

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, A. A. Sonzogni		NDS 114,435 (2013)	1-Apr-2013

$S(p)=-1269.6$ 23; $Q(\alpha)=3991$ (syst) 361 [2017Wa10](#)

$Q(\varepsilon)=13998$ (syst) 424; $S(2p)=453$ 23; $Q(\varepsilon p)=11954$ (syst) 358

[Additional information 1.](#)

[2003Gi10](#), [2000Gi01](#): $^{96}\text{Ru}(^{58}\text{Ni},p3n)$ $E=292$ MeV, Recoil Mass Separator (ORNL) with a multiwire, gas-filled, position sensitive avalanche counter (PSAC) at the focal plane, followed by a double-sided silicon strip detector (DSSD) detector.

[2003Ro21](#): $^{96}\text{Ru}(^{58}\text{Ni},p3n)$ $E=297$ MeV, Fragment Mass Analyser (ANL) with position sensitive parallel grid avalanche counter (PGAC) at the focal plane, followed by a double-sided silicon strip detector (DSSD) detector.

[1993Se04](#): superseded by [2000Gi01](#).

 ^{150}Lu Levels

E(level)	J^π	$T_{1/2}$	Comments
0	(2^+)	45 ms 3	$\%p=70.9$ 19; $\% \varepsilon + \% \beta^+ = 29.1$ 19 $\%p, \% \varepsilon + \% \beta^+$, from experimental $T_{1/2}$ and assuming $T_{1/2}(\varepsilon + \beta^+) = 155$ ms (1997Mo25). J^π: following strong-coupling limit and coupled channel calculations in 2001Fe05. $T_{1/2}$: weighted average of 43 ms 5 (2003Ro21), 49 ms 5 (2000Gi01) and 35 ms 10 (1993Se04). $E(p)=1261$ keV 4, $J^\pi(p)=11/2^-$ (assuming spherical core). $\sigma \approx 3$ μb (2000Gi01).
22 6	$(1^-, 2^-)$	39 μs +8-6	$\%p=100$ $T_{1/2}$: from 2003Gi10, other values: 52.5 μs +130-87 (2003Ro21), 30 μs +95-15 (2000Gi01). J^π: following strong-coupling limit and coupled channel calculations in 2001Fe05. E(level): from energy difference in proton $Q(\beta^-)$ values. $E=1283$ keV 5, weighted average of 1277 keV 8 (2003Gi10) and 1286 keV 6 (2003Ro21), other value: 1295 keV 15 (2000Gi01). $J^\pi(p)=3/2^+$ (assuming spherical core). $\sigma \approx 50$ nb (2000Gi01).