^{182}W(α,2nγ) 1973Ya05,1988Ch27

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111,275 (2010)	1-Oct-2009

Others: 1967Ne02, 1967Ne03, 1974Ya03.

1988Ch27: E(α)=27 MeV; mini-orange spectrometer with Si(Li) detector, Ge detector; measured I(ce), Iγ; deduced α(K)exp for transitions from 2367-keV isomer.

1973Ya05: E(α)=30 MeV; Ge(Li) detector; measured Eγ, Iγ. also measured ^{187}Re(p,4nγ), E(p)=37 MeV and ^{185}Re(p,2nγ), E(p)= 14 MeV; see separate data sets for those data.

1967Ne02,1967Ne03: E(α)=27 MeV; Ge(Li) detector; measured Eγ, Iγ, $\gamma(\theta)$ (θ(lab)=0°−90°).

^{184}Os Levels

E(level)[†]	J$^\pi$[‡]	E(level)[†]	J$^\pi$[‡]	E(level)[†]	J$^\pi$[‡]	E(level)[†]	J$^\pi$[‡]
0.0[#]	0$^+$	774.0[#] *8*	6$^+$	1225.3[@] *6*	4$^+$	1872.1[#] *11*	10$^+$
119.6[#] *4*	2$^+$	943.4[@] *4*	2$^+$	1274.8[#] *10*	8$^+$	2366.9 *12*	10$^+$
383.6[#] *6*	4$^+$	1081.3[@] *7*	3$^+$	1429.7[@] *8*	5$^+$		

[†] From least-squares fit to Eγ, assigning 1 keV uncertainty to Eγ data for which No uncertainty is indicated.
[‡] From Adopted Levels.
[#] Band(A): K$^\pi$=0$^+$ g.s. band.
[@] Band(B): K$^\pi$=2$^+$ γ band.

γ(^{184}Os)

E$_\gamma$[†]	I$_\gamma$[‡]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.[#]	δ	α[@]	Comments
119.3 *5*	33 *3*	119.6	2$^+$	0.0	0$^+$	Q			Mult.: from A$_2$=+0.198 *15*, A$_4$=−0.051 *20* (1967Ne02).
263.7 *5*	100 *8*	383.6	4$^+$	119.6	2$^+$	Q			Mult.: from A$_2$=+0.275 *10*, A$_4$=−0.074 *12* (1967Ne02).
390.4 *5*	68 *6*	774.0	6$^+$	383.6	4$^+$	Q			Mult.: from A$_2$=+0.320 *15*, A$_4$=−0.053 *17* (1967Ne02).
494.9		2366.9	10$^+$	1872.1	10$^+$	M1(+E2)	<0.65	0.061 *7*	E$_\gamma$: from 1988Ch27; not reported by 1973Ya05. Mult.,δ: from α(K)exp=0.052 *7* (1988Ch27).
500.8 *5*	31 *3*	1274.8	8$^+$	774.0	6$^+$	Q			Mult.: from A$_2$=+0.32 *5*, A$_4$=−0.13 *5* (1967Ne02).
597.4 *5*	≈10	1872.1	10$^+$	1274.8	8$^+$	(Q)			Mult.: from A$_2$=+0.20 *10*, A$_4$=−0.06 *10* (1967Ne02).
823.4 *5*	6.6 *5*	943.4	2$^+$	119.6	2$^+$				
841.5 *5*	9.1 *7*	1225.3	4$^+$	383.6	4$^+$				
943.7 *5*	7.4 *6*	943.4	2$^+$	0.0	0$^+$				
961.7 *5*	13.2 *11*	1081.3	3$^+$	119.6	2$^+$				
1046.1 *5*	10.7 *9*	1429.7	5$^+$	383.6	4$^+$				
1092.0		2366.9	10$^+$	1274.8	8$^+$	E2		0.00417	E$_\gamma$: from 1988Ch27; not reported by 1973Ya05. Mult.: from α(K)exp=0.0030 *5* (1988Ch27).
1105.9 *5*	7.7 *6*	1225.3	4$^+$	119.6	2$^+$				

[†] 1973Ya05 report a single set of Eγ values for their (p,4nγ), (p,2nγ) and (α,2nγ) studies. Data are from 1973Ya05, except As noted.

