^{112}Sn(p,t) 2006Gu26,1979BlZZ

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal and F. G. Kondev	NDS 113, 1315 (2012)	1-Aug-2011

2006Gu26: Beam: E(p)=26 MeV. Target: 102 μg/cm^2 thick 98.9% enriched to ^{112}Sn with a 13 μg/cm^2 carbon backing. The proton beam was provided by HVEC MP tandem accelerator of the MLLL laboratory. The reaction products were analyzed using Q3D magnetic spectrograph and an array of single-wire proportional detectors. DWBA analysis of $\sigma(\theta)$ distributions. Measured: FWHM≈8 keV, $\sigma(\theta)$ at 10 angles from 6° to 57.5°. Deduced: J^π.

1979BlZZ: E(p)=27.45 MeV. Measured: σ(E(t),θ), θ from 5° to 70°, FWHM≈14 keV, magnetic spectrograph. DWBA and CCBA analysis.

Other: 1981Cr01, 1970Fl08.

^{110}Sn Levels

Q(p,t)=−10476 *15* (1979BlZZ).

E(level)[†]	J$^\pi$[@]	L[†]	σ(integral) (μb)[a]	Comments
0	0$^+$	0	1309 *14*	
1212 *3*	2$^+$	2	198 *6*	
2123[#]				
2197 *3*	4$^+$	4	61 *2*	
2309 *3*	0$^+$	0	12 *1*	
2462[‡] *3*	3$^-$&4$^+$	3+4	88 *2*	L: 30% L=4, 70% L=3.
2478 *3*	6$^+$	6	44 *1*	
2545 *3*	2$^+$	2	36 *1*	
2573 *3*	0$^+$	0	7.1 *5*	
2694 *3*	4$^+$	4	11 *1*	
2742 *3*	0$^+$	0	18 *1*	
2753 *3*	6$^+$	6	6.5 *5*	
2834[#]	2$^+$	2[&]		
2857 *3*	2$^+$	2[&]	7.7 *5*	
2919[#]	2$^+$	2[&]		
2965 *3*	2$^+$	2	14 *1*	
2983[#]	4$^+$	4[&]		
2997[#]	(2$^+$)	(2)[&]		
3059 *3*	4$^+$	4	36 *1*	
3083 *3*	2$^+$	2	16 *1*	
3153[#]	2$^+$	2[&]		
3183 *3*	0$^+$	0	17 *1*	
3216[#]				
3252[#]	4$^+$	4[&]		
3320[#]	2$^+$	2[&]		
3357[#]	5$^-$	5[&]		
3421 *3*	2$^+$	2	6.3 *5*	
3472[#]				
3540 *3*	4$^+$	4	3.3 *4*	
3577[#]				
3594[#]				
3609 *3*	4$^+$	4	5.5 *5*	
3643[#]				
3751 *3*	2$^+$	2	5.3 *4*	

Continued on next page (footnotes at end of table)

^{112}Sn(p,t) 2006Gu26,1979BlZZ (continued)

^{110}Sn Levels (continued)

E(level)[†]	J$^{\pi}$[@]	L[†]	σ(integral) (μb)[a]	Comments
3807[#]				
3812 *3*	2$^+$	2	11 *1*	
3844 *3*	5$^-$	5	14 *1*	
3885 *3*	3$^-$	3	2.6 *3*	
3971[#]				
4132[‡] *3*	3$^-$&5$^-$	3+5	5.1 *4*	L: 50% L=3, 50% L=5.
4158[#]				
4317 *3*	4$^+$	4	4.1 *4*	
4465[#]				
4501[#]				
4600[#]				
4644[#]				

[†] From 2006Gu26, unless otherwise stated.
[‡] Doublet (2006Gu26).
[#] From 1979BlZZ. Uncertainty ranges from 2 keV for the low-lying states, to 10 keV for some of the higher-lying states.
[@] From deduced L values, obtained from a comparison of the measured angular distributions with DWBA calculations.
[&] From 1979BlZZ.
[a] The cross section is integrated from 6° to 57.5°. The uncertainty is statistical, systematic uncertainty=15% (2006Gu26).