

^{180}W IT decay (5.47 ms)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 126, 151 (2015)	1-Feb-2015

Parent: ^{180}W : E=1529.05 4; $J^\pi=8^-$; $T_{1/2}=5.47$ ms 9; %IT decay=100.0

An additional 67-keV transition depopulating the 1529.05-keV level is reported in $^{176}\text{Yb}(^9\text{Be},5n\gamma)$. However, no intensity is given for this transition.

α : [Additional information 1](#).

 ^{180}W Levels

E(level) [†]	J^π [†]	$T_{1/2}$ [†]
0.0	0 ⁺	
103.561	2 ⁺	
337.559	4 ⁺	
688.46	6 ⁺	
1138.47	8 ⁺	
1529.05	8 ⁻	5.47 ms 9

[†] From the Adopted Levels.

 $\gamma(^{180}\text{W})$

I_γ normalization: From $\Sigma I(\gamma+ce)(\text{to g.s.})=100$.

E_γ [†]	I_γ ^{‡@}	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [#]	α	Comments
103.568 18	20 4	103.561	2 ⁺	0.0	0 ⁺	E2	3.40	$\alpha(K)=0.827$ 12; $\alpha(L)=1.95$ 3; $\alpha(M)=0.492$ 7; $\alpha(N)=0.1159$ 17; $\alpha(O)=0.01587$ 23 $\alpha(P)=6.54\times 10^{-5}$ 10 I_γ : weighted average of 19 4 (1966Bu08) and 24 7 (1981Av04). $\alpha(L)\text{exp}=2.42$ (1966Bu08).
233.99 3	100 10	337.559	4 ⁺	103.561	2 ⁺	E2	0.184	$\alpha(K)=0.1106$ 16; $\alpha(L)=0.0558$ 8; $\alpha(M)=0.01379$ 20; $\alpha(N)=0.00327$ 5; $\alpha(O)=0.000466$ 7 $\alpha(P)=9.03\times 10^{-6}$ 13 I_γ : weighted average of 100 10 (1966Bu08) and 100 17 (1981Av04). $\alpha(K)\text{exp}=0.11$ (1967Bo08), $\alpha(K)/\alpha(L)$ exp=2.1 5 (1967Bo08), 2.1 3 (1966Bu08).
350.898 7	101 10	688.46	6 ⁺	337.559	4 ⁺	E2	0.0538	$\alpha(K)=0.0380$ 6; $\alpha(L)=0.01212$ 17; $\alpha(M)=0.00293$ 5; $\alpha(N)=0.000697$ 10; $\alpha(O)=0.0001028$ 15 $\alpha(P)=3.34\times 10^{-6}$ 5 I_γ : weighted average of 110 11 (1966Bu08) and 94 10 (1981Av04). $\alpha(K)\text{exp}=0.039$ 10 (1967Bo08), 0.036 (1966Bu08); $\alpha(K)/\alpha(L)$ exp=3.6 10 (1967Bo08), 3.1 4 (1966Bu08).
390.581 15	100 8	1529.05	8 ⁻	1138.47	8 ⁺	E1	0.01230	$\alpha(K)=0.01030$ 15; $\alpha(L)=0.001554$ 22; $\alpha(M)=0.000351$ 5; $\alpha(N)=8.40\times 10^{-5}$ 12 $\alpha(O)=1.341\times 10^{-5}$ 19; $\alpha(P)=8.66\times 10^{-7}$ 13 I_γ : weighted average of 120 12 (1966Bu08) and 92 8 (1981Av04). $\alpha(K)\text{exp}=0.012$ 4 (1967Bo08), 0.0083 (1966Bu08).

Continued on next page (footnotes at end of table)

^{180}W IT decay (5.47 ms) (continued) $\gamma(^{180}\text{W})$ (continued)

E_γ [†]	I_γ ^{‡@}	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [#]	α	Comments
450.018 20	117 8	1138.47	8 ⁺	688.46	6 ⁺	E2	0.0274	$\alpha(\text{K})=0.0206$ 3; $\alpha(\text{L})=0.00527$ 8; $\alpha(\text{M})=0.001257$ 18; $\alpha(\text{N})=0.000300$ 5; $\alpha(\text{O})=4.52 \times 10^{-5}$ 7 $\alpha(\text{P})=1.86 \times 10^{-6}$ 3 I_γ : weighted average of 117 12 (1966Bu08) and 118 8 (1981Av04). $\alpha(\text{K})_{\text{exp}}=0.018$ 3 (1967Bo08), 0.017 (1966Bu08); $\alpha(\text{K})/\alpha(\text{L})_{\text{exp}}=3.6$ 11 (1967Bo08), 4.8 11 (1966Bu08).

[†] From the Adopted Gammas.

[‡] Weighted average of delayed I_γ 's from 1966Bu08 and 1981Av04 from $\text{Hf}(\alpha, \text{x}\gamma)$.

[#] From the Adopted Levels. Support from ce measurements provided in the comments.

@ For absolute intensity per 100 decays, multiply by 1.14 23.

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