Adopted Levels

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	John Cameron, Jun Chen and Balraj Singh, Ninel Nica	NDS 113,365 (2012)	15-Jan-2012

Q(β^-)=1.85×10^4 *syst*; S(n)=2.×10^2 *syst*; S(p)=2.49×10^4 *syst*; Q(α)=−2.01×10^4 *syst* 2012Wa38

Note: Current evaluation has used the following Q record 18480 syst 162 syst 24911 syst −20133 syst 2011AuZZ.

Estimated uncertainties (2011AuZZ): ΔQ(β^-)=517, ΔS(n)=686, ΔS(p)=778, ΔQ(α)=780.

Q(β^-n)=14268 *513*, S(2n)=3493 *534* (syst,2011AuZZ). S(2p)=47870 (1997Mo25,calculated).

Values in 2003Au03 (from syst): Q(β^-)=19300 *960*, S(n)=250 *1030*, S(p)=25990 *1310*, Q(α)=−19170 *1210*, S(2n)=3050 *990*, Q(β^-n)=15400 *930*.

1996Sa34: identification and production of ^{37}Mg in ^{181}Ta(^{50}Ti,X) at E=80 MeV/nucleon; measured fragment total energy, time-of-flight method, RIPS fragment separator at RIKEN facility. A total of three events were assigned to ^{37}Mg.

2007Ta15: Fragmentation of 142 MeV/nucleon ^{48}Ca beam with Be and natural W targets. A1900 fragment separator at NSCL, Michigan facility. Measured cross sections are listed under comments.

Additional information 1.

^{37}Mg Levels

E(level)	$T_{1/2}$	Comments
0	8 ms *4*	%β^-=?; %n=?; %β^-n=? Predicted decay modes from calculations of 1997Mo25: %n+%β^-n=76.8, %β^-2n=19.5. 1999YoZW do not provide any measured %β^-n value. $T_{1/2}$: tentative value from 1999YoZW. Systematic value=40 ms (2011AuZY) and calculated β decay half-life=11.9 ms (1997Mo25). J^π: 7/2$^-$ proposed from systematics (2011AuZY), 5/2$^-$ from calculations of 1997Mo25. See also calculations of 2007Ha53 for low-lying levels. σ=9×10^{-8} mb *+3−2* for W target, 1.6×10^{-8} mb *+8−7* for Be target (2007Ta15).