

Adopted Levels

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Balraj Singh	ENSDF	30-Apr-2022

$S(n)=16640$ SY; $S(p)=320$ SY; $Q(\alpha)=-5040$ SY [2021Wa16](#)

Estimated uncertainties ([2021Wa16](#)): 450 for $S(n)$, 570 for $S(p)$, 640 for $Q(\alpha)$.

$Q(\varepsilon)=17370$ 430, $Q(\varepsilon p)=17720$ 400, $S(2p)=-780$ 400 (syst, [2021Wa16](#)). $S(2n)=36810$ (theory, [2019Mo01](#)).

[2001Gi10](#): ^{55}Zn produced and identified in $\text{Ni}(^{58}\text{Ni},X)$, $E=74.5$ MeV/nucleon reaction using SISSI/LISE3 facility of GANIL. A total of 17 counts were assigned to ^{55}Zn . Measured production σ of 20 pb +6–5.

[2007Do17](#): ^{55}Zn produced and identified in fragmentation of 74.5 MeV/nucleon $^{58}\text{Ni}^{26+}$ beam with nickel target using SISSE/LISE3 separator facility in GANIL. Fragment identification by energy loss, residual energy and time-of-flight measurements using two micro-channel plate (MCP) detectors and Si detectors. Double-sided silicon-strip detectors (DSSSD) and a thick Si(Li) detector were used to detect implanted events, charged particles and β particles. The γ rays were detected by four Ge detectors. Coincidences measured between charged particles and γ rays. $T_{1/2}$ measured by time correlation of implantation events due to ^{55}Zn and subsequent emission of protons and γ rays. Total proton branching ratio is from time spectrum of events with energy >900 keV in the charged-particle spectrum. Possible small contributions from delayed- α and delayed-2p decays are ignored.

[2021Ku30](#): ^{55}Zn production σ measurement in $^9\text{Be}(^{78}\text{Kr},X)$, $E=345$ MeV/nucleon reaction using BigRIPS separator at the RIBF-RIKEN facility.

Theoretical calculations: 13 primary references (seven for structure and six for ^{55}Zn decay) retrieved from the NSR database at www.nndc.bnl.gov/nsr/. These are listed in this dataset under ‘document’ records.

[Additional information 1](#).

 ^{55}Zn Levels

E(level)	$T_{1/2}$	Comments
0	19.8 ms 13	$\% \varepsilon + \% \beta^+ = 100$; $\% \varepsilon p = 91.0$ 51 (2007Do17) J^π : $5/2^-$ from theory (2019Mo01) and systematics (2021Ko07). $T_{1/2}$: from 2007Do17 (β^+ -delayed proton decay curve).