^{58}Ni(^{3}He,^{3}He′) 1967Gi05,1967Fl02,1968Bi04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Caroline D. Nesaraja, Scott D. Geraedts and Balraj Singh	NDS 111,897 (2010)	12-Jan-2010

2003Ka24: (^{3}He,^{3}He) E=443 MeV, $\sigma(\theta)$.
1995Ya06: (^{3}He,^{3}He) E=450 MeV, $\sigma(\theta)$.
1989Ka17: E=270 MeV, FWHM=600-700 keV; measured $\sigma(E',\theta)$, for θ(lab)=7.5-20°; DWBA analysis to extract %EWSR as follows: %EWSR<5 (L=0); 47 *7* (L=2); 2.7 *7* (low energy octupole resonance); not observed (high energy octupole resonance); not observed (L=4).
1988Bu21: E=108.5 MeV, measured $\sigma(E',\theta)$; DWBA analysis.
1968Bi04: E=51.3 MeV, FWHM≈190 keV; measured elastic and inelastic scattering, optical model and DWBA analysis.
1967Fl02: E=22 MeV, FWHM=70 keV; measured elastic and inelastic scattering, optical, strong absorption model and DWBA analysis.
1967Gi05: E=37.7 MeV, FWHM≈175 keV; measured inelastic scattering, DWBA analysis.
See also 1969Ar10,1971Go36,1986Si24.
Additional information 1.

^{58}Ni Levels

E(level)[†]	L[†]	Comments
0.0		
1460	2	S: β_2=0.15 (1967Fl02), β_2=0.15 (1967Gi05), β_2=0.163 (1968Bi04). β_2R=0.873 (1988Bu21).
2460	(4)	
2940		E(level): from 1967Fl02.
3040	(2)	
3260	(2)	
3600	(4)	L,E(level): neither L=2 nor L=4 gives a good fit; but L=4 is the better of the two (1967Gi05), probable doublet (3600+3620).
4100		
4450	3	S: β_3=0.10 (1967Fl02), β_3=0.12 (1967Gi05), β_3=0.138 (1968Bi04).
4720	(4)	
5170		
5570		L,E(level): neither L=2 nor 4 gives a good fit, probable doublet (5588+5592).
5890		
6430		
6780	3	L: from 1968Bi04. S: β_3=0.078 (1968Bi04).
7180	3	L: from 1968Bi04. S: β_3=0.075 (1968Bi04).
7500		

[†] From 1967Gi05, except as indicated otherwise. ΔE=25 keV for the strongly excited levels and 50 keV for the weaker levels.