^{144}Eu ε decay 1976Ke01

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 93, 599 (2001)	1-Dec-2000

Parent: ^{144}Eu: E=0.0; $J^\pi=1^+$; $T_{1/2}$=10.2 s *1*; Q(ε)=6315 *17*; %ε+%$β^+$ decay=100.0
Source: ^{144}Sm(p,n) E=14 MeV.
Measured: γ, γγ, γ(t).
Decay scheme is as given by 1976Ke01. The ground-state feeding has been determined by measuring $γ^±$ from a source enclosed in an aluminum absorber. The evaluator has calculated the level feeding using ε/$β^+$ (theory).
Other measurements: 1967Ge13, 1966Ma15, 1965Me12.

^{144}Sm Levels

E(level)	J^π †
0.0	0^+
1660.1	2^+
2423.3	2^+
2477.8	0^+

† From Adopted Levels.

ε,$β^+$ radiations

E(decay)	E(level)	Iβ+ †	Iε†	Log *ft*	I(ε+β+)†	Comments
(3837 *17*)	2477.8	0.87 *7*	0.69 *6*	5.21 *4*	1.56 *13*	av Eβ=1273.2 *79*; εK=0.371 *4*; εL=0.0533 *6*; εM+=0.01534 *16*
(3892 *17*)	2423.3	0.58 *5*	0.43 *3*	5.43 *4*	1.01 *8*	av Eβ=1298.3 *79*; εK=0.359 *4*; εL=0.0516 *6*; εM+=0.01484 *16*
(4655 *17*)	1660.1	5.9 *4*	2.1 *1*	4.89 *3*	8.0 *5*	av Eβ=1652.0 *80*; εK=0.2269 *23*; εL=0.0325 *4*; εM+=0.00934 *10*
(6315 *17*)	0.0	79.7 *6*	9.75 *14*	4.498 *8*	89.4 *7*	av Eβ=2434.6 *81*; εK=0.0921 *8*; εL=0.01313 *11*; εM+=0.00377 *4*

† Absolute intensity per 100 decays.

γ(^{144}Sm)

Iγ normalization: from Iγ($γ^±$)/Iγ(1660γ)=18.1 *14* and theoretical ε/$β^+$ ratios.

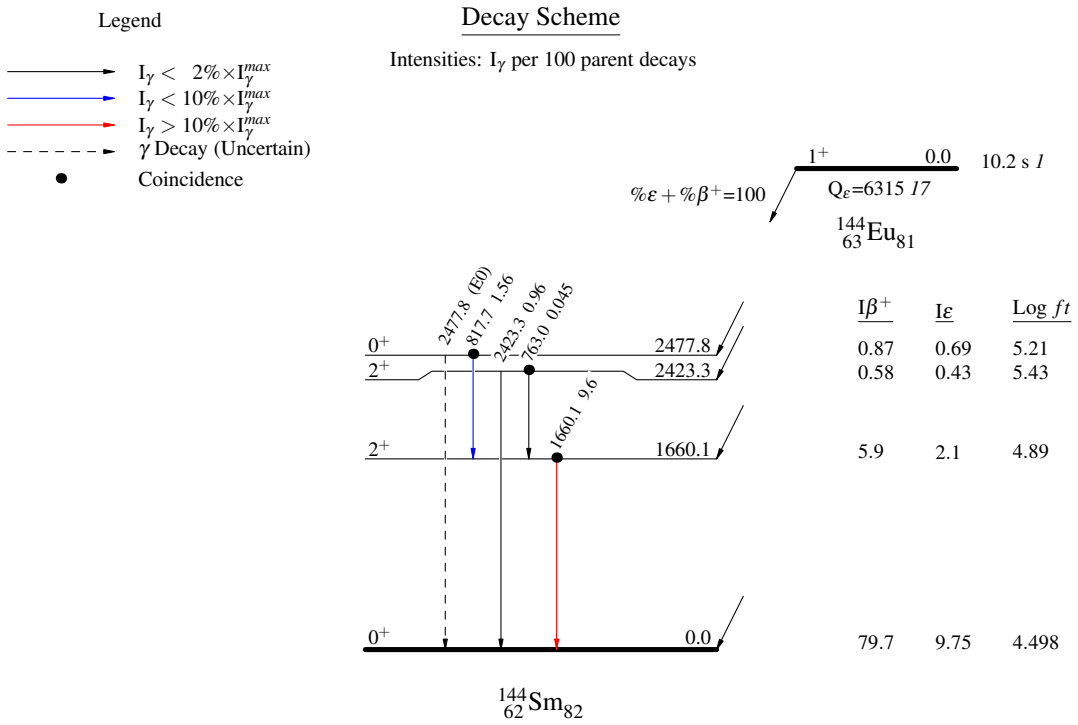
E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
763.0 *3*	0.47 *6*	2423.3	2^+	1660.1	2^+		
817.7 *2*	16.2 *8*	2477.8	0^+	1660.1	2^+		
x1000.6 *4*	0.4 *1*						
1660.1 *2*	100	1660.1	2^+	0.0	0^+		
2423.3 *2*	10.0 *4*	2423.3	2^+	0.0	0^+		
(2477.8)		2477.8	0^+	0.0	0^+	(E0)	Mult.: 1967Ge13 observed ce corresponding to this transition but no γ-ray of this energy has been observed.

† For absolute intensity per 100 decays, multiply by 0.096 *6*.
x γ ray not placed in level scheme.

^{144}Eu ε decay 1976Ke01

Decay Scheme

Intensities: I_γ per 100 parent decays



	Iβ+	Iε	Log *ft*
2477.8	0.87	0.69	5.21
2423.3	0.58	0.43	5.43
1660.1	5.9	2.1	4.89
0.0	79.7	9.75	4.498