Adopted Levels

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. Chen [#] and F. G. Kondev	NDS 126, 373 (2015)	30-Sep-2013

Q(β^-)=6180 *SY*; S(n)=4440 *SY*; S(p)=8770 *CA*; Q(α)=1860 *CA* 2012Wa38,1997Mo25
ΔQ(β^-)=430 keV, ΔS(n)=500 keV (syst,2012Wa38).
S(p) and Q(α) are from calculations in 1997Mo25.

^{209}Au Levels

E(level)	J^π	$T_{1/2}$	Comments
0	$(3/2^+)$	>300 ns	%β^-=100 %β^-n=90.8 predicted in 1997Mo25. J^π: from systematics in neighboring odd mass Au isotopes ($J^\pi=3/2^+$ in ^{205}Au, ^{203}Au, ^{201}Au, and ^{199}Au); $J^\pi=1/2^+$ is predicted in 1997Mo25. $T_{1/2}$: lower limit estimated from the time-of-flight between the production target and the focal plane in 2006Ca30. The actual lifetime is expected to be much longer. For example, $T_{1/2}\approx1$ s is estimated from systematics of log($T_{1/2}$) versus log(Q_β^5) data from neighboring ^{199}Au, ^{201}Au, ^{203}Au and ^{205}Au isotopes. $T_{1/2}\approx88$ s is predicted in 1997Mo25. configuration=$\pi(d_{3/2})^{-1}$. The assignment is tentative.