^{55}V β^- decay 1977Na17

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

Parent: ^{55}V: E=0.0; J^π=(7/2$^-$); $T_{1/2}$=6.54 s *15*; Q(β^-)=5.98×10^3 *10*; %β^- decay=100.0

Source: ^{9}Be(20 MeV)+^{48}Ca(enriched); plastic scintillator (FWHM=2.1 keV for 1332 keV) and Ge(Li); measured Eγ, Iγ, $\gamma\gamma$-coin, and $\beta\gamma$.

^{55}Cr Levels

E(level)	J^π[†]
0.0	3/2$^-$
242.08 *11*	1/2$^-$
517.68 *10*	5/2$^-$
565.85 *10*	3/2$^-$
880.67 *8*	5/2$^-$
1214.71 *8*	(7/2)$^-$
1438.80 *11*	(9/2)$^-$
1479.08 *23*	(7/2$^-$)

[†] From Adopted Levels.

β^- radiations

E(decay)	E(level)	Iβ^-[†]	Log *ft*	Comments
(4.50×10^3 *10*)	1479.08	2.2 *1*	6.20 *5*	av Eβ= 2008 *49*
(4.54×10^3 *10*)	1438.80	5.7 *5*	5.81 *6*	av Eβ= 2028 *49*
(4.77×10^3 *10*)	1214.71	4.1 *4*	6.04 *6*	av Eβ= 2137 *49*
5.16×10^3 *12*	880.67	19.5 *3*	5.50 *5*	av Eβ= 2300 *49*
(5.41×10^3 *10*)	565.85	3.5 *5*	6.36 *8*	av Eβ= 2453 *49*
5443 *85*	517.68	64.2 *9*	5.12 *4*	av Eβ= 2477 *49*
(5.74×10^3 *10*)	242.08	≤0.8	>7.1	av Eβ= 2612 *49*

[†] Absolute intensity per 100 decays.

γ(^{55}Cr)

Iγ normalization: based on assumption of negligible β^- feeding to ^{55}Cr ground state and adopted decay scheme.

Eγ	Iγ[†‡]	E$_i$(level)	J^π_i	E$_f$	J^π_f	Eγ	Iγ[†‡]	E$_i$(level)	J^π_i	E$_f$	J^π_f
224.08 *8*	1.4 *2*	1438.80	(9/2)$^-$	1214.71	(7/2)$^-$	880.61 *17*	24.9 *4*	880.67	5/2$^-$	0.0	3/2$^-$
242.08 *11*	1.1 *2*	242.08	1/2$^-$	0.0	3/2$^-$	[x]903					
314.81 *10*	1.4 *1*	880.67	5/2$^-$	565.85	3/2$^-$	921.18 *22*	6.4 *7*	1438.80	(9/2)$^-$	517.68	5/2$^-$
334.06 *8*	1.5 *2*	1214.71	(7/2)$^-$	880.67	5/2$^-$	961.39 *20*	3.0 *1*	1479.08	(7/2$^-$)	517.68	5/2$^-$
363.05 *10*	2.0 *1*	880.67	5/2$^-$	517.68	5/2$^-$	[x]1050					
517.86 *15*	100	517.68	5/2$^-$	0.0	3/2$^-$	1214.65 *9*	5.5 *4*	1214.71	(7/2)$^-$	0.0	3/2$^-$
565.82 *14*	6.2 *2*	565.85	3/2$^-$	0.0	3/2$^-$	[x]1312					

[†] Evaluator normalized authors′ values to Ti(517.86γ)=100.

[‡] For absolute intensity per 100 decays, multiply by 0.726 *4*.

[x] γ ray not placed in level scheme.

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Decay Scheme

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