Adopted Levels

Type Author Citation Literature Cutoff Date

Full Evaluation C. Morse NDS 182, 167 (2022) 14-Sep-2021

S(n)=6099 SY; S(p)=2343 SY; Q(α)=1.162×10⁴ 6 2021Wa16 Δ S(n)=523, Δ S(p)=647 (2021WA16).

 $T_{1/2}$: From five events.

 $S(2p)=3912 \text{ SY } 373, \ Q(\varepsilon p)=2504 \text{ SY } 569 \ (2021WA16).$

²⁷⁷Cn has been observed in the ²⁰⁸Pb(⁷⁰Zn,n) reaction at GSI (1996HO13,2002HO11) and RIKEN (2007MO09,2013SU04). Events were identified by the observation of chains of correlated α decays. Comparison of the properties of these chains with those previously observed allowed individual decays to be assigned to specific nuclei.

1996HO13 reports two decay chains. However, the data is reanalyzed in 2002HO11 and the chain from 01-Feb-1998 is found to be reported in error.

Half-lives, branching ratios, and α -decay energies in this evaluation have been computed from the individual events listed in the references above. Half-life uncertainties have been computed according to the method of 1984SC13. An additional 10 keV systematic uncertainty is assumed for the α -decay energies, which is added in quadrature to the averaged statistical uncertainty.

²⁷⁷Cn Levels

E(level) $T_{1/2}$ Comments 0 0.61 ms +46-18 $\%\alpha$ =100; %SF<17 E(level): Assumed ground state.