^{198}Pt(p,p′),(p,p′γ) 1981De12,1988Co19,1988Ya07

History

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

1981De12: E=35 MeV, resolution=15 keV; measured σ(E(p′),θ), θ=43°−85°; DWBA analysis. Deduced deformation parameters: β_2=−0.119, β_4=−0.0422.

1988Co19: E=35 MeV; measured $\sigma(\theta)$; deduced octopole strength fragmentation.

1988Ya07: E=12.3 MeV; measured Eγ, Iγ, E(ce), I(ce), and p′γ-coin with Ge(Li) and Si(Li).

Others: 1987SeZW (polarized protons with E(p)=135 MeV; measured several low lying levels with J^π: 0^+, 2^+, 2^+, 4^+, 4^+, 4^+, 3^-, 5^-, and 7^-); 1983Ra02 (E(p)=1.7 MeV; measured thick-target γ-ray yield for 407γ); 1987JuZY (E(p)=12.3 MeV; measured p′γ-coin, and I(ce) with Ge(Li)-Si(Li) and Si(Li)-magnetic lens electron spectrometer), 1987CoZY, 1987Da18, 1987SeZW, 1988Co19, and 1980Mo30.

^{198}Pt Levels

E(level)[†]	J^π[‡]	L[#]	dσ/dΩ(θ=30°), μb/sr	Comments
0	0^+		4.92×10^5	
407.25 *18*	2^+	2	3.24×10^3	
774.79 *20*	2^+	2	55.1[@]	β_L=−0.109 *5* (1990Se13).
914.0 *5*	0^+			
985.17 *25*	4^+	4	1.05×10^3	β_L=−0.030 *1* (1990Se13).
1248.1 *3*	(3^+)		21.9	
1279.7 *4*	2^+			
1286.3 *4*	4^+	4	252	β_L=−0.026 *1* (1990Se13).
1367.0 *3*	(5^-)	(5)	142	
1445 *3*			56.6	
1481.9 *7*	0^+			
1502 *3*	(7^-)	(7)	82.8	
1549.9 *4*	(2^+)			
1636.4 *5*	(2^+)			
1656.2 *5*			119	
1680.4 *3*	3^-	3	845	β_3=0.050 *5* (1988Co19).
1722 *3*			25.5[@]	L=(3) is not confirmed by 1981De12.
1785 *2*	(4^+)	(4)	150	β_L=−0.019 *2* (1990Se13).
1827 *4*				
1900 *2*			113	
1949 *2*				
1971 *4*				
2000 *2*				
2070 *2*			46.6[@]	
2100 *2*			74.9	
2120 *2*			57.9	
2155 *2*			137	
2178 *2*			52.7	
2319 *2*				
2339 *2*				
2356 *2*				
2387 *2*				
2441 *2*	(3^-)	(3)	369	β_3=0.037 *4* (1988Co19).
2469 *2*			49.9	
2514 *3*	(3^-)	(3)	108	β_3=0.020 *2* (1988Co19).
2573 *3*			36.3	
2603.6 *5*	(3^-)	(3)	762	β_3=0.052 *5* (1988Co19). E=2611 *3* reported by 1981De12.
2633 *3*				
2666 *3*			96.5	

Continued on next page (footnotes at end of table)

^{198}Pt(p,p′),(p,p′γ) 1981De12,1988Co19,1988Ya07 (continued)

^{198}Pt Levels (continued)

E(level)†	Jπ‡	L#	dσ/dΩ(θ=30°), μb/sr	Comments
2726 *3*			62.3	
2782 *3*				
2796 *3*	(3⁻)	(3)	325	β_3=0.037 *4* (1988Co19).
2826 *3*	(3⁻)	(3)	385	β_3=0.041 *4* (1988Co19).
2884 *3*			38.4	
2910 *3*			38.0	
3005 *4*				
3018 *4*				
3170 *5*				
3197 *5*				

† Levels quoted to tenths of keV are from the adopted Eγ′s by using least-squares fit to the γ-ray energies. Other E(level) are from 1981De12.
‡ From Adopted Levels.
# From DWBA analysis of σ(θ). Values are from 1981De12 except for L=(3) assignments above 1700 which are from 1988Co19, based on reanalysis of data of 1981De12.
@ At θ=40°.

γ(^{198}Pt)

