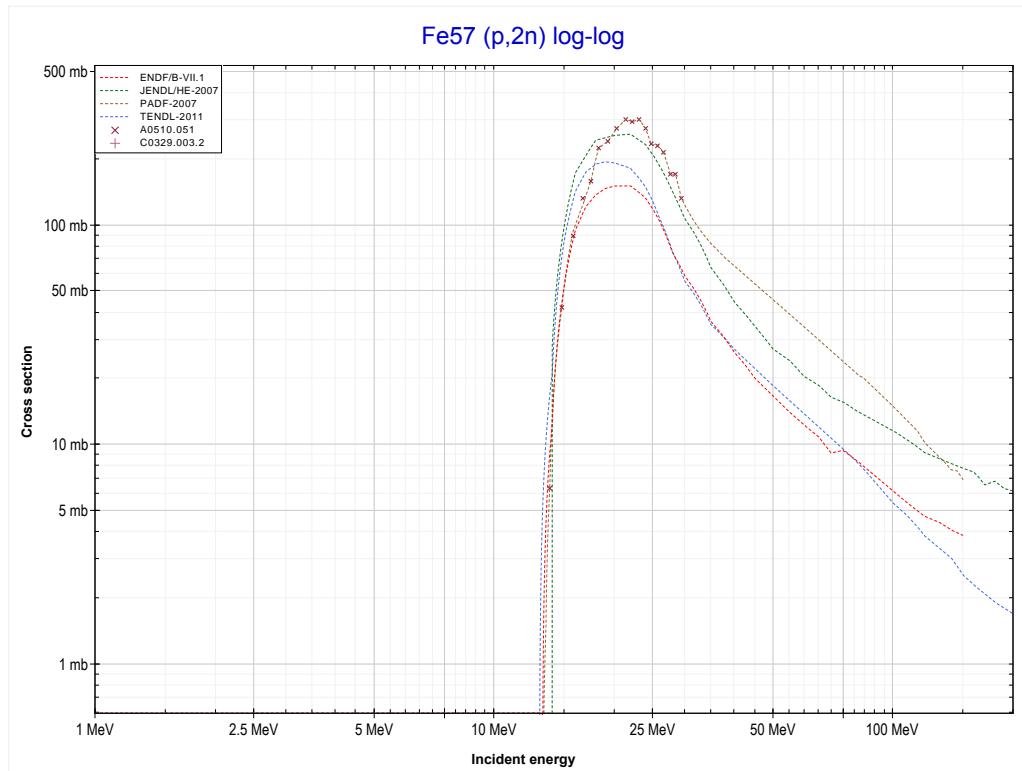
Reaction	Q-Value
Fe56(p, γ)Co57	6027.77 keV

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



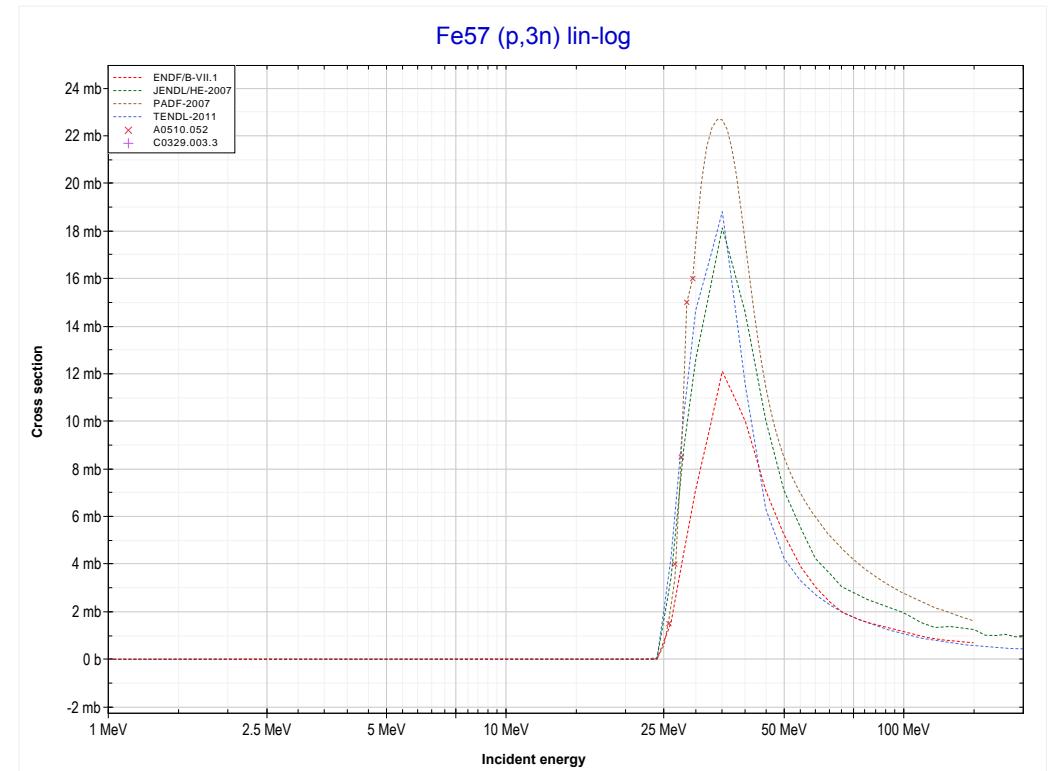
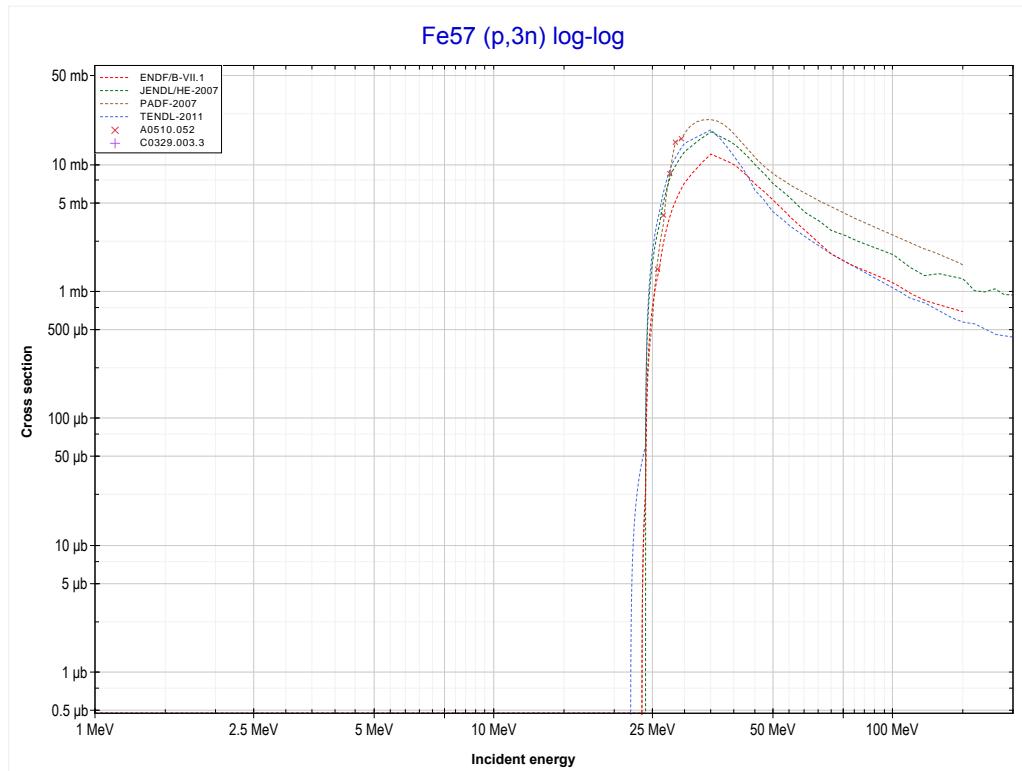
Reaction	Q-Value
Fe57(p,n)Co57	-1618.25 keV

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



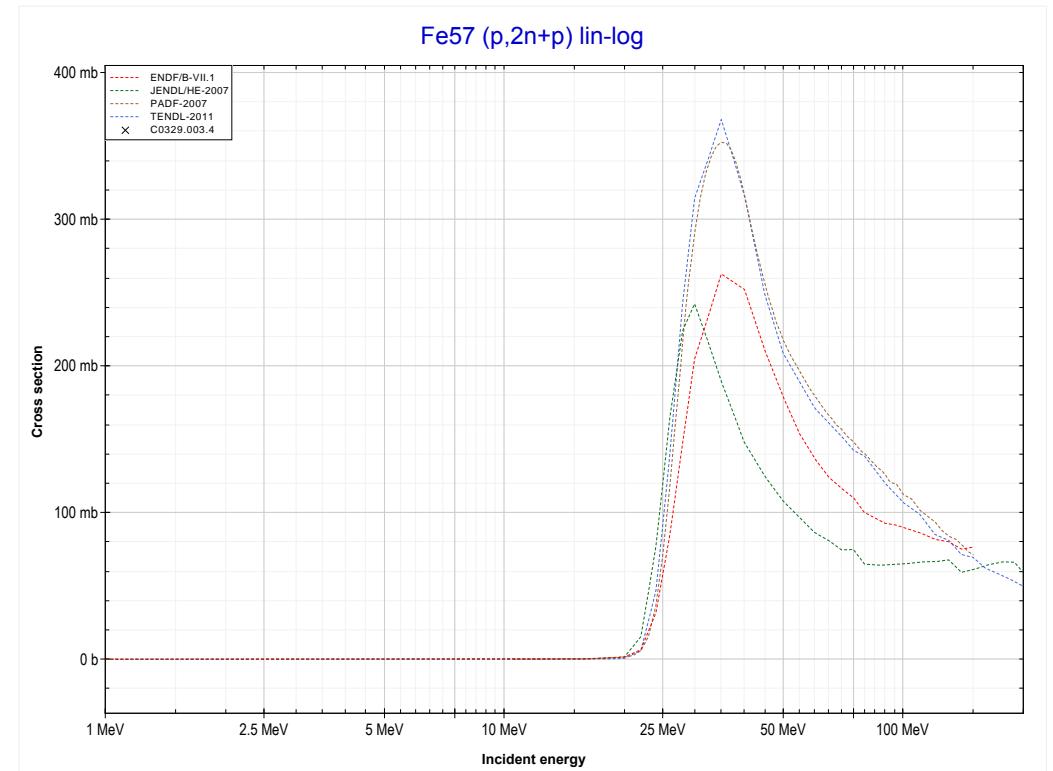
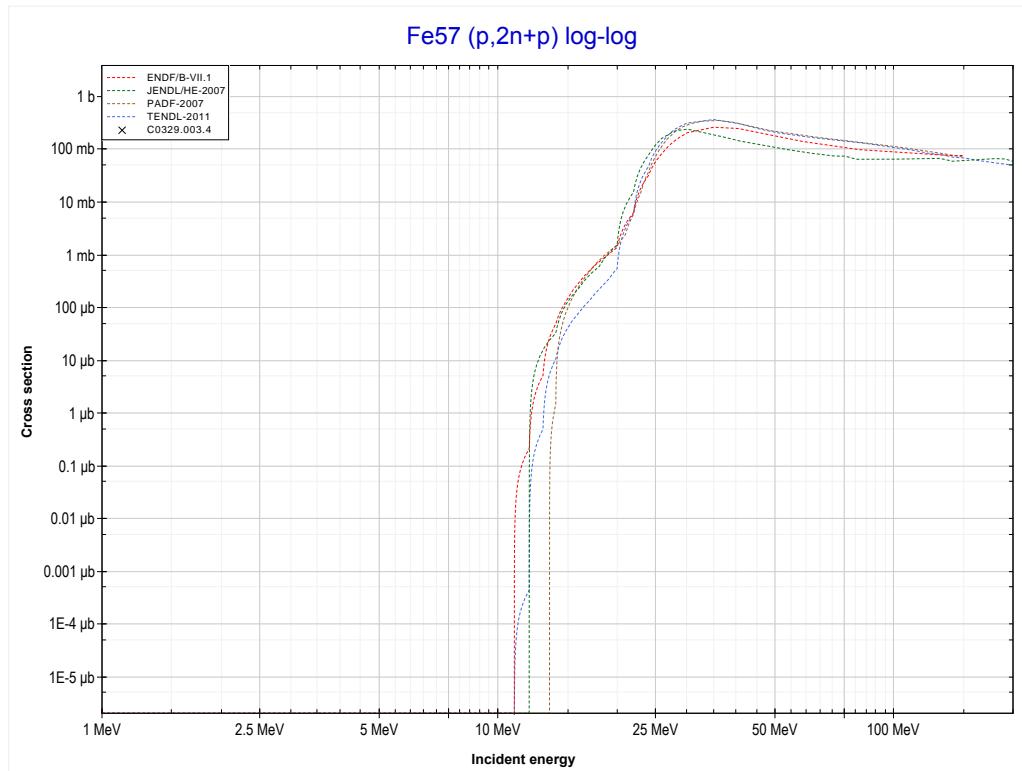
Reaction	Q-Value
Fe57(p,2n)Co56	-12994.36 keV

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



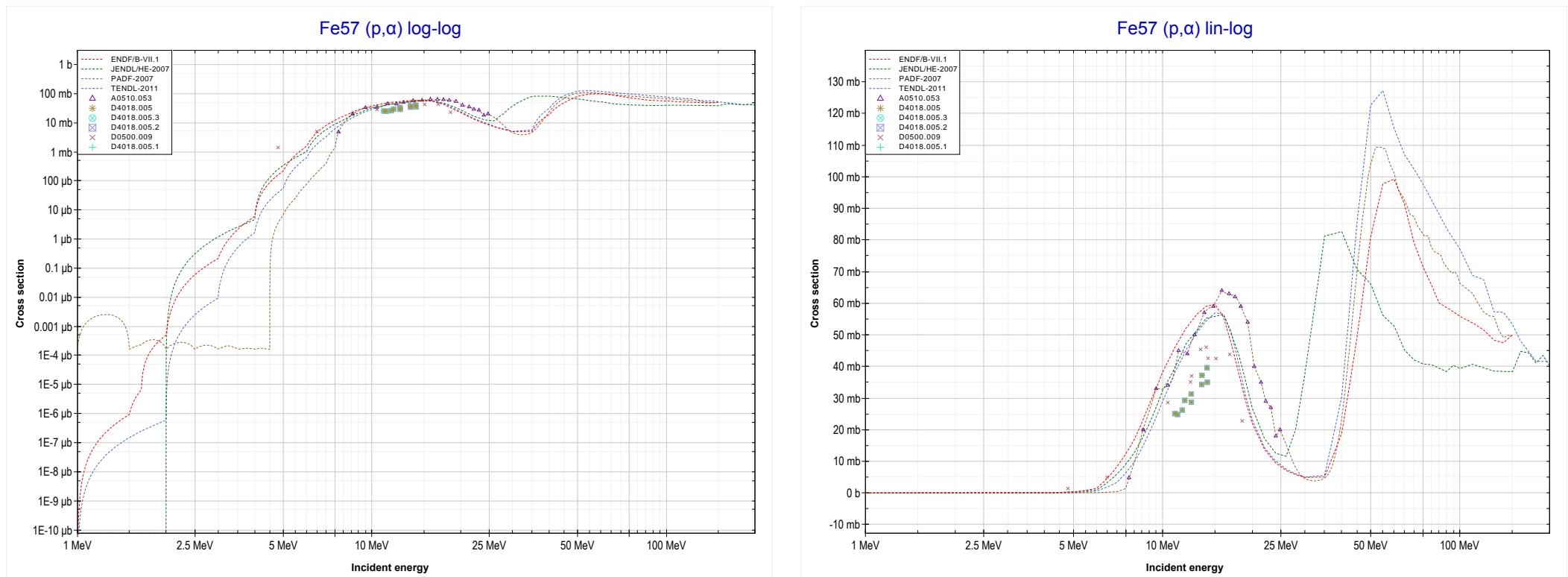
Reaction	Q-Value
Fe57(p,3n)Co55	-23077.48 keV

<< 24-Cr-50	26-Fe-57 MT41 (p,2n+p) or MT5 (Fe55 production)	27-Co-59 >>
<< MT17 (p,3n)		MT107 (p, α) >>



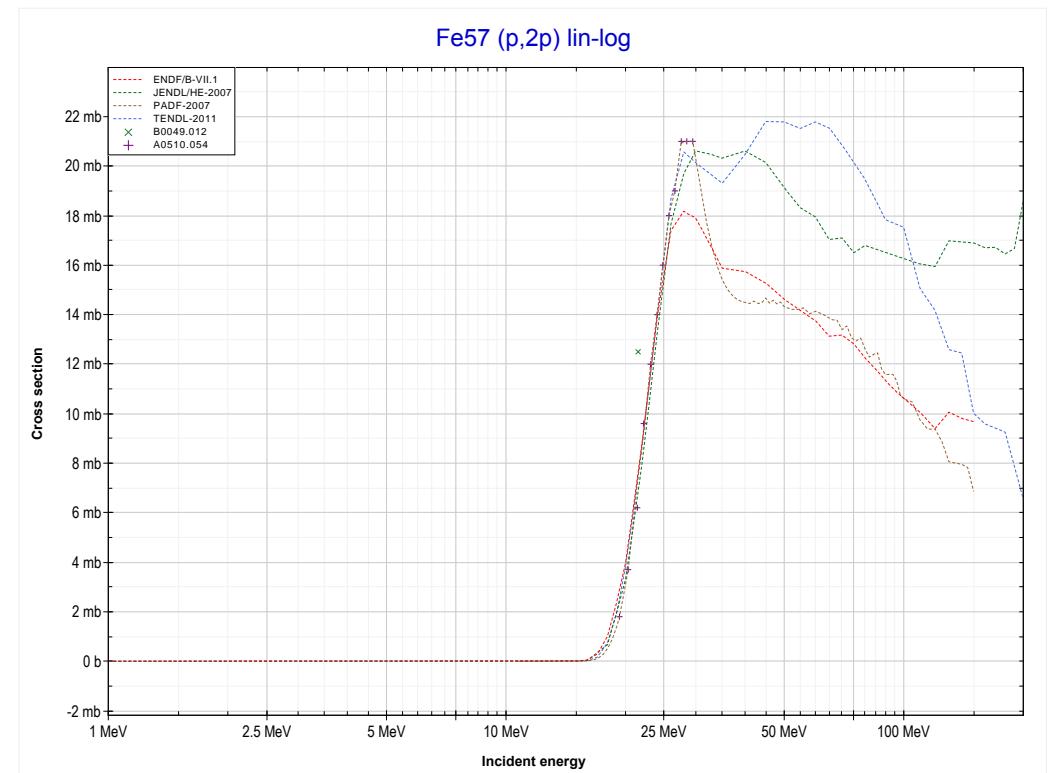
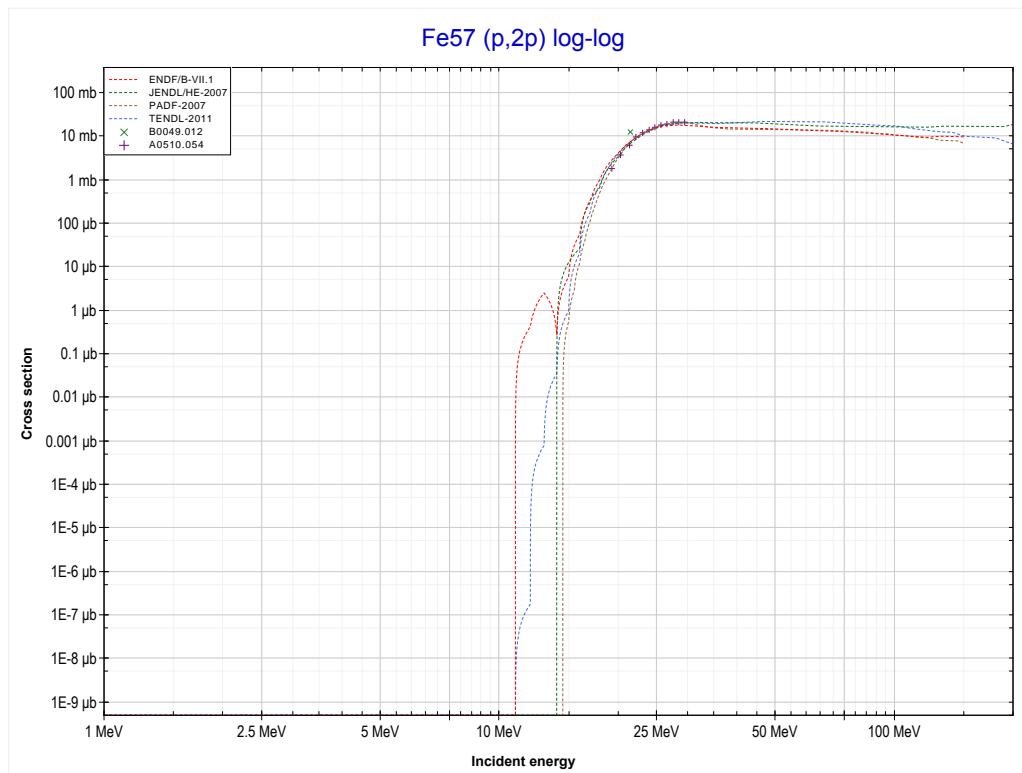
Reaction	Q-Value
Fe57(p,t)Fe55	-10361.54 keV
Fe57(p,n+d)Fe55	-16618.77 keV
Fe57(p,2n+p)Fe55	-18843.33 keV

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



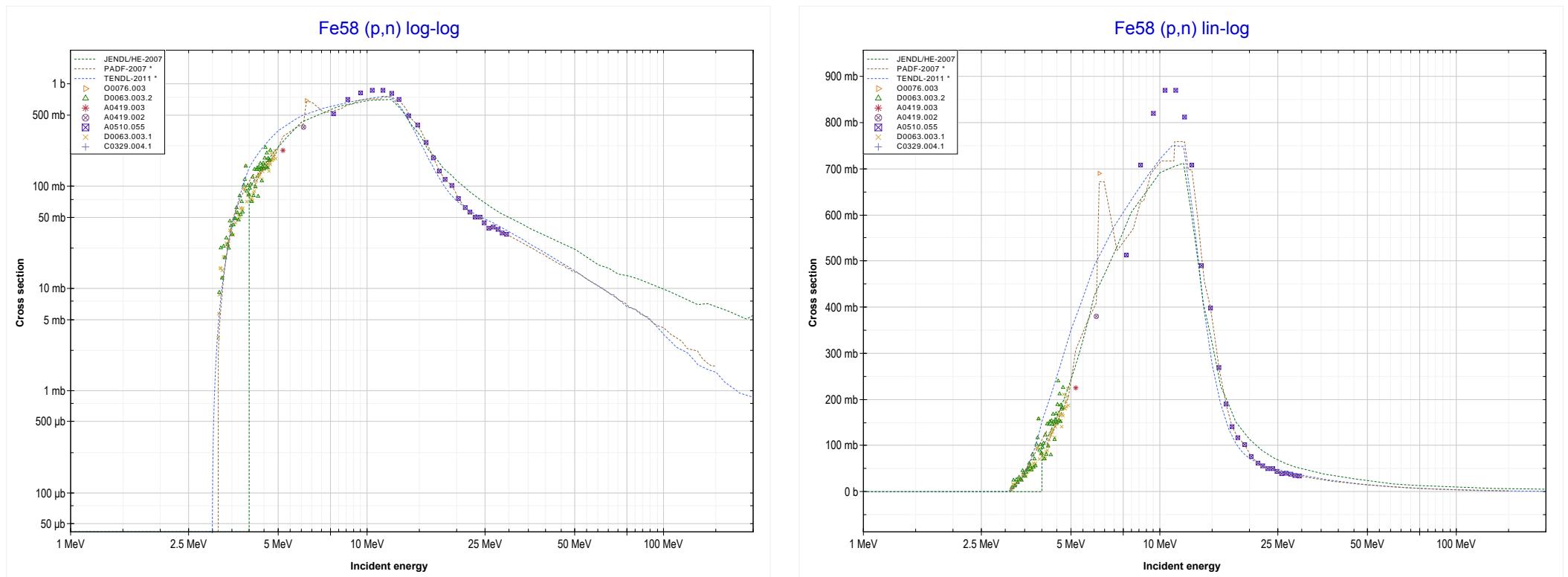
Reaction	Q-Value
Fe57(p,α)Mn54	239.35 keV
Fe57($p,p+t$)Mn54	-19574.51 keV
Fe57($p,n+He3$)Mn54	-20338.26 keV
Fe57($p,2d$)Mn54	-23607.17 keV
Fe57($p,n+p+d$)Mn54	-25831.74 keV
Fe57($p,2n+2p$)Mn54	-28056.30 keV

<< 24-Cr-50	26-Fe-57 MT111 (p,2p) or MT5 (Mn56 production)	28-Ni-58 >>
<< MT107 (p, α)		MT4 (p,n) >>



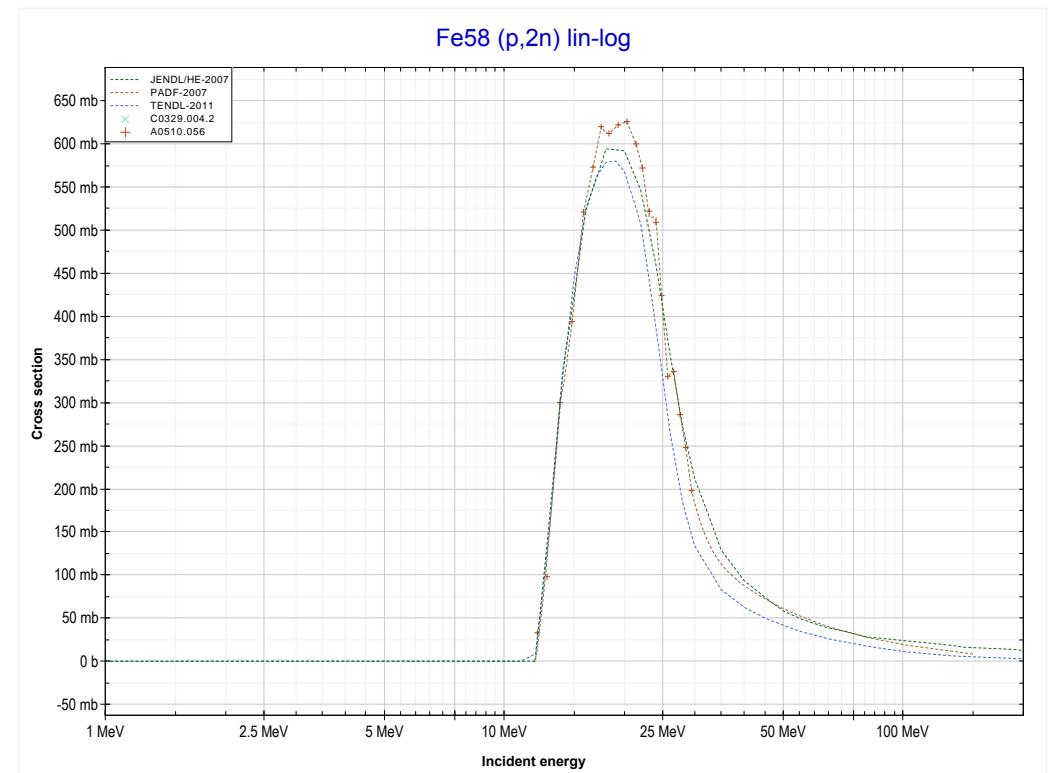
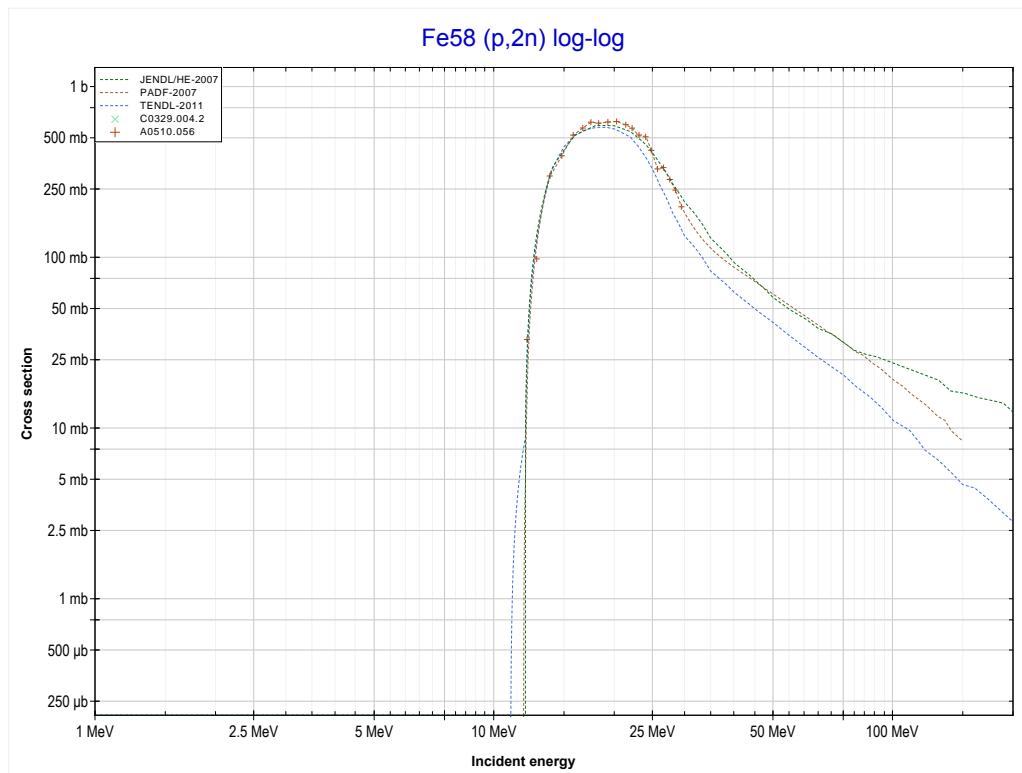
Reaction	Q-Value
Fe57(p,2p)Mn56	-10559.37 keV

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



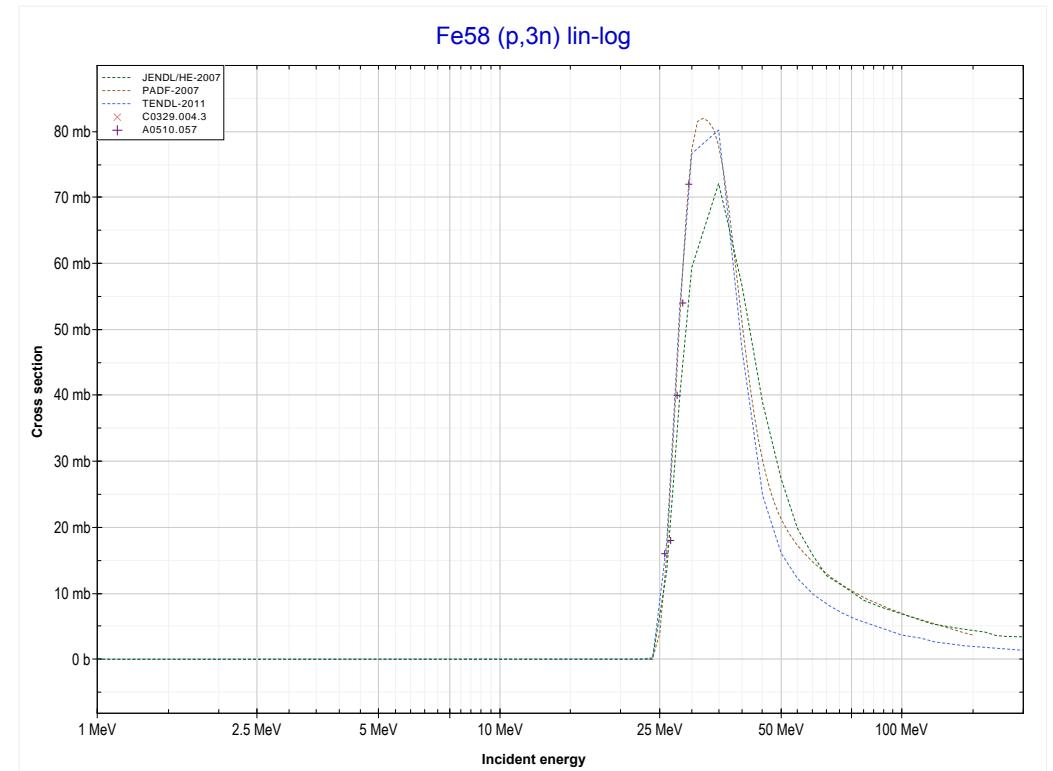
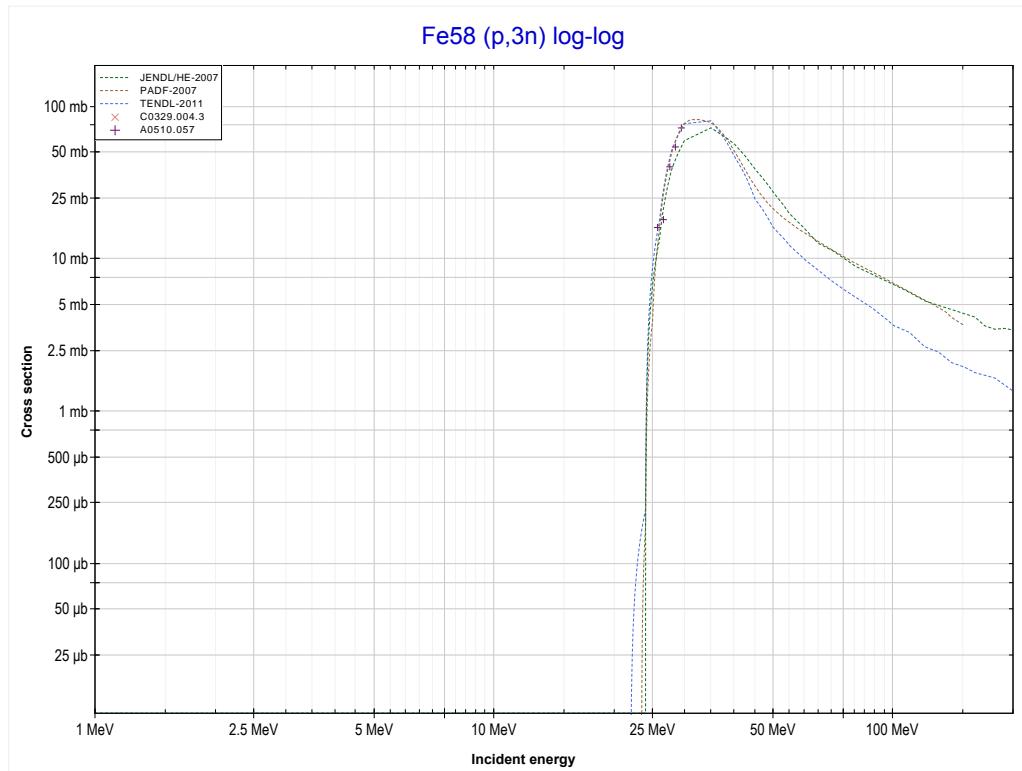
Reaction	Q-Value
Fe58(p,n)Co58	-3089.85 keV

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



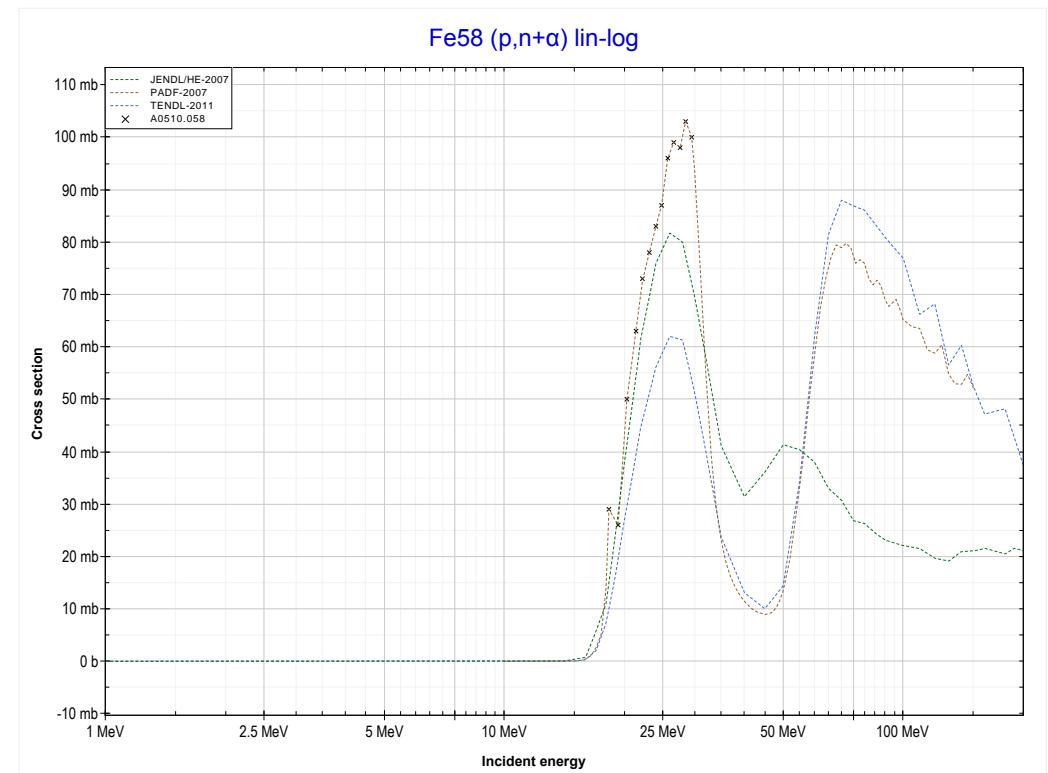
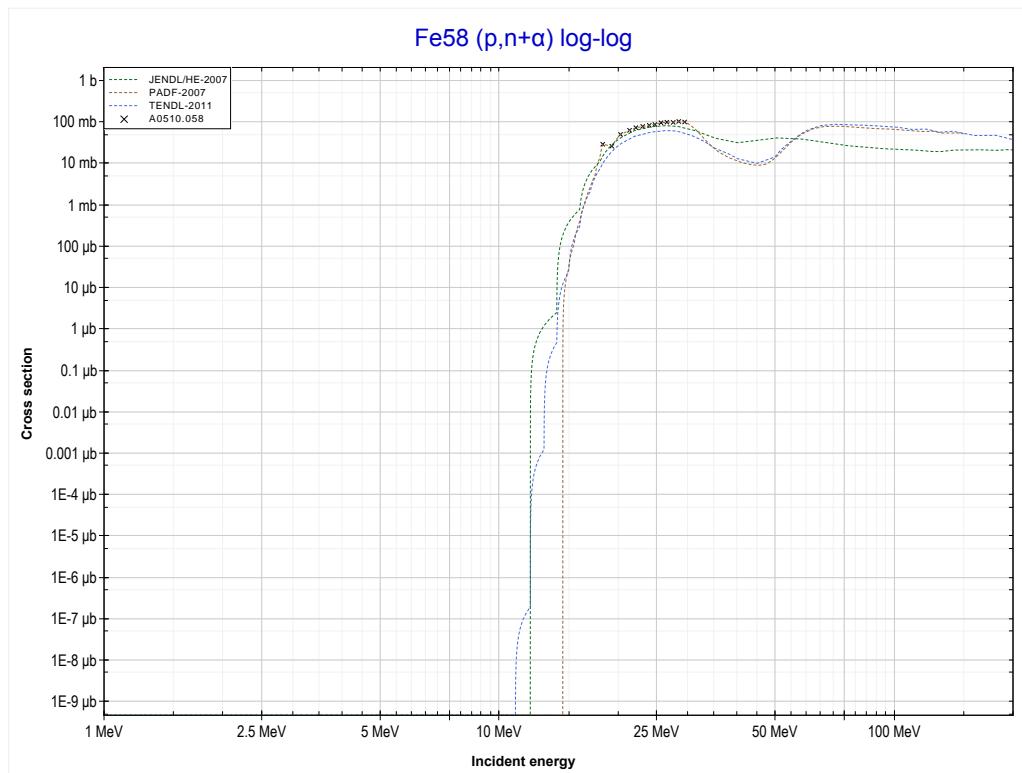
Reaction	Q-Value
Fe58(p,2n)Co57	-11662.86 keV

<< 26-Fe-57	26-Fe-58 MT17 (p,3n) or MT5 (Co56 production)	27-Co-59 >>
<< MT16 (p,2n)		MT22 (p,n+α) >>



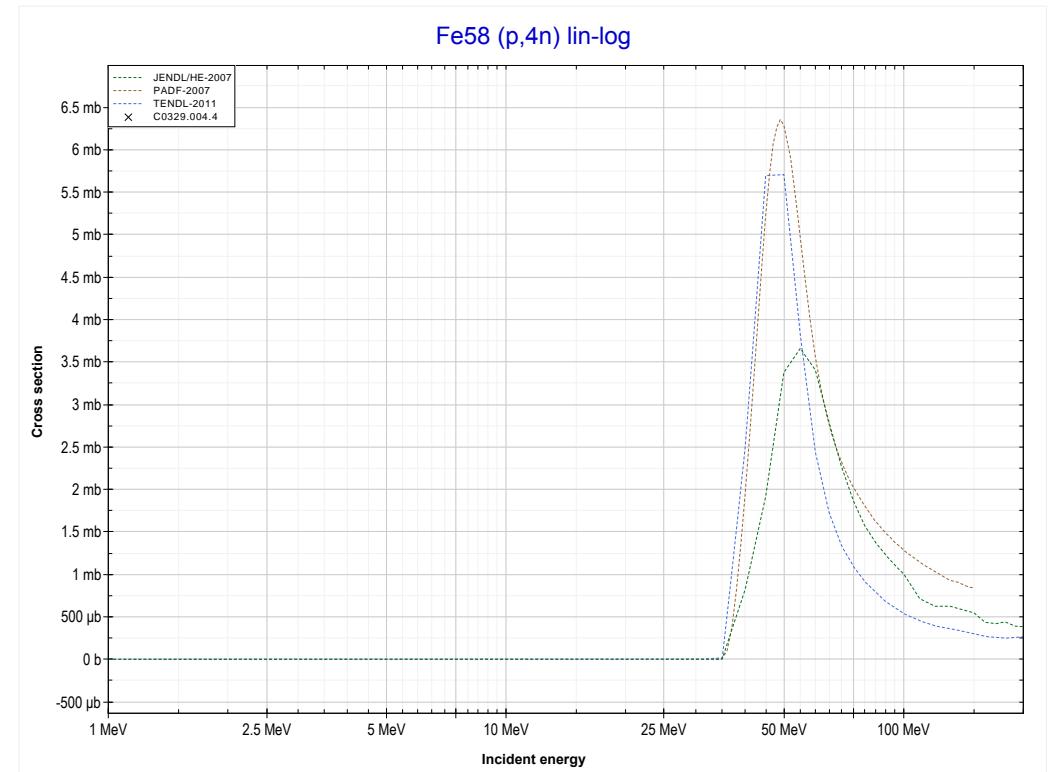
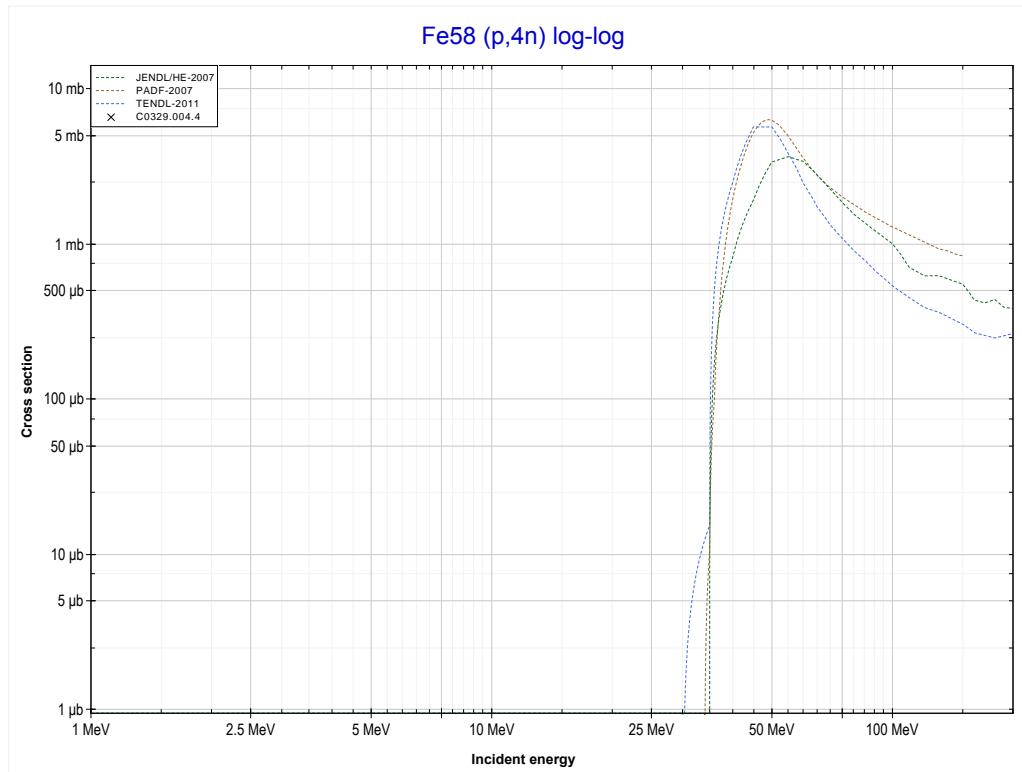
Reaction	Q-Value
Fe58(p,3n)Co56	-23038.98 keV

<< 26-Fe-56	26-Fe-58 MT22 ($p,n+\alpha$) or MT5 (Mn54 production)	28-Ni-60 >>
<< MT17 ($p,3n$)		MT37 ($p,4n$) >>



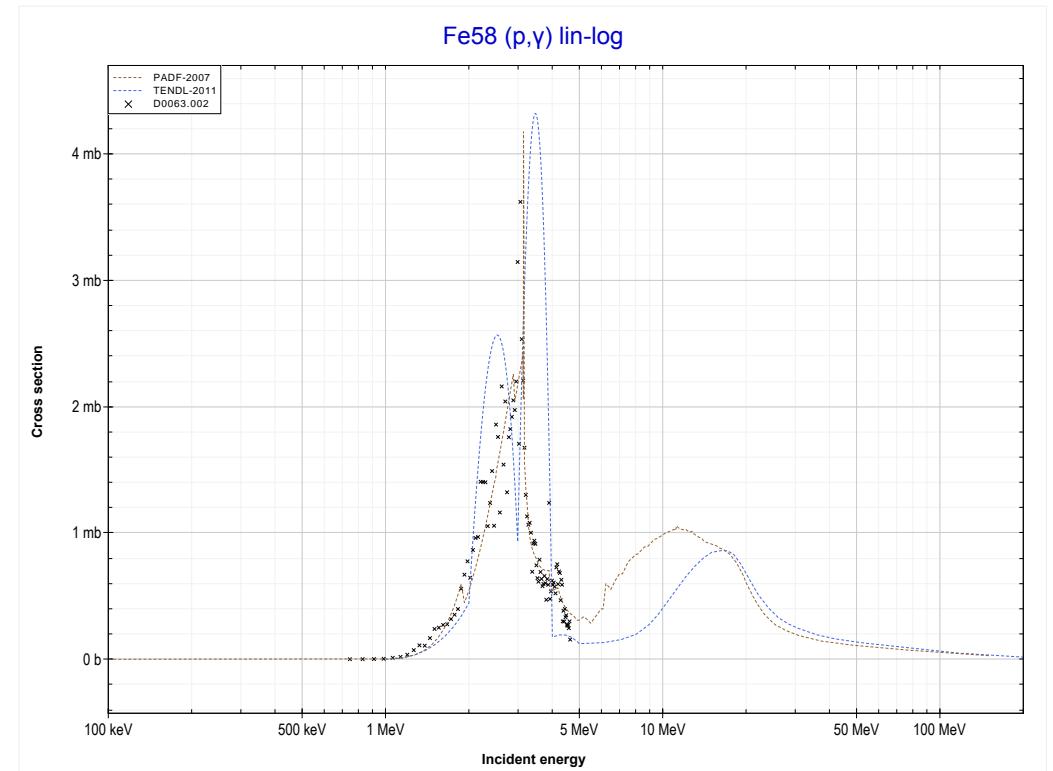
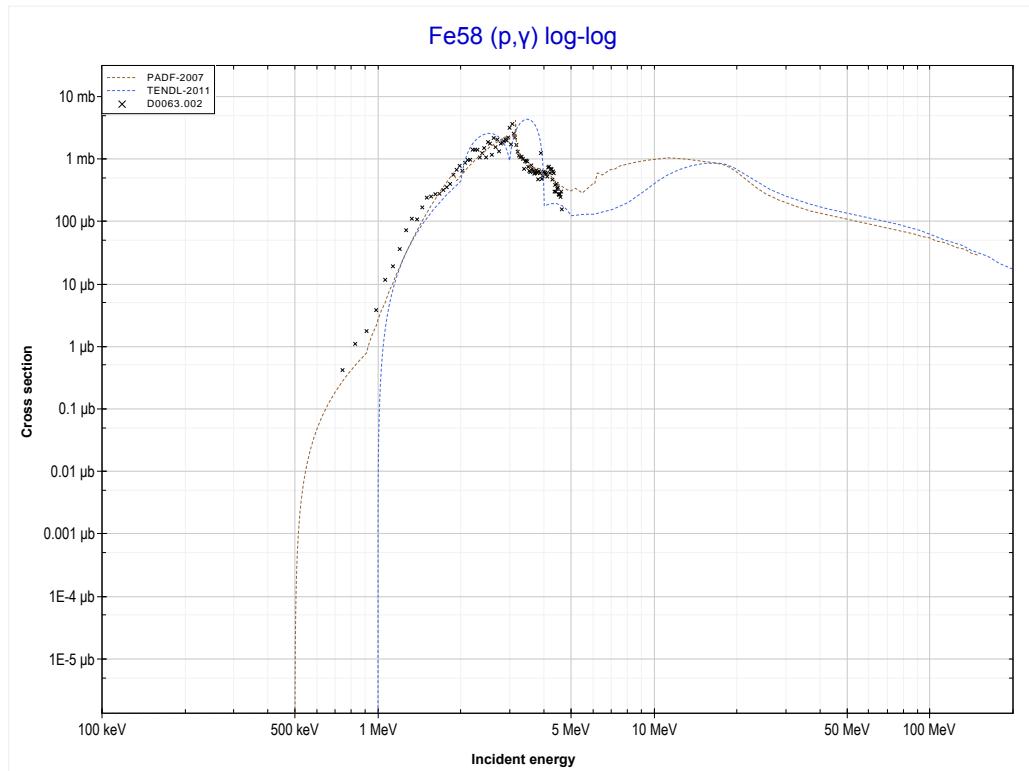
Reaction	Q-Value
Fe58($p,n+\alpha$)Mn54	-9805.26 keV
Fe58($p,d+t$)Mn54	-27394.56 keV
Fe58($p,n+p+t$)Mn54	-29619.12 keV
Fe58($p,2n+He3$)Mn54	-30382.88 keV
Fe58($p,n+2d$)Mn54	-33651.79 keV
Fe58($p,2n+p+d$)Mn54	-35876.36 keV
Fe58($p,3n+2p$)Mn54	-38100.92 keV

<< 25-Mn-55	26-Fe-58 MT37 (p,4n) or MT5 (Co55 production)	27-Co-59 >>
<< MT22 (p,n+α)		MT102 (p,γ) >>



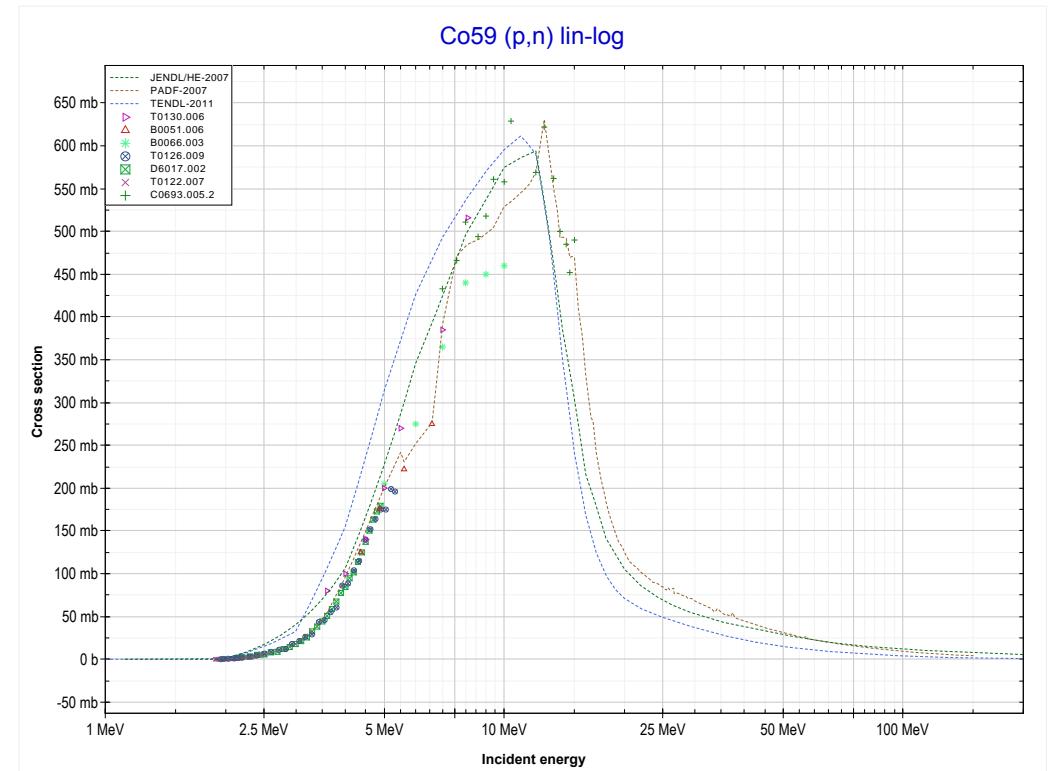
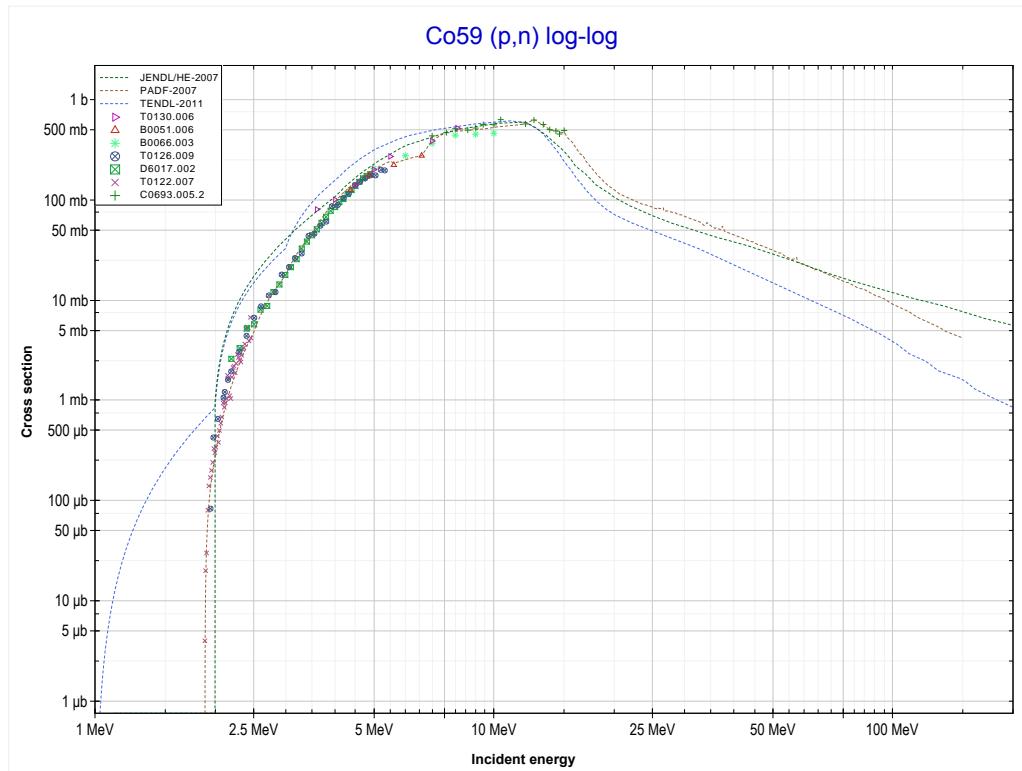
Reaction	Q-Value
Fe58(p,4n)Co55	-33122.10 keV

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



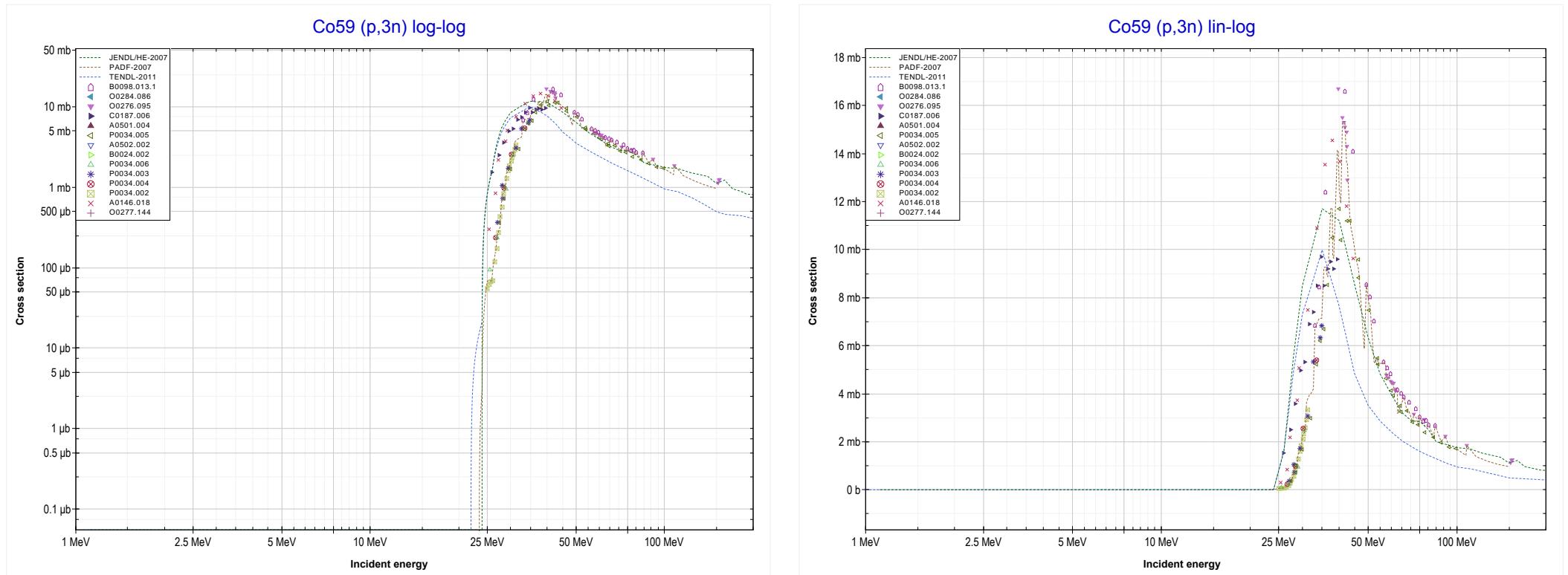
Reaction	Q-Value
Fe58(p, γ)Co59	7363.97 keV

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



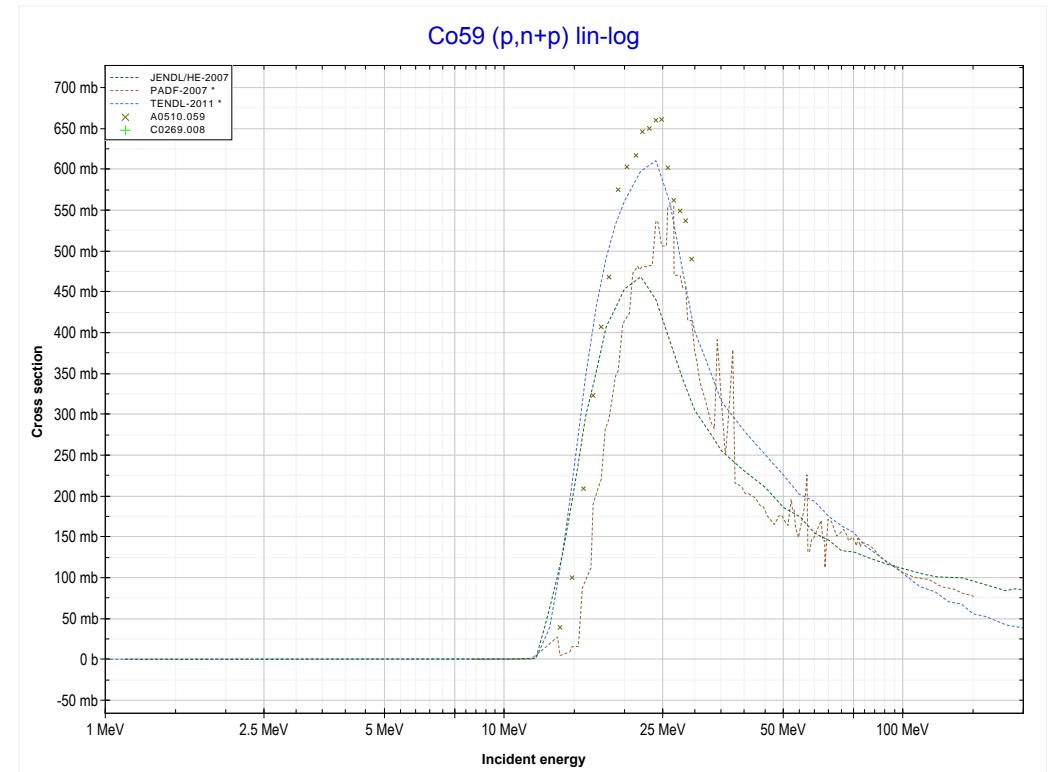
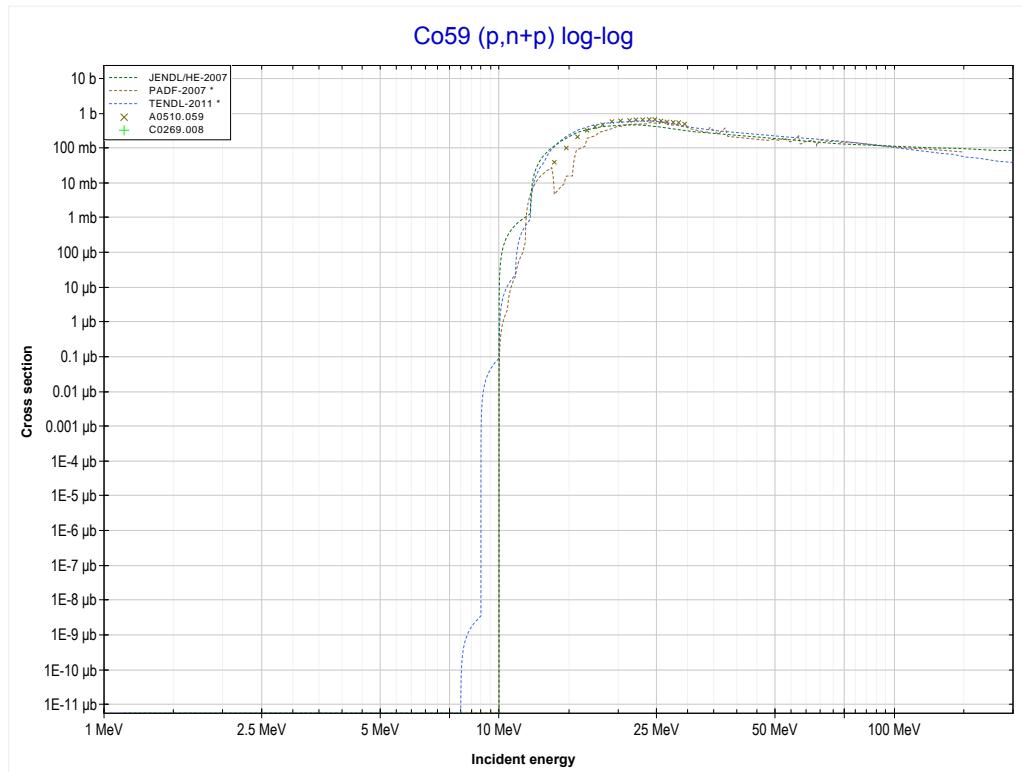
Reaction	Q-Value
Co59(p,n)Ni59	-1855.05 keV

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



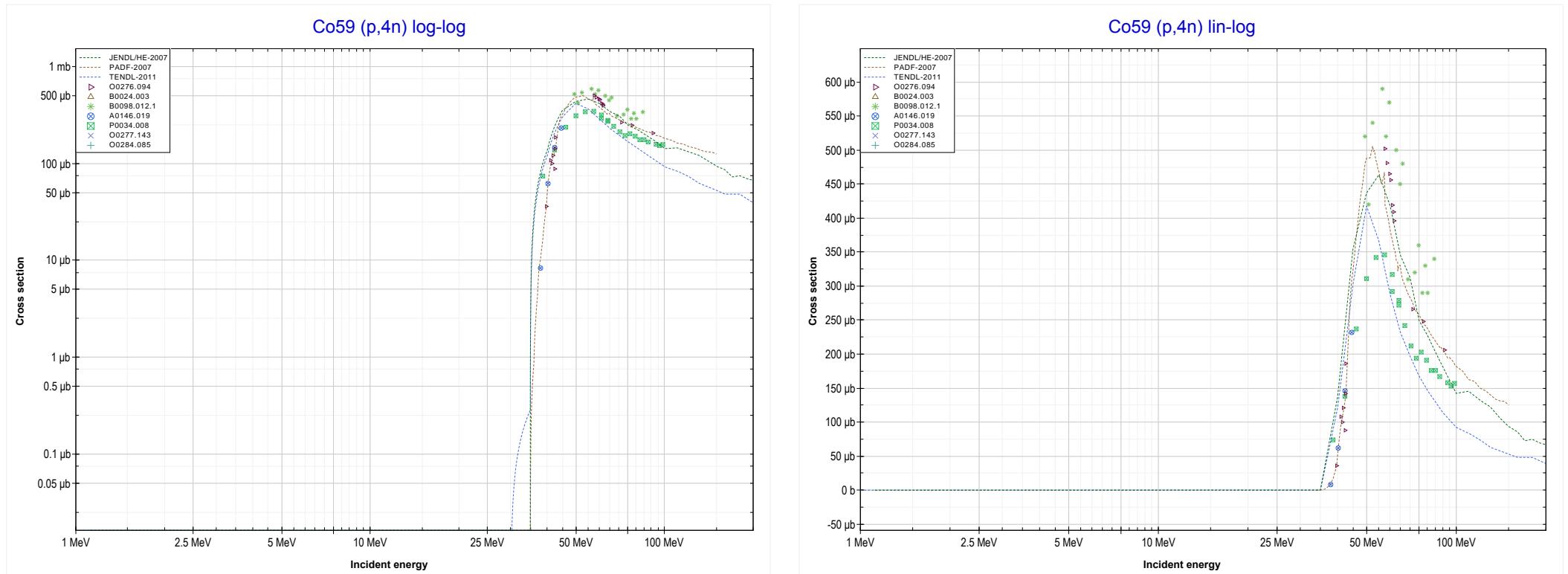
Reaction	Q-Value
Co59(p,3n)Ni57	-23071.38 keV

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



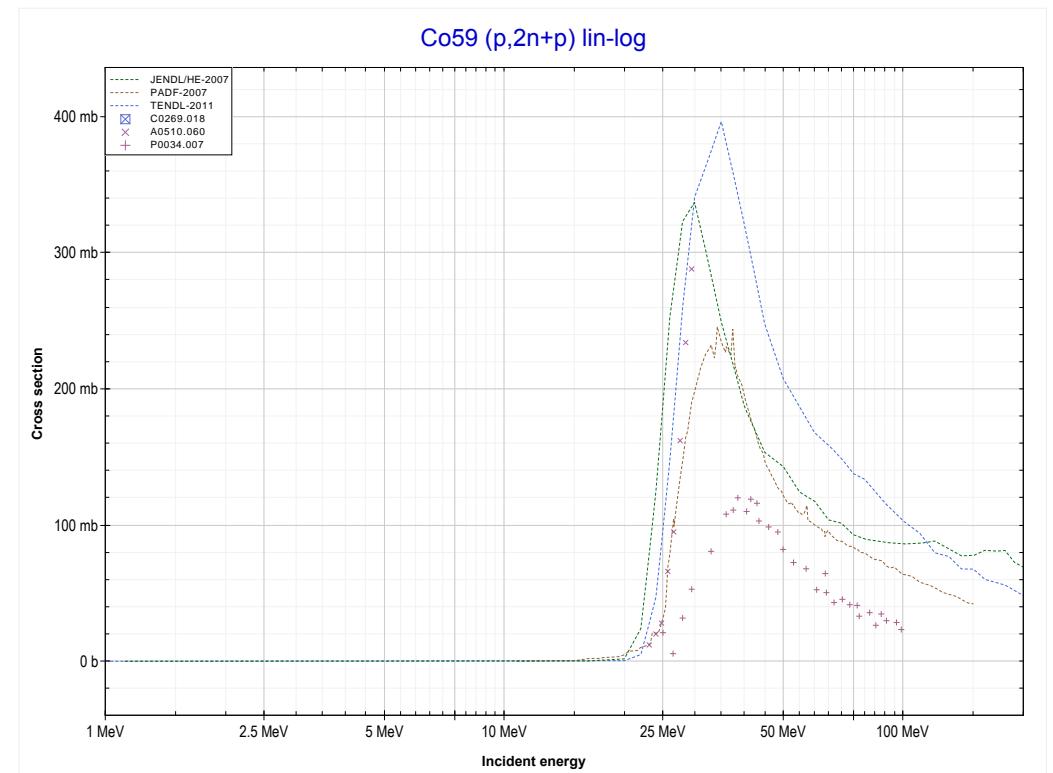
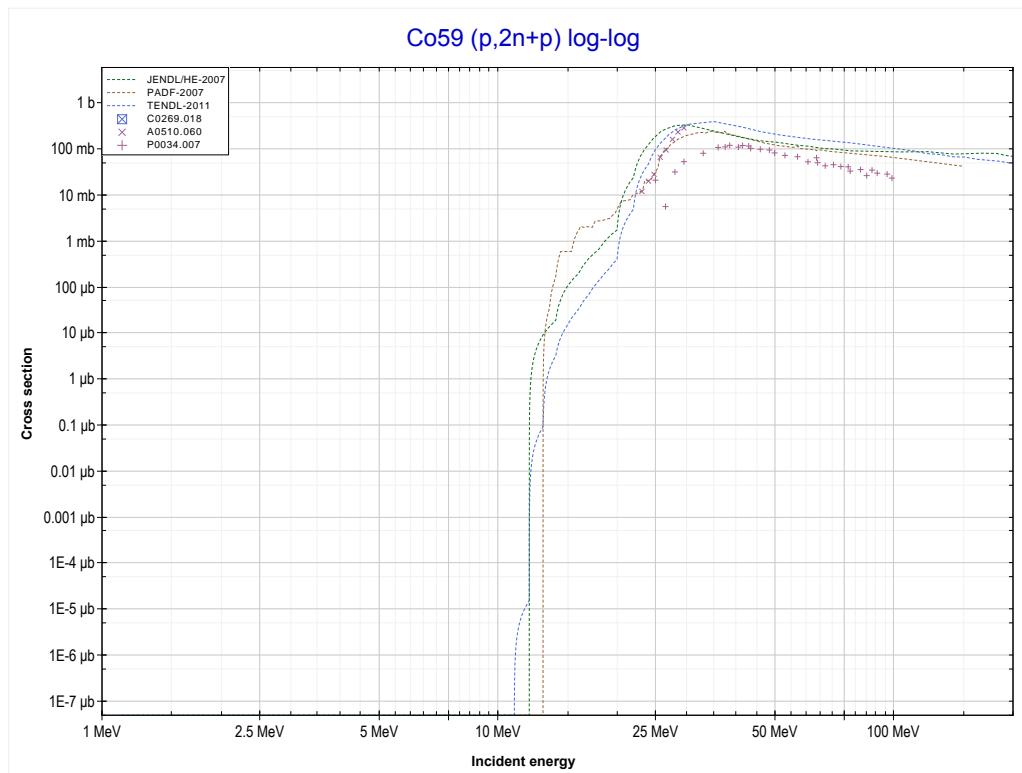
Reaction	Q-Value
$\text{Co}^{59}(\text{p},\text{d})\text{Co}^{58}$	-8229.25 keV
$\text{Co}^{59}(\text{p},\text{n}+\text{p})\text{Co}^{58}$	-10453.82 keV

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



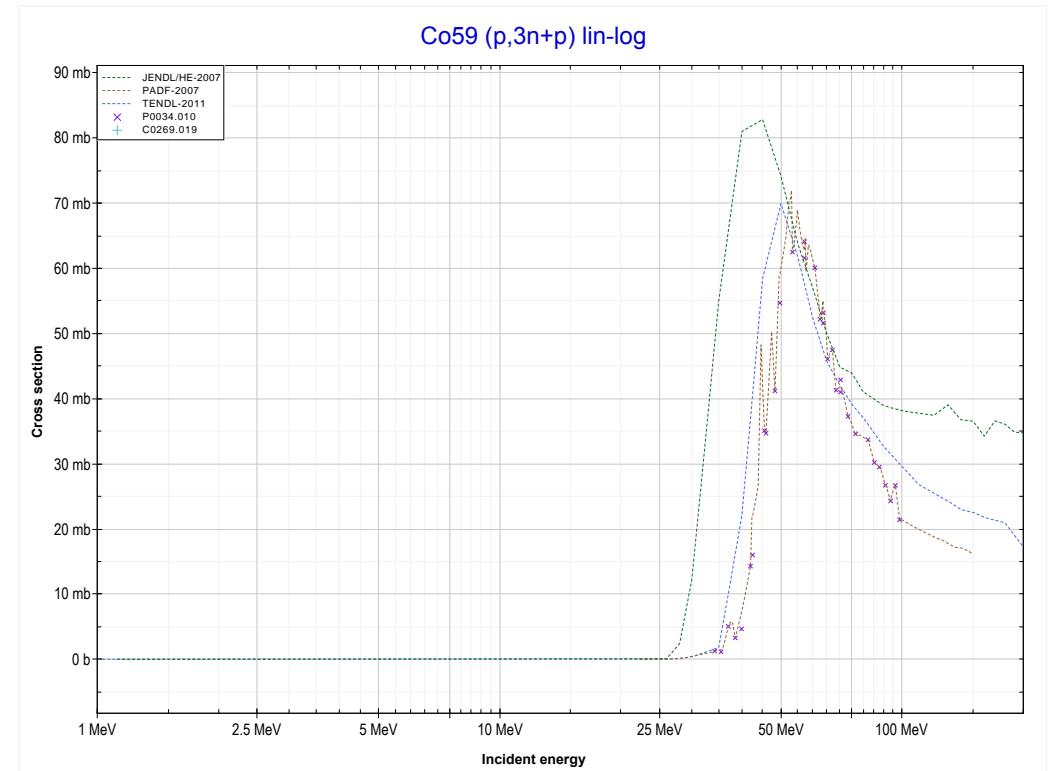
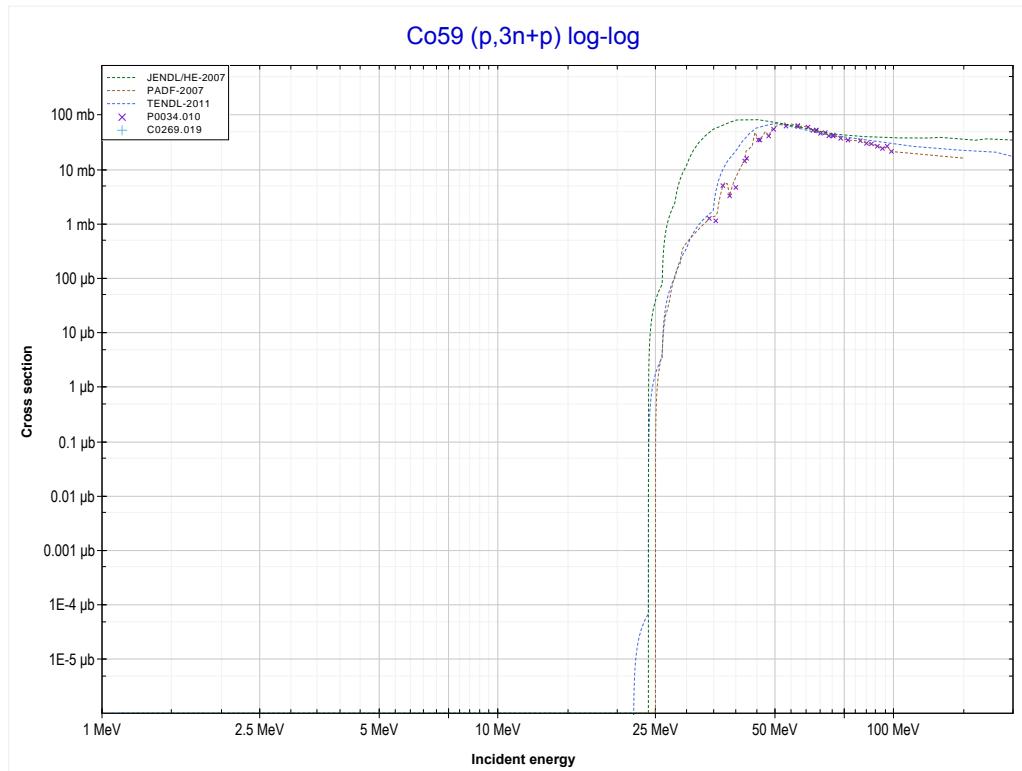
Reaction	Q-Value
Co59(p,4n)Ni56	-33320.70 keV

<< 26-Fe-57	27-Co-59 MT41 (p,2n+p) or MT5 (Co57 production)	28-Ni-58 >>
<< MT37 (p,4n) >>		MT42 (p,3n+p) >>



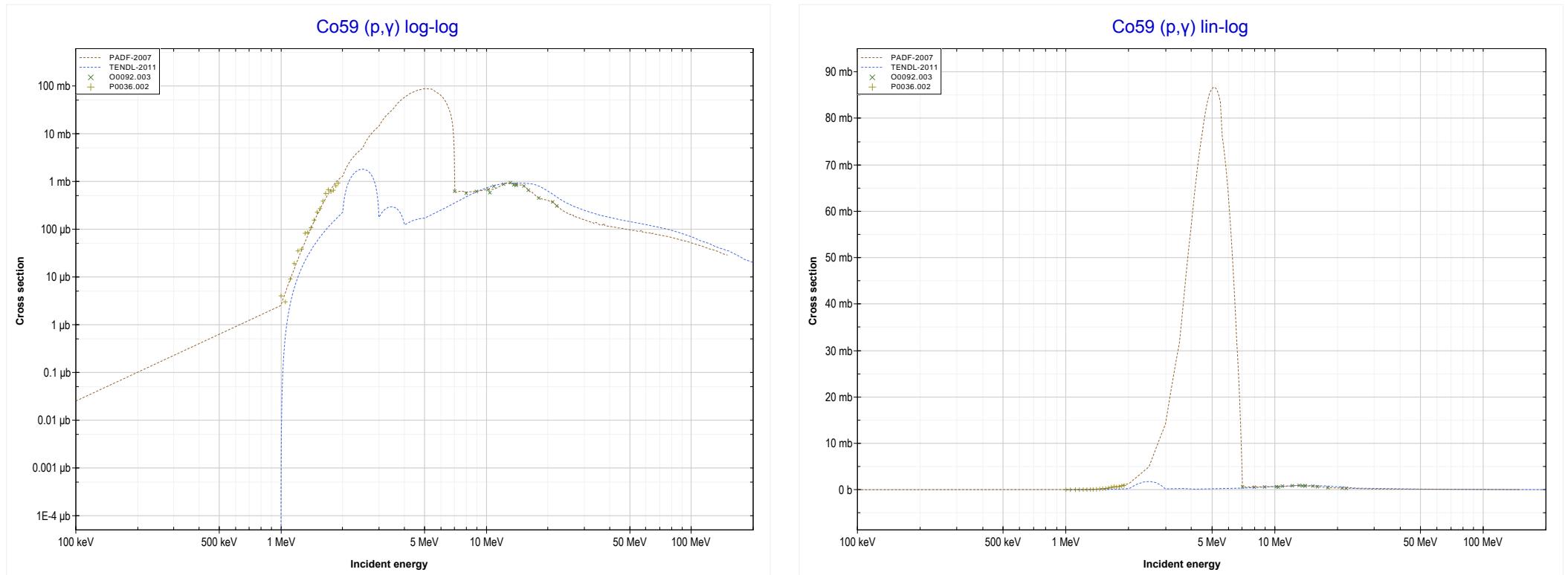
Reaction	Q-Value
Co59(p,t)Co57	-10545.04 keV
Co59(p,n+d)Co57	-16802.27 keV
Co59(p,2n+p)Co57	-19026.83 keV

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

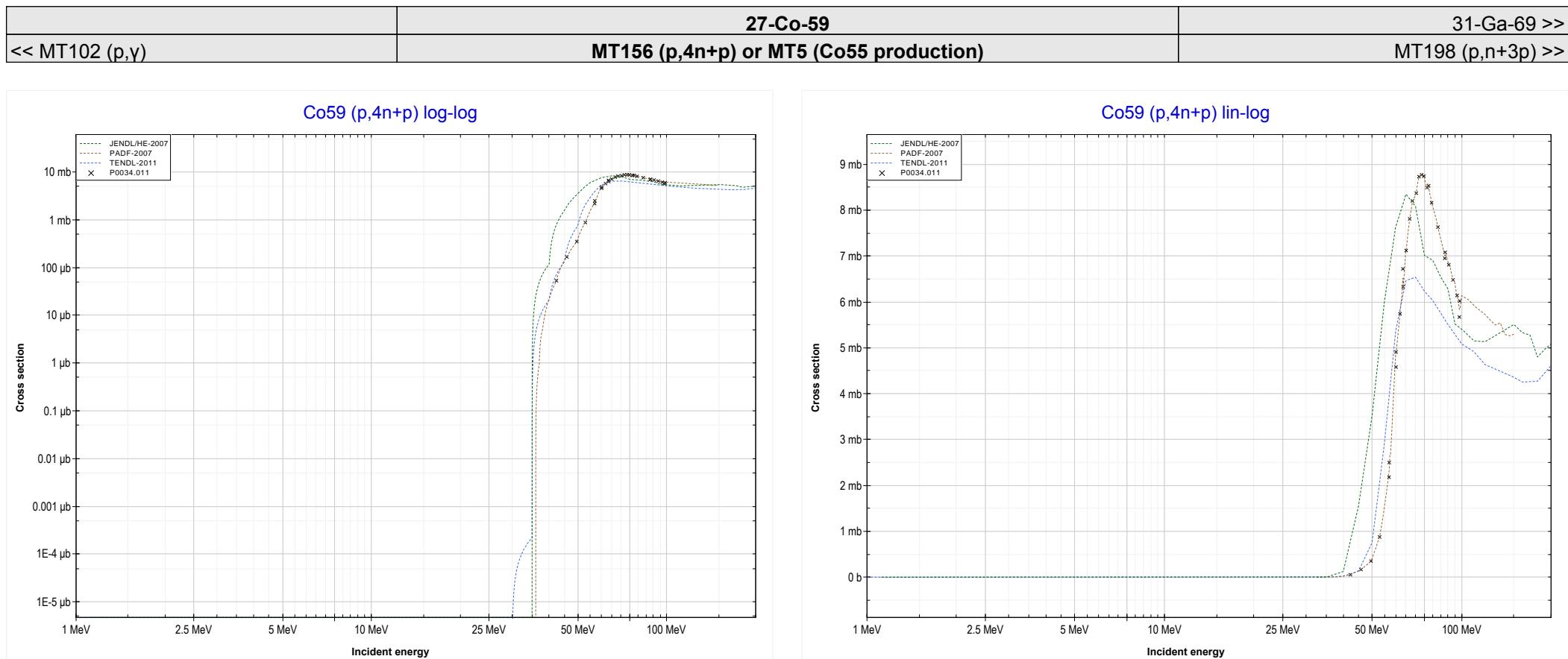


Reaction	Q-Value
Co59(p,n+t)Co56	-21921.15 keV
Co59(p,2n+d)Co56	-28178.39 keV
Co59(p,3n+p)Co56	-30402.95 keV

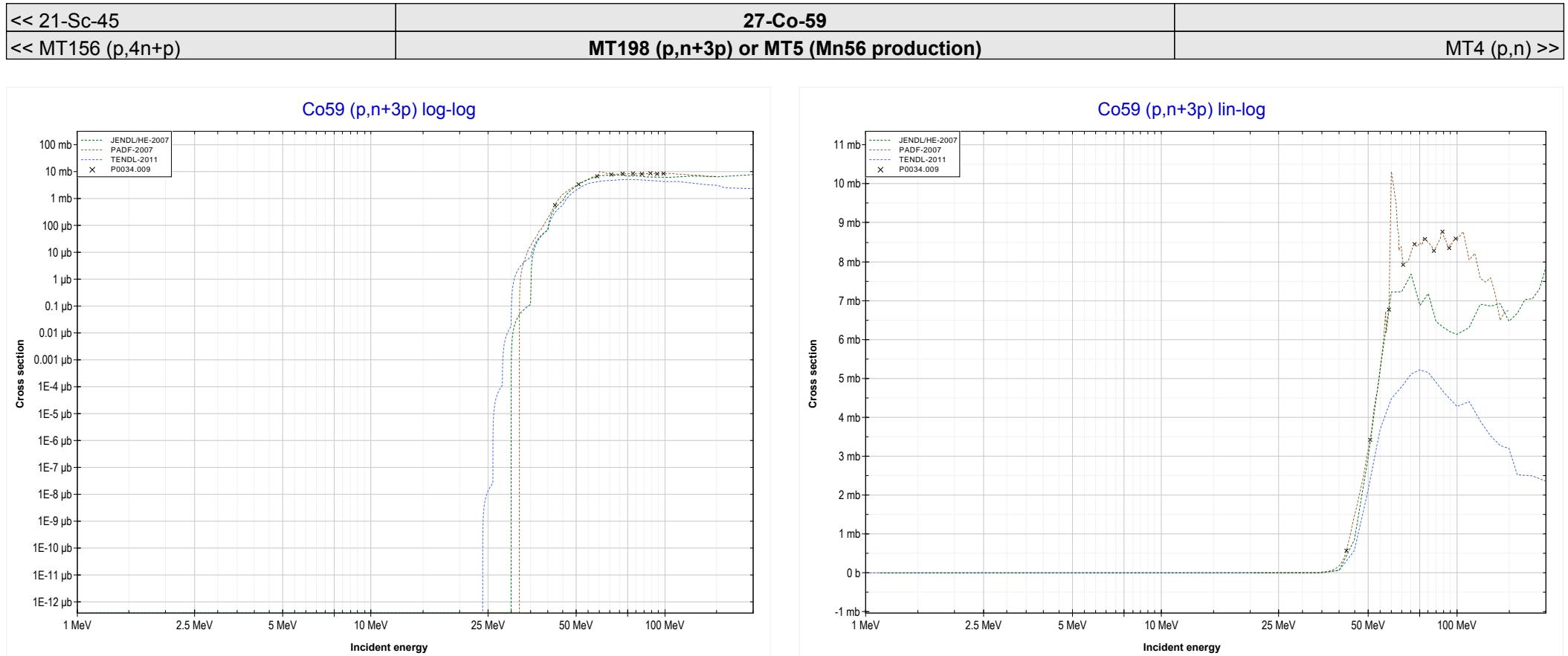
<< 26-Fe-58	27-Co-59 MT102 (p, γ) or MT5 (Ni60 production)	28-Ni-58 >>
<< MT42 (p,3n+p) >>		MT156 (p,4n+p) >>



Reaction	Q-Value
Co59(p, γ)Ni60	9532.67 keV

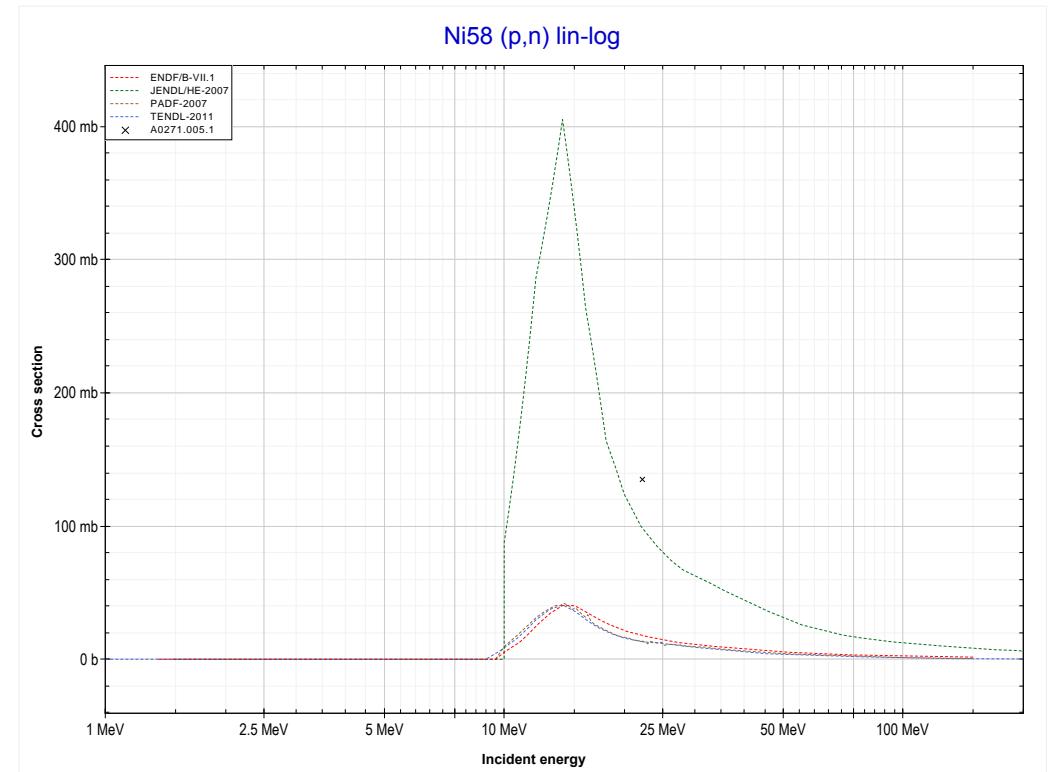
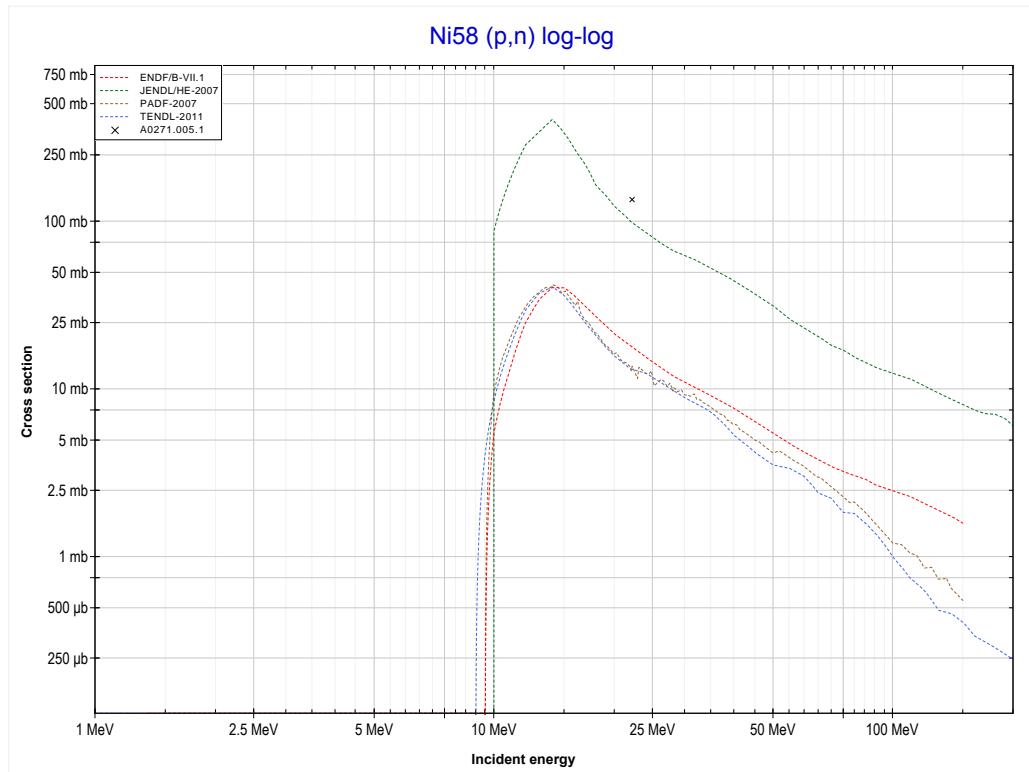


Reaction	Q-Value
Co59(p,2n+t)Co55	-32004.27 keV
Co59(p,3n+d)Co55	-38261.50 keV
Co59(p,4n+p)Co55	-40486.07 keV



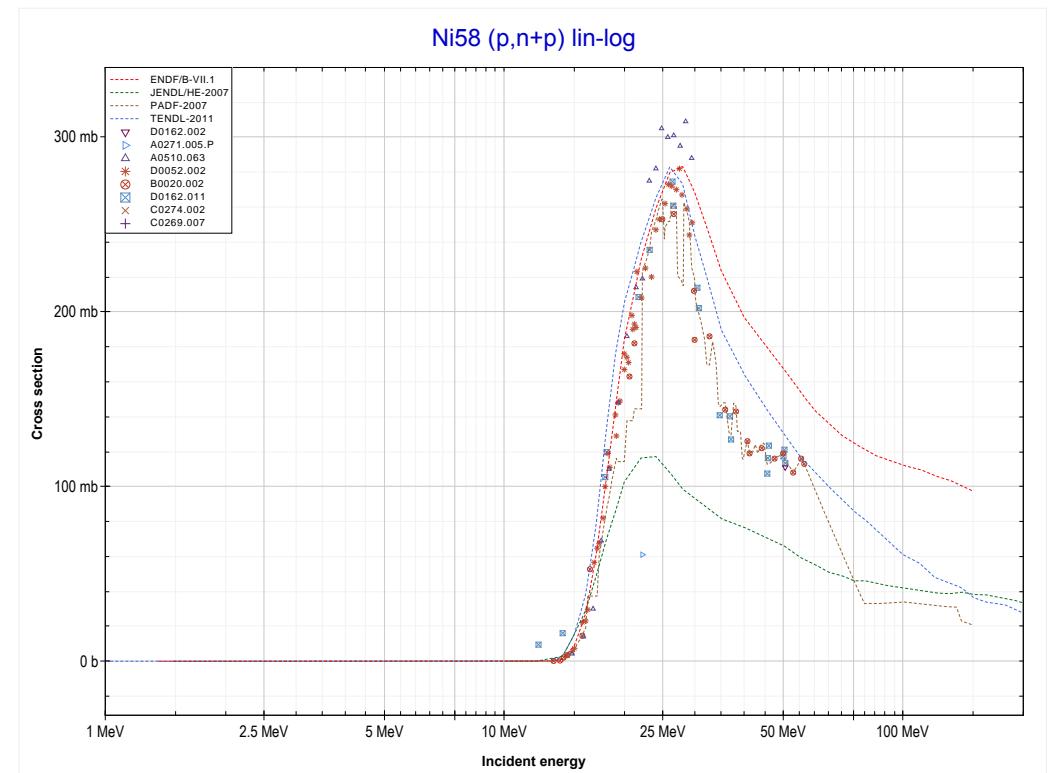
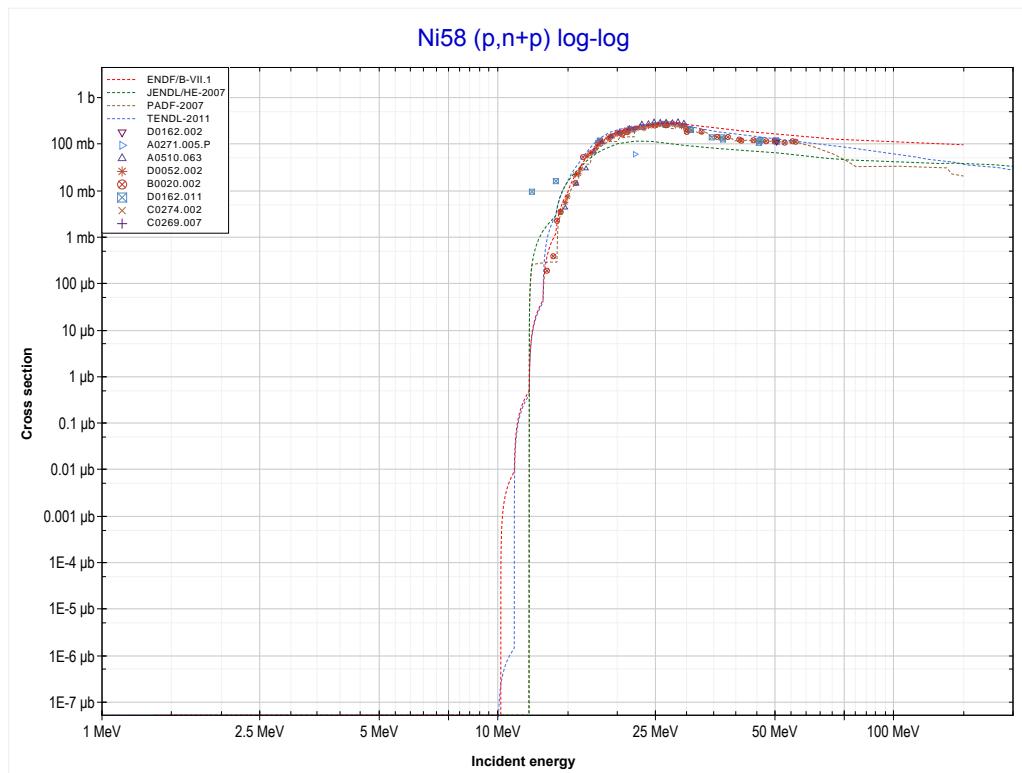
Reaction	Q-Value
Co59(p,p+He3)Mn56	-20249.91 keV
Co59(p,2p+d)Mn56	-25743.39 keV
Co59(p,n+3p)Mn56	-27967.96 keV

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



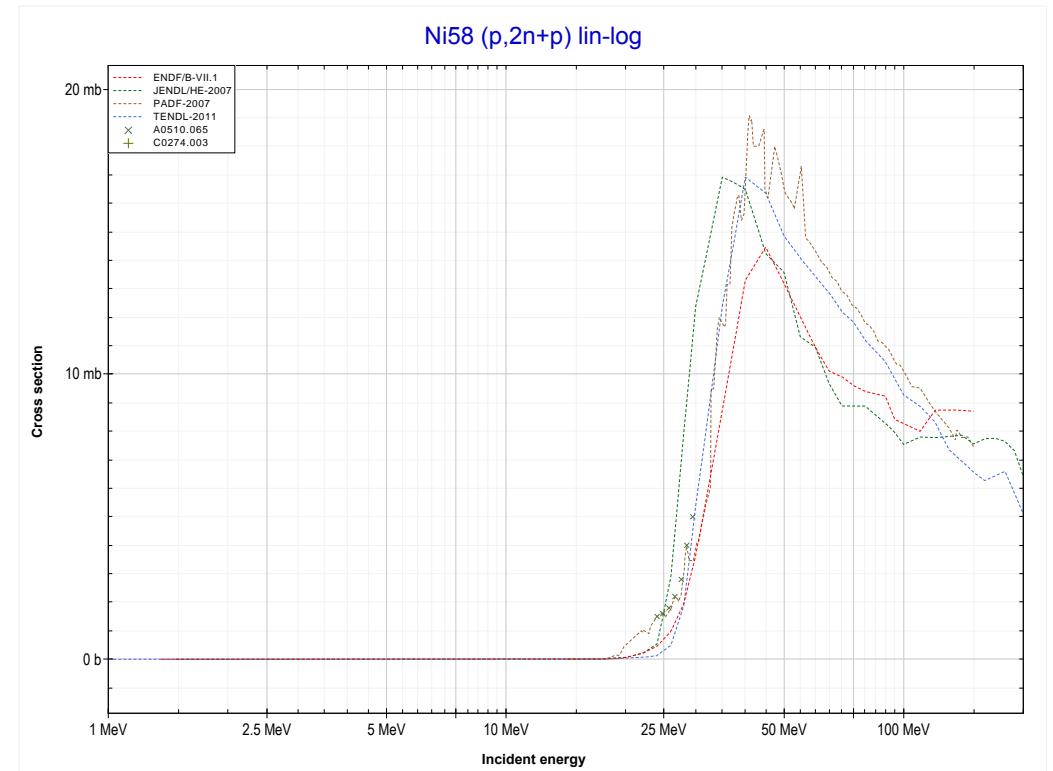
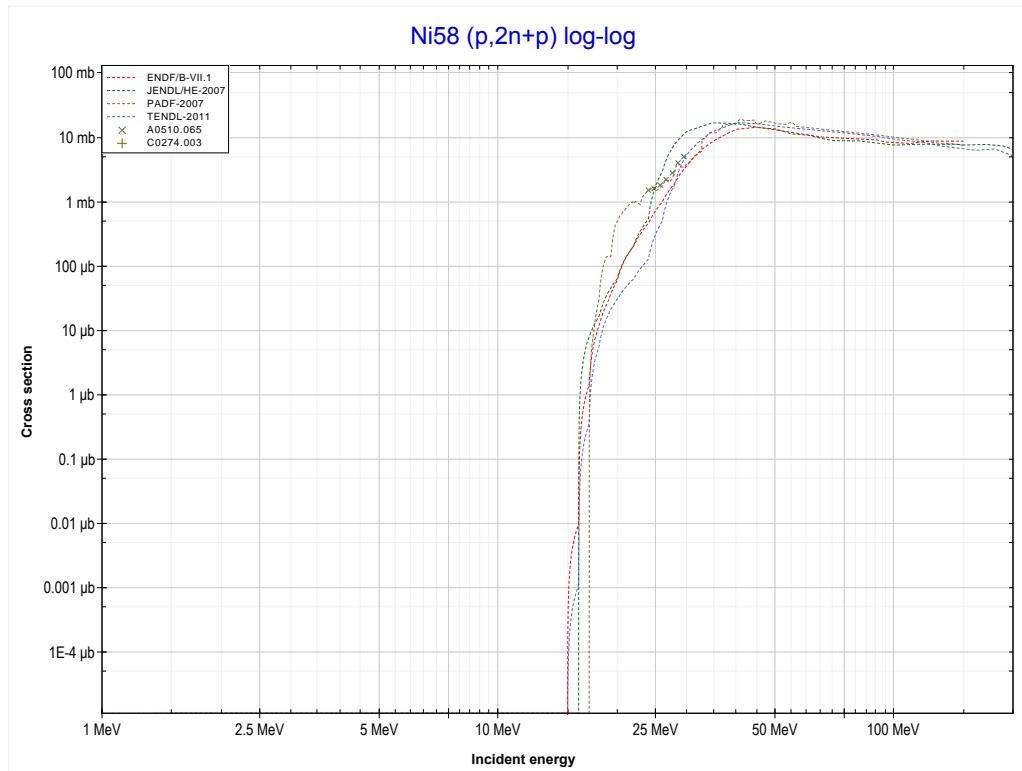
Reaction	Q-Value
Ni58(p,n)Cu58	-9347.95 keV

<< 27-Co-59	28-Ni-58 MT28 (p,n+p) or MT5 (Ni57 production)	28-Ni-60 >>
<< MT4 (p,n) >>		MT41 (p,2n+p) >>



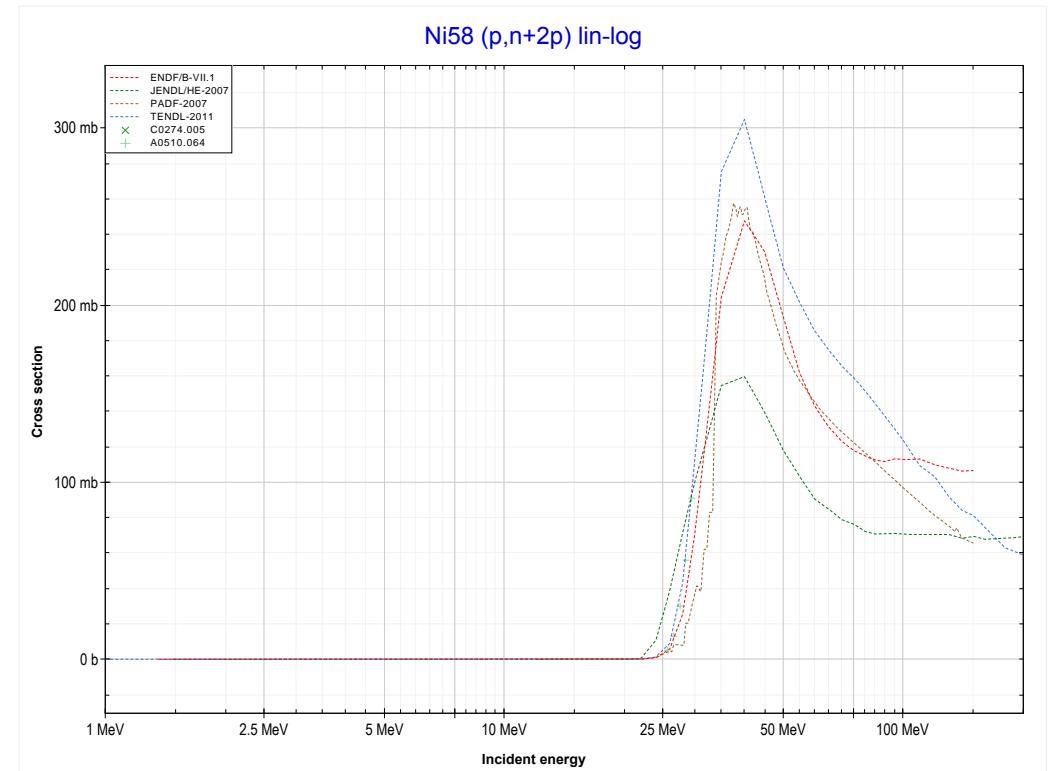
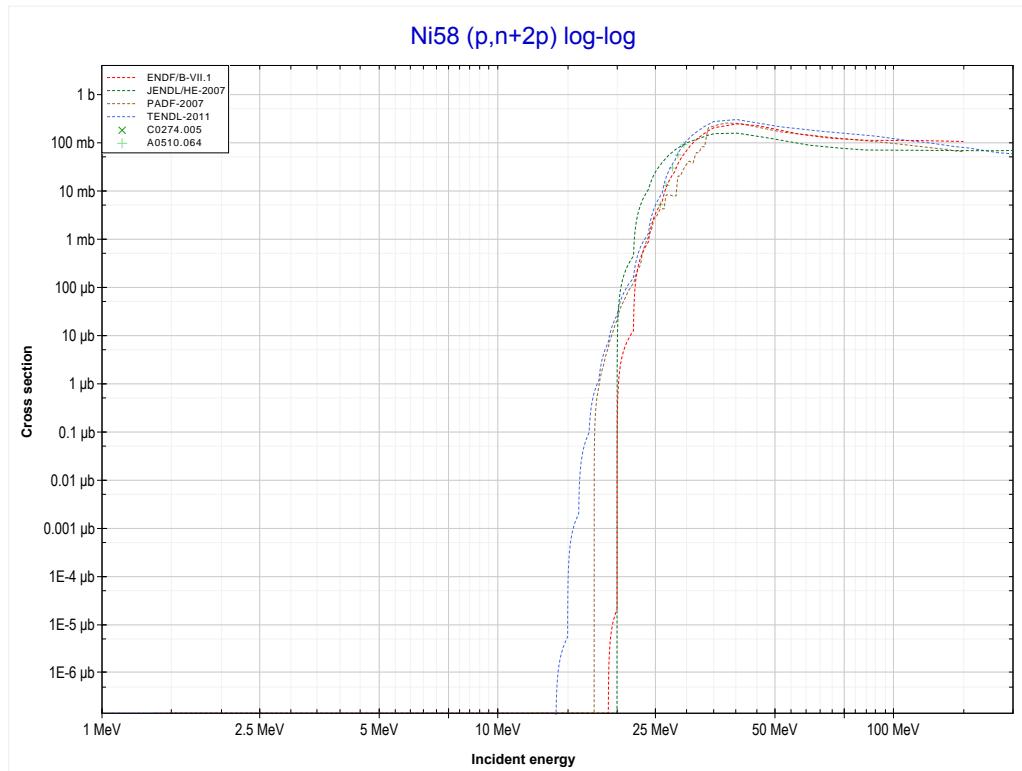
Reaction	Q-Value
Ni58(p,d)Ni57	-9992.45 keV
Ni58(p,n+p)Ni57	-12217.02 keV

<< 27-Co-59	28-Ni-58 MT41 (p,2n+p) or MT5 (Ni56 production)	29-Cu-63 >>
<< MT28 (p,n+p) >>		MT44 (p,n+2p) >>



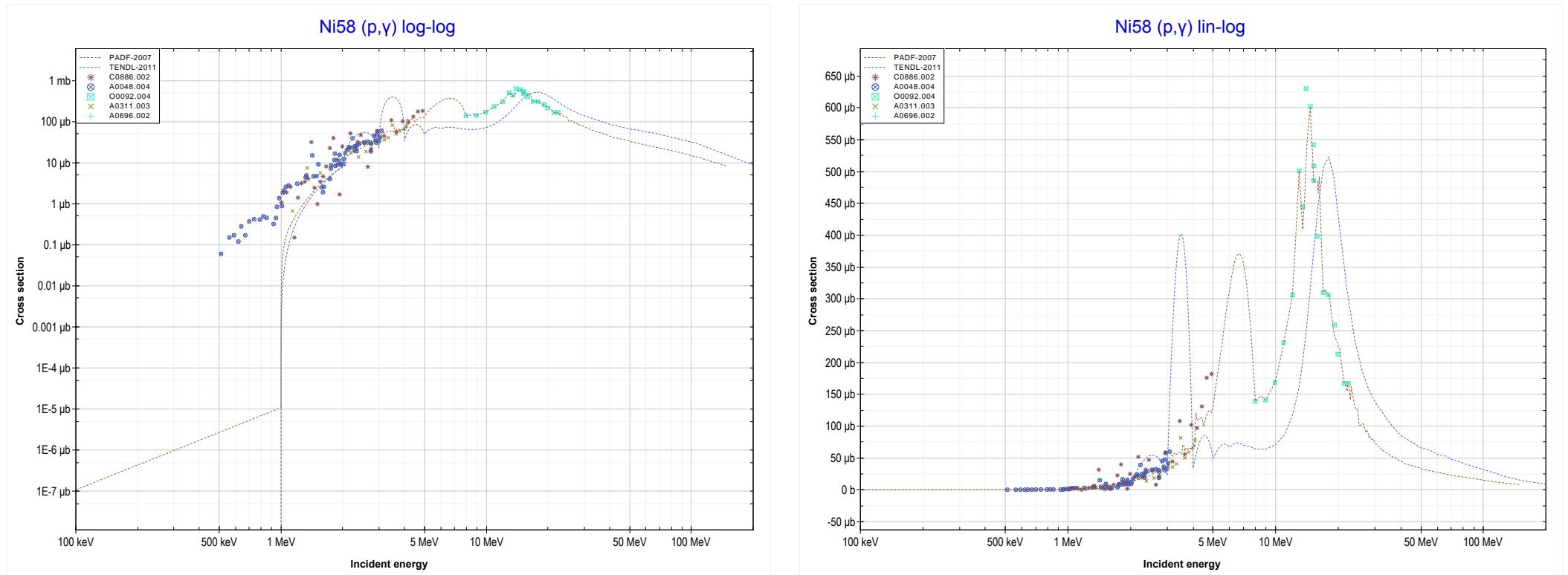
Reaction	Q-Value
Ni58(p,t)Ni56	-13984.54 keV
Ni58(p,n+d)Ni56	-20241.77 keV
Ni58(p,2n+p)Ni56	-22466.33 keV

<< 24-Cr-50	28-Ni-58	28-Ni-60 >>
<< MT41 (p,2n+p)	MT44 (p,n+2p) or MT5 (Co56 production)	MT102 (p,y) >>



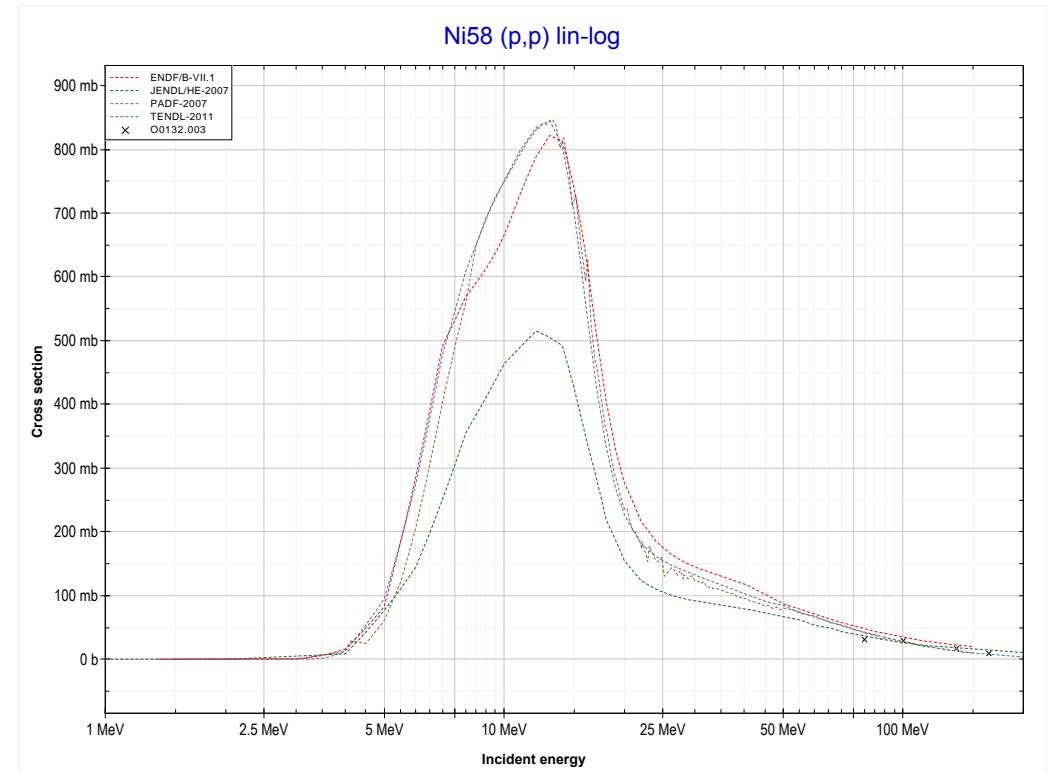
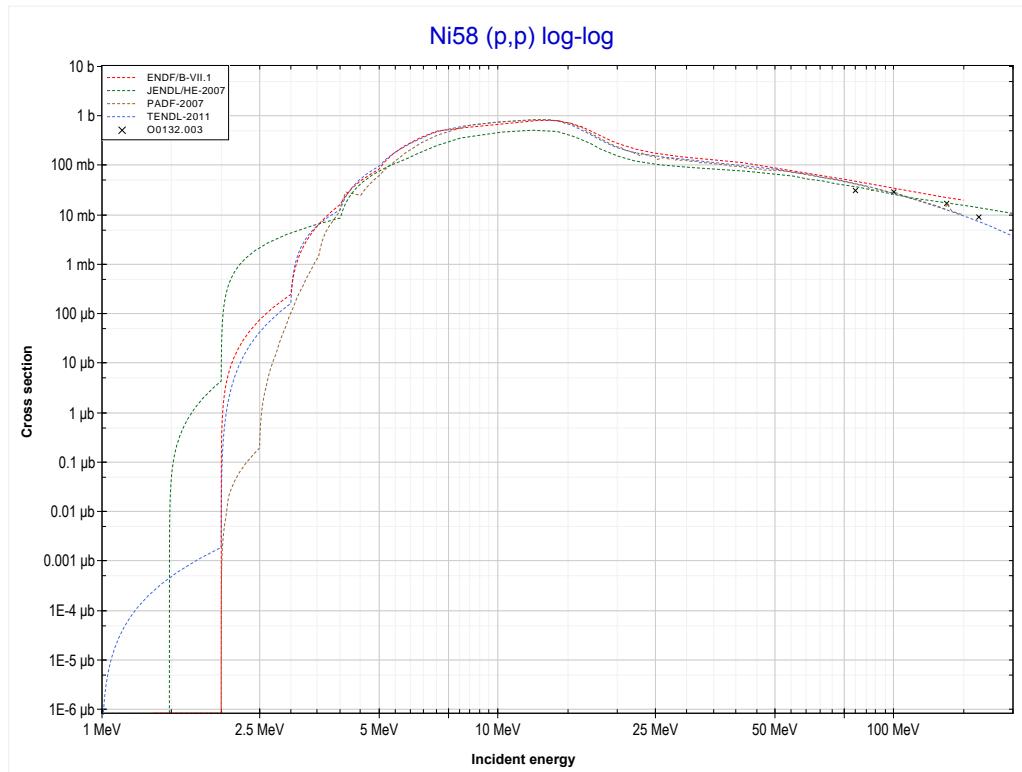
Reaction	Q-Value
Ni58(p,He3)Co56	-11830.54 keV
Ni58(p,p+d)Co56	-17324.02 keV
Ni58(p,n+2p)Co56	-19548.59 keV

<< 27-Co-59	28-Ni-58 MT102 (p, γ) or MT5 (Cu59 production)	28-Ni-60 >>
<< MT44 (p,n+2p)		MT103 (p,p) >>



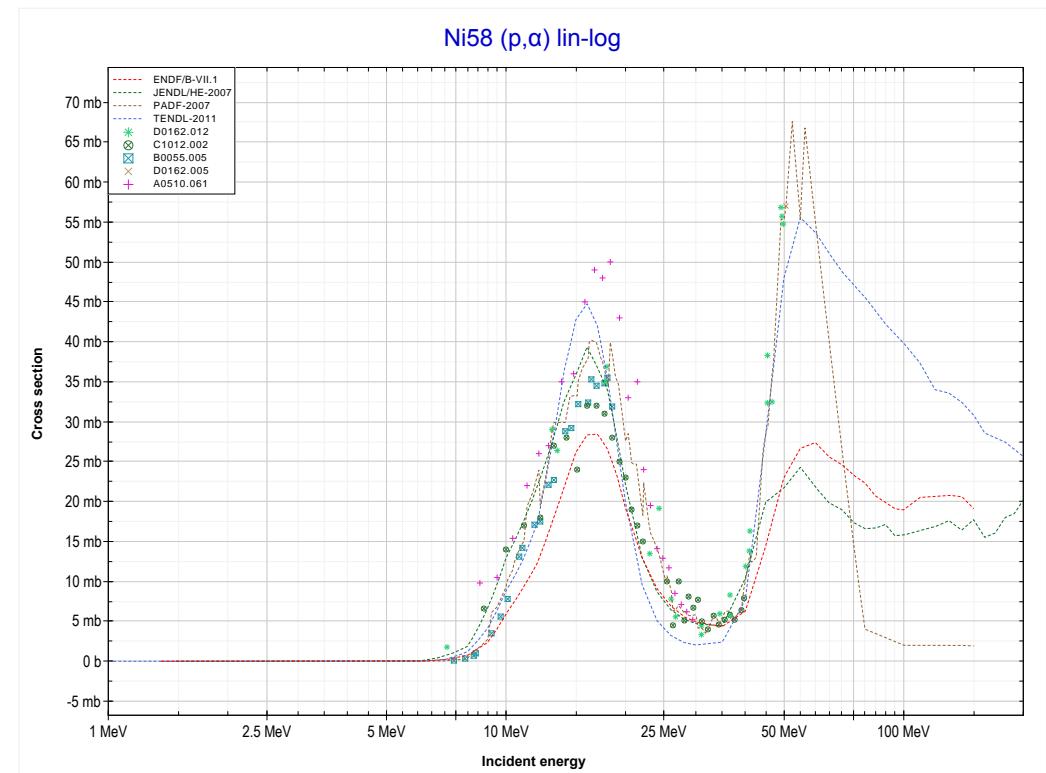
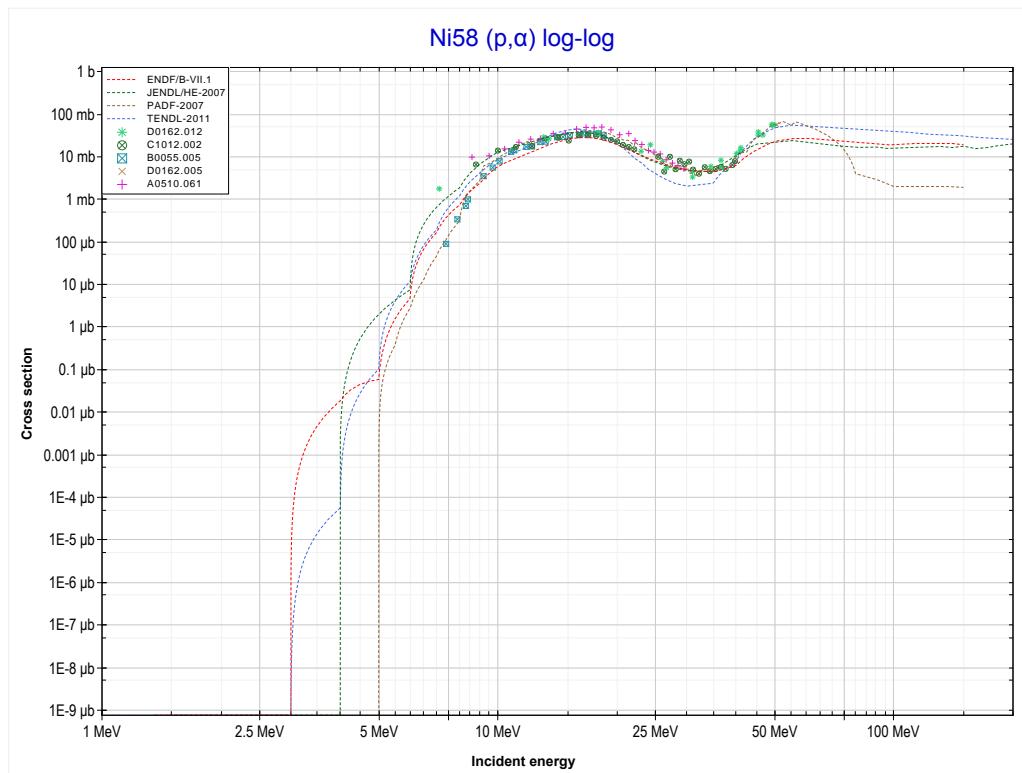
Reaction	Q-Value
$\text{Ni}^{58}(p,\gamma)\text{Cu}^{59}$	3418.47 keV

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



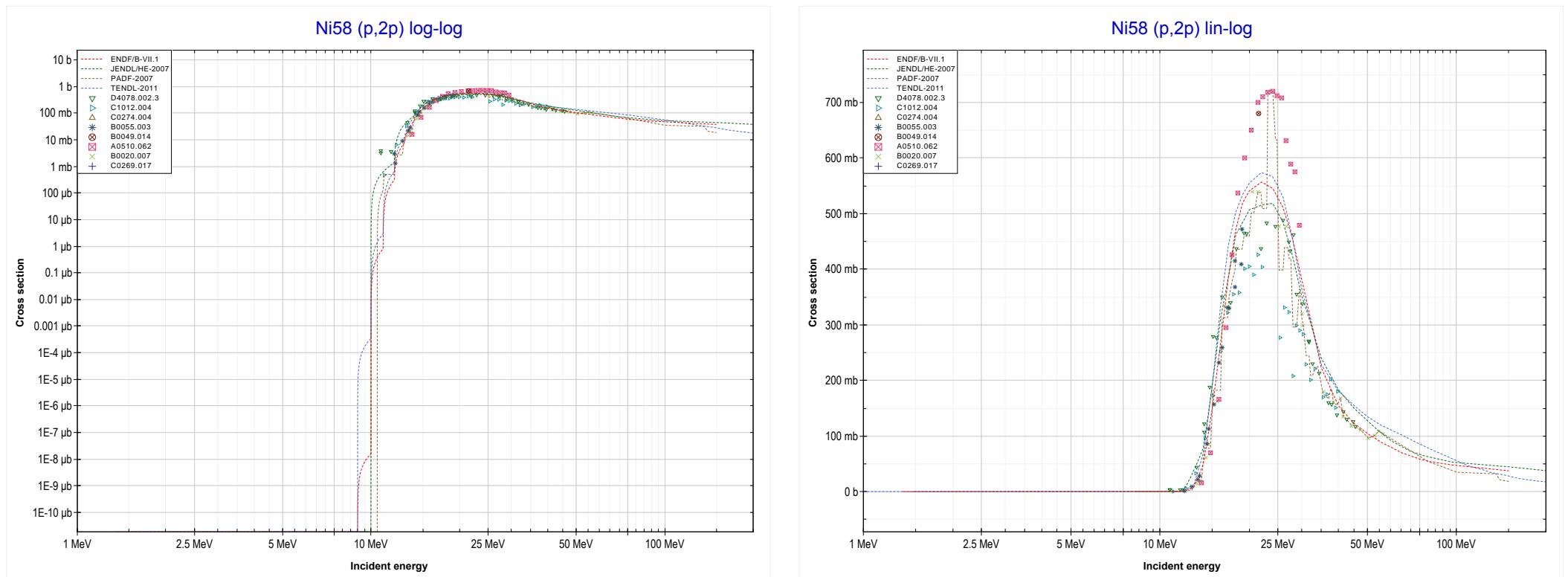
Reaction	Q-Value
Ni58(p,p)Ni58	0.00 keV

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



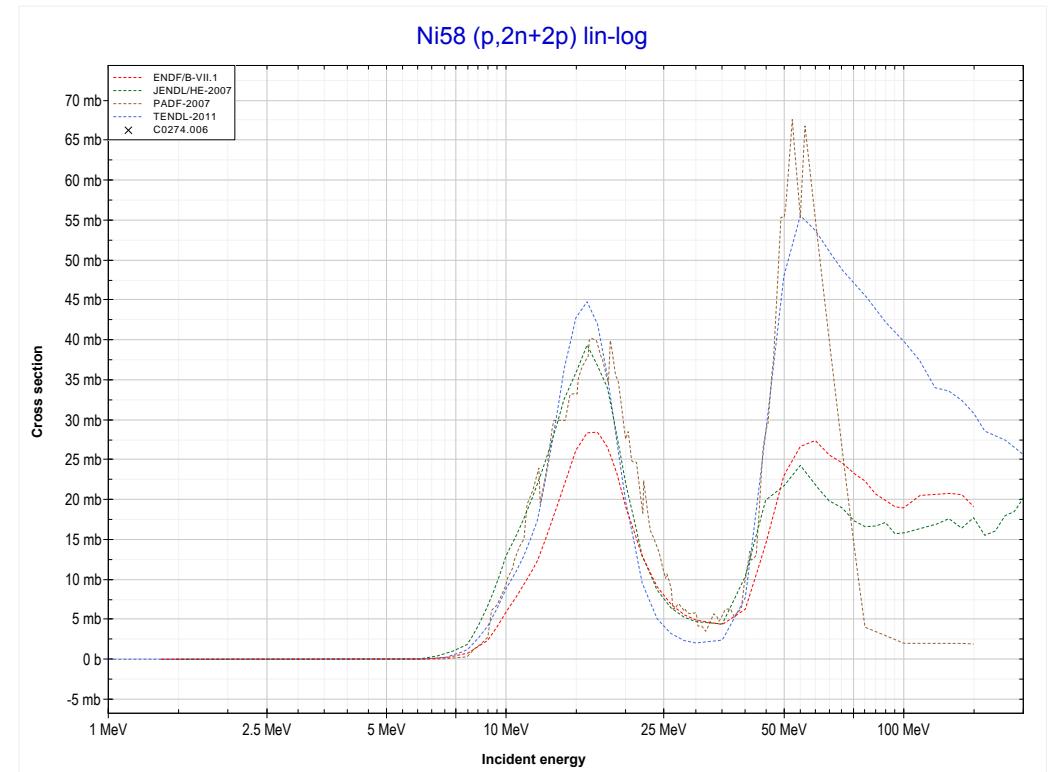
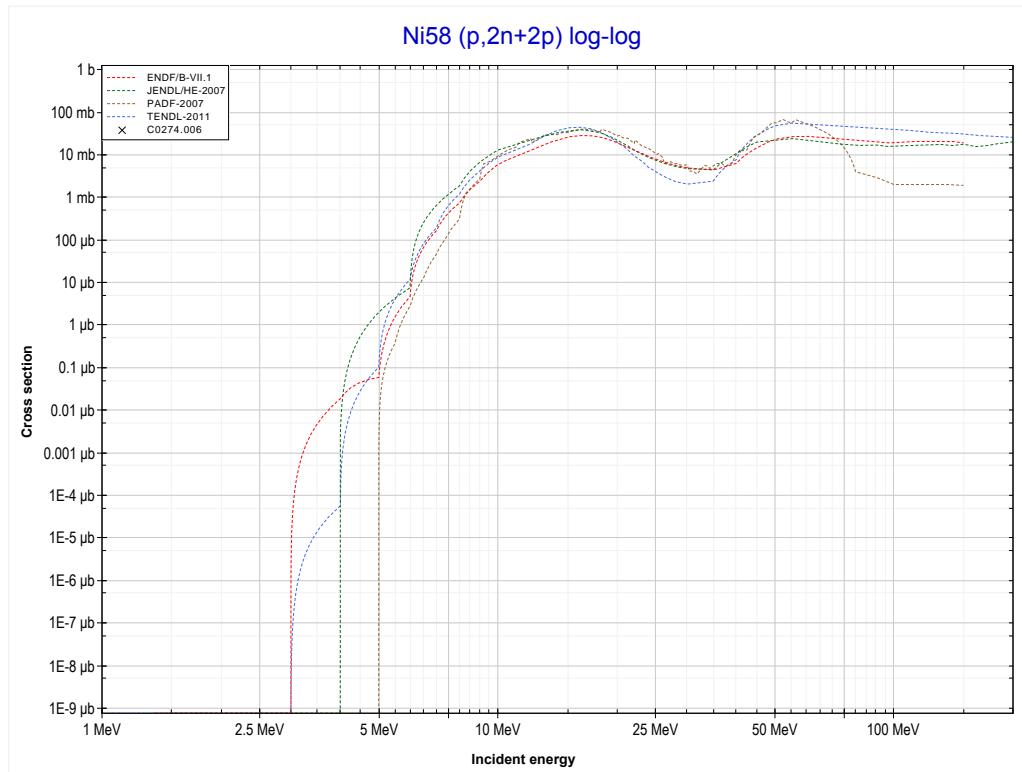
Reaction	Q-Value
Ni88(p,α)Co55	-1336.05 keV
Ni88($p,p+t$)Co55	-21149.91 keV
Ni88($p,n+He3$)Co55	-21913.66 keV
Ni88($p,2d$)Co55	-25182.57 keV
Ni88($p,n+p+d$)Co55	-27407.14 keV
Ni88($p,2n+2p$)Co55	-29631.70 keV

<< 26-Fe-57	28-Ni-58 MT111 (p,2p) or MT5 (Co57 production)	28-Ni-62 >>
<< MT107 (p, α)		MT190 (p,2n+2p) >>



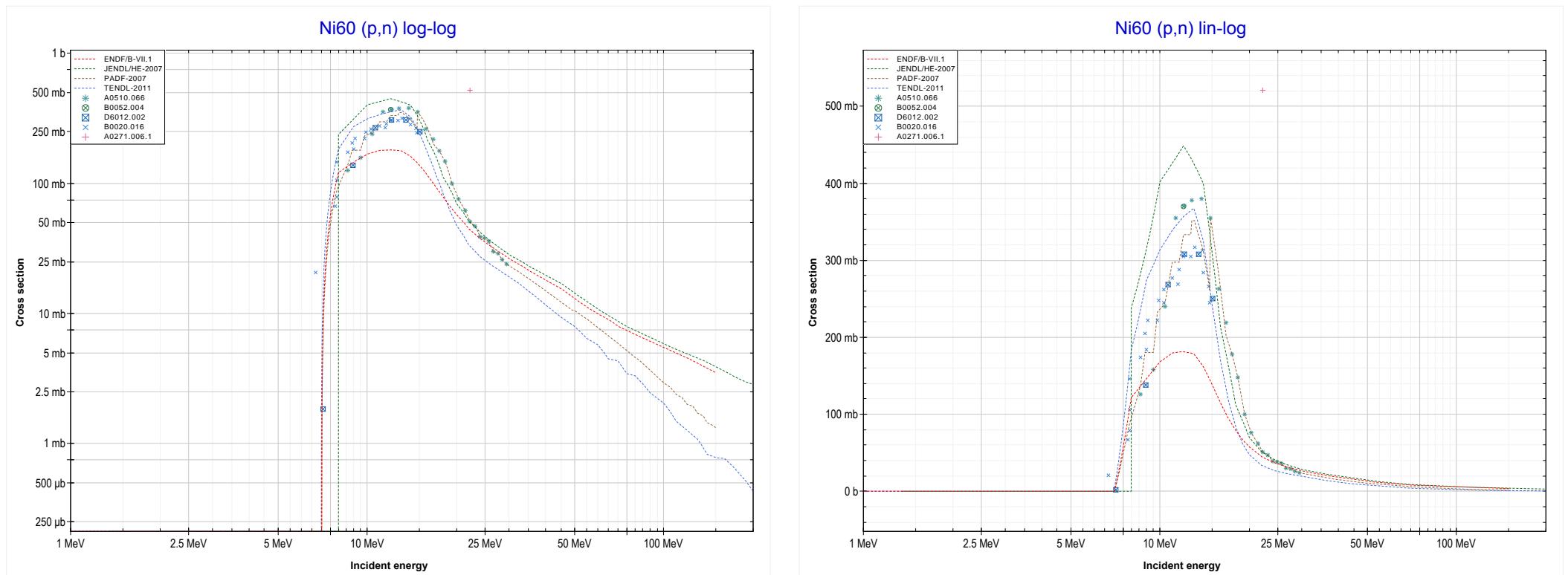
Reaction	Q-Value
Ni58(p,2p)Co57	-8172.47 keV

<< 24-Cr-50	28-Ni-58 MT190 (p,2n+2p) or MT5 (Co55 production)	30-Zn-64 >>
<< MT111 (p,2p)		MT4 (p,n) >>



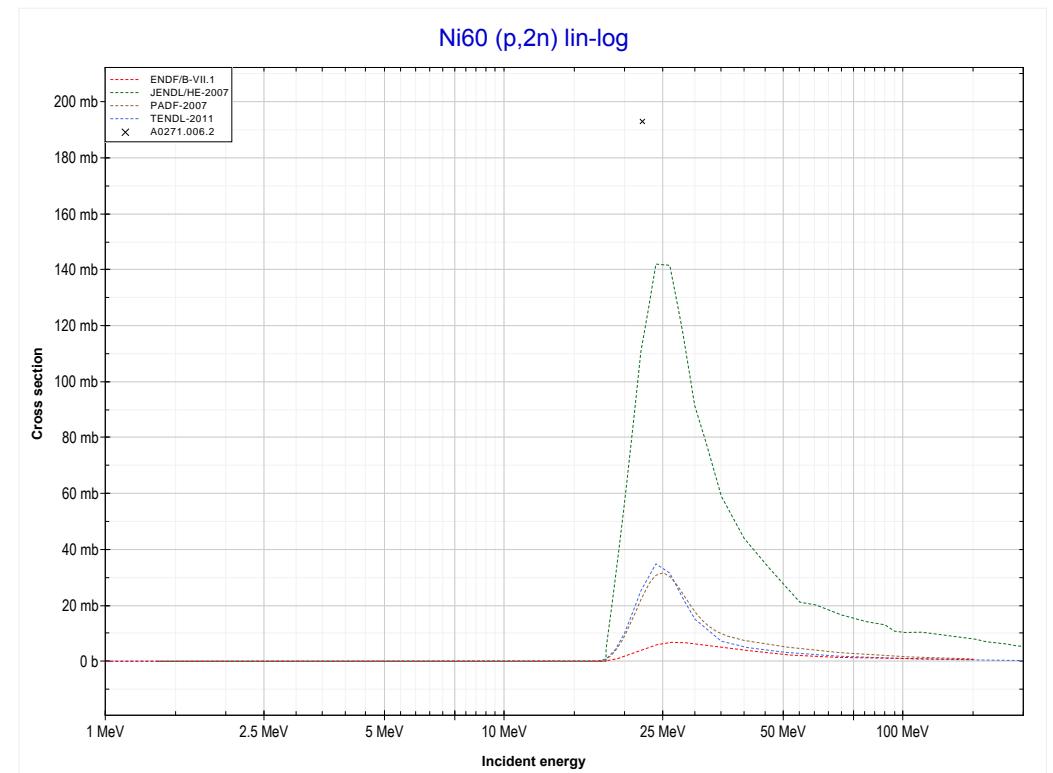
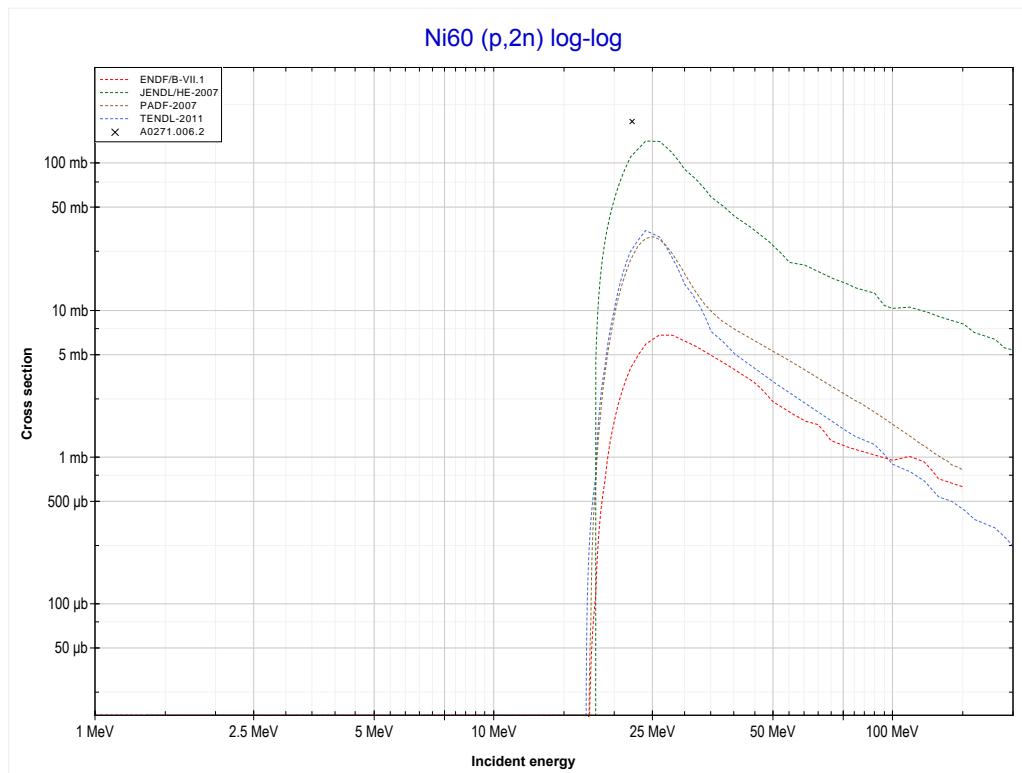
Reaction	Q-Value
Ni58(p, α)Co55	-1336.05 keV
Ni58(p,p+t)Co55	-21149.91 keV
Ni58(p,n+He3)Co55	-21913.66 keV
Ni58(p,2d)Co55	-25182.57 keV
Ni58(p,n+p+d)Co55	-27407.14 keV
Ni58(p,2n+2p)Co55	-29631.70 keV

<< 28-Ni-58	28-Ni-60 MT4 (p,n) or MT5 (Cu60 production)	>> 28-Ni-61
<< MT190 (p,2n+2p)		MT16 (p,2n) >>



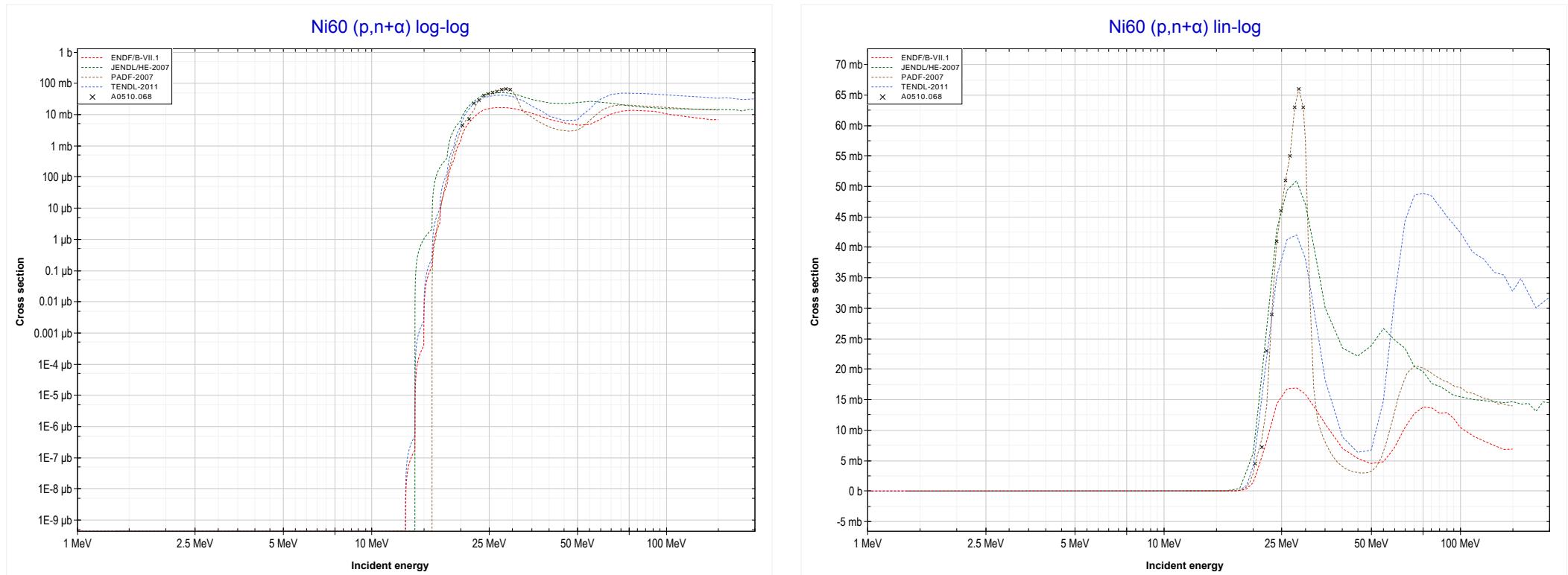
Reaction	Q-Value
Ni60(p,n)Cu60	-6910.35 keV

<< 26-Fe-58	28-Ni-60 MT16 (p,2n) or MT5 (Cu59 production)	28-Ni-61 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



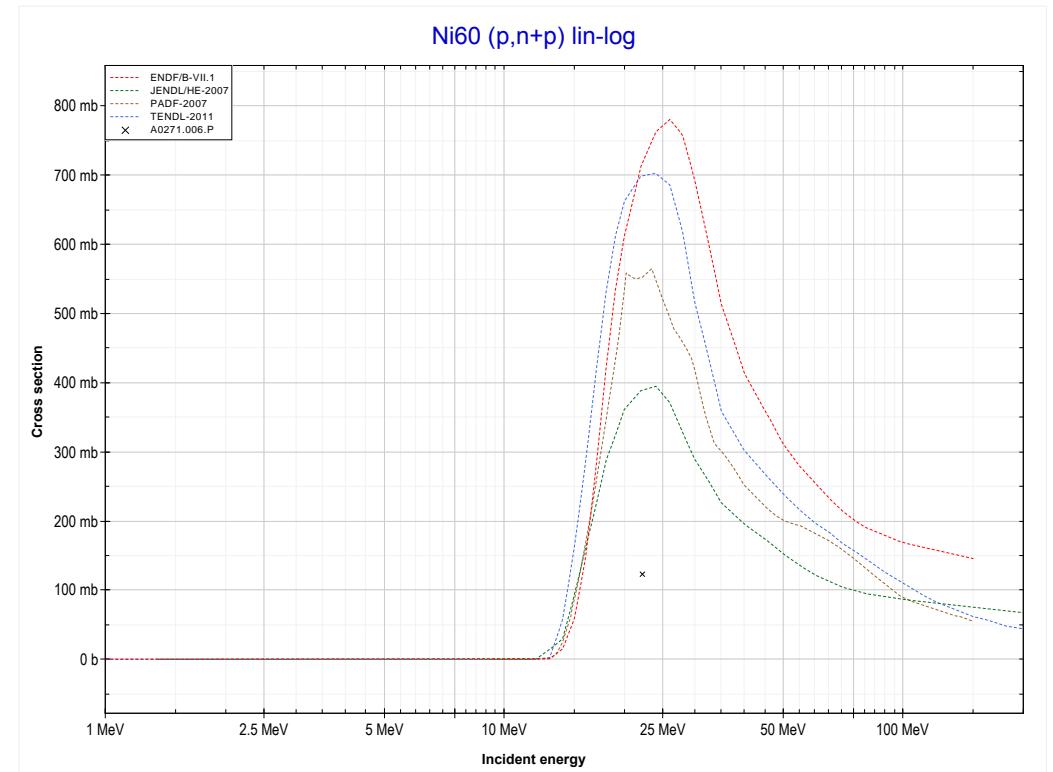
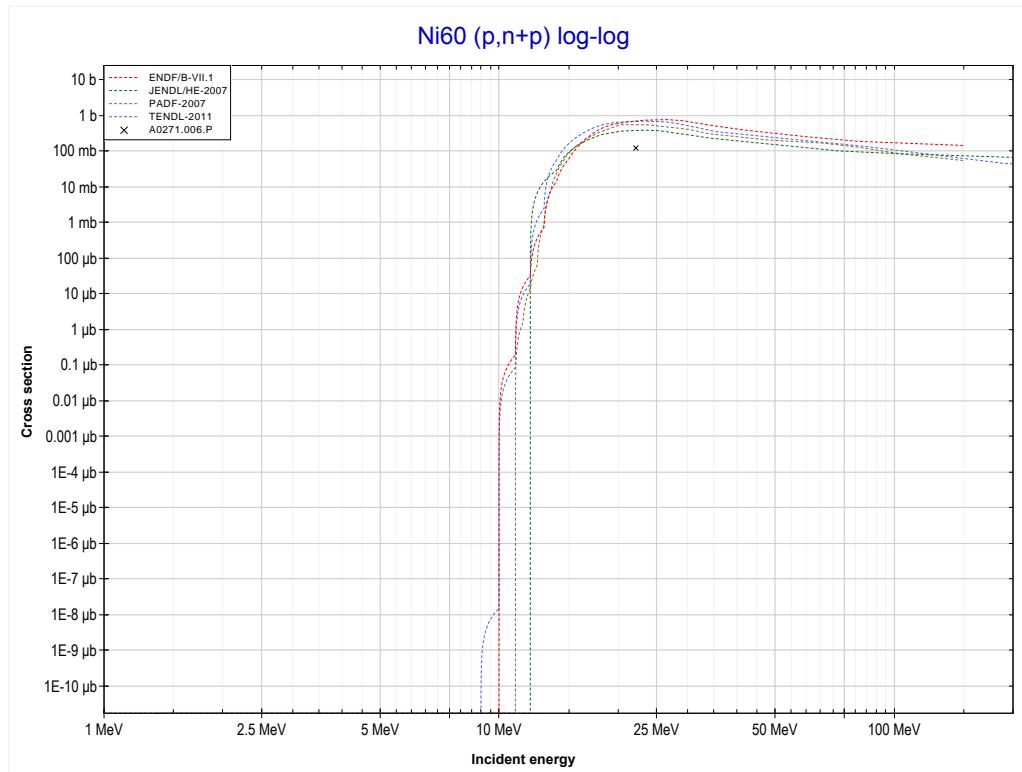
Reaction	Q-Value
Ni60(p,2n)Cu59	-16968.56 keV

<< 26-Fe-58	28-Ni-60 MT22 (p,n+α) or MT5 (Co56 production)	28-Ni-62 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>



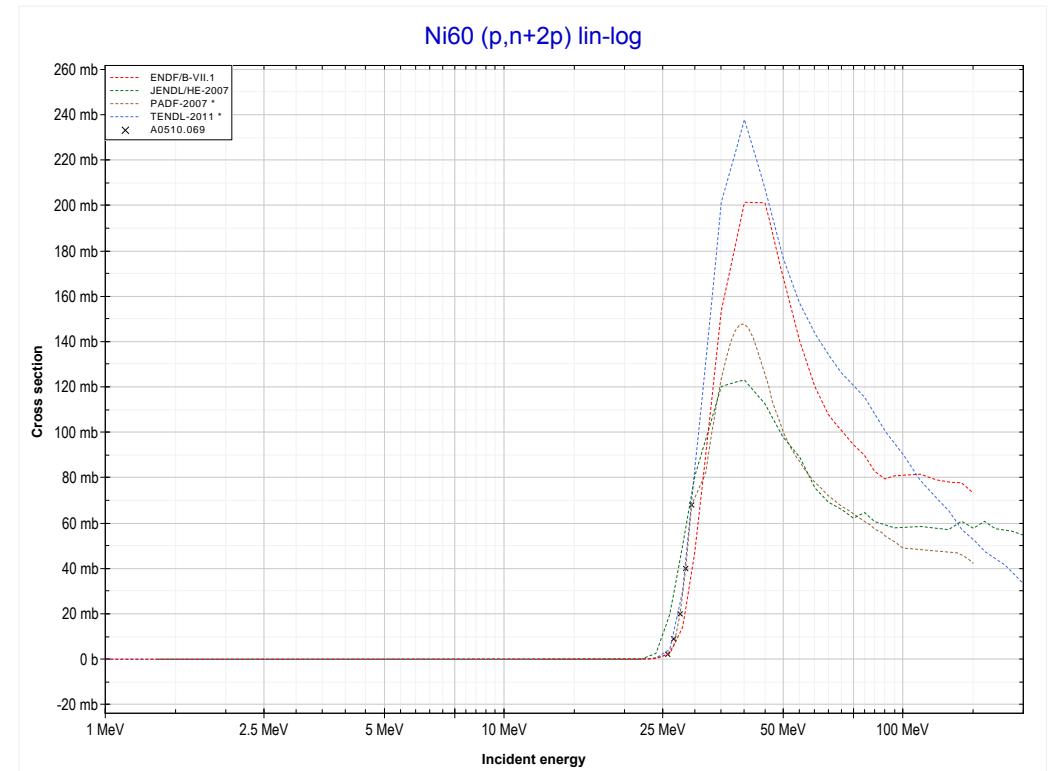
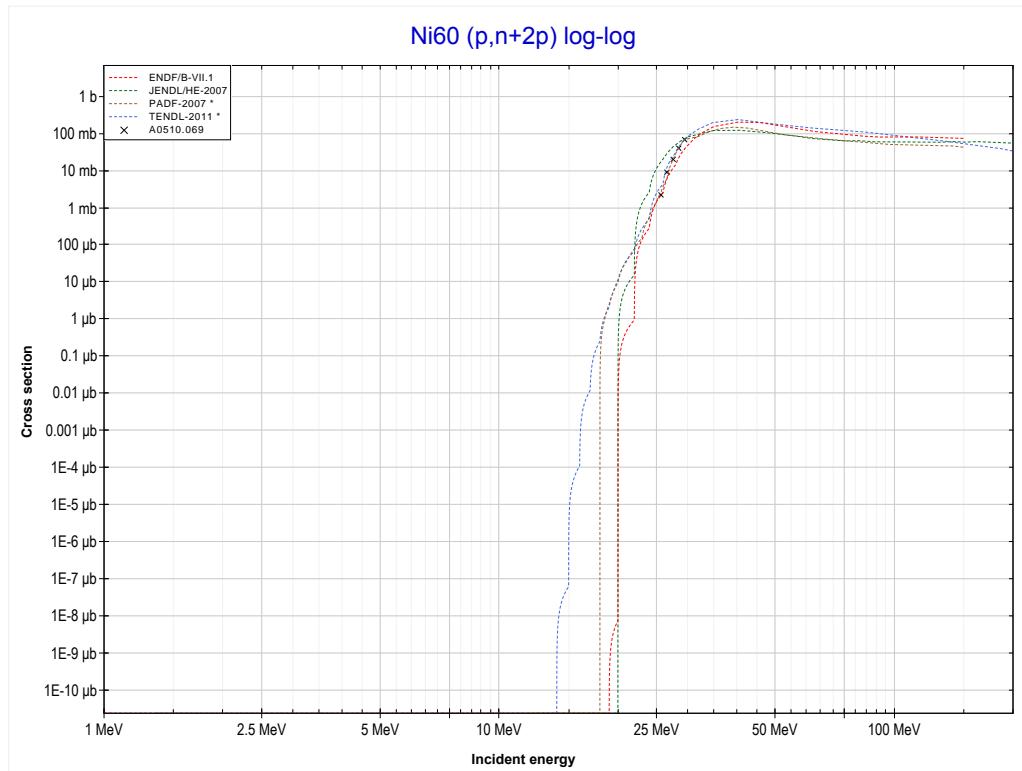
Reaction	Q-Value
$\text{Ni}^{60}(p, n+\alpha) \text{Co}^{56}$	-11639.96 keV
$\text{Ni}^{60}(p, d+t) \text{Co}^{56}$	-29229.26 keV
$\text{Ni}^{60}(p, n+p+t) \text{Co}^{56}$	-31453.82 keV
$\text{Ni}^{60}(p, 2n+\text{He}^3) \text{Co}^{56}$	-32217.58 keV
$\text{Ni}^{60}(p, n+2d) \text{Co}^{56}$	-35486.49 keV
$\text{Ni}^{60}(p, 2n+p+d) \text{Co}^{56}$	-37711.06 keV
$\text{Ni}^{60}(p, 3n+2p) \text{Co}^{56}$	-39935.62 keV

<< 28-Ni-58	28-Ni-60 MT28 (p,n+p) or MT5 (Ni59 production)	>> 29-Cu-65
<< MT22 (p,n+α)		>> MT44 (p,n+2p) >>



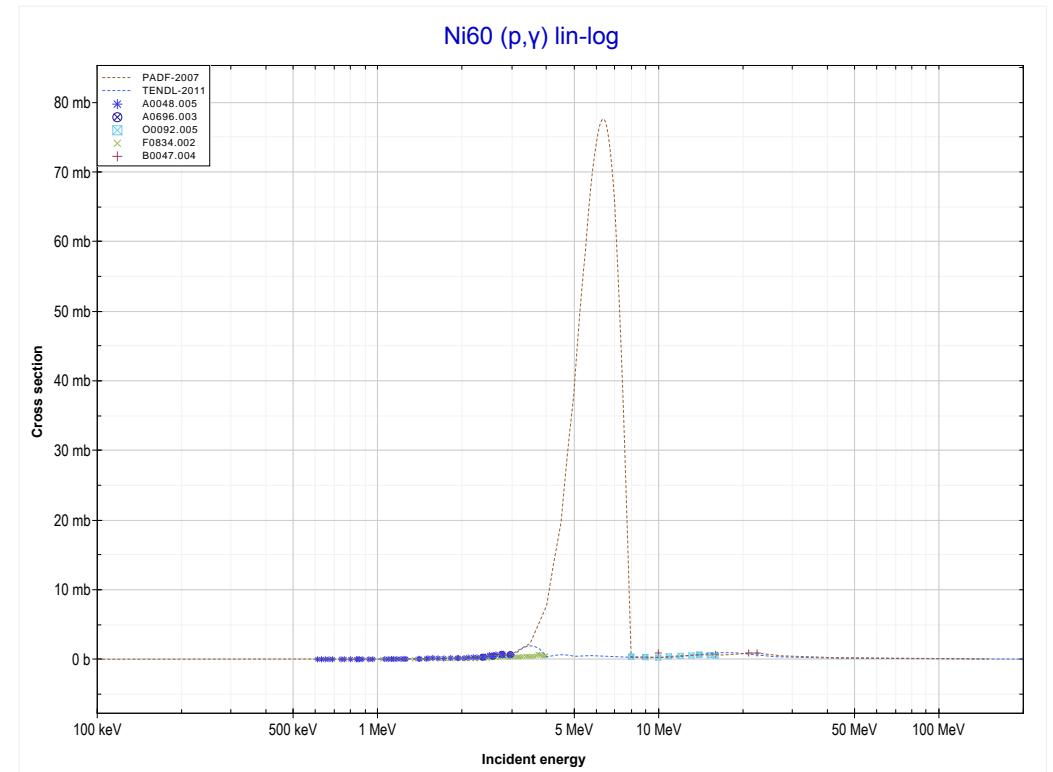
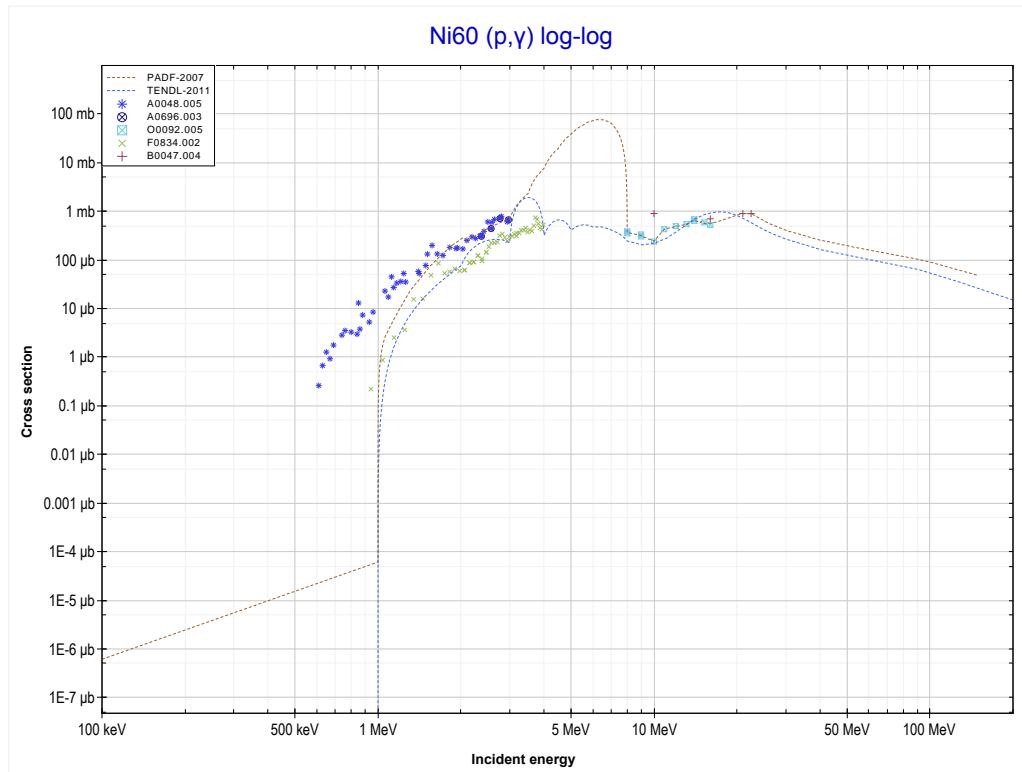
Reaction	Q-Value
Ni60(p,d)Ni59	-9163.15 keV
Ni60(p,n+p)Ni59	-11387.72 keV

<< 28-Ni-58	28-Ni-60 MT44 (p,n+2p) or MT5 (Co58 production)	30-Zn-64 >>
<< MT28 (p,n+p)		MT102 (p,y) >>



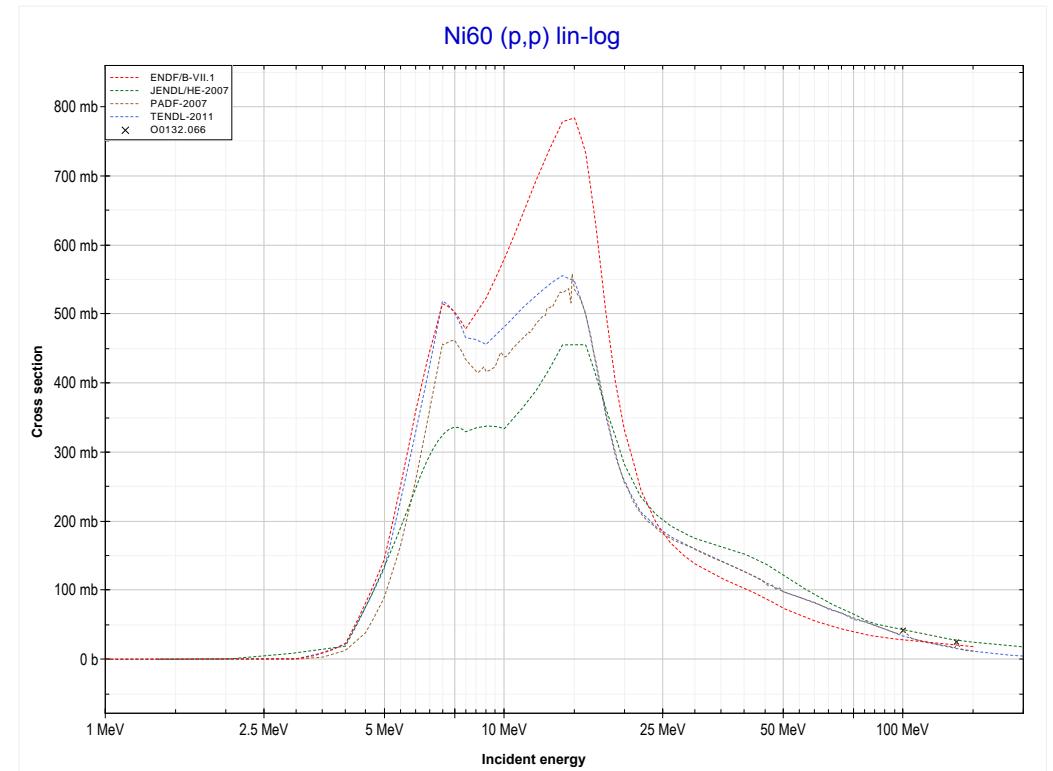
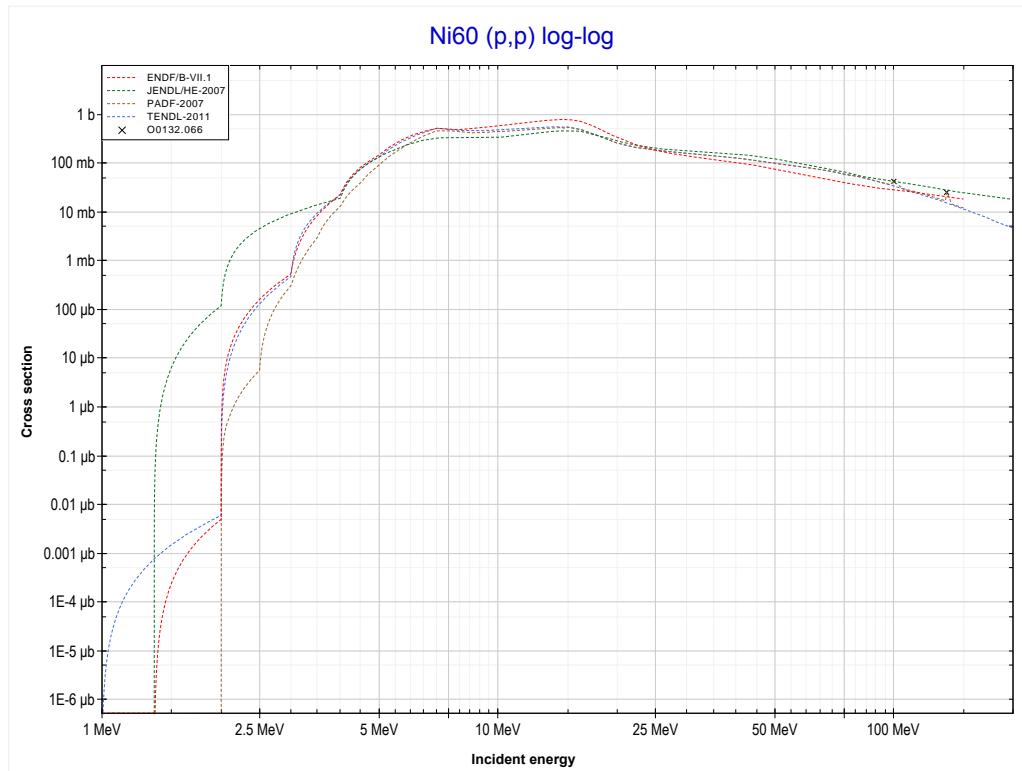
Reaction	Q-Value
Ni60(p,He3)Co58	-12268.44 keV
Ni60(p,p+d)Co58	-17761.92 keV
Ni60(p,n+2p)Co58	-19986.49 keV

<< 28-Ni-58	28-Ni-60 MT102 (p, γ) or MT5 (Cu61 production)	>> 28-Ni-61
<< MT44 (p,n+2p)		MT103 (p,p) >>



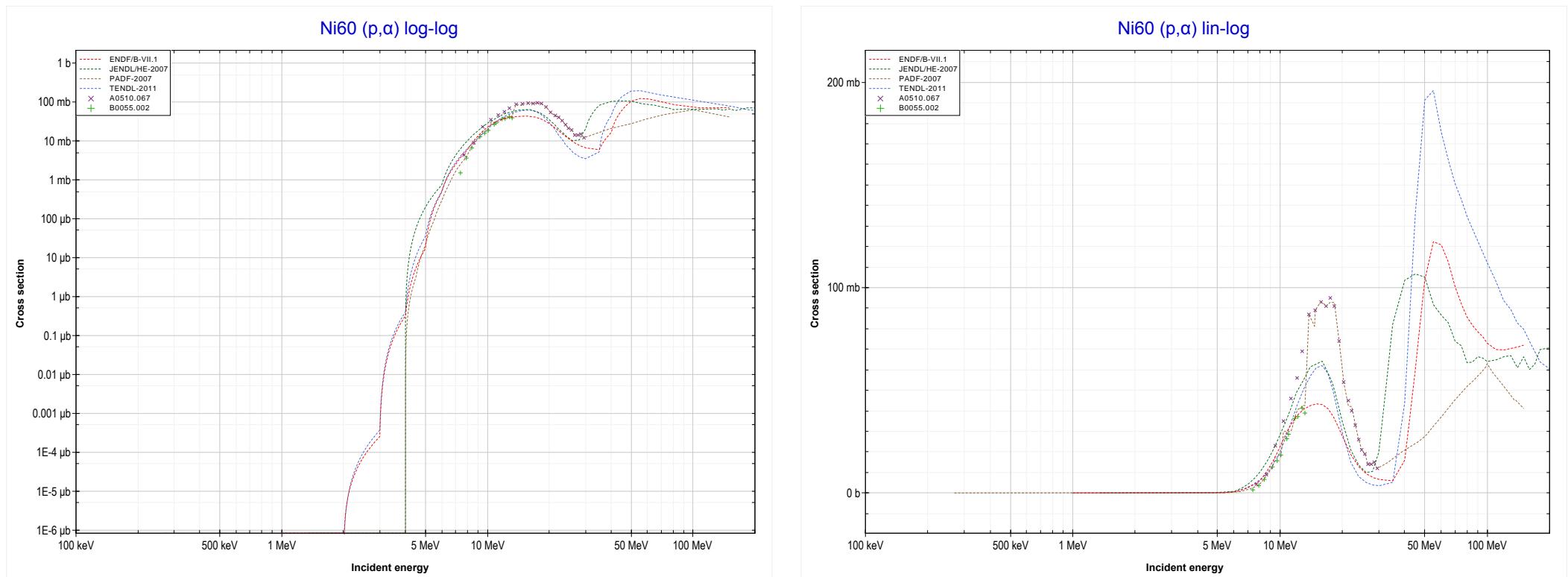
Reaction	Q-Value
Ni60(p, γ)Cu61	4800.47 keV

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



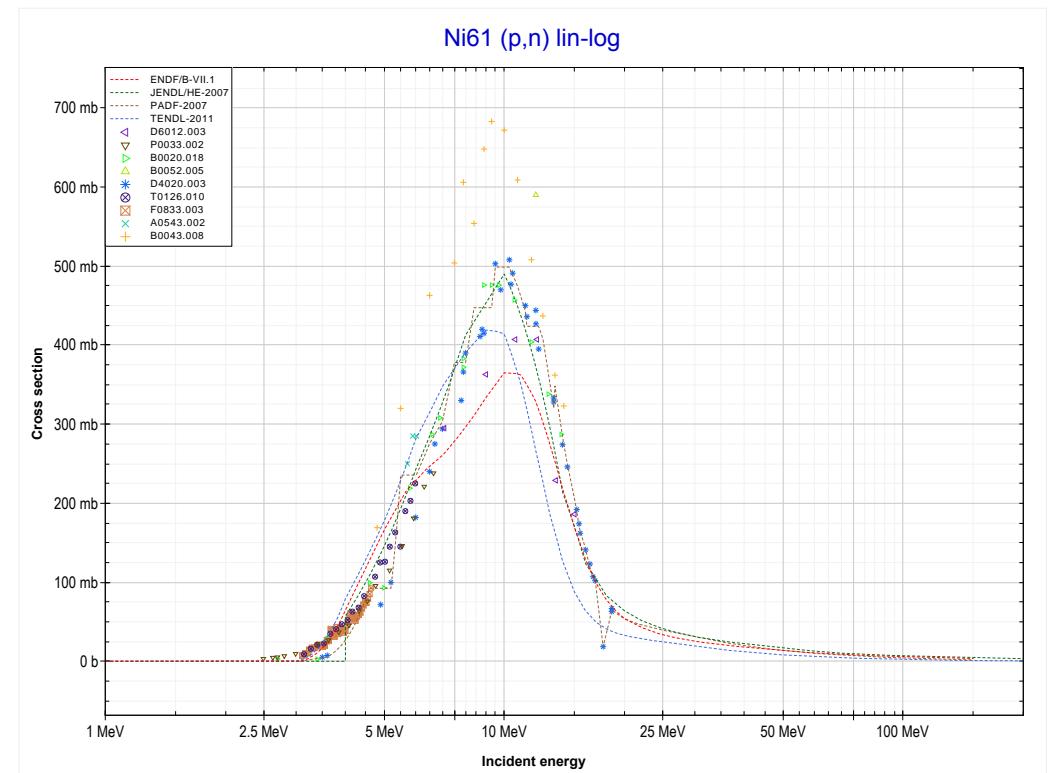
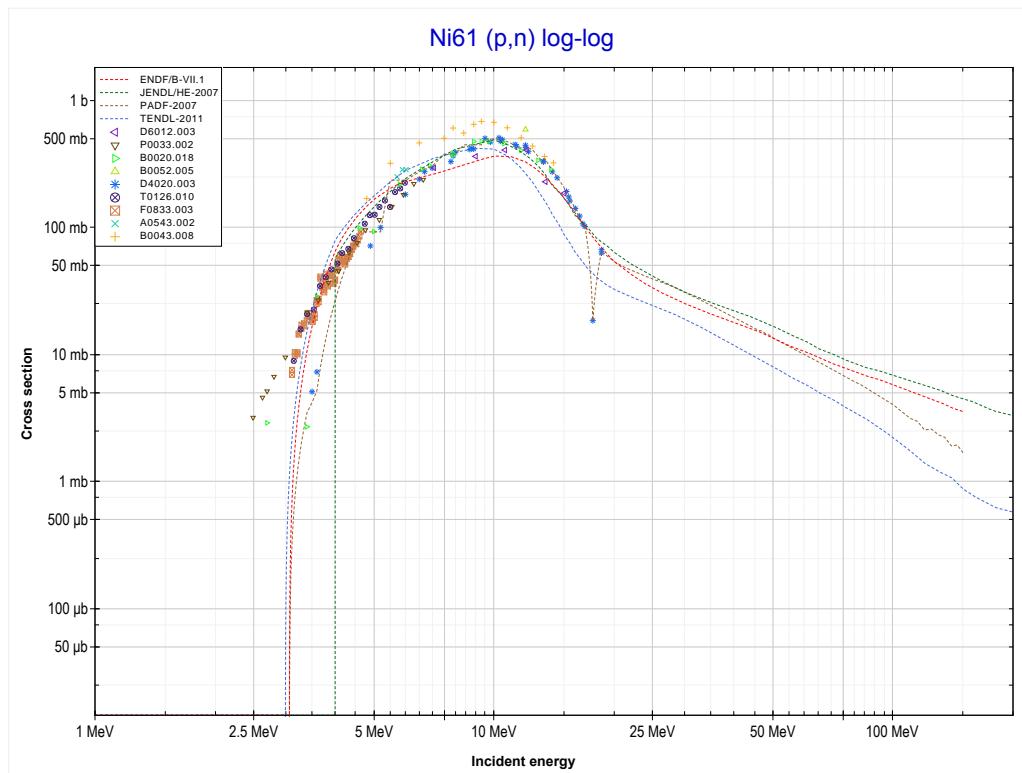
Reaction	Q-Value
Ni60(p,p)Ni60	0.00 keV

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



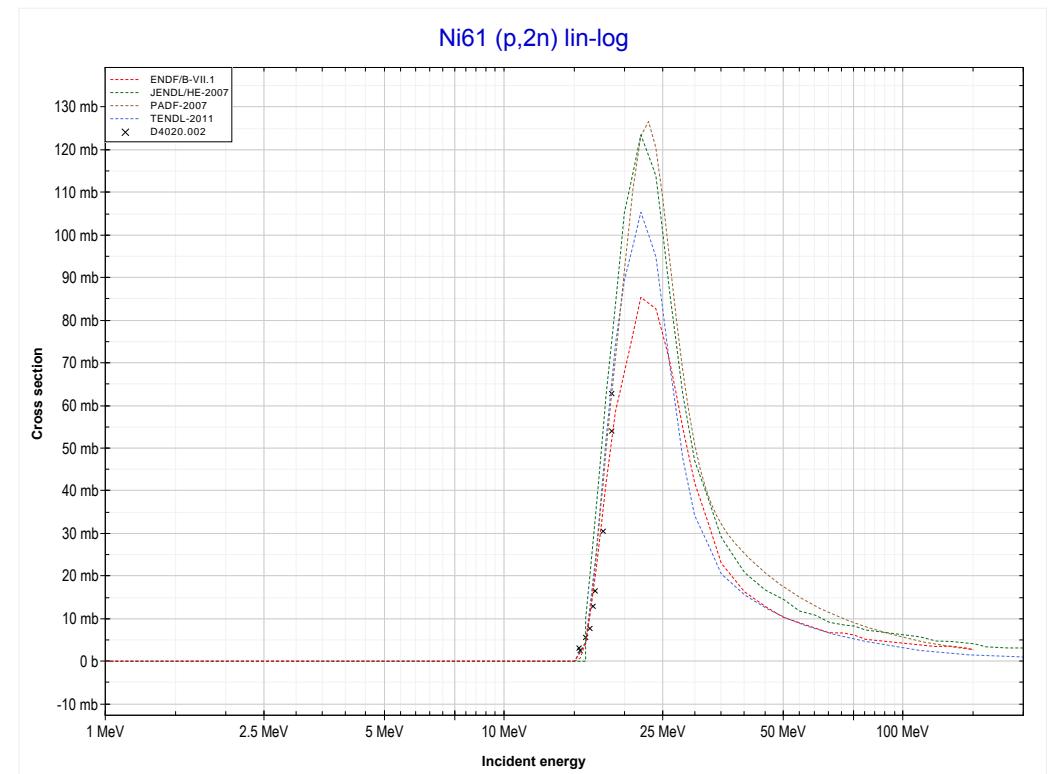
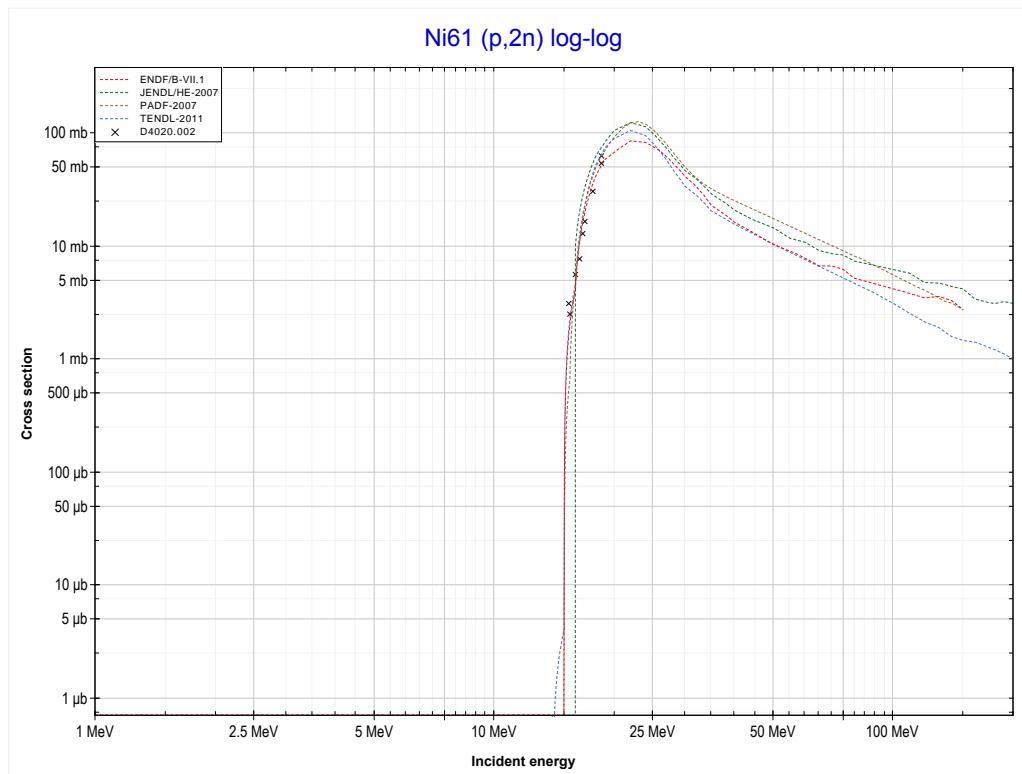
Reaction	Q-Value
Ni60(p,α)Co57	-263.85 keV
Ni60($p,p+t$)Co57	-20077.71 keV
Ni60($p,n+He3$)Co57	-20841.46 keV
Ni60($p,2d$)Co57	-24110.37 keV
Ni60($p,n+p+d$)Co57	-26334.94 keV
Ni60($p,2n+2p$)Co57	-28559.50 keV

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



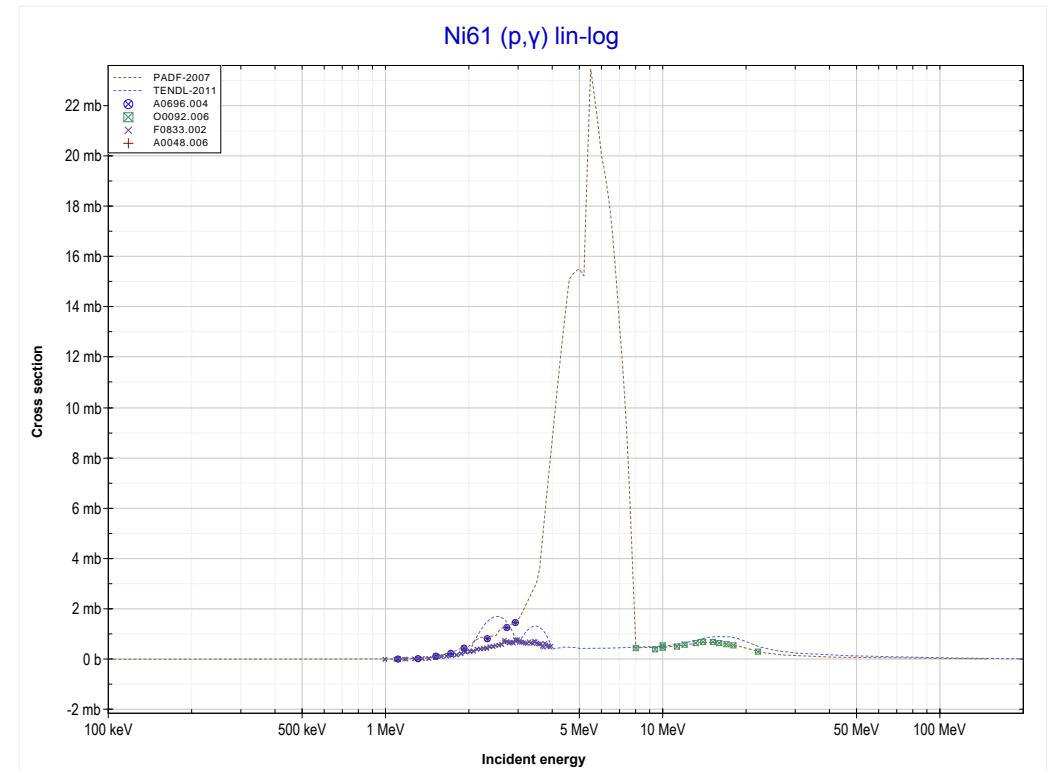
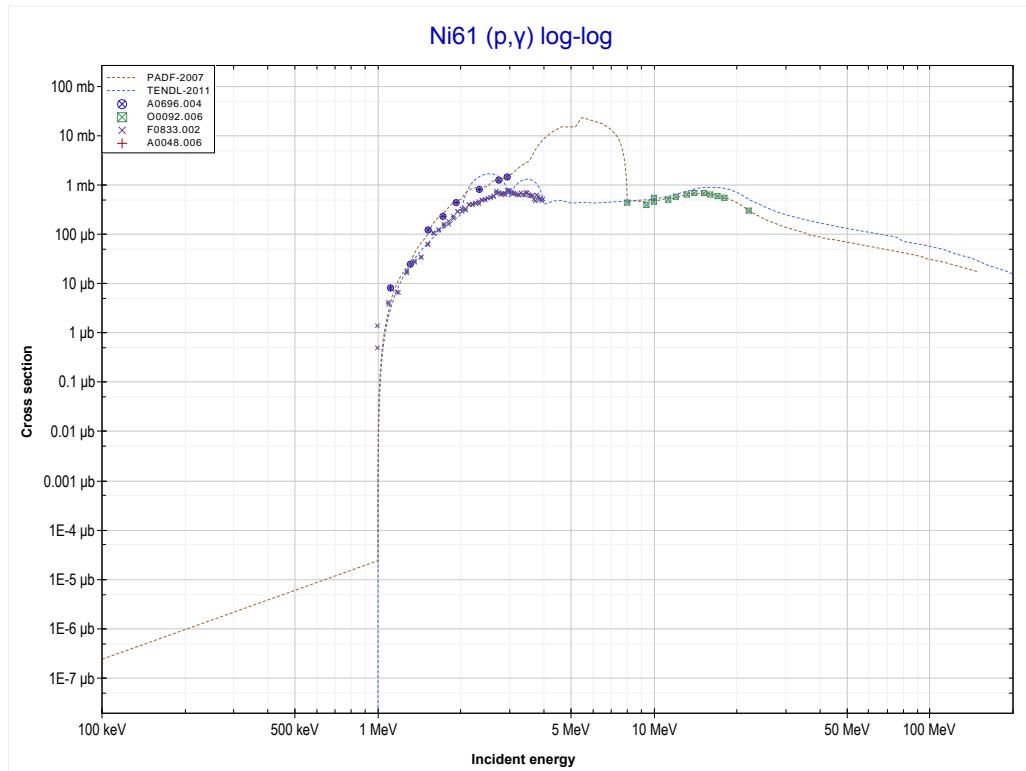
Reaction	Q-Value
Ni61(p,n)Cu61	-3019.65 keV

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



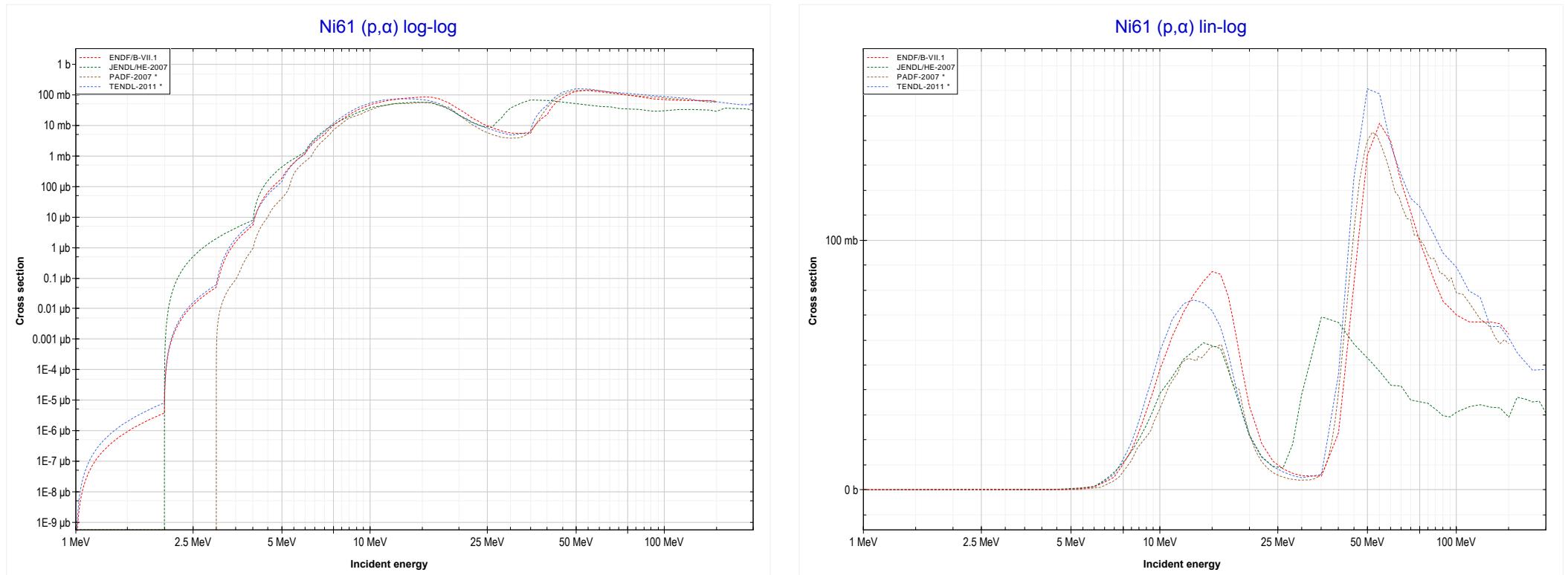
Reaction	Q-Value
Ni61(p,2n)Cu60	-14730.46 keV

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



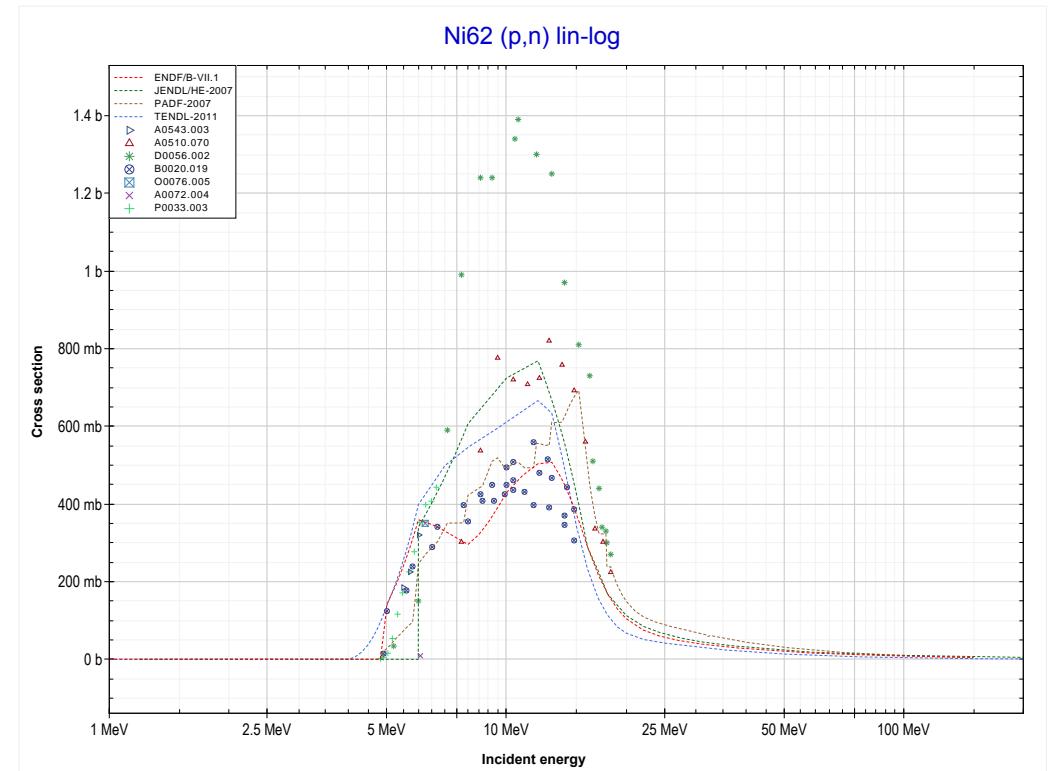
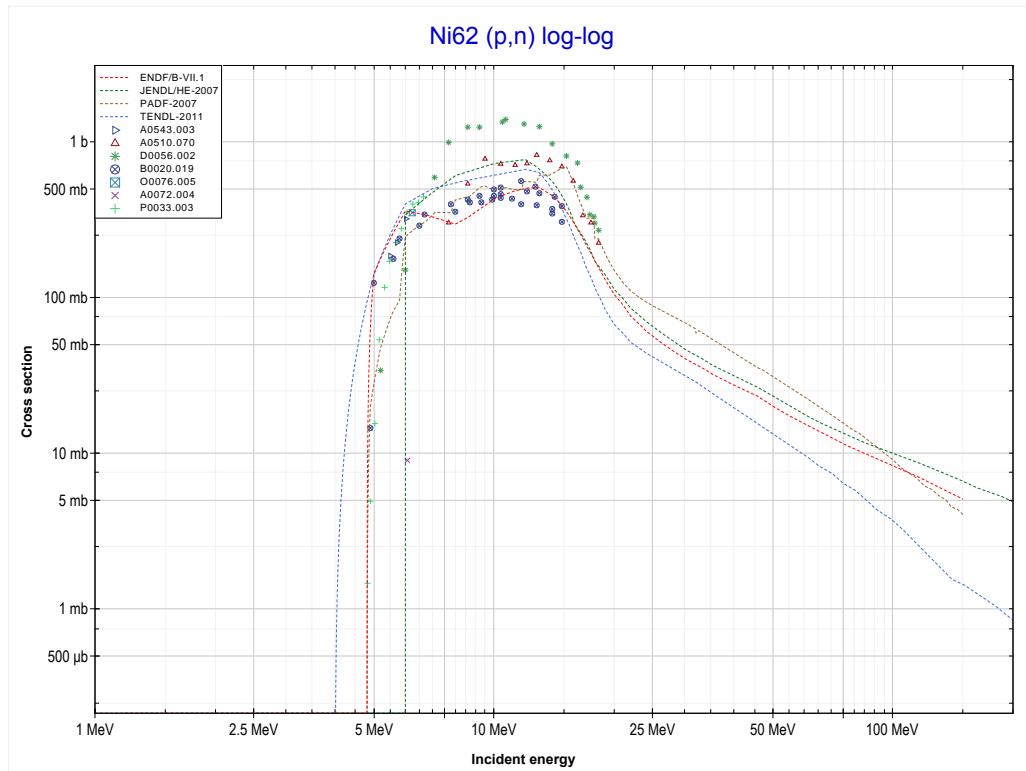
Reaction	Q-Value
Ni61(p, γ)Cu62	5866.07 keV

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



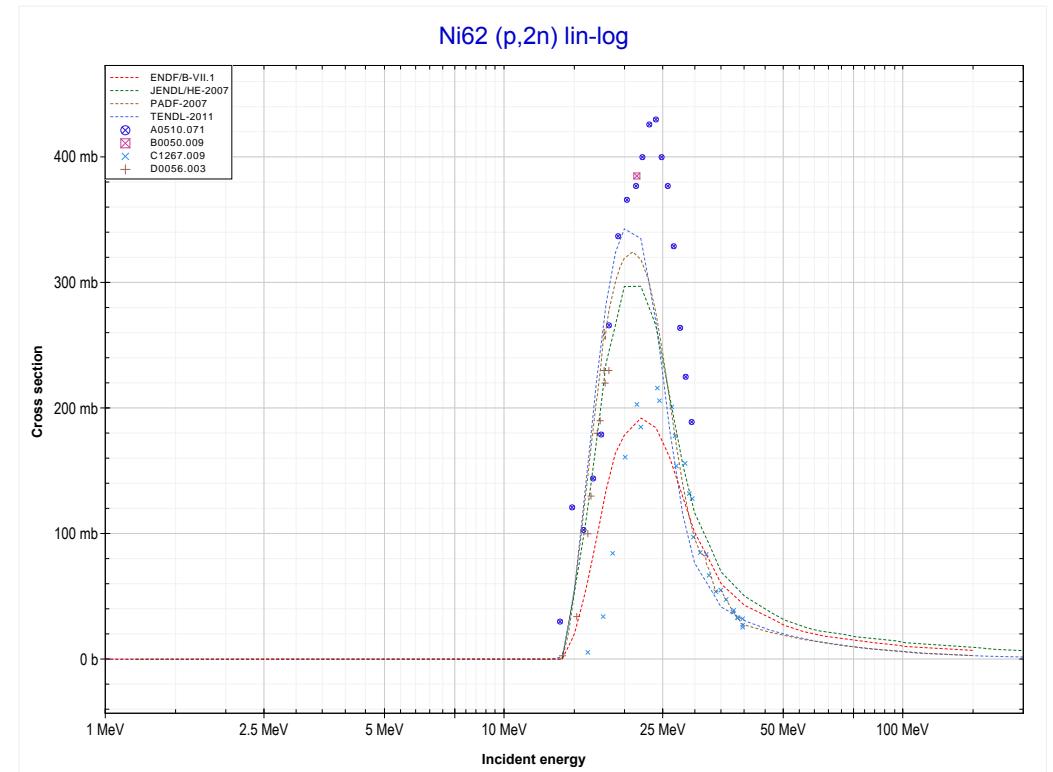
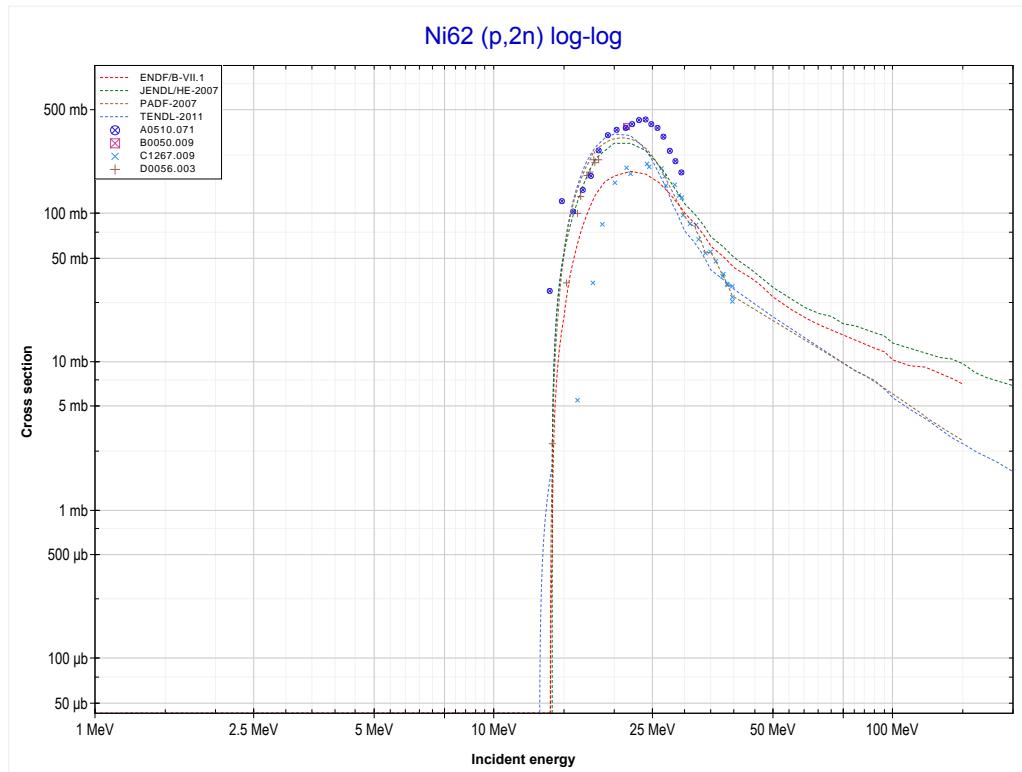
Reaction	Q-Value
$\text{Ni}^{61}(p,\alpha)\text{Co}^{58}$	489.05 keV
$\text{Ni}^{61}(p,p+t)\text{Co}^{58}$	-19324.81 keV
$\text{Ni}^{61}(p,n+\text{He}^3)\text{Co}^{58}$	-20088.56 keV
$\text{Ni}^{61}(p,2d)\text{Co}^{58}$	-23357.47 keV
$\text{Ni}^{61}(p,n+p+d)\text{Co}^{58}$	-25582.04 keV
$\text{Ni}^{61}(p,2n+2p)\text{Co}^{58}$	-27806.60 keV

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



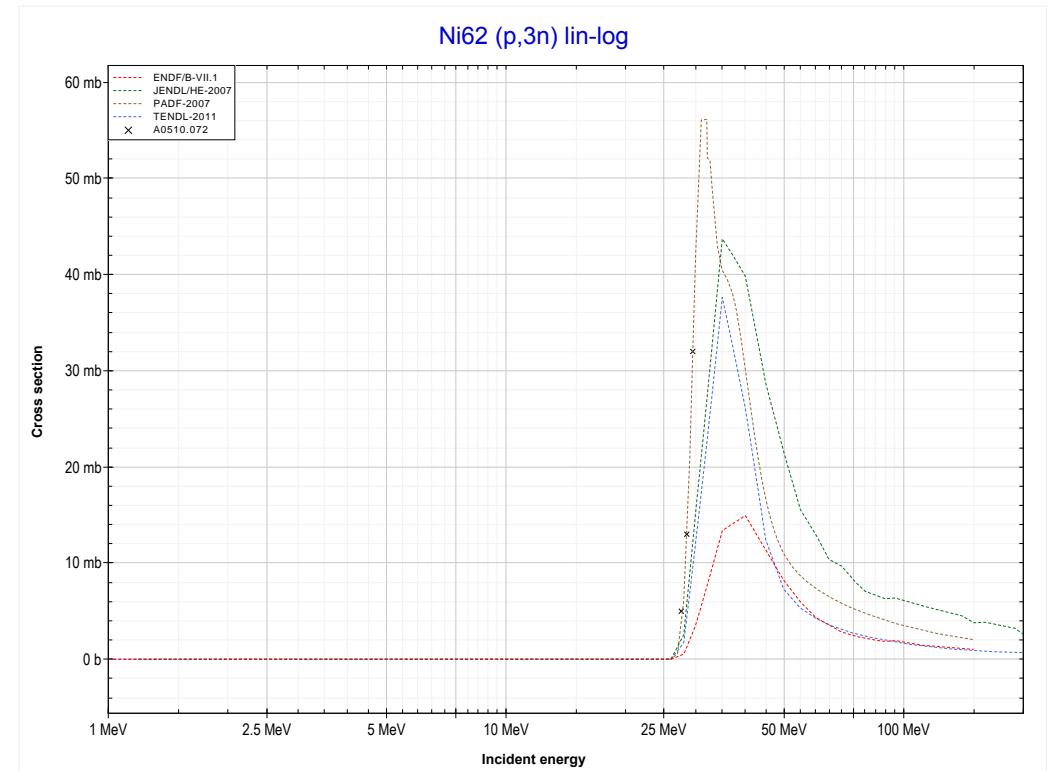
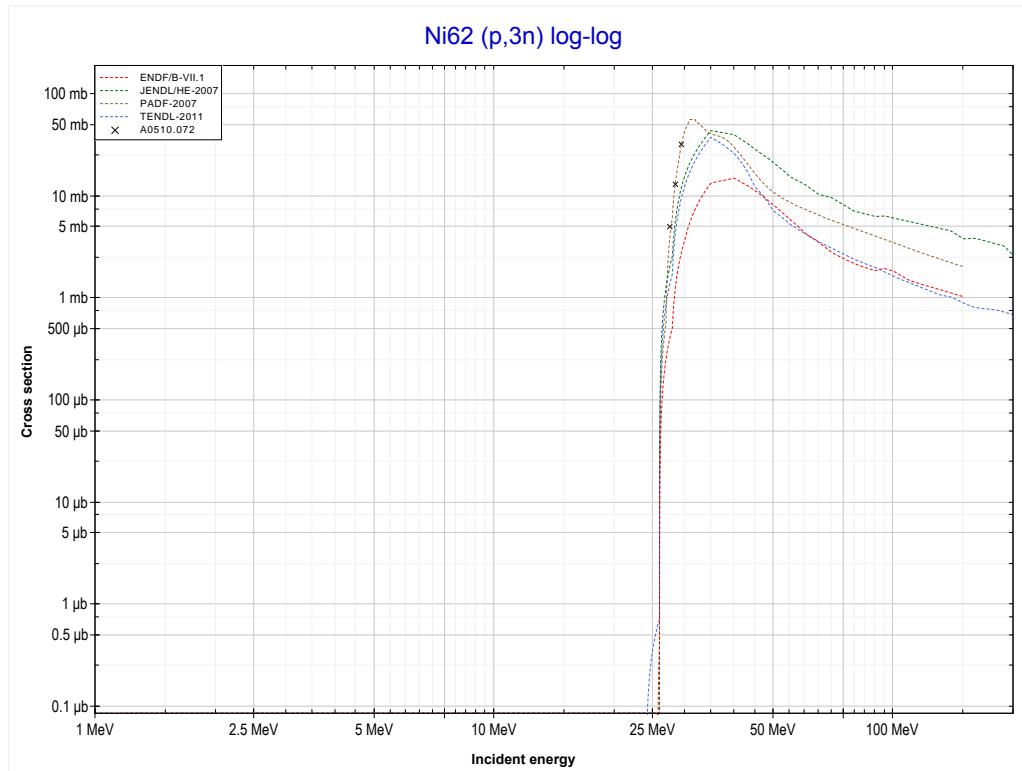
Reaction	Q-Value
Ni62(p,n)Cu62	-4730.45 keV

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



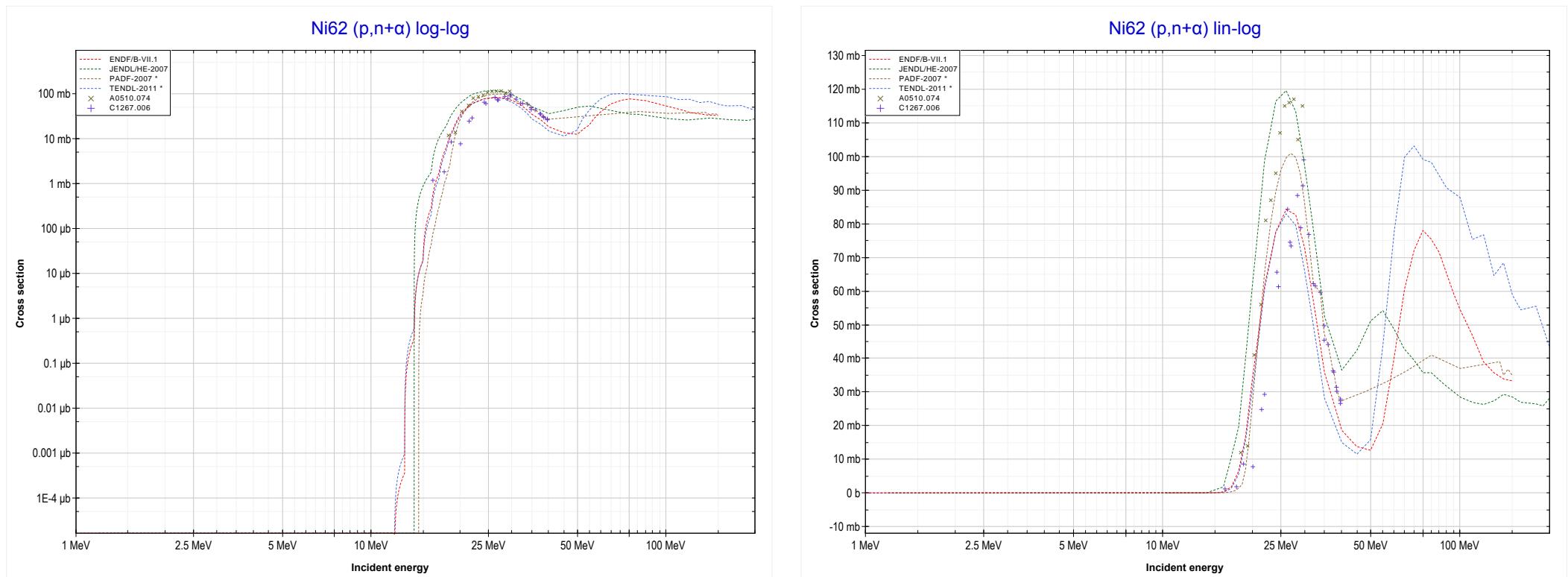
Reaction	Q-Value
Ni62(p,2n)Cu61	-13616.16 keV

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

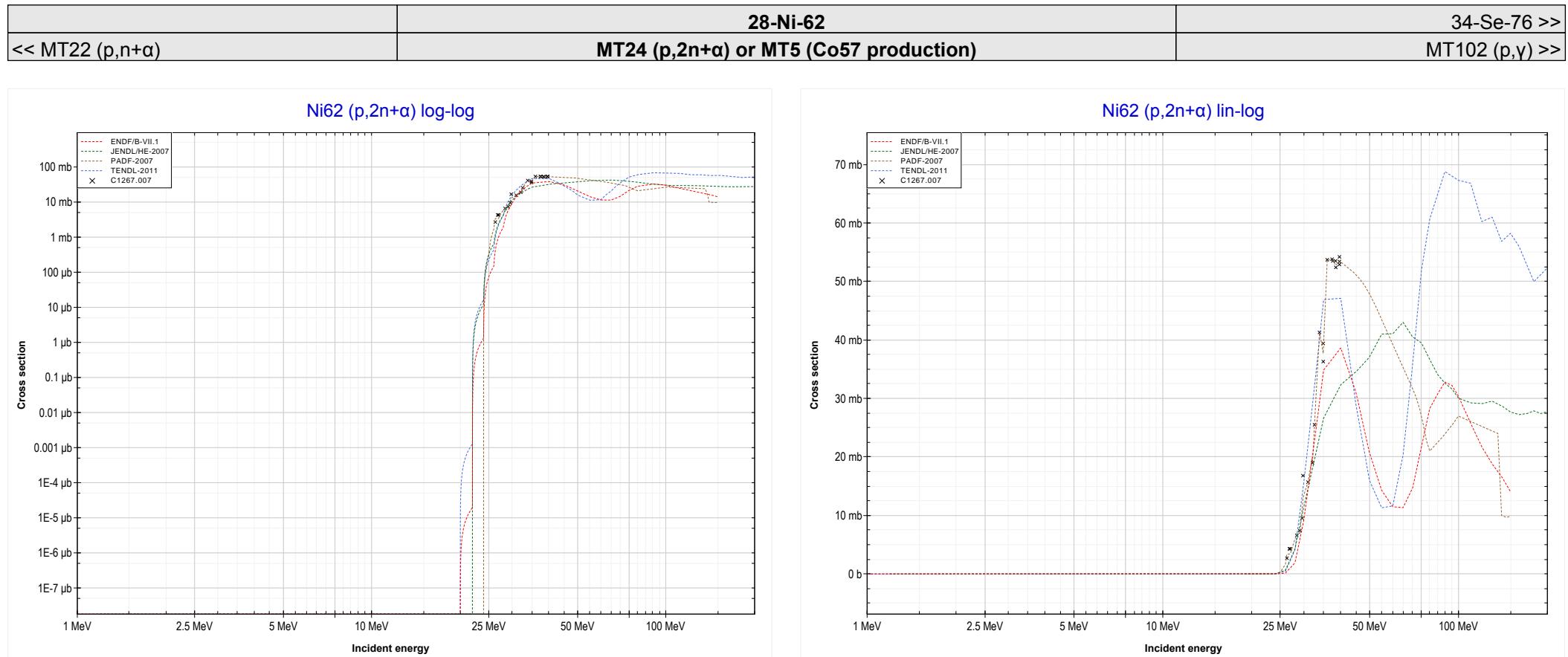


Reaction	Q-Value
Ni62(p,3n)Cu60	-25326.98 keV

<< 28-Ni-60	28-Ni-62 MT22 (p,n+α) or MT5 (Co58 production)	28-Ni-64 >>
<< MT17 (p,3n)		MT24 (p,2n+α) >>

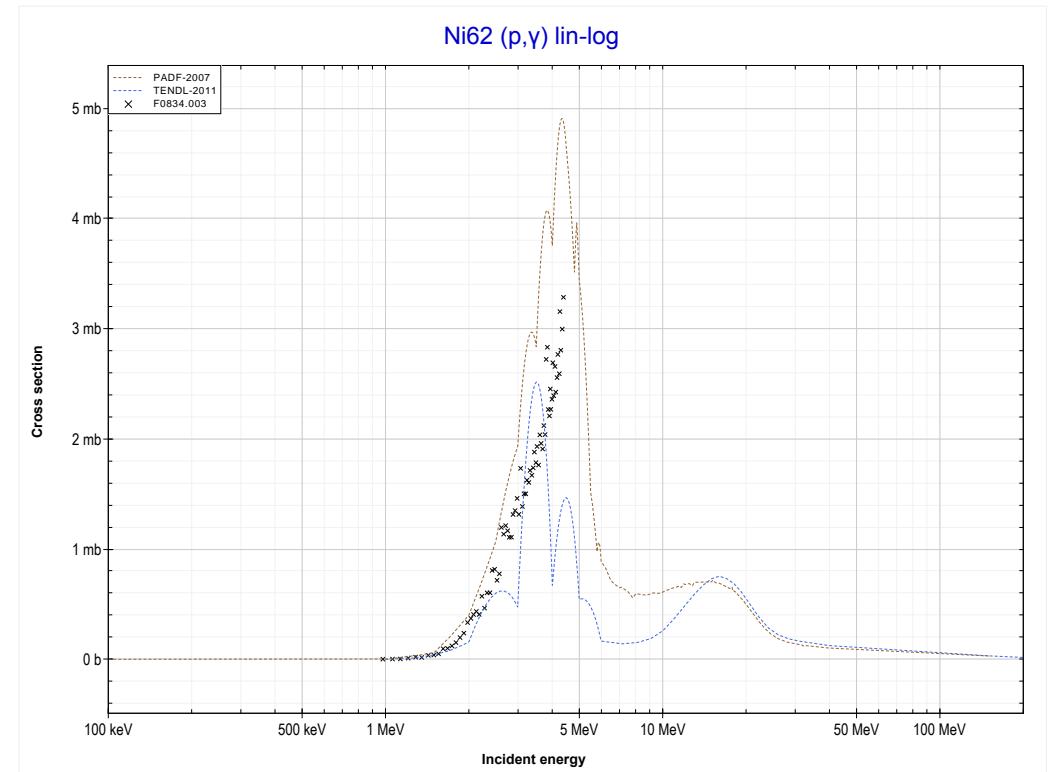
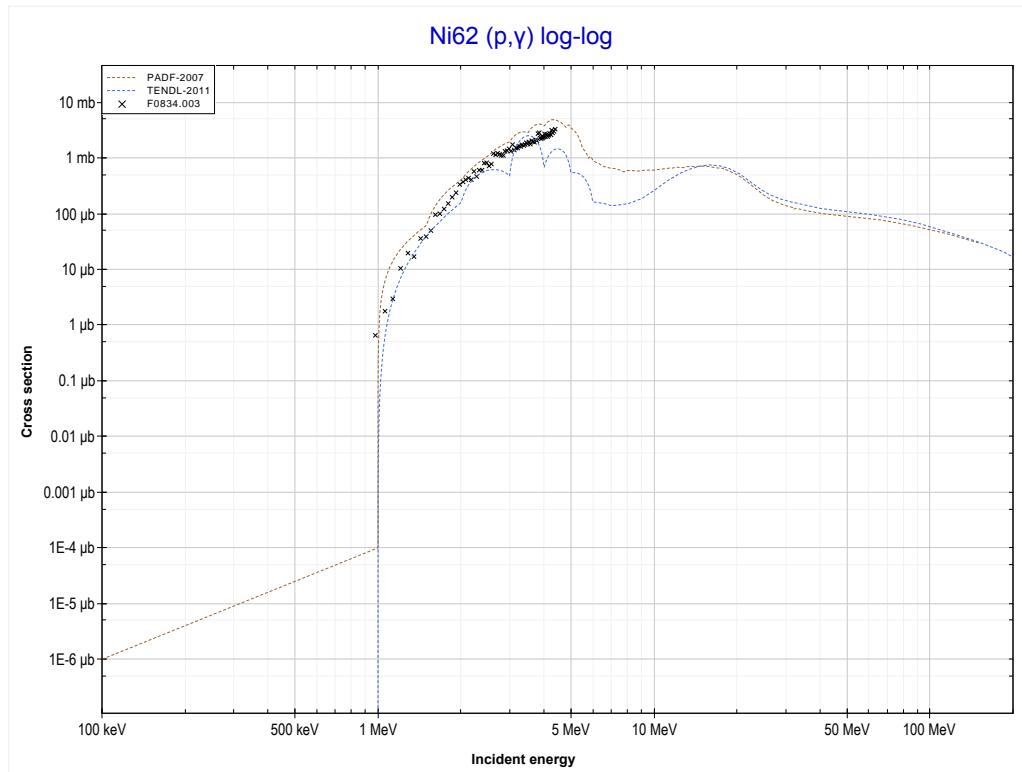


Reaction	Q-Value
Ni62(p,n+α)Co58	-10107.46 keV
Ni62(p,d+t)Co58	-27696.76 keV
Ni62(p,n+p+t)Co58	-29921.32 keV
Ni62(p,2n+He3)Co58	-30685.08 keV
Ni62(p,n+2d)Co58	-33953.99 keV
Ni62(p,2n+p+d)Co58	-36178.56 keV
Ni62(p,3n+2p)Co58	-38403.12 keV



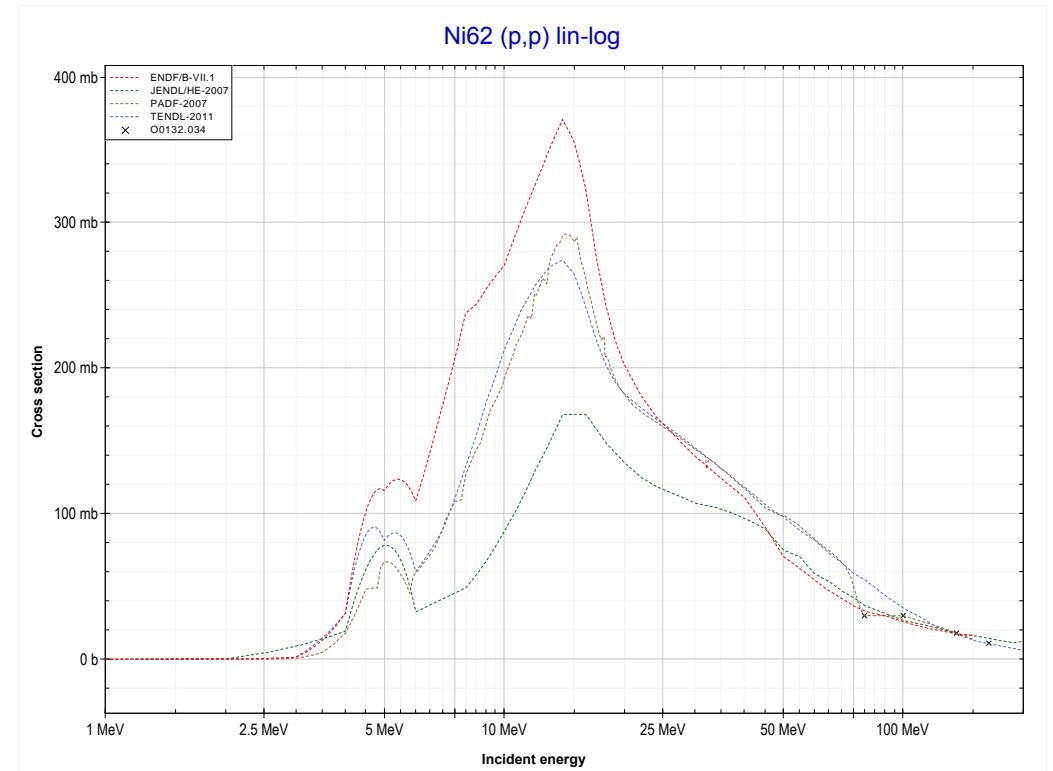
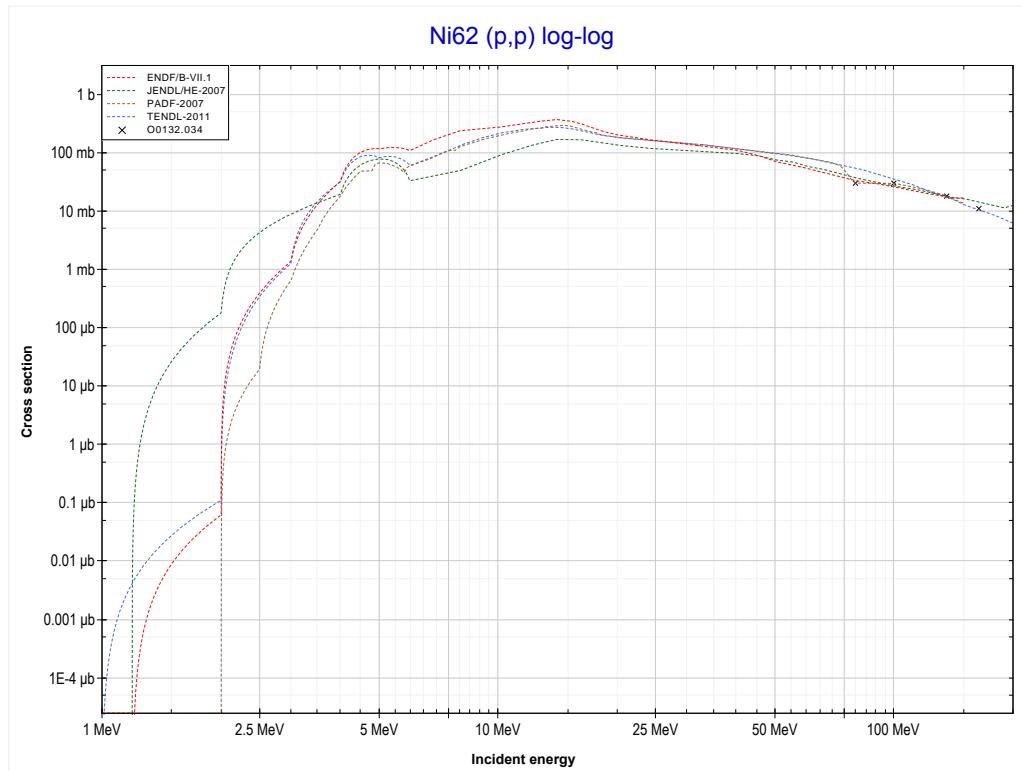
Reaction	Q-Value
Ni62(p,2n+α)Co57	-18680.48 keV
Ni62(p,2t)Co57	-30012.54 keV
Ni62(p,n+d+t)Co57	-36269.77 keV
Ni62(p,2n+p+t)Co57	-38494.34 keV
Ni62(p,3n+He3)Co57	-39258.10 keV
Ni62(p,2n+2d)Co57	-42527.01 keV
Ni62(p,3n+p+d)Co57	-44751.57 keV
Ni62(p,4n+2p)Co57	-46976.14 keV

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



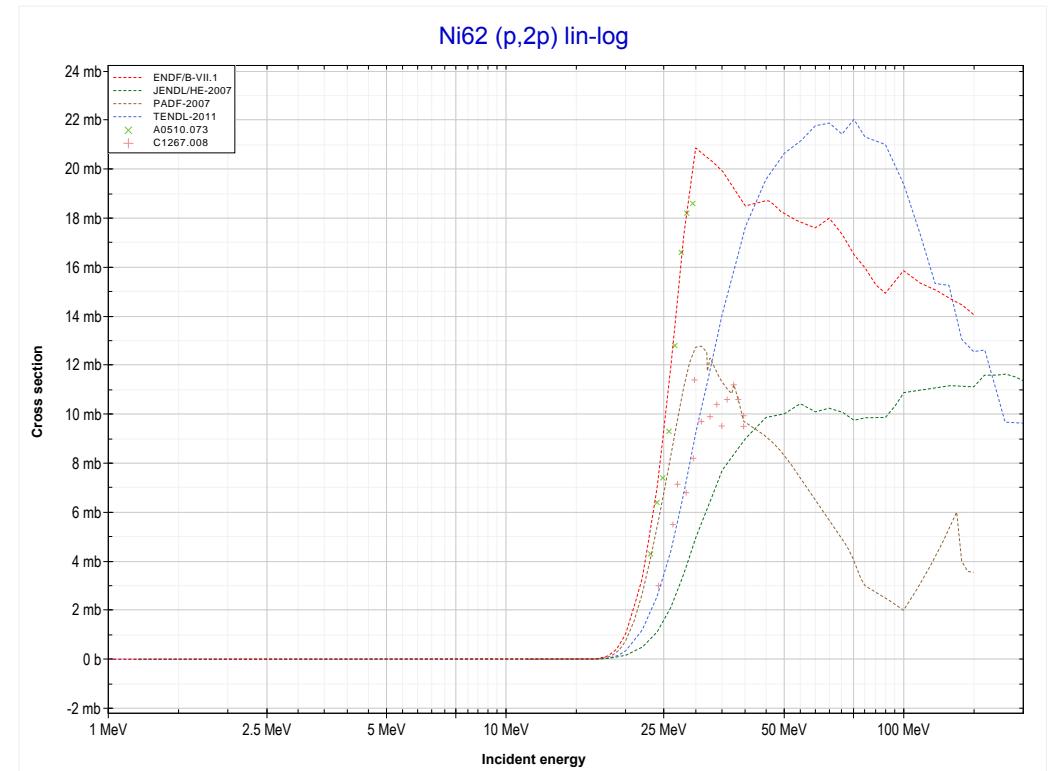
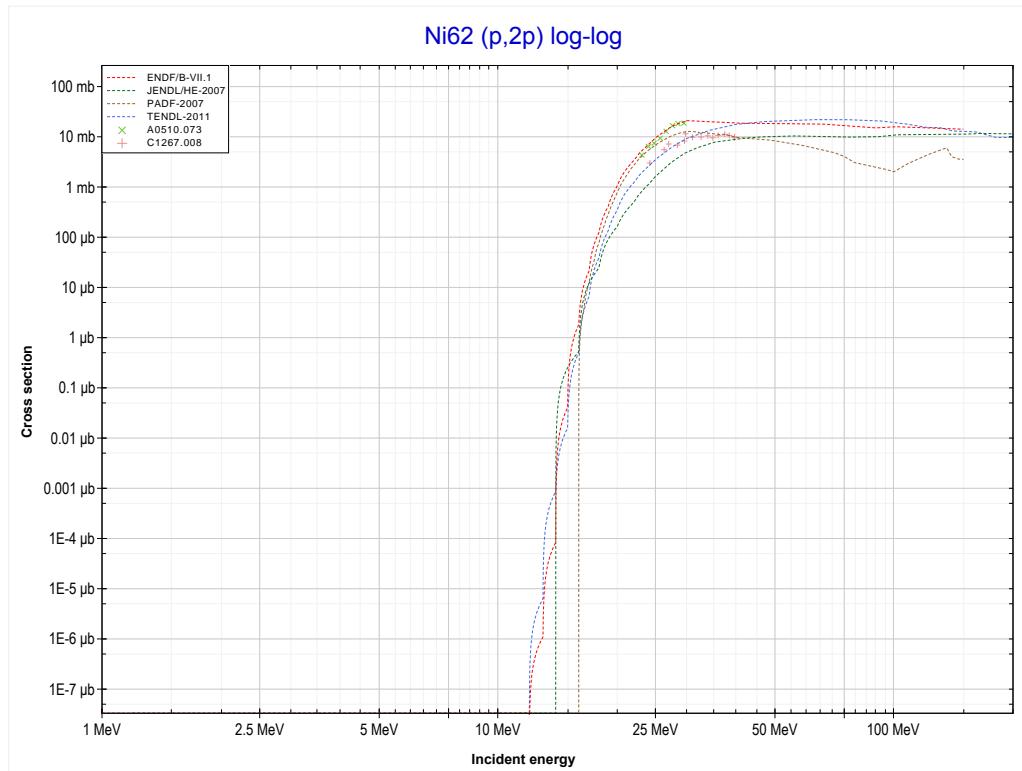
Reaction	Q-Value
Ni62(p, γ)Cu63	6122.37 keV

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



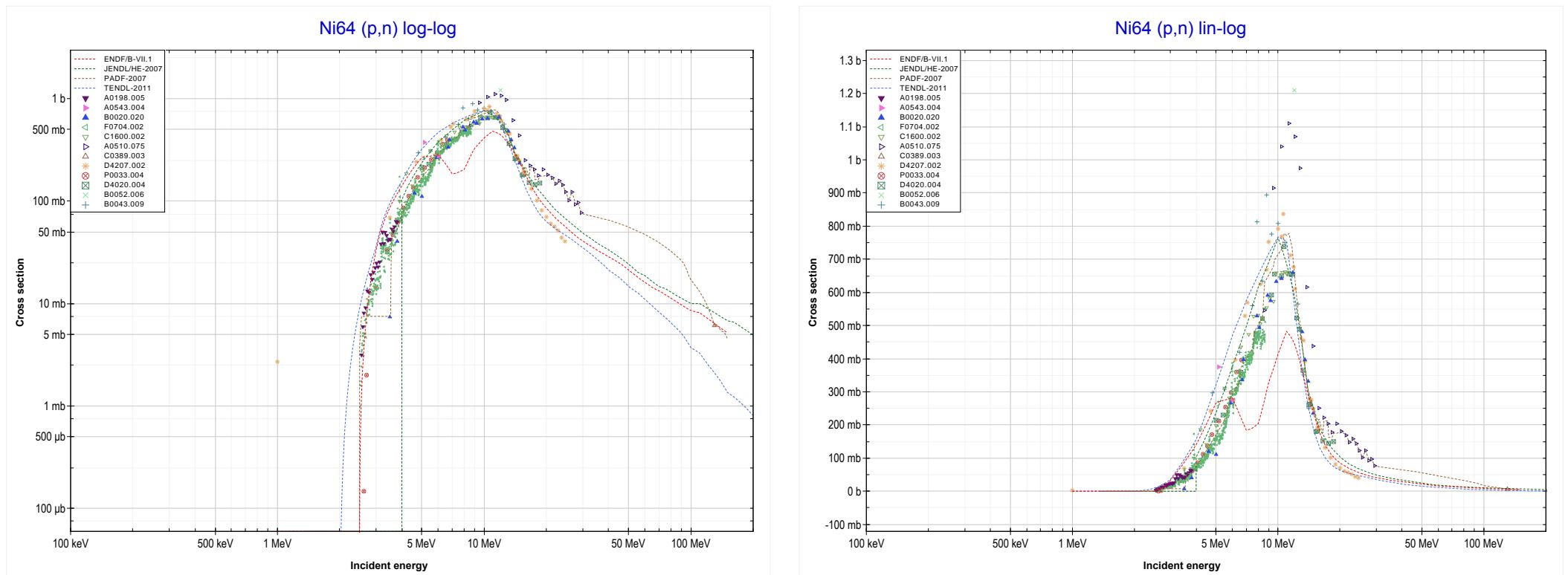
Reaction	Q-Value
Ni62(p,p)Ni62	0.00 keV

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



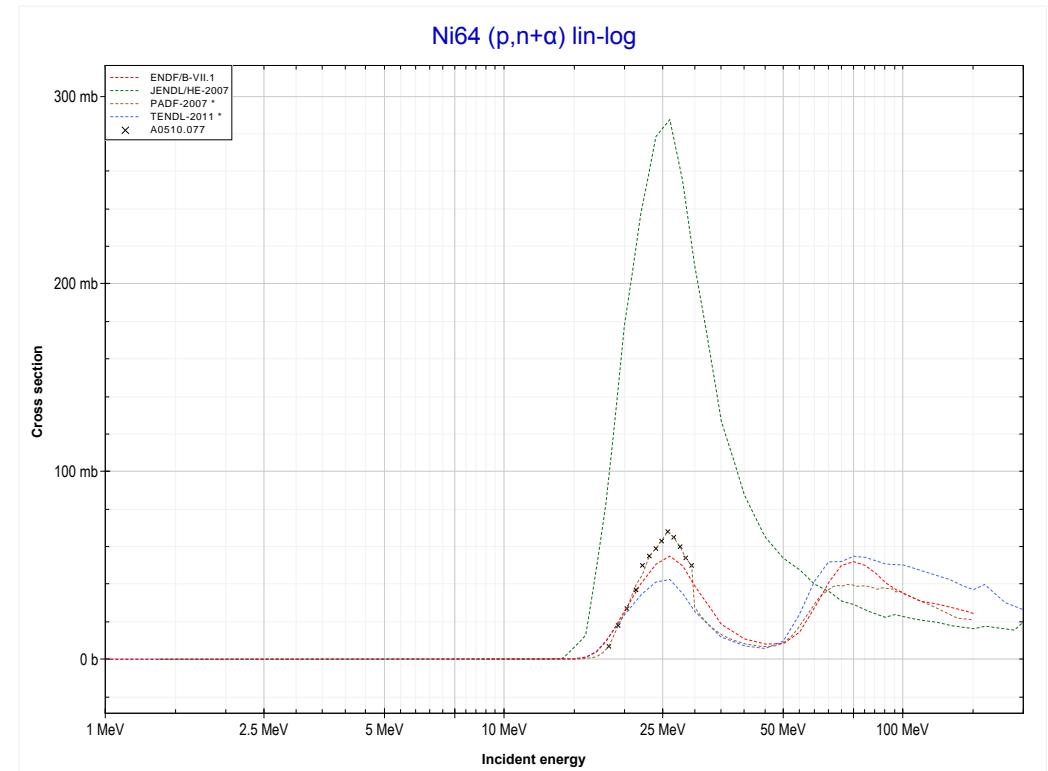
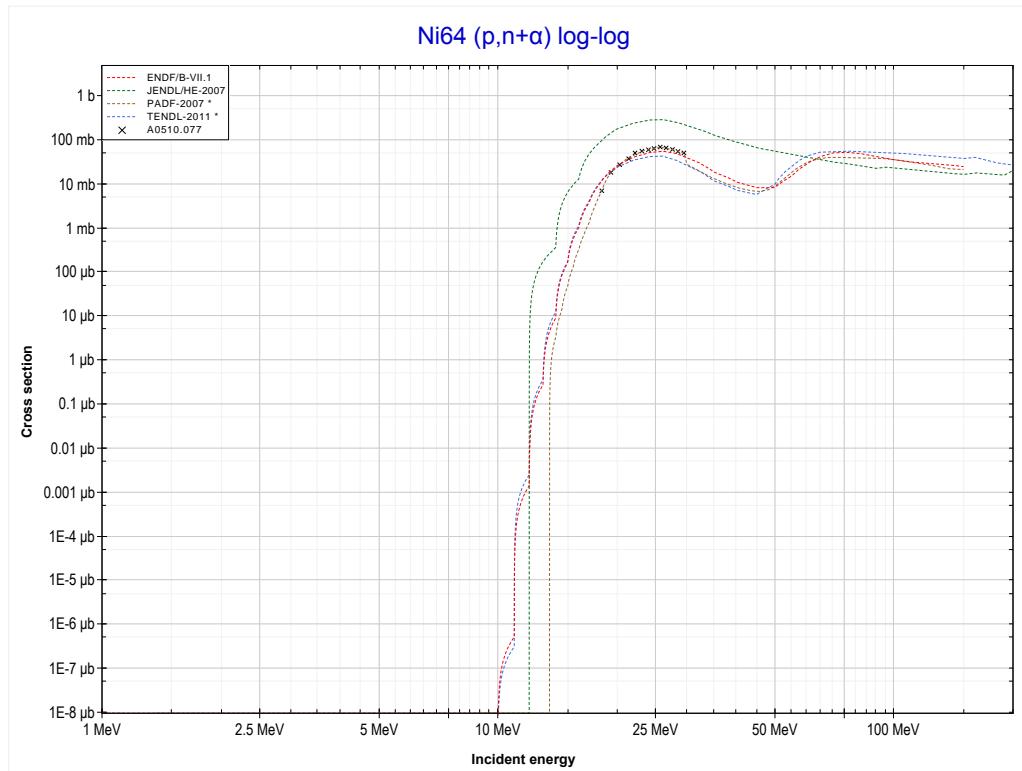
Reaction	Q-Value
Ni62(p,2p)Co61	-11136.67 keV

<< 28-Ni-62	28-Ni-64 MT4 (p,n) or MT5 (Cu64 production)	29-Cu-63 >>
<< MT111 (p,2p) >>		MT22 (p,n+α) >>



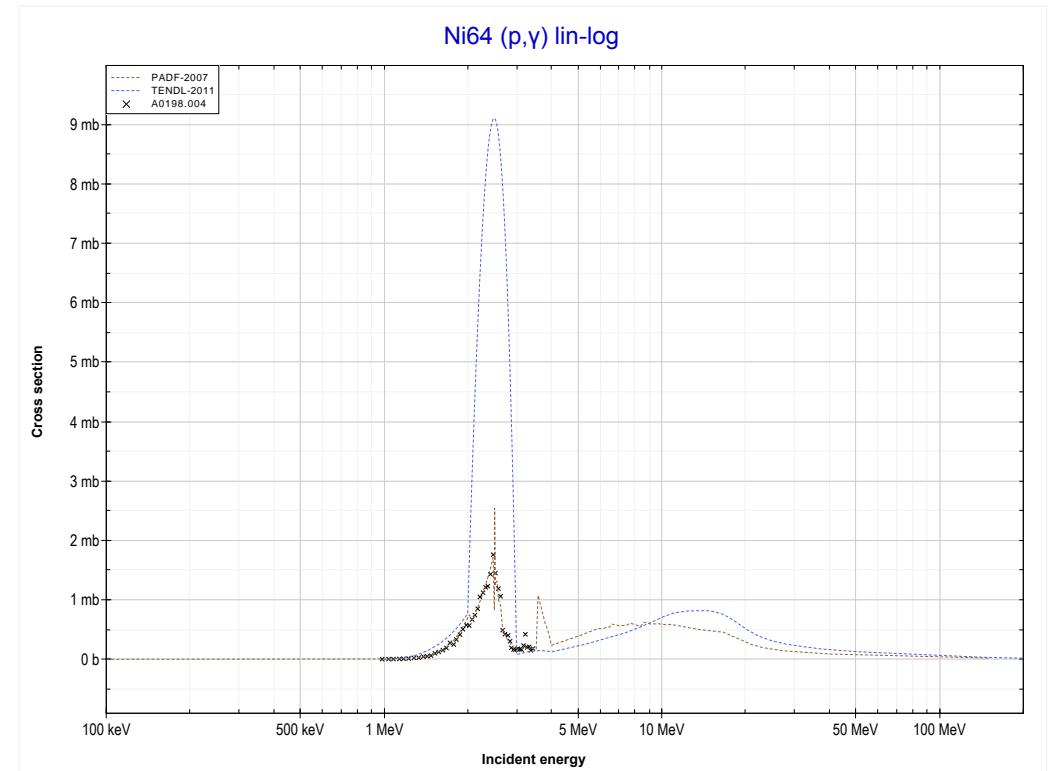
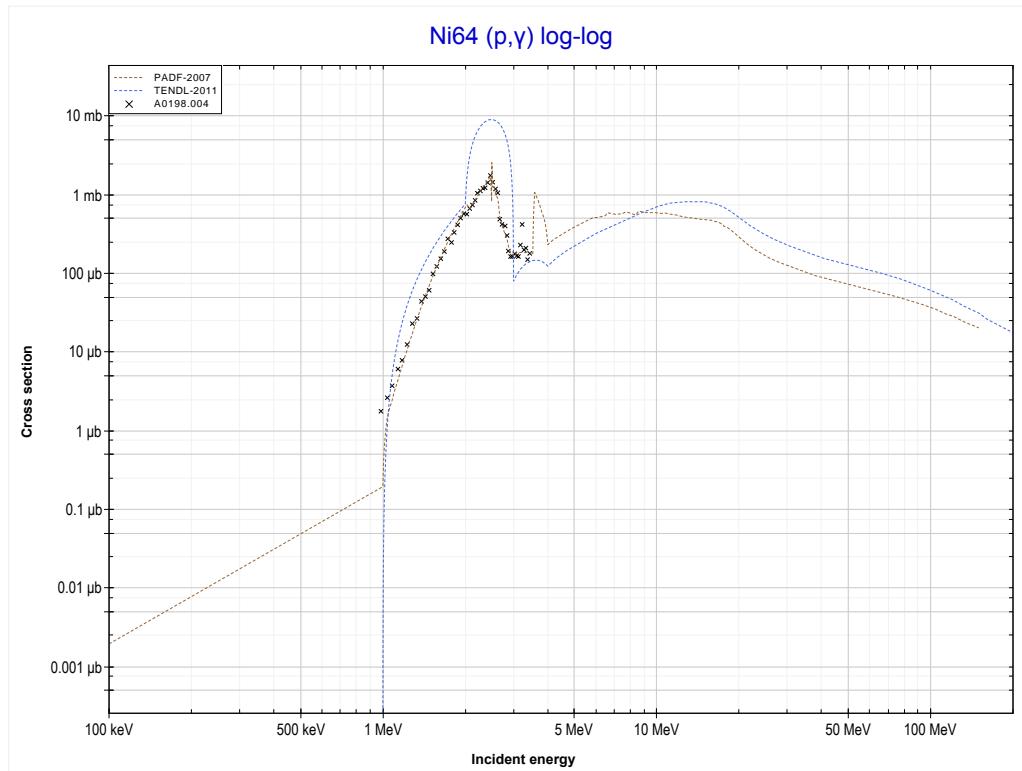
Reaction	Q-Value
Ni64(p,n)Cu64	-2457.45 keV

<< 28-Ni-62	28-Ni-64 MT22 (p,n+α) or MT5 (Co60 production)	30-Zn-64 >>
<< MT4 (p,n)		MT102 (p,y) >>



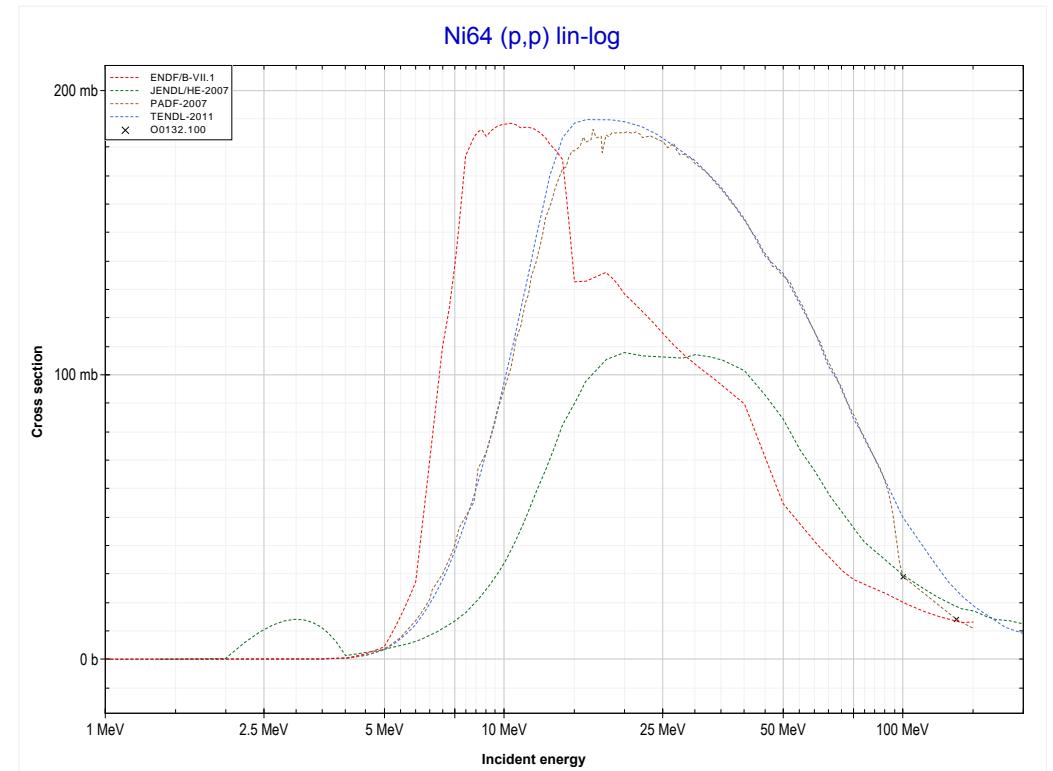
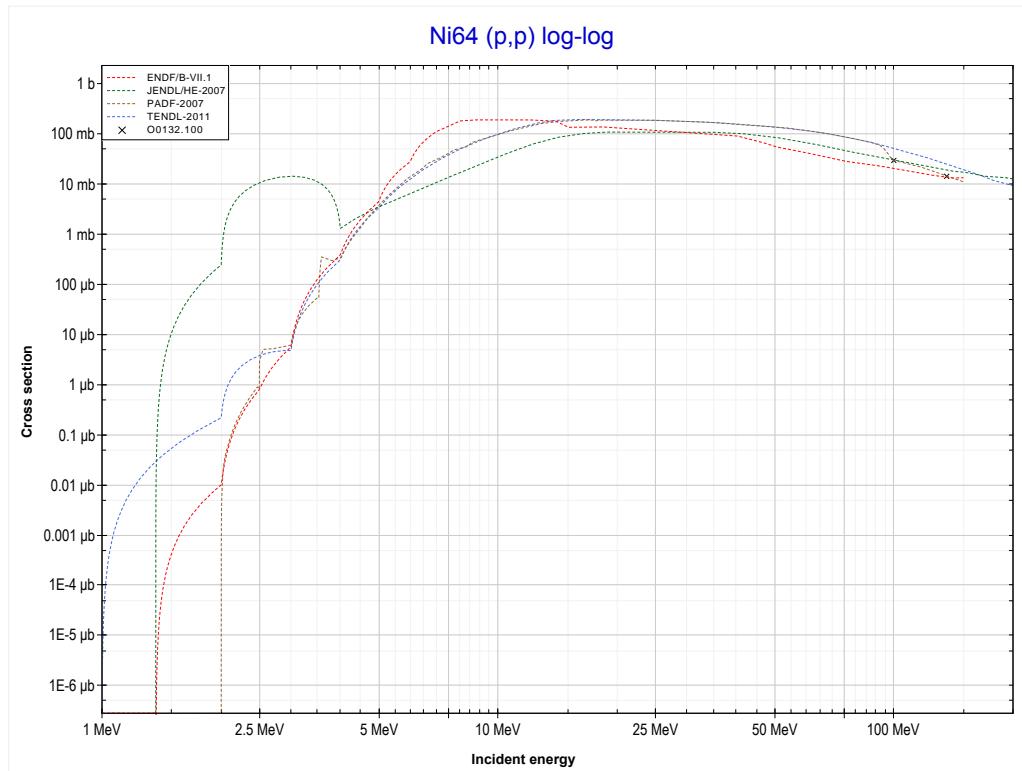
Reaction	Q-Value
Ni64(p,n+α)Co60	-8657.56 keV
Ni64(p,d+t)Co60	-26246.86 keV
Ni64(p,n+p+t)Co60	-28471.42 keV
Ni64(p,2n+He3)Co60	-29235.18 keV
Ni64(p,n+2d)Co60	-32504.09 keV
Ni64(p,2n+p+d)Co60	-34728.66 keV
Ni64(p,3n+2p)Co60	-36953.22 keV

<< 28-Ni-62	28-Ni-64 MT102 (p, γ) or MT5 (Cu65 production)	29-Cu-63 >>
<< MT22 (p,n+ α)		MT103 (p,p) >>



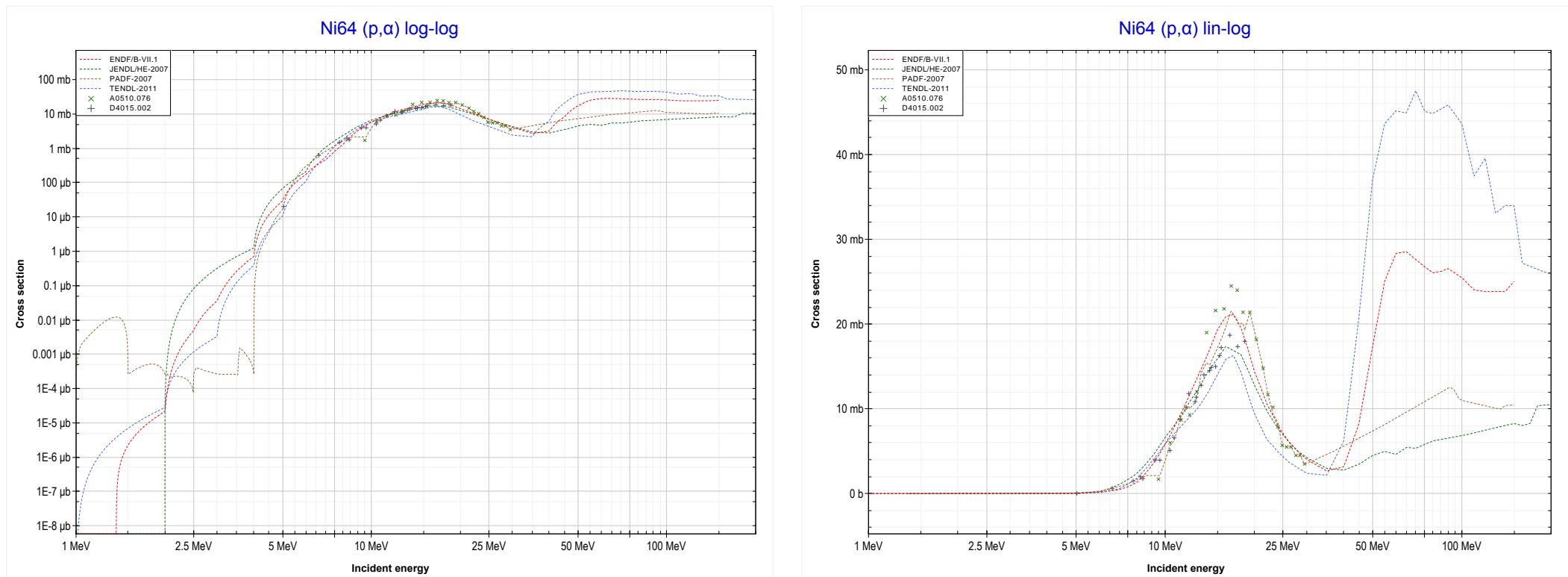
Reaction	Q-Value
Ni64(p, γ)Cu65	7453.37 keV

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



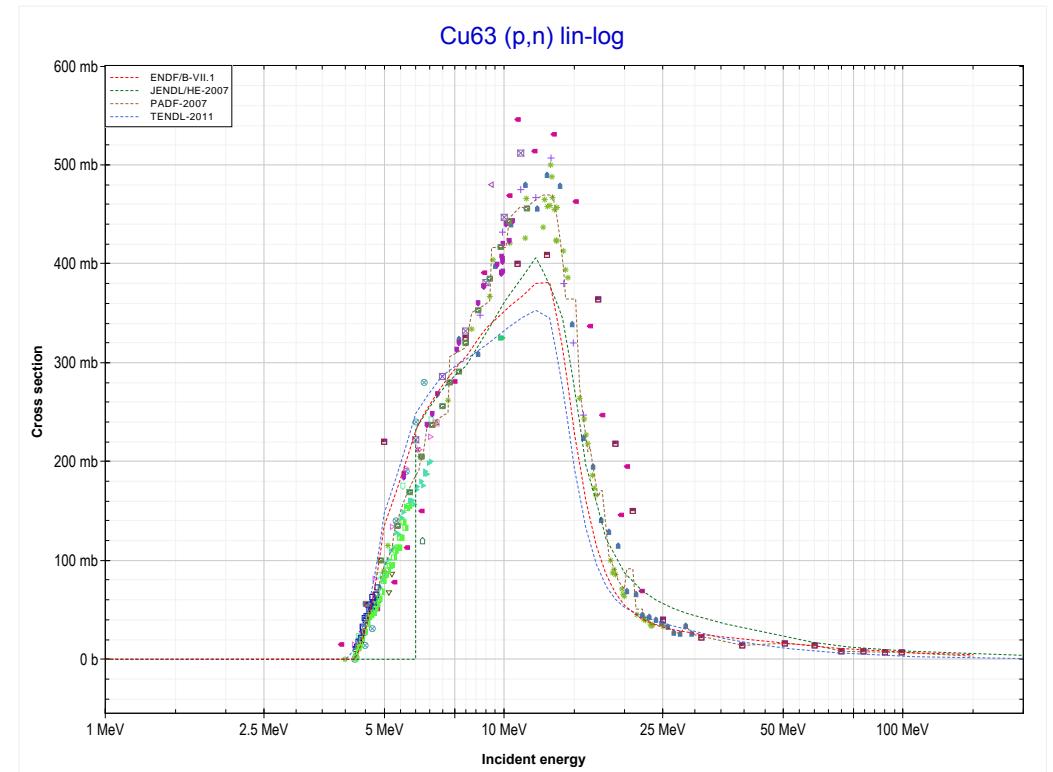
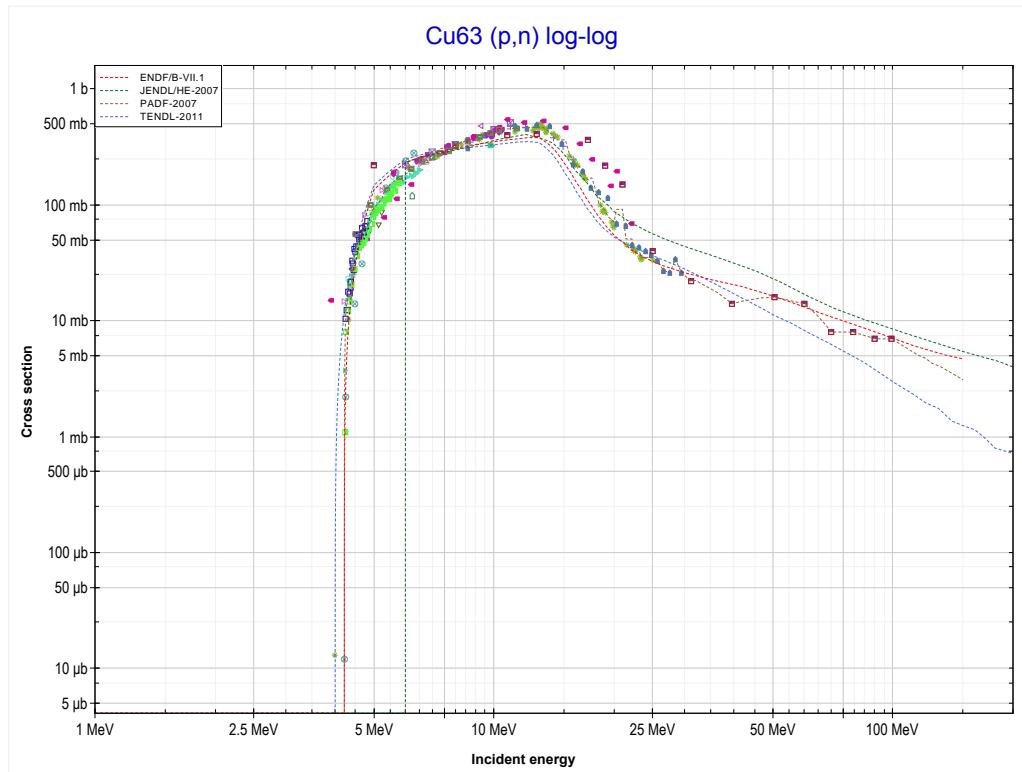
Reaction	Q-Value
Ni64(p,p)Ni64	0.00 keV

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



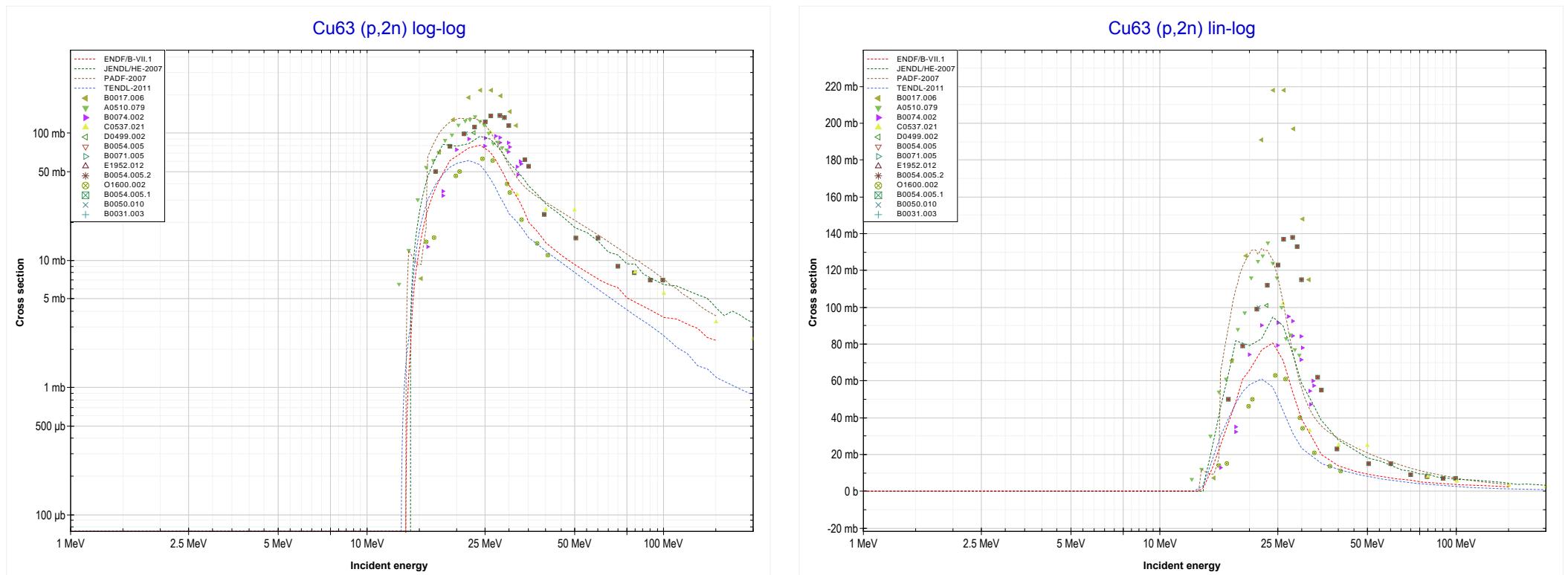
Reaction	Q-Value
Ni64(p,α)Co61	663.15 keV
Ni64($p,p+t$)Co61	-19150.71 keV
Ni64($p,n+He3$)Co61	-19914.46 keV
Ni64($p,2d$)Co61	-23183.37 keV
Ni64($p,n+p+d$)Co61	-25407.94 keV
Ni64($p,2n+2p$)Co61	-27632.50 keV

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



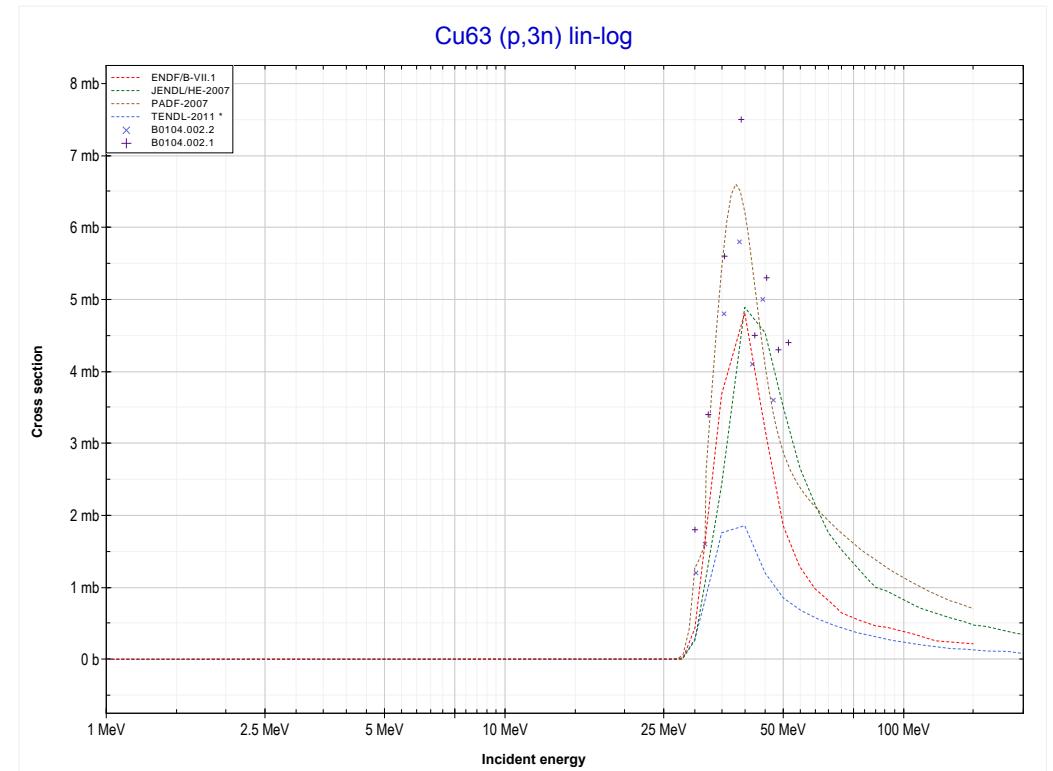
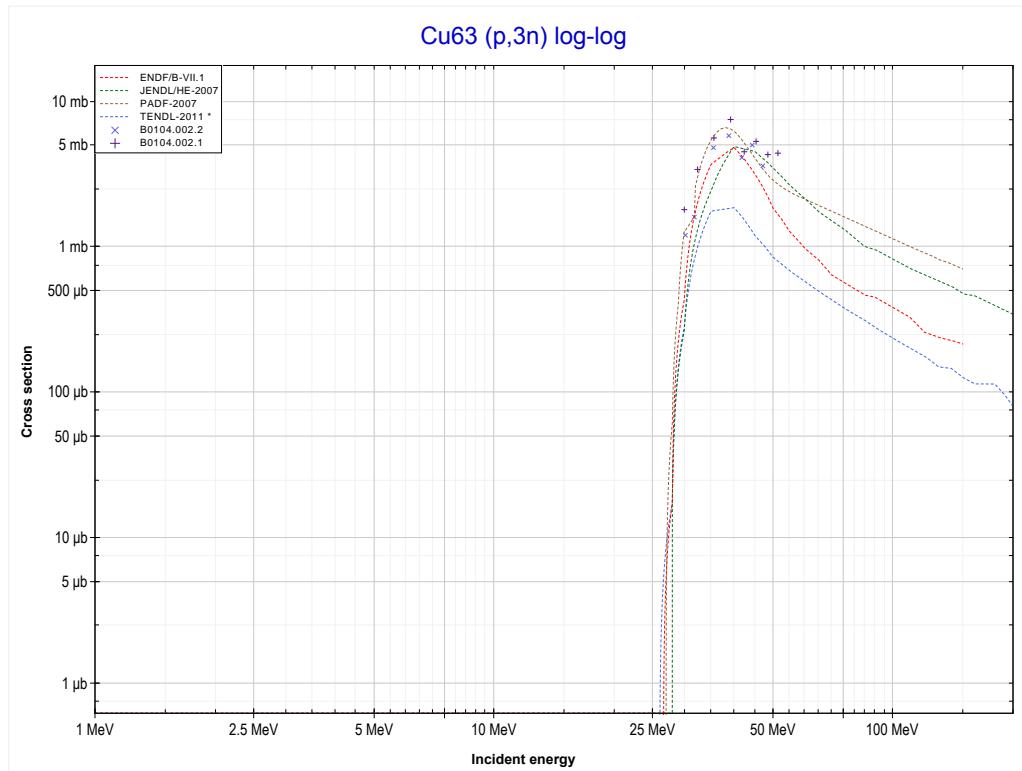
Reaction	Q-Value
Cu63(p,n)Zn63	-4148.85 keV

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



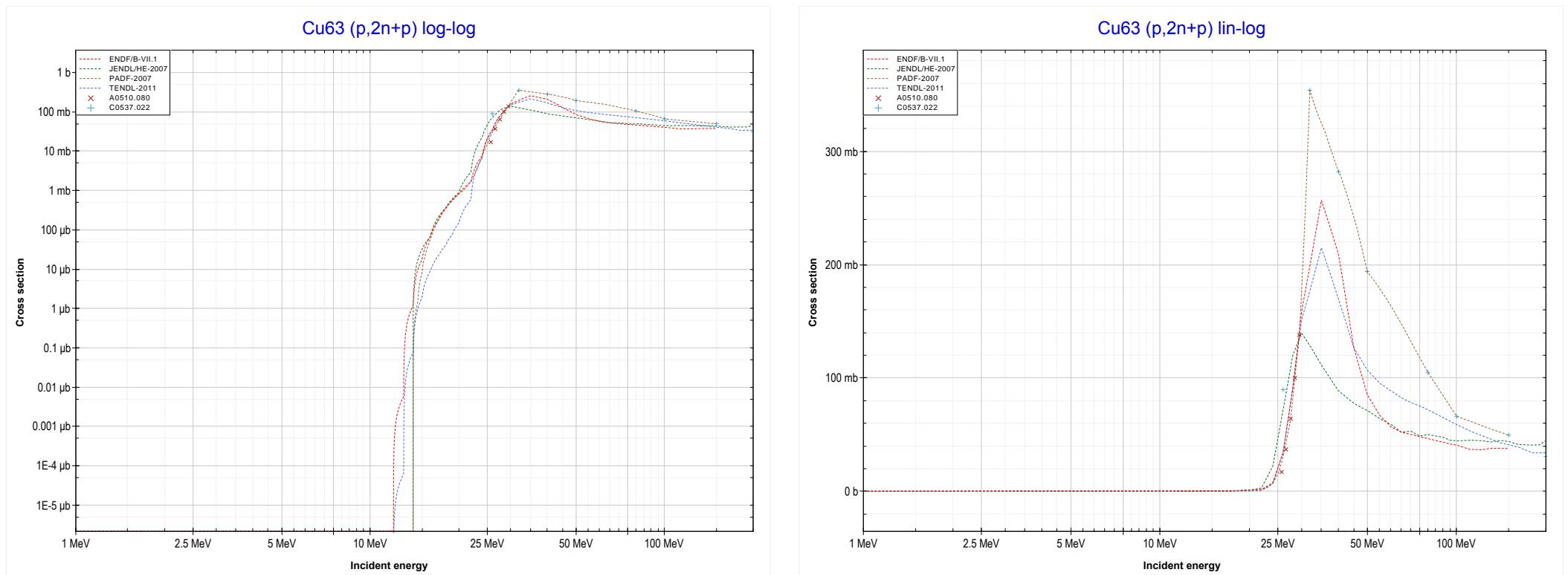
Reaction	Q-Value
Cu63(p,2n)Zn62	-13262.16 keV

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

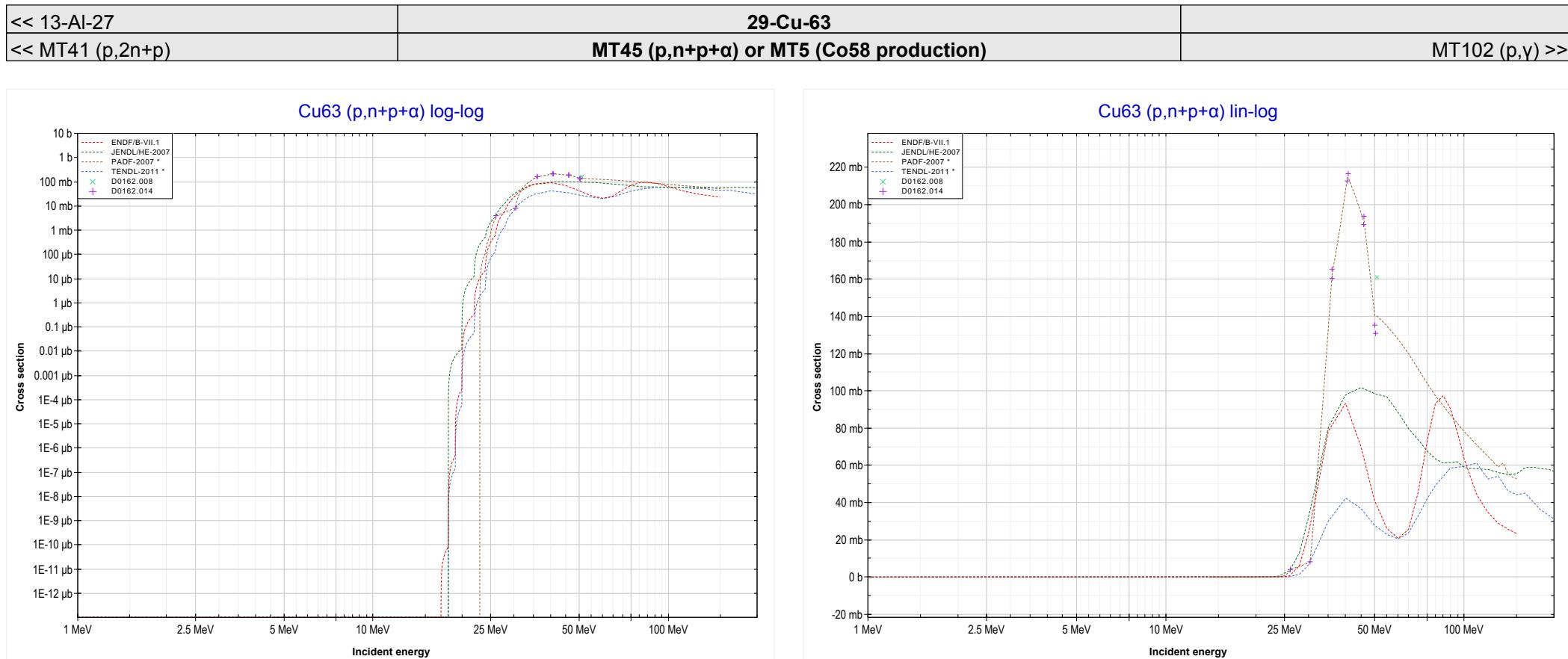


Reaction	Q-Value
Cu63(p,3n)Zn61	-26159.48 keV

<< 28-Ni-58	29-Cu-63 MT41 (p,2n+p) or MT5 (Cu61 production)	30-Zn-64 >>
<< MT17 (p,3n) >>		MT45 (p,n+p+α) >>

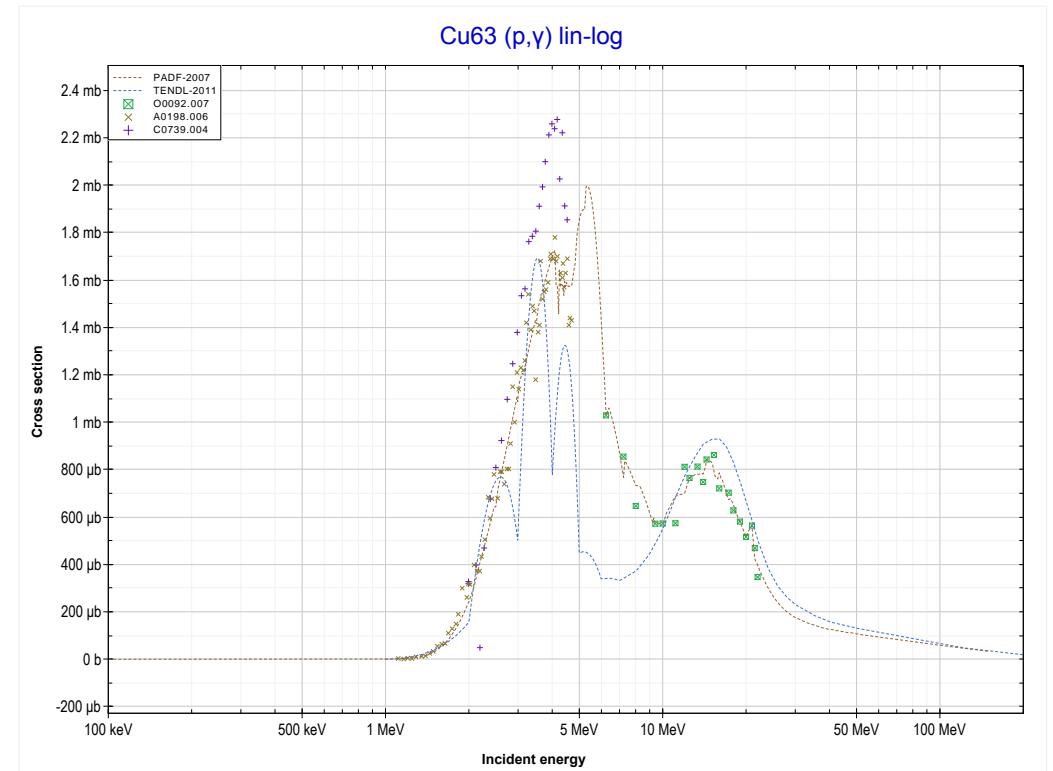
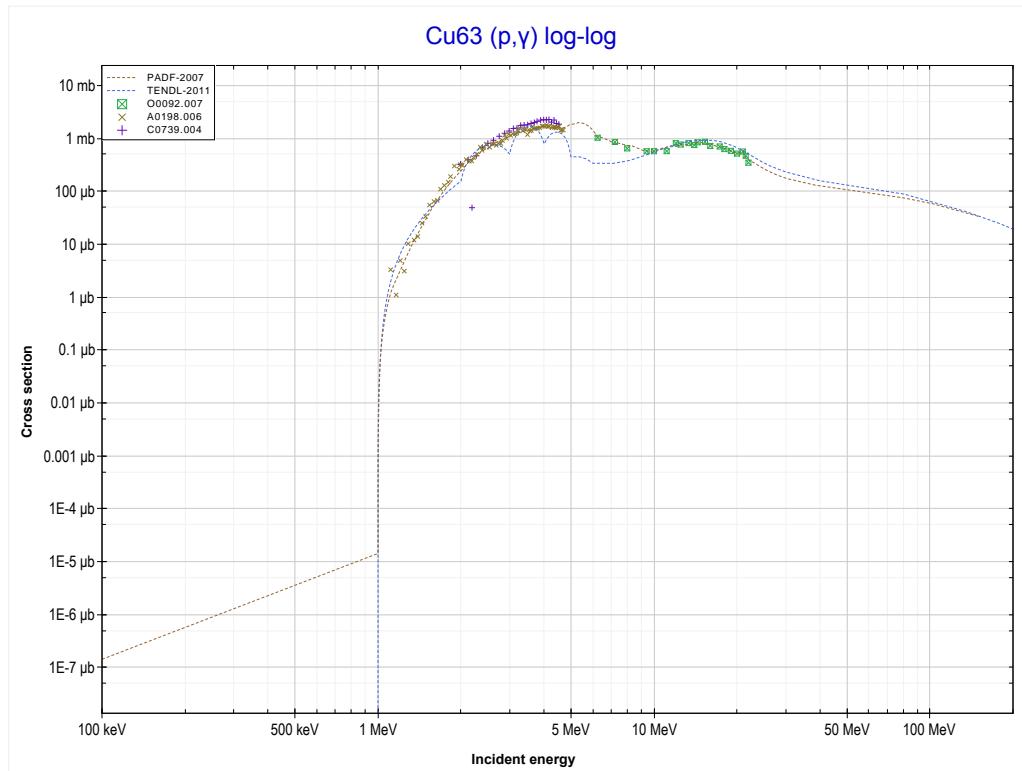


Reaction	Q-Value
Cu63(p,t)Cu61	-11256.74 keV
Cu63(p,n+d)Cu61	-17513.97 keV
Cu63(p,2n+p)Cu61	-19738.53 keV



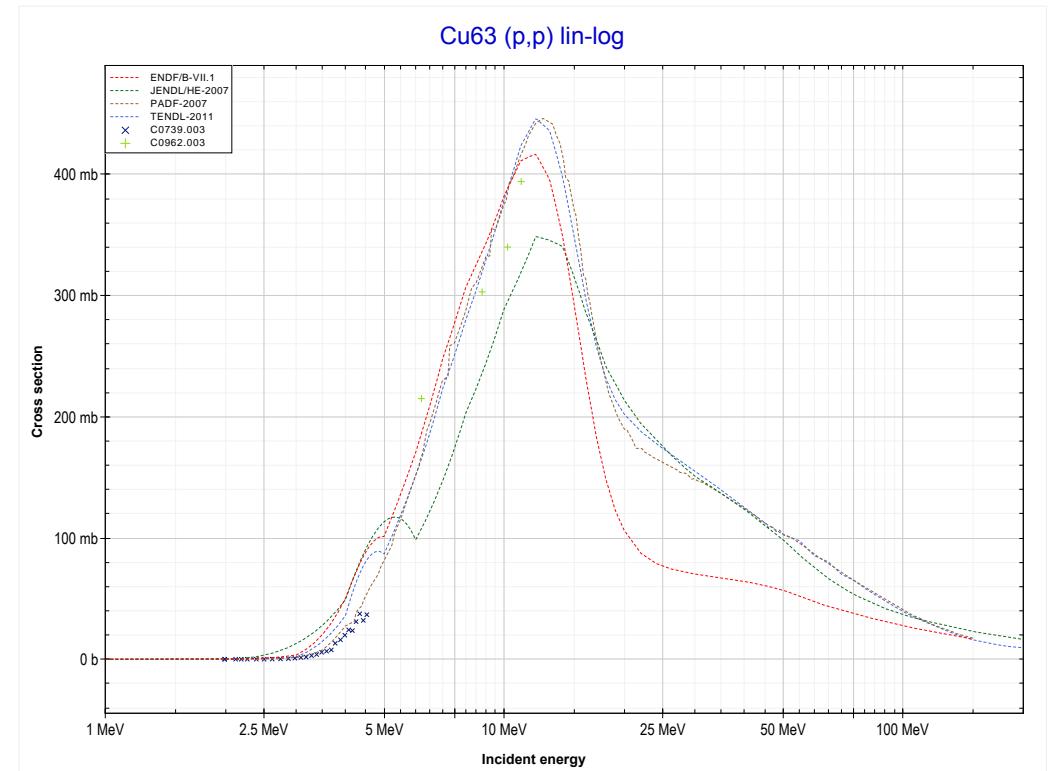
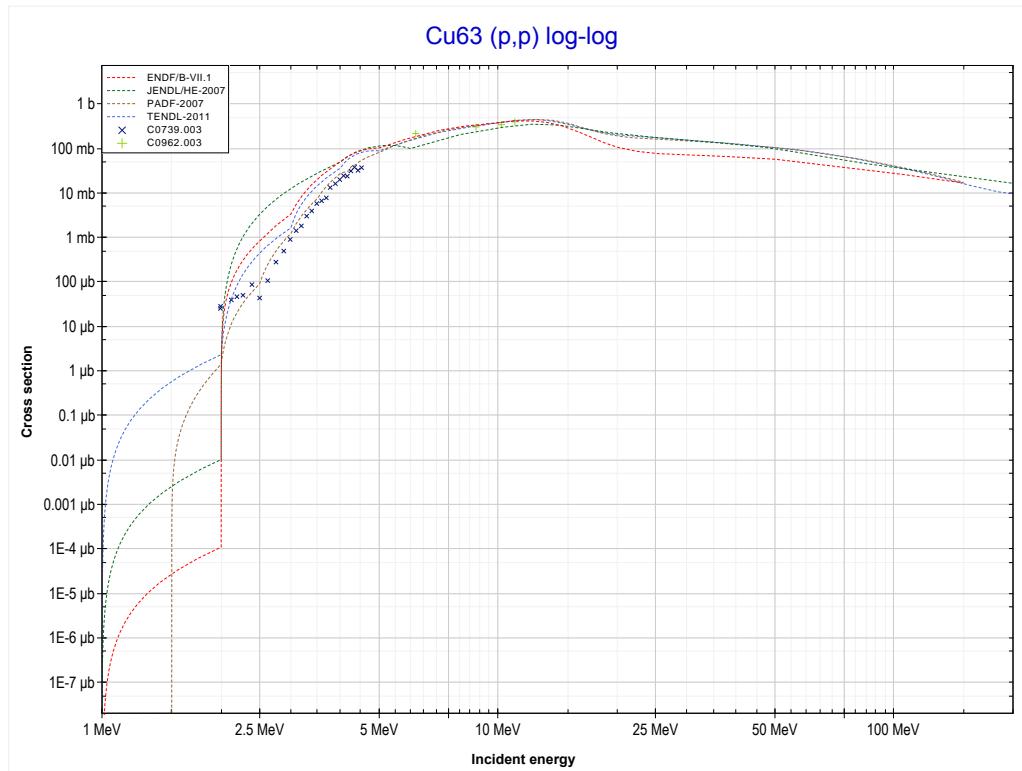
Reaction	Q-Value	Reaction	Q-Value
Cu63(p,d+ α)Co58	-14005.27 keV	Cu63(p,n+p+2d)Co58	-40076.36 keV
Cu63(p,n+p+ α)Co58	-16229.83 keV	Cu63(p,2n+2p+d)Co58	-42300.93 keV
Cu63(p,t+He3)Co58	-28325.65 keV	Cu63(p,3n+3p)Co58	-44525.49 keV
Cu63(p,p+d+t)Co58	-33819.13 keV		
Cu63(p,n+d+He3)Co58	-34582.88 keV		
Cu63(p,n+2p+t)Co58	-36043.69 keV		
Cu63(p,2n+p+He3)Co58	-36807.45 keV		
Cu63(p,3d)Co58	-37851.79 keV		

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



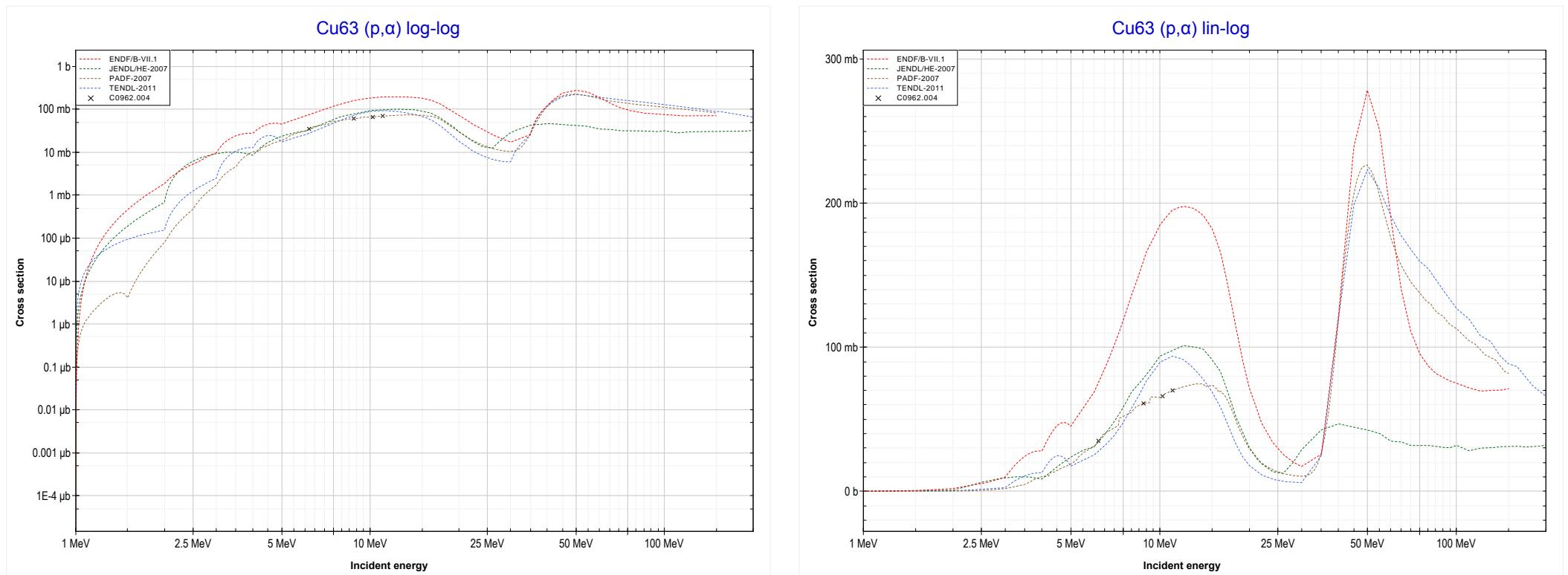
Reaction	Q-Value
Cu63(p,γ)Zn64	7713.07 keV

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



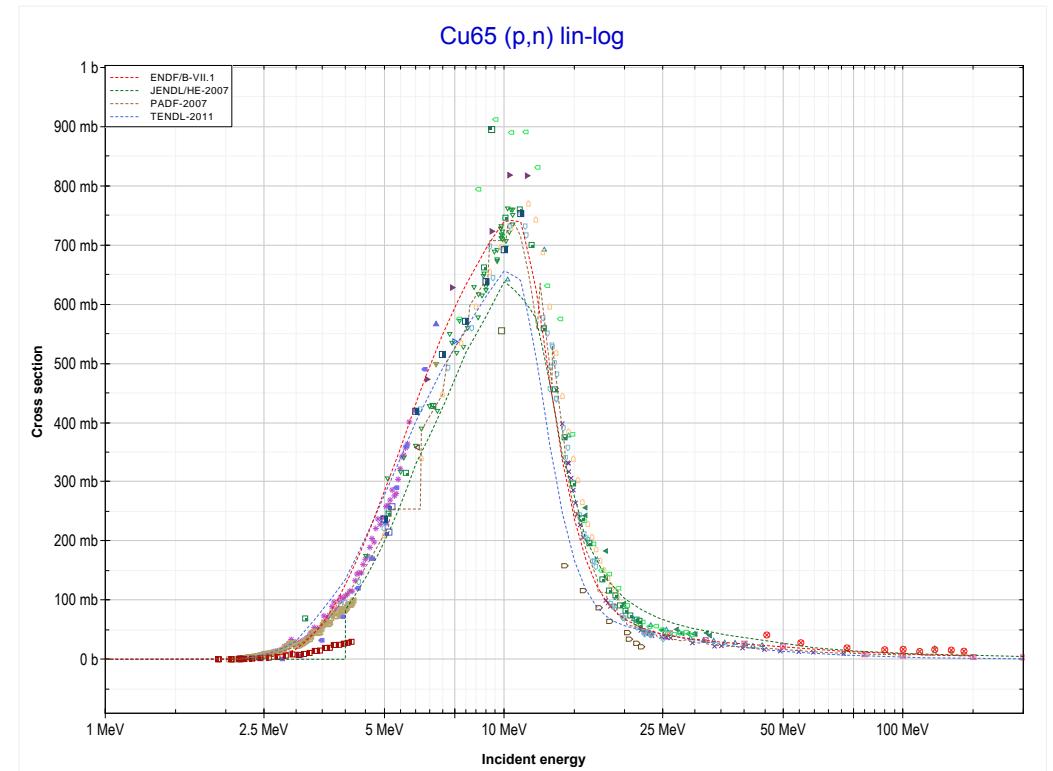
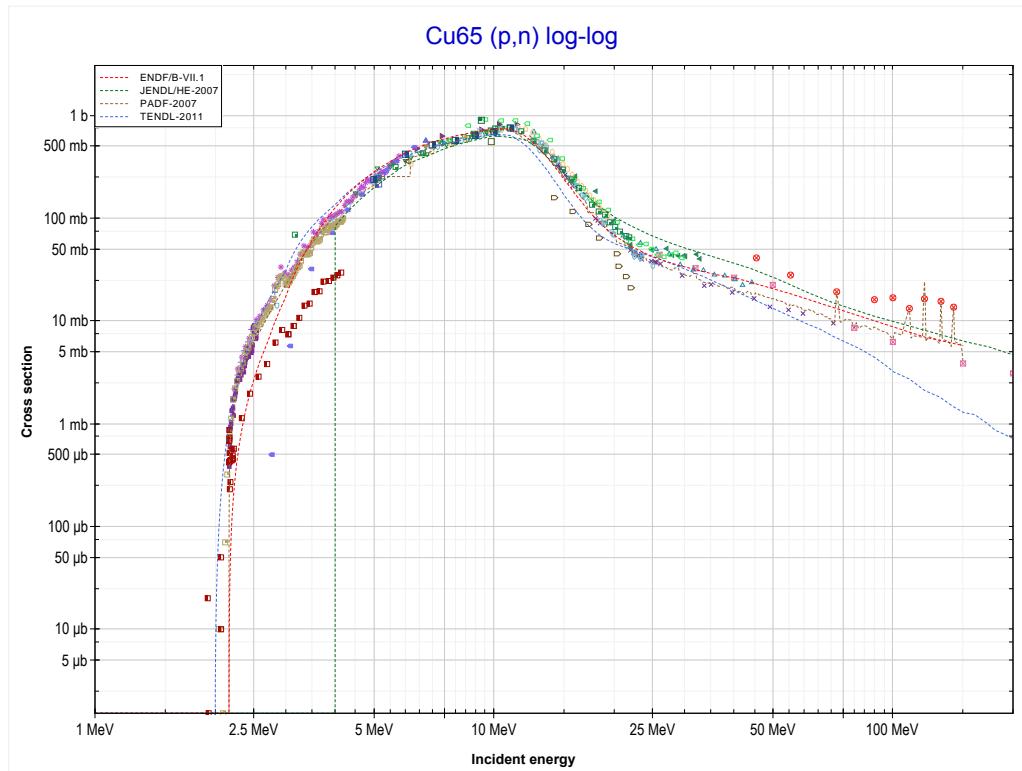
Reaction	Q-Value
Cu63(p,p)Cu63	0.00 keV

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



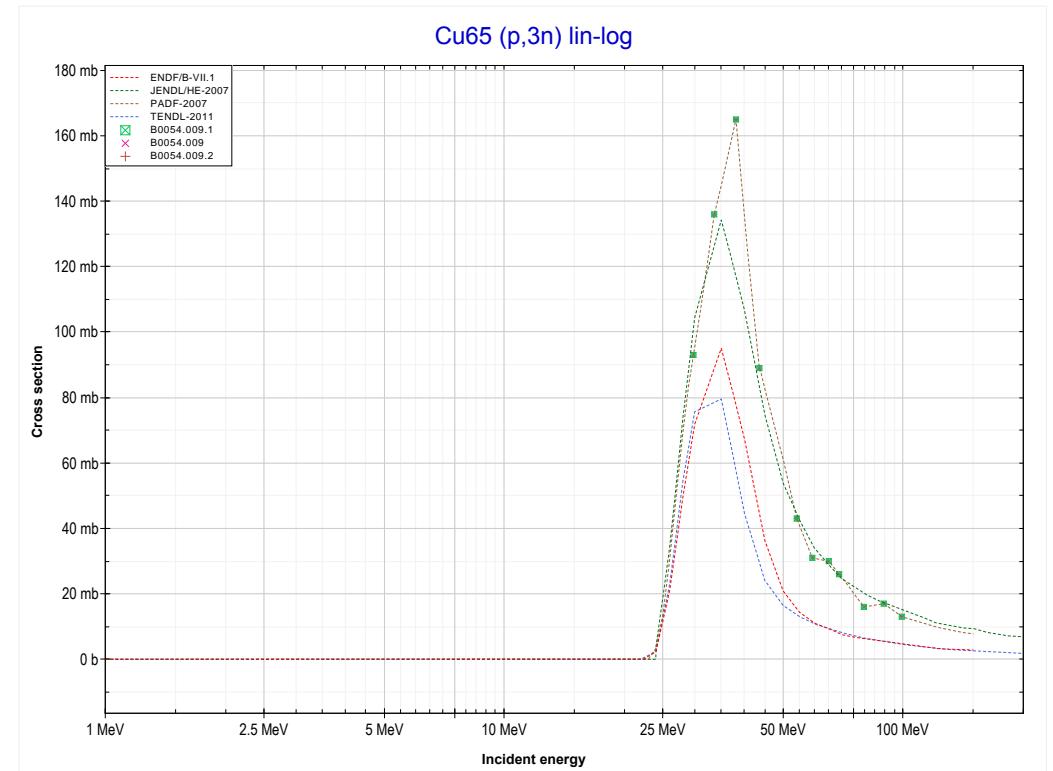
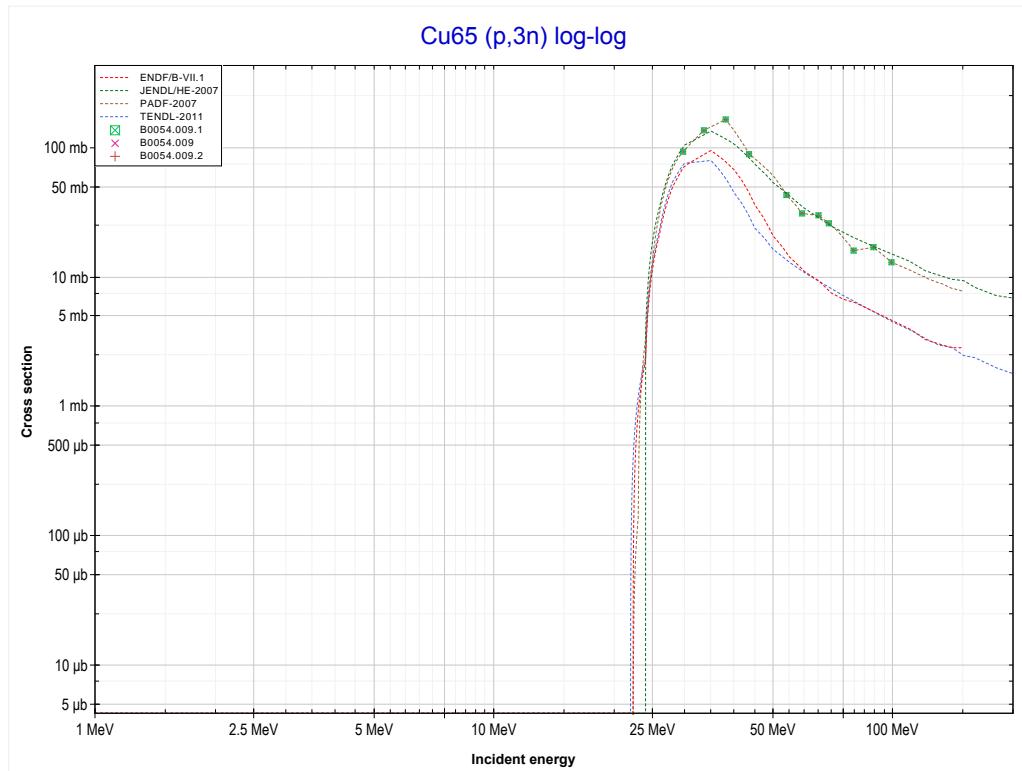
Reaction	Q-Value
Cu63(p,α)Ni60	3756.65 keV
Cu63($p,p+t$)Ni60	-16057.21 keV
Cu63($p,n+He3$)Ni60	-16820.96 keV
Cu63($p,2d$)Ni60	-20089.87 keV
Cu63($p,n+p+d$)Ni60	-22314.44 keV
Cu63($p,2n+2p$)Ni60	-24539.00 keV

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



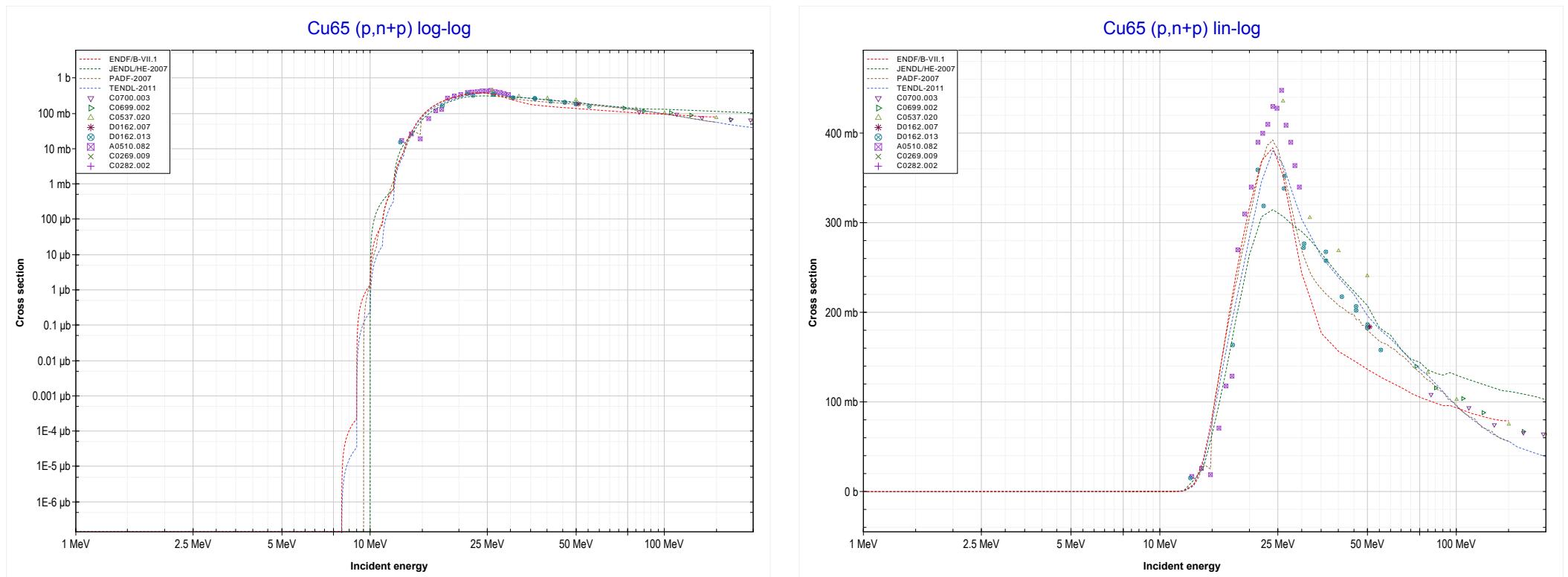
Reaction	Q-Value
Cu65(p,n)Zn65	-2134.45 keV

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



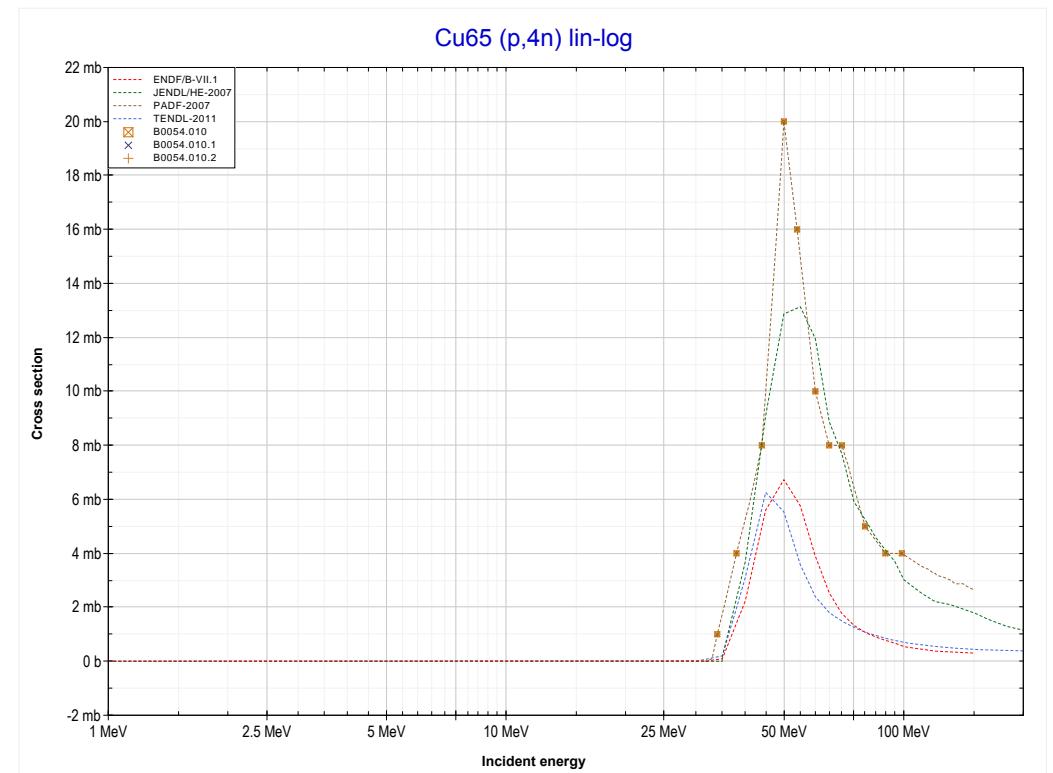
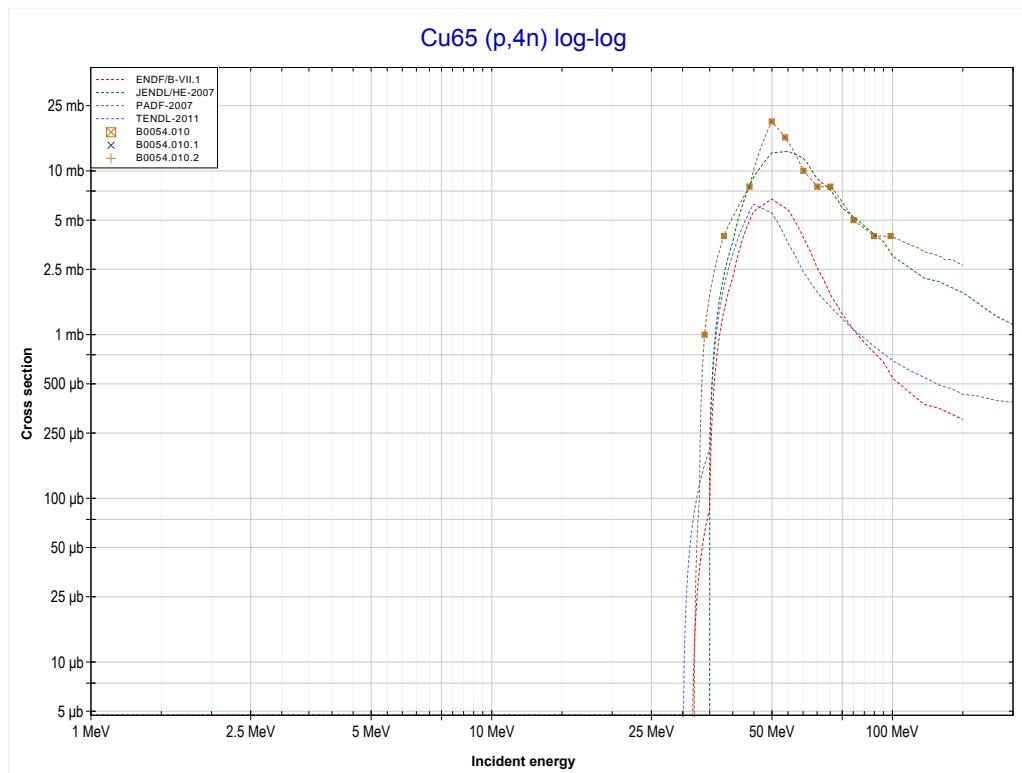
Reaction	Q-Value
Cu65(p,3n)Zn63	-21975.68 keV

<< 28-Ni-60	29-Cu-65 MT28 (p,n+p) or MT5 (Cu64 production)	>> 30-Zn-64 >>
<< MT17 (p,3n)		MT37 (p,4n) >>



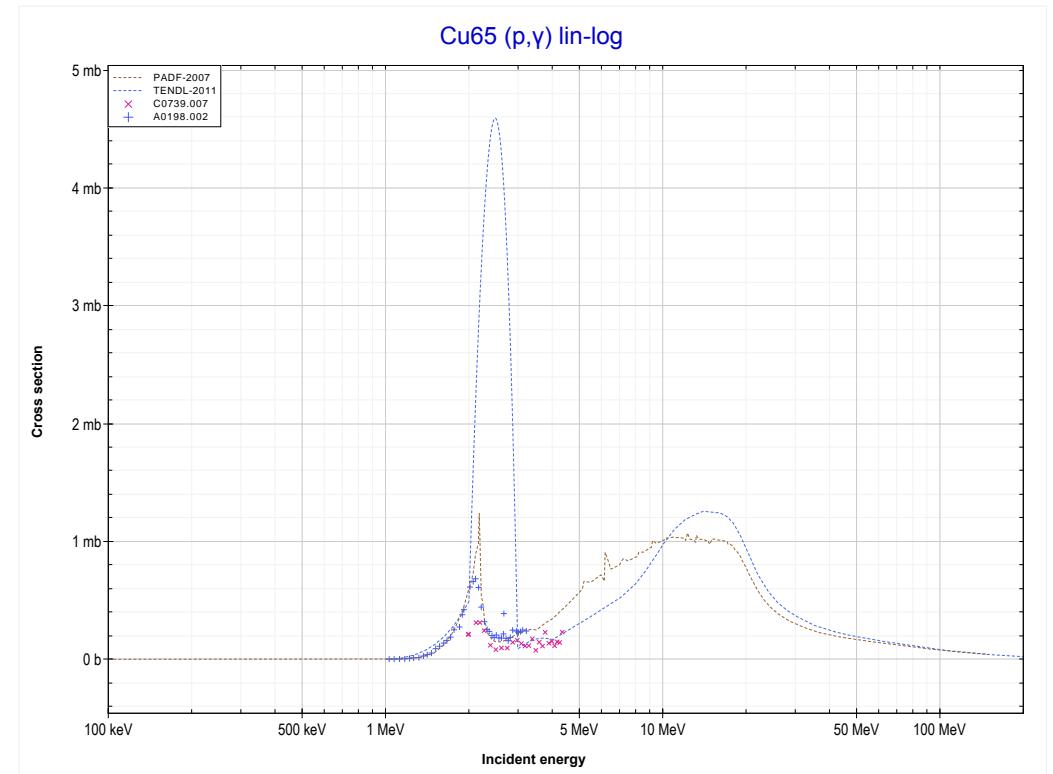
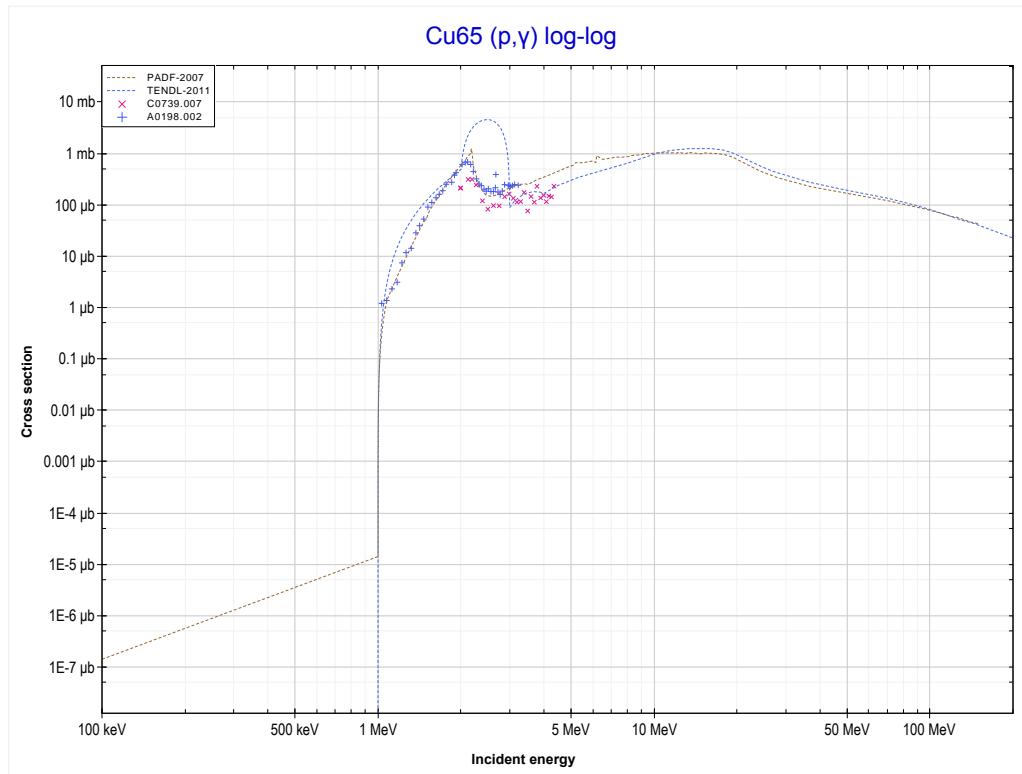
Reaction	Q-Value
Cu65(p,d)Cu64	-7686.25 keV
Cu65(p,n+p)Cu64	-9910.82 keV

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



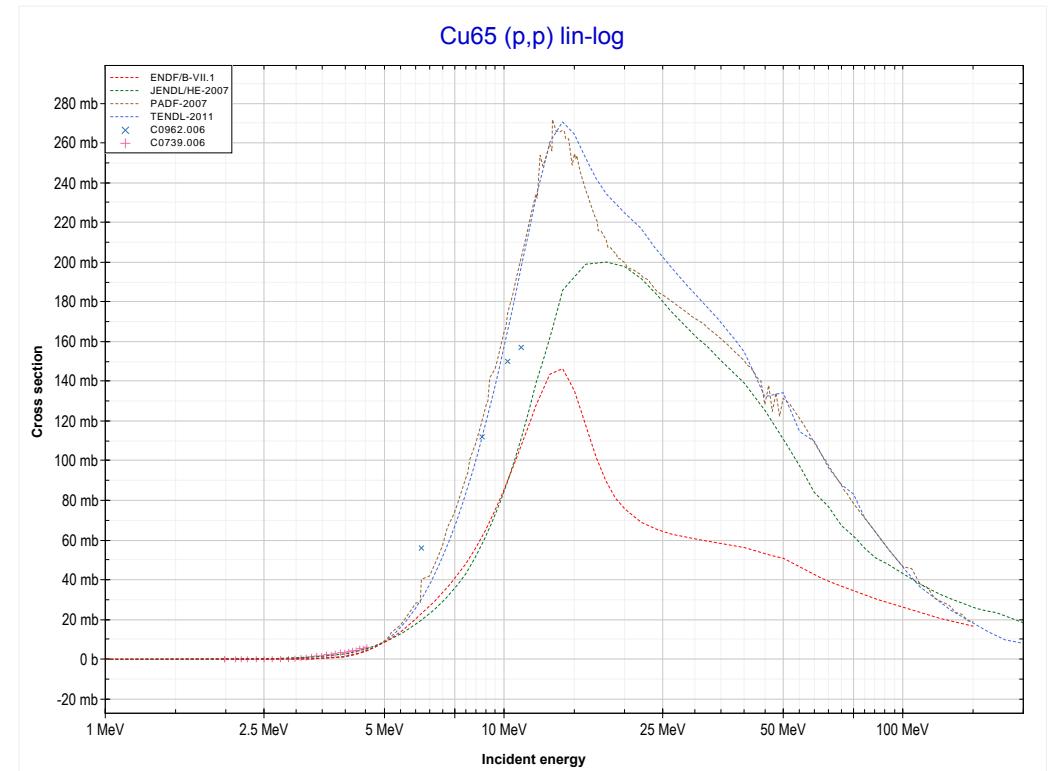
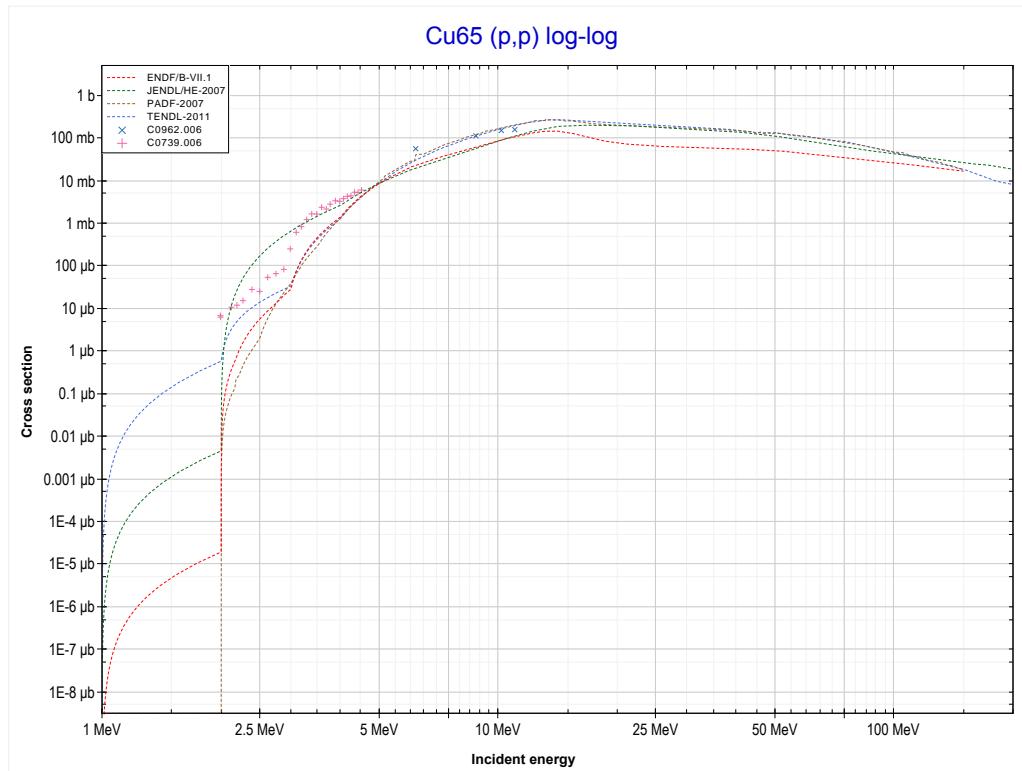
Reaction	Q-Value
Cu65(p,4n)Zn62	-31089.00 keV

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



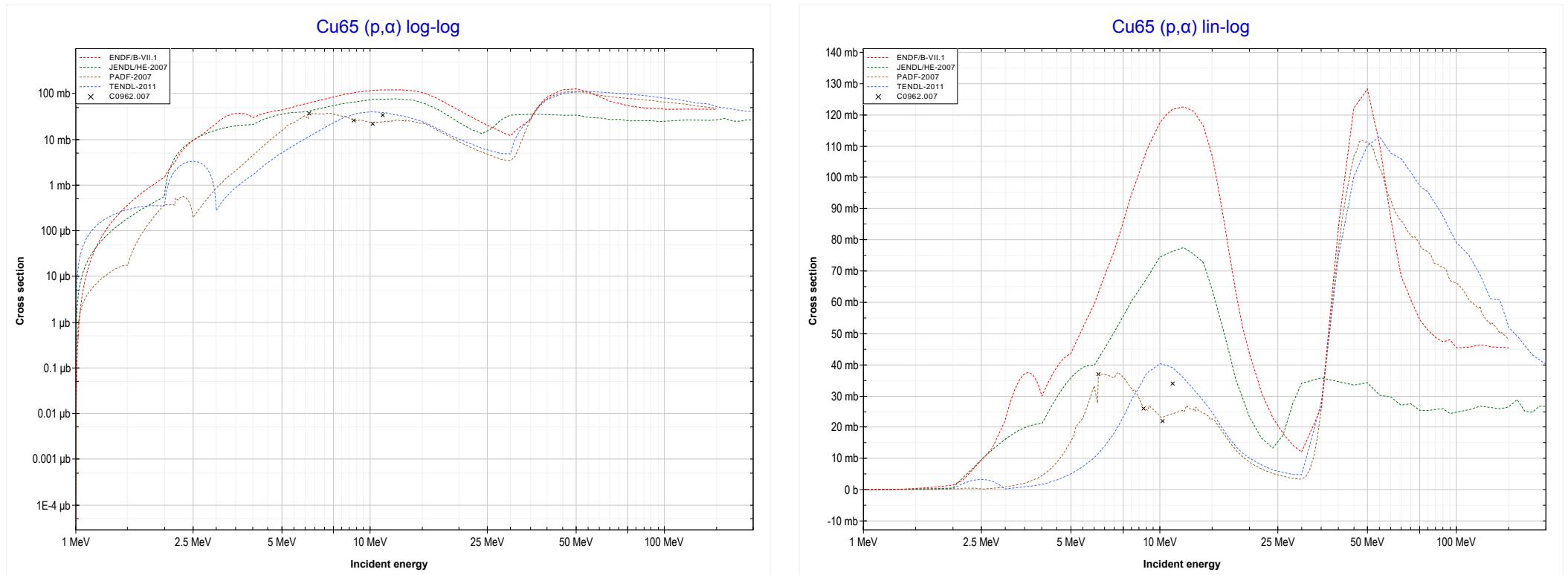
Reaction	Q-Value
$\text{Cu65}(p,\gamma)\text{Zn66}$	8924.67 keV

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



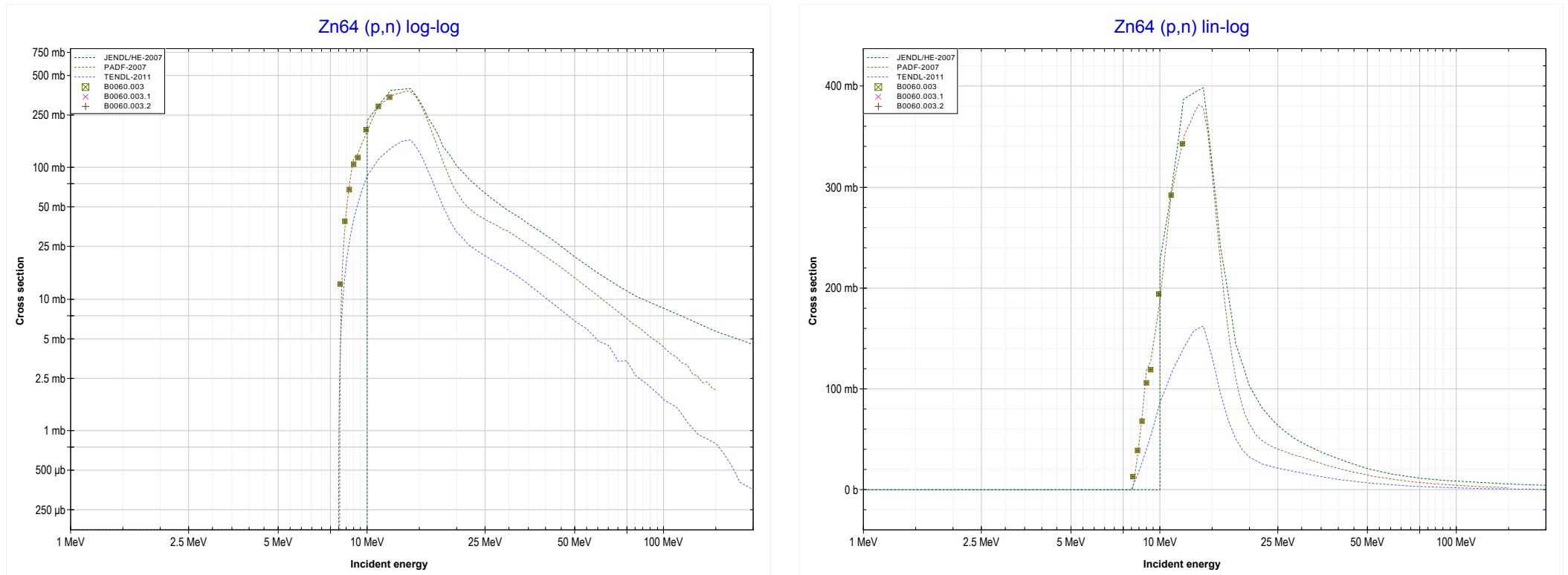
Reaction	Q-Value
Cu65(p,p)Cu65	0.00 keV

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



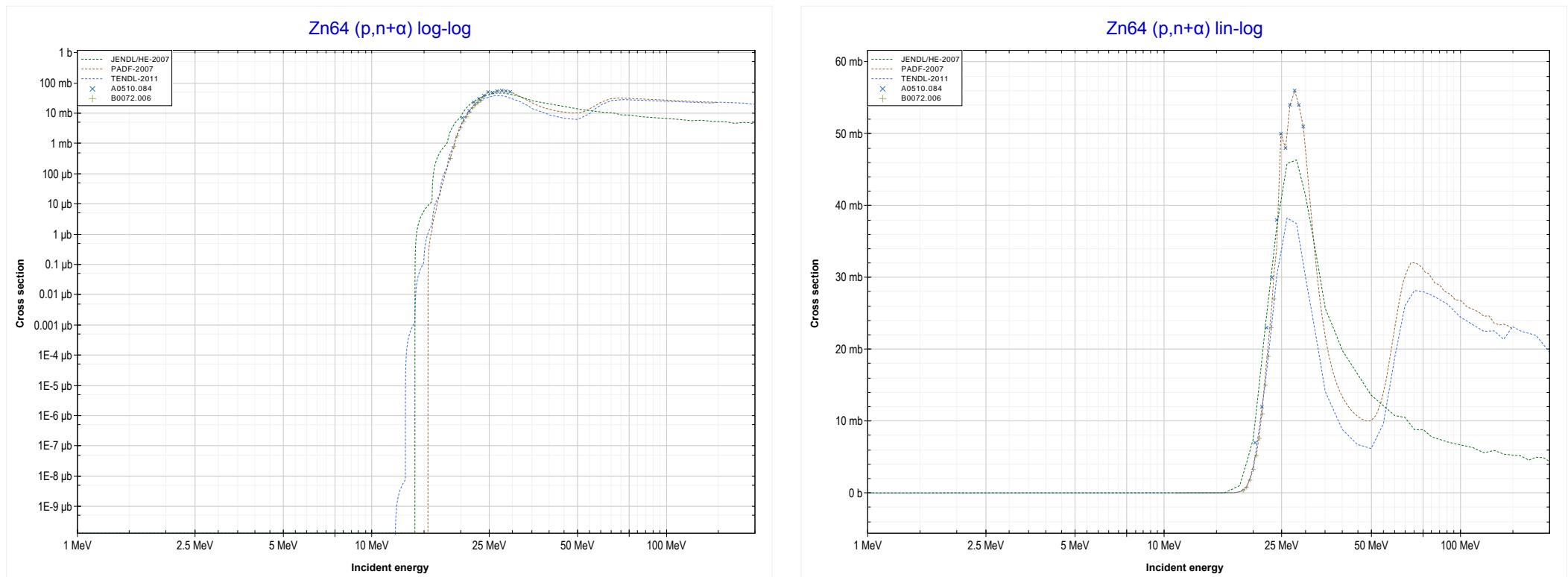
Reaction	Q-Value
Cu65(p,α)Ni62	4346.45 keV
Cu65($p,p+t$)Ni62	-15467.41 keV
Cu65($p,n+He3$)Ni62	-16231.16 keV
Cu65($p,2d$)Ni62	-19500.07 keV
Cu65($p,n+p+d$)Ni62	-21724.64 keV
Cu65($p,2n+2p$)Ni62	-23949.20 keV

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



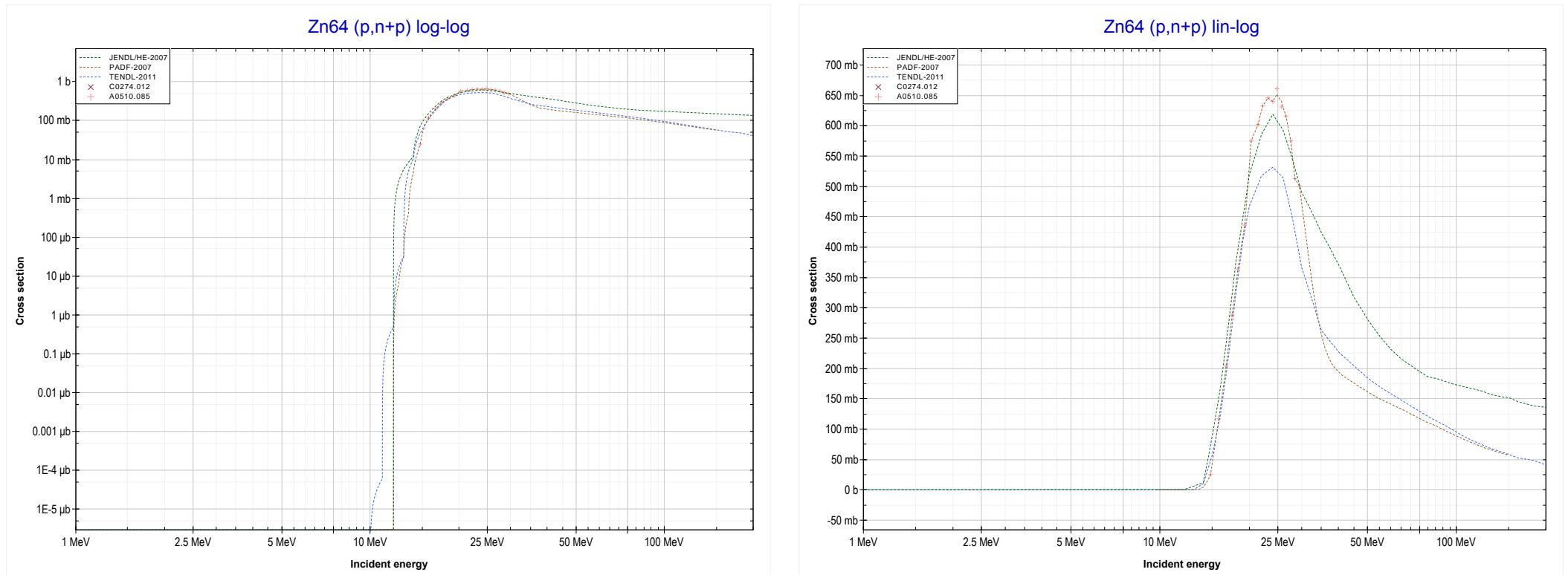
Reaction	Q-Value
Zn64(p,n)Ga64	-7951.65 keV

<< 28-Ni-64	30-Zn-64 MT22 ($p,n+\alpha$) or MT5 (Cu60 production)	30-Zn-68 >>
<< MT4 (p,n)		MT28 ($p,n+p$) >>



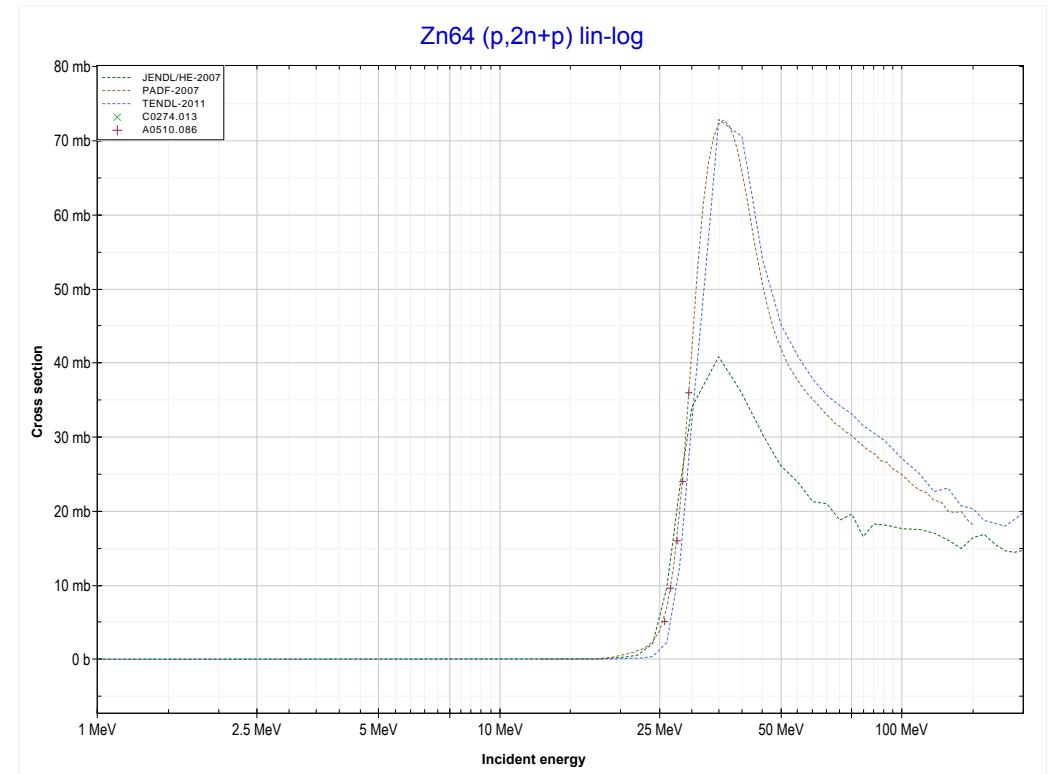
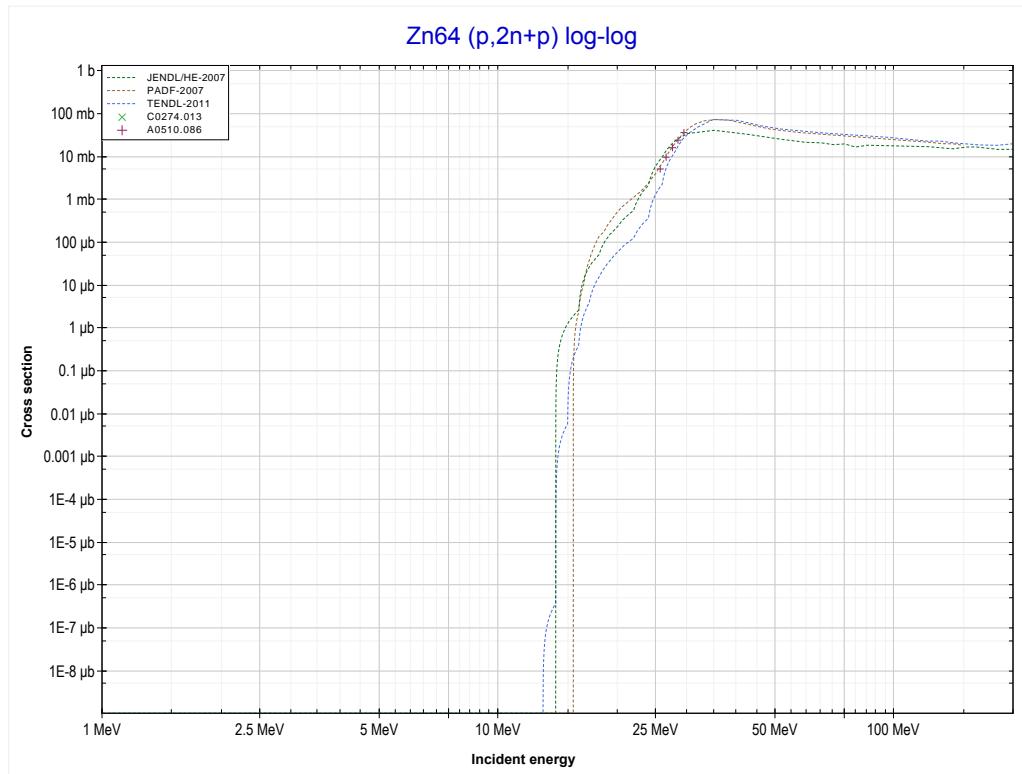
Reaction	Q-Value
Zn64($p,n+\alpha$)Cu60	-10866.76 keV
Zn64($p,d+t$)Cu60	-28456.06 keV
Zn64($p,n+p+t$)Cu60	-30680.62 keV
Zn64($p,2n+He3$)Cu60	-31444.38 keV
Zn64($p,n+2d$)Cu60	-34713.29 keV
Zn64($p,2n+p+d$)Cu60	-36937.86 keV
Zn64($p,3n+2p$)Cu60	-39162.42 keV

<< 29-Cu-65	30-Zn-64 MT28 (p,n+p) or MT5 (Zn63 production)	30-Zn-66 >>
<< MT22 (p,n+α)		MT41 (p,2n+p) >>



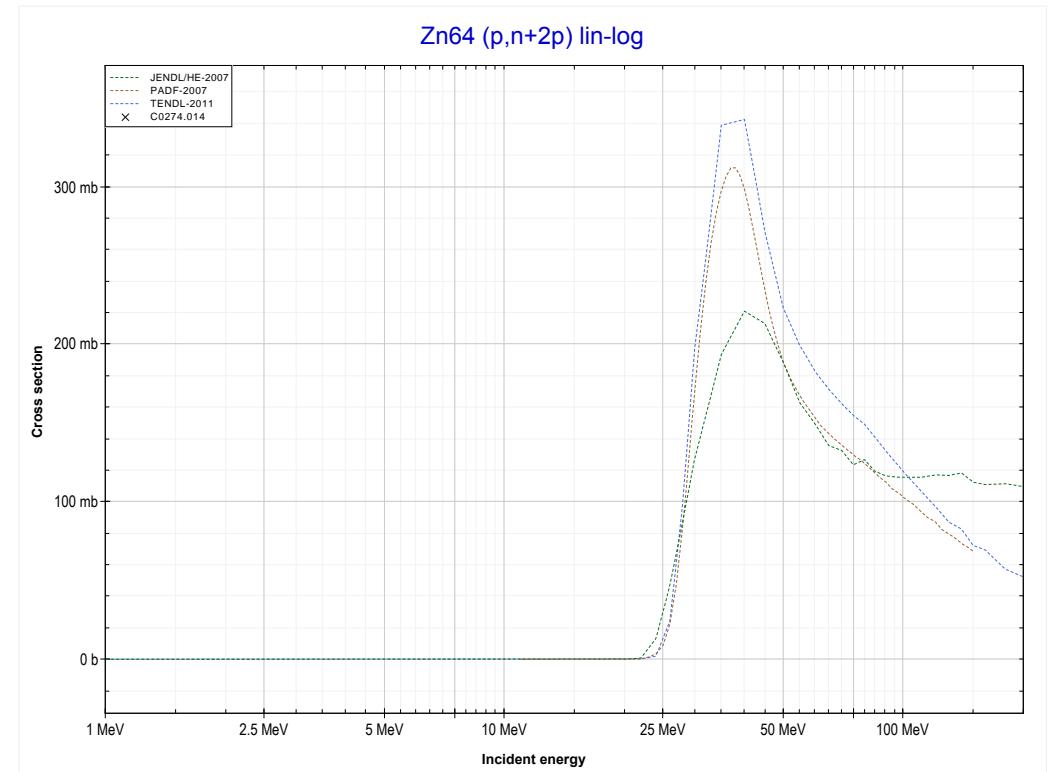
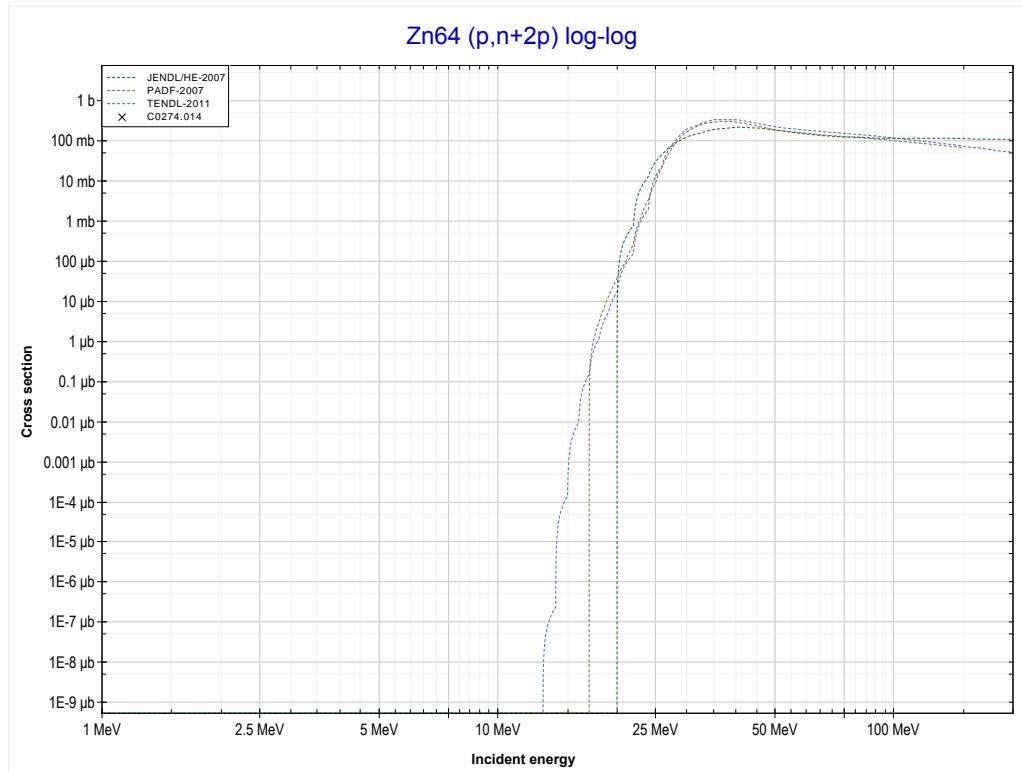
Reaction	Q-Value
Zn64(p,d)Zn63	-9637.35 keV
Zn64(p,n+p)Zn63	-11861.92 keV

<< 29-Cu-63	30-Zn-64 MT41 (p,2n+p) or MT5 (Zn62 production)	31-Ga-69 >>
<< MT28 (p,n+p) >>		MT44 (p,n+2p) >>



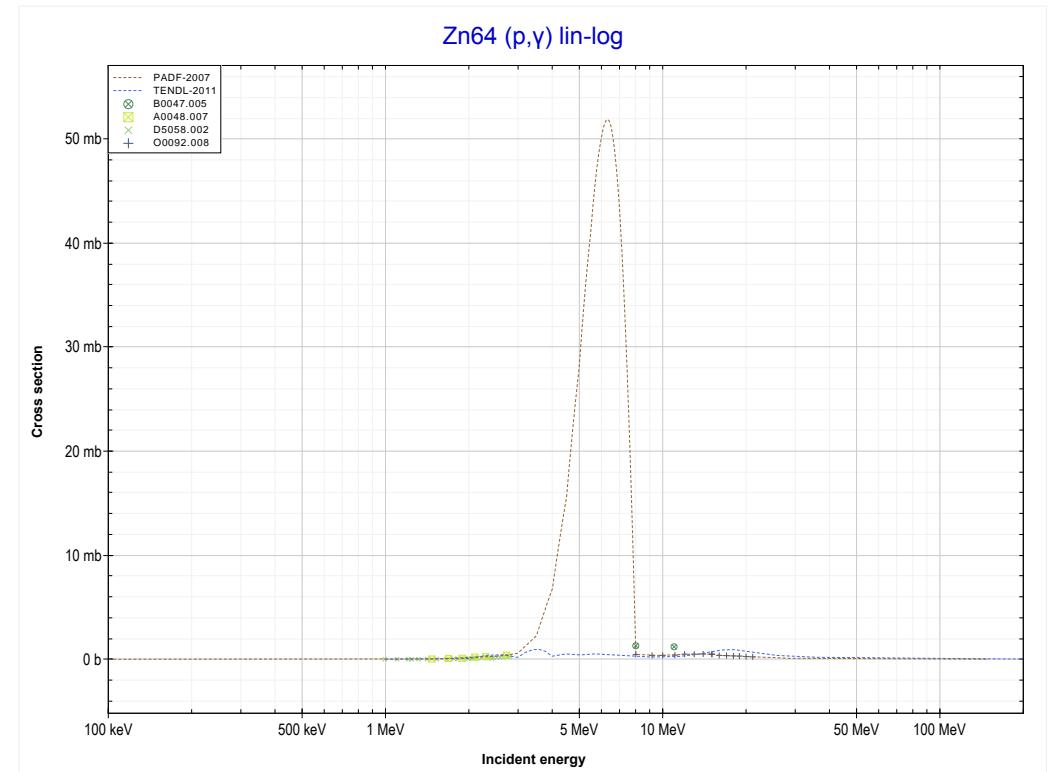
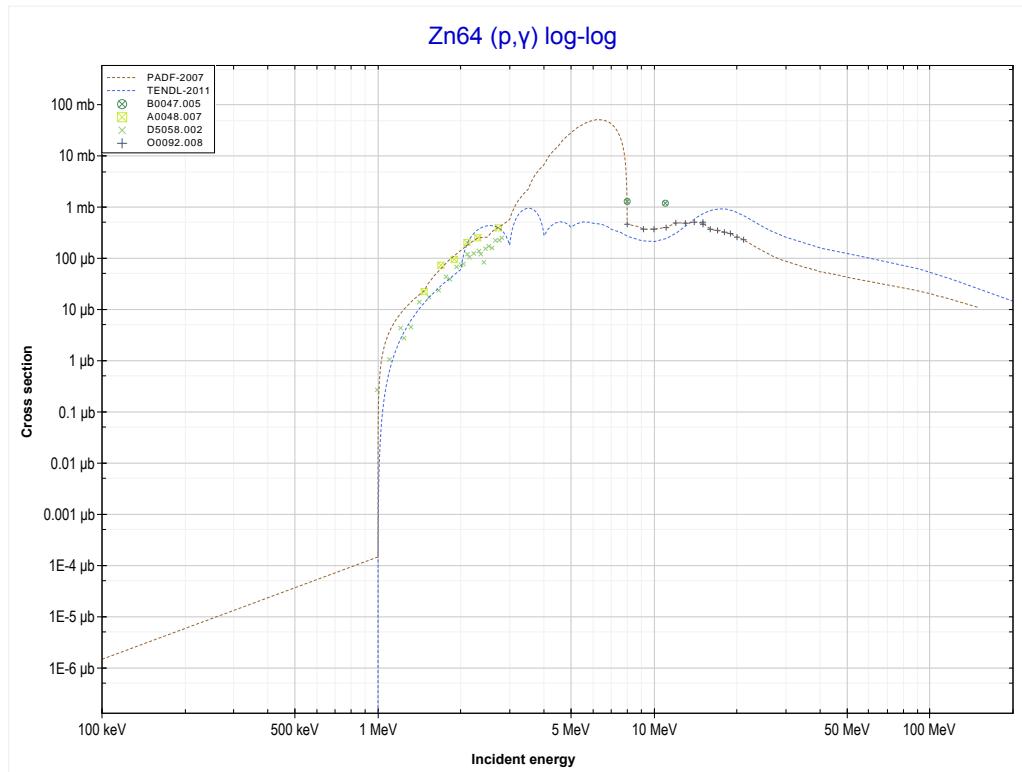
Reaction	Q-Value
Zn64(p,t)Zn62	-12493.44 keV
Zn64(p,n+d)Zn62	-18750.67 keV
Zn64(p,2n+p)Zn62	-20975.23 keV

<< 28-Ni-60	30-Zn-64 MT44 (p,n+2p) or MT5 (Cu62 production)	31-Ga-71 >>
<< MT41 (p,2n+p)		MT102 (p,y) >>



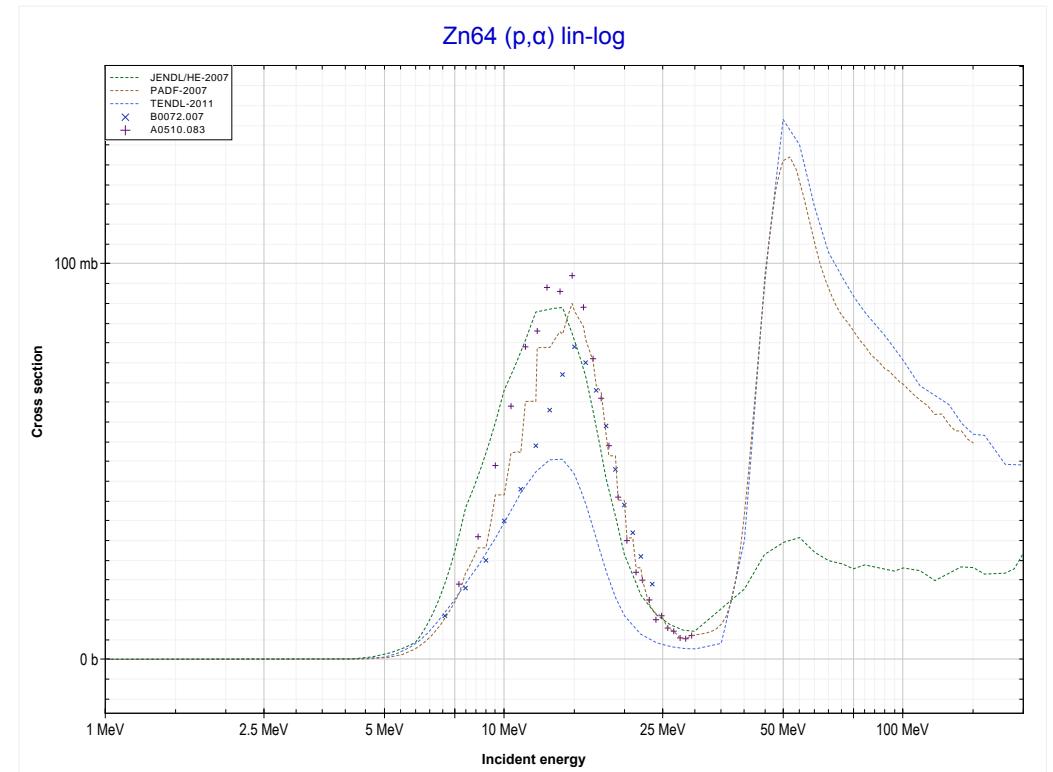
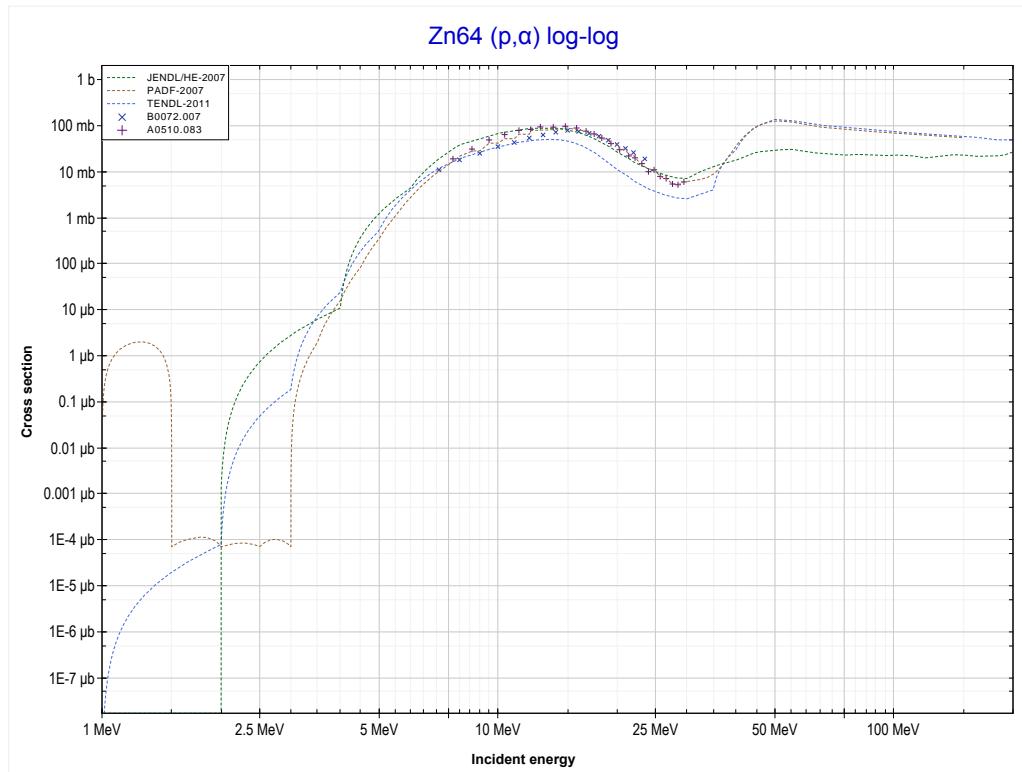
Reaction	Q-Value
Zn64(p,He3)Cu62	-10847.84 keV
Zn64(p,p+d)Cu62	-16341.32 keV
Zn64(p,n+2p)Cu62	-18565.89 keV

<< 29-Cu-65	30-Zn-64 MT102 (p,γ) or MT5 (Ga65 production)	>> 30-Zn-66
<< MT44 ($p,n+2p$)		>> MT107 (p,α)



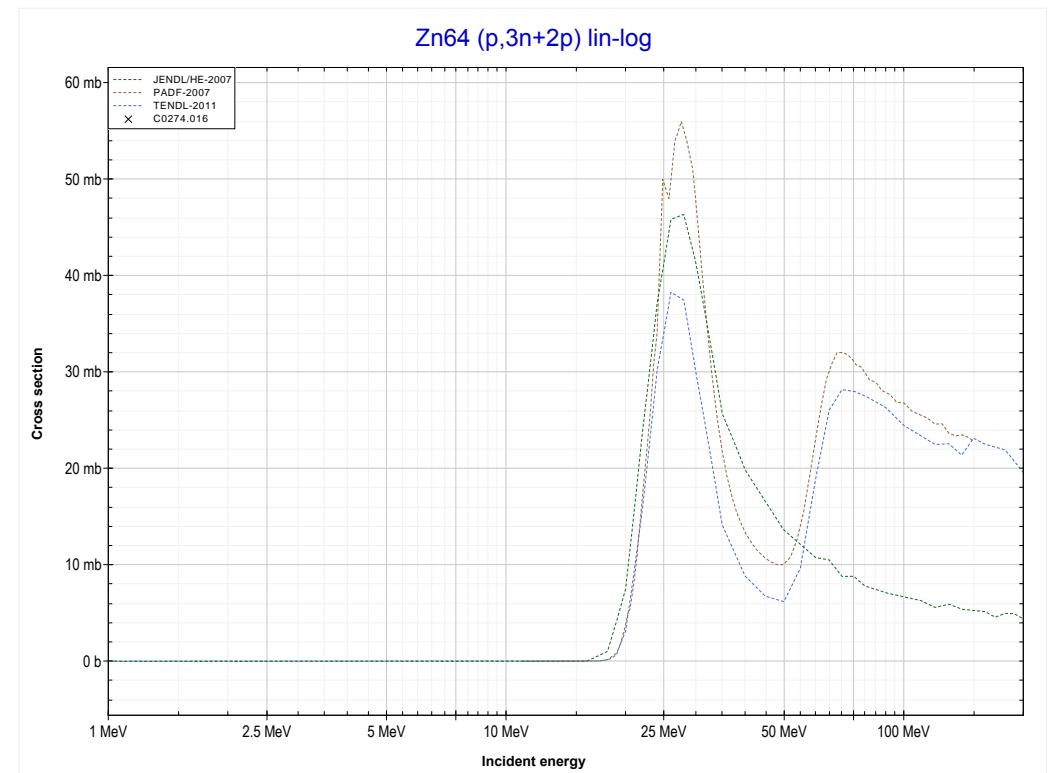
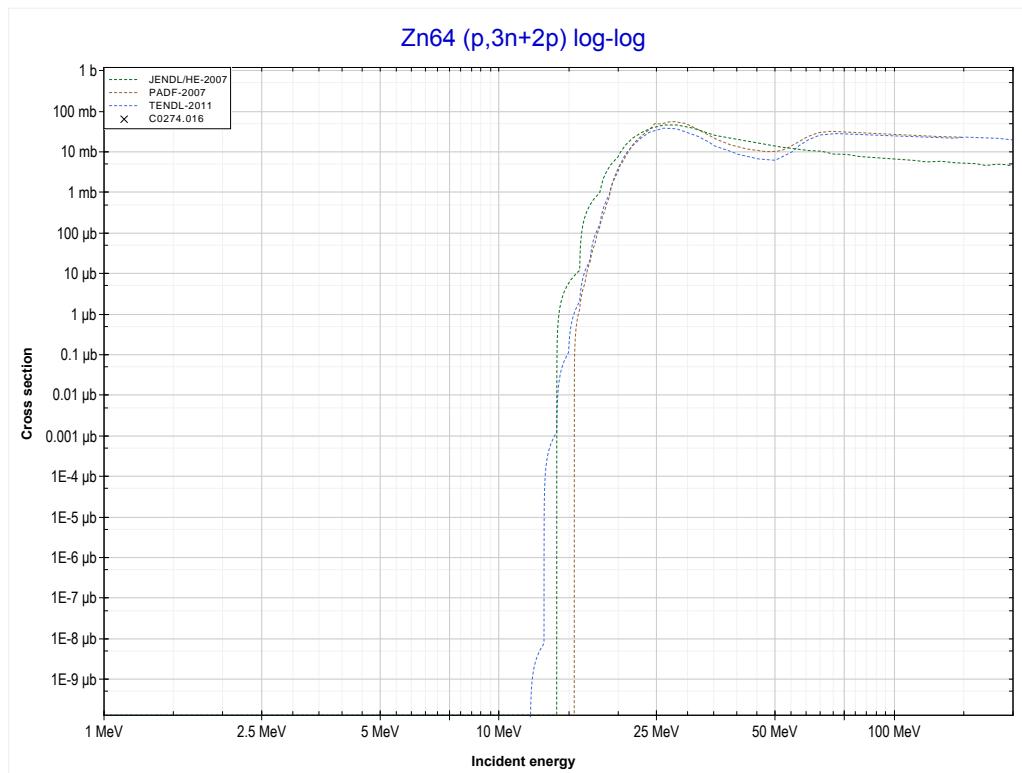
Reaction	Q-Value
Zn64(p,γ)Ga65	3942.57 keV

<< 29-Cu-65	30-Zn-64 MT107 (p,α) or MT5 (Cu61 production)	30-Zn-67 >>
<< MT102 (p,γ)		MT179 ($p,3n+2p$) >>

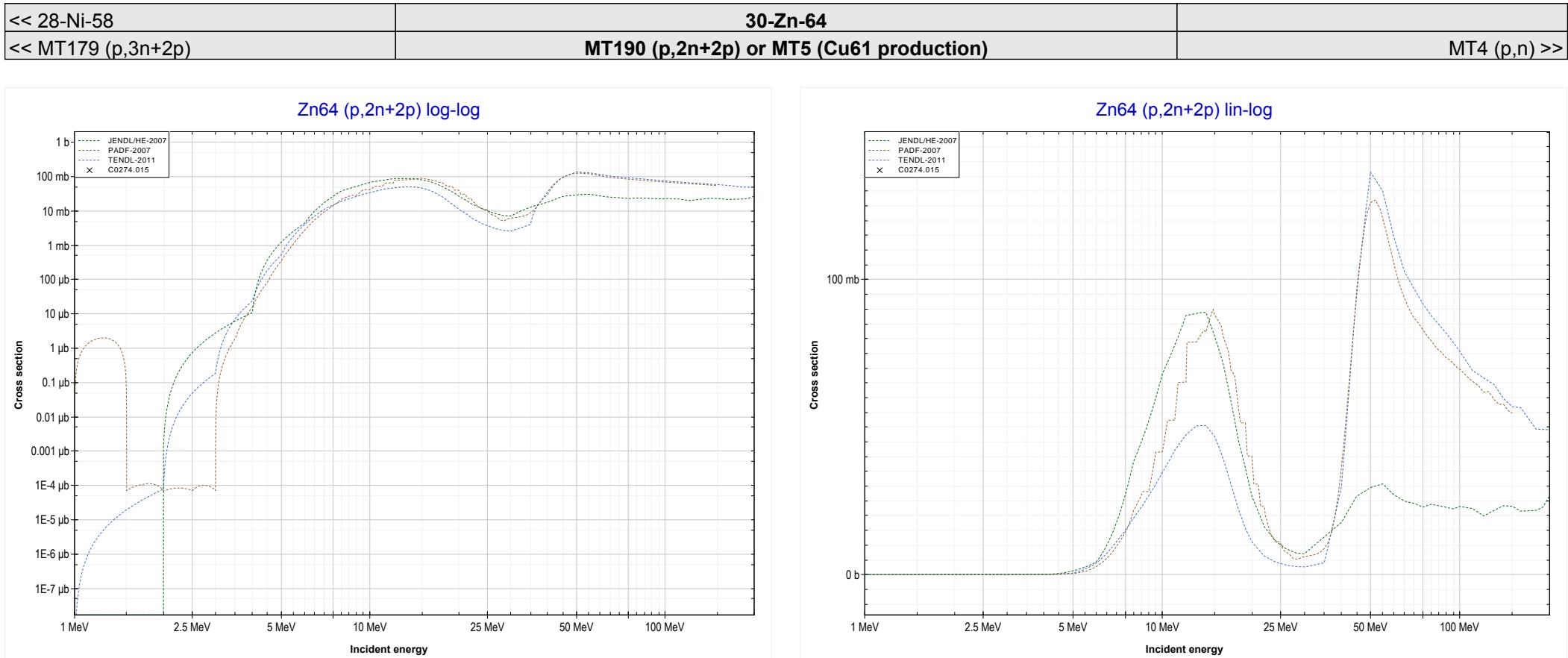


Reaction	Q-Value
Zn64(p,α)Cu61	844.05 keV
Zn64($p,p+t$)Cu61	-18969.81 keV
Zn64($p,n+He3$)Cu61	-19733.56 keV
Zn64($p,2d$)Cu61	-23002.47 keV
Zn64($p,n+p+d$)Cu61	-25227.04 keV
Zn64($p,2n+2p$)Cu61	-27451.60 keV

<< 12-Mg-26	30-Zn-64 MT179 ($p,3n+2p$) or MT5 (Cu60 production)	31-Ga-69 >>
<< MT107 (p,α)		MT190 ($p,2n+2p$) >>

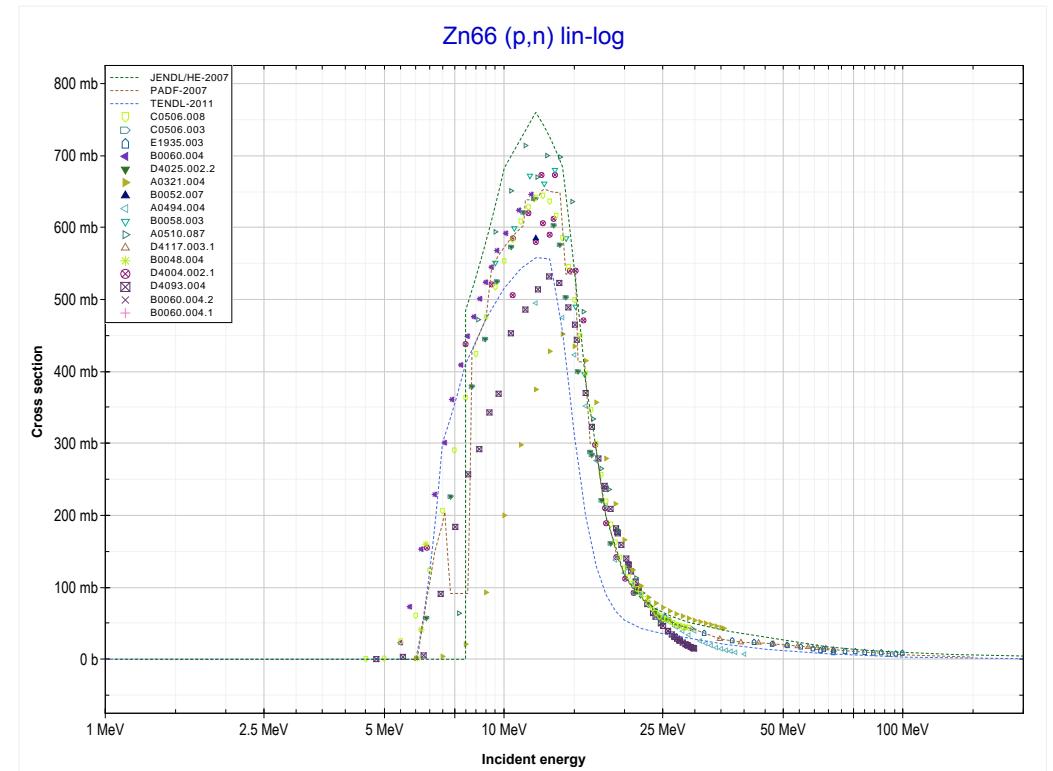
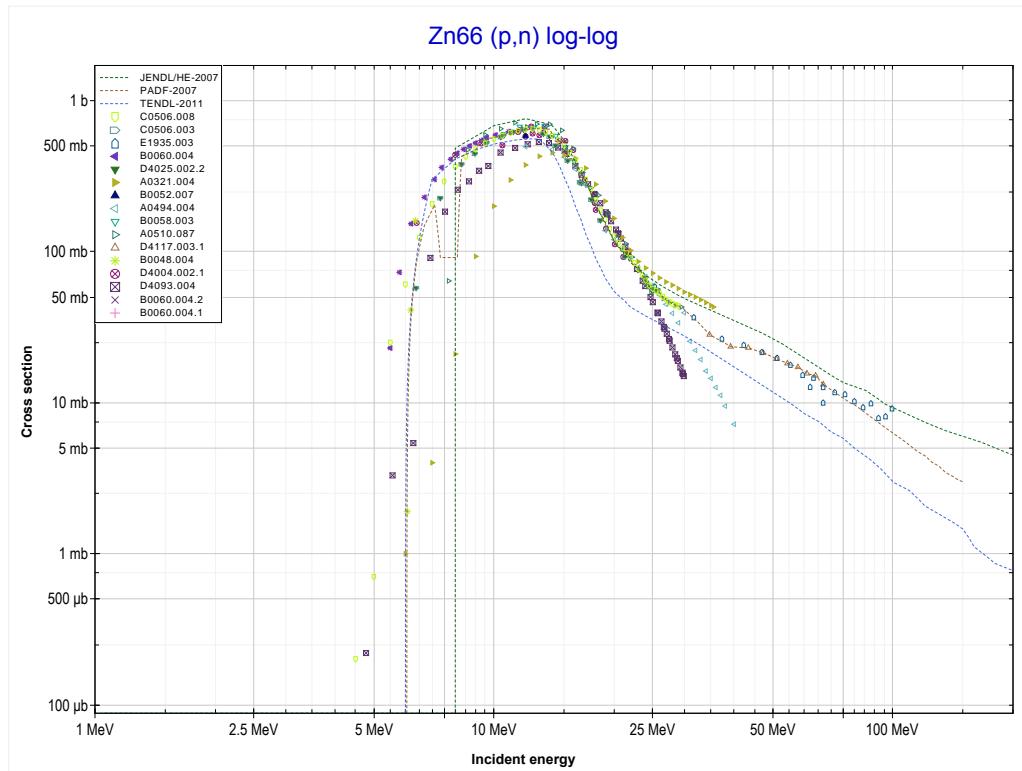


Reaction	Q-Value
Zn64($p,n+\alpha$)Cu60	-10866.76 keV
Zn64($p,d+t$)Cu60	-28456.06 keV
Zn64($p,n+p+t$)Cu60	-30680.62 keV
Zn64($p,2n+He3$)Cu60	-31444.38 keV
Zn64($p,n+2d$)Cu60	-34713.29 keV
Zn64($p,2n+p+d$)Cu60	-36937.86 keV
Zn64($p,3n+2p$)Cu60	-39162.42 keV



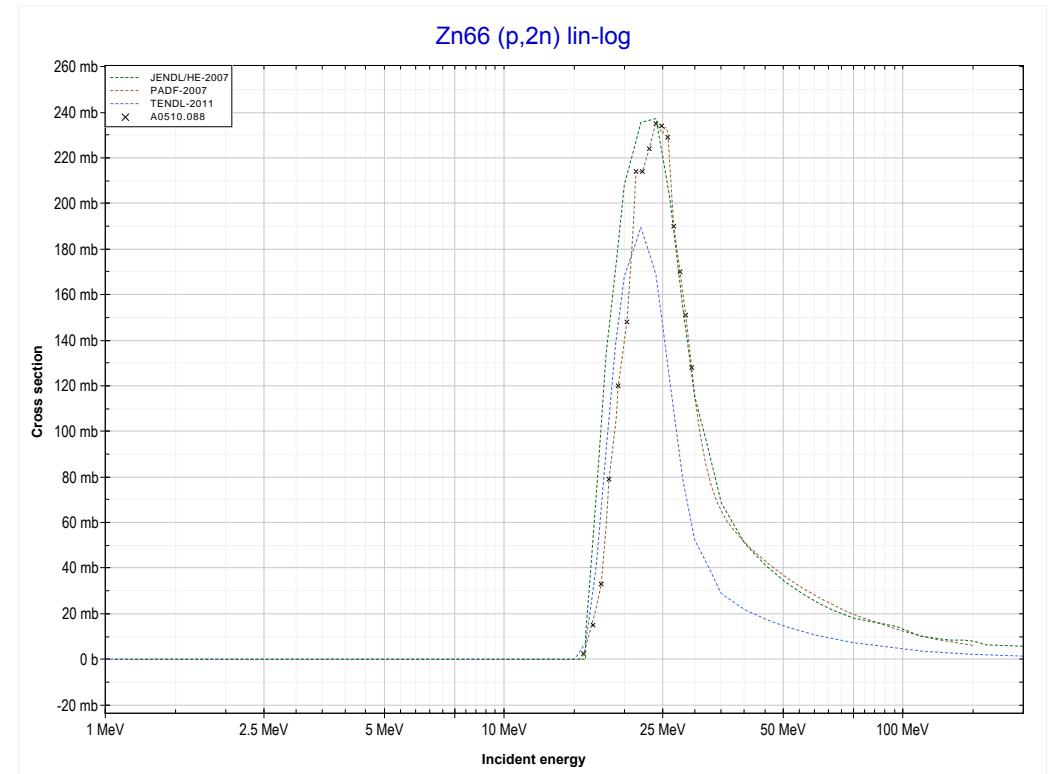
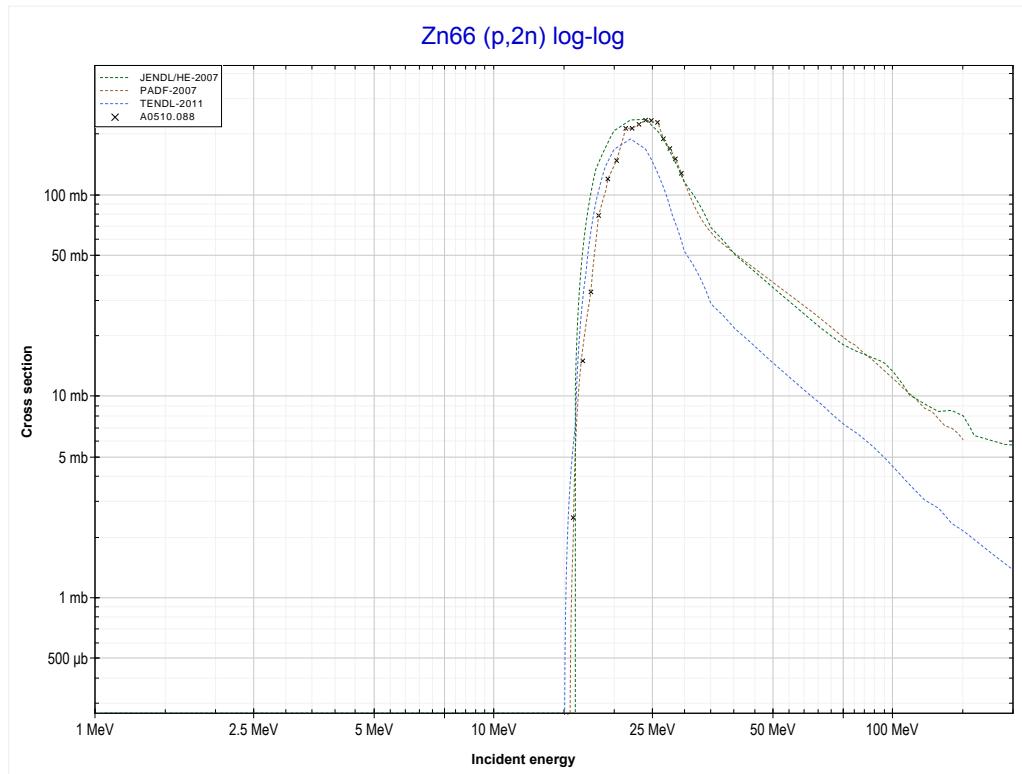
Reaction	Q-Value
Zn64(p, α)Cu61	844.05 keV
Zn64(p,p+t)Cu61	-18969.81 keV
Zn64(p,n+He3)Cu61	-19733.56 keV
Zn64(p,2d)Cu61	-23002.47 keV
Zn64(p,n+p+d)Cu61	-25227.04 keV
Zn64(p,2n+2p)Cu61	-27451.60 keV

<< 30-Zn-64	30-Zn-66 MT4 (p,n) or MT5 (Ga66 production)	30-Zn-67 >>
<< MT190 (p,2n+2p)		MT16 (p,2n) >>



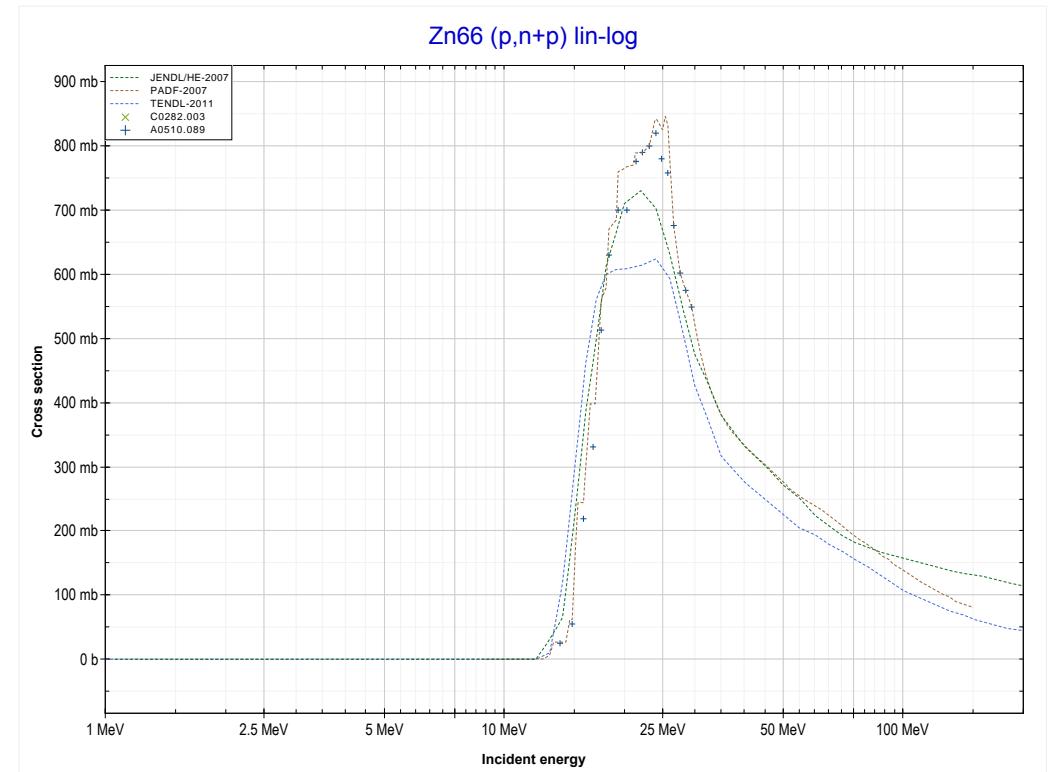
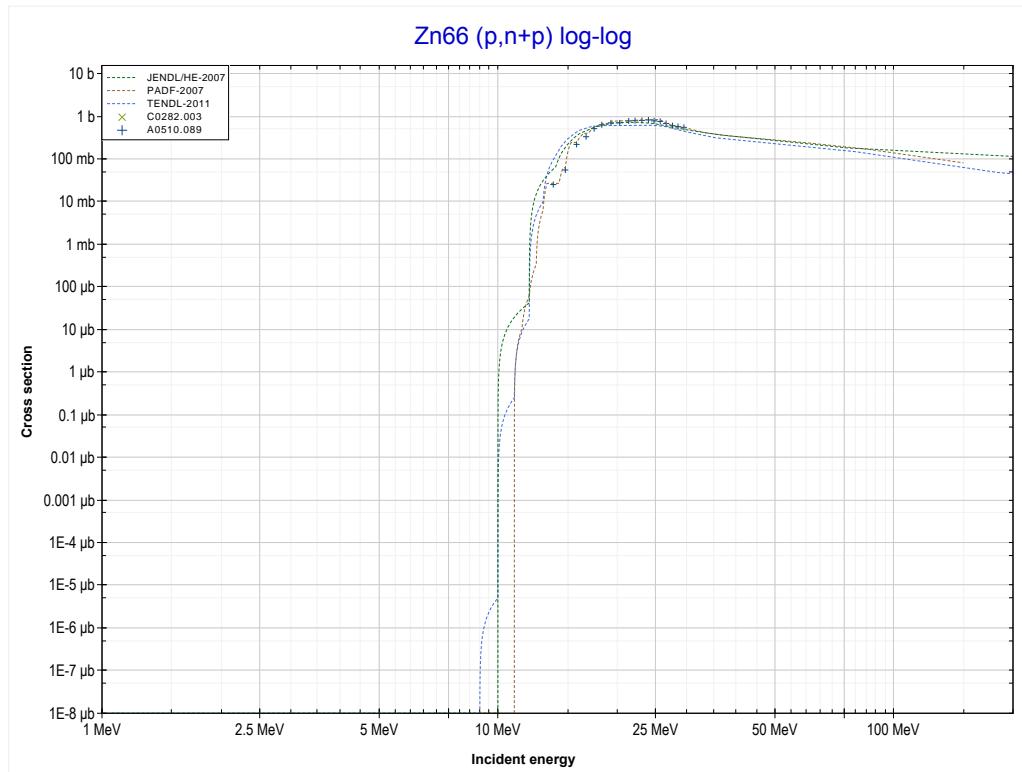
Reaction	Q-Value
Zn66(p,n)Ga66	-5957.75 keV

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



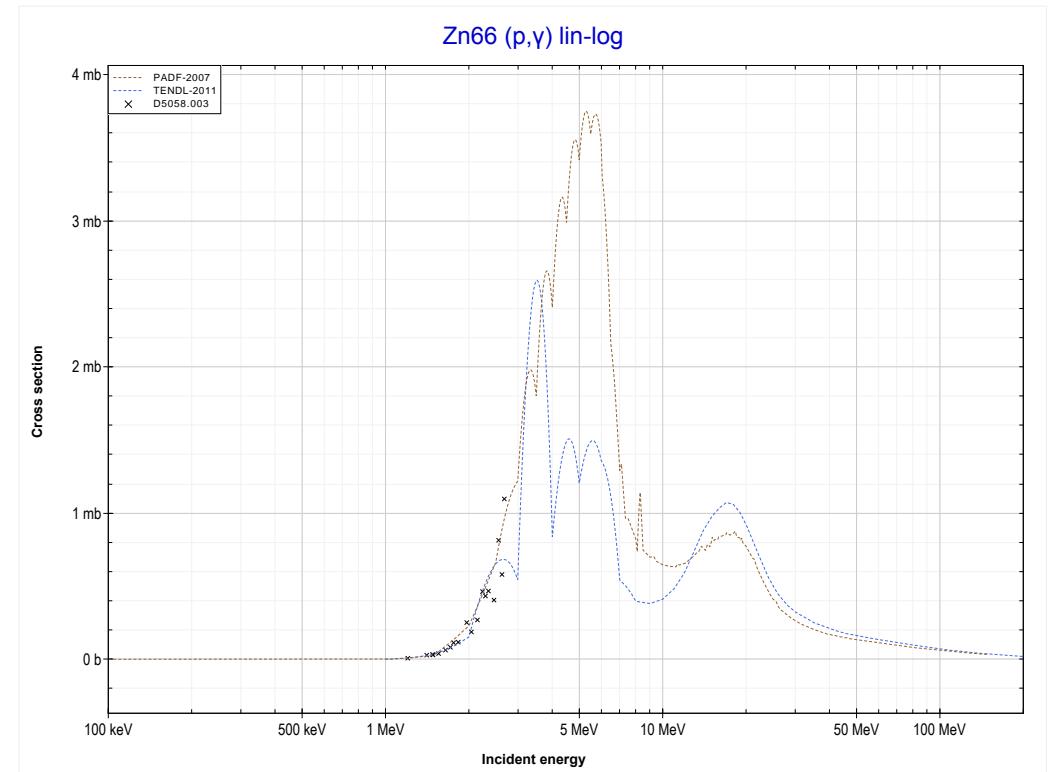
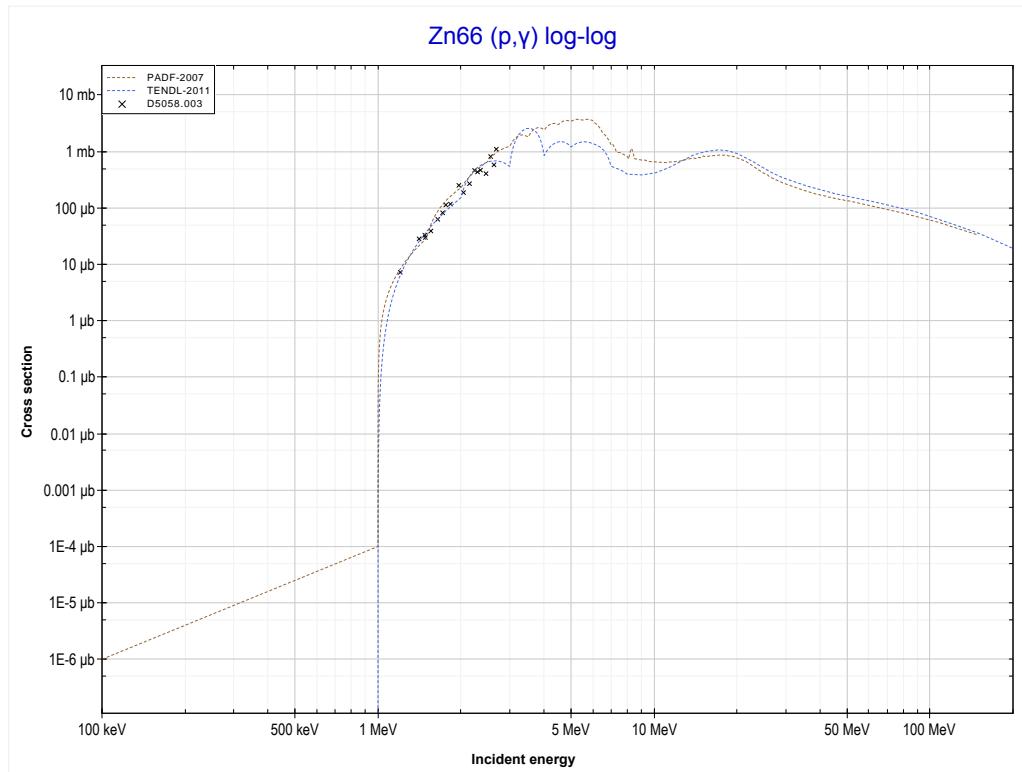
Reaction	Q-Value
Zn66(p,2n)Ga65	-15095.86 keV

<< 30-Zn-64	30-Zn-66 MT28 (p,n+p) or MT5 (Zn65 production)	>> 30-Zn-70
<< MT16 (p,2n)		MT102 (p,y) >>



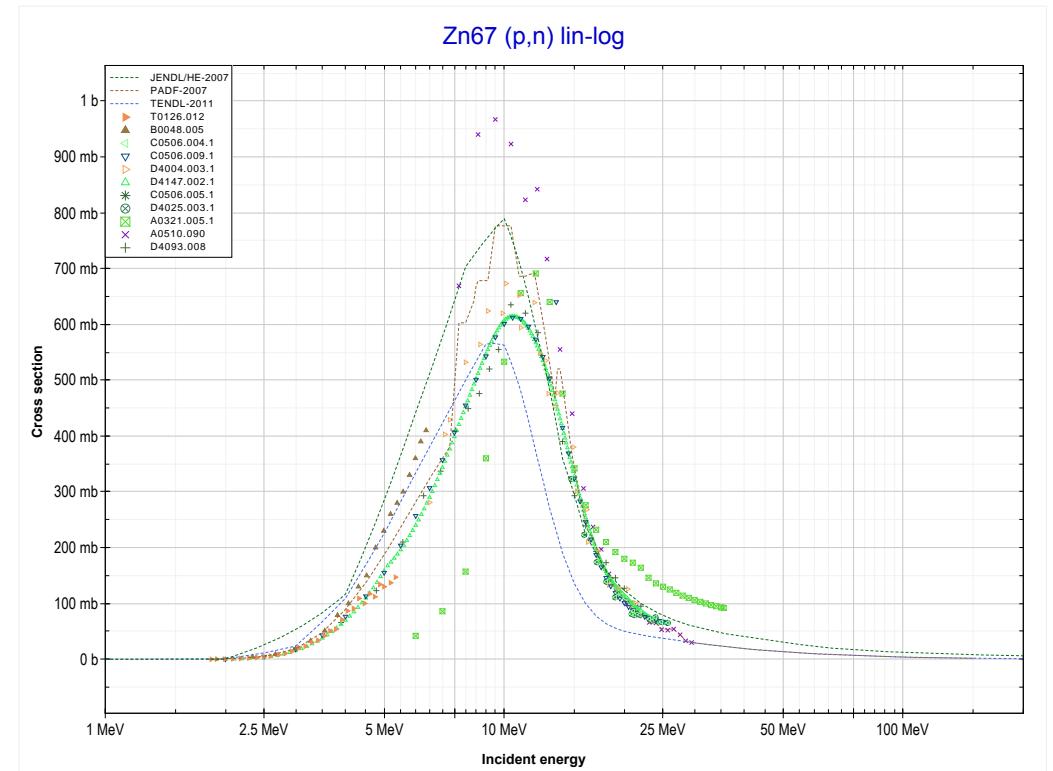
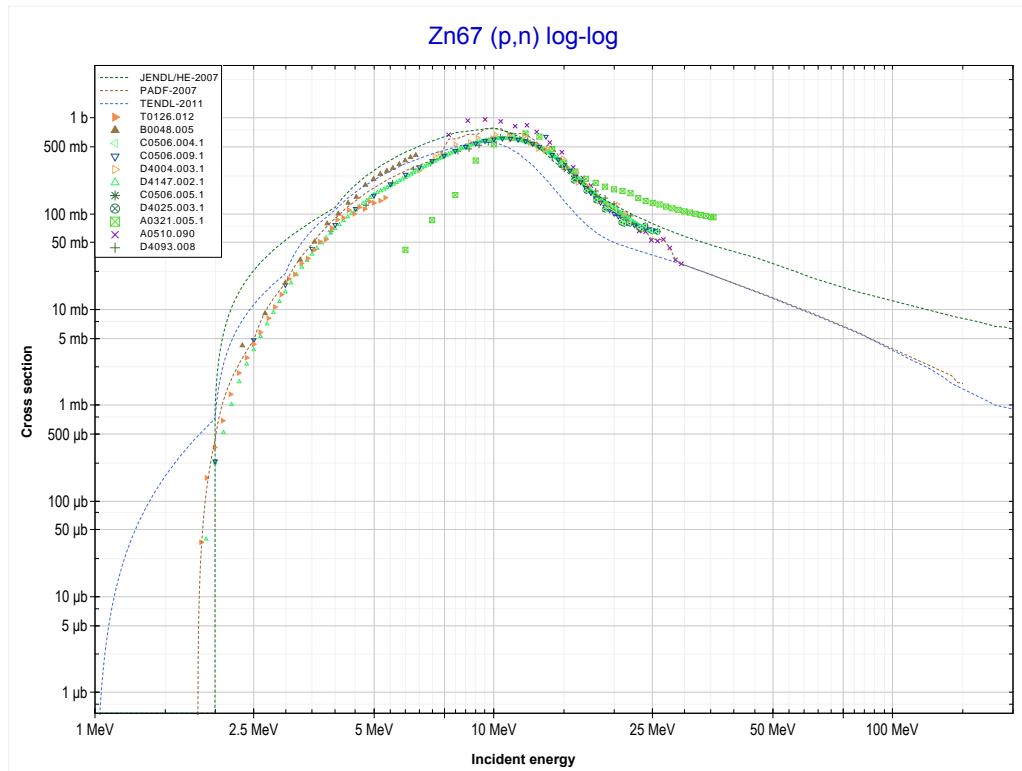
Reaction	Q-Value
Zn66(p,d)Zn65	-8834.55 keV
Zn66(p,n+p)Zn65	-11059.12 keV

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



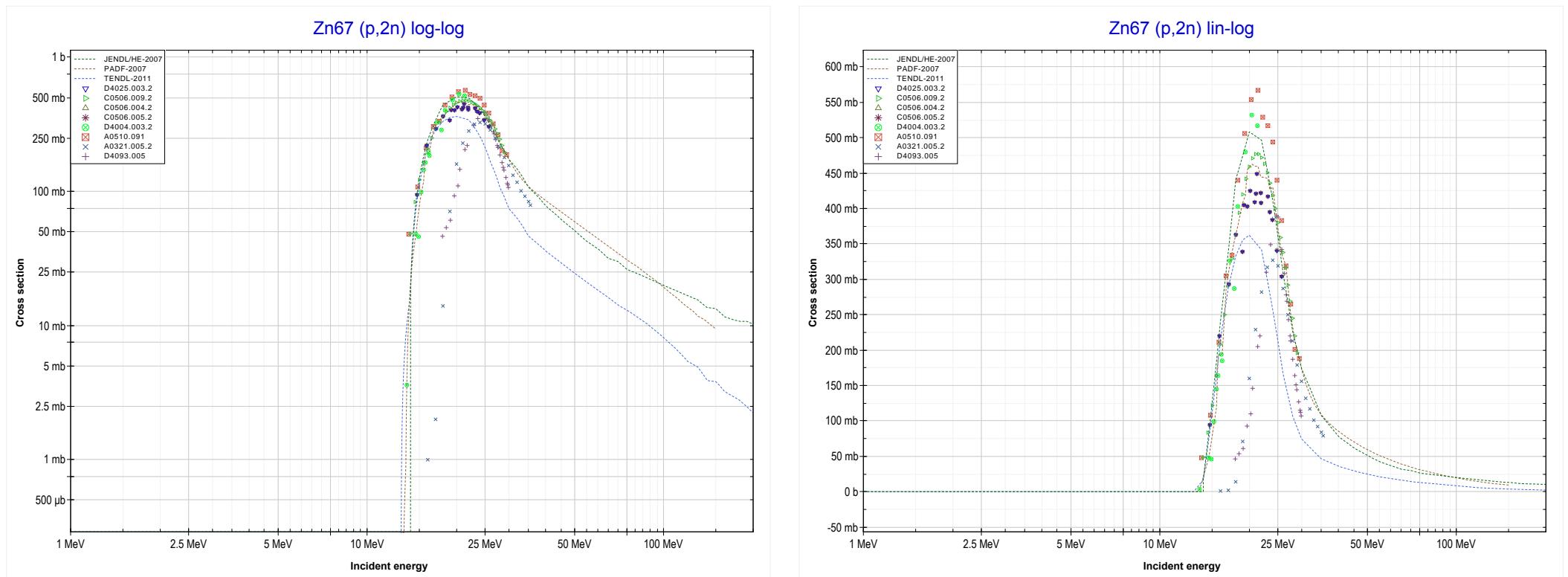
Reaction	Q-Value
Zn66(p,γ)Ga67	5269.27 keV

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



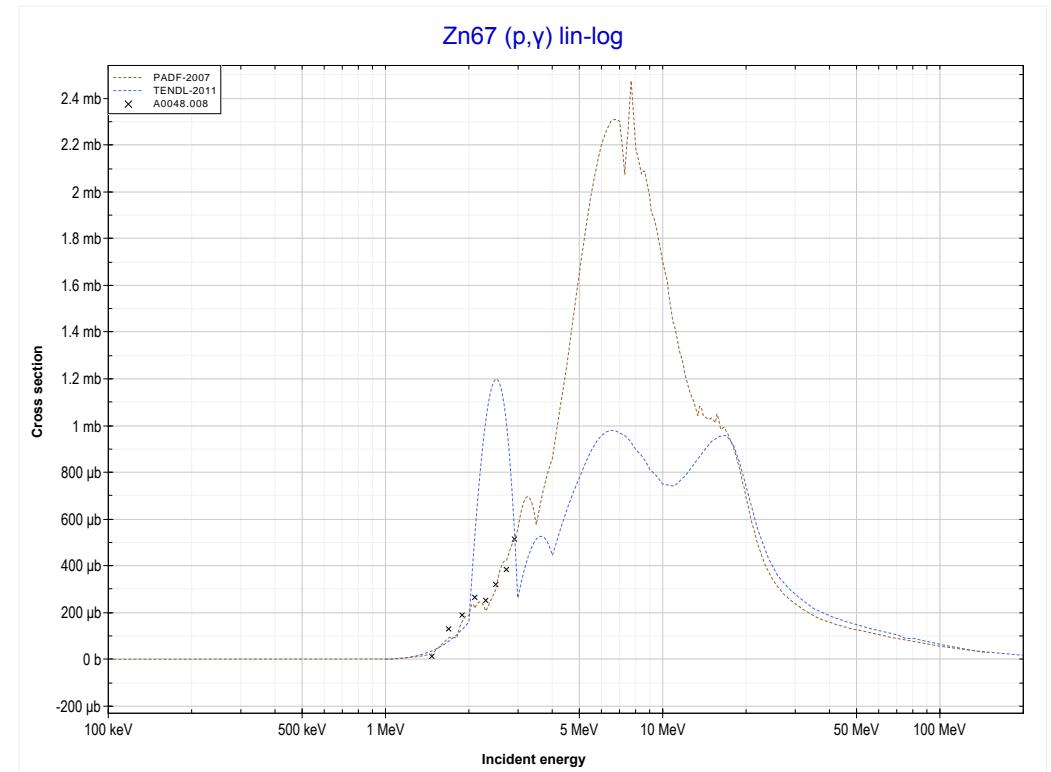
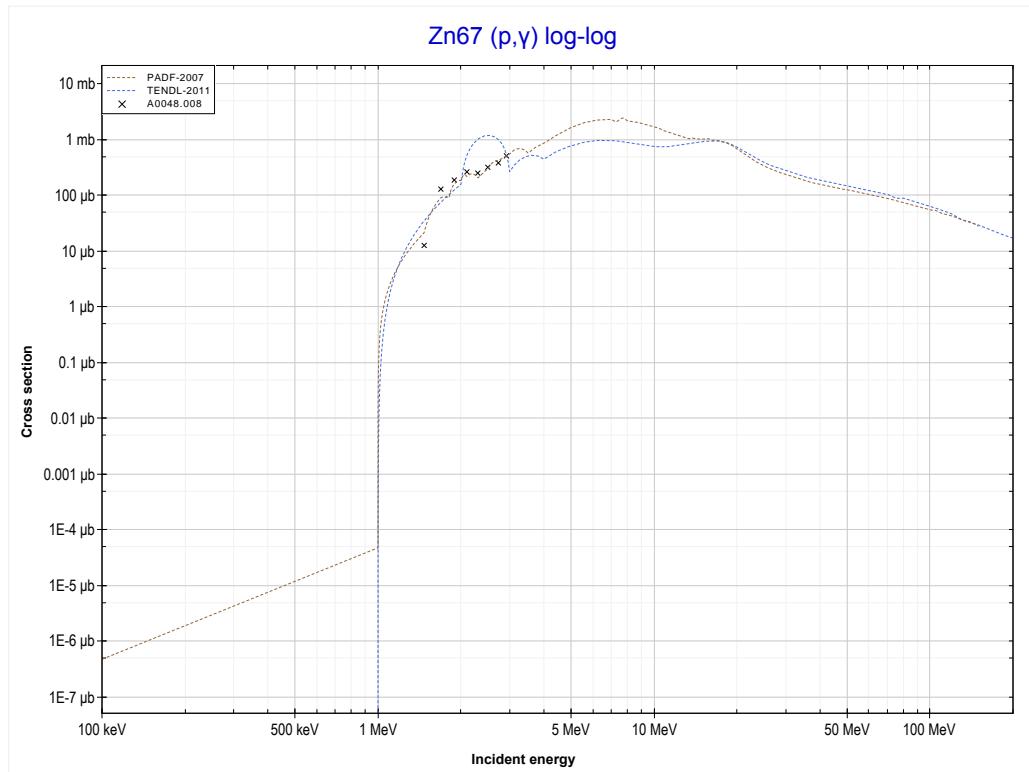
Reaction	Q-Value
Zn67(p,n)Ga67	-1783.05 keV

