

Adopted Levels

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni		NDS 107,2423 (2006)	1-Jan-2006

S(n)=1.42×10⁴ *syst*; S(p)=6.×10² *syst*; Q(α)=-2.9×10³ *syst* [2012Wa38](#)

Note: Current evaluation has used the following Q record 14592.0 SY890.0 *syst*-2509.0 *syst* [2003Au03](#).

ΔS(n)=780, ΔS(p)=643, ΔQ(α)=711 ([2003Au03](#)).

[2002StZZ](#): Be(¹¹²Sn,X) E=1 GeV/a. Measured T_{1/2}, GSI Fragment separator FRS, fragments stopped in segmented silicon strip detector.

[2006Mu03](#), [2005Mu15](#), [2004PI01](#), [2004Mu30](#), [2002La18](#), [1994Sc35](#): ⁵⁸Ni(⁴⁰Ca,p3n), measured T_{1/2} by β-proton-γ(t), %εp, %p, %2p, ⁹⁴Pd levels.

⁹⁴Ag Levels

E(level)	J ^π	T _{1/2}	Comments
0.0	(0 ⁺)	26 ms +26-9	%ε+%β ⁺ =100; %εp=? T _{1/2} : from 2002StZZ . J ^π : from shell model calculations.
0.0+x	(7 ⁺)	0.55 s 6	E(level): observed only in fragmentation of ¹¹² Sn. %ε=100; %εp=20 (2004Mu30) T _{1/2} : weighted average of 0.61 s 2 (2004Mu30), 0.59 s 2 (2004PI01), 0.36 s 3 (2002La18), 0.42 s 5 (1994Sc35). Other: 0.45 s +20-13 (2002StZZ). J ^π : level feeds (6 ⁺) and (8 ⁺) levels in ⁹⁴ Pd in ε+β ⁺ decay. Assignment supported by shell-model calculations (2004PI01).
6670 <i>syst</i>	(21 ⁺)	0.40 s 4	E(level): x ≈700 keV from shell-model calculations (2002La18). %ε=95.4 7; %εp=27 (2004Mu30); %p=4.1 6 (2005Mu15) %2p=0.5 3 (2006Mu03) T _{1/2} : weighted average of 0.47 s 8 (2004PI01), 0.39 s 4 (2004Mu30), 0.3 s 2 (2002La18). J ^π : level feeds (20 ⁺) level in ⁹⁴ Pd in ε+β ⁺ decay. Assignment supported by shell-model calculations (2004PI01). E(level): This level undergoes β-delayed proton emission as well as direct emission of 1 and 2 protons. In the single proton emission, 2 levels in ⁹³ Pd are fed, one at 4994 keV with a proton energy of 790 30 keV, and another at 4751 keV with a proton energy of 1010 30 keV. Combining these numbers, a Q _p =5.78 MeV 30 is quoted by 2005Mu15 for this level. From 2003Au03 , one obtains a proton separation energy of 890 keV with a systematic error of 643 keV for ⁹⁴ Ag. Therefore, the level energy is 6670 keV with a uncertainty of 709 keV from systematics.