

^{131}Cd β^- decay (68 ms) [2000Ha55](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, I. Mitropolsky, A. Rodionov		NDS 107, 2715 (2006)	17-Jul-2006

Parent: ^{131}Cd : $E=0$; $J^\pi=(7/2^-)$; $T_{1/2}=68$ ms 3; $Q(\beta^-)=1.287\times 10^4$ SY; $\% \beta^-$ decay=100.0

^{131}Cd - $Q(\beta^-)$: 12870 300 (syst,[2003Au03](#)).

^{131}Cd - $\% \beta^-$ decay: $\% \beta^-$ n=3.5 10; several ff-branches from ^{131}Cd to ≈ 5000 level are supposed ([2000Ha55](#)).

[2000Ha55](#), [2001Ha39](#): ^{131}Cd β^- decay [from $^{238}\text{U}(\text{p},\text{F})$ $E=1$ GeV], measured β^- and β^- n spectra, gamma rays claimed to have been observed, but not reported ([2000Ha55](#)). LASER ionization and mass separation at CERN/ISOLDE facility.

 ^{131}In Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	(9/2 ⁺)	0.28 s 3	Probable configuration= $\pi g_{9/2}$.
≈ 365	(1/2 ⁻)		Probable configuration= $\pi p_{1/2}$.
≈ 1650	(3/2)		Probable configuration= $\pi p_{3/2}$.
≈ 2750	(5/2)		Probable configuration= $\pi f_{5/2}$.
$\approx 3500^\dagger$			
$\approx 5000^\dagger$			
$\approx 5800^\dagger$			
$\approx 8500^\dagger$			
$\approx 9700^\dagger$			

[†] Probable three-quasiparticle state, model calculations, [2000Ha55](#).

 β^- radiations

E(decay)	E(level)	Log $ft^\dagger$	Comments
(3170 SY)	≈ 9700	4.3	
(4370 SY)	≈ 8500	5.7	
(7070 SY)	≈ 5800	4.6	
(7870 SY)	≈ 5000	5.4	
(9370 SY)	≈ 3500	5.6	
(10120 SY)	≈ 2750	>6.5	
(12870 SY)	0.0	5.4	log ft estimated from analogy to known cases.

[†] From [2000Ha55](#), based on the calculations of the β strength distributions.