

^{78}Br β^- decay (6.46 min):? 1973Hi01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Ameenah R. Farhan, Balraj Singh		NDS 110, 1917 (2009)	30-Jun-2009

Parent: ^{78}Br : $E=0.0$; $J^\pi=1^+$; $T_{1/2}=6.46$ min 4; $Q(\beta^-)=727$ 4; $\%\beta^-$ decay<0.01

^{78}Br - $Q(\beta^-)$: from 2009AuZZ, 2003Au03.

^{78}Br - $\%\beta^-$ decay: from ^{78}Br ε decay.

Authors report possible β^- branch for ^{78}Br decay on the basis of a weak 454 γ which remains uncertain. A possible β^- branch to g.s. of ^{78}Kr cannot be ruled out. If $\log ft$ were the same as for the ε branch, then $I\beta$ (g.s.) would be 2.5%.

 ^{78}Kr Levels

E(level)	J^π	Comments
0.0	0^+	
454.0 5	2^+	J^π : from Adopted Levels.

 β^- radiations

E(decay)	E(level)	$I\beta^-^\dagger$	$\log ft$	Comments
(273 ‡ 4)	454.0	<0.01	>5.8	av $E\beta=79.0$ 14

† Absolute intensity per 100 decays.

‡ Existence of this branch is questionable.

 $\gamma(^{78}\text{Kr})$

E_γ	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
454.0 ‡ 5	0.055 20	454.0	2^+	0.0	0^+	I_γ : relative to 100 for 613.6 γ (^{78}Br ε decay).

† For absolute intensity per 100 decays, multiply by <0.14.

‡ Placement of transition in the level scheme is uncertain.

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Decay Scheme

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

Legend

