^{192}Os(d,t),^{190}Os(d,p) 1991Bo35,1977Be15

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 195,368 (2024)	1-Dec-2023

1991Bo35: (d,t): 99.06% enriched ^{192}Os target bombarded by deuteron beam, E=20 MeV. Measured scattered tritons at θ=30° and 60°. Detector: high-resolution magnetic spectrometer, FWHM=3 keV.
1977Be15: Mass-separated ^{190}Os and ^{192}Os targets. Magnetic spectrometer. Studied following two reactions:
^{190}Os(d,p), E=12 MeV, FWHM=10-17 keV, θ=27.5°, 35°, 45°, 55°, 95°, 125° (1977Be15).
^{192}Os(d,t), E=12 MeV, FWHM=14-21 keV, θ=90°, 95°, 125° (1977Be15).

^{191}Os Levels

See 1977Be15 for an interpretation of results considering the Nilsson model, pairing, and Coriolis mixing.

E(level)[†]	Jπ[@]	L[a]	C^{2}S[b]	Comments
0.0[#c]	(9/2)$^-$	5	0.49	C^{2}S: 1.0 for (d,t).
74.42[#d] *16*	(3/2$^-$)		0.005	C^{2}S: 0.004 for (d,t).
84.97 *29*				
131.89[#d] *5*	(5/2)$^-$	3	2.1	C^{2}S: 1.7 for (d,t).
141.89[#e] *5*	(3/2)$^-$	1	0.68	C^{2}S: 0.86 for (d,t).
175.7 *7*				
262.72 *24*				
273.05[#] *22*				
307.60 *24*				
314.53 *18*				
332.9 *3*				
352.83[#f] *11*	(13/2)$^+$	6	2.4	C^{2}S: 6.1 for (d,t).
417.13[#] *5*	(3/2)$^-$	1		
433.61 *14*				
442[e]	(5/2)$^-$[&]	3		L: L=3 for (442 + 447). C^{2}S: (442 + 447)=1.3 for (d,p), 1.4 for (d,t).
446.89 *6*	(7/2)$^-$	3		L: L=3 for (442 + 447).
462.45[#g] *7*	(7/2)$^-$	3	0.37	C^{2}S: 1.1 for (d,t).
471.34 *28*				
487.57 *23*				
508.35[#] *8*				
519.32 *10*				
573.87 *13*				
612.14[#] *12*		1		
620.10 *11*				
637.59[#] *7*				
667.6 *4*				
677.71 *7*				
688.82[#] *24*				
721.43[#] *4*		1		
748.20[#] *24*		1		
762.36 *10*		1		
794.68[#] *5*				
804.7 *7*				
820.18 *34*				
823.1 *5*				
831[‡]		≥1		

Continued on next page (footnotes at end of table)

^{192}Os(d,t),^{190}Os(d,p) 1991Bo35,1977Be15 (continued)

^{191}Os Levels (continued)

E(level)[†]	E(level)[†]	E(level)[†]	E(level)[†]
850.14 *20*	996[‡]	1118.3[#] *3*	1228.20 *16*
903.8[#] *3*	1003.5 *4*	1144.29 *24*	1280.26 *12*
959.27 *18*	1076.0 *4*	1166.9[#] *3*	1298.69 *10*
965[‡]	1084.3 *10*	1179.36 *21*	
974.8 *7*	1092.99[#] *21*	1188.3 *9*	
985.9[‡] *3*	1108.8 *4*	1202.2[#] *4*	

[†] From ^{192}Os(d,t) (1991Bo35), unless otherwise specified.
[‡] Populated in (d,p) only.
[#] Populated in (d,p) also (1977Be15).
[@] Based on L-transfers, spectroscopic factors, and rotational structure.
[&] From Adopted Levels.
[a] From comparison of measured angular distribution with DWBA calculations (1977Be15).
[b] Spectroscopic factors were calculated by evaluator of 1989Br09 using experimental cross sections, and theoretical (DWBA) values for θ=95° given by 1977Be15. $C^2S=(1/n)(\sigma(exp)/\sigma(DWBA))$, N=1.5 for (d,p), N=3.3 for (d,t). Values given here are for the (d,p) reaction.
[c] 9/2[505].
[d] 3/2[512].
[e] 1/2[510].
[f] 11/2[615].
[g] 7/2[503].