Adopted Levels

History Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Michael Birch	ENSDF	30-Sep-2013

Q(β^-)=3710 *SY*; S(n)=4560 *SY*; S(p)=10290 *CA*; Q(α)=−660 *SY* 2012Wa38,1997Mo25
Estimated uncertainties (2012Wa38): ΔQ^-=340, $\Delta S(n)$=420, $\Delta S(\alpha)$=590.
S(p) from 1997Mo25; others from 2012Wa38.
S(2n)=10690 *360* from 2012Wa38 (syst). S(2p)=19430 (1997Mo25, theory).
2012Ku26: ^{181}Yb produced and identified in ^{9}Be(^{238}U,F), E=1 GeV/nucleon reaction using SIS-18 synchrotron facility at GSI. Target=1.6 g/cm^2 ^{9}Be placed at the entrance of projectile Fragment Separator (FRS). Particle identification was achieved by event-by-event in-flight analysis of time-of-flight, energy loss measurement, and magnetic rigidity (TOF-$\Delta E'$-Bρ). Time-of-flight measured using two plastic scintillation detectors, energy loss or deposit by ionization chambers (MUSIC), and magnetic rigidity by four time-projection chambers (TPC), which also provided energy deposit information. Isomer tagging method for known μs isomers was used to verify event-by-event identification and in-flight separation of new isotopes. Gamma rays from the known isomers were recorded in coincidence with the incoming ions using either the RISING array of Ge detectors at GSI or only two Ge detectors, a stopper foil and a scintillator for veto signal. Measured production cross section. Comparison of measured σ with predictions from ABRABLA model and EPAX-3 model.
Earlier secondary report:
2000PoZY: events of ^{181}Yb identified in Be(^{208}Pb,X), E=1 GeV/nucleon at GSI; Fragment separator, time of flight, energy loss and position technique.
Nuclear structure calculations: 2005Pa21, 1983Sa22.

^{181}Yb Levels

E(level)	$T_{1/2}$	Comments
0	>160 ns	%β^-=? Only β^- decay mode is expected. E(level): the observed ^{181}Yb fragments assumed to correspond to the g.s. $T_{1/2}$: limiting value from time-of-flight of 160 ns in 2012Ku26. Actual β-decay half-life is expected to be much longer as suggested by a systematic value of 1 min (2012Au07), and >100 s from theoretical calculations (1997Mo25). J^π: $3/2^-$ suggested in systematics (2012Au07) and theoretical predictions (1997Mo25). Production σ=2.3 nb *3* (2012Ku26).