Adopted Levels

		History	
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 114, 1849 (2013)	31-Dec-2012

Q(β^-)=−21909 *SY*; S(n)=19370 *SY*; S(p)=927 *SY*; Q(α)=−4456 *SY*   2012Wa38

Estimated ΔQ(β^-)=446, ΔS(n)=357, ΔS(p)=258, ΔQ(α)=540 (2012Wa38).

Q(εp)=12317 *196*, S(2n)=36040 *450*, S(2p)=−110 *200* (syst,2012Wa38).

2005St29 (also 2005St34,2012Gr19): ^{60}Ge identified in fragmentation of ^{78}Kr^{34+} beam in a ^{9}Be target at E=140 MeV/nucleon.
  Reaction products selected according to their momentum/charge ratio using the A1900 spectrometer of the National Superconducting
  Cyclotron Laboratory (NSCL).

Identification of fragments by time-of-flight and energy losses using timing scintillator (SCI), a position-sensitive parallel-plate
  avalanche counter (PPAC) and three silicon detectors (PIN). Half-life deduced from production yield and detection of three events
  assigned to ^{60}Ge.

2007Bl09: ^{60}Ge produced by fragmentation of ^{70}Ge beam at 71.6 MeV/nucleon with a Nickel target at GANIL-LISE3 facility.
  Implantations of analyzed fragments in double-sided silicon strip detectors (DSSSD). Total of two events assigned to ^{60}Ge.

Structure calculations: 2005Ba49 (n-p pairing gaps), 1993Sh11 (binding energies, radii, deformation parameters), 1988Do08
  (deformation energy vs quadrupole moment).

Additional information 1.

^{60}Ge Levels

E(level)	J$^\pi$	T$_{1/2}$	Comments
0	0$^+$	>110 ns	%ε+%β^+=?; %εp=?
			T$_{1/2}$: limiting value from experimental observation of at least one event combined with expected number of transmitted nuclei based on abrasion-ablation model cross sections and the time of flight (362 ns for ^{60}Ge). Actual half-life is expected to be much longer as suggested by systematics value of 30 ms (2003Au02) and calculated value of 82 ms (1997Mo25) for β decay.
			Production cross sections=0.38 pb +*27−31* (2005St29), $\approx$5 pb (2007Bl09).