$^{194}\text{Pt}(p,t)$ 2010Il03,1979De25,1977Se15

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 1871 (2012)	15-Jun-2012

Others: 1976VeZS, 1977ToZL, 1979Ci05, 1980Se05 (E=51.9 MeV), 1985Mi06.

2010Il03: E(p)=25 MeV; 97.4% enriched ^{194}Pt target with C backing; Q3d magnetic spectrometer (FWHM≈6 keV); particle identification; measured E(t), $\sigma(\theta)$ At 5°, 17.5°, 30°; deduced L=0 transfers based on $\sigma(5°)/\sigma(17.5°)$; DWBA calculations.

1979De25: E(p)=35 MeV; platinum targets enriched to≈97% in ^{194}Pt; measured E(level) (mag spect with photographic emulsions (FWHM=7 keV) or proportional counter (FWHM=15 keV)), differential cross sections, angular distributions (7° to 60°). See also 1979Ci05 for further discussion of data of 1979De25.

1977Se15: E(p)=26 MeV; platinum targets enriched to 97.4% in ^{194}Pt; measured E(level) (mag spect and position sensitive detectors (FWHM=13 keV)), relative excitation probabilities, angular distributions (6 angles, selected to characterize L=0 and L=2 transfers). L deduced by comparing measured $\sigma(\theta)$ with that for known L transfer.