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



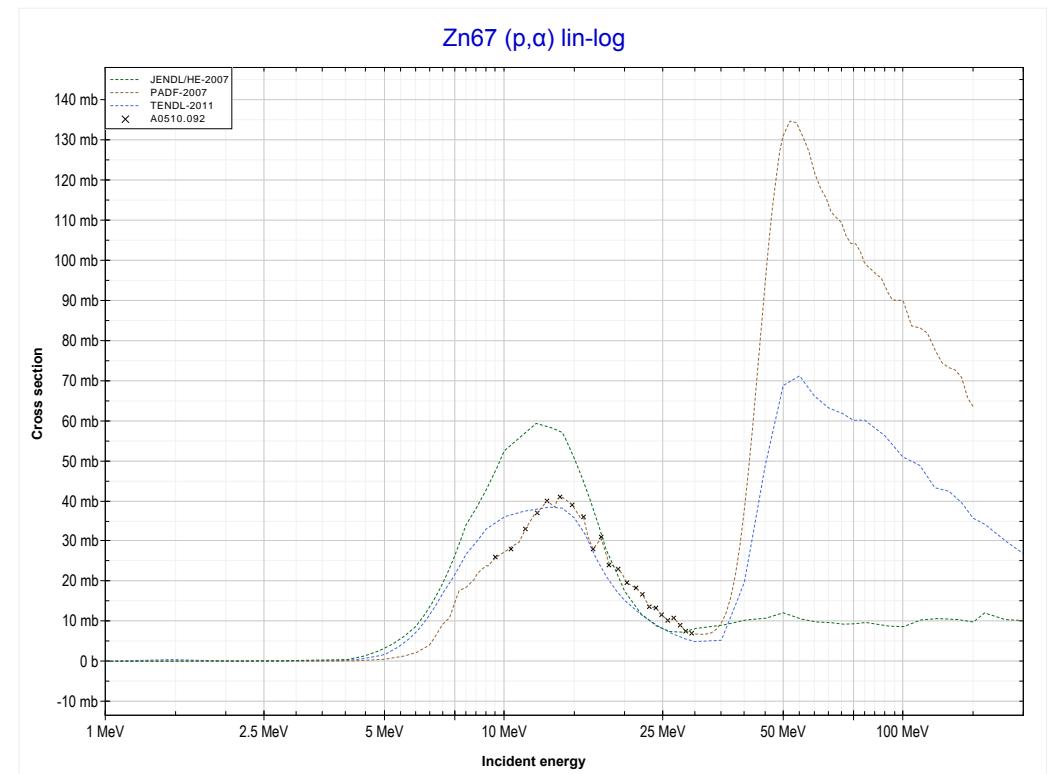
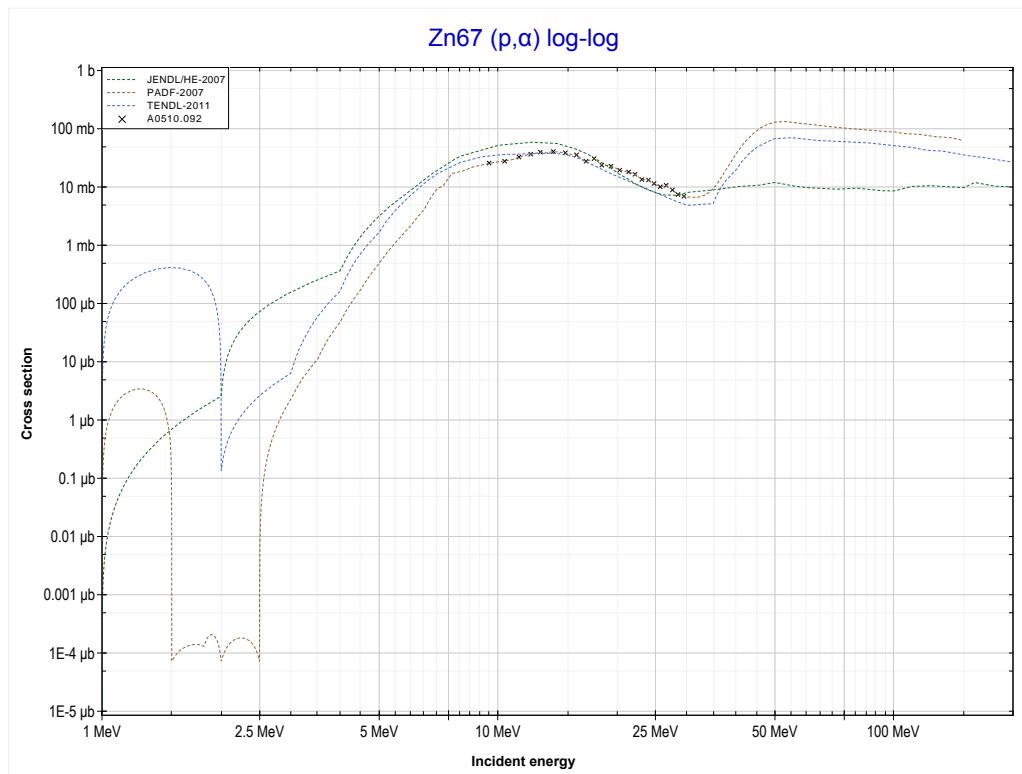
Reaction	Q-Value
Zn67(p,2n)Ga66	-13010.06 keV

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



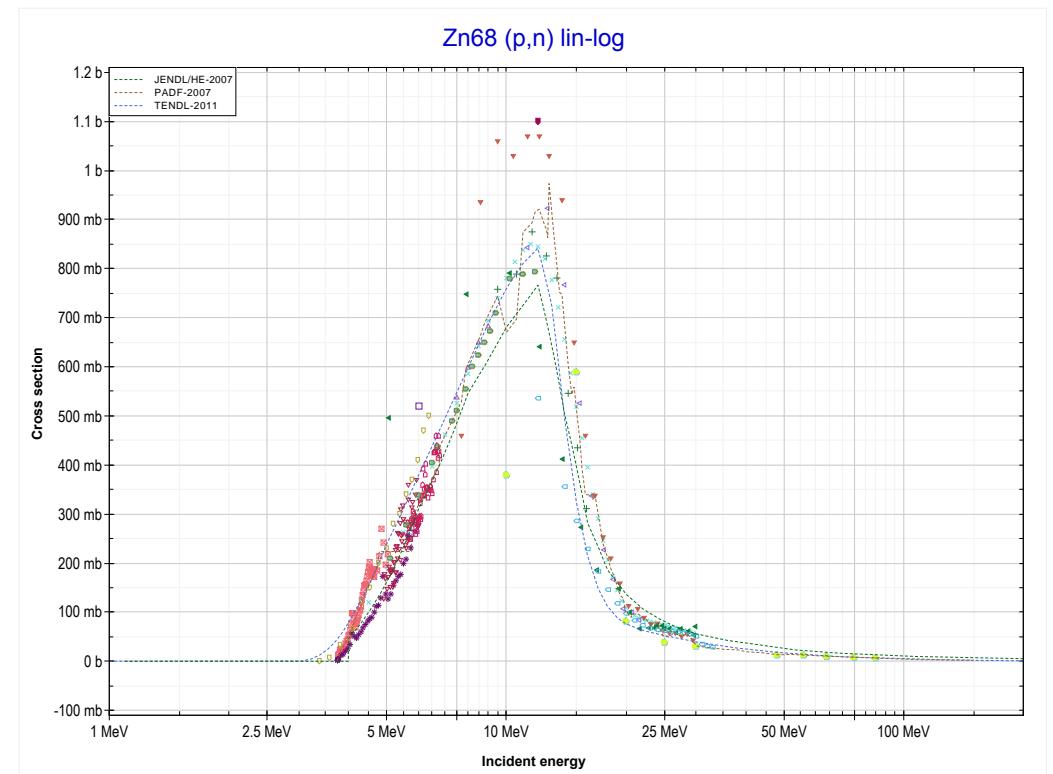
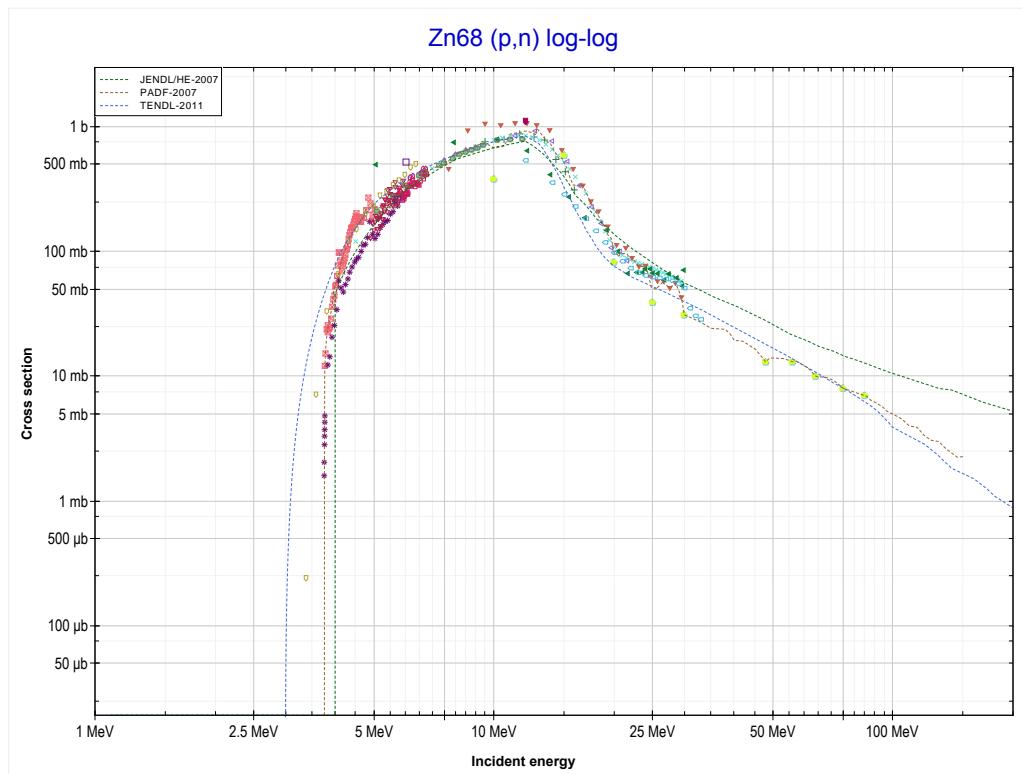
Reaction	Q-Value
Zn67(p, γ)Ga68	6494.67 keV

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



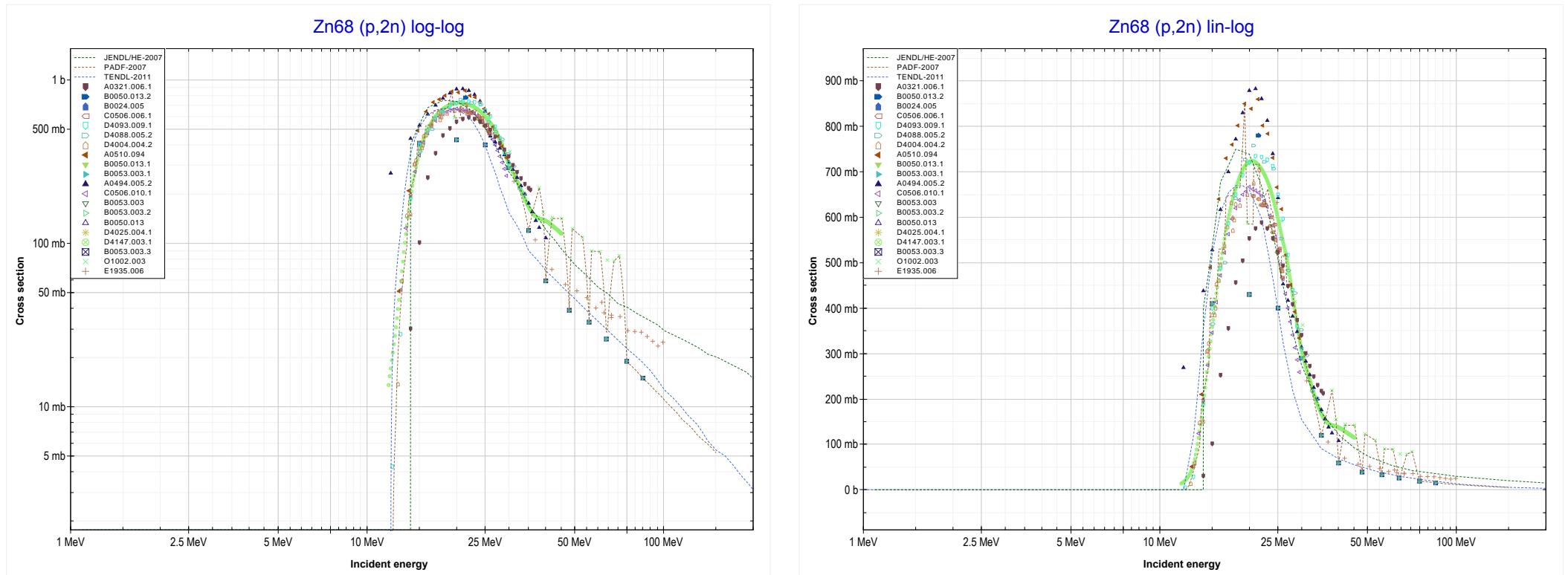
Reaction	Q-Value
Zn67(p,α)Cu64	2407.85 keV
Zn67($p,p+t$)Cu64	-17406.01 keV
Zn67($p,n+He3$)Cu64	-18169.76 keV
Zn67($p,2d$)Cu64	-21438.67 keV
Zn67($p,n+p+d$)Cu64	-23663.24 keV
Zn67($p,2n+2p$)Cu64	-25887.80 keV

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



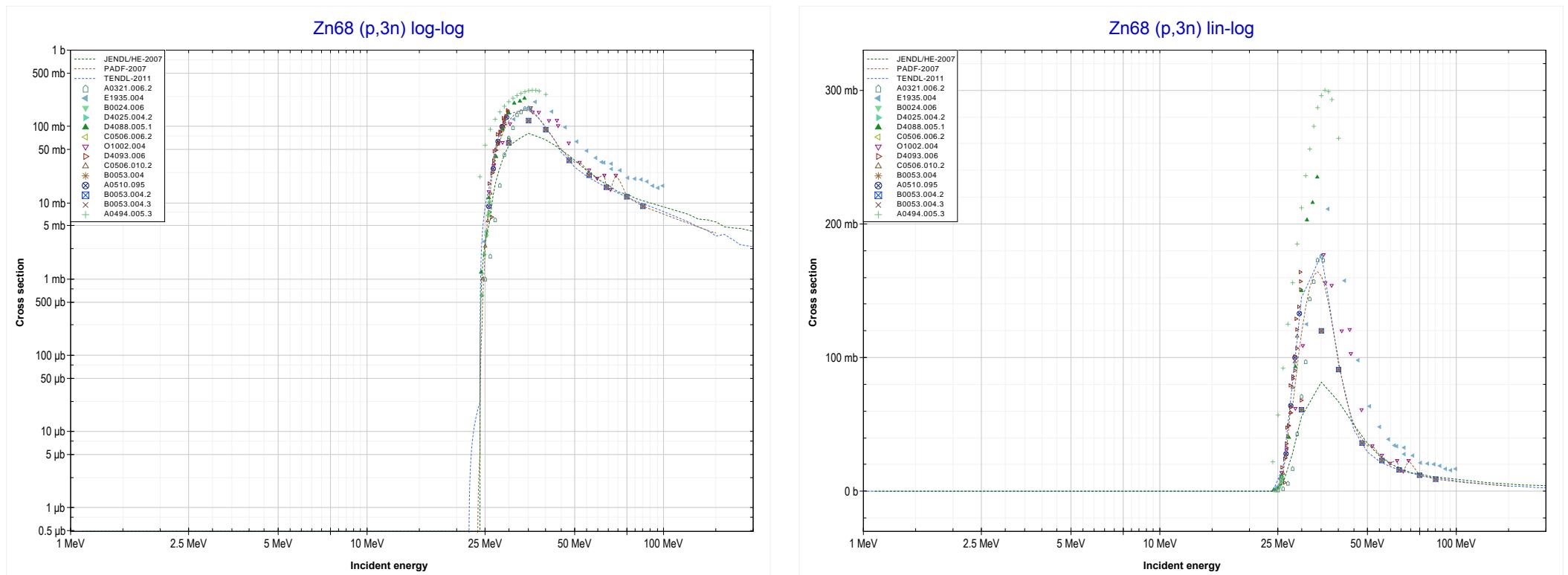
Reaction	Q-Value
Zn68(p,n)Ga68	-3703.45 keV

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



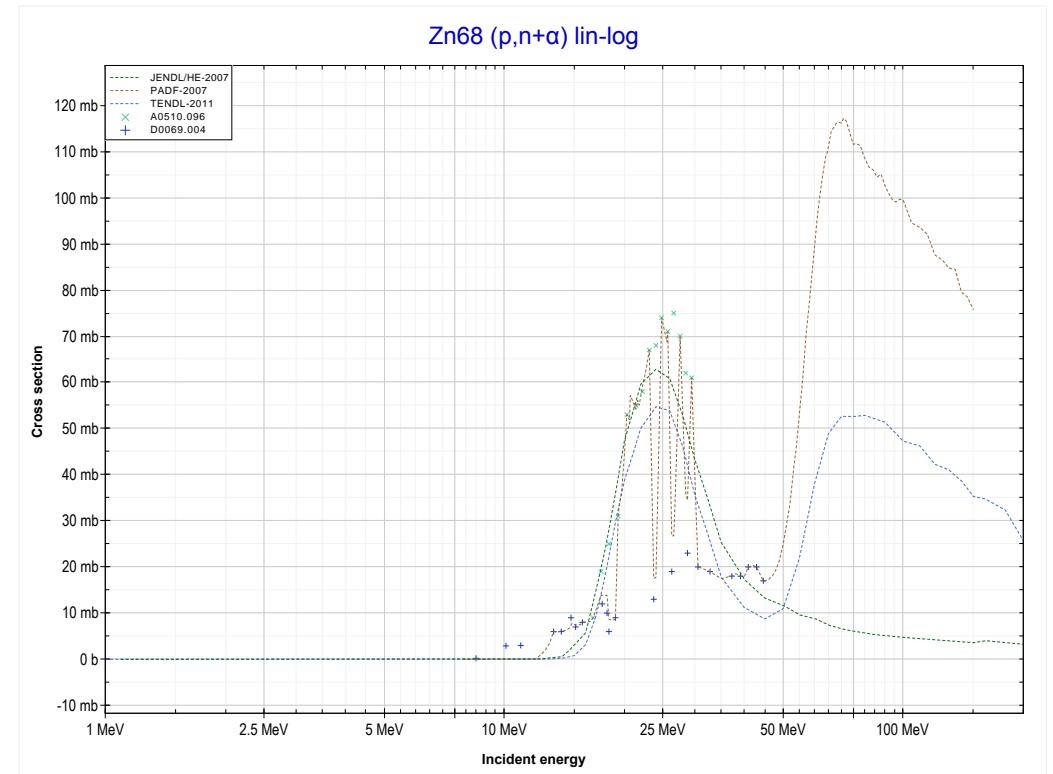
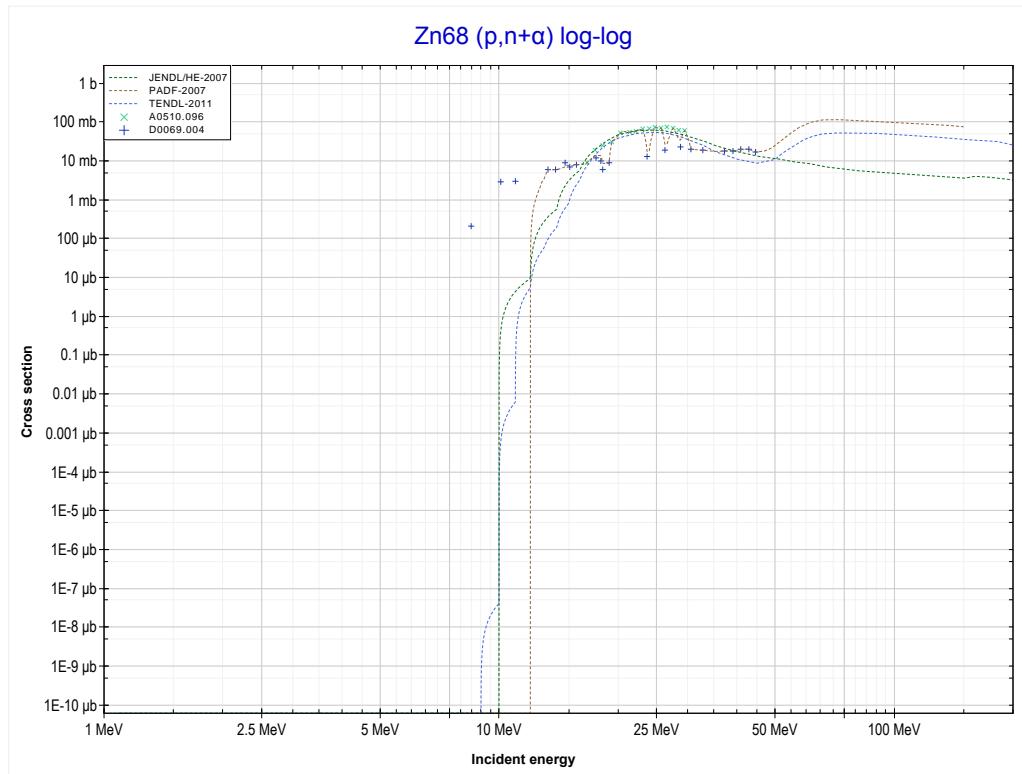
Reaction	Q-Value
$Zn^{68}(p,2n)Ga^{67}$	-11981.16 keV

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



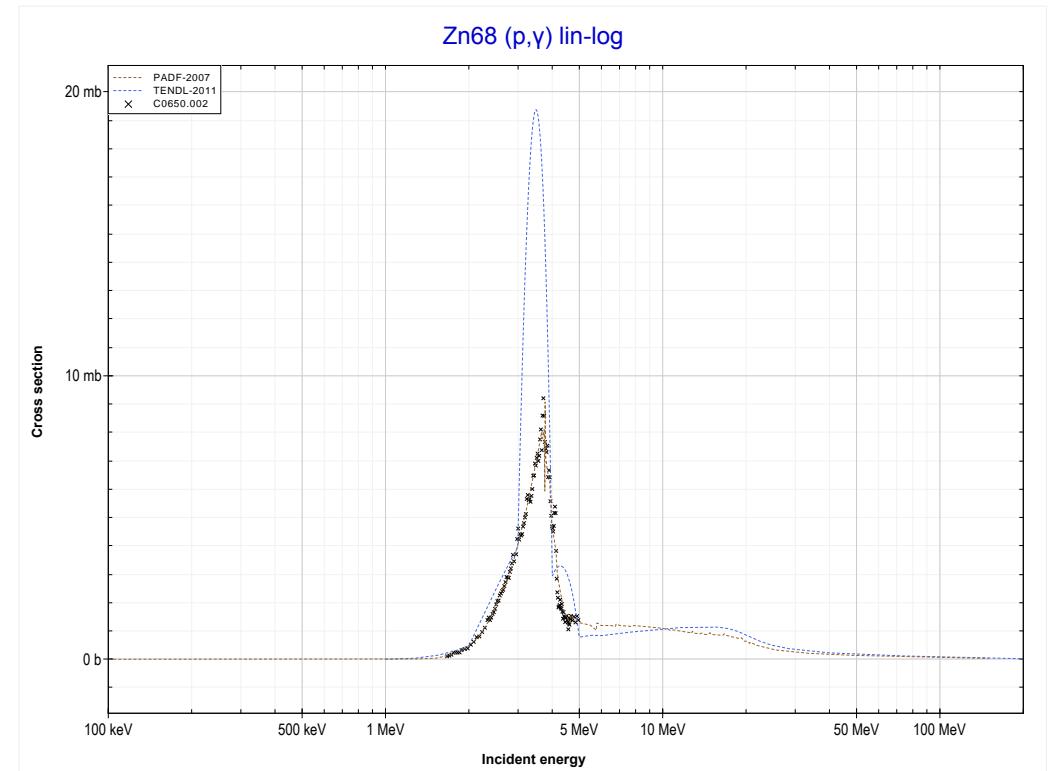
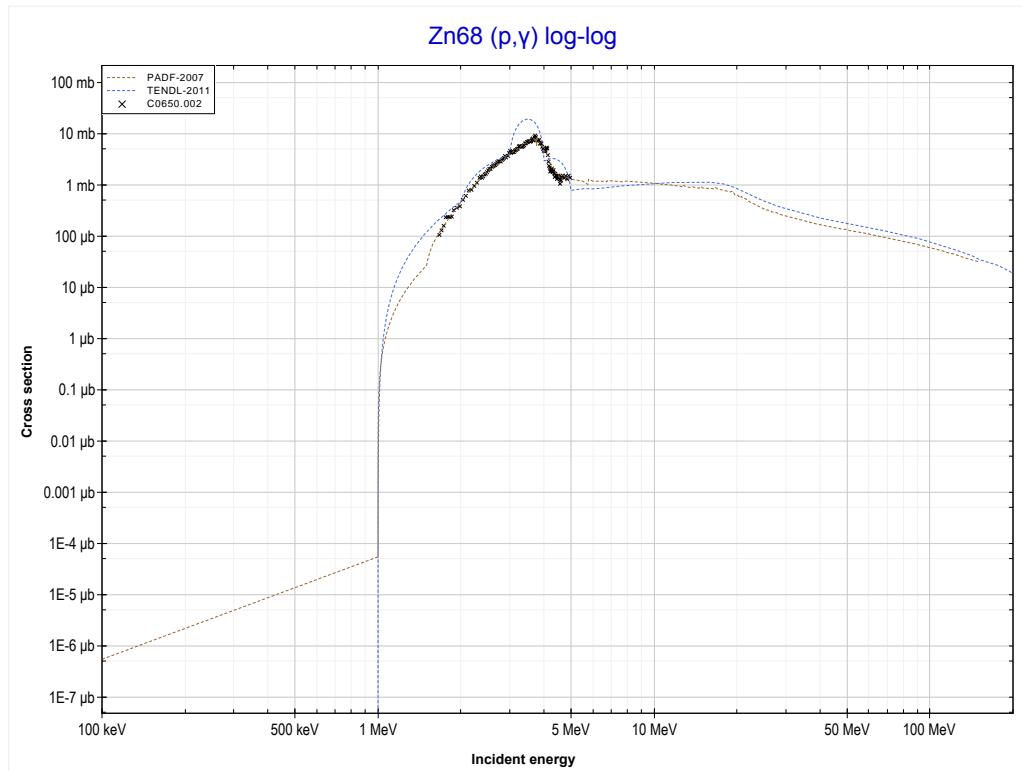
Reaction	Q-Value
Zn68(p,3n)Ga66	-23208.18 keV

<< 30-Zn-64	30-Zn-68 MT22 (p,n+α) or MT5 (Cu64 production)	>> 31-Ga-69
<< MT17 (p,3n)		>> MT102 (p,y) >>



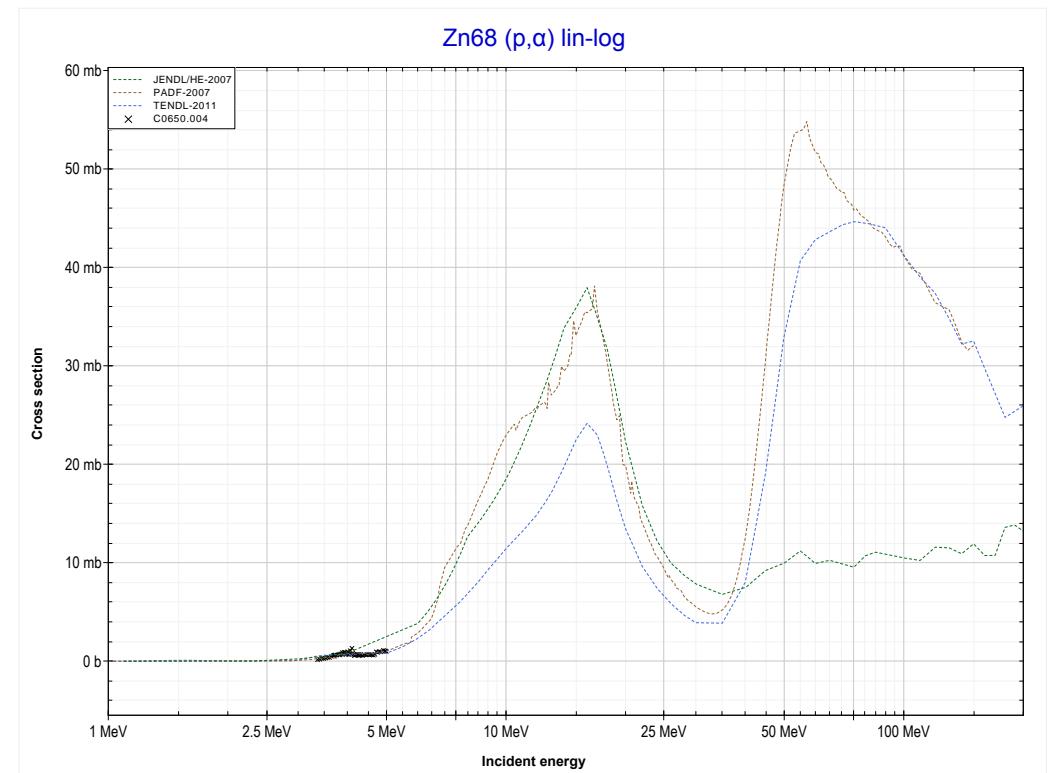
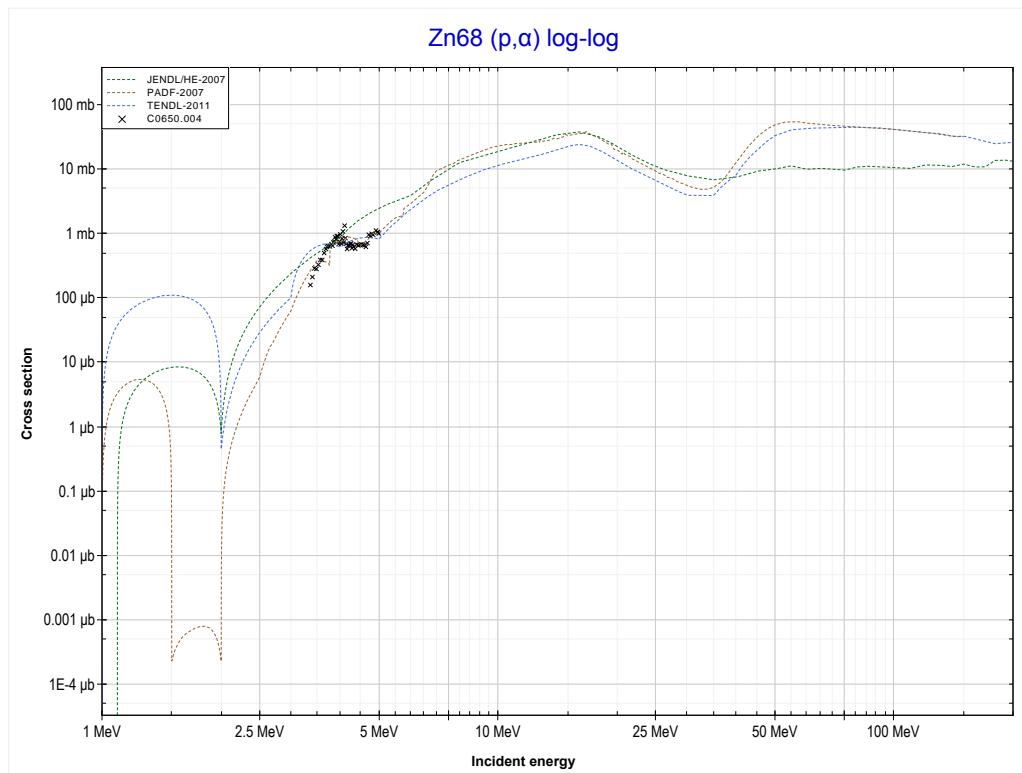
Reaction	Q-Value
Zn68(p,n+α)Cu64	-7790.26 keV
Zn68(p,d+t)Cu64	-25379.56 keV
Zn68(p,n+p+t)Cu64	-27604.12 keV
Zn68(p,2n+He3)Cu64	-28367.88 keV
Zn68(p,n+2d)Cu64	-31636.79 keV
Zn68(p,2n+p+d)Cu64	-33861.36 keV
Zn68(p,3n+2p)Cu64	-36085.92 keV

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



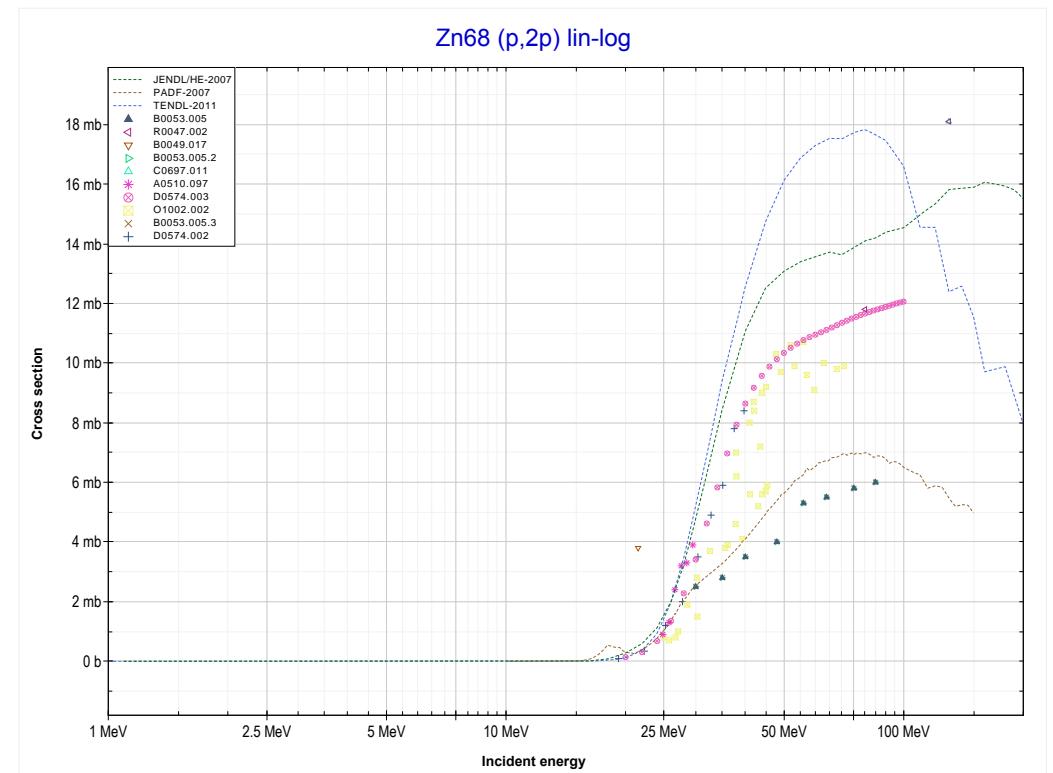
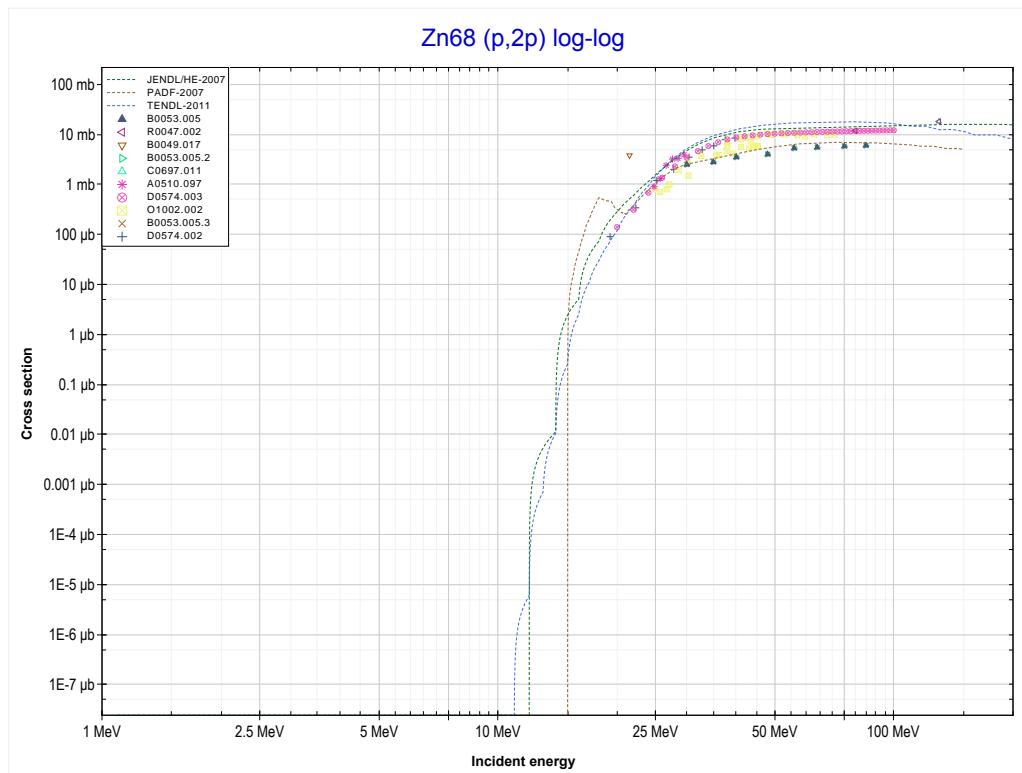
Reaction	Q-Value
Zn68(p,γ)Ga69	6609.57 keV

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



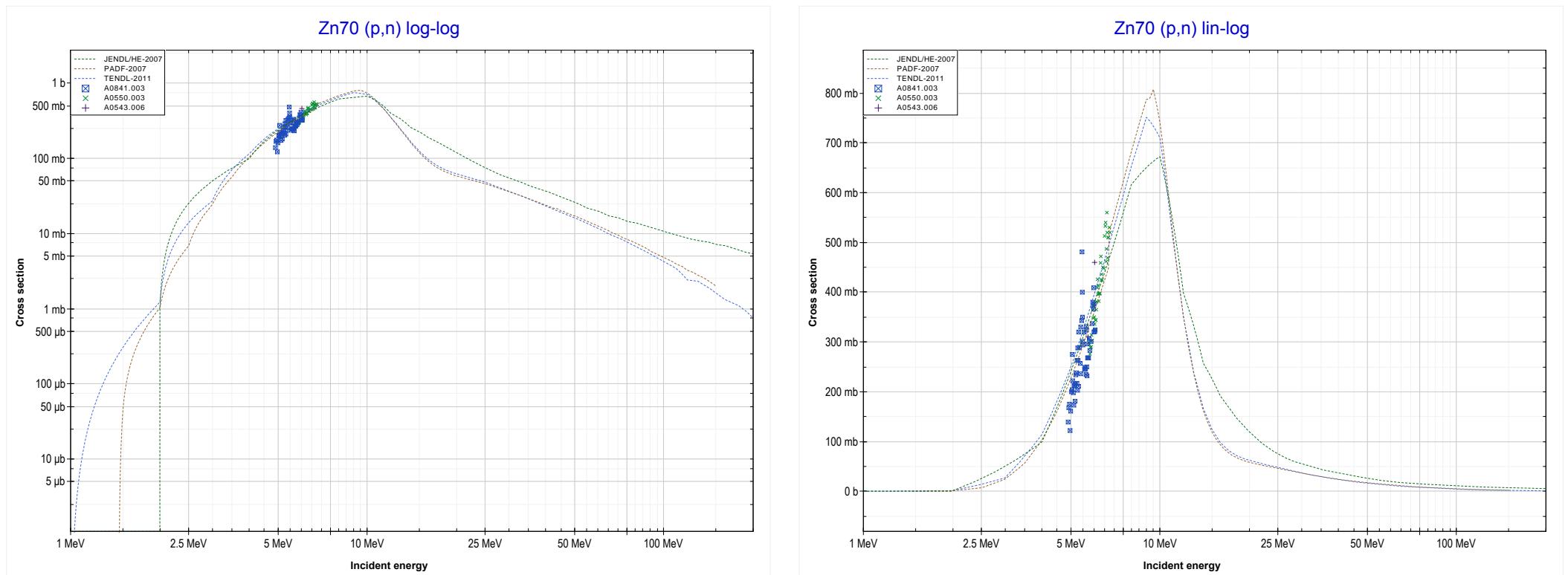
Reaction	Q-Value
Zn68(p,α)Cu65	2120.55 keV
Zn68($p,p+t$)Cu65	-17693.31 keV
Zn68($p,n+He3$)Cu65	-18457.06 keV
Zn68($p,2d$)Cu65	-21725.97 keV
Zn68($p,n+p+d$)Cu65	-23950.54 keV
Zn68($p,2n+2p$)Cu65	-26175.10 keV

<< 28-Ni-62	30-Zn-68 MT111 (p,2p) or MT5 (Cu67 production)	>> 40-Zr-96
<< MT107 (p, α)		MT4 (p,n) >>



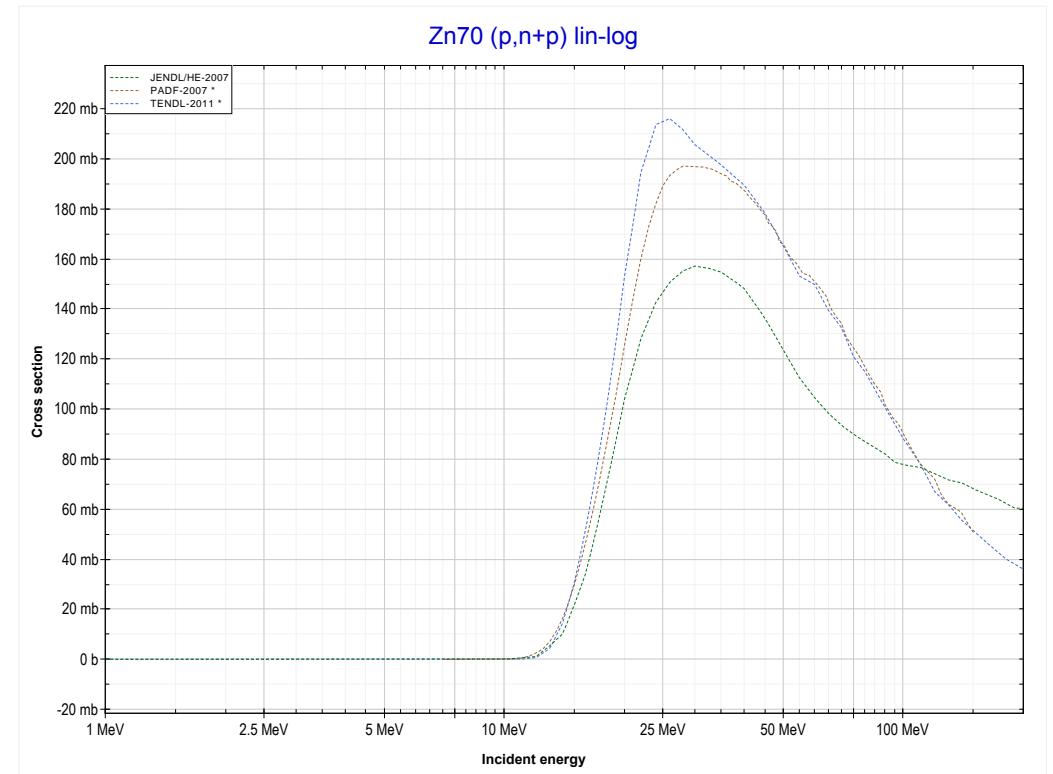
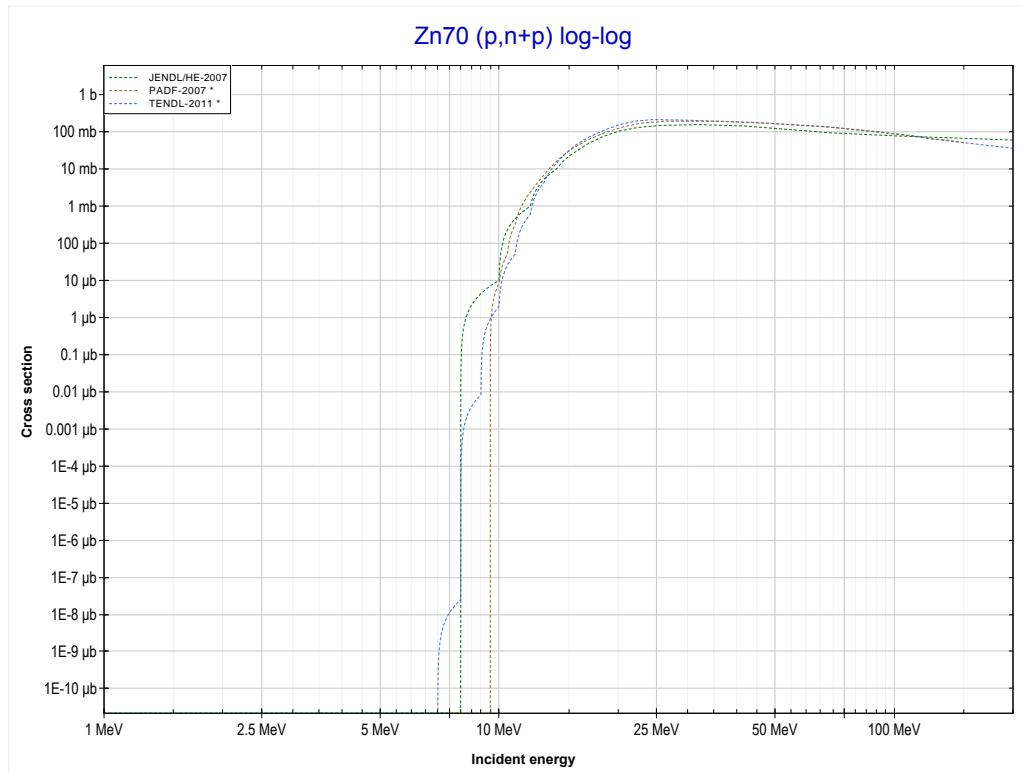
Reaction	Q-Value
Zn68(p,2p)Cu67	-9977.37 keV

<< 30-Zn-68	30-Zn-70 MT4 (p,n) or MT5 (Ga70 production)	31-Ga-69 >>
<< MT111 (p,2p) >>		MT28 (p,n+p) >>



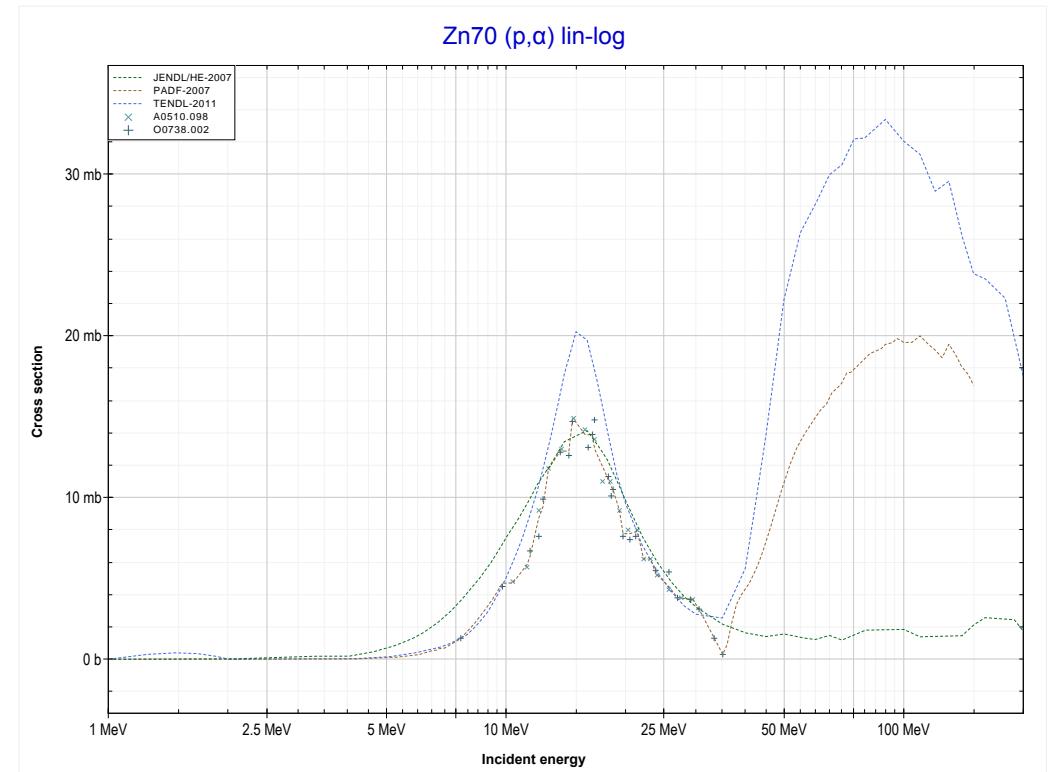
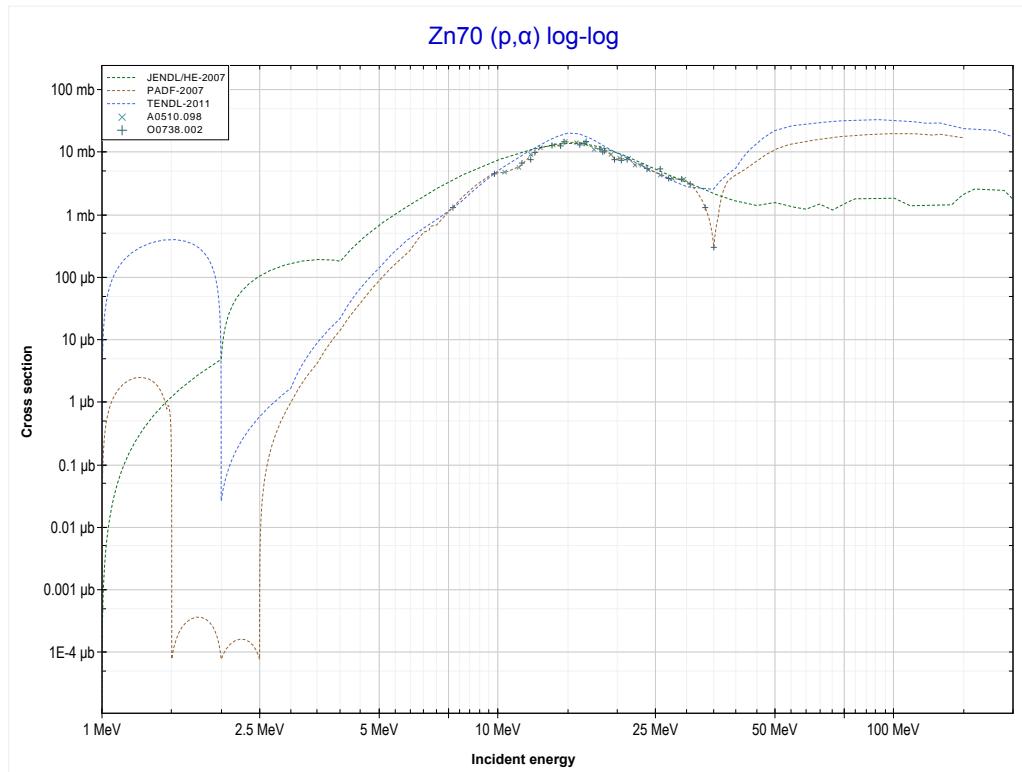
Reaction	Q-Value
Zn70(p,n)Ga70	-1436.85 keV

<< 30-Zn-66	30-Zn-70 MT28 (p,n+p) or MT5 (Zn69 production)	>> 31-Ga-69
<< MT4 (p,n)		MT107 (p, α) >>



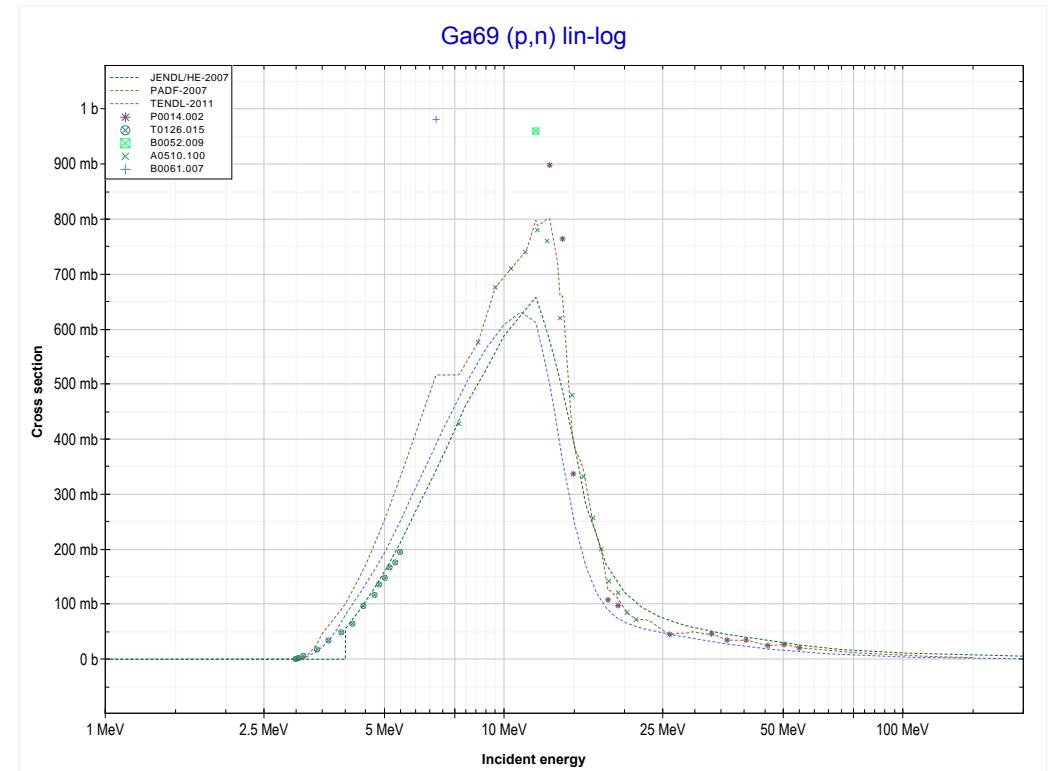
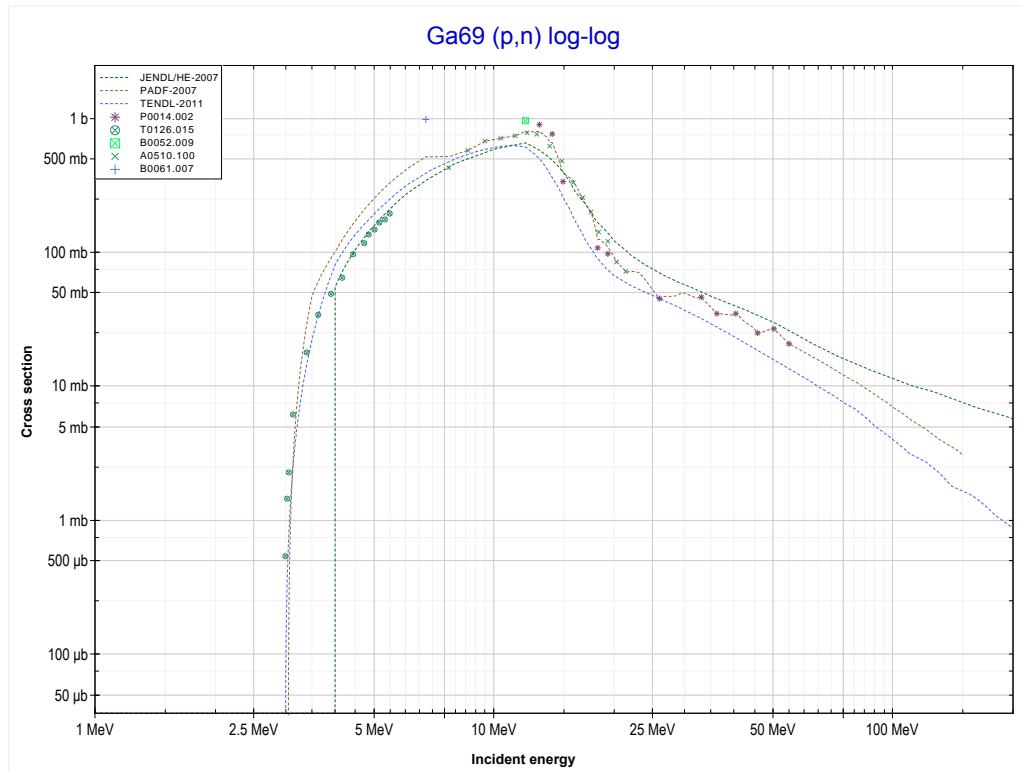
Reaction	Q-Value
Zn70(p,d)Zn69	-6993.35 keV
Zn70(p,n+p)Zn69	-9217.92 keV

<< 30-Zn-68	30-Zn-70 MT107 (p,α) or MT5 (Cu67 production)	32-Ge-70 >>
<< MT28 ($p,n+p$)		MT4 (p,n) >>



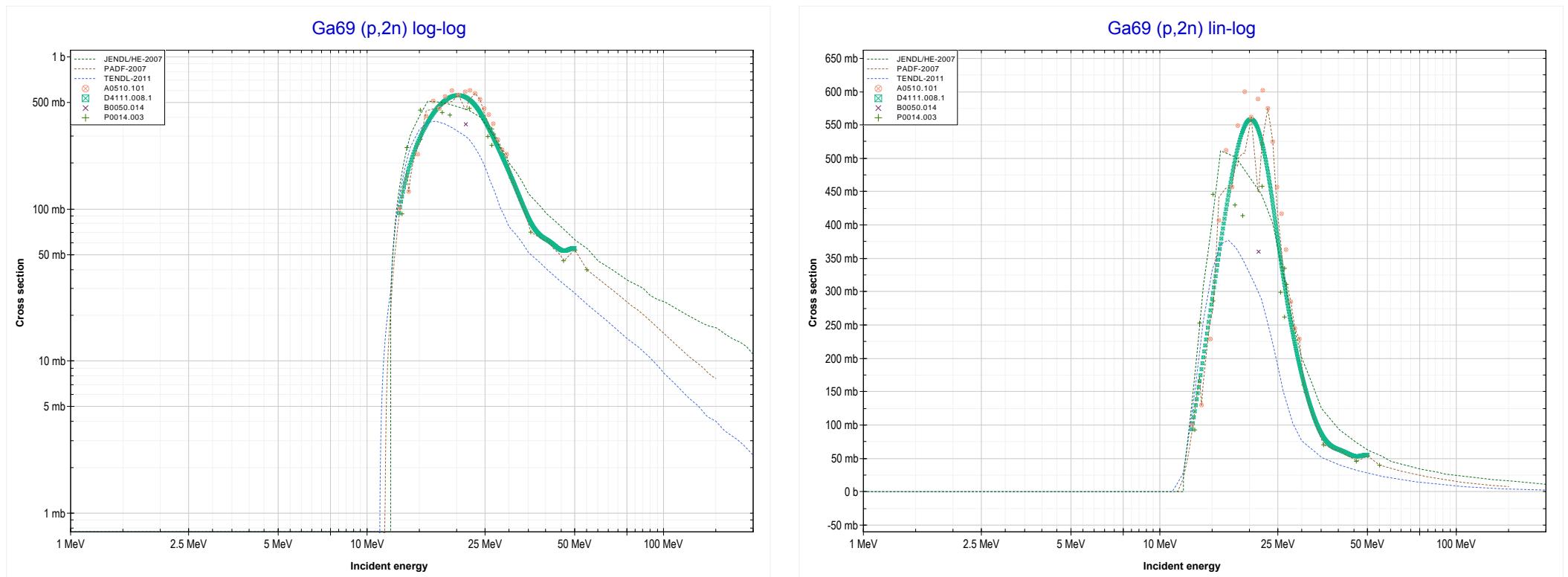
Reaction	Q-Value
Zn70(p,α)Cu67	2618.25 keV
Zn70($p,p+t$)Cu67	-17195.61 keV
Zn70($p,n+He3$)Cu67	-17959.36 keV
Zn70($p,2d$)Cu67	-21228.27 keV
Zn70($p,n+p+d$)Cu67	-23452.84 keV
Zn70($p,2n+2p$)Cu67	-25677.40 keV

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



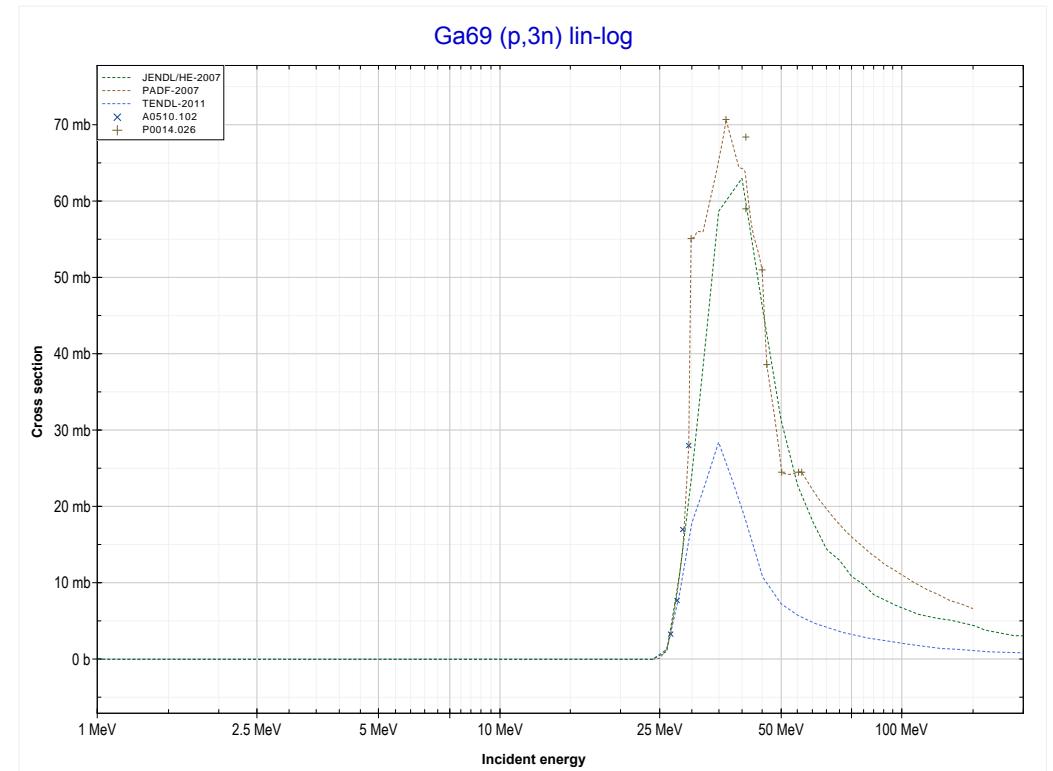
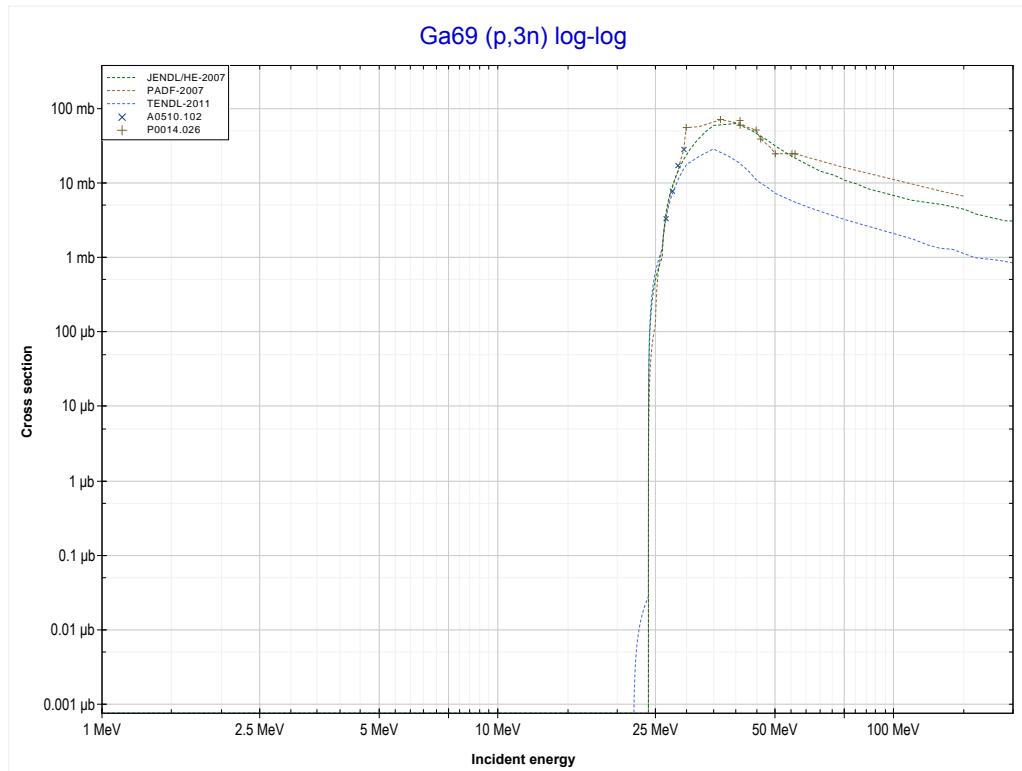
Reaction	Q-Value
Ga69(p,n)Ge69	-3009.55 keV

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



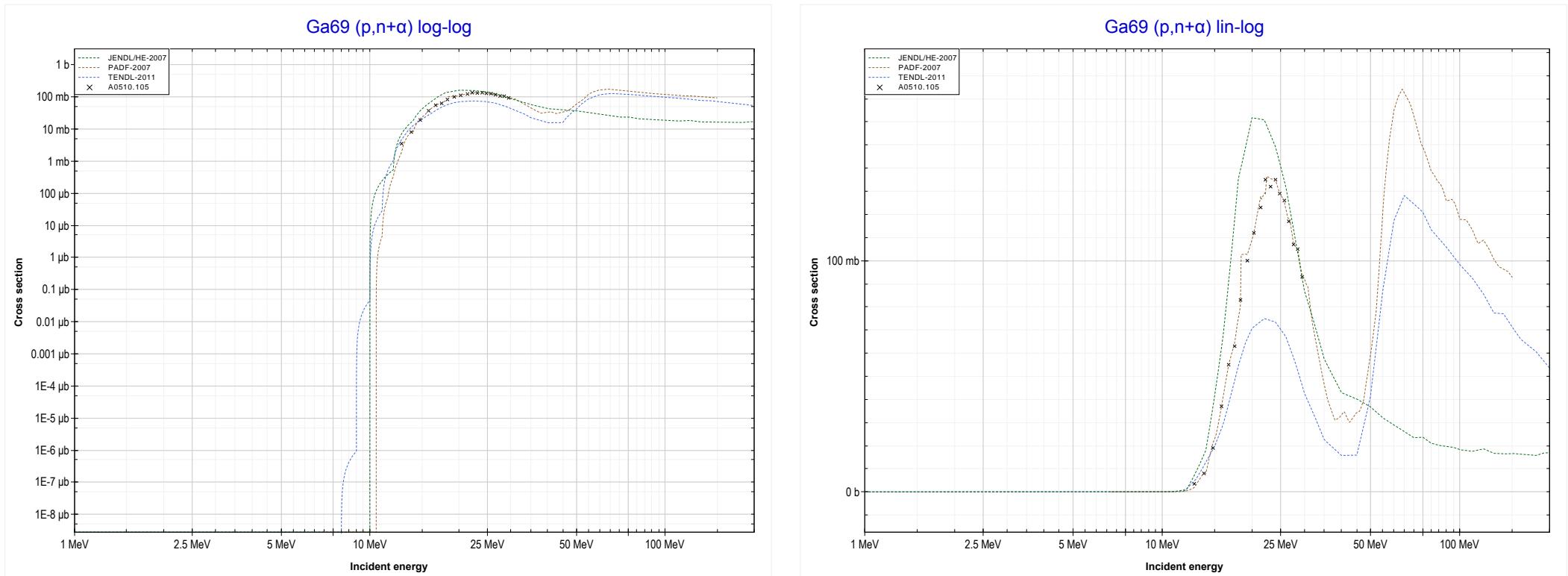
Reaction	Q-Value
$\text{Ga}^{69}(\text{p},2\text{n})\text{Ge}^{68}$	-11201.46 keV

<< 30-Zn-68	31-Ga-69 MT17 (p,3n) or MT5 (Ge67 production)	31-Ga-71 >>
<< MT16 (p,2n)		MT22 (p,n+α) >>



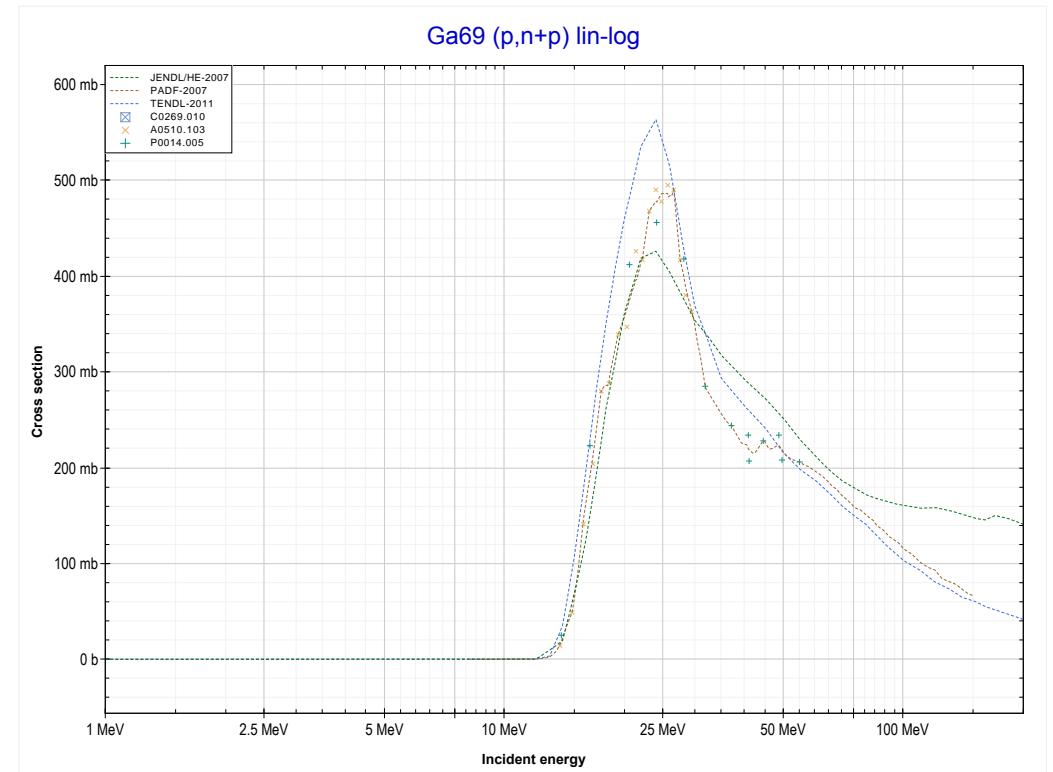
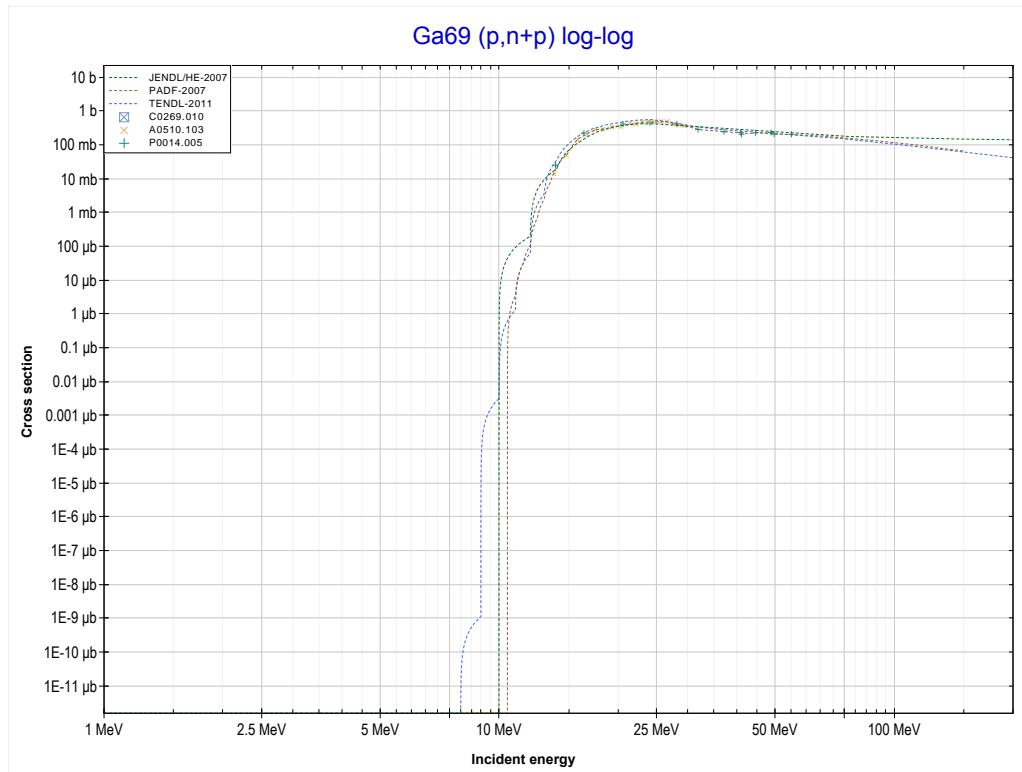
Reaction	Q-Value
Ga69(p,3n)Ge67	-23594.78 keV

<< 30-Zn-68	31-Ga-69 MT22 (p,n+α) or MT5 (Zn65 production)	32-Ge-70 >>
<< MT17 (p,3n) >>		MT28 (p,n+p) >>



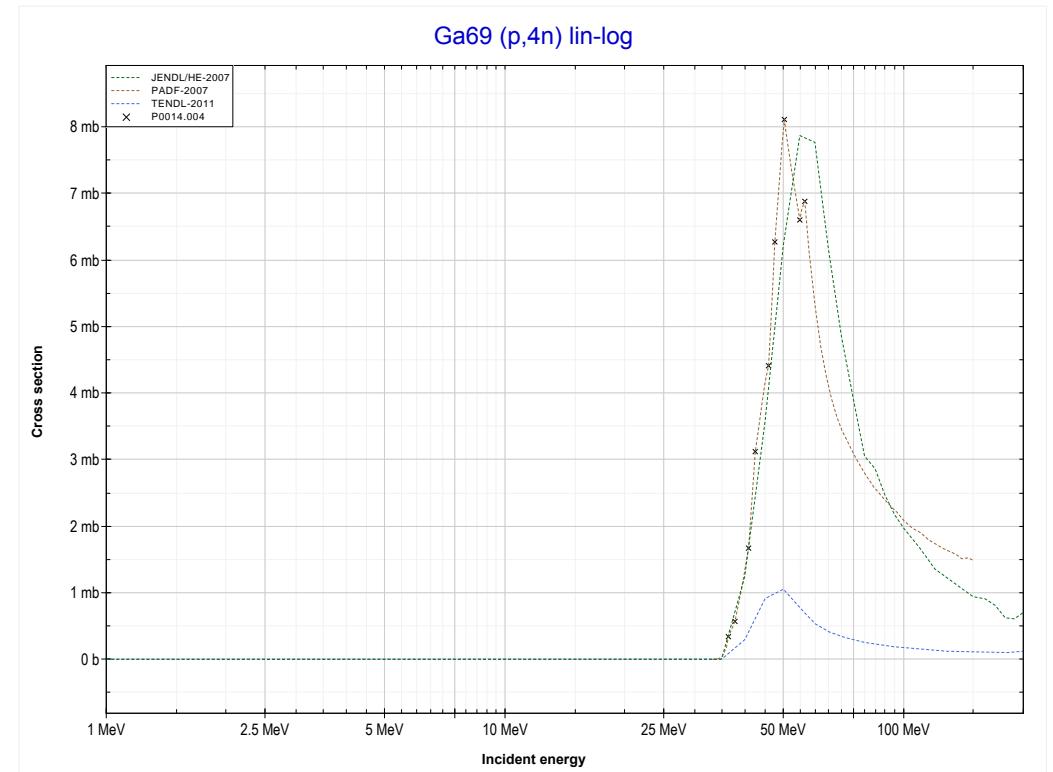
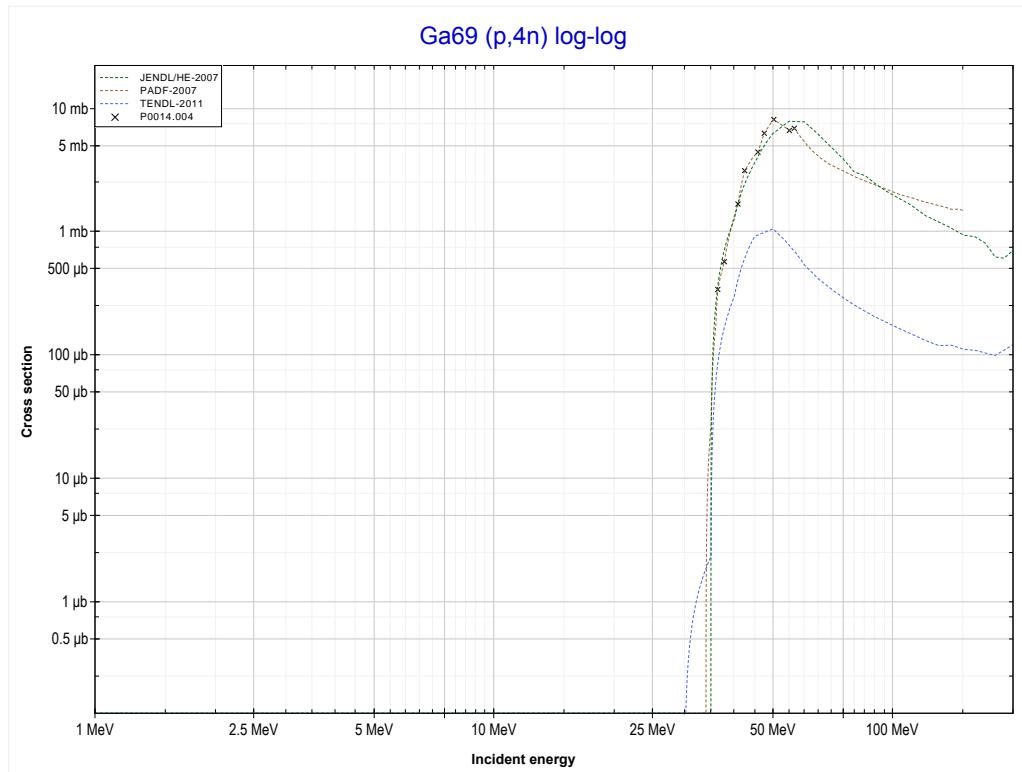
Reaction	Q-Value
$\text{Ga}^{69}(\text{p},\text{n}+\alpha)\text{Zn}^{65}$	-6623.46 keV
$\text{Ga}^{69}(\text{p},\text{d}+\text{t})\text{Zn}^{65}$	-24212.76 keV
$\text{Ga}^{69}(\text{p},\text{n}+\text{p}+\text{t})\text{Zn}^{65}$	-26437.32 keV
$\text{Ga}^{69}(\text{p},2\text{n}+\text{He}^3)\text{Zn}^{65}$	-27201.08 keV
$\text{Ga}^{69}(\text{p},\text{n}+2\text{d})\text{Zn}^{65}$	-30469.99 keV
$\text{Ga}^{69}(\text{p},2\text{n}+\text{p}+\text{d})\text{Zn}^{65}$	-32694.56 keV
$\text{Ga}^{69}(\text{p},3\text{n}+2\text{p})\text{Zn}^{65}$	-34919.12 keV

<< 30-Zn-70	31-Ga-69 MT28 (p,n+p) or MT5 (Ga68 production)	31-Ga-71 >> MT37 (p,4n) >>
<< MT22 (p,n+α)		



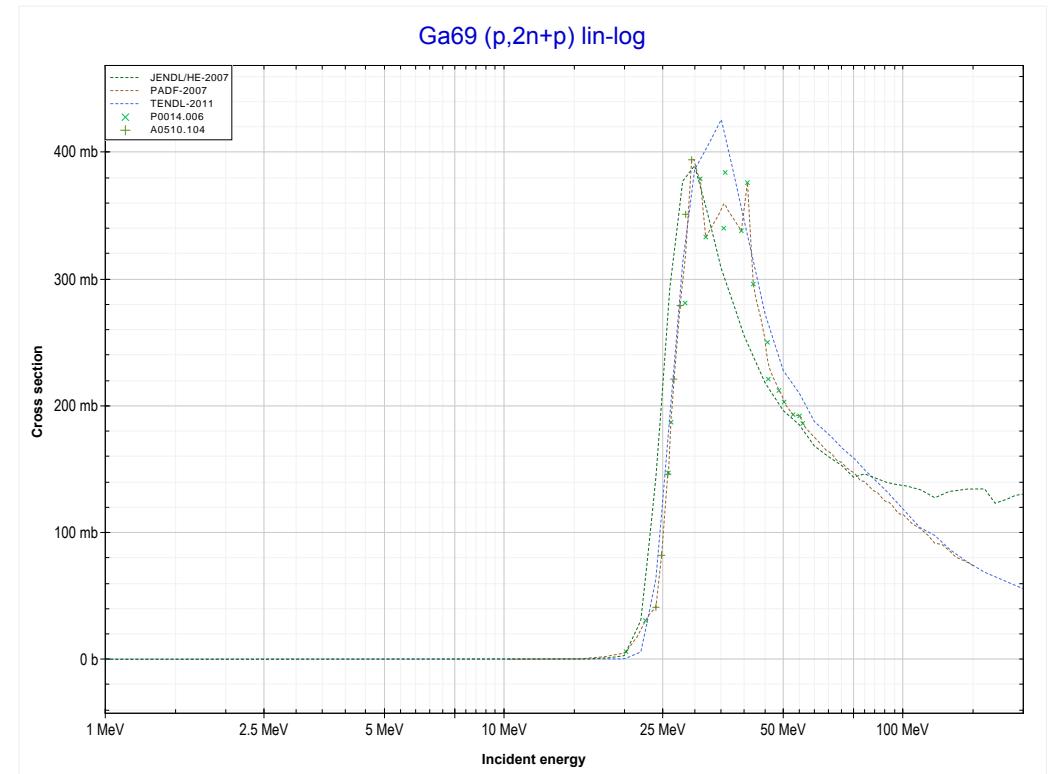
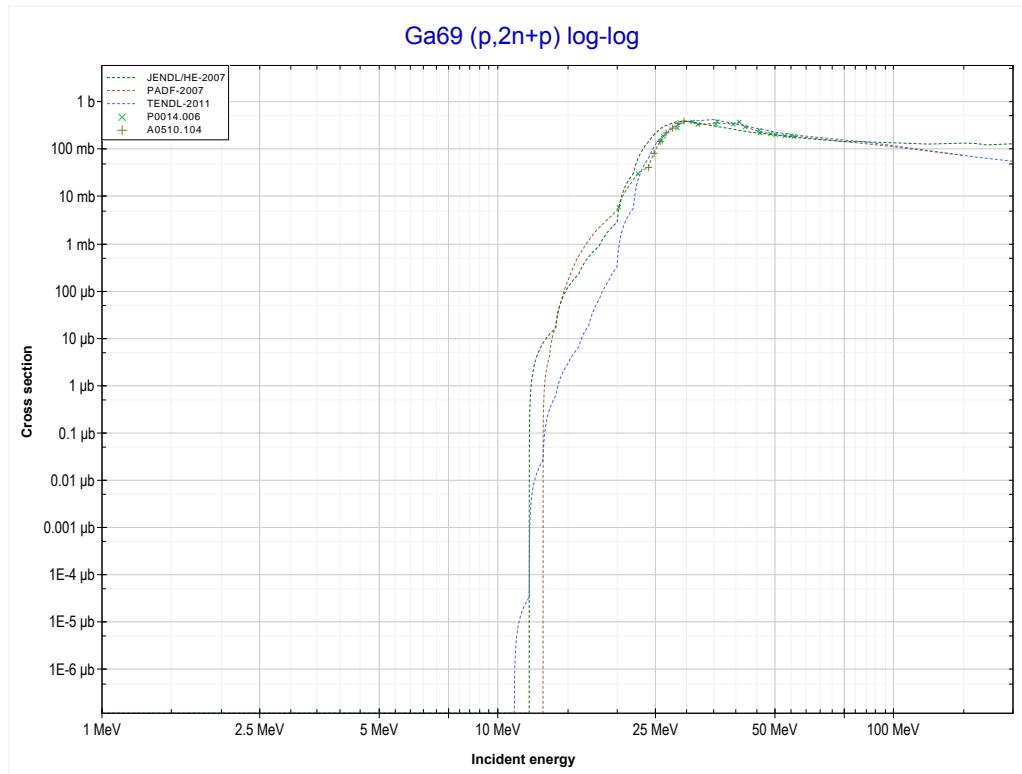
Reaction	Q-Value
$\text{Ga}^{69}(\text{p},\text{d})\text{Ga}^{68}$	-8088.45 keV
$\text{Ga}^{69}(\text{p},\text{n}+\text{p})\text{Ga}^{68}$	-10313.02 keV

<< 29-Cu-65	31-Ga-69 MT37 (p,4n) or MT5 (Ge66 production)	31-Ga-71 >>
<< MT28 (p,n+p) >>		MT41 (p,2n+p) >>



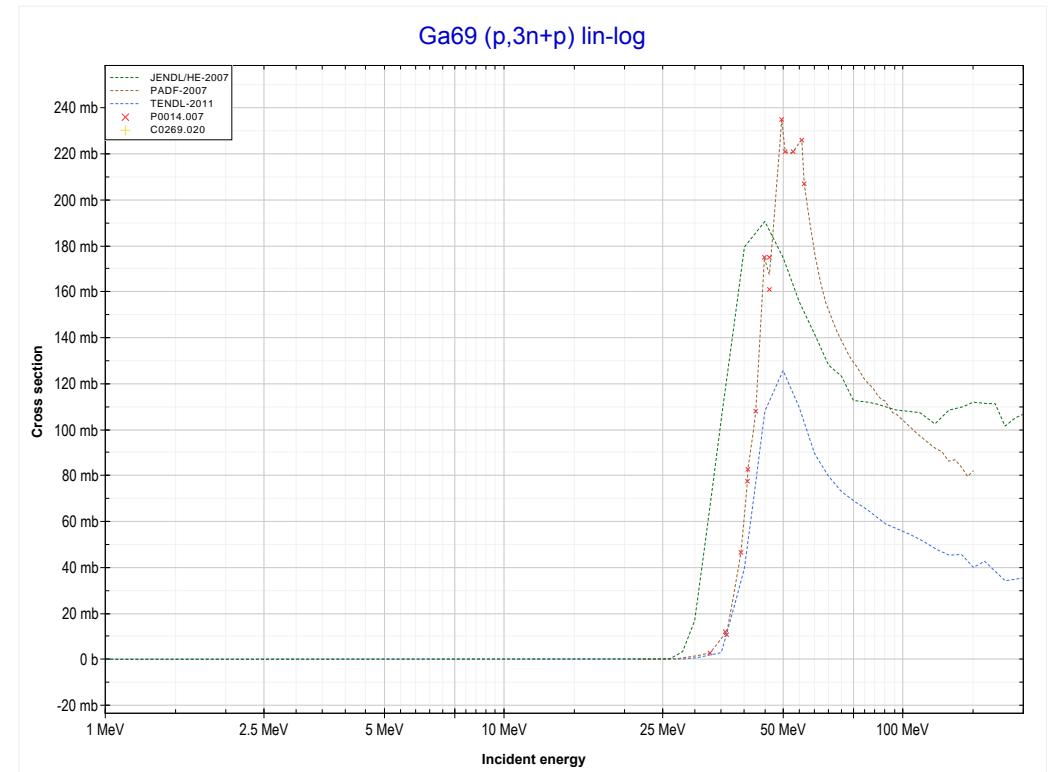
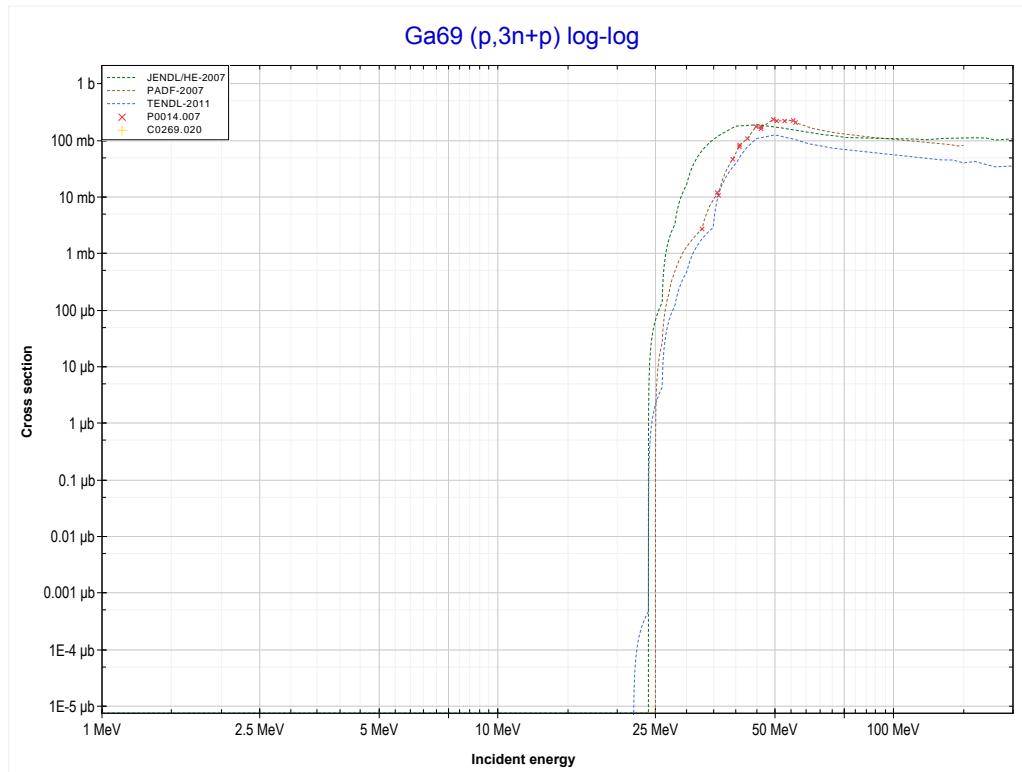
Reaction	Q-Value
Ga69(p,4n)Ge66	-32704.10 keV

<< 30-Zn-64	31-Ga-69 MT41 (p,2n+p) or MT5 (Ga67 production)	34-Se-74 >>
<< MT37 (p,4n)		MT42 (p,3n+p) >>



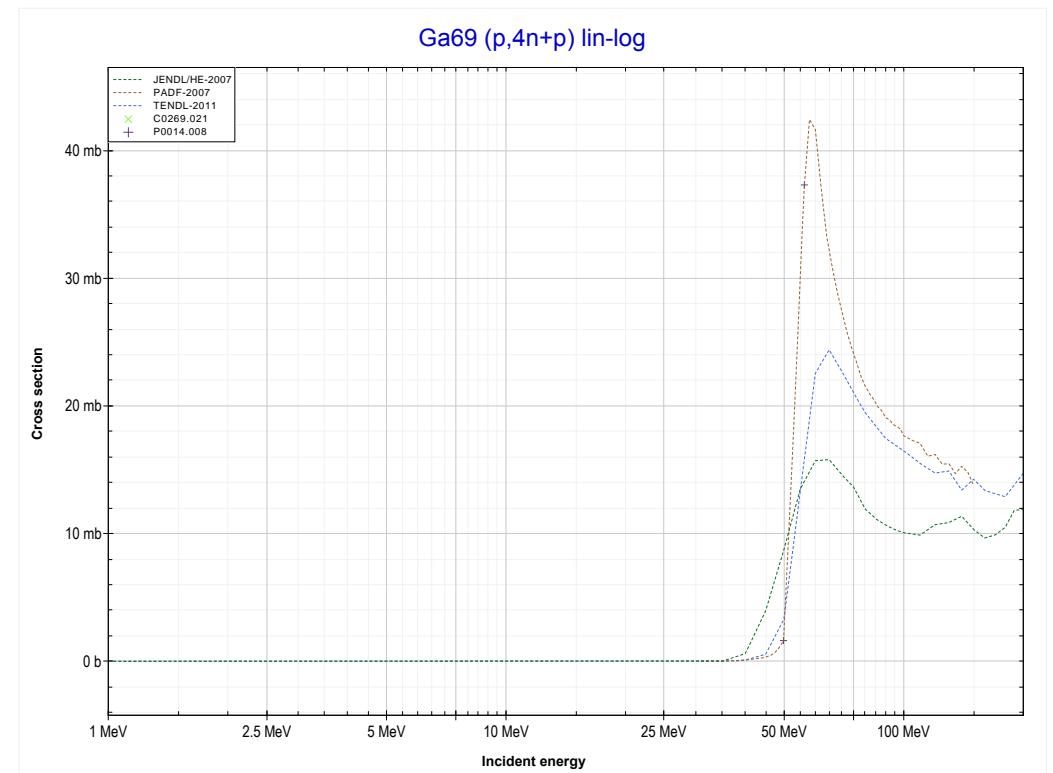
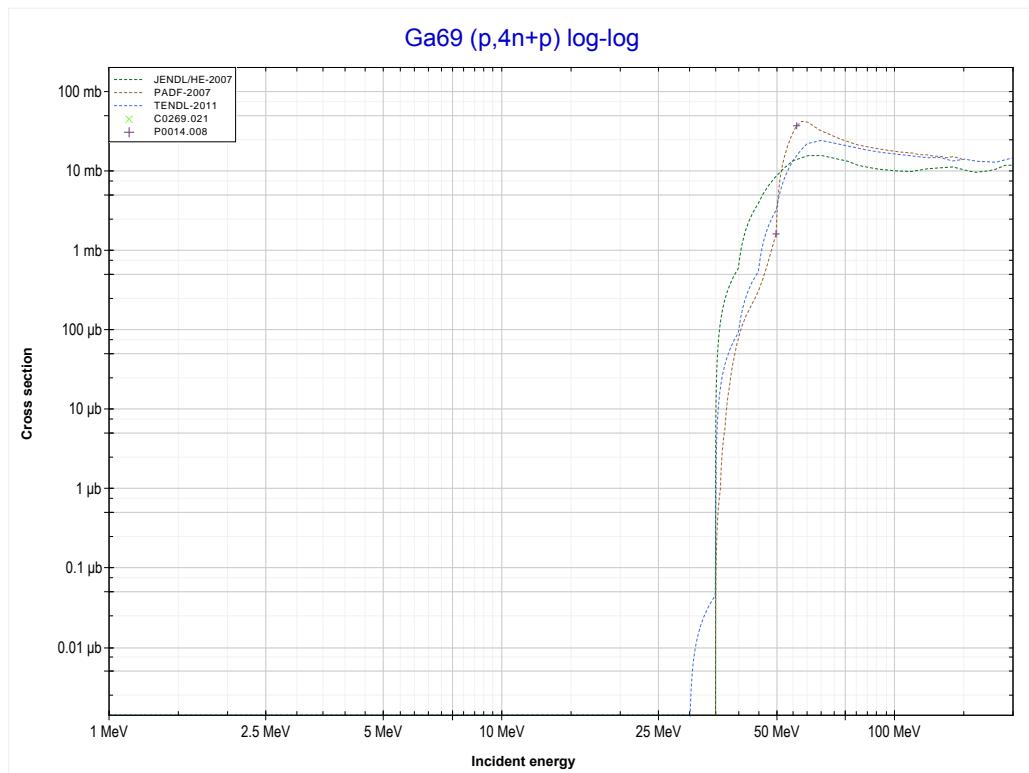
Reaction	Q-Value
Ga69(p,t)Ga67	-10108.94 keV
Ga69(p,n+d)Ga67	-16366.17 keV
Ga69(p,2n+p)Ga67	-18590.73 keV

<< 27-Co-59	31-Ga-69 MT42 (p,3n+p) or MT5 (Ga66 production)	31-Ga-71 >>
<< MT41 (p,2n+p) >>		MT156 (p,4n+p) >>



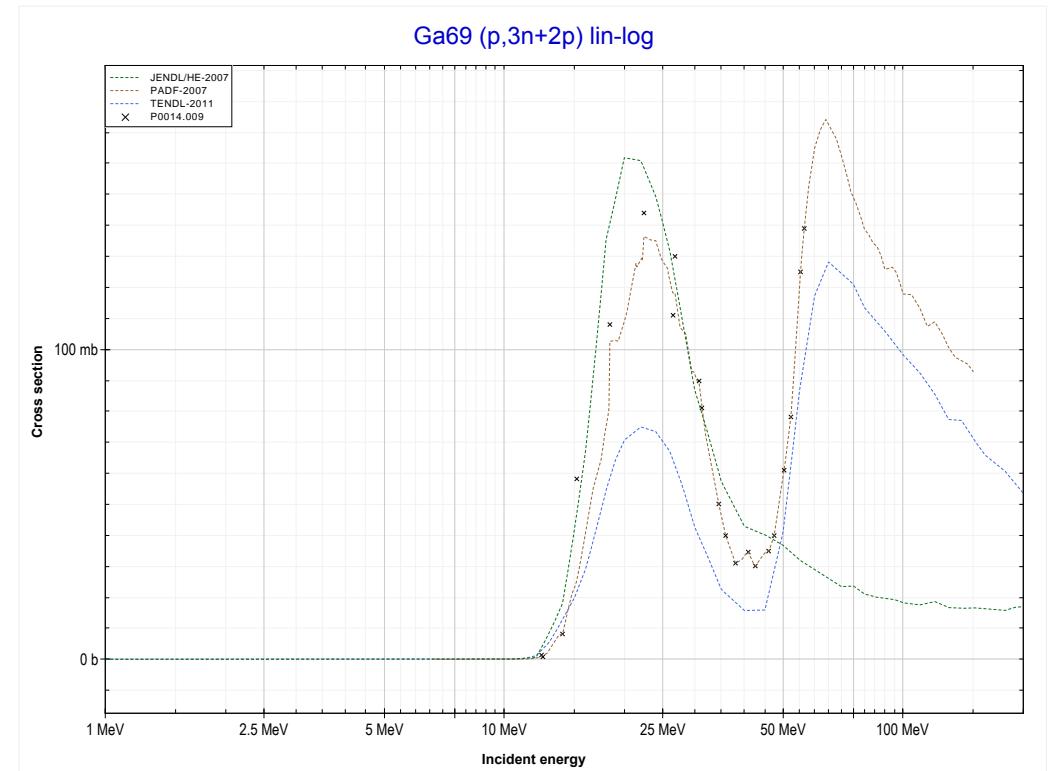
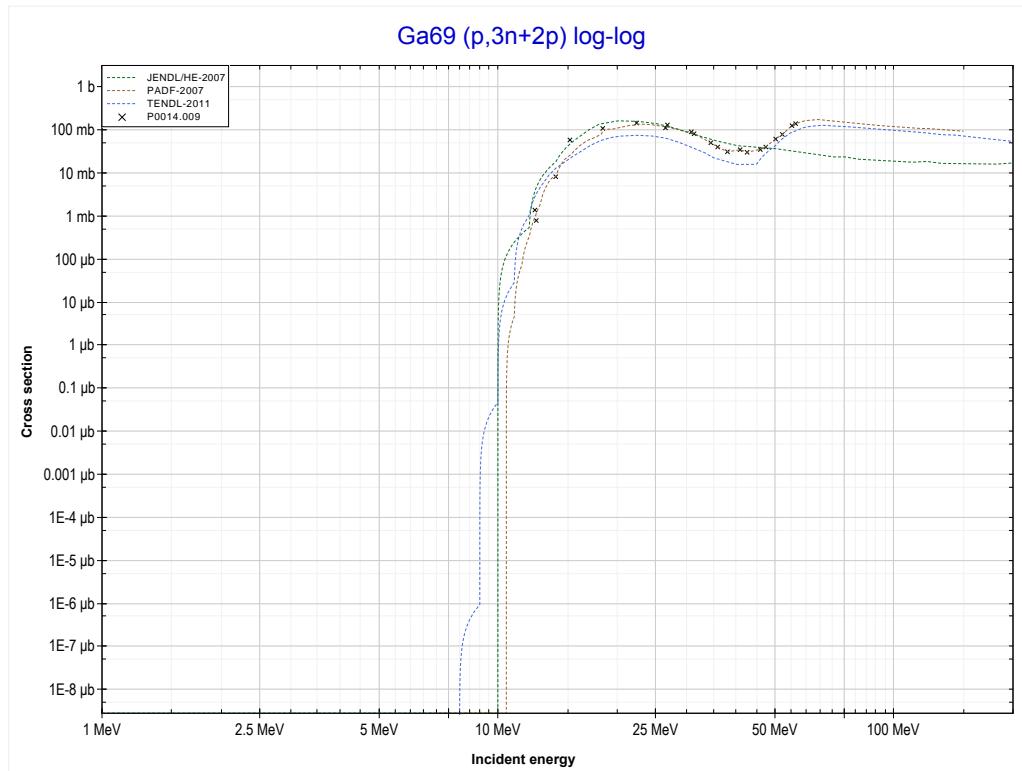
Reaction	Q-Value
Ga69(p,n+t)Ga66	-21335.95 keV
Ga69(p,2n+d)Ga66	-27593.19 keV
Ga69(p,3n+p)Ga66	-29817.75 keV

<< 27-Co-59	31-Ga-69 MT156 (p,4n+p) or MT5 (Ga65 production)	31-Ga-71 >>
<< MT42 (p,3n+p) >>		MT179 (p,3n+2p) >>



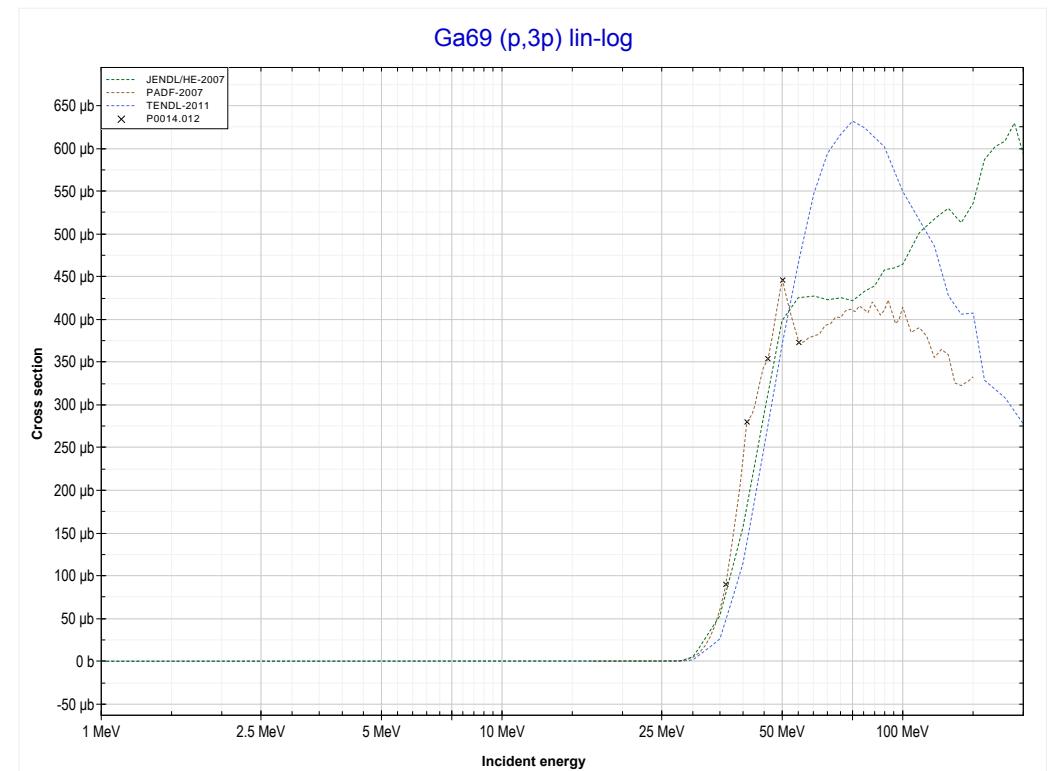
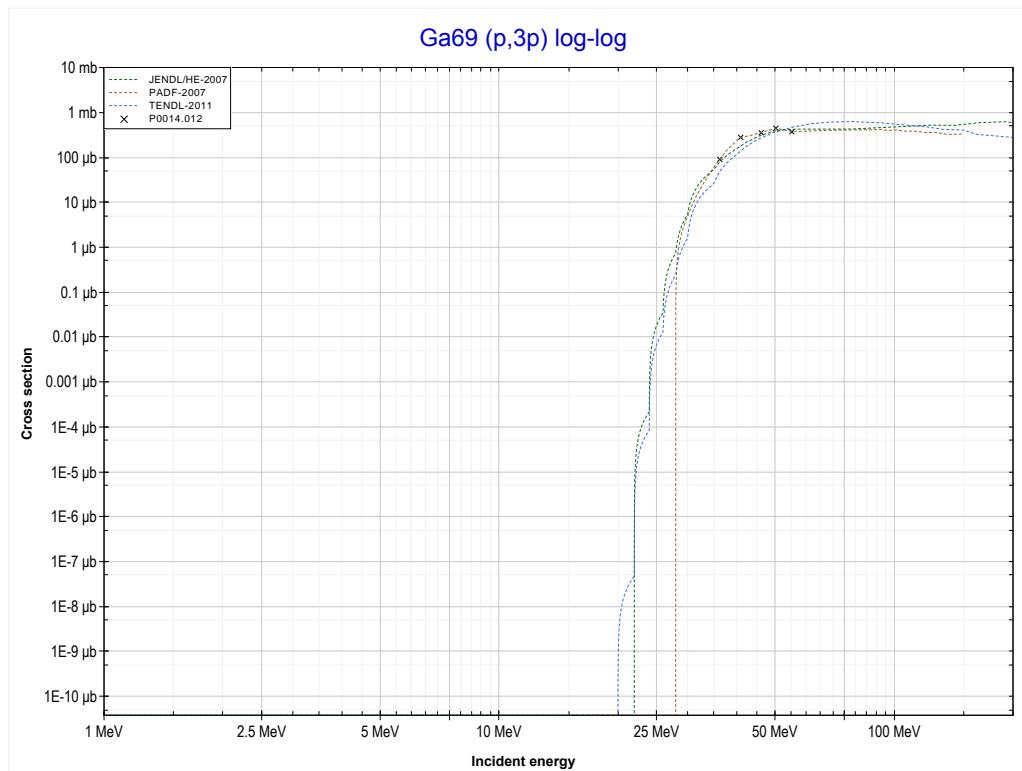
Reaction	Q-Value
Ga69(p,2n+t)Ga65	-30474.07 keV
Ga69(p,3n+d)Ga65	-36731.30 keV
Ga69(p,4n+p)Ga65	-38955.87 keV

<< 30-Zn-64	31-Ga-69	90-Th-232 >>
<< MT156 (p,4n+p)	MT179 (p,3n+2p) or MT5 (Zn65 production)	MT197 (p,3p) >>



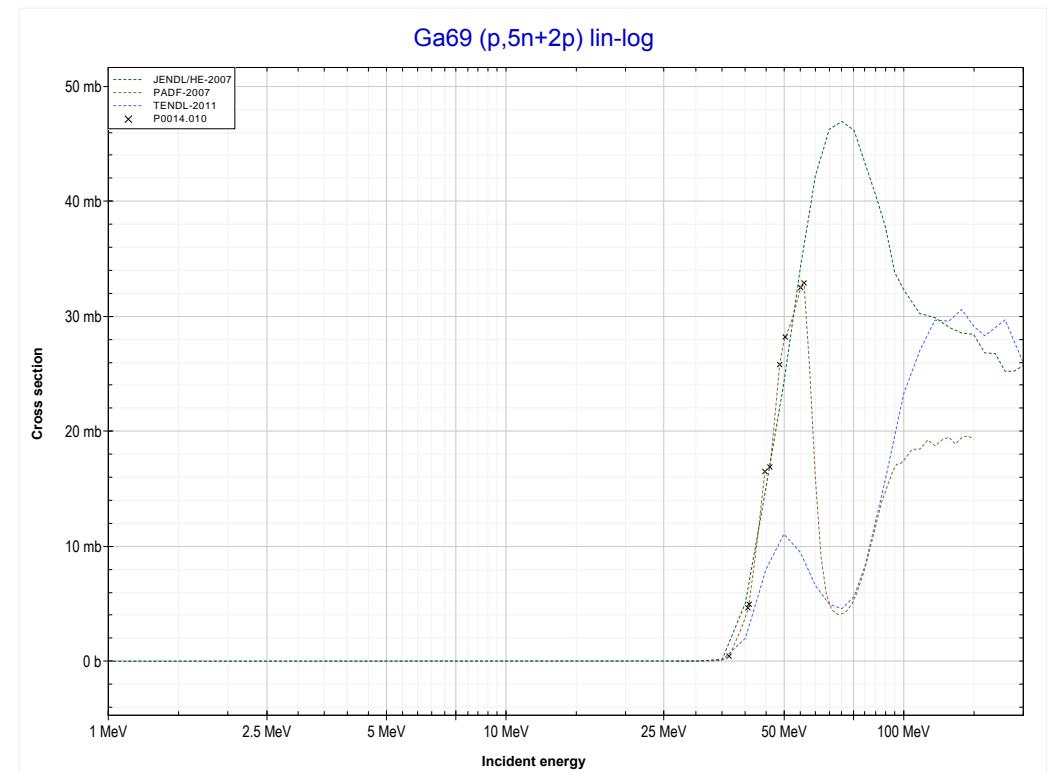
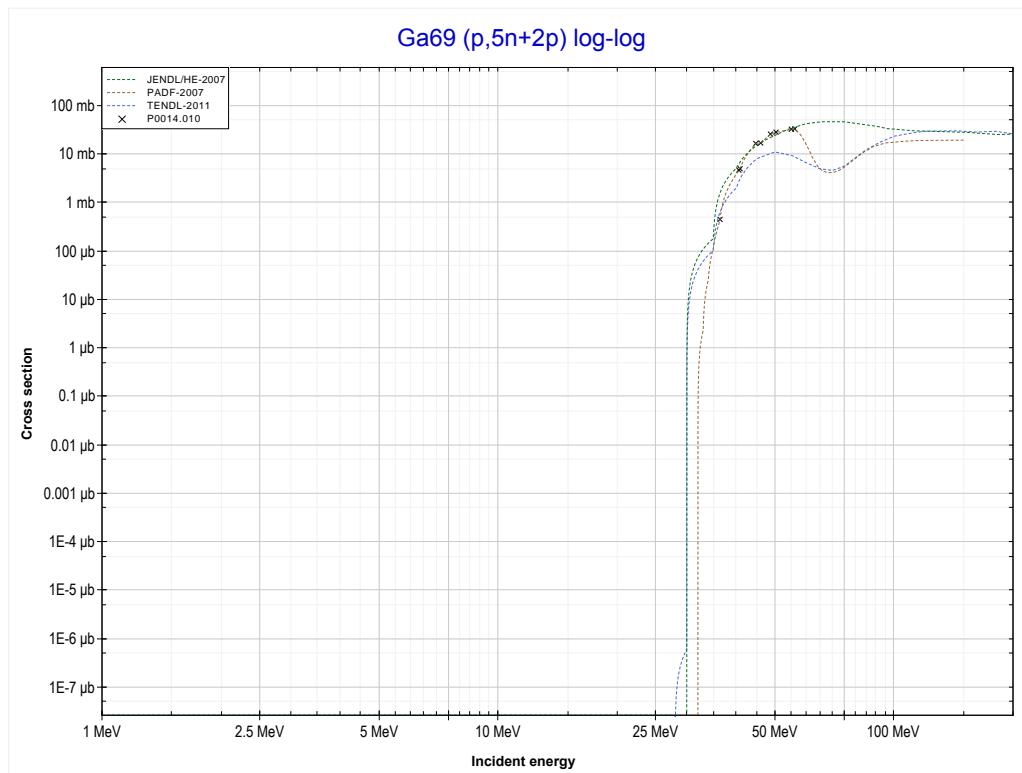
Reaction	Q-Value
$\text{Ga}^{69}(\text{p},\text{n}+\alpha)\text{Zn}^{65}$	-6623.46 keV
$\text{Ga}^{69}(\text{p},\text{d}+\text{t})\text{Zn}^{65}$	-24212.76 keV
$\text{Ga}^{69}(\text{p},\text{n}+\text{p}+\text{t})\text{Zn}^{65}$	-26437.32 keV
$\text{Ga}^{69}(\text{p},2\text{n}+\text{He}^3)\text{Zn}^{65}$	-27201.08 keV
$\text{Ga}^{69}(\text{p},\text{n}+2\text{d})\text{Zn}^{65}$	-30469.99 keV
$\text{Ga}^{69}(\text{p},2\text{n}+\text{p}+\text{d})\text{Zn}^{65}$	-32694.56 keV
$\text{Ga}^{69}(\text{p},3\text{n}+2\text{p})\text{Zn}^{65}$	-34919.12 keV

<< 23-V-51	31-Ga-69 MT197 (p,3p) or MT5 (Cu67 production)	33-As-75 >>
<< MT179 (p,3n+2p) >>		MT200 (p,5n+2p) >>



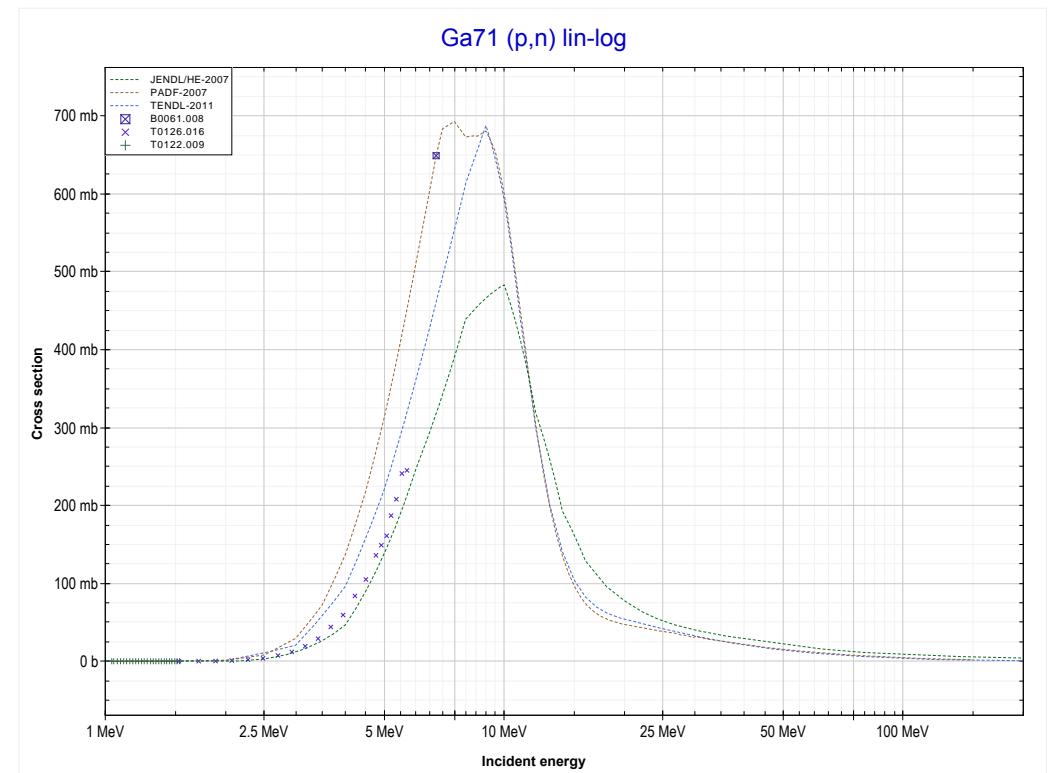
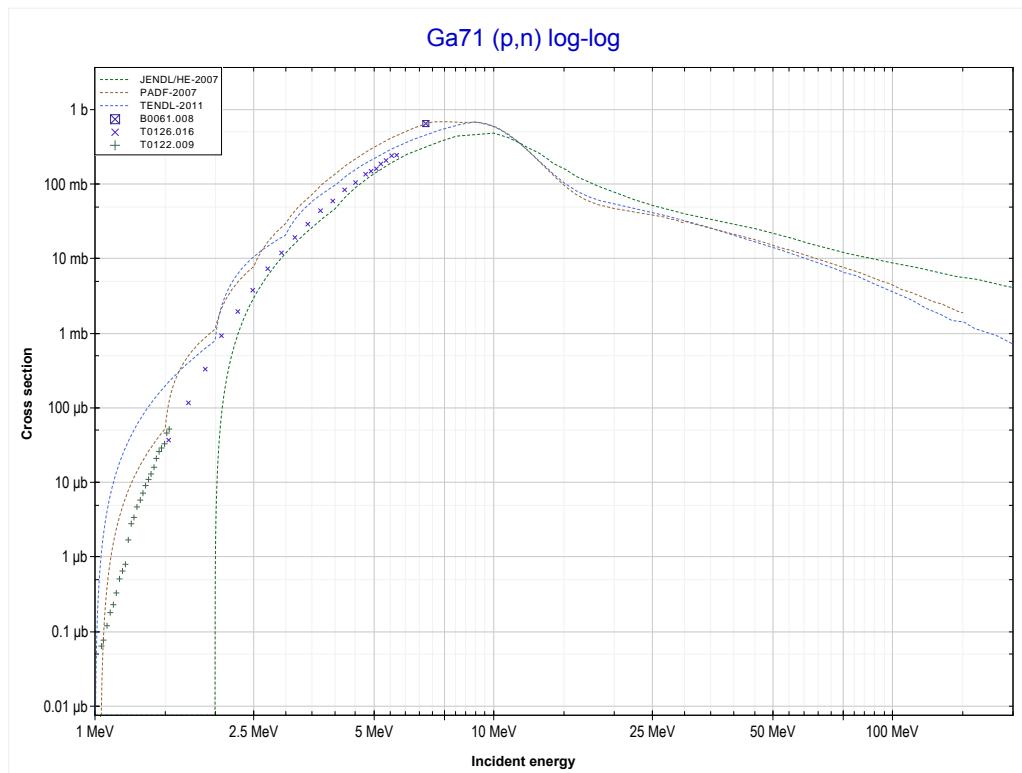
Reaction	Q-Value
Ga69(p,3p)Cu67	-16586.94 keV

<< MT197 (p,3p)	31-Ga-69 MT200 (p,5n+2p) or MT5 (Zn63 production)	31-Ga-71 >> MT4 (p,n) >>
-----------------	--	-----------------------------



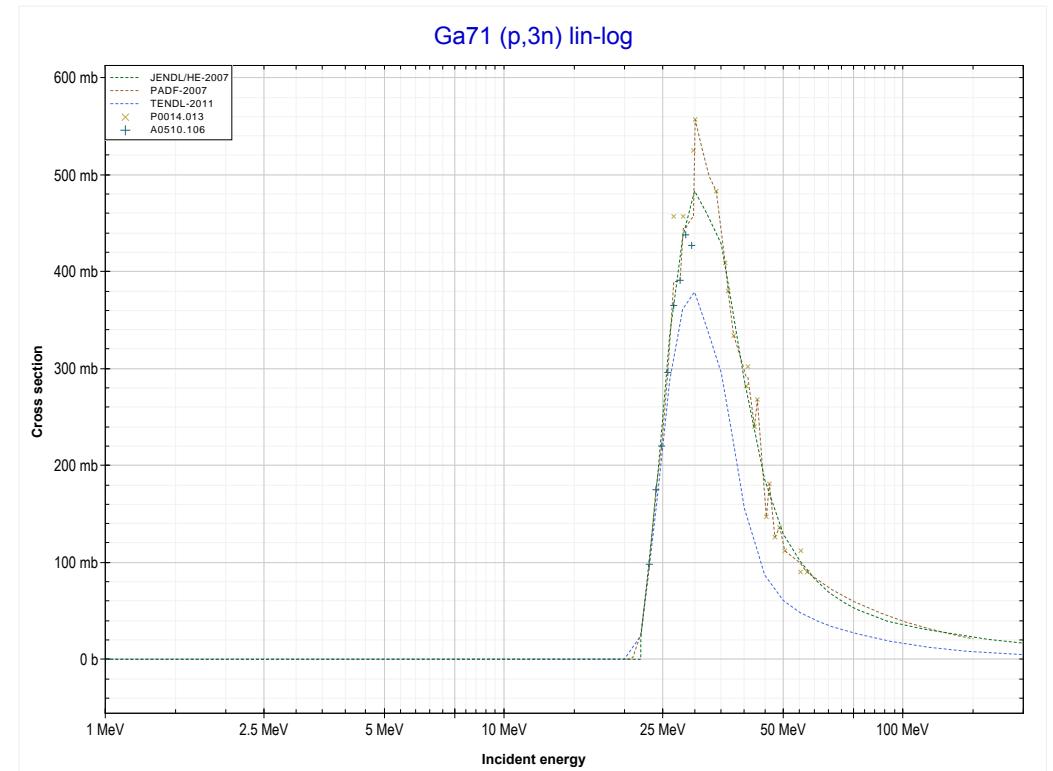
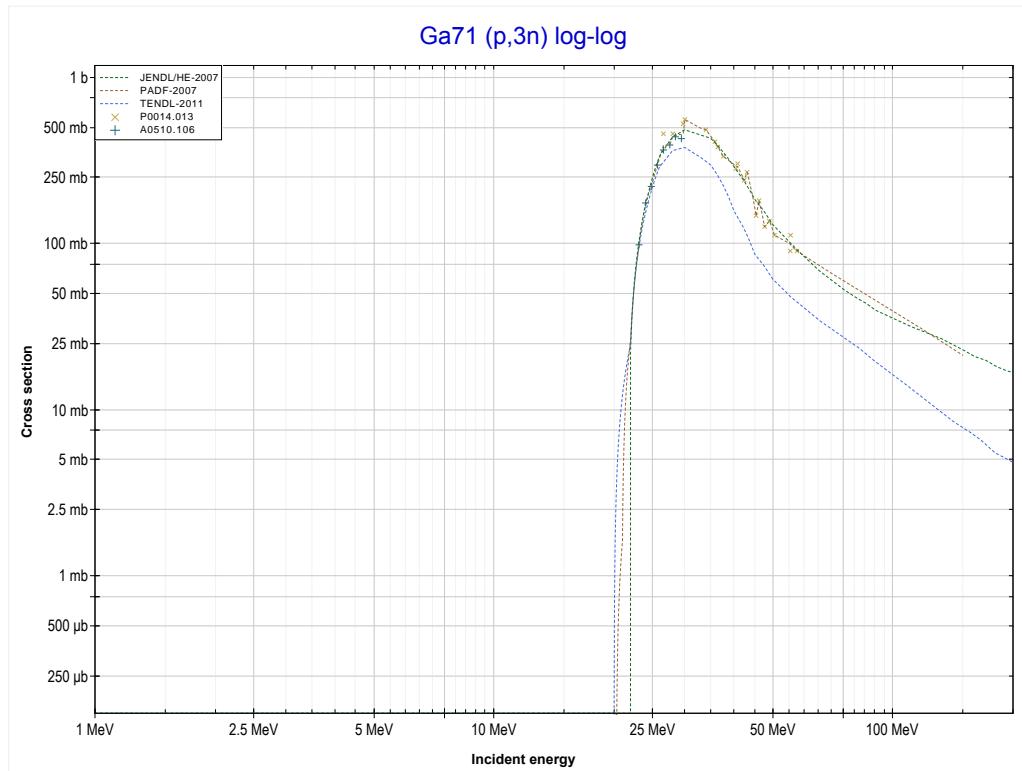
Reaction	Q-Value
Ga69(p,3n+α)Zn63	-26464.70 keV
Ga69(p,n+2t)Zn63	-37796.76 keV
Ga69(p,2n+d+t)Zn63	-44053.99 keV
Ga69(p,3n+p+t)Zn63	-46278.56 keV
Ga69(p,4n+He3)Zn63	-47042.31 keV
Ga69(p,3n+2d)Zn63	-50311.22 keV
Ga69(p,4n+p+d)Zn63	-52535.79 keV
Ga69(p,5n+2p)Zn63	-54760.36 keV

<< 31-Ga-69	31-Ga-71 MT4 (p,n) or MT5 (Ge71 production)	32-Ge-70 >>
<< MT200 (p,5n+2p)		MT17 (p,3n) >>



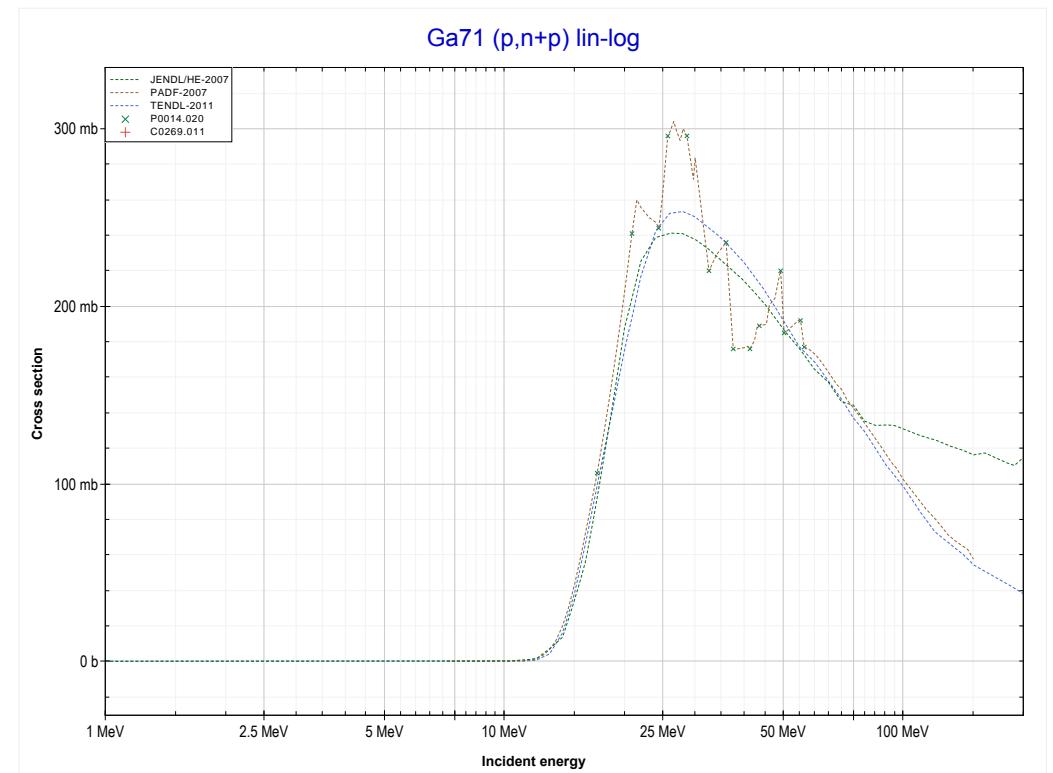
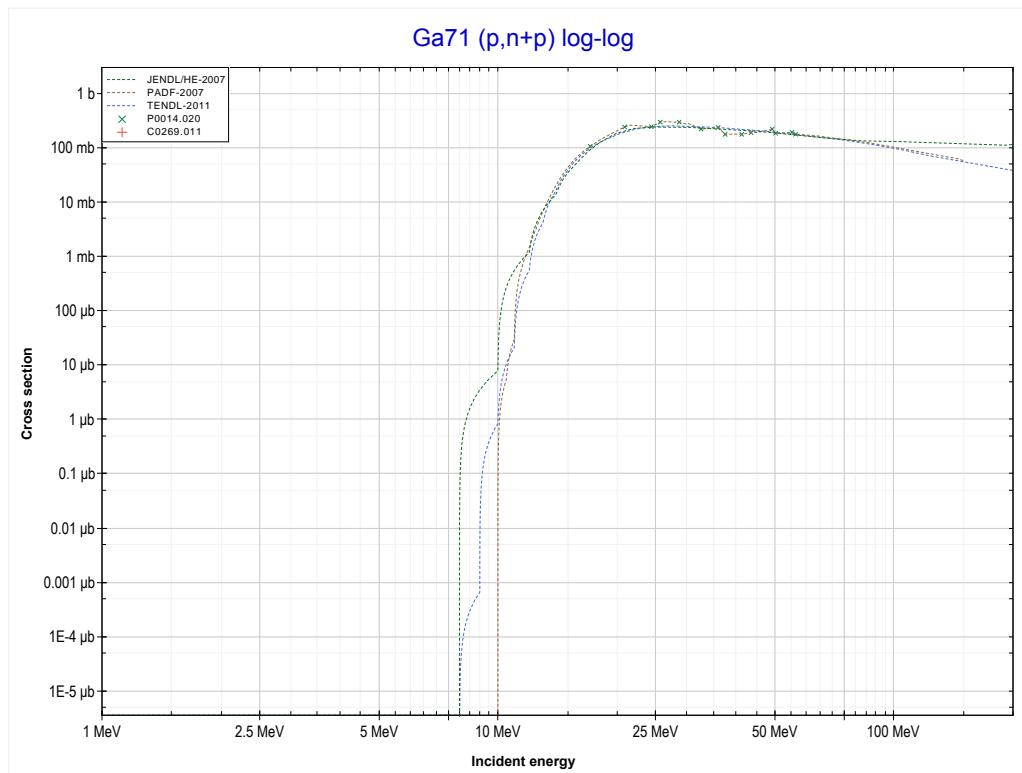
Reaction	Q-Value
Ga71(p,n)Ge71	-1014.85 keV

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



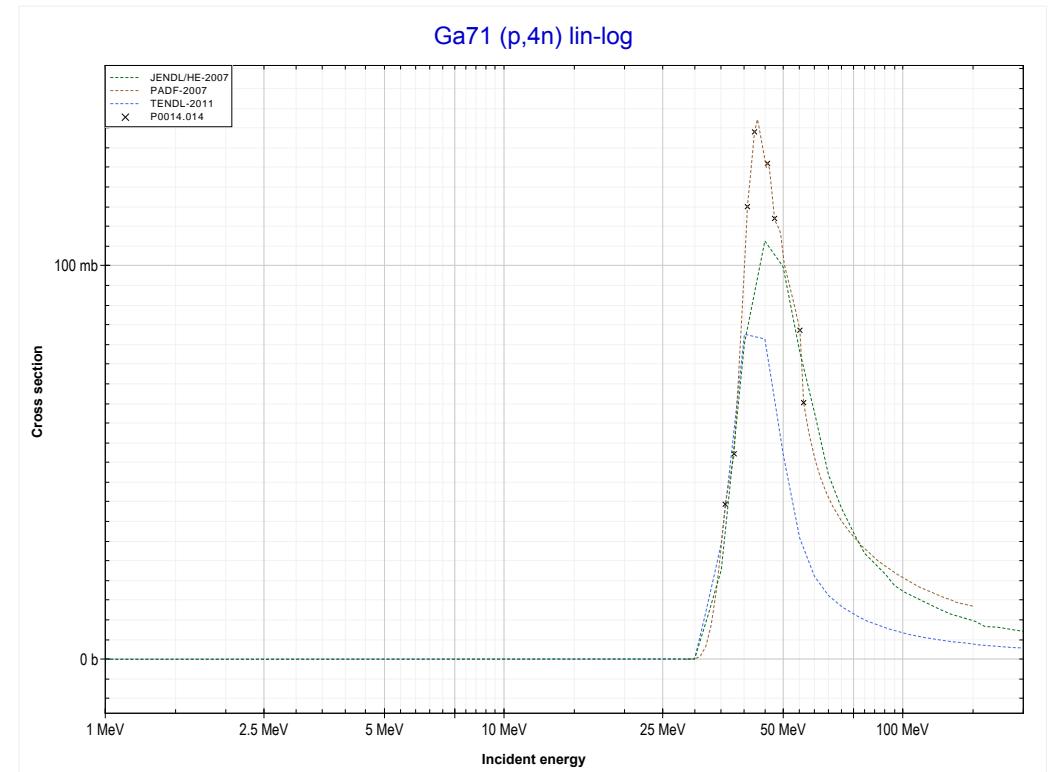
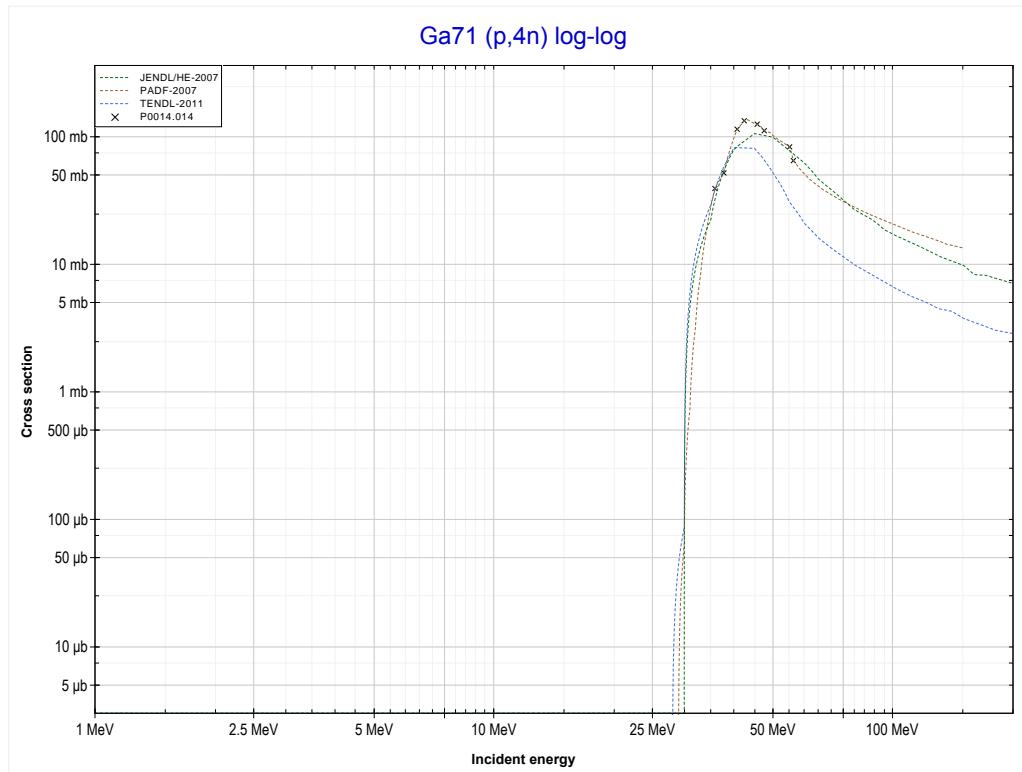
Reaction	Q-Value
Ga71(p,3n)Ge69	-19964.58 keV

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



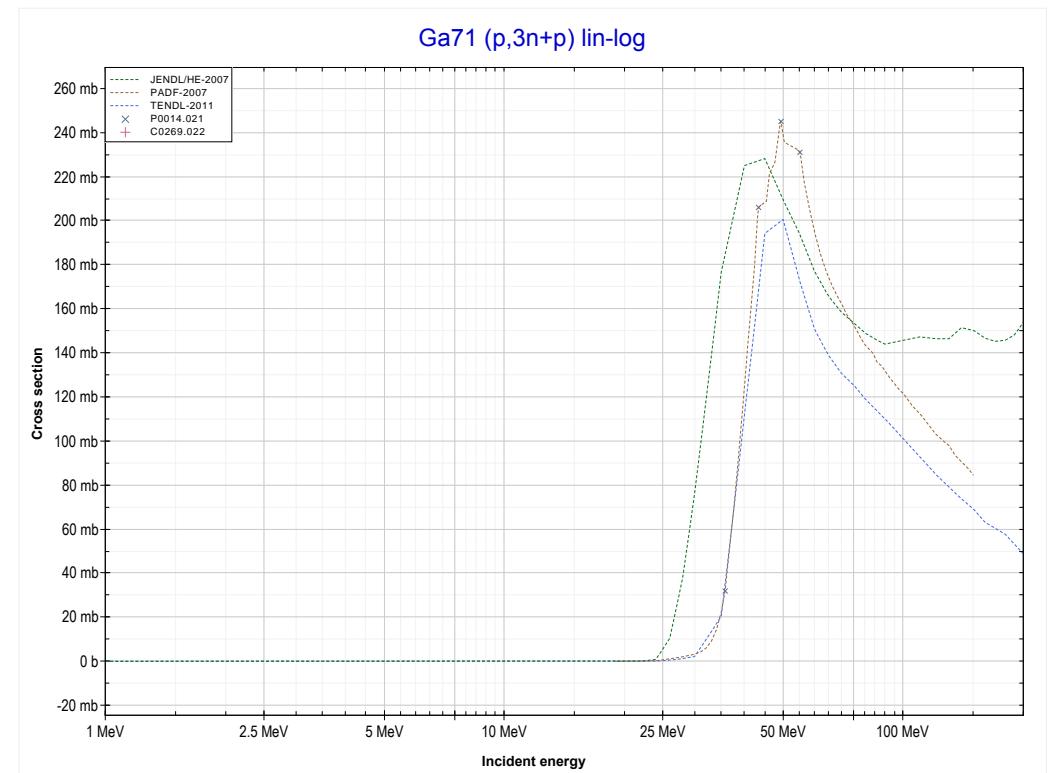
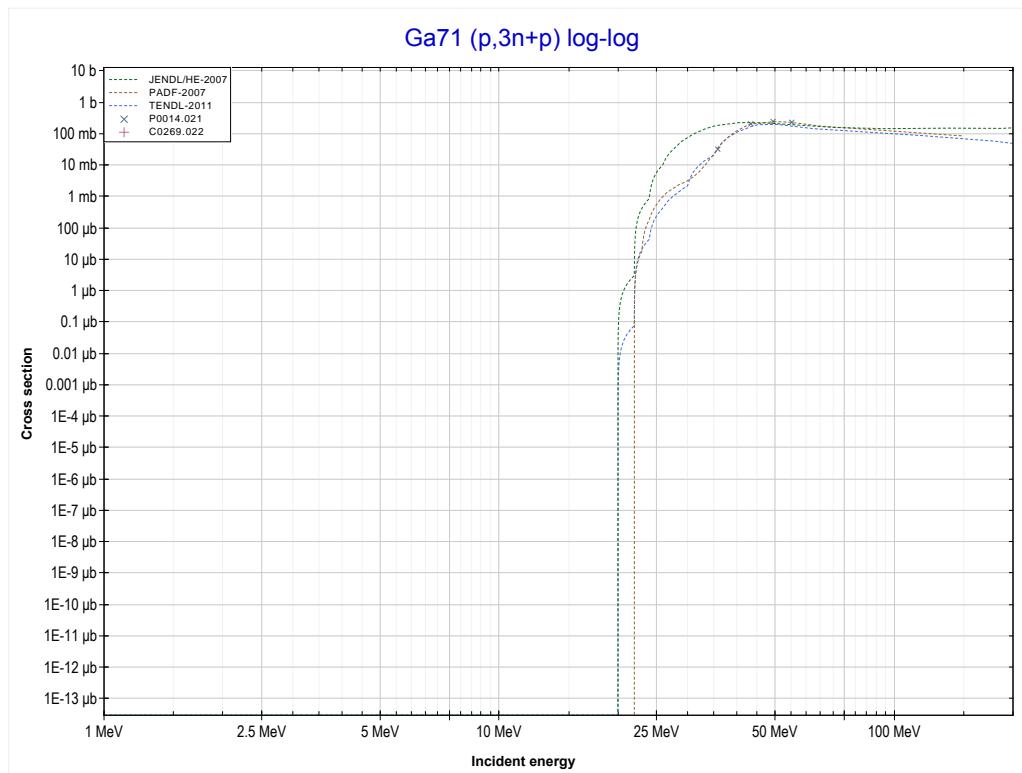
Reaction	Q-Value
Ga71(p,d)Ga70	-7076.85 keV
Ga71(p,n+p)Ga70	-9301.42 keV

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



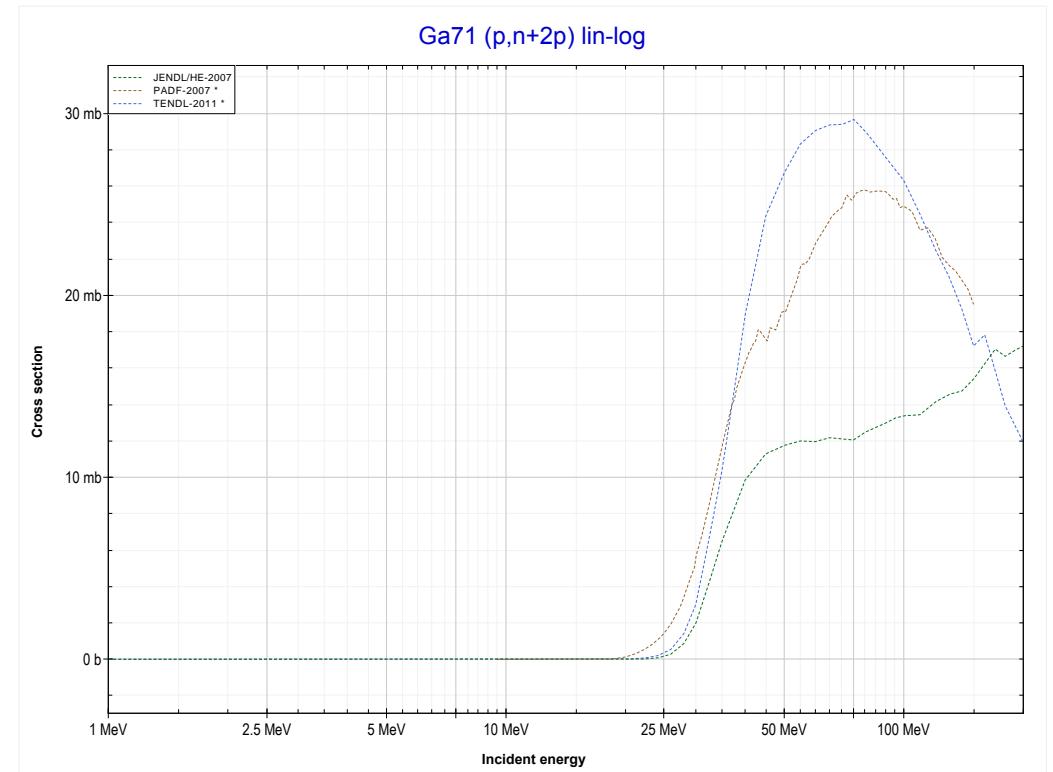
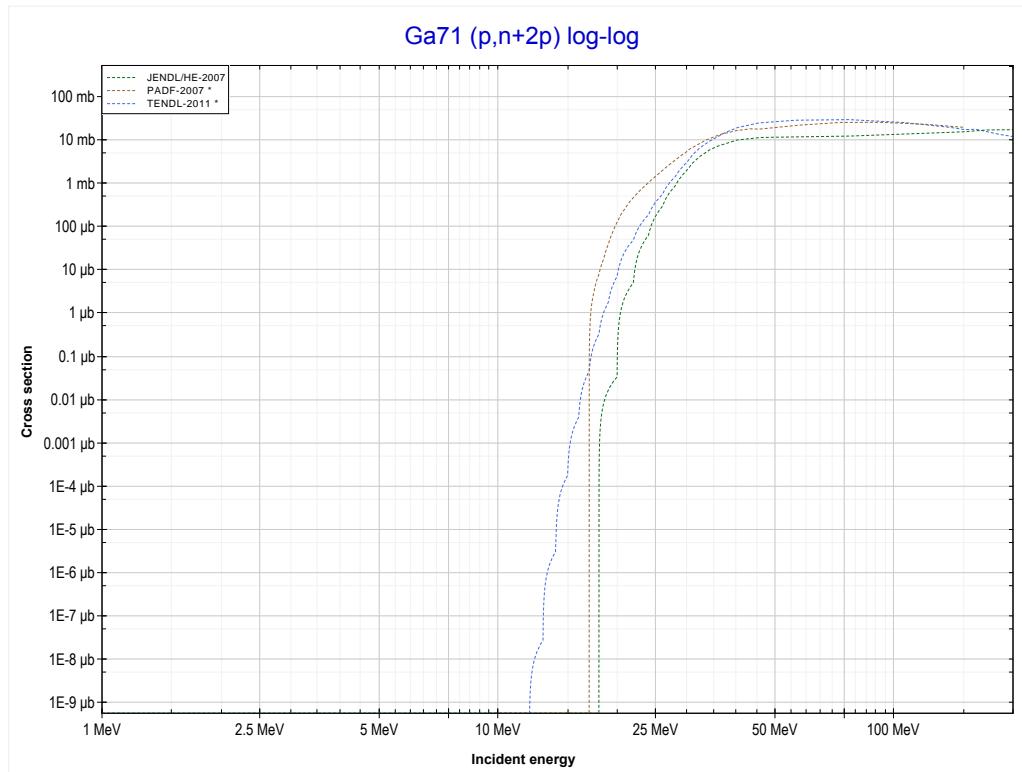
Reaction	Q-Value
Ga71(p,4n)Ge68	-28156.50 keV

<< 31-Ga-69	31-Ga-71 MT42 (p,3n+p) or MT5 (Ga68 production)	>> 39-Y-89
<< MT37 (p,4n)		>> MT44 (p,n+2p) >>



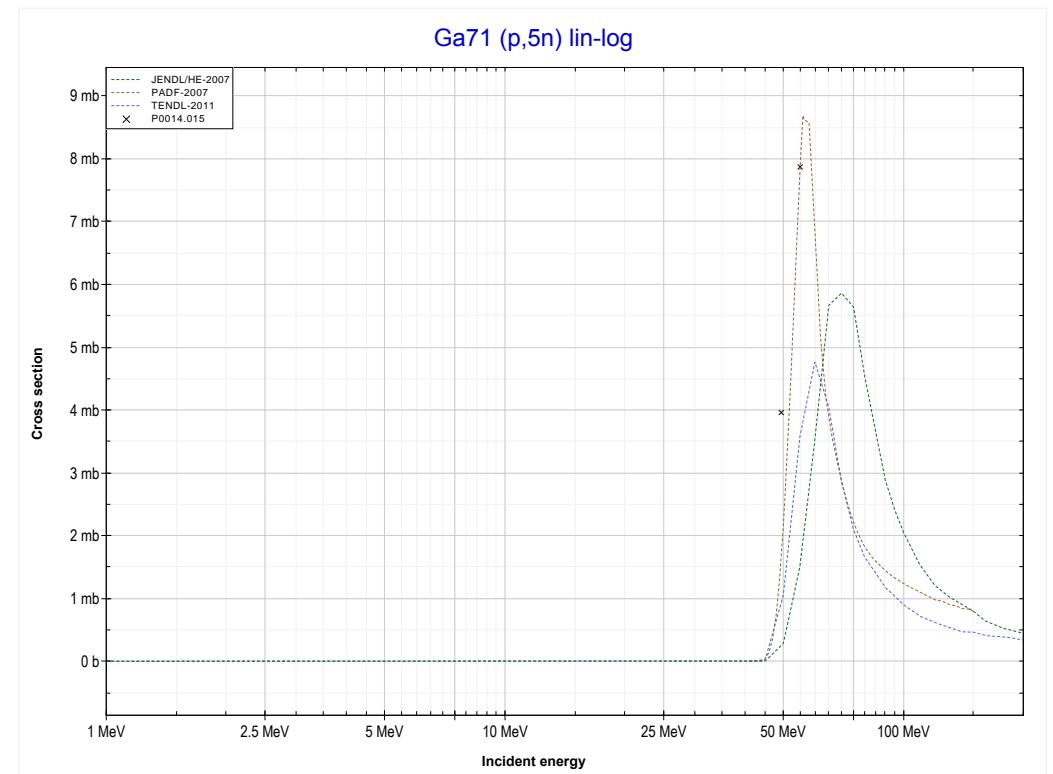
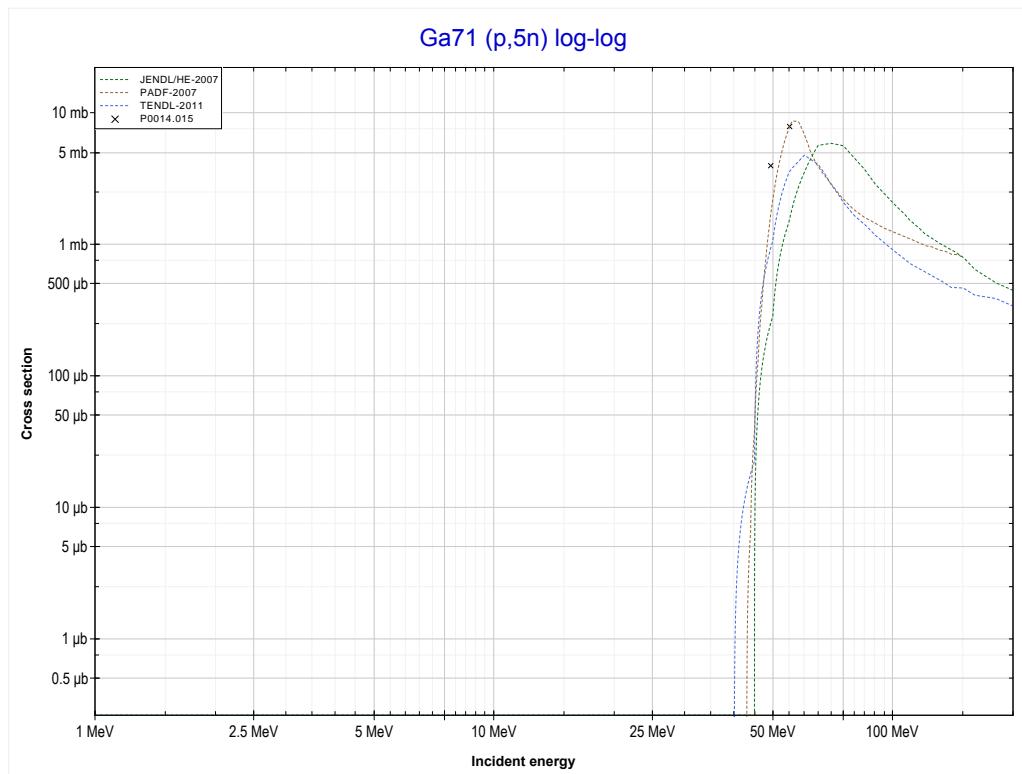
Reaction	Q-Value
Ga71(p,n+t)Ga68	-18786.25 keV
Ga71(p,2n+d)Ga68	-25043.49 keV
Ga71(p,3n+p)Ga68	-27268.05 keV

<< 30-Zn-64	31-Ga-71 MT44 (p,n+2p) or MT5 (Zn69 production)	>> 34-Se-74
<< MT42 (p,3n+p)		>> MT152 (p,5n) >>

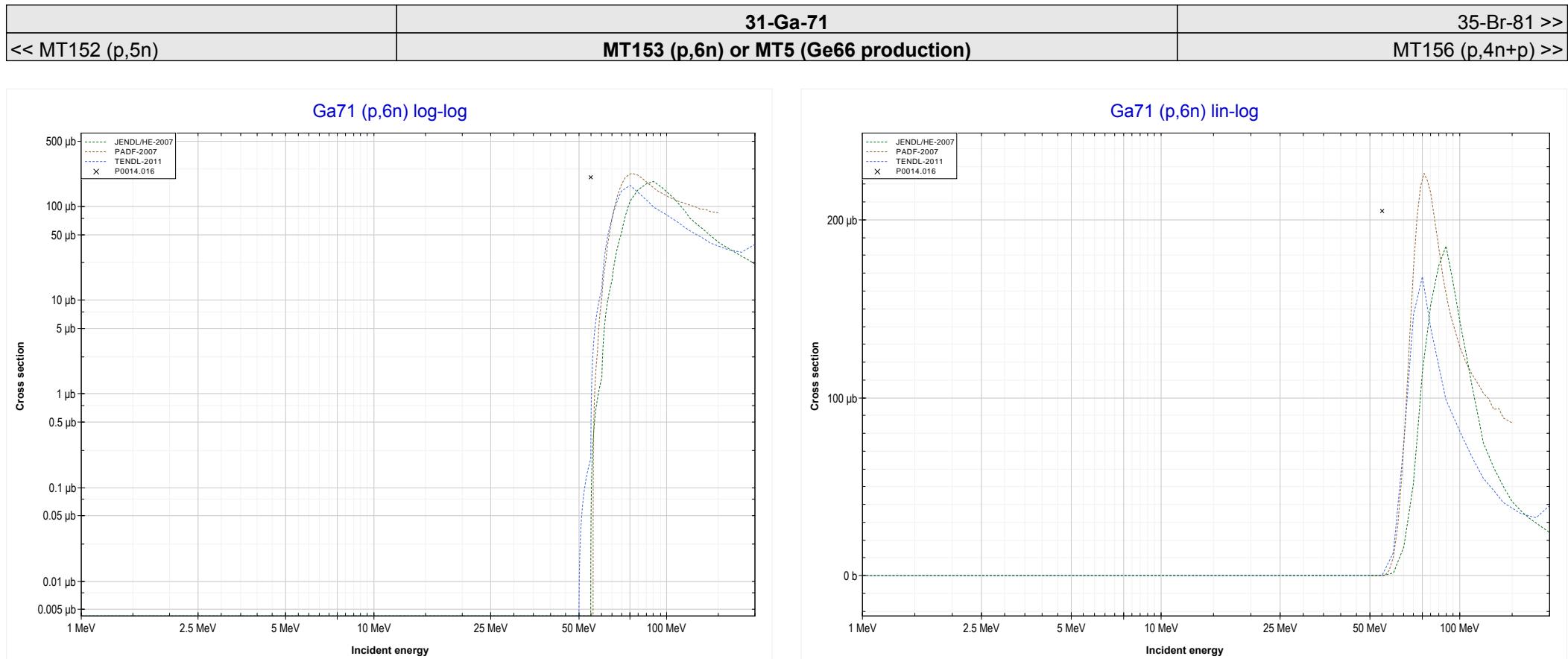


Reaction	Q-Value
Ga71(p,He3)Zn69	-9364.44 keV
Ga71(p,p+d)Zn69	-14857.92 keV
Ga71(p,n+2p)Zn69	-17082.49 keV

<< MT44 (p,n+2p)	31-Ga-71 MT152 (p,5n) or MT5 (Ge67 production)	34-Se-80 >> MT153 (p,6n) >>
------------------	--	--------------------------------

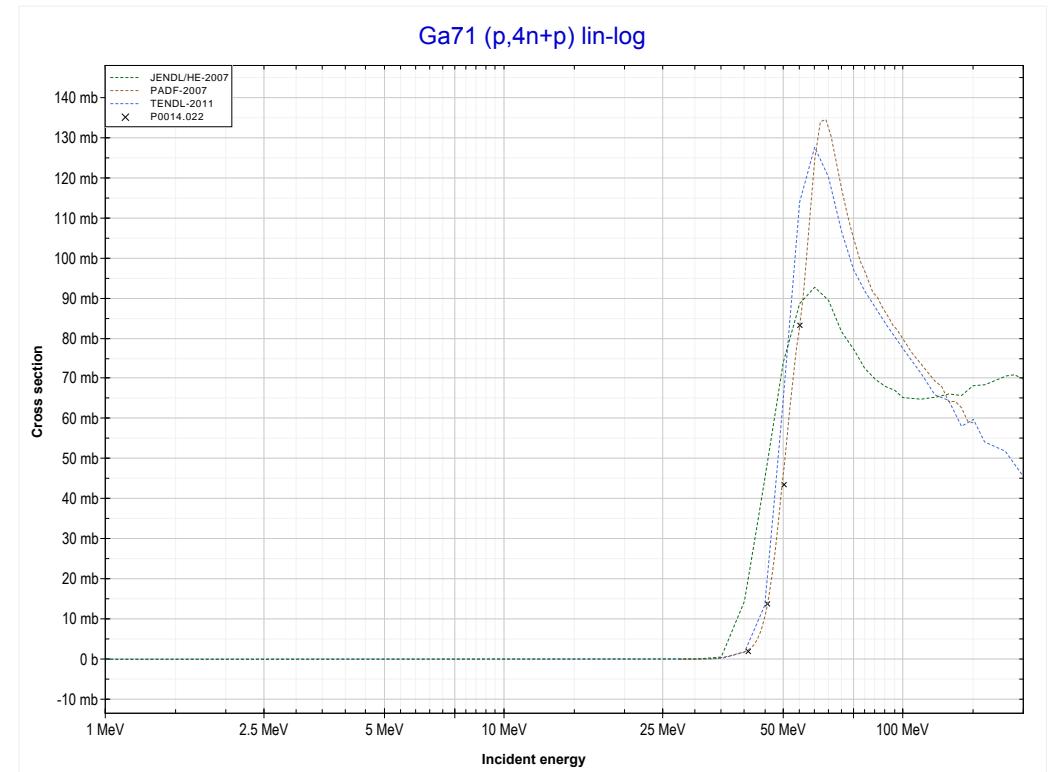
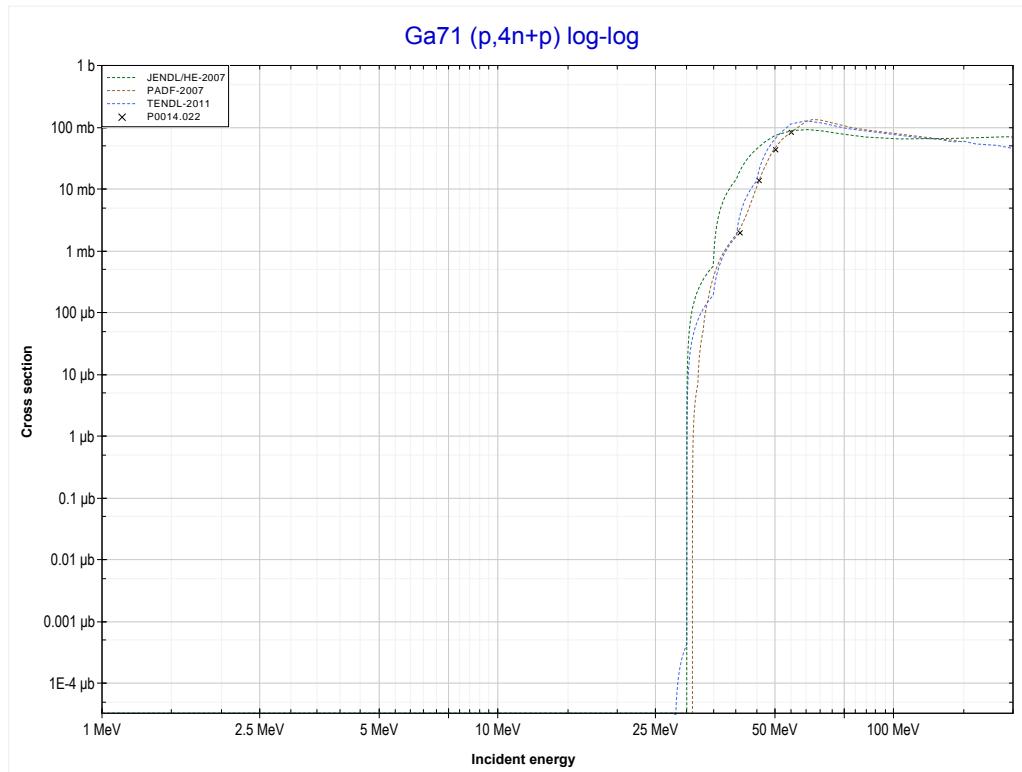


Reaction	Q-Value
$\text{Ga}^{71}(\text{p},\text{5n})\text{Ge}^{67}$	-40549.81 keV



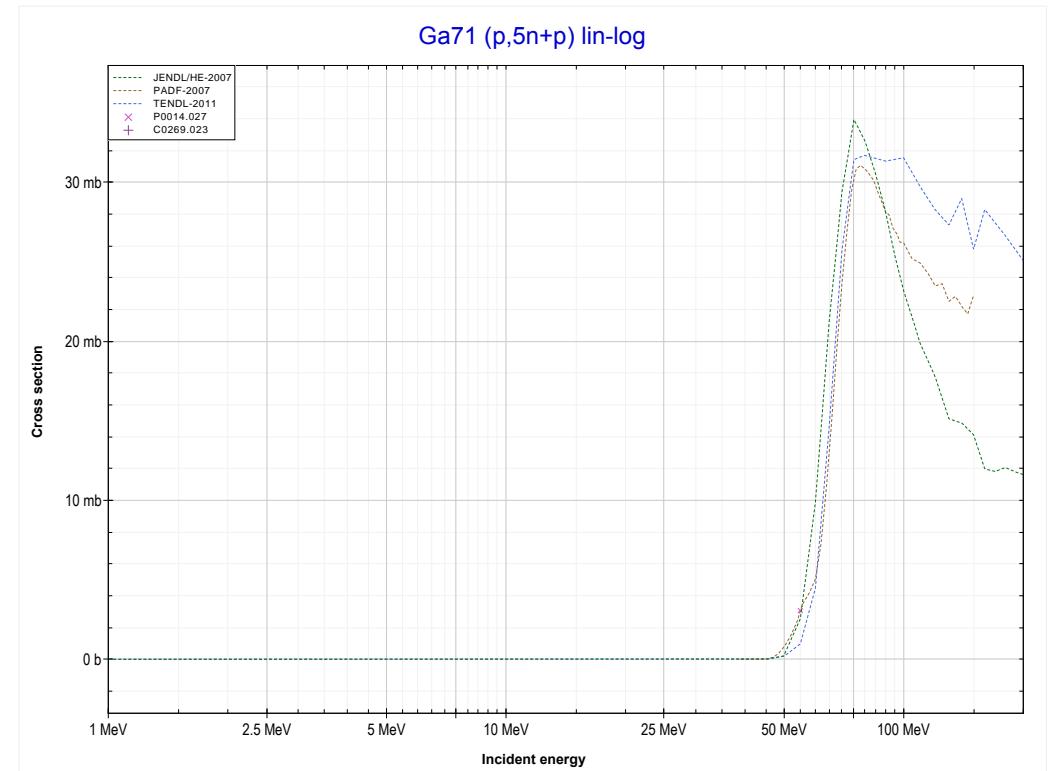
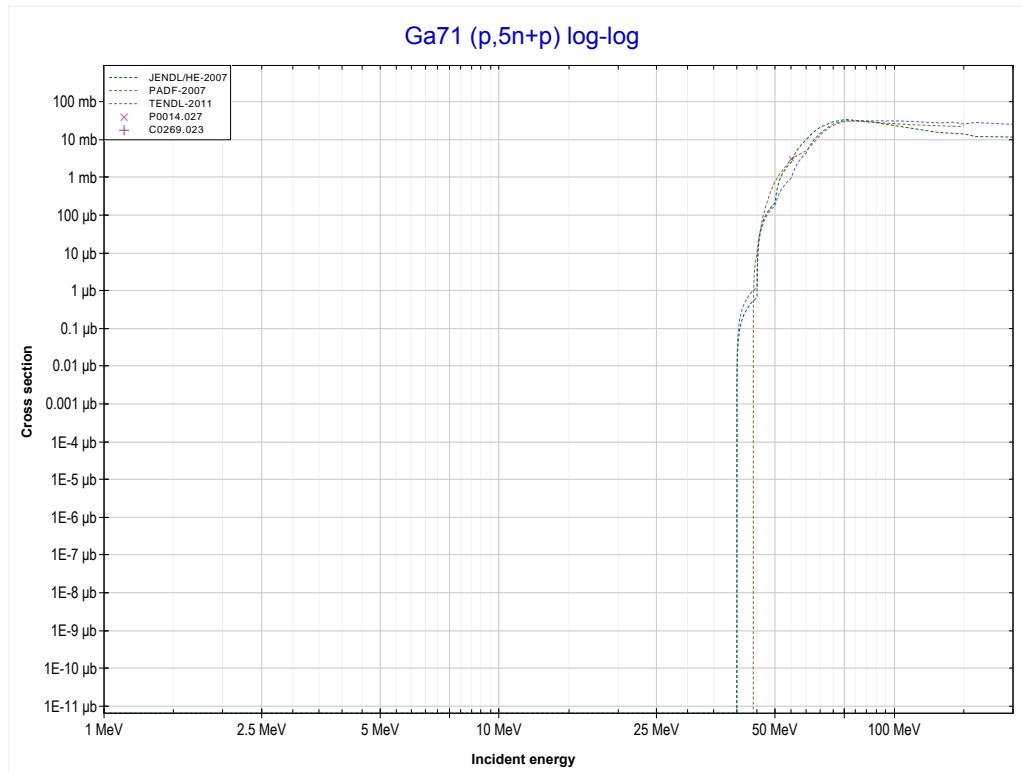
Reaction	Q-Value
Ga71(p,6n)Ge66	-49659.13 keV

<< 31-Ga-69	31-Ga-71 MT156 (p,4n+p) or MT5 (Ga67 production)	90-Th-232 >>
<< MT153 (p,6n)		MT162 (p,5n+p) >>



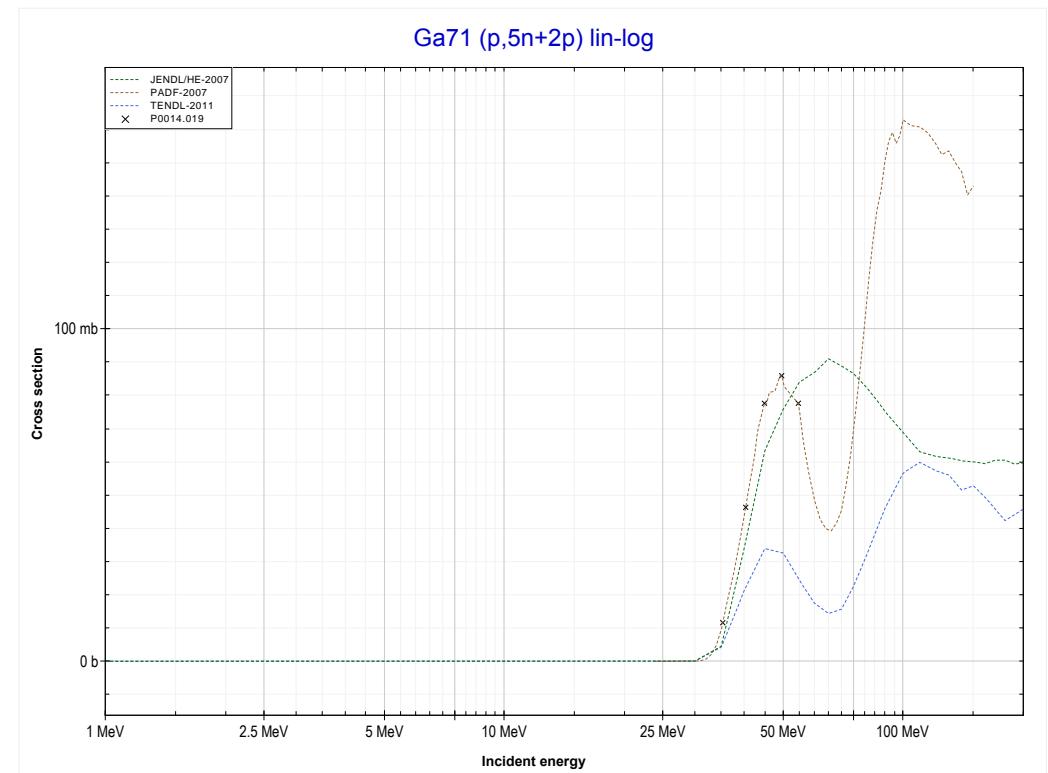
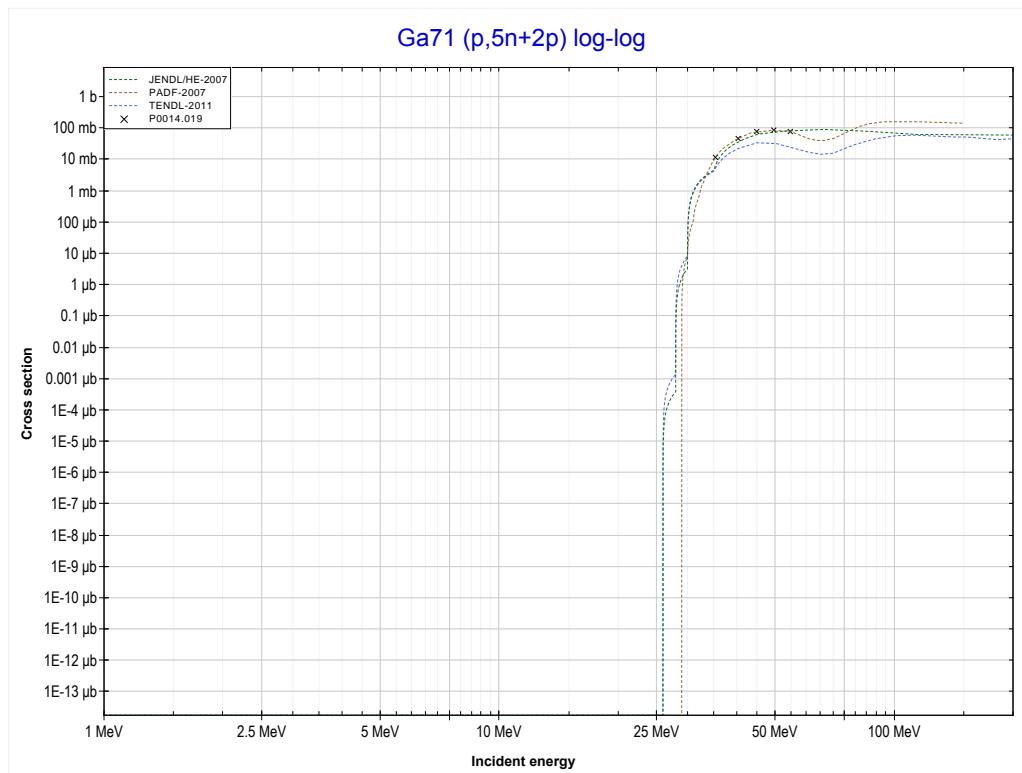
Reaction	Q-Value
Ga71(p,2n+t)Ga67	-27063.97 keV
Ga71(p,3n+d)Ga67	-33321.20 keV
Ga71(p,4n+p)Ga67	-35545.77 keV

<< MT156 (p,4n+p)	31-Ga-71 MT162 (p,5n+p) or MT5 (Ga66 production)	39-Y-89 >> MT200 (p,5n+2p) >>
-------------------	---	----------------------------------



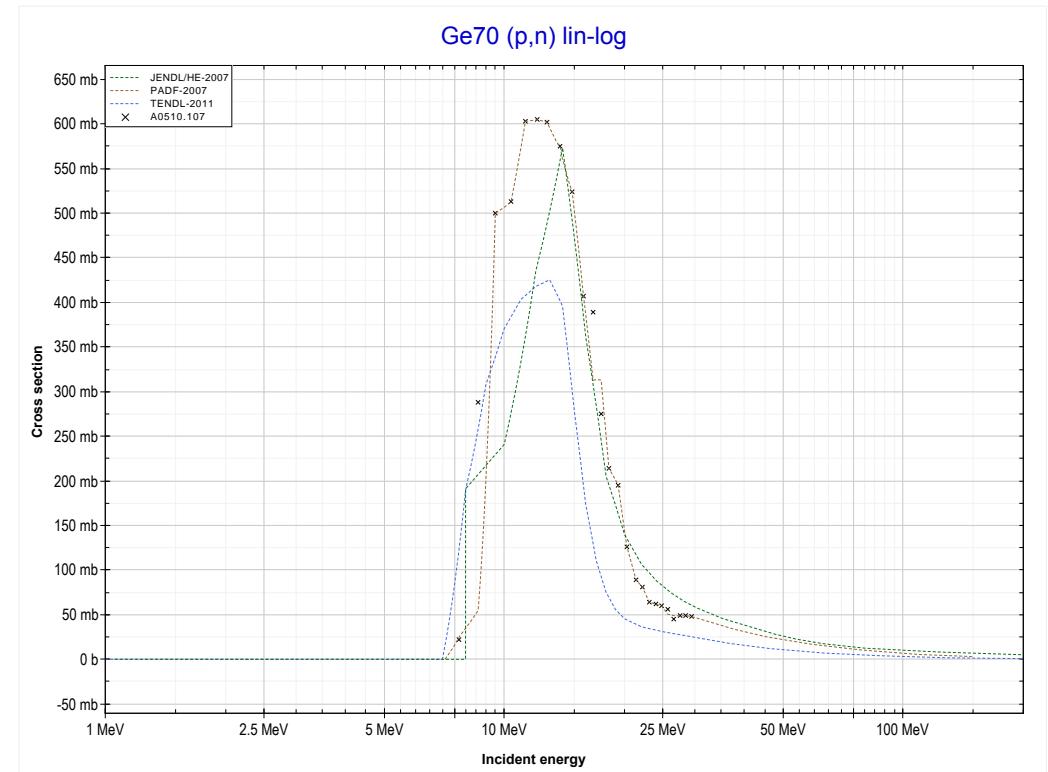
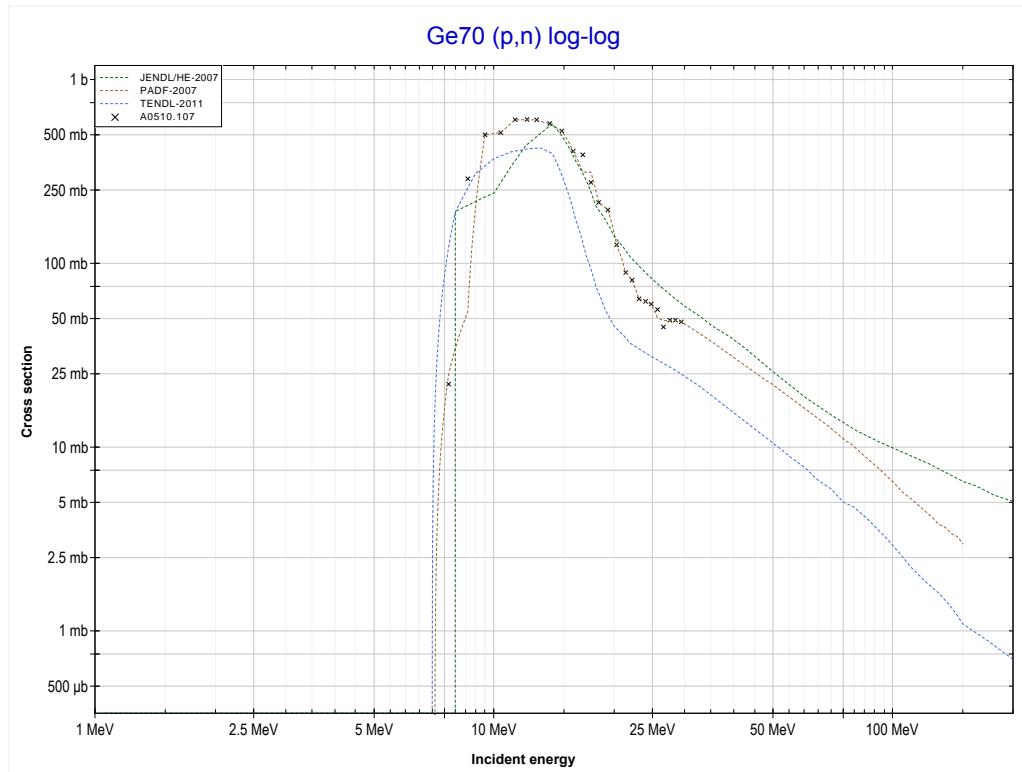
Reaction	Q-Value
Ga71(p,3n+t)Ga66	-38290.99 keV
Ga71(p,4n+d)Ga66	-44548.22 keV
Ga71(p,5n+p)Ga66	-46772.79 keV

<< 31-Ga-69	31-Ga-71 MT200 (p,5n+2p) or MT5 (Zn65 production)	90-Th-232 >>
<< MT162 (p,5n+p)		MT4 (p,n) >>



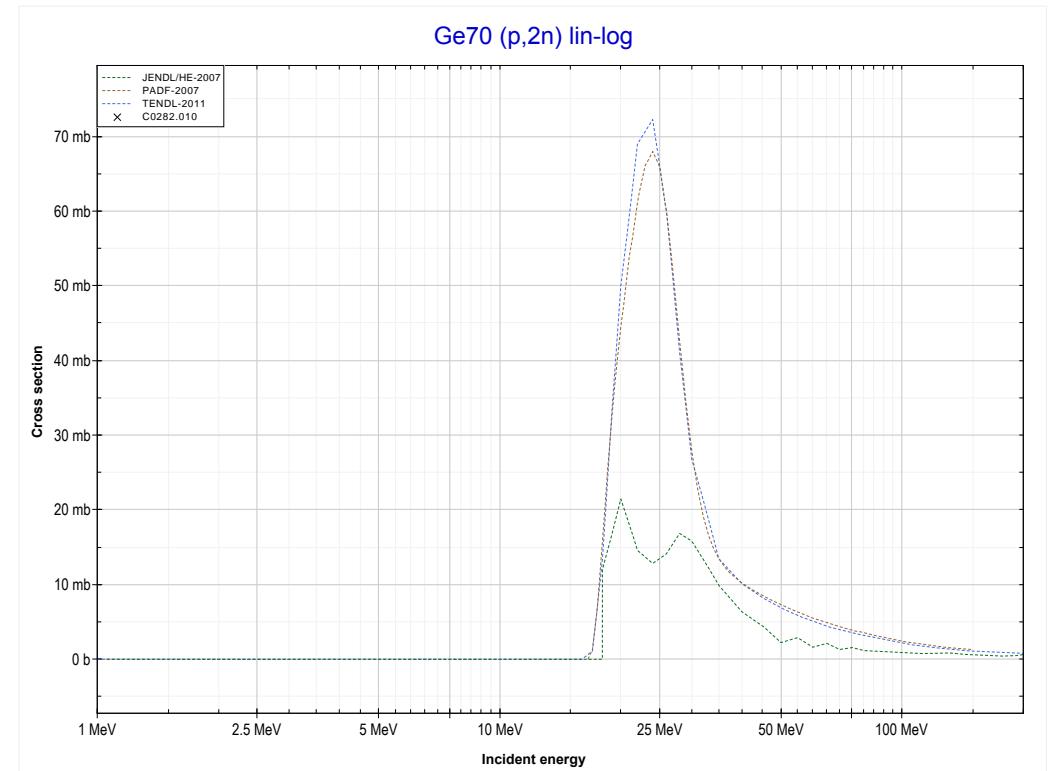
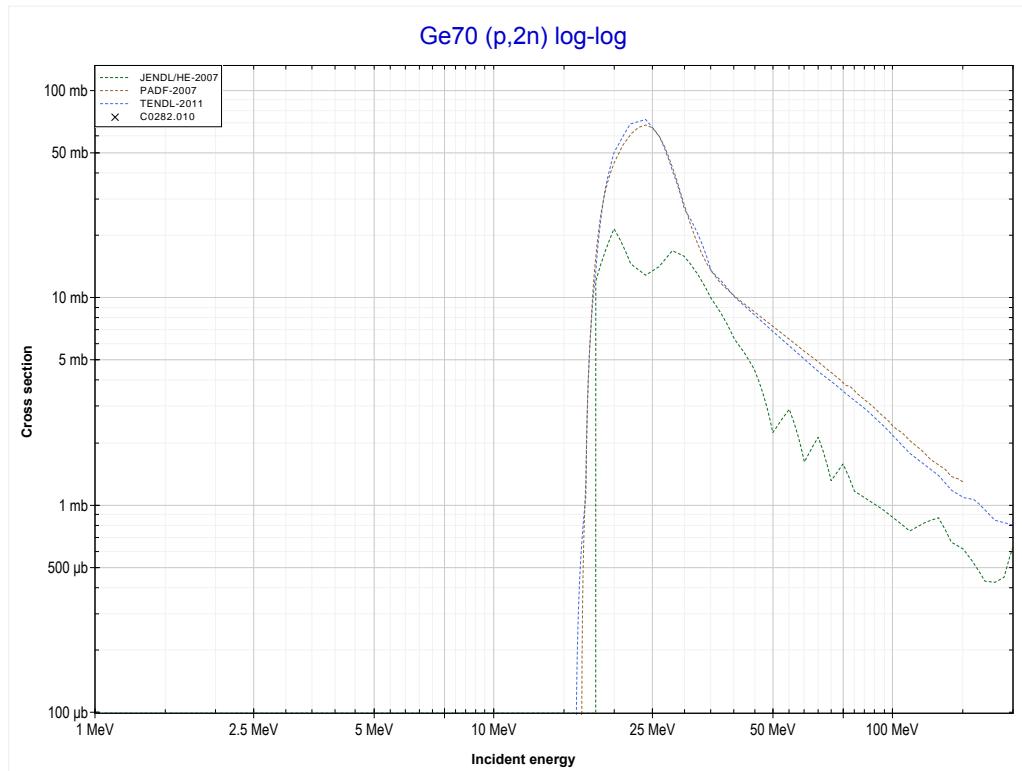
Reaction	Q-Value
$\text{Ga}^{71}(\text{p},3\text{n}+\alpha)\text{Zn}^{65}$	-23578.50 keV
$\text{Ga}^{71}(\text{p},\text{n}+2\text{t})\text{Zn}^{65}$	-34910.56 keV
$\text{Ga}^{71}(\text{p},2\text{n}+\text{d}+\text{t})\text{Zn}^{65}$	-41167.79 keV
$\text{Ga}^{71}(\text{p},3\text{n}+\text{p}+\text{t})\text{Zn}^{65}$	-43392.36 keV
$\text{Ga}^{71}(\text{p},4\text{n}+\text{He}^3)\text{Zn}^{65}$	-44156.11 keV
$\text{Ga}^{71}(\text{p},3\text{n}+2\text{d})\text{Zn}^{65}$	-47425.02 keV
$\text{Ga}^{71}(\text{p},4\text{n}+\text{p}+\text{d})\text{Zn}^{65}$	-49649.59 keV
$\text{Ga}^{71}(\text{p},5\text{n}+2\text{p})\text{Zn}^{65}$	-51874.16 keV

<< 31-Ga-71	32-Ge-70 MT4 (p,n) or MT5 (As70 production)	32-Ge-72 >> MT16 (p,2n) >>
<< MT200 (p,5n+2p)		



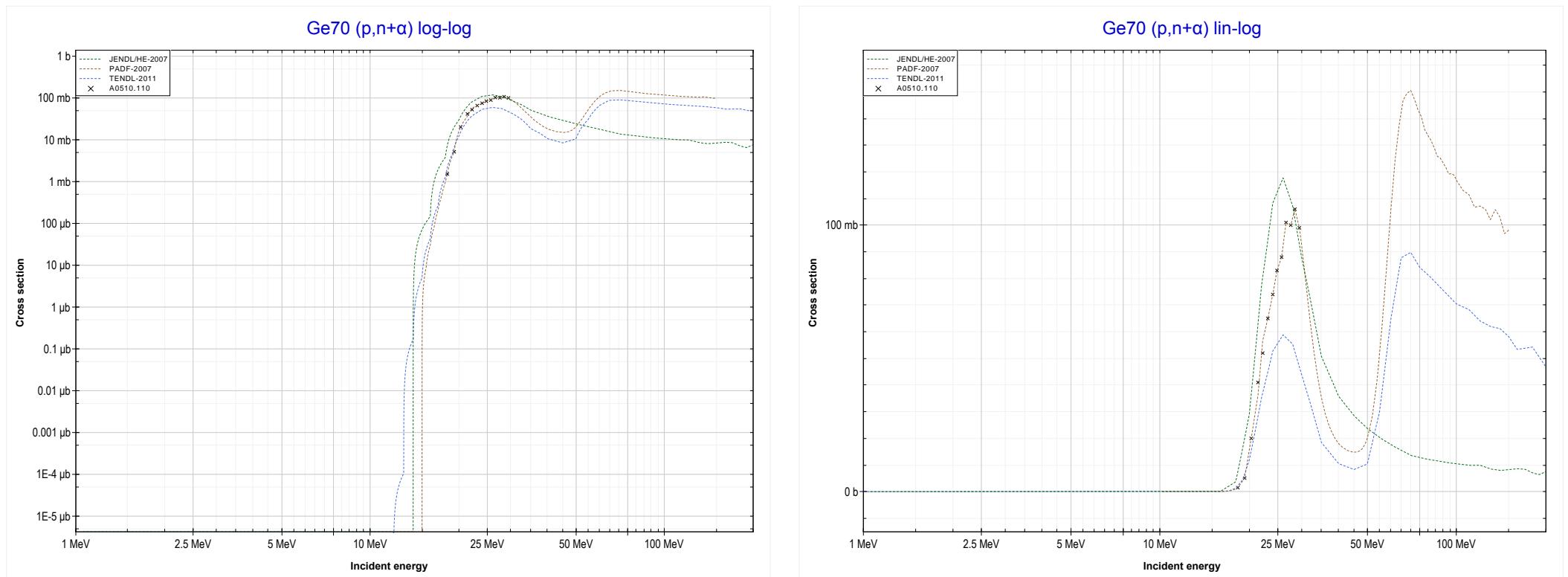
Reaction	Q-Value
Ge70(p,n)As70	-7005.45 keV

<< 31-Ga-69	32-Ge-70 MT16 (p,2n) or MT5 (As69 production)	32-Ge-72 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



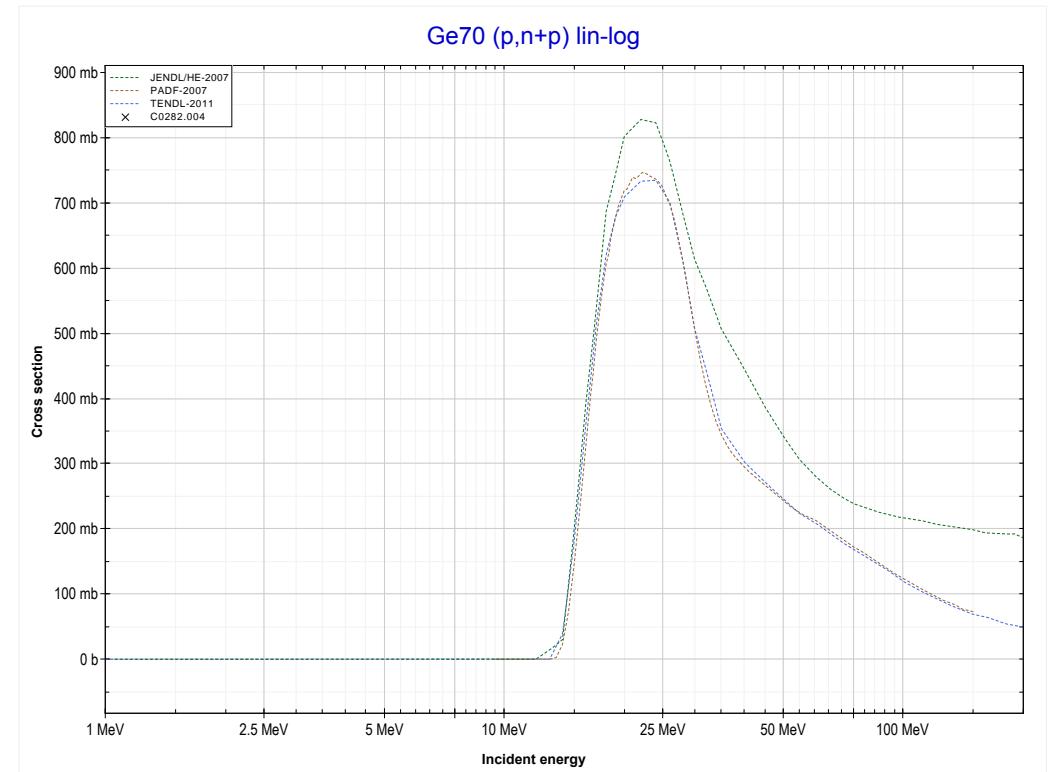
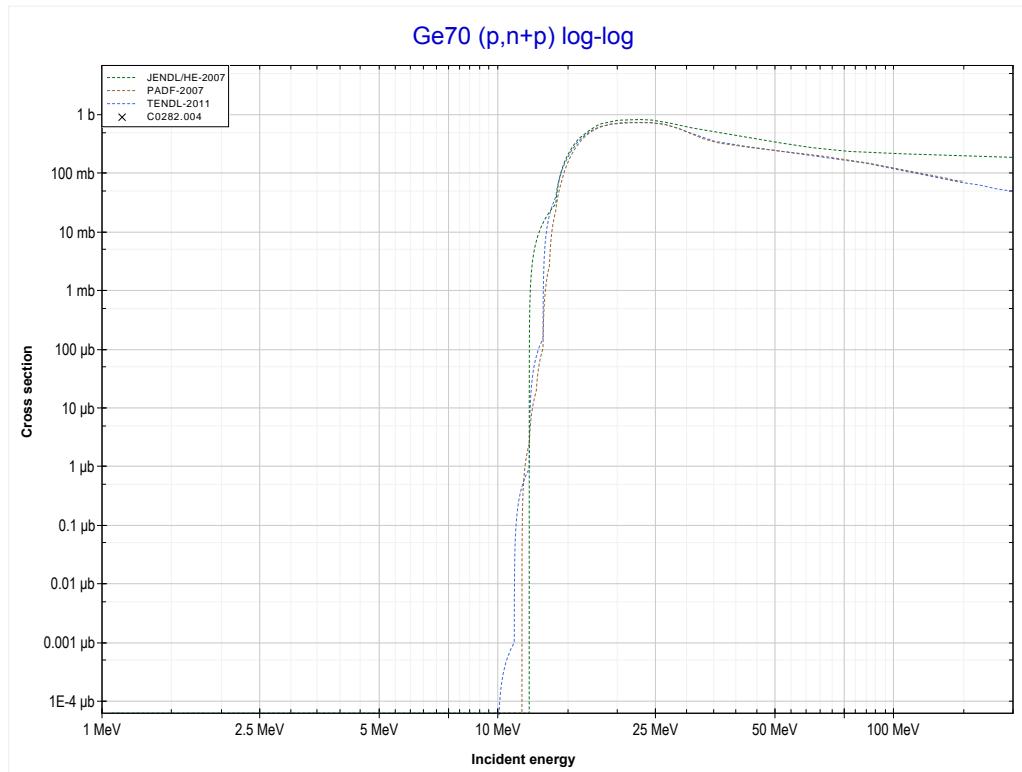
Reaction	Q-Value
$\text{Ge}^{70}(\text{p},\text{2n})\text{As}^{69}$	-16326.76 keV

<< 31-Ga-69	32-Ge-70 MT22 (p,n+α) or MT5 (Ga66 production)	32-Ge-72 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>



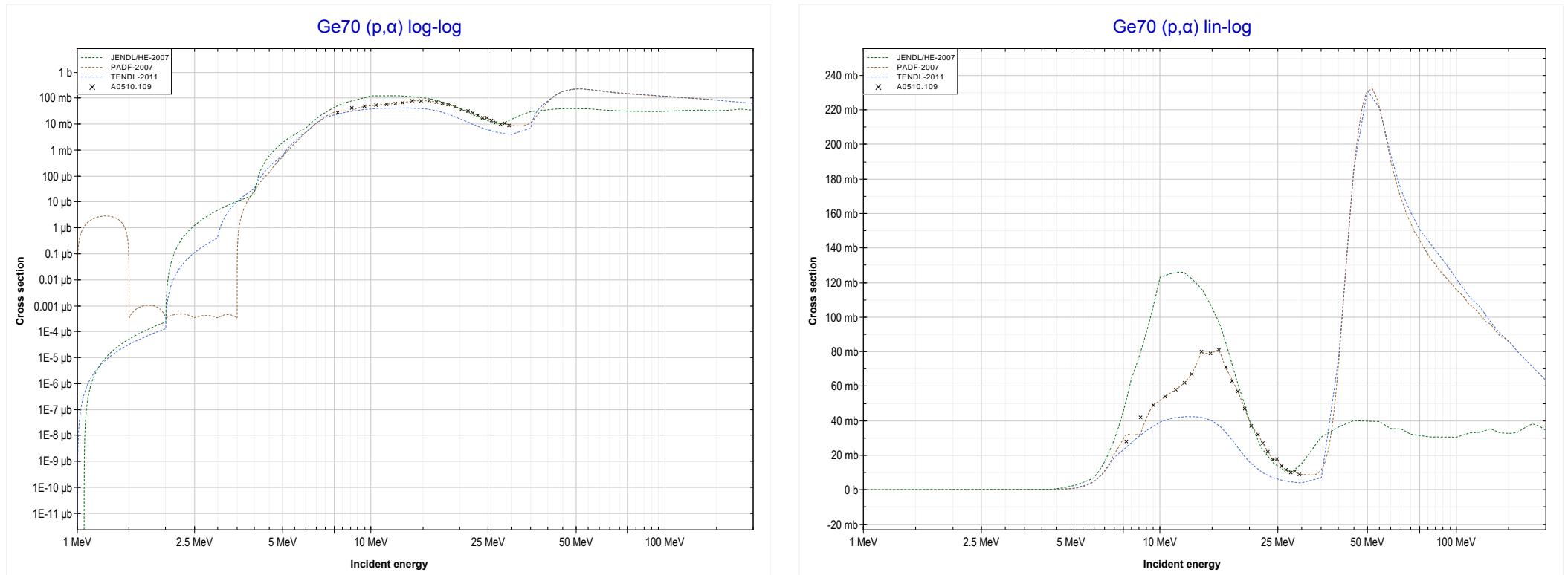
Reaction	Q-Value
$\text{Ge}^{70}(\text{p},\text{n}+\alpha)\text{Ga}^{66}$	-10046.36 keV
$\text{Ge}^{70}(\text{p},\text{d}+\text{t})\text{Ga}^{66}$	-27635.66 keV
$\text{Ge}^{70}(\text{p},\text{n}+\text{p}+\text{t})\text{Ga}^{66}$	-29860.22 keV
$\text{Ge}^{70}(\text{p},2\text{n}+\text{He}^3)\text{Ga}^{66}$	-30623.98 keV
$\text{Ge}^{70}(\text{p},\text{n}+2\text{d})\text{Ga}^{66}$	-33892.89 keV
$\text{Ge}^{70}(\text{p},2\text{n}+\text{p}+\text{d})\text{Ga}^{66}$	-36117.46 keV
$\text{Ge}^{70}(\text{p},3\text{n}+2\text{p})\text{Ga}^{66}$	-38342.02 keV

<< 31-Ga-71	32-Ge-70 MT28 (p,n+p) or MT5 (Ge69 production)	32-Ge-72 >> MT107 (p, α) >>
<< MT22 (p,n+ α)		



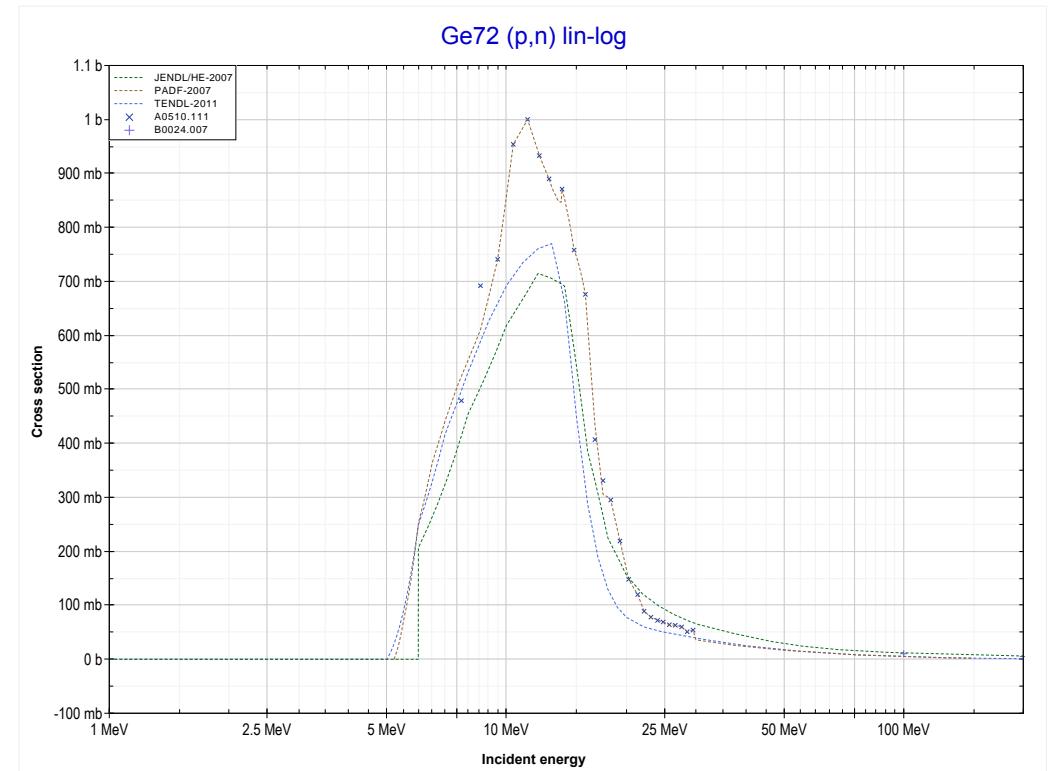
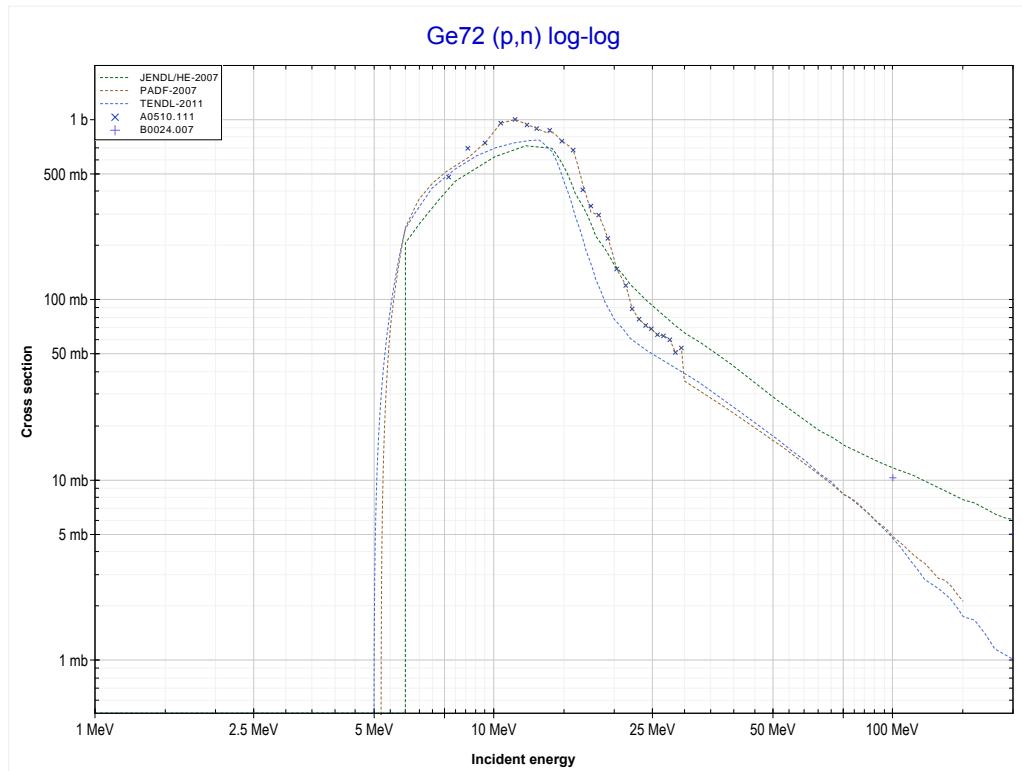
Reaction	Q-Value
Ge70(p,d)Ge69	-9309.25 keV
Ge70(p,n+p)Ge69	-11533.82 keV

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



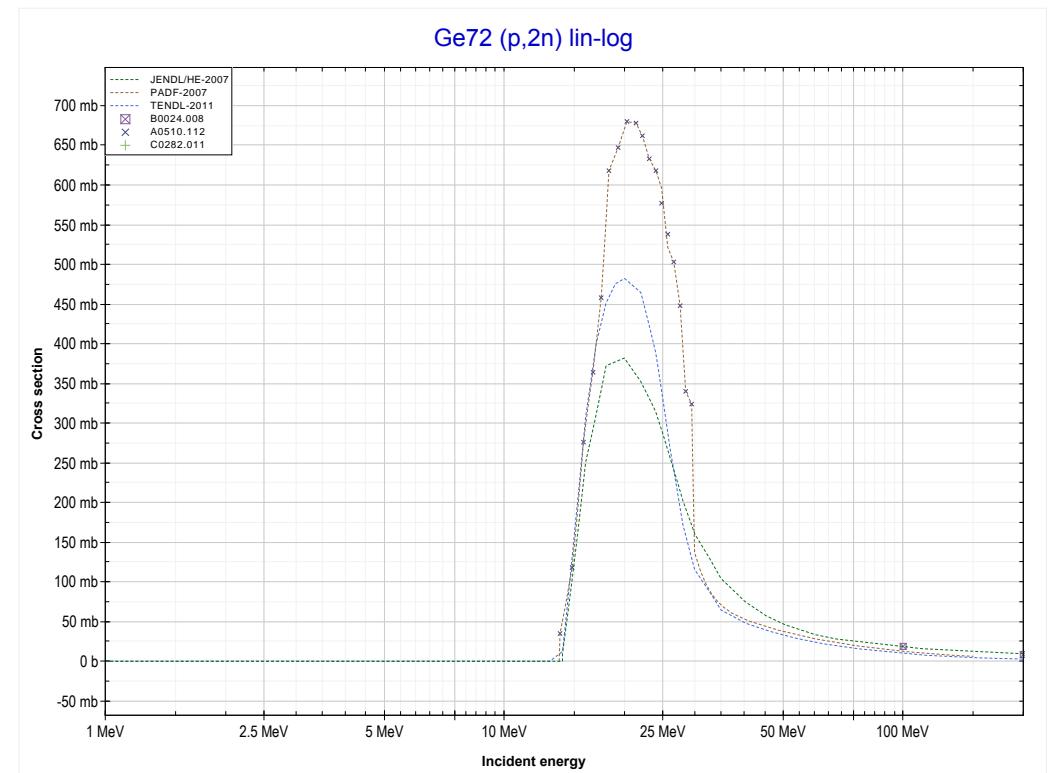
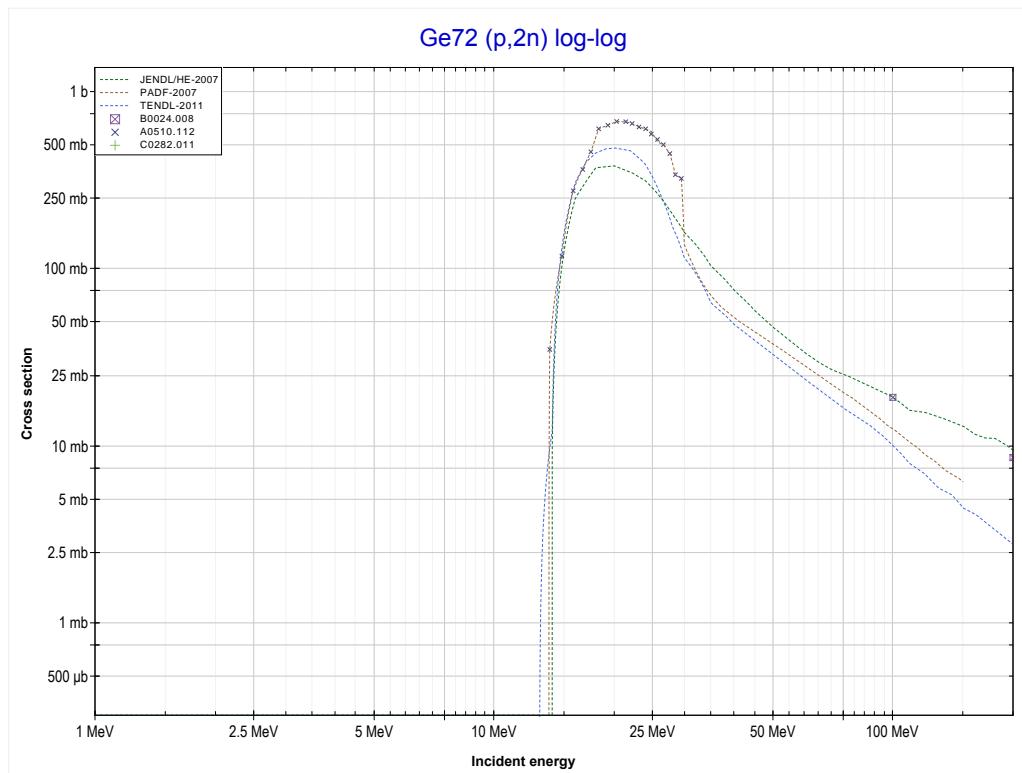
Reaction	Q-Value
$\text{Ge}^{70}(p,\alpha)\text{Ga}^{67}$	1180.65 keV
$\text{Ge}^{70}(p,p+t)\text{Ga}^{67}$	-18633.21 keV
$\text{Ge}^{70}(p,n+\text{He}^3)\text{Ga}^{67}$	-19396.96 keV
$\text{Ge}^{70}(p,2d)\text{Ga}^{67}$	-22665.87 keV
$\text{Ge}^{70}(p,n+p+d)\text{Ga}^{67}$	-24890.44 keV
$\text{Ge}^{70}(p,2n+2p)\text{Ga}^{67}$	-27115.00 keV

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



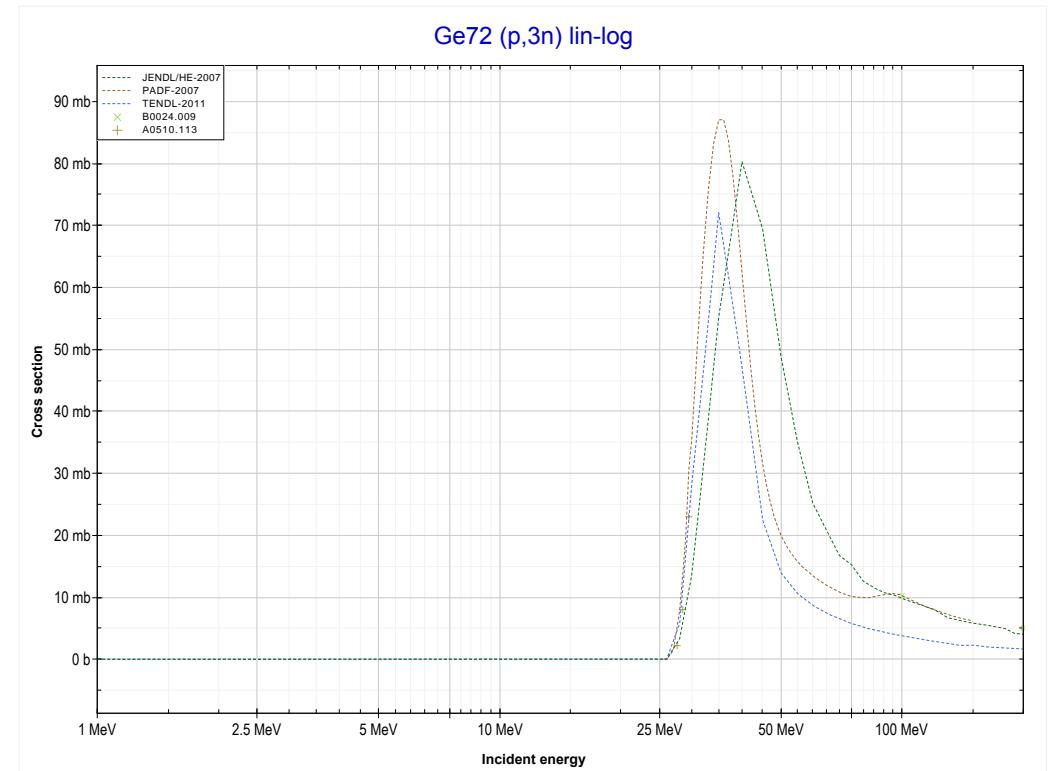
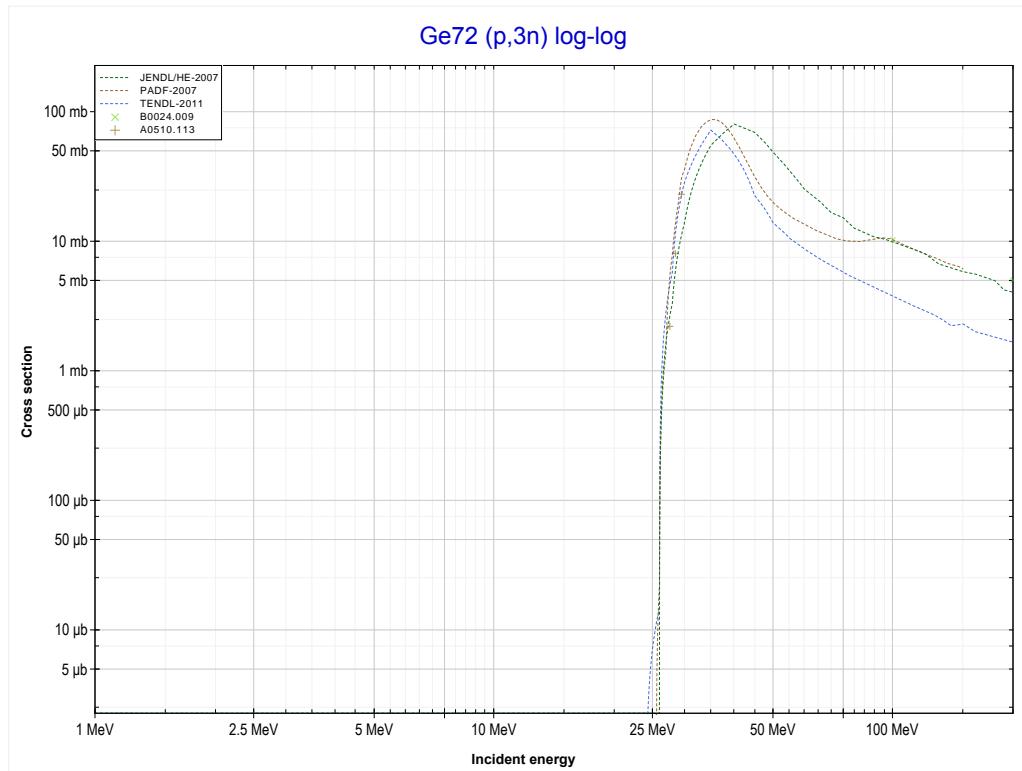
Reaction	Q-Value
Ge72(p,n)As72	-5138.25 keV

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



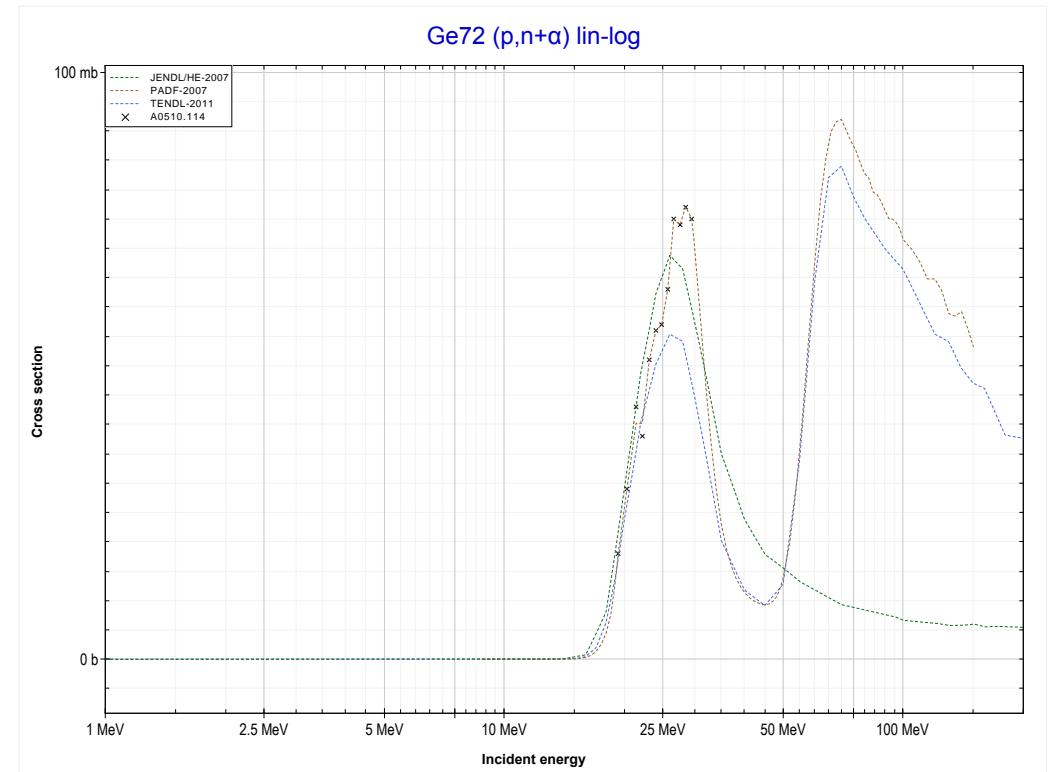
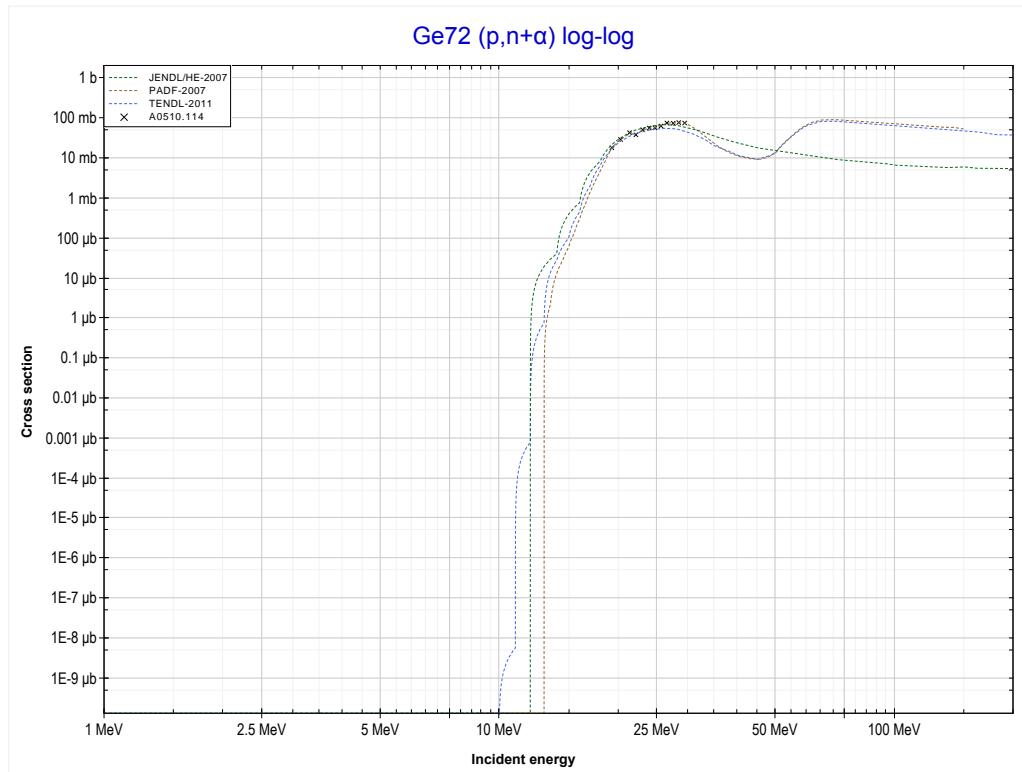
Reaction	Q-Value
Ge72(p,2n)As71	-13545.56 keV

<< 31-Ga-71	32-Ge-72 MT17 (p,3n) or MT5 (As70 production)	32-Ge-73 >>
<< MT16 (p,2n)		MT22 (p,n+α) >>



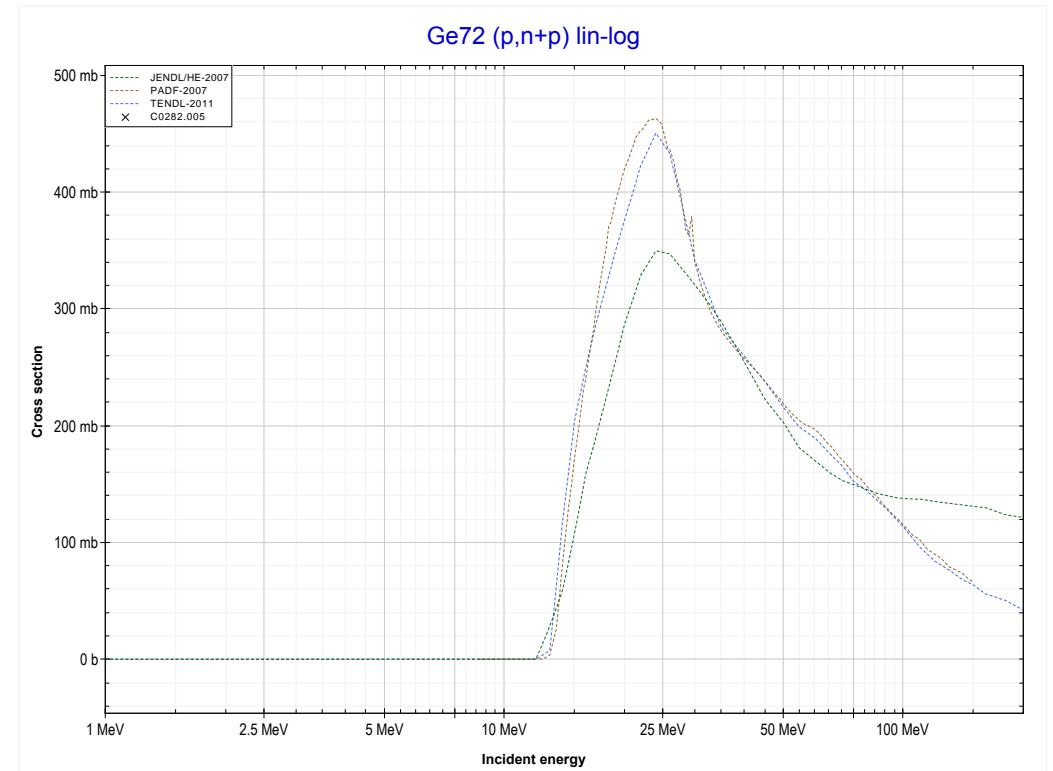
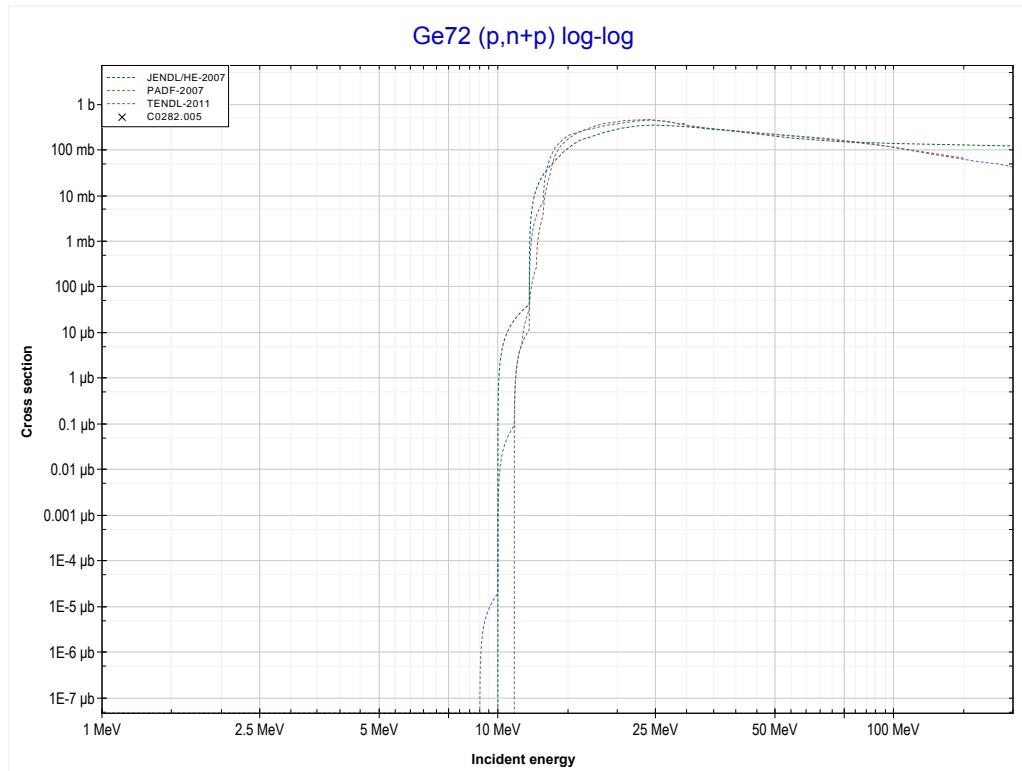
Reaction	Q-Value
Ge72(p,3n)As70	-25170.88 keV

<< 32-Ge-70	32-Ge-72 MT22 (p,n+α) or MT5 (Ga68 production)	32-Ge-76 >>
<< MT17 (p,3n)		MT28 (p,n+p) >>



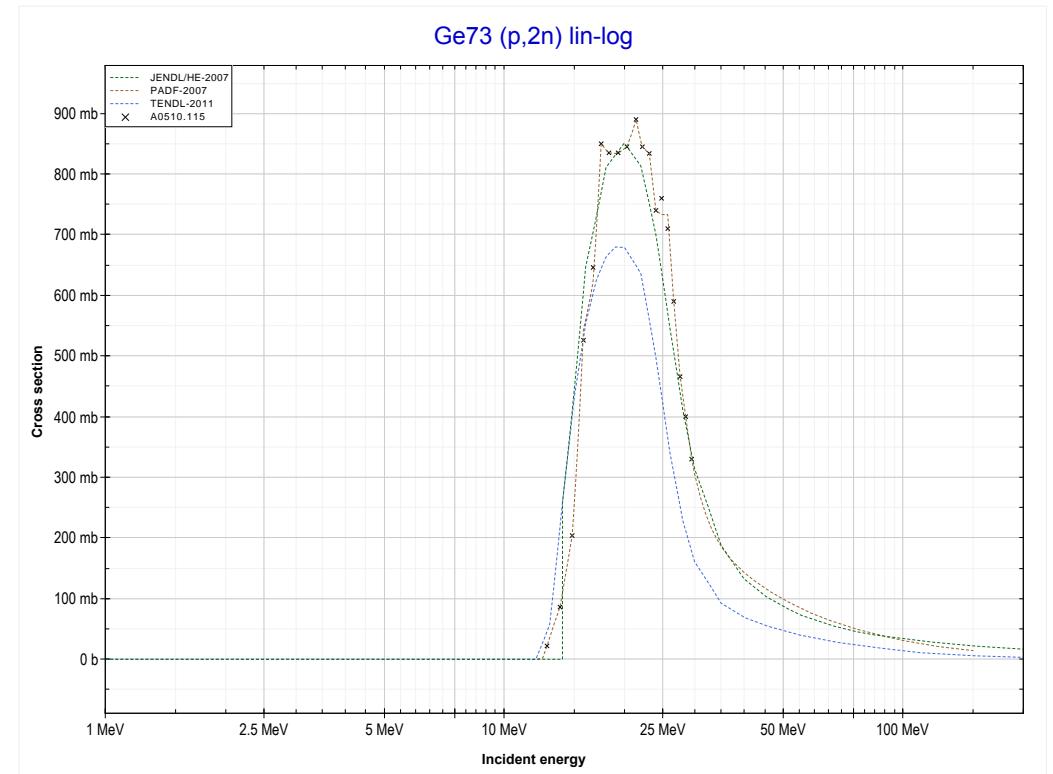
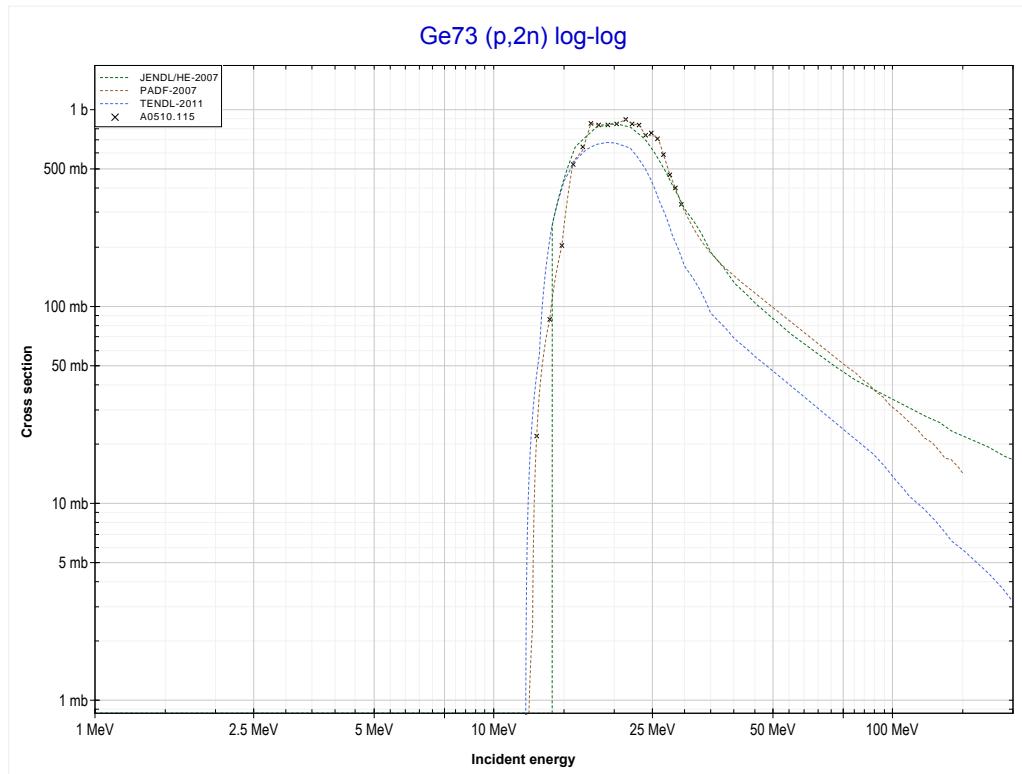
Reaction	Q-Value
$\text{Ge}^{72}(\text{p},\text{n}+\alpha)\text{Ga}^{68}$	-8707.06 keV
$\text{Ge}^{72}(\text{p},\text{d}+\text{t})\text{Ga}^{68}$	-26296.36 keV
$\text{Ge}^{72}(\text{p},\text{n}+\text{p}+\text{t})\text{Ga}^{68}$	-28520.92 keV
$\text{Ge}^{72}(\text{p},2\text{n}+\text{He}^3)\text{Ga}^{68}$	-29284.68 keV
$\text{Ge}^{72}(\text{p},\text{n}+2\text{d})\text{Ga}^{68}$	-32553.59 keV
$\text{Ge}^{72}(\text{p},2\text{n}+\text{p}+\text{d})\text{Ga}^{68}$	-34778.16 keV
$\text{Ge}^{72}(\text{p},3\text{n}+2\text{p})\text{Ga}^{68}$	-37002.72 keV

<< 32-Ge-70	32-Ge-72 MT28 (p,n+p) or MT5 (Ge71 production)	32-Ge-76 >>
<< MT22 (p,n+α)		MT16 (p,2n) >>



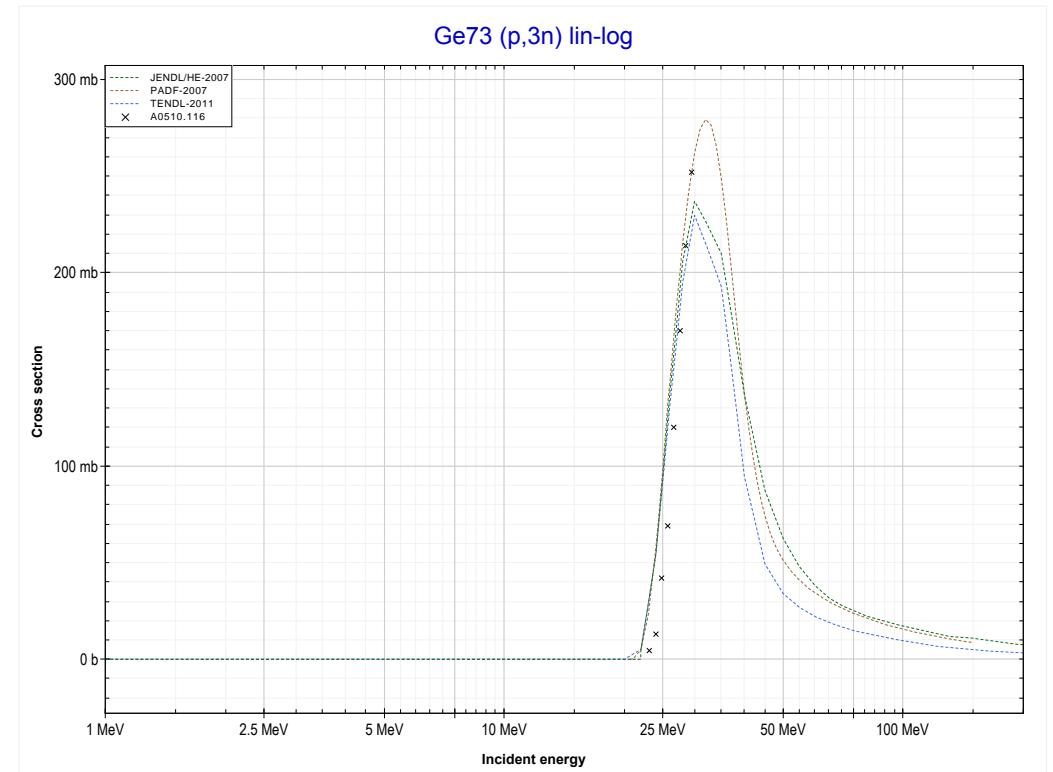
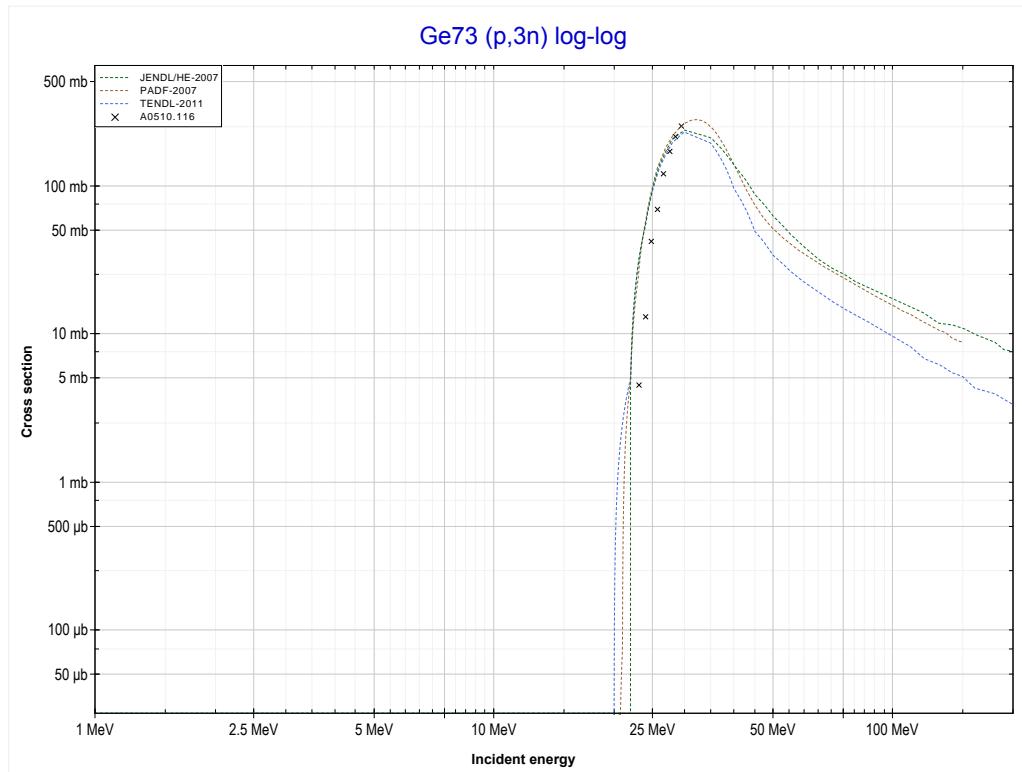
Reaction	Q-Value
Ge72(p,d)Ge71	-8524.95 keV
Ge72(p,n+p)Ge71	-10749.52 keV

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



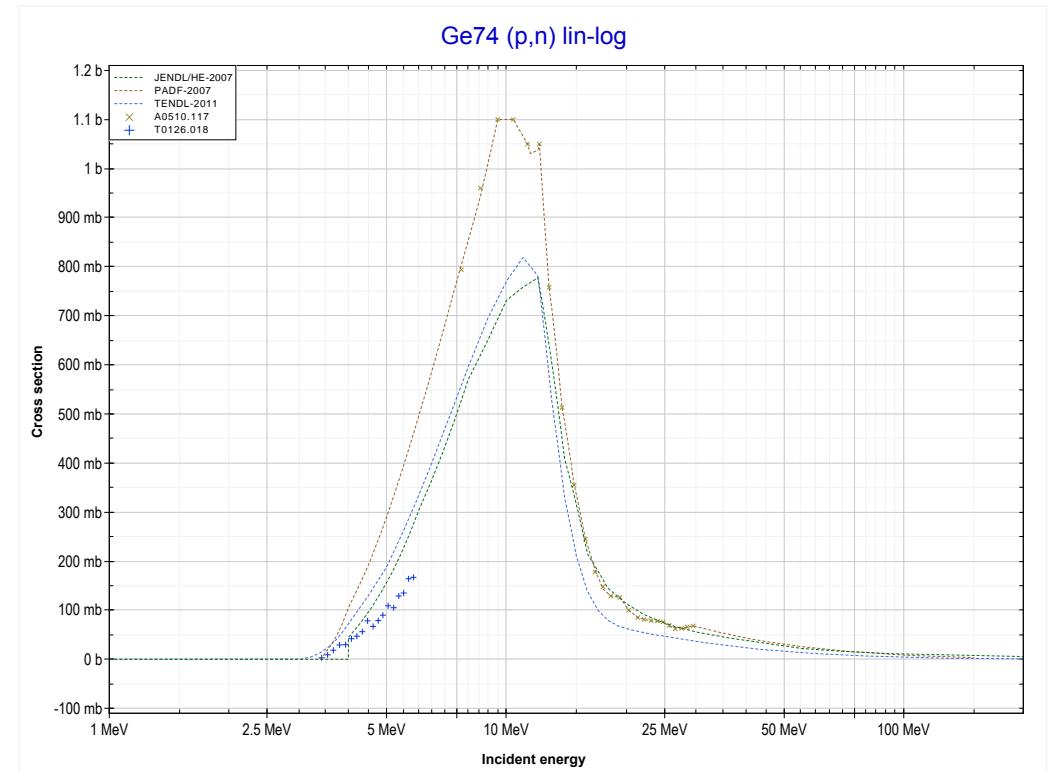
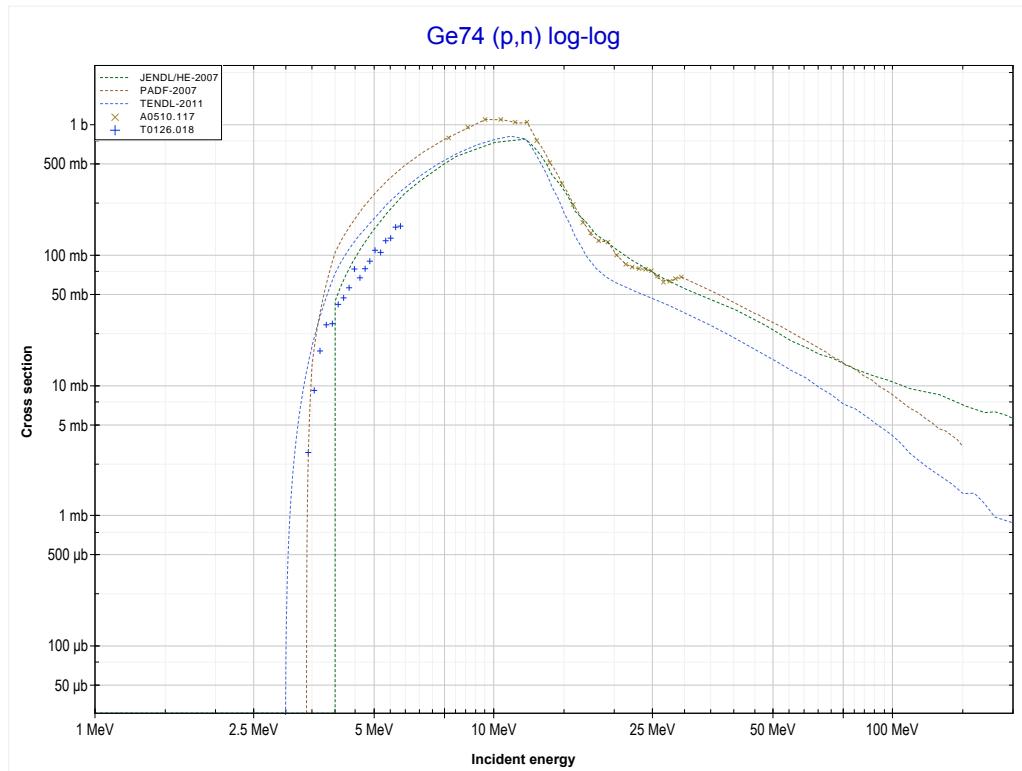
Reaction	Q-Value
Ge73(p,2n)As72	-11921.16 keV

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



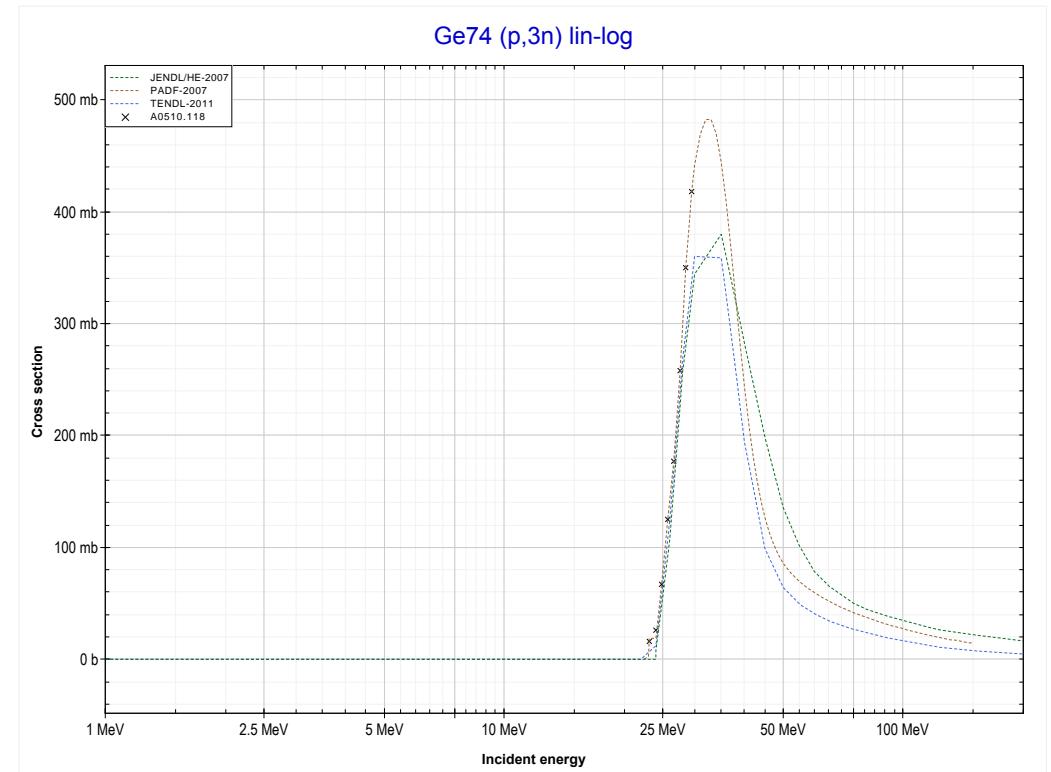
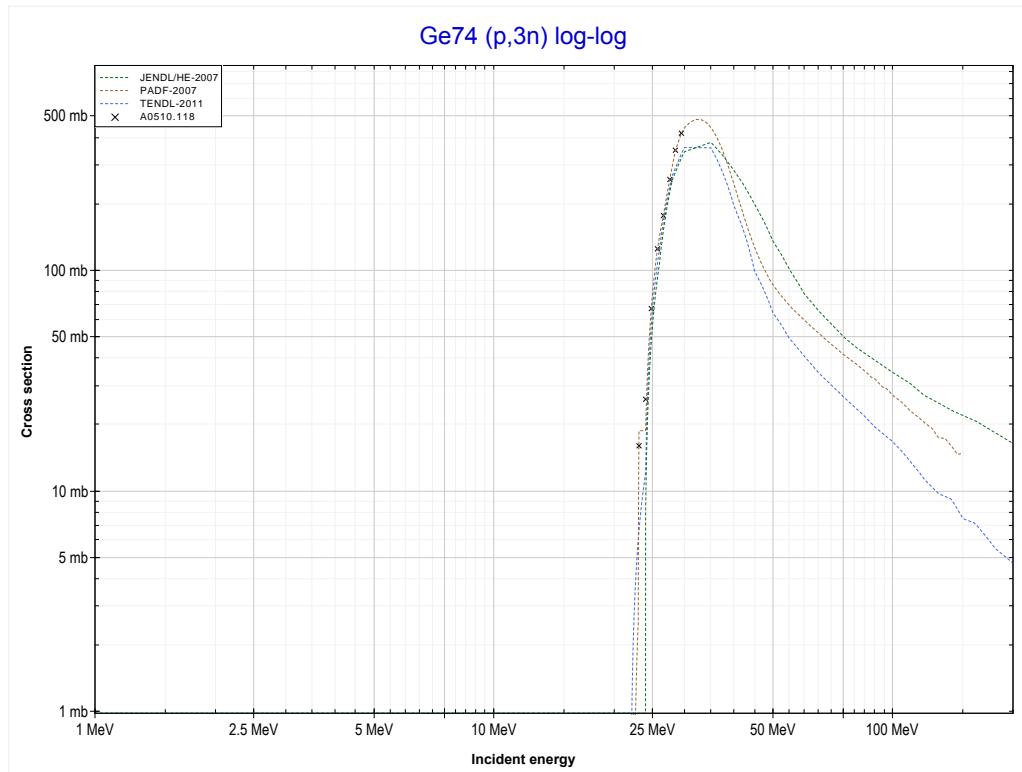
Reaction	Q-Value
Ge73(p,3n)As71	-20328.48 keV

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



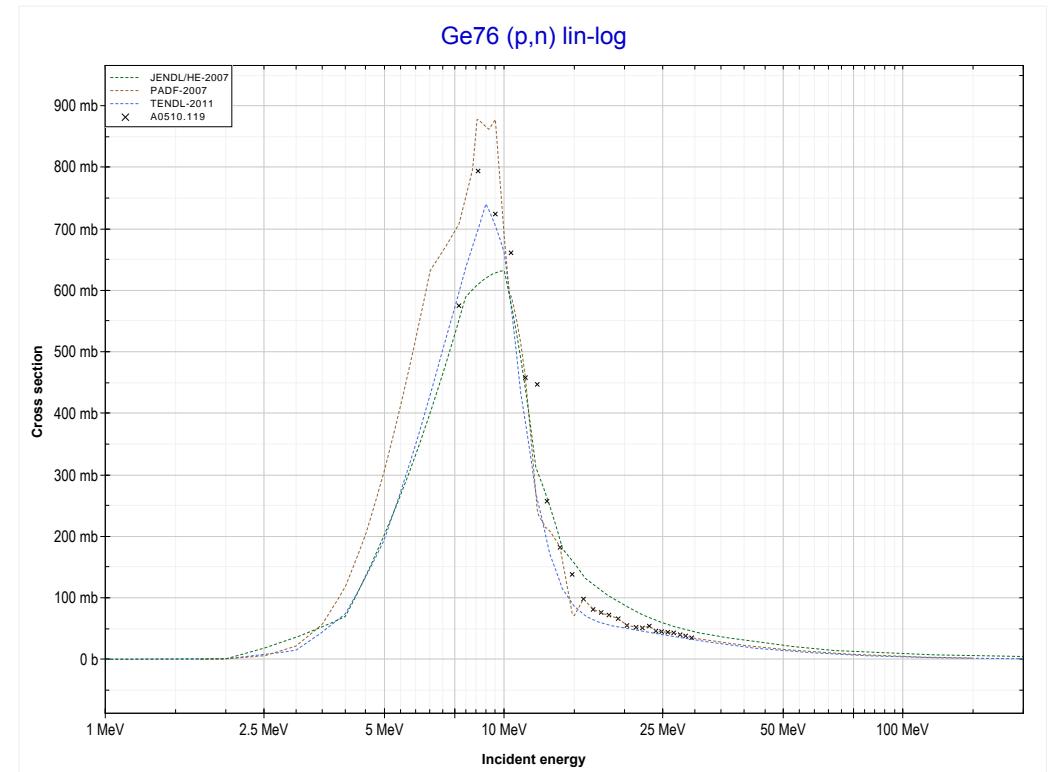
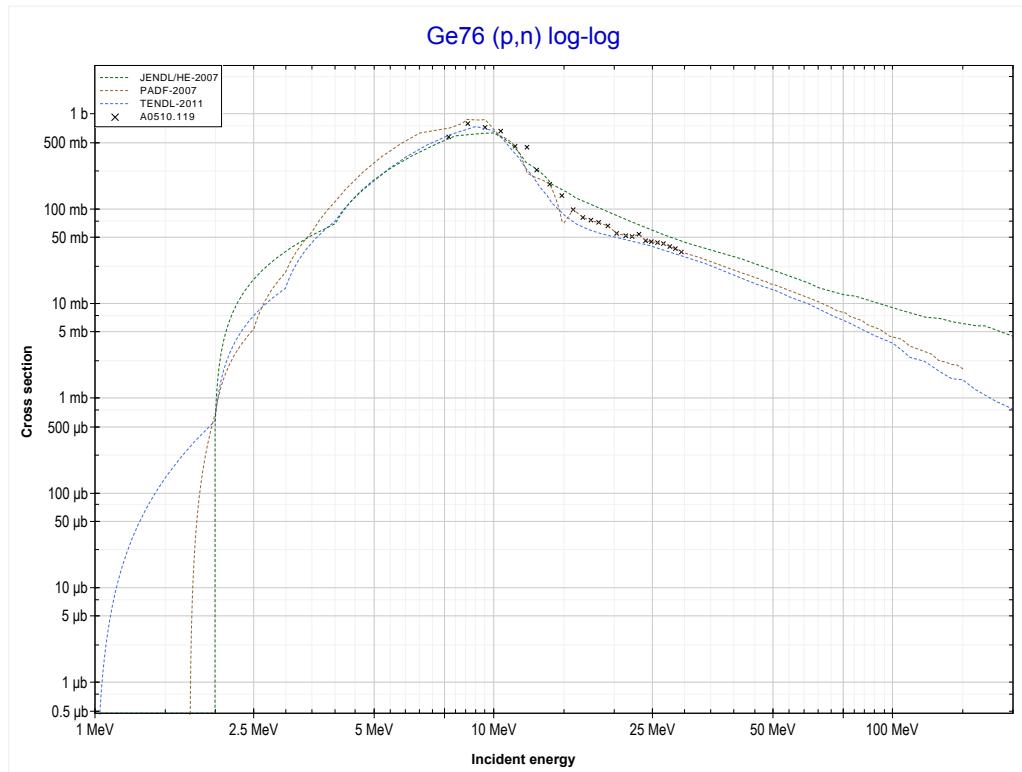
Reaction	Q-Value
Ge74(p,n)As74	-3344.75 keV

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



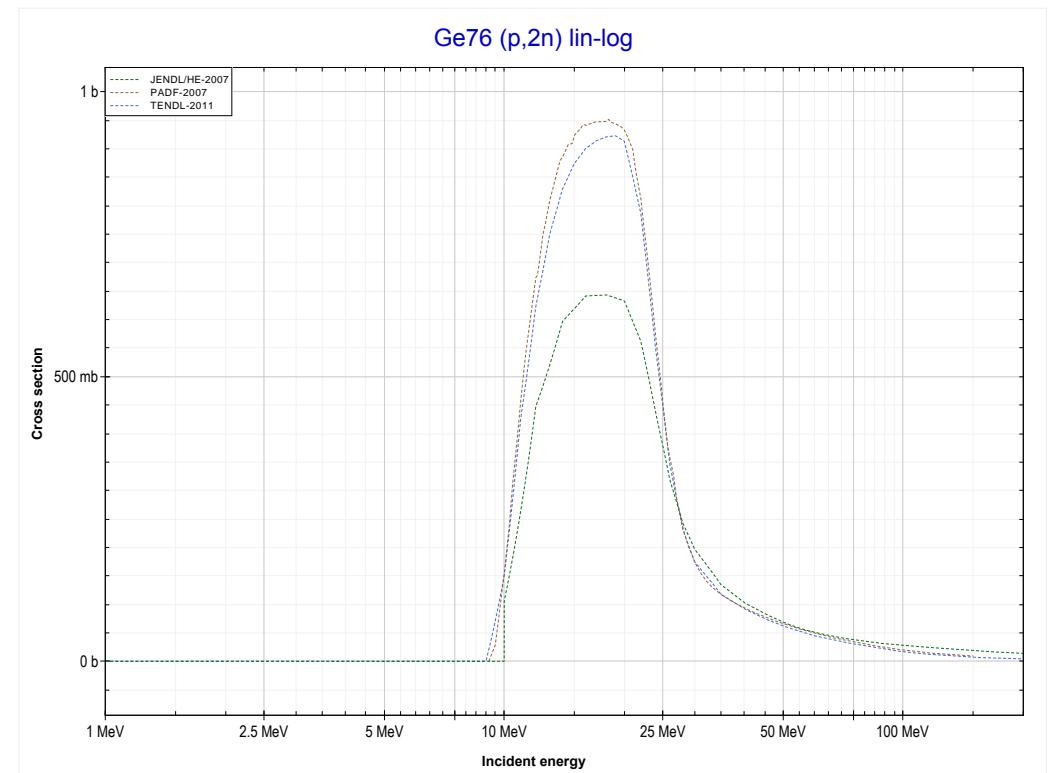
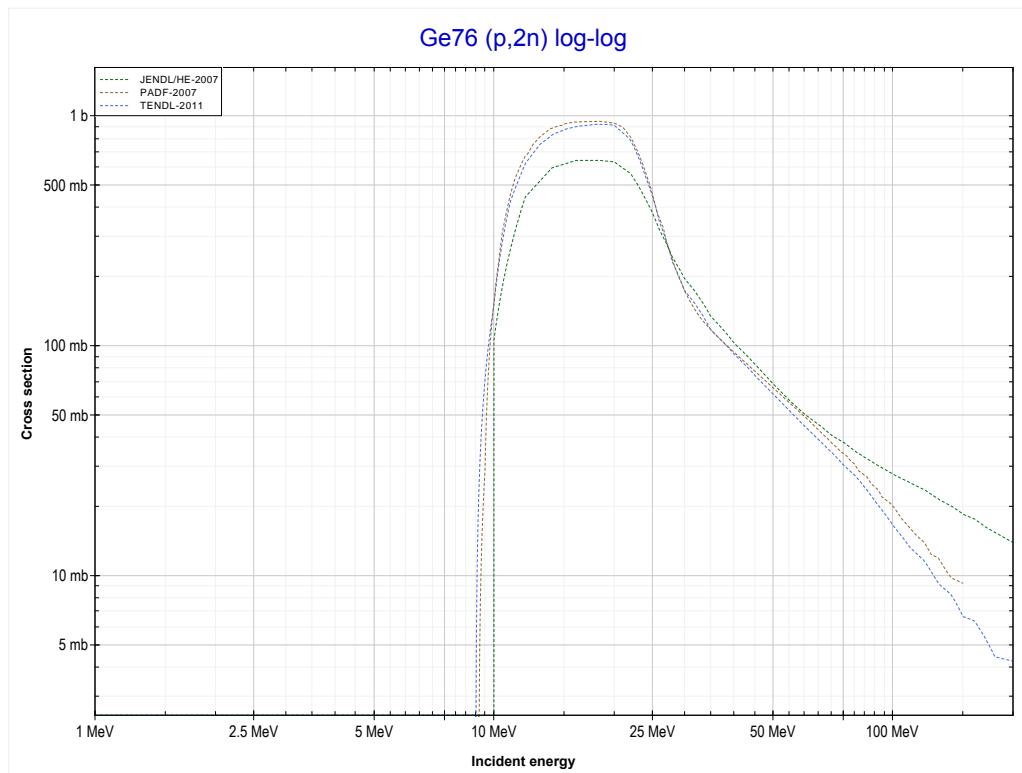
Reaction	Q-Value
Ge74(p,3n)As72	-22117.38 keV

<< 32-Ge-74	32-Ge-76 MT4 (p,n) or MT5 (As76 production)	33-As-75 >>
<< MT17 (p,3n)		MT16 (p,2n) >>



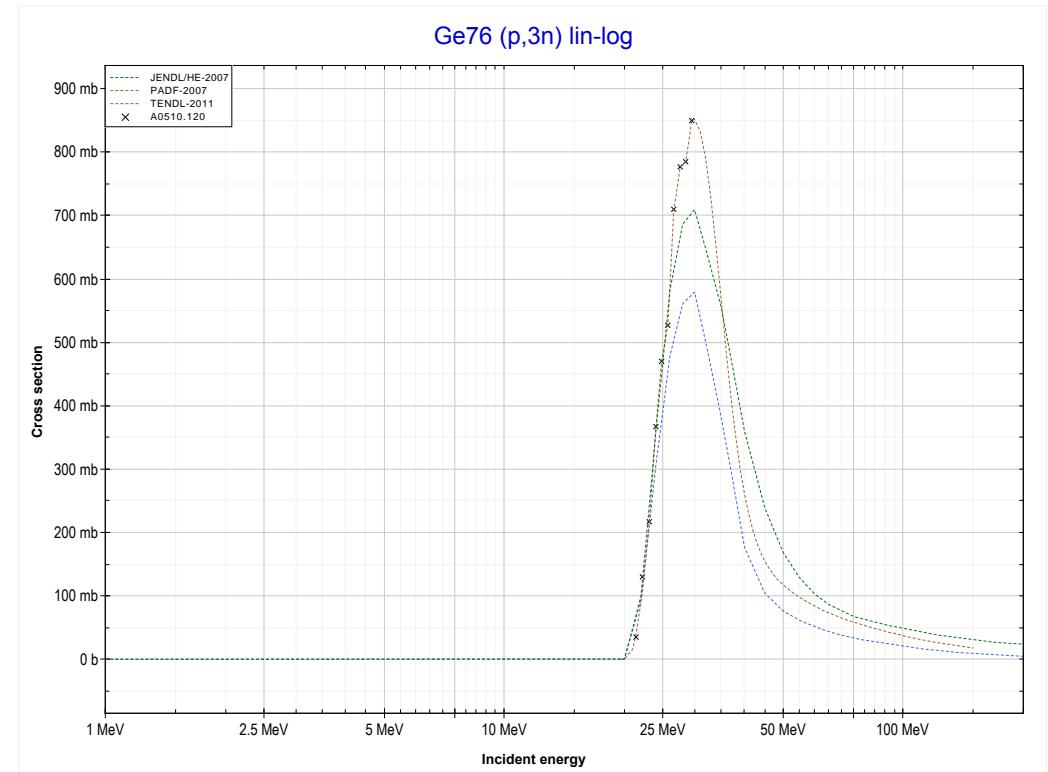
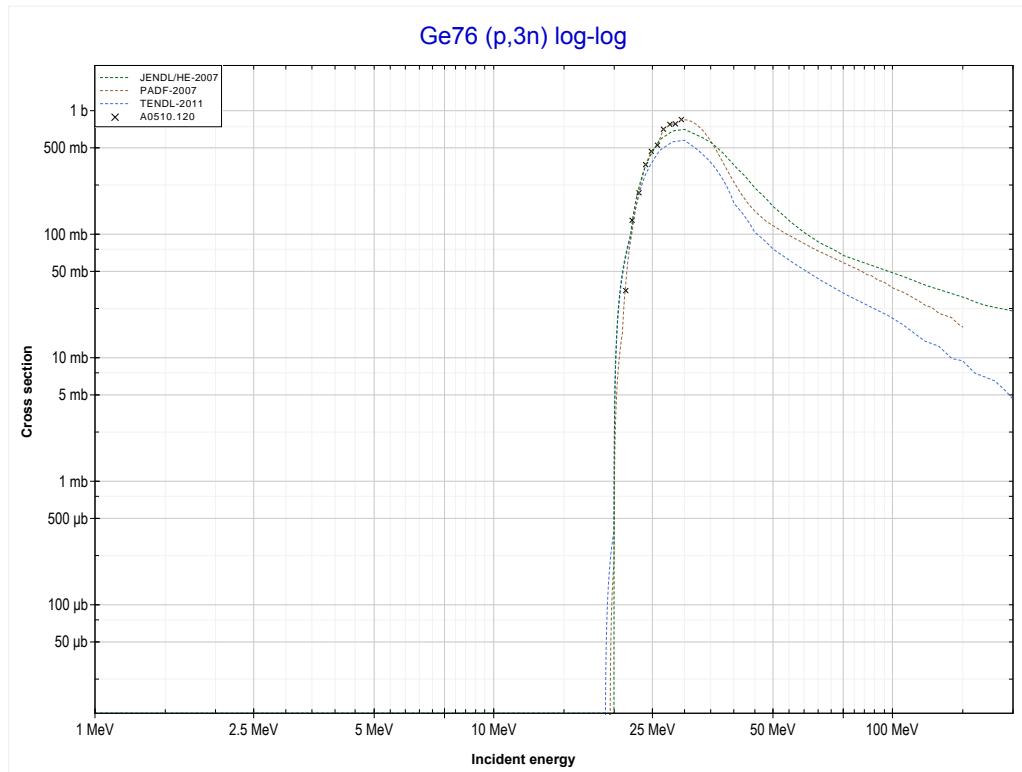
Reaction	Q-Value
Ge76(p,n)As76	-1705.85 keV

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



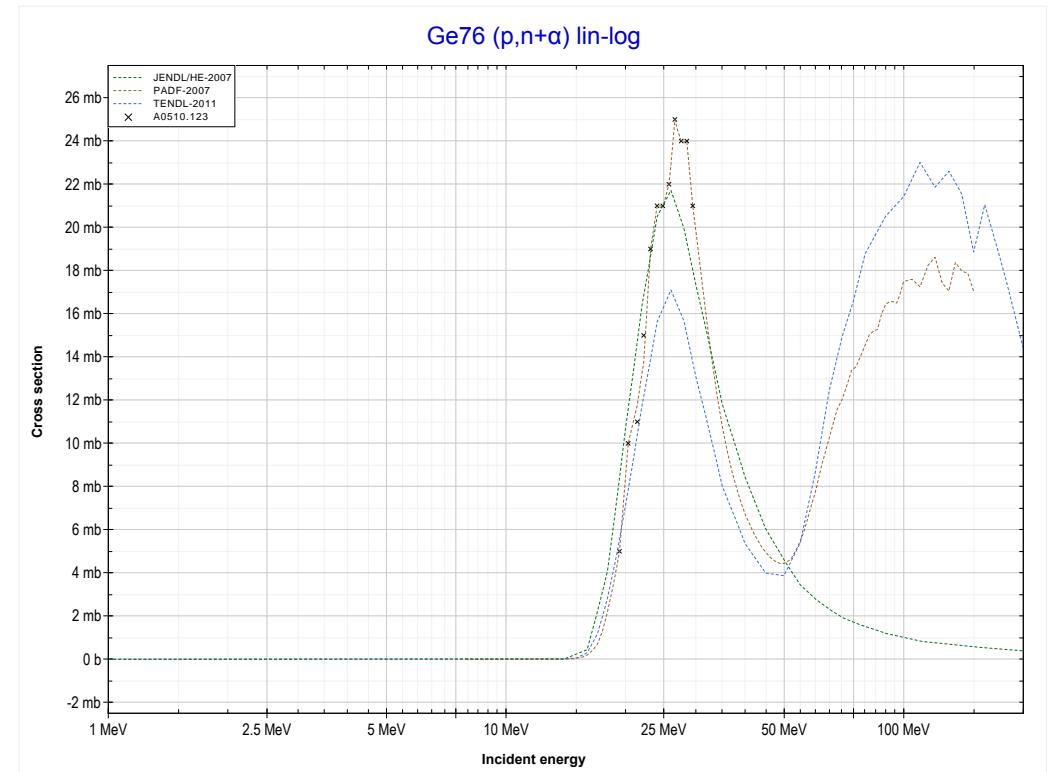
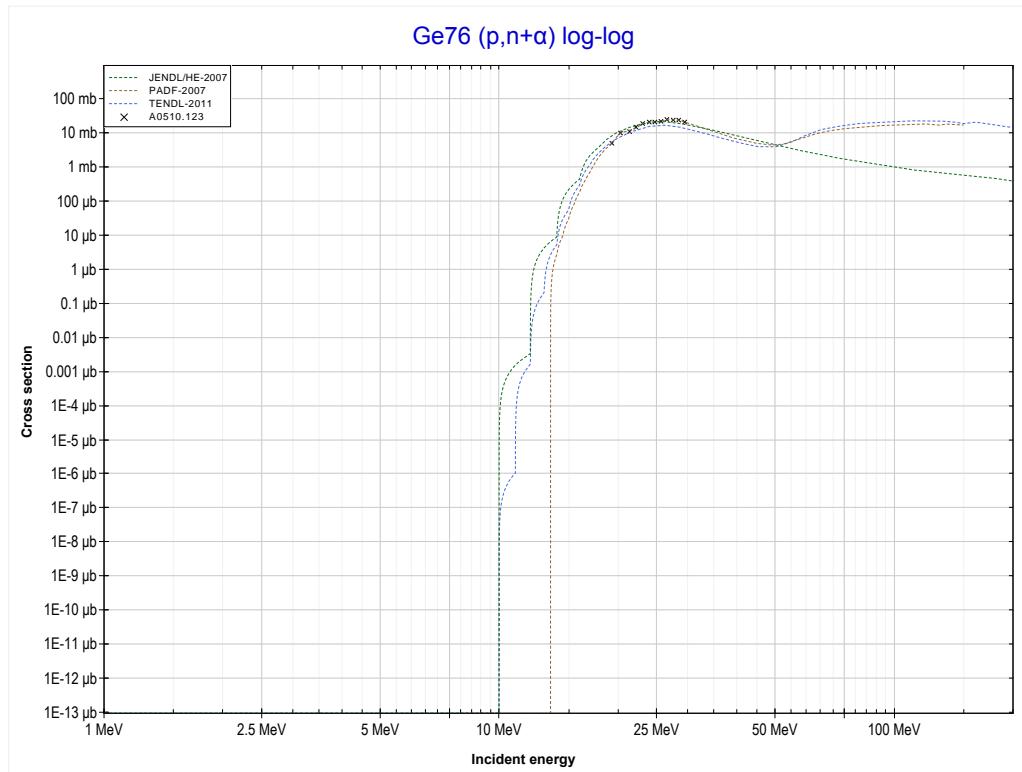
Reaction	Q-Value
Ge76(p,2n)As75	-9034.26 keV

<< 32-Ge-74	32-Ge-76 MT17 (p,3n) or MT5 (As74 production)	>> 33-As-75
<< MT16 (p,2n)		>> MT22 (p,n+α) >>



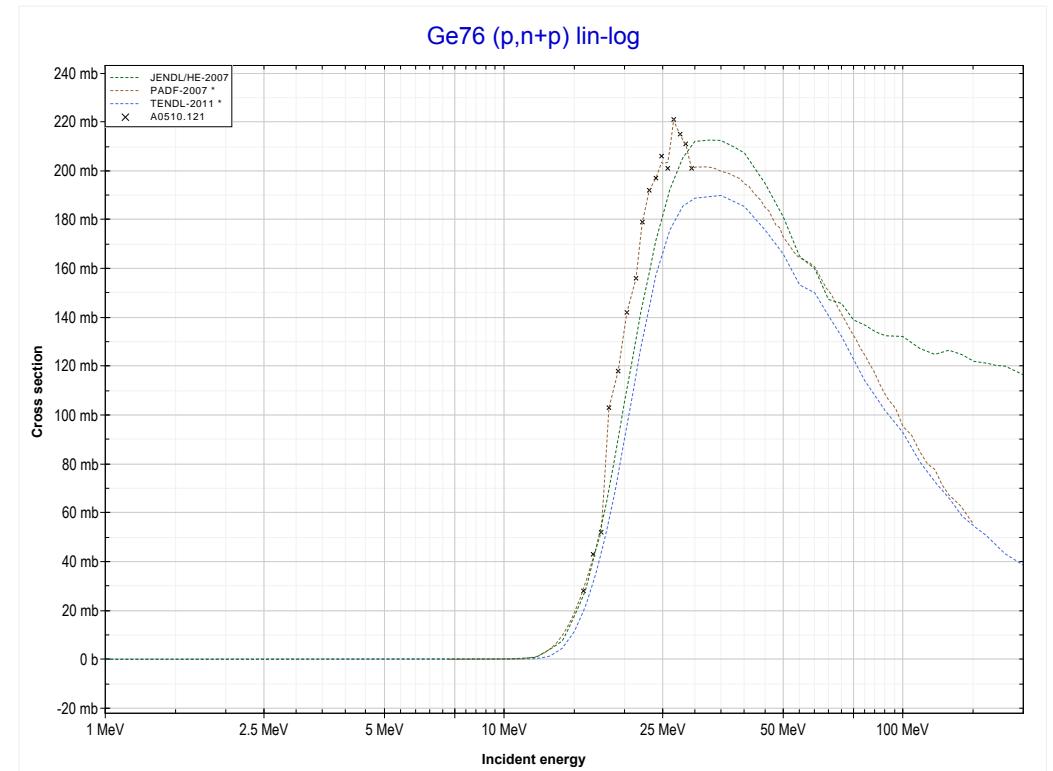
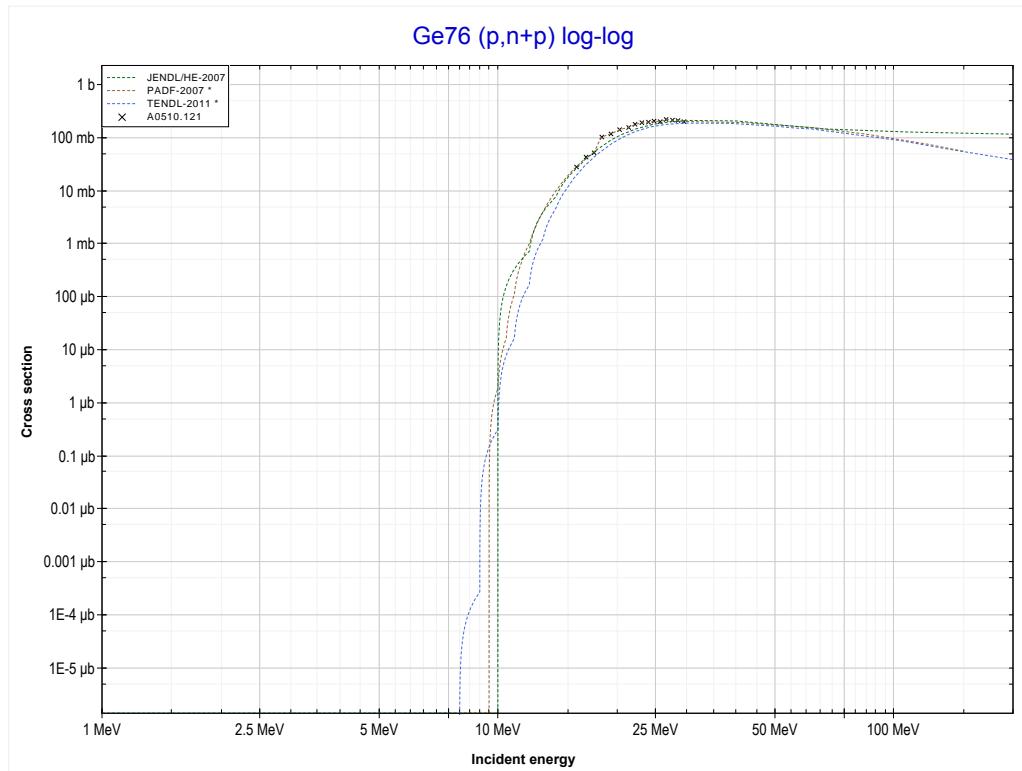
Reaction	Q-Value
Ge76(p,3n)As74	-19277.98 keV

<< 32-Ge-72	32-Ge-76 MT22 (p,n+α) or MT5 (Ga72 production)	>> 34-Se-74
<< MT17 (p,3n)		>> MT28 (p,n+p) >>



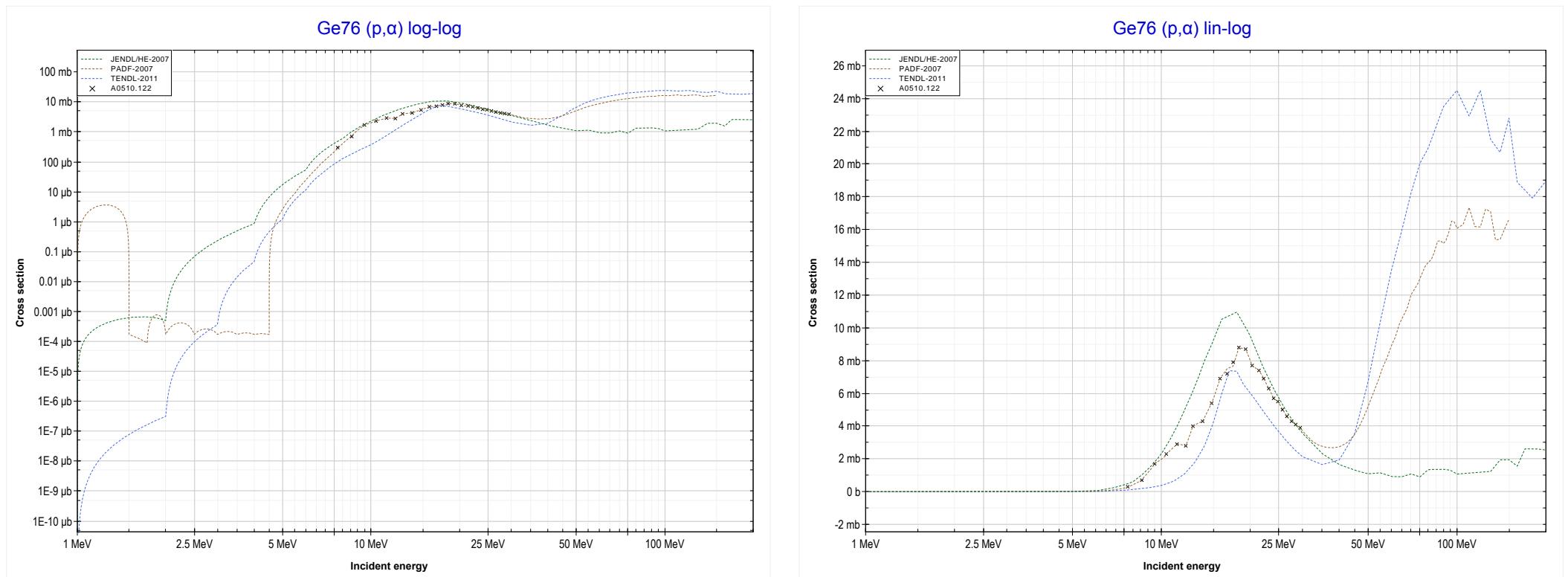
Reaction	Q-Value
Ge76(p,n+α)Ga72	-7830.86 keV
Ge76(p,d+t)Ga72	-25420.16 keV
Ge76(p,n+p+t)Ga72	-27644.72 keV
Ge76(p,2n+He3)Ga72	-28408.48 keV
Ge76(p,n+2d)Ga72	-31677.39 keV
Ge76(p,2n+p+d)Ga72	-33901.96 keV
Ge76(p,3n+2p)Ga72	-36126.52 keV

<< 32-Ge-72	32-Ge-76 MT28 (p,n+p) or MT5 (Ge75 production)	>> 33-As-75
<< MT22 (p,n+α)		MT107 (p,α) >>



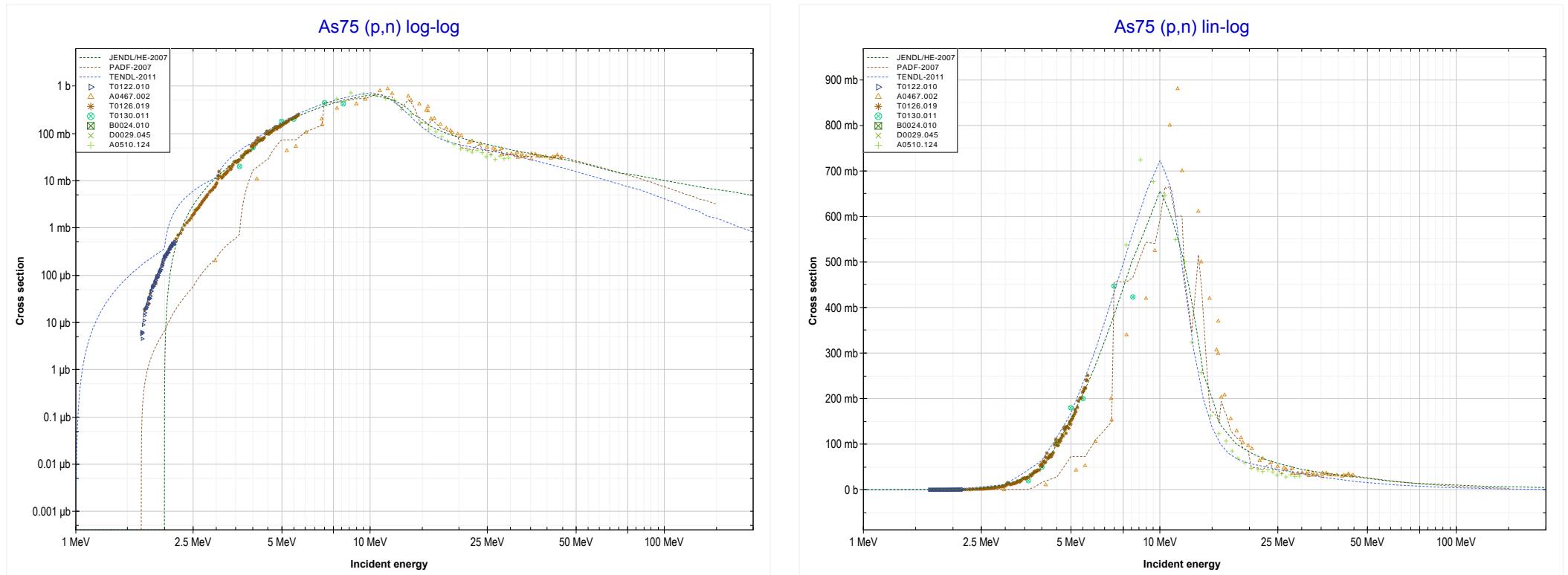
Reaction	Q-Value
Ge76(p,d)Ge75	-7203.35 keV
Ge76(p,n+p)Ge75	-9427.92 keV

<< 32-Ge-70	32-Ge-76 MT107 (p,α) or MT5 (Ga73 production)	34-Se-74 >>
<< MT28 ($p,n+p$)		MT4 (p,n) >>



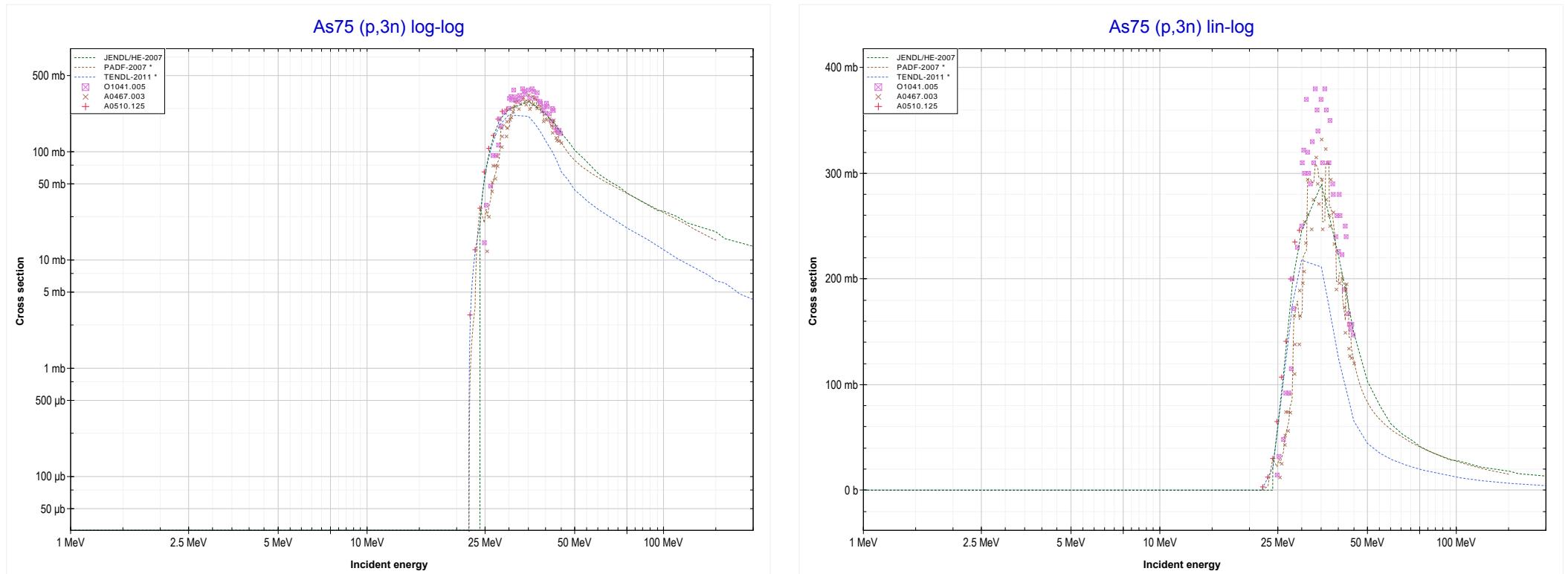
Reaction	Q-Value
$\text{Ge76}(\text{p},\alpha)\text{Ga73}$	1350.35 keV
$\text{Ge76}(\text{p},\text{p}+\text{t})\text{Ga73}$	-18463.51 keV
$\text{Ge76}(\text{p},\text{n}+\text{He3})\text{Ga73}$	-19227.26 keV
$\text{Ge76}(\text{p},2\text{d})\text{Ga73}$	-22496.17 keV
$\text{Ge76}(\text{p},\text{n}+\text{p}+\text{d})\text{Ga73}$	-24720.74 keV
$\text{Ge76}(\text{p},2\text{n}+2\text{p})\text{Ga73}$	-26945.30 keV

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



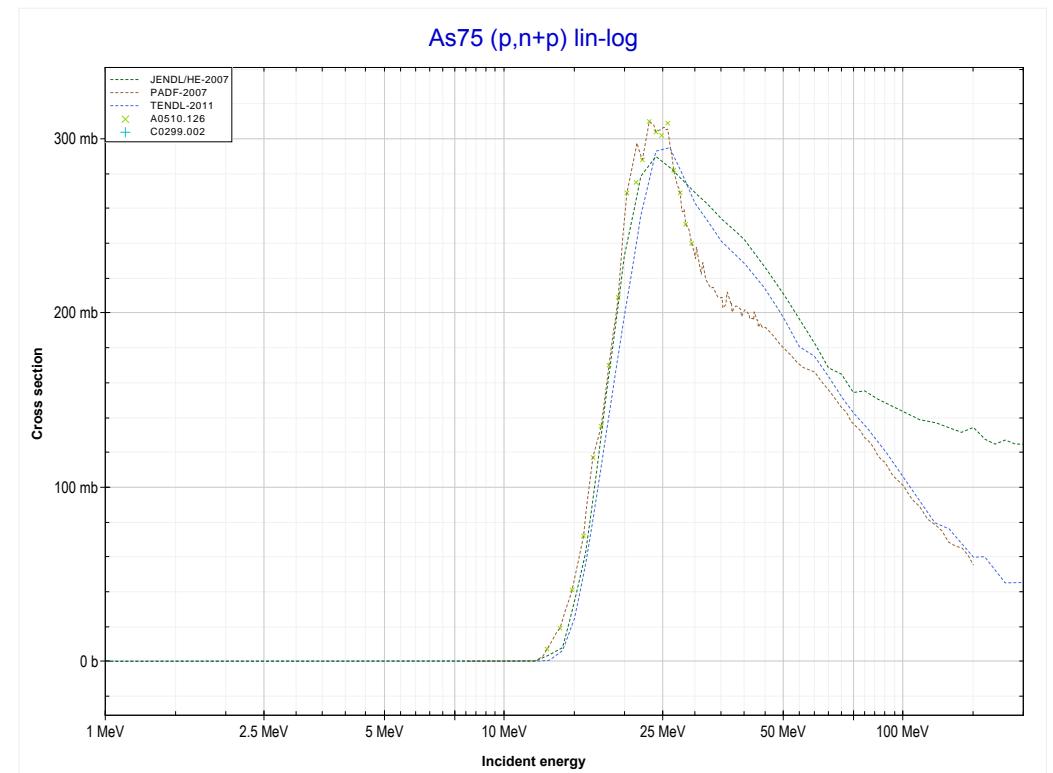
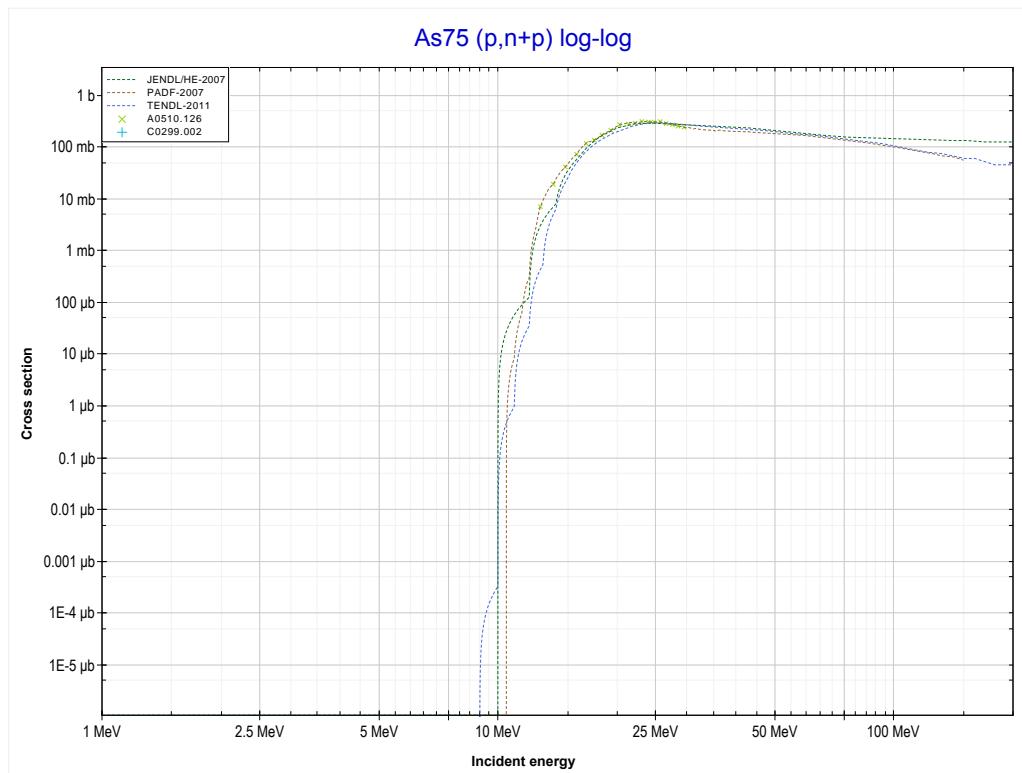
Reaction	Q-Value
As75(p,n)Se75	-1645.75 keV

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



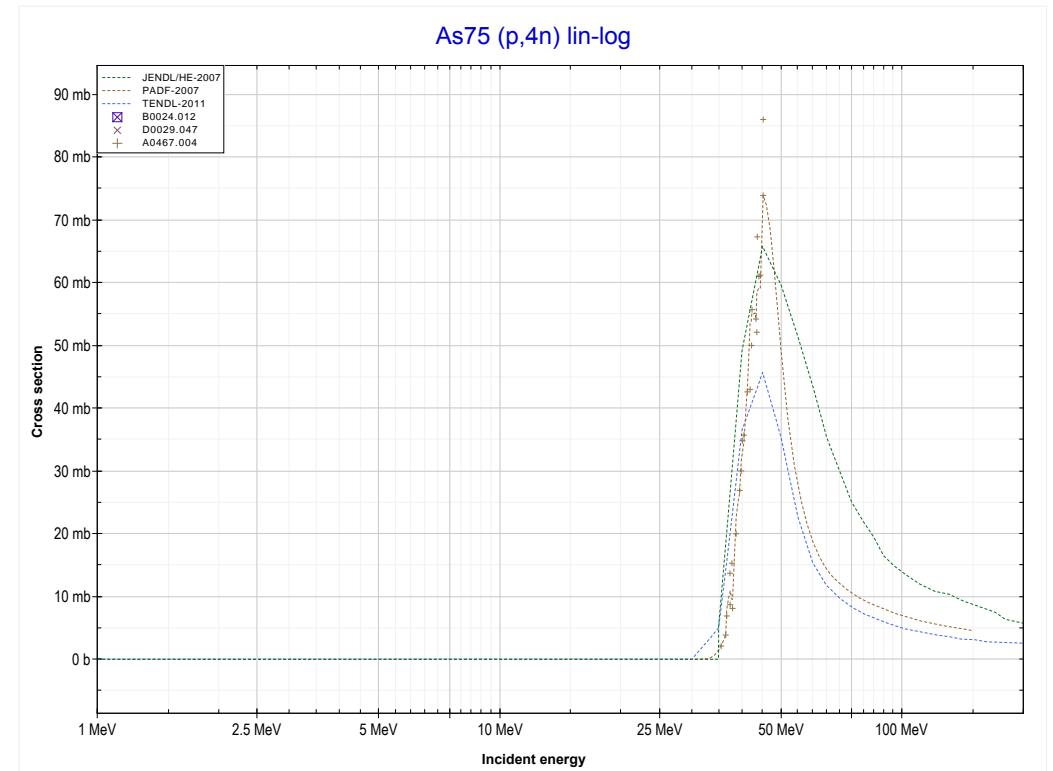
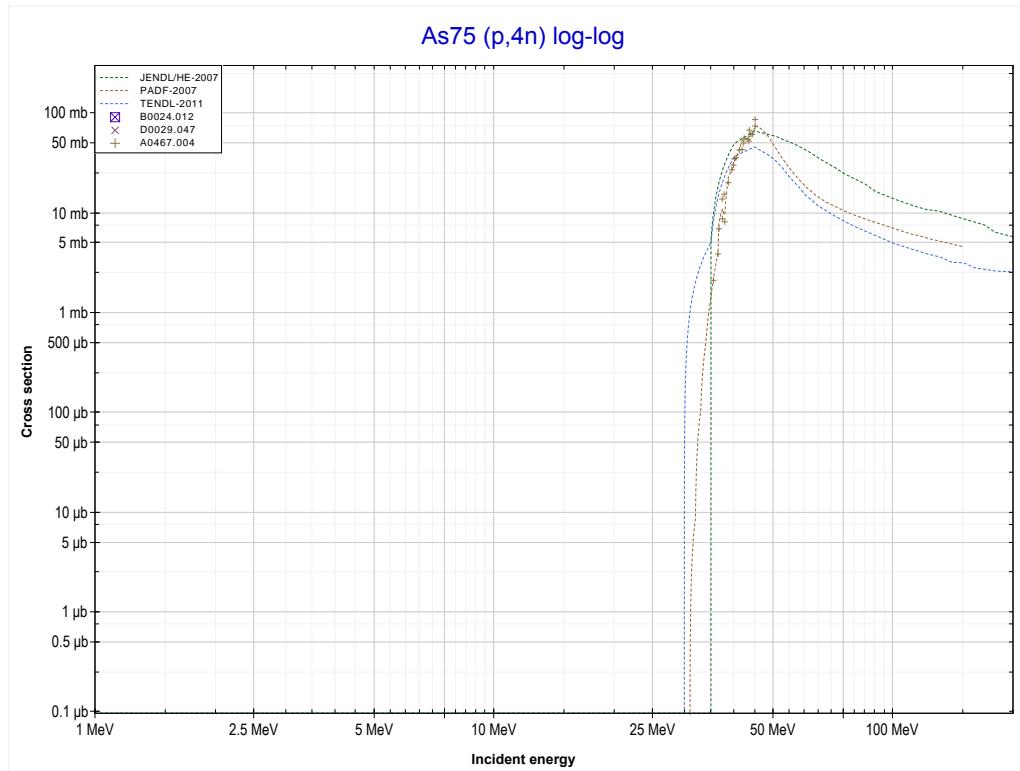
Reaction	Q-Value
As75(p,3n)Se73	-21739.38 keV

<< 32-Ge-76	33-As-75 MT28 (p,n+p) or MT5 (As74 production)	34-Se-74 >>
<< MT17 (p,3n)		MT37 (p,4n) >>



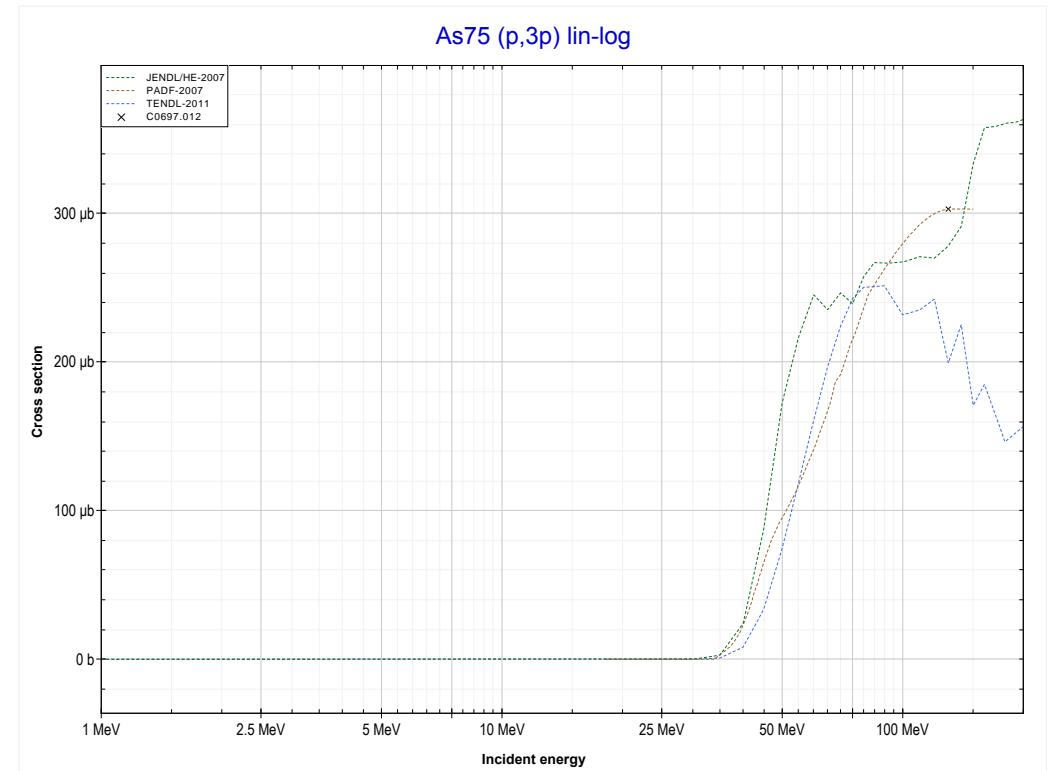
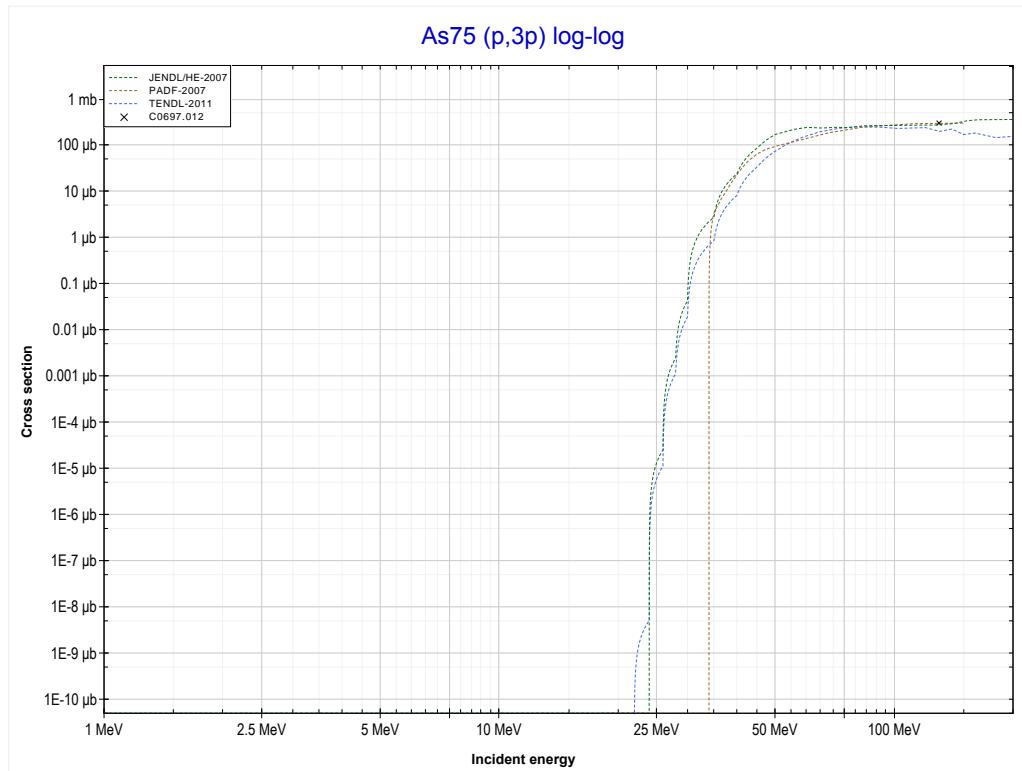
Reaction	Q-Value
As75(p,d)As74	-8019.15 keV
As75(p,n+p)As74	-10243.72 keV

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



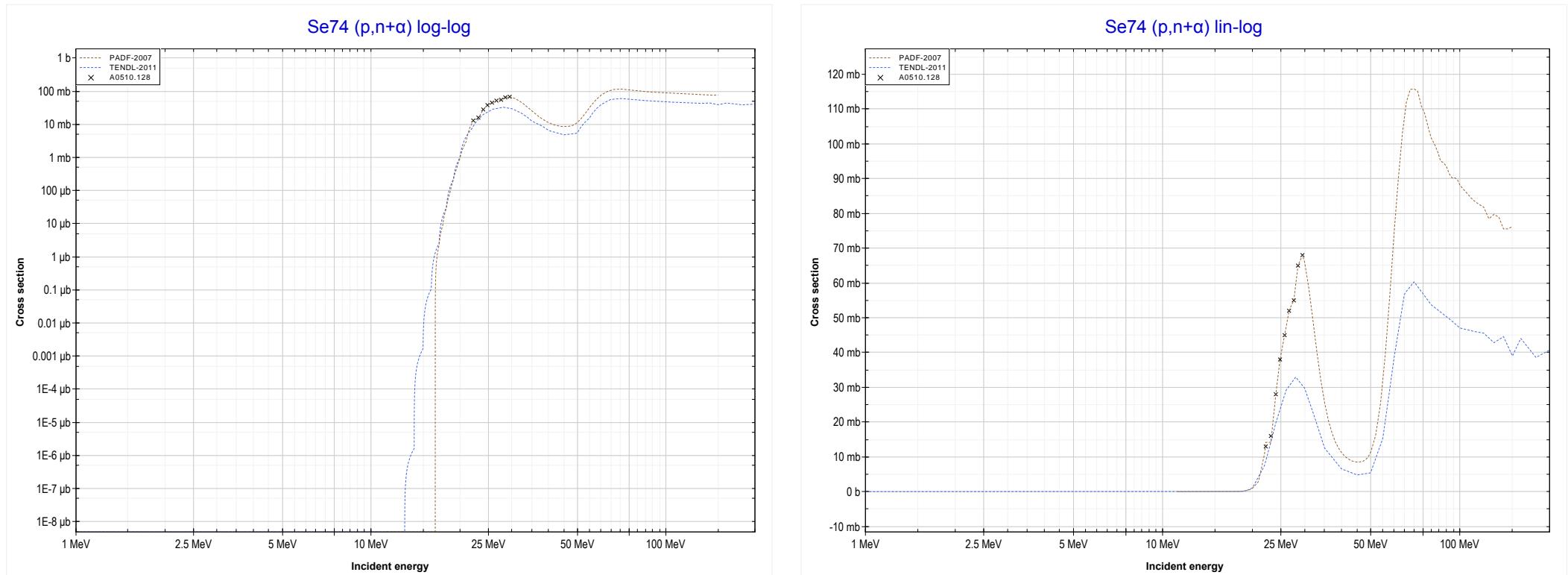
Reaction	Q-Value
As75(p,4n)Se72	-30134.70 keV

<< 31-Ga-69	33-As-75 MT197 (p,3p) or MT5 (Ga73 production)	>> 74-W-186
<< MT37 (p,4n)		>> MT22 (p,n+α) >>



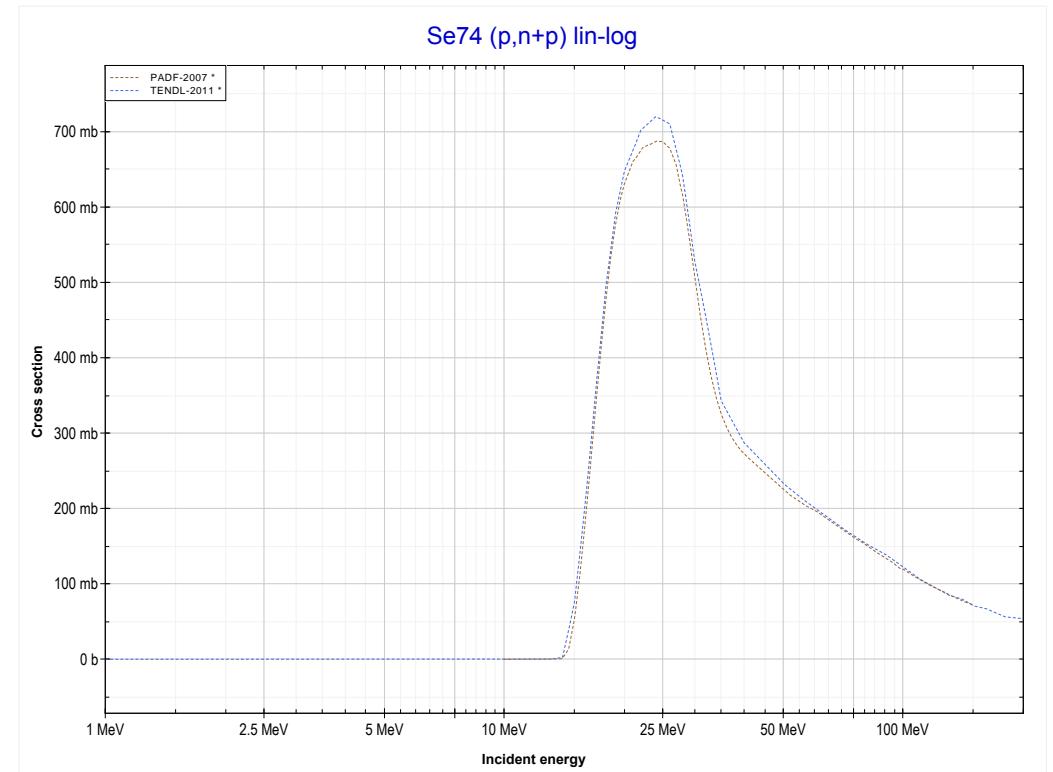
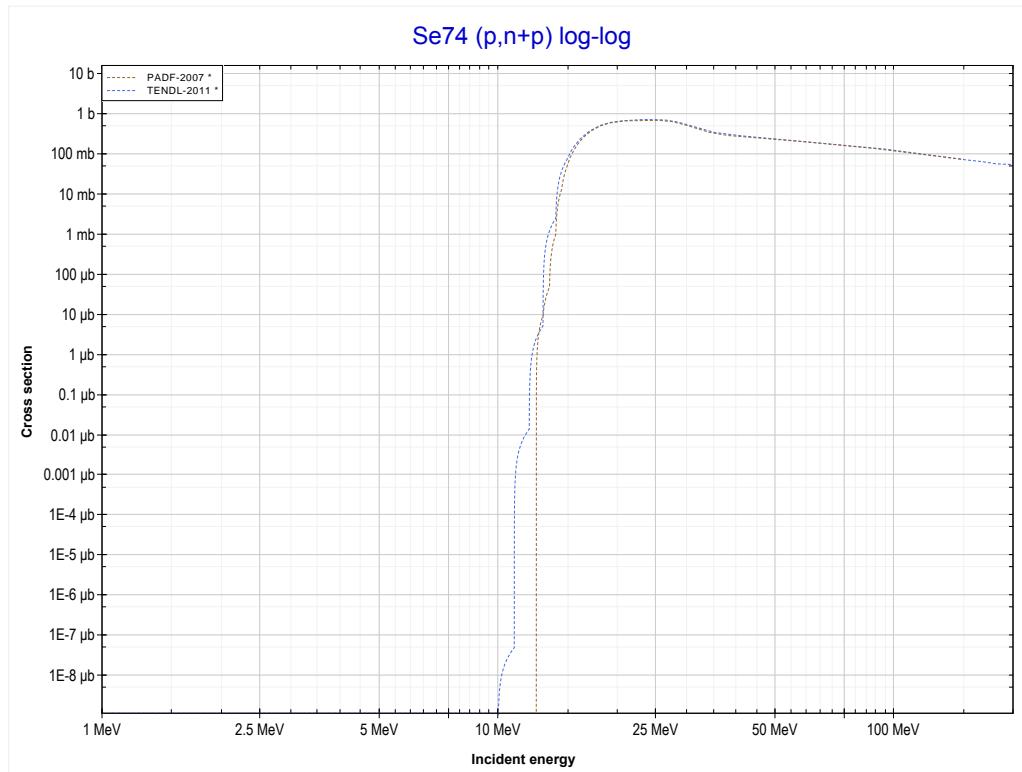
Reaction	Q-Value
As75(p,3p)Ga73	-17911.04 keV

<< 32-Ge-76	34-Se-74 MT22 (p,n+α) or MT5 (As70 production)	34-Se-76 >>
<< MT197 (p,3p)		MT28 (p,n+p) >>



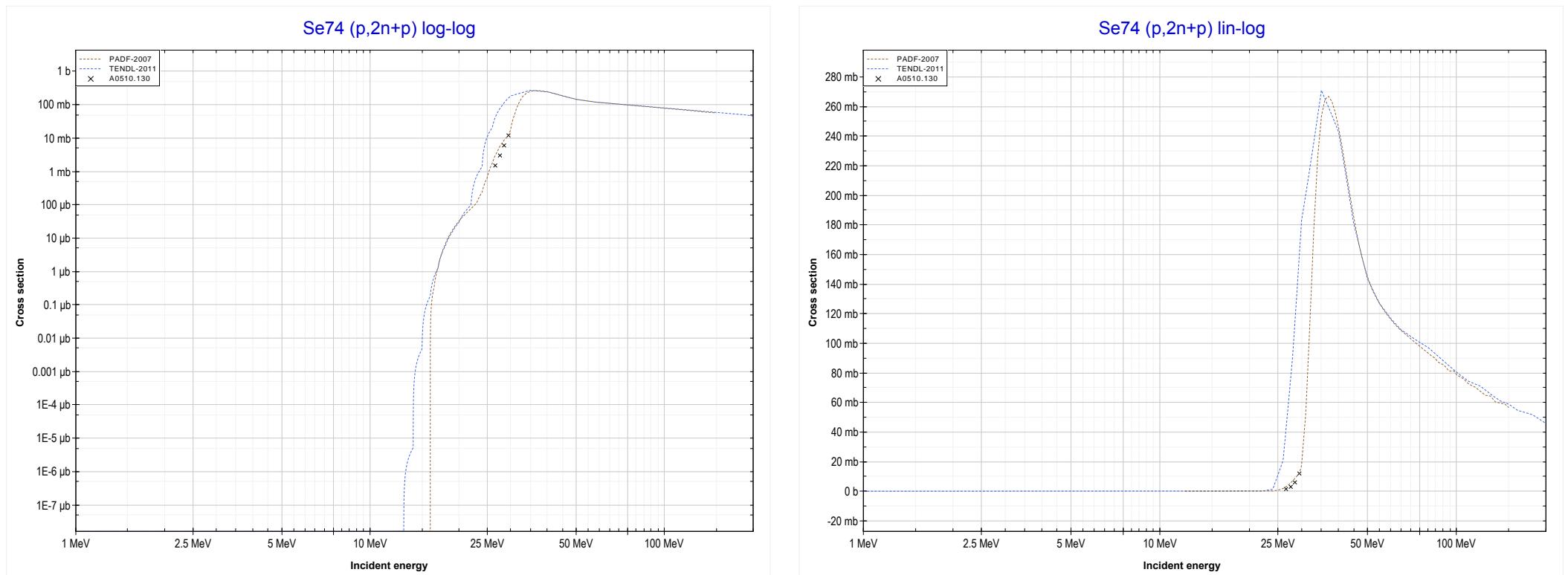
Reaction	Q-Value
Se74(p,n+α)As70	-11079.96 keV
Se74(p,d+t)As70	-28669.26 keV
Se74(p,n+p+t)As70	-30893.82 keV
Se74(p,2n+He3)As70	-31657.58 keV
Se74(p,n+2d)As70	-34926.49 keV
Se74(p,2n+p+d)As70	-37151.06 keV
Se74(p,3n+2p)As70	-39375.62 keV

<< 33-As-75	34-Se-74 MT28 (p,n+p) or MT5 (Se73 production)	34-Se-76 >>
<< MT22 (p,n+α)		MT41 (p,2n+p) >>



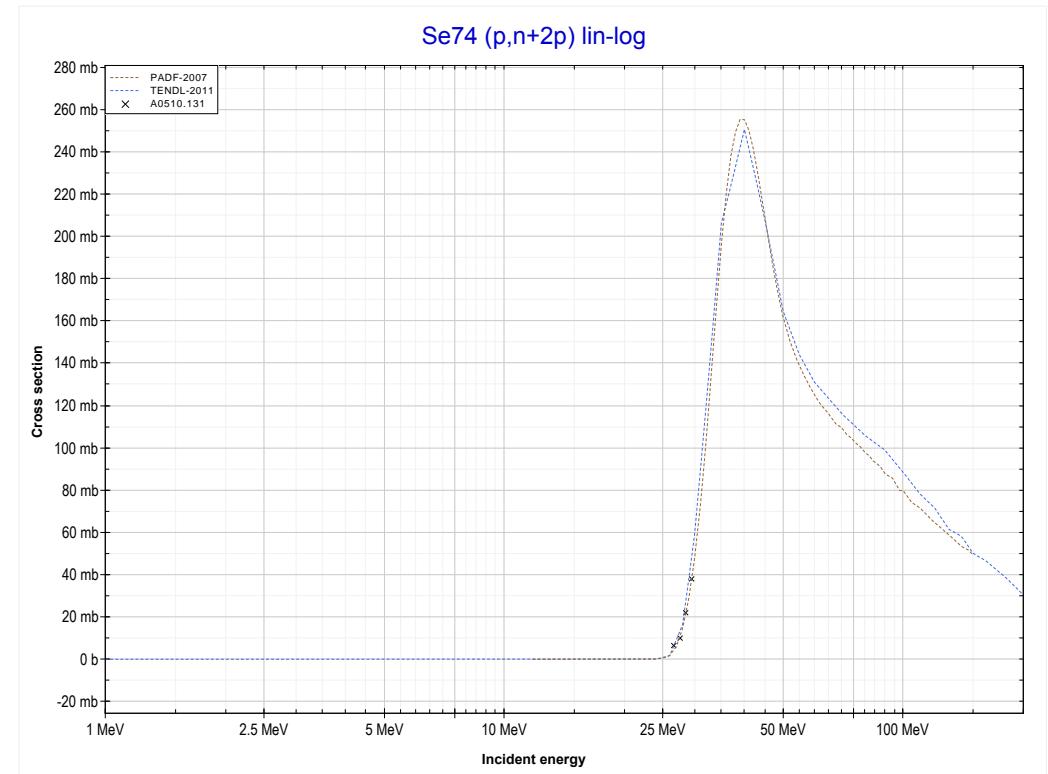
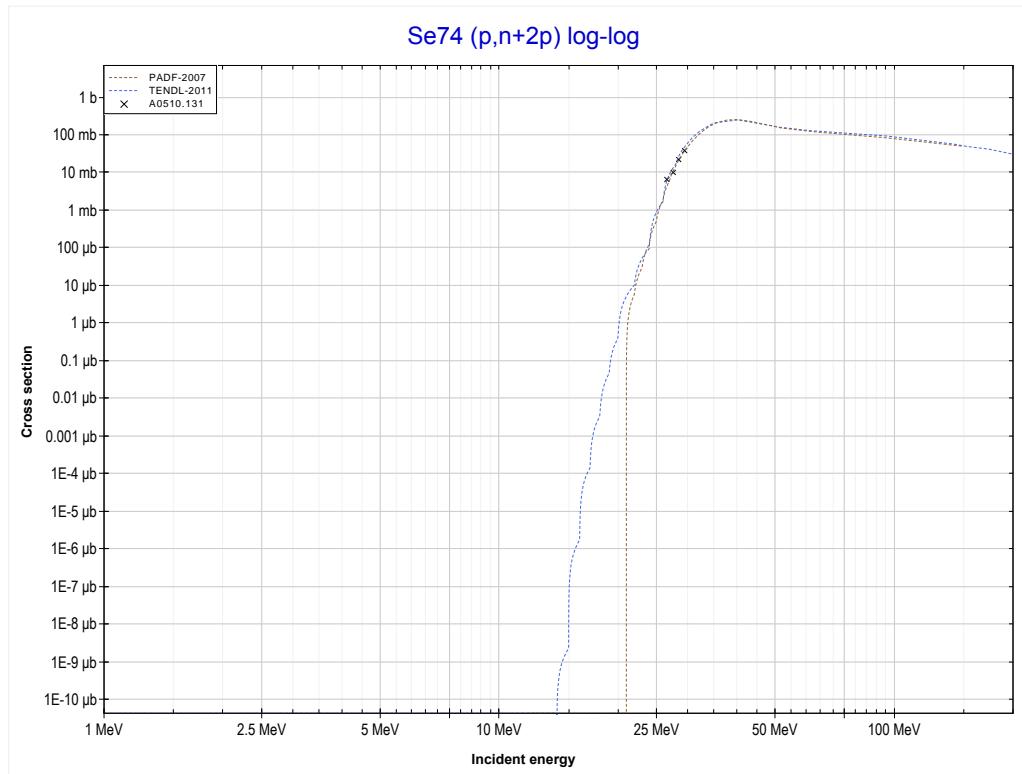
Reaction	Q-Value
$\text{Se}^{74}(\text{p},\text{d})\text{Se}^{73}$	-9841.45 keV
$\text{Se}^{74}(\text{p},\text{n}+\text{p})\text{Se}^{73}$	-12066.02 keV

<< 31-Ga-69	34-Se-74 MT41 (p,2n+p) or MT5 (Se72 production)	34-Se-77 >>
<< MT28 (p,n+p) >>		MT44 (p,n+2p) >>



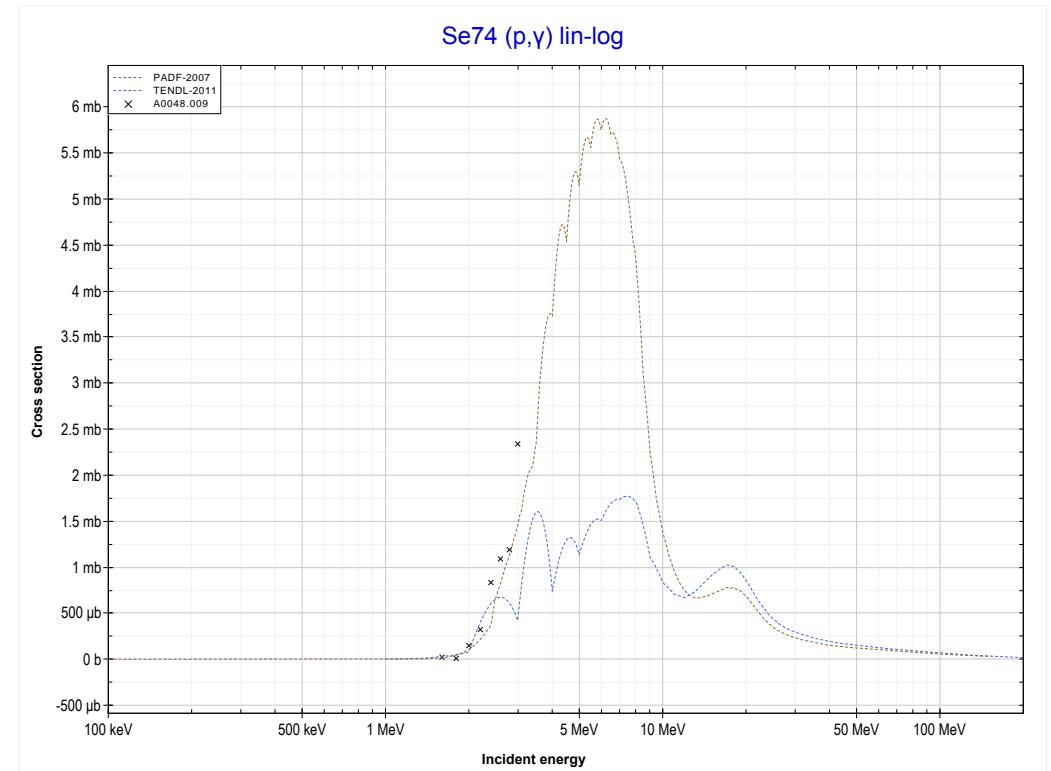
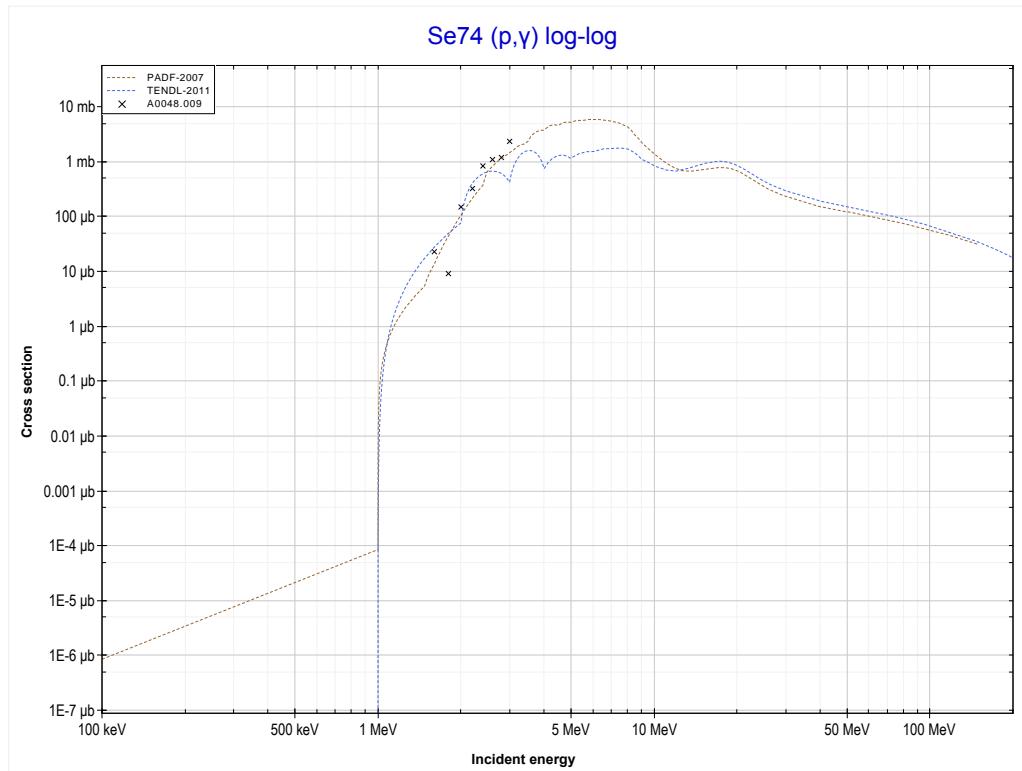
Reaction	Q-Value
Se74(p,t)Se72	-11979.54 keV
Se74(p,n+d)Se72	-18236.77 keV
Se74(p,2n+p)Se72	-20461.33 keV

<< 31-Ga-71	34-Se-74 MT44 ($p,n+2p$) or MT5 (As72 production)	42-Mo-92 >>
<< MT41 ($p,2n+p$)		MT102 (p,y) >>



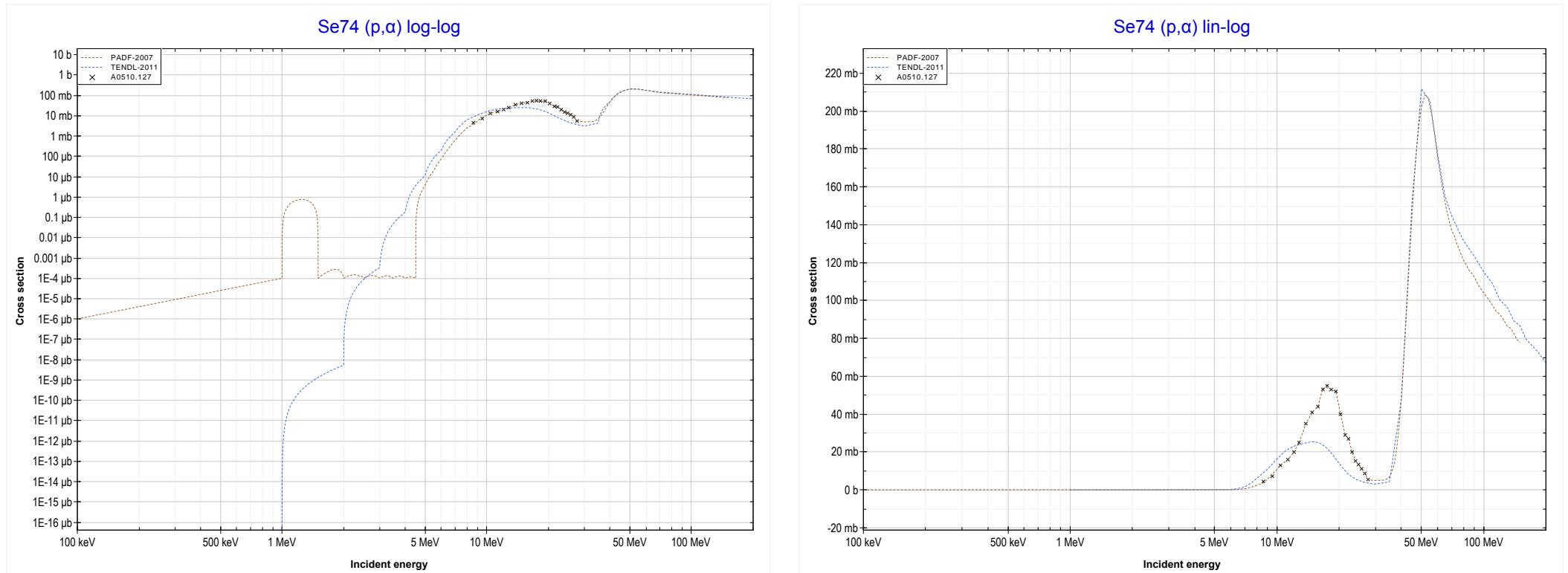
Reaction	Q-Value
Se74($p,He3$)As72	-11624.94 keV
Se74($p,p+d$)As72	-17118.42 keV
Se74($p,n+2p$)As72	-19342.99 keV

<< 30-Zn-68	34-Se-74 MT102 (p,γ) or MT5 (Br75 production)	>> 34-Se-77
<< MT44 ($p,n+2p$)		>> MT107 (p,α)



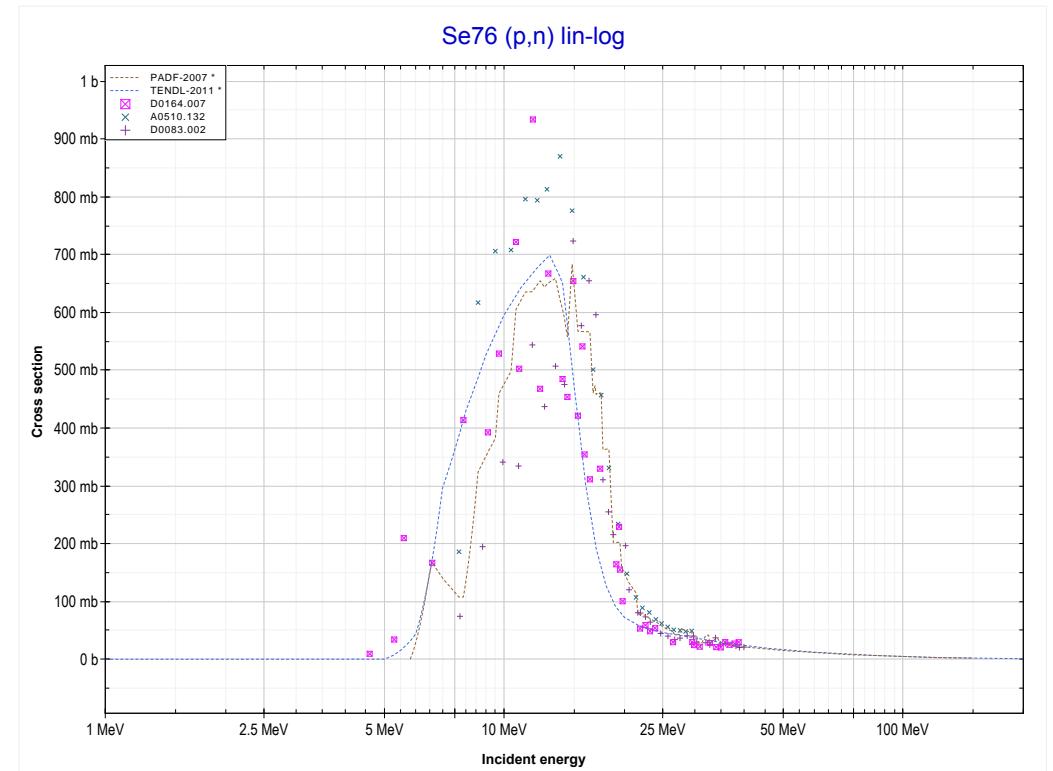
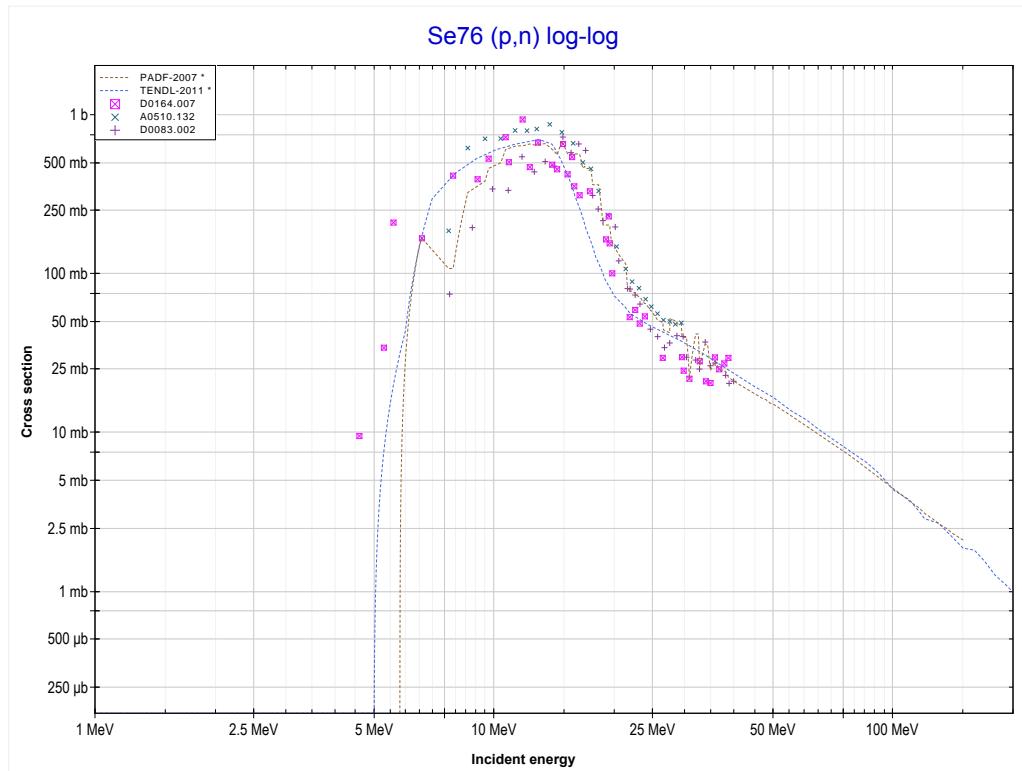
Reaction	Q-Value
$\text{Se}^{74}(\text{p},\gamma)\text{Br}^{75}$	4215.27 keV

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



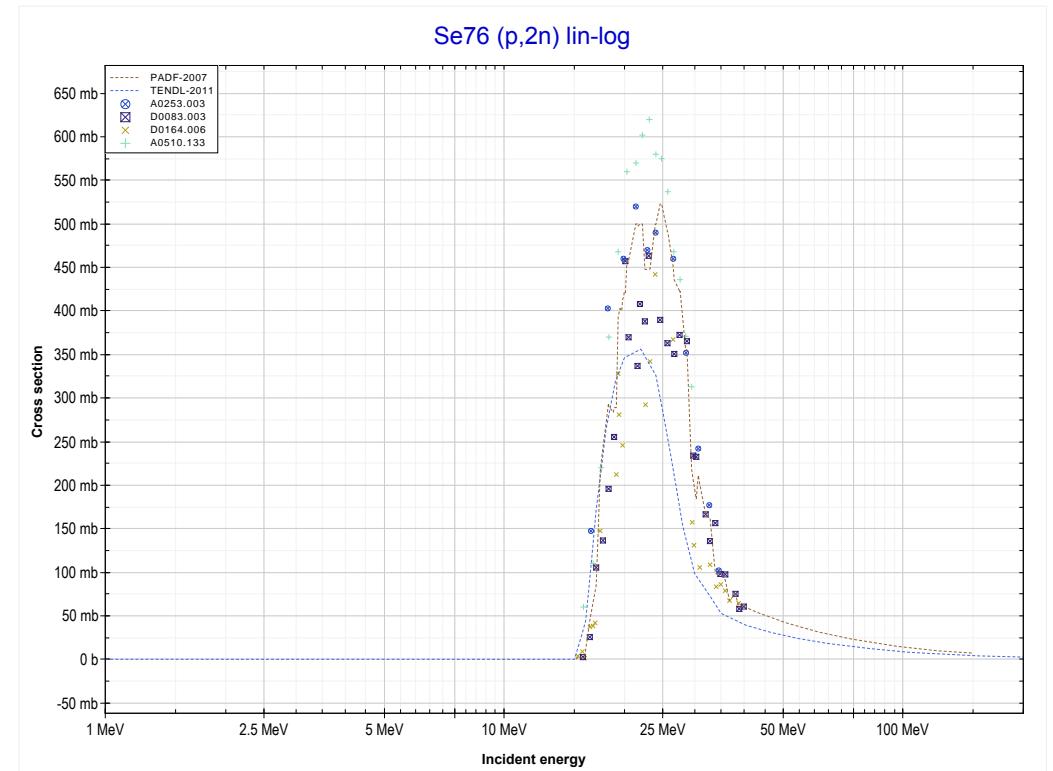
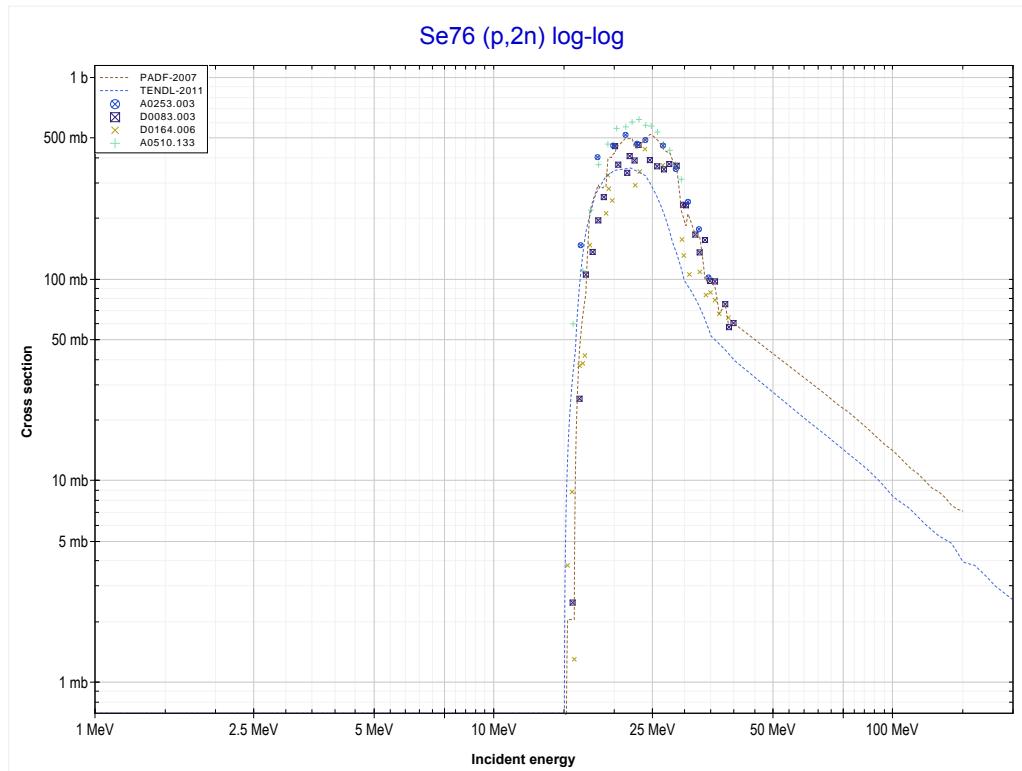
Reaction	Q-Value
Se74(p,α)As71	545.35 keV
Se74($p,p+t$)As71	-19268.51 keV
Se74($p,n+He3$)As71	-20032.26 keV
Se74($p,2d$)As71	-23301.17 keV
Se74($p,n+p+d$)As71	-25525.74 keV
Se74($p,2n+2p$)As71	-27750.30 keV

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



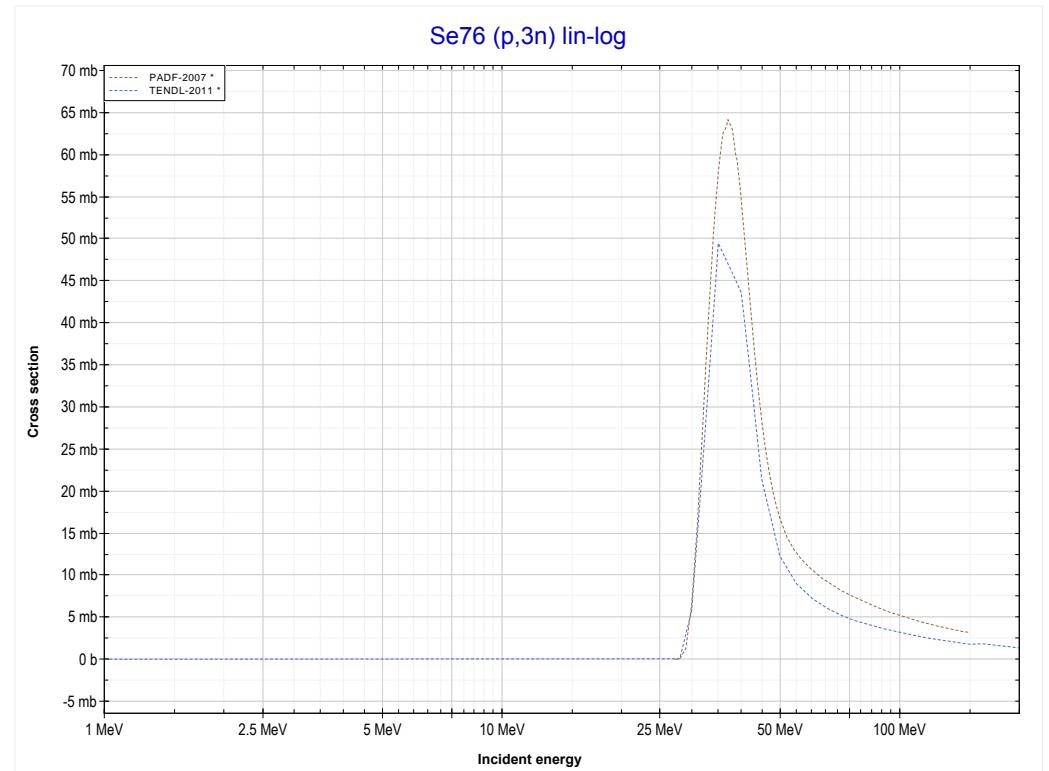
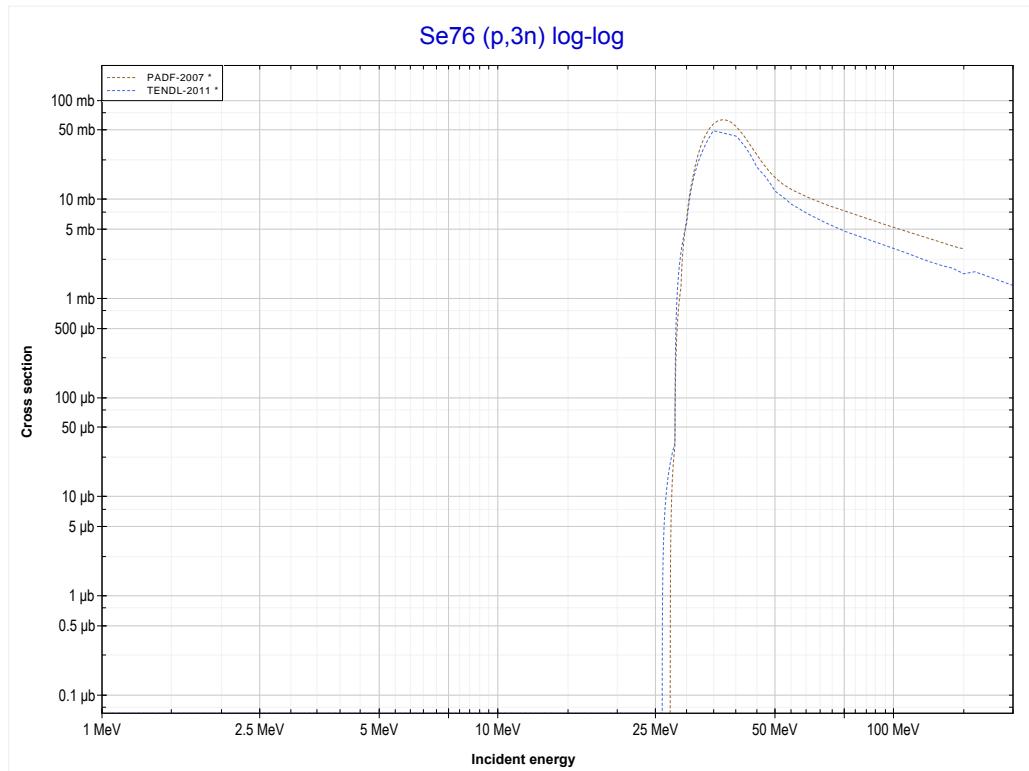
Reaction	Q-Value
Se76(p,n)Br76	-5745.45 keV

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



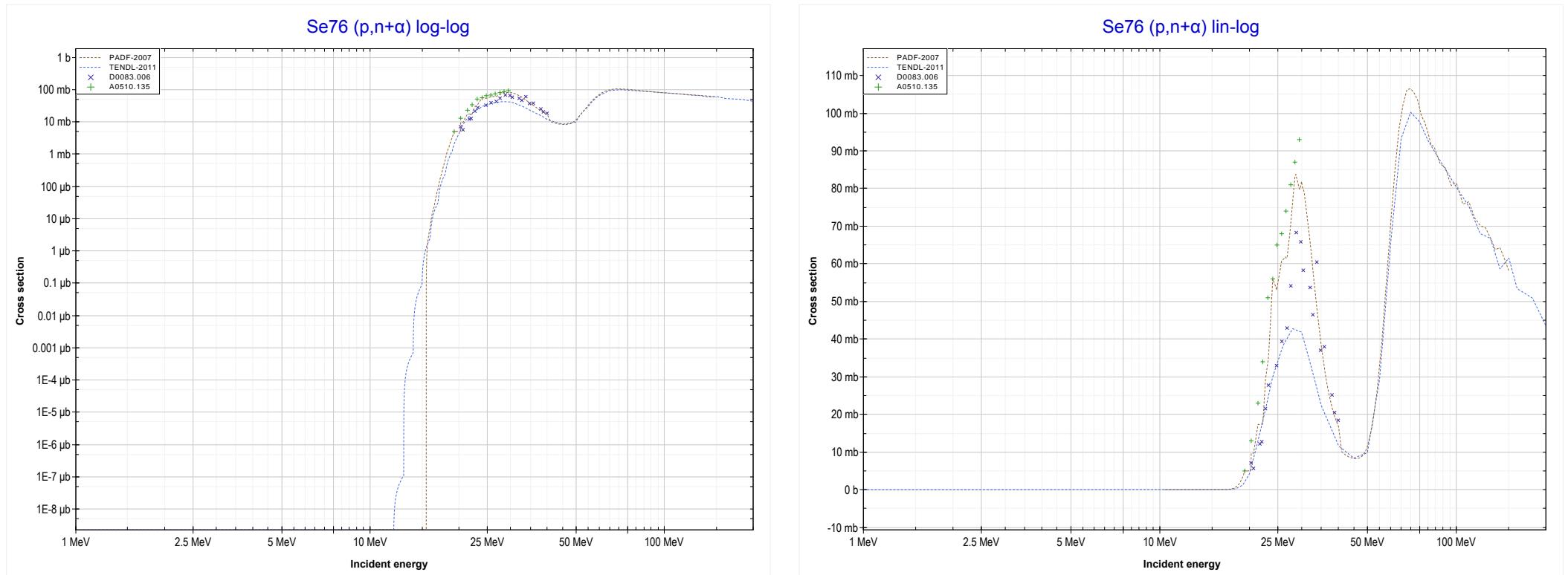
Reaction	Q-Value
$\text{Se}^{76}(p,2n)\text{Br}^{75}$	-14966.76 keV

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



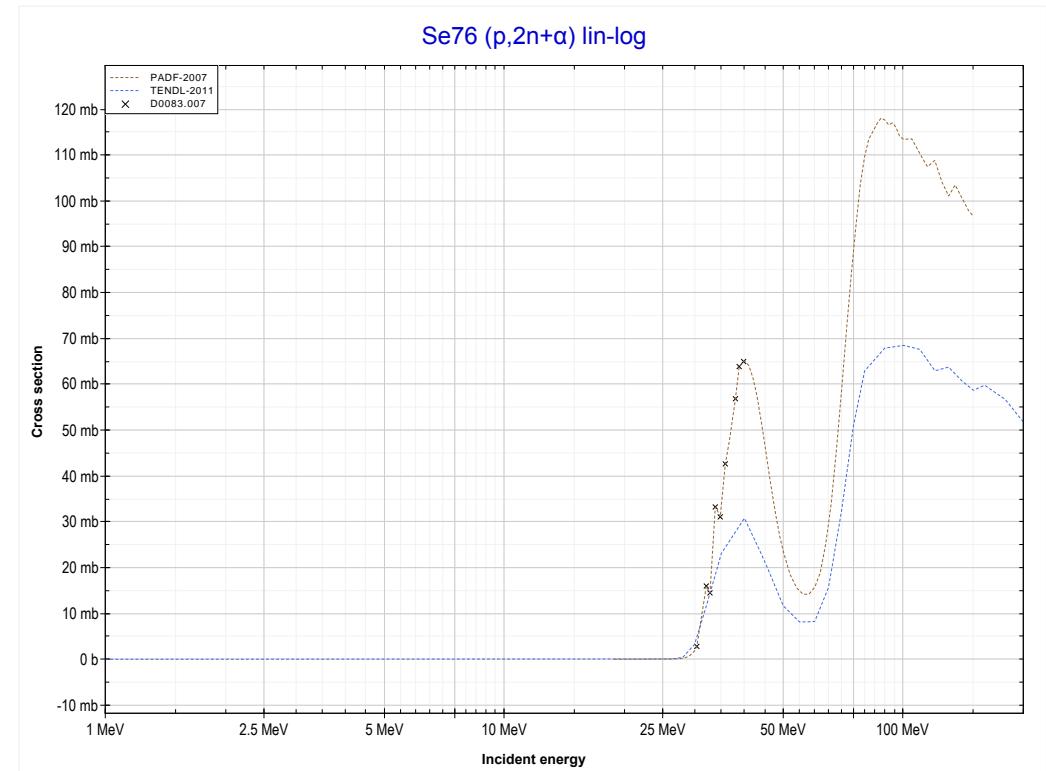
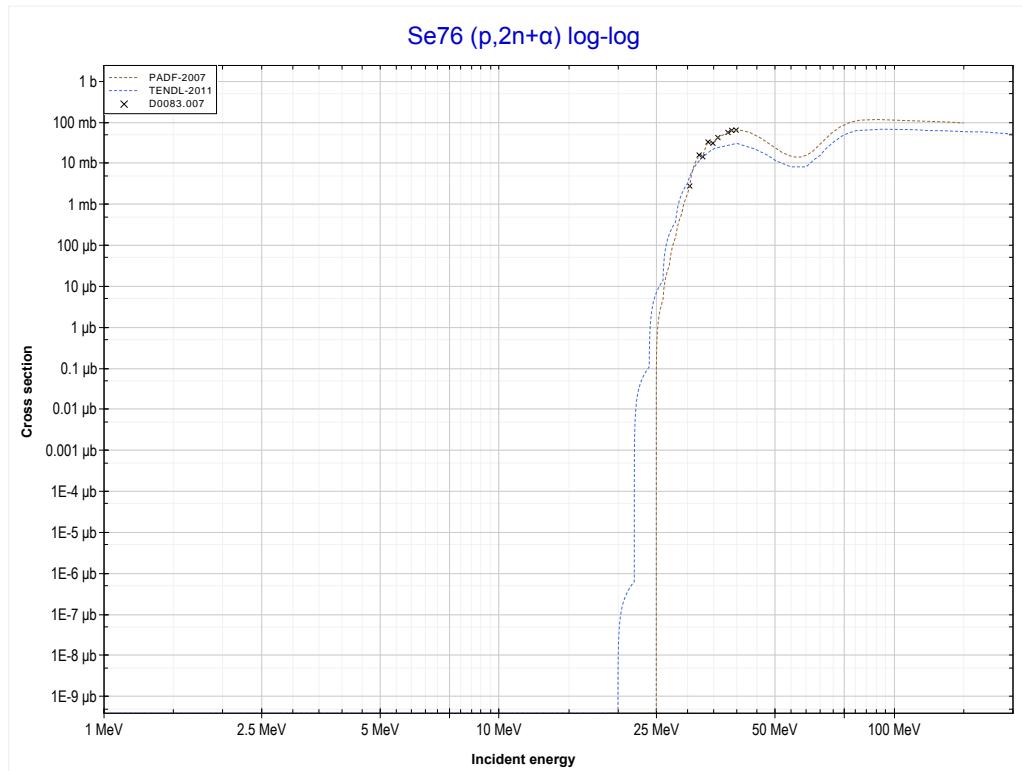
Reaction	Q-Value
Se76(p,3n)Br74	-26871.08 keV

<< 34-Se-74	34-Se-76 MT22 (p,n+α) or MT5 (As72 production)	34-Se-78 >>
<< MT17 (p,3n) >>		MT24 (p,2n+α) >>



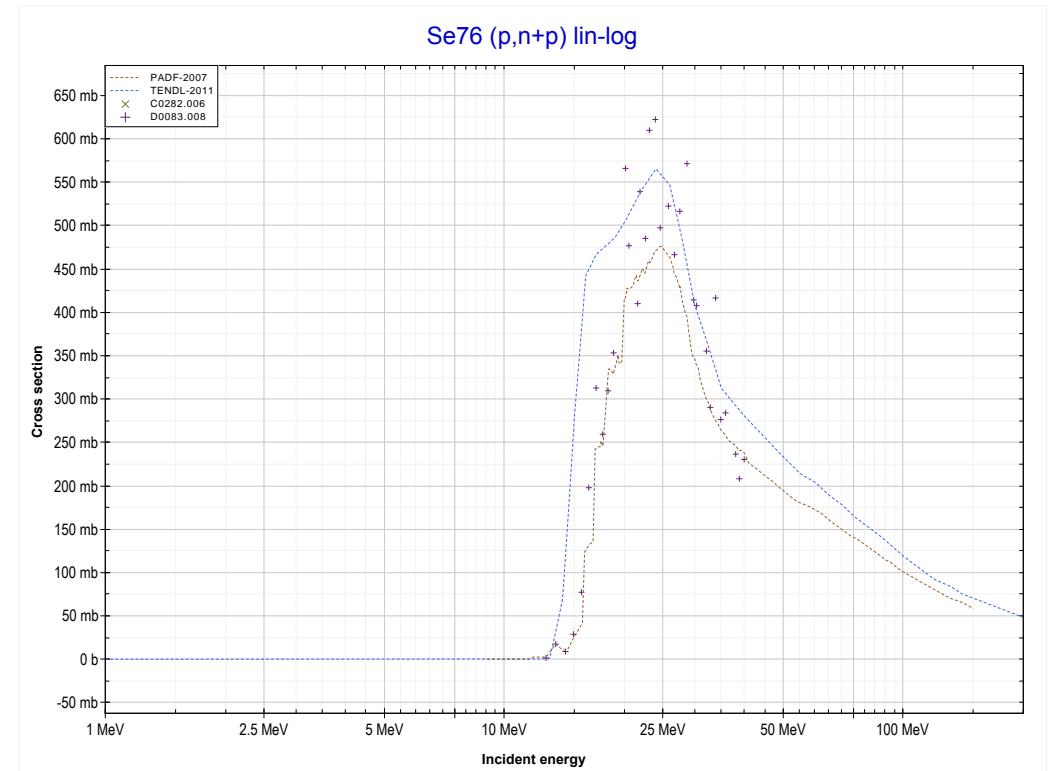
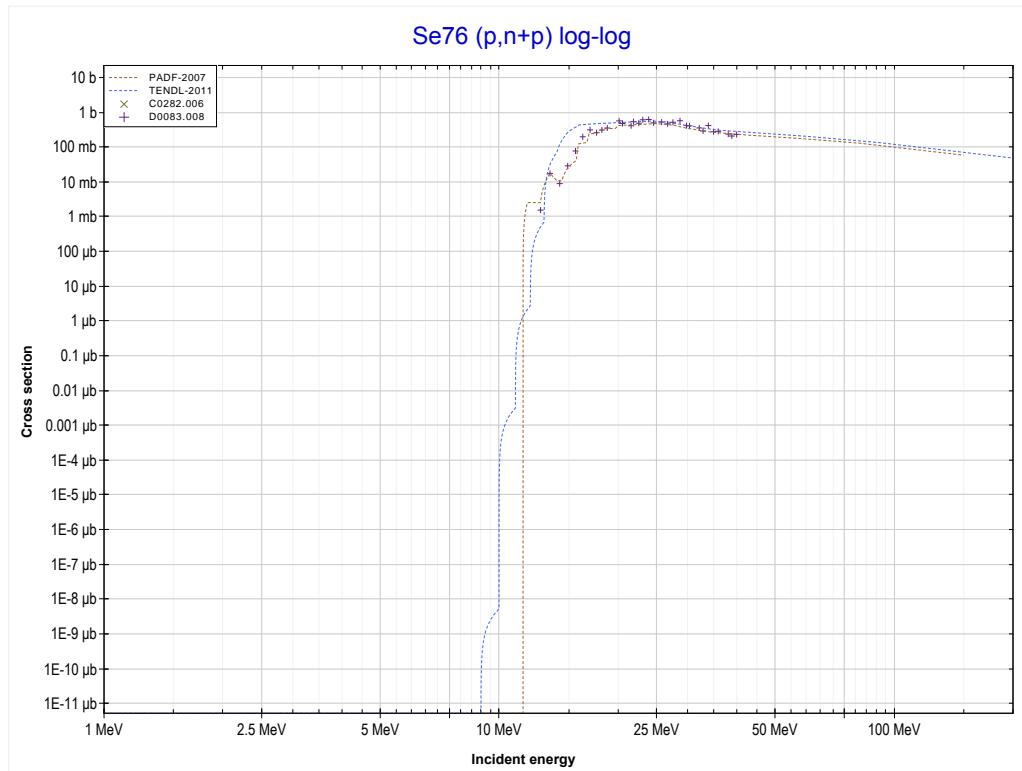
Reaction	Q-Value
Se76(p,n+α)As72	-10229.36 keV
Se76(p,d+t)As72	-27818.66 keV
Se76(p,n+p+t)As72	-30043.22 keV
Se76(p,2n+He3)As72	-30806.98 keV
Se76(p,n+2d)As72	-34075.89 keV
Se76(p,2n+p+d)As72	-36300.46 keV
Se76(p,3n+2p)As72	-38525.02 keV

<< 28-Ni-62	34-Se-76 MT24 (p,2n+α) or MT5 (As71 production)	>> 42-Mo-97
<< MT22 (p,n+α)		>> MT28 (p,n+p) >>



Reaction	Q-Value
$\text{Se}^{76}(p,2n+\alpha)\text{As}^{71}$	-18636.68 keV
$\text{Se}^{76}(p,2t)\text{As}^{71}$	-29968.74 keV
$\text{Se}^{76}(p,n+d+t)\text{As}^{71}$	-36225.97 keV
$\text{Se}^{76}(p,2n+p+t)\text{As}^{71}$	-38450.54 keV
$\text{Se}^{76}(p,3n+\text{He}^3)\text{As}^{71}$	-39214.30 keV
$\text{Se}^{76}(p,2n+2d)\text{As}^{71}$	-42483.21 keV
$\text{Se}^{76}(p,3n+p+d)\text{As}^{71}$	-44707.77 keV
$\text{Se}^{76}(p,4n+2p)\text{As}^{71}$	-46932.34 keV

<< 34-Se-74	34-Se-76 MT28 (p,n+p) or MT5 (Se75 production)	34-Se-82 >>
<< MT24 (p,2n+α)		MT107 (p,α) >>

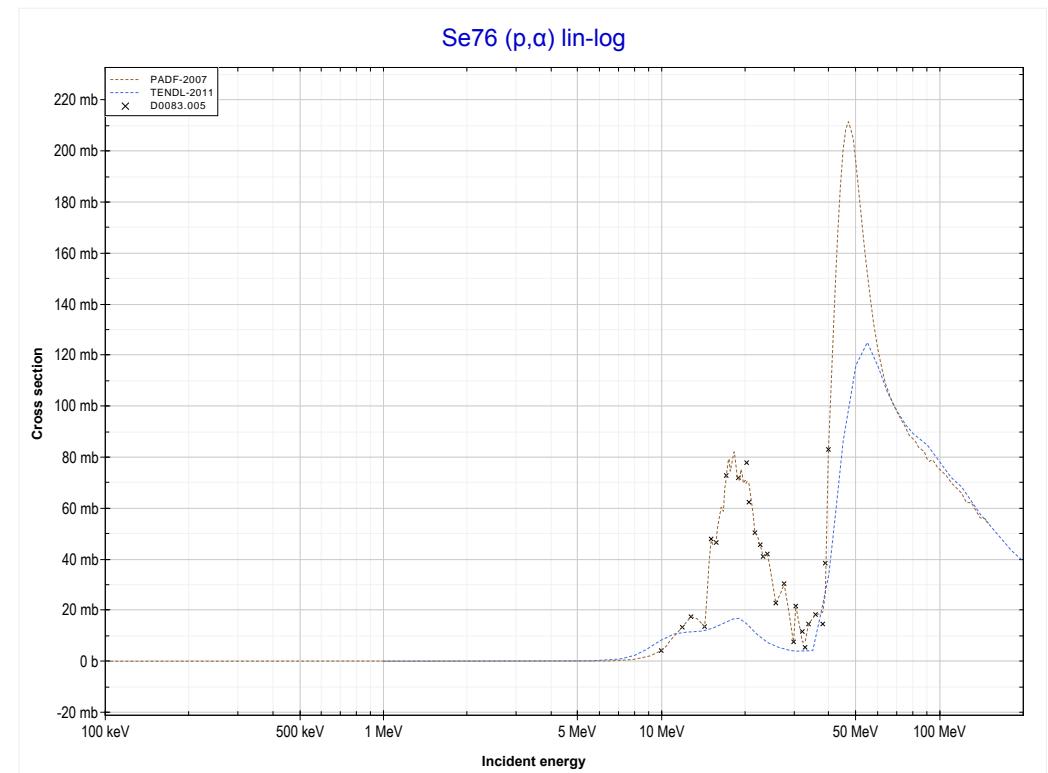
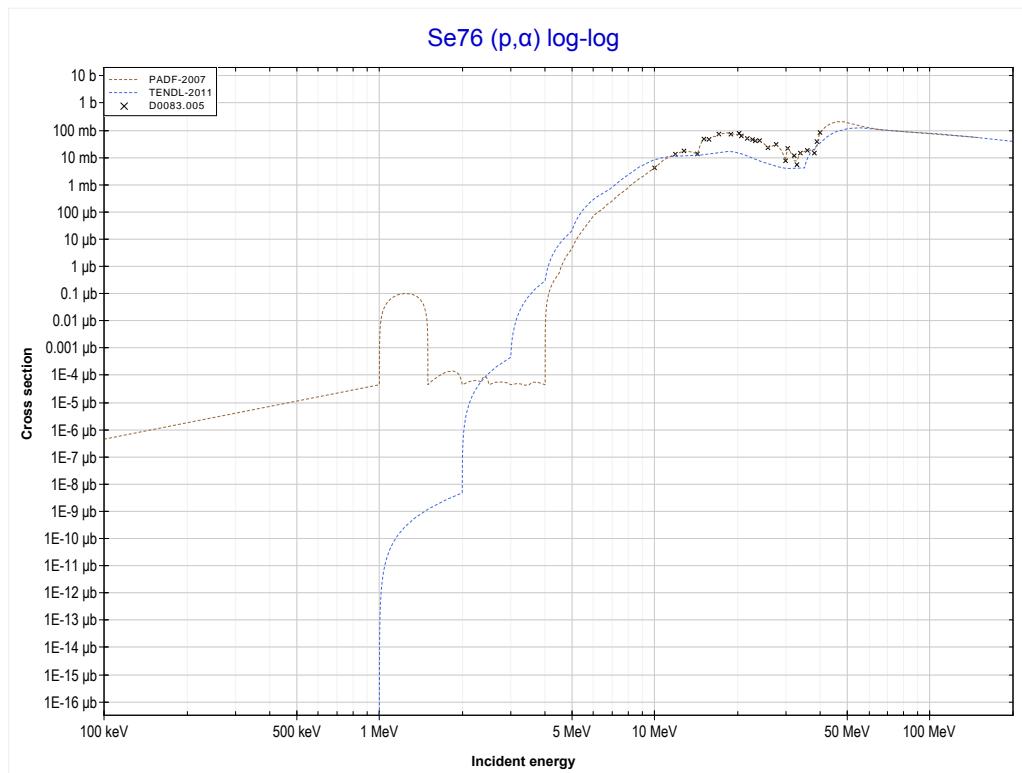


Reaction	Q-Value
$\text{Se}^{76}(\text{p},\text{d})\text{Se}^{75}$	-8929.85 keV
$\text{Se}^{76}(\text{p},\text{n}+\text{p})\text{Se}^{75}$	-11154.42 keV

<< 34-Se-74	
<< MT28 (p,n+p)	

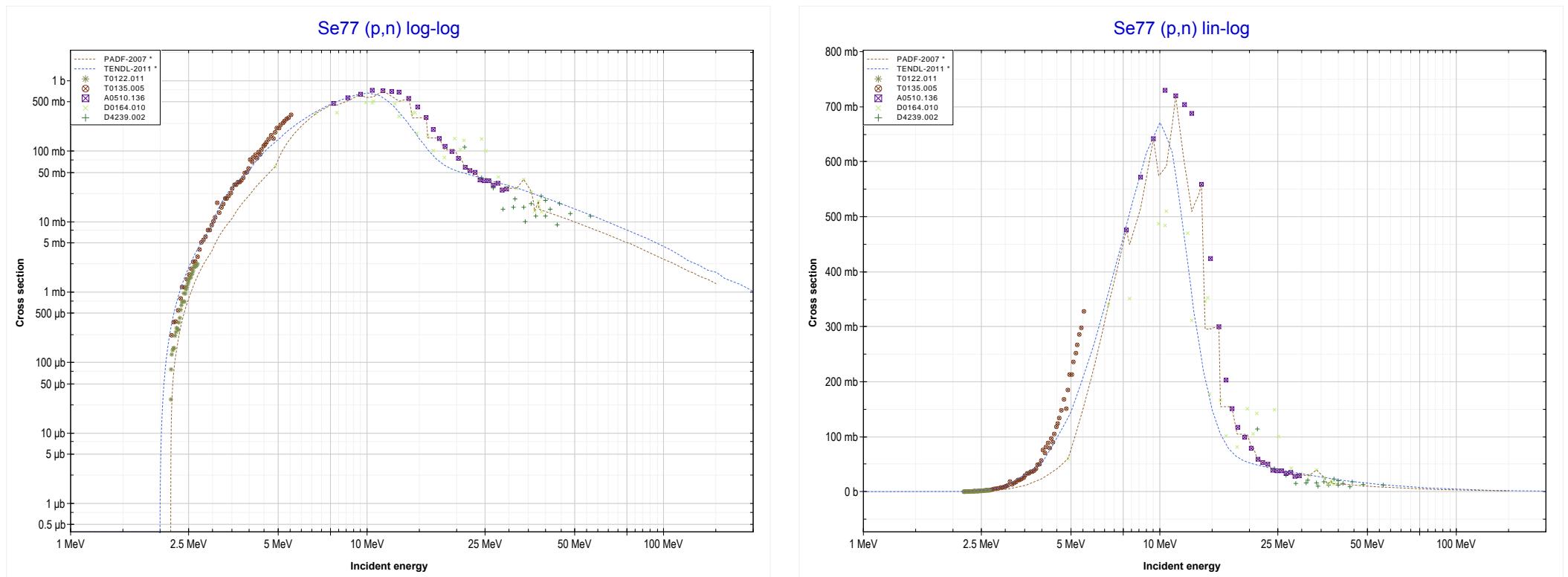
34-Se-76
MT107 (p, α) or MT5 (As73 production)

	34-Se-77 >>
	MT4 (p,n) >>



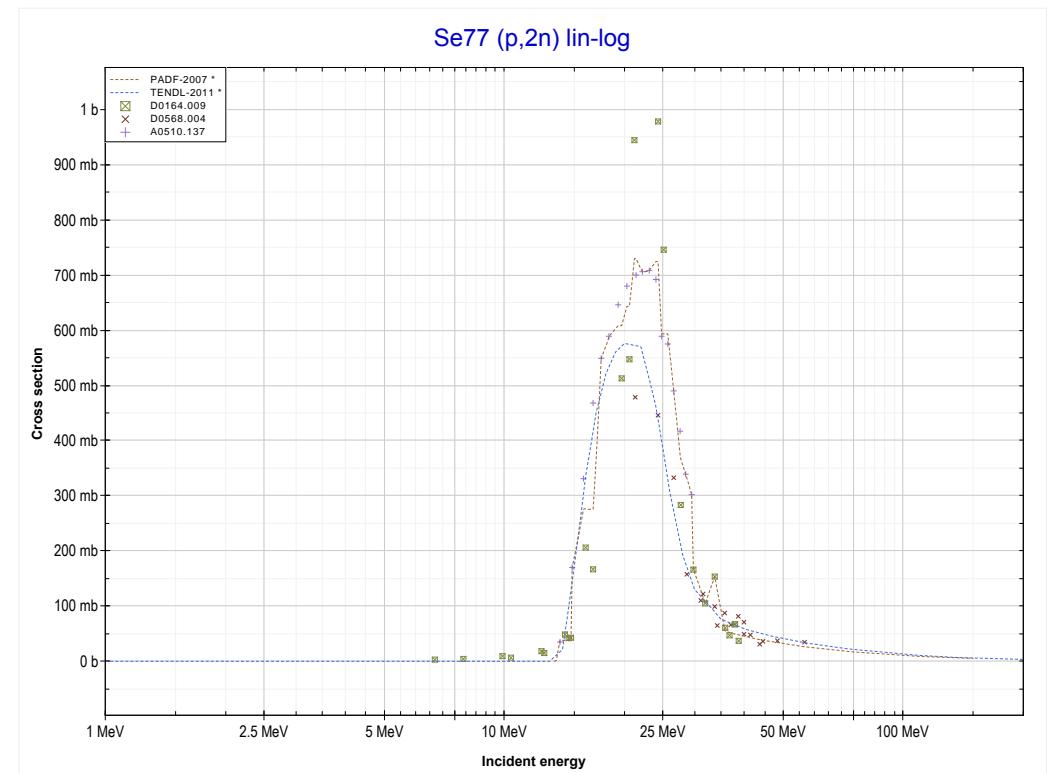
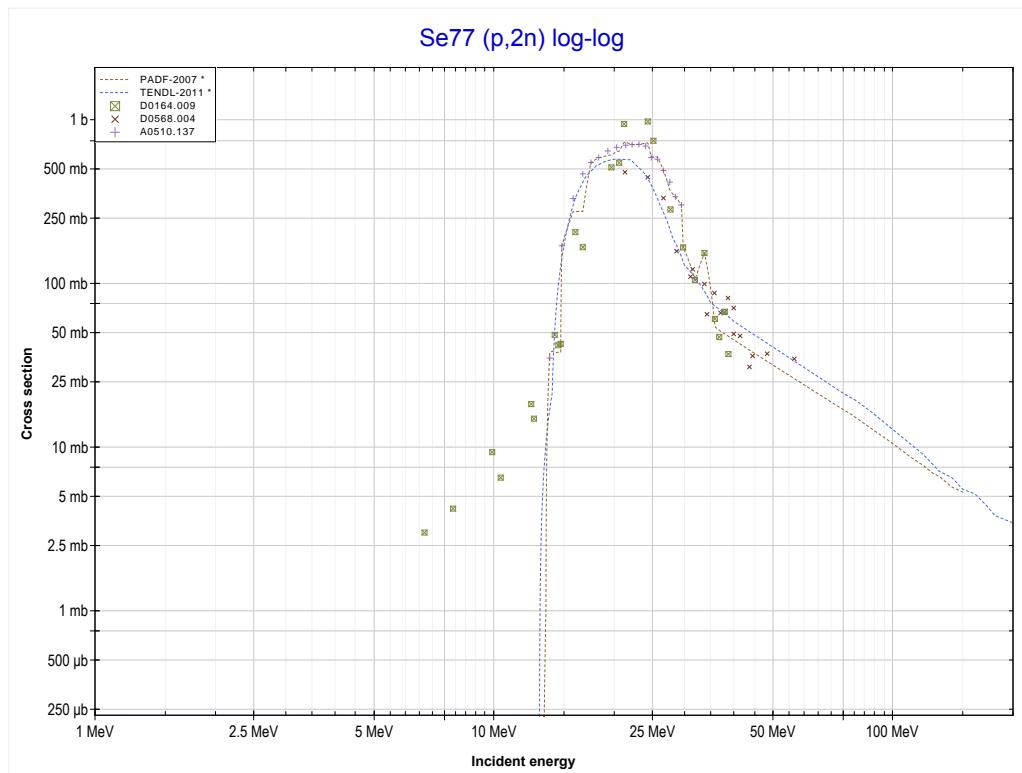
Reaction	Q-Value
Se76(p, α)As73	568.95 keV
Se76(p,p+t)As73	-19244.91 keV
Se76(p,n+He3)As73	-20008.66 keV
Se76(p,2d)As73	-23277.57 keV
Se76(p,n+p+d)As73	-25502.14 keV
Se76(p,2n+2p)As73	-27726.70 keV

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



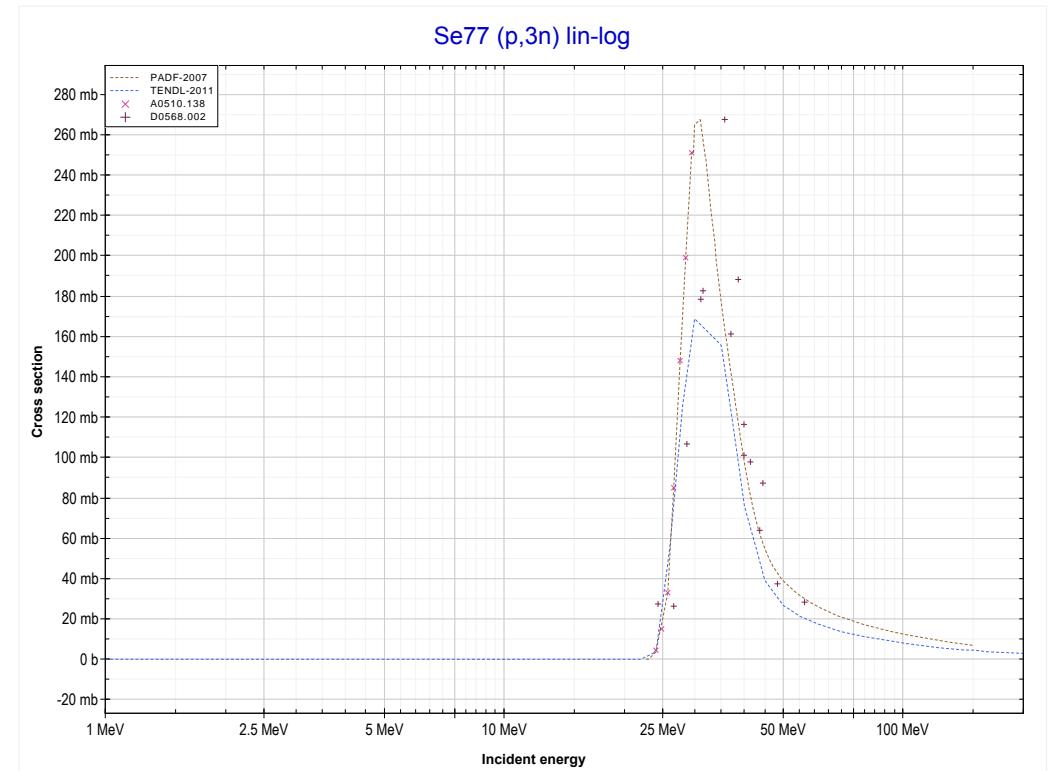
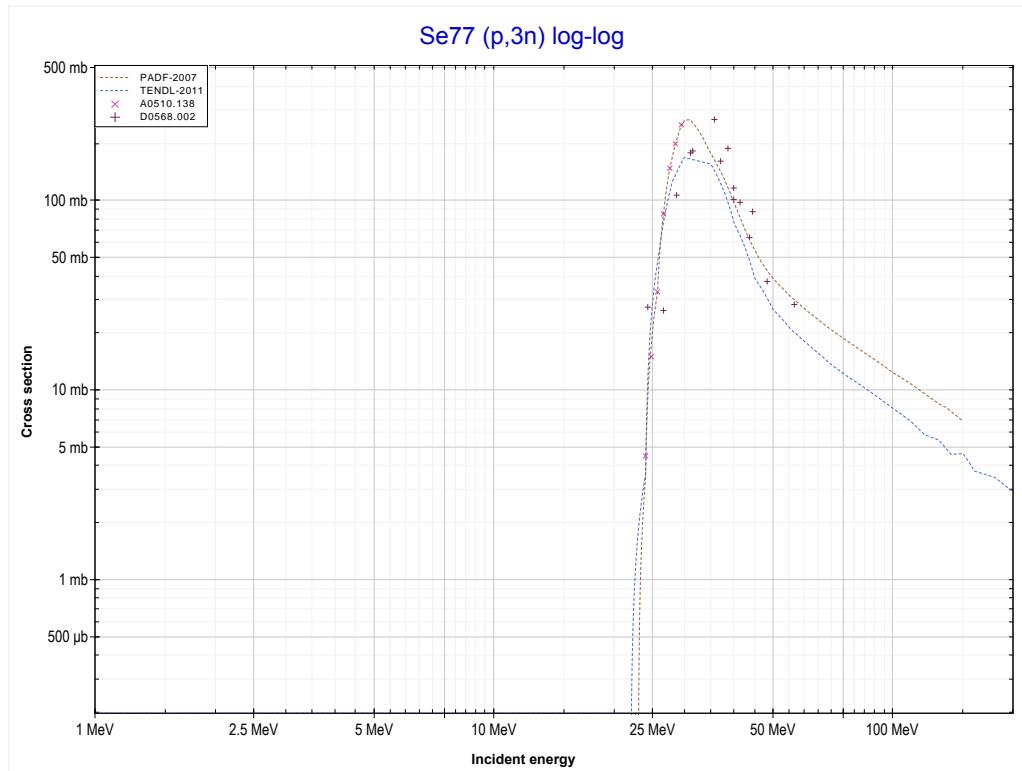
Reaction	Q-Value
Se77(p,n)Br77	-2146.95 keV

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



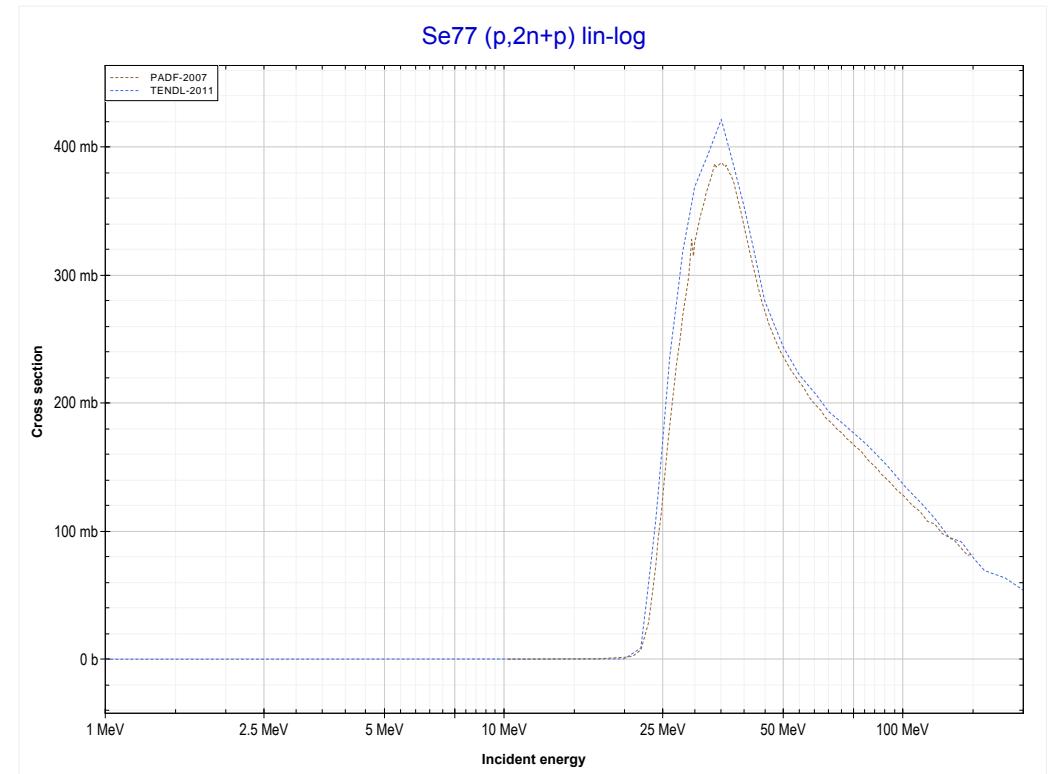
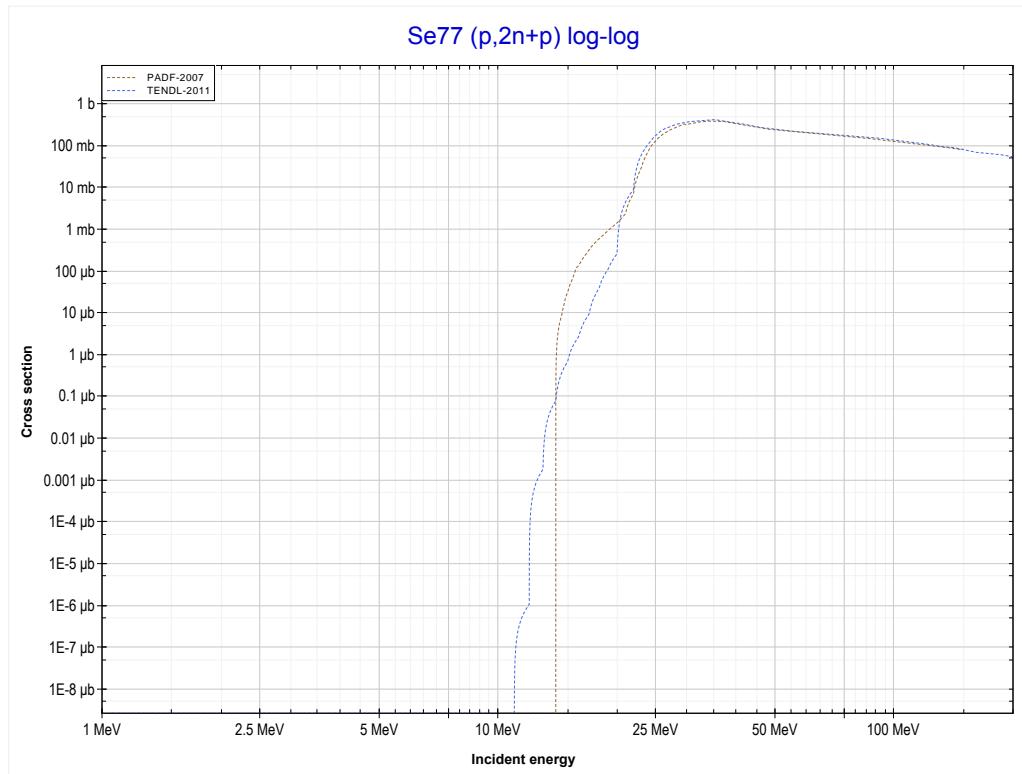
Reaction	Q-Value
$\text{Se}^{77}(p,2n)\text{Br}^{76}$	-13164.26 keV

<< 34-Se-76	34-Se-77 MT17 (p,3n) or MT5 (Br75 production)	34-Se-78 >>
<< MT16 (p,2n) >>		MT41 (p,2n+p) >>



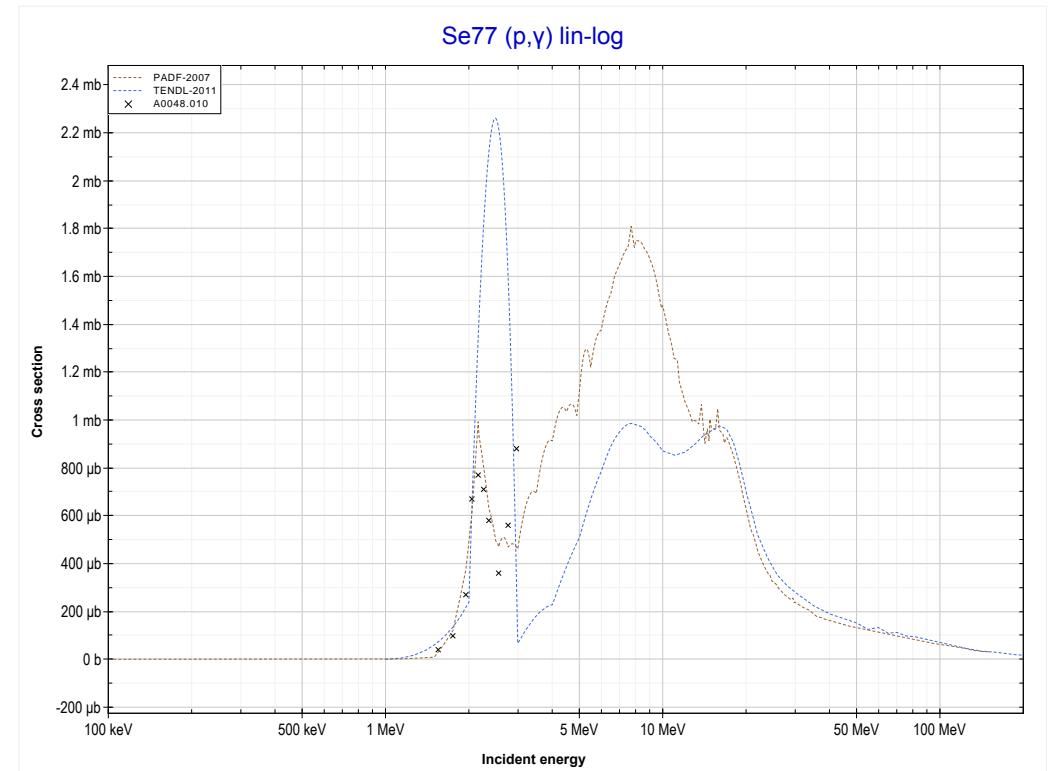
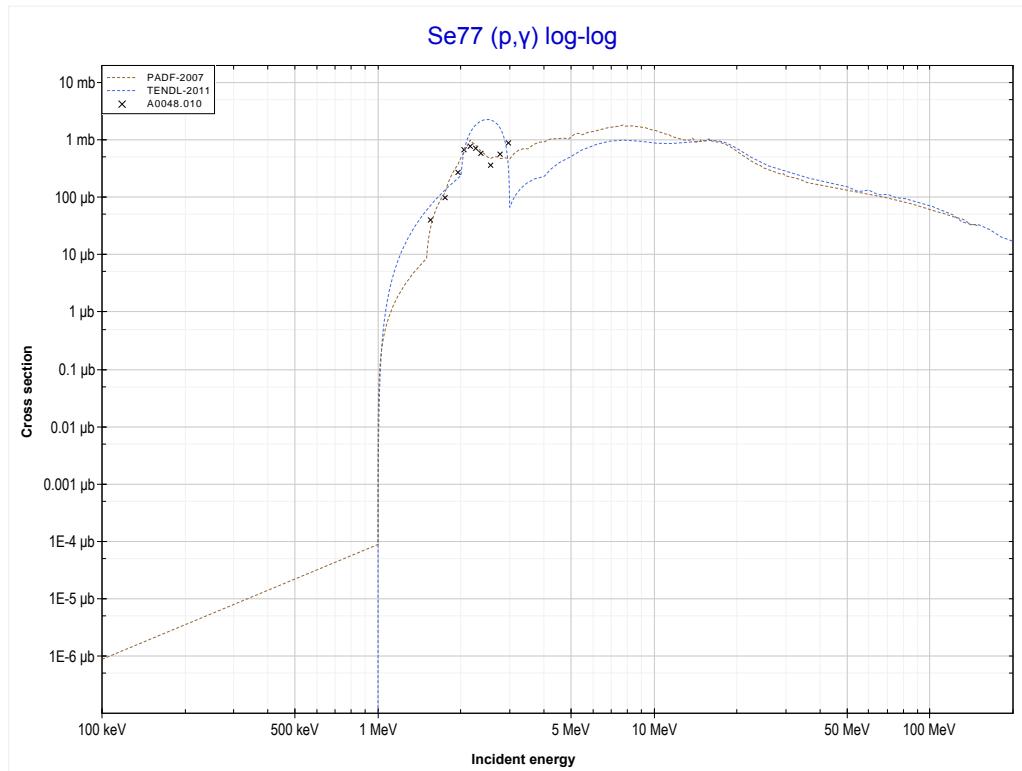
Reaction	Q-Value
Se77(p,3n)Br75	-22385.58 keV

<< 34-Se-74	34-Se-77 MT41 (p,2n+p) or MT5 (Se75 production)	>> 35-Br-79
<< MT17 (p,3n)		MT102 (p,y) >>



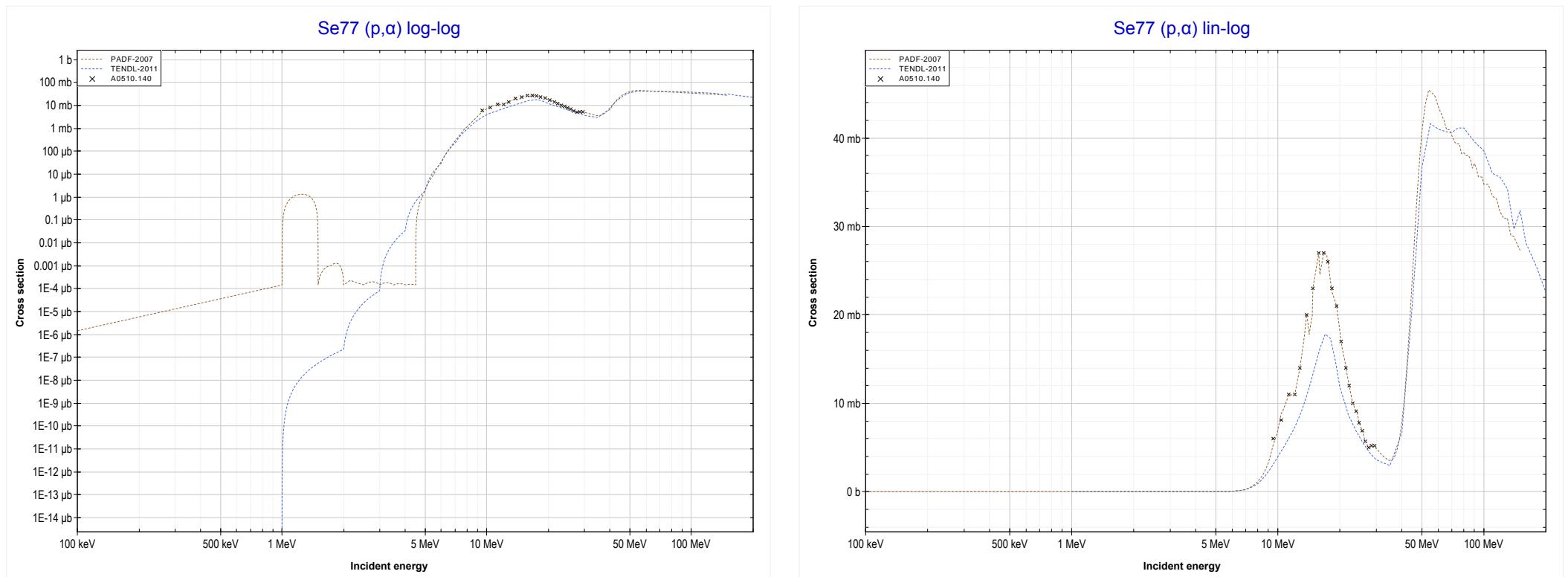
Reaction	Q-Value
Se77(p,t)Se75	-10091.44 keV
Se77(p,n+d)Se75	-16348.67 keV
Se77(p,2n+p)Se75	-18573.23 keV

<< 34-Se-74	34-Se-77 MT102 (p,γ) or MT5 (Br78 production)	34-Se-82 >>
<< MT41 ($p,2n+p$)		MT107 (p,α) >>



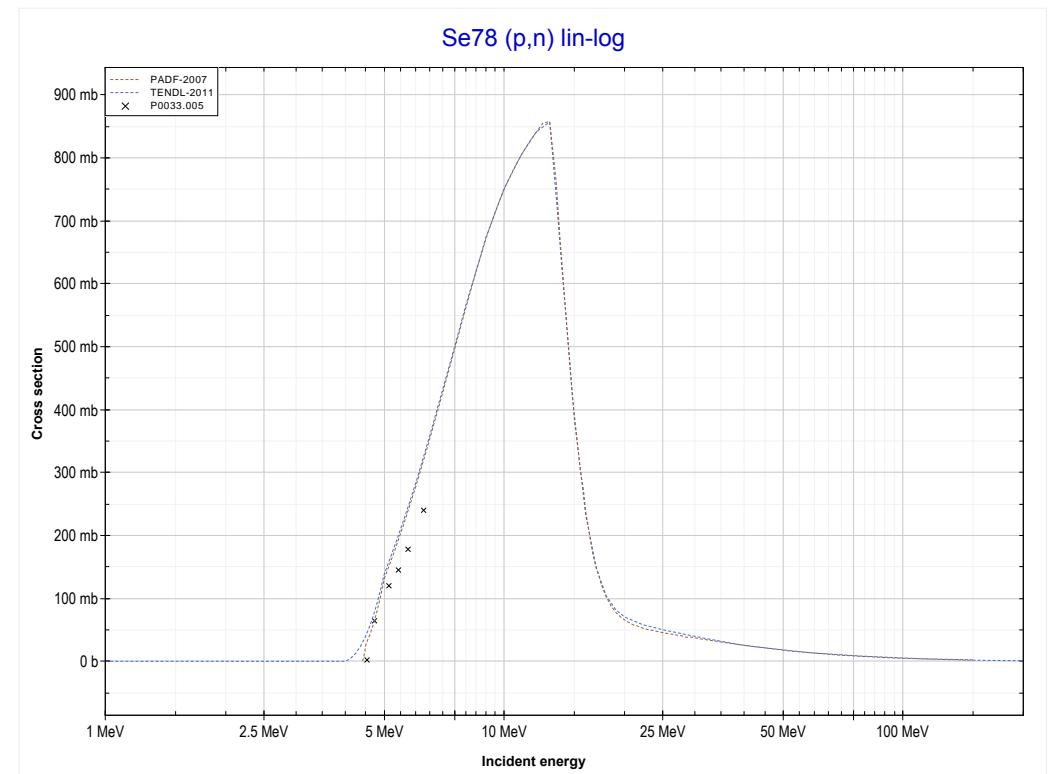
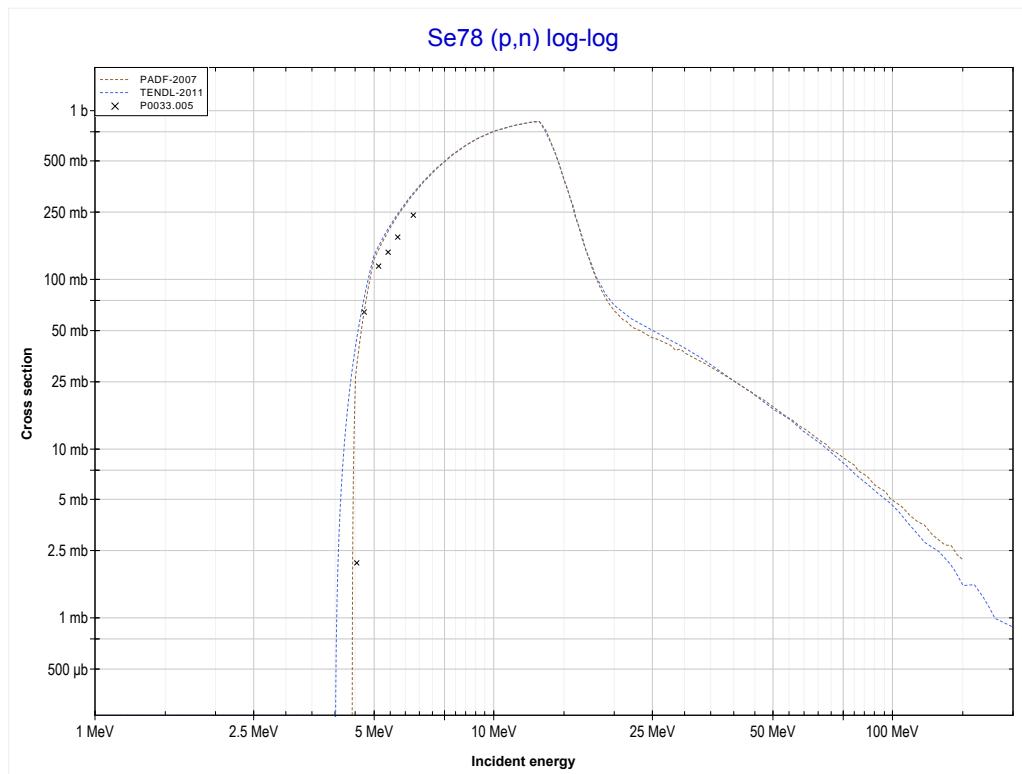
Reaction	Q-Value
$\text{Se}^{77}(\text{p},\gamma)\text{Br}^{78}$	6141.37 keV

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



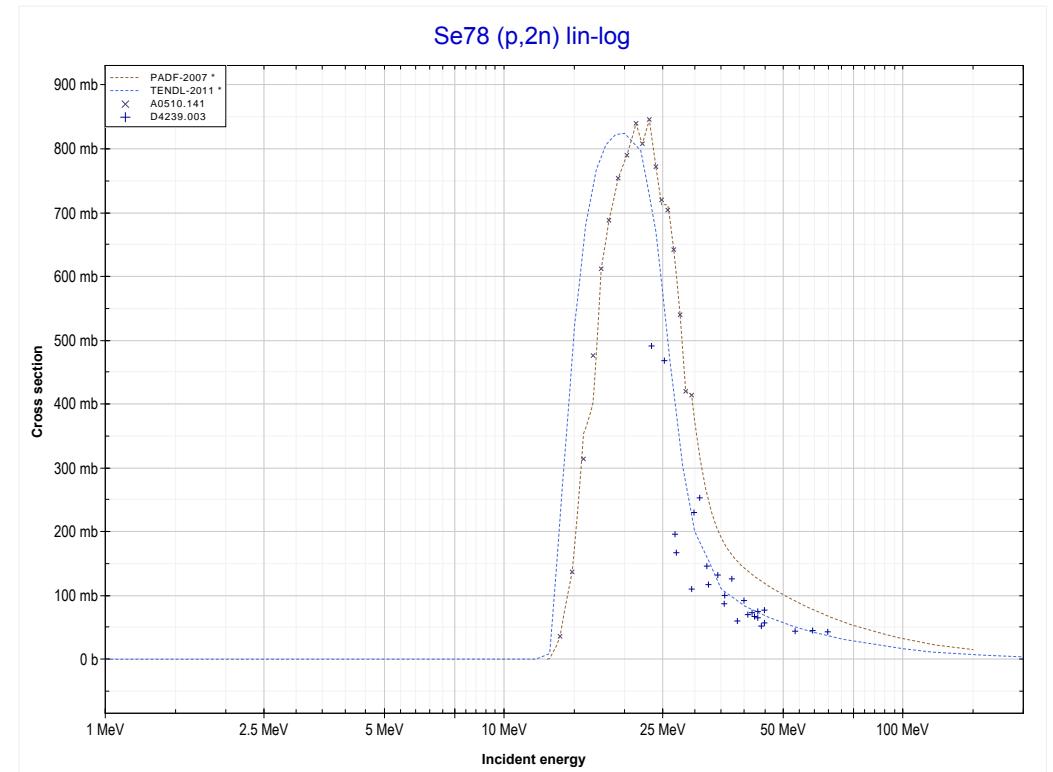
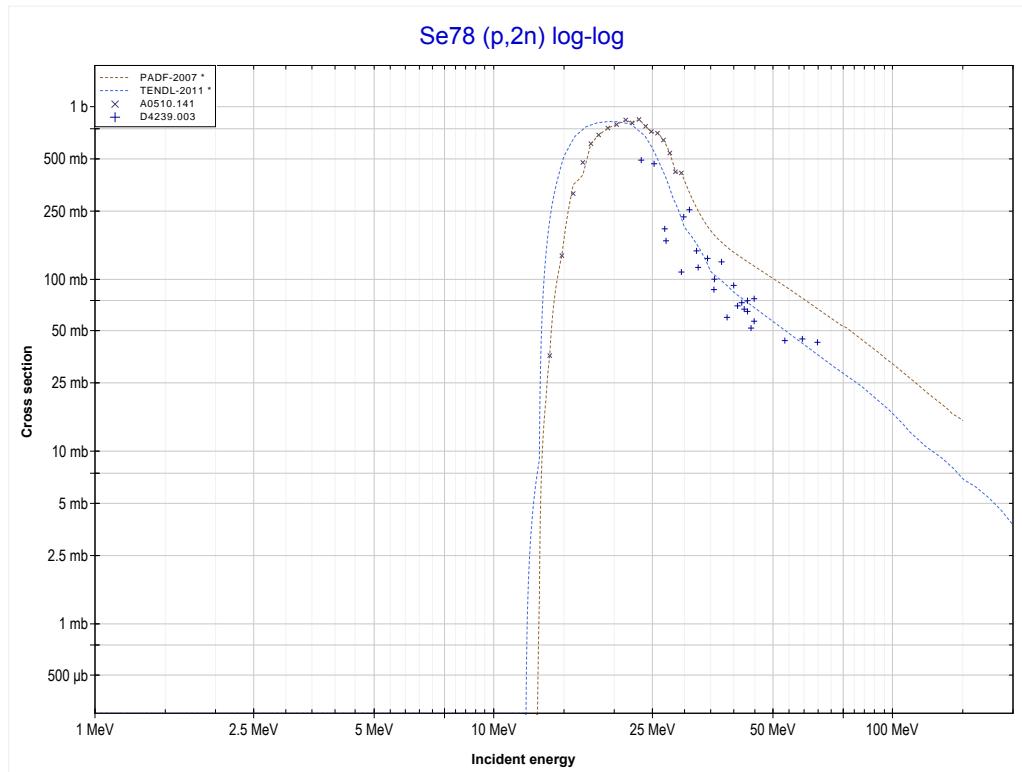
Reaction	Q-Value
Se77(p,α)As74	1124.45 keV
Se77($p,p+t$)As74	-18689.41 keV
Se77($p,n+He3$)As74	-19453.16 keV
Se77($p,2d$)As74	-22722.07 keV
Se77($p,n+p+d$)As74	-24946.64 keV
Se77($p,2n+2p$)As74	-27171.20 keV