Eγ†	Iγ‡	Ei(level)	Jiπ	Ef	Jfπ	Eγ†	Iγ‡	Ei(level)	Jiπ	Ef	Jfπ
313.3 *2*	10 *3*	1680.4	3⁻	1367.0	(5⁻)	577.9 *2*		985.17	4⁺	407.25	2⁺
367.4 *2*	93 *8*	774.79	2⁺	407.25	2⁺	671.0 *4*		1656.2		985.17	4⁺
381.8 *2*		1367.0	(5⁻)	985.17	4⁺	695.4 *3*	46 *7*	1680.4	3⁻	985.17	4⁺
400.7 *7*	15 *4*	1680.4	3⁻	1279.7	2⁺	774.6 *6*	30 *15*	1549.9	(2⁺)	774.79	2⁺
407.2 *2*		407.25	2⁺	0	0⁺	774.9 *3*	7 *4*	774.79	2⁺	0	0⁺
432.2 *4*	5 *3*	1680.4	3⁻	1248.1	(3⁺)	923.2 *4*		2603.6	(3⁻)	1680.4	3⁻
473.3 *3*		1248.1	(3⁺)	774.79	2⁺	1074.6 *6*		1481.9	0⁺	407.25	2⁺
504.9 *6*		1279.7	2⁺	774.79	2⁺	1142.9 *4*	70 *30*	1549.9	(2⁺)	407.25	2⁺
506.7 *4*		914.0	0⁺	407.25	2⁺	1229.3 *4*		1636.4	(2⁺)	407.25	2⁺
511.5 *3*		1286.3	4⁺	774.79	2⁺	1273.4 *5*	24 *7*	1680.4	3⁻	407.25	2⁺

† From 1988Ya07.
‡ Relative Iγ from each level (1988Ya07).

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Level Scheme

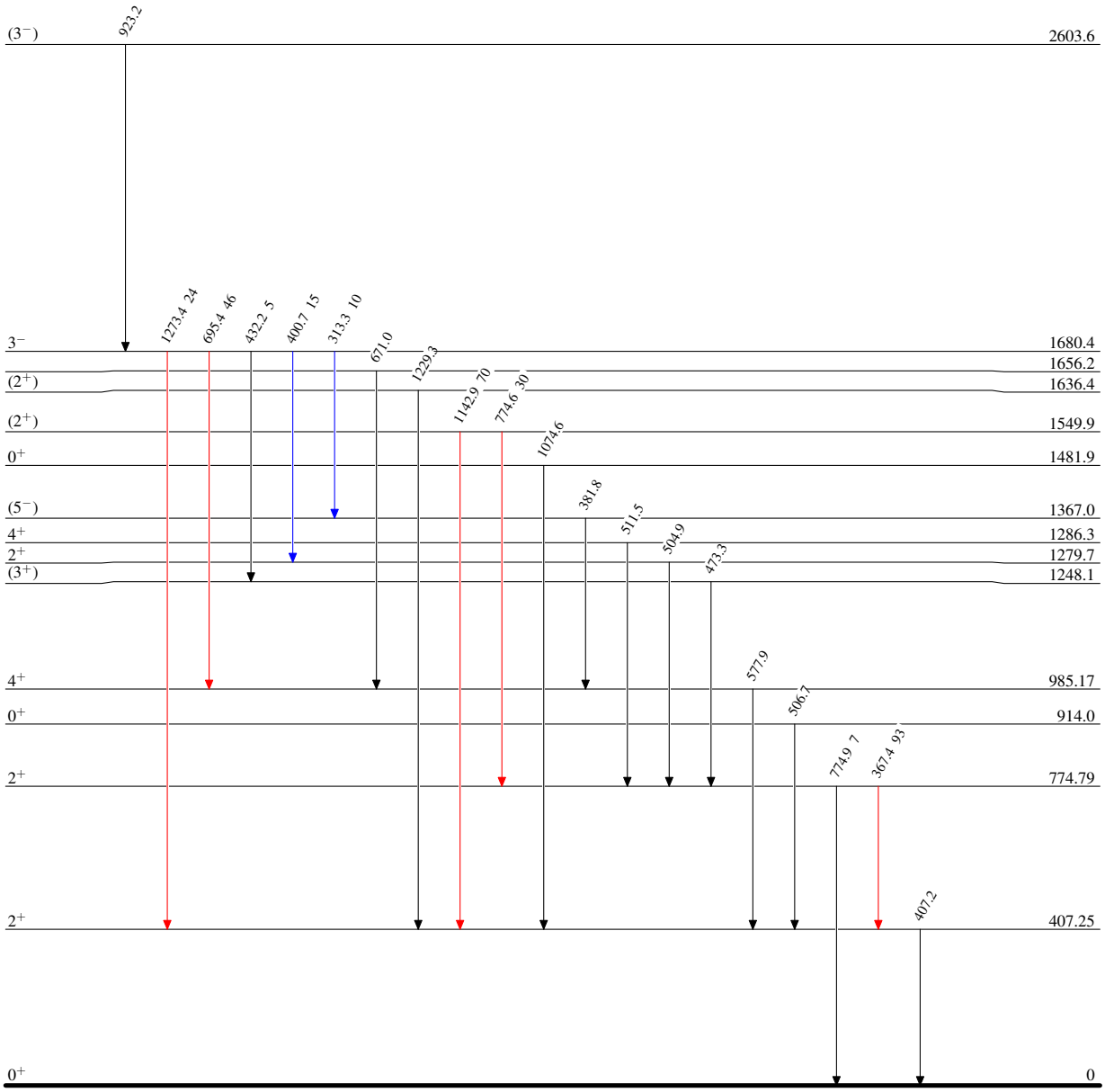
Intensities: Relative I_γ

Legend

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

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

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



$^{198}_{78}Pt_{120}$