^{192}Pt Levels

E(level)[†]	L[‡]	$\sigma(5°)/\sigma(17.5°)$[#]	Comments
0.0	0	11.9	dσ/dΩ (μb/sr)=774 *5* At 5°, 64.6 *10* At 17.5°, 303 *2* At 30° (2010Il03).
316.8 *1*	2[c]	0.7	dσ/dΩ (μb/sr)=39.6 *12* At 5°, 52.4 *9* At 17.5°, 23.7 *5* At 30° (2010Il03).
612.8 *1*	2[c]	1.0	dσ/dΩ (μb/sr)=8.7 *5* At 5°, 8.7 *4* At 17.5°, 3.9 *2* At 30° (2010Il03).
784.7 *1*	(4)[c]	1.5	dσ/dΩ (μb/sr)=5.6 *4* At 5°, 3.6 *3* At 17.5°, 2.3 *2* At 30° (2010Il03).
1195.6 *1*	0	7.2	dσ/dΩ (μb/sr)=6.5 *5* At 5°, 0.9 *2* At 17.5°, 2.7 *2* At 30° (2010Il03).
1201.2 *1*	(4)[c]	1.7	dσ/dΩ (μb/sr)=8.1 *6* At 5°, 4.6 *3* At 17.5°, 4.3 *2* At 30° (2010Il03).
1366 *1*			E(level): from 1979De25; not observed by 2010Il03.
1378.0 *1*		1.1	dσ/dΩ (μb/sr)=8.5 *5* At 5°, 7.5 *4* At 17.5°, 4.4 *2* At 30° (2010Il03).
1383.6 *2*		0.8	dσ/dΩ (μb/sr)=0.7 *3* At 5°, 0.8 *2* At 17.5°, 1.8 *2* At 30° (2010Il03).
1406.3 *1*	@	1.8	dσ/dΩ (μb/sr)=2.8 *3* At 5°, 1.5 *2* At 17.5°, 1.4 *2* At 30° (2010Il03).
1439.3 *4*		1.5	dσ/dΩ (μb/sr)=0.6 *2* At 5°, 0.4 *1* At 17.5°, 0.2 *1* At 30° (2010Il03).
1517 *2*			E(level): from 1979De25; not observed by 2010Il03.
1546.8 *1*	0	14.5	dσ/dΩ (μb/sr)=5.8 *4* At 5°, 0.4 *1* At 17.5°, 1.1 *1* At 30° (2010Il03).
1576.7 *2*		0.5	dσ/dΩ (μb/sr)=0.7 *2* At 5°, 1.3 *2* At 17.5°, 0.5 *1* At 30° (2010Il03).
1629.4 *1*	0	4.6	dσ/dΩ (μb/sr)=36.8 *9* At 5°, 8.0 *3* At 17.5°, 15.3 *4* At 30° (2010Il03).
1792.3 *1*		0.4	dσ/dΩ (μb/sr)=1.7 *2* At 5°, 3.5 *2* At 17.5°, 1.8 *2* At 30° (2010Il03).
1800.3 *1*		1.2	dσ/dΩ (μb/sr)=4.0 *3* At 5°, 3.3 *2* At 17.5°, 3.0 *2* At 30° (2010Il03).
1857.4 *1*		1.1	dσ/dΩ (μb/sr)=16.7 *6* At 5°, 14.2 *4* At 17.5°, 13.6 *4* At 30° (2010Il03).
1878.6 *3*		1.6	dσ/dΩ (μb/sr)=2.6 *7* At 5°, 1.6 *3* At 17.5°, 1.3 *3* At 30° (2010Il03).
1881.5 *3*	0	11.2	dσ/dΩ (μb/sr)=5.6 *8* At 5°, 0.5 *3* At 17.5°, 0.9 *3* At 30° (2010Il03).
1897.7 *1*		0.4	dσ/dΩ (μb/sr)=0.8 *2* At 5°, 2.0 *2* At 17.5°, 2.0 *2* At 30° (2010Il03).
1934.7 *1*	3,4[a]	1.4	dσ/dΩ (μb/sr)=5.5 *3* At 5°, 3.7 *2* At 17.5°, 2.7 *2* At 30° (2010Il03).
1972.5 *1*	(2)[b]	0.5	dσ/dΩ (μb/sr)=5.9 *4* At 5°, 9.9 *3* At 17.5°, 5.4 *3* At 30° (2010Il03).
1981.5 *1*		1.1	dσ/dΩ (μb/sr)=2.0 *2* At 5°, 1.8 *2* At 17.5°, 2.4 *2* At 30° (2010Il03).
2017.0 *2*		0.3	dσ/dΩ (μb/sr)=0.5 *2* At 5°, 1.4 *2* At 17.5°, 0.6 *1* At 30° (2010Il03).
2041.8 *1*	&	0.5	dσ/dΩ (μb/sr)=12.4 *5* At 5°, 23.3 *5* At 17.5°, 14.6 *4* At 30° (2010Il03).
2068.4 *3*		0.4	dσ/dΩ (μb/sr)=0.9 *2* At 5°, 2.2 *2* At 17.5°, 1.0 *2* At 30° (2010Il03).
2073.4 *5*		0.8	dσ/dΩ (μb/sr)=0.4 *2* At 5°, 0.5 *2* At 17.5°, 0.7 *2* At 30° (2010Il03).
2096.9 *3*		0.8	dσ/dΩ (μb/sr)=0.4 *1* At 5°, 0.5 *1* At 17.5°, 0.5 *1* At 30° (2010Il03).
2110.9 *1*	0	5.8	dσ/dΩ (μb/sr)=5.8 *4* At 5°, 1.0 *1* At 17.5°, 1.2 *2* At 30° (2010Il03).
2128.9 *1*		0.4	dσ/dΩ (μb/sr)=2.5 *3* At 5°, 5.9 *3* At 17.5°, 2.7 *2* At 30° (2010Il03).
2136.2 *1*		1.0	dσ/dΩ (μb/sr)=7.4 *4* At 5°, 6.8 *3* At 17.5°, 4.5 *3* At 30° (2010Il03). other E: 2140 *2* (1979De25).
2149.7 *1*		0.5	dσ/dΩ (μb/sr)=1.9 *2* At 5°, 3.4 *2* At 17.5°, 1.0 *2* At 30° (2010Il03). other E: 2153 *2* (1979De25).
2162.7 *1*		1.0	dσ/dΩ (μb/sr)=6.1 *4* At 5°, 5.7 *2* At 17.5°, 5.9 *3* At 30° (2010Il03). other E: 2166 *2* (1979De25).
2183.2 *2*		0.2	dσ/dΩ (μb/sr)=0.8 *1* At 5°, 2.7 *2* At 17.5°, 0.9 *1* At 30° (2010Il03). other E: 2188 *2* (1979De25).

