

¹⁹⁸Pt(n,n'),(n,n'γ) 1983Ya04,1981Ya04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao		NDS 133, 221 (2016)	1-Dec-2015

1983Ya04: E=0.8-2.5 MeV; measured E_γ, I_γ, σ(E,E_γ,θ_γ) with Ge(Li) and tof.

1981Ya04: E=1.68 MeV; measured σ(E(n'),θ) and tof spectrum of n' at θ=135°; compared with statistical model calculations.

Other: 1982Po07.

¹⁹⁸Pt Levels

E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]
0	0 ⁺	1248.01 10	(3 ⁺) [@]	1481.23 21	0 ⁺	1680.59 16	3 ⁻
407.22 5	2 ⁺ [#]	1279.43 9	2 ⁺	1550.39 18	(2 ⁺)	1714.7?	(6 ⁺)
774.73 7	2 ⁺ [#]	1285.5?	4 ⁺	1636.93 21	(2 ⁺)	1784.53 22	(4 ⁺)
914.52 21	0 ⁺ [@]	1367.05 10	(5 ⁻) [#]	1656.83 21			
985.07 8	4 ⁺ [#]	1445.33 22		1672.13 12	(1,2) ^{&}		

[†] From level scheme and E_γ's by using least-squares fit to the γ-ray energies.

[‡] From Adopted Levels, except where noted otherwise.

[#] From γ(θ) at E(n)=2.5 MeV (1983Ya04).

[@] From n'(θ) at E(n)=1.68 MeV (1981Ya04).

[&] Expected for low-J states from the excitation function of the 897.2 keV γ-ray in 1983Ya04.

γ(¹⁹⁸Pt)

E _γ [†]	I _γ ^{†‡}	E _i (level)	J _i ^π	E _f	J _f ^π	Comments
313.3 2	0.8 2	1680.59	3 ⁻	1367.05	(5 ⁻)	
367.48 6	29 2	774.73	2 ⁺	407.22	2 ⁺	γ(θ): A ₂ =-0.07 2 (1983Ya04).
381.96 6	8.4 6	1367.05	(5 ⁻)	985.07	4 ⁺	γ(θ): A ₂ =-0.25 4 (1983Ya04).
407.21 5	100	407.22	2 ⁺	0	0 ⁺	γ(θ): A ₂ =+0.13 3 (1983Ya04).
424.1 1	0.7 2	1672.13	(1,2)	1248.01	(3 ⁺)	
473.27 7	7.9 6	1248.01	(3 ⁺)	774.73	2 ⁺	γ(θ): A ₂ =+0.00 3 (1983Ya04).
504.7 3	0.7 2	1279.43	2 ⁺	774.73	2 ⁺	
507.3 2	3.3 7	914.52	0 ⁺	407.22	2 ⁺	
577.82 6	23 2	985.07	4 ⁺	407.22	2 ⁺	γ(θ): A ₂ =+0.33 3 (1983Ya04).
670.6 2	1.1 2	1445.33		774.73	2 ⁺	
728.3 ^{@&}		1714.7?	(6 ⁺)	985.07	4 ⁺	
774.8 [#] 2	1.1 [#] 3	774.73	2 ⁺	0	0 ⁺	
775.8 3	1.5 4	1550.39	(2 ⁺)	774.73	2 ⁺	γ(θ): A ₂ =+0.16 13 (1983Ya04).
872.18 8	3.0 3	1279.43	2 ⁺	407.22	2 ⁺	
897.2 2	1.9 3	1672.13	(1,2)	774.73	2 ⁺	
1009.8 2	1.2 3	1784.53	(4 ⁺)	774.73	2 ⁺	
1074.0 2	0.9 2	1481.23	0 ⁺	407.22	2 ⁺	
1143.1 2	2.5 2	1550.39	(2 ⁺)	407.22	2 ⁺	
1229.7 2	3.1 3	1636.93	(2 ⁺)	407.22	2 ⁺	
1249.6 2	0.5 2	1656.83		407.22	2 ⁺	
1265.2 2	1.0 2	1672.13	(1,2)	407.22	2 ⁺	
1273.6 2	1.9 2	1680.59	3 ⁻	407.22	2 ⁺	
1279.7 3	0.8 2	1279.43	2 ⁺	0	0 ⁺	

[†] From 1983Ya04 (E(n)=2.5 MeV), except as noted.

$^{198}\text{Pt}(n,n'),(n,n'\gamma)$ **1983Ya04,1981Ya04 (continued)**

$\gamma(^{198}\text{Pt})$ (continued)

‡ Relative intensity normalized to $I_{\gamma}(407.21\gamma)=100$.

Determined from spectra taken at bombarding energies below 1.5-MeV (E_{γ} relative to $E_{\gamma}(775.8\gamma)$).

@ From [1981Ya04](#).

& Placement of transition in the level scheme is uncertain.

$^{198}\text{Pt}(n,n'),(n,n'\gamma)$ 1983Ya04,1981Ya04

Legend

Level Scheme
Intensities: Relative I_γ

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

