Adopted Levels

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	K. Auranen and E. A. Mccutchan	NDS 168, 117 (2020)	1-Aug-2020

S(p)=−3.90×10^2 *10*; Q(α)=8420 *50* 2017Wa10

S(n)=8560 (syst) *130*; S(2p)=1770 *90*; Q(εp)=7100 (syst) *90* (2017Wa10).

1997Mi03: activity was produced in the ^{182}W(^{35}Cl,5n) reaction using a beam energy of 182.5 MeV. ^{212}Pa was separated with the JAERI recoil mass separator and identified by time- and position-correlated alpha-decay chains.

2014Ya19: nuclei of interest were produced in a ^{40}Ca(E=193 MeV) + ^{175}Lu complete fusion reaction at the HIRFL-Lanzhou facility. The target was a 500−μg/cm^2-thick layer of natural Lu (>97.4% ^{175}Lu) evaporated on a 40 μg/cm^2 carbon backing. The residues were selected using gas-filled recoil separator SHANS, and implanted into a position sensitive silicon detectors. Time and position correlation were measured between evaporation residue implantation (ER) and the subsequent α-decay events. Eα, half-lives, ER-α-α correlations were measured.

^{212}Pa Levels

E(level)	$T_{1/2}$	Comments
0.0	5.1 ms *+51−17*	%α≈100 %α: only α decay has been observed. Theoretical calculations in 2019Mo01 suggest the %ε+%β^+ branch is less than 1%. $T_{1/2}$: from 2014Ya19, obtained by combining the results of 2014Ya19 and 1997Mi03. Others: 5.1 ms *+61−19* (1997Mi03). Eα=8250 keV *20* from 2014Ya19, was obtained by combining the results of 2014Ya19 and 1997Mi03. Others: Eα=8270 keV *30* very likely is emitted from the g.s. of ^{212}Pa (1997Mi03).