

¹⁵⁴Sm(d,p) 1965Ke09,1979Ja23

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 160, 1 (2019)	21-Oct-2019

1965Ke09: E(d)=10.5 to 12.6 MeV. Proton intensities measured at 25°, 35°, 45°, 65° and 133°. Resolution=9 keV at 65° and E(d)=10.5 MeV.

1979Ja23: E(d)=12.1 MeV. Measured protons at angles of 20°–150°. Resolution=12-14 keV. Results previously reported in **1975Ja19** and configuration assignments given in **1975Ja18**.

¹⁵⁵Sm Levels

The level energies reported by **1965Ke09** and by **1979Ja23** (and in previous publications) differ in a number of instances. The values listed here are those of **1965Ke09**.

E(level)	L [†]	S [‡] &	E(level)	L [†]	S [‡] &	E(level)	S [‡] &	E(level)	S [‡] &
0.0	0,1,2	1.00	1076 7	≥3	0.64	1964 12	0.71	2785 10	1.01
25 7		0.04	1107 10		0.06	1989 10	0.42	2829 10	0.64
51 7		0.06	1163 7		0.11	2010 10	0.81	2860 10	1.53
80 7		0.02	1180 11		0.14	2043 10	0.51	2887 10	0.61
128 2	2,3	1.58	1225 11		0.02	2066 10	1.15	2917 10	1.17
151 2	2,3,4	0.29	1339 7		0.11	2094 10	1.03	2945 14	1.02
227 3		0.12	1362 10			2113 10	1.39	2960 10	0.77
338 5		0.04	1408 10			2122 13	1.80	3020 10	0.90
364 4		0.17	1449 8		0.62	2180 10	2.07	3034 14	1.48
426 3		0.22	1487 8		0.26	2209 10	0.56	3075 14	1.44
499 3	2,3	1.14	1521 8		0.29	2245 10		3096 15	1.02
540 6		0.07	1561 12		0.69	2302 10	1.58	3127 11	1.69
562 7		0.06	1582 8		1.98 [#]	2344 10	0.95	3165 14	0.66
601 7		0.09	1589 11		1.98 [@]	2363 10	1.23	3201 11	0.82
617 4		0.17	1628 9		0.67	2382 10	1.00	3216 15	1.32
645 8		0.02	1663 10		0.24	2400 10	2.90	3261 14	0.83
716 7		0.05	1681 9		0.66	2431 12	0.71	3281 11	1.91
748 7		0.07	1716 9		0.33	2446 10	2.17	3300 12	0.68
786 5	0,1,2	0.18	1738 9		0.49	2480 10	1.10	3330 11	2.64
824 5	0,1,2	1.67	1762 9		0.48	2513 13	1.13	3350 13	1.64
874 5		0.36	1781 11		0.19	2547 13	0.50	3362 13	1.93
909 5		1.99	1801 11		0.20	2566 10	0.30	3400 15	1.26
937 5		1.02	1813 11		0.25	2584 10	0.65	3420 15	0.71
963 5	≥3	0.89	1838 9		0.46	2599 12	0.93	3450 11	1.72
999 10	≥3	0.16	1863 13		0.35	2627 14	0.32		
1018 10		0.06	1888 12		0.49	2670 12			
1043 8		0.06	1932 10		1.44	2719 14	1.25		

[†] From **1965Ke09**, who use the relative intensities of the proton groups at the reaction angles as a rough guide to the orbital-angular momentum transfer.

[‡] Values reported by **1965Ke09**.

[#] Includes 1589 peak.

[@] Includes 1582 peak.

[&] Label=I(p)rel at 65°.