^{179}Ta ε decay 2001Hi06,1961Jo15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 110, 265 (2009)	15-Nov-2008

Parent: ^{179}Ta: E=0.0; $J^{\pi}=7/2^{+}$; $T_{1/2}$=1.82 y *3*; Q(ε)=105.6 *4*; %ε decay=100.0

Others: 1956Bi03, 1958Ca10, 1963Ra14.

Sources from: ^{181}Ta(γ,2n) (1958Ca10); 24 MeV deuteron bombardment of Hf, chemical separation (1961Jo15); ^{181}Ta(p,p2n), E≈18-40 MeV (1963Ra14); ^{179}Hf(p,n) and ^{180}Hf(p,2n), E=20 MeV, radiochemical separation (2001Hi06).

2001Hi06: measured total and 2p internal bremsstrahlung spectra (singles and coincident with L x ray, respectively), I(K x ray), I(L x ray), (K x ray)-(L x ray) coin; deduced spectrum end-point energy; deduced independent value for decay energy from εL(exp)/εK(exp).

No γ rays observed (1956Bi03, 1958Ca10, 1963Ra14).

^{179}Hf Levels

E(level)	J^{π} †
0.0	$9/2^{+}$

† From Adopted Levels.

ε radiations

E(decay)	E(level)	Iε †	Log *ft*	Comments
105.6 *4*	0.0	100	6.445 *10*	εK=0.462 *3*; εL=0.3948 *21*; εM+=0.1428 *9* decay energy: the values 115 *5* from εL(exp)/εK(exp)=0.63 *6* (1961Jo15) and 94 *9* from εK(exp)/εL(exp)=1.4 *4* (1956Bi03) have been revised by 2001Hi06 to 121 *7* and 103 *6*, respectively, using current values for fluorescence and Koster-Kronig yields; εL(exp)/εK(exp) from 2001Hi06 implies 109 *3*. The weighted average of these three values is 109 *3*, consistent with the internal bremsstrahlung end-point energy of 105.6 *4* (2001Hi06), adopted here.

† Absolute intensity per 100 decays.