^{143}Pm ε decay 1970Ch09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 113, 715 (2012)	31-May-2011

Parent: ^{143}Pm: E=0.0; $J^\pi=5/2^+$; $T_{1/2}$=265 d *7*; Q(ε)=1041.3 *28*; %ε+%$β^+$ decay=100.0

Measured: γ rays (1971ScZU,1970Av03,1960Fu05), γγ± coin (1967Va01,1959Of12), γ K x ray coin (1984Se09,1970Ch09); γ(θ,t) (1969Ba33,1963Gr10).

εK(742)=0.81 *2* (1984Se09). Other: 0.806 *23* (1981BeYL).

$β^+/ε<1.0\times10^{-6}$ (1967Va01). Other: 1959Of12.

Measured $γ^±$, determined %$β^+<5.7\times10^{-6}$ (1994Hi05).

^{143}Nd Levels

E(level)	J^π[†]
0.0	$7/2^-$
741.98 *4*	$3/2^-$

[†] From Adopted Levels.

ε,$β^+$ radiations

E(decay)	E(level)	Iε[†]	Log *ft*	Comments
(299 *3*)	741.98	38.7 *25*	7.4	εK=0.8109 *5*; εL=0.1459 *4*; εM+=0.04312 *12* Iε: from 1970Ch09; other: 36% *2* (1984Se09).
(1041 *3*)	0.0	61.3 *25*	8.4	εK=0.8396; εL=0.12453 *3*; εM+=0.035824 *8*

[†] Absolute intensity per 100 decays.

γ(^{143}Nd)

Iγ normalization: I(742γ)=38.5% *24* (1970Ch09).

E_γ	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[†]	Comments
741.98 *4*	100	741.98	$3/2^-$	0.0	$7/2^-$	E2	0.00436 *7*	α=0.00436 *7*; α(K)=0.00368 *6*; α(L)=0.000537 *8*; α(M)=0.0001144 *16*; α(N+..)=2.95×10^{-5} *5* α(N)=2.55×10^{-5} *4*; α(O)=3.79×10^{-6} *6*; α(P)=2.21×10^{-7} *3* E_γ: from 1971ScZU. Others: 742.9 *2* (1970Av03), 741.8 *15* (1960Fu05). Mult.: α(K)exp=0.0035 *4* (1970Av03). Other: (1968Be39).

[†] Additional information 1.

[‡] For absolute intensity per 100 decays, multiply by 0.385 *24*.

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Decay Scheme

Intensities: I_γ per 100 parent decays