Adopted Levels

History

Author Literature Cutoff Date Type Citation K. Auranen and E. A. Mccutchan NDS 168, 117 (2020) 1-Aug-2020 Full Evaluation

 $O(\beta^{-})=4310 \text{ SY}$: S(n)=4690 SY: $O(\alpha)=1320 \text{ SY}$

 $\Delta Q(\beta^{-})=360$; $\Delta S(n)=360$; $\Delta Q(\alpha)=500$ (2017Wa10).

S(2n)=8020 (syst) 360; $Q(\beta^-n)=760$ (syst) 300 (2017Wa10).

2010Al24: ²¹²Hg produced in ⁹Be(²³⁸U,X) reaction with E(²³⁸U)=1 GeV/nucleon at GSI facility. Fragments were analyzed with the high resolving power magnetic spectrometer FRagment Separator (FRS) and identified based on measurements of magnetic rigidity, velocity, time-of-flight, energy loss and atomic number of the fragments.

2017Ca12: ²¹²Hg produced in ⁹Be(²³⁸U,X) reaction with E(²³⁸U)=1 GeV/nucleon at GSI facility, separated with the high resolving power magnetic spectrometer FRagment Separator (FRS) and identified based on measurements of magnetic rigidity, velocity, time-of-flight, energy loss and atomic number of the fragments using two plastic scintillators and two multisampling ionization chambers.

²¹²Hg Levels

Comments

 $\%\beta^{-}=100; \%\beta^{-}n=?$

 $\%\beta^-$: the β^- and delayed neutron decay are the only decay modes expected.

Calculated $\%\beta^-$ n=2 (2019Mo01).

T_{1/2}: >300 ns from time-of-flight as given in 2006Ca30 for a similar setup. Actual half-life is expected to be much larger as suggested by the calculated value of 21 s for β decay (2019Mo01).

Production $\sigma=1.71$ nb (from e-mail reply of Oct 29, 2010 from first author of 2010Al24, which also stated that further analysis was in progress).

From A/Z plot (figure 1 in 2010Al24), ≈45 events are assigned to ²¹²Hg; from figure 5 of 2017Ca12 ≈70 events are assigned to ²¹²Hg.