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



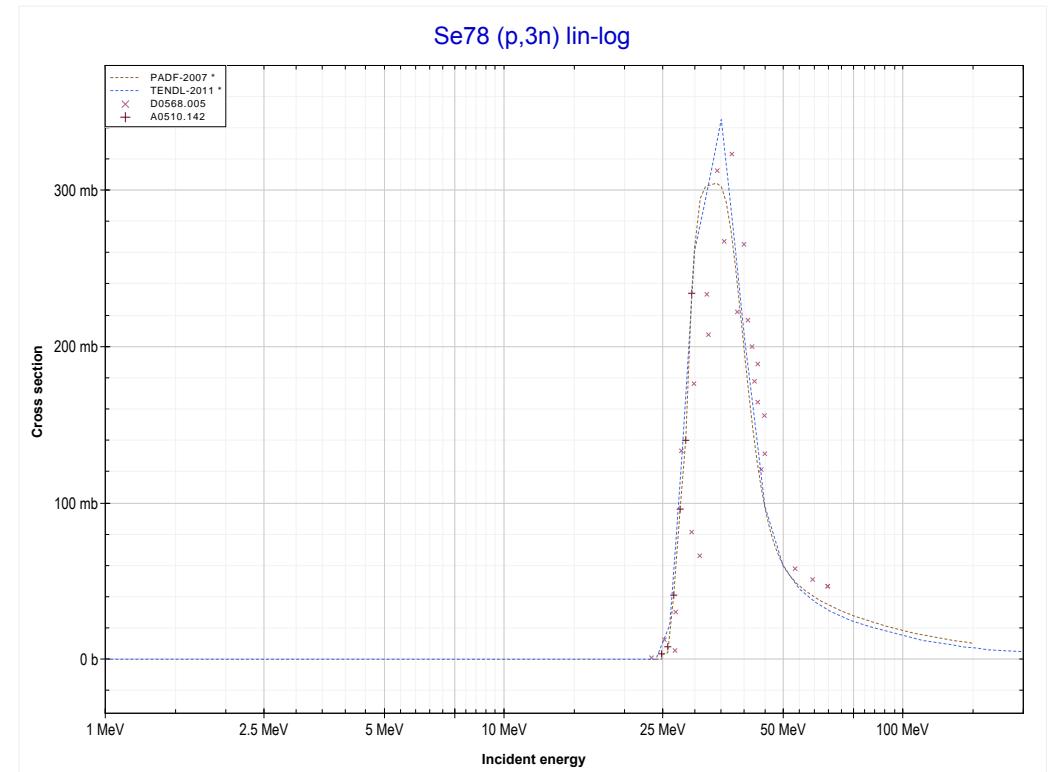
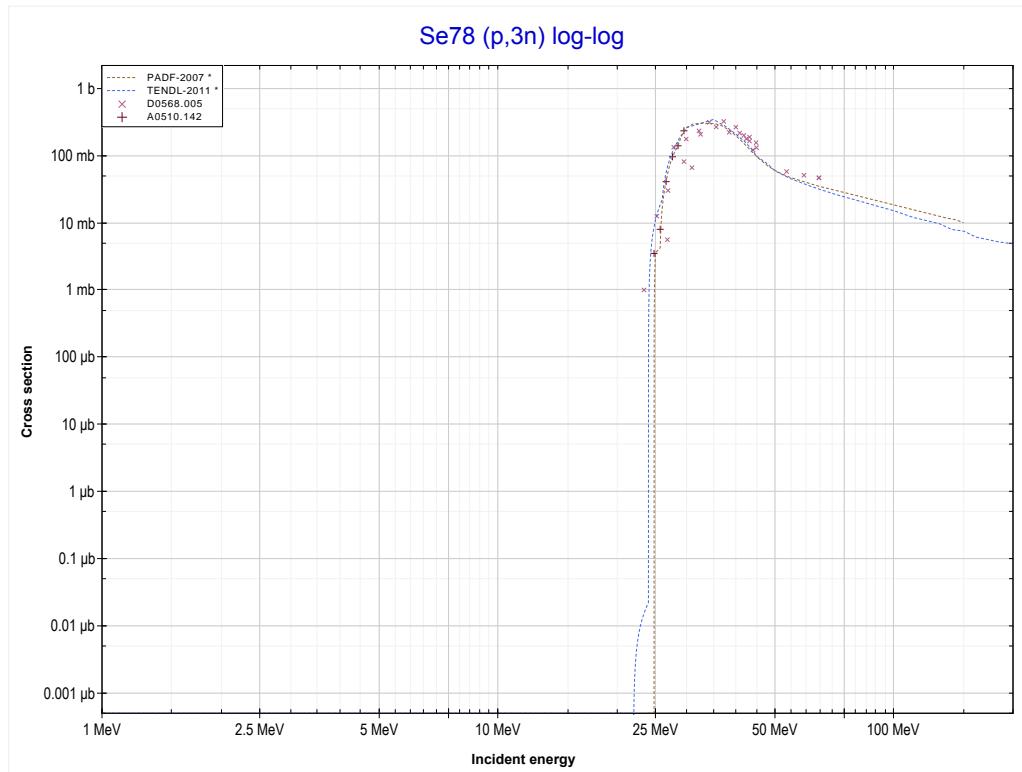
Reaction	Q-Value
$\text{Se}^{78}(\text{p},\text{n})\text{Br}^{78}$	-4356.45 keV

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



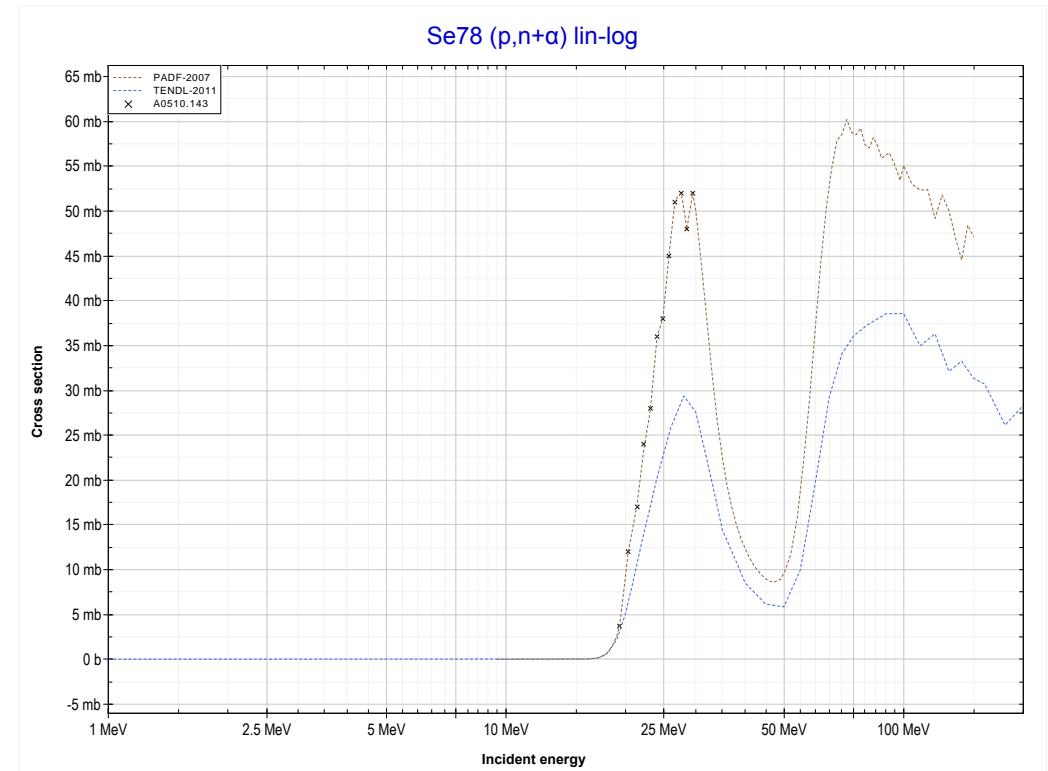
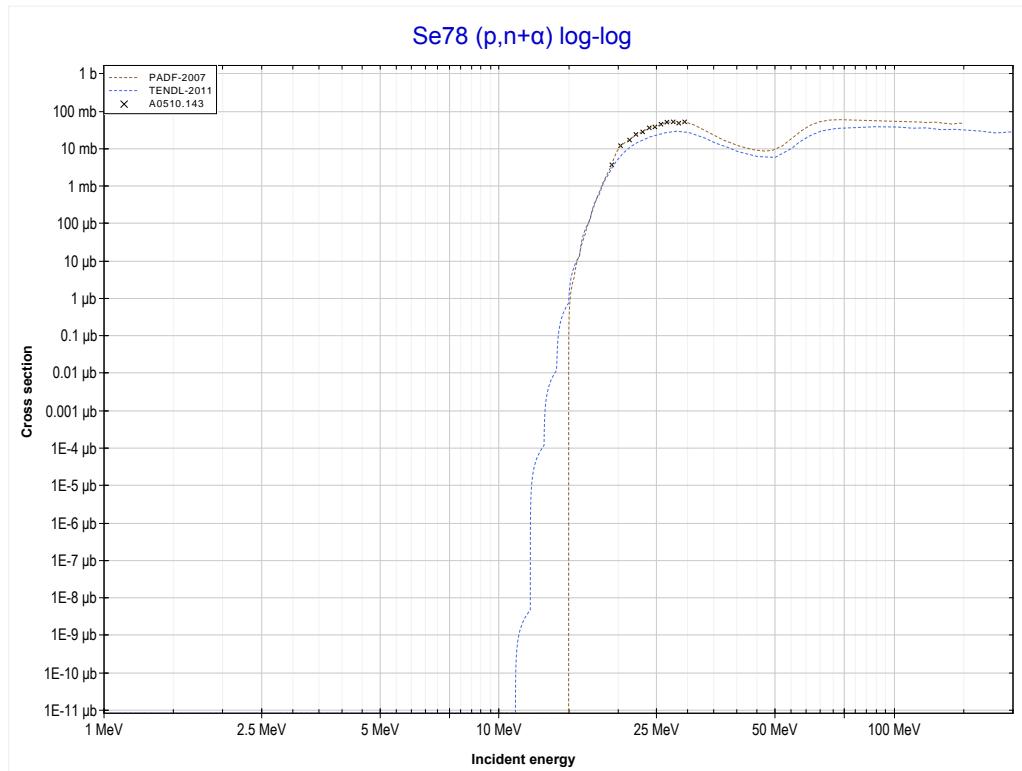
Reaction	Q-Value
$\text{Se}^{78}(p,2n)\text{Br}^{77}$	-12644.76 keV

<< 34-Se-77	34-Se-78 MT17 (p,3n) or MT5 (Br76 production)	>> 35-Br-79
<< MT16 (p,2n)		MT22 (p,n+α) >>



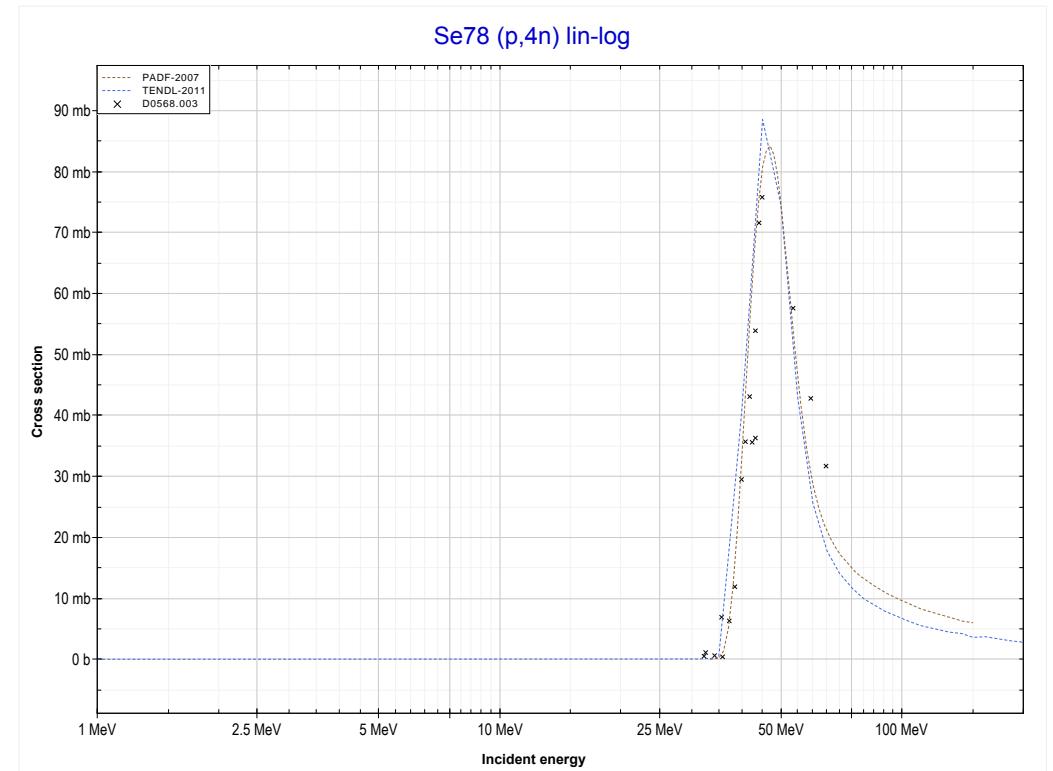
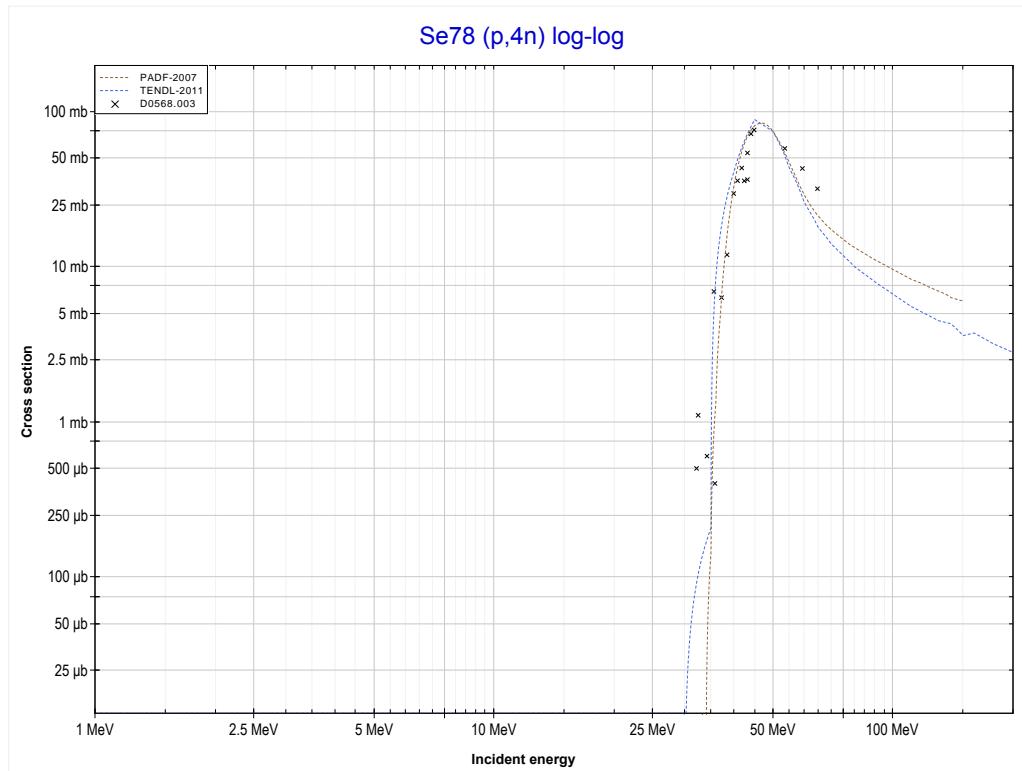
Reaction	Q-Value
$\text{Se}^{78}(p,3n)\text{Br}^{76}$	-23662.08 keV

<< 34-Se-76	34-Se-78 MT22 (p,n+α) or MT5 (As74 production)	34-Se-80 >>
<< MT17 (p,3n)		MT37 (p,4n) >>



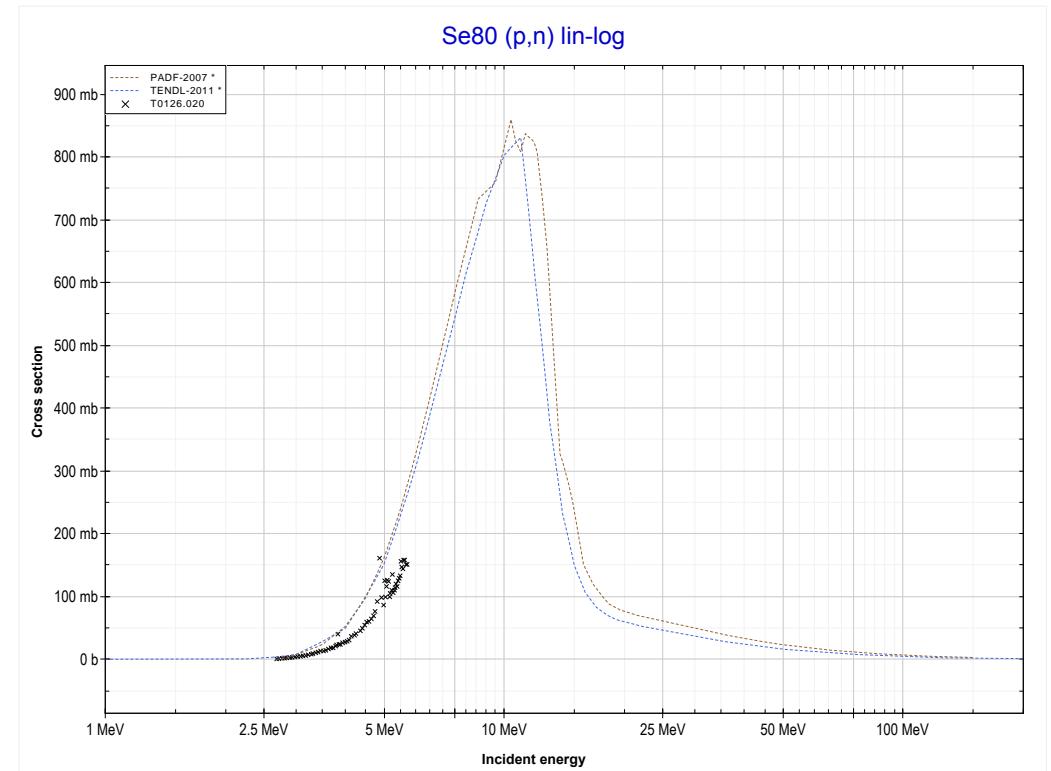
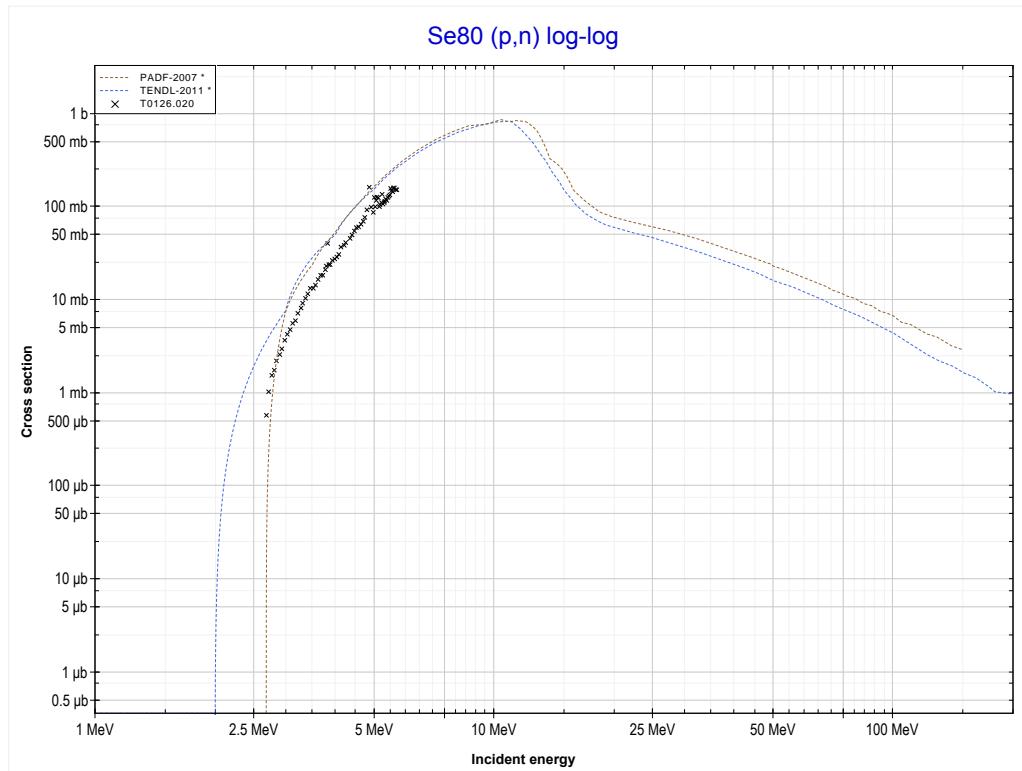
Reaction	Q-Value
$\text{Se}^{78}(\text{p},\text{n}+\alpha)\text{As}^{74}$	-9373.36 keV
$\text{Se}^{78}(\text{p},\text{d}+\text{t})\text{As}^{74}$	-26962.66 keV
$\text{Se}^{78}(\text{p},\text{n}+\text{p}+\text{t})\text{As}^{74}$	-29187.22 keV
$\text{Se}^{78}(\text{p},2\text{n}+\text{He}^3)\text{As}^{74}$	-29950.98 keV
$\text{Se}^{78}(\text{p},\text{n}+2\text{d})\text{As}^{74}$	-33219.89 keV
$\text{Se}^{78}(\text{p},2\text{n}+\text{p}+\text{d})\text{As}^{74}$	-35444.46 keV
$\text{Se}^{78}(\text{p},3\text{n}+2\text{p})\text{As}^{74}$	-37669.02 keV

<< 33-As-75	34-Se-78 MT37 (p,4n) or MT5 (Br75 production)	34-Se-80 >>
<< MT22 (p,n+α)		MT4 (p,n) >>



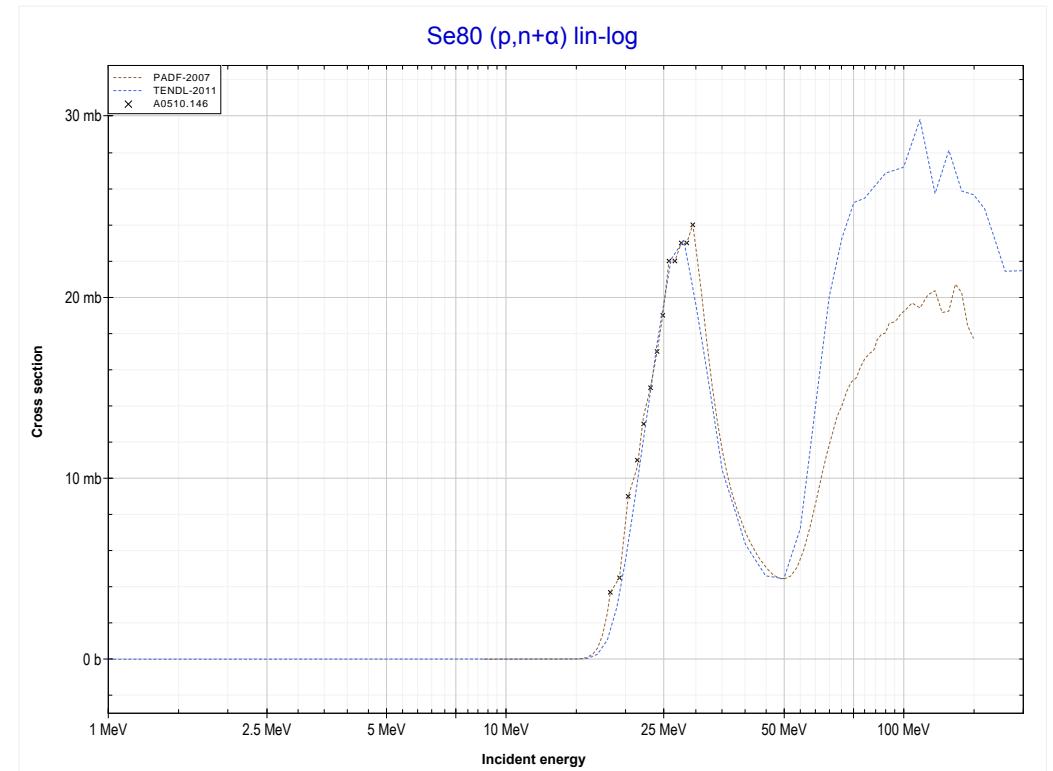
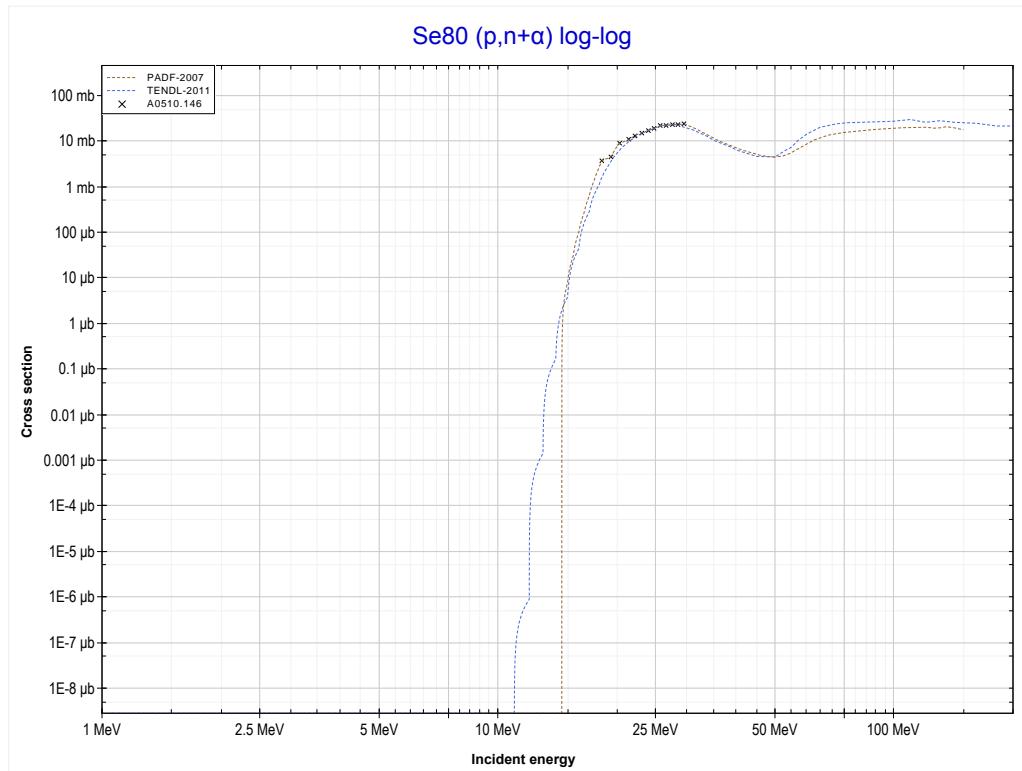
Reaction	Q-Value
Se78(p,4n)Br75	-32883.40 keV

<< 34-Se-78	34-Se-80 MT4 (p,n) or MT5 (Br80 production)	34-Se-82 >>
<< MT37 (p,4n)		MT22 (p,n+α) >>



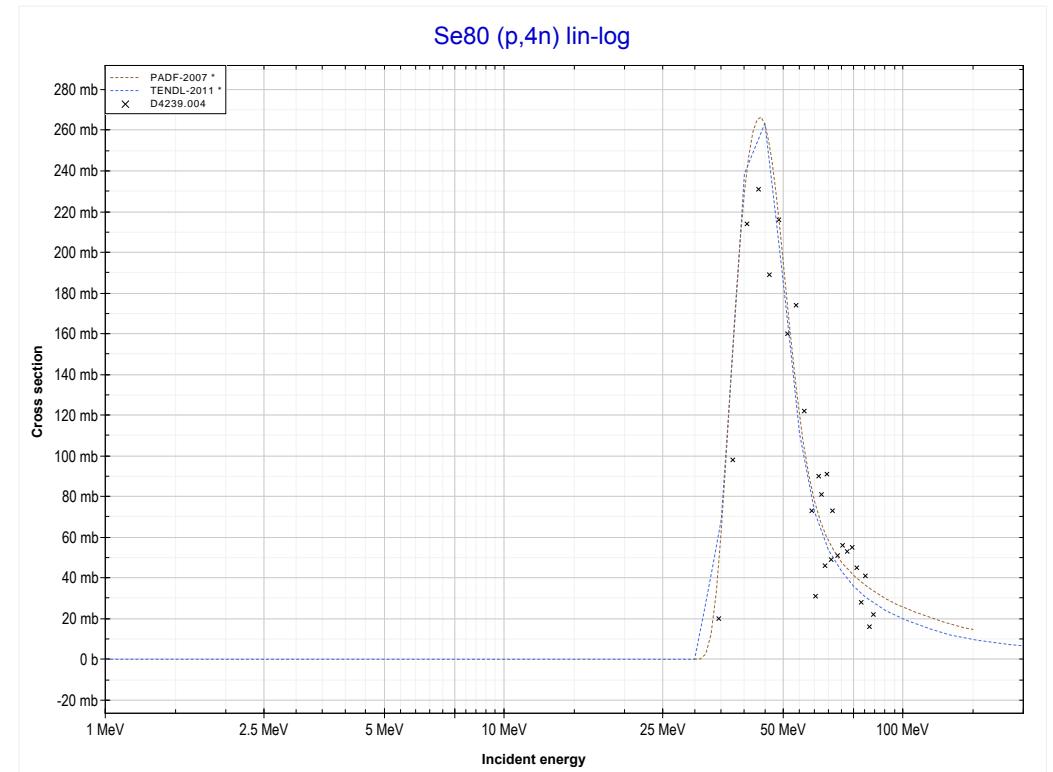
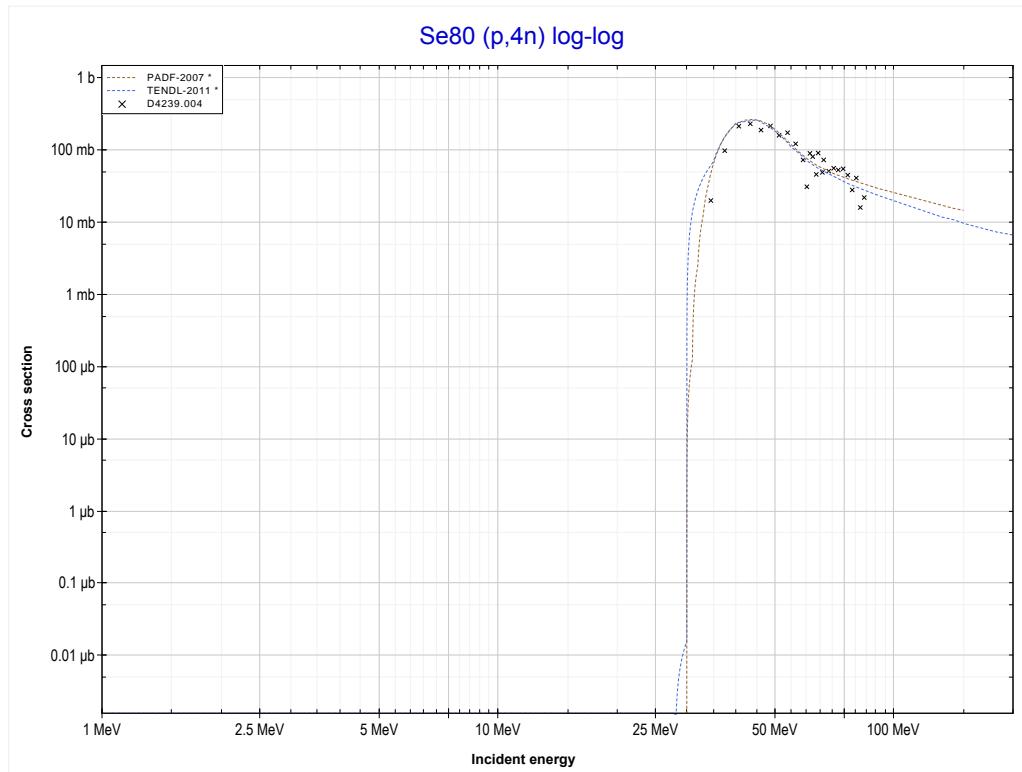
Reaction	Q-Value
$\text{Se}^{80}(\text{p},\text{n})\text{Br}^{80}$	-2652.75 keV

<< 34-Se-78	34-Se-80 MT22 (p,n+α) or MT5 (As76 production)	34-Se-82 >>
<< MT4 (p,n)		MT37 (p,4n) >>



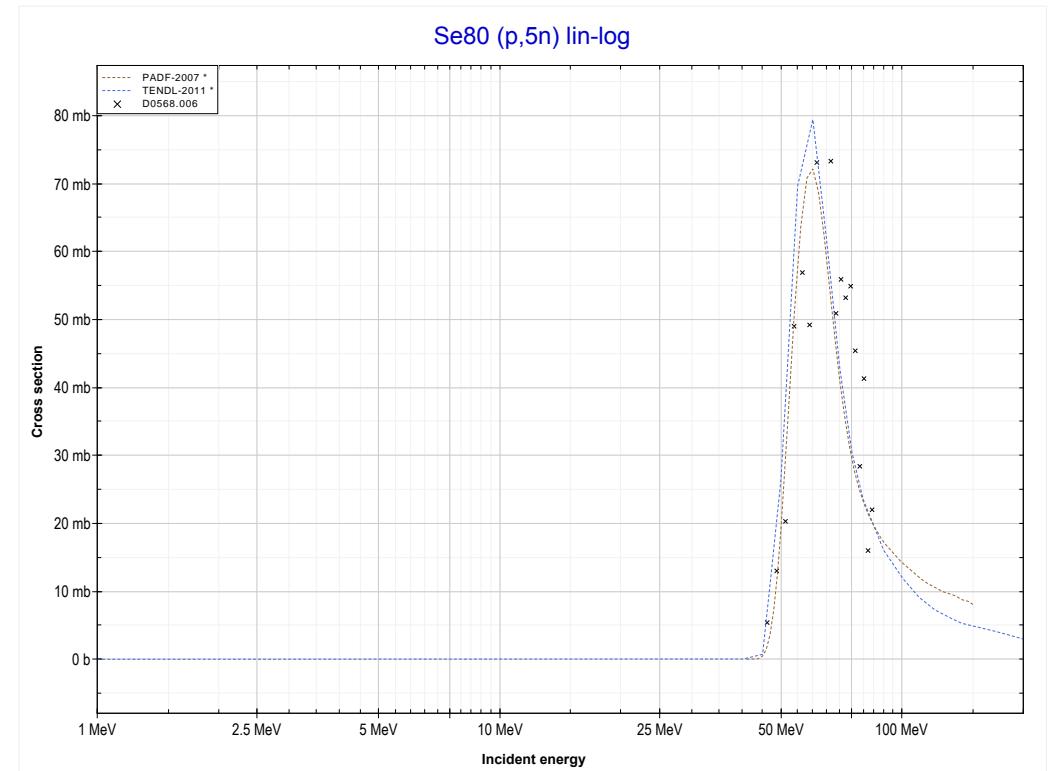
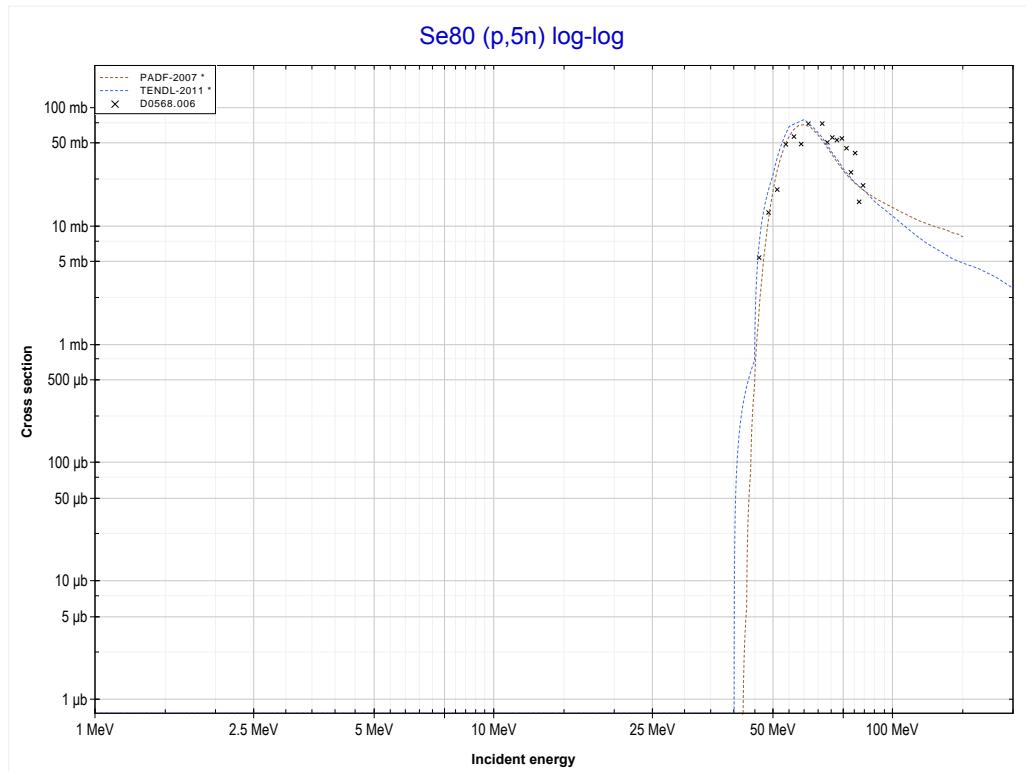
Reaction	Q-Value
$\text{Se}^{80}(\text{p},\text{n}+\alpha)\text{As}^{76}$	-8677.66 keV
$\text{Se}^{80}(\text{p},\text{d}+\text{t})\text{As}^{76}$	-26266.96 keV
$\text{Se}^{80}(\text{p},\text{n}+\text{p}+\text{t})\text{As}^{76}$	-28491.52 keV
$\text{Se}^{80}(\text{p},2\text{n}+\text{He}^3)\text{As}^{76}$	-29255.28 keV
$\text{Se}^{80}(\text{p},\text{n}+2\text{d})\text{As}^{76}$	-32524.19 keV
$\text{Se}^{80}(\text{p},2\text{n}+\text{p}+\text{d})\text{As}^{76}$	-34748.76 keV
$\text{Se}^{80}(\text{p},3\text{n}+2\text{p})\text{As}^{76}$	-36973.32 keV

<< 34-Se-78	34-Se-80 MT37 (p,4n) or MT5 (Br77 production)	35-Br-79 >>
<< MT22 (p,n+α)		MT152 (p,5n) >>



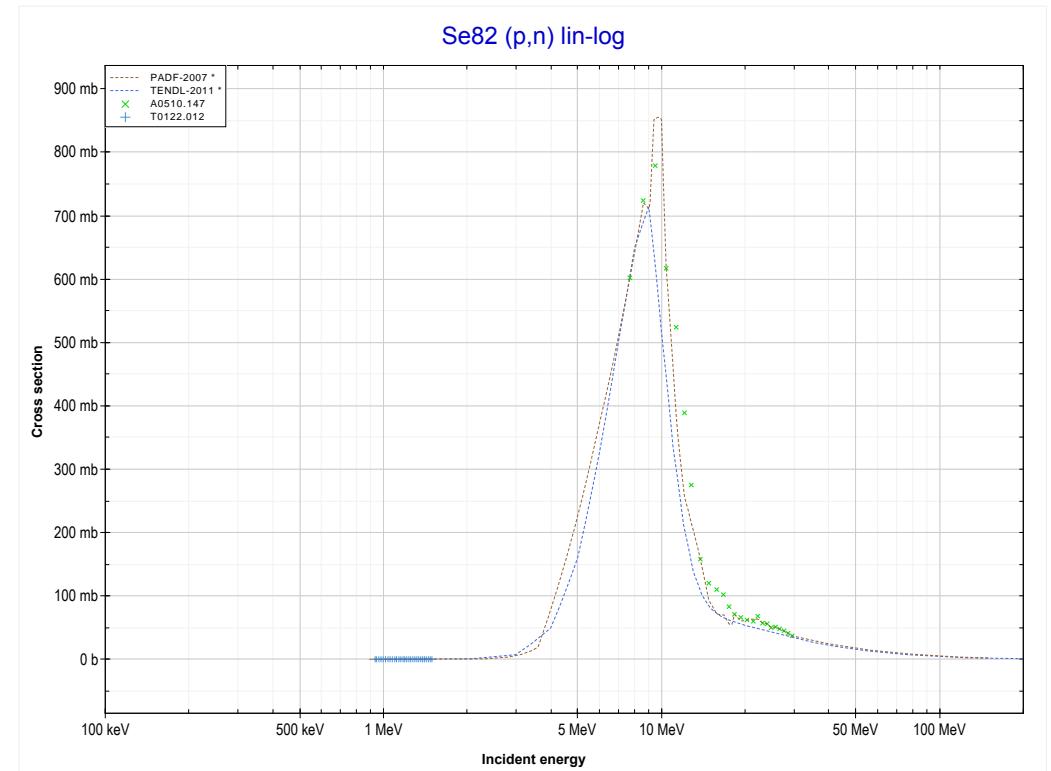
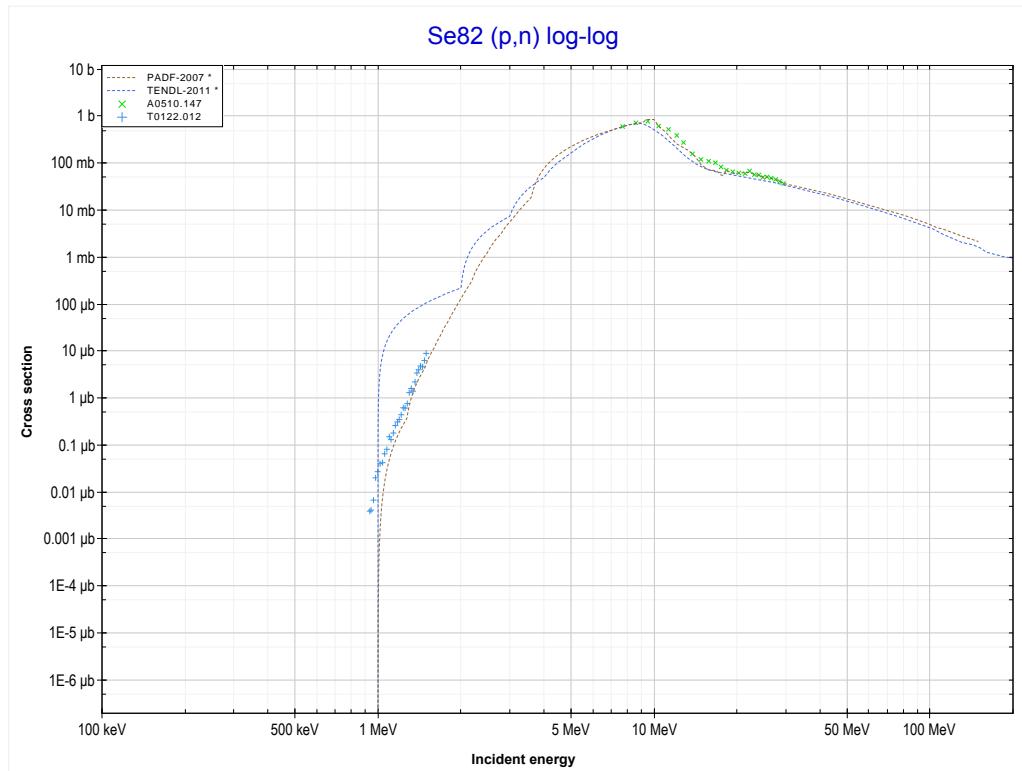
Reaction	Q-Value
$\text{Se}^{80}(\text{p},\text{4n})\text{Br}^{77}$	-29521.20 keV

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



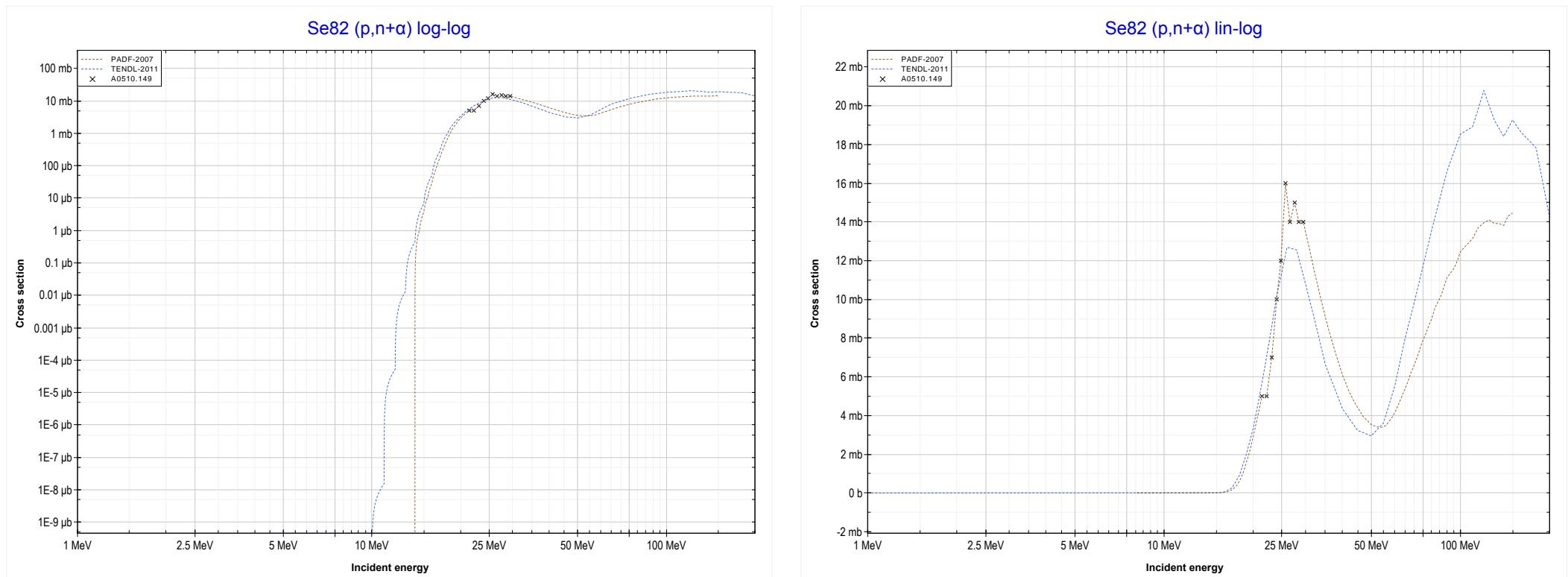
Reaction	Q-Value
$\text{Se}^{80}(\text{p},5\text{n})\text{Br}^{76}$	-40538.52 keV

<< 34-Se-80	34-Se-82 MT4 (p,n) or MT5 (Br82 production)	>> 35-Br-79
<< MT152 (p,5n)		>> MT22 (p,n+α) >>



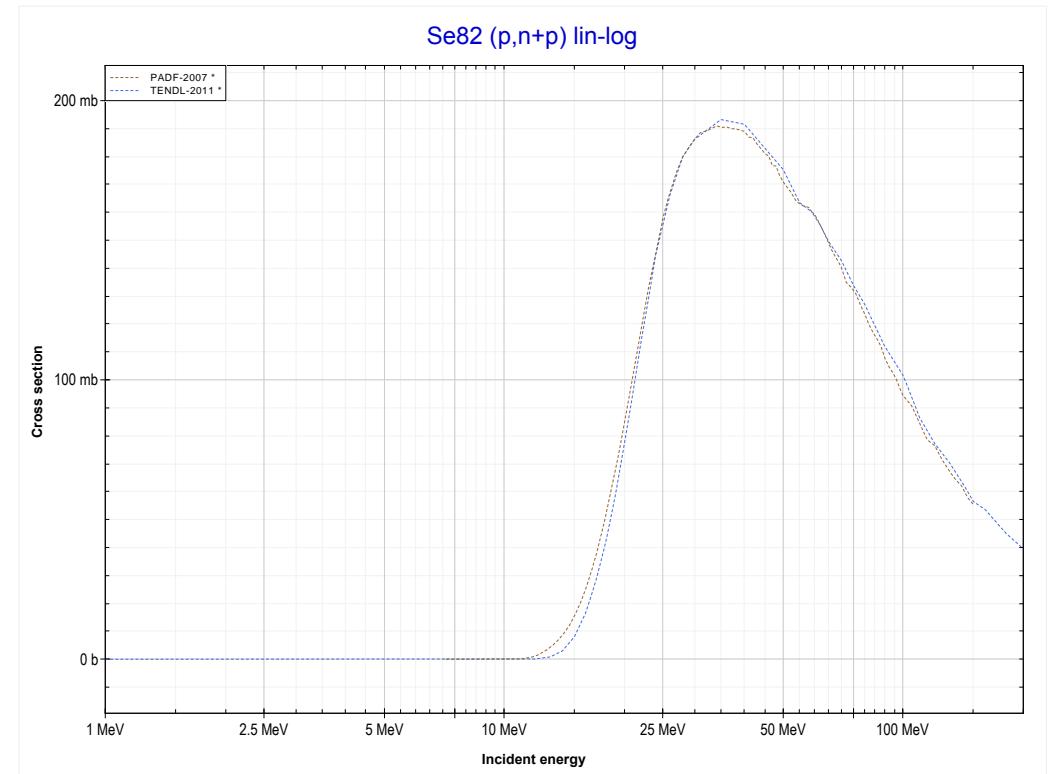
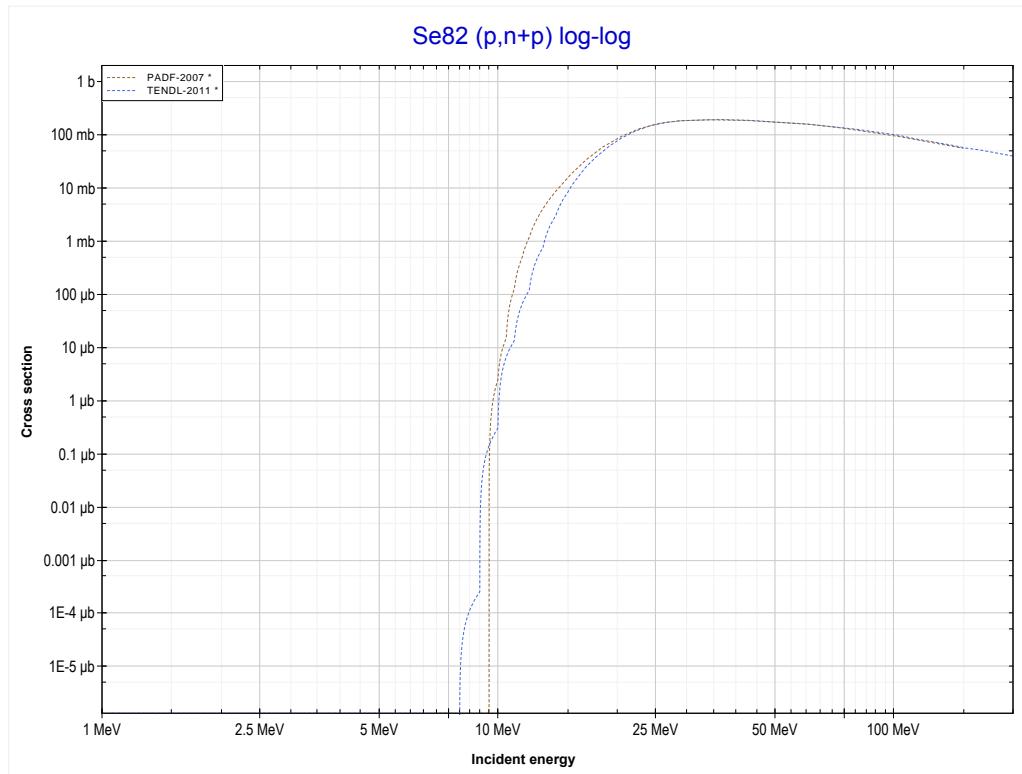
Reaction	Q-Value
Se82(p,n)Br82	-879.85 keV

<< 34-Se-80	34-Se-82 MT22 (p,n+α) or MT5 (As78 production)	>> 35-Br-79
<< MT4 (p,n)		>> MT28 (p,n+p) >>



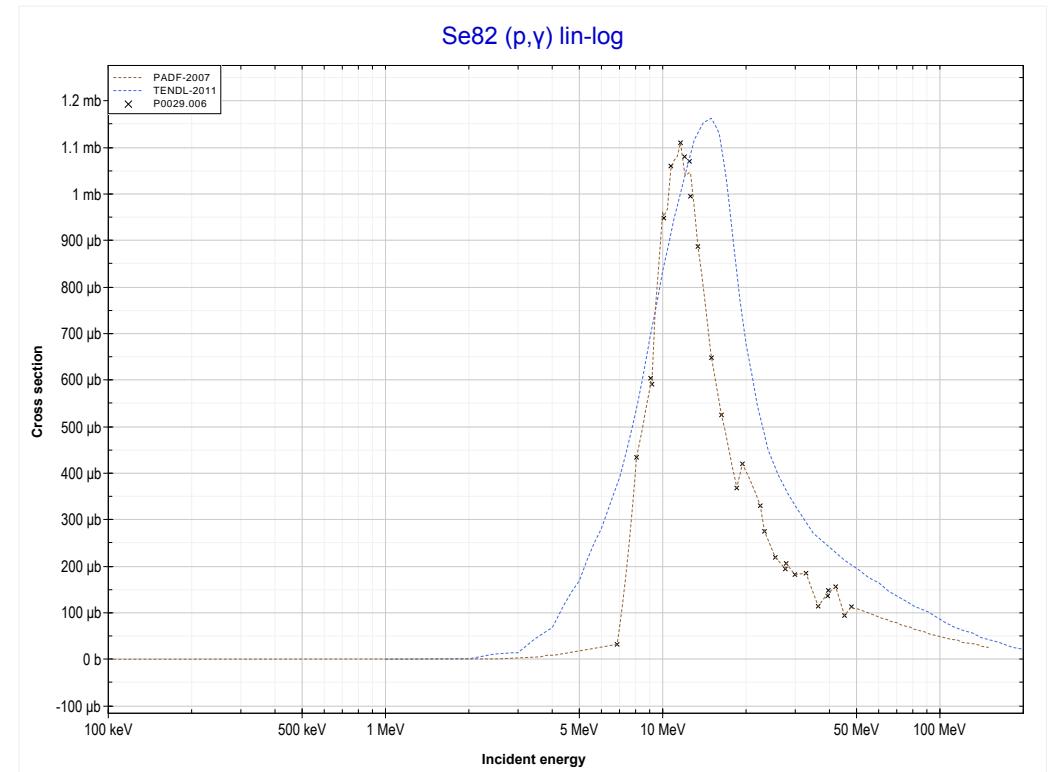
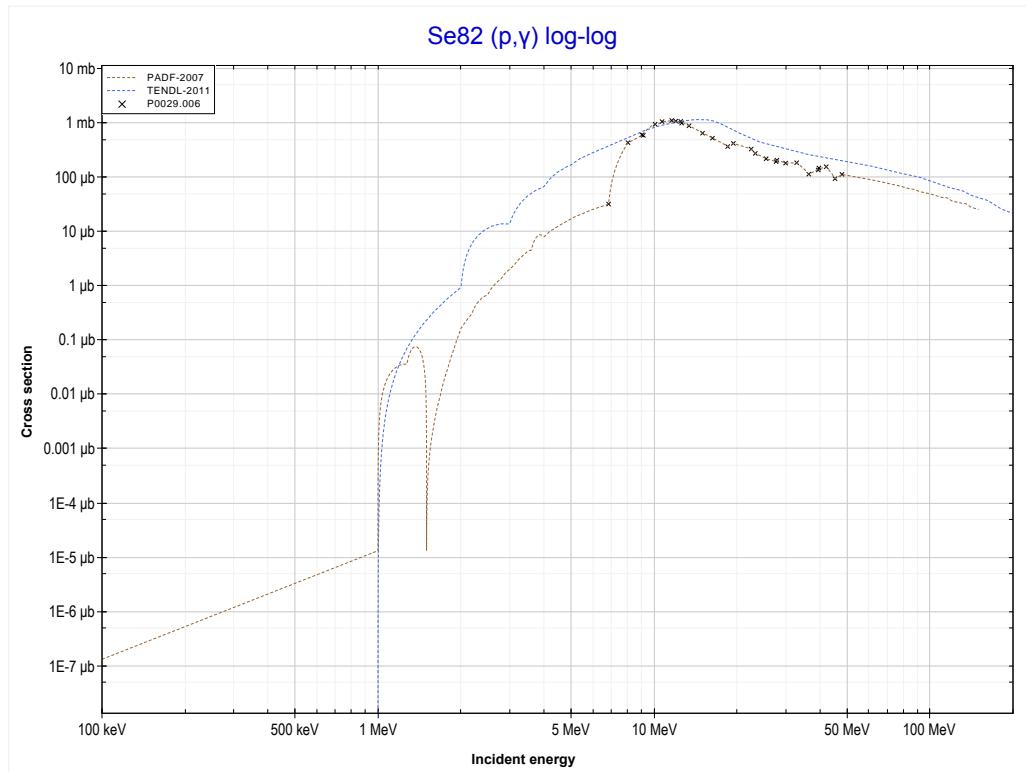
Reaction	Q-Value
Se82(p,n+α)As78	-7984.26 keV
Se82(p,d+t)As78	-25573.56 keV
Se82(p,n+p+t)As78	-27798.12 keV
Se82(p,2n+He3)As78	-28561.88 keV
Se82(p,n+2d)As78	-31830.79 keV
Se82(p,2n+p+d)As78	-34055.36 keV
Se82(p,3n+2p)As78	-36279.92 keV

<< 34-Se-76	34-Se-82 MT28 (p,n+p) or MT5 (Se81 production)	>> 35-Br-79
<< MT22 (p,n+α)		MT102 (p,γ) >>



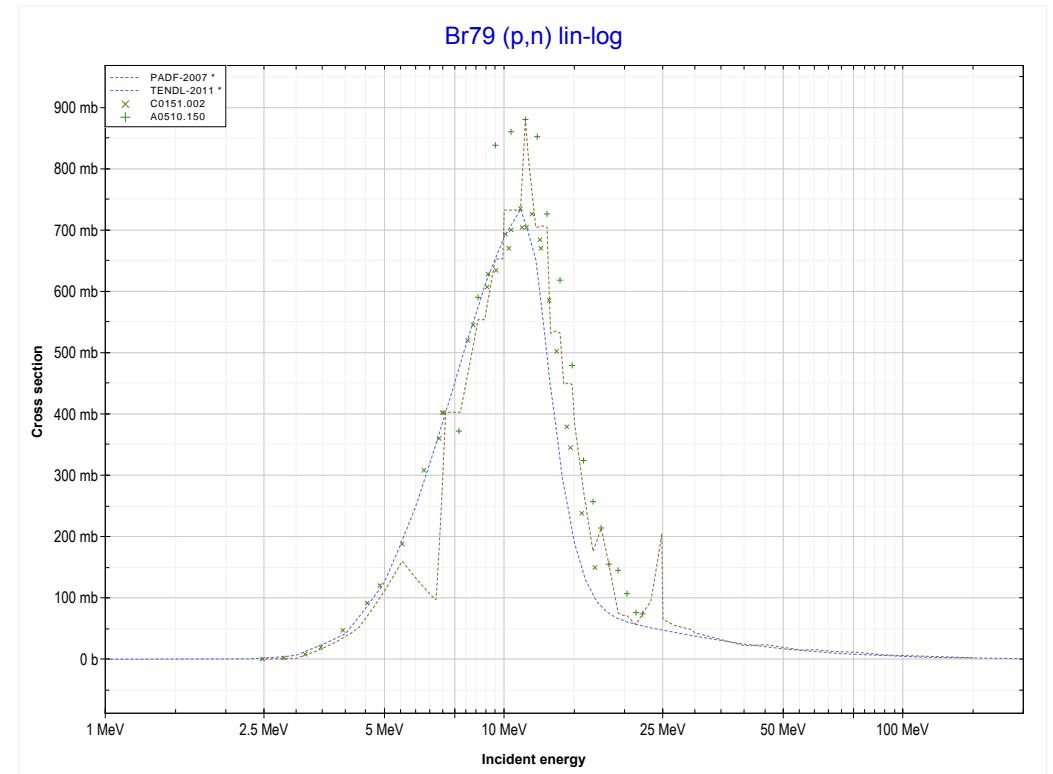
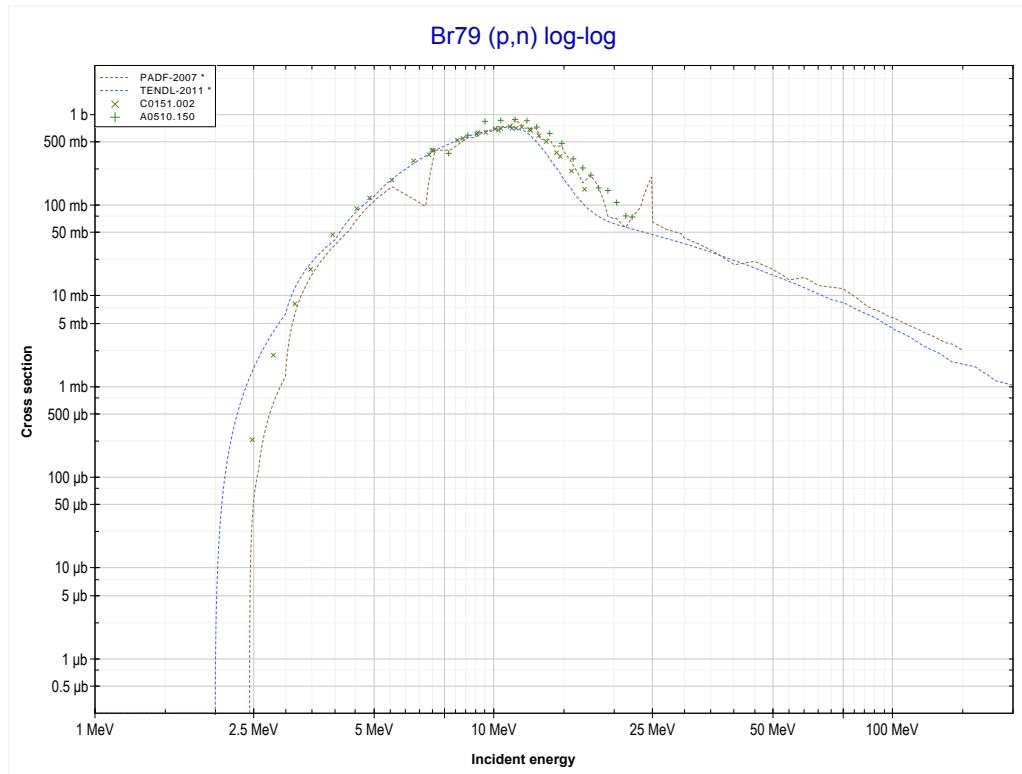
Reaction	Q-Value
$\text{Se}^{82}(\text{p},\text{d})\text{Se}^{81}$	-7051.25 keV
$\text{Se}^{82}(\text{p},\text{n}+\text{p})\text{Se}^{81}$	-9275.82 keV

<< 34-Se-77	34-Se-82 MT102 (p,γ) or MT5 (Br83 production)	>> 38-Sr-84
<< MT28 ($p,n+p$)		MT4 (p,n) >>



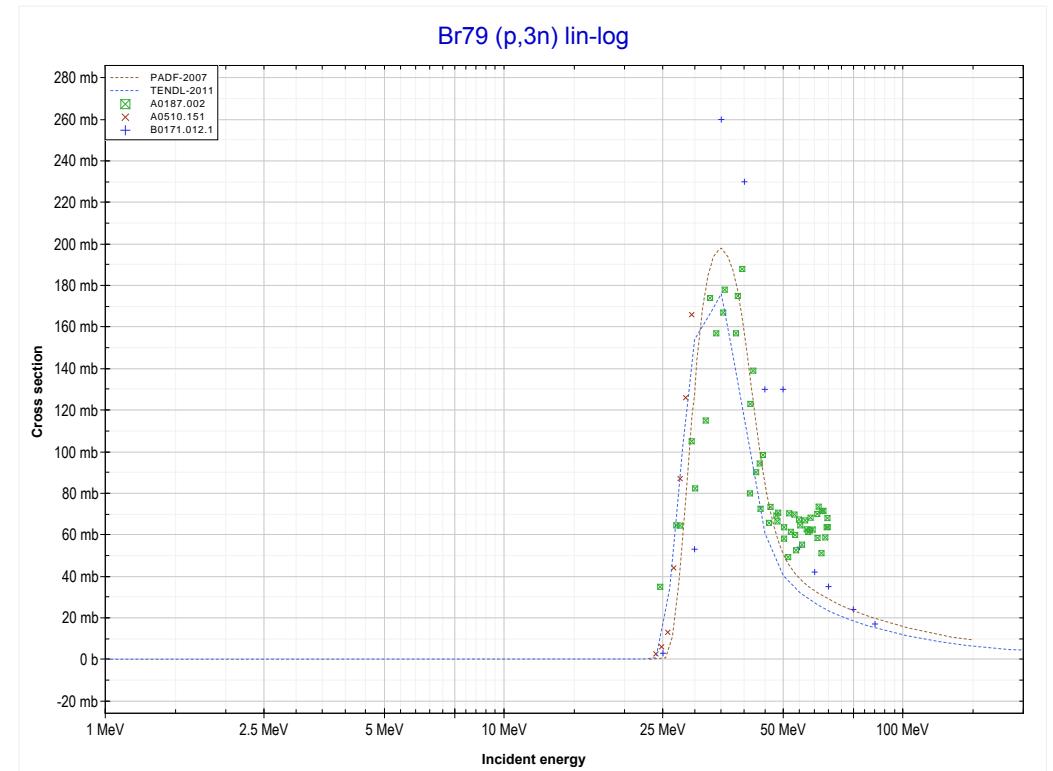
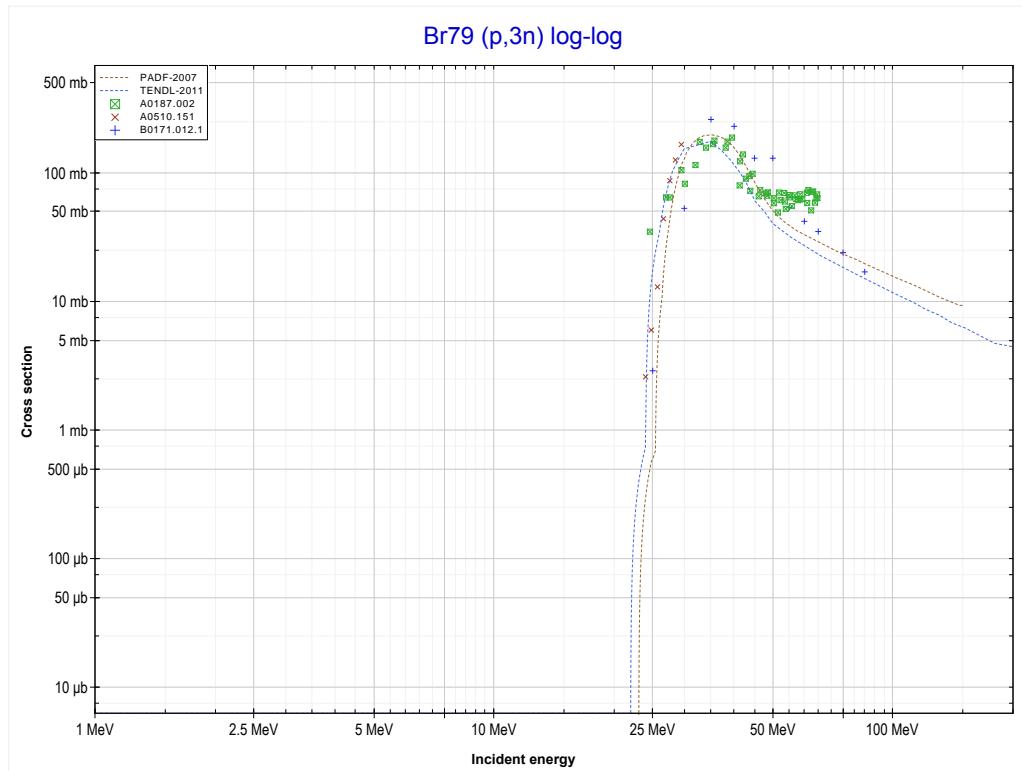
Reaction	Q-Value
$\text{Se}^{82}(\text{p},\gamma)\text{Br}^{83}$	8703.97 keV

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



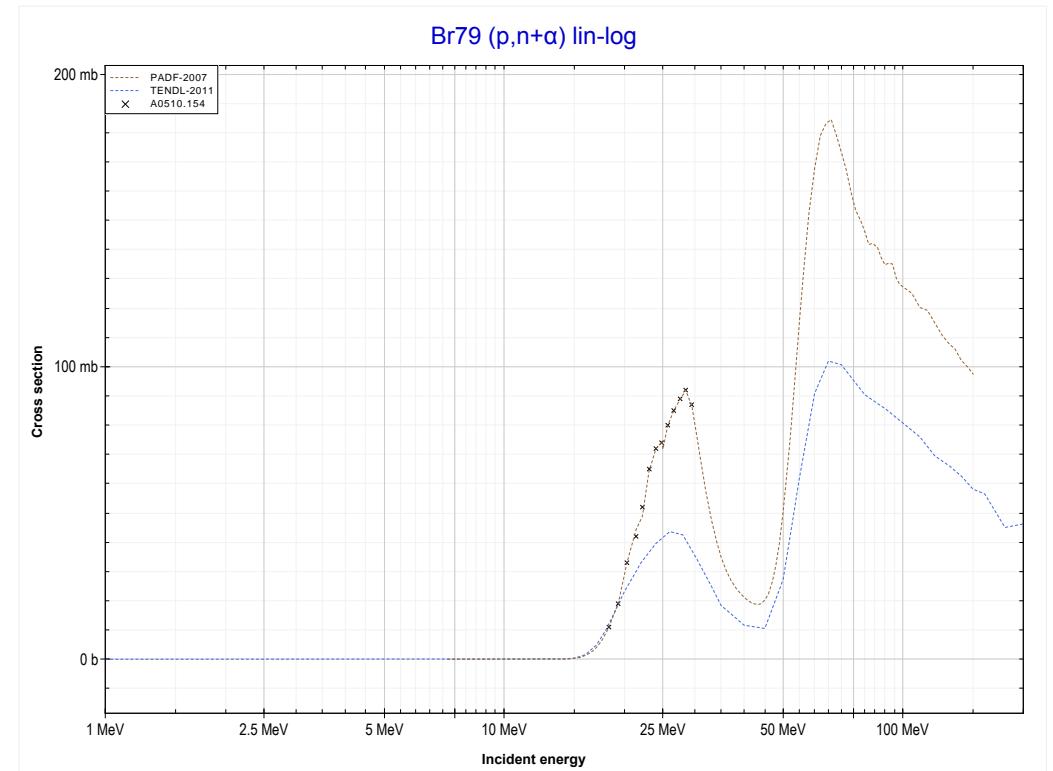
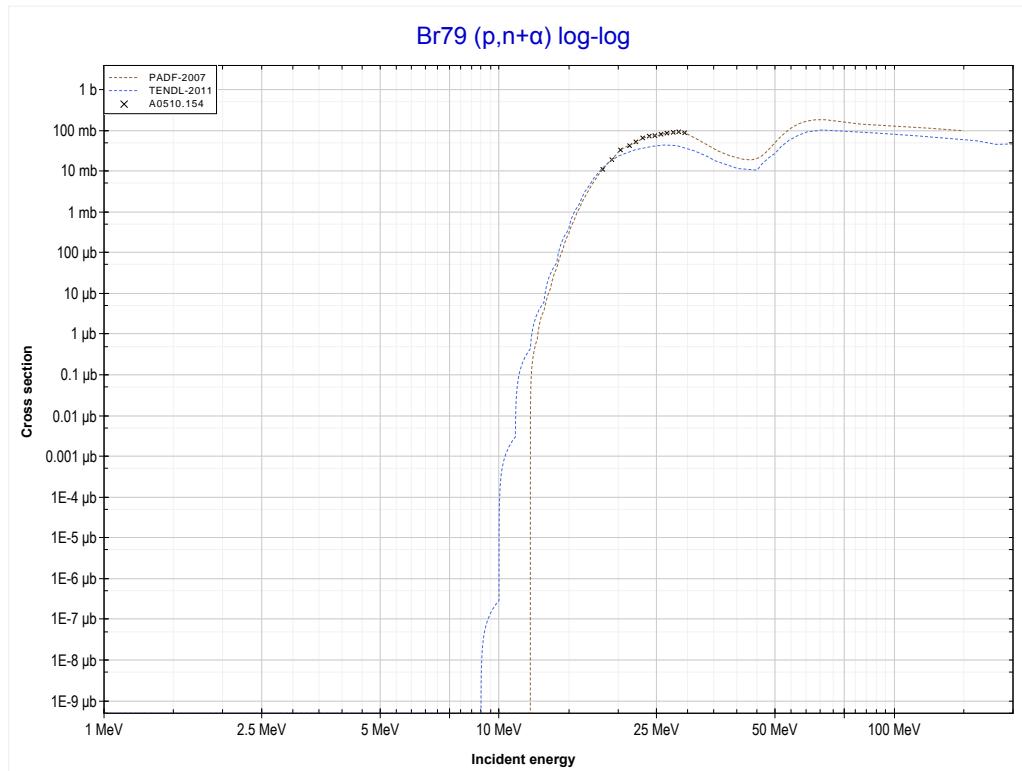
Reaction	Q-Value
Br79(p,n)Kr79	-2407.85 keV

<< 34-Se-78	35-Br-79 MT17 (p,3n) or MT5 (Kr77 production)	35-Br-81 >>
<< MT4 (p,n) >>		MT22 (p,n+α) >>



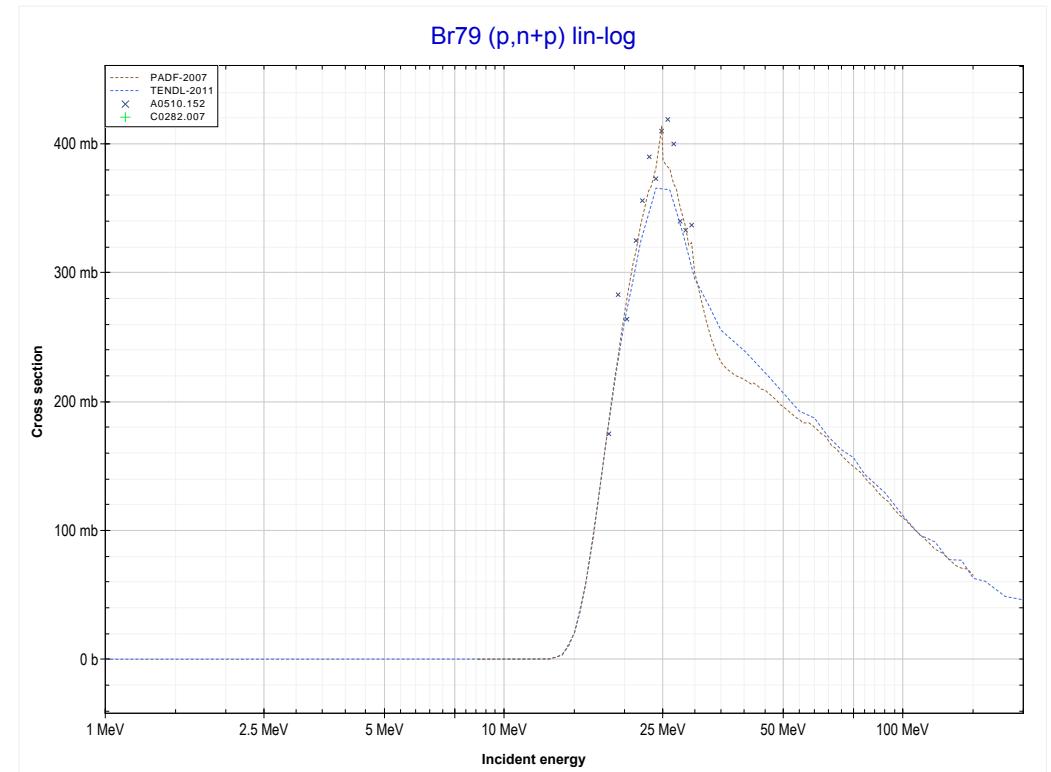
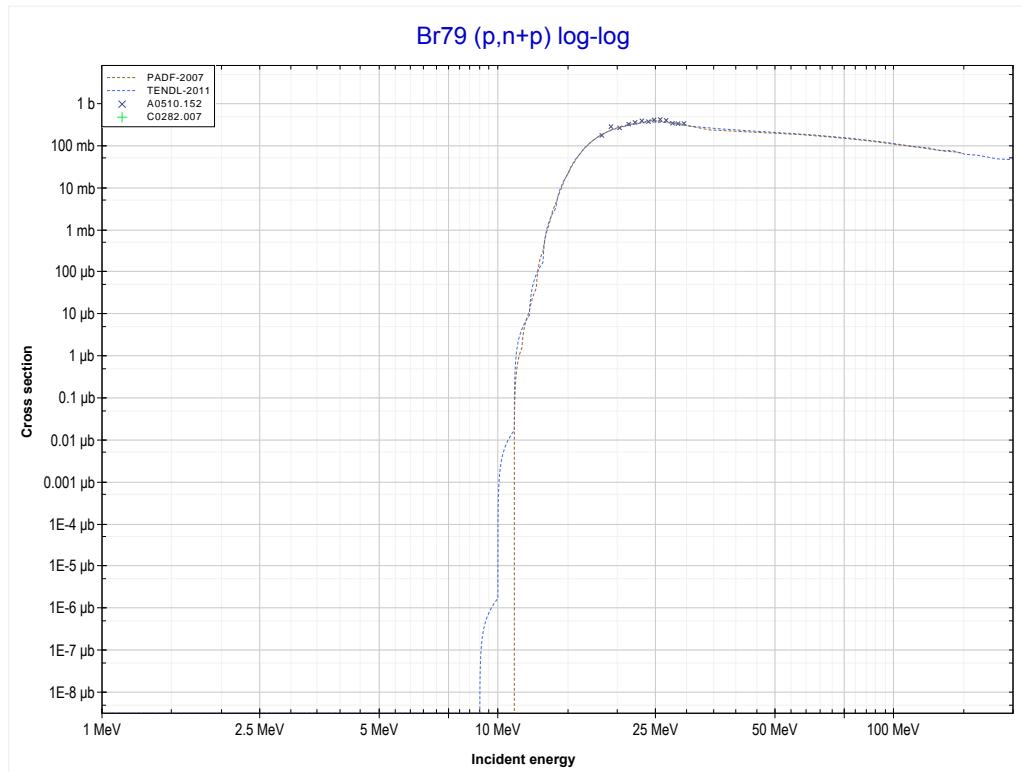
Reaction	Q-Value
$\text{Br}^{79}(p,3n)\text{Kr}^{77}$	-22824.08 keV

<< 34-Se-82	35-Br-79 MT22 (p,n+α) or MT5 (Se75 production)	36-Kr-80 >>
<< MT17 (p,3n)		MT28 (p,n+p) >>



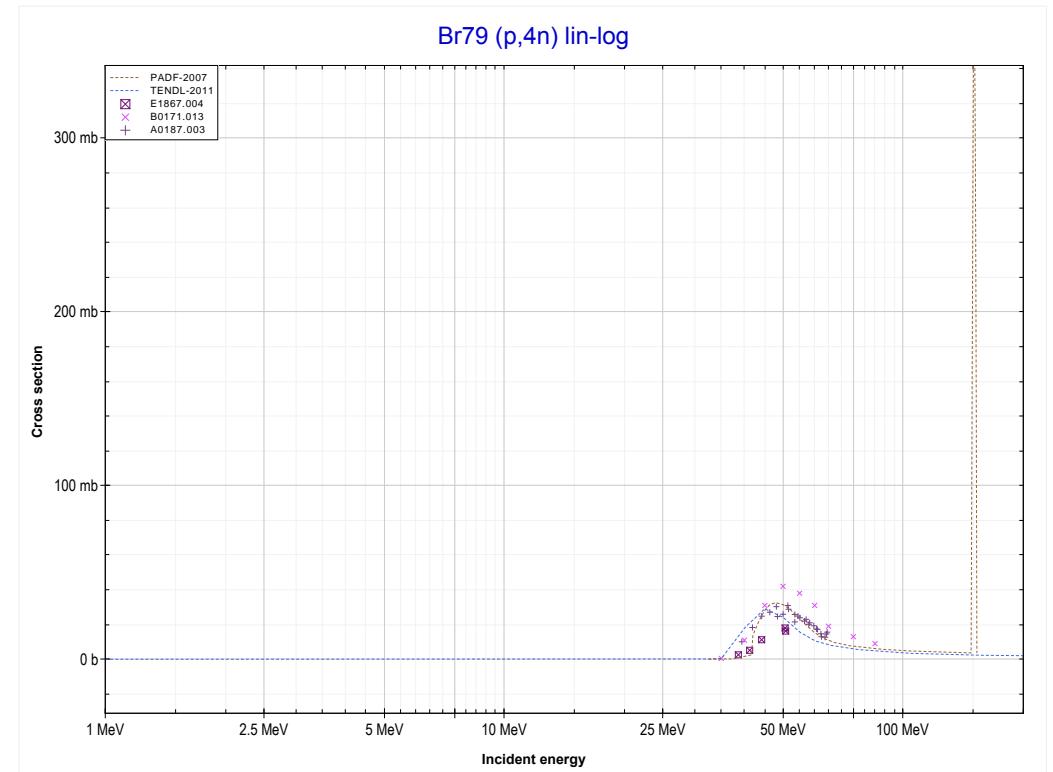
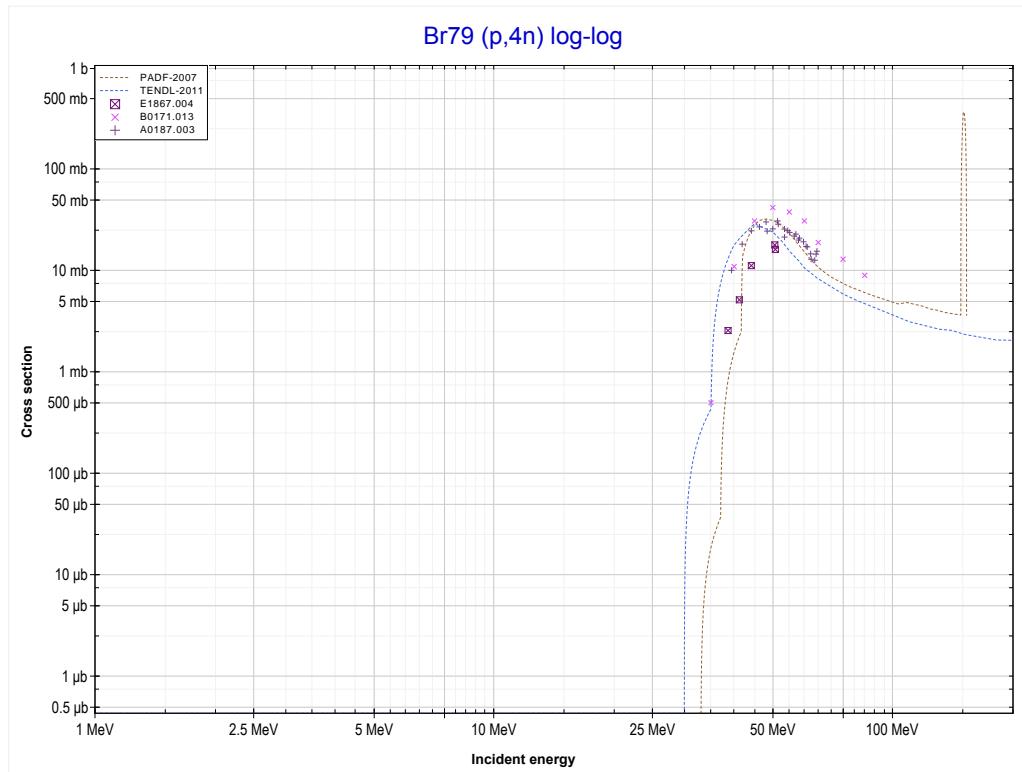
Reaction	Q-Value
$\text{Br}^{79}(\text{p},\text{n}+\alpha)\text{Se}^{75}$	-7106.76 keV
$\text{Br}^{79}(\text{p},\text{d}+\text{t})\text{Se}^{75}$	-24696.06 keV
$\text{Br}^{79}(\text{p},\text{n}+\text{p}+\text{t})\text{Se}^{75}$	-26920.62 keV
$\text{Br}^{79}(\text{p},2\text{n}+\text{He}^3)\text{Se}^{75}$	-27684.38 keV
$\text{Br}^{79}(\text{p},\text{n}+2\text{d})\text{Se}^{75}$	-30953.29 keV
$\text{Br}^{79}(\text{p},2\text{n}+\text{p}+\text{d})\text{Se}^{75}$	-33177.86 keV
$\text{Br}^{79}(\text{p},3\text{n}+2\text{p})\text{Se}^{75}$	-35402.42 keV

<< 34-Se-82	35-Br-79 MT28 (p,n+p) or MT5 (Br78 production)	35-Br-81 >>
<< MT22 (p,n+α)		MT37 (p,4n) >>



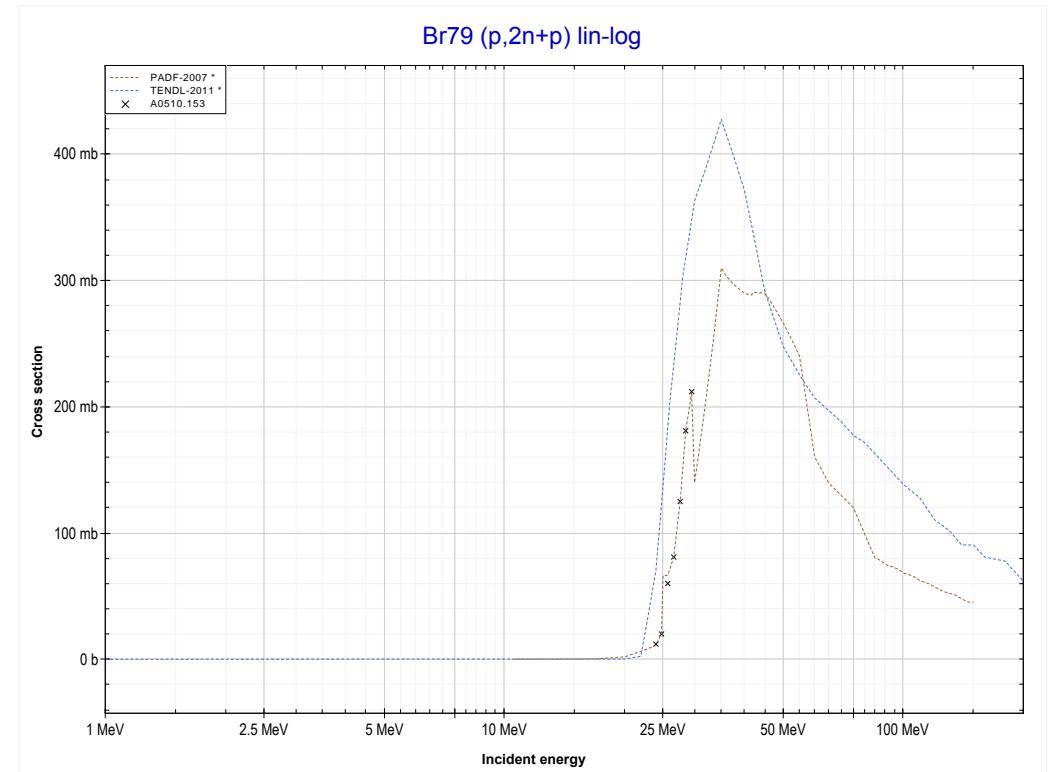
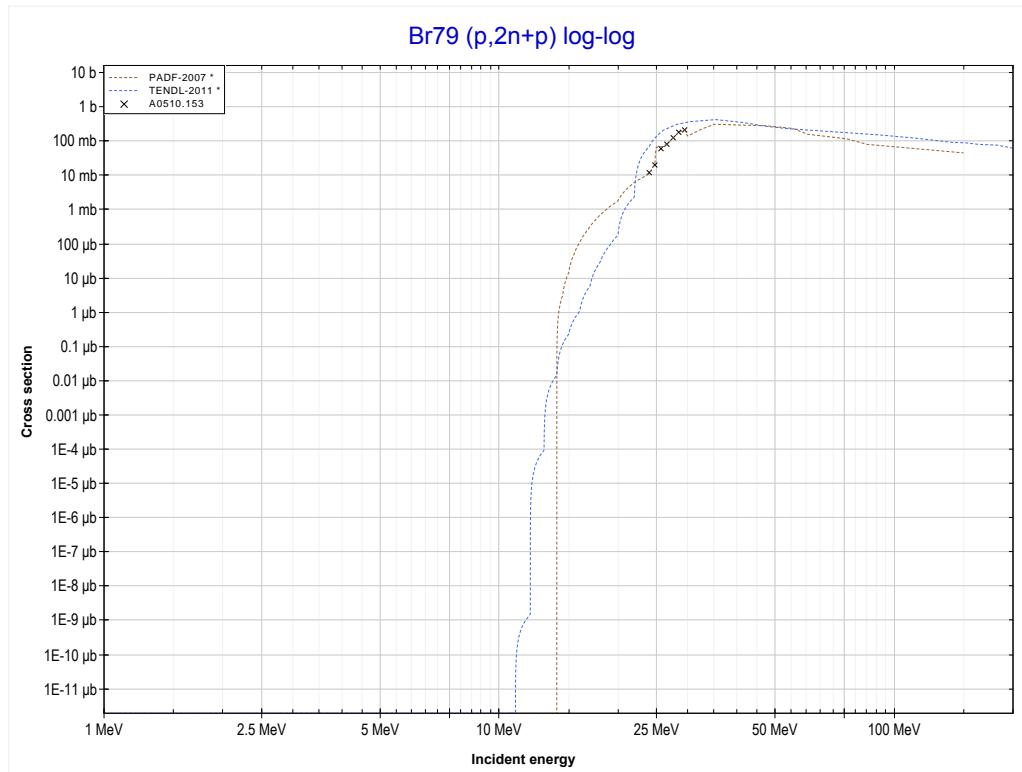
Reaction	Q-Value
Br79(p,d)Br78	-8463.25 keV
Br79(p,n+p)Br78	-10687.82 keV

<< 34-Se-80	35-Br-79 MT37 (p,4n) or MT5 (Kr76 production)	37-Rb-85 >>
<< MT28 (p,n+p) >>		MT41 (p,2n+p) >>



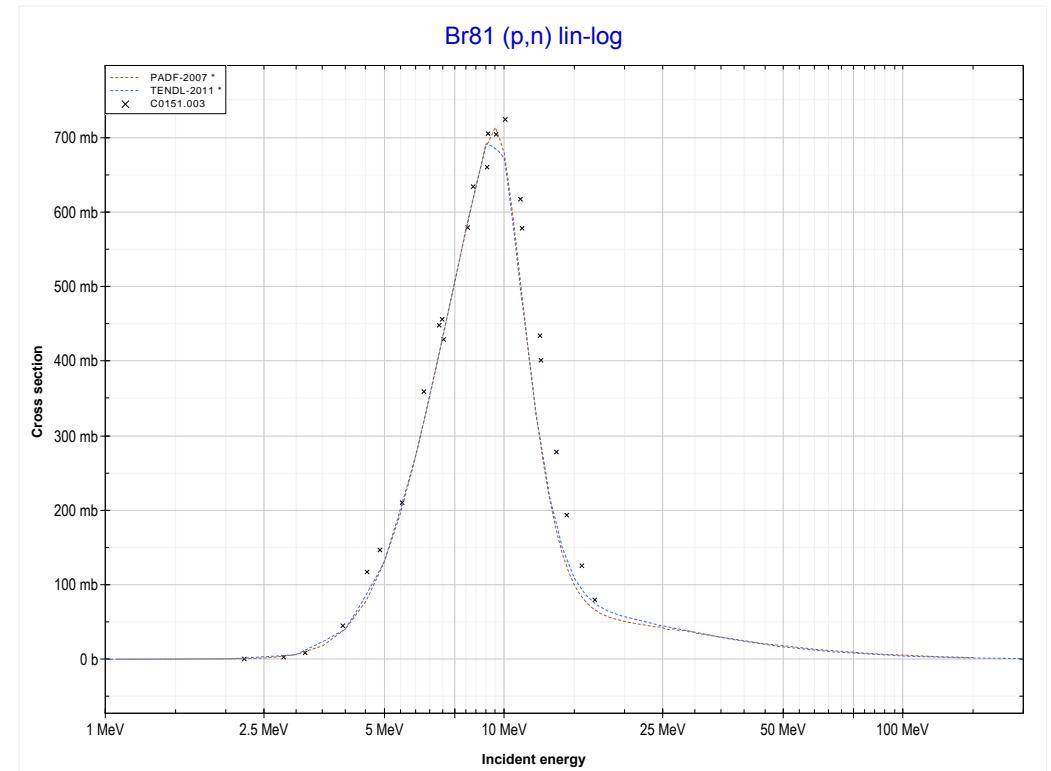
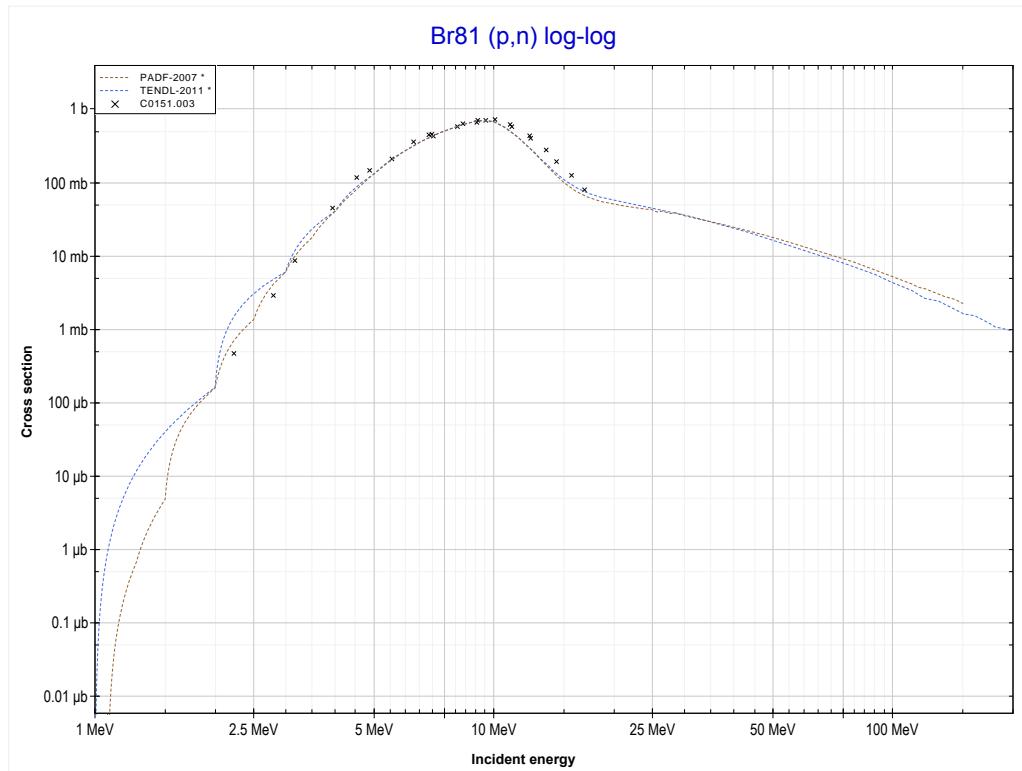
Reaction	Q-Value
$\text{Br}^{79}(p,4n)\text{Kr}^{76}$	-32050.80 keV

<< 34-Se-77	35-Br-79 MT41 (p,2n+p) or MT5 (Br77 production)	37-Rb-85 >>
<< MT37 (p,4n)		MT4 (p,n) >>



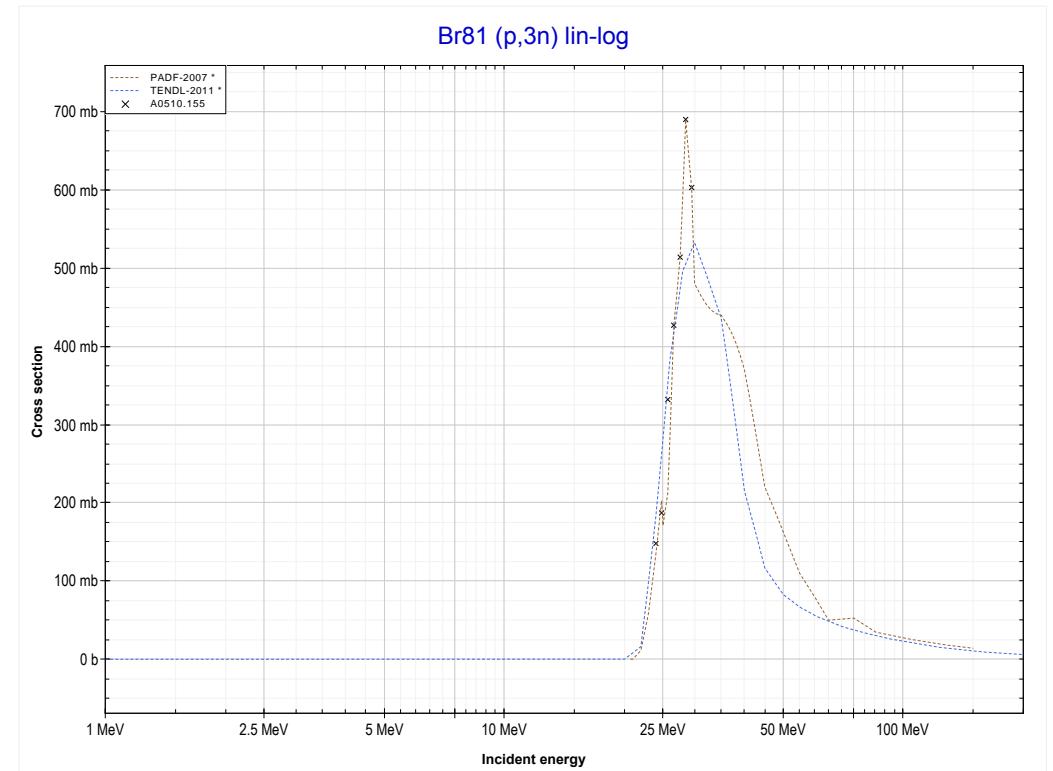
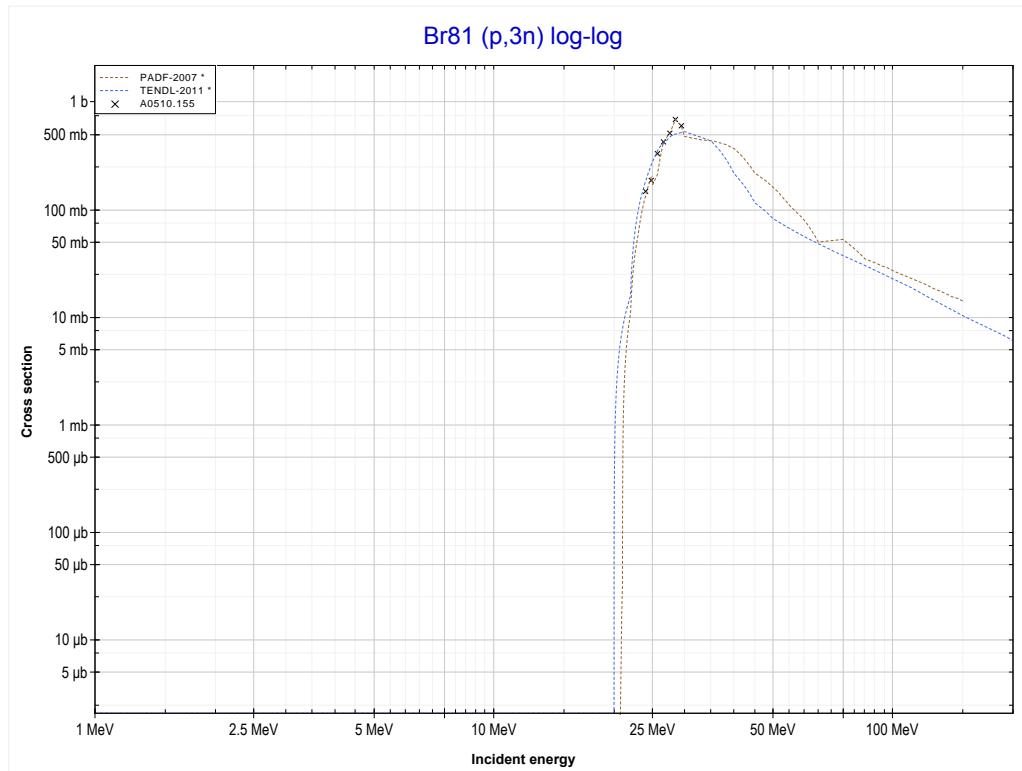
Reaction	Q-Value
$\text{Br}^{79}(\text{p},\text{t})\text{Br}^{77}$	-10494.34 keV
$\text{Br}^{79}(\text{p},\text{n}+\text{d})\text{Br}^{77}$	-16751.57 keV
$\text{Br}^{79}(\text{p},\text{2n}+\text{p})\text{Br}^{77}$	-18976.13 keV

<< 35-Br-79	35-Br-81 MT4 (p,n) or MT5 (Kr81 production)	>> 36-Kr-82
<< MT41 (p,2n+p)		>> MT17 (p,3n) >>



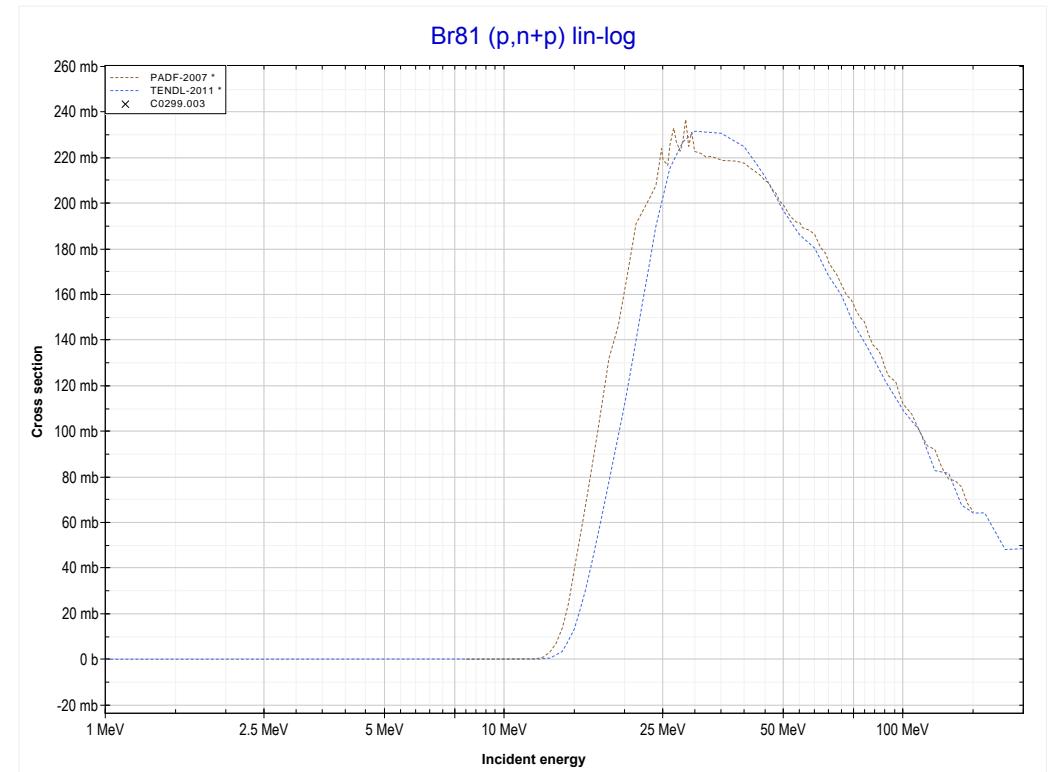
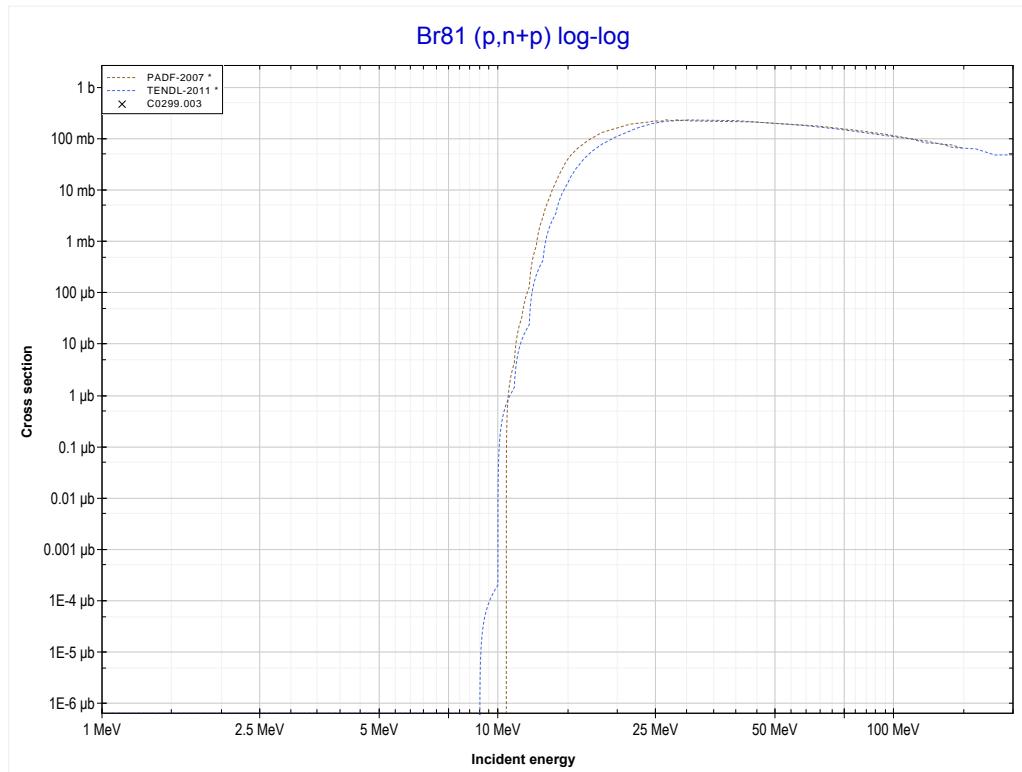
Reaction	Q-Value
Br81(p,n)Kr81	-1063.15 keV

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



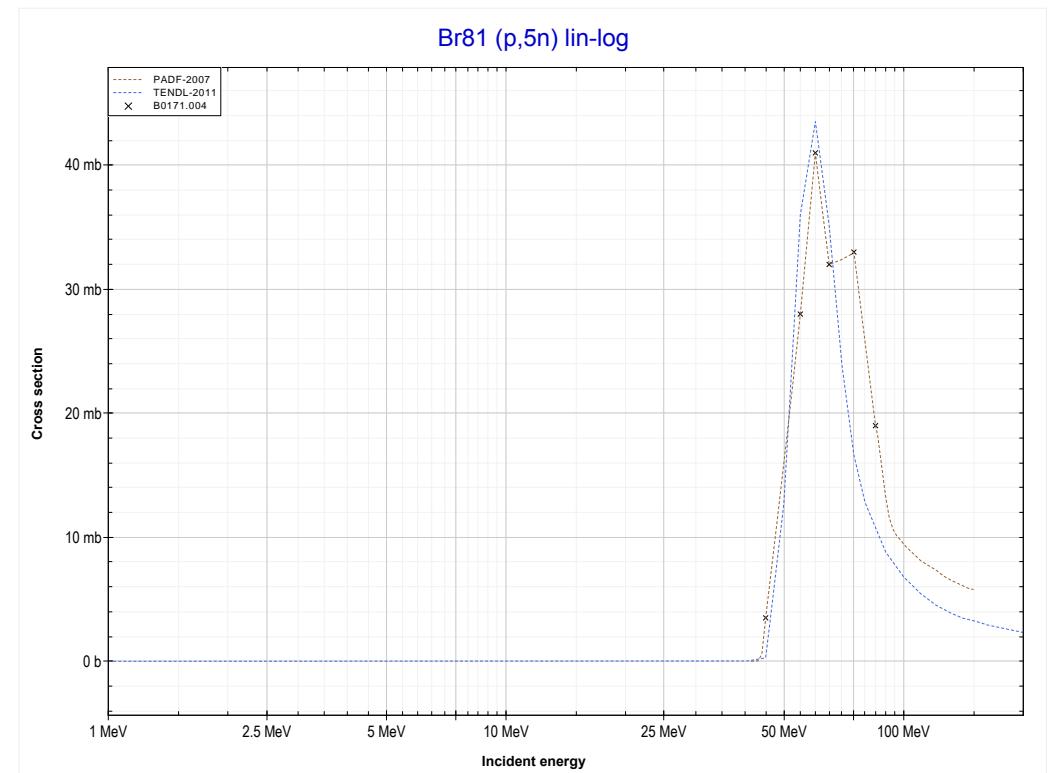
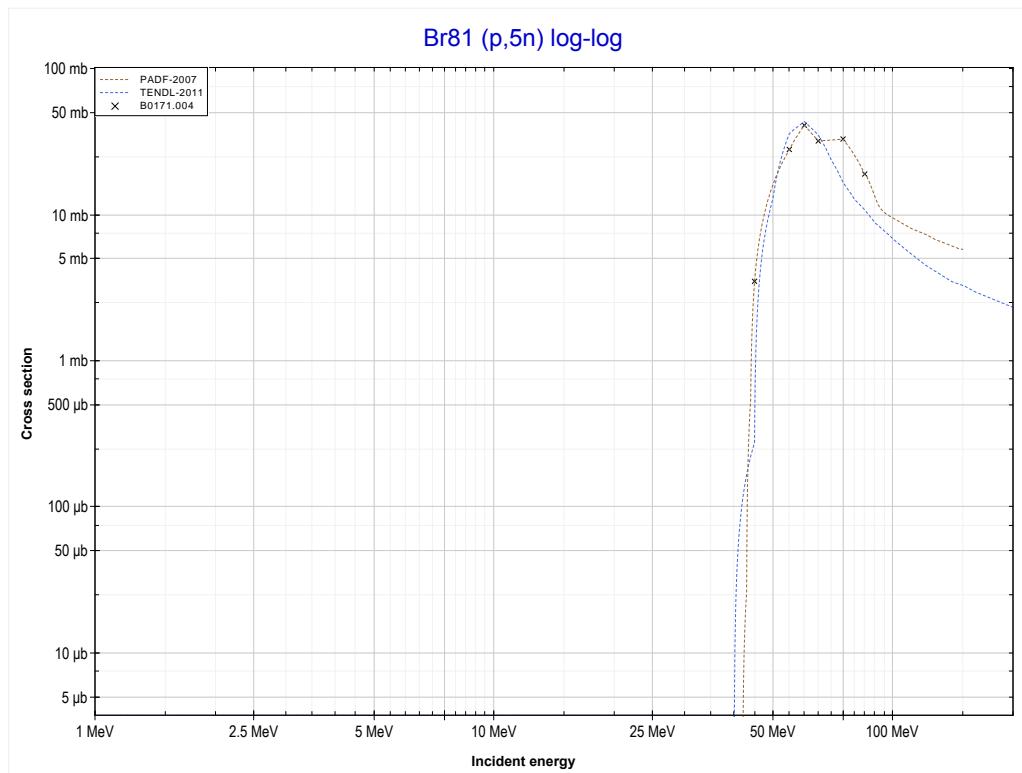
Reaction	Q-Value
Br81(p,3n)Kr79	-20456.78 keV

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



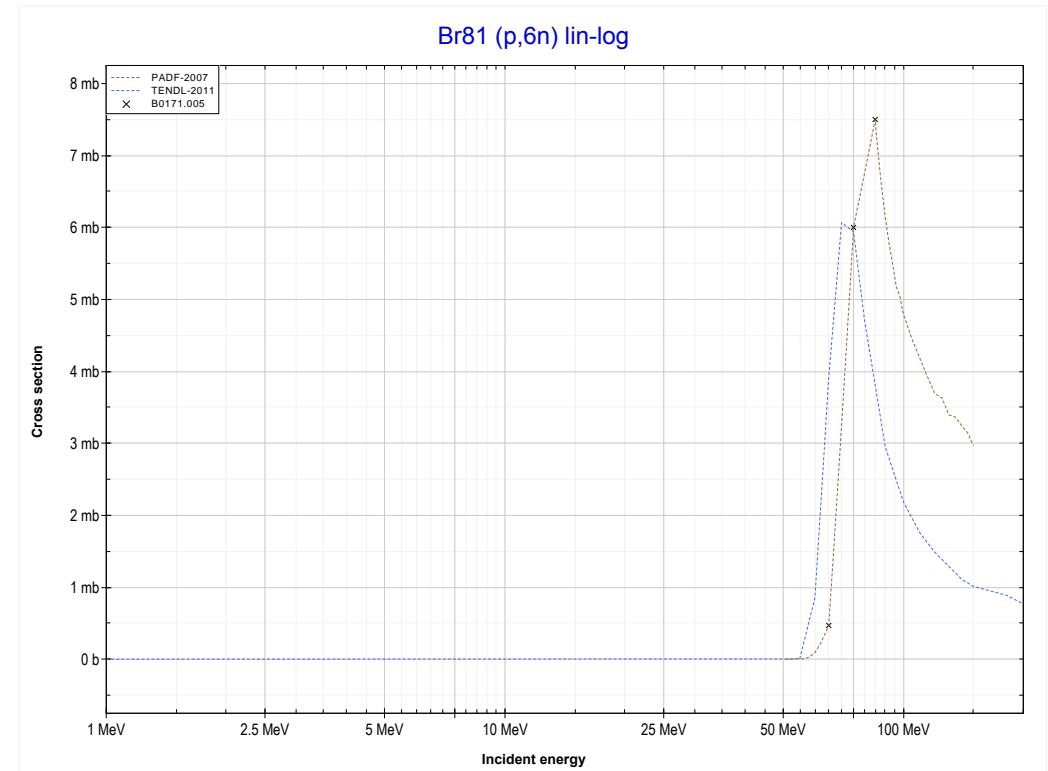
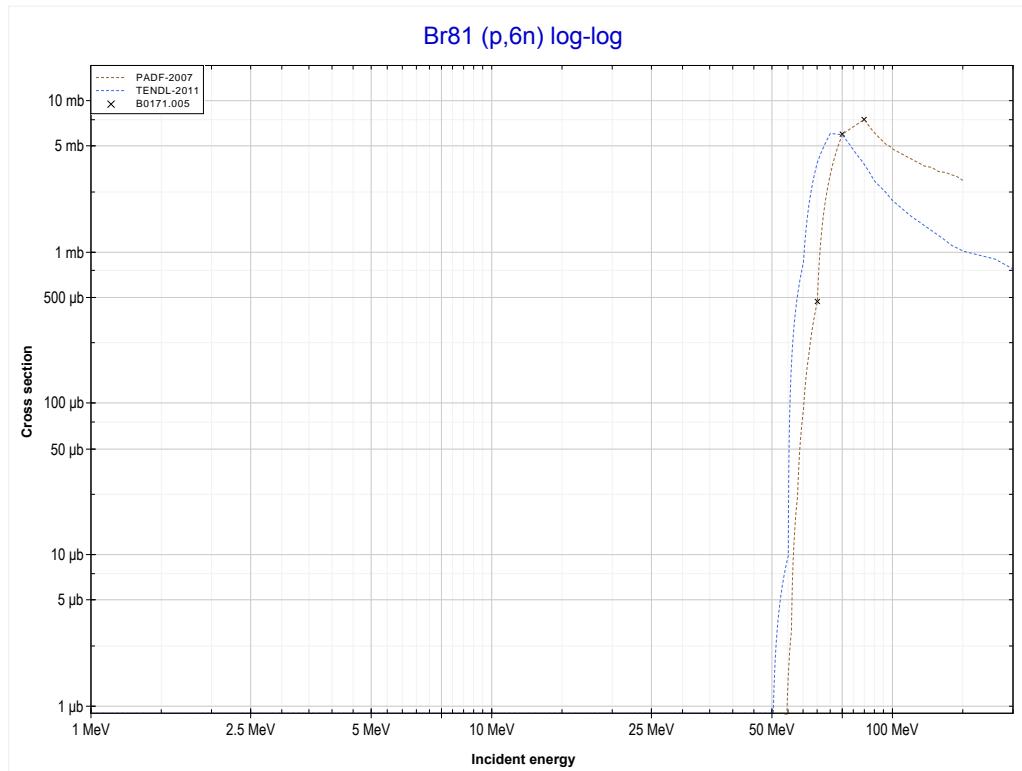
Reaction	Q-Value
Br81(p,d)Br80	-7932.05 keV
Br81(p,n+p)Br80	-10156.62 keV

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



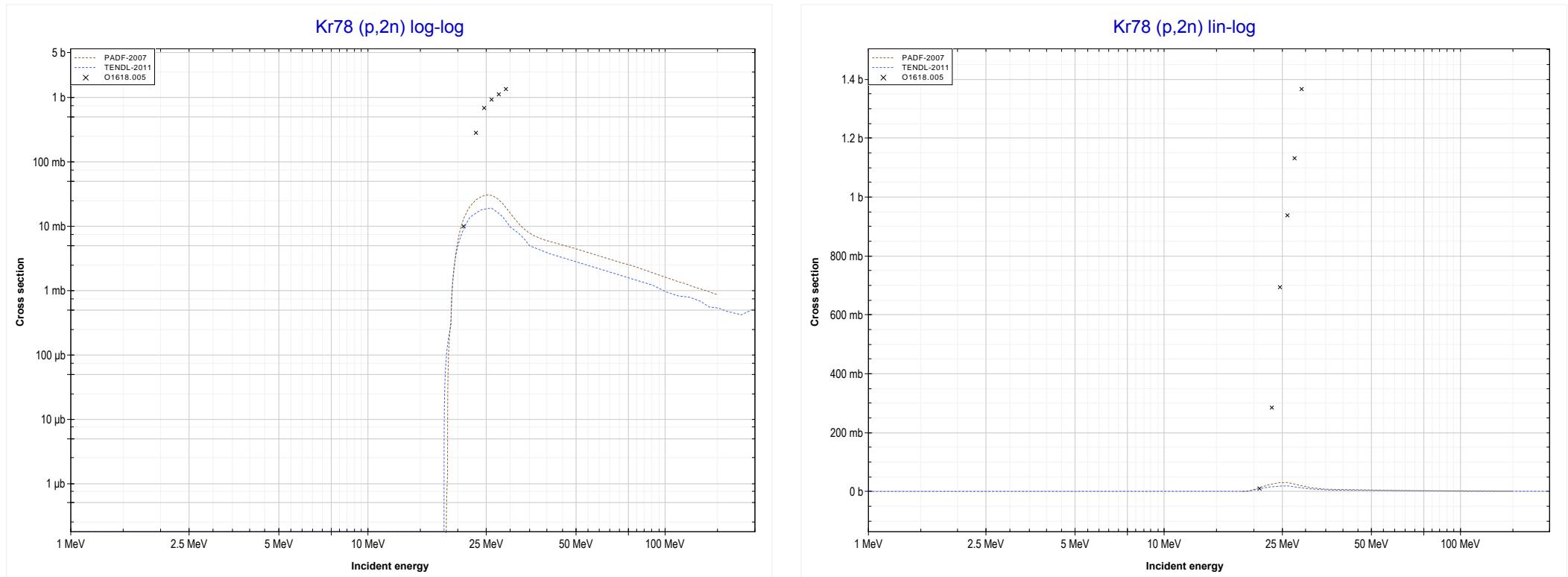
Reaction	Q-Value
Br81(p,5n)Kr77	-40873.02 keV

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



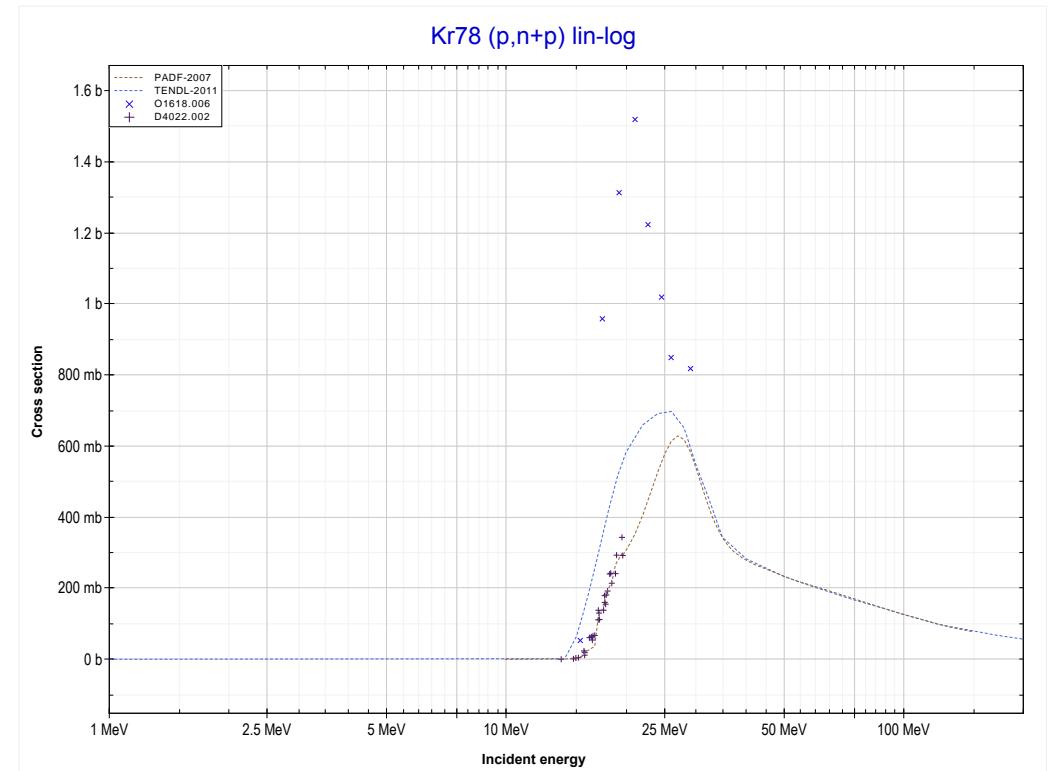
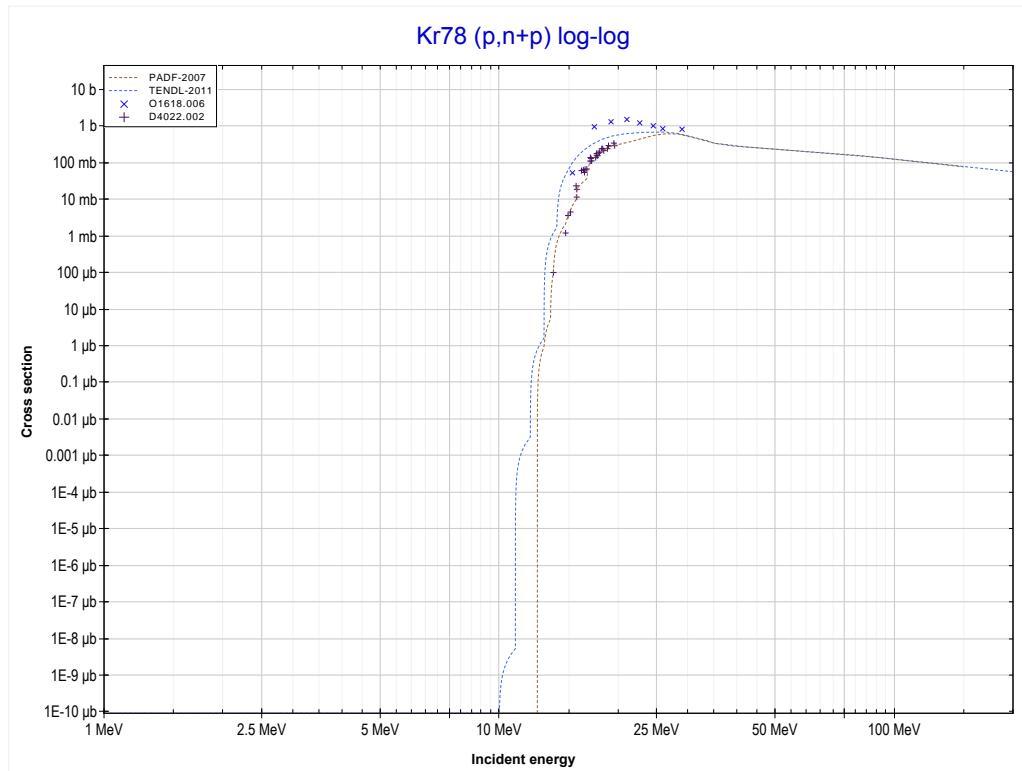
Reaction	Q-Value
Br81(p,6n)Kr76	-50099.73 keV

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



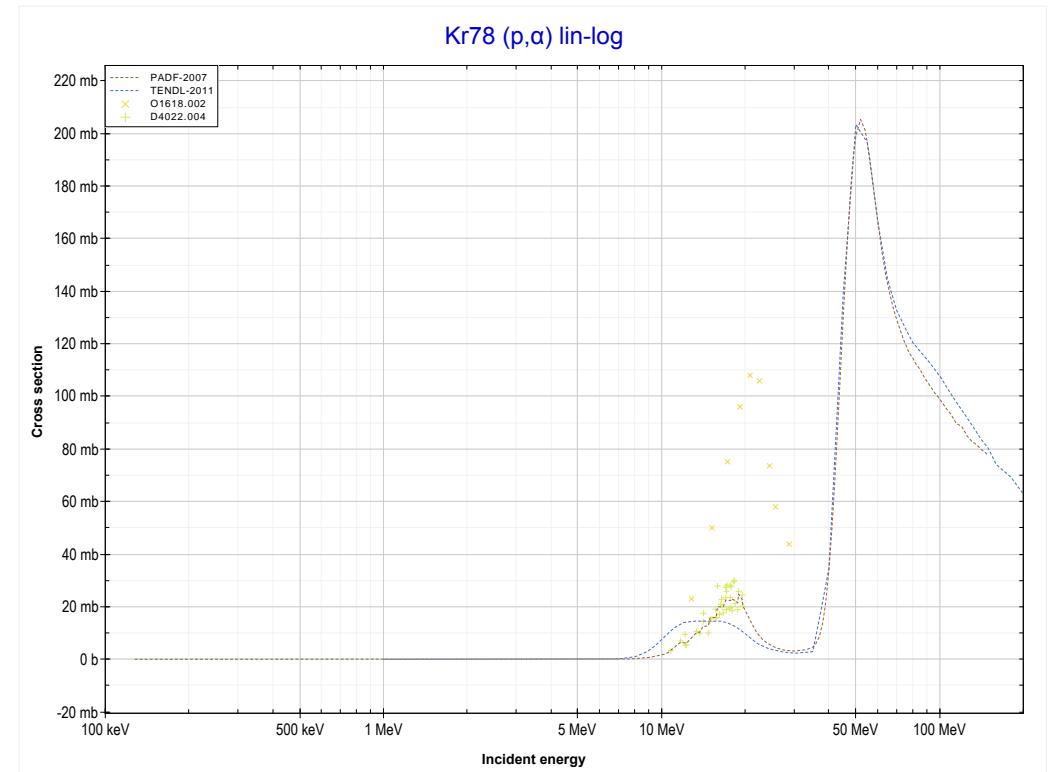
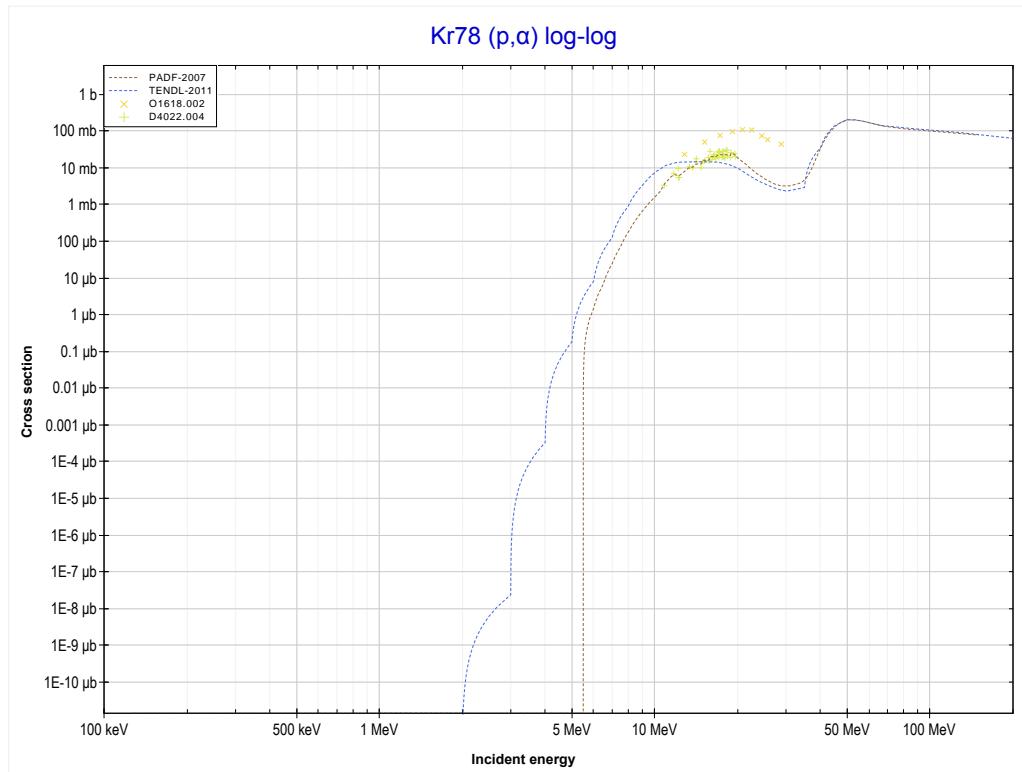
Reaction	Q-Value
Kr78(p,2n)Rb77	-18208.36 keV

<< 35-Br-81	36-Kr-78 MT28 (p,n+p) or MT5 (Kr77 production)	37-Rb-85 >>
<< MT16 (p,2n)		MT107 (p, α) >>



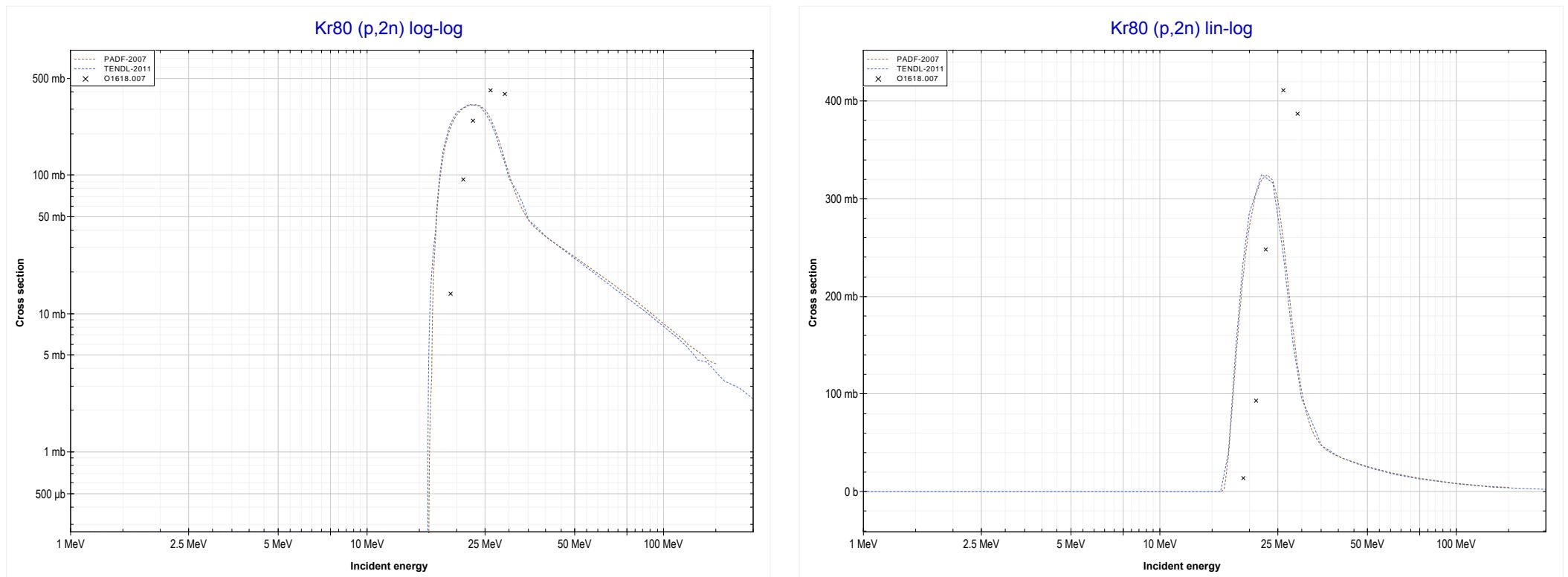
Reaction	Q-Value
Kr78(p,d)Kr77	-9857.05 keV
Kr78(p,n+p)Kr77	-12081.62 keV

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



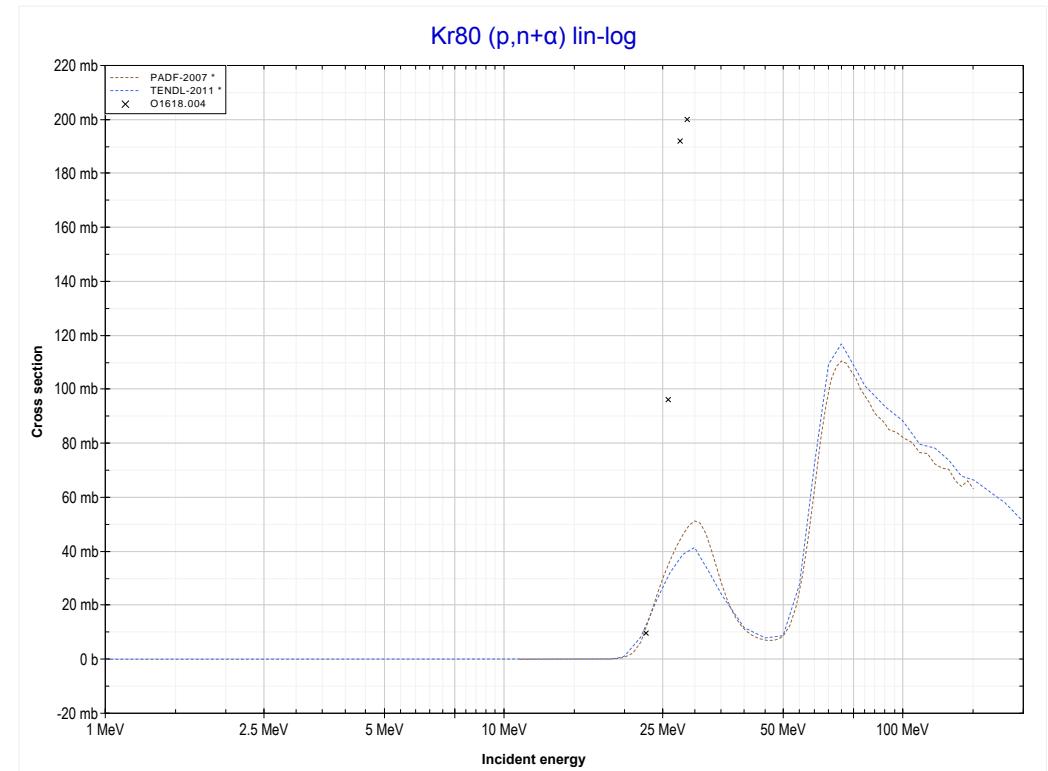
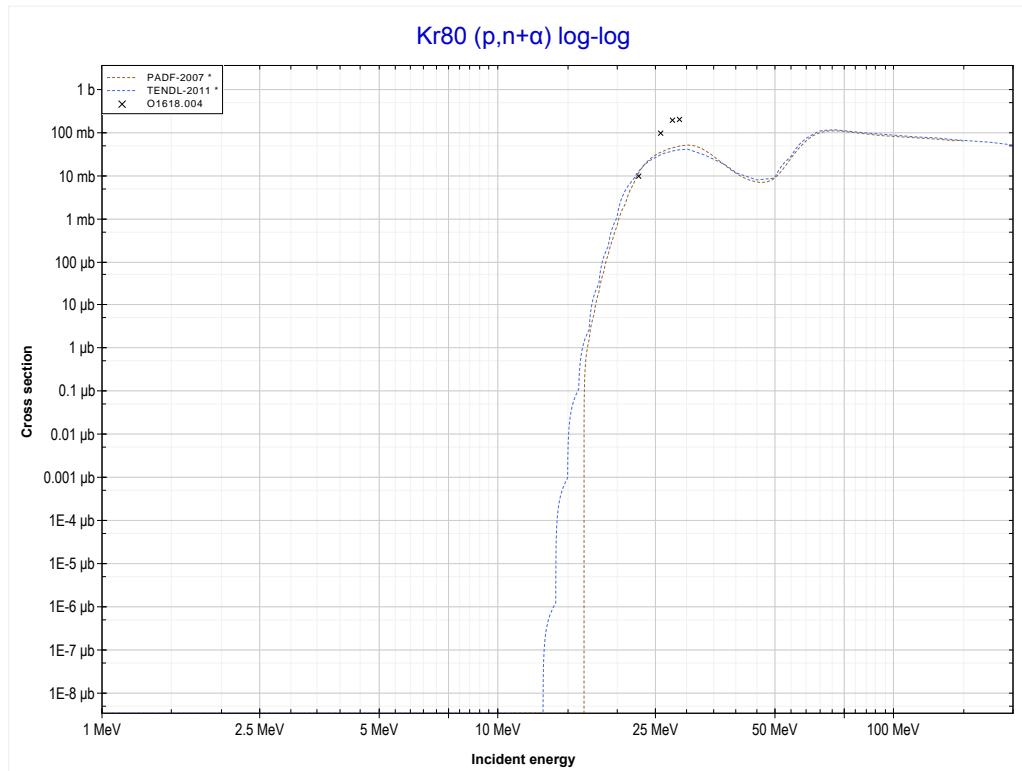
Reaction	Q-Value
Kr78(p,α)Br75	-176.65 keV
Kr78($p,p+t$)Br75	-19990.51 keV
Kr78($p,n+He3$)Br75	-20754.26 keV
Kr78($p,2d$)Br75	-24023.17 keV
Kr78($p,n+p+d$)Br75	-26247.74 keV
Kr78($p,2n+2p$)Br75	-28472.30 keV

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



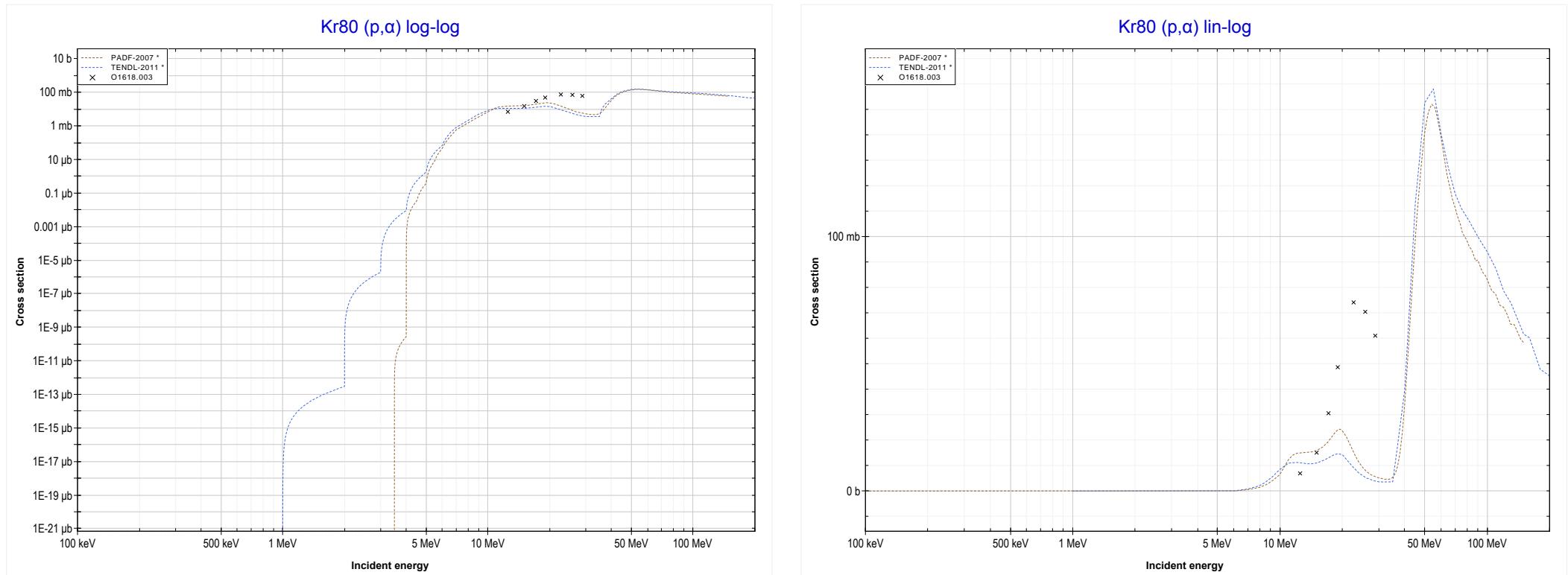
Reaction	Q-Value
$\text{Kr}^{80}(\text{p},2\text{n})\text{Rb}^{79}$	-15943.16 keV

<< 35-Br-79	36-Kr-80 MT22 (p,n+α) or MT5 (Br76 production)	>> 38-Sr-86
<< MT16 (p,2n)		MT107 (p,α) >>



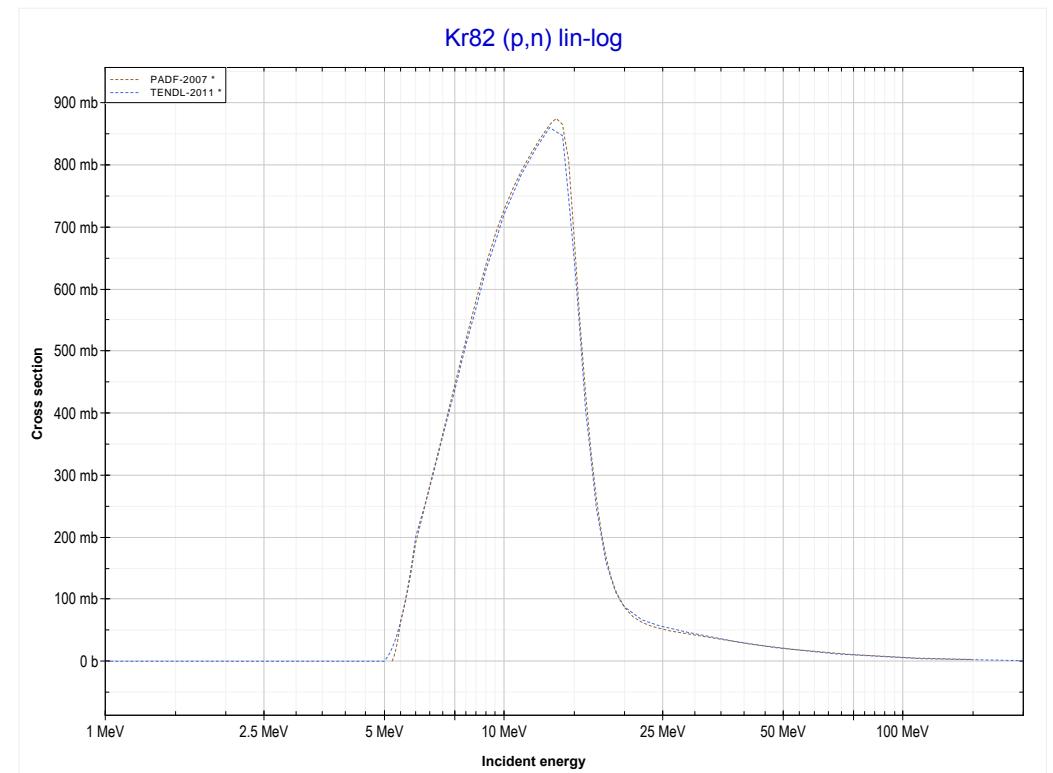
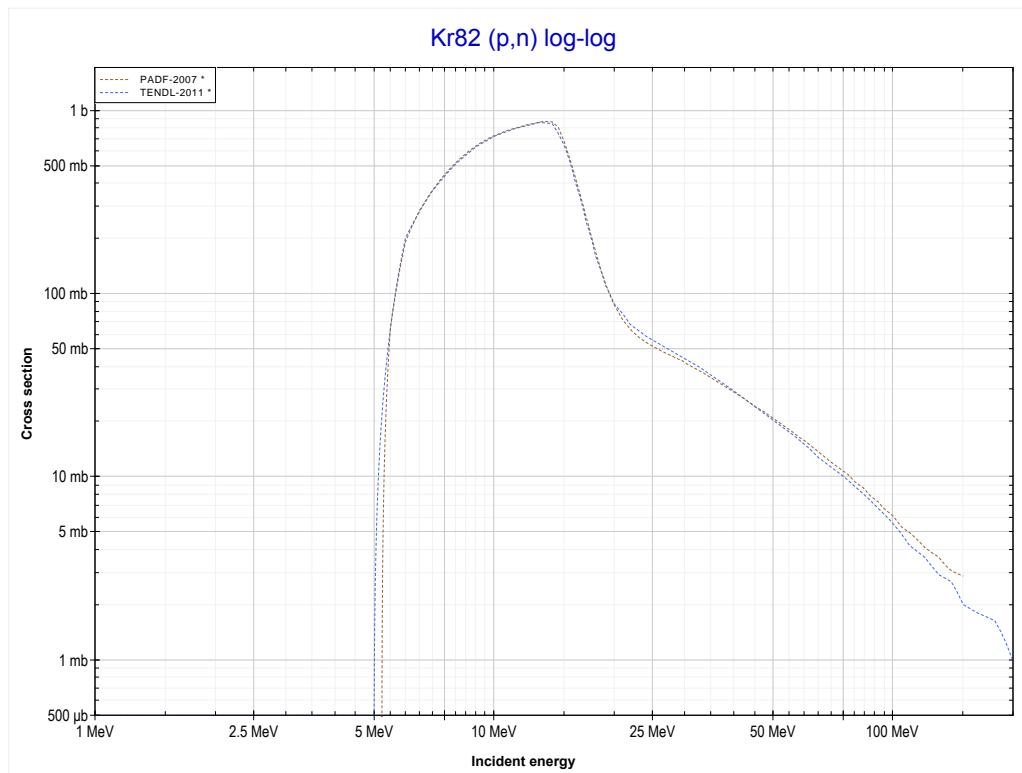
Reaction	Q-Value
Kr80(p,n+α)Br76	-10810.76 keV
Kr80(p,d+t)Br76	-28400.06 keV
Kr80(p,n+p+t)Br76	-30624.62 keV
Kr80(p,2n+He3)Br76	-31388.38 keV
Kr80(p,n+2d)Br76	-34657.29 keV
Kr80(p,2n+p+d)Br76	-36881.86 keV
Kr80(p,3n+2p)Br76	-39106.42 keV

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



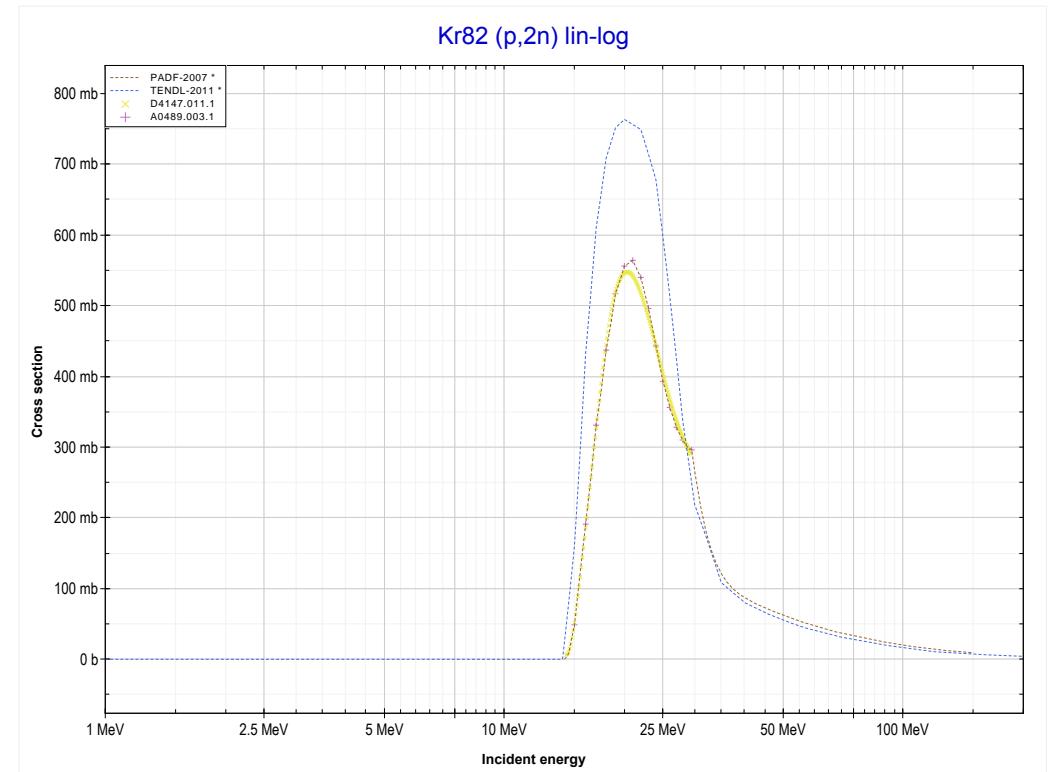
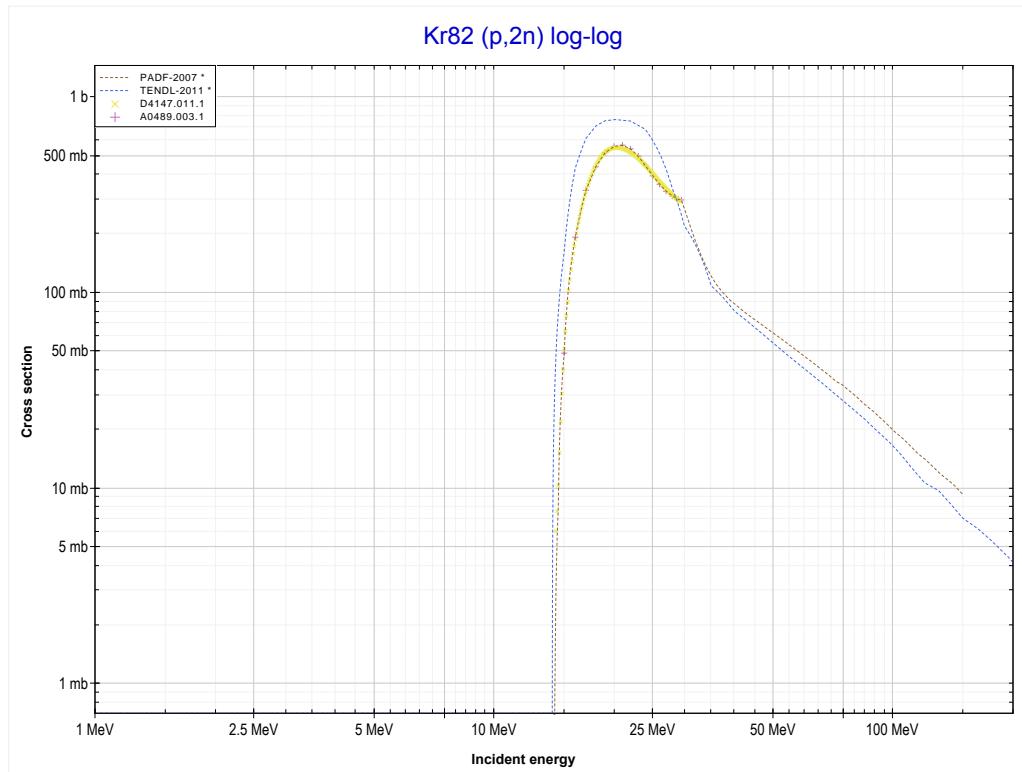
Reaction	Q-Value
Kr80(p,α)Br77	206.55 keV
Kr80($p,p+t$)Br77	-19607.31 keV
Kr80($p,n+\text{He3}$)Br77	-20371.06 keV
Kr80($p,2d$)Br77	-23639.97 keV
Kr80($p,n+p+d$)Br77	-25864.54 keV
Kr80($p,2n+2p$)Br77	-28089.10 keV

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



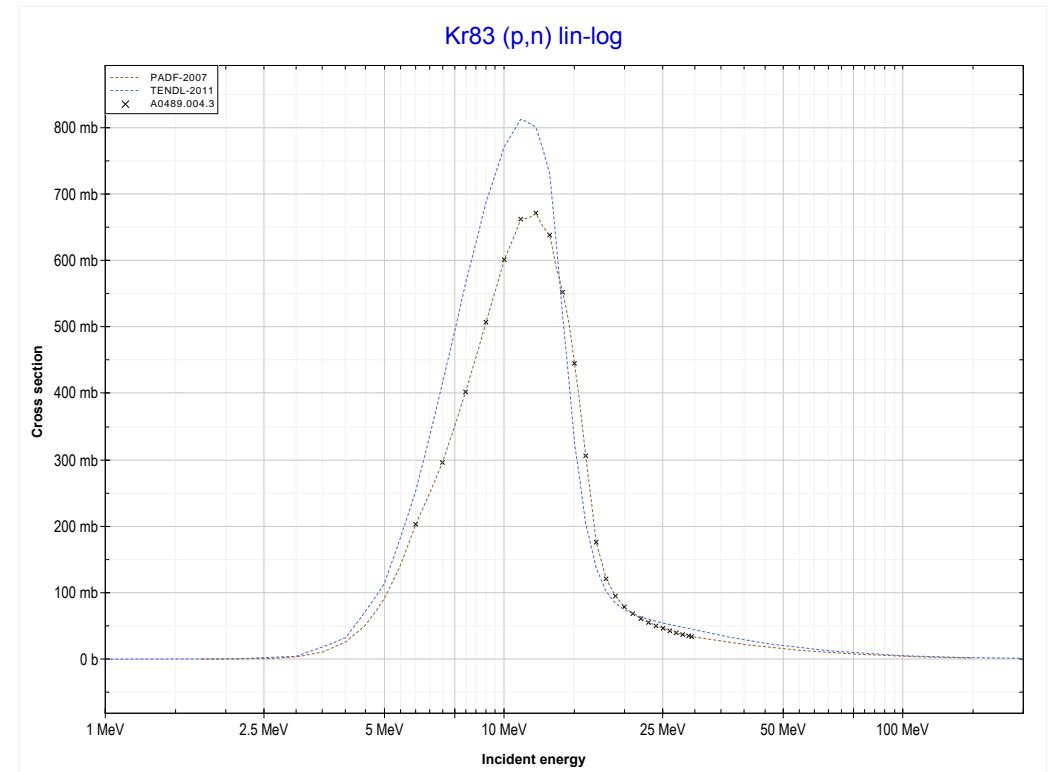
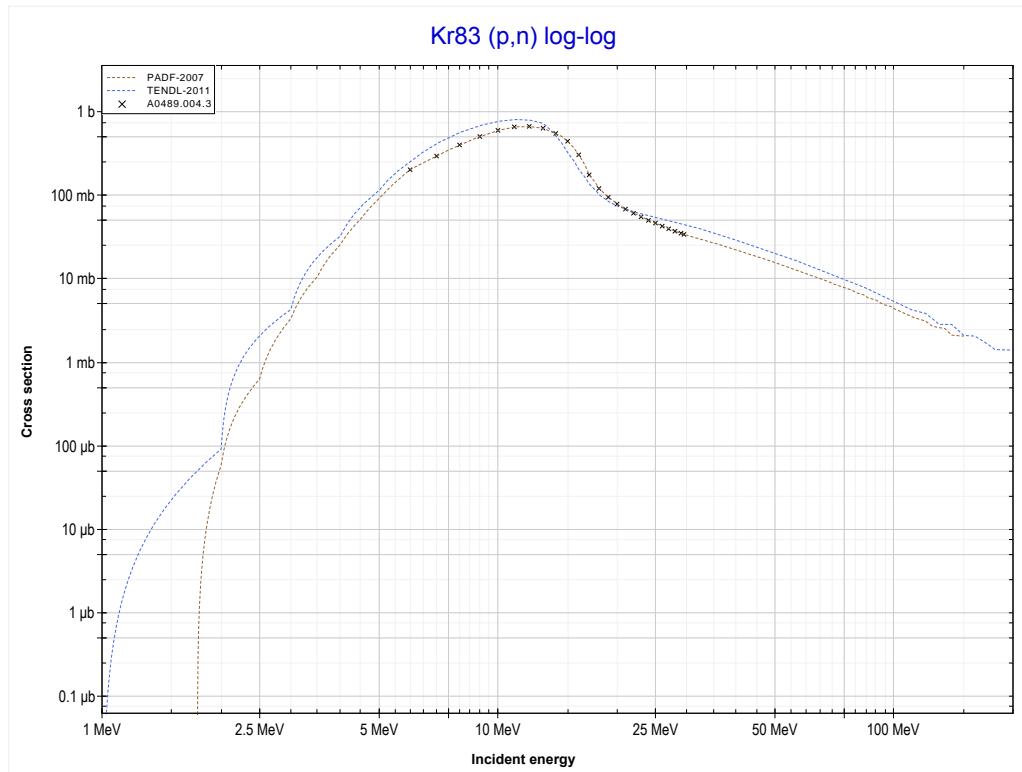
Reaction	Q-Value
Kr82(p,n)Rb82	-5183.65 keV

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



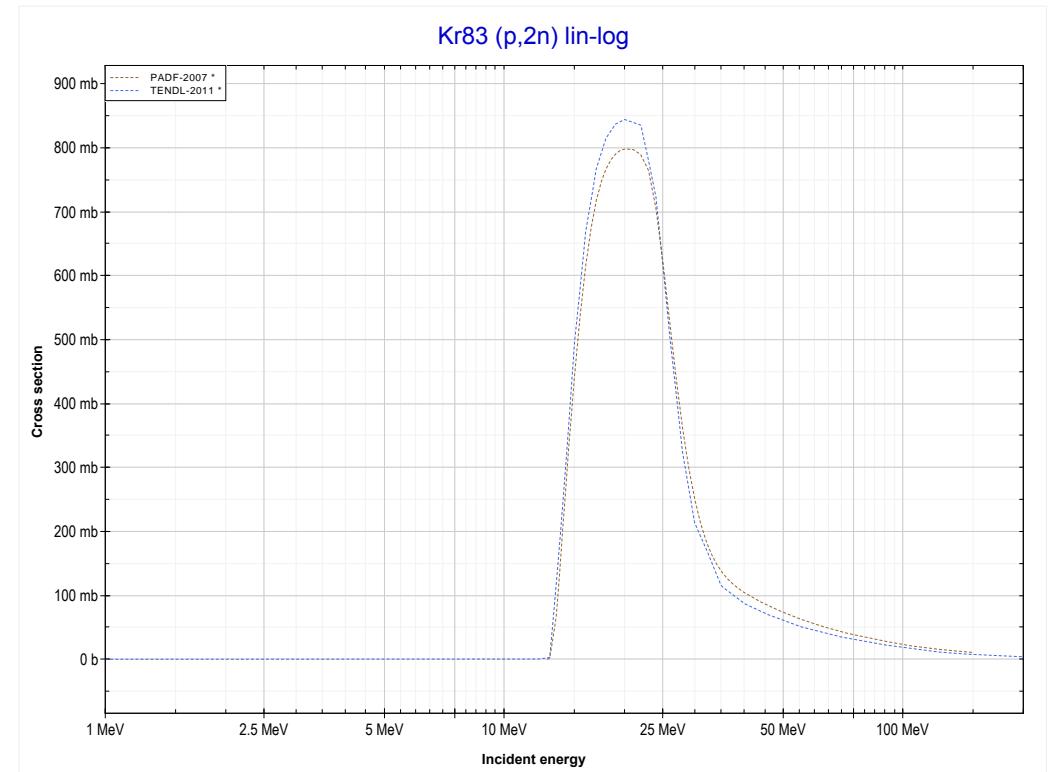
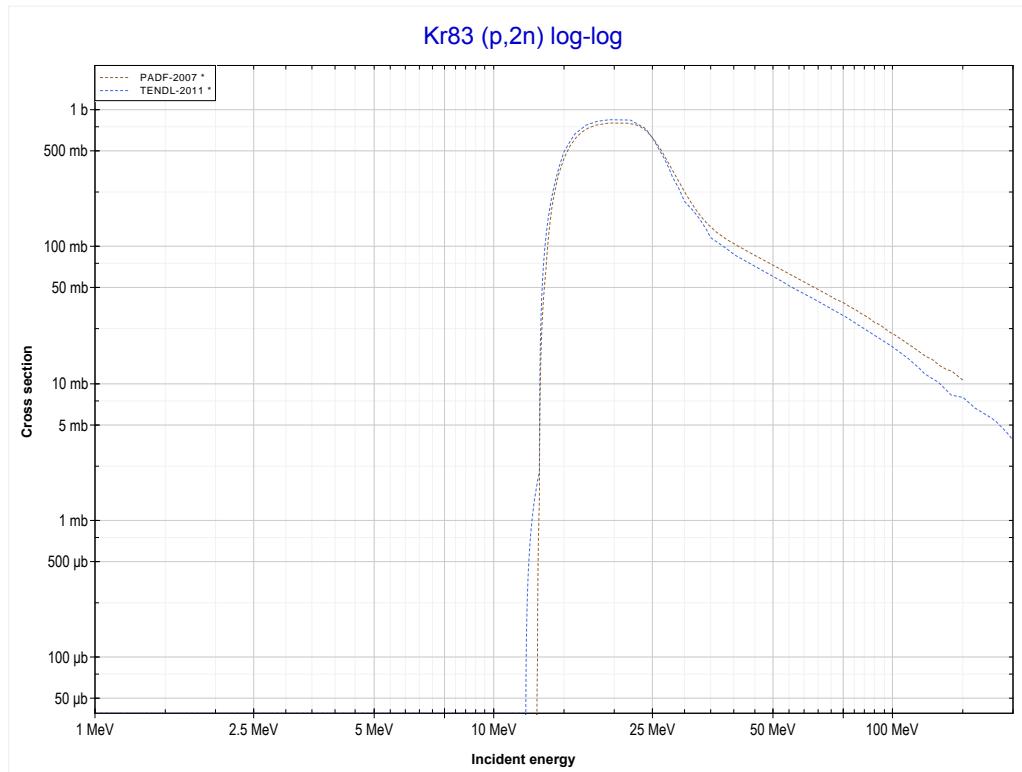
Reaction	Q-Value
Kr82(p,2n)Rb81	-13988.16 keV

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



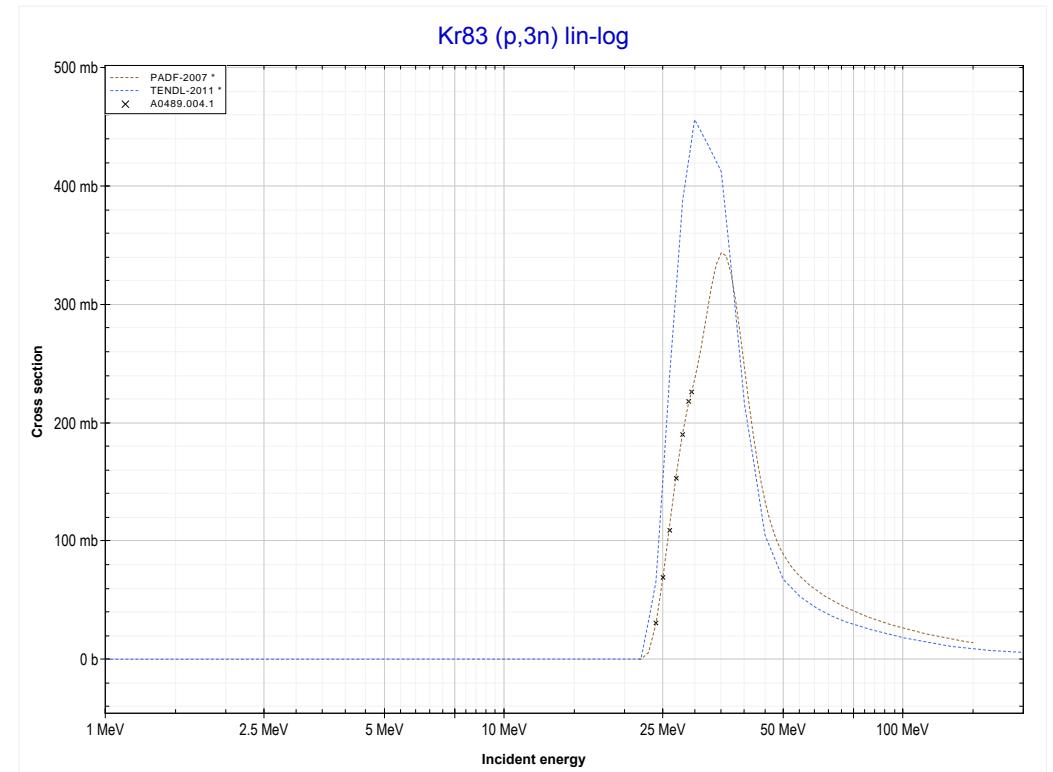
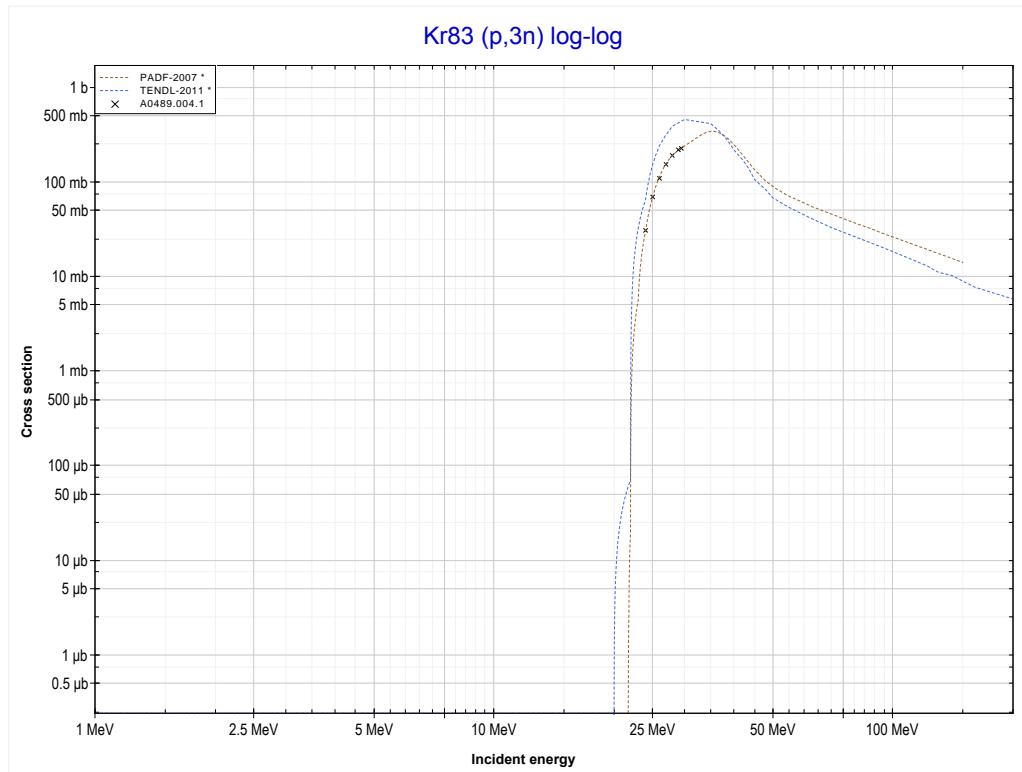
Reaction	Q-Value
Kr83(p,n)Rb83	-1689.05 keV

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



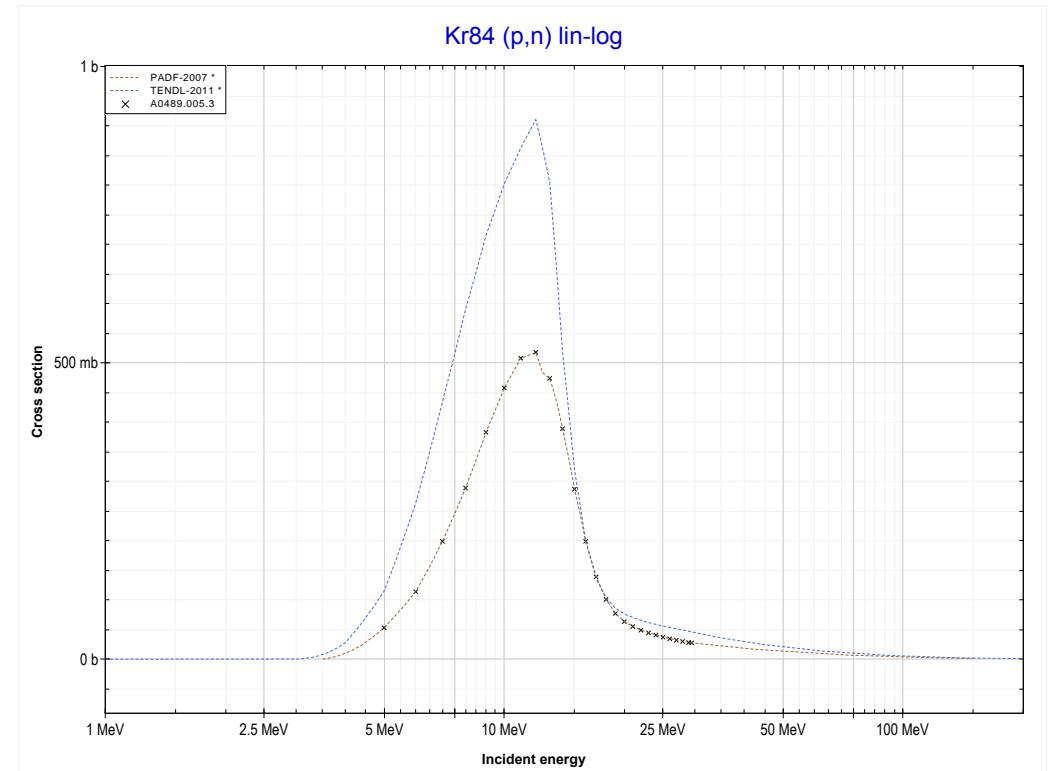
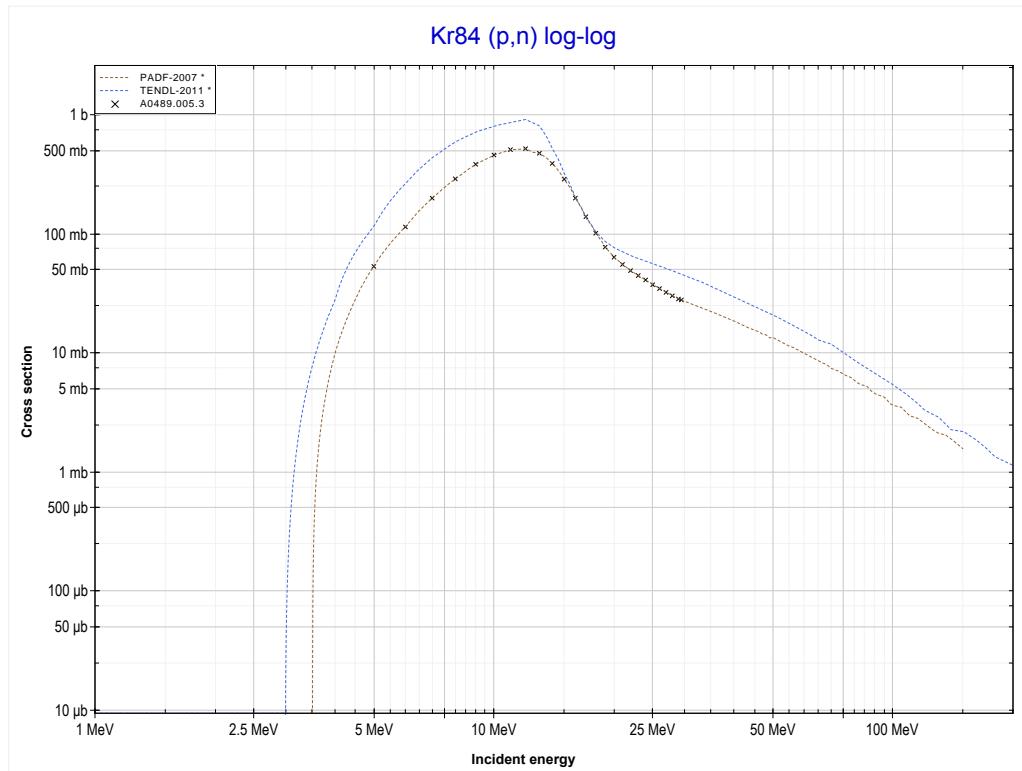
Reaction	Q-Value
Kr83(p,2n)Rb82	-12647.16 keV

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



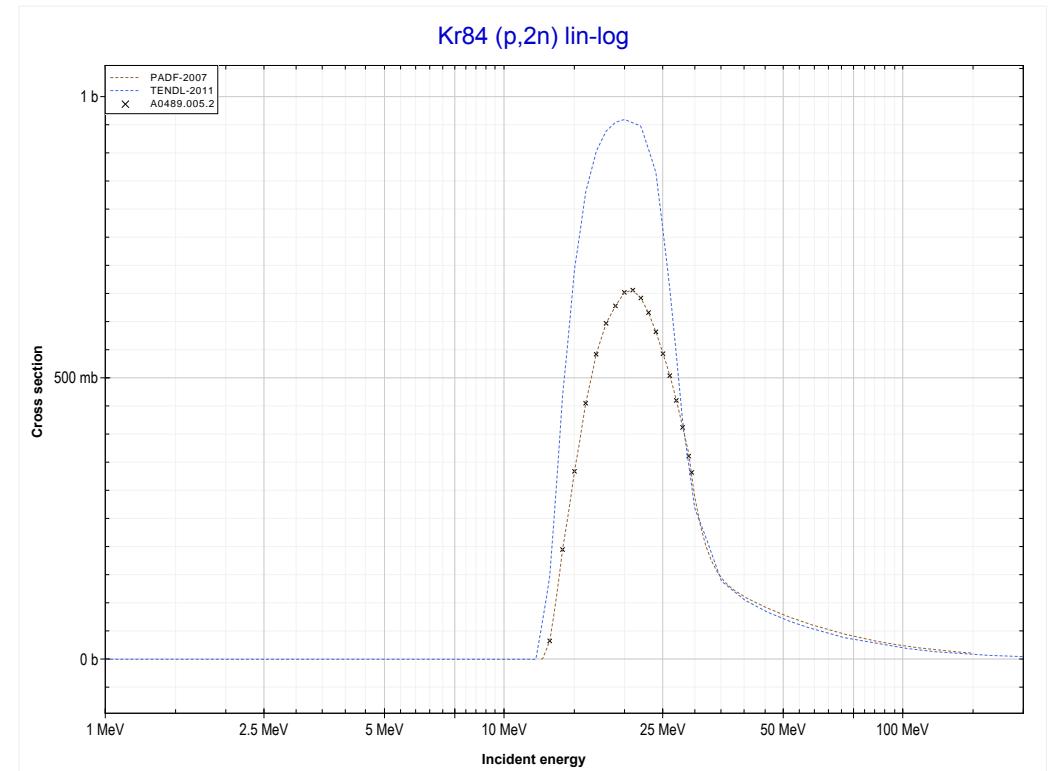
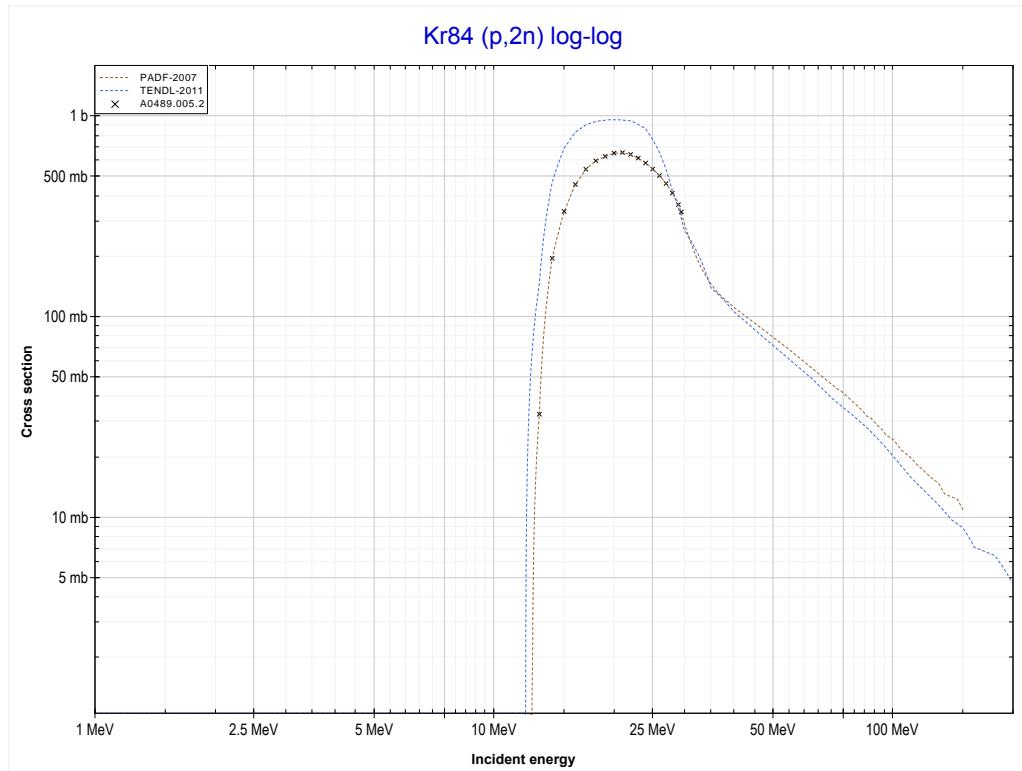
Reaction	Q-Value
Kr83(p,3n)Rb81	-21451.68 keV

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



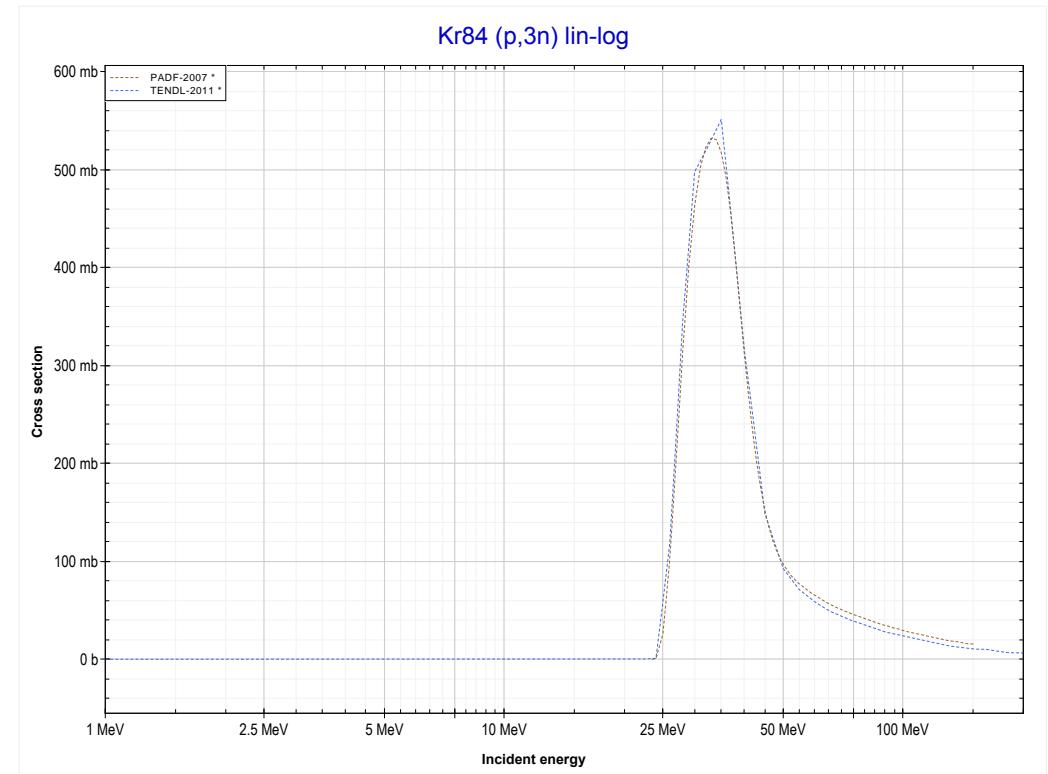
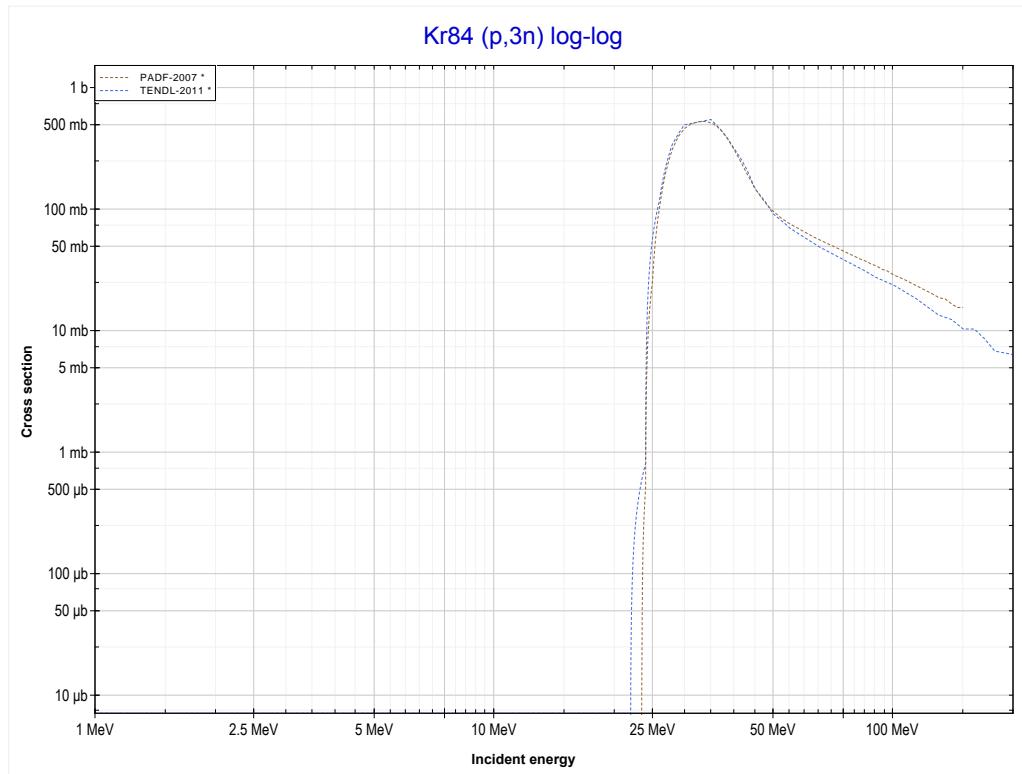
Reaction	Q-Value
Kr84(p,n)Rb84	-3463.35 keV

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



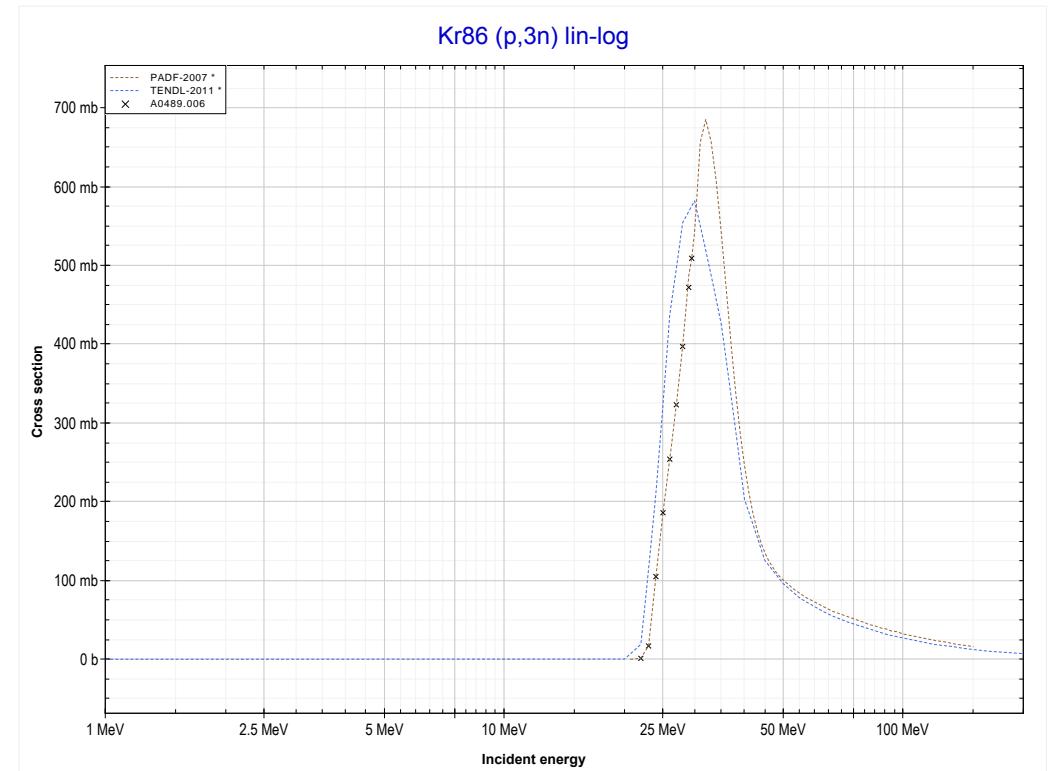
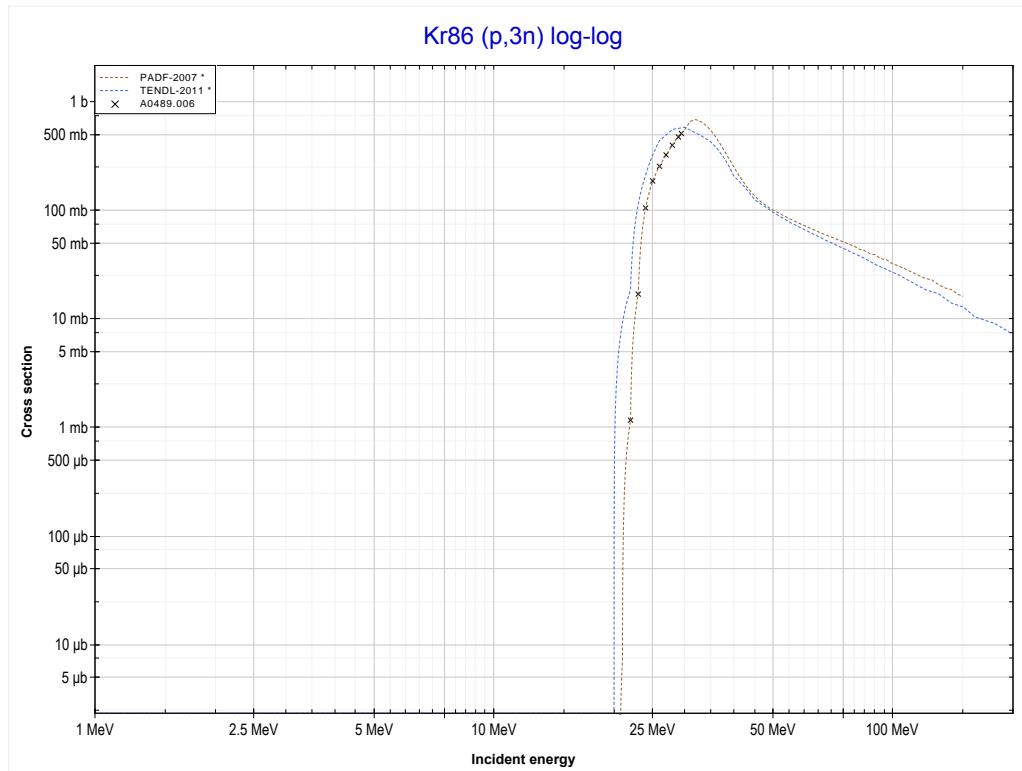
Reaction	Q-Value
Kr84(p,2n)Rb83	-12209.66 keV

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



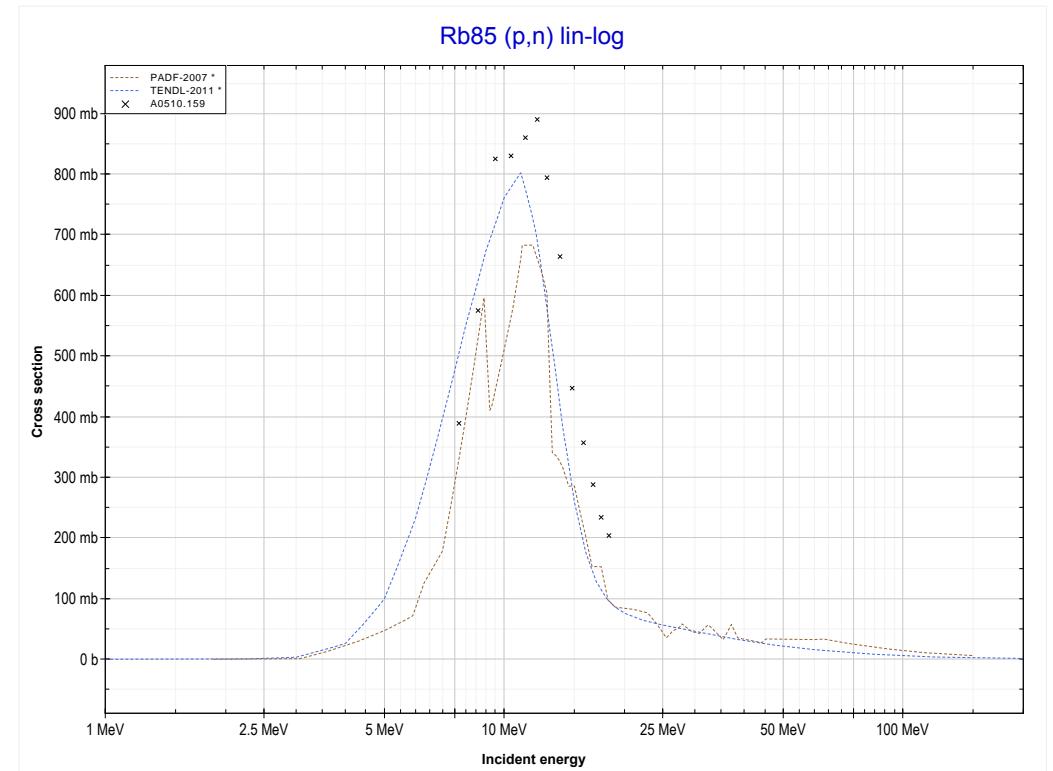
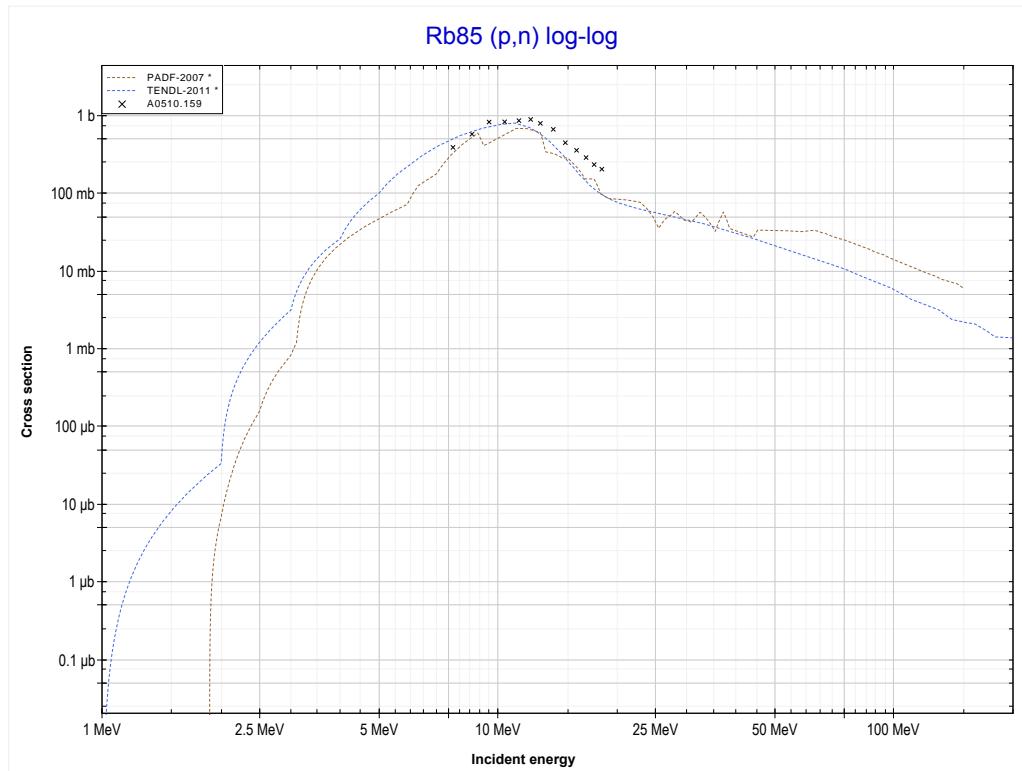
Reaction	Q-Value
Kr84(p,3n)Rb82	-23167.78 keV

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



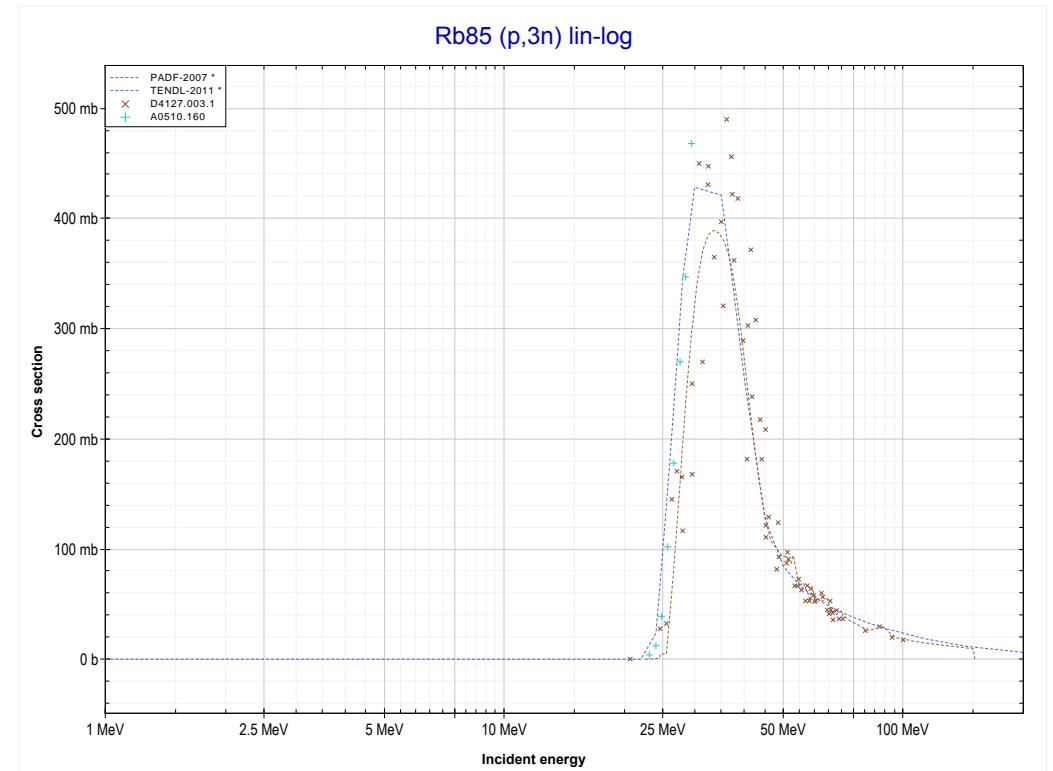
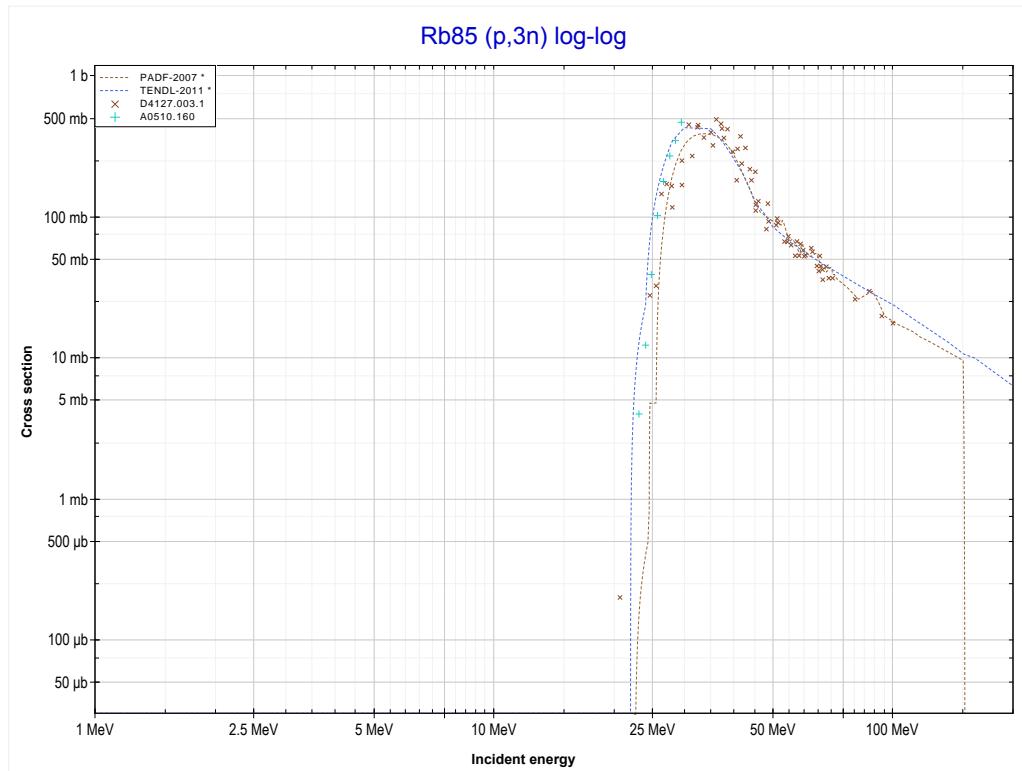
Reaction	Q-Value
Kr86(p,3n)Rb84	-20440.55 keV

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



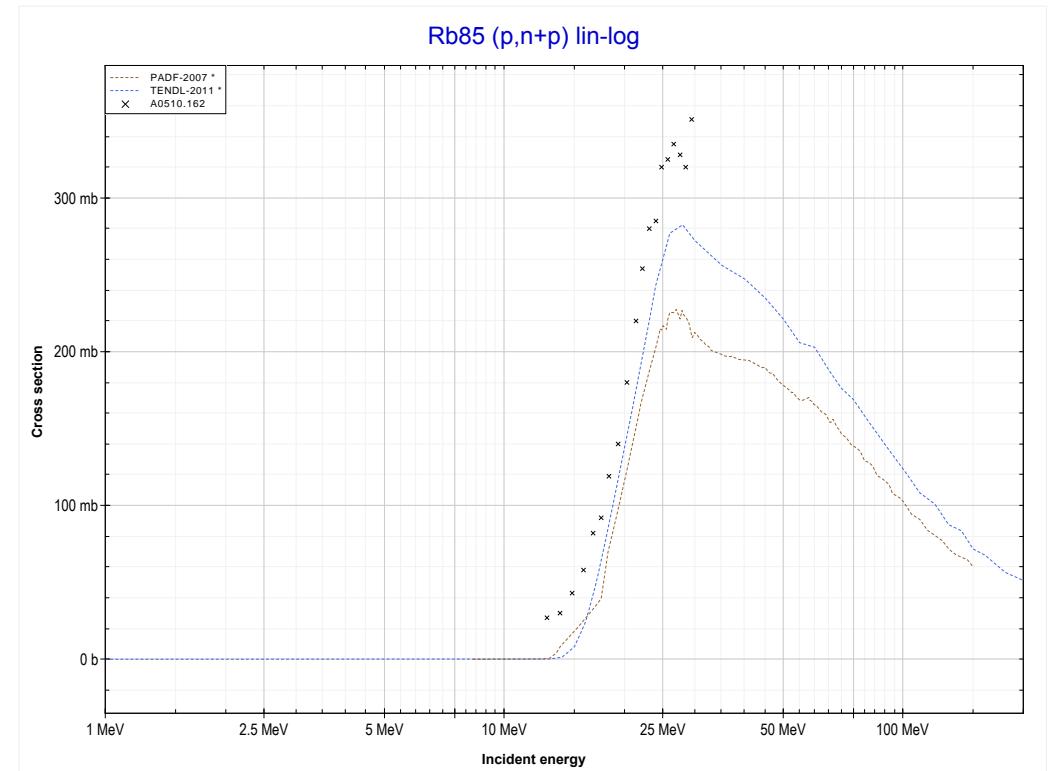
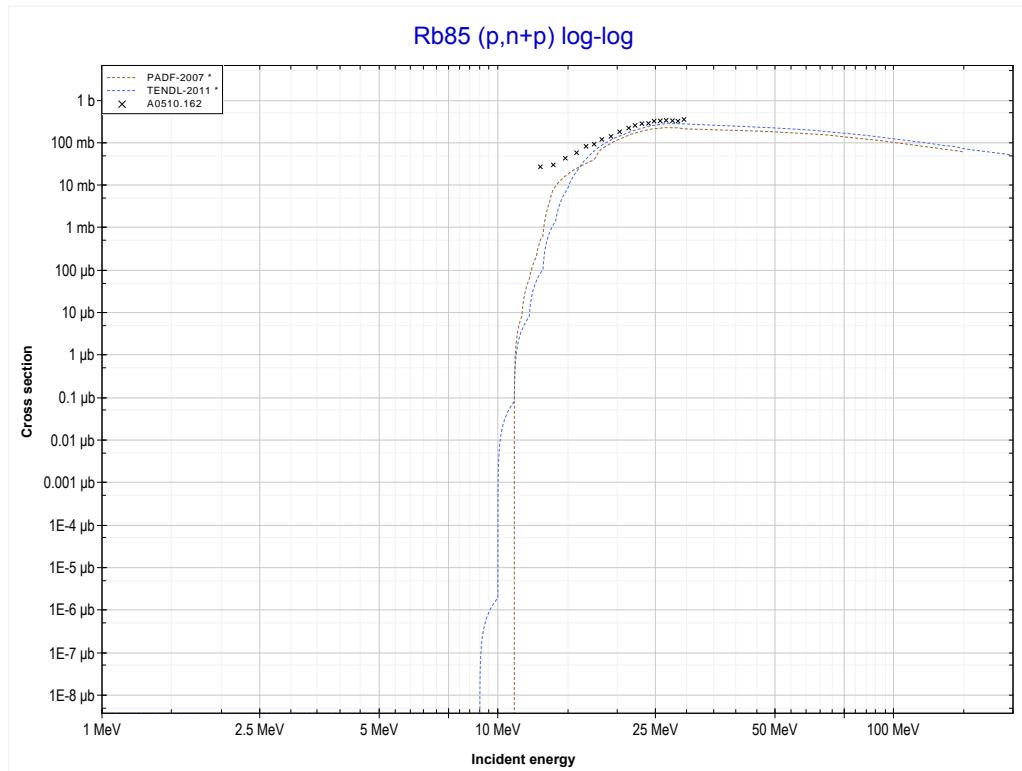
Reaction	Q-Value
Rb85(p,n)Sr85	-1847.08 keV

<< 36-Kr-86	37-Rb-85 MT17 (p,3n) or MT5 (Sr83 production)	38-Sr-88 >>
<< MT4 (p,n)		MT28 (p,n+p) >>



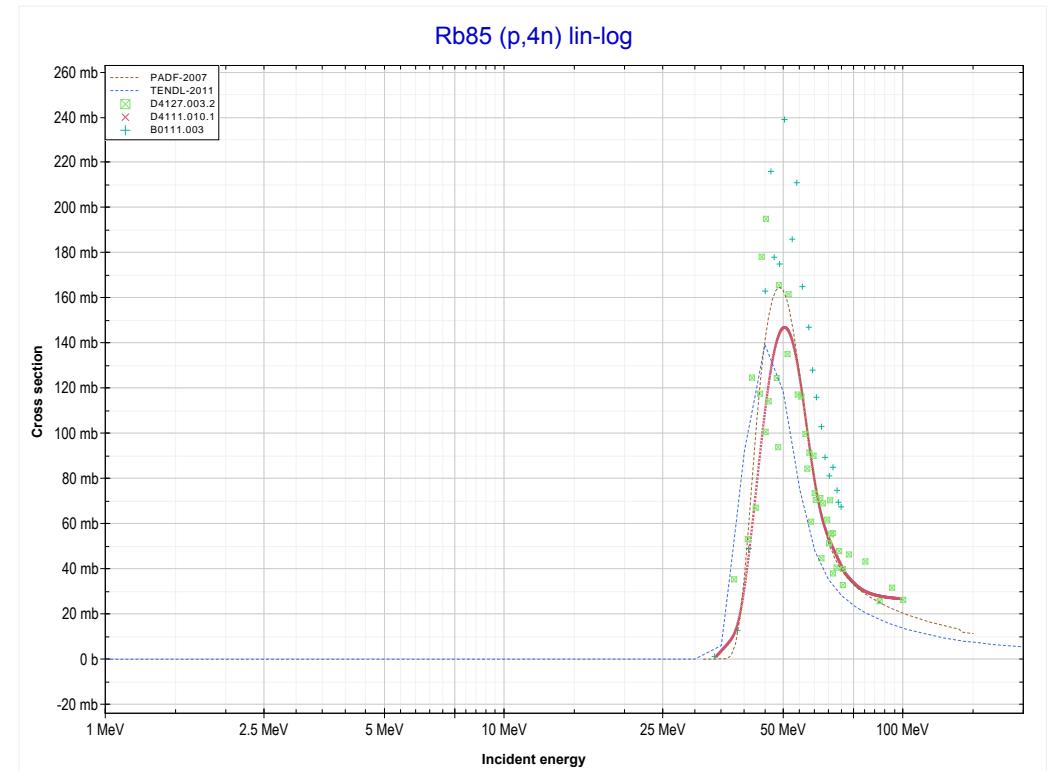
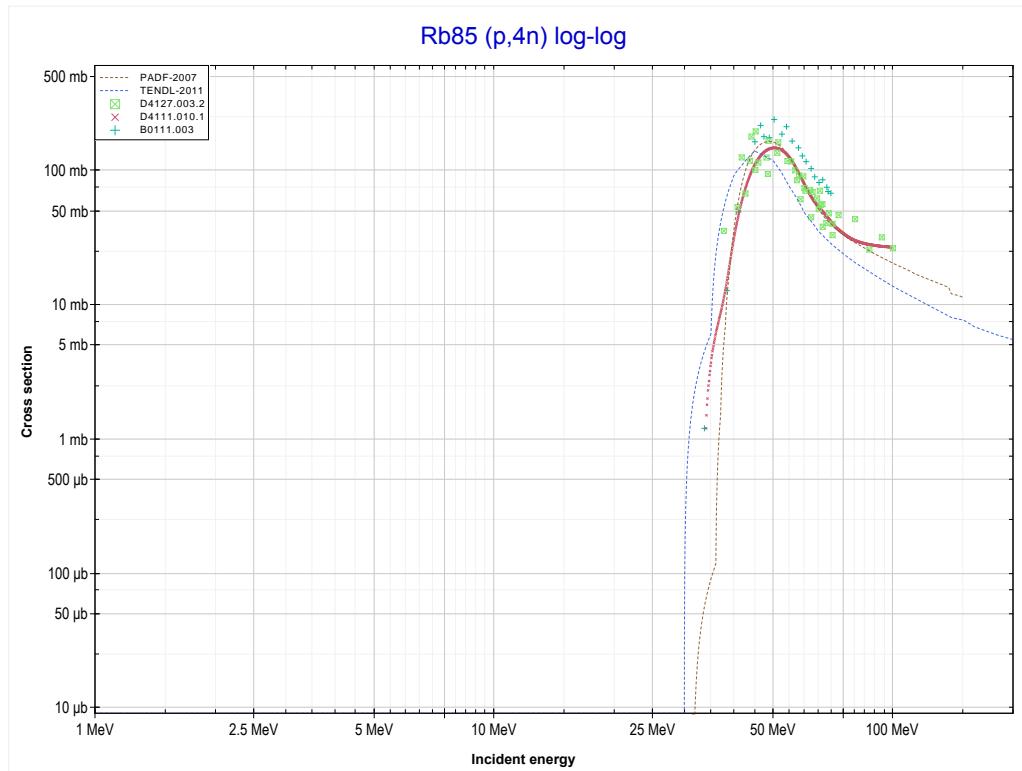
Reaction	Q-Value
Rb85(p,3n)Sr83	-22297.31 keV

<< 36-Kr-78	37-Rb-85 MT28 (p,n+p) or MT5 (Rb84 production)	>> 38-Sr-86
<< MT17 (p,3n)		>> MT37 (p,4n)



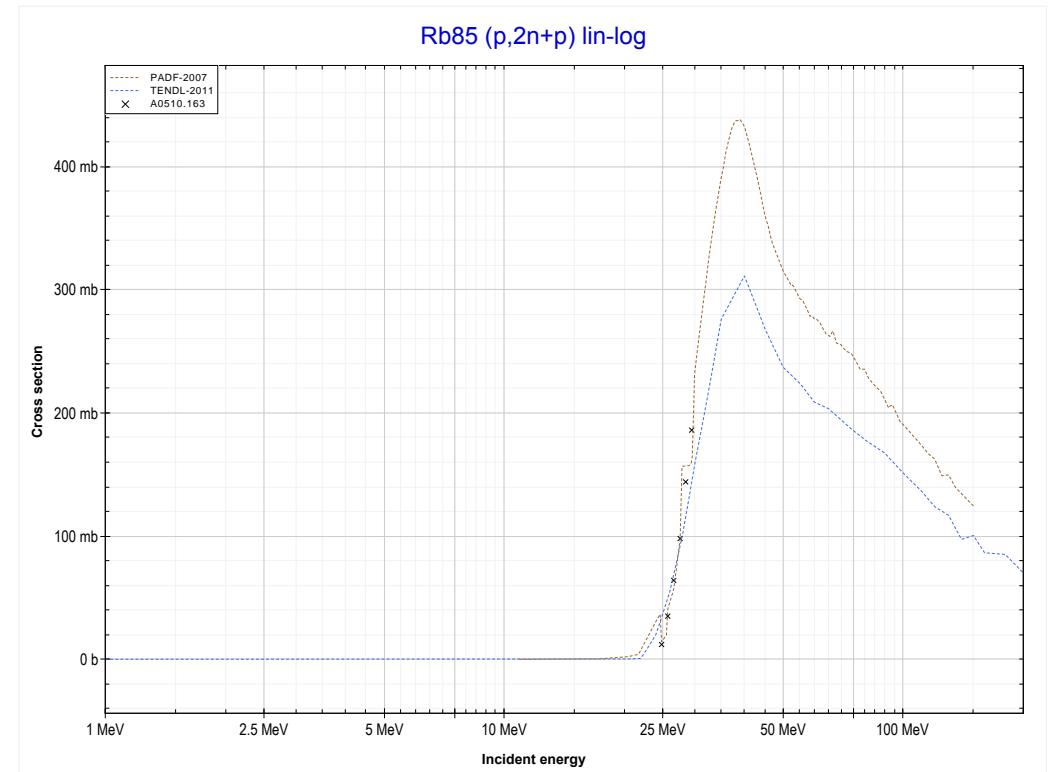
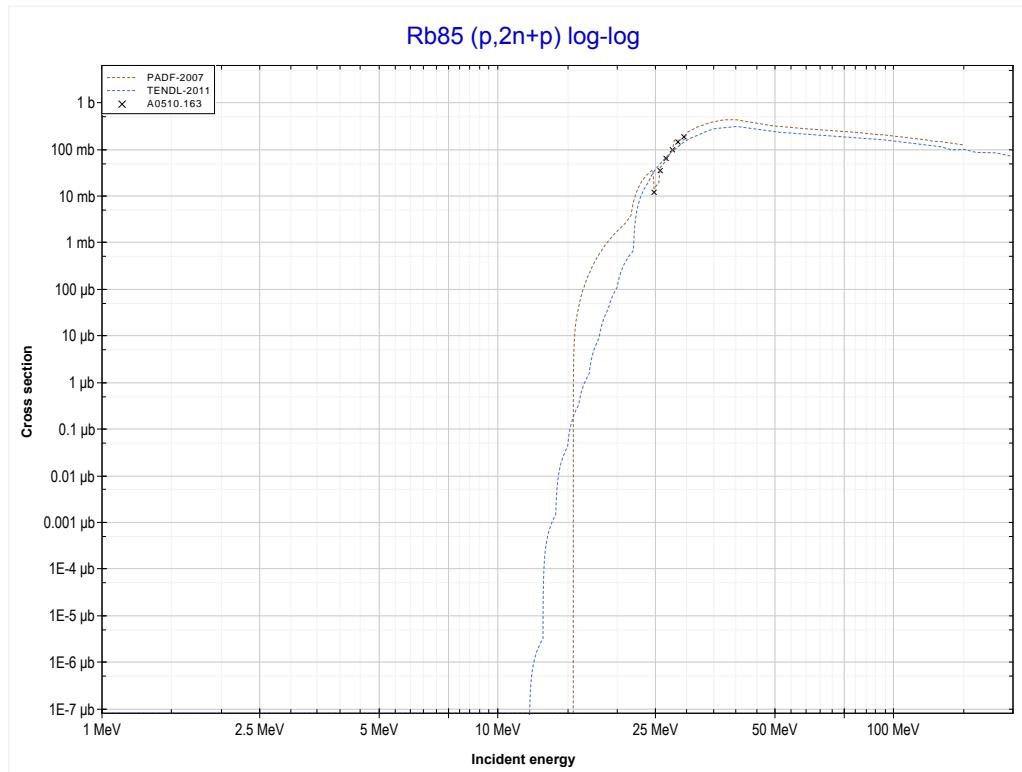
Reaction	Q-Value
Rb85(p,d)Rb84	-8264.08 keV
Rb85(p,n+p)Rb84	-10488.65 keV

<< 35-Br-79	37-Rb-85 MT37 (p,4n) or MT5 (Sr82 production)	38-Sr-88 >>
<< MT28 (p,n+p) >>		MT41 (p,2n+p) >>



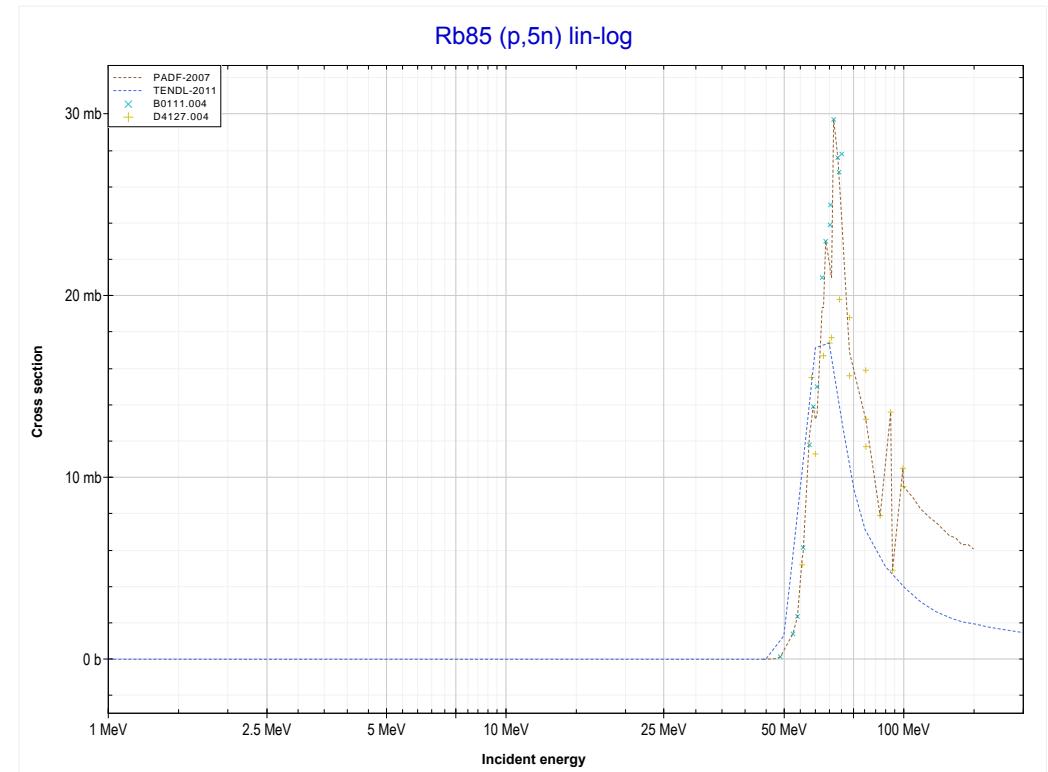
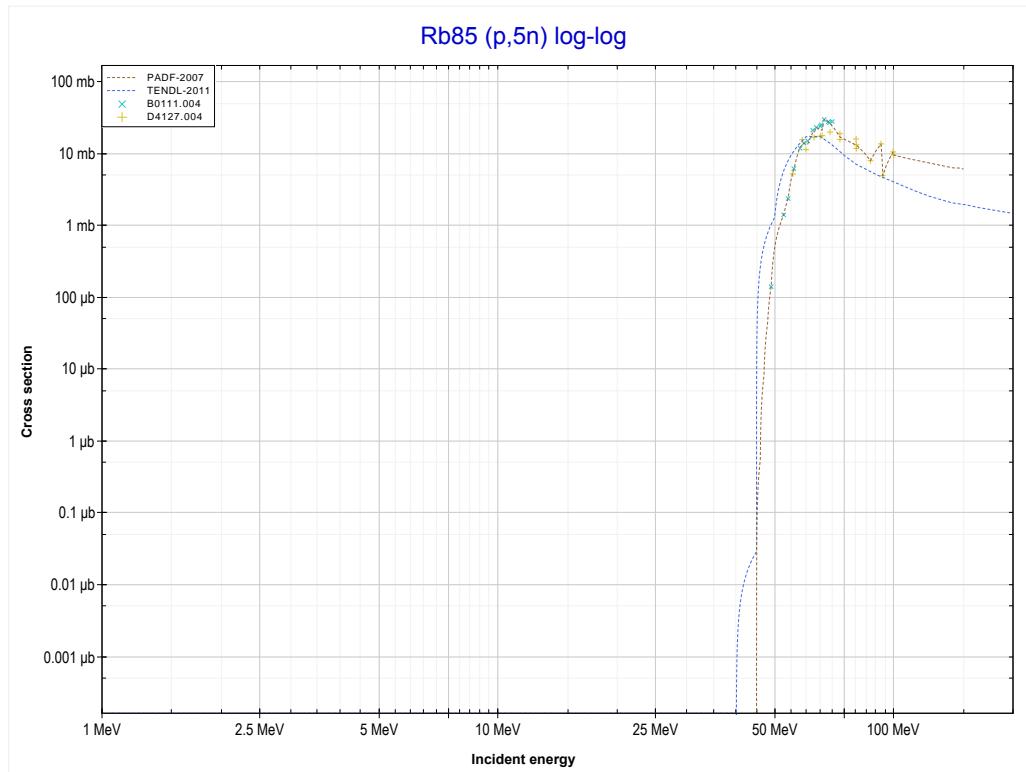
Reaction	Q-Value
Rb85(p,4n)Sr82	-31155.63 keV

<< 35-Br-79	37-Rb-85 MT41 (p,2n+p) or MT5 (Rb83 production)	39-Y-89 >>
<< MT37 (p,4n)		MT152 (p,5n) >>



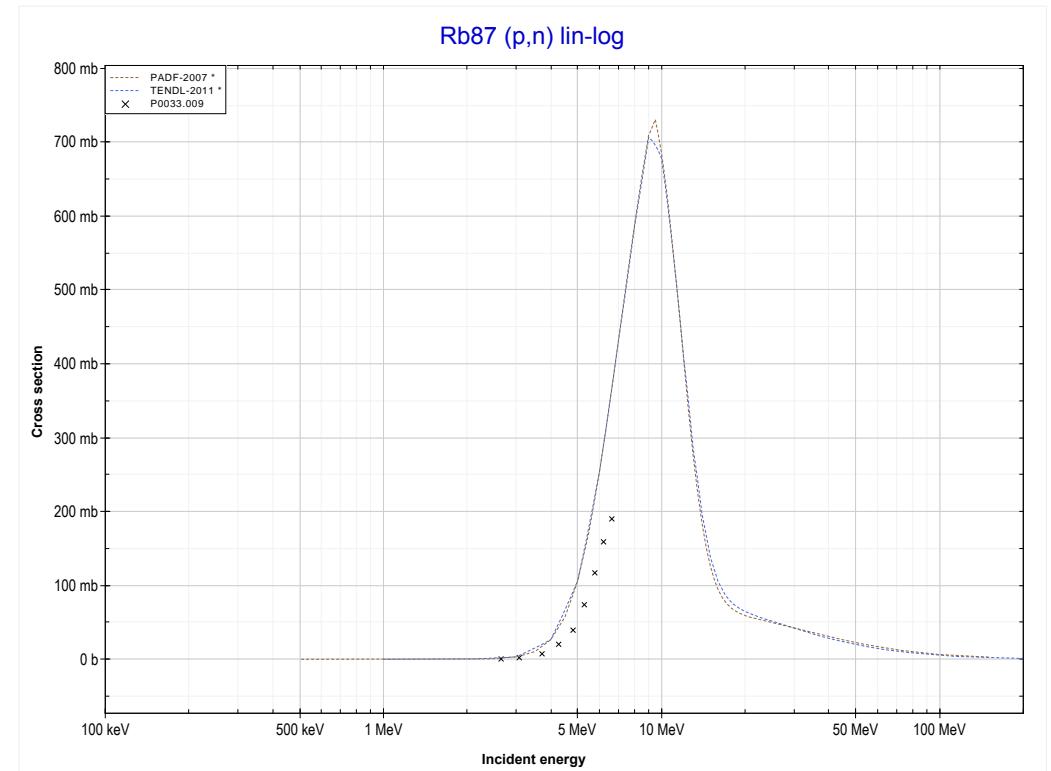
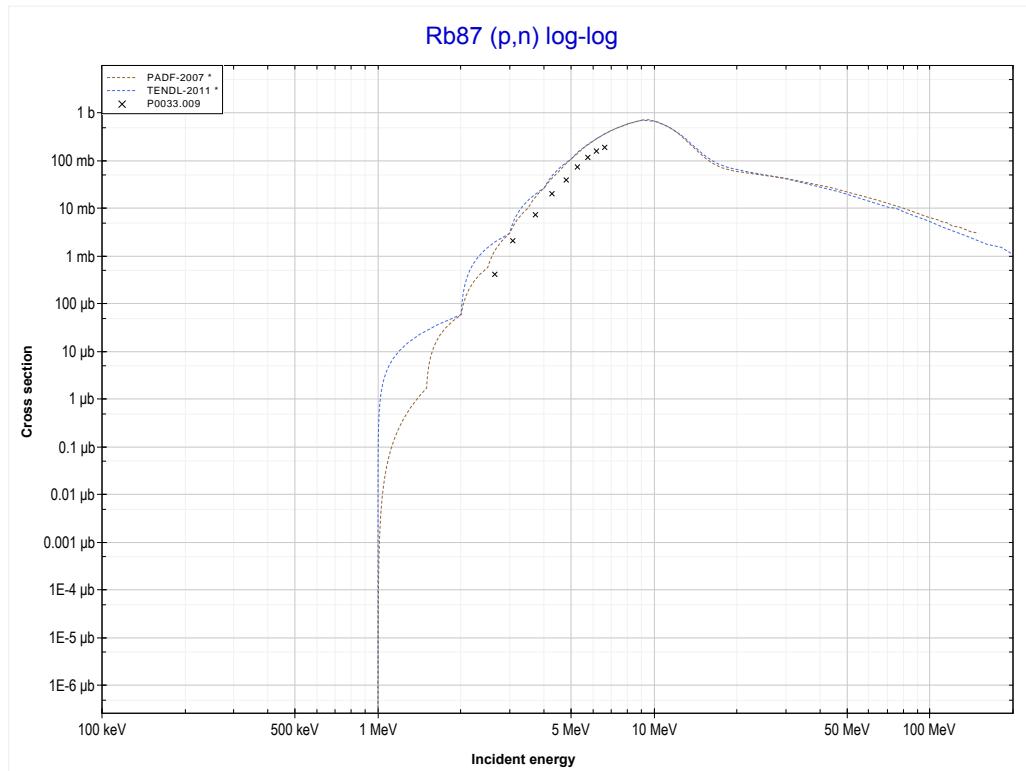
Reaction	Q-Value
Rb85(p,t)Rb83	-10753.17 keV
Rb85(p,n+d)Rb83	-17010.40 keV
Rb85(p,2n+p)Rb83	-19234.97 keV

<< 35-Br-81	37-Rb-85 MT152 (p,5n) or MT5 (Sr81 production)	>> 38-Sr-88
<< MT41 (p,2n+p)		MT4 (p,n) >>



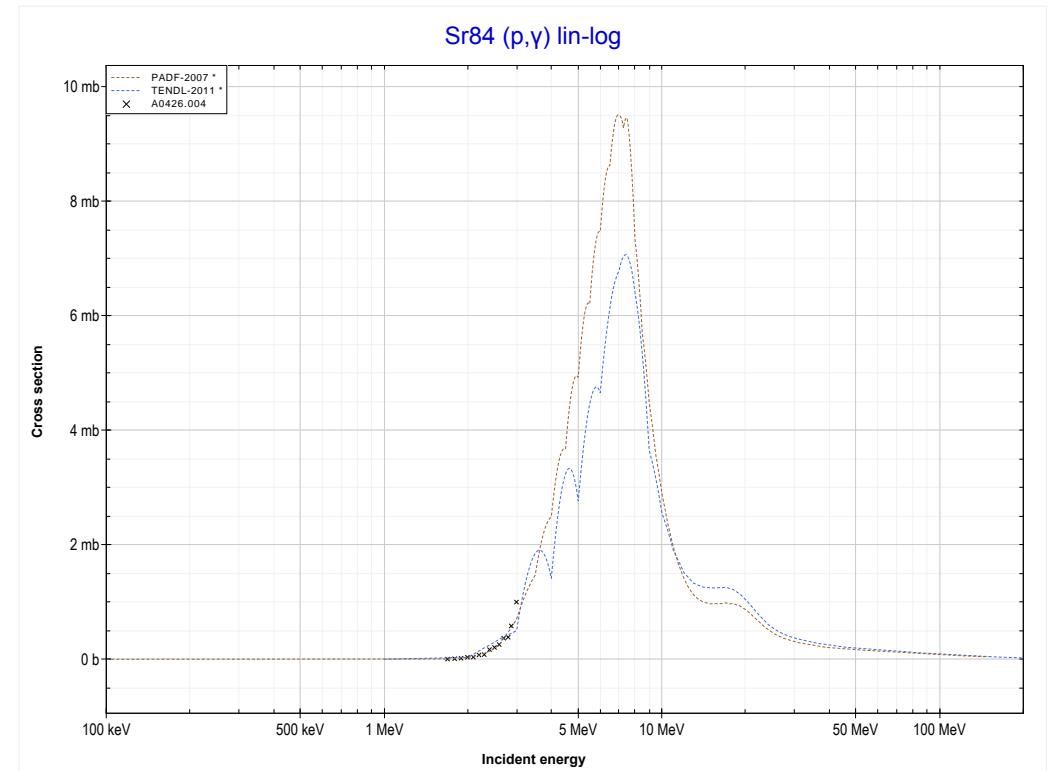
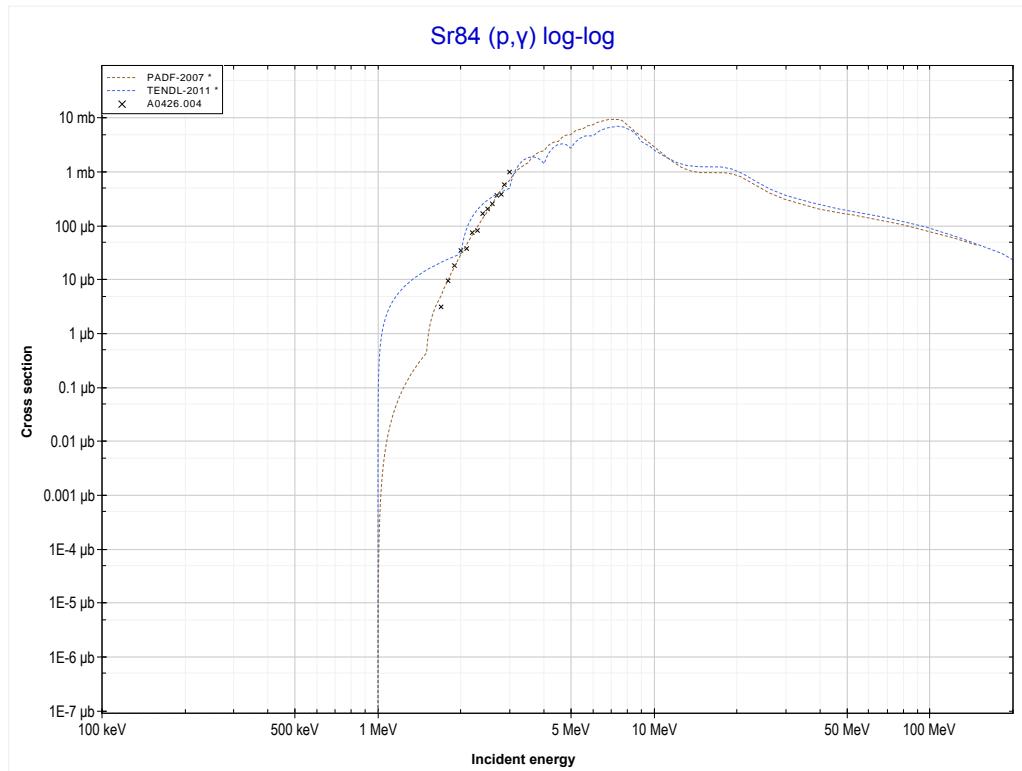
Reaction	Q-Value
Rb85(p,5n)Sr81	-43706.95 keV

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



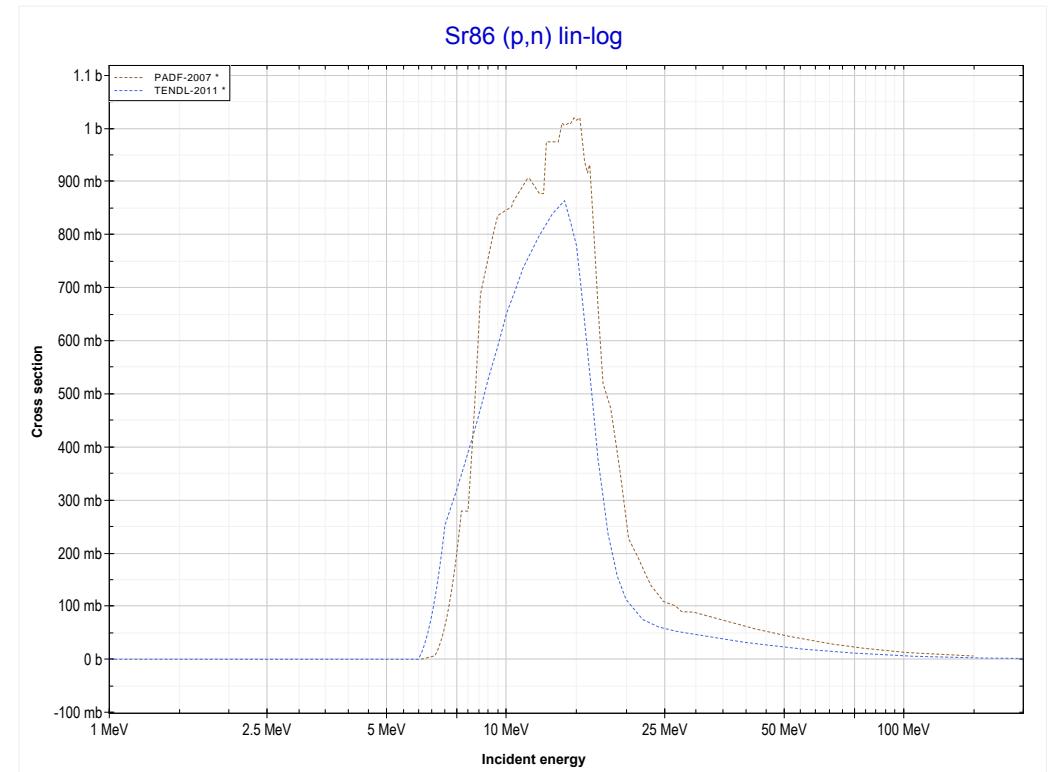
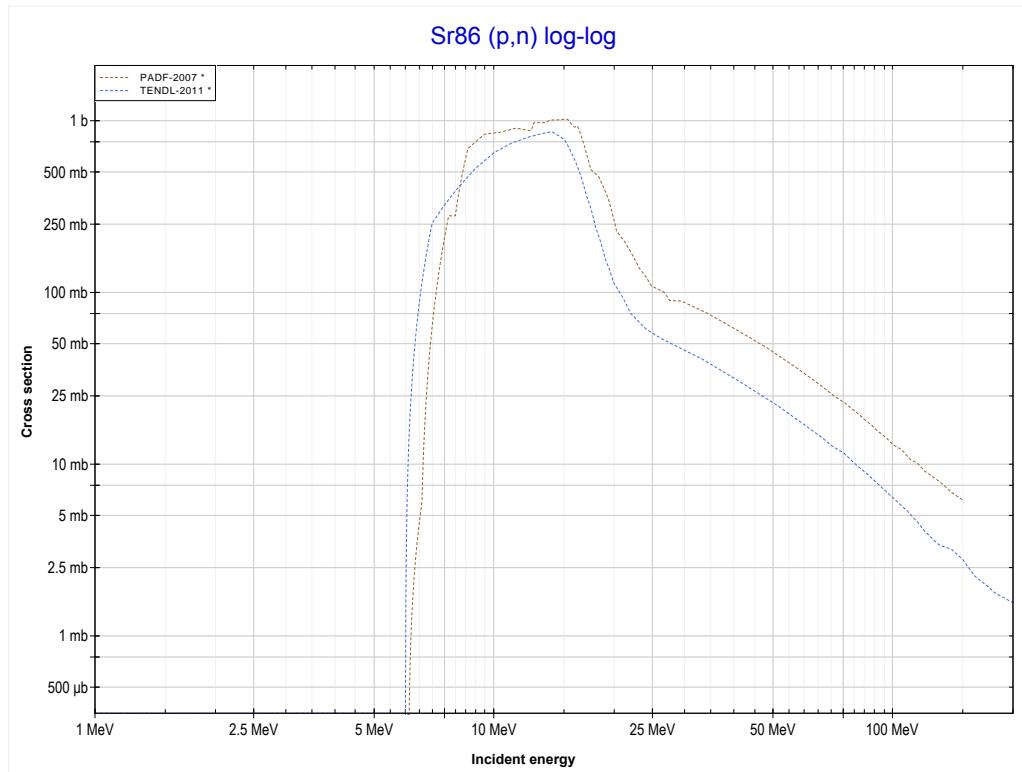
Reaction	Q-Value
Rb87(p,n)Sr87	-499.74 keV

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



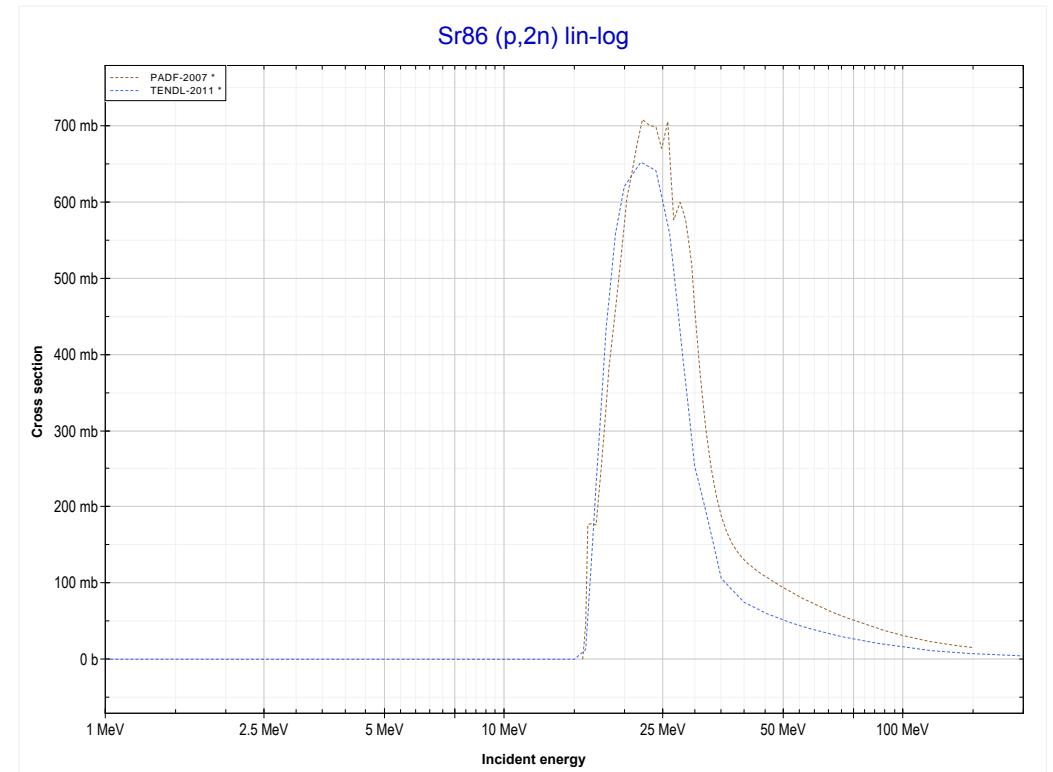
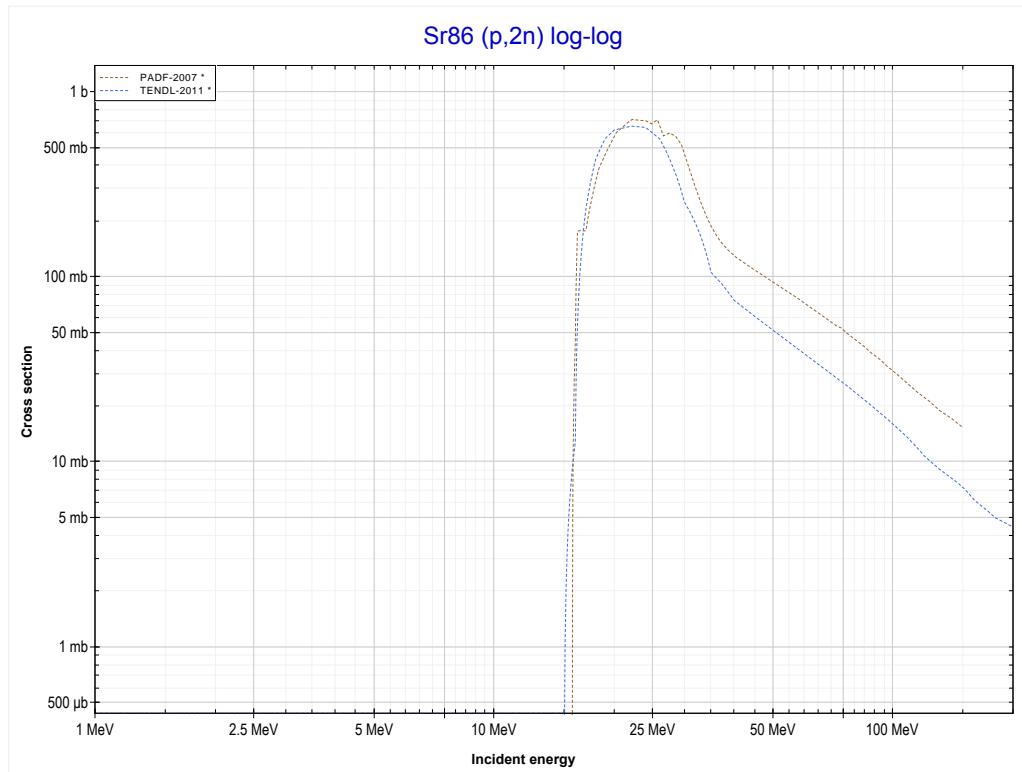
Reaction	Q-Value
Sr84(p,y)Y85	4486.97 keV

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



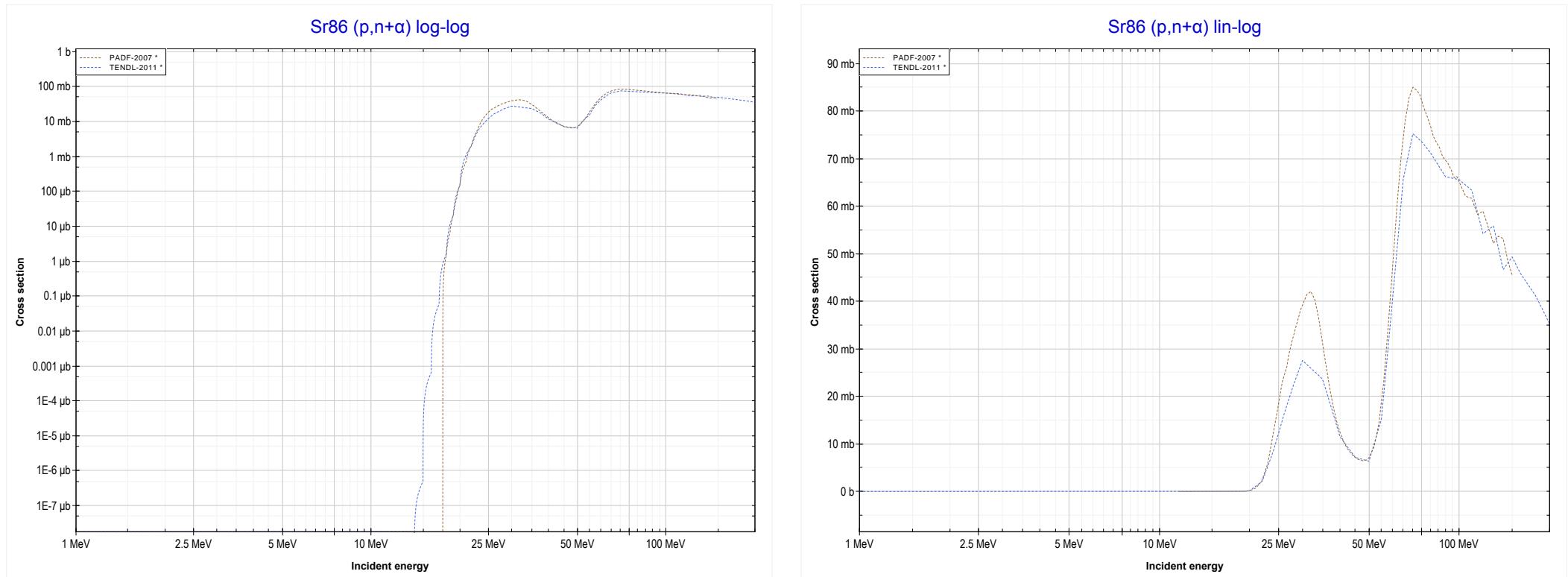
Reaction	Q-Value
Sr86(p,n)Y86	-6021.95 keV

<< 36-Kr-84	38-Sr-86 MT16 (p,2n) or MT5 (Y85 production)	>> 38-Sr-87
<< MT4 (p,n)		>> MT22 (p,n+α) >>



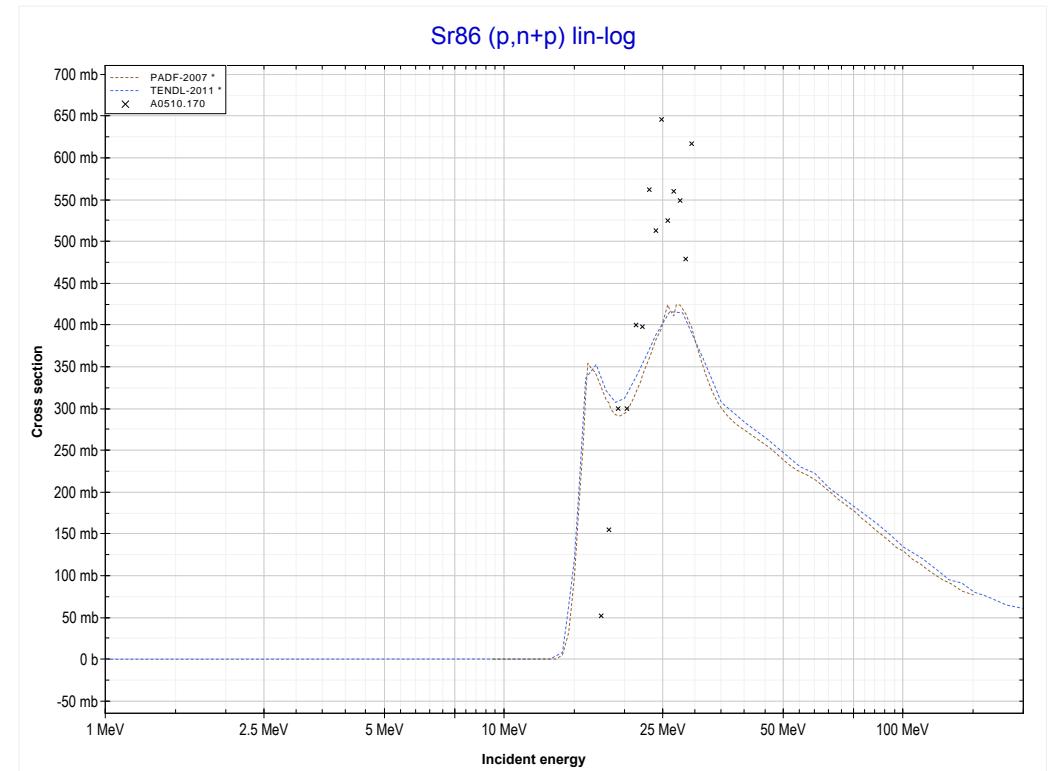
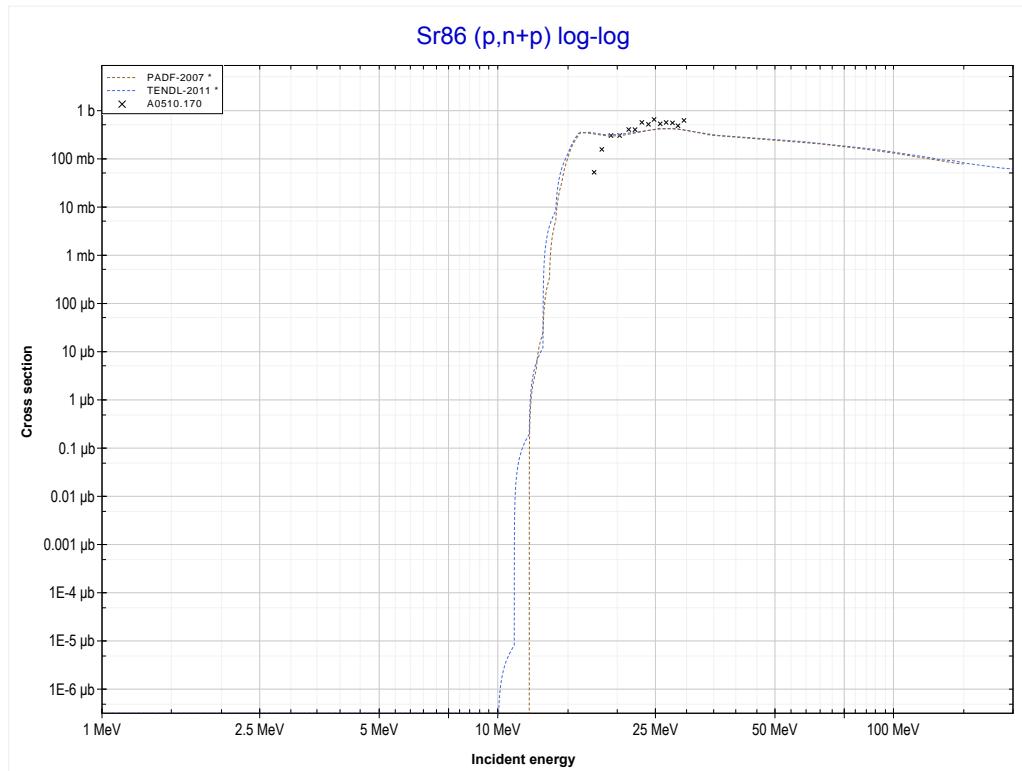
Reaction	Q-Value
Sr86(p,2n)Y85	-15535.26 keV

<< 36-Kr-80	38-Sr-86 MT22 (p,n+α) or MT5 (Rb82 production)	>> 38-Sr-87
<< MT16 (p,2n)		>> MT28 (p,n+p) >>



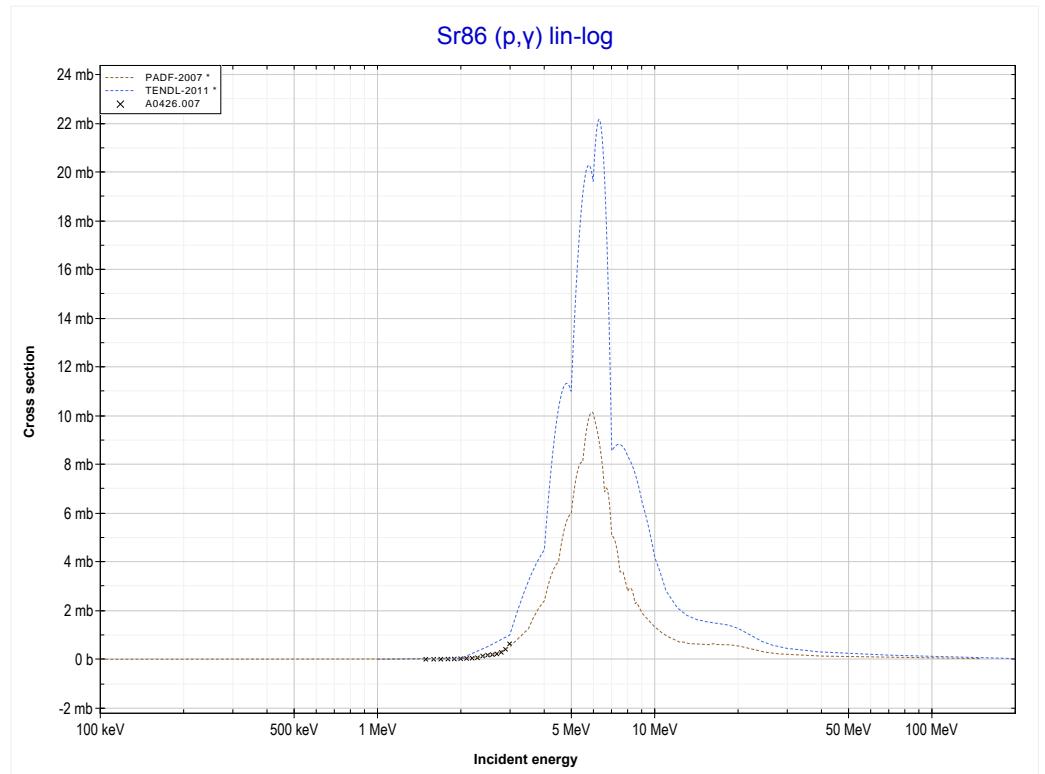
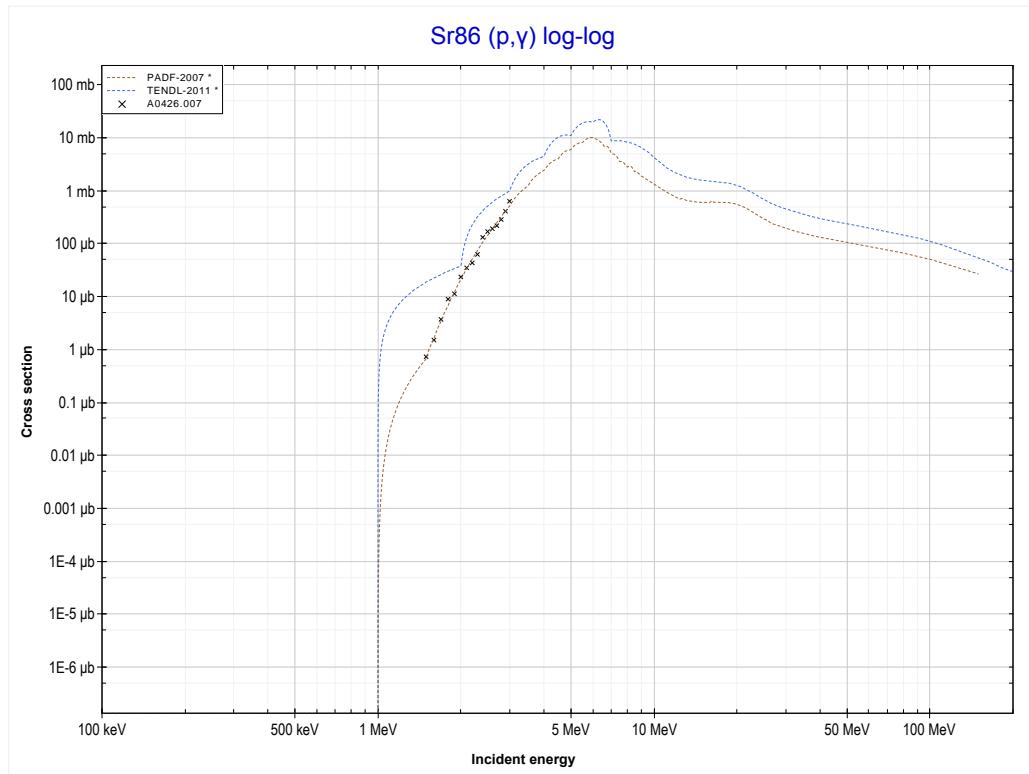
Reaction	Q-Value
Sr86(p,n+α)Rb82	-11542.66 keV
Sr86(p,d+t)Rb82	-29131.96 keV
Sr86(p,n+p+t)Rb82	-31356.52 keV
Sr86(p,2n+He3)Rb82	-32120.28 keV
Sr86(p,n+2d)Rb82	-35389.19 keV
Sr86(p,2n+p+d)Rb82	-37613.76 keV
Sr86(p,3n+2p)Rb82	-39838.32 keV

<< 37-Rb-85	38-Sr-86 MT28 (p,n+p) or MT5 (Sr85 production)	39-Y-89 >>
<< MT22 (p,n+α)		MT102 (p,γ) >>



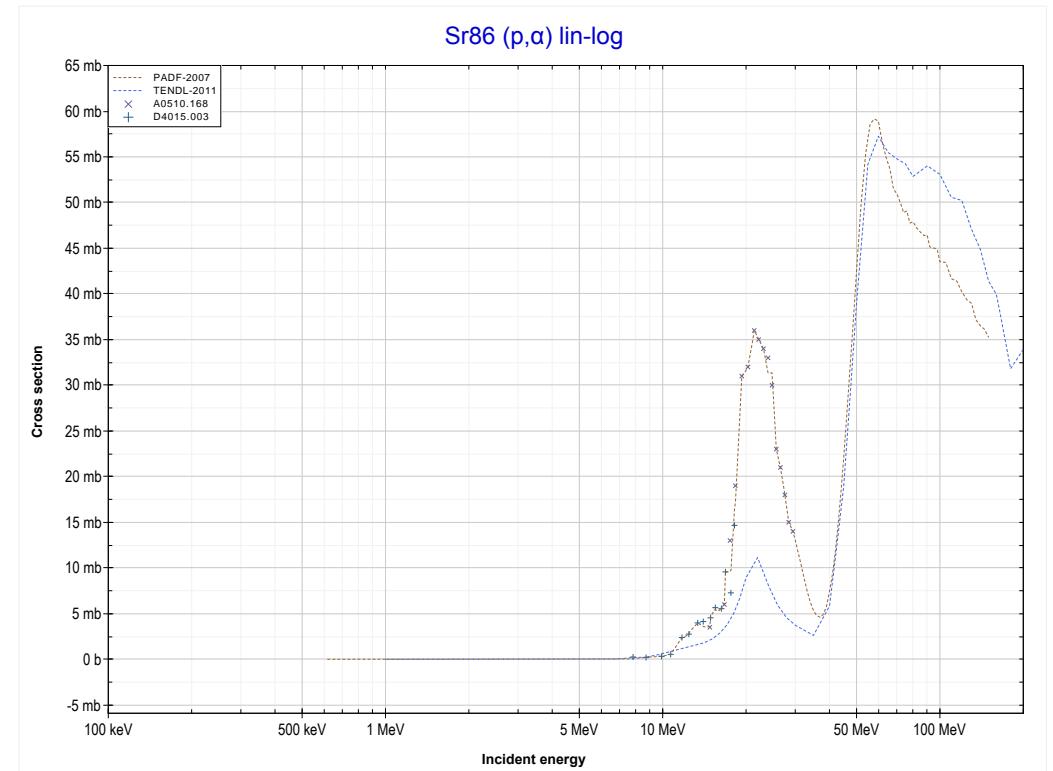
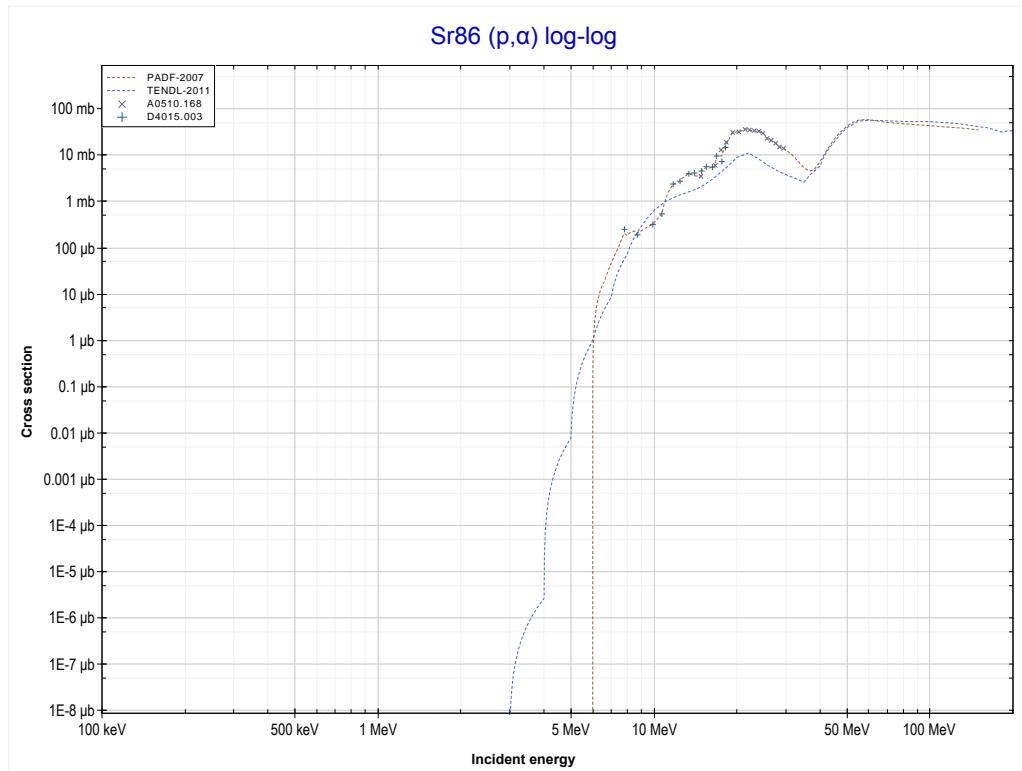
Reaction	Q-Value
Sr86(p,d)Sr85	-9267.75 keV
Sr86(p,n+p)Sr85	-11492.32 keV

<< 38-Sr-84	38-Sr-86 MT102 (p,γ) or MT5 (Y87 production)	>> 38-Sr-87
<< MT28 ($p,n+p$)		MT107 (p,α) >>



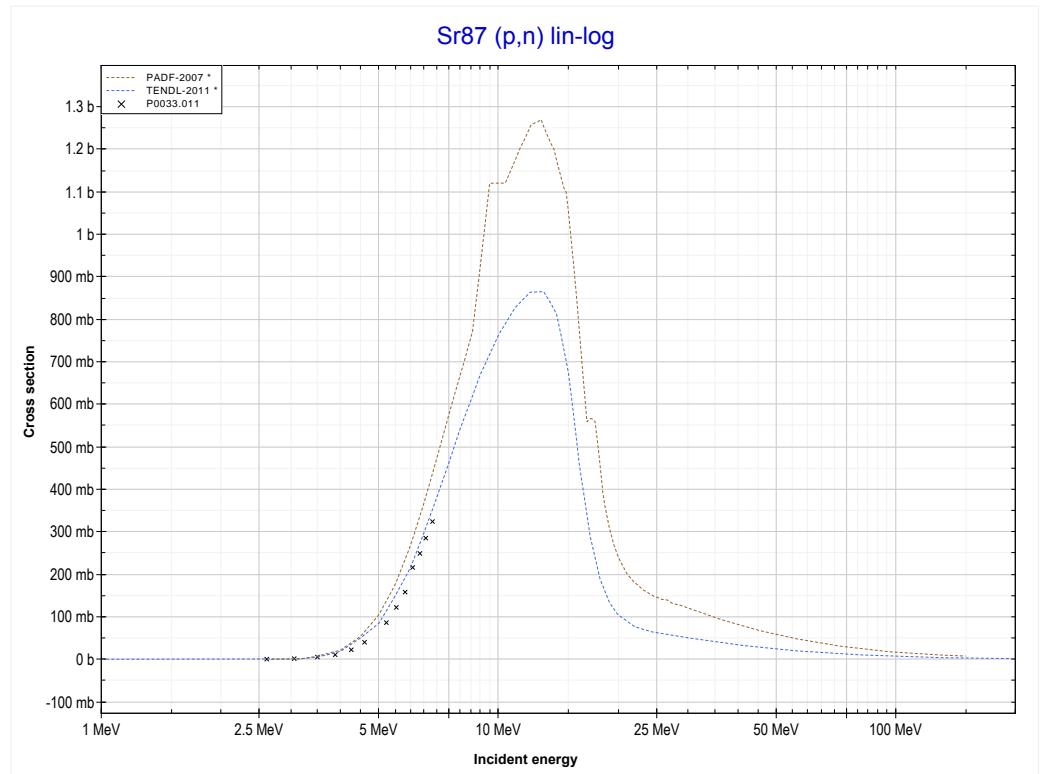
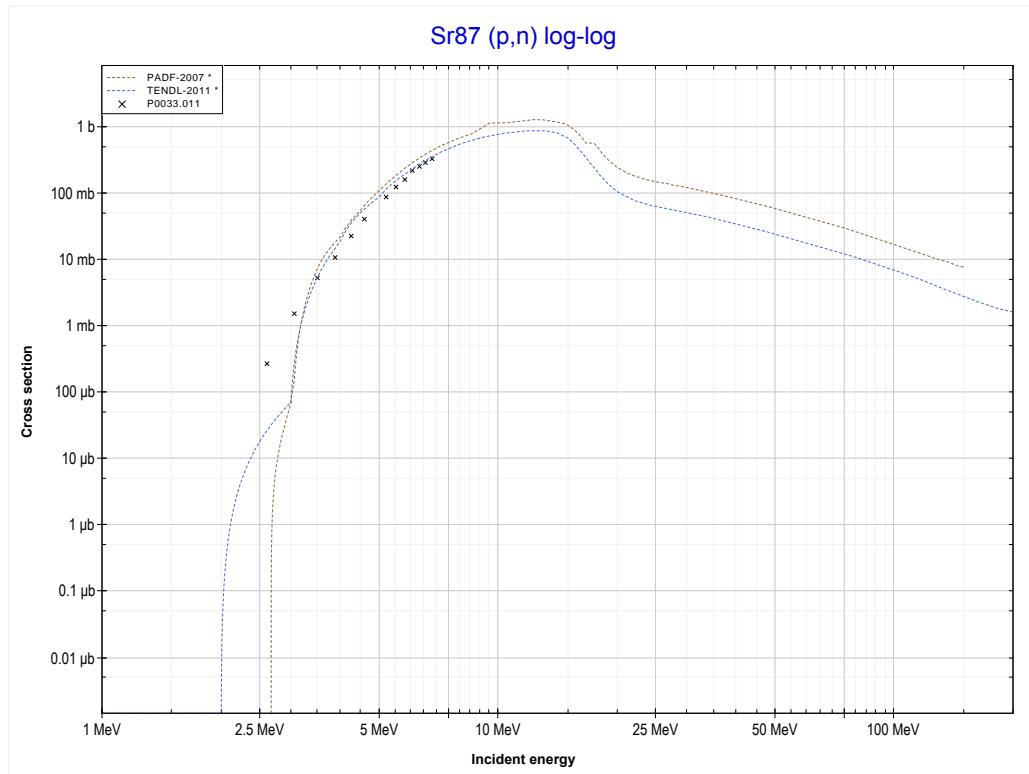
Reaction	Q-Value
Sr86(p,γ)Y87	5784.07 keV

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



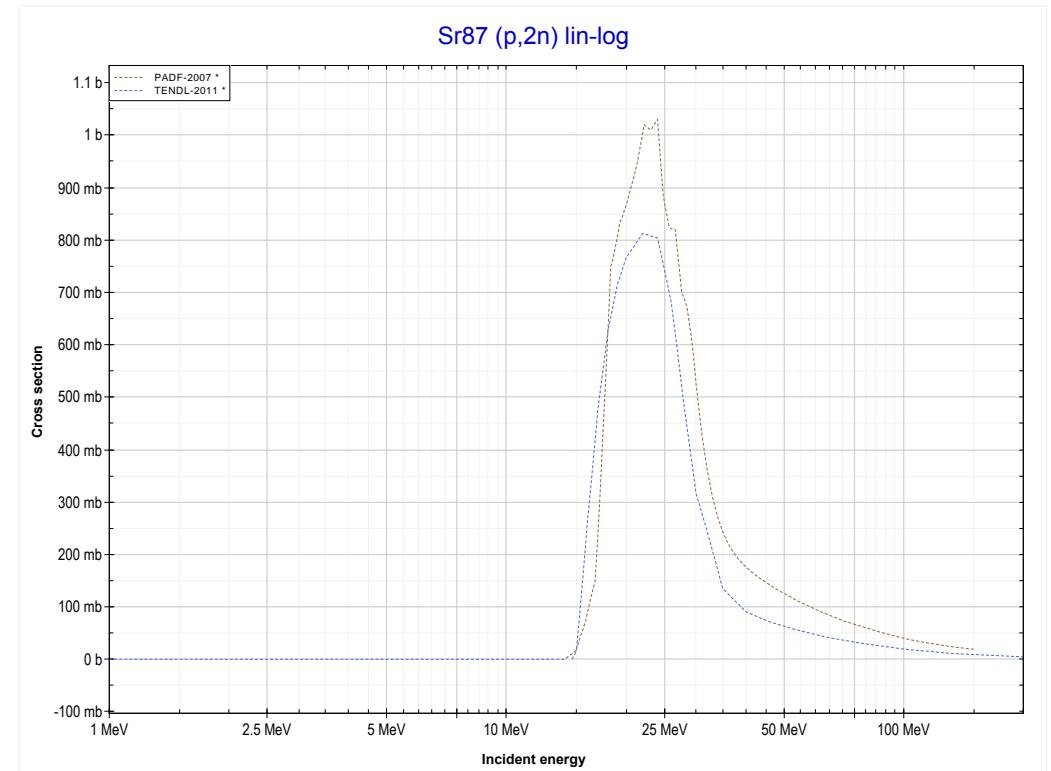
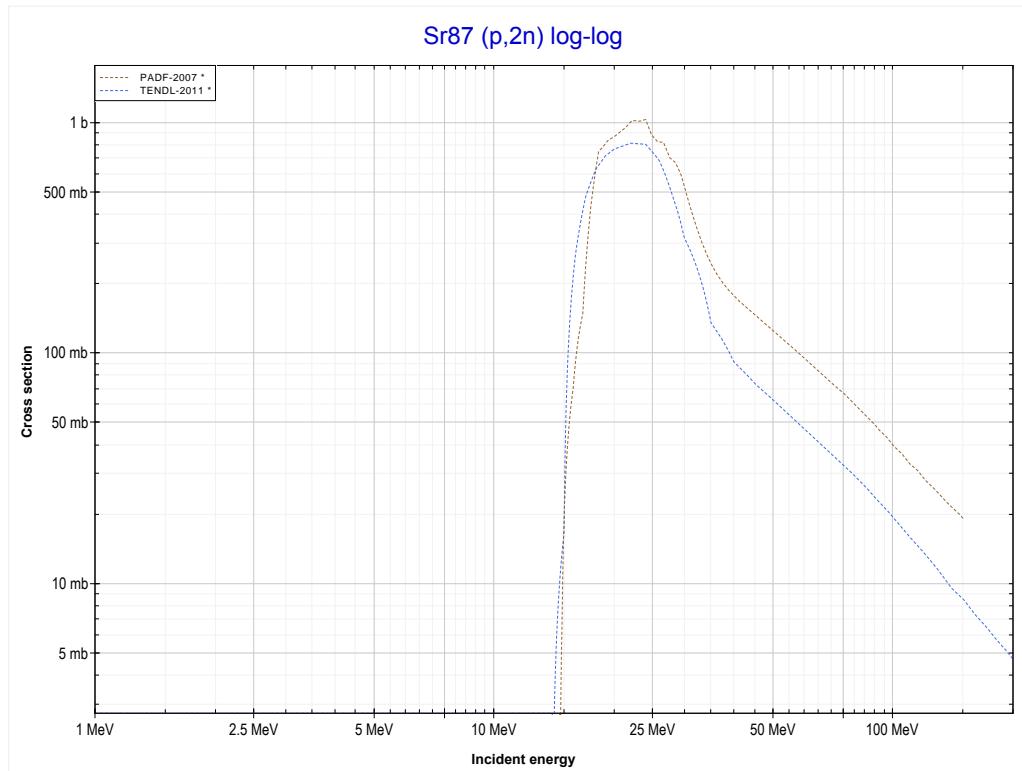
Reaction	Q-Value
Sr86(p,α)Rb83	-584.55 keV
Sr86($p,p+t$)Rb83	-20398.41 keV
Sr86($p,n+He3$)Rb83	-21162.16 keV
Sr86($p,2d$)Rb83	-24431.07 keV
Sr86($p,n+p+d$)Rb83	-26655.64 keV
Sr86($p,2n+2p$)Rb83	-28880.20 keV

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



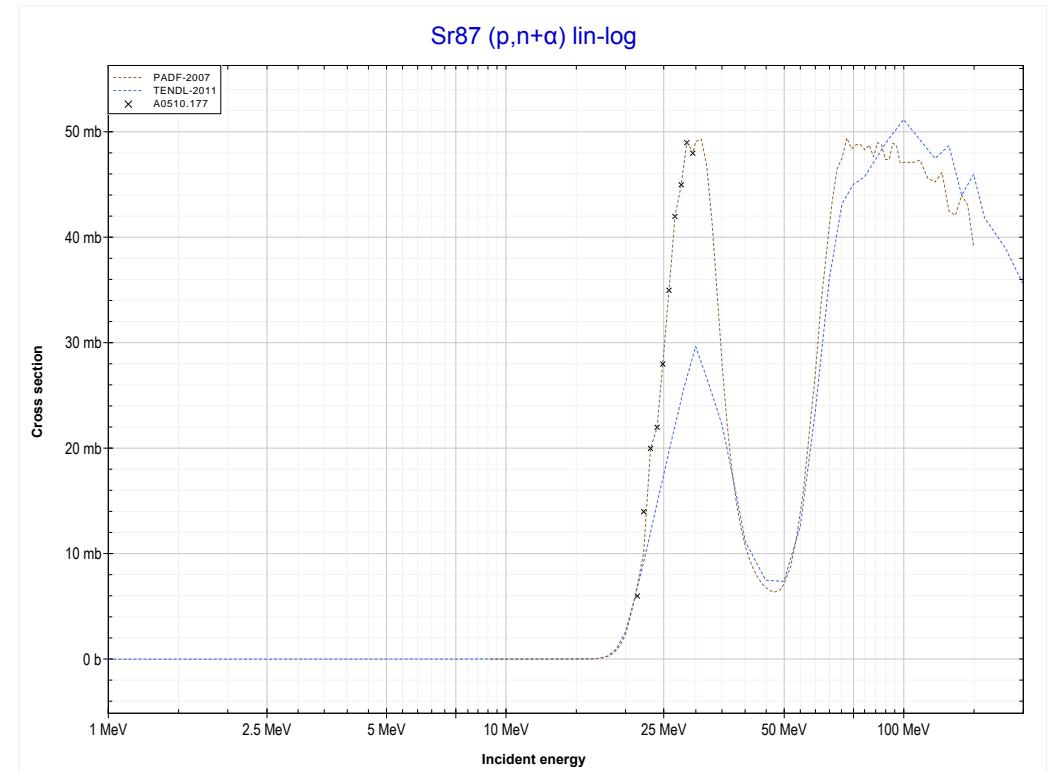
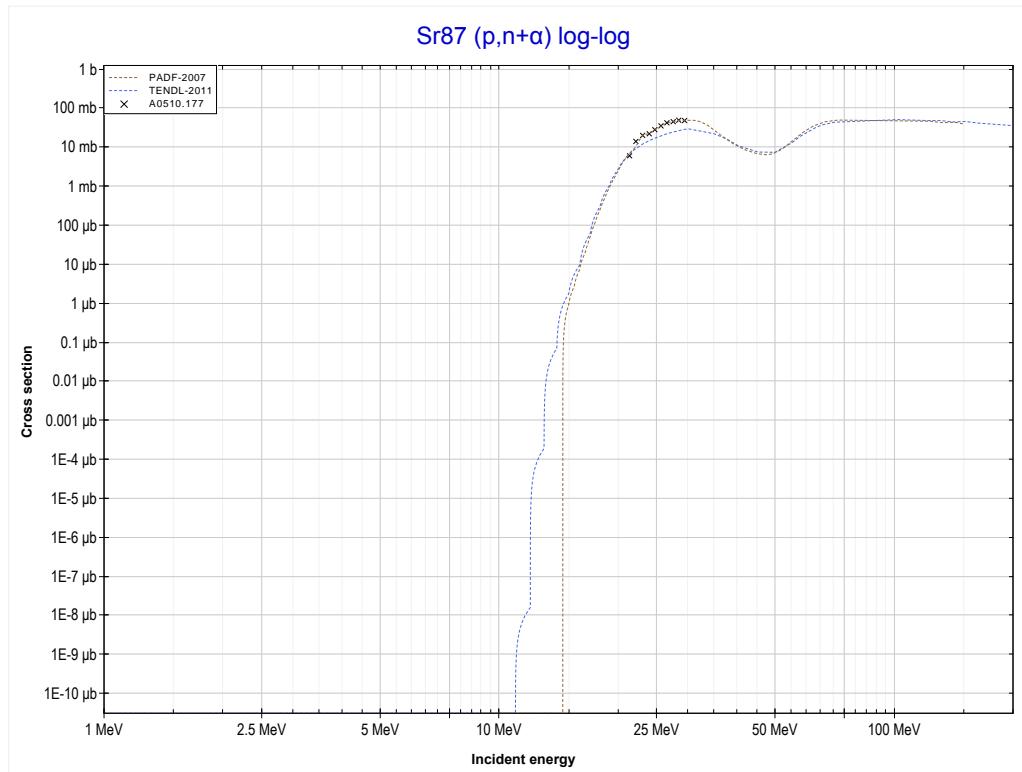
Reaction	Q-Value
Sr87(p,n)Y87	-2644.05 keV

<< 38-Sr-86	38-Sr-87 MT16 (p,2n) or MT5 (Y86 production)	38-Sr-88 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



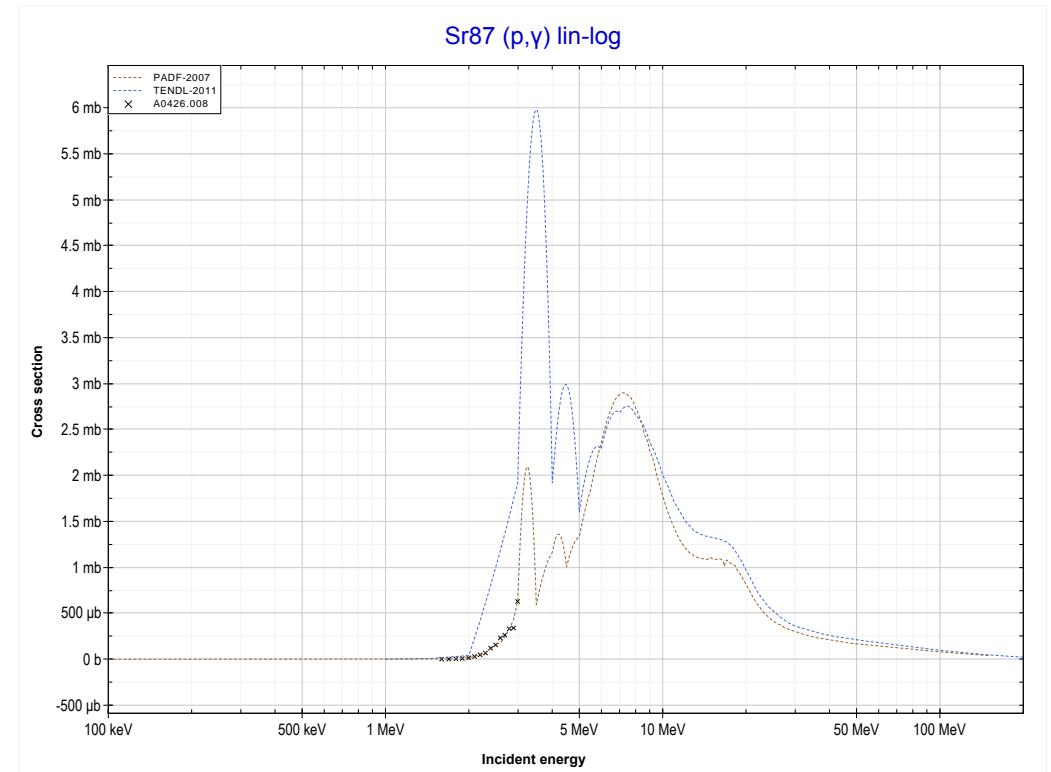
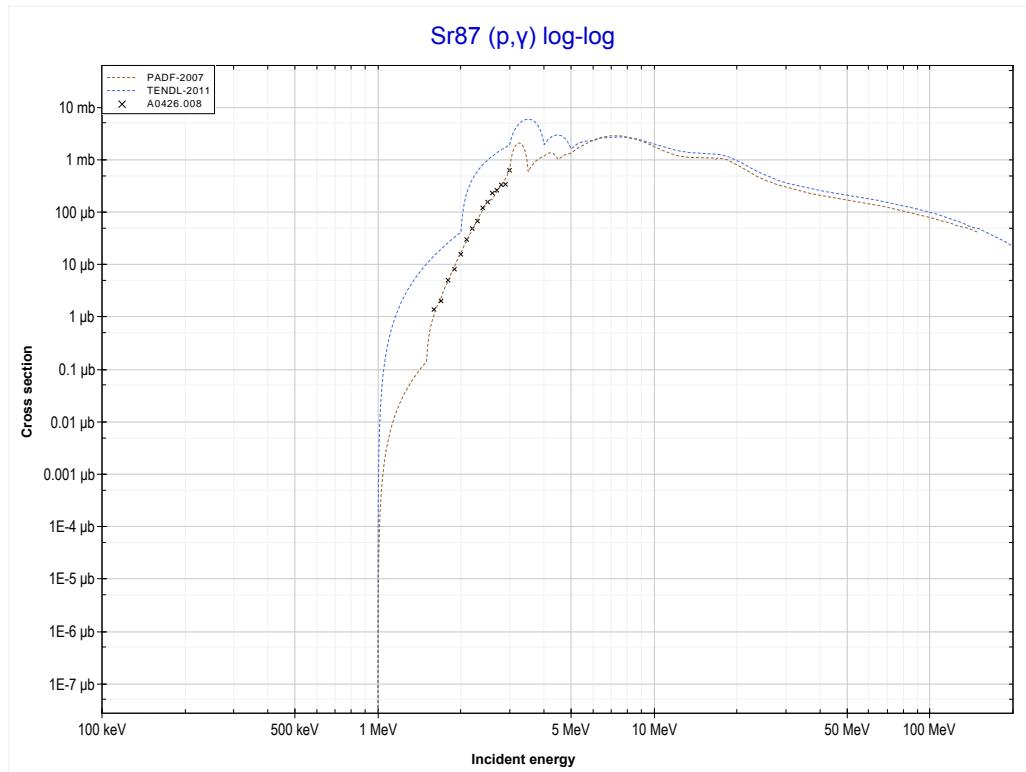
Reaction	Q-Value
Sr87(p,2n)Y86	-14450.06 keV

<< 38-Sr-86	38-Sr-87 MT22 (p,n+α) or MT5 (Rb83 production)	38-Sr-88 >>
<< MT16 (p,2n)		MT102 (p,y) >>

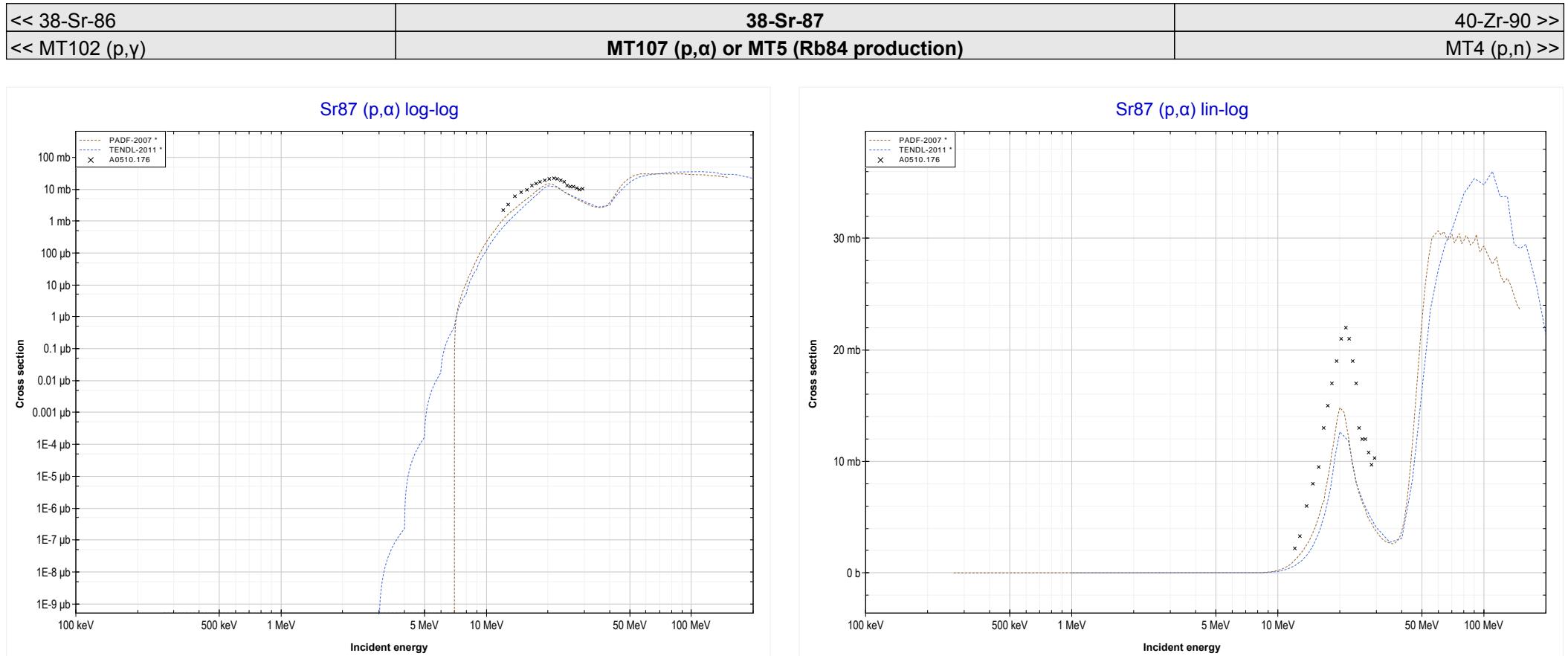


Reaction	Q-Value
Sr87(p,n+α)Rb83	-9012.66 keV
Sr87(p,d+t)Rb83	-26601.96 keV
Sr87(p,n+p+t)Rb83	-28826.52 keV
Sr87(p,2n+He3)Rb83	-29590.28 keV
Sr87(p,n+2d)Rb83	-32859.19 keV
Sr87(p,2n+p+d)Rb83	-35083.76 keV
Sr87(p,3n+2p)Rb83	-37308.32 keV

<< 38-Sr-86	38-Sr-87 MT102 (p,γ) or MT5 (Y88 production)	>> 42-Mo-92
<< MT22 ($p,n+\alpha$)		MT107 (p,α) >>

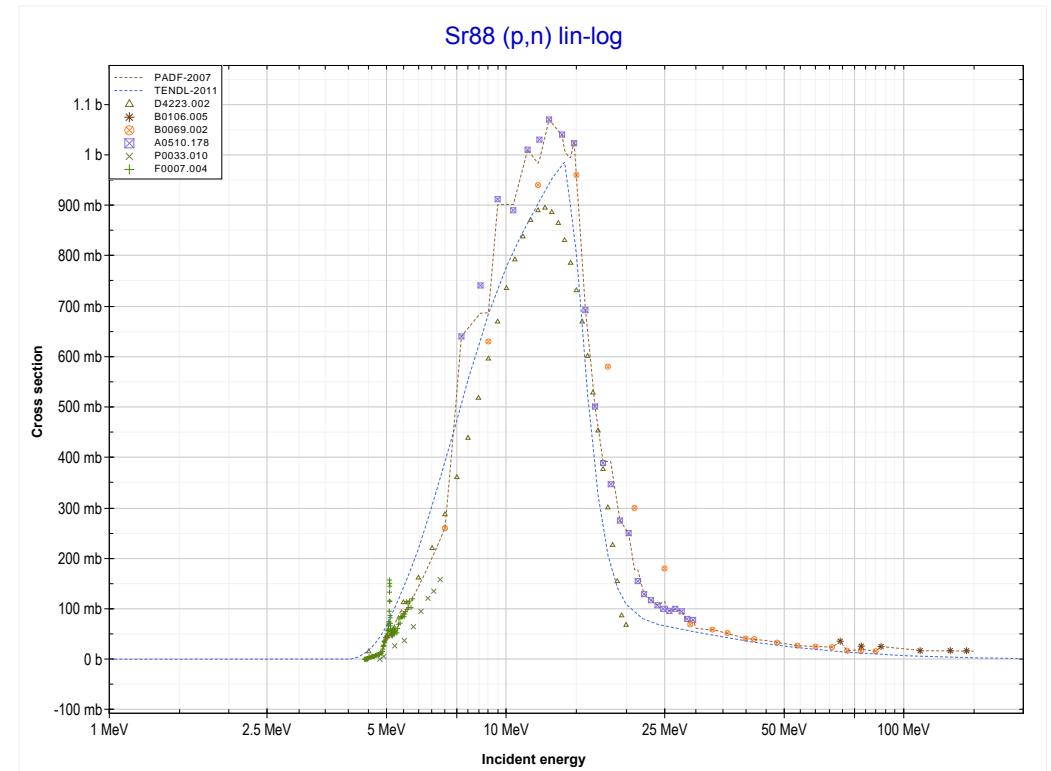
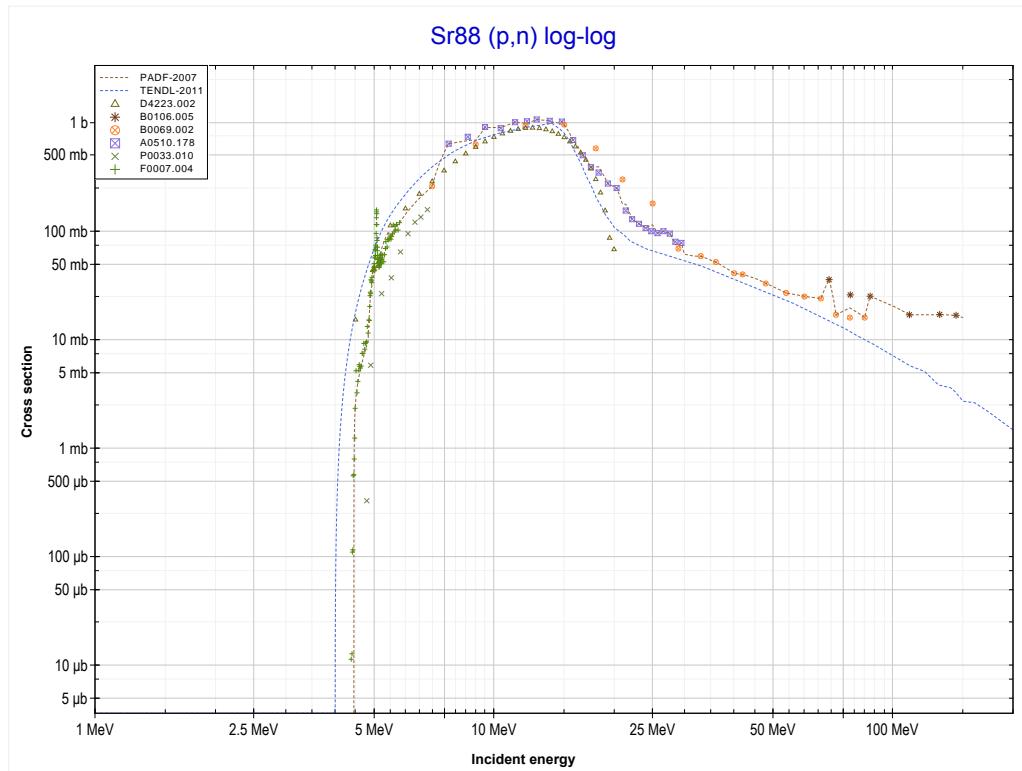


Reaction	Q-Value
Sr87(p,γ)Y88	6707.67 keV



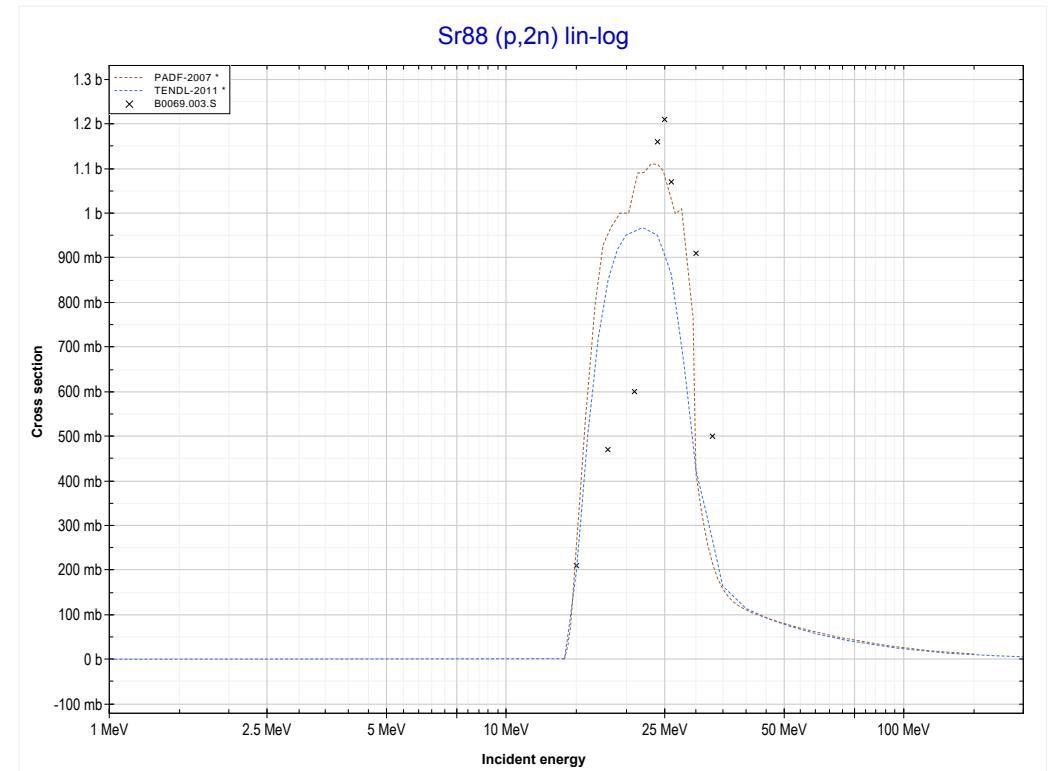
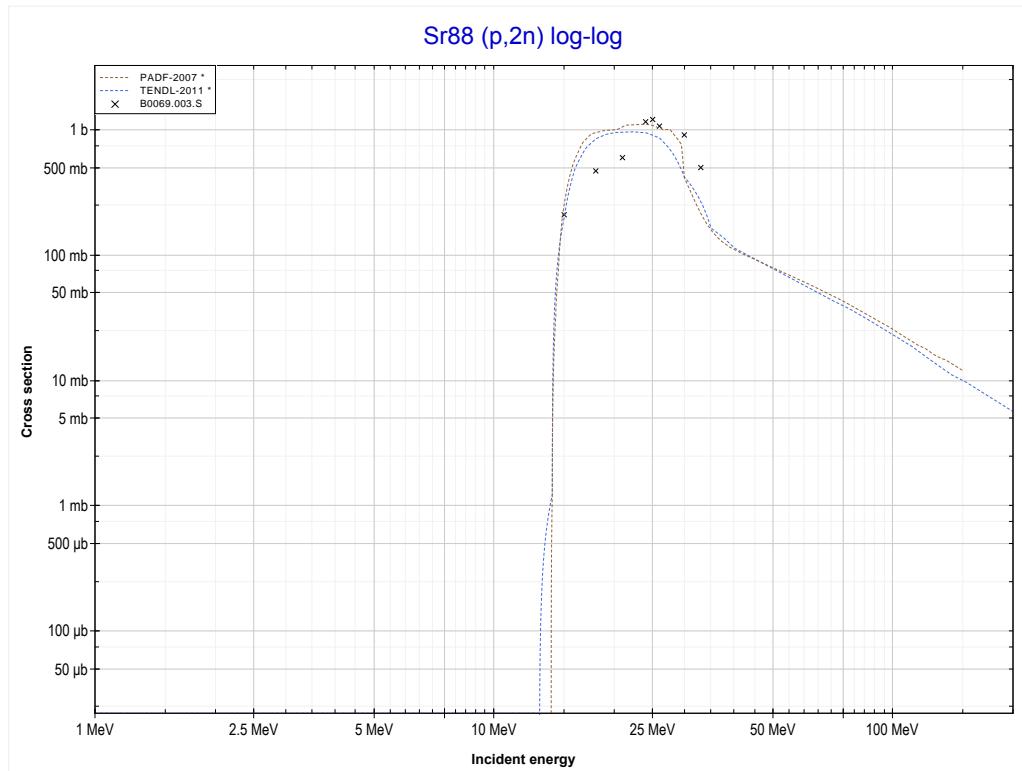
Reaction	Q-Value
Sr87(p,α)Rb84	-266.35 keV
Sr87($p,p+t$)Rb84	-20080.21 keV
Sr87($p,n+He3$)Rb84	-20843.96 keV
Sr87($p,2d$)Rb84	-24112.87 keV
Sr87($p,n+p+d$)Rb84	-26337.44 keV
Sr87($p,2n+2p$)Rb84	-28562.00 keV

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



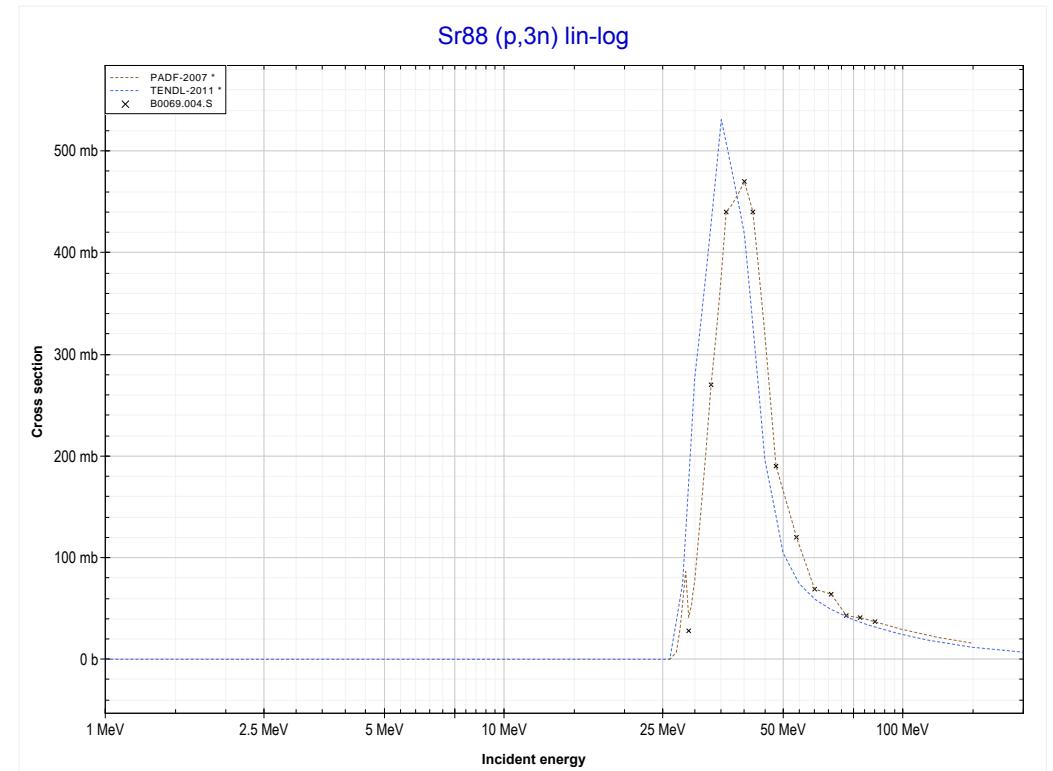
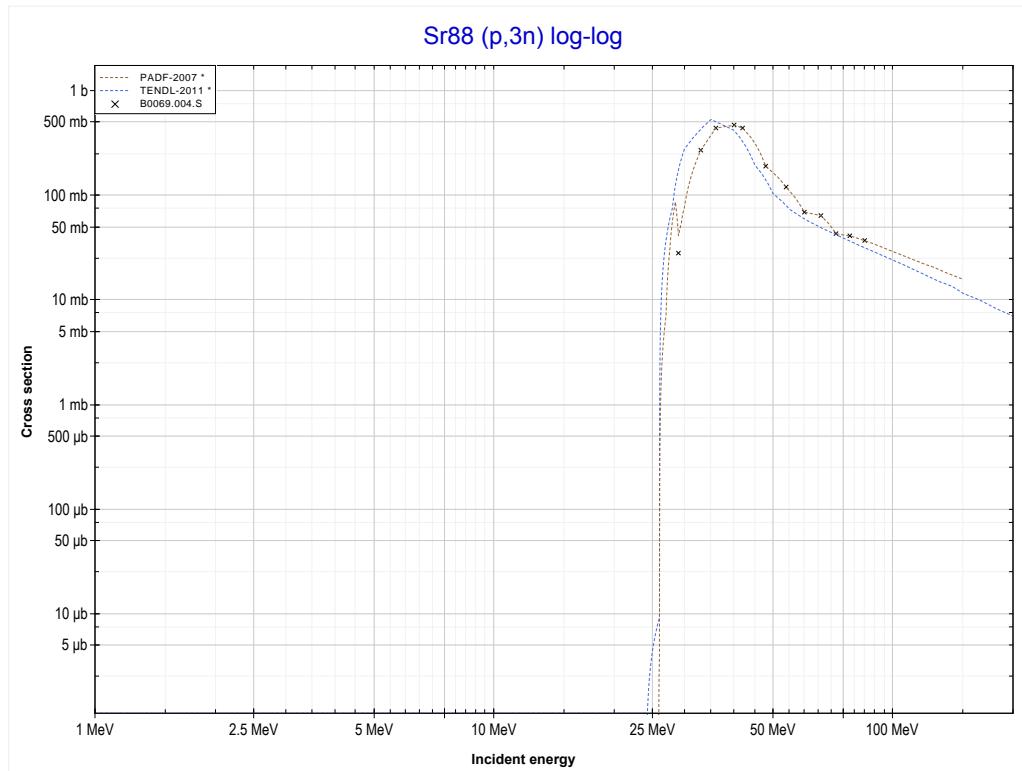
Reaction	Q-Value
Sr88(p,n)Y88	-4404.95 keV

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



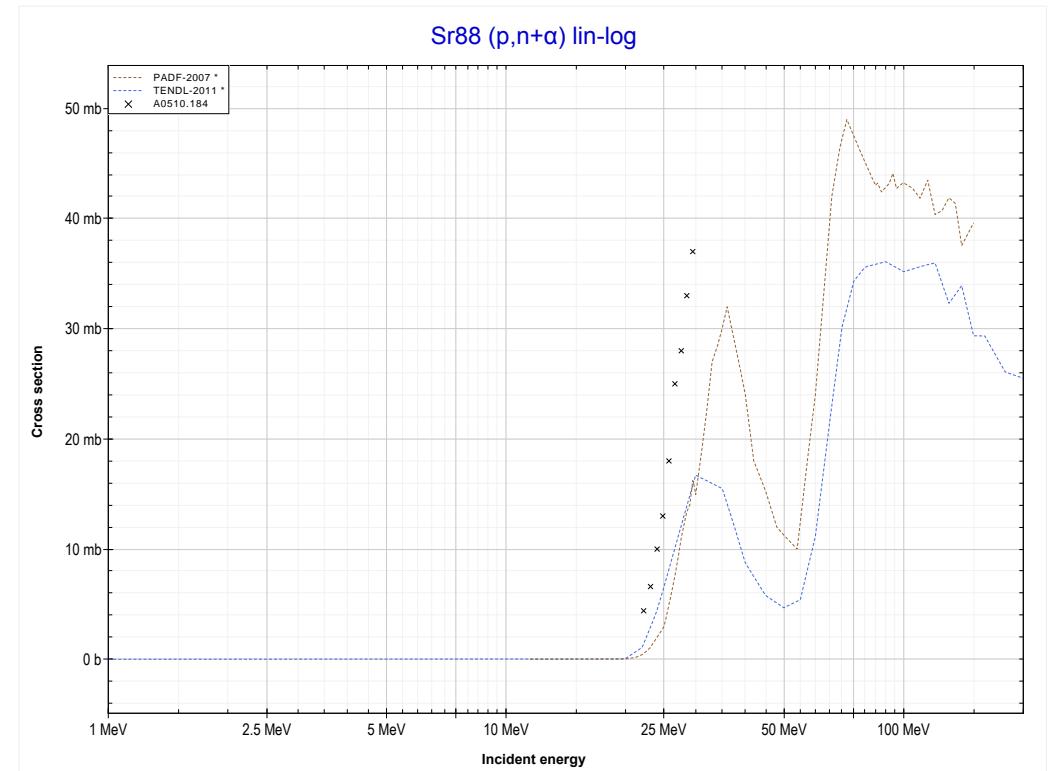
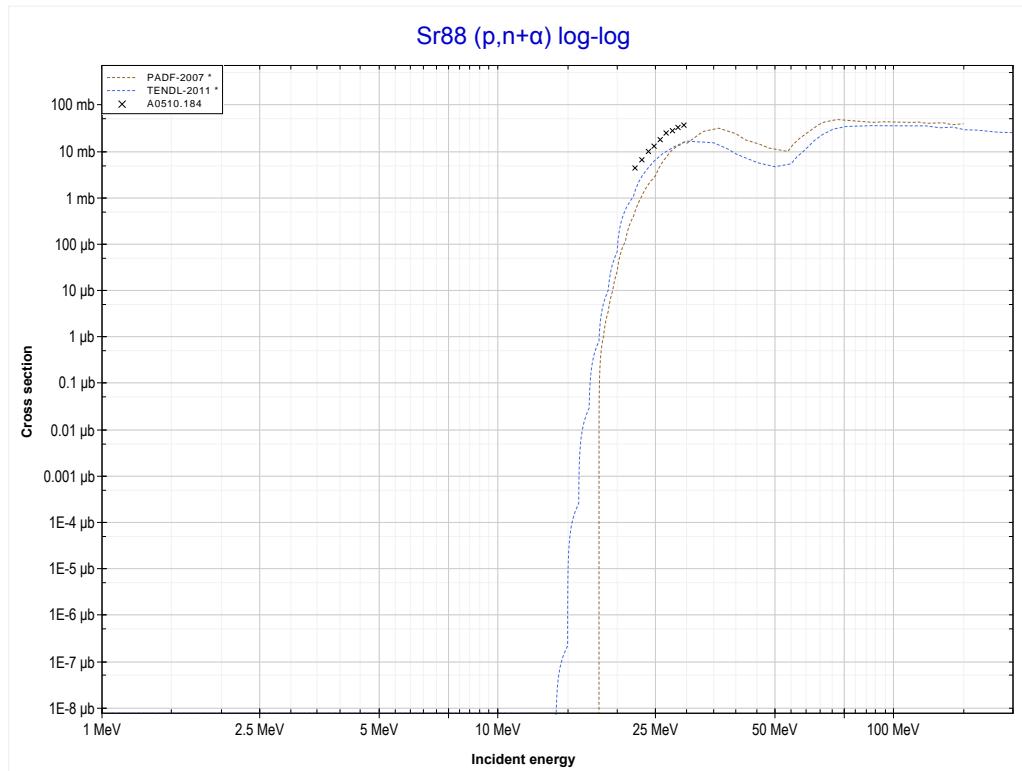
Reaction	Q-Value
Sr88(p,2n)Y87	-13756.66 keV

<< 37-Rb-85	38-Sr-88 MT17 (p,3n) or MT5 (Y86 production)	>> 39-Y-89
<< MT16 (p,2n)		>> MT22 (p,n+α) >>



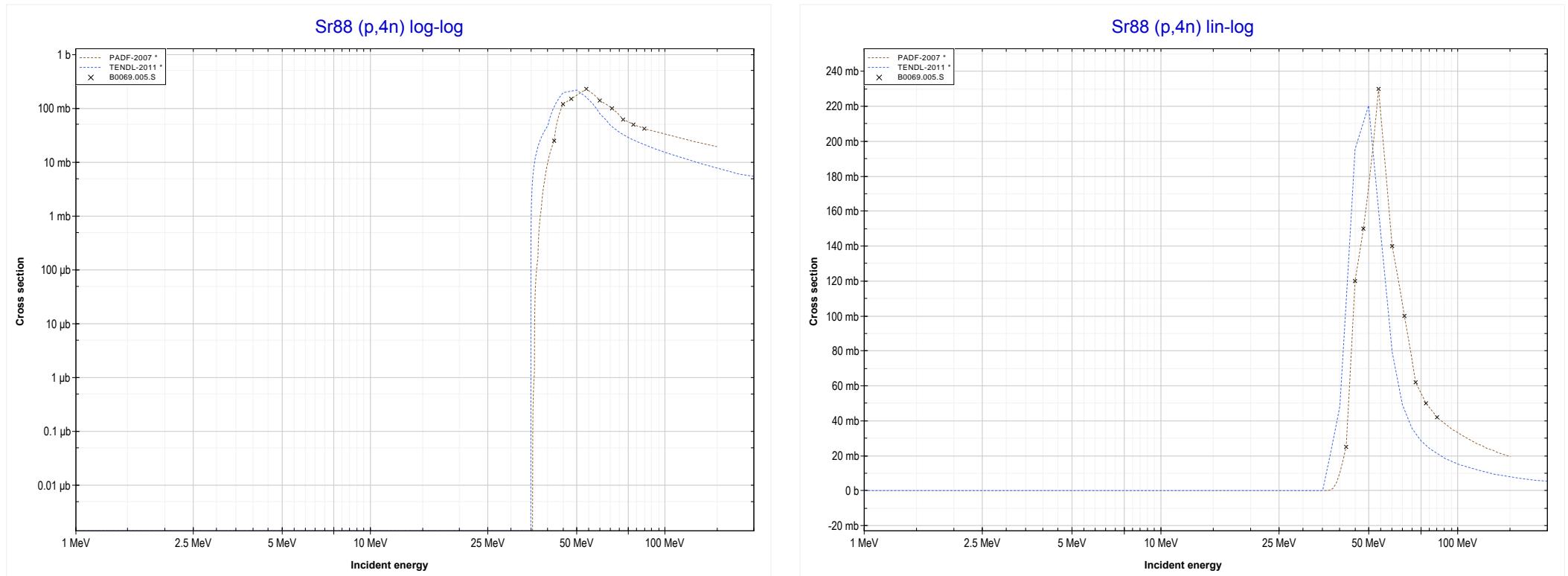
Reaction	Q-Value
Sr88(p,3n)Y86	-25562.68 keV

<< 38-Sr-87	38-Sr-88 MT22 (p,n+α) or MT5 (Rb84 production)	>> 39-Y-89
<< MT17 (p,3n)		MT37 (p,4n) >>



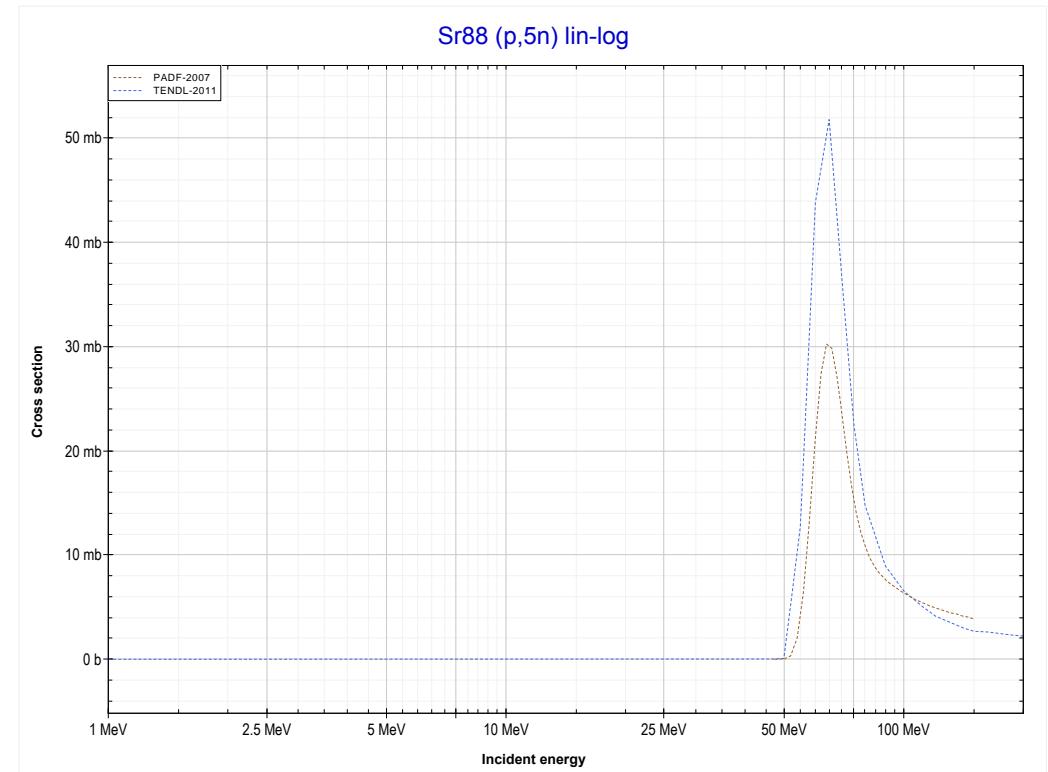
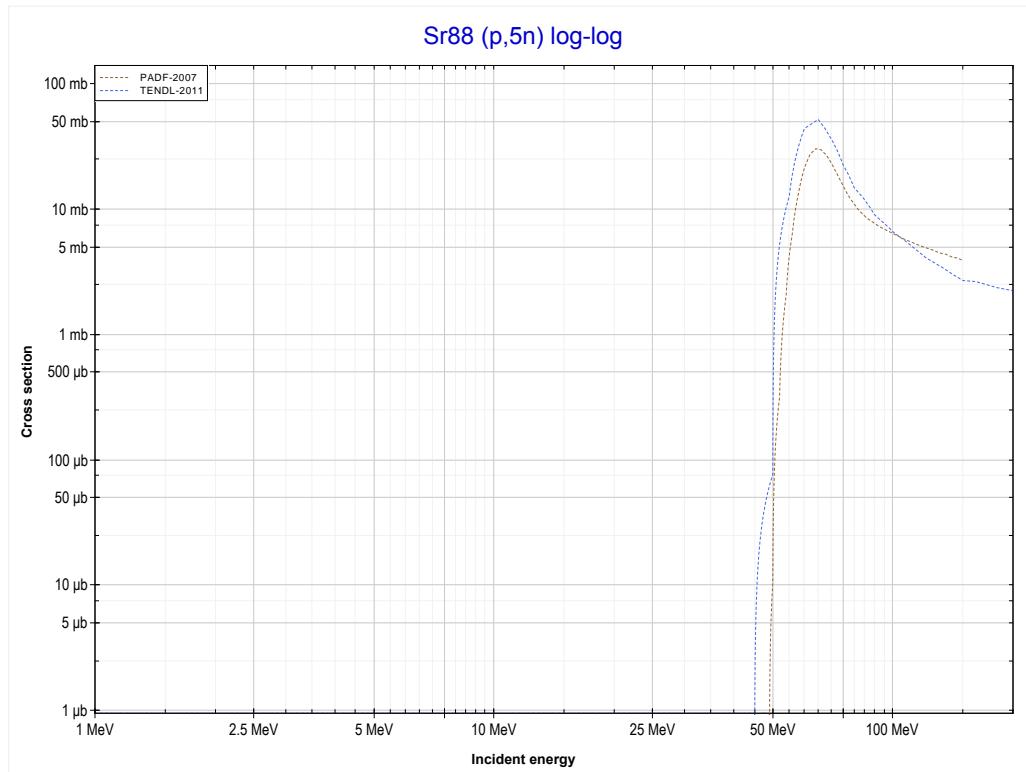
Reaction	Q-Value
$\text{Sr}^{88}(\text{p},\text{n}+\alpha)\text{Rb}^{84}$	-11378.96 keV
$\text{Sr}^{88}(\text{p},\text{d}+\text{t})\text{Rb}^{84}$	-28968.26 keV
$\text{Sr}^{88}(\text{p},\text{n}+\text{p}+\text{t})\text{Rb}^{84}$	-31192.82 keV
$\text{Sr}^{88}(\text{p},2\text{n}+\text{He}^3)\text{Rb}^{84}$	-31956.58 keV
$\text{Sr}^{88}(\text{p},\text{n}+2\text{d})\text{Rb}^{84}$	-35225.49 keV
$\text{Sr}^{88}(\text{p},2\text{n}+\text{p}+\text{d})\text{Rb}^{84}$	-37450.06 keV
$\text{Sr}^{88}(\text{p},3\text{n}+2\text{p})\text{Rb}^{84}$	-39674.62 keV

<< 37-Rb-85	38-Sr-88 MT37 (p,4n) or MT5 (Y85 production)	>> 39-Y-89
<< MT22 (p,n+α)		>> MT152 (p,5n) >>



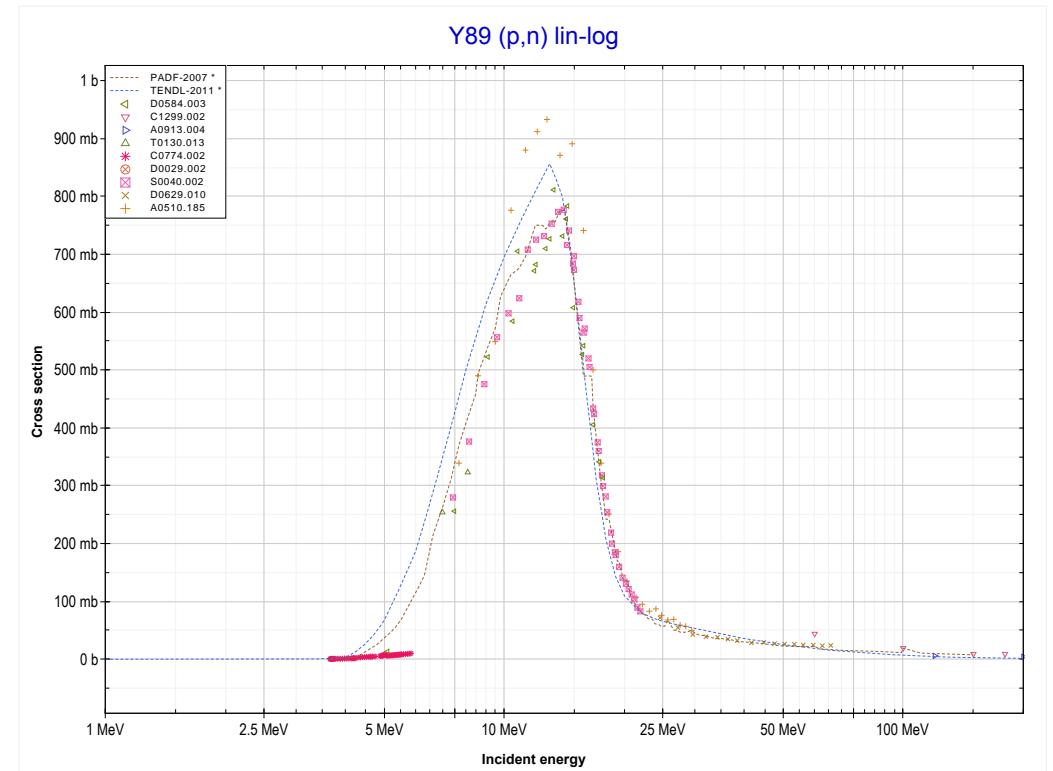
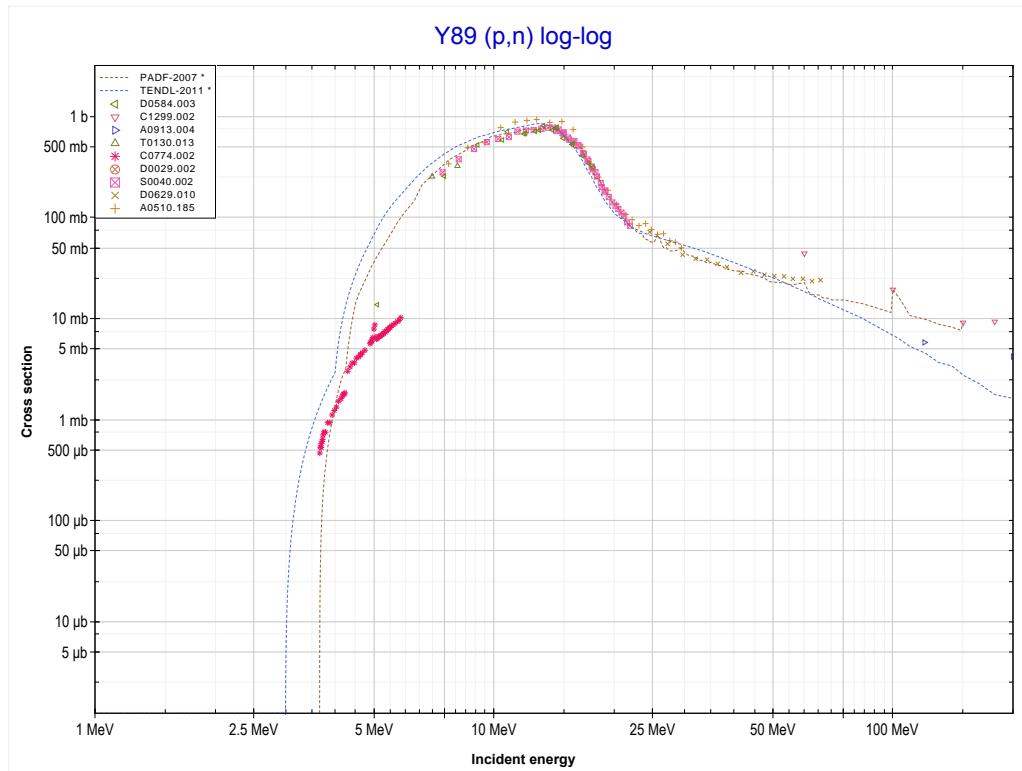
Reaction	Q-Value
$\text{Sr}^{88}(\text{p},\text{4n})\text{Y}^{85}$	-35076.00 keV

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



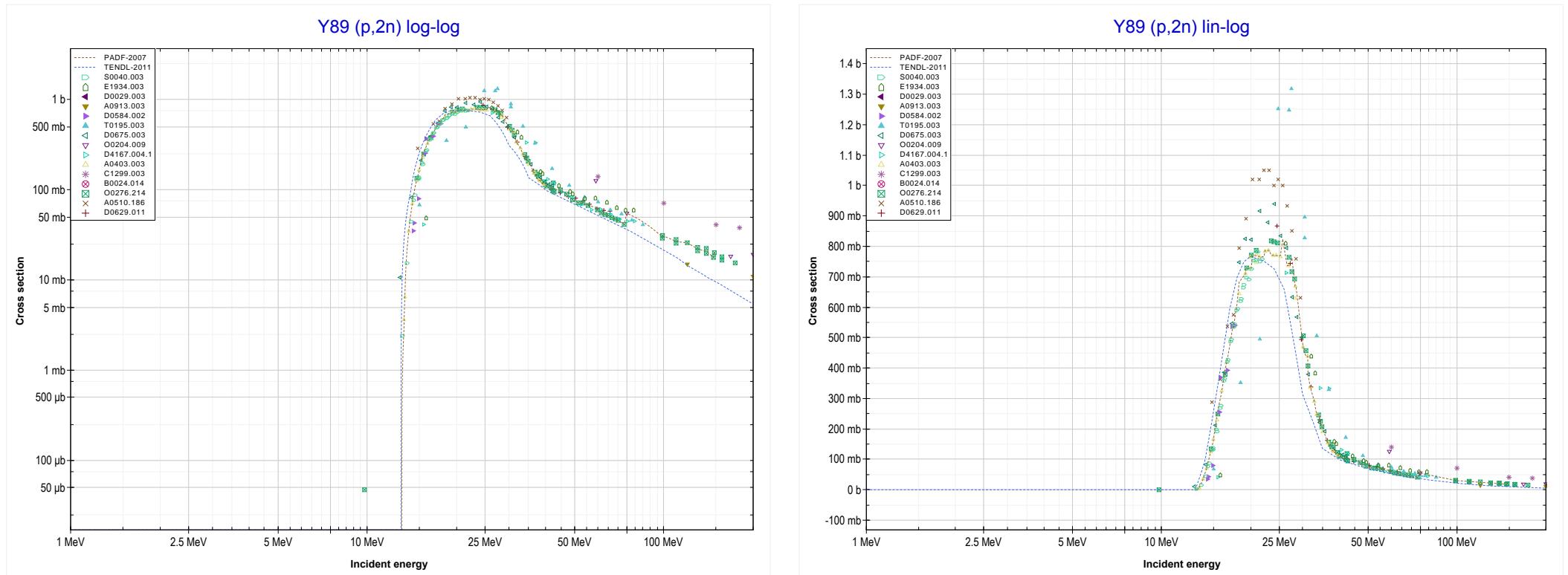
Reaction	Q-Value
Sr88(p,5n)Y84	-46829.32 keV

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



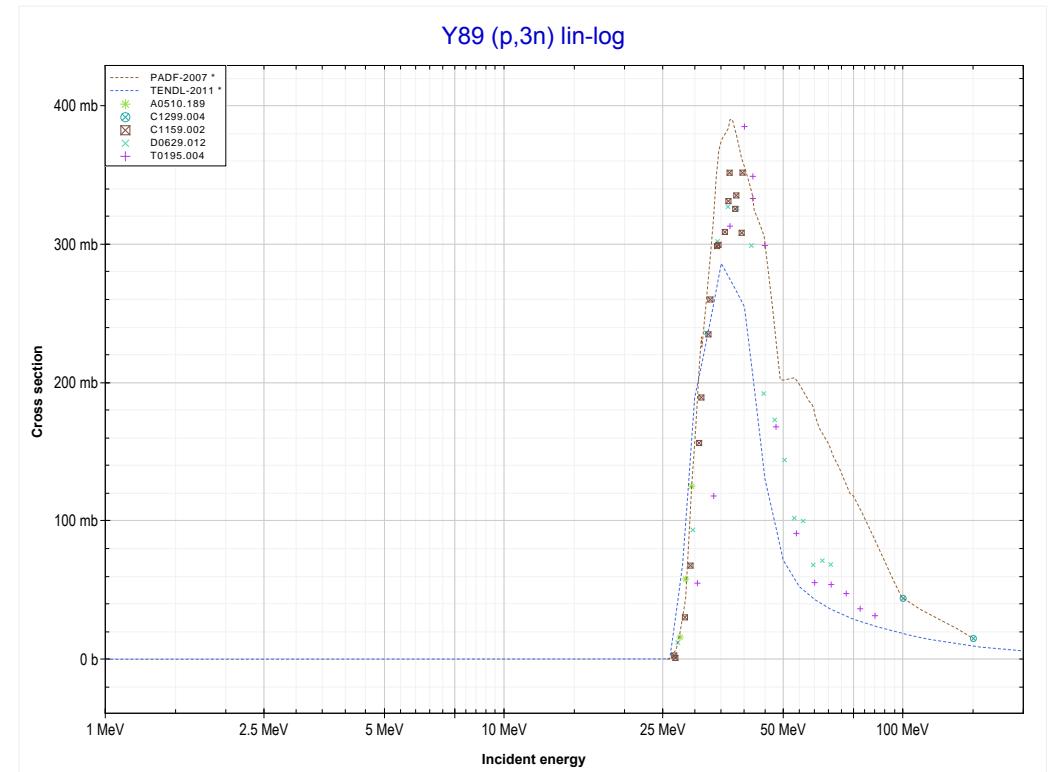
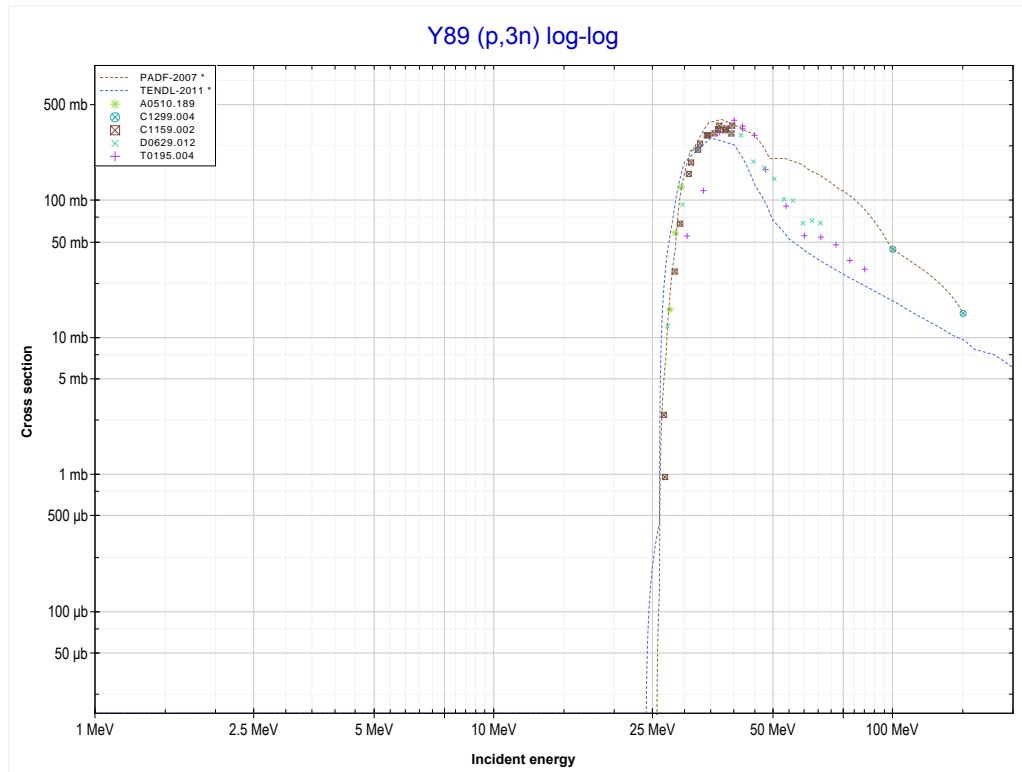
Reaction	Q-Value
Y89(p,n)Zr89	-3615.05 keV

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



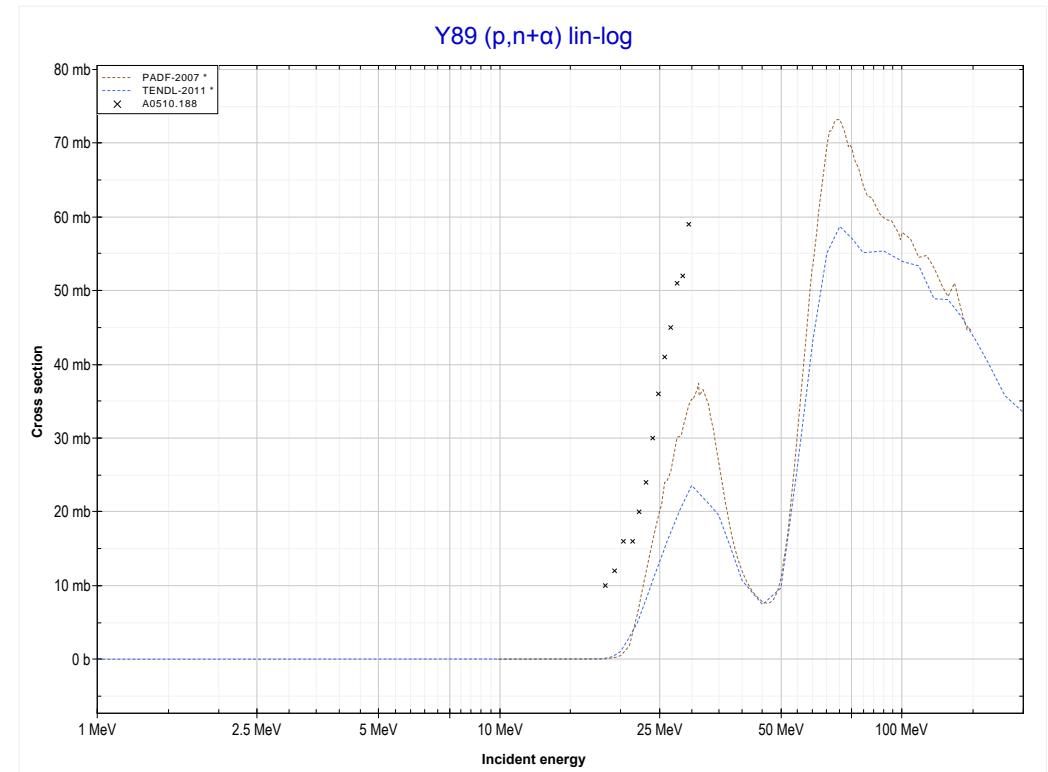
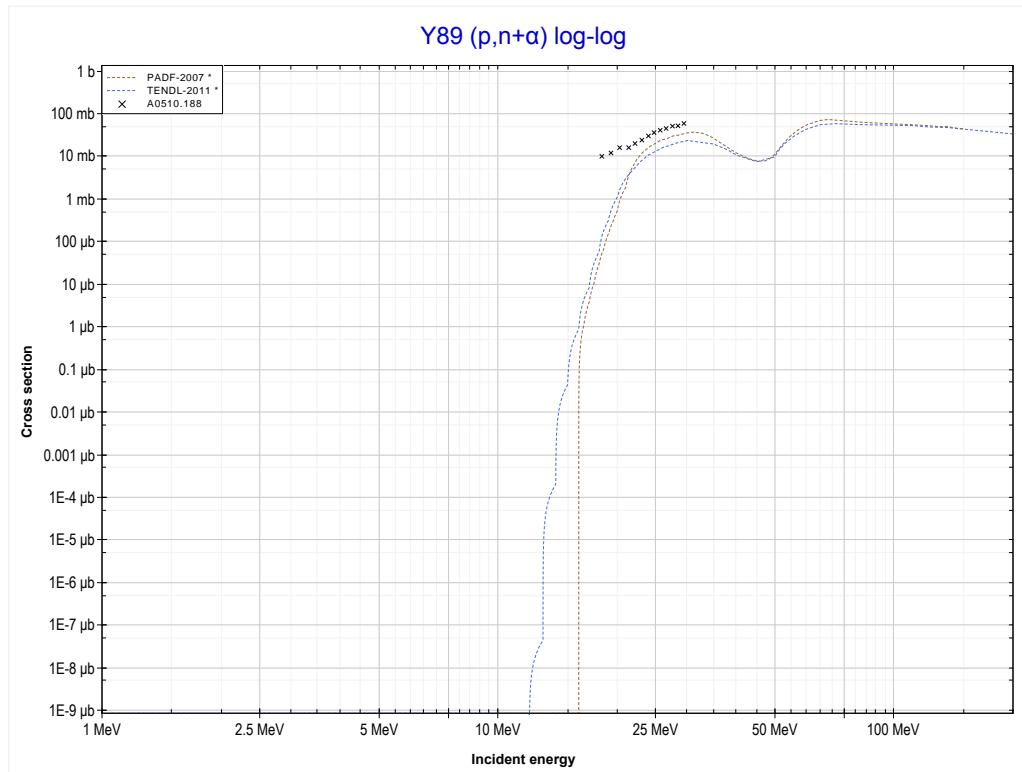
Reaction	Q-Value
Y89(p,2n)Zr88	-12932.36 keV

<< 38-Sr-88	39-Y-89 MT17 (p,3n) or MT5 (Zr87 production)	>> 40-Zr-90
<< MT16 (p,2n)		>> MT22 (p,n+α) >>



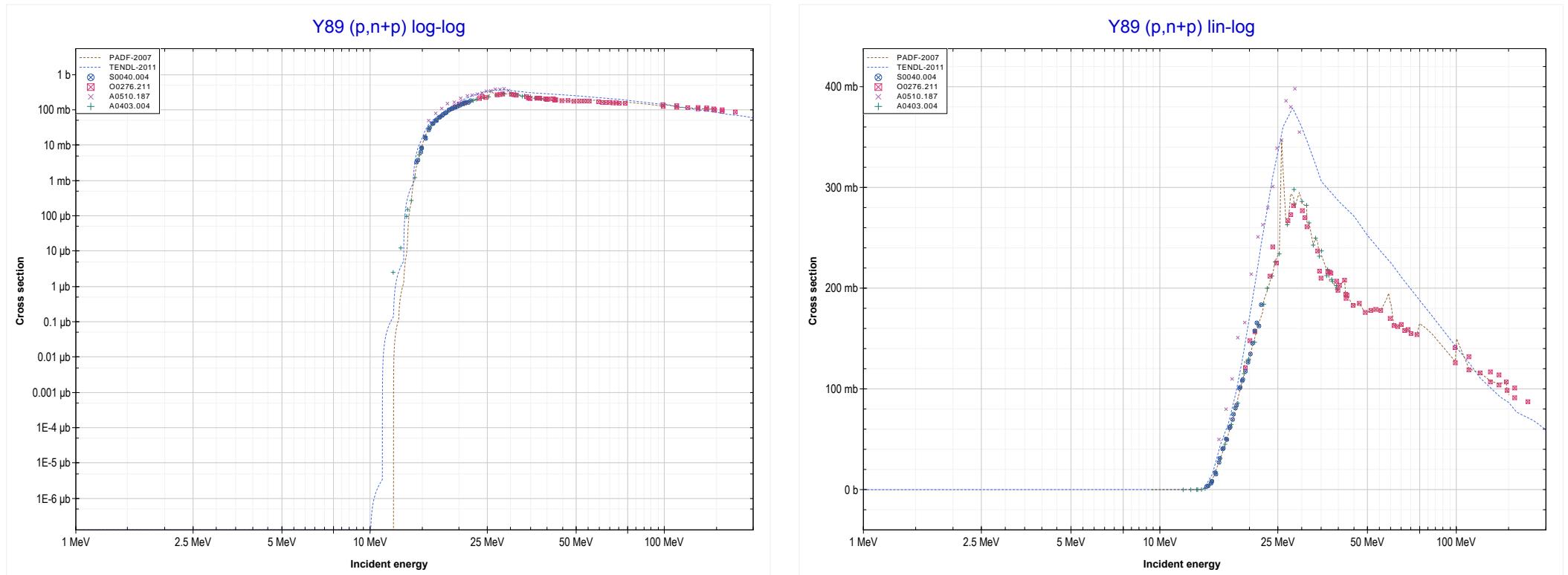
Reaction	Q-Value
$\text{Y}^{89}(\text{p},\text{3n})\text{Zr}^{87}$	-25278.68 keV

<< 38-Sr-88	39-Y-89 MT22 (p,n+α) or MT5 (Sr85 production)	>> 40-Zr-90
<< MT17 (p,3n)		>> MT28 (p,n+p) >>



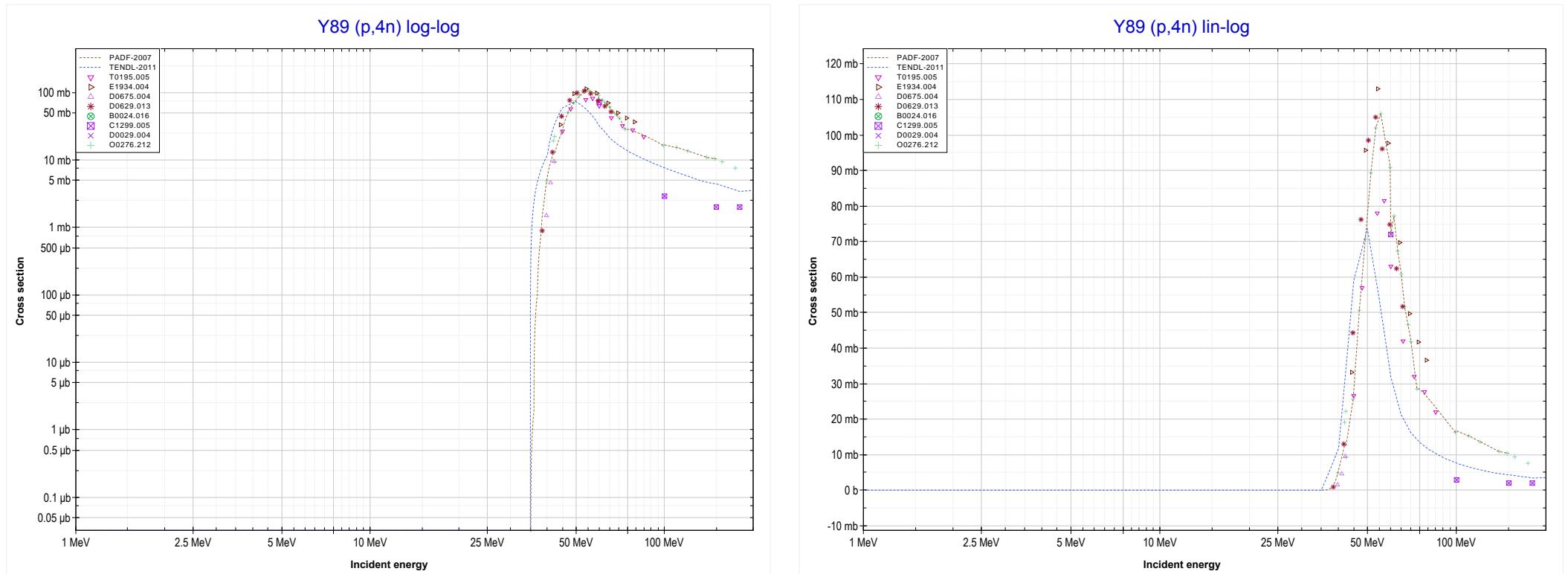
Reaction	Q-Value
$\text{Y}^{89}(\text{p},\text{n}+\alpha)\text{Sr}^{85}$	-9806.36 keV
$\text{Y}^{89}(\text{p},\text{d}+\text{t})\text{Sr}^{85}$	-27395.66 keV
$\text{Y}^{89}(\text{p},\text{n}+\text{p}+\text{t})\text{Sr}^{85}$	-29620.22 keV
$\text{Y}^{89}(\text{p},2\text{n}+\text{He}^3)\text{Sr}^{85}$	-30383.98 keV
$\text{Y}^{89}(\text{p},\text{n}+2\text{d})\text{Sr}^{85}$	-33652.89 keV
$\text{Y}^{89}(\text{p},2\text{n}+\text{p}+\text{d})\text{Sr}^{85}$	-35877.46 keV
$\text{Y}^{89}(\text{p},3\text{n}+2\text{p})\text{Sr}^{85}$	-38102.02 keV

<< 38-Sr-86	39-Y-89 MT28 (p,n+p) or MT5 (Y88 production)	40-Zr-90 >>
<< MT22 (p,n+α)		MT37 (p,4n) >>



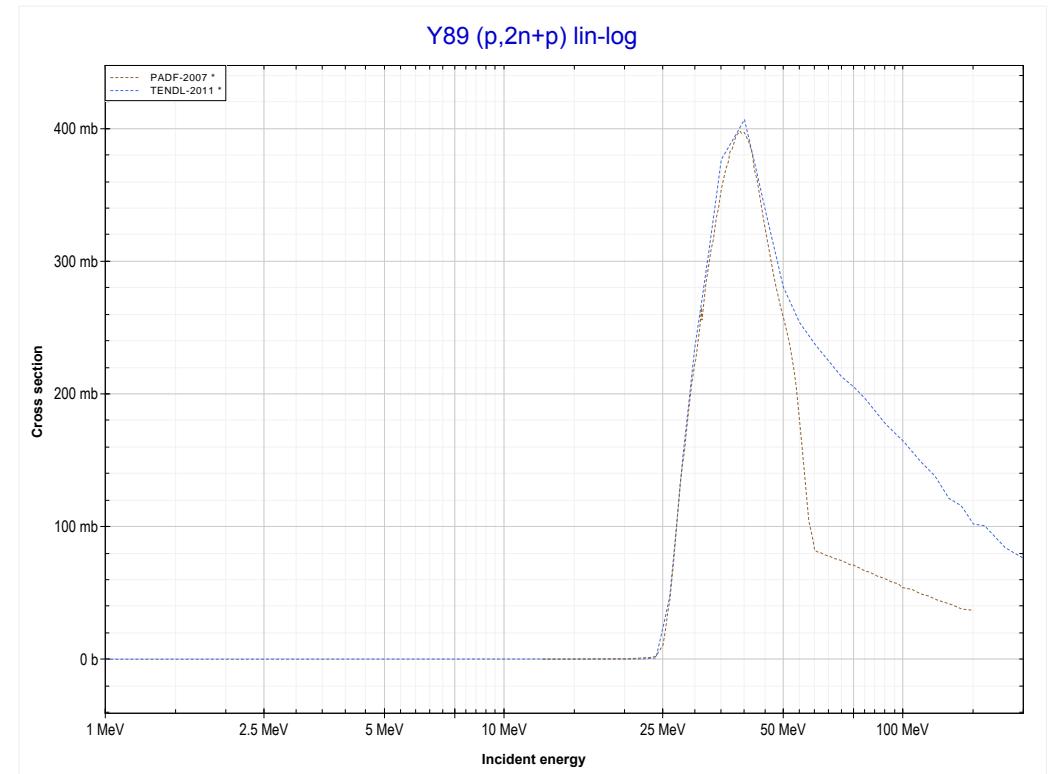
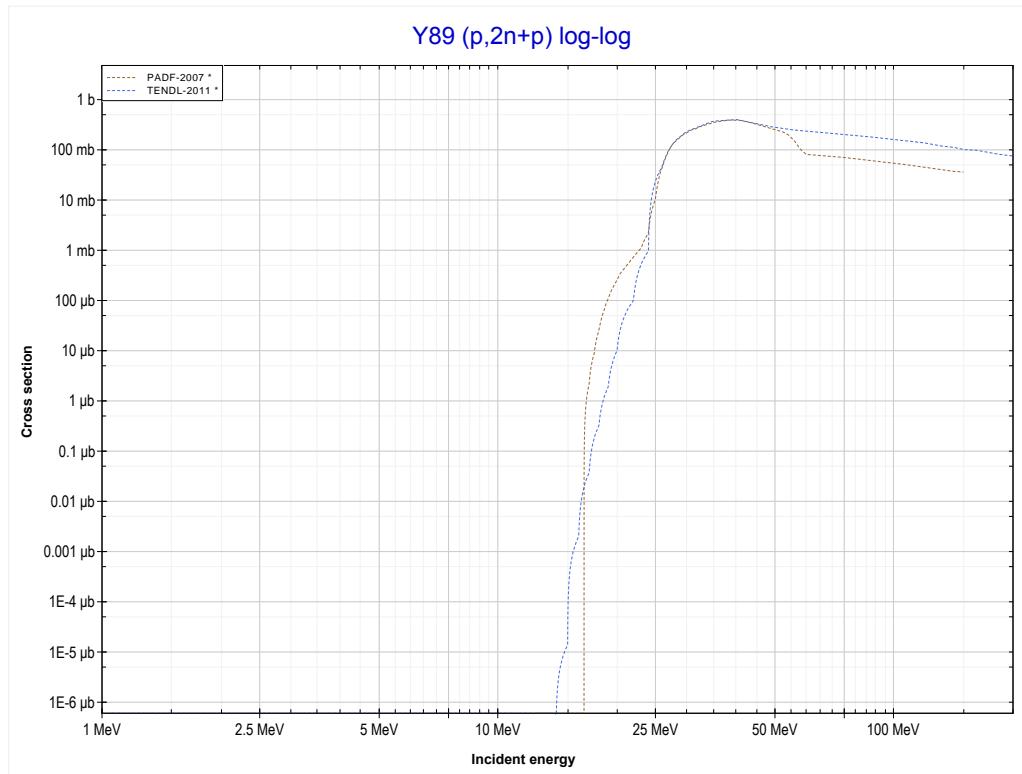
Reaction	Q-Value
Y89(p,d)Y88	-9249.35 keV
Y89(p,n+p)Y88	-11473.92 keV

<< 38-Sr-88	39-Y-89 MT37 (p,4n) or MT5 (Zr86 production)	>> 41-Nb-93 >>
<< MT28 (p,n+p) >>		MT41 (p,2n+p) >>



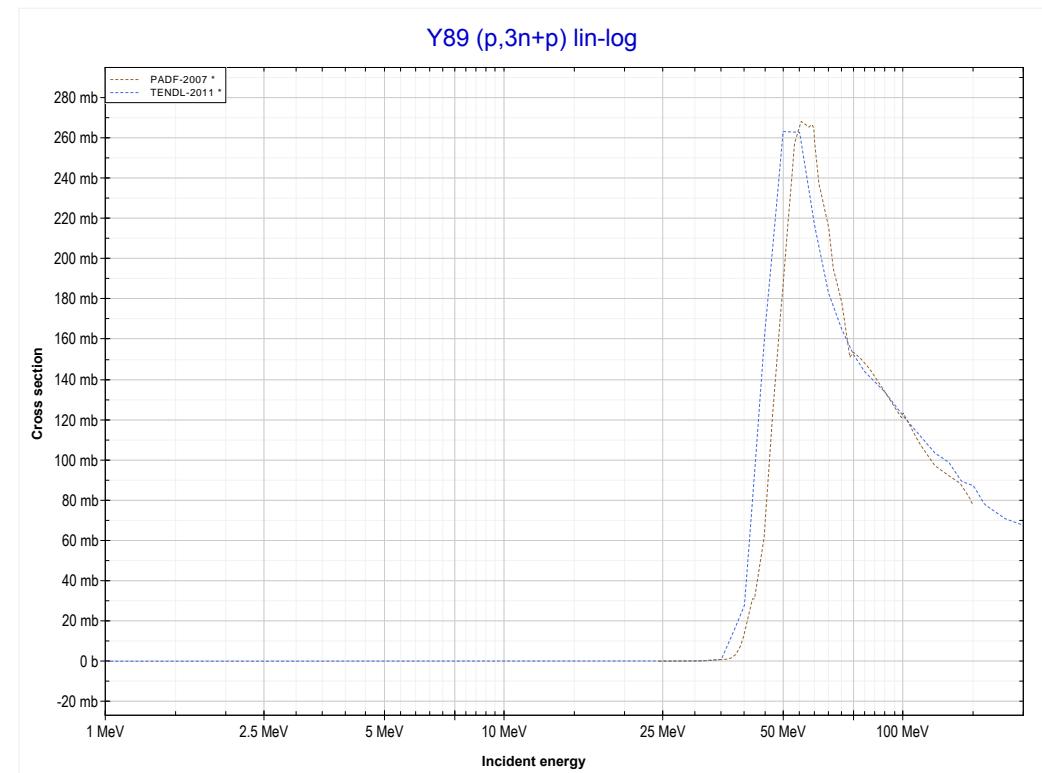
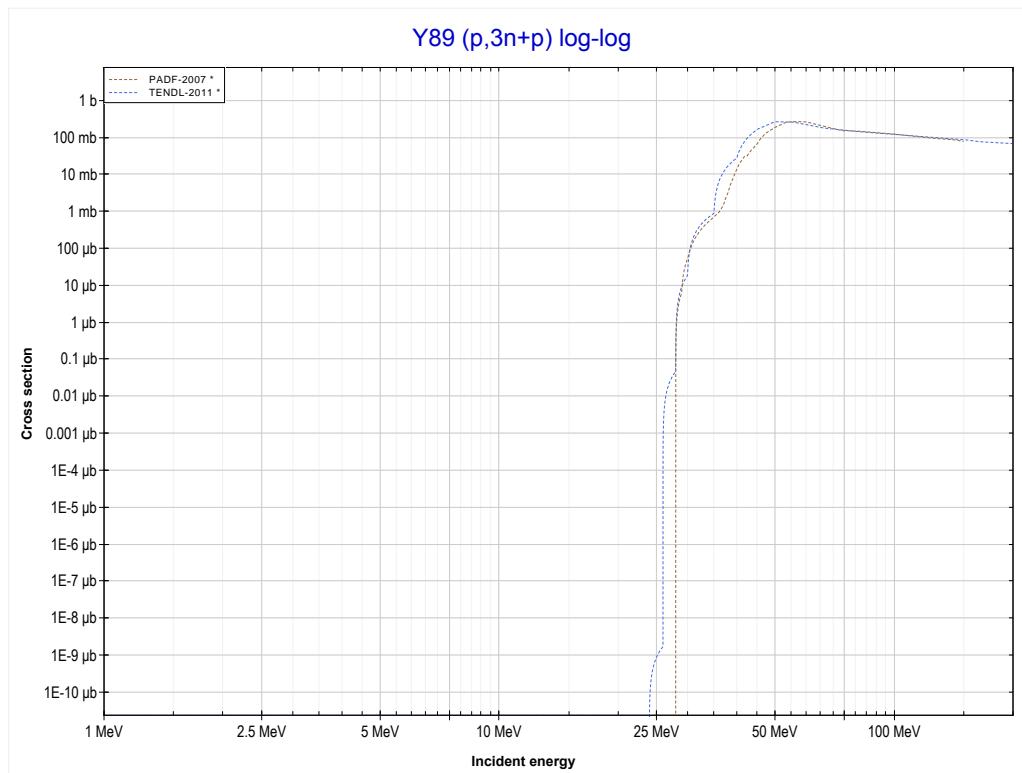
Reaction	Q-Value
Y89(p,4n)Zr86	-34898.00 keV

<< 37-Rb-85	39-Y-89 MT41 (p,2n+p) or MT5 (Y87 production)	40-Zr-91 >>
<< MT37 (p,4n)		MT42 (p,3n+p) >>



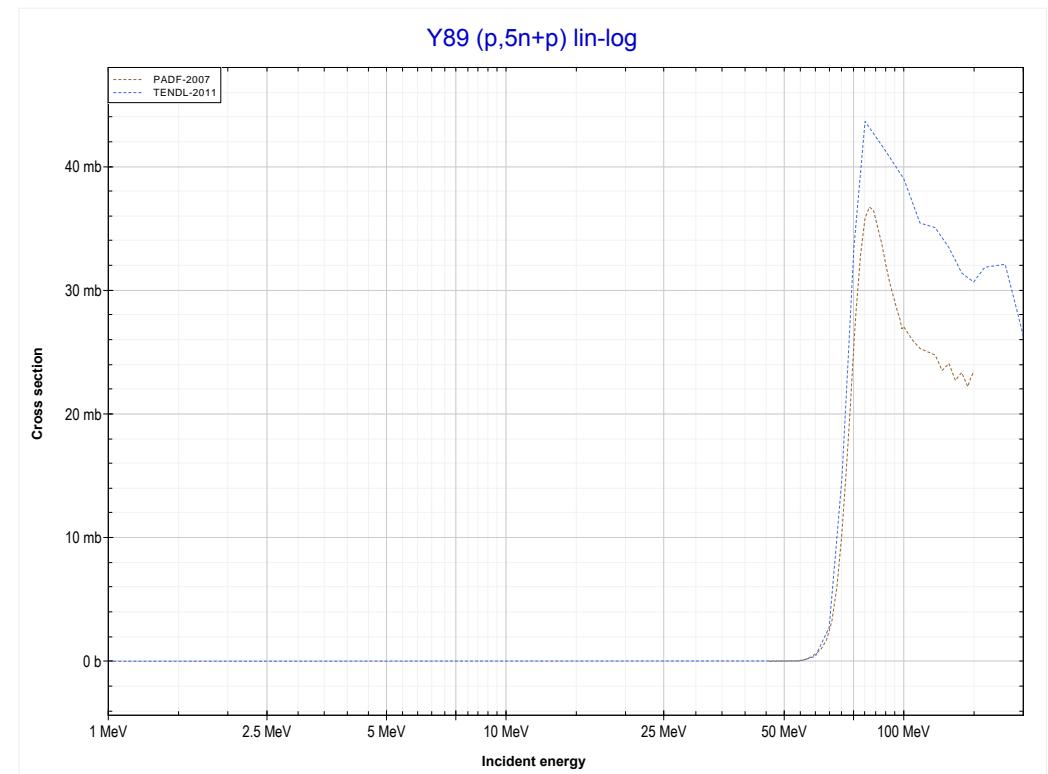
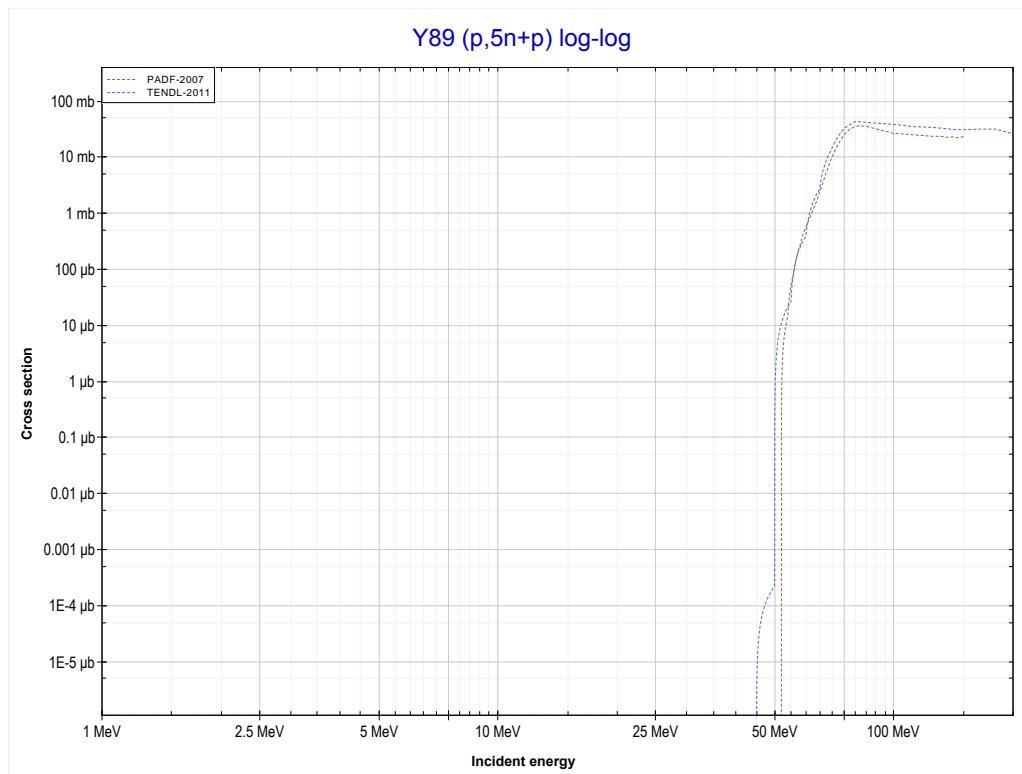
Reaction	Q-Value
$\text{Y}^{89}(\text{p},\text{t})\text{Y}^{87}$	-12343.84 keV
$\text{Y}^{89}(\text{p},\text{n}+\text{d})\text{Y}^{87}$	-18601.07 keV
$\text{Y}^{89}(\text{p},\text{2n}+\text{p})\text{Y}^{87}$	-20825.63 keV

<< 31-Ga-71	39-Y-89 MT42 (p,3n+p) or MT5 (Y86 production)	90-Th-232 >>
<< MT41 (p,2n+p) >>		MT162 (p,5n+p) >>



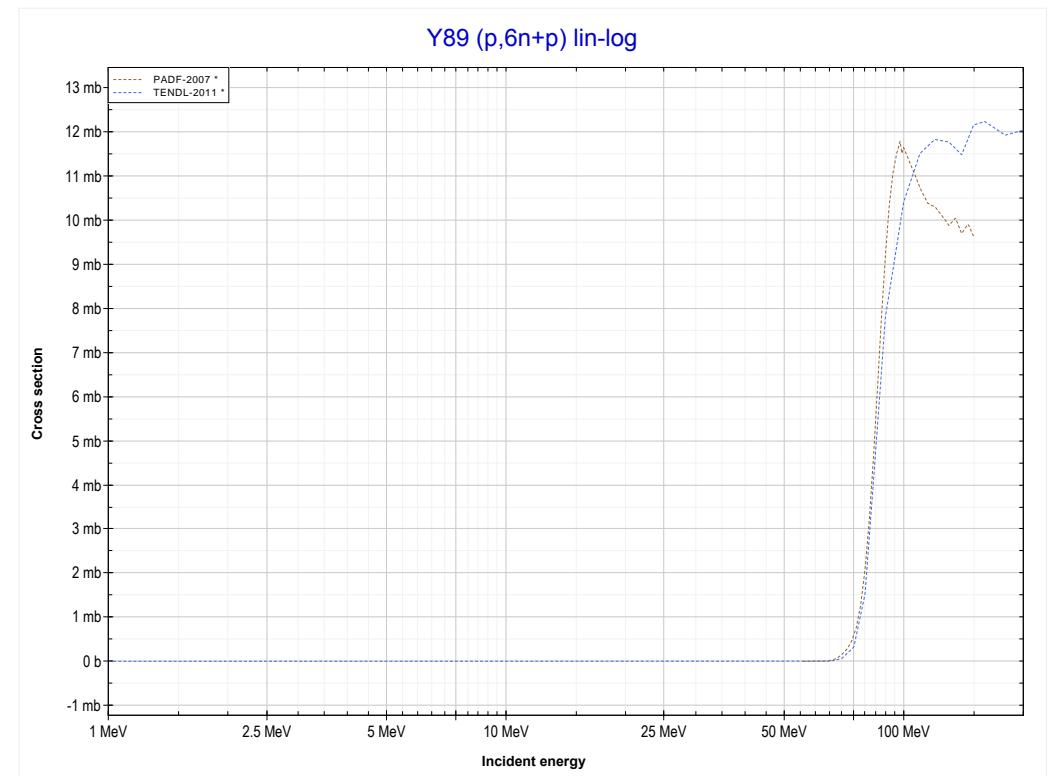
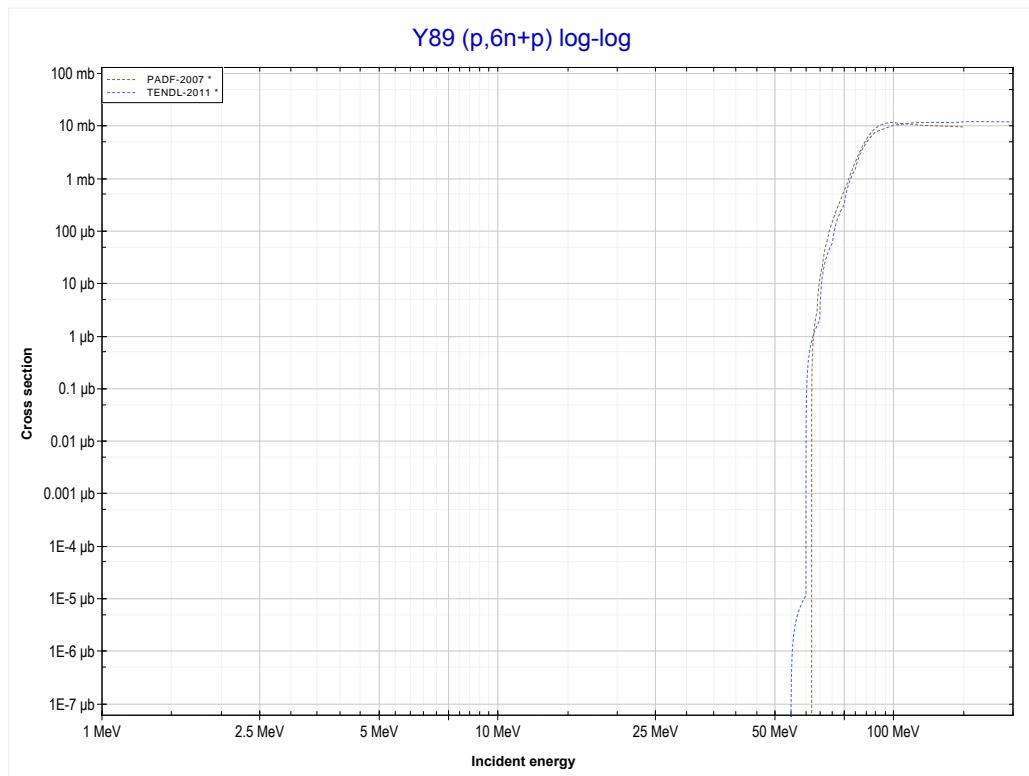
Reaction	Q-Value
$\text{Y}^{89}(\text{p},\text{n}+\text{t})\text{Y}^{86}$	-24149.85 keV
$\text{Y}^{89}(\text{p},\text{2n}+\text{d})\text{Y}^{86}$	-30407.09 keV
$\text{Y}^{89}(\text{p},\text{3n}+\text{p})\text{Y}^{86}$	-32631.65 keV

<< 31-Ga-71	39-Y-89 MT162 (p,5n+p) or MT5 (Y84 production)	>> 90-Th-232
<< MT42 (p,3n+p)		>> MT163 (p,6n+p)



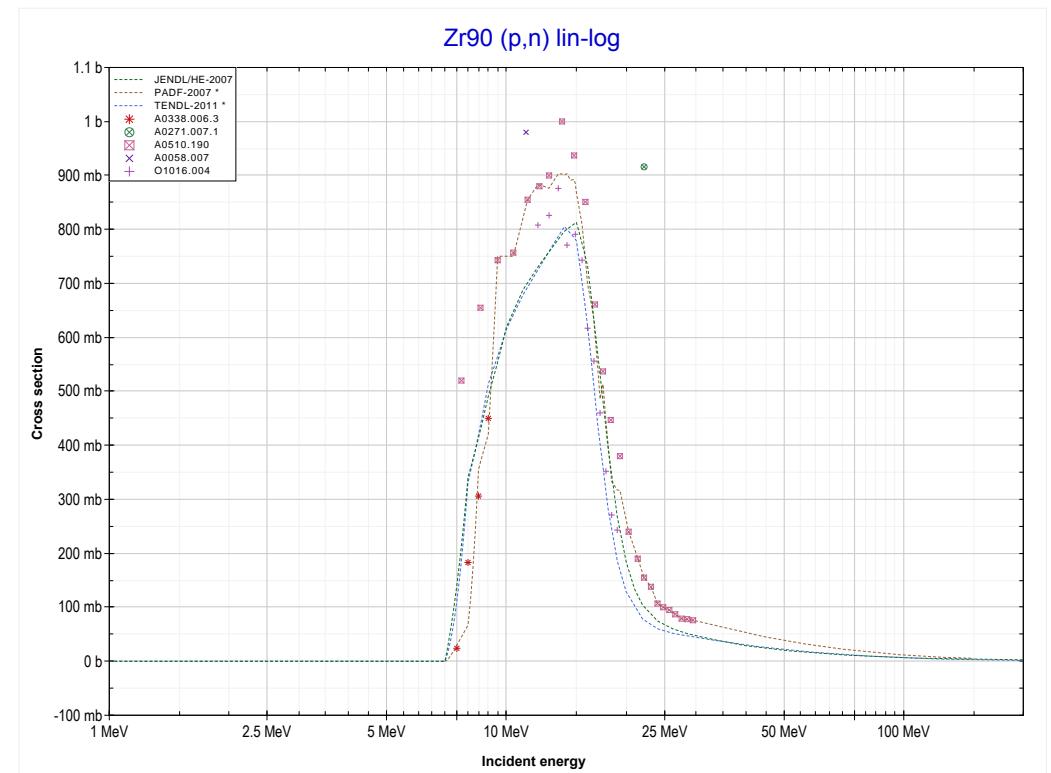
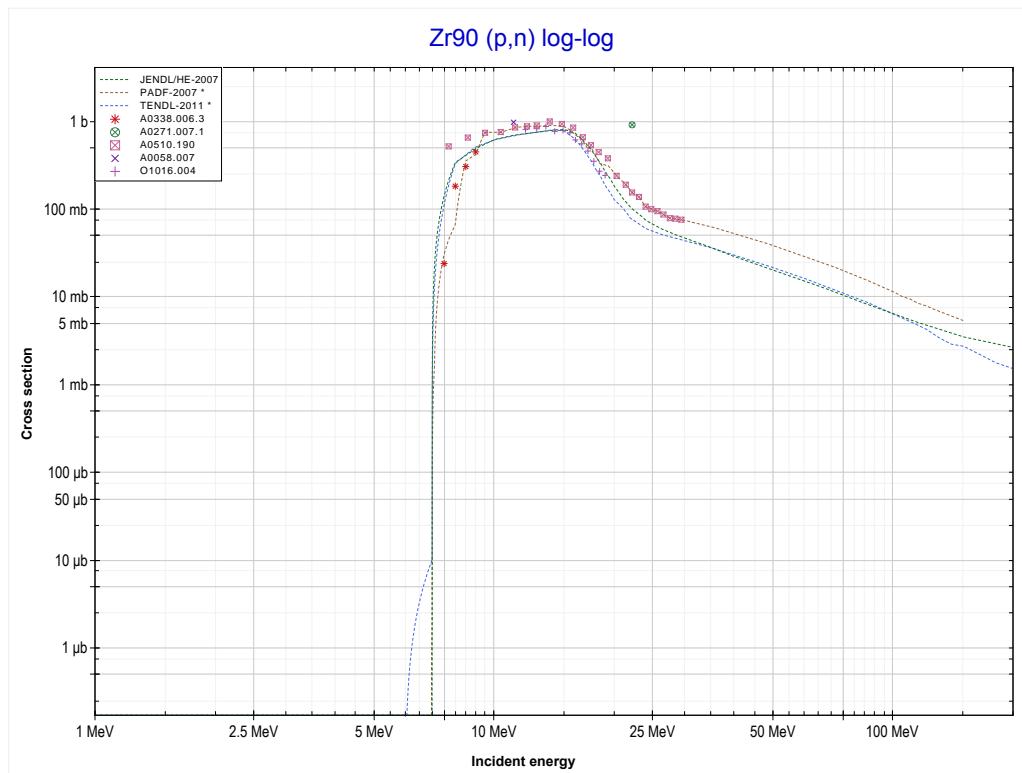
Reaction	Q-Value
$\text{Y}^{89}(\text{p},\text{3n}+\text{t})\text{Y}^{84}$	-45416.49 keV
$\text{Y}^{89}(\text{p},\text{4n}+\text{d})\text{Y}^{84}$	-51673.72 keV
$\text{Y}^{89}(\text{p},\text{5n}+\text{p})\text{Y}^{84}$	-53898.29 keV

<< MT162 (p,5n+p)	39-Y-89 MT163 (p,6n+p) or MT5 (Y83 production)	90-Th-232 >> MT4 (p,n) >>
-------------------	--	------------------------------



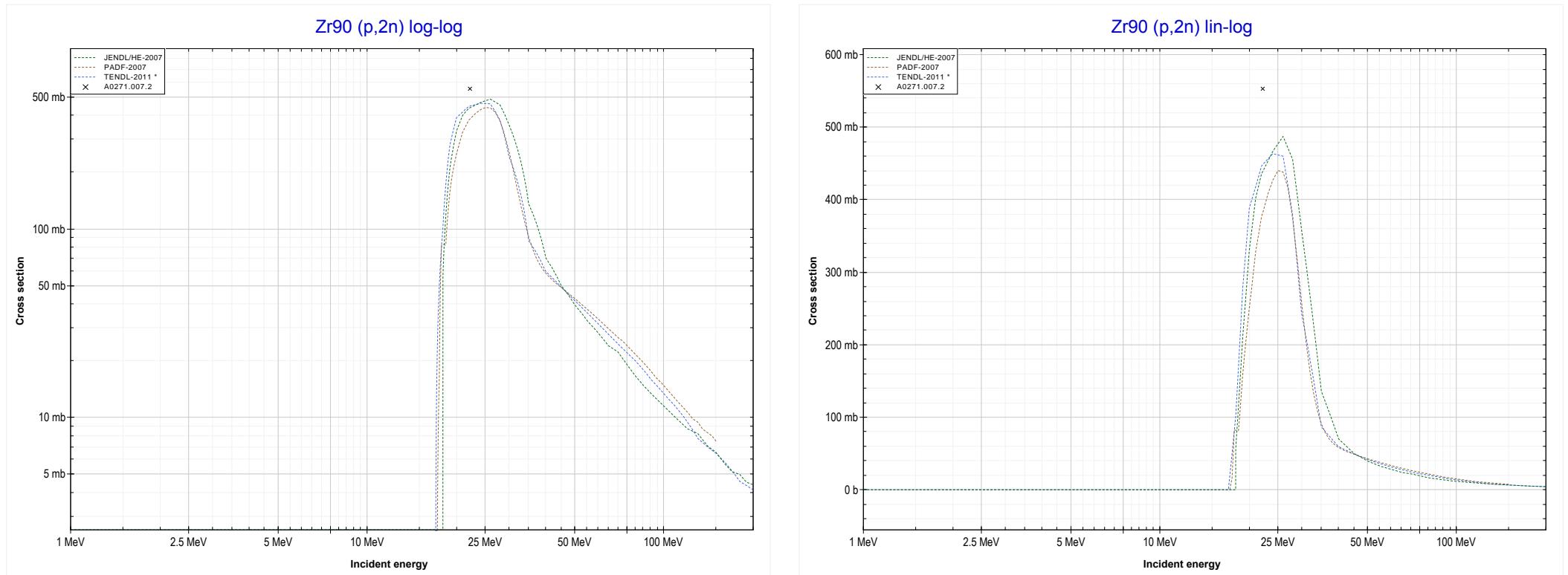
Reaction	Q-Value
$\text{Y}^{89}(\text{p},\text{4n}+\text{t})\text{Y}^{83}$	-55317.80 keV
$\text{Y}^{89}(\text{p},\text{5n}+\text{d})\text{Y}^{83}$	-61575.04 keV
$\text{Y}^{89}(\text{p},\text{6n}+\text{p})\text{Y}^{83}$	-63799.60 keV

<< 39-Y-89	40-Zr-90 MT4 (p,n) or MT5 (Nb90 production)	40-Zr-91 >>
<< MT163 (p,6n+p)		MT16 (p,2n) >>



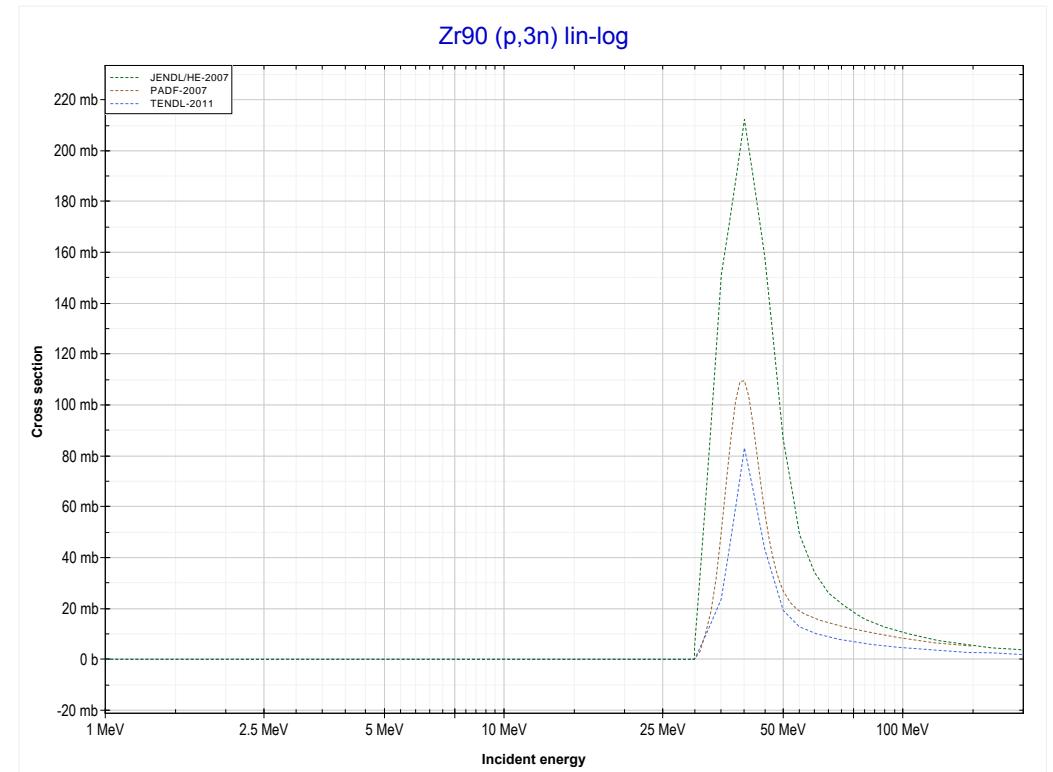
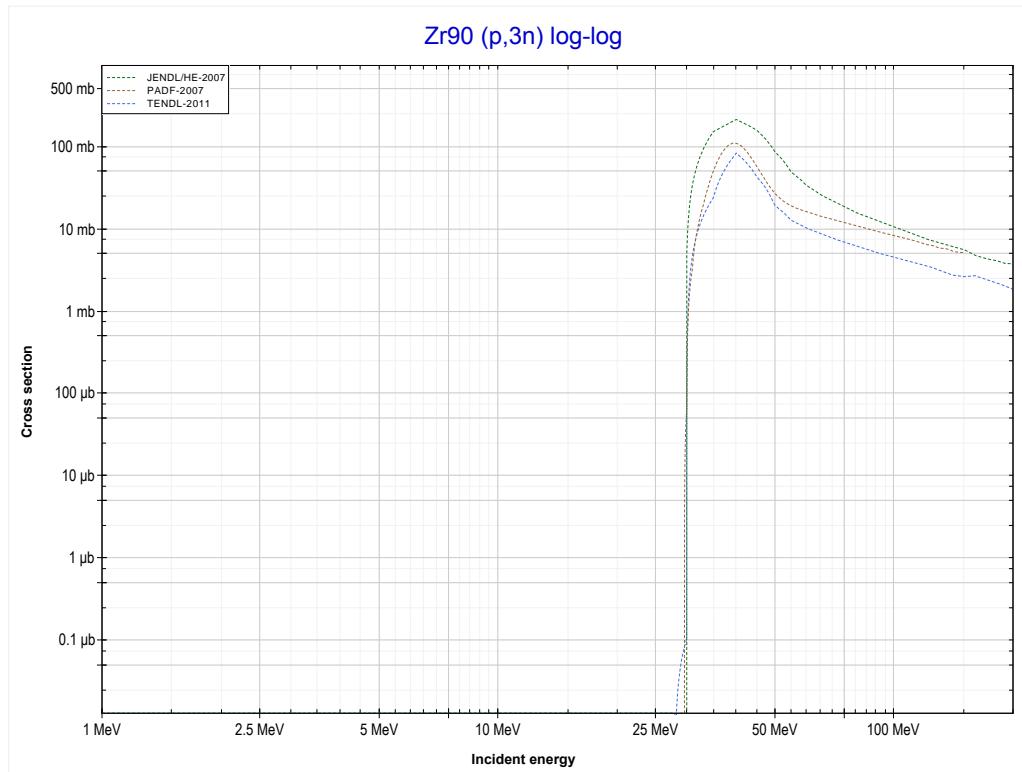
Reaction	Q-Value
Zr90(p,n)Nb90	-6893.65 keV

<< 39-Y-89	40-Zr-90 MT16 (p,2n) or MT5 (Nb89 production)	40-Zr-91 >>
<< MT4 (p,n)		MT17 (p,3n) >>



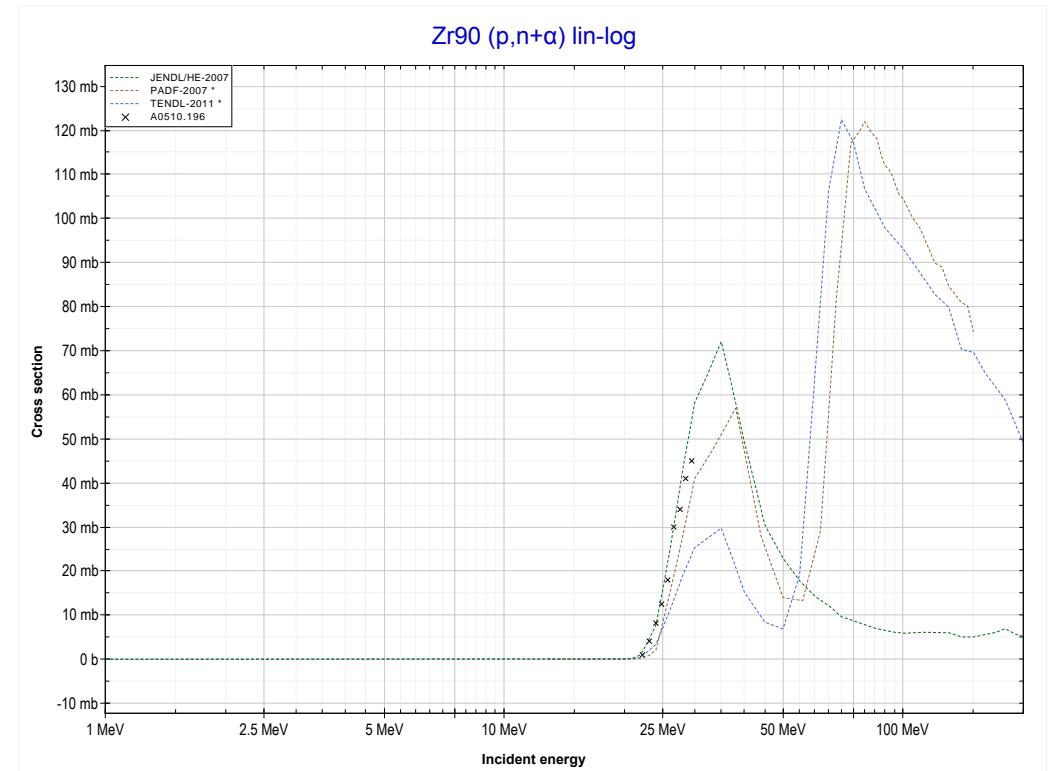
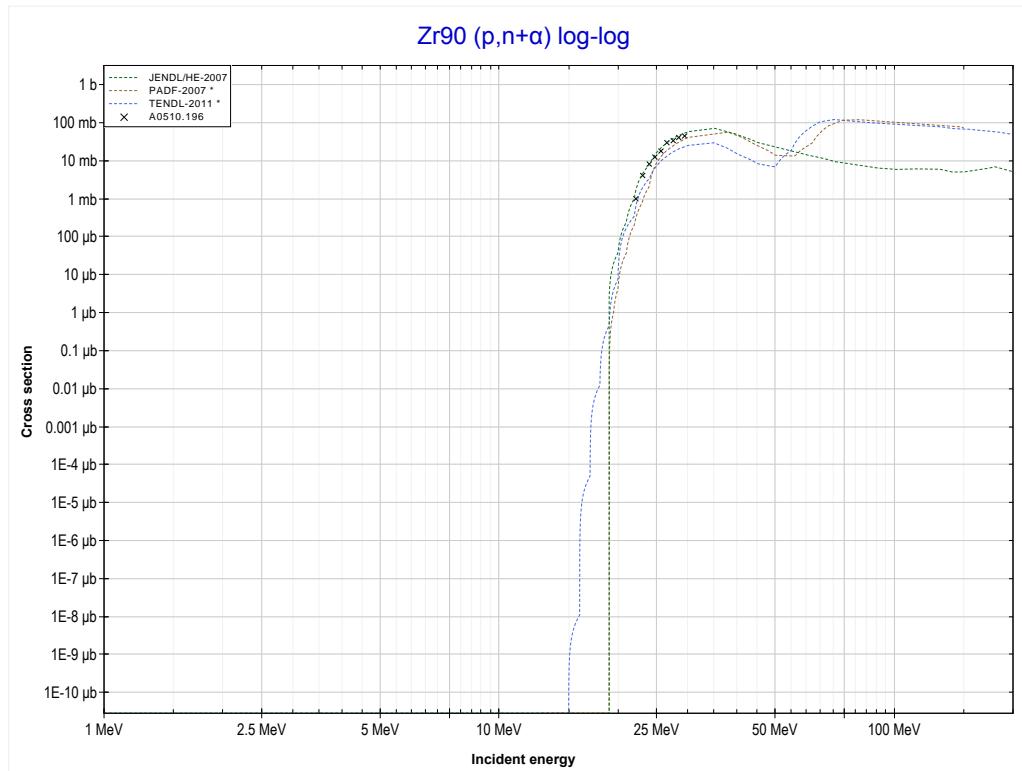
Reaction	Q-Value
Zr90(p,2n)Nb89	-16970.96 keV

<< 39-Y-89	40-Zr-90 MT17 (p,3n) or MT5 (Nb88 production)	40-Zr-92 >>
<< MT16 (p,2n)		MT22 (p,n+α) >>



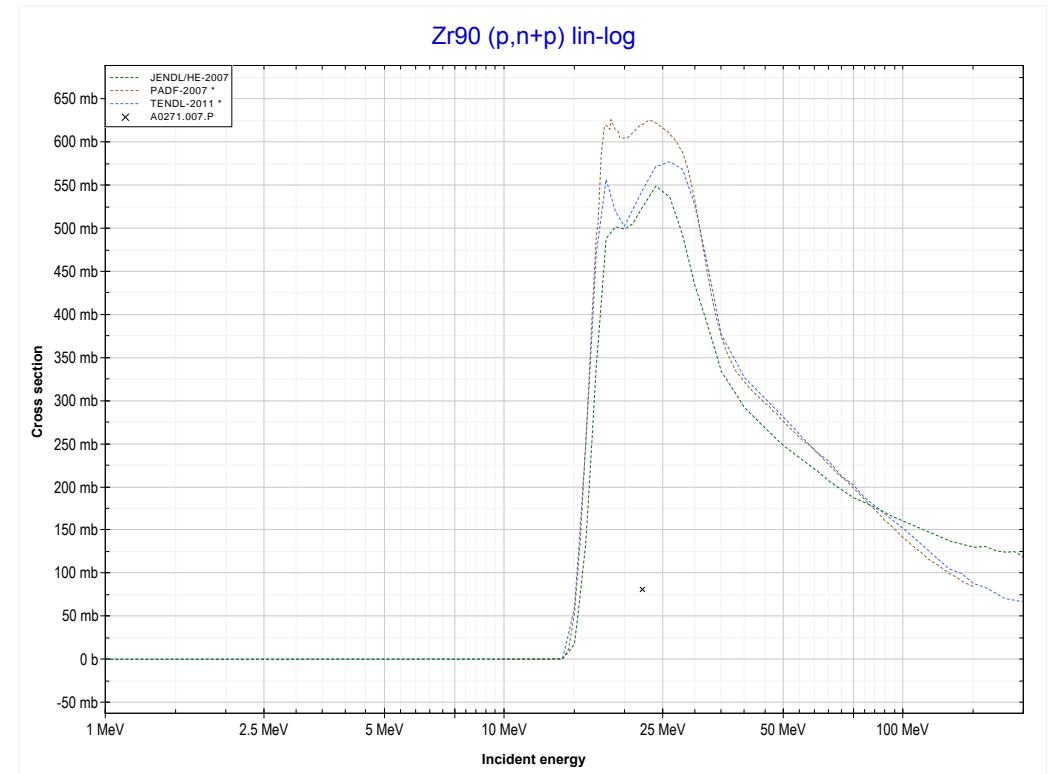
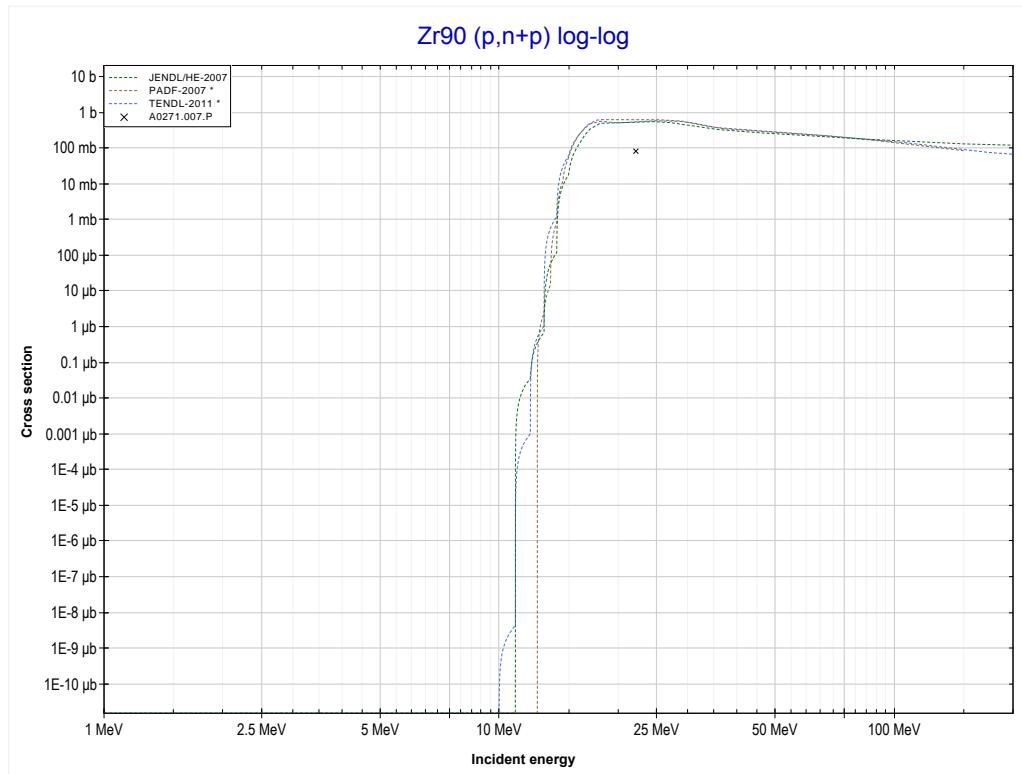
Reaction	Q-Value
$Zr^{90}(p,3n)Nb^{88}$	-29622.28 keV

