^{108}Pd(^{3}He,d)   **1973Au07**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Kumar(a), J. Chen(b) and F. G. Kondev	NDS 137, 1 (2016)	31-May-2016

Target ^{108}Pd J^π(g.s.)=0$^+$.

1973Au07: E=27 MeV ^{3}He beam was produced from the Oak Ridge isochronous cyclotron. Target is 170 μg/cm^2 98% enriched ^{108}Pd evaporated onto 20 μg/cm^2 carbon foil. Reaction products were momentum analyzed by a broad-range magnetic spectrograph (FWHM=25 keV) and detected by nuclear emulsions. Measured $\sigma(\theta)$. Deduced levels, J^π, L, spectroscopic factors from DWBA analysis using the JULIE code.

^{109}Ag Levels

E(level)[†]	J^π[†]	L[#]	C^{2}S′[†]	E(level)[†]	J^π[†]	L[#]	C^{2}S′[†]
0	1/2	1	0.86	1658 10	1/2	0	0.20
131 2	9/2	4	2.4	1750?[‡]			
311 2	3/2	1	0.43	1841 10	5/2	2	0.93
412 10	5/2	(3)	≈0.2	1970 10	5/2	2	0.23
706 5	1/2	0	0.29	2000?			
731 5	3/2,5/2	2	1.9, 1.4	2030?			
866 7	5/2	2	0.75	2070?			
910 10	7/2	4	2.7	2130 10	7/2,(5/2)	4(+2)	1.1,(0.007)
1200 10		(2+4)		2220[‡]	(5/2,7/2)	(2+4)	(0.66, 3)
1255 10		(1)	0.02	2320[‡]	1/2	0	0.10
1310[‡]		@	&	2400[‡]	(5/2,11/2)	(2+5)	(0.13,1.6)
1430 10	1/2	0	0.03	2470[‡]	1/2	0	0.15
1490[‡]	5/2	2	0.36	3275 10	5/2	2	0.10
1600?							

† From 1973Au07. C^{2}S′=(dσ/dΩ)$_{exp}$/[4.42×(dσ/dΩ)$_{DWBA}$].

‡ Unresolved multiplet.

\# From DWBA analysis in 1973Au07.

@ L=(1+2+4).

& 0.02 if J=3/2, 0.06 if J=5/2, 1.0 if J=7/2.