

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 195,1 (2024)	19-Sep-2023

S(n)=12380 *syst*; S(p)=950 *syst*; Q(α)=6767.8 29 [2021Wa16](#)

$\Delta S(n)=500$, $\Delta S(p)=340$ (*syst*,[2021Wa16](#)).

S(2p)=-250 340, Q(ϵp)=8720 360 (*syst*,[2021Wa16](#)).

[Additional information 1](#).

All data on the excited states are from the $^{106}\text{Cd}(^{58}\text{Ni},2n\gamma)$ reaction ([2004Jo12](#)).

 ^{162}Os LevelsCross Reference (XREF) Flags

A	^{166}Pt α decay (0.3 ms)
B	$^{106}\text{Cd}(^{58}\text{Ni},2n\gamma)$

E(level)	J^π [‡]	$T_{1/2}$	XREF	Comments
0.0	0 ⁺	2.06 ms 9	AB	$\% \alpha \approx 100$ $T_{1/2}$: weighted average of 1.9 ms 2 (2000Ma95 , $\alpha(t)$) and 2.1 ms 1 (2004Jo12 , $\alpha(t)$). Others: 1.5 ms +7-5, (1996Bi07 , $\alpha(t)$); and 1.9 ms 7, (1989Ho12 , $\alpha(t)$). $\% \alpha$: From measured $T_{1/2}$ value and $T_{1/2}$ value for $\epsilon+\beta^+$ decay computed by 1997Mo25 (0.153 s), one estimates $\% \epsilon + \% \beta^+ = 1.4$. From intensities observed in the parent-daughter correlated α -decay data (1996Bi07), $\% \alpha \approx 100$. From theoretical estimate by 1973Ta30 of $T_{1/2}$ for $\epsilon+\beta^+$ decay, $\% \epsilon + \% \beta^+ \approx 0.2$.
706.7 [†]	3 (2 ⁺)		B	
1406.5 [†]	8 (4 ⁺)		B	
1990.6 [†]	8 (6 ⁺)		B	
2189.5 [†]	8 (8 ⁺)		B	

[†] For comments regarding this value, see the $^{106}\text{Cd}(^{58}\text{Ni},2n\gamma)$ data set.

[‡] Except for the g.s., the values are from $^{106}\text{Cd}(^{58}\text{Ni},2n\gamma)$.

 $\gamma(^{162}\text{Os})$

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π
706.7	(2 ⁺)	706.7 [†]	3	100	0.0 0 ⁺
1406.5	(4 ⁺)	699.8 [†]	7	100	706.7 (2 ⁺)
1990.6	(6 ⁺)	584.1 [†]	2	100	1406.5 (4 ⁺)
2189.5	(8 ⁺)	198.9 [†]	1	100	1990.6 (6 ⁺)

[†] For comments regarding this placement, see the $^{106}\text{Cd}(^{58}\text{Ni},2n\gamma)$ data set.

Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level

