

$^{154}\text{Sm}(\text{d},\text{p}\gamma)$ 1984Ka12

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

E(d)=10 MeV. Enriched ($\approx 95\%$ ^{154}Sm) metallic self-supporting targets. Measured three- and four-parameter $\gamma\gamma(t)$ and $\gamma\gamma(t)$ coincidences using two pairs of Ge and Ge(Li) detectors.

No delayed ($T_{1/2} > 1$ ns, $E_\gamma > 50$) γ 's were observed.

 ^{155}Sm Levels

E(level)	J^π †	E(level)	J^π †	E(level)	J^π †	E(level)	J^π †
0.0	3/2 ⁻	220.7	9/2 ⁻	595.1	(9/2 ⁻)	844.1	3/2 ⁻
16.5	5/2 ⁺	250.7	11/2 ⁺	617.5	3/2 ⁺	906.8	5/2 ⁻
53.0	5/2 ⁻	337.3	(11/2 ⁻)	658.4	5/2 ⁺	915.5	(1/2 ⁻)
76.3	7/2 ⁺	359.0	13/2 ⁺	736.9	(7/2 ⁺)	930.6	3/2 ⁻
127.7	7/2 ⁻	426.4	5/2 ⁻	778.1	3/2 ⁻	968.1	(3/2 ⁺)
152.4	9/2 ⁺	500.0	7/2 ⁻	819.9	1/2 ⁻		

† From Adopted Levels.

 $\gamma(^{155}\text{Sm})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
53.0	53.0	5/2 ⁻	0.0	3/2 ⁻	530.7	658.4	5/2 ⁺	127.7	7/2 ⁻
59.8	76.3	7/2 ⁺	16.5	5/2 ⁺	564.5	617.5	3/2 ⁺	53.0	5/2 ⁻
74.7	127.7	7/2 ⁻	53.0	5/2 ⁻	582.1	658.4	5/2 ⁺	76.3	7/2 ⁺
76.1	152.4	9/2 ⁺	76.3	7/2 ⁺	584.5	736.9	(7/2 ⁺)	152.4	9/2 ⁺
93.0	220.7	9/2 ⁻	127.7	7/2 ⁻	601.0	617.5	3/2 ⁺	16.5	5/2 ⁺
98.3	250.7	11/2 ⁺	152.4	9/2 ⁺	605.4	658.4	5/2 ⁺	53.0	5/2 ⁻
108.3	359.0	13/2 ⁺	250.7	11/2 ⁺	617.5	617.5	3/2 ⁺	0.0	3/2 ⁻
111.2	127.7	7/2 ⁻	16.5	5/2 ⁺	641.9	658.4	5/2 ⁺	16.5	5/2 ⁺
116.5	337.3	(11/2 ⁻)	220.7	9/2 ⁻	658.4	658.4	5/2 ⁺	0.0	3/2 ⁻
127.7	127.7	7/2 ⁻	0.0	3/2 ⁻	660.6	736.9	(7/2 ⁺)	76.3	7/2 ⁺
135.9	152.4	9/2 ⁺	16.5	5/2 ⁺	683.9	736.9	(7/2 ⁺)	53.0	5/2 ⁻
144.4	220.7	9/2 ⁻	76.3	7/2 ⁺	725.1	778.1	3/2 ⁻	53.0	5/2 ⁻
167.7	220.7	9/2 ⁻	53.0	5/2 ⁻	778.2	778.1	3/2 ⁻	0.0	3/2 ⁻
174	250.7	11/2 ⁺	76.3	7/2 ⁺	779.1	906.8	5/2 ⁻	127.7	7/2 ⁻
184.8	337.3	(11/2 ⁻)	152.4	9/2 ⁺	791.1	844.1	3/2 ⁻	53.0	5/2 ⁻
206.6	359.0	13/2 ⁺	152.4	9/2 ⁺	819.9	819.9	1/2 ⁻	0.0	3/2 ⁻
344.6	595.1	(9/2 ⁻)	250.7	11/2 ⁺	844.1	844.1	3/2 ⁻	0.0	3/2 ⁻
347.6	500.0	7/2 ⁻	152.4	9/2 ⁺	853.8	906.8	5/2 ⁻	53.0	5/2 ⁻
350.1	426.4	5/2 ⁻	76.3	7/2 ⁺	877.6	930.6	3/2 ⁻	53.0	5/2 ⁻
409.9	426.4	5/2 ⁻	16.5	5/2 ⁺	915.5	915.5	(1/2 ⁻)	0.0	3/2 ⁻
423.7	500.0	7/2 ⁻	76.3	7/2 ⁺	930.6	930.6	3/2 ⁻	0.0	3/2 ⁻
442.7	595.1	(9/2 ⁻)	152.4	9/2 ⁺	968.1	968.1	(3/2 ⁺)	0.0	3/2 ⁻

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Legend

Level Scheme

● Coincidence

