

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong	NDS 108,1093 (2007)	1-Jan-2006

$Q(\beta^-)=3.21\times 10^3$ 4; $S(n)=5.81\times 10^3$ 4; $S(p)=7.22\times 10^3$ 8; $Q(\alpha)=-2.7\times 10^2$ 9 [2012Wa38](#)

Note: Current evaluation has used the following Q record 3209 385820 387040 500 -155 199 [2003Au03](#).

No XREF entries are given since all of these levels are observed in the ^{196}Os β^- decay (34.9 min).

A proposed g.s. configuration is $\pi(1/2^+)(400) + \nu(1/2^-)(510)$ Nilsson orbitals. Because of limited experimental data, assignments must be considered tentative.

Cross section and yield measurements: [1976De39](#), [1977Mo05](#), [1981Ab02](#), [1981Pr02](#).

π^- and μ^- absorption: [1978De30](#), [1980Li16](#), [1981Ha03](#).

Excitation probability and isomer shift: [1970Ba74](#).

 ^{196}Ir LevelsCross Reference (XREF) Flags

A ^{196}Os β^- decay (34.9 min)

E(level) [†]	J ^{π}	T _{1/2}	XREF	Comments
0.0	(0 ⁻)	52 s 1	A	% β^- =100 J ^{π} : supported by the β decay to ^{196}Pt 0 ⁺ g.s. (0 ⁺ to 0 ⁺ isospin forbidden). T _{1/2} : weighted average of 54.5 s 20 (1968Ja06), 52 s 2 (1967Mo10), and 50 s 2 (1966Vo05).
126.20? 20	(1 ⁻)		A	J ^{π} : $\log ft \leq 6.6$ from 0 ⁺ . E(level): there is no other γ -ray transition connecting this level. Its placement is speculative.
207.04 16	(1 ⁻)		A	J ^{π} : J ^{π} =(1 ⁻) are expected from systematics of odd-odd Ir isotopes.
407.88 18	(0,1) ⁺		A	J ^{π} : $\log ft \leq 6.1$ from 0 ⁺ .
4.1 $\times 10^2$ 11	(10,11 ⁻)	1.40 h 2		% $\beta^- \approx 100$; %IT<0.3 E(level): from β energies measured in 52 s and 1.40-h ^{196}Ir decay. J ^{π} : supported by $\log ft=6.03$ for β decay to 2468-keV level in ^{196}Pt . J=9,12 less likely from $\log ft$ values or from limits found for β decay branches to levels in ^{196}Pt (1968Ja06).
522.37 20	(0,1) ⁺		A	T _{1/2} : from ^{196}Ir β^- decay (1968Ja06). Others: 1965Bi04 , 1959Ga11 . J ^{π} : $\log ft \leq 6.1$ from 0 ⁺ .

[†] From least-squares fit to $E\gamma$'s.

 $\gamma(^{196}\text{Ir})$

A lack of observation of appreciable ce supports γ -transitions of low multipolarity ([1977Ha32](#)).

E _i (level)	J _i ^{π}	E _{γ} ^{$\ddagger$}	I _{γ} ^{$\ddagger$}	E _f	J _f ^{π}
126.20?	(1 ⁻)	126.2 2	100	0.0	(0 ⁻)
207.04	(1 ⁻)	207.1 2	100	0.0	(0 ⁻)
407.88	(0,1) ⁺	200.8 3	9.5 10	207.04	(1 ⁻)
		407.9 2	100 3	0.0	(0 ⁻)
522.37	(0,1) ⁺	315.4 2	100 4	207.04	(1 ⁻)
		522.2 3	31 13	0.0	(0 ⁻)

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

$\gamma(^{196}\text{Ir})$ (continued)

† Relative photon branching from each level.
‡ Values from [1977Ha32](#).

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

