

Adopted Levels:unobserved

<u>Type</u>	<u>History</u>		<u>Literature Cutoff Date</u>
	<u>Author</u>	<u>Citation</u>	
Full Evaluation	E. A. Mccutchan	ENSDF	1-May-2022

$S(p)=-1580$ SY; $Q(\alpha)=3940$ SY [2021Wa16](#)

$\Delta S(p)=380$; $\Delta Q(\alpha)=300$ ([2021Wa16](#)).

Experimental search:

[2001Ma69](#): $^{64}\text{Zn}(^{58}\text{Ni},p5n)$ $E=325$ MeV, recoil mass separator (FMA) with PPAC/DDSD detectors at focal plane. Proton radioactivity was not observed; deduced $\sigma < 5$ nb for $20 \mu\text{s} < T_{1/2} < 20$ ms.

Non observation could be explained by.

- i) proton decay with $\sigma(p5n)$ below 5 nb.
- ii) $Q(p)$ too large that will render $T_{1/2} < 1 \mu\text{s}$.
- iii) $Q(p)$ too small, and thus β decay will be the dominant decay mode.

Theoretical works:

[2020So24](#): $S(p)=-1.09$ MeV, $T_{1/2}(p)=6 \mu\text{s}$.

[2019Mo01](#): $S(p)=-0.80$ MeV, $T_{1/2}(\beta)=0.12$ s.

[2016Qi02](#): $S(p)=-0.74$ MeV, $T_{1/2}(p)=4 \mu\text{s}$.

[2001Go20](#): $\beta_2=0.31$, $\beta_4=0.02$, $S(p)=-1.1$ MeV.