^{192}Re β^- decay 1979KaYT

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 1871 (2012)	15-Jun-2012

Parent: ^{192}Re: E=0.0; $T_{1/2}$=16 s *1*; Q(β^-)=4.11×10^3 *SY*; %β^- decay=100.0

The partial decay scheme is from 1979KaYT. Sources from ^{192}Os(n,p), E(n)=14 MeV, enriched ^{192}Os targets; measured Eγ, Iγ (Ge(Li)), $\gamma\gamma$ coin; confirmed that earlier work on ^{192}Re decay was either incorrect or totally superseded.

^{192}Os Levels

E(level)†	J$^\pi$‡	$T_{1/2}$
0.0	0$^+$	stable
205.79442 *9*	2$^+$	
489.0614 *8*	2$^+$	
956.54 *3*	0$^+$	

† From least-squares fit to Eγ.
‡ Adopted values.

γ(^{192}Os)

E$_\gamma$‡	I$_\gamma$#	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.@	δ@	α†	Comments
205.79430 *9*		205.79442	2$^+$	0.0	0$^+$	E2		0.302	α(K)=0.1575 *22*; α(L)=0.1090 *16*; α(M)=0.0274 *4*; α(N+..)=0.00762 *11* α(N)=0.00660 *10*; α(O)=0.001000 *14*; α(P)=1.483×10^{-5} *21*
283.2668 *8*		489.0614	2$^+$	205.79442	2$^+$	M1+E2	−3.8 *7*	0.121 *6*	α(K)=0.080 *6*; α(L)=0.0311 *6*; α(M)=0.00767 *12*; α(N+..)=0.00215 *4* α(N)=0.00185 *3*; α(O)=0.000289 *5*; α(P)=8.2×10^{-6} *7*
467.47 *3*	100	956.54	0$^+$	489.0614	2$^+$	[E2]		0.0270	α(K)=0.0200 *3*; α(L)=0.00533 *8*; α(M)=0.001284 *18*; α(N+..)=0.000363 *5* α(N)=0.000311 *5*; α(O)=5.00×10^{-5} *7*; α(P)=2.11×10^{-6} *3*
489.038 *13*		489.0614	2$^+$	0.0	0$^+$	E2		0.0241	α(K)=0.0180 *3*; α(L)=0.00463 *7*; α(M)=0.001113 *16*; α(N+..)=0.000315 *5* α(N)=0.000269 *4*; α(O)=4.35×10^{-5} *6*; α(P)=1.91×10^{-6} *3*
750.96 *15*	25	956.54	0$^+$	205.79442	2$^+$	[E2]		0.00896 *13*	α=0.00896 *13*; α(K)=0.00714 *10*; α(L)=0.001397 *20*; α(M)=0.000328 *5*; α(N+..)=9.36×10^{-5} *14* α(N)=7.96×10^{-5} *12*; α(O)=1.324×10^{-5} *19*; α(P)=7.67×10^{-7} *11*

† Additional information 1.
‡ From Adopted Gammas. All transitions were observed by 1979KaYT.
# Relative to Iγ(467.5)=100 (1979KaYT).
@ From Adopted Gammas.

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Decay Scheme

Intensities: Relative I_γ