^{154}Sm(d,^{6}Li) 1982Ja04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, A. A. Sonzogni	NDS 114, 435 (2013)	1-Apr-2013

E=33 MeV;200 μg/cm^2 enriched thick targets. ^{6}Li particles detected and identified in Q3D magnetic spectrometer using a position-sensitive gas proportional-counter as detector. FWHM≈80 keV. Data were taken at angles of 16° and 22°.

^{150}Nd Levels

Experimental data statistically poor. Only indicated levels adopted.

E(level)†	Jπ#	S&	E(level)†	Jπ#	S&	E(level)†	Jπ#	S&	E(level)†	Jπ#	S&
0	0^+	1.00	850	2^+	0.42	1265 *20*			2225 *25*	(2^+)@	2.70
130 *3*	2^+	1.77	940 *20*	3^-	0.44	1353‡	4^+		2460‡ *25*	(4^+)@	2.58
381 *4*	4^+	2.17	1062 *4*	$(2)^+$	0.30	1485 *25*			2620 *25*		
676 *4*	0^+	0.14	1129 *11*	8^+		1600 *25*					
720 *5*	6^+	2.84	1137	4^+		2050 *25*	(0^+)@	1.01			

† Values with uncertainties are from 1982Ja04. Others are rounded-off values from Adopted Levels.
‡ Possibly an unresolved doublet.
# From Adopted Levels. Assignments based on this reaction are so noted.
@ Tentative assignment made by 1982Ja04 based on a comparison of the angular dependence (22°, 16°) of the cross sections for the high-lying states with those for the known g.s. rotational band, as well as on the relative strengths within the bands and on the respective energy spacings.
& Relative α-spectroscopic factor normalized to g.s.