^{122}Sn(p,p′) 1970Be20,1979Ku17

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. Tamura	NDS 108, 455 (2007)	30-Sep-2006

1970Be20: E(p)=24.5 MeV; magnetic spectrograph FWHM≈20 keV; θ=20°−125°; enriched target.
1979Ku17: E(p)=54.9 MeV; magnetic spectrograph FWHM=20 keV; θ=25°−80°; enriched target.
1989Va02: E(p)=20.4 MeV; polarized protons; measured $\sigma(\theta)$, A(θ); deduced deformation parameters.
Other: 1968Ma34 (E(p)=16 MeV); 1965Al11 (E=11 MeV).

^{122}Sn Levels

β_2, β_3, β_4, β_5 are from 1970Be20, unless noted otherwise.

E(level)†	L‡	Comments
0.0		
1143 *10*	2	β_2=0.123
2090 *10*		
2142 *10*	4	β_4=0.057
2245 *10*	5	β_5=0.087
2328 *10*	4	
2390 *10*	(7)	In 1970Be20, the 2390-keV level was not separated from 2412-keV level, but authors suggested L=7 for the 2390-keV level based on the energy systematics and the cross-section value.
2412 *10*	2	
2492 *10*	3	β_3=0.149 *8* B(E3)↑: weighted mean of 0.146 (1968Ma34), 0.140 (1970Be20) and 0.1259 (1989Va02) from (p,p′). others: 0.146 *28* (1968Ma34), 0.12 *6* (1966Ba11,2002Ki06).
2556 *10*	6	L: from 1979Ku17; 1970Be20 report L=(8).
2654 *10*		
2684 *10*	8	L: from 1979Ku17.
2750 *10*	5	L: from 1979Ku17.
2780#	10	L: from 1979Ku17.
2870@ *10*		
2976 *10*		
3038 *10*		
3084 *10*	(5,4)	
3135 *10*	2	
3237 *10*	4	
3283@ *10*		
3313 *10*	4	
3367 *10*	3	
3457 *10*	(3)	
3478 *10*	(7)	
3533 *10*		
3564 *10*		
3584 *10*		
3633@ *10*		
3675 *10*	(4)	L: for unresolved state at 3675 and 3708 keV (1970Be20).
3708 *10*	9	L: from 1979Ku17.
3731@ *10*		
3773 *10*		
3818 *10*	(6)	
3841@ *10*		
3879@ *10*		
3900 *10*	(2+4)	

Continued on next page (footnotes at end of table)

^{122}Sn(p,p′) 1970Be20,1979Ku17 (continued)

^{122}Sn Levels (continued)

E(level)[†]	L[‡]
3978 *10*	
4104 *10*	(5)
4185 *10*	

[†] E(levels) from 1970Be20; authors state that uncertainty is less than 10 keV.
[‡] From DWBA analysis (1970Be20, unless otherwise noted).
[#] Observed in 1979Ku17. No uncertainty was given by authors.
[@] E(2260 *10*) was proposed in 1965Al11, but the existence is denied in (n,n′γ) in 1991De38.