^{194}**Pt(p,t)**　　　**2010Il03,1979De25,1977Se15 (continued)**

^{192}Pt Levels (continued)

E(level)[†]	L[‡]	$\sigma(5°)/\sigma(17.5°)$[#]	Comments
2199.3 *1*		1.1	dσ/dΩ (μb/sr)=5.1 *3* At 5°, 4.3 *2* At 17.5°, 4.0 *2* At 30° (2010Il03).
			other E: 2204 *2* (1979De25).
2208.7 *3*		1.1	dσ/dΩ (μb/sr)=1.1 *2* At 5°, 1.0 *2* At 17.5°, 0.5 *1* At 30° (2010Il03).
2264.9 *1*		0.6	dσ/dΩ (μb/sr)=2.5 *2* At 5°, 3.7 *2* At 17.5°, 4.6 *2* At 30° (2010Il03).
			other E: 2271 *2* (1979De25).
2287.3 *2*		0.3	dσ/dΩ (μb/sr)=0.9 *2* At 5°, 2.3 *2* At 17.5°, 1.0 *1* At 30° (2010Il03).
2300.9 *1*		0.8	dσ/dΩ (μb/sr)=8.3 *4* At 5°, 9.5 *4* At 17.5°, 8.6 *3* At 30° (2010Il03).
			other E: 2308 *2* (1979De25).
2321.1 *2*		0.7	dσ/dΩ (μb/sr)=0.7 *2* At 5°, 0.9 *2* At 17.5°, 0.6 *1* At 30° (2010Il03).
			E(level): 2330 *3* (1979De25) May be for 2321+2343 doublet.
2343.1 *3*		1.1	dσ/dΩ (μb/sr)=1.0 *2* At 5°, 0.9 *2* At 17.5°, 1.0 *2* At 30° (2010Il03).
2349.5 *1*		0.8	dσ/dΩ (μb/sr)=2.1 *2* At 5°, 2.4 *2* At 17.5°, 3.1 *3* At 30° (2010Il03).
			E(level): 2358 *2* (1979De25) May be for 2350+2366 doublet.
2366.4 *3*		0.5	dσ/dΩ (μb/sr)=0.5 *1* At 5°, 0.9 *2* At 17.5°, 0.5 *1* At 30° (2010Il03).
2378.0 *2*		0.5	dσ/dΩ (μb/sr)=0.5 *1* At 5°, 0.9 *2* At 17.5°, 1.0 *2* At 30° (2010Il03).
2385.6 *3*	0	4.0	dσ/dΩ (μb/sr)=1.2 *2* At 5°, 0.3 *1* At 17.5°, 0.5 *2* At 30° (2010Il03).
			E(level): 2389 *2* (1979De25) May be for 2386+2394 doublet.
2394.3 *2*		0.4	dσ/dΩ (μb/sr)=0.7 *2* At 5°, 1.6 *2* At 17.5°, 1.0 *1* At 30° (2010Il03).
2402.6 *2*		0.4	dσ/dΩ (μb/sr)=0.5 *1* At 5°, 1.1 *1* At 17.5°, 1.2 *2* At 30° (2010Il03).
			E(level): 2411 *2* (1979De25) May be for 2403+2415 doublet.
2415.4 *2*		1.3	dσ/dΩ (μb/sr)=3.9 *4* At 5°, 2.8 *4* At 17.5°, 1.6 *3* At 30° (2010Il03).
2420.3 *2*		0.4	dσ/dΩ (μb/sr)=1.8 *3* At 5°, 3.9 *4* At 17.5°, 1.9 *3* At 30° (2010Il03).
			E(level): 2428 *2* (1979De25) May be for 2420+2436 doublet.
2435.7 *1*		0.7	dσ/dΩ (μb/sr)=5.7 *3* At 5°, 3.9 *3* At 17.5°, 2.2 *2* At 30° (2010Il03).
2444 *2*			E(level): from 1979De25; not observed by 2010Il03.
2456.1 *1*		0.8	dσ/dΩ (μb/sr)=3.0 *3* At 5°, 3.7 *2* At 17.5°, 2.2 *2* At 30° (2010Il03).
			other E: 2450 *2* (1979De25).
2469.5 *2*		0.5	dσ/dΩ (μb/sr)=0.8 *2* At 5°, 1.4 *2* At 17.5°, 1.4 *2* At 30° (2010Il03).
2477.9 *1*		1.3	dσ/dΩ (μb/sr)=3.0 *3* At 5°, 2.3 *2* At 17.5°, 2.4 *2* At 30° (2010Il03).
