Adopted Levels

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 108,681 (2007)	1-Jun-2006

Q(β^-)=−4.11×10^3 *syst*; S(n)=7.77×10^3 *5*; S(p)=4.89×10^3 *6*; Q(α)=6310 *5* 2012Wa38

Note: Current evaluation has used the following Q record −4180 syst 7770 *50* 4890 *50* 6310 *5* 2003Au03.

Additional information 1.

Assignment: ^{233}U(α,3n) chem; precursor of 30-min ^{226}Th (1949Hy04,1949Pe04); daughter ^{238}Cm, chem (1952Hi63).

See 1993Po14 for theoretical predictions of Eα and $T_{1/2}$.

Exotic decays via heavy-particle emission (cluster decays) were studied, and decay rates calculated by: 2005Ku32 (^{24}Ne, ^{28}Mg); 2005Ku04 (^{24}Ne, ^{32}Si, ^{29}Al, ^{28}Mg, ^{27}Na).

^{234}Pu Levels

Cross Reference (XREF) Flags

A ^{238}Cm α decay
B ^{234}Am ε decay

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	0^+	8.8 h *1*	AB	%α≈6; %ε≈94 Branchings were deduced from measured values of α/εK=0.09 and εL/εK=0.3 (1956Ho99). Other measurements: ε/α>9 (1973Ja06). $T_{1/2}$: 8.8 h *1* (1973Ja06), 8.5 h *10* (1949Pe04), 9.0 h *5* (1952Or03). Early measurement: 1949Hy04.
<4170		3 ns	B	%SF≤100; %IT=? E(level): Since this state is populated in ^{234}Am ε decay, its energy must be less than Q(ε)=4180 keV 210 (2003Au03). Energies of spontaneously fissioning isomers in neighboring plutonium isotopes are in the range of 2000-3000 keV (see 1979Ew01). This level may be complex, and comprised of several levels in the second well of the nuclear potential. $T_{1/2}$: From prompt coincidence data between fission products and plutonium K x-rays emitted in ^{234}Am ε decay.