

¹³⁹La(d,d'),(α,α') 1972Ba02,1971Gr46

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	P. K. Joshi, B. Singh, S. Singh, A. K. Jain		NDS 138, 1 (2016)	15-Oct-2016

1971Gr46: Eα=12 MeV. Measured σ(θ=100°,120°,160°), FWHM=35 keV. See also Coulomb excitation.

1972Ba02: Eα=45 MeV; measured σ(θ), FWHM=45; DWBA. E(d)=22.7 MeV; measured E(d), FWHM=12.

¹³⁹La Levels

E(level) [†]	J ^π	L [‡]	Comments
0.0	7/2 ⁺		J ^π : from Adopted Levels.
166 [#]			
1219			
1254 ⁶		2	
1424 ⁶		2	
1539 ⁶		2	
1579 ⁶		2	
1684		@	
1718		@	
1772		&	
1810		&	
1856		&	
1924		a	
1943		a	
1961		a	
2035		b	
2064		b	
2310 ^c		d	
2383		d	
2401		d	
2438		d	
2466		d	
2573		e	
2597		e	
2685		3	
2780 ^c		(3)	
2810 ^c		(2)	
2870 ^c		2	
2890 ^c		(3)	

[†] From 1971Gr46 for E(level)<1600 (ΔE=6 relative to 1219) and from (d,d') (1972Ba02) for E(level)>1600, except as noted.

[‡] From DWBA comparison in (α,α') (1972Ba02).

[#] From 1972Ba02. Not observed in (α,α').

@ L=2 for doublet.

& L=2+4 for triplet.

a L=2+4 for triplet.

b L=2+4 doublet.

c Unresolved multiplet in (α,α').

d L=3 for multiplet.

e L=3 for doublet.