Adopted Levels, Gammas

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	30-Nov-2013

Q(β^-)=12440 *SY*; S(n)=3810 *SY*; S(p)=14420 *SY*; Q(α)=−10810 *SY* 2012Wa38
Estimated uncertainties (2012Wa38): 300 for Q(β^-), 420 for S(n), 500 for S(p) and Q(α).
S(2n)=9500 *360*, S(2p)=31230 *590*, Q(β^-n)=5940 *300* (2012Wa38).
Production and assignment: 1994Be24, 1997Be70: Isotope produced by Pb(^{238}U,F); 1997Be70 present relative reaction yields for $^{119-122}$Rh isotopes.
2008Be33: measured production cross section in ^{9}Be(^{136}Xe,X) at 1 GeV/nucleon.

^{122}Rh Levels

Cross Reference (XREF) Flags

A ^{122}Rh IT decay (0.82 μs)

E(level)	$T_{1/2}$	XREF	Comments
0	>300 ns	A	%β^-=?; %β^-n=?; %β^-2n=? E(level): assumed as the g.s. $T_{1/2}$: lower limit from estimated time-of-flight in 1997Be70. Actual half-life is expected to be much longer as suggested by the systematics value of 80 ms (2012Au07) and theoretical value of 58.5 ms (1997Mo25). Theoretical %β^-n=8.7, %β^-2n=0.01 (1997Mo25).
207.1? *5*		A	E(level): reverse ordering of the 63.9-207.1 γ cascade is also possible.
271.0 *7*	0.82 μs *+13−11*	A	%IT=100 Number of implanted fragments=8.6×10^3. E(level): in 2012Au07, this isomer was incorrectly assigned to ^{122}Ru. $T_{1/2}$: from γ(t) method (2012Ka36).

γ(^{122}Rh)

E_i(level)	E_γ	I_γ	E_f	Mult.	Comments
207.1?	207.1† *5*	100	0		
271.0	63.9† *5*	100	207.1?	(D,E2)	Mult.: from ÎT decay, based on intensity balance argument.

† Reverse ordering of the 63.9-207.1 γ cascade is also possible.

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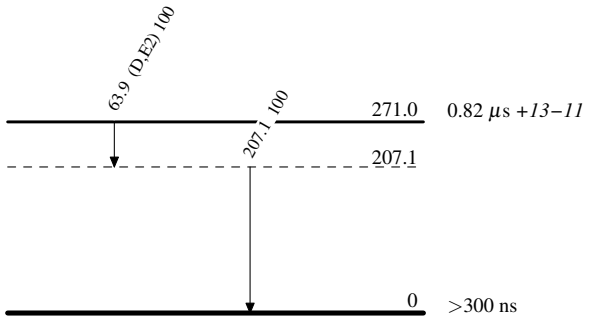
Level Scheme

Intensities: Relative photon branching from each level



$^{122}_{45}Rh_{77}$