Adopted Levels

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 112,1115 (2011)	31-Oct-2010

Q(β^-)=3762 *15*; S(n)=4093 *15*; S(p)=5595 *22*; Q(α)=6077 *18* 2012Wa38
Note: Current evaluation has used the following Q record $ 3739 51 *4116* 515838 SY6053 50 2009AuZZ.
Q(β^-): S(n)=4120 *50*; S(p)=5740 syst, ΔS(p)=360 (2003Au03).
Additional information 1.
Production and identification:
^{232}Th(600-MeV p), mass; observed Rn K x ray and daughter activities; measured γ, β, α, $\beta\gamma$ (1989Bu09).
Th(200-MeV p), mass; observed ^{220}Rn γ's; measured γ, $\gamma\gamma$, $\beta\gamma\gamma$ (1989Li04).
Mass measurement from ^{238}U fragmentation (2005LiZZ).
Calculation:
Spontaneous emission of heavy ions: 1986Po06.

^{220}At Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	3	3.71 min *4*	%α=8 *2*; %β^-=92 *2* J^π: in β^- decay J=3 from log *ft*=7.01 (log $f^{1u}t$=8.48) to 2^+ and log *ft*=6.85 (log $f^{1u}t$=8.25) to 4^+ levels; π=+ from log $f^{1u}t$=8.95 (log *ft*=7.58) for β^- decay to 1^- level. However, there is enough intensity in unassigned γ's to allow for the possibility that the β^- group to the 1^- level may be much weaker than shown in the present decay scheme. From systematics one would expect ^{220}At g.s. to have π=− (1997Ar04). $T_{1/2}$: from 1989Li04; other: 3.73 min *13* (1989Bu09). %α: From 1989Bu09; other: <10% (1989Li04).