^{88}Zr ε decay   1955Hy29

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan and A. A. Sonzogni	NDS 115, 135 (2014)	1-Nov-2013

Parent: ^{88}Zr: E=0.0; J$^{\pi}$=0^{+}; T$_{1/2}$=83.4 d 3; Q(ε)=669 6; %ε decay=100.0

^{88}Zr activity produced with ^{93}Nb(p,α2n), Ep=100 MeV. Measured Eγ, Xγ(t) using two NaI detectors. Determined α(K)exp from absolute β and γ counting using Geiger-Muller counter.

α: Additional information 1.

^{88}Y Levels

E(level)	J$^{\pi\dagger}$	T$_{1/2}^{\dagger}$
0	4^{-}	106.626 d 21
392.86 9	1^{+}	0.301 ms 3

† From the Adopted Levels.

ε radiations

E(decay)	E(level)	I$\varepsilon^{\dagger}$	Log ft	Comments
(276 6)	392.86	100	5.713 21	εK=0.8621 3; εL=0.11267 25; εM+=0.02528 7

† Absolute intensity per 100 decays.

γ(^{88}Y)

I(γ+ce) normalization: From Σ I(γ+ce) (to g.s.)=100.

E$_\gamma^{\dagger}$	E$_i$(level)	J$_i^{\pi}$	E$_f$	J$_f^{\pi}$	Mult.	α	I$_{(\gamma+ce)}^{\ddagger}$	Comments
392.87 9	392.86	1^{+}	0	4^{-}	E3	0.0279	100	α(K)exp=0.025 10; ce(K)/(γ+ce)=0.0233 4; ce(L)/(γ+ce)=0.00322 5; ce(M)/(γ+ce)=0.000554 8; ce(N)/(γ+ce)=7.14×10^{-5} 10 ce(O)/(γ+ce)=3.91×10^{-6} 6 α(K)=0.0239 4; α(L)=0.00331 5; α(M)=0.000569 8; α(N)=7.34×10^{-5} 11; α(O)=4.01×10^{-6} 6 K/L(exp)=8.4. Mult.: M2 or E3 from α(K)exp and K/L(exp); ΔJ=3 is required by Adopted Levels.

† From the Adopted Gammas.
‡ Absolute intensity per 100 decays.

<u>^{88}Zr ε decay</u>   **1955Hy29**

<u>Decay Scheme</u>

0^+ _____ 0.0   83.4 d *3*

%ε=100 Q_ε=669 *6*

$^{88}_{40}Zr_{48}$

                                        Iε Log *ft*

392.87 E3 100

1^+ _____ 392.86   0.301 ms *3*   100   5.713

4^- _____ 0   106.626 d *21*

$^{88}_{39}Y_{49}$