

¹⁰⁸Pd(p,n γ) 1976Ha57

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

E=2.6– 3.95 MeV.
 Other: 1974Be47 (p,n γ),(d,p γ) E \leq 7 MeV.

¹⁰⁸Ag Levels

E(level)	J $^{\pi}$ [†]	T _{1/2}	Comments
0	1 ⁺		
79.4 5	2 ⁻		
192.7 6	1 ⁺		
206.4 4	2 ⁺		J $^{\pi}$: $\gamma(\theta)$ consistent with J=2, not J=0,1.
215.1 5	3 ⁺	45.8 ns 7	g=1.296 5 J $^{\pi}$: $\gamma(\theta)$ and excitation function are consistent with J=3, not with 1 or 2. T _{1/2} : other: 55 ns 5 (1974Be47). g: weighted average of 1.294 6 (1974Be47) from d, $\gamma(\theta,H,t)$ and 1.301 11 (1976Ha57) from p, $\gamma(\theta,H,t)$. Data are relative to g-factor=+ 1.443 3 (1969B118) for the 5/2 ⁺ , 197 level in ¹⁹ F. All values have been corrected for diamagnetic shielding (1989Ra17). Knight shift corrections have been applied, 0.522% 3 (1954So05) for the silver in silver value of 1974Be47 and - 0.5% 3 (1974Be47) for silver in palladium value of 1976Ha57.
286.7? 5			E(level): deexciting 286.7 γ is probably the same transition as the 286.89 γ from the 803.7 level or the 287.16 γ from the 611.7 level in (n, γ).
294.5 5	2 ⁺		J $^{\pi}$: $\gamma(\theta)$ consistent with J=2, not with J=1.
324.5 4	3 ⁺		J $^{\pi}$: $\gamma(\theta)$ consistent with J=3, δ =+ 0.017 18 or with J=2, δ large. The large δ is not consistent with $\alpha(K)$ exp data in (n, γ).
331.6 5			
338.4 7	3 ⁻		J $^{\pi}$: $\gamma(\theta)$ consistent only with J=3.
363.6 7	3 ⁺ ,4 ⁺		
379.4 7	1 ⁻		
452.0? 9			E(level): deexciting 113.6 γ is probably the same transition as the 113.595 γ from the 598.67 level or the 113.800 γ from the 408.36 level in (n, γ).
460			Not seen in (n, γ).
465.9 5	0 ⁻		
506.8? 7			E(level): the deexciting 427.4 γ is probably the same transition as the 427.051 γ from the 765.47 level in (n, γ).
537.5 5			
543.8? 7			E(level): the deexciting 212.2 γ is probably the same transition as the 212.314 γ from the 799.69 level in (n, γ). The unplaced 201.3 γ could also deexcite this level.
562.7 5	2 ⁺		
606.3 7	1 ⁻		
674.7 5			
698.8 7			
706.4 7	1 ⁻ ,2 ⁻		

[†] From Adopted Levels.

$\gamma(^{108}\text{Ag})$

E $_{\gamma}$	E $_i$ (level)	J $_i^{\pi}$	E $_f$	J $_f^{\pi}$	Mult.	Comments
79.4 5	79.4	2 ⁻	0	1 ⁺		
101.8 5	294.5	2 ⁺	192.7	1 ⁺		
113.6 5	452.0?		338.4	3 ⁻		
117.8 5	324.5	3 ⁺	206.4	2 ⁺	D	δ : $\delta(Q/D)$ =+ 0.017 18.

Continued on next page (footnotes at end of table)

$^{108}\text{Pd}(p,n\gamma)$ **1976Ha57** (continued) $\gamma(^{108}\text{Ag})$ (continued)

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult.	δ^\dagger	Comments
148.5 5	363.6	3 ⁺ ,4 ⁺	215.1	3 ⁺			
^x 155.1 5							
192.7 5	192.7	1 ⁺	0	1 ⁺	D+Q	-0.21 5	
^x 201.3 5							
206.2 5	206.4	2 ⁺	0	1 ⁺	D		$\delta: \delta(Q/D) = 0.000 18.$
212.2 5	543.8?		331.6				
215.1 5	215.1	3 ⁺	0	1 ⁺	Q		
^x 238.9 5							
259.0 5	338.4	3 ⁻	79.4	2 ⁻	D+Q	-0.19 4	
286.7 5	286.7?		0	1 ⁺			
294.5 5	294.5	2 ⁺	0	1 ⁺	D+Q	+0.07 5	
300.0 5	379.4	1 ⁻	79.4	2 ⁻	D+Q	+0.11 7	
324.7 5	324.5	3 ⁺	0	1 ⁺			
331.6 5	331.6		0	1 ⁺			
427.4 5	506.8?		79.4	2 ⁻			
^x 439.2 5							
460	460		0	1 ⁺			
465.9 5	465.9	0 ⁻	0	1 ⁺			
526.9 5	606.3	1 ⁻	79.4	2 ⁻			
537.5 5	537.5		0	1 ⁺			
562.7 5	562.7	2 ⁺	0	1 ⁺			
^x 571.2 5							
^x 597.9 5							
619.4 5	698.8		79.4	2 ⁻			
627.0 5	706.4	1 ⁻ ,2 ⁻	79.4	2 ⁻			
^x 633.5 5							
674.7 5	674.7		0	1 ⁺			

[†] From $p,\gamma(\theta)$ with adopted J values.

^x γ ray not placed in level scheme.

$^{108}\text{Pd}(p,n\gamma)$ 1976Ha57

Level Scheme

