

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	15-Feb-2010

$S(n)=1.70\times 10^4$ syst; $S(p)=3.3\times 10^3$ syst; $Q(\alpha)=-2.9\times 10^3$ syst [2012Wa38](#)

Note: Current evaluation has used the following Q record 16967 syst 3041 syst -3207 syst [2009AuZZ](#).

Estimated uncertainties: 780 for S(n), 643 for S(p), 711 for Q(α).

$Q(\epsilon p)=6823$ 503 (syst,[2009AuZZ](#)), 6760 640 (syst,[2003Au03](#)).

$S(2p)=4329$ 503 (syst,[2009AuZZ](#)), 4330 640 (syst,[2003Au03](#)).

Values (from syst) in [2003Au03](#): $S(n)=17480$ 780, $S(p)=3290$ 640, $Q(\alpha)=-3030$ 710.

[2008Ba53](#): ^{96}Cd produced and identified in fragmentation of E=120 MeV/nucleon ^{112}Sn beam with ^9Be target at NSCL facility.

Secondary beam of ^{96}Cd nuclei were analyzed and separated using A1900 fragment separator and radio frequency fragment separator (RFFS). Filtered secondary beam was implanted in beta counting system surrounded by segmented Ge array of 16 detectors. The beta counting system consisted of three silicon detectors and one double-sided strip detector in which the ions were implanted. The β calorimeter consisted of six single-sided strip detectors and a high-purity thin planar Ge detector. Measured cross sections for production of secondary beam nuclei and isotopic half-lives. The measured cross sections and half-lives were compared with model calculations.

[2008KrZW](#): production and identification of ^{96}Cd in $^9\text{Be}(^{124}\text{Xe},X)$ at E=1 GeV/nucleon. Measured yield using LISE fragment separator at GSI facility and RISING detector array for γ rays. No details of this study are available.

Nuclear structure calculations: [2008Ka19](#) (levels,J,p), [1999Go12](#) (pairing gap), [1997He24](#) (binding energy, shell model), [1988Re08](#) (potential energy surface calculations), [1983Og01](#) (high-spin isomer predictions).

A high-spin isomer of $J^\pi=16^+$ with an energy of ≈ 5300 keV is predicted with a configuration= $\pi g_{9/2}^{-2} \otimes \nu g_{9/2}^{-2}$

([2008Ka19](#),[1983Og01](#)).

[Additional information 1](#).

 ^{96}Cd Levels

E(level)	J^π	$T_{1/2}$	Comments
0	0^+	1.03 s +24-21	$\% \epsilon + \% \beta^+ = 100$ $T_{1/2}$: from β decays correlated with implanted nuclei (2008Ba53). Production $\sigma=5.5$ pb 14 (2008Ba53) from 274 ± 24 events assigned to ^{96}Cd .