

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 127, 191 (2015)	1-Jun-2014

$Q(\beta^-)=3585$  16;  $S(n)=4705$  21;  $S(p)=6350$  22;  $Q(\alpha)=3628$  21 [2012Wa38](#)

[Additional information 1.](#)

Others:

Discovery of  $^{238}\text{Pa}$  discussed in [2013Fr03](#).

Cluster decay:  $^{23}\text{F}$ ,  $^{24}\text{Ne}$  ([2012Sa31](#)).

Mass measurements: [2012Zh46](#), [2012Ch19](#).

Nuclear structure: [2008Do12](#).

Nuclear Reactions:  $^{238}\text{U}(n,p)$ , deduced  $\sigma$  ([2011Ha46](#)).

Assignment:  $^{238}\text{U}(14\text{-MeV } n,p)$  chem, p  $^{238}\text{U}$  ([1968Tr07](#)).

 $^{238}\text{Pa}$  Levels

E(level)	$J^\pi$	$T_{1/2}$	Comments
0.0	(3 <sup>-</sup> )	2.28 min 10	$\% \beta^- = 100$ $T_{1/2}$ : weighted average of 2.3 min 1 ( <a href="#">1968Tr07</a> ), 1.8 min 6 ( <a href="#">1967BeZZ</a> ), and 2.1 min 4 ( <a href="#">1999Yu08,1999Xi05</a> ). <a href="#">Additional information 2.</a> $J^\pi$ : configuration ([1/2(530) <sup>+</sup> ] ([5/2(622) <sup>+</sup> ]) as for the 91th proton in the ground states of $^{231}\text{Pa}$ and $^{233}\text{Pa}$ , and 147th neutron in the ground states of $^{241}\text{Pu}$ and $^{239}\text{U}$ .