^{56}Cr β^- decay 1960Dr03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huo Junde, Huo Su, Yang Dong	NDS 112, 1513 (2011)	29-Oct-2009

Parent: ^{56}Cr: E=0.0; $J^\pi=0^+$; $T_{1/2}$=5.94 min *10*; Q(β^-)=1628.5 *20*; %β^- decay=100.0
Sources produced by ^{54}Cr(t,p) E=2.7-2.9 MeV; measured Eγ, $\gamma\gamma$ and $\beta\gamma$ with NaI(Tl). Measured Q(β^-)≈1.6 MeV.

^{56}Mn Levels

E(level)[†]	J$^\pi$[‡]
0.0	3^+
26	2^+
110	1^+

† From Eγ by using least-squares adjustment procedure.
‡ From Adopted Levels.

β^- radiations

E(decay)	E(level)	Iβ^-[†]	Log *ft*	Comments
(1518.5 *20*)	110	100	4.3	av Eβ= 590 *4*

† Absolute intensity per 100 decays.

γ(^{56}Mn)

Iγ normalization: Assuming no β^- to g.s. and first excited state.

E$_\gamma$	I$_\gamma$[†‡]	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	α[#]	Comments
26	44.6 *5*	26	2^+	0.0	3^+	1.240	α(K)= 1.094; α(L)= 0.1104
83	95.3 *10*	110	1^+	26	2^+	0.0496	α(K)= 0.0438; α(L)=0.00433

† Relative photon intensities from intensity balance.
‡ Absolute intensity per 100 decays.
# Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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Decay Scheme

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