

¹⁸⁶W($\alpha,6n\gamma$) **1976Ne03**

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

1976Ne03: ¹⁸⁶W($\alpha,6n\gamma$), E=75 MeV. $\theta=90^\circ-165^\circ$ in 15° increments. Measured E_γ , I_γ , $\gamma\gamma$ -coin, $\gamma(\theta)$, γ - γ -t.

¹⁸⁴Os Levels

E(level) [†]	J ^{π} [‡]	E(level) [†]	J ^{π} [‡]	E(level) [†]	J ^{π} [‡]	E(level) [†]	J ^{π} [‡]
0.0 [@]	0 ⁺	1274.2 [@] 6	8 ⁺	3357.3 [#] 8	14 ⁺	4797.2 9	(18 ⁺)
119.8 [@] 3	2 ⁺	1870.4 [@] 7	10 ⁺	3788.3 [#] 8	16 ⁺	4997.4 [#] 9	20 ⁺
383.7 [@] 5	4 ⁺	2546.3 [@] 8	12 ⁺	4043.6 9	(16 ⁺)	5737.4 [#] 10	22 ⁺
773.8 [@] 6	6 ⁺	3259.2 [@] 8	14 ⁺	4345.9 [#] 9	18 ⁺		

[†] From least-squares fit to E_γ .

[‡] Authors' values based on deduced band structure and transition multipolarity.

[#] Band(A): $K^\pi=10^+$ band. Band assignment from Adopted Levels. **1976Ne03** instead show the J=16, 18, 20, 22 members As an extension of the g.s. band. the J=14 member is correctly assigned to this side band In **1976Ne03**.

[@] Band(B): $K^\pi=0^+$ g.s. band. From Adopted Levels, the 4044 and 4797 levels constitute the J=16 and J=18 members of this band and the J=16-22 levels, assigned by **1976Ne03** to the g.s. band, belong to a $K^\pi=10^+$ side band.

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

E_γ	I_γ [‡]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [#]	α [@]	$I_{(\gamma+ce)}$ [†]	Comments
119.8 3	31.9 22	119.8	2 ⁺	0.0	0 ⁺	E2	2.13 4	100 7	Mult.: $A_2=+0.08$ 2, $A_4=-0.06$ 3.
263.9 3	86 7	383.7	4 ⁺	119.8	2 ⁺	E2	0.1350	98 7	Mult.: $A_2=+0.21$ 2, $A_4=-0.07$ 3.
390.1 3	74 5	773.8	6 ⁺	383.7	4 ⁺	E2	0.0433	77 5	Mult.: $A_2=+0.24$ 2, $A_4=-0.08$ 3.
430.8 3	3.9 10	3788.3	16 ⁺	3357.3	14 ⁺	E2	0.0332	4 1	Mult.: $A_2=+0.30$ 6, $A_4=-0.07$ 9.
500.4 3	48 4	1274.2	8 ⁺	773.8	6 ⁺	E2	0.0227	49 4	Mult.: $A_2=+0.26$ 2, $A_4=-0.08$ 3.
529.3 3	4.9 10	3788.3	16 ⁺	3259.2	14 ⁺	E2	0.0198	5 1	Mult.: $A_2=+0.31$ 5, $A_4=-0.11$ 7.
557.6 3	6 3	4345.9	18 ⁺	3788.3	16 ⁺	E2	0.01751	6 3	Mult.: $A_2=+0.19$ 6, $A_4=-0.01$ 9. I_γ : includes a contaminant line (1976Ne03).
596.2 3	24 3	1870.4	10 ⁺	1274.2	8 ⁺	E2	0.01497	28 3	Mult.: $A_2=+0.33$ 2, $A_4=-0.10$ 3.
651.5 3	2.0 10	4997.4	20 ⁺	4345.9	18 ⁺	E2	0.01223	2 1	Mult.: $A_2=+0.33$ 9, $A_4=-0.01$ 14.
675.9 3	23.7 20	2546.3	12 ⁺	1870.4	10 ⁺	E2	0.01127	24 2	Mult.: $A_2=+0.31$ 2, $A_4=-0.13$ 3.
686.2 ^{&} 3	2.0 10	4043.6	(16 ⁺)	3357.3	14 ⁺	E2	0.01090	2 1	Mult.: $A_2=+0.48$ 10, $A_4=-0.11$ 15.
713.1 3	11.9 20	3259.2	14 ⁺	2546.3	12 ⁺	E2	0.01002	12 2	Mult.: $A_2=+0.26$ 3, $A_4=-0.10$ 5.
740.0 3	1.0 5	5737.4	22 ⁺	4997.4	20 ⁺	E2	0.00925	1.0 5	Mult.: $A_2=+0.36$ 13, $A_4=-0.04$ 19.
753.6 3	2.0 10	4797.2	(18 ⁺)	4043.6	(16 ⁺)	E2	0.00890	2 1	Mult.: $A_2=+0.45$ 13, $A_4=+0.01$ 19.
784.4 3	3.0 10	4043.6	(16 ⁺)	3259.2	14 ⁺	E2	0.00817	3 1	Mult.: $A_2=+0.20$ 8, $A_4=+0.06$ 12.
810.8 3	5.0 10	3357.3	14 ⁺	2546.3	12 ⁺	E2	0.00762	5 1	Mult.: $A_2=+0.30$ 5, $A_4=-0.10$ 7.

