

Adopted Levels, Gammas

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Balraj Singh	ENSDF	12-Jan-2010

$Q(\beta^-)=1.38 \times 10^4$ syst; $S(n)=4.0 \times 10^3$ syst; $S(p)=2.26 \times 10^4$ syst; $Q(\alpha)=-1.90 \times 10^4$ syst [2012Wa38](#)

Note: Current evaluation has used the following Q record 15410 syst 4120 SY24490 syst-20160 syst [2003Au03,2009AuZZ](#).

Estimated uncertainties ([2009AuZZ,2003Au03](#)): $\Delta Q(\beta^-)=1000$, $\Delta S(n)=1880$, $\Delta S(p)=1060$, $DSA=860$ ([2003Au03,2009AuZZ](#)).

$Q(\beta^-n)=10990$ 710 (syst,[2003Au03,2009AuZZ](#)).

[1989Gu03](#): ^{46}S observed from interaction of a ^{48}Ca beam of 55 MeV/u with tantalum target using magnetic separation and identification through time-of-flight and ΔE -E measurements.

[2004Gr20](#) (also [2003Gr22](#)): ^{46}S formed in $^9\text{Be}(^{48}\text{Ca},X)$ at $E=60$ MeV/nucleon, LISE3 at GANIL facility. Measured production rates and half-life.

Nuclear structure calculations: [2003In03](#), [2003Ob06](#), [1999La18](#), [1997Re04](#).

^{46}S Levels

Cross Reference (XREF) Flags

A $^9\text{Be}(^{46}\text{Cl},^{46}\text{S}\gamma)$

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	0^+	50 ms 8	A	$\% \beta^- = 100$ $T_{1/2}$: from time correlations of β rays and precursor implants (2004Gr20,2003Gr22).
952 8	(2^+)		A	J^π : comparison with shell-model calculations, systematics of even-even nuclei.

$\gamma(^{46}\text{S})$

$E_i(\text{level})$	J_i^π	E_γ	E_f	J_f^π
952	(2^+)	952 8	0.0	0^+

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