^{93}Mo ε decay (4.0×10^3 y)   **1964Ho08**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 112, 1163 (2011)	15-Dec-2010

Parent: ^{93}Mo: E=0; J^π=5/2$^+$; $T_{1/2}$=4.0×10^3 y 8; $Q(\varepsilon)$=406 4; %ε decay=100.0

1964Ho08: Proportional counters; determined the time dependence of the ratio of the activities of ^{93}Mo ε decay and ^{93}Nb IT decay (16.12 y); measured εL/εK=0.36 4 and 0.28 3 for ε branches to 31-keV level and g.s., respectively (cf. 0.154 from theory for branch to 31 level).

^{93}Nb Levels

E(level)†	$J^{\pi\ddagger}$
0	9/2$^+$
30.77 2	1/2$^-$

† From Eγ.
‡ From Adopted Levels.

ε radiations

E(decay)	E(level)	I$\varepsilon^\dagger$	Log ft	Comments
(375 4)	30.77	88 12	10.07^{1u} 11	εK=0.8406 5; εL=0.1291 4; εM+=0.03033 11
(406 4)	0	12 12	>11	εK=0.8631 1; εL=0.11135 8; εM+=0.02555 3

† Absolute intensity per 100 decays.

γ(^{93}Nb)

E$_\gamma^\dagger$	E$_i$(level)	J_i^π	E$_f$	J_f^π	Mult.†	$\alpha^@$	I$_{(\gamma+ce)}^{\ddagger\#}$	Comments
30.77 2	30.77	1/2$^-$	0	9/2$^+$	M4	1.693×10^5	88 12	ce(K)/(γ+ce)=0.153 3; ce(L)/(γ+ce)=0.680 8; ce(M)/(γ+ce)=0.147 3; ce(N+)/(γ+ce)=0.0193 4 ce(N)/(γ+ce)=0.0191 4; ce(O)/(γ+ce)=0.000285 6

† From Adopted Levels.
‡ From estimate of ε branch to g.s.
$^\#$ 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

$5/2^+$ 0   4.0×10^3 y 8

Q_ε=406 4

%ε=100

$^{93}_{42}$Mo$_{51}$

30.77 M4 88

$\underline{I\varepsilon}$ $\underline{\text{Log } ft}$

$1/2^-$ 30.77   88   10.07^{1u}

$9/2^+$ 0   12   >11

$^{93}_{41}$Nb$_{52}$