

^{55}Ni ε decay **1977Ho25,1973Di11**

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	Huo Junde	NDS 109, 787 (2008)	30-Apr-2007

Parent: ^{55}Ni : $E=0.0$; $J^\pi=7/2^-$; $T_{1/2}=204.7$ ms 37; $Q(\varepsilon)=8692$ 11; $\% \varepsilon + \% \beta^+$ decay=100.0

1977Ho25: following $^{54}\text{Fe}({}^3\text{He},2n)$ at $E({}^3\text{He})=12.79-15.34$ MeV; authors observed no γ rays attributable to ^{55}Ni ε decay.

1973Di11: following CO,Ni+p reactions at $E(p)=65$ MeV; authors observed no γ rays attributable to ^{55}Ni ε decay.

 ^{55}Co Levels

<u>E(level)</u>	<u>J^π</u>
0.0	$7/2^-$

 ε, β^+ radiations

<u>E(decay)</u>	<u>E(level)</u>	<u>$I\beta^+$ †</u>	<u>$I\varepsilon$ †</u>	<u>Log ft</u>	<u>$I(\varepsilon + \beta^+)$ †</u>	<u>Comments</u>
(8692 11)	0.0	≈ 99.9	≈ 0.103	≈ 3.6	≈ 100	av $E\beta=3624.3$ 55; $\varepsilon K=0.000915$ 4; $\varepsilon L=9.80 \times 10^{-5}$ 5; $\varepsilon M+=1.703 \times 10^{-5}$ 8 $I(\varepsilon + \beta^+)$: the first excited state which may be populated by allowed decay is near 2.5 MeV; therefore, 100% g.s. feeding is very probable (evaluator).

† Absolute intensity per 100 decays.