

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 195,368 (2024)	1-Dec-2023

$Q(\beta^-)=4660$ *syst*; $S(n)=5870$ *syst*; $S(p)=9010$ *syst*; $Q(\alpha)=-110$ *syst* [2021Wa16](#)

$\Delta Q(\beta^-)=300$ (syst), $\Delta S(n)=360$ (syst), $\Delta S(p)=500$ (syst), $\Delta Q(\alpha)=500$ (syst) ([2021Wa16](#)).

$S(2n)=10700$ *360* (syst, [2021Wa16](#)), $S(2p)=20140$ ([2019Mo01](#), calculated).

[2009St16](#), [2008StZY](#) thesis: ^{191}Ta nuclide identified in the reaction $^9\text{Be}(^{208}\text{Pb},X)$, $E=1$ GeV/nucleon, studied at the SIS-18

accelerator facility, GSI. Target thickness= 2.5 g/cm². Fragments identified in flight by the Fragment Separator (FRS) operated in achromatic mode based on time of flight, $B\rho$ and energy loss. Data collected on six FRS magnetic rigidity settings centered on: ^{206}Hg , ^{203}Ir , ^{202}Os , ^{199}Os , ^{192}W , and ^{185}Lu . Nuclides halted in a passive stopper surrounded by the RISING array in “Stopped Beam” configuration.

[2014Ku02](#): $^9\text{Be}(^{208}\text{Pb},X)$, $E=1$ GeV/nucleon; measured reaction products from fragmentation, production $\sigma=(16.0 \text{ mb } 32) \times 10^{-6}$ for ^{191}Ta .

 ^{191}Ta Levels

E(level)	Comments
0	<p>$\% \beta^- = 100$</p> <p>Approximate number of nuclei implanted in the plastic stopper reported to be 260 20 (2009St16,2008StZY).</p> <p>E(level): the observed fragments are assumed to be in the ground state of ^{191}Ta nuclei.</p> <p>The β^- decay is the only decay mode expected.</p> <p>$T_{1/2}$: Expected >300 ns from the approximate time-of-flight (tof), tof is also listed as $<<3.4 \mu\text{s}$ in 2008StZY.</p> <p>Calculated and systematic half-life values are 1.8 s for β decay (2019Mo01) and 460 ms (syst) (2021Ko07 – NUBASE).</p> <p>J^π: $9/2^-$ predicted in 2019Mo01; $7/2^+$ from systematics (2021Ko07 – NUBASE).</p>