^{134}Pm ε decay (5 s) 1989Vi04,1990Ko25

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 103, 1 (2004)	31-Jul-2004

Parent: ^{134}Pm: E=0.0; $J^\pi=(2^+)$; $T_{1/2}\approx5$ s; $Q(\varepsilon)=8.91\times10^3$ *6*; %ε+%β^+ decay=100.0

^{134}Nd Levels

Partial decay scheme is that of 1989Vi04.

E(level)	J^π†	$T_{1/2}$†
0.0	0^+	8.5 min *15*
294.40 *16*	2^+	
753.80 *16*	(2^+)	
789.30 *24*	4^+	
1089.10 *22*	(3^+)	
1384.0 *4*		
1669.4 *6*		

† From Adopted Levels.

ε,β^+ radiations

log *ft*: approximate values.

E(decay)	E(level)	Iβ+ †	Iε†	Log *ft*	I(ε+β+)†	Comments
$(7.24\times10^3$ *6*)	1669.4	4.3	0.24	5.9	4.5	av Eβ=3005 *97*; εK=0.046 *4*; εL=0.0064 *6*; εM+=0.00182 *17*
$(7.53\times10^3$ *6*)	1384.0	5.7	0.29	5.8	6.0	av Eβ=3143 *97*; εK=0.041 *4*; εL=0.0057 *5*; εM+=0.00162 *14*
$(7.82\times10^3$ *6*)	1089.10	27	1.2	5.2	28	av Eβ=3285 *97*; εK=0.036 *3*; εL=0.0051 *5*; εM+=0.00144 *12*
$(8.16\times10^3$ *6*)	753.80	30	1.2	5.3	31	av Eβ=3447 *97*; εK=0.032 *3*; εL=0.0044 *4*; εM+=0.00127 *10*
$(8.62\times10^3$ *6*)	294.40	31	1.0	5.4	32	av Eβ=3670 *97*; εK=0.0270 *21*; εL=0.0038 *3*; εM+=0.00107 *8*

† Absolute intensity per 100 decays.

γ(^{134}Nd)

Iγ normalization: From Σ I(γ+ce)=100 to g.s. (assuming no feeding to g.s.).

E_γ†	I_γ‡@	E_i(level)	J_i^π	E_f	J_f^π	Mult.#	α&	Comments
294.4 *2*	30	294.40	2^+	0.0	0^+	E2	0.0558	α(K)=0.0441 *14*; α(L)=0.0092 *3*; α(M)=0.00201 *6*; α(N+..)=0.00054 *2* Iγ=100 *10* measured by 1989Vi04.
335.3 *3*	2.1	1089.10	(3^+)	753.80	(2^+)			Iγ=4.5 *10* measured by 1989Vi04.
459.4 *2*	6.9	753.80	(2^+)	294.40	2^+			Iγ=14.1 *15* measured by 1989Vi04.
494.9 *2*	0.9	789.30	4^+	294.40	2^+	E2	0.0121	α(K)=0.0100 *3*; α(L)=0.00165 *5*; α(M)=0.00035 *1* Iγ=54 *9* measured by 1989Vi04.
594.7 *4*	0.9 *4*	1384.0		789.30	4^+			
753.8 *2*	7.4	753.80	(2^+)	0.0	0^+			Iγ=15.1 *15* measured by 1989Vi04.
794.7 *2*	9.1	1089.10	(3^+)	294.40	2^+			Iγ=19.1 *15* measured by 1989Vi04.

