Adopted Levels, Gammas

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	15-Jan-2014

Q(β^-)=6490 *40*; S(n)=6505 *20*; S(p)=15480 *SY*; Q(α)=−9780 *SY* 2012Wa38
Estimated uncertainty=300 for S(p) and Q(α) (2012Wa38).
S(2n)=10479 *20*, S(2p)=29180 *400* (syst), Q(β^-n)=1715 *23* (2012Wa38).
Production and identification:
1994Be24, 1997Be70, 1998Do08: ^{122}Te produced and identified in Pb(^{238}U,F) reaction at 750 MeV/nucleon at GSI facility; measured yields for ^{121},^{122},^{123},^{124},^{125}Pd.
1997So07: ^{208}Pb(^{238}U,F),E=20 MeV/nucleon; measured fragment yield.
2006Mo07: ^{122}Pd produced by fragmentation of ^{136}Xe$^{+50,51}$ (E=121.8 MeV/nucleon) on Be target using A1900 fragment separator at NSCL-MSU facility. Particle identification was performed by energy loss and TOF techniques. The secondary beam was implanted into β-decay arrangement consisting of Si(PIN) detectors and Si strip detectors (DSSD) and single-sided Si strip detectors (SSSD). β-delayed neutrons were detected. Implantation and decay events were time stamped and correlated. Measured $T_{1/2}$ and $\%P_n$. Consult also 2006ToZW thesis.
2004Ge18: mass measurement by Schottky mass spectrometry.
Additional information 1.
2011Ha48: measured mass by Penning-trap method using JYFLTRAP.
Nuclear structure (levels, bands, B(E2)) calculations: 2010Bo12, 2010No01, 1996Ki08, 1985Sc07, 1980Va15.

^{122}Pd Levels

Cross Reference (XREF) Flags

A ^{9}Be(^{133}Sn,Xγ)

E(level)	J^π[†]	$T_{1/2}$	XREF	Comments
0	0^+	175 ms *16*	A	$\%\beta^-$=100; $\%\beta^-$n≤2.5 (2006Mo07) $\%\beta^-$n from βn coincidence (2006Mo07). Theoretical $\%\beta^-$n=0.03 (1997Mo25). $T_{1/2}$: from β decay curve (2006Mo07). Additional information 2.
499 *9*	(2^+)		A	
1164 *20*	(4^+)		A	

[†] From systematics of even-even nuclei and IBM-model predictions.

$\gamma(^{122}Pd)$

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π
499	(2^+)	499 *9*	100	0	0^+
1164	(4^+)	665 *18*		499	(2^+)

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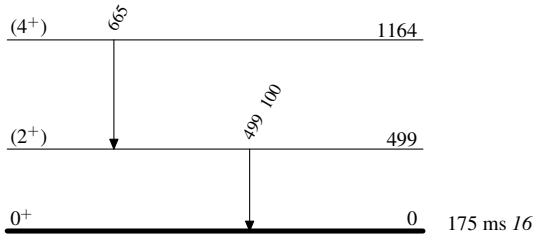
Level Scheme

Intensities: Relative photon branching from each level



$^{122}_{46}Pd_{76}$