

^{90}Y β^- decay (3.19 h) 1976Gr16

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, E. A. McCutchan		NDS 165,1 (2020)	1-Mar-2020

Parent: ^{90}Y : $E=682.01$ 5; $J^\pi=7^+$; $T_{1/2}=3.19$ h 1; $Q(\beta^-)=2278.5$ 16; $\% \beta^-$ decay=0.0018 2

^{90}Y - $\% \beta^-$ decay: From measured $I(2319\gamma)/I(480\gamma)=1.89 \times 10^{-5}$ 18 (1976Gr16); in agreement with upper limit of 8×10^{-5} (1973Ra10).

Value is recalculated by evaluator with adopted photon branching ratios.

1976Gr16: $\text{Y}(n,\gamma)$, chemical separation. Measured $\gamma(t)$ with $\text{Ge}(\text{Li})$.

Other: 1973Ra10.

α : Additional information 1.

 ^{90}Zr Levels

E(level) [†]	J^π	$T_{1/2}$ [†]
0	0^+	stable
2319.000 9	5^-	809.2 ms 20

[†] From the Adopted Levels.

 β^- radiations

E(decay)	E(level)	$I\beta^-$ [†]	Log ft	Comments
(641.5 16)	2319.000	0.0018 2	9.62 ^{1u} 5	av $E\beta=231.33$ 62

[†] Absolute intensity per 100 decays.

 $\gamma(^{90}\text{Zr})$

E_γ [†]	I_γ [‡]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	α	Comments
2318.968 10	100	2319.000	5^-	0	0^+	E5	4.64×10^{-4}	$\alpha(\text{K})=0.000408$ 6; $\alpha(\text{L})=4.63 \times 10^{-5}$ 7; $\alpha(\text{M})=8.04 \times 10^{-6}$ 12; $\alpha(\text{N})=1.141 \times 10^{-6}$ 16; $\alpha(\text{O})=7.97 \times 10^{-8}$ 12

[†] From the Adopted Gammas.

[‡] For absolute intensity per 100 decays, multiply by 0.000018 2.

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Decay Scheme

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