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^{134}Pm ε decay (5 s) 1989Vi04,1990Ko25 (continued)

γ(^{134}Nd) (continued)

E_γ [†]	I_γ [‡@]	E_i(level)	J_i^π	E_f	J_f^π
1375.0 *5*	1.8 *5*	1669.4		294.40	2^+
1384.0 *5*	1.5 *5*	1384.0		0.0	0^+

[†] From 1989Vi04.
[‡] Given by 1989Vi04 for decay of both ^{134}Pm isomers; intensities suitably divided.
[#] Adopted multipolarity.
[@] For absolute intensity per 100 decays, multiply by 2.5.
[&] 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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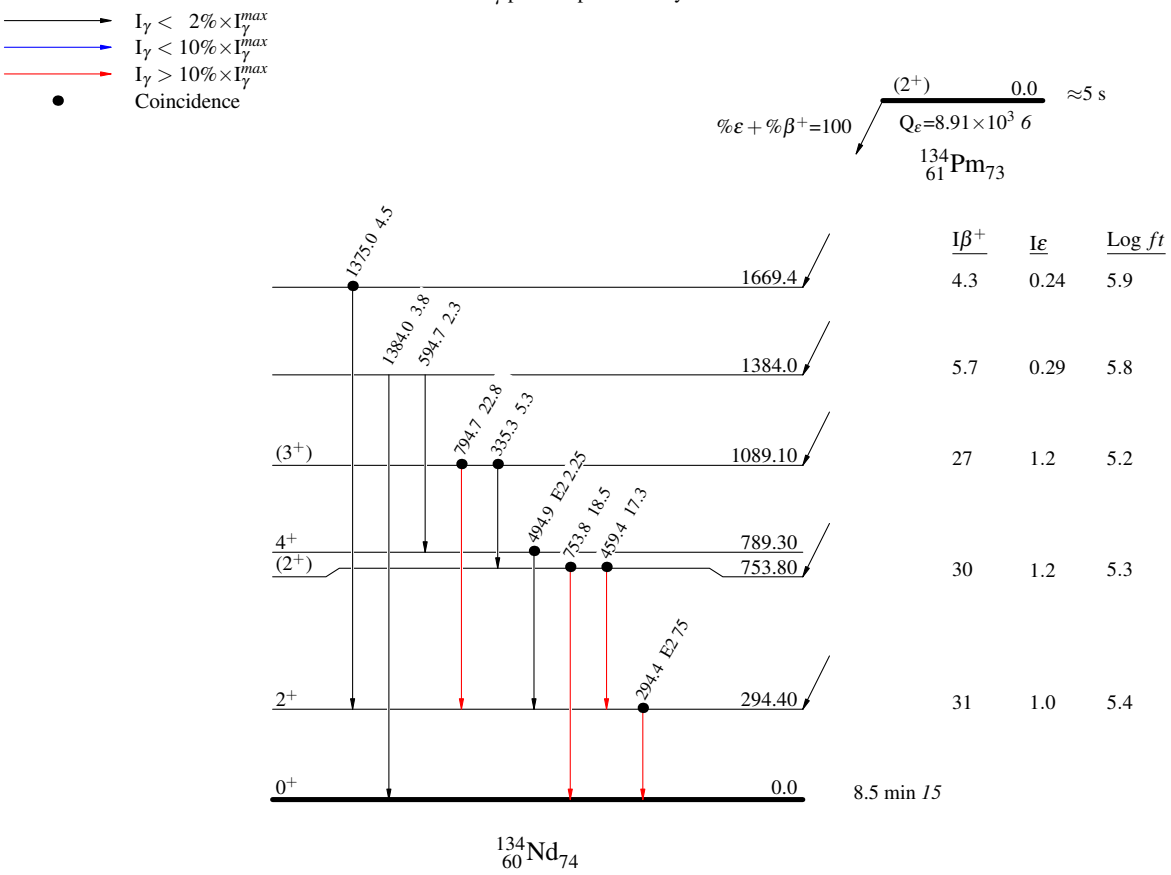
Decay Scheme

Intensities: I_γ per 100 parent decays



	Iβ+	Iε	Log *ft*
1669.4	4.3	0.24	5.9
1384.0	5.7	0.29	5.8
1089.10	27	1.2	5.2
789.30			
753.80	30	1.2	5.3
294.40	31	1.0	5.4
0.0			