			E(level): 2486 *2* (1979De25) May be for 2478+2491 doublet.
2491.4 *2*	0	2.3	dσ/dΩ (μb/sr)=1.4 *2* At 5°, 0.6 *1* At 17.5°, 0.7 *2* At 30° (2010Il03).
2500.2 *3*	0	2.2	dσ/dΩ (μb/sr)=1.1 *2* At 5°, 0.5 *1* At 17.5°, 0.5 *1* At 30° (2010Il03).
			E(level): 2506 *3* (1979De25) May be for 2500+2512 doublet.
2512.3 *2*		0.5	dσ/dΩ (μb/sr)=0.9 *2* At 5°, 1.6 *2* At 17.5°, 1.5 *2* At 30° (2010Il03).
2532.2 *2*		0.6	dσ/dΩ (μb/sr)=1.8 *3* At 5°, 2.9 *4* At 17.5°, 2.5 *4* At 30° (2010Il03).
			other E: 2526 *3* (1979De25).
2537.5 *1*		0.8	dσ/dΩ (μb/sr)=5.3 *4* At 5°, 6.5 *5* At 17.5°, 6.6 *5* At 30° (2010Il03).
2546.5 *2*		0.4	dσ/dΩ (μb/sr)=0.5 *2* At 5°, 1.2 *2* At 17.5°, 1.2 *2* At 30° (2010Il03).
2557.5 *2*		1.5	dσ/dΩ (μb/sr)=1.4 *2* At 5°, 0.9 *2* At 17.5°, 0.7 *2* At 30° (2010Il03).
2565.0 *3*		0.6	dσ/dΩ (μb/sr)=0.5 *2* At 5°, 0.8 *2* At 17.5°, 0.6 *2* At 30° (2010Il03).
2573.5 *2*		0.7	dσ/dΩ (μb/sr)=1.1 *2* At 5°, 1.4 *2* At 17.5°, 1.6 *2* At 30° (2010Il03).
2590.8 *1*		0.6	dσ/dΩ (μb/sr)=1.8 *2* At 5°, 2.6 *2* At 17.5°, 2.0 *2* At 30° (2010Il03).
2607.1 *1*		1.1	dσ/dΩ (μb/sr)=2.7 *3* At 5°, 2.3 *2* At 17.5°, 2.3 *2* At 30° (2010Il03).
2626.5 *1*		0.5	dσ/dΩ (μb/sr)=2.9 *3* At 5°, 5.4 *3* At 17.5°, 3.3 *2* At 30° (2010Il03).
2645.4 *2*		1.1	dσ/dΩ (μb/sr)=1.0 *2* At 5°, 0.9 *2* At 17.5°, 1.1 *2* At 30° (2010Il03).
2653.2 *2*		1.7	dσ/dΩ (μb/sr)=1.6 *2* At 5°, 0.9 *2* At 17.5°, 0.9 *2* At 30° (2010Il03).
			E(level): 2662 *3* (1979De25) May be for 2653+2674 doublet.
2674.1 *2*		0.5	dσ/dΩ (μb/sr)=0.7 *2* At 5°, 1.2 *2* At 17.5°, 1.4 *2* At 30° (2010Il03).
2683.9 *1*		0.9	dσ/dΩ (μb/sr)=1.9 *2* At 5°, 2.1 *2* At 17.5°, 1.8 *2* At 30° (2010Il03).
			E(level): 2695 *3* (1979De25) May be for 2684+2703 doublet.
2703.3 *2*		0.8	dσ/dΩ (μb/sr)=1.4 *3* At 5°, 1.7 *4* At 17.5°, 2.0 *4* At 30° (2010Il03).
2709.3 *1*		1.0	dσ/dΩ (μb/sr)=3.6 *5* At 5°, 3.5 *5* At 17.5°, 1.9 *4* At 30° (2010Il03).
2721.4 *2*		0.8	dσ/dΩ (μb/sr)=1.6 *3* At 5°, 2.0 *3* At 17.5°, 1.1 *2* At 30° (2010Il03).
2732.2 *2*		0.9	dσ/dΩ (μb/sr)=1.3 *3* At 5°, 1.4 *3* At 17.5°, 1.4 *3* At 30° (2010Il03).
2743.0 *1*	(0)	1.9	dσ/dΩ (μb/sr)=3.9 *5* At 5°, 2.0 *3* At 17.5°, 2.9 *4* At 30° (2010Il03).
2757.4 *2*		0.5	dσ/dΩ (μb/sr)=0.7 *2* At 5°, 1.4 *3* At 17.5°, 1.5 *3* At 30° (2010Il03).
2764.0 *2*		0.9	dσ/dΩ (μb/sr)=1.2 *3* At 5°, 1.3 *3* At 17.5°, 1.2 *3* At 30° (2010Il03).

