^{58}Ni(^{6}Li,^{6}He) 1974Ga11,1999Ue03

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

Includes ^{58}Ni(^{12}C,^{12}B).
Charge-exchange reactions to study Gamow-Teller (GT) strengths.
1974Ga11: E(^{6}Li)= 36 MeV, FWHM= 50 keV; measured σ(E,θ), DWBA analysis.
1999Ue03: E(^{6}Li)=100 MeV/nucleon. The ^{6}He particles were detected with QQDD-type magnetic spectrometer Grand-Raiden at 0°. Measured $\sigma(\theta)$ for L-transfer. FWHM=370-490 keV.
Others:
1994La10: E(^{6}Li)=600 MeV, FWHM=850 keV; measured excitation energy spectra for giant resonances.
1991An12: E(^{12}C)= 70 MeV/nucleon, measured $\sigma(\theta)$, DWBA analysis. Four levels reported at 0, 440, 1050 and 3600.
1987HoZM: E(^{12}C)= 25 MeV/nucleon. Measured $\sigma(\theta)$.

^{58}Cu Levels

E(level)[†]	$T_{1/2}$	L	Comments
0.0		0	
444		2	
1051		0+2	L: from 1991An12.
1428			
1550			
1651[‡] *10*			
2700[#]			
2910[‡] *20*			E(level): 2940 (1999Ue03).
3460[#]			
3690[#]			
4010[#]			
4710[@]			
5140[@]			
5430[@]			
5640[@]			
8900[&]	2.8 MeV		E(level): Gamow Teller (L=0) resonance; dσ/dΩ=5 mb/sr *1*.
16000[&]	14 MeV		E(level): spin dipole resonance (L=1), dσ/dΩ=15 mb/sr *3*.
24000[&]	25 MeV		E(level): spin quadrupole (L=2) and spin isovector (L=0) resonance, dσ/dΩ=65 mb/sr *15*.

[†] Rounded values from 'Adopted Levels', unless otherwise stated.
[‡] From 1974Ga11.
[#] From 1999Ue03, 3460+3690+4010 form an unresolved peak.
[@] From 1999Ue03, 4710+5140+5430+5640 form an unresolved peak.
[&] From 1994La10.