[†] From **1976Ne03**; authors do not indicate values of α assumed In order to convert measured I_γ to $I(\gamma+ce)$.

[‡] From $I(\gamma+ce)$ and α ; authors give $I(\gamma+ce)$ only and do not list the α values they assumed.

[#] Q from $\gamma(\theta)$; not M2 from RUL assuming $T_{1/2} \leq 2.2$ ns based on $\gamma\gamma$ coin timing.

[@] Total theoretical internal conversion coefficients, calculated using the BrIcc code (**2008Ki07**) with Frozen orbital approximation based on γ -ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

[&] Placement of transition in the level scheme is uncertain.

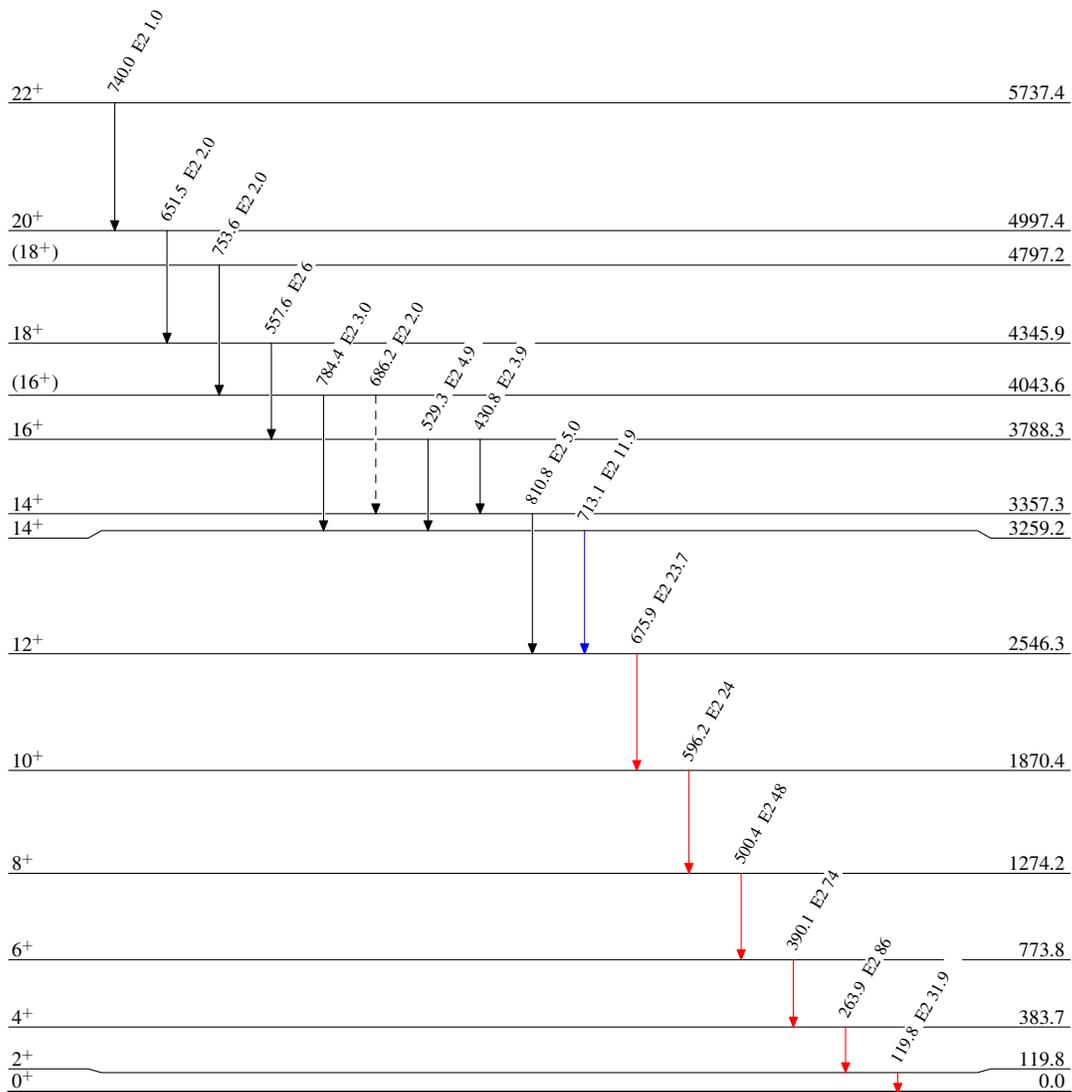
$^{186}\text{W}(\alpha,6n\gamma)$ 1976Ne03

