

¹⁵⁴Sm(³He, α) 1997GoZN

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 170, 1 (2020)	16-Aug-2020

E(³He)=32 MeV and FWHM=12 keV. α measured in magnetic spectrograph in 5° steps from 10° to 35°. 1996Go17 is conference paper from the same group.

¹⁵³Sm Levels

Differential cross sections (μ b/sr) at 25°

Level	d σ /d Ω	Level	d σ /d Ω
5	10	902	4
50	2	962	2
65	39	1002	2
98	270	1072	8
181	18	1105	5
196	427	1126	4
267	136	1150	6
321	53	1234	4
370	31	1260	6
405	10	1296	77
418	16	1353	73
447	7	1375	69
495	23	1419	5
506	6	1433	18
525	65	1462	3
660	3	1487	19
730	29	1506	21
745	15	1532	65
795	11	1566	8

E(level)	J π [†]	L	S \ddagger	E(level)	J π [†]	L	S \ddagger	E(level)	J π [†]	L	S \ddagger
5	5/2 ⁺	2	0.012	506				1234	7/2 ⁺	4	0.002
50	7/2 ⁺			525	7/2 ⁻	3	0.025	1260	(11/2 ⁻)	5	0.002
65	9/2 ⁺	4	0.025	660	(7/2 ⁺ ,9/2 ⁺)		0.003	1296	11/2 ⁻	5	0.022
98	11/2 ⁻	5	0.080	730	(5/2 ⁻)	3	0.015	1353	(11/2 ⁻)	5	0.020
181				745	(9/2 ⁻ ,11/2 ⁻)		0.005	1375	11/2 ⁻	5	0.018
196	15/2 ⁺	6	0.090	795	5/2 ⁻	3	0.007	1419			
267	9/2 ⁻	5	0.070	902	5/2 ⁻	3	0.003	1433	(5/2 ⁻ ,7/2 ⁻)	3	0.005
321	3/2 ⁺	2	0.073	962				1462			
370	(9/2 ⁻)	5	0.016	1002		3		1487	9/2 ⁻	5	0.010
405	3/2 ⁻		0.051	1072	7/2 ⁻		0.004	1506	3/2 ⁺	2	0.036
418	17/2 ⁺	6+2		1105				1532	5/2 ⁺	2	0.066
447	9/2 ⁻	5	0.029	1126				1566	5/2 ⁺	2	0.012
495	11/2 ⁻	5	0.005	1150							

[†] From authors.

[‡] From 1997GoZN, where it is labeled as A₀, spectroscopic factor defined by [(d σ /d Ω)_{exp}]/[N(d σ /d Ω)_{DWBA}]; N=normalization factor.