^{154}Sm(p,t)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin	NDS 114, 1497 (2013)	31-Aug-2013

Other reaction: ^{154}Sm(α,^{6}He), E=49.7 MeV, measured σ(E,θ) (1974BoZF,1974BoZN).
1982IsZV: report unpublished data: 7^- level at 2105 configuration=(ν $h_{11/2}$)$^{-1}$(ν $d_{3/2}$)$^{-1}$.
1979Sa22: E(p)=40 MeV, FWHM=15-18 keV; measured σ(E,θ), DWBA analysis.
1974Oe03: E(p)=25.5 MeV, FWHM=35-50 keV; measured σ(E,θ), DWBA analysis.
1972De47: E(p)=19.0 MeV, FWHM=8-14 keV; measured σ(E,θ), DWBA analysis.
1970Mc26: E(p)=20.6 MeV, FWHM=20-25 keV, measured σ(E,θ).

^{152}Sm Levels

E(level)[†]	L[‡]	S[@&]	Comments
0.0	[0]	510	
122	[2]	34	
368	[4]	37	
687	[0]	100	
714[#]			
812	2	40	L: From 1974Oe03. 1972De47 report L=(2).
1025			
1044		<10	
1087	(2)	45	
1230[#]			
1297[#]			
1373			
1518			
1587		<10	
1617			
1670	0	<10	
1736[#]	0		
1777	2	125	L: From 1974Oe03, 1970Mc26. 1972De47 report L=(2).
1913	(2)	53	E(level): Broad peak probably an unresolved doublet (1972De47). L: From 1974Oe03.
1969		<10	
2023	3	10	
2105		10	E(level): 2084 *+5−15* (1972De47), 2100 *10* (1970Mc26).
2138		19	
2161[#]			
2210		<10	
2234[#]			
2268	2	56	L: From 1974Oe03, 1970Mc26. 1972De47 report L=(2).
2303[#]			
2344		12	
2385			
2423		10	
2459[#]			
2492[#]			
2544[#]			
2598		12	

[†] From 1979Sa22, except for the 2210 level which is reported only by 1970Mc26. The authors state that the uncertainty for the strongly excited peaks is <5 keV. Others: 1974Oe03 with uncertainties increasing from 10 keV to 25 keV: 1972De47 with

Continued on next page (footnotes at end of table)

^{154}Sm(p,t) (continued)

^{152}Sm Levels (continued)

asymmetric uncertainties increasing from +3-4 to +5-16: 1970Mc26 with uncertainties of 10 keV. The values agree well, except for the 2105 level, as noted.

‡ From 1972De47, except where noted otherwise. All the authors used the known J^{π} values for the 2^+ 122, 4^+ 368, and 0^+ 687 levels, as well as L=0 for the g.s., as templates for the shapes of the L=0, 2, and 4 angular distributions.

Reported only by 1979Sa22.

@ Label=dσ/dΩ (22.5°) μb/sr.

& From 1970Mc26.