<< 39-Y-89	40-Zr-90 MT22 (p,n+α) or MT5 (Y86 production)	>> 40-Zr-91
<< MT17 (p,3n)		>> MT28 (p,n+p) >>



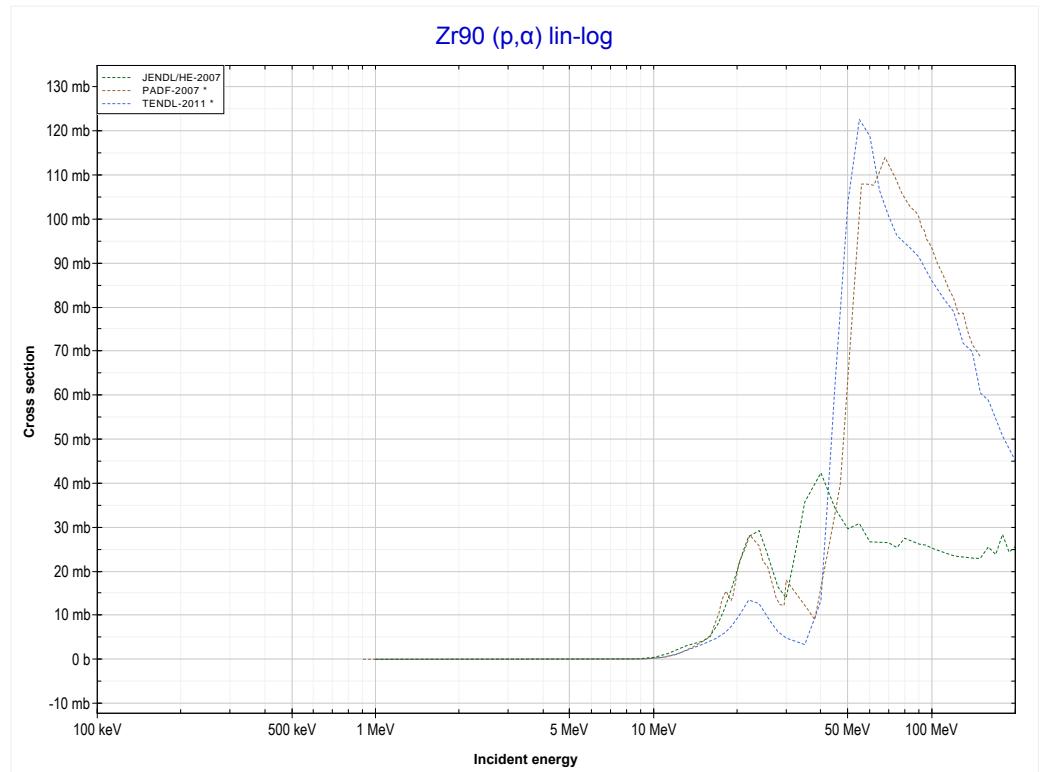
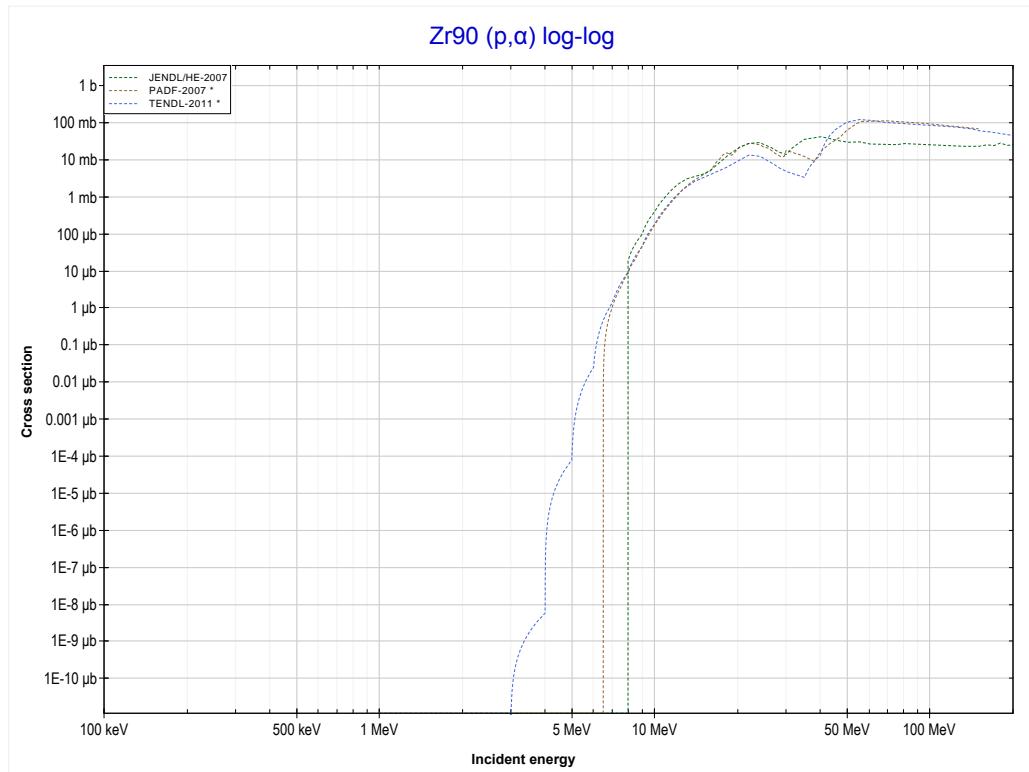
Reaction	Q-Value
Zr90(p,n+α)Y86	-12690.56 keV
Zr90(p,d+t)Y86	-30279.86 keV
Zr90(p,n+p+t)Y86	-32504.42 keV
Zr90(p,2n+He3)Y86	-33268.18 keV
Zr90(p,n+2d)Y86	-36537.09 keV
Zr90(p,2n+p+d)Y86	-38761.66 keV
Zr90(p,3n+2p)Y86	-40986.22 keV

<< 39-Y-89	40-Zr-90 MT28 (p,n+p) or MT5 (Zr89 production)	40-Zr-91 >>
<< MT22 (p,n+α)		MT107 (p,α) >>



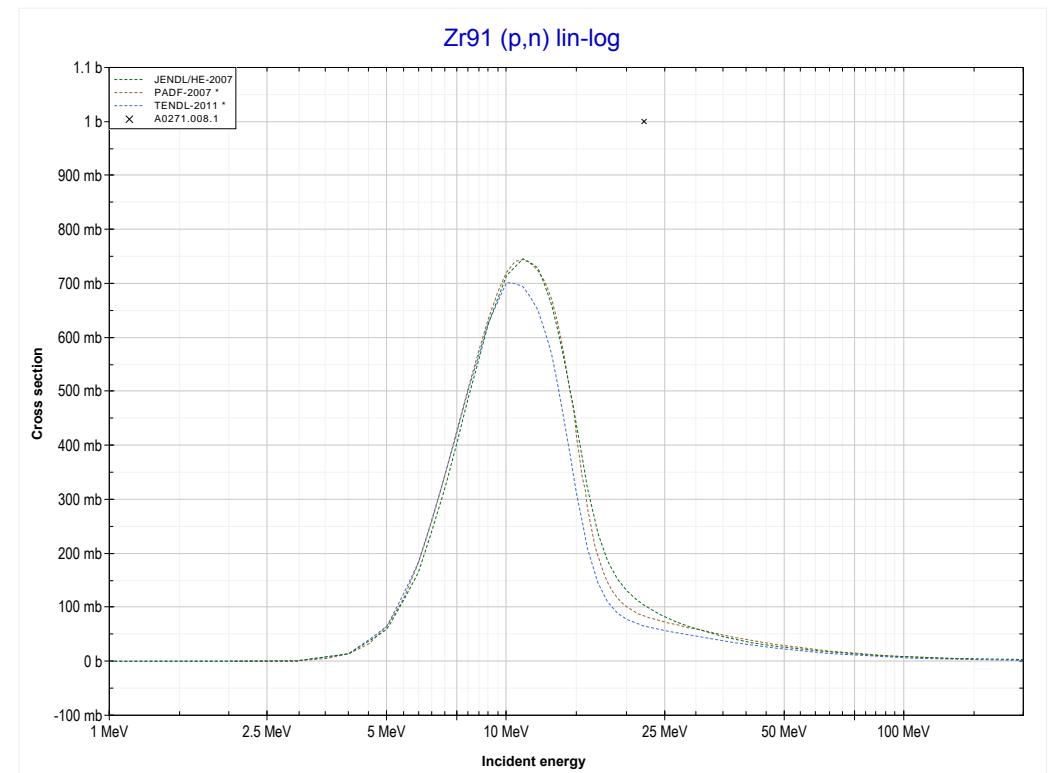
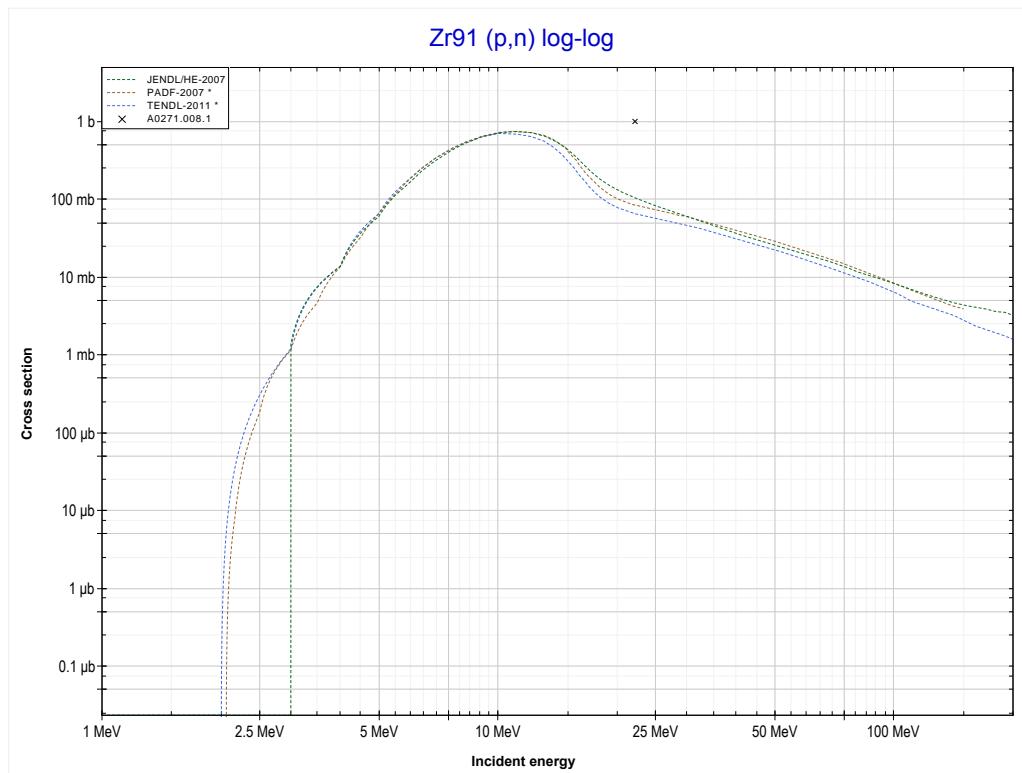
Reaction	Q-Value
Zr90(p,d)Zr89	-9745.05 keV
Zr90(p,n+p)Zr89	-11969.62 keV

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



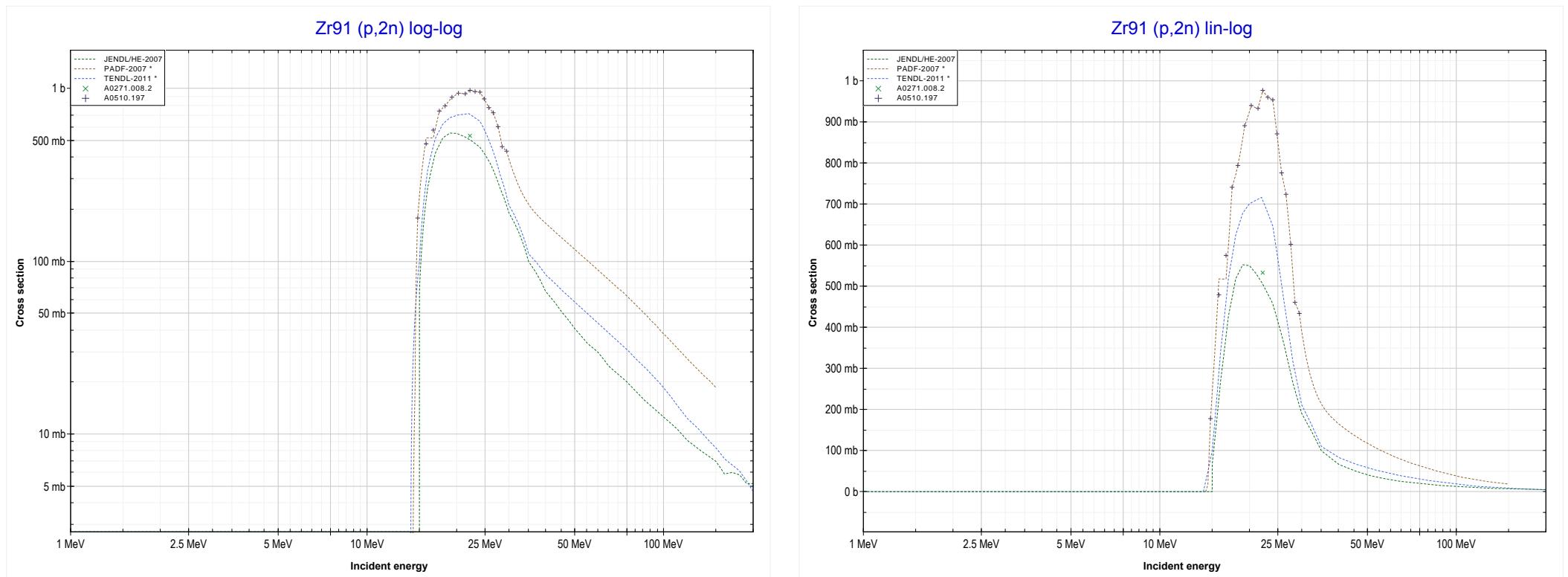
Reaction	Q-Value
Zr90(p, α)Y87	-884.55 keV
Zr90(p,p+t)Y87	-20698.41 keV
Zr90(p,n+He3)Y87	-21462.16 keV
Zr90(p,2d)Y87	-24731.07 keV
Zr90(p,n+p+d)Y87	-26955.64 keV
Zr90(p,2n+2p)Y87	-29180.20 keV

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



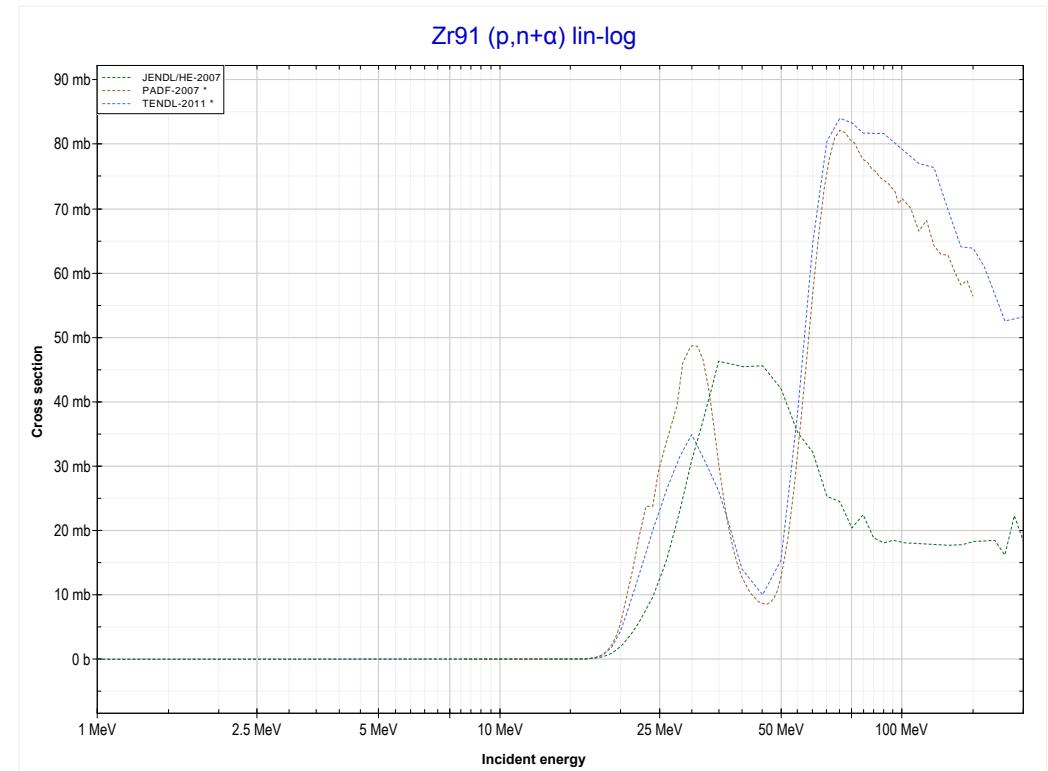
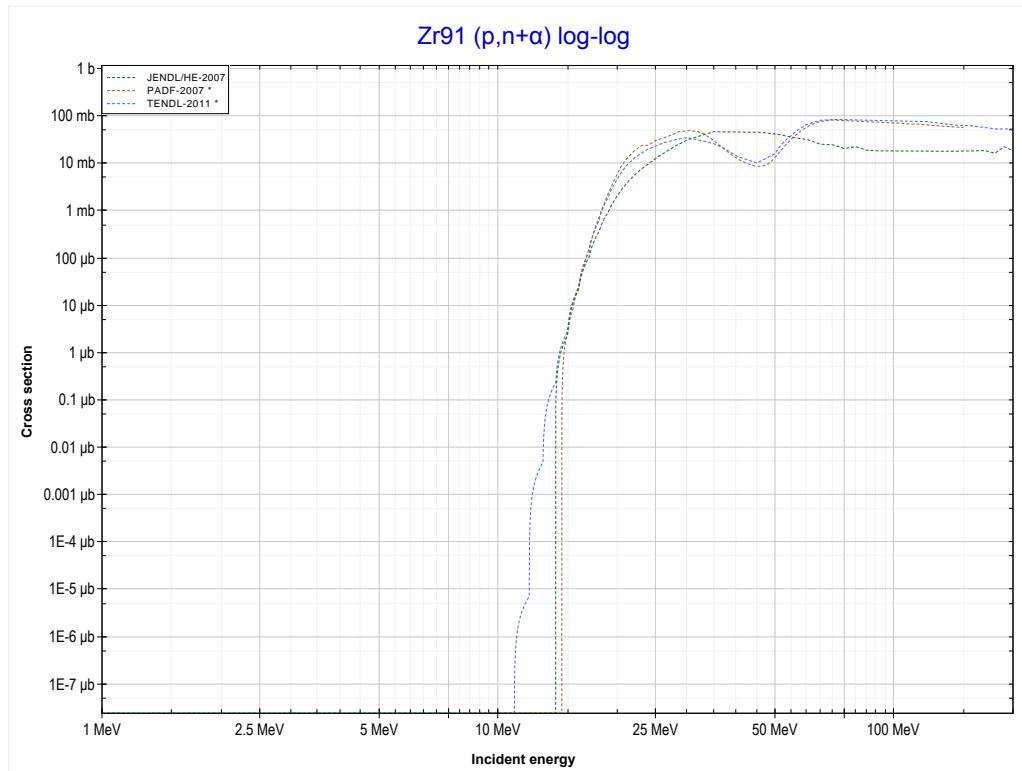
Reaction	Q-Value
Zr91(p,n)Nb91	-2040.75 keV

<< 40-Zr-90	40-Zr-91 MT16 (p,2n) or MT5 (Nb90 production)	40-Zr-94 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



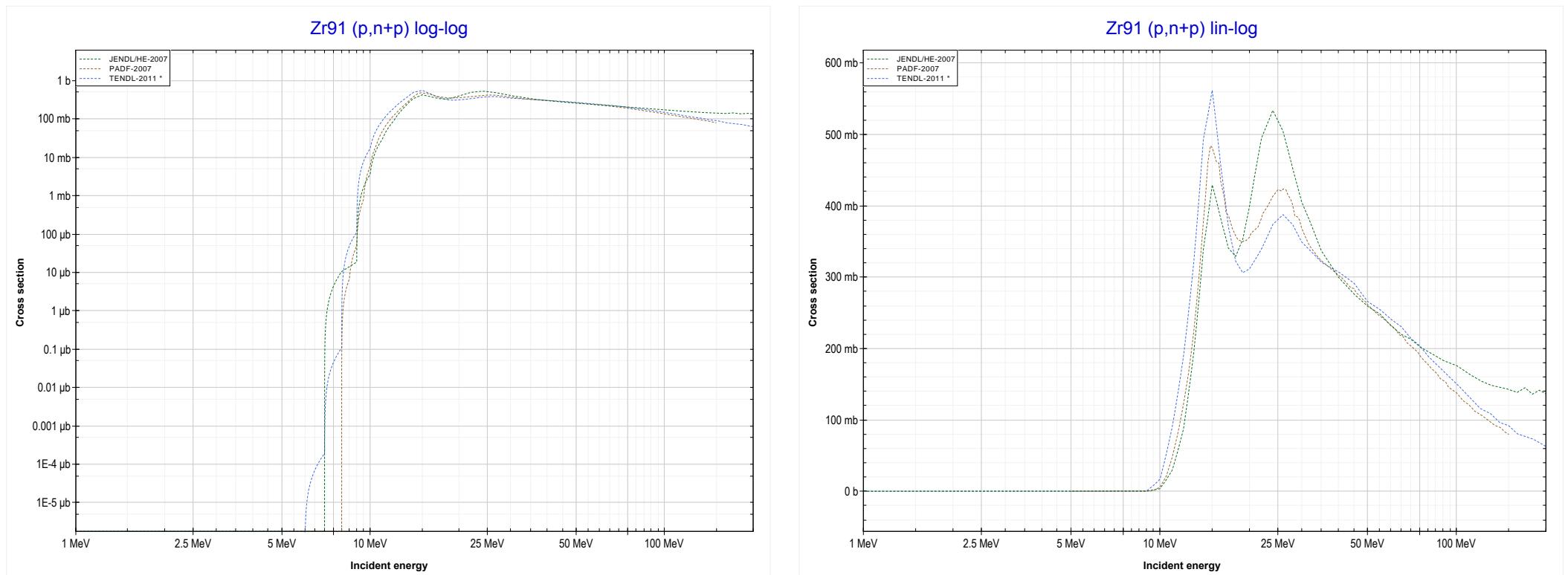
Reaction	Q-Value
$Zr^{91}(p,2n)Nb^{90}$	-14088.06 keV

<< 40-Zr-90	40-Zr-91 MT22 (p,n+α) or MT5 (Y87 production)	>> 40-Zr-92 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>



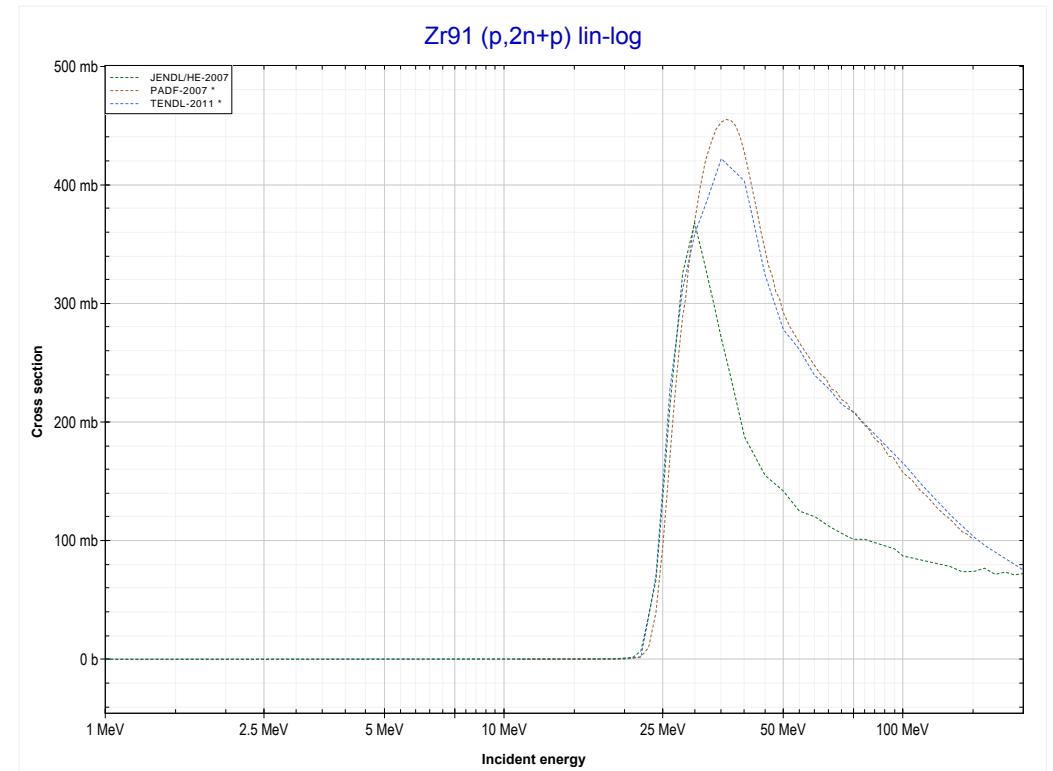
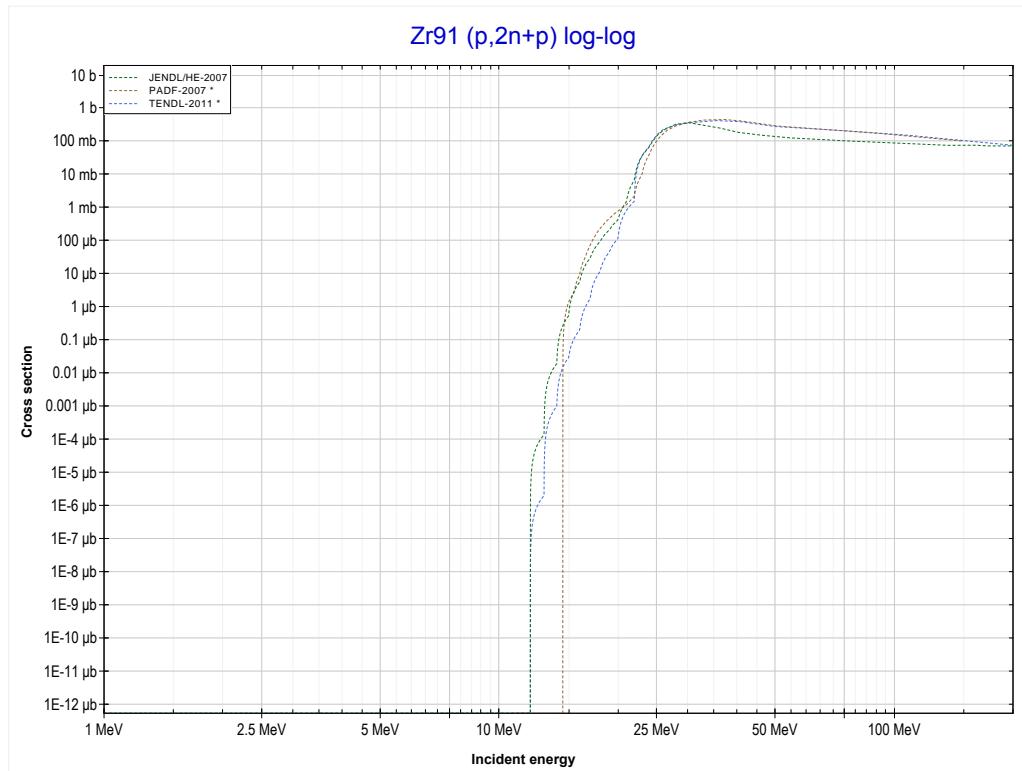
Reaction	Q-Value
Zr91(p,n+α)Y87	-8078.96 keV
Zr91(p,d+t)Y87	-25668.26 keV
Zr91(p,n+p+t)Y87	-27892.82 keV
Zr91(p,2n+He3)Y87	-28656.58 keV
Zr91(p,n+2d)Y87	-31925.49 keV
Zr91(p,2n+p+d)Y87	-34150.06 keV
Zr91(p,3n+2p)Y87	-36374.62 keV

<< 40-Zr-90	40-Zr-91 MT28 (p,n+p) or MT5 (Zr90 production)	40-Zr-96 >>
<< MT22 (p,n+α)		MT41 (p,2n+p) >>



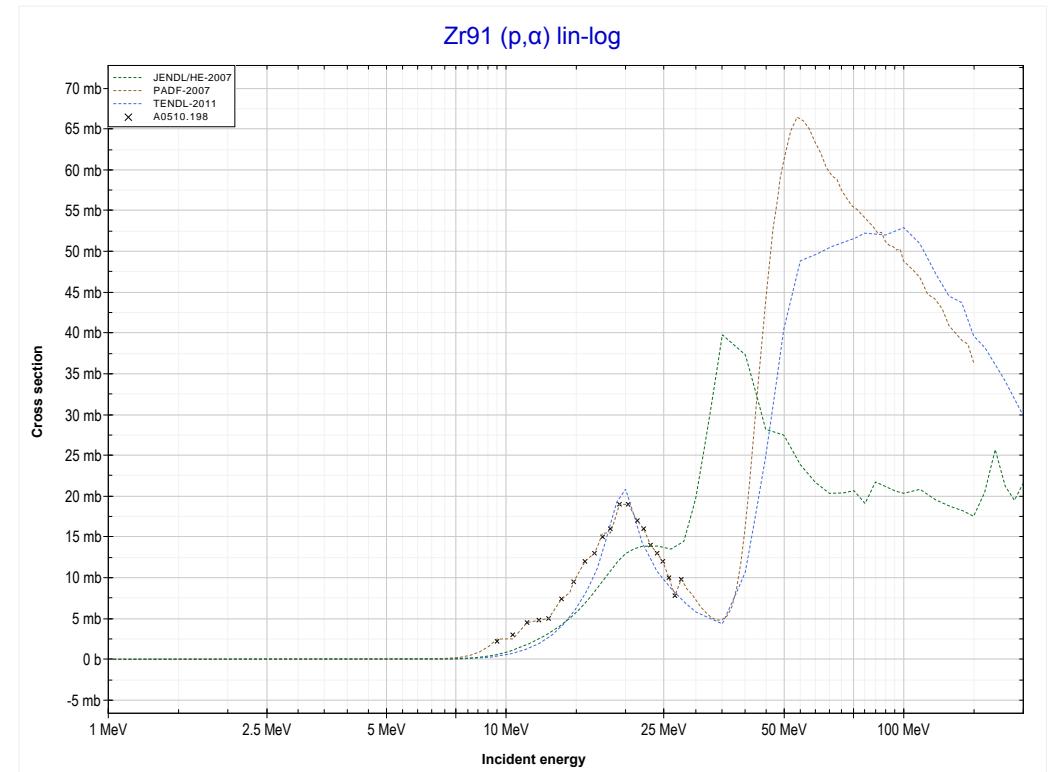
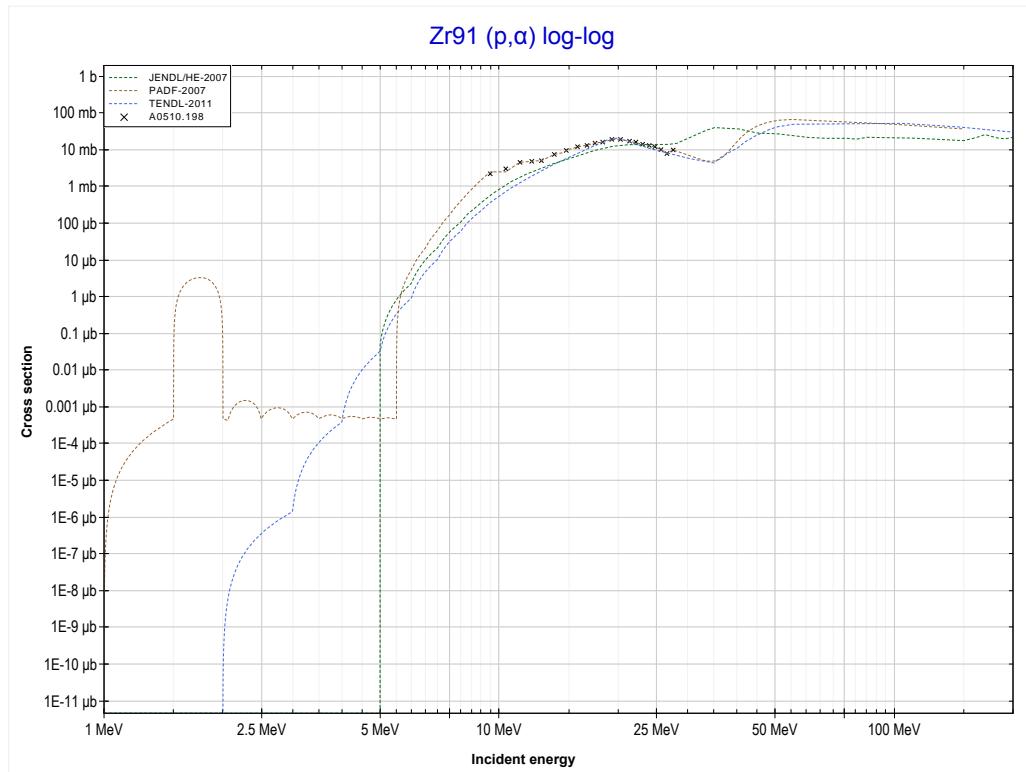
Reaction	Q-Value
Zr91(p,d)Zr90	-4969.85 keV
Zr91(p,n+p)Zr90	-7194.42 keV

<< 39-Y-89	40-Zr-91 MT41 (p,2n+p) or MT5 (Zr89 production)	42-Mo-92 >>
<< MT28 (p,n+p)		MT107 (p, α) >>



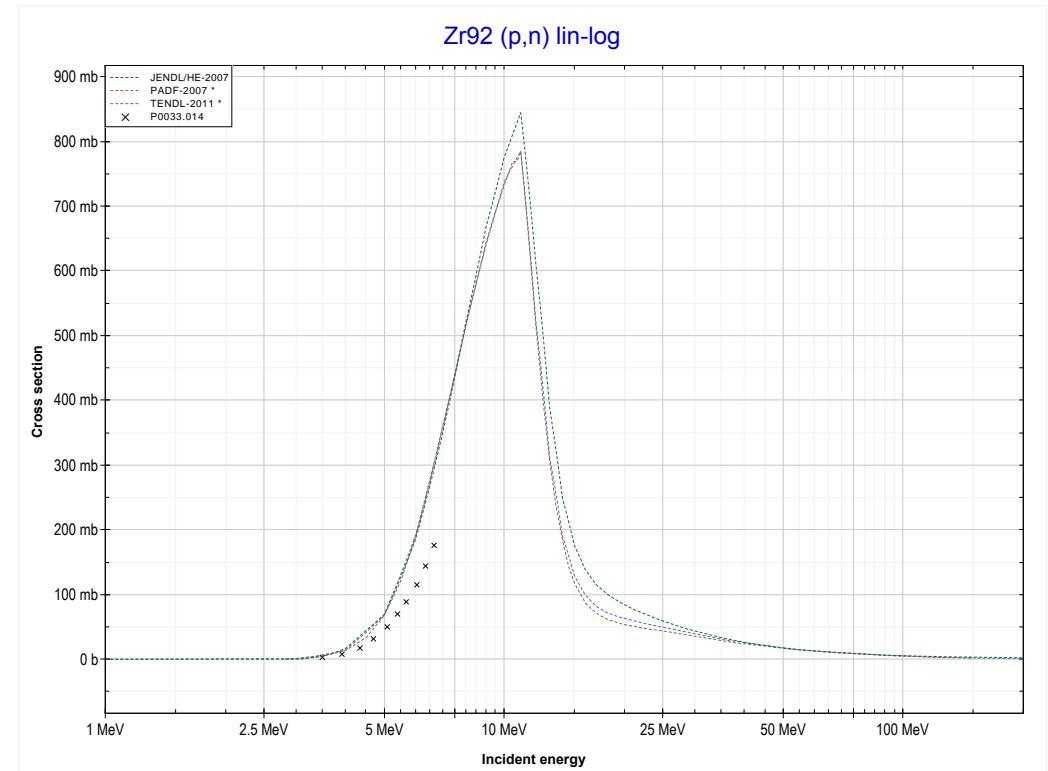
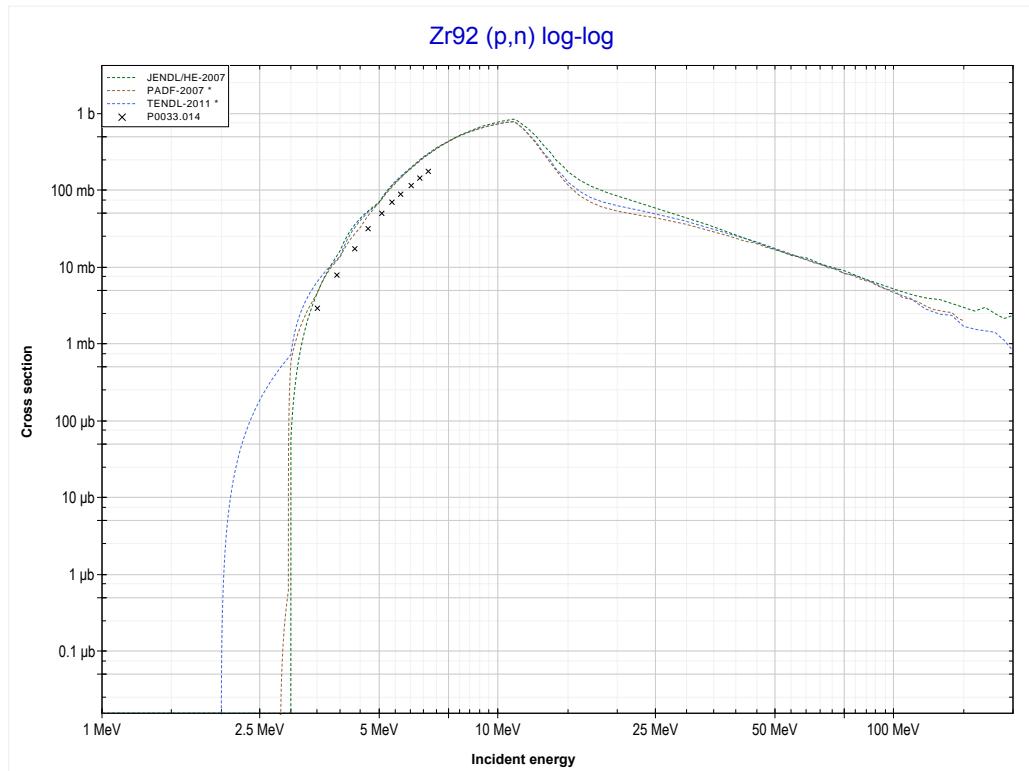
Reaction	Q-Value
$Zr^{91}(p,t)Zr^{89}$	-10682.24 keV
$Zr^{91}(p,n+d)Zr^{89}$	-16939.47 keV
$Zr^{91}(p,2n+p)Zr^{89}$	-19164.03 keV

<< 40-Zr-90	40-Zr-91	42-Mo-92 >>
<< MT41 (p,2n+p)	MT107 (p,α) or MT5 (Y88 production)	MT4 (p,n) >>



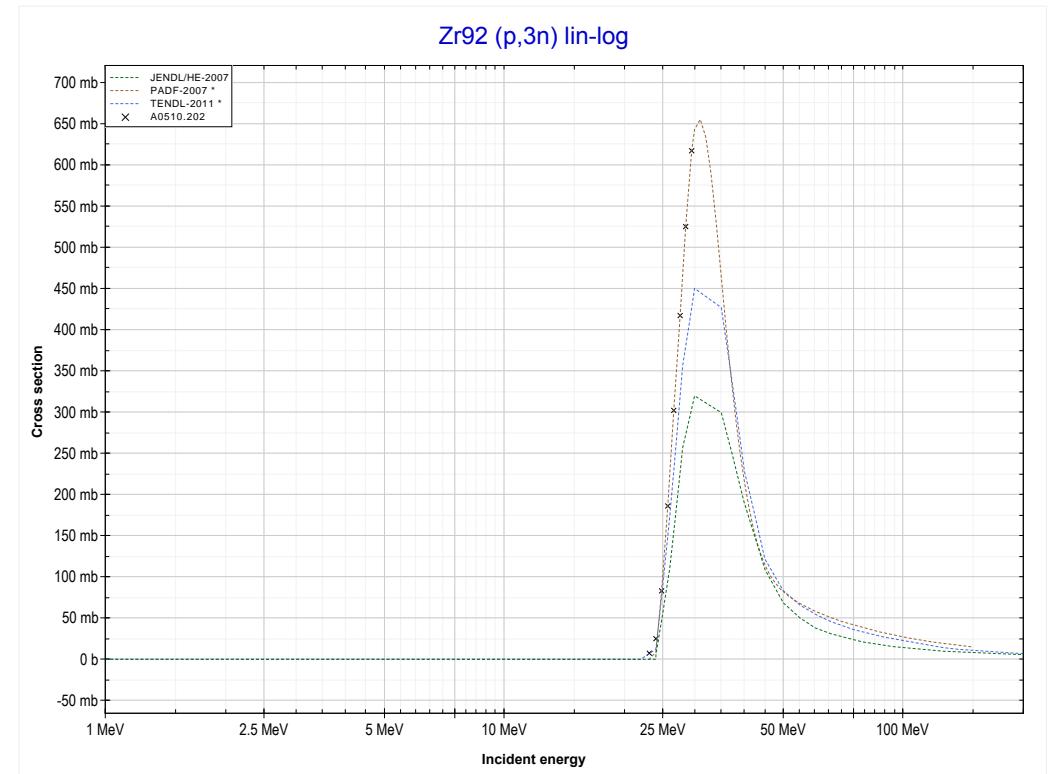
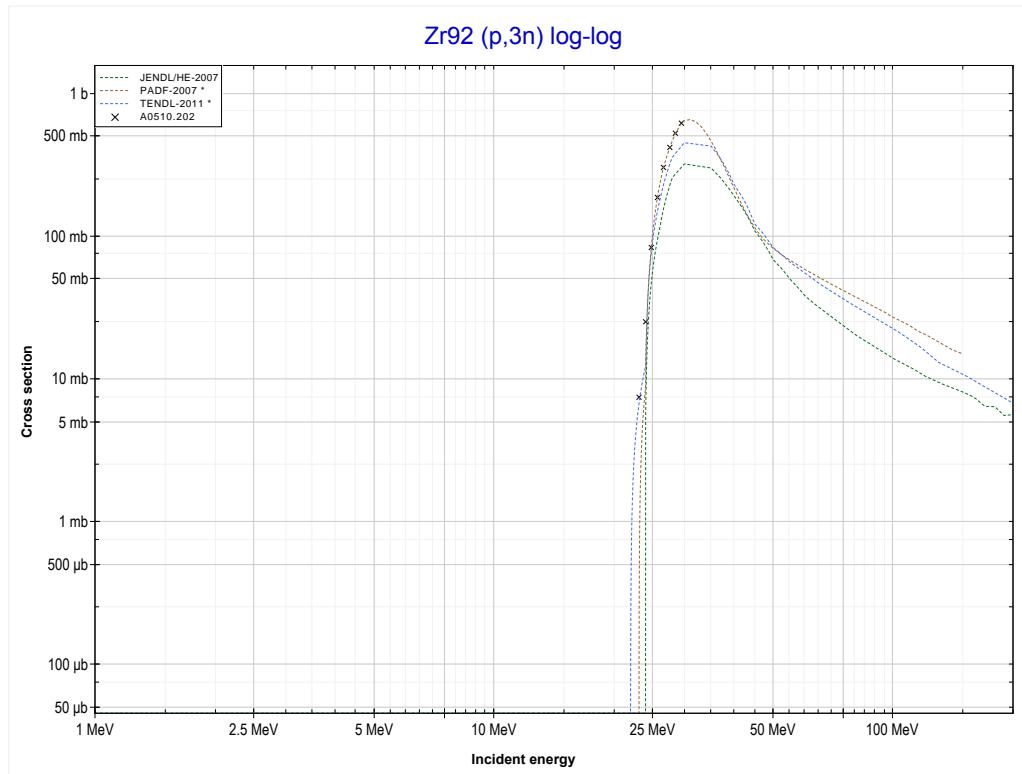
Reaction	Q-Value
Zr91(p, α)Y88	1272.75 keV
Zr91(p,p+t)Y88	-18541.11 keV
Zr91(p,n+He3)Y88	-19304.86 keV
Zr91(p,2d)Y88	-22573.77 keV
Zr91(p,n+p+d)Y88	-24798.34 keV
Zr91(p,2n+2p)Y88	-27022.90 keV

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



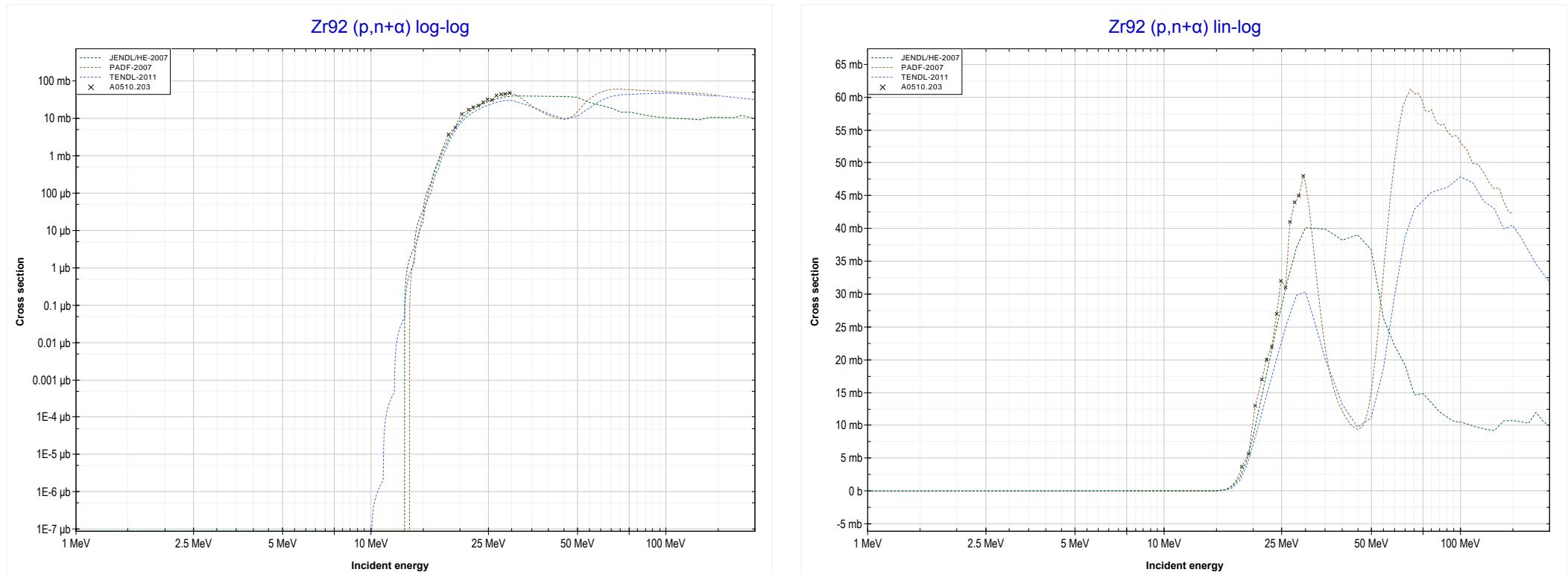
Reaction	Q-Value
Zr92(p,n)Nb92	-2787.95 keV

<< 40-Zr-90	40-Zr-92 MT17 (p,3n) or MT5 (Nb90 production)	40-Zr-94 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



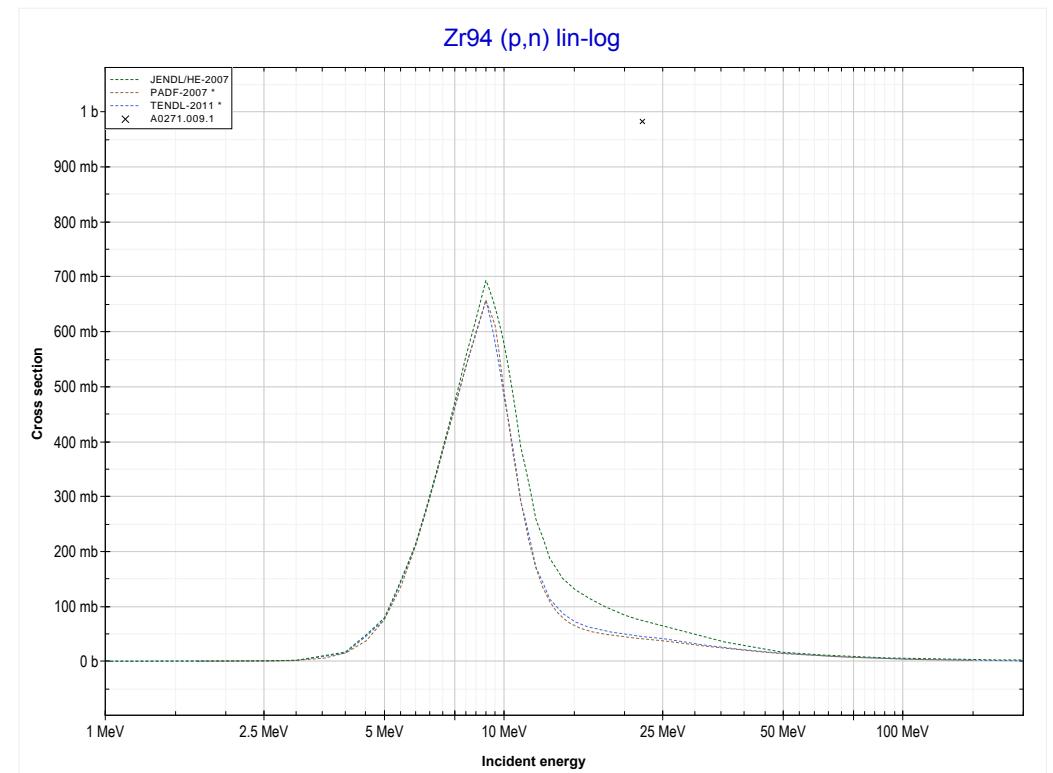
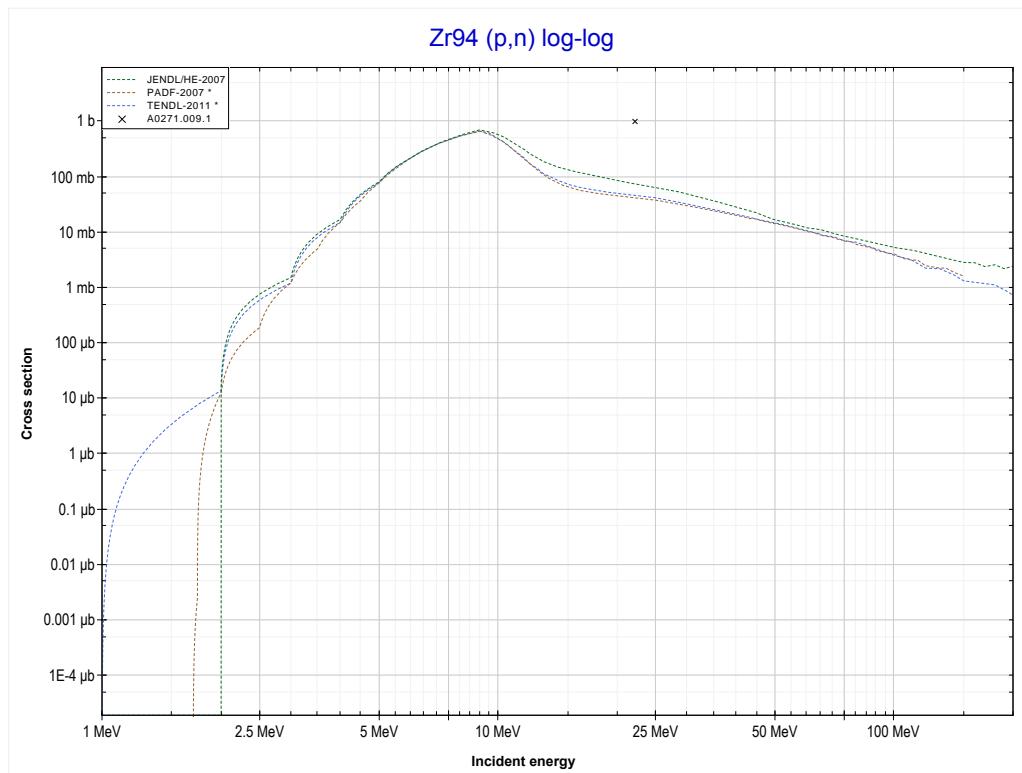
Reaction	Q-Value
$\text{Zr}^{92}(\text{p},\text{3n})\text{Nb}^{90}$	-22722.88 keV

<< 40-Zr-91	40-Zr-92 MT22 ($p,n+\alpha$) or MT5 (Y88 production)	>> 41-Nb-93
<< MT17 ($p,3n$)		MT4 (p,n) >>



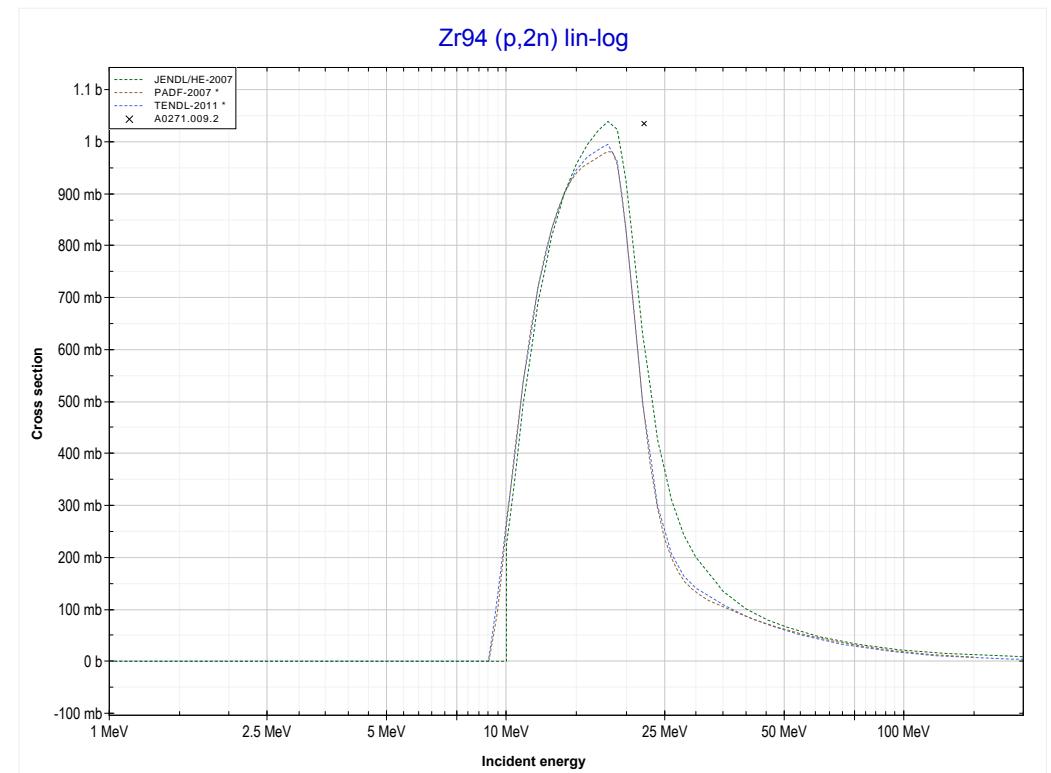
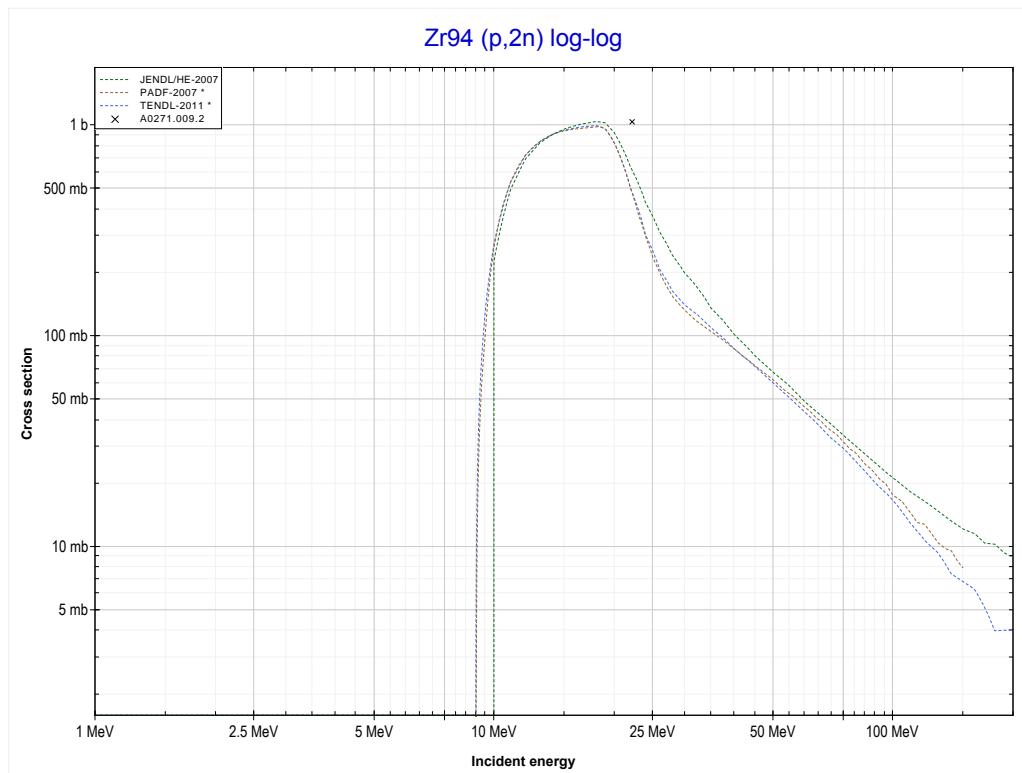
Reaction	Q-Value
Zr92($p,n+\alpha$)Y88	-7362.06 keV
Zr92($p,d+t$)Y88	-24951.36 keV
Zr92($p,n+p+t$)Y88	-27175.92 keV
Zr92($p,2n+He3$)Y88	-27939.68 keV
Zr92($p,n+2d$)Y88	-31208.59 keV
Zr92($p,2n+p+d$)Y88	-33433.16 keV
Zr92($p,3n+2p$)Y88	-35657.72 keV

<< 40-Zr-92	40-Zr-94 MT4 (p,n) or MT5 (Nb94 production)	40-Zr-96 >>
<< MT22 (p,n+α)		MT16 (p,2n) >>



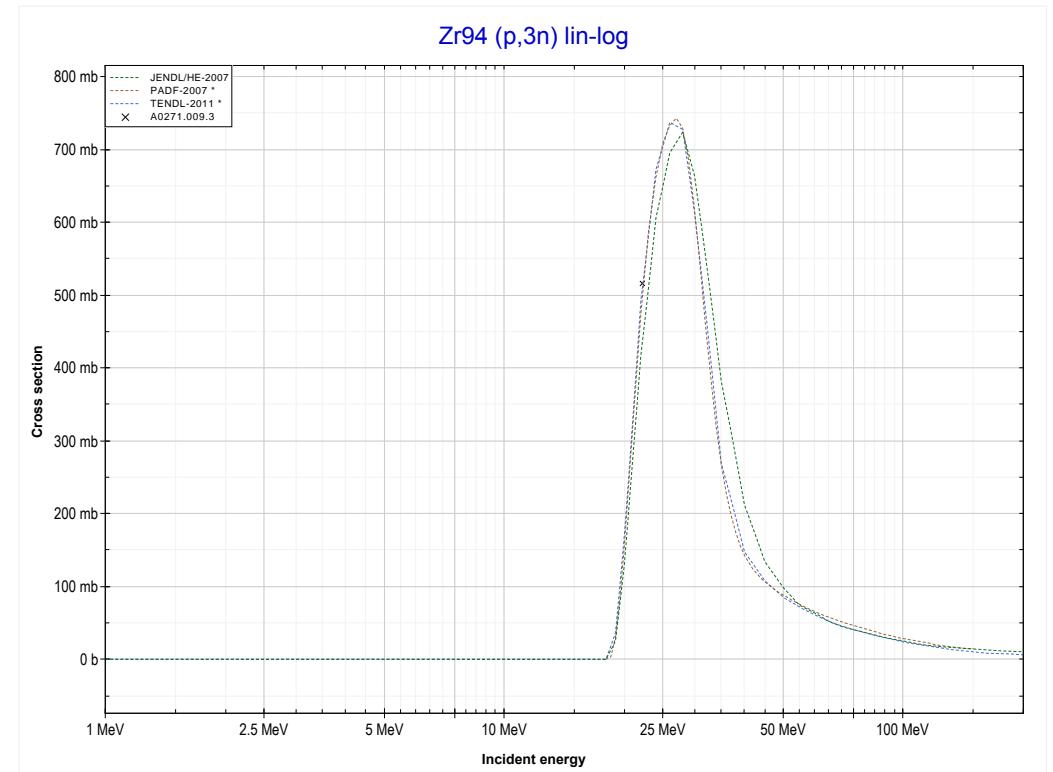
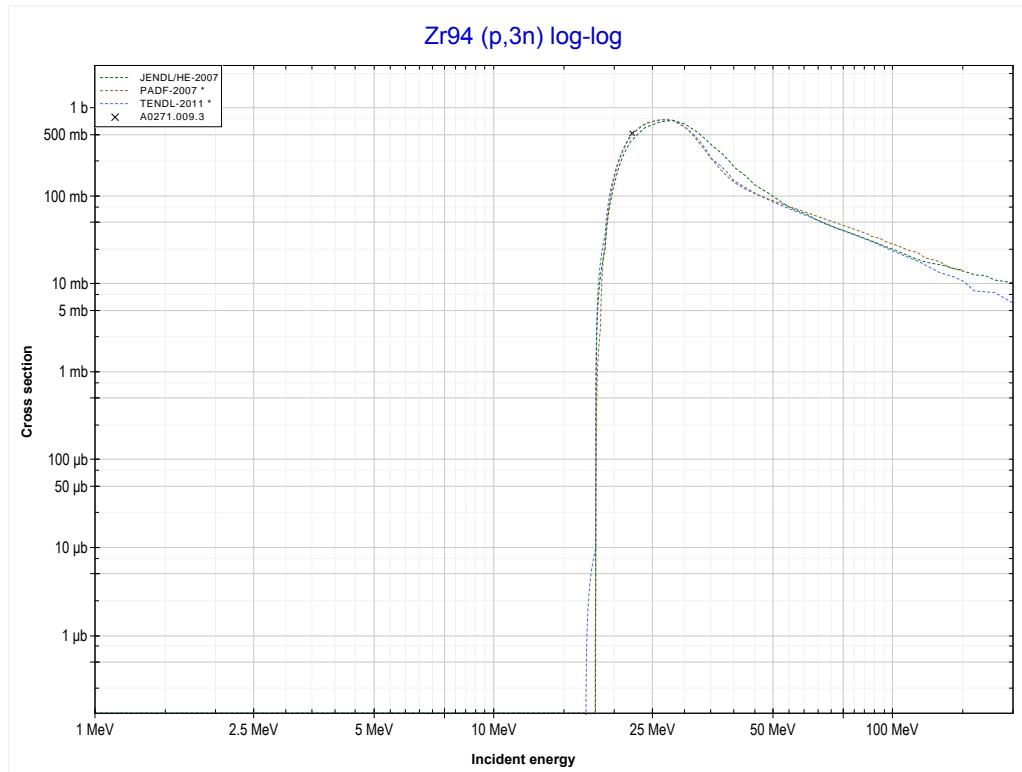
Reaction	Q-Value
Zr94(p,n)Nb94	-1684.65 keV

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



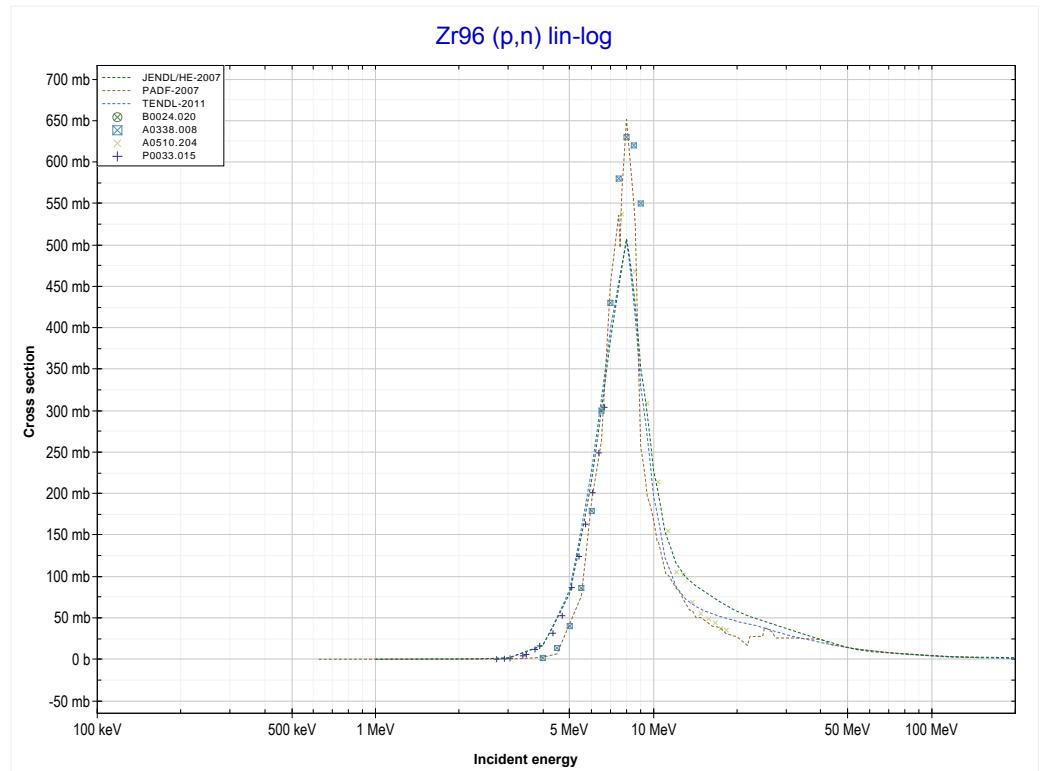
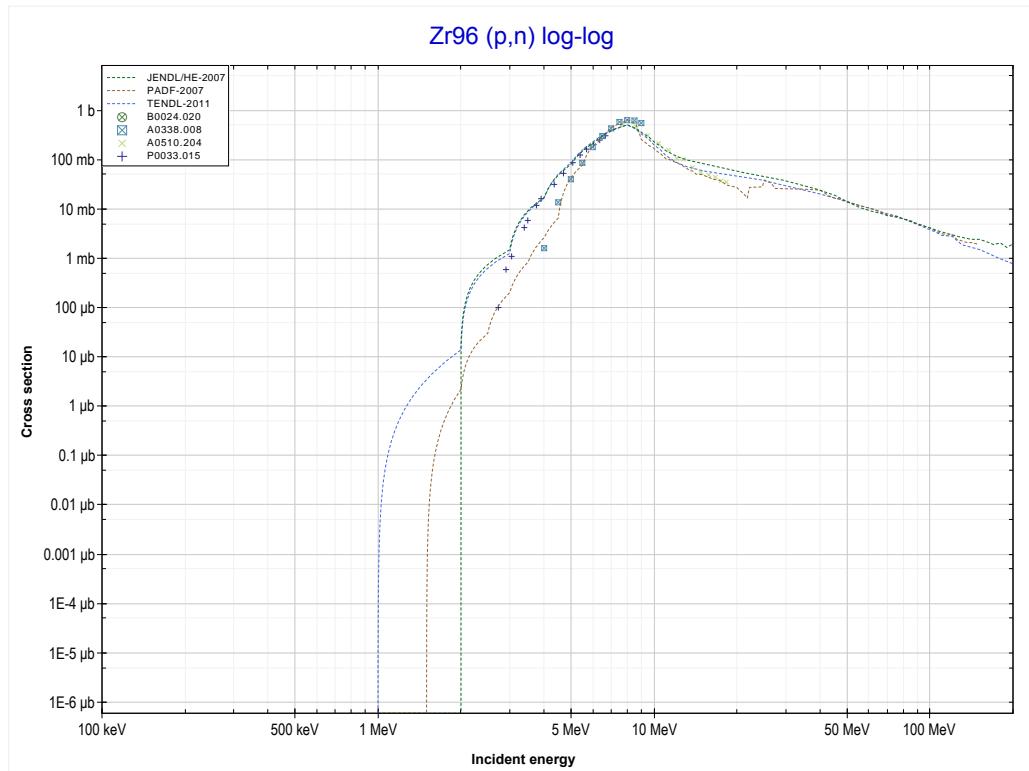
Reaction	Q-Value
$Zr^{94}(p,2n)Nb^{93}$	-8912.16 keV

<< 40-Zr-92	40-Zr-94 MT17 (p,3n) or MT5 (Nb92 production)	>> 42-Mo-95
<< MT16 (p,2n)		MT4 (p,n) >>



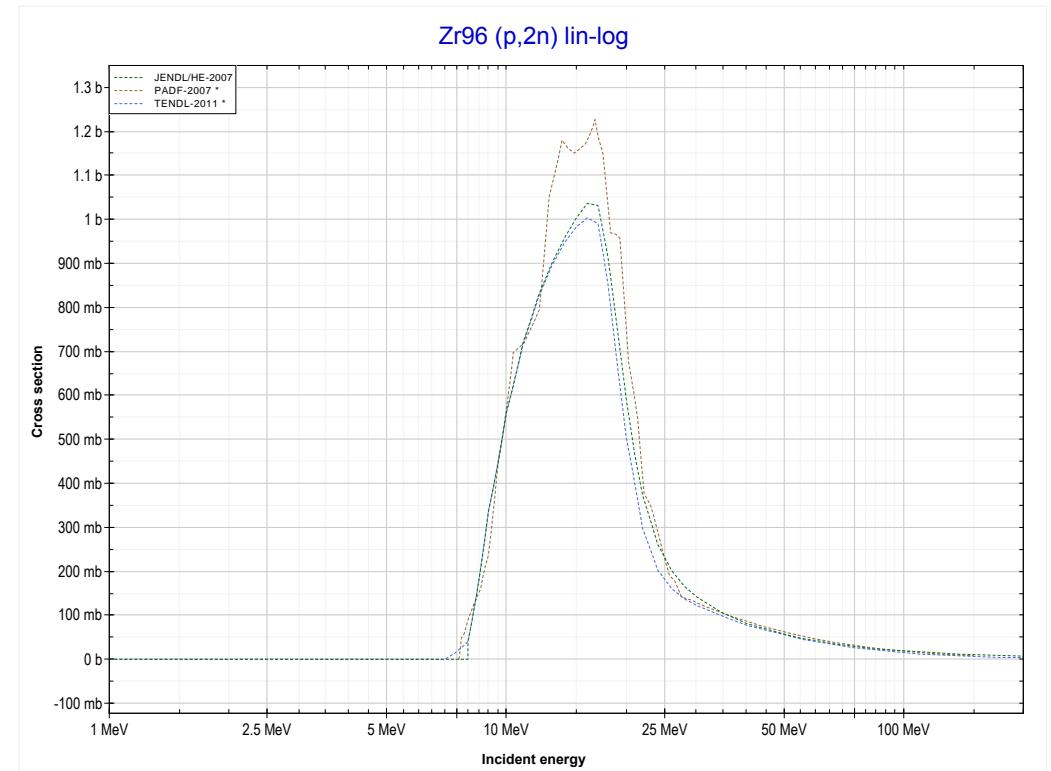
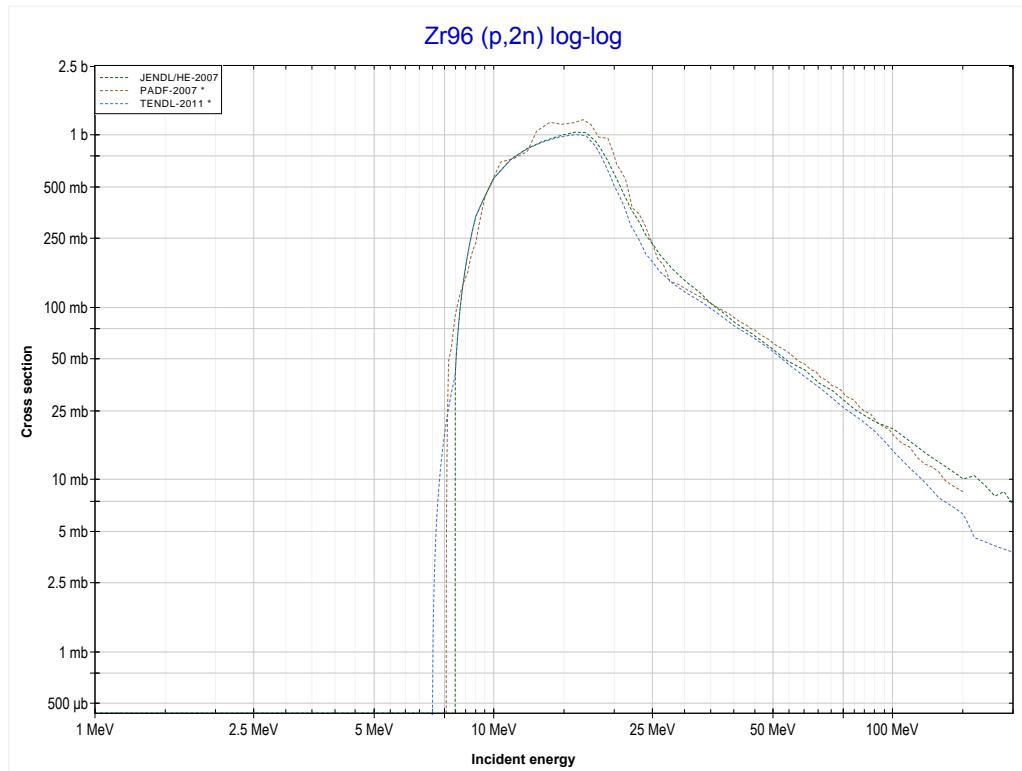
Reaction	Q-Value
Zr94(p,3n)Nb92	-17743.48 keV

<< 40-Zr-94	40-Zr-96 MT4 (p,n) or MT5 (Nb96 production)	41-Nb-93 >>
<< MT17 (p,3n)		MT16 (p,2n) >>



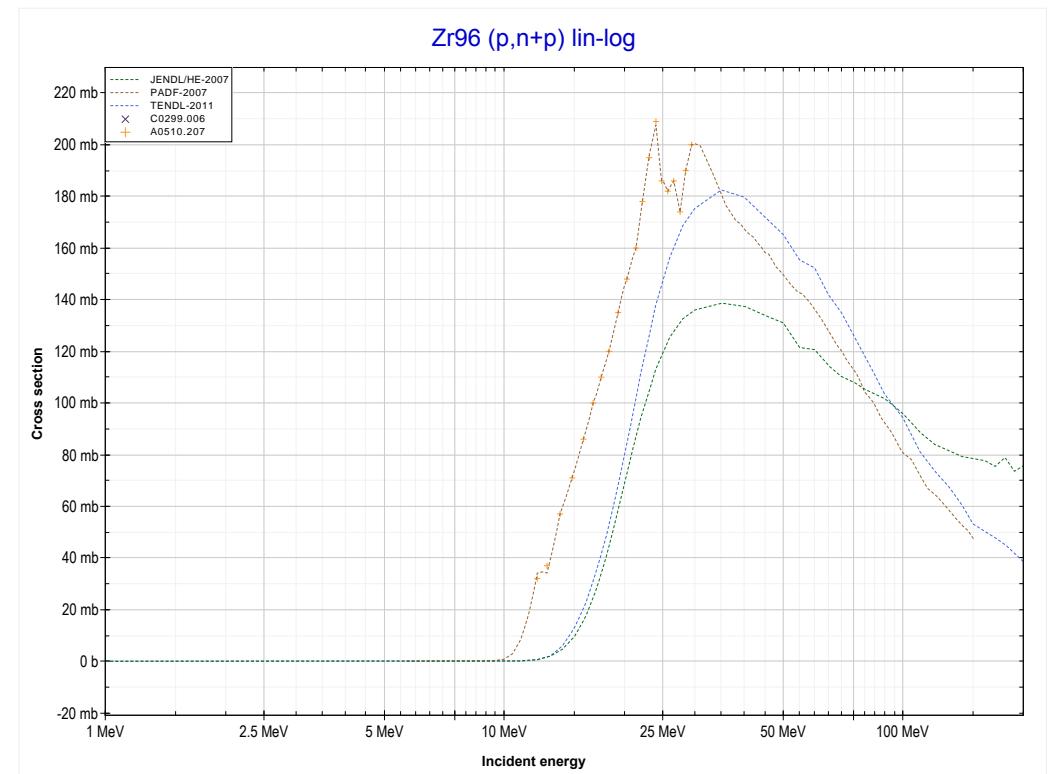
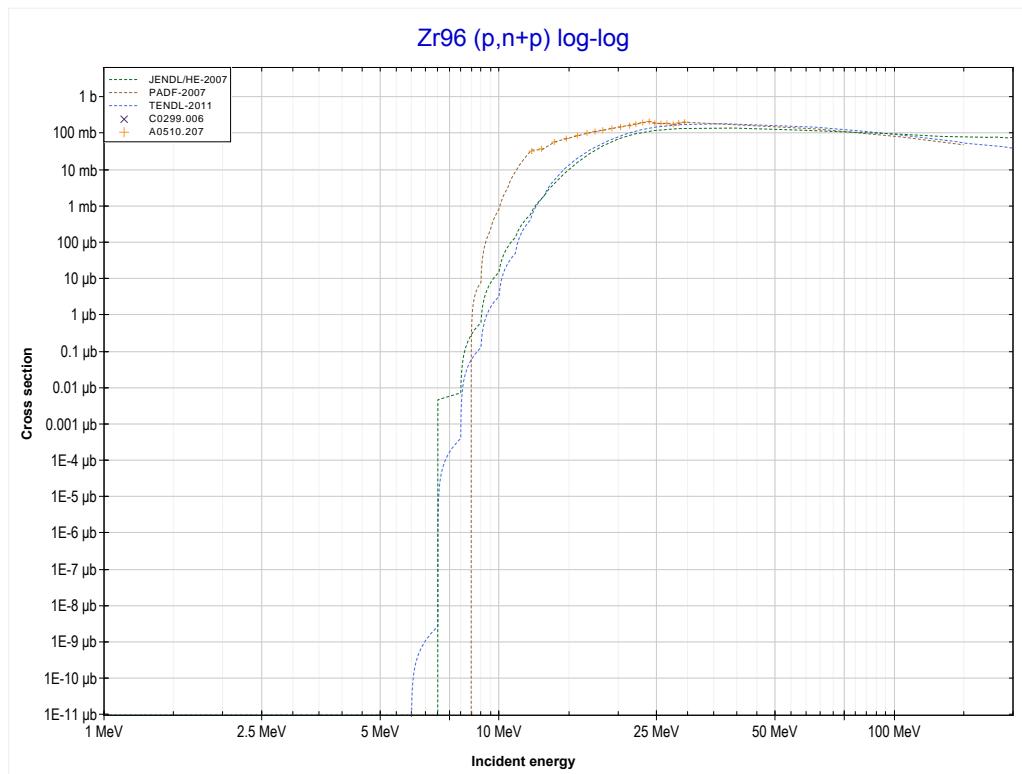
Reaction	Q-Value
Zr96(p,n)Nb96	-621.15 keV

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



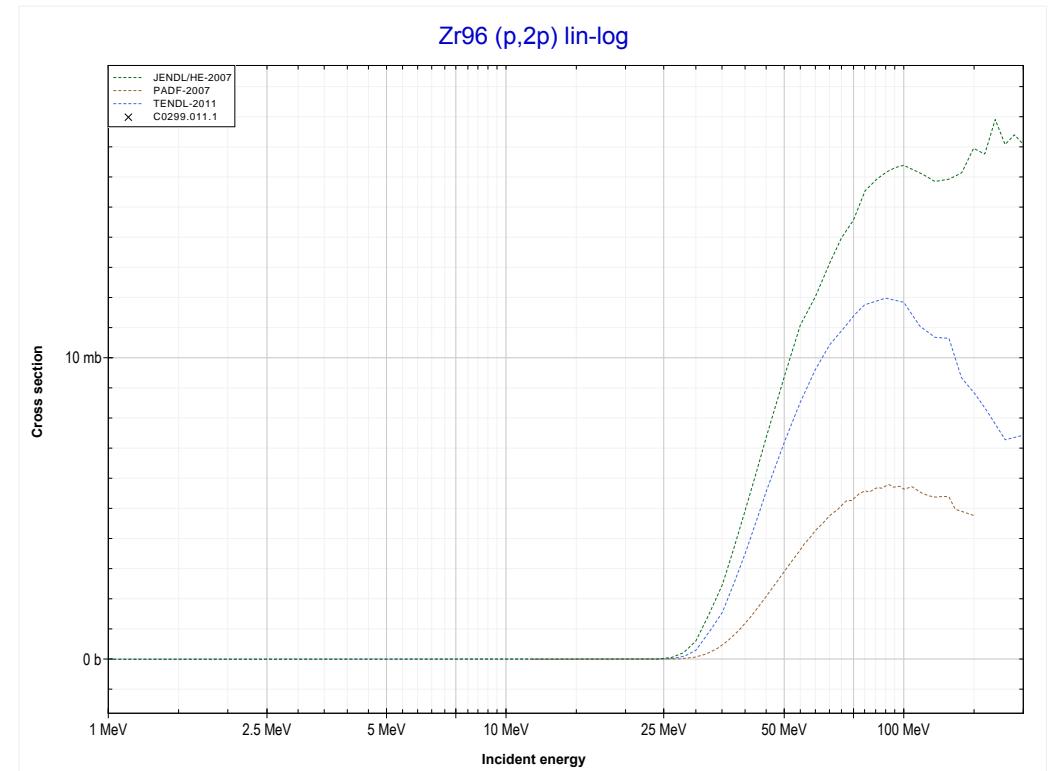
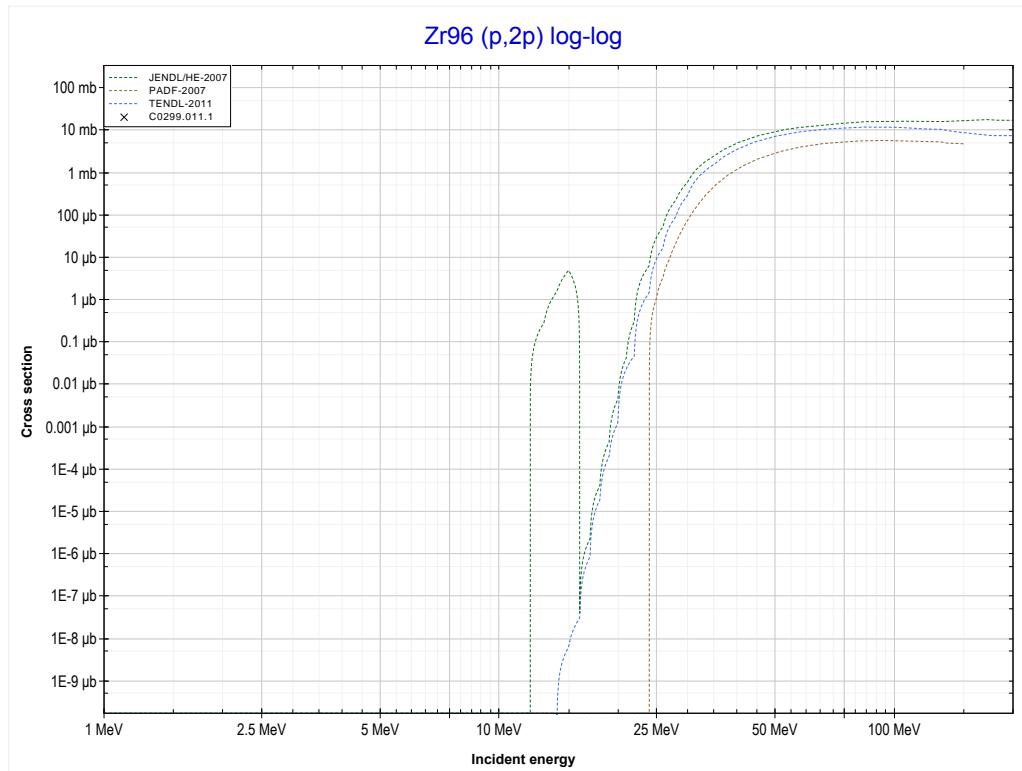
Reaction	Q-Value
Zr96(p,2n)Nb95	-7514.56 keV

<< 40-Zr-91	40-Zr-96 MT28 (p,n+p) or MT5 (Zr95 production)	>> 41-Nb-93 >>
<< MT16 (p,2n) >>		MT111 (p,2p) >>



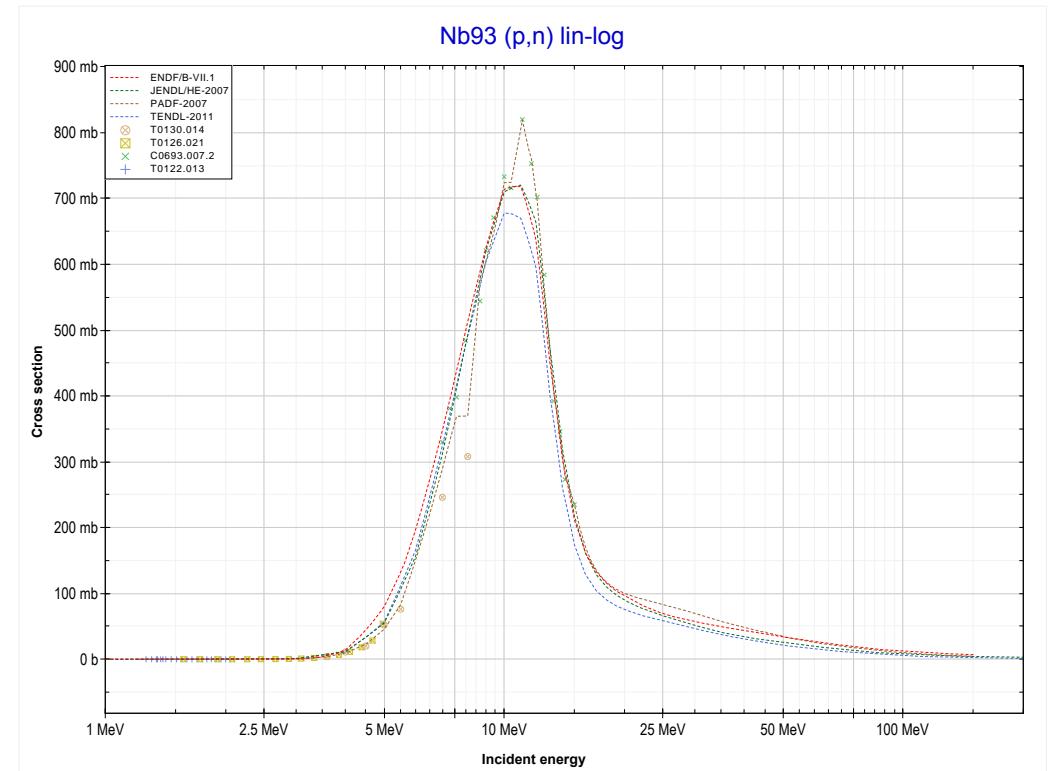
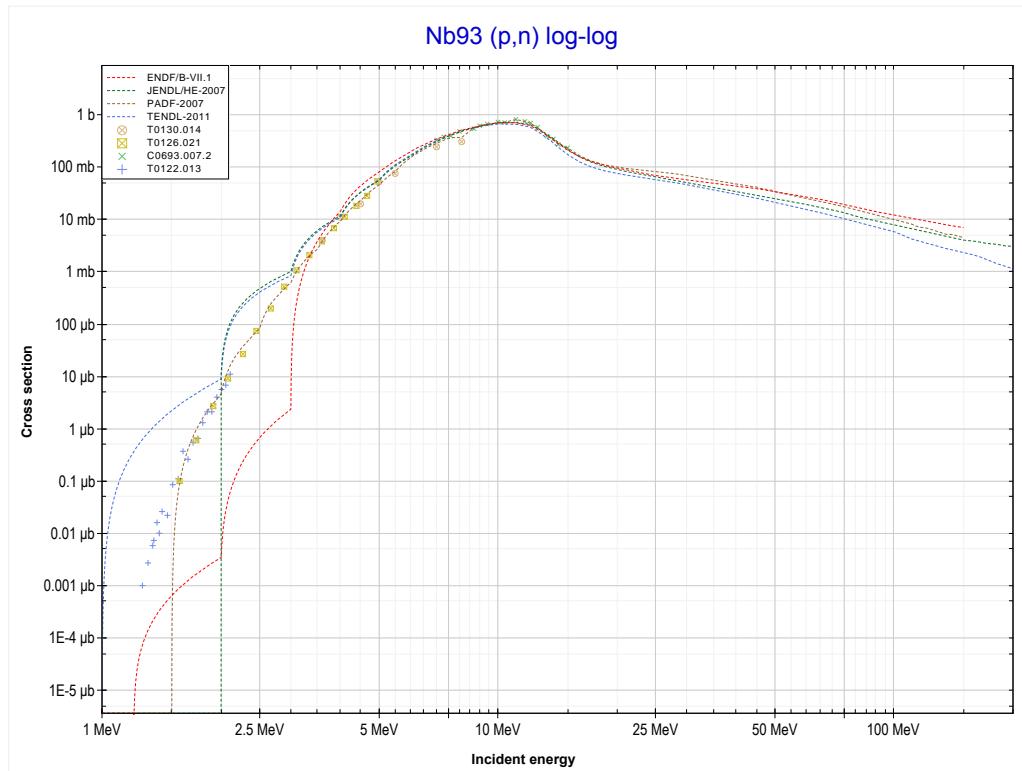
Reaction	Q-Value
Zr96(p,d)Zr95	-5631.75 keV
Zr96(p,n+p)Zr95	-7856.32 keV

<< 30-Zn-68	40-Zr-96 MT111 (p,2p) or MT5 (Y95 production)	>> 42-Mo-96
<< MT28 (p,n+p)		MT4 (p,n) >>



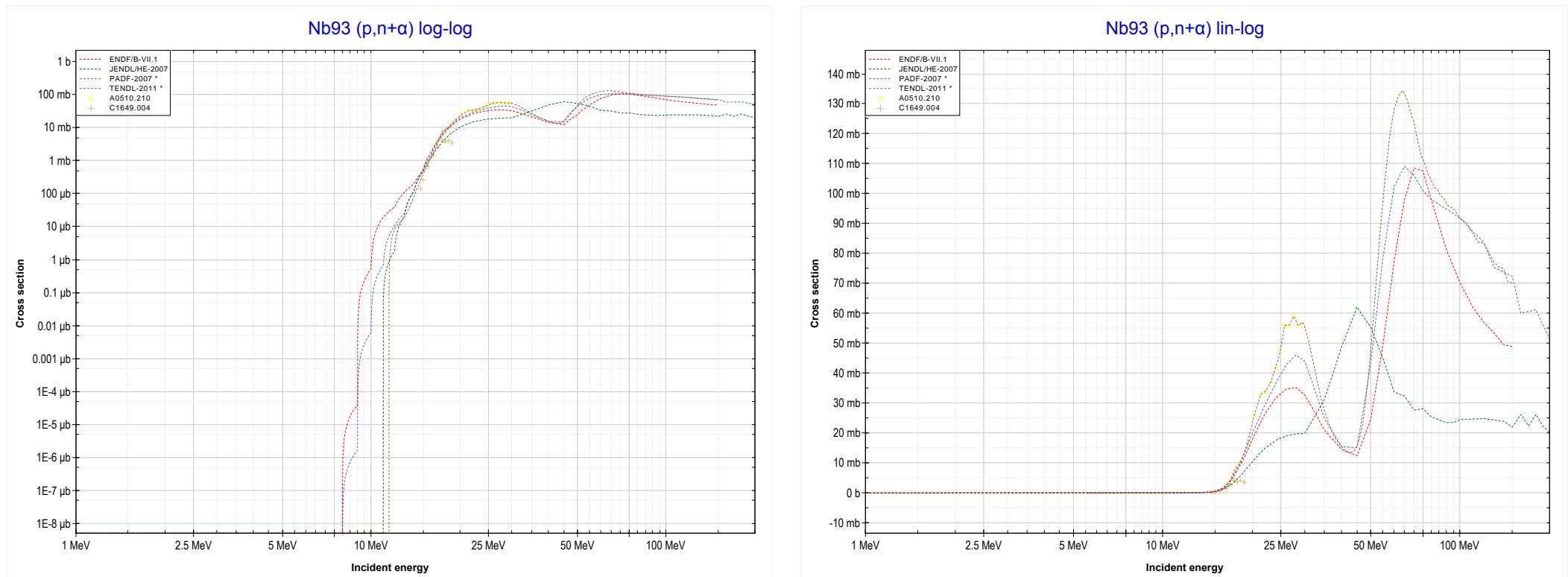
Reaction	Q-Value
Zr96(p,2p)Y95	-11524.77 keV

<< 40-Zr-96	41-Nb-93 MT4 (p,n) or MT5 (Mo93 production)	>> 42-Mo-94 >>
<< MT111 (p,2p) >>		MT22 (p,n+α) >>



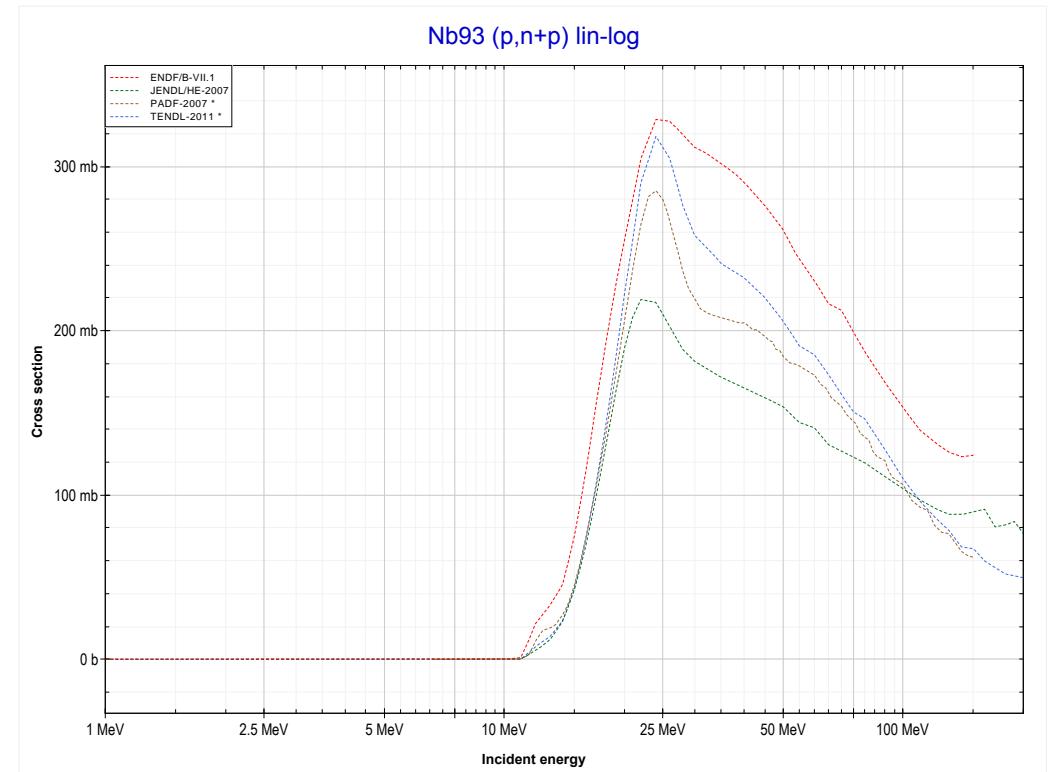
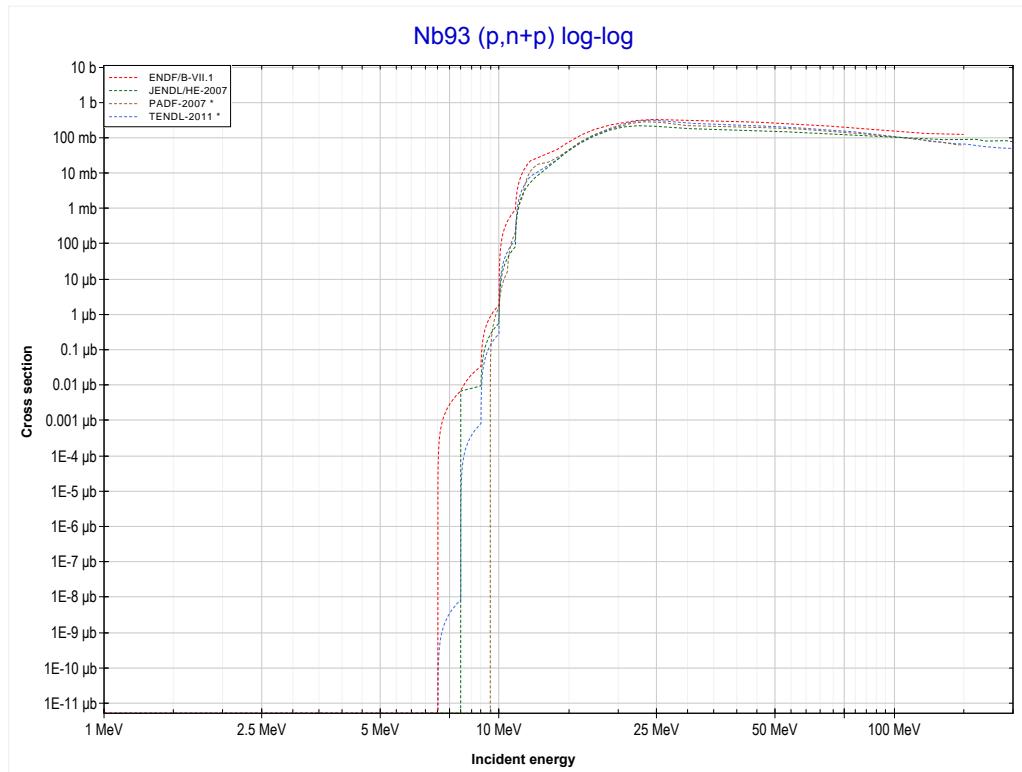
Reaction	Q-Value
Nb93(p,n)Mo93	-1187.65 keV

<< 40-Zr-92	41-Nb-93 MT22 (p,n+α) or MT5 (Zr89 production)	>> 42-Mo-92 >>
<< MT4 (p,n)		MT28 (p,n+p) >>



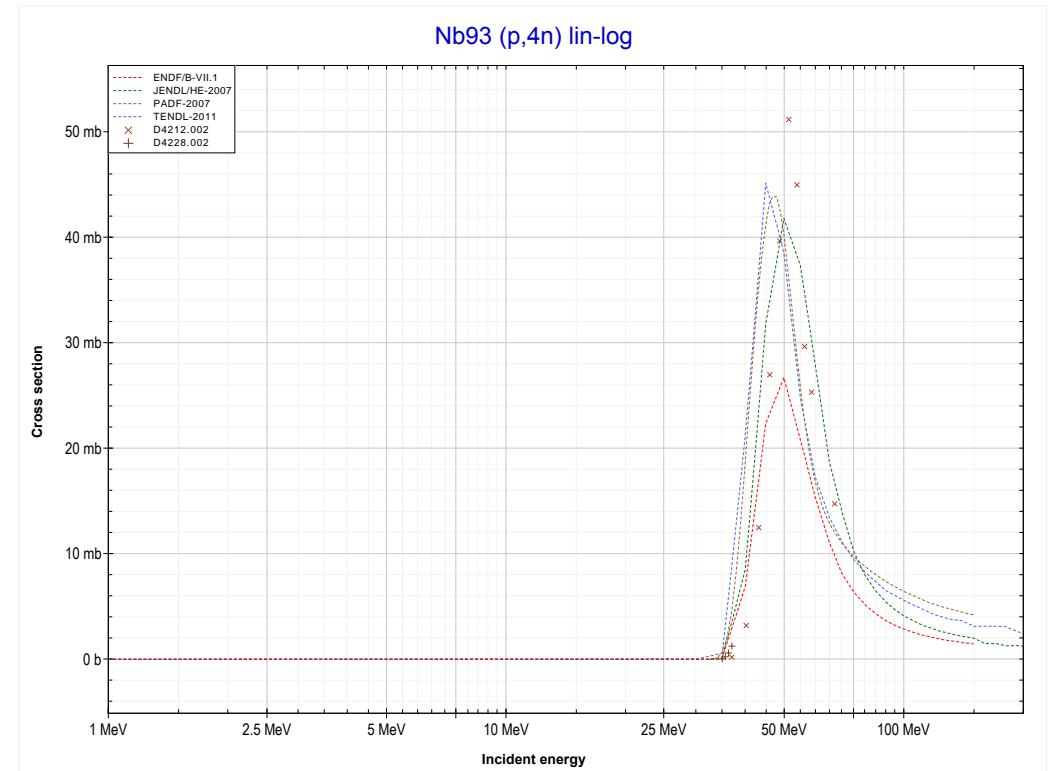
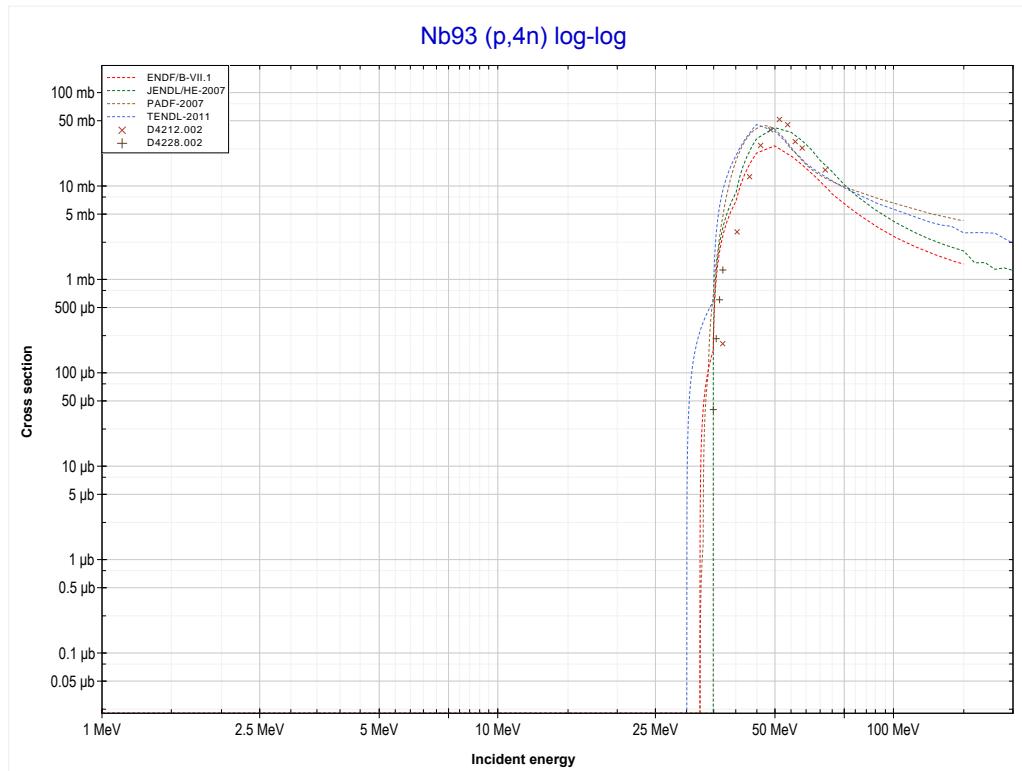
Reaction	Q-Value
Nb93(p,n+α)Zr89	-5546.56 keV
Nb93(p,d+t)Zr89	-23135.86 keV
Nb93(p,n+p+t)Zr89	-25360.42 keV
Nb93(p,2n+He3)Zr89	-26124.18 keV
Nb93(p,n+2d)Zr89	-29393.09 keV
Nb93(p,2n+p+d)Zr89	-31617.66 keV
Nb93(p,3n+2p)Zr89	-33842.22 keV

<< 40-Zr-96	41-Nb-93	>> 42-Mo-94
<< MT22 (p,n+α)	MT28 (p,n+p) or MT5 (Nb92 production)	>> MT37 (p,4n) >>



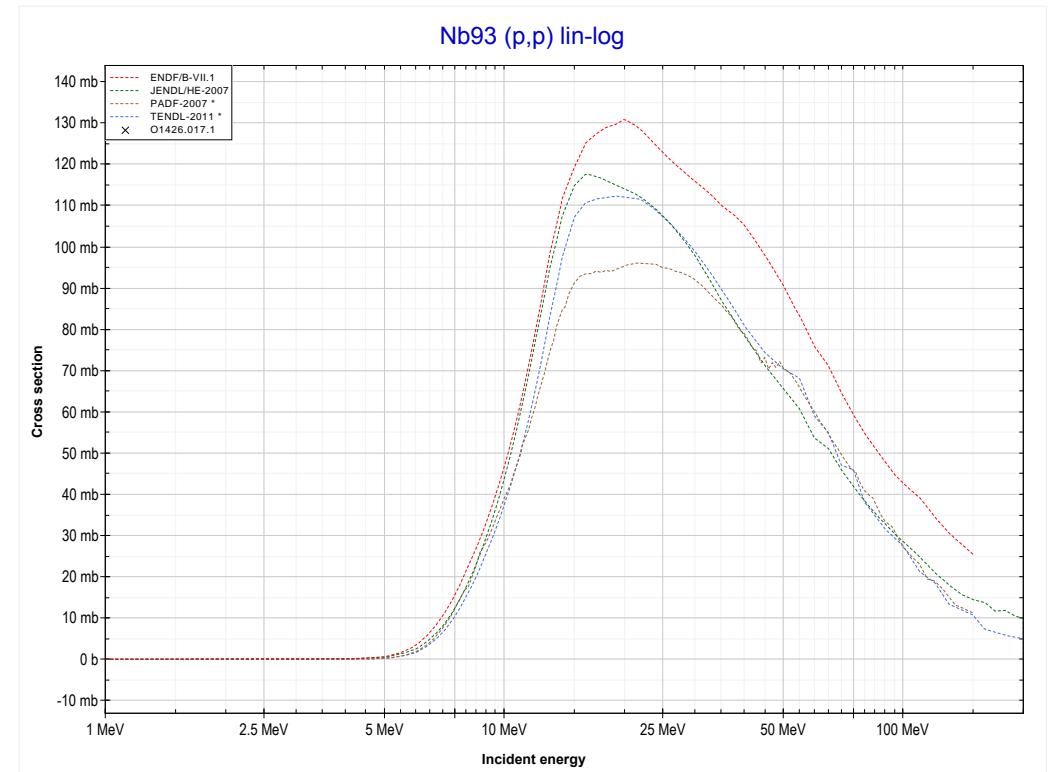
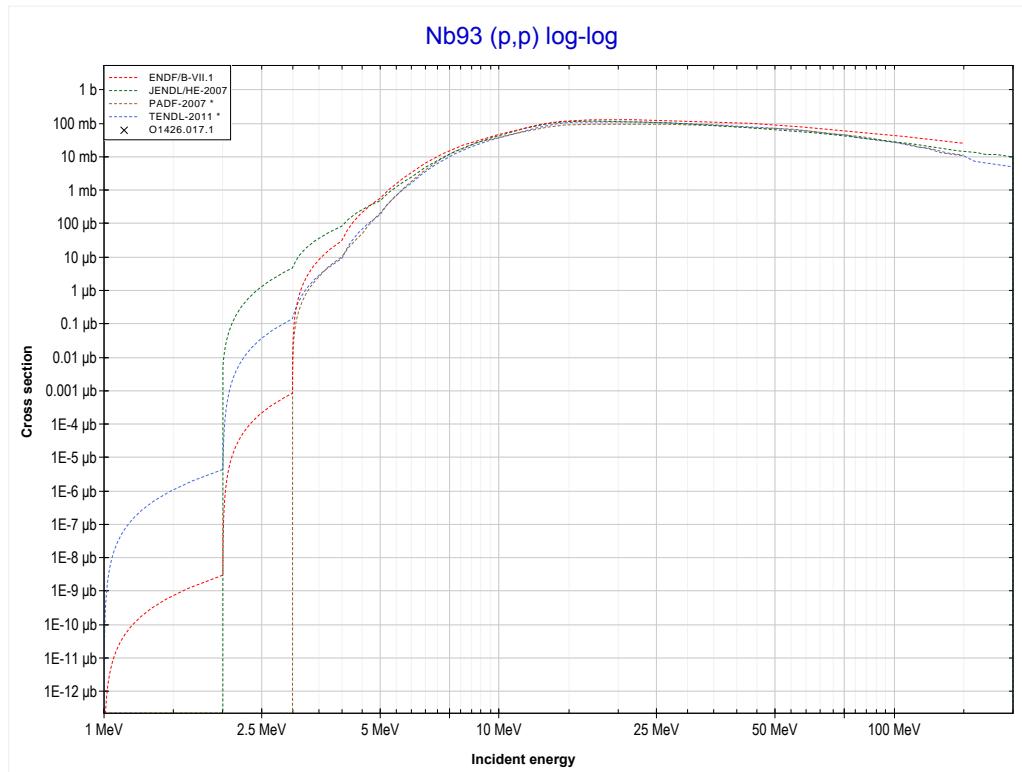
Reaction	Q-Value
Nb93(p,d)Nb92	-6606.75 keV
Nb93(p,n+p)Nb92	-8831.32 keV

<< 39-Y-89	41-Nb-93 MT37 (p,4n) or MT5 (Mo90 production)	42-Mo-96 >>
<< MT28 (p,n+p)		MT103 (p,p) >>



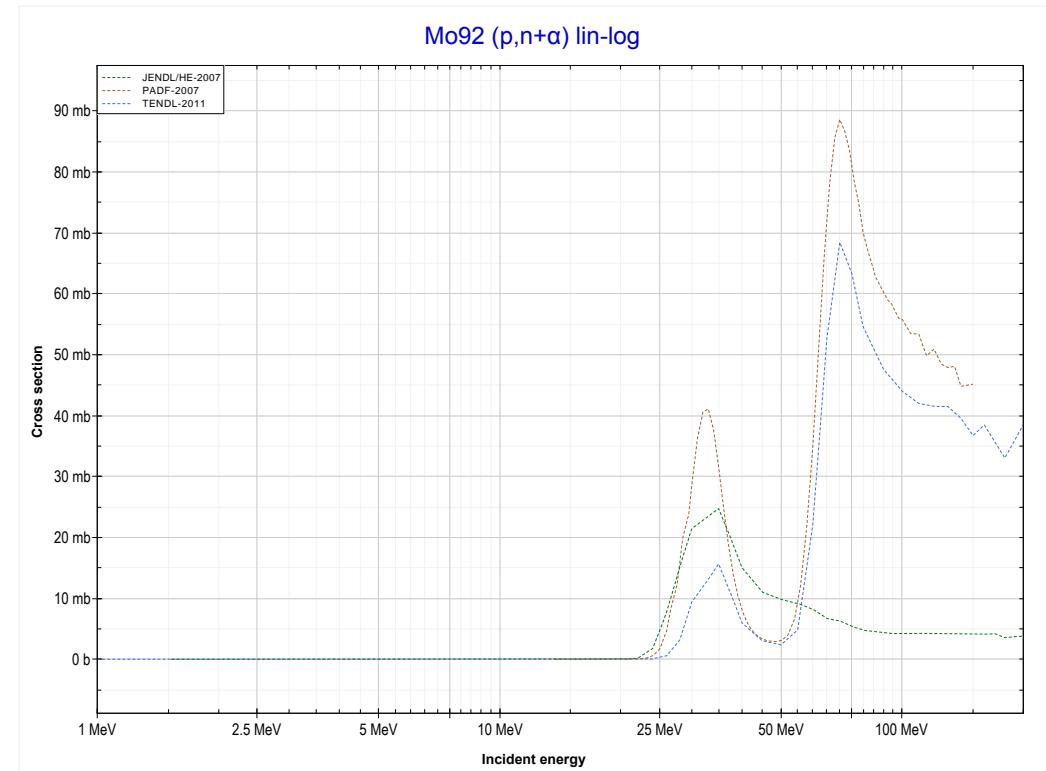
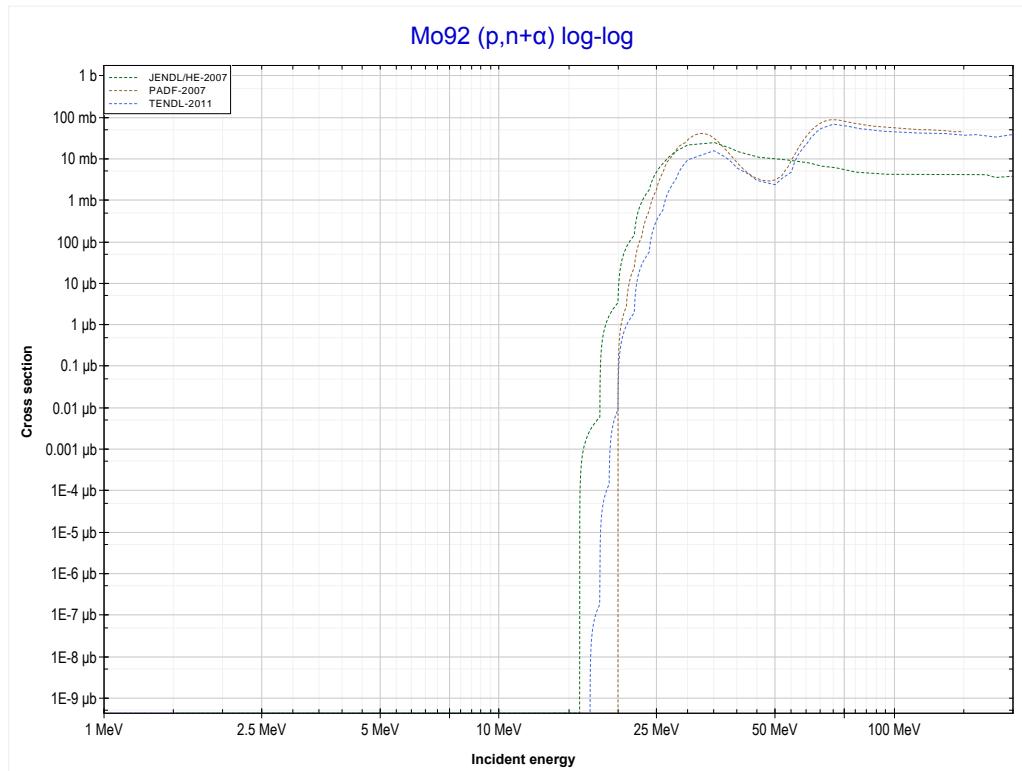
Reaction	Q-Value
Nb93(p,4n)Mo90	-32037.60 keV

<< 29-Cu-65	41-Nb-93 MT103 (p,p) or MT5 (Nb93 production)	>> 49-In-115
<< MT37 (p,4n)		MT22 (p,n+α) >>



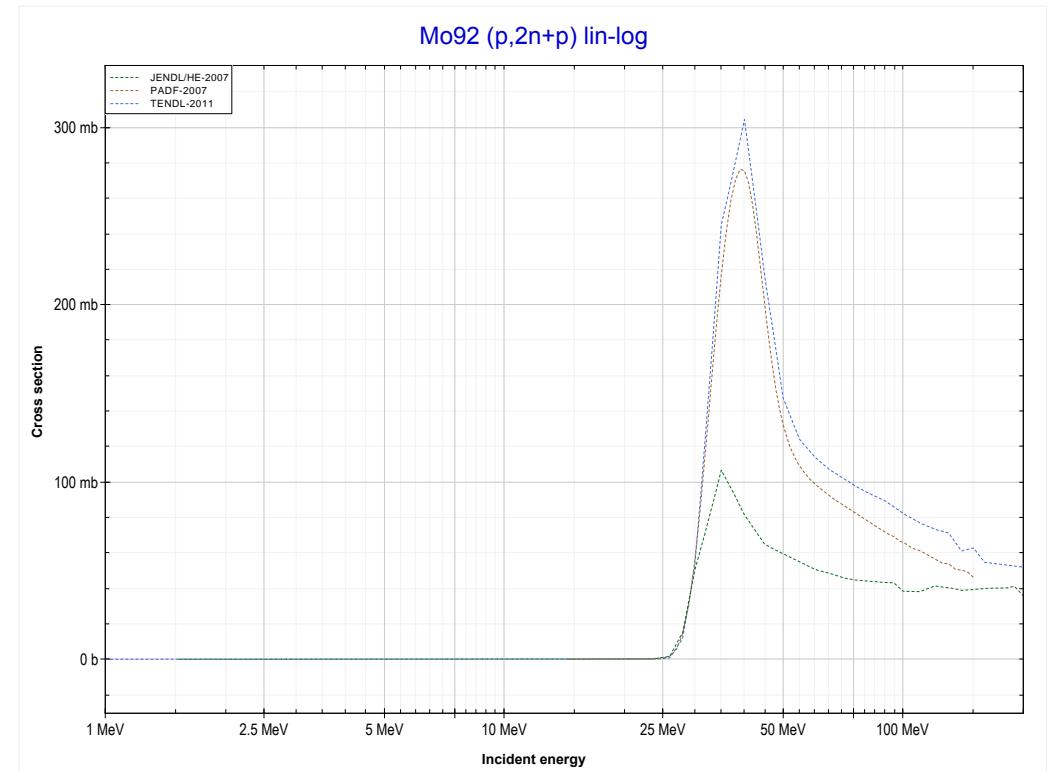
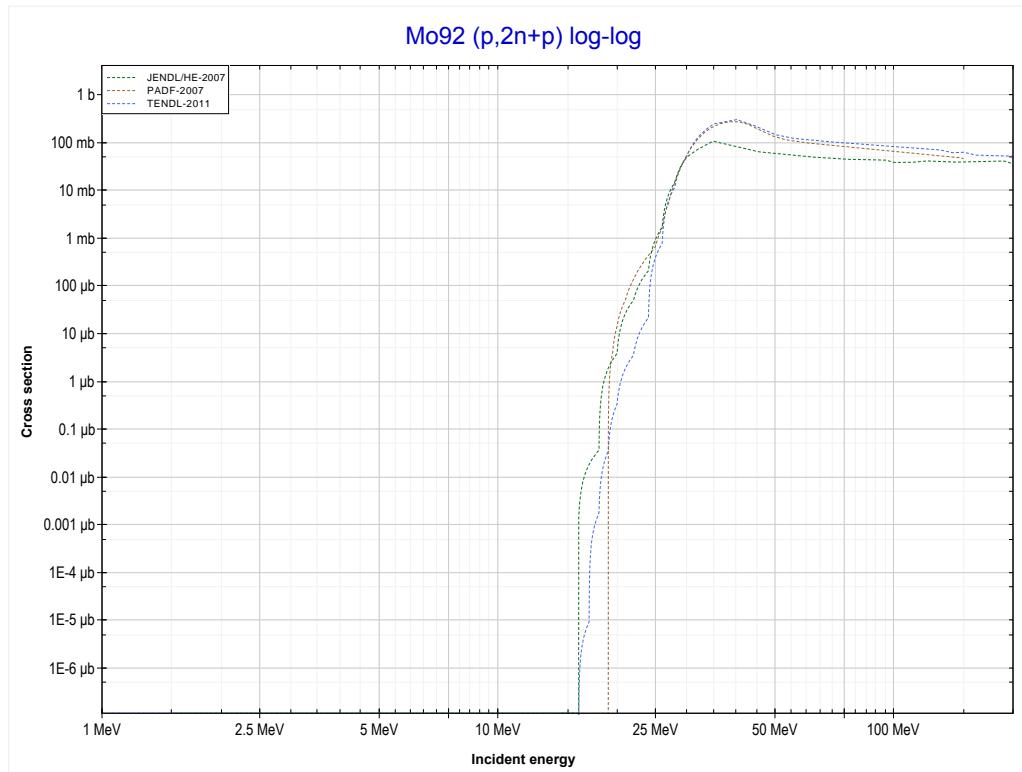
Reaction	Q-Value
Nb93(p,p)Nb93	0.00 keV

<< 41-Nb-93	42-Mo-92 MT22 (p,n+α) or MT5 (Nb88 production)	42-Mo-94 >>
<< MT103 (p,p) >>		MT41 (p,2n+p) >>



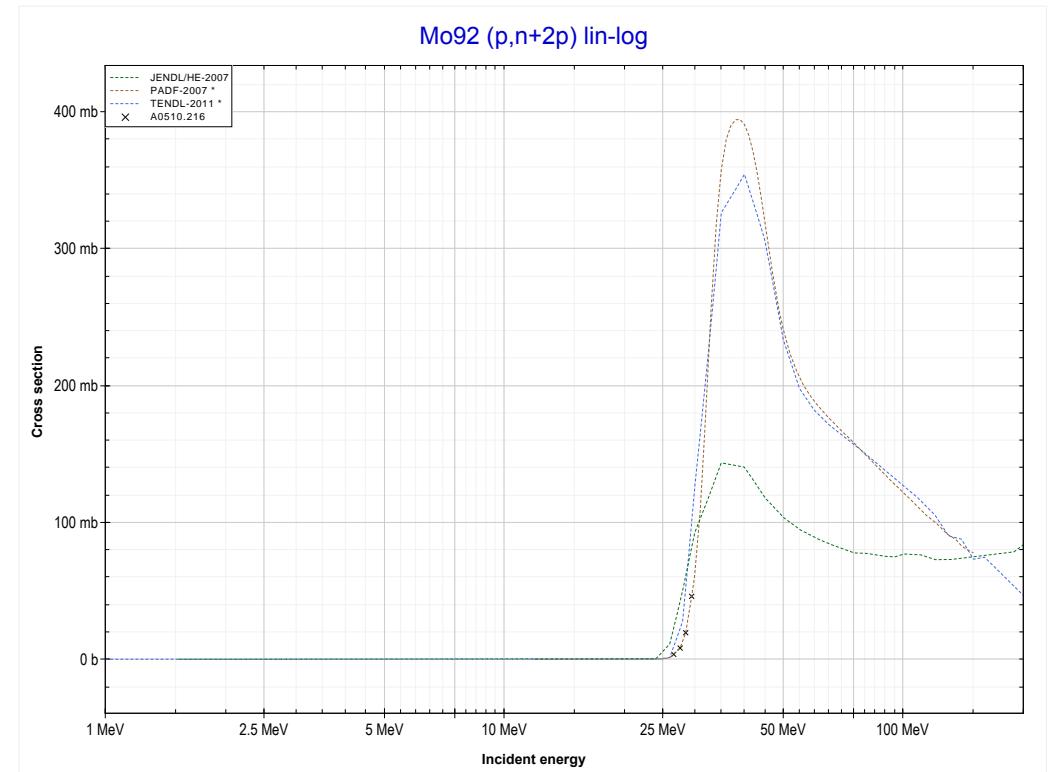
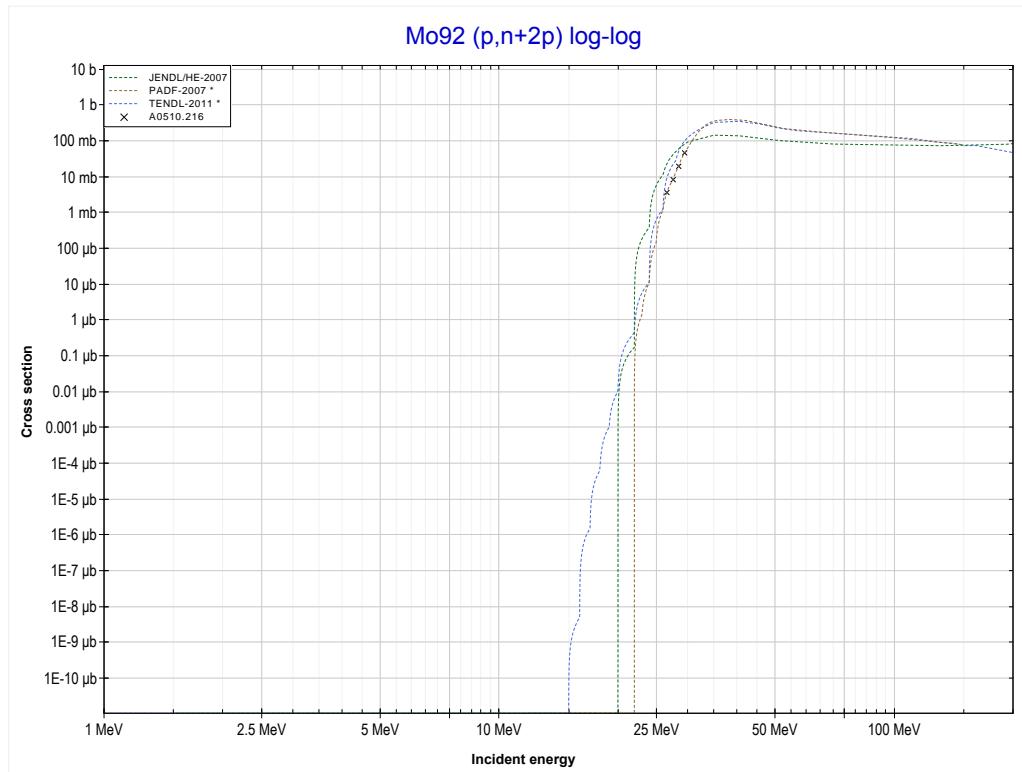
Reaction	Q-Value
Mo92(p,n+α)Nb88	-13942.26 keV
Mo92(p,d+t)Nb88	-31531.56 keV
Mo92(p,n+p+t)Nb88	-33756.12 keV
Mo92(p,2n+He3)Nb88	-34519.88 keV
Mo92(p,n+2d)Nb88	-37788.79 keV
Mo92(p,2n+p+d)Nb88	-40013.36 keV
Mo92(p,3n+2p)Nb88	-42237.92 keV

<< 40-Zr-91	42-Mo-92 MT41 (p,2n+p) or MT5 (Mo90 production)	79-Au-197 >>
<< MT22 (p,n+α)		MT44 (p,n+2p) >>



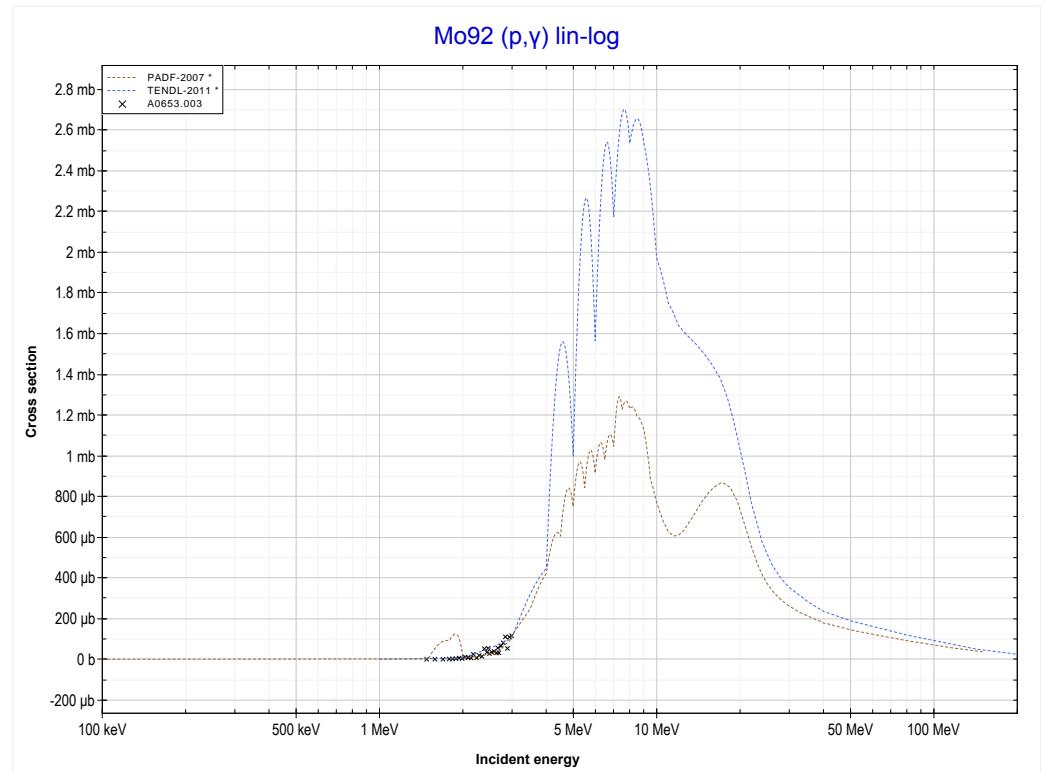
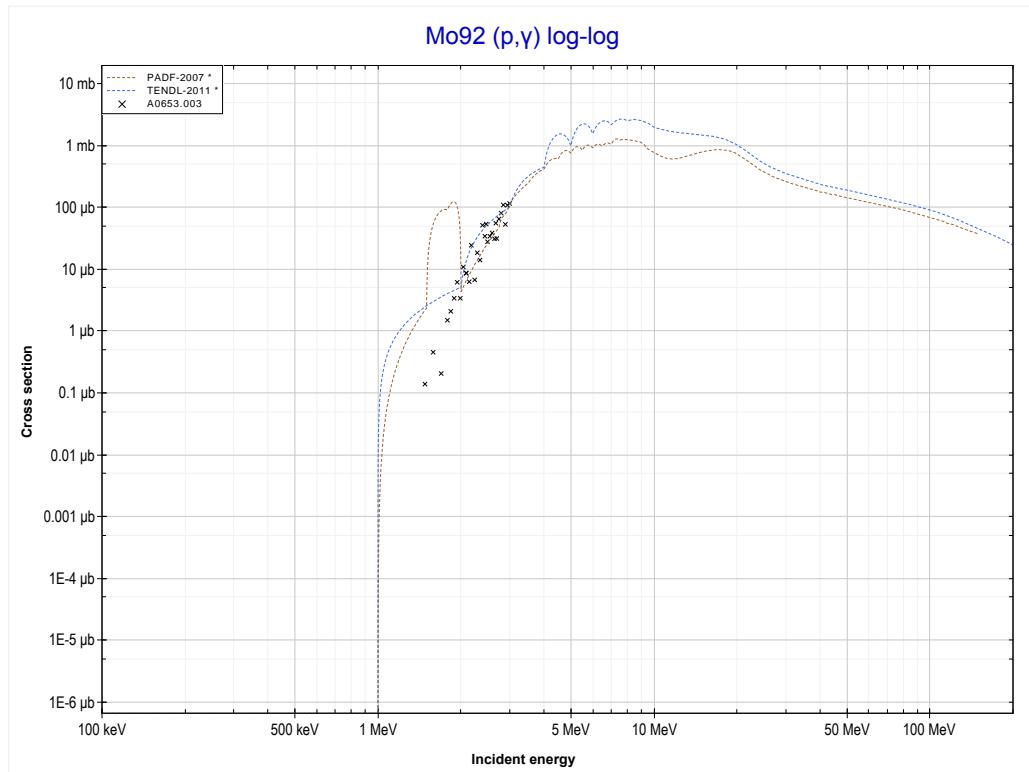
Reaction	Q-Value
Mo92(p,t)Mo90	-14298.84 keV
Mo92(p,n+d)Mo90	-20556.07 keV
Mo92(p,2n+p)Mo90	-22780.63 keV

<< 34-Se-74	42-Mo-92 MT44 (p,n+2p) or MT5 (Nb90 production)	42-Mo-98 >>
<< MT41 (p,2n+p)		MT102 (p,y) >>



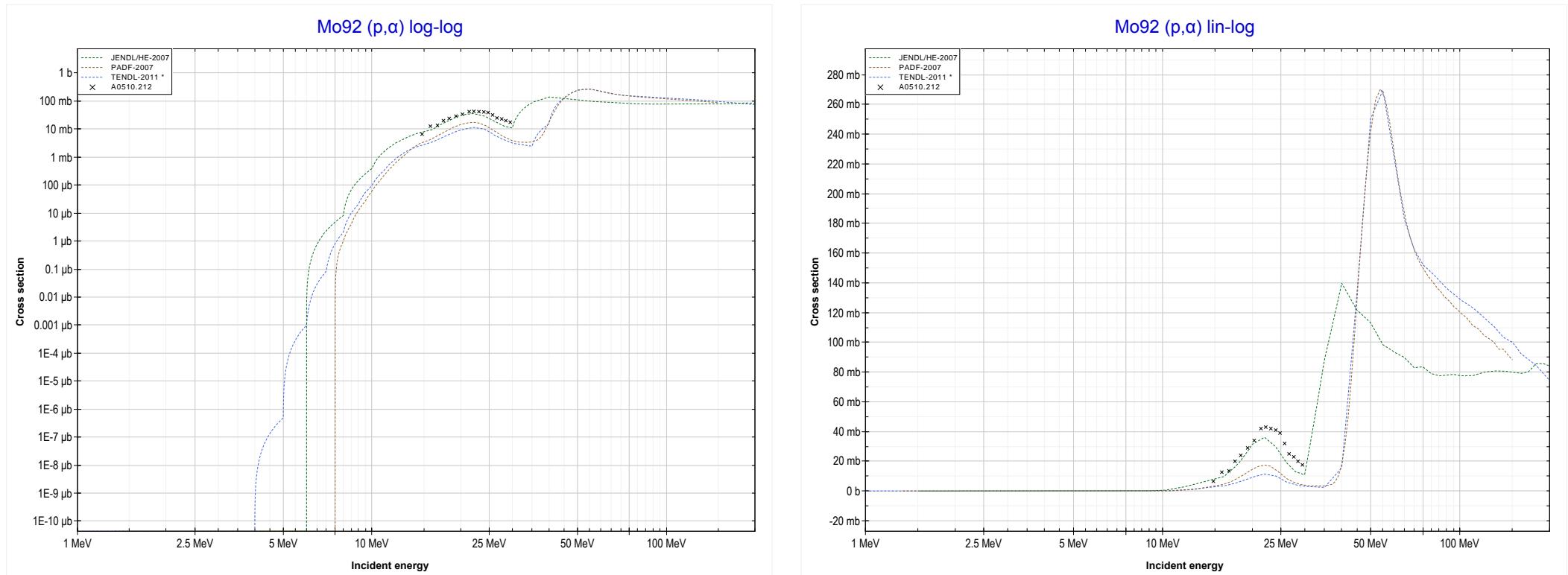
Reaction	Q-Value
Mo92(p,He3)Nb90	-11791.24 keV
Mo92(p,p+d)Nb90	-17284.72 keV
Mo92(p,n+2p)Nb90	-19509.29 keV

<< 38-Sr-87	42-Mo-92 MT102 (p,γ) or MT5 (Tc93 production)	>> 42-Mo-94 >>
<< MT44 ($p,n+2p$)		MT107 (p,α) >>

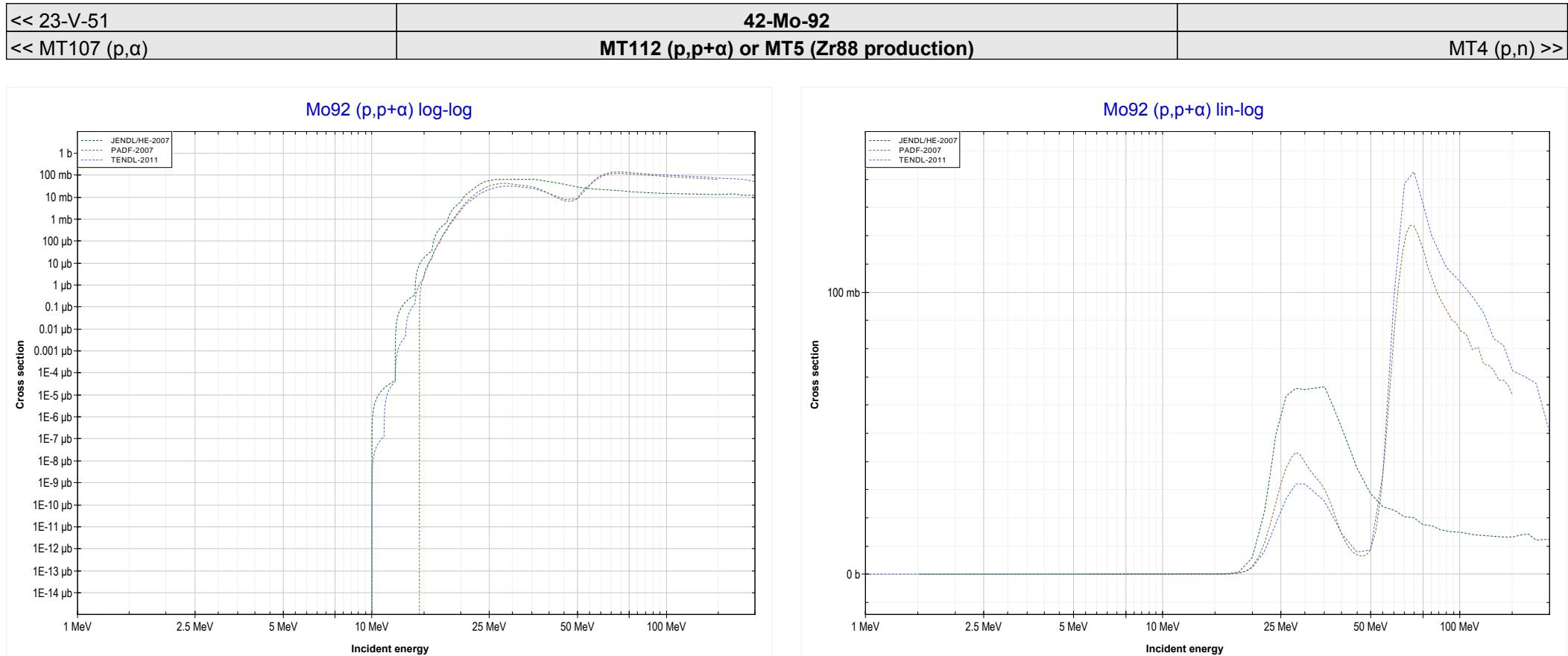


Reaction	Q-Value
Mo92(p,γ)Tc93	4086.97 keV

<< 40-Zr-91	42-Mo-92 MT107 (p,α) or MT5 (Nb89 production)	42-Mo-95 >>
<< MT102 (p,γ)		MT112 ($p,p+\alpha$) >>

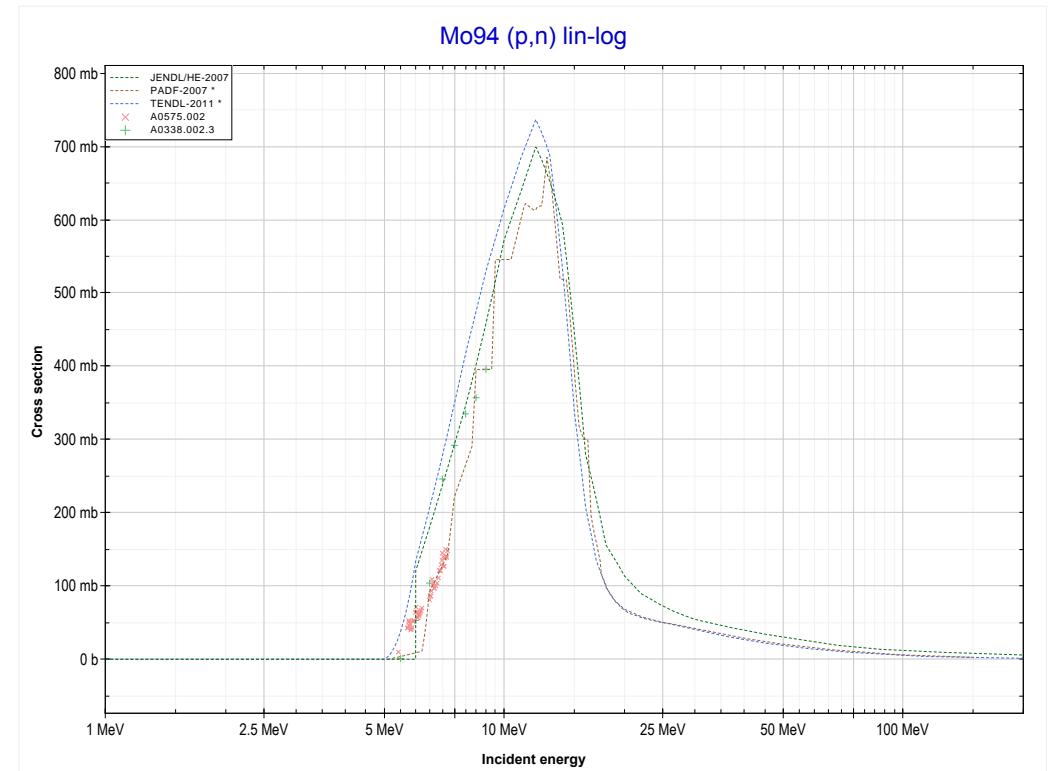
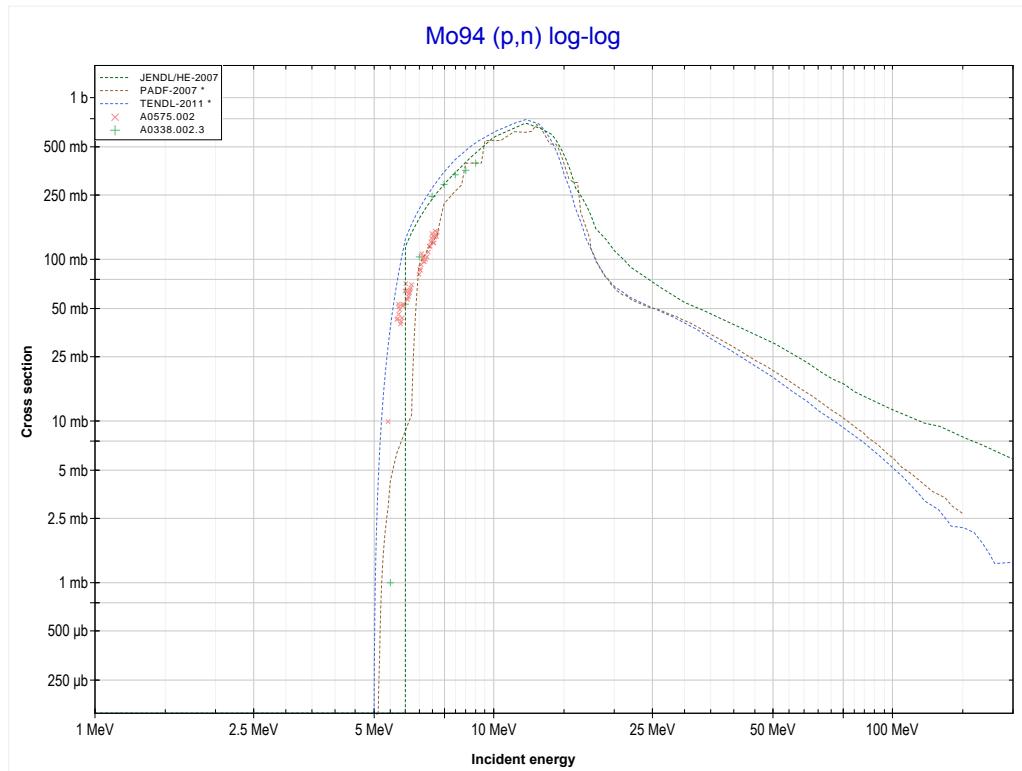


Reaction	Q-Value
Mo92(p,α)Nb89	-1290.95 keV
Mo92($p,p+t$)Nb89	-21104.81 keV
Mo92($p,n+He3$)Nb89	-21868.56 keV
Mo92($p,2d$)Nb89	-25137.47 keV
Mo92($p,n+p+d$)Nb89	-27362.04 keV
Mo92($p,2n+2p$)Nb89	-29586.60 keV



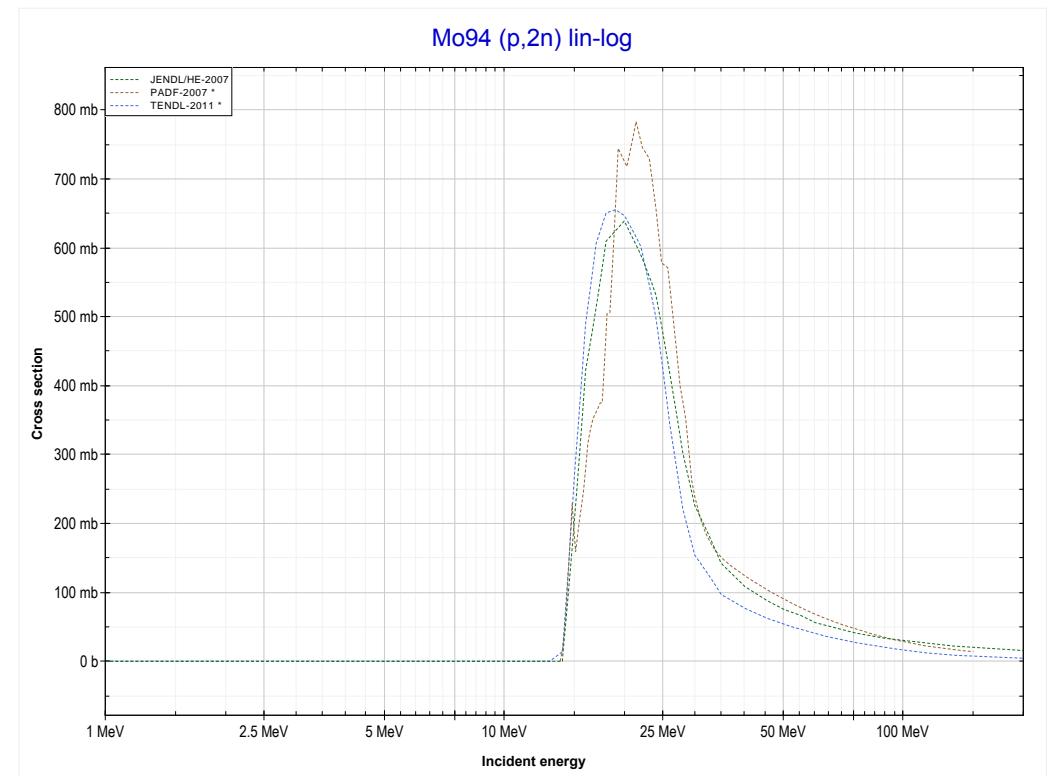
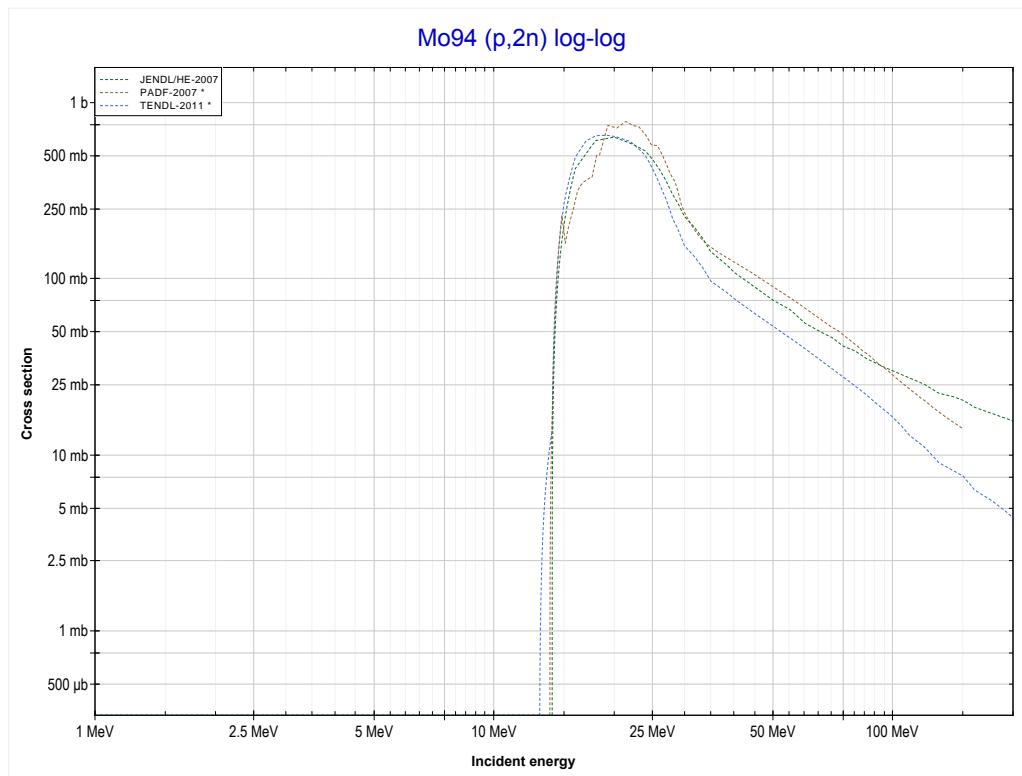
Reaction	Q-Value
Mo92($p,p+\alpha$)Zr88	-5606.92 keV
Mo92($p,d+He3$)Zr88	-23959.97 keV
Mo92($p,2p+t$)Zr88	-25420.78 keV
Mo92($p,n+p+He3$)Zr88	-26184.53 keV
Mo92($p,p+2d$)Zr88	-29453.44 keV
Mo92($p,n+2p+d$)Zr88	-31678.01 keV
Mo92($p,2n+3p$)Zr88	-33902.58 keV

<< 41-Nb-93	42-Mo-94 MT4 (p,n) or MT5 (Tc94 production)	42-Mo-95 >>
<< MT112 (p,p+α)		MT16 (p,2n) >>



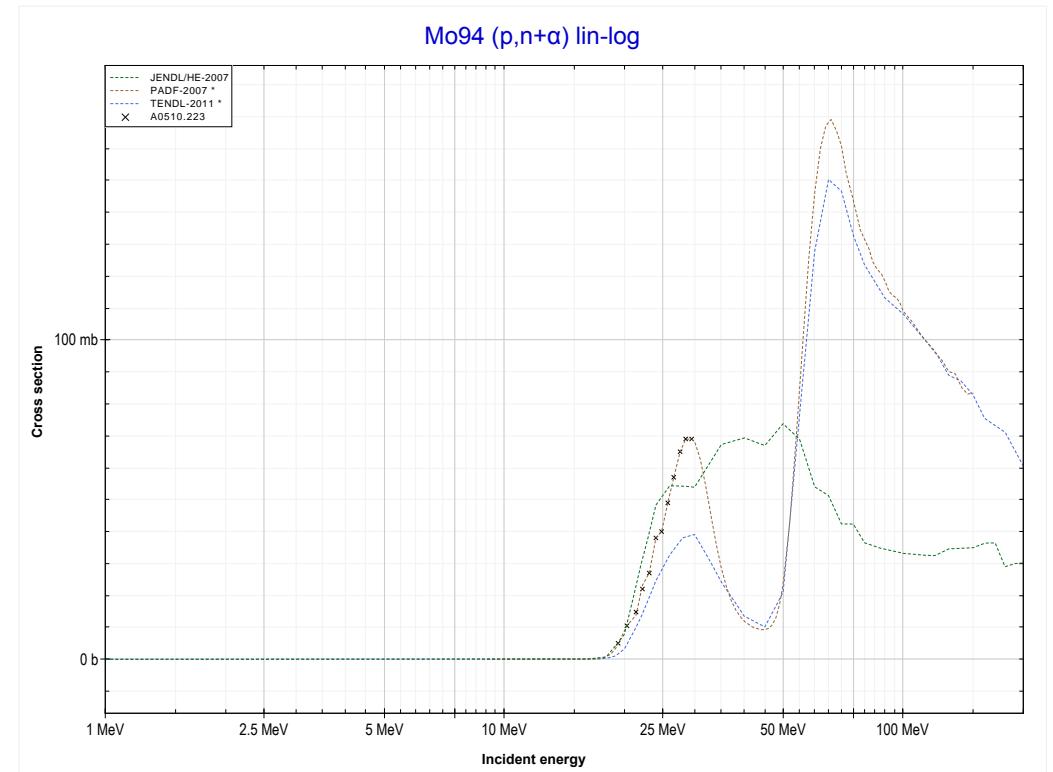
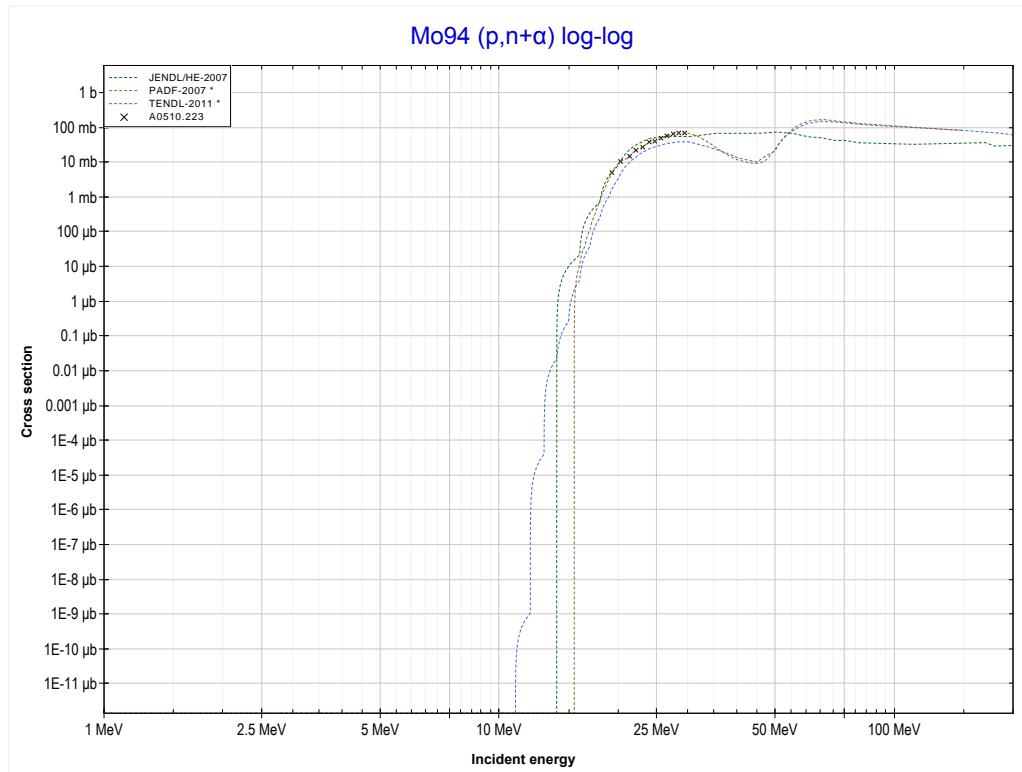
Reaction	Q-Value
Mo94(p,n)Tc94	-5038.05 keV

<< 40-Zr-96	42-Mo-94 MT16 (p,2n) or MT5 (Tc93 production)	42-Mo-95 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



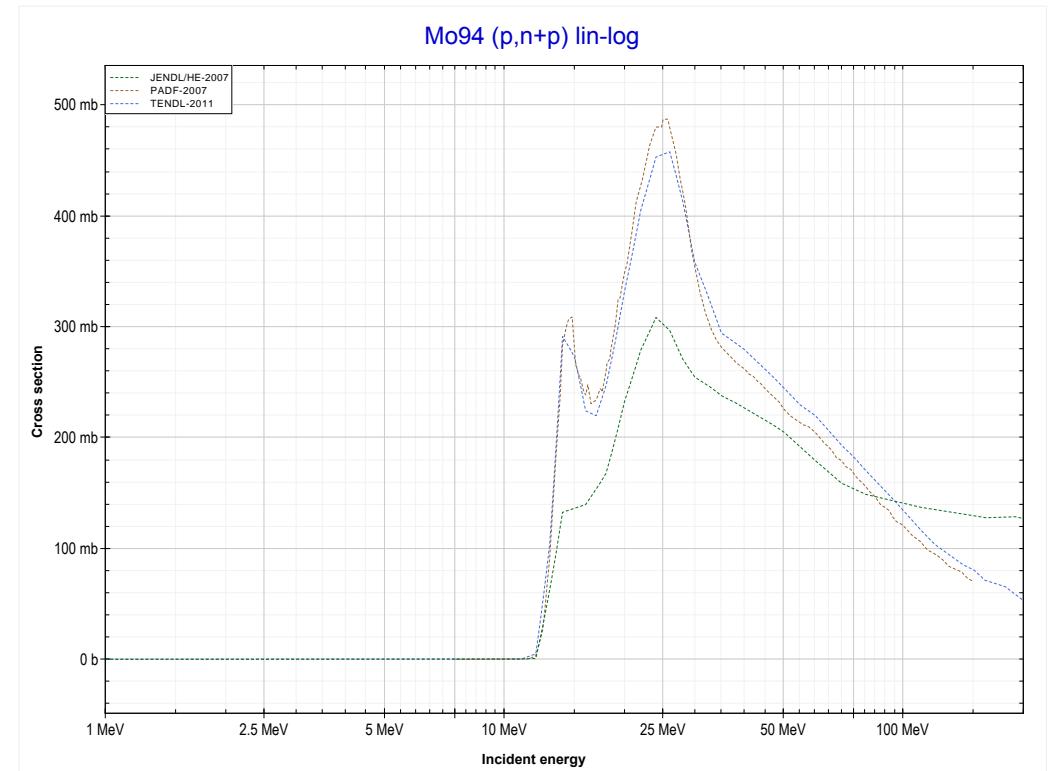
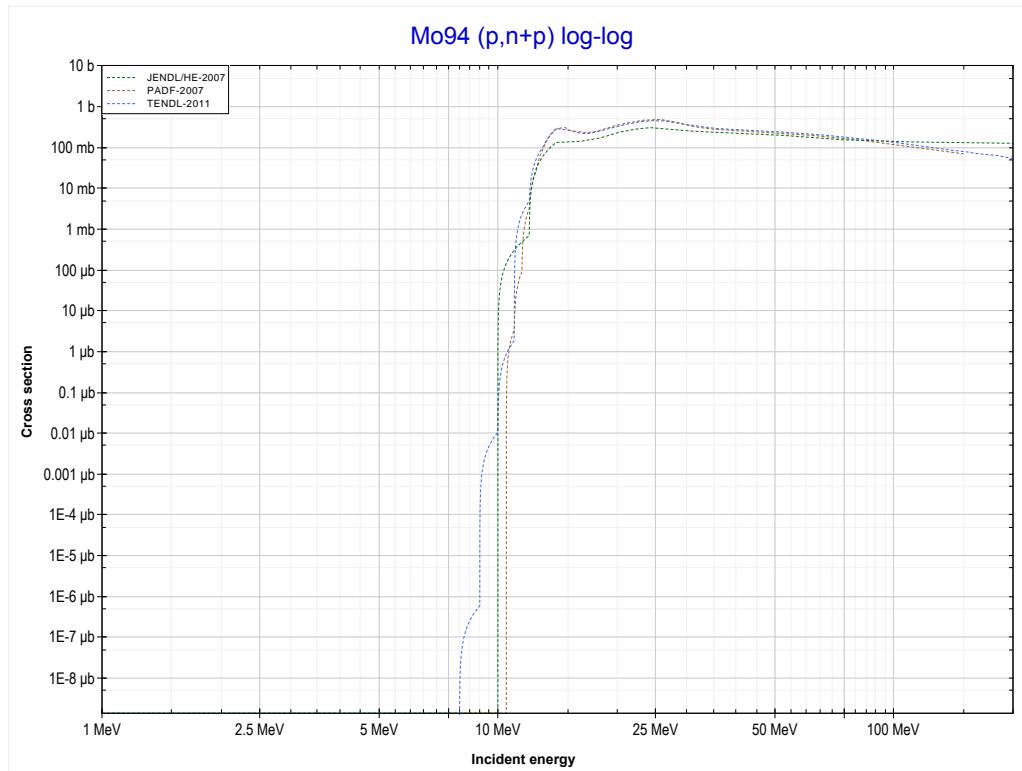
Reaction	Q-Value
Mo94(p,2n)Tc93	-13660.36 keV

<< 42-Mo-92	42-Mo-94 MT22 (p,n+α) or MT5 (Nb90 production)	42-Mo-96 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>



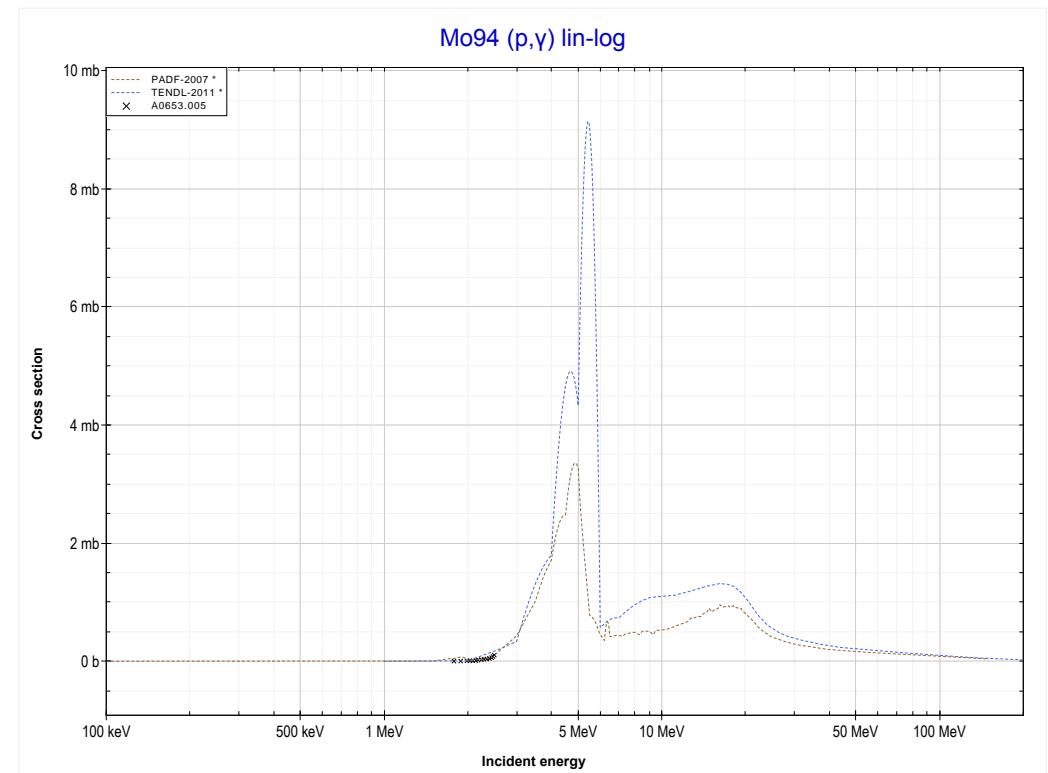
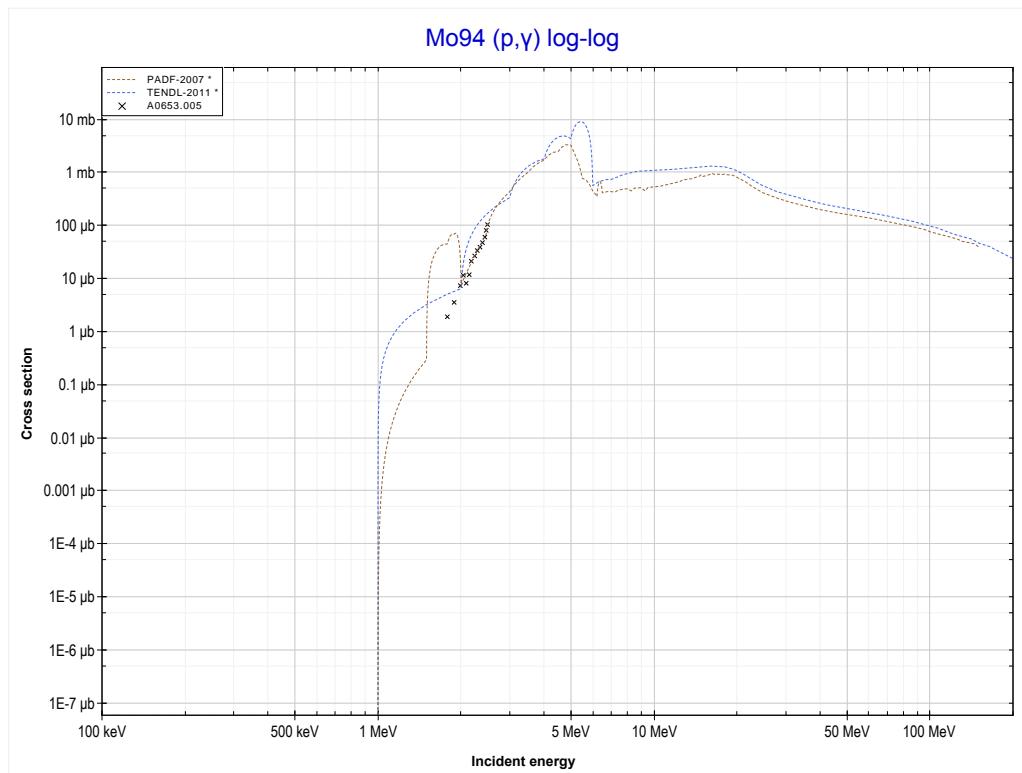
Reaction	Q-Value
Mo94(p,n+α)Nb90	-8960.96 keV
Mo94(p,d+t)Nb90	-26550.26 keV
Mo94(p,n+p+t)Nb90	-28774.82 keV
Mo94(p,2n+He3)Nb90	-29538.58 keV
Mo94(p,n+2d)Nb90	-32807.49 keV
Mo94(p,2n+p+d)Nb90	-35032.06 keV
Mo94(p,3n+2p)Nb90	-37256.62 keV

<< 41-Nb-93	42-Mo-94 MT28 (p,n+p) or MT5 (Mo93 production)	42-Mo-100 >> MT102 (p,y) >>
<< MT22 (p,n+α)		



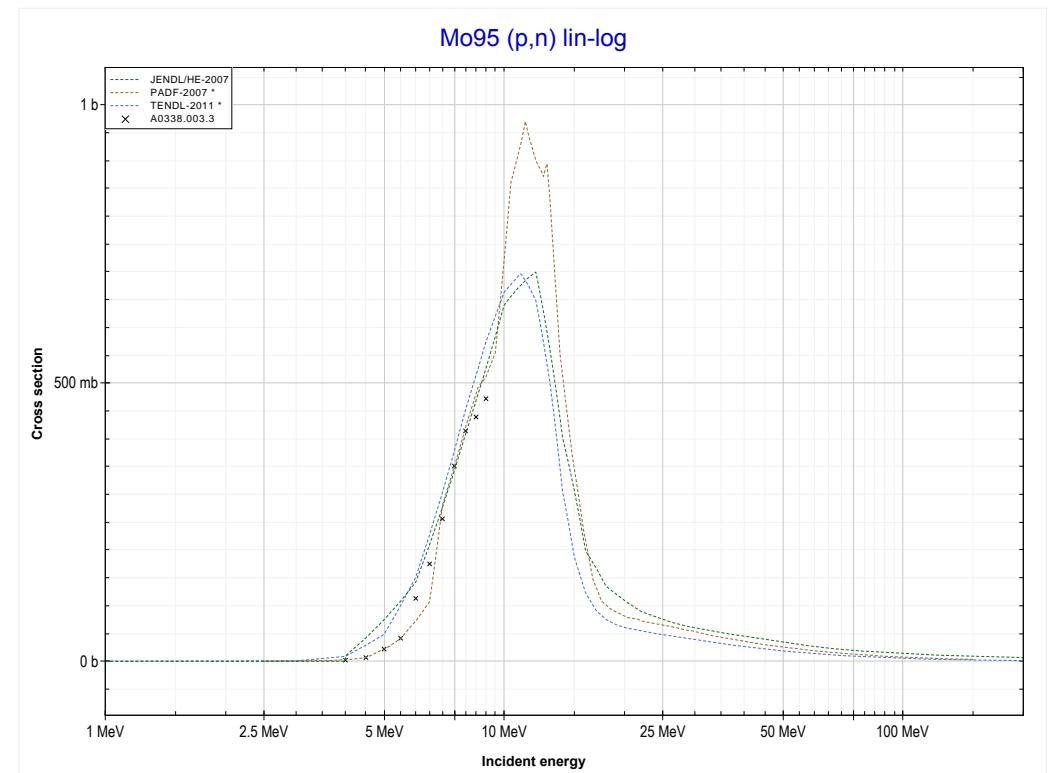
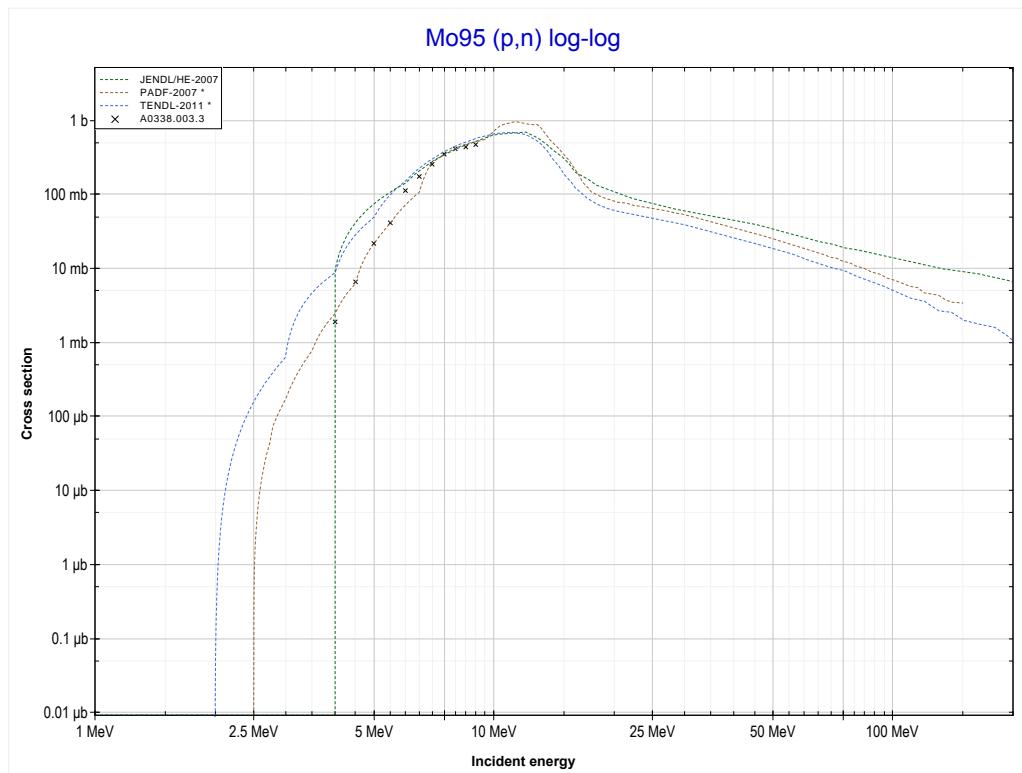
Reaction	Q-Value
Mo94(p,d)Mo93	-7453.45 keV
Mo94(p,n+p)Mo93	-9678.02 keV

<< 42-Mo-92	42-Mo-94 MT102 (p, γ) or MT5 (Tc95 production)	42-Mo-98 >>
<< MT28 (p,n+p)		MT4 (p,n) >>



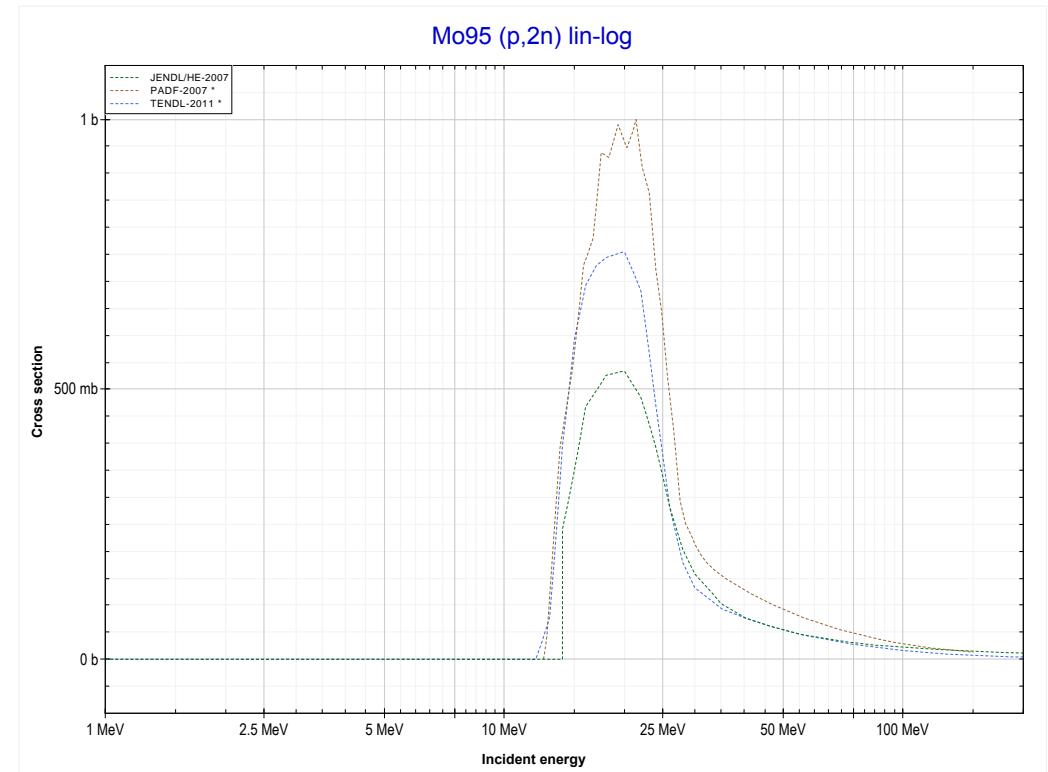
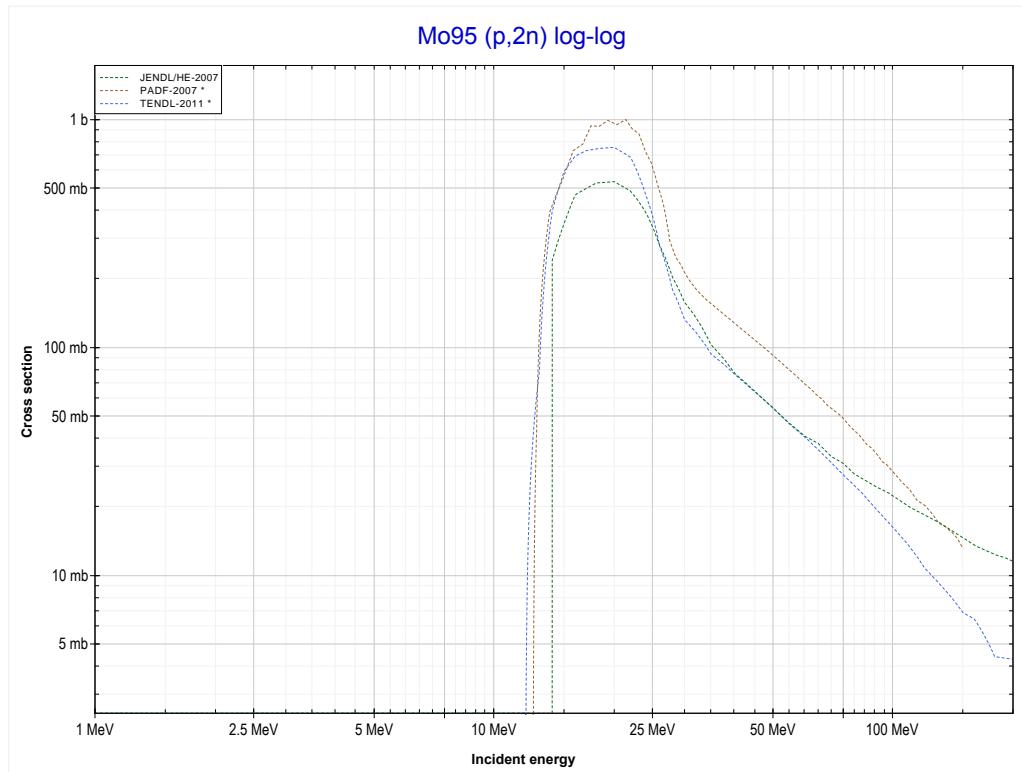
Reaction	Q-Value
Mo94(p, γ)Tc95	4896.27 keV

<< 42-Mo-94	42-Mo-95 MT4 (p,n) or MT5 (Tc95 production)	>> 42-Mo-96 >>
<< MT102 (p, γ)		MT16 (p,2n) >>



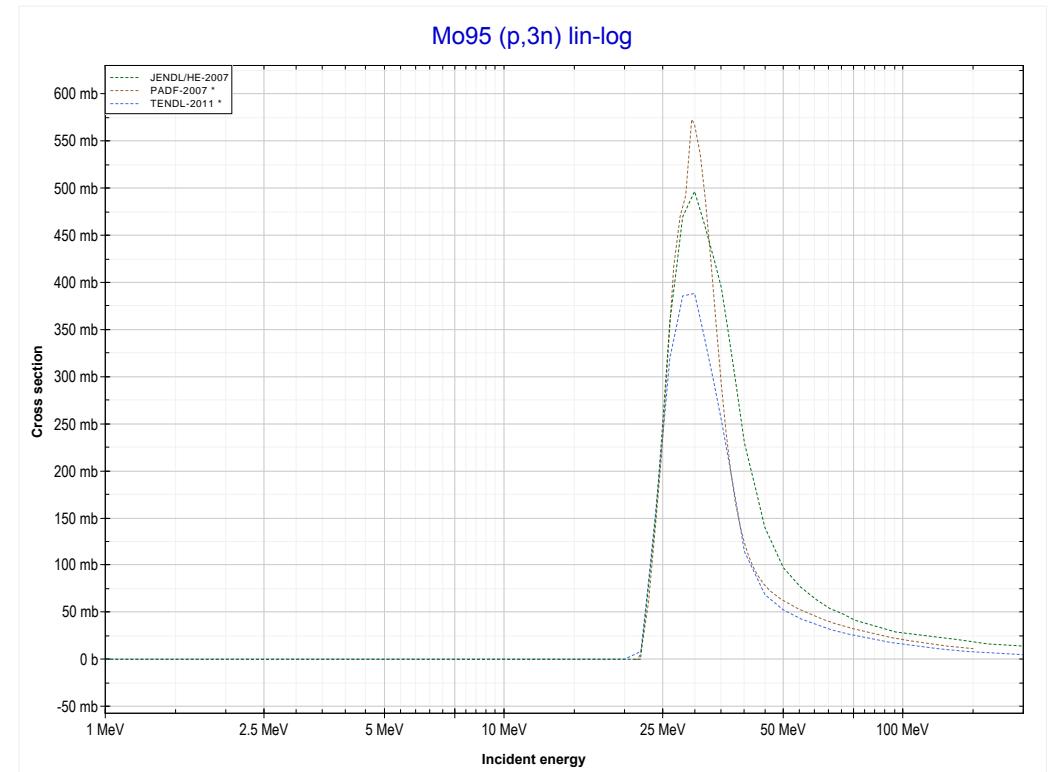
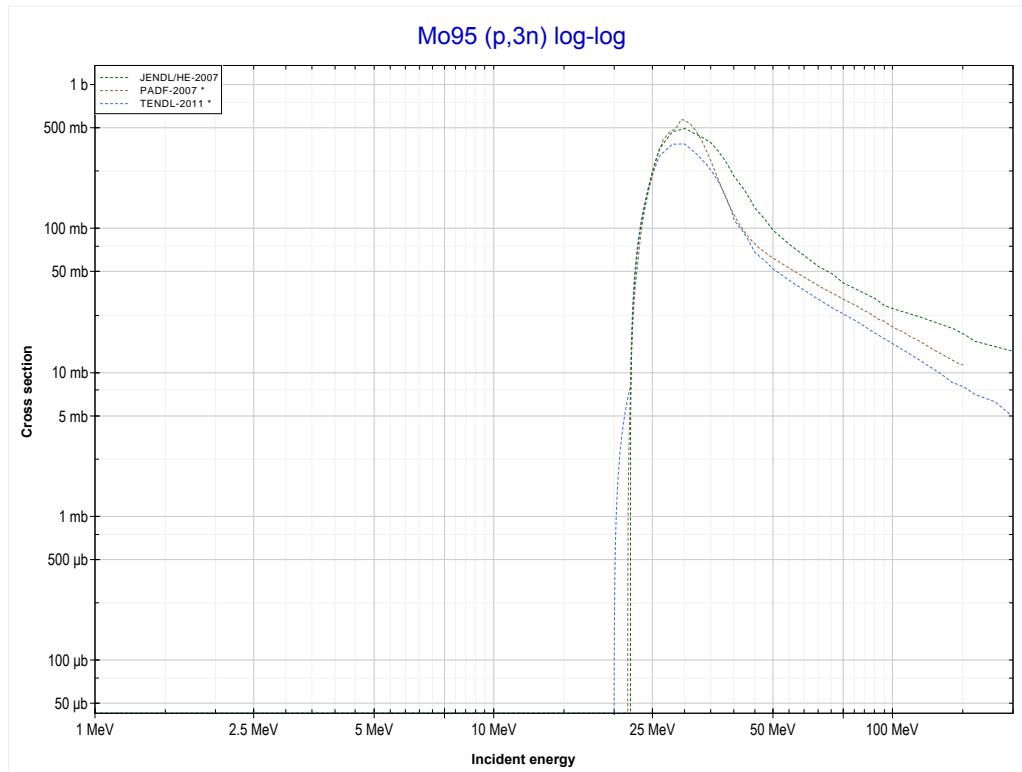
Reaction	Q-Value
Mo95(p,n)Tc95	-2472.85 keV

<< 42-Mo-94	42-Mo-95 MT16 (p,2n) or MT5 (Tc94 production)	42-Mo-96 >>
<< MT4 (p,n)		MT17 (p,3n) >>



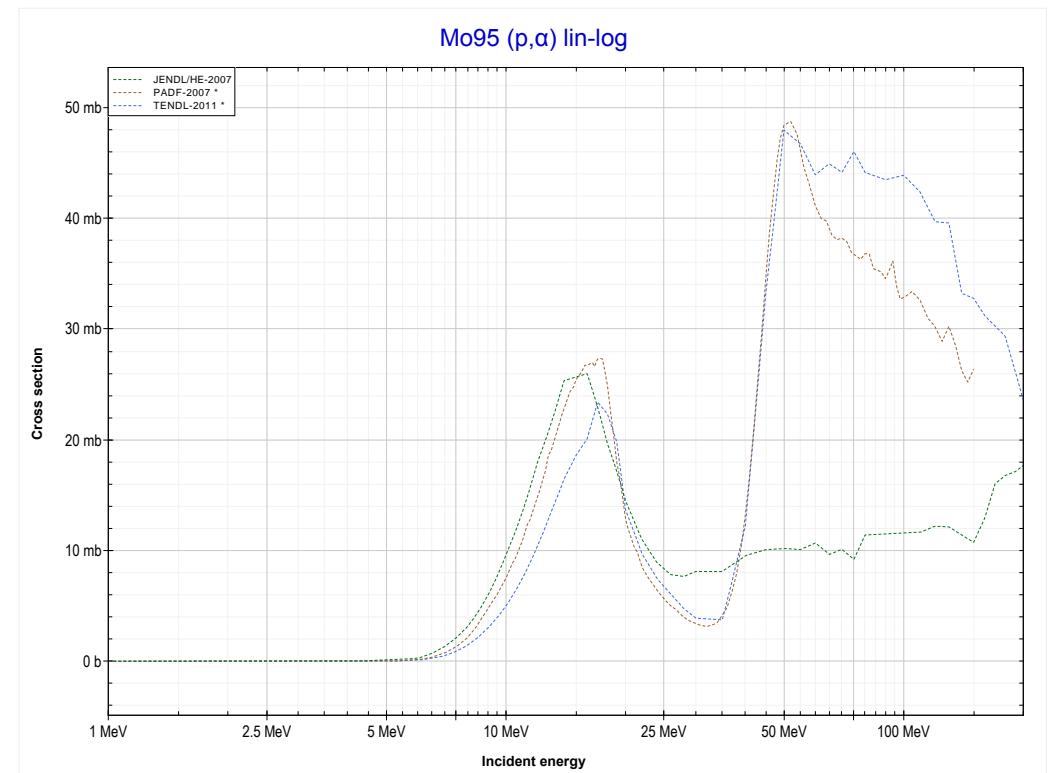
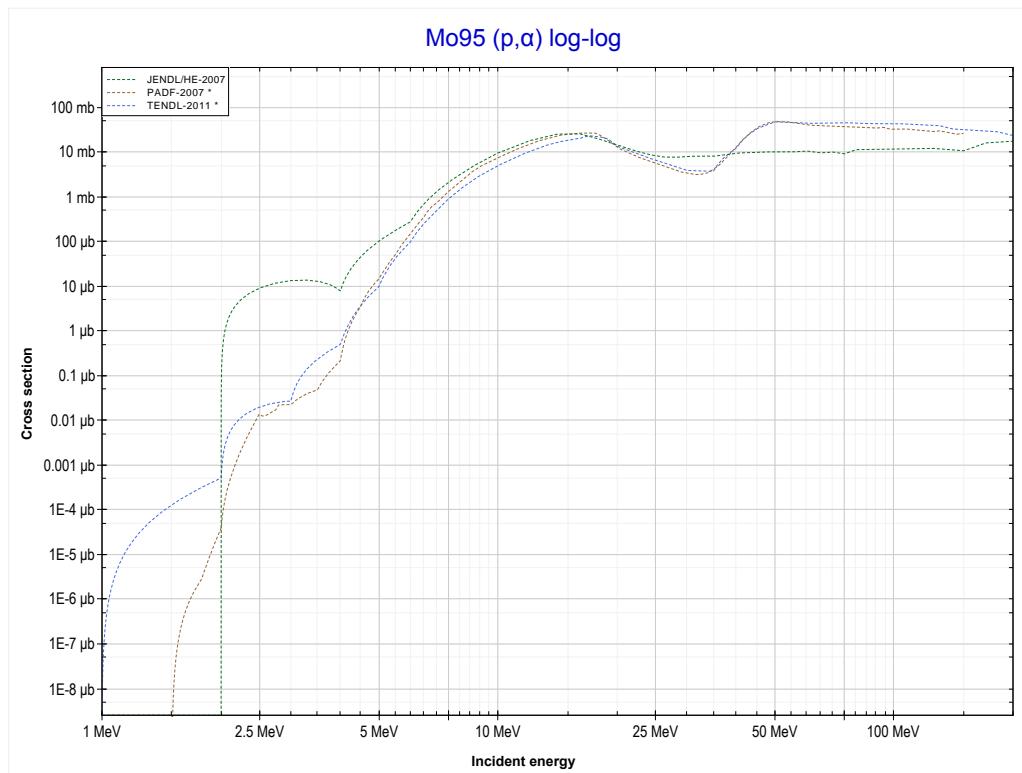
Reaction	Q-Value
Mo95(p,2n)Tc94	-12407.16 keV

<< 40-Zr-94	42-Mo-95 MT17 (p,3n) or MT5 (Tc93 production)	42-Mo-96 >>
<< MT16 (p,2n)		MT107 (p, α) >>



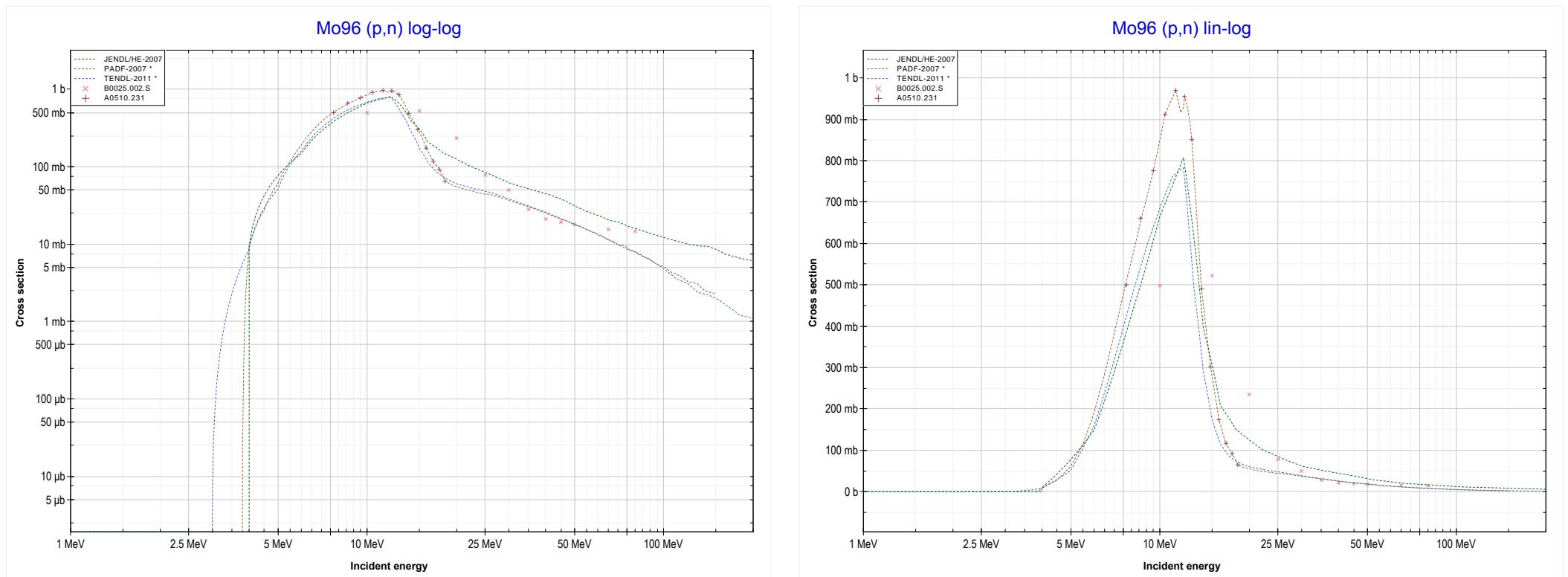
Reaction	Q-Value
Mo95(p,3n)Tc93	-21029.48 keV

<< 42-Mo-92	42-Mo-95 MT107 (p,α) or MT5 (Nb92 production)	42-Mo-98 >>
<< MT17 ($p,3n$)		MT4 (p,n) >>



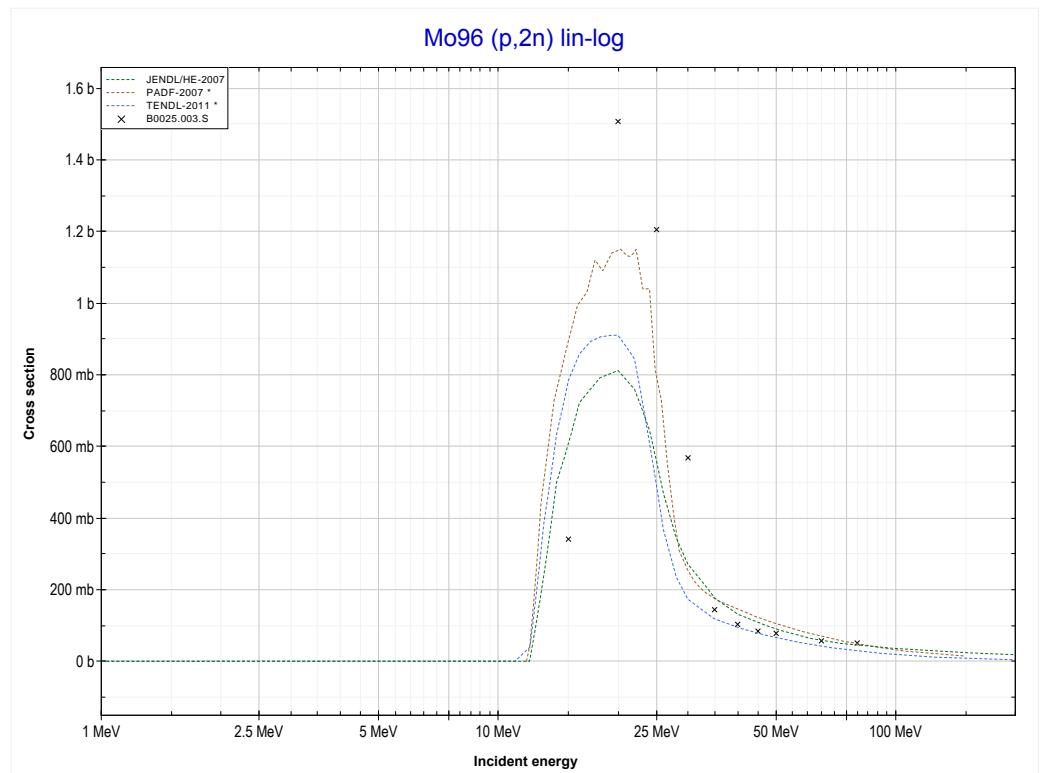
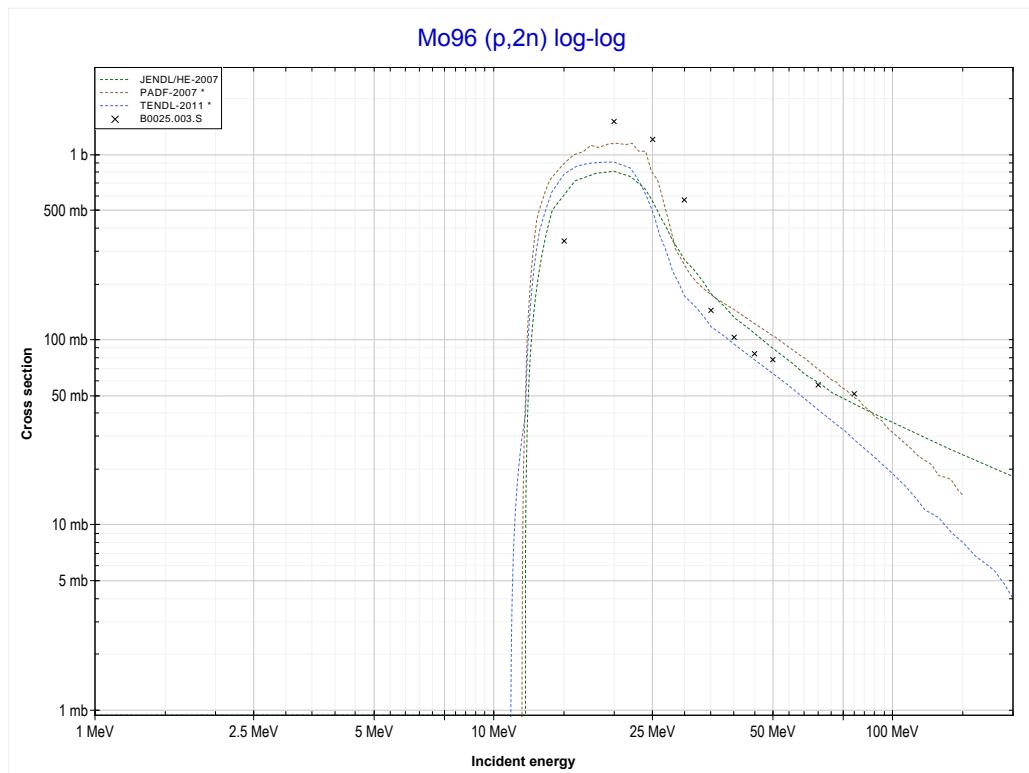
Reaction	Q-Value
Mo95(p,α)Nb92	3604.85 keV
Mo95($p,p+t$)Nb92	-16209.01 keV
Mo95($p,n+He3$)Nb92	-16972.76 keV
Mo95($p,2d$)Nb92	-20241.67 keV
Mo95($p,n+p+d$)Nb92	-22466.24 keV
Mo95($p,2n+2p$)Nb92	-24690.80 keV

<< 42-Mo-95	42-Mo-96 MT4 (p,n) or MT5 (Tc96 production)	42-Mo-100 >>
<< MT107 (p, α)		MT16 (p,2n) >>



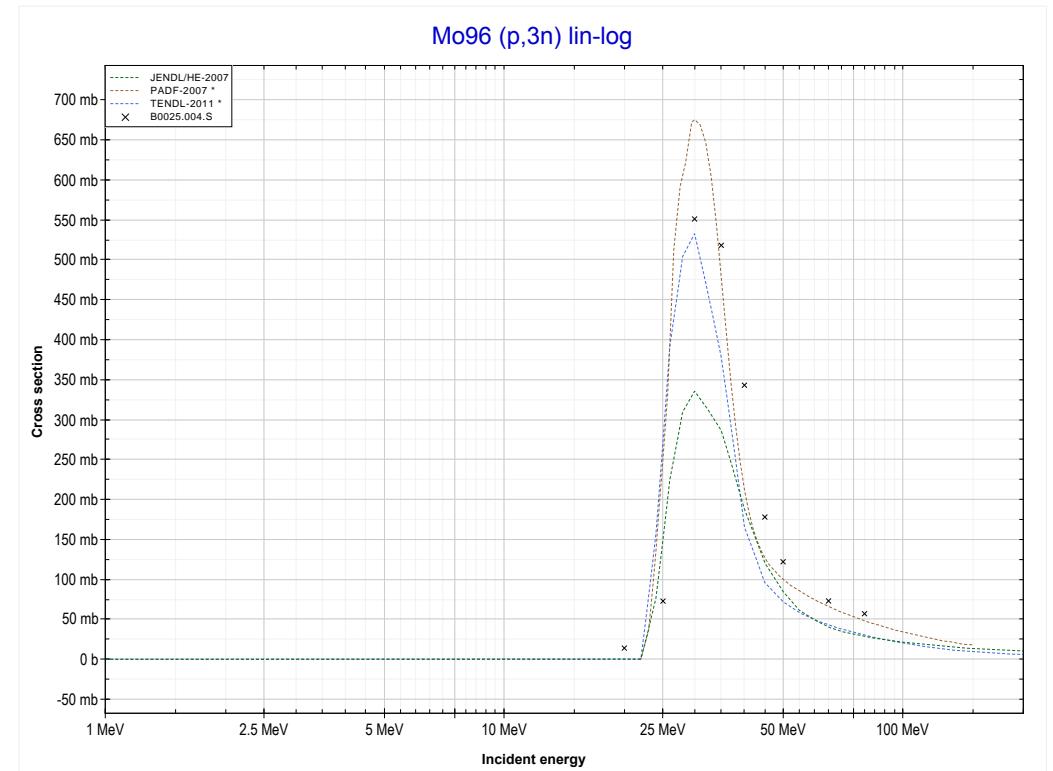
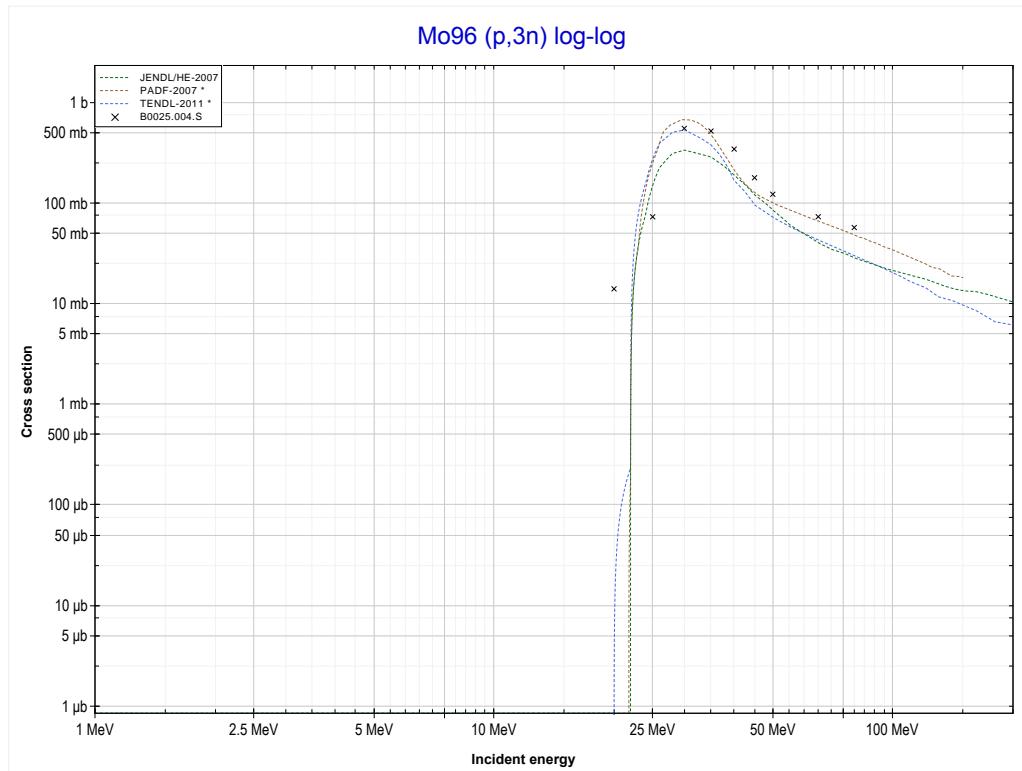
Reaction	Q-Value
Mo96(p,n)Tc96	-3755.85 keV

<< 42-Mo-95	42-Mo-96 MT16 (p,2n) or MT5 (Tc95 production)	42-Mo-97 >>
<< MT4 (p,n)		MT17 (p,3n) >>



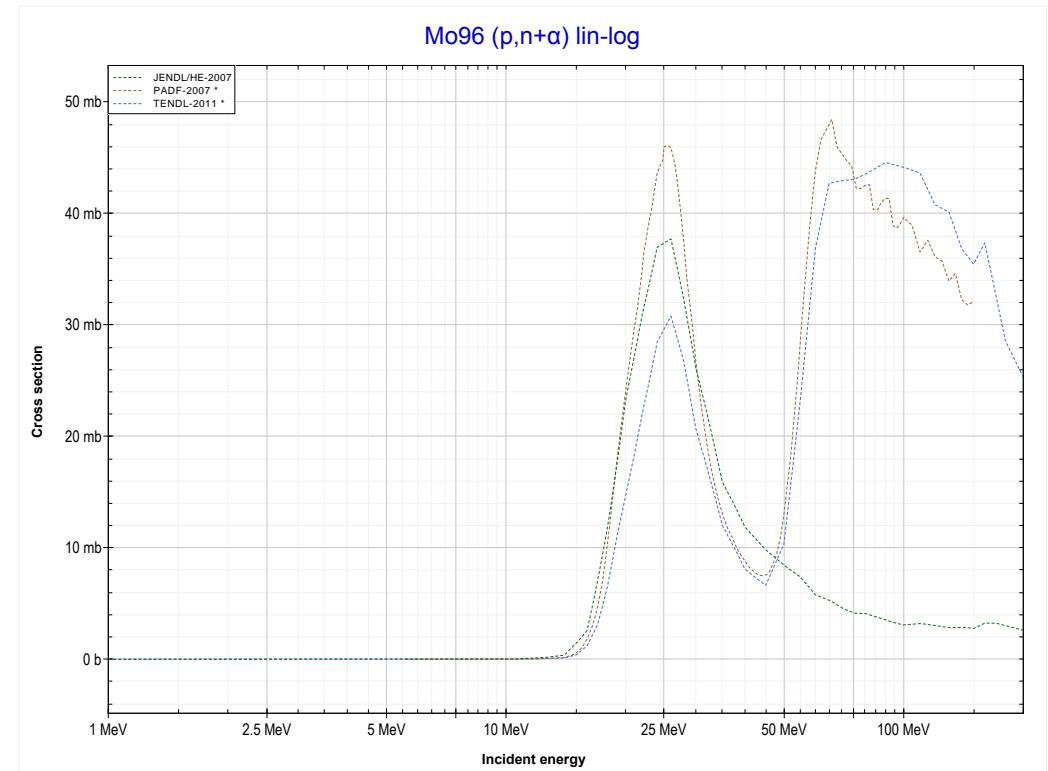
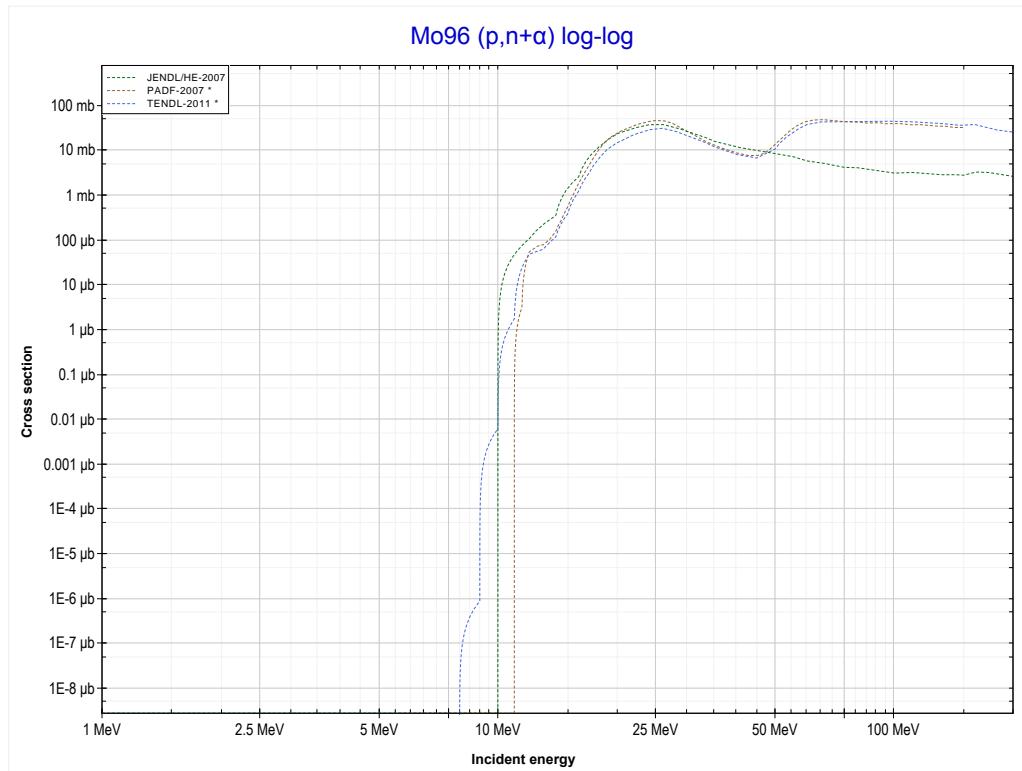
Reaction	Q-Value
Mo96(p,2n)Tc95	-11627.16 keV

<< 42-Mo-95	42-Mo-96 MT17 (p,3n) or MT5 (Tc94 production)	42-Mo-97 >>
<< MT16 (p,2n)		MT22 (p,n+α) >>



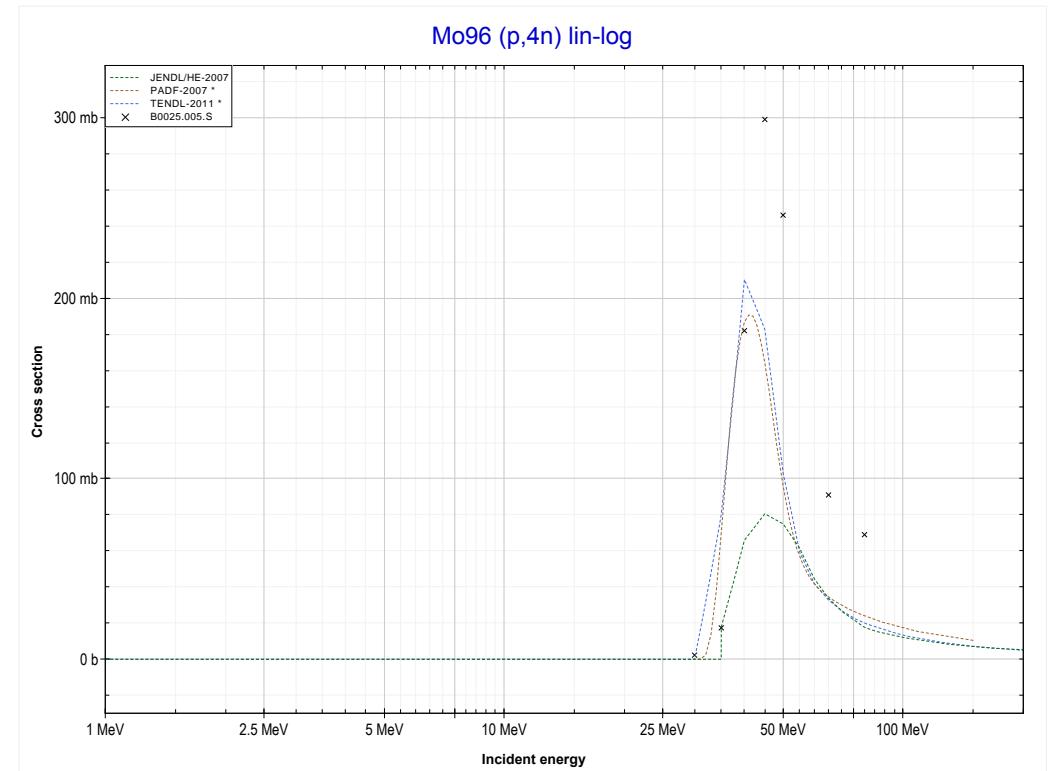
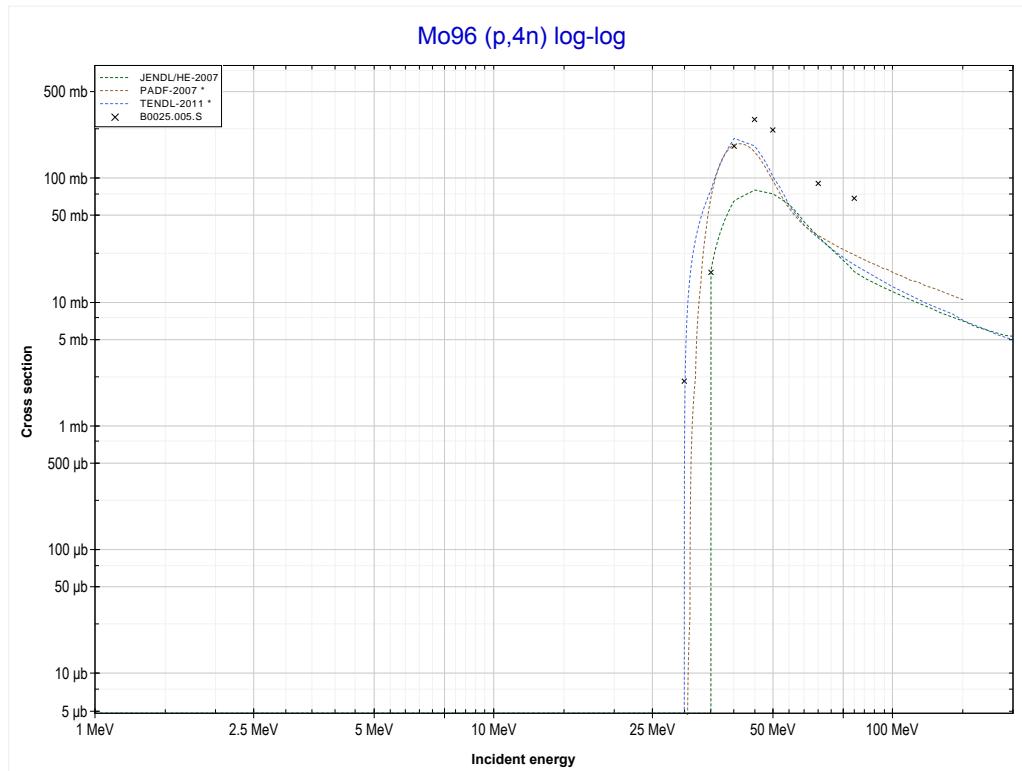
Reaction	Q-Value
Mo96(p,3n)Tc94	-21561.48 keV

<< 42-Mo-94	42-Mo-96 MT22 (p,n+α) or MT5 (Nb92 production)	42-Mo-100 >>
<< MT17 (p,3n)		MT37 (p,4n) >>



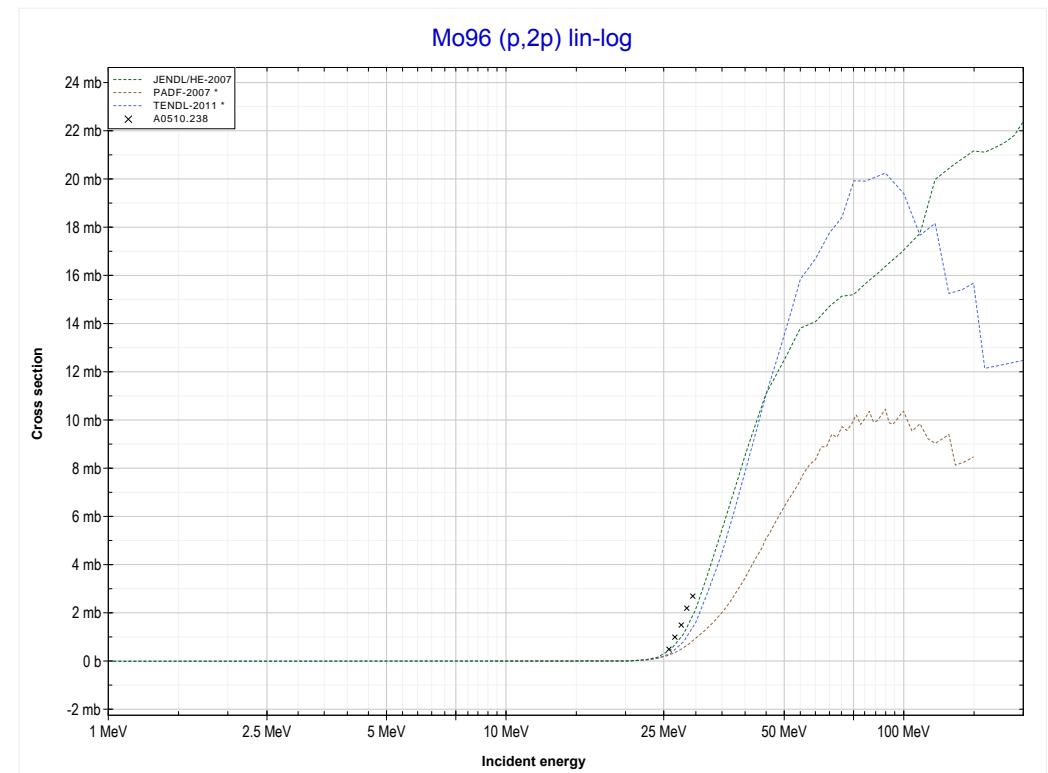
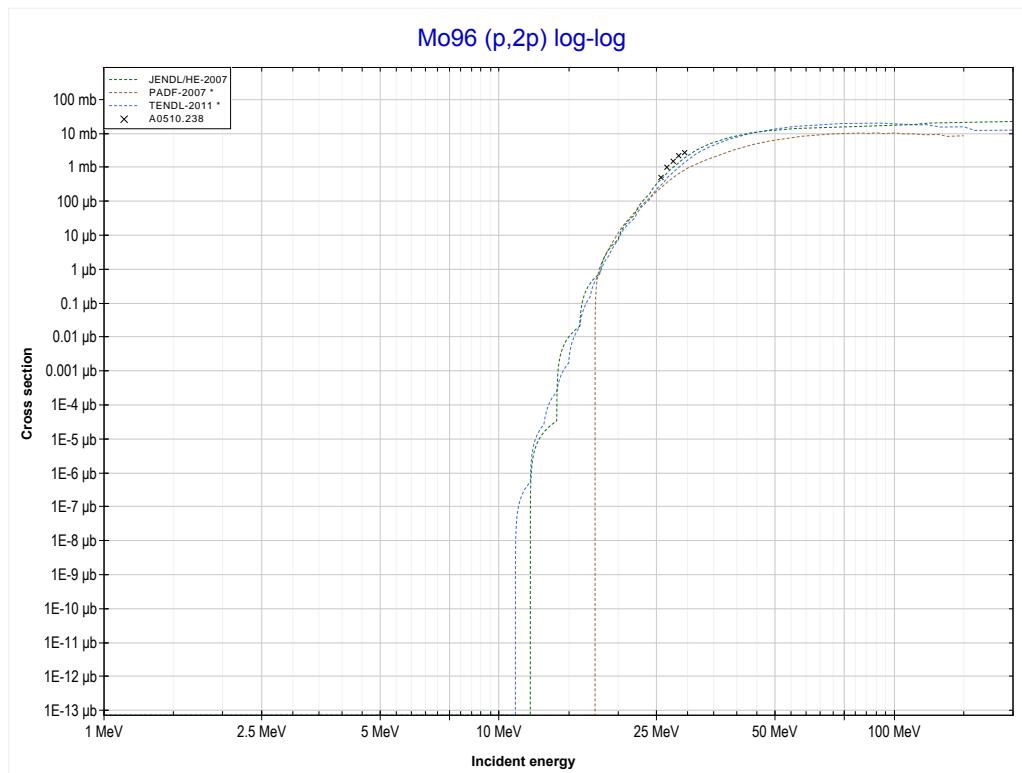
Reaction	Q-Value
Mo96(p,n+α)Nb92	-5549.46 keV
Mo96(p,d+t)Nb92	-23138.76 keV
Mo96(p,n+p+t)Nb92	-25363.32 keV
Mo96(p,2n+He3)Nb92	-26127.08 keV
Mo96(p,n+2d)Nb92	-29395.99 keV
Mo96(p,2n+p+d)Nb92	-31620.56 keV
Mo96(p,3n+2p)Nb92	-33845.12 keV

<< 41-Nb-93	42-Mo-96 MT37 (p,4n) or MT5 (Tc93 production)	45-Rh-103 >>
<< MT22 (p,n+α)		MT111 (p,2p) >>



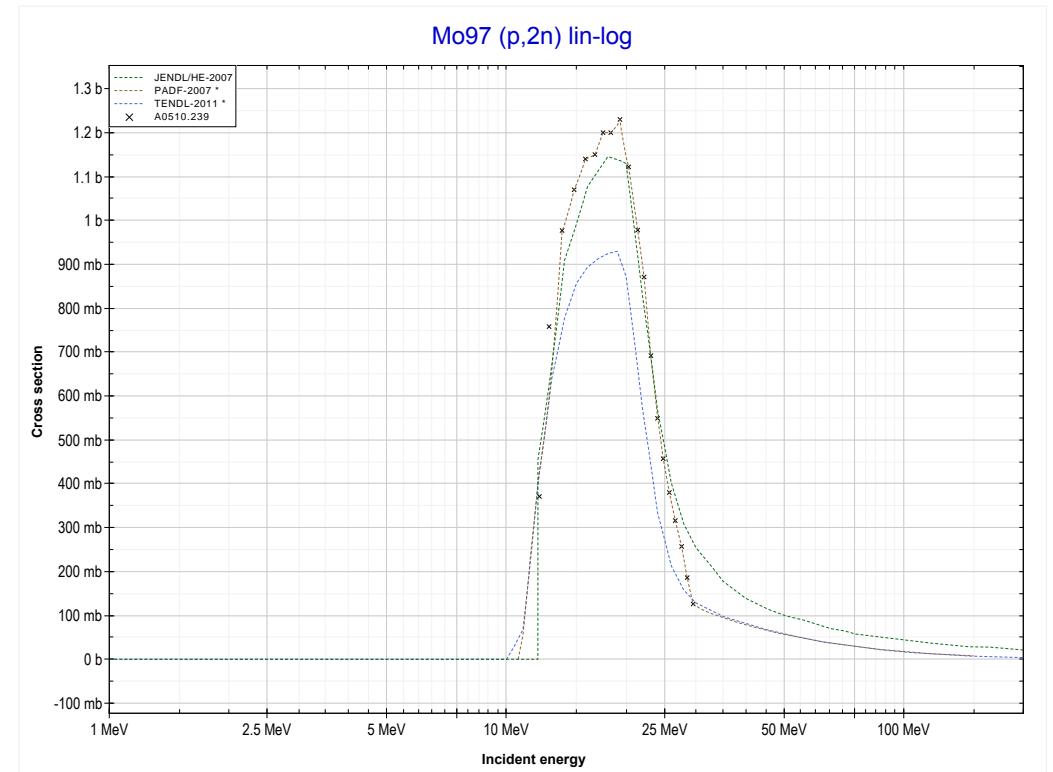
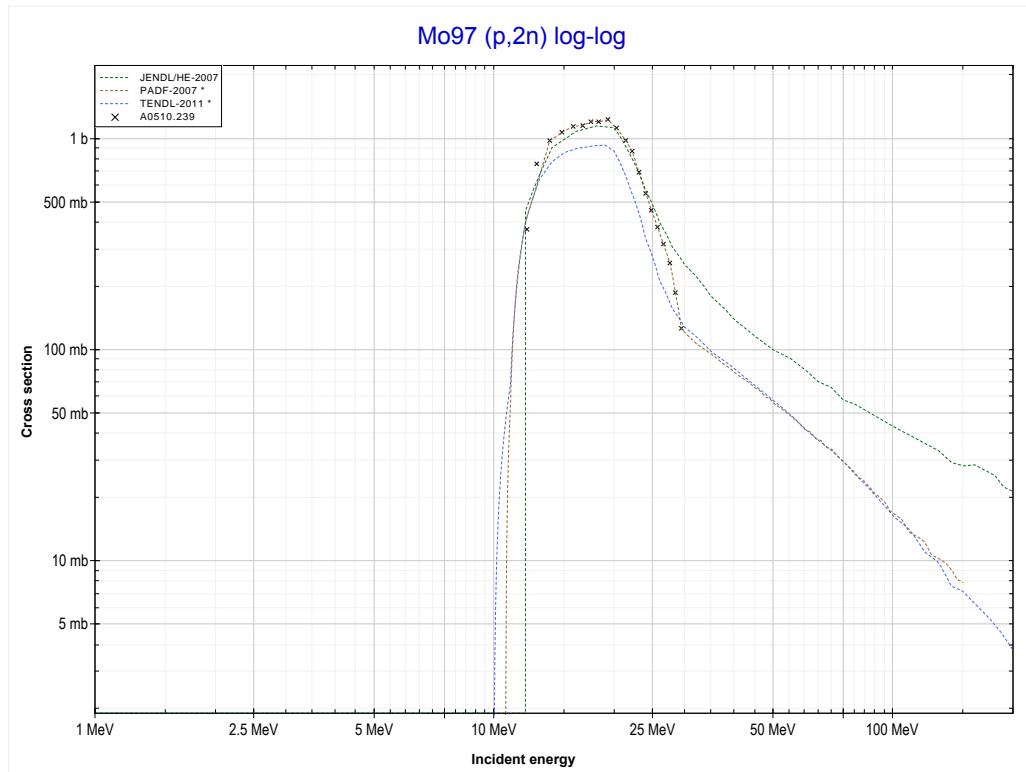
Reaction	Q-Value
Mo96(p,4n)Tc93	-30183.80 keV

<< 40-Zr-96	42-Mo-96 MT111 (p,2p) or MT5 (Nb95 production)	>> 42-Mo-97
<< MT37 (p,4n)		MT16 (p,2n) >>



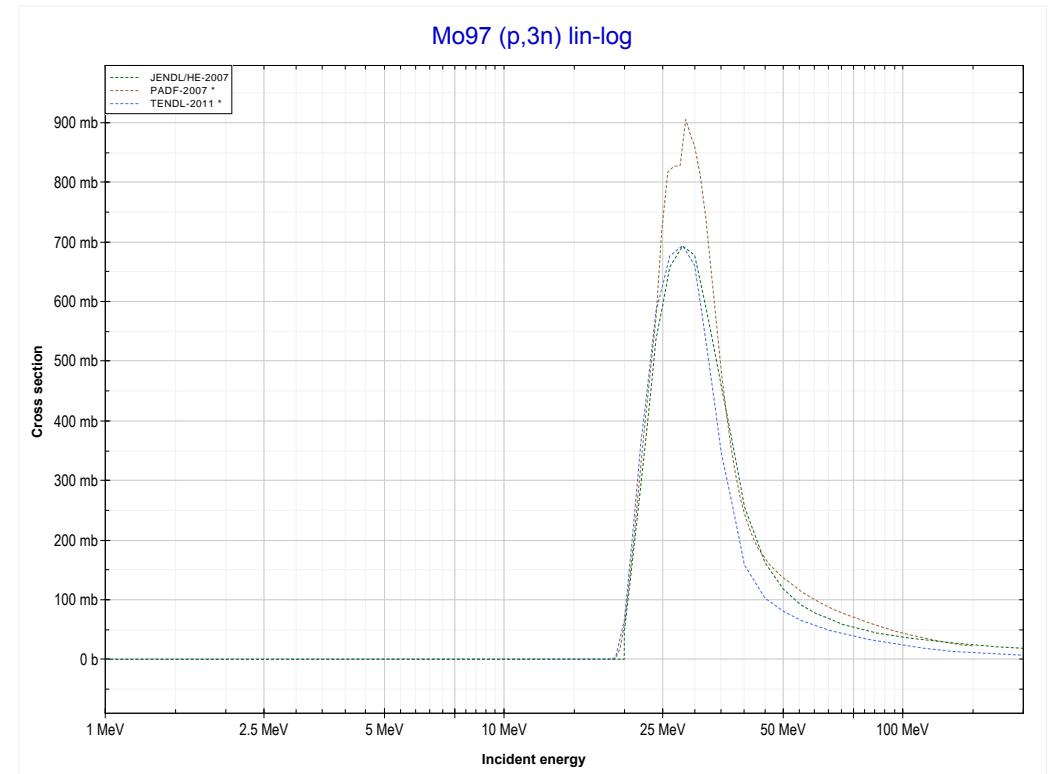
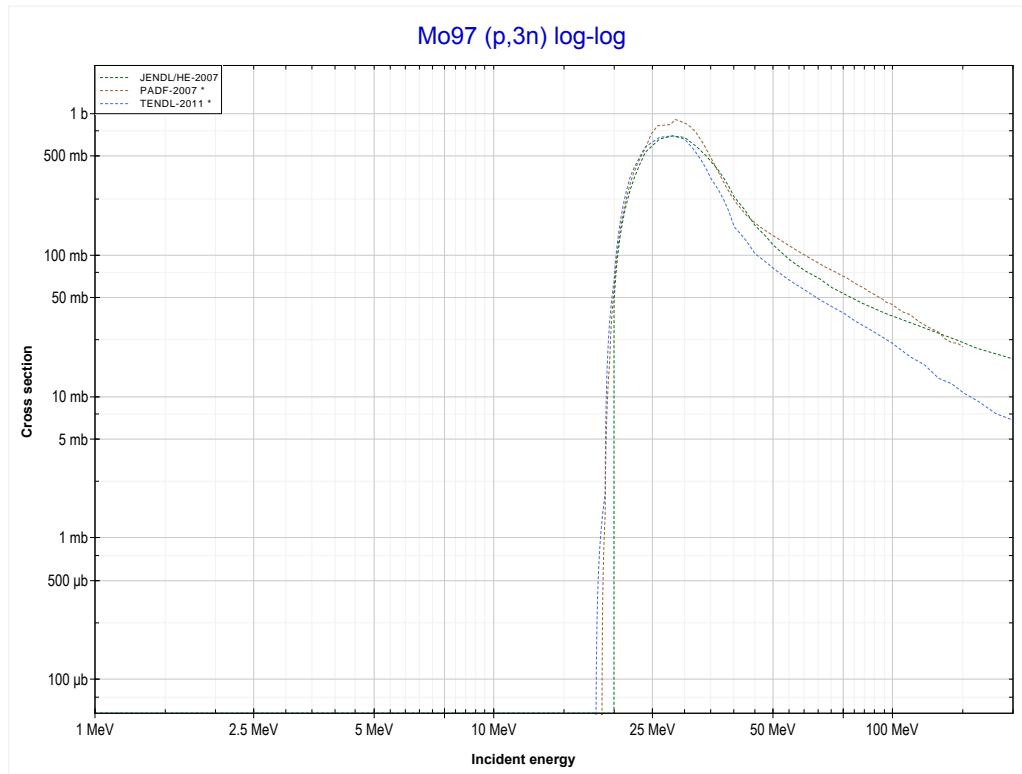
Reaction	Q-Value
Mo96(p,2p)Nb95	-9297.57 keV

<< 42-Mo-96	42-Mo-97 MT16 (p,2n) or MT5 (Tc96 production)	42-Mo-100 >>
<< MT111 (p,2p)		MT17 (p,3n) >>



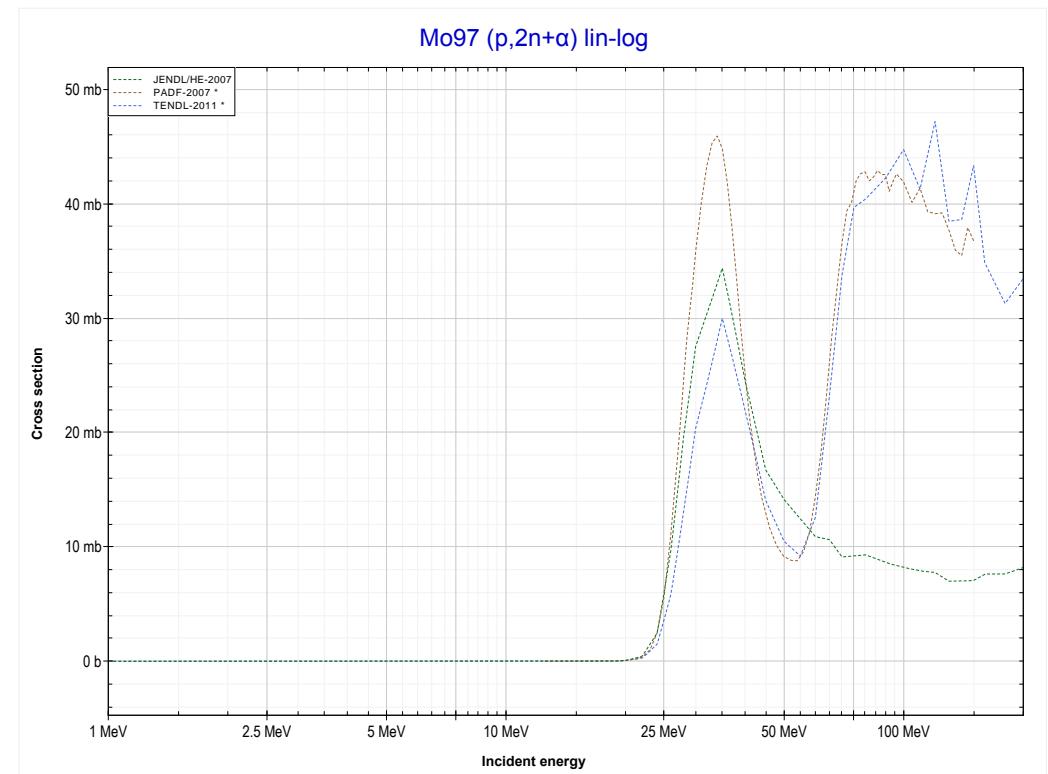
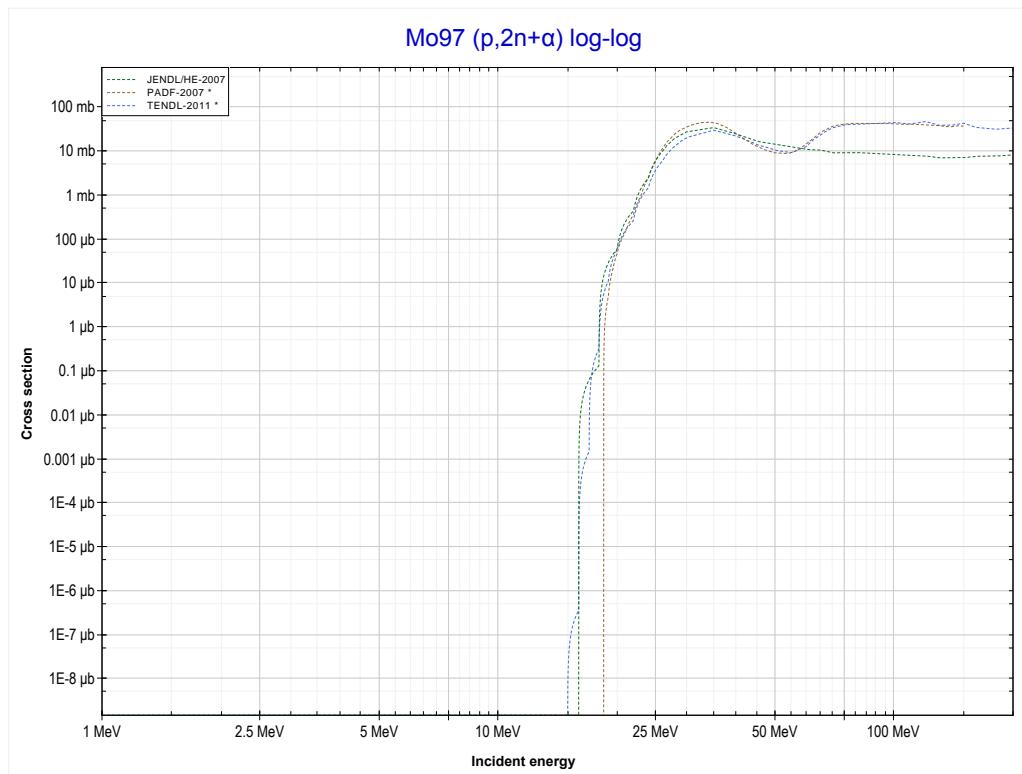
Reaction	Q-Value
Mo97(p,2n)Tc96	-10577.06 keV

<< 42-Mo-96	42-Mo-97 MT17 (p,3n) or MT5 (Tc95 production)	42-Mo-98 >>
<< MT16 (p,2n) >>		MT24 (p,2n+α) >>



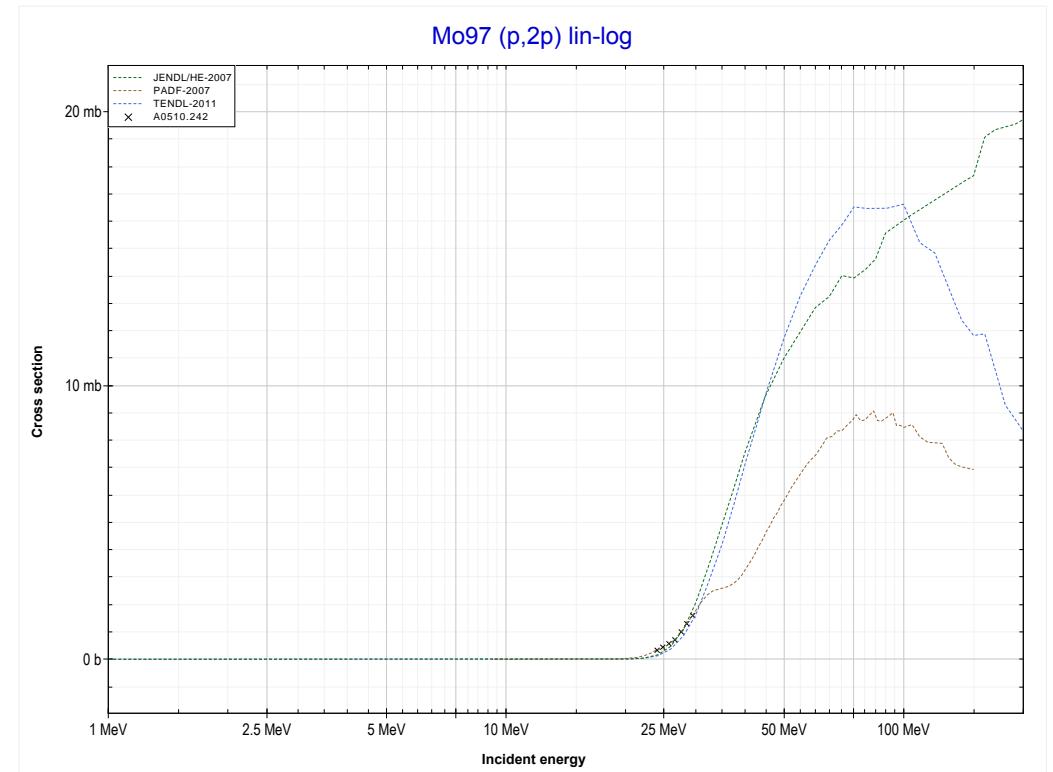
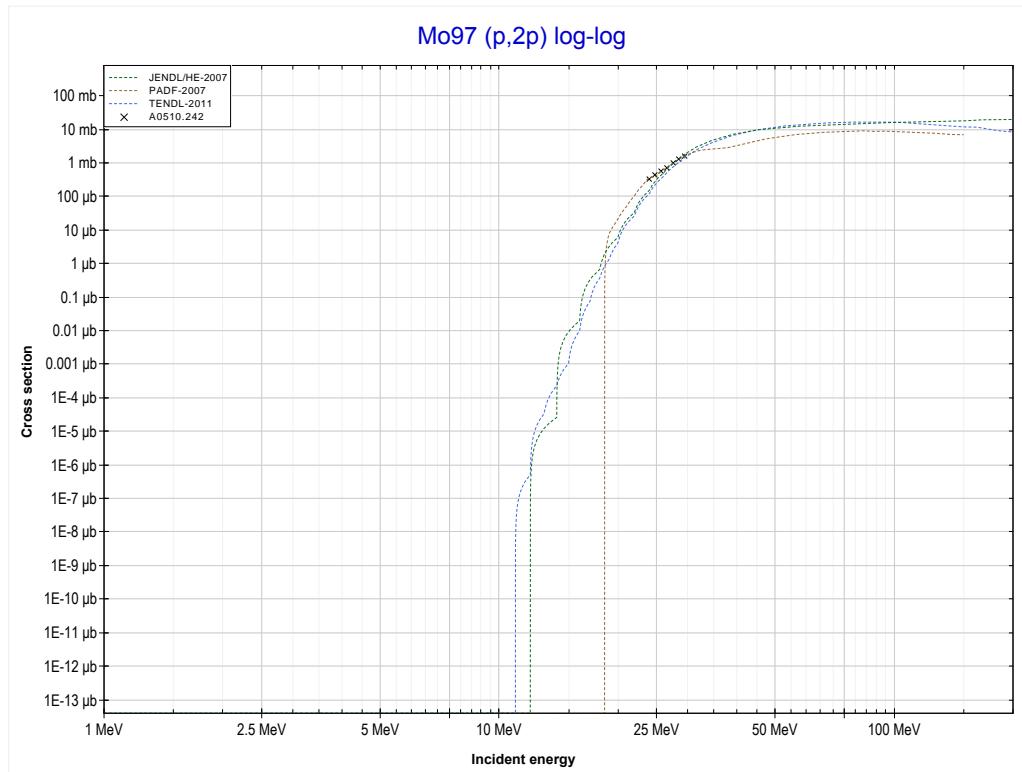
Reaction	Q-Value
Mo97(p,3n)Tc95	-18448.38 keV

<< 34-Se-76	42-Mo-97 MT24 ($p,2n+\alpha$) or MT5 (Nb92 production)	42-Mo-100 >>
<< MT17 ($p,3n$)		MT111 ($p,2p$) >>



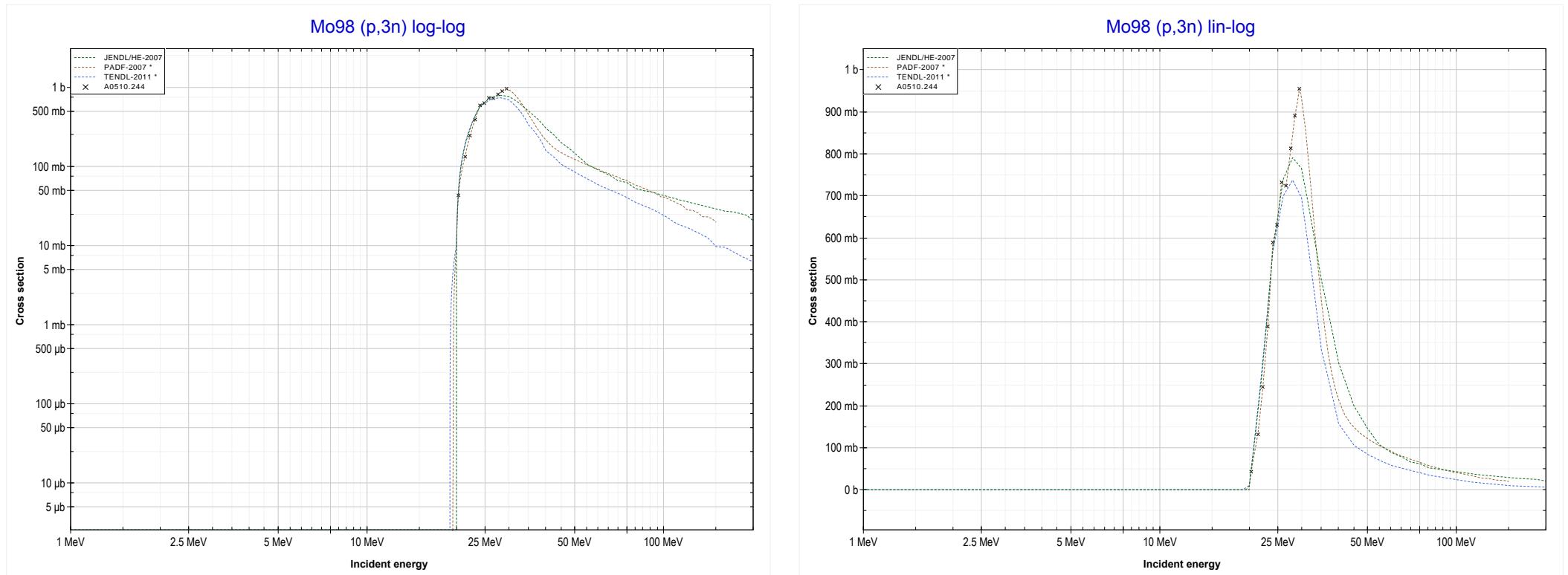
Reaction	Q-Value
Mo97($p,2n+\alpha$)Nb92	-12370.68 keV
Mo97($p,2t$)Nb92	-23702.74 keV
Mo97($p,n+d+t$)Nb92	-29959.97 keV
Mo97($p,2n+p+t$)Nb92	-32184.54 keV
Mo97($p,3n+He3$)Nb92	-32948.30 keV
Mo97($p,2n+2d$)Nb92	-36217.21 keV
Mo97($p,3n+p+d$)Nb92	-38441.77 keV
Mo97($p,4n+2p$)Nb92	-40666.34 keV

<< 42-Mo-96	42-Mo-97 MT111 (p,2p) or MT5 (Nb96 production)	42-Mo-98 >>
<< MT24 (p,2n+α)		MT17 (p,3n) >>

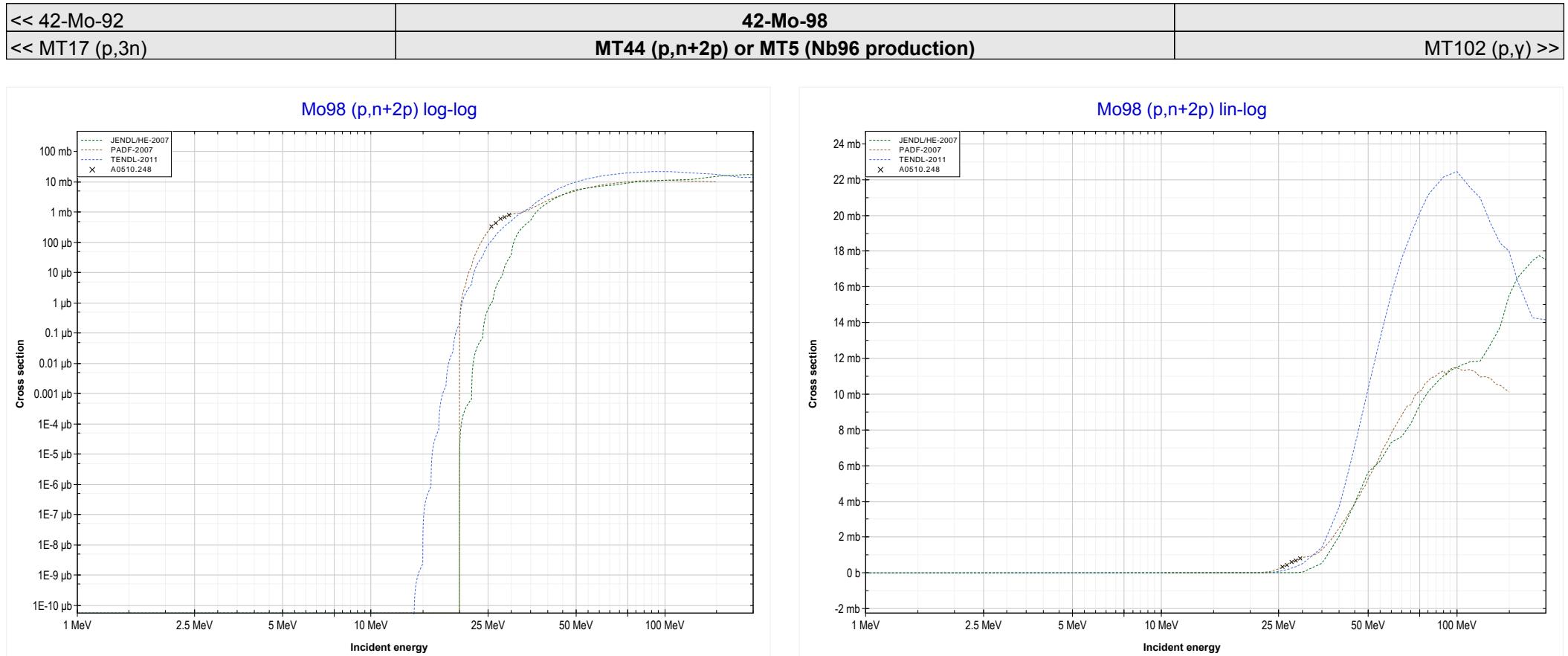


Reaction	Q-Value
Mo97(p,2p)Nb96	-9225.37 keV

<< 42-Mo-97	42-Mo-98 MT17 (p,3n) or MT5 (Tc96 production)	>> 43-Tc-99 >>
<< MT111 (p,2p) >>		MT44 (p,n+2p) >>

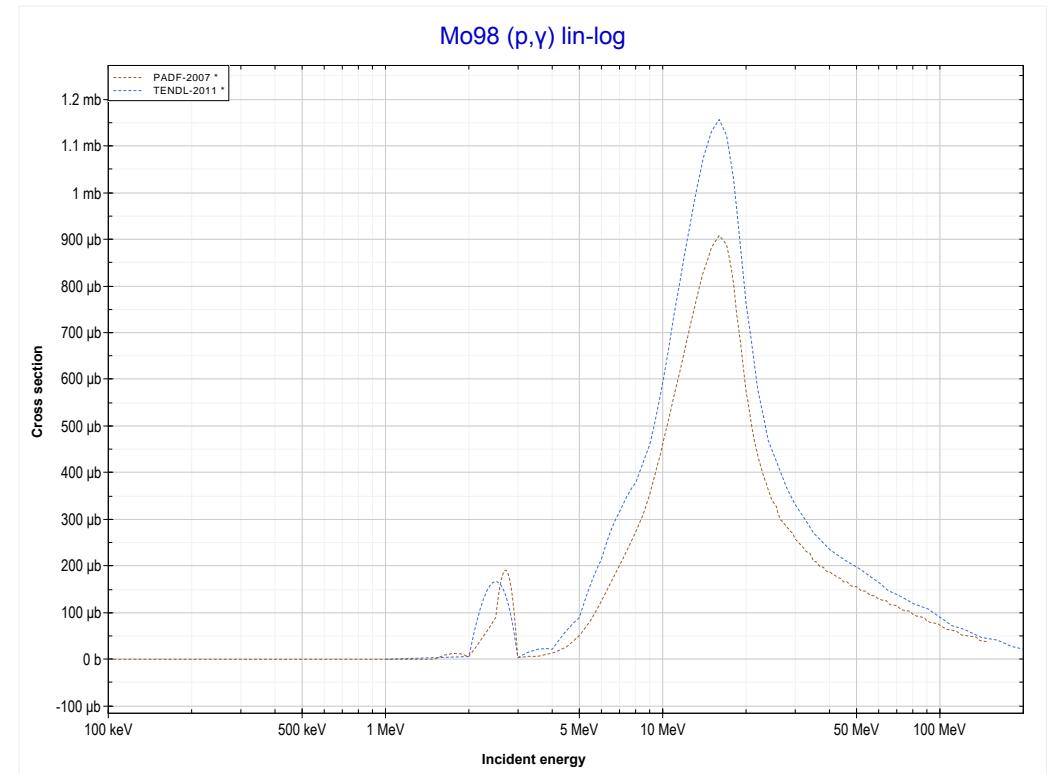
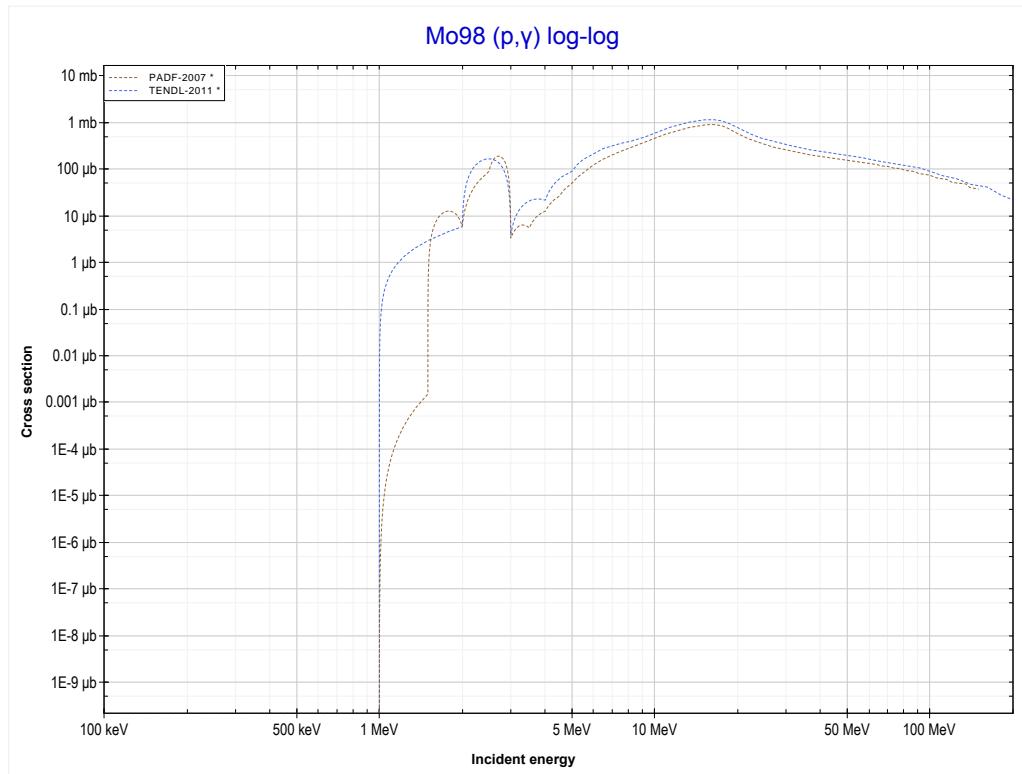


Reaction	Q-Value
Mo98(p,3n)Tc96	-19219.68 keV



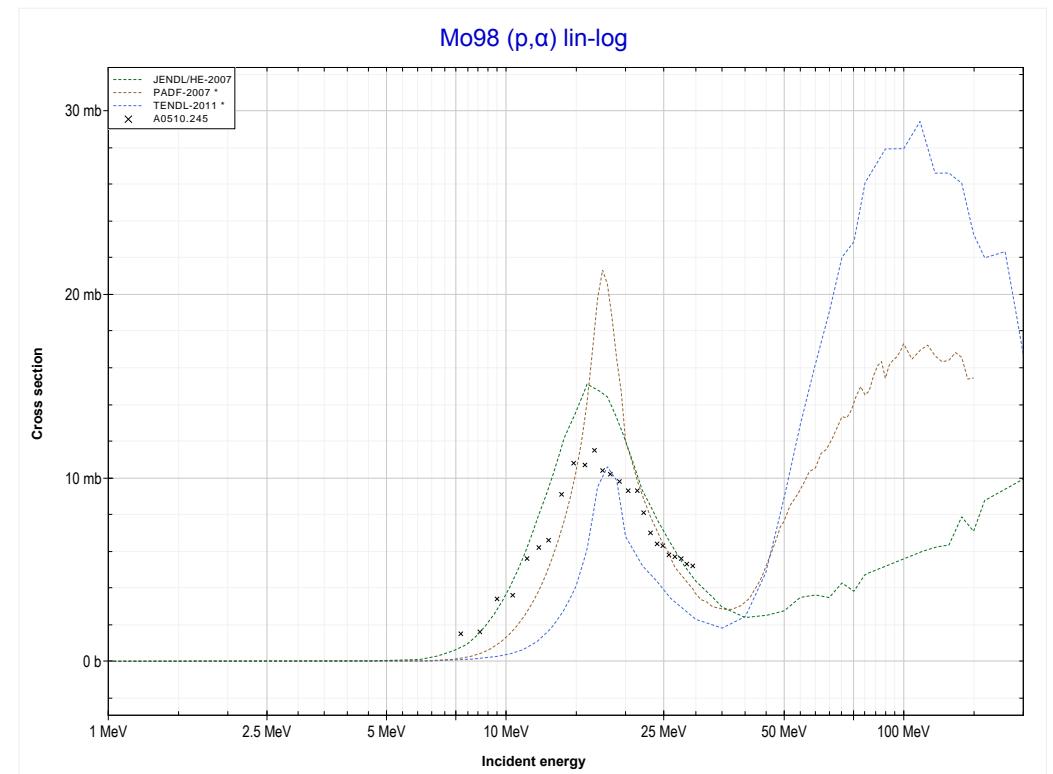
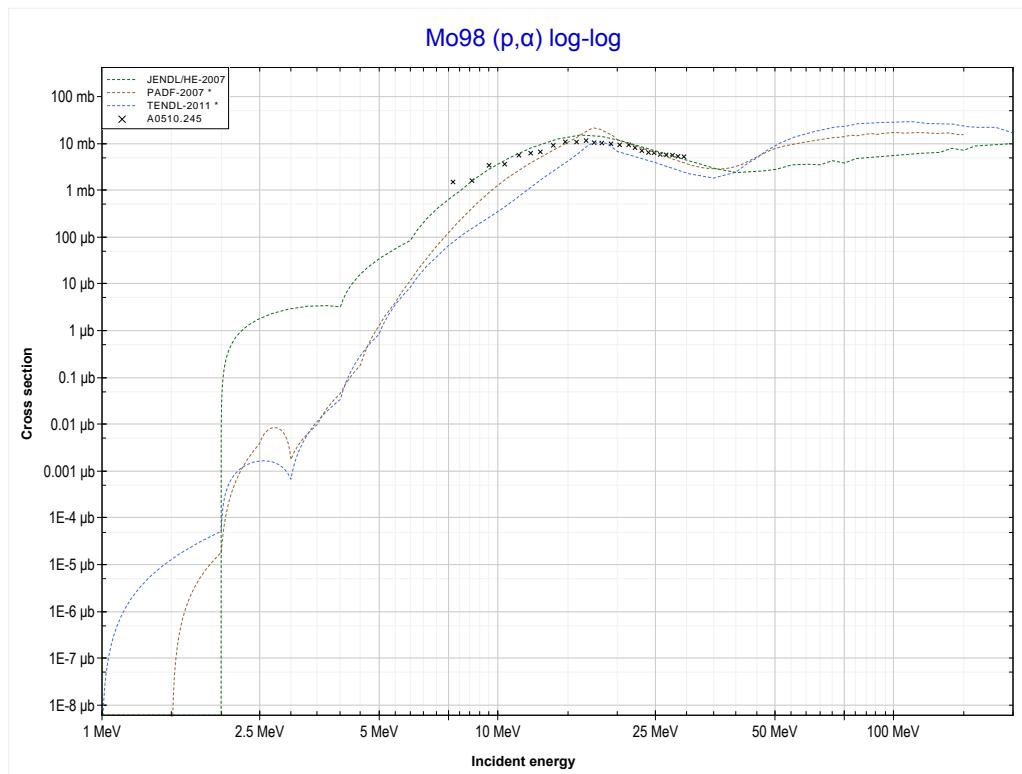
Reaction	Q-Value
Mo98(p,He3)Nb96	-10149.94 keV
Mo98(p,p+d)Nb96	-15643.42 keV
Mo98(p,n+2p)Nb96	-17867.99 keV

<< 42-Mo-94	42-Mo-98 MT102 (p,γ) or MT5 (Tc99 production)	42-Mo-100 >>
<< MT44 ($p,n+2p$)		MT107 (p,α) >>



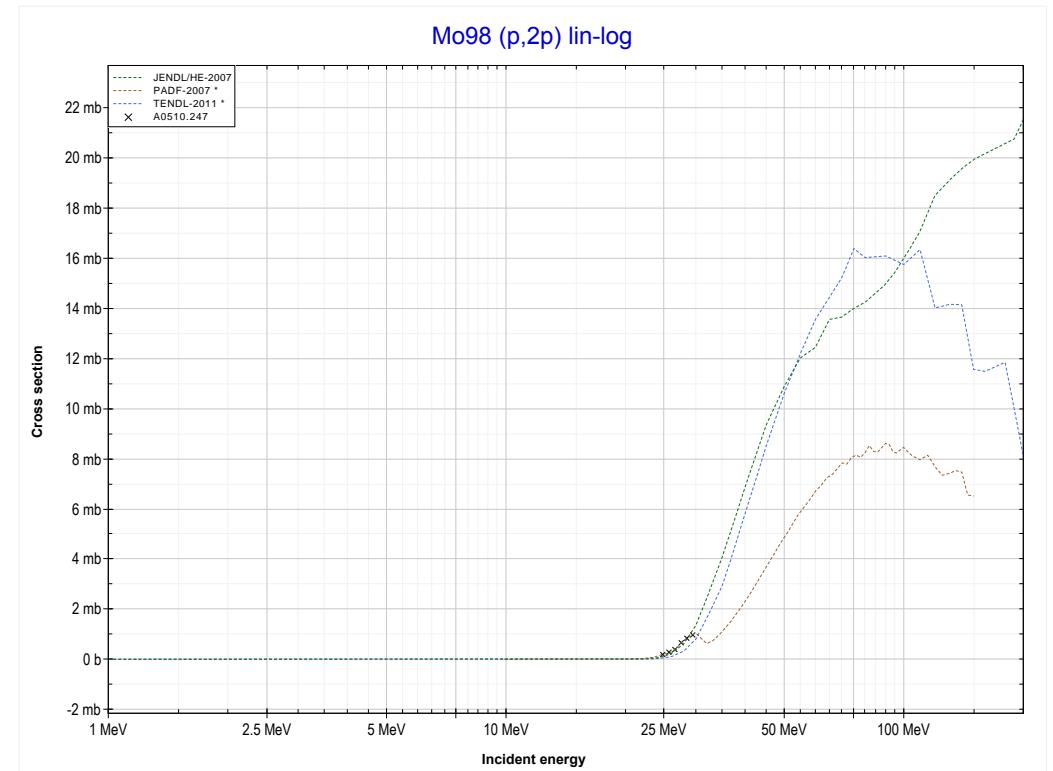
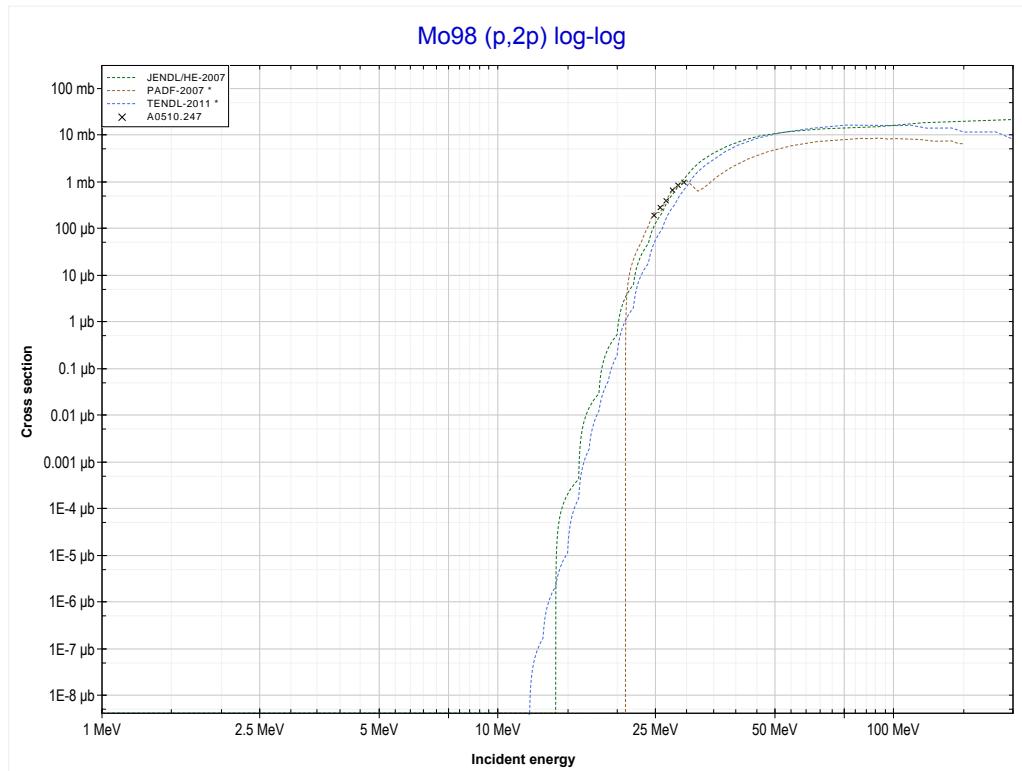
Reaction	Q-Value
Mo98(p,γ)Tc99	6500.37 keV

<< 42-Mo-95	42-Mo-98 MT107 (p,α) or MT5 (Nb95 production)	42-Mo-100 >>
<< MT102 (p,γ)		MT111 ($p,2p$) >>



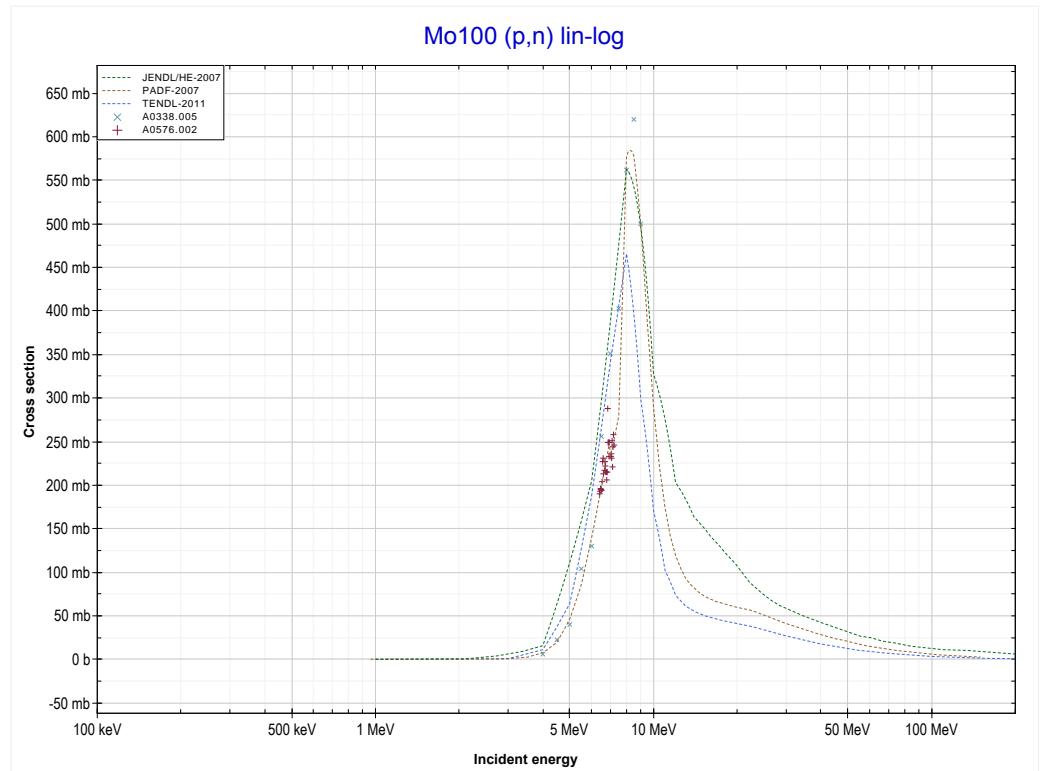
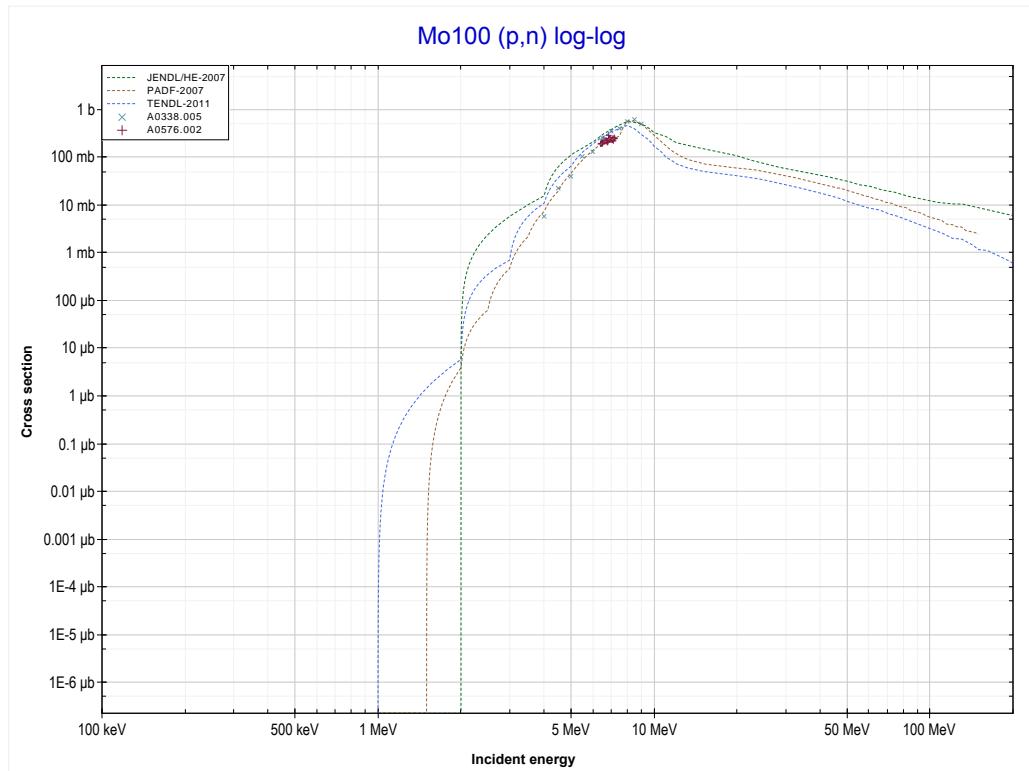
Reaction	Q-Value
Mo98(p,α)Nb95	3534.25 keV
Mo98($p,p+t$)Nb95	-16279.61 keV
Mo98($p,n+He3$)Nb95	-17043.36 keV
Mo98($p,2d$)Nb95	-20312.27 keV
Mo98($p,n+p+d$)Nb95	-22536.84 keV
Mo98($p,2n+2p$)Nb95	-24761.40 keV

<< 42-Mo-97	42-Mo-98 MT111 (p,2p) or MT5 (Nb97 production)	48-Cd-106 >>
<< MT107 (p, α)		MT4 (p,n) >>



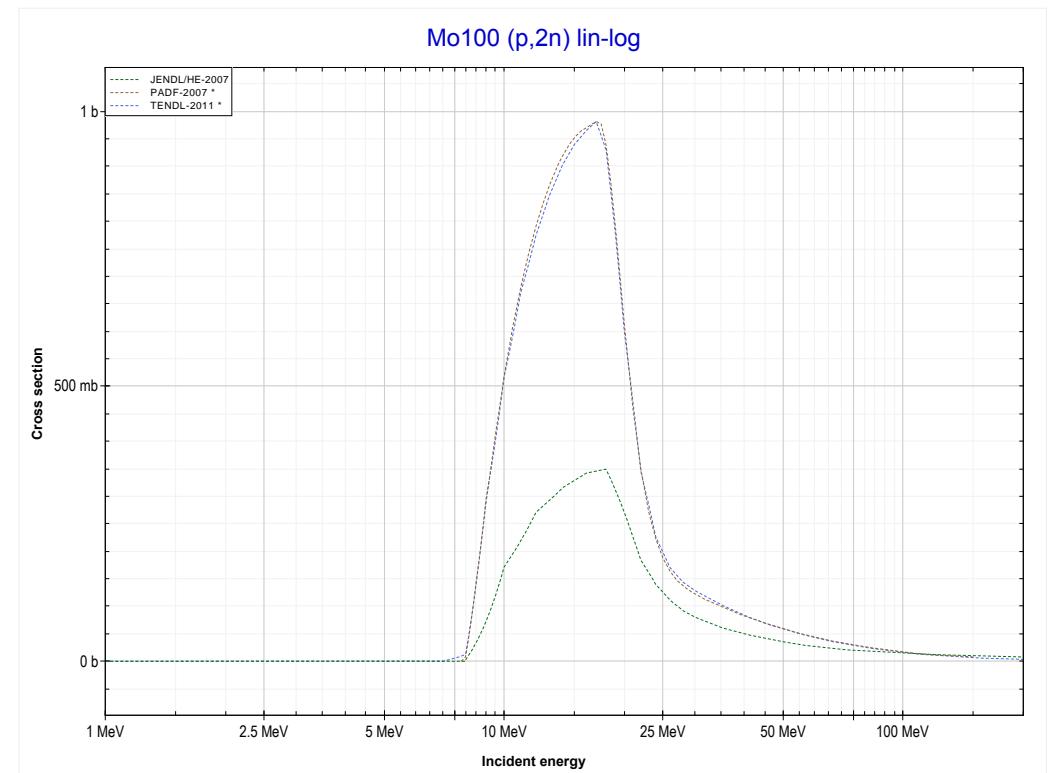
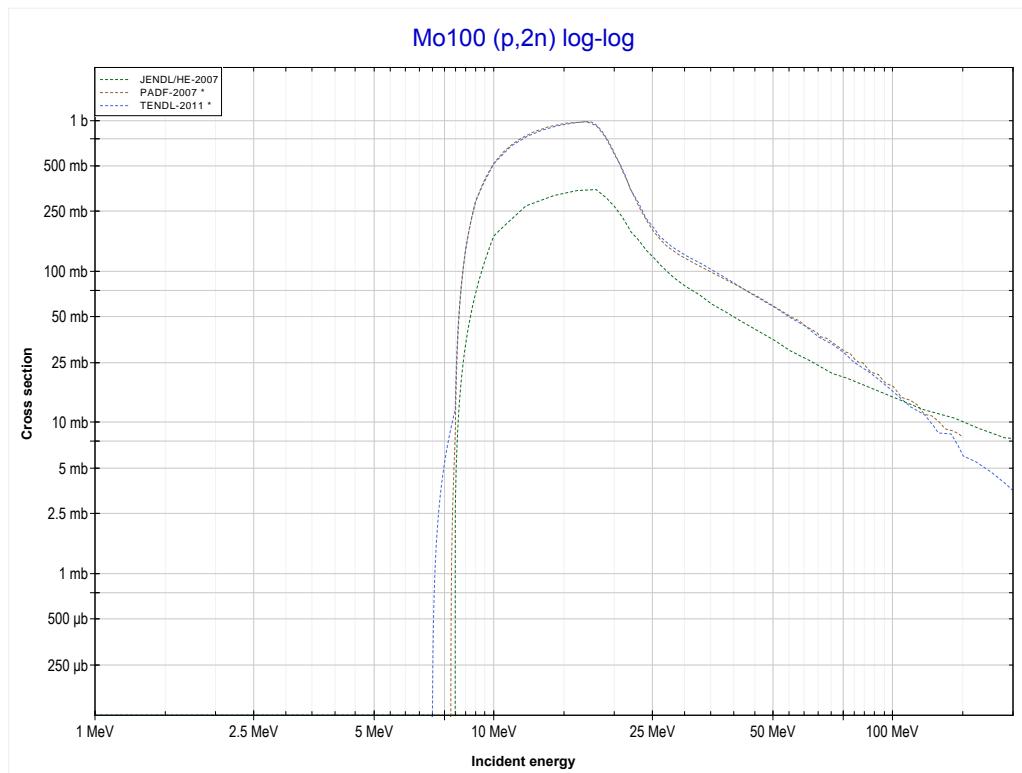
Reaction	Q-Value
Mo98(p,2p)Nb97	-9795.07 keV

<< 42-Mo-96	42-Mo-100 MT4 (p,n) or MT5 (Tc100 production)	>> 44-Ru-99
<< MT111 (p,2p)		MT16 (p,2n) >>



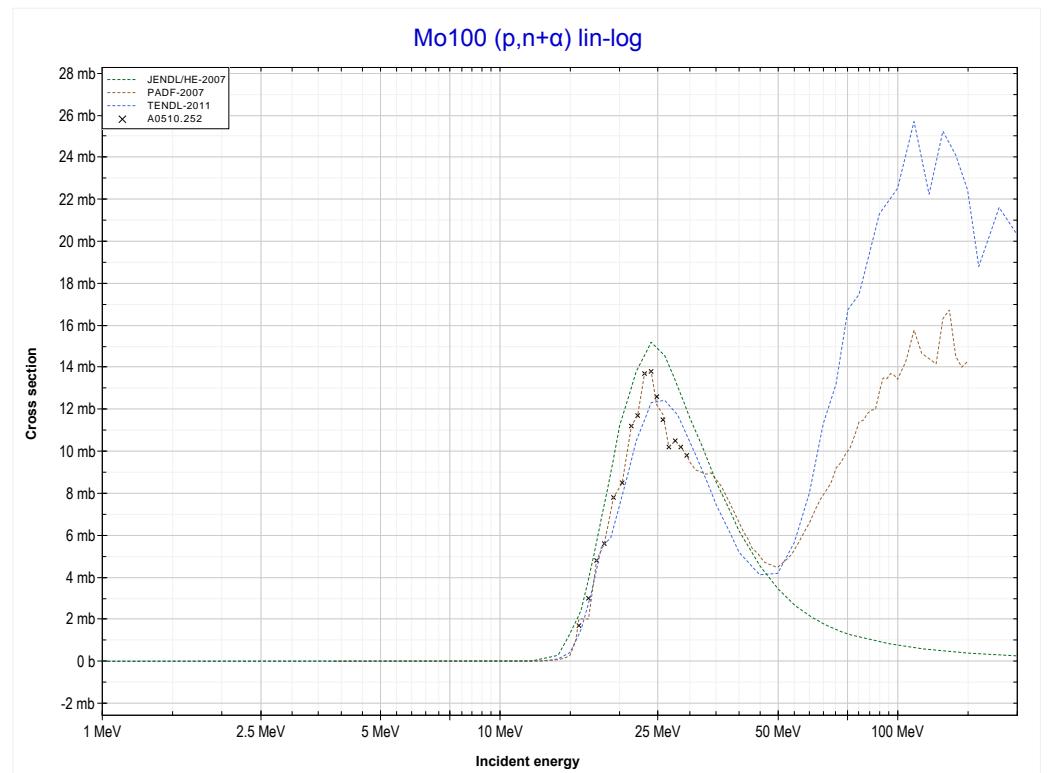
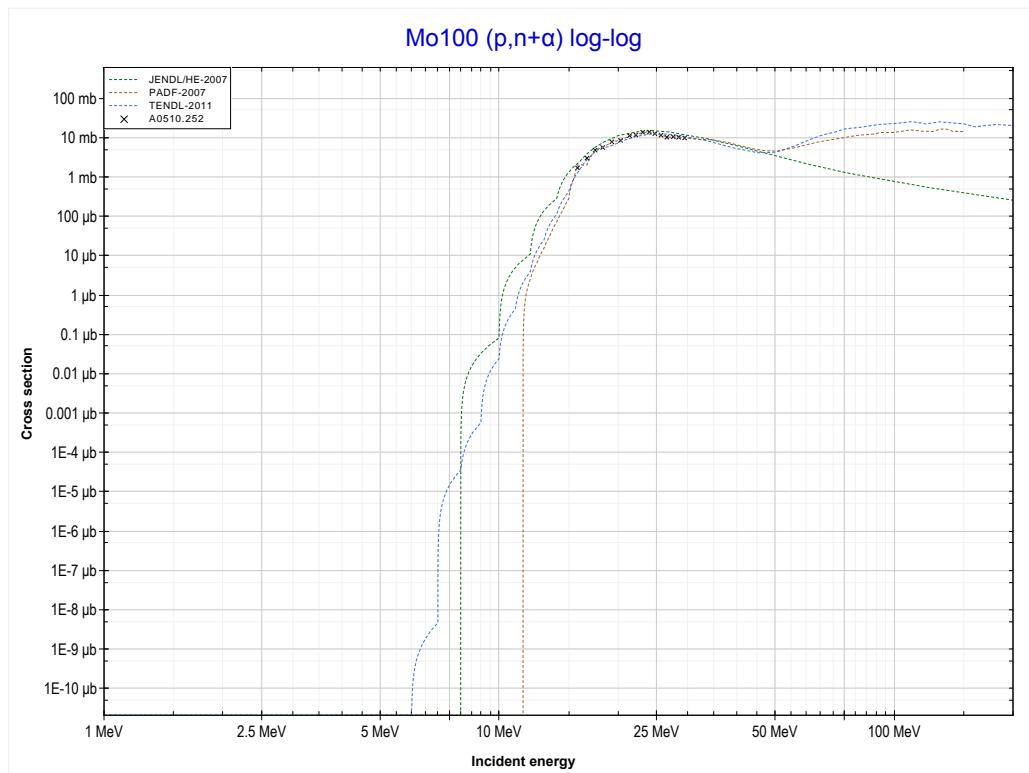
Reaction	Q-Value
Mo100(p,n)Tc100	-950.15 keV

<< 42-Mo-97	42-Mo-100 MT16 (p,2n) or MT5 (Tc99 production)	48-Cd-108 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



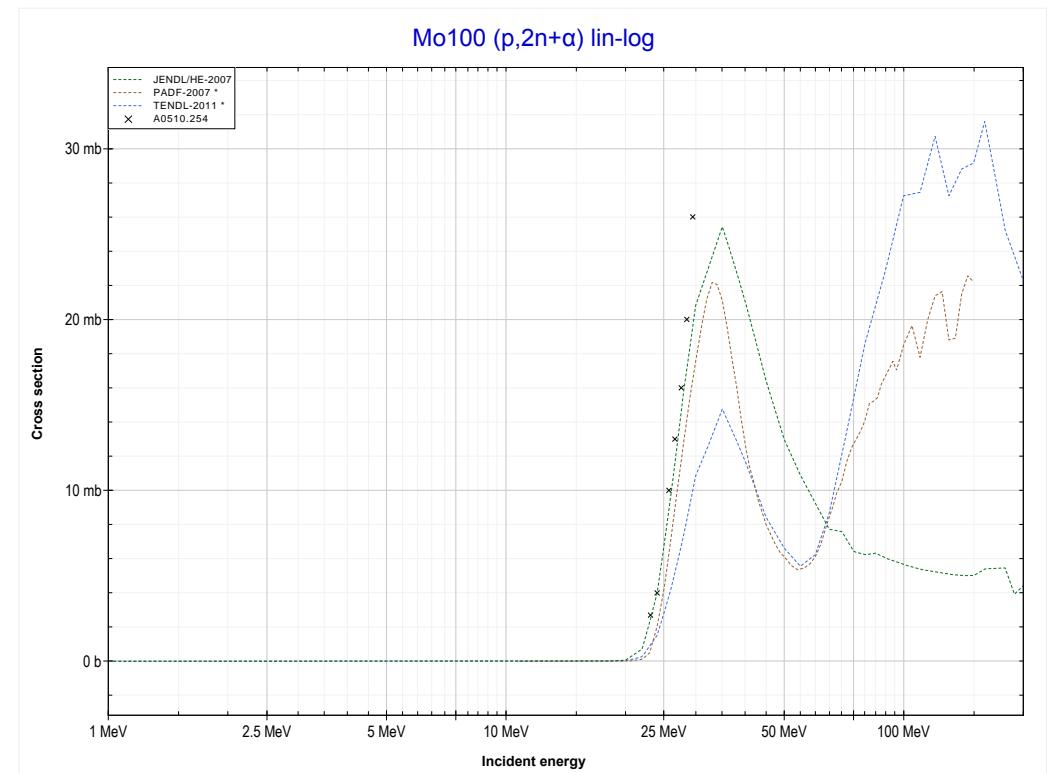
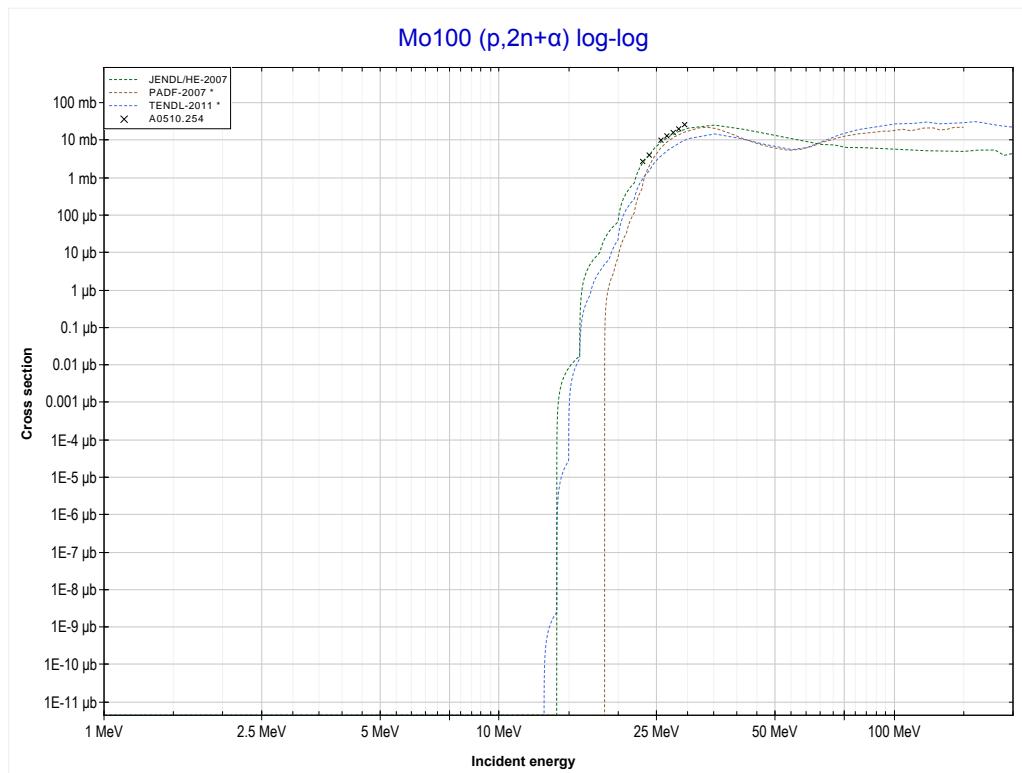
Reaction	Q-Value
Mo100(p,2n)Tc99	-7714.56 keV

<< 42-Mo-96	42-Mo-100 MT22 (p,n+α) or MT5 (Nb96 production)	>> 48-Cd-114
<< MT16 (p,2n)		>> MT24 (p,2n+α) >>



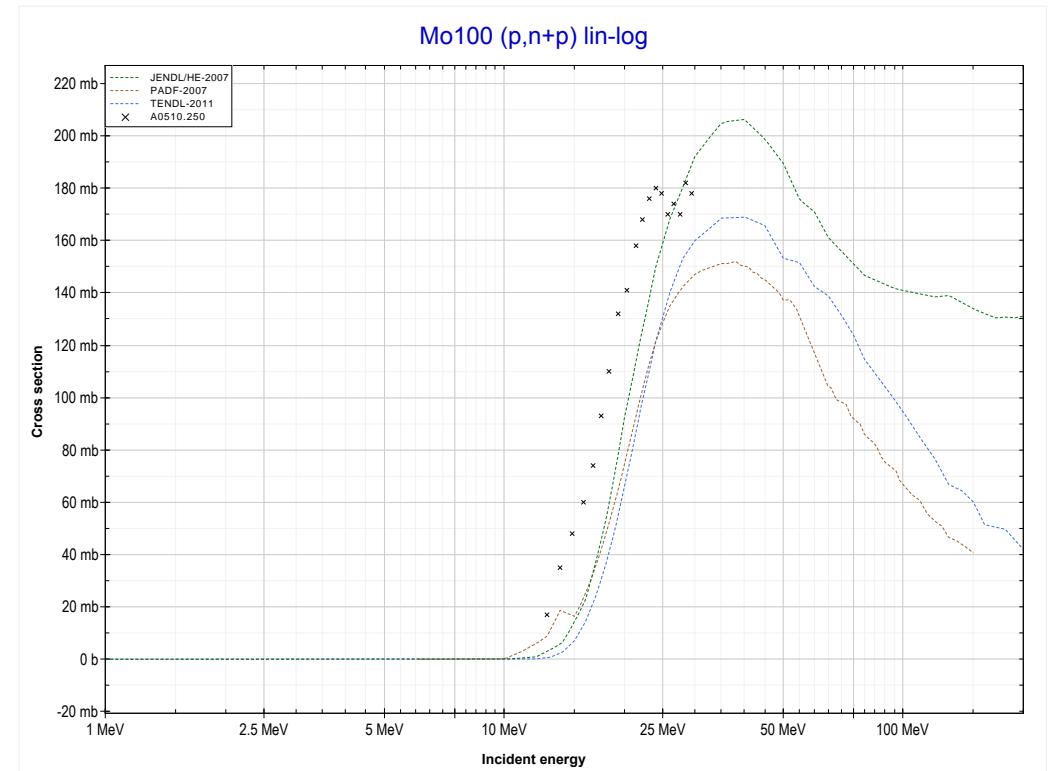
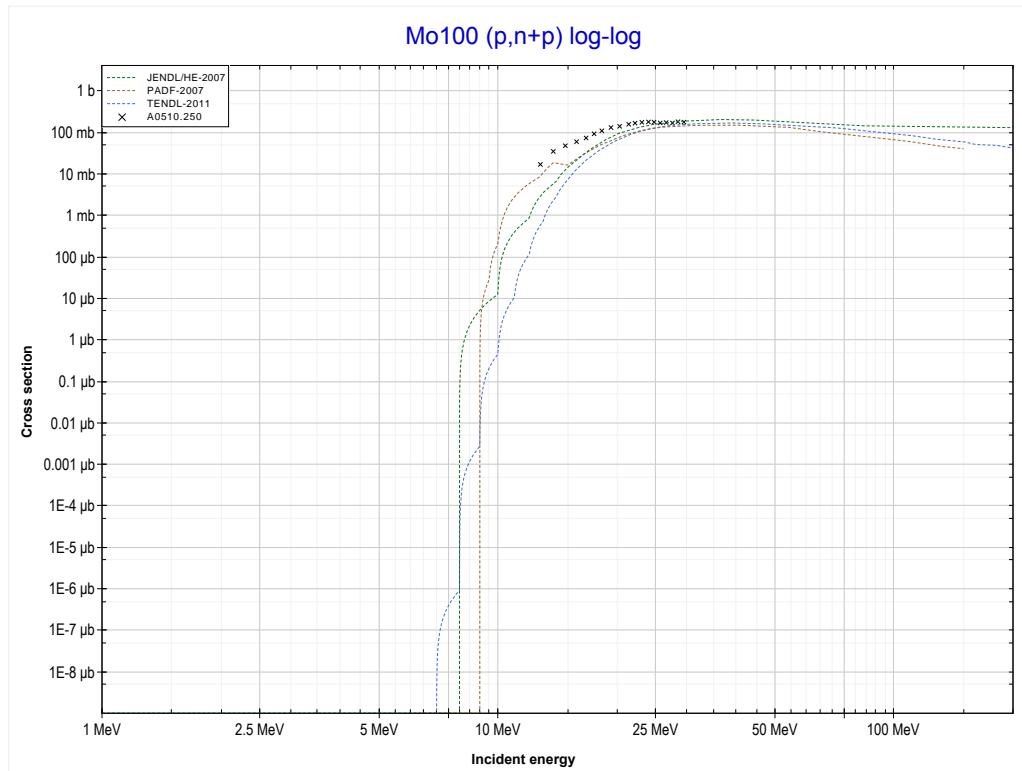
Reaction	Q-Value
Mo100(p,n+α)Nb96	-3787.26 keV
Mo100(p,d+t)Nb96	-21376.56 keV
Mo100(p,n+p+t)Nb96	-23601.12 keV
Mo100(p,2n+He3)Nb96	-24364.88 keV
Mo100(p,n+2d)Nb96	-27633.79 keV
Mo100(p,2n+p+d)Nb96	-29858.36 keV
Mo100(p,3n+2p)Nb96	-32082.92 keV

<< 42-Mo-97	42-Mo-100 MT24 (p,2n+α) or MT5 (Nb95 production)	54-Xe-124 >>
<< MT22 (p,n+α) >>		MT28 (p,n+p) >>



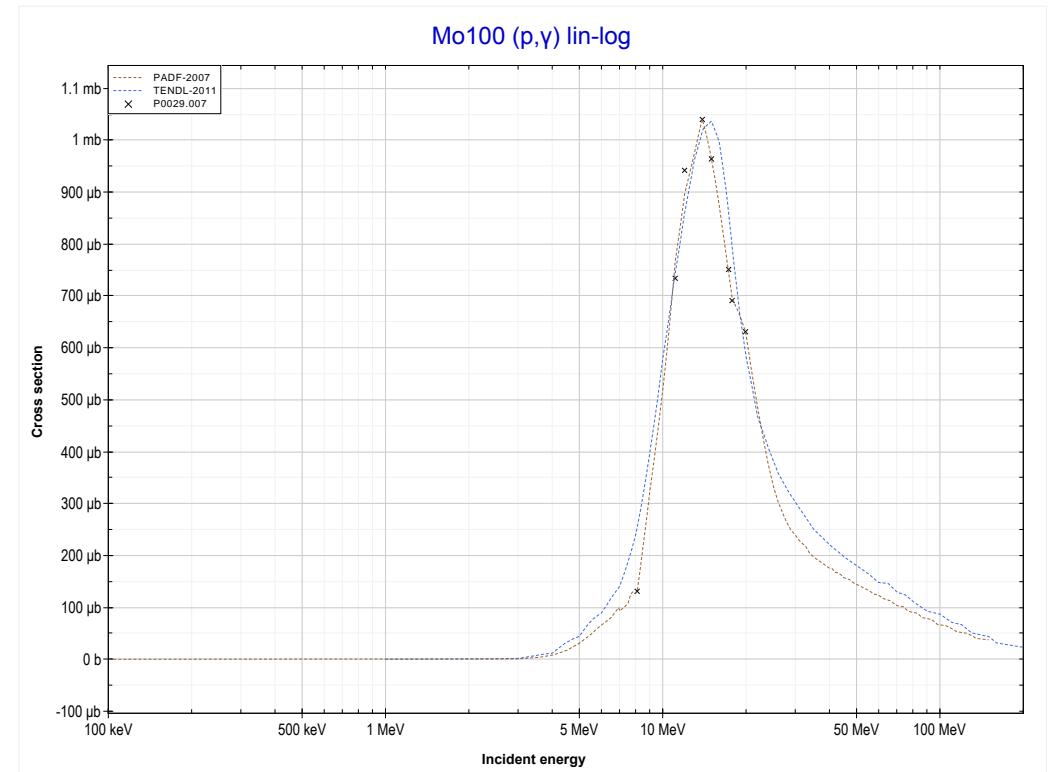
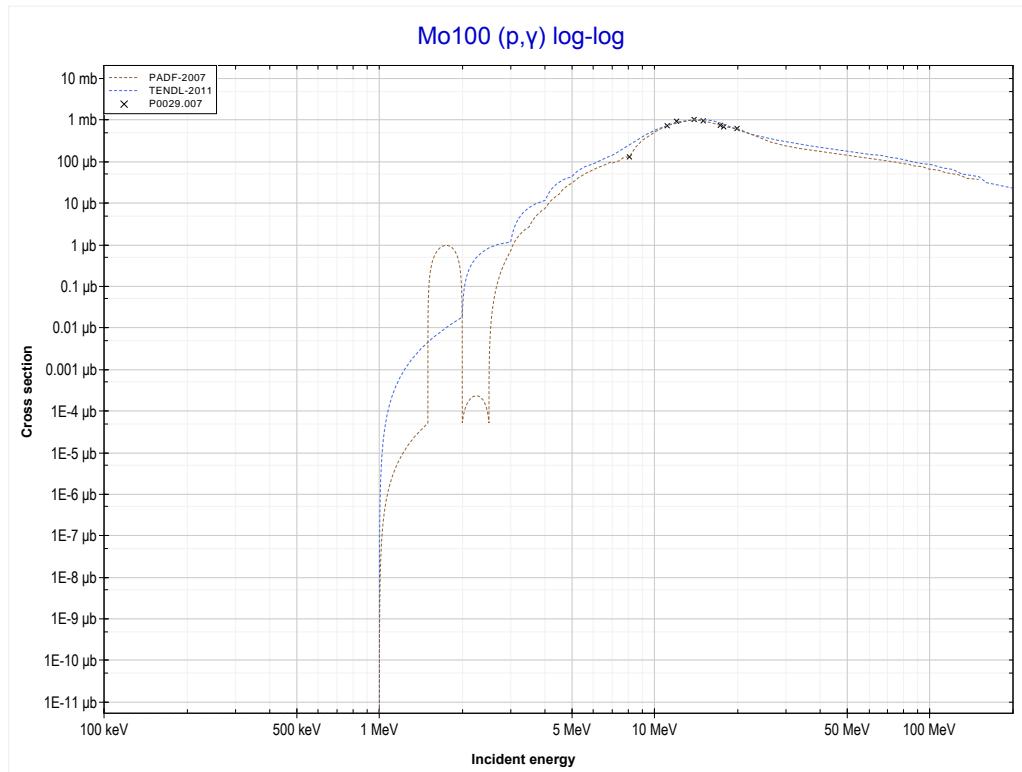
Reaction	Q-Value
Mo100(p,2n+α)Nb95	-10680.68 keV
Mo100(p,2t)Nb95	-22012.74 keV
Mo100(p,n+d+t)Nb95	-28269.97 keV
Mo100(p,2n+p+t)Nb95	-30494.54 keV
Mo100(p,3n+He3)Nb95	-31258.30 keV
Mo100(p,2n+2d)Nb95	-34527.21 keV
Mo100(p,3n+p+d)Nb95	-36751.77 keV
Mo100(p,4n+2p)Nb95	-38976.34 keV

<< 42-Mo-94	42-Mo-100 MT28 (p,n+p) or MT5 (Mo99 production)	>> 47-Ag-107
<< MT24 (p,2n+α)		MT102 (p,γ) >>



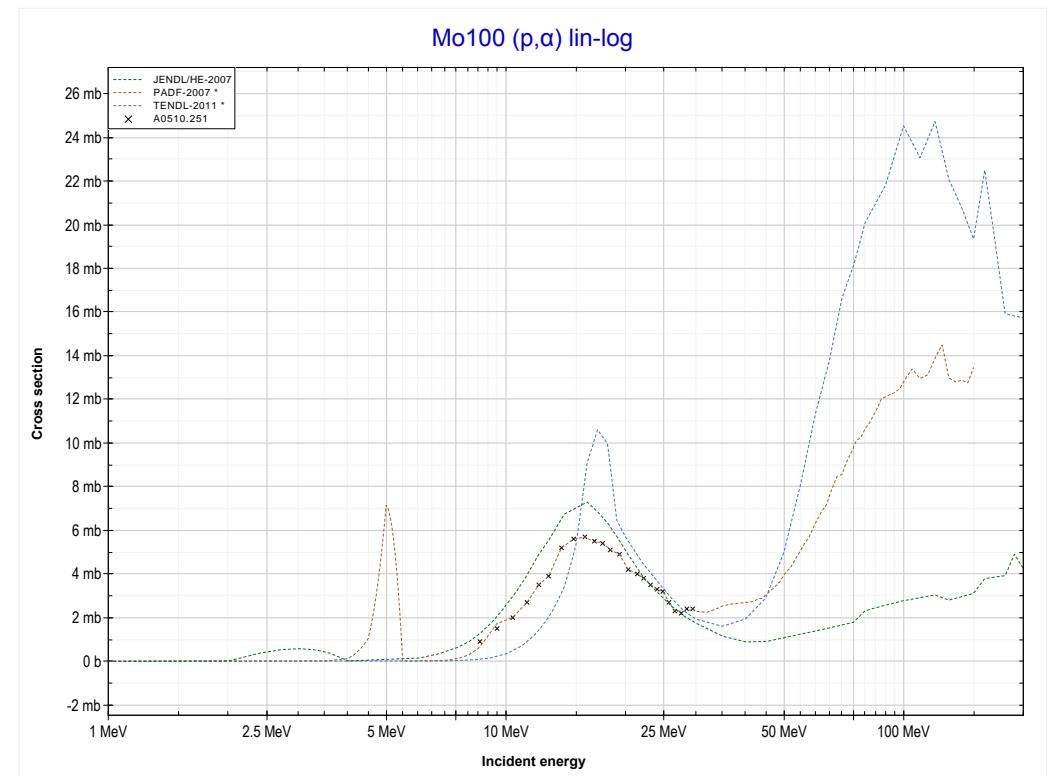
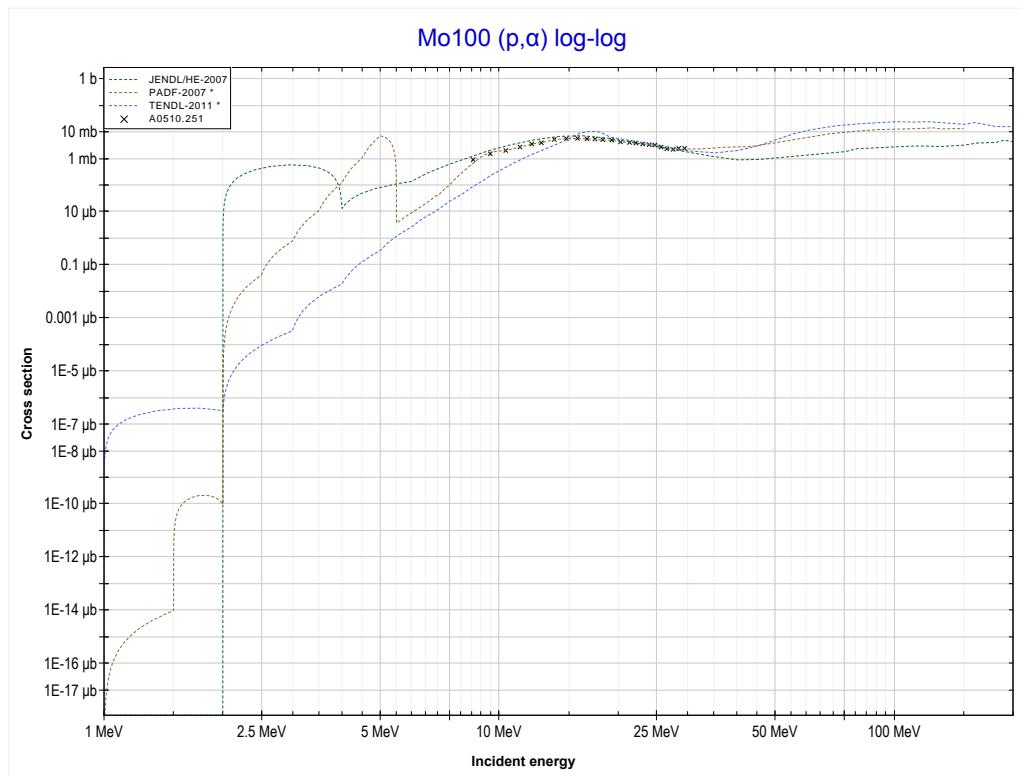
Reaction	Q-Value
Mo100(p,d)Mo99	-6064.95 keV
Mo100(p,n+p)Mo99	-8289.52 keV

<< 42-Mo-98	42-Mo-100 MT102 (p,γ) or MT5 (Tc101 production)	>> 44-Ru-96
<< MT28 ($p,n+p$)		MT107 (p,α) >>



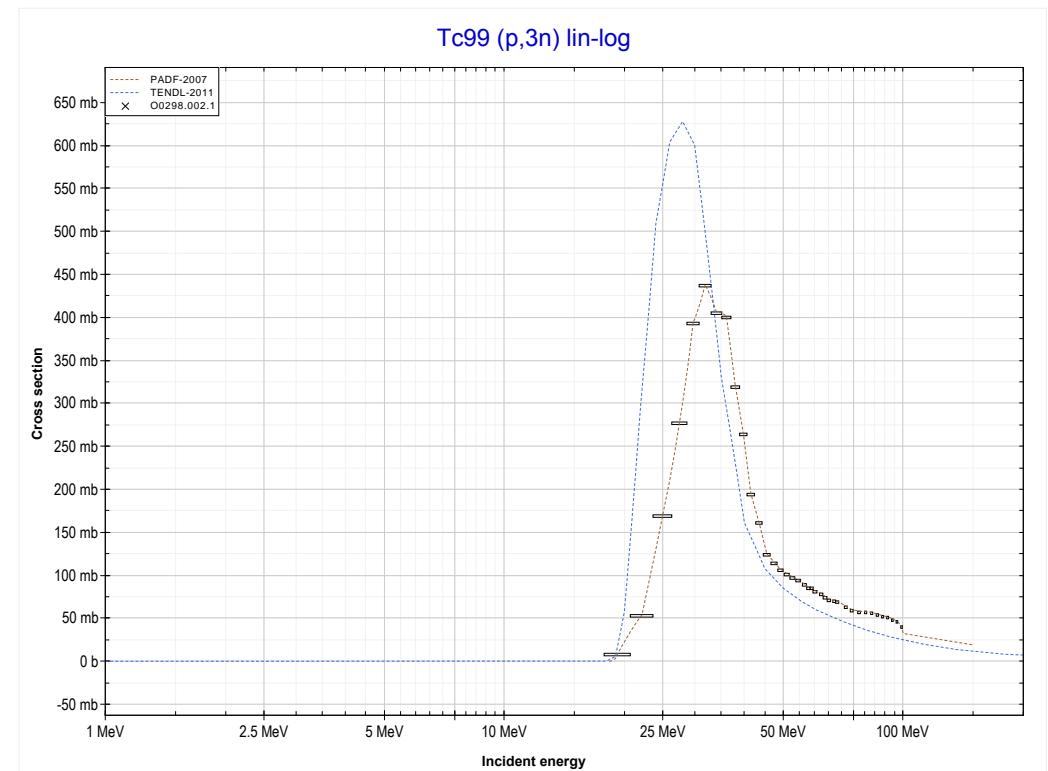
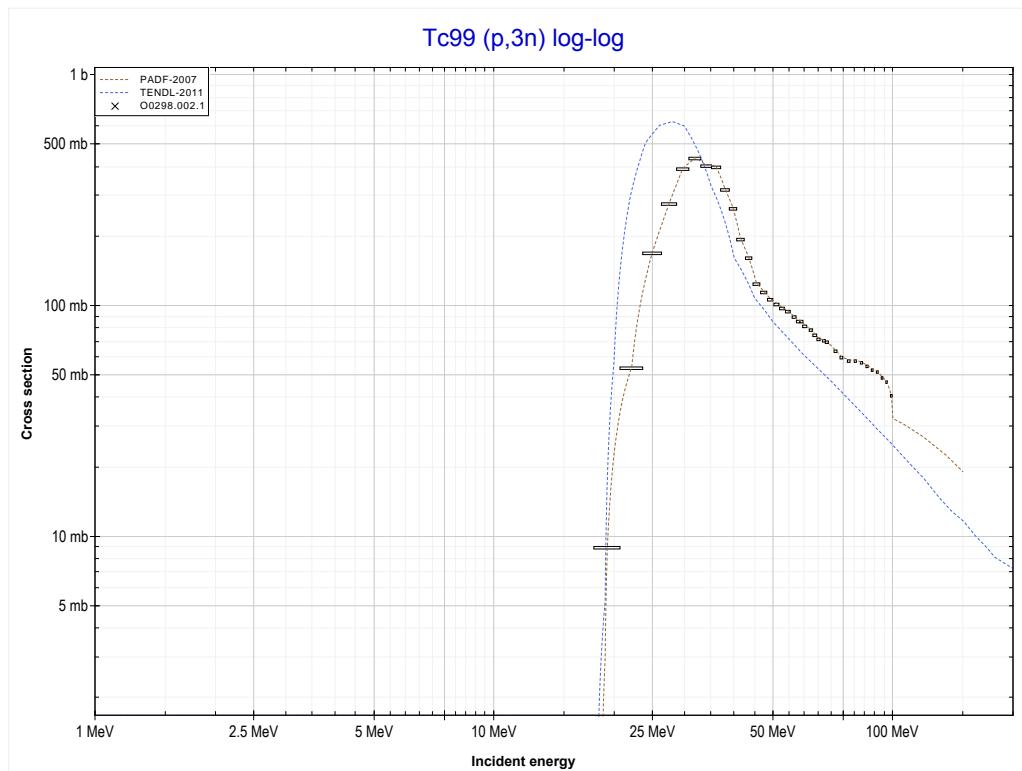
Reaction	Q-Value
Mo100(p,γ)Tc101	7440.97 keV

<< 42-Mo-98	42-Mo-100 MT107 (p,α) or MT5 (Nb97 production)	48-Cd-114 >>
<< MT102 (p,γ)		MT17 ($p,3n$) >>



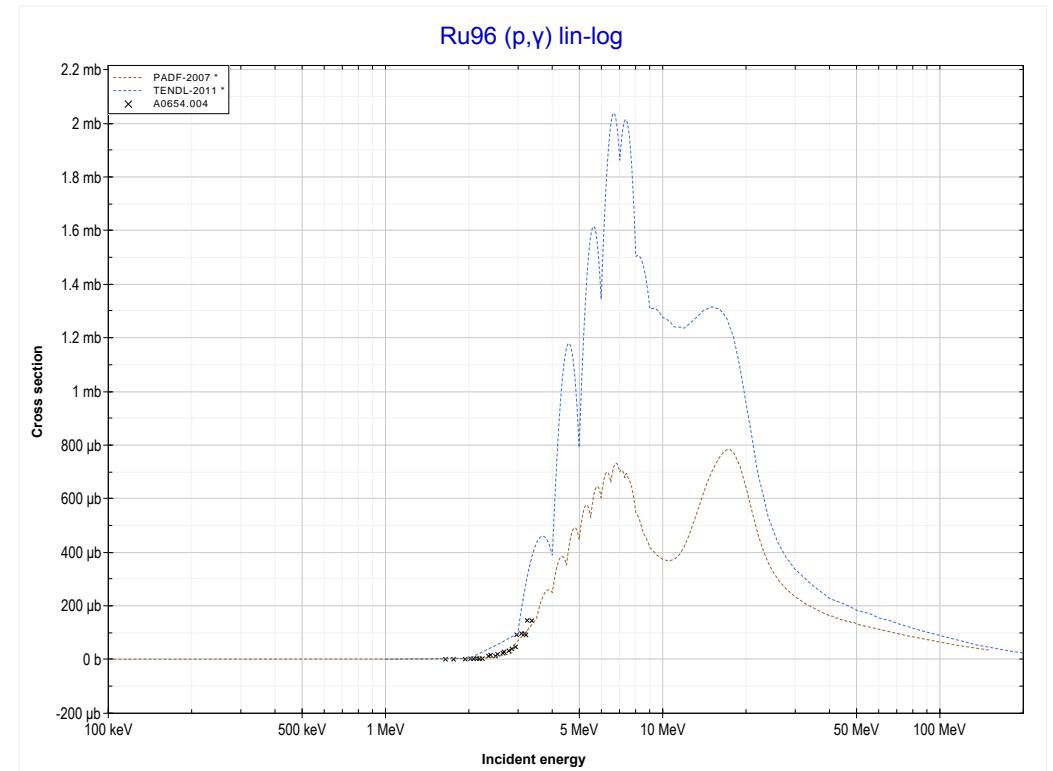
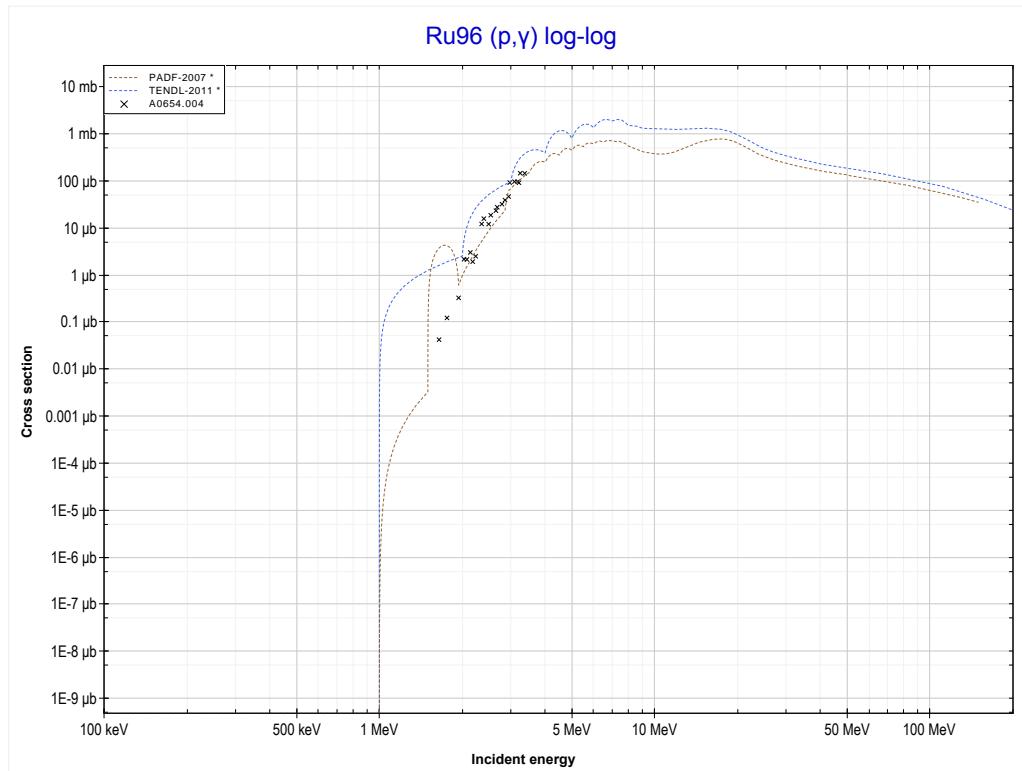
Reaction	Q-Value
Mo100(p,α)Nb97	4285.65 keV
Mo100($p,p+t$)Nb97	-15528.21 keV
Mo100($p,n+He3$)Nb97	-16291.96 keV
Mo100($p,2d$)Nb97	-19560.87 keV
Mo100($p,n+p+d$)Nb97	-21785.44 keV
Mo100($p,2n+2p$)Nb97	-24010.00 keV

<< 42-Mo-98	43-Tc-99 MT17 (p,3n) or MT5 (Ru97 production)	45-Rh-103 >>
<< MT107 (p, α)		MT102 (p, γ) >>



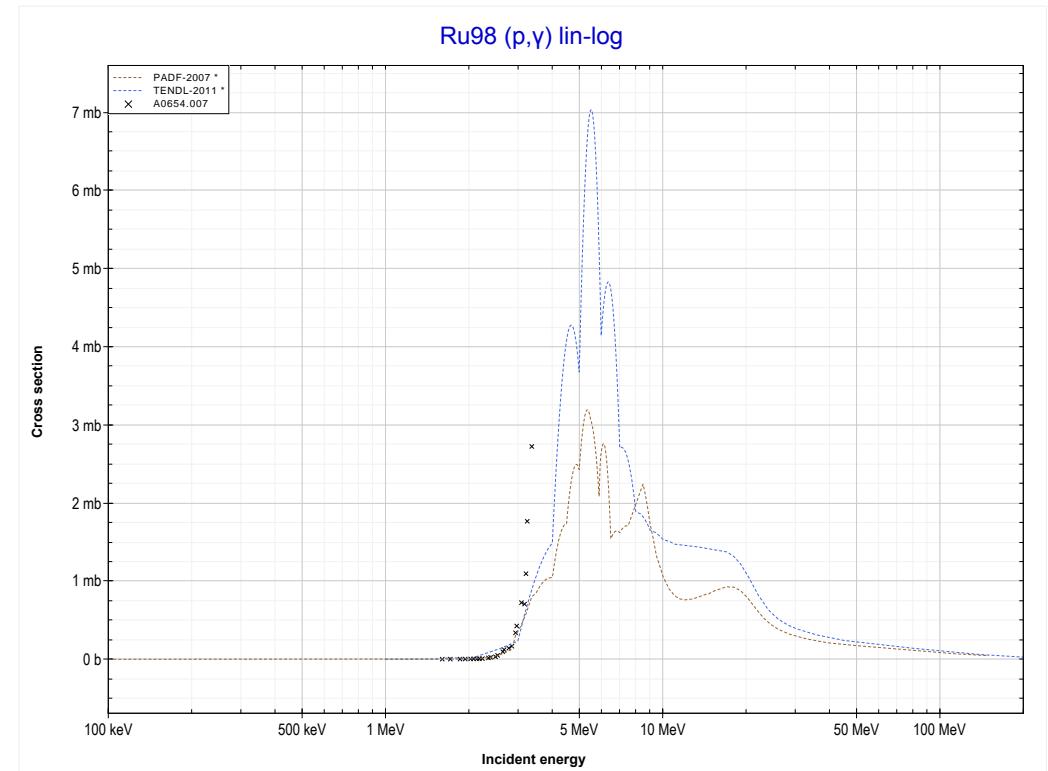
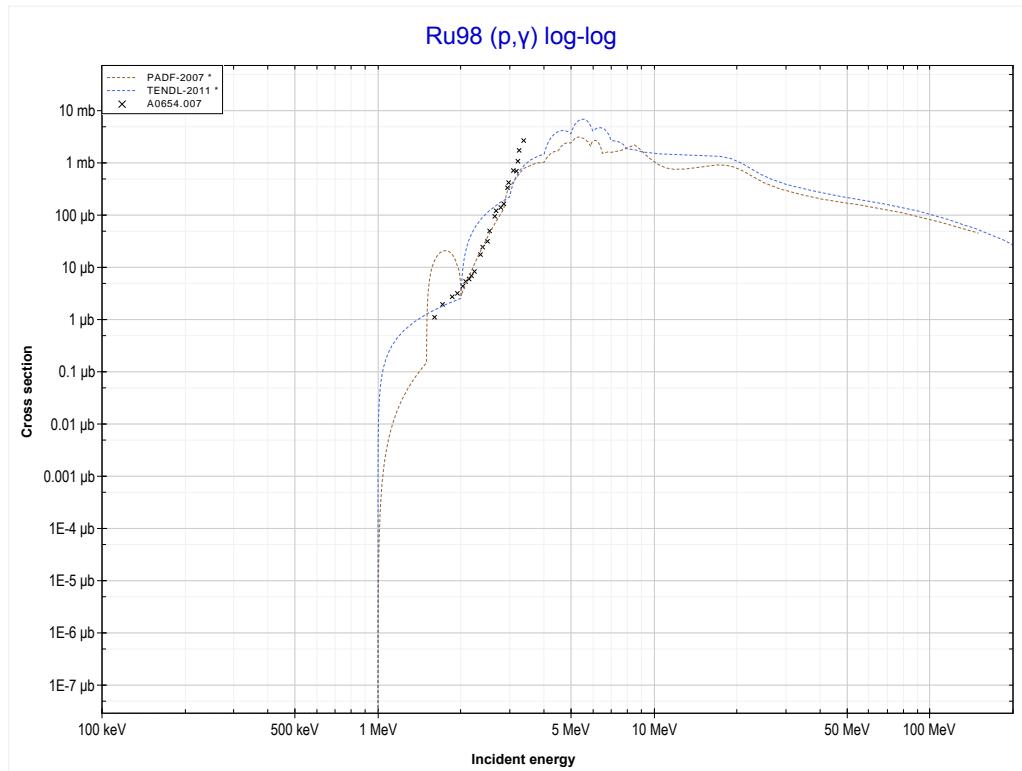
Reaction	Q-Value
$\text{Tc}^{99}(\text{p},\text{3n})\text{Ru}^{97}$	-18136.08 keV

<< 42-Mo-100	44-Ru-96 MT102 (p, γ) or MT5 (Rh97 production)	44-Ru-98 >>
<< MT17 (p,3n)		MT102 (p, γ) >>



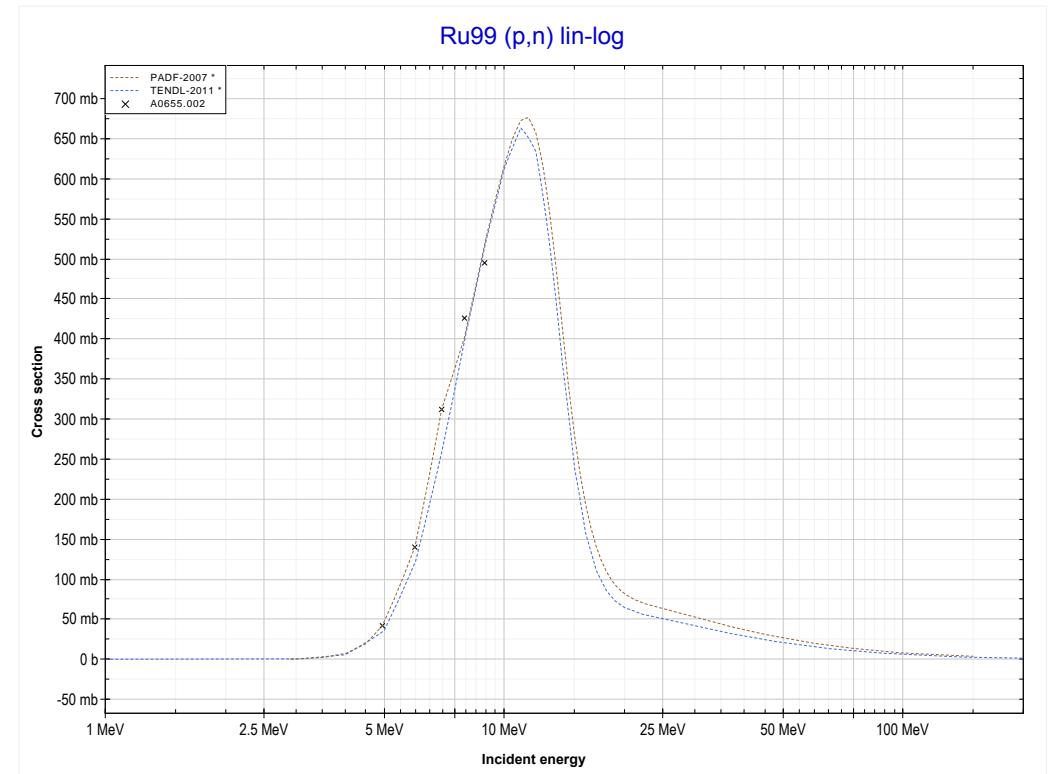
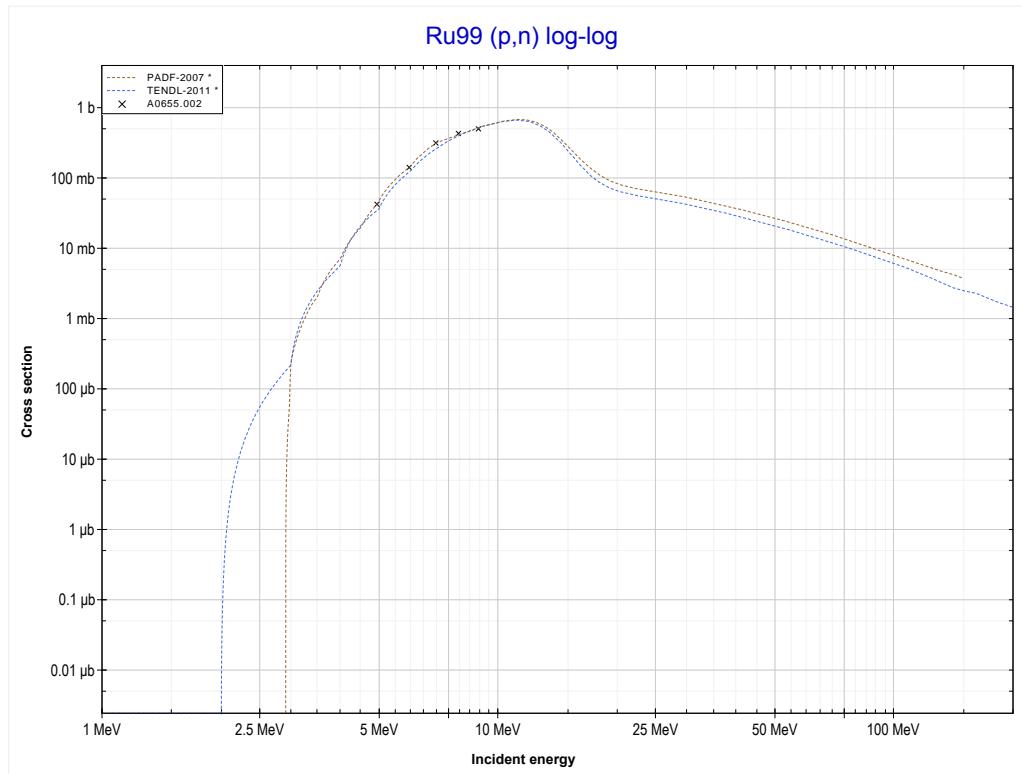
Reaction	Q-Value
Ru96(p, γ)Rh97	3806.97 keV

<< 44-Ru-96	44-Ru-98 MT102 (p, γ) or MT5 (Rh99 production)	46-Pd-102 >>
<< MT102 (p, γ)		MT4 (p,n) >>



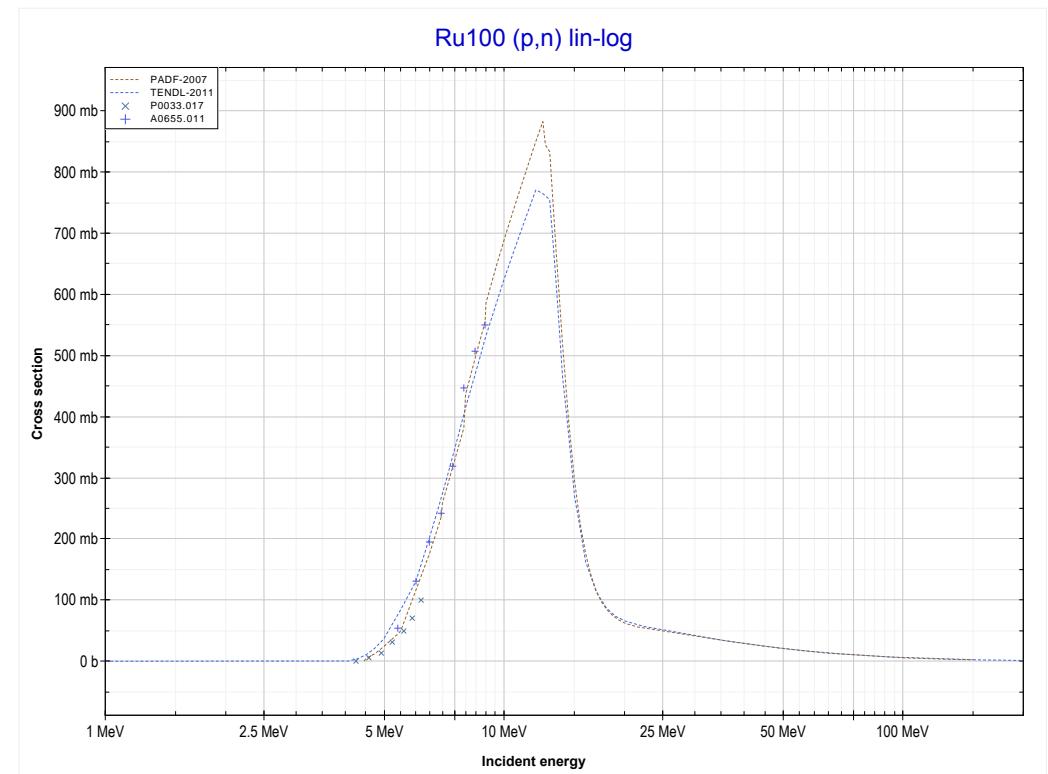
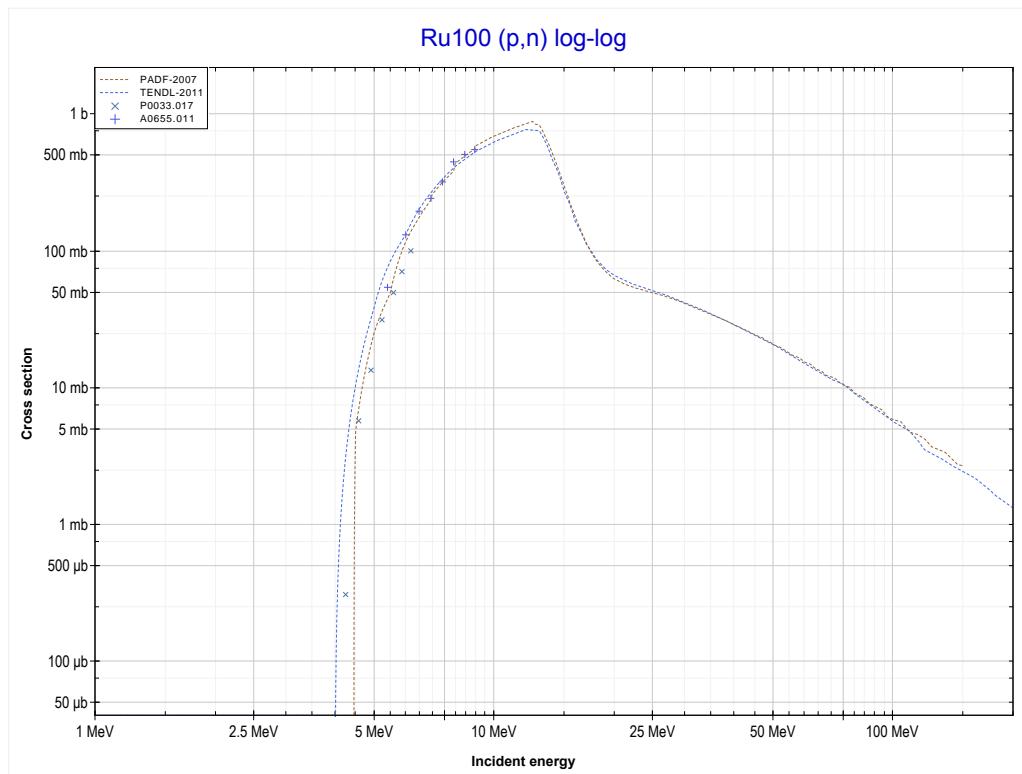
Reaction	Q-Value
Ru98(p, γ)Rh99	4638.97 keV

<< 42-Mo-100	44-Ru-99 MT4 (p,n) or MT5 (Rh99 production)	44-Ru-100 >>
<< MT102 (p, γ)		MT4 (p,n) >>



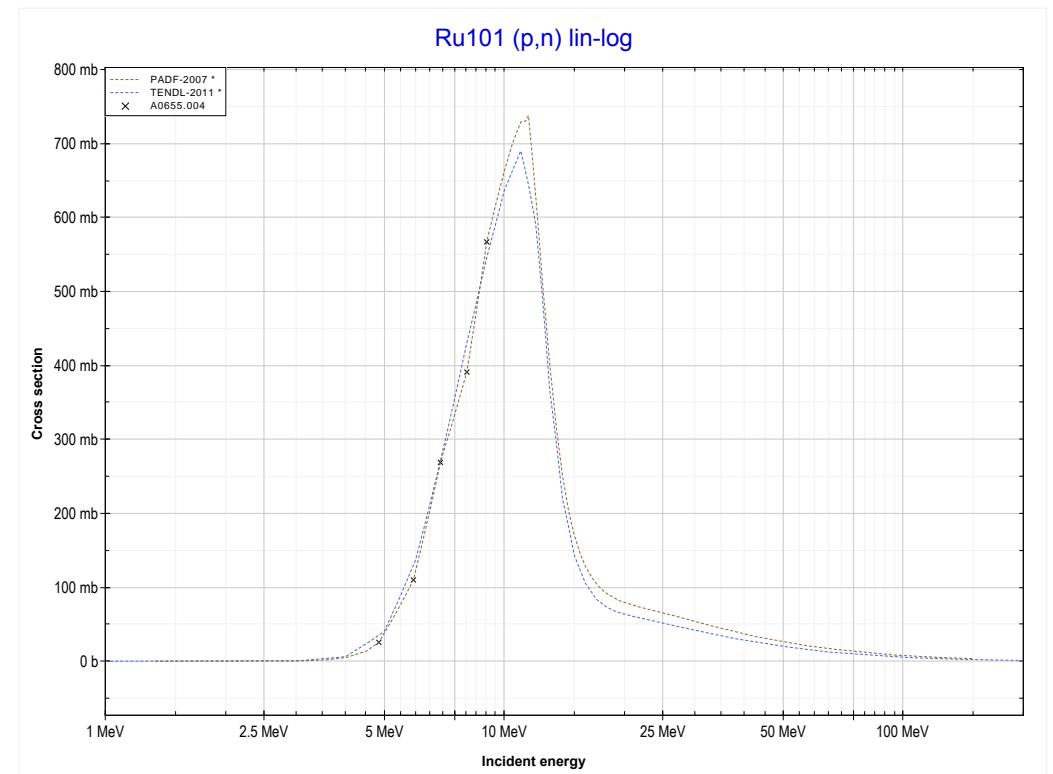
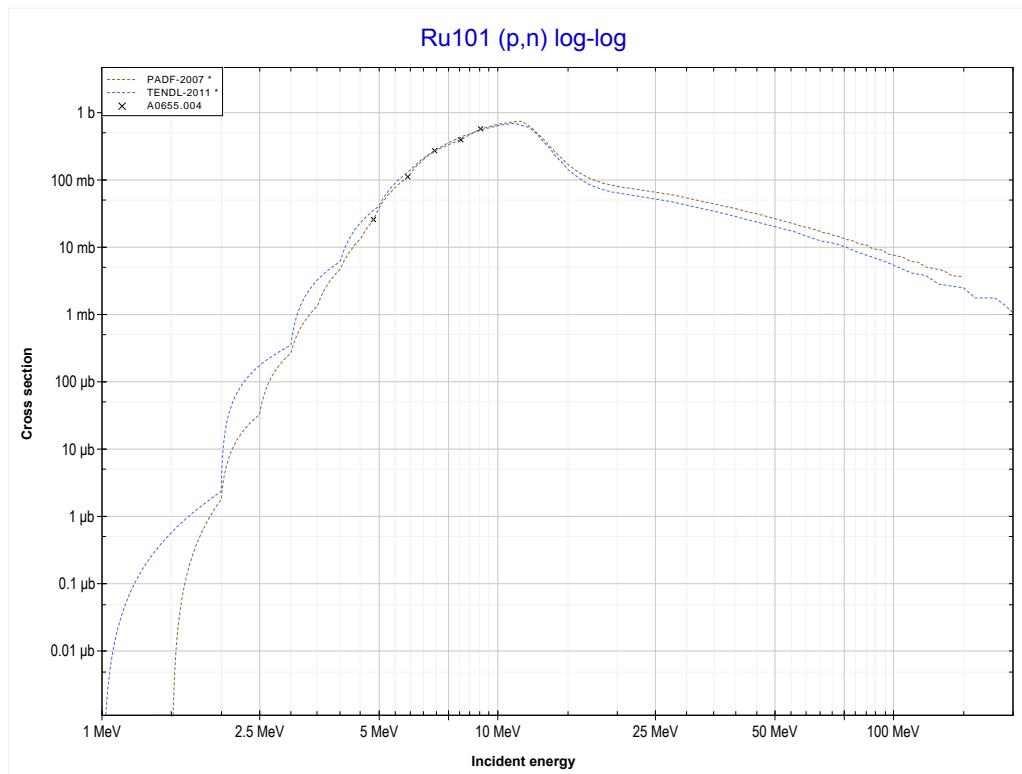
Reaction	Q-Value
Ru99(p,n)Rh99	-2825.35 keV

<< 44-Ru-99	44-Ru-100 MT4 (p,n) or MT5 (Rh100 production)	44-Ru-101 >>
<< MT4 (p,n)		MT4 (p,n) >>



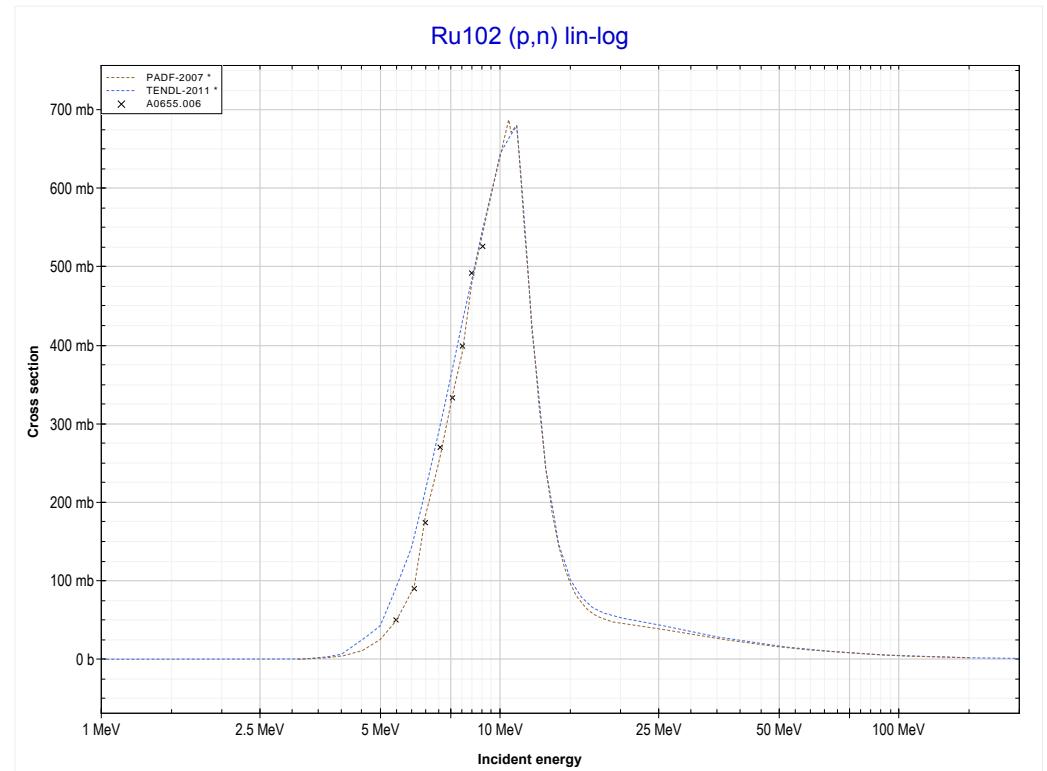
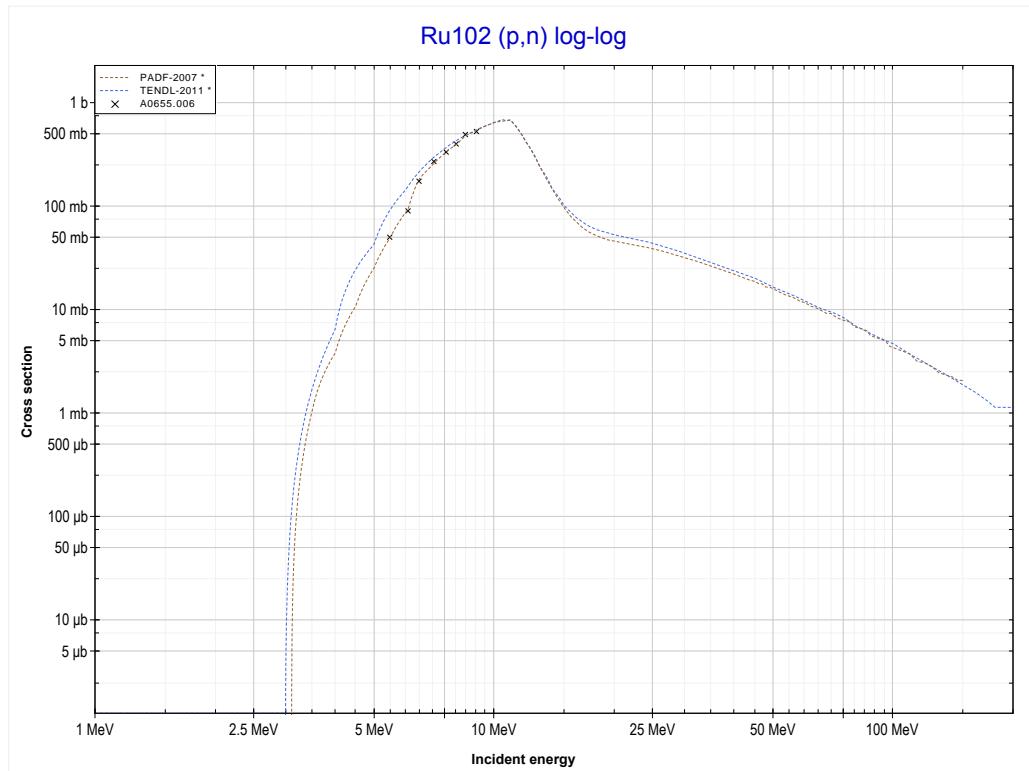
Reaction	Q-Value
Ru100(p,n)Rh100	-4417.35 keV

<< 44-Ru-100	44-Ru-101 MT4 (p,n) or MT5 (Rh101 production)	44-Ru-102 >>
<< MT4 (p,n)		MT4 (p,n) >>



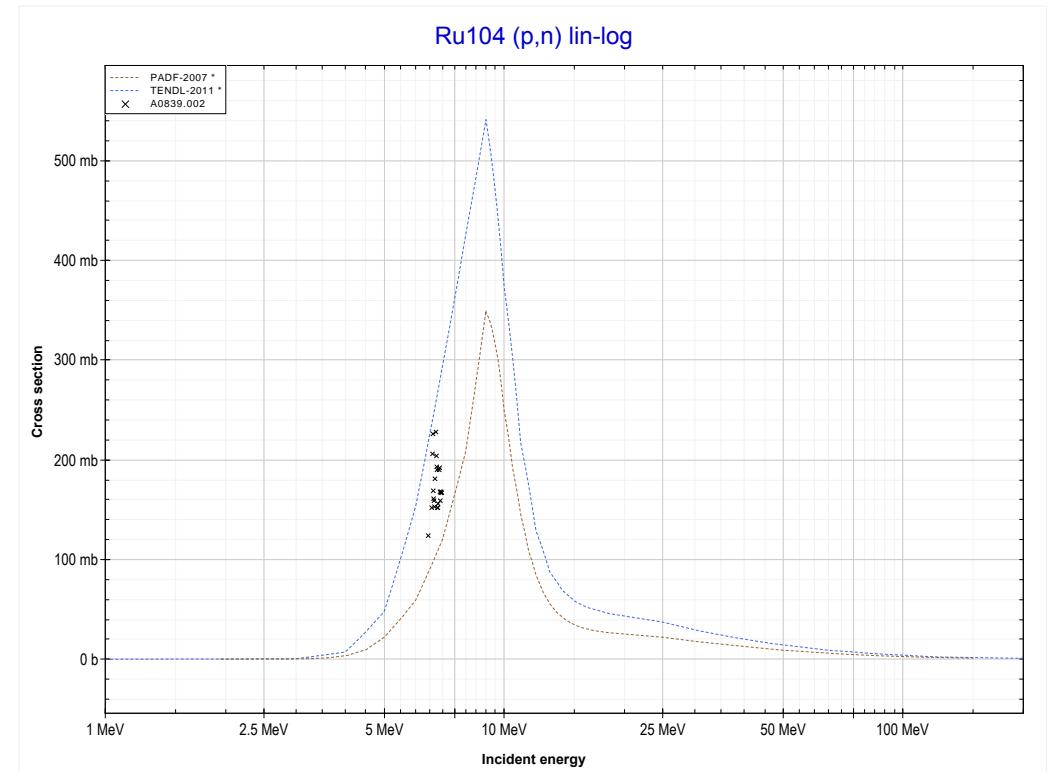
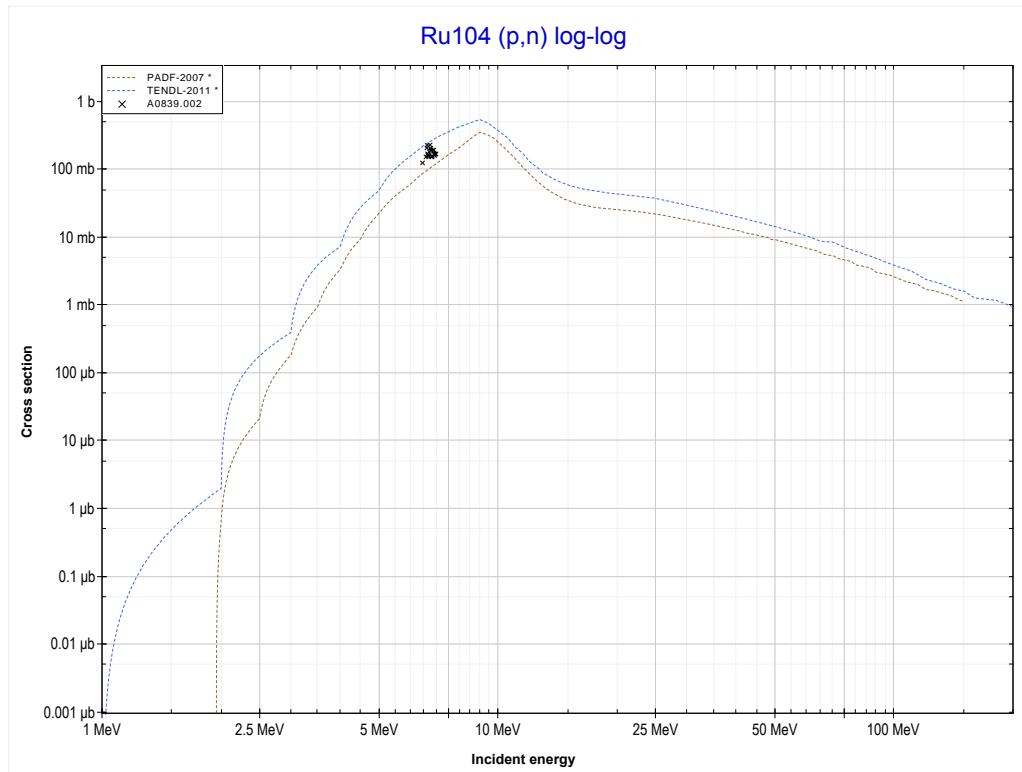
Reaction	Q-Value
Ru101(p,n)Rh101	-1324.05 keV

<< 44-Ru-101	44-Ru-102 MT4 (p,n) or MT5 (Rh102 production)	44-Ru-104 >>
<< MT4 (p,n)		MT4 (p,n) >>



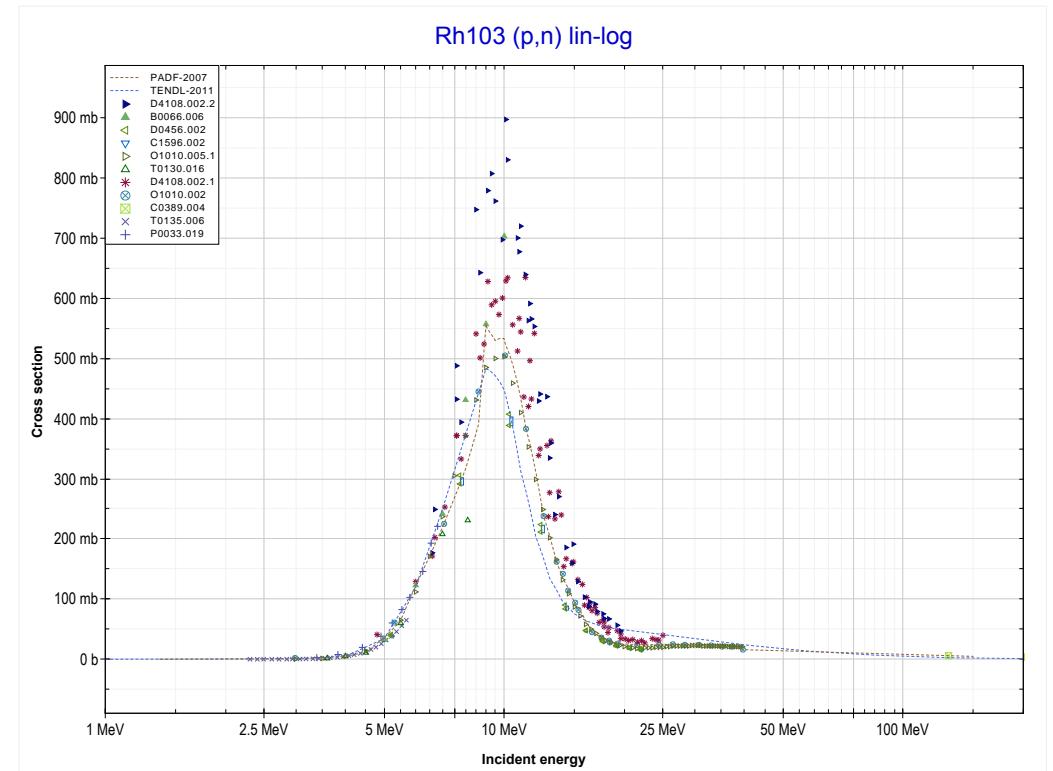
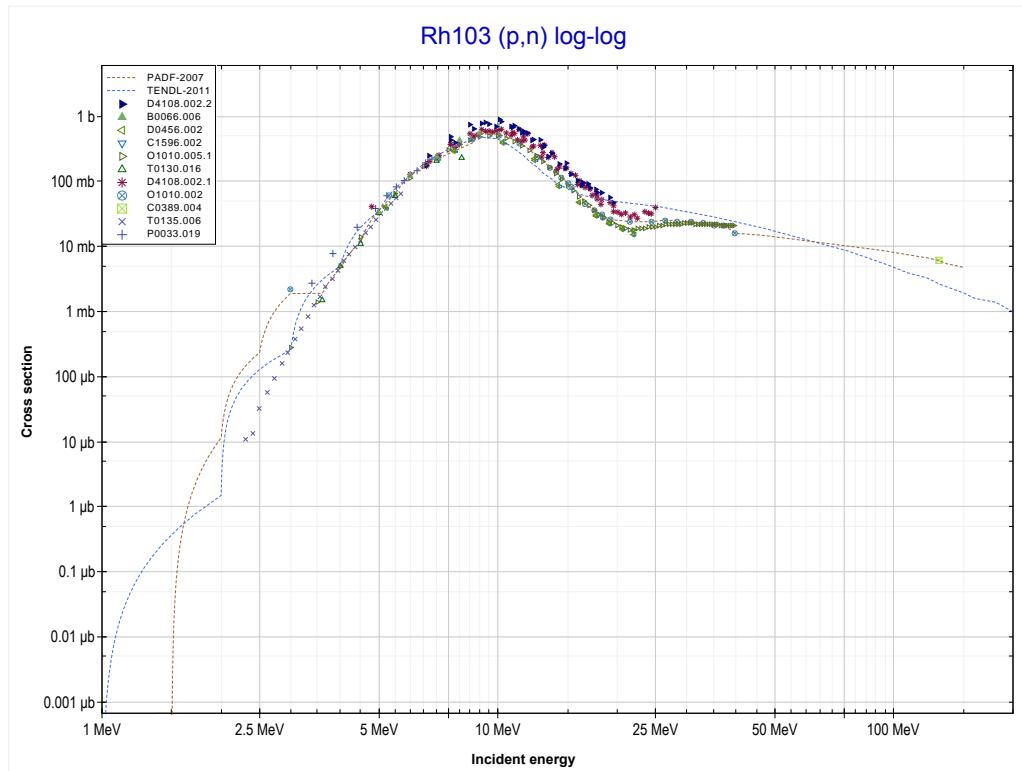
Reaction	Q-Value
Ru102(p,n)Rh102	-3105.35 keV

<< 44-Ru-102	44-Ru-104 MT4 (p,n) or MT5 (Rh104 production)	45-Rh-103 >>
<< MT4 (p,n)		MT4 (p,n) >>



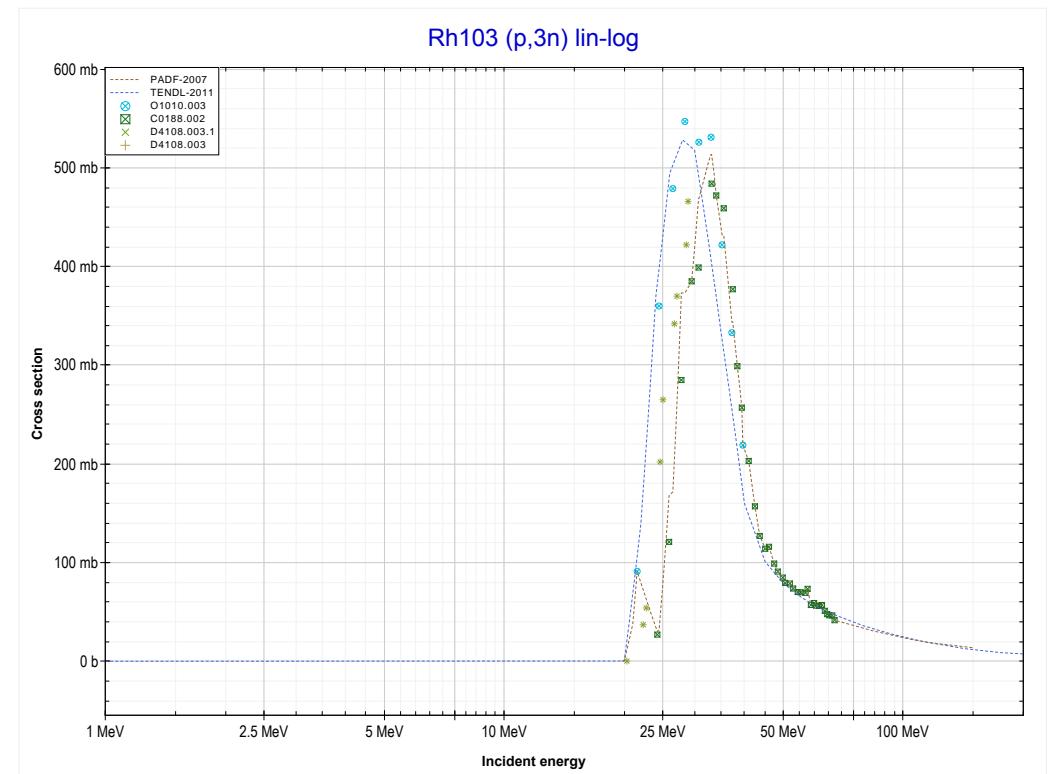
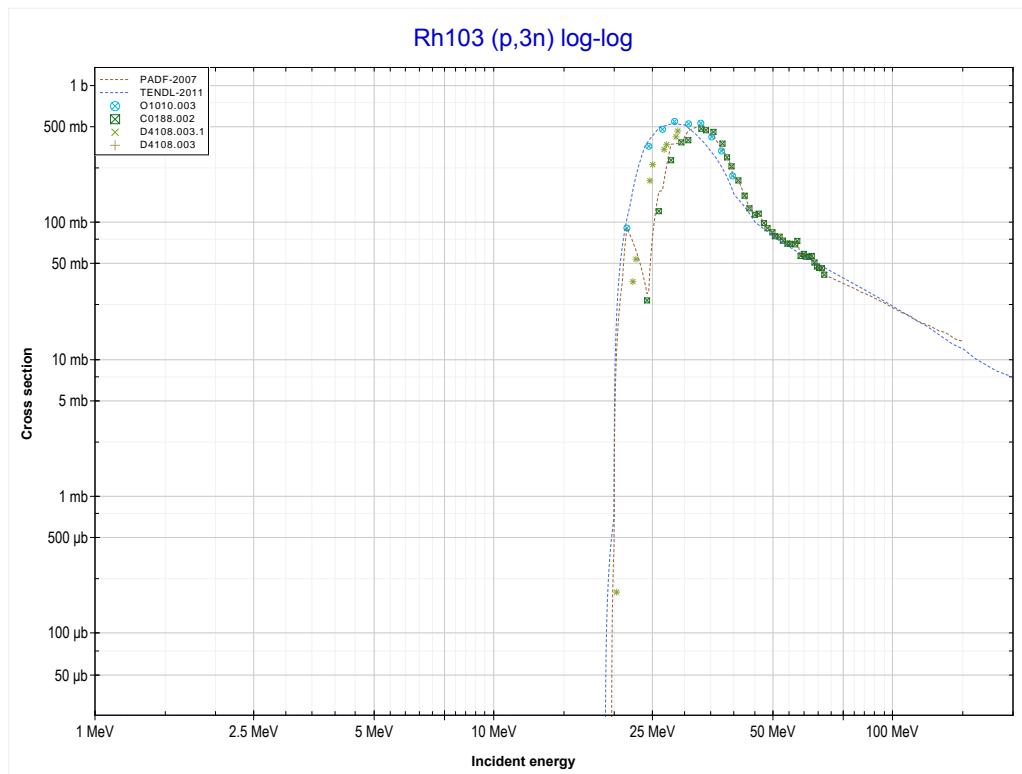
Reaction	Q-Value
Ru104(p,n)Rh104	-1921.55 keV

<< 44-Ru-104	45-Rh-103 MT4 (p,n) or MT5 (Pd103 production)	>> 46-Pd-104
<< MT4 (p,n)		>> MT17 (p,3n)



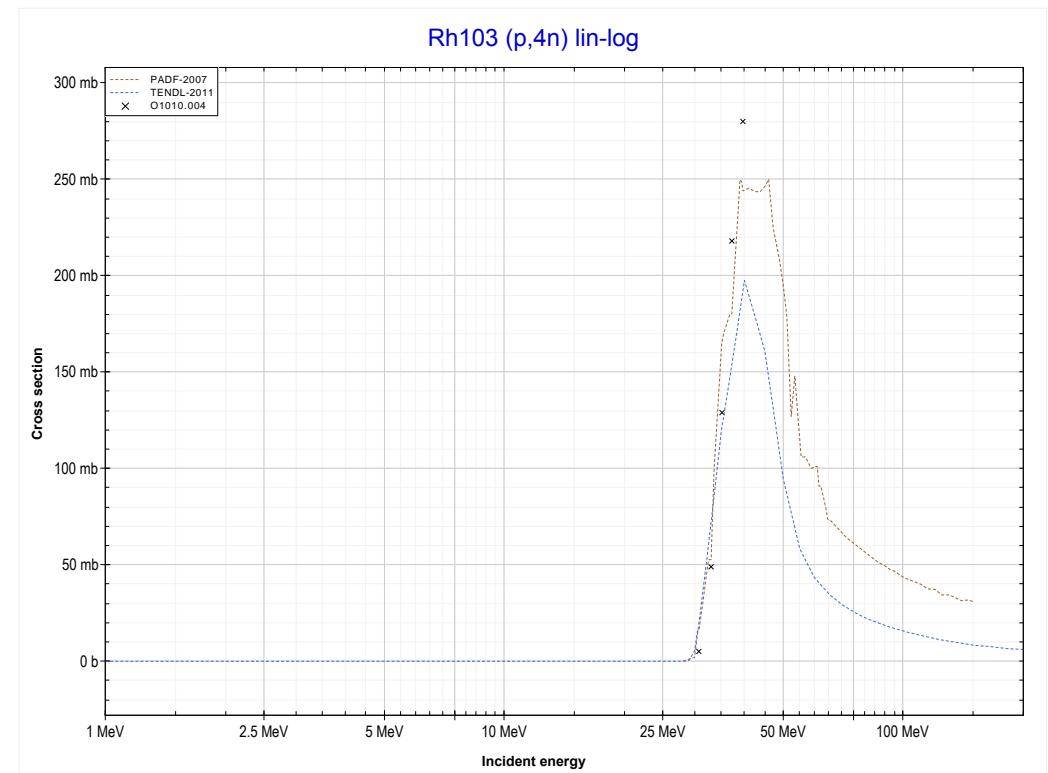
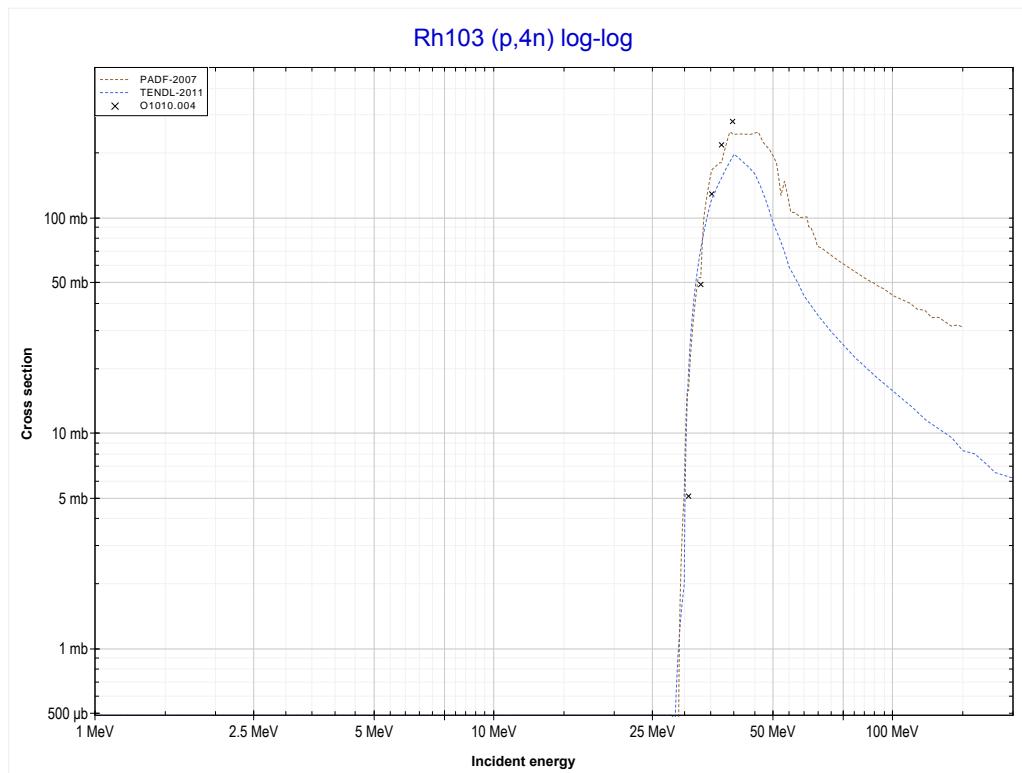
Reaction	Q-Value
Rh103(p,n)Pd103	-1325.45 keV

<< 43-Tc-99	45-Rh-103 MT17 (p,3n) or MT5 (Pd101 production)	48-Cd-111 >>
<< MT4 (p,n) >>		MT37 (p,4n) >>



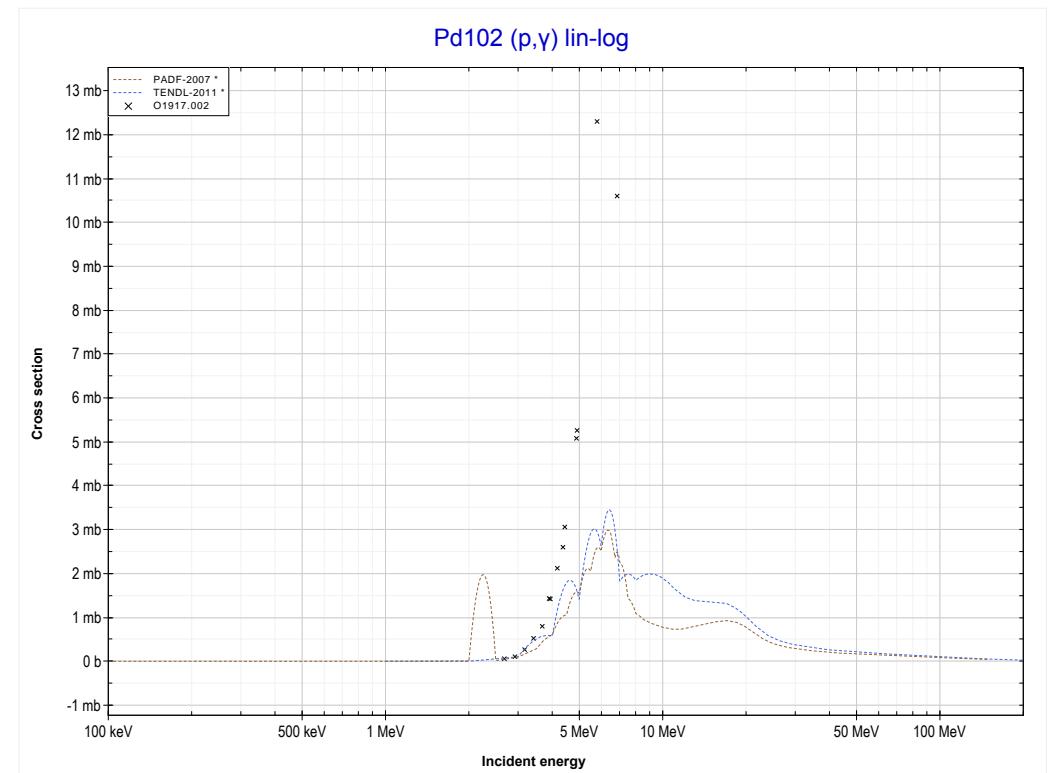
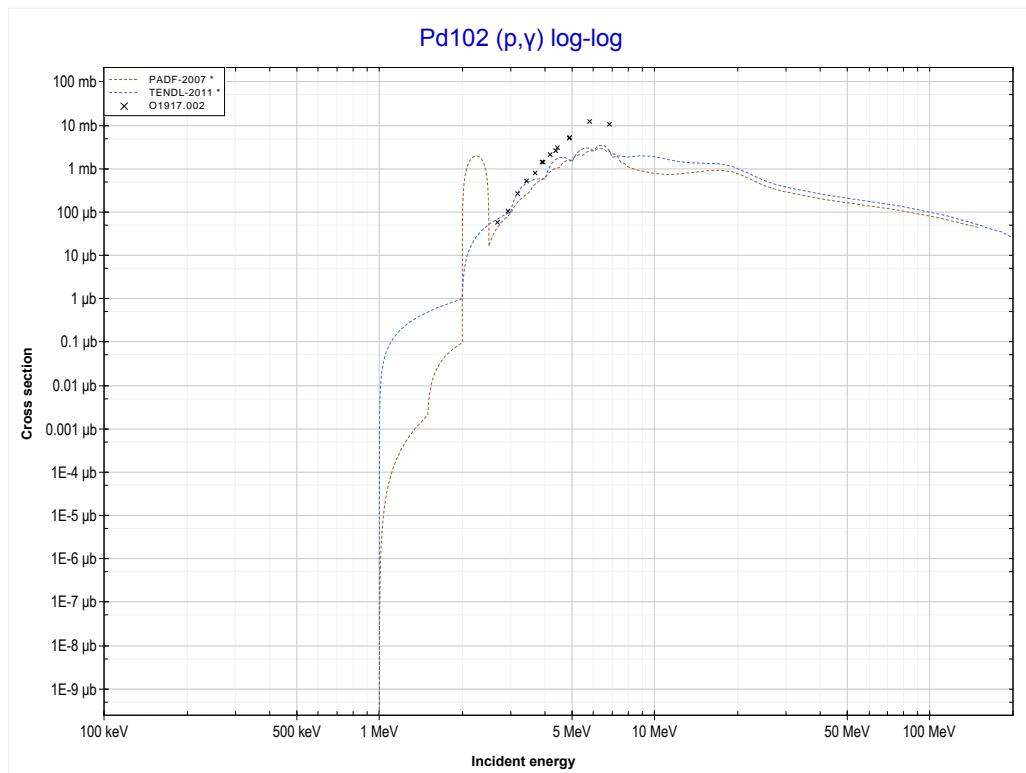
Reaction	Q-Value
Rh103(p,3n)Pd101	-19519.18 keV

<< 42-Mo-96	45-Rh-103 MT37 (p,4n) or MT5 (Pd100 production)	48-Cd-111 >>
<< MT17 (p,3n)		MT102 (p,y) >>



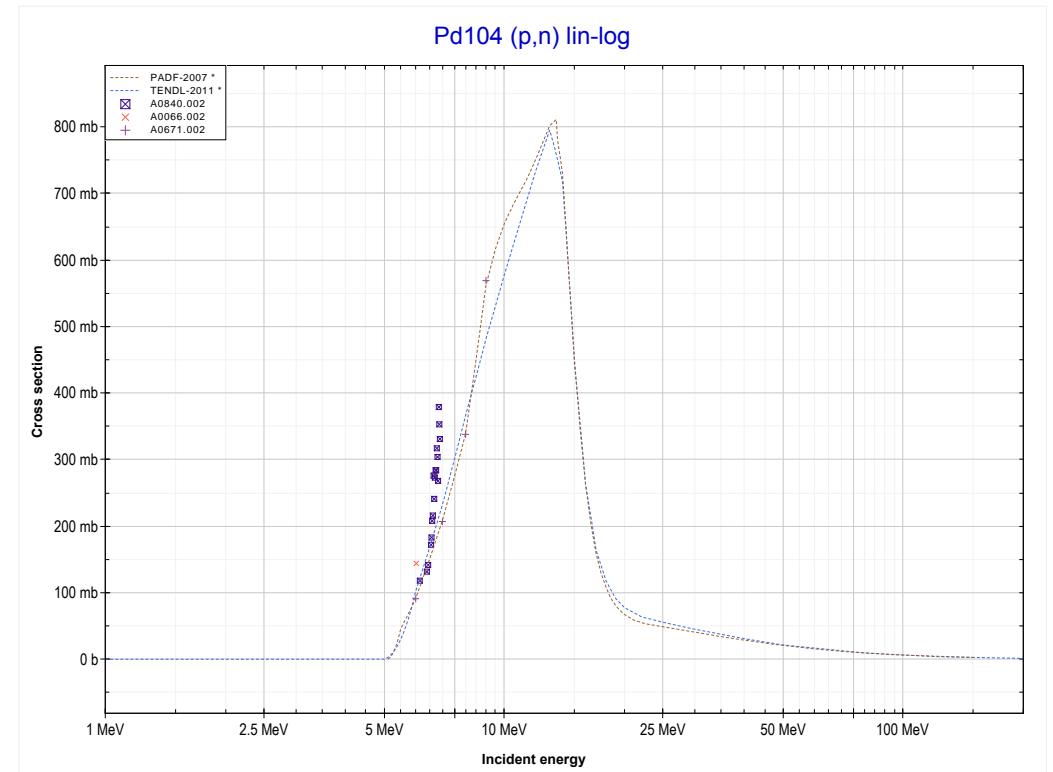
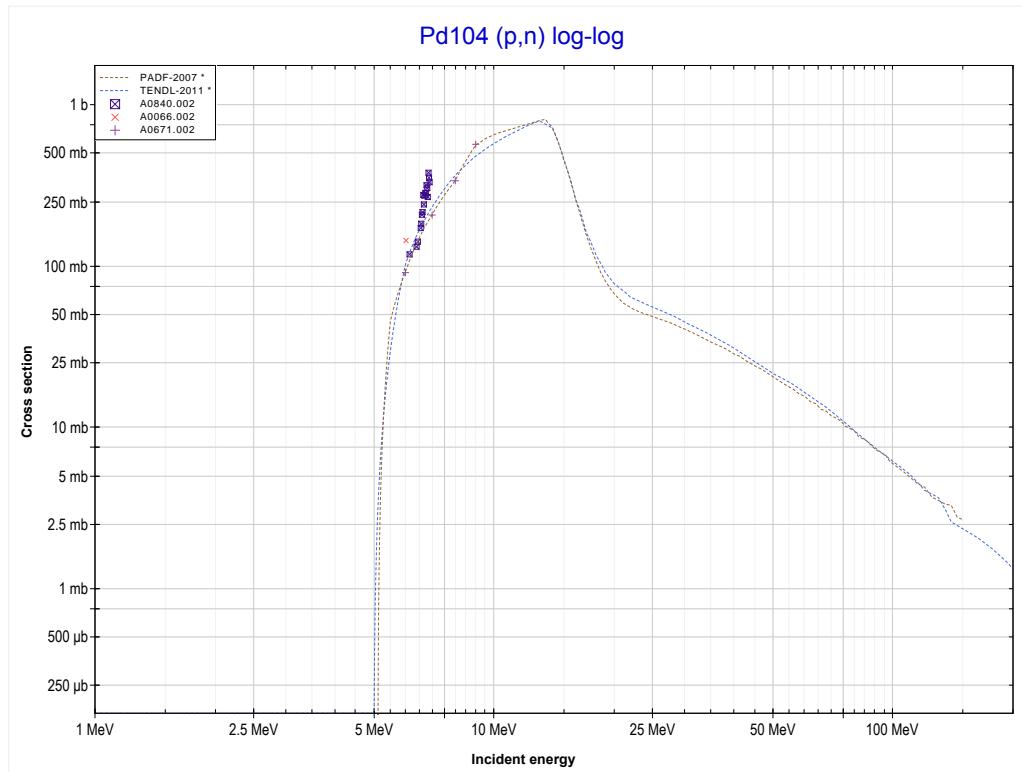
Reaction	Q-Value
Rh103(p,4n)Pd100	-27792.50 keV

<< 44-Ru-98	46-Pd-102 MT102 (p,γ) or MT5 (Ag103 production)	46-Pd-104 >>
<< MT37 (p,4n)		MT4 (p,n) >>



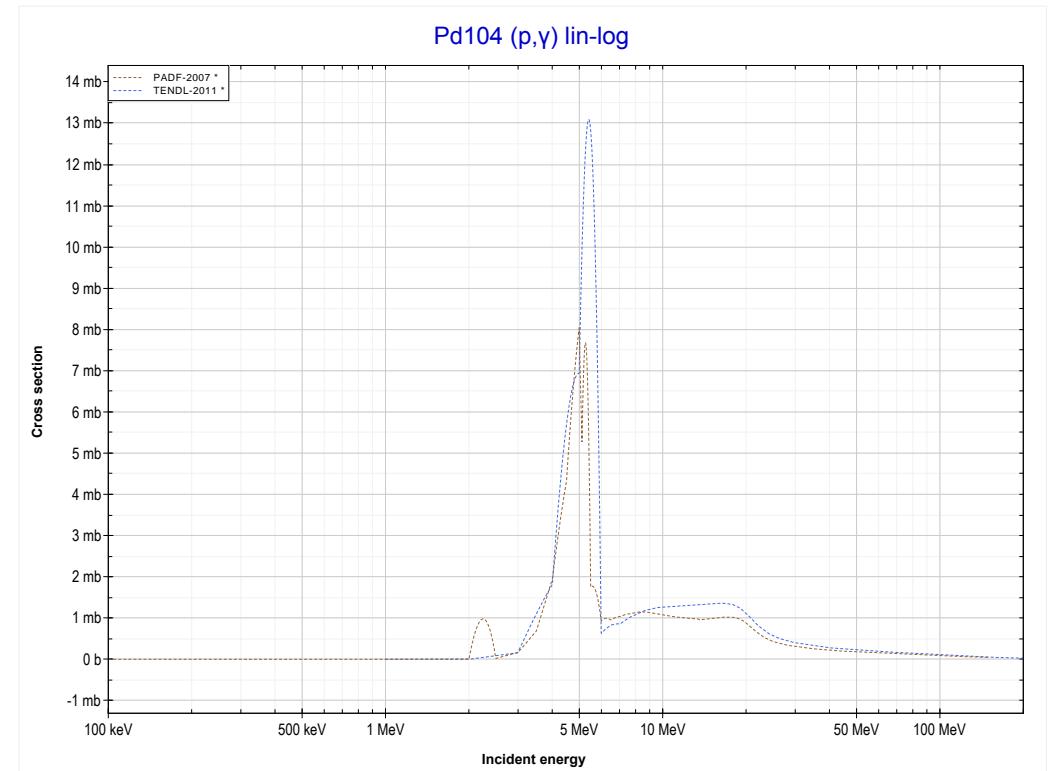
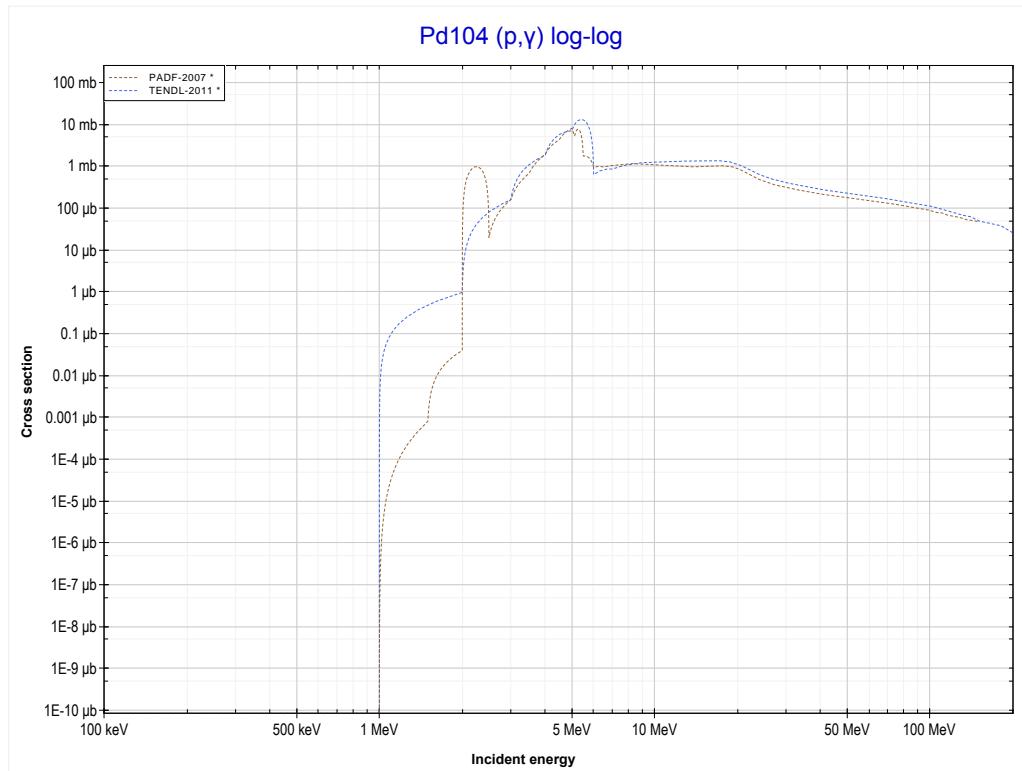
Reaction	Q-Value
Pd102(p, γ)Ag103	4154.87 keV

<< 45-Rh-103	46-Pd-104 MT4 (p,n) or MT5 (Ag104 production)	46-Pd-105 >>
<< MT102 (p, γ)		MT102 (p, γ) >>



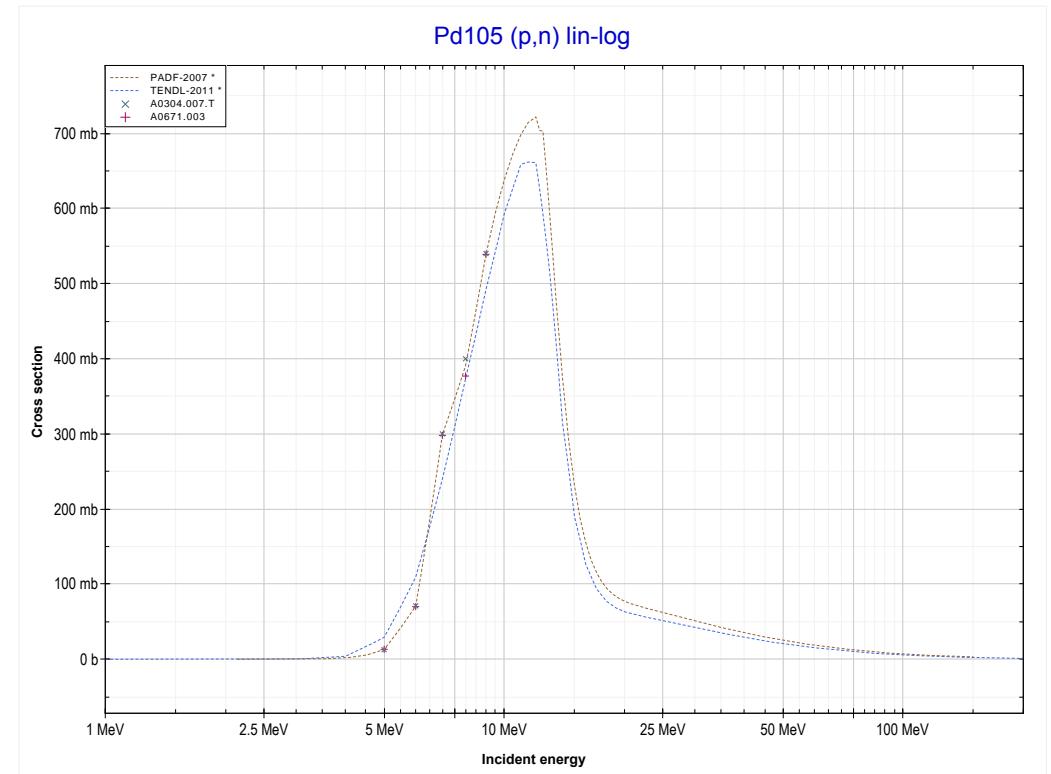
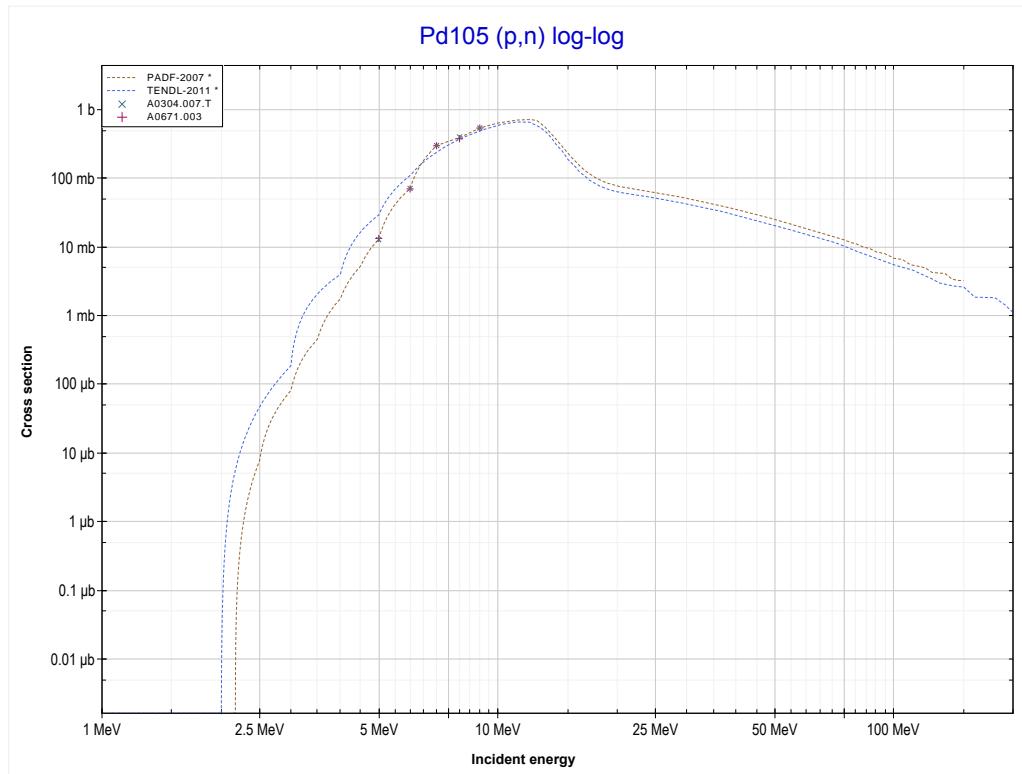
Reaction	Q-Value
Pd104(p,n)Ag104	-5061.35 keV

<< 46-Pd-102	46-Pd-104 MT102 (p,γ) or MT5 (Ag105 production)	46-Pd-105 >>
<< MT4 (p,n) >>		MT4 (p,n) >>



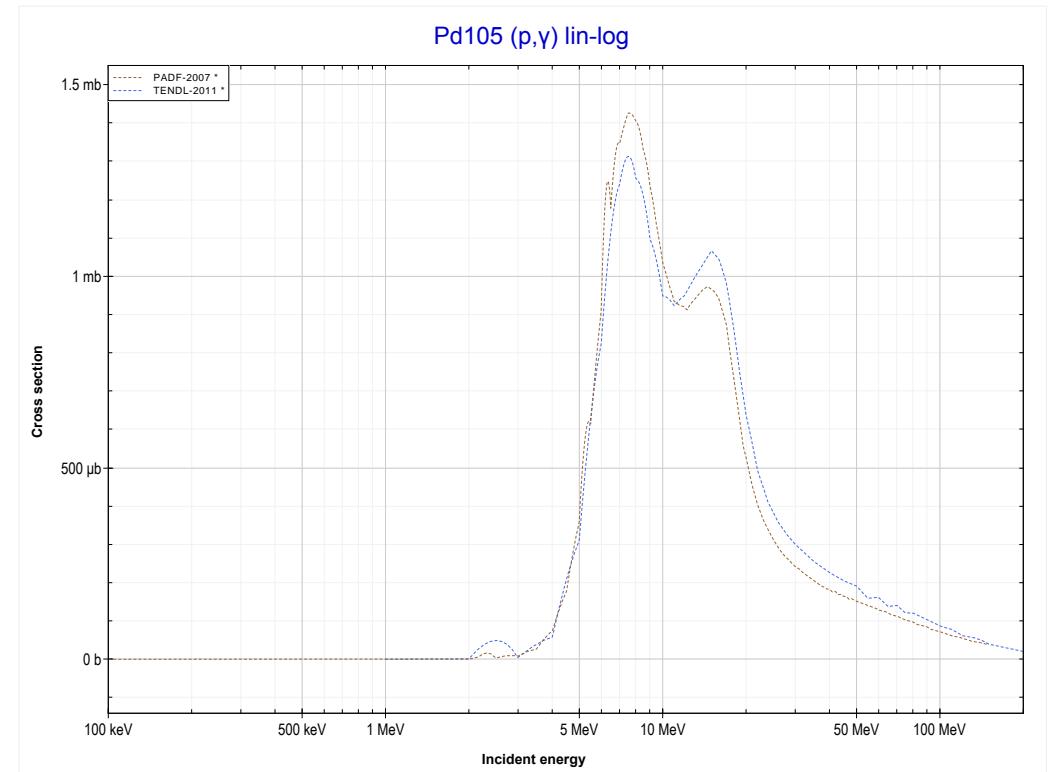
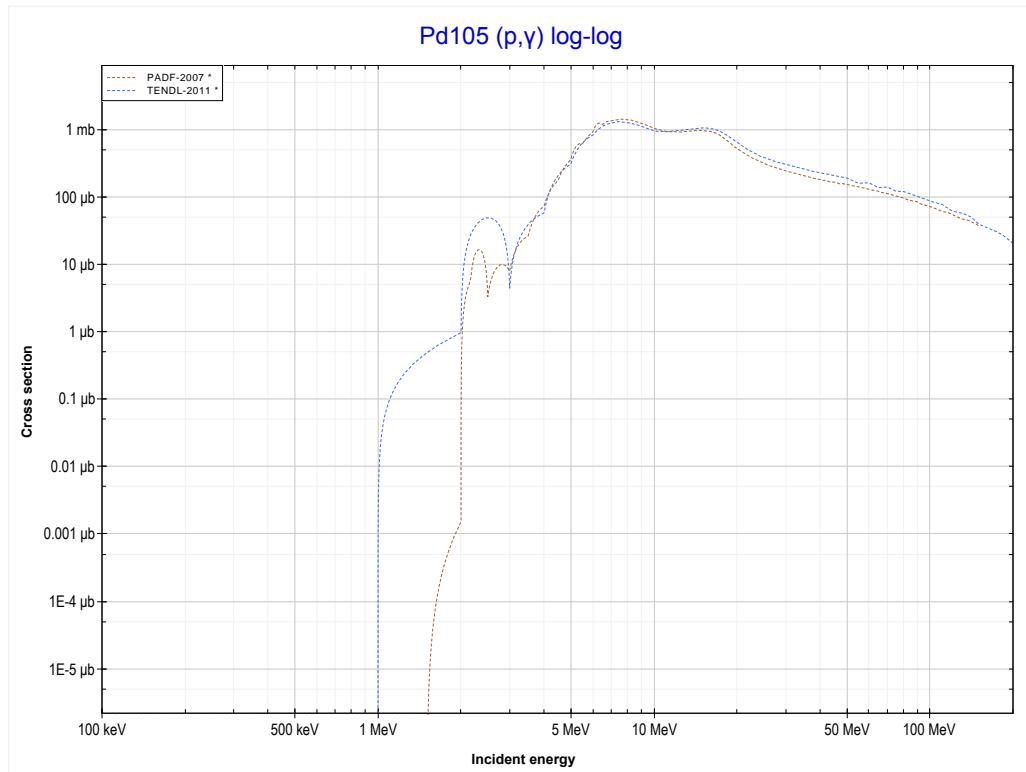
Reaction	Q-Value
$\text{Pd}^{104}(\text{p},\gamma)\text{Ag}^{105}$	4966.97 keV

<< 46-Pd-104	46-Pd-105 MT4 (p,n) or MT5 (Ag105 production)	46-Pd-106 >>
<< MT102 (p, γ)		MT102 (p, γ) >>



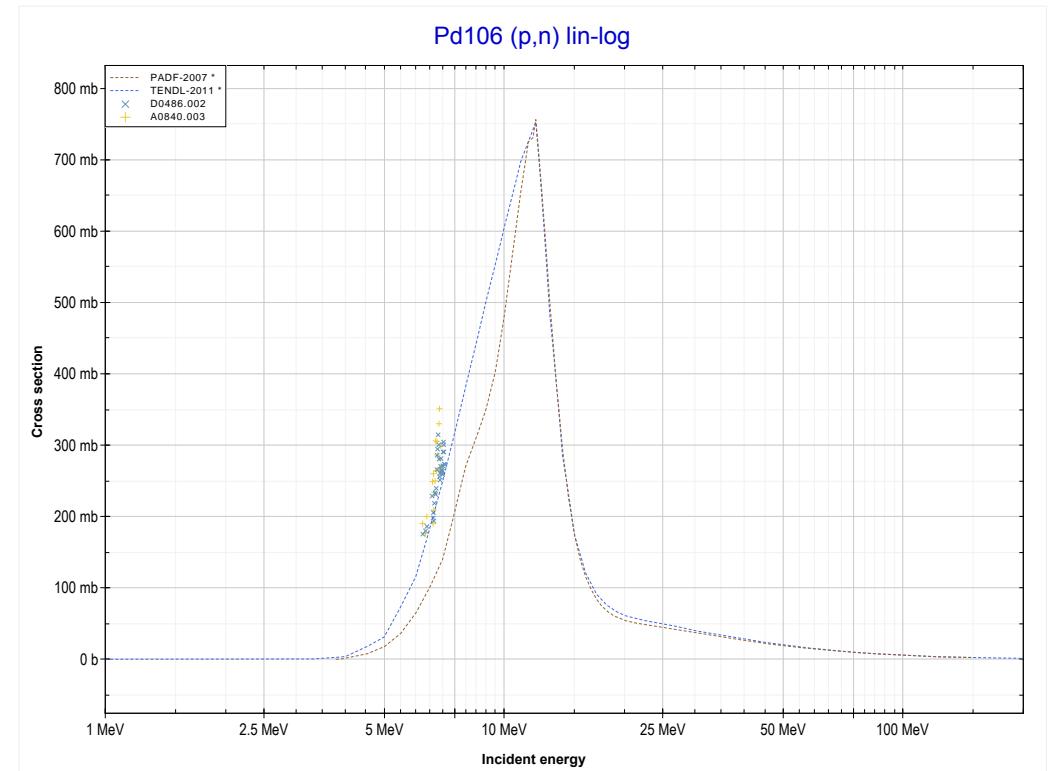
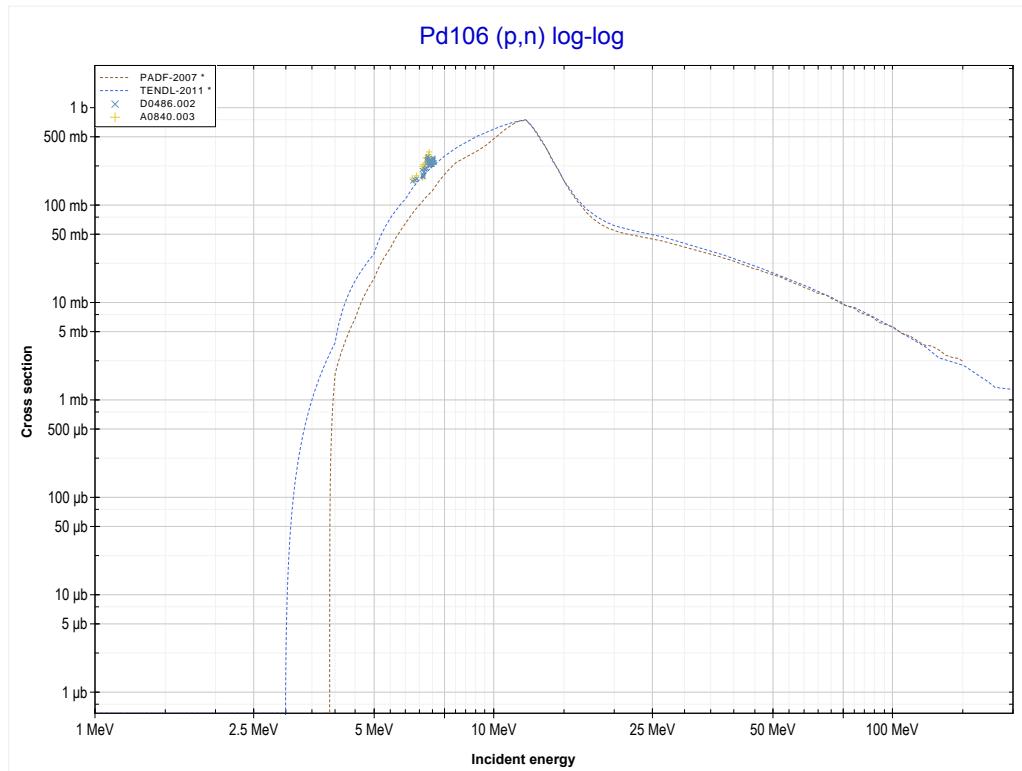
Reaction	Q-Value
Pd105(p,n)Ag105	-2127.35 keV

