

$^{102}\text{Pd}(^3\text{He},\alpha\gamma)$ 1985Sa24

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2006

$E(^3\text{He}) = 70$ MeV. $\text{FWHM}(\alpha) = 60\text{-}70$ keV.

Measured $\alpha\gamma$, γ with Ge(Li) s, $\alpha(\theta)$, DWBA analysis (1985Sa24).

Other: 1981Sa21 (Earlier version of 1985Sa24).

Enriched target.

The $\alpha\gamma$ correlation measured at 90° , 120° , 135° , 150° .

 ^{101}Pd Levels

E(level) [†]	J ^π #	L	S [‡]	Comments
0	5/2 ⁺	2	2.43	
80 1	(3/2 ⁺)			
261 1	7/2 ⁺	4	2.65	
274 1				
588 1	(7/2 ⁺)			
667 1	9/2 ⁺			
745 1				
939 1	11/2 ⁺			
1337	11/2 ⁻	5	0.53	
1405 2	13/2 ⁺			
1893 2	15/2 ⁻			
2141 2		4,5		
2221 2	(11/2 ⁻)	4,5	0.45	S: For L=5. E(level): Decays via a three-step cascade to the 667 level.
2396 4		4	1.96	

[†] From γ data from α gates on the 2141, 2221, 2396 levels and the broad regions 3500-4500 and 4600-6600. No uncertainties are given by the authors. The evaluator has assigned an uncertainty of 1 keV to levels below 1400 and 2 keV for higher levels by comparison with Adopted Levels.

[‡] Normalized to 2.43 for the ground state, as determined in (d,t).

From Adopted Levels.

 $\gamma(^{101}\text{Pd})$

E _γ	I _γ	E _i (level)	J _i ^π	E _f	J _f ^π	Comments
261	100	261	7/2 ⁺	0	5/2 ⁺	
484	13 4	745		261	7/2 ⁺	
588	11 4	588	(7/2 ⁺)	0	5/2 ⁺	
667	18 5	667	9/2 ⁺	0	5/2 ⁺	
678	22 6	939	11/2 ⁺	261	7/2 ⁺	
738	9 3	1405	13/2 ⁺	667	9/2 ⁺	
991	6 3	2396		1405	13/2 ⁺	
1457	21 6	2396		939	11/2 ⁺	
1554		2221	(11/2 ⁻)	667	9/2 ⁺	I _γ : I _γ (1554γ)/I _γ (667γ)=23 15:100 20.
1651	14 7	2396		745		
1729	7 4	2396		667	9/2 ⁺	
1808	13 6	2396		588	(7/2 ⁺)	
2135	80 16	2396		261	7/2 ⁺	

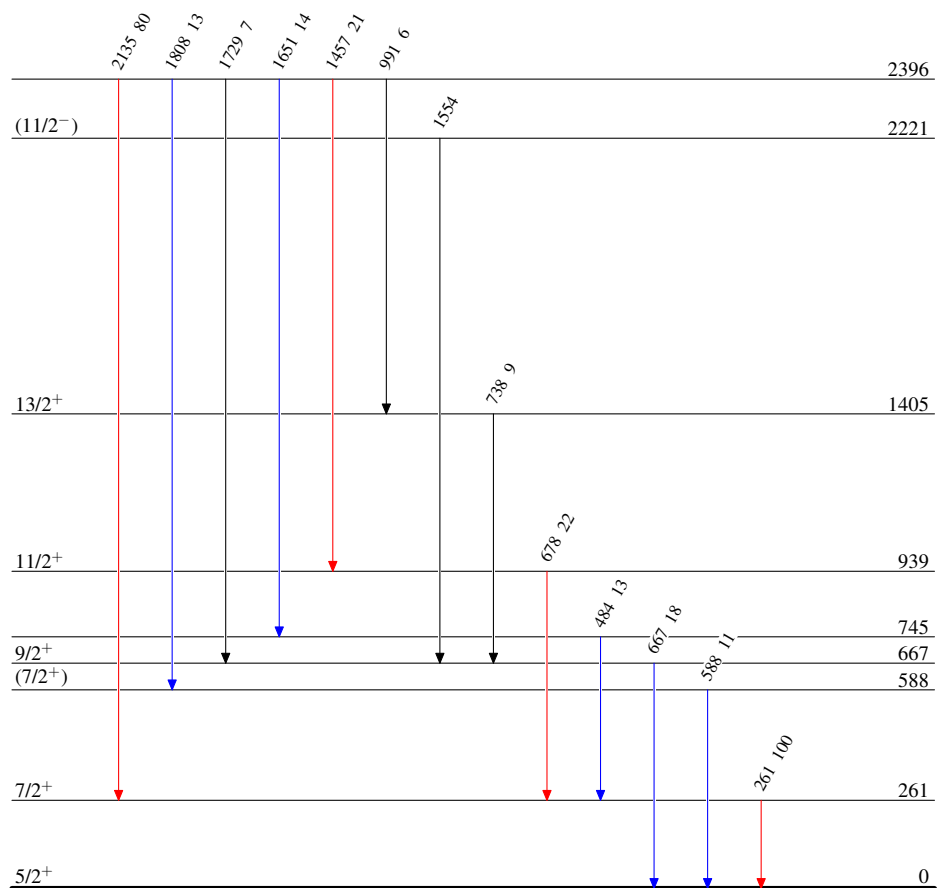
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Level Scheme

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$

 $^{101}_{46}\text{Pd}_{55}$