Continued on next page (footnotes at end of table)

^{182}W(α,2nγ) 1973Ya05,1988Ch27 (continued)

$\gamma(^{184}Os)$ (continued)

‡ From 1973Ya05.
# 1988Ch27 used transitions of similar energy and known multipolarity that were produced In the same experiment to normalize their photon and ce scales. Their α(K)exp data are given In comments.
@ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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Level Scheme

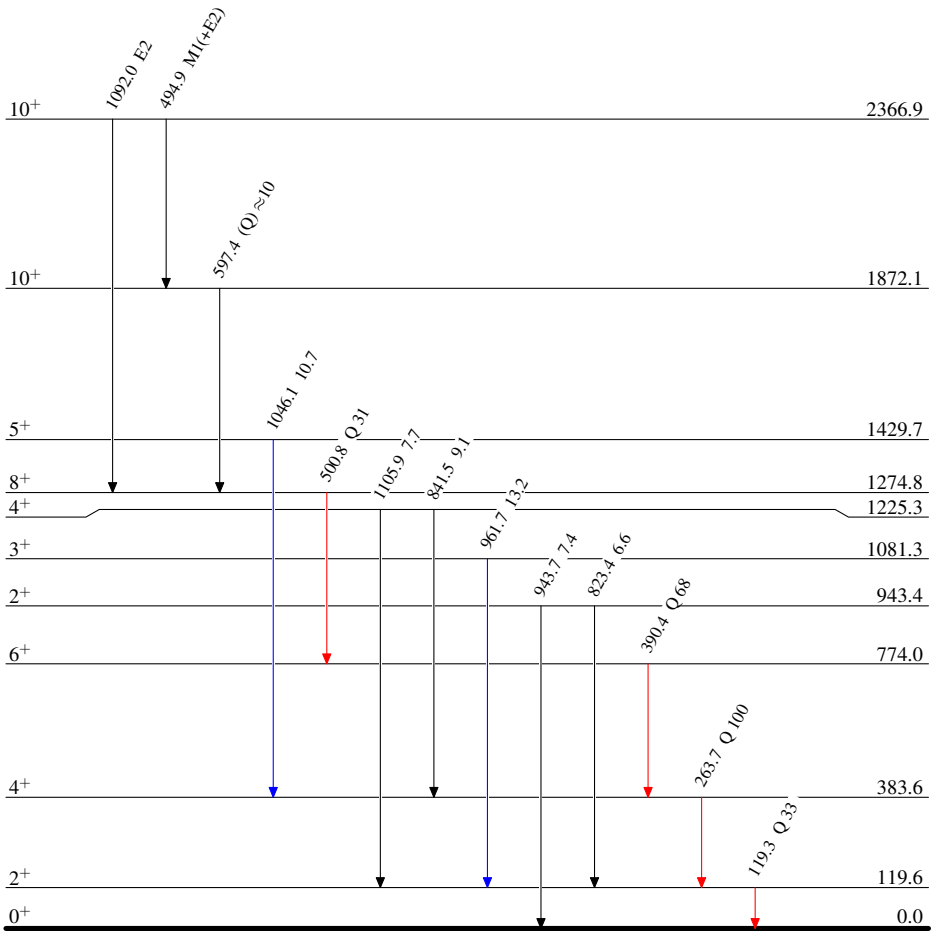
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

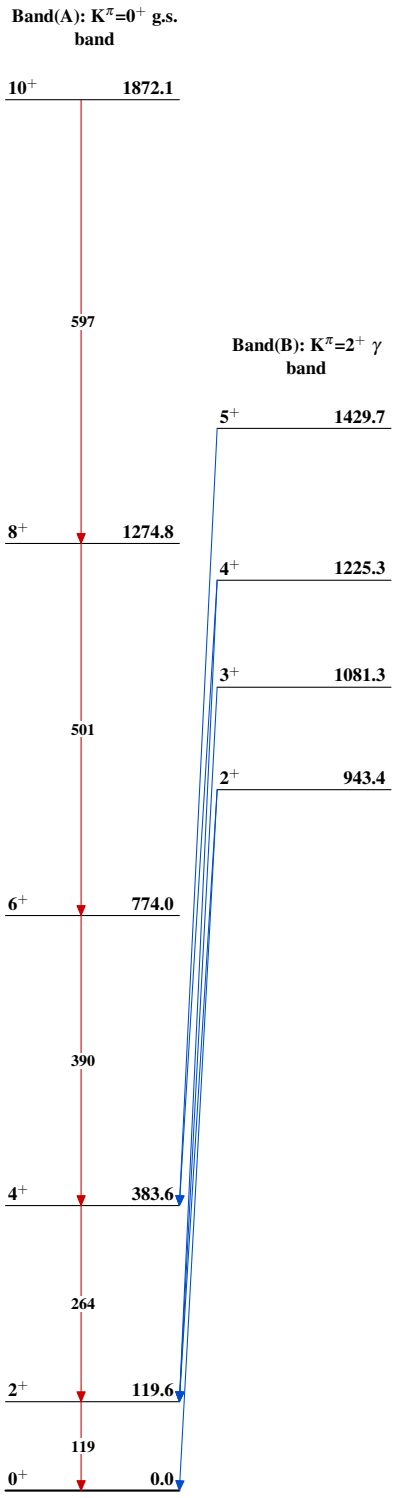
$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{184}_{76}Os_{108}$

$^{182}W(\alpha,2n\gamma)$ 1973Ya05,1988Ch27



$^{184}_{76}Os_{108}$