^{191}Ir IT decay (4.899 s)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 195,368 (2024)	1-Dec-2023

Parent: ^{191}Ir: E=171.268 *11*; J^{π}=11/2$^-$; $T_{1/2}$=4.899 s *23*; %IT decay=100
See also ^{191}Os β^- decay.

^{191}Ir Levels

E(level)[@]	J^{π}[@]	$T_{1/2}$[@]	Comments
0.0[†]	3/2$^+$	stable	
82.4241[‡] *23*	1/2$^+$	4.10 ns *7*	
129.426[†] *3*	5/2$^+$	89.7 ps *12*	
171.268[#] *11*	11/2$^-$	4.899 s *23*	$T_{1/2}$: Weighted average from: 4.90 s *5* (1963Ka34), 4.95 s *5* (1967Ab09), 4.88 s *3* (1970Jo16,1972Jo05). Other values: 4.96 s *20* (1968Lu01), 4.91 s *14* (1955Fi30), 4.9 s *1* (1956Ca50), 4.53 s *18* (1958Cl42). Others: 1954Bu02, 1954Mi93, 1954Na34, 1963Ve13, 1968Bo28.

[†] Band(A): 3/2[402] g.s. rotational band.
[‡] Band(B): 1/2[400] rotational band.
[#] Band(C): 11/2[505] rotational band.
[@] From Adopted Levels, except where otherwise noted.

$\gamma(^{191}Ir)$

Iγ normalization: Iγ per 100 parent decay, deduced from $\Sigma I\gamma(1+\alpha)$=100 from each level and considering $I\gamma(47)(1+\alpha)=I\gamma(82.4)(1+\alpha)$.

E_γ[‡]	I_γ[#]	E_i(level)	J_i^{π}	E_f	J_f^{π}	Mult.[‡]	δ[‡]	α[†]	Comments
41.89 *4*	0.005921 *9*	171.268	11/2$^-$	129.426	5/2$^+$	E3		1.689×10^4 *25*	α(L)=1.212×10^4 *18*; α(M)=3.71×10^3 *6* α(N)=919 *14*; α(O)=135.6 *21*; α(P)=0.1446 *22*
47.05 *3*	0.0025 *3*	129.426	5/2$^+$	82.4241	1/2$^+$	E2		143.5 *21*	α(L)=108.1 *16*; α(M)=27.7 *4* α(N)=6.68 *10*; α(O)=1.010 *14*; α(P)=0.000955 *14*
82.427 *10*	0.031 *3*	82.4241	1/2$^+$	0.0	3/2$^+$	M1+E2	−0.871 *18*	10.54 *15*	α(K)=5.33 *11*; α(L)=3.94 *8*; α(M)=0.991 *21* α(N)=0.240 *5*; α(O)=0.0377 *8*; α(P)=0.000688 *14*
129.427 *5*	26.66 *4*	129.426	5/2$^+$	0.0	3/2$^+$	M1+E2	−0.400 *5*	2.75 *4*	α(K)=2.148 *31*; α(L)=0.463 *7*; α(M)=0.1100 *16* α(N)=0.0269 *4*; α(O)=0.00459 *7*; α(P)=0.000264 *4*

[†] Additional information 1.
[‡] From Adopted Gammas.
[#] Absolute intensity per 100 decays.

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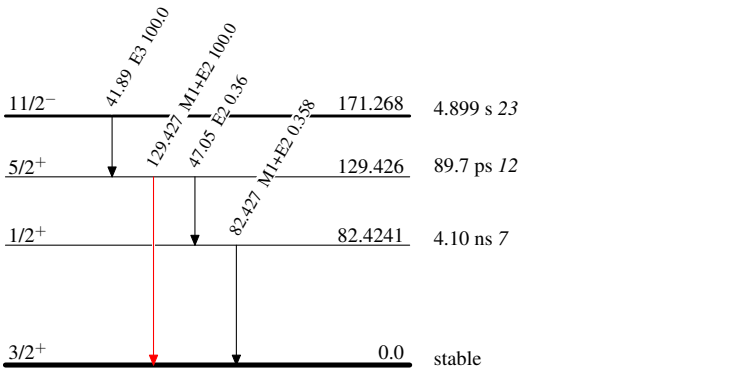
Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

%IT=100



$^{191}_{77}Ir_{114}$

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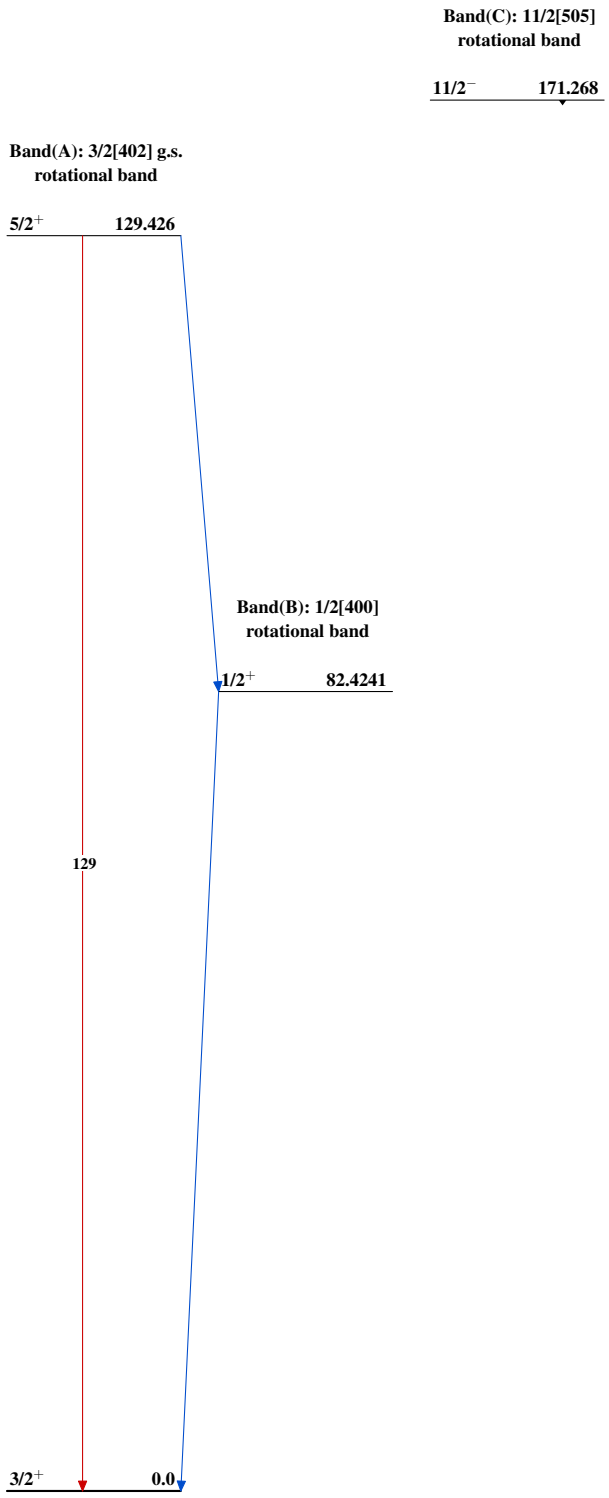

$^{191}_{77}Ir_{114}$