^{96}Ag εp decay:6.9 s 2003Ba39,1997Sc30

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, G. Mukherjee, A. A. Sonzogni	NDS 111, 2555 (2010)	30-Jun-2009

Parent: ^{96}Ag: E=0.0+y; $J^\pi=(2^+)$; $T_{1/2}$=6.9 s *6*; Q(εp)=6480 *SY*; %εp decay=18 *5*

^{96}Ag-$T_{1/2}$: From 2003Ba39.

^{96}Ag-Q(εp): 6482 *401* (syst,2009AuZZ).

2003Ba39: ^{96}Ag produced by ^{60}Ni(^{40}Ca,p3n) E=4.35 MeV/nucleon; separated by GSI online separator. Measured Eγ, Iγ, γγ, β, βγ, βγγ, delayed protons, x rays, pγ coin using three different systems: 1. plastic scintillator combined with Ge array (15 detectors: two Clovers and one EUROBALL Cluster for βγ and βγγ measurement. 2. Large NaI detector for total absorption spectrum (tas) combined with a Ge detector and two Si detectors for βγ, βp, pγ and xγ events. 3. Two Si detector ΔE-E telescopes for delayed protons (FWHM=80 keV).

1997Sc30: ^{96}Ag produced by ^{60}Ni(^{40}Ca,p3n) E=4.1 MeV/nucleon. Measured Eγ, Iγ, γγ, xγ, Ep, Ip, pγ coin using Ge and Si(Li) detectors.

All data are from 2003Ba39.

J,$T_{1/2}$: From Adopted Levels.

^{95}Rh Levels

E(level)	J^π	$T_{1/2}$
0	$9/2^+$	5.02 min *10*
543	$(1/2^-)$	
680 *5*	$(7/2^+)$	
1180? *10*	$(5/2^+)$	
1570? *10*	$(5/2^-,3/2^+)$	

γ(^{95}Rh)

E_γ	E_i(level)	J_i^π	E_f	J_f^π
543	543	$(1/2^-)$	0	$9/2^+$
680† *5*	680	$(7/2^+)$	0	$9/2^+$
1027†‡ *10*	1570?	$(5/2^-,3/2^+)$	543	$(1/2^-)$
1180†‡ *10*	1180?	$(5/2^+)$	0	$9/2^+$

† Uncertainties are from the energies of the delayed protons.

‡ Placement of transition in the level scheme is uncertain.

Delayed Protons (^{95}Rh)

E(^{95}Rh)	I(p)‡
543	67† *19*
680	26 *7*
1180?	≈0.6
1570?	≈0.6

† Combined intensity for 0+543 levels, however due to angular momentum considerations, the 543 level seems more likely than the ground state to be populated.

‡ For absolute intensity per 100 decays, multiply by 0.18 *5*.

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Legend

- - - - - - ► γ Decay (Uncertain)

Decay Scheme