Adopted Levels

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 125, 201 (2015)	31-Dec-2014

Q(β^-)=12519 *SY*; S(n)=2203 *SY*; S(p)=18357 *SY*; Q(α)=−11453 *SY* 2012Wa38
ΔQ(β^-)=503; ΔS(n)=585; ΔS(p)=945; ΔQ(α)=945 (2012Wa38).
S(2n)=6681 syst *503*; Q(β^-n)=8121 syst *503* (2012Wa38).

1997Be70: ^{83}Zn isotope produced and identified in projectile fission in ^{9}Be(^{238}U,X) at 750 MeV / nucleon. Fission fragments separated using the fragment separator (FRS) in achromatic mode and identified using ΔE-Bρ-TOF measurements. Measured production cross section ≈ 1 nb.

2012Ma37: ^{83}Zn isotope produced in proton induced fission on a UC_x target with E(p)=50 MeV. Fission products extracted as positive ions and selected using two consecutive mass separation magnets with Δm/m ≈ 1,000 and 10,000, respectively. Measured Eγ, Iγ, γ(t) and β-γ coincidences using LeRIBSS consisting of four HPGe clover detectors for γ-rays and two plastic scintillators for β particles.

A 109.6-keV γ ray is assigned by 2012Ma37 to the β^- decay of ^{83}Zn.

^{83}Zn Levels

E(level)	$T_{1/2}$	Comments
0.0	117 ms *20*	%β^-=100; %β^-n=? %β^-n=90 (calculated, 2005Bo19), 40 (systematics, 2012Mc04). J^π: $5/2^+$ from systematics (2012Au07). $T_{1/2}$: from 2012Ma37 derived from growth and decay curve of 109.6-keV γ-ray.