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^{194}**Pt(p,t)**   **2010Il03,1979De25,1977Se15 (continued)**

^{192}Pt Levels (continued)

E(level)[†]	$\sigma(5°)/\sigma(17.5°)$[#]	Comments
2775.5 2	0.6	$d\sigma/d\Omega$ (μb/sr)=0.6 2 At 5°, 0.9 2 At 17.5°, 1.4 3 At 30° (2010Il03).
2784.1 2	1.2	$d\sigma/d\Omega$ (μb/sr)=1.2 3 At 5°, 1.0 2 At 17.5°, 0.8 2 At 30° (2010Il03).
2793.4 2	1.2	$d\sigma/d\Omega$ (μb/sr)=1.5 4 At 5°, 1.2 3 At 17.5°, 1.1 2 At 30° (2010Il03).
2800.5 2	0.8	$d\sigma/d\Omega$ (μb/sr)=1.2 3 At 5°, 1.5 3 At 17.5°, 1.3 3 At 30° (2010Il03).
2812.2 1	0.6	$d\sigma/d\Omega$ (μb/sr)=1.6 3 At 5°, 2.4 3 At 17.5°, 2.8 4 At 30° (2010Il03).
2841.7 2	0.6	$d\sigma/d\Omega$ (μb/sr)=0.9 2 At 5°, 1.3 2 At 17.5°, 1.8 3 At 30° (2010Il03).

[†] From 2010Il03, except As noted. Data from 1979De25 agree within stated uncertainties up to E≈2040; but, At higher energies and level density, the poorer resolution spectrum from 1979De25 May have been inadequate to resolve some of the levels reported by 2010Il03. also, E from 1979De25 is consistently higher than that from 2010Il03 for E>2 MeV (by 3 keV At 2.1 MeV, but rising to 20 keV At E>2.6 MeV).

[‡] From 2010Il03 based on $\sigma(5°)/\sigma(17.5°)$, except As noted.

[#] $\sigma(5°)/\sigma(17.5°)$ At E(p)=25 MeV from 2010Il03. Ratios exceeding≈2 are indicative of L=0 transfer.

[@] 1977Se15 favor L=4 for weakly excited level at 1405 keV.

[&] 1977Se15 favor L=2 for moderately strongly excited level at 2047 keV.

[a] L=4 is favored by analogy with ^{194}Pt and ^{196}Pt (1979De25).

[b] From 1977Se15, based on comparison of measured $\sigma(\theta)$ with that for known L transfer.

[c] From comparison of $\sigma(\theta)$ with zero-range DWBA calculations (1979De25).