Adopted Levels

		History	
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 114, 661 (2013)	28-Feb-2013

$Q(\beta^-)$=5450 *SY*; S(n)=3330 *SY*; S(p)=10240 *SY*; $Q(\alpha)$=2050 *CA*   2012Wa38,1997Mo25
Estimated uncertainties in 2012Wa38: 200 for $Q(\beta^-)$, 280 for S(n), 450 for S(p).
$Q(\beta^-)$, S(n) and S(p) from 2012Wa38, $Q(\alpha)$ from 1997Mo25.
$Q(\beta^-n)$=550 *200*, S(2n)=8120 *250* (syst,2012Wa38), S(2p)=19430 (1997Mo25,calculated).

^{211}**Hg evaluated by B. Singh**.

2010Al24: ^{211}Hg nuclide identified in ^{9}Be(^{238}U,X) reaction with a beam energy of 1 GeV/nucleon produced by the SIS
    synchrotron at GSI facility. Target=2500 mg/cm^2. The fragment residues were analyzed with the high resolving power magnetic
    spectrometer fragment separator (FRS). The identification of nuclei was made on the basis of magnetic rigidity, velocity,
    time-of-flight, energy loss and atomic number of the fragments using two plastic scintillators and two multisampling ionization
    chambers. The FRS magnet was tuned to center on ^{210}Au, ^{216}Pb, ^{219}Pb, ^{227}At and ^{229}At nuclei along the central trajectory of
    FRS.
Unambiguous identification of nuclides required the separation of different charge states of the nuclei passing through the FRS. At 1
    GeV/nucleon incident energy of ^{238}U, fraction of fully stripped ^{226}Po nuclei was about 89%. Through the measurement of
    difference in magnetic rigidity in the two sections of the FRS and the difference in energy loss in the two ionization chambers, the
    charge state of the transmitted nuclei was determined, especially, that of the singly charged (hydrogen-like) nuclei which preserved
    their charge in the current experimental setup. Measured production cross sections with 10% statistical and 20% systematic
    uncertainties.
Criterion established in 2010Al24 for acceptance of identification of a new nuclide: 1. number of events should be compatible with
    the corresponding mass and atomic number located in the expected range of positions at both image planes of the FRS
    spectrometer; 2. number of events should be compatible with >95% probability that at least one of the counts does not correspond
    to a charge-state contaminant. Comparisons of measured σ with model predictions using the computer codes COFRA and EPAX.

^{211}Hg Levels

E(level)	$T_{1/2}$	Comments
0	>300 ns	%β^-=?; %β^-n=?
		The β^- and delayed neutron decay are the only decay modes expected.
		Calculated %β^-n=19 (1997Mo25).
		E(level): it is assumed that the observed fragments correspond to nuclei in their ground state.
		J^π: 9/2$^+$ from systematics (2012Au07), and 5/2$^+$ predicted in 1997Mo25 calculations.
		$T_{1/2}$: lower limit 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 >100 s for β decay and >10^{20} s for α decay
		(1997Mo25), and systematic value of 10 s for β decay (2012Au07).
		Production cross section measured in 2010Al24, values are given in figure 2, plot of σ versus mass number
		for Hg isotopes. Statistical uncertainty=10%, systematic uncertainty=20%. Production σ=7.63 nb (from
		e-mail reply of Oct 29, 2010 from H. Alvarez-Pol, which also stated that further analysis was in progress.
		From A/Z plot (figure 1 in 2010Al24), $\approx$ 50 events are assigned to ^{211}Hg.