Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 201,346 (2025)	21-Jan-2025

Q(β^-)=6760 *syst*; S(n)=3690 *syst*; S(p)=8660 *syst*; Q(α)=30 *syst* 2021Wa16
ΔQ(β^-)=300, ΔS(n)=360, ΔS(p)=420, ΔQ(α)=420 (syst,2021Wa16).
S(2n)=9940 *360*, S(2p)=19200 *500*, Q(β^-n)=30 *300* (syst,2021Wa16).
2015Mo20: ^{9}Be target, 2.5 g/cm^2 thick, was bombarded with a 1 GeV/nucleon ^{238}U pulsed beam at GSI in 3 and 4 s repetition cycles, and extraction times of 1 and 2 s, respectively. The ^{206}Au recoiling nuclei were selected using the Fragment Separator (FRS) using three magnetic settings centered around ^{205}Pt, ^{215}Pb and ^{217}Pb. The ^{206}Au recoils were decelerated in an Al degrader before their implantation in an active stopper consisting of six DSSD detectors (256 pixels with 9 mm^2 active area), surrounded by an array of 15 HPGe detectors (RISING). Measured: Eγ, Iγ and $\beta\gamma$(t) with a coincidence window of 100 μs.
Other: 2017Ca12.

^{206}Au Levels

E(level)	J$^\pi$	T$_{1/2}$	Comments
0.0	(5$^+$,6$^+$)	40 s *15*	%β^-=100 E(level): Early identification in 2009St16, 2008StZY, but no level properties were measured. %β^-: Neutron-rich nuclide with β^- decay being the only expected decay mode. J$^\pi$: Possible direct β^--decay feeding to the J^π=5$^-$ level in ^{206}Hg (2015Mo20). Particle-hole character of the proposed configuration (repulsive for mutual alignment) would be consistent with J^π=5$^+$,6$^+$. The authors of 2015Mo20 proposed a tentative J^π=(4$^+$,5$^+$) assignment. T$_{1/2}$: From sum of β^--gated 1068γ(t) and 1034γ(t) spectra in 2015Mo20 and the maximum likelihood method. The uncertainty includes both statistical and systematics components, but the individual contributions were not given by the authors. Other: 56 s *17* from β^-(t) in 2017Ca12. configuration: $\pi(d_{3/2})^{-1}\otimes\nu(g_{9/2})^{+1}$. The $\pi(d_{3/2})^{-1}$ orbital is associated with the ground state of the even-N Au nuclei, while the $\nu(g_{9/2})^{+1}$ orbital is associated with the ground state of the ^{209}Pb and ^{211}Po (N=127) isotopes. If J^π=5$^+$, admixtures with the $\pi(s_{1/2})^{-1}\otimes\nu(g_{9/2})^{+1}$ configuration are possible. The authors of 2015Mo20 proposed a tentative configuration=$\pi(s_{1/2})^{-1}\otimes\nu(g_{9/2})^{+1}$.