^{192}Os(n,γ) E=res 1979Wa04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 143, 1 (2017)	31-Mar-2017

E(res)=2 keV (mean energy of neutron beam (scandium filter used to spread beam over 20 to 30 resonances); FWHM=800 eV); osmium metal targets enriched to 99.03% in ^{192}Os; measured averaged intensities of primary transitions (3-crystal pair spectrometer system); determined full set of $1/2^-$ or $3/2^-$ states below 1700 keV.

1974Be78 observed resonances at energies (in eV): 26.03 *9*; 36.17 *15*; 43.9 *2*; 95.7 *7*; 115.8 *11*; 126.0 *12* transmission through enriched targets, time-of-flight method.

See 2006MuZX for properties of neutron resonances.

^{193}Os Levels

E(level)[†]	J$^\pi$[‡]	Comments
0.0	$1/2^-$,$3/2^-$	
41.2 *2*	$1/2^-$,$3/2^-$	
102.4 *2*	$1/2^-$,$3/2^-$	
233.7 *3*	$1/2^-$,$3/2^-$	
307.3 *3*	$1/2^-$,$3/2^-$	
434.8 *2*	$1/2^-$,$3/2^-$	
888.9 *3*	$1/2^-$,$3/2^-$	At least one member of the 888.6 − 889.5 doublet has J$^\pi$=$1/2^-$,$3/2^-$.
1053.3 *6*	$1/2^-$,$3/2^-$	
1178.3 *3*	$1/2^-$,$3/2^-$	
1218.0 *6*	$1/2^{(-)}$,$3/2^{(-)}$	
1282.4 *4*	$1/2^-$,$3/2^-$	
1288.0 *4*	$1/2^-$,$3/2^-$	
1385.6 *12*	$1/2^{(-)}$,$3/2^{(-)}$	
1437.4 *9*	$1/2^{(-)}$,$3/2^{(-)}$	
1515.2 *6*	$1/2^-$,$3/2^-$	
1589.6 *7*	$1/2^-$,$3/2^-$	
(5587.1)	$1/2^+$	E(level): approximate energy of 2-keV resonance capture states (E(level)=S(n) + 2 keV). J$^\pi$: s-wave capture dominant; target J$^\pi$=0^+.

[†] From Eγ(g.s.) − Eγ (1979Wa04); uncertainties do not include calibration errors (estimated to be 1.0 keV for absolute energies, 0.3-0.8 keV for relative energies).

[‡] From intense population, suggesting E1 (or probable E1) multipolarity, by primary transitions ($1/2^+$ capture states).