Adopted Levels

History Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 108,79 (2007)	15-Oct-2006

Q(β^-)=−8.26×10^3 *8*; S(n)=8.34×10^3 *7*; S(p)=2.07×10^3 *syst*; Q(α)=7.14×10^3 *5* 2012Wa38
Note: Current evaluation has used the following Q record $ −8280 80 *8360* 60 *2130* 80 *7130* 50 2003Au03.
Q(εp)=6670 *70* (2003Au03).
^{199}Rn isotope identified (1980Di07,1981En02) in ^{169}Tm(^{35}Cl,5n) reaction at E(^{35}Cl)=15-185 MeV. Others: 1982Hi14, 1984Ca32, 1986Bo35.
In ^{193}Ir(^{19}F,^{13}N) reaction at E=9.4 MeV/nucleon (1969Ru08), analysis of fissioning products possibly suggests fission isomer of ^{199}Rn with $T_{1/2}$≤2 ns (1969Ru08). This isomer remains unconfirmed.
The low-spin and high-spin ^{199}Rn α activities are the parents (respectively) of the low-spin (6609α) and high-spin (6699α) ^{195}Po α activities (1982Hi14).
Mass mapping from analysis of α decay data: 2002No01.

^{199}Rn Levels

Cross Reference (XREF) Flags

A ^{203}Ra α decay (31 ms)
B ^{203}Ra α decay (24 ms)

E(level)	J$^\pi$ †	$T_{1/2}$	XREF	Comments
0	(3/2$^-$)	0.59 s *3*	A	%α=94; %ε+%β^+=6 $T_{1/2}$: average of 0.57 s *3* (1999Ta03) and 0.62 s *3* (1984Ca32). Others: 1.1 s *+9−4* (2005Uu02), >0.3 s (1982Hi14), 0.5 s *2* (1981En02). Branching from ε syst of 1973Ta30.
180 *70*	(13/2$^+$)	0.31 s *2*	B	%α=97; %ε+%β^+=3 E(level): from α energy difference (2003Au02,evaluation). $T_{1/2}$: weighted average of 0.26 s *+8−5* (2005Uu02), 0.31 s *2* (1999Ta03), 0.325 s *25* (1984Ca32) and 0.29 s *5* (1981En02). Other: 0.061 s *+32−12* (1982Hi14). Branching from ε syst of 1973Ta30.

† From analogy with other N=113 nuclei, shell model.