<< 46-Pd-104	46-Pd-105 MT102 (p,γ) or MT5 (Ag106 production)	48-Cd-114 >>
<< MT4 (p,n) >>		MT4 (p,n) >>



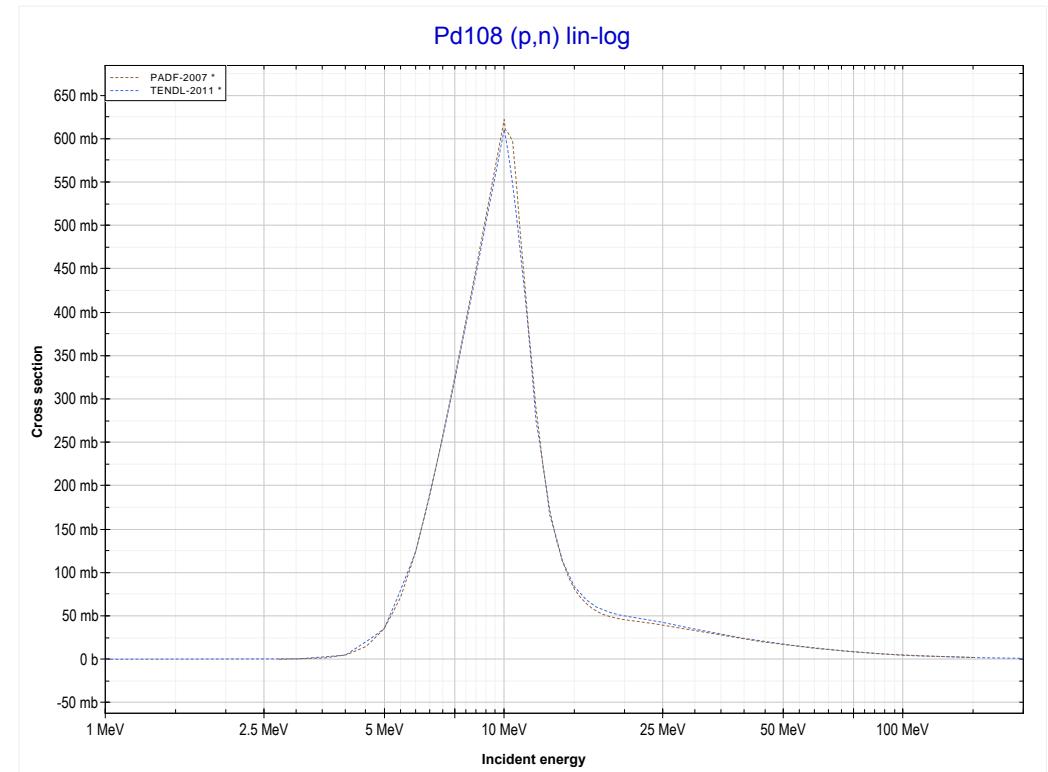
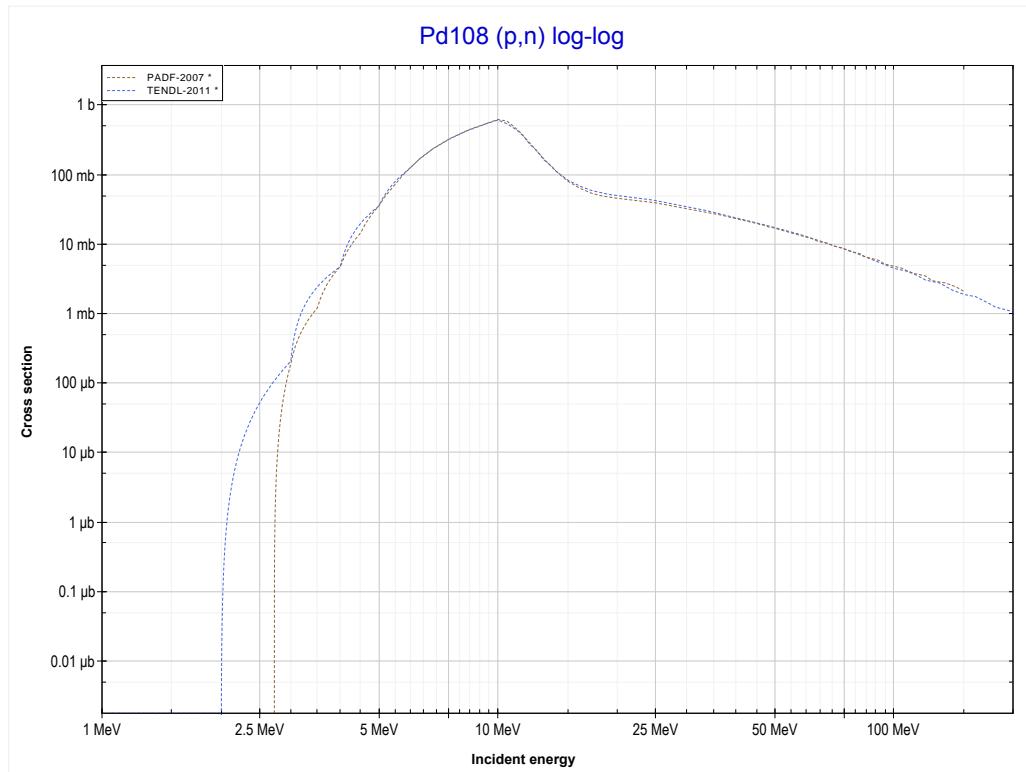
Reaction	Q-Value
Pd105(p, γ)Ag106	5812.97 keV

<< 46-Pd-105	46-Pd-106 MT4 (p,n) or MT5 (Ag106 production)	46-Pd-108 >>
<< MT102 (p, γ)		MT4 (p,n) >>



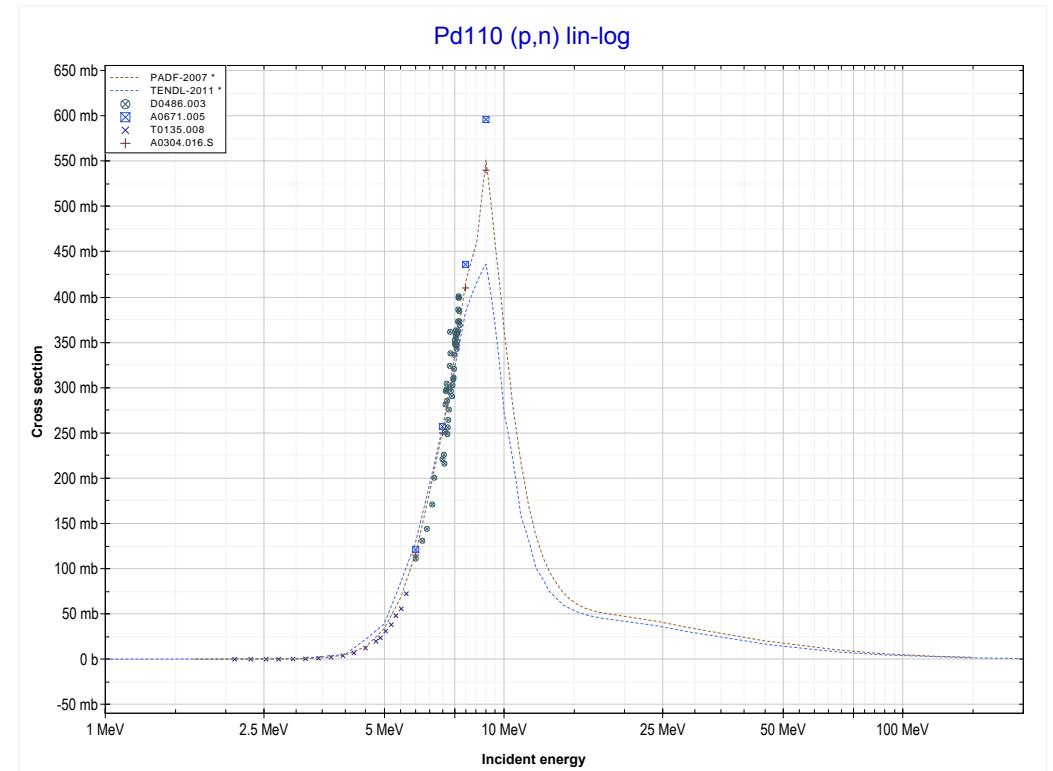
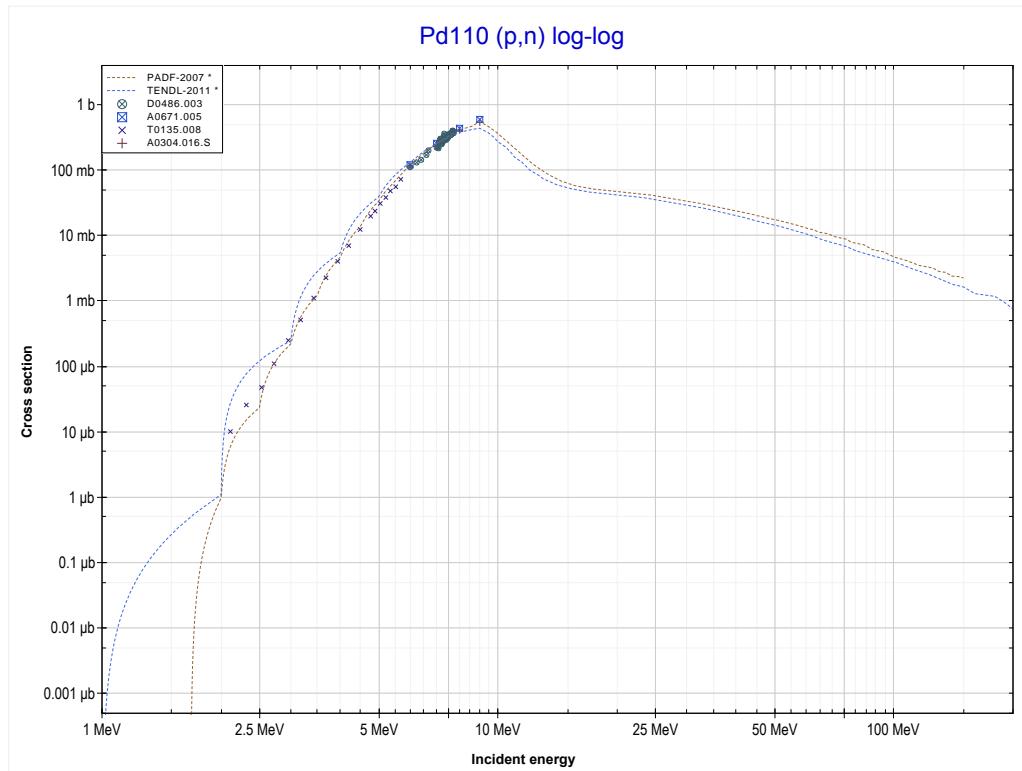
Reaction	Q-Value
Pd106(p,n)Ag106	-3747.35 keV

<< 46-Pd-106	46-Pd-108 MT4 (p,n) or MT5 (Ag108 production)	46-Pd-110 >>
<< MT4 (p,n)		MT4 (p,n) >>



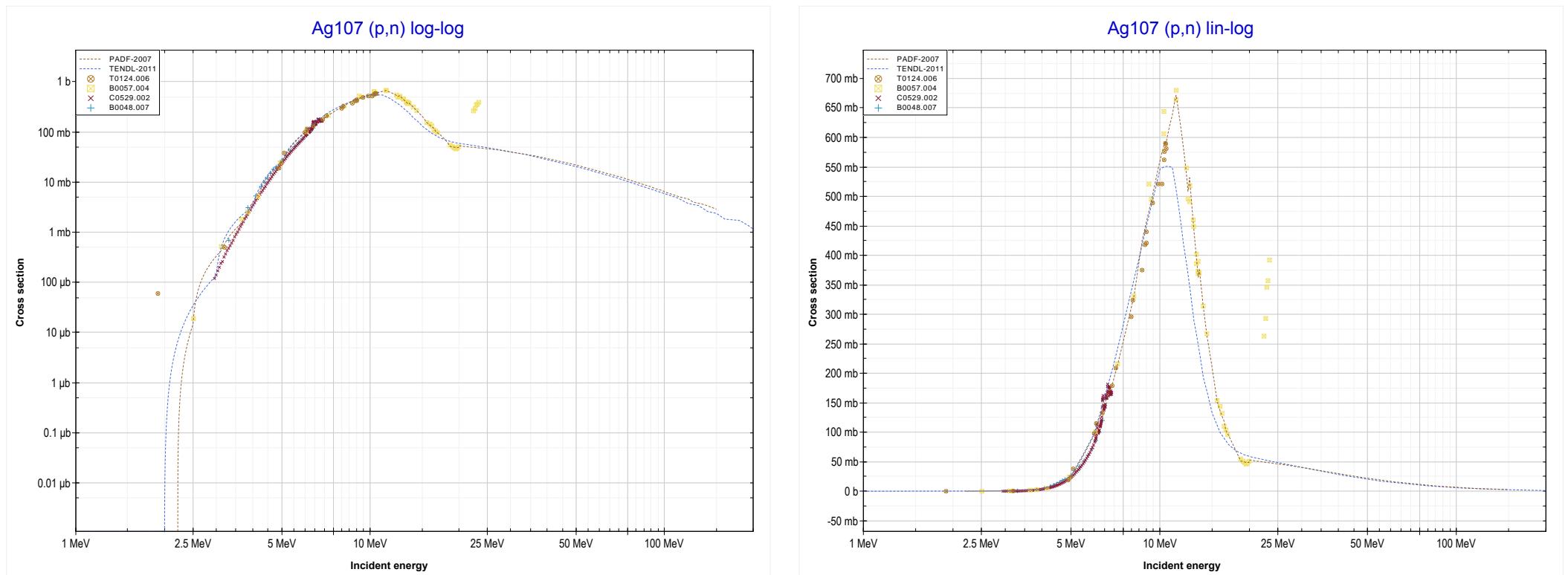
Reaction	Q-Value
Pd108(p,n)Ag108	-2704.35 keV

<< 46-Pd-108	46-Pd-110 MT4 (p,n) or MT5 (Ag110 production)	>> 47-Ag-107
<< MT4 (p,n)		MT4 (p,n) >>



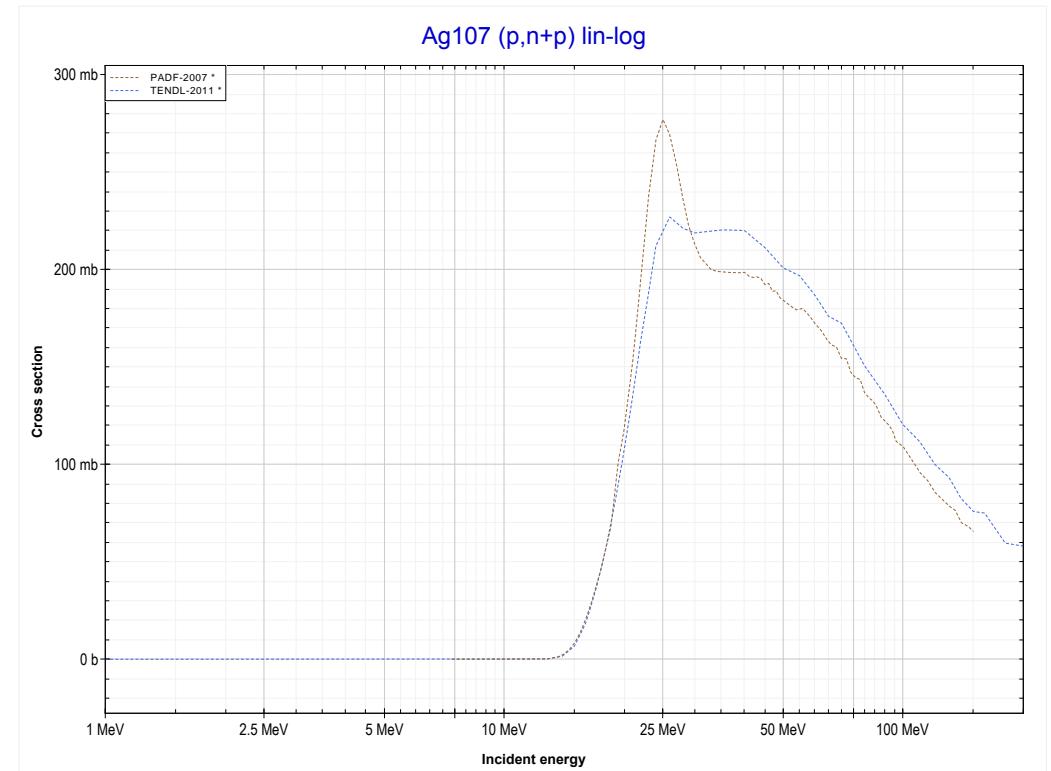
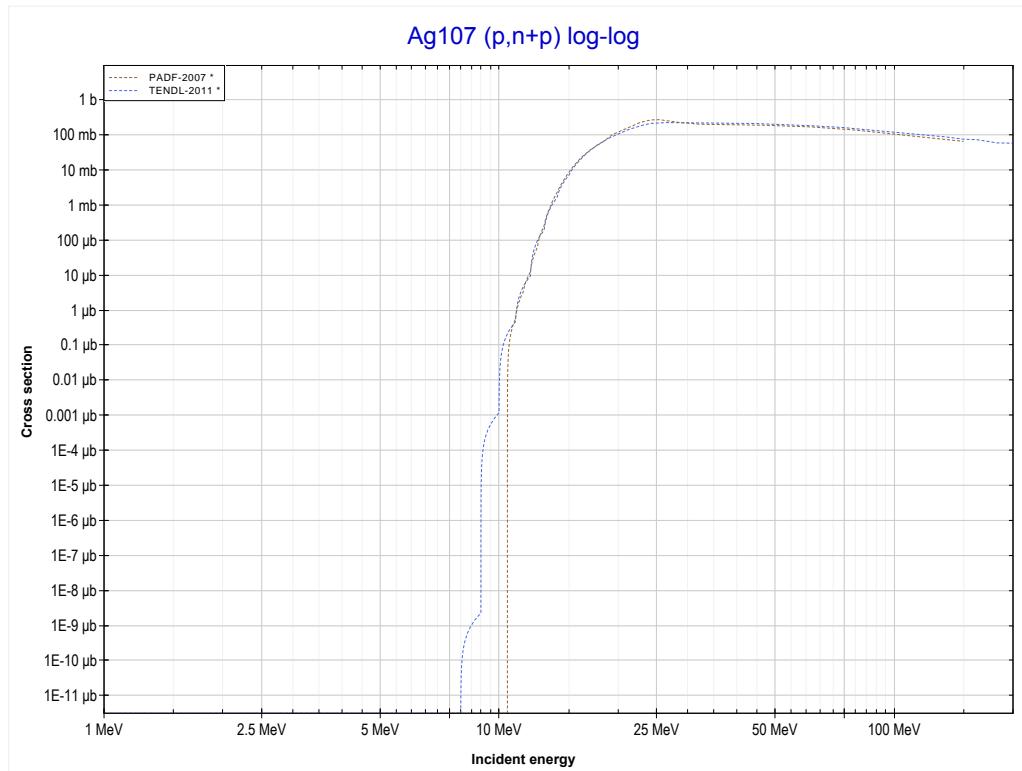
Reaction	Q-Value
Pd110(p,n)Ag110	-1670.75 keV

<< 46-Pd-110	47-Ag-107 MT4 (p,n) or MT5 (Cd107 production)	47-Ag-109 >>
<< MT4 (p,n)		MT28 (p,n+p) >>



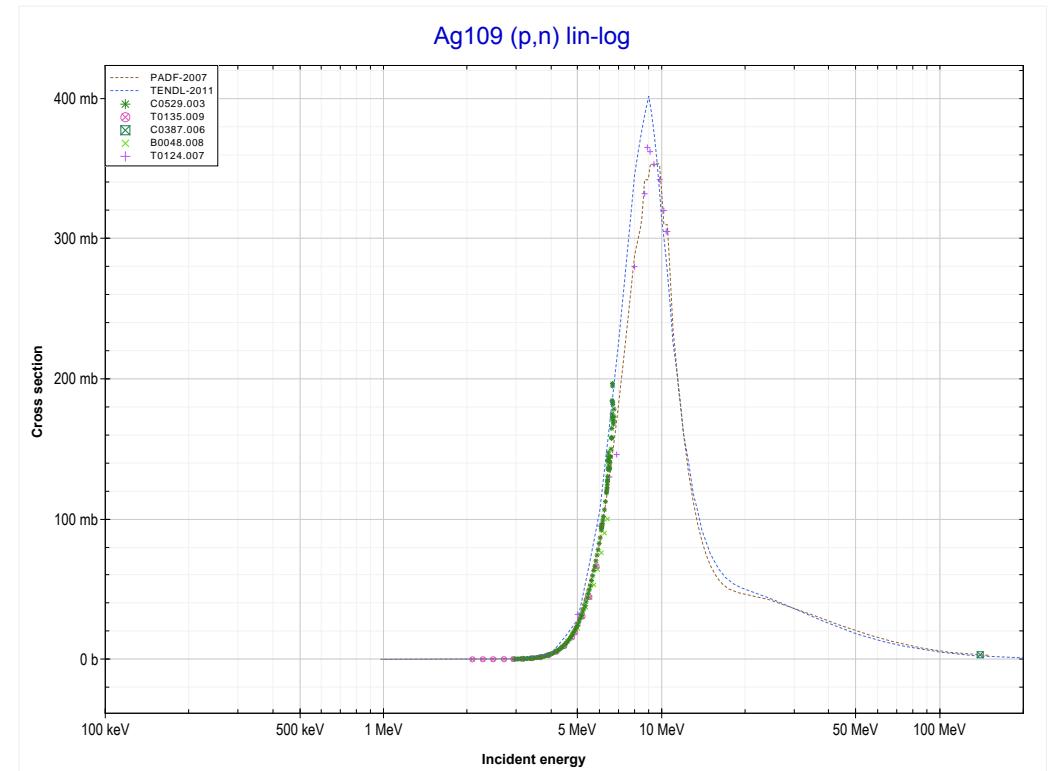
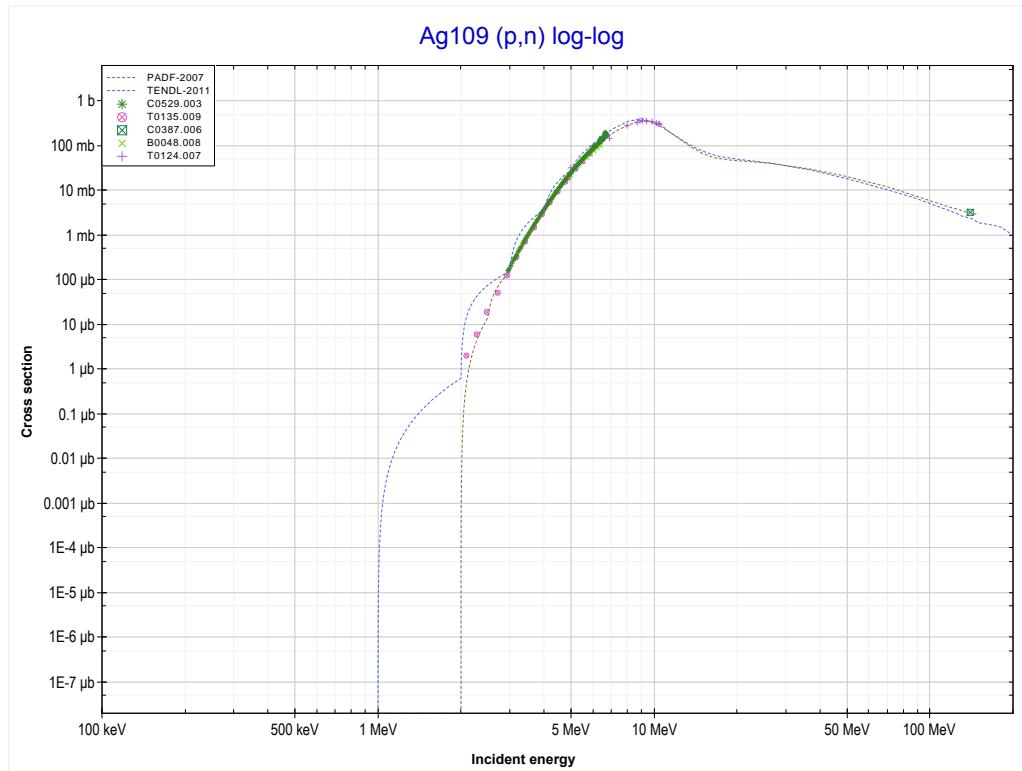
Reaction	Q-Value
Ag107(p,n)Cd107	-2199.35 keV

<< 42-Mo-100	47-Ag-107 MT28 (p,n+p) or MT5 (Ag106 production)	48-Cd-106 >>
<< MT4 (p,n)		MT4 (p,n) >>



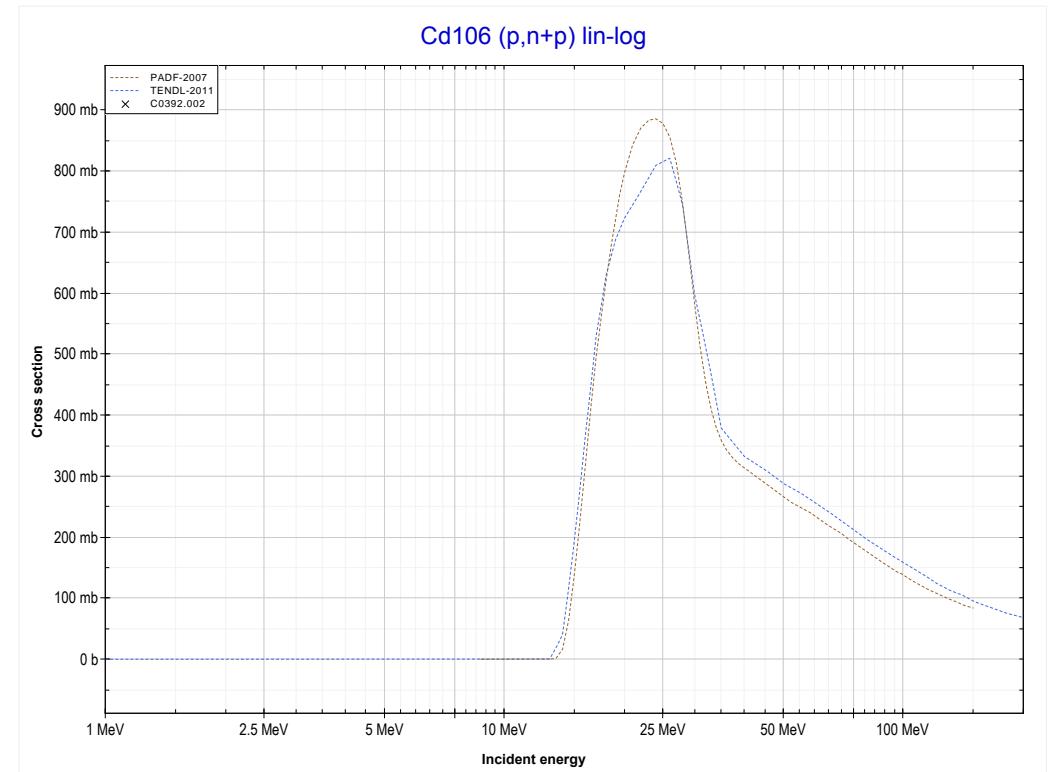
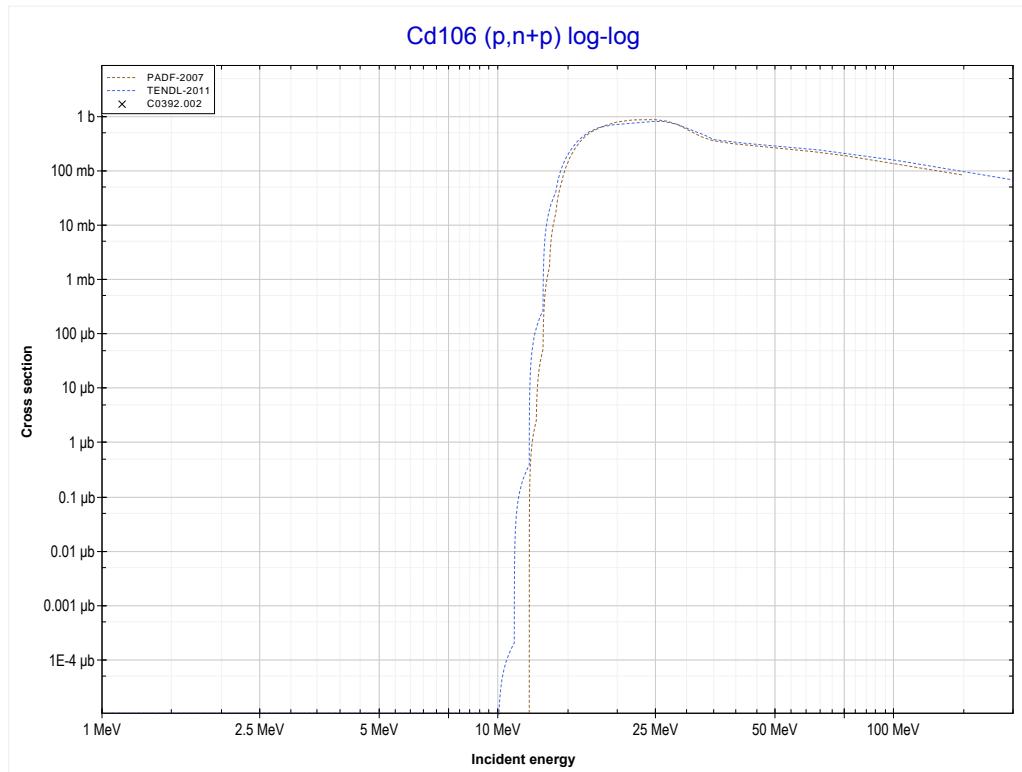
Reaction	Q-Value
$\text{Ag}^{107}(\text{p},\text{d})\text{Ag}^{106}$	-7311.75 keV
$\text{Ag}^{107}(\text{p},\text{n}+\text{p})\text{Ag}^{106}$	-9536.32 keV

<< 47-Ag-107	47-Ag-109 MT4 (p,n) or MT5 (Cd109 production)	48-Cd-110 >>
<< MT28 (p,n+p) >>		MT28 (p,n+p) >>



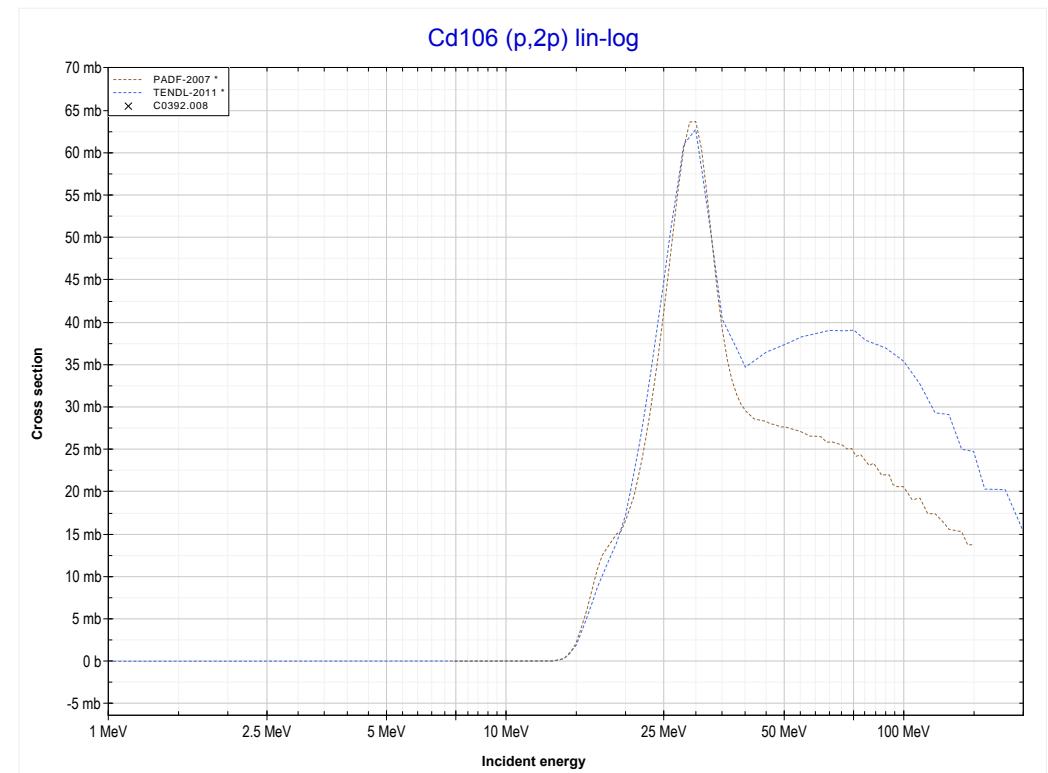
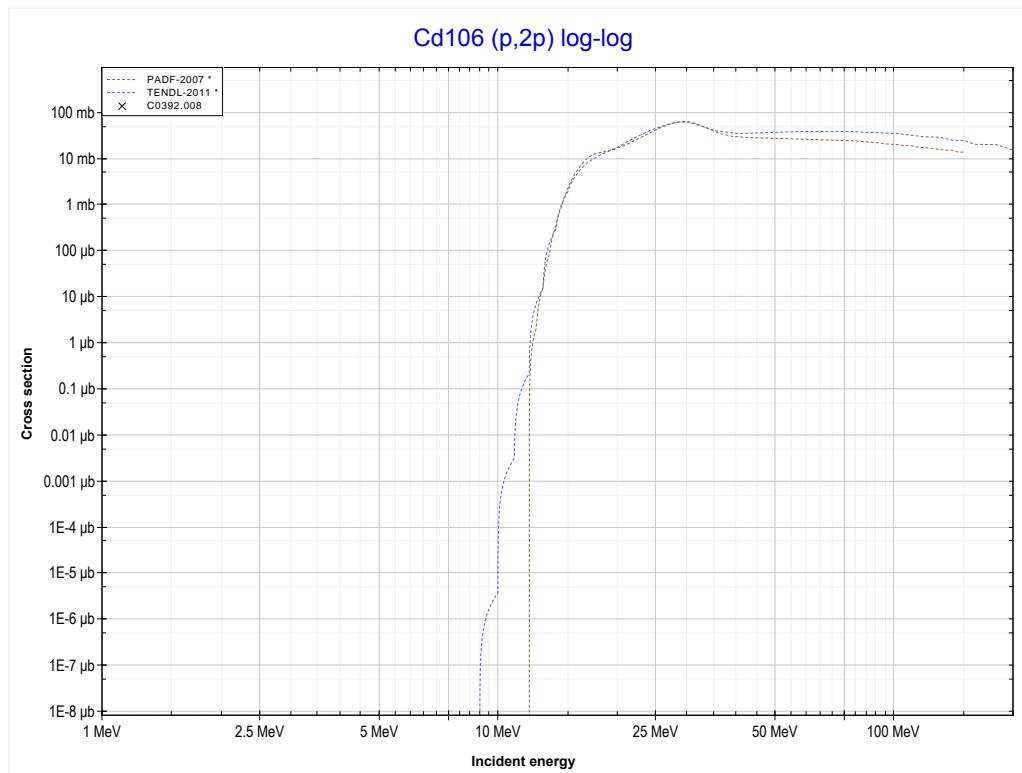
Reaction	Q-Value
Ag109(p,n)Cd109	-997.05 keV

<< 47-Ag-107	48-Cd-106 MT28 (p,n+p) or MT5 (Cd105 production)	48-Cd-108 >>
<< MT4 (p,n)		MT111 (p,2p) >>



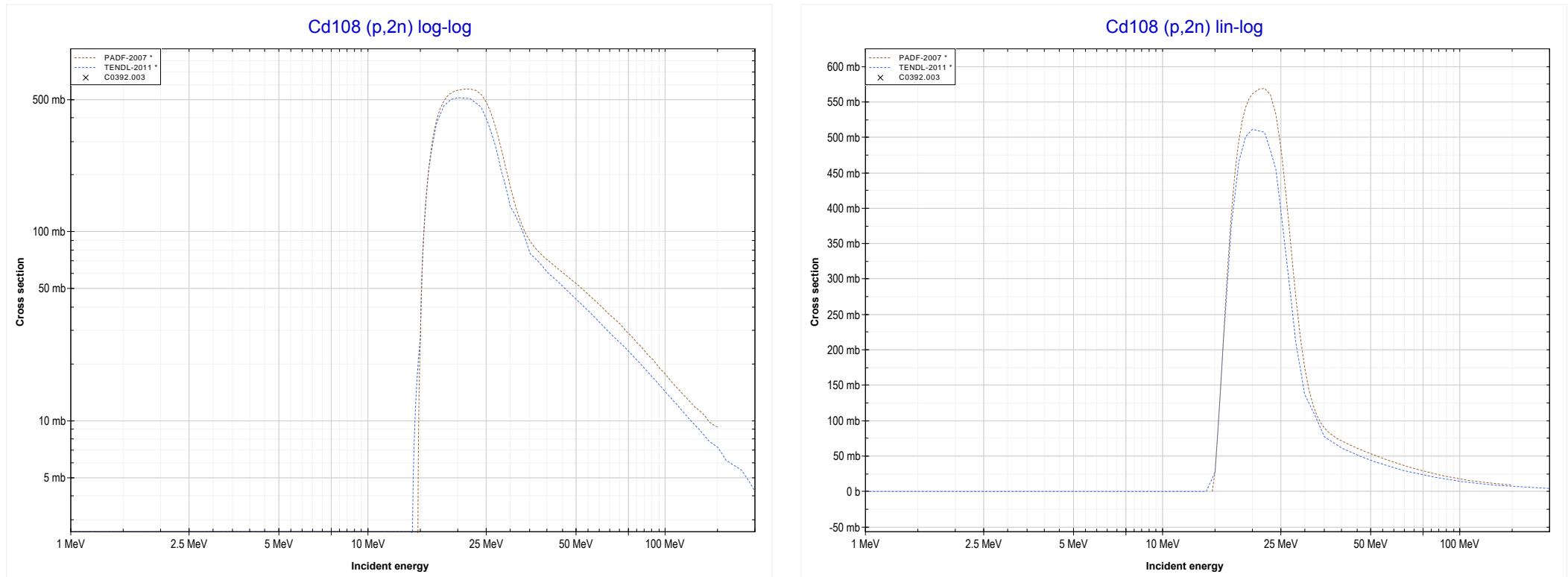
Reaction	Q-Value
Cd106(p,d)Cd105	-8648.75 keV
Cd106(p,n+p)Cd105	-10873.32 keV

<< 42-Mo-98	48-Cd-106 MT111 (p,2p) or MT5 (Ag105 production)	48-Cd-112 >>
<< MT28 (p,n+p)		MT16 (p,2n) >>



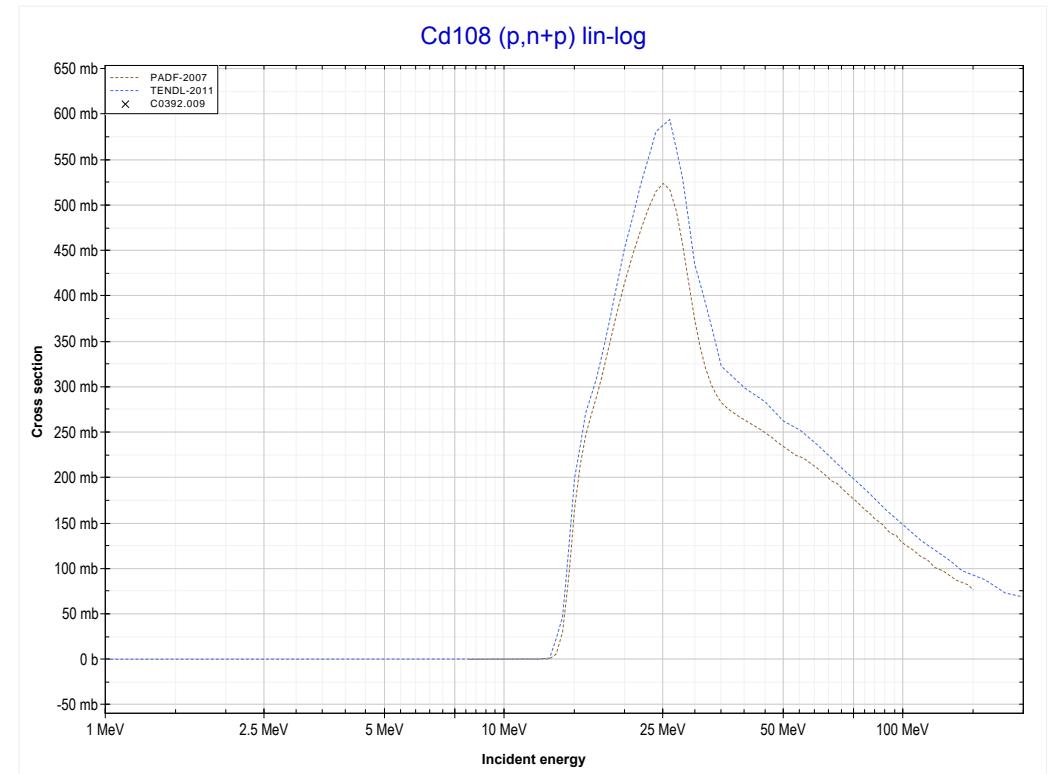
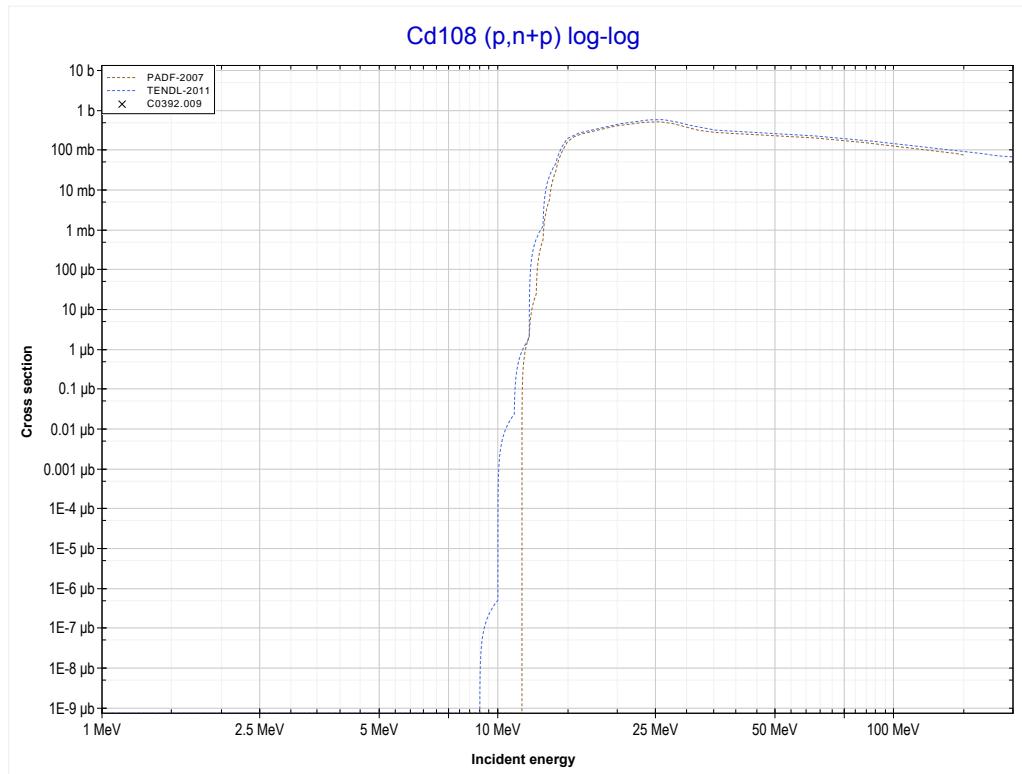
Reaction	Q-Value
Cd106(p,2p)Ag105	-7352.97 keV

<< 42-Mo-100	48-Cd-108 MT16 (p,2n) or MT5 (In107 production)	48-Cd-110 >>
<< MT111 (p,2p) >>		MT28 (p,n+p) >>



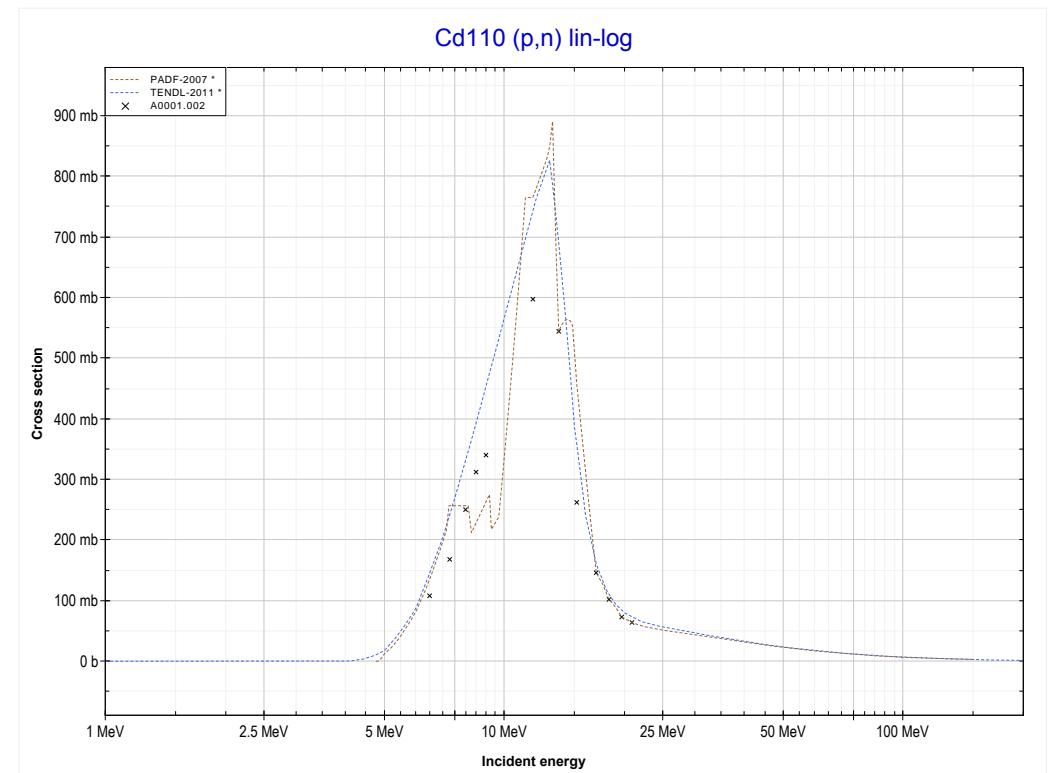
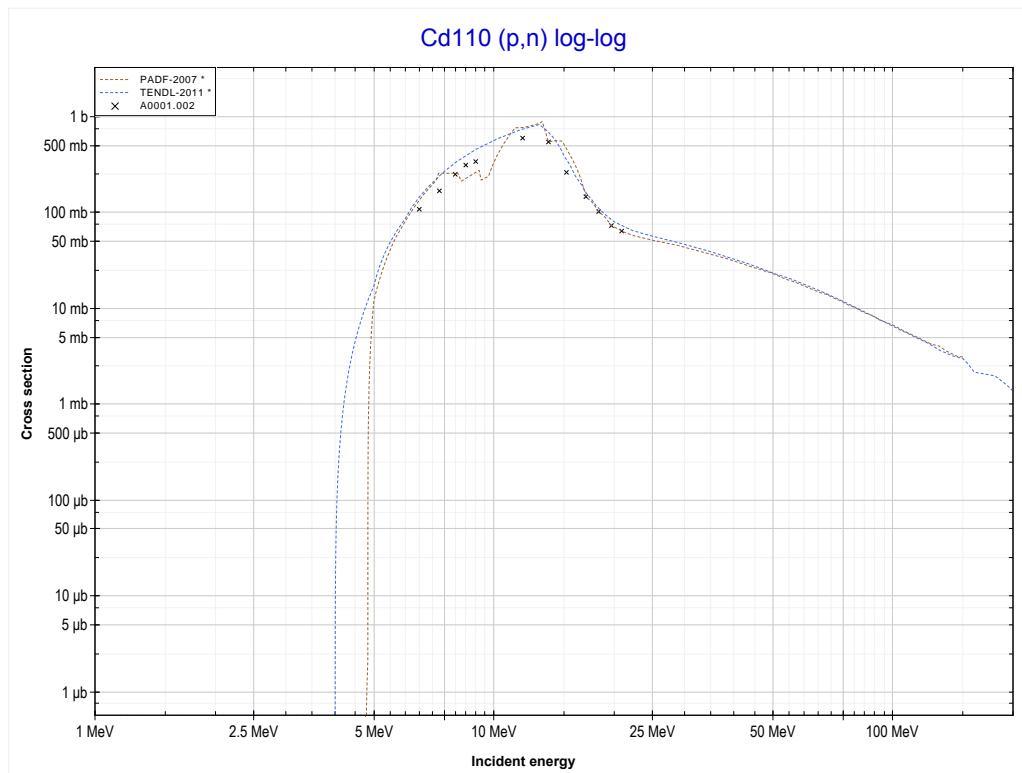
Reaction	Q-Value
Cd108(p,2n)In107	-14545.66 keV

<< 48-Cd-106	48-Cd-108 MT28 (p,n+p) or MT5 (Cd107 production)	48-Cd-110 >>
<< MT16 (p,2n)		MT4 (p,n) >>



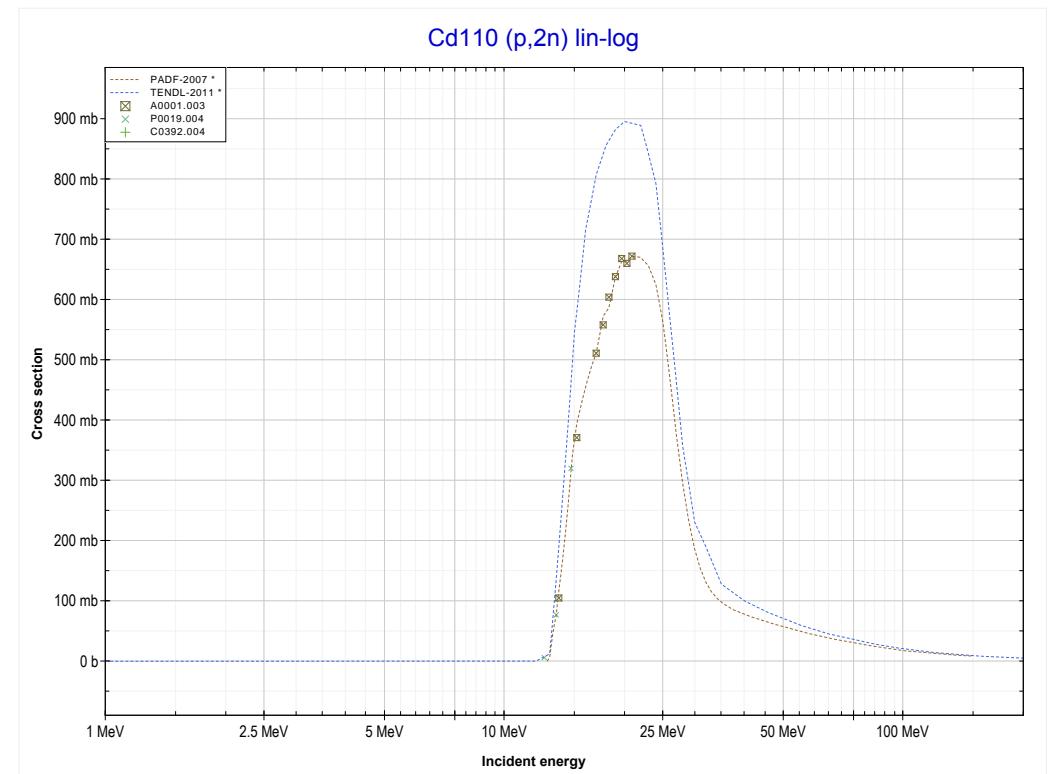
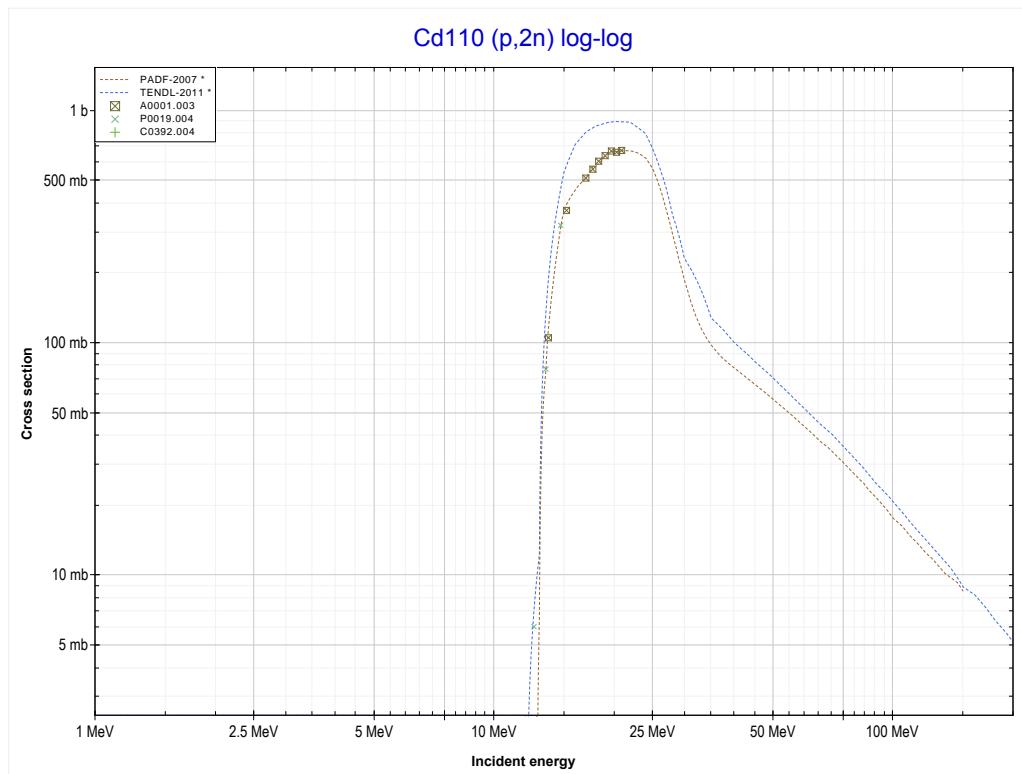
Reaction	Q-Value
Cd108(p,d)Cd107	-8113.75 keV
Cd108(p,n+p)Cd107	-10338.32 keV

<< 47-Ag-109	48-Cd-110 MT4 (p,n) or MT5 (In110 production)	48-Cd-111 >>
<< MT28 (p,n+p)		MT16 (p,2n) >>



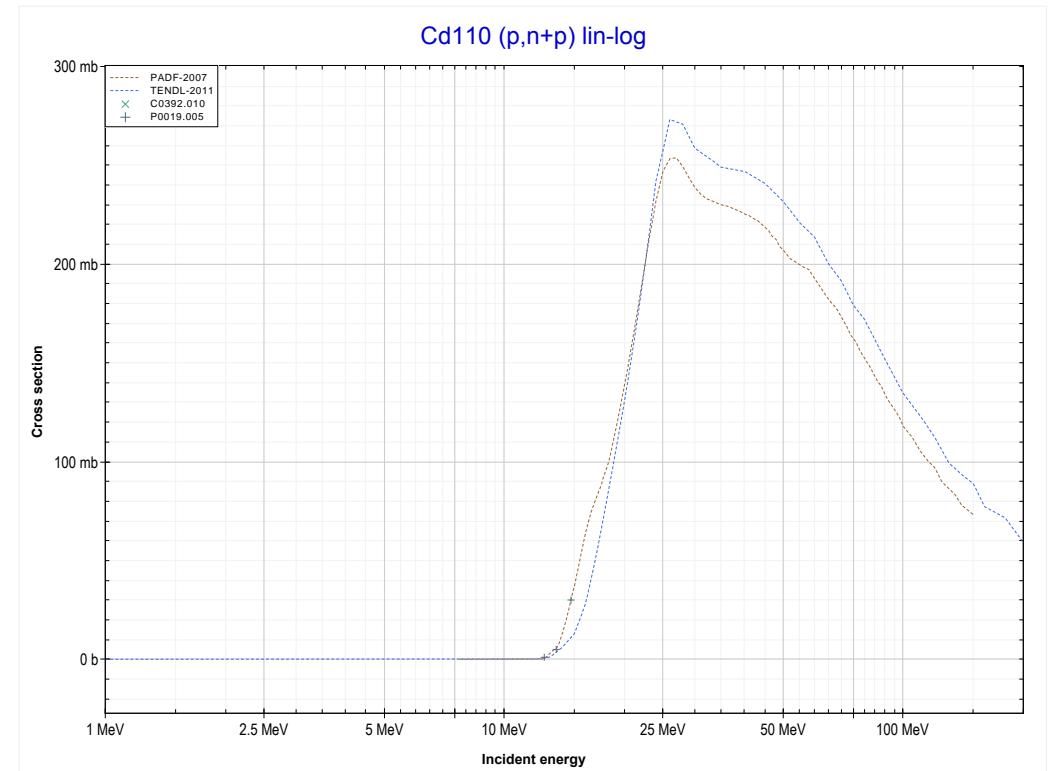
Reaction	Q-Value
Cd110(p,n)In110	-4660.35 keV

<< 48-Cd-108	48-Cd-110 MT16 (p,2n) or MT5 (In109 production)	48-Cd-111 >>
<< MT4 (p,n) >>		MT28 (p,n+p) >>



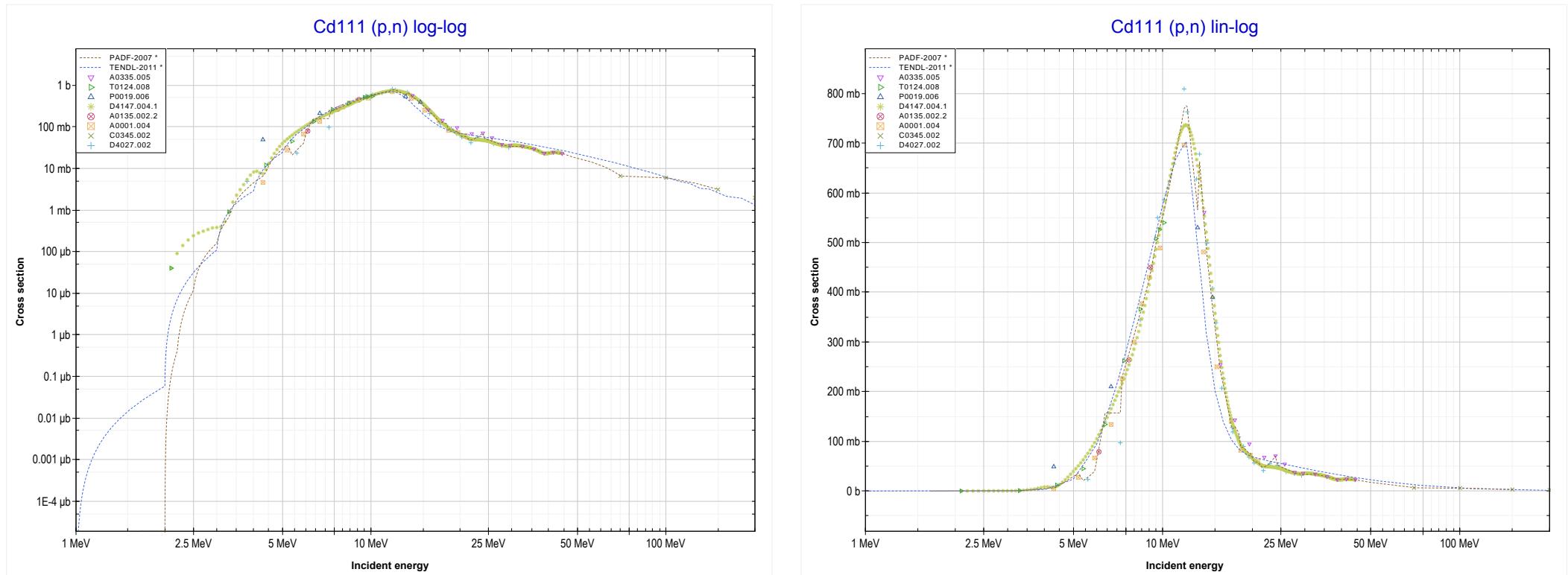
Reaction	Q-Value
Cd110(p,2n)In109	-12717.66 keV

<< 48-Cd-108	48-Cd-110 MT28 (p,n+p) or MT5 (Cd109 production)	49-In-115 >>
<< MT16 (p,2n)		MT4 (p,n) >>



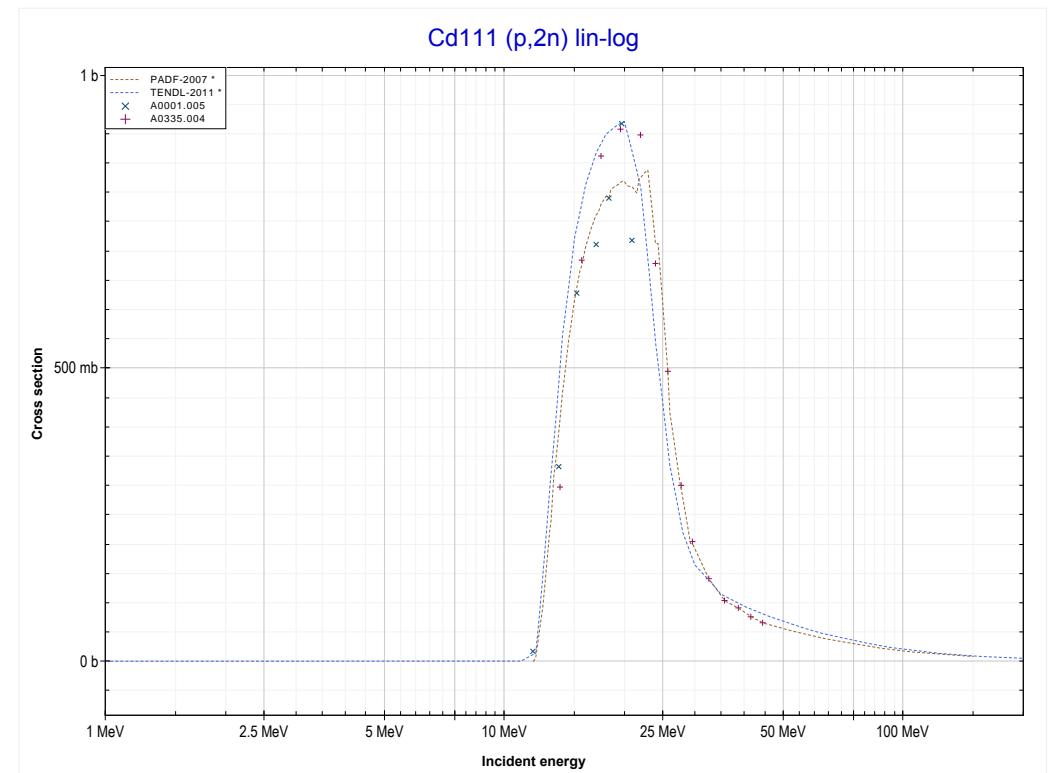
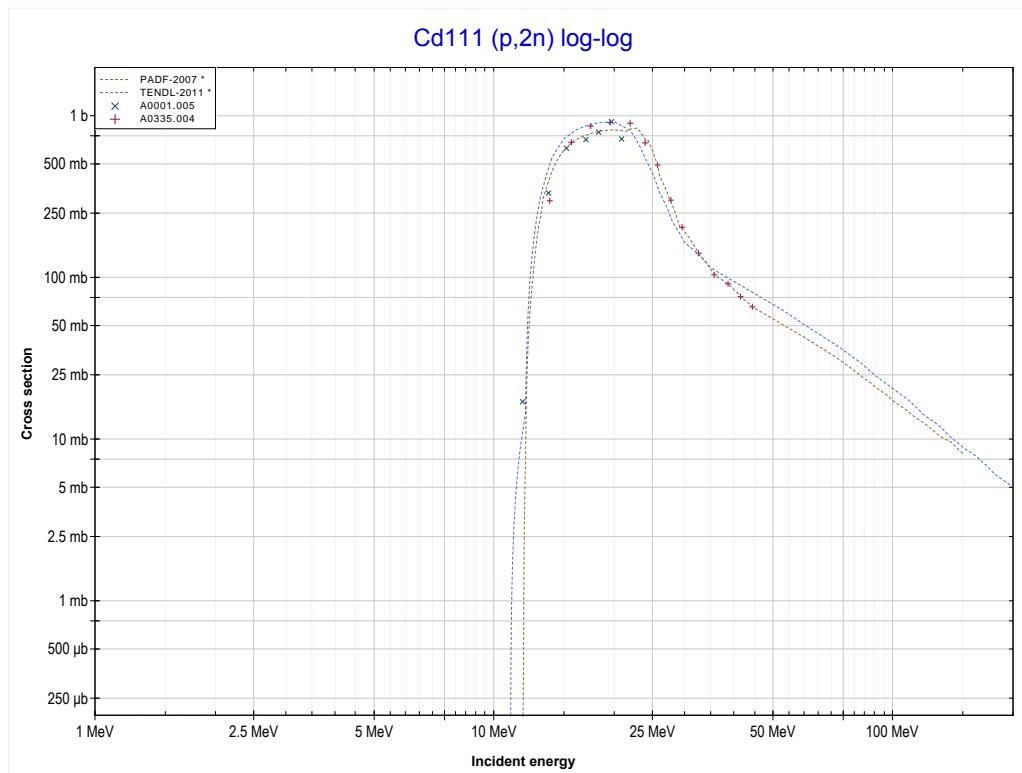
Reaction	Q-Value
Cd110(p,d)Cd109	-7691.75 keV
Cd110(p,n+p)Cd109	-9916.32 keV

<< 48-Cd-110	48-Cd-111 MT4 (p,n) or MT5 (In111 production)	48-Cd-112 >>
<< MT28 (p,n+p)		MT16 (p,2n) >>



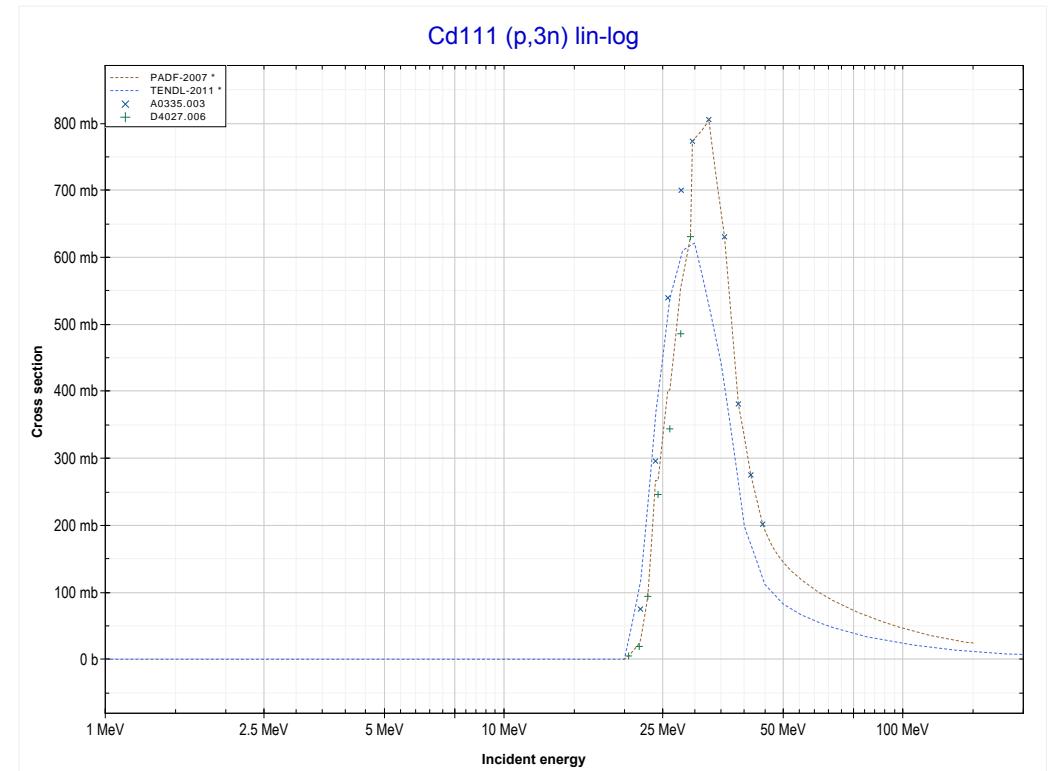
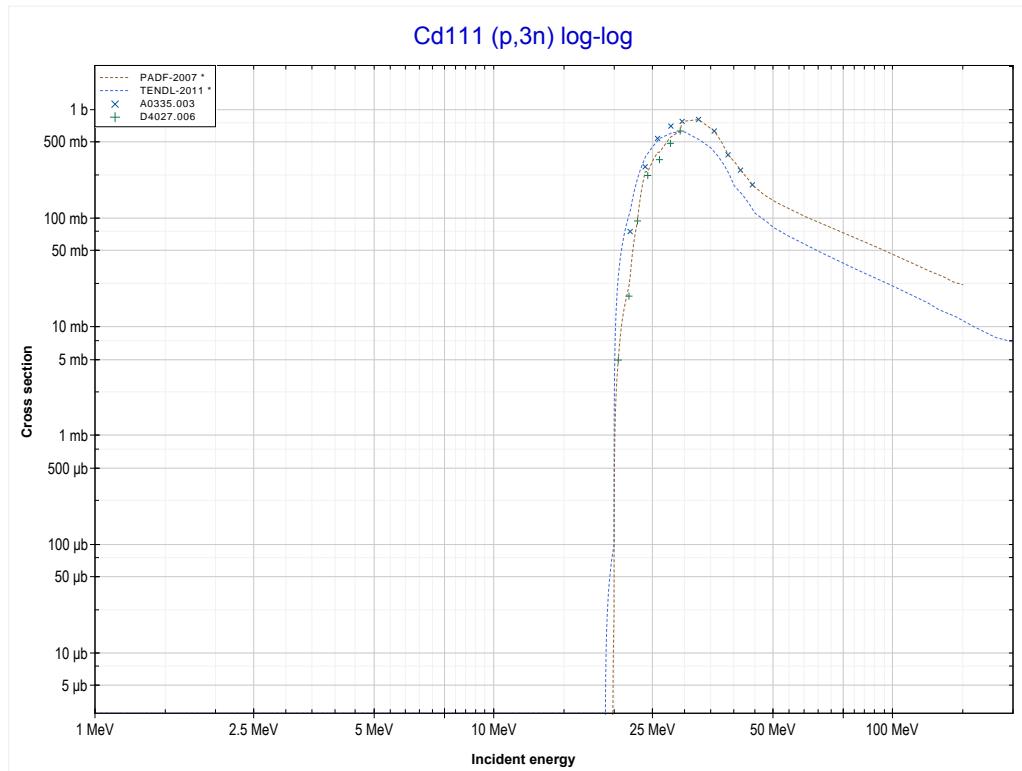
Reaction	Q-Value
Cd111(p,n)In111	-1643.85 keV

<< 48-Cd-110	48-Cd-111 MT16 (p,2n) or MT5 (In110 production)	48-Cd-112 >>
<< MT4 (p,n)		MT17 (p,3n) >>



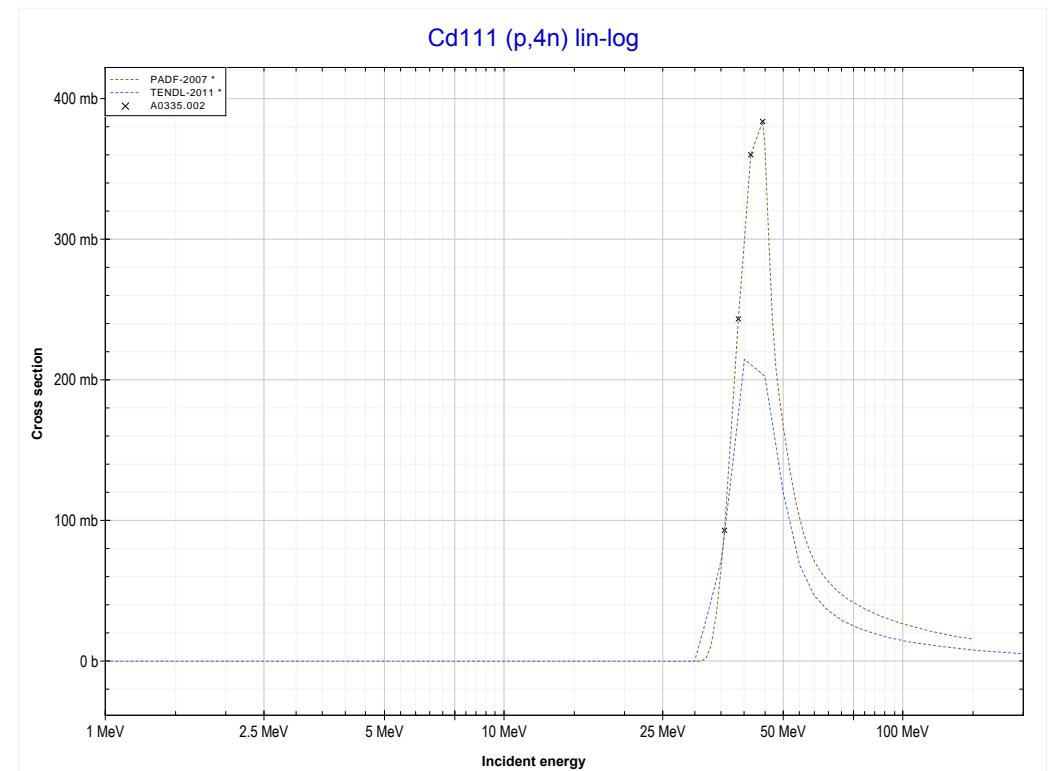
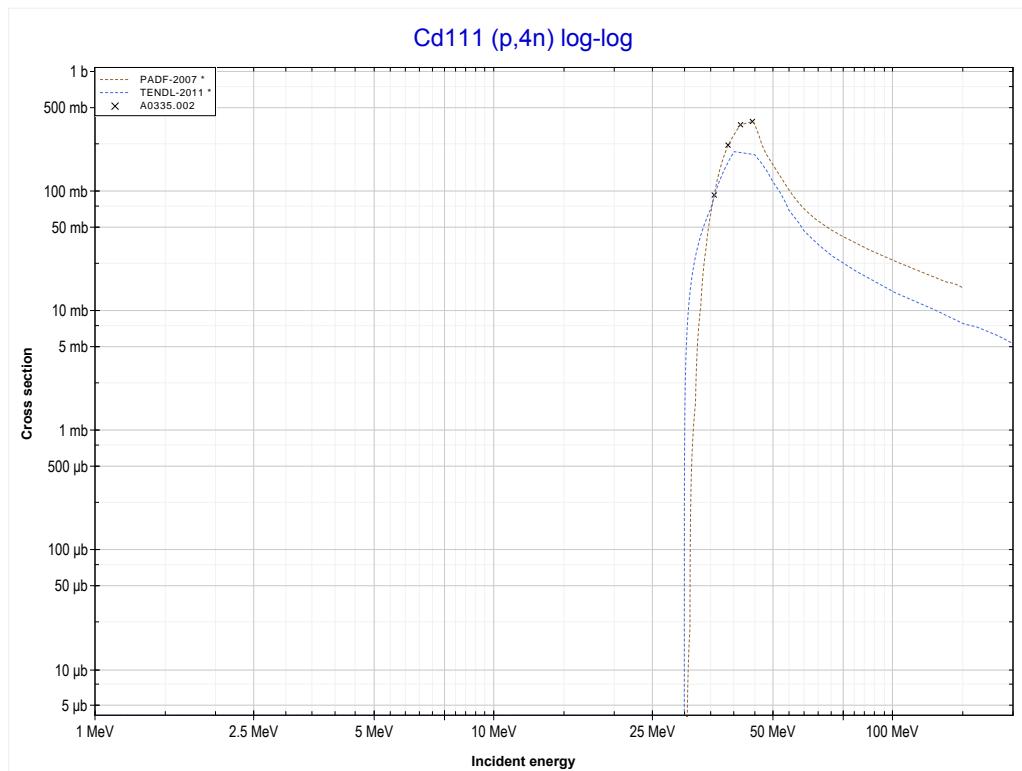
Reaction	Q-Value
Cd111(p,2n)In110	-11636.16 keV

<< 45-Rh-103	48-Cd-111 MT17 (p,3n) or MT5 (In109 production)	48-Cd-112 >>
<< MT16 (p,2n)		MT37 (p,4n) >>



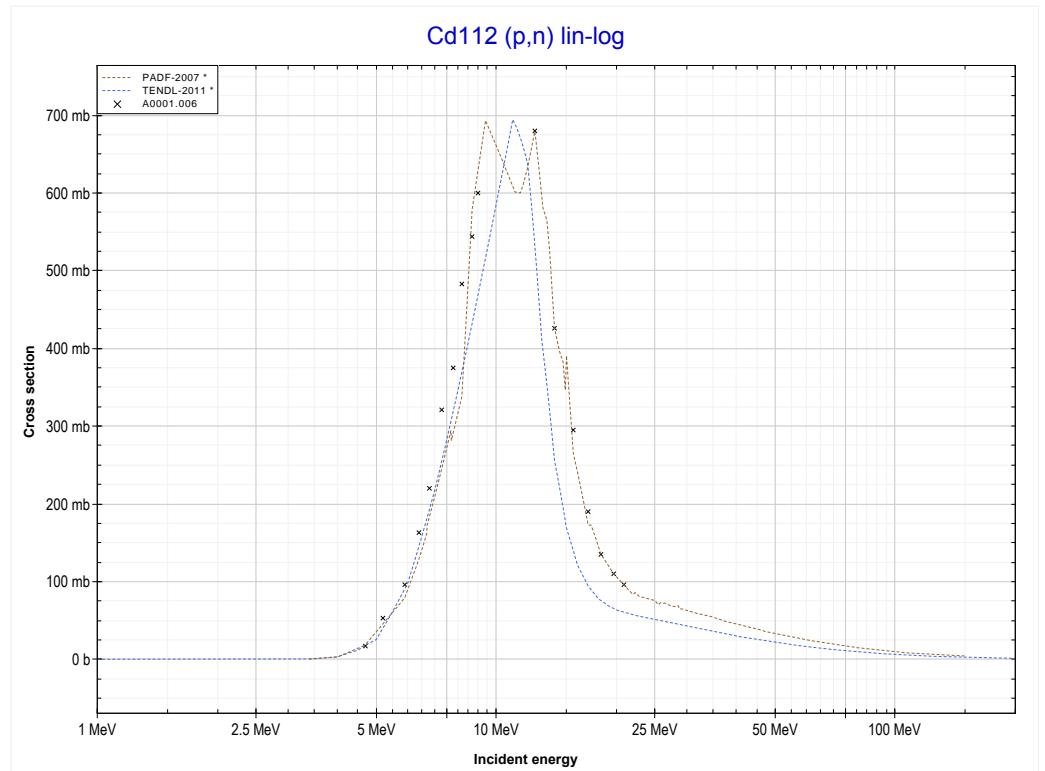
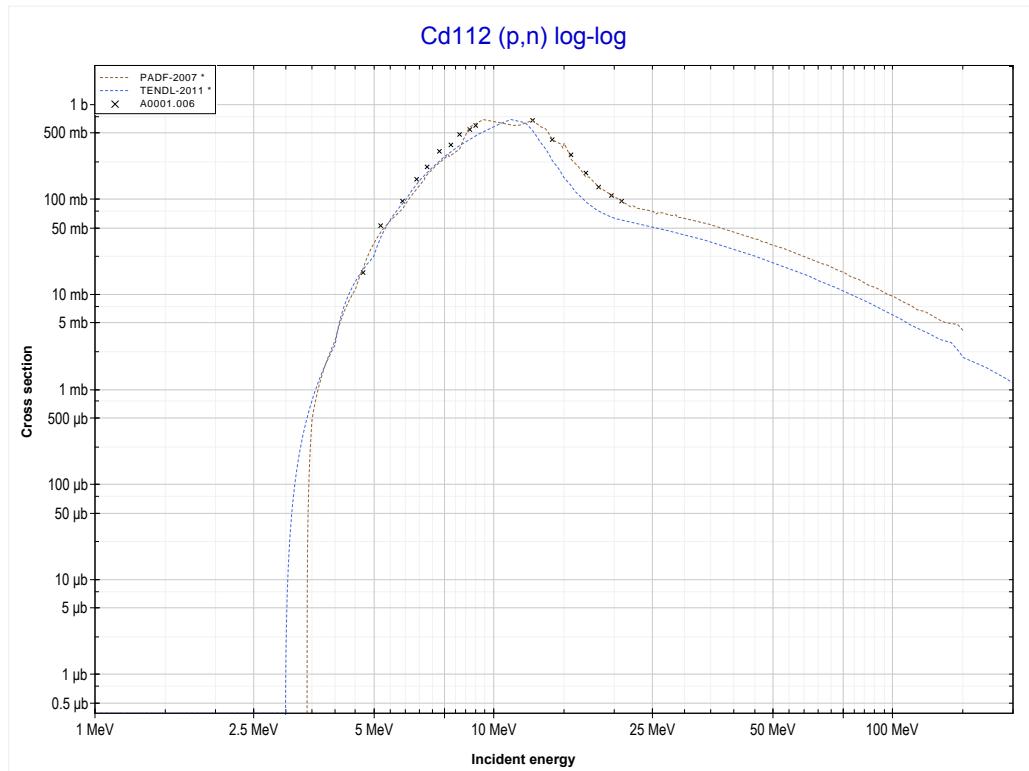
Reaction	Q-Value
Cd111(p,3n)In109	-19693.48 keV

<< 45-Rh-103	48-Cd-111 MT37 (p,4n) or MT5 (In108 production)	48-Cd-114 >>
<< MT17 (p,3n)		MT4 (p,n) >>



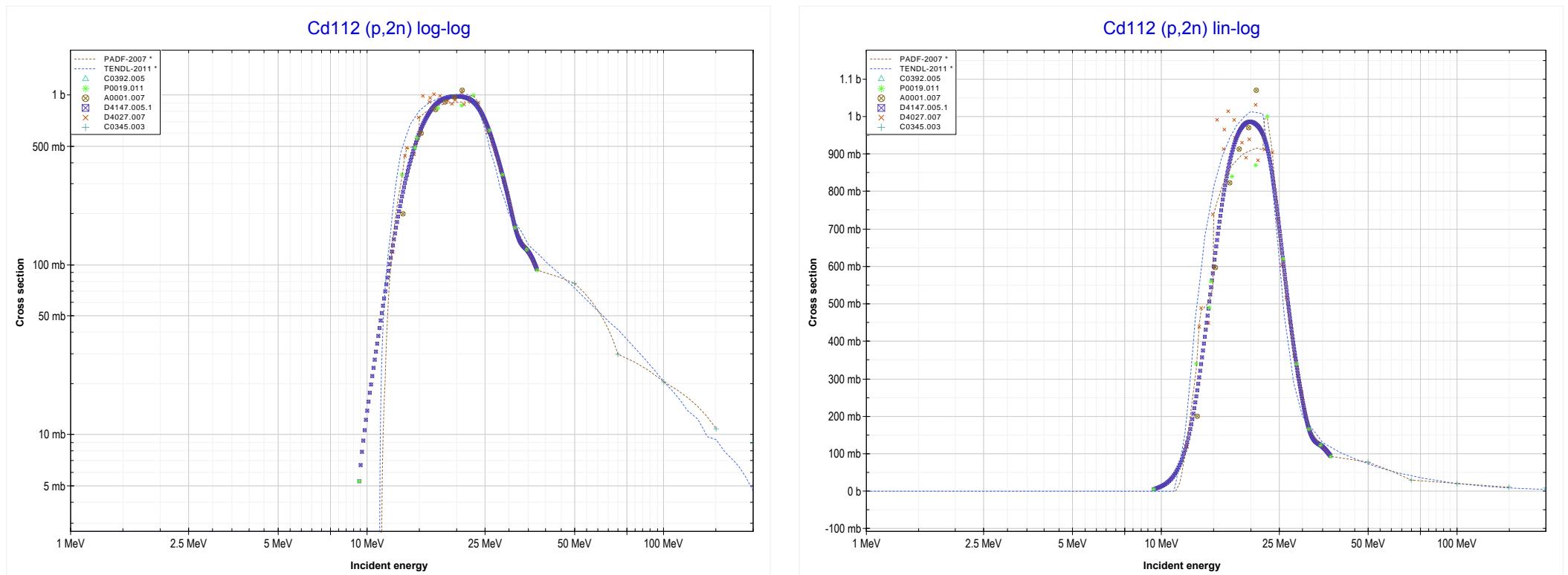
Reaction	Q-Value
Cd111(p,4n)In108	-30137.80 keV

<< 48-Cd-111	48-Cd-112 MT4 (p,n) or MT5 (In112 production)	48-Cd-113 >>
<< MT37 (p,4n)		MT16 (p,2n) >>



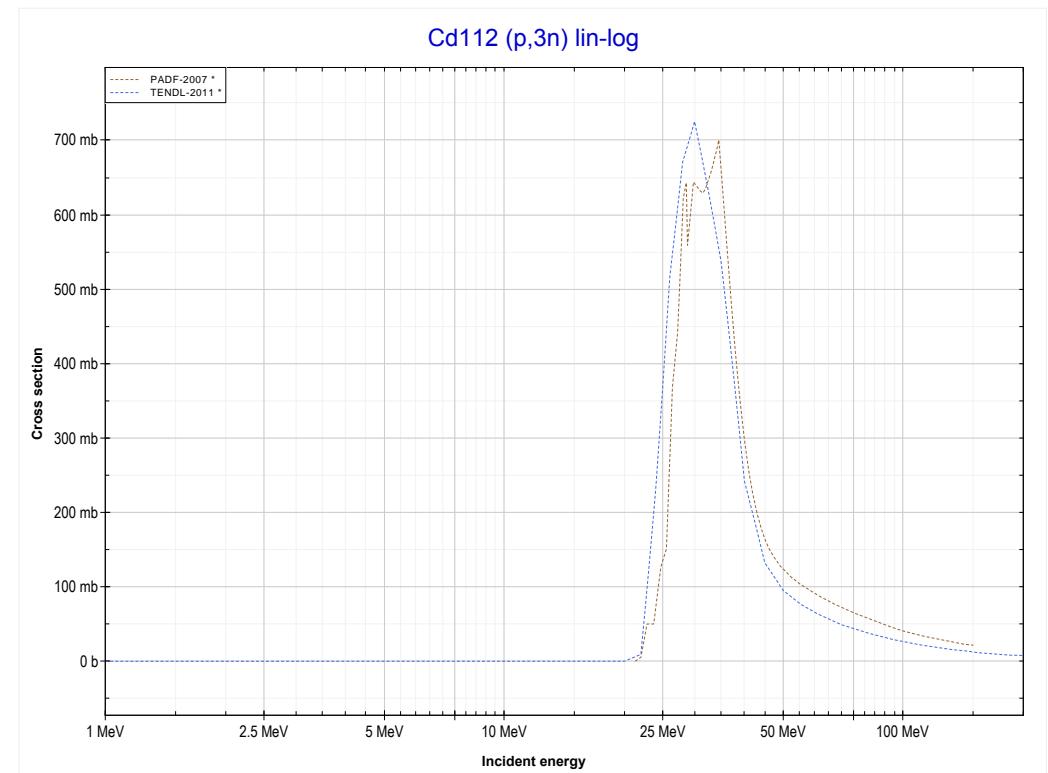
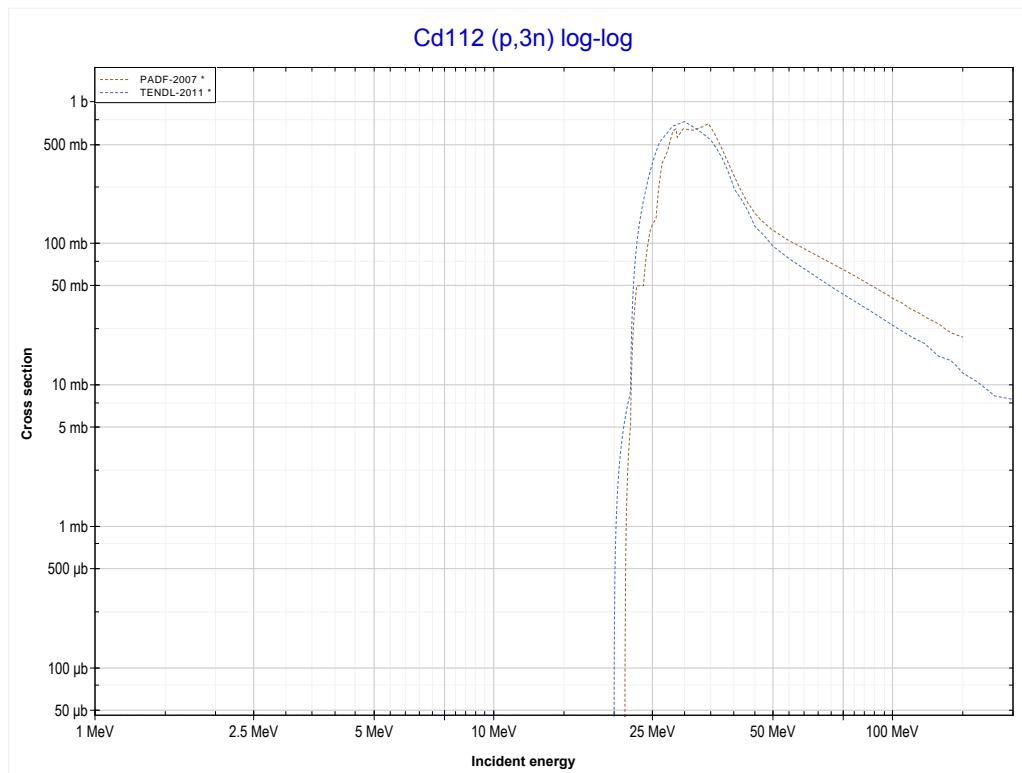
Reaction	Q-Value
Cd112(p,n)In112	-3366.85 keV

<< 48-Cd-111	48-Cd-112 MT16 (p,2n) or MT5 (In111 production)	48-Cd-113 >>
<< MT4 (p,n)		MT17 (p,3n) >>



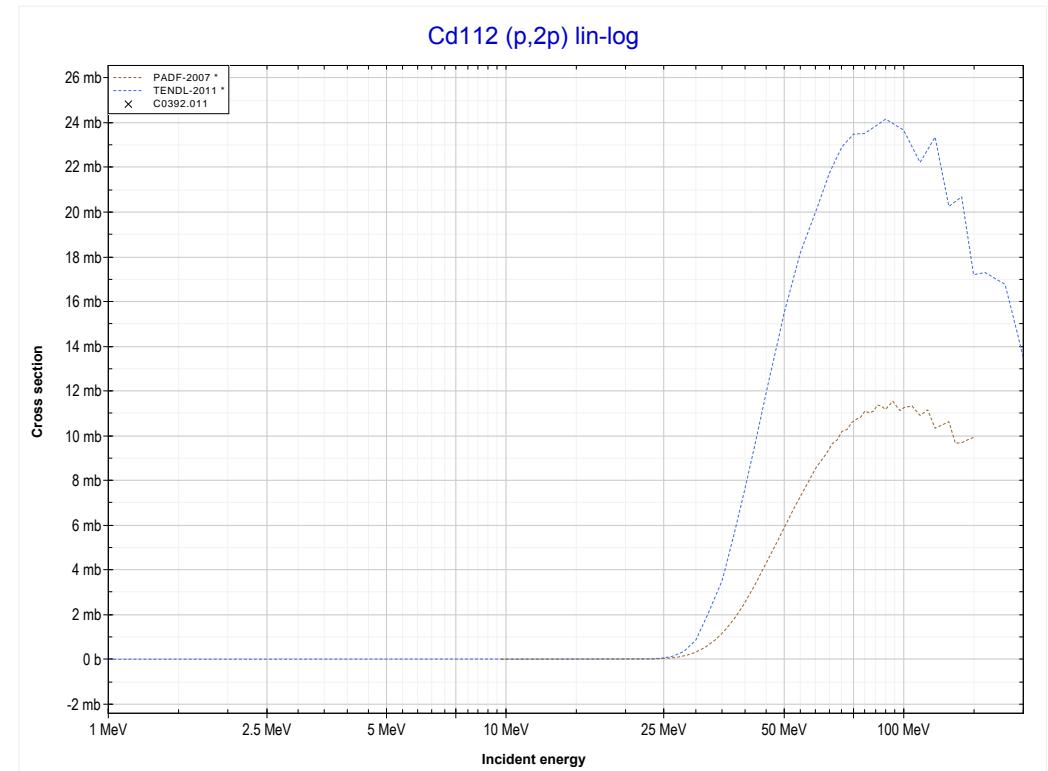
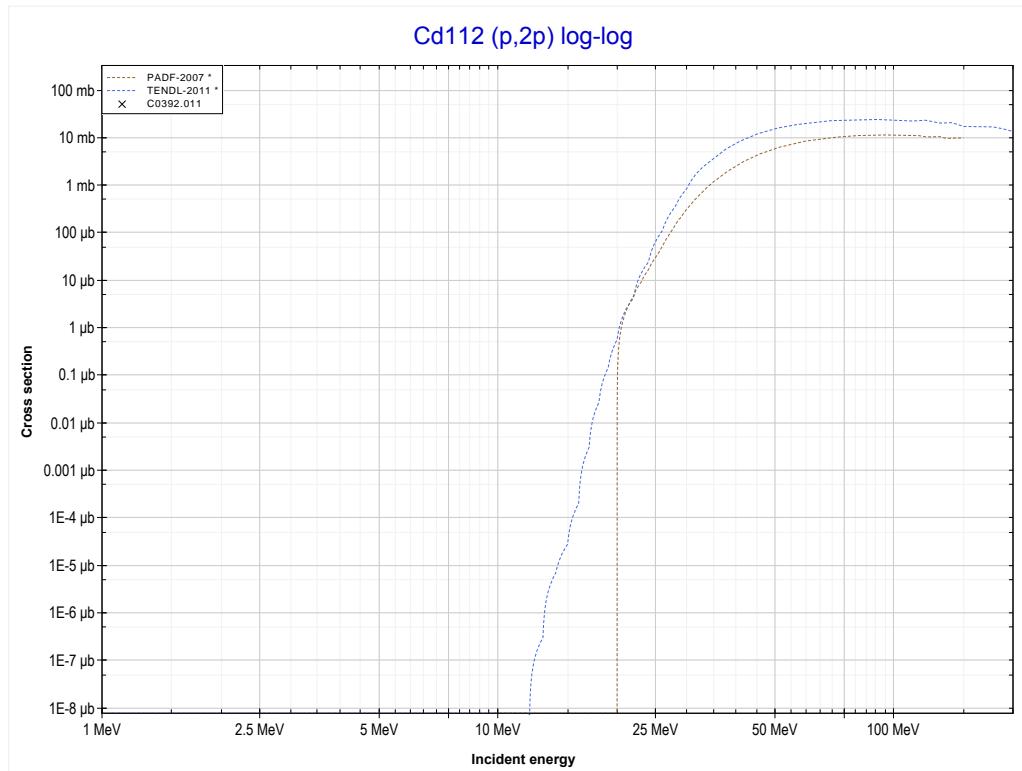
Reaction	Q-Value
Cd112(p,2n)In111	-11038.16 keV

<< 48-Cd-111	48-Cd-112 MT17 (p,3n) or MT5 (In110 production)	48-Cd-113 >>
<< MT16 (p,2n)		MT111 (p,2p) >>



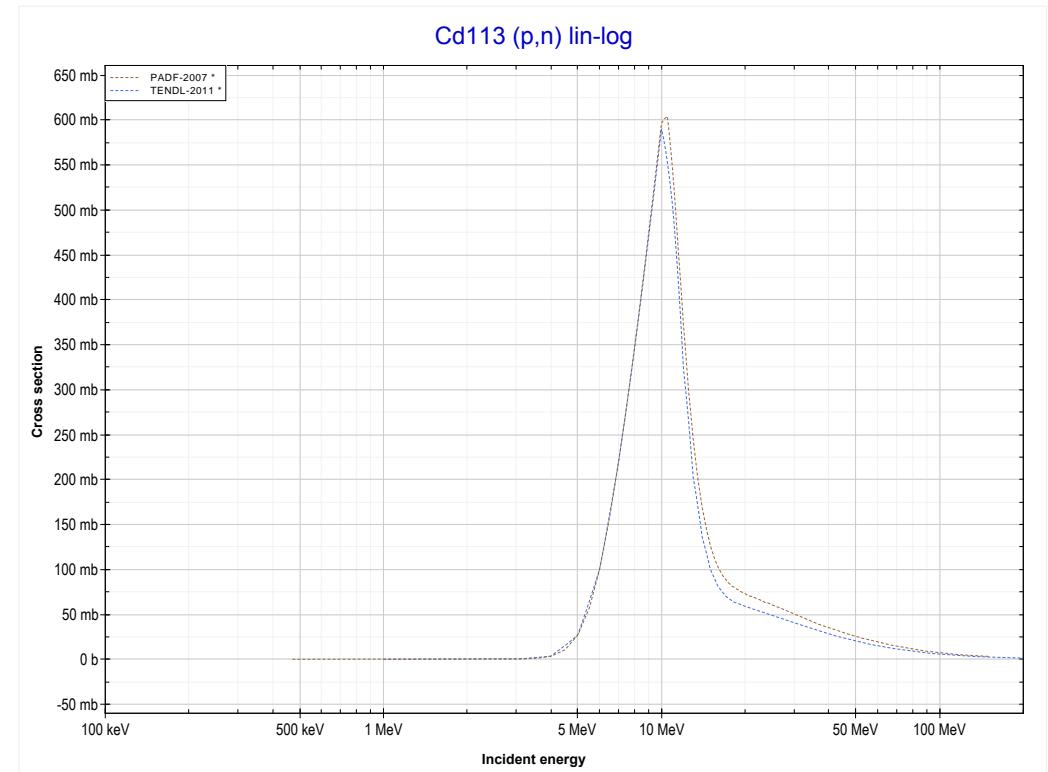
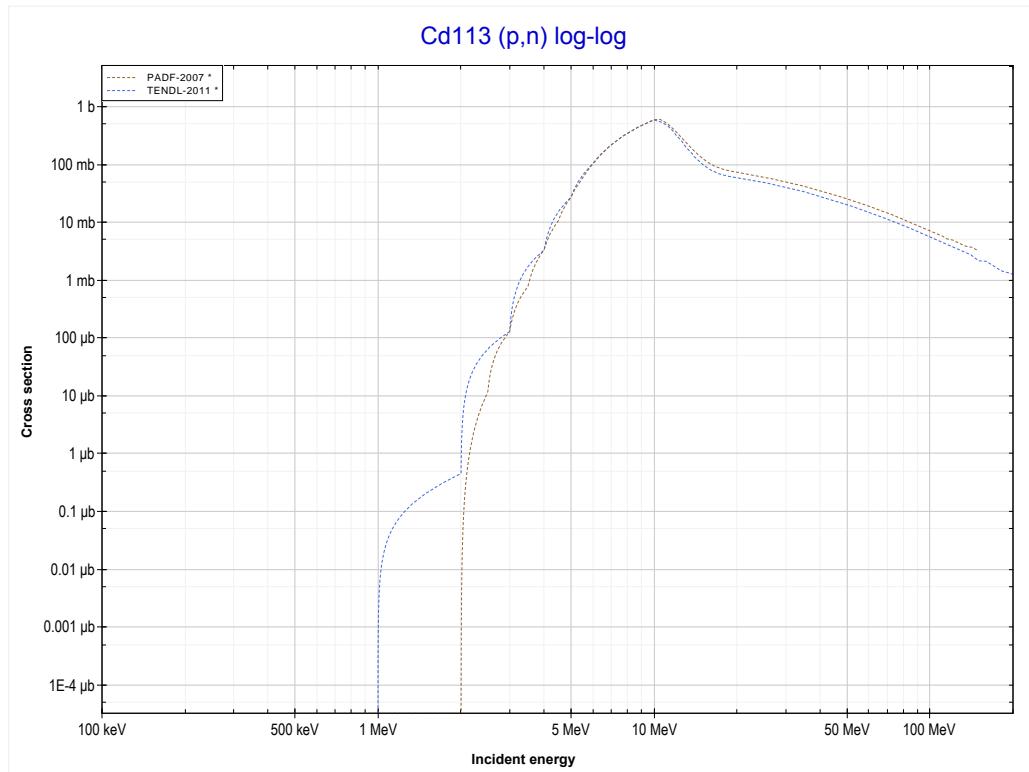
Reaction	Q-Value
Cd112(p,3n)In110	-21030.48 keV

<< 48-Cd-106	48-Cd-112 MT111 (p,2p) or MT5 (Ag111 production)	48-Cd-113 >>
<< MT17 (p,3n)		MT4 (p,n) >>



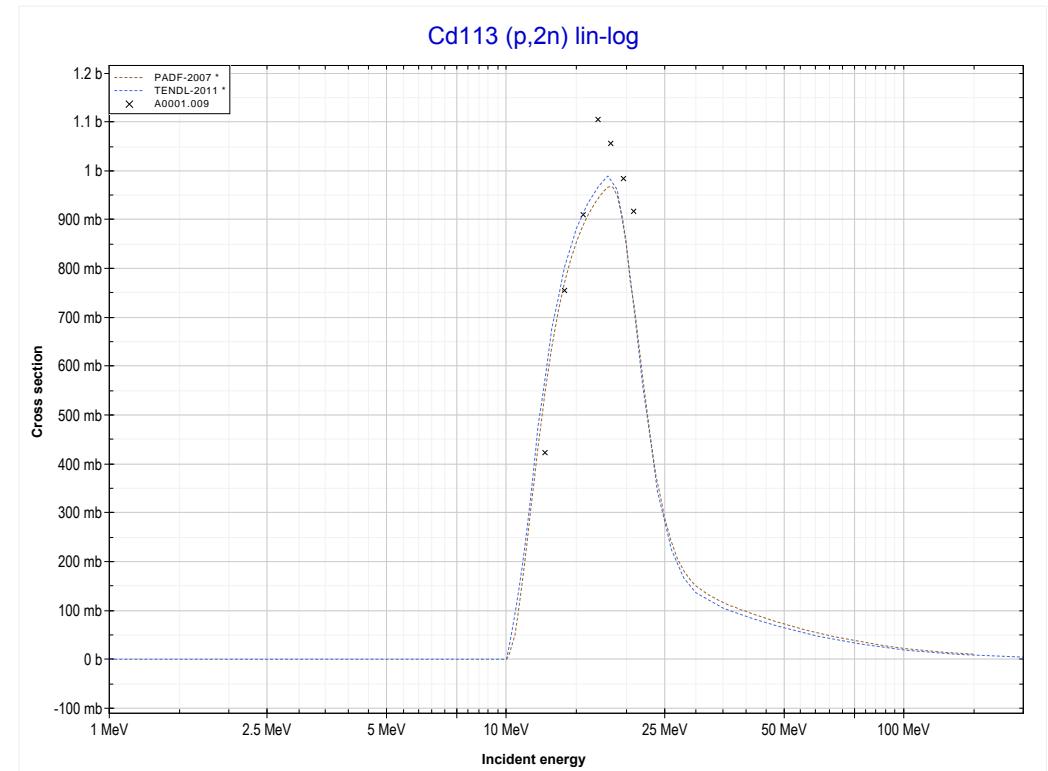
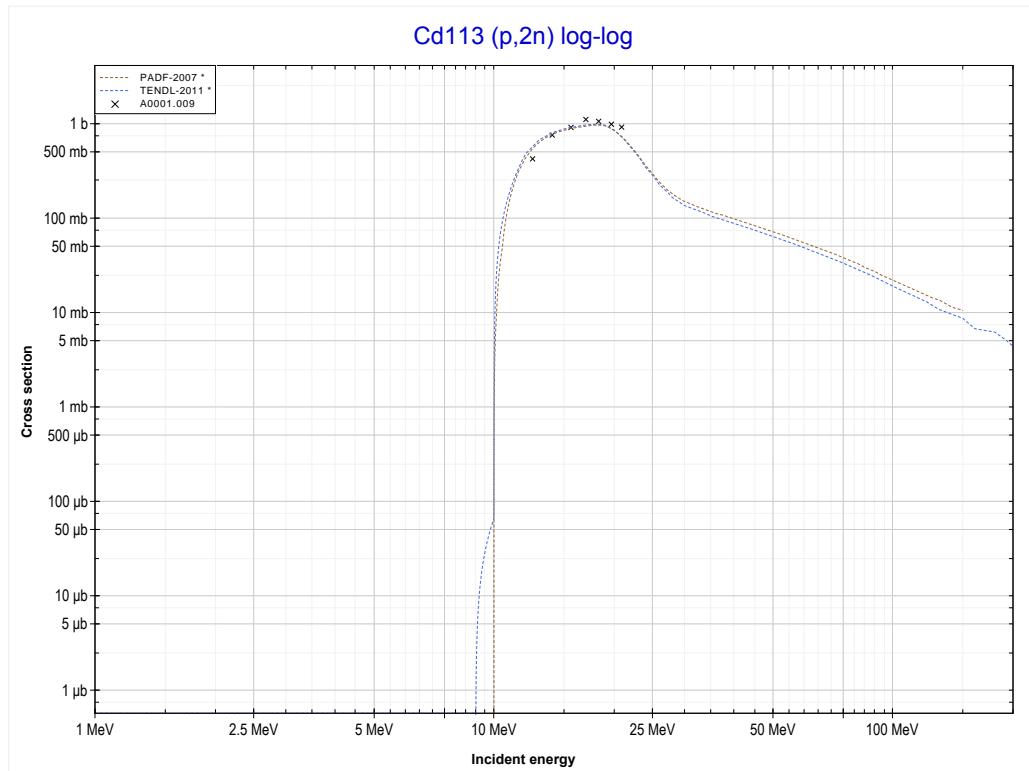
Reaction	Q-Value
Cd112(p,2p)Ag111	-9648.47 keV

<< 48-Cd-112	48-Cd-113 MT4 (p,n) or MT5 (In113 production)	48-Cd-114 >>
<< MT111 (p,2p)		MT16 (p,2n) >>



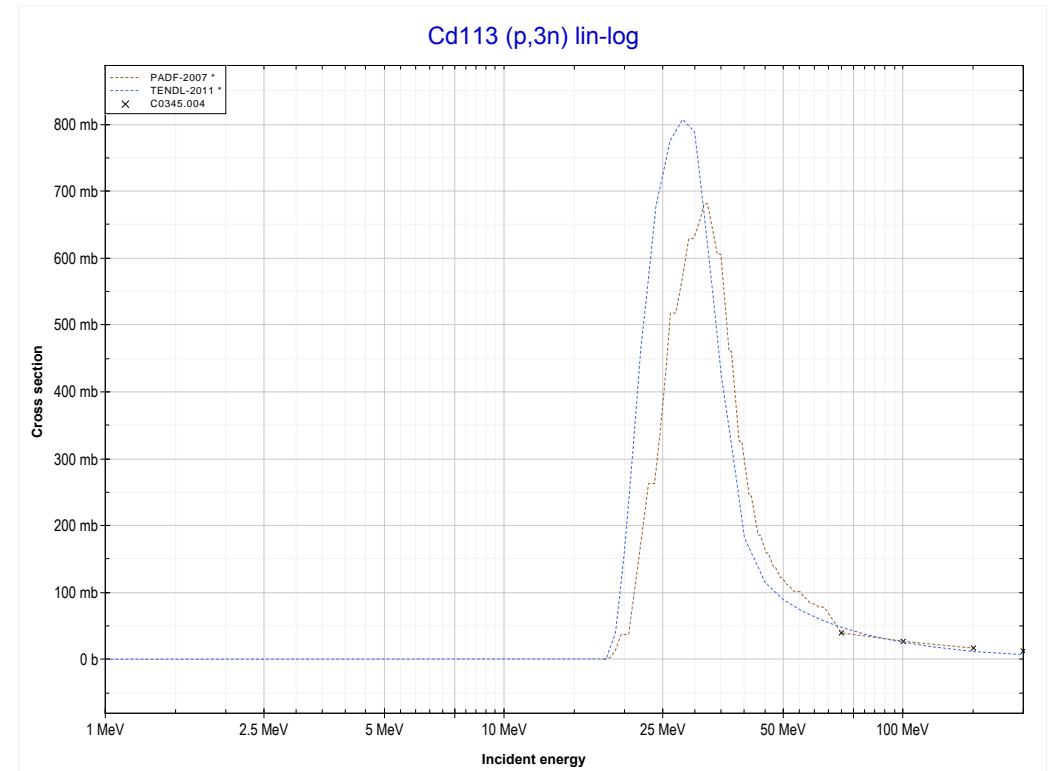
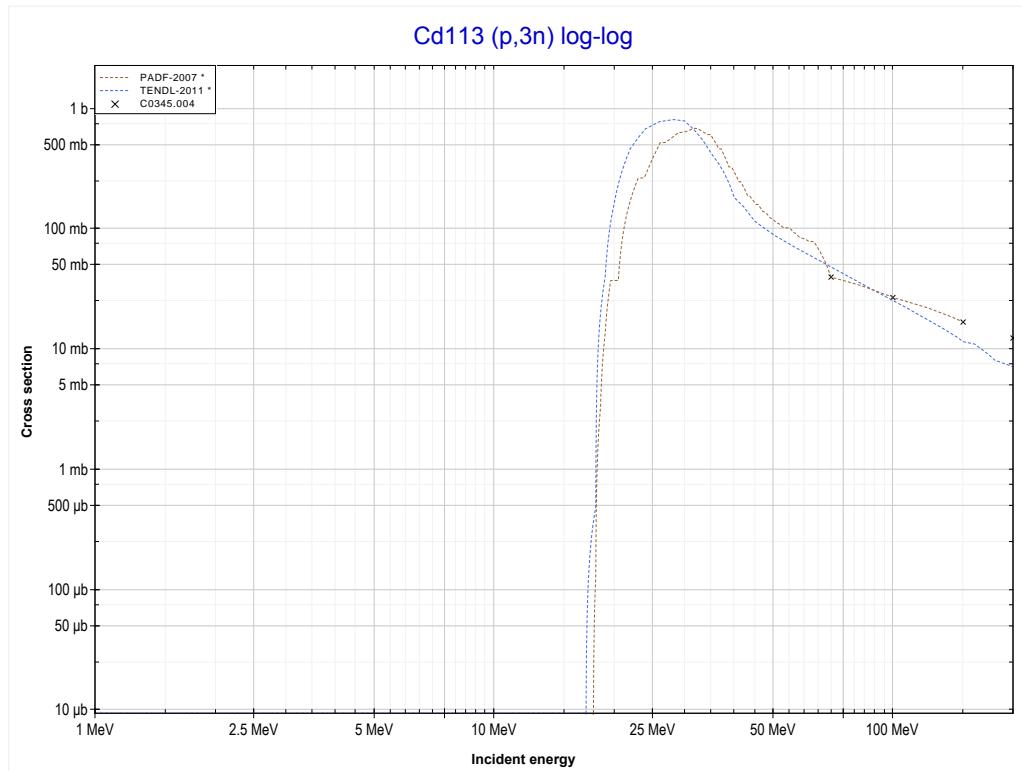
Reaction	Q-Value
Cd113(p,n)In113	-461.65 keV

<< 48-Cd-112	48-Cd-113 MT16 (p,2n) or MT5 (In112 production)	48-Cd-114 >>
<< MT4 (p,n)		MT17 (p,3n) >>



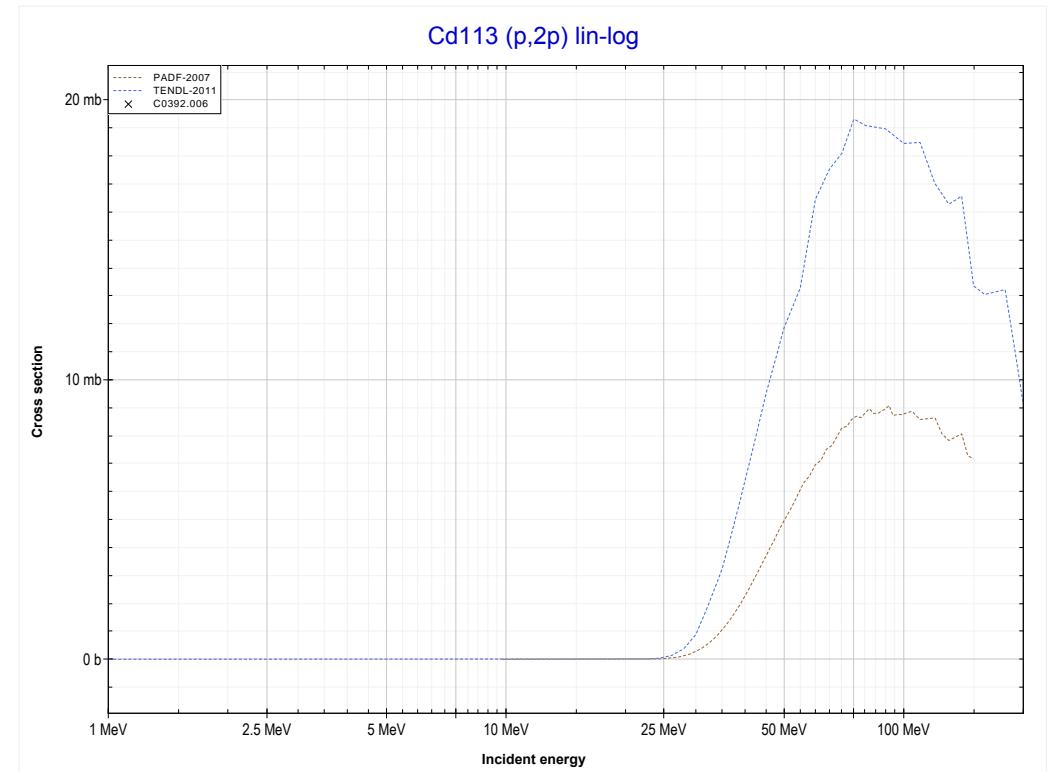
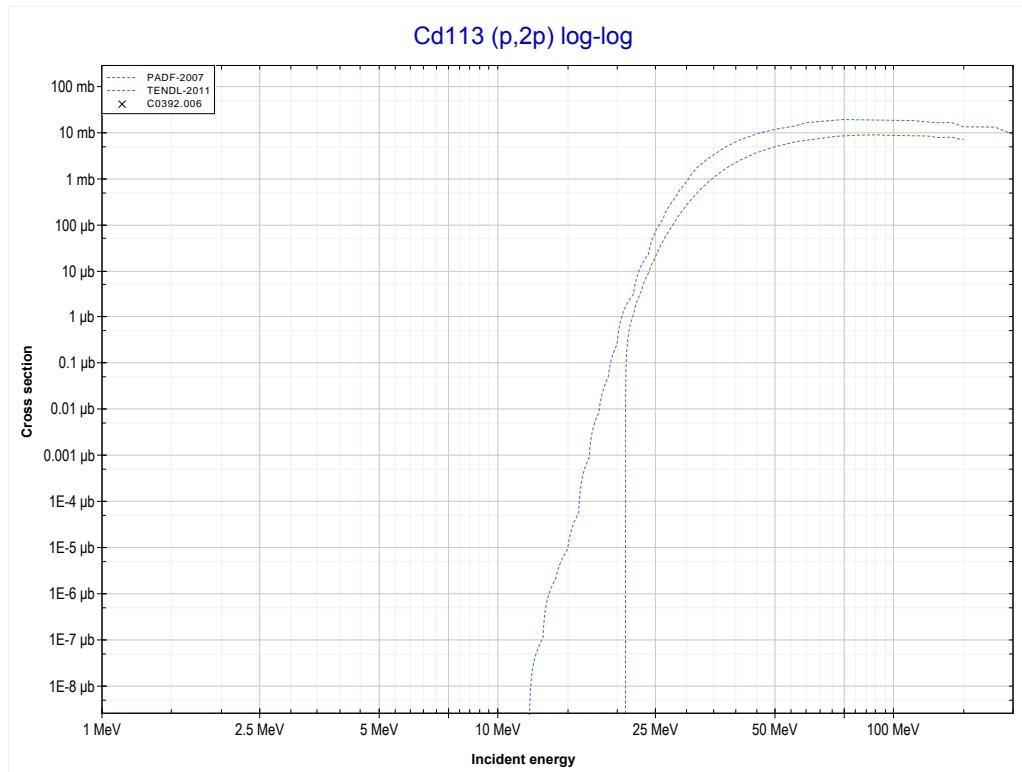
Reaction	Q-Value
Cd113(p,2n)In112	-9906.96 keV

<< 48-Cd-112	48-Cd-113 MT17 (p,3n) or MT5 (In111 production)	48-Cd-116 >>
<< MT16 (p,2n)		MT111 (p,2p) >>



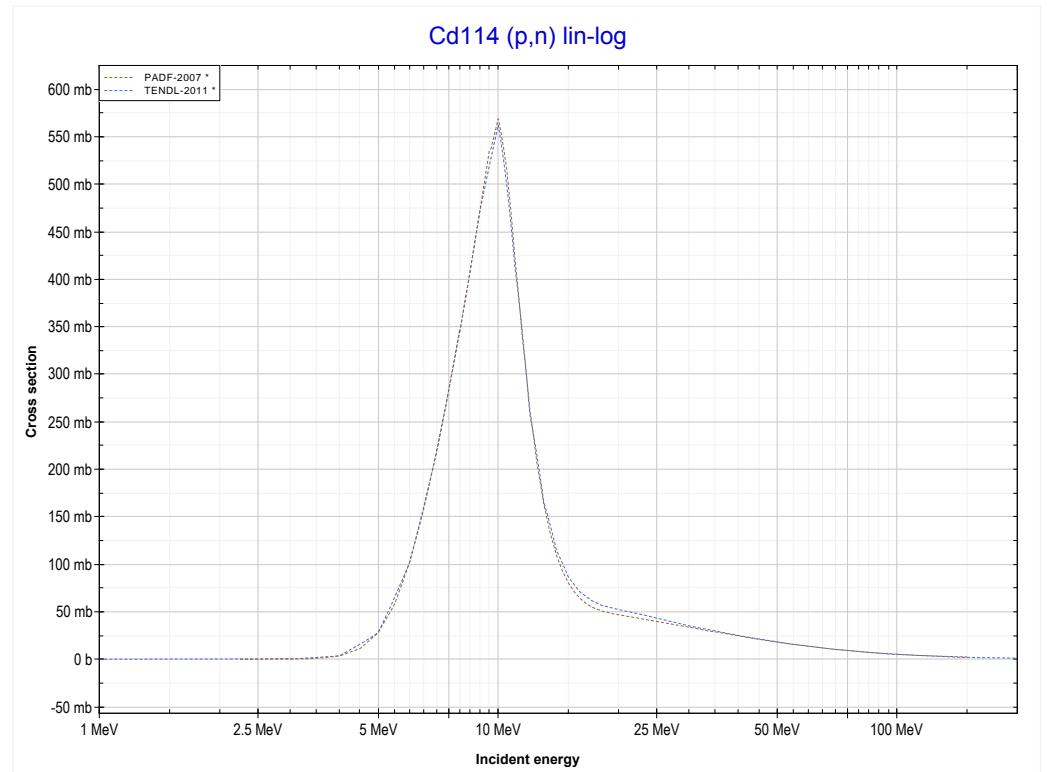
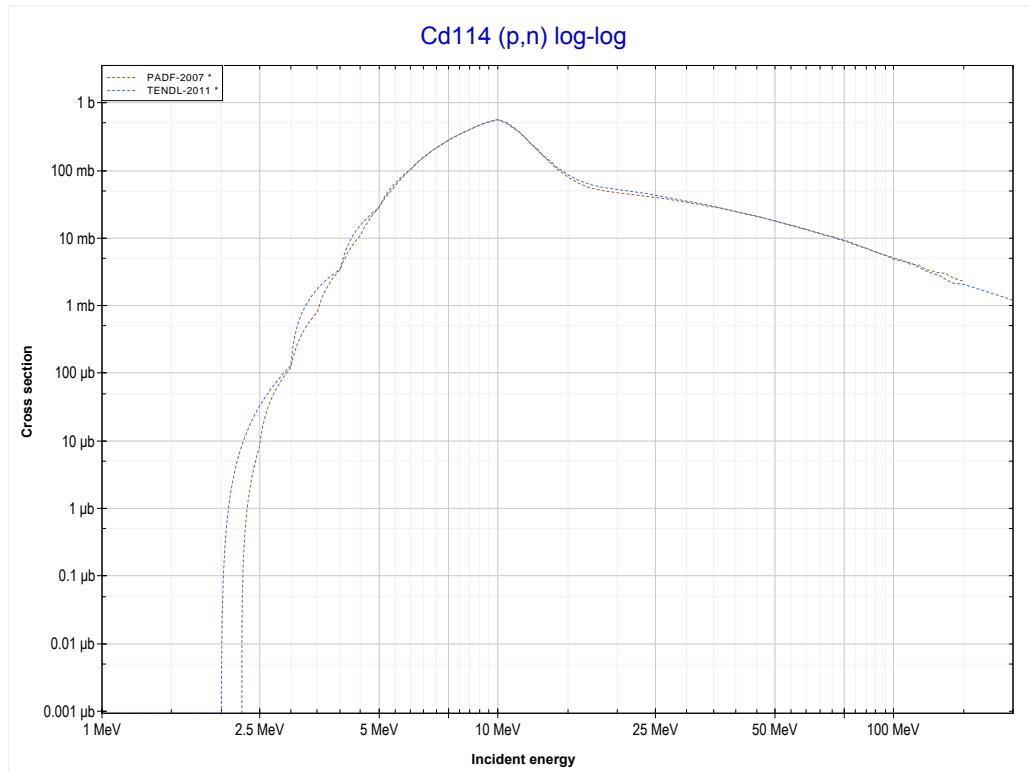
Reaction	Q-Value
Cd113(p,3n)In111	-17578.28 keV

<< 48-Cd-112	48-Cd-113 MT111 (p,2p) or MT5 (Ag112 production)	50-Sn-112 >>
<< MT17 (p,3n)		MT4 (p,n) >>



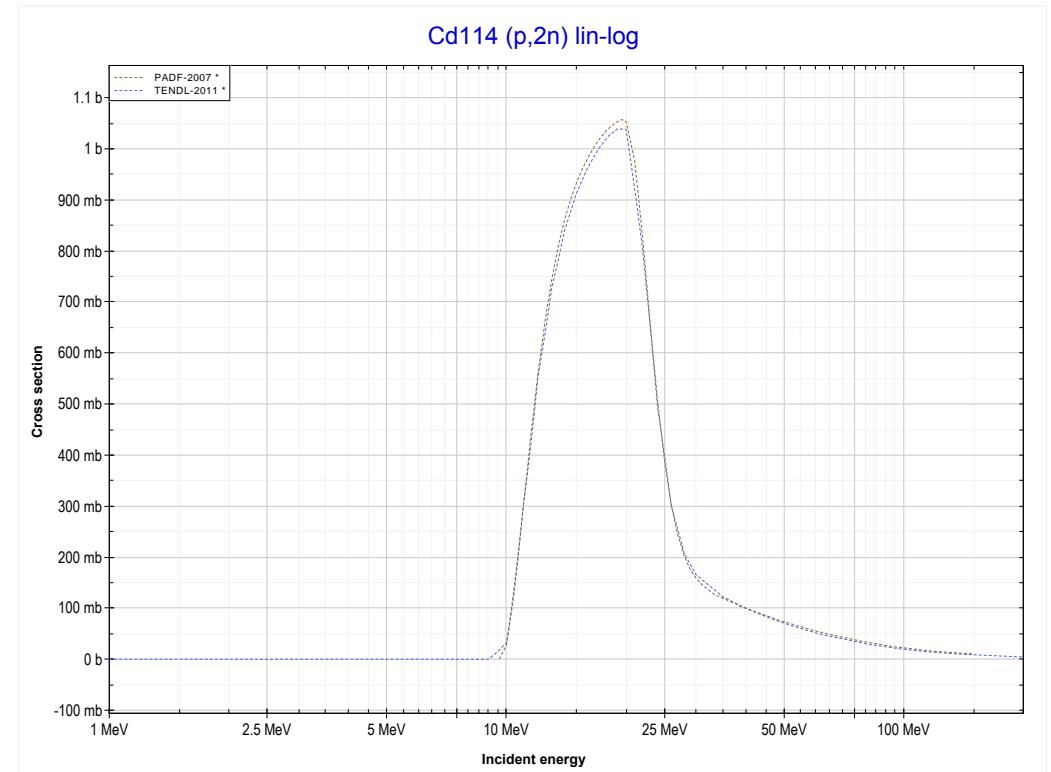
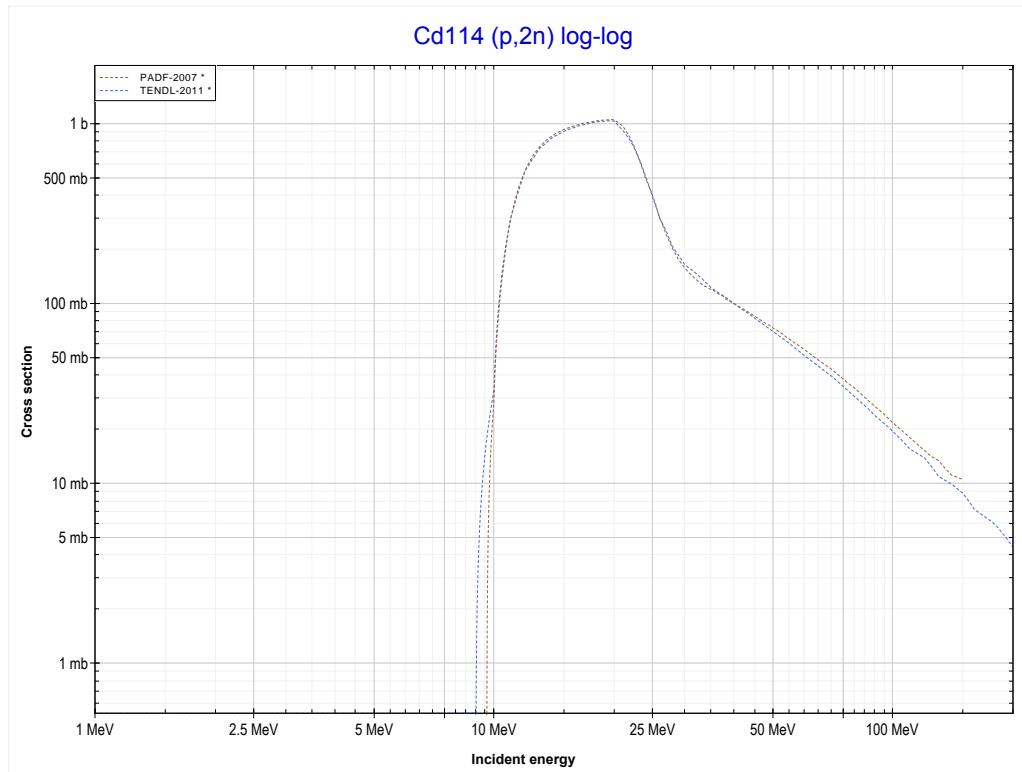
Reaction	Q-Value
Cd113(p,2p)Ag112	-9714.27 keV

<< 48-Cd-113	48-Cd-114	48-Cd-116 >>
<< MT111 (p,2p)	MT4 (p,n) or MT5 (In114 production)	MT16 (p,2n) >>



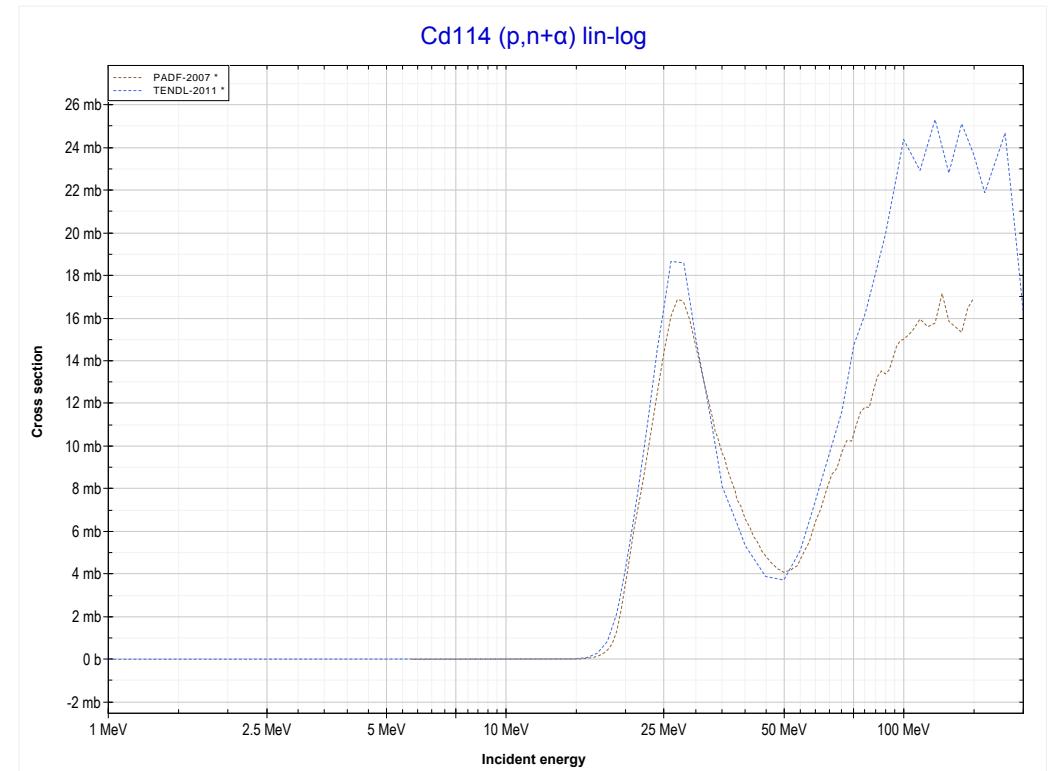
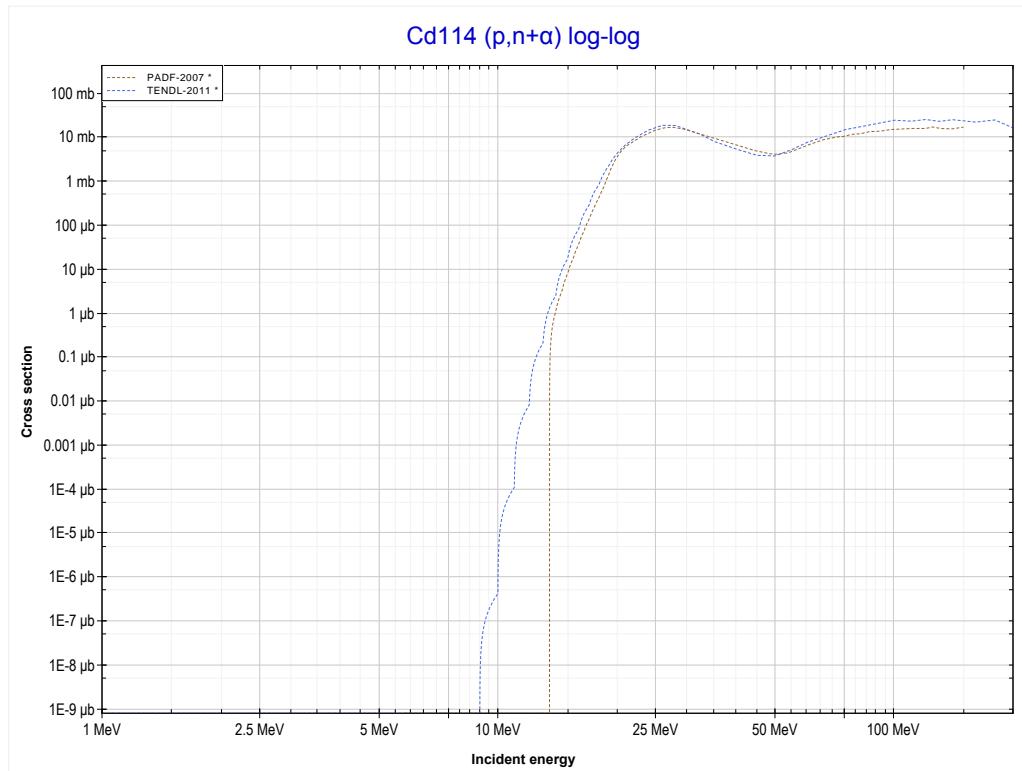
Reaction	Q-Value
Cd114(p,n)In114	-2231.25 keV

<< 48-Cd-113	48-Cd-114 MT16 (p,2n) or MT5 (In113 production)	48-Cd-116 >>
<< MT4 (p,n)		MT22 (p,n+α) >>



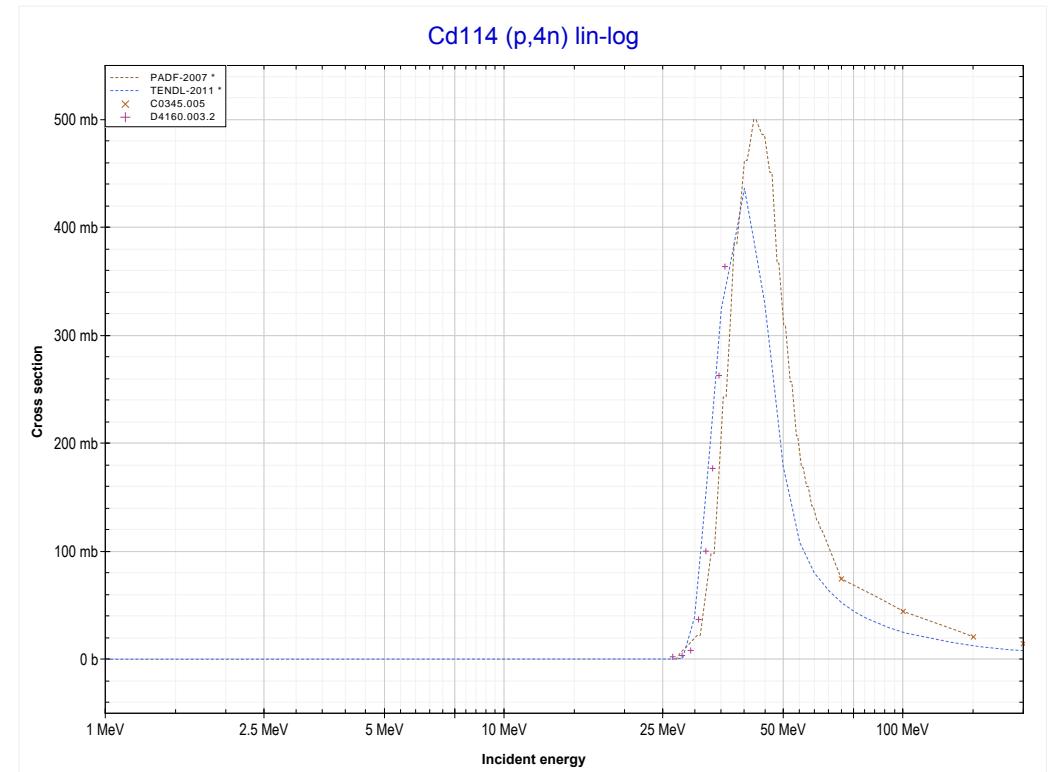
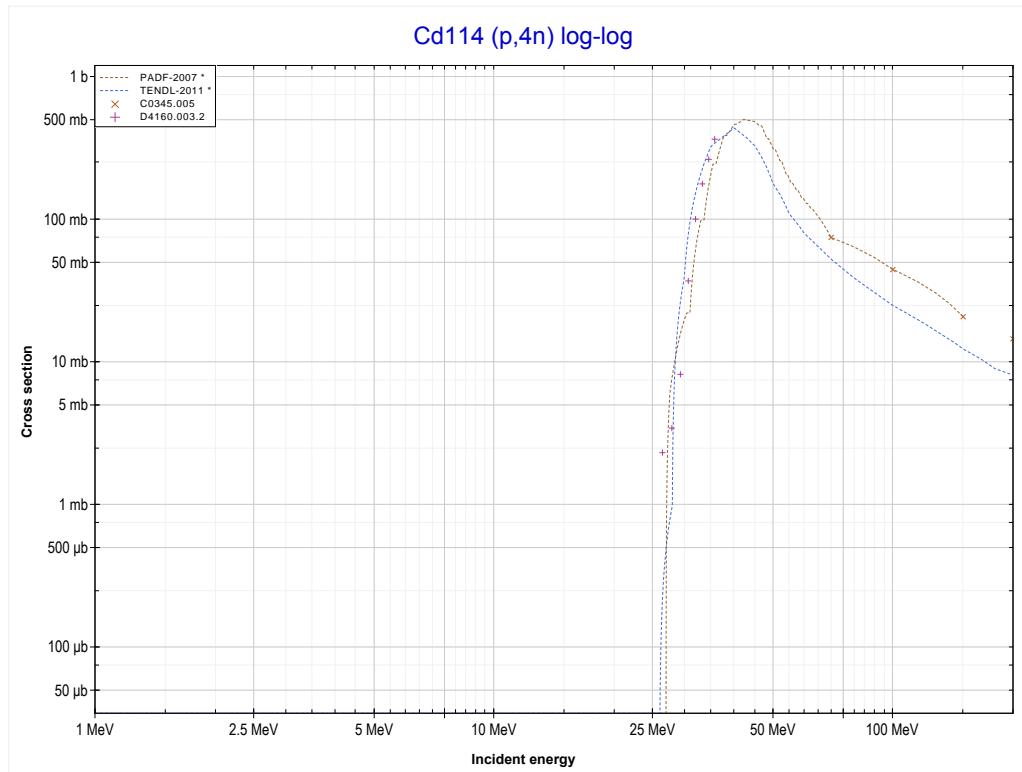
Reaction	Q-Value
Cd114(p,2n)In113	-9504.56 keV

<< 42-Mo-100	48-Cd-114 MT22 (p,n+α) or MT5 (Ag110 production)	54-Xe-124 >>
<< MT16 (p,2n)		MT37 (p,4n) >>



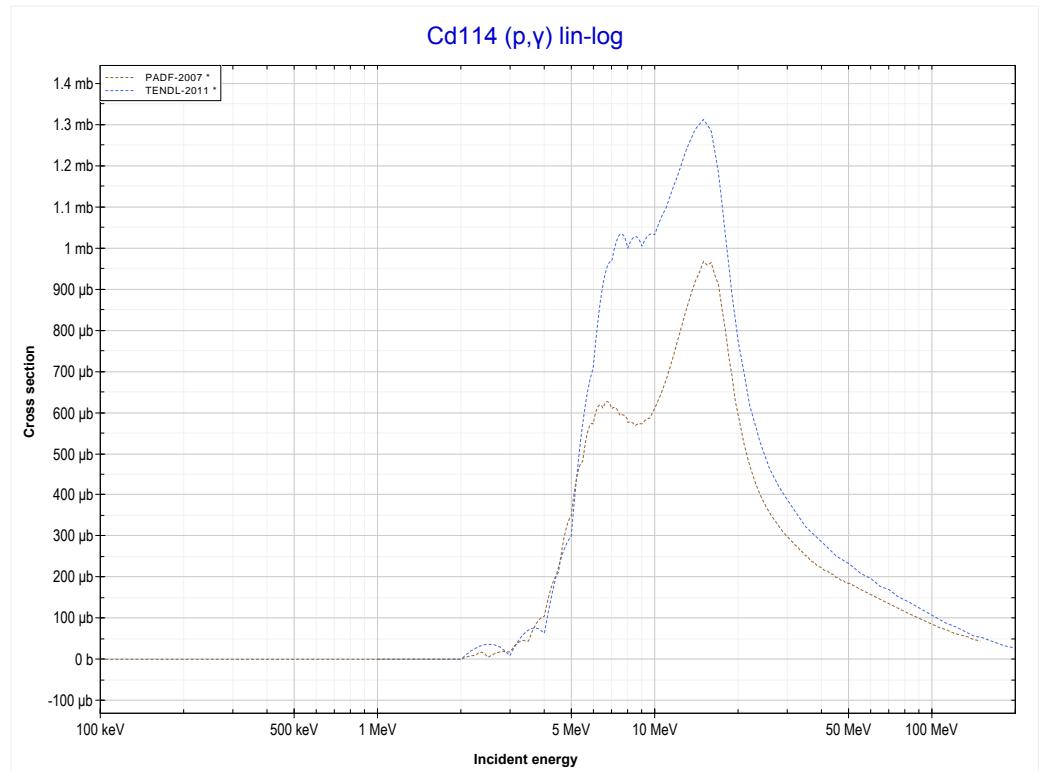
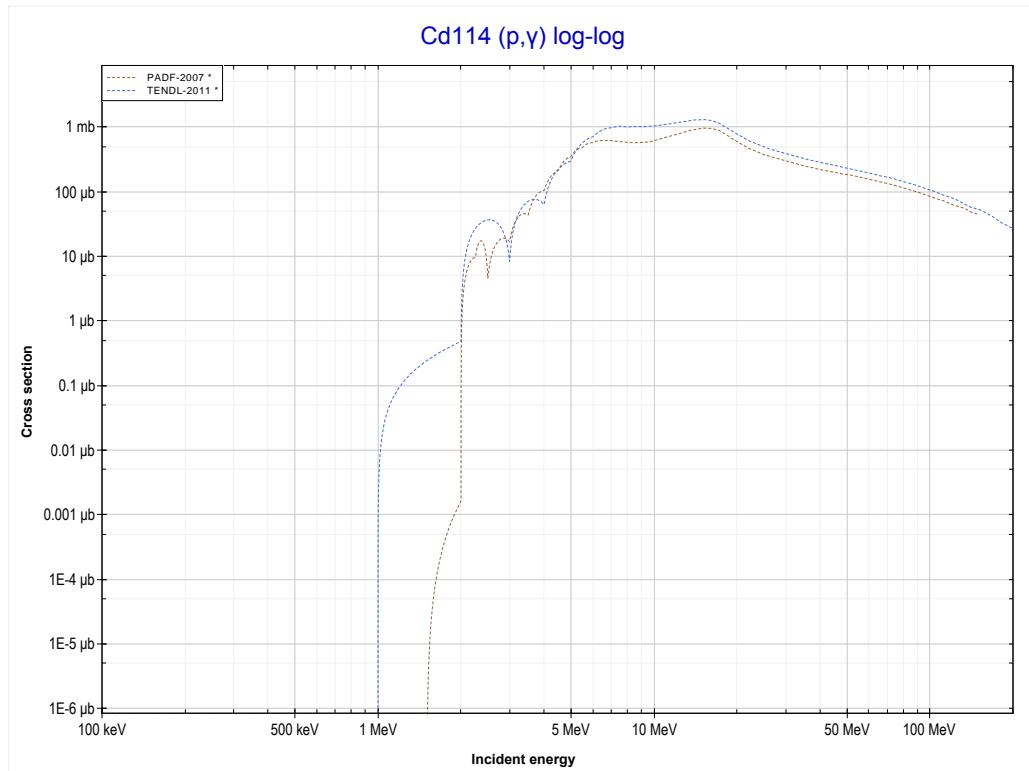
Reaction	Q-Value
Cd114(p,n+α)Ag110	-5767.56 keV
Cd114(p,d+t)Ag110	-23356.86 keV
Cd114(p,n+p+t)Ag110	-25581.42 keV
Cd114(p,2n+He3)Ag110	-26345.18 keV
Cd114(p,n+2d)Ag110	-29614.09 keV
Cd114(p,2n+p+d)Ag110	-31838.66 keV
Cd114(p,3n+2p)Ag110	-34063.22 keV

<< 48-Cd-111	48-Cd-114 MT37 (p,4n) or MT5 (In111 production)	48-Cd-116 >>
<< MT22 (p,n+α)		MT102 (p,γ) >>



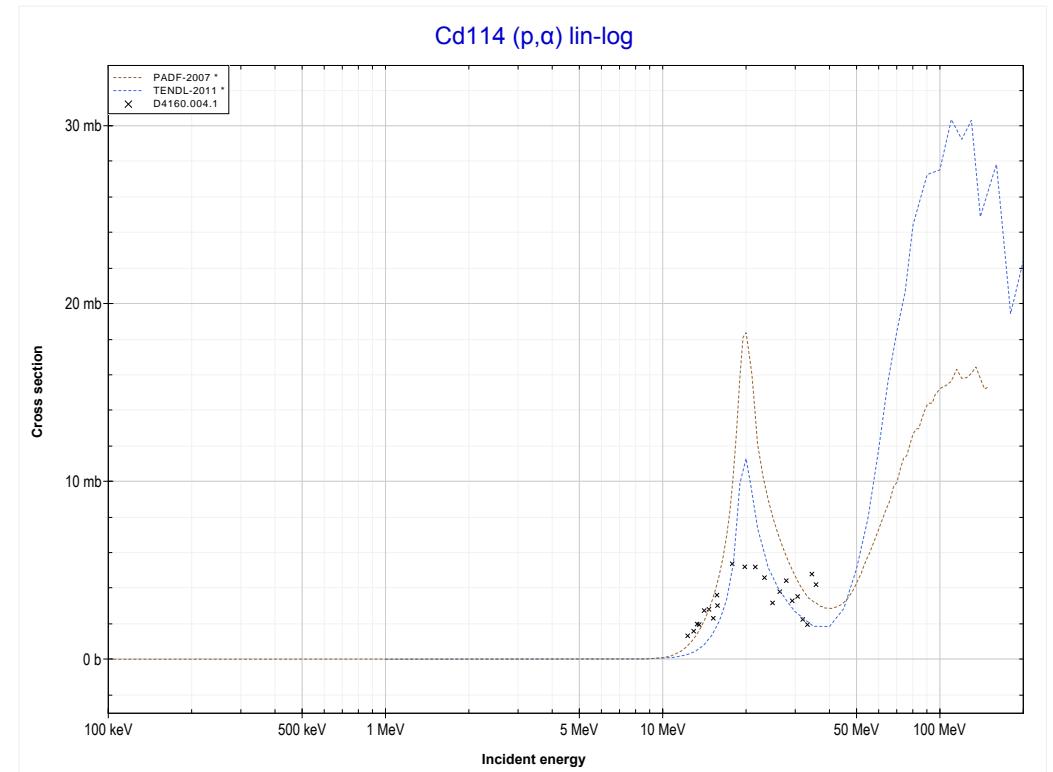
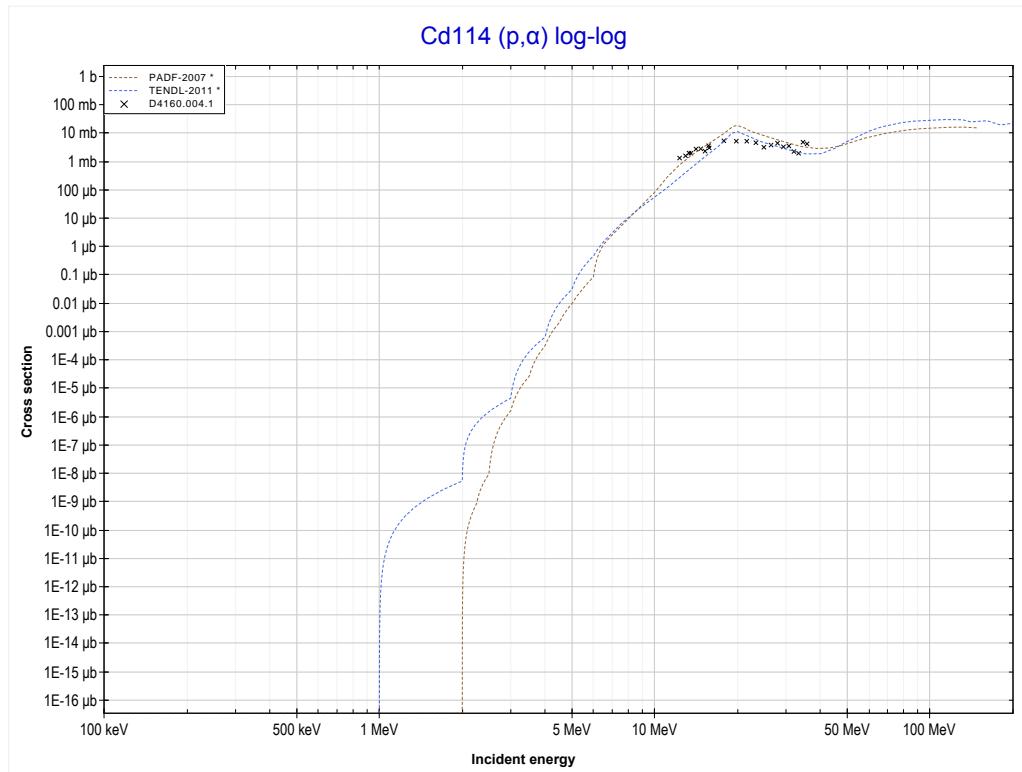
Reaction	Q-Value
Cd114(p,4n)In111	-26621.20 keV

<< 46-Pd-105	48-Cd-114 MT102 (p,γ) or MT5 (In115 production)	49-In-115 >>
<< MT37 ($p,4n$)		MT107 (p,α) >>



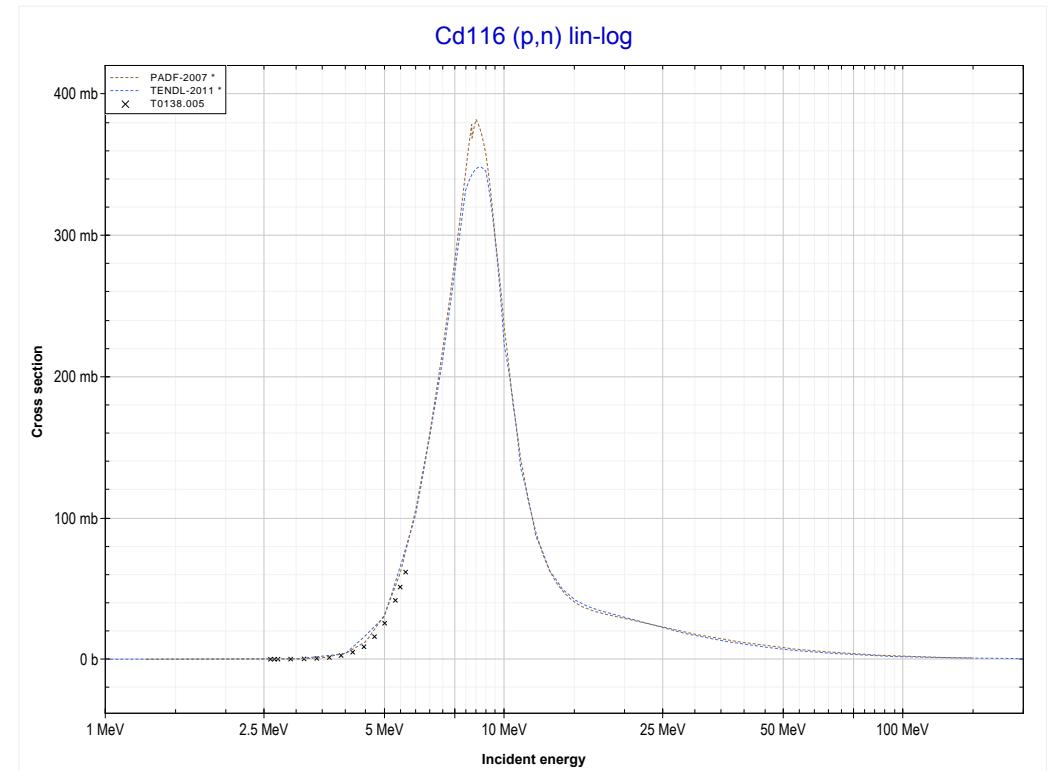
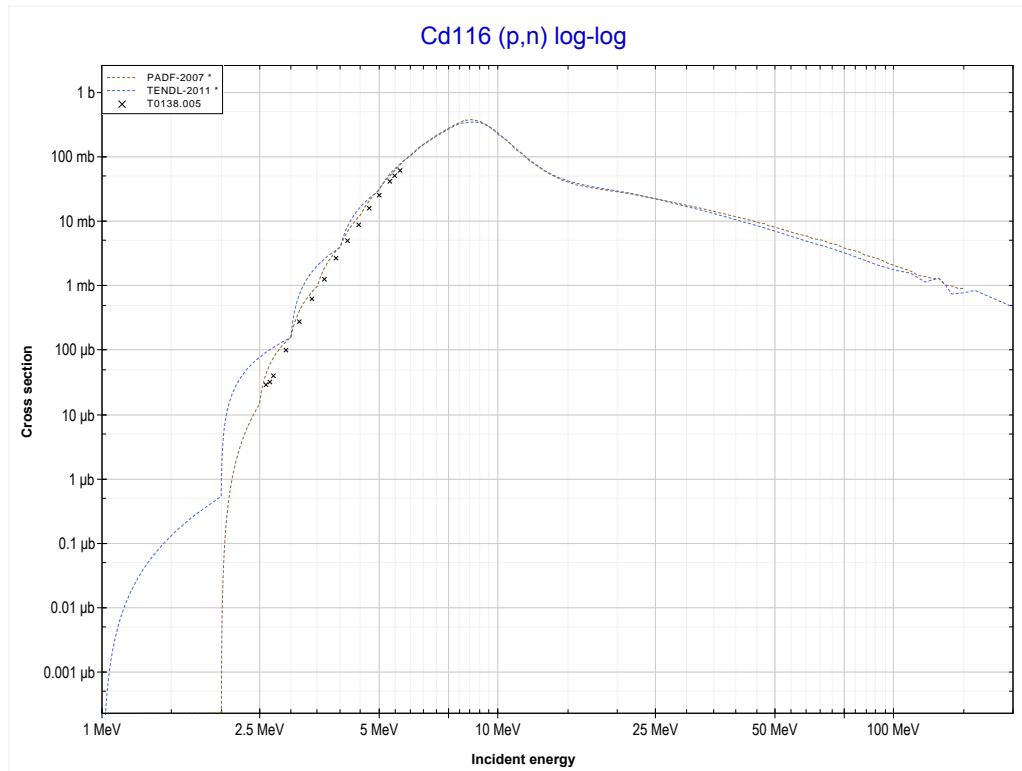
Reaction	Q-Value
Cd114(p,γ)In115	6805.07 keV

<< 42-Mo-100	48-Cd-114 MT107 (p,α) or MT5 (Ag111 production)	50-Sn-120 >>
<< MT102 (p,γ)		MT4 (p,n) >>



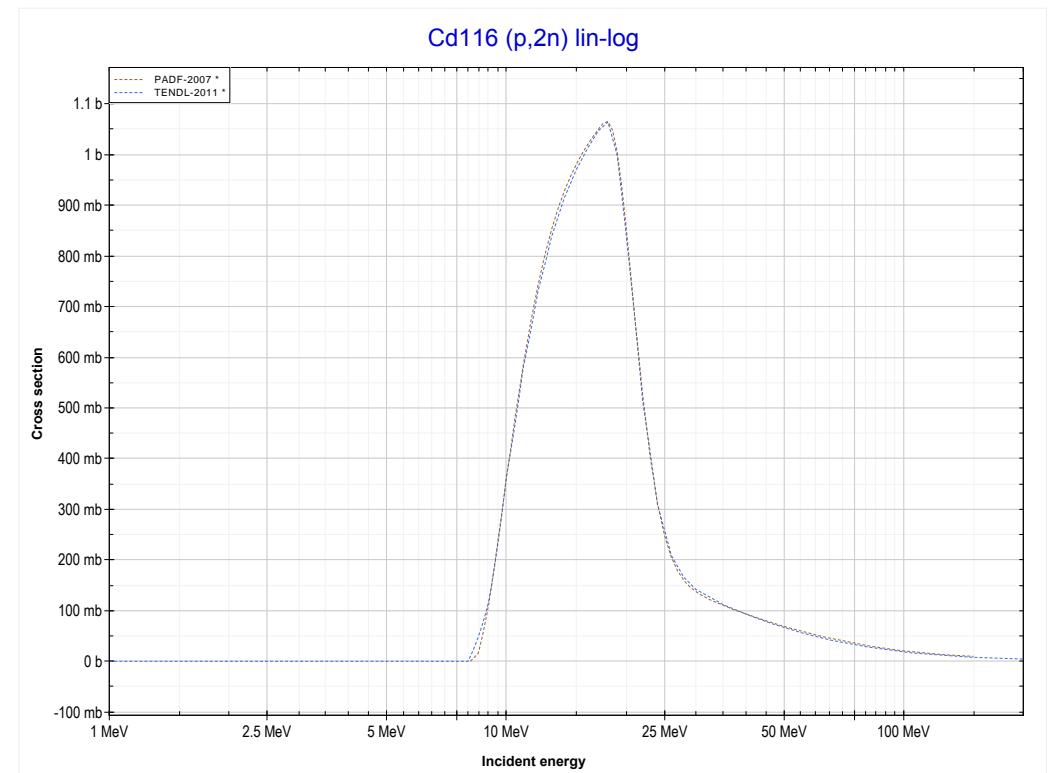
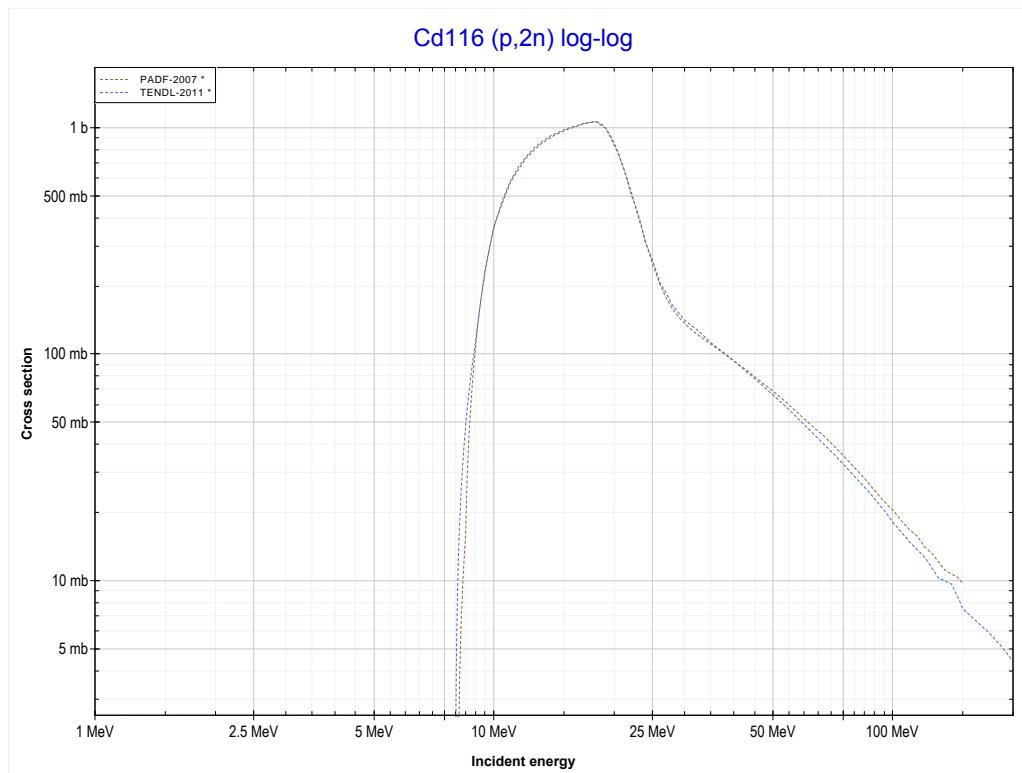
Reaction	Q-Value
Cd114(p,α)Ag111	3064.15 keV
Cd114($p,p+t$)Ag111	-16749.71 keV
Cd114($p,n+He3$)Ag111	-17513.46 keV
Cd114($p,2d$)Ag111	-20782.37 keV
Cd114($p,n+p+d$)Ag111	-23006.94 keV
Cd114($p,2n+2p$)Ag111	-25231.50 keV

<< 48-Cd-114	48-Cd-116 MT4 (p,n) or MT5 (In116 production)	49-In-113 >>
<< MT107 (p, α)		MT16 (p,2n) >>



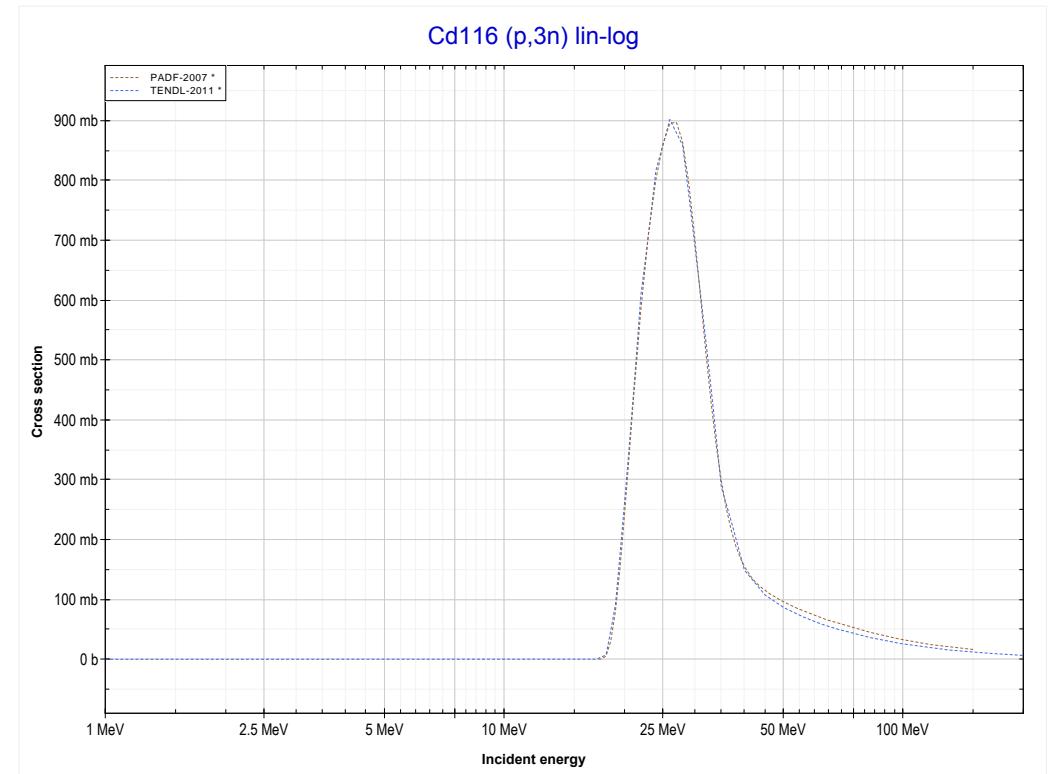
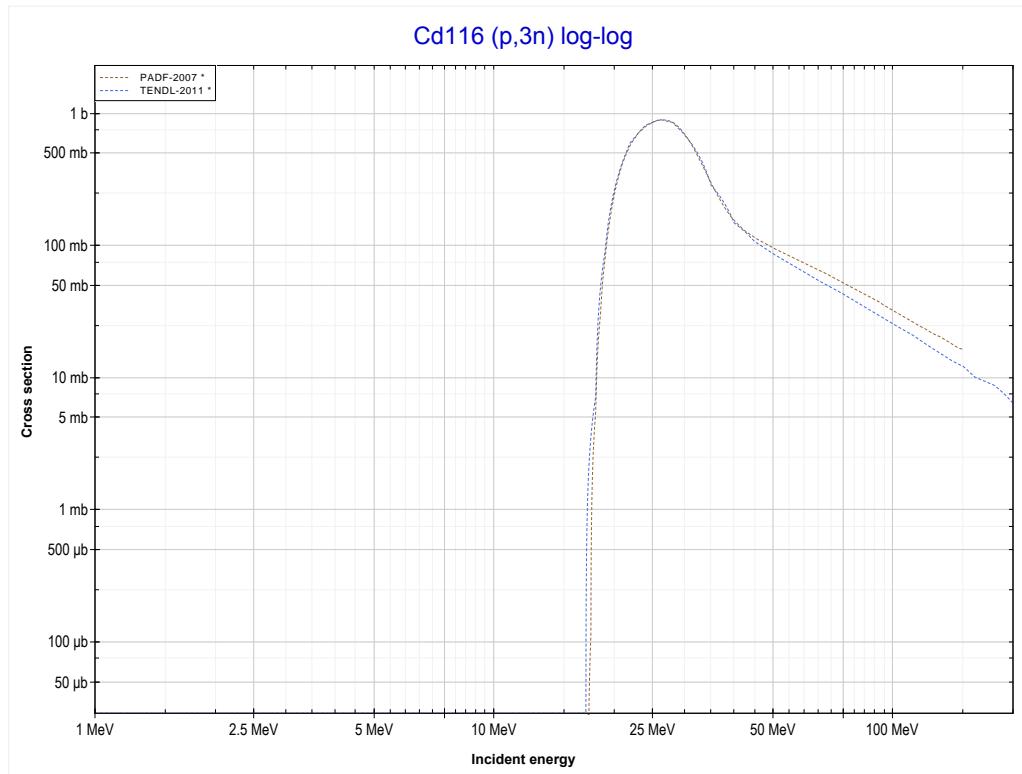
Reaction	Q-Value
Cd116(p,n)In116	-1251.35 keV

<< 48-Cd-114	48-Cd-116 MT16 (p,2n) or MT5 (In115 production)	>> 49-In-115
<< MT4 (p,n)		MT17 (p,3n) >>



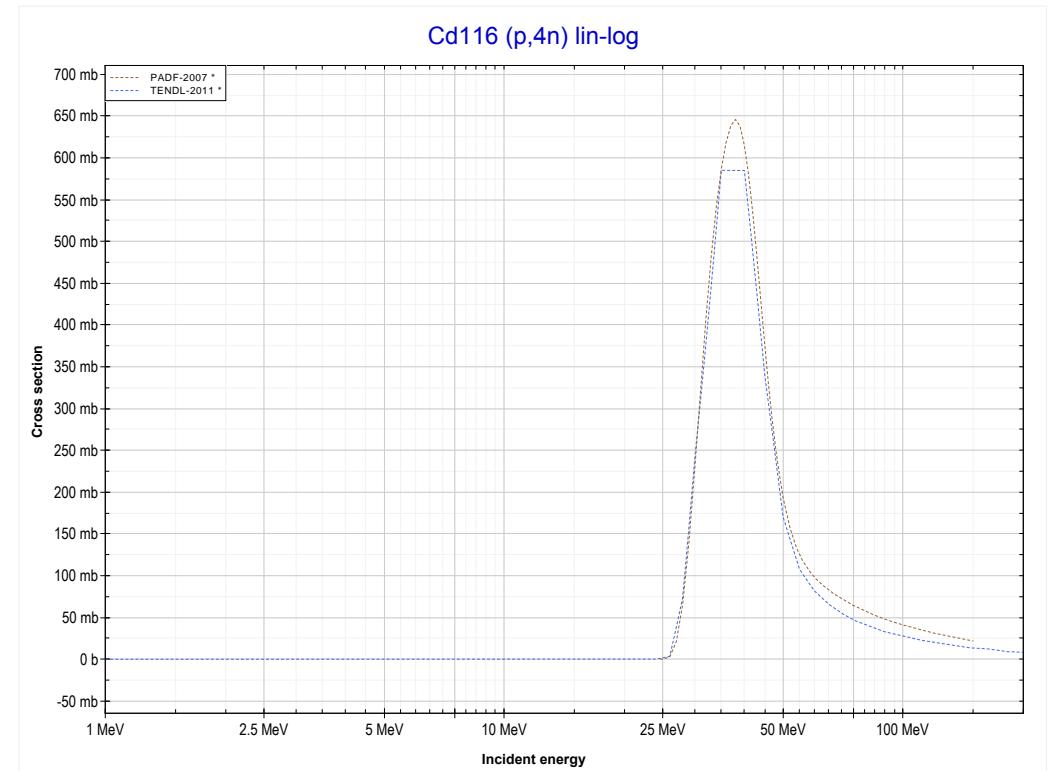
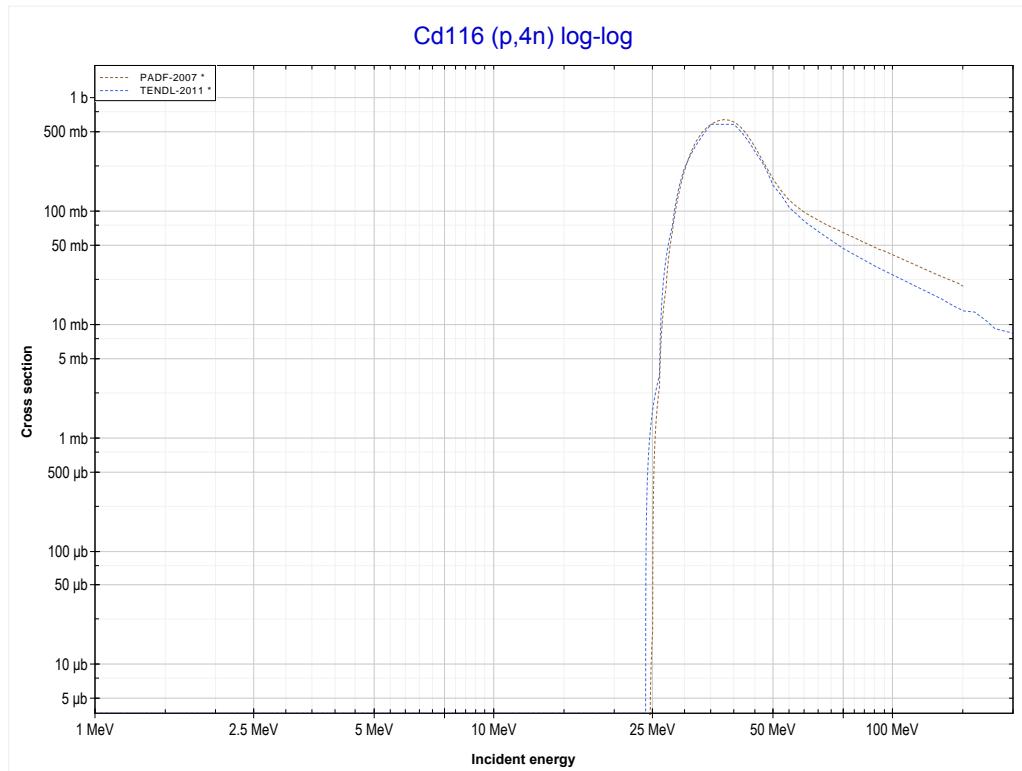
Reaction	Q-Value
Cd116(p,2n)In115	-8035.66 keV

<< 48-Cd-113	48-Cd-116 MT17 (p,3n) or MT5 (In114 production)	49-In-115 >>
<< MT16 (p,2n)		MT37 (p,4n) >>



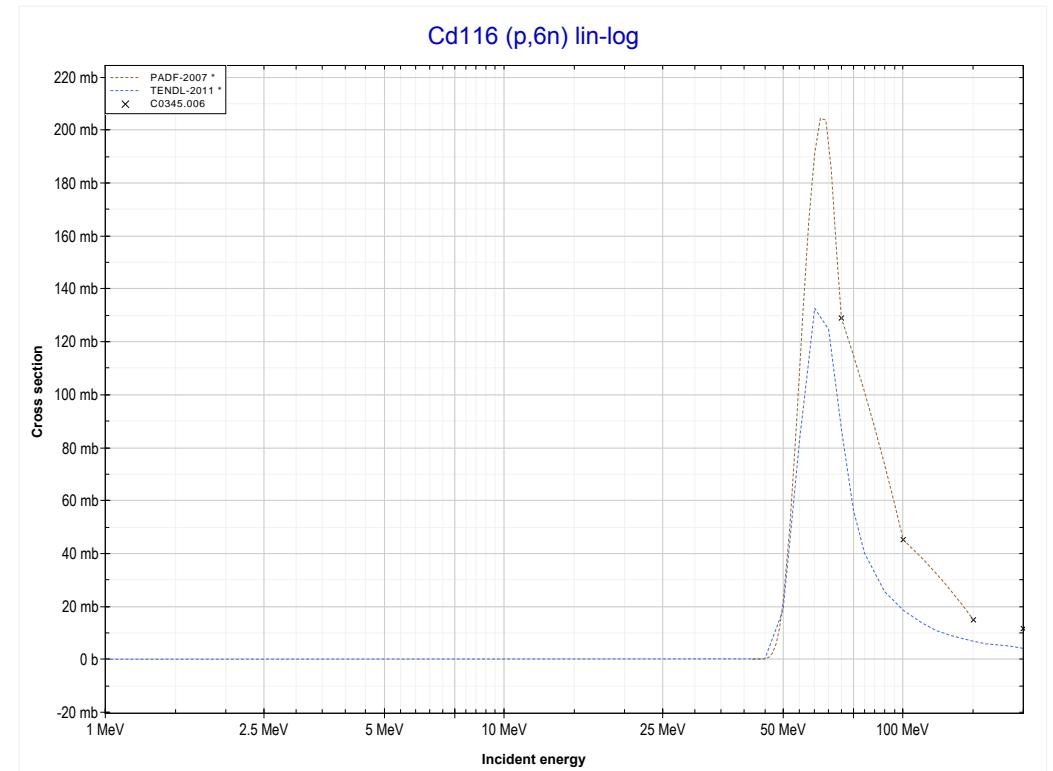
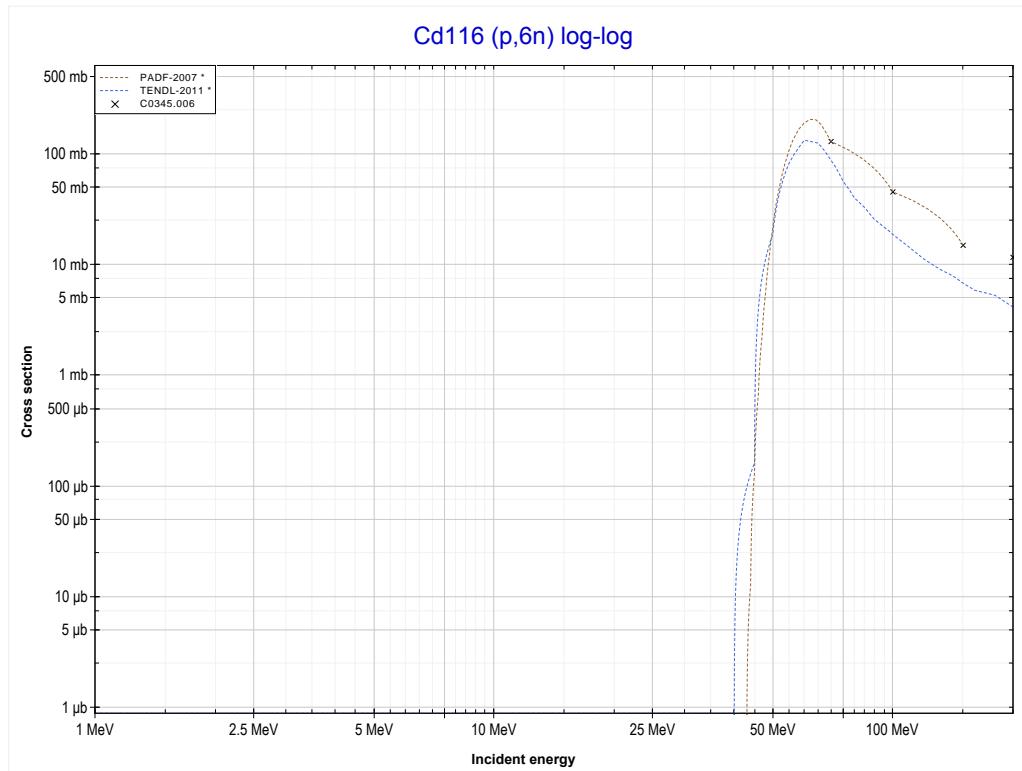
Reaction	Q-Value
Cd116(p,3n)In114	-17071.98 keV

<< 48-Cd-114	48-Cd-116 MT37 (p,4n) or MT5 (In113 production)	50-Sn-118 >>
<< MT17 (p,3n)		MT153 (p,6n) >>



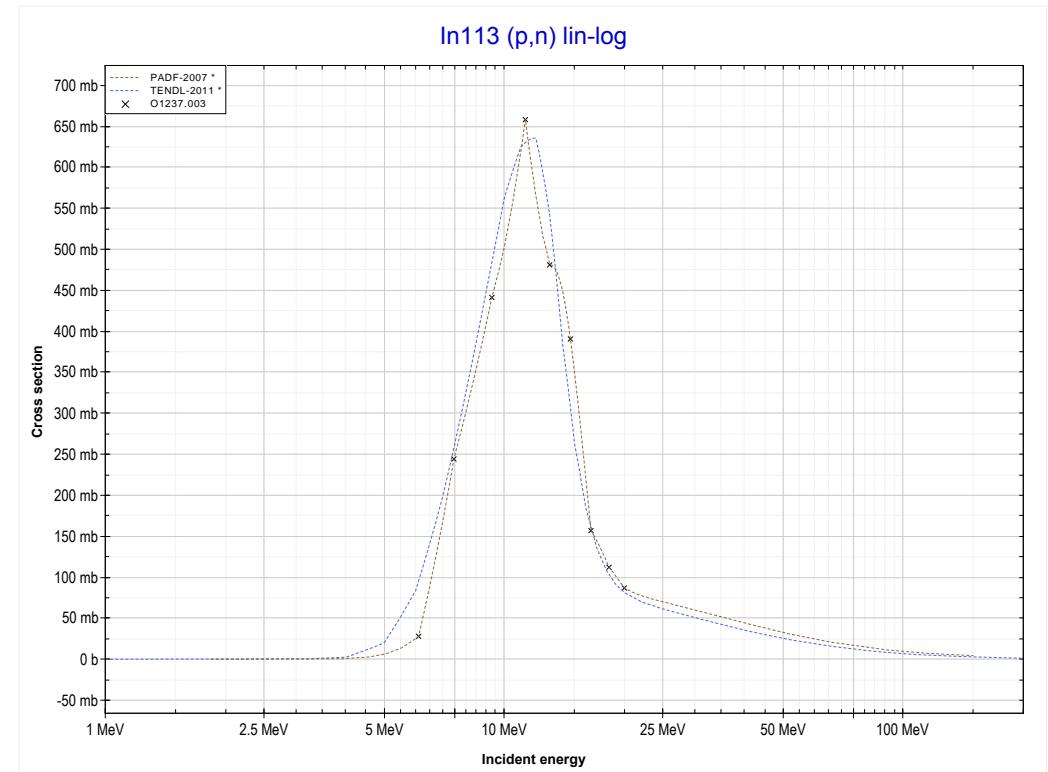
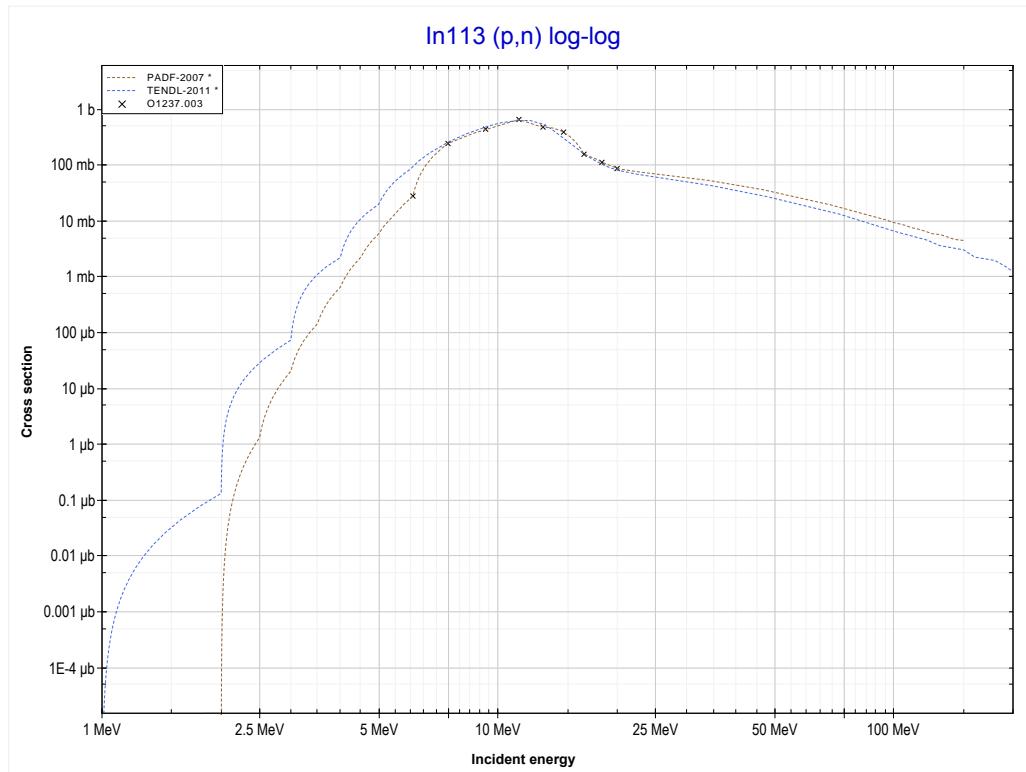
Reaction	Q-Value
Cd116(p,4n)In113	-24345.30 keV

<< 35-Br-81	48-Cd-116 MT153 (p,6n) or MT5 (In111 production)	52-Te-125 >>
<< MT37 (p,4n)		MT4 (p,n) >>



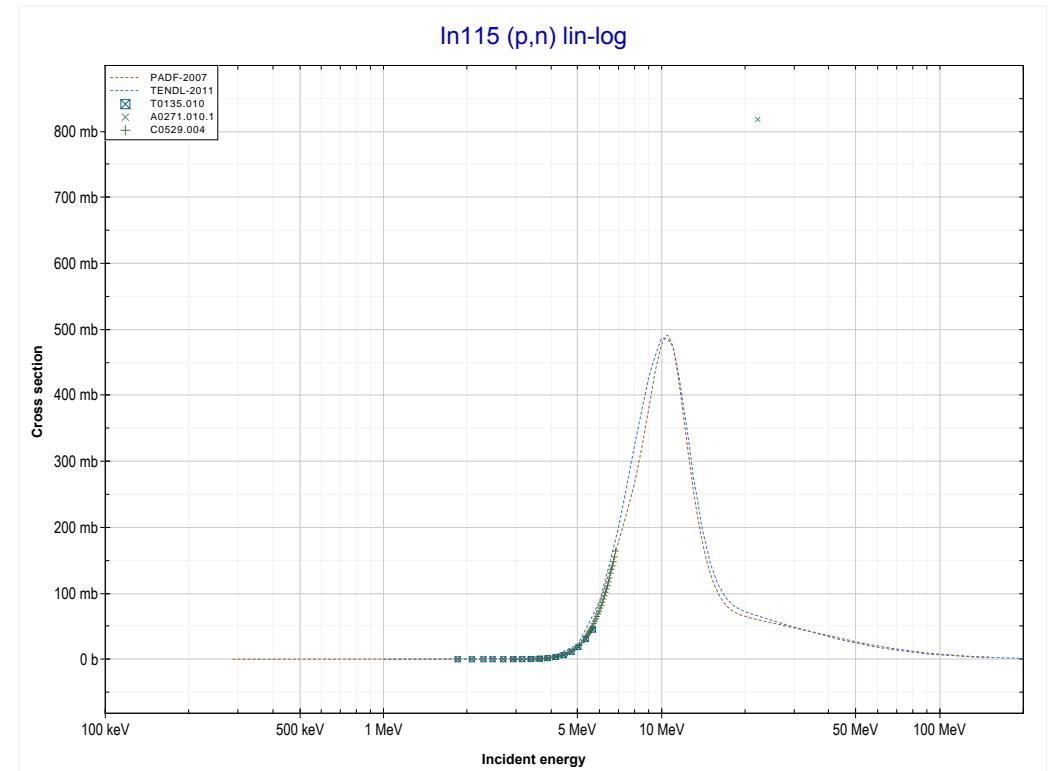
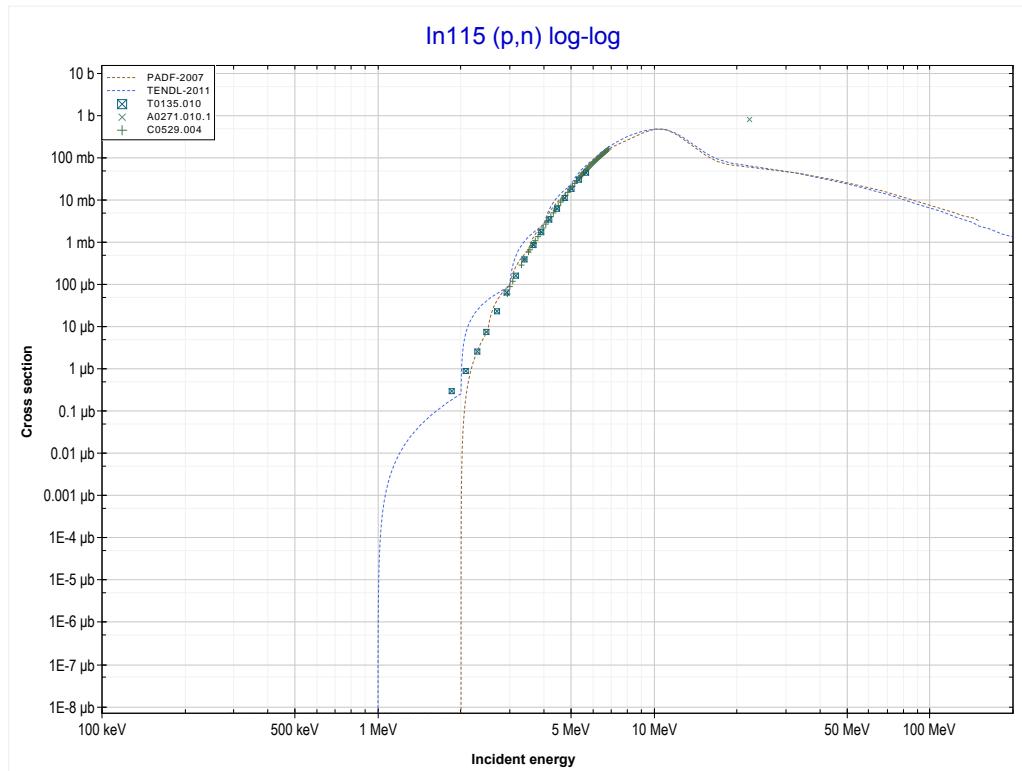
Reaction	Q-Value
Cd116(p,6n)In111	-41461.93 keV

<< 48-Cd-116	49-In-113 MT4 (p,n) or MT5 (Sn113 production)	>> 49-In-115
<< MT153 (p,6n)		MT4 (p,n) >>



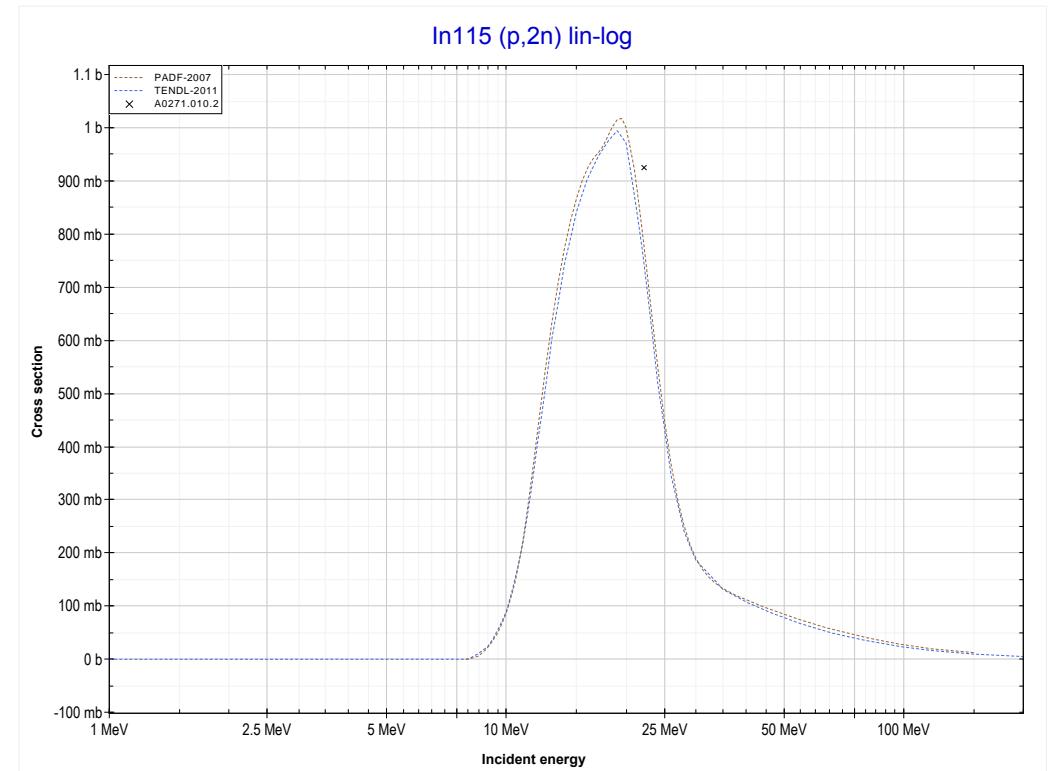
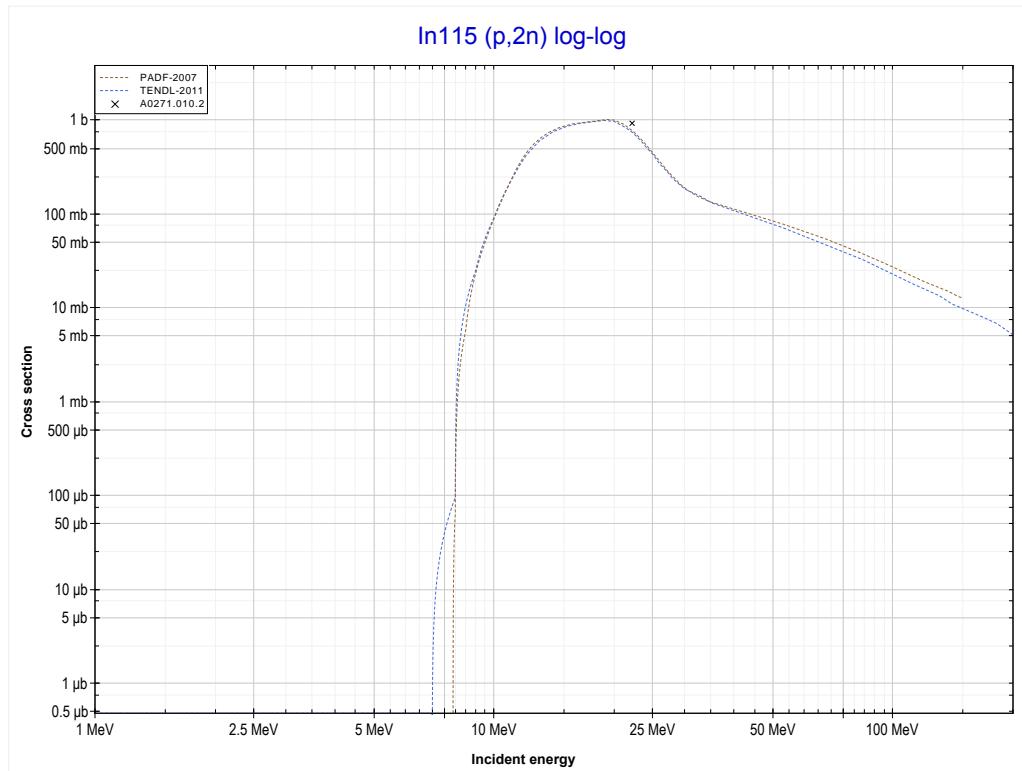
Reaction	Q-Value
In113(p,n)Sn113	-1819.35 keV

<< 49-In-113	49-In-115 MT4 (p,n) or MT5 (Sn115 production)	50-Sn-115 >>
<< MT4 (p,n)		MT16 (p,2n) >>



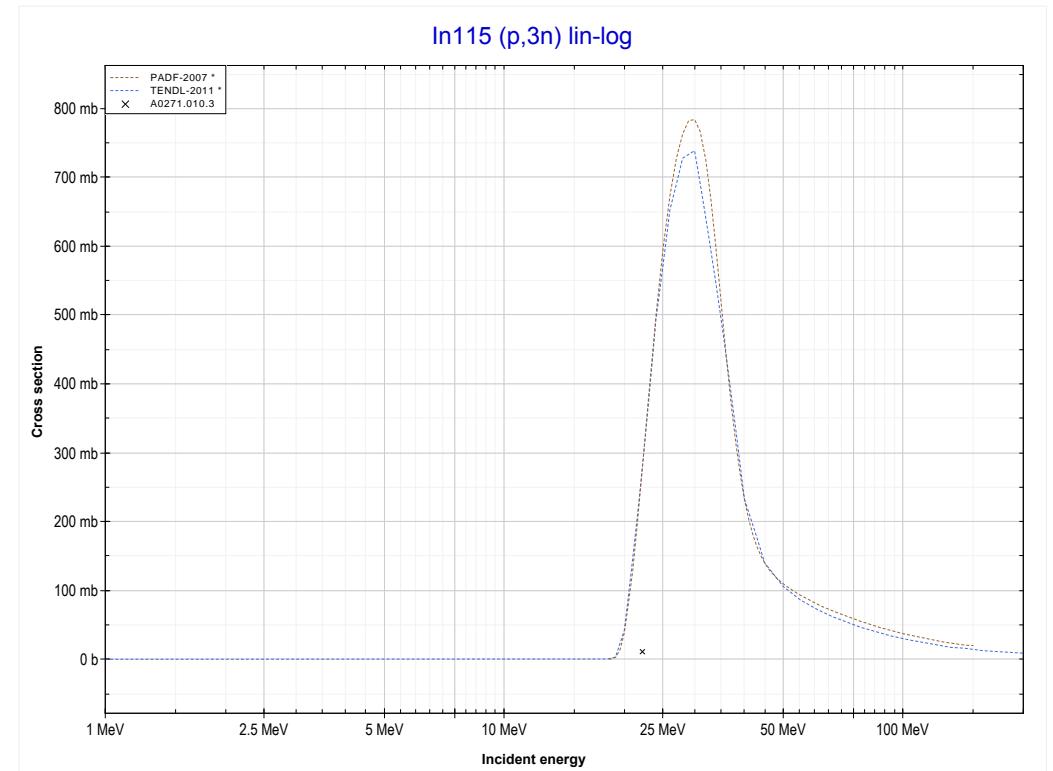
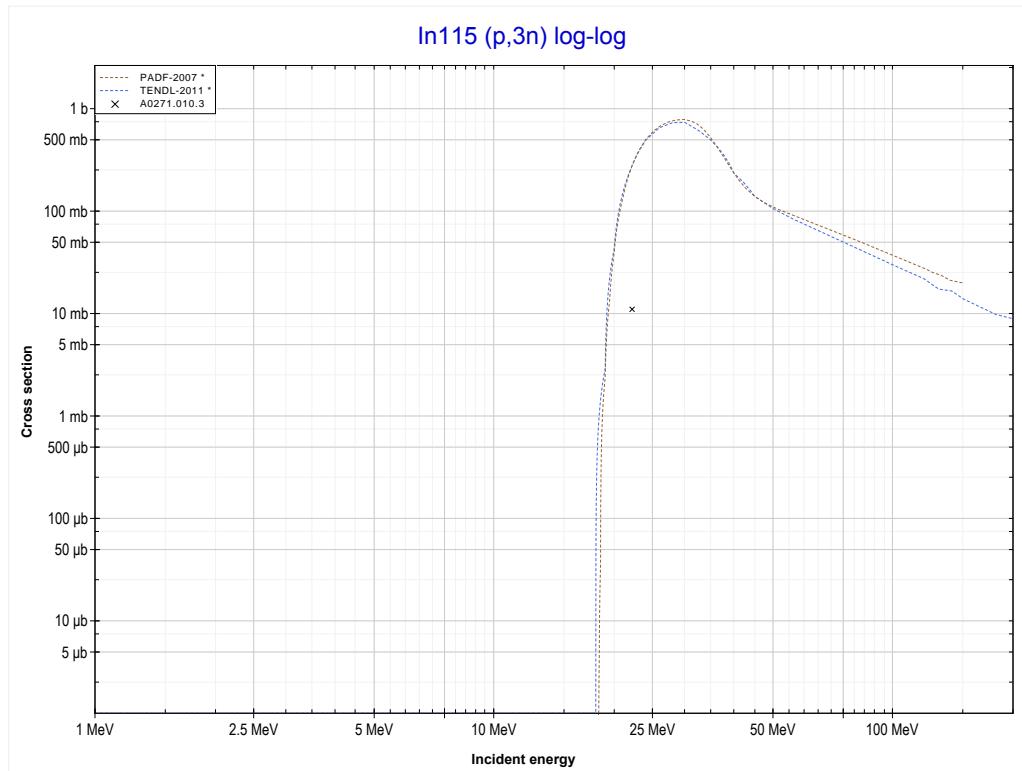
Reaction	Q-Value
In115(p,n)Sn115	-283.35 keV

<< 48-Cd-116	49-In-115 MT16 (p,2n) or MT5 (Sn114 production)	50-Sn-118 >>
<< MT4 (p,n)		MT17 (p,3n) >>



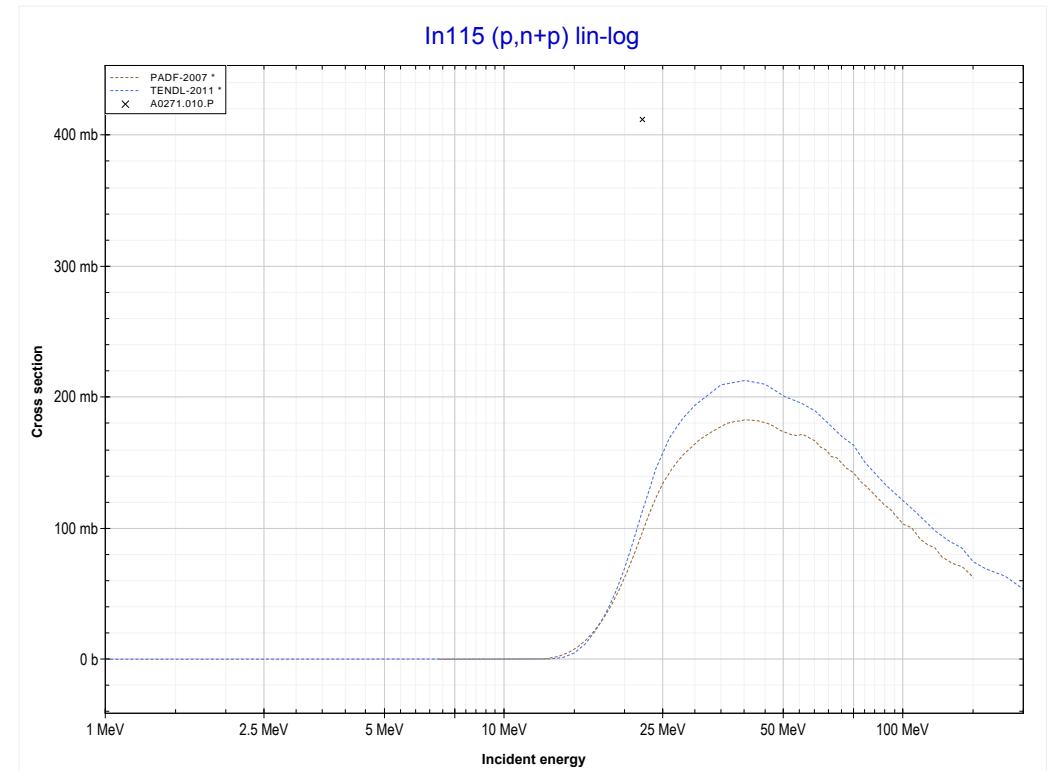
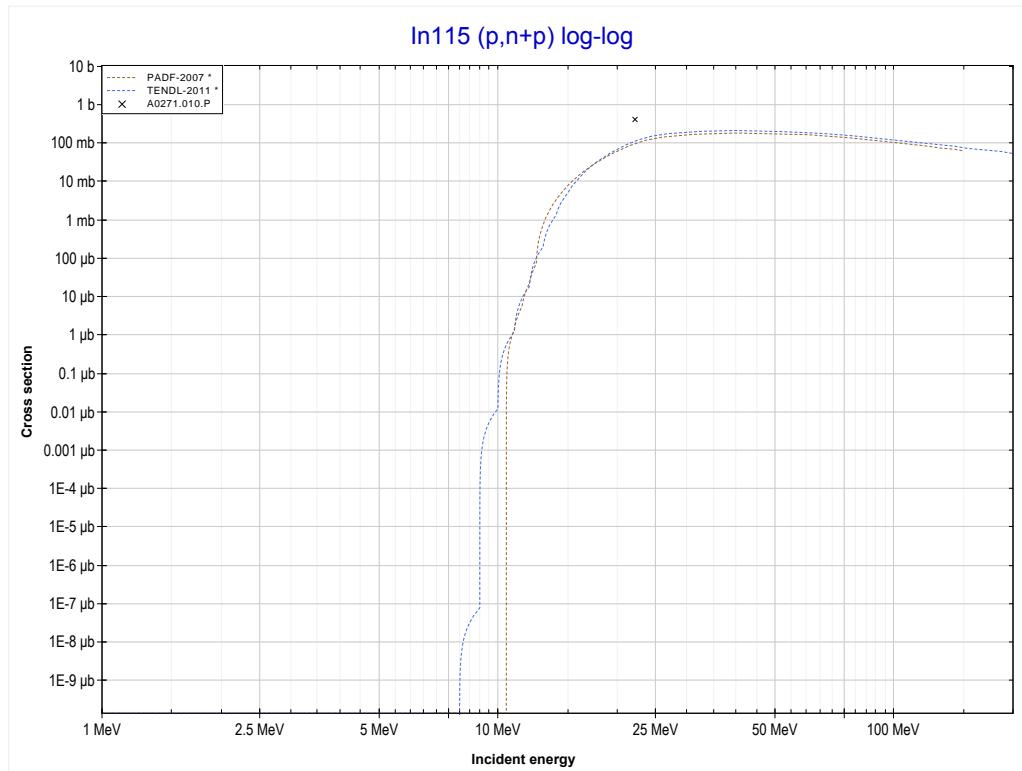
Reaction	Q-Value
$\text{In}^{115}(p,2n)\text{Sn}^{114}$	-7829.66 keV

<< 48-Cd-116	49-In-115 MT17 (p,3n) or MT5 (Sn113 production)	50-Sn-118 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>



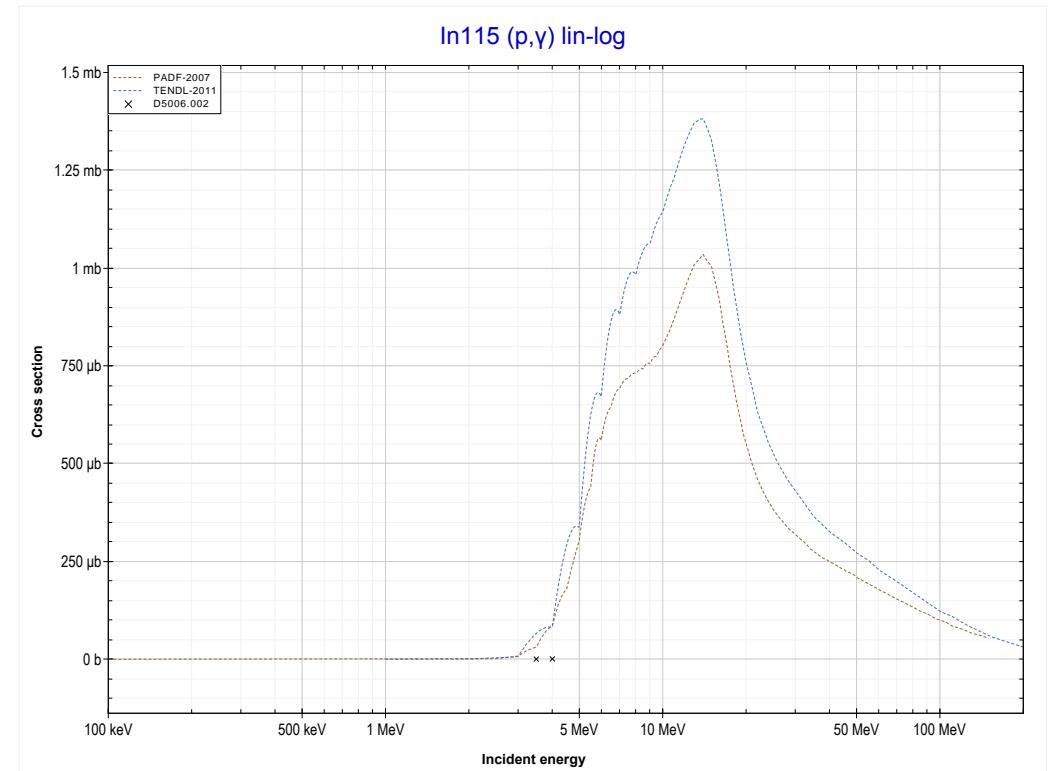
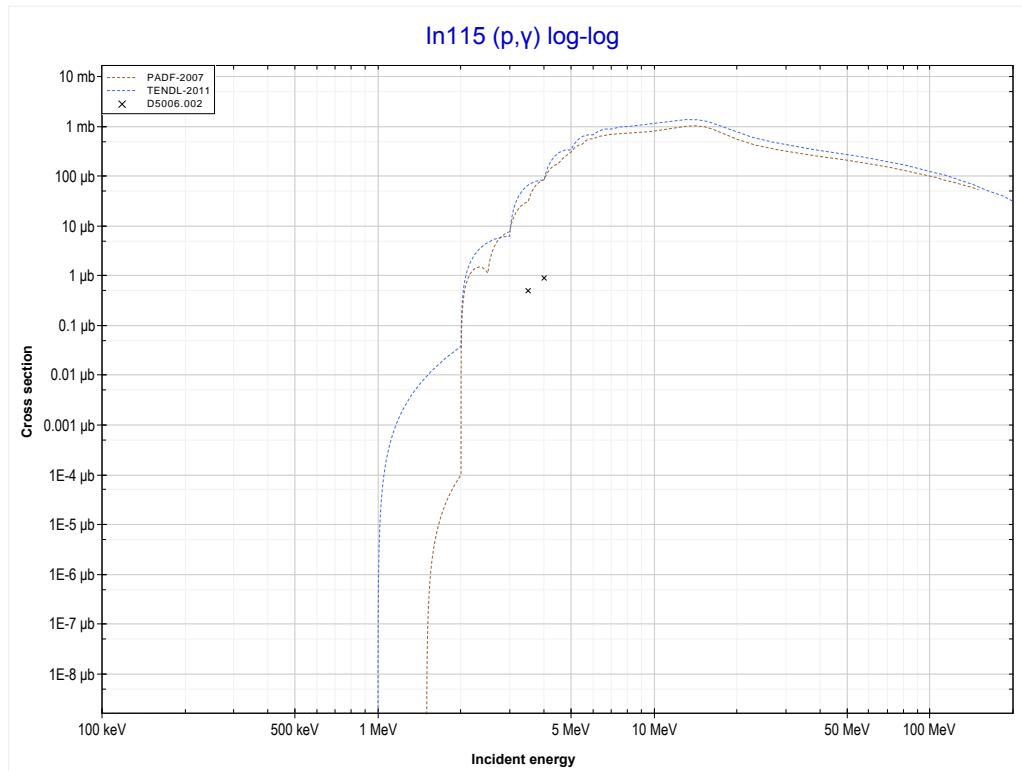
Reaction	Q-Value
In115(p,3n)Sn113	-18128.98 keV

<< 48-Cd-110	49-In-115 MT28 (p,n+p) or MT5 (In114 production)	51-Sb-123 >>
<< MT17 (p,3n)		MT102 (p,y) >>



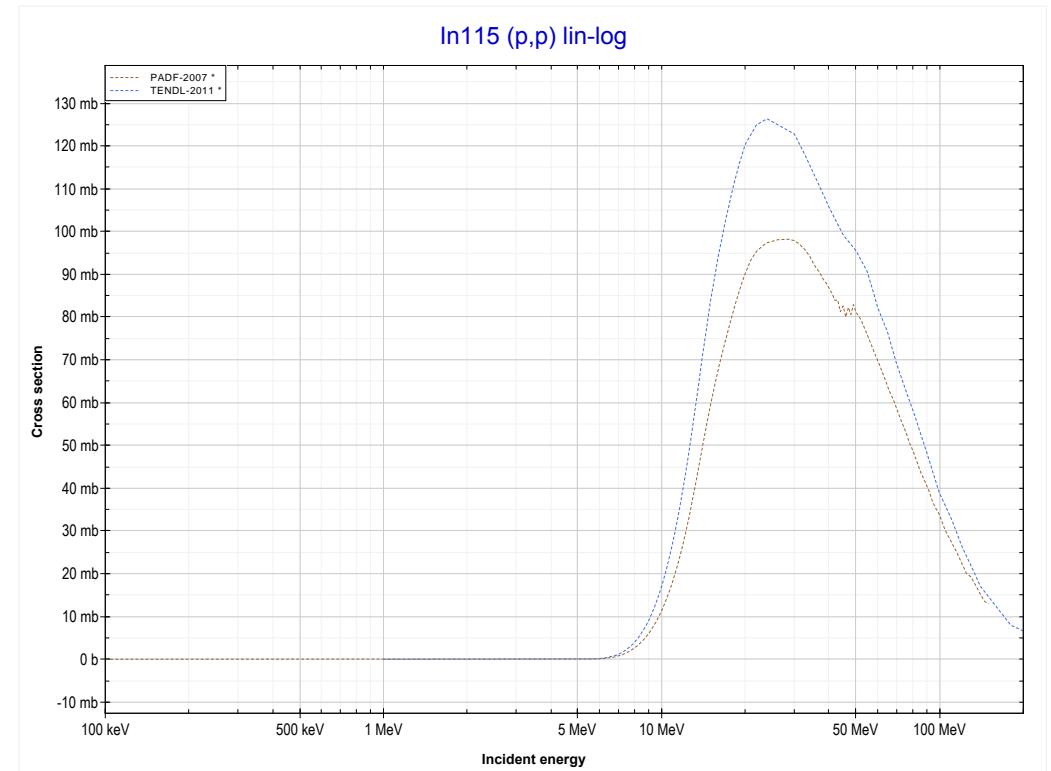
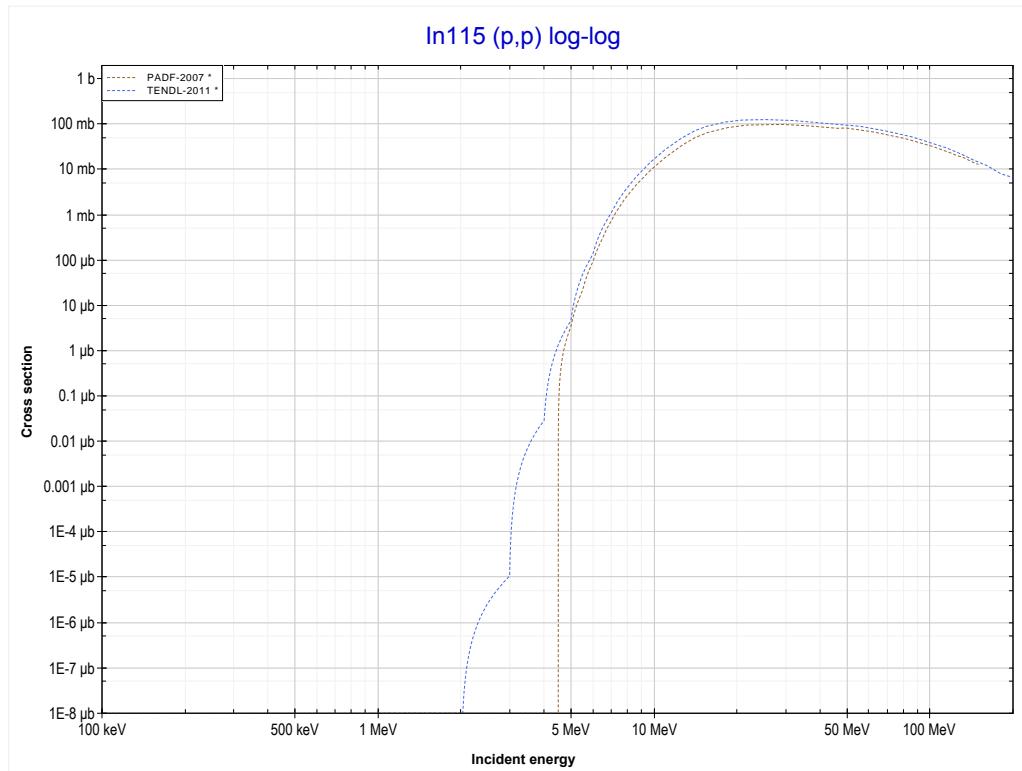
Reaction	Q-Value
In115(p,d)In114	-6811.75 keV
In115(p,n+p)In114	-9036.32 keV

<< 48-Cd-114	49-In-115 MT102 (p,y) or MT5 (Sn116 production)	50-Sn-112 >>
<< MT28 (p,n+p)		MT103 (p,p) >>



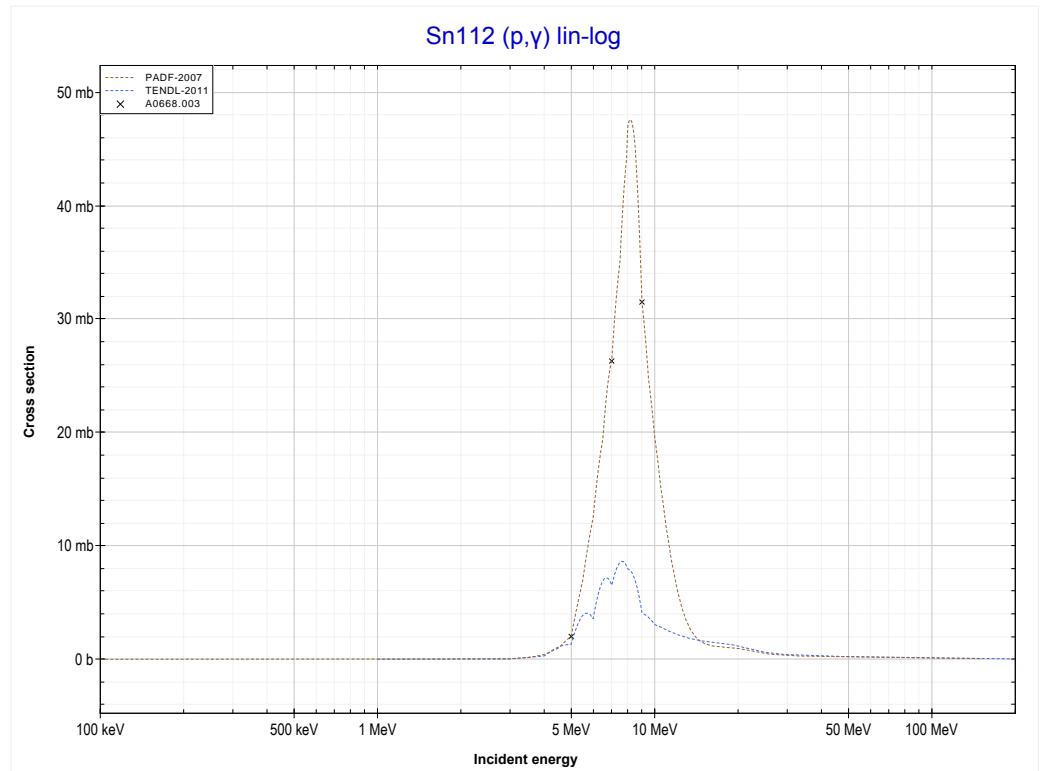
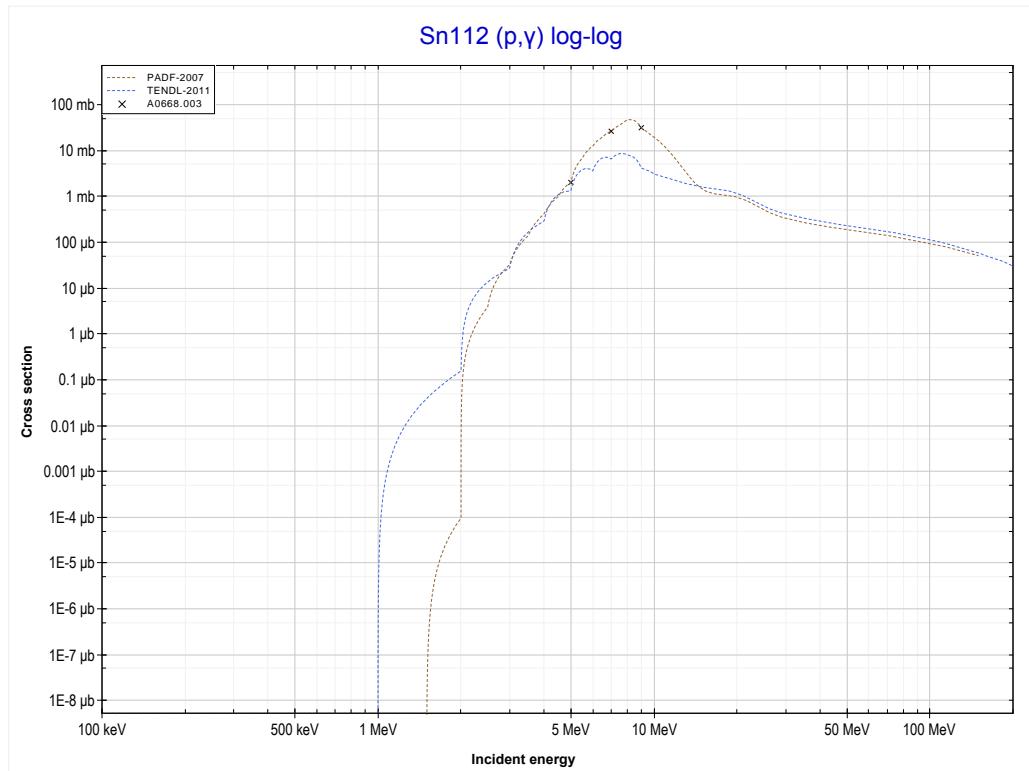
Reaction	Q-Value
$\text{In}^{115}(\text{p},\gamma)\text{Sn}^{116}$	9280.07 keV

<< 41-Nb-93	49-In-115 MT103 (p,p) or MT5 (In115 production)	>> 67-Ho-165
<< MT102 (p, γ)		MT102 (p, γ) >>



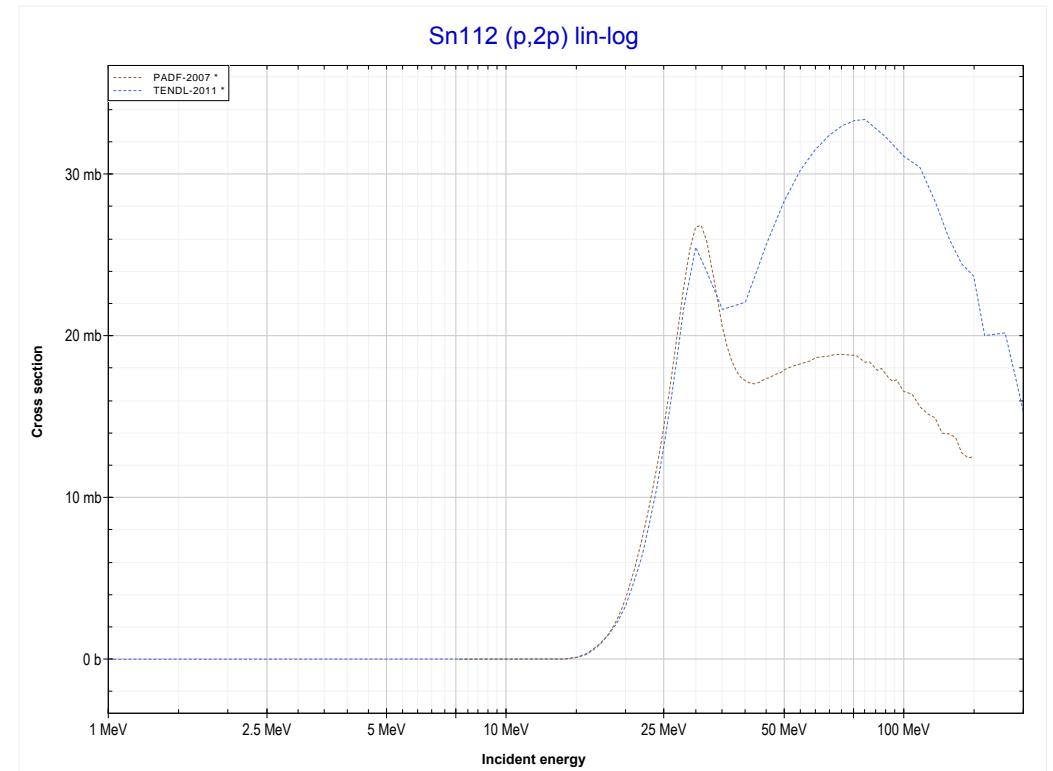
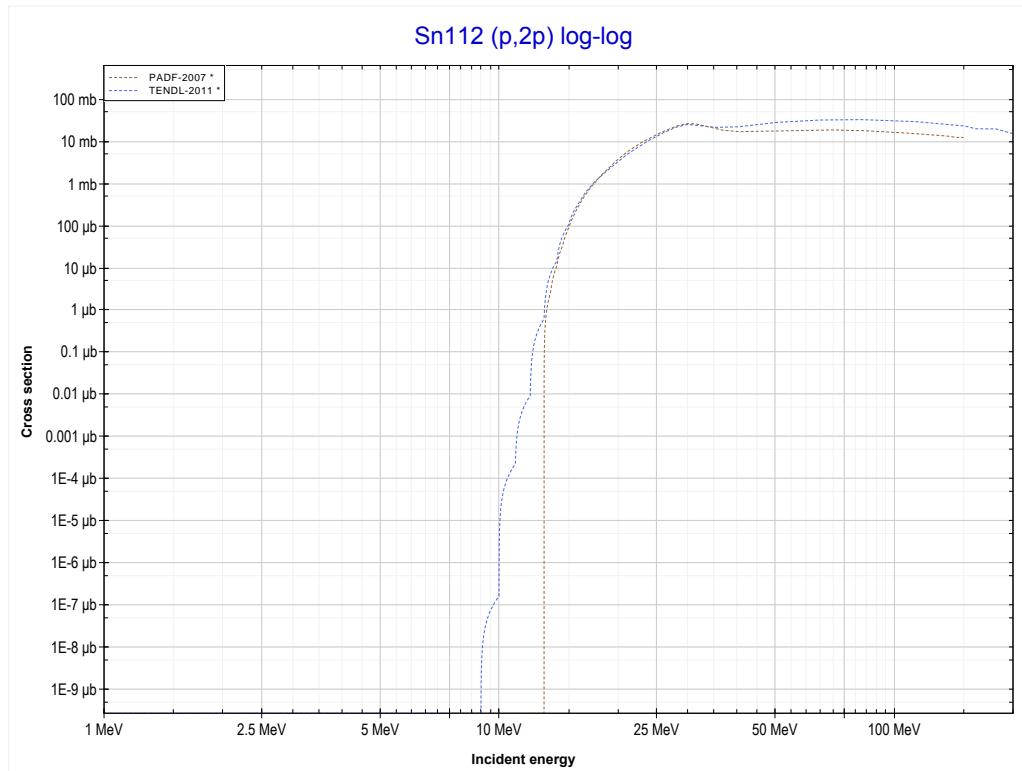
Reaction	Q-Value
In115(p,p)In115	0.00 keV

<< 49-In-115	50-Sn-112 MT102 (p,γ) or MT5 (Sb113 production)	52-Te-120 >>
<< MT103 (p,p) >>		MT111 (p,2p) >>



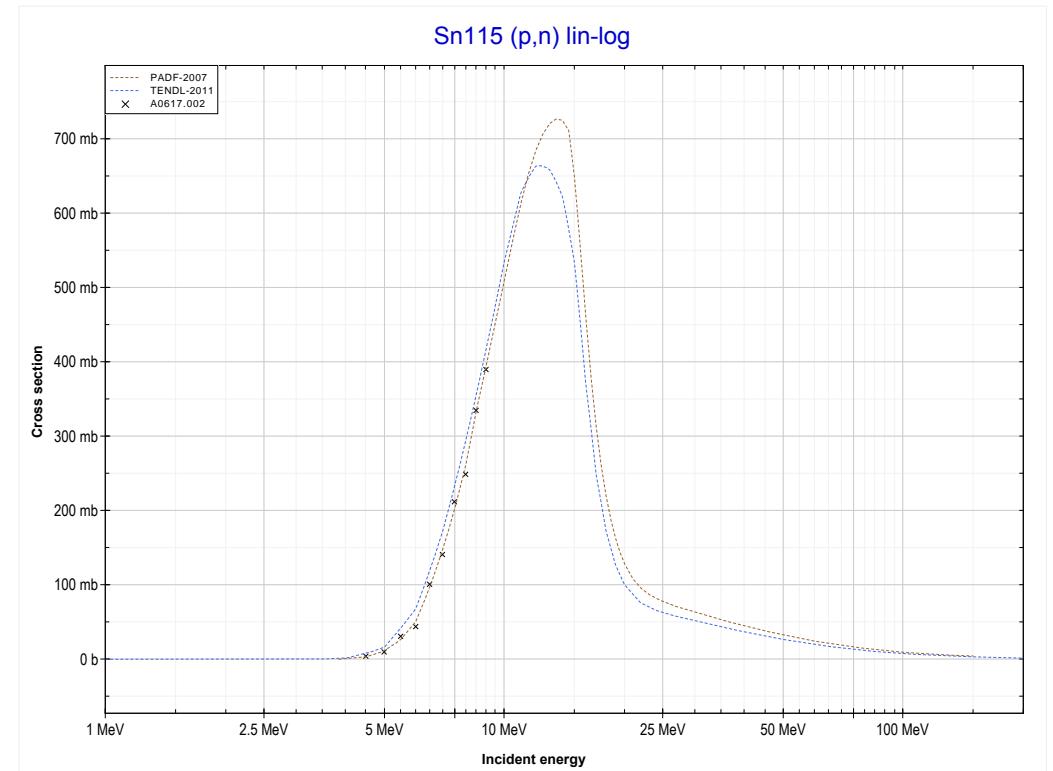
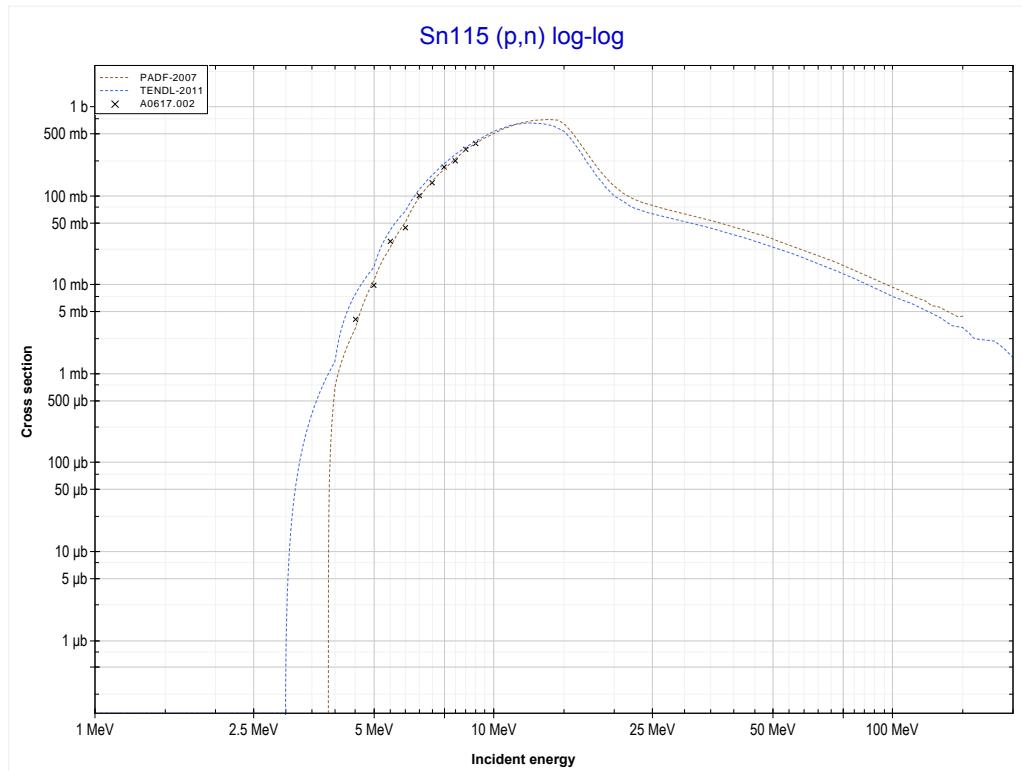
Reaction	Q-Value
$\text{Sn}^{112}(p,\gamma)\text{Sb}^{113}$	3047.97 keV

<< 48-Cd-113	50-Sn-112 MT111 (p,2p) or MT5 (In111 production)	50-Sn-118 >>
<< MT102 (p, γ)		MT4 (p,n) >>



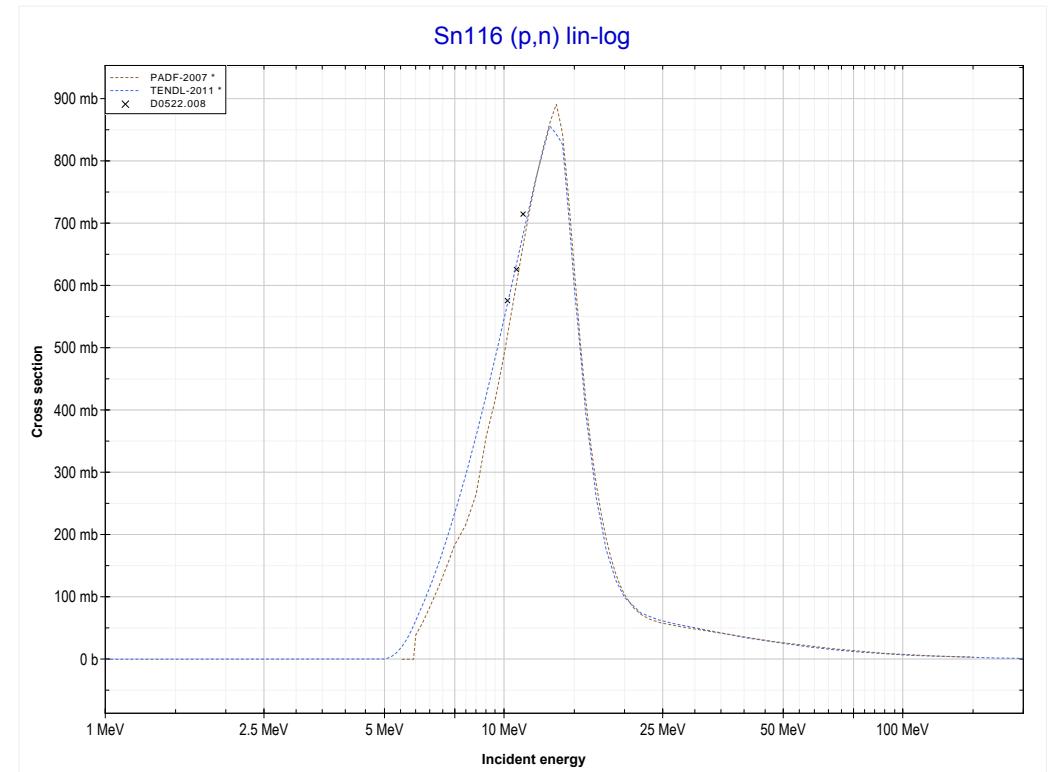
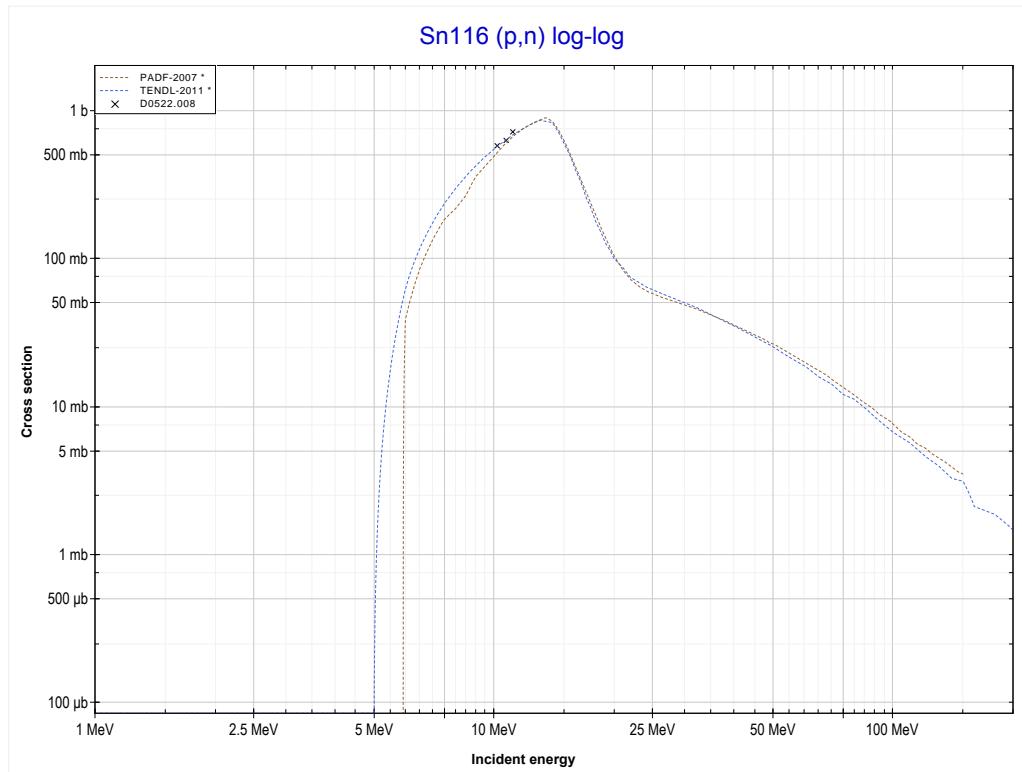
Reaction	Q-Value
$\text{Sn}^{112}(\text{p},\text{2p})\text{In}^{111}$	-7553.97 keV

<< 49-In-115	50-Sn-115 MT4 (p,n) or MT5 (Sb115 production)	50-Sn-116 >>
<< MT111 (p,2p)		MT4 (p,n) >>



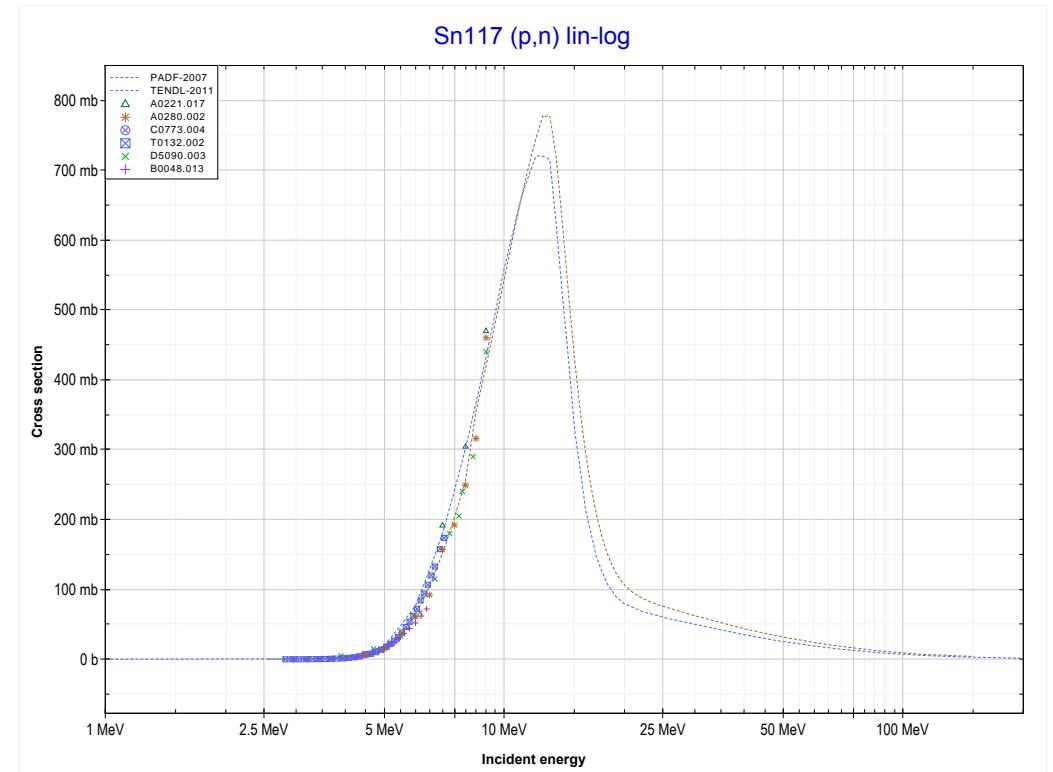
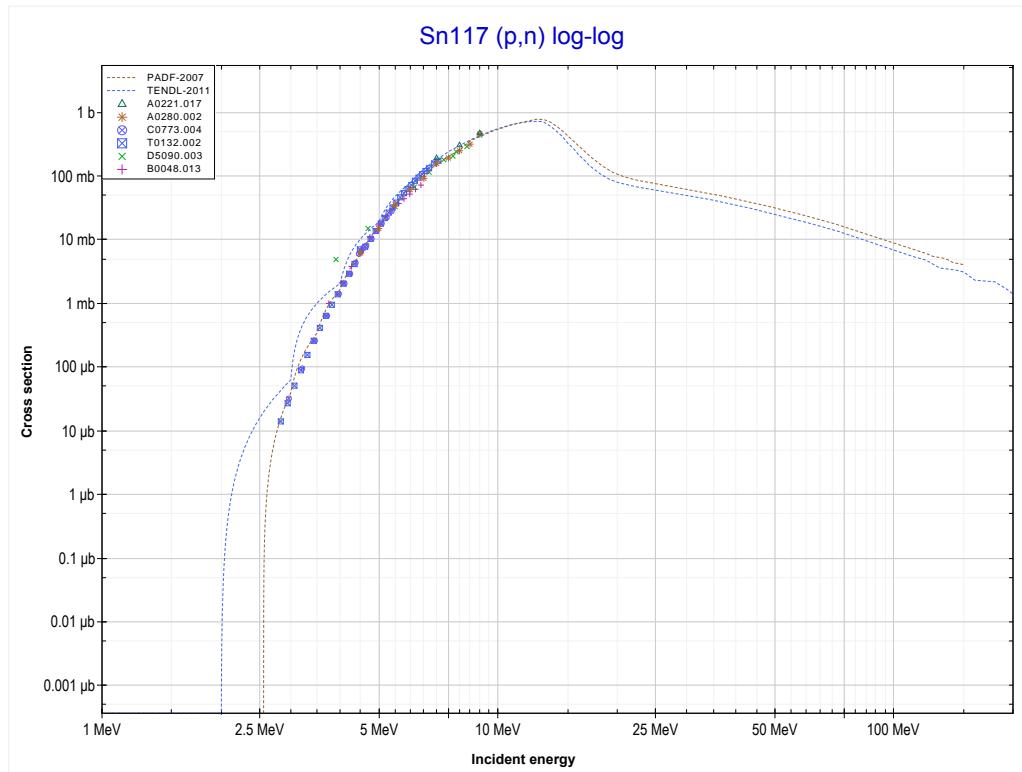
Reaction	Q-Value
$\text{Sn}^{115}(\text{p},\text{n})\text{Sb}^{115}$	-3815.35 keV

<< 50-Sn-115	50-Sn-116 MT4 (p,n) or MT5 (Sb116 production)	50-Sn-117 >>
<< MT4 (p,n)		MT4 (p,n) >>



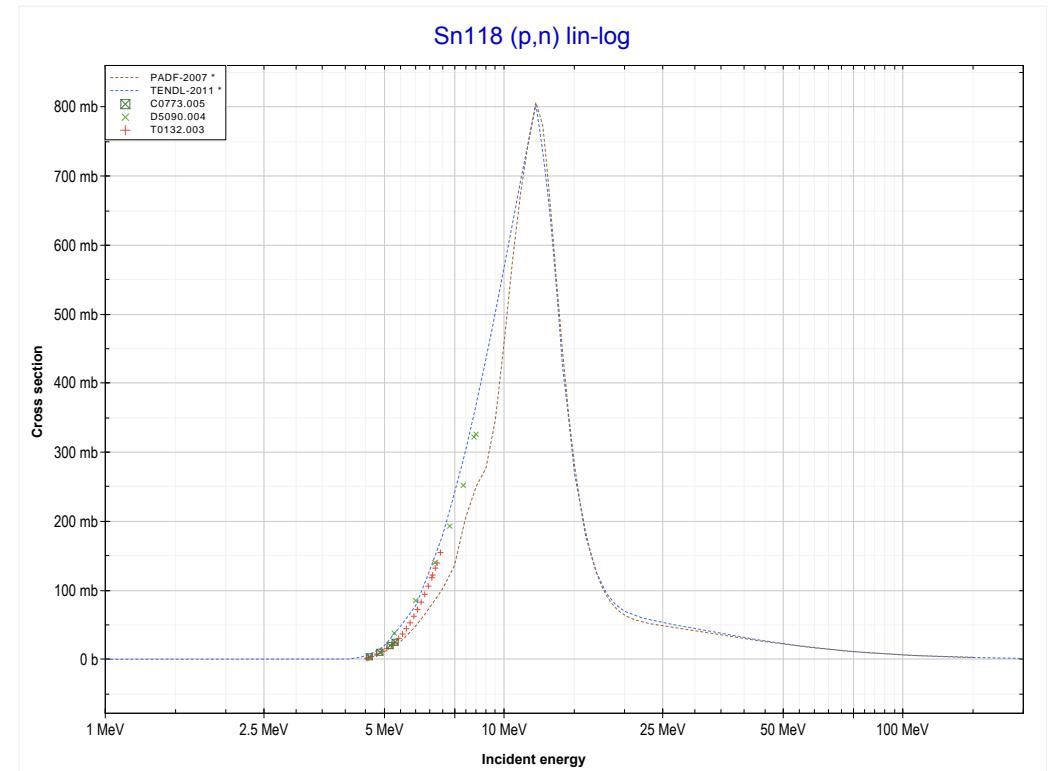
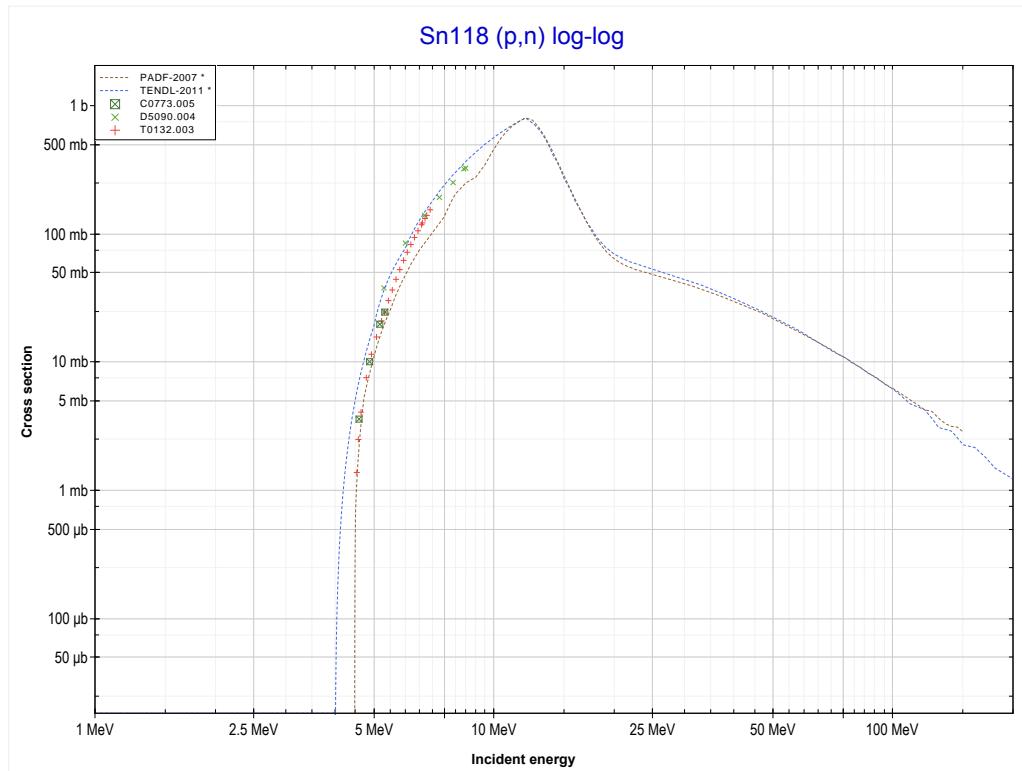
Reaction	Q-Value
$\text{Sn}^{116}(\text{p},\text{n})\text{Sb}^{116}$	-5489.45 keV

<< 50-Sn-116	50-Sn-117 MT4 (p,n) or MT5 (Sb117 production)	50-Sn-118 >>
<< MT4 (p,n)		MT4 (p,n) >>



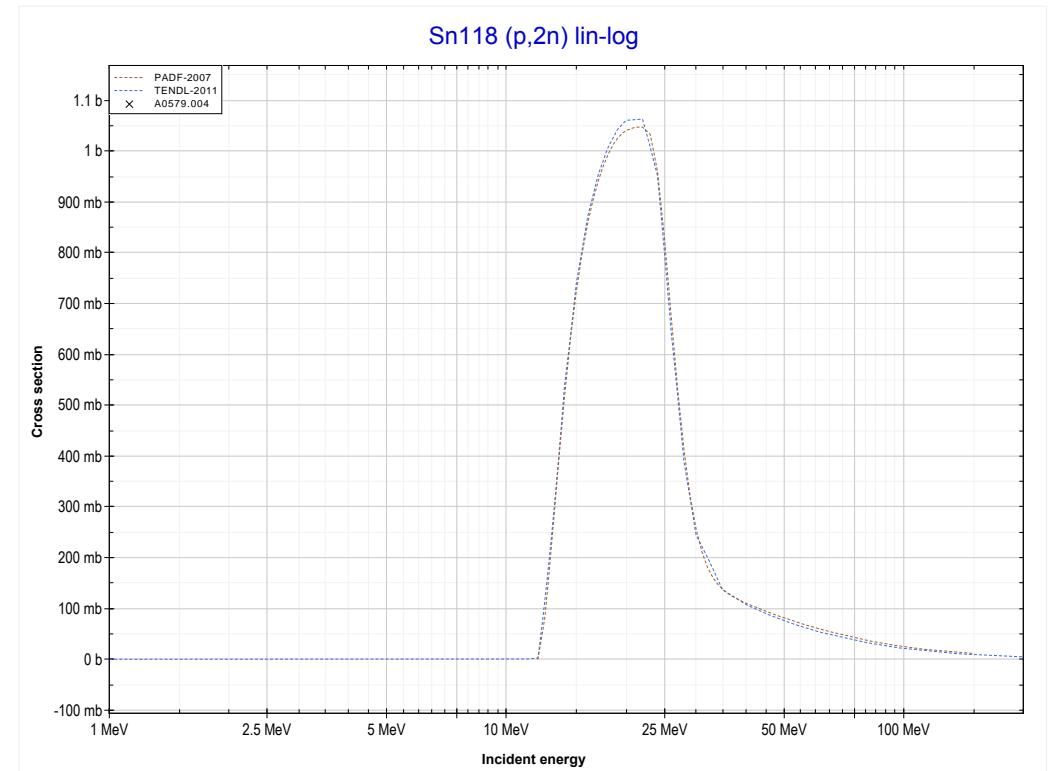
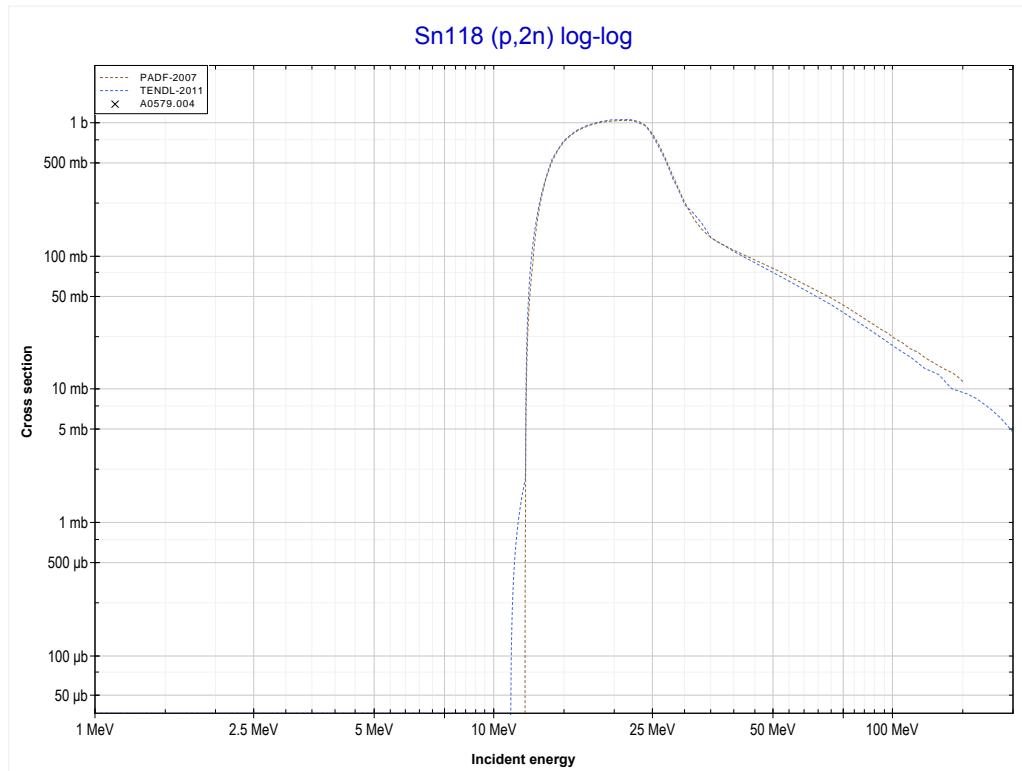
Reaction	Q-Value
$\text{Sn}^{117}(\text{p},\text{n})\text{Sb}^{117}$	-2537.35 keV

<< 50-Sn-117	50-Sn-118 MT4 (p,n) or MT5 (Sb118 production)	>> 50-Sn-119
<< MT4 (p,n)		>> MT16 (p,2n)



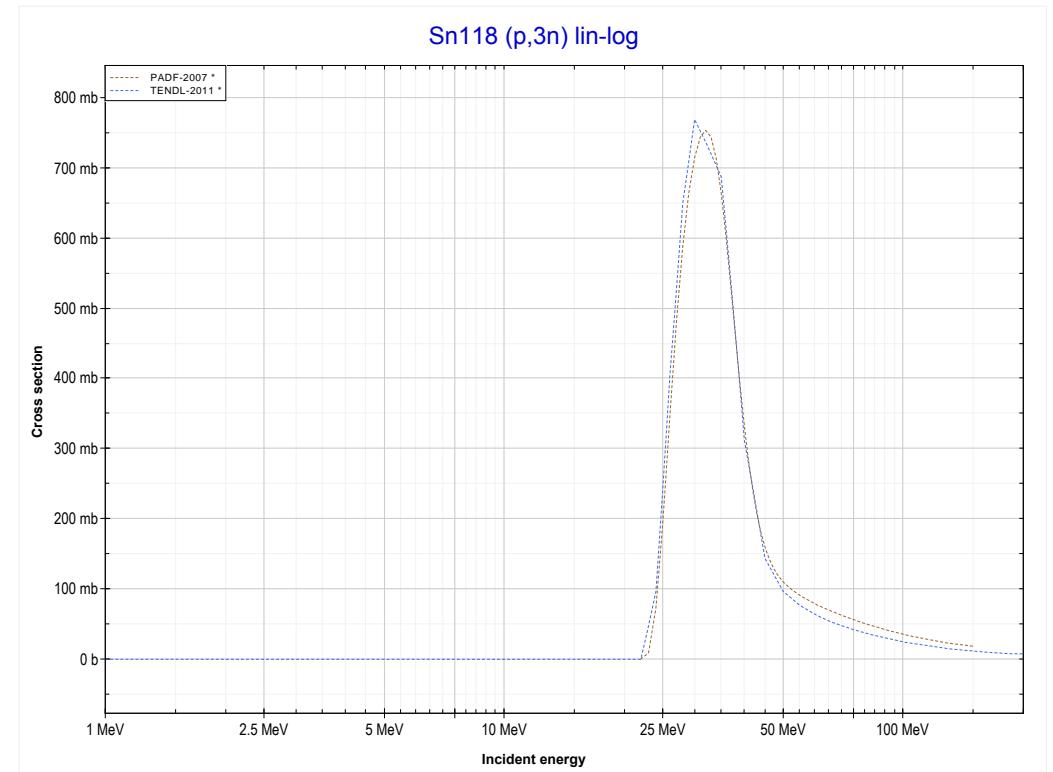
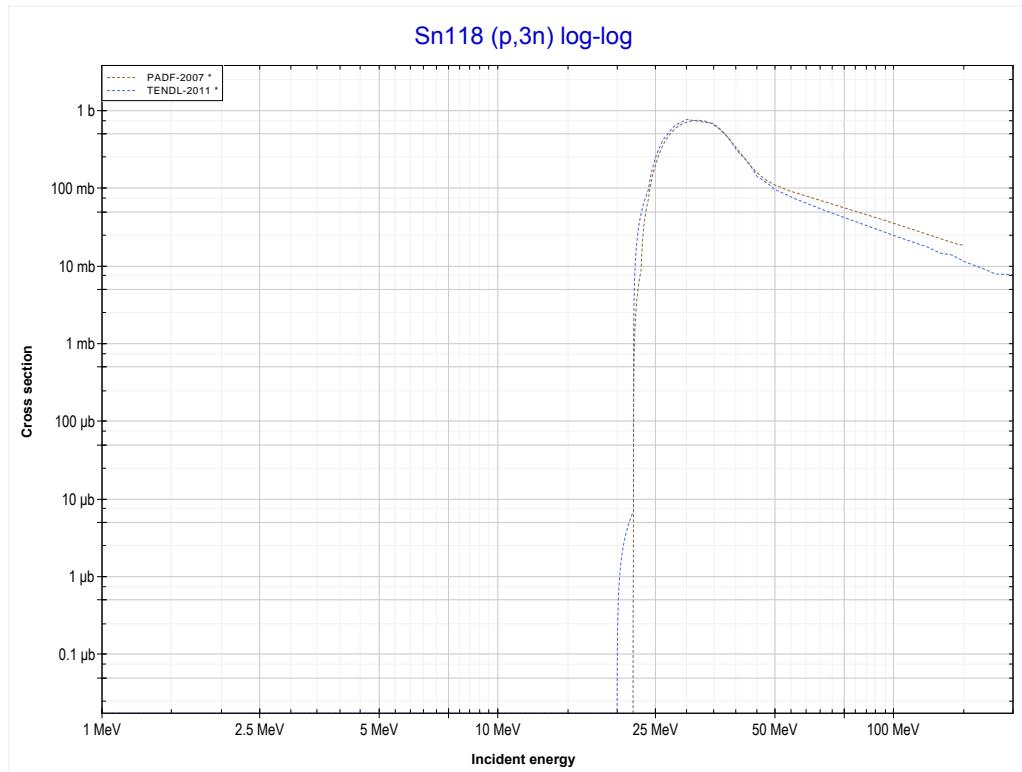
Reaction	Q-Value
$\text{Sn}^{118}(\text{p},\text{n})\text{Sb}^{118}$	-4439.45 keV

<< 49-In-115	50-Sn-118 MT16 (p,2n) or MT5 (Sb117 production)	50-Sn-119 >> MT17 (p,3n) >>
<< MT4 (p,n)		



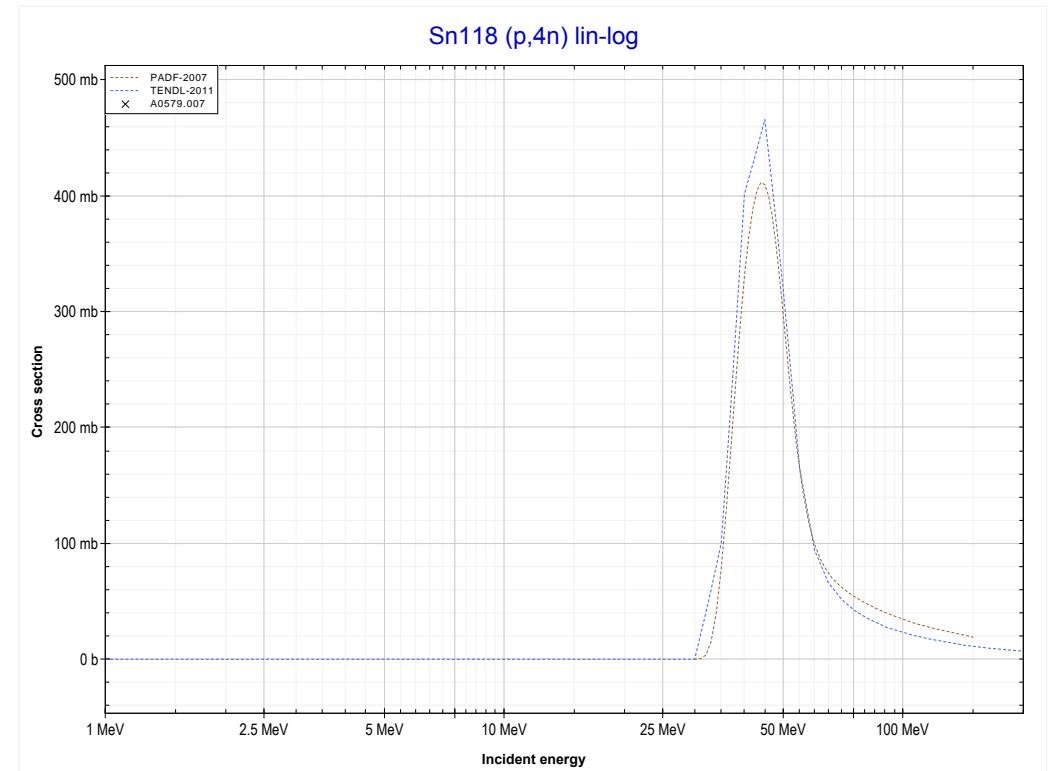
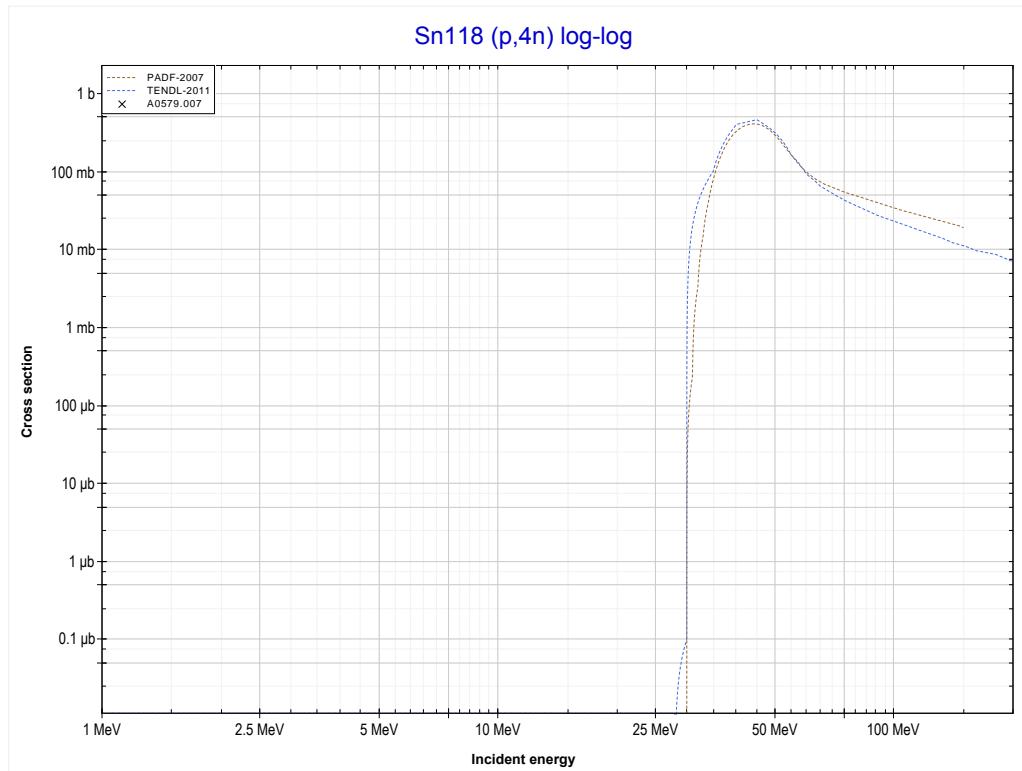
Reaction	Q-Value
Sn118(p,2n)Sb117	-11864.76 keV

<< 49-In-115	50-Sn-118 MT17 (p,3n) or MT5 (Sb116 production)	52-Te-122 >>
<< MT16 (p,2n)		MT37 (p,4n) >>



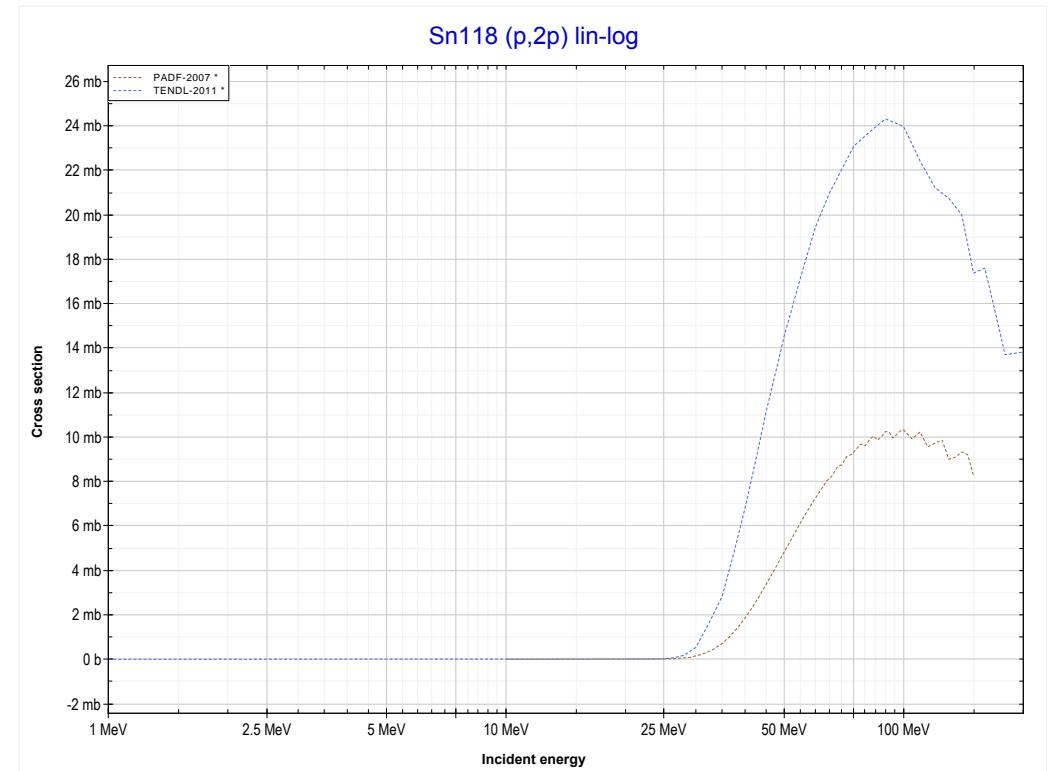
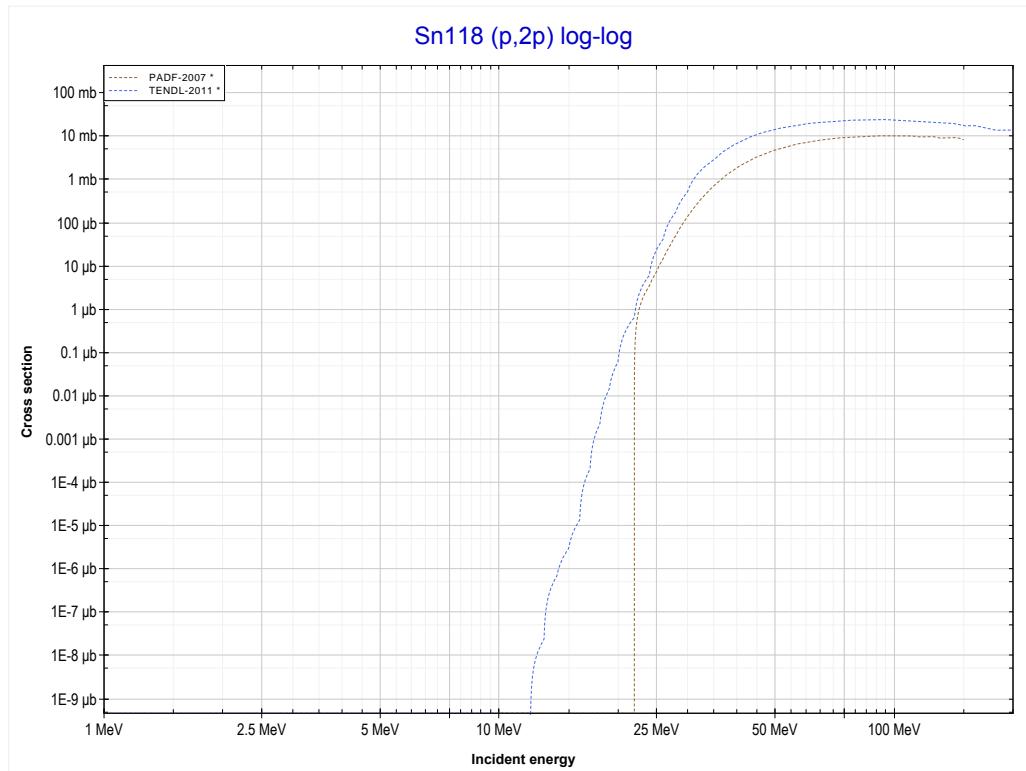
Reaction	Q-Value
$\text{Sn}^{118}(\text{p},\text{3n})\text{Sb}^{116}$	-21760.08 keV

<< 48-Cd-116	50-Sn-118 MT37 (p,4n) or MT5 (Sb115 production)	51-Sb-121 >>
<< MT17 (p,3n)		MT111 (p,2p) >>



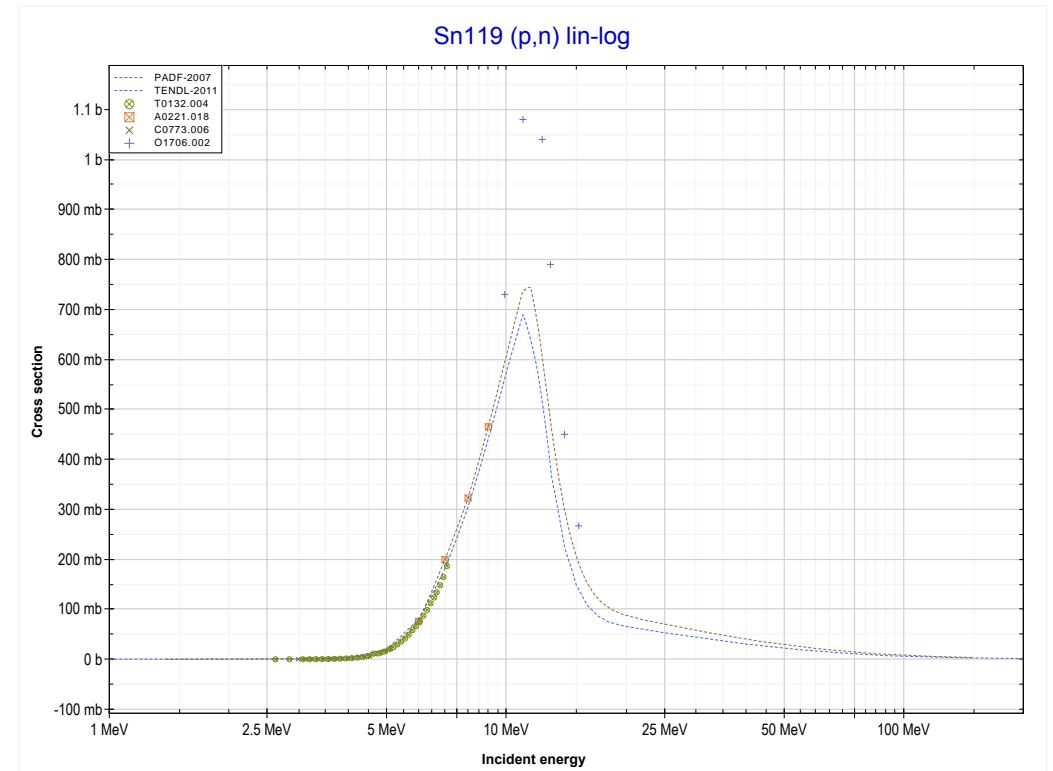
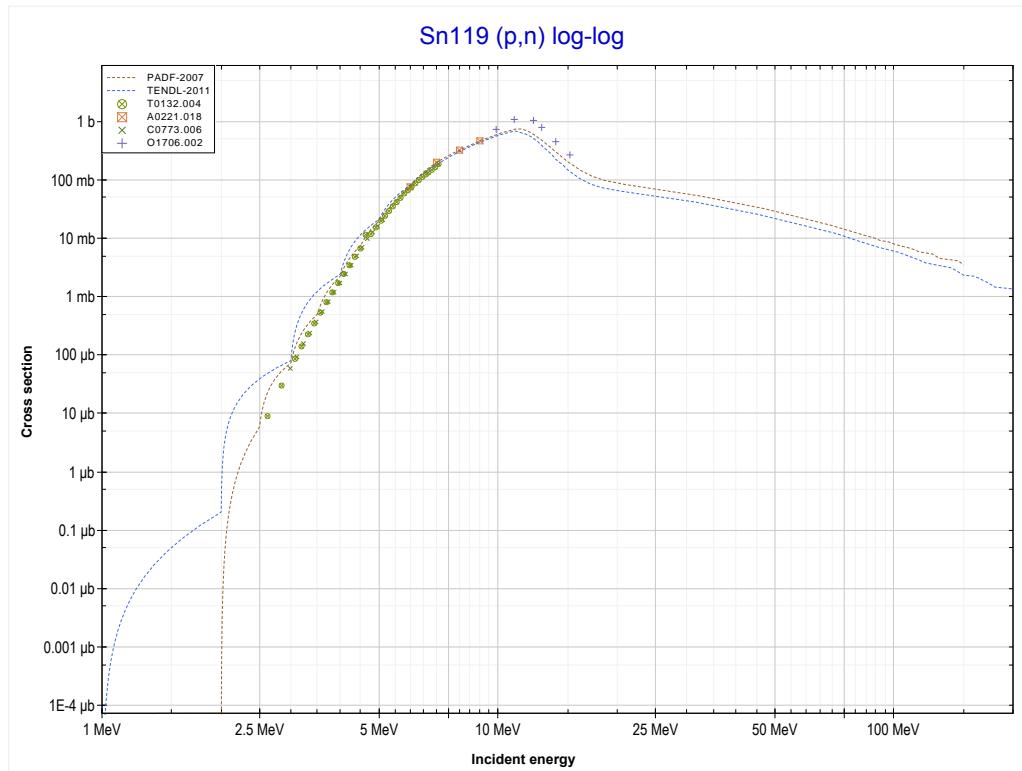
Reaction	Q-Value
$\text{Sn}^{118}(\text{p},4\text{n})\text{Sb}^{115}$	-29649.40 keV

<< 50-Sn-112	50-Sn-118 MT111 (p,2p) or MT5 (In117 production)	52-Te-123 >>
<< MT37 (p,4n)		MT4 (p,n) >>



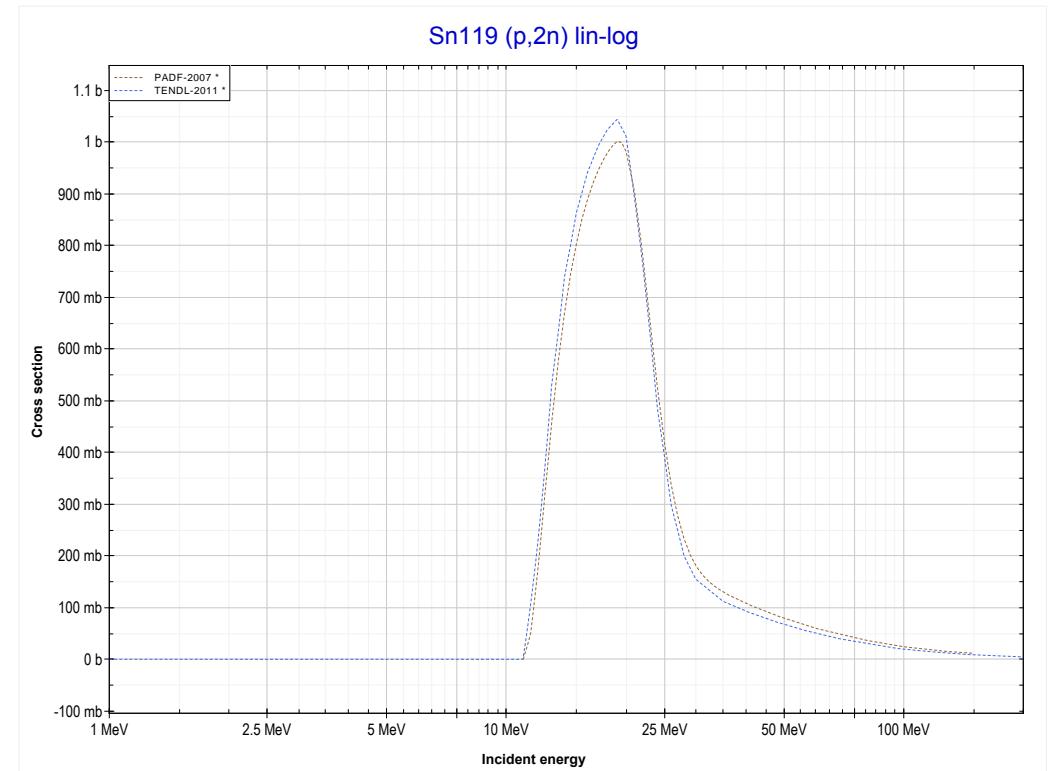
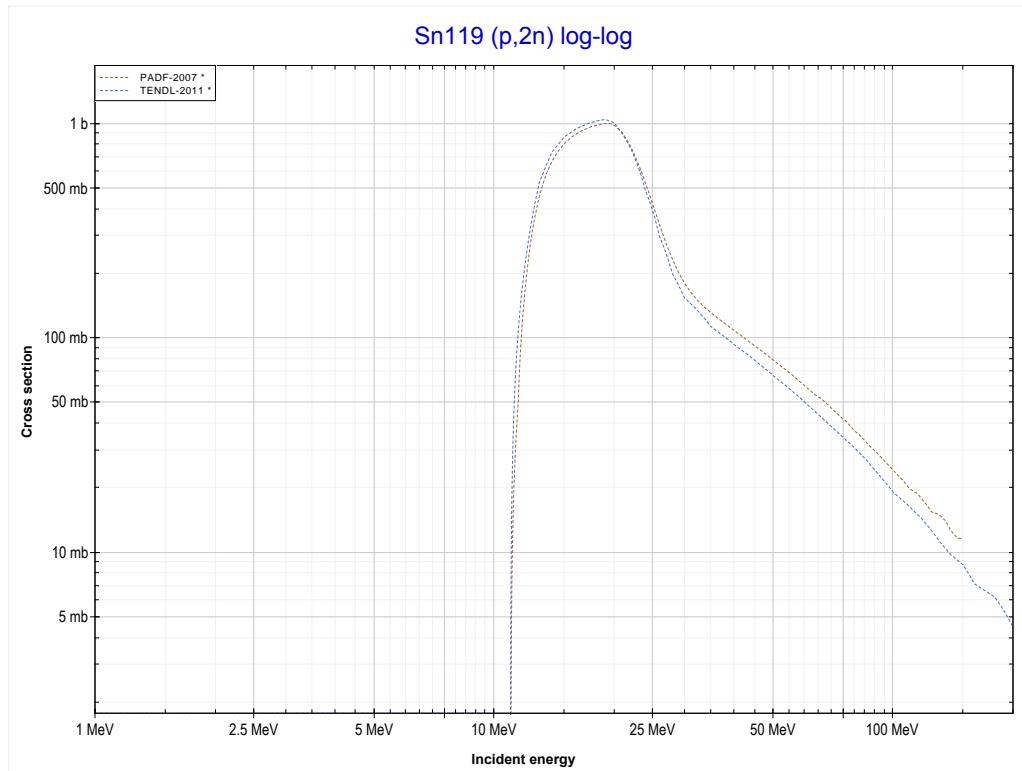
Reaction	Q-Value
$\text{Sn}^{118}(\text{p},\text{2p})\text{In}^{117}$	-10000.07 keV

<< 50-Sn-118	50-Sn-119 MT4 (p,n) or MT5 (Sb119 production)	50-Sn-120 >>
<< MT111 (p,2p)		MT16 (p,2n) >>



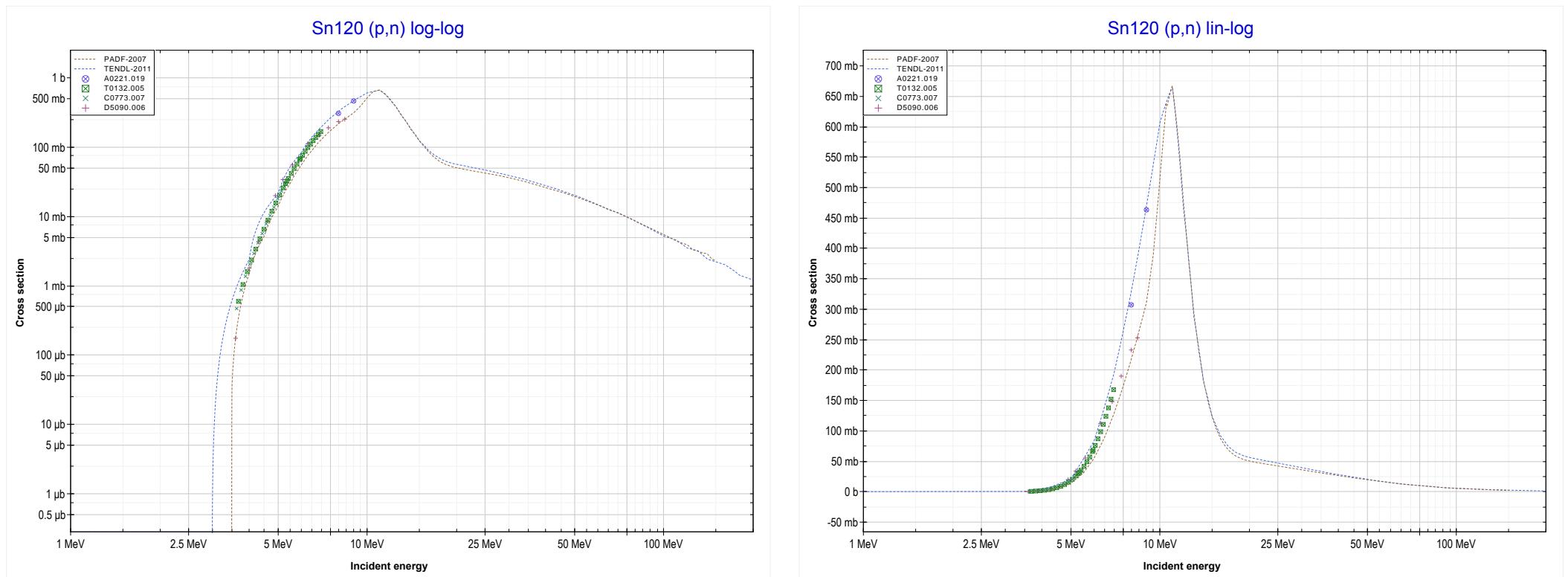
Reaction	Q-Value
$\text{Sn}^{119}(\text{p},\text{n})\text{Sb}^{119}$	-1373.75 keV

<< 50-Sn-118	50-Sn-119 MT16 (p,2n) or MT5 (Sb118 production)	>> 52-Te-120
<< MT4 (p,n)		>> MT4 (p,n)



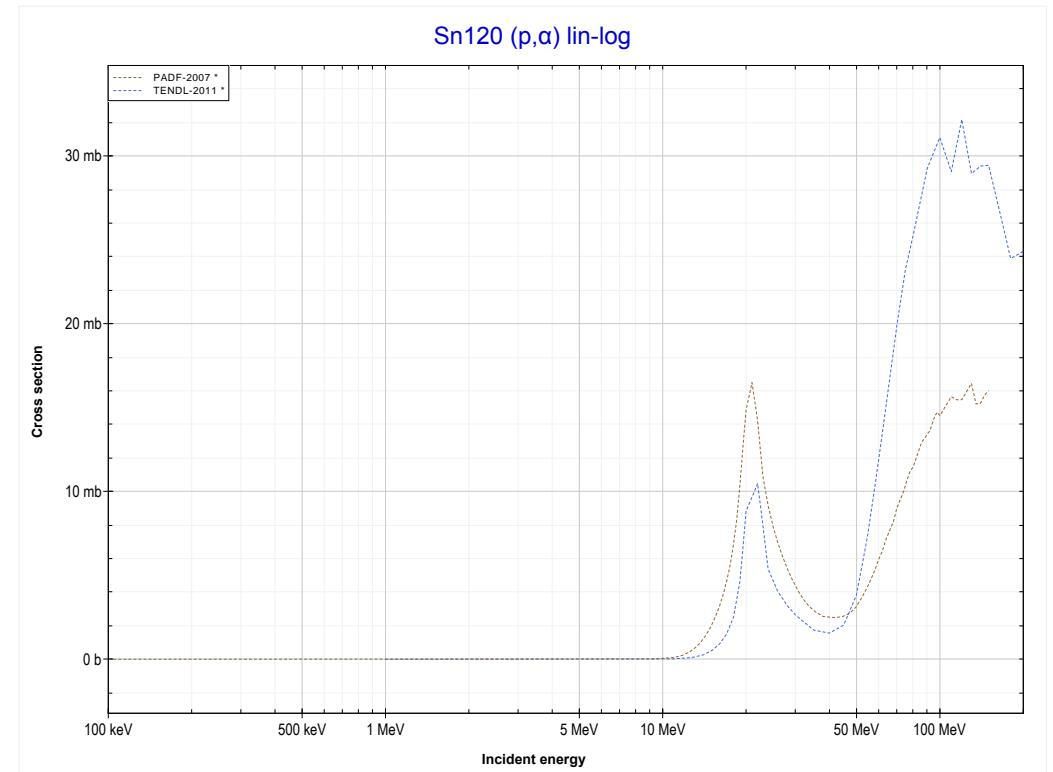
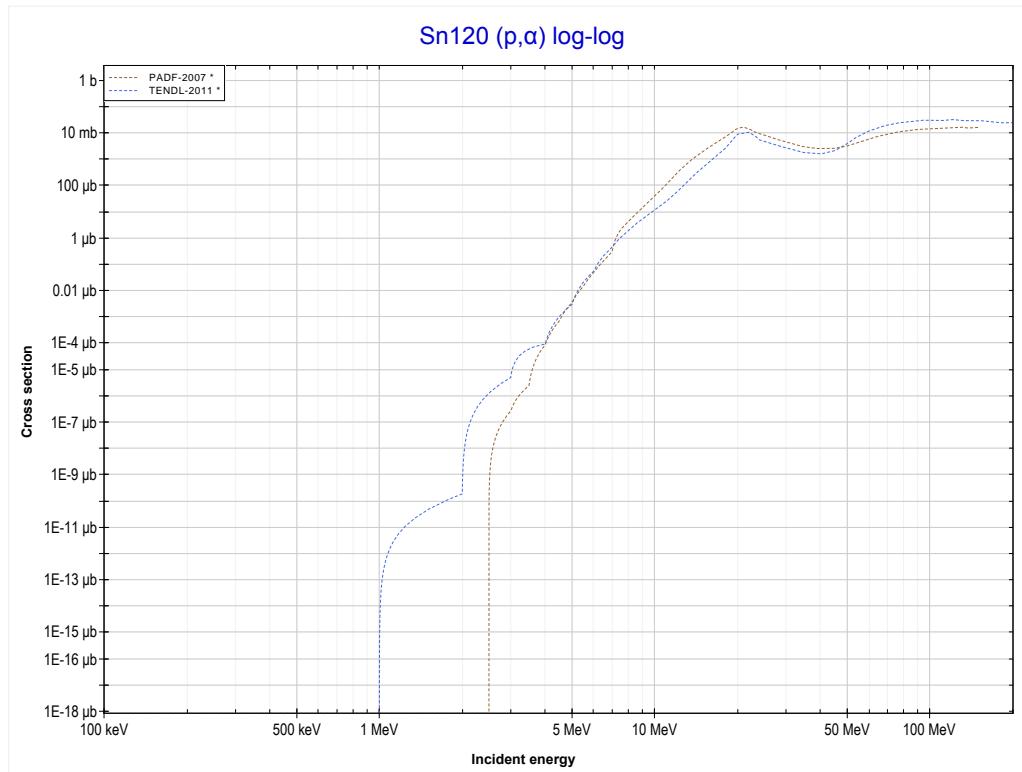
Reaction	Q-Value
$\text{Sn}^{119}(\text{p},\text{2n})\text{Sb}^{118}$	-10923.06 keV

<< 50-Sn-119	50-Sn-120 MT4 (p,n) or MT5 (Sb120 production)	50-Sn-122 >>
<< MT16 (p,2n)		MT107 (p, α) >>



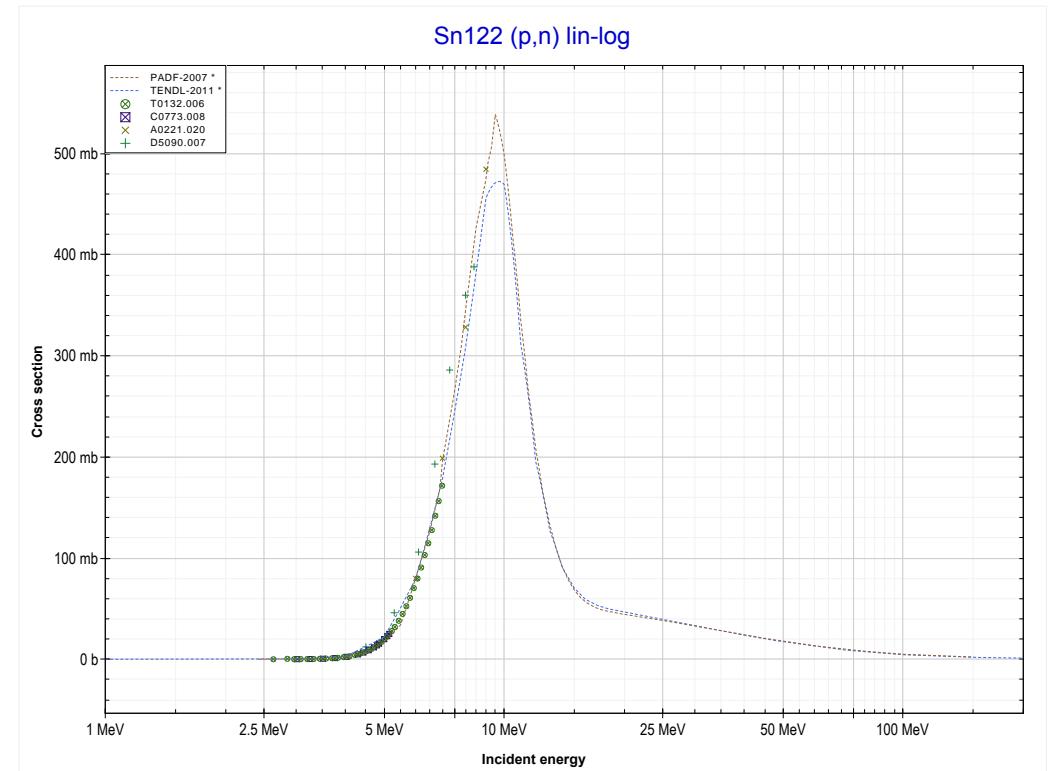
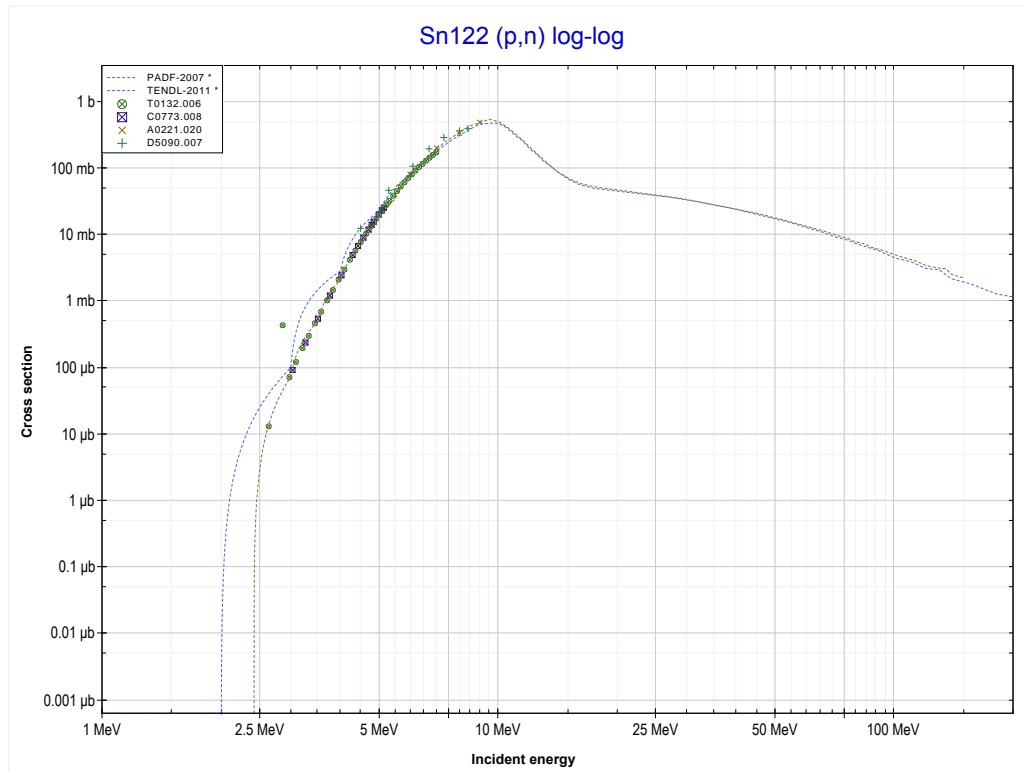
Reaction	Q-Value
$\text{Sn}^{120}(p,n)\text{Sb}^{120}$	-3463.45 keV

<< 48-Cd-114	50-Sn-120 MT107 (p,α) or MT5 (In117 production)	>> 54-Xe-124
<< MT4 (p,n)		MT4 (p,n) >>



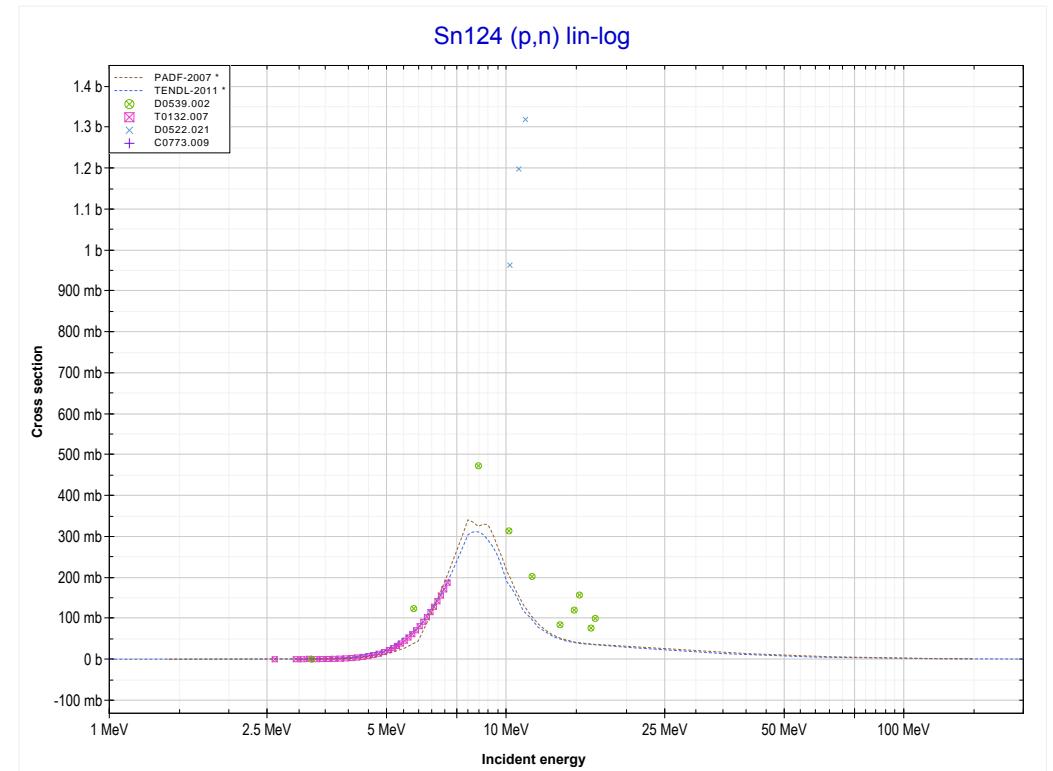
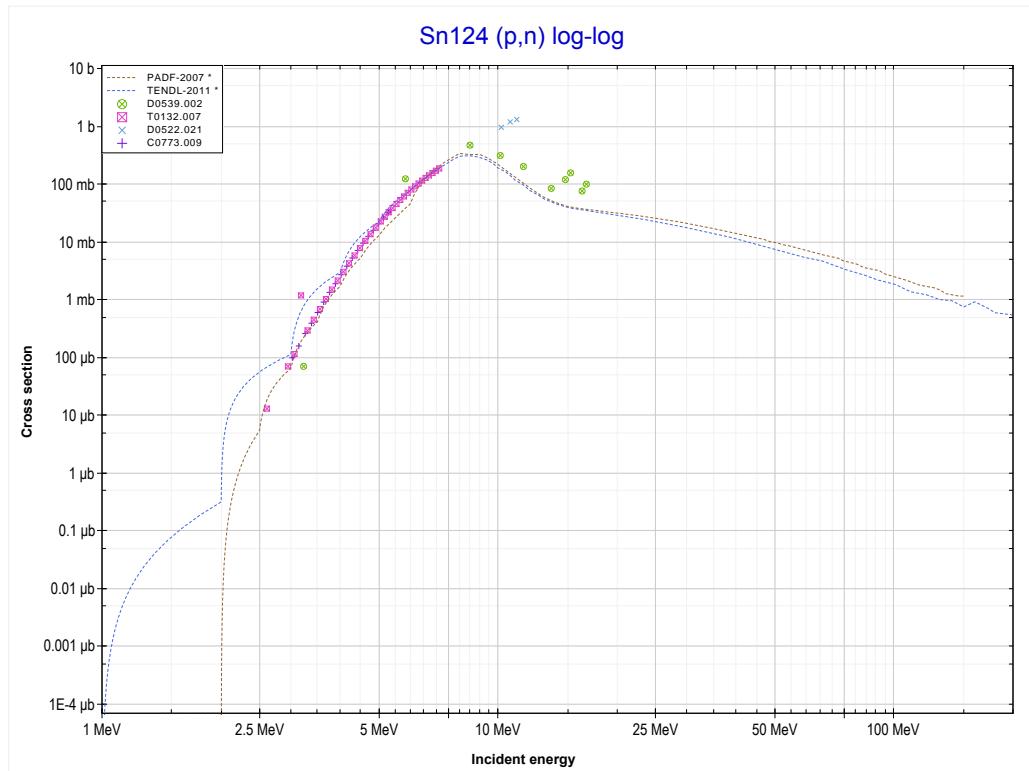
Reaction	Q-Value
$\text{Sn}^{120}(p,\alpha)\text{In}^{117}$	2703.95 keV
$\text{Sn}^{120}(p,p+t)\text{In}^{117}$	-17109.91 keV
$\text{Sn}^{120}(p,n+\text{He}^3)\text{In}^{117}$	-17873.66 keV
$\text{Sn}^{120}(p,2d)\text{In}^{117}$	-21142.57 keV
$\text{Sn}^{120}(p,n+p+d)\text{In}^{117}$	-23367.14 keV
$\text{Sn}^{120}(p,2n+2p)\text{In}^{117}$	-25591.70 keV

<< 50-Sn-120	50-Sn-122 MT4 (p,n) or MT5 (Sb122 production)	50-Sn-124 >>
<< MT107 (p, α)		MT4 (p,n) >>



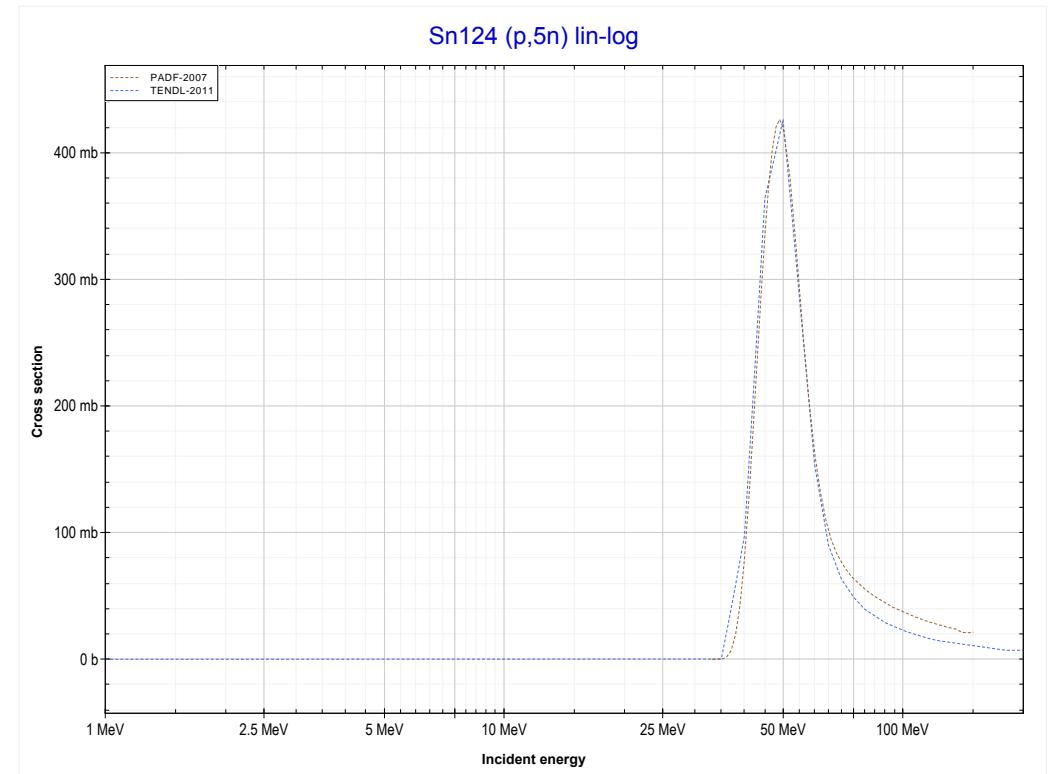
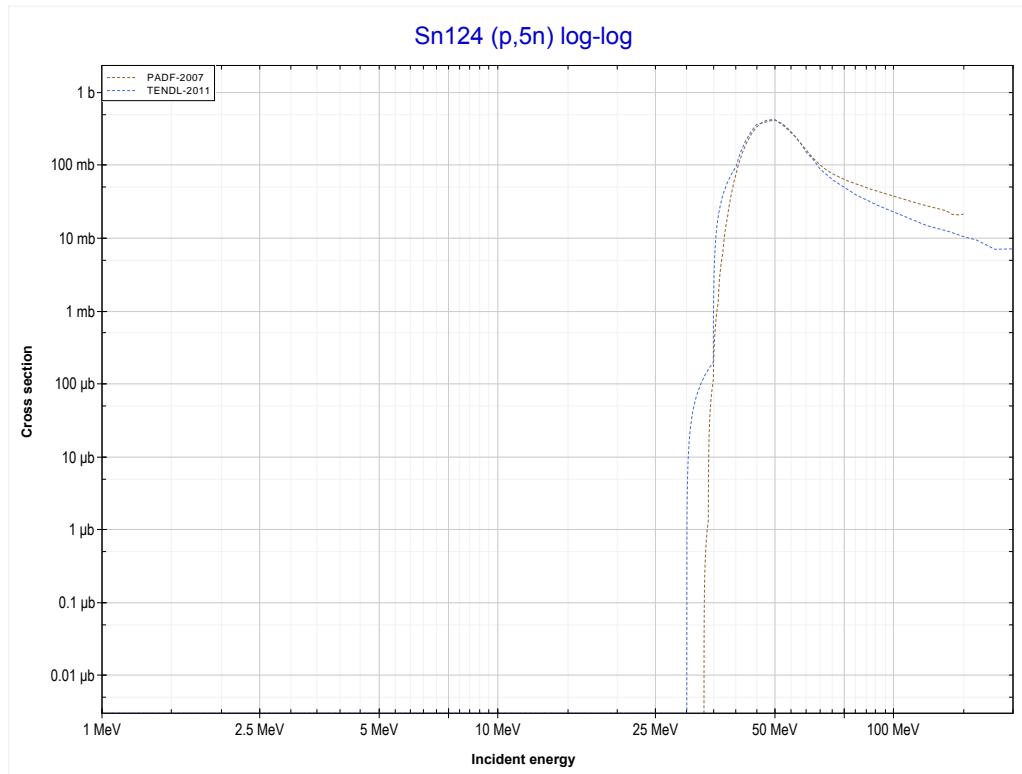
Reaction	Q-Value
$\text{Sn}^{122}(\text{p},\text{n})\text{Sb}^{122}$	-2398.05 keV

<< 50-Sn-122	50-Sn-124 MT4 (p,n) or MT5 (Sb124 production)	51-Sb-121 >>
<< MT4 (p,n)		MT152 (p,5n) >>



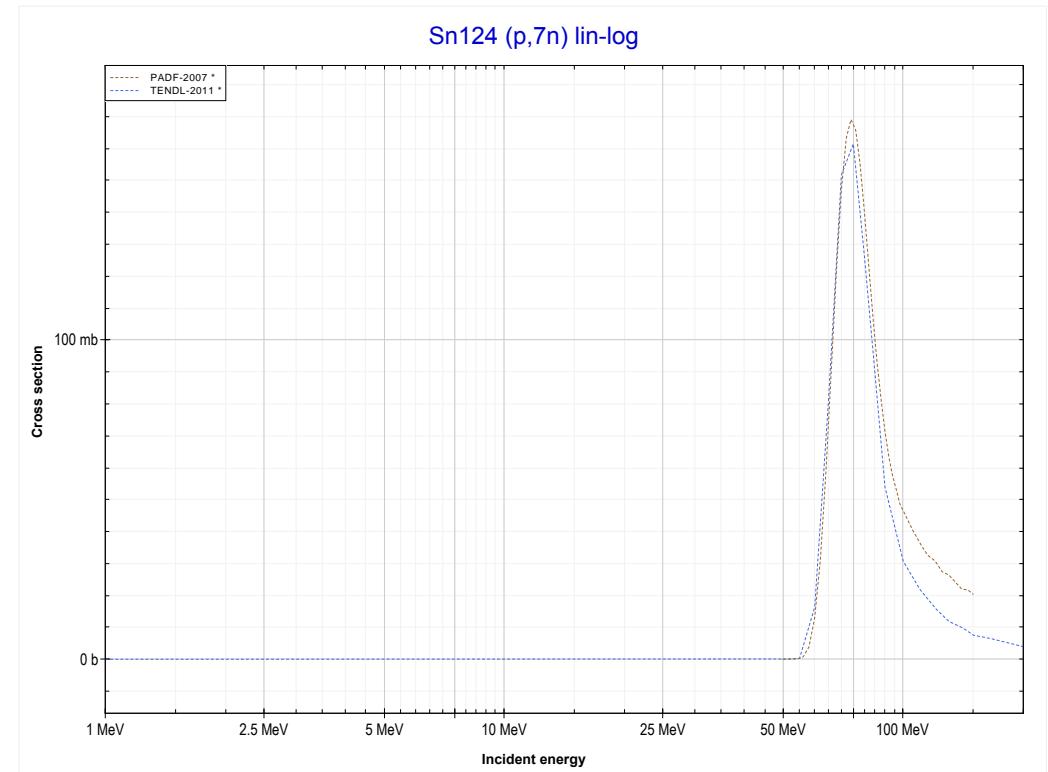
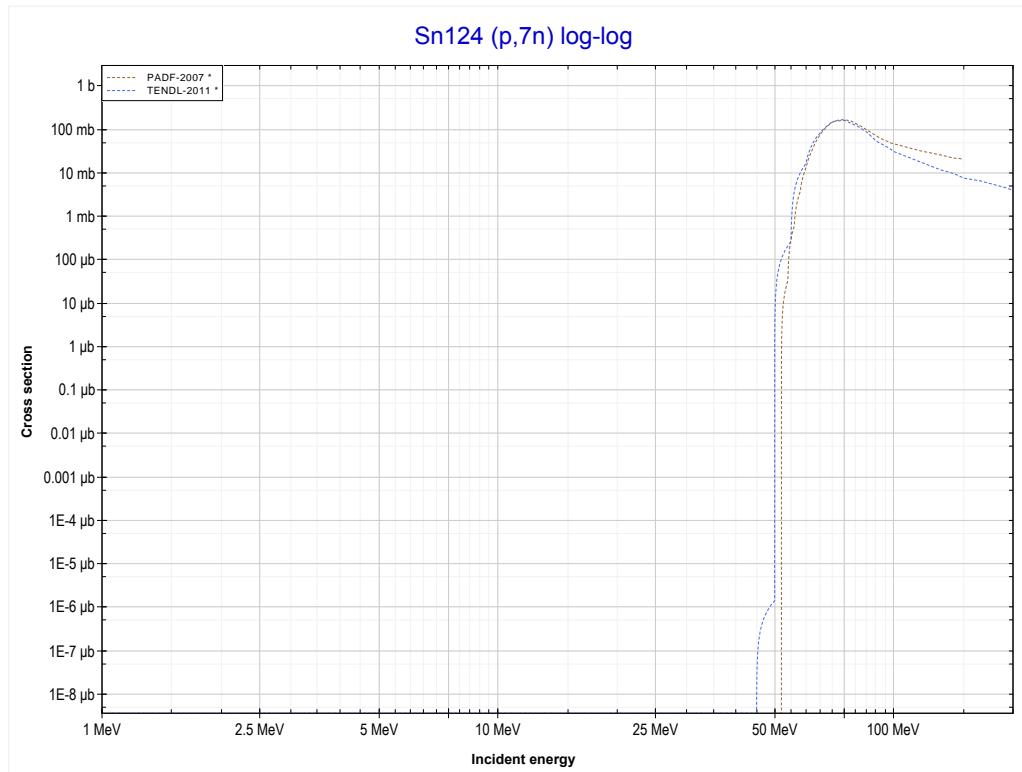
Reaction	Q-Value
Sn124(p,n)Sb124	-1398.85 keV

<< 38-Sr-88	50-Sn-124 MT152 (p,5n) or MT5 (Sb120 production)	>> 52-Te-125
<< MT4 (p,n)		>> MT160 (p,7n) >>



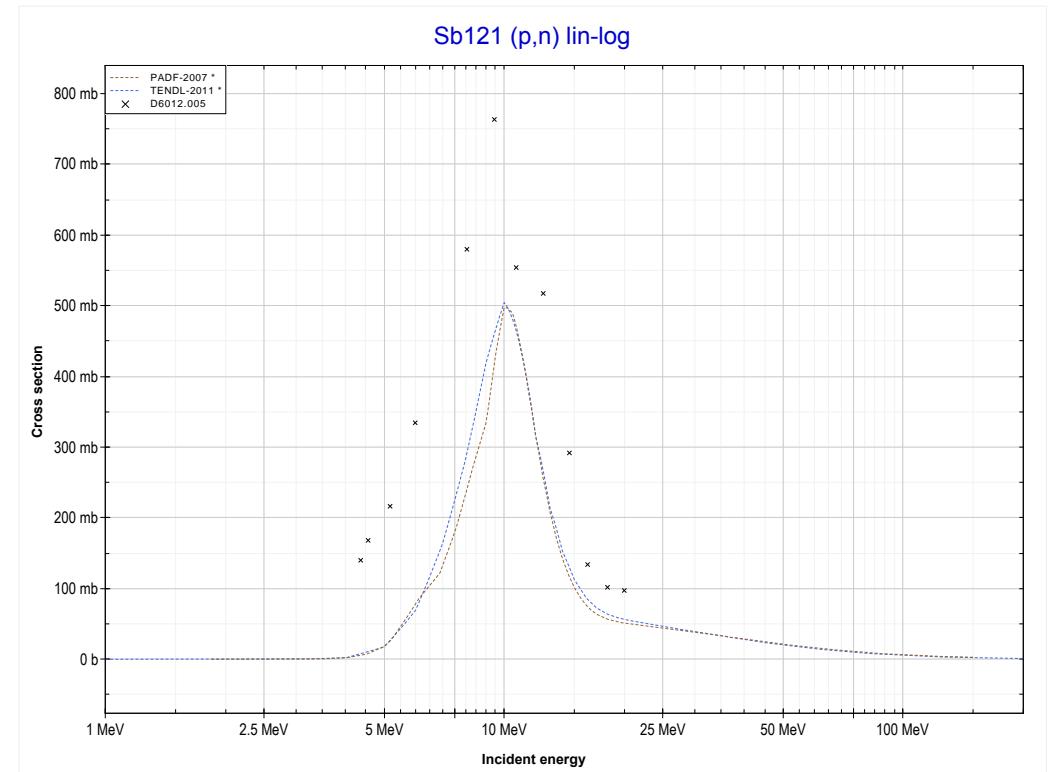
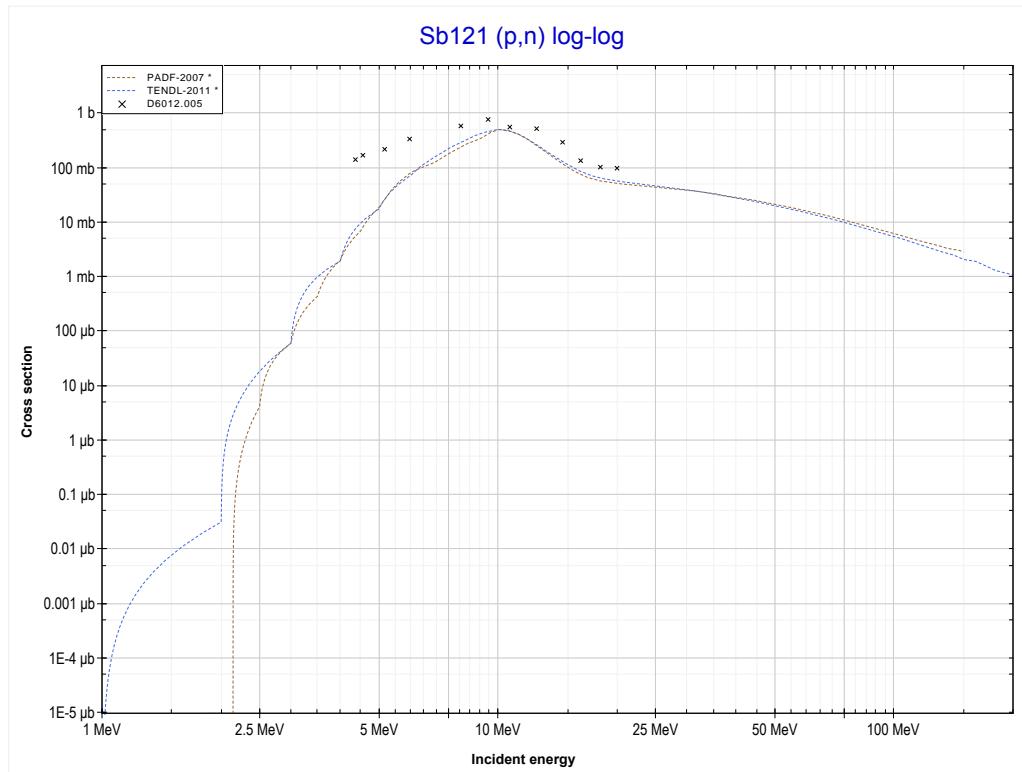
Reaction	Q-Value
$\text{Sn}^{124}(p,5n)\text{Sb}^{120}$	-32880.42 keV

<< MT152 (p,5n)	50-Sn-124 MT160 (p,7n) or MT5 (Sb118 production)	52-Te-125 >> MT4 (p,n) >>
-----------------	--	------------------------------



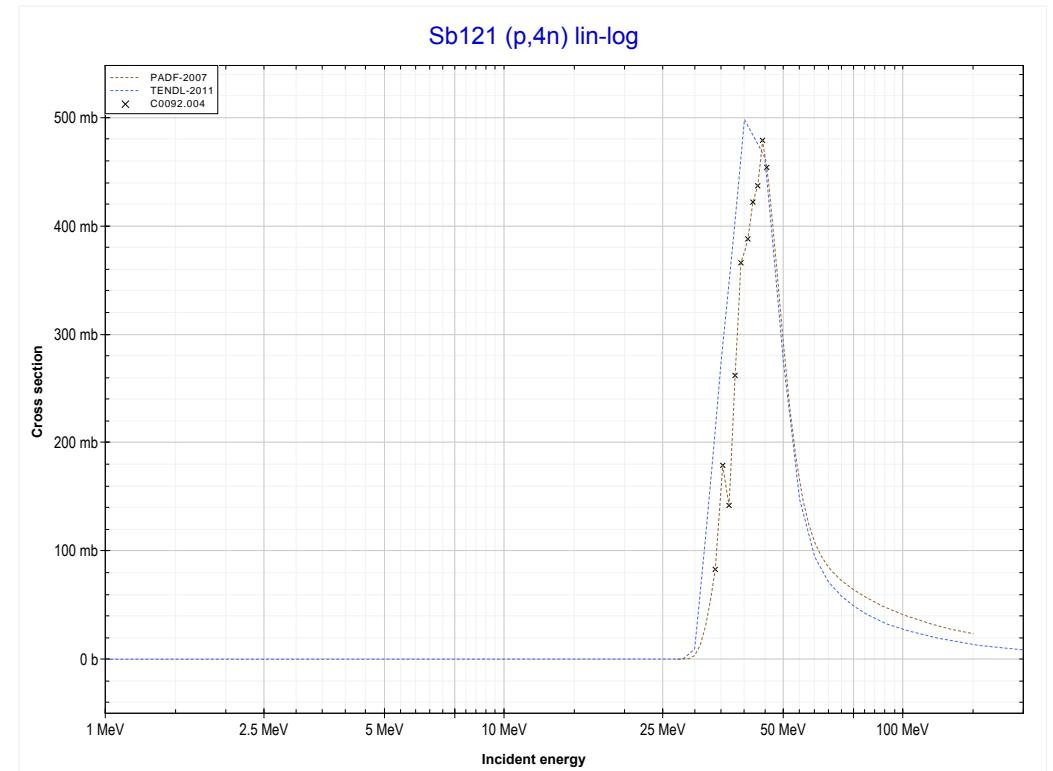
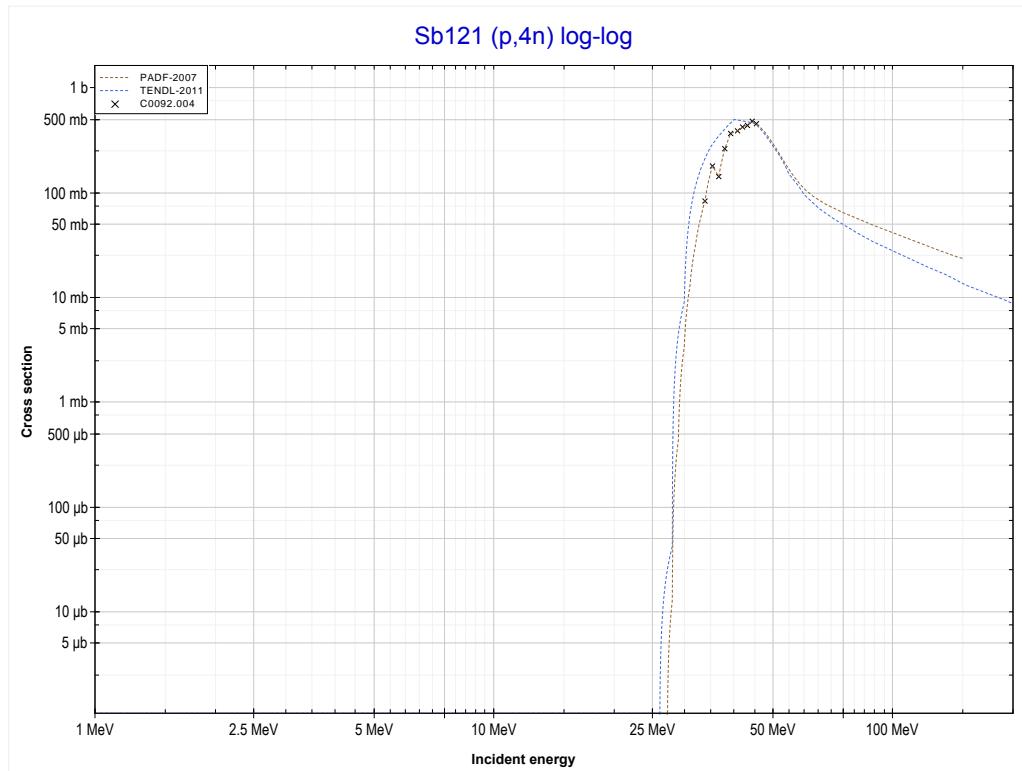
Reaction	Q-Value
$\text{Sn}^{124}(\text{p},7\text{n})\text{Sb}^{118}$	-49448.05 keV

<< 50-Sn-124	51-Sb-121 MT4 (p,n) or MT5 (Te121 production)	51-Sb-123 >>
<< MT160 (p,7n)		MT37 (p,4n) >>



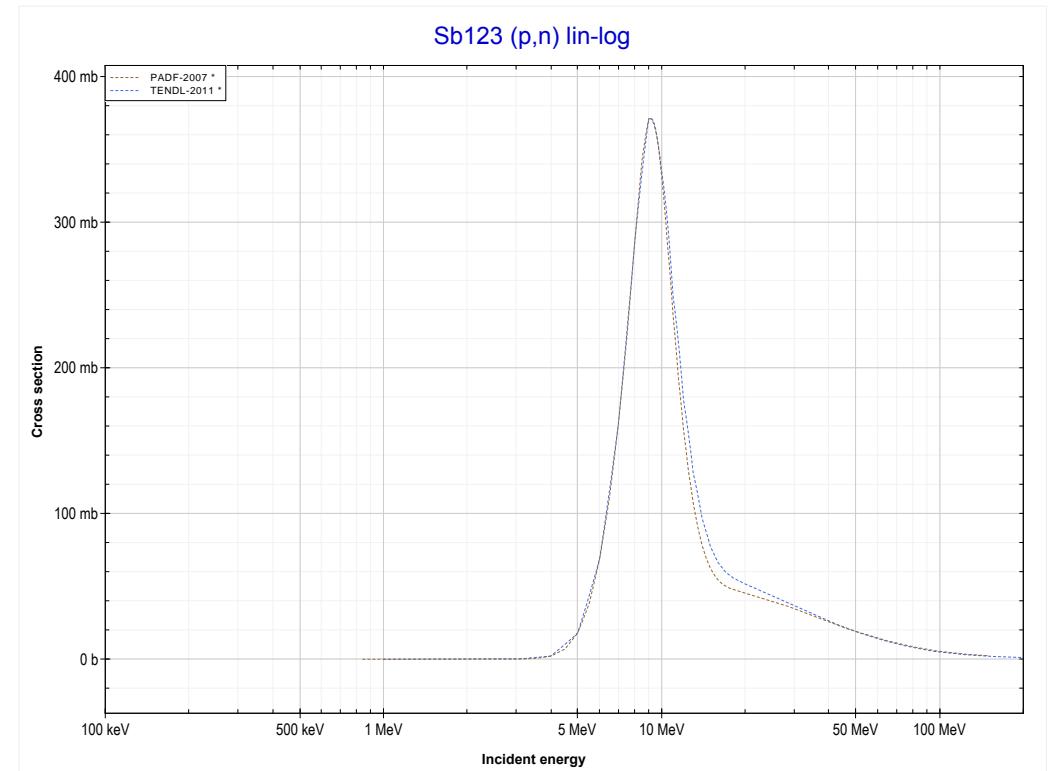
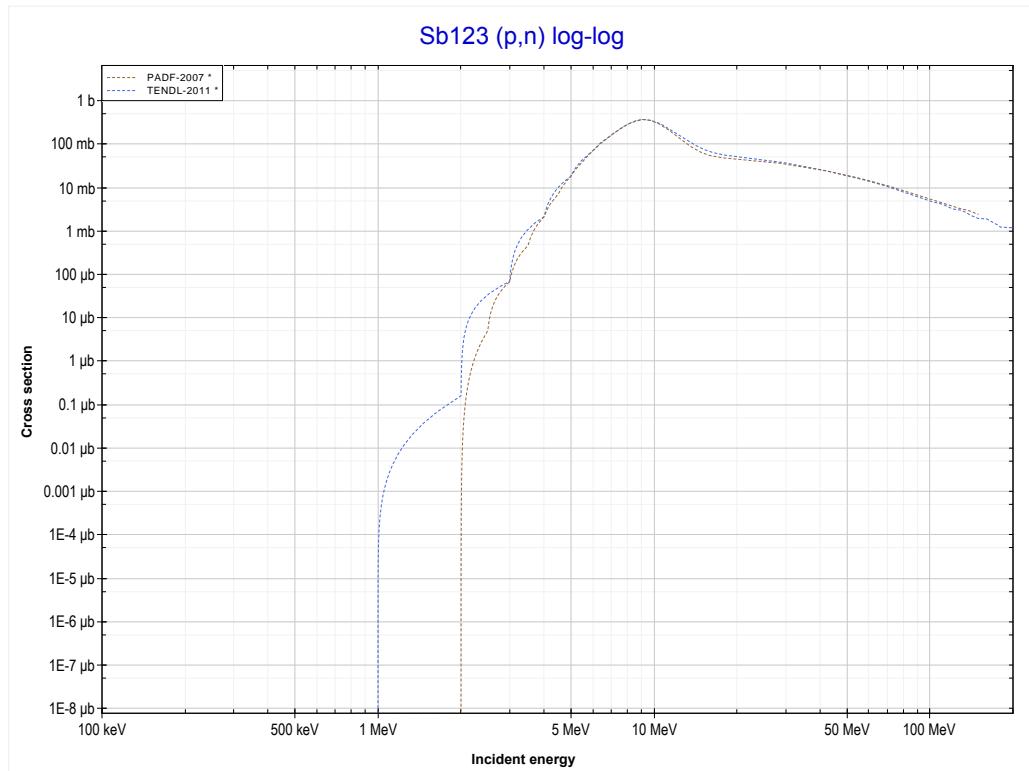
Reaction	Q-Value
Sb121(p,n)Te121	-1826.45 keV

<< 50-Sn-118	51-Sb-121 MT37 (p,4n) or MT5 (Te118 production)	52-Te-122 >>
<< MT4 (p,n)		MT4 (p,n) >>



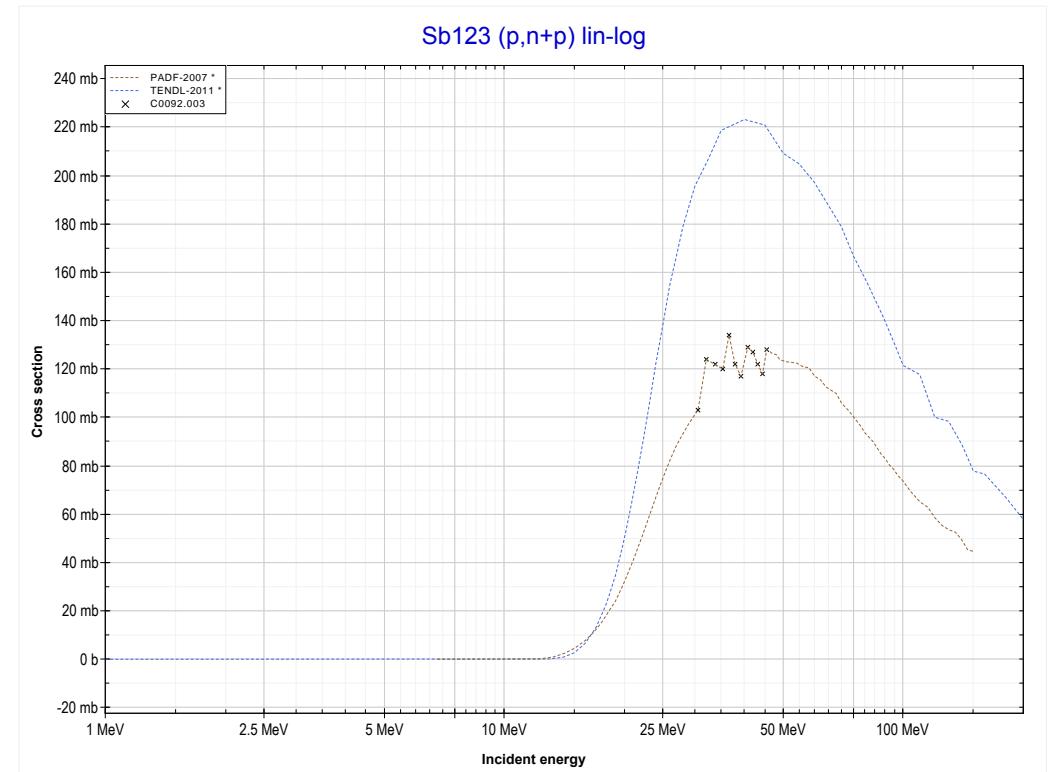
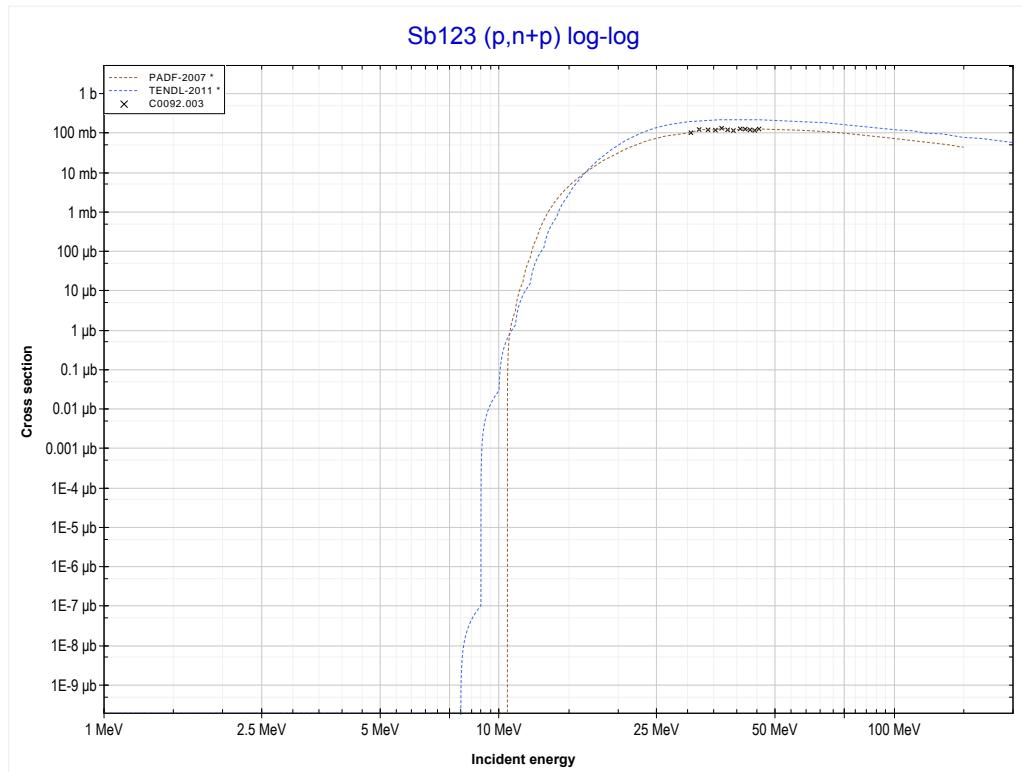
Reaction	Q-Value
Sb121(p,4n)Te118	-26870.40 keV

<< 51-Sb-121	51-Sb-123 MT4 (p,n) or MT5 (Te123 production)	>> 52-Te-120
<< MT37 (p,4n)		>> MT28 (p,n+p) >>



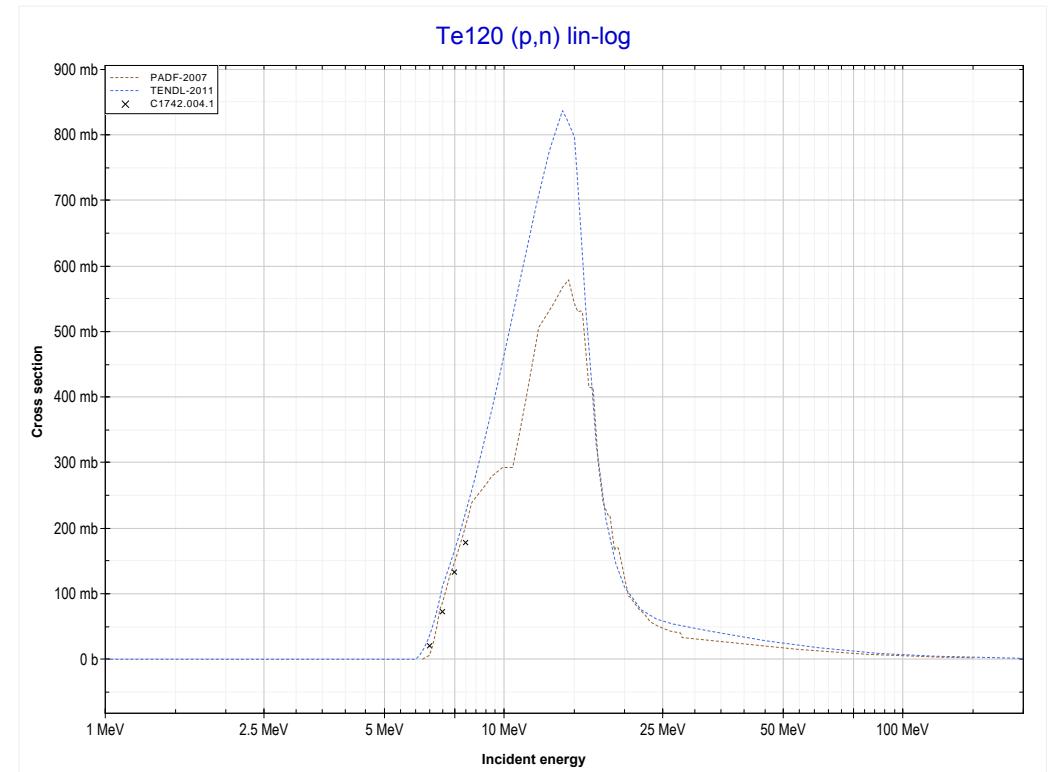
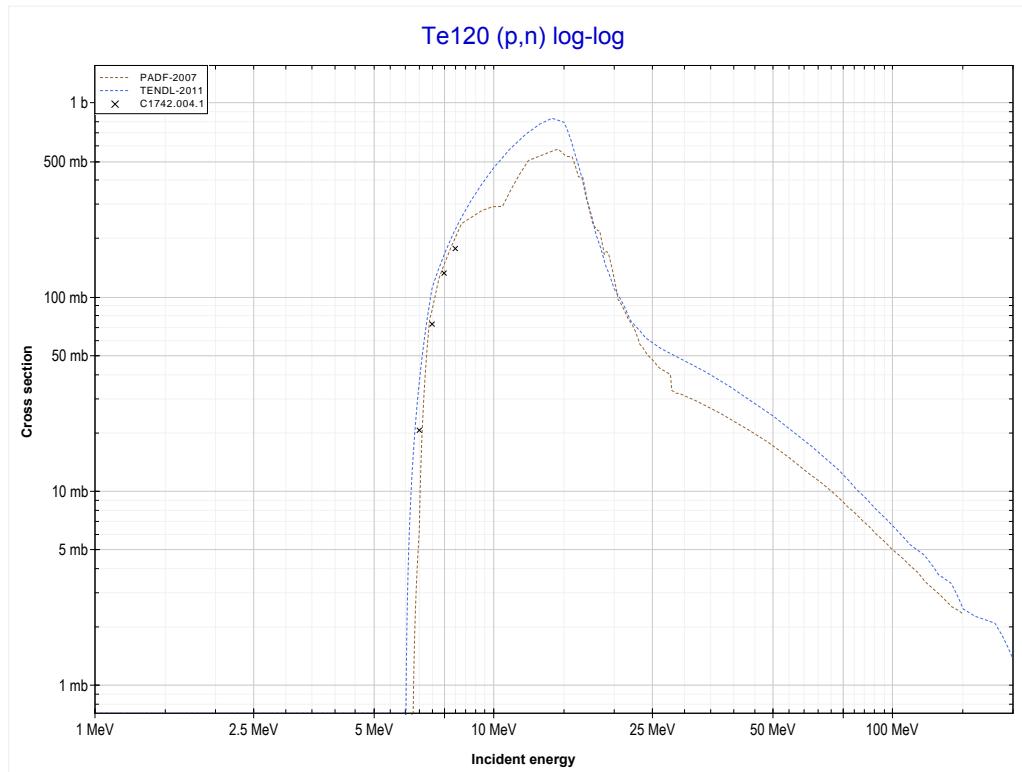
Reaction	Q-Value
Sb123(p,n)Te123	-834.55 keV

<< 49-In-115	51-Sb-123 MT28 (p,n+p) or MT5 (Sb122 production)	>> 52-Te-124
<< MT4 (p,n)		>> MT4 (p,n) >>



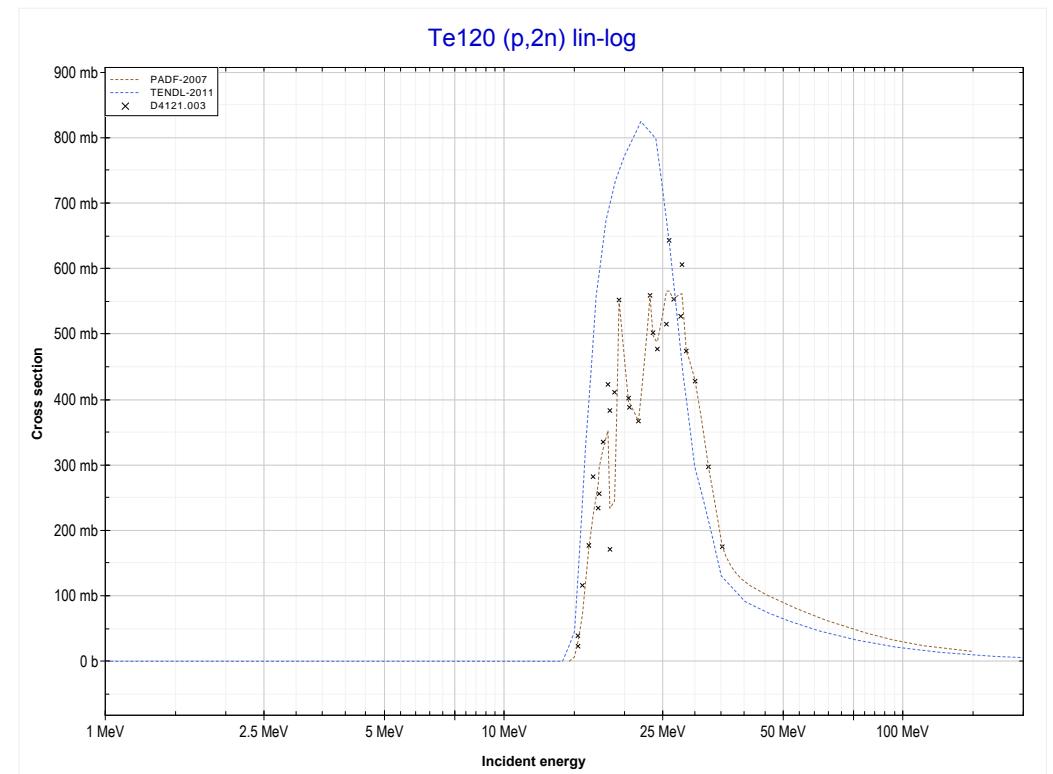
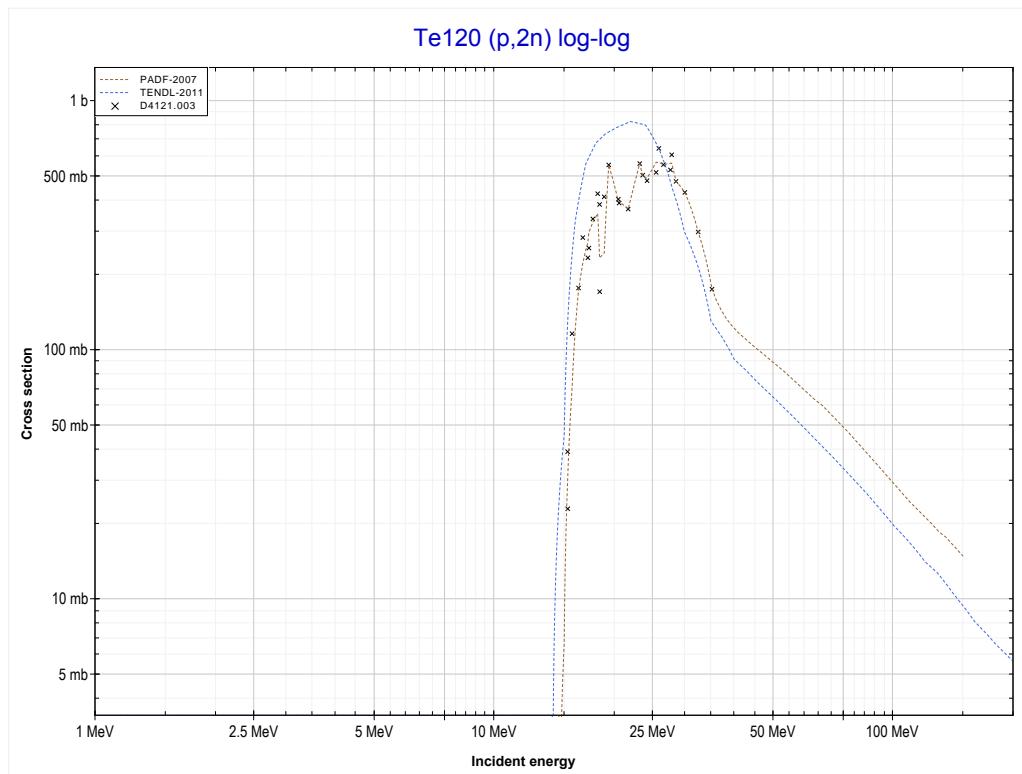
Reaction	Q-Value
Sb123(p,d)Sb122	-6740.65 keV
Sb123(p,n+p)Sb122	-8965.22 keV

<< 51-Sb-123	52-Te-120 MT4 (p,n) or MT5 (I120 production)	52-Te-122 >>
<< MT28 (p,n+p)		MT16 (p,2n) >>



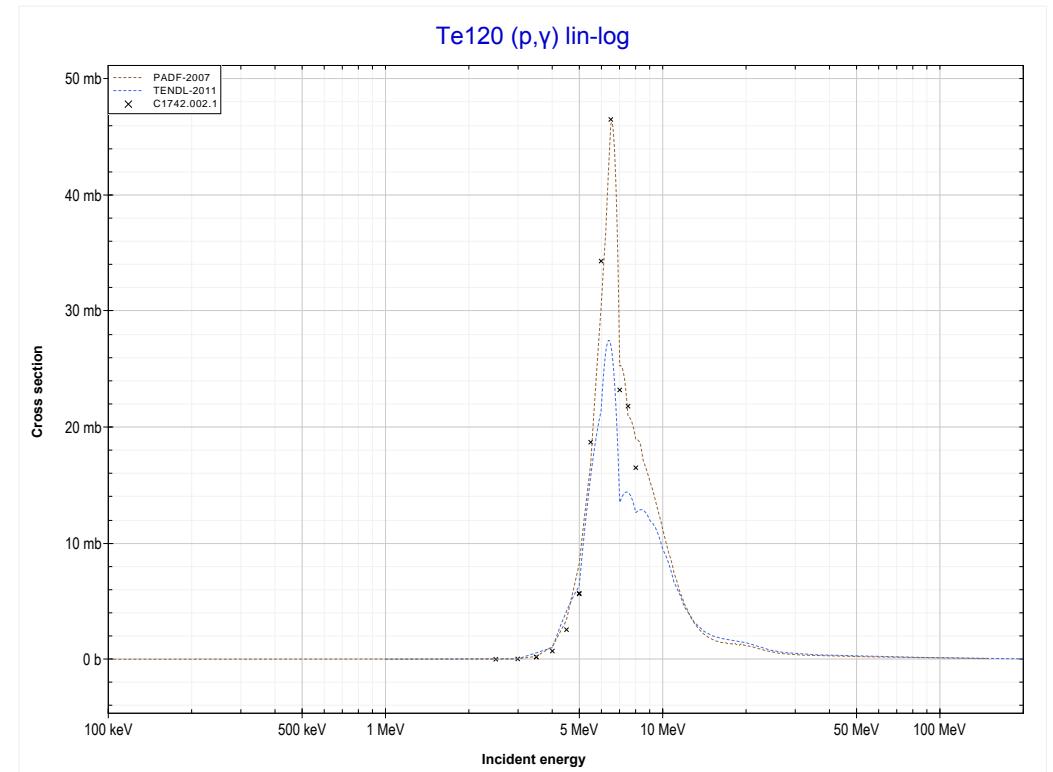
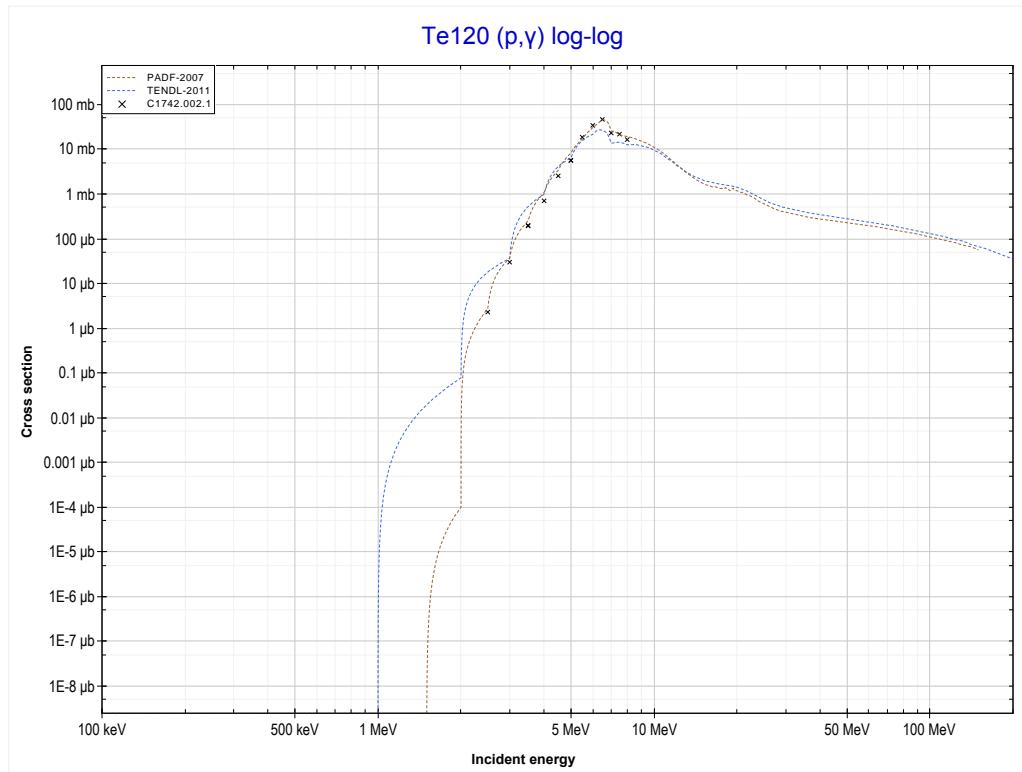
Reaction	Q-Value
Te120(p,n)I120	-6397.35 keV

<< 50-Sn-119	52-Te-120 MT16 (p,2n) or MT5 (I119 production)	52-Te-122 >>
<< MT4 (p,n)		MT102 (p,y) >>



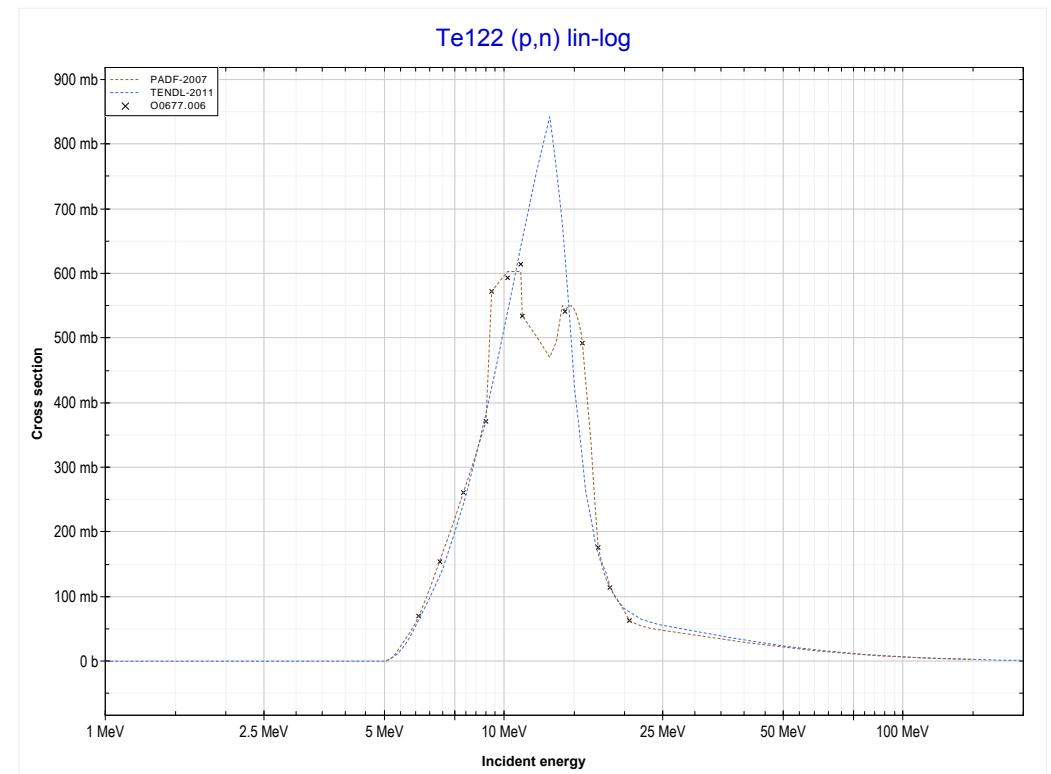
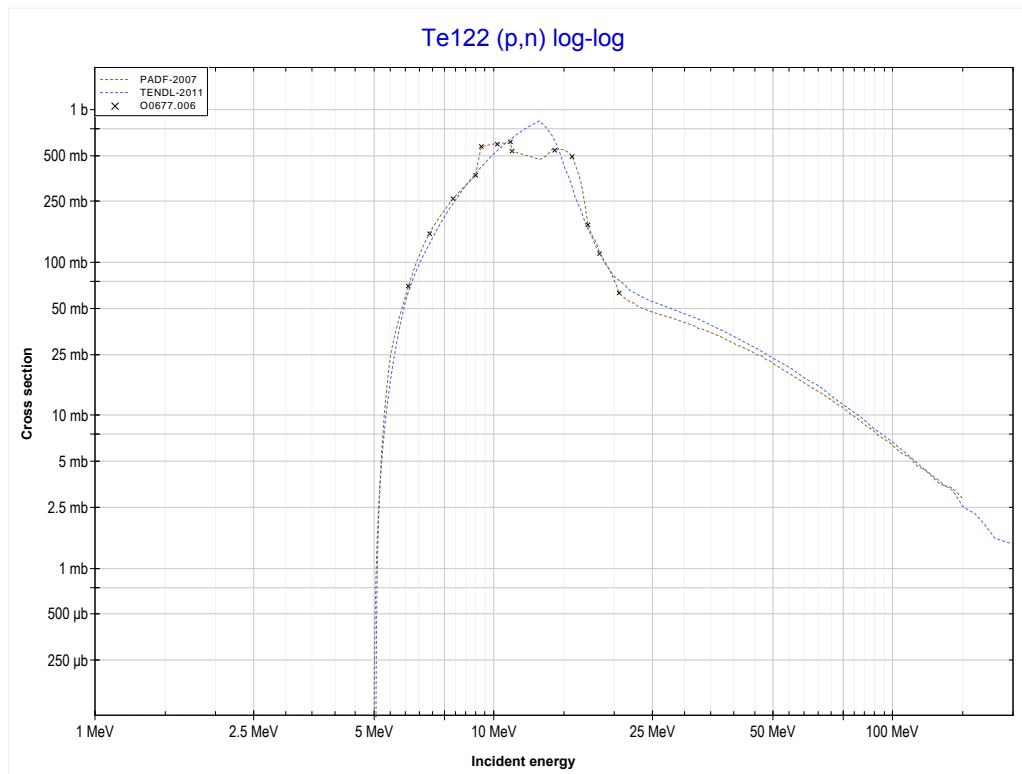
Reaction	Q-Value
$\text{Te}^{120}(p,2n)\text{I}^{119}$	-14492.66 keV

<< 50-Sn-112	52-Te-120 MT102 (p,γ) or MT5 (I^{121} production)	>> 52-Te-130
<< MT16 ($p,2n$)		>> MT4 (p,n)



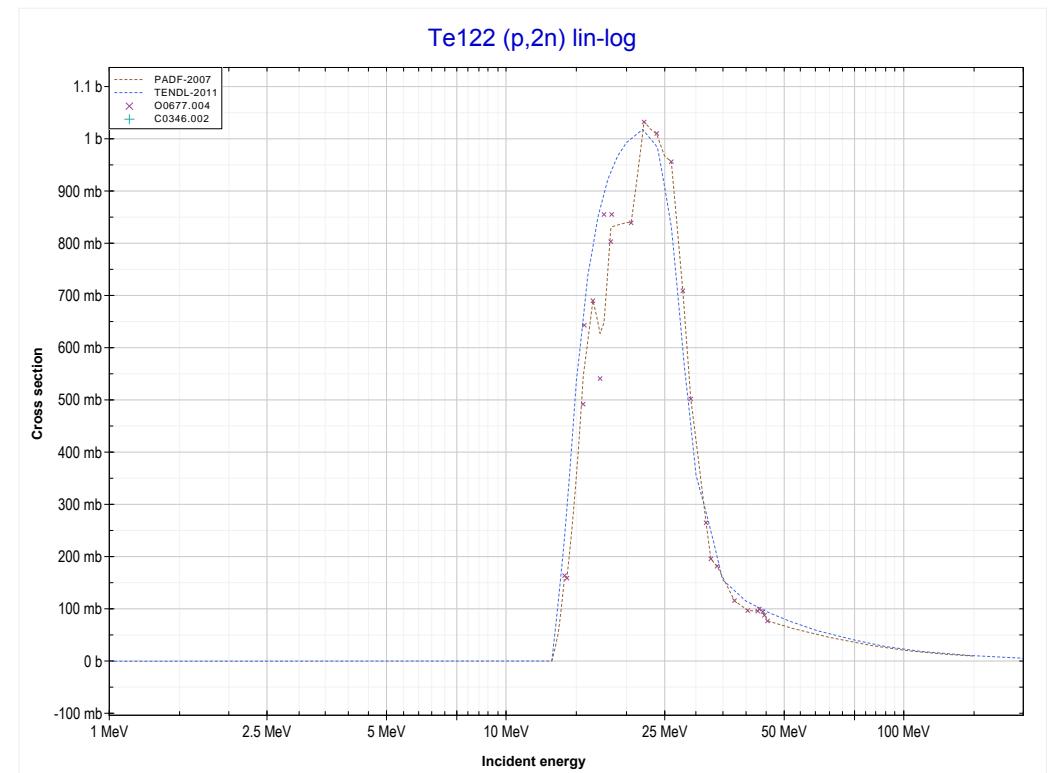
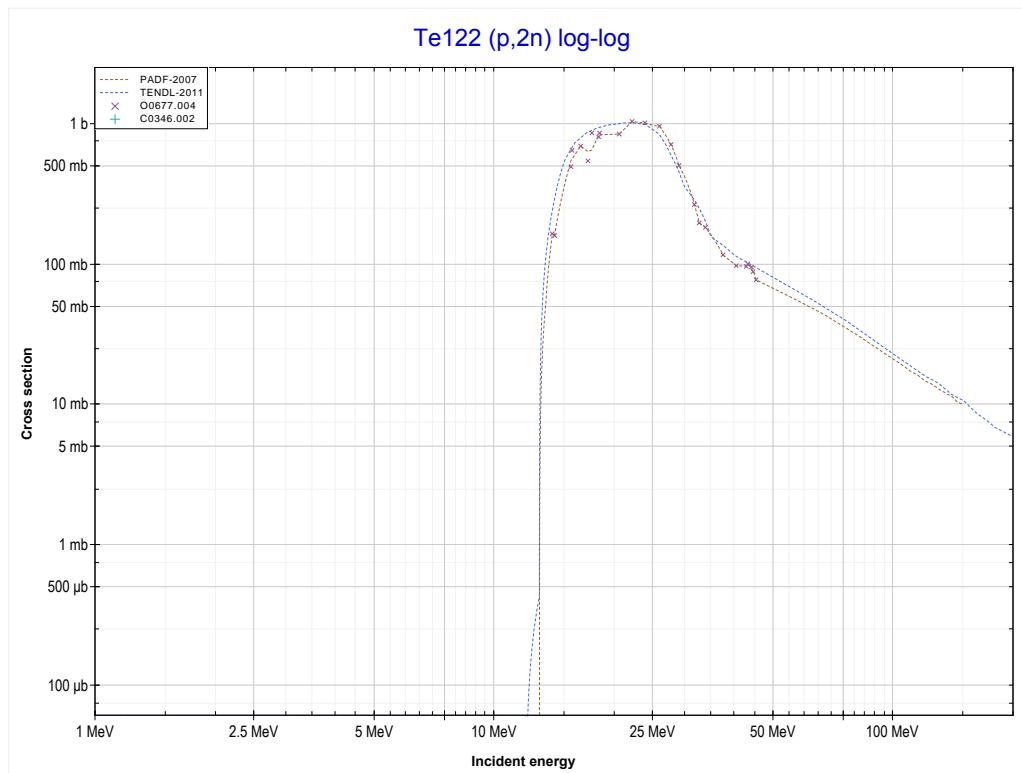
Reaction	Q-Value
Te120(p,γ)I121	4170.97 keV

<< 52-Te-120	52-Te-122 MT4 (p,n) or MT5 (I122 production)	52-Te-123 >>
<< MT102 (p, γ)		MT16 (p,2n) >>



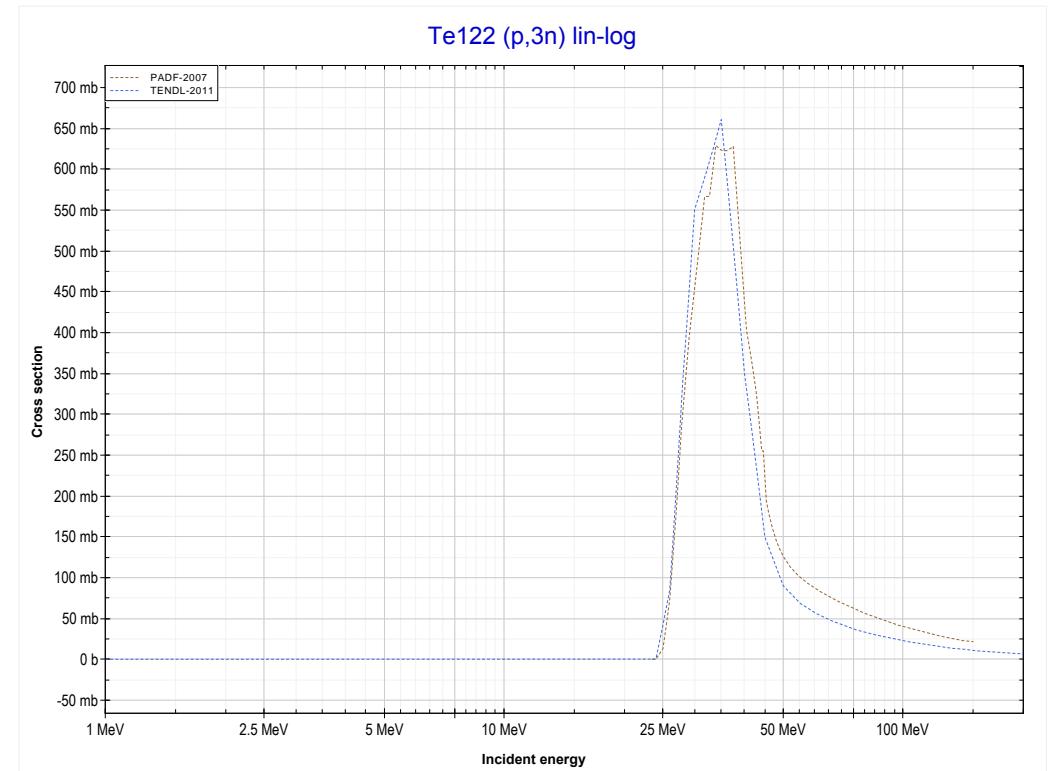
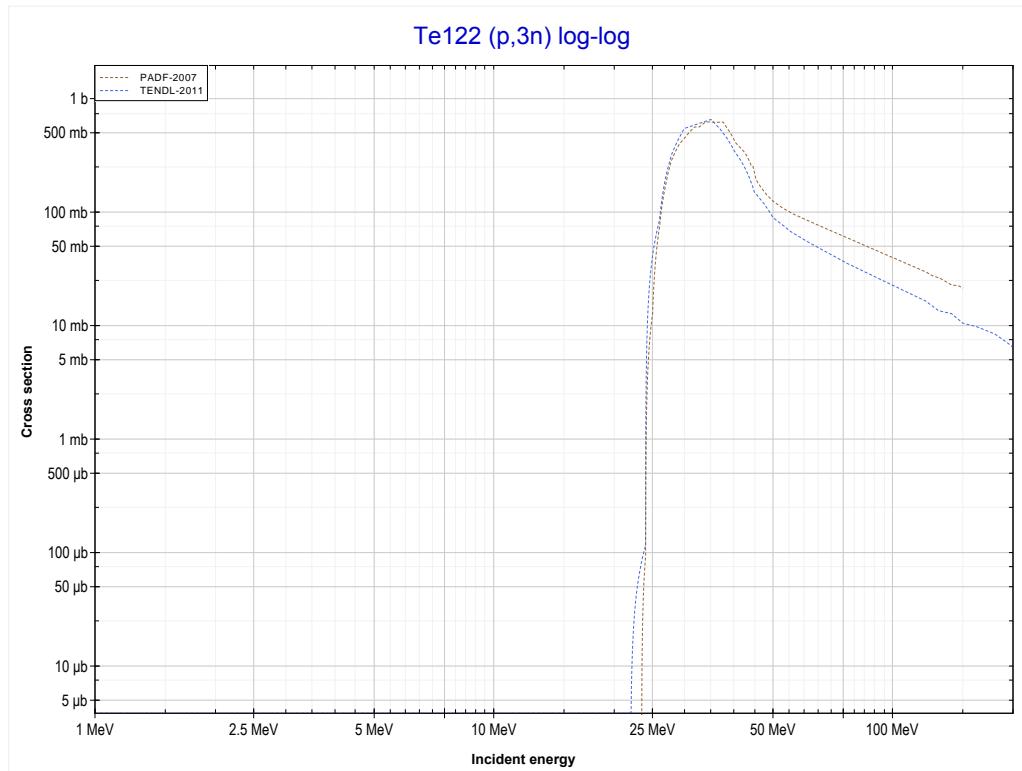
Reaction	Q-Value
Te122(p,n)I122	-5016.35 keV

<< 52-Te-120	52-Te-122 MT16 (p,2n) or MT5 (I121 production)	52-Te-123 >>
<< MT4 (p,n)		MT17 (p,3n) >>



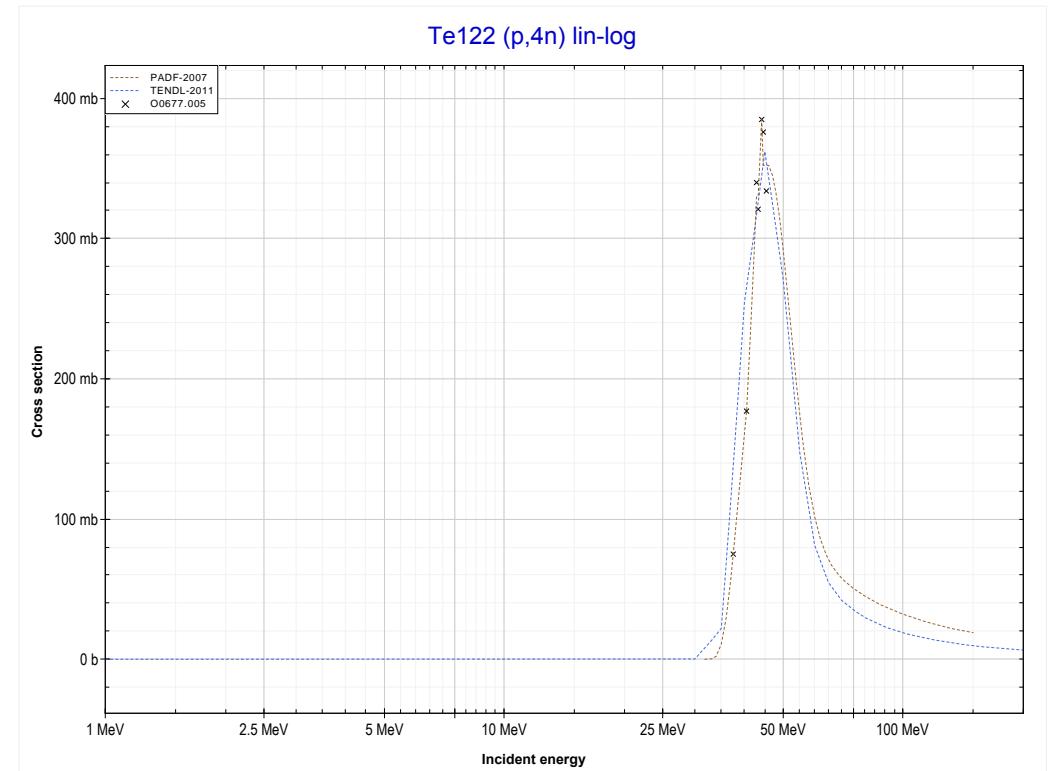
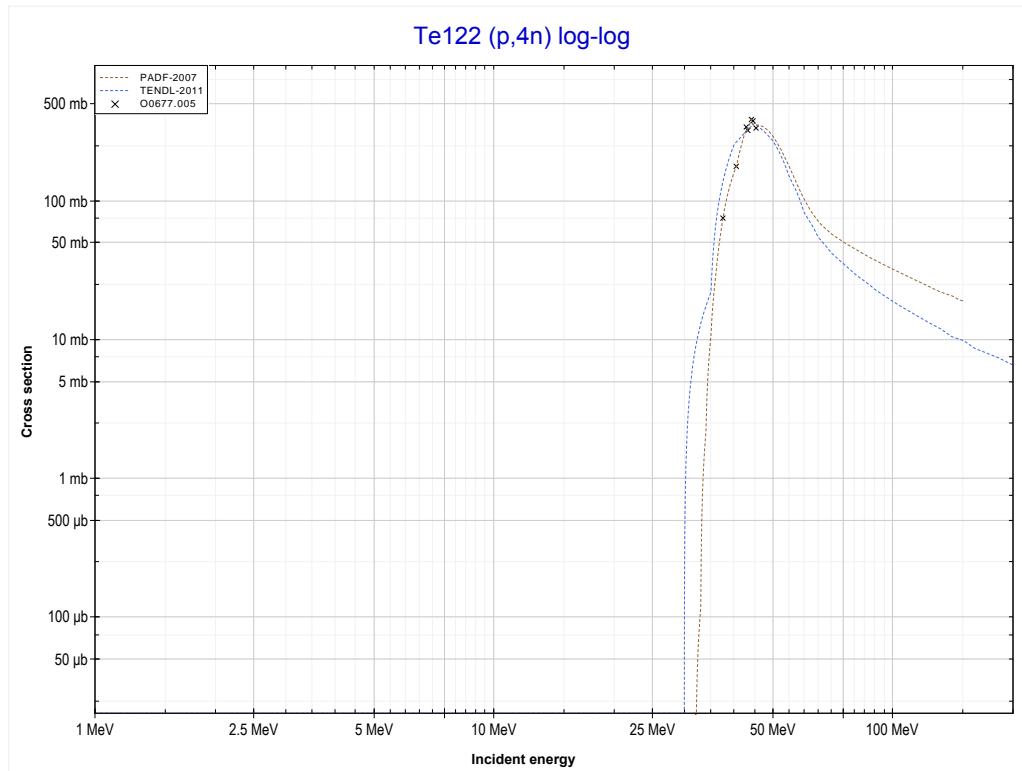
Reaction	Q-Value
Te122(p,2n)I121	-12880.66 keV

<< 50-Sn-118	52-Te-122 MT17 (p,3n) or MT5 (I120 production)	52-Te-125 >> MT37 (p,4n) >>
<< MT16 (p,2n)		



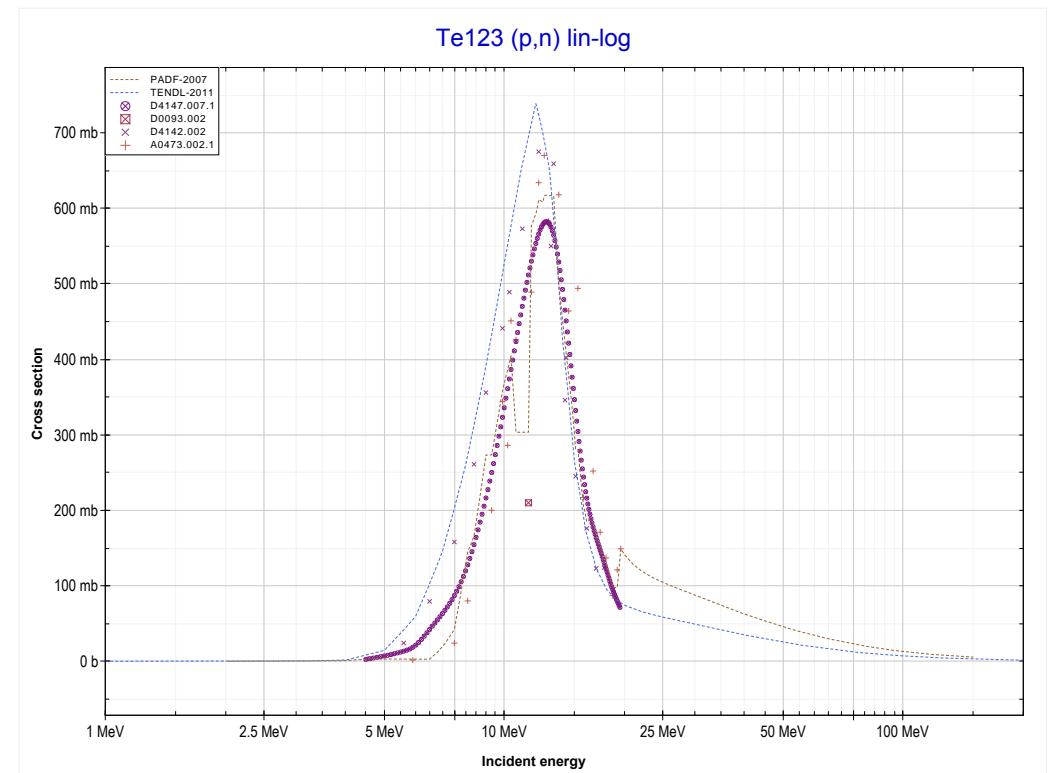
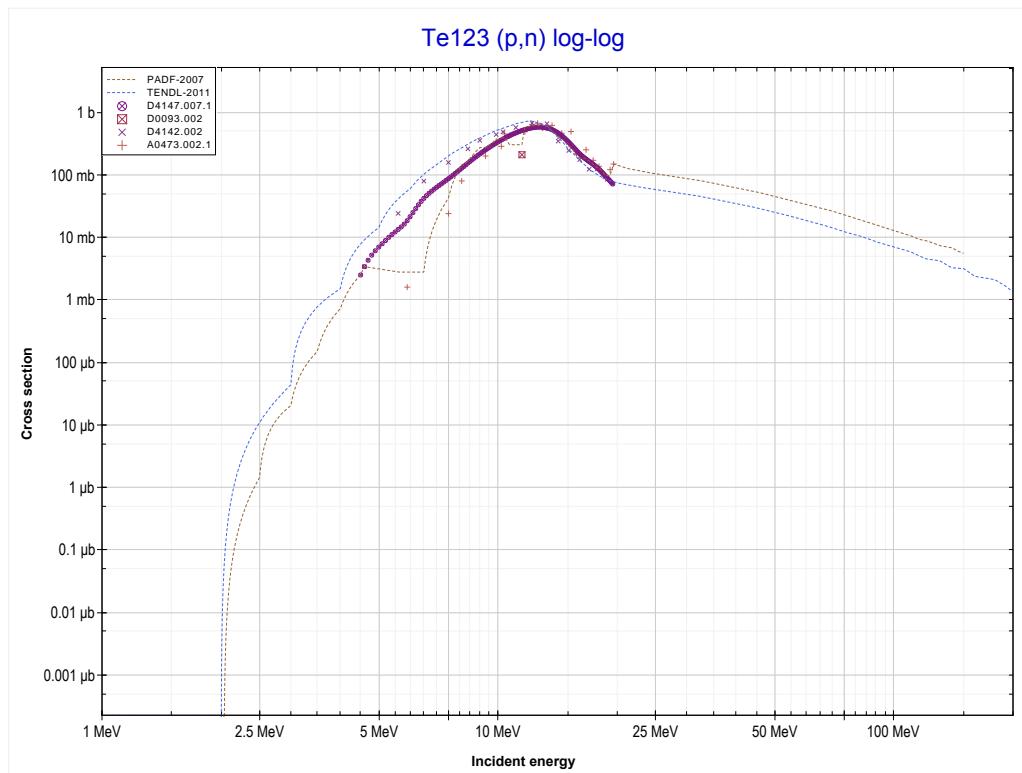
Reaction	Q-Value
Te122(p,3n)I120	-23448.98 keV

<< 51-Sb-121	52-Te-122 MT37 (p,4n) or MT5 (I119 production)	52-Te-125 >>
<< MT17 (p,3n)		MT4 (p,n) >>



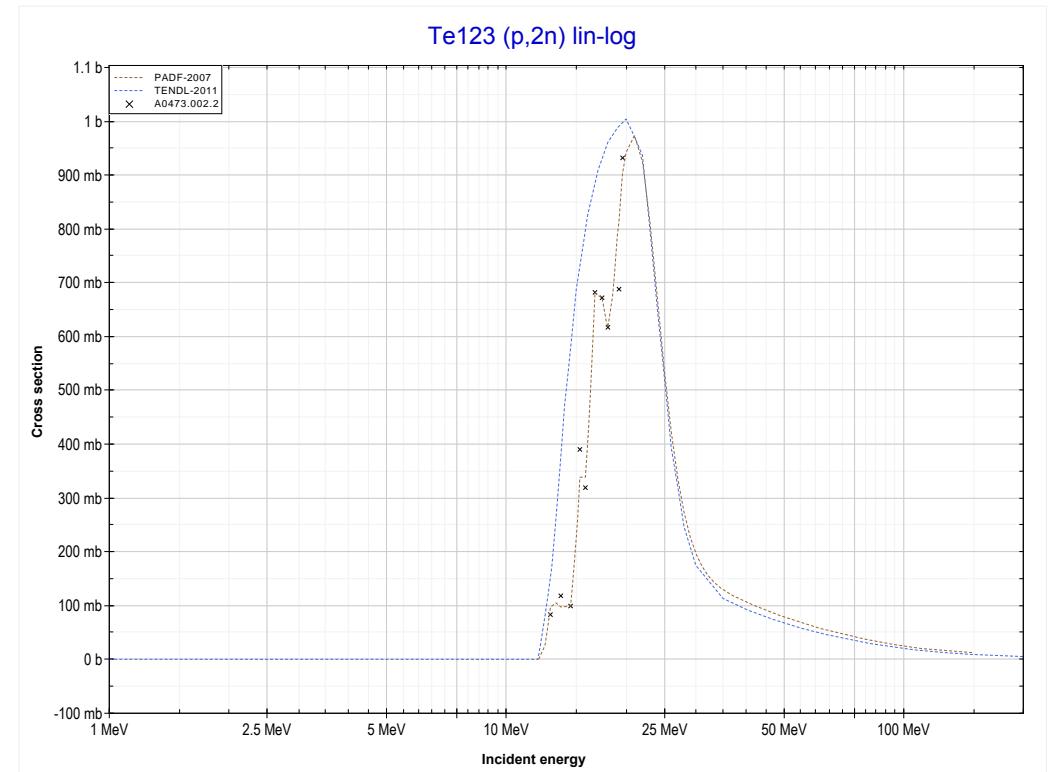
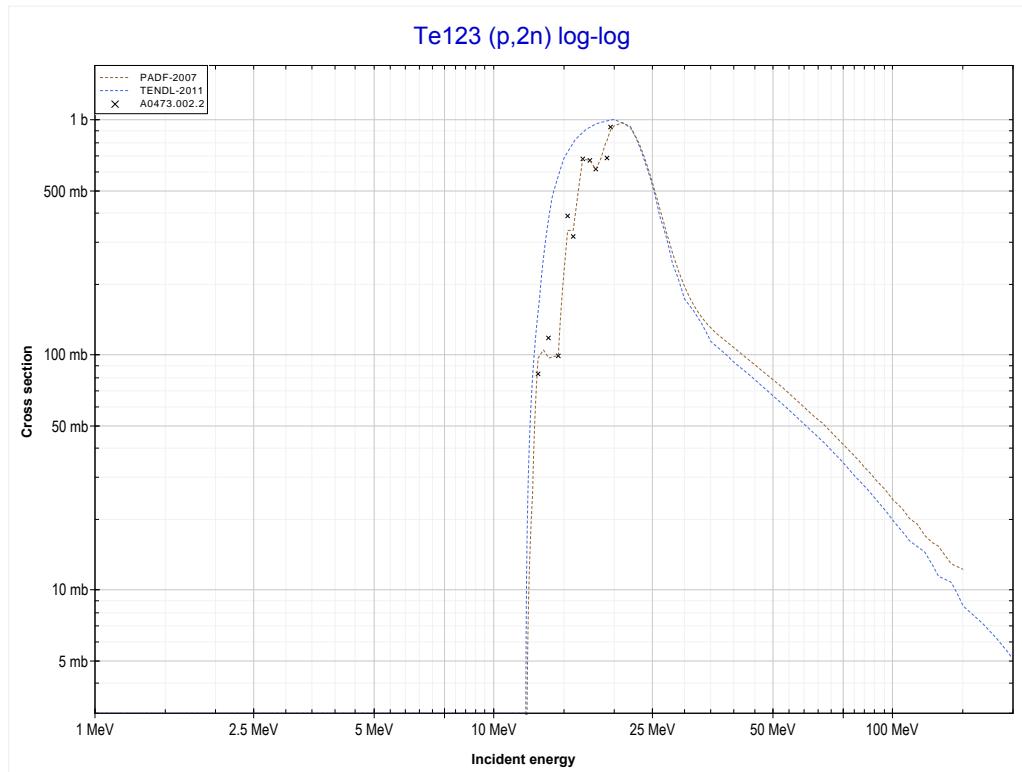
Reaction	Q-Value
$\text{Te}^{122}(\text{p},4\text{n})\text{I}^{119}$	-31544.30 keV

<< 52-Te-122	52-Te-123 MT4 (p,n) or MT5 (I123 production)	52-Te-124 >>
<< MT37 (p,4n)		MT16 (p,2n) >>



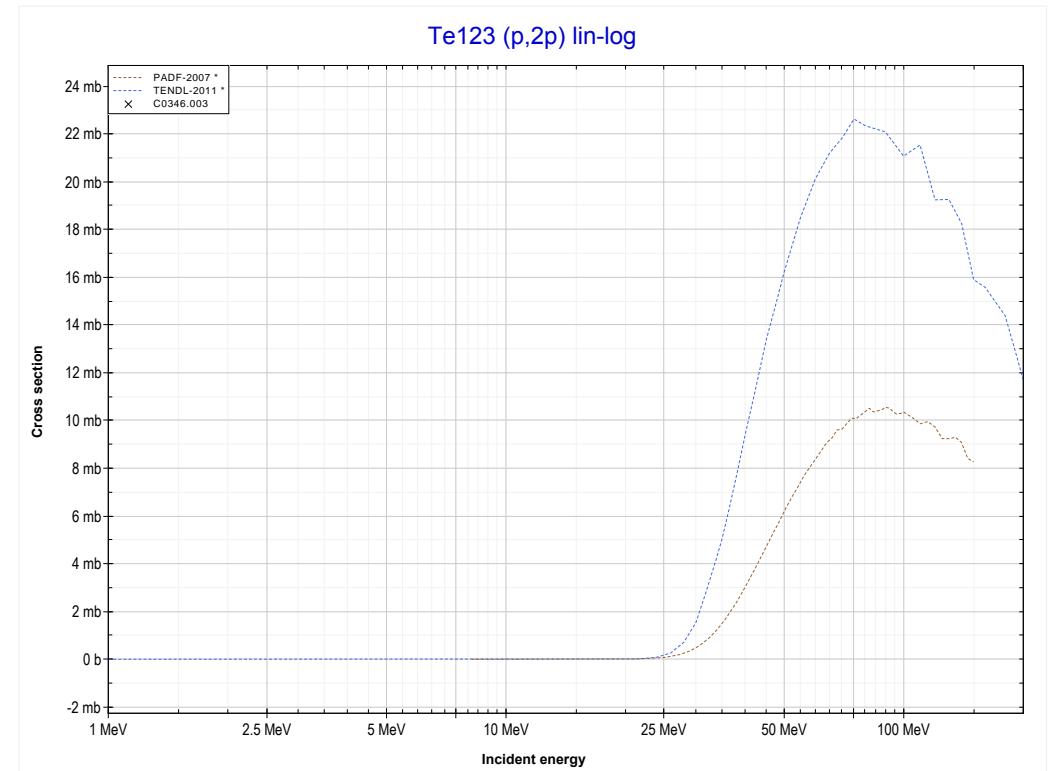
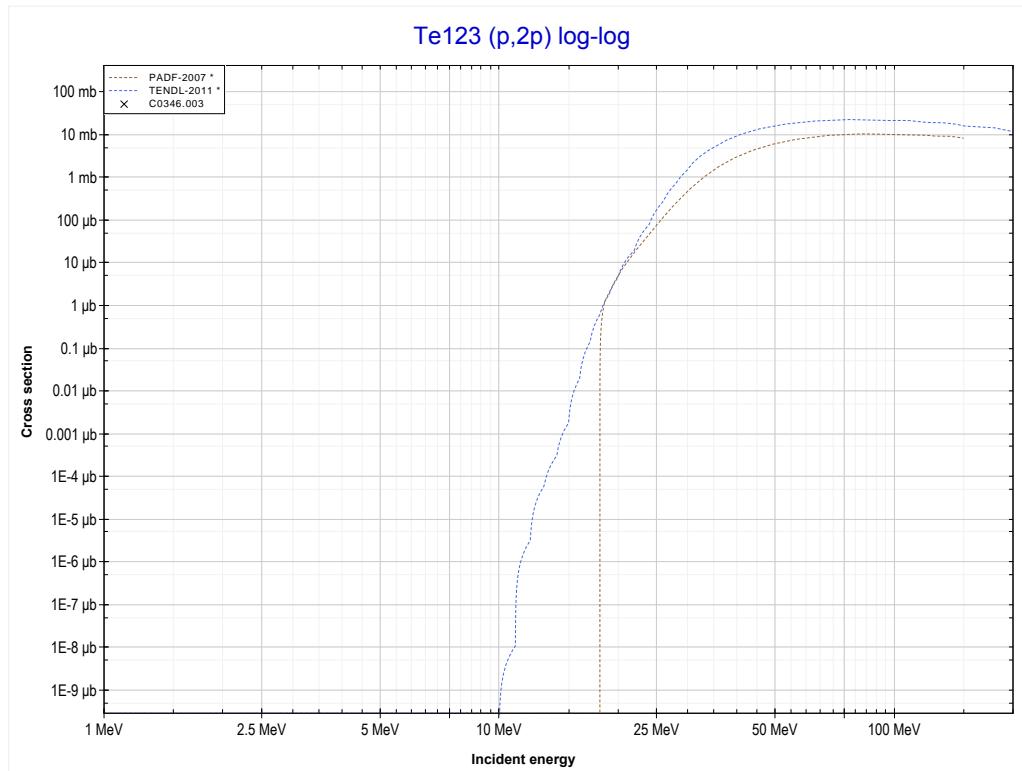
Reaction	Q-Value
Te123(p,n)I123	-2011.25 keV

<< 52-Te-122	52-Te-123 MT16 (p,2n) or MT5 (I122 production)	52-Te-124 >>
<< MT4 (p,n)		MT111 (p,2p) >>



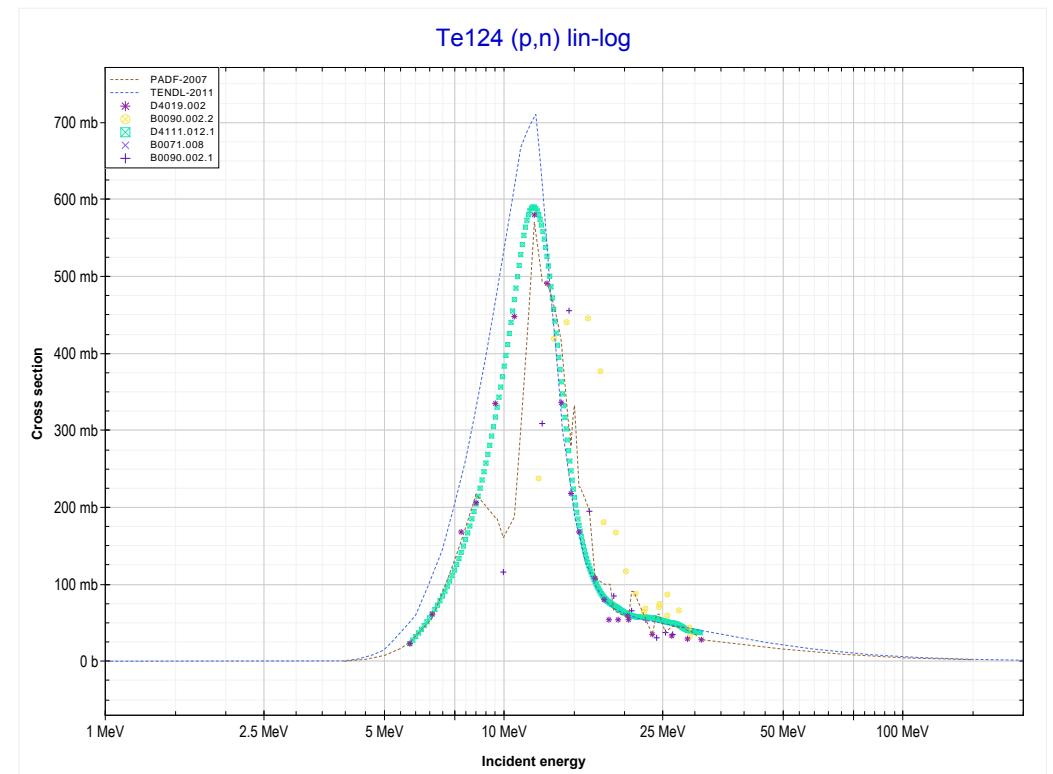
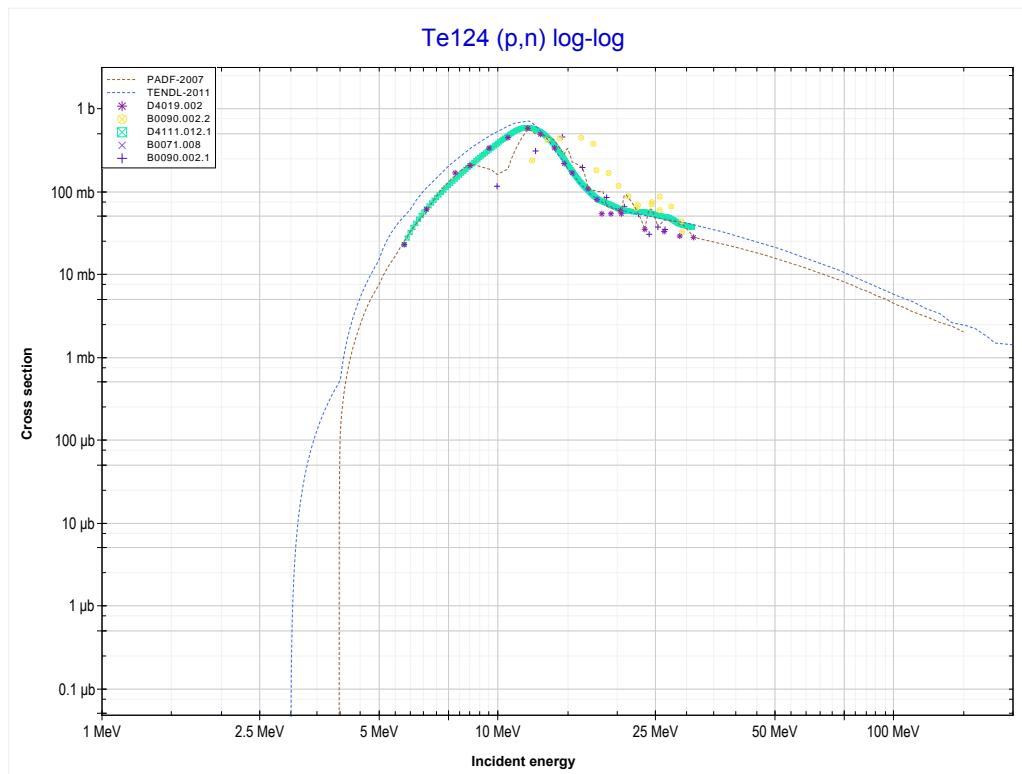
Reaction	Q-Value
$\text{Te}^{123}(p,2n)\text{I}^{122}$	-11945.56 keV

<< 50-Sn-118	52-Te-123 MT111 (p,2p) or MT5 (Sb122 production)	52-Te-125 >>
<< MT16 (p,2n)		MT4 (p,n) >>



