^{69}Zn β^- decay (56.4 min) 1969Zo01,1970Ra08

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 115, 1 (2014)	31-Jul-2013

Parent: ^{69}Zn: E=0; $J^\pi=1/2^-$; $T_{1/2}$=56.4 min *9*; Q(β^-)=910.2 *15*; %β^- decay=100.0

1970Ra08: Measured Eγ, Iγ with GeLi detectors (FWHM=2.5 keV at 1333 keV).

1969Zo01: Measured Eγ, Iγ and $T_{1/2}$ with GeLi (FWHM=2.8 keV at 1332 keV) and NaI detectors (FWHM=7.0 keV at 1332 keV).

^{69}Ga Levels

E(level)[†]	J^π[‡]
0	$3/2^-$
318.4 *2*	$1/2^-$
871.7 *2*	$3/2^-$

[†] From measured Eγ.
[‡] From Adopted Levels.

β^- radiations

E(decay)	E(level)	Iβ^-[†‡]	Log *ft*	Comments
(38.5 *15*)	871.7	0.00025 *8*	5.45 *19*	av Eβ= 8.7 *8*
(591.8 *15*)	318.4	0.0012 *2*	8.72 *8*	av Eβ= 193.3 *12*
(910.2 *15*)	0	99.9986 *2*	4.48 *1*	av Eβ= 321.6 *13*

[†] From Iγ (1970Ra08).
[‡] Absolute intensity per 100 decays.

γ(^{69}Ga)

Iγ normalization: from Iγ(318.4+871.7)/Iγ(438.6) in a 14-h ^{69}Zn source and the requirement that Iγ(318.4)+Iγ(871.7)+Iβ(to g.s.)=Ti(438.6); corrected for production isomer ratio and $T_{1/2}$ of g.s. (1970Ra08).

E$_\gamma$[†]	I$_\gamma$[#@]	E$_i$(level)	J_i^π	E$_f$	J_f^π	Mult.[‡]	δ[‡]
318.4 *2*	0.0012 *2*	318.4	$1/2^-$	0	$3/2^-$	M1+E2	<0.24
871.7 *2*	0.00025 *8*	871.7	$3/2^-$	0	$3/2^-$	M1+E2	−0.13 *4*

[†] From 1969Zo01.
[‡] From Adopted Gammas.
[#] From 1970Ra08.
[@] Absolute intensity per 100 decays.

^{69}Zn β^- decay (56.4 min) 1969Zo01,1970Ra08

Decay Scheme

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