

$^{189}\text{Os}(\gamma,\gamma')$ 1995La15,1995La16

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	T. D. Johnson, Balraj Singh		NDS 142, 1 (2017)	15-Apr-2017

1995La15,1995La16: source: Bremsstrahlung from 200 keV generator (1995La15) and ^{137}Cs , ^{60}Co (1995La15). Electrons detected with a 90 cm² flat 2π multiwire proportional counter. Level half-lives determined. See also, 1995La25 and 1995La26.

2000Ah03: source: x-rays from synchrotron; E=69.47-69.97 keV; Internal conversion L x-ray from 30.8 keV state measured with a Ge (LEPS) detector. $T_{1/2}$ determined.

 ^{189}Os Levels

E(level) [†]	J^π [†]	$T_{1/2}$ [‡]	Comments
0.0	$3/2^-$		
30.82	$9/2^-$	5.65 [#] h 15	
36.19	$1/2^-$		
69.54	$5/2^-$		
216.66	$5/2^-$	77 ps 10	
219.39	$7/2^-$		
275.92	$5/2^-$		
427.93	$5/2^-, 7/2^-$	>4.4 ps	$T_{1/2}$: >4.4 ps for $J^\pi=5/2^-$; >5.9 ps for $J^\pi 7/2^-$ (1995La16).
531.55	$5/2^-$	>0.26 ps	
550.03	$3/2^-$	>0.039 ps	
599.63	$3/2^-$		

[†] From Adopted Levels.

[‡] From (x,x') and (γ,γ') (1995La15,1995La16), except as noted.

[#] From (x,x') (2000Ah03).

 $\gamma(^{189}\text{Os})$

E_γ [†]	E_i (level)	J_i^π	E_f	J_f^π	Mult. [†]
30.81	30.82	$9/2^-$	0.0	$3/2^-$	M3+E4
33.31	69.54	$5/2^-$	36.19	$1/2^-$	
36.17	36.19	$1/2^-$	0.0	$3/2^-$	
56.50	275.92	$5/2^-$	219.39	$7/2^-$	
59.3	275.92	$5/2^-$	216.66	$5/2^-$	
69.565 [‡] 30	69.54	$5/2^-$	0.0	$3/2^-$	
152.03	427.93	$5/2^-, 7/2^-$	275.92	$5/2^-$	
185.85	216.66	$5/2^-$	30.82	$9/2^-$	
188.55	219.39	$7/2^-$	30.82	$9/2^-$	
211.26	427.93	$5/2^-, 7/2^-$	216.66	$5/2^-$	
216.66	216.66	$5/2^-$	0.0	$3/2^-$	
219.39	219.39	$7/2^-$	0.0	$3/2^-$	
245.09	275.92	$5/2^-$	30.82	$9/2^-$	
273.6	550.03	$3/2^-$	275.92	$5/2^-$	
275.85	275.92	$5/2^-$	0.0	$3/2^-$	
312.17	531.55	$5/2^-$	219.39	$7/2^-$	
314.91	531.55	$5/2^-$	216.66	$5/2^-$	
323.7	599.63	$3/2^-$	275.92	$5/2^-$	
380.2	599.63	$3/2^-$	219.39	$7/2^-$	
382.95	599.63	$3/2^-$	216.66	$5/2^-$	
397.0	427.93	$5/2^-, 7/2^-$	30.82	$9/2^-$	
428.5	427.93	$5/2^-, 7/2^-$	0.0	$3/2^-$	
531.44	531.55	$5/2^-$	0.0	$3/2^-$	

Continued on next page (footnotes at end of table)

 $^{189}\text{Os}(\gamma, \gamma')$ **1995La15, 1995La16 (continued)**

 $\gamma(^{189}\text{Os})$ (continued)

<u>E_γ^\dagger</u>	<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>
550.0	550.03	$3/2^-$	0.0	$3/2^-$
599.62	599.63	$3/2^-$	0.0	$3/2^-$

[†] From Adopted Gammas, unless otherwise noted.

[‡] From (x,x') ([2000Ah03](#)).

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Level Scheme