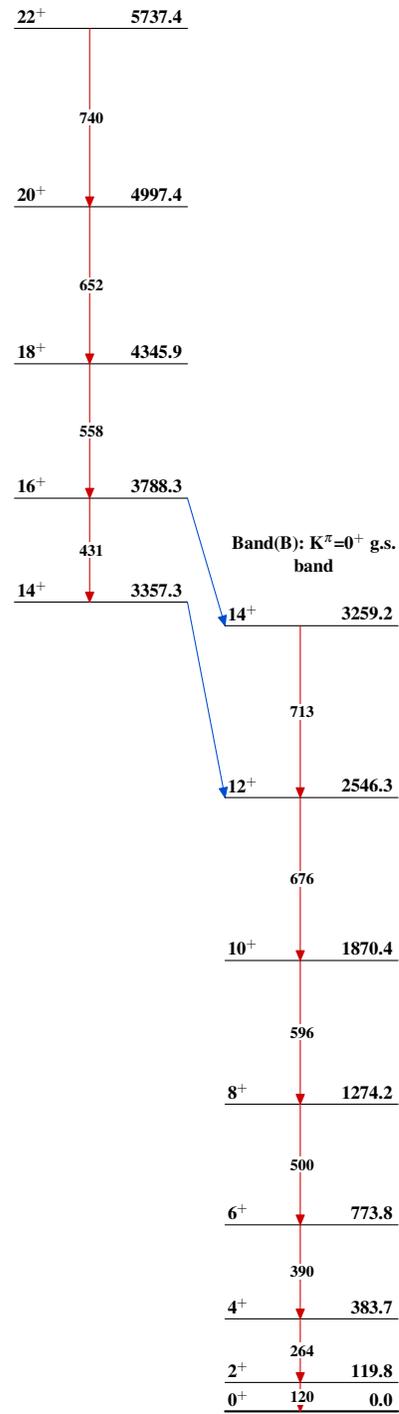
Level Scheme

Intensities: Relative I_γ

Legend

- ▶ $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- ▶ $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- ▶ $I_\gamma > 10\% \times I_\gamma^{\text{max}}$
- - - -▶ γ Decay (Uncertain)

 $^{184}_{76}\text{Os}_{108}$

$^{186}\text{W}(\alpha,6n\gamma)$ 1976Ne03Band(A): $K^\pi=10^+$ band $^{184}_{76}\text{Os}_{108}$