^{109}Ag(d,^{3}He) 1979FrZT

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2008

E= 50 MeV, θ=15°. FWHM≈30 keV estimated by evaluator.
$J^{\pi}(^{109}Ag)=1/2^{-}$.
The following conclusions are stated in this brief report.
1. Low-lying 0^{+} states, notably the g.s., exhaust about one-half of the p1/2 sum rule.
2. The first and second 2^{+} states account for ≈20% of the available p3/2 strength.
3. The 2530 and 2970 levels have L=4 and account for ≈50% of the available g9/2 strength.
4. A considerable fraction of the L=1 strength (mostly p3/2) is taken by states at E=4000 to 4500 (not shown in spectrum).

^{108}Pd Levels

E(level)	J^{π} †	L	Comments
0	0^{+}	1	
434	2^{+}	1	
931	2^{+}	1	
1053	0^{+}	1	J^{π}: the 1048 *4+* level could not be resolved from the 1053 level; however, the 4^{+} level is not expected to be excited since the ^{109}Ag g.s. configuration=$((\pi\ 2p_{1/2})^{-1}(\pi\ 1g_{9/2})^{-2})+((\pi 2p_{3/2}^{-1})(\pi\ 1g_{9/2}^{-2}))$.
1314	0^{+}		
2531	$4^{-},5^{-}$ ‡	4	
2969	$4^{-},5^{-}$ ‡	4	

† From Adopted Levels, except where noted otherwise.
‡ From L value with assumption of g9/2 pickup ($J^{\pi}=1/2^{-}$ for ^{109}Ag target).