^{152}Sm(t,p) 1966Bj01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 200,2 (2025)	22-Aug-2022

Additional information 1.

^{152}Sm(t,p), E(t)≈12 MeV. Metallic Sm target, 99.1% enrichment, thickness=110 μg/cm^2 6. Outgoing protons detected using a multi-angle magnetic spectrograph, resolution (FWHM)≈20 keV. L values deduced from measured angular distributions.

^{154}Sm Levels

E(level)[†]	L	(dσ/dΩ)(mb/sr)[‡]	Comments
0	0	0.30	
86 *10*	2	0.14	E(level): ≈82 keV, from other experiments.
1117 *10*	0	0.03	E(level): Evaluators associate this peak with the 1099, 0$^+$ level.
1218 *10*	0	0.10	E(level): Evaluators associate this peak with the 1202, 0$^+$ level.
1299 *10*		0.01	E(level): Evaluators associate this peak with the 1286, 2$^+$ level.

[†] The level energies from this experiment are systematically larger, by from≈4 keV at 86 keV to≈15 keV at 1.3 MeV, than those from other experiments. The evaluator has listed the energy of the level which they have assumed corresponds with the (t,p) peak.

[‡] Center-of-mass value at the peak of the angular distribution. For the 86 level, this angle (in the center of mass) is 5.1°. For the others (except the 1299 level), this angle is 27.8°. Uncertainties in the absolute cross sections estimated to be ±25%.