^{193}Ir(t,α), (pol t,α) 1979Ba25,1987Ci06

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

Target $J^{\pi}=3/2^{+}$.

Other: 1977Ba09 (E=15 MeV).

1979Ba25: E(t)=15 MeV; iridium targets enriched to 98.7% in ^{193}Ir; measured E(level) (Q3D magnetic spectrometer, position-sensitive counter, FWHM≈11 keV), cross sections at 40°, 50°; used DWBA, strong coupling model, and RPA calculations to determine K quantum numbers and Nilsson orbital assignments for several levels.

1987Ci06: polarized triton beam (E unstated; typical polarization=0.65); θ=35°, 40°; enriched ^{193}Ir targets; measured E(level) (Q3D magnetic spectrometer, helical proportional counter, FWHM=18 keV), cross sections, analyzing powers; used results as tests of supersymmetry model.

^{192}Os Levels

E(level)[†]	A_y[‡]	Comments
0.0	−0.76 *7*	dσ/dΩ(50°)=31.3 μb/sr (1979Ba25).
208 *4*	−0.56 *6*	dσ/dΩ(50°)=37.9 μb/sr (1979Ba25).
490 *4*	+0.22 *12*	dσ/dΩ(50°)=12.1 μb/sr (1979Ba25). Transition not dominated by single-step $d_{3/2}$ p transfer, but includes either some $d_{5/2}$ transfer strength or reflects presence of some higher-order mechanism (1987Ci06).
580 *10*		dσ/dΩ(50°)=1.8 μb/sr (1979Ba25).
691 *10*		dσ/dΩ(50°)=2.5 μb/sr (1979Ba25).
911 *10*	+0.10 *14*	dσ/dΩ(50°)=9.7 μb/sr (1979Ba25).
1070 *6*	+0.33 *8*	dσ/dΩ(50°)=29.3 μb/sr (1979Ba25). Level contains large amplitudes of both two-phonon γ-vibration and one-phonon hexadecapole vibration (1979Ba25). Analyzing power from 1987Ci06 supports this interpretation.
1348 *10*		dσ/dΩ(50°)=1.5 μb/sr (1979Ba25).
1613 *10*		dσ/dΩ(50°)=2.4 μb/sr (1979Ba25).
1667 *10*		dσ/dΩ(50°)=2.0 μb/sr (1979Ba25).
1780 *10*		dσ/dΩ(50°)=1.5 μb/sr (1979Ba25).
1809 *10*		dσ/dΩ(50°)=3.1 μb/sr (1979Ba25).
1883 *10*		dσ/dΩ(50°)=5.1 μb/sr (1979Ba25).
1903 *10*		dσ/dΩ(50°)=3.4 μb/sr (1979Ba25).
1945 *6*		dσ/dΩ(50°)=18.5 μb/sr (1979Ba25).
2016 *8*		dσ/dΩ(50°)=17.9 μb/sr (1979Ba25).
2058 *10*		dσ/dΩ(50°)=3.2 μb/sr (1979Ba25).
2096 *10*		dσ/dΩ(50°)=4.5 μb/sr (1979Ba25).
2176 *10*		dσ/dΩ(50°)=7.3 μb/sr (1979Ba25).
2210 *8*		dσ/dΩ(50°)=24.2 μb/sr (1979Ba25).
2258 *8*		dσ/dΩ(50°)=14.2 μb/sr (1979Ba25).
2276 *10*		dσ/dΩ(50°)=9.8 μb/sr (1979Ba25).
2304 *10*		dσ/dΩ(50°)=4.3 μb/sr (1979Ba25).
2337 *10*		dσ/dΩ(50°)=5.0 μb/sr (1979Ba25).
2352 *8*		dσ/dΩ(50°)=13.5 μb/sr (1979Ba25).
2392 *8*		dσ/dΩ(50°)=13.1 μb/sr (1979Ba25).
2423 *8*		dσ/dΩ(50°)=14.0 μb/sr (1979Ba25).
2466 *8*		dσ/dΩ(50°)=35.5 μb/sr (1979Ba25).
2489 *8*		dσ/dΩ(50°)=26.4 μb/sr (1979Ba25).
2508 *8*		dσ/dΩ(50°)=15.2 μb/sr (1979Ba25).
2619 *8*		dσ/dΩ(50°)=30.2 μb/sr (1979Ba25).
2643 *8*		dσ/dΩ(50°)=22.5 μb/sr (1979Ba25).
2686 *8*		dσ/dΩ(50°)=59.9 μb/sr (1979Ba25).
2756 *8*		dσ/dΩ(50°)=45.6 μb/sr (1979Ba25).
2788 *8*		dσ/dΩ(50°)=28.4 μb/sr (1979Ba25).
2887 *8*		dσ/dΩ(50°)=36.7 μb/sr (1979Ba25).
2916 *8*		dσ/dΩ(50°)=34.4 μb/sr (1979Ba25).

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^{193}Ir(t,α), (pol t,α) 1979Ba25,1987Ci06 (continued)

^{192}Os Levels (continued)

E(level)[†]	Comments
2947 *8*	dσ/dΩ(50°)=18.1 μb/sr (1979Ba25).
2978 *8*	dσ/dΩ(50°)=25.0 μb/sr (1979Ba25).
3088 *10*	dσ/dΩ(50°)=9.4 μb/sr (1979Ba25).

[†] From 1979Ba25; uncertainties for strongly populated levels (taken by evaluator to be those with dσ/dΩ≥10 μb/sr) are 4 keV for E(level)<1 MeV, 6 keV for E(level)=1 to 2 MeV, 8 keV for E(level)>2 MeV. Evaluator assumed ΔE=10 for other levels.
[‡] A_y at 40° (c.m.) (1987Ci06); see 1987Ci06 for A_y at 35° (c.m.). The uncertainties are statistical only.