

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Ameenah R. Farhan, Balraj Singh	NDS 110,1917 (2009)		30-Jun-2009

$S(p)=1.8\times10^3$ syst; $Q(\alpha)=-2.9\times10^3$ syst [2012Wa38](#)

Note: Current evaluation has used the following Q record 17200 calc 2080 syst -3300 syst [2009AuZZ](#),[1997Mo25](#).

$S(n)$ from [1997Mo25](#), $S(p)$ and $Q(\alpha)$ from [2009AuZZ](#).

$\Delta S(p)=\Delta Q(\alpha)=510$ (syst,[2009AuZZ](#)). $Q(ep)=8810\ 500$, $s(2p)=2030\ 500$ (syst,[2009AuZZ](#)).

Values in [2003Au03](#): $S(p)=2090\ 510$, $Q(\alpha)=-3430\ 710$, $Q(ep)=8810\ 500$, $s(2p)=2040\ 500$; all from systematics.

[2001Ki13](#), [2002Fa13](#), [2007WeZX](#): ^{112}Sn ions, 1 GeV/A, on Be target, fragments isotopically separated. Si stack detectors. Only one event assigned to ^{78}Zr .

[Additional information 1](#).

 ^{78}Zr Levels

E(level)	J^π	$T_{1/2}$	Comments
0	0^+	>170 ns	$\%e+\%\beta^+=?$ T _{1/2} : estimated from time-of-flight (2007WeZX , 2001Ki13). Actual half-life is expected to be much greater as suggested by calculated value of 260 ms (1997m025) and systematics value of 50 ms (2003Au02). Additional information 2 .