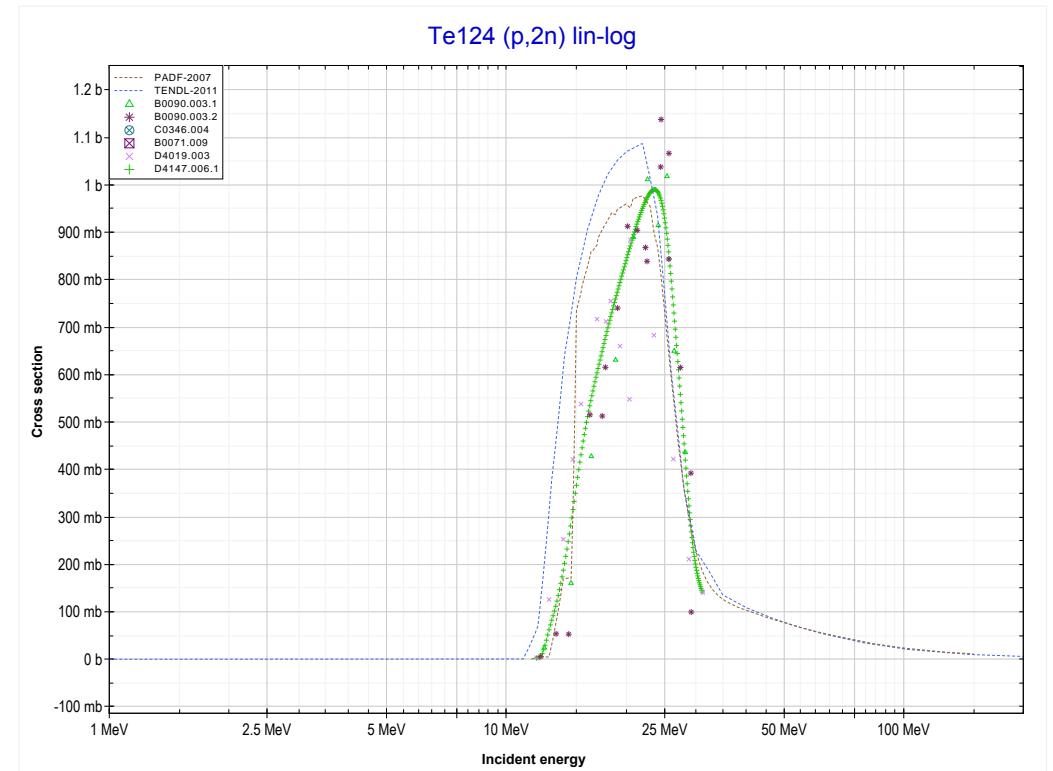
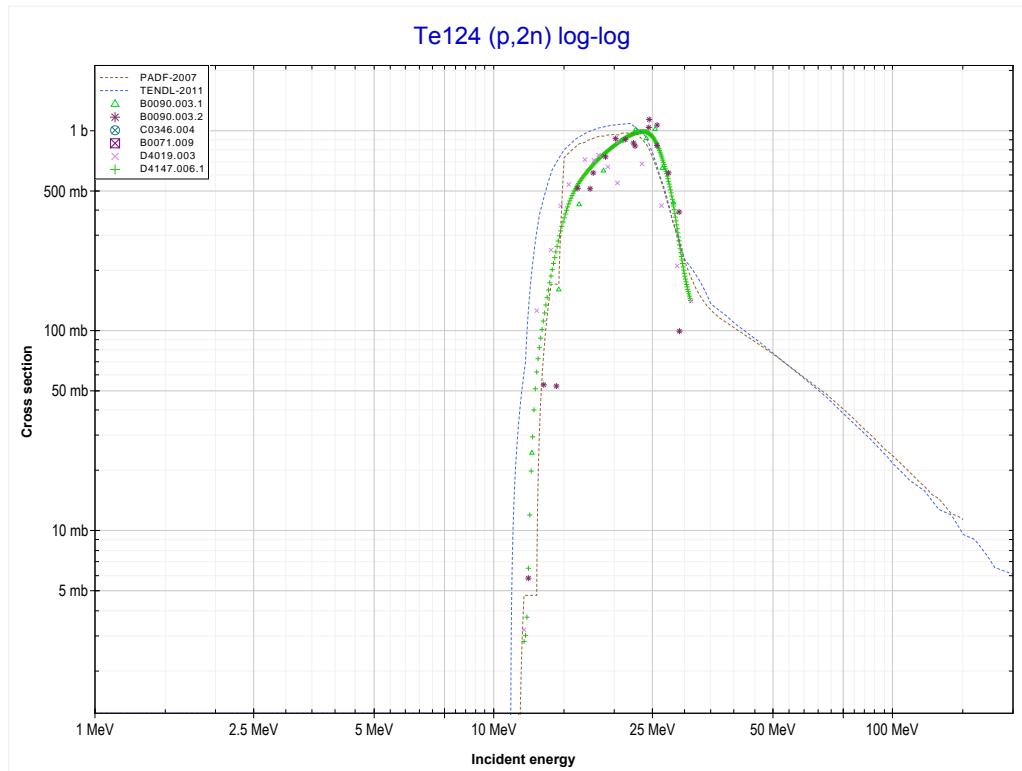
Reaction	Q-Value
Te123(p,2p)Sb122	-8130.67 keV

<< 52-Te-123	52-Te-124	52-Te-125 >>
<< MT111 (p,2p)	MT4 (p,n) or MT5 (I124 production)	MT16 (p,2n) >>



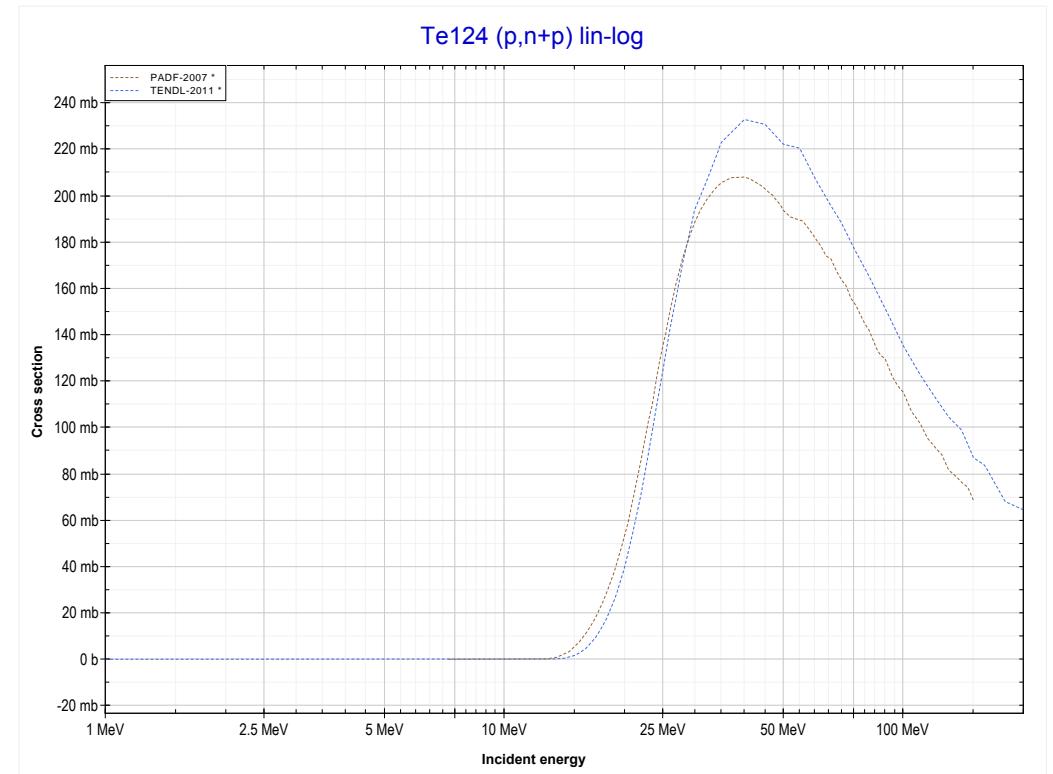
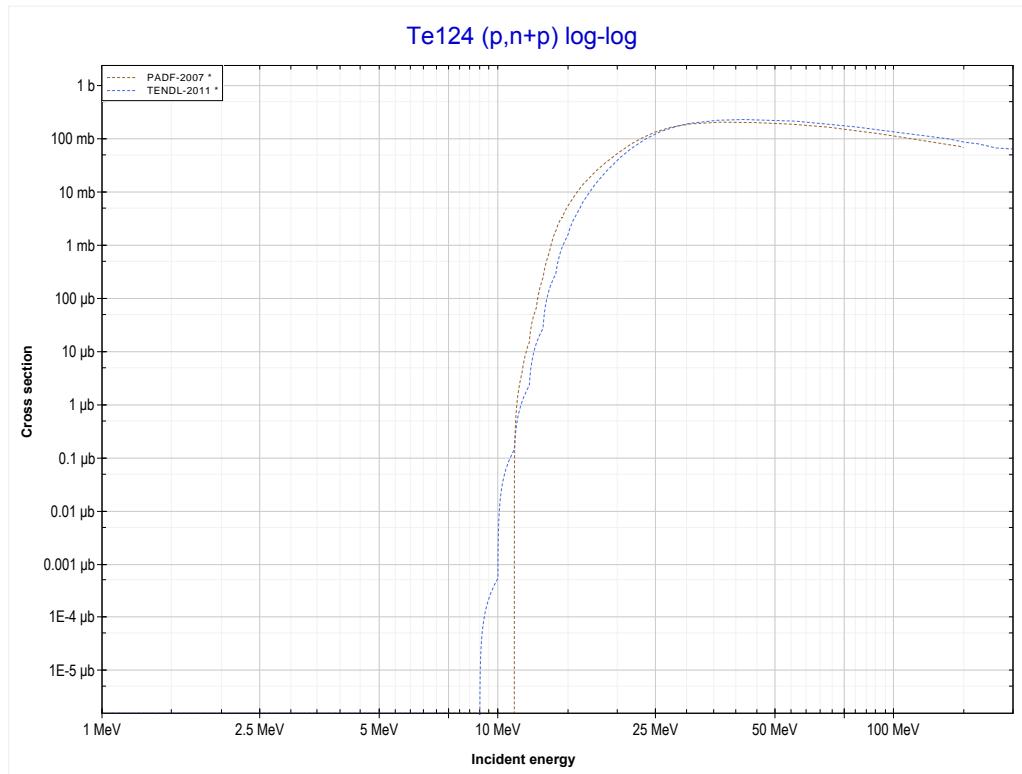
Reaction	Q-Value
Te124(p,n)I124	-3941.85 keV

<< 52-Te-123	52-Te-124 MT16 (p,2n) or MT5 (I123 production)	52-Te-125 >>
<< MT4 (p,n) >>		MT28 (p,n+p) >>



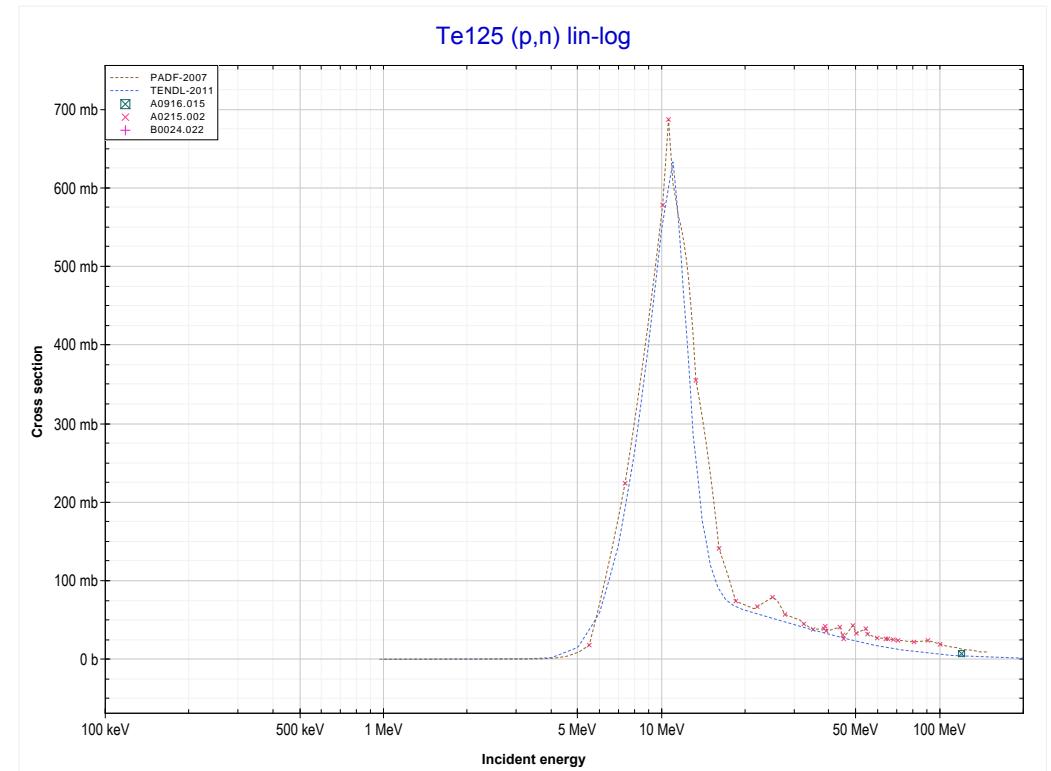
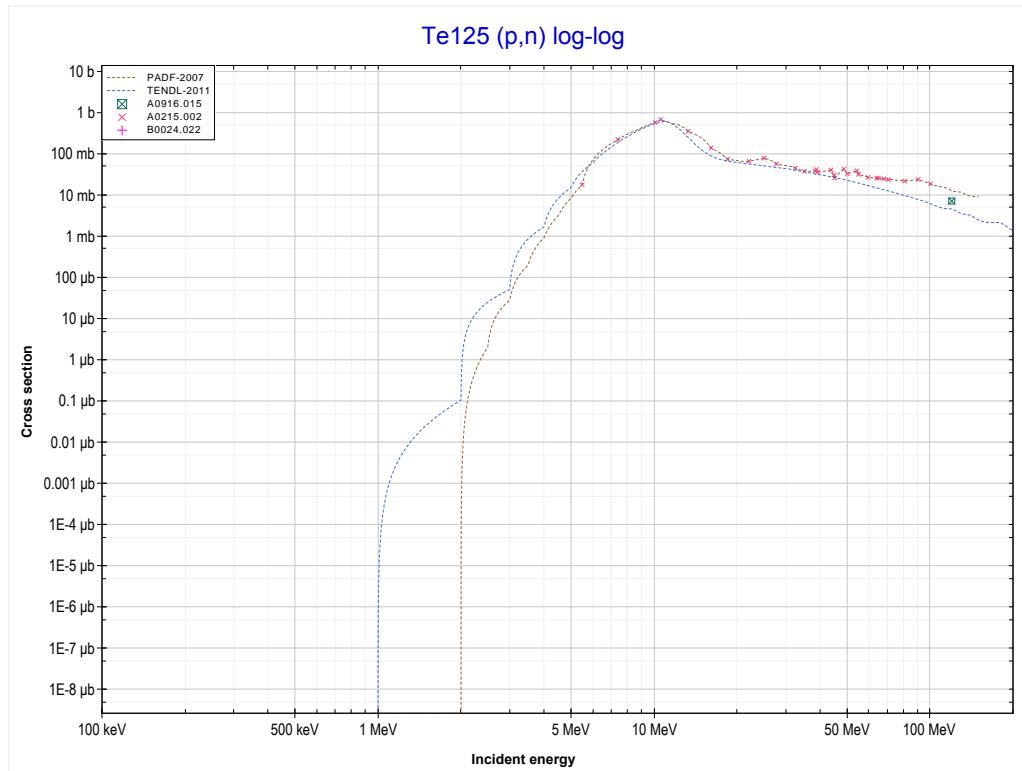
Reaction	Q-Value
Te124(p,2n)I123	-11435.16 keV

<< 51-Sb-123	52-Te-124 MT28 (p,n+p) or MT5 (Te123 production)	52-Te-126 >>
<< MT16 (p,2n)		MT4 (p,n) >>



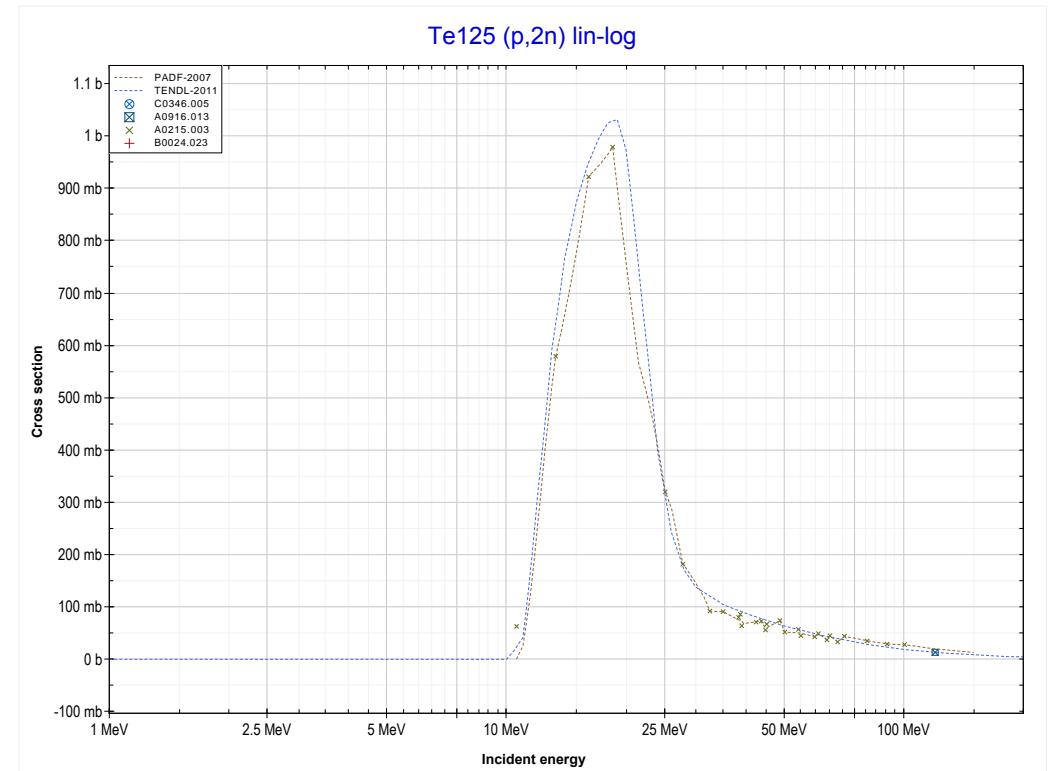
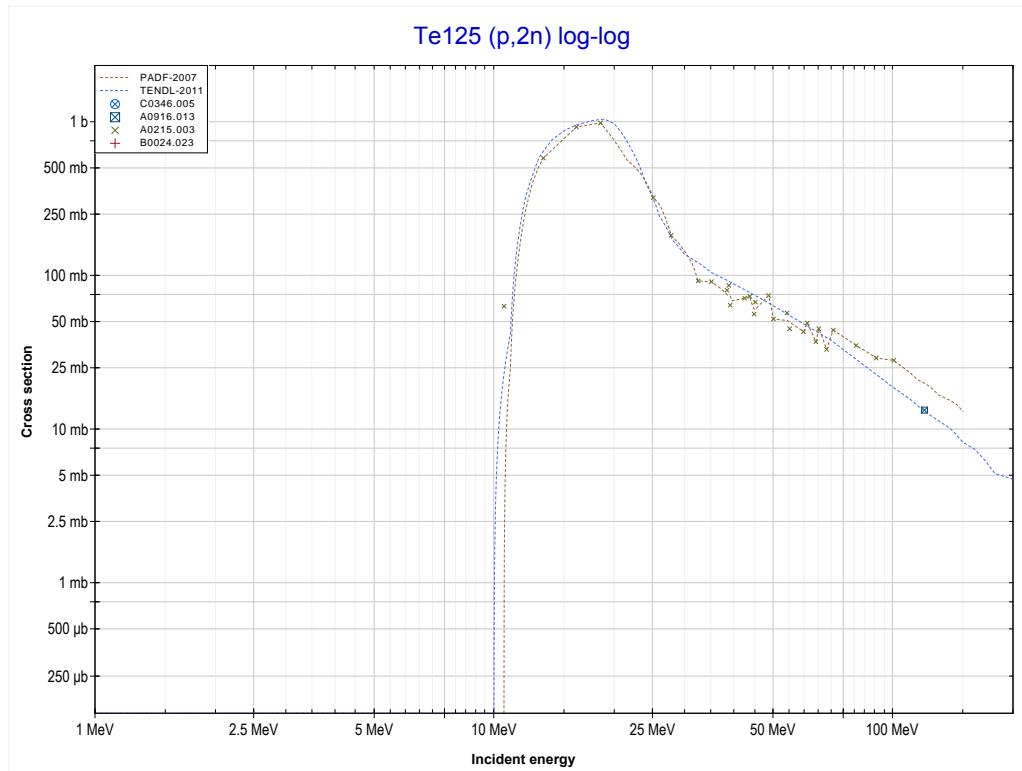
Reaction	Q-Value
Te124(p,d)Te123	-7199.35 keV
Te124(p,n+p)Te123	-9423.92 keV

<< 52-Te-124	52-Te-125 MT4 (p,n) or MT5 (I125 production)	52-Te-126 >>
<< MT28 (p,n+p)		MT16 (p,2n) >>



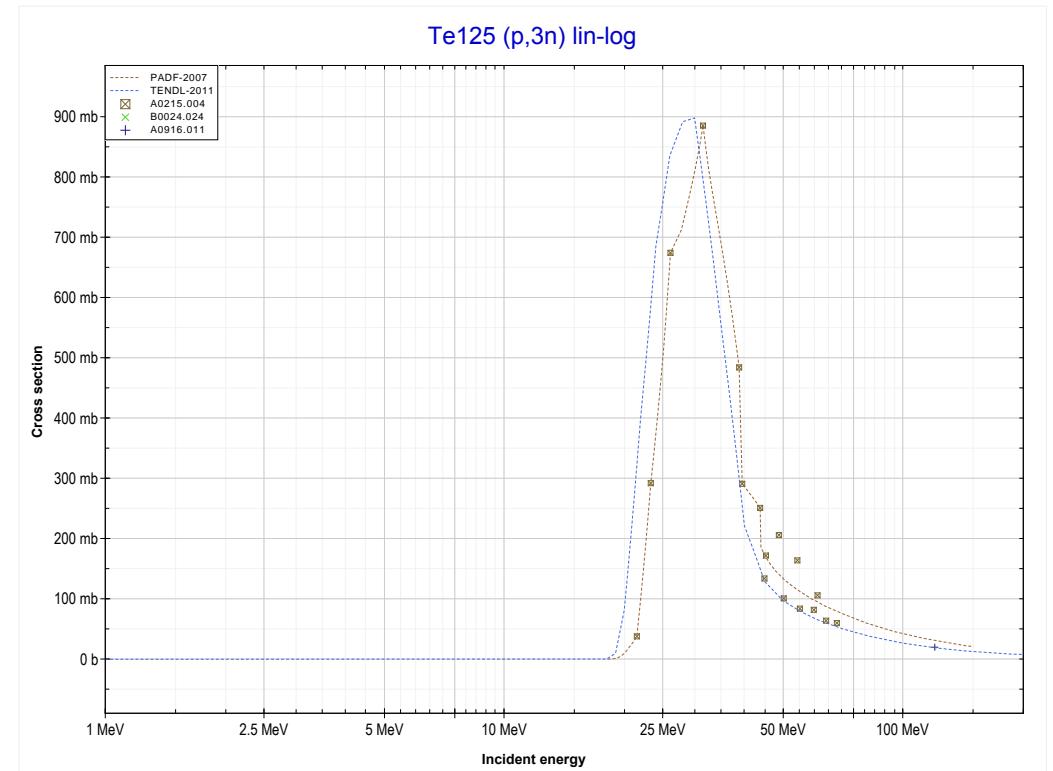
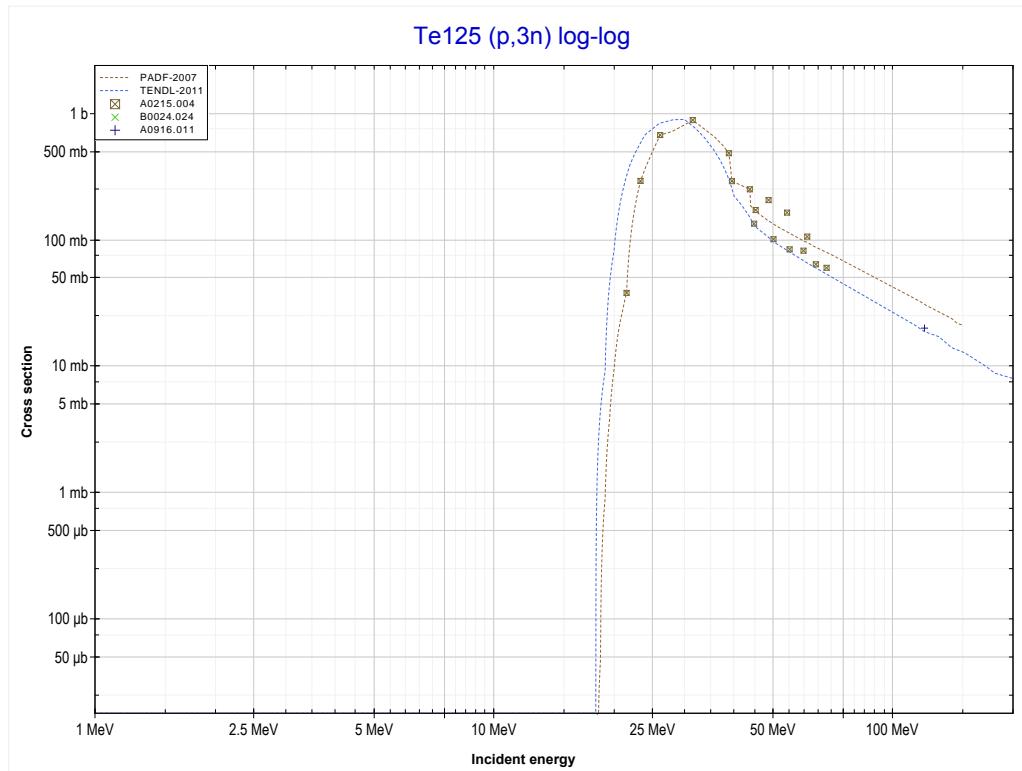
Reaction	Q-Value
Te125(p,n)I125	-968.15 keV

<< 52-Te-124	52-Te-125 MT16 (p,2n) or MT5 (I124 production)	52-Te-126 >>
<< MT4 (p,n)		MT17 (p,3n) >>



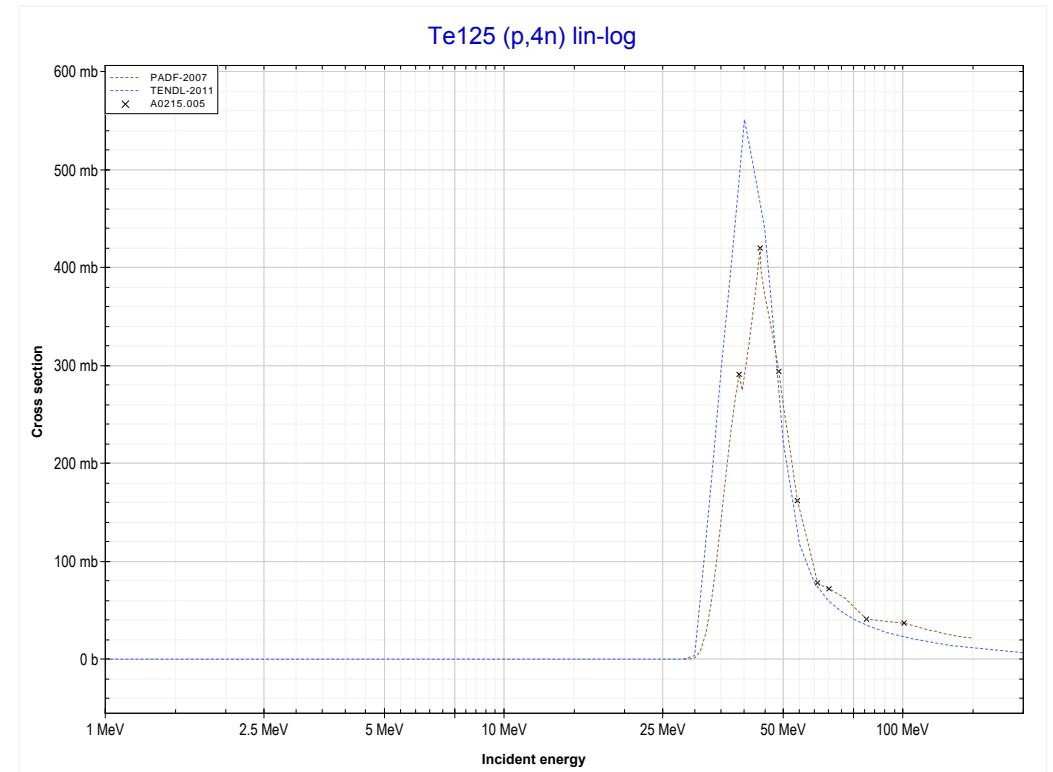
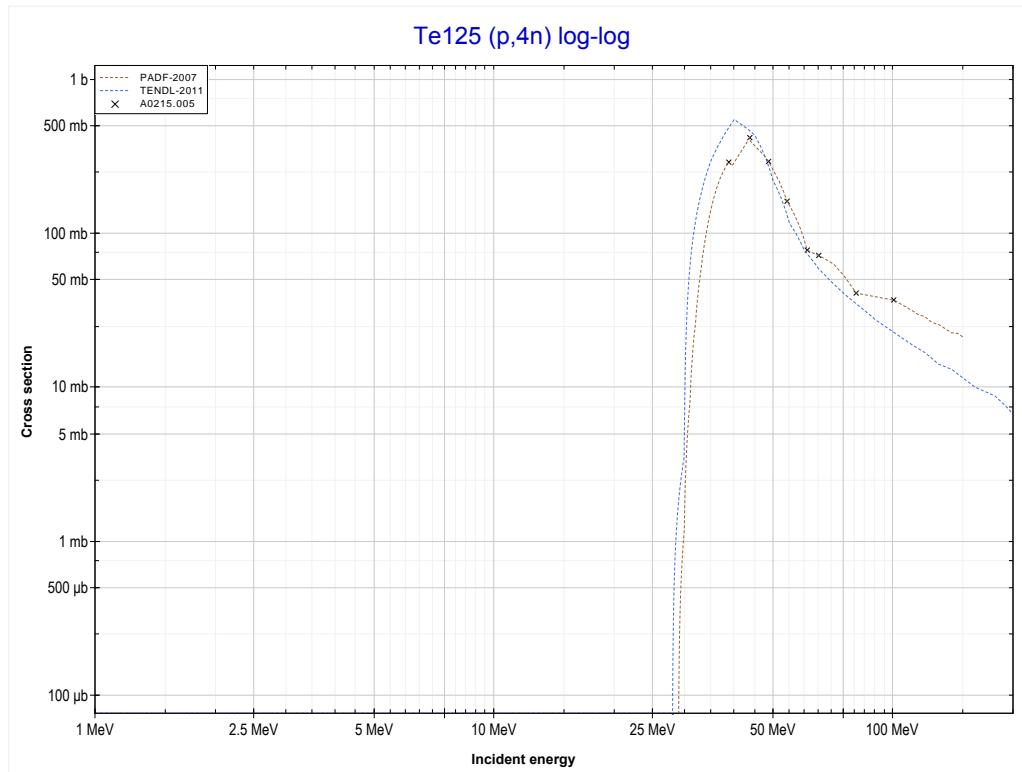
Reaction	Q-Value
$\text{Te}^{125}(p,2n)\text{I}^{124}$	-10510.86 keV

<< 52-Te-122	52-Te-125 MT17 (p,3n) or MT5 (I123 production)	52-Te-126 >>
<< MT16 (p,2n)		MT37 (p,4n) >>



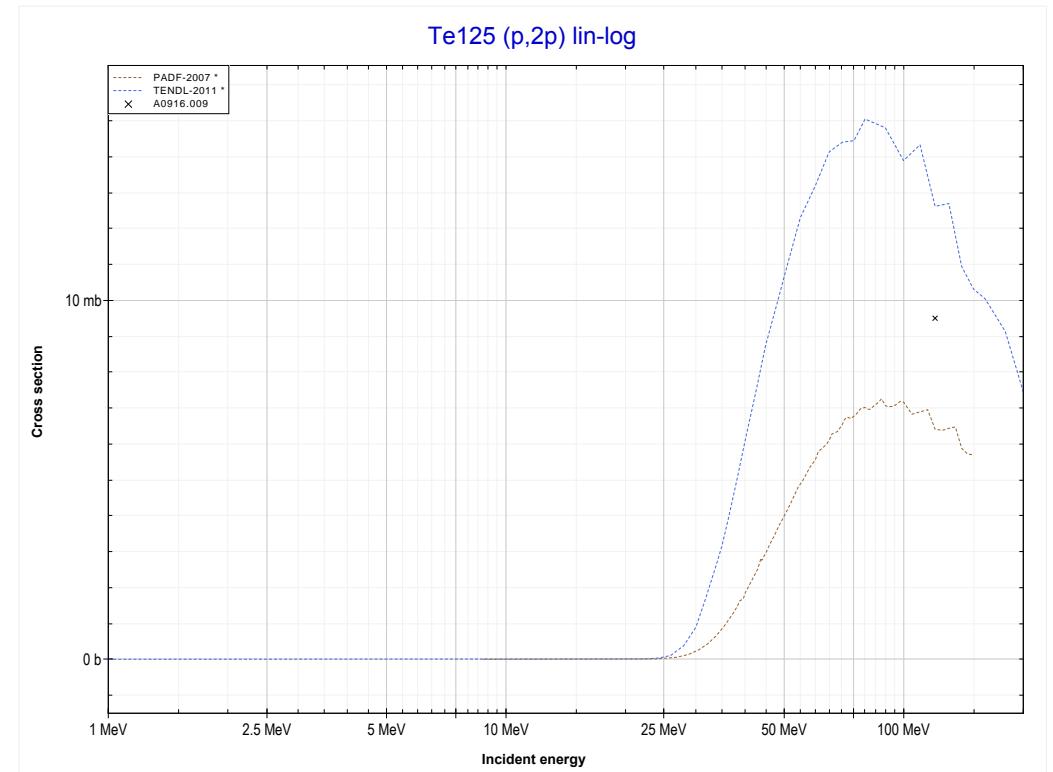
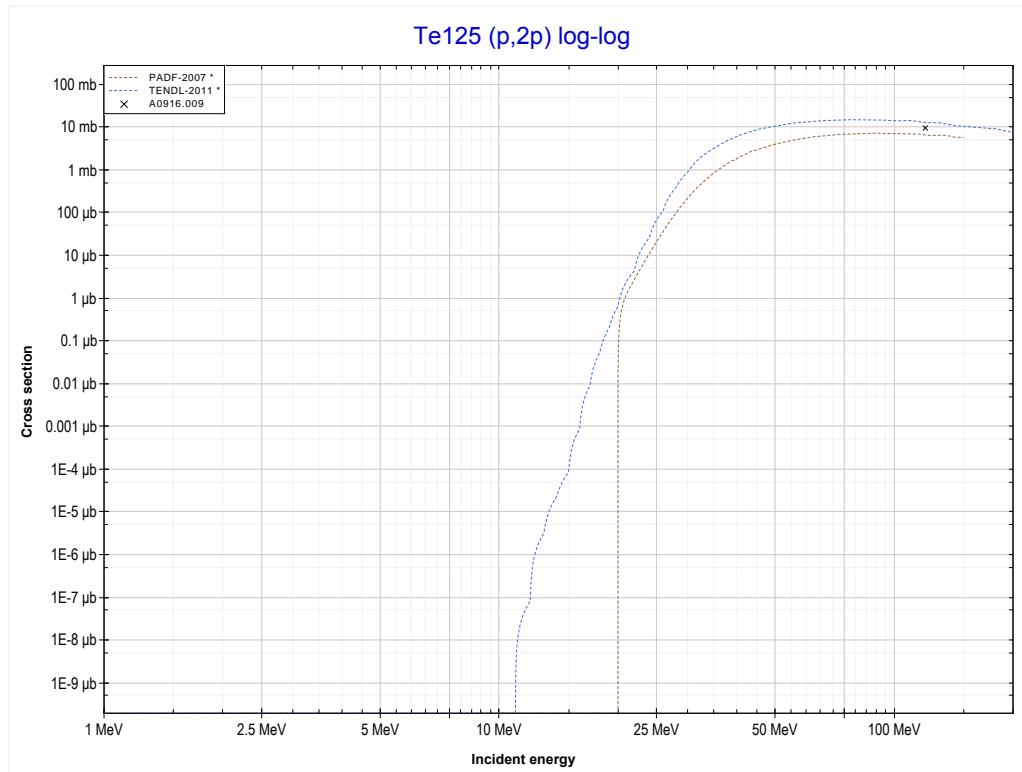
Reaction	Q-Value
Te125(p,3n)I123	-18004.18 keV

<< 52-Te-122	52-Te-125 MT37 (p,4n) or MT5 (I122 production)	52-Te-126 >>
<< MT17 (p,3n)		MT111 (p,2p) >>



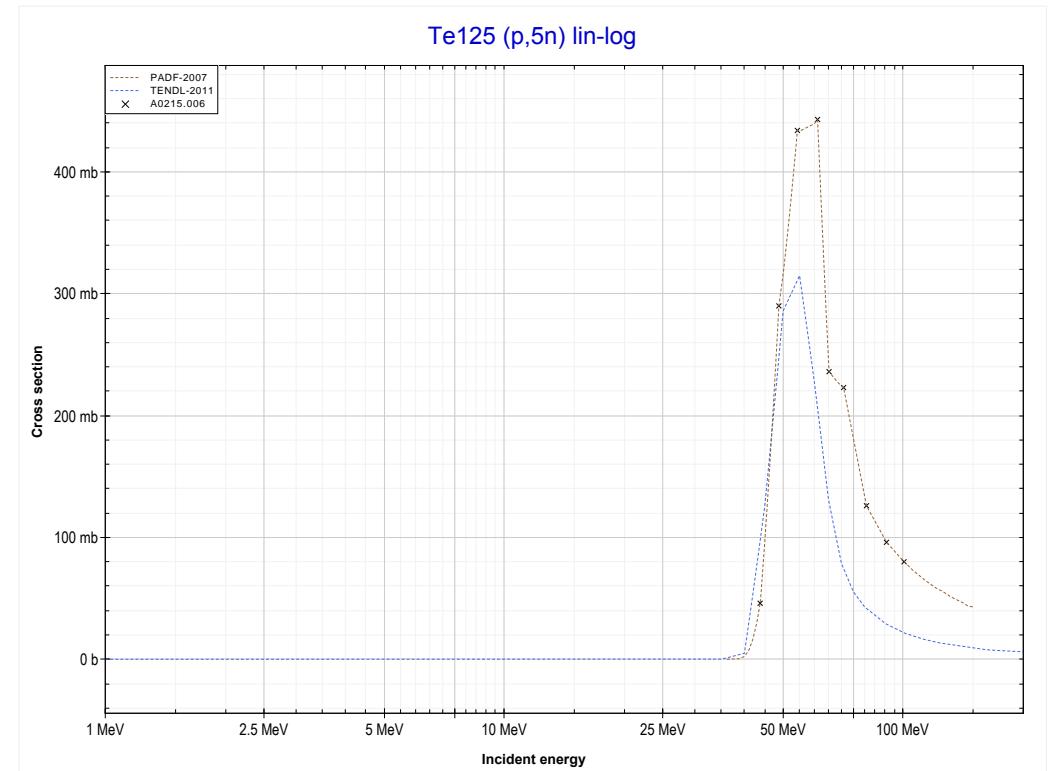
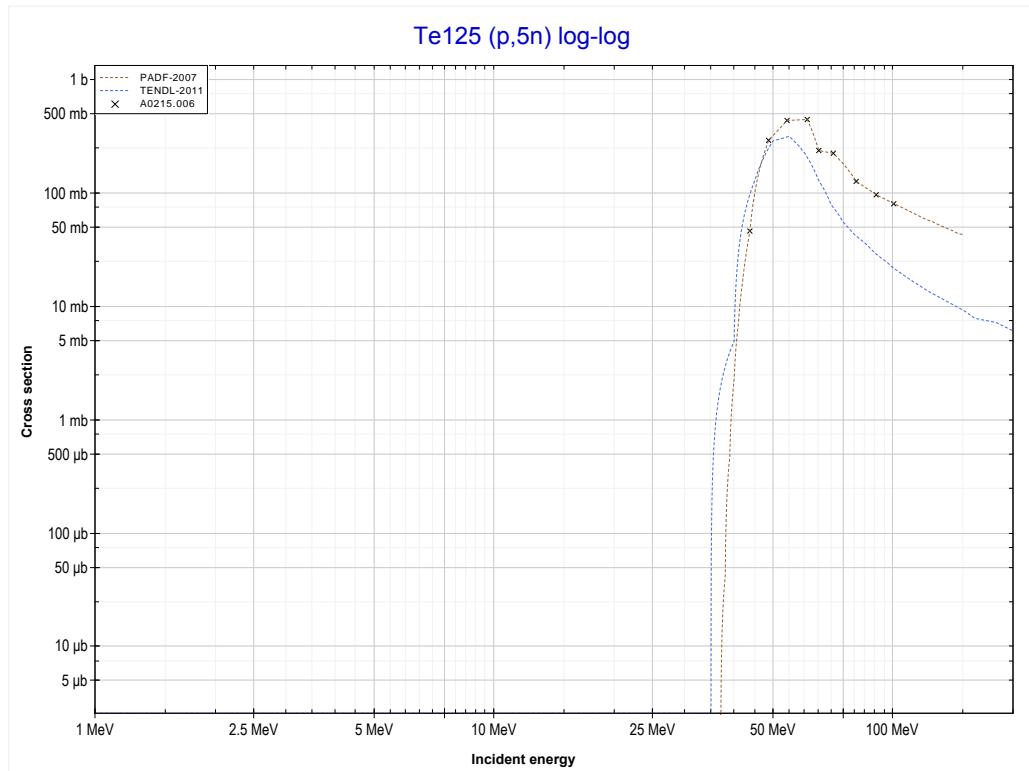
Reaction	Q-Value
$\text{Te}^{125}(p,4n)\text{I}^{122}$	-27938.50 keV

<< 52-Te-123	52-Te-125 MT111 (p,2p) or MT5 (Sb124 production)	52-Te-126 >>
<< MT37 (p,4n)		MT152 (p,5n) >>



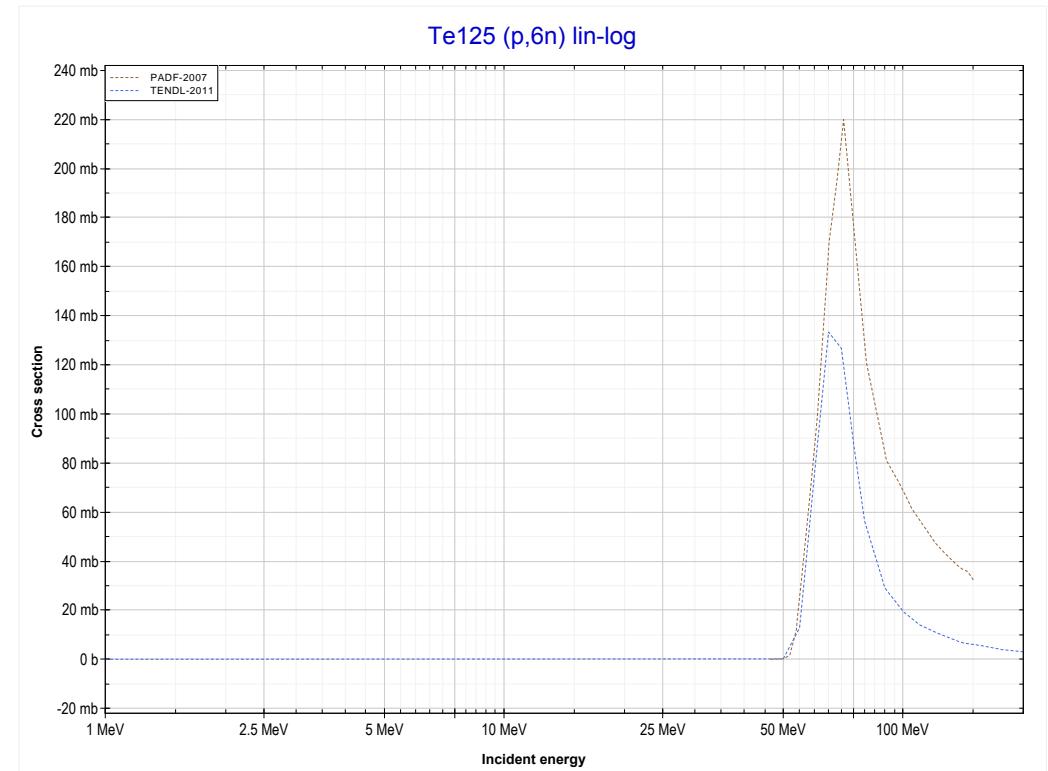
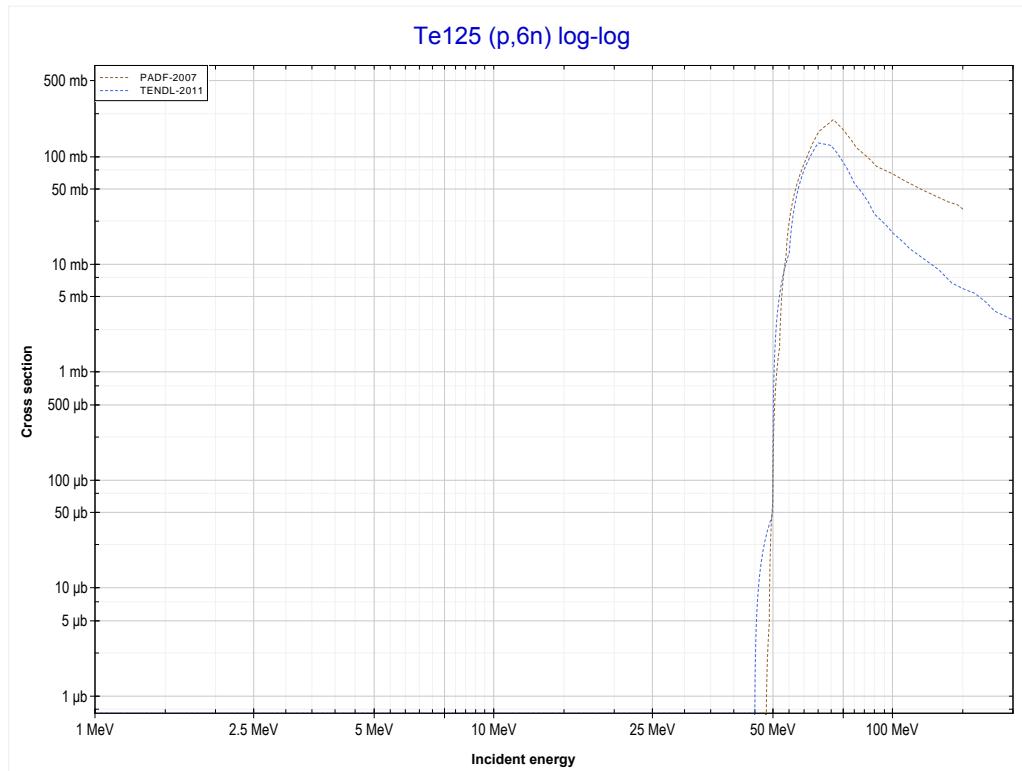
Reaction	Q-Value
Te125(p,2p)Sb124	-8690.87 keV

<< 50-Sn-124	52-Te-125 MT152 (p,5n) or MT5 (I121 production)	53-I-127 >>
<< MT111 (p,2p)		MT153 (p,6n) >>



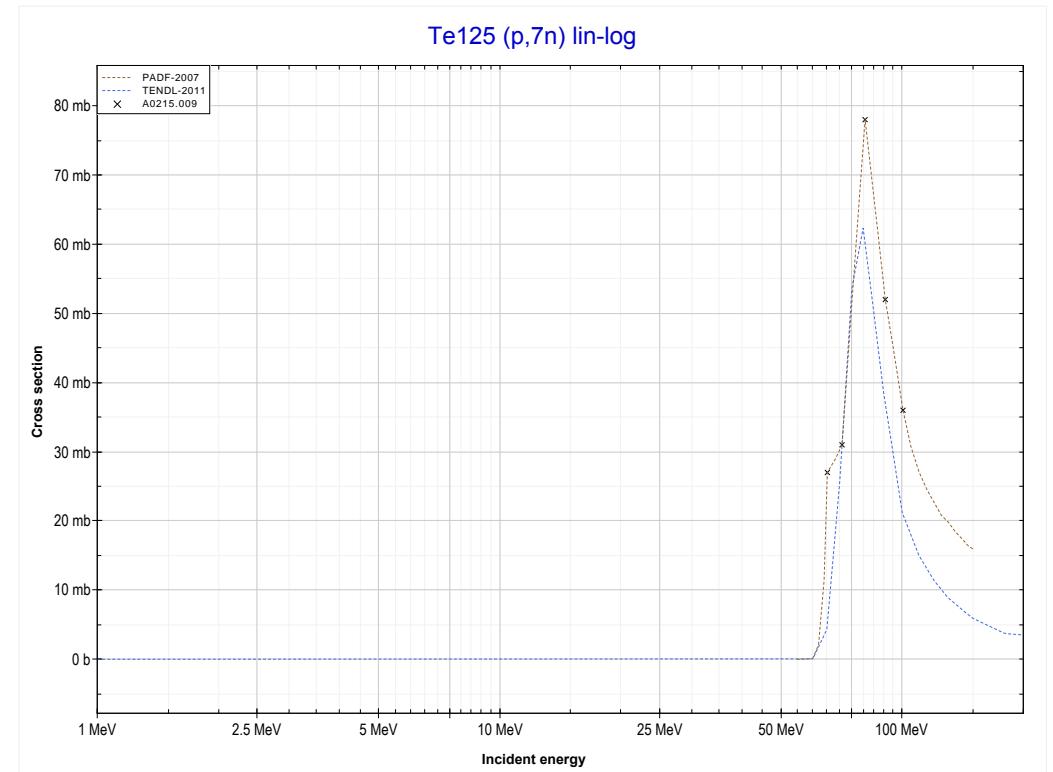
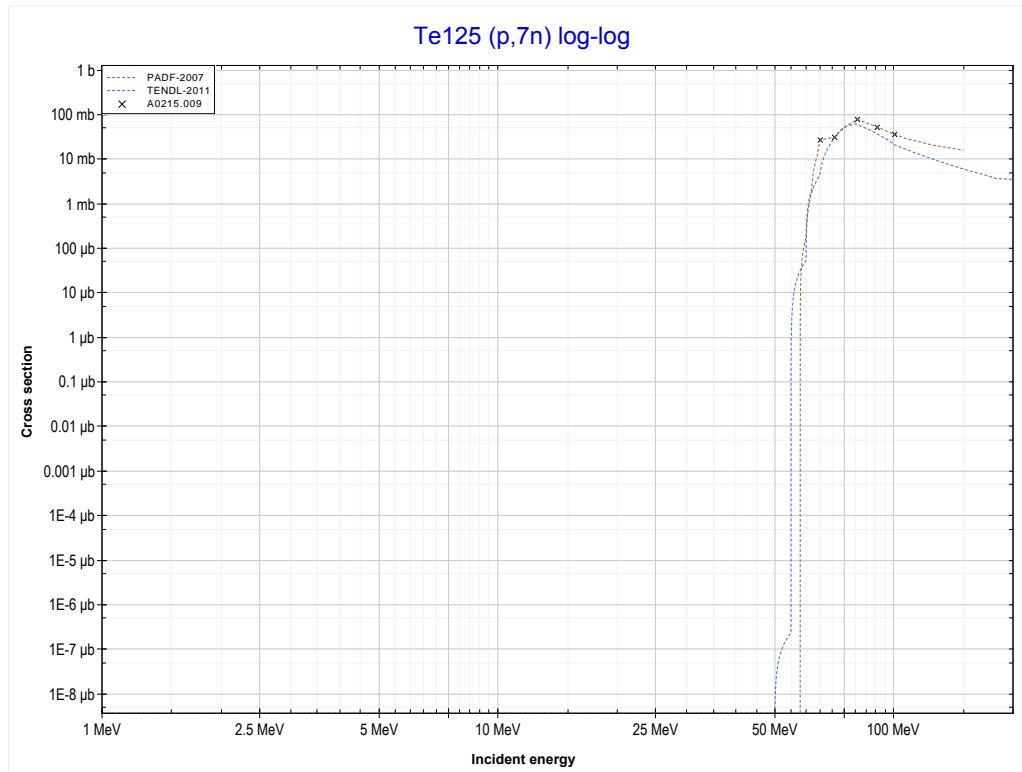
Reaction	Q-Value
Te125(p,5n)I121	-35802.82 keV

<< 48-Cd-116	52-Te-125 MT153 (p,6n) or MT5 (I120 production)	53-I-127 >>
<< MT152 (p,5n)		MT160 (p,7n) >>



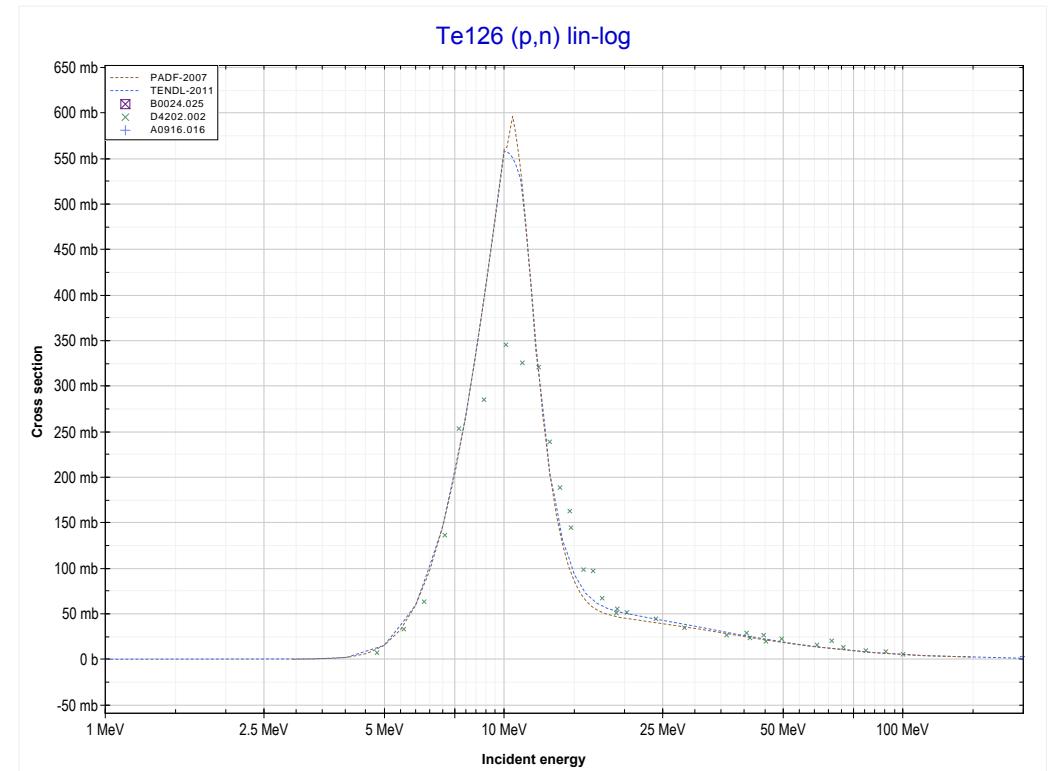
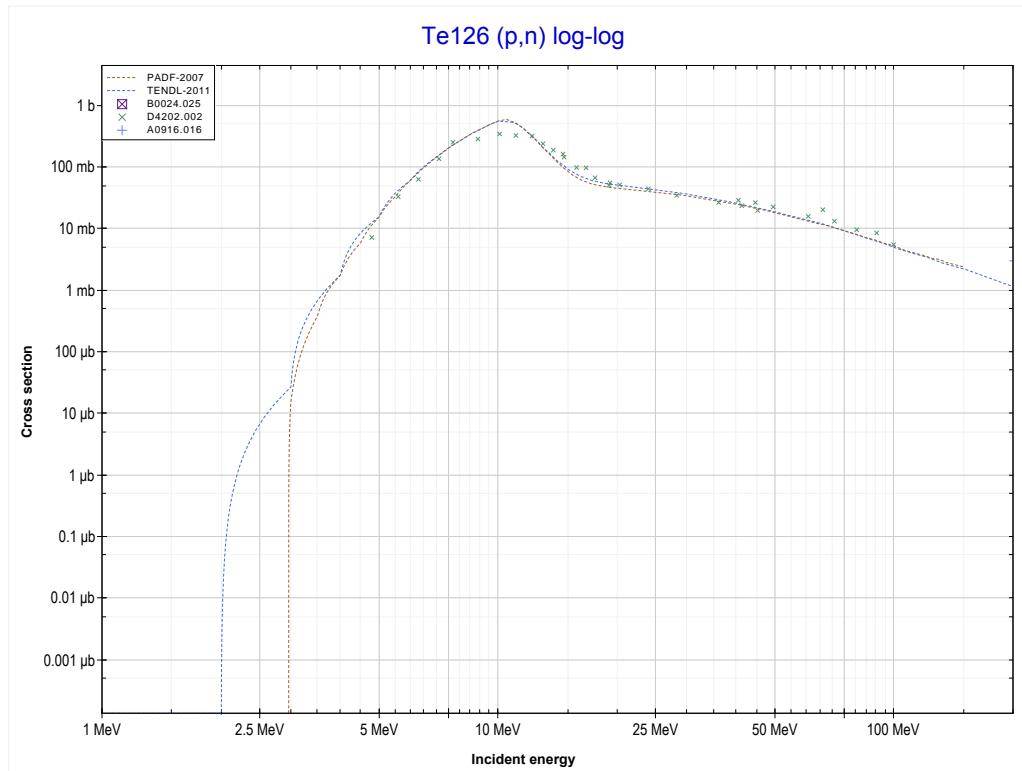
Reaction	Q-Value
Te125(p,6n)I120	-46371.13 keV

<< 50-Sn-124	52-Te-125 MT160 (p,7n) or MT5 (I119 production)	53-I-127 >>
<< MT153 (p,6n)		MT4 (p,n) >>



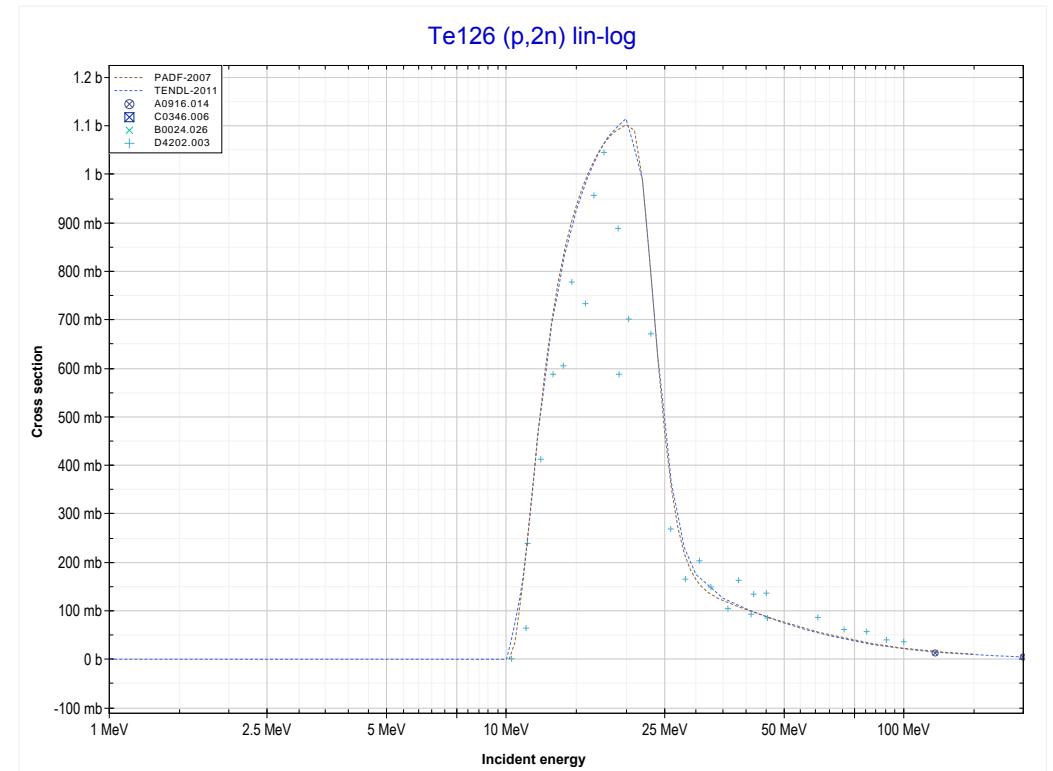
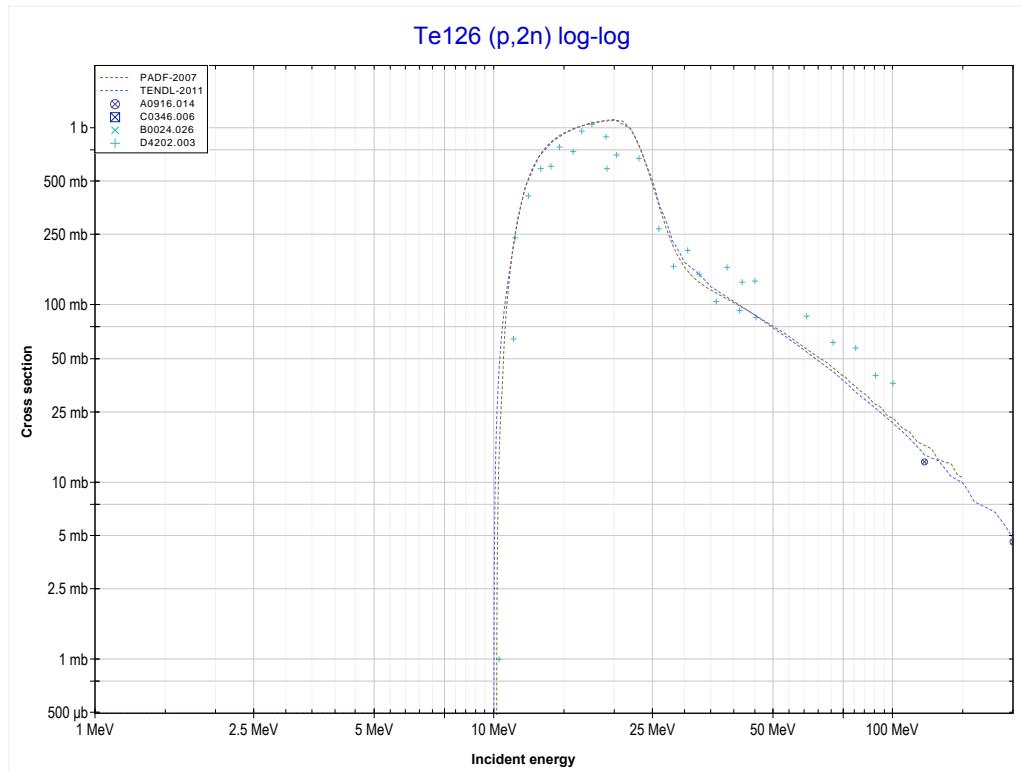
Reaction	Q-Value
$\text{Te}^{125}(p,7n)\text{I}^{119}$	-54466.45 keV

<< 52-Te-125	52-Te-126 MT4 (p,n) or MT5 (I126 production)	52-Te-128 >>
<< MT160 (p,7n)		MT16 (p,2n) >>



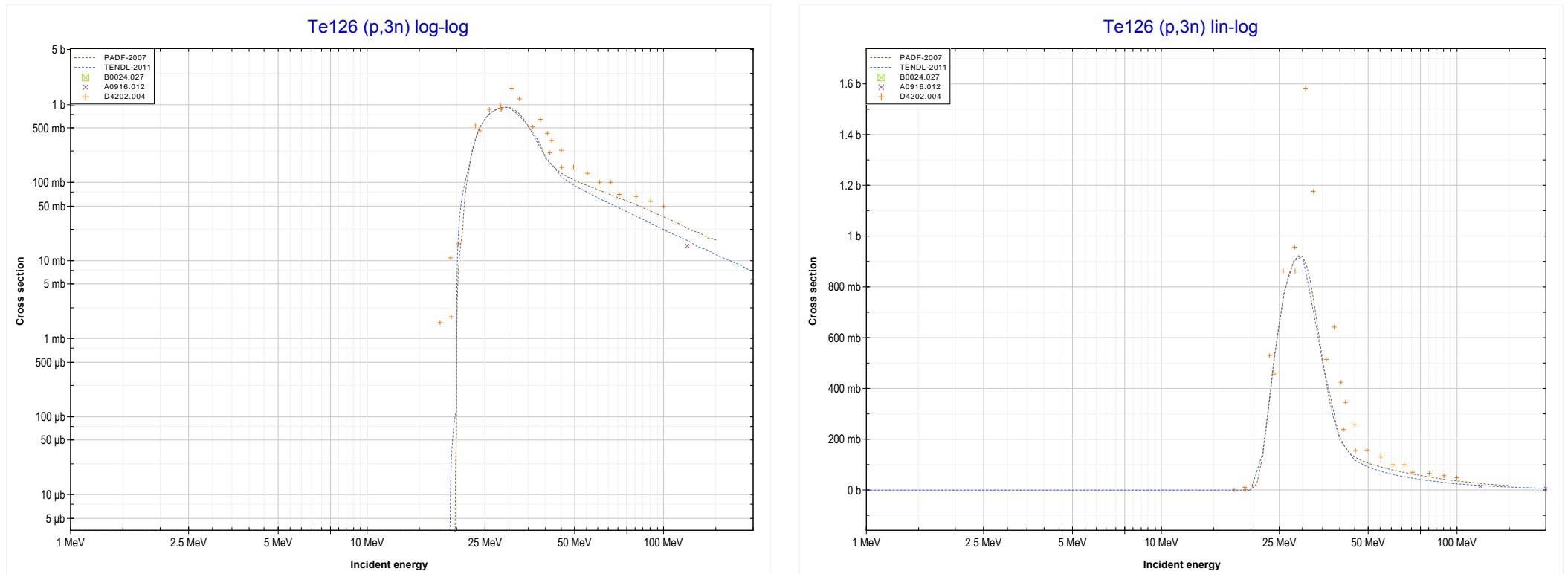
Reaction	Q-Value
Te126(p,n)I126	-2935.95 keV

<< 52-Te-125	52-Te-126 MT16 (p,2n) or MT5 (I125 production)	54-Xe-124 >>
<< MT4 (p,n)		MT17 (p,3n) >>



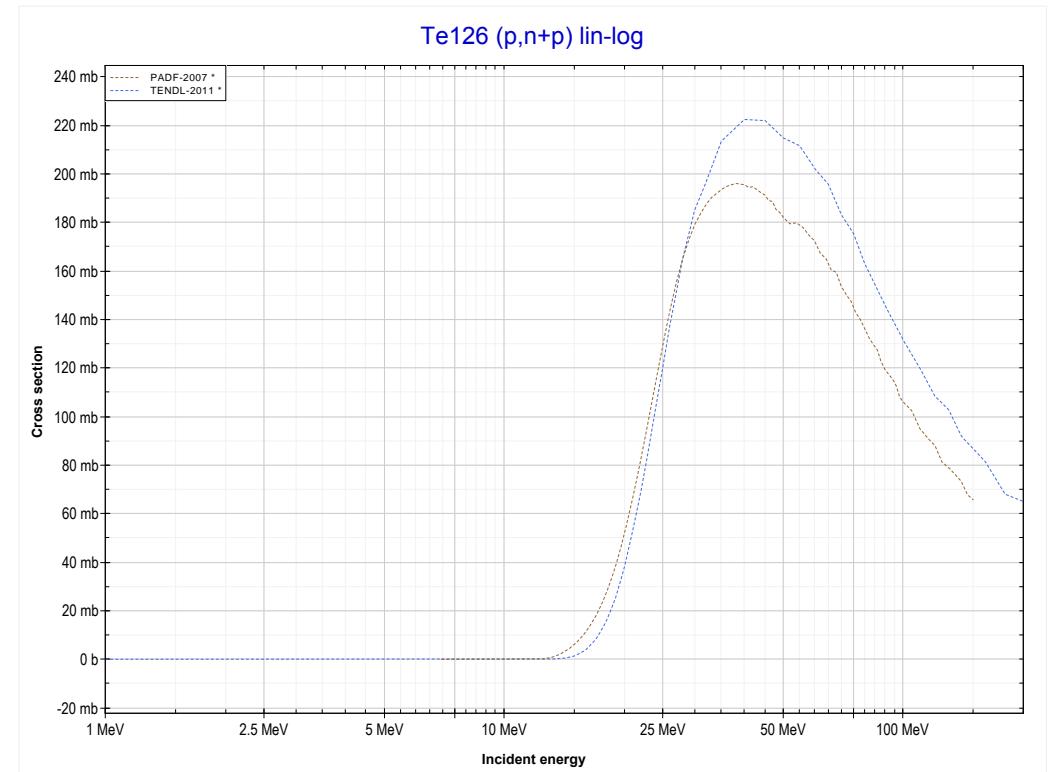
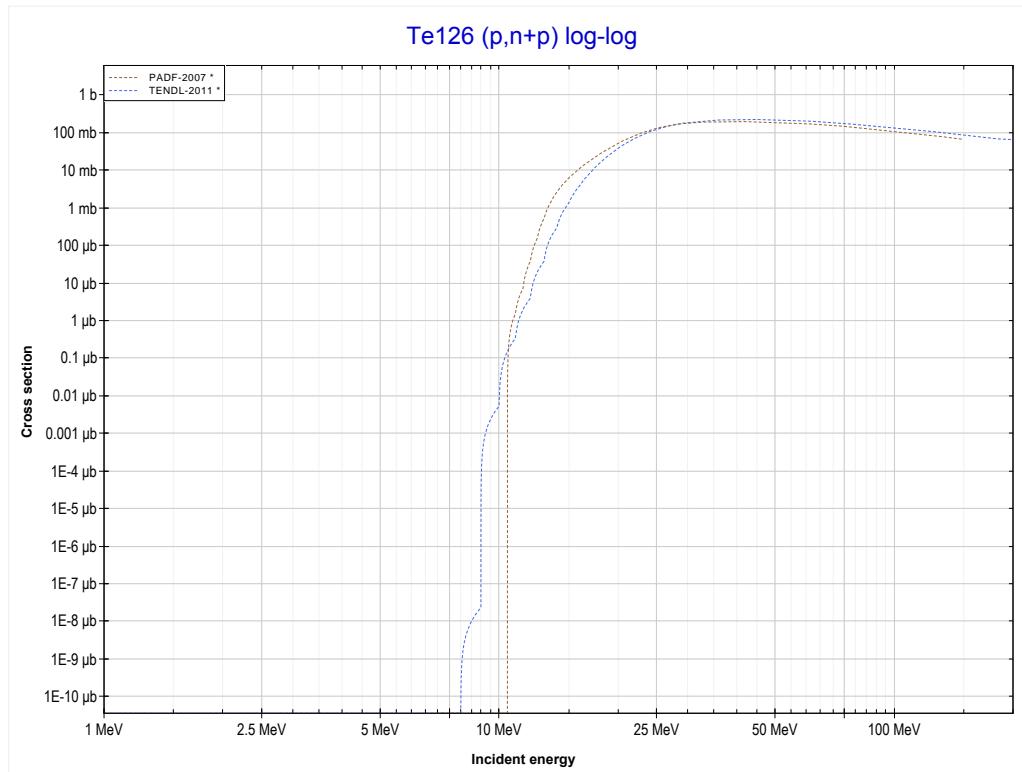
Reaction	Q-Value
Te126(p,2n)I125	-10081.86 keV

<< 52-Te-125	52-Te-126 MT17 (p,3n) or MT5 (I124 production)	53-I-127 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>



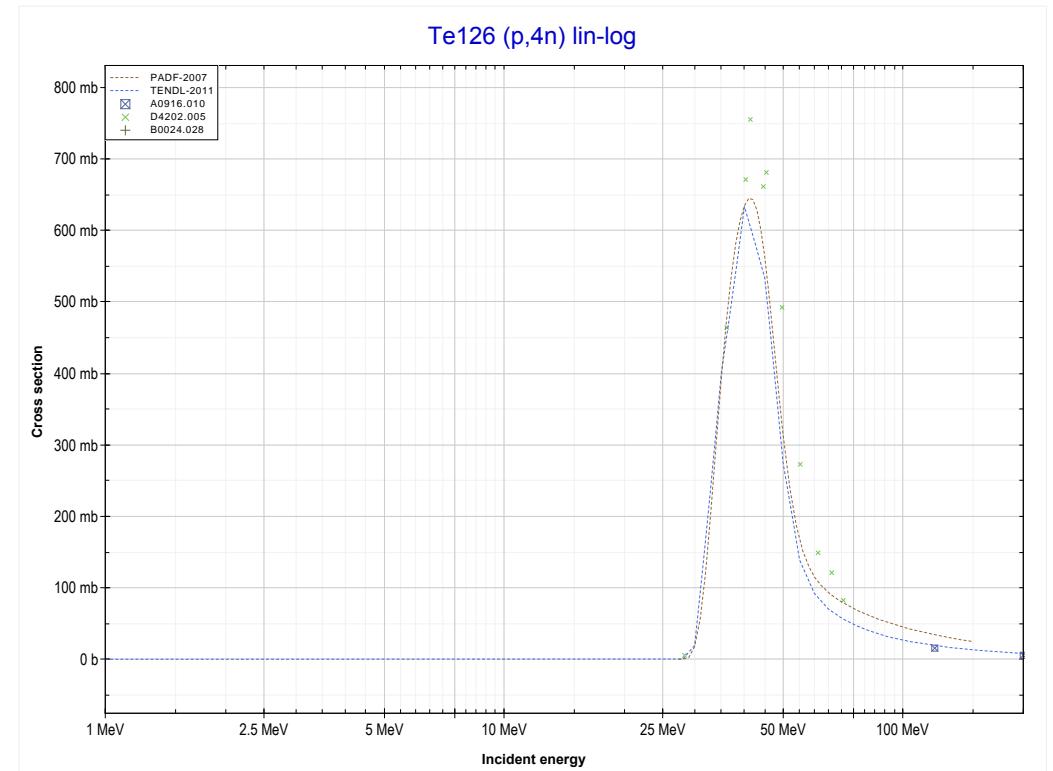
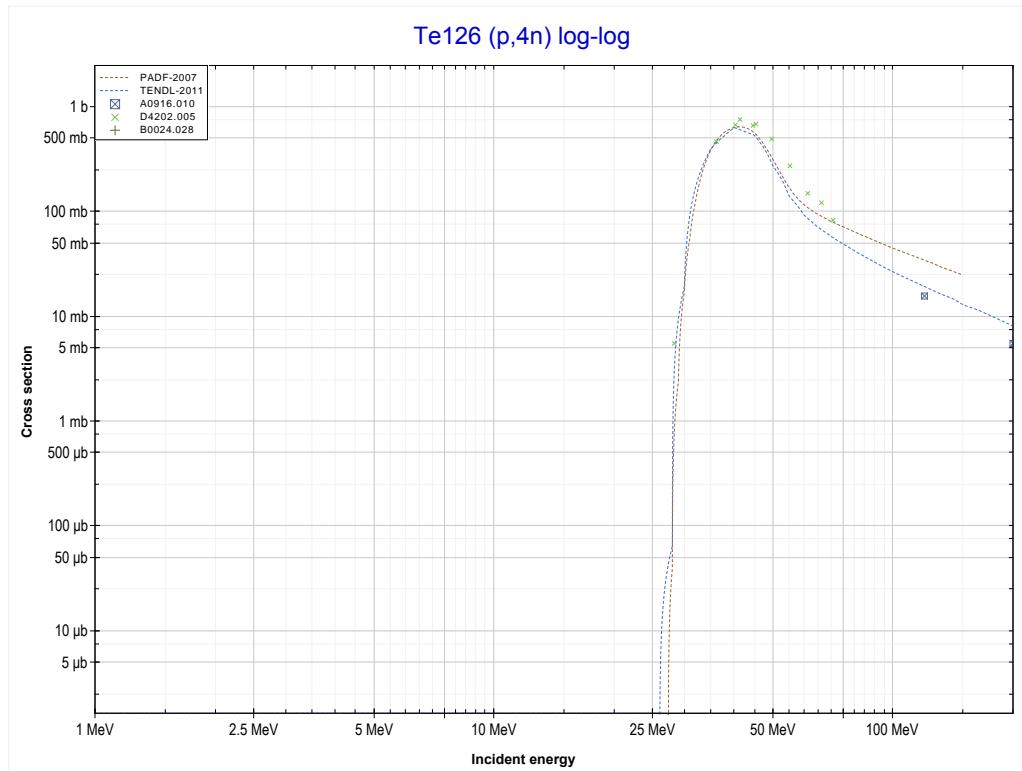
Reaction	Q-Value
$\text{Te}^{126}(p,3n)\text{I}^{124}$	-19624.58 keV

<< 52-Te-124	52-Te-126 MT28 (p,n+p) or MT5 (Te125 production)	52-Te-128 >>
<< MT17 (p,3n)		MT37 (p,4n) >>



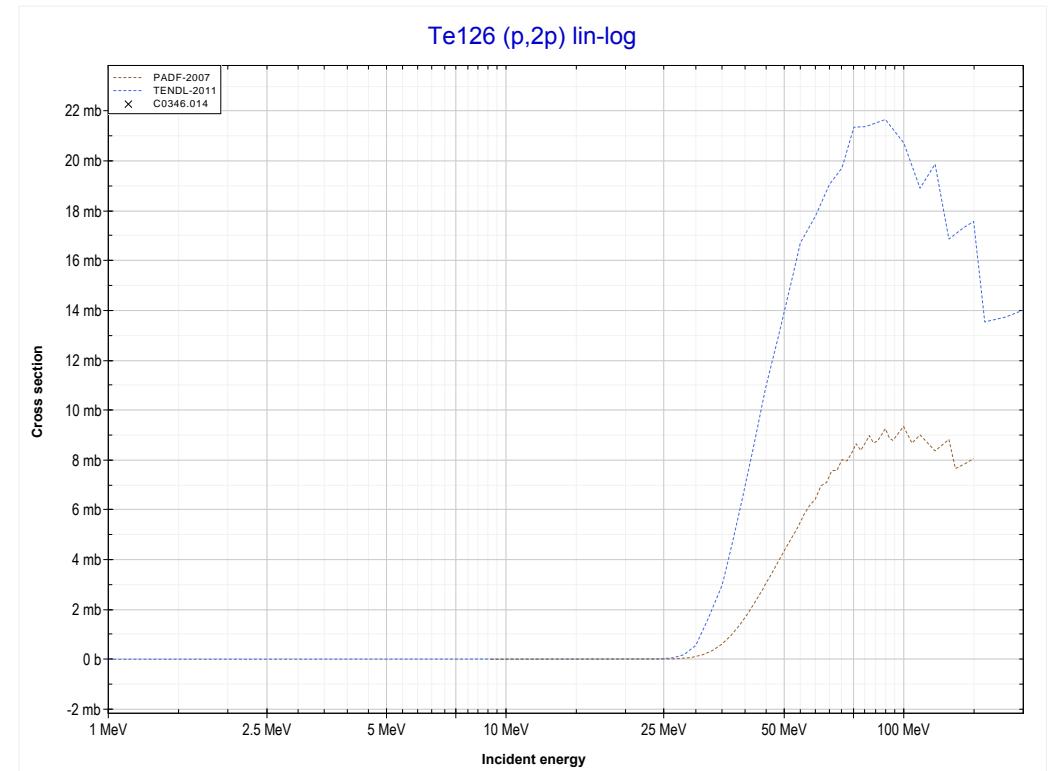
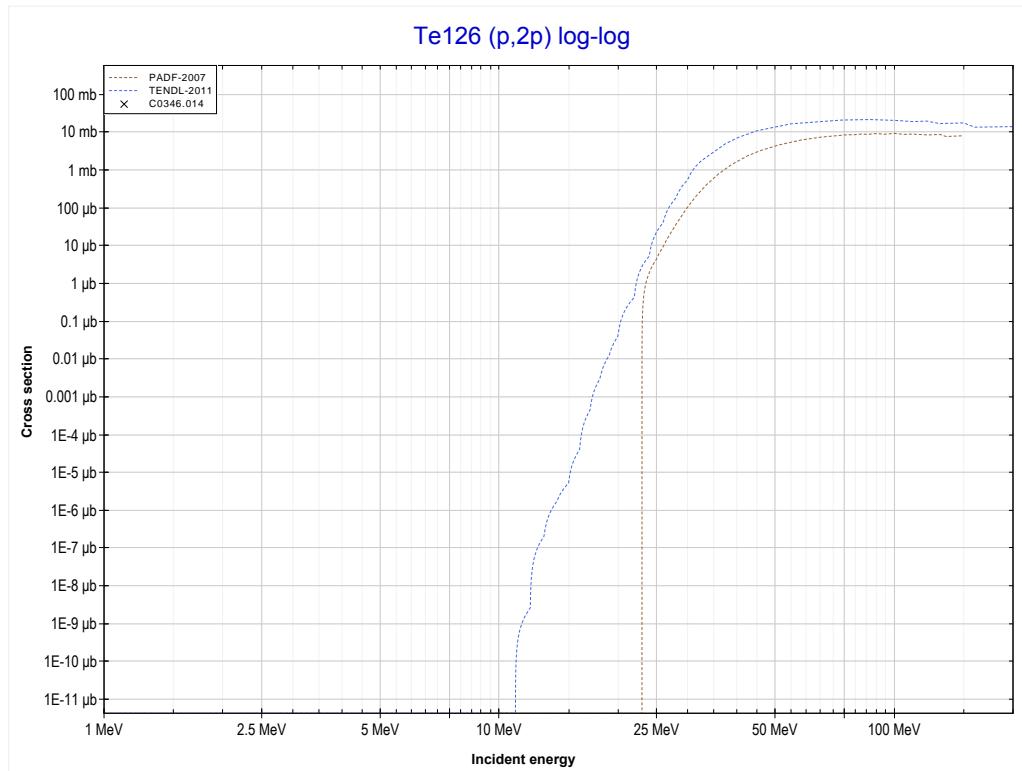
Reaction	Q-Value
Te126(p,d)Te125	-6889.15 keV
Te126(p,n+p)Te125	-9113.72 keV

<< 52-Te-125	52-Te-126 MT37 (p,4n) or MT5 (I123 production)	59-Pr-141 >>
<< MT28 (p,n+p) >>		MT111 (p,2p) >>



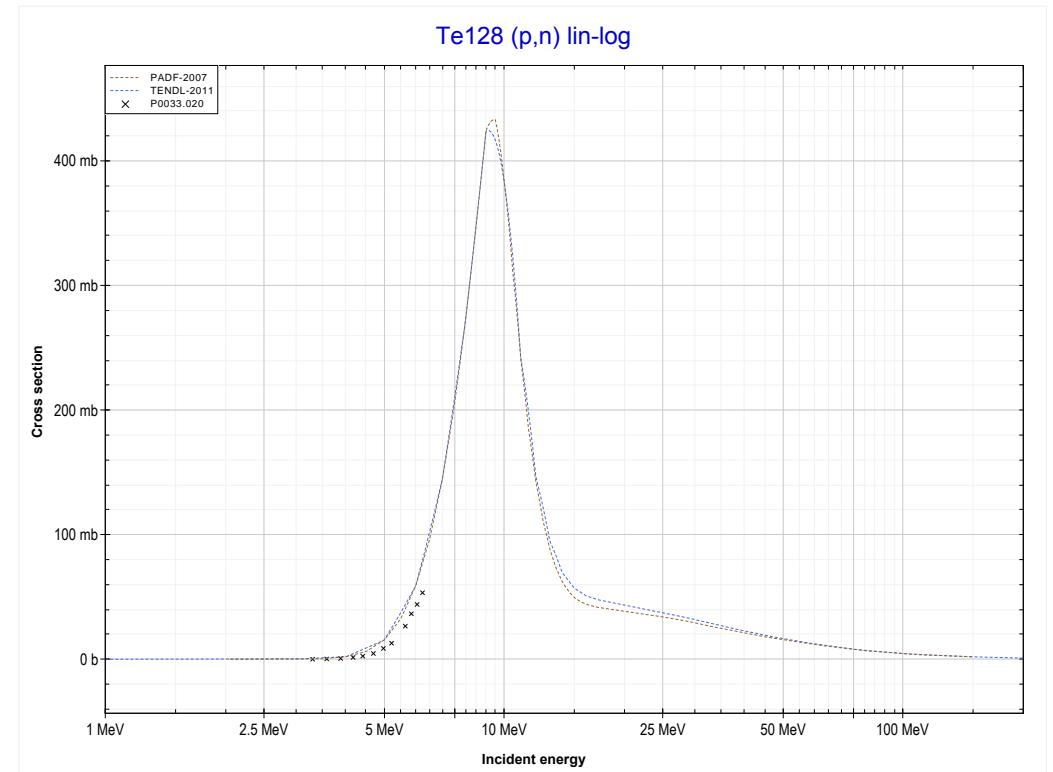
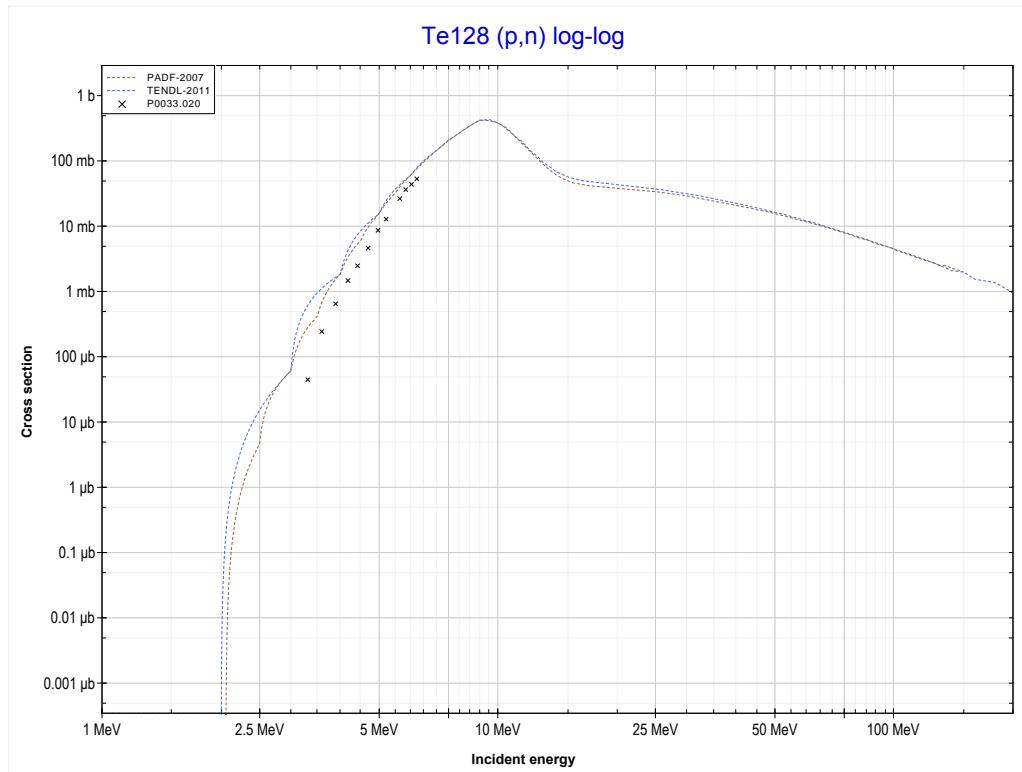
Reaction	Q-Value
$\text{Te}^{126}(p,4n)\text{I}^{123}$	-27117.90 keV

<< 52-Te-125	52-Te-126 MT111 (p,2p) or MT5 (Sb125 production)	52-Te-128 >>
<< MT37 (p,4n)		MT4 (p,n) >>



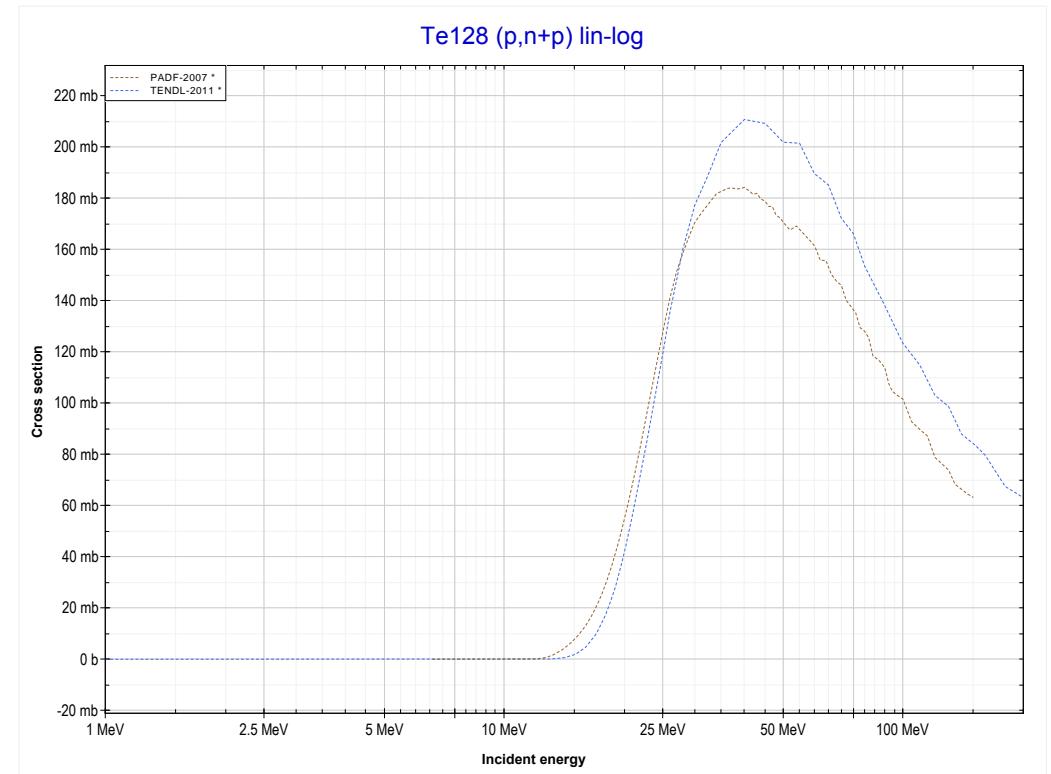
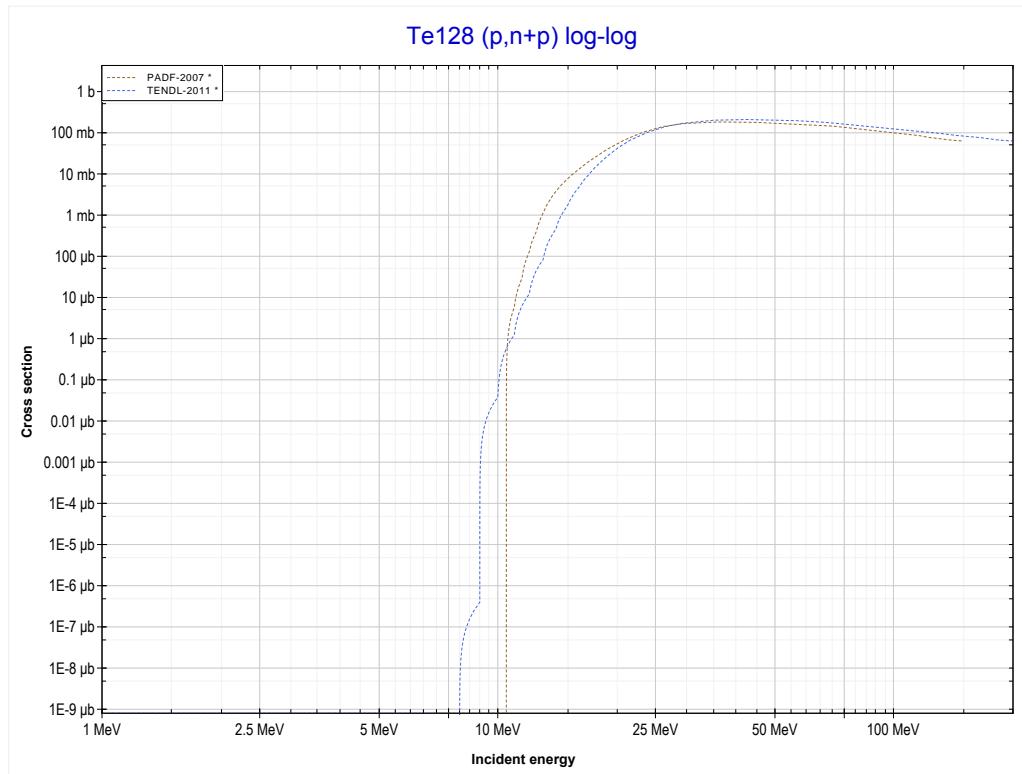
Reaction	Q-Value
Te126(p,2p)Sb125	-9098.07 keV

<< 52-Te-126	52-Te-128 MT4 (p,n) or MT5 (I128 production)	52-Te-130 >>
<< MT111 (p,2p) >>		MT28 (p,n+p) >>



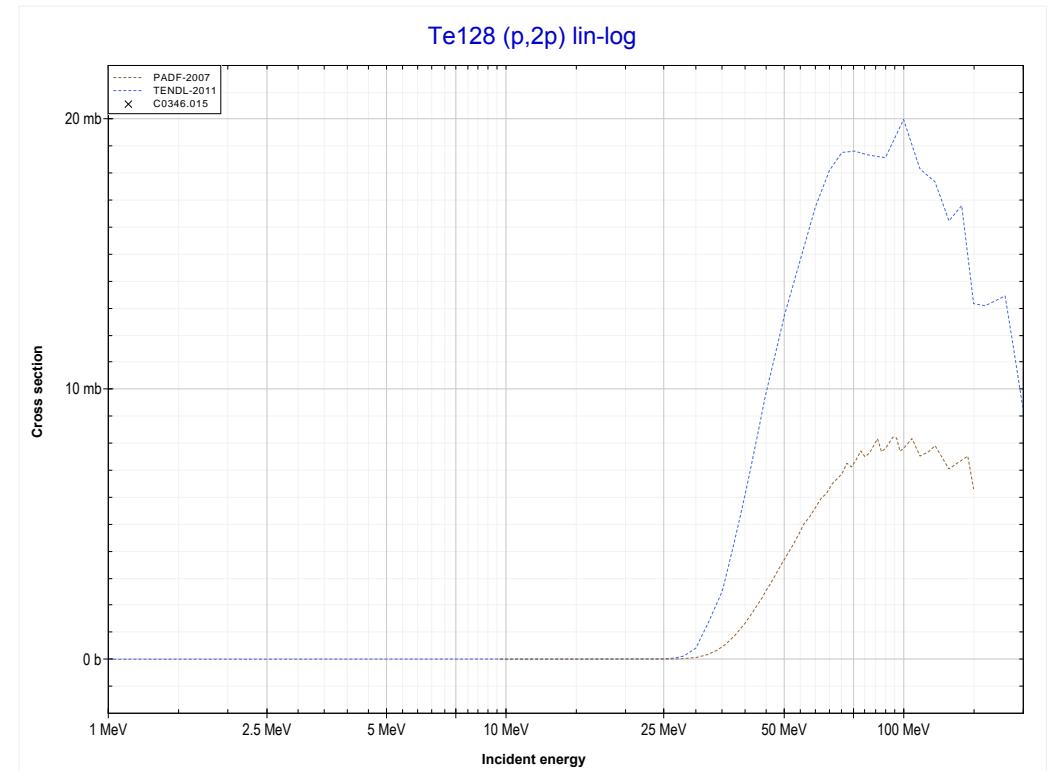
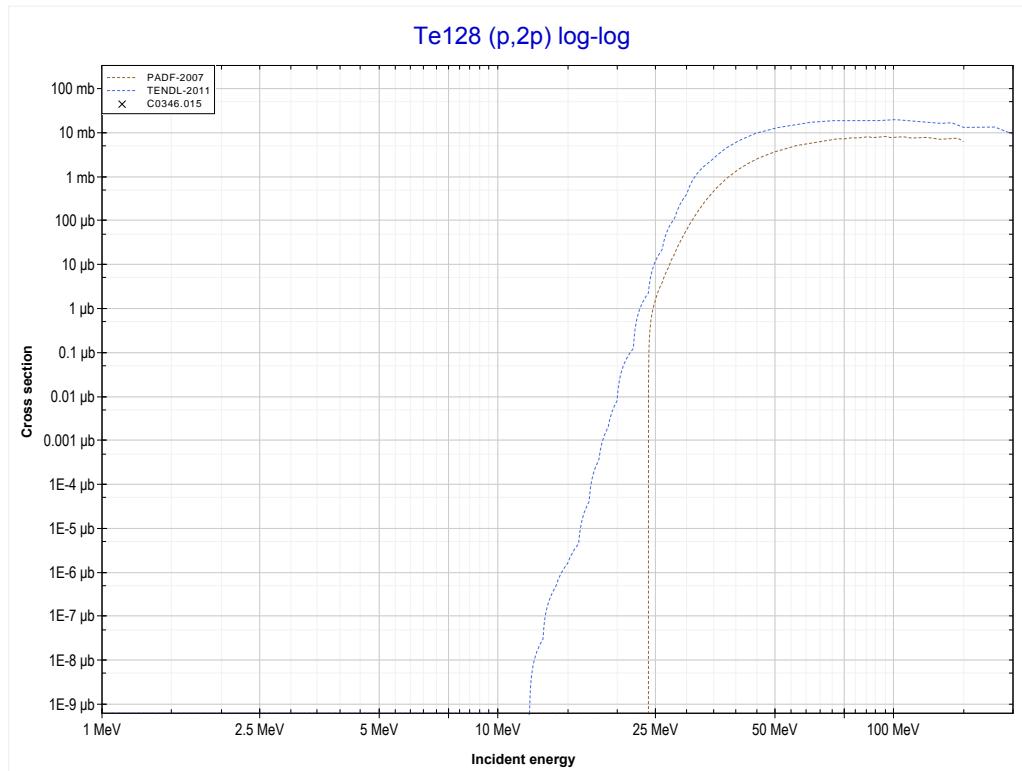
Reaction	Q-Value
Te128(p,n)I128	-2036.45 keV

<< 52-Te-126	52-Te-128 MT28 (p,n+p) or MT5 (Te127 production)	52-Te-130 >>
<< MT4 (p,n)		MT111 (p,2p) >>



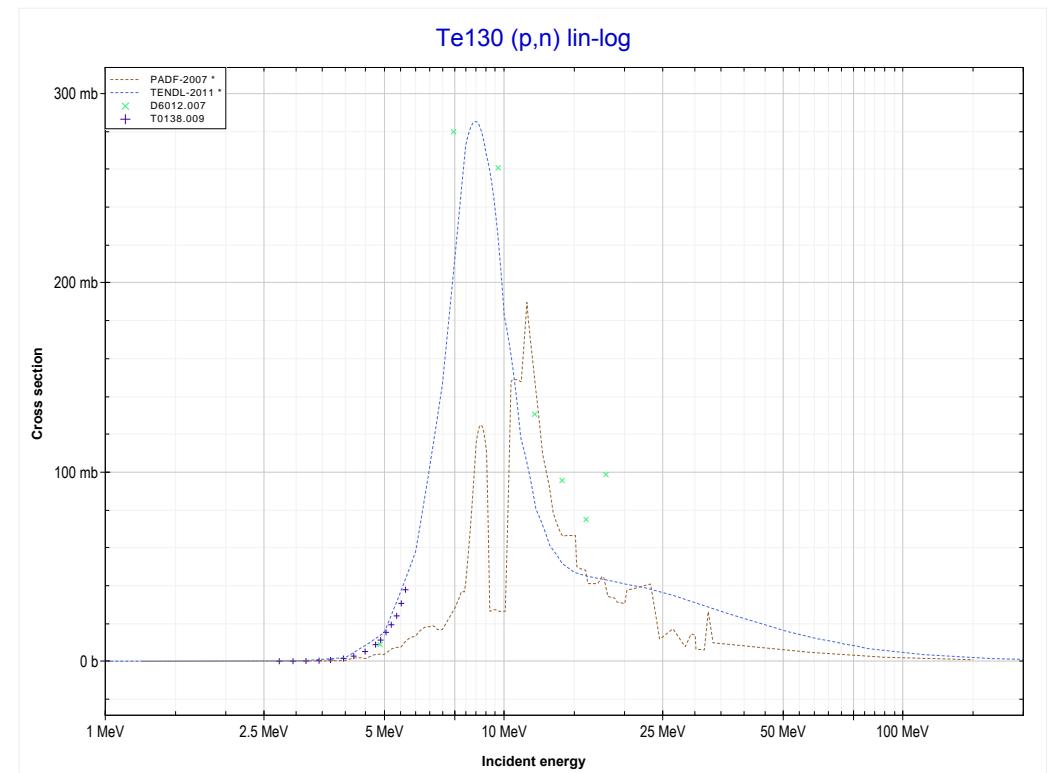
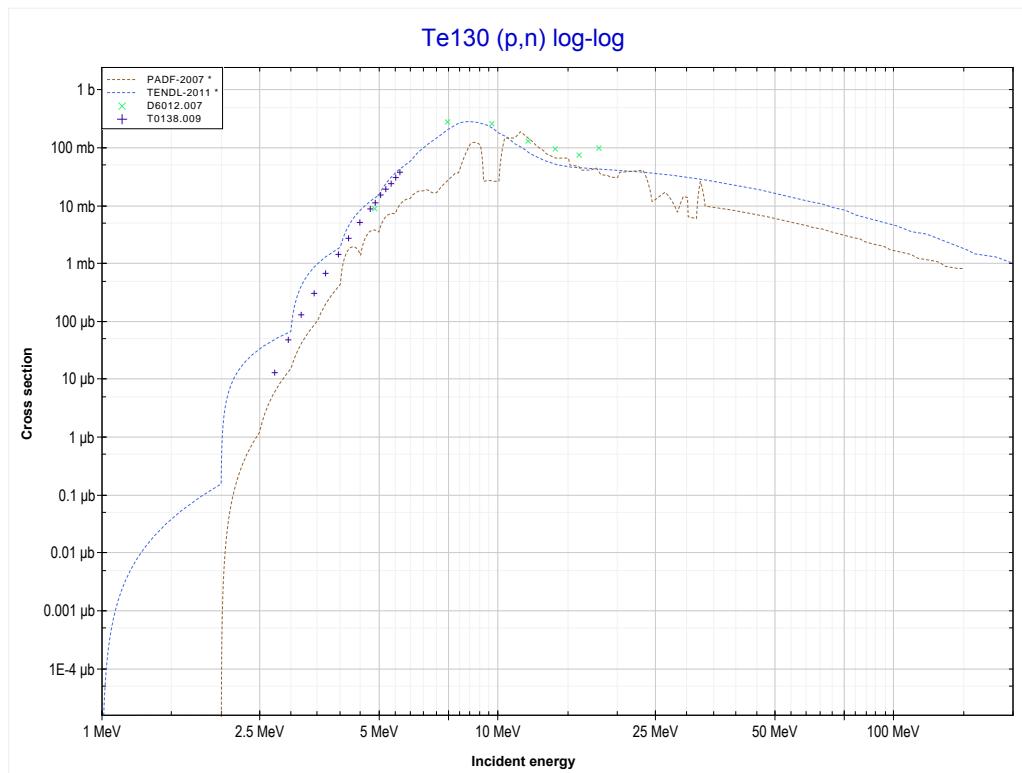
Reaction	Q-Value
Te128(p,d)Te127	-6557.75 keV
Te128(p,n+p)Te127	-8782.32 keV

<< 52-Te-126	52-Te-128 MT111 (p,2p) or MT5 (Sb127 production)	52-Te-130 >>
<< MT28 (p,n+p)		MT4 (p,n) >>



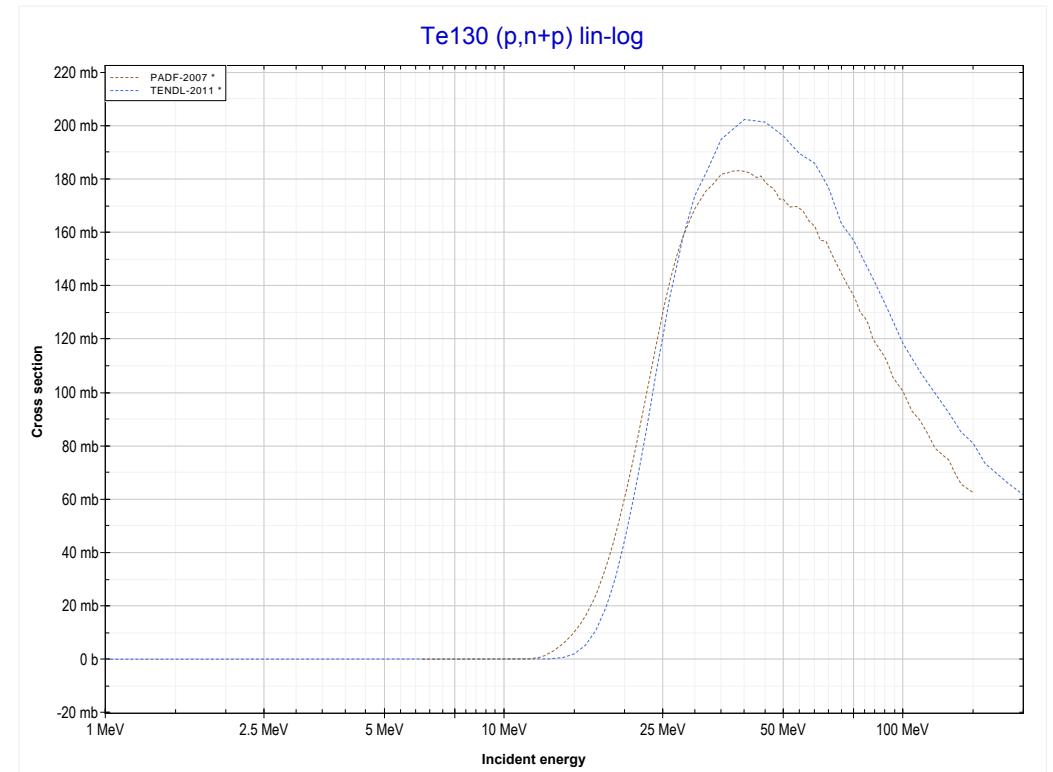
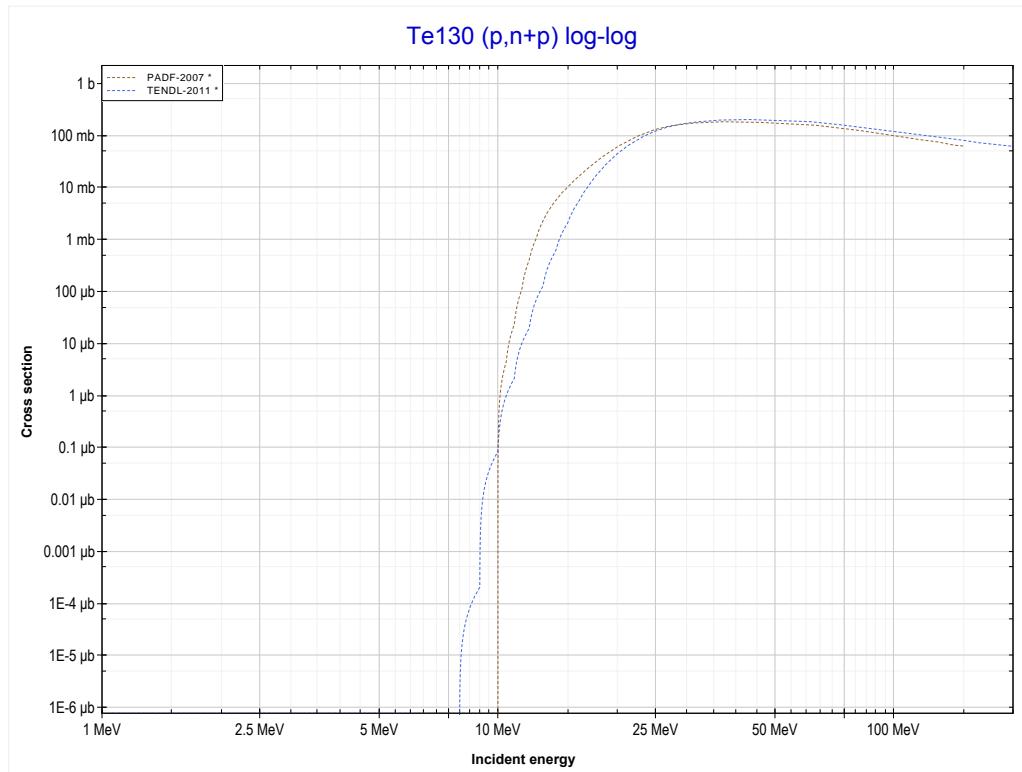
Reaction	Q-Value
Te128(p,2p)Sb127	-9581.07 keV

<< 52-Te-128	52-Te-130 MT4 (p,n) or MT5 (I130 production)	53-I-127 >>
<< MT111 (p,2p)		MT28 (p,n+p) >>



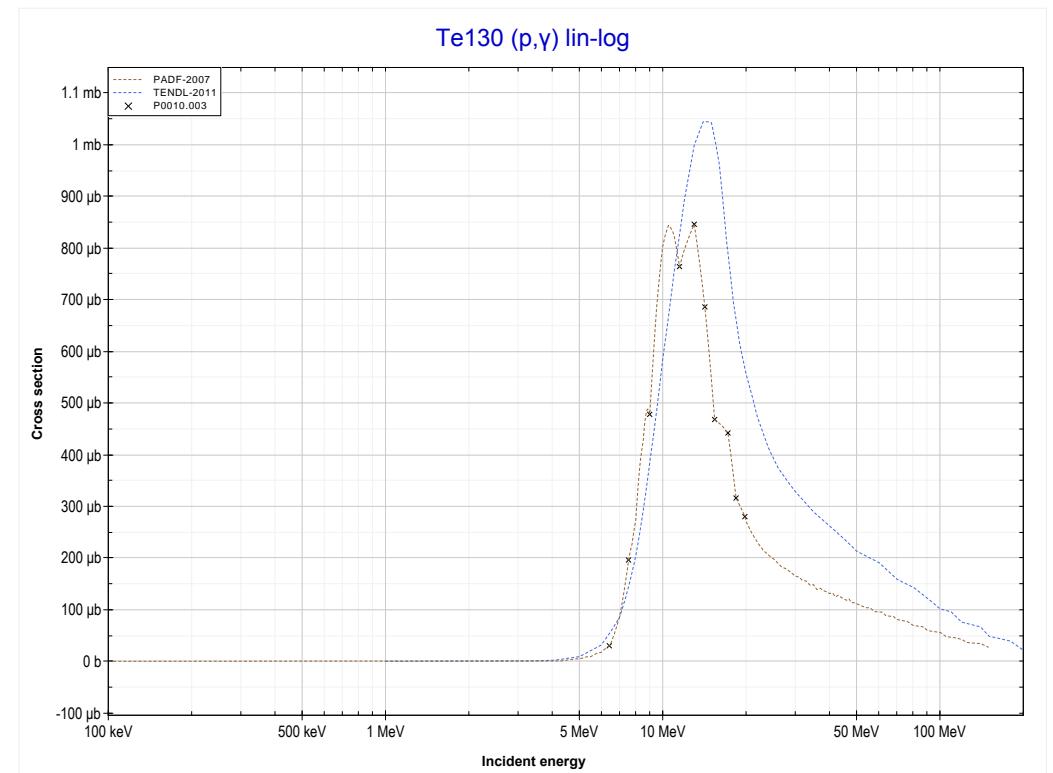
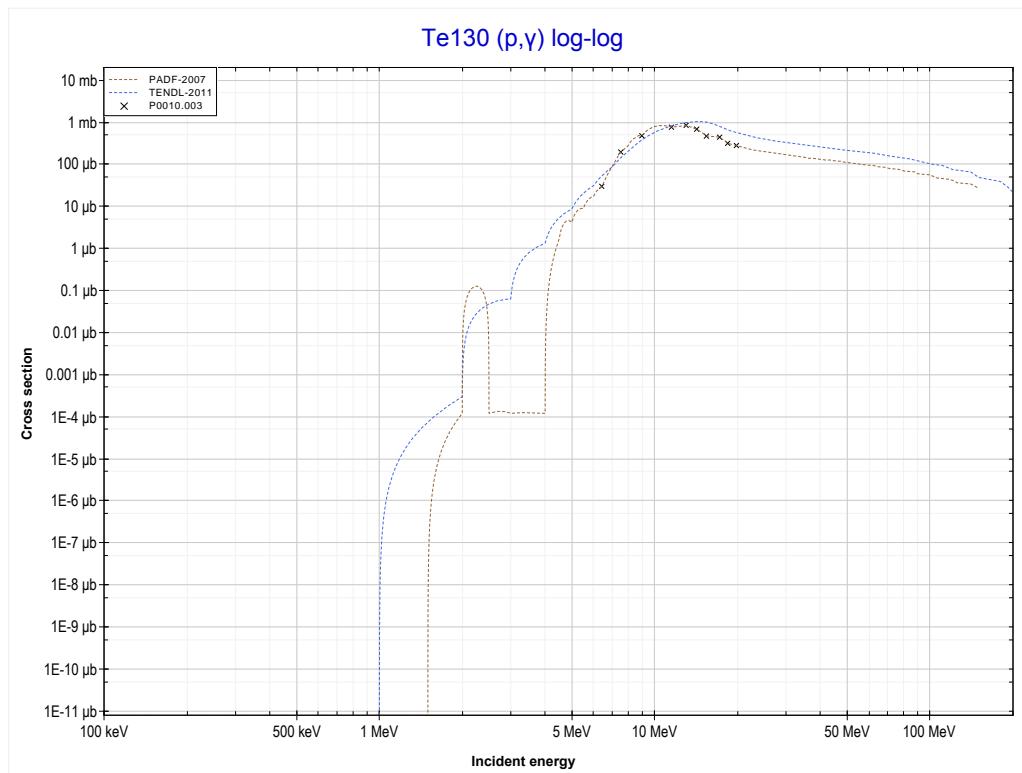
Reaction	Q-Value
Te130(p,n)I130	-1201.75 keV

<< 52-Te-128	52-Te-130 MT28 (p,n+p) or MT5 (Te129 production)	53-I-127 >>
<< MT4 (p,n)		MT102 (p,y) >>



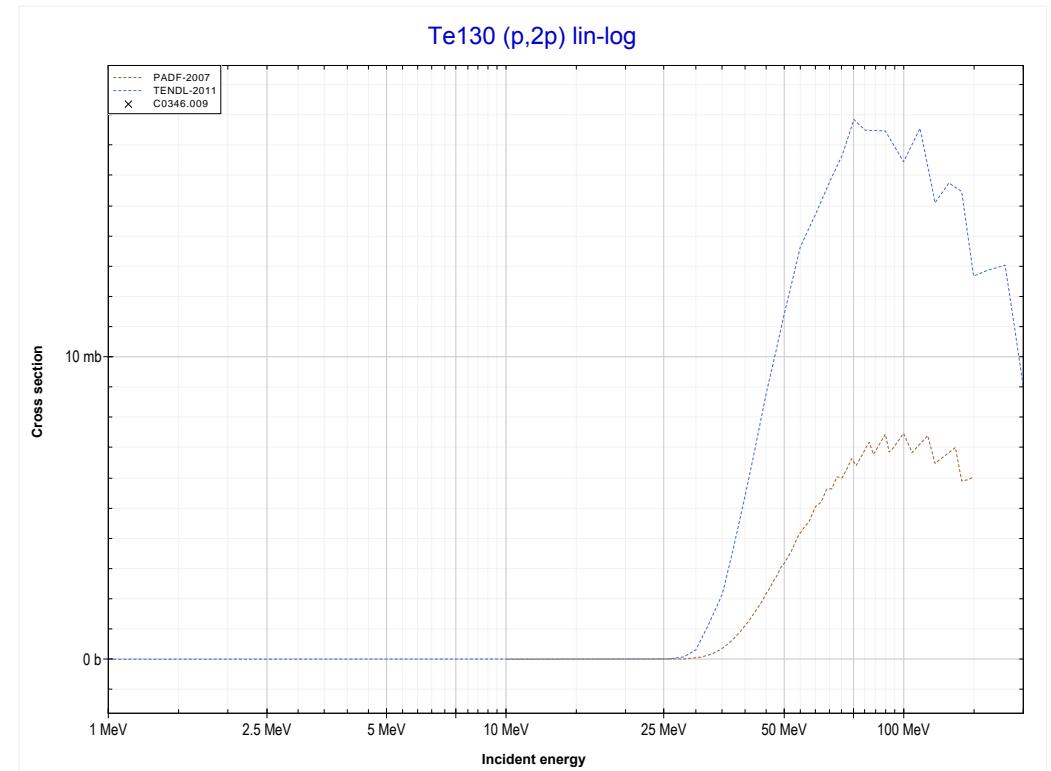
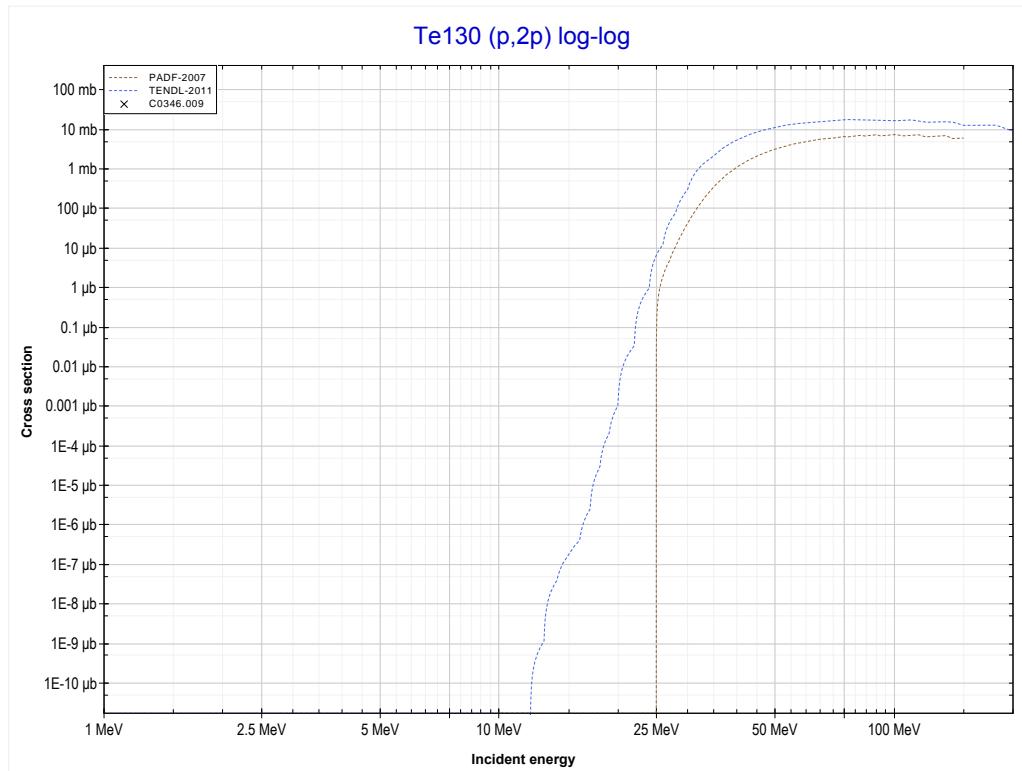
Reaction	Q-Value
Te130(p,d)Te129	-6194.95 keV
Te130(p,n+p)Te129	-8419.52 keV

<< 52-Te-120	52-Te-130 MT102 (p,γ) or MT5 (I^{131} production)	58-Ce-142 >>
<< MT28 ($p,n+p$)		MT111 ($p,2p$) >>



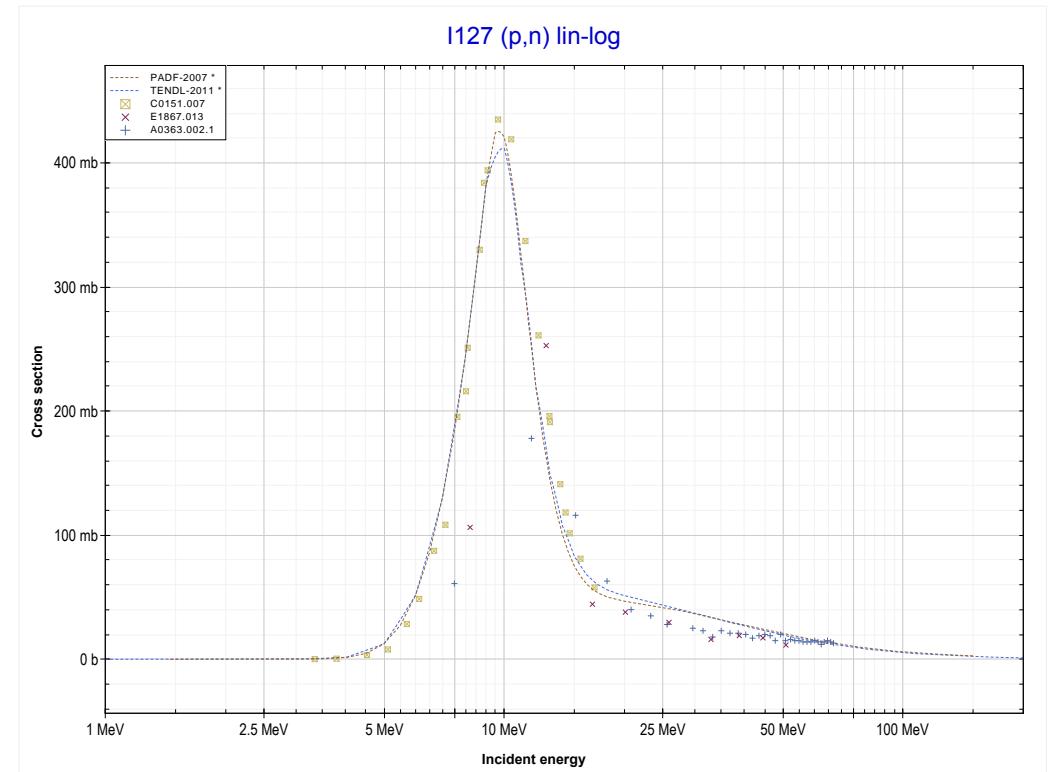
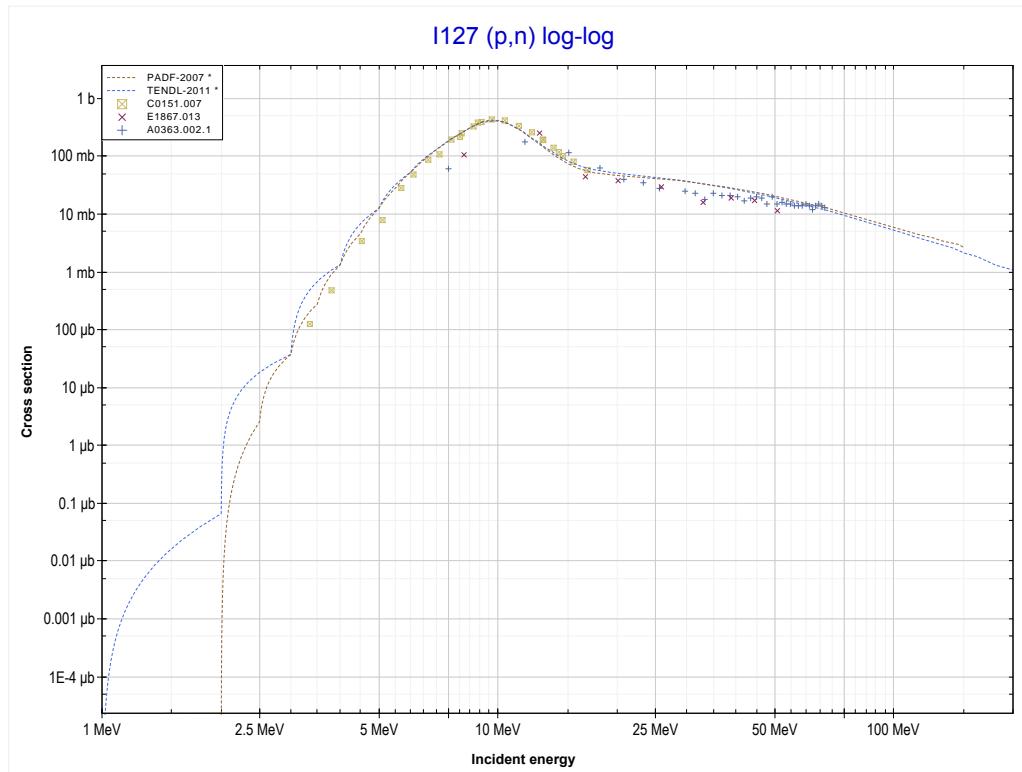
Reaction	Q-Value
$\text{Te}^{130}(\text{p},\gamma)\text{I}^{131}$	7381.97 keV

<< 52-Te-128	52-Te-130 MT111 (p,2p) or MT5 (Sb129 production)	58-Ce-142 >>
<< MT102 (p, γ)		MT4 (p,n) >>



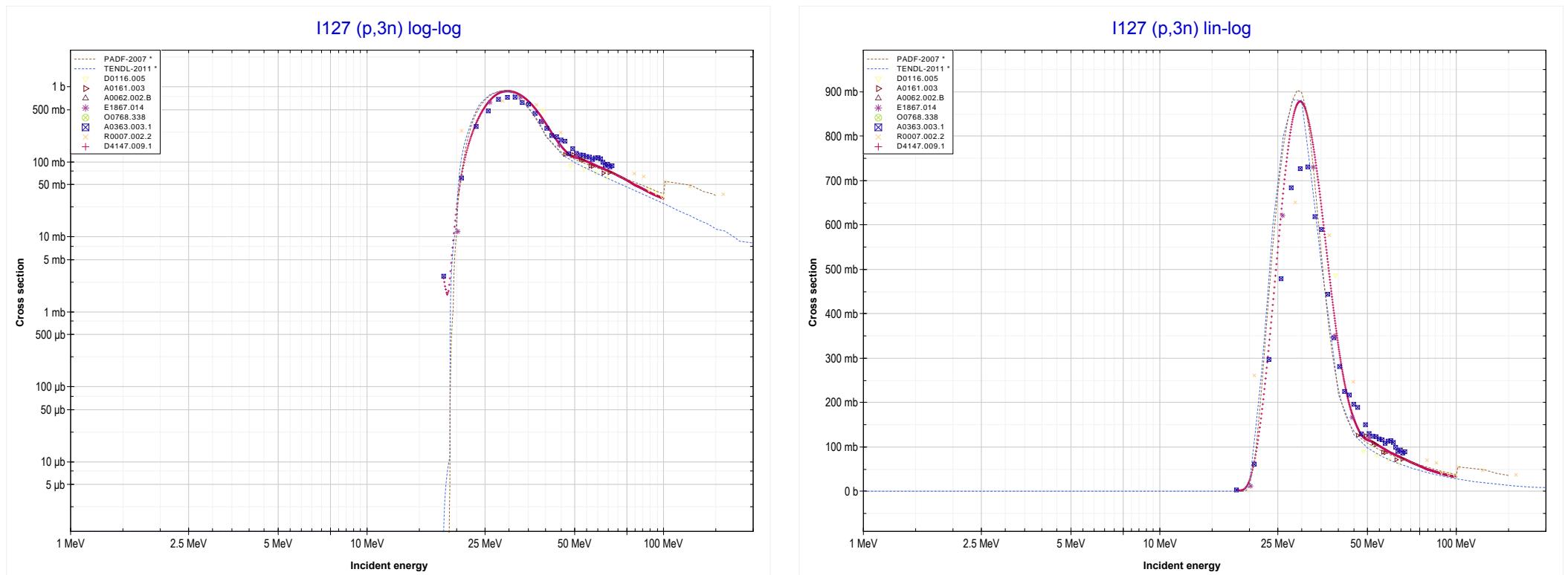
Reaction	Q-Value
Te130(p,2p)Sb129	-10012.37 keV

<< 52-Te-130	53-I-127	54-Xe-131 >>
<< MT111 (p,2p)	MT4 (p,n) or MT5 (Xe127 production)	MT17 (p,3n) >>



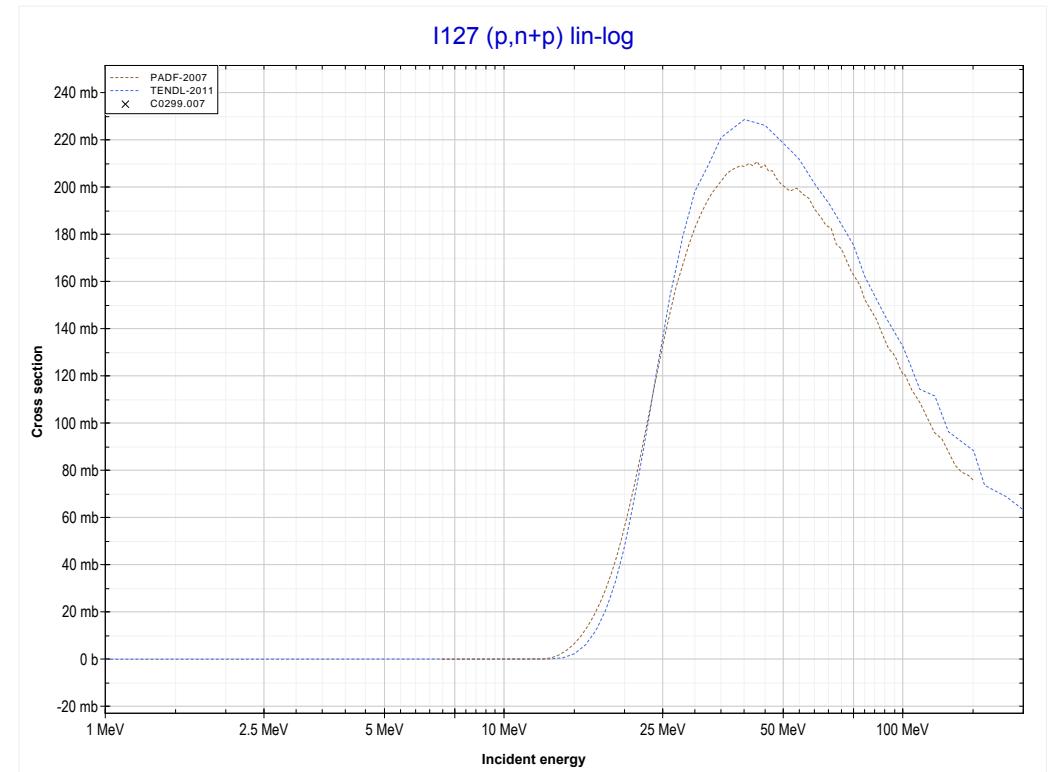
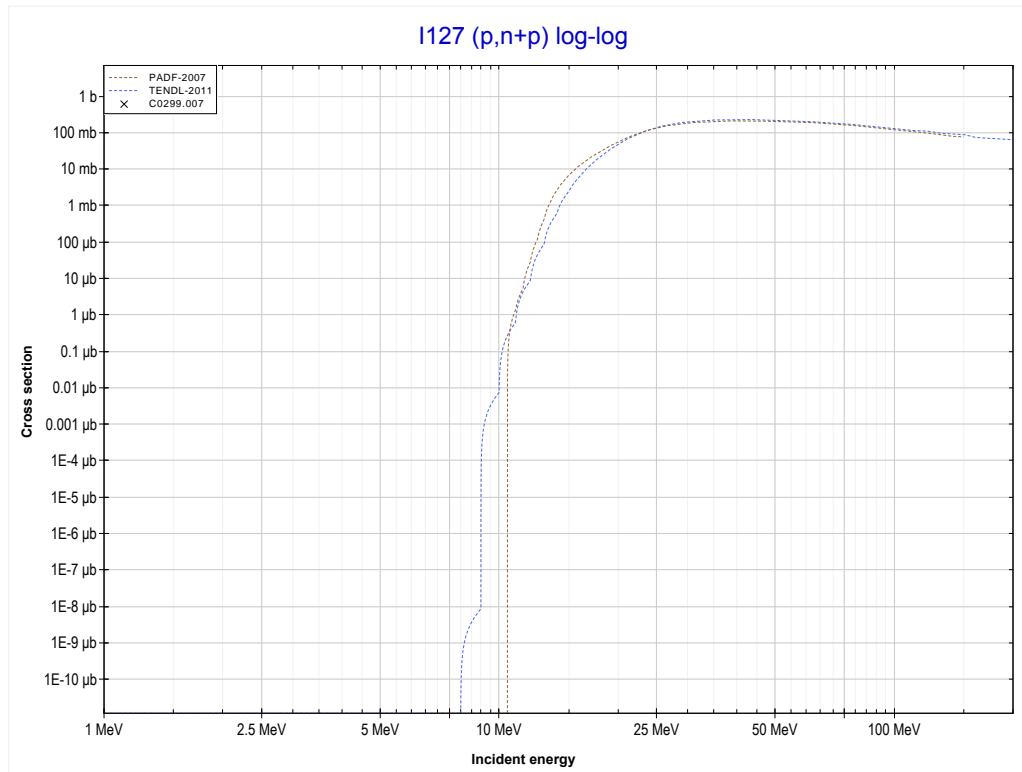
Reaction	Q-Value
I127(p,n)Xe127	-1444.35 keV

<< 52-Te-126	53-I-127 MT17 (p,3n) or MT5 (Xe125 production)	>> 54-Xe-131
<< MT4 (p,n) >>		MT28 (p,n+p) >>



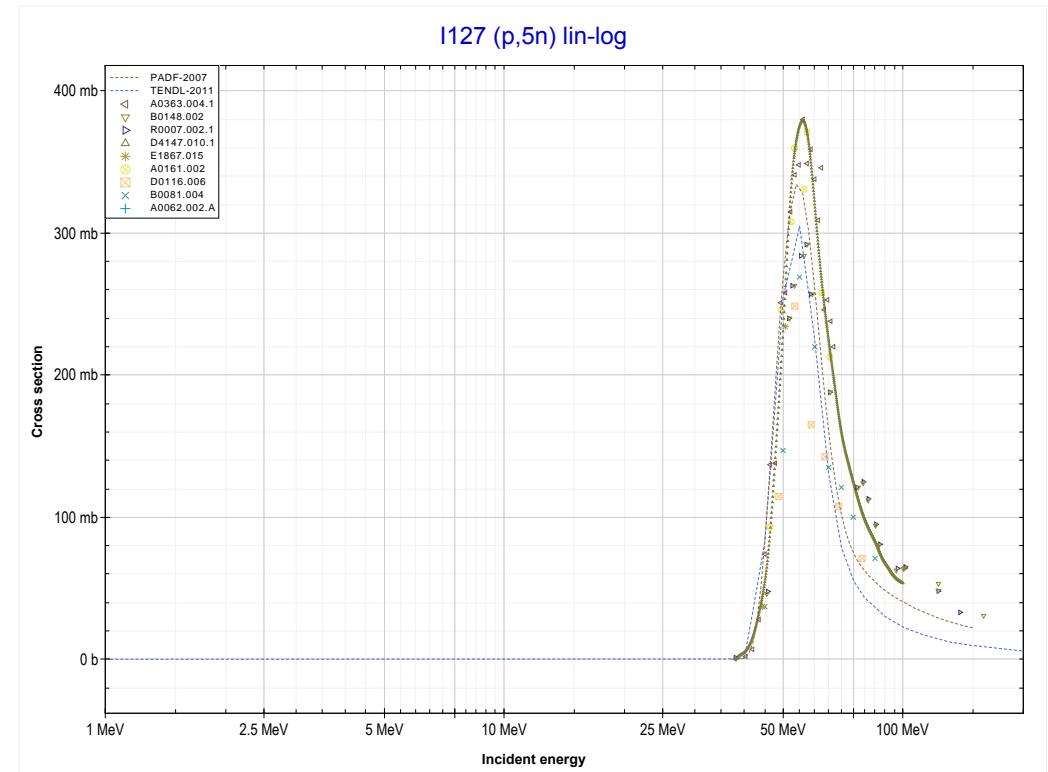
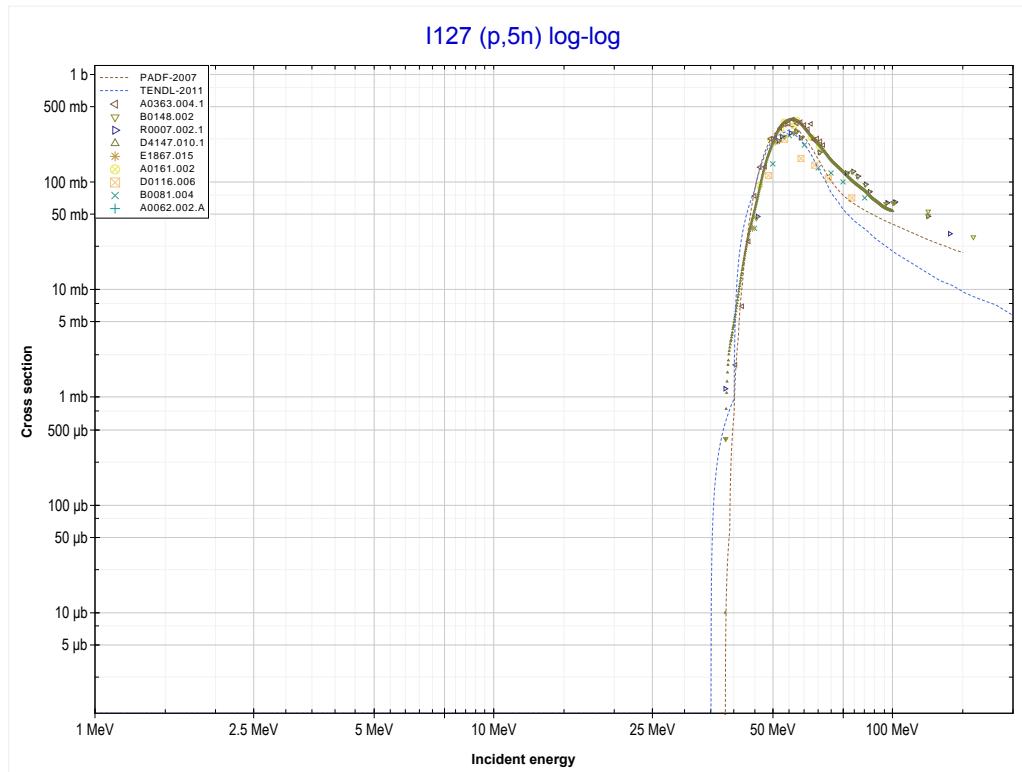
Reaction	Q-Value
$I^{127}(p,3n)Xe^{125}$	-18715.88 keV

<< 52-Te-130	53-I-127 MT28 (p,n+p) or MT5 (I126 production)	54-Xe-124 >>
<< MT17 (p,3n)		MT152 (p,5n) >>



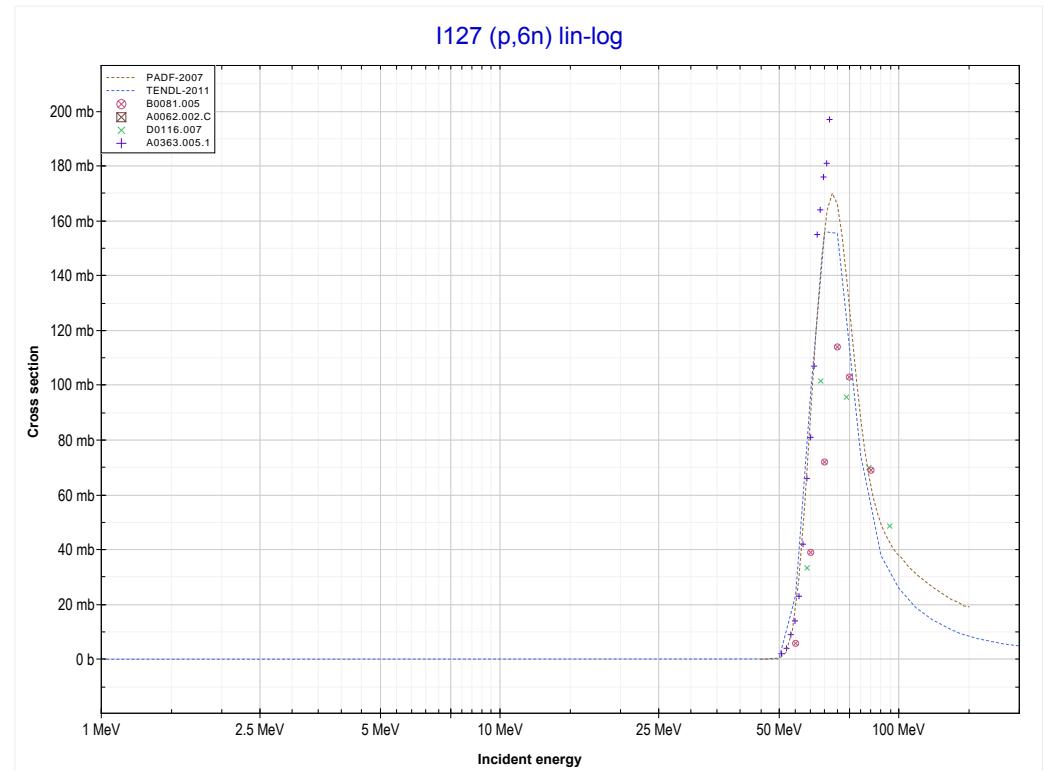
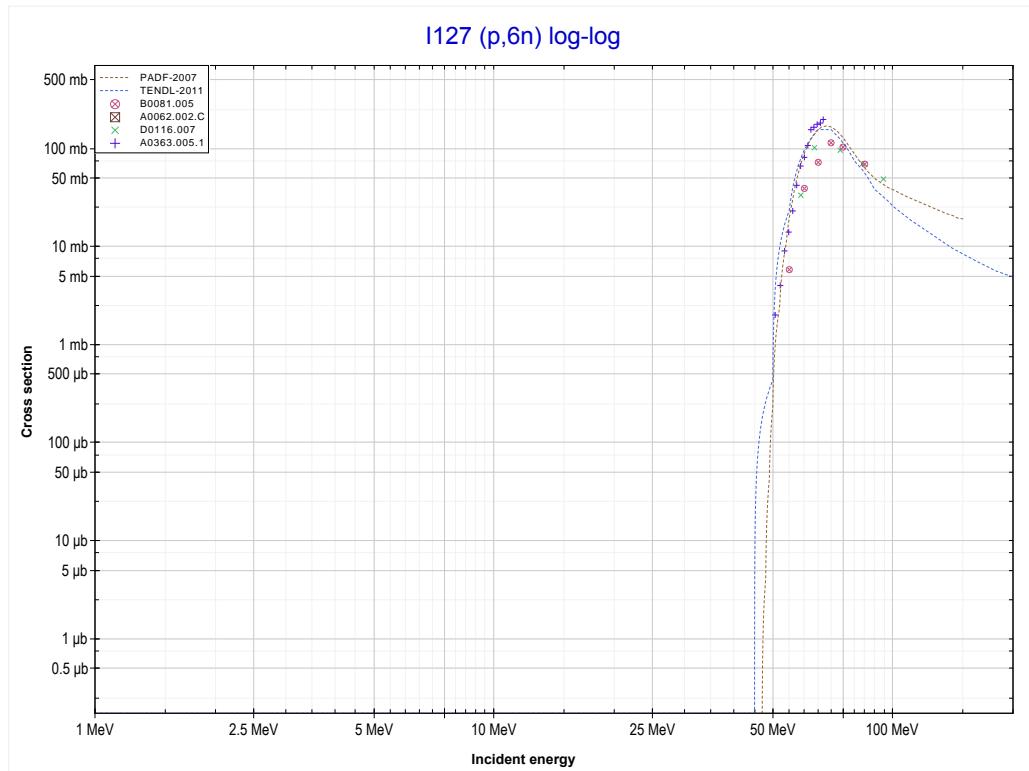
Reaction	Q-Value
I127(p,d)I126	-6918.75 keV
I127(p,n+p)I126	-9143.32 keV

<< 52-Te-125	53-I-127 MT152 (p,5n) or MT5 (Xe123 production)	55-Cs-133 >>
<< MT28 (p,n+p) >>		MT153 (p,6n) >>



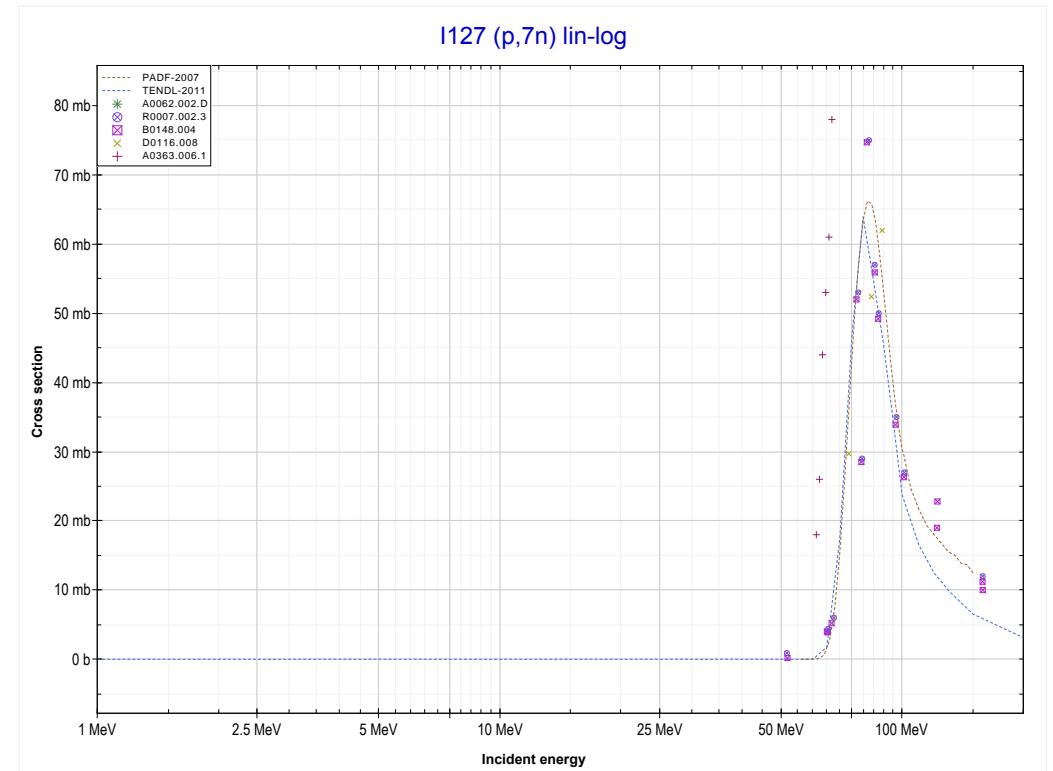
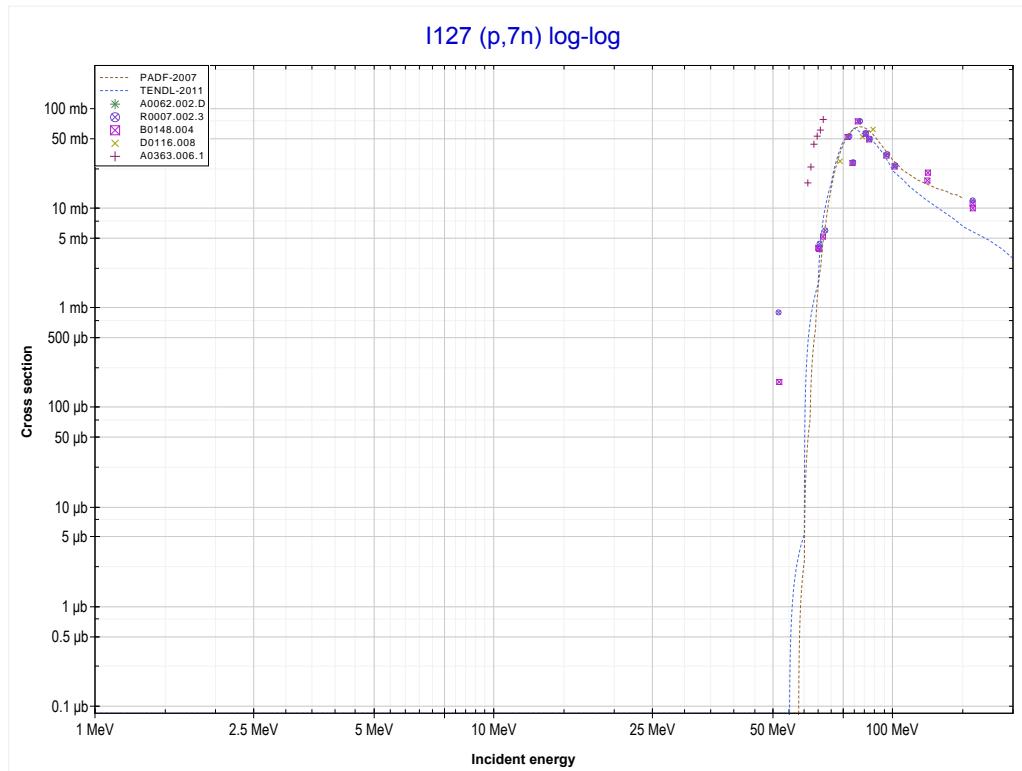
Reaction	Q-Value
I127(p,5n)Xe123	-36801.61 keV

<< 52-Te-125	53-I-127 MT153 (p,6n) or MT5 (Xe122 production)	55-Cs-133 >>
<< MT152 (p,5n)		MT160 (p,7n) >>



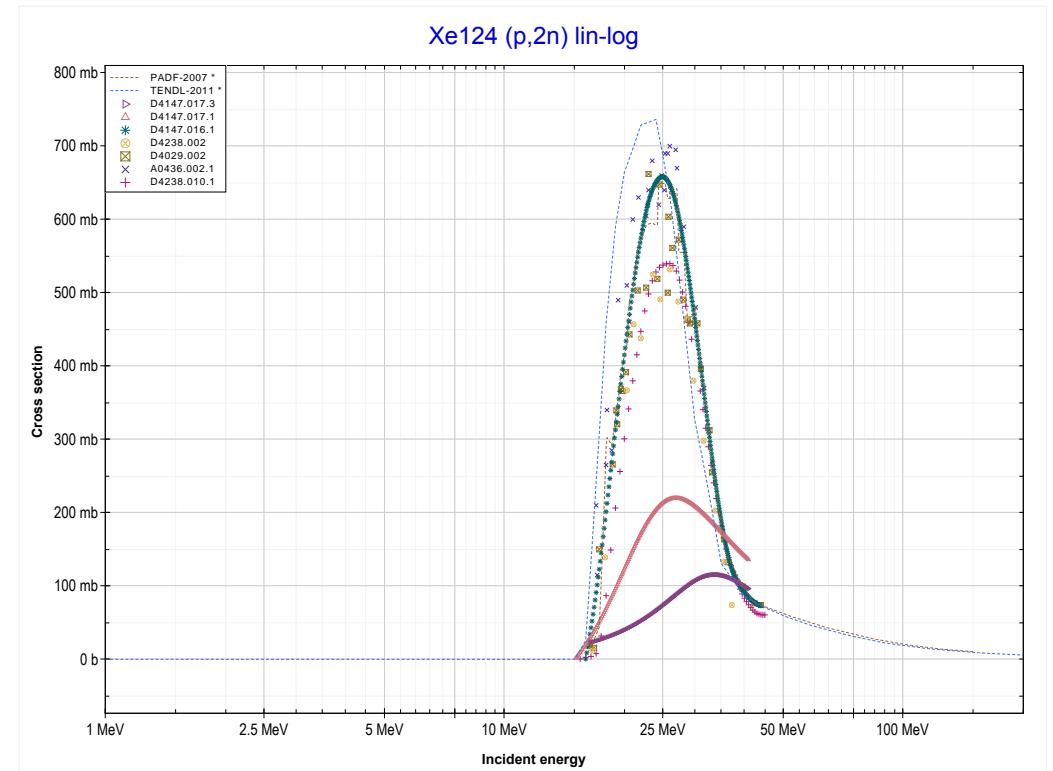
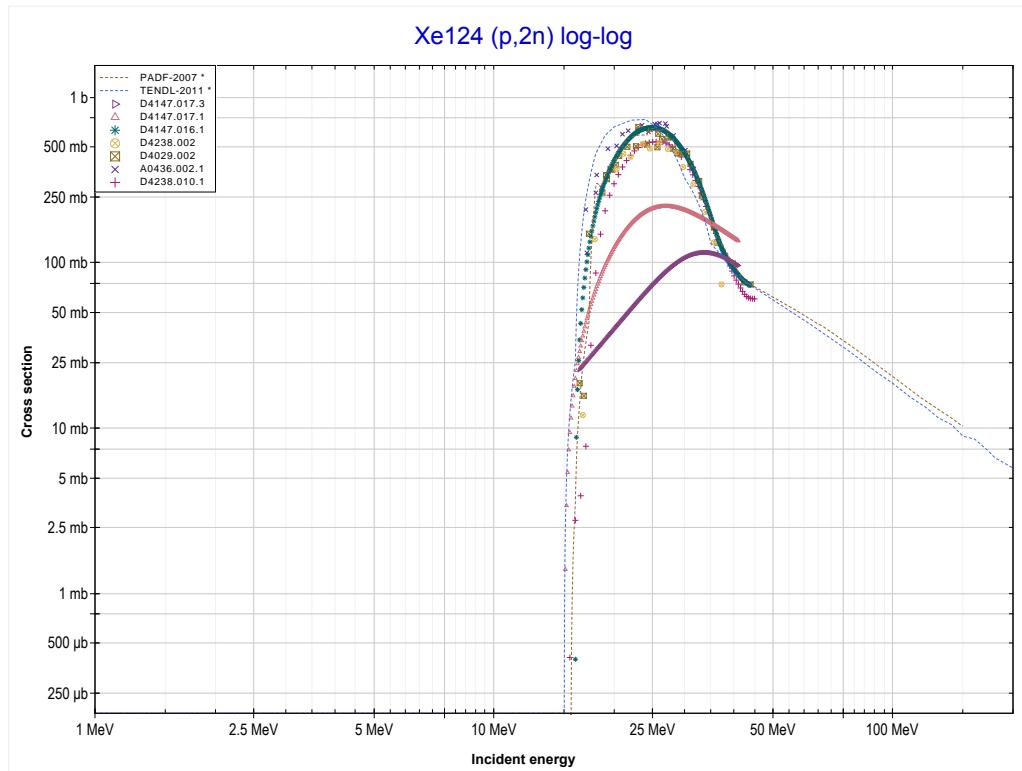
Reaction	Q-Value
I127(p,6n)Xe122	-44766.93 keV

<< 52-Te-125	53-I-127	59-Pr-141 >>
<< MT153 (p,6n) >>	MT160 (p,7n) or MT5 (Xe121 production)	MT16 (p,2n) >>



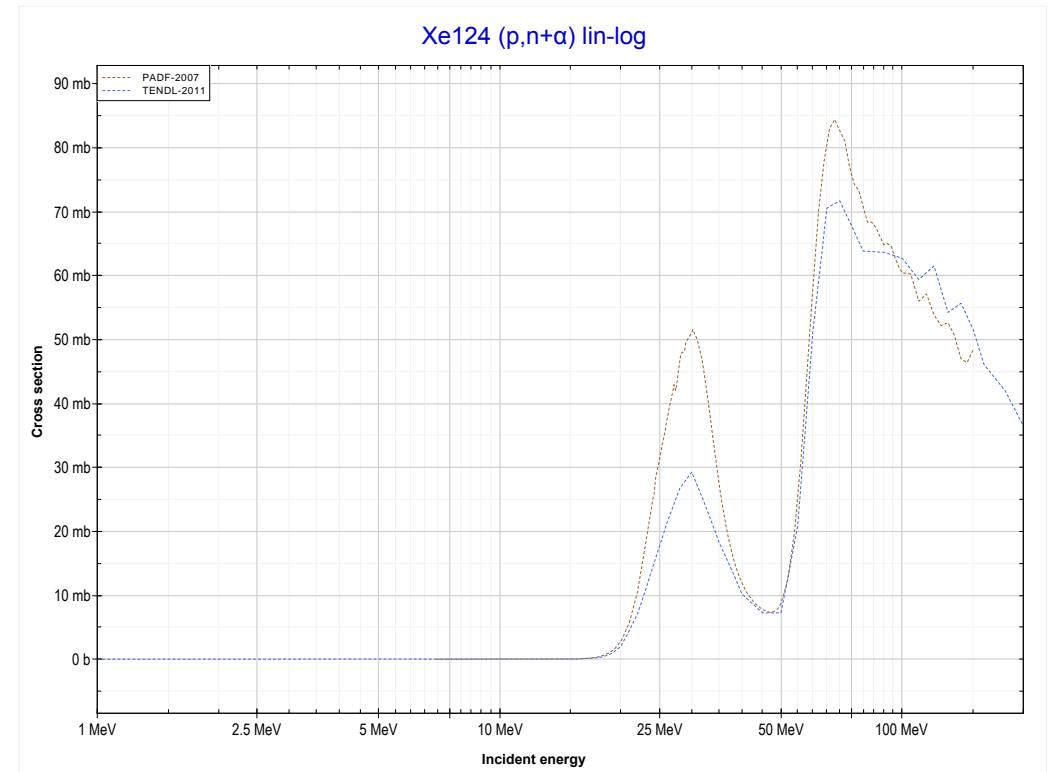
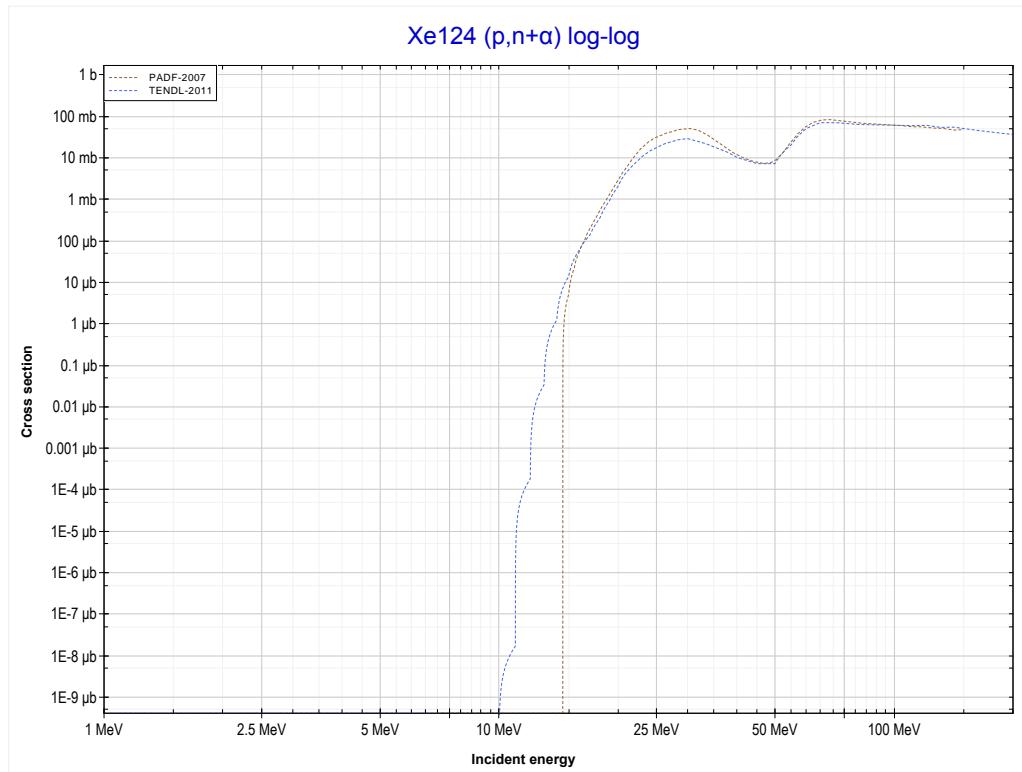
Reaction	Q-Value
I127(p,7n)Xe121	-55720.25 keV

<< 52-Te-126	54-Xe-124 MT16 (p,2n) or MT5 (Cs123 production)	54-Xe-126 >>
<< MT160 (p,7n)		MT22 (p,n+α) >>



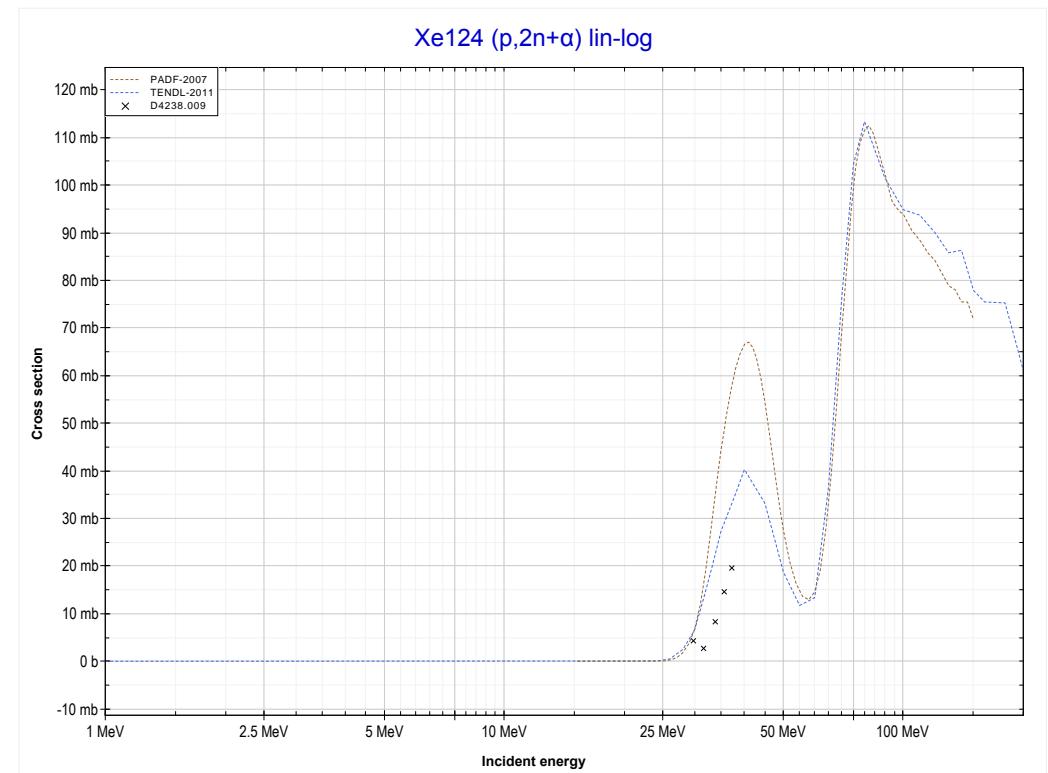
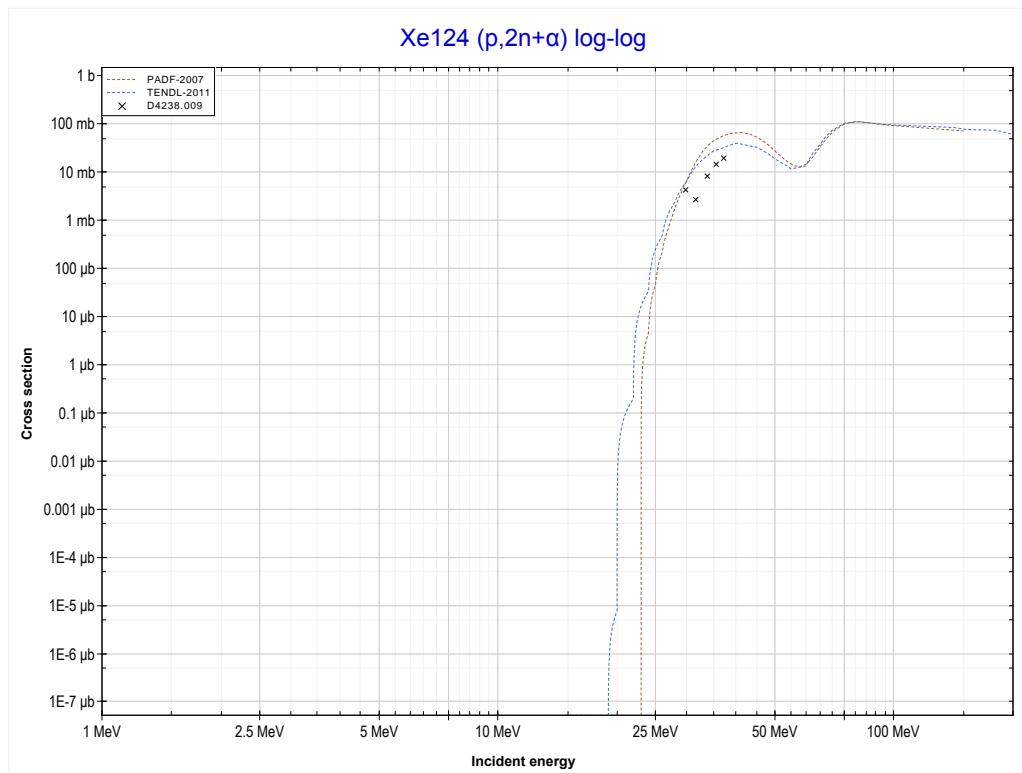
Reaction	Q-Value
$\text{Xe}^{124}(\text{p},\text{2n})\text{Cs}^{123}$	-15469.76 keV

<< 48-Cd-114	54-Xe-124 MT22 (p,n+α) or MT5 (I120 production)	MT24 (p,2n+α) >>
<< MT16 (p,2n)		



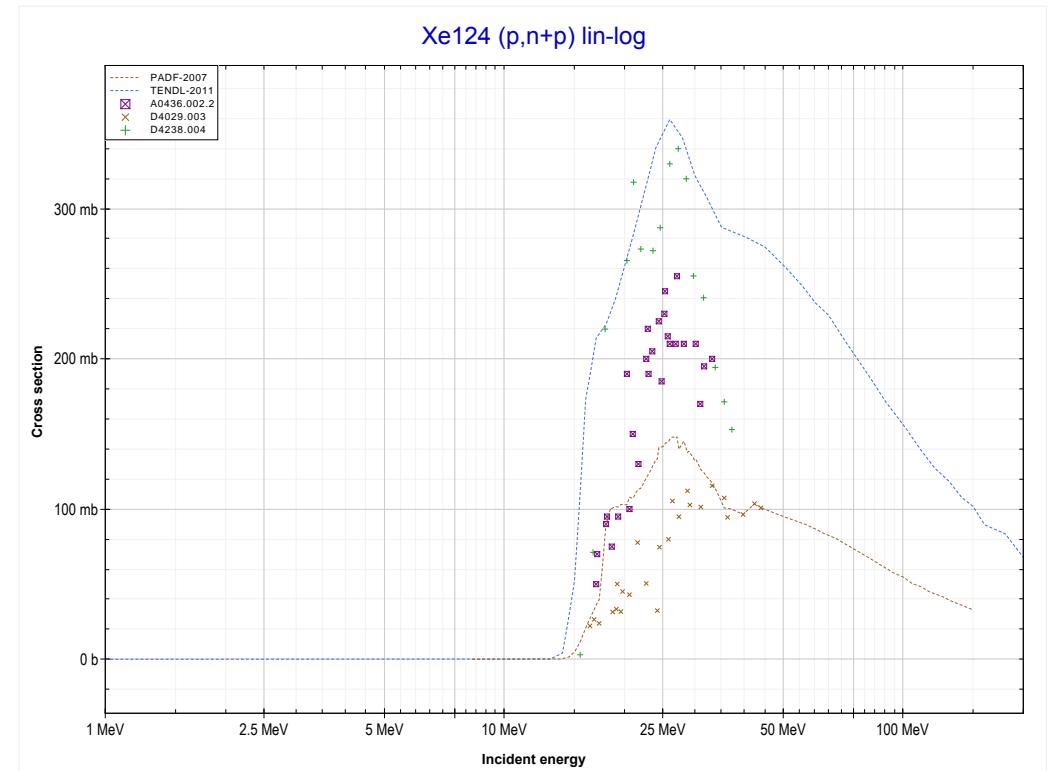
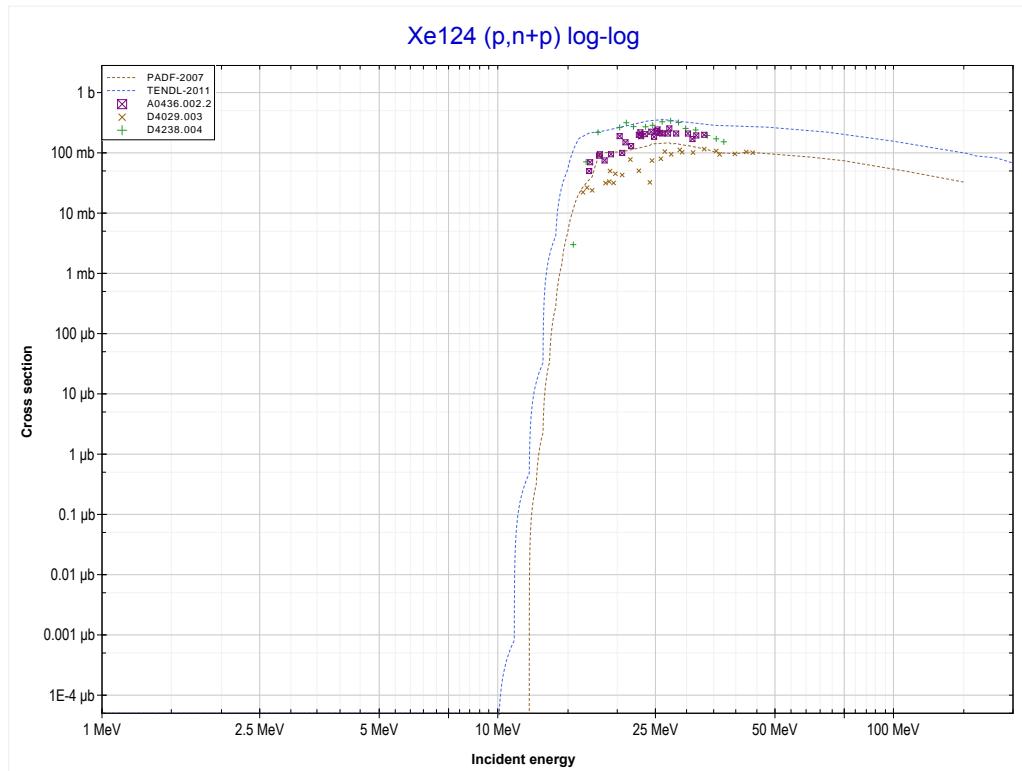
Reaction	Q-Value
Xe124(p,n+α)I120	-7077.36 keV
Xe124(p,d+t)I120	-24666.66 keV
Xe124(p,n+p+t)I120	-26891.22 keV
Xe124(p,2n+He3)I120	-27654.98 keV
Xe124(p,n+2d)I120	-30923.89 keV
Xe124(p,2n+p+d)I120	-33148.46 keV
Xe124(p,3n+2p)I120	-35373.02 keV

<< 42-Mo-100	54-Xe-124 MT24 (p,2n+α) or MT5 (I119 production)	92-U-238 >>
<< MT22 (p,n+α)		MT28 (p,n+p) >>



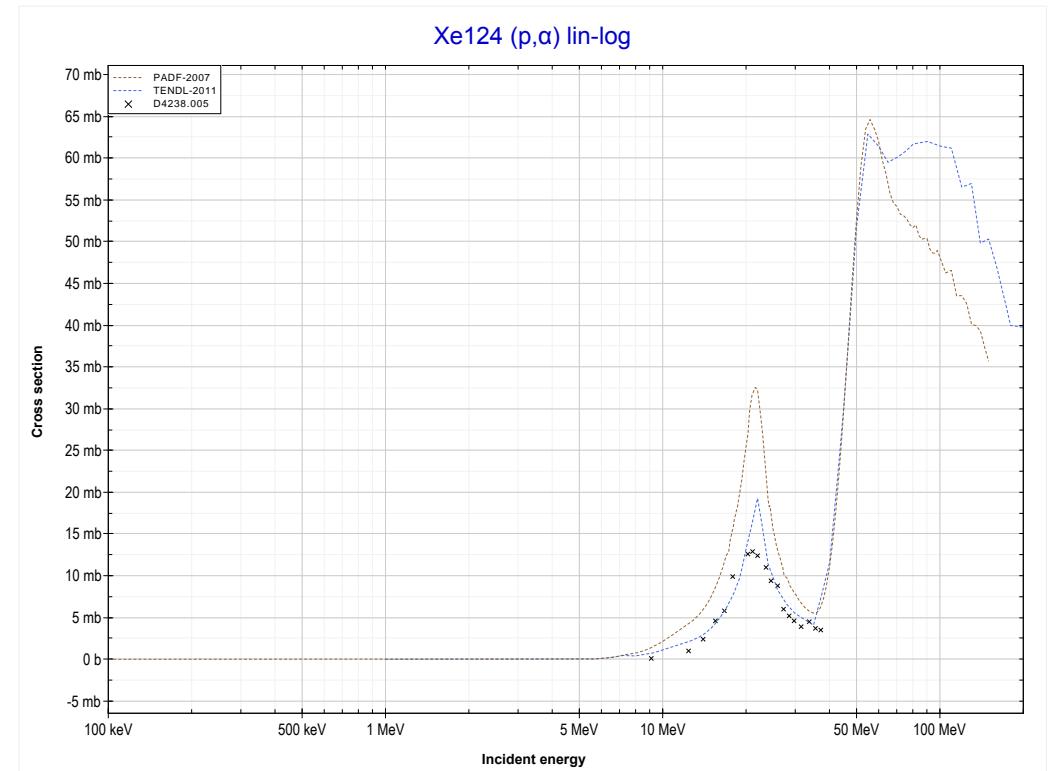
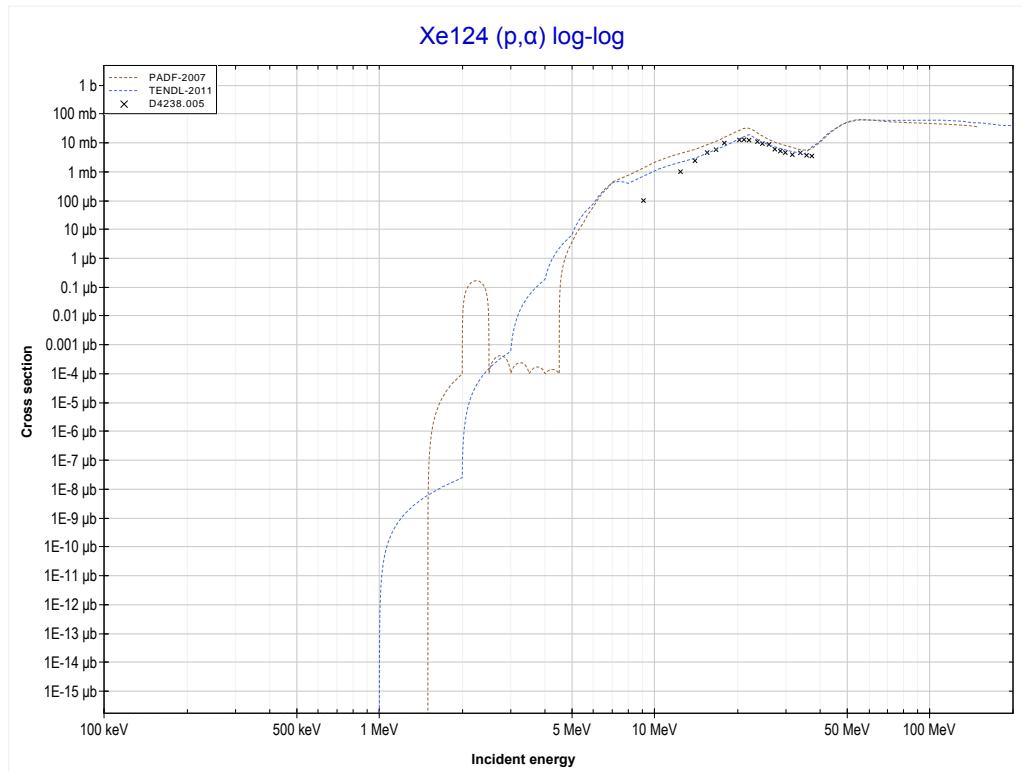
Reaction	Q-Value
$\text{Xe}^{124}(\text{p},\text{2n}+\alpha)\text{I}^{119}$	-15172.68 keV
$\text{Xe}^{124}(\text{p},\text{2t})\text{I}^{119}$	-26504.74 keV
$\text{Xe}^{124}(\text{p},\text{n+d+t})\text{I}^{119}$	-32761.97 keV
$\text{Xe}^{124}(\text{p},\text{2n+p+t})\text{I}^{119}$	-34986.54 keV
$\text{Xe}^{124}(\text{p},\text{3n+He3})\text{I}^{119}$	-35750.30 keV
$\text{Xe}^{124}(\text{p},\text{2n+2d})\text{I}^{119}$	-39019.21 keV
$\text{Xe}^{124}(\text{p},\text{3n+p+d})\text{I}^{119}$	-41243.77 keV
$\text{Xe}^{124}(\text{p},\text{4n+2p})\text{I}^{119}$	-43468.34 keV

<< 53-I-127	54-Xe-124 MT28 (p,n+p) or MT5 (Xe123 production)	54-Xe-126 >>
<< MT24 (p,2n+α)		MT107 (p,α) >>



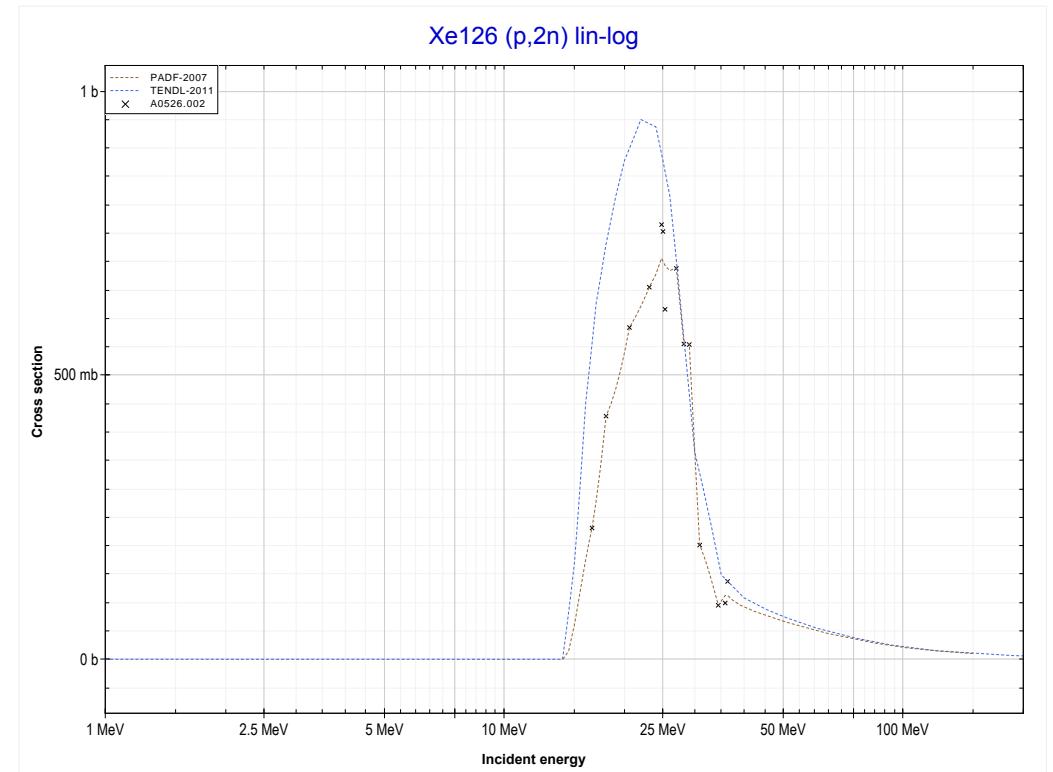
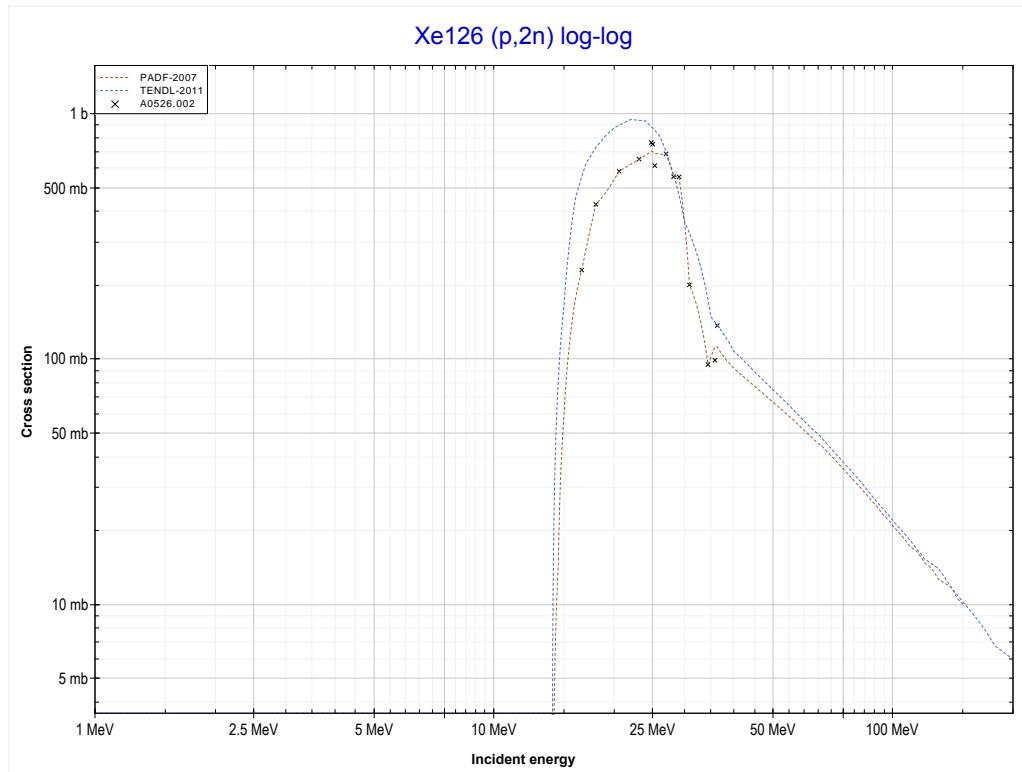
Reaction	Q-Value
Xe124(p,d)Xe123	-8257.85 keV
Xe124(p,n+p)Xe123	-10482.42 keV

<< 50-Sn-120	54-Xe-124 MT107 (p,α) or MT5 (I121 production)	>> 57-La-139
<< MT28 ($p,n+p$)		MT16 ($p,2n$) >>



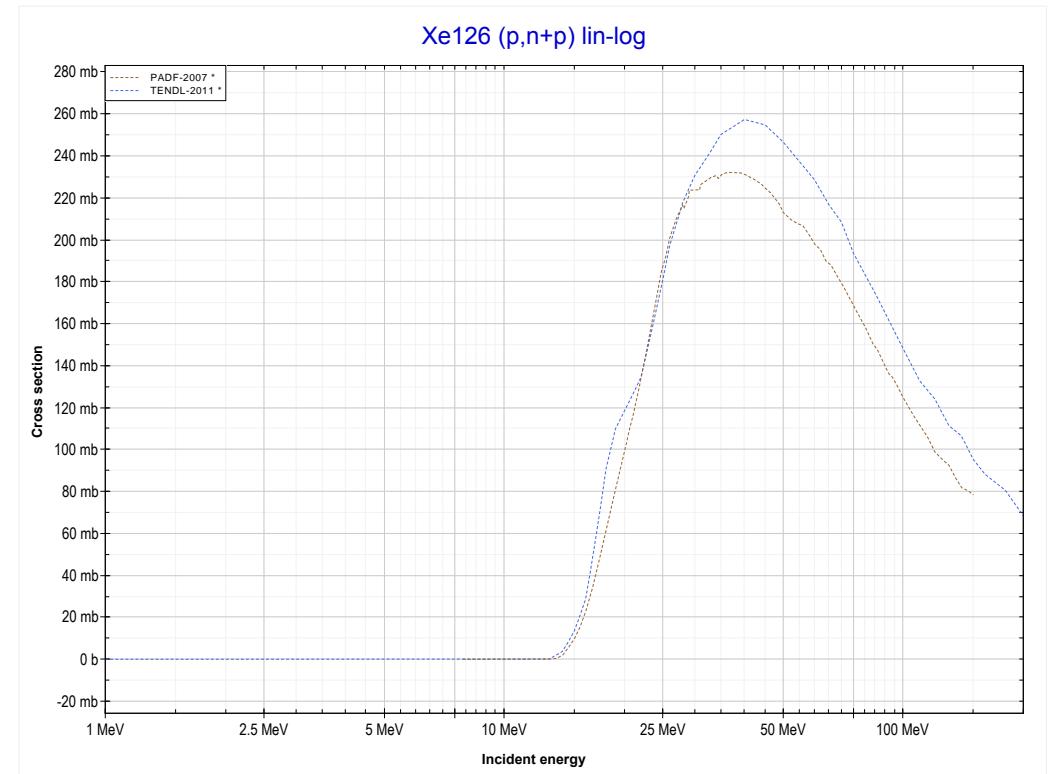
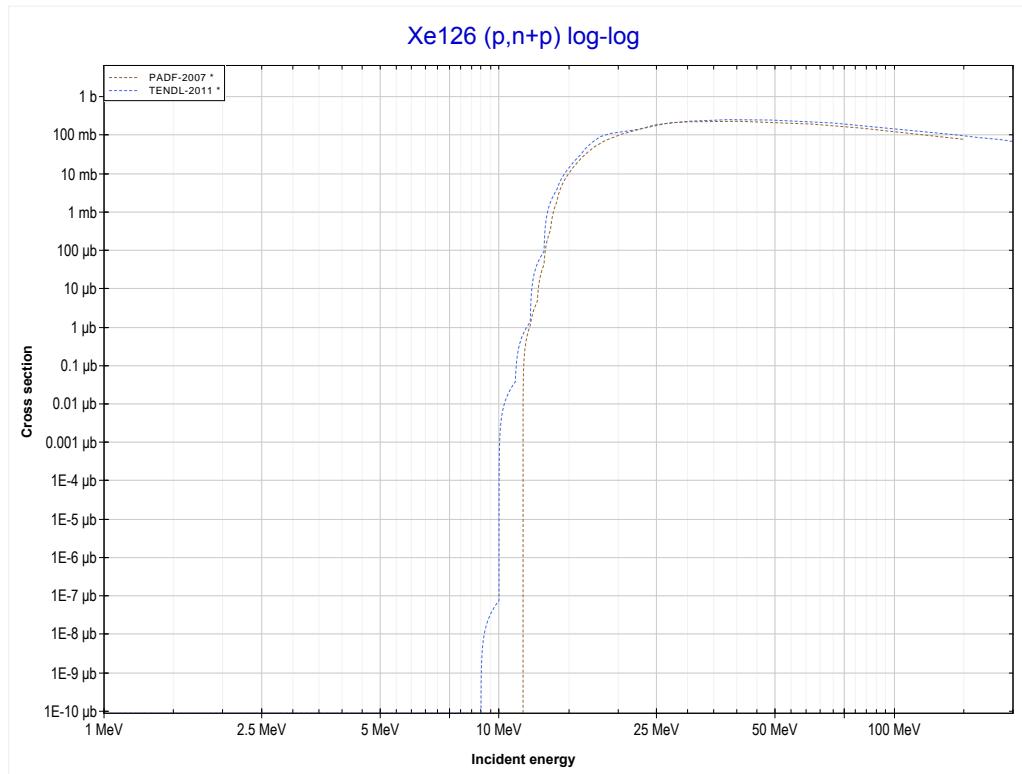
Reaction	Q-Value
Xe124(p,α)I121	3490.95 keV
Xe124($p,p+t$)I121	-16322.91 keV
Xe124($p,n+He3$)I121	-17086.66 keV
Xe124($p,2d$)I121	-20355.57 keV
Xe124($p,n+p+d$)I121	-22580.14 keV
Xe124($p,2n+2p$)I121	-24804.70 keV

<< 54-Xe-124	54-Xe-126 MT16 (p,2n) or MT5 (Cs125 production)	58-Ce-140 >>
<< MT107 (p, α)		MT28 (p,n+p) >>



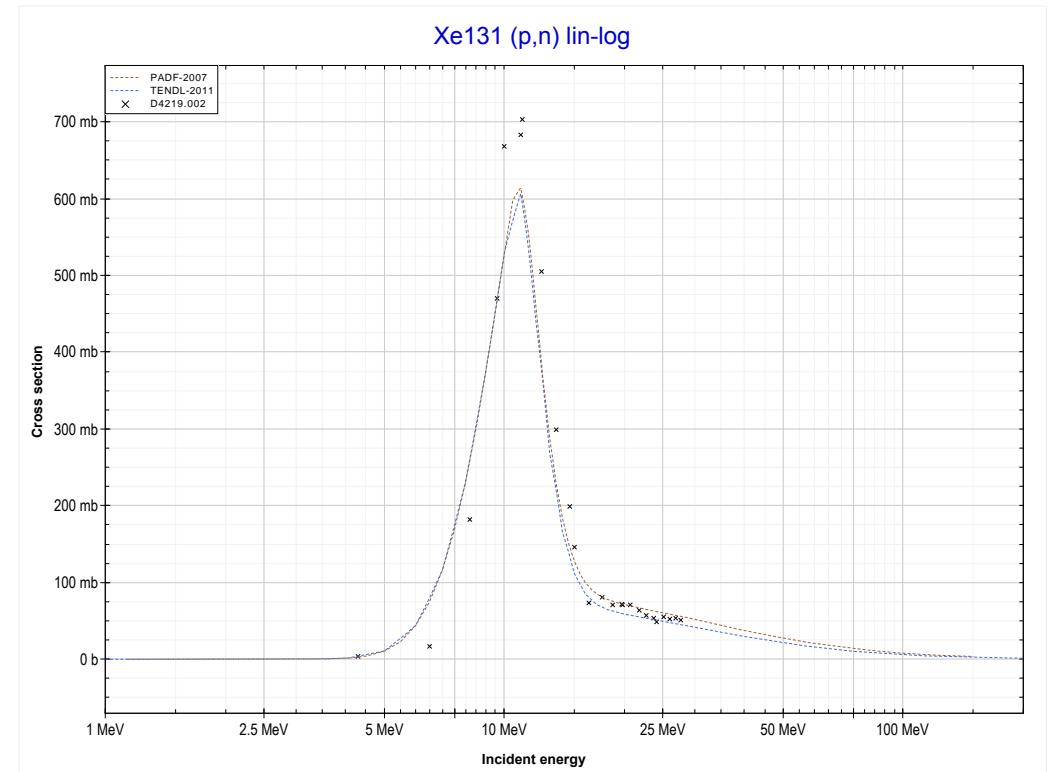
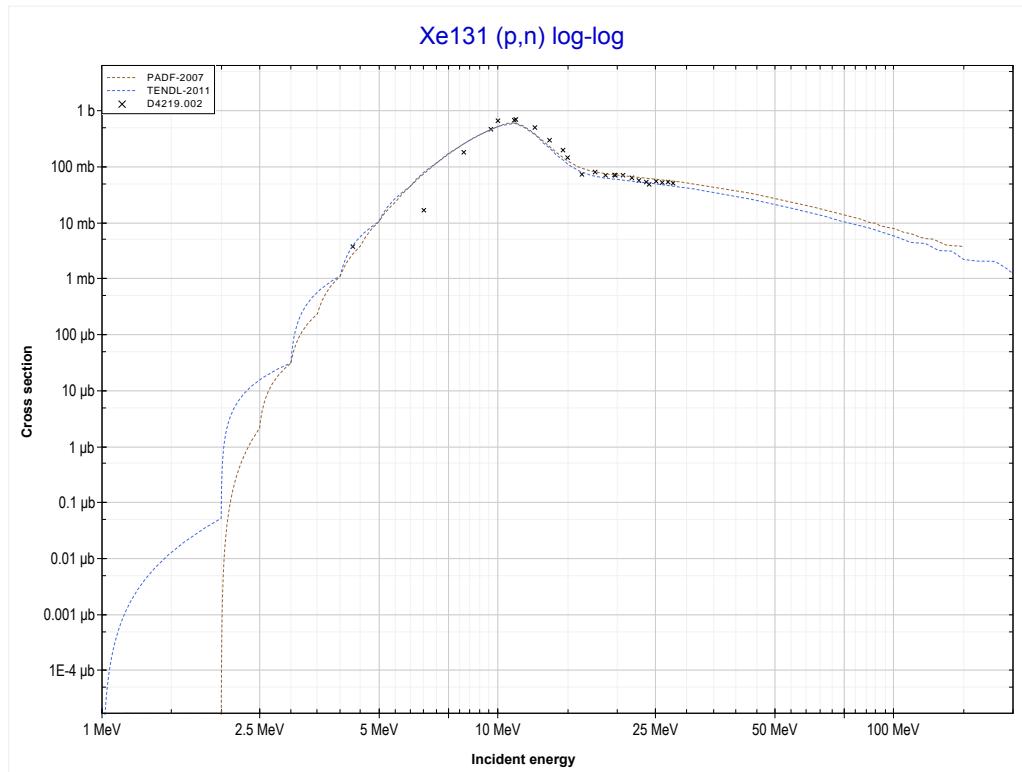
Reaction	Q-Value
Xe126(p,2n)Cs125	-13934.66 keV

<< 54-Xe-124	54-Xe-126 MT28 (p,n+p) or MT5 (Xe125 production)	>> 55-Cs-133
<< MT16 (p,2n)		MT4 (p,n) >>



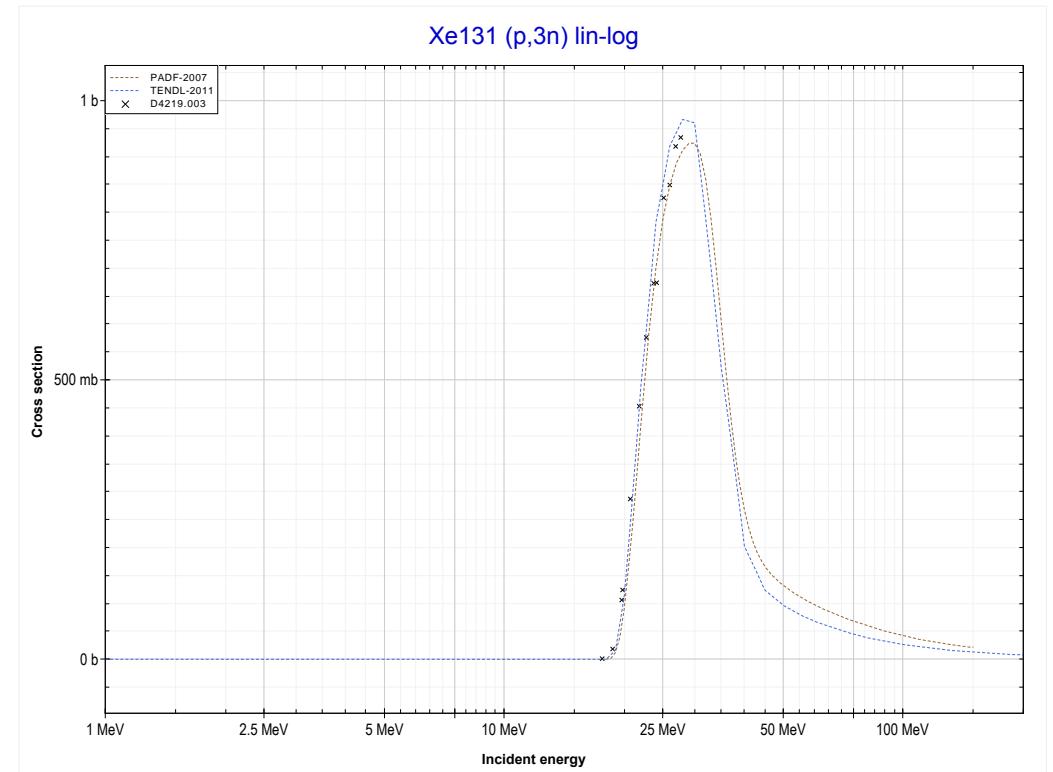
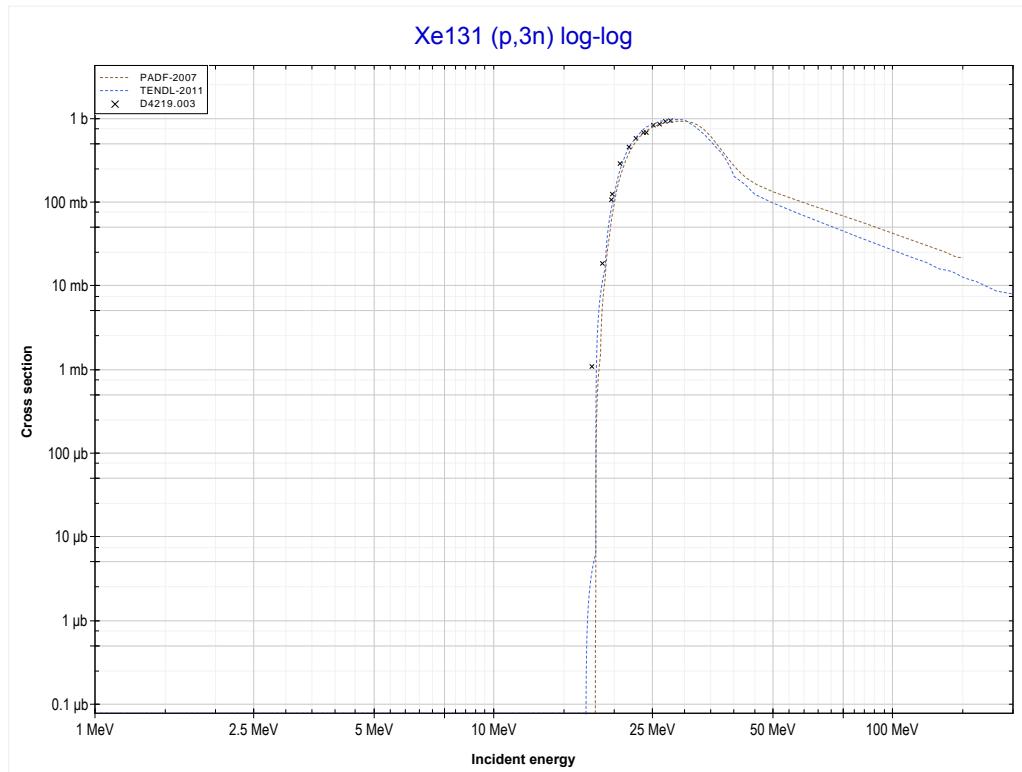
Reaction	Q-Value
Xe126(p,d)Xe125	-7823.65 keV
Xe126(p,n+p)Xe125	-10048.22 keV

<< 53-I-127	54-Xe-131 MT4 (p,n) or MT5 (Cs131 production)	>> 55-Cs-133
<< MT28 (p,n+p)		>> MT17 (p,3n) >>



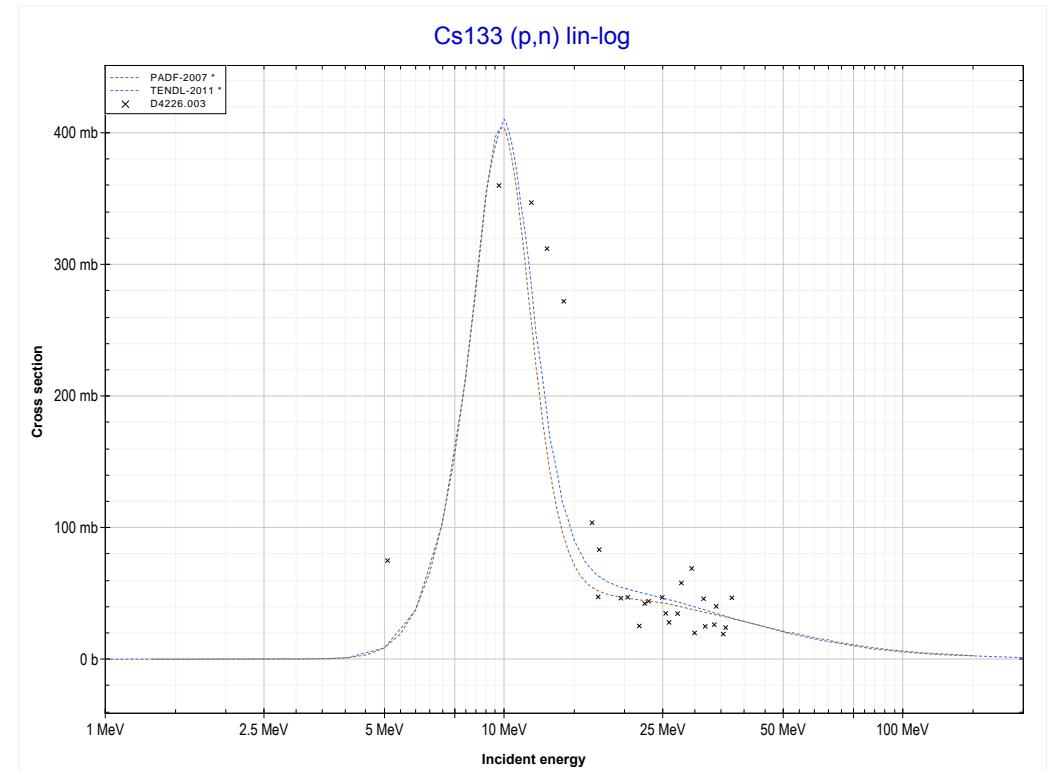
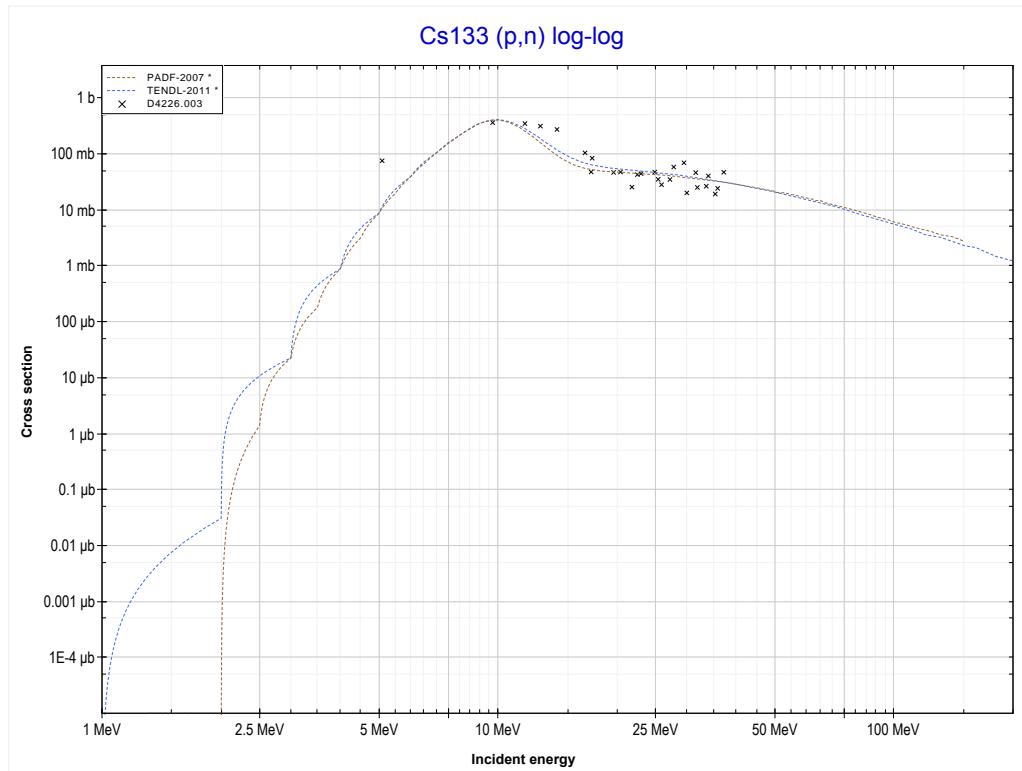
Reaction	Q-Value
Xe131(p,n)Cs131	-1137.55 keV

<< 53-I-127	54-Xe-131 MT17 (p,3n) or MT5 (Cs129 production)	55-Cs-133 >>
<< MT4 (p,n)		MT4 (p,n) >>



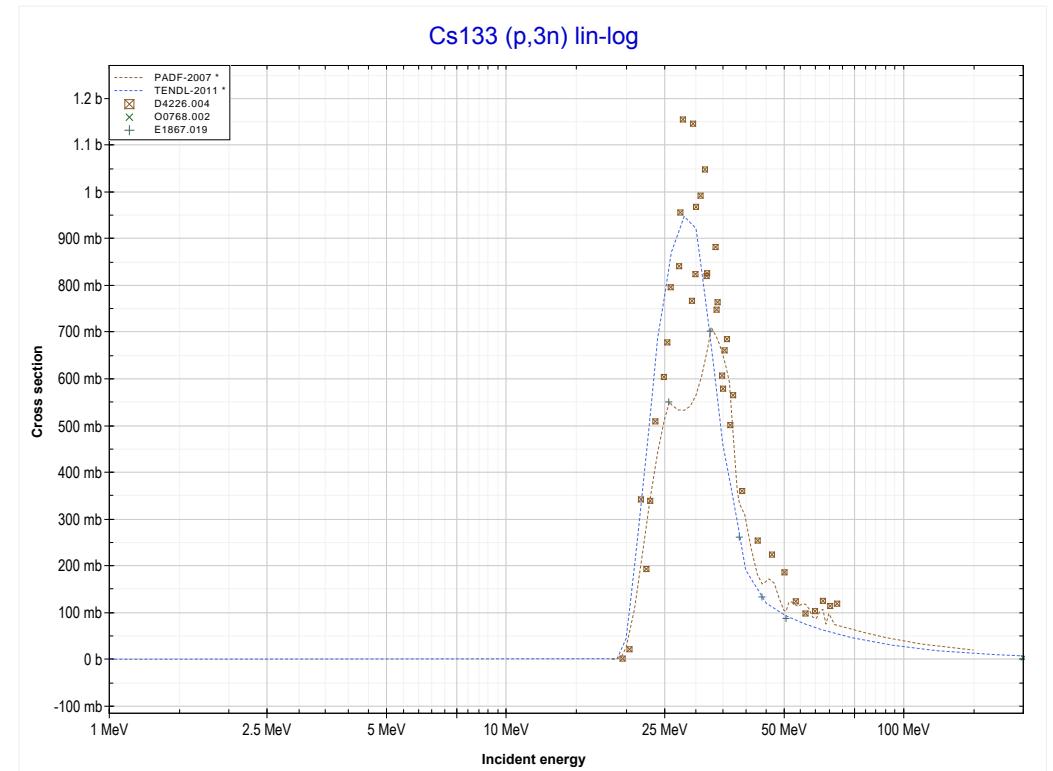
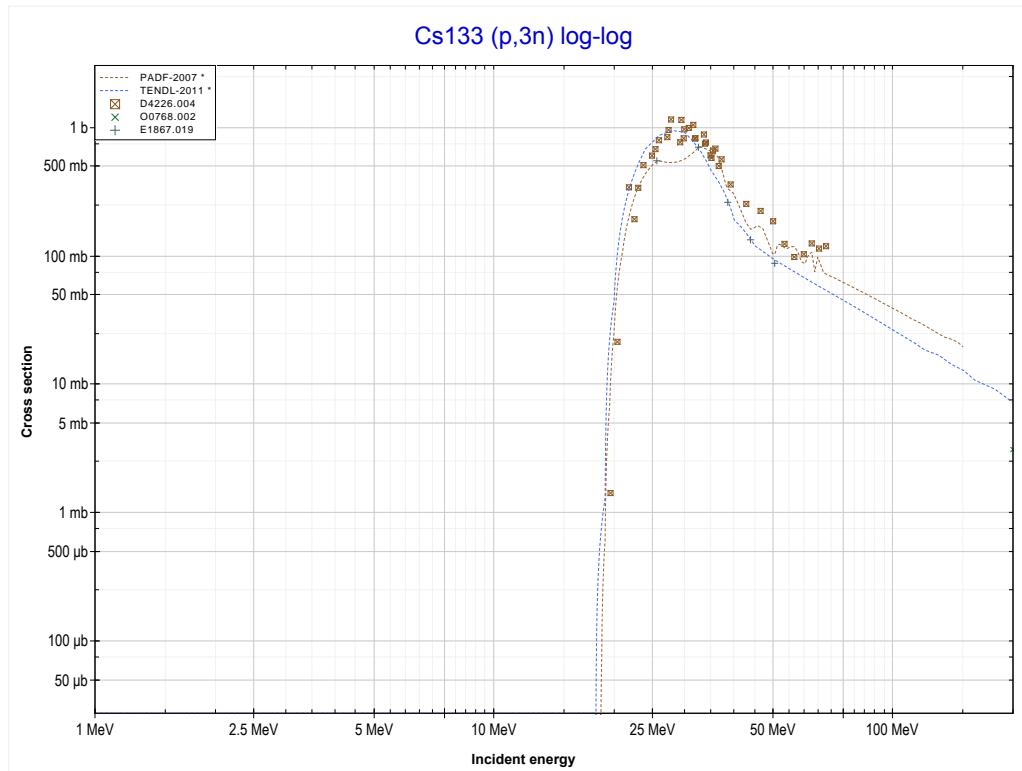
Reaction	Q-Value
Xe131(p,3n)Cs129	-17840.18 keV

<< 54-Xe-131	55-Cs-133 MT4 (p,n) or MT5 (Ba133 production)	56-Ba-134 >>
<< MT17 (p,3n)		MT17 (p,3n) >>



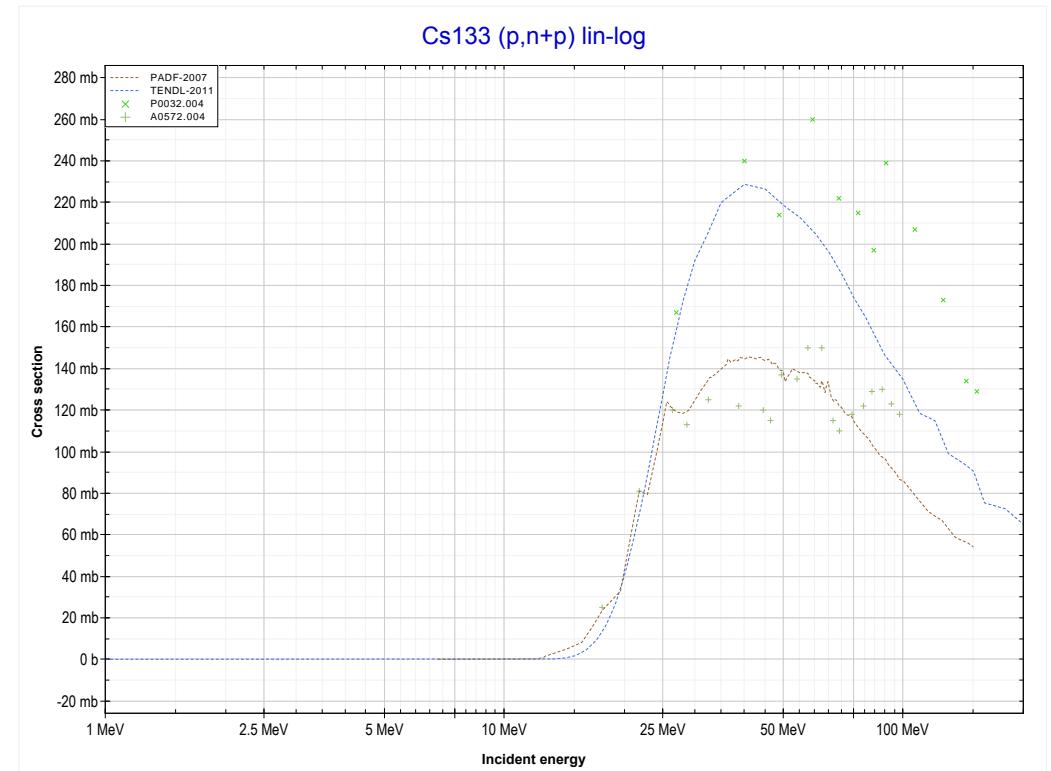
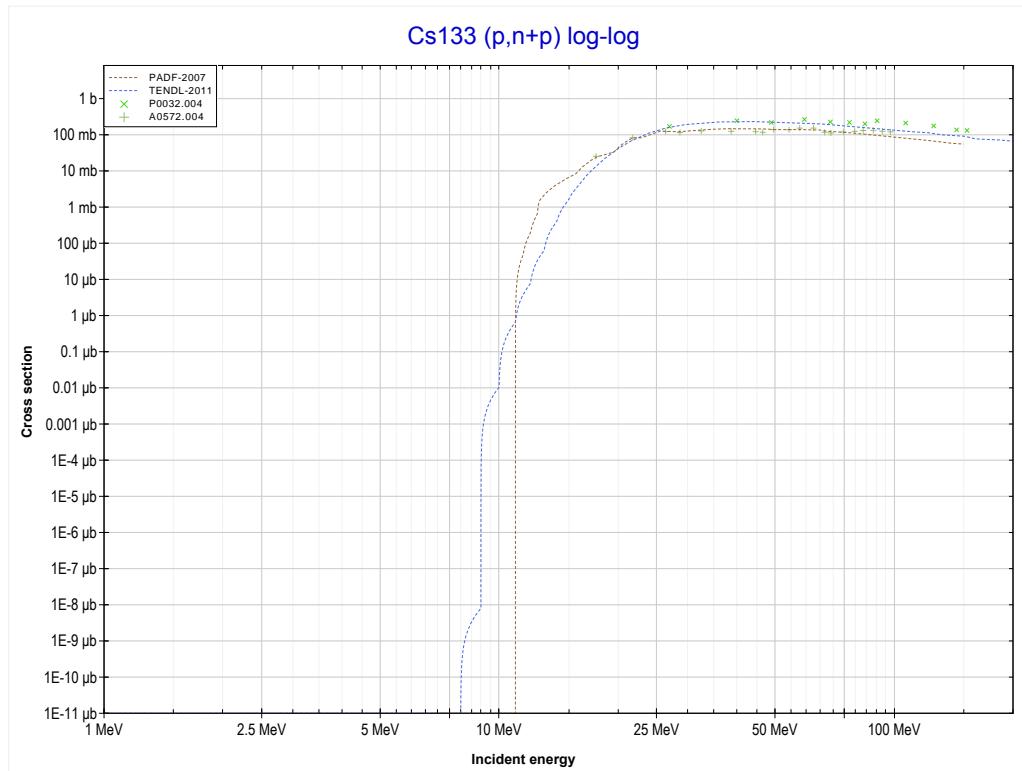
Reaction	Q-Value
Cs133(p,n)Ba133	-1299.80 keV

<< 54-Xe-131	55-Cs-133 MT17 (p,3n) or MT5 (Ba131 production)	58-Ce-140 >>
<< MT4 (p,n) >>		MT28 (p,n+p) >>



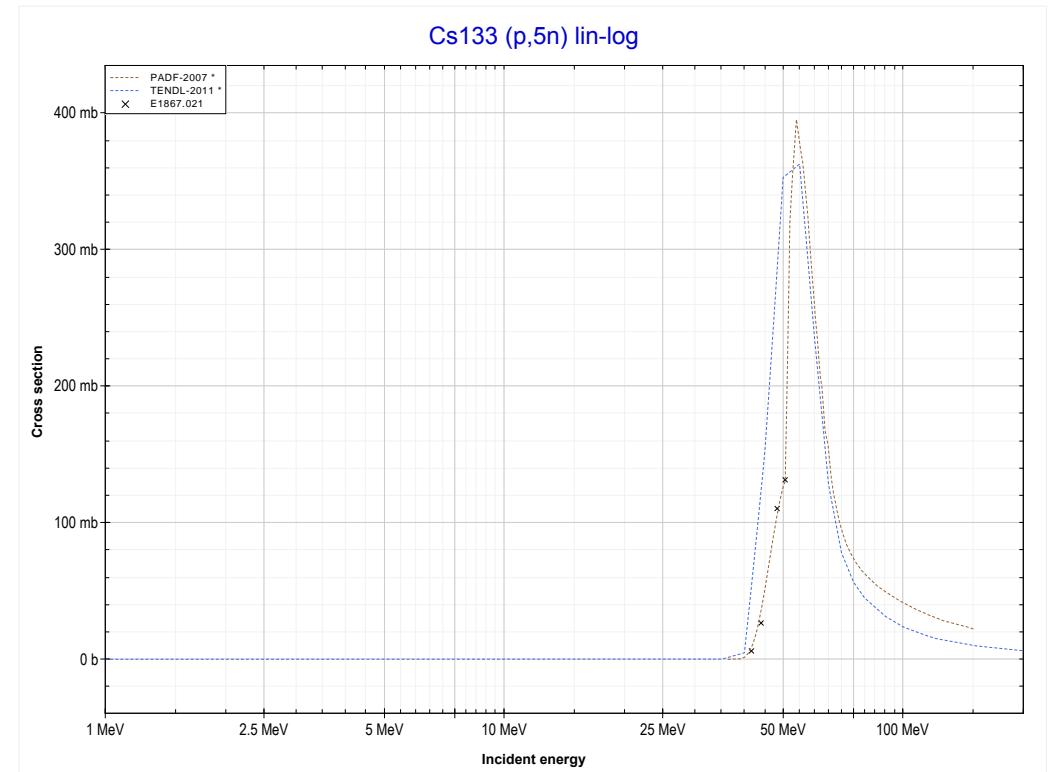
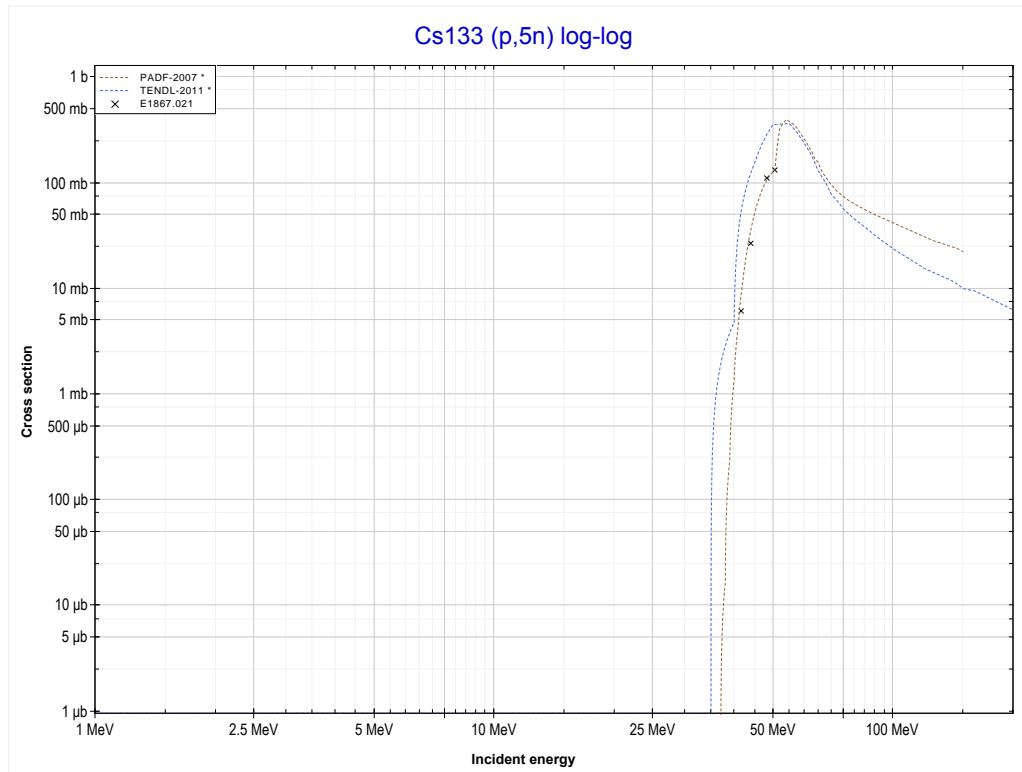
Reaction	Q-Value
Cs133(p,3n)Ba131	-18312.14 keV

<< 54-Xe-126	55-Cs-133 MT28 (p,n+p) or MT5 (Cs132 production)	58-Ce-142 >>
<< MT17 (p,3n)		MT152 (p,5n) >>



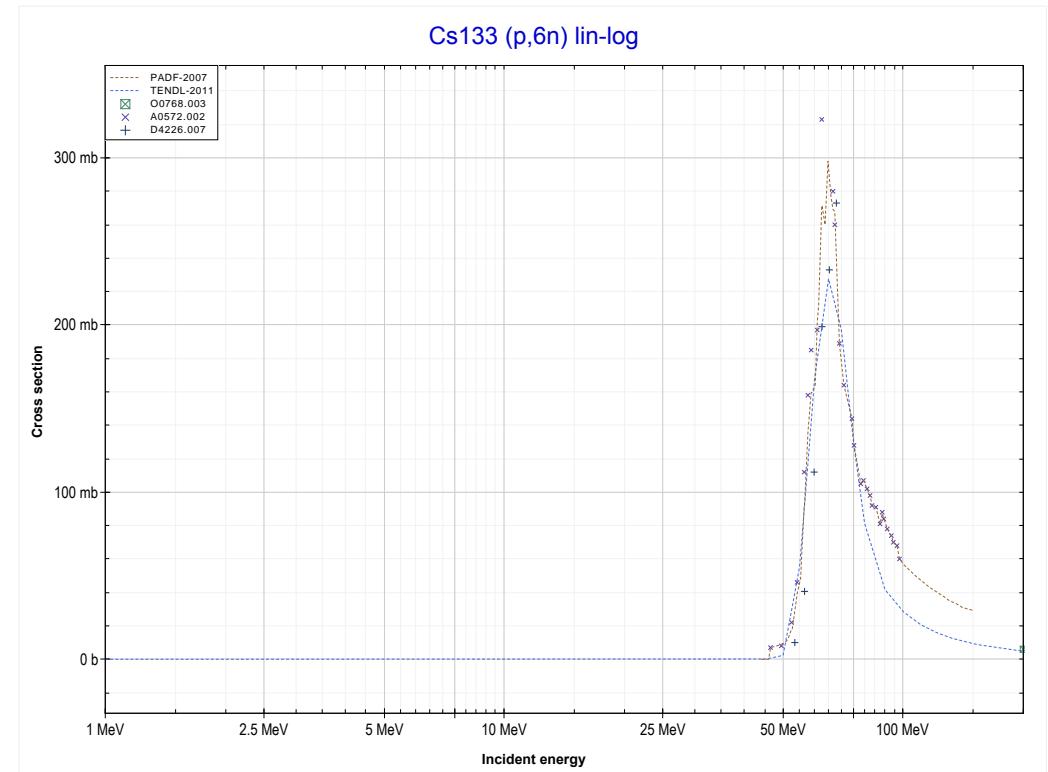
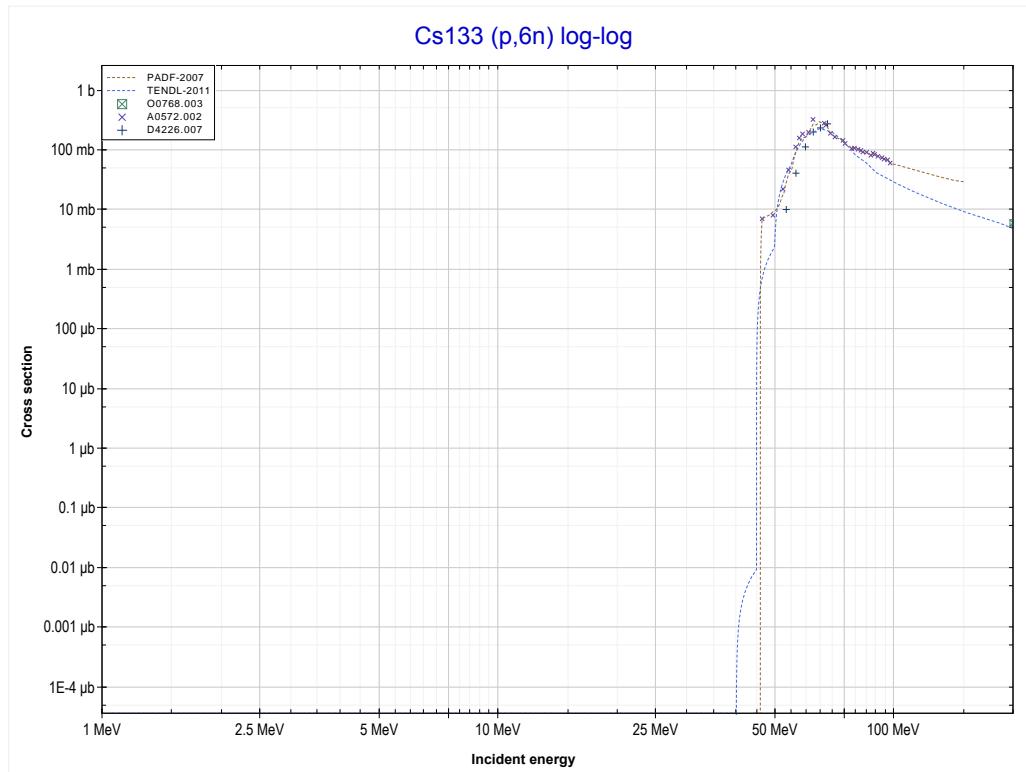
Reaction	Q-Value
$\text{Cs}^{133}(\text{p},\text{d})\text{Cs}^{132}$	-6761.81 keV
$\text{Cs}^{133}(\text{p},\text{n}+\text{p})\text{Cs}^{132}$	-8986.38 keV

<< 53-I-127	55-Cs-133 MT152 (p,5n) or MT5 (Ba129 production)	59-Pr-141 >>
<< MT28 (p,n+p)		MT153 (p,6n) >>



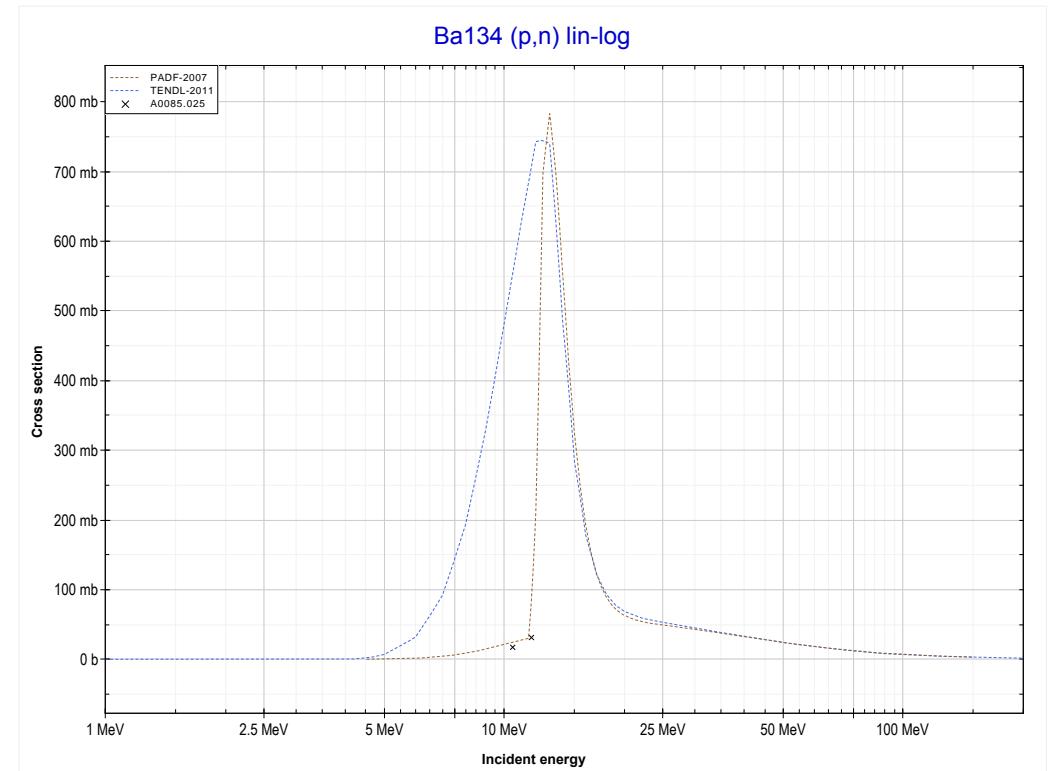
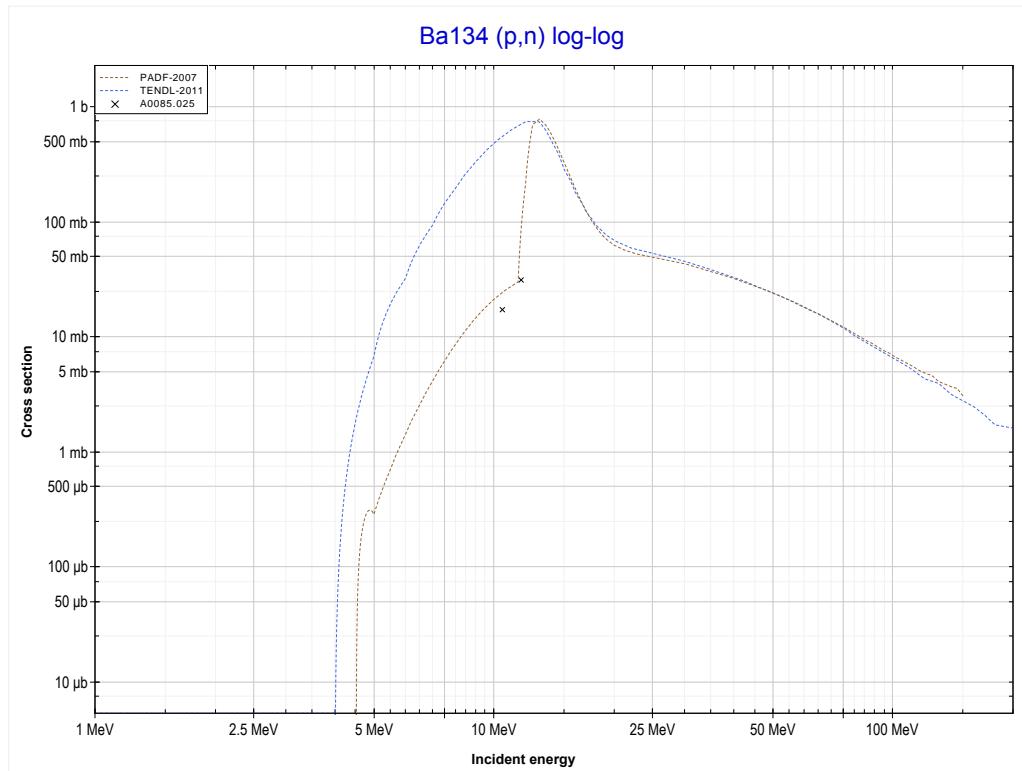
Reaction	Q-Value
$\text{Cs}^{133}(p,5n)\text{Ba}^{129}$	-36073.57 keV

<< 53-I-127	55-Cs-133 MT153 (p,6n) or MT5 (Ba128 production)	59-Pr-141 >>
<< MT152 (p,5n)		MT4 (p,n) >>



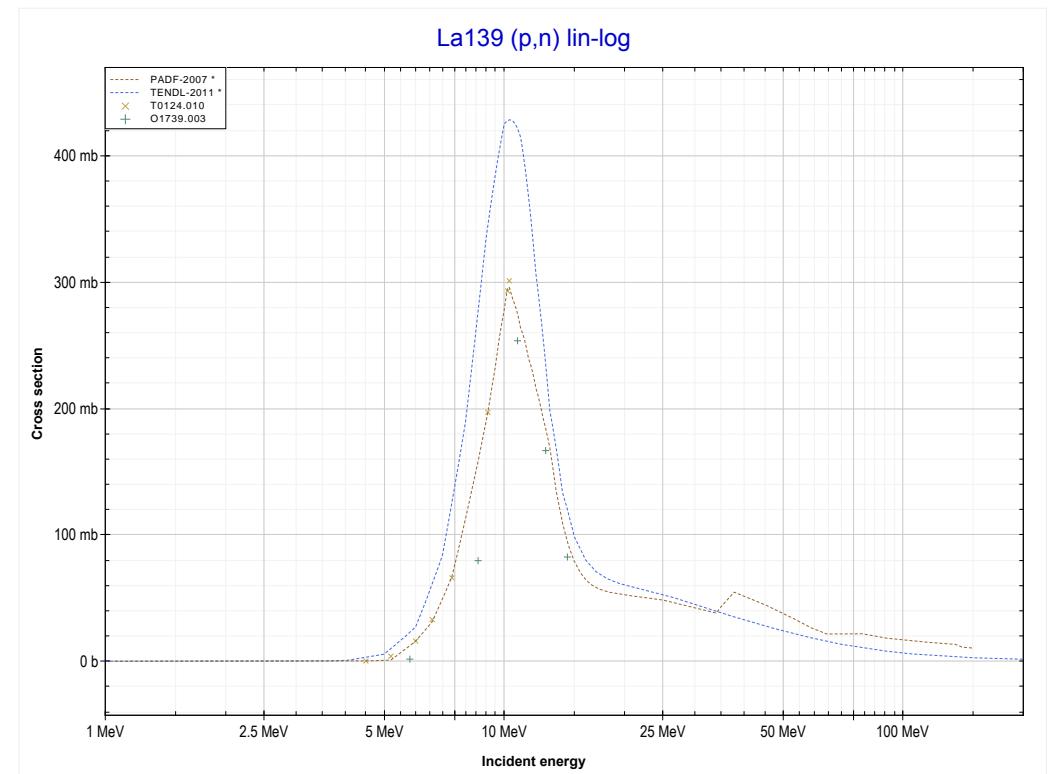
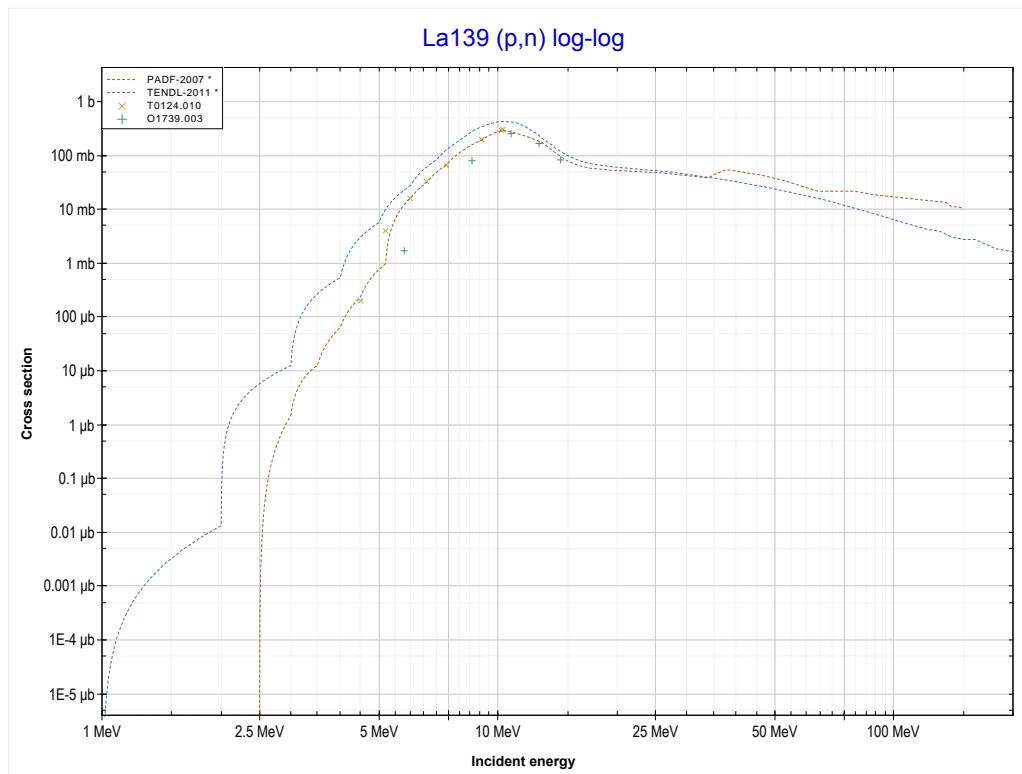
Reaction	Q-Value
Cs133(p,6n)Ba128	-43807.89 keV

<< 55-Cs-133	56-Ba-134 MT4 (p,n) or MT5 (La134 production)	>> 57-La-139
<< MT153 (p,6n)		MT4 (p,n) >>



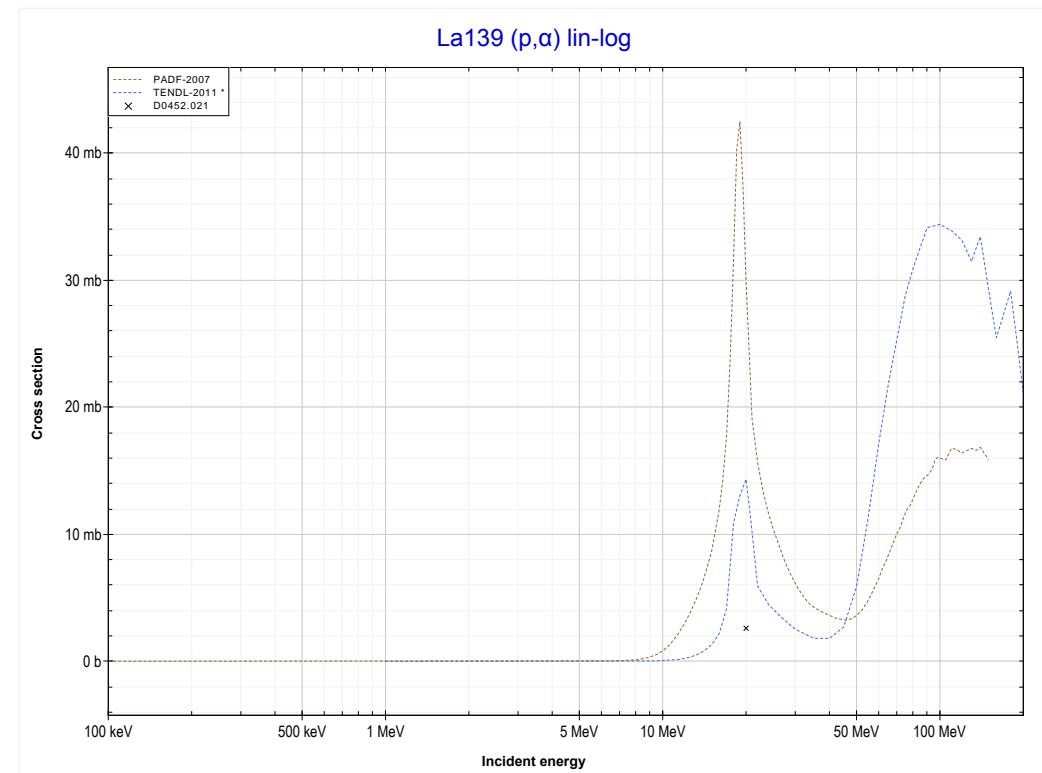
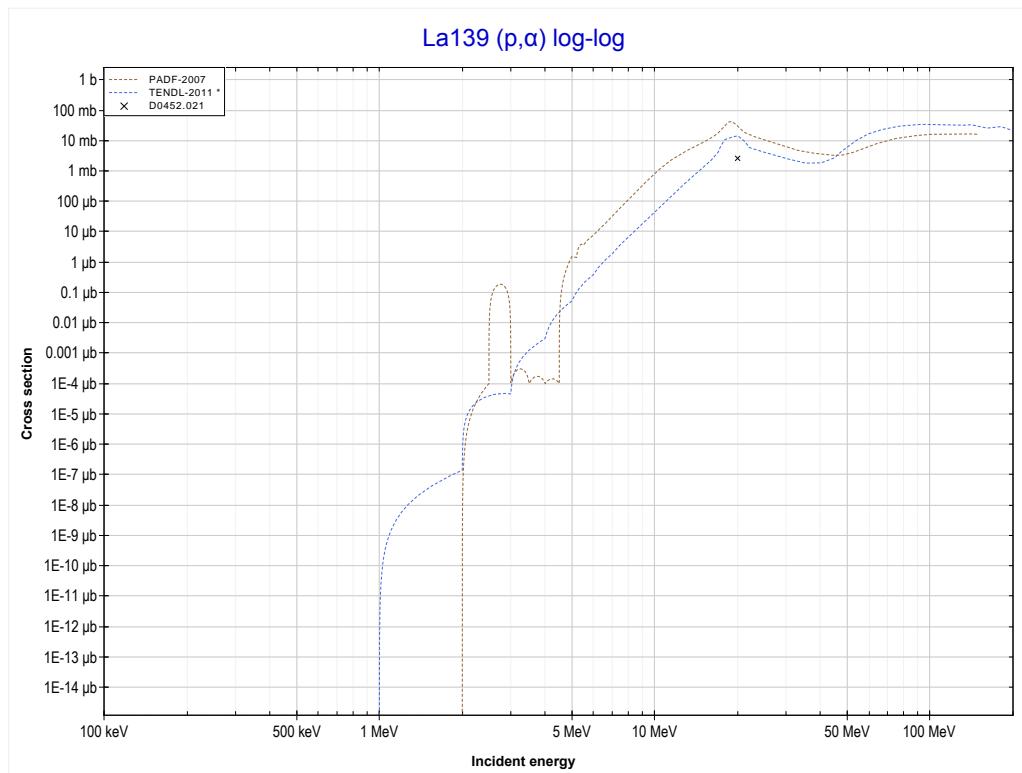
Reaction	Q-Value
$\text{Ba}^{134}(\text{p},\text{n})\text{La}^{134}$	-4513.25 keV

<< 56-Ba-134	57-La-139 MT4 (p,n) or MT5 (Ce139 production)	58-Ce-140 >>
<< MT4 (p,n)		MT107 (p, α) >>



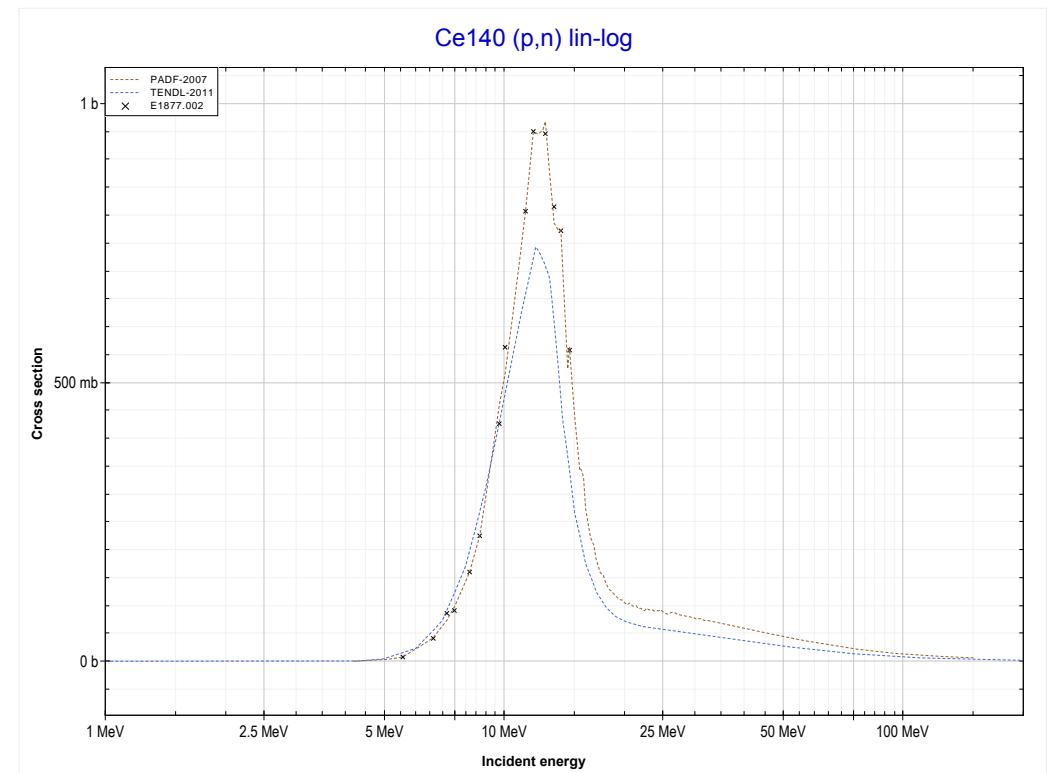
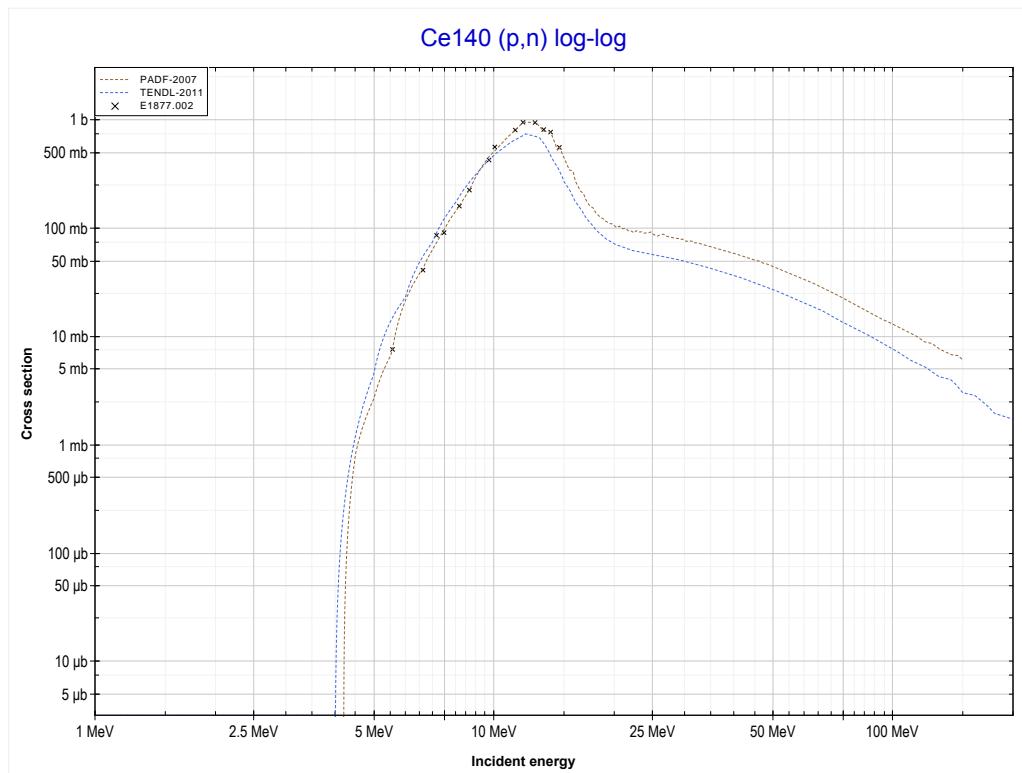
Reaction	Q-Value
La139(p,n)Ce139	-1061.75 keV

<< 54-Xe-124	57-La-139 MT107 (p,α) or MT5 (Ba136 production)	58-Ce-140 >>
<< MT4 (p,n)		MT4 (p,n) >>



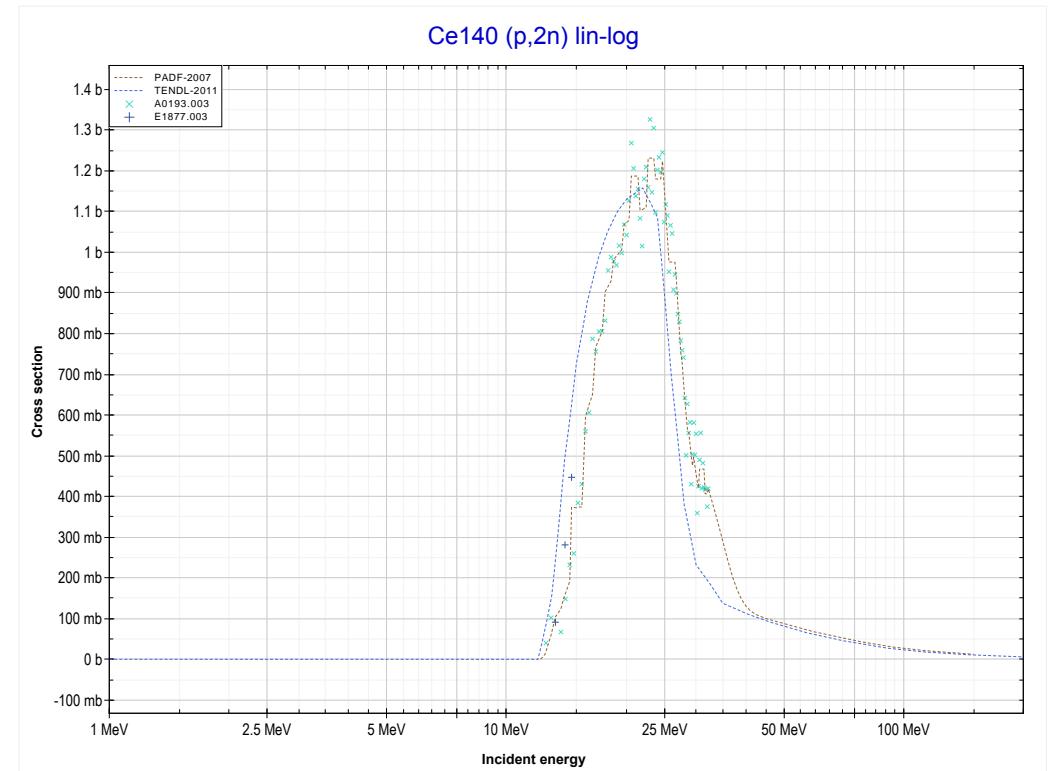
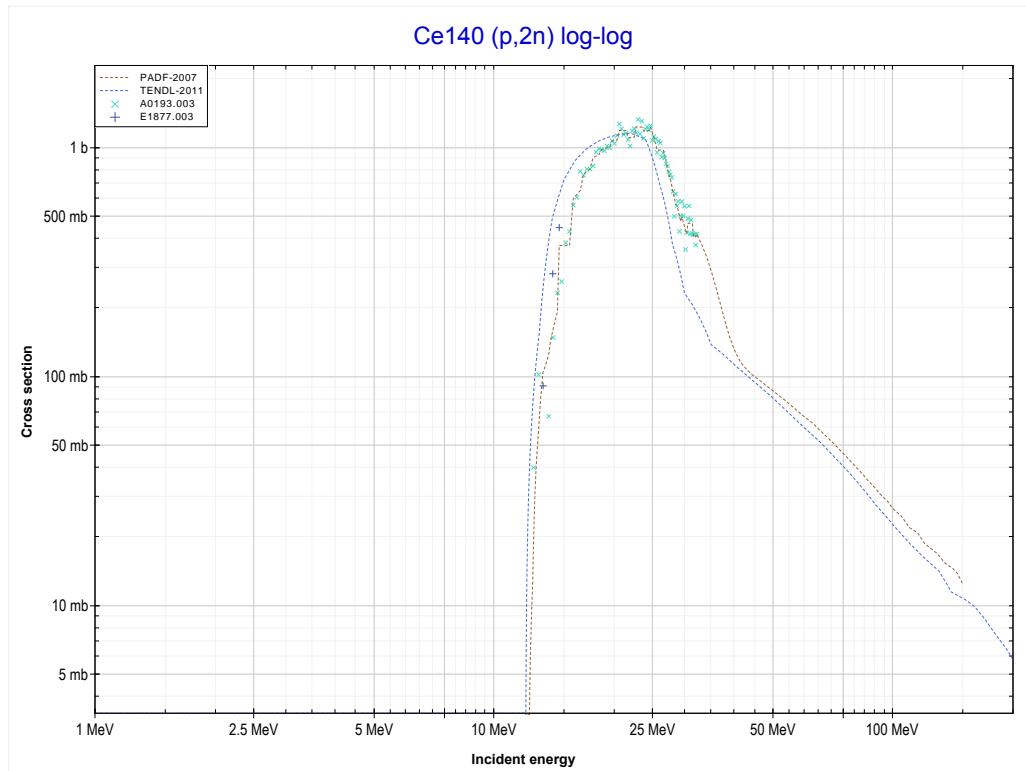
Reaction	Q-Value
La139(p,α)Ba136	6519.55 keV
La139($p,p+t$)Ba136	-13294.31 keV
La139($p,n+He3$)Ba136	-14058.06 keV
La139($p,2d$)Ba136	-17326.97 keV
La139($p,n+p+d$)Ba136	-19551.54 keV
La139($p,2n+2p$)Ba136	-21776.10 keV

<< 57-La-139	58-Ce-140 MT4 (p,n) or MT5 (Pr140 production)	58-Ce-142 >>
<< MT107 (p, α)		MT16 (p,2n) >>



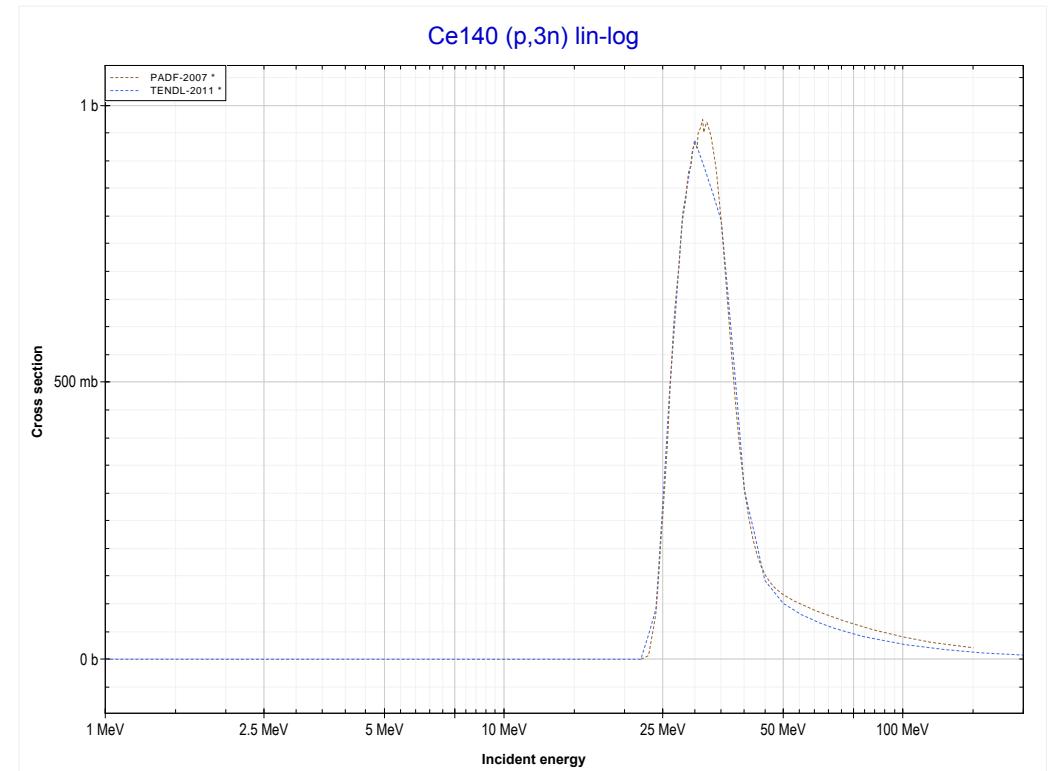
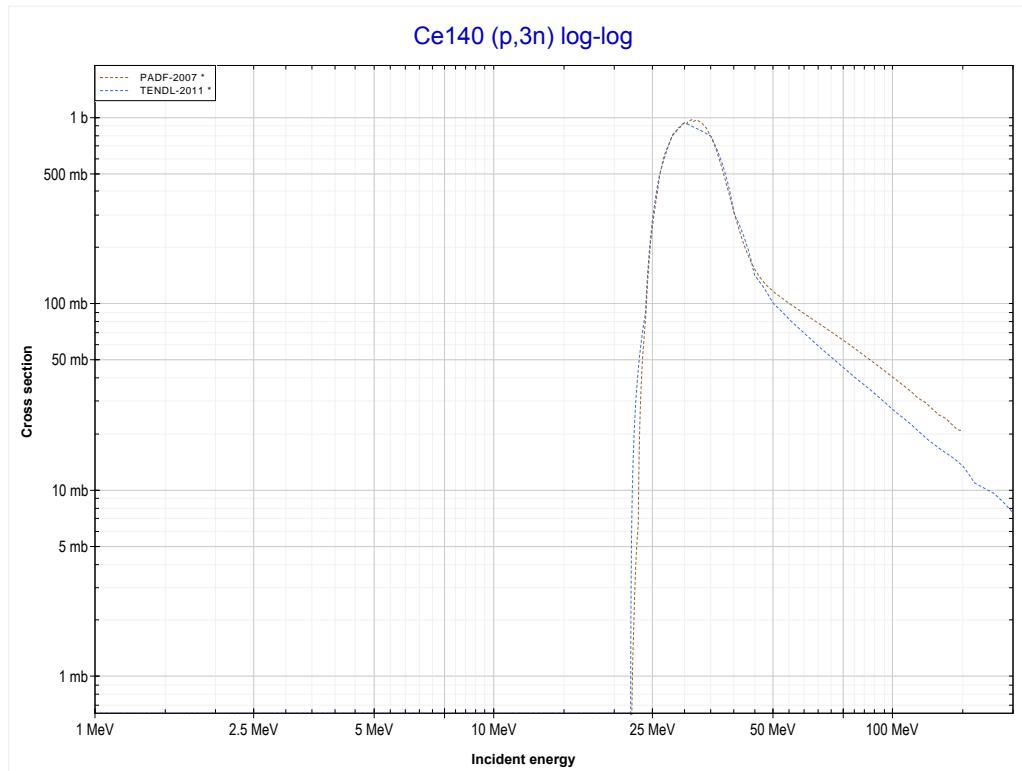
Reaction	Q-Value
Ce140(p,n)Pr140	-4170.65 keV

<< 54-Xe-126	58-Ce-140 MT16 (p,2n) or MT5 (Pr139 production)	59-Pr-141 >>
<< MT4 (p,n)		MT17 (p,3n) >>



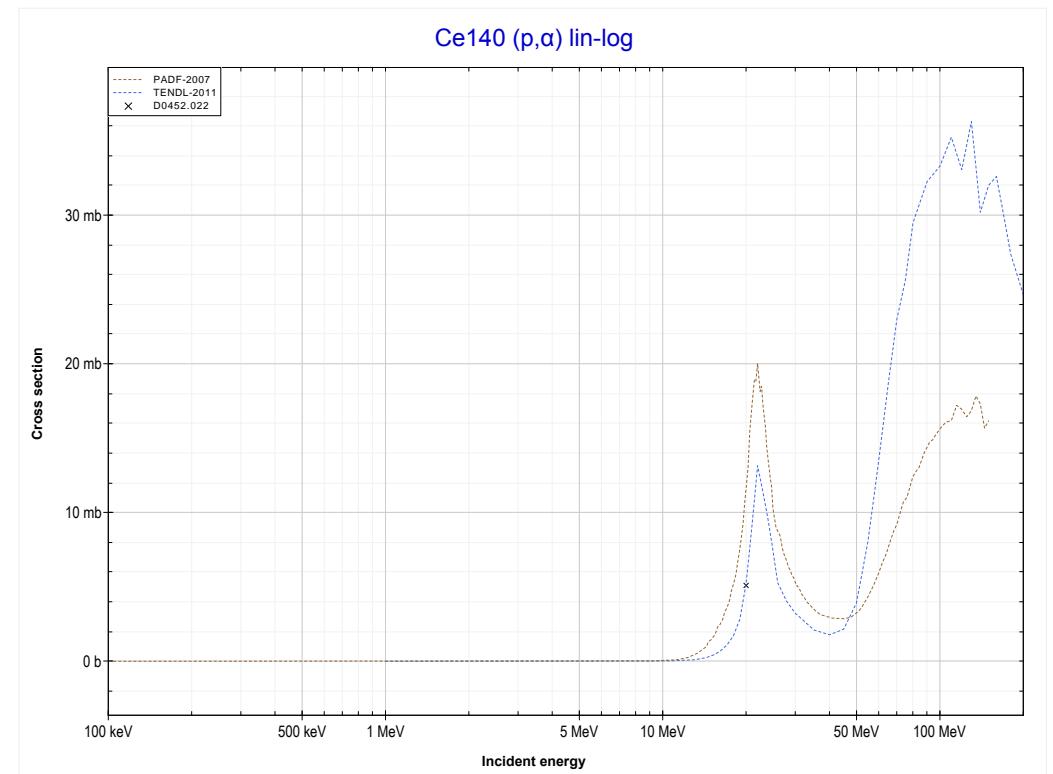
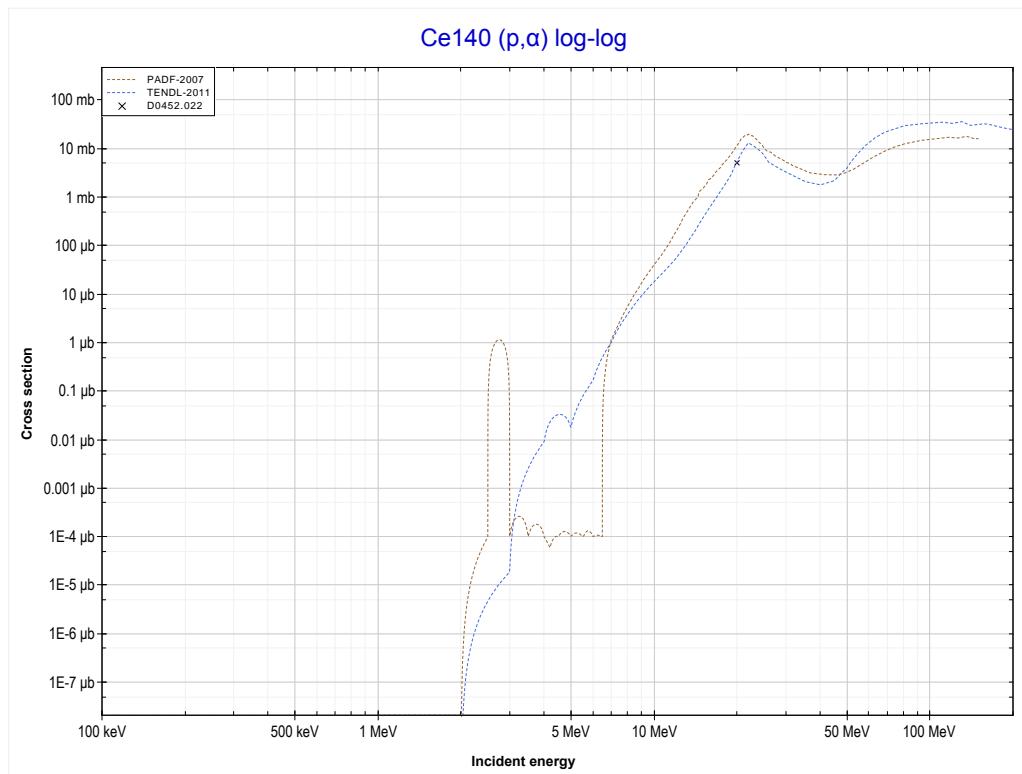
Reaction	Q-Value
Ce140(p,2n)Pr139	-12113.96 keV

<< 55-Cs-133	58-Ce-140 MT17 (p,3n) or MT5 (Pr138 production)	>> 59-Pr-141
<< MT16 (p,2n)		MT107 (p, α) >>



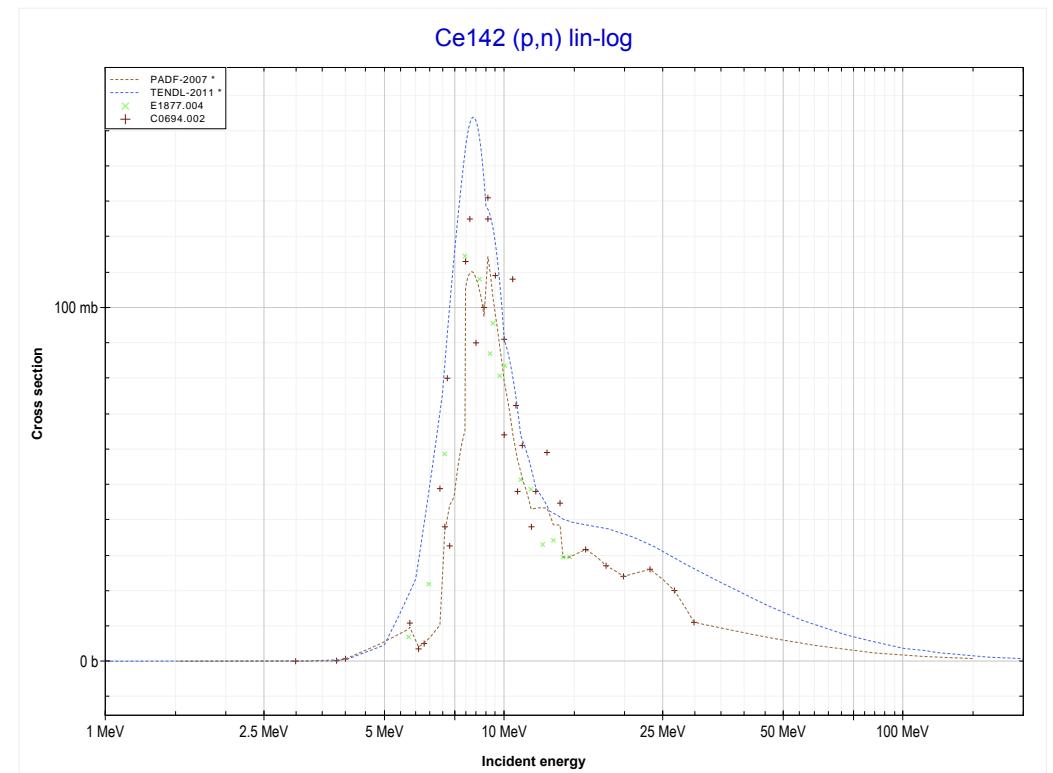
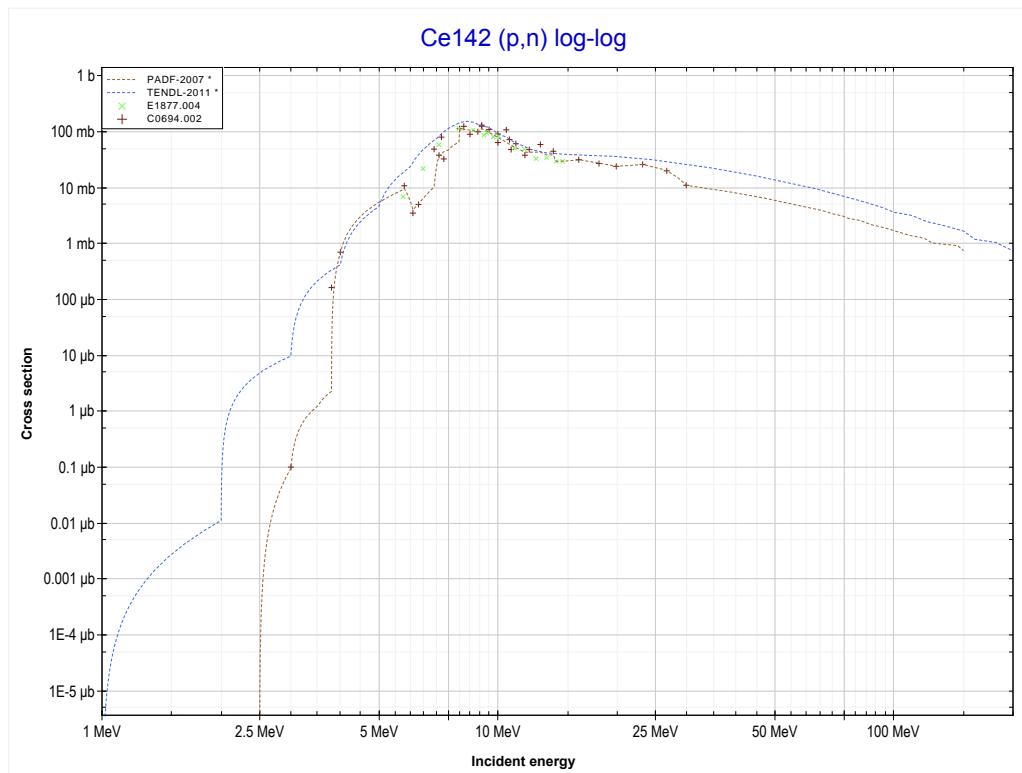
Reaction	Q-Value
Ce140(p,3n)Pr138	-21876.28 keV

<< 57-La-139	58-Ce-140 MT107 (p,α) or MT5 (La137 production)	60-Nd-150 >>
<< MT17 ($p,3n$)		MT4 (p,n) >>



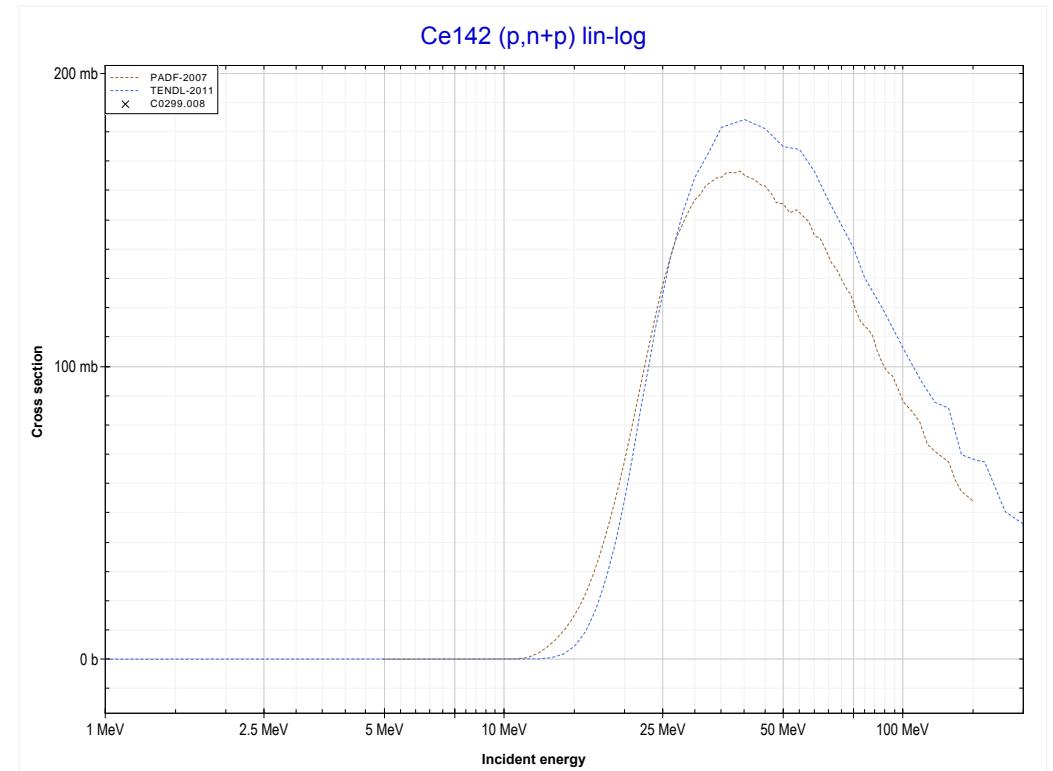
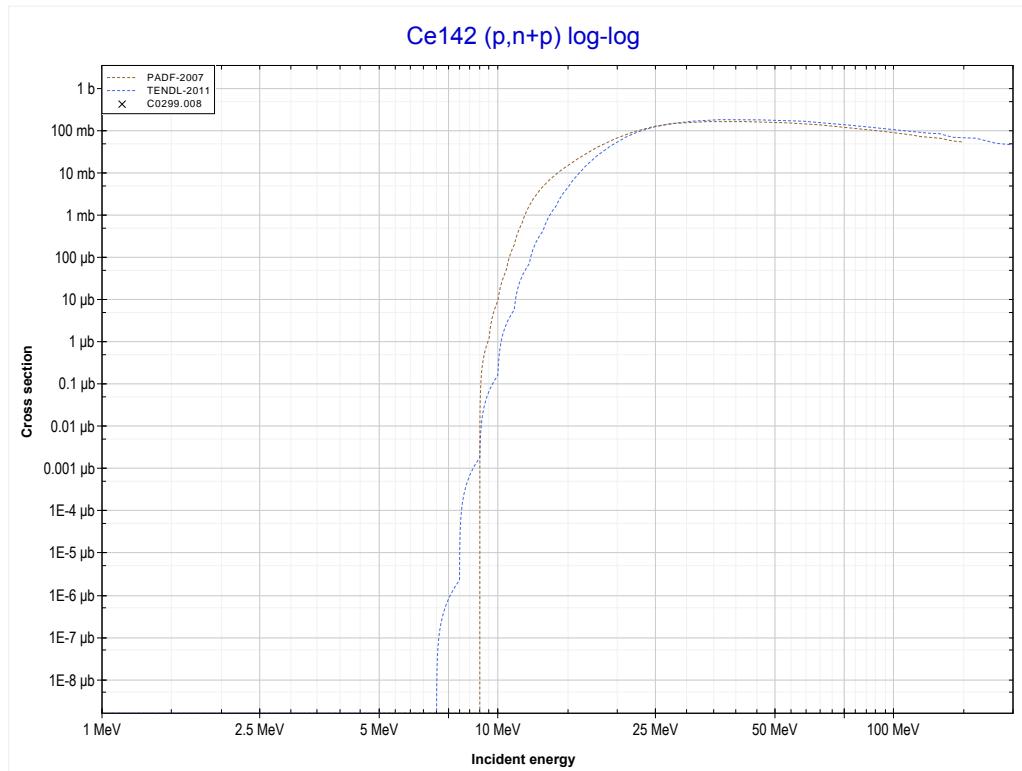
Reaction	Q-Value
Ce140(p,α)La137	3881.75 keV
Ce140($p,p+t$)La137	-15932.11 keV
Ce140($p,n+He3$)La137	-16695.86 keV
Ce140($p,2d$)La137	-19964.77 keV
Ce140($p,n+p+d$)La137	-22189.34 keV
Ce140($p,2n+2p$)La137	-24413.90 keV

<< 58-Ce-140	58-Ce-142 MT4 (p,n) or MT5 (Pr142 production)	>> 59-Pr-141
<< MT107 (p, α)		>> MT28 (p,n+p) >>



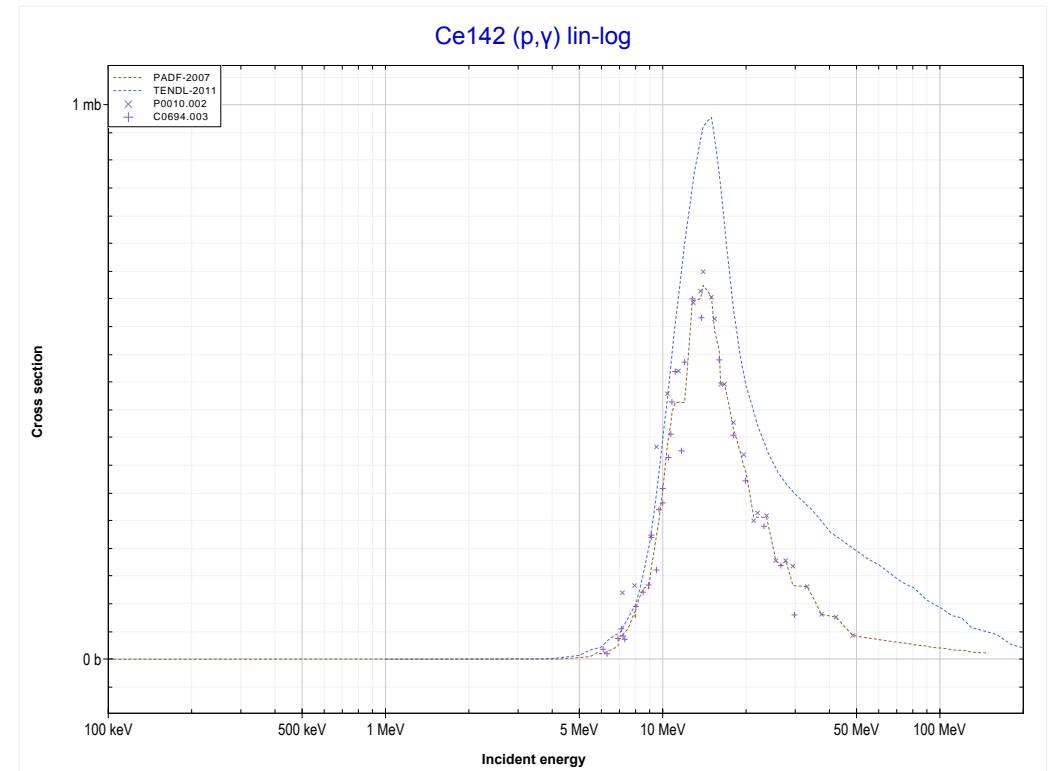
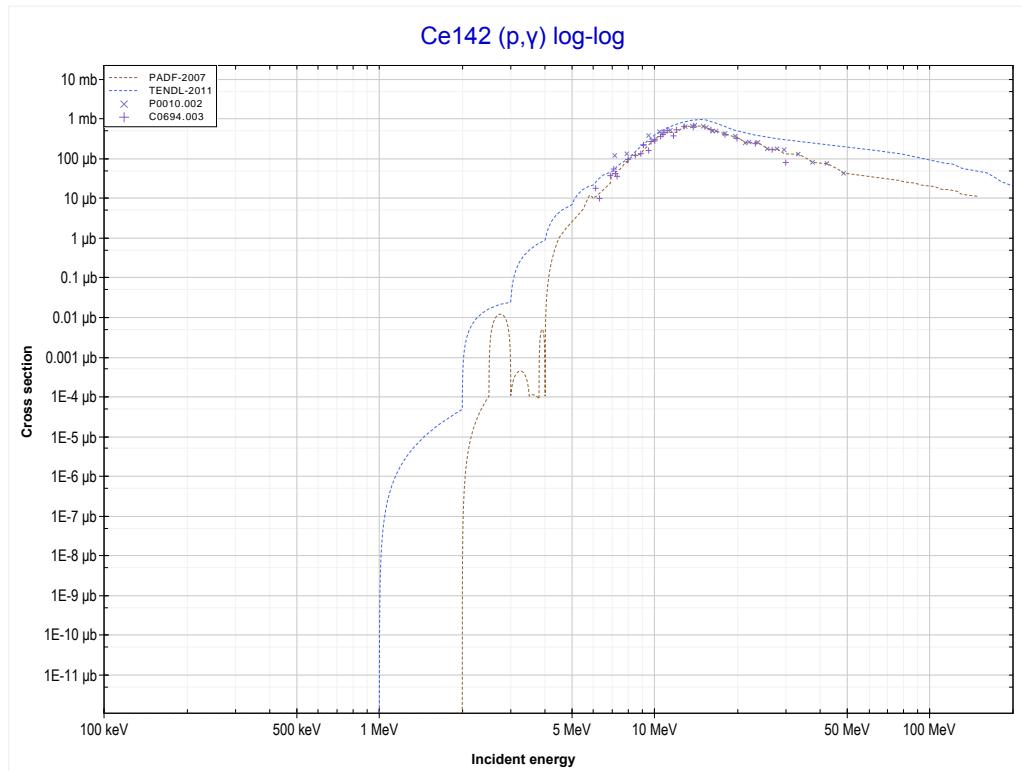
Reaction	Q-Value
Ce142(p,n)Pr142	-1528.15 keV

<< 55-Cs-133	58-Ce-142 MT28 (p,n+p) or MT5 (Ce141 production)	73-Ta-181 >>
<< MT4 (p,n)		MT102 (p,y) >>



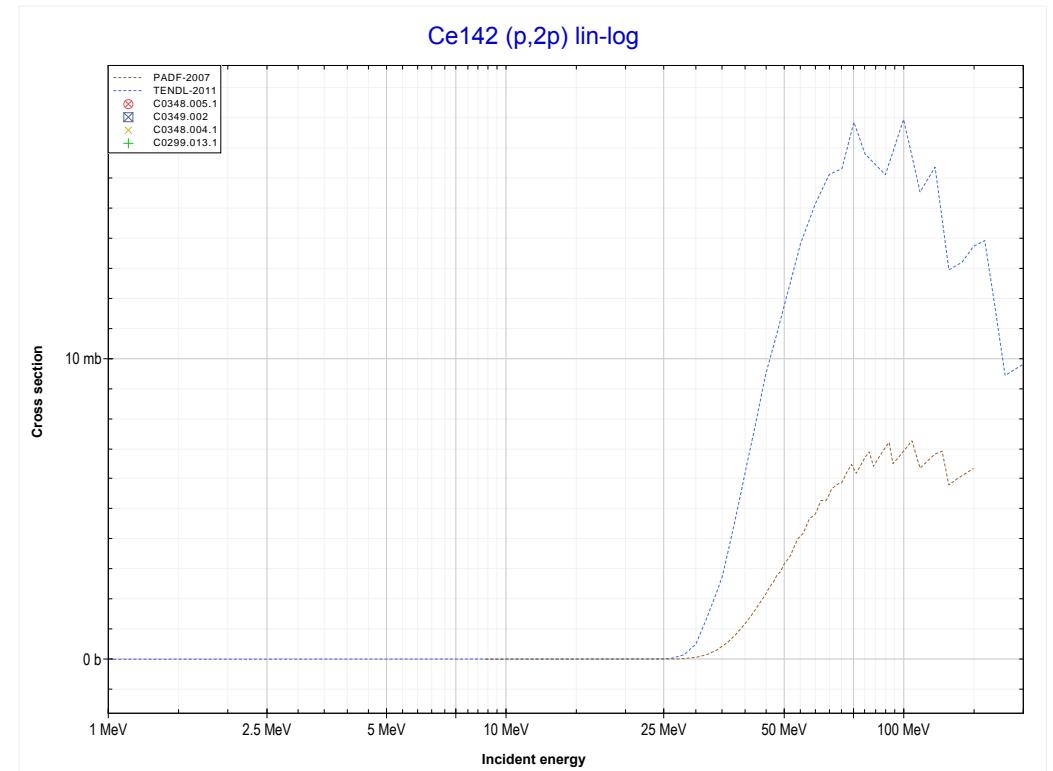
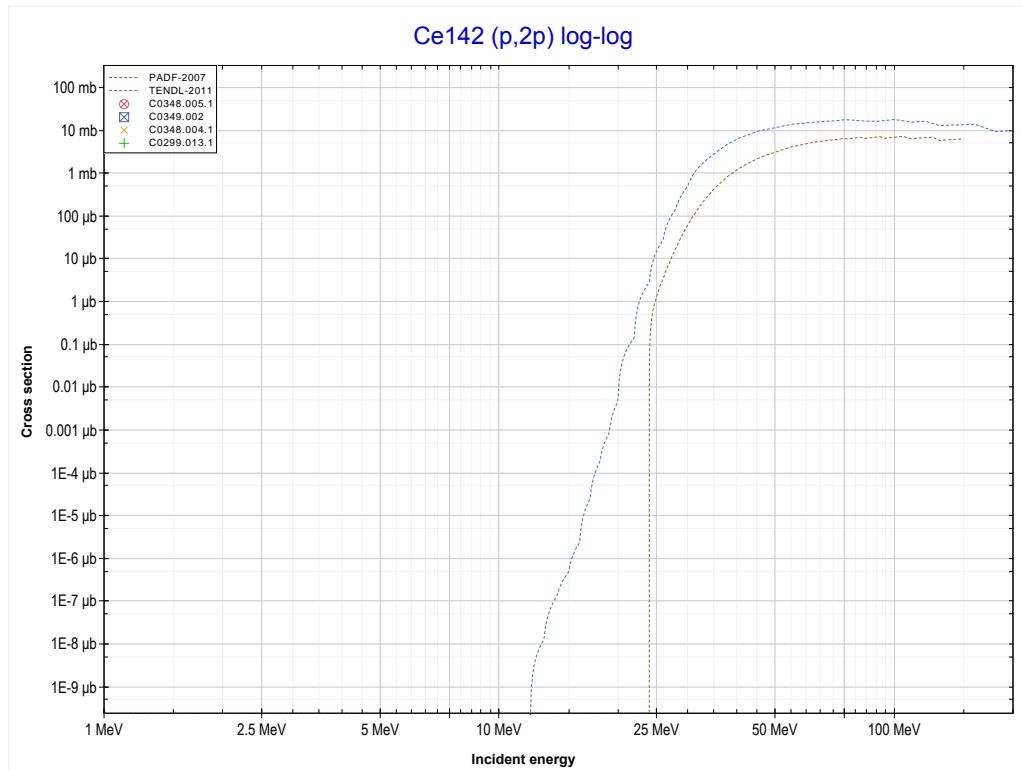
Reaction	Q-Value
Ce142(p,d)Ce141	-4945.15 keV
Ce142(p,n+p)Ce141	-7169.72 keV

<< 52-Te-130	58-Ce-142 MT102 (p,γ) or MT5 (Pr143 production)	62-Sm-147 >>
<< MT28 ($p,n+p$)		MT111 ($p,2p$) >>



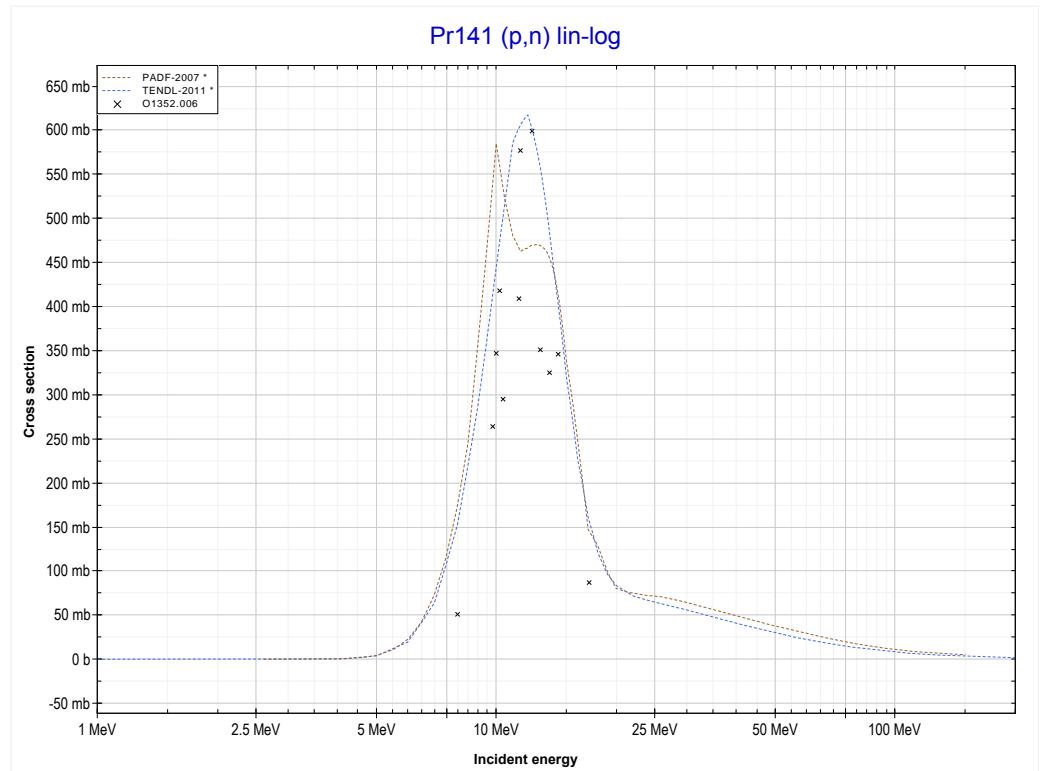
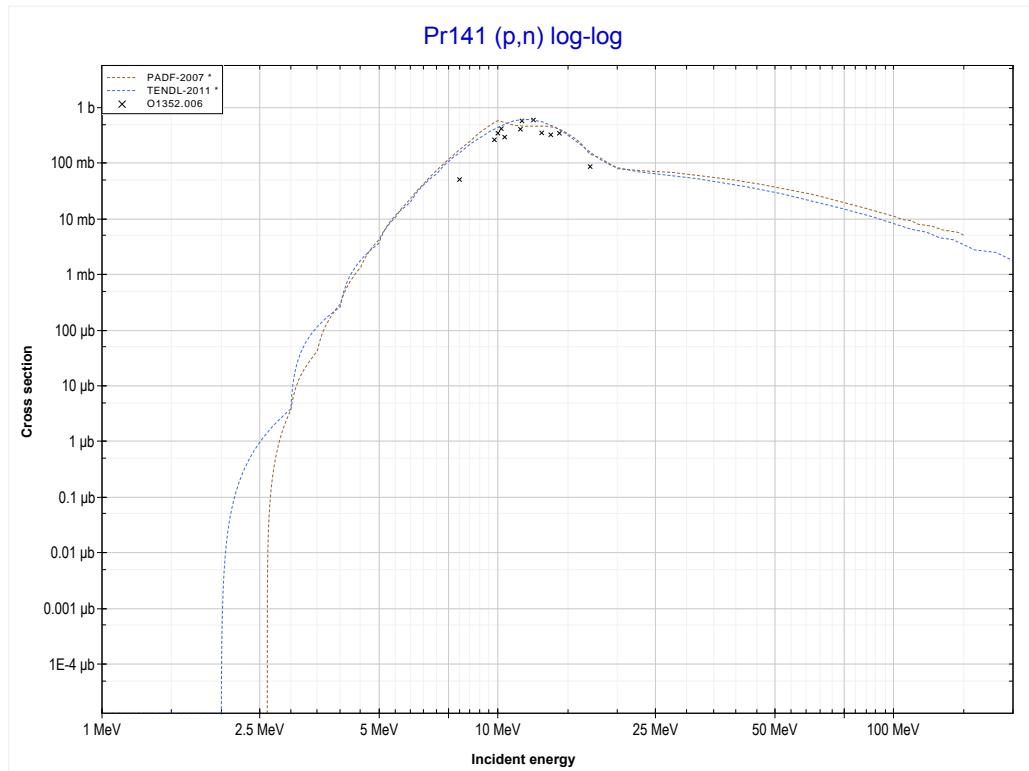
Reaction	Q-Value
Ce142(p,γ)Pr143	5823.97 keV

<< 52-Te-130	58-Ce-142 MT111 (p,2p) or MT5 (La141 production)	74-W-186 >>
<< MT102 (p, γ)		MT4 (p,n) >>



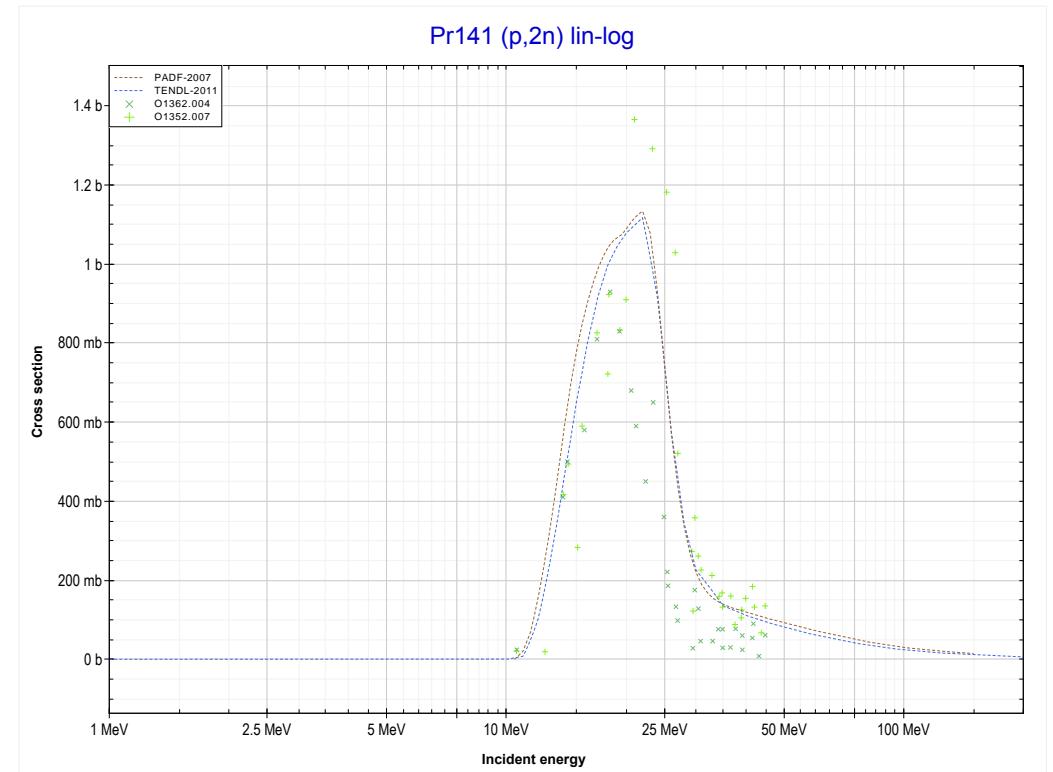
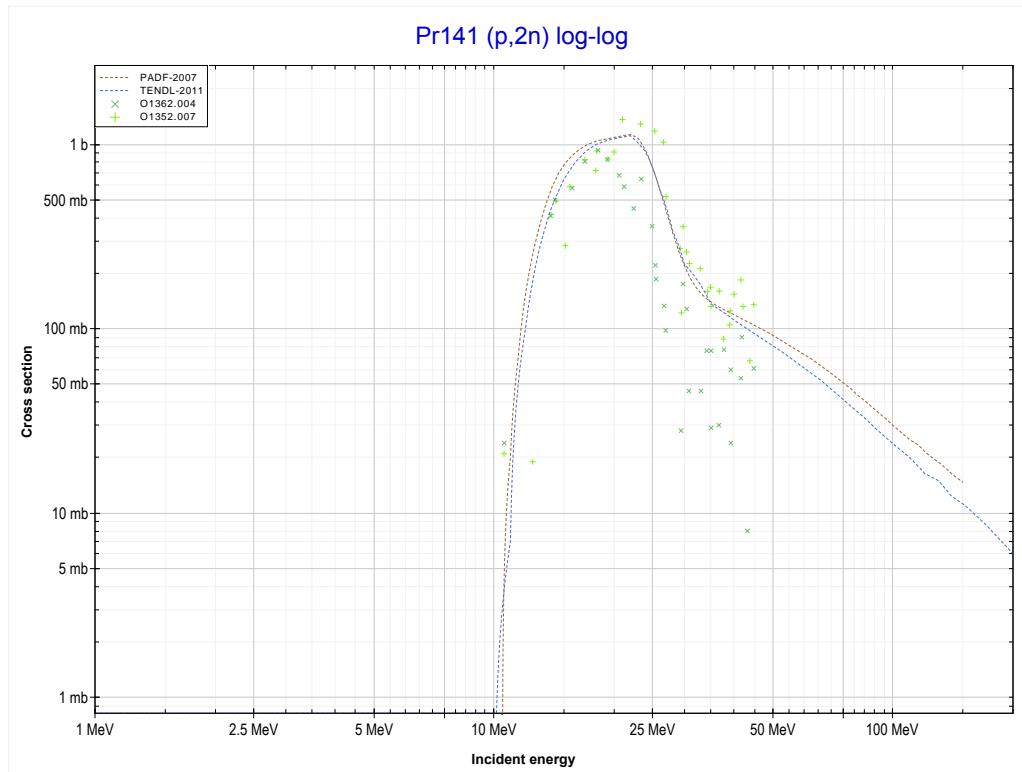
Reaction	Q-Value
Ce142(p,2p)La141	-8889.47 keV

<< 58-Ce-142	59-Pr-141 MT4 (p,n) or MT5 (Nd141 production)	>> 60-Nd-148
<< MT111 (p,2p)		MT16 (p,2n) >>



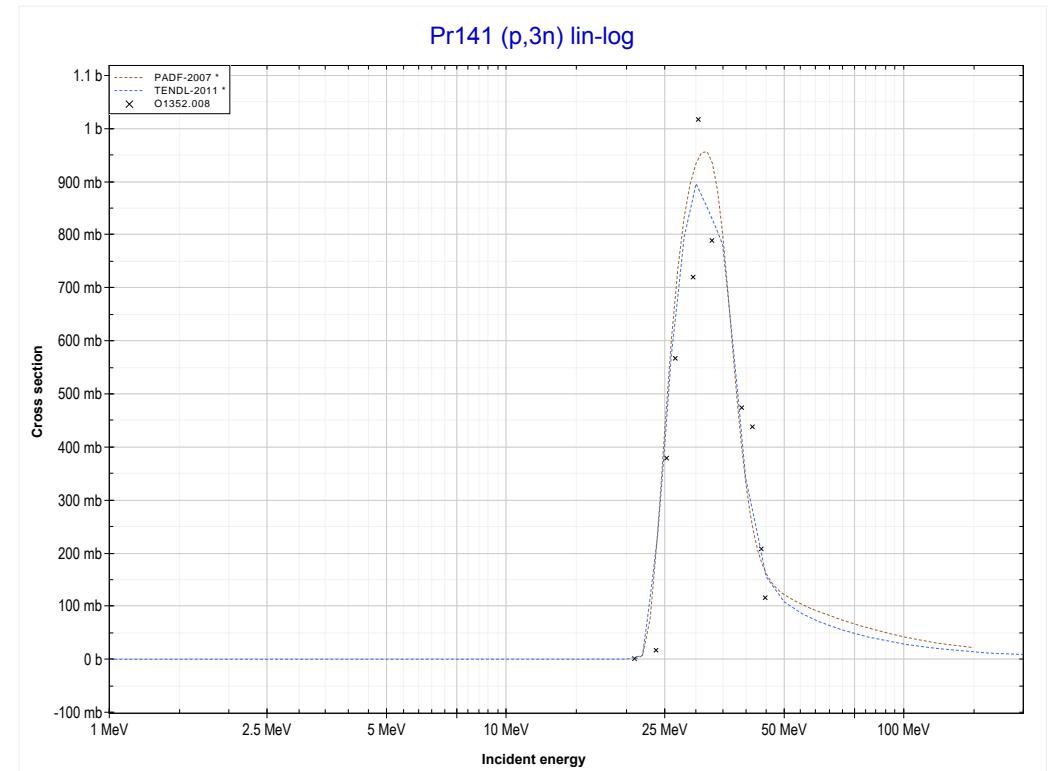
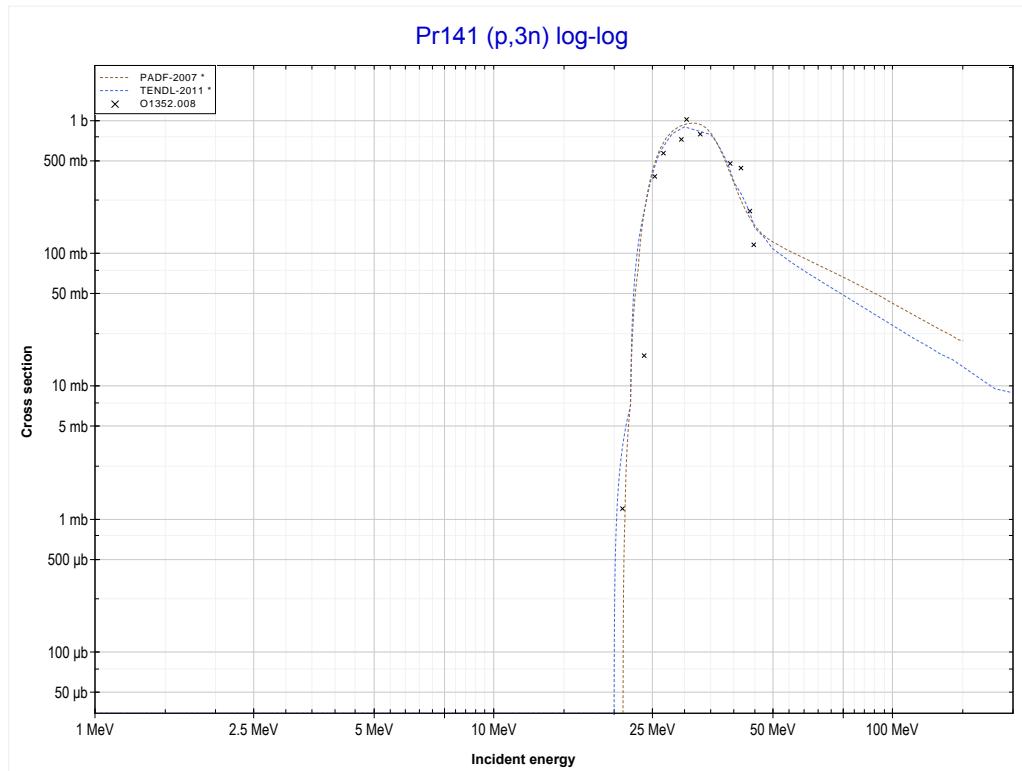
Reaction	Q-Value
Pr141(p,n)Nd141	-2605.25 keV

<< 58-Ce-140	59-Pr-141 MT16 (p,2n) or MT5 (Nd140 production)	62-Sm-147 >>
<< MT4 (p,n)		MT17 (p,3n) >>



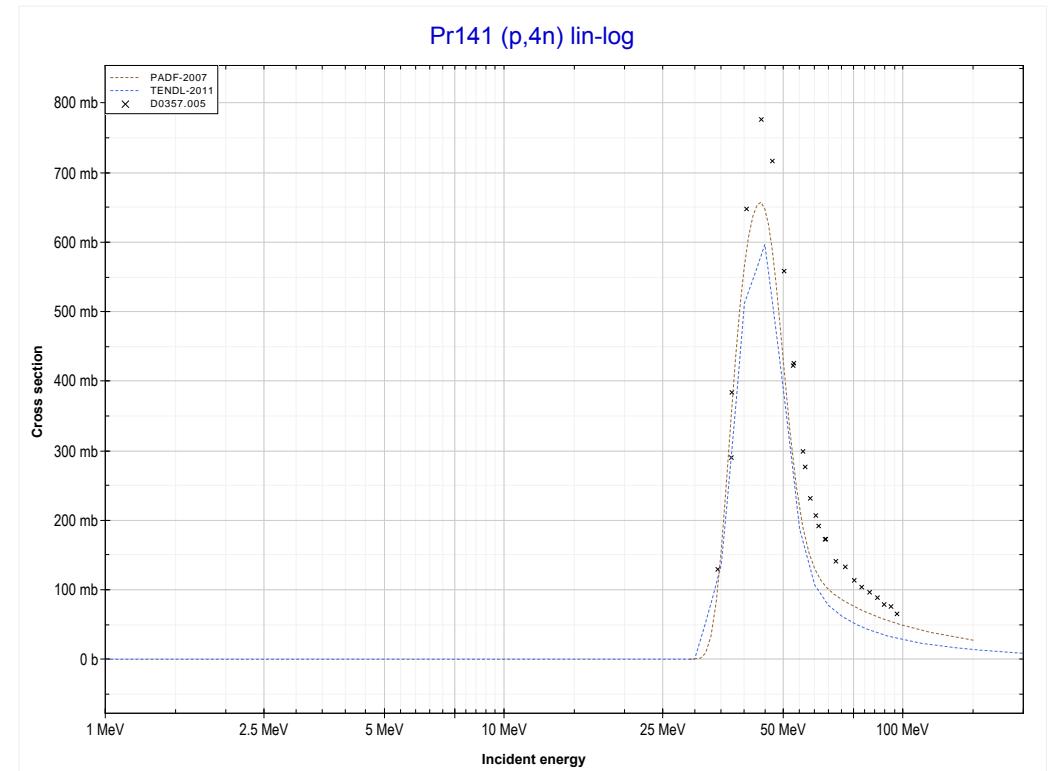
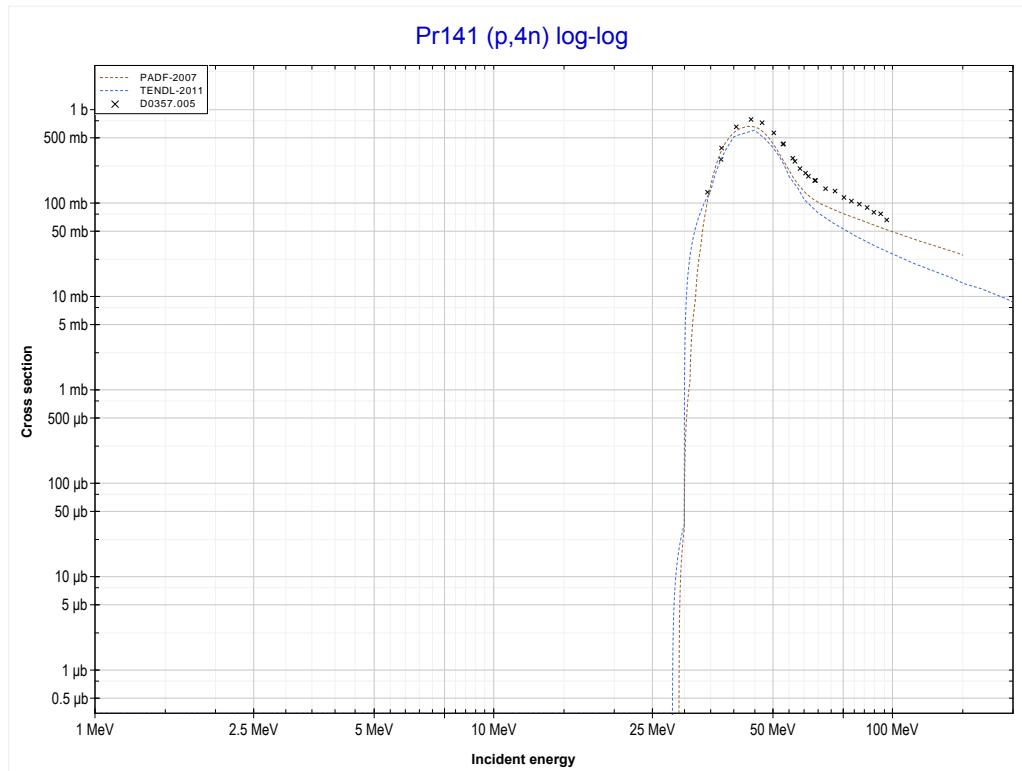
Reaction	Q-Value
Pr141(p,2n)Nd140	-10622.56 keV

<< 58-Ce-140	59-Pr-141 MT17 (p,3n) or MT5 (Nd139 production)	63-Eu-151 >>
<< MT16 (p,2n)		MT37 (p,4n) >>



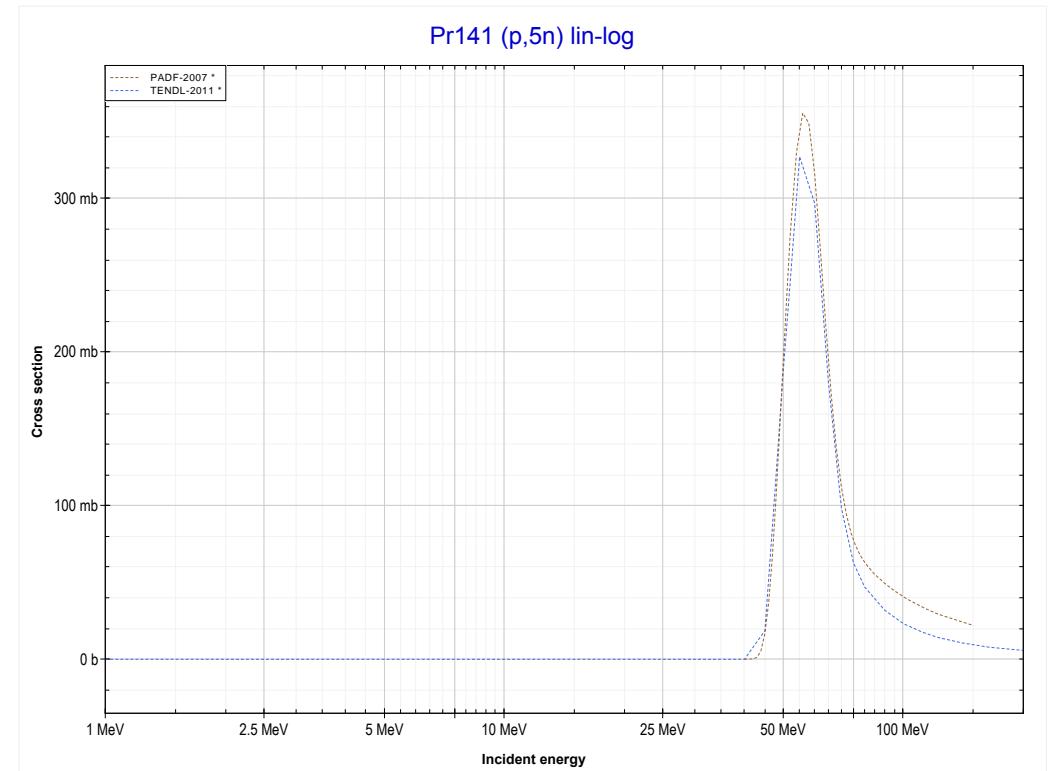
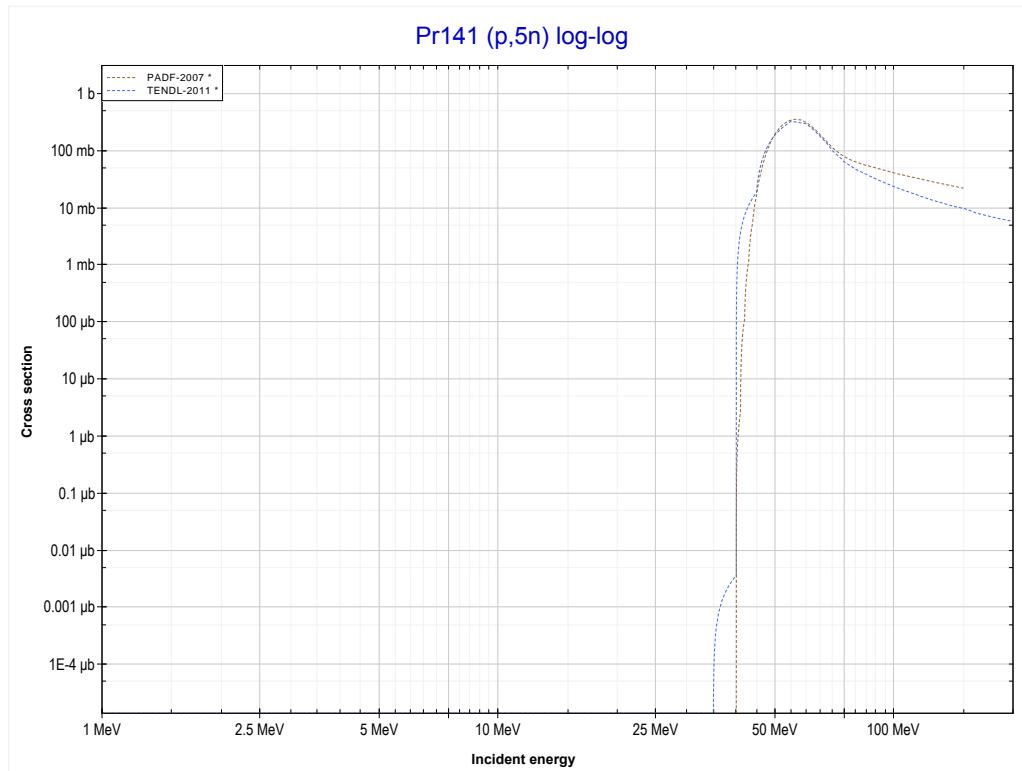
Reaction	Q-Value
Pr141(p,3n)Nd139	-20953.88 keV

<< 52-Te-126	59-Pr-141 MT37 (p,4n) or MT5 (Nd138 production)	69-Tm-169 >>
<< MT17 (p,3n)		MT152 (p,5n) >>



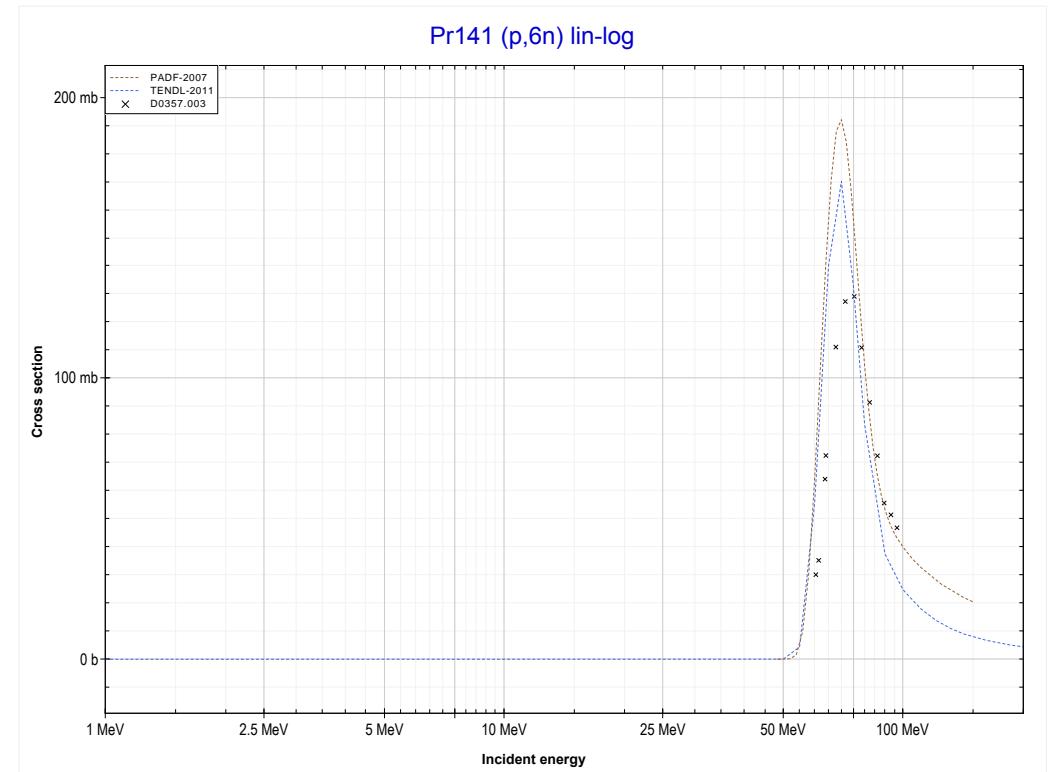
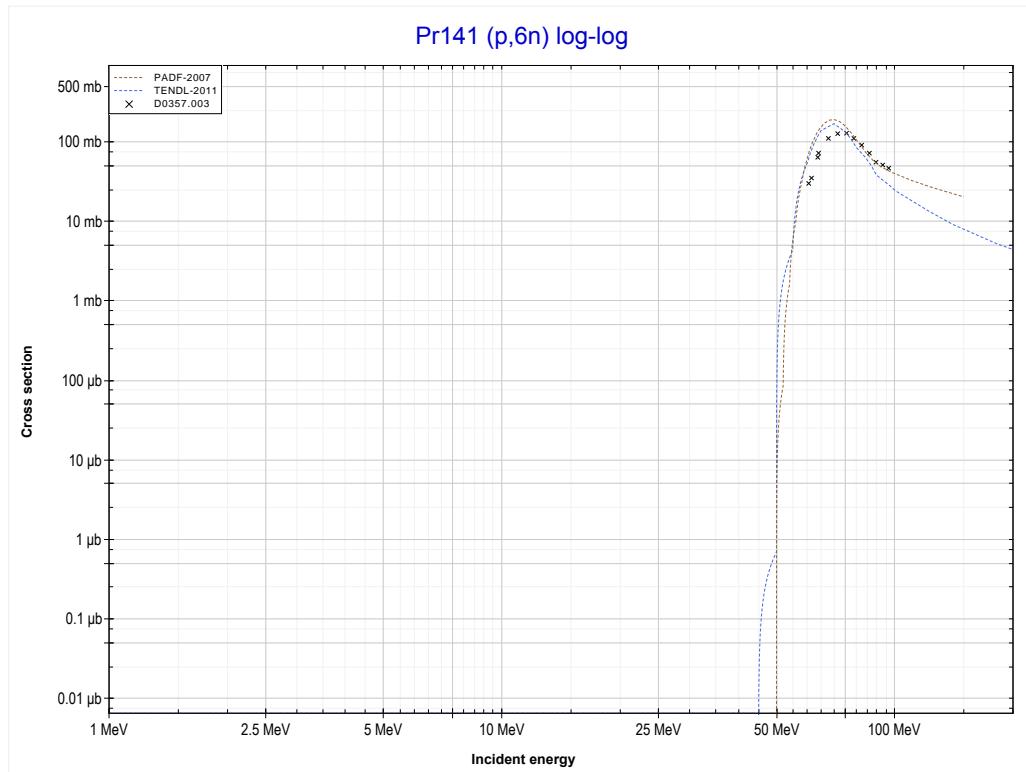
Reaction	Q-Value
Pr141(p,4n)Nd138	-28999.20 keV

<< 55-Cs-133	59-Pr-141 MT152 (p,5n) or MT5 (Nd137 production)	>> 73-Ta-181
<< MT37 (p,4n)		>> MT153 (p,6n) >>



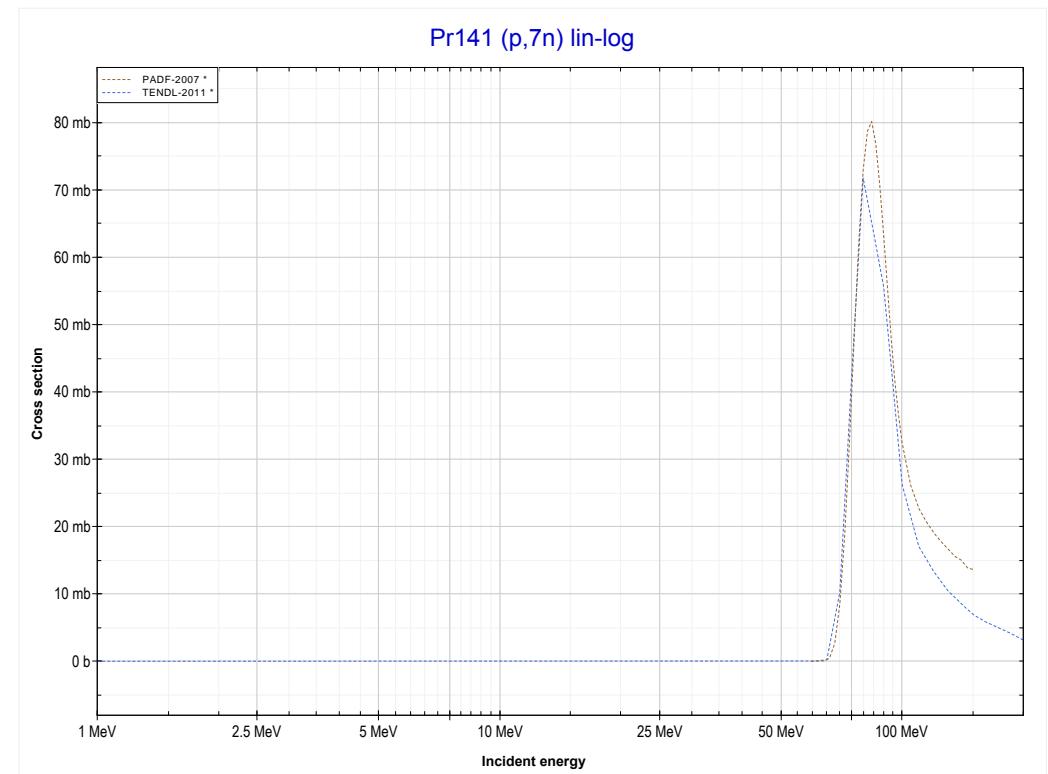
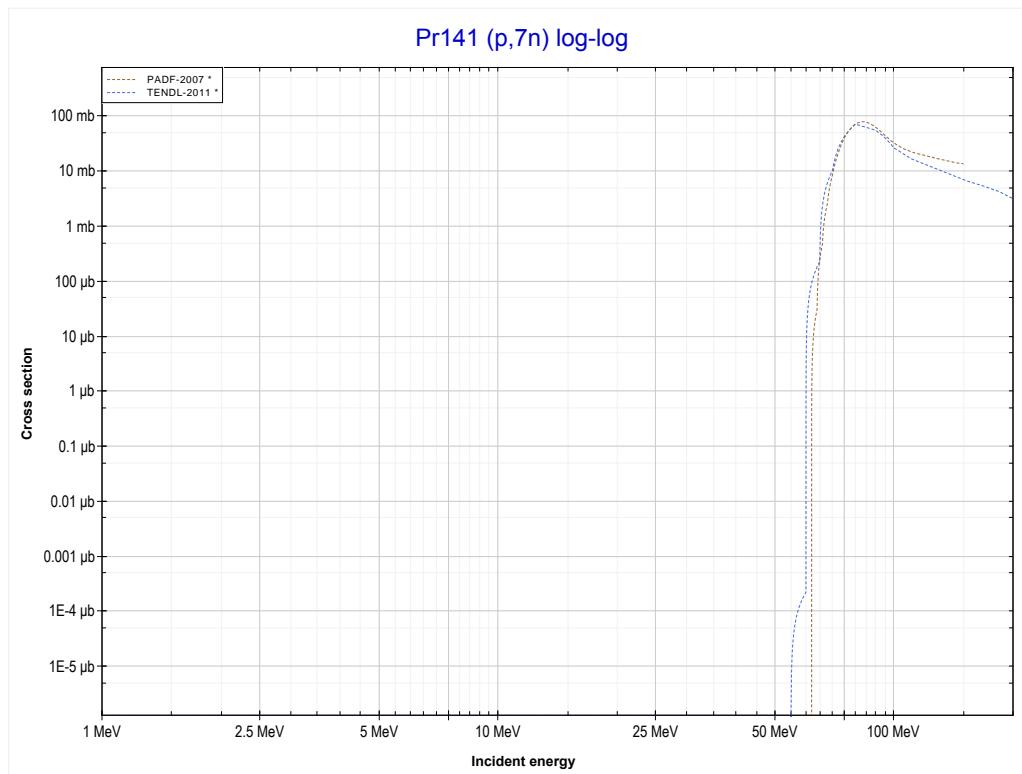
Reaction	Q-Value
Pr141(p,5n)Nd137	-39508.51 keV

<< 55-Cs-133	59-Pr-141 MT153 (p,6n) or MT5 (Nd136 production)	76-Os-192 >>
<< MT152 (p,5n)		MT160 (p,7n) >>



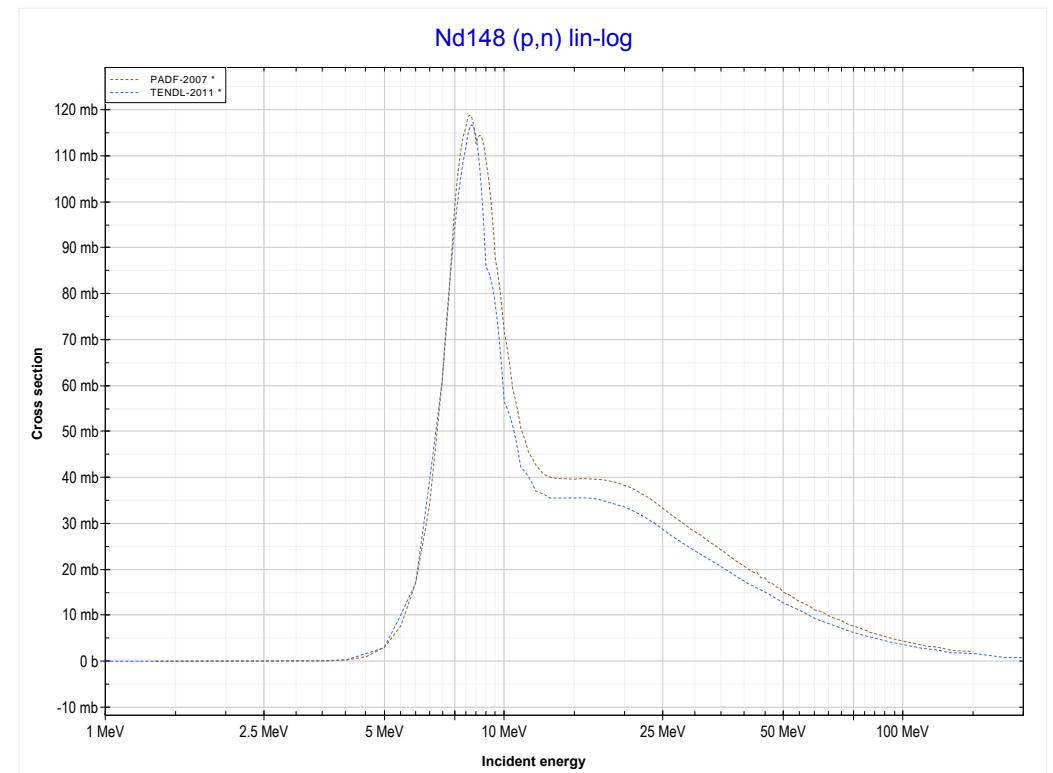
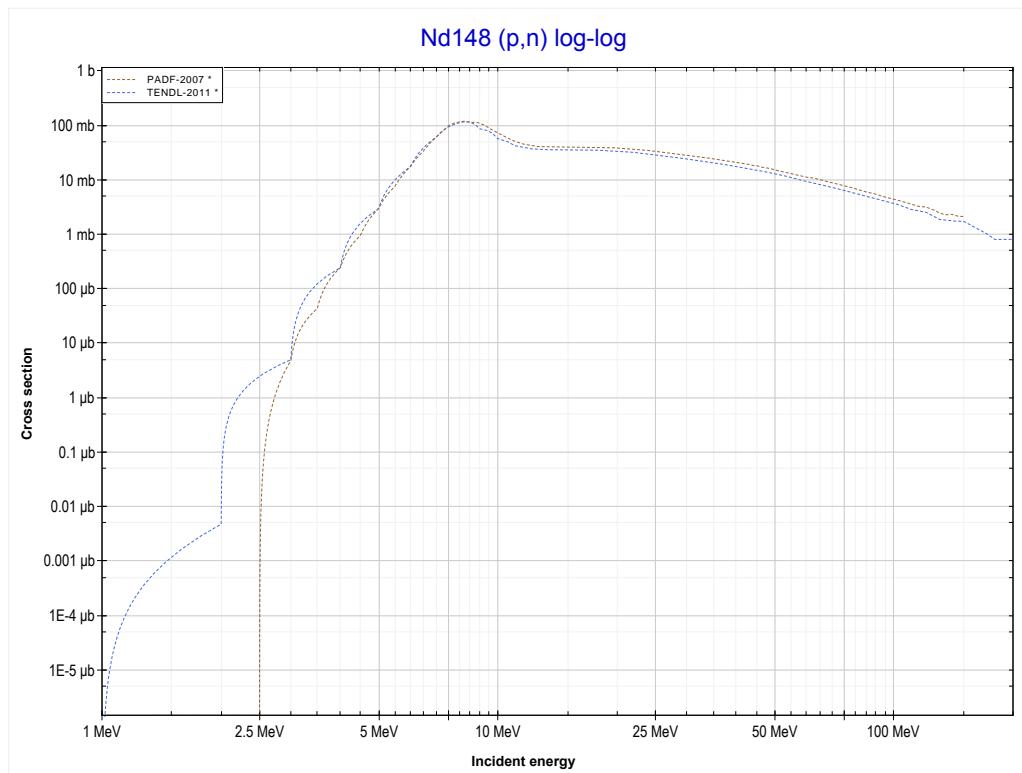
Reaction	Q-Value
Pr141(p,6n)Nd136	-47960.83 keV

<< 53-I-127	59-Pr-141 MT160 (p,7n) or MT5 (Nd135 production)	>> 76-Os-192
<< MT153 (p,6n)		MT4 (p,n) >>



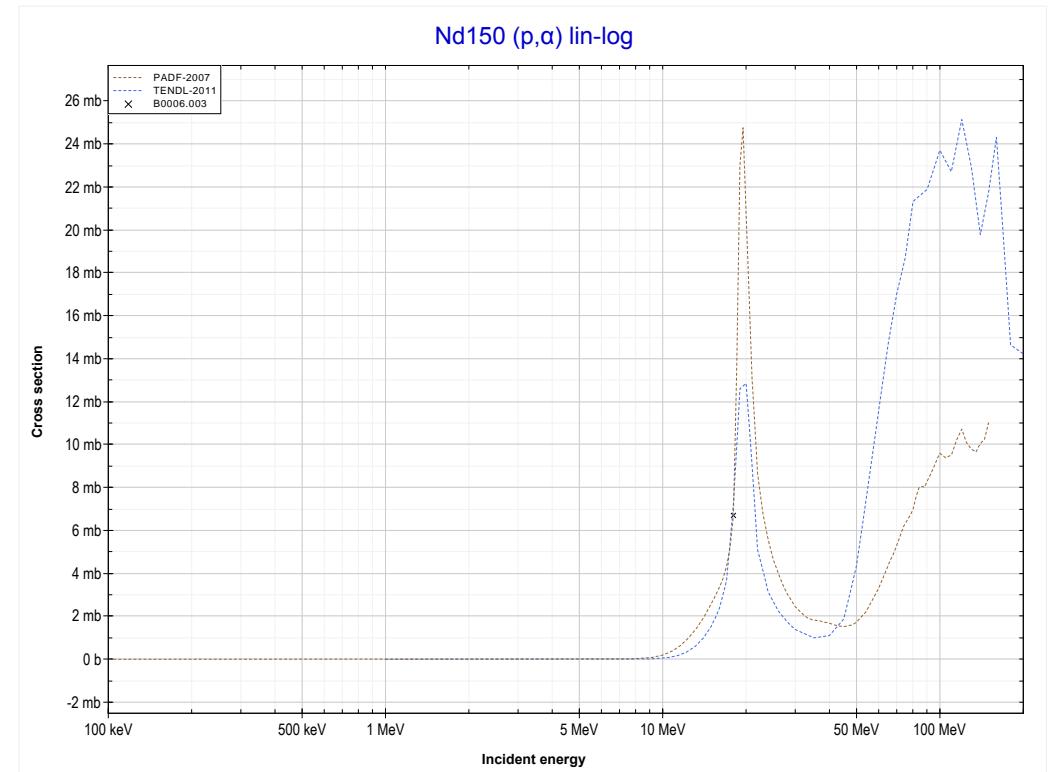
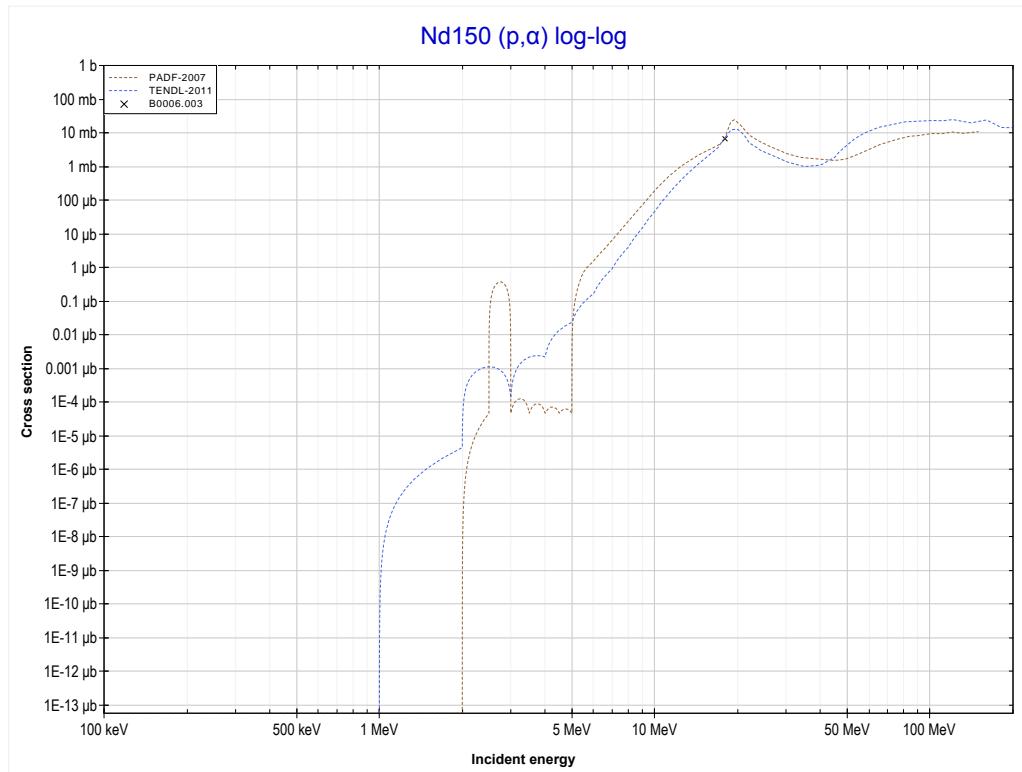
Reaction	Q-Value
Pr141(p,7n)Nd135	-59017.15 keV

<< 59-Pr-141	60-Nd-148 MT4 (p,n) or MT5 (Pm148 production)	62-Sm-147 >>
<< MT160 (p,7n)		MT107 (p, α) >>



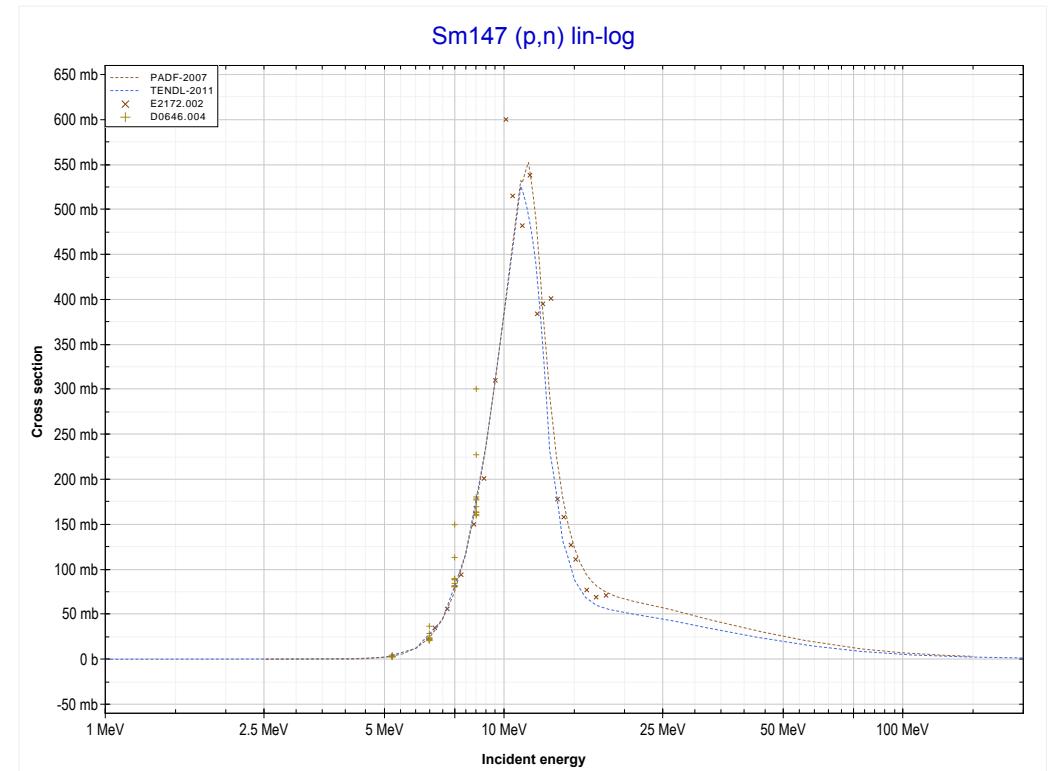
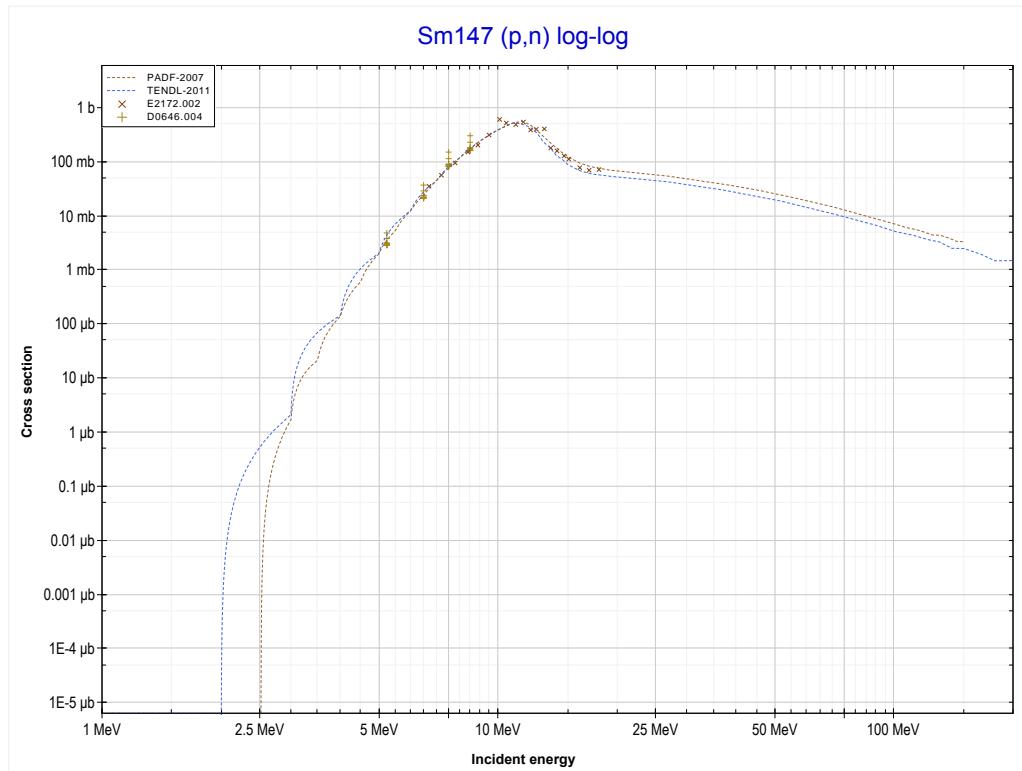
Reaction	Q-Value
Nd148(p,n)Pm148	-1323.75 keV

<< 58-Ce-140	60-Nd-150 MT107 (p,α) or MT5 (Pr147 production)	>> 62-Sm-147
<< MT4 (p,n)		MT4 (p,n) >>



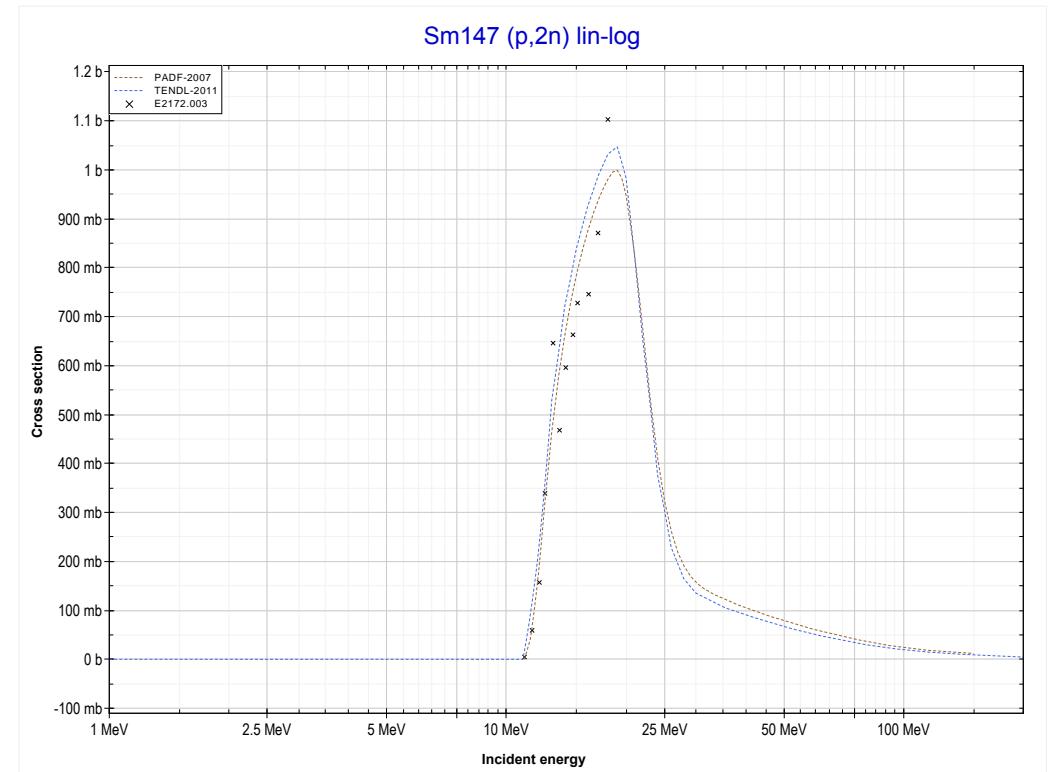
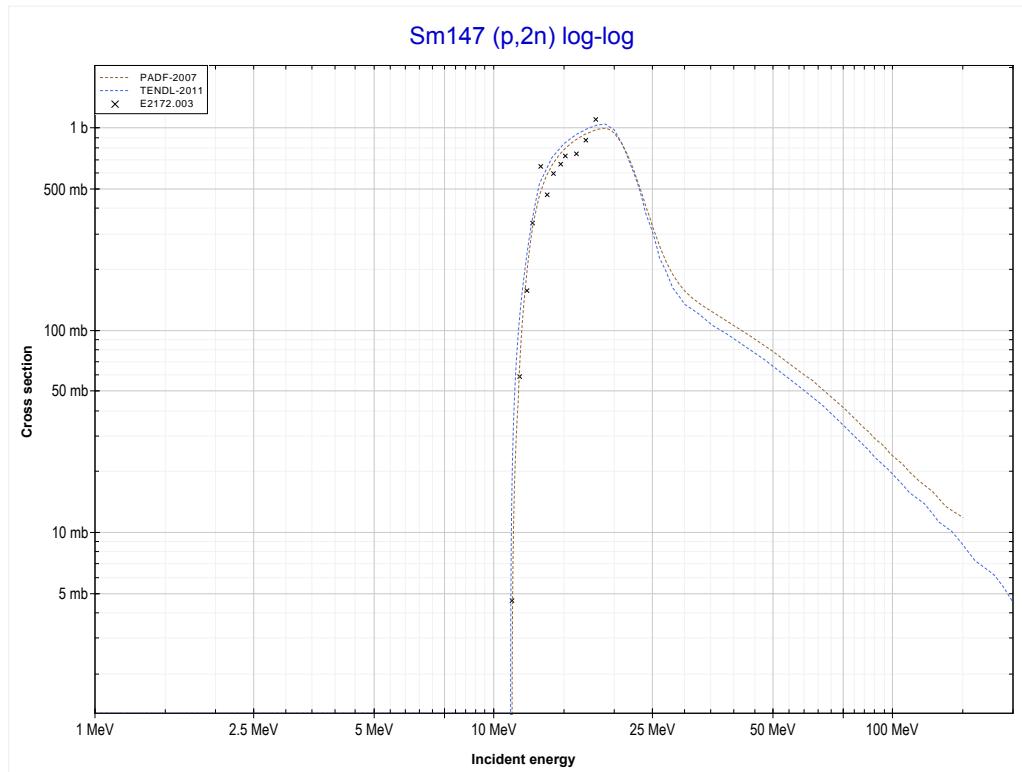
Reaction	Q-Value
Nd150(p,α)Pr147	6629.05 keV
Nd150($p,p+t$)Pr147	-13184.81 keV
Nd150($p,n+He3$)Pr147	-13948.56 keV
Nd150($p,2d$)Pr147	-17217.47 keV
Nd150($p,n+p+d$)Pr147	-19442.04 keV
Nd150($p,2n+2p$)Pr147	-21666.60 keV

<< 60-Nd-148	62-Sm-147 MT4 (p,n) or MT5 (Eu147 production)	62-Sm-148 >>
<< MT107 (p, α)		MT16 (p,2n) >>



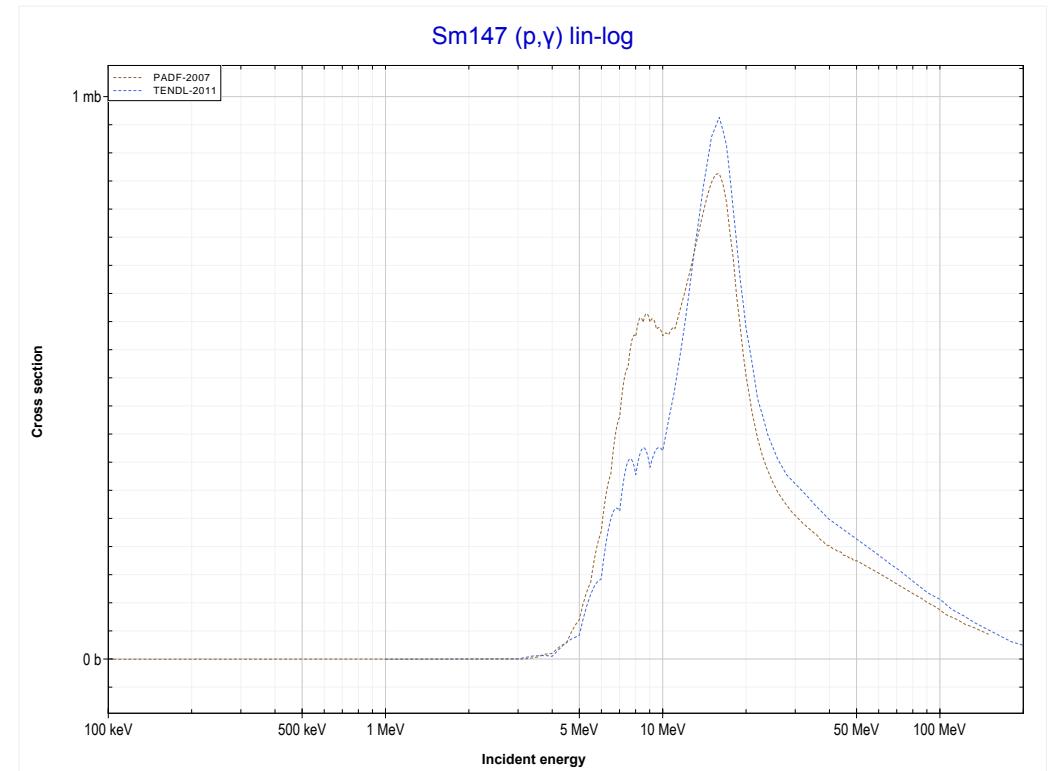
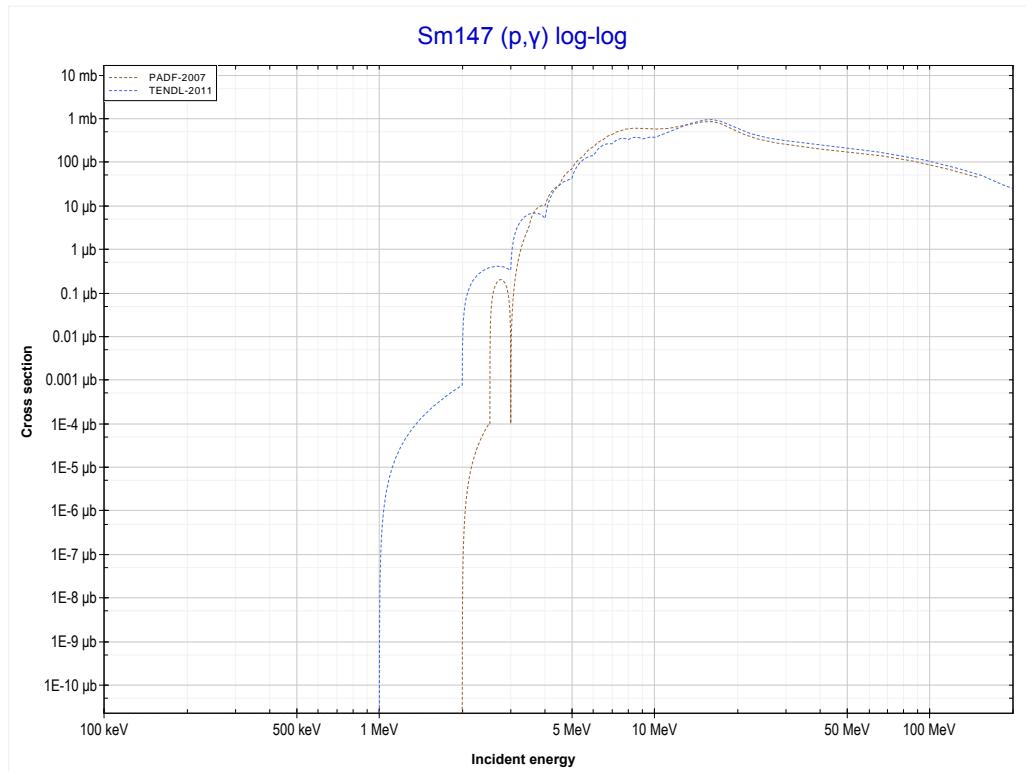
Reaction	Q-Value
Sm147(p,n)Eu147	-2504.45 keV

<< 59-Pr-141	62-Sm-147 MT16 (p,2n) or MT5 (Eu146 production)	68-Er-166 >>
<< MT4 (p,n)		MT102 (p,y) >>



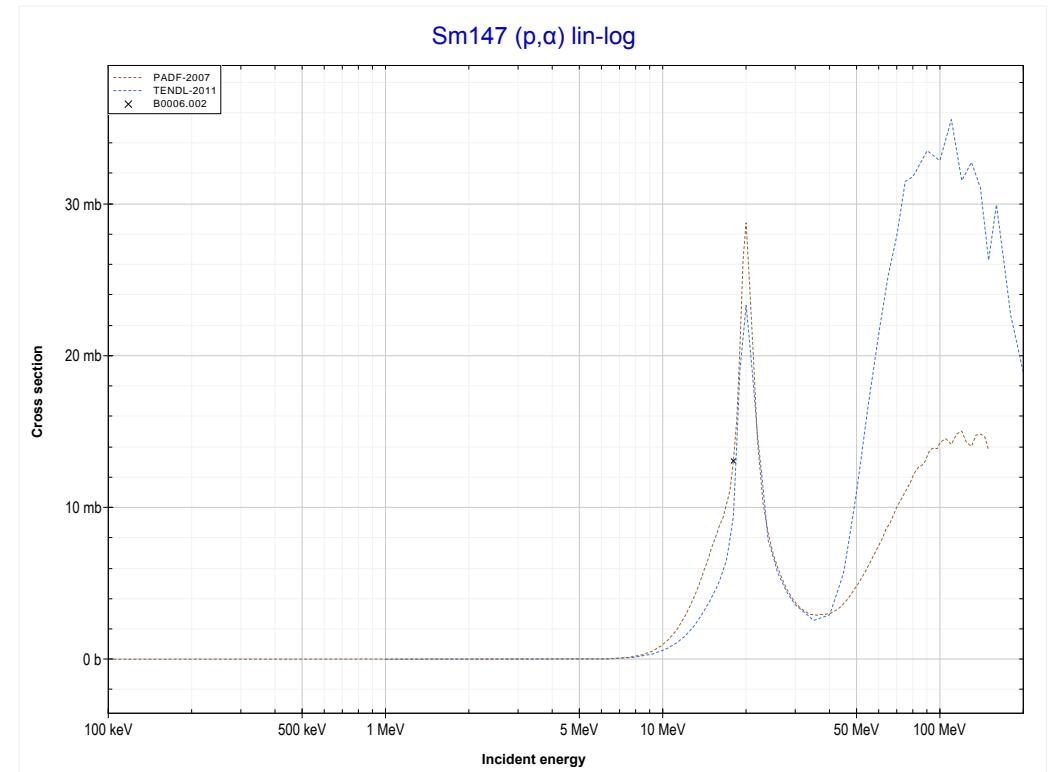
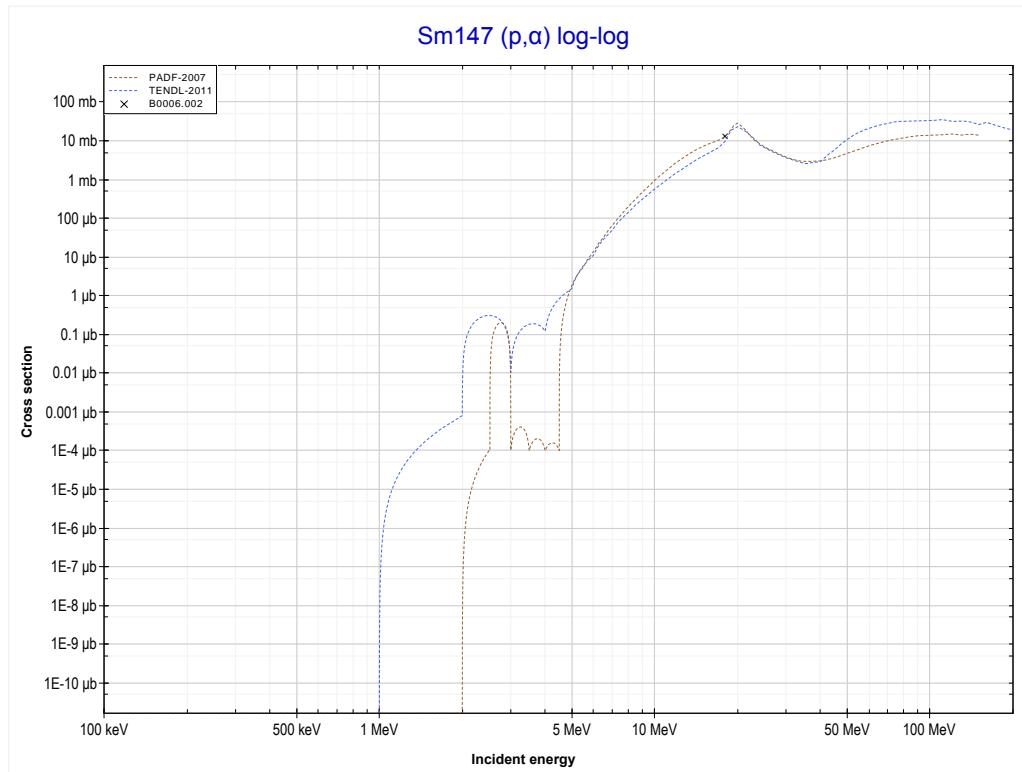
Reaction	Q-Value
Sm147(p,2n)Eu146	-11003.76 keV

<< 58-Ce-142	62-Sm-147 MT102 (p,γ) or MT5 (Eu148 production)	>> 62-Sm-149
<< MT16 (p,2n)		MT107 (p, α) >>



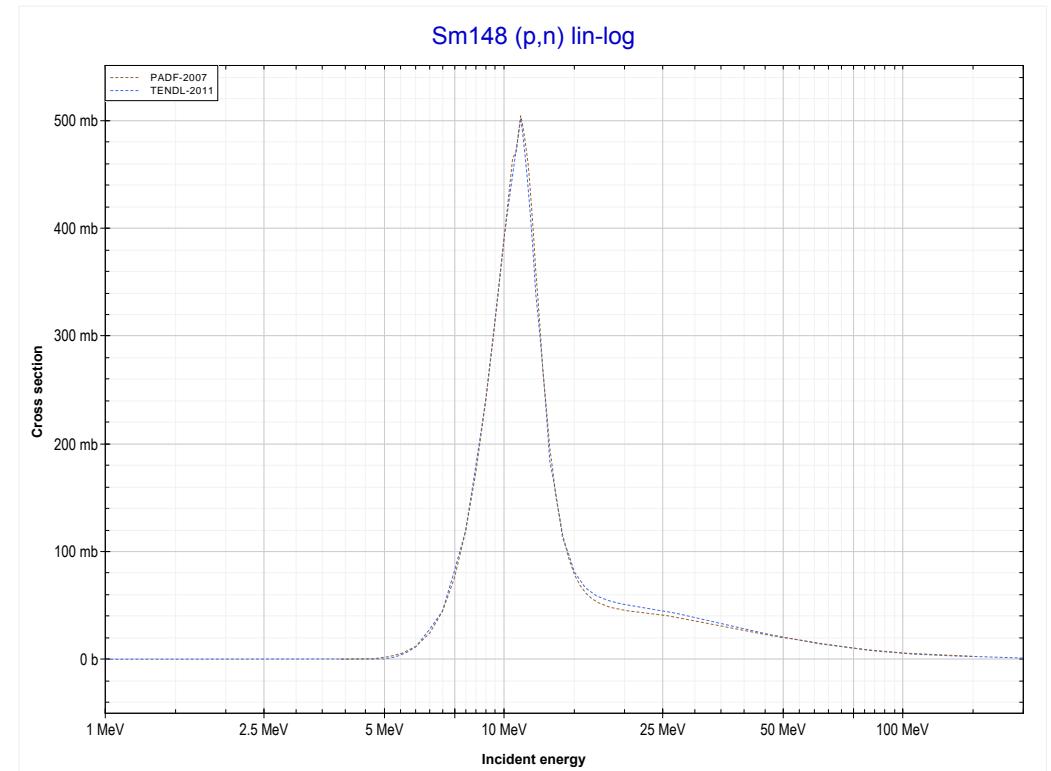
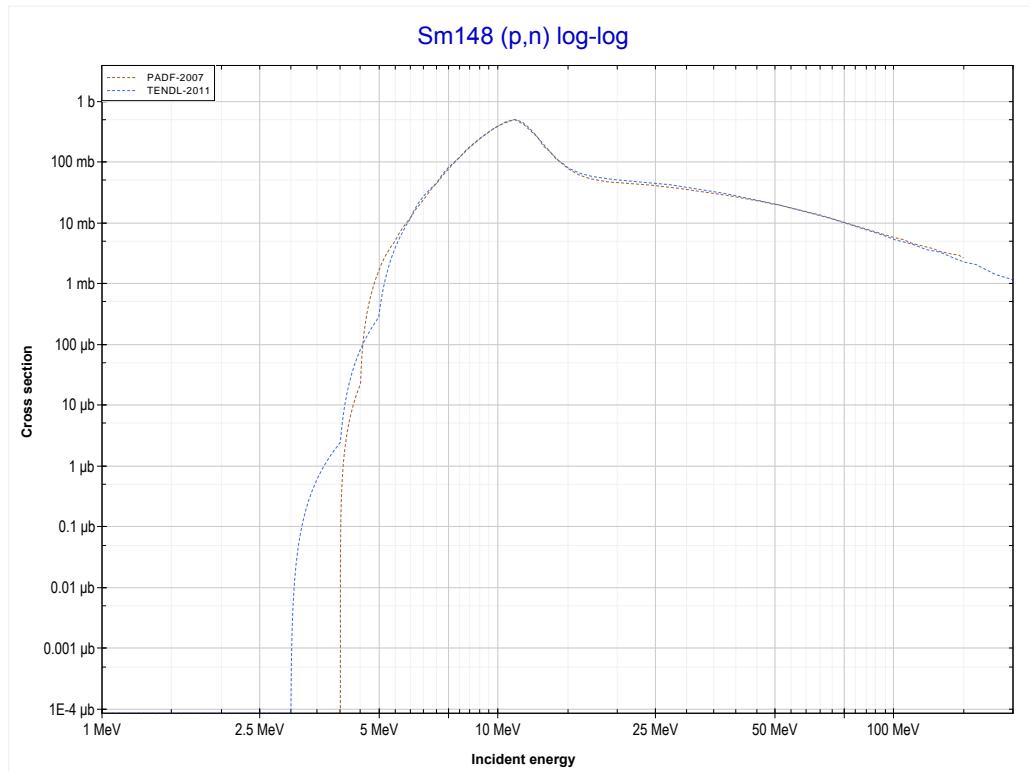
Reaction	Q-Value
Sm147(p, γ)Eu148	4318.87 keV

<< 60-Nd-150	62-Sm-147 MT107 (p,α) or MT5 (Pm144 production)	62-Sm-150 >>
<< MT102 (p,γ)		MT4 (p,n) >>



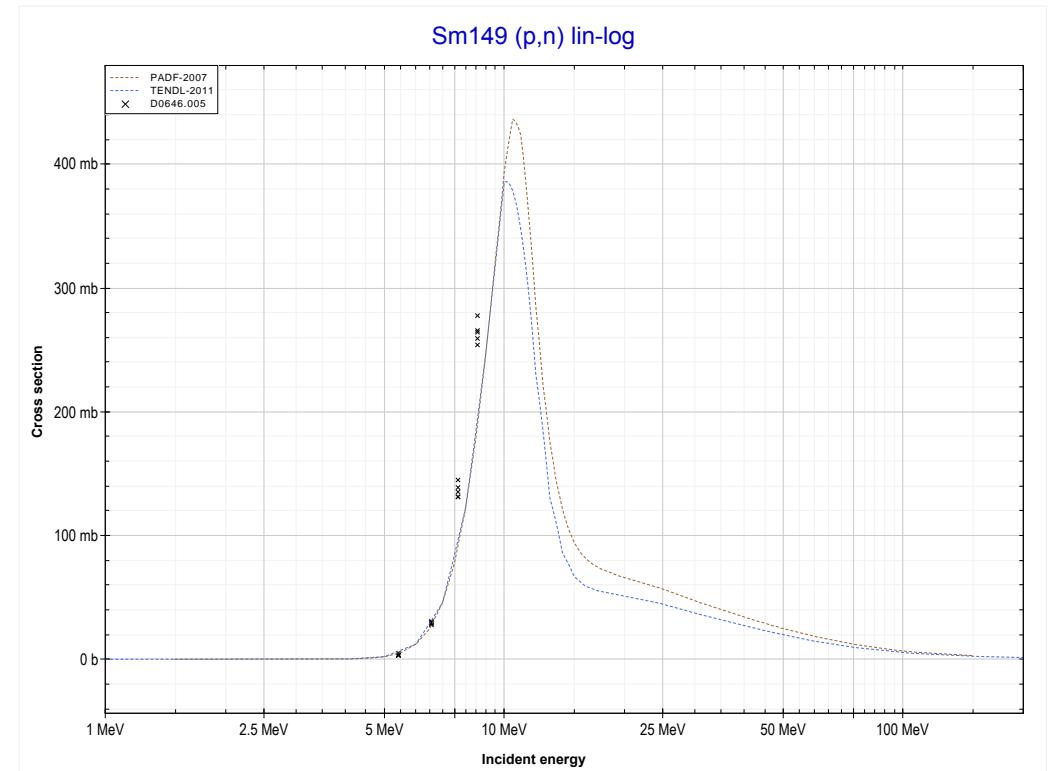
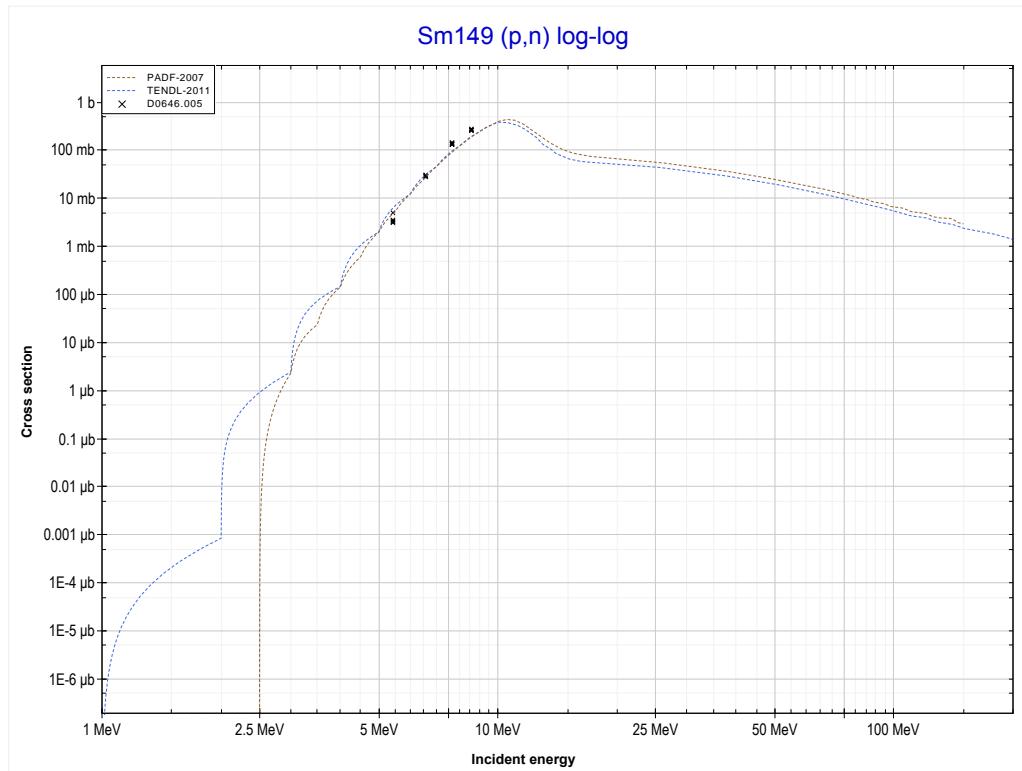
Reaction	Q-Value
$\text{Sm}^{147}(\text{p},\alpha)\text{Pm}^{144}$	7012.95 keV
$\text{Sm}^{147}(\text{p},\text{p}+\text{t})\text{Pm}^{144}$	-12800.91 keV
$\text{Sm}^{147}(\text{p},\text{n}+\text{He}^3)\text{Pm}^{144}$	-13564.66 keV
$\text{Sm}^{147}(\text{p},2\text{d})\text{Pm}^{144}$	-16833.57 keV
$\text{Sm}^{147}(\text{p},\text{n}+\text{p}+\text{d})\text{Pm}^{144}$	-19058.14 keV
$\text{Sm}^{147}(\text{p},2\text{n}+2\text{p})\text{Pm}^{144}$	-21282.70 keV

<< 62-Sm-147	62-Sm-148 MT4 (p,n) or MT5 (Eu148 production)	>> 62-Sm-149
<< MT107 (p, α)		MT4 (p,n) >>



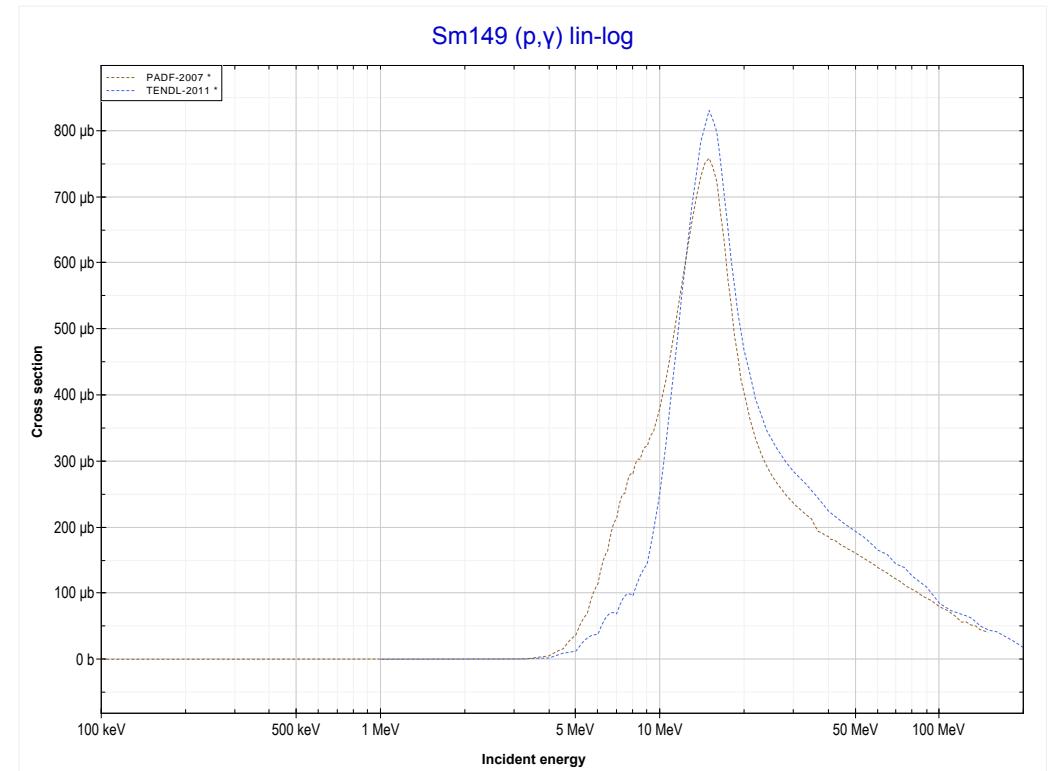
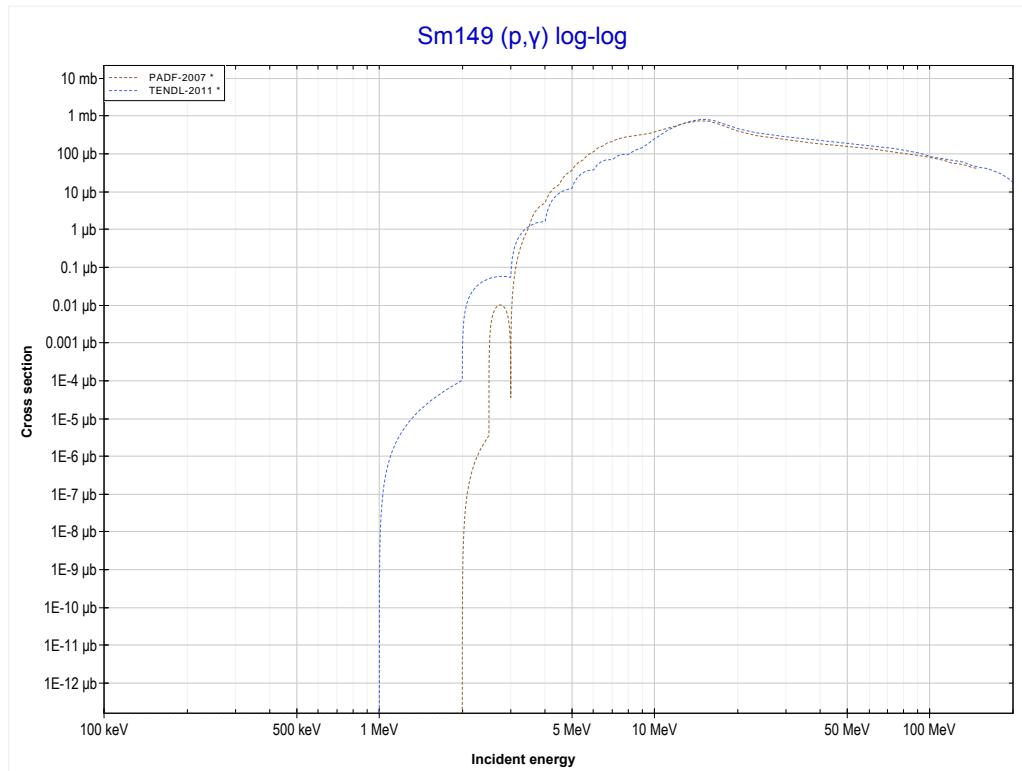
Reaction	Q-Value
Sm148(p,n)Eu148	-3822.55 keV

<< 62-Sm-148	62-Sm-149 MT4 (p,n) or MT5 (Eu149 production)	>> 63-Eu-151
<< MT4 (p,n)		>> MT102 (p,y) >>



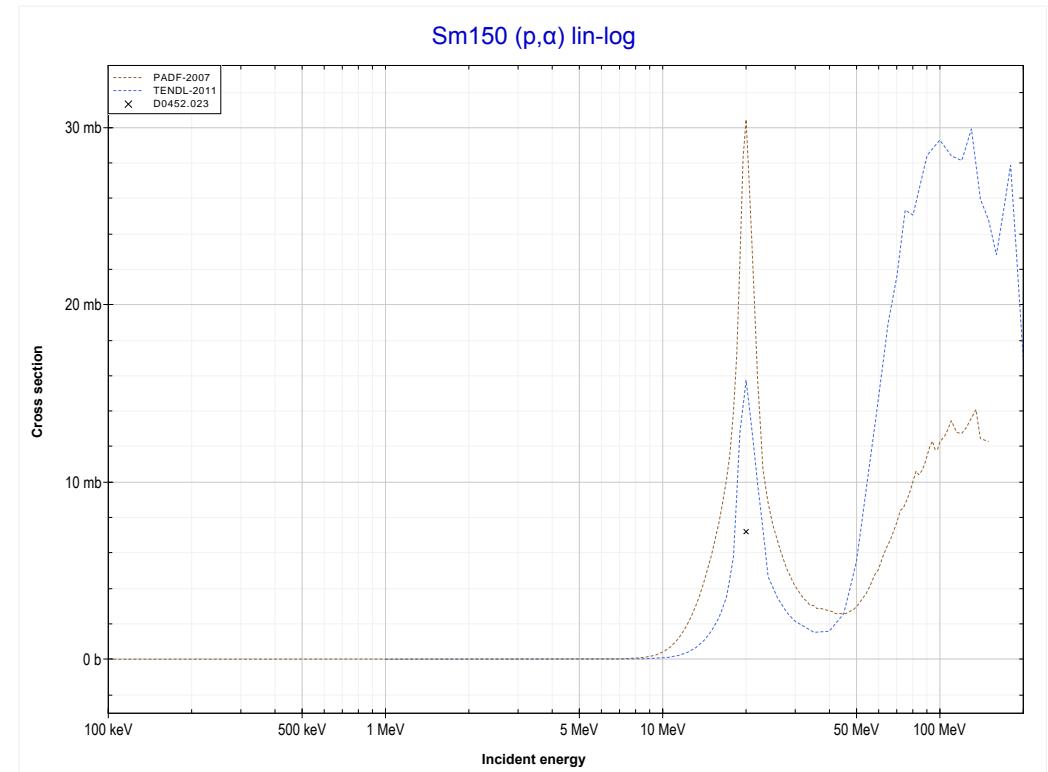
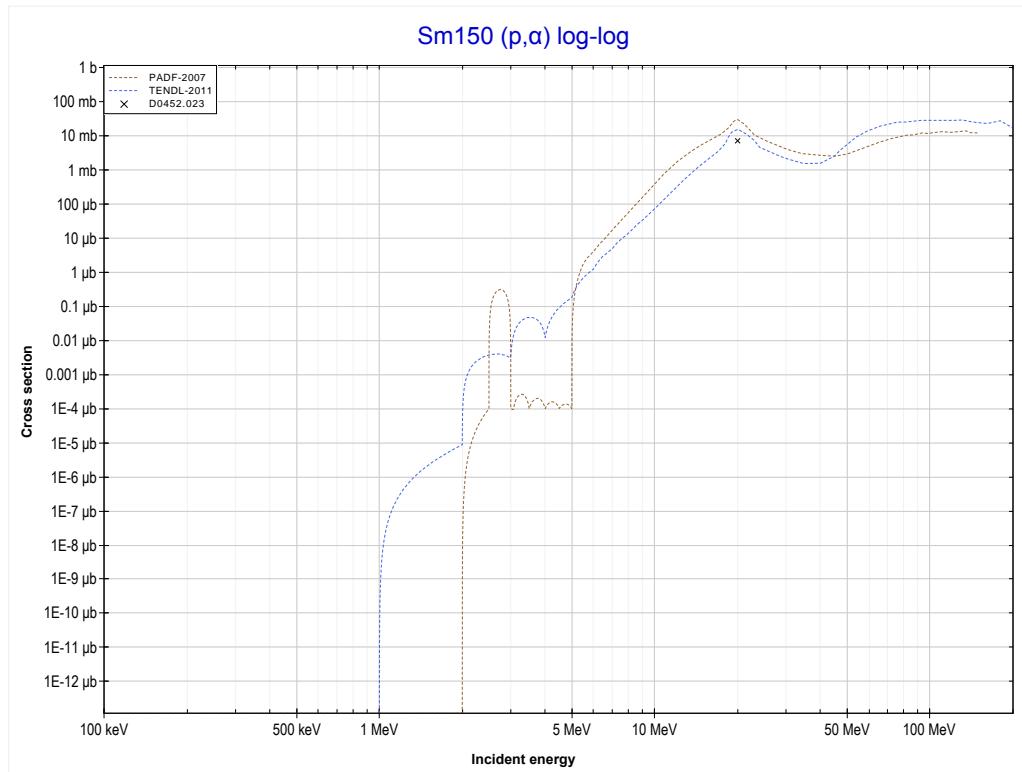
Reaction	Q-Value
Sm149(p,n)Eu149	-1477.25 keV

<< 62-Sm-147	62-Sm-149 MT102 (p, γ) or MT5 (Eu150 production)	>> 83-Bi-209
<< MT4 (p,n)		MT107 (p, α) >>



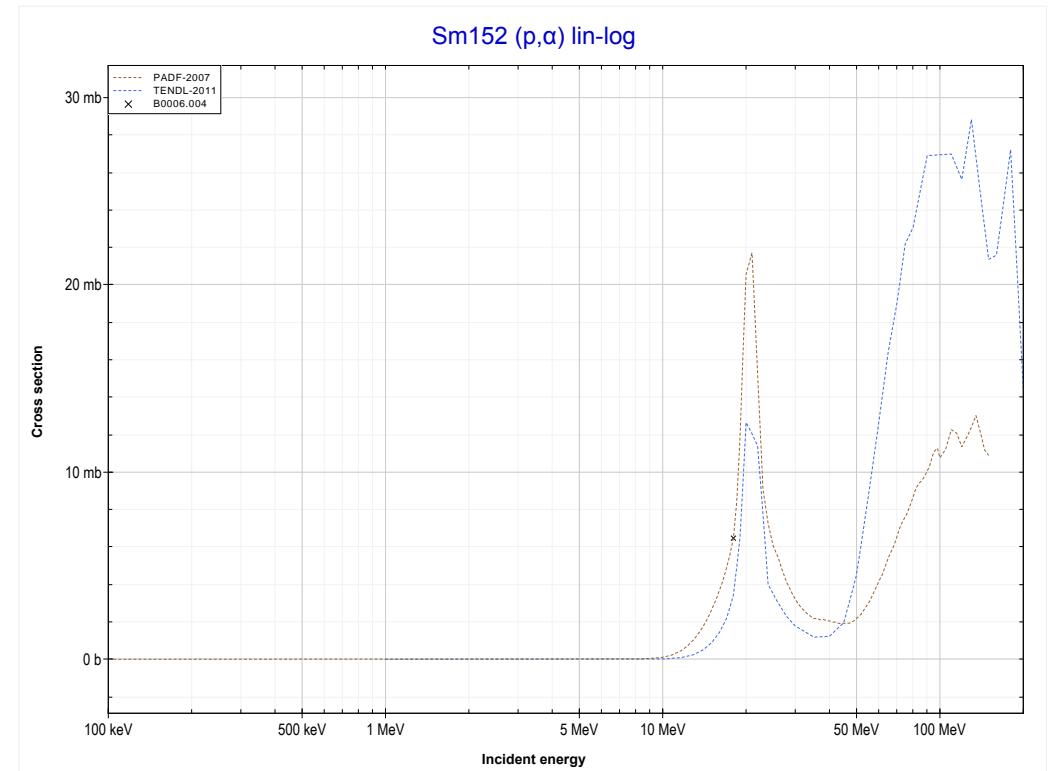
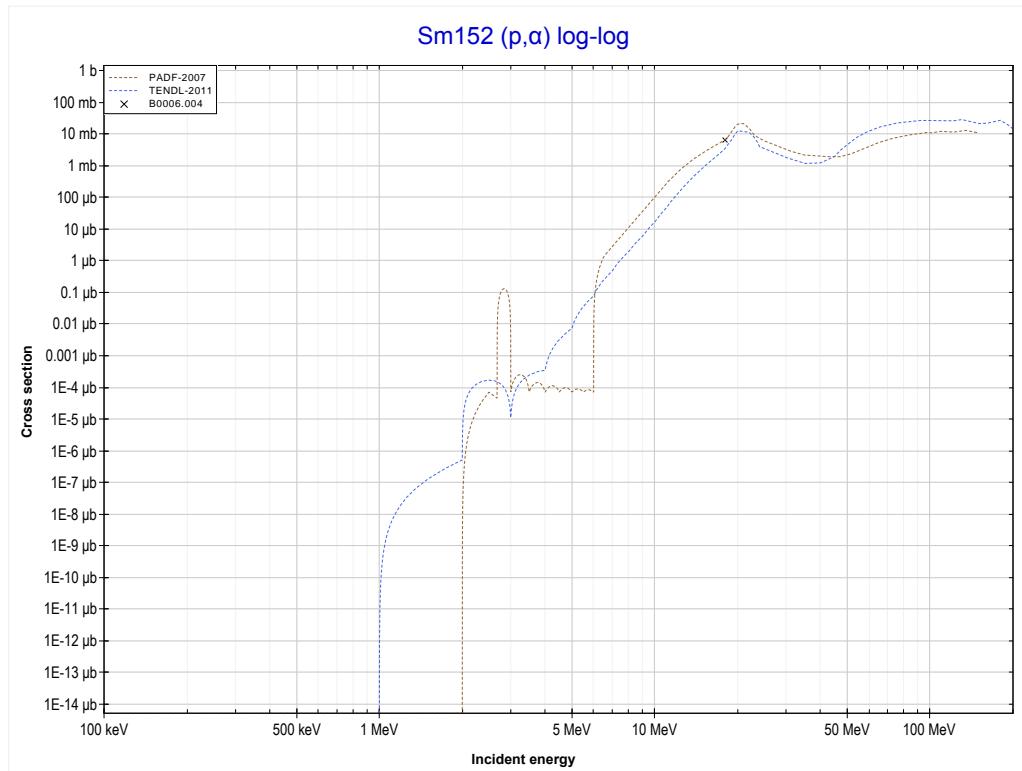
Reaction	Q-Value
Sm149(p, γ)Eu150	4944.07 keV

<< 62-Sm-147	62-Sm-150 MT107 (p,α) or MT5 (Pm147 production)	>> 62-Sm-152 >>
<< MT102 (p,γ)		MT107 (p,α) >>



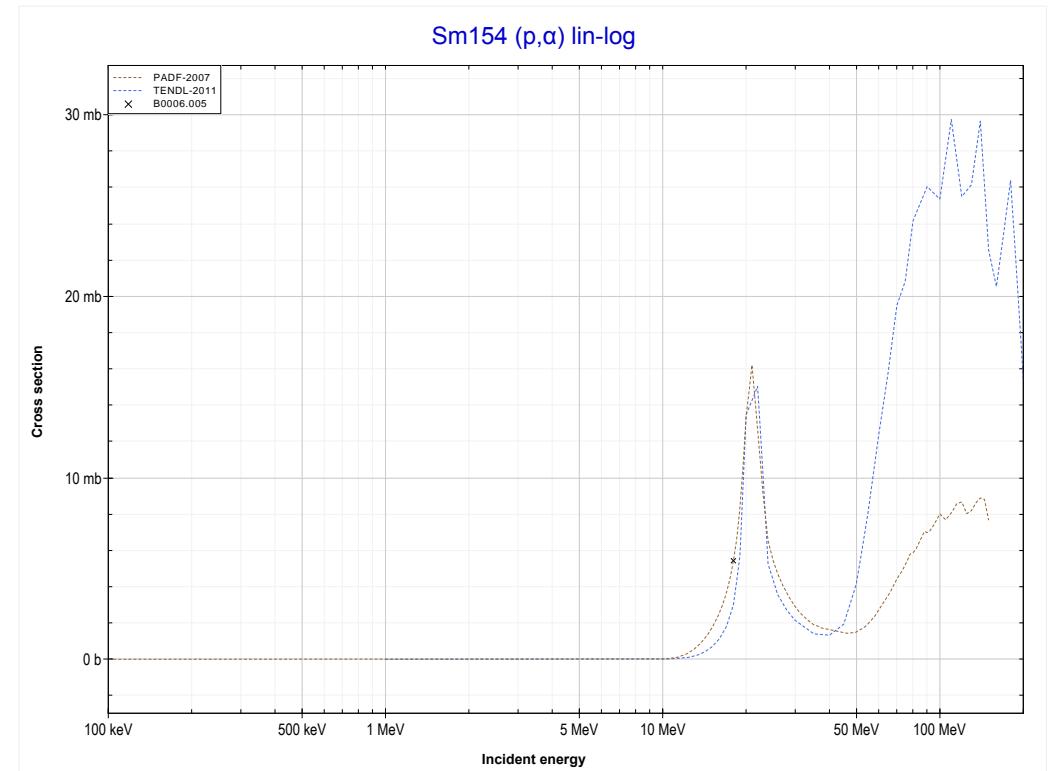
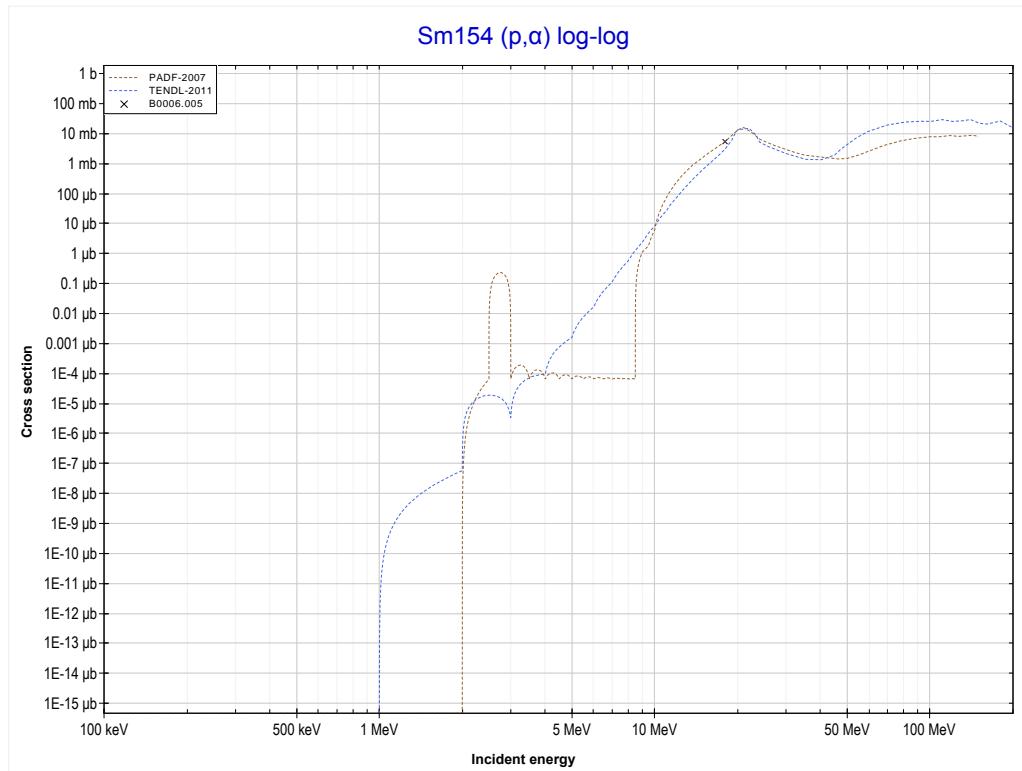
Reaction	Q-Value
Sm150(p,α)Pm147	6854.65 keV
Sm150($p,p+t$)Pm147	-12959.21 keV
Sm150($p,n+He3$)Pm147	-13722.96 keV
Sm150($p,2d$)Pm147	-16991.87 keV
Sm150($p,n+p+d$)Pm147	-19216.44 keV
Sm150($p,2n+2p$)Pm147	-21441.00 keV

<< 62-Sm-150	62-Sm-152 MT107 (p,α) or MT5 (Pm149 production)	>> 62-Sm-154
<< MT107 (p,α)		MT107 (p,α) >>



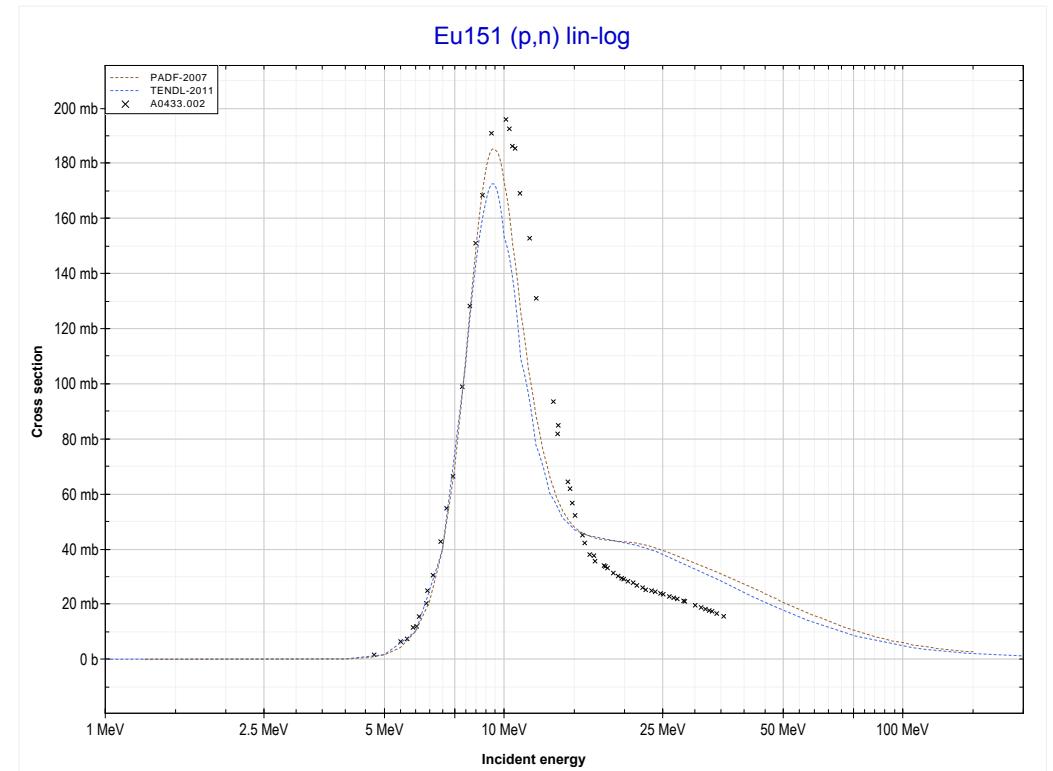
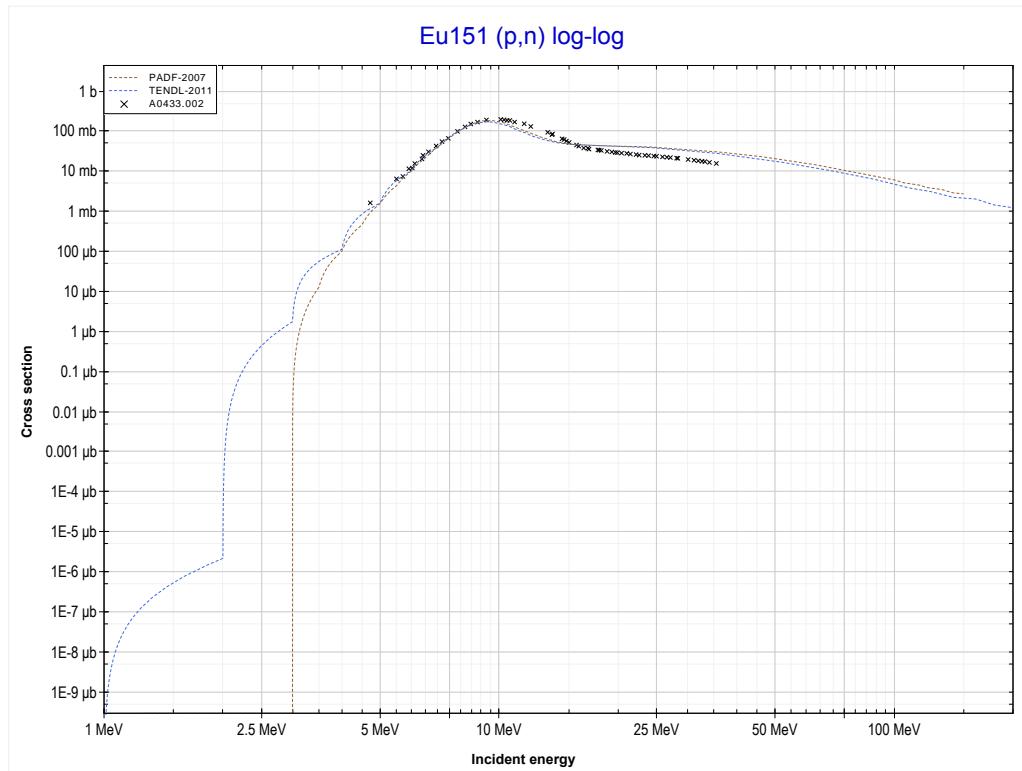
Reaction	Q-Value
Sm152(p,α)Pm149	6166.25 keV
Sm152($p,p+t$)Pm149	-13647.61 keV
Sm152($p,n+He3$)Pm149	-14411.36 keV
Sm152($p,2d$)Pm149	-17680.27 keV
Sm152($p,n+p+d$)Pm149	-19904.84 keV
Sm152($p,2n+2p$)Pm149	-22129.40 keV

