

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni		NDS 107,2423 (2006)	1-Jan-2006

$Q(\beta^-) = -1.37 \times 10^4$ syst; $S(n) = 1.50 \times 10^4$ syst; $S(p) = 4378$ 5; $Q(\alpha) = -3642$ 6 [2012Wa38](#)

Note: Current evaluation has used the following Q record -13050.0 SY14722.0 SY4467.0 syst-3468.0 syst [2003Au03](#).

$\Delta Q(\beta^-) = 643$, $\Delta S(n) = 566$, $\Delta S(p) = 566$, $\Delta Q(\alpha) = 499$ ([2003Au03](#)).

 ^{94}Pd LevelsCross Reference (XREF) Flags

- A** ^{94}Ag ε decay: $(7^+)+(21^+)$
B $^{58}\text{Ni}(^{40}\text{Ca}, 2p2n\gamma)$
C $\text{Ni}(^{112}\text{Sn}, X\gamma)$

E(level) [‡]	J ^π [#]	T _{1/2}	XREF	Comments
0 [†]	0 ⁺	9.0 s 5	ABC	$\% \varepsilon + \% \beta^+ = 100$ T _{1/2} : from 1982Ku15 .
813.80 [†] 10	2 ⁺		ABC	J ^π : systematics of N=48 nuclei.
1719.11 [†] 14	(4 ⁺)		ABC	
2378.13 [†] 17	(6 ⁺)		ABC	
2536.6 7	(5 ⁻)		B	
2697.60 17	(6 ⁺)		AB	
2702.13 [†] 20	(8 ⁺)		ABC	
3049.13 22	(8 ⁺)		AB	
3064.3 3	(6 ⁺)		A	
3794.04 [†] 22	(10 ⁺)		ABC	
4661.0 10			B	
4787.5 [†] 3	(12 ⁺)		ABC	
4883.1 [†] 4	(14 ⁺)	0.53 μs 1	ABC	T _{1/2} : From 2002La18 . Others: 0.6 μs 1 (1997Gr02), 0.8 μs 2 (1995Go30).
5291.3 4	(15 ⁺)		A	
5558.9 5	(16 ⁺)		A	
7103.5 5	(18 ⁺)		A	
7700.2 6	(20 ⁺)		A	

[†] Band(A): Yrast band.

[‡] From least-squares fit to $E\gamma$ assuming $\Delta E\gamma = 1$ keV when unknown.

[#] From systematics of N=58 nuclei and $\gamma\gamma$ correlations.

 $\gamma(^{94}\text{Pd})$

E _i (level)	J ^π _i	E _γ	I _γ	E _f	J ^π _f	Mult.	$\alpha^{\dagger}$	Comments
813.80	2 ⁺	813.8 1	100	0	0 ⁺	[E2]	0.00165	$\alpha(K) = 0.00142$ 5; $\alpha(L) = 0.00017$ 1
1719.11	(4 ⁺)	905.3 1	100	813.80	2 ⁺			
2378.13	(6 ⁺)	659.1 1	100	1719.11	(4 ⁺)			
2536.6	(5 ⁻)	158		2378.13	(6 ⁺)			
		818		1719.11	(4 ⁺)			
2697.60	(6 ⁺)	319.8 [‡] 2	≤9.7	2378.13	(6 ⁺)			
		978.4 1	100 3	1719.11	(4 ⁺)			

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Adopted Levels, Gammas (continued) $\gamma(^{94}\text{Pd})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	$\alpha^\dagger$	Comments
2702.13	(8 ⁺)	324.0 1	100	2378.13	(6 ⁺)			
3049.13	(8 ⁺)	347.0 1	100	2702.13	(8 ⁺)			
3064.3	(6 ⁺)	686.2 2	100	2378.13	(6 ⁺)			
3794.04	(10 ⁺)	745		3049.13	(8 ⁺)			
		1091.9 1	100	2702.13	(8 ⁺)			
4661.0		867		3794.04	(10 ⁺)			
4787.5	(12 ⁺)	993.5 2	100	3794.04	(10 ⁺)			
4883.1	(14 ⁺)	95.6 2	100	4787.5	(12 ⁺)	E2	1.65	$\alpha(\text{K})=1.27$ 4; $\alpha(\text{L})=0.316$ 10; $\alpha(\text{M})=0.0608$ 19; $\alpha(\text{N}+..)=0.0105$ 4 B(E2)(W.u.)=5.27 12 Mult.: from $\alpha(\text{exp})$ in $^{58}\text{Ni}(^{40}\text{Ca}, 2\text{p}2\text{n}\gamma)$ (2003Ma24).
5291.3	(15 ⁺)	408.2 2	100	4883.1	(14 ⁺)			
5558.9	(16 ⁺)	267.6 2	100	5291.3	(15 ⁺)			
7103.5	(18 ⁺)	1544.5 3	100	5558.9	(16 ⁺)			
7700.2	(20 ⁺)	596.7 3	100	7103.5	(18 ⁺)			

[†] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ -ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

[‡] Placement of transition in the level scheme is uncertain.

