Adopted Levels:not observed

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 149, 1 (2018)	1-Jan-2018

Q(β^-)=21630 *SY*; S(n)=−130 *SY* 2017Wa10
Δ(Q(β^-))=650, Δ(S(n))=100 (syst, 2017Wa10).
Q(2n)=2080 *870*, Q(β^-n)=17990 *640* (syst, 2017Wa10).
^{39}Mg is unbound i.e. particle unstable (2007Ba71, 2002Lu09, 2002No11).
2007Ba71: W(^{48}Ca,Xγ) E=141 MeV/nucleon beam from the National Superconducting Cyclotron Laboratory (NSCL). The fragments were separated with the A1900 fragment separator. Isotopic identification by multiple ΔE signals, magnetic rigidity, total energy and time of flight analysis. Detectors: plastic scintillators, parallel-plate avalanche counters (PPACs) and silicon PIN diodes. No events could be assigned to ^{39}Mg confirming that this nucleus is unbound towards particle emission.
2002Lu19, 2002No11: ^{181}Ta(^{48}Ca,X) reaction at 59 and 64 MeV/nucleon; GANIL-RIKEN-Dubna collaborations; LISE 2000 fragment spectrometer at GANIL and RIPS at RIKEN; measured spectra from fragmentation of ^{48}Ca beam; Particle-unbound character of ^{39}Mg is deduced from non-observation of expected 30 events in the reaction used.
Nuclear structure calculations: 2016Ba59, 2016Ha15, 2016Sh05, 2014Wa14, 2013Li39, 2006Zh19, 2005Ch71, 1996Re10.

^{39}Mg Levels

E(level)	$T_{1/2}$	Comments
0?	<180 ns	%n=? Calculated %n=14.4, %2n=57.8 (2003Mo09). J^π: 7/2$^-$ (syst, 2017Au03), (1/2$^-$) (syst, 1997Mo25). $T_{1/2}$: Estimated from time-of-flight (2007Ba71). Calculated value for β decay=5.4 ms (2003Mo09).