<< 62-Sm-152	62-Sm-154 MT107 (p,α) or MT5 (Pm151 production)	>> 64-Gd-156
<< MT107 (p,α)		>> MT4 (p,n) >>



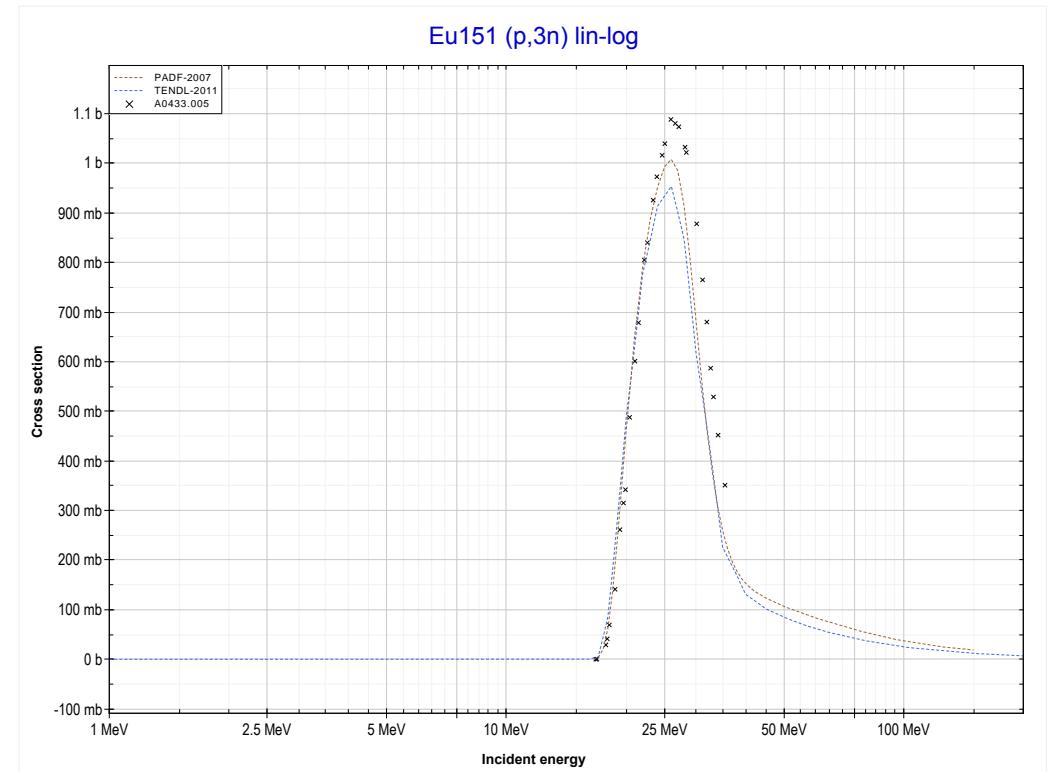
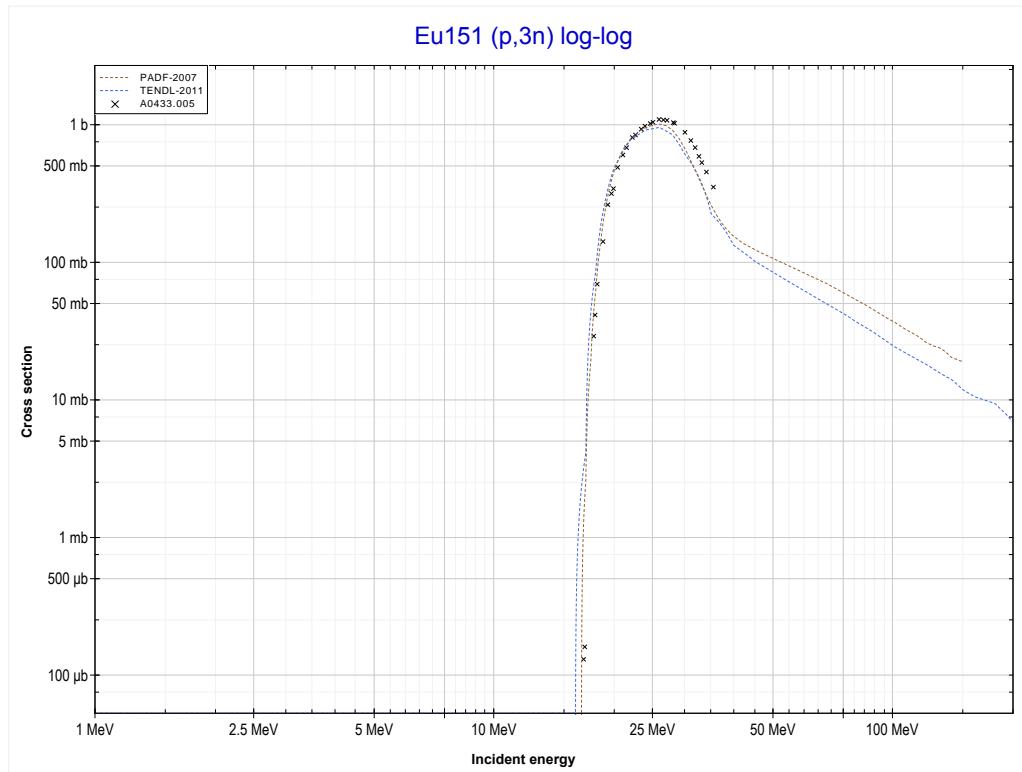
Reaction	Q-Value
Sm154(p,α)Pm151	5797.45 keV
Sm154($p,p+t$)Pm151	-14016.41 keV
Sm154($p,n+He3$)Pm151	-14780.16 keV
Sm154($p,2d$)Pm151	-18049.07 keV
Sm154($p,n+p+d$)Pm151	-20273.64 keV
Sm154($p,2n+2p$)Pm151	-22498.20 keV

<< 62-Sm-149	63-Eu-151 MT4 (p,n) or MT5 (Gd151 production)	63-Eu-153 >>
<< MT107 (p, α)		MT17 (p,3n) >>



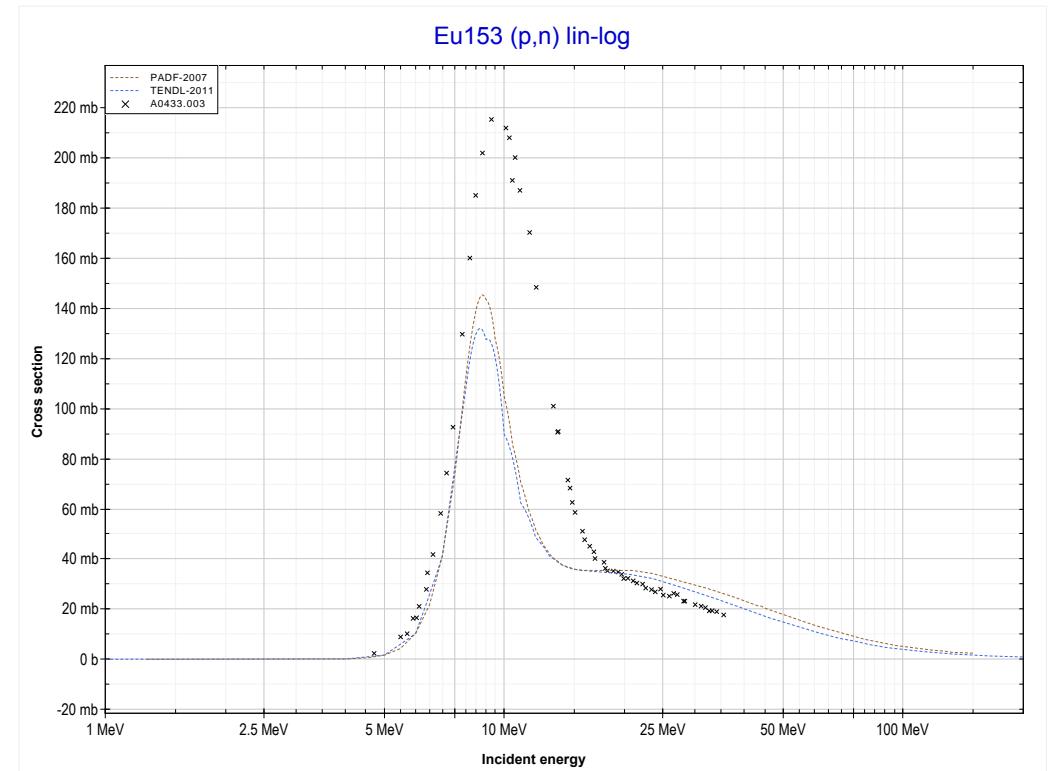
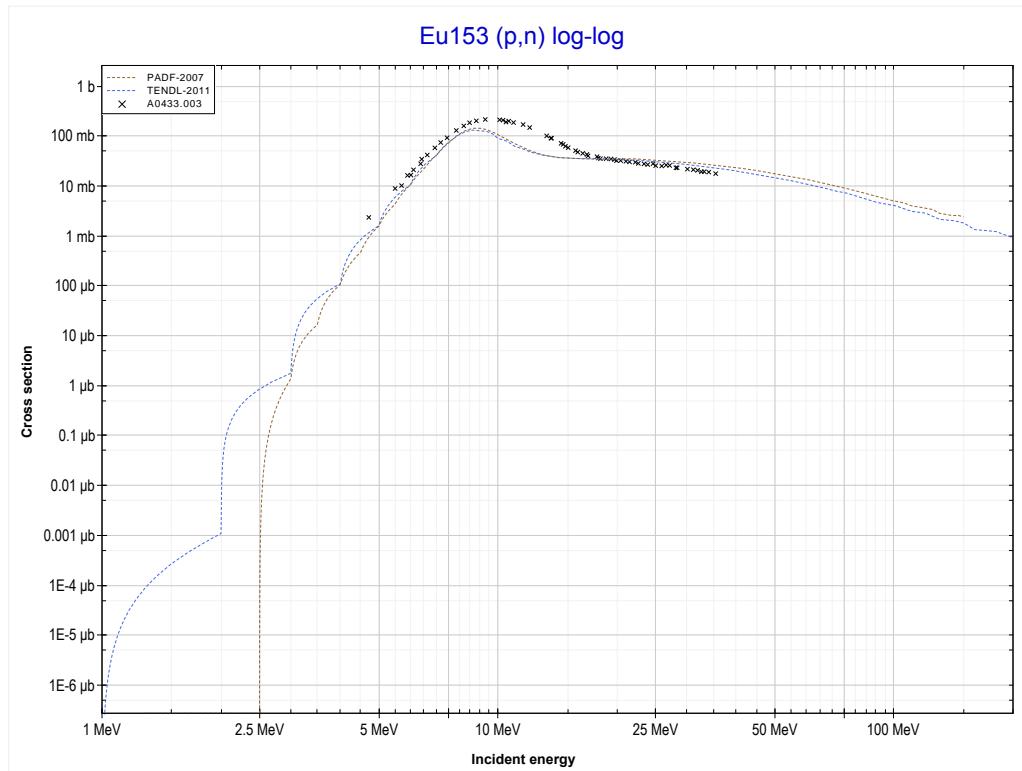
Reaction	Q-Value
Eu151(p,n)Gd151	-1246.45 keV

<< 59-Pr-141	63-Eu-151 MT17 (p,3n) or MT5 (Gd149 production)	63-Eu-153 >>
<< MT4 (p,n)		MT4 (p,n) >>



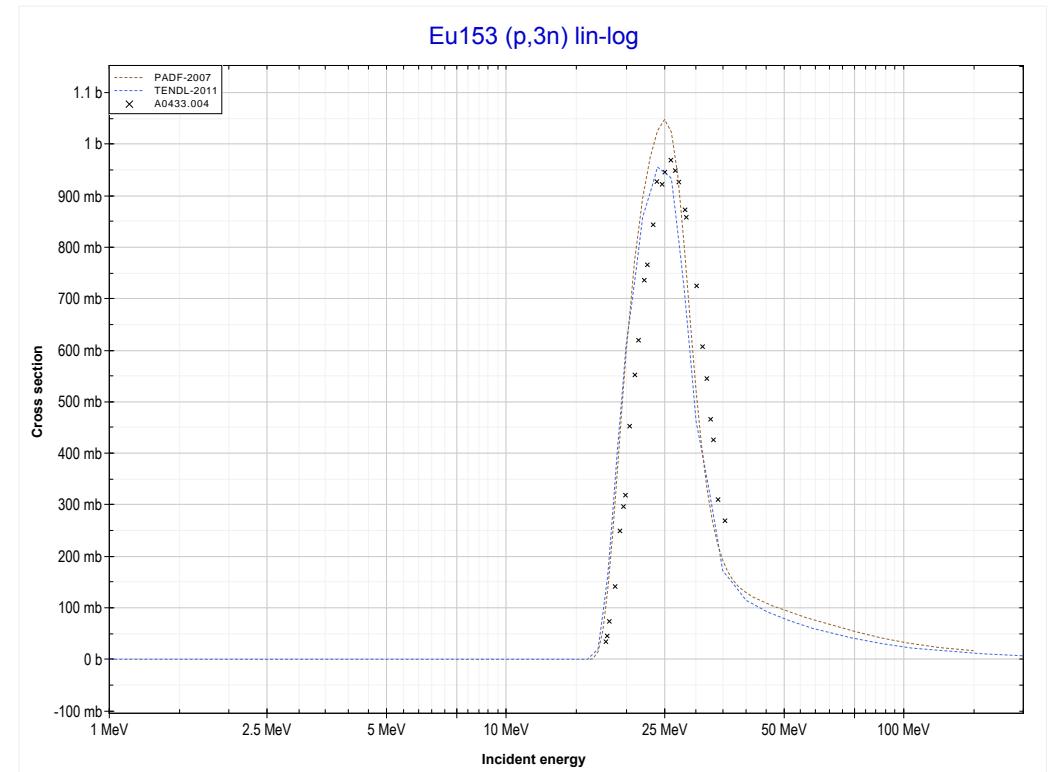
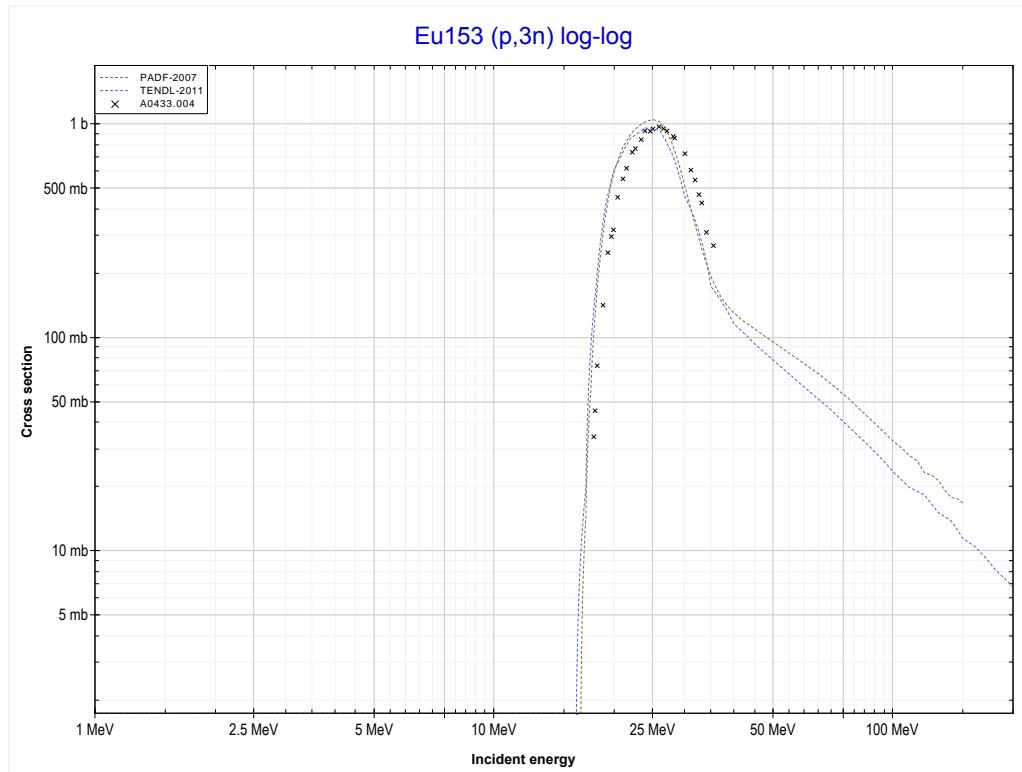
Reaction	Q-Value
Eu151(p,3n)Gd149	-16451.08 keV

<< 63-Eu-151	63-Eu-153 MT4 (p,n) or MT5 (Gd153 production)	>> 64-Gd-152
<< MT17 (p,3n)		>> MT17 (p,3n) >>



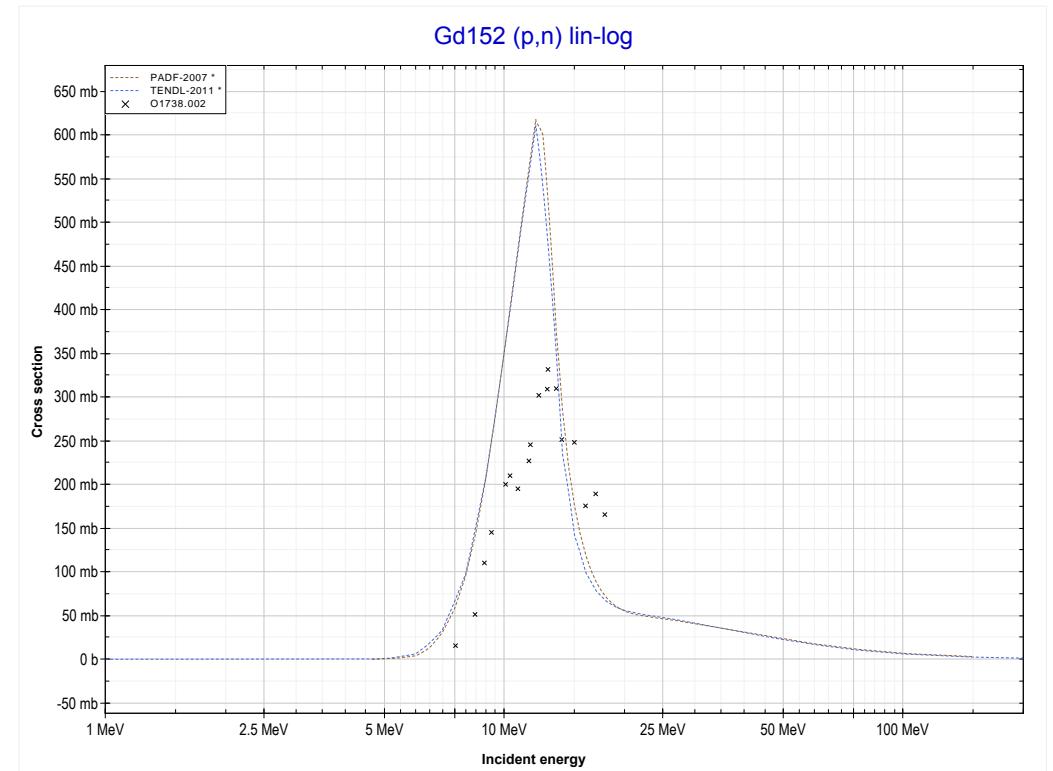
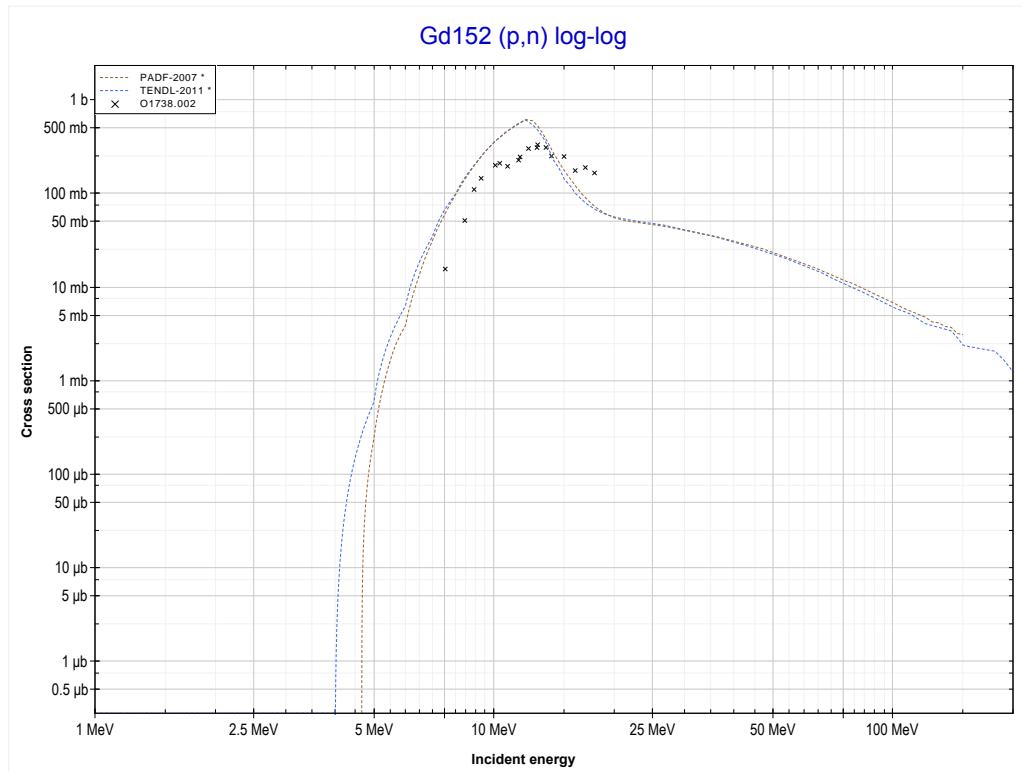
Reaction	Q-Value
Eu153(p,n)Gd153	-1266.05 keV

<< 63-Eu-151	63-Eu-153 MT17 (p,3n) or MT5 (Gd151 production)	>> 69-Tm-169
<< MT4 (p,n)		MT4 (p,n) >>



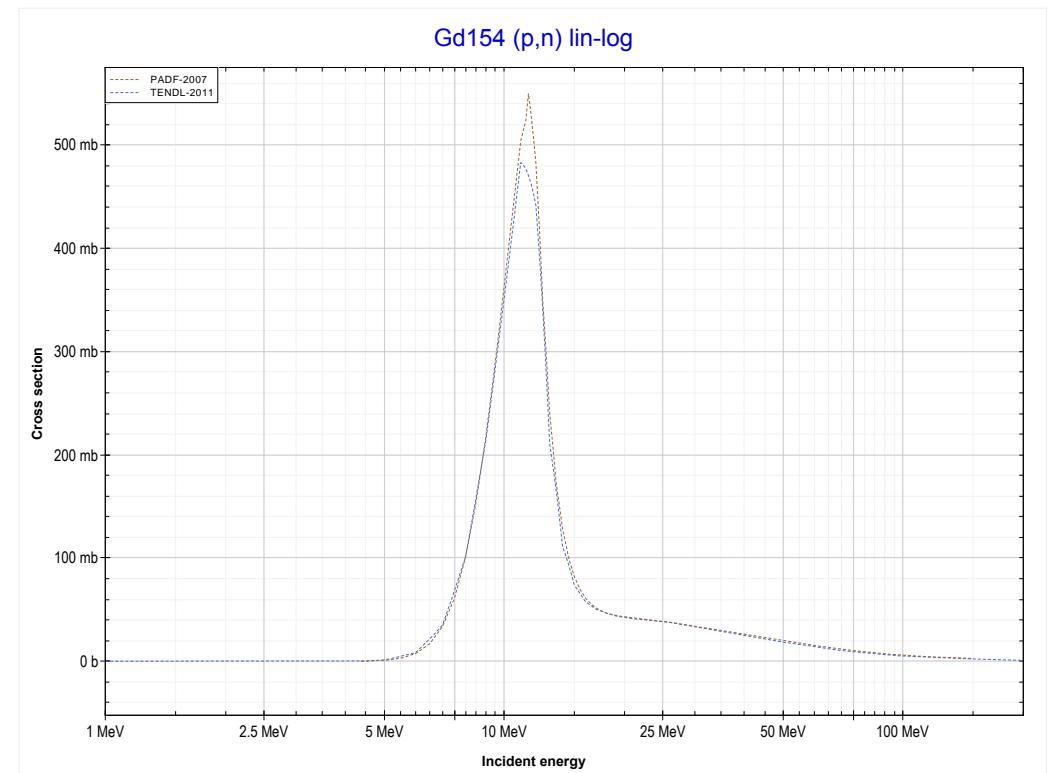
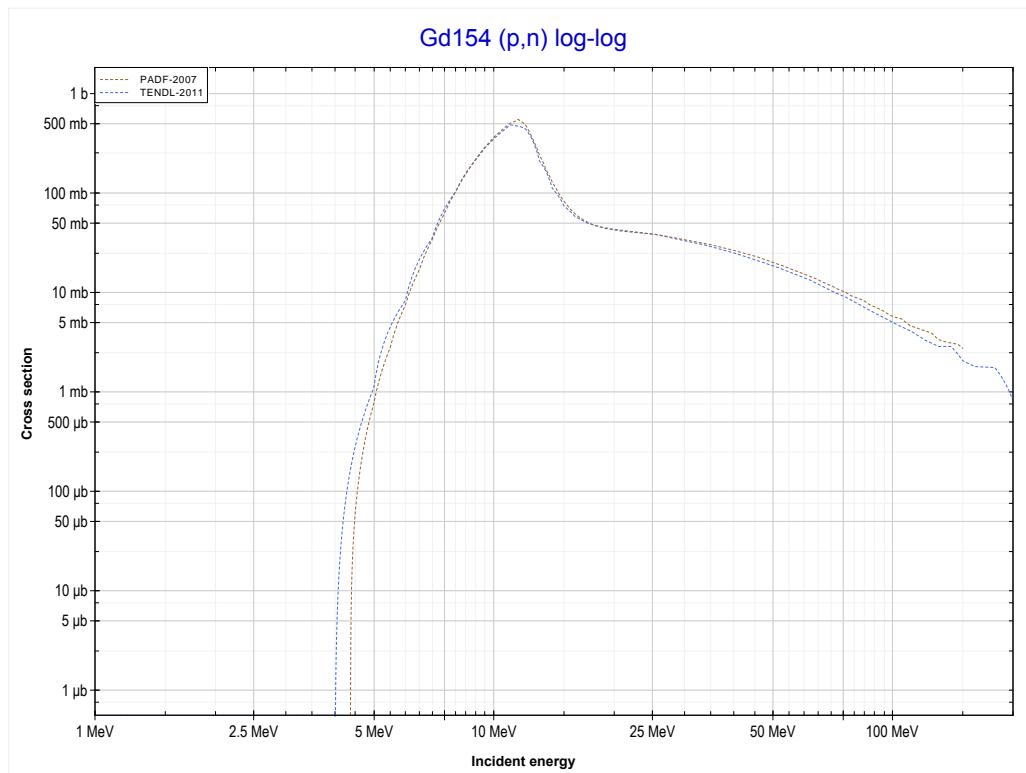
Reaction	Q-Value
Eu153(p,3n)Gd151	-16103.48 keV

<< 63-Eu-153	64-Gd-152 MT4 (p,n) or MT5 (Tb152 production)	64-Gd-154 >>
<< MT17 (p,3n)		MT4 (p,n) >>



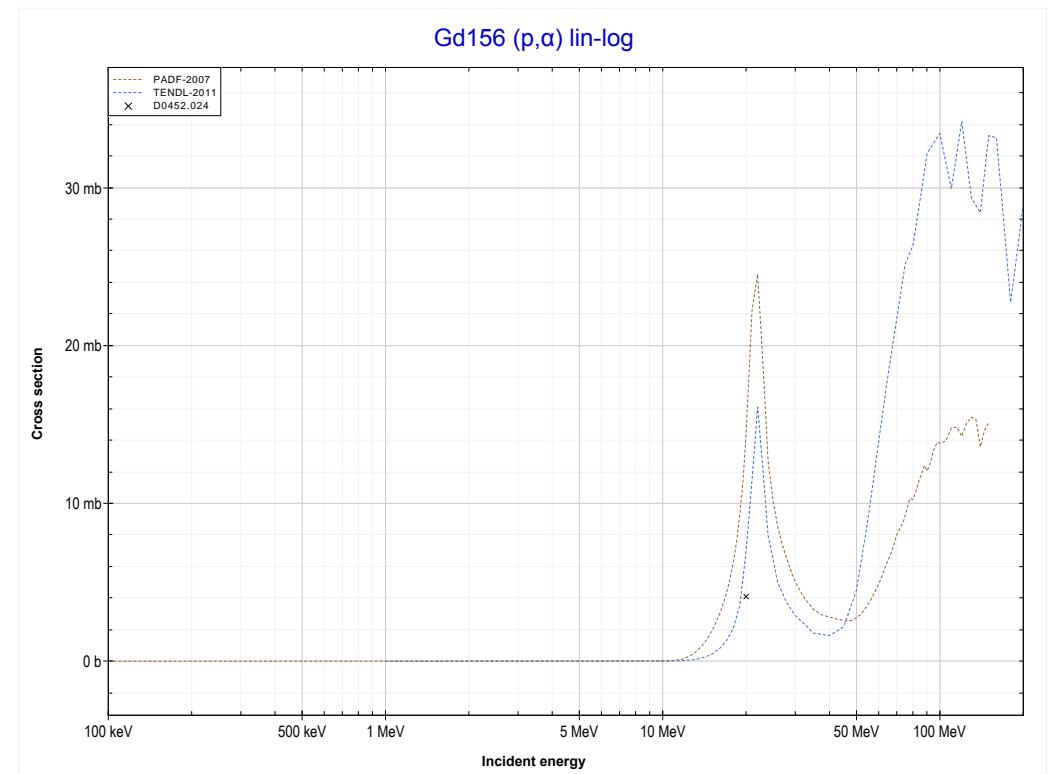
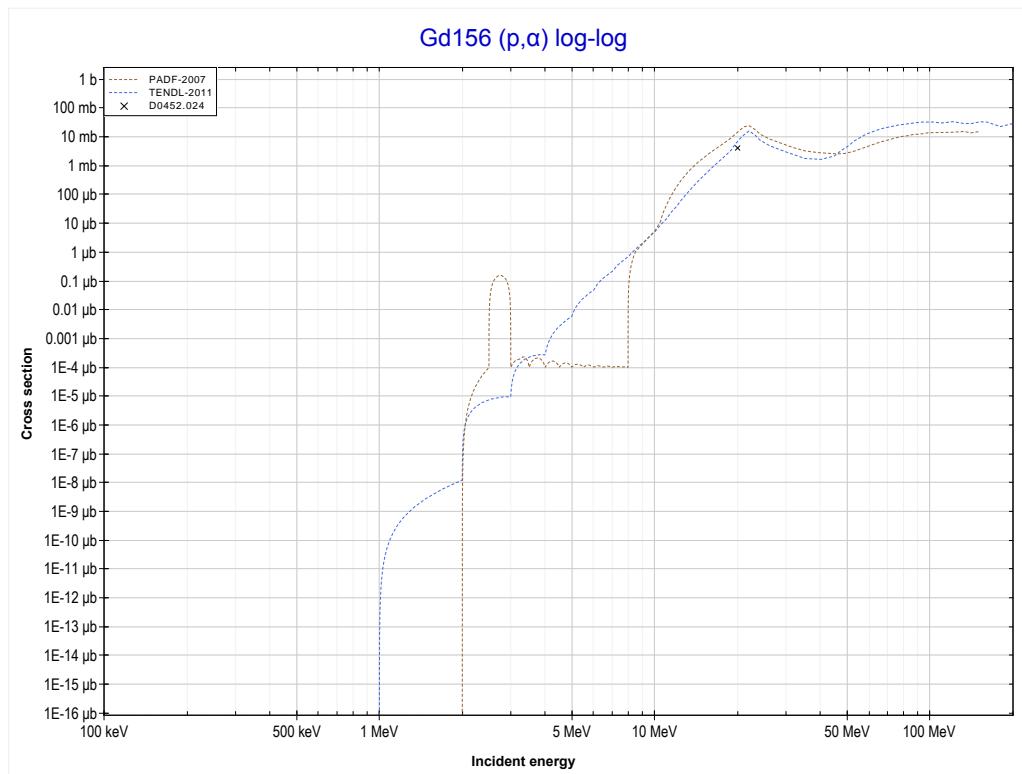
Reaction	Q-Value
$\text{Gd}^{152}(\text{p},\text{n})\text{Tb}^{152}$	-4776.55 keV

<< 64-Gd-152	64-Gd-154 MT4 (p,n) or MT5 (Tb154 production)	>> 64-Gd-160
<< MT4 (p,n)		>> MT107 (p, α)



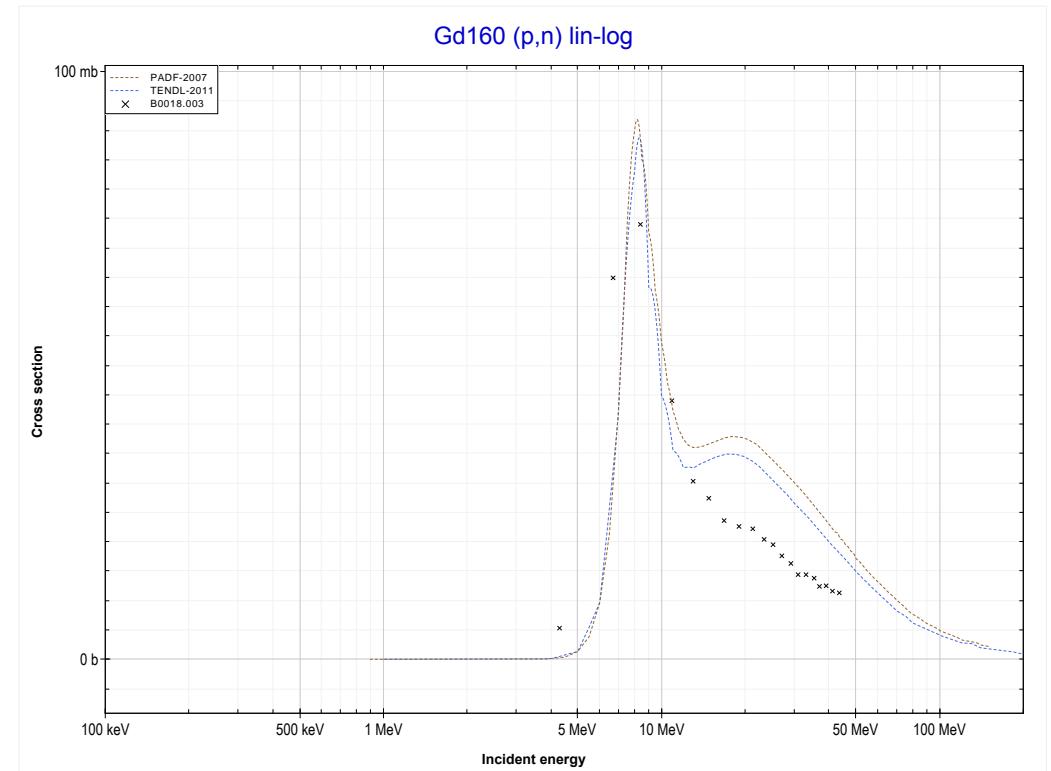
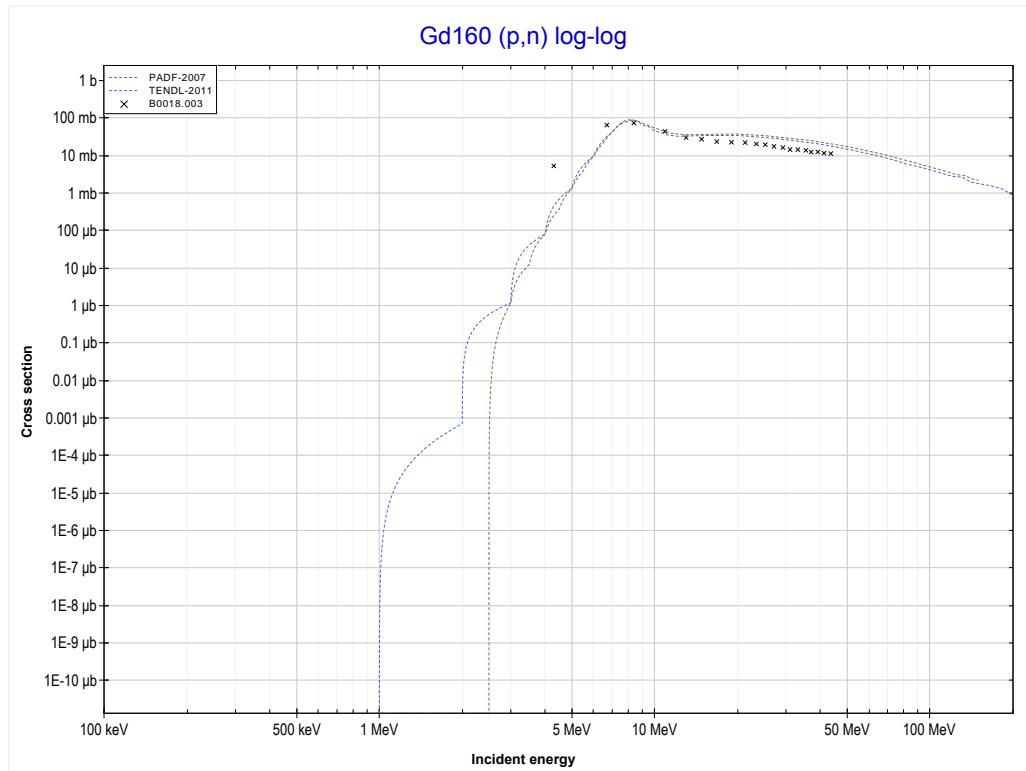
Reaction	Q-Value
Gd154(p,n)Tb154	-4335.55 keV

<< 62-Sm-154	64-Gd-156 MT107 (p,α) or MT5 (Eu153 production)	70-Yb-171 >>
<< MT4 (p,n)		MT4 (p,n) >>



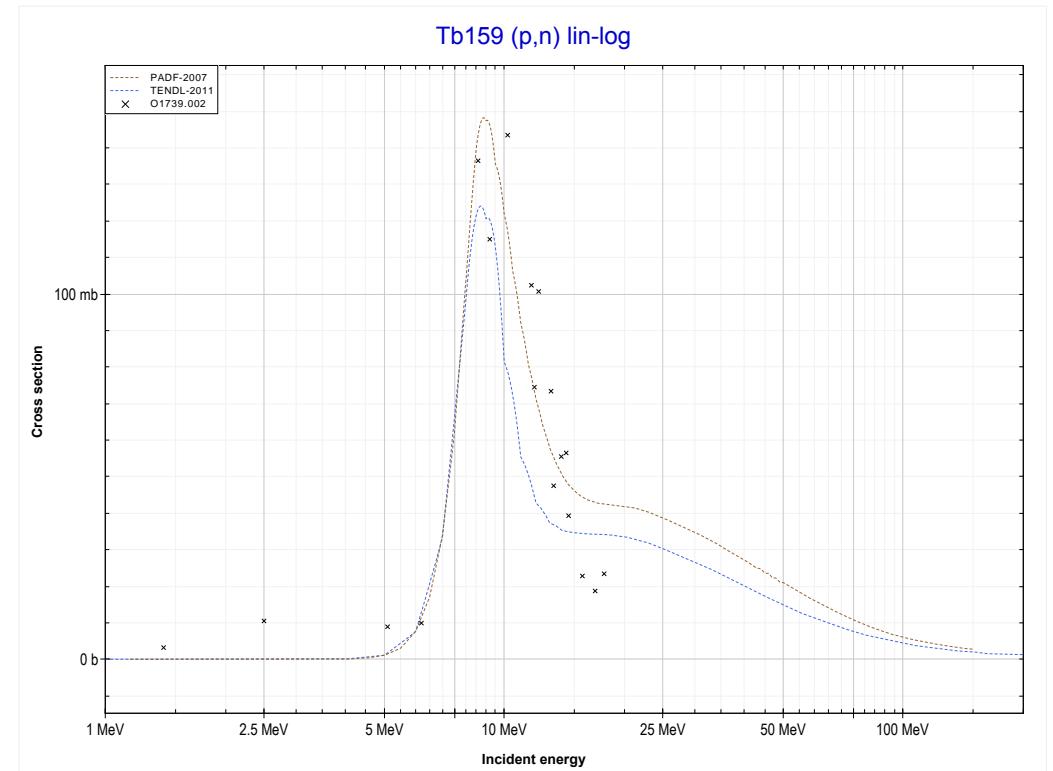
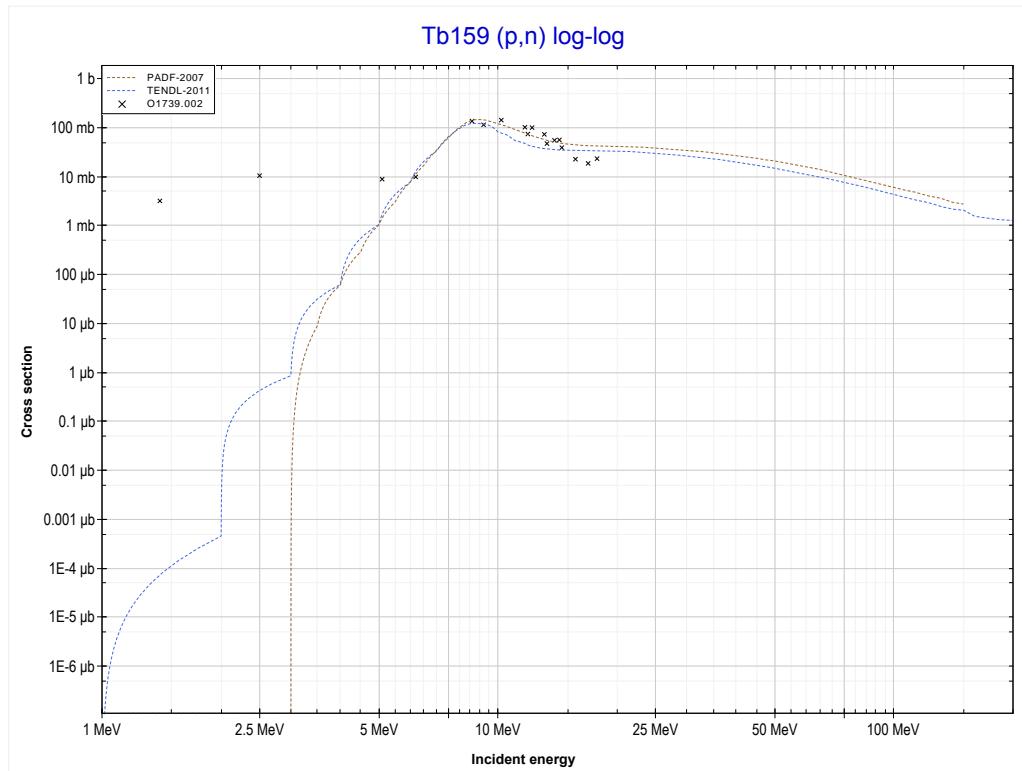
Reaction	Q-Value
Gd156(p,α)Eu153	5695.35 keV
Gd156($p,p+t$)Eu153	-14118.51 keV
Gd156($p,n+He3$)Eu153	-14882.26 keV
Gd156($p,2d$)Eu153	-18151.17 keV
Gd156($p,n+p+d$)Eu153	-20375.74 keV
Gd156($p,2n+2p$)Eu153	-22600.30 keV

<< 64-Gd-154	64-Gd-160 MT4 (p,n) or MT5 (Tb160 production)	>> 65-Tb-159
<< MT107 (p, α)		MT4 (p,n) >>



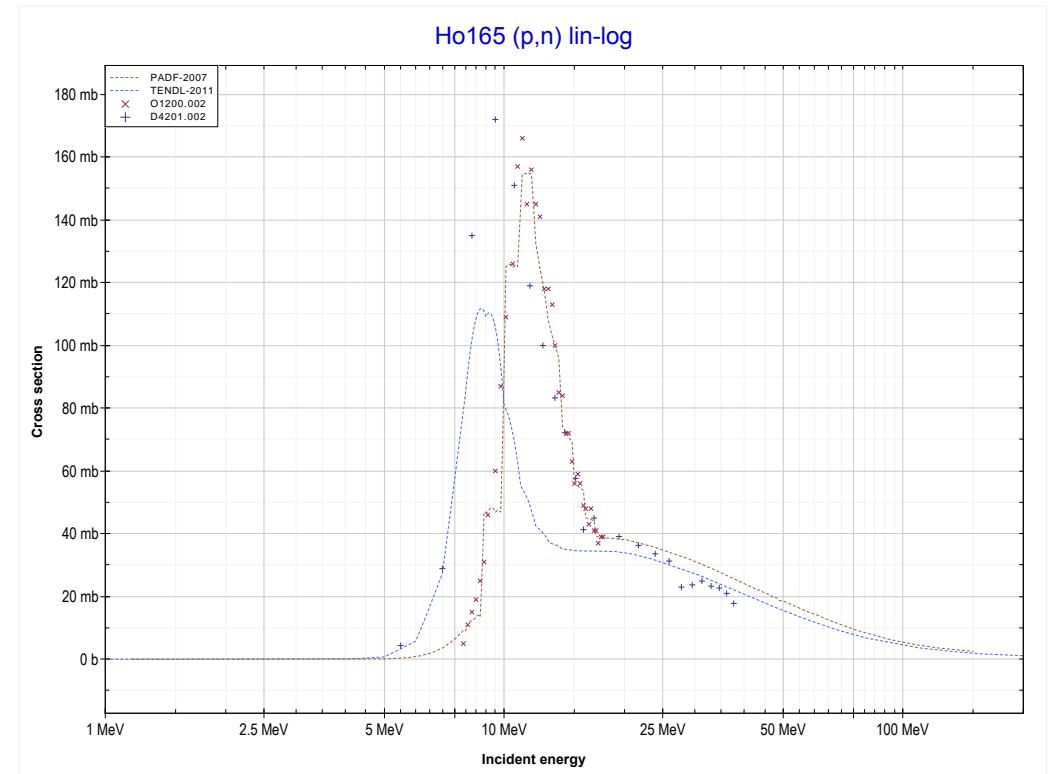
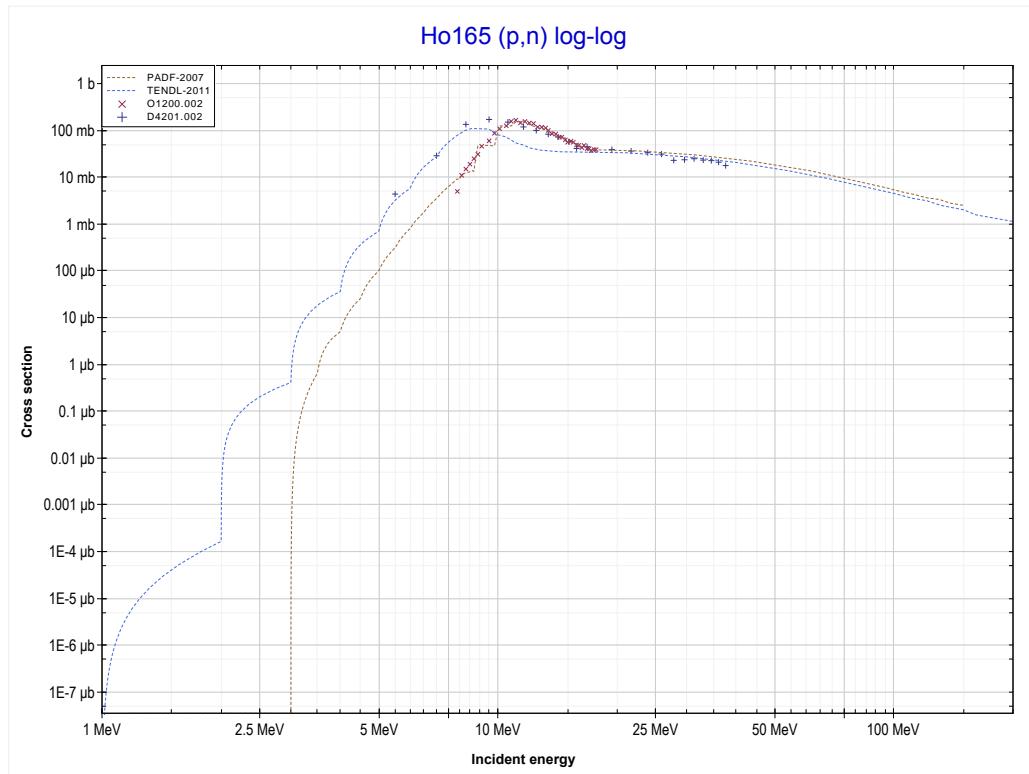
Reaction	Q-Value
Gd160(p,n)Tb160	-888.05 keV

<< 64-Gd-160	65-Tb-159 MT4 (p,n) or MT5 (Dy159 production)	>> 67-Ho-165
<< MT4 (p,n)		MT4 (p,n) >>



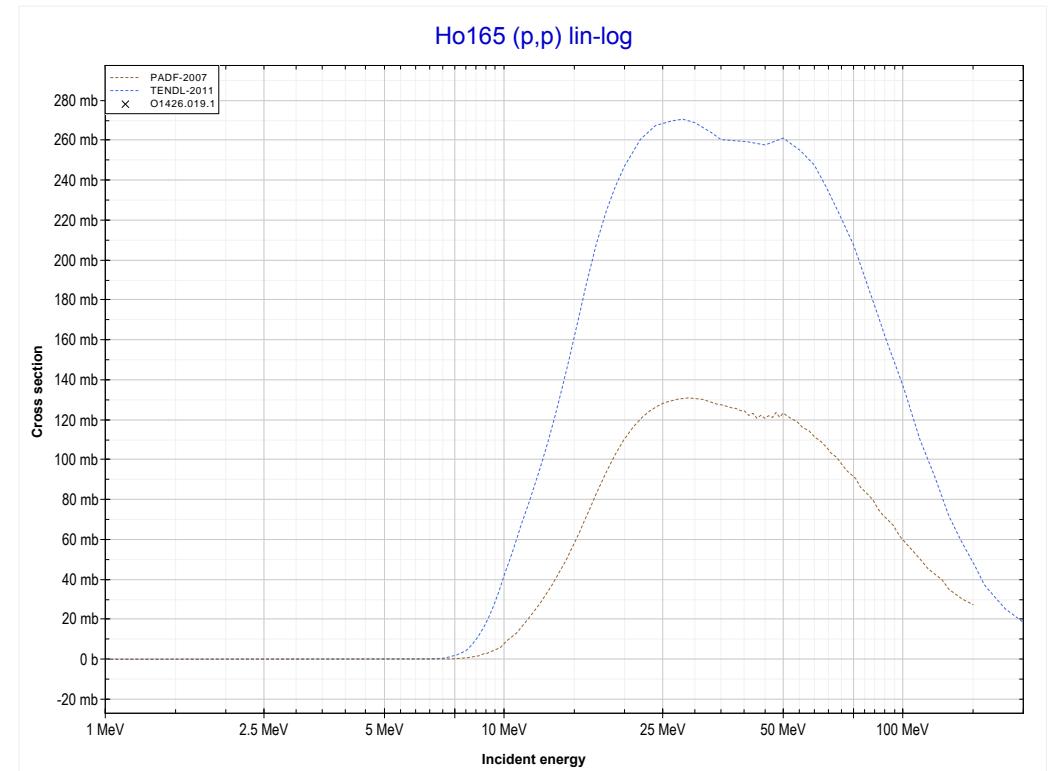
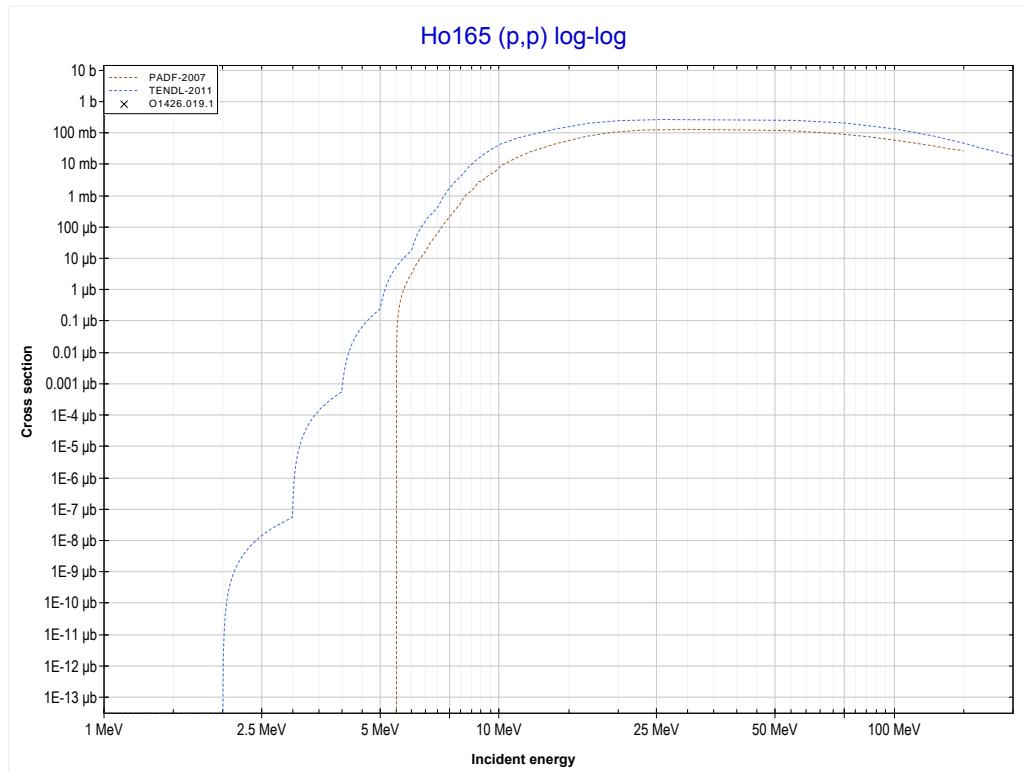
Reaction	Q-Value
Tb159(p,n)Dy159	-1147.85 keV

<< 65-Tb-159	67-Ho-165 MT4 (p,n) or MT5 (Er165 production)	>> 68-Er-167 >>
<< MT4 (p,n)		MT103 (p,p) >>



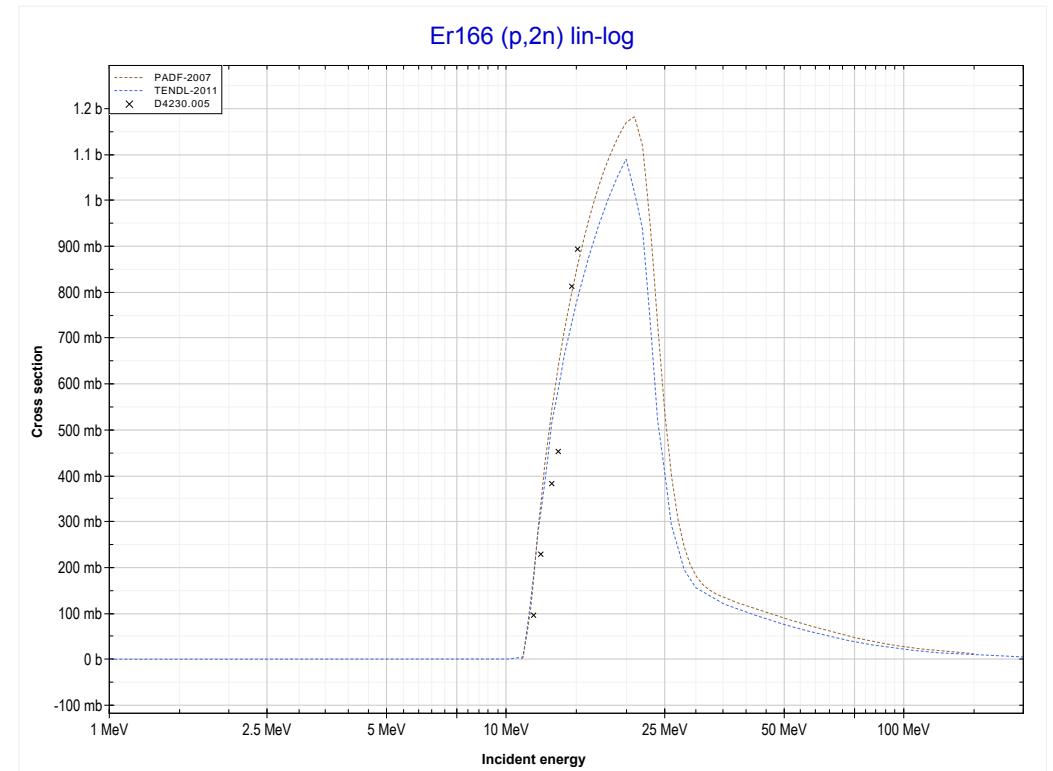
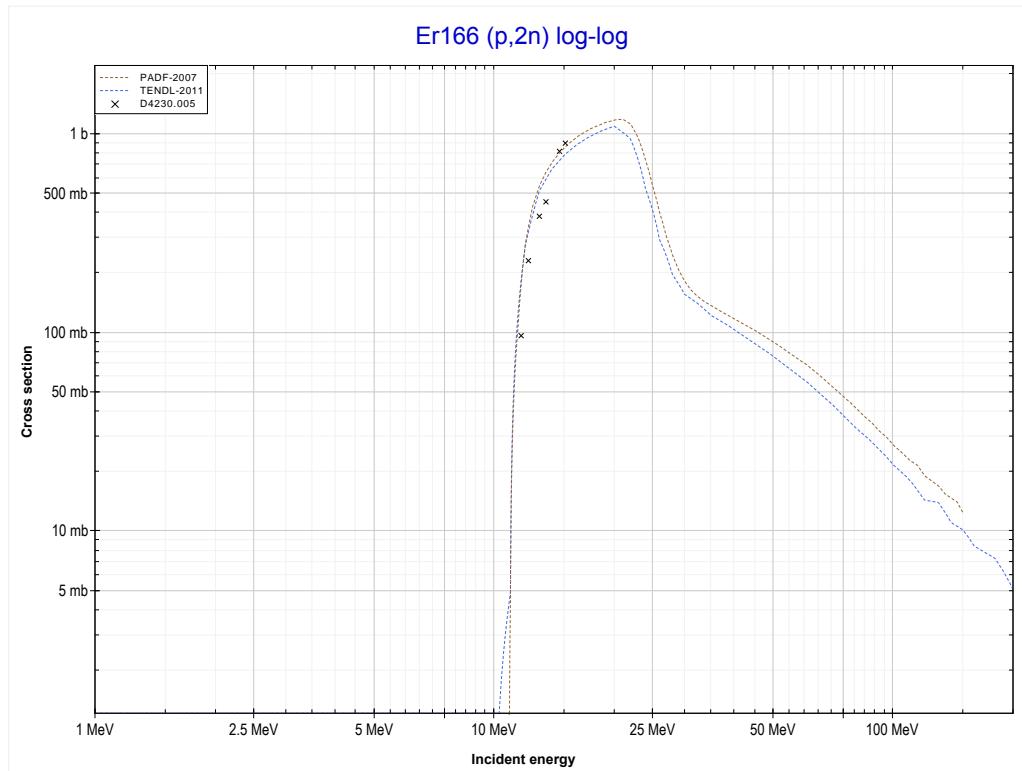
Reaction	Q-Value
Ho165(p,n)Er165	-1158.95 keV

<< 49-In-115	67-Ho-165 MT103 (p,p) or MT5 (Ho165 production)	92-U-235 >>
<< MT4 (p,n)		MT16 (p,2n) >>



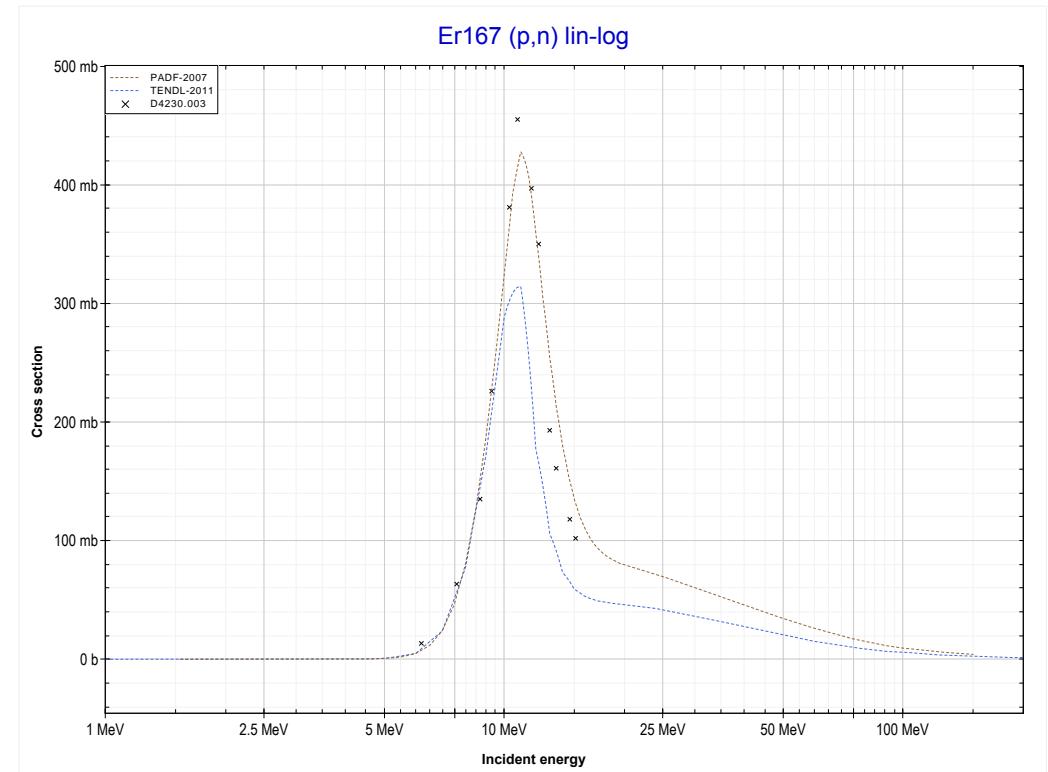
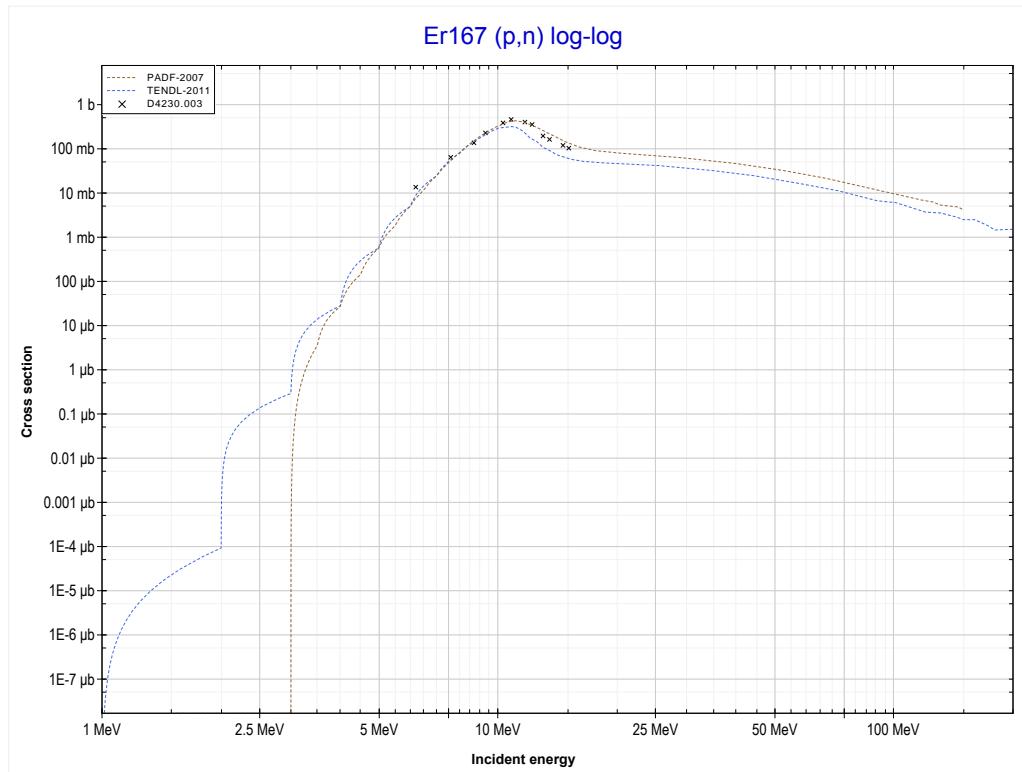
Reaction	Q-Value
Ho165(p,p)Ho165	0.00 keV

<< 62-Sm-147	68-Er-166 MT16 (p,2n) or MT5 (Tm165 production)	68-Er-167 >>
<< MT103 (p,p)		MT4 (p,n) >>



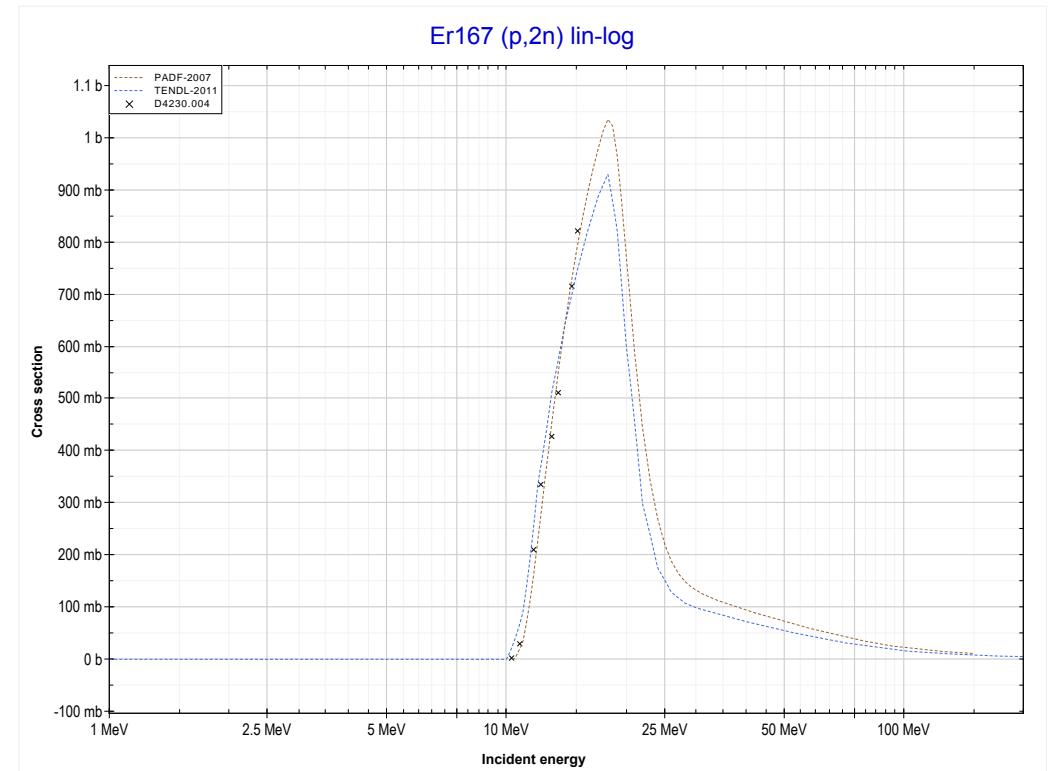
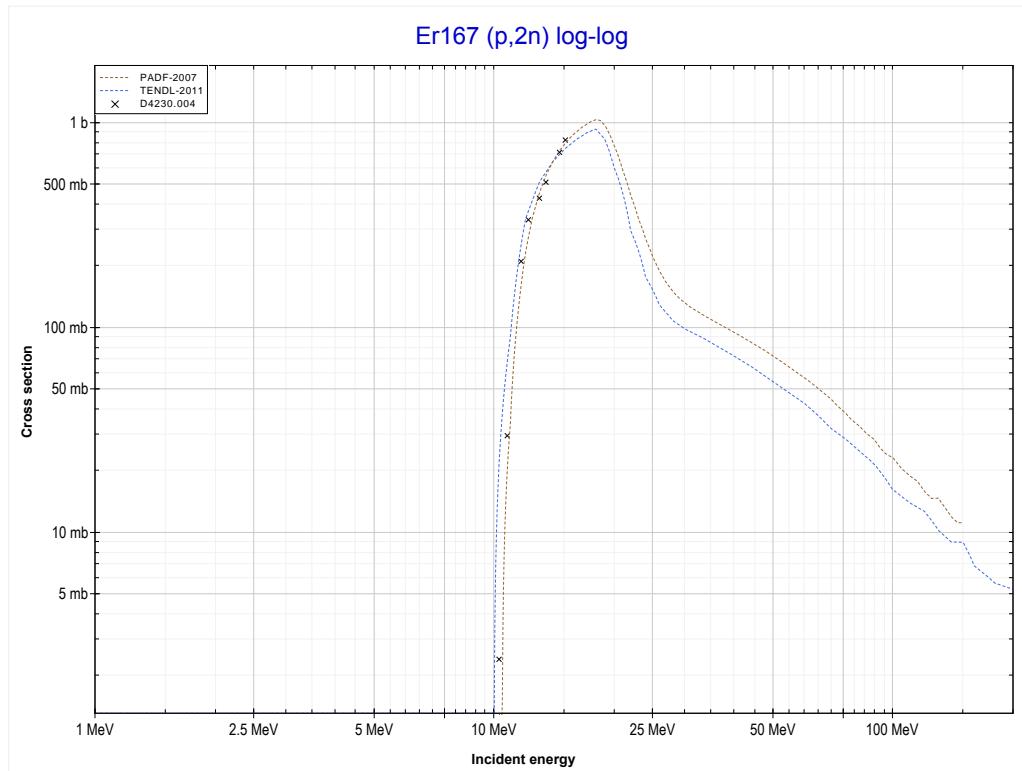
Reaction	Q-Value
$\text{Er}^{166}(\text{p},2\text{n})\text{Tm}^{165}$	-10849.26 keV

<< 67-Ho-165	68-Er-167 MT4 (p,n) or MT5 (Tm167 production)	68-Er-168 >>
<< MT16 (p,2n)		MT16 (p,2n) >>



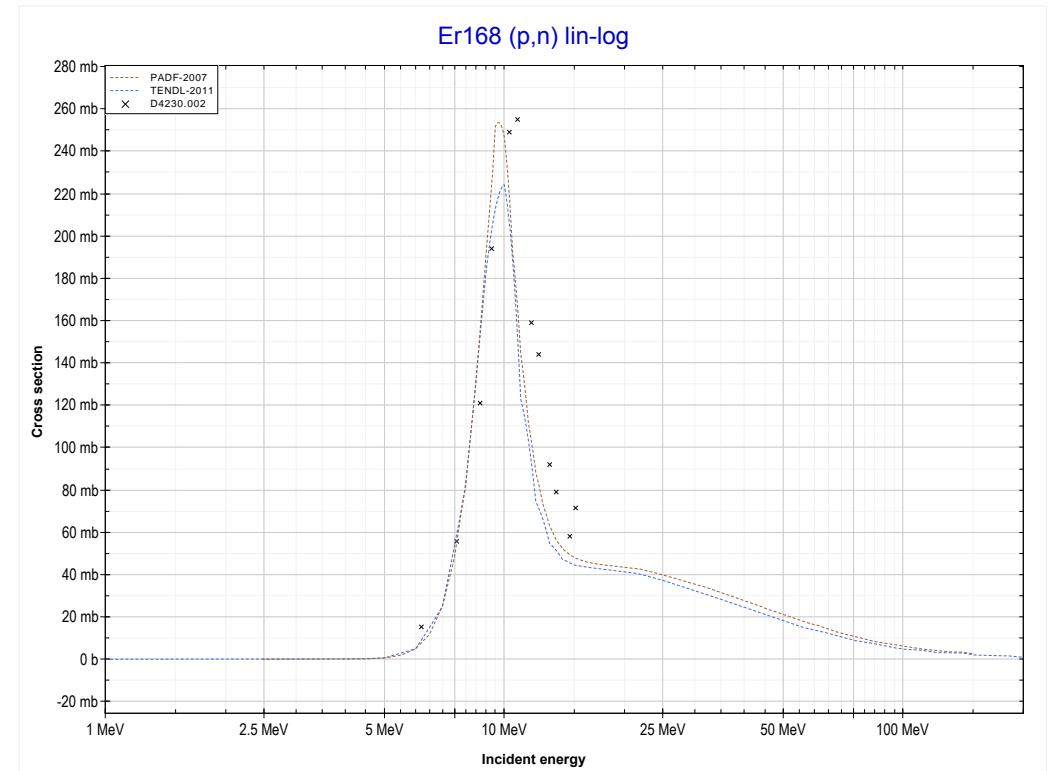
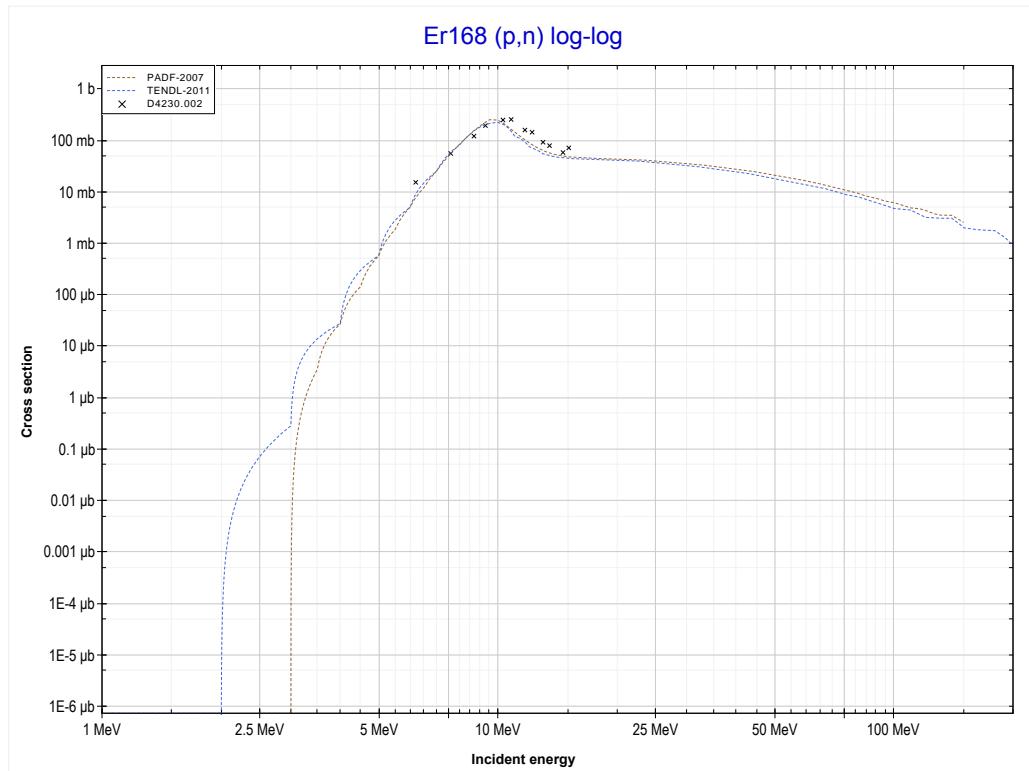
Reaction	Q-Value
$\text{Er}^{167}(\text{p},\text{n})\text{Tm}^{167}$	-1530.75 keV

<< 68-Er-166	68-Er-167 MT16 (p,2n) or MT5 (Tm166 production)	73-Ta-181 >>
<< MT4 (p,n)		MT4 (p,n) >>



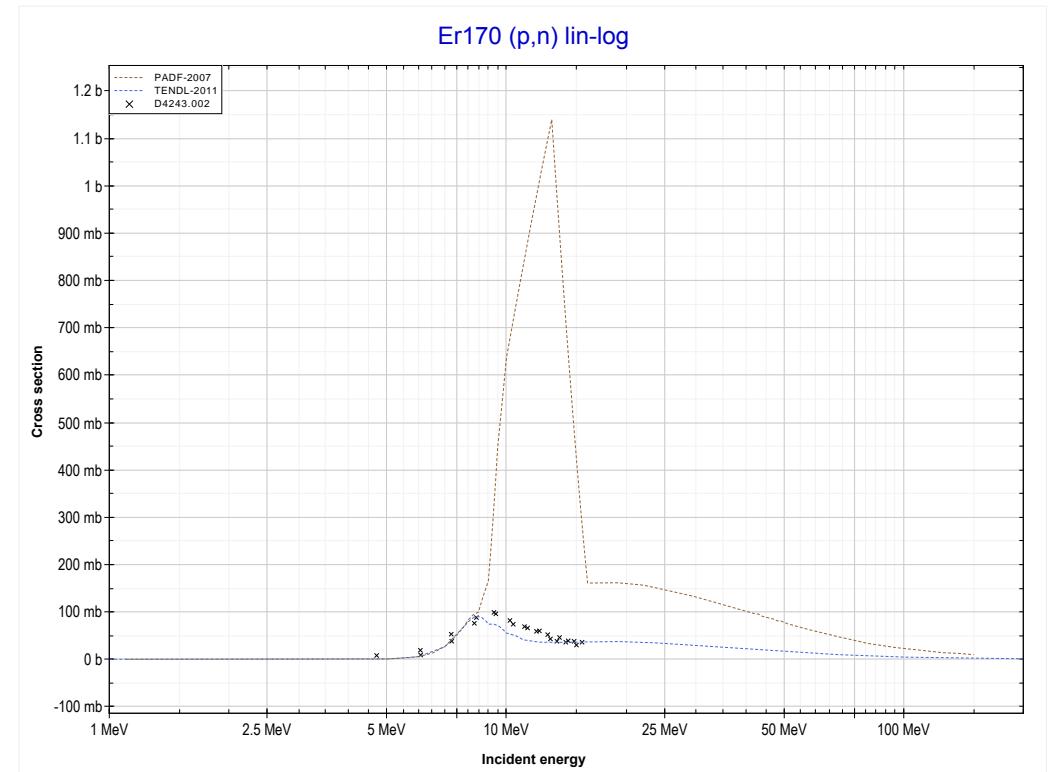
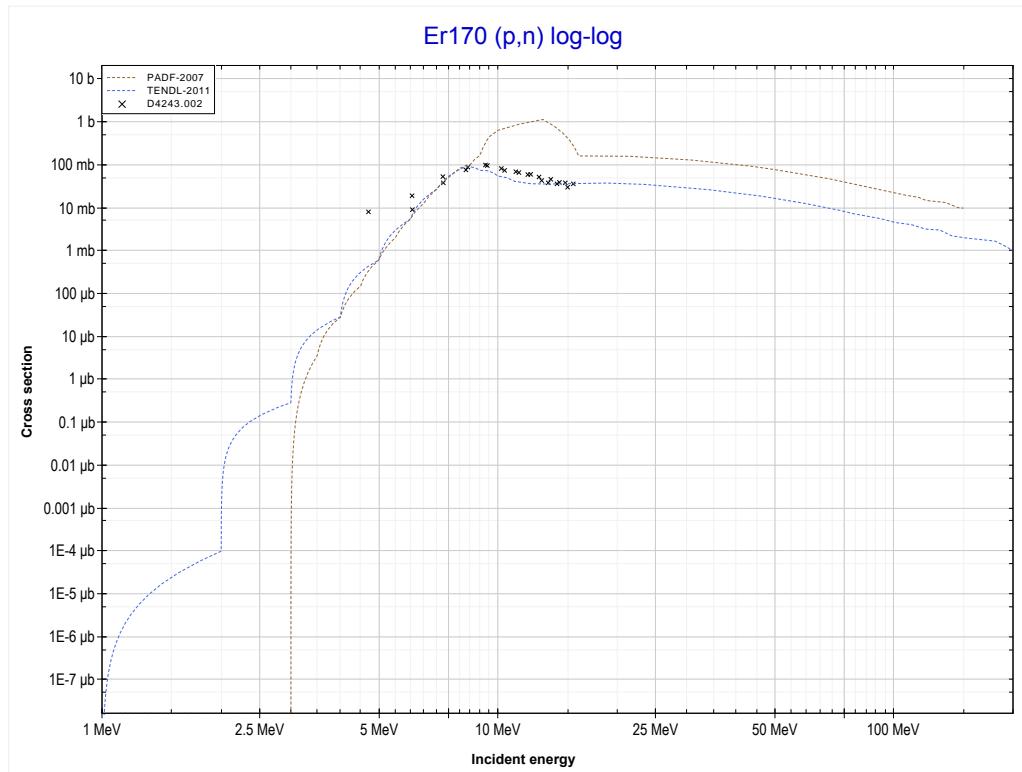
Reaction	Q-Value
$\text{Er}^{167}(\text{p},2\text{n})\text{Tm}^{166}$	-10256.36 keV

<< 68-Er-167	68-Er-168 MT4 (p,n) or MT5 (Tm168 production)	68-Er-170 >>
<< MT16 (p,2n)		MT4 (p,n) >>



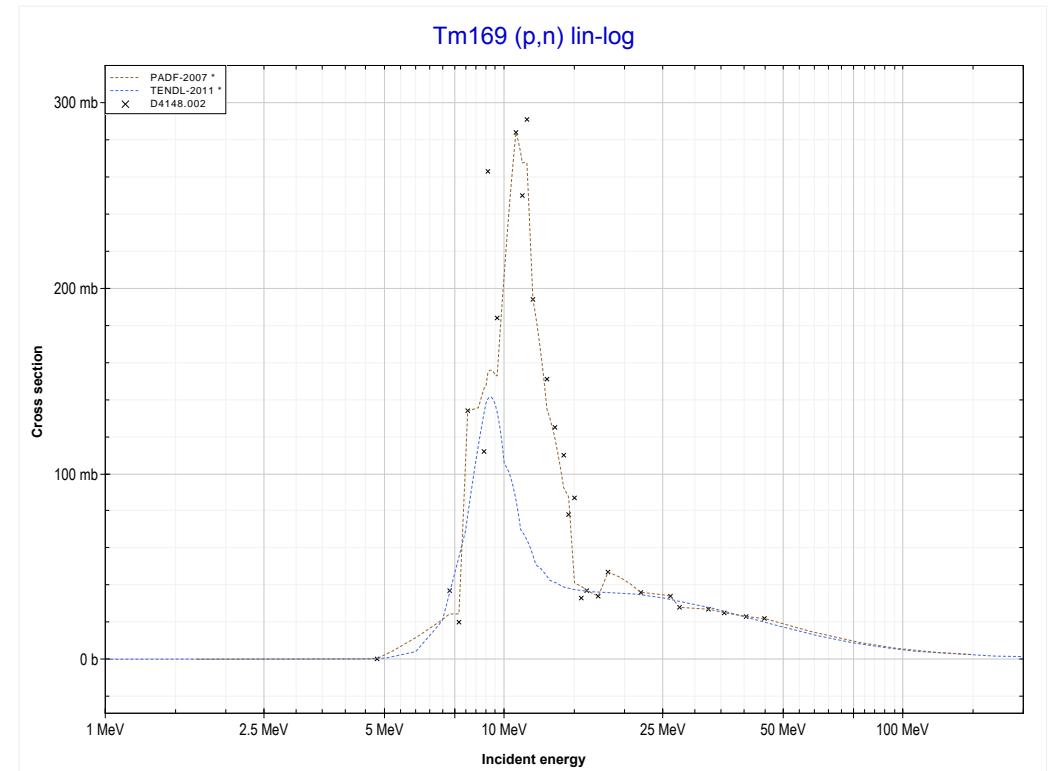
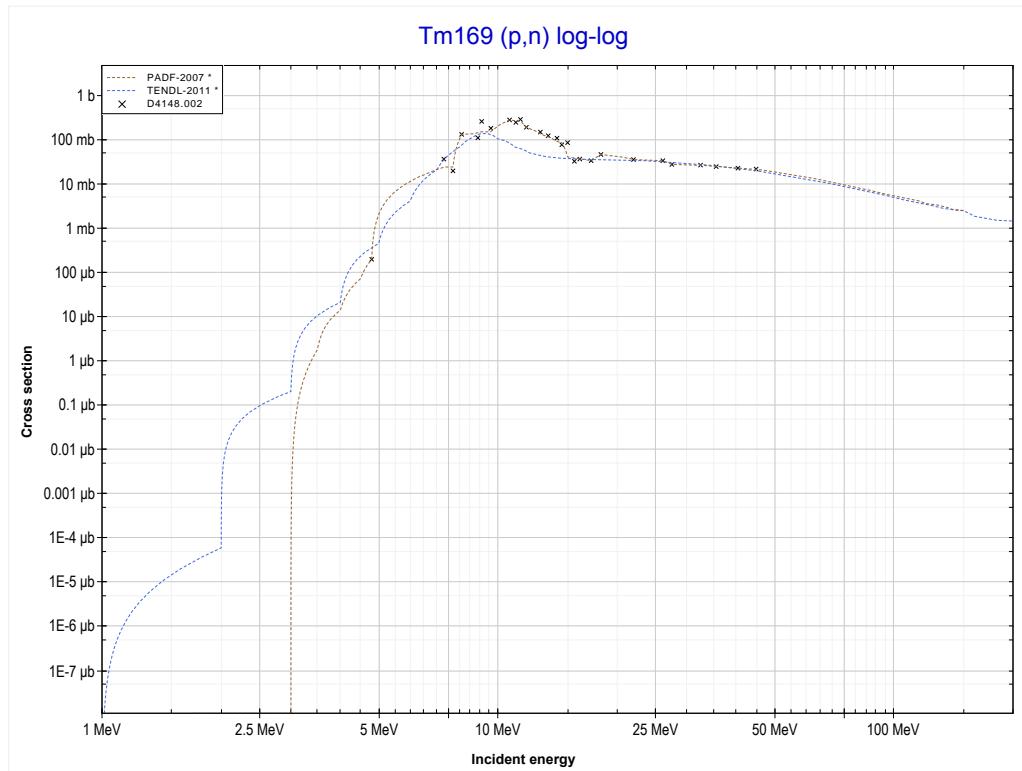
Reaction	Q-Value
$\text{Er}^{168}(\text{p},\text{n})\text{Tm}^{168}$	-2461.35 keV

<< 68-Er-168	68-Er-170 MT4 (p,n) or MT5 (Tm170 production)	>> 69-Tm-169
<< MT4 (p,n)		MT4 (p,n) >>



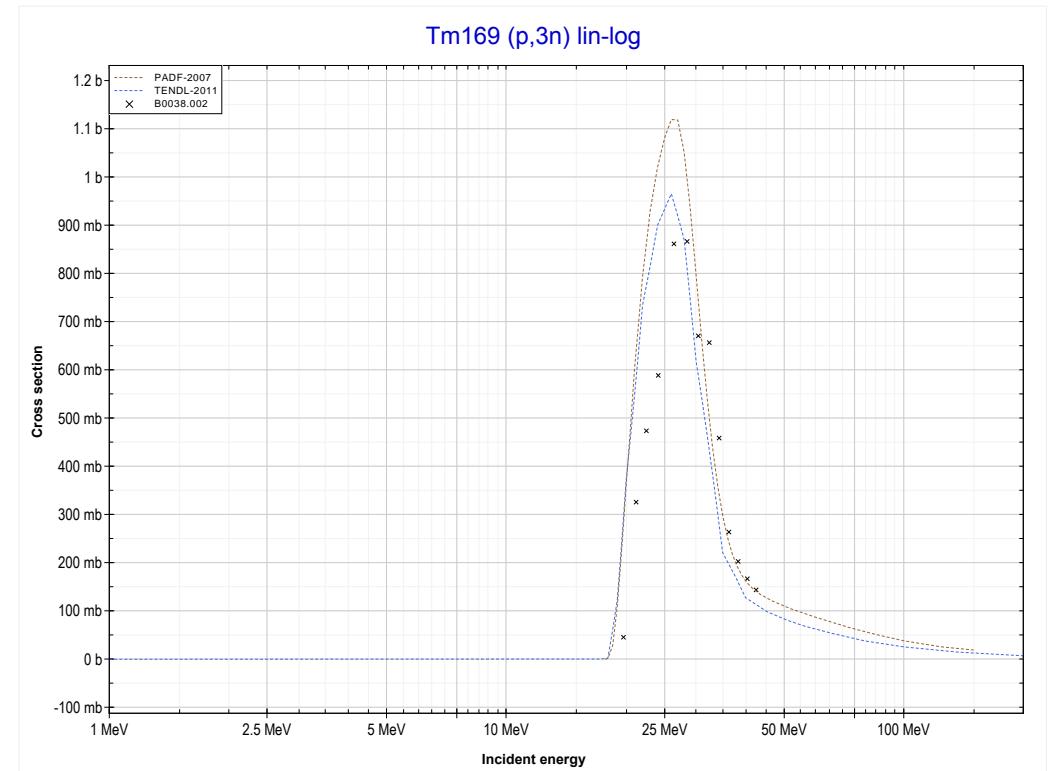
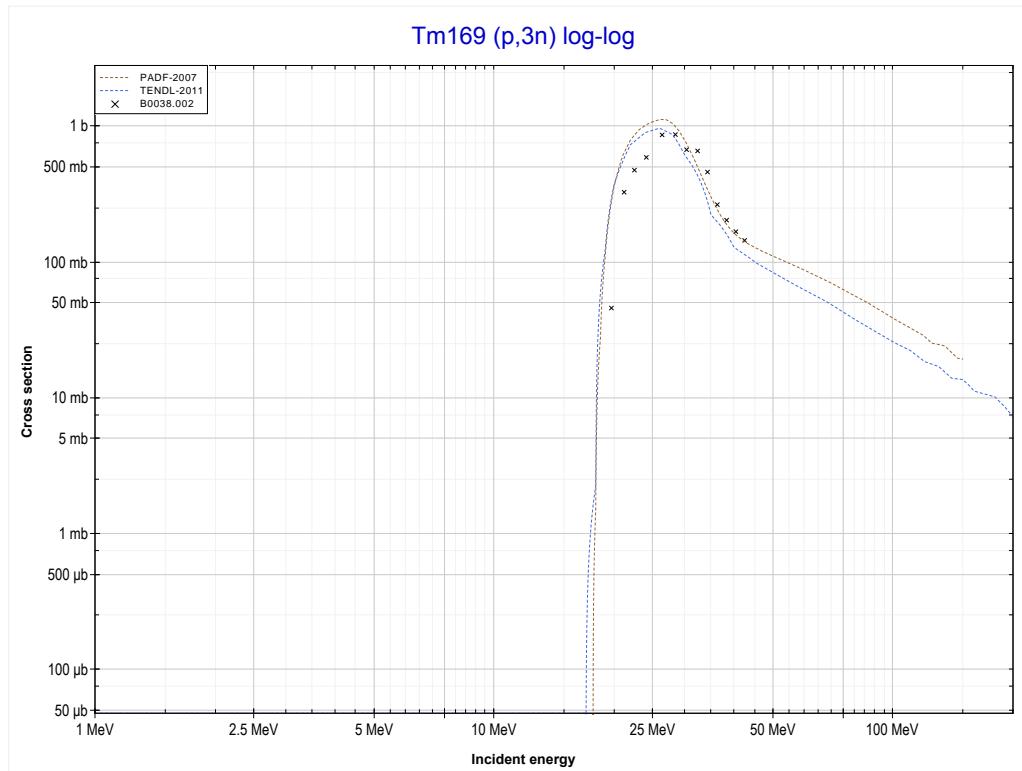
Reaction	Q-Value
Er170(p,n)Tm170	-1096.35 keV

<< 68-Er-170	69-Tm-169 MT4 (p,n) or MT5 (Yb169 production)	>> 72-Hf-178
<< MT4 (p,n)		>> MT17 (p,3n) >>



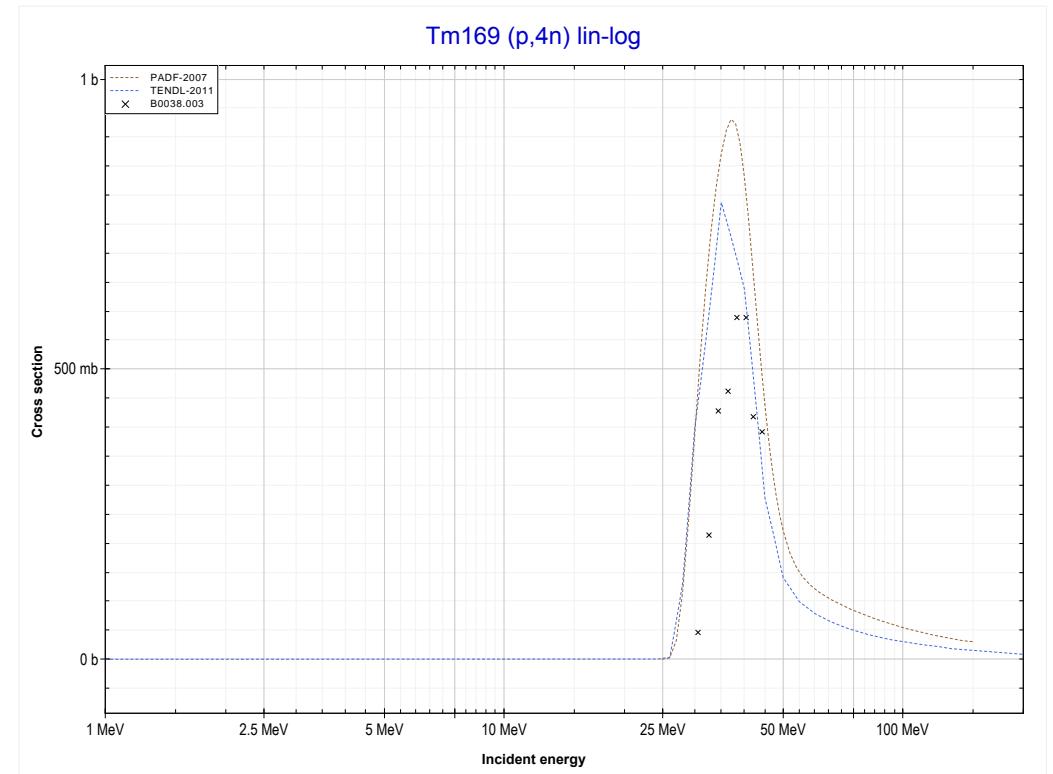
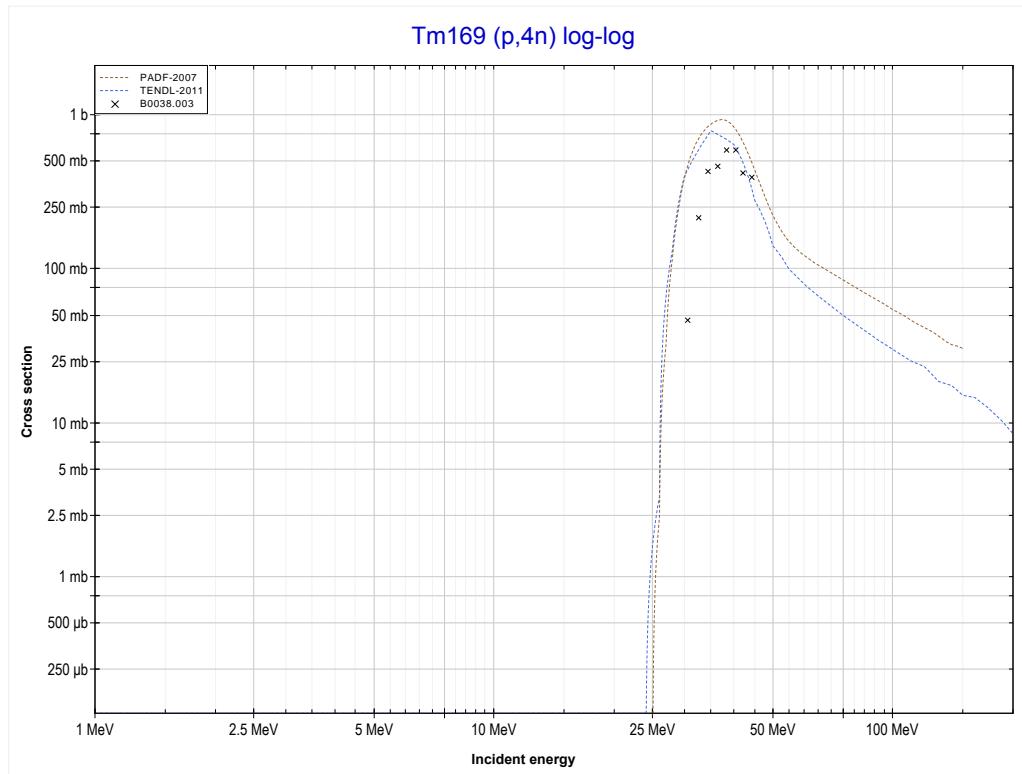
Reaction	Q-Value
Tm169(p,n)Yb169	-1692.35 keV

<< 63-Eu-153	69-Tm-169 MT17 (p,3n) or MT5 (Yb167 production)	>> 73-Ta-181
<< MT4 (p,n)		>> MT37 (p,4n)



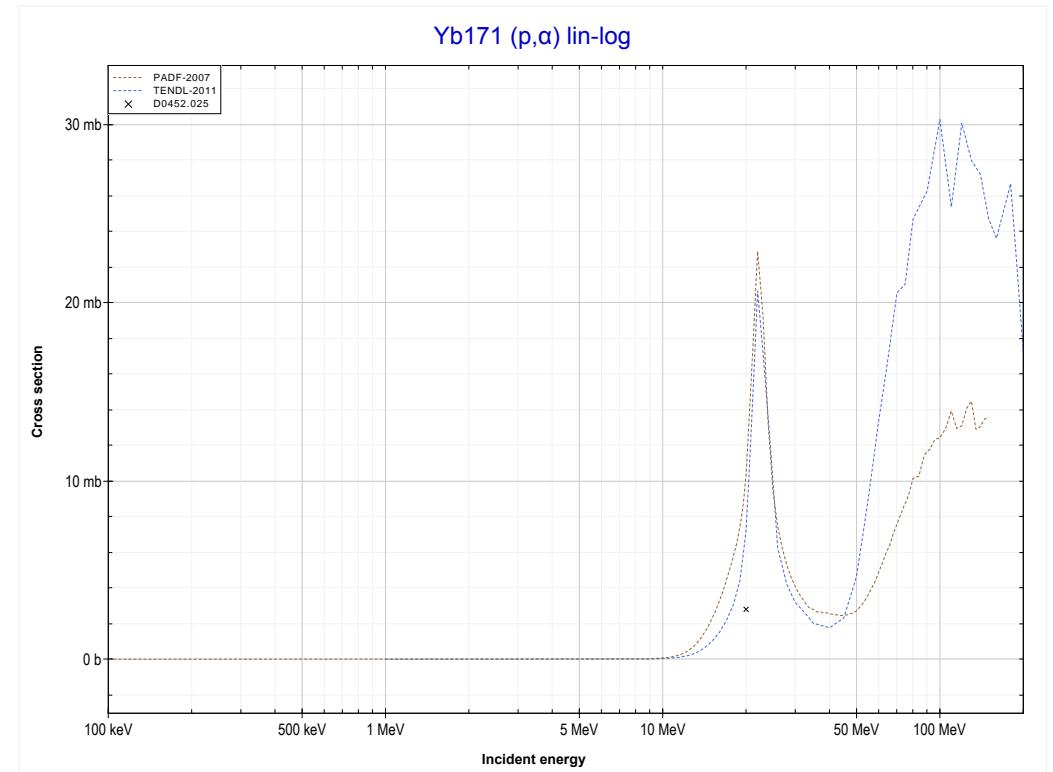
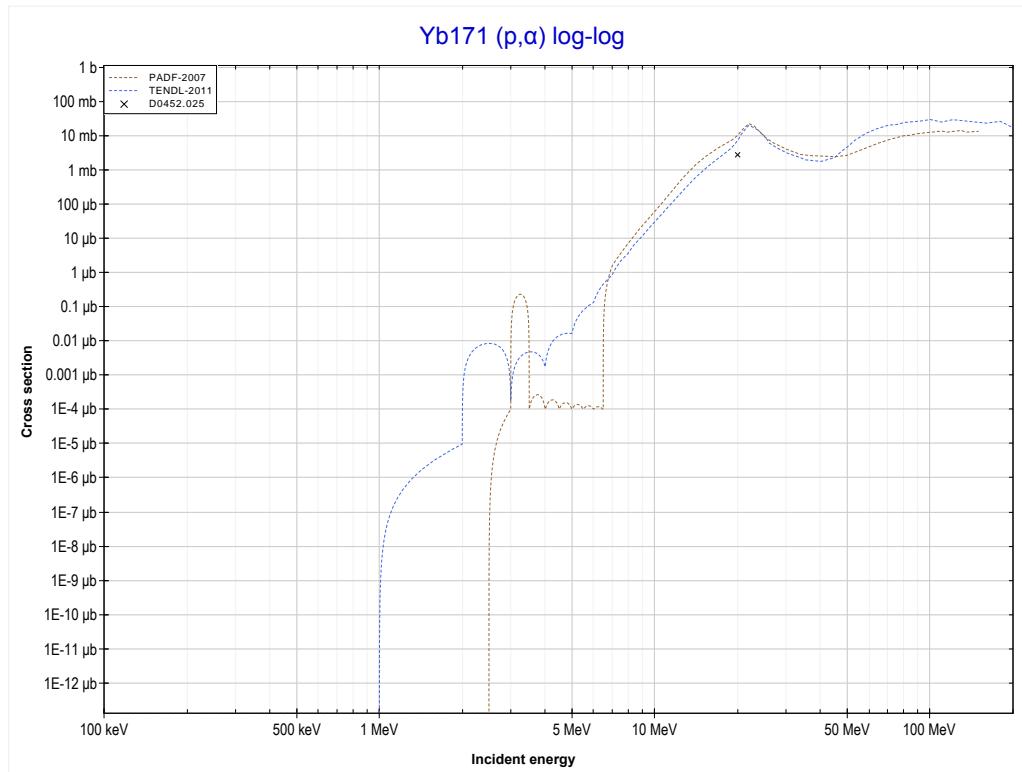
Reaction	Q-Value
Tm169(p,3n)Yb167	-17610.98 keV

<< 59-Pr-141	69-Tm-169 MT37 (p,4n) or MT5 (Yb166 production)	>> 73-Ta-181
<< MT17 (p,3n)		MT107 (p, α) >>



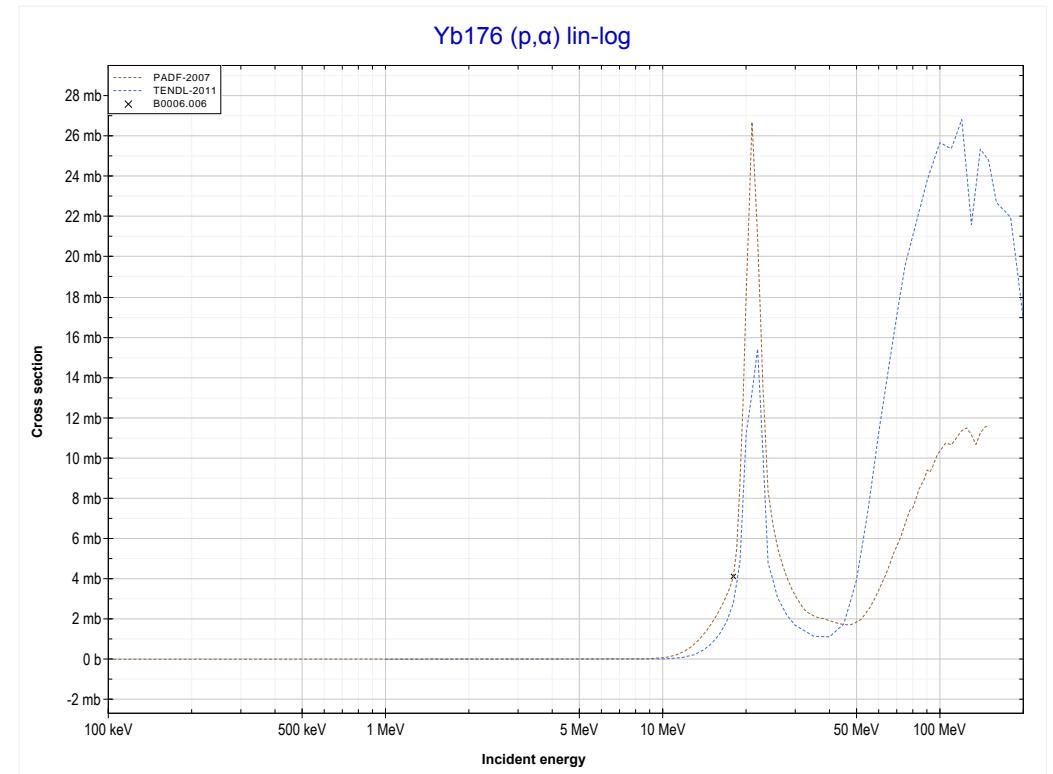
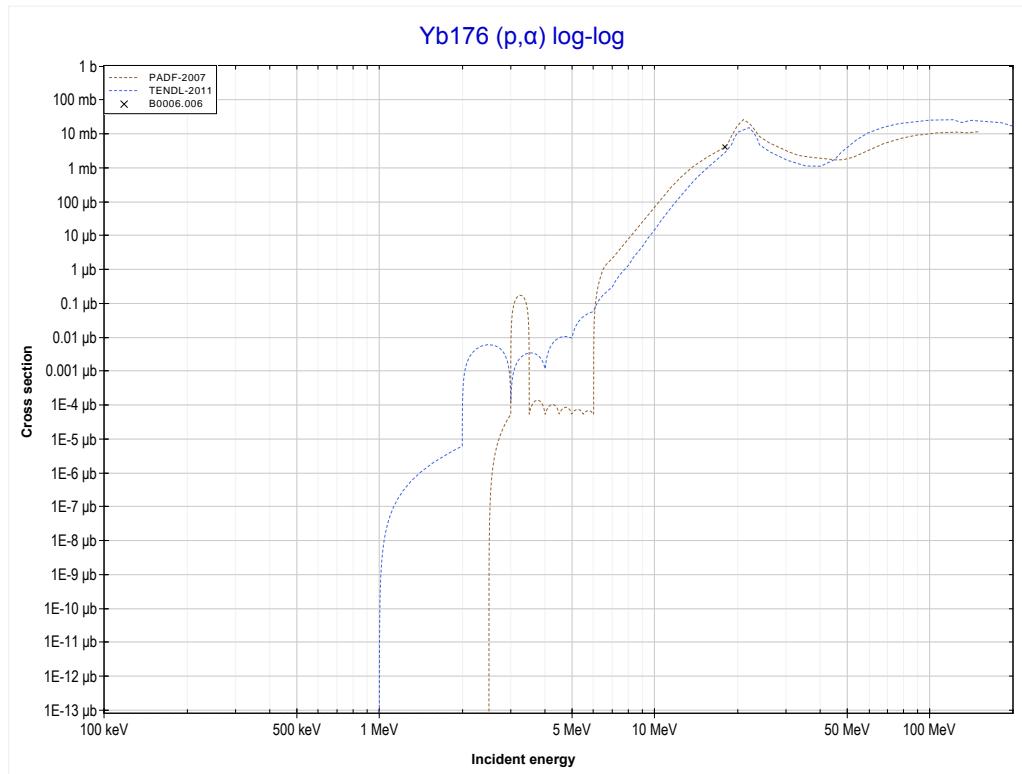
Reaction	Q-Value
Tm169(p,4n)Yb166	-24688.30 keV

<< 64-Gd-156	70-Yb-171 MT107 (p,α) or MT5 (Tm168 production)	70-Yb-176 >>
<< MT37 ($p,4n$)		MT107 (p,α) >>



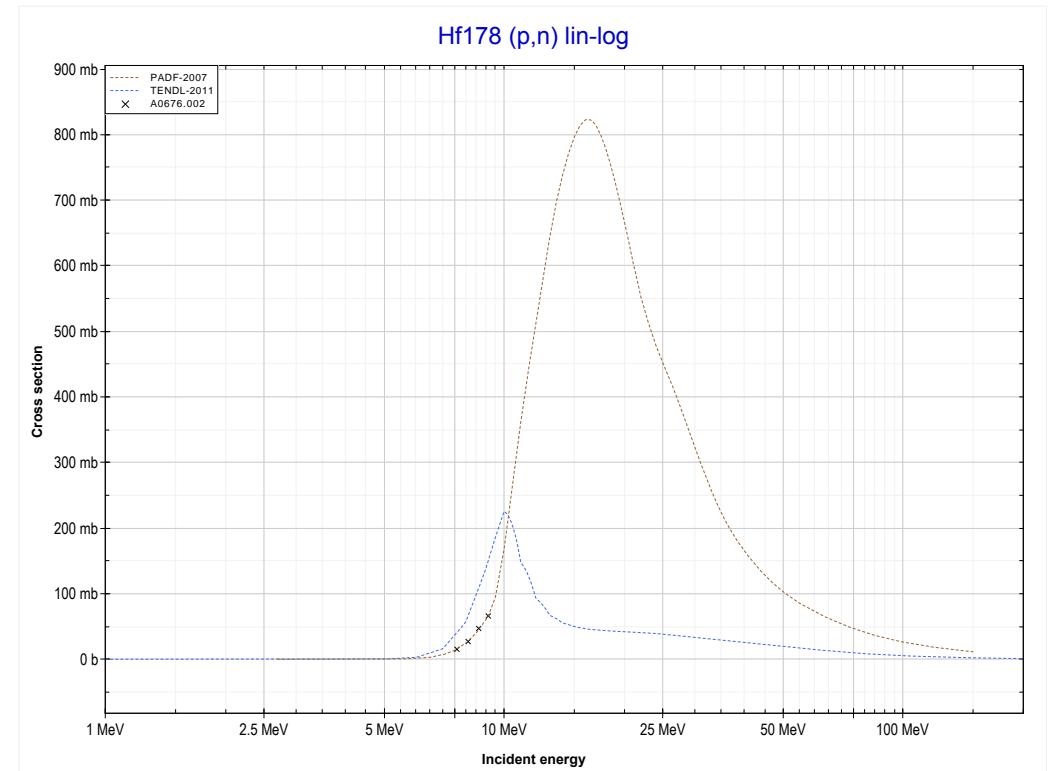
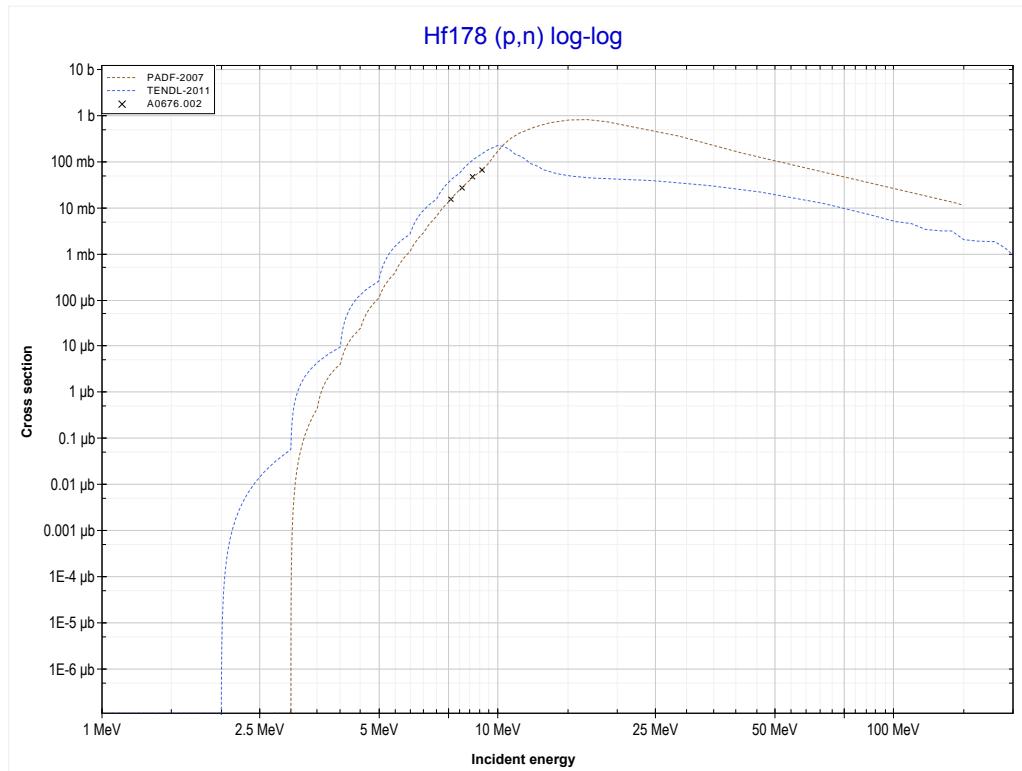
Reaction	Q-Value
Yb171(p,α)Tm168	6869.65 keV
Yb171($p,p+t$)Tm168	-12944.21 keV
Yb171($p,n+He3$)Tm168	-13707.96 keV
Yb171($p,2d$)Tm168	-16976.87 keV
Yb171($p,n+p+d$)Tm168	-19201.44 keV
Yb171($p,2n+2p$)Tm168	-21426.00 keV

<< 70-Yb-171	70-Yb-176 MT107 (p,α) or MT5 (Tm173 production)	79-Au-197 >>
<< MT107 (p,α)		MT4 (p,n) >>



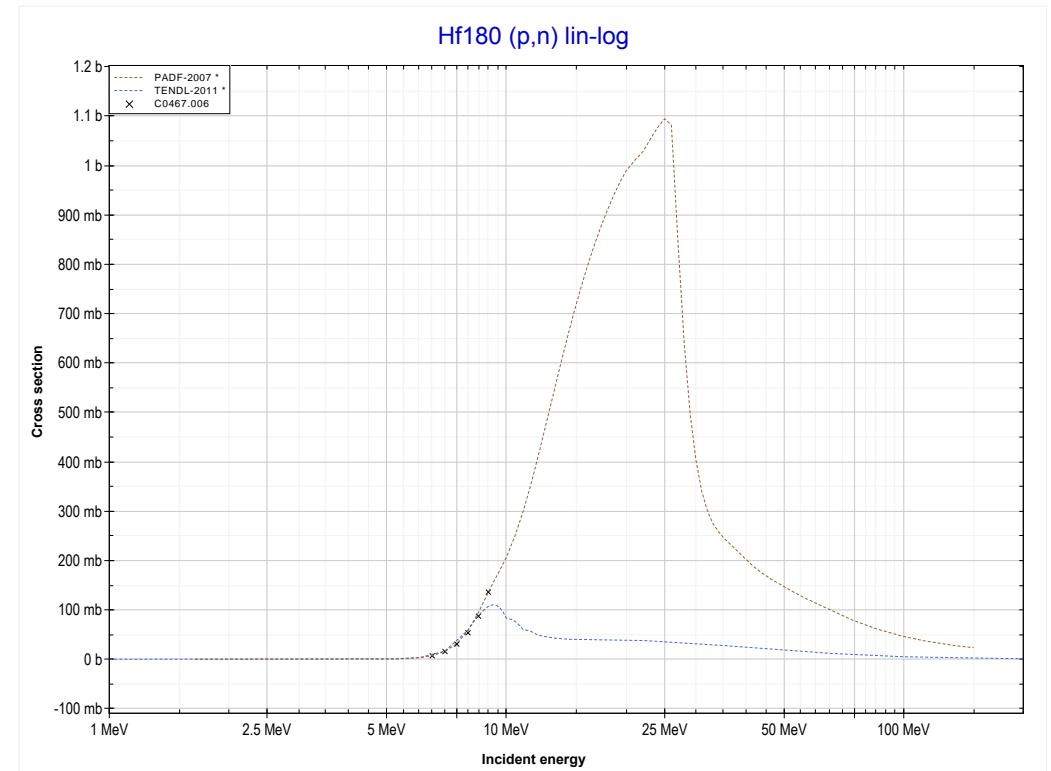
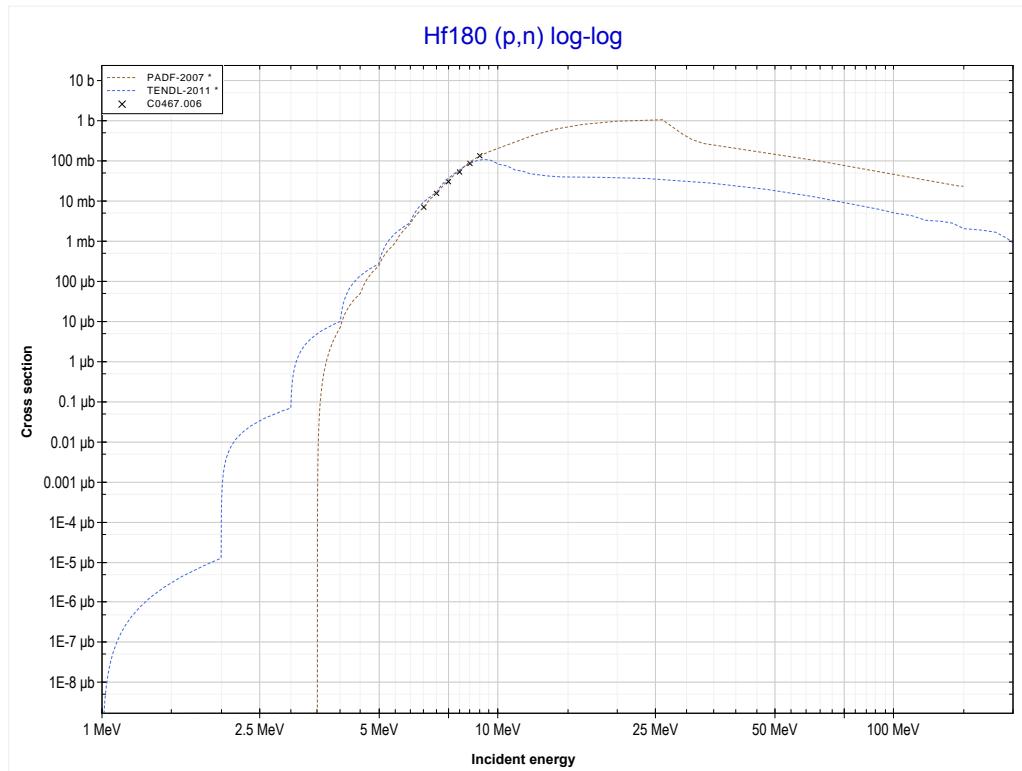
Reaction	Q-Value
Yb176(p,α)Tm173	7628.95 keV
Yb176($p,p+t$)Tm173	-12184.91 keV
Yb176($p,n+He3$)Tm173	-12948.66 keV
Yb176($p,2d$)Tm173	-16217.57 keV
Yb176($p,n+p+d$)Tm173	-18442.14 keV
Yb176($p,2n+2p$)Tm173	-20666.70 keV

<< 69-Tm-169	72-Hf-178 MT4 (p,n) or MT5 (Ta178 production)	72-Hf-180 >>
<< MT107 (p, α)		MT4 (p,n) >>



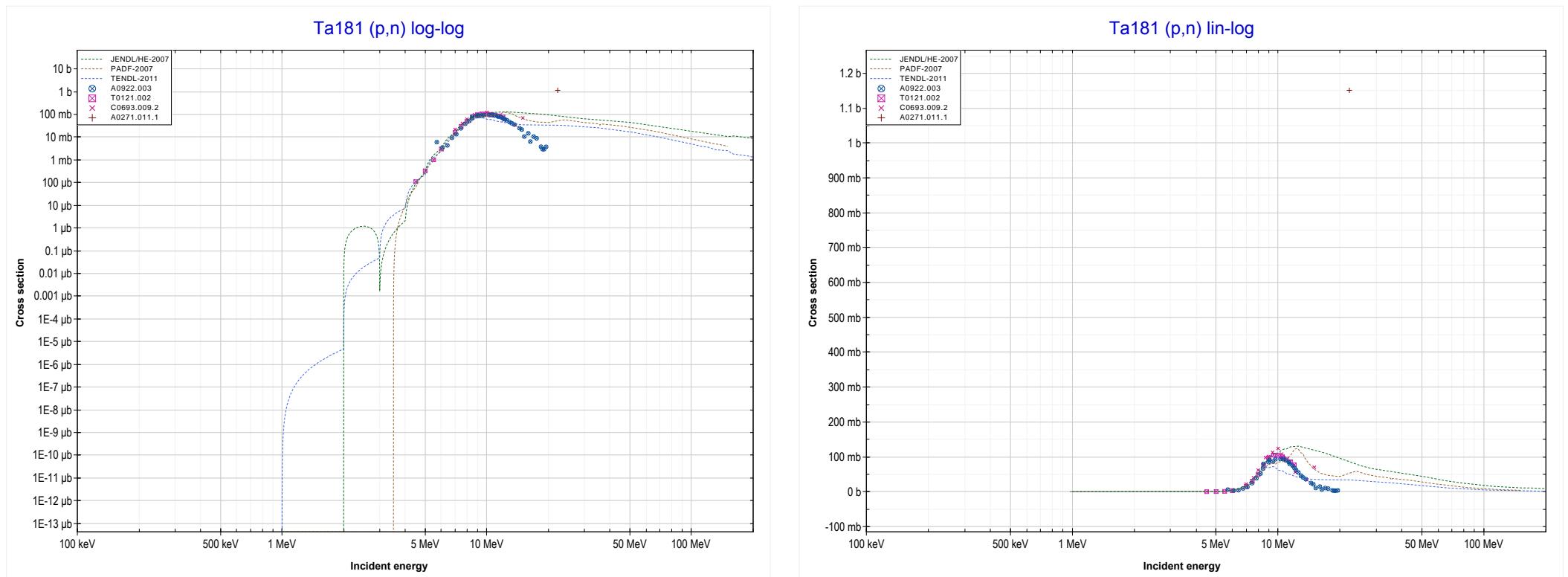
Reaction	Q-Value
Hf178(p,n)Ta178	-2719.65 keV

<< 72-Hf-178	72-Hf-180 MT4 (p,n) or MT5 (Ta180 production)	>> 73-Ta-181
<< MT4 (p,n)		MT4 (p,n) >>



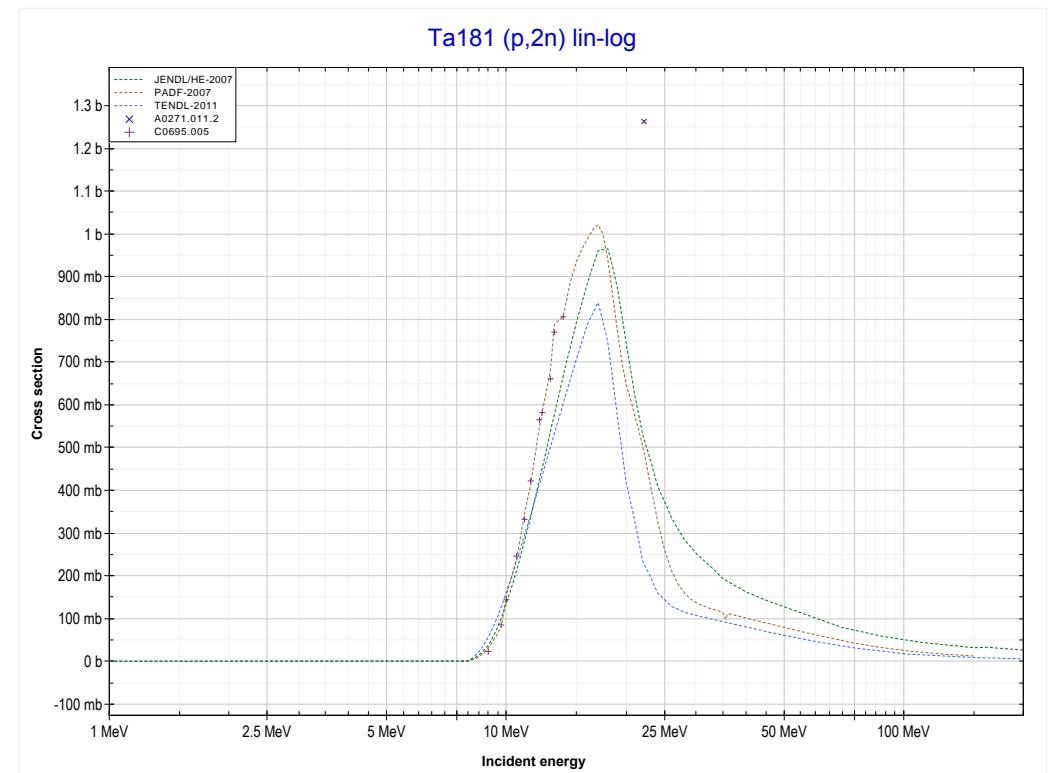
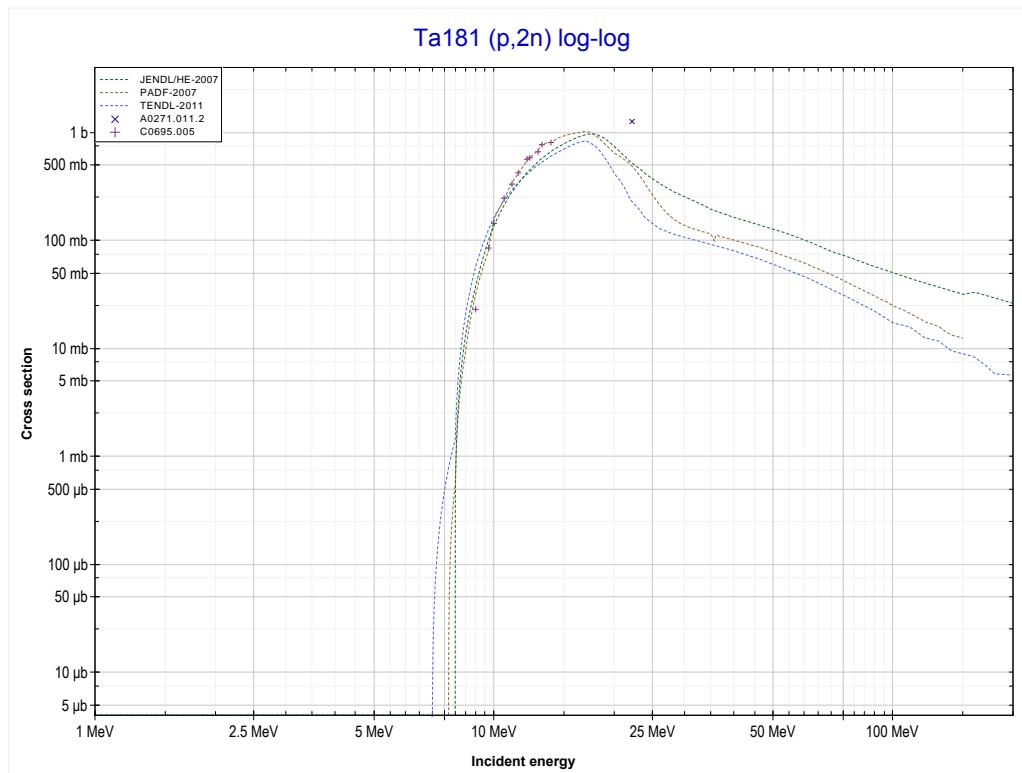
Reaction	Q-Value
Hf180(p,n)Ta180	-1634.55 keV

<< 72-Hf-180	73-Ta-181 MT4 (p,n) or MT5 (W181 production)	74-W-184 >>
<< MT4 (p,n)		MT16 (p,2n) >>



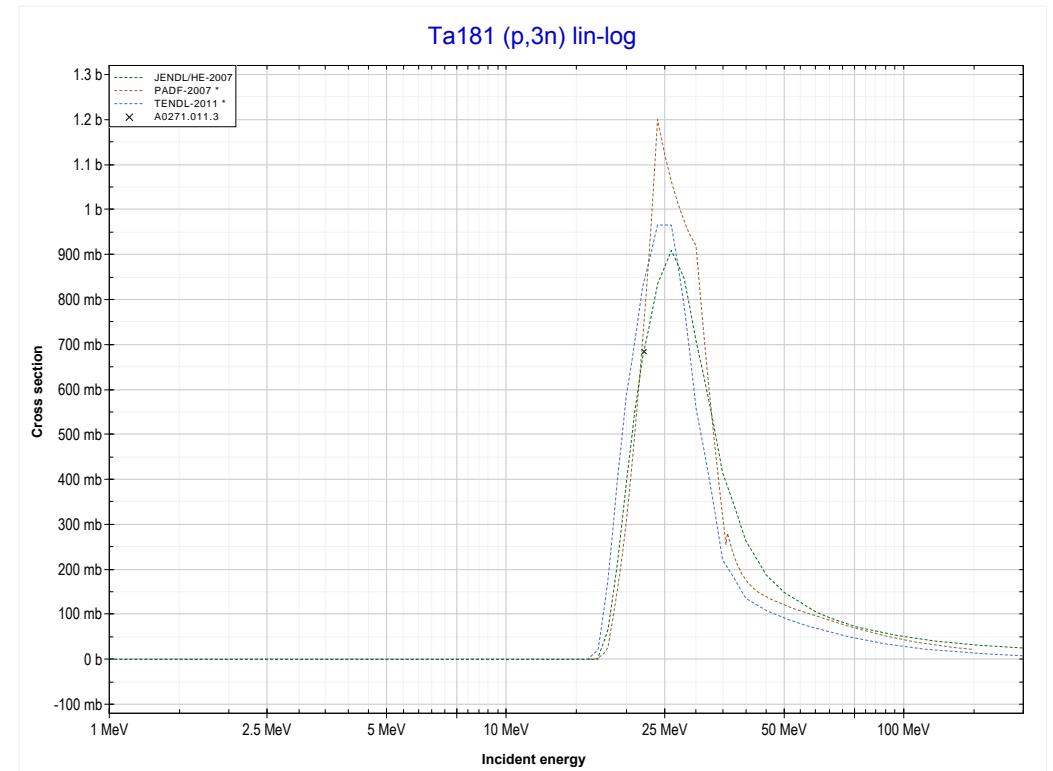
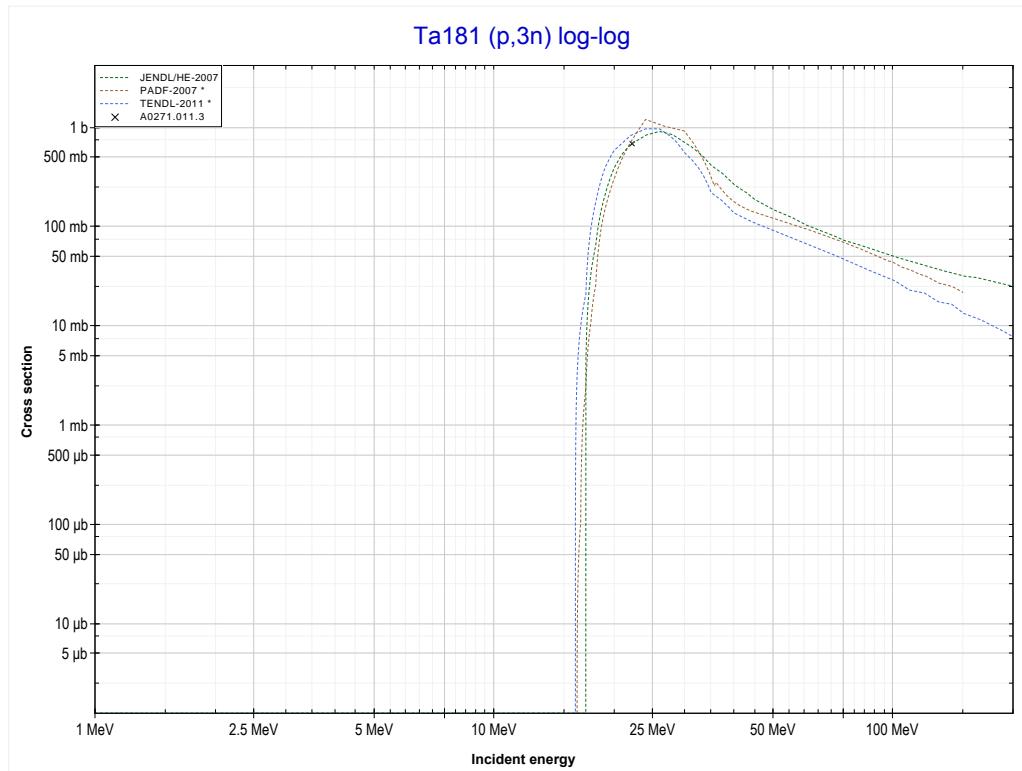
Reaction	Q-Value
Ta181(p,n)W181	-969.95 keV

<< 68-Er-167	73-Ta-181 MT16 (p,2n) or MT5 (W180 production)	74-W-182 >>
<< MT4 (p,n)		MT17 (p,3n) >>



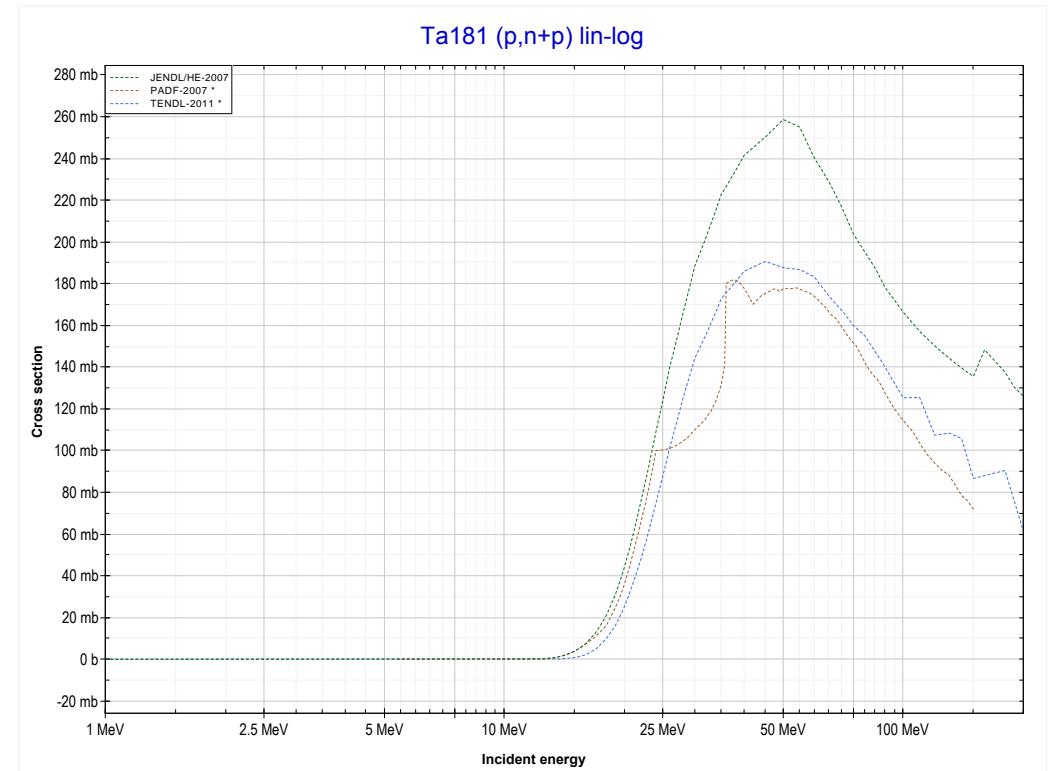
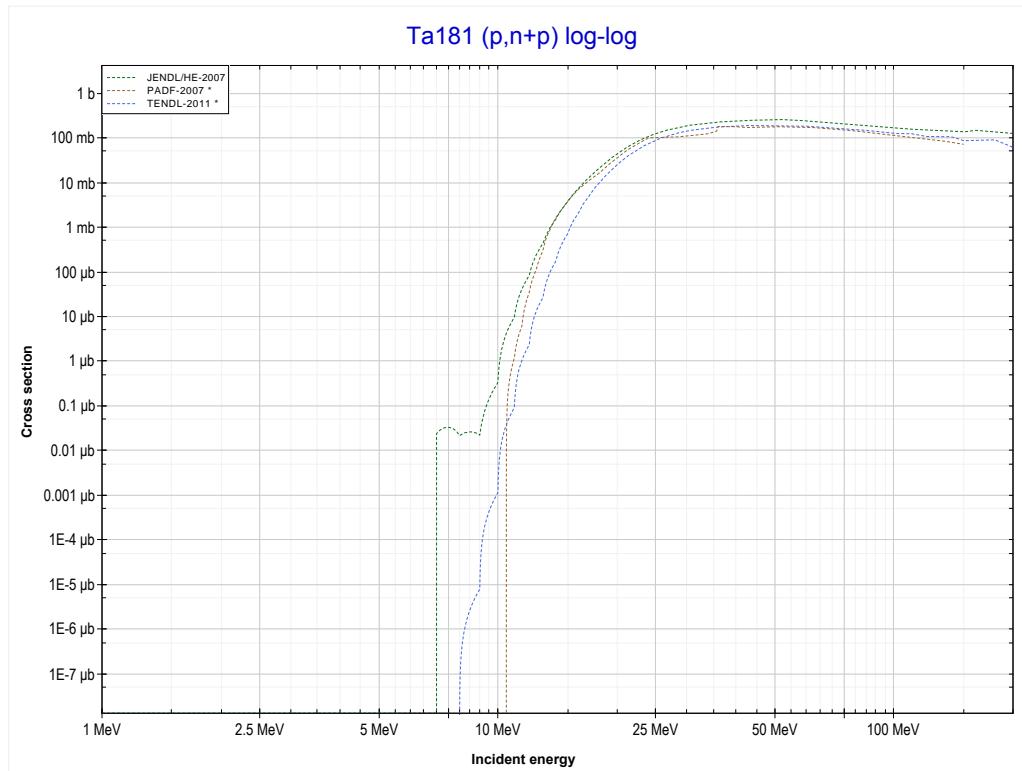
Reaction	Q-Value
Ta181(p,2n)W180	-7651.26 keV

<< 69-Tm-169	73-Ta-181 MT17 (p,3n) or MT5 (W179 production)	76-Os-192 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>



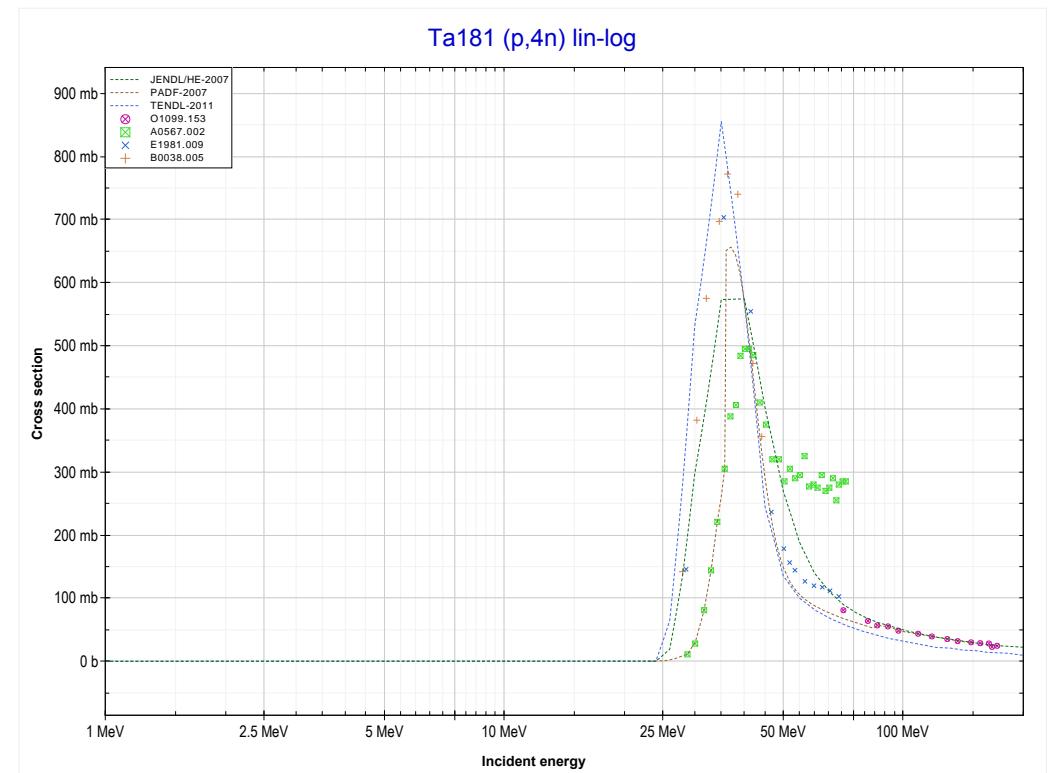
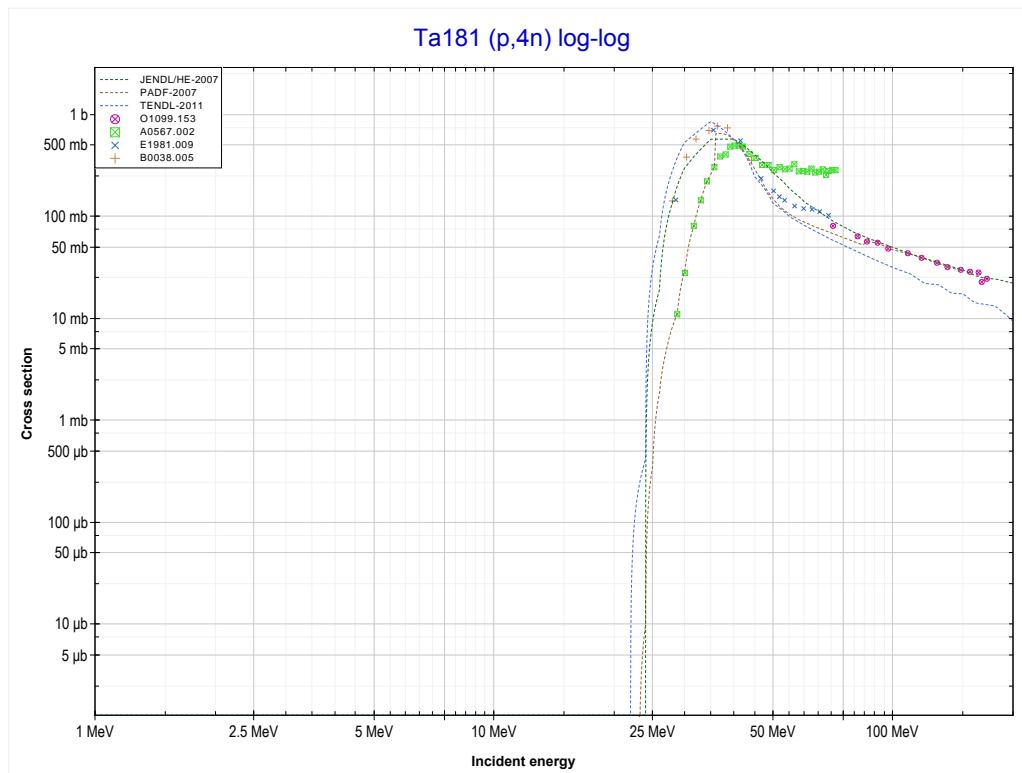
Reaction	Q-Value
Ta181(p,3n)W179	-16062.58 keV

<< 58-Ce-142	73-Ta-181 MT28 (p,n+p) or MT5 (Ta180 production)	74-W-186 >>
<< MT17 (p,3n)		MT37 (p,4n) >>



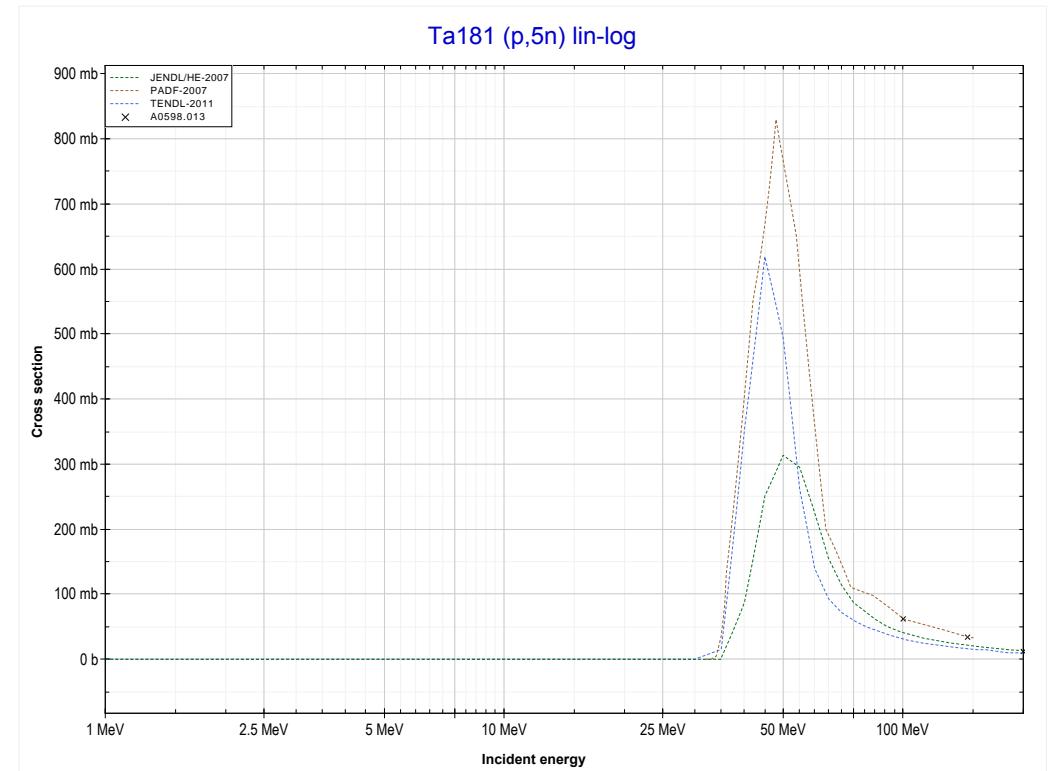
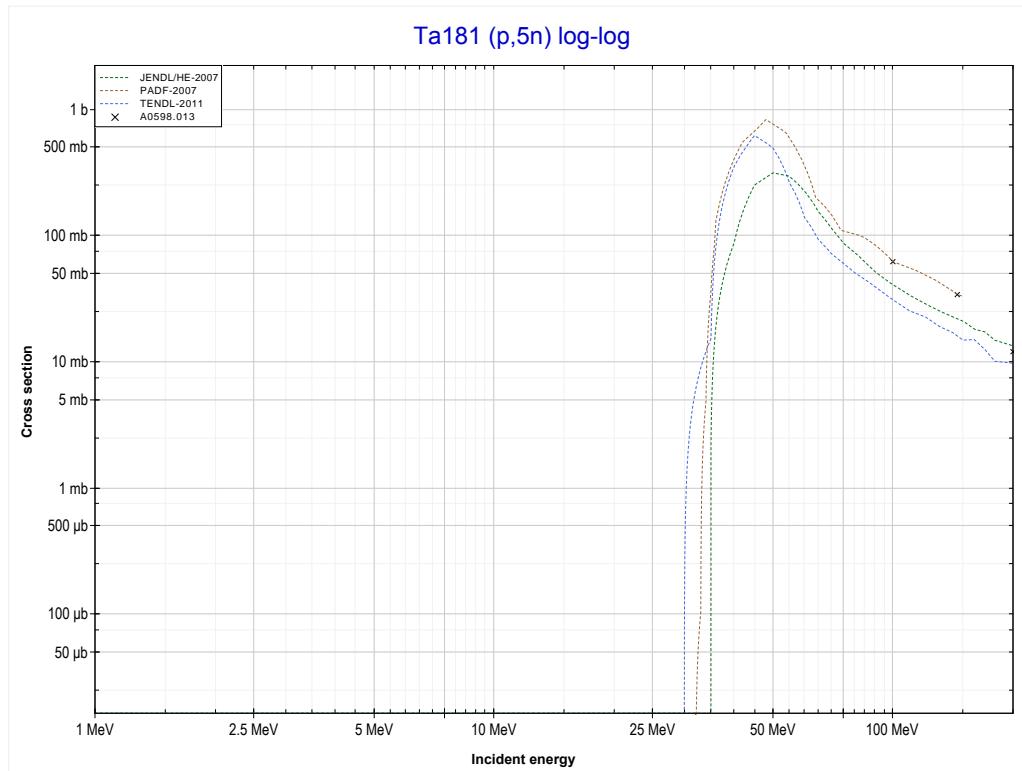
Reaction	Q-Value
Ta181(p,d)Ta180	-5352.15 keV
Ta181(p,n+p)Ta180	-7576.72 keV

<< 69-Tm-169	73-Ta-181 MT37 (p,4n) or MT5 (W178 production)	76-Os-192 >>
<< MT28 (p,n+p) >>		MT152 (p,5n) >>



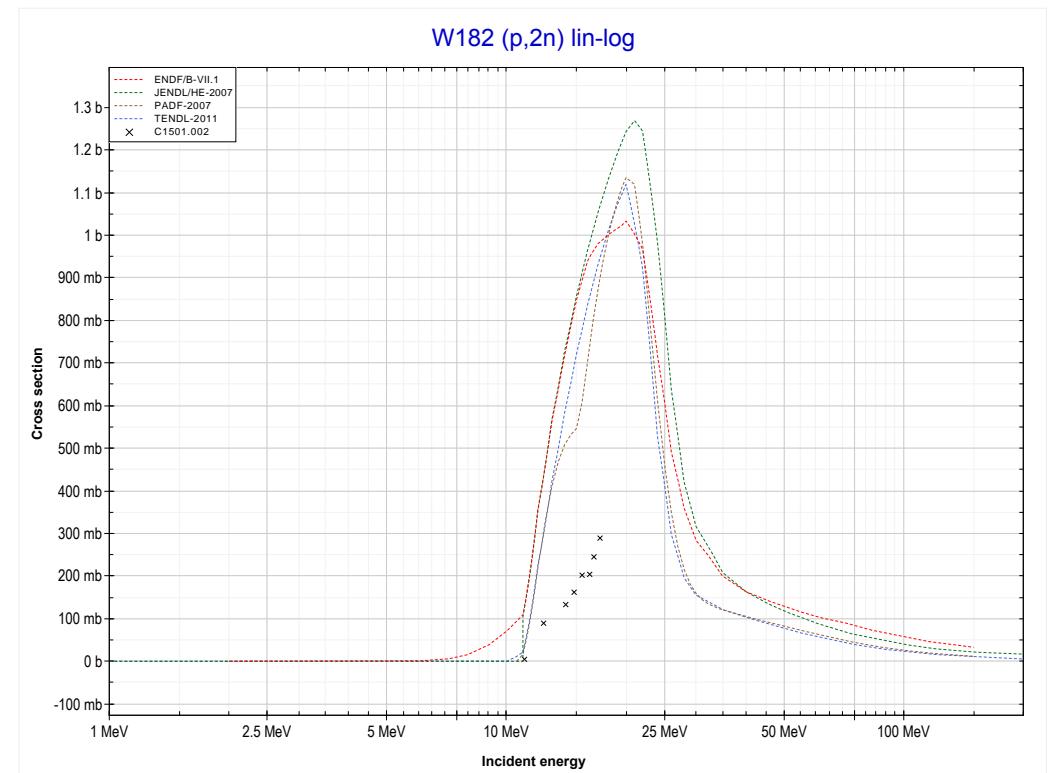
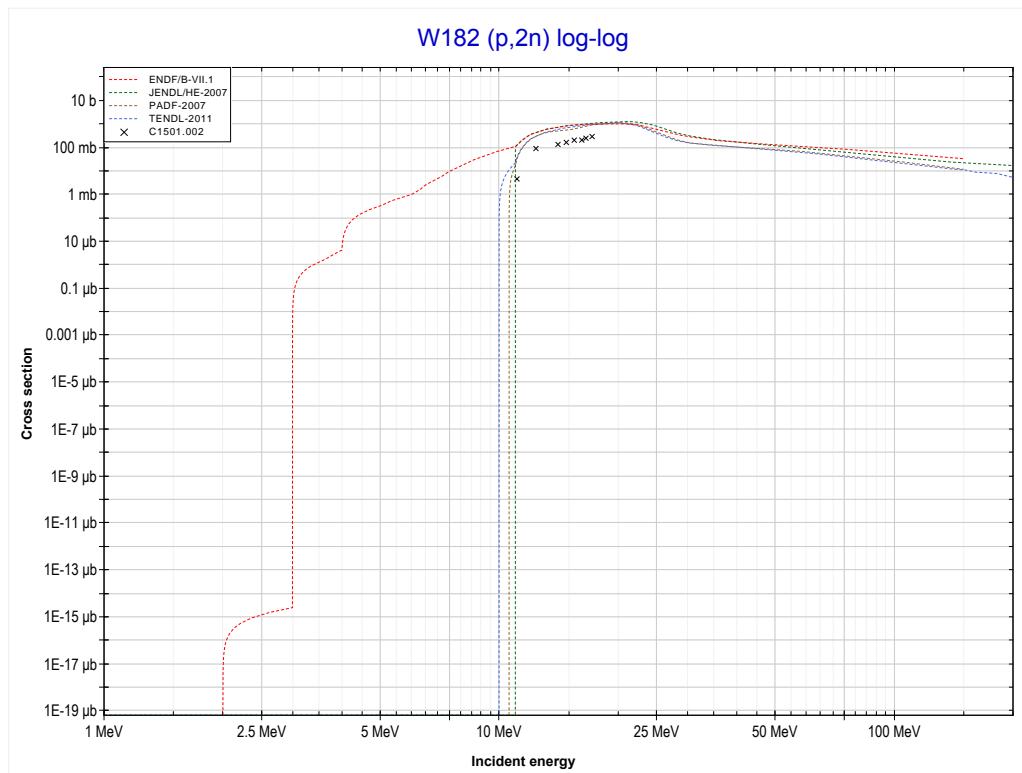
Reaction	Q-Value
Ta181(p,4n)W178	-23021.90 keV

<< 59-Pr-141	73-Ta-181 MT152 (p,5n) or MT5 (W177 production)	76-Os-192 >>
<< MT37 (p,4n)		MT16 (p,2n) >>



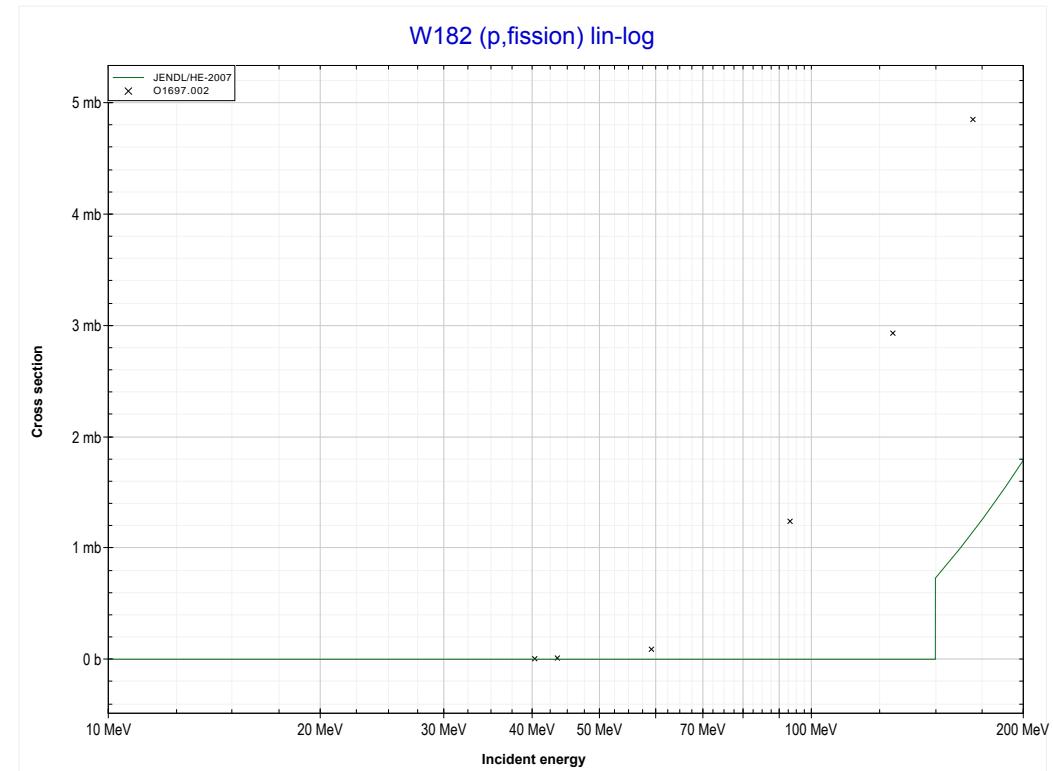
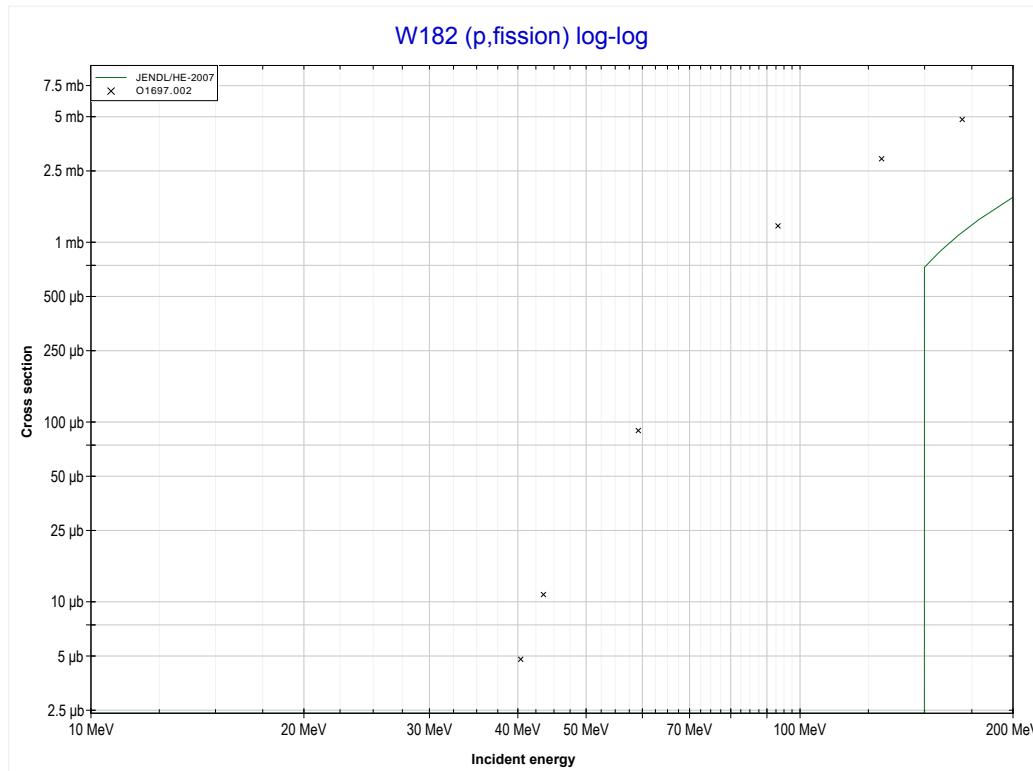
Reaction	Q-Value
Ta181(p,5n)W177	-31807.21 keV

<< 73-Ta-181	74-W-182 MT16 (p,2n) or MT5 (Re181 production)	79-Au-197 >>
<< MT152 (p,5n)		MT18 (p,fission) >>

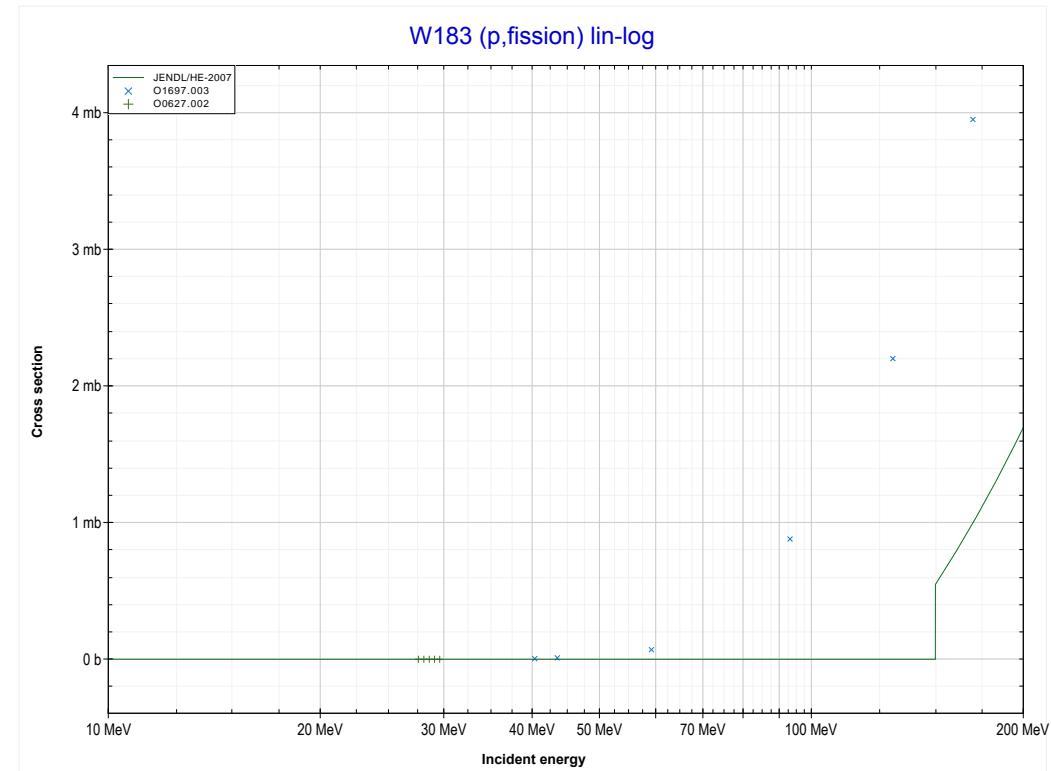
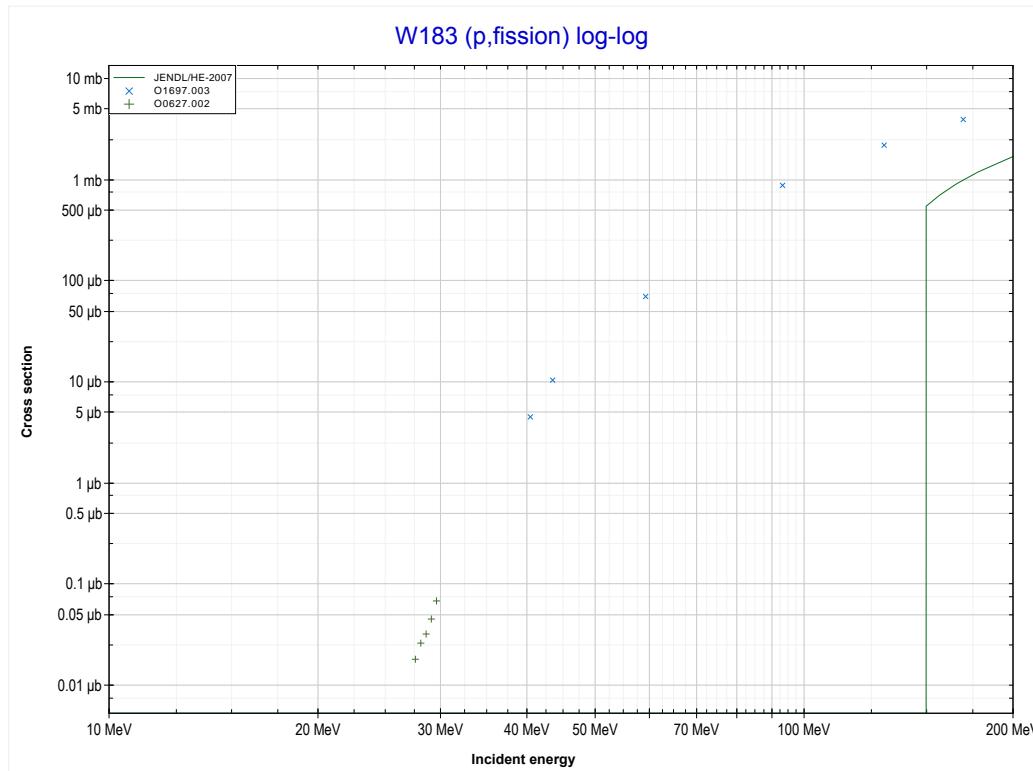


Reaction	Q-Value
W182(p,2n)Re181	-10590.16 keV

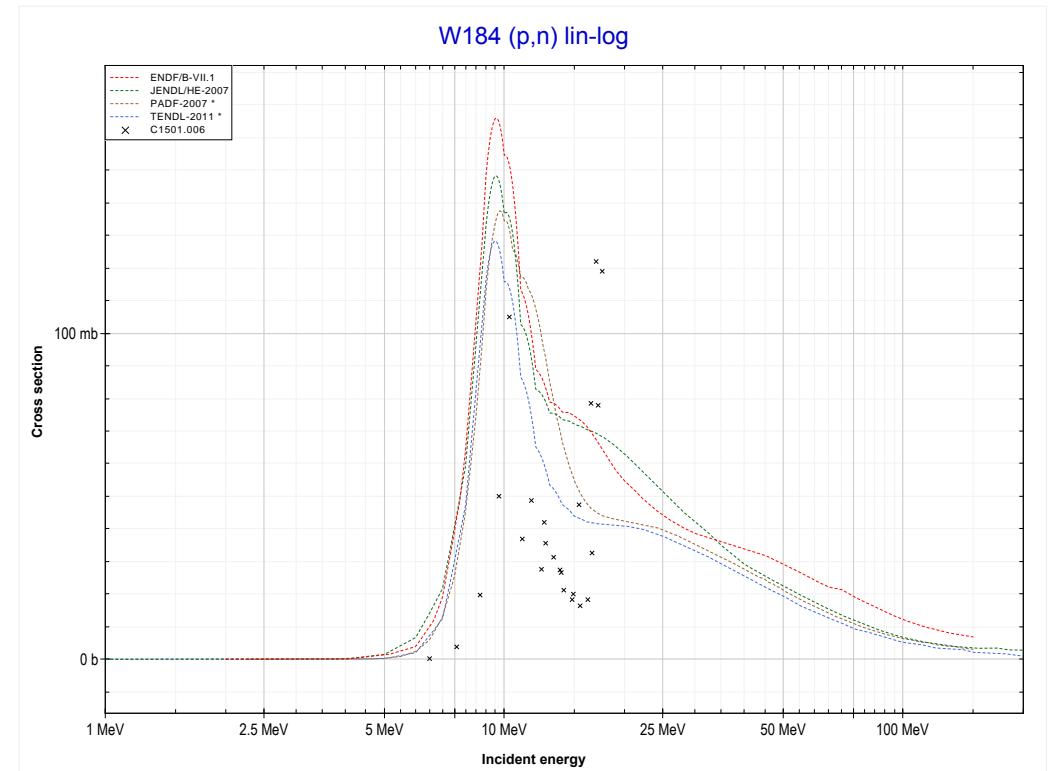
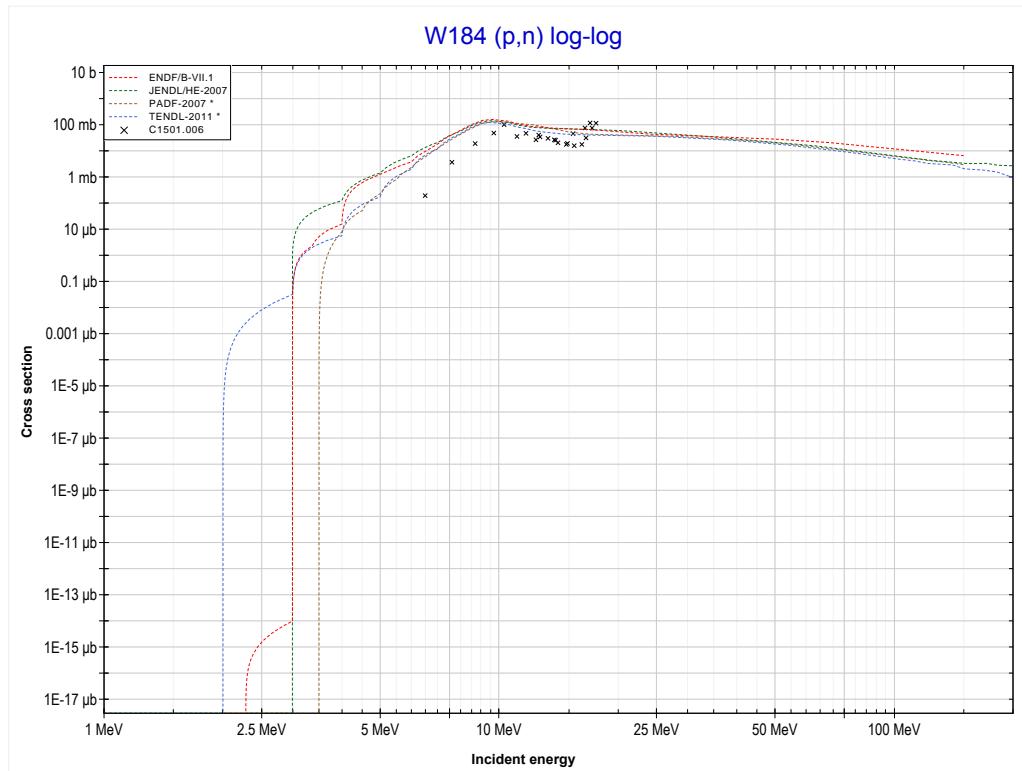
<< MT16 (p,2n)	74-W-182 MT18 (p,fission)	74-W-183 >> MT18 (p,fission) >>
--------------------------------------	--	--



<< 74-W-182	74-W-183	74-W-184 >>
<< MT18 (p,fission)	MT18 (p,fission)	MT4 (p,n) >>

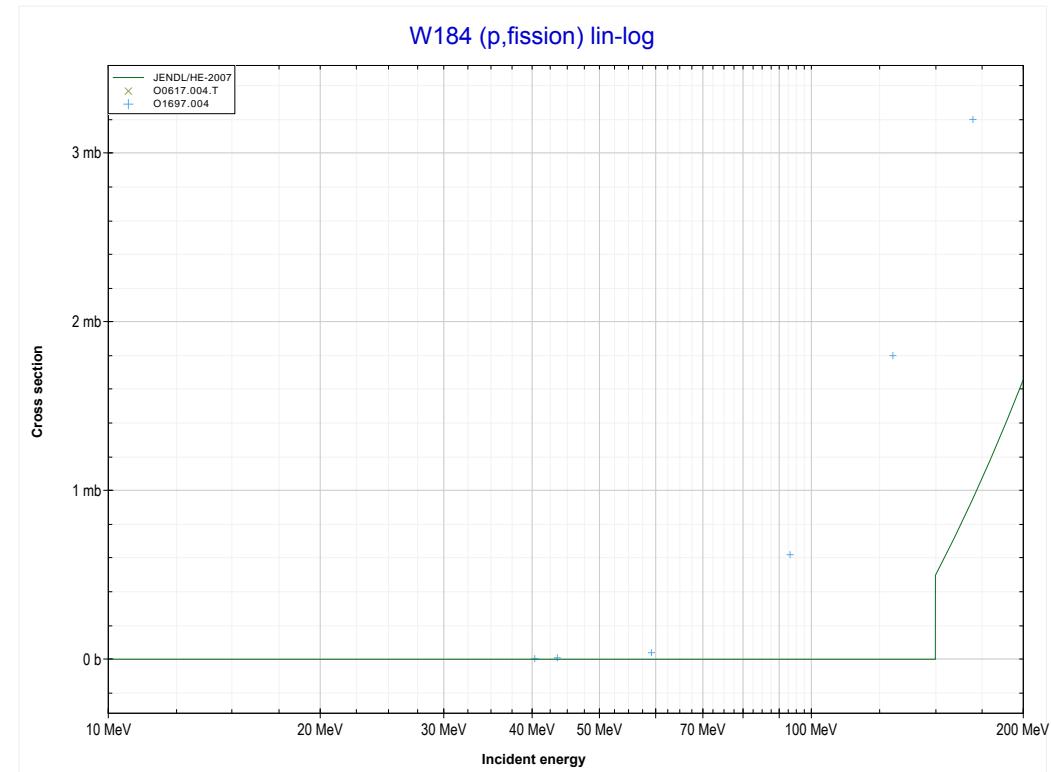
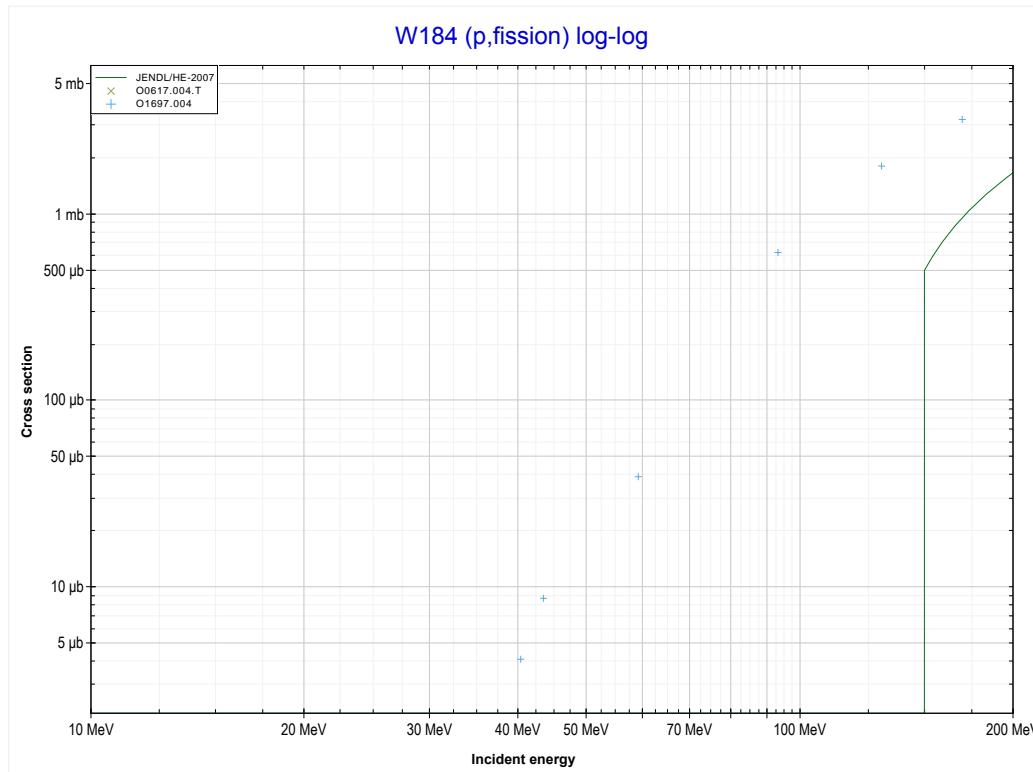


<< 73-Ta-181	74-W-184	74-W-186 >>
<< MT18 (p,fission)	MT4 (p,n) or MT5 (Re184 production)	MT18 (p,fission) >>

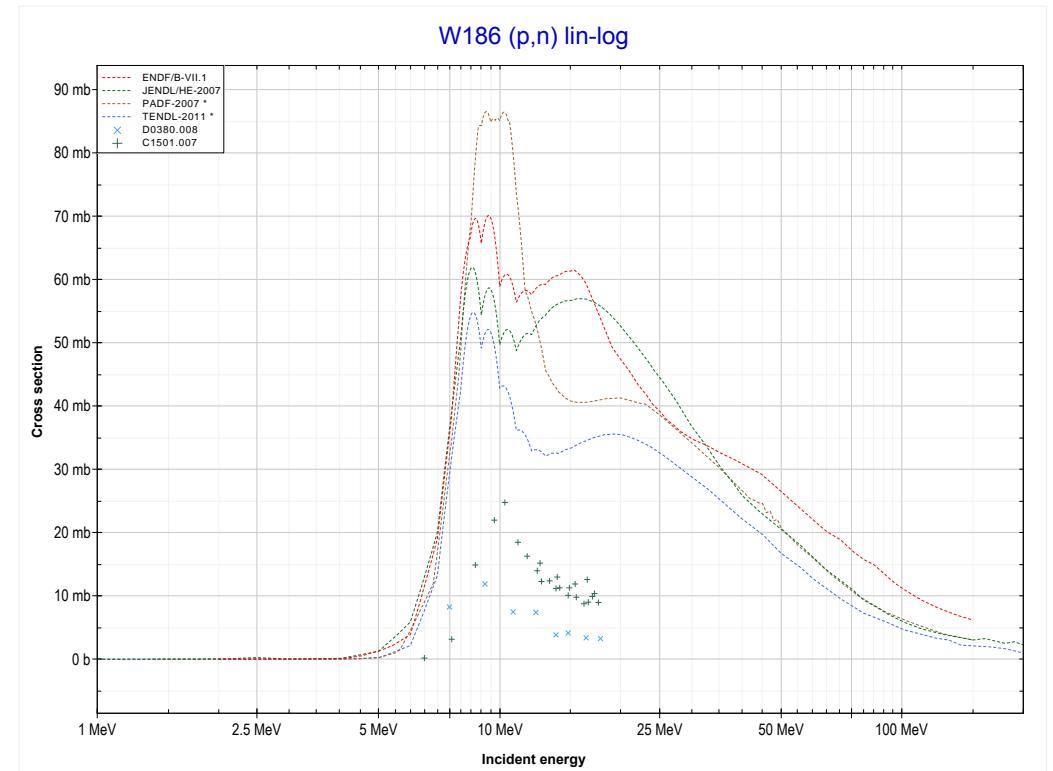
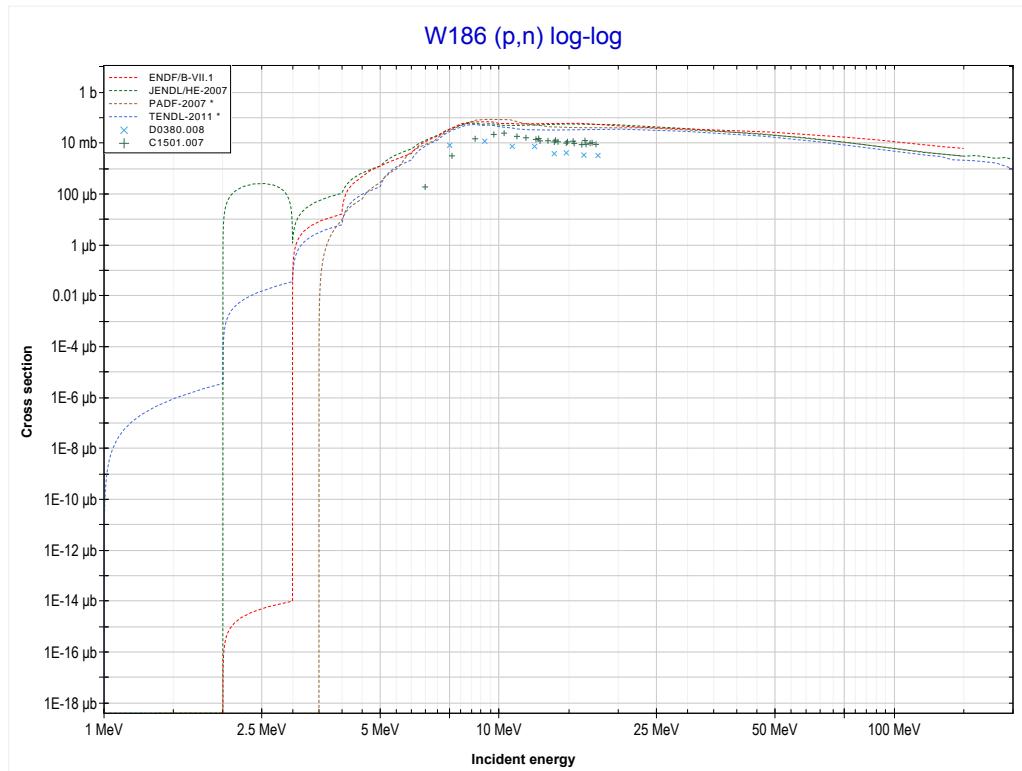


Reaction	Q-Value
W184(p,n)Re184	-2262.65 keV

<< 74-W-183	74-W-184 MT18 (p,fission)	74-W-186 >>
<< MT4 (p,n)		MT4 (p,n) >>

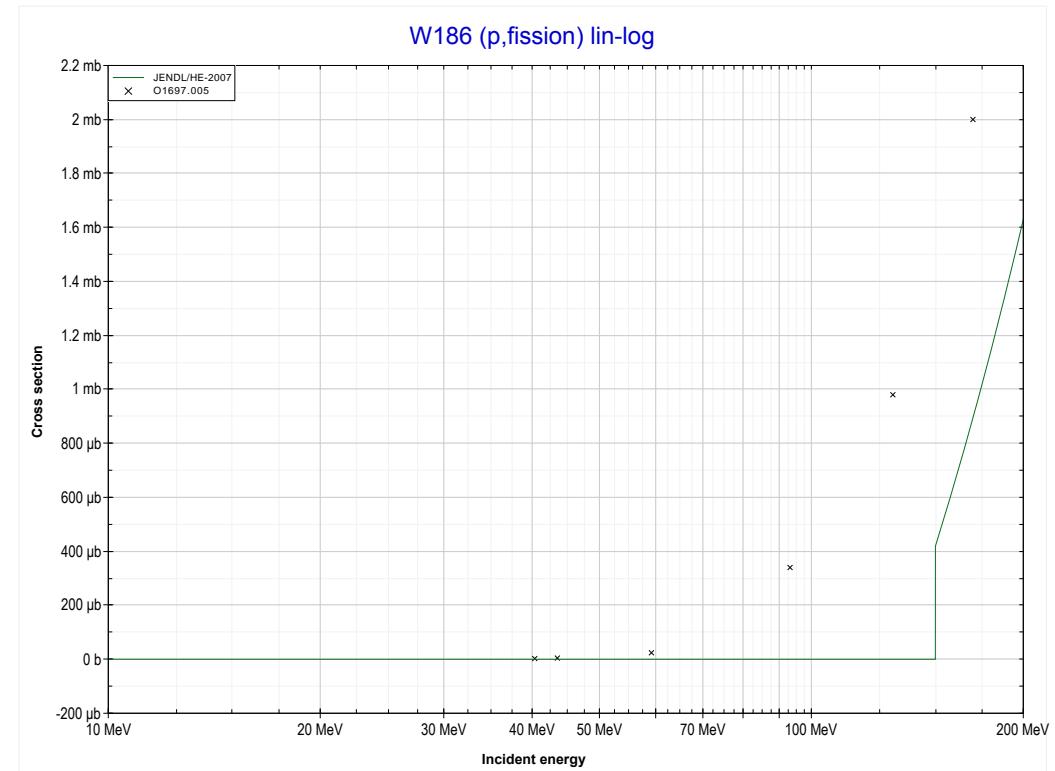
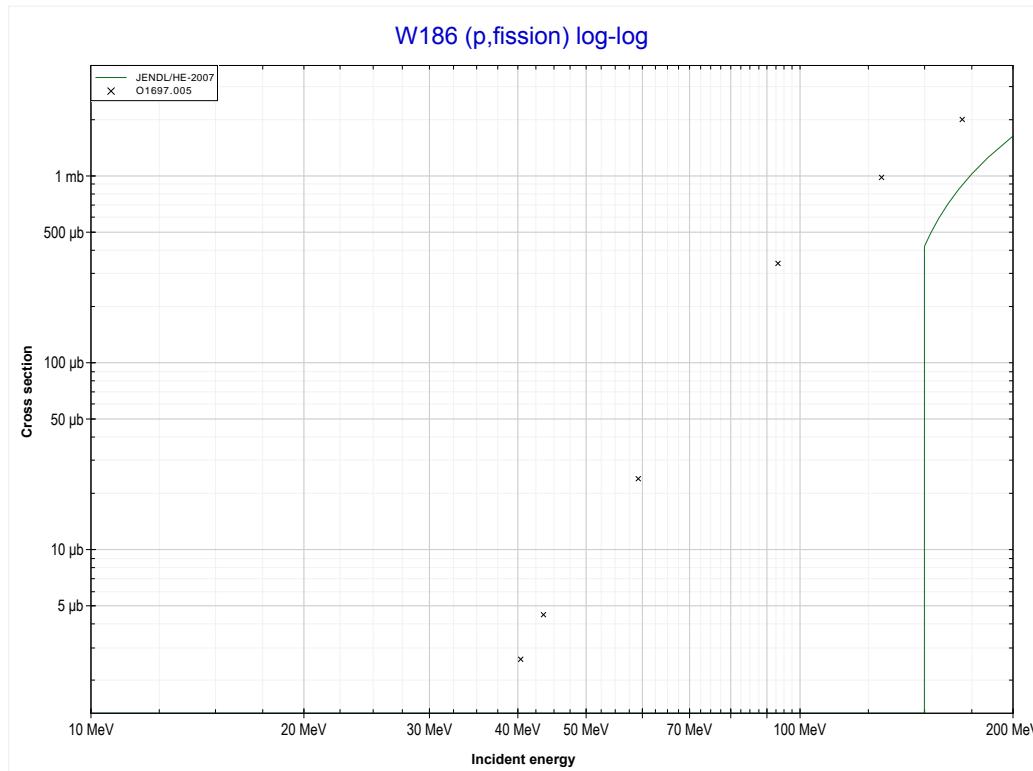


<< 74-W-184	74-W-186 MT4 (p,n) or MT5 (Re186 production)	76-Os-192 >>
<< MT18 (p,fission)		MT18 (p,fission) >>

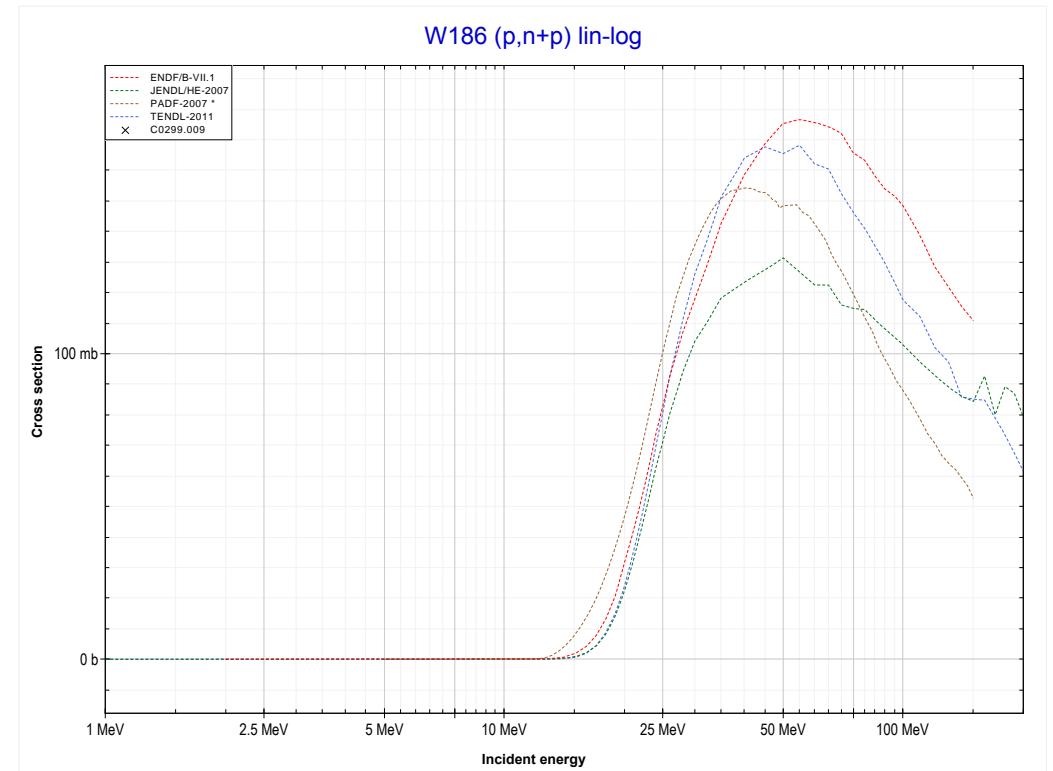
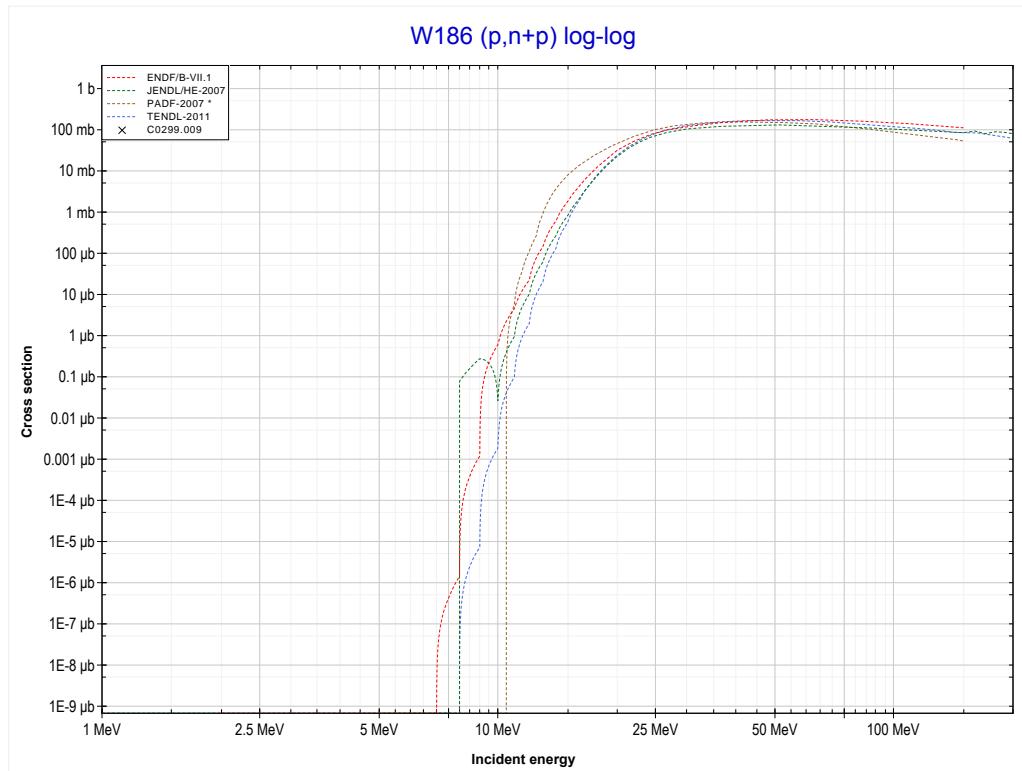


Reaction	Q-Value
W186(p,n)Re186	-1361.65 keV

<< 74-W-184	74-W-186 MT18 (p,fission)	>> 82-Pb-204
<< MT4 (p,n)		>> MT28 (p,n+p) >>

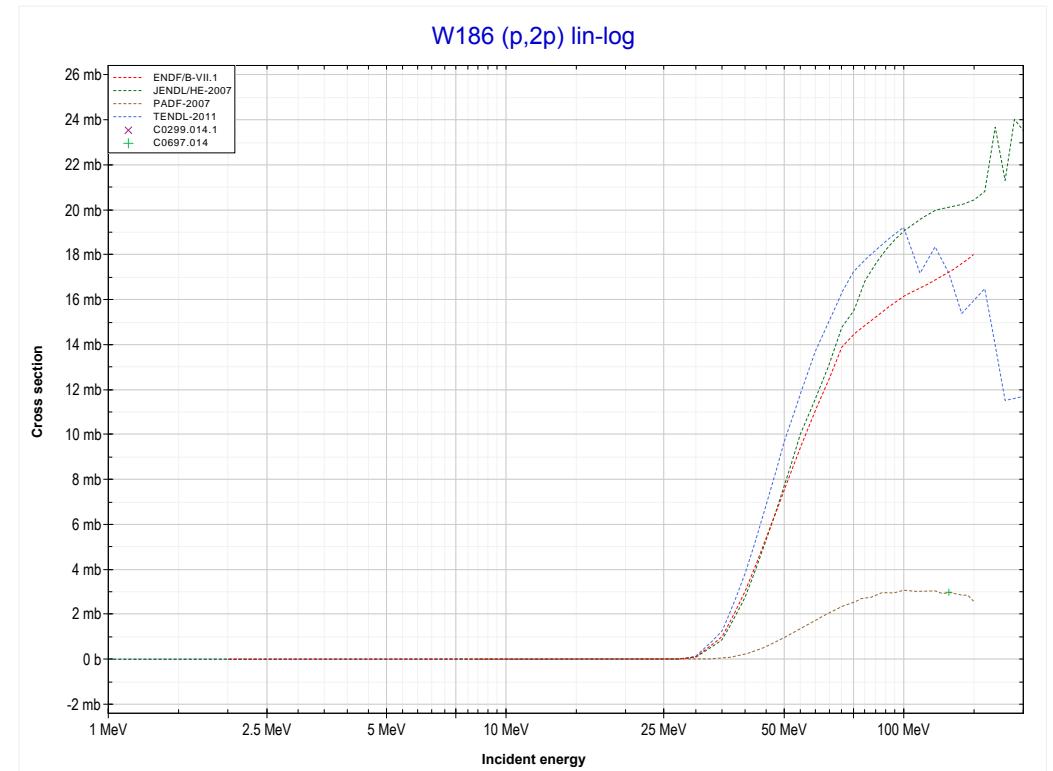
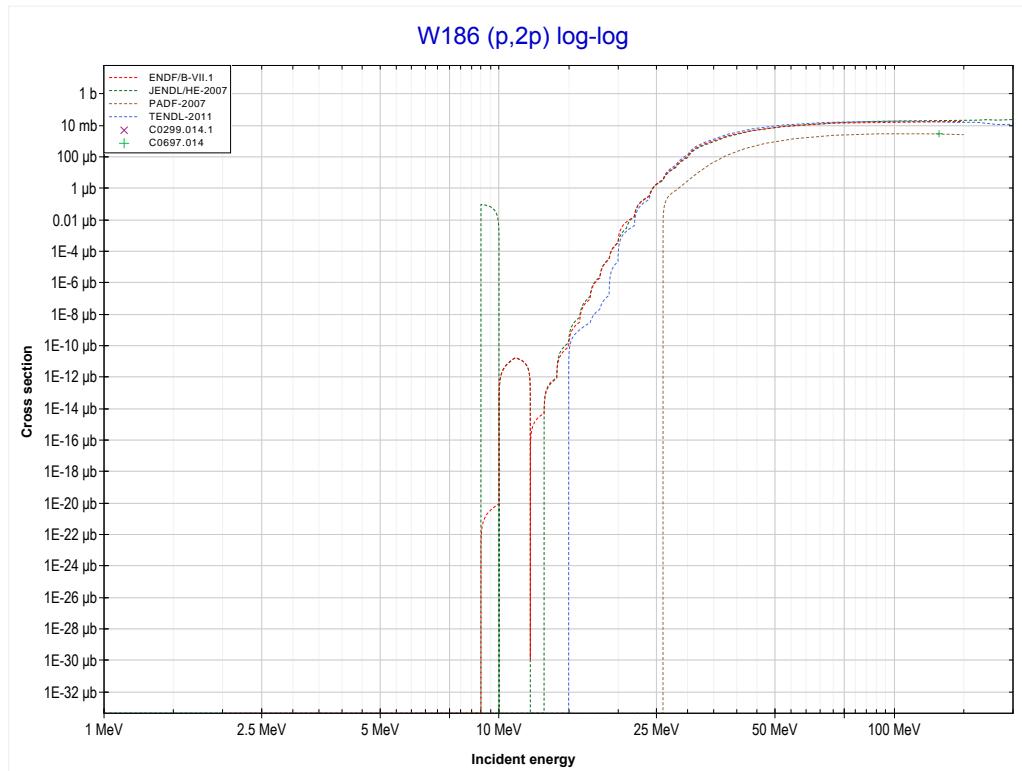


<< 73-Ta-181	74-W-186 MT28 (p,n+p) or MT5 (W185 production)	>> 75-Re-187
<< MT18 (p,fission)		MT111 (p,2p) >>



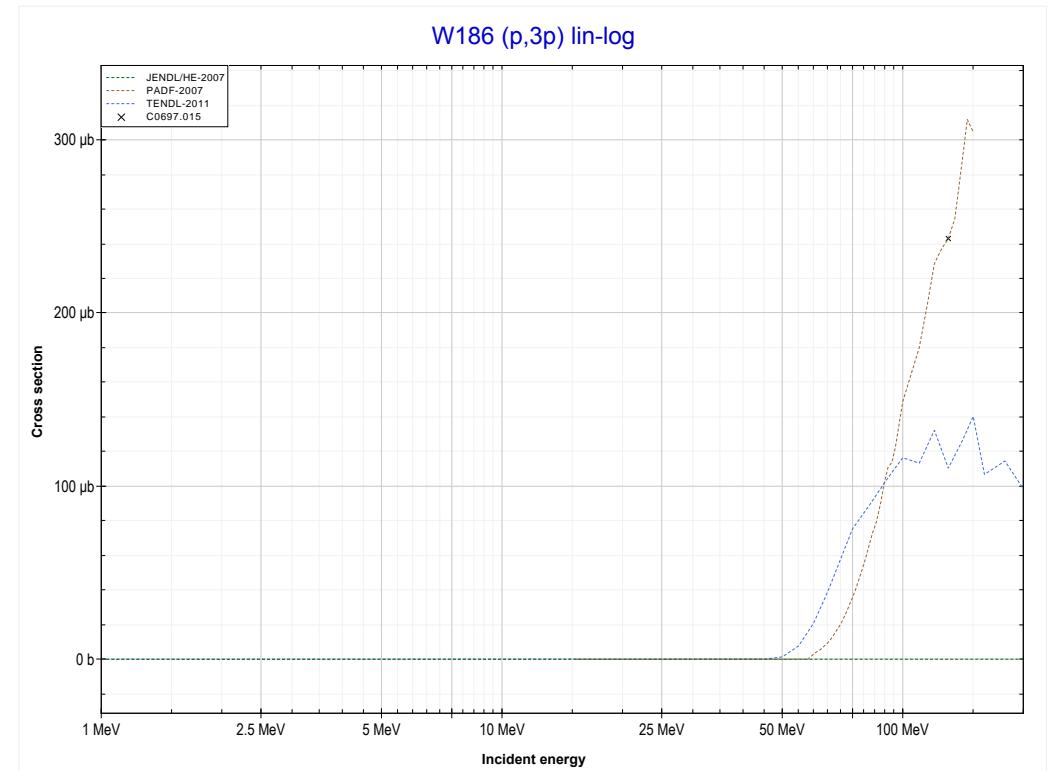
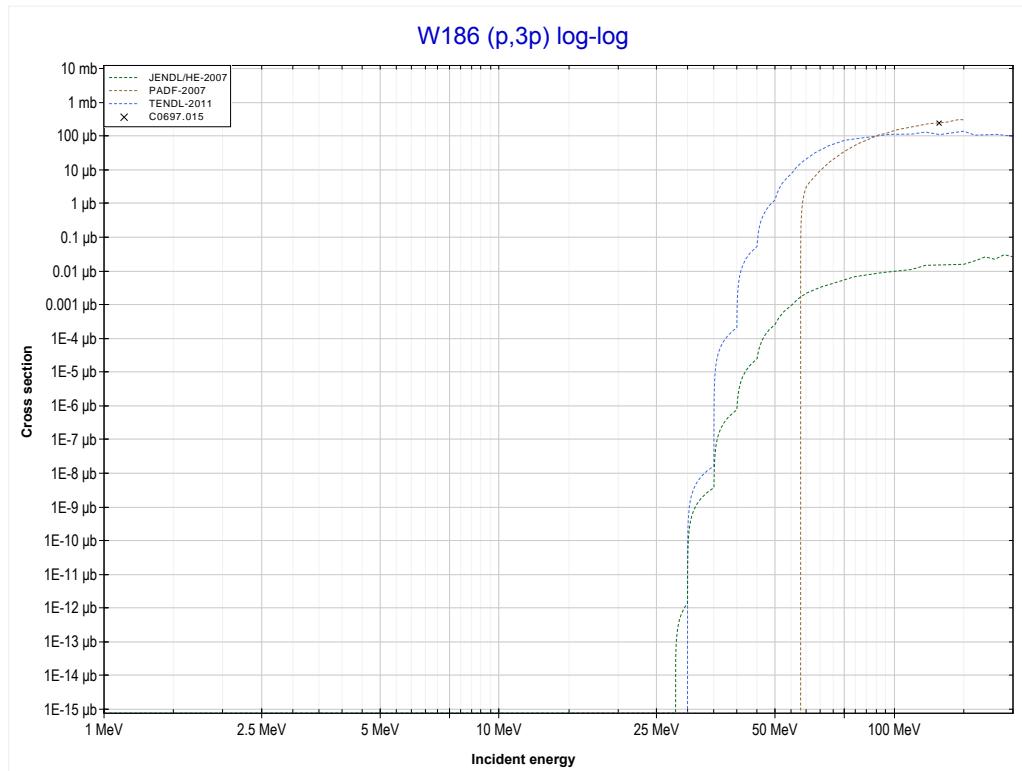
Reaction	Q-Value
W186(p,d)W185	-4966.55 keV
W186(p,n+p)W185	-7191.12 keV

<< 58-Ce-142	74-W-186 MT111 (p,2p) or MT5 (Ta185 production)	80-Hg-202 >>
<< MT28 (p,n+p) >>		MT197 (p,3p) >>



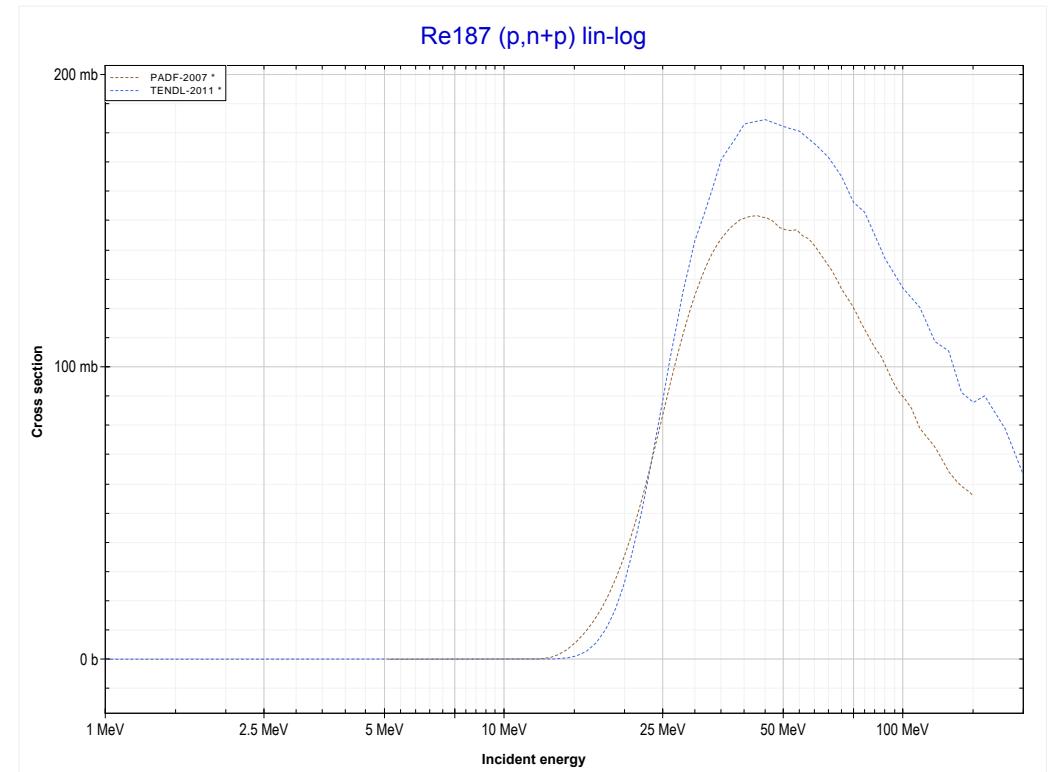
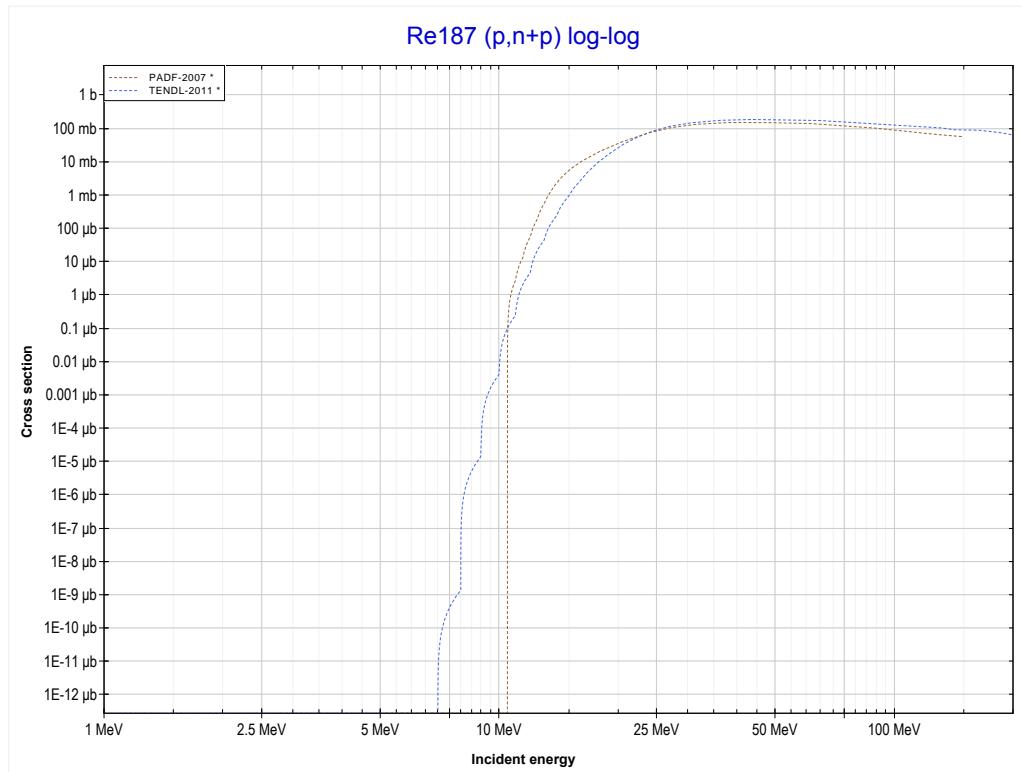
Reaction	Q-Value
W186(p,2p)Ta185	-8402.47 keV

<< 33-As-75	74-W-186 MT197 (p,3p) or MT5 (Hf184 production)	75-Re-187 >>
<< MT111 (p,2p)		MT28 (p,n+p) >>

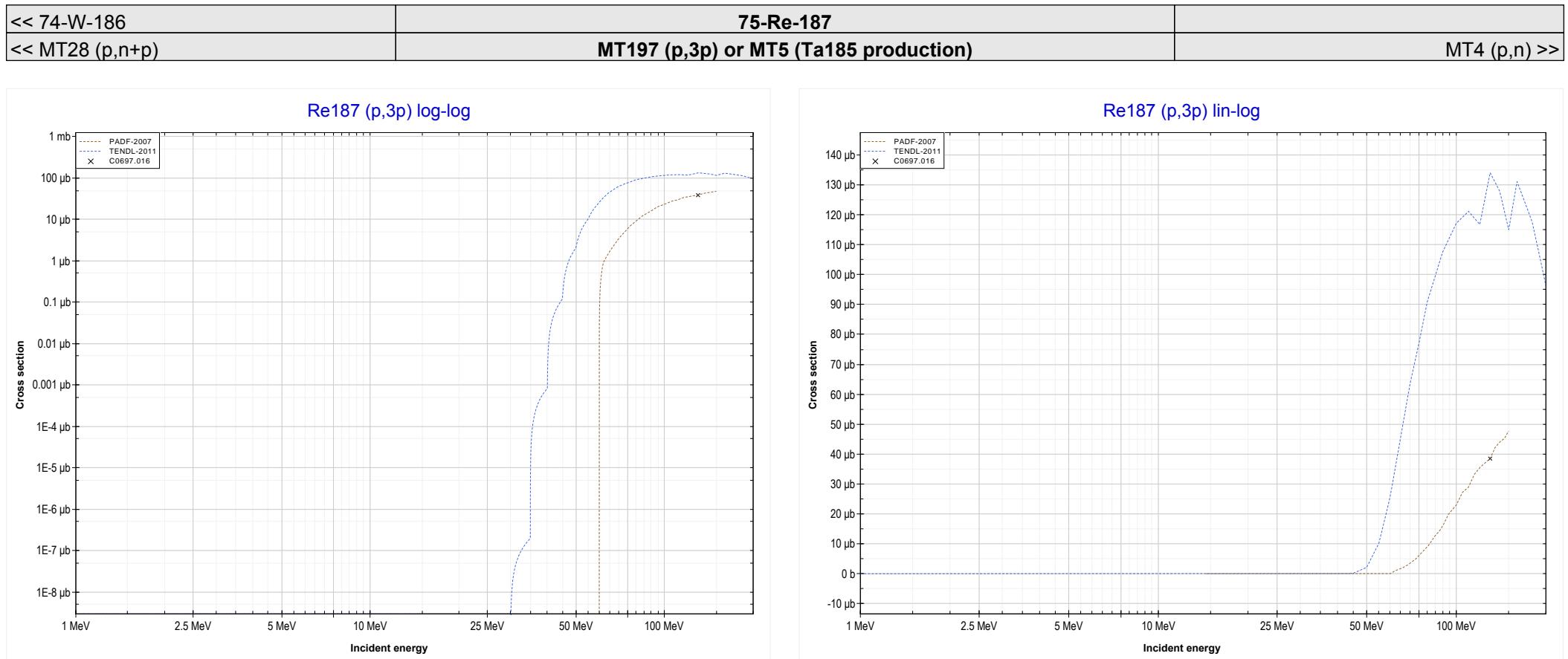


Reaction	Q-Value
W186(p,3p)Hf184	-15587.44 keV

<< 74-W-186	75-Re-187 MT28 (p,n+p) or MT5 (Re186 production)	79-Au-197 >>
<< MT197 (p,3p)		MT197 (p,3p) >>

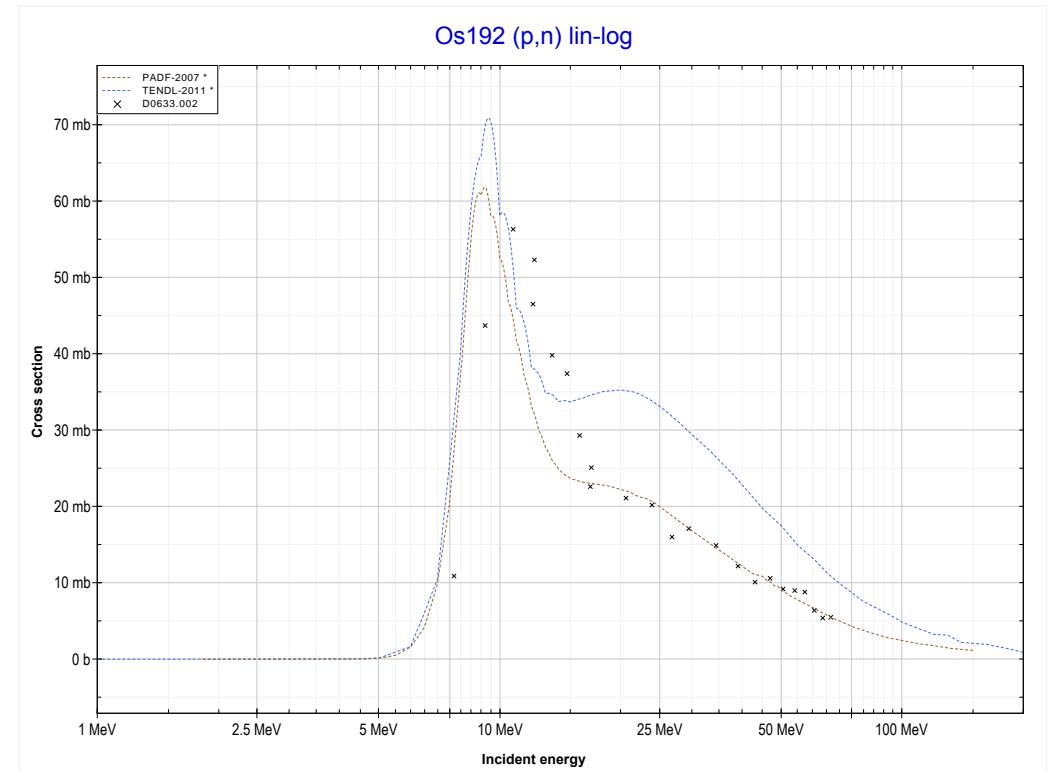
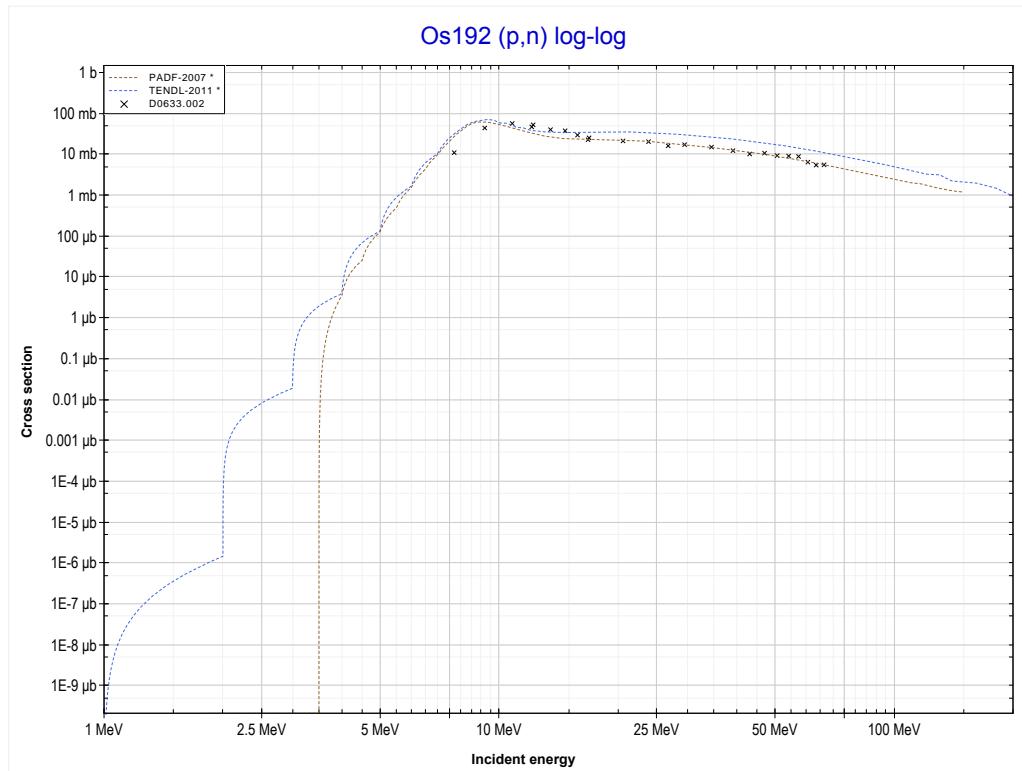


Reaction	Q-Value
$\text{Re}^{187}(\text{p},\text{d})\text{Re}^{186}$	-5132.25 keV
$\text{Re}^{187}(\text{p},\text{n}+\text{p})\text{Re}^{186}$	-7356.82 keV



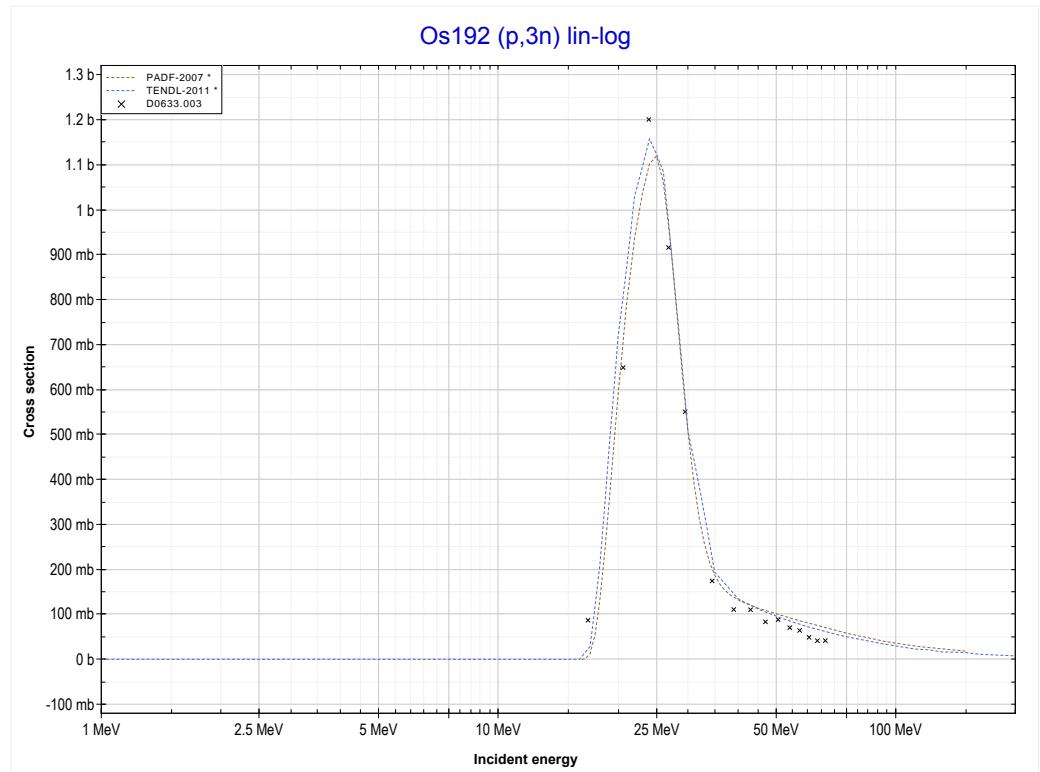
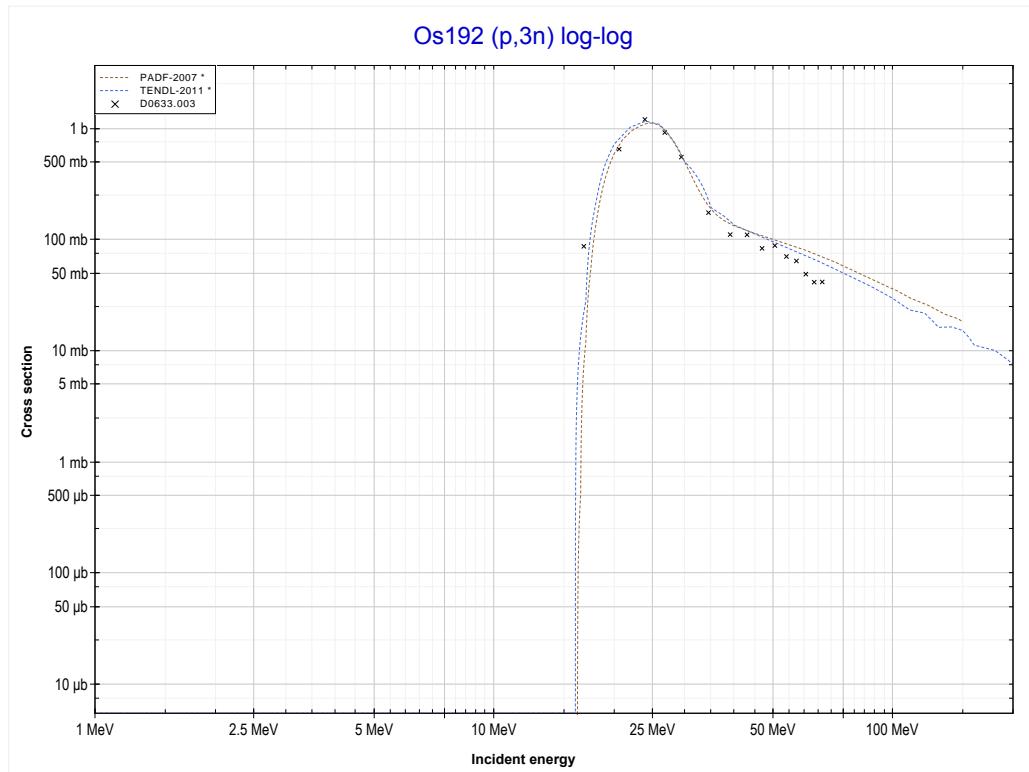
Reaction	Q-Value
Re187(p,3p)Ta185	-14397.64 keV

<< 74-W-186	76-Os-192 MT4 (p,n) or MT5 (Ir192 production)	>> 78-Pt-198
<< MT197 (p,3p)		MT17 (p,3n) >>



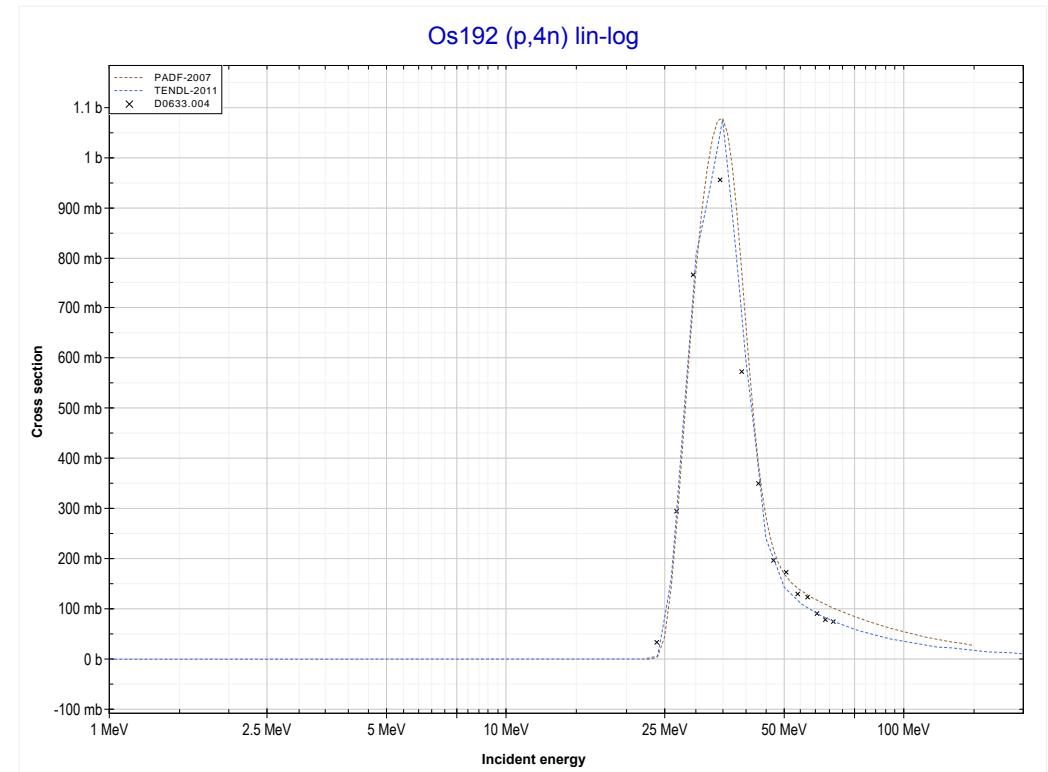
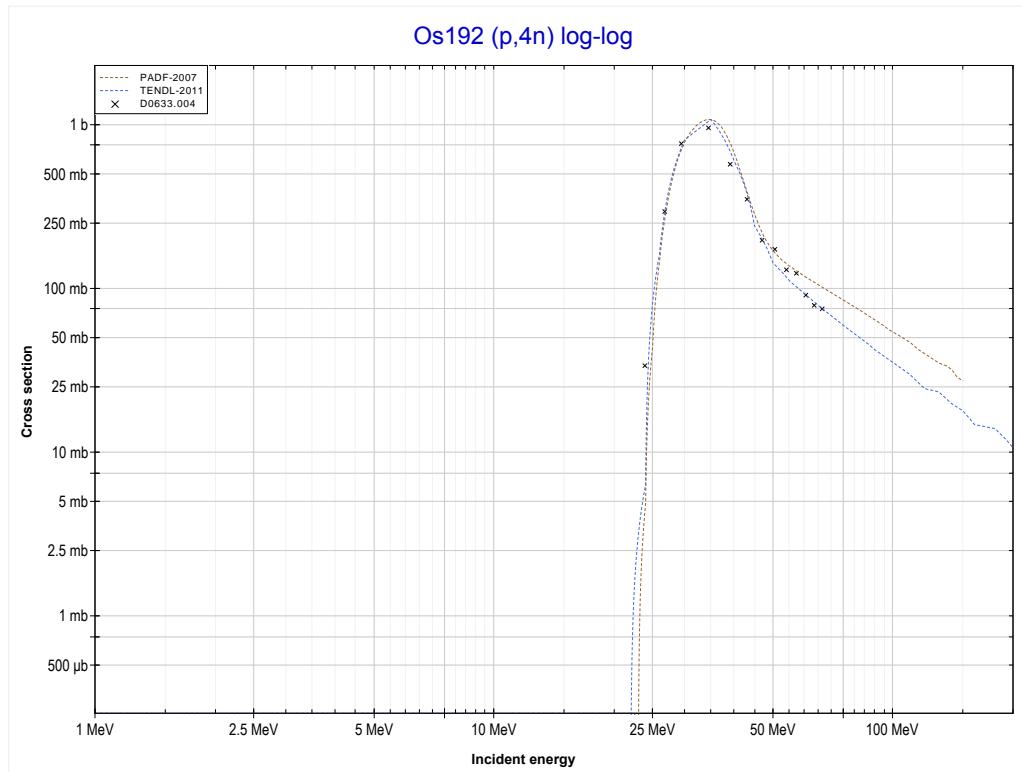
Reaction	Q-Value
Os192(p,n)Ir192	-1829.65 keV

<< 73-Ta-181	76-Os-192 MT17 (p,3n) or MT5 (Ir190 production)	>> 79-Au-197
<< MT4 (p,n)		MT37 (p,4n) >>



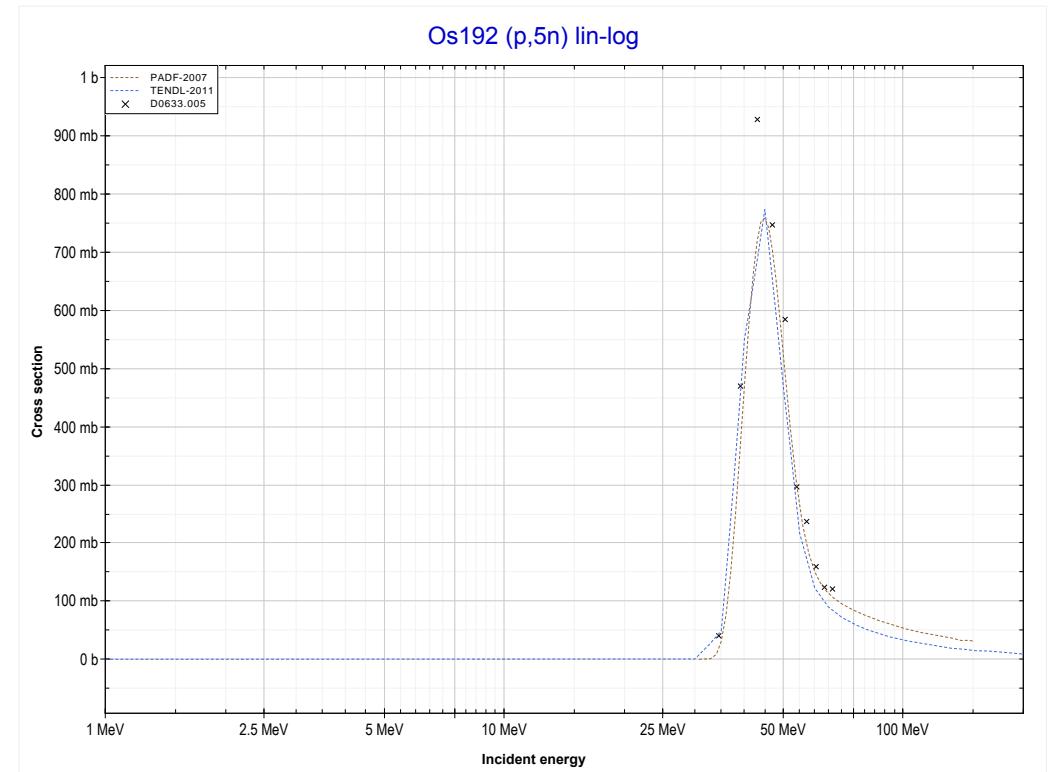
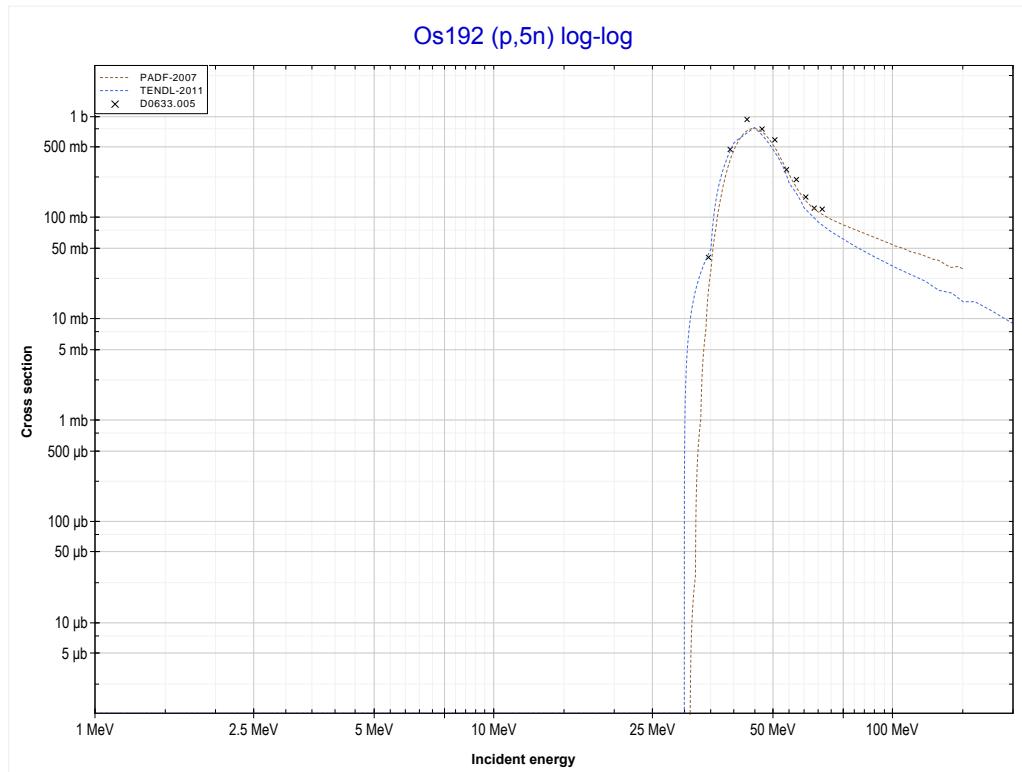
Reaction	Q-Value
Os192(p,3n)Ir190	-16054.28 keV

<< 73-Ta-181	76-Os-192 MT37 (p,4n) or MT5 (Ir189 production)	>> 79-Au-197
<< MT17 (p,3n)		>> MT152 (p,5n)



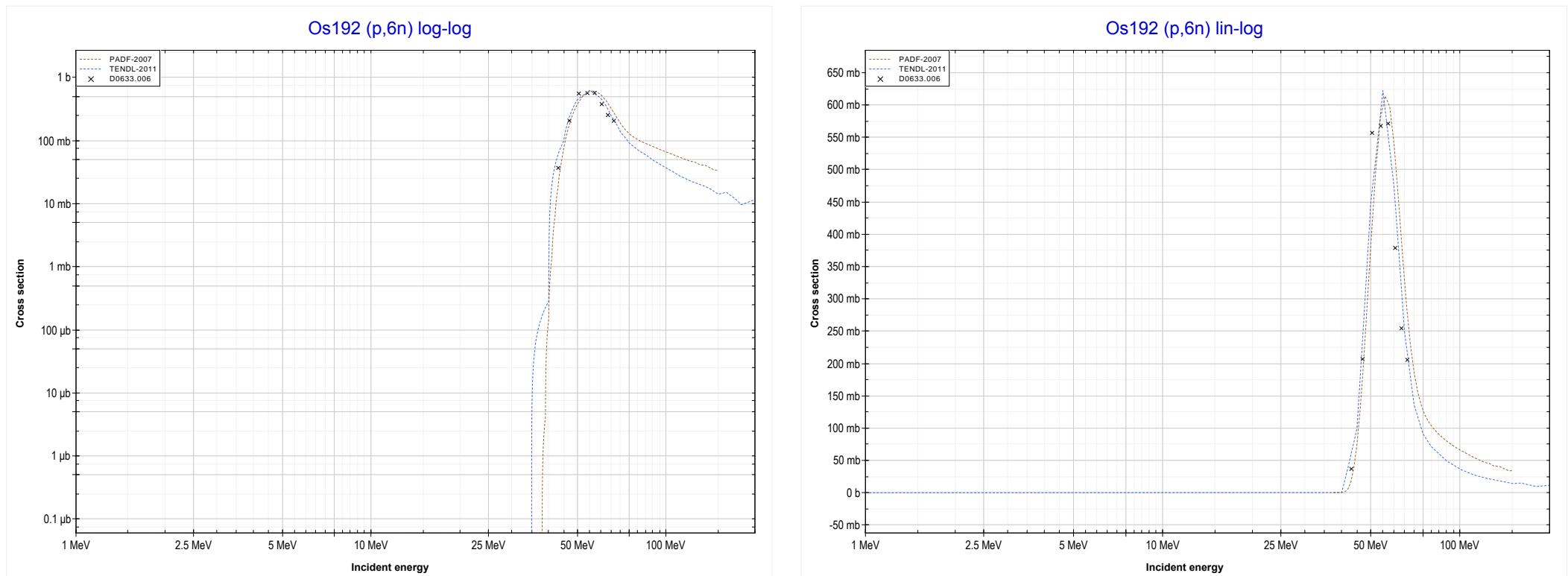
Reaction	Q-Value
$\text{Os}^{192}(\text{p},\text{4n})\text{Ir}^{189}$	-22423.80 keV

<< 73-Ta-181	76-Os-192 MT152 (p,5n) or MT5 (Ir188 production)	>> 79-Au-197
<< MT37 (p,4n)		>> MT153 (p,6n) >>



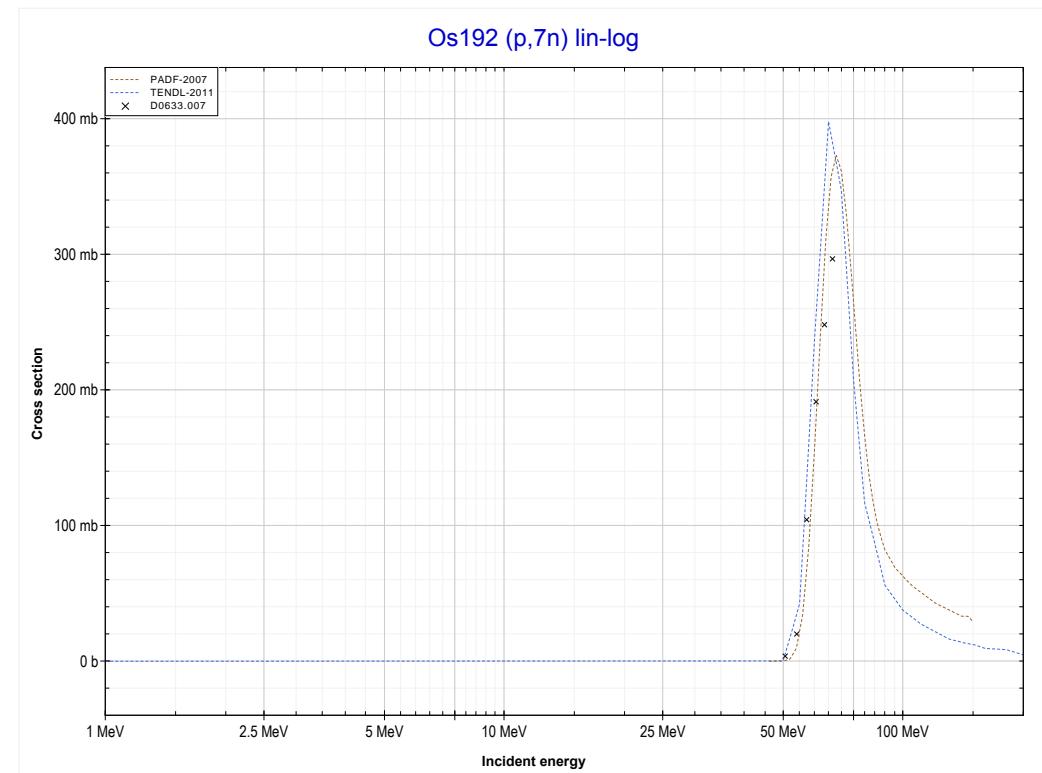
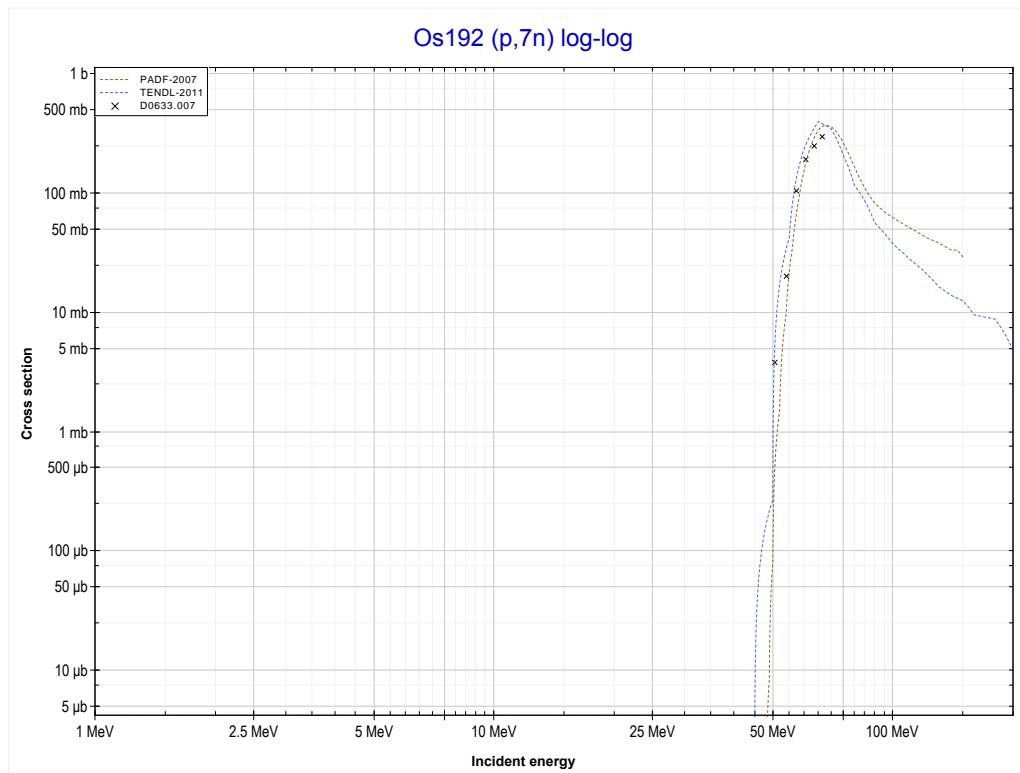
Reaction	Q-Value
$\text{Os}^{192}(\text{p},5\text{n})\text{Ir}^{188}$	-30620.12 keV

<< 59-Pr-141	76-Os-192 MT153 (p,6n) or MT5 (Ir187 production)	83-Bi-209 >>
<< MT152 (p,5n)		MT160 (p,7n) >>



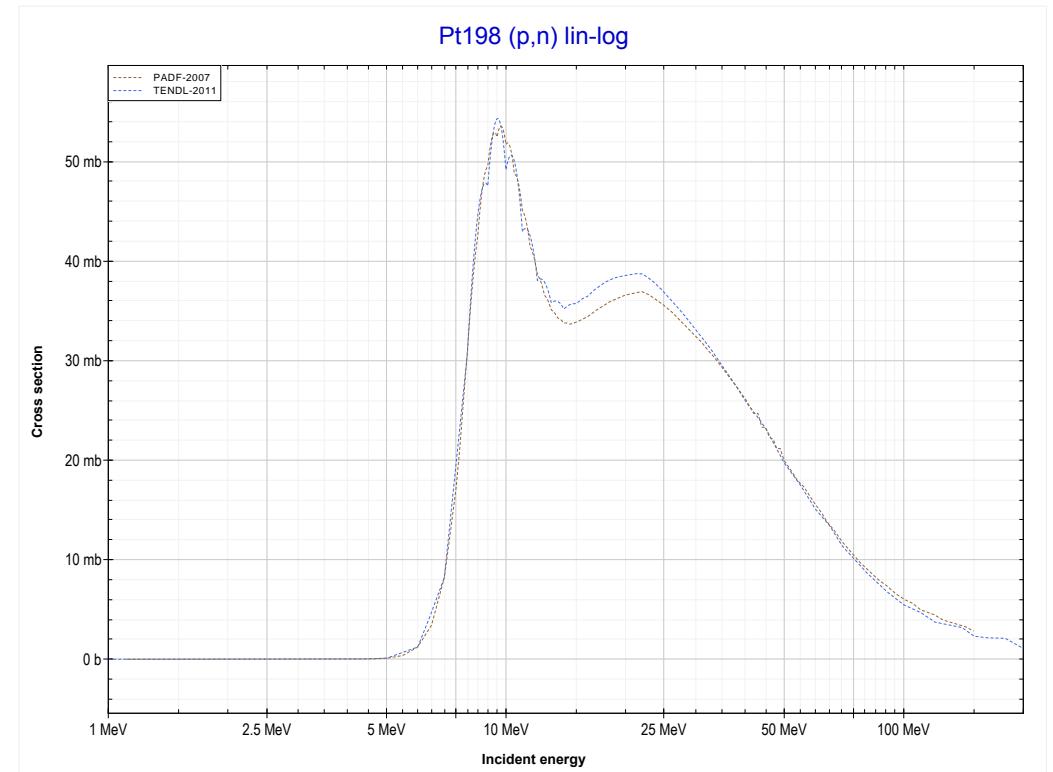
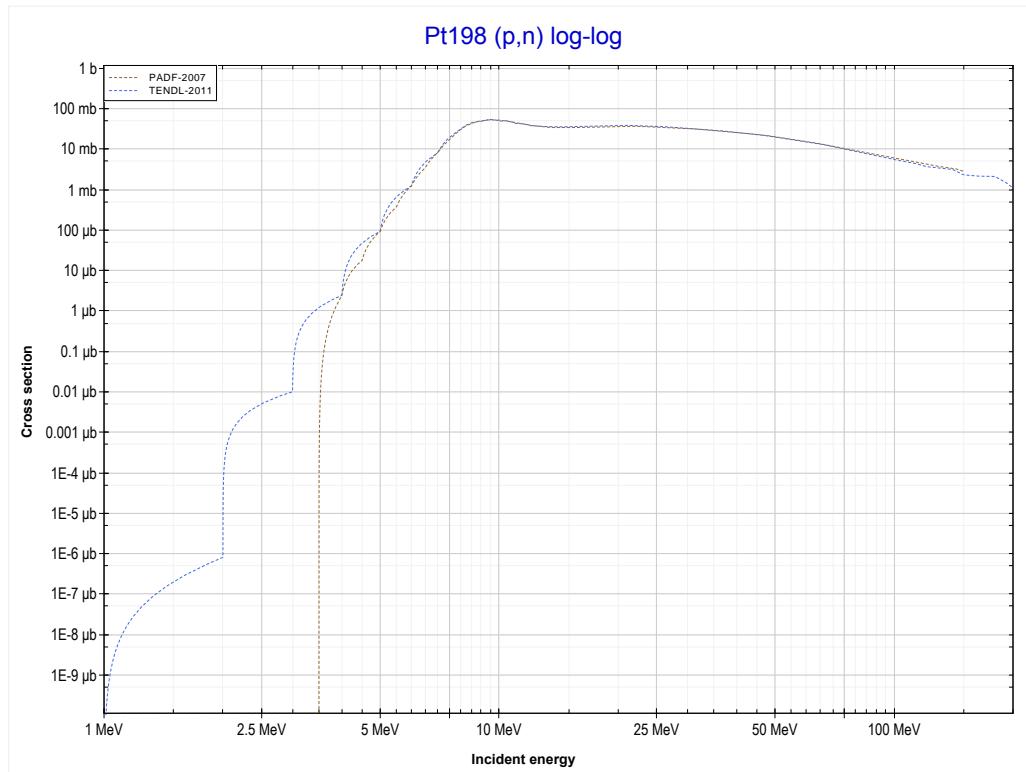
Reaction	Q-Value
Os192(p,6n)Ir187	-37303.43 keV

<< 59-Pr-141	76-Os-192 MT160 (p,7n) or MT5 (Ir186 production)	82-Pb-206 >>
<< MT153 (p,6n)		MT4 (p,n) >>



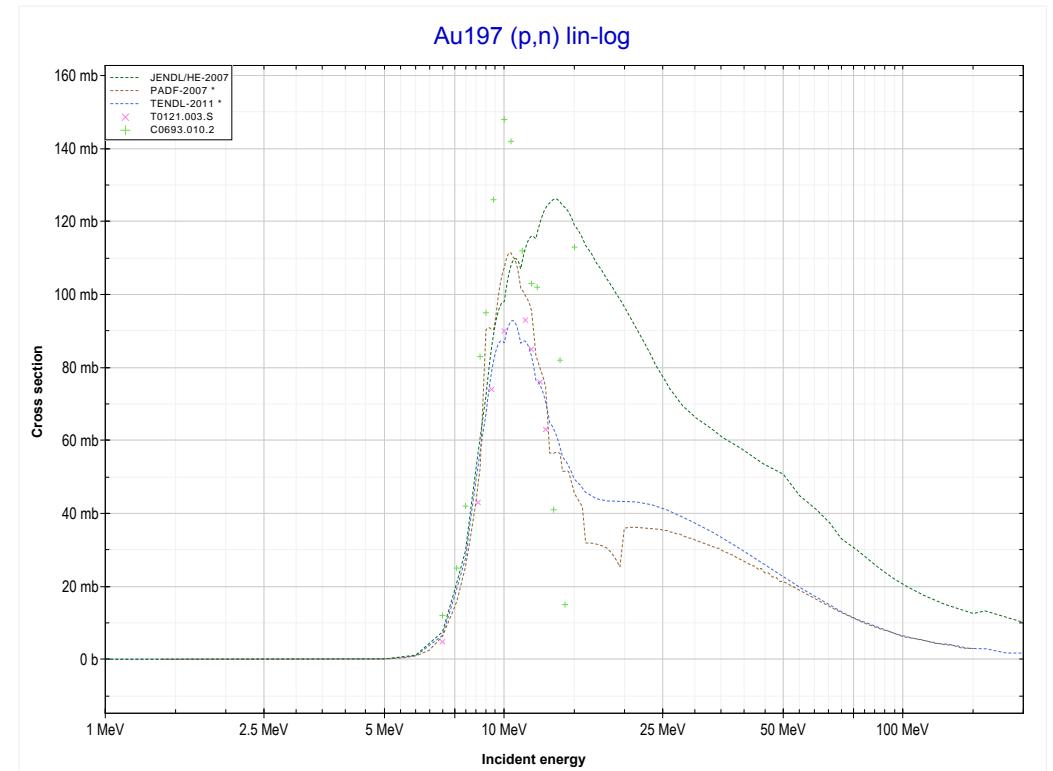
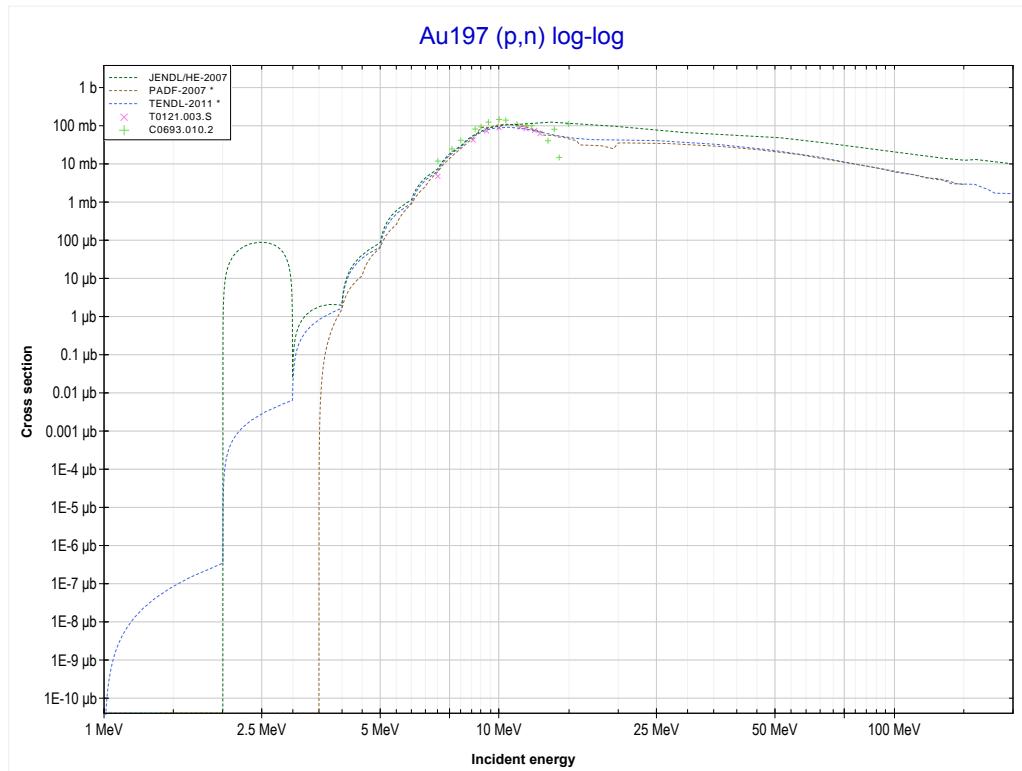
Reaction	Q-Value
Os192(p,7n)Ir186	-45917.75 keV

<< 76-Os-192	78-Pt-198 MT4 (p,n) or MT5 (Au198 production)	>> 79-Au-197
<< MT160 (p,7n)		MT4 (p,n) >>



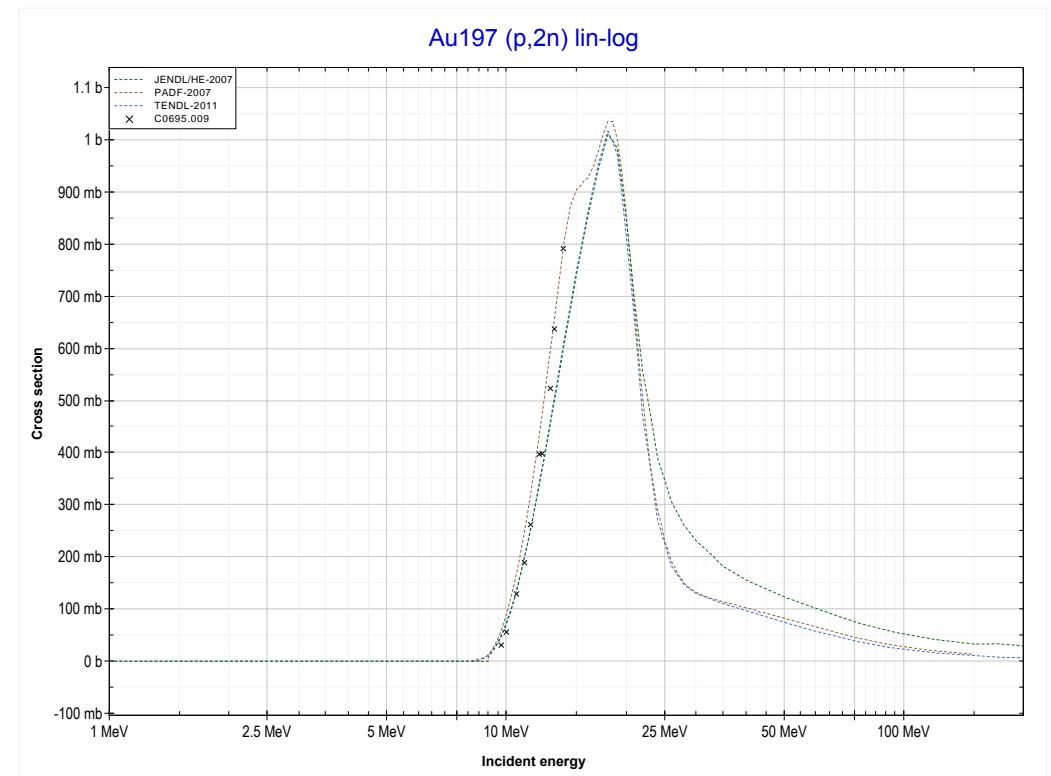
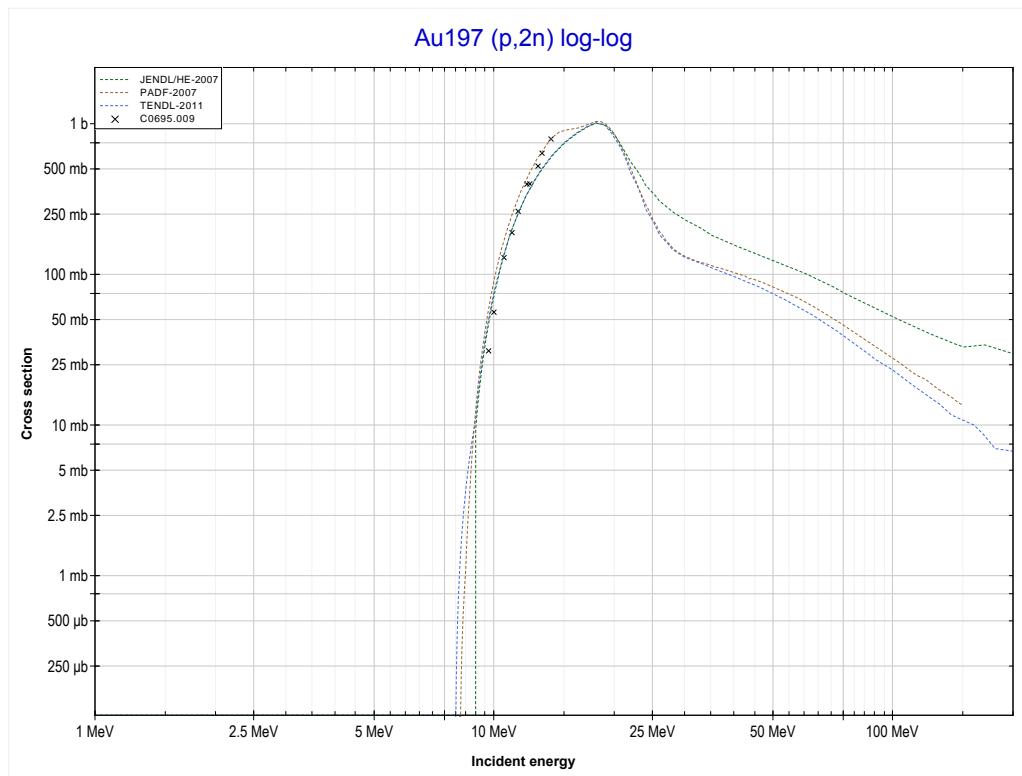
Reaction	Q-Value
Pt198(p,n)Au198	-1108.25 keV

<< 78-Pt-198	79-Au-197 MT4 (p,n) or MT5 (Hg197 production)	>> 80-Hg-202
<< MT4 (p,n)		>> MT16 (p,2n)



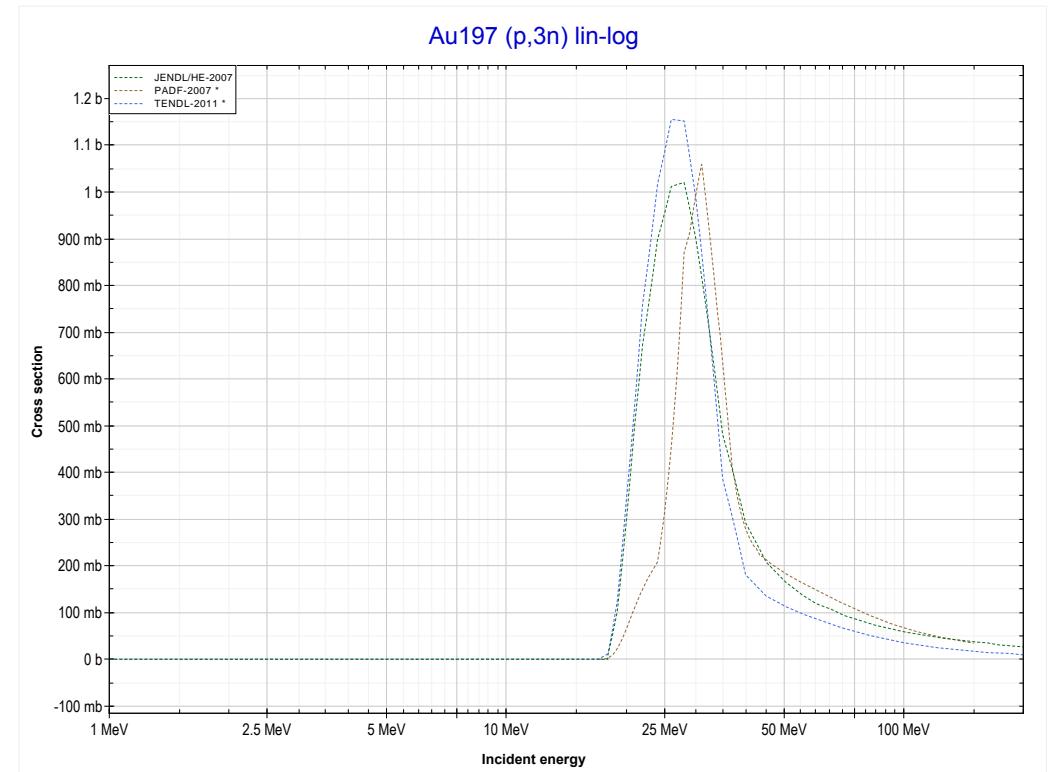
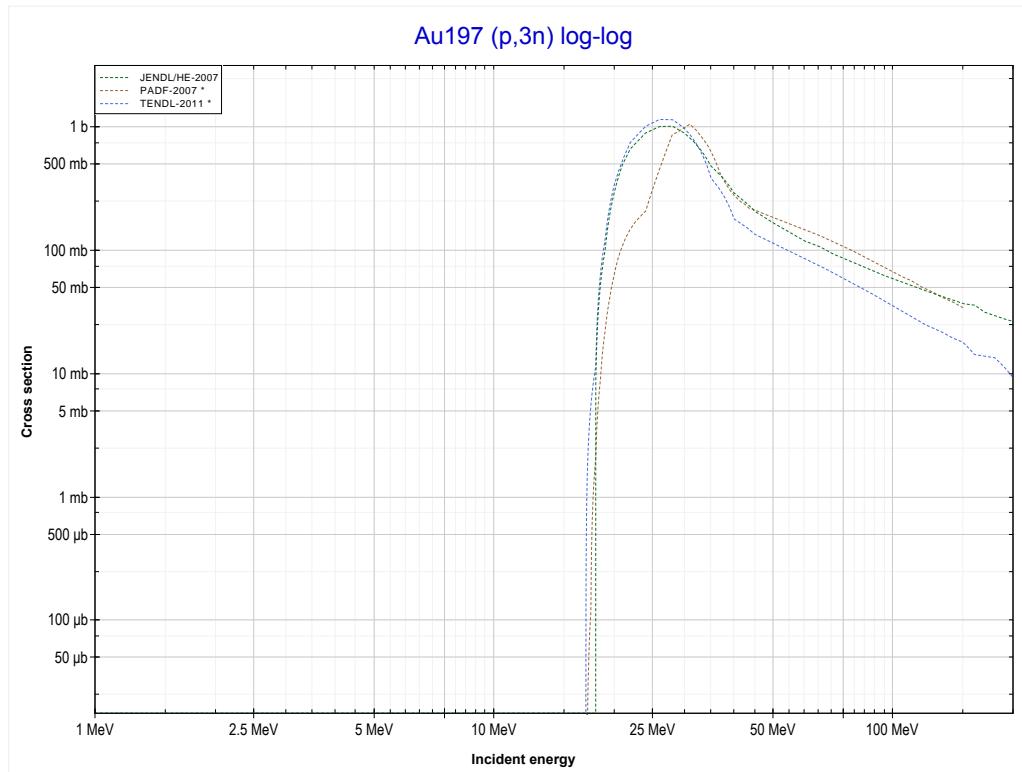
Reaction	Q-Value
Au197(p,n)Hg197	-1382.45 keV

<< 74-W-182	79-Au-197 MT16 (p,2n) or MT5 (Hg196 production)	>> 80-Hg-202
<< MT4 (p,n)		MT17 (p,3n) >>



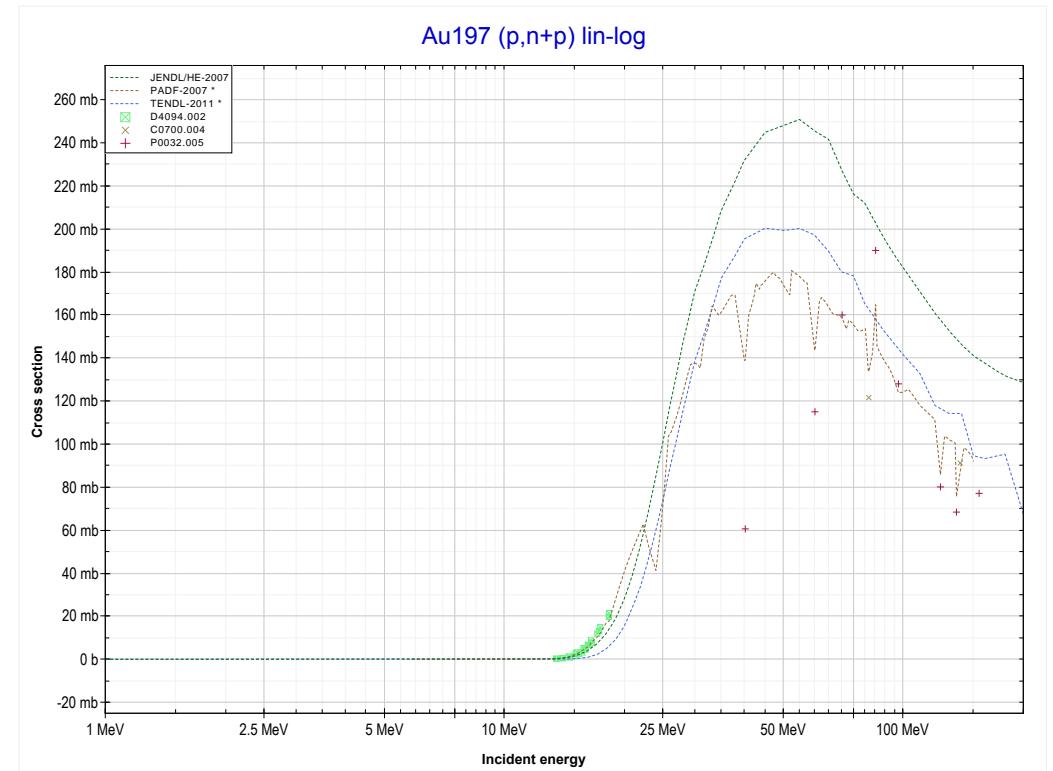
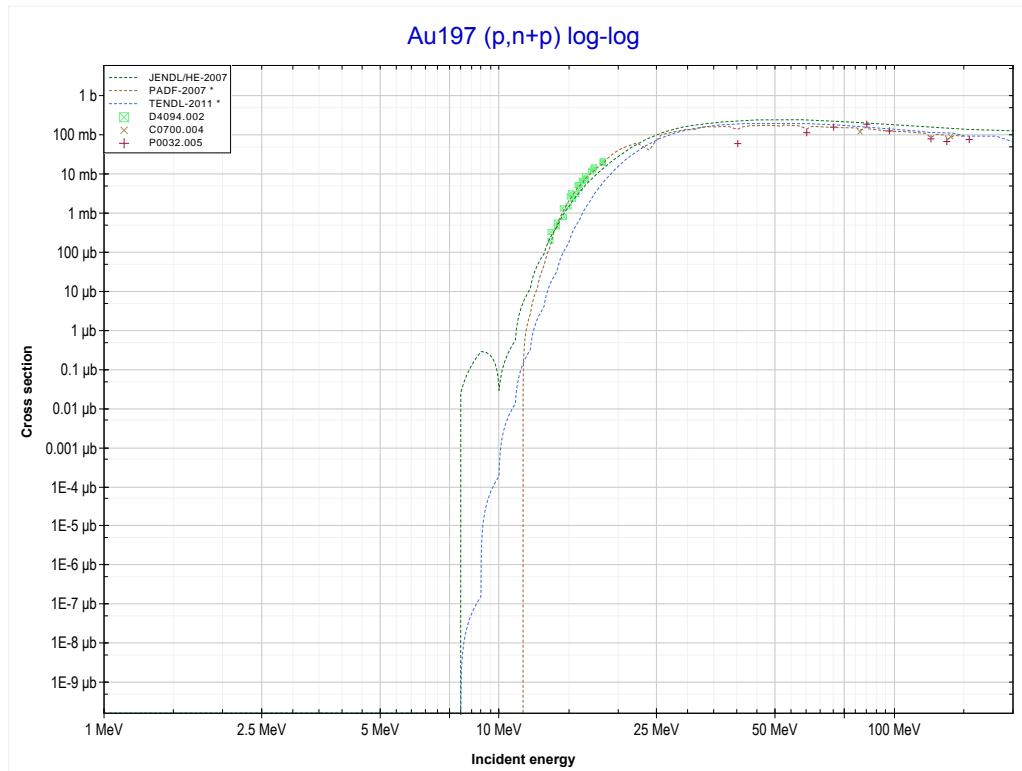
Reaction	Q-Value
Au197(p,2n)Hg196	-8168.06 keV

<< 76-Os-192	79-Au-197 MT17 (p,3n) or MT5 (Hg195 production)	81-Tl-203 >>
<< MT16 (p,2n)		MT28 (p,n+p) >>



Reaction	Q-Value
Au197(p,3n)Hg195	-17066.08 keV

<< 75-Re-187	79-Au-197 MT28 (p,n+p) or MT5 (Au196 production)	90-Th-232 >>
<< MT17 (p,3n)		MT37 (p,4n) >>

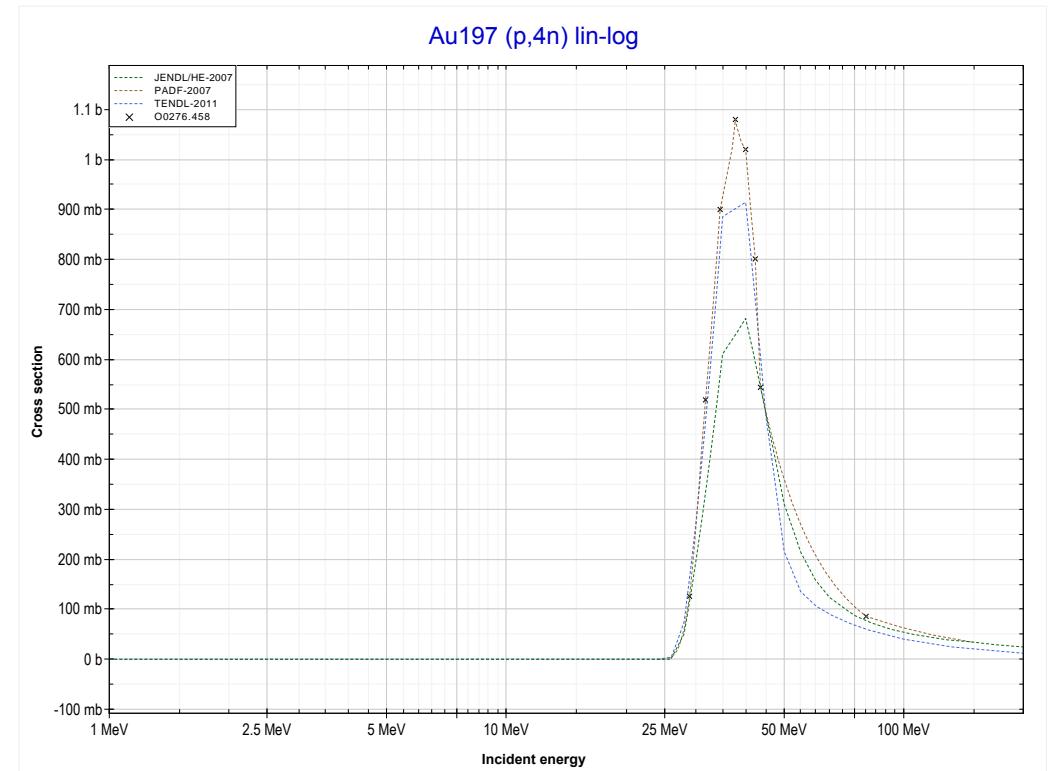
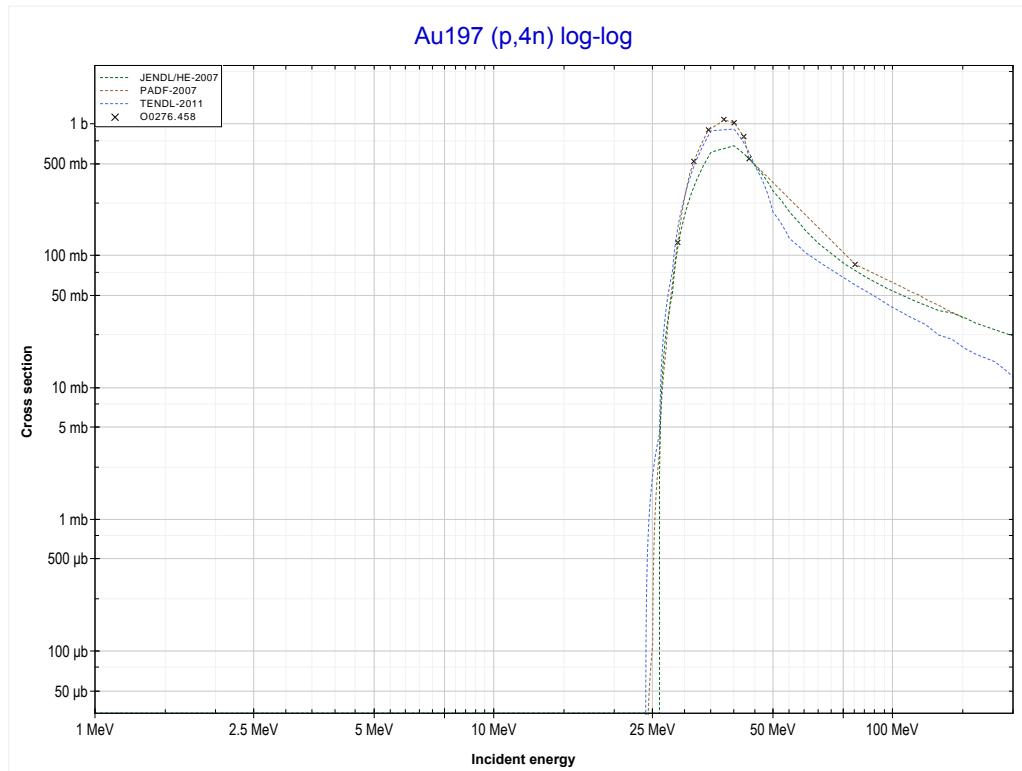


Reaction	Q-Value
Au197(p,d)Au196	-5847.85 keV
Au197(p,n+p)Au196	-8072.42 keV

<< 76-Os-192	
<< MT28 (p,n+p)	

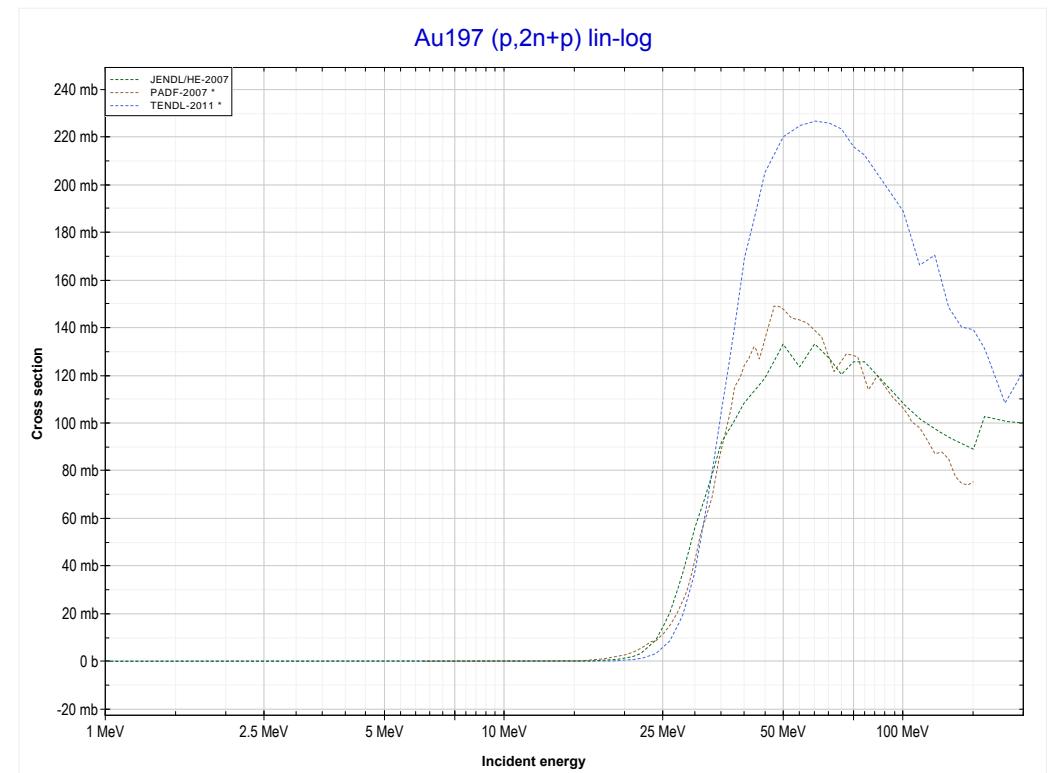
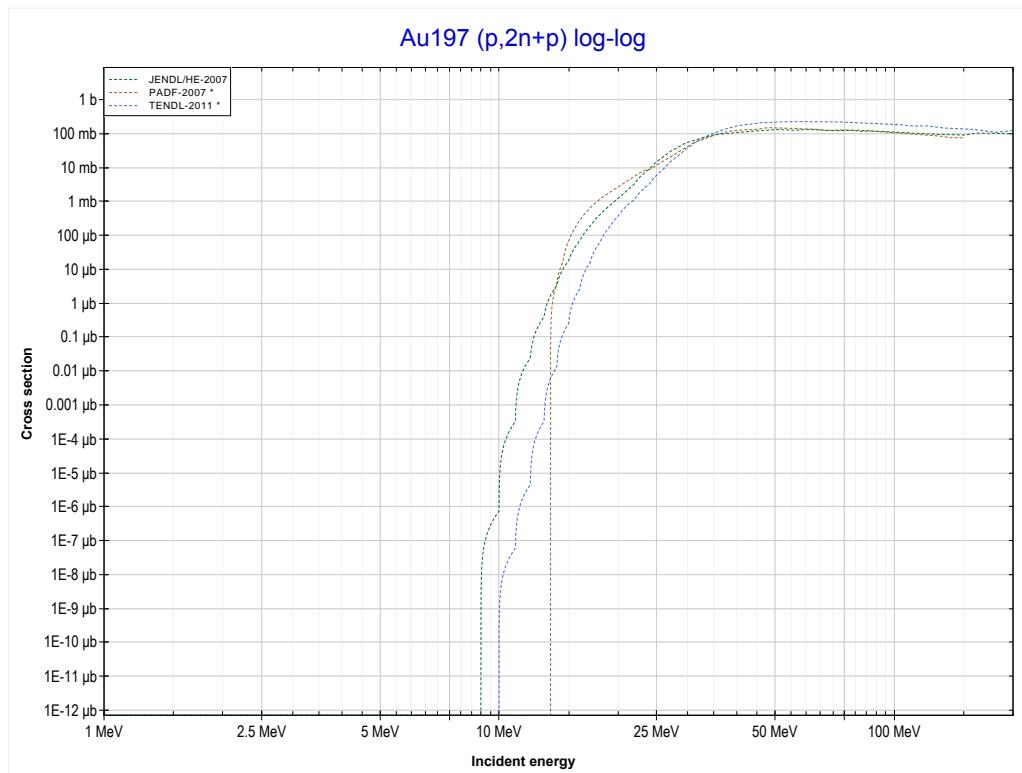
79-Au-197
MT37 (p,4n) or MT5 (Hg194 production)

81-Tl-203 >>
MT41 (p,2n+p) >>



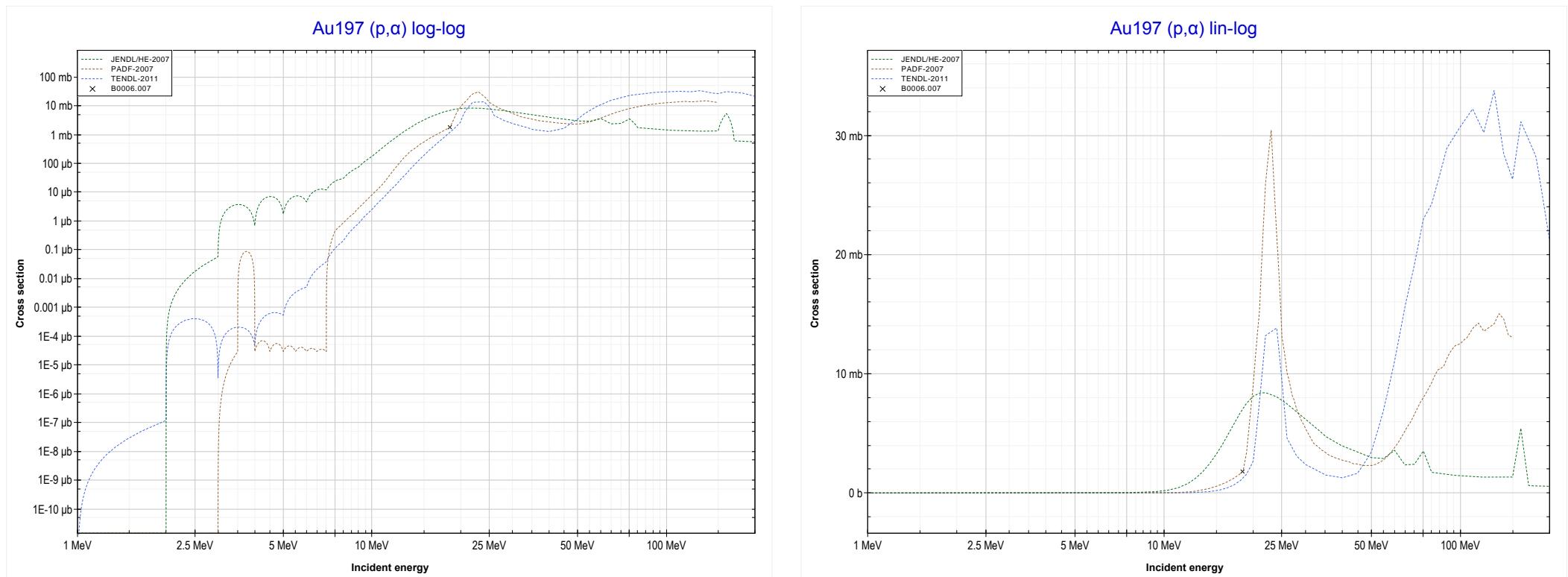
Reaction	Q-Value
Au197(p,4n)Hg194	-23944.40 keV

<< 42-Mo-92	79-Au-197 MT41 (p,2n+p) or MT5 (Au195 production)	>> MT107 (p, α)
<< MT37 (p,4n)		



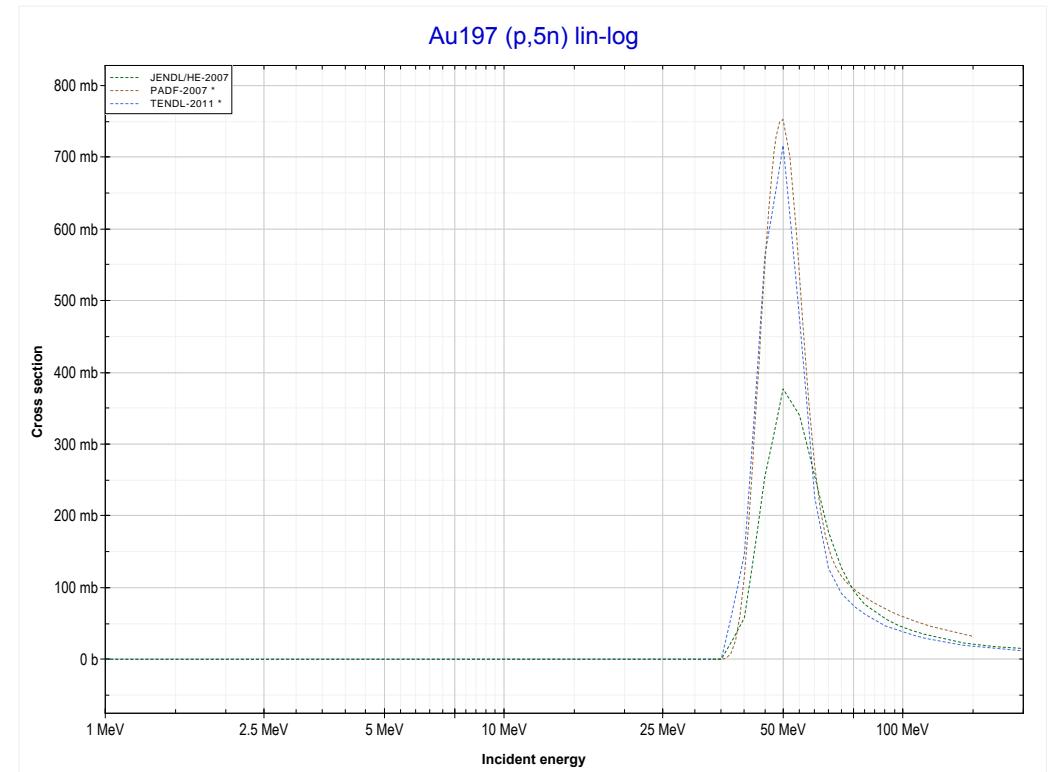
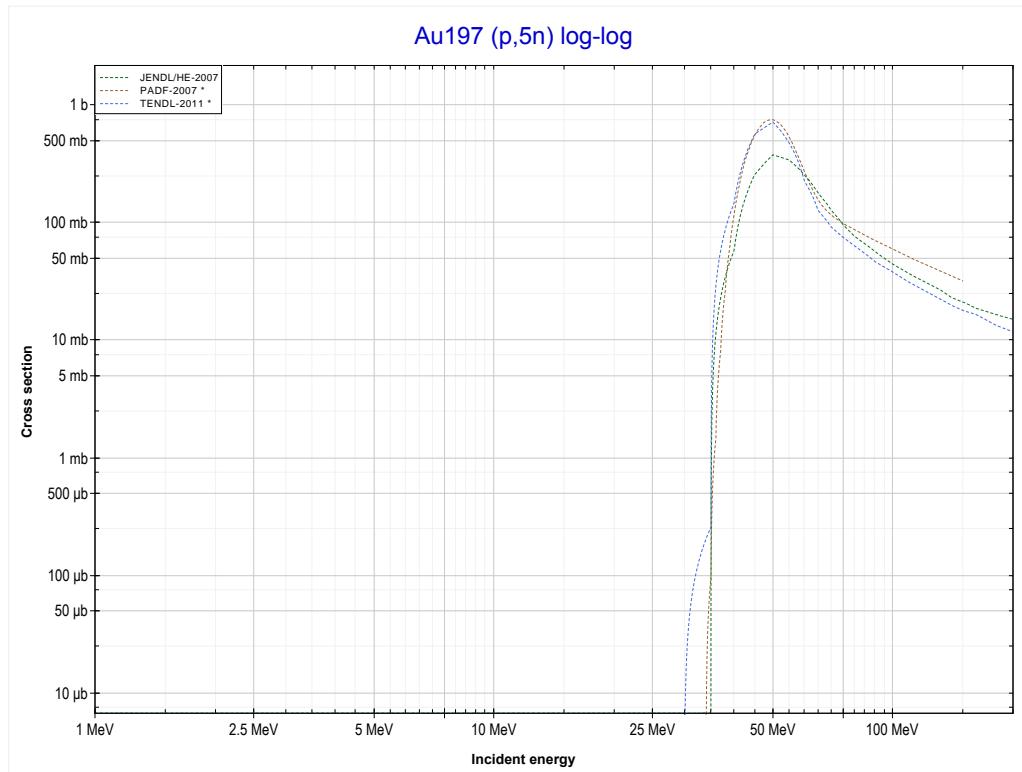
Reaction	Q-Value
Au197(p,t)Au195	-6231.94 keV
Au197(p,n+d)Au195	-12489.17 keV
Au197(p,2n+p)Au195	-14713.73 keV

<< 70-Yb-176	79-Au-197 MT107 (p,α) or MT5 (Pt194 production)	>> 81-Tl-203
<< MT41 ($p,2n+p$)		MT152 ($p,5n$) >>



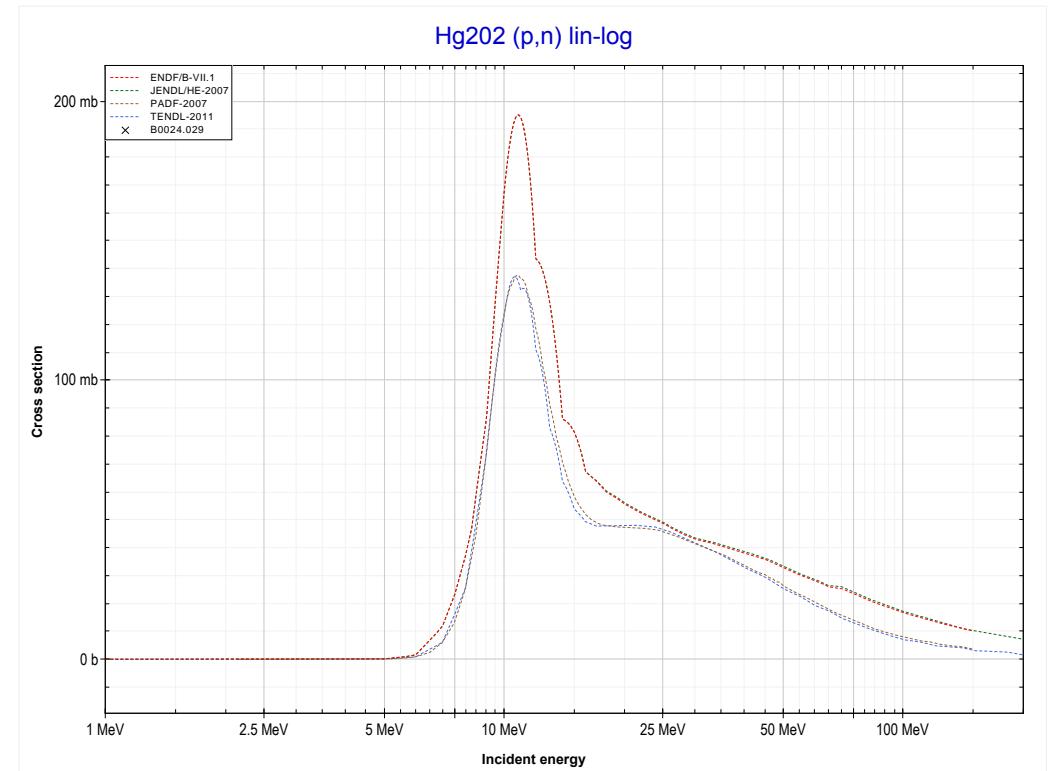
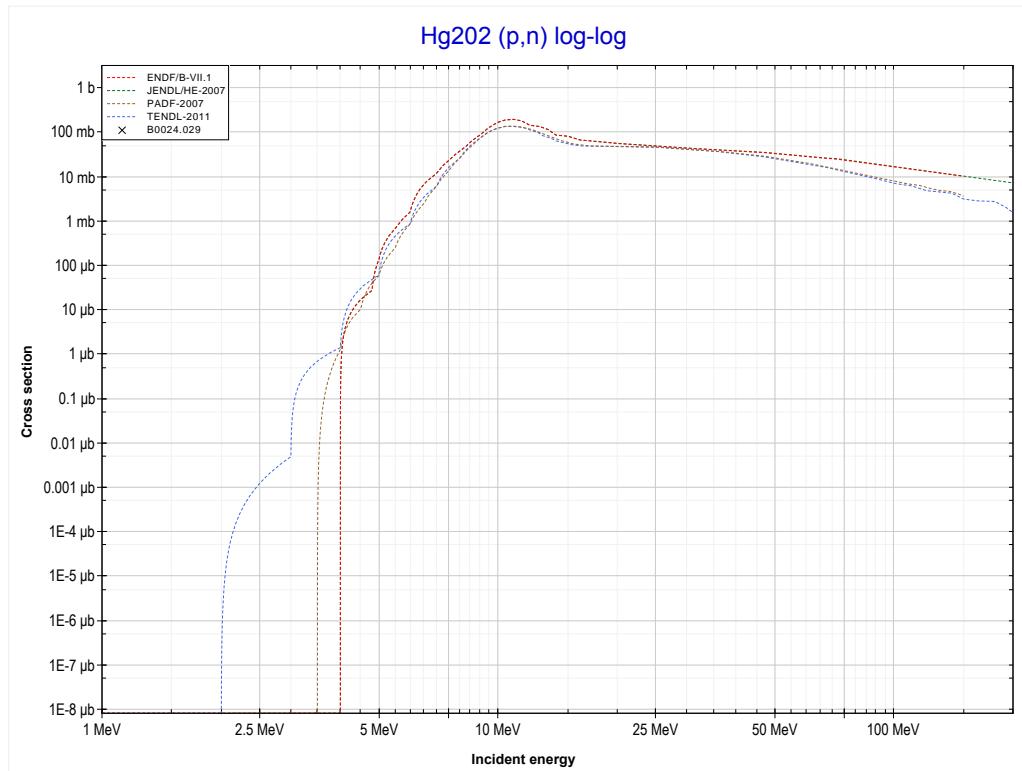
Reaction	Q-Value
Au197(p,α)Pt194	8486.05 keV
Au197($p,p+t$)Pt194	-11327.81 keV
Au197($p,n+He3$)Pt194	-12091.56 keV
Au197($p,2d$)Pt194	-15360.47 keV
Au197($p,n+p+d$)Pt194	-17585.04 keV
Au197($p,2n+2p$)Pt194	-19809.60 keV

<< 76-Os-192	79-Au-197 MT152 (p,5n) or MT5 (Hg193 production)	>> 81-Tl-205
<< MT107 (p, α)		MT4 (p,n) >>



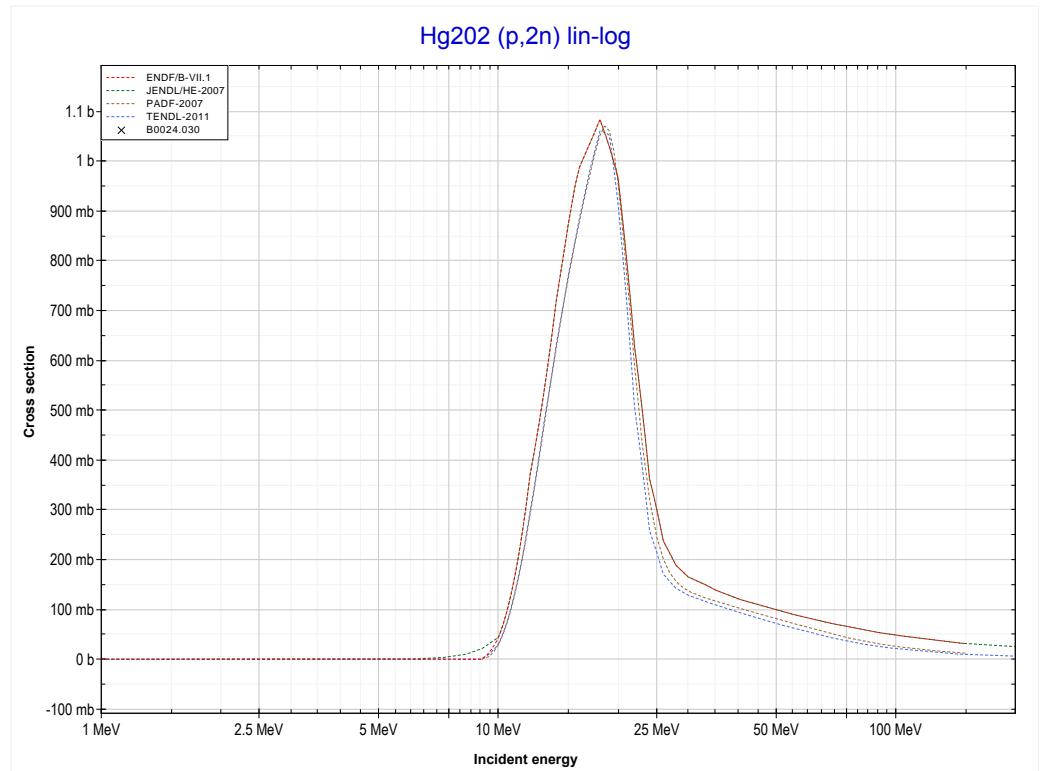
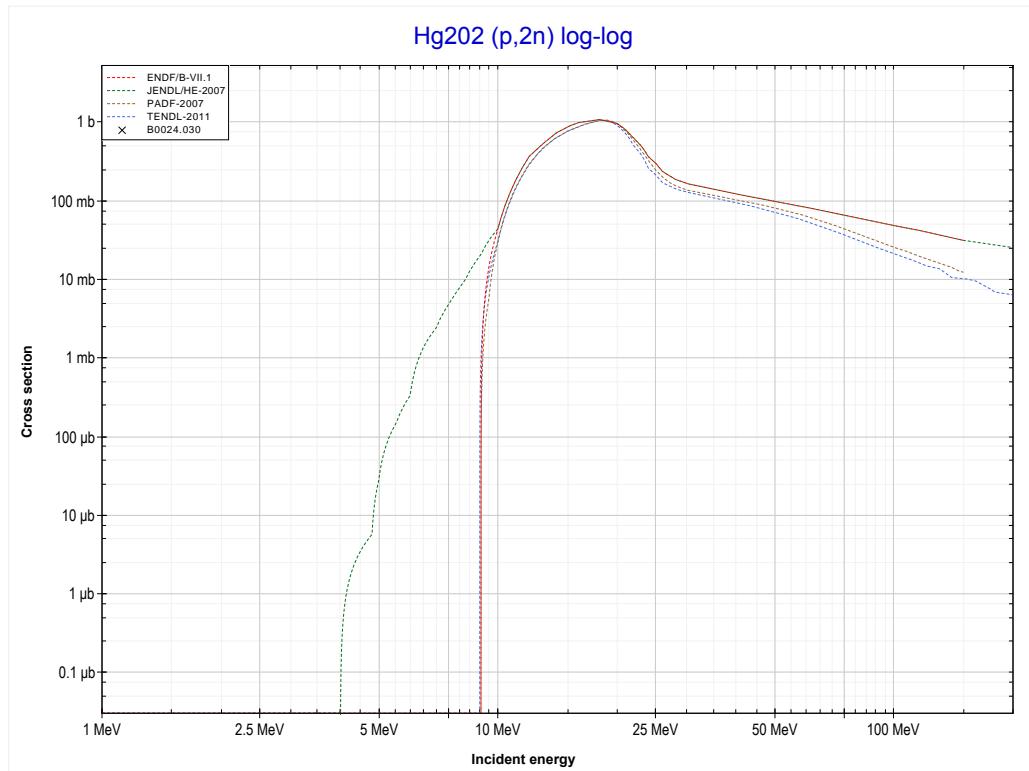
Reaction	Q-Value
Au197(p,5n)Hg193	-33157.71 keV

<< 79-Au-197	80-Hg-202 MT4 (p,n) or MT5 (Tl202 production)	81-Tl-203 >>
<< MT152 (p,5n)		MT16 (p,2n) >>



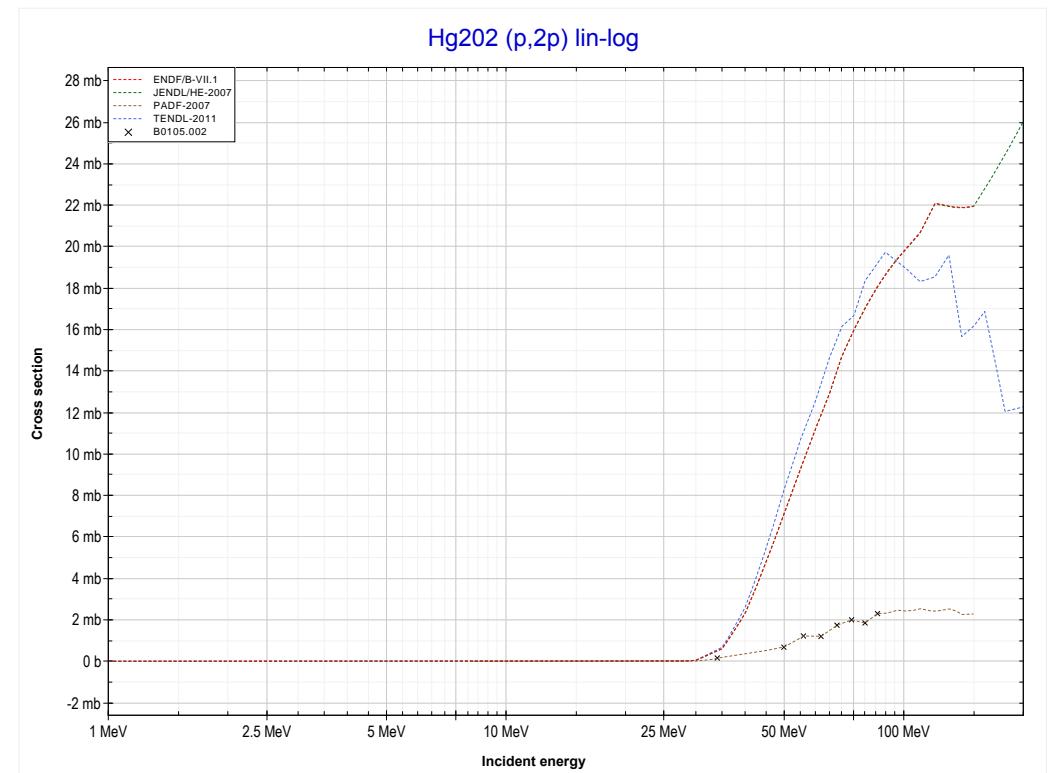
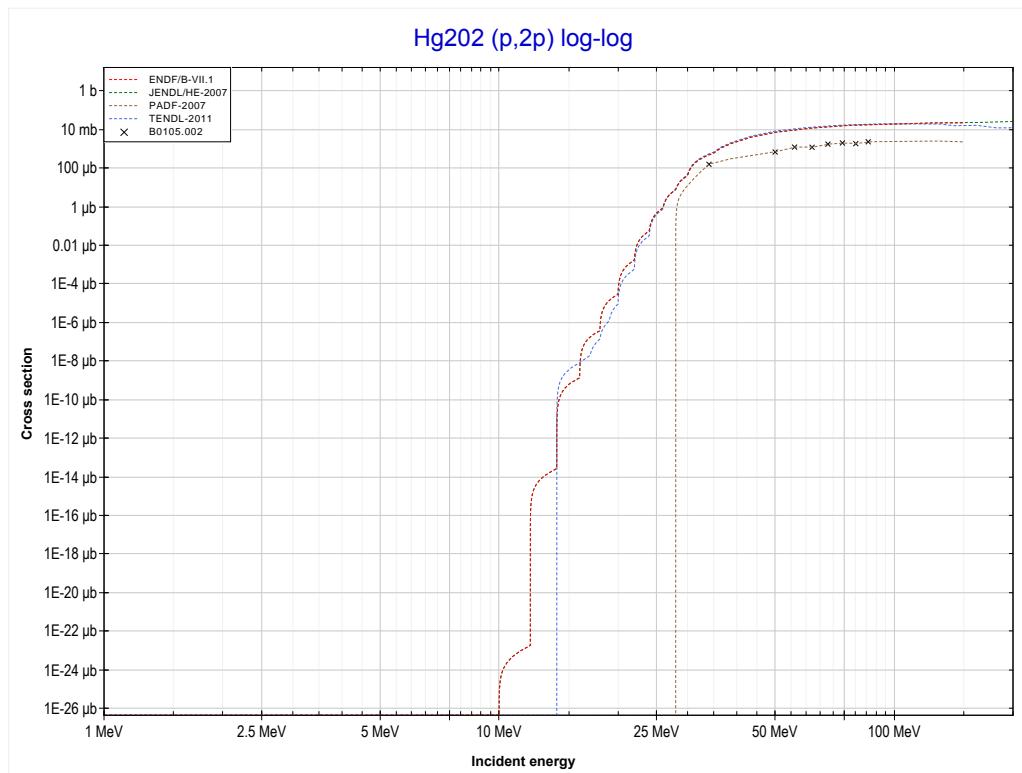
Reaction	Q-Value
Hg202(p,n)Tl202	-2145.25 keV

<< 79-Au-197	80-Hg-202 MT16 (p,2n) or MT5 (Tl201 production)	81-Tl-203 >>
<< MT4 (p,n)		MT111 (p,2p) >>



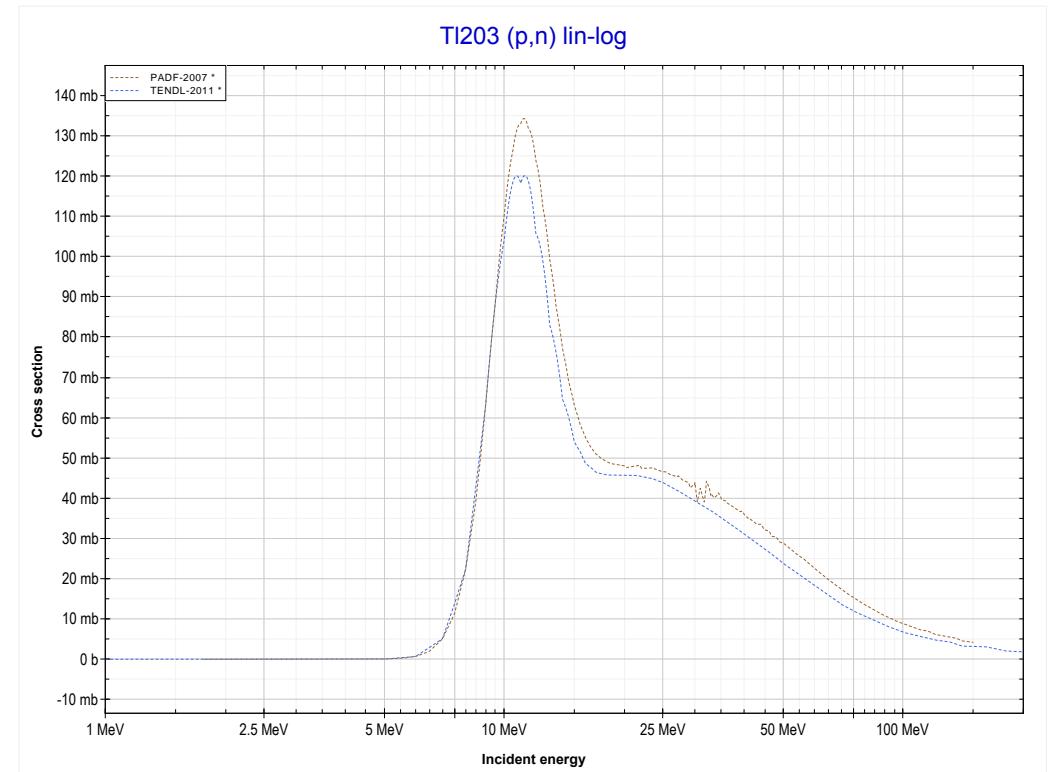
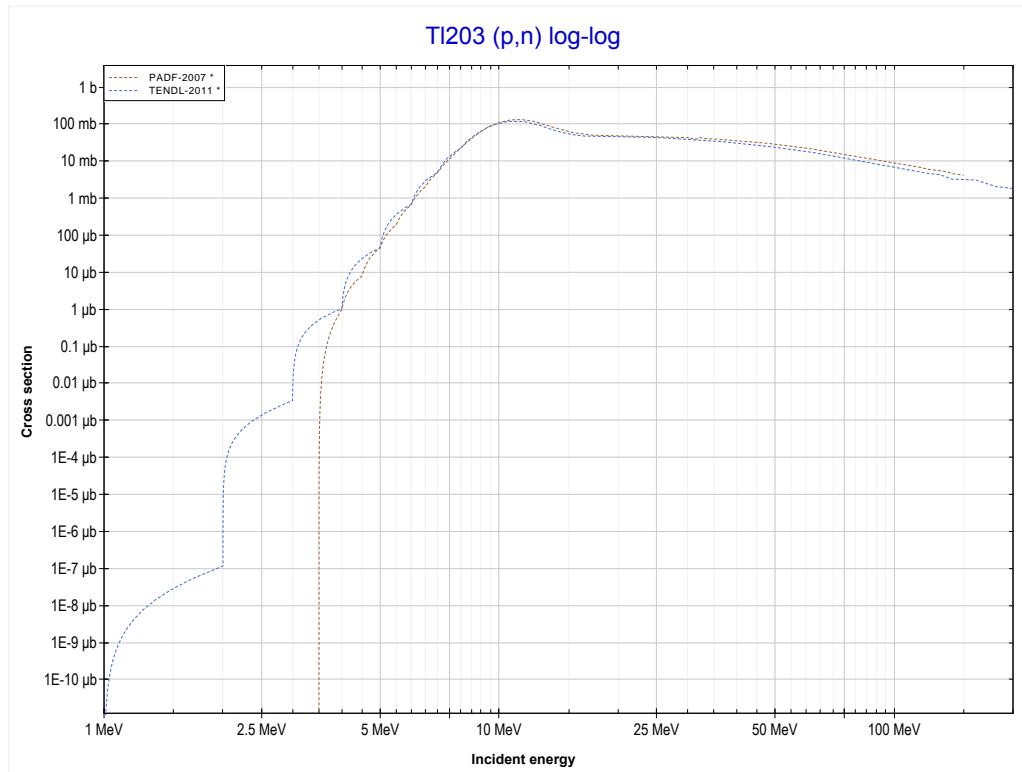
Reaction	Q-Value
Hg202(p,2n)Tl201	-9017.56 keV

<< 74-W-186	80-Hg-202 MT111 (p,2p) or MT5 (Au201 production)	
<< MT16 (p,2n)		MT4 (p,n) >>



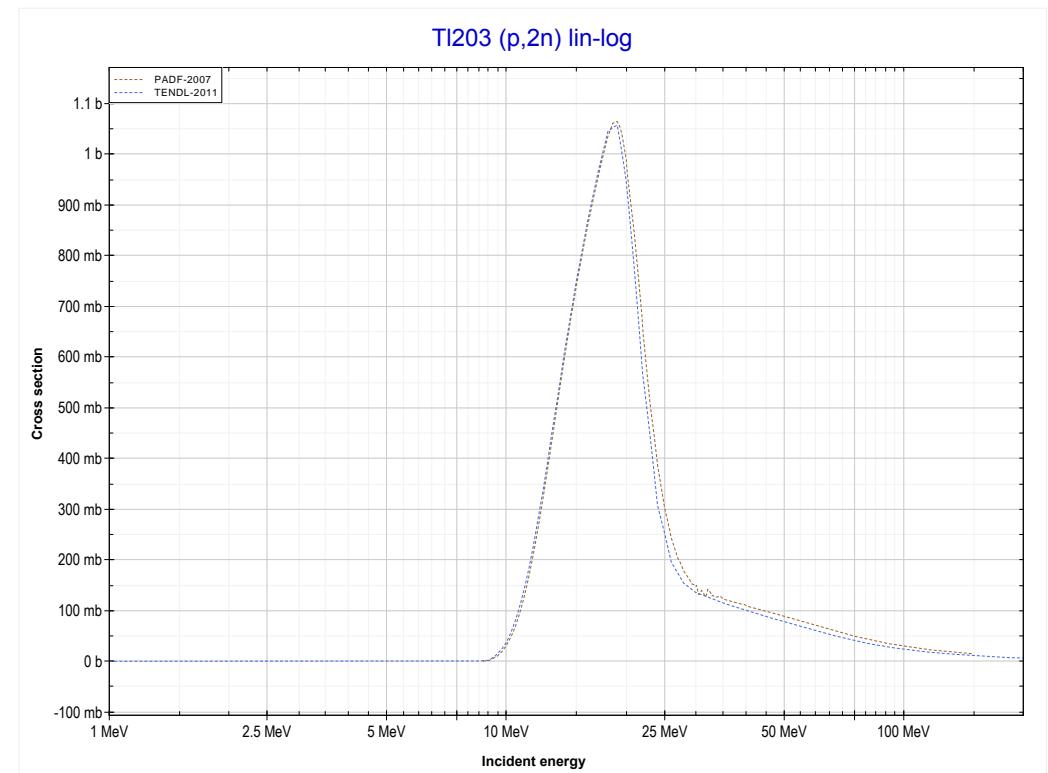
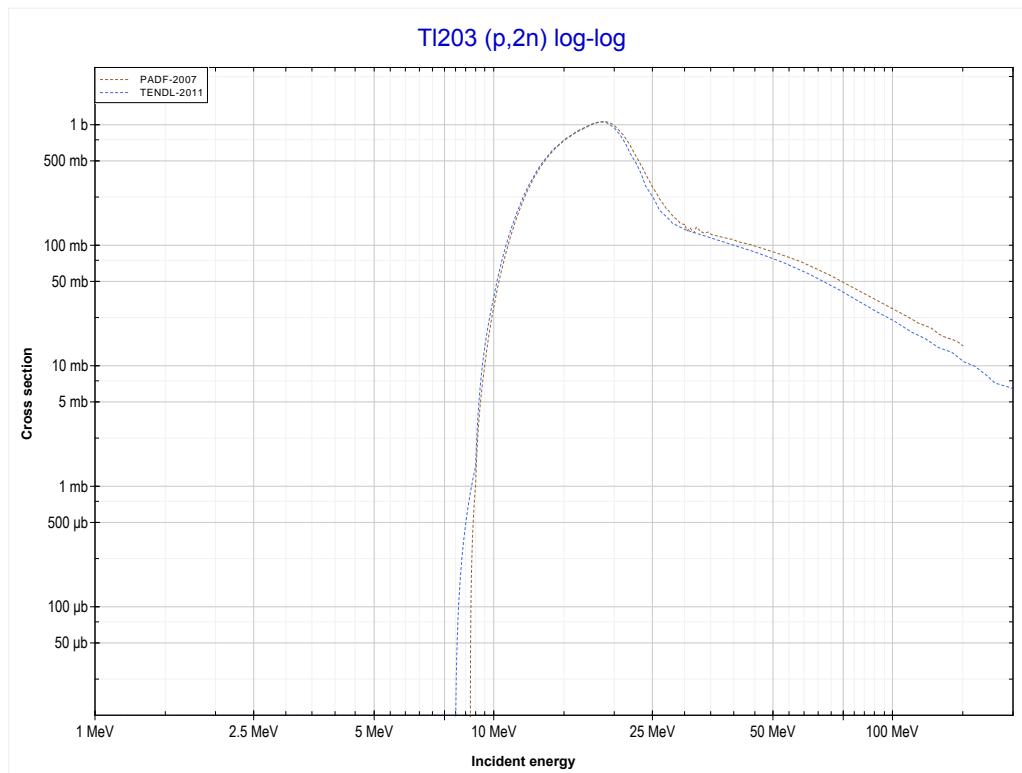
Reaction	Q-Value
Hg202(p,2p)Au201	-8233.87 keV

<< 80-Hg-202	81-Tl-203 MT4 (p,n) or MT5 (Pb203 production)	>> 82-Pb-206
<< MT111 (p,2p)		MT16 (p,2n) >>



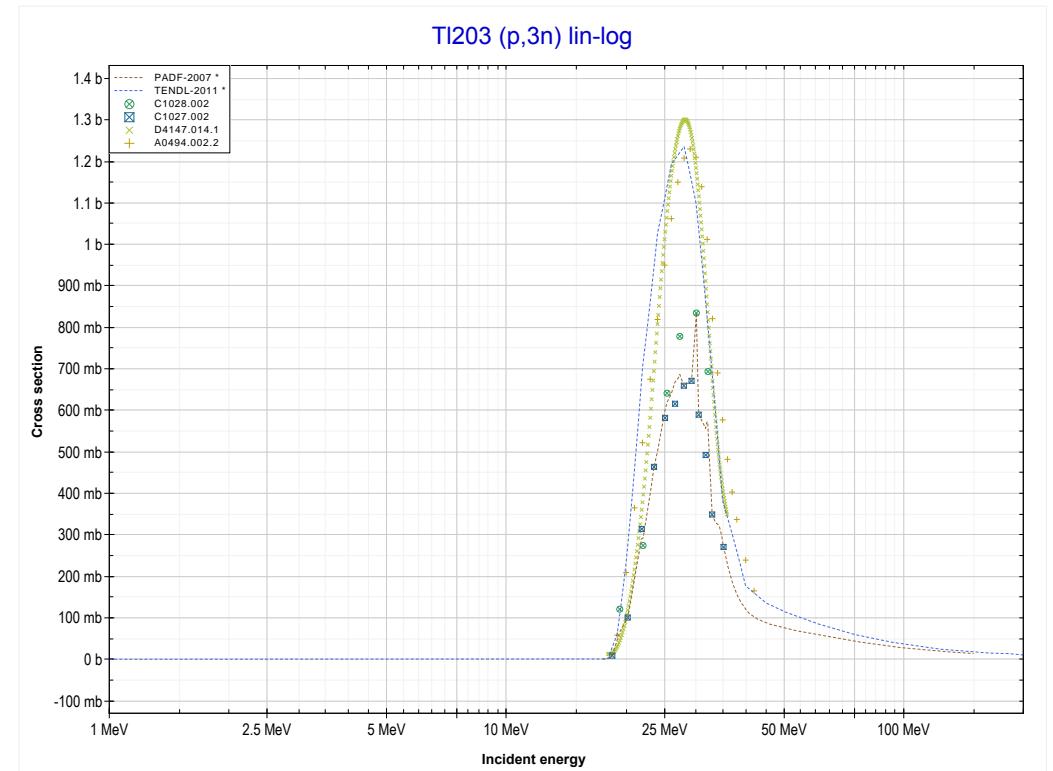
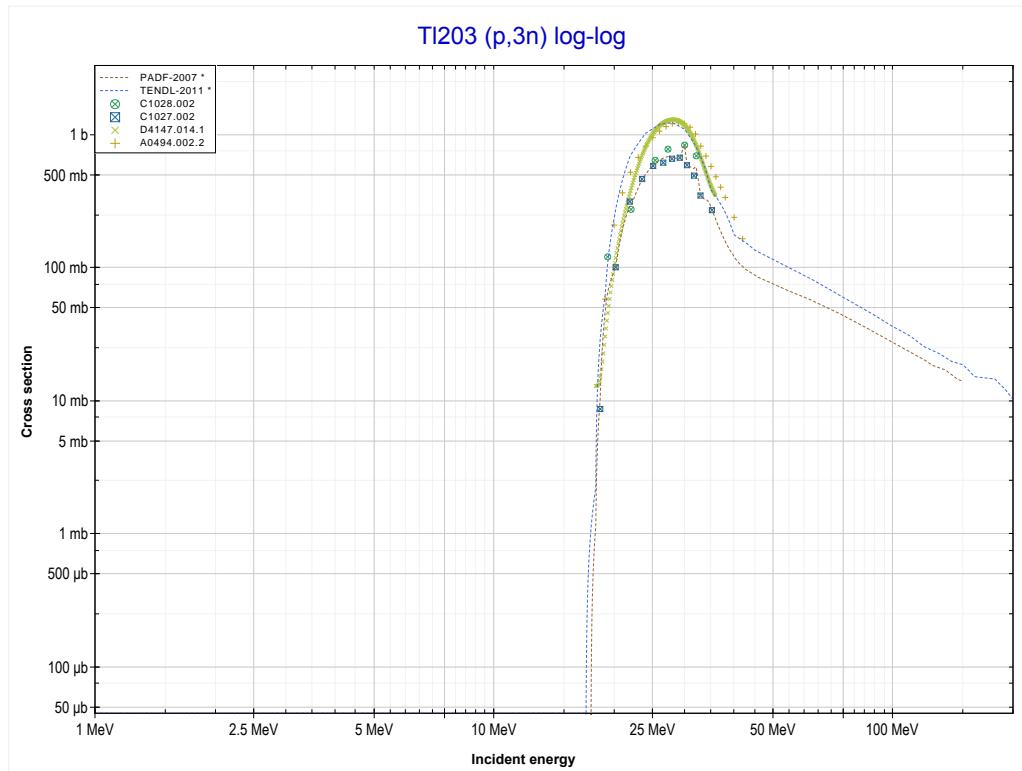
Reaction	Q-Value
$\text{TI}^{203}(\text{p},\text{n})\text{Pb}^{203}$	-1756.55 keV

<< 80-Hg-202	81-Tl-203 MT16 (p,2n) or MT5 (Pb202 production)	81-Tl-205 >>
<< MT4 (p,n)		MT17 (p,3n) >>



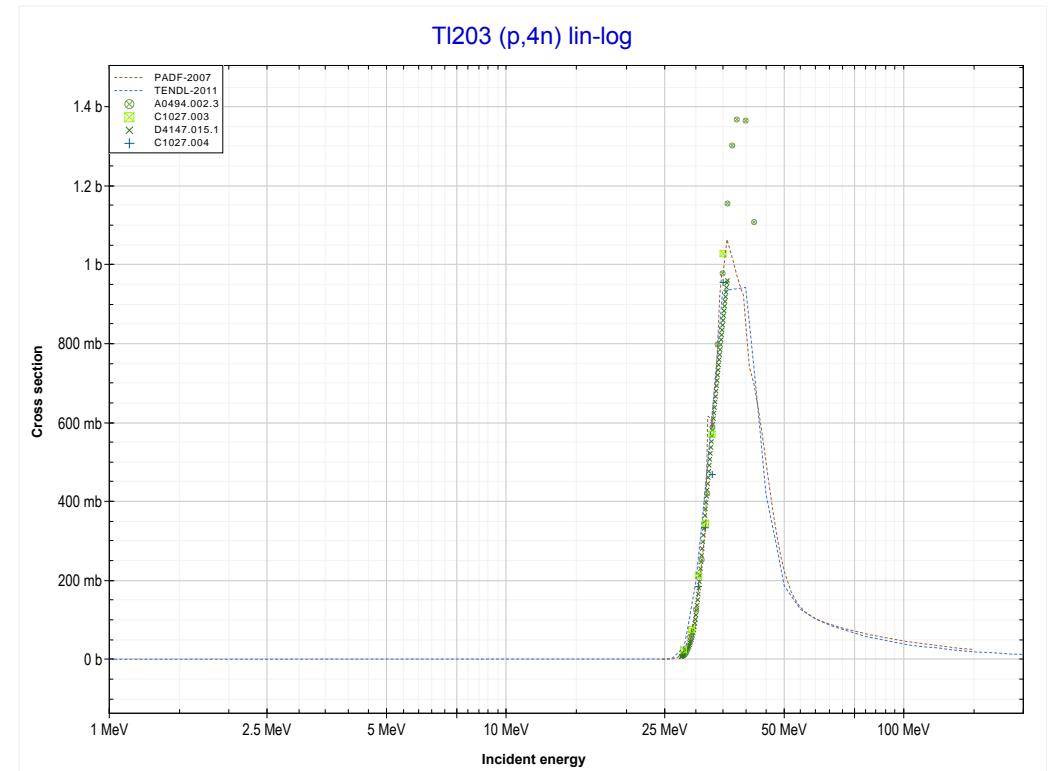
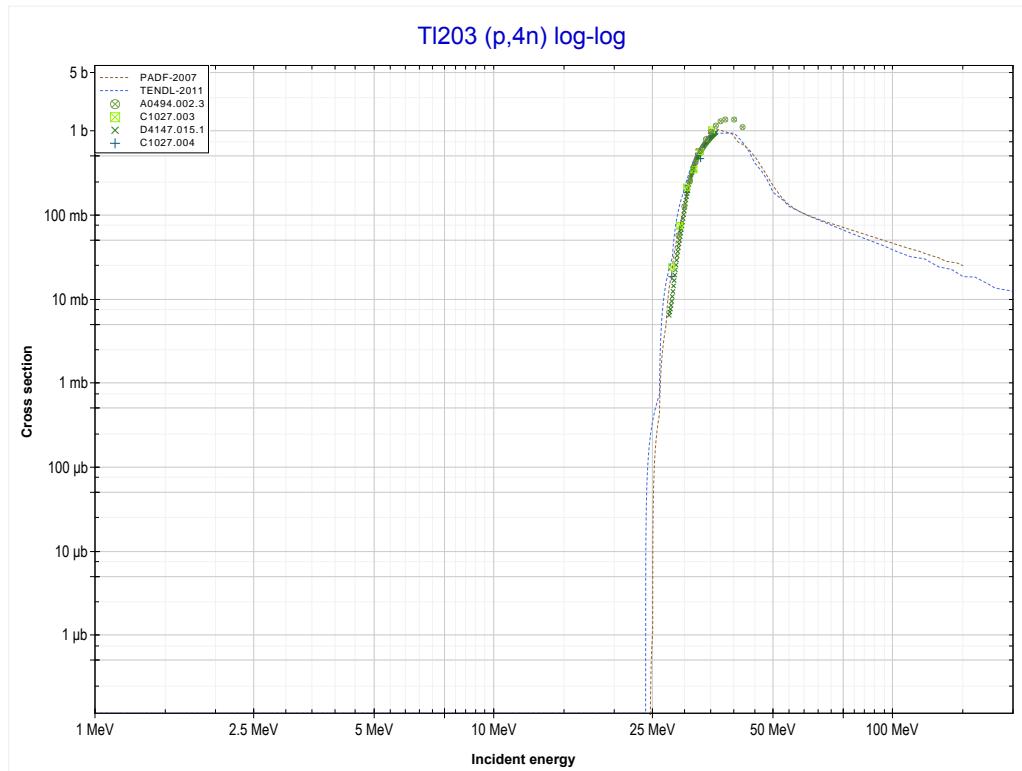
Reaction	Q-Value
$\text{Tl}^{203}(\text{p},2\text{n})\text{Pb}^{202}$	-8680.86 keV

<< 79-Au-197	81-TI-203 MT17 (p,3n) or MT5 (Pb201 production)	81-TI-205 >>
<< MT16 (p,2n)		MT37 (p,4n) >>



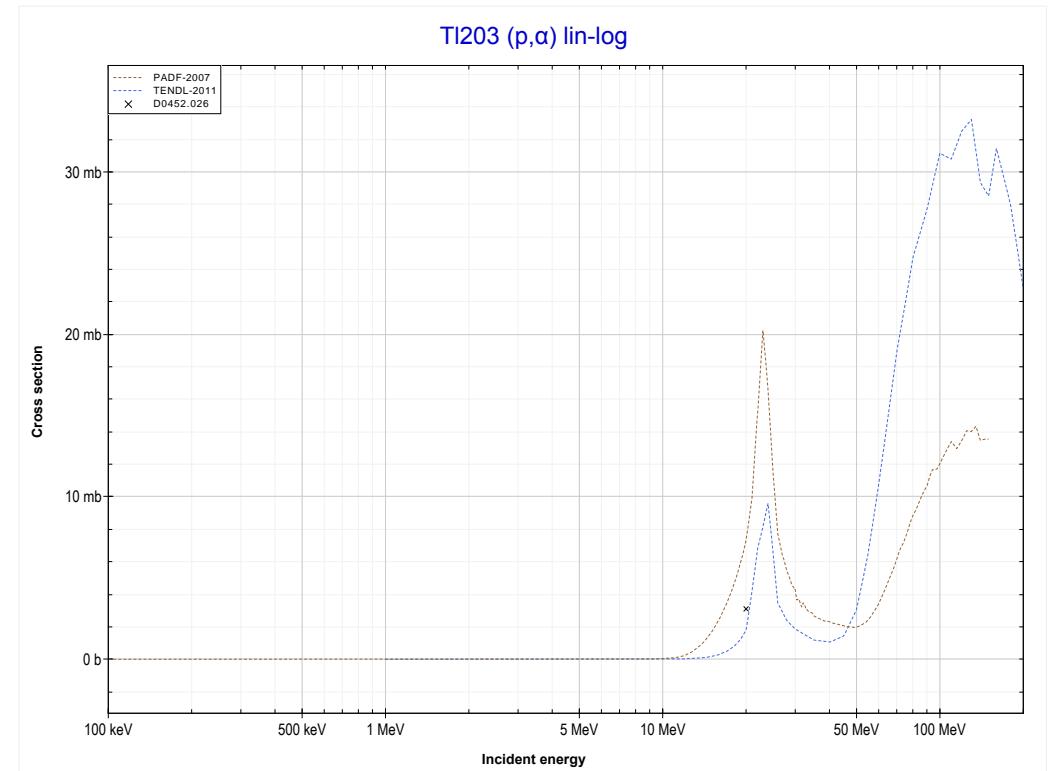
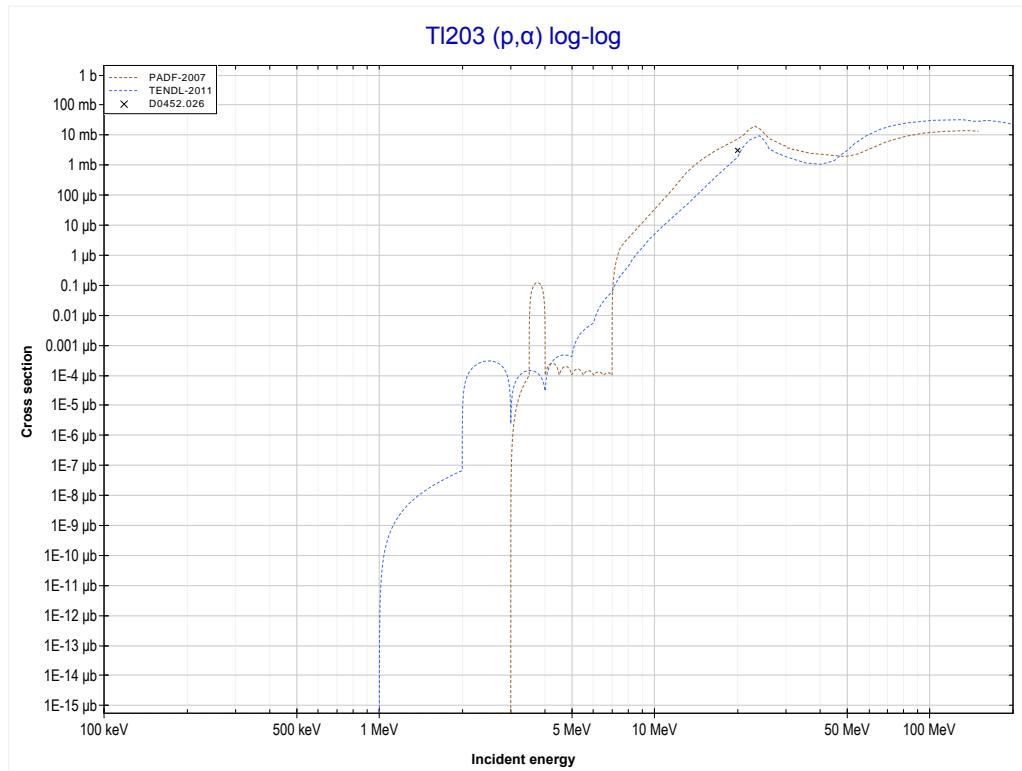
Reaction	Q-Value
TI203(p,3n)Pb201	-17428.18 keV

<< 79-Au-197	81-TI-203 MT37 (p,4n) or MT5 (Pb200 production)	81-TI-205 >> MT107 (p, α) >>
<< MT17 (p,3n)		



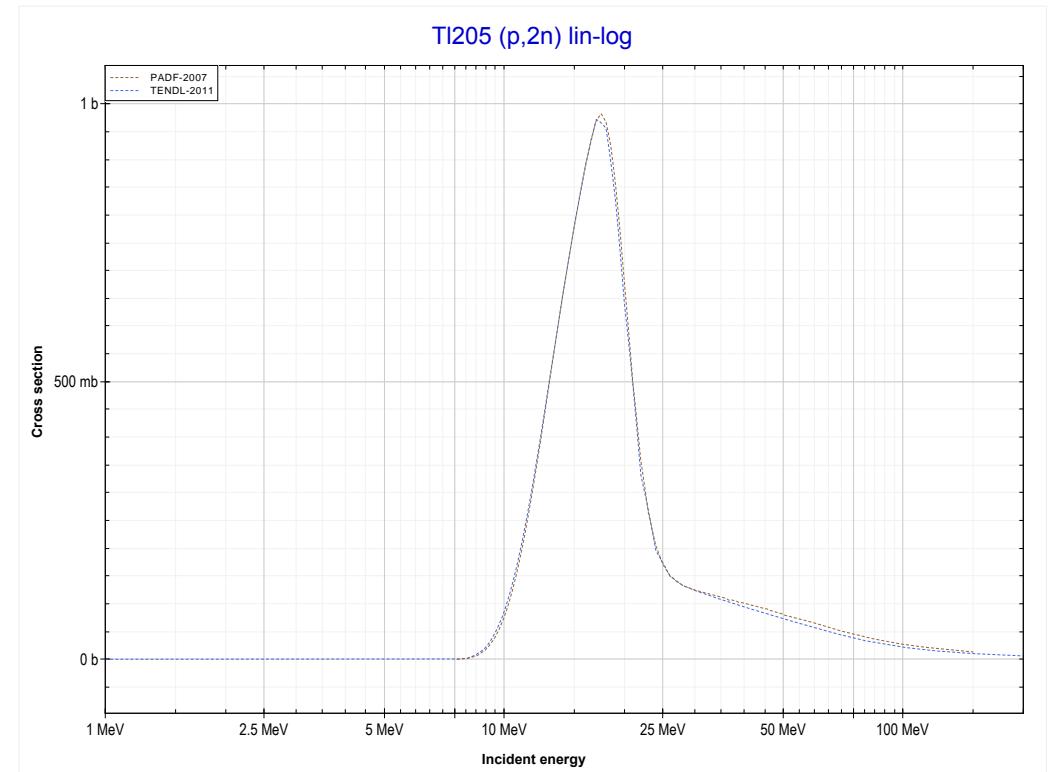
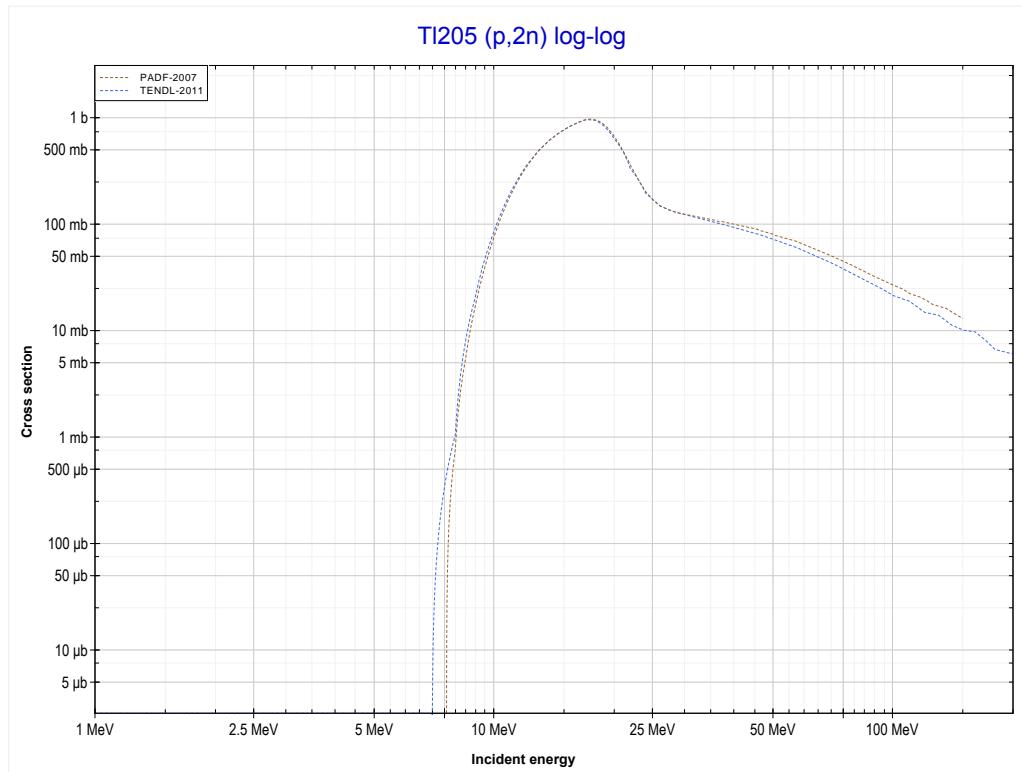
Reaction	Q-Value
TI203(p,4n)Pb200	-24514.50 keV

<< 79-Au-197	81-TI-203 MT107 (p,α) or MT5 (Hg200 production)	81-TI-205 >> MT16 ($p,2n$) >>
<< MT37 ($p,4n$)		



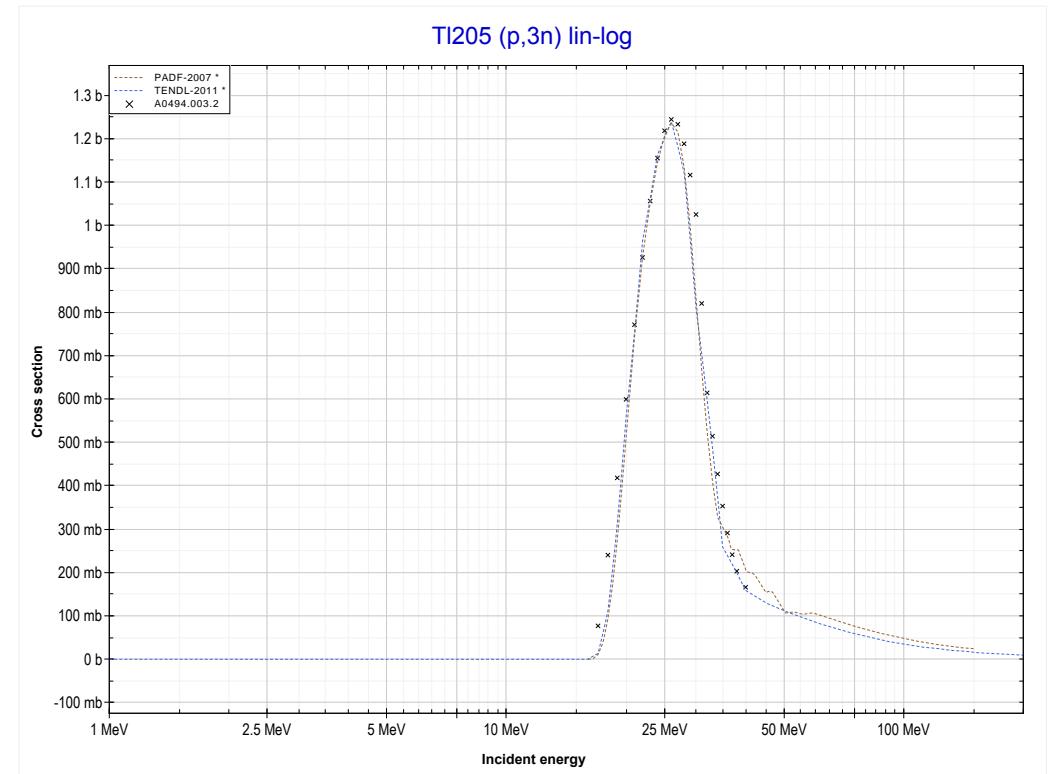
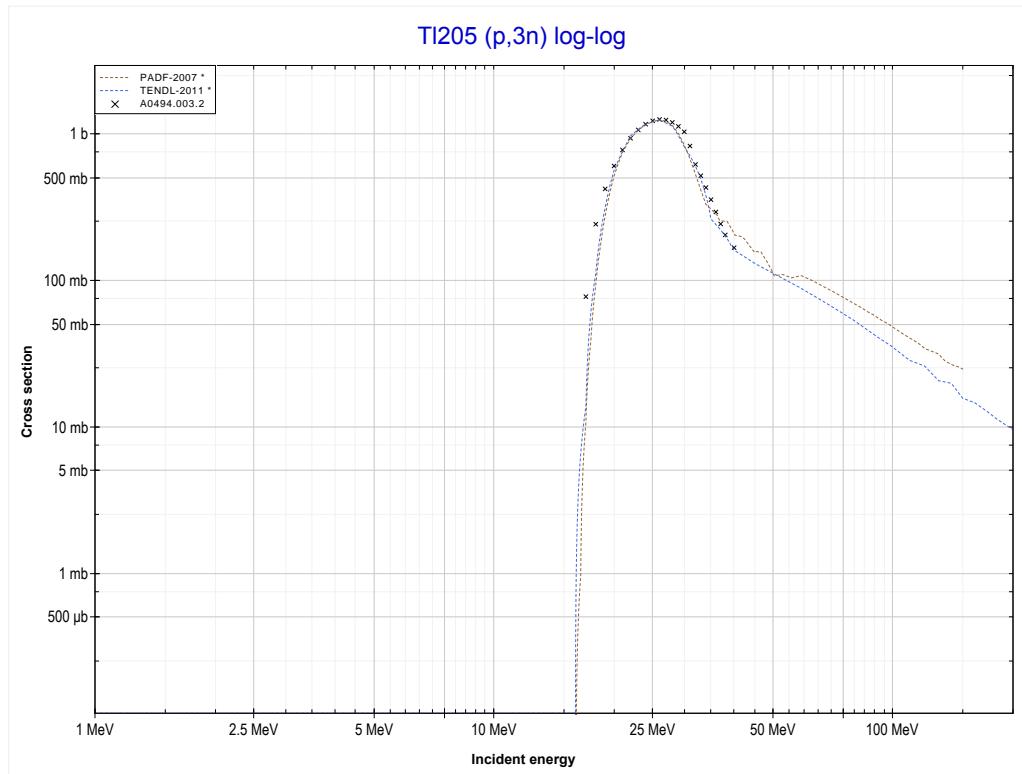
Reaction	Q-Value
$\text{TI}^{203}(p,\alpha)\text{Hg}^{200}$	8606.95 keV
$\text{TI}^{203}(p,p+t)\text{Hg}^{200}$	-11206.91 keV
$\text{TI}^{203}(p,n+\text{He}^3)\text{Hg}^{200}$	-11970.66 keV
$\text{TI}^{203}(p,2d)\text{Hg}^{200}$	-15239.57 keV
$\text{TI}^{203}(p,n+p+d)\text{Hg}^{200}$	-17464.14 keV
$\text{TI}^{203}(p,2n+2p)\text{Hg}^{200}$	-19688.70 keV

<< 81-TI-203	81-TI-205 MT16 (p,2n) or MT5 (Pb204 production)	82-Pb-206 >>
<< MT107 (p, α)		MT17 (p,3n) >>



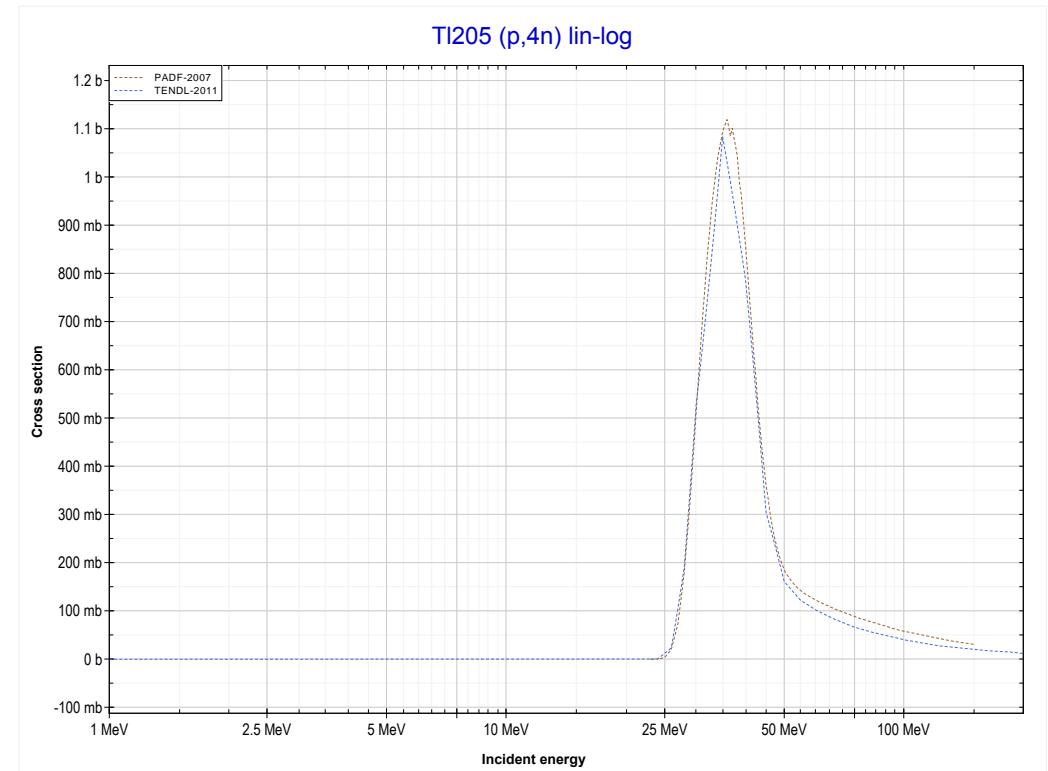
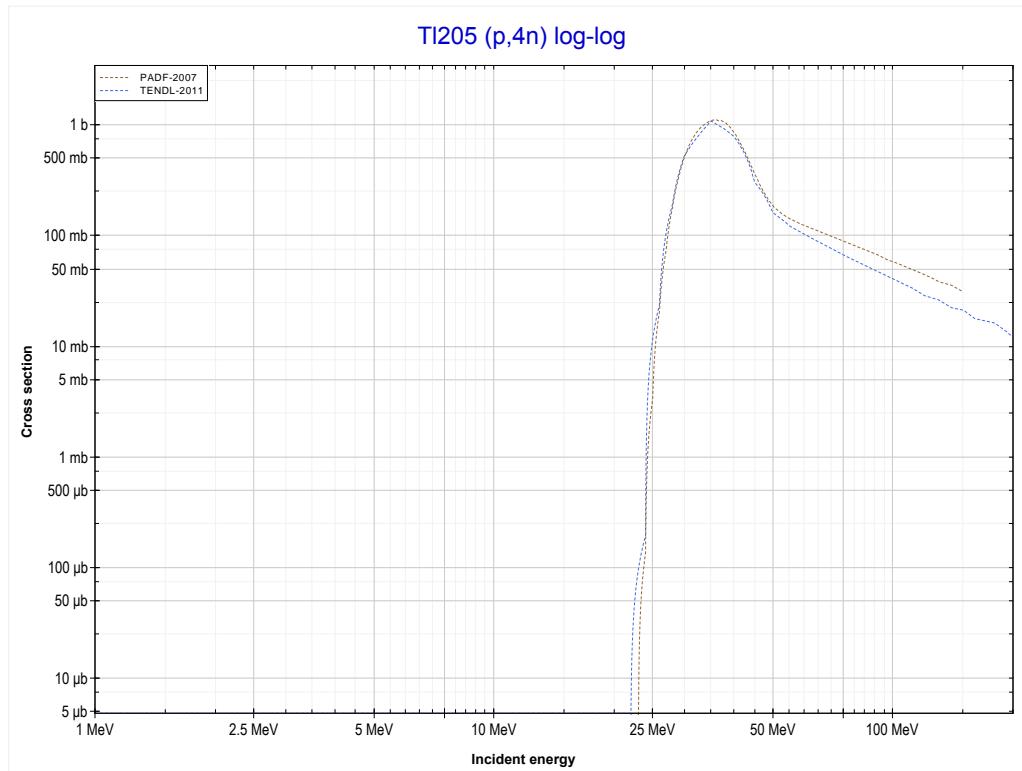
Reaction	Q-Value
TI205(p,2n)Pb204	-7564.56 keV

<< 81-TI-203	81-TI-205 MT17 (p,3n) or MT5 (Pb203 production)	82-Pb-206 >>
<< MT16 (p,2n)		MT37 (p,4n) >>



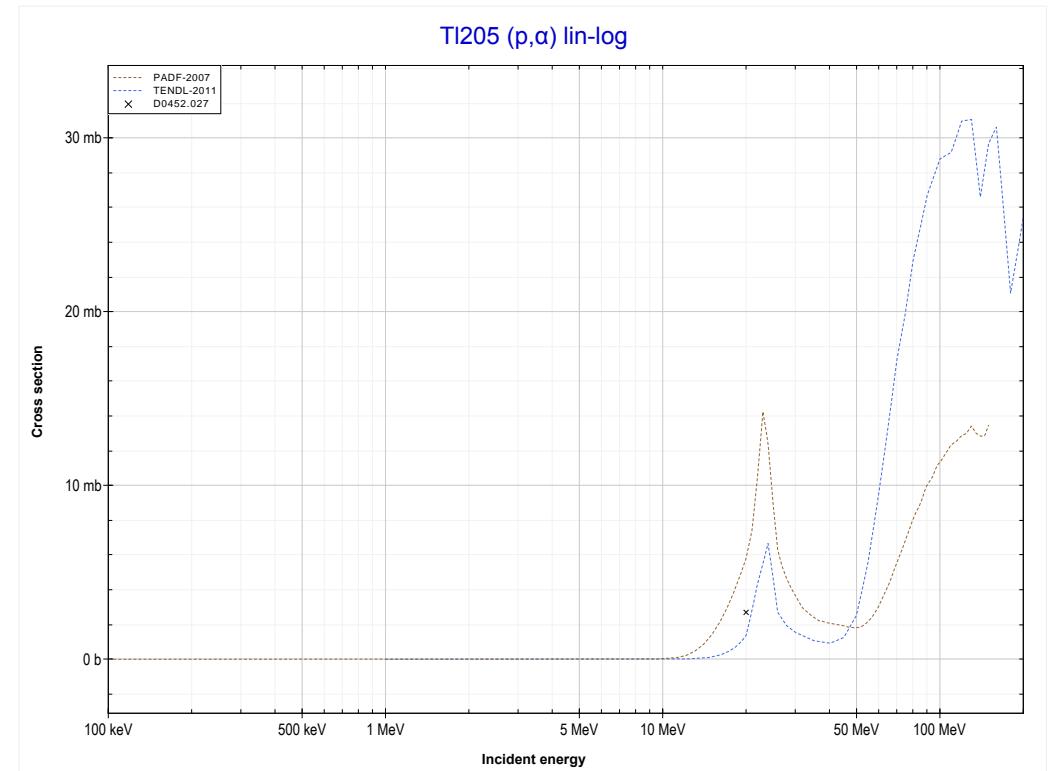
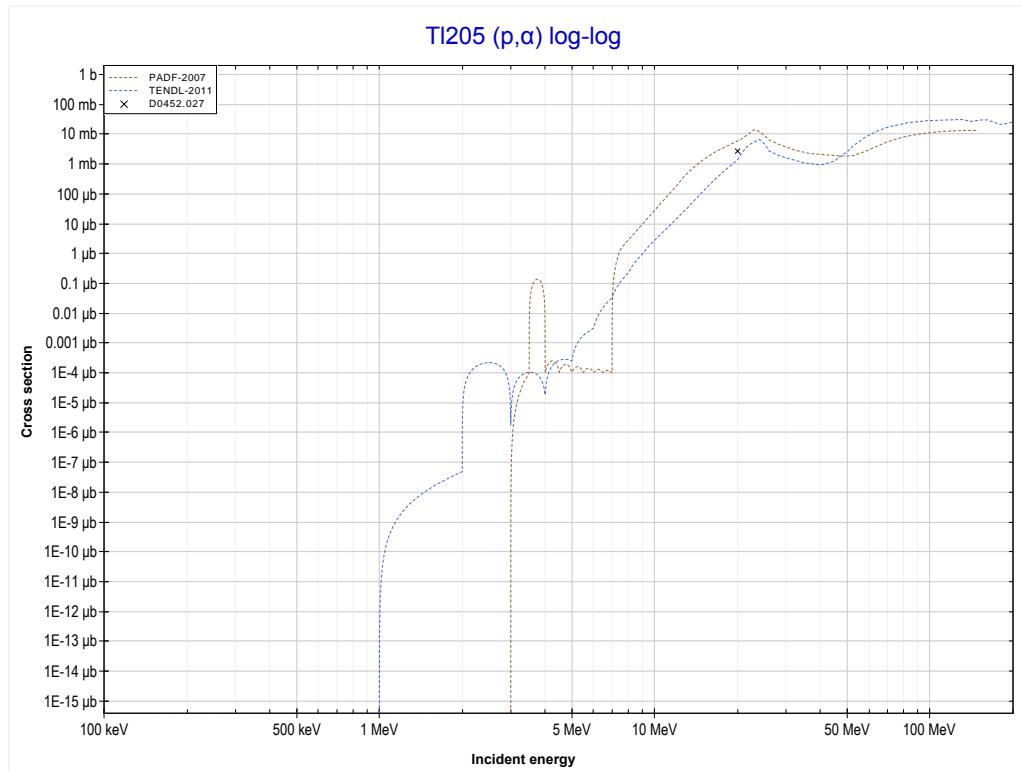
Reaction	Q-Value
$\text{TI}^{205}(\text{p},\text{3n})\text{Pb}^{203}$	-15958.58 keV

<< 81-TI-203	81-TI-205 MT37 (p,4n) or MT5 (Pb202 production)	82-Pb-207 >>
<< MT17 (p,3n)		MT107 (p, α) >>



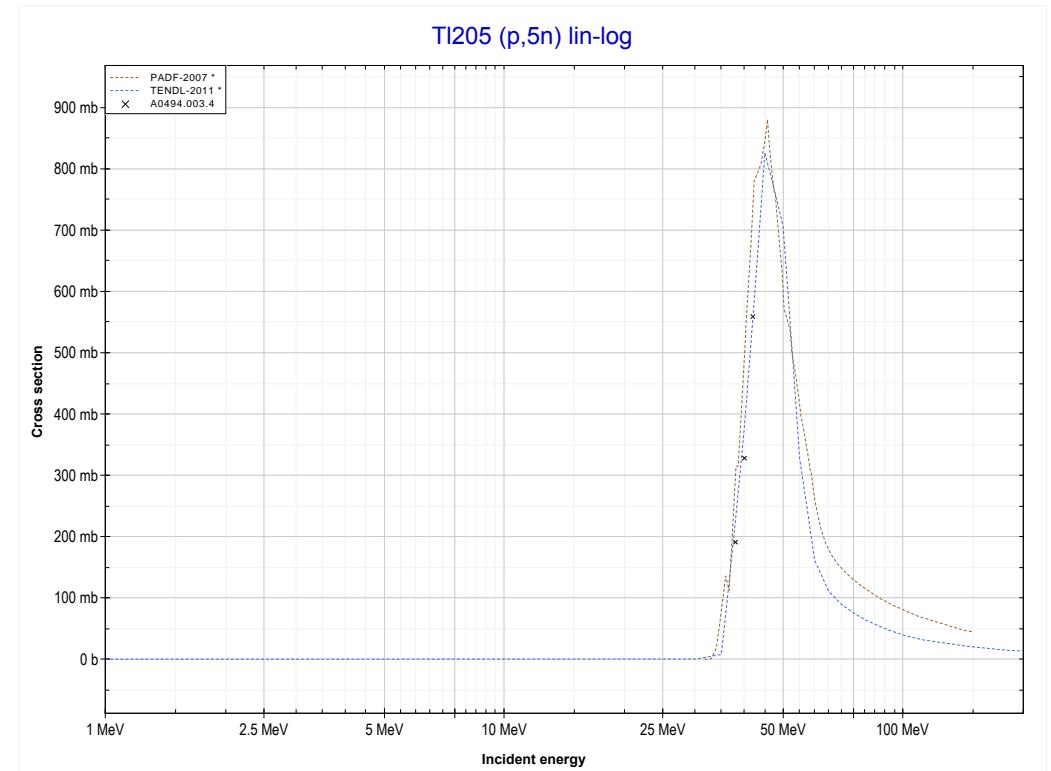
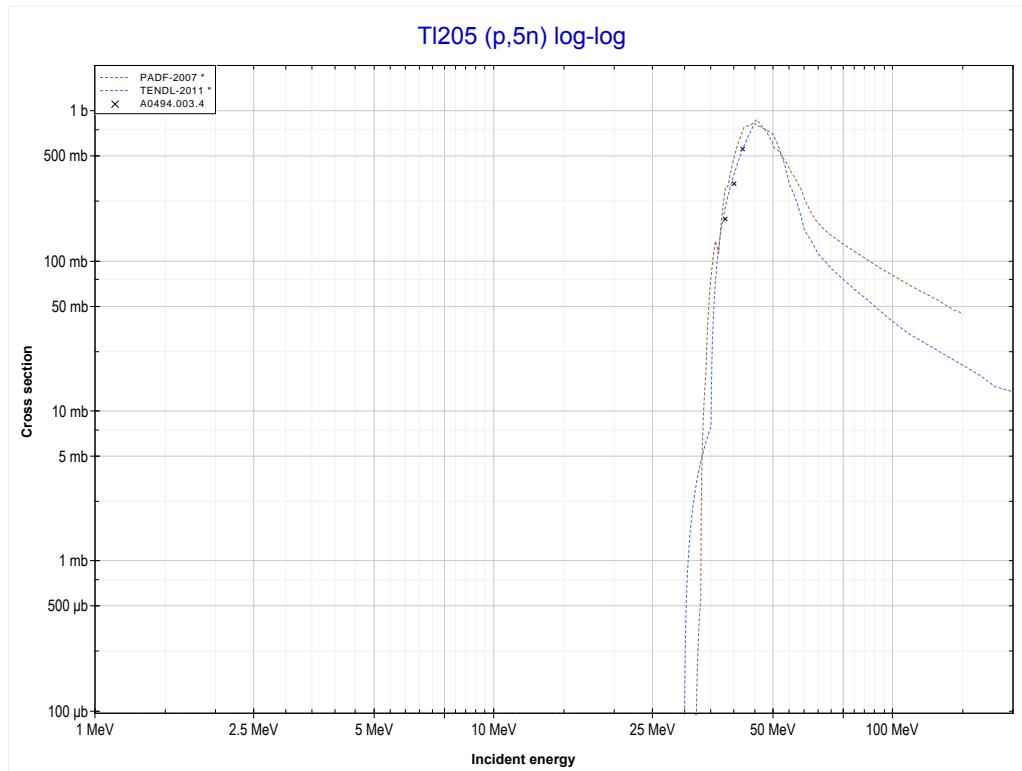
Reaction	Q-Value
TI205(p,4n)Pb202	-22882.90 keV

<< 81-TI-203	81-TI-205 MT107 (p,α) or MT5 (Hg202 production)	82-Pb-206 >>
<< MT37 ($p,4n$)		MT152 ($p,5n$) >>



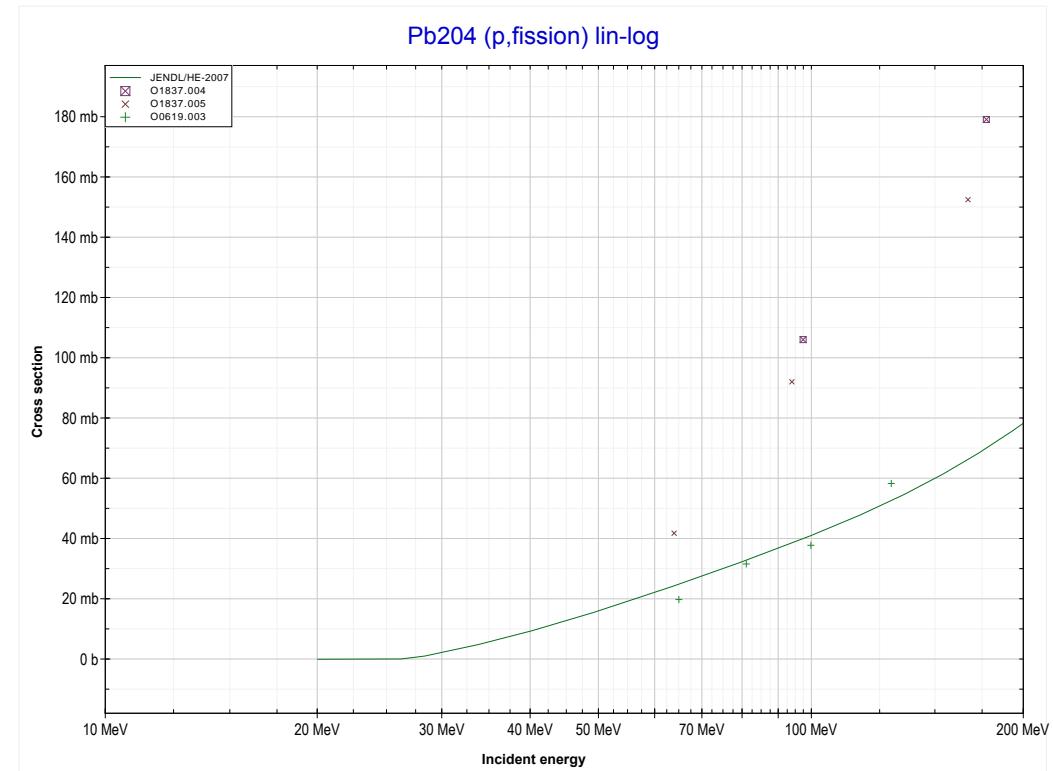
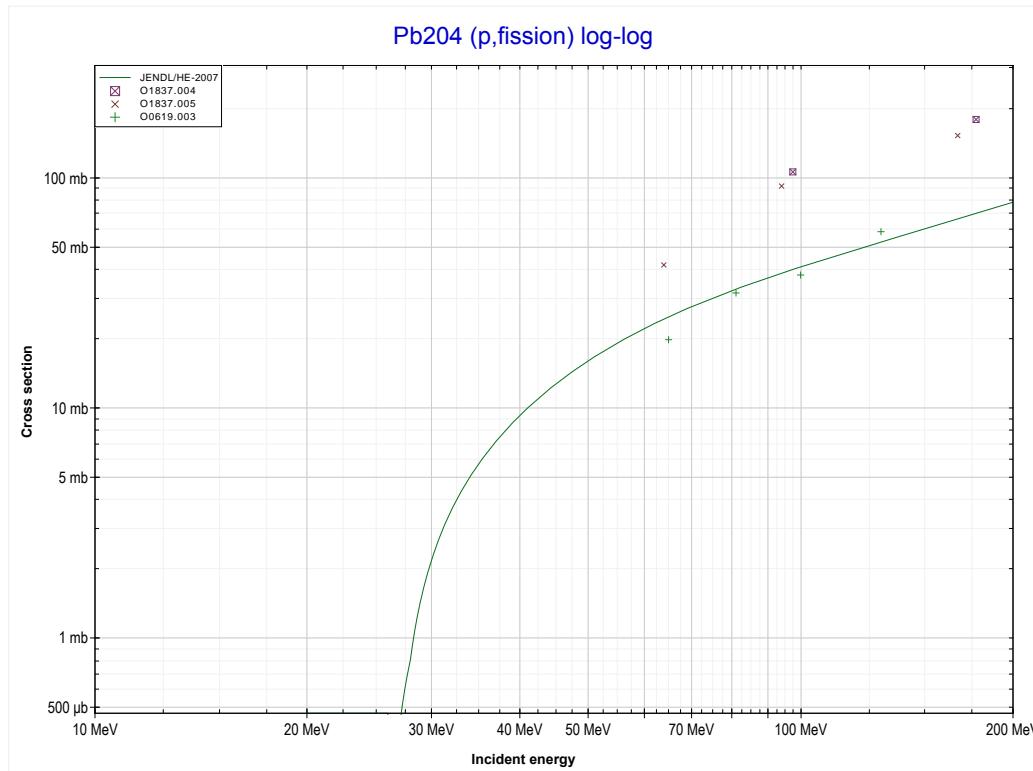
Reaction	Q-Value
TI205(p,α)Hg202	8389.35 keV
TI205($p,p+t$)Hg202	-11424.51 keV
TI205($p,n+He3$)Hg202	-12188.26 keV
TI205($p,2d$)Hg202	-15457.17 keV
TI205($p,n+p+d$)Hg202	-17681.74 keV
TI205($p,2n+2p$)Hg202	-19906.30 keV

<< 79-Au-197	81-TI-205 MT152 (p,5n) or MT5 (Pb201 production)	82-Pb-206 >>
<< MT107 (p, α)		MT18 (p,fission) >>

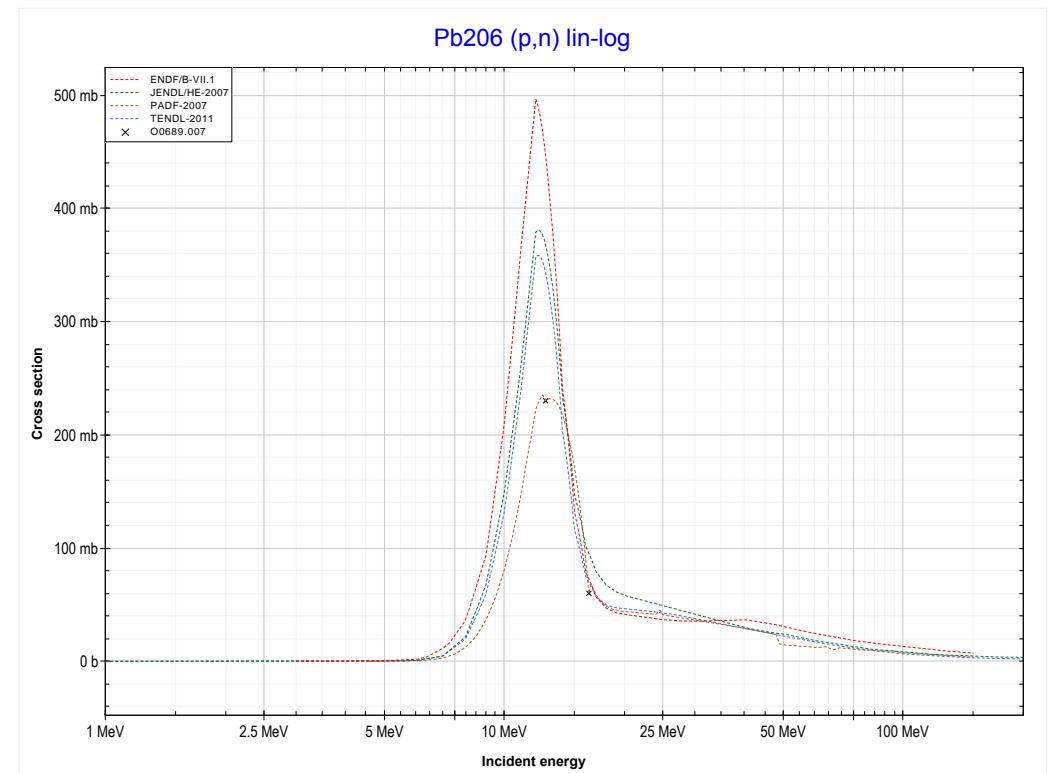
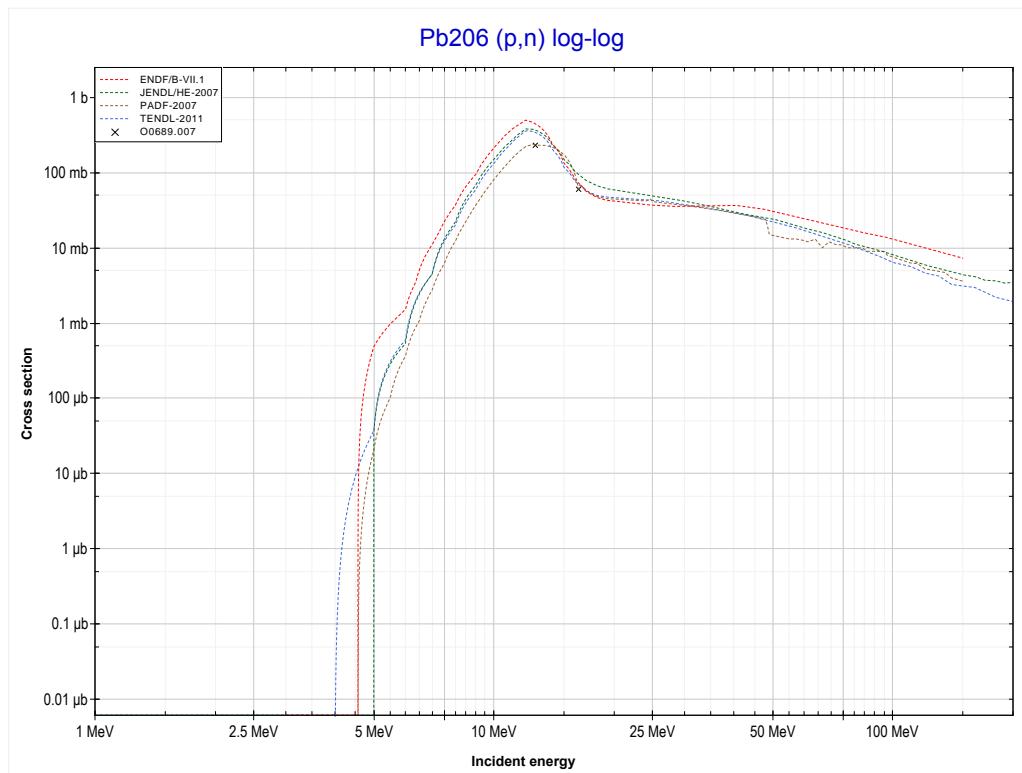


Reaction	Q-Value
$\text{TI}^{205}(\text{p},\text{5n})\text{Pb}^{201}$	-31630.21 keV

<< 74-W-186	82-Pb-204 MT18 (p,fission)	82-Pb-206 >>
<< MT152 (p,5n)		MT4 (p,n) >>

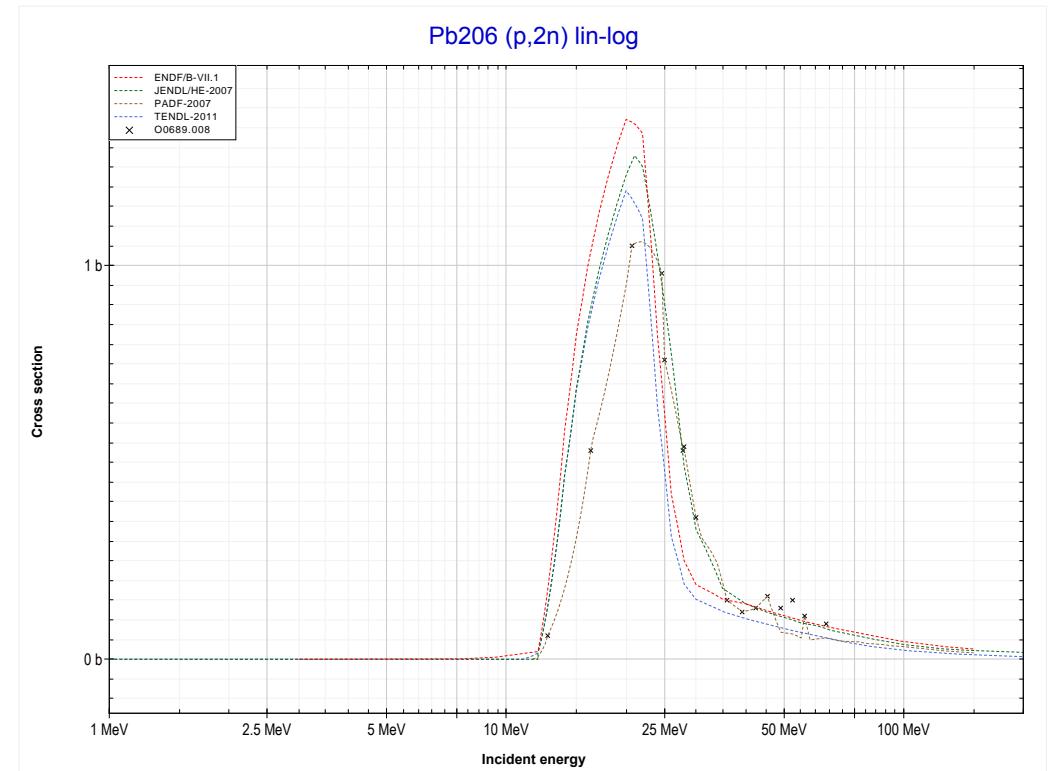
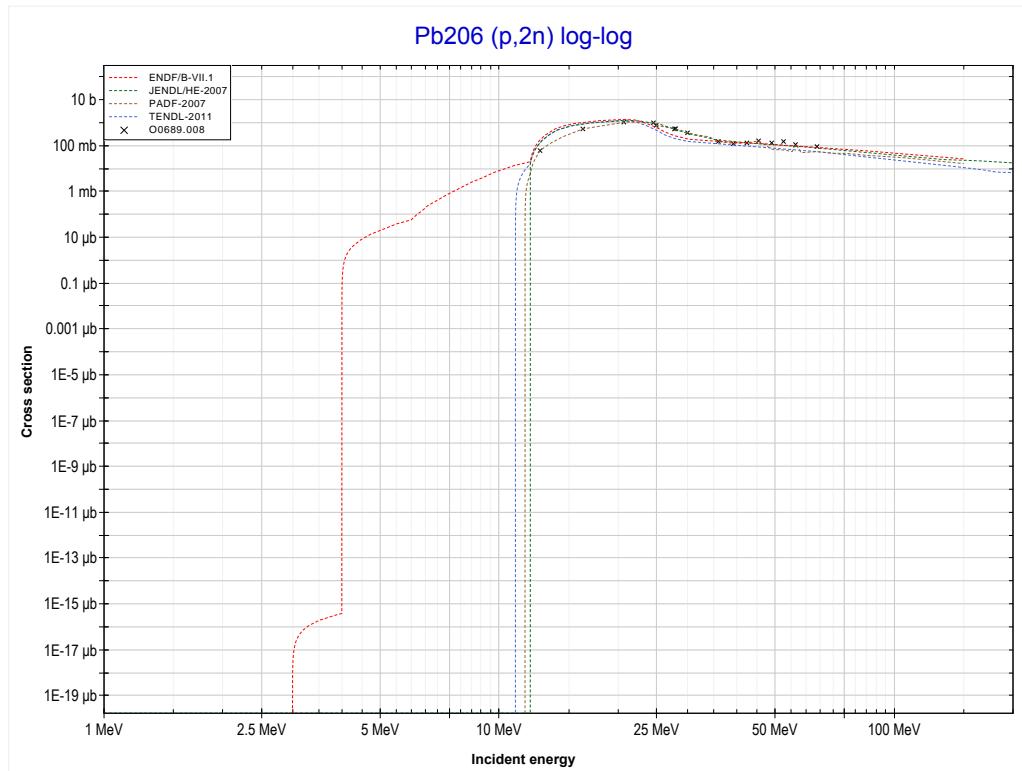


<< 81-TI-203	82-Pb-206 MT4 (p,n) or MT5 (Bi206 production)	83-Bi-209 >>
<< MT18 (p,fission)		MT16 (p,2n) >>



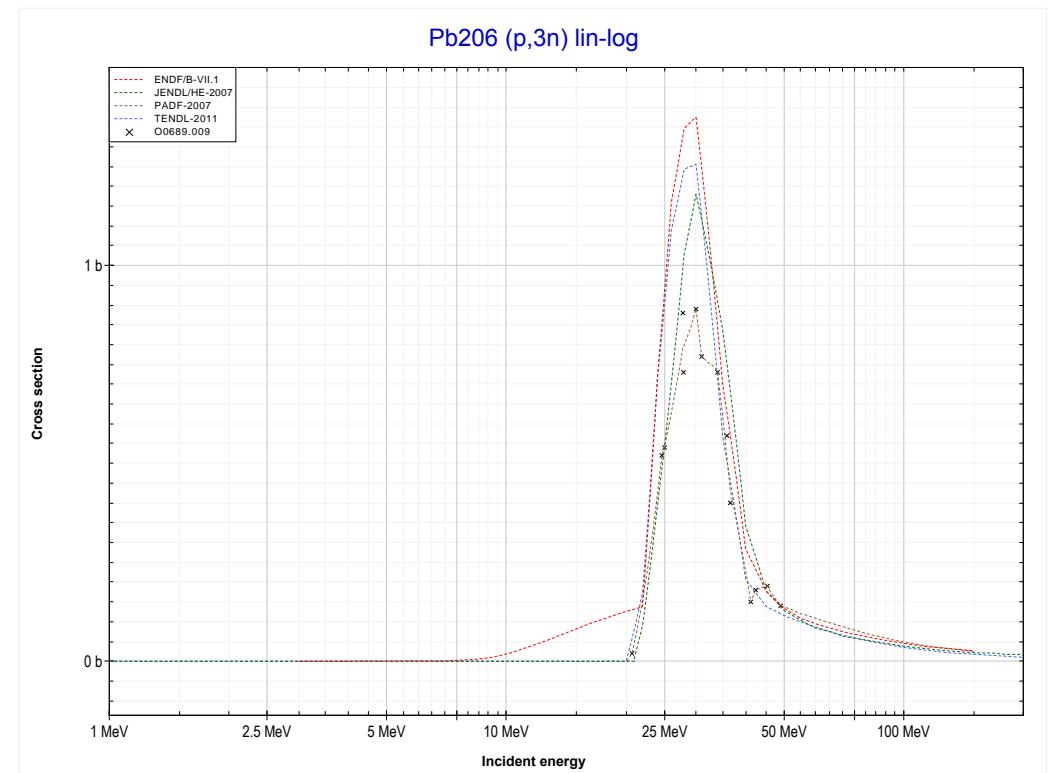
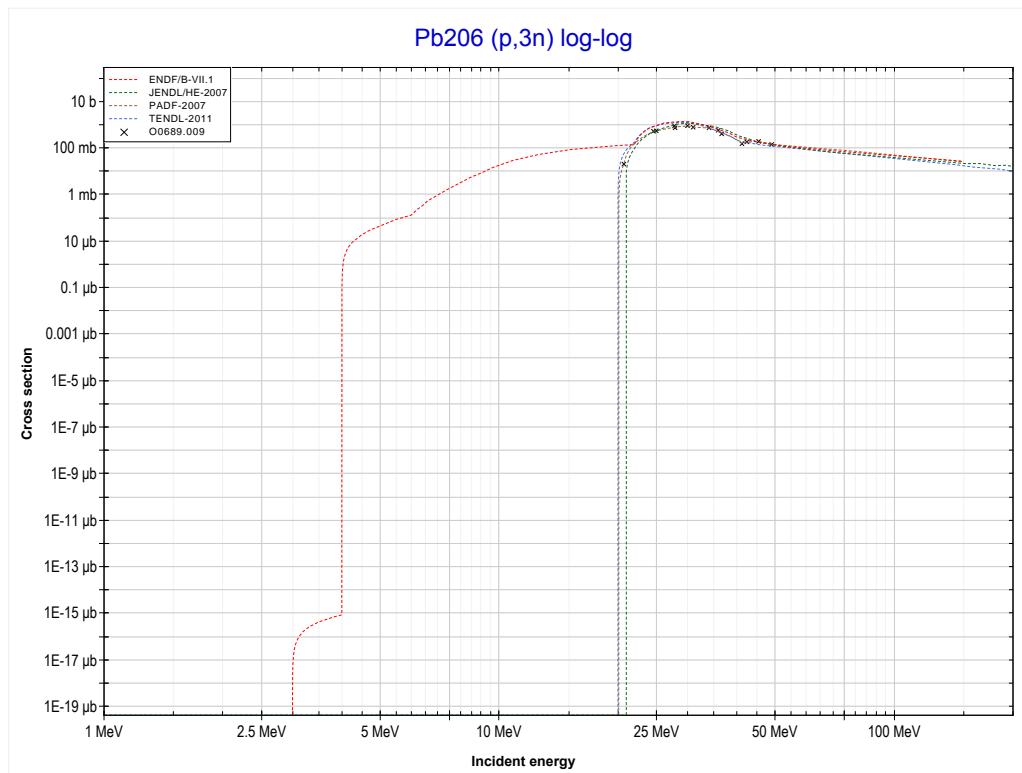
Reaction	Q-Value
Pb206(p,n)Bi206	-4539.75 keV

<< 81-TI-205	82-Pb-206 MT16 (p,2n) or MT5 (Bi205 production)	82-Pb-207 >>
<< MT4 (p,n)		MT17 (p,3n) >>



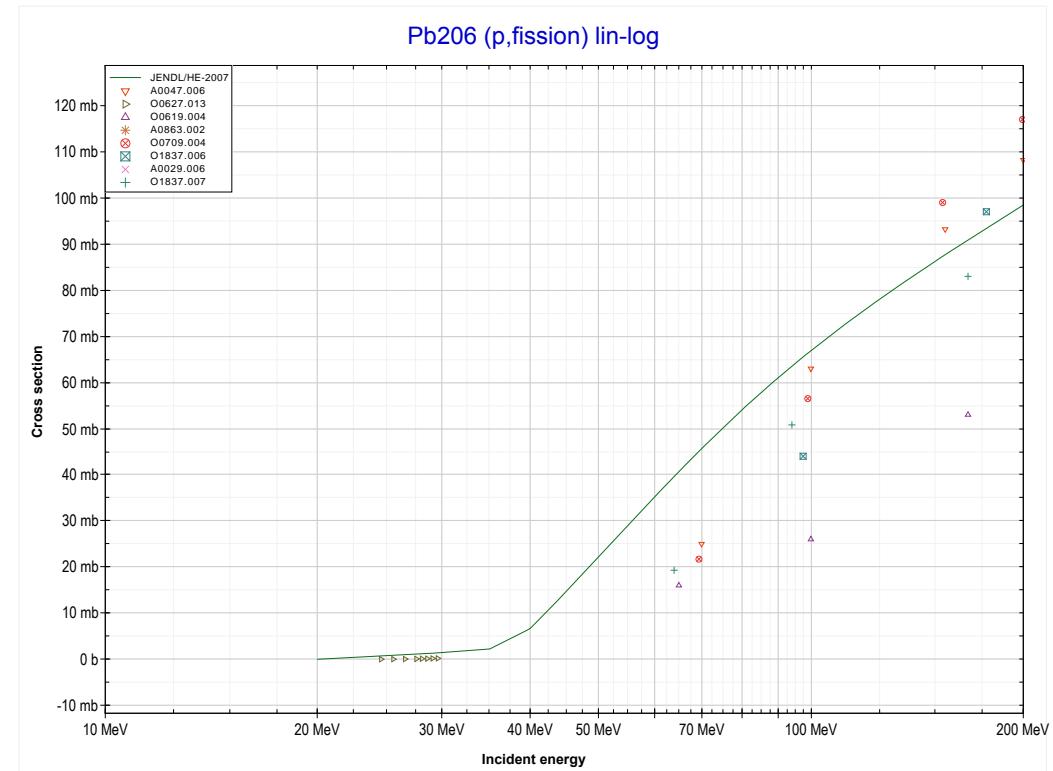
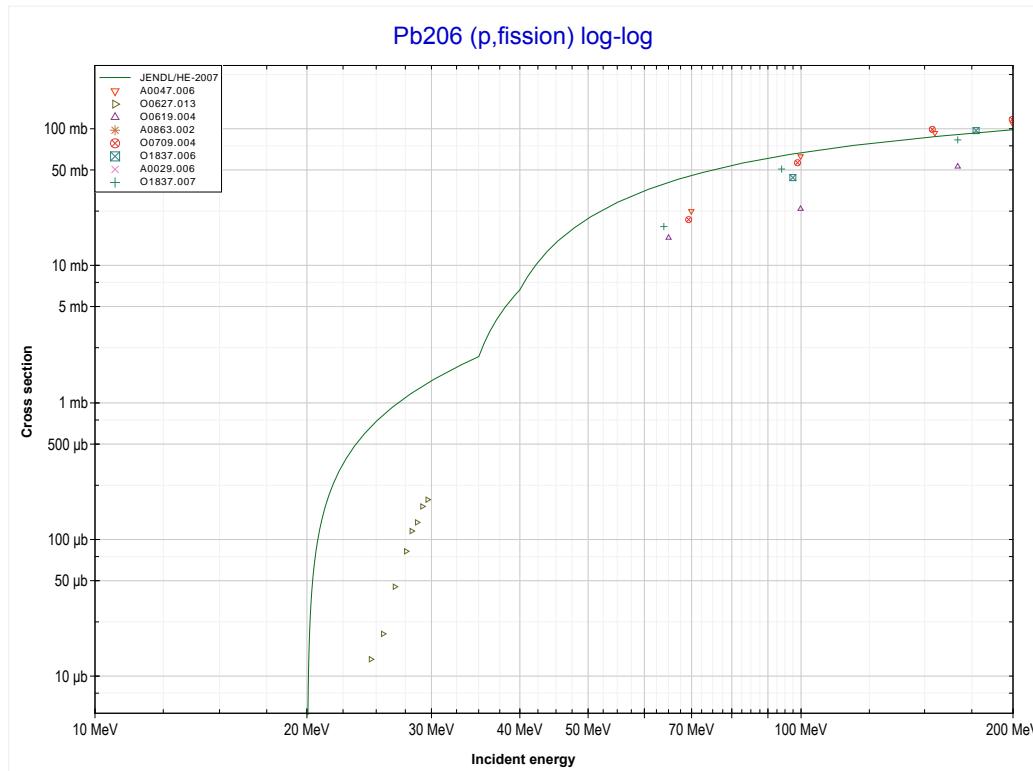
Reaction	Q-Value
Pb206(p,2n)Bi205	-11577.06 keV

<< 81-TI-205	82-Pb-206 MT17 (p,3n) or MT5 (Bi204 production)	82-Pb-207 >>
<< MT16 (p,2n)		MT18 (p,fission) >>

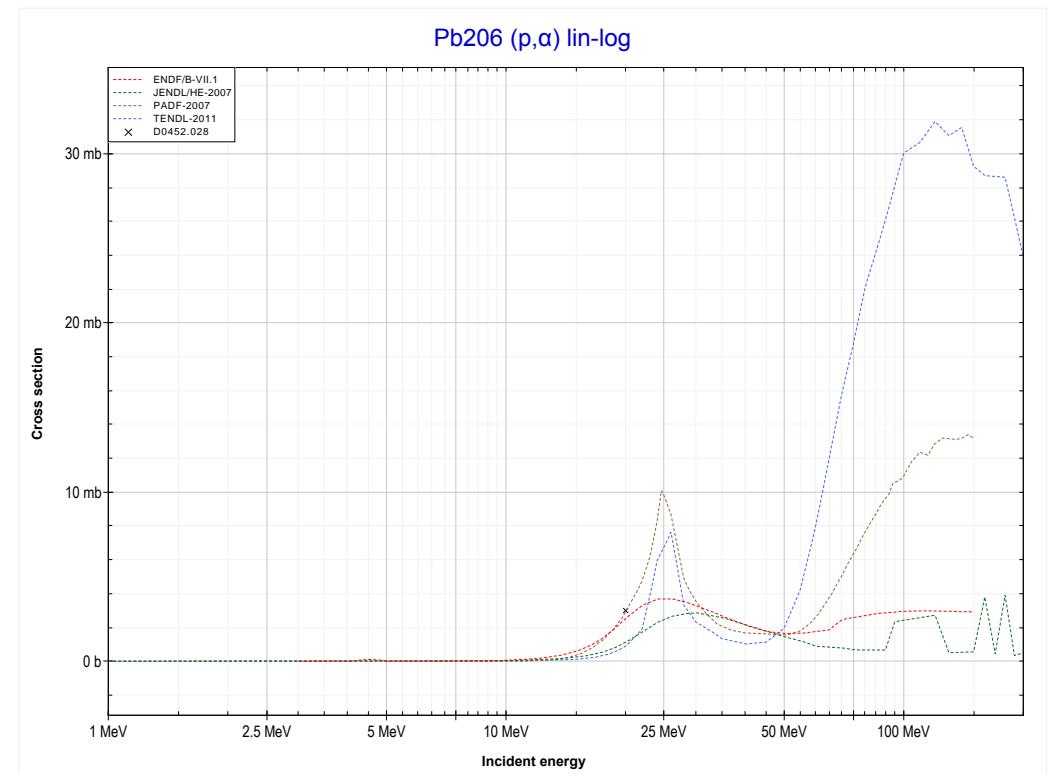
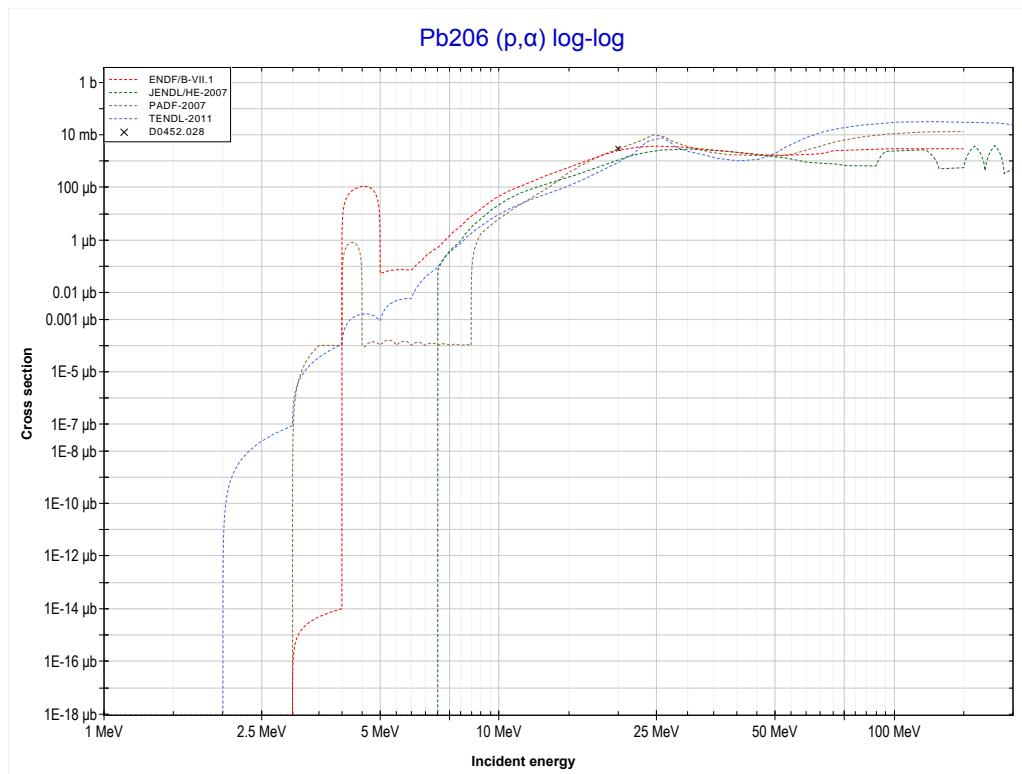


Reaction	Q-Value
Pb206(p,3n)Bi204	-20043.38 keV

<< 82-Pb-204	82-Pb-206 MT18 (p,fission)	82-Pb-207 >>
<< MT17 (p,3n) >>		MT107 (p, α) >>