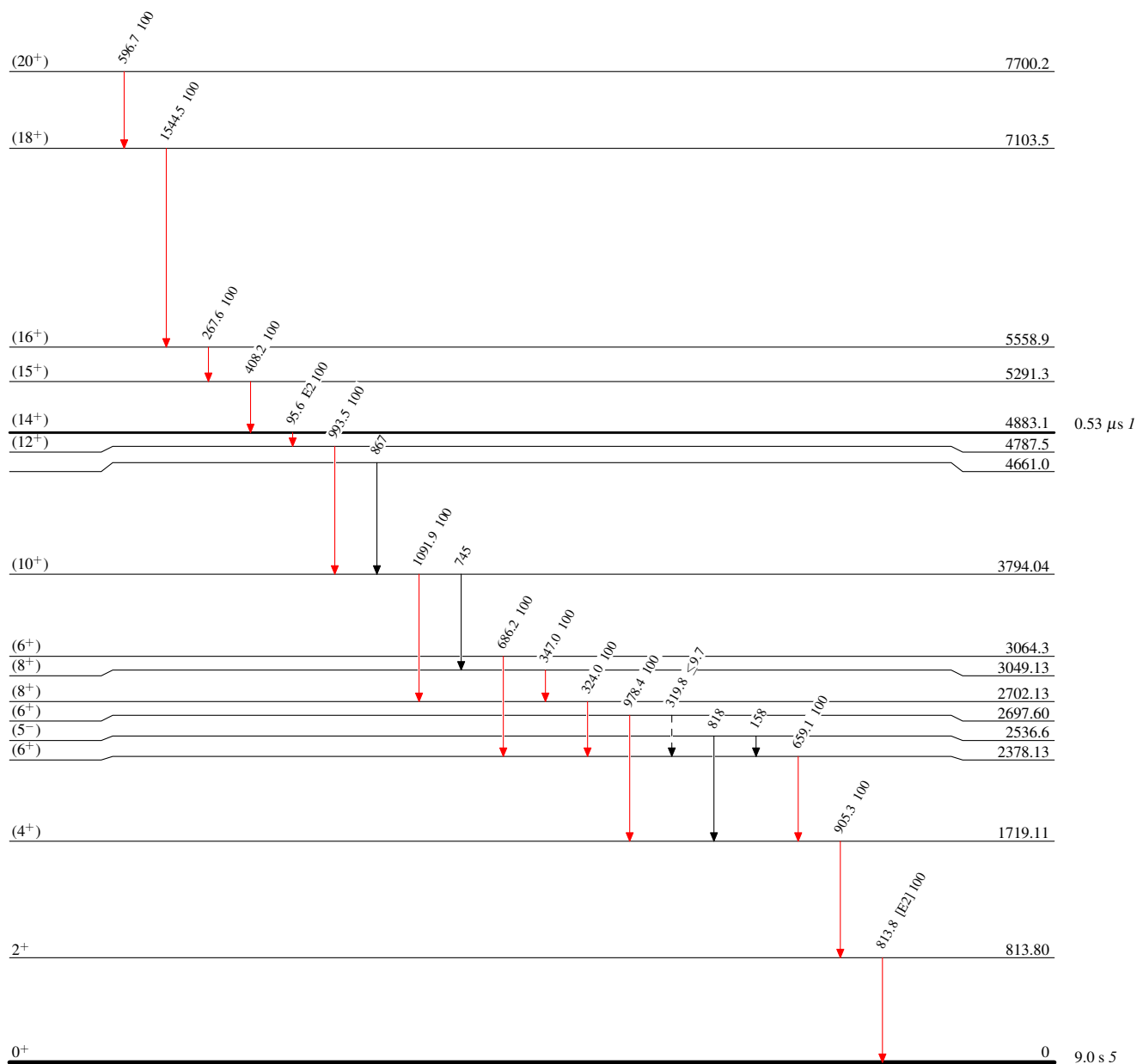
Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$
- - - - - γ Decay (Uncertain)



Adopted Levels, Gammas

Band(A): Yrast band

(14 ⁺)		4883.1
(12 ⁺)	96	4787.5

994

(10 ⁺)		3794.04
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1092

(8 ⁺)		2702.13
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324

(6 ⁺)		2378.13
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659

(4 ⁺)		1719.11
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905

2 ⁺		813.80
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814

0 ⁺		0
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⁹⁴Pd₄₈