^{149}Lu p decay 2022Au01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 208,1 (2026)	17-Jan-2026

Parent: ^{149}Lu: E=0; $J^{\pi}=(11/2^{-})$; $T_{1/2}=0.45$ μs *+17−10*; Q(p)=1920 *20*; %p decay=100

^{149}Lu-E,J^{π},$T_{1/2}$: From 2022Au01 and 2022Si28 evaluation.

^{149}Lu-Q(p): From 2021Wa16.

^{149}Lu-%p decay: From 2021Wa16.

2022Au01 compiled for XUNDL database by E.A. McCutchan (NNDC,BNL).

2022Au01: used ^{96}Ru(^{58}Ni,4np) reaction with E(^{58}Ni)=310, 320 from the K130 cyclotron of University of Jyvaskylareaction MeV on 170 μg/cm^2 thick target of enriched ^{96}Ru on 150 μg/cm^2 aluminum foil (beam-facing); used Mass Analyzing Recoil Apparatus (MARA) with double-sided silicon strip detector (DSSD) and three broad-energy Ge detectors and measured energy spectrum of protons from ^{149}Lu decay, (implants)(proton)-correlations, $T_{1/2}$ of ^{149}Lu decay, and proton-decay Q(β^{-})value; comparison with theoretical calculations.

^{148}Yb Levels

E(level)	J^{π}
0?	0^{+}

Protons (^{148}Yb)

E(p)	E(^{148}Yb)	Comments
1910 *20*	0?	from 2022Au01; based on rate, consistent with L=5 transition, possibly from dominant $\pi h_{11/2}$ component.