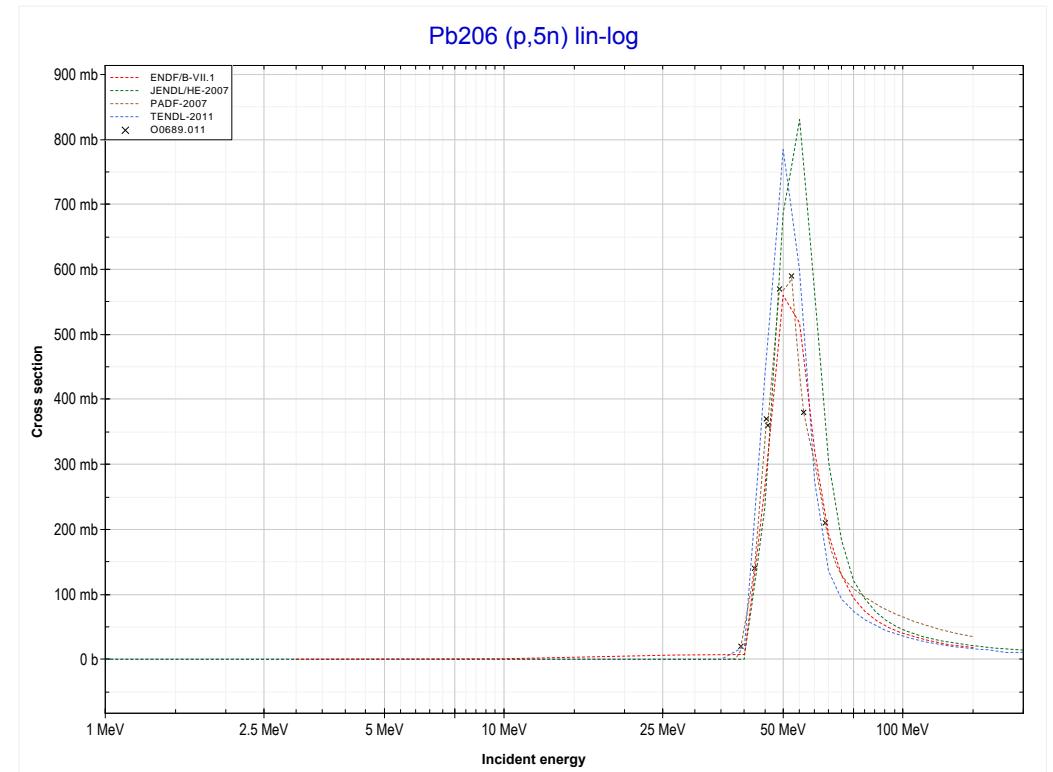
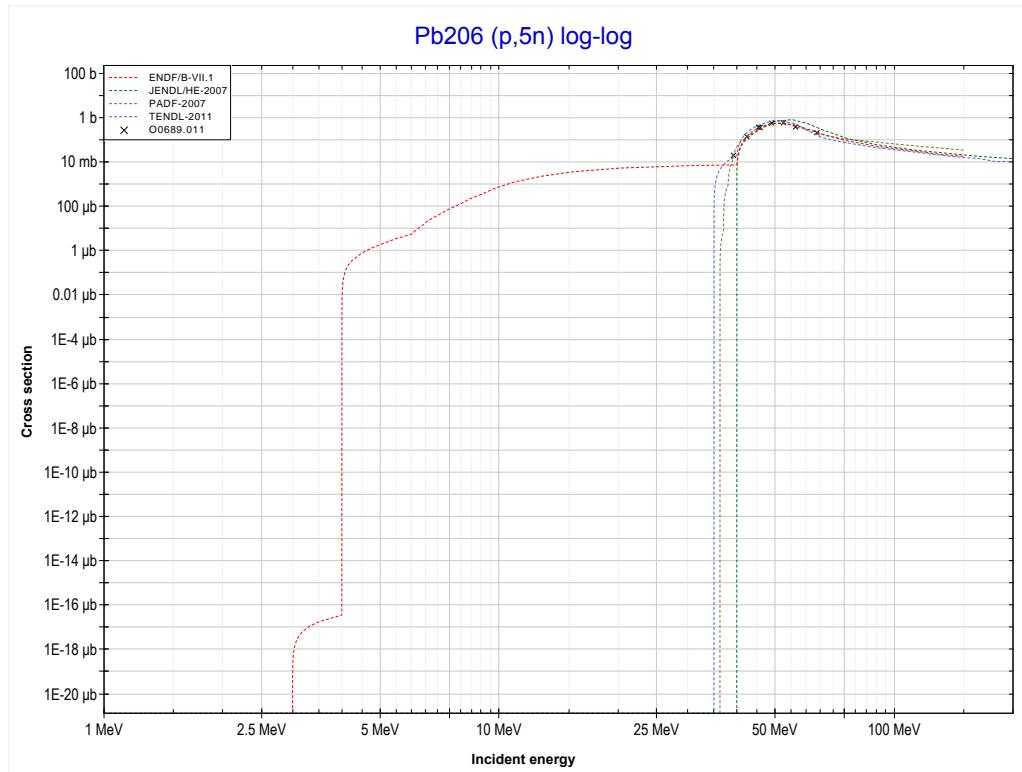


<< 81-Tl-205	82-Pb-206 MT107 (p,α) or MT5 (Tl203 production)	82-Pb-207 >>
<< MT18 (p,fission)		MT152 (p,5n) >>



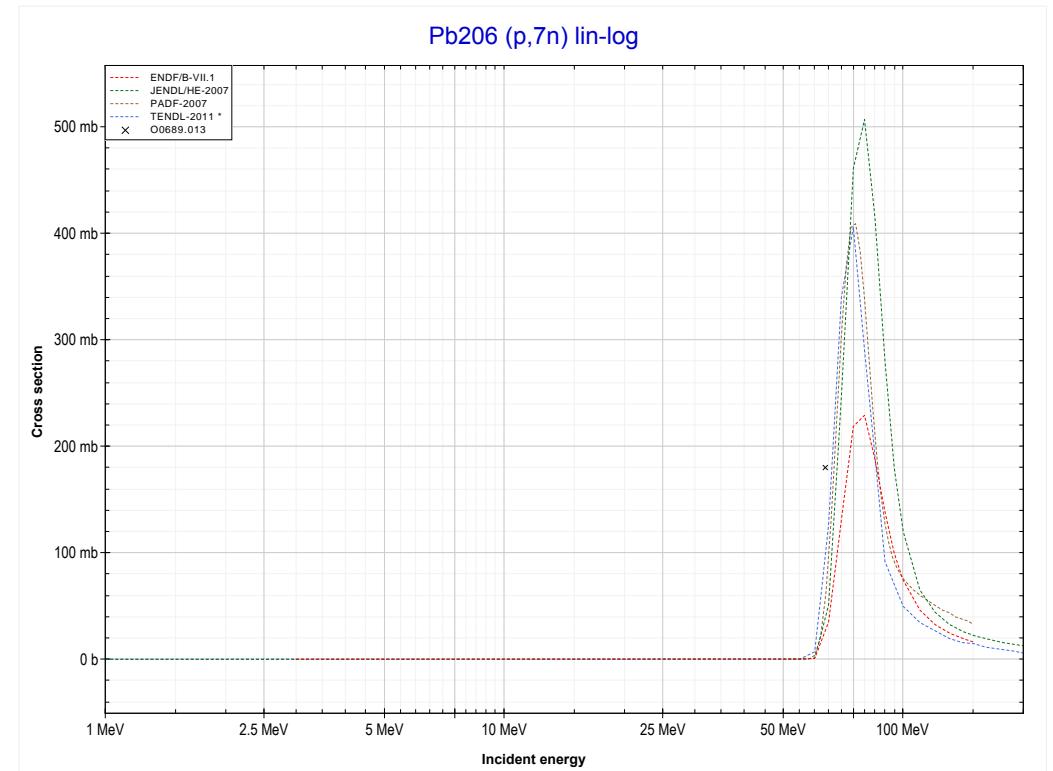
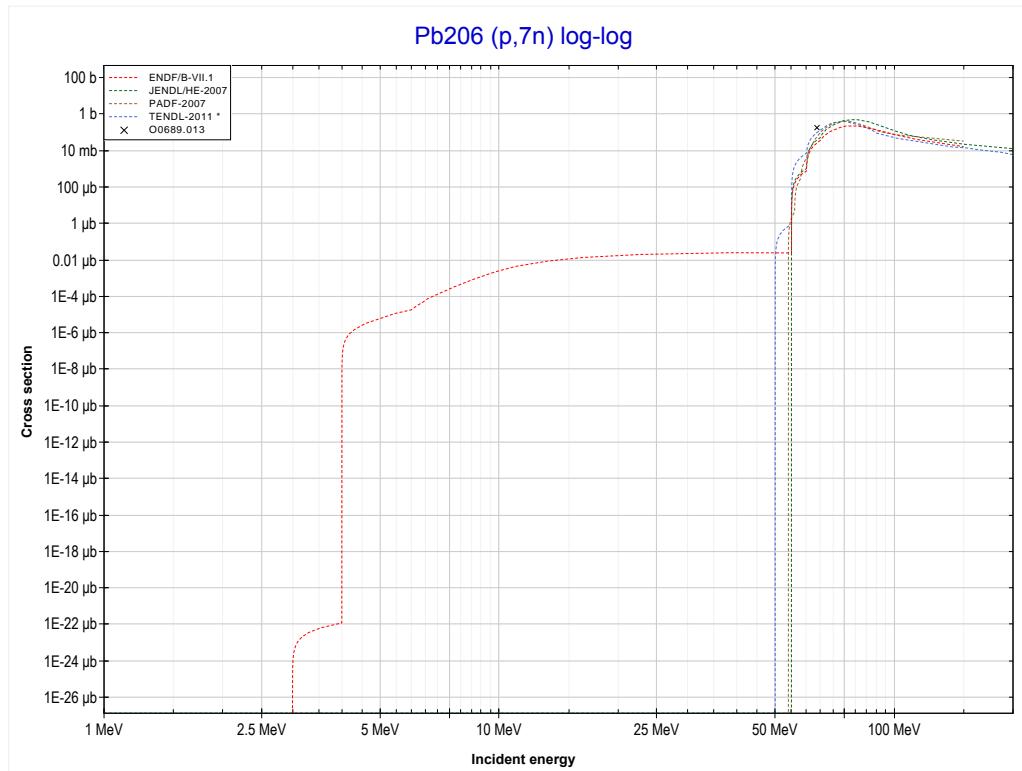
Reaction	Q-Value
Pb206(p,α)Tl203	6839.85 keV
Pb206($p,p+t$)Tl203	-12974.01 keV
Pb206($p,n+He3$)Tl203	-13737.76 keV
Pb206($p,2d$)Tl203	-17006.67 keV
Pb206($p,n+p+d$)Tl203	-19231.24 keV
Pb206($p,2n+2p$)Tl203	-21455.80 keV

<< 81-TI-205	82-Pb-206 MT152 (p,5n) or MT5 (Bi202 production)	82-Pb-208 >>
<< MT107 (p, α)		MT160 (p,7n) >>



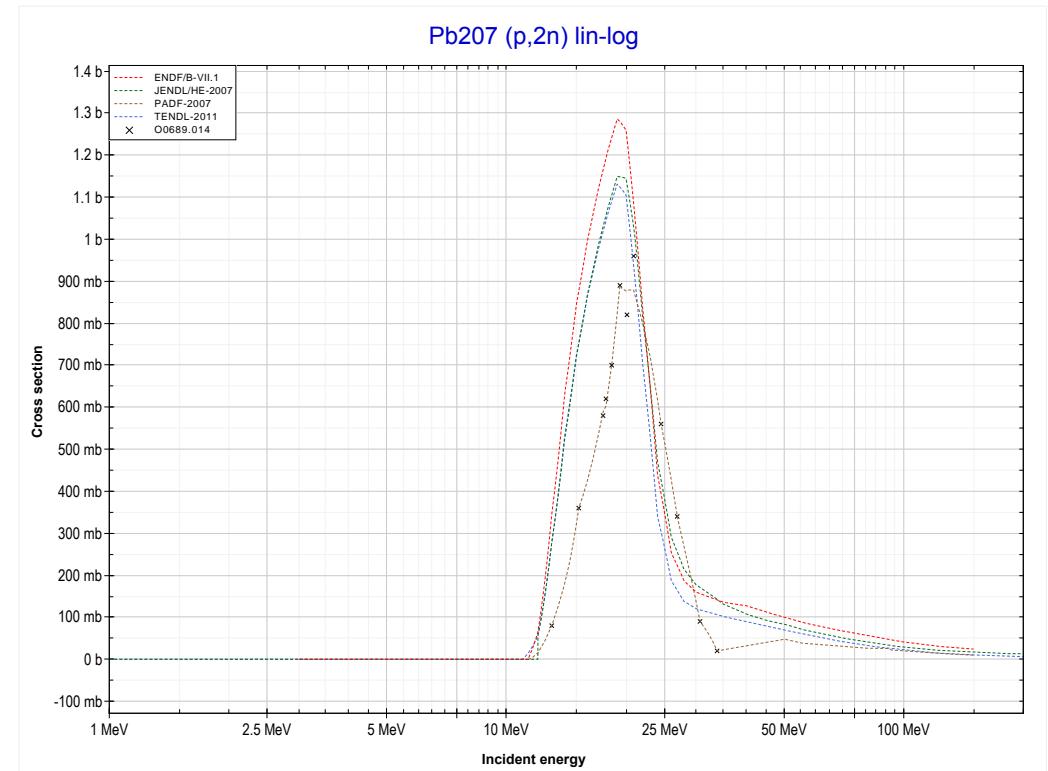
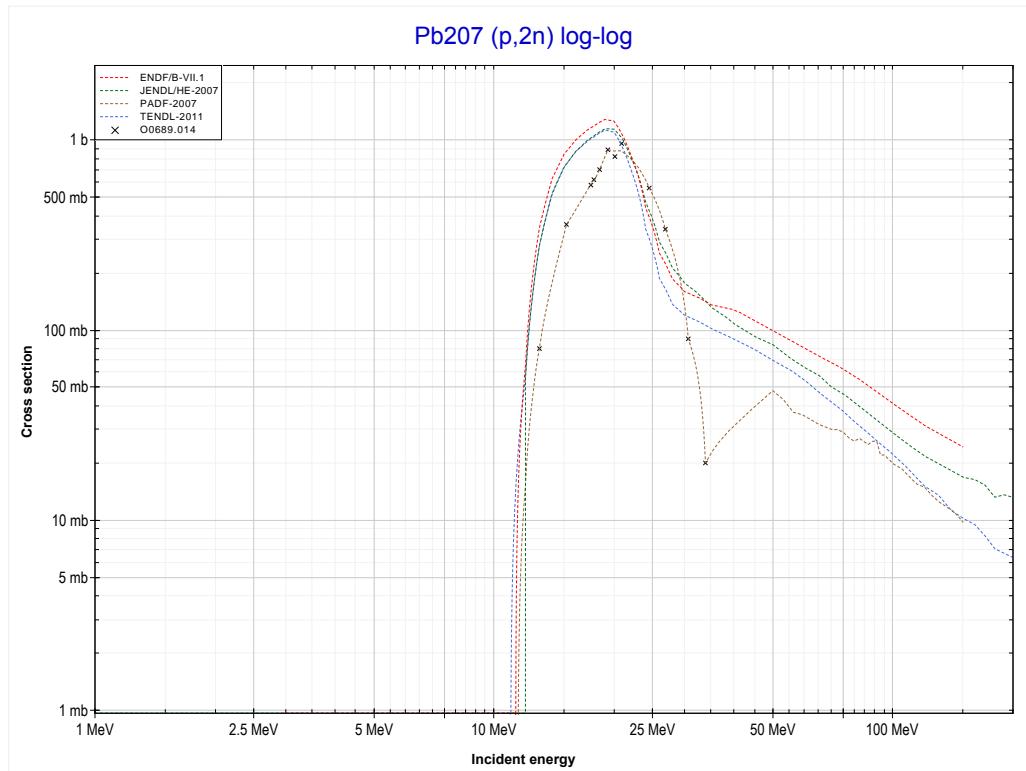
Reaction	Q-Value
Pb206(p,5n)Bi202	-36120.01 keV

<< 76-Os-192	82-Pb-206 MT160 (p,7n) or MT5 (Bi200 production)	83-Bi-209 >>
<< MT152 (p,5n)		MT16 (p,2n) >>



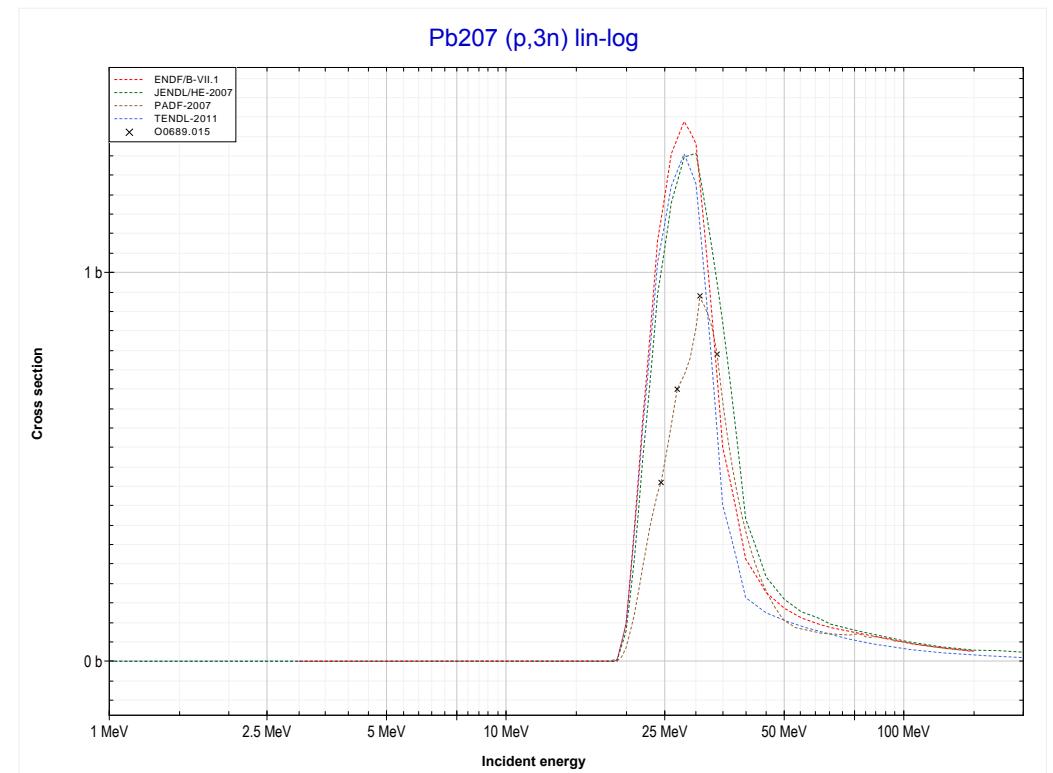
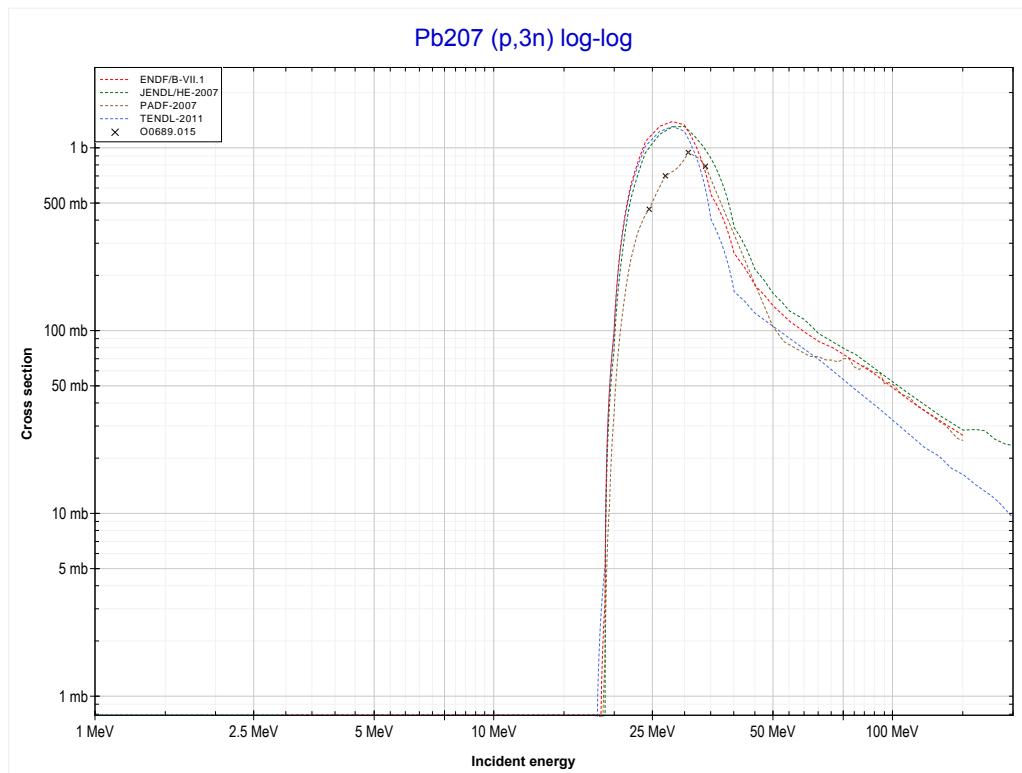
Reaction	Q-Value
Pb206(p,7n)Bi200	-52625.65 keV

<< 82-Pb-206	82-Pb-207 MT16 (p,2n) or MT5 (Bi206 production)	>> 83-Bi-209
<< MT160 (p,7n)		MT17 (p,3n) >>



Reaction	Q-Value
Pb207(p,2n)Bi206	-11277.56 keV

<< 82-Pb-206	82-Pb-207 MT17 (p,3n) or MT5 (Bi205 production)	82-Pb-208 >>
<< MT16 (p,2n)		MT18 (p,fission) >>

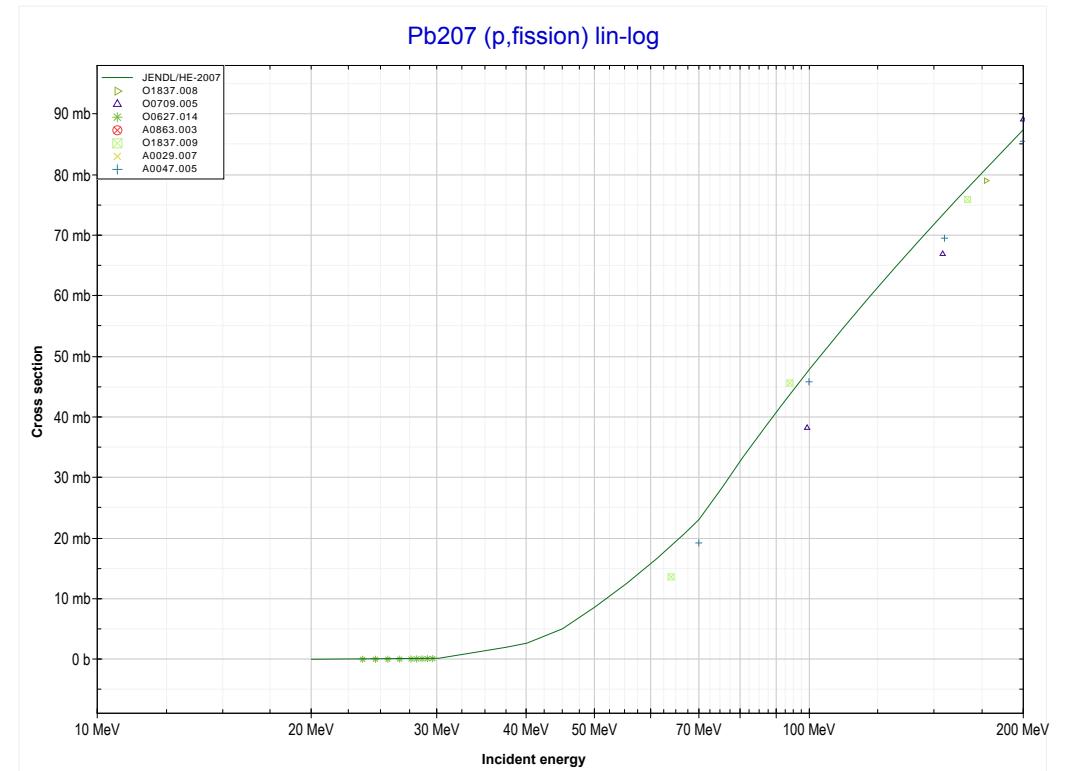
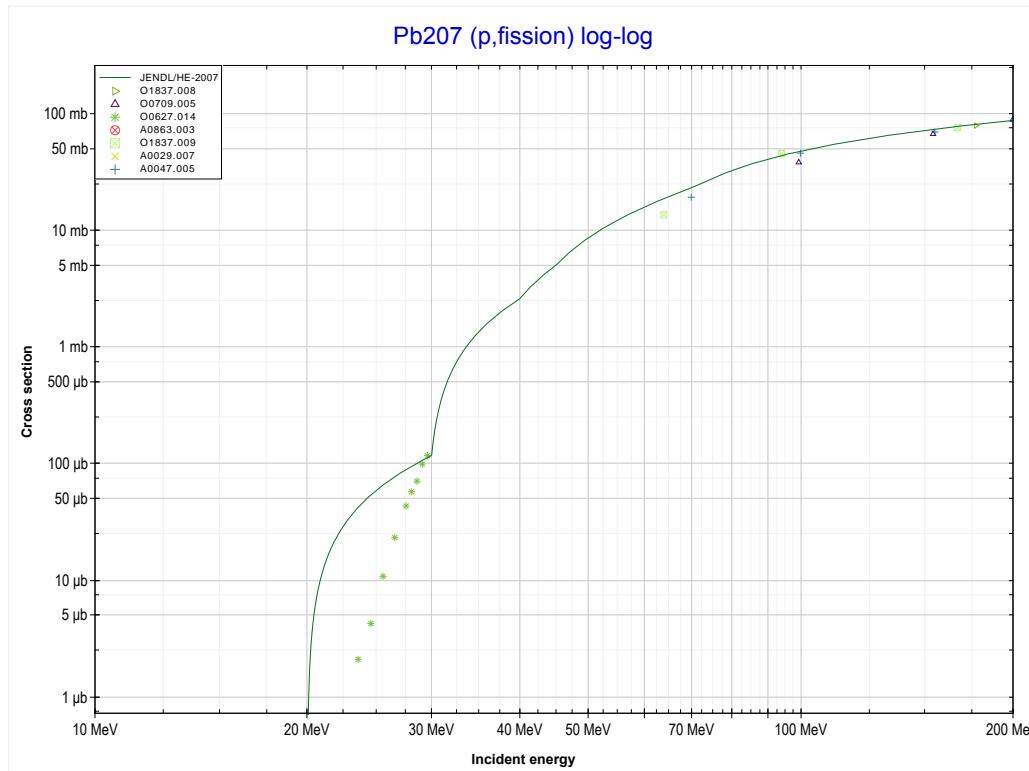


Reaction	Q-Value
Pb207(p,3n)Bi205	-18314.88 keV

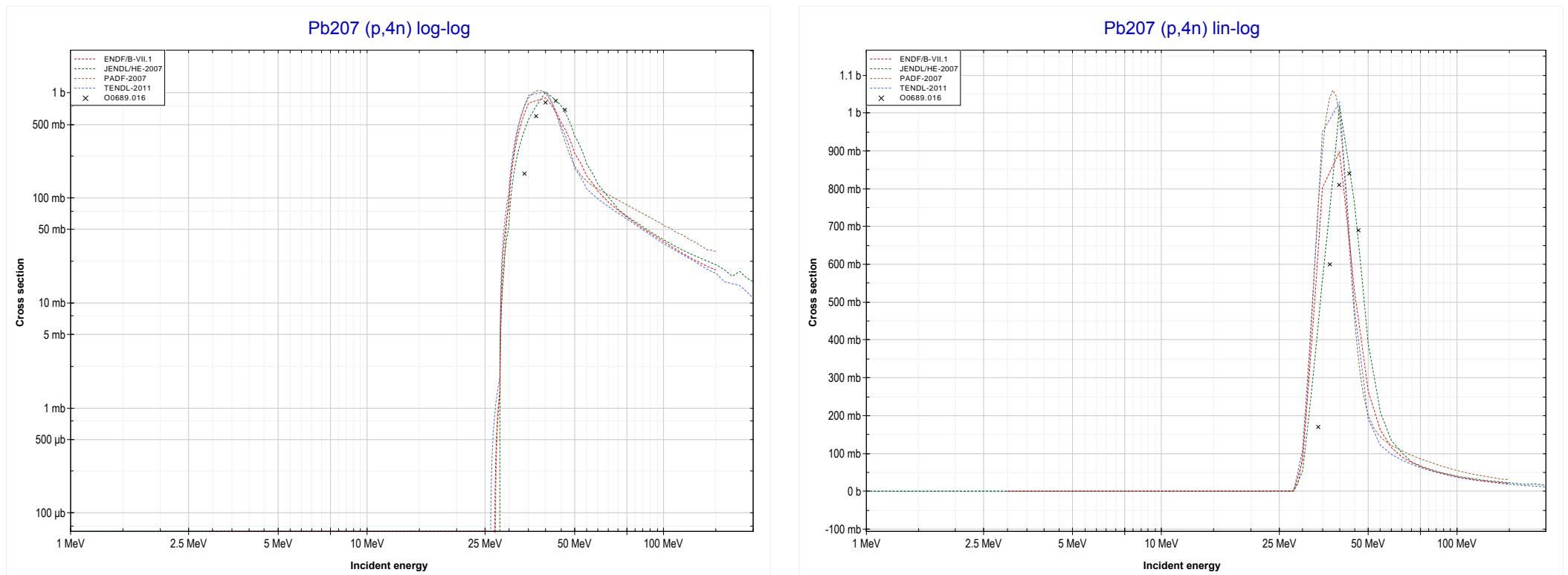
<< 82-Pb-206		
<< MT17 (p,3n)		

82-Pb-207
MT18 (p,fission)

82-Pb-208 >>
MT37 (p,4n) >>

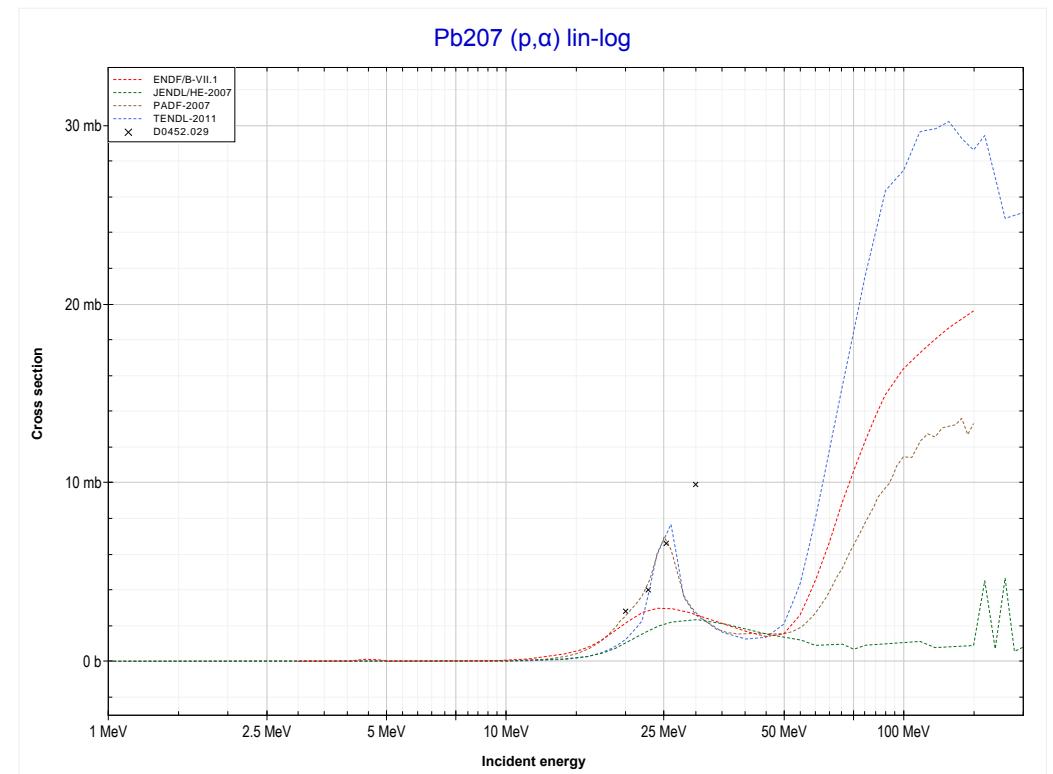
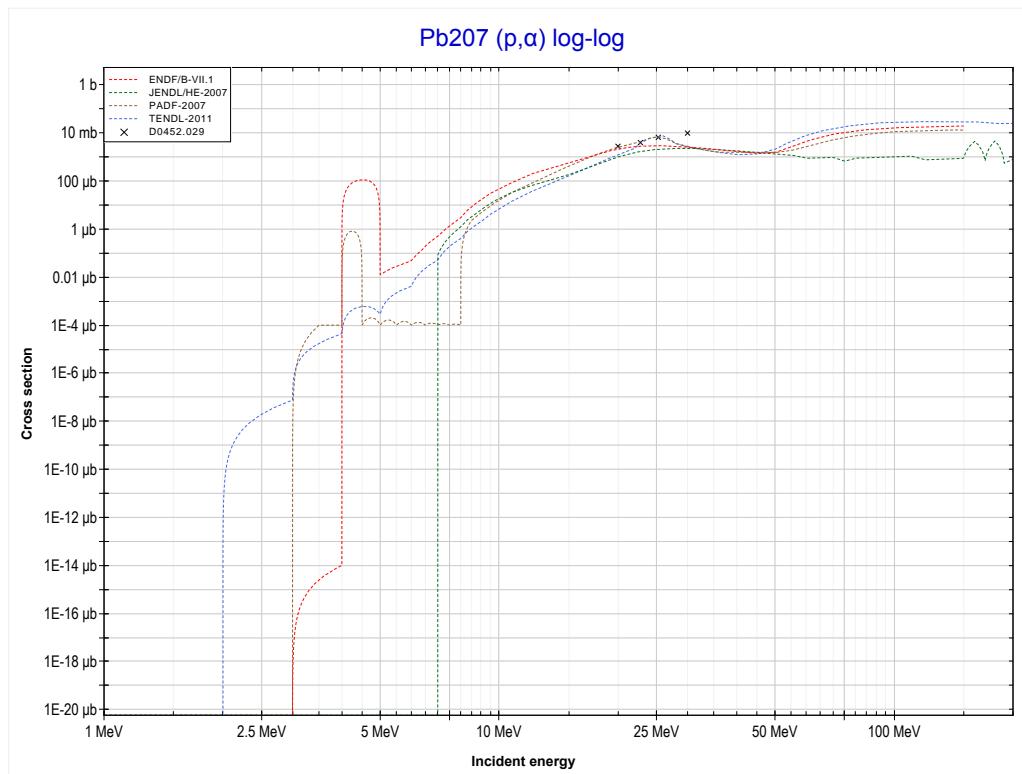


<< 81-TI-205	82-Pb-207 MT37 (p,4n) or MT5 (Bi204 production)	82-Pb-208 >>
<< MT18 (p,fission)		MT107 (p, α) >>



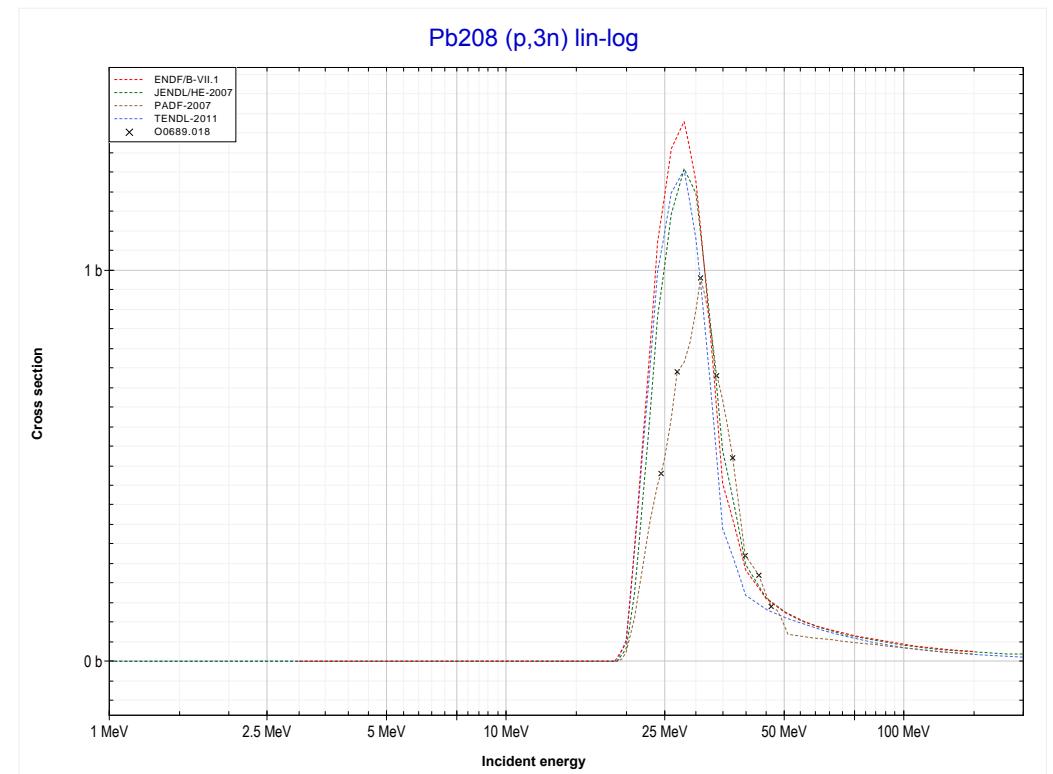
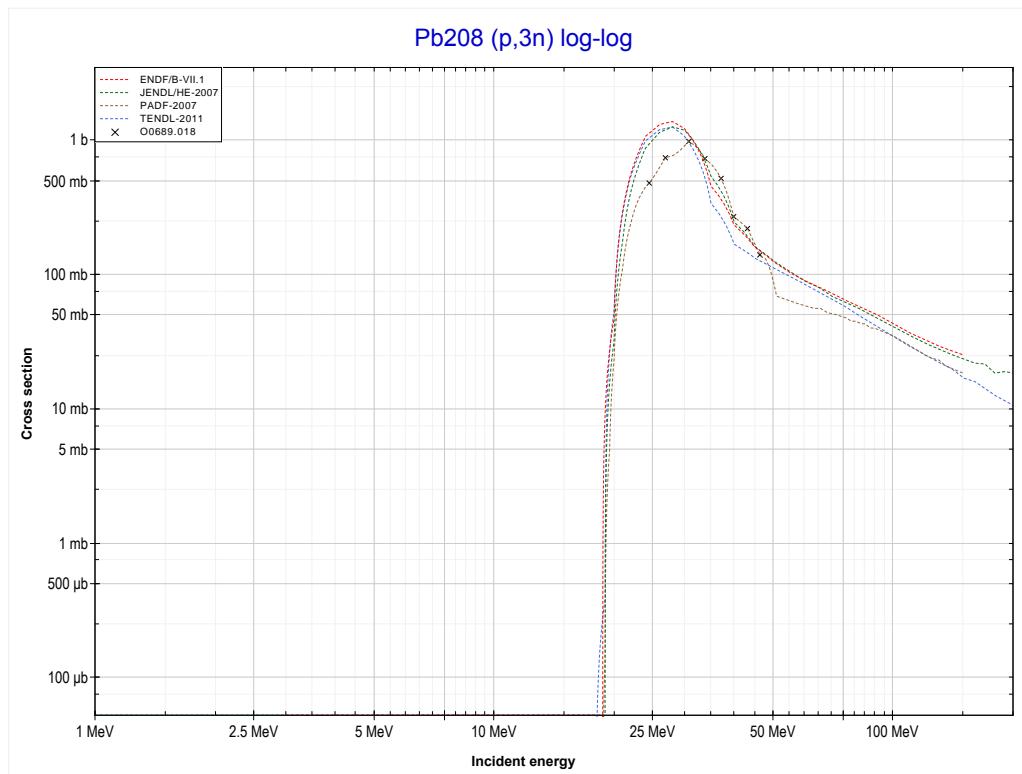
Reaction	Q-Value
Pb207(p,4n)Bi204	-26781.20 keV

<< 82-Pb-206	82-Pb-207 MT107 (p,α) or MT5 (Ti204 production)	82-Pb-208 >>
<< MT37 ($p,4n$)		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 MT17 (p,3n) or MT5 (Bi206 production)	>> 83-Bi-209 >>
<< MT107 (p, α)		MT18 (p,fission) >>

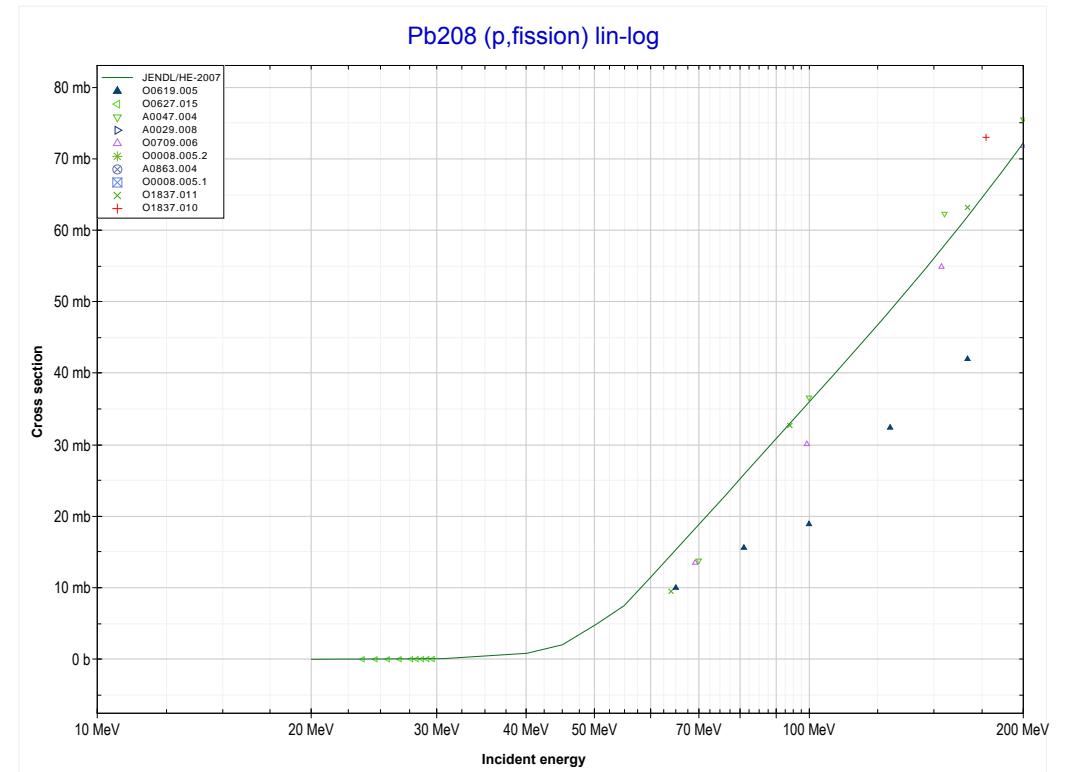
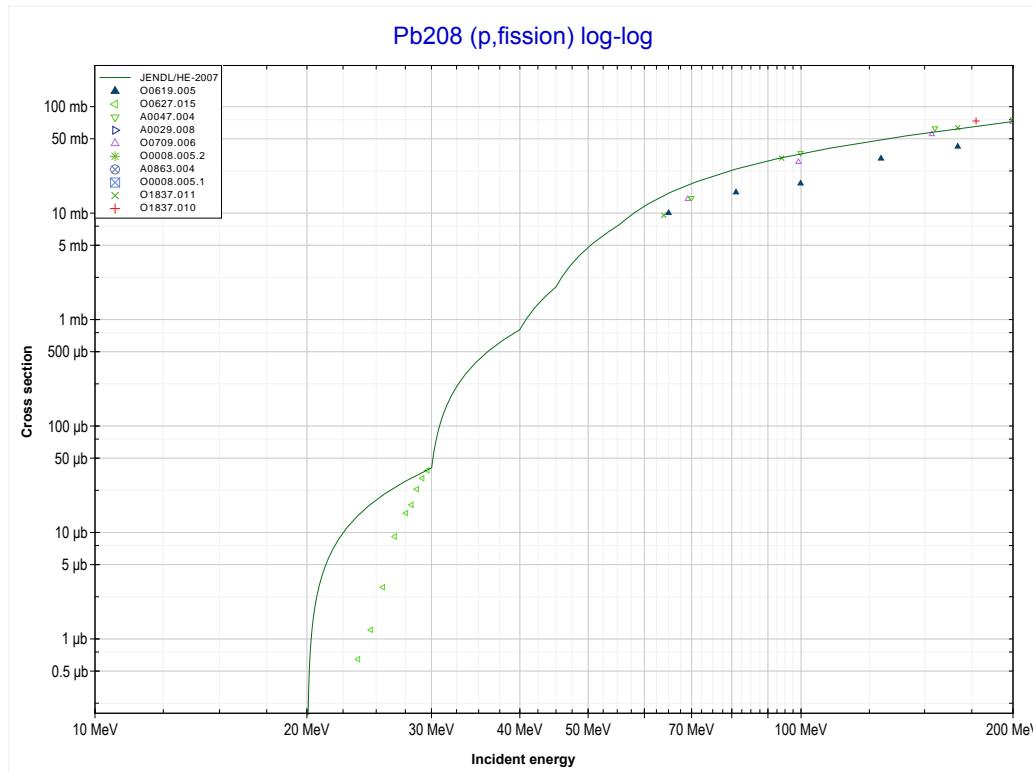


Reaction	Q-Value
Pb208(p,3n)Bi206	-18645.48 keV

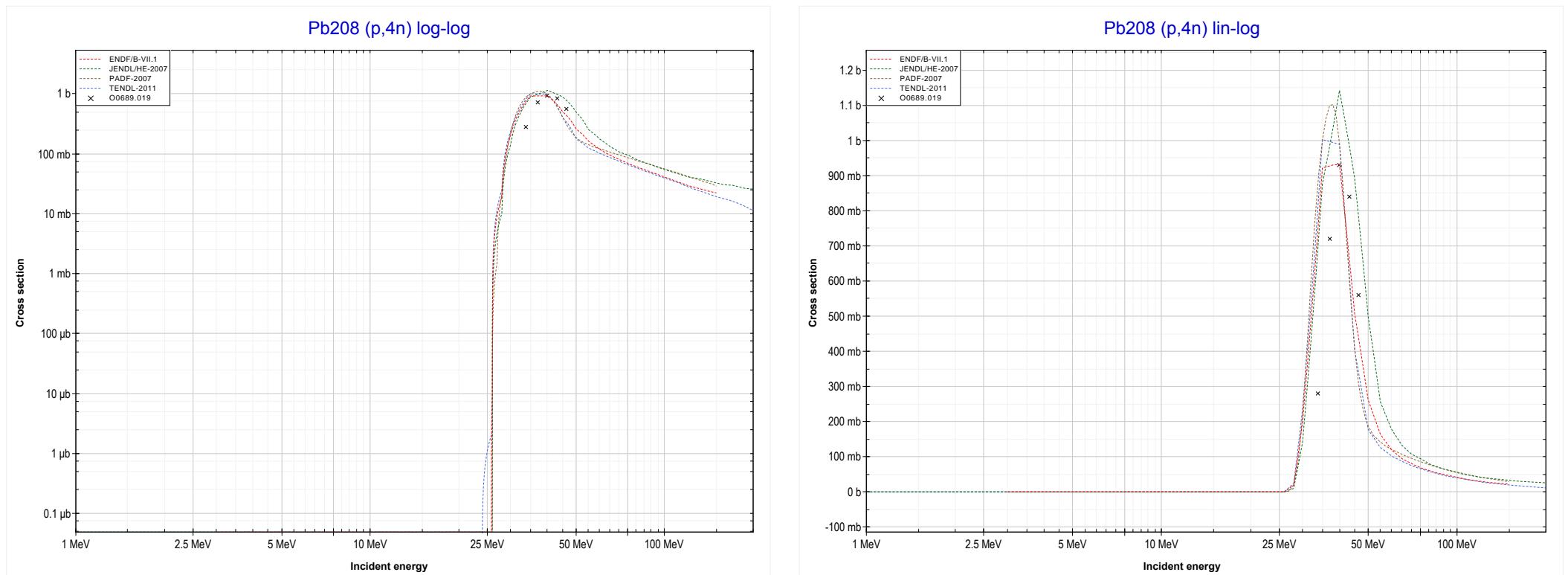
<< 82-Pb-207		
<< MT17 (p,3n)		

82-Pb-208
MT18 (p,fission)

	83-Bi-209 >>
	MT37 (p,4n) >>

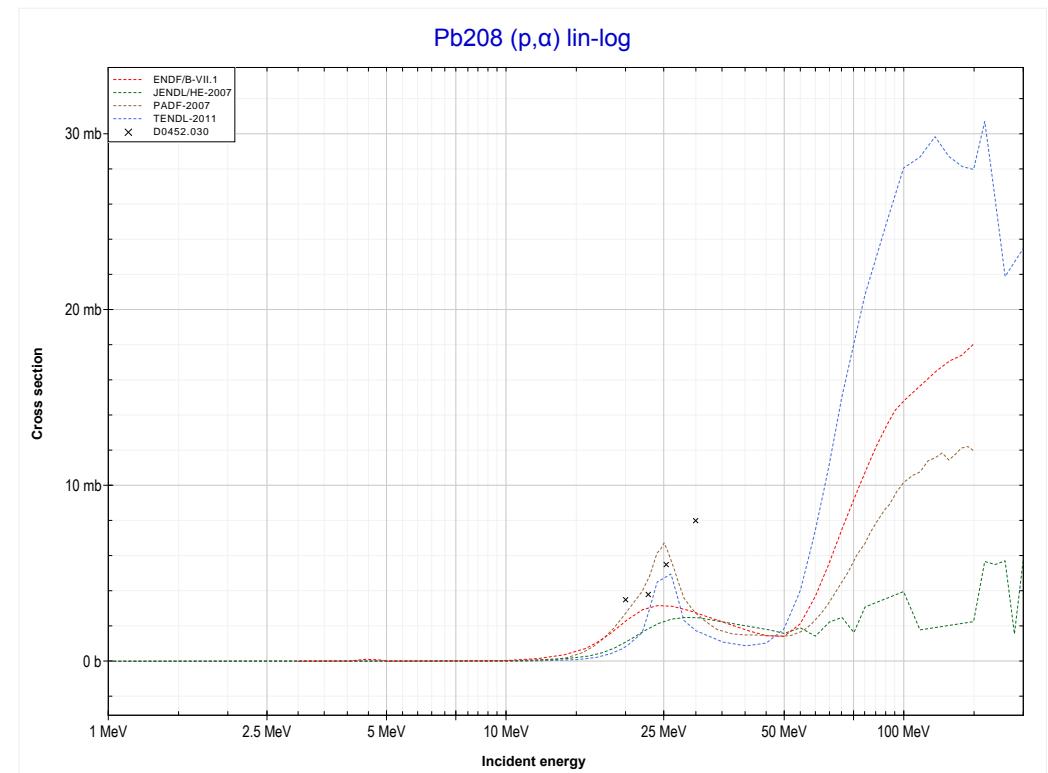
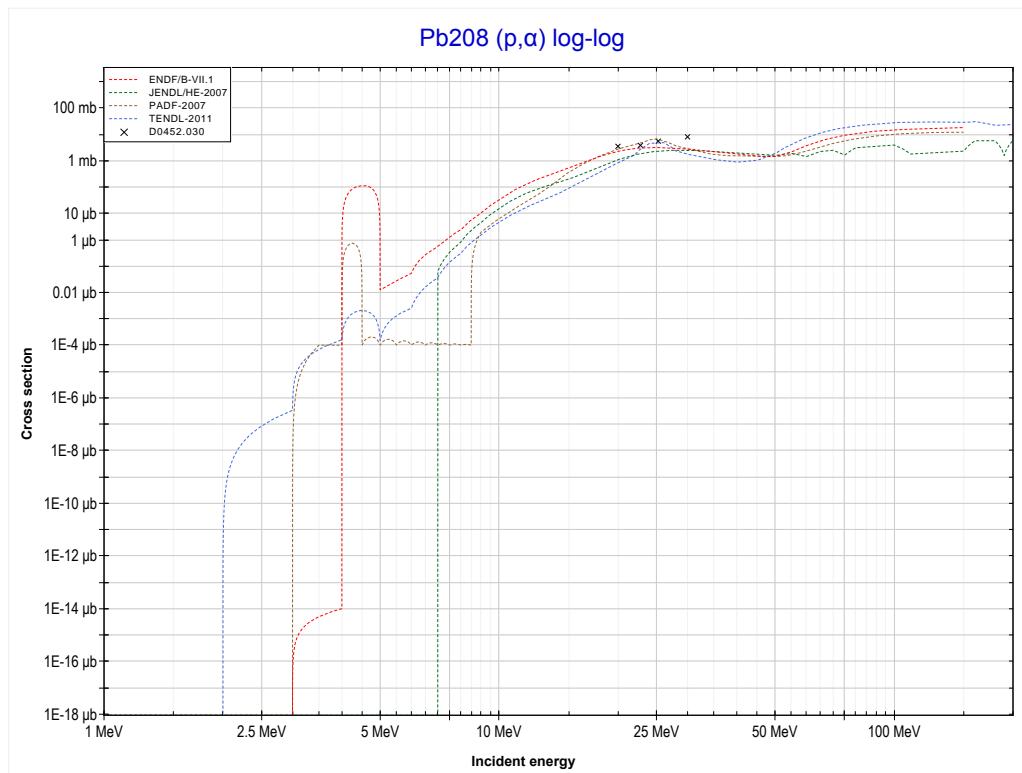


<< 82-Pb-207	82-Pb-208 MT37 (p,4n) or MT5 (Bi205 production)	>> 83-Bi-209
<< MT18 (p,fission)		MT107 (p, α) >>



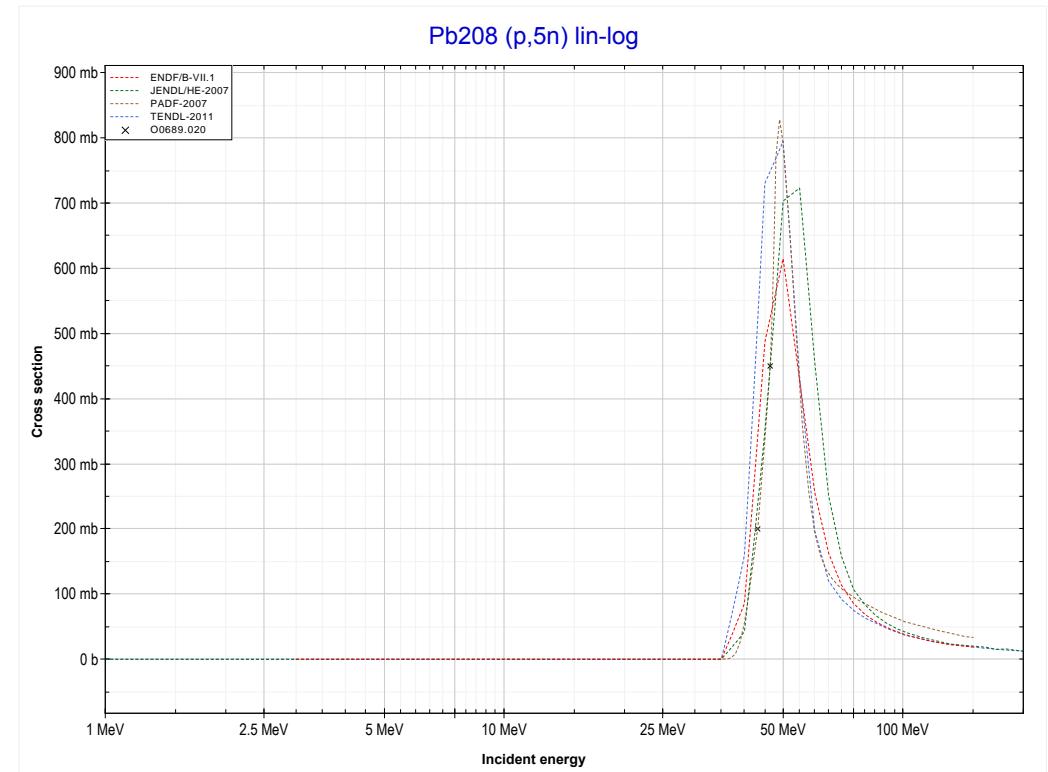
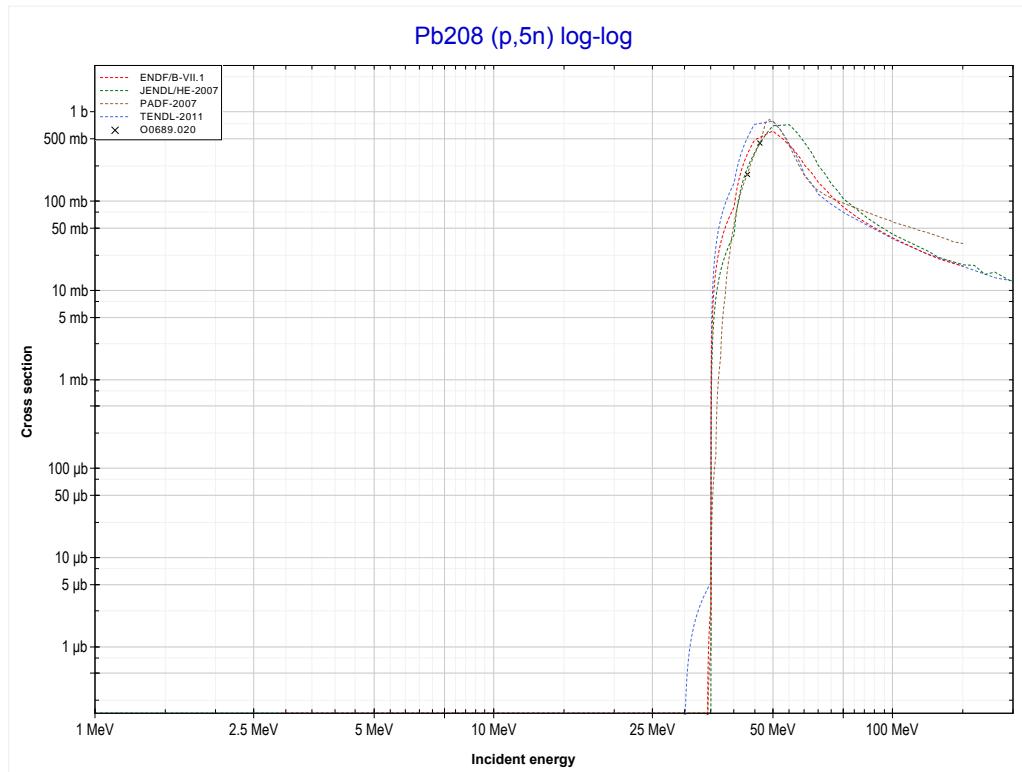
Reaction	Q-Value
Pb208(p,4n)Bi205	-25682.80 keV

<< 82-Pb-207	82-Pb-208 MT107 (p,α) or MT5 (Ti205 production)	83-Bi-209 >>
<< MT37 ($p,4n$)		MT152 ($p,5n$) >>



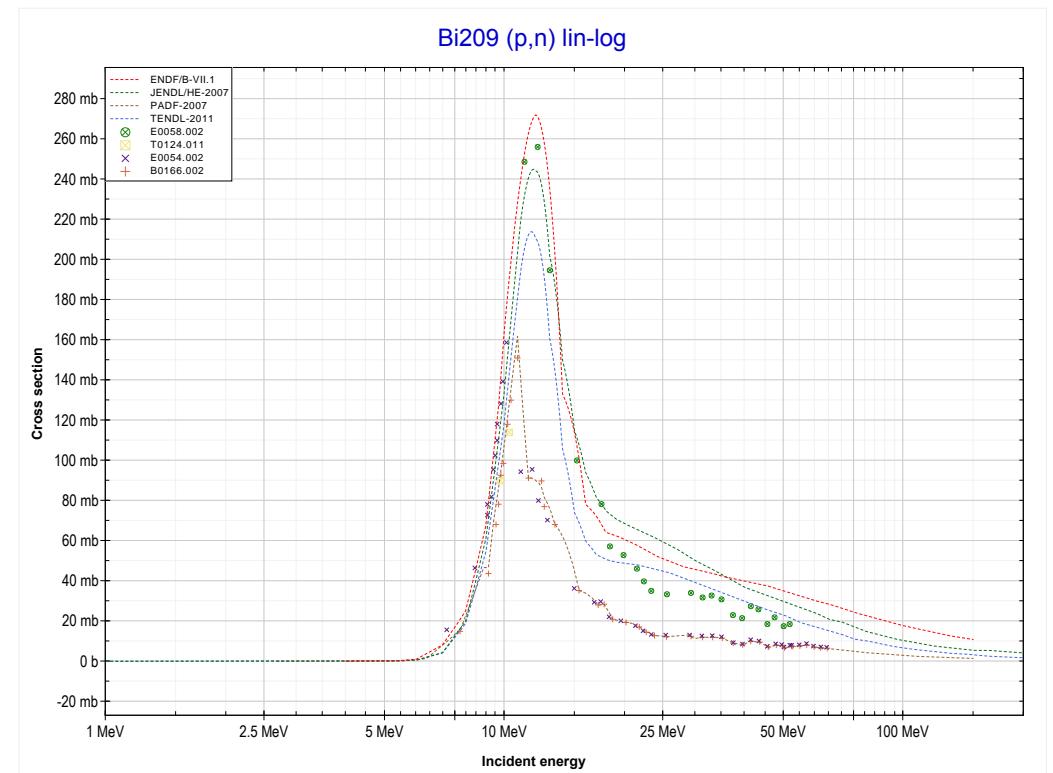
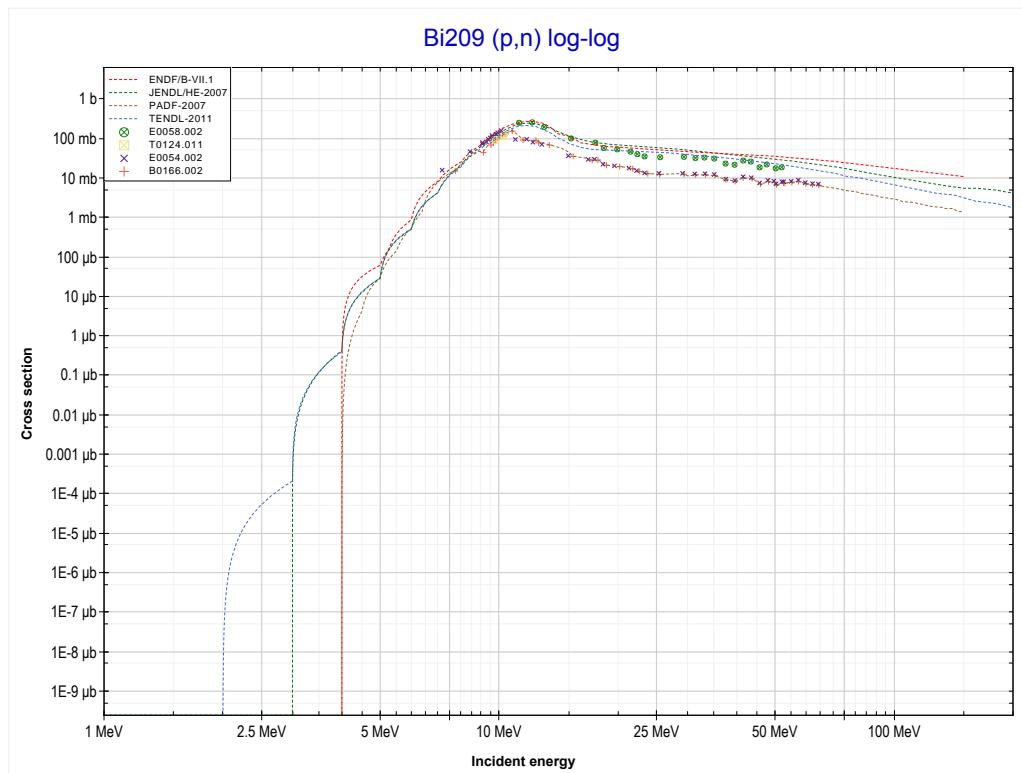
Reaction	Q-Value
Pb208(p,α)Ti205	6936.15 keV
Pb208($p,p+t$)Ti205	-12877.71 keV
Pb208($p,n+He3$)Ti205	-13641.46 keV
Pb208($p,2d$)Ti205	-16910.37 keV
Pb208($p,n+p+d$)Ti205	-19134.94 keV
Pb208($p,2n+2p$)Ti205	-21359.50 keV

<< 82-Pb-206	82-Pb-208 MT152 (p,5n) or MT5 (Bi204 production)	>> 83-Bi-209 >>
<< MT107 (p, α)		MT4 (p,n) >>



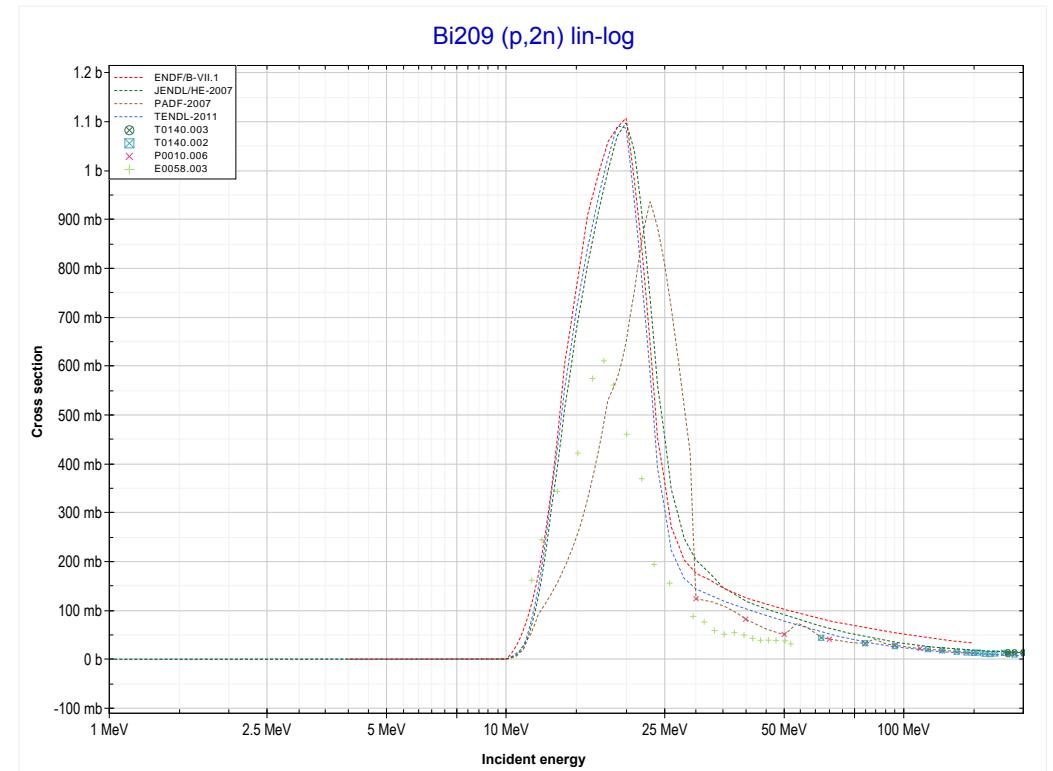
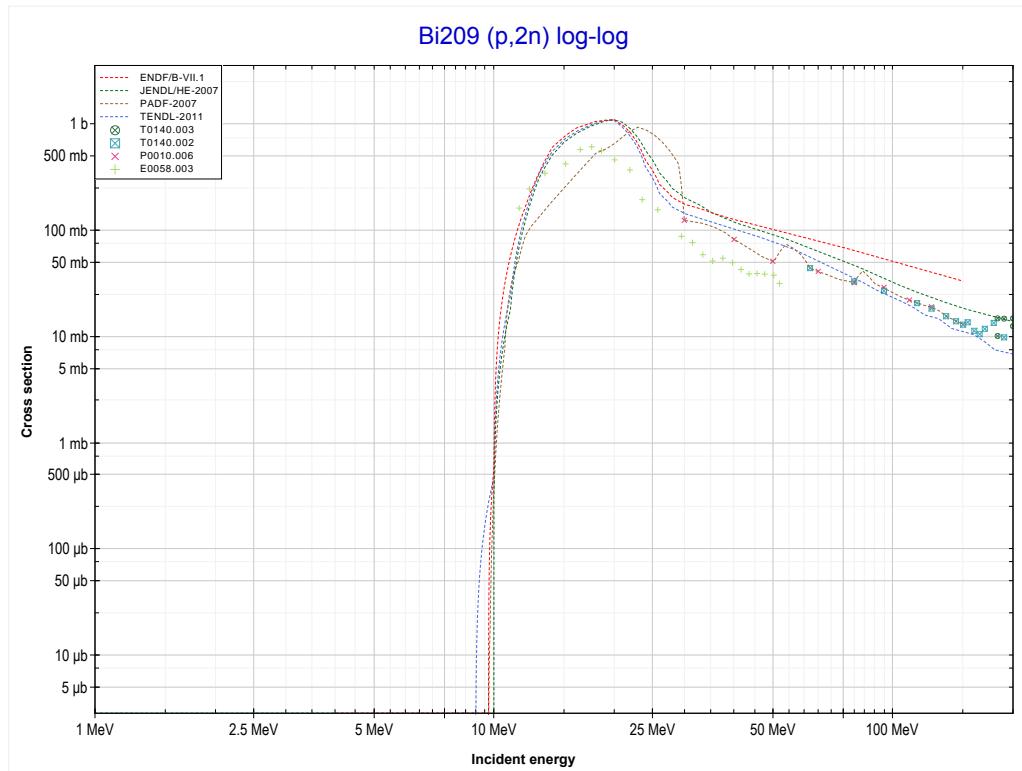
Reaction	Q-Value
Pb208(p,5n)Bi204	-34149.11 keV

<< 82-Pb-206	83-Bi-209 MT4 (p,n) or MT5 (Po209 production)	90-Th-232 >>
<< MT152 (p,5n)		MT16 (p,2n) >>



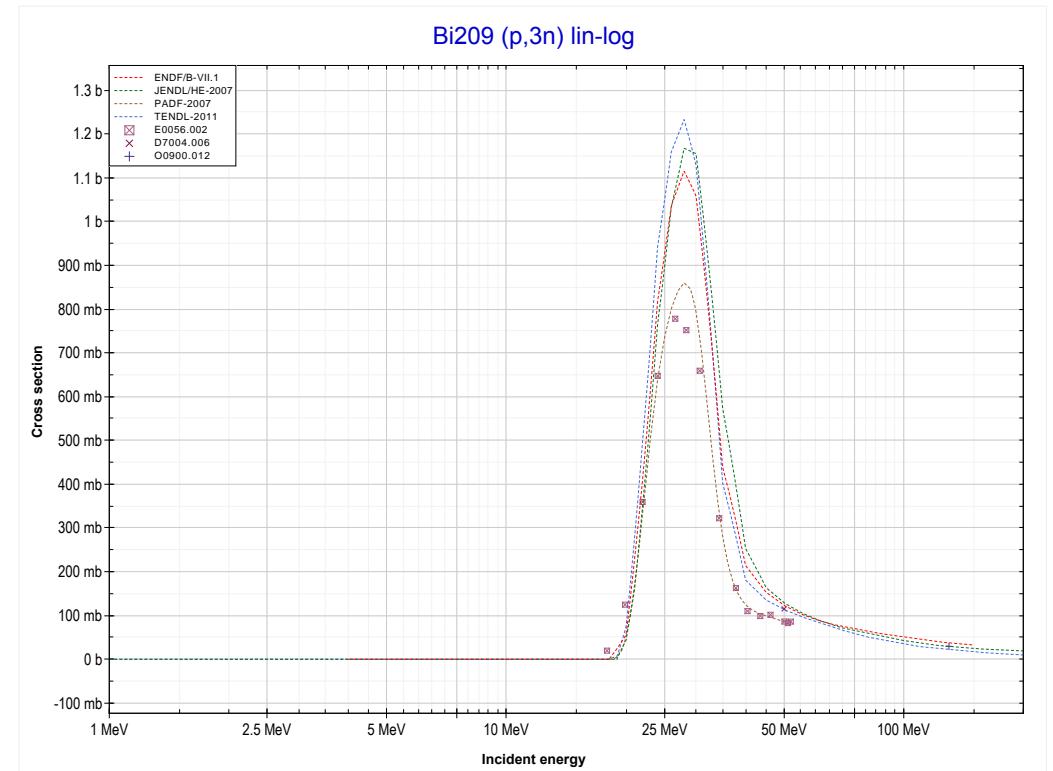
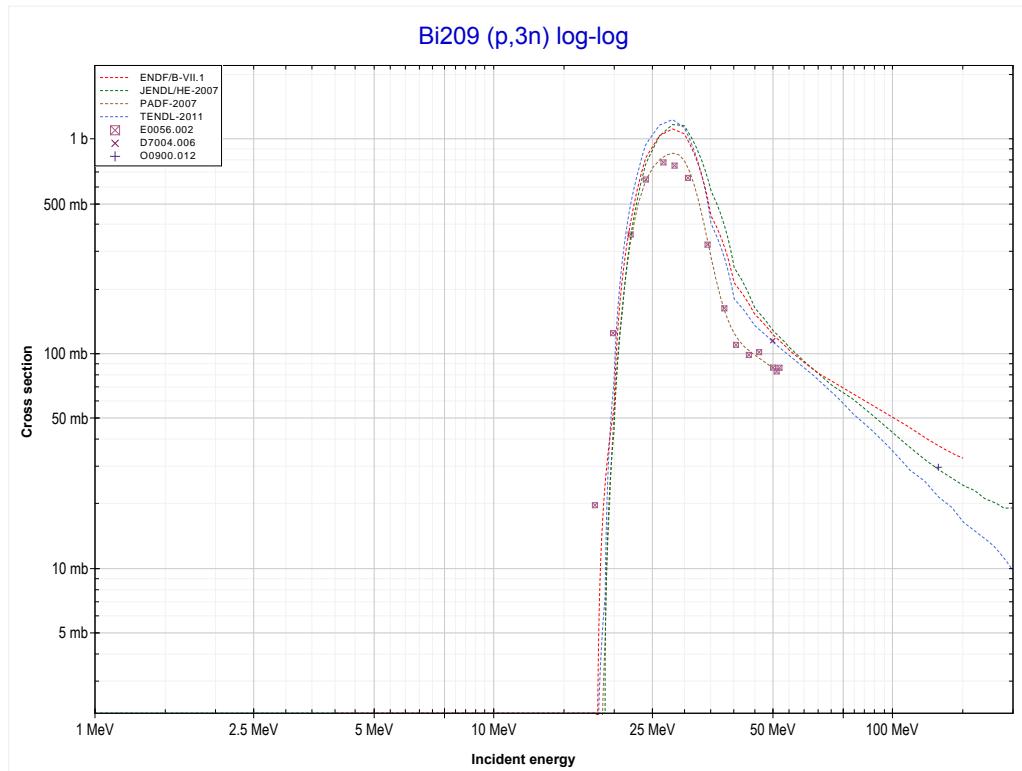
Reaction	Q-Value
Bi209(p,n)Po209	-2674.95 keV

<< 82-Pb-207	83-Bi-209 MT16 (p,2n) or MT5 (Po208 production)	88-Ra-226 >>
<< MT4 (p,n)		MT17 (p,3n) >>



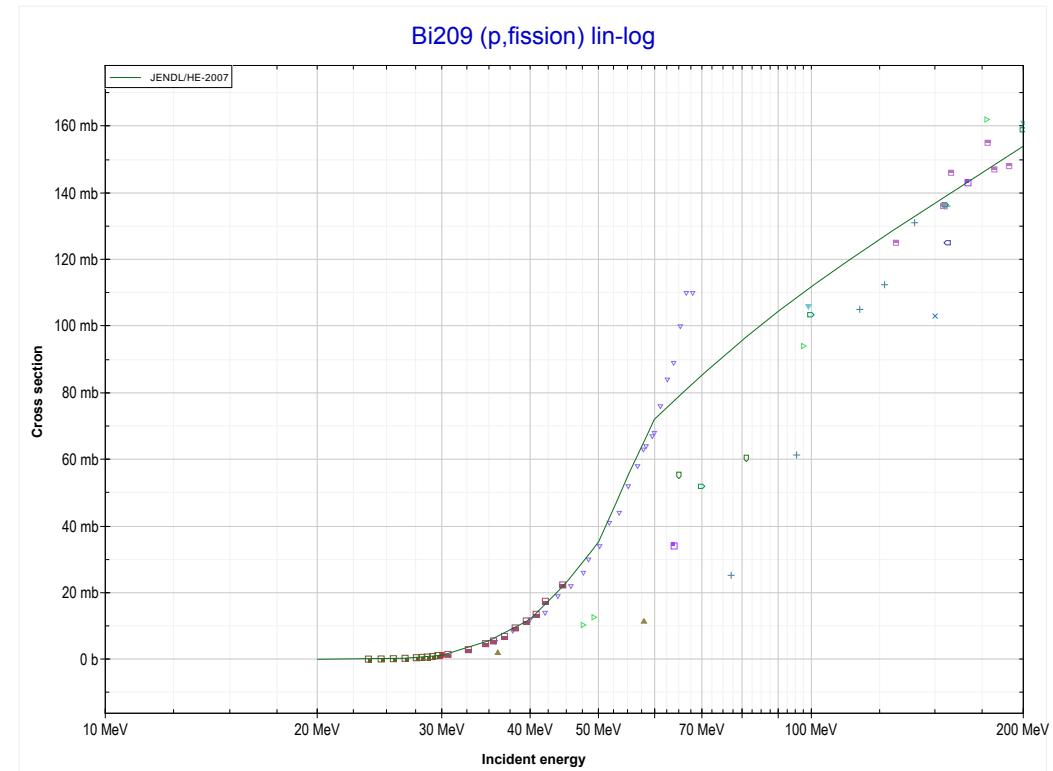
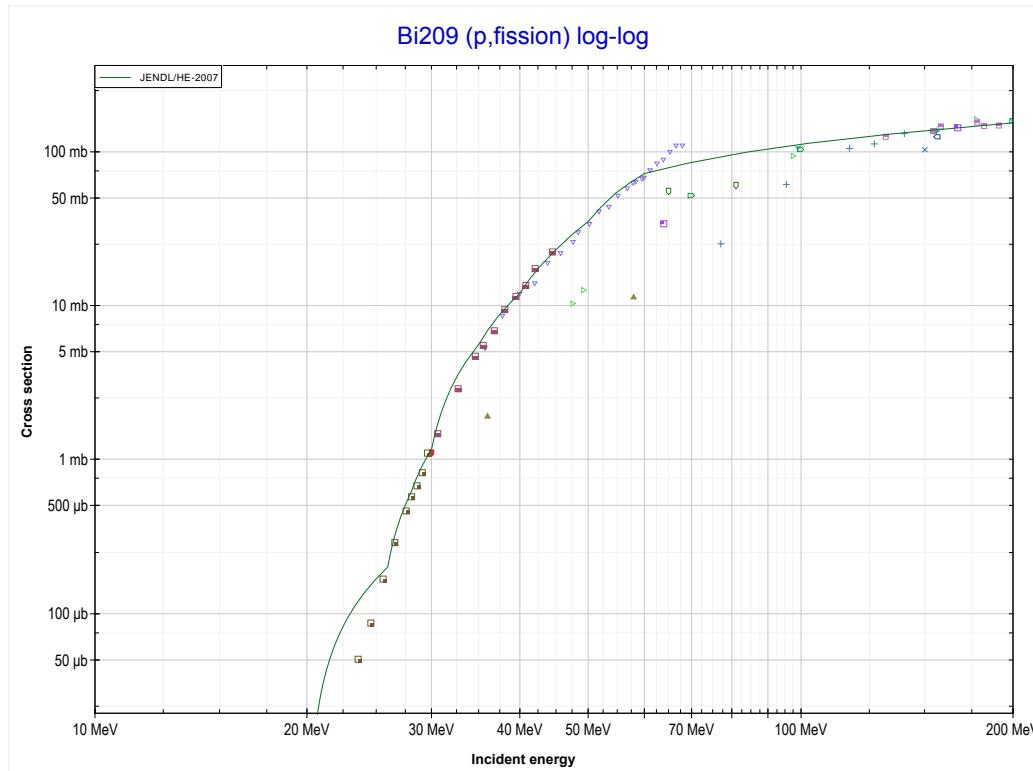
Reaction	Q-Value
Bi209(p,2n)Po208	-9642.66 keV

<< 82-Pb-208	83-Bi-209 MT17 (p,3n) or MT5 (Po207 production)	90-Th-232 >>
<< MT16 (p,2n)		MT18 (p,fission) >>

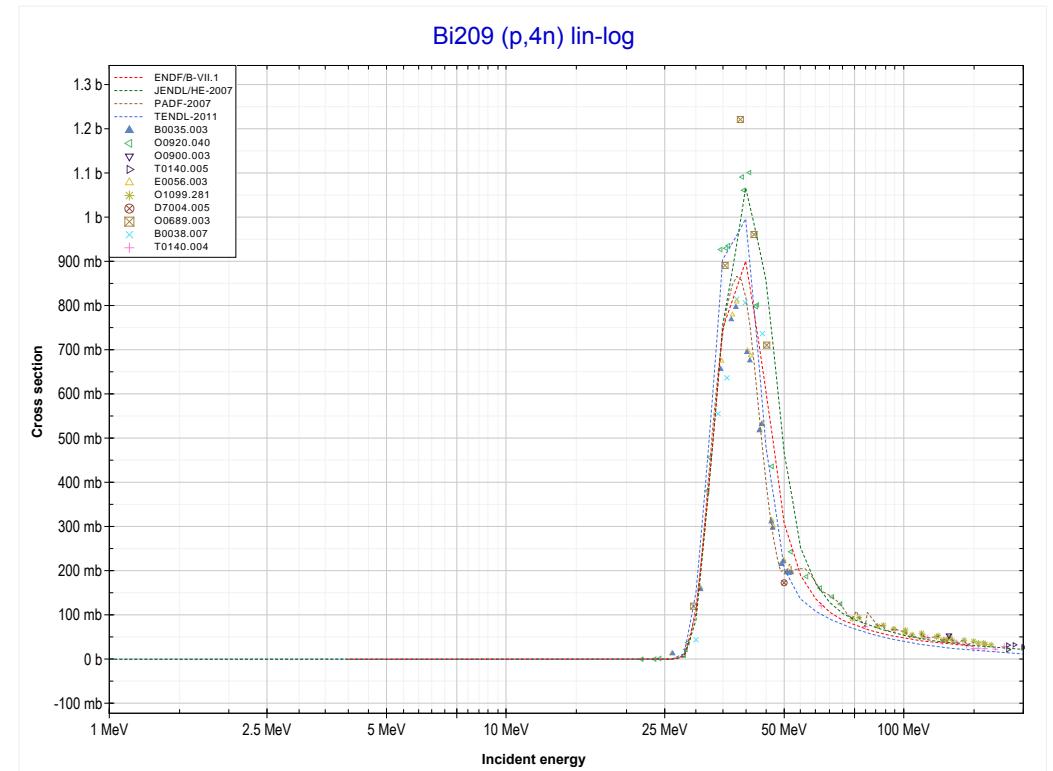
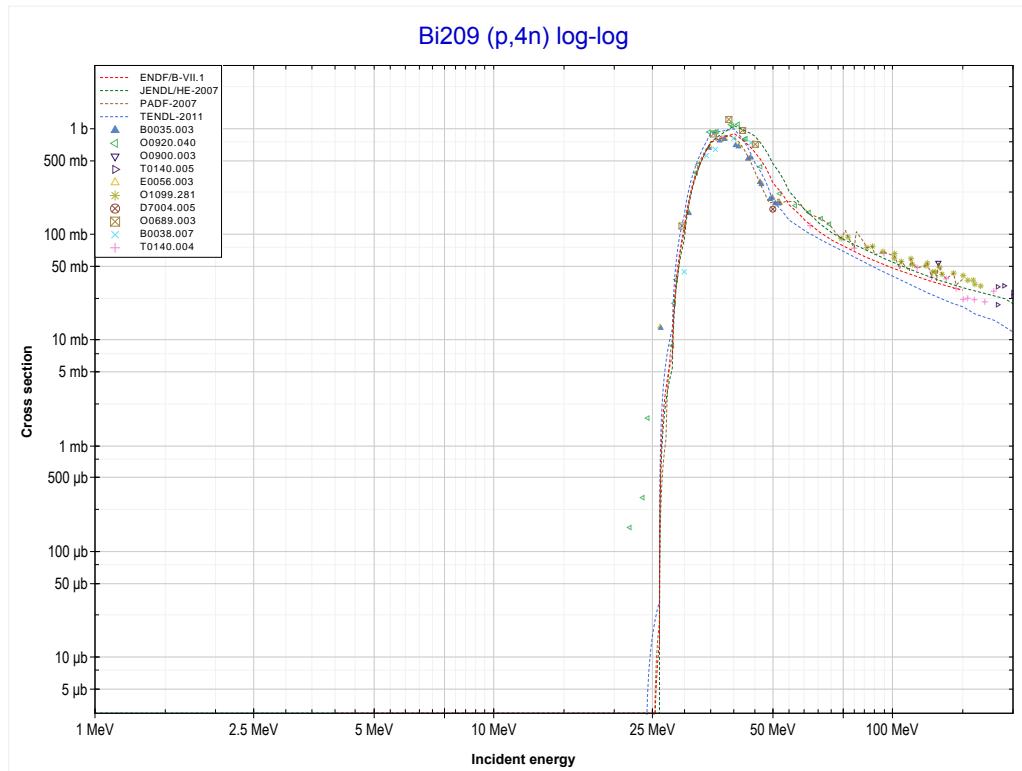


Reaction	Q-Value
Bi209(p,3n)Po207	-18037.48 keV

<< 82-Pb-208	83-Bi-209	92-U-235 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

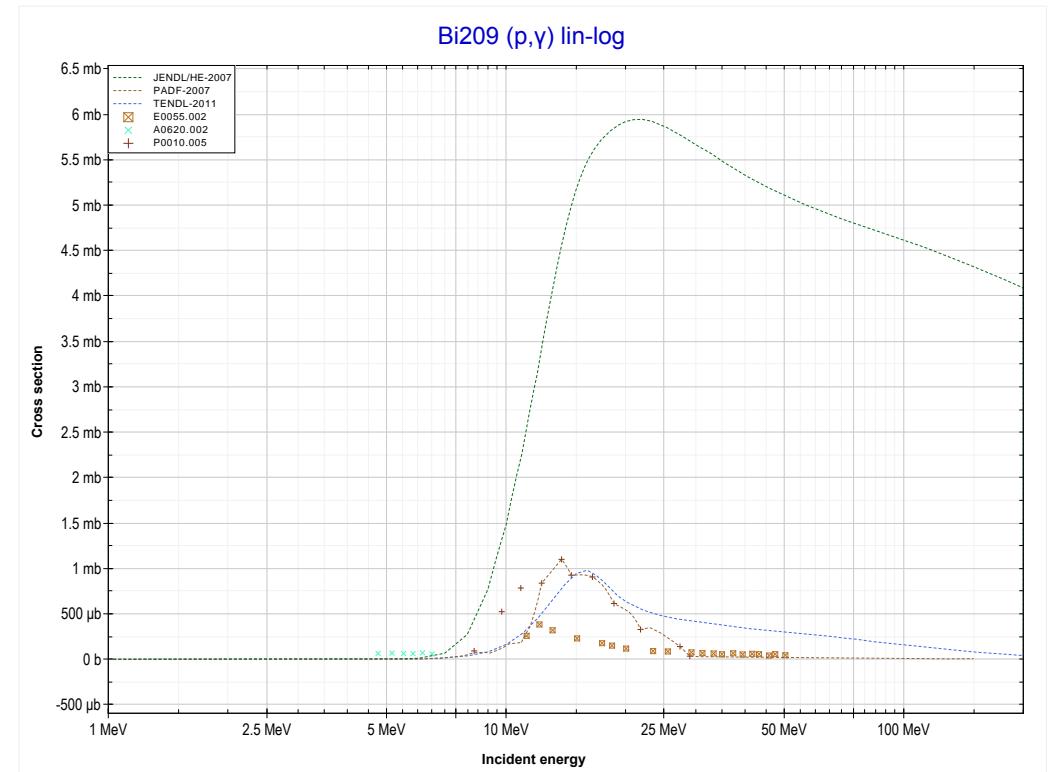
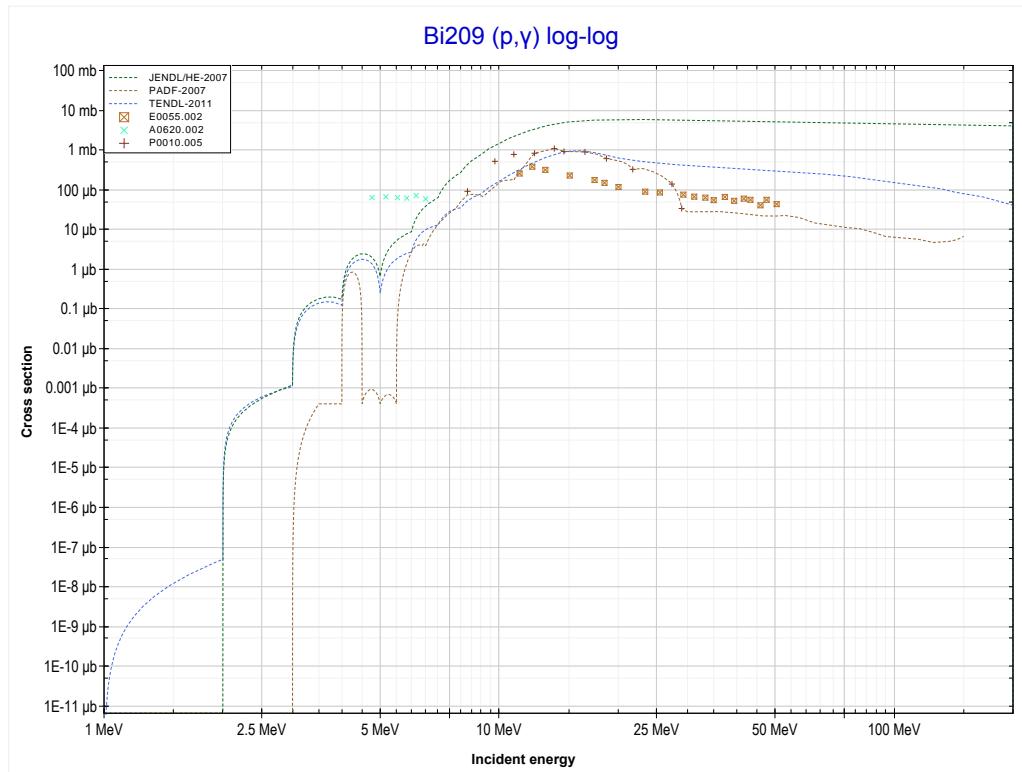


<< 82-Pb-208	83-Bi-209 MT37 (p,4n) or MT5 (Po206 production)	90-Th-232 >>
<< MT18 (p,fission)		MT102 (p,y) >>



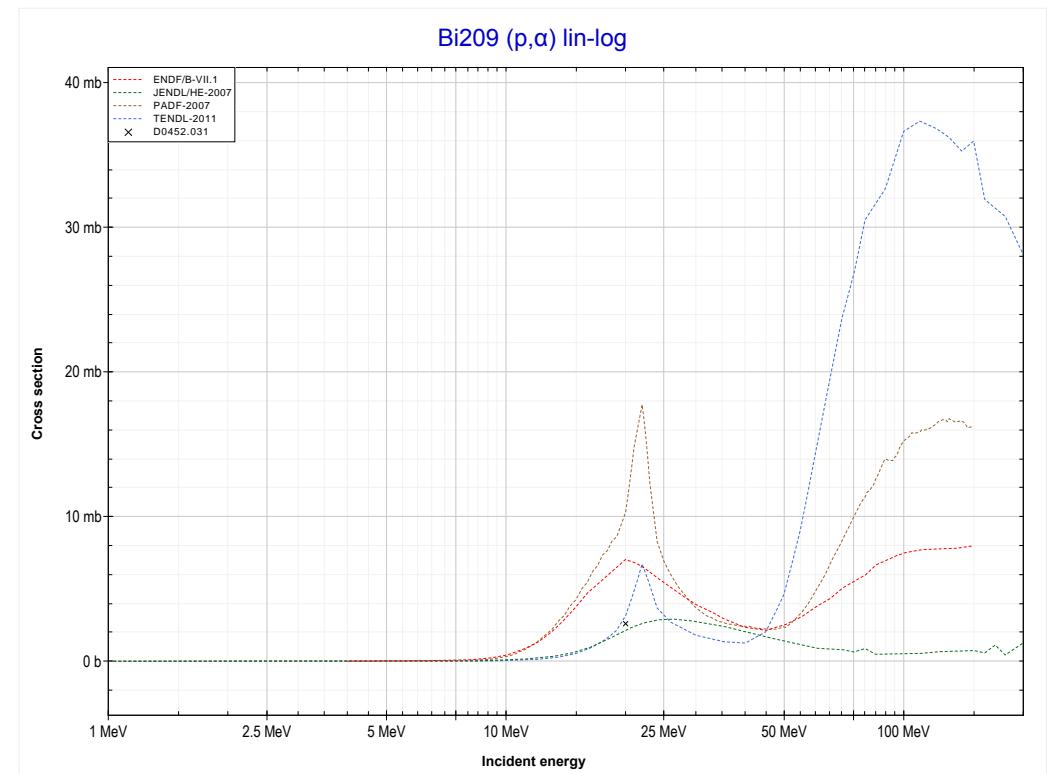
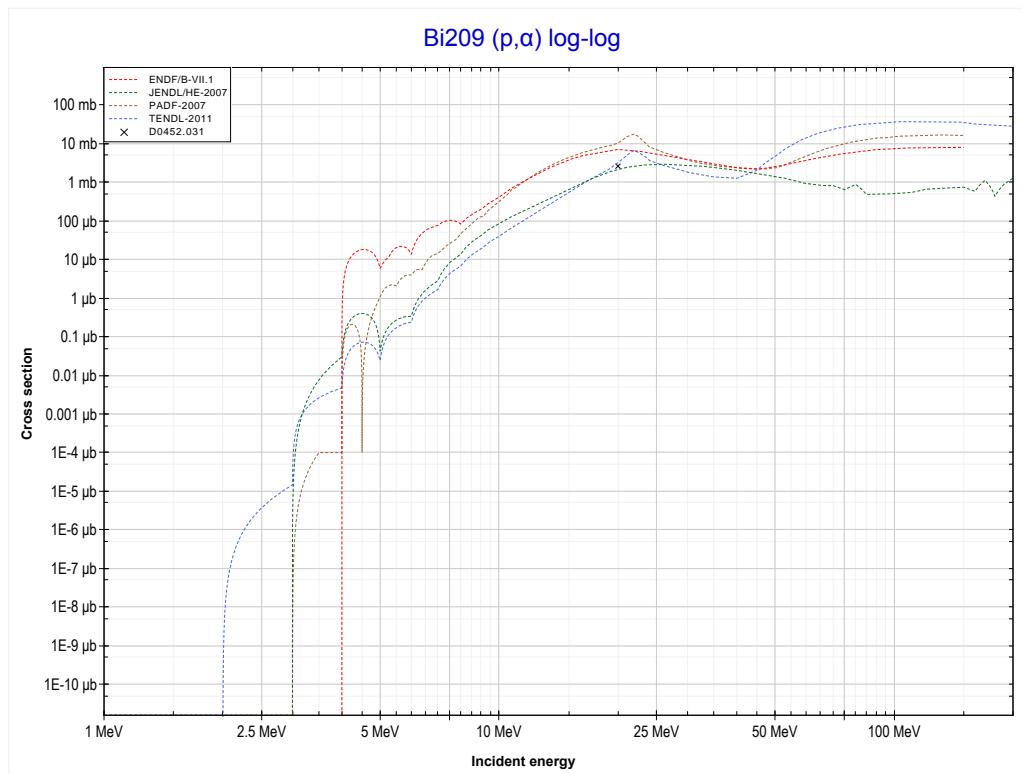
Reaction	Q-Value
Bi209(p,4n)Po206	-25072.80 keV

<< 62-Sm-149	83-Bi-209 MT102 (p, γ) or MT5 (Po210 production)	>> 90-Th-232
<< MT37 (p,4n)		MT107 (p, α) >>



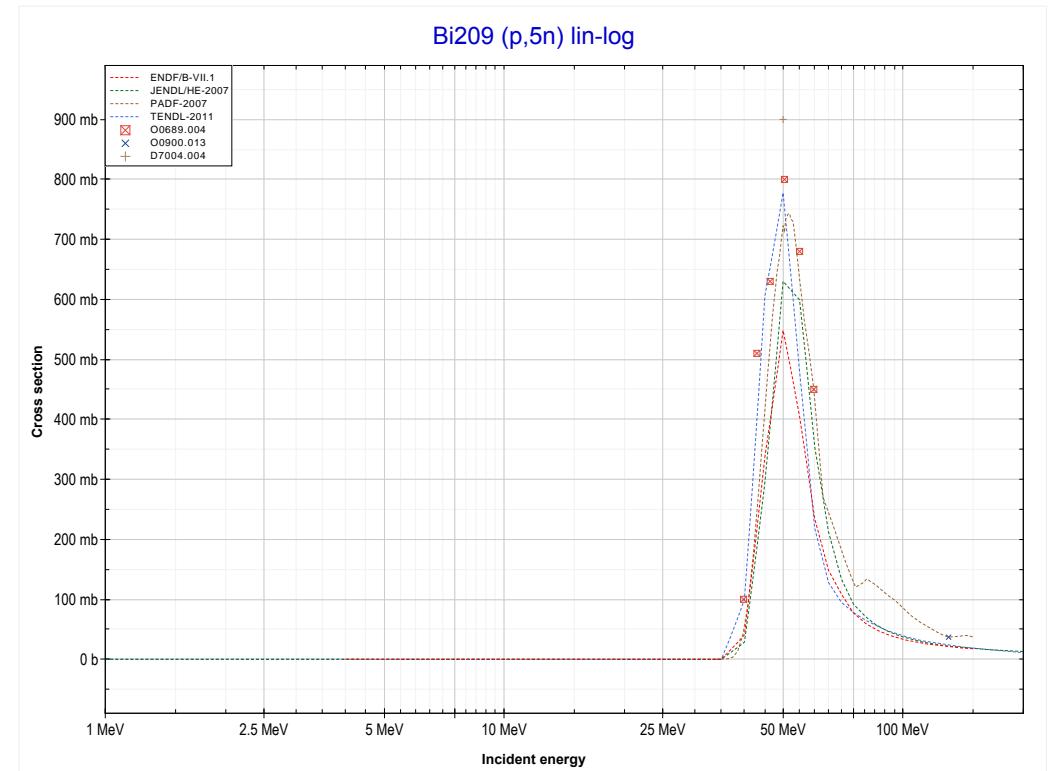
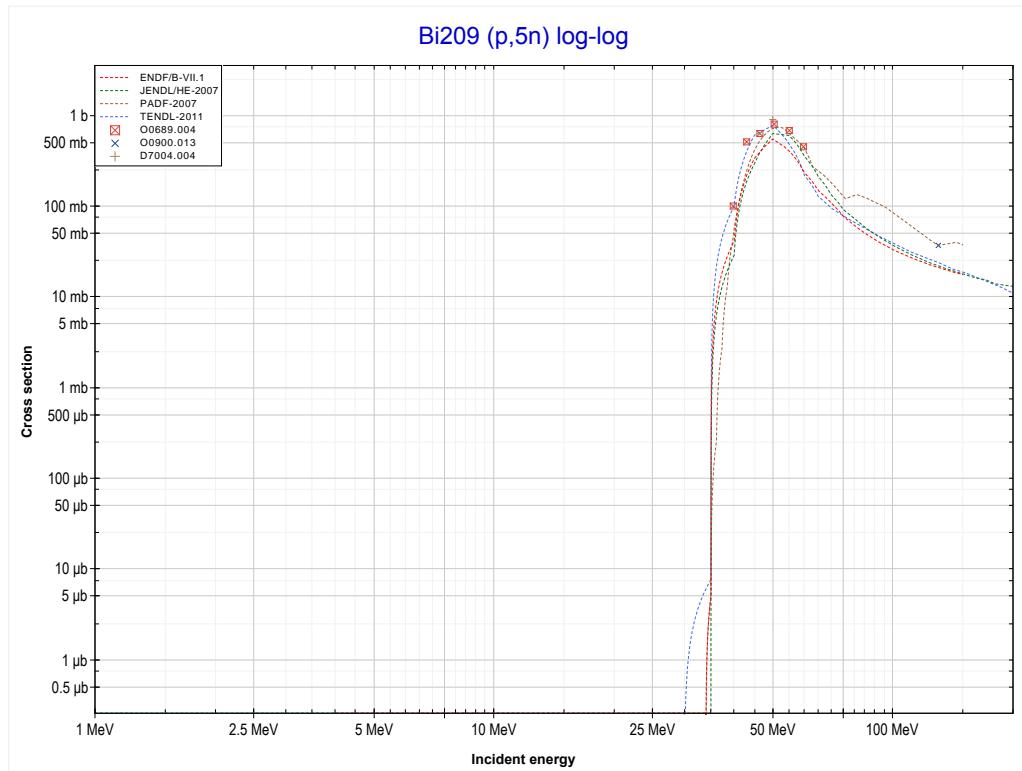
Reaction	Q-Value
Bi209(p, γ)Po210	4983.57 keV

<< 82-Pb-208	83-Bi-209 MT107 (p,α) or MT5 (Pb206 production)	90-Th-232 >>
<< MT102 (p,γ)		MT152 ($p,5n$) >>



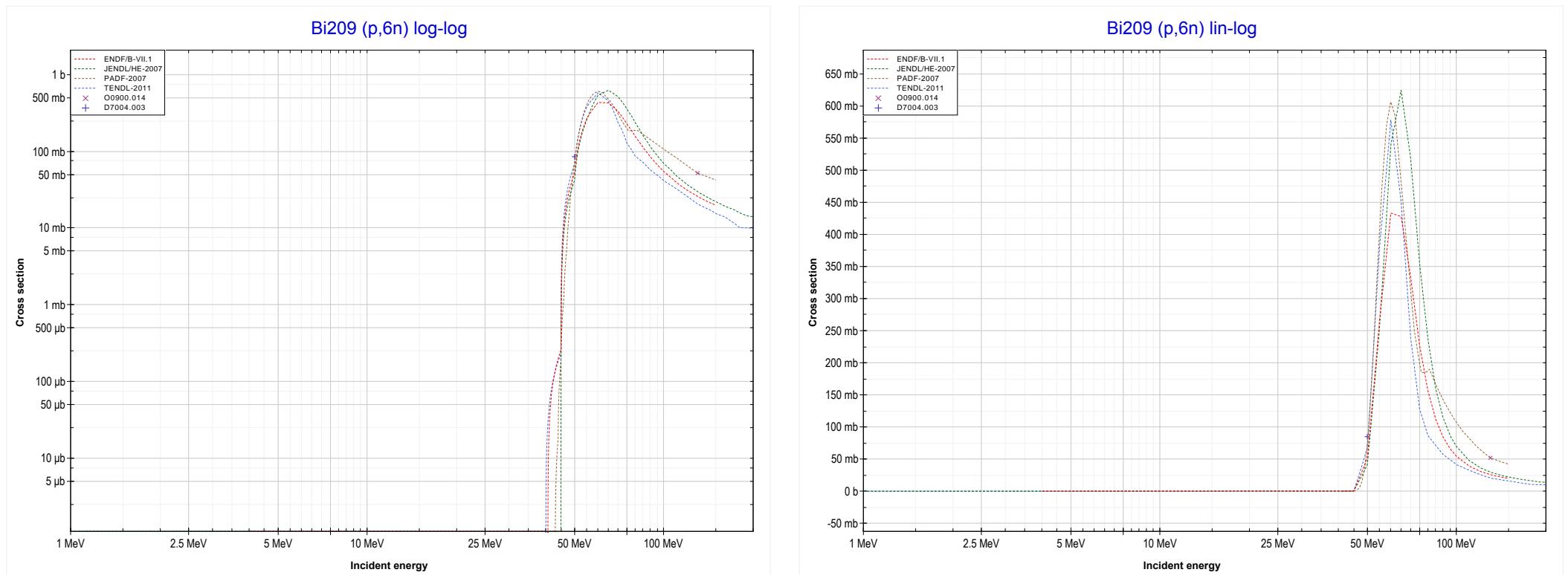
Reaction	Q-Value
Bi209(p,α)Pb206	10390.95 keV
Bi209($p,p+t$)Pb206	-9422.91 keV
Bi209($p,n+He3$)Pb206	-10186.66 keV
Bi209($p,2d$)Pb206	-13455.57 keV
Bi209($p,n+p+d$)Pb206	-15680.14 keV
Bi209($p,2n+2p$)Pb206	-17904.70 keV

<< 82-Pb-208	83-Bi-209 MT152 (p,5n) or MT5 (Po205 production)	90-Th-232 >>
<< MT107 (p, α)		MT153 (p,6n) >>



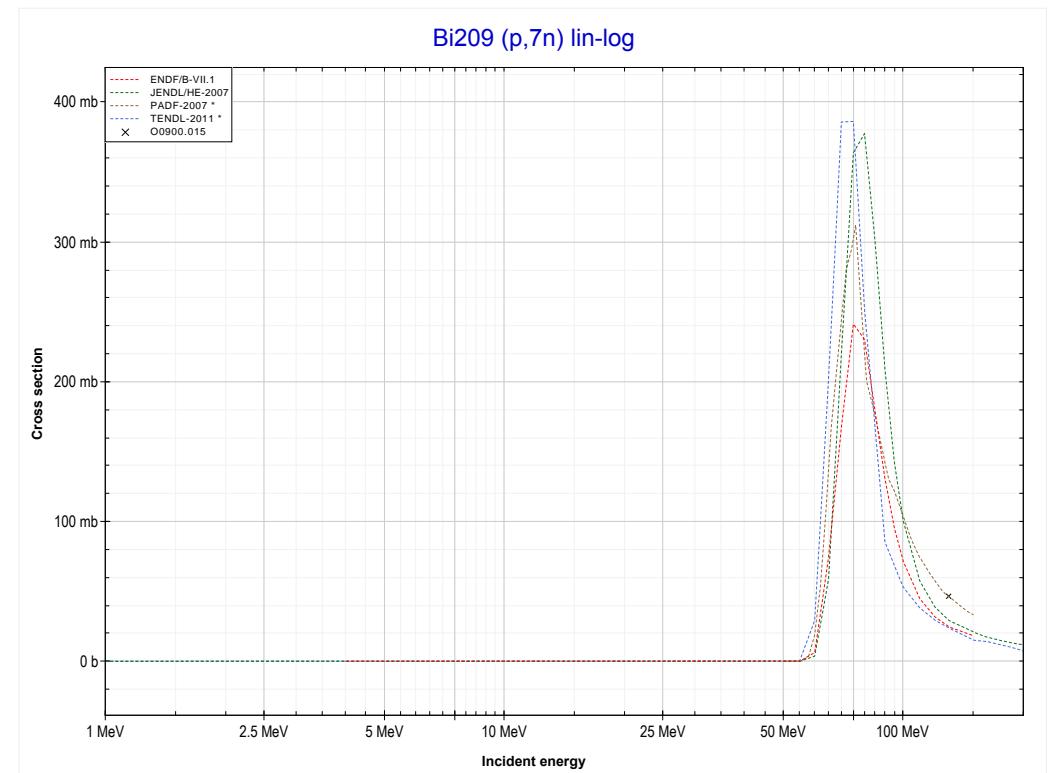
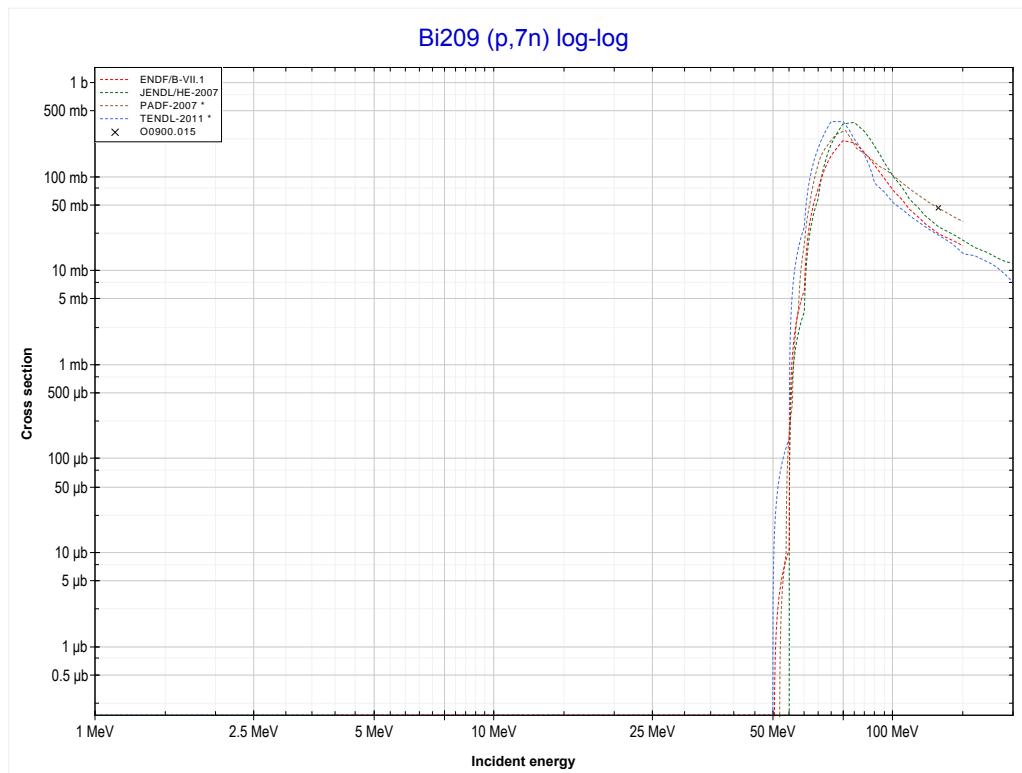
Reaction	Q-Value
Bi209(p,5n)Po205	-33817.11 keV

<< 76-Os-192	83-Bi-209 MT153 (p,6n) or MT5 (Po204 production)	90-Th-232 >>
<< MT152 (p,5n)		MT160 (p,7n) >>



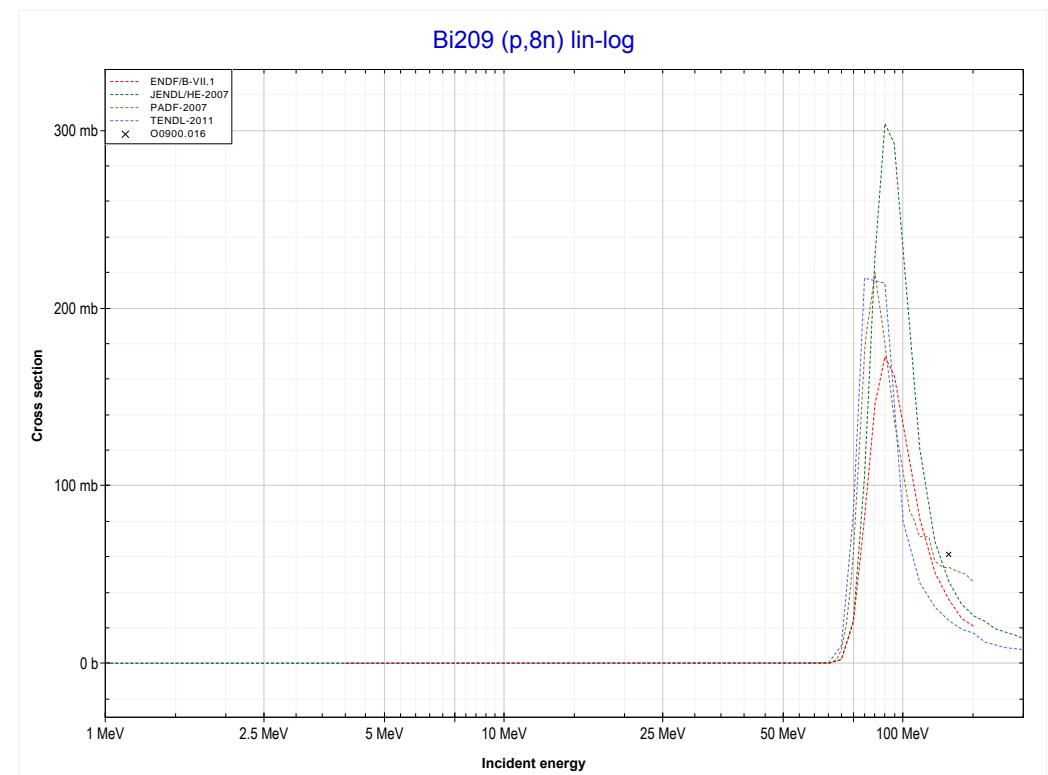
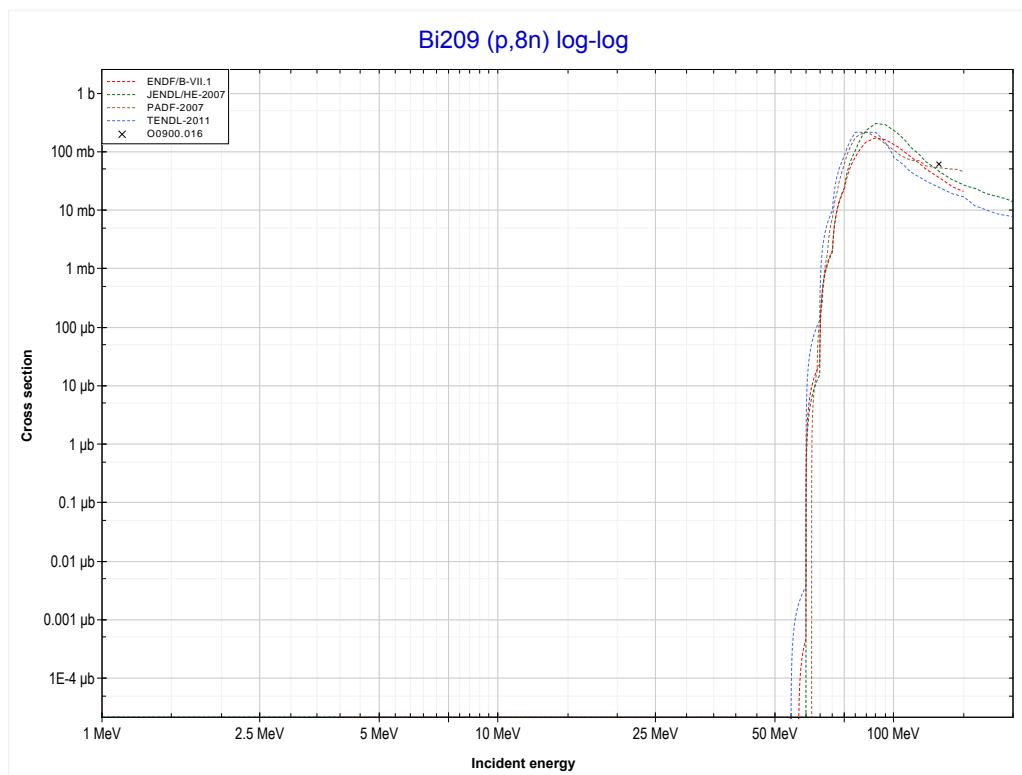
Reaction	Q-Value
Bi209(p,6n)Po204	-41063.43 keV

<< 82-Pb-206	83-Bi-209 MT160 (p,7n) or MT5 (Po203 production)	90-Th-232 >>
<< MT153 (p,6n)		MT161 (p,8n) >>



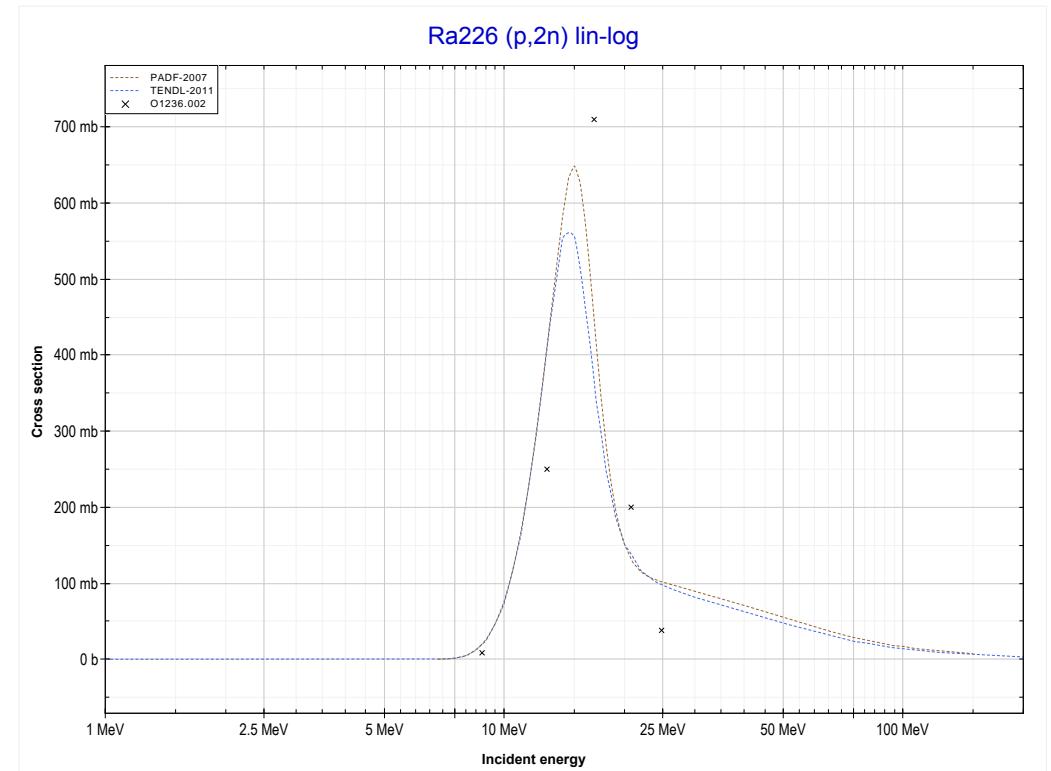
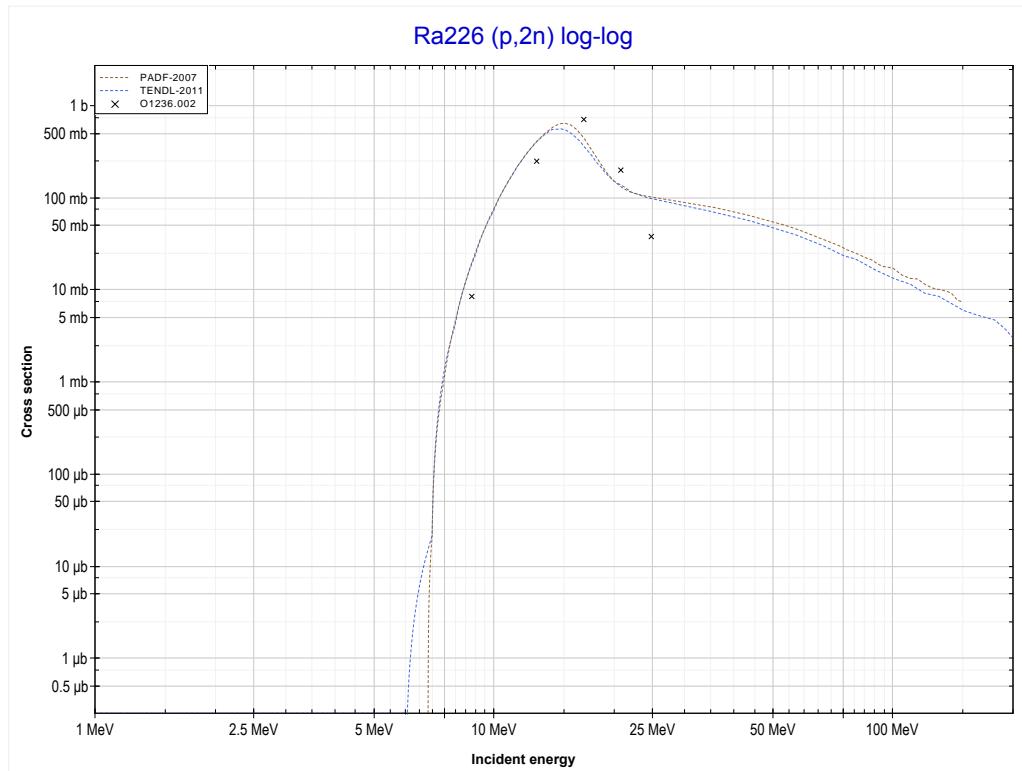
Reaction	Q-Value
$\text{Bi}^{209}(\text{p},7\text{n})\text{Po}^{203}$	-50161.75 keV

<< MT160 (p,7n)	83-Bi-209 MT161 (p,8n) or MT5 (Po202 production)	92-U-238 >> MT16 (p,2n) >>
-----------------	--	-------------------------------



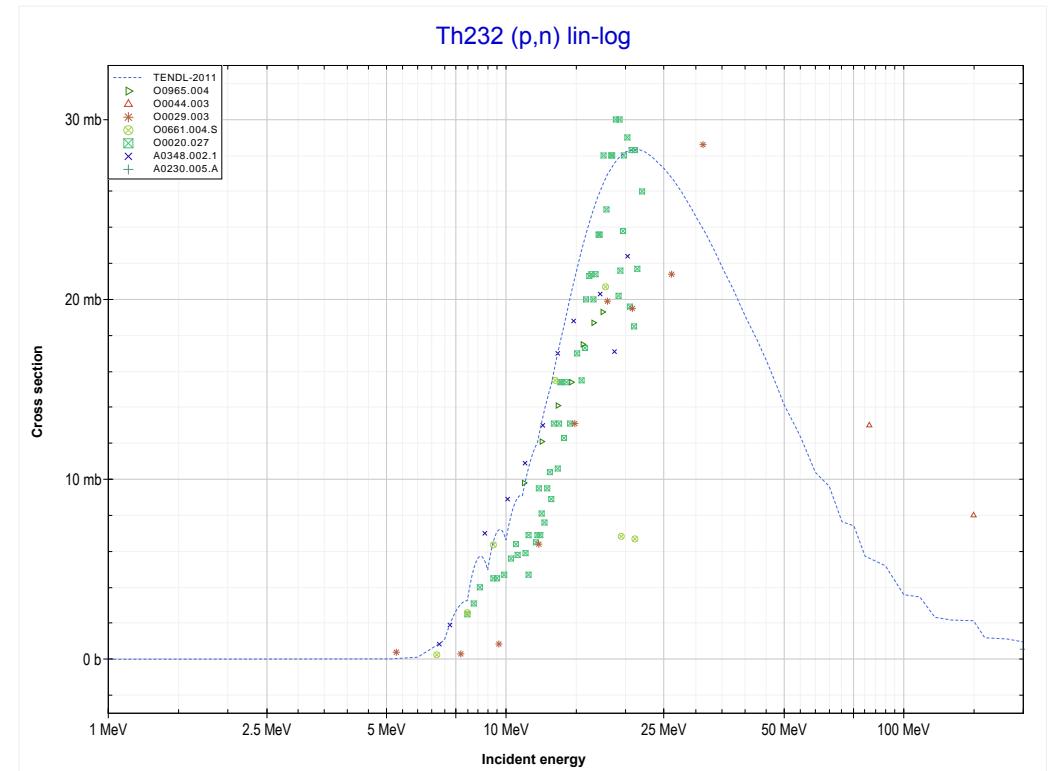
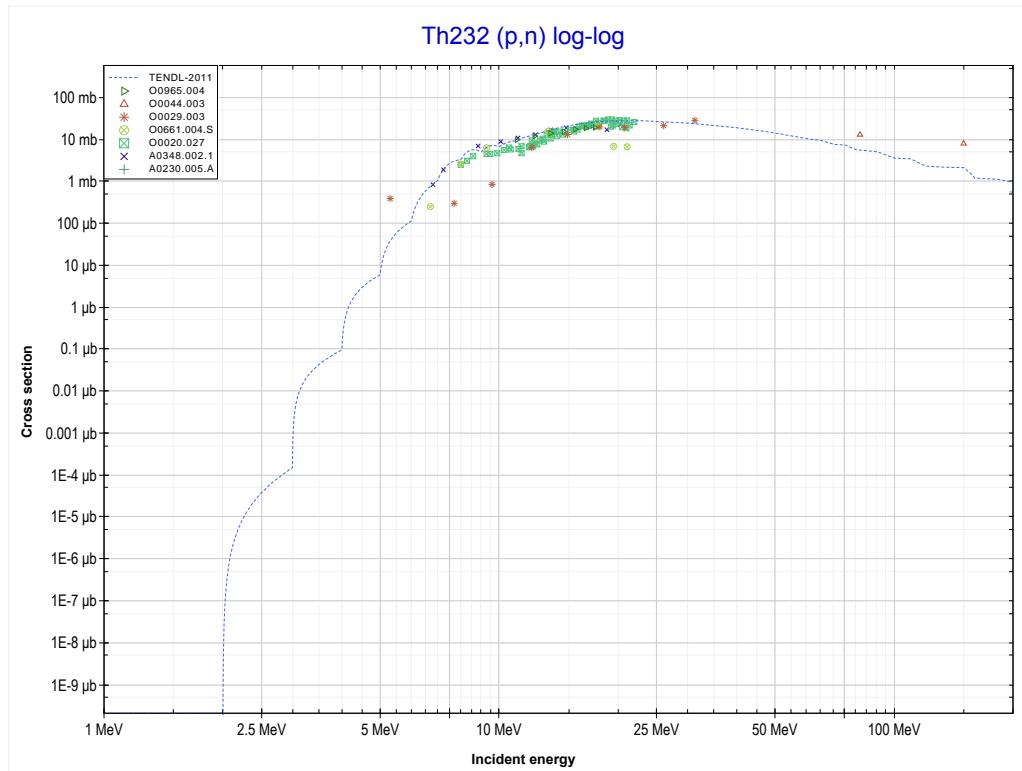
Reaction	Q-Value
Bi209(p,8n)Po202	-57616.07 keV

<< 83-Bi-209	88-Ra-226 MT16 (p,2n) or MT5 (Ac225 production)	90-Th-232 >>
<< MT161 (p,8n)		MT4 (p,n) >>



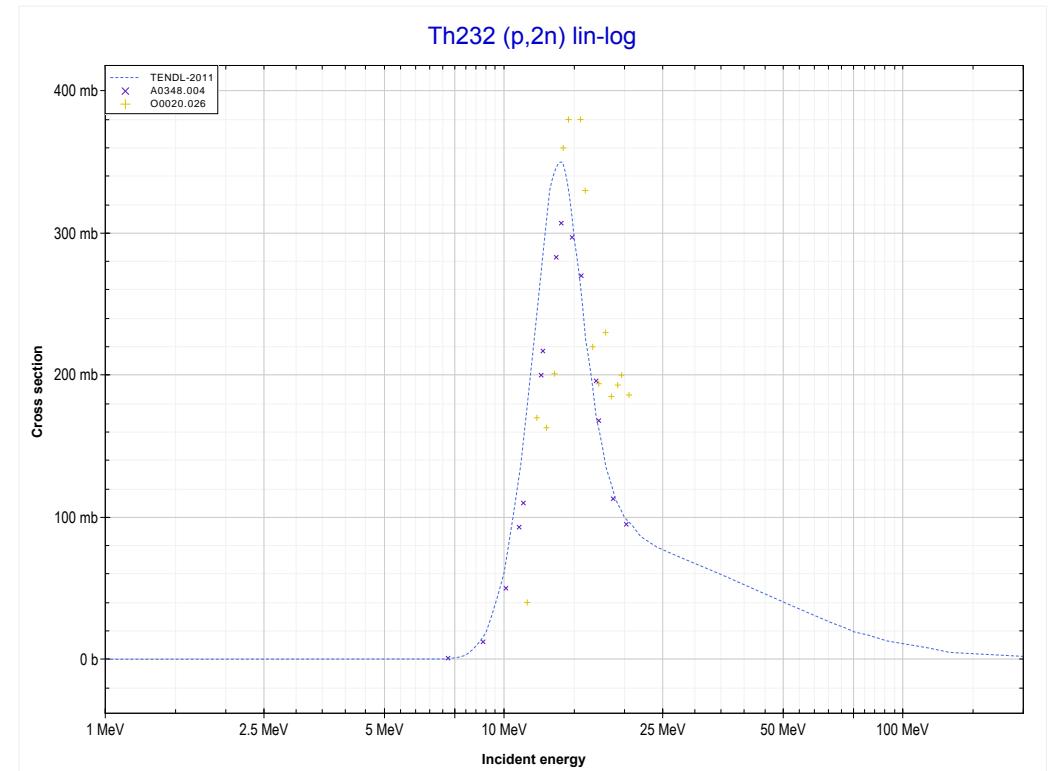
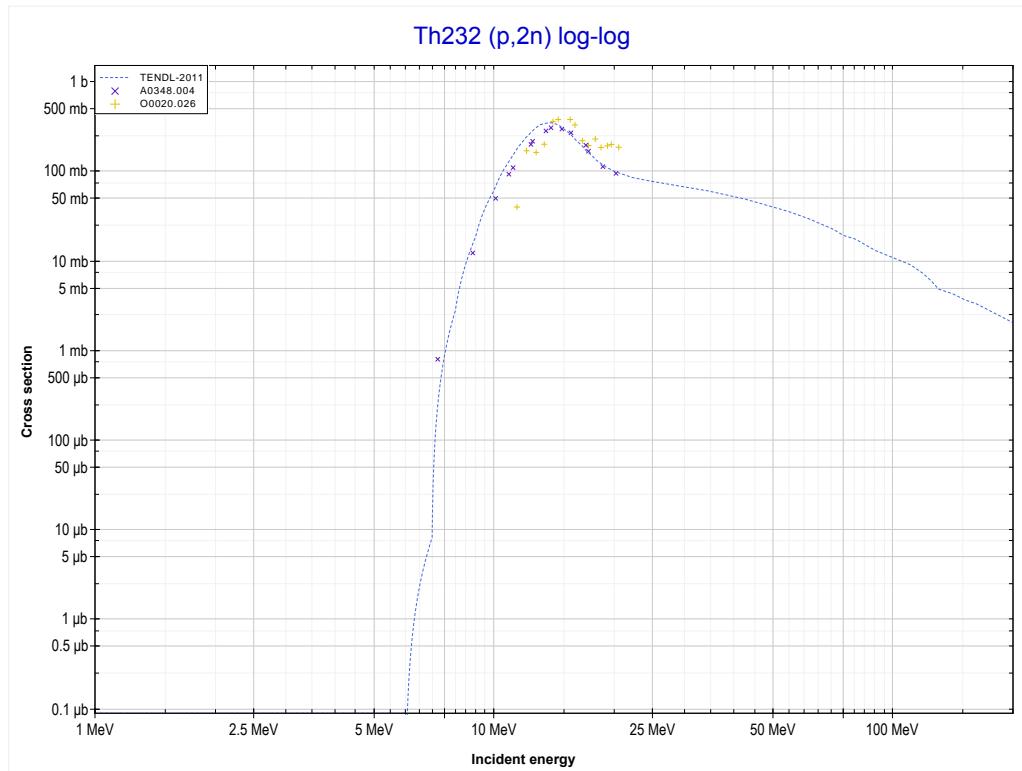
Reaction	Q-Value
Ra226(p,2n)Ac225	-6822.56 keV

<< 83-Bi-209	90-Th-232 MT4 (p,n) or MT5 (Pa232 production)	>> 92-U-235
<< MT16 (p,2n)		MT16 (p,2n) >>



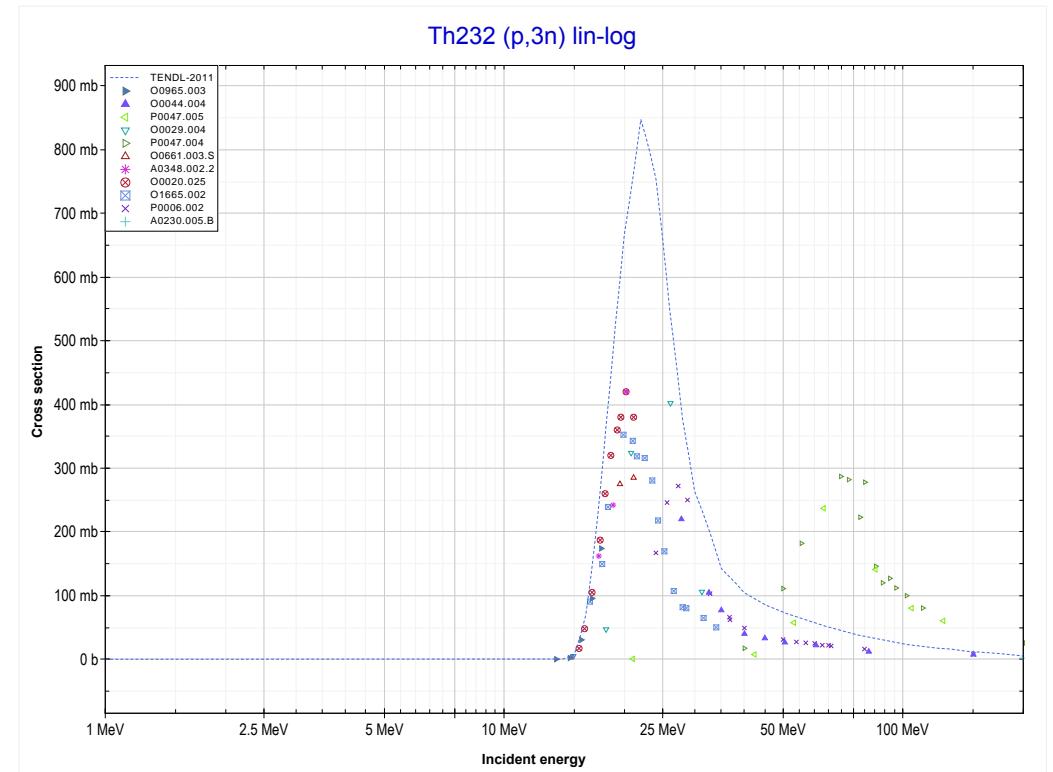
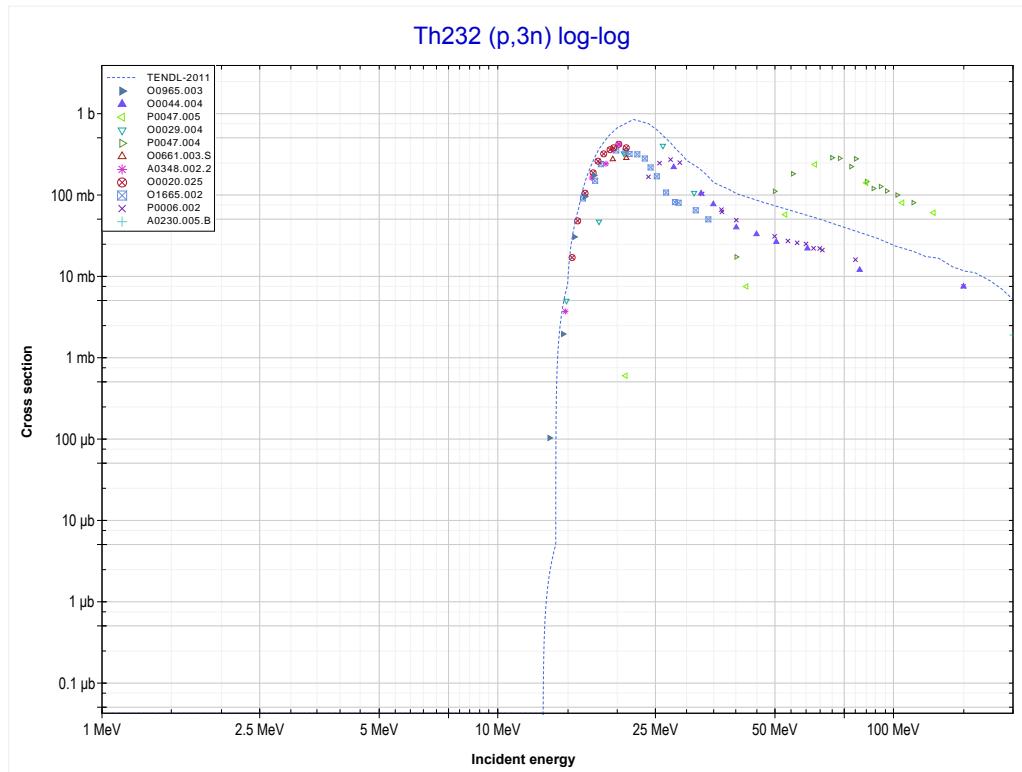
Reaction	Q-Value
Th232(p,n)Pa232	-1282.05 keV

<< 88-Ra-226	90-Th-232 MT16 (p,2n) or MT5 (Pa231 production)	>> 91-Pa-231
<< MT4 (p,n)		>> MT17 (p,3n)



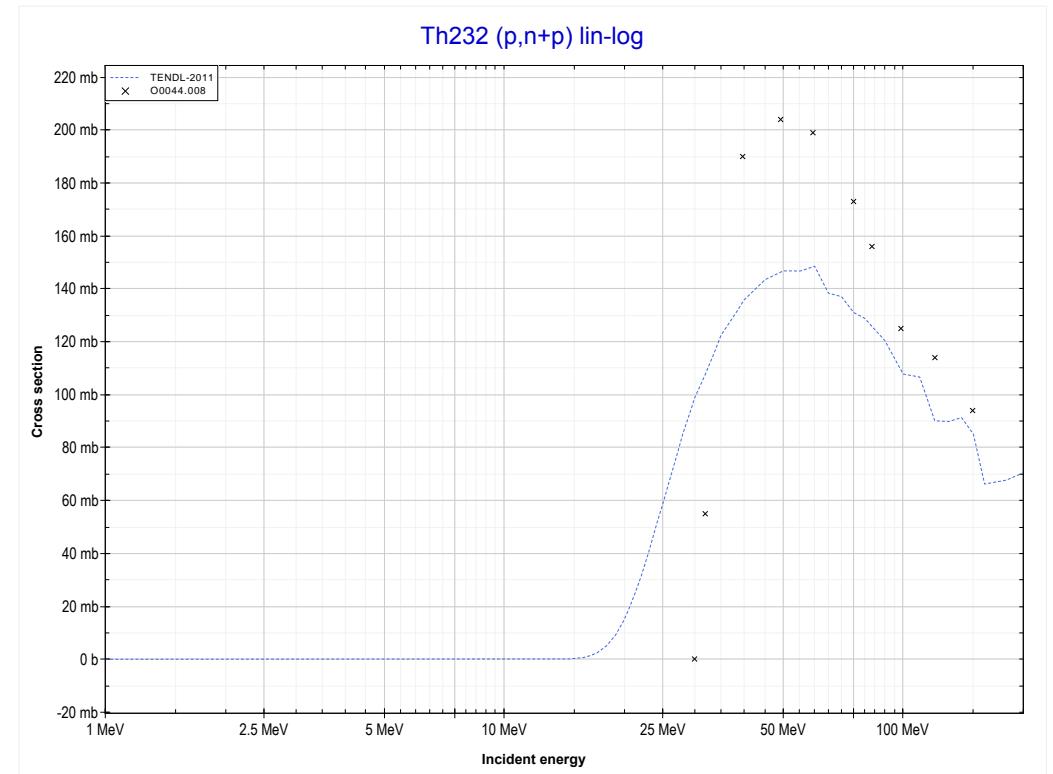
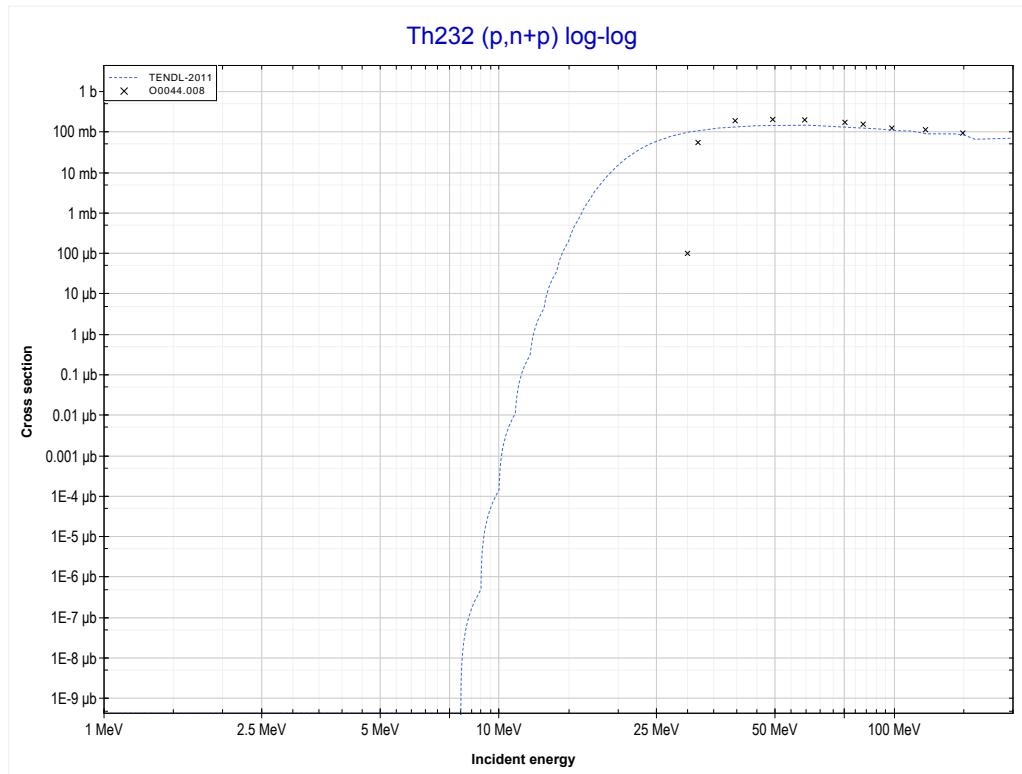
Reaction	Q-Value
Th232(p,2n)Pa231	-6831.06 keV

<< 83-Bi-209	90-Th-232 MT17 (p,3n) or MT5 (Pa230 production)	>> 92-U-235
<< MT16 (p,2n)		>> MT28 (p,n+p) >>



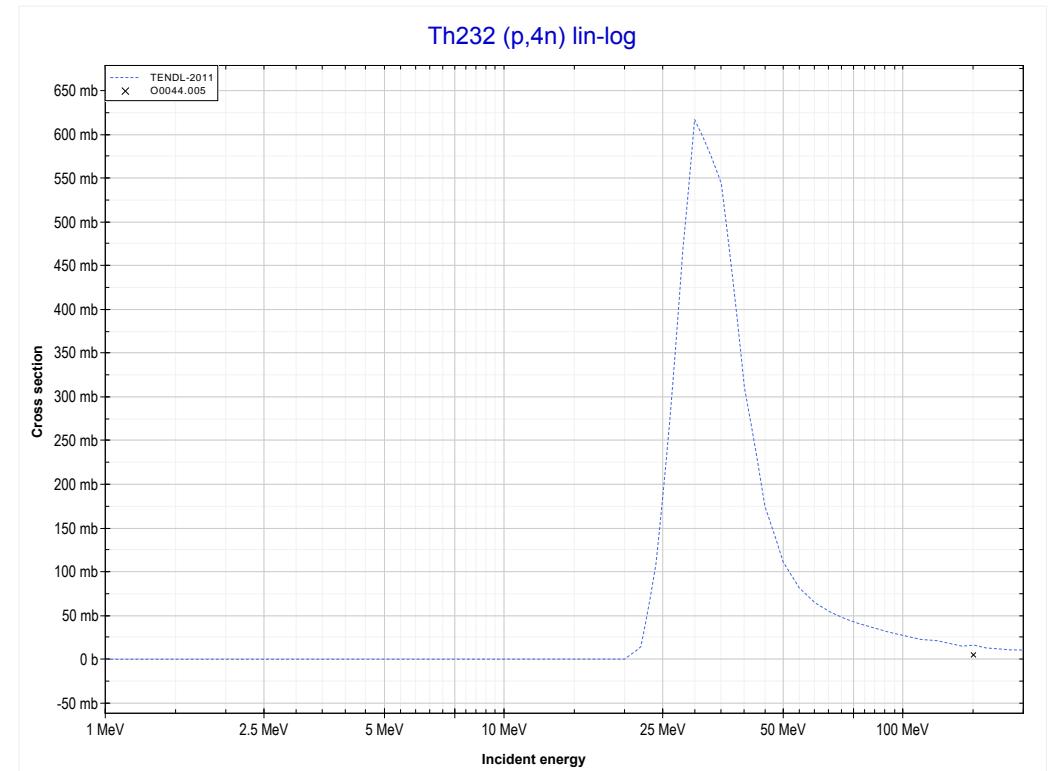
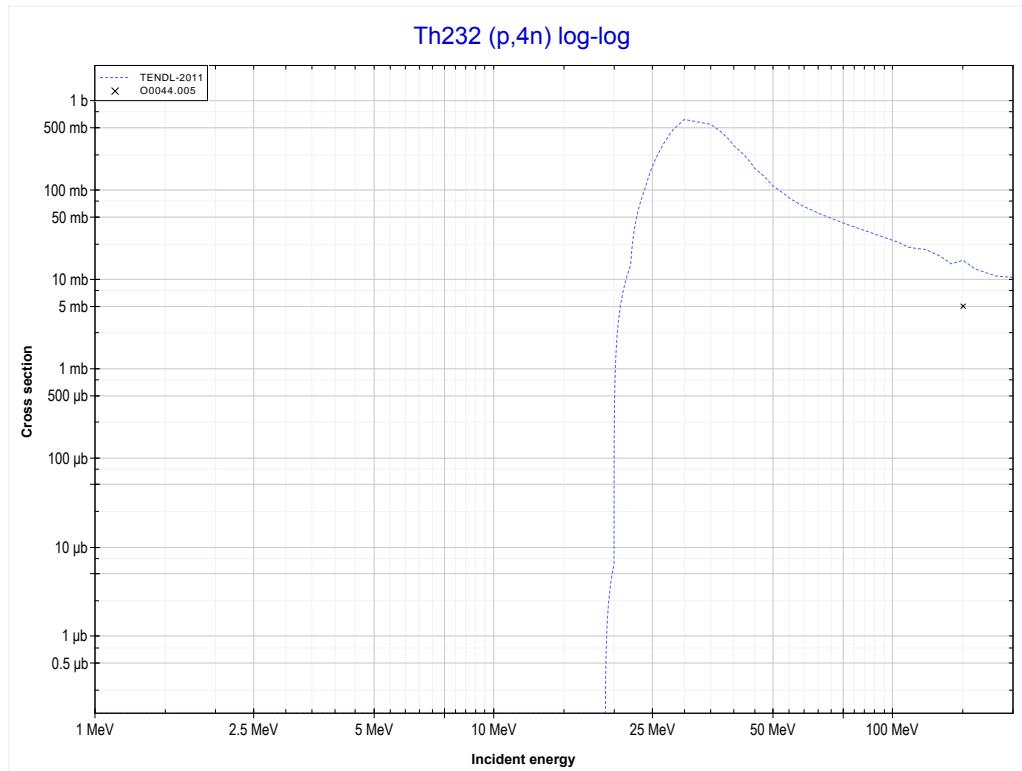
Reaction	Q-Value
Th232(p,3n)Pa230	-13651.68 keV

<< 79-Au-197	90-Th-232 MT28 (p,n+p) or MT5 (Th231 production)	>> MT37 (p,4n) >>
<< MT17 (p,3n)		



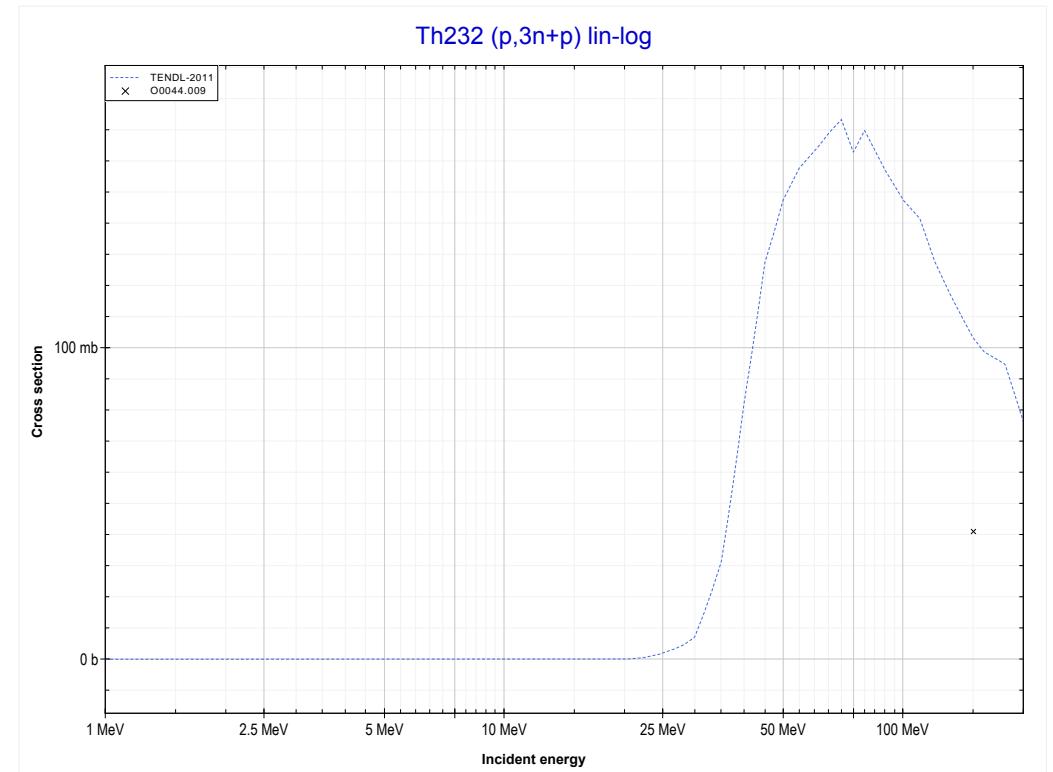
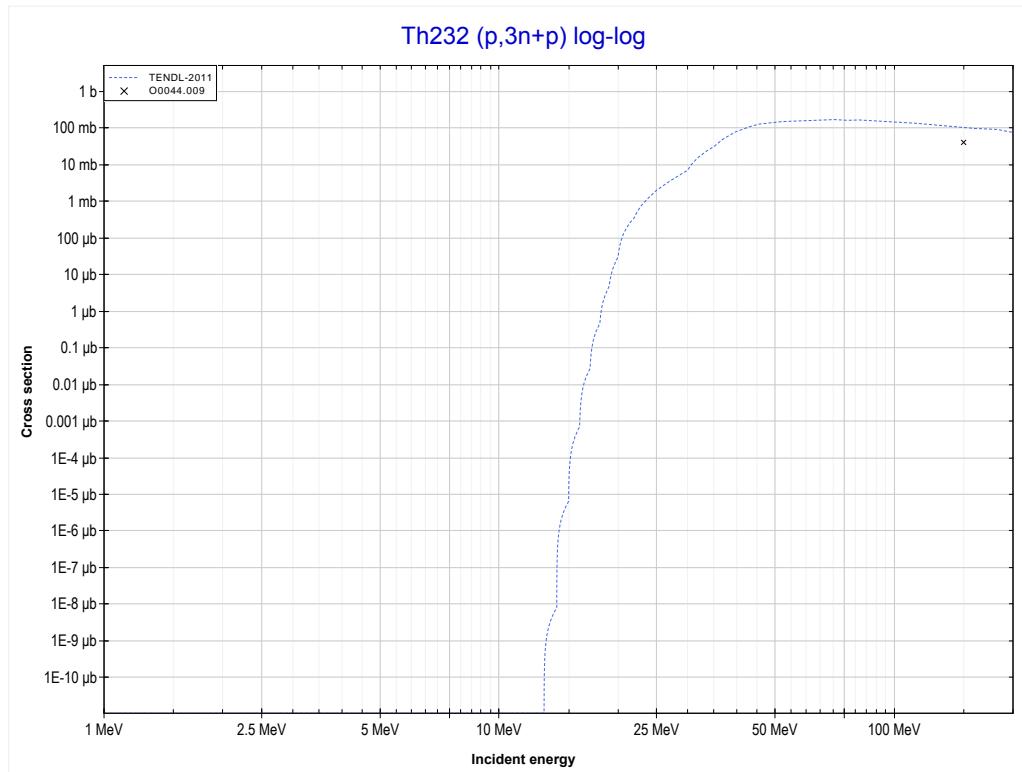
Reaction	Q-Value
Th232(p,d)Th231	-4215.75 keV
Th232(p,n+p)Th231	-6440.32 keV

<< 83-Bi-209	90-Th-232 MT37 (p,4n) or MT5 (Pa229 production)	92-U-235 >> MT42 (p,3n+p) >>
<< MT28 (p,n+p)		



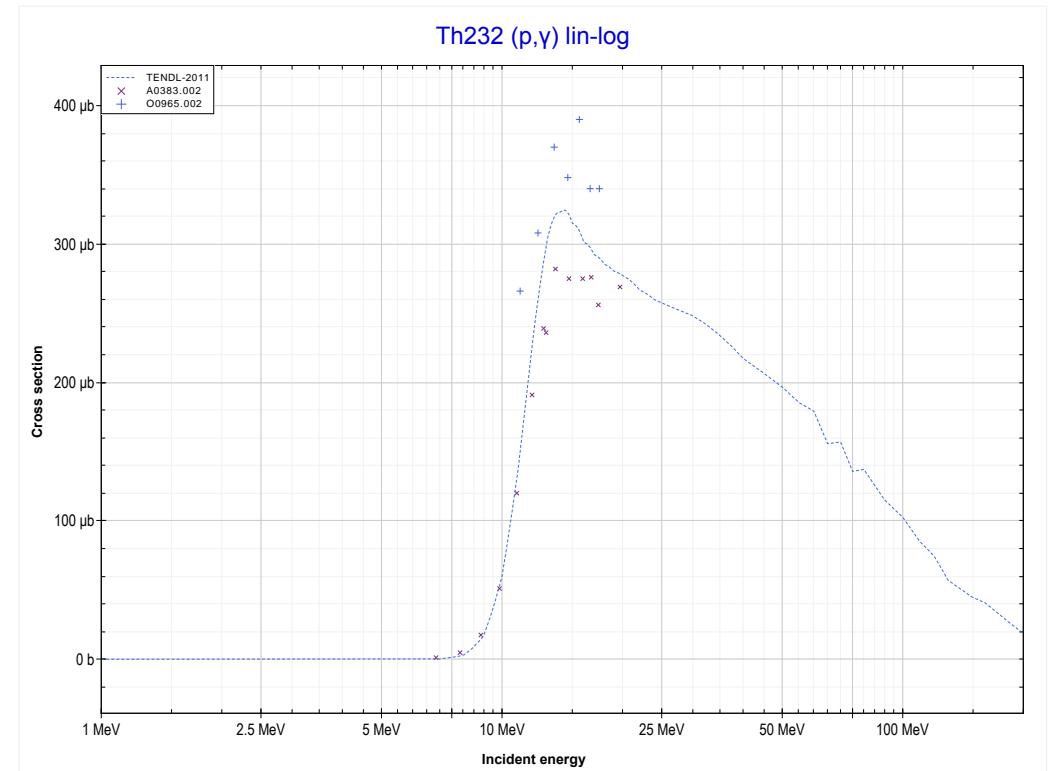
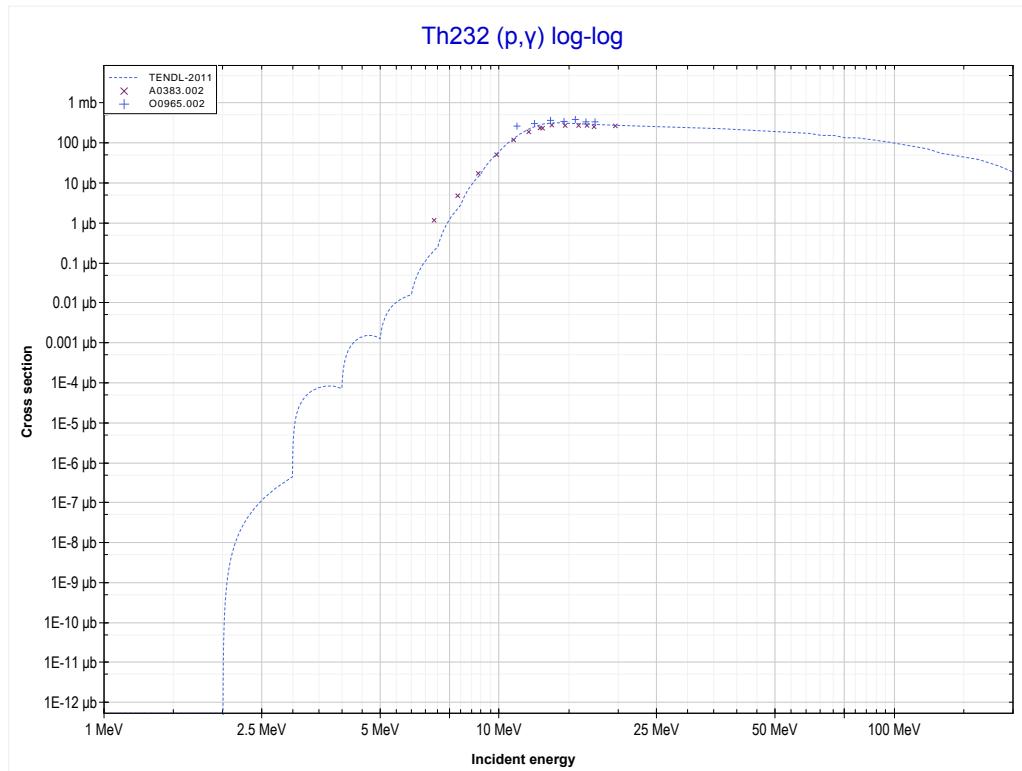
Reaction	Q-Value
Th232(p,4n)Pa229	-19446.00 keV

<< 39-Y-89	90-Th-232 MT42 (p,3n+p) or MT5 (Th229 production)	
<< MT37 (p,4n)		MT102 (p,y) >>



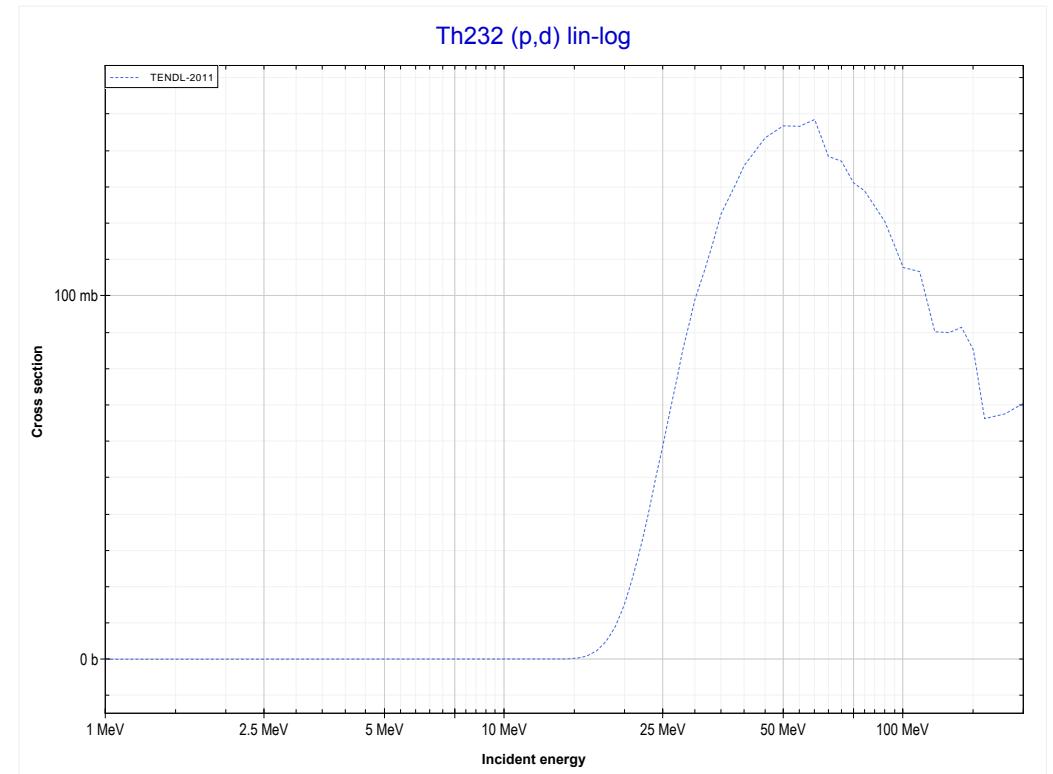
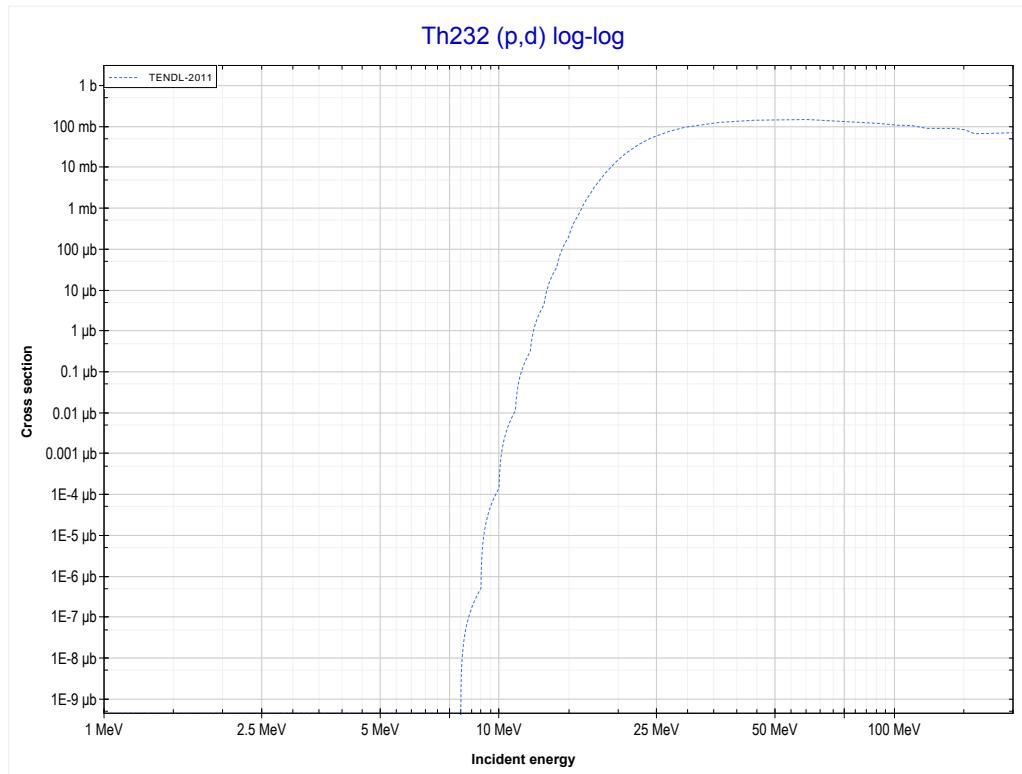
Reaction	Q-Value
$\text{Th}^{232}(\text{p},\text{n}+\text{t})\text{Th}^{229}$	-9870.35 keV
$\text{Th}^{232}(\text{p},\text{2n}+\text{d})\text{Th}^{229}$	-16127.59 keV
$\text{Th}^{232}(\text{p},\text{3n}+\text{p})\text{Th}^{229}$	-18352.15 keV

<< 83-Bi-209	90-Th-232 MT102 (p,y) or MT5 (Pa233 production)	92-U-238 >> MT104 (p,d) >>
<< MT42 (p,3n+p)		



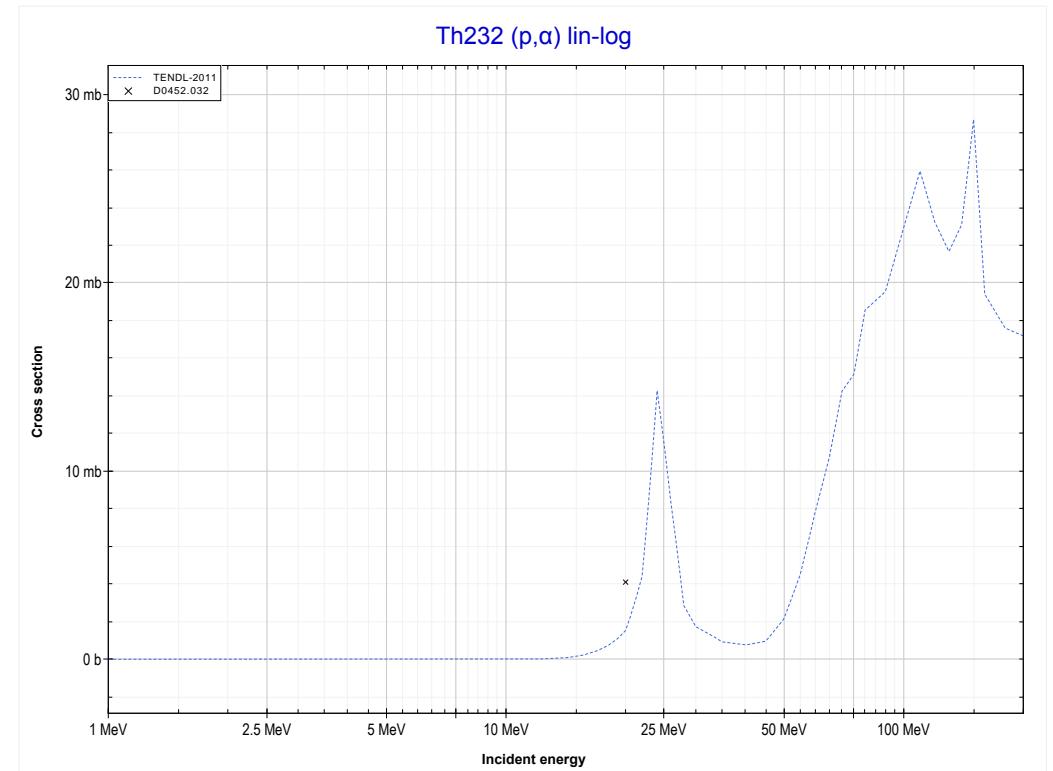
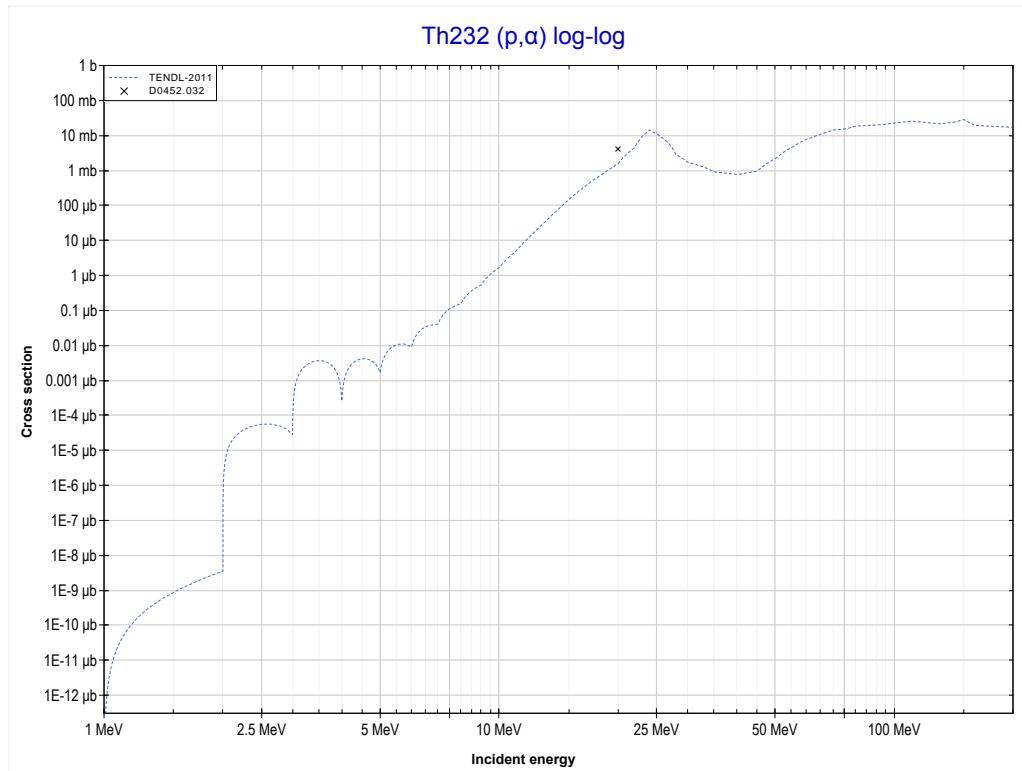
Reaction	Q-Value
Th232(p,y)Pa233	5247.17 keV

<< 7-N-14	90-Th-232 MT104 (p,d) or MT5 (Th231 production)	>> 92-U-235
<< MT102 (p, γ)		MT107 (p, α) >>



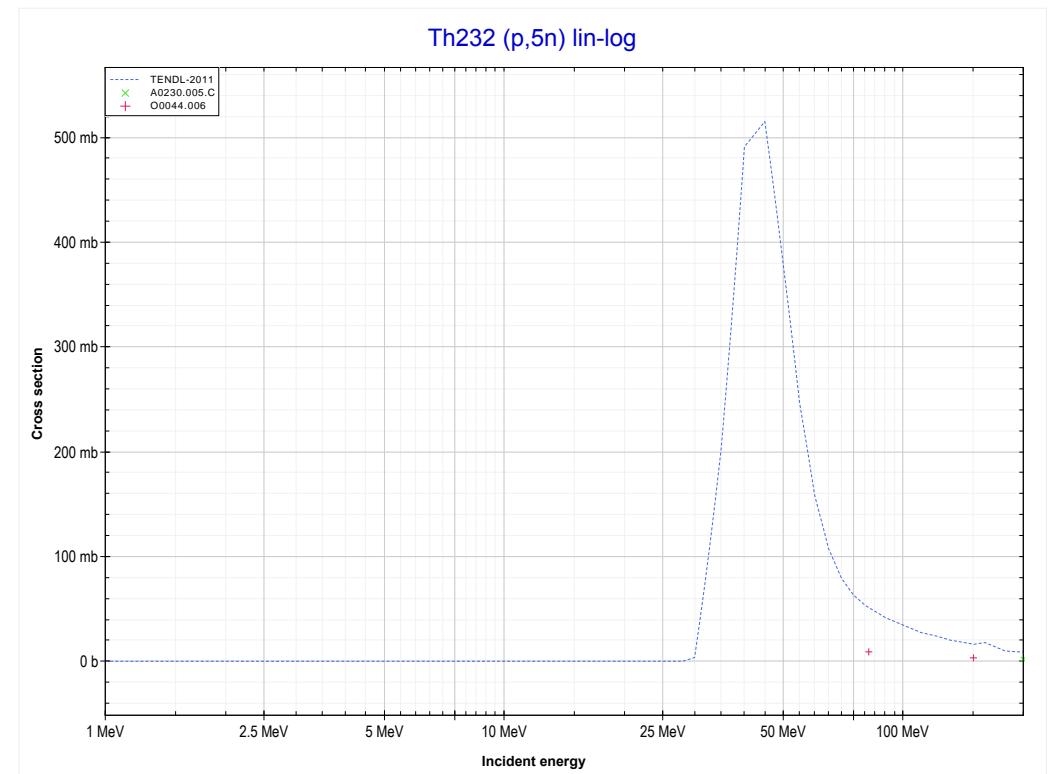
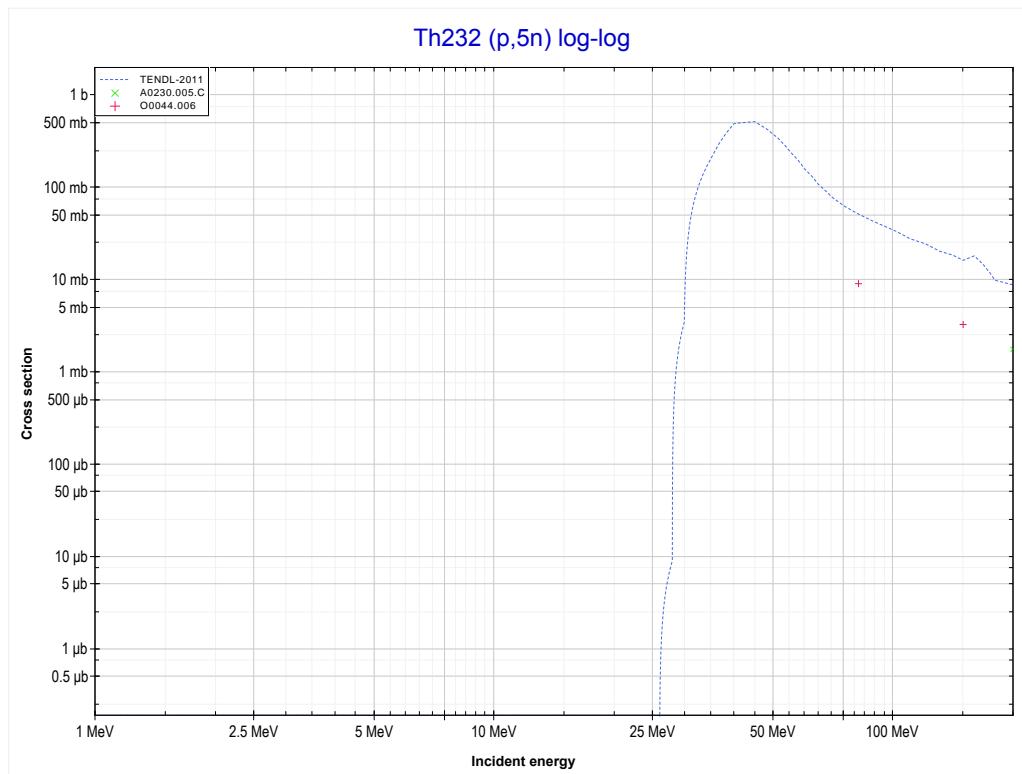
Reaction	Q-Value
Th232(p,d)Th231	-4215.75 keV
Th232(p,n+p)Th231	-6440.32 keV

<< 83-Bi-209	90-Th-232 MT107 (p,α) or MT5 (Ac229 production)	92-U-235 >>
<< MT104 (p,d)		MT152 ($p,5n$) >>



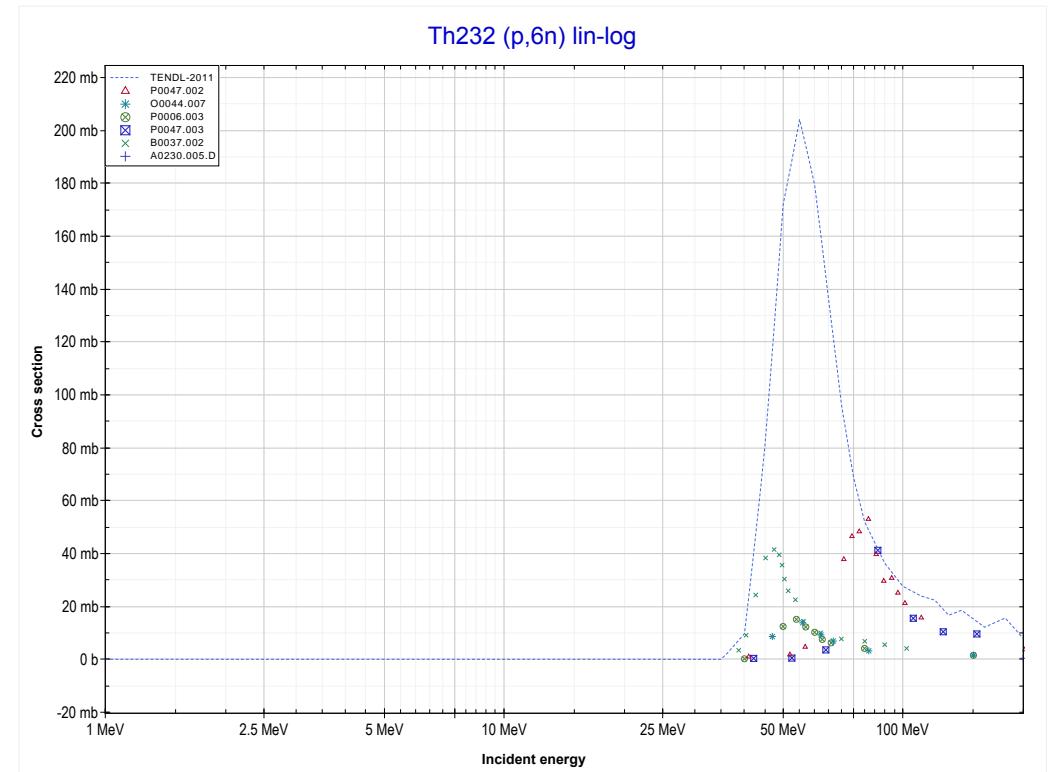
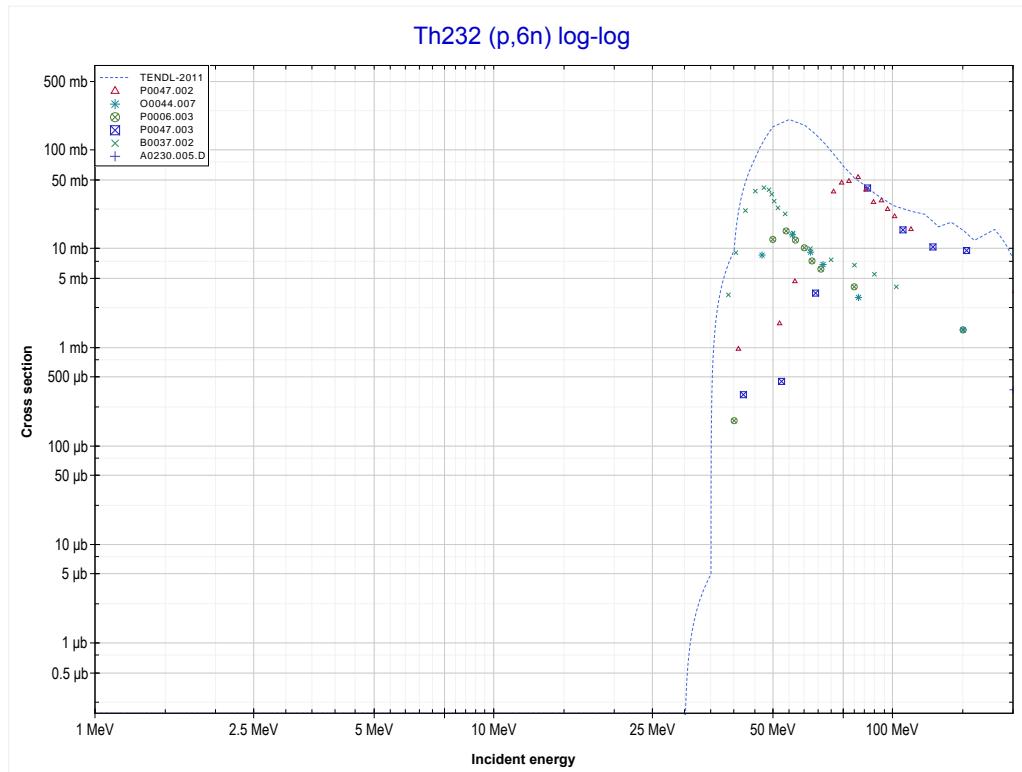
Reaction	Q-Value
$\text{Th}^{232}(p,\alpha)\text{Ac}^{229}$	9562.35 keV
$\text{Th}^{232}(p,p+t)\text{Ac}^{229}$	-10251.51 keV
$\text{Th}^{232}(p,n+\text{He}^3)\text{Ac}^{229}$	-11015.26 keV
$\text{Th}^{232}(p,2d)\text{Ac}^{229}$	-14284.17 keV
$\text{Th}^{232}(p,n+p+d)\text{Ac}^{229}$	-16508.74 keV
$\text{Th}^{232}(p,2n+2p)\text{Ac}^{229}$	-18733.30 keV

<< 83-Bi-209	90-Th-232 MT152 (p,5n) or MT5 (Pa228 production)	92-U-235 >> MT153 (p,6n) >>
<< MT107 (p, α)		



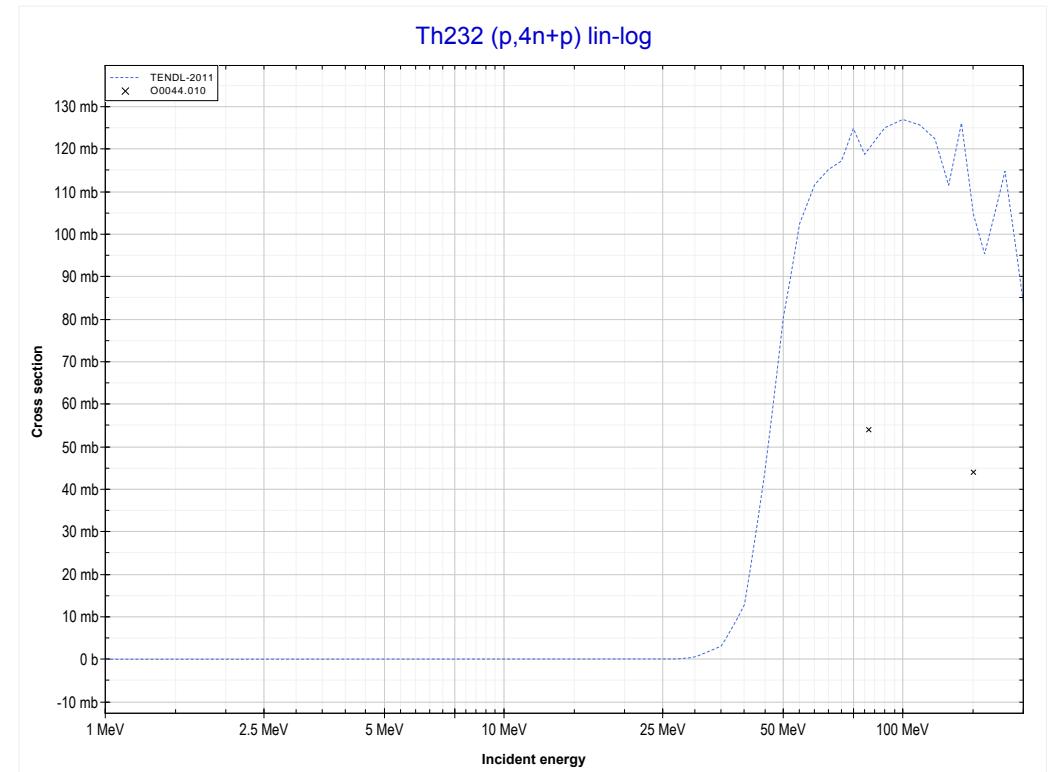
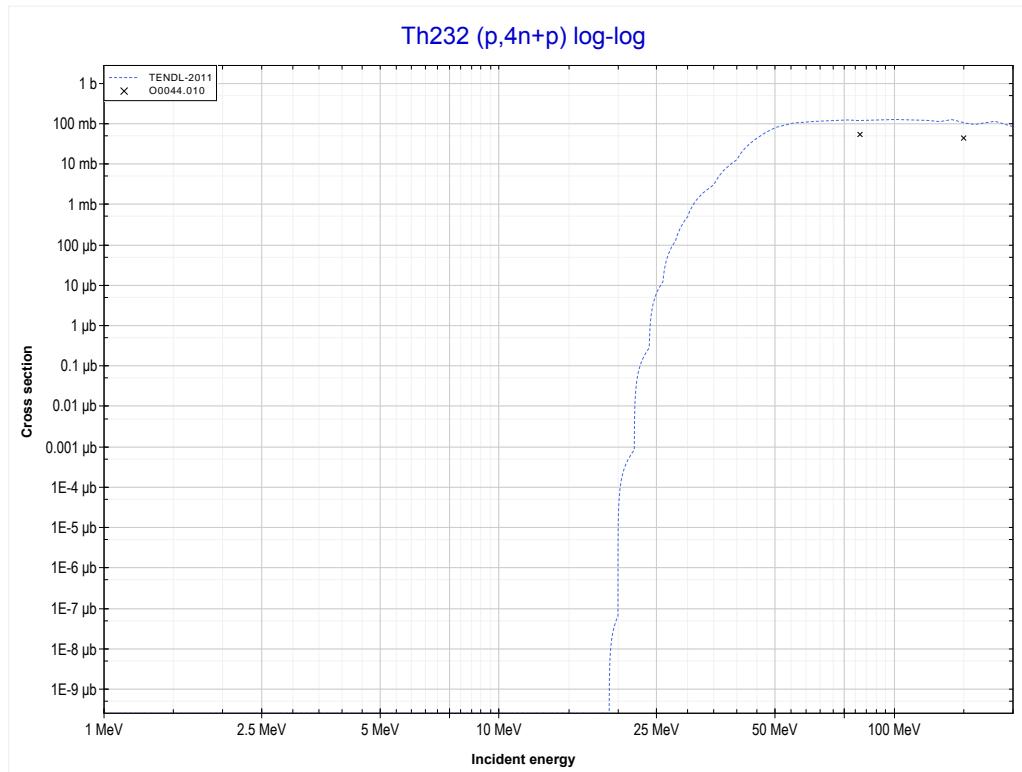
Reaction	Q-Value
Th232(p,5n)Pa228	-26543.31 keV

<< 83-Bi-209	90-Th-232 MT153 (p,6n) or MT5 (Pa227 production)	92-U-238 >>
<< MT152 (p,5n)		MT156 (p,4n+p) >>



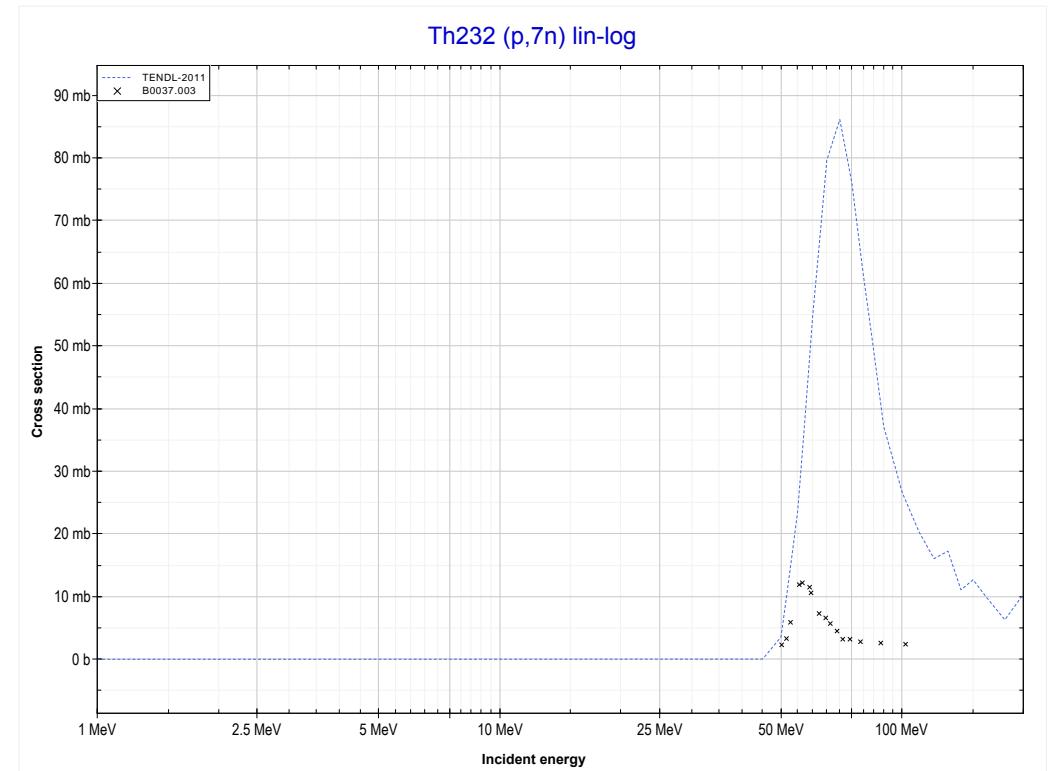
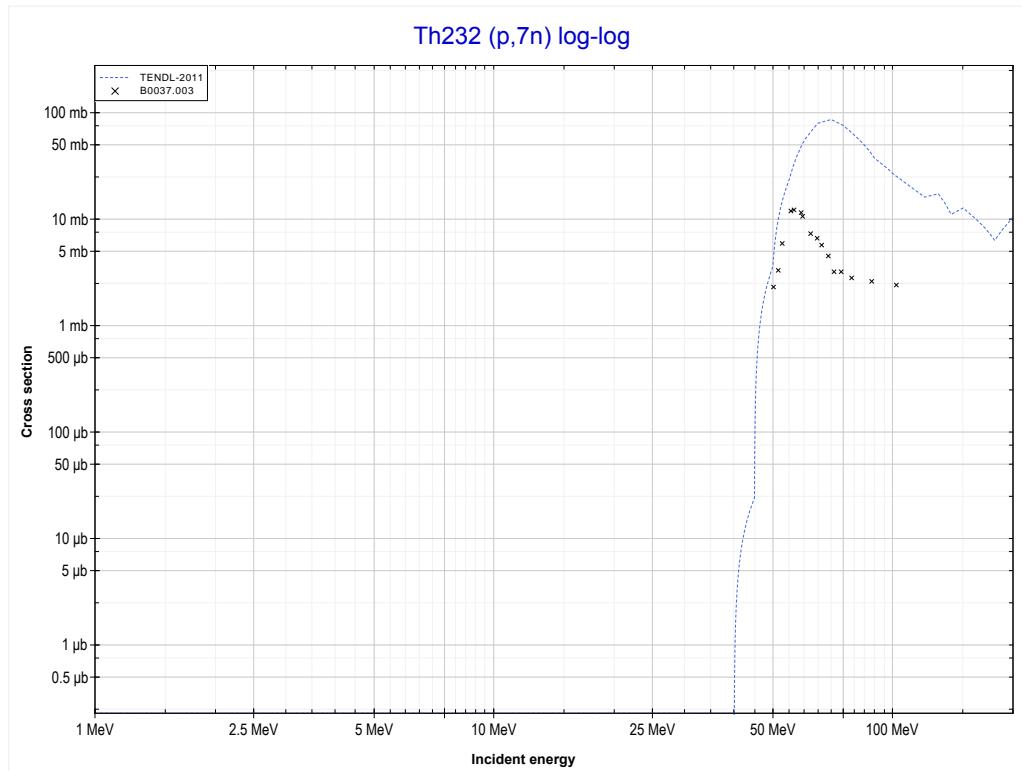
Reaction	Q-Value
Th232(p,6n)Pa227	-32522.63 keV

<< 31-Ga-71	90-Th-232 MT156 (p,4n+p) or MT5 (Th228 production)	
<< MT153 (p,6n)		MT160 (p,7n) >>



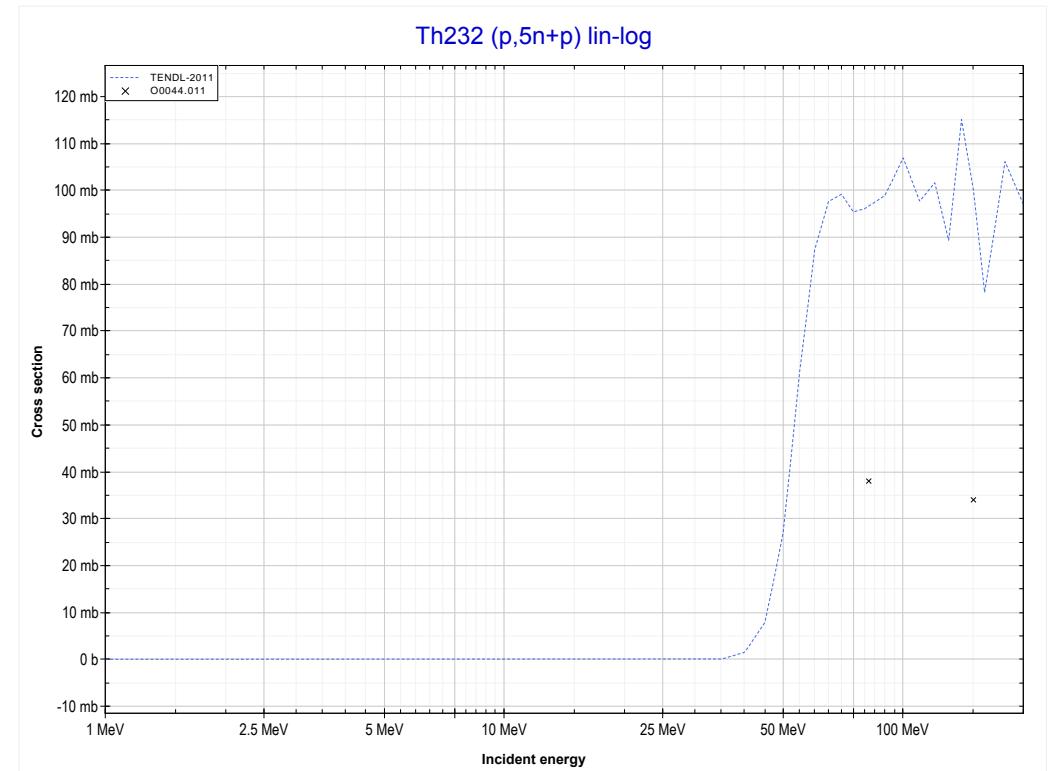
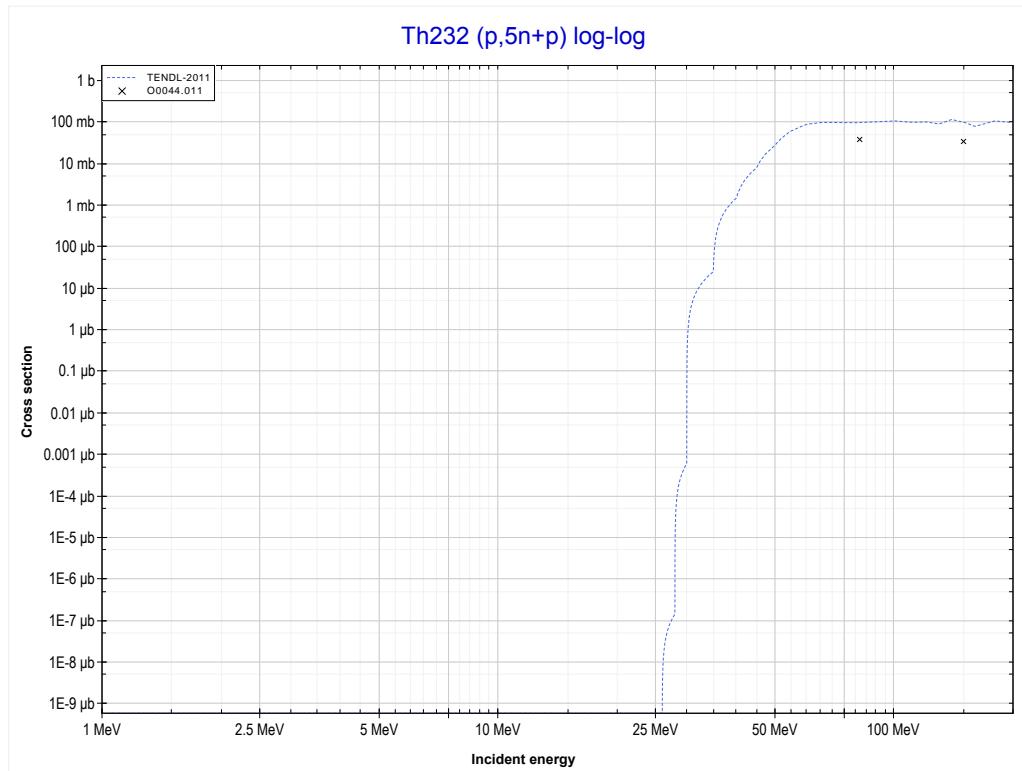
Reaction	Q-Value
Th232(p,2n+t)Th228	-15127.37 keV
Th232(p,3n+d)Th228	-21384.60 keV
Th232(p,4n+p)Th228	-23609.17 keV

<< 83-Bi-209	90-Th-232 MT160 (p,7n) or MT5 (Pa226 production)	92-U-238 >> MT162 (p,5n+p) >>
<< MT156 (p,4n+p)		



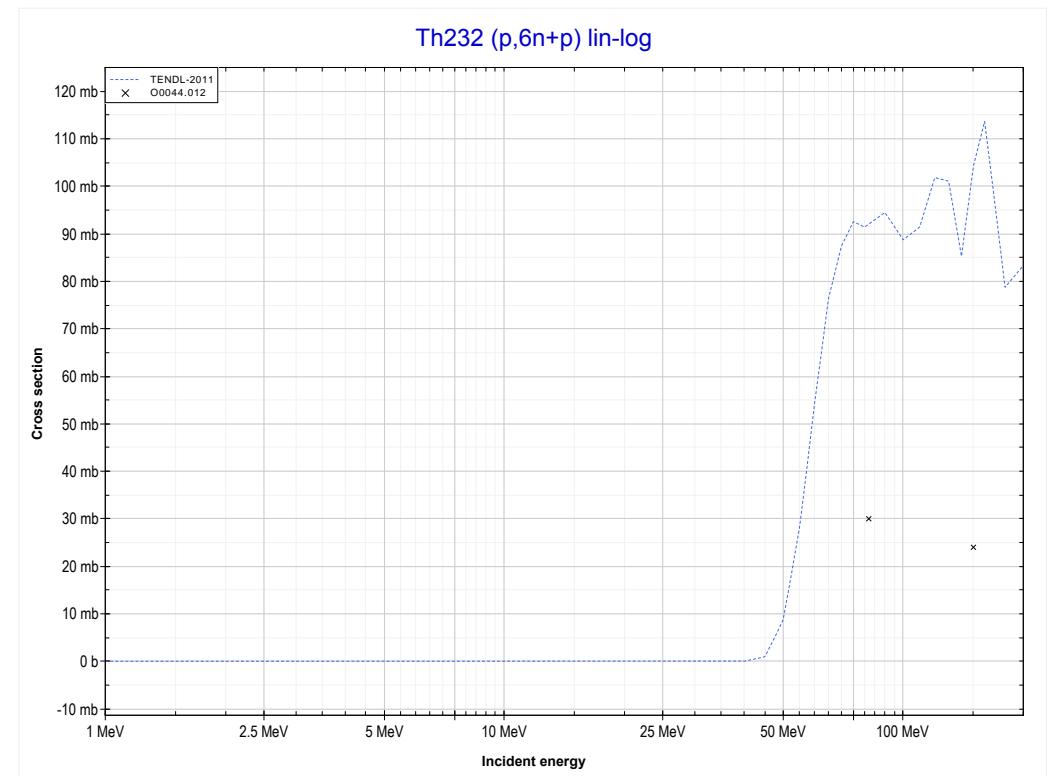
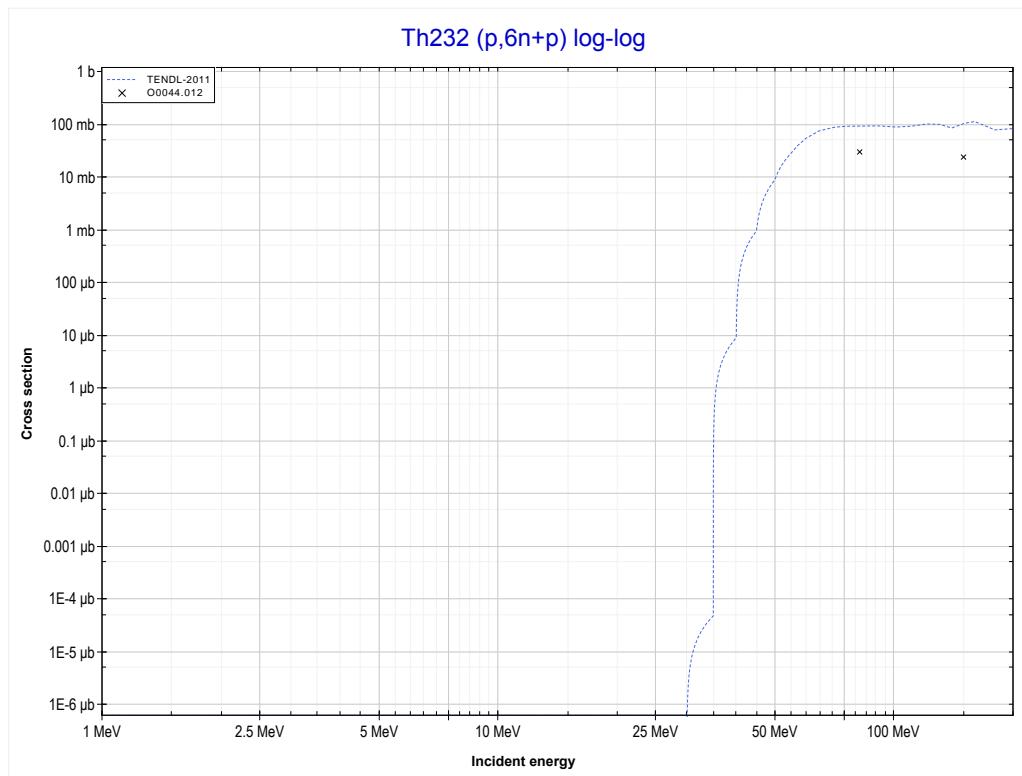
Reaction	Q-Value
Th232(p,7n)Pa226	-39794.95 keV

<< 39-Y-89	90-Th-232 MT162 (p,5n+p) or MT5 (Th227 production)	MT163 (p,6n+p) >>
<< MT160 (p,7n)		

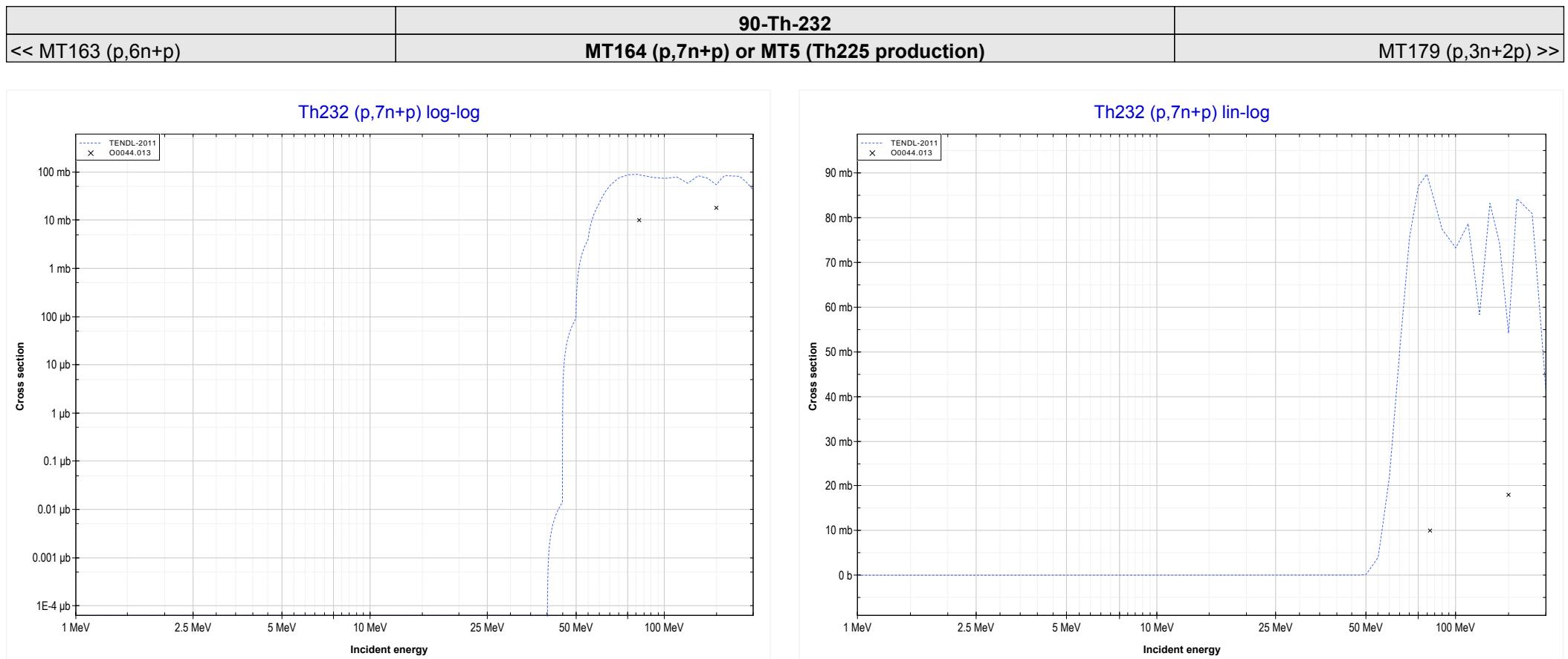


Reaction	Q-Value
Th232(p,3n+t)Th227	-22232.69 keV
Th232(p,4n+d)Th227	-28489.92 keV
Th232(p,5n+p)Th227	-30714.49 keV

<< 39-Y-89	90-Th-232 MT163 (p,6n+p) or MT5 (Th226 production)	MT164 (p,7n+p) >>
<< MT162 (p,5n+p)		

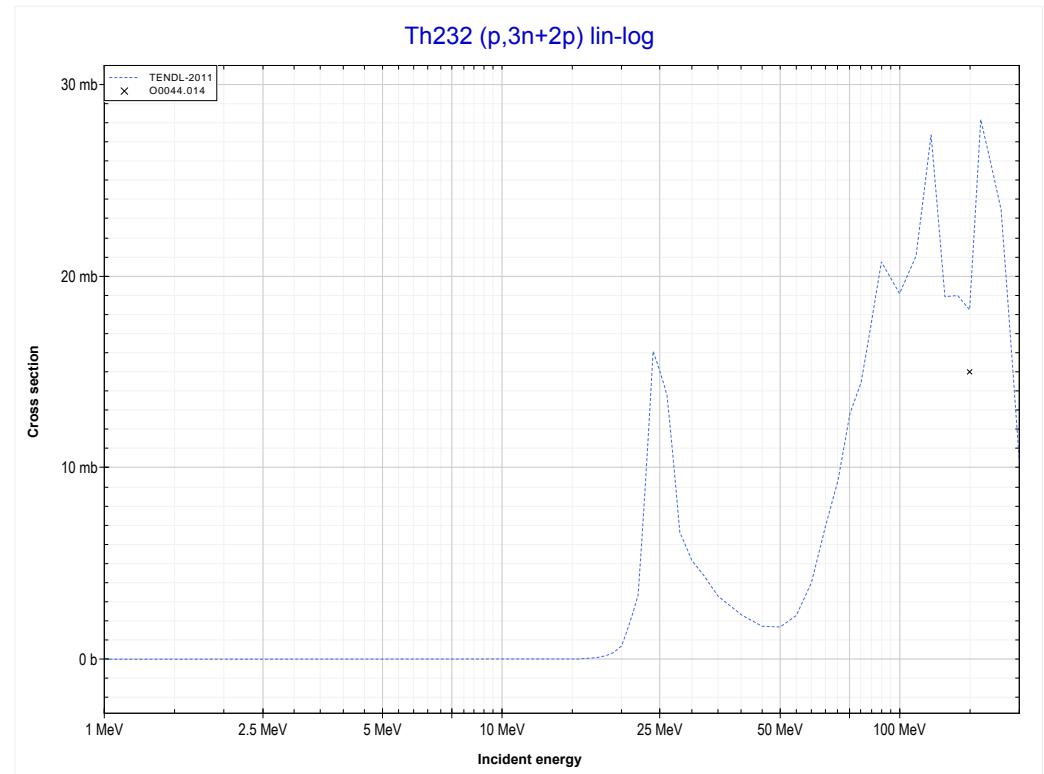
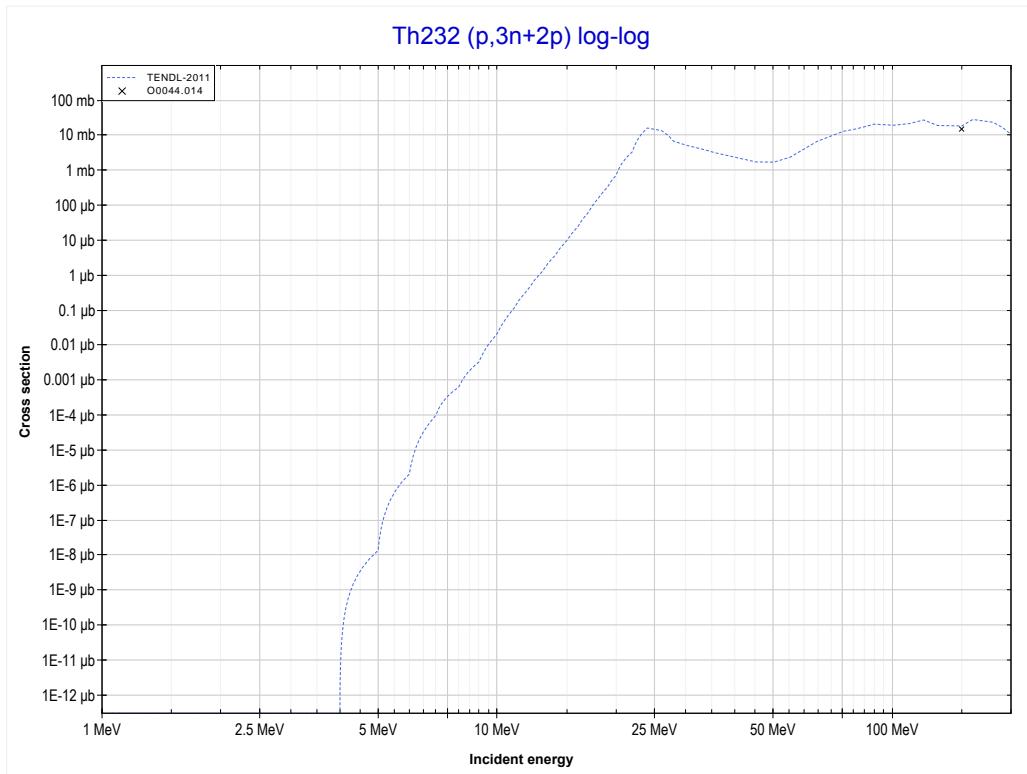


Reaction	Q-Value
Th232(p,4n+t)Th226	-27694.80 keV
Th232(p,5n+d)Th226	-33952.04 keV
Th232(p,6n+p)Th226	-36176.60 keV



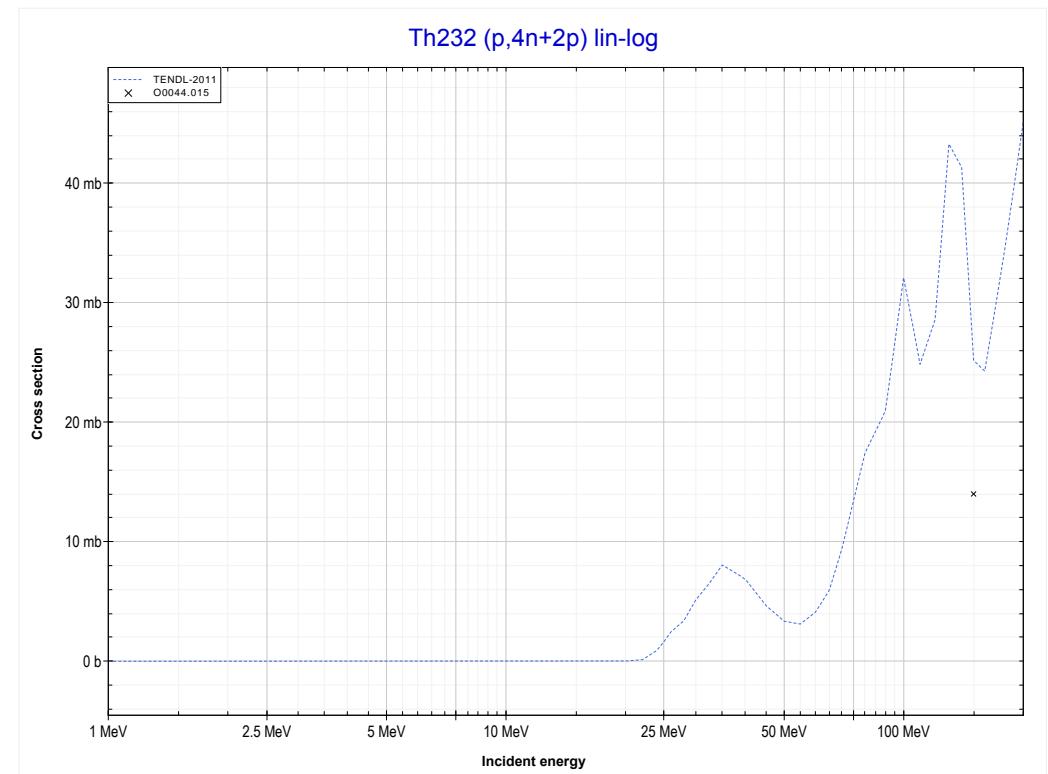
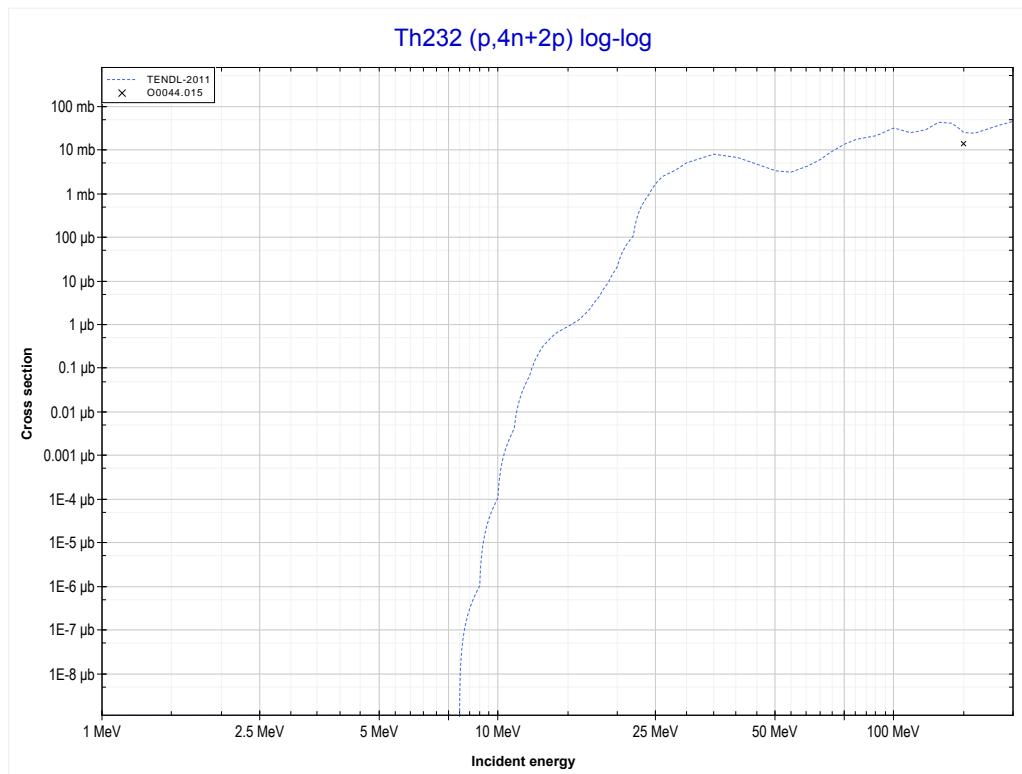
Reaction	Q-Value
Th232(p,5n+t)Th225	-34879.12 keV
Th232(p,6n+d)Th225	-41136.35 keV
Th232(p,7n+p)Th225	-43360.92 keV

<< 31-Ga-69	90-Th-232	
<< MT164 (p,7n+p)	MT179 (p,3n+2p) or MT5 (Ac228 production)	MT194 (p,4n+2p) >>



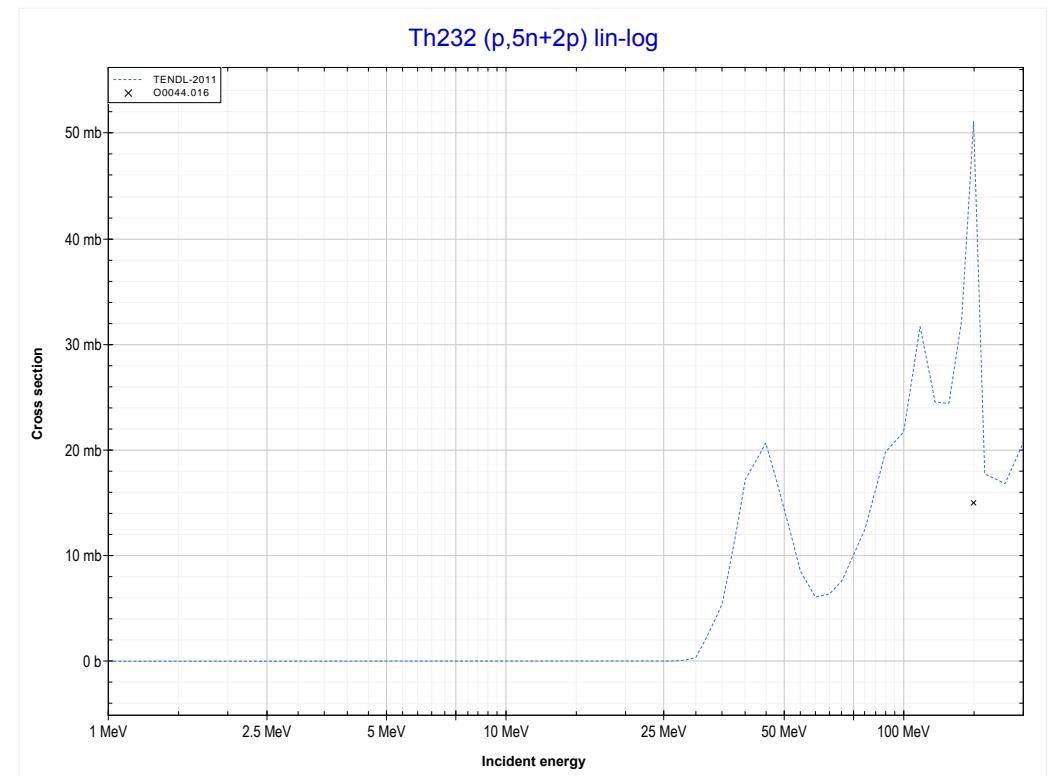
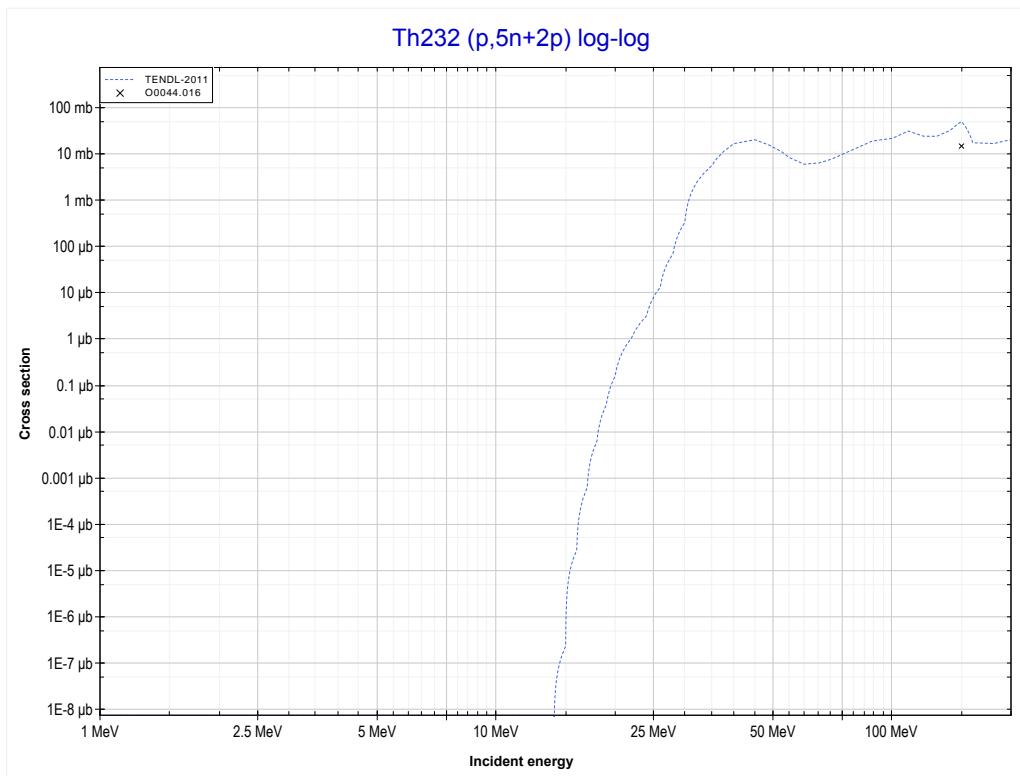
Reaction	Q-Value
Th232(p,n+α)Ac228	3345.04 keV
Th232(p,d+t)Ac228	-14244.26 keV
Th232(p,n+p+t)Ac228	-16468.82 keV
Th232(p,2n+He3)Ac228	-17232.58 keV
Th232(p,n+2d)Ac228	-20501.49 keV
Th232(p,2n+p+d)Ac228	-22726.06 keV
Th232(p,3n+2p)Ac228	-24950.62 keV

<< 22-Ti-48	90-Th-232	
<< MT179 (p,3n+2p)	MT194 (p,4n+2p) or MT5 (Ac227 production)	MT200 (p,5n+2p) >>



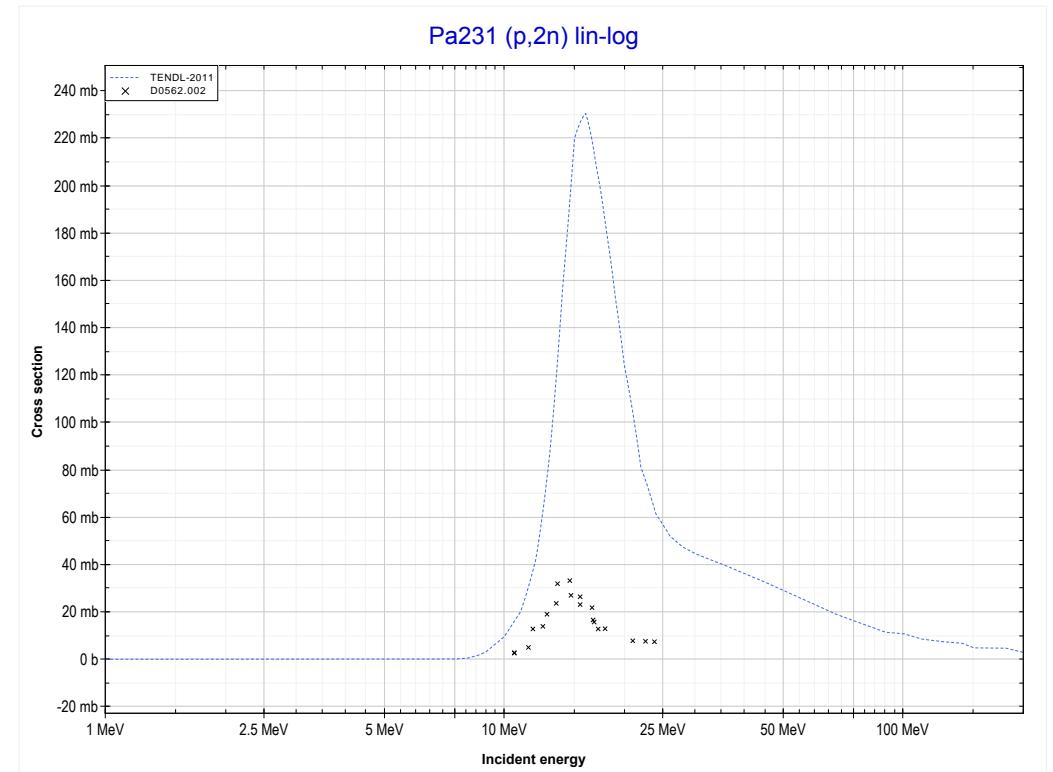
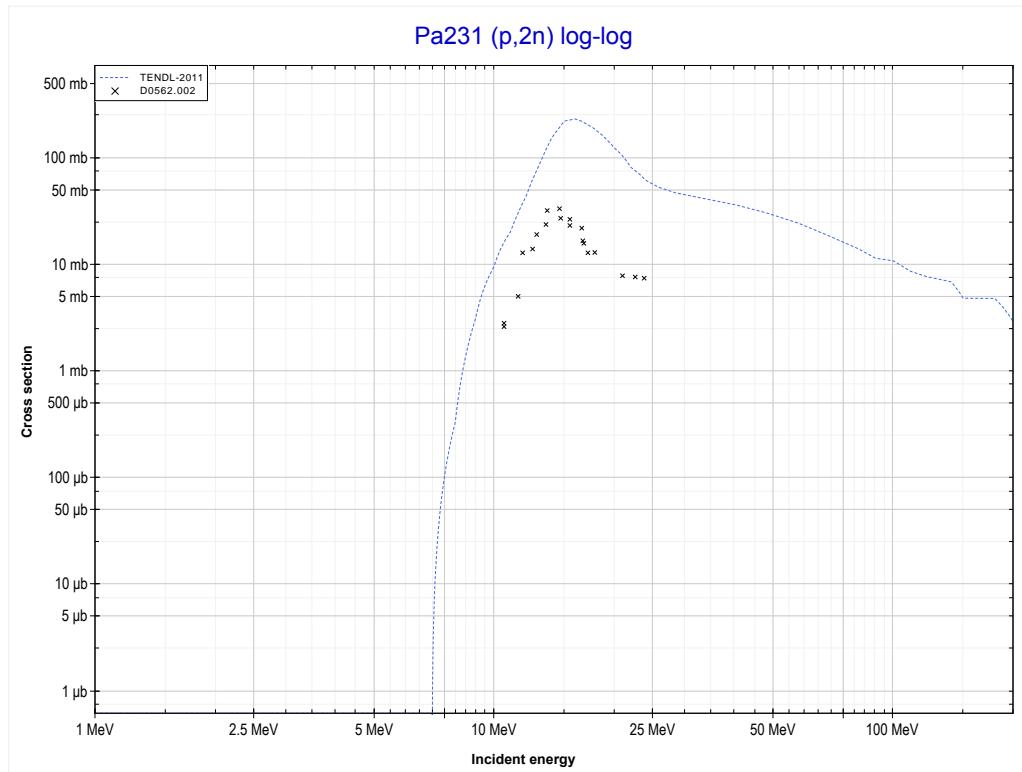
Reaction	Q-Value
Th232(p,2n+α)Ac227	-1681.18 keV
Th232(p,2t)Ac227	-13013.24 keV
Th232(p,n+d+t)Ac227	-19270.47 keV
Th232(p,2n+p+t)Ac227	-21495.04 keV
Th232(p,3n+He3)Ac227	-22258.80 keV
Th232(p,2n+2d)Ac227	-25527.71 keV
Th232(p,3n+p+d)Ac227	-27752.27 keV
Th232(p,4n+2p)Ac227	-29976.84 keV

<< 31-Ga-71	90-Th-232 MT200 (p,5n+2p) or MT5 (Ac226 production)	MT16 (p,2n) >>
<< MT194 (p,4n+2p)		



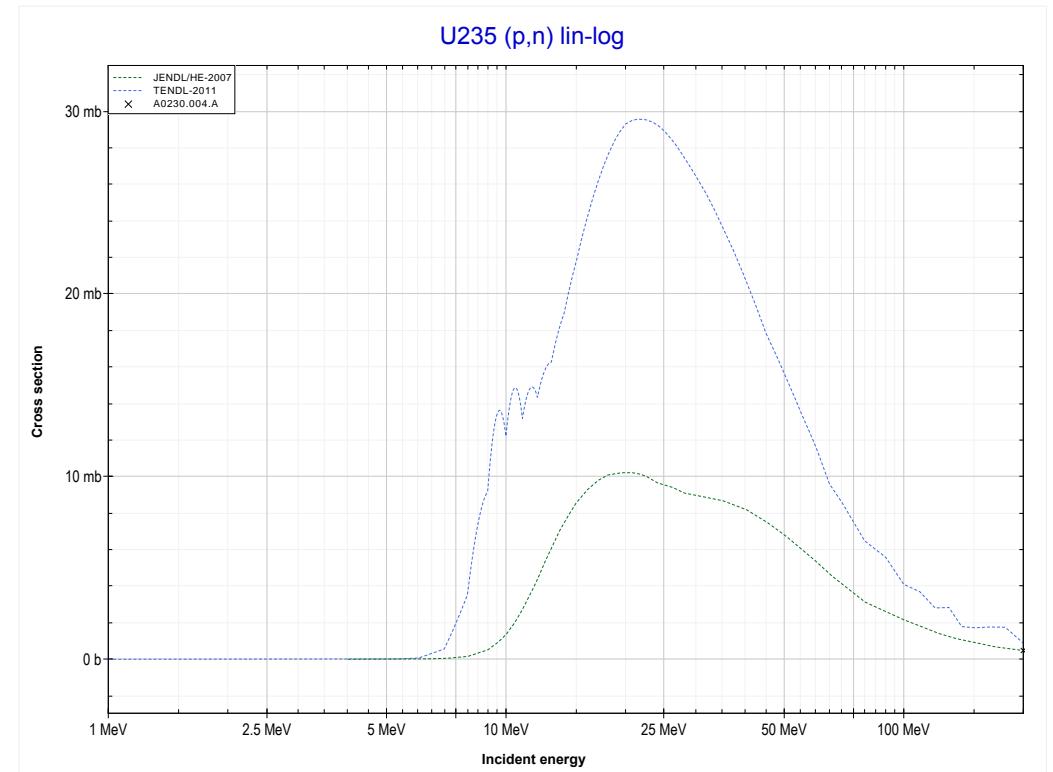
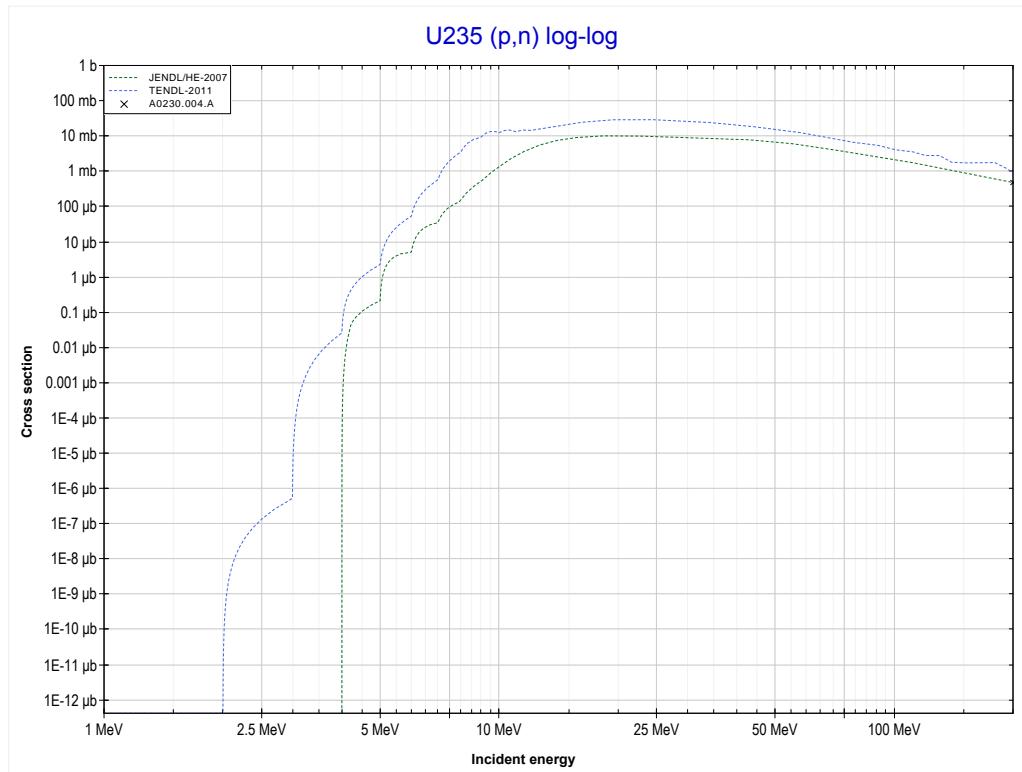
Reaction	Q-Value
Th232(p,3n+α)Ac226	-8211.60 keV
Th232(p,n+2t)Ac226	-19543.66 keV
Th232(p,2n+d+t)Ac226	-25800.89 keV
Th232(p,3n+p+t)Ac226	-28025.46 keV
Th232(p,4n+He3)Ac226	-28789.21 keV
Th232(p,3n+2d)Ac226	-32058.12 keV
Th232(p,4n+p+d)Ac226	-34282.69 keV
Th232(p,5n+2p)Ac226	-36507.26 keV

<< 90-Th-232	91-Pa-231 MT16 (p,2n) or MT5 (U230 production)	92-U-235 >>
<< MT200 (p,5n+2p)		MT4 (p,n) >>



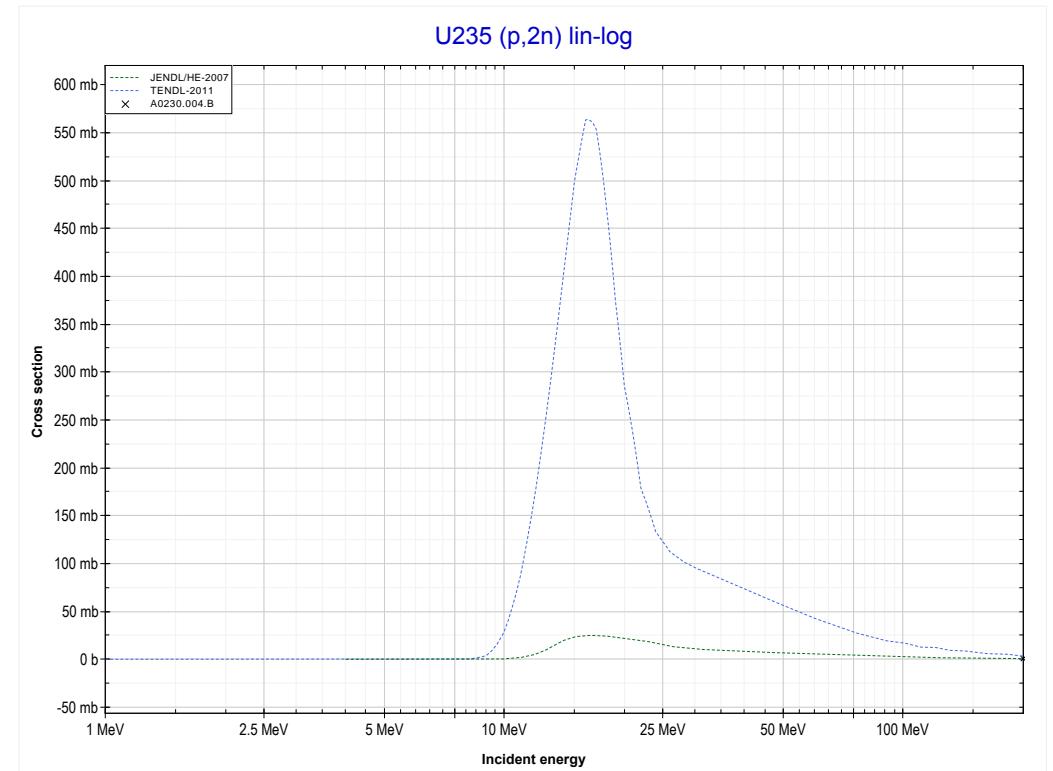
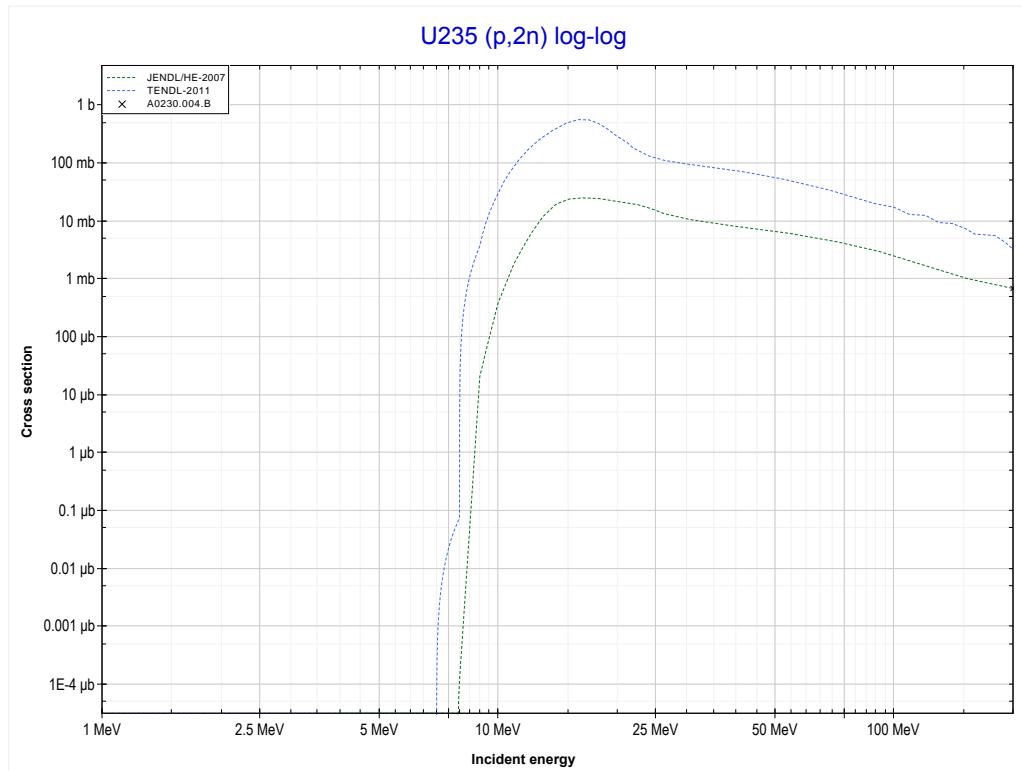
Reaction	Q-Value
Pa231(p,2n)U230	-7042.96 keV

<< 90-Th-232	92-U-235 MT4 (p,n) or MT5 (Np235 production)	92-U-236 >>
<< MT16 (p,2n)		MT16 (p,2n) >>



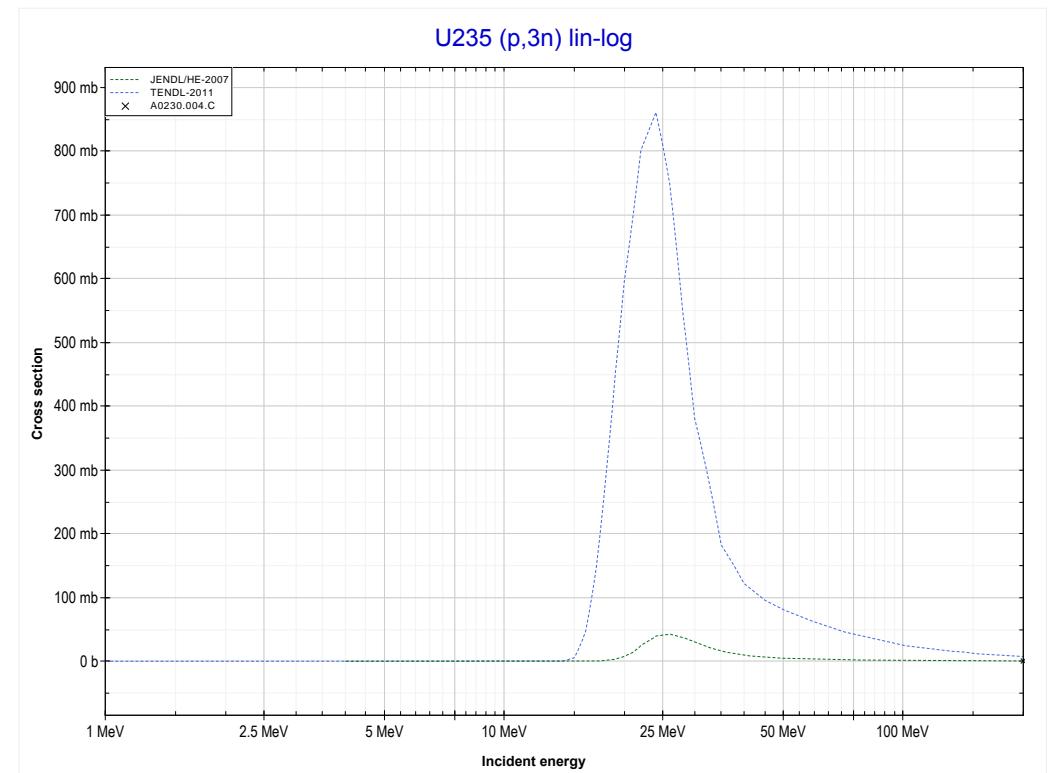
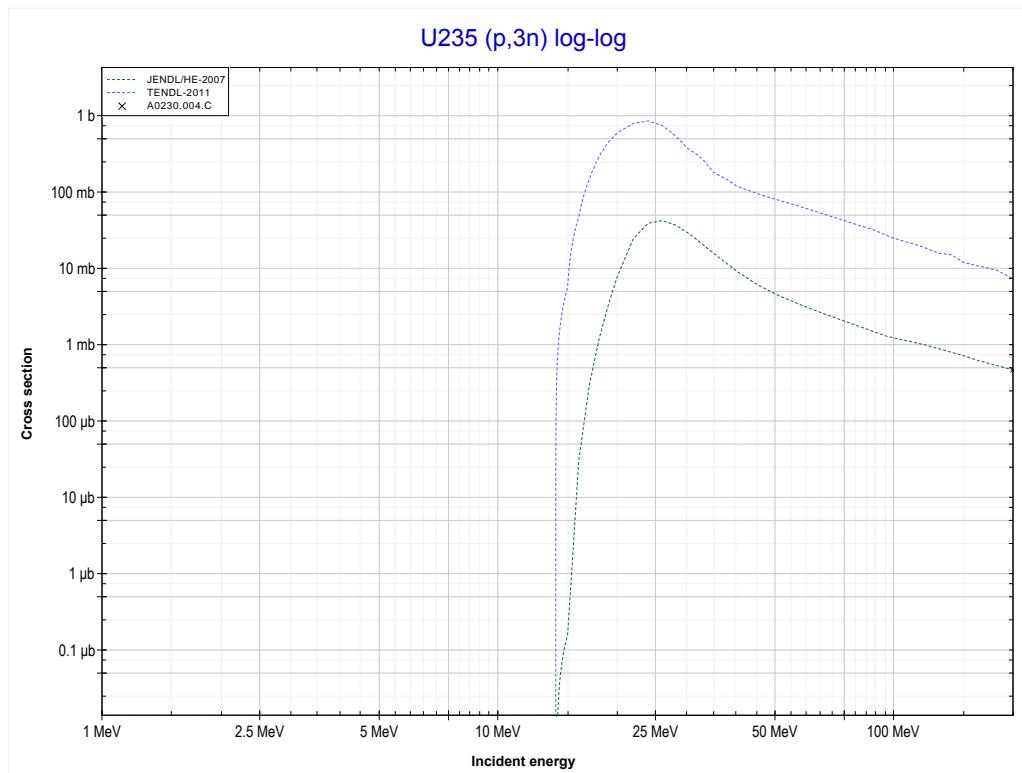
Reaction	Q-Value
U235(p,n)Np235	-906.55 keV

<< 91-Pa-231	92-U-235 MT16 (p,2n) or MT5 (Np234 production)	92-U-236 >>
<< MT4 (p,n)		MT17 (p,3n) >>



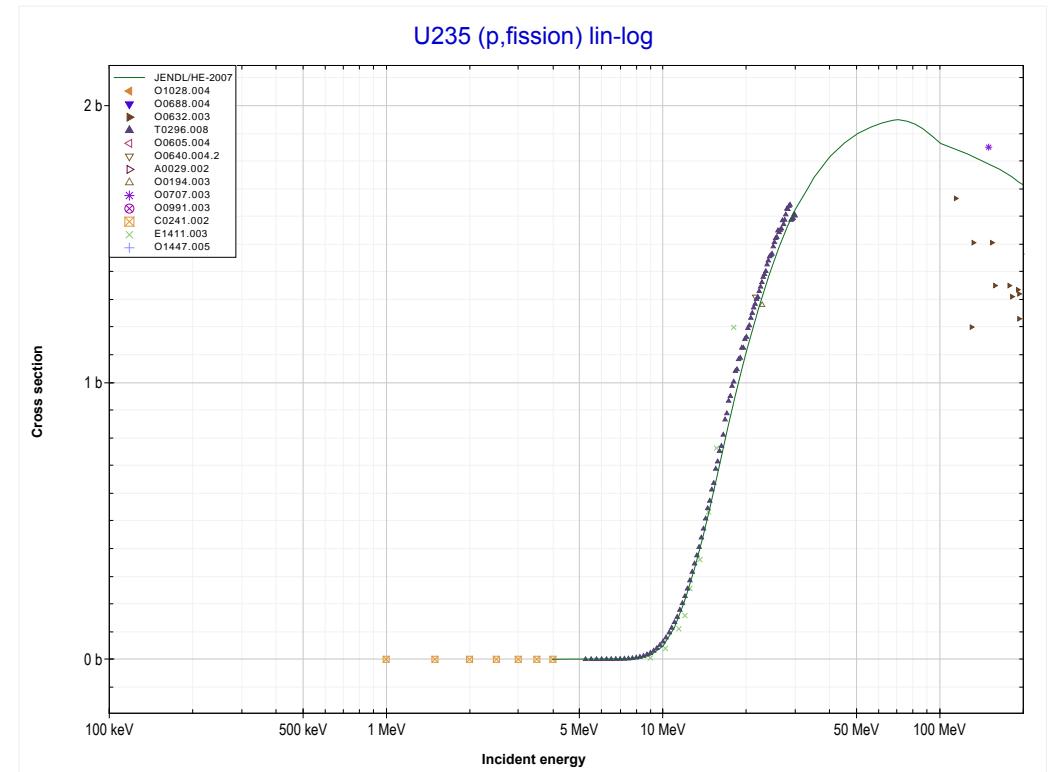
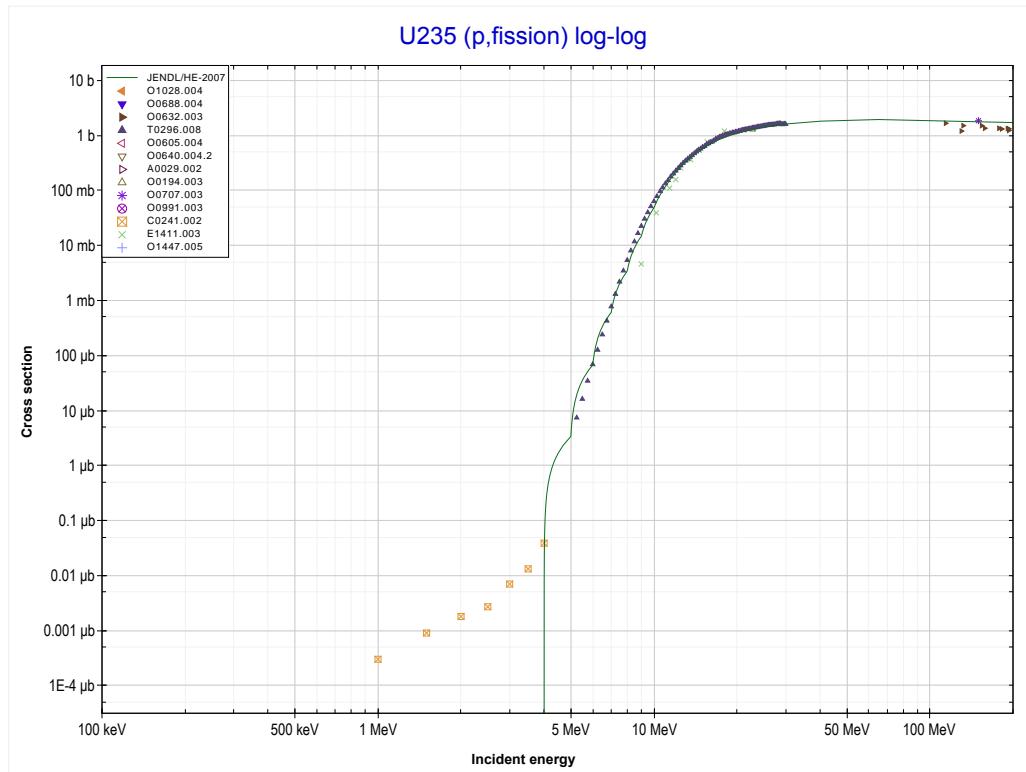
Reaction	Q-Value
U235(p,2n)Np234	-7889.16 keV

<< 90-Th-232	92-U-235 MT17 (p,3n) or MT5 (Np233 production)	92-U-236 >>
<< MT16 (p,2n)		MT18 (p,fission) >>

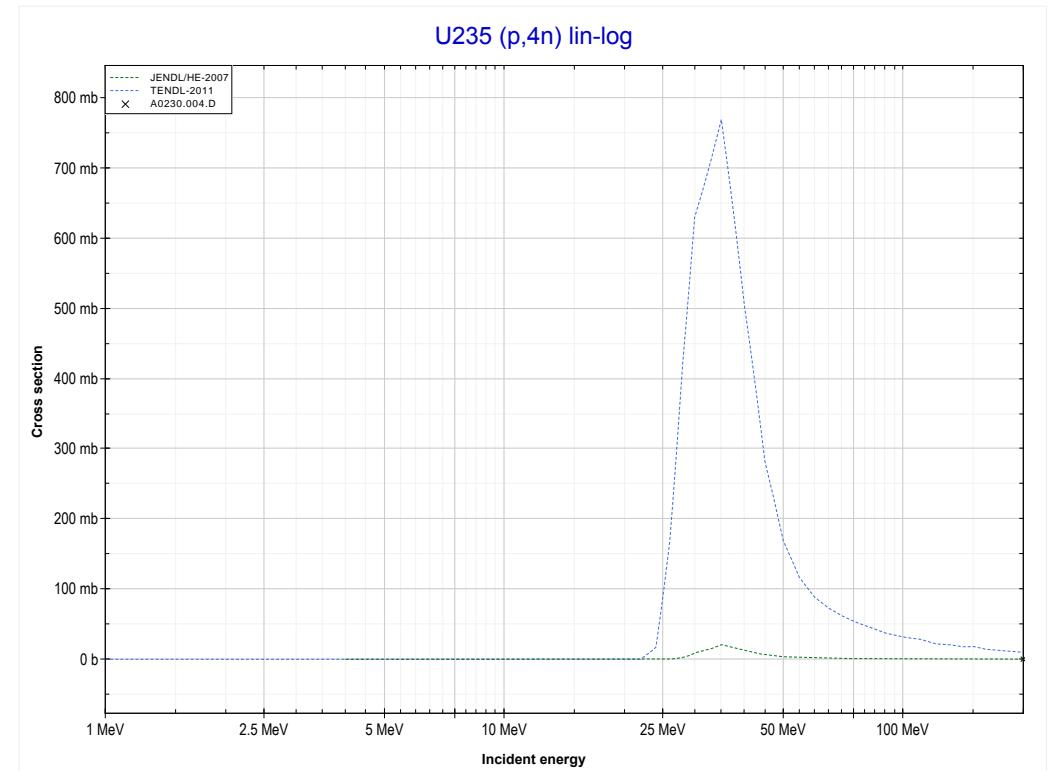
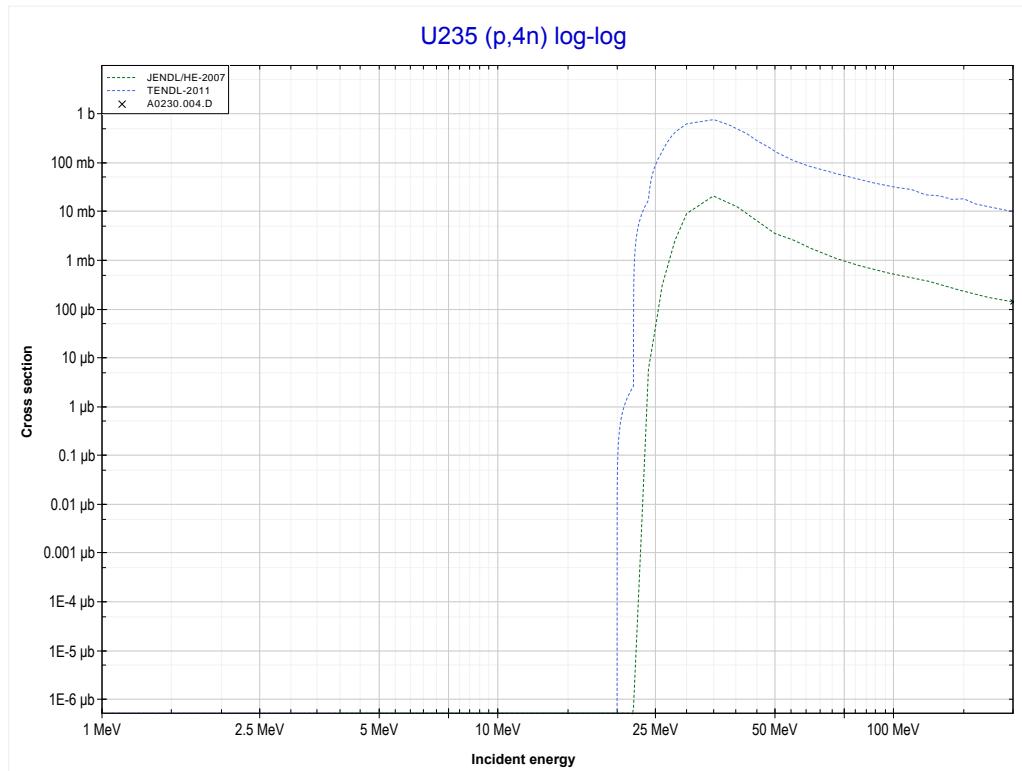


Reaction	Q-Value
U235(p,3n)Np233	-13954.48 keV

<< 83-Bi-209	92-U-235	92-U-238 >>
<< MT17 (p,3n)	MT18 (p,fission)	MT37 (p,4n) >>

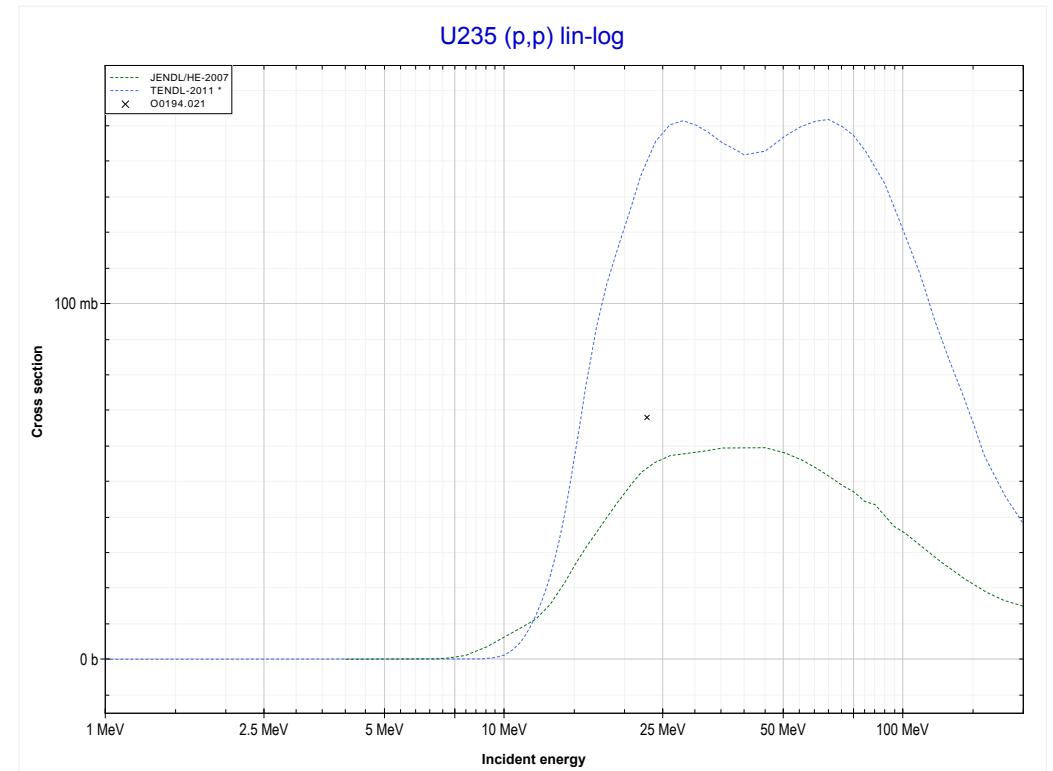
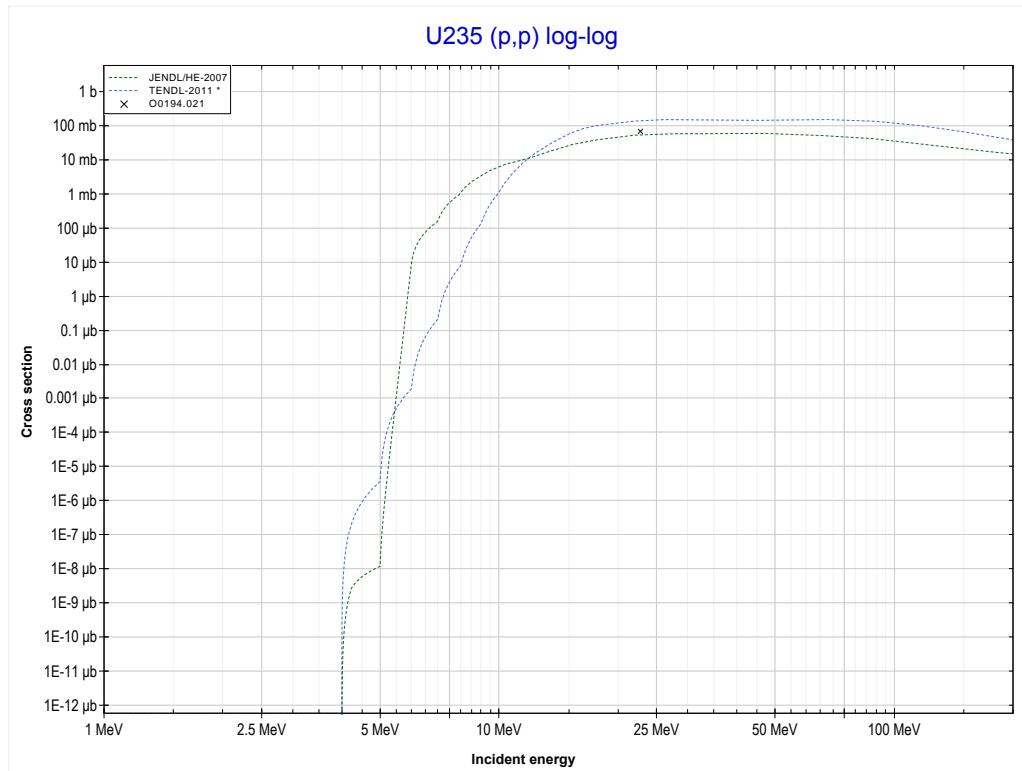


<< 90-Th-232	92-U-235 MT37 (p,4n) or MT5 (Np232 production)	92-U-238 >>
<< MT18 (p,fission)		MT103 (p,p) >>



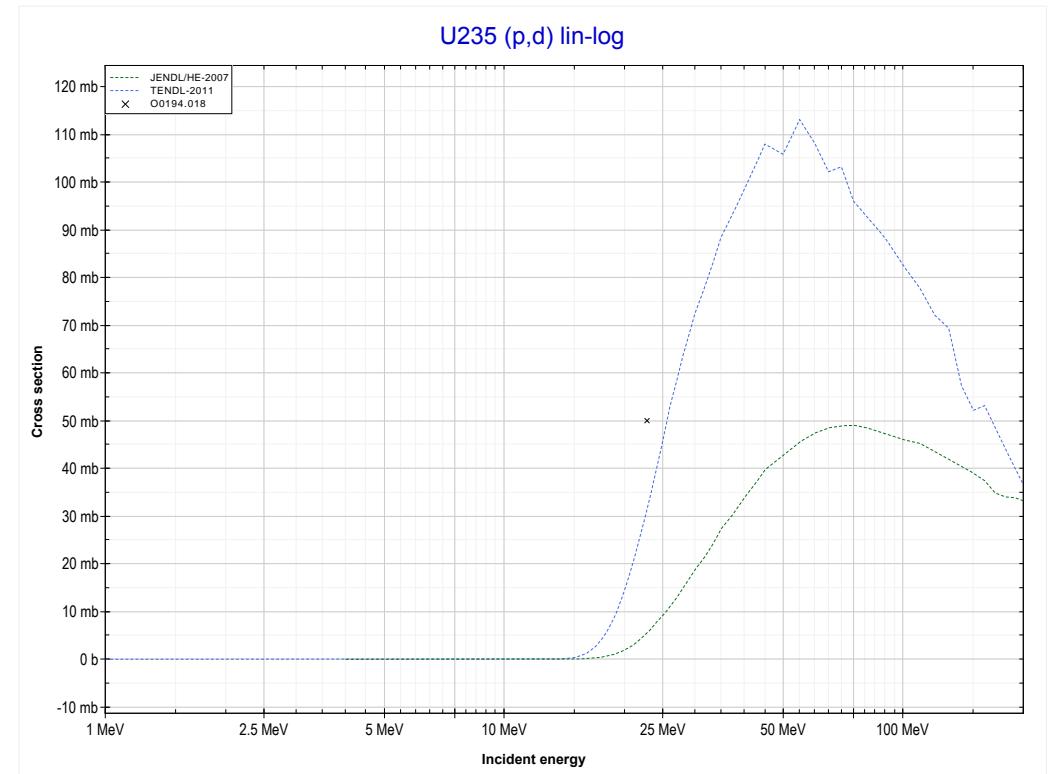
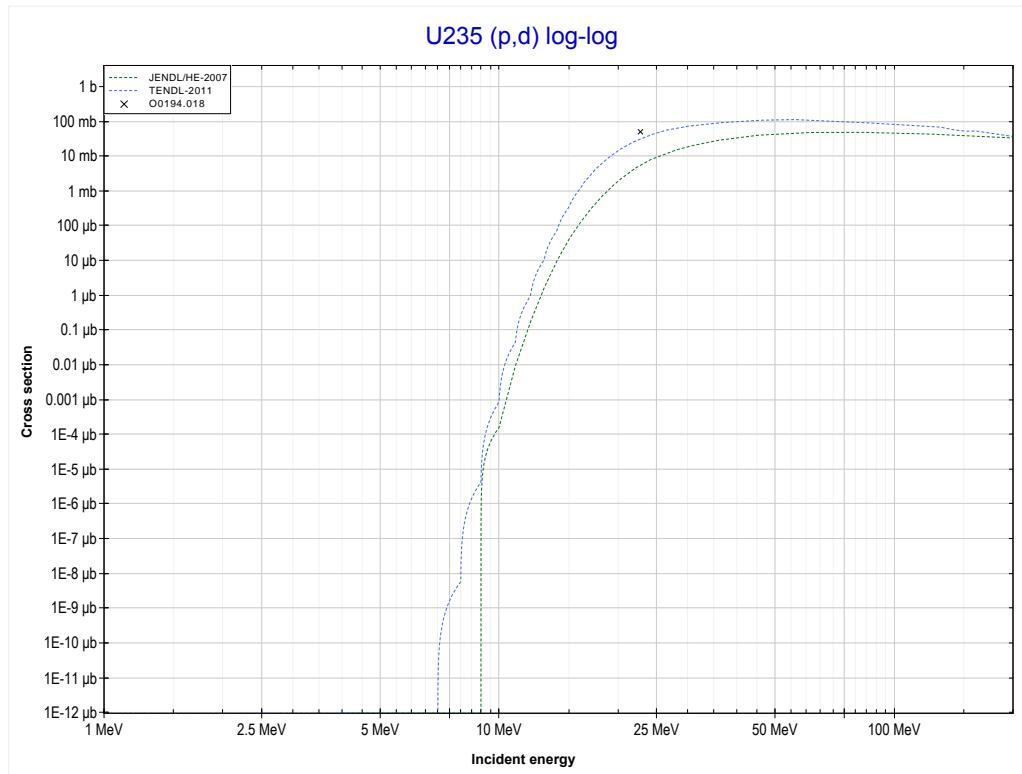
Reaction	Q-Value
U235(p,4n)Np232	-21435.80 keV

<< 67-Ho-165	92-U-235 MT103 (p,p) or MT5 (U235 production)	92-U-238 >>
<< MT37 (p,4n)		MT104 (p,d) >>



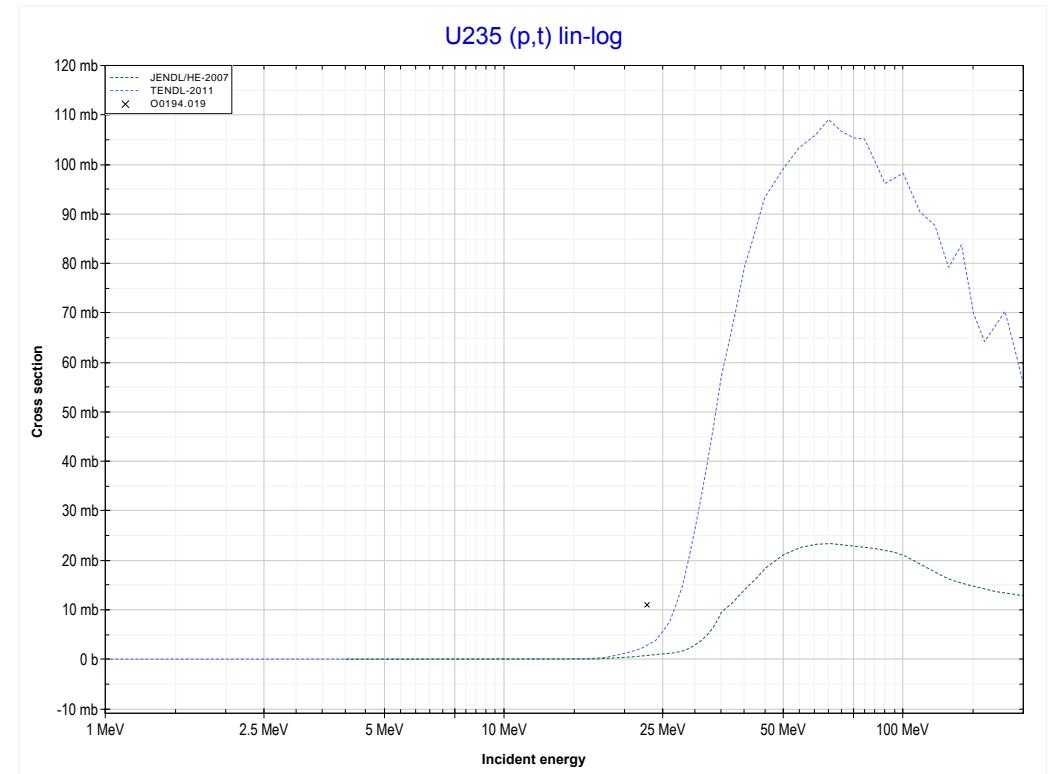
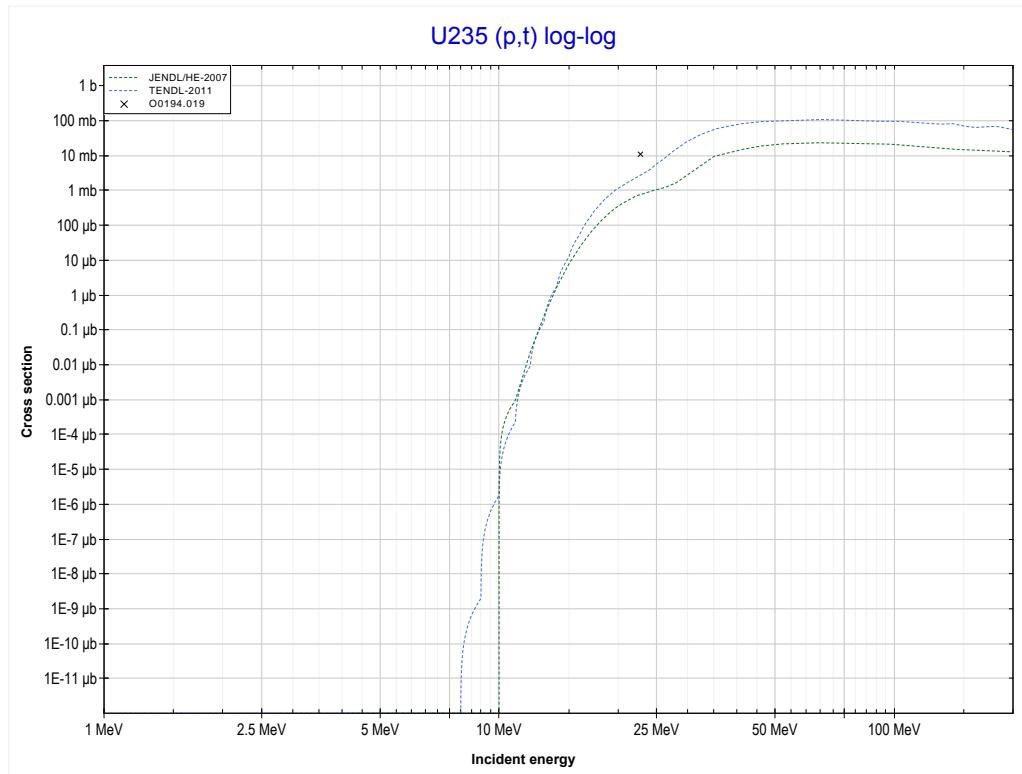
Reaction	Q-Value
U235(p,p)U235	0.00 keV

<< 90-Th-232	92-U-235 MT104 (p,d) or MT5 (U234 production)	92-U-238 >>
<< MT103 (p,p)		MT105 (p,t) >>



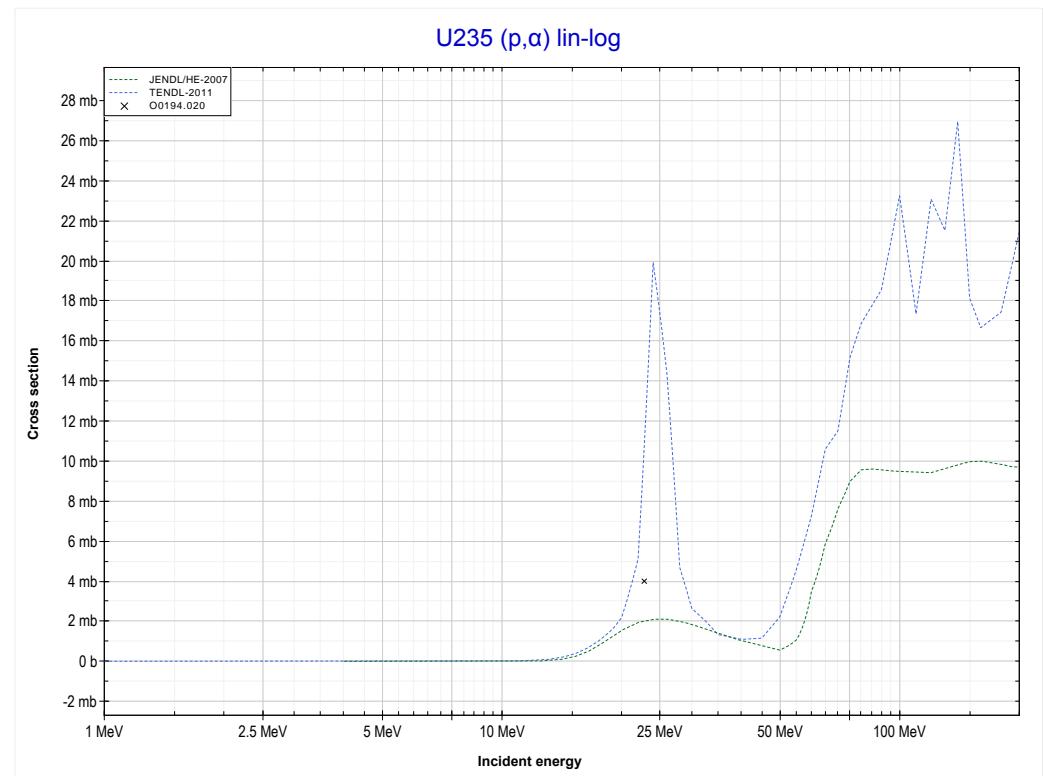
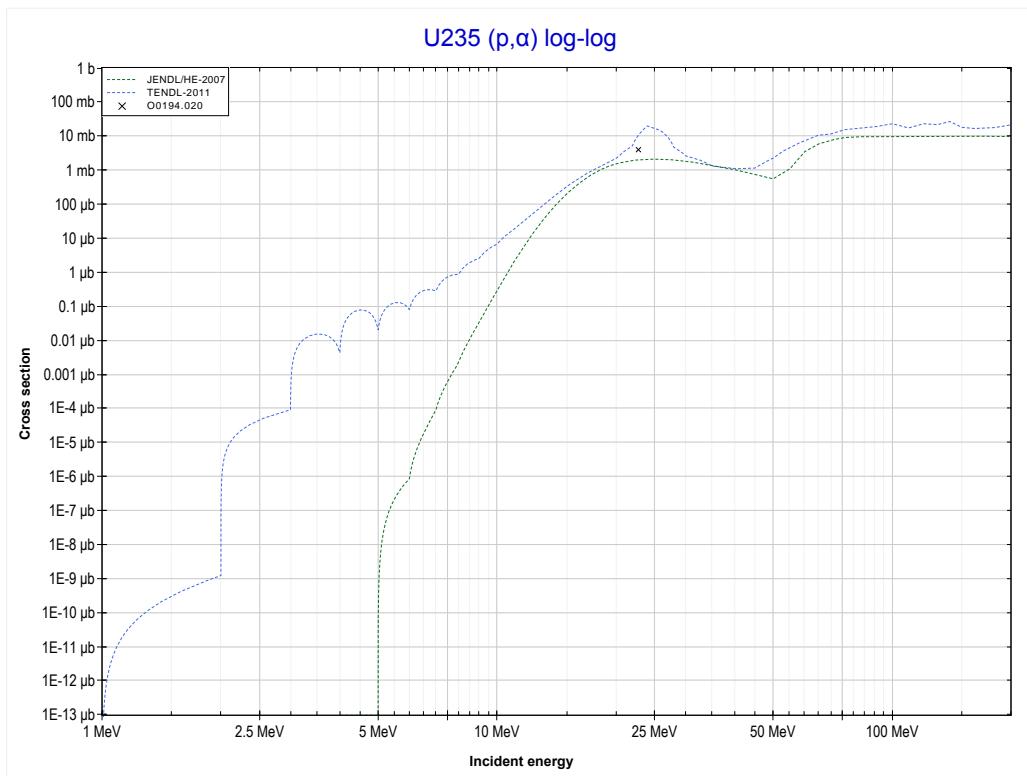
Reaction	Q-Value
U235(p,d)U234	-3072.85 keV
U235(p,n+p)U234	-5297.42 keV

<< 26-Fe-54	92-U-235 MT105 (p,t) or MT5 (U233 production)	92-U-238 >>
<< MT104 (p,d)		MT107 (p, α) >>



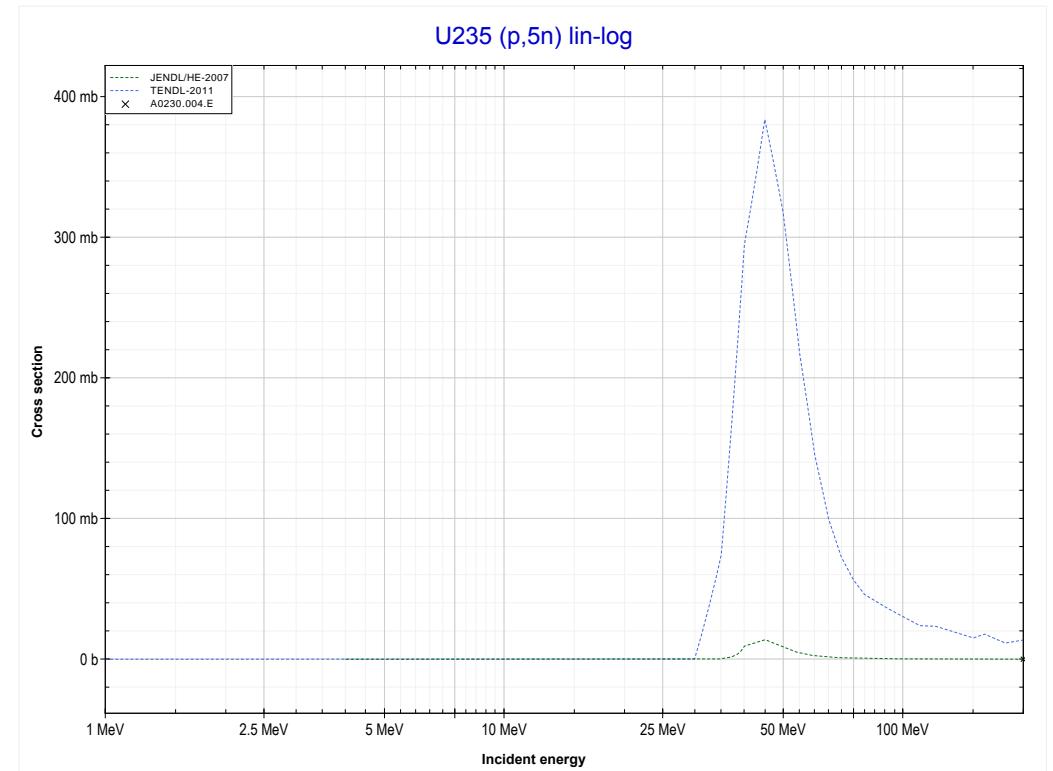
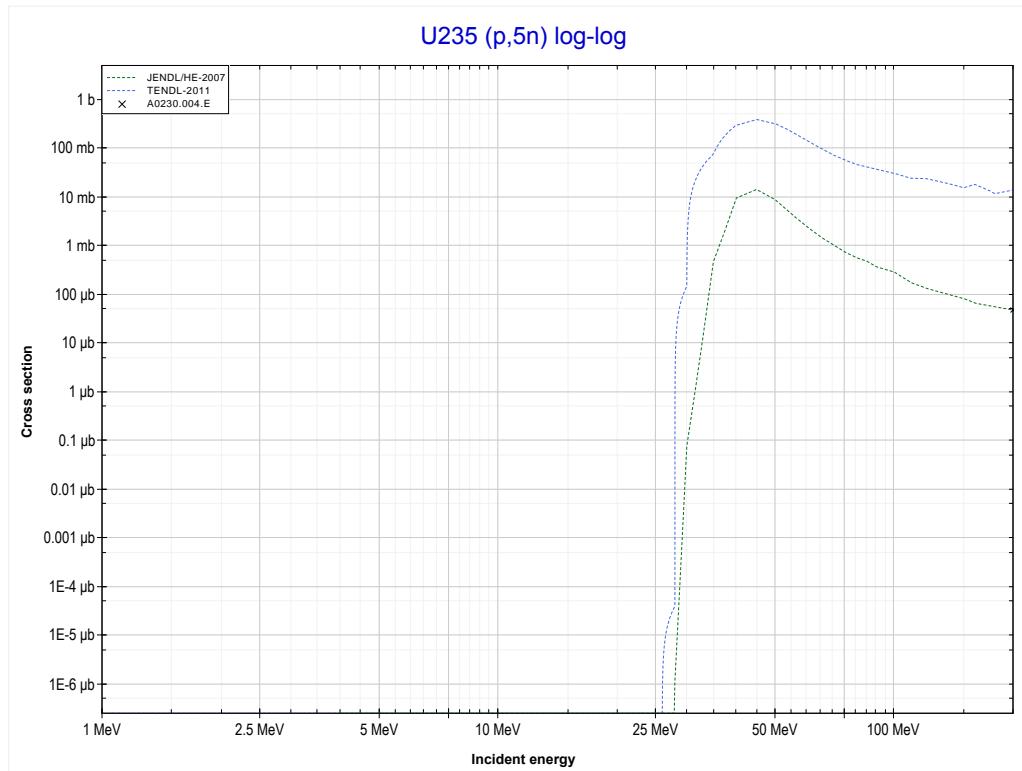
Reaction	Q-Value
U235(p,t)U233	-3660.34 keV
U235(p,n+d)U233	-9917.57 keV
U235(p,2n+p)U233	-12142.13 keV

<< 90-Th-232	92-U-235 MT107 (p,α) or MT5 (Pa232 production)	92-U-238 >>
<< MT105 (p,t)		MT152 ($p,5n$) >>



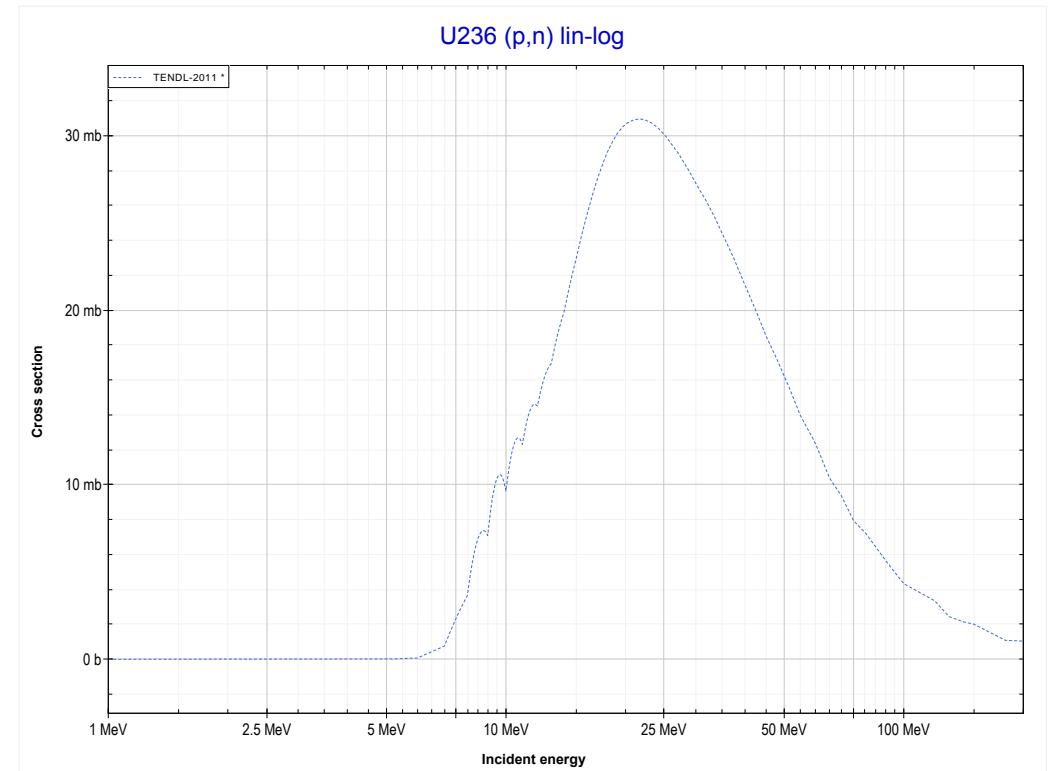
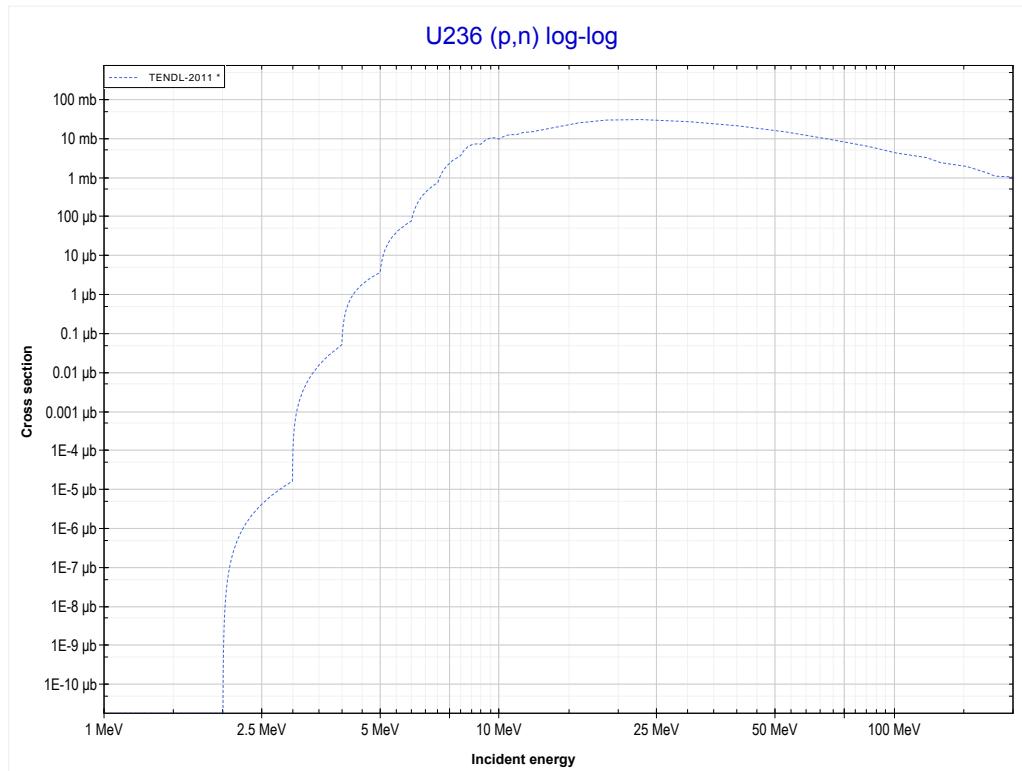
Reaction	Q-Value
U235(p,α)Pa232	9836.55 keV
U235($p,p+t$)Pa232	-9977.31 keV
U235($p,n+He3$)Pa232	-10741.06 keV
U235($p,2d$)Pa232	-14009.97 keV
U235($p,n+p+d$)Pa232	-16234.54 keV
U235($p,2n+2p$)Pa232	-18459.10 keV

<< 90-Th-232	92-U-235 MT152 ($p,5n$) or MT5 (Np231 production)	92-U-238 >>
<< MT107 (p,α)		MT4 (p,n) >>



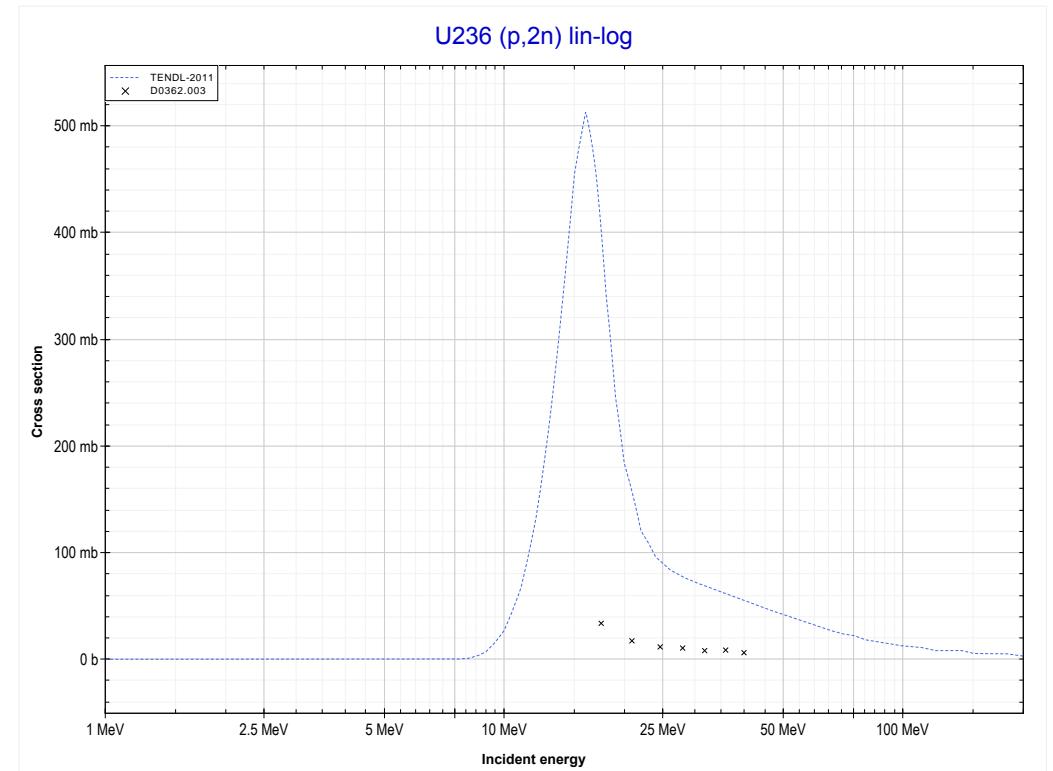
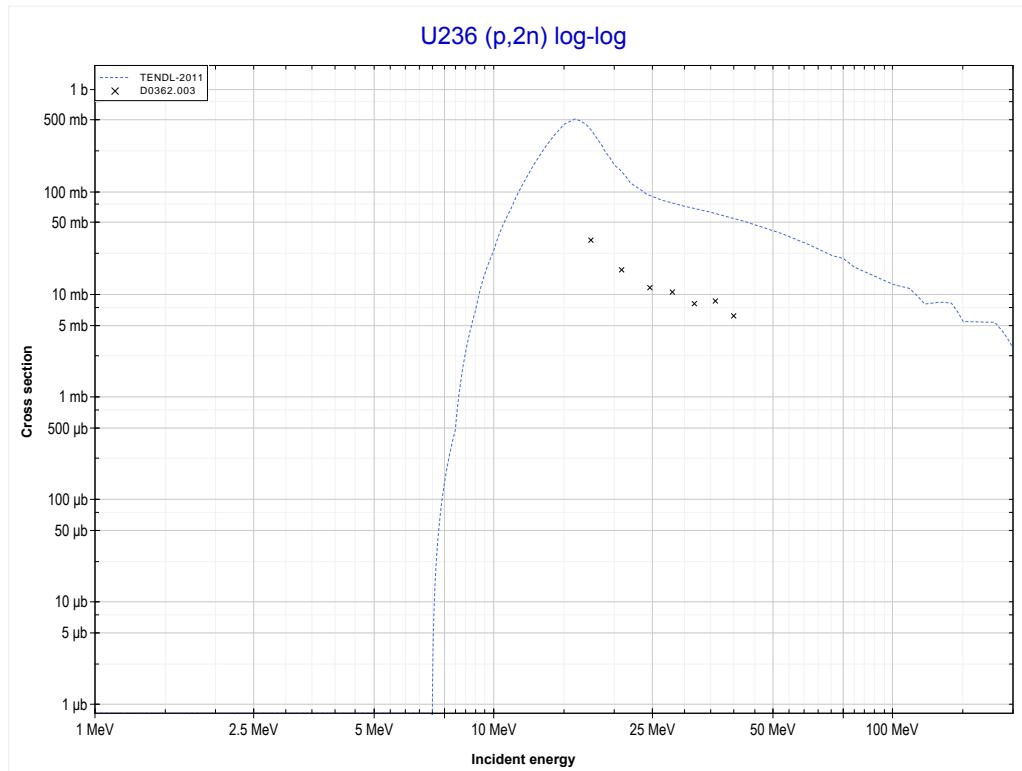
Reaction	Q-Value
$^{235}\text{U}(\text{p},5\text{n})\text{Np231}$	-27777.11 keV

<< 92-U-235	92-U-236 MT4 (p,n) or MT5 (Np236 production)	92-U-238 >>
<< MT152 (p,5n)		MT16 (p,2n) >>



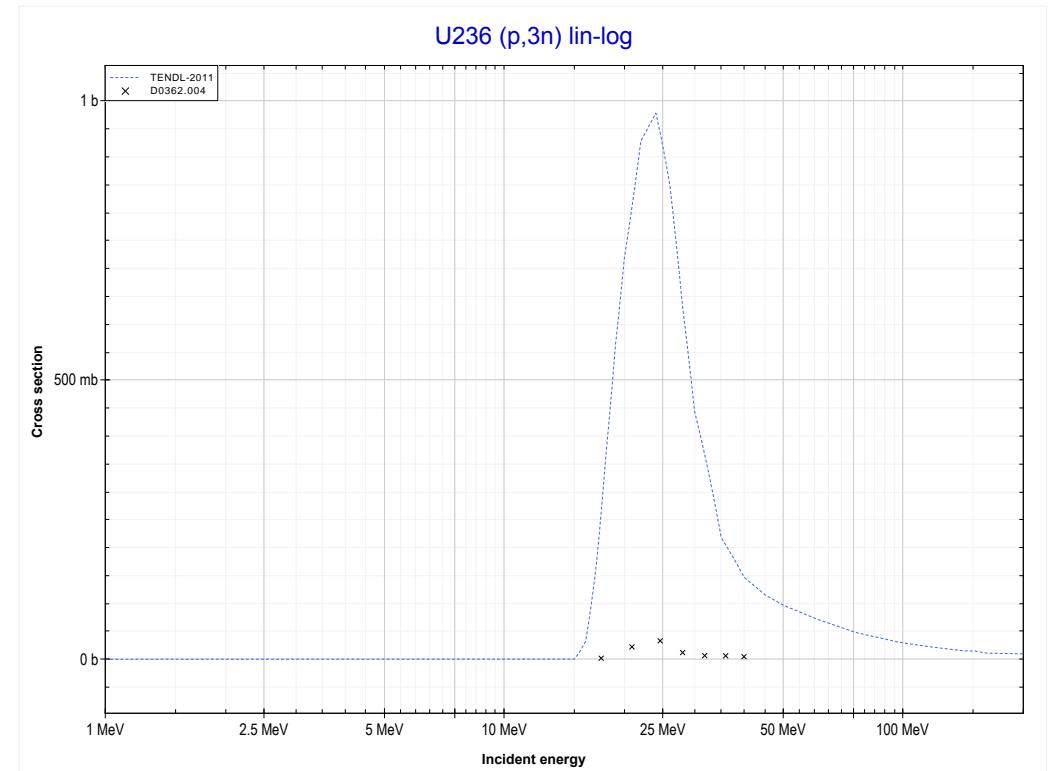
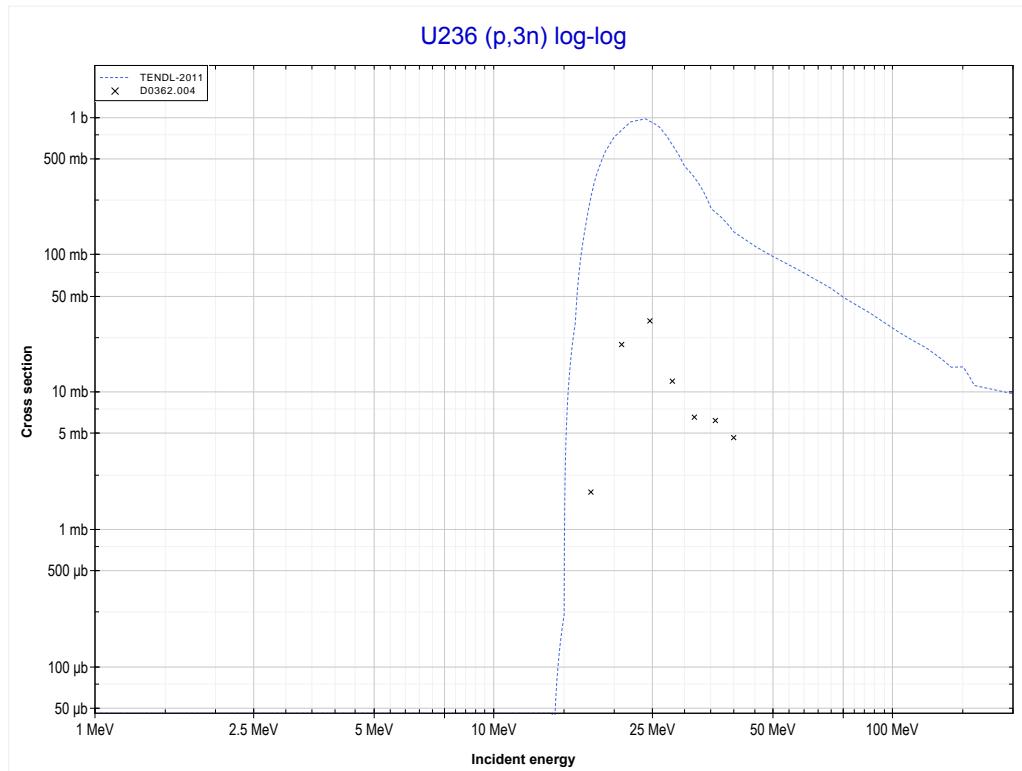
Reaction	Q-Value
U236(p,n)Np236	-1716.05 keV

<< 92-U-235	92-U-236 MT16 (p,2n) or MT5 (Np235 production)	>> 95-Am-241
<< MT4 (p,n)		>> MT17 (p,3n) >>



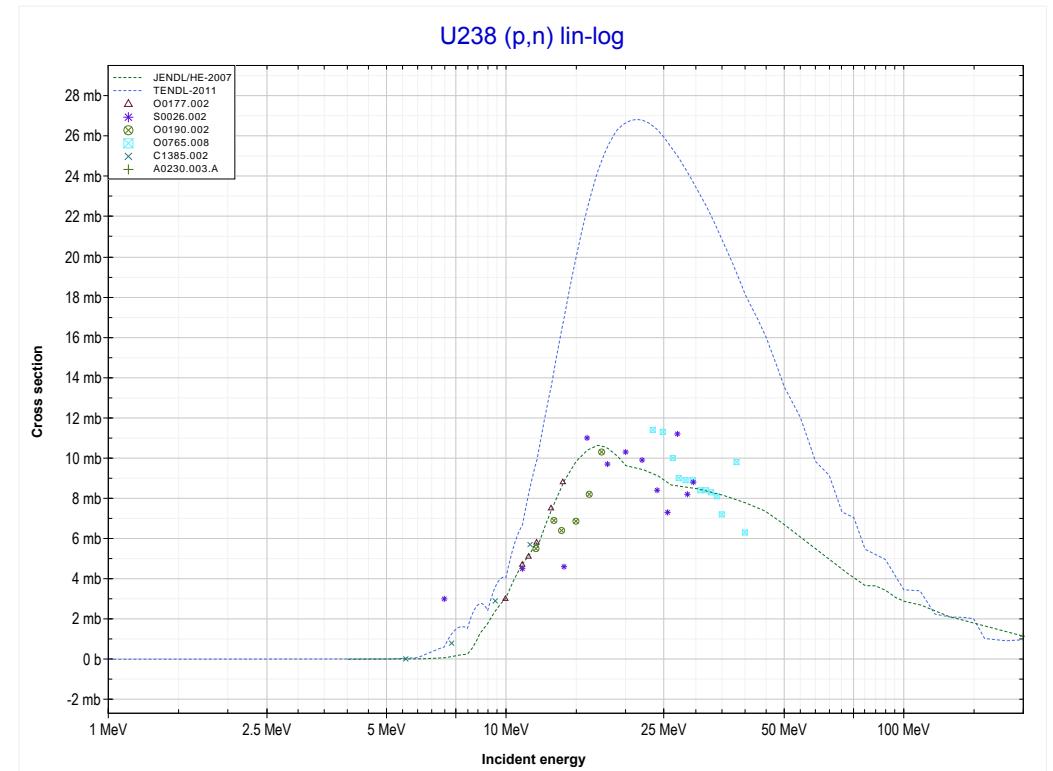
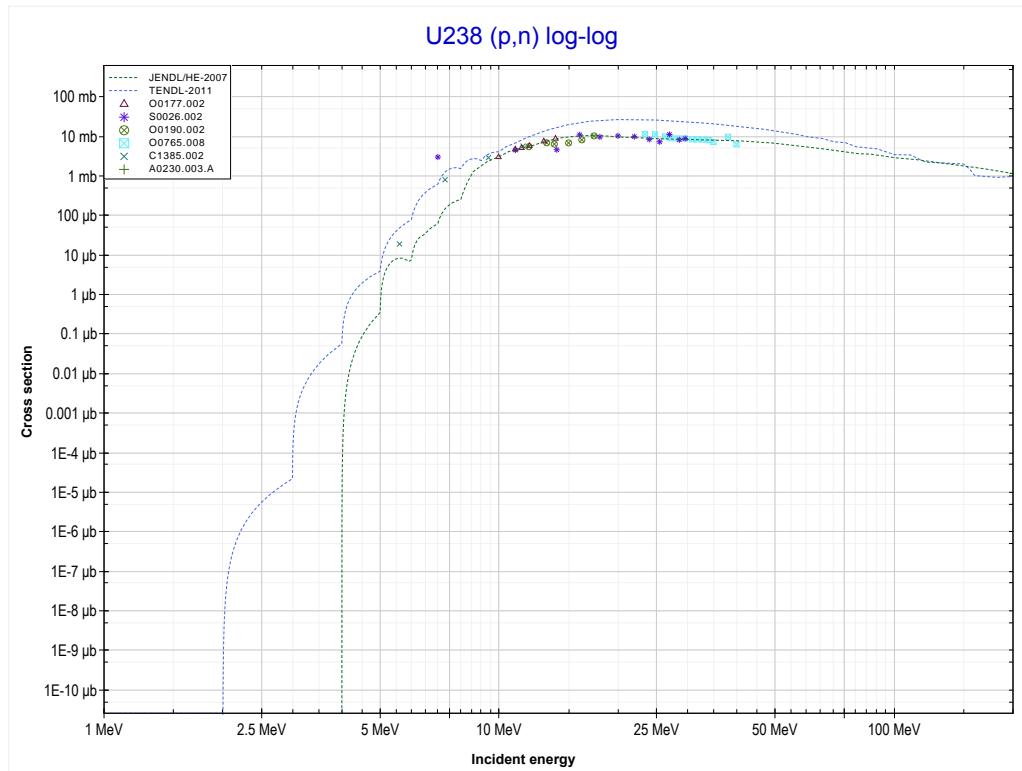
Reaction	Q-Value
U236(p,2n)Np235	-7452.06 keV

<< 92-U-235	92-U-236 MT17 (p,3n) or MT5 (Np234 production)	92-U-238 >>
<< MT16 (p,2n)		MT4 (p,n) >>

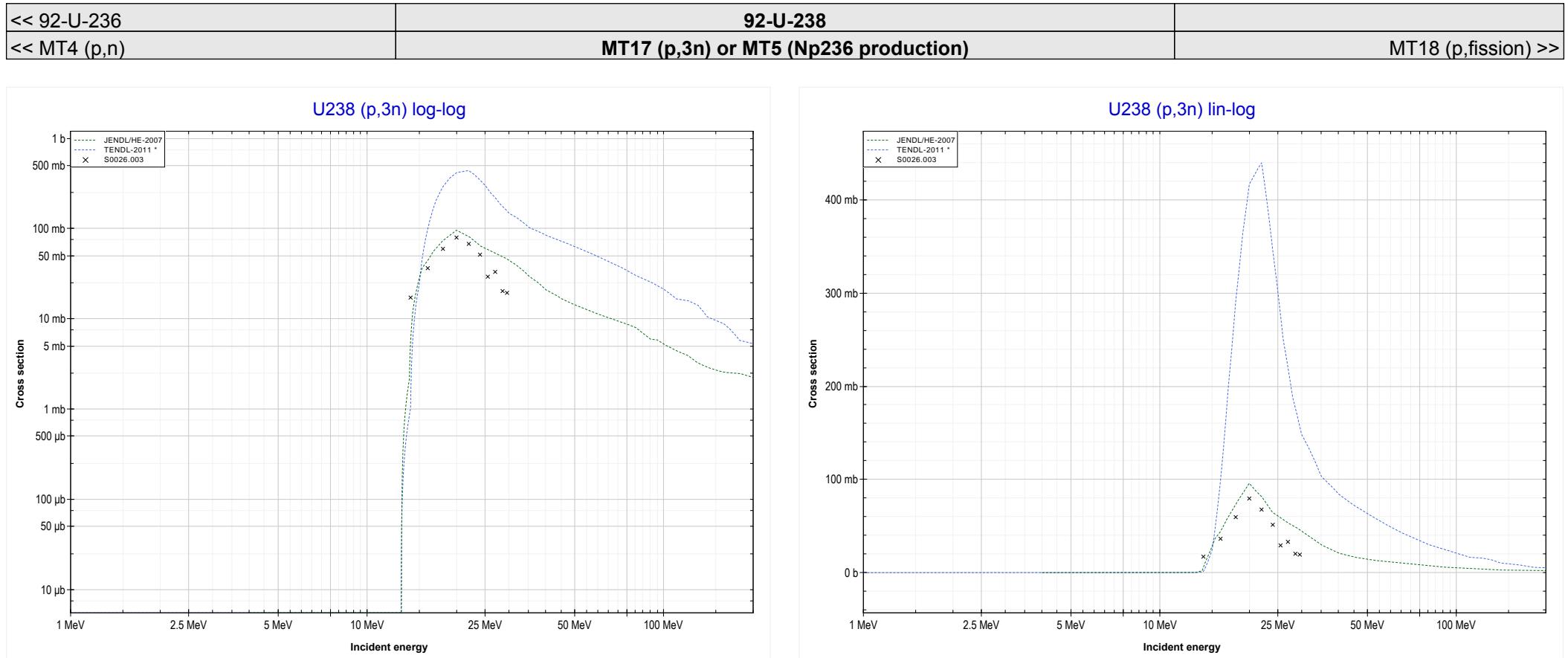


Reaction	Q-Value
U236(p,3n)Np234	-14434.68 keV

<< 92-U-236	92-U-238	93-Np-237 >>
<< MT17 (p,3n)	MT4 (p,n) or MT5 (Np238 production)	MT17 (p,3n) >>

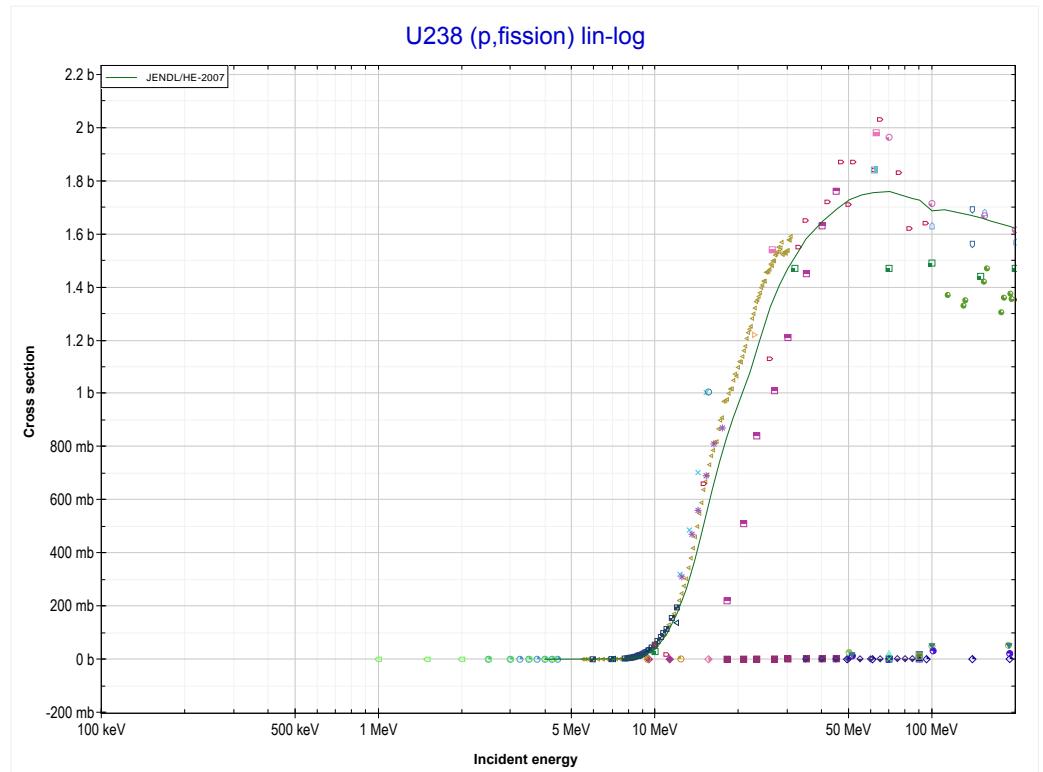
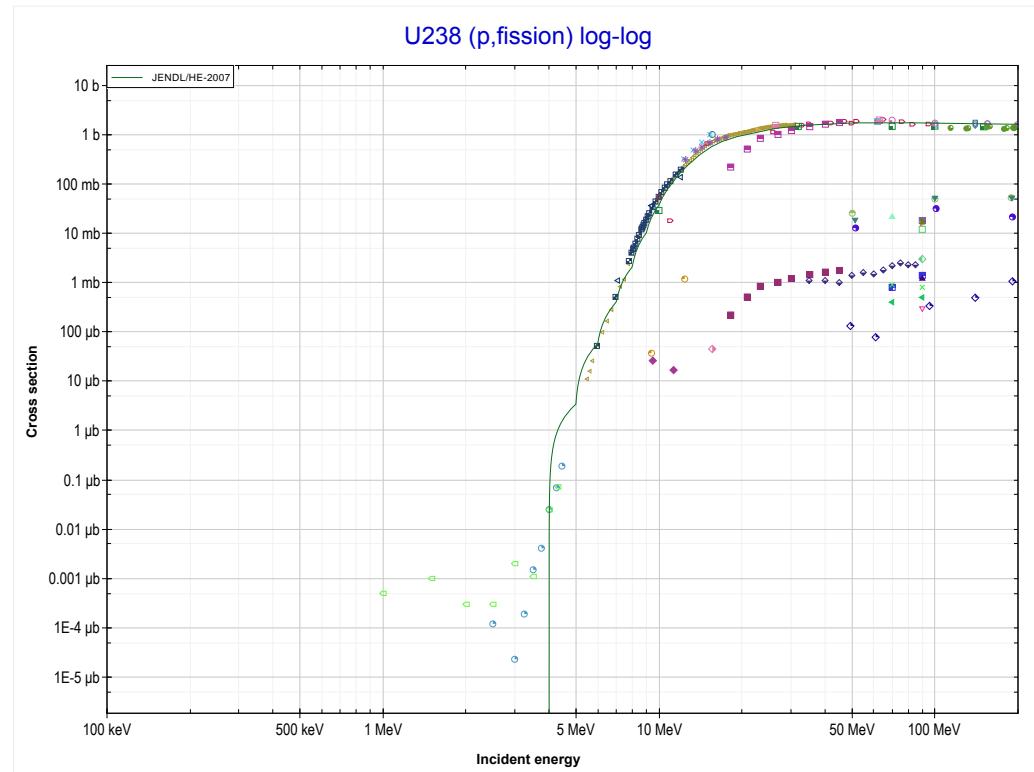


Reaction	Q-Value
U238(p,n)Np238	-929.75 keV

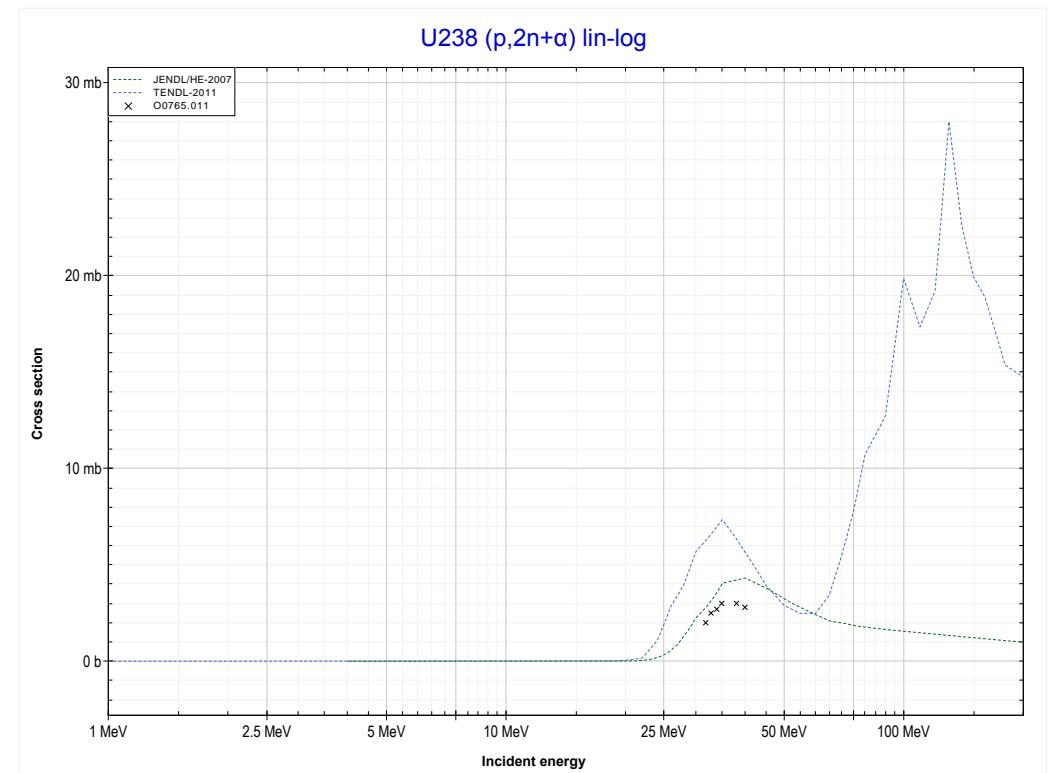
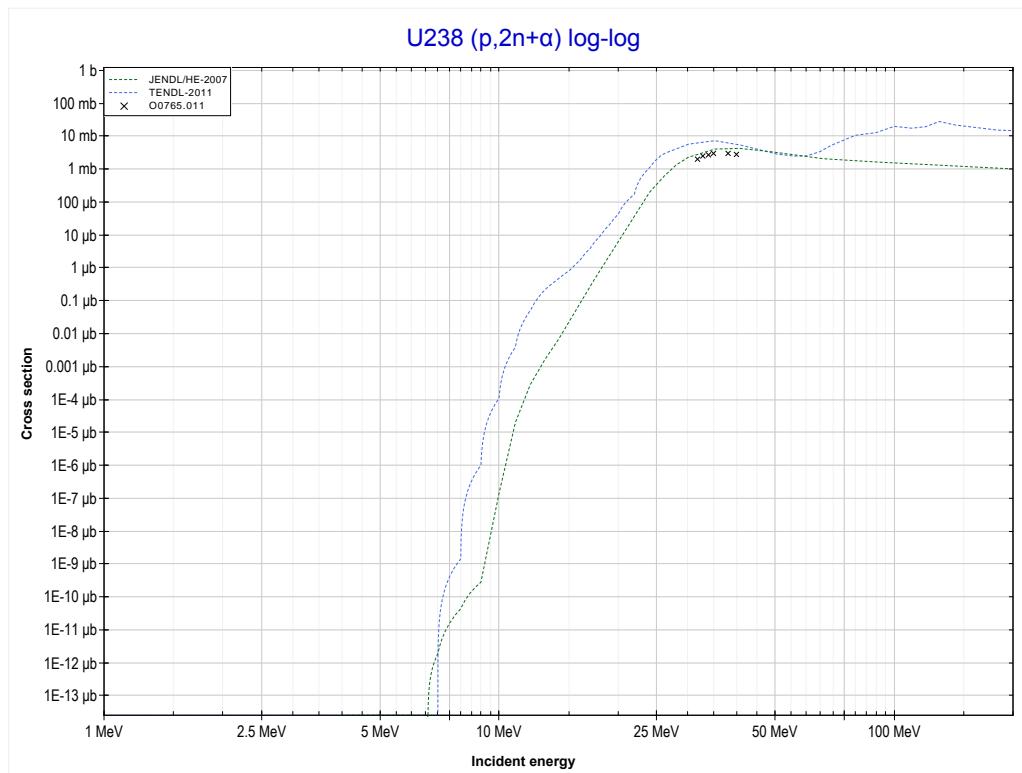


Reaction	Q-Value
U238(p,3n)Np236	-12996.08 keV

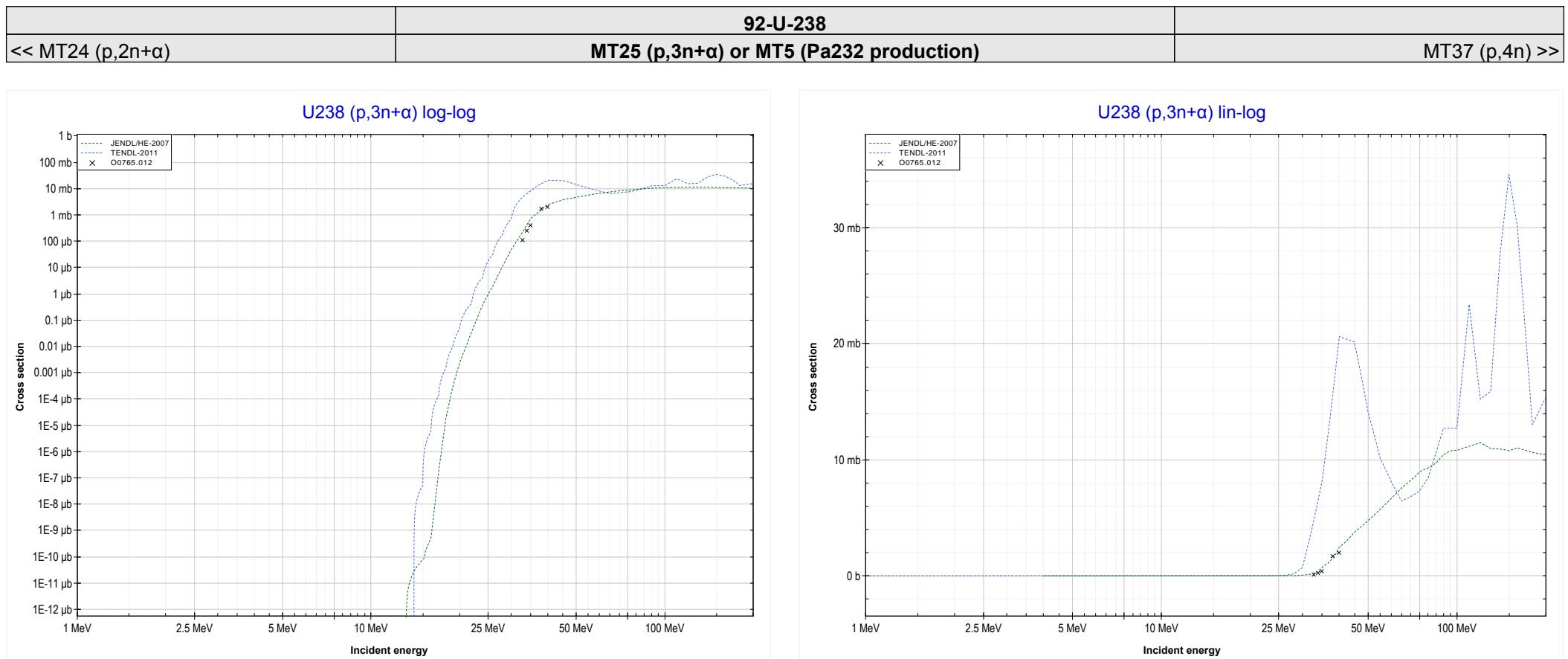
<< 92-U-235	92-U-238 MT18 (p,fission)	93-Np-237 >>
<< MT17 (p,3n) >>		MT24 (p,2n+α) >>



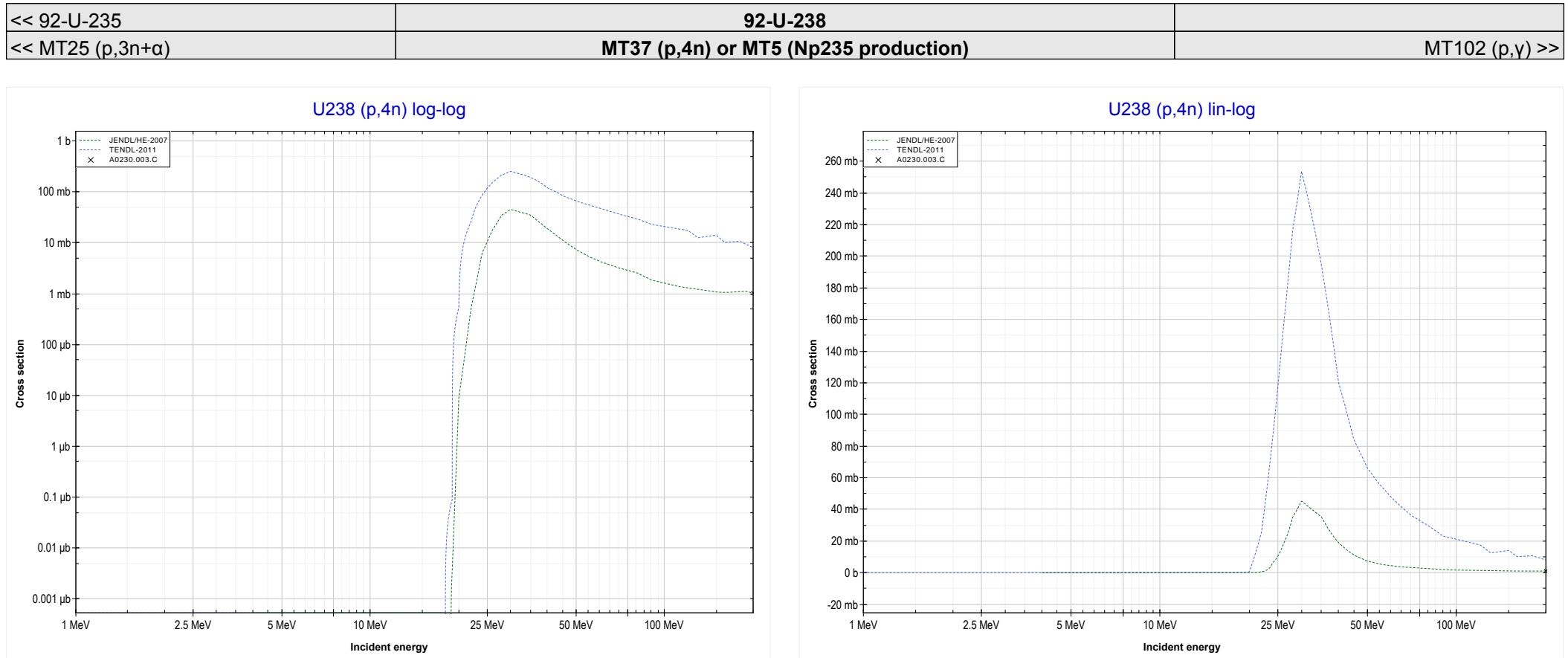
<< 54-Xe-124	92-U-238	
<< MT18 (p,fission)	MT24 (p,2n+α) or MT5 (Pa233 production)	MT25 (p,3n+α) >>



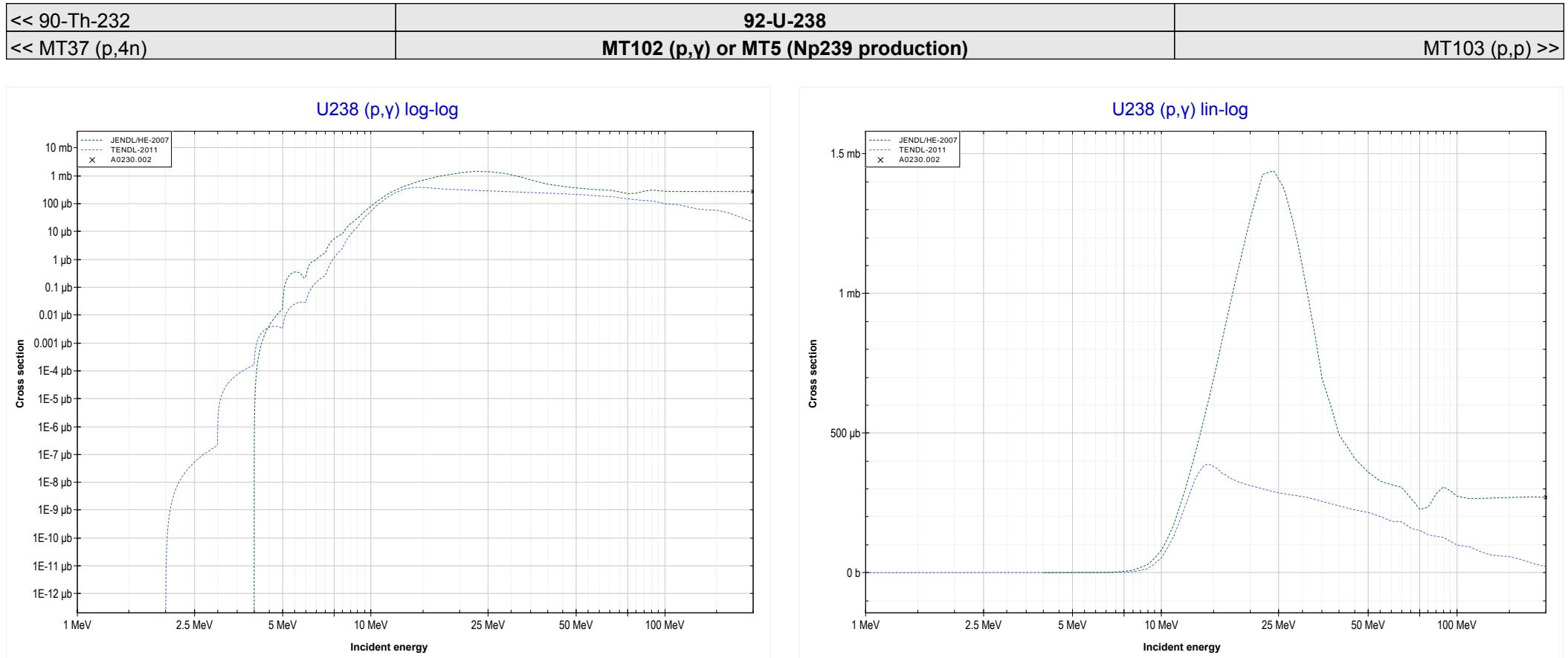
Reaction	Q-Value
U238(p,2n+α)Pa233	-1459.78 keV
U238(p,2t)Pa233	-12791.84 keV
U238(p,n+d+t)Pa233	-19049.07 keV
U238(p,2n+p+t)Pa233	-21273.64 keV
U238(p,3n+He3)Pa233	-22037.40 keV
U238(p,2n+2d)Pa233	-25306.31 keV
U238(p,3n+p+d)Pa233	-27530.87 keV
U238(p,4n+2p)Pa233	-29755.44 keV



Reaction	Q-Value
U238(p,3n+α)Pa232	-7989.00 keV
U238(p,n+2t)Pa232	-19321.06 keV
U238(p,2n+d+t)Pa232	-25578.29 keV
U238(p,3n+p+t)Pa232	-27802.86 keV
U238(p,4n+He3)Pa232	-28566.61 keV
U238(p,3n+2d)Pa232	-31835.52 keV
U238(p,4n+p+d)Pa232	-34060.09 keV
U238(p,5n+2p)Pa232	-36284.66 keV

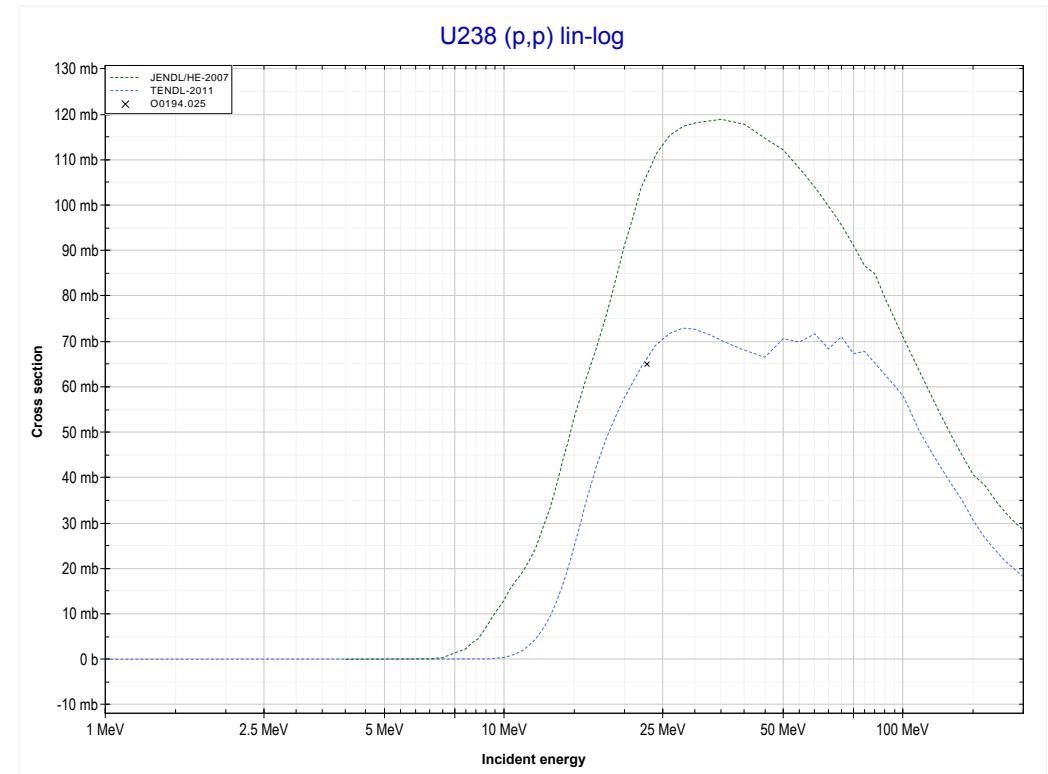
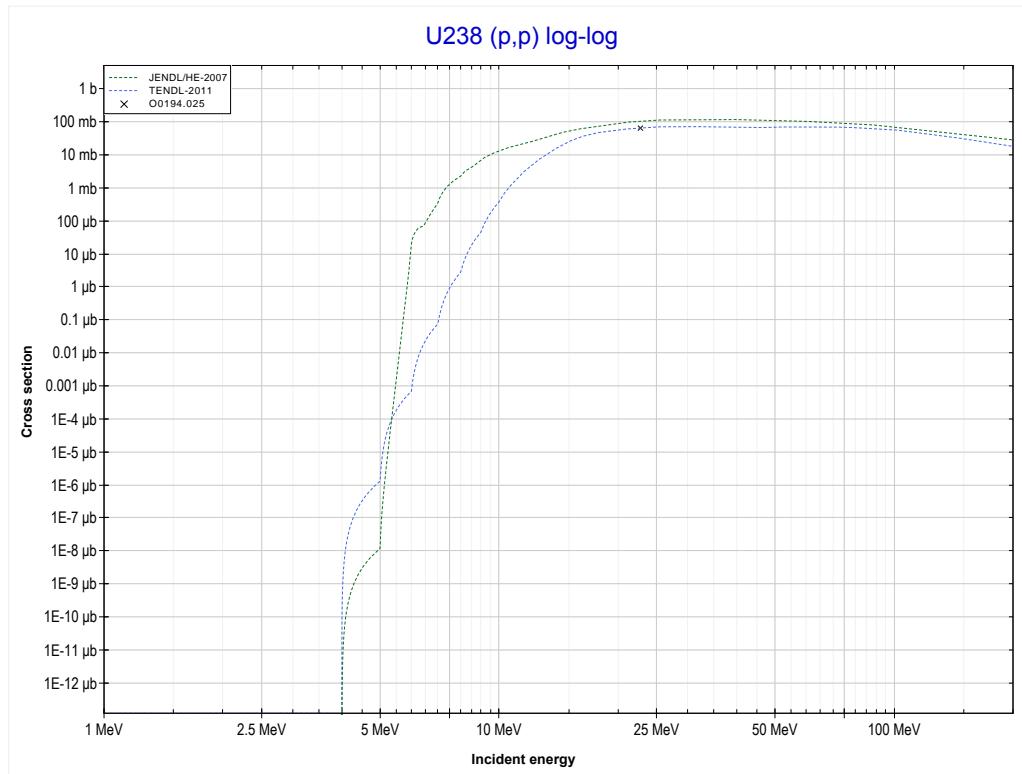


Reaction	Q-Value
U238(p,4n)Np235	-18732.10 keV



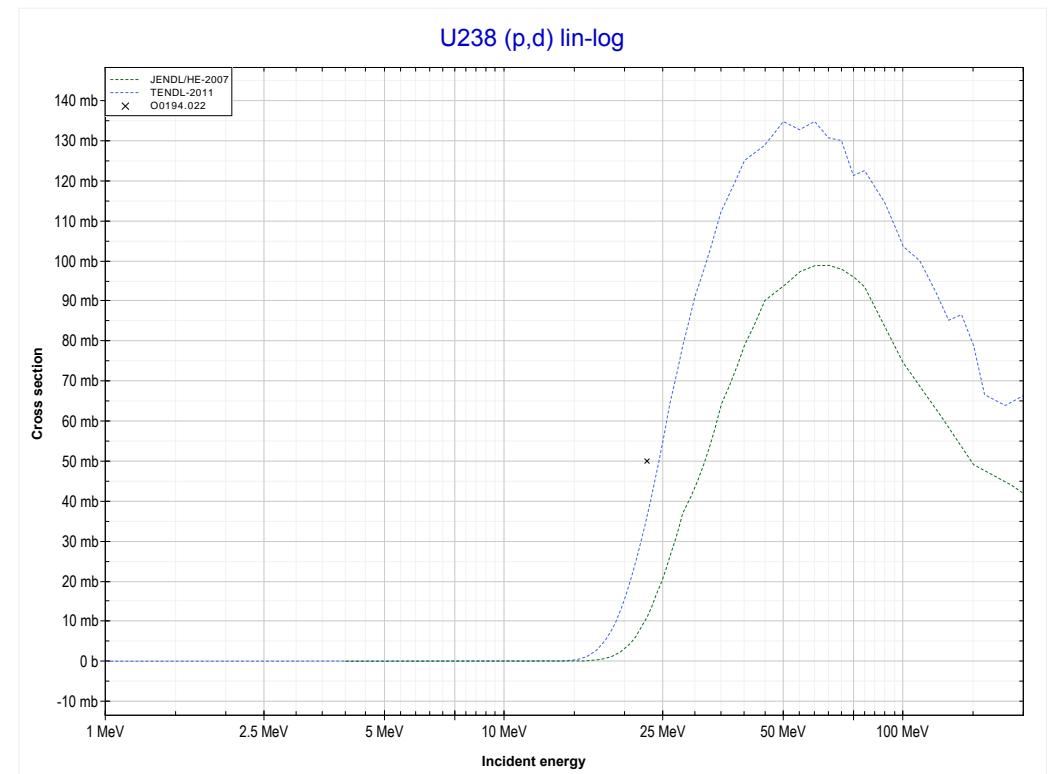
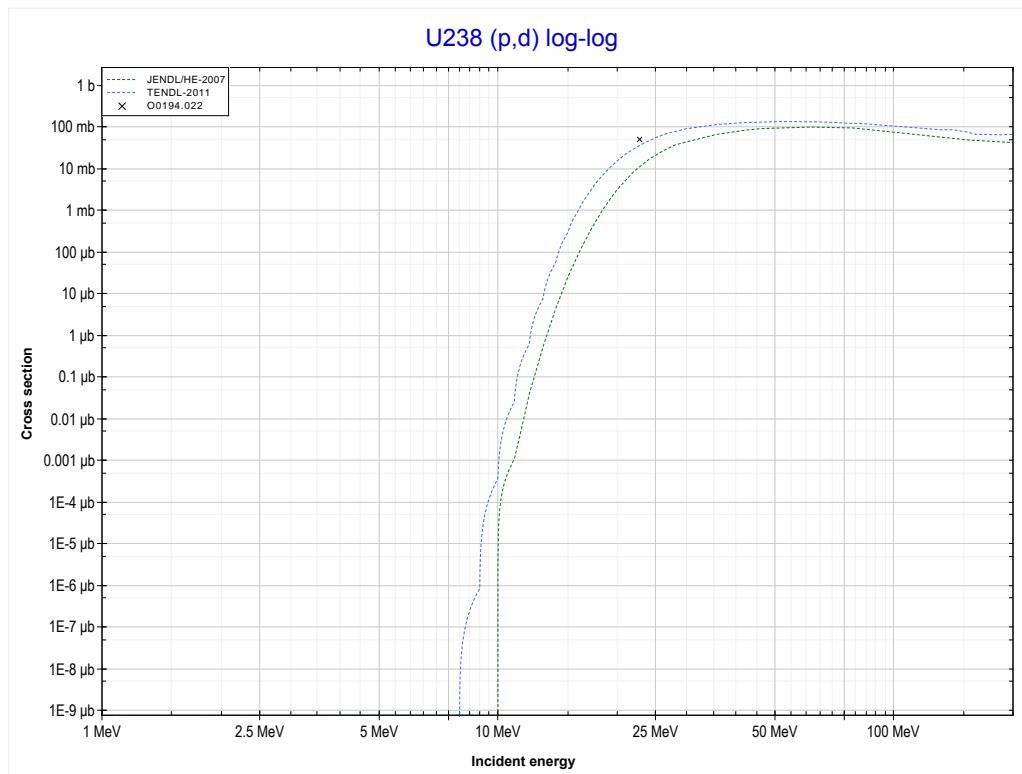
Reaction	Q-Value
U238(p, γ)Np239	5285.47 keV

<< 92-U-235	92-U-238	
<< MT102 (p, γ)	MT103 (p,p) or MT5 (U238 production)	MT104 (p,d) >>



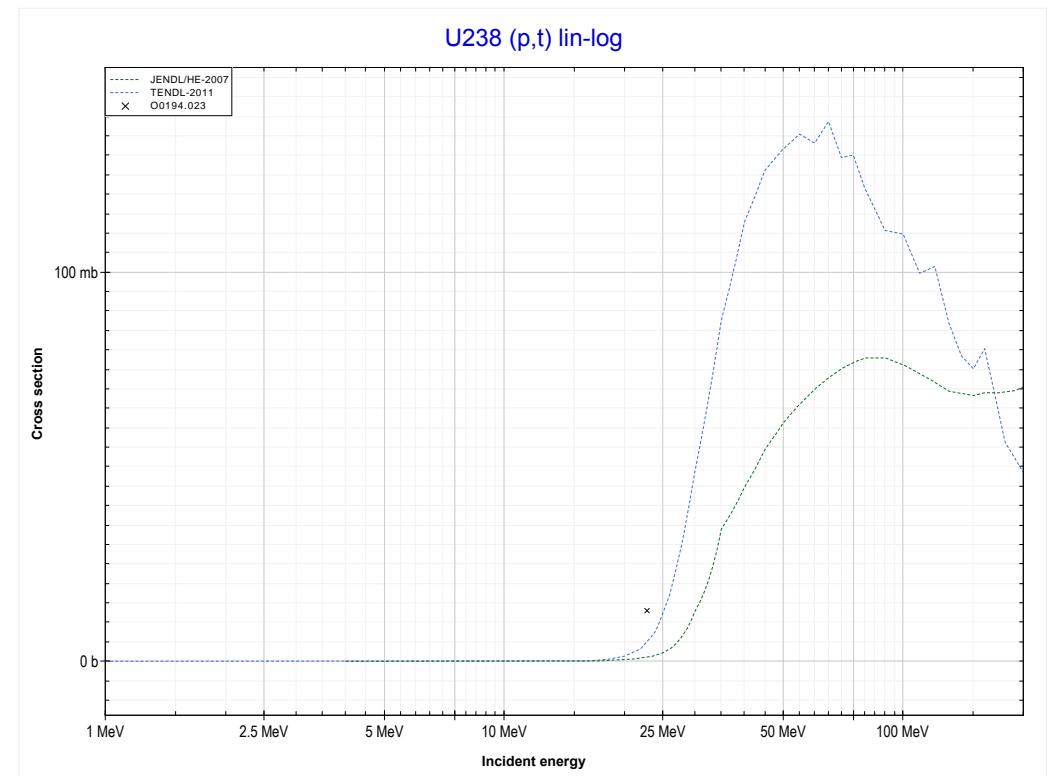
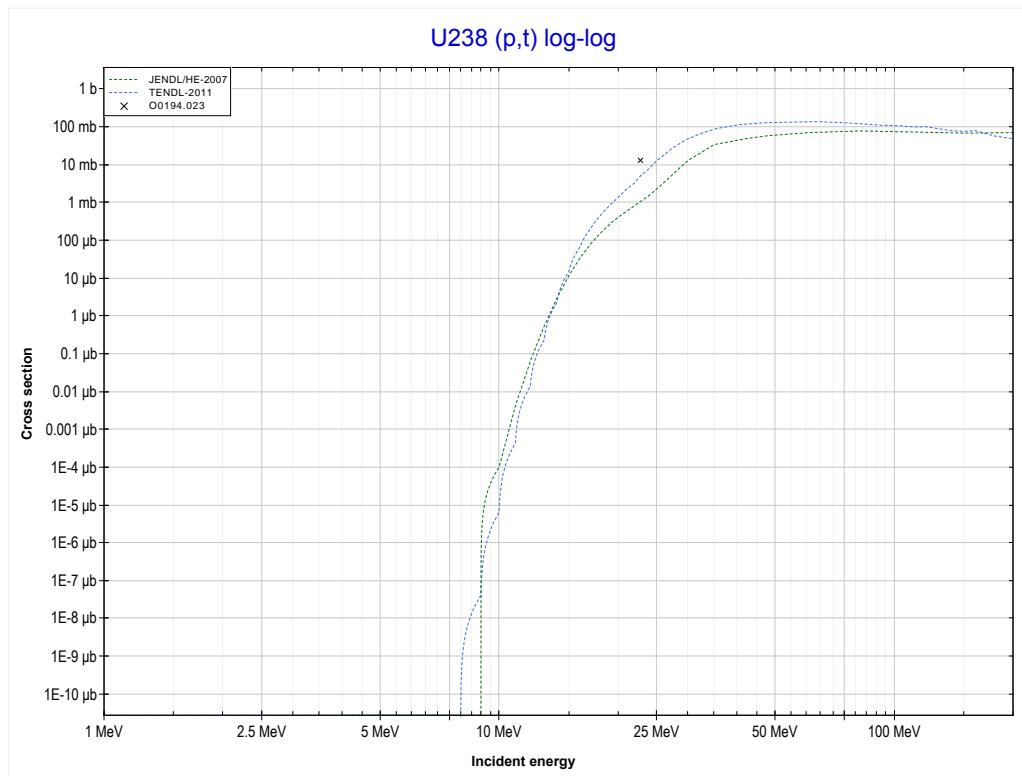
Reaction	Q-Value
U238(p,p)U238	0.00 keV

<< 92-U-235	92-U-238	
<< MT103 (p,p)	MT104 (p,d) or MT5 (U237 production)	MT105 (p,t) >>



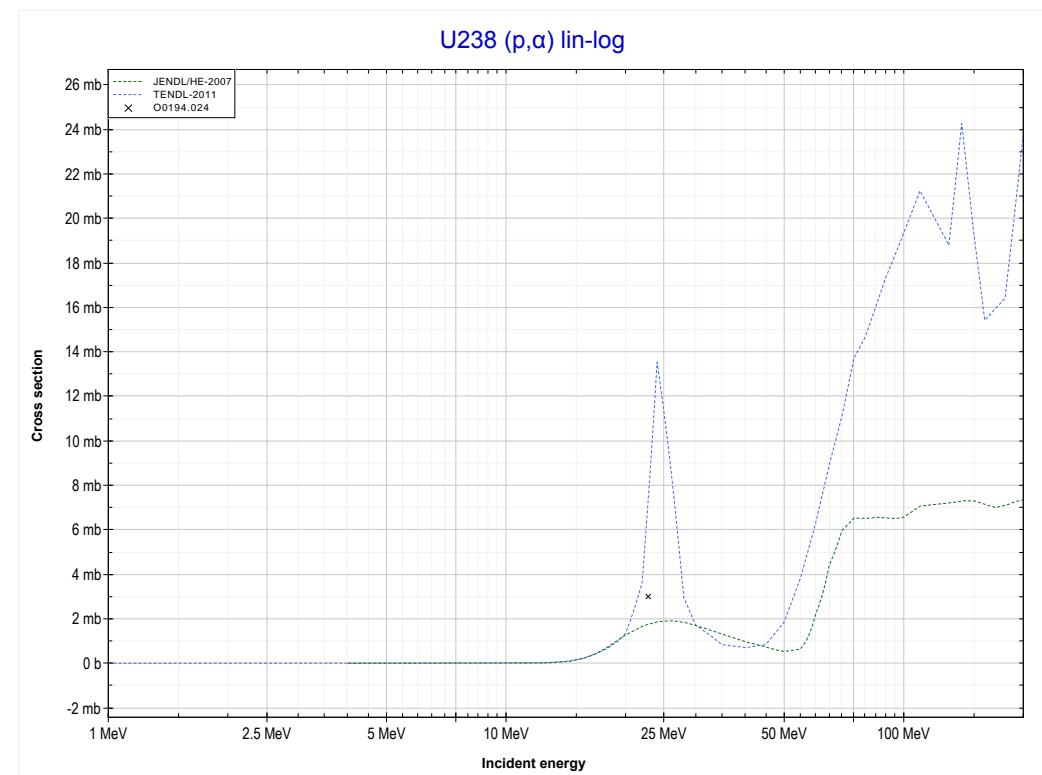
Reaction	Q-Value
U238(p,d)U237	-3929.75 keV
U238(p,n+p)U237	-6154.32 keV

<< 92-U-235	92-U-238 MT105 (p,t) or MT5 (U236 production)	>> MT107 (p, α)
<< MT104 (p,d)		



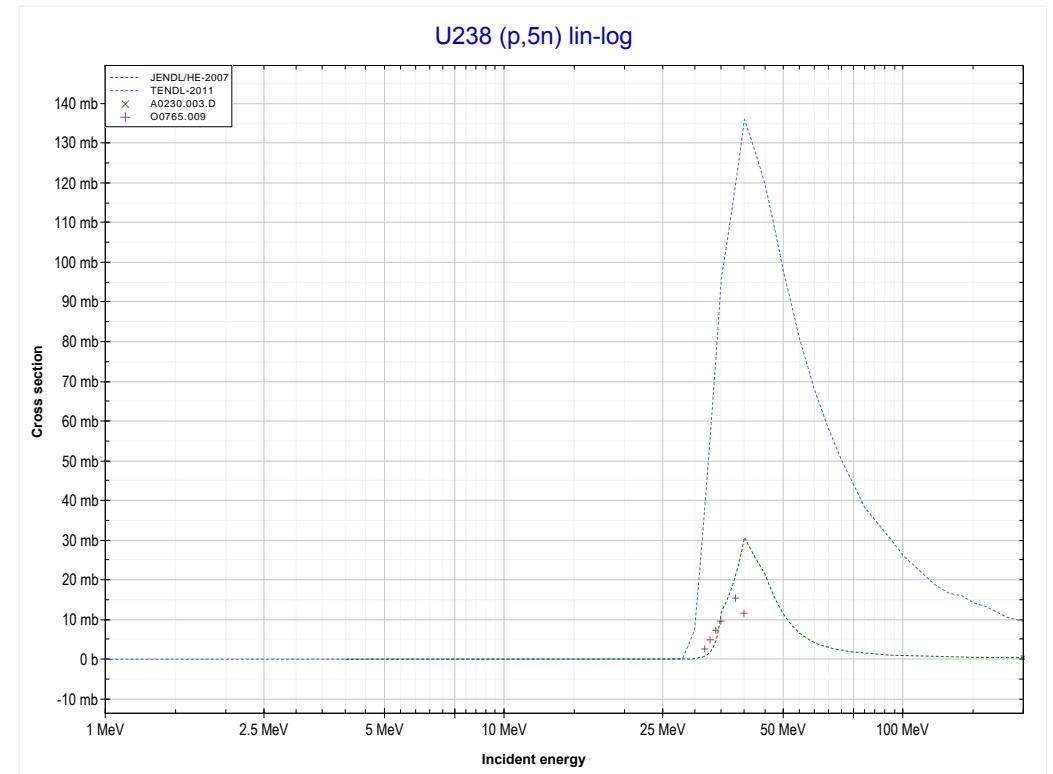
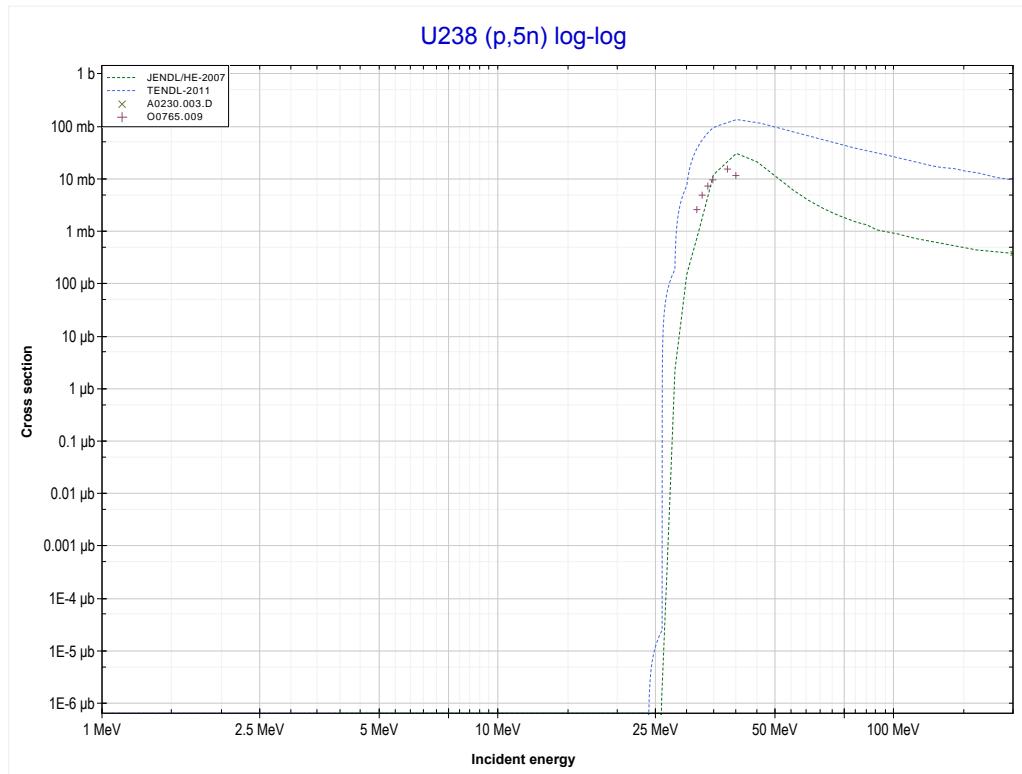
Reaction	Q-Value
U238(p,t)U236	-2798.24 keV
U238(p,n+d)U236	-9055.47 keV
U238(p,2n+p)U236	-11280.03 keV

<< 92-U-235	92-U-238	
<< MT105 (p,t)	MT107 (p,α) or MT5 (Pa235 production)	MT152 (p,5n) >>



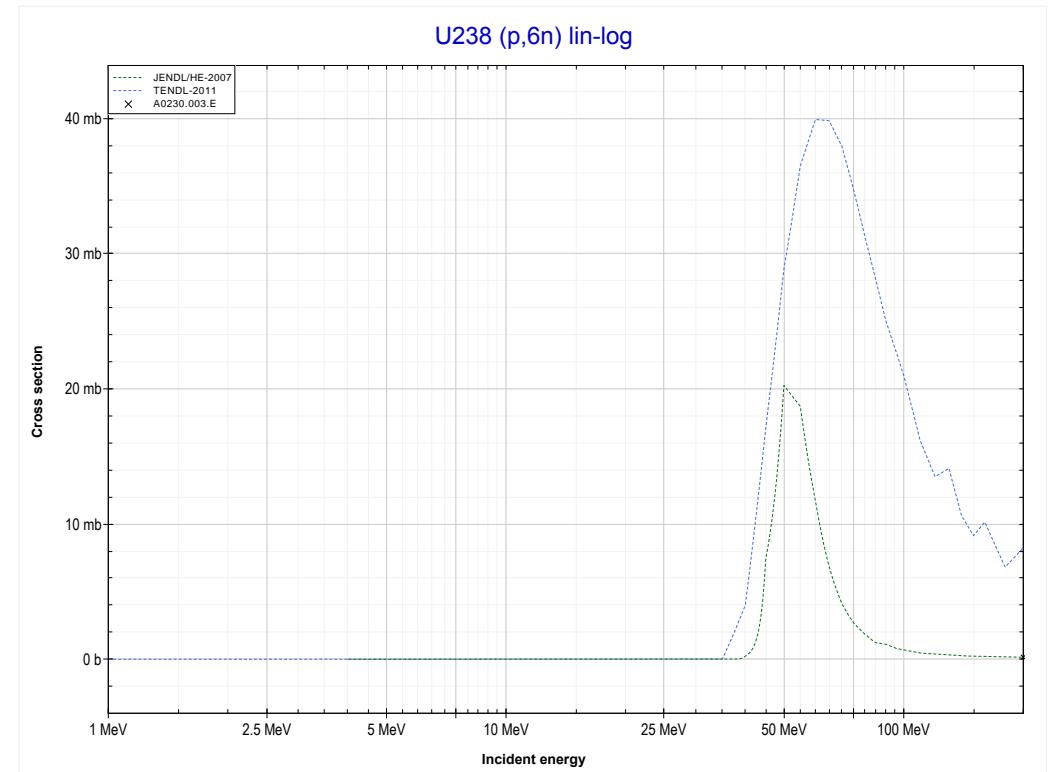
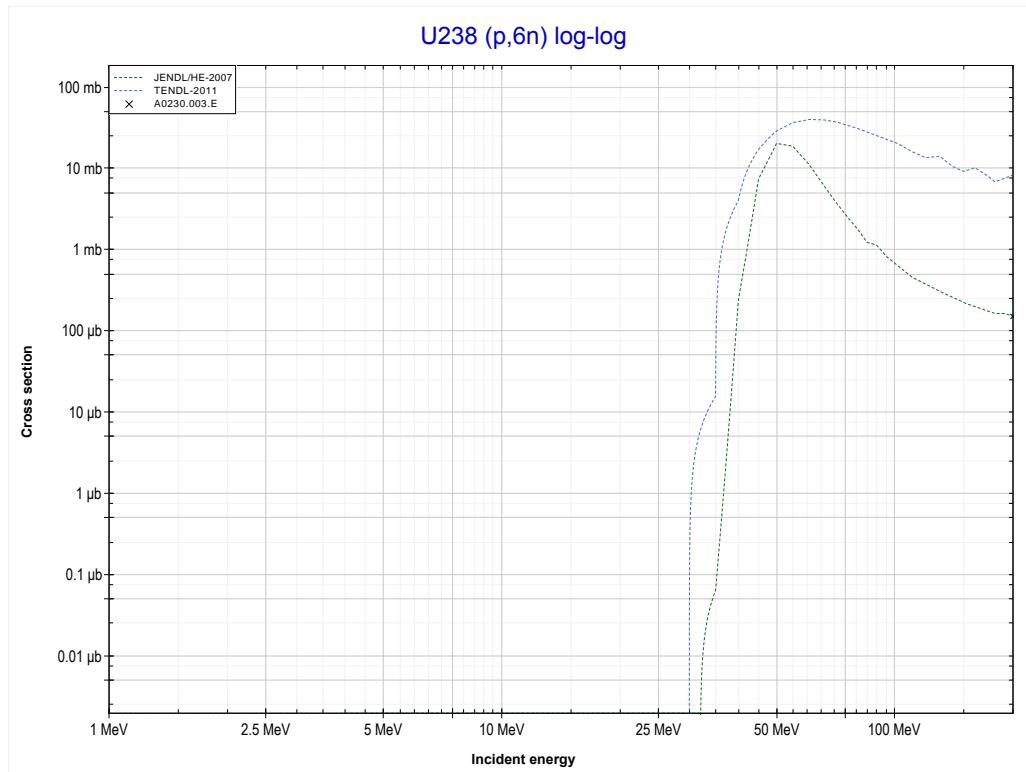
Reaction	Q-Value
$^{238}\text{U}(p,\alpha)^{235}\text{Pa}$	9842.95 keV
$^{238}\text{U}(p,p+t)^{235}\text{Pa}$	-9970.91 keV
$^{238}\text{U}(p,n+\text{He3})^{235}\text{Pa}$	-10734.66 keV
$^{238}\text{U}(p,2d)^{235}\text{Pa}$	-14003.57 keV
$^{238}\text{U}(p,n+p+d)^{235}\text{Pa}$	-16228.14 keV
$^{238}\text{U}(p,2n+2p)^{235}\text{Pa}$	-18452.70 keV

<< 92-U-235	92-U-238 MT152 (p,5n) or MT5 (Np234 production)	MT153 (p,6n) >>
<< MT107 (p, α)		



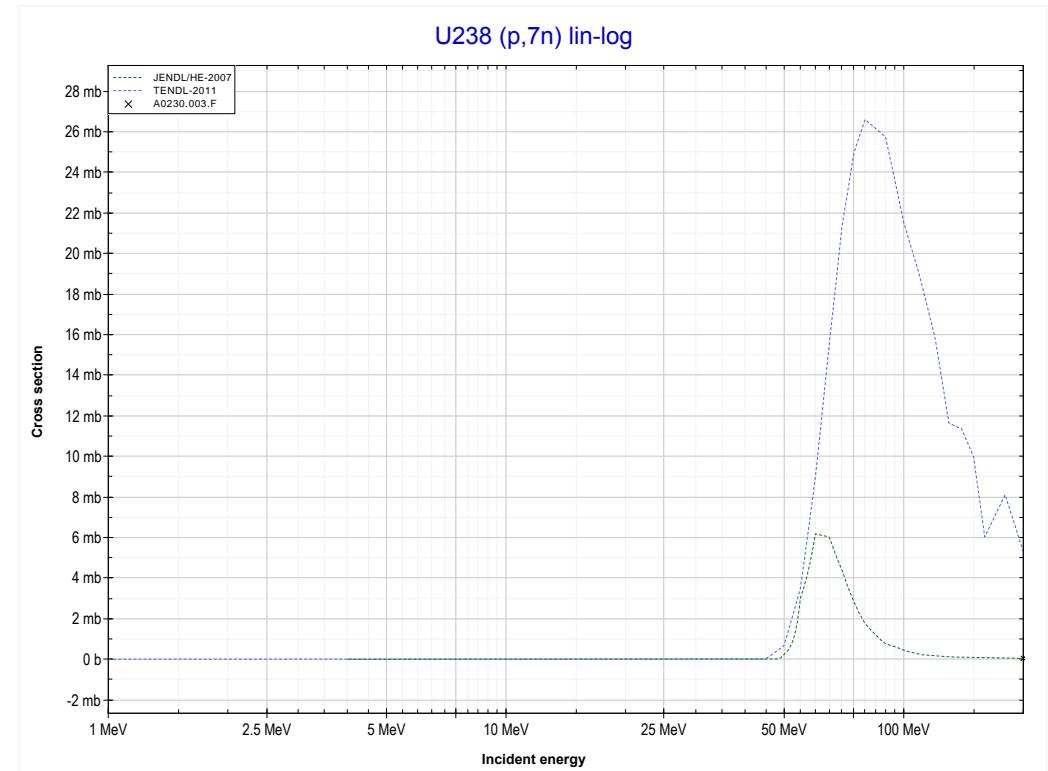
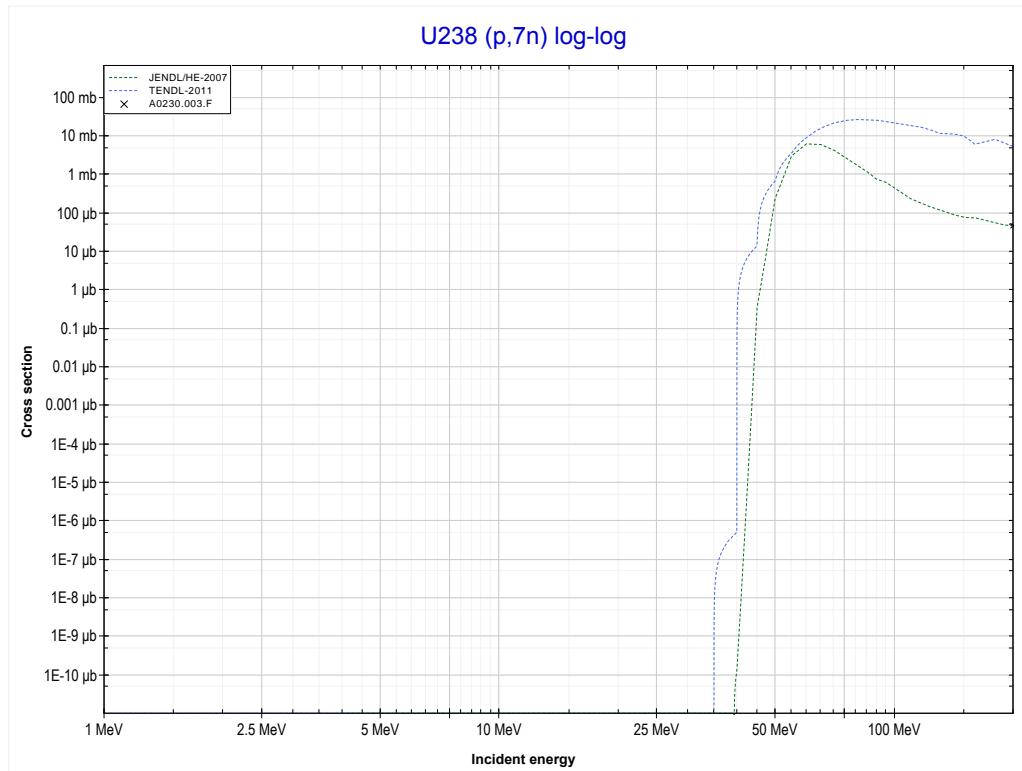
Reaction	Q-Value
U238(p,5n)Np234	-25714.71 keV

<< 90-Th-232	92-U-238	
<< MT152 (p,5n)	MT153 (p,6n) or MT5 (Np233 production)	MT160 (p,7n) >>



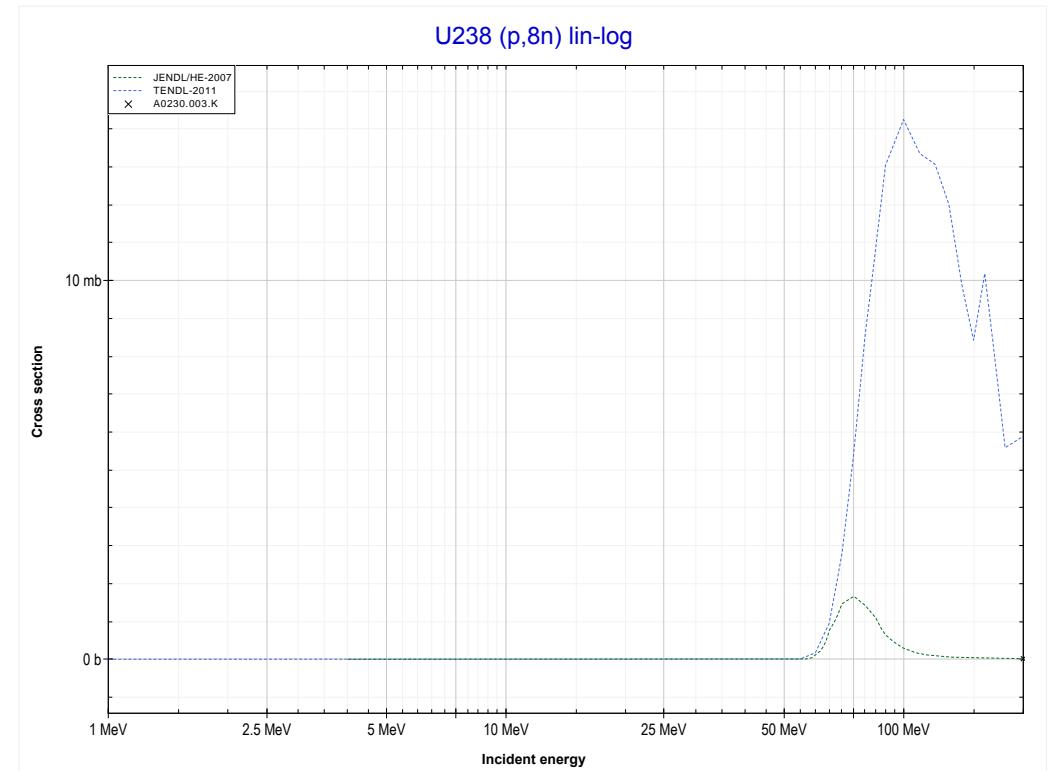
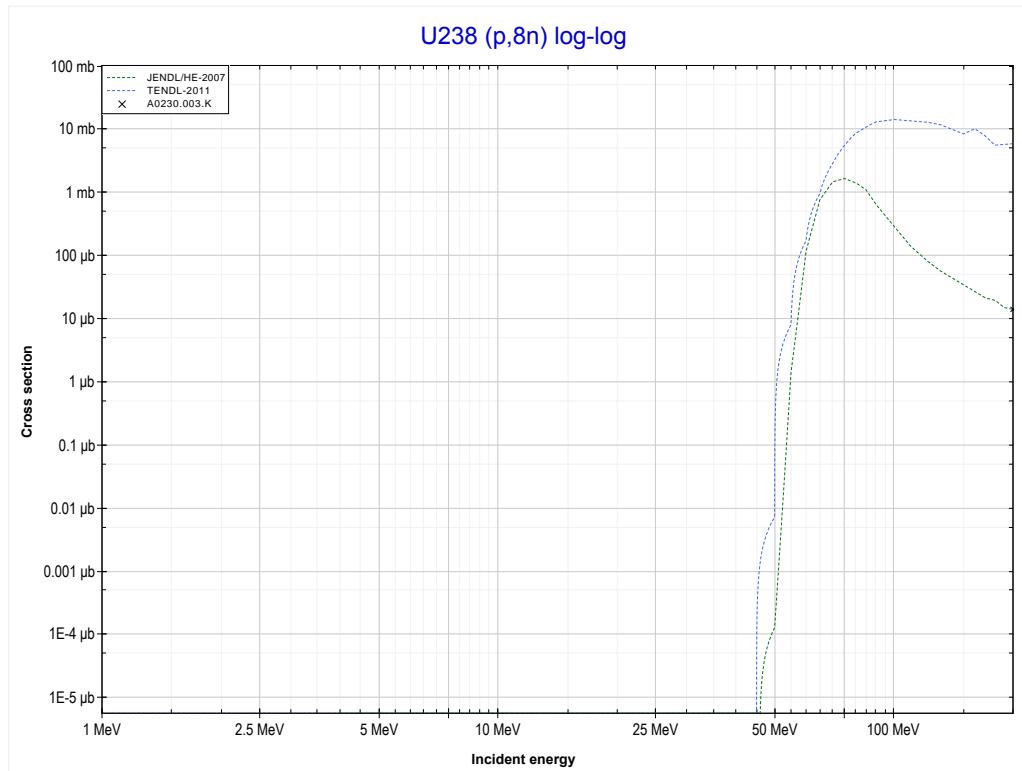
Reaction	Q-Value
U238(p,6n)Np233	-31780.03 keV

<< 90-Th-232	92-U-238	
<< MT153 (p,6n)	MT160 (p,7n) or MT5 (Np232 production)	MT161 (p,8n) >>

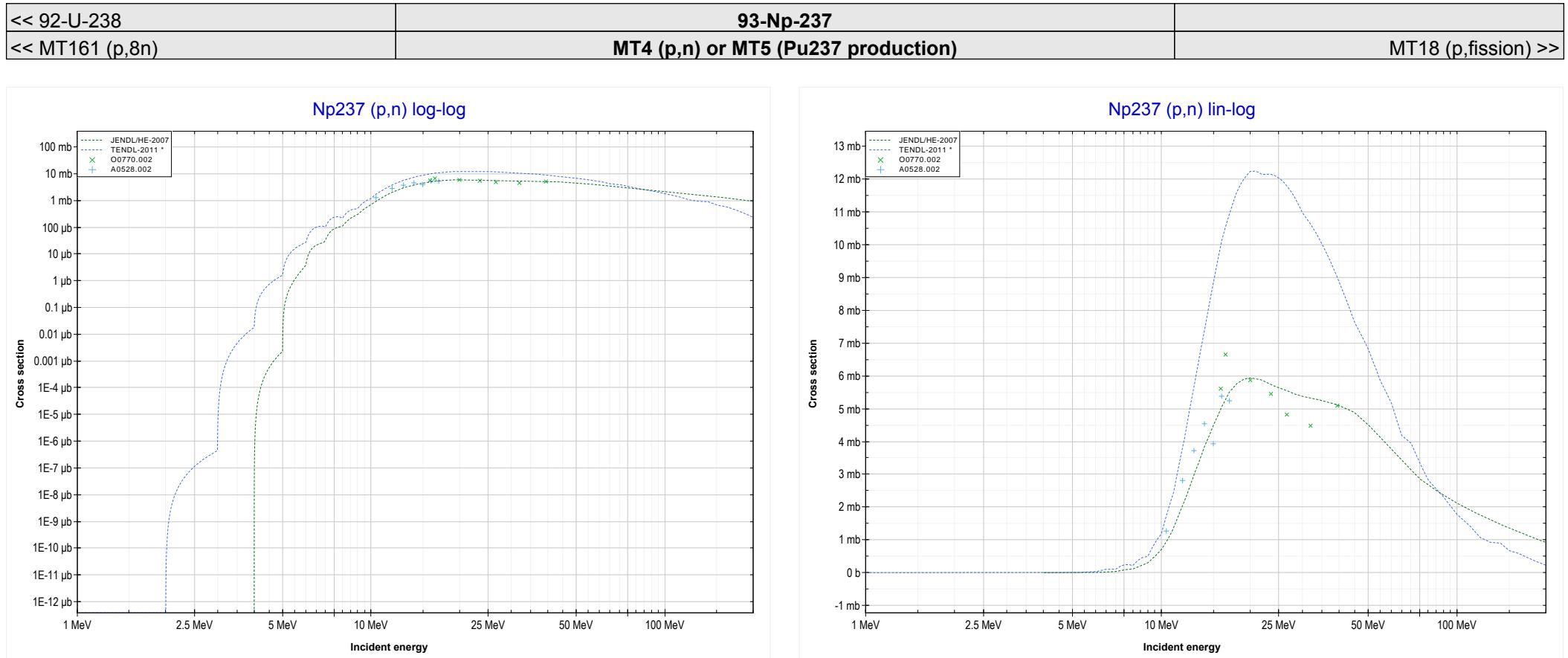


Reaction	Q-Value
U238(p,7n)Np232	-39261.35 keV

<< 83-Bi-209	92-U-238 MT161 (p,8n) or MT5 (Np231 production)	
<< MT160 (p,7n)		MT4 (p,n) >>



Reaction	Q-Value
$\text{U}^{238}(\text{p},\text{8n})\text{Np}^{231}$	-45602.67 keV

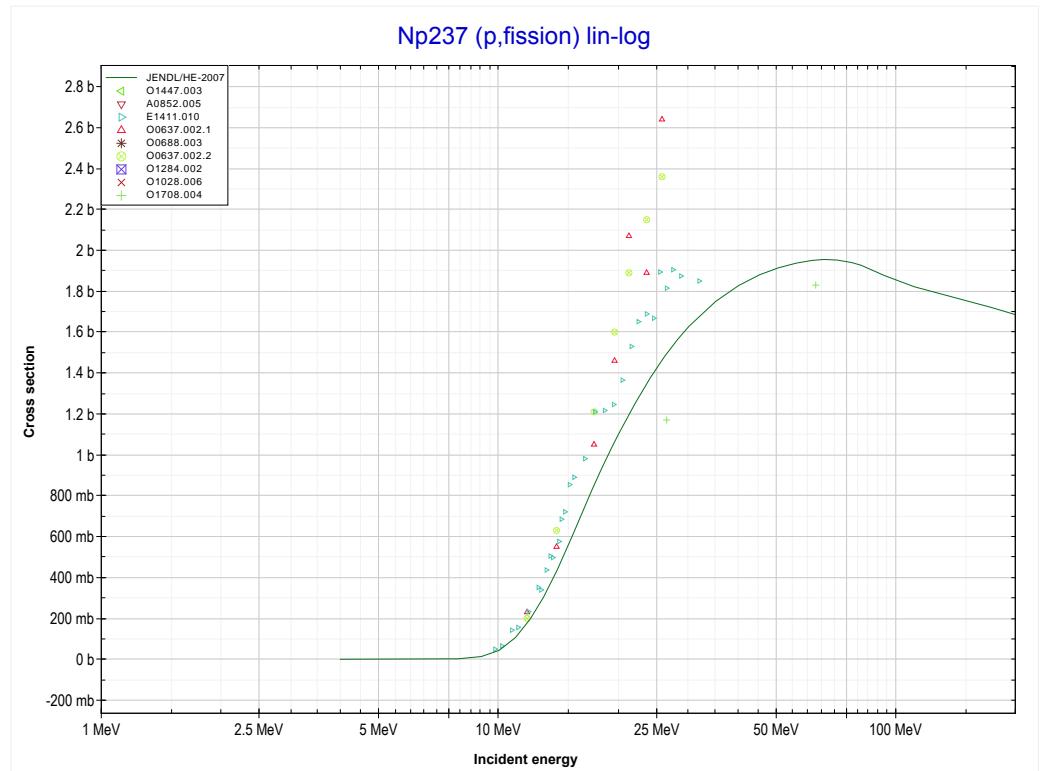
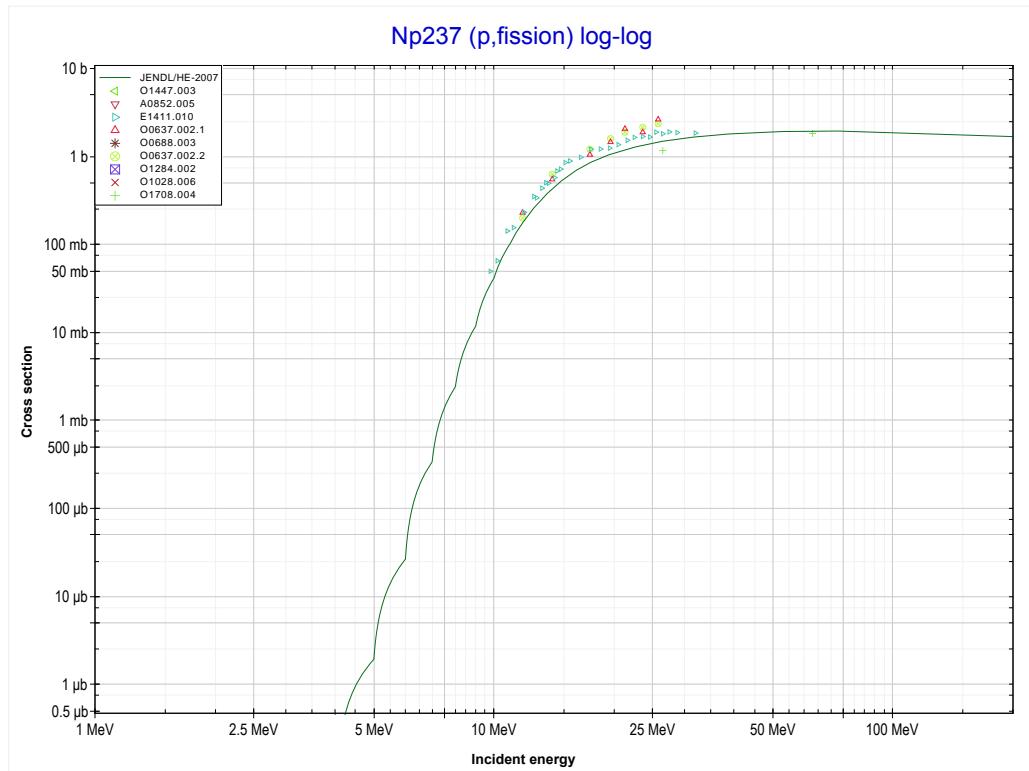


Reaction	Q-Value
Np237(p,n)Pu237	-1002.35 keV

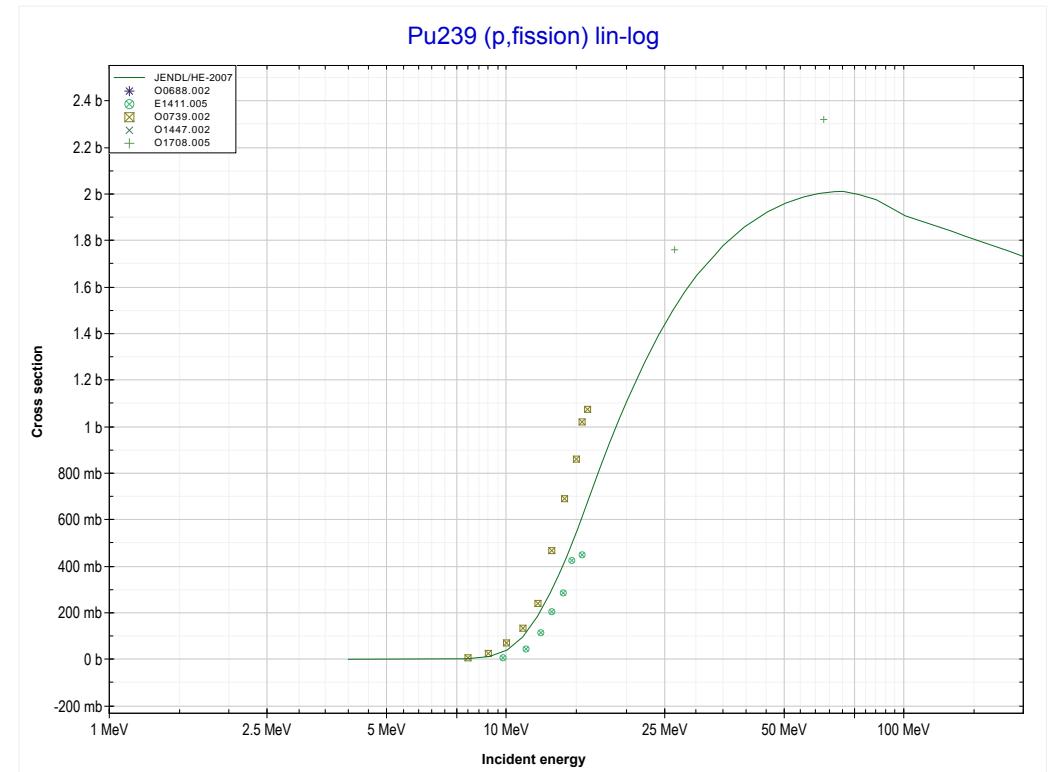
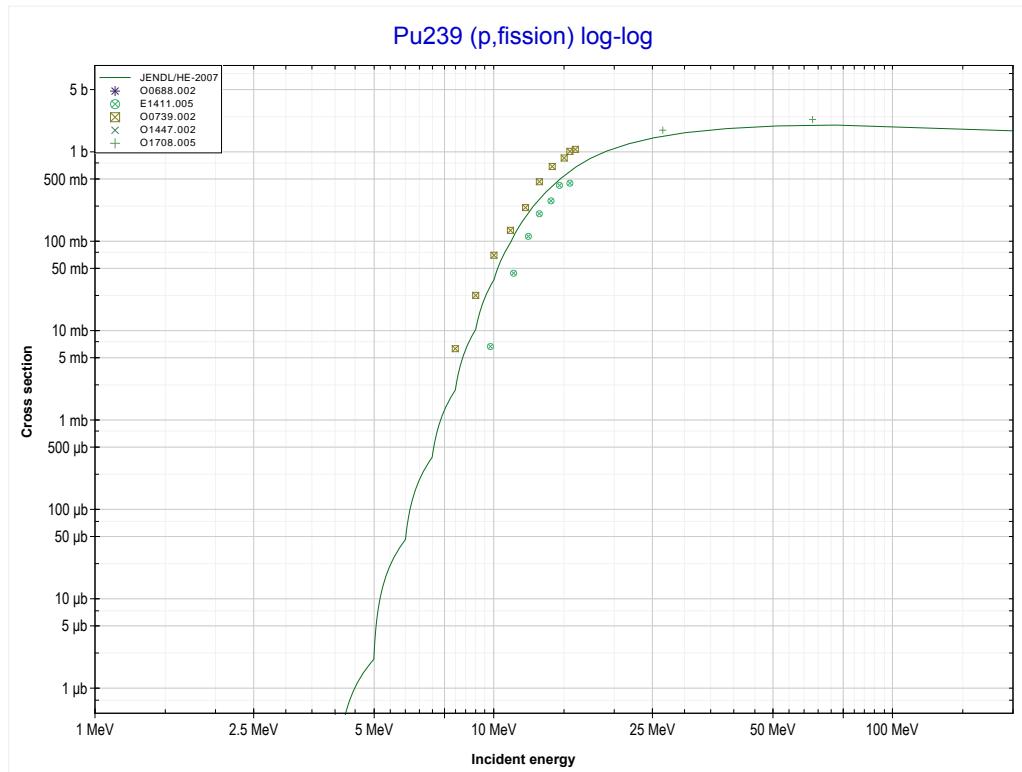
<< 92-U-238	
<< MT4 (p,n)	

93-Np-237
MT18 (p,fission)

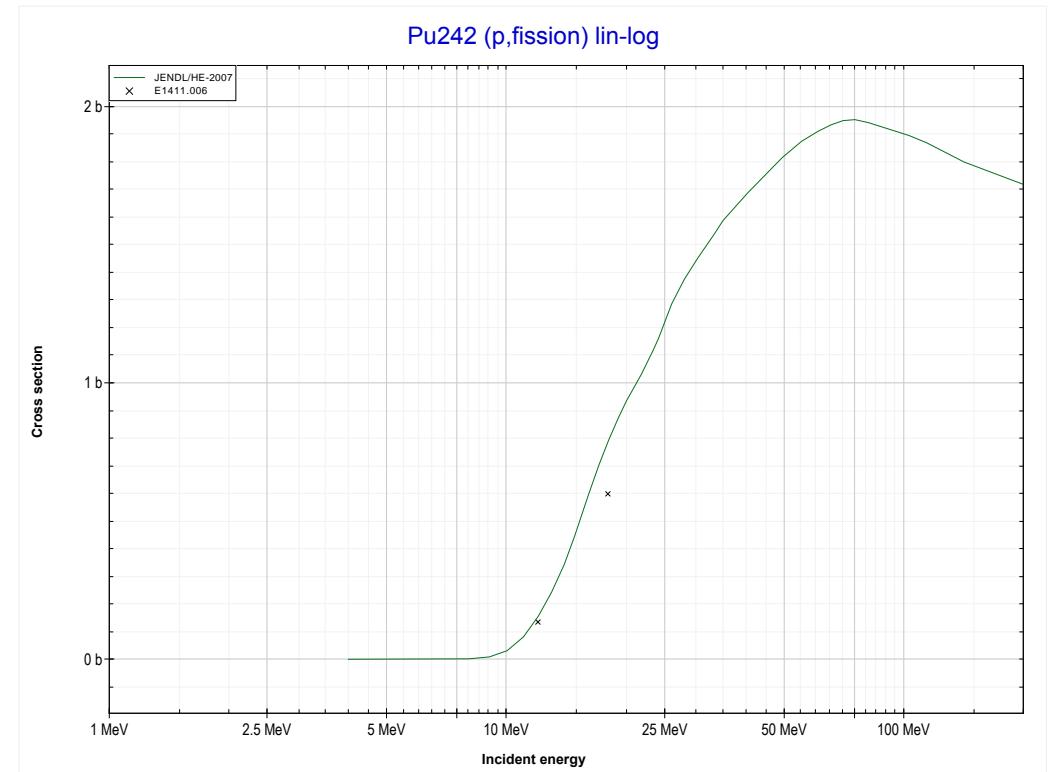
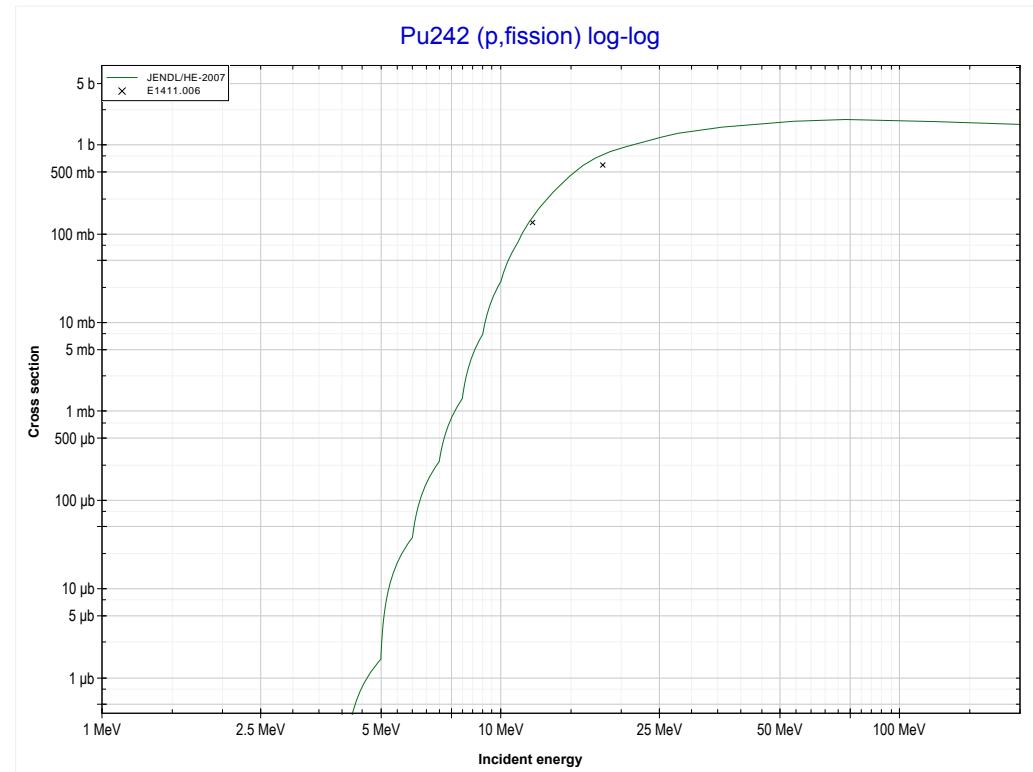
94-Pu-239 >>
MT18 (p,fission) >>



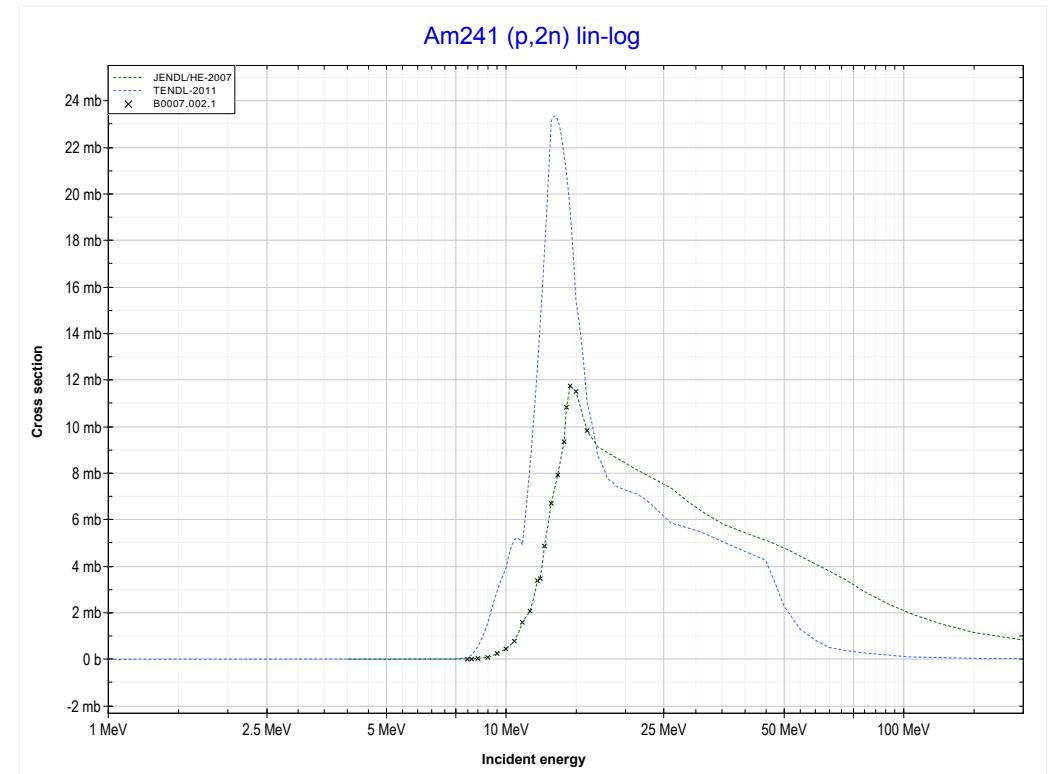
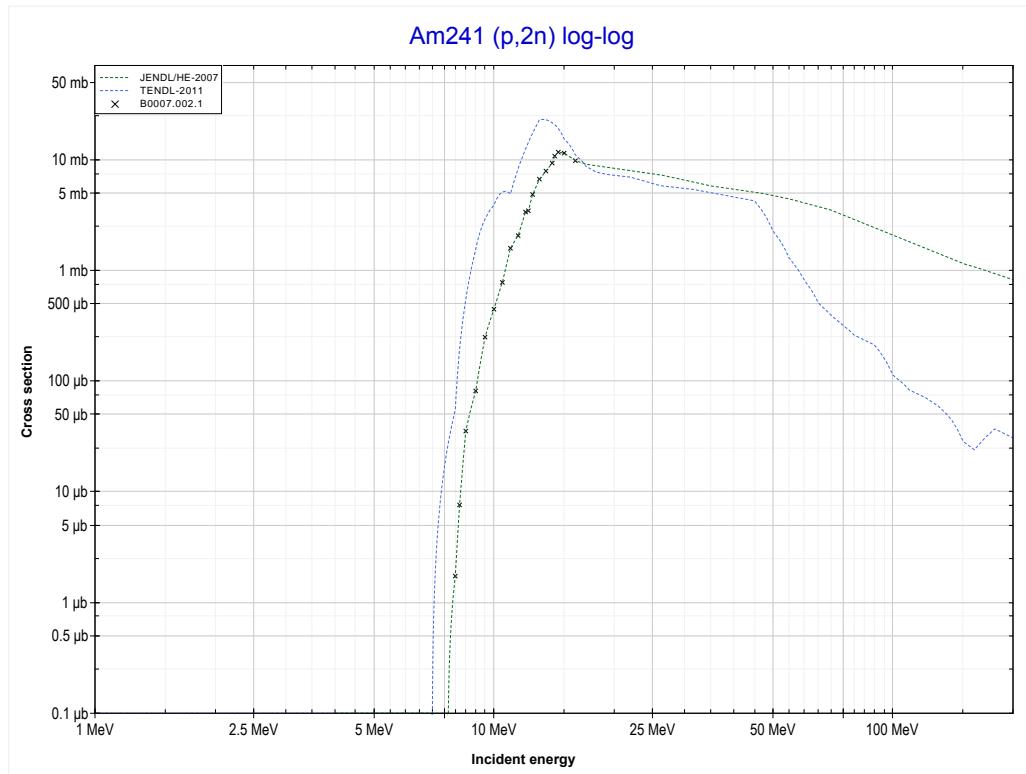
<< 93-Np-237	94-Pu-239	94-Pu-242 >>
<< MT18 (p,fission)	MT18 (p,fission)	MT18 (p,fission) >>



<< 94-Pu-239	94-Pu-242	95-Am-241 >>
<< MT18 (p,fission)	MT18 (p,fission)	MT16 (p,2n) >>



<< 92-U-236	95-Am-241 MT16 (p,2n) or MT5 (Cm240 production)	MT18 (p,fission) >>
-------------	--	---------------------



Reaction	Q-Value
Am241(p,2n)Cm240	-7643.06 keV

<< 94-Pu-242	95-Am-241	
<< MT16 (p,2n)	MT18 (p,fission)	

