

${}^{59}\text{Co}({}^3\text{He,d})$ 1968Ba01,1968Ba14

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 114, 1849 (2013)	31-Dec-2012

$E({}^3\text{He})=37.7$ MeV. Measured $\sigma(\theta)$, $\theta=7.5^\circ-77.5^\circ$ in steps of 2.5° . Surface barrier and Si(Li) detectors, FWHM=80 keV. N=4.42 (1968Ba01).

$E({}^3\text{He})=18, 22$ MeV. Measured $\sigma(\theta)$, $\theta(\text{c.m.})\approx 15^\circ$ to 55° . Semi telescope, FWHM ≈ 60 keV. N= 3.85 MeV (1968Ba14).
 $J^\pi({}^{59}\text{Co})=7/2^-$.

 ${}^{60}\text{Ni}$ Levels

E(level) [†]	L [‡]	C ² S' [‡]	Comments
0.0	3	0.45	
1332	1+3	0.08+0.74	
2159	1	0.37	C ² S': C ² S'=0.075 (1968Ba14).
2286	3	0.07	
2505	1+3	0.02+0.04	
2625	1+3	0.02+0.03	
3119	1	0.02	
3130 [#]			
3191	1+3	0.01+0.03	
3270 [#]			
3320	1	0.02	
3390			
3660	1	0.09	C ² S': C ² S'=1.46 (1968Ba14).
3730	1	0.28	
3920 [#]	1	0.03	C ² S': C ² S'=0.30 (1968Ba14).
4038			L,C ² S': L=0+2+4, C ² S'=0.06+0.05+0.02 (1968Ba01).
4170 [#]	1 [#]	0.12 [#]	
4290 [#]	1 [#]	0.43 [#]	
4410 [#]	1 [#]	0.59 [#]	
4480	1+3	0.2+0.6	L,C ² S': L=1, C ² S'=0.22 (1968Ba14).
4580 [#]	1	0.07	C ² S': C ² S'=0.14 (1968Ba14).
4670			
4790 [#]	1 [#]	0.28 [#]	
4850 [#]			
4970 [#]	1 [#]	0.15 [#]	
5120 [#]	1 [#]	0.25 [#]	
5380 [#]	1 [#]	0.12 [#]	
5650 [#]	3 [#]	0.42 [#]	
5790 [#]	1 [#]	0.26 [#]	
5840 [#]			
5940 [#]	3 [#]	0.53 [#]	

[†] From 1968Ba01, except as noted.

[‡] From comparison of $\sigma(\theta)$ with DWBA calculations. From 1968Ba01, except as noted.

[#] From 1968Ba14.