^{199}Au IT decay (0.44 ms) 1968Bo22

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 108, 79 (2007)	15-Oct-2006

Parent: ^{199}Au: E=548.937 *2*; J^π=(11/2)$^-$; $T_{1/2}$=0.44 ms *3*; %IT decay=100.0

1968Bo22: source from ^{198}Pt(d,p) E=12.6 MeV, enriched target, semiconductor detector; observations made on 494γ only (1968Bo22).

^{199}Au Levels

E(level)	J^π†	$T_{1/2}$	Comments
0.0	3/2 $^+$		
493.775 *3*	(7/2)$^+$		
548.937 *2*	(11/2)$^-$	0.44 ms *3*	$T_{1/2}$: evaluated from decay of the 494γ (1968Bo22).

† From 'Adopted Levels'.

γ(^{199}Au)

Iγ normalization: from intensity balance; normalization does not include the questionable 170.6 and 176.2 gammas (see ^{199}Pt β^- decay) from the 493.775 level.

E_γ†	I_γ‡	E_i(level)	J_i^π	E_f	J_f^π	Mult.†	δ†	α#	$I_{(\gamma+ce)}$‡	Comments
55.150 *19*		548.937	(11/2)$^-$	493.775	(7/2)$^+$	M2+E3	0.11 *6*	334 *40*	102.7 *1*	ce(L)/(γ+ce)=0.735 *3*; ce(M)/(γ+ce)=0.197 *3*; ce(N+)/(γ+ce)=0.0642 *7* Iγ=0.31 *6* from I(γ+ce) and α; I(γ+ce) deduced from intensity balance in level scheme. 1968Bo22 observed prompt coincidences of 494 γ with L-conversion electrons from 55-keV transition.
493.772 *2*	100	493.775	(7/2)$^+$	0.0	3/2 $^+$	E2		0.0269		α(K)=0.0195; α(L)=0.00556; α(M)=0.00136; α(N+..)=0.00042

† From 'adopted gammas'.
‡ For absolute intensity per 100 decays, multiply by 0.974.
# Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

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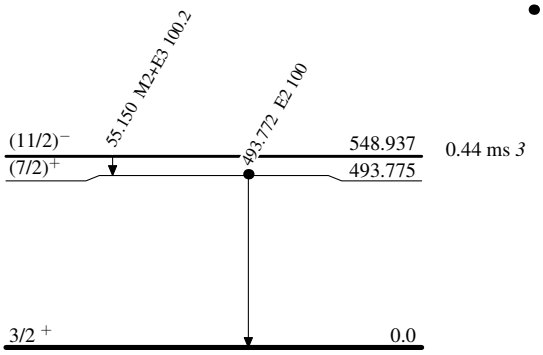
Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays

%IT=100.0



$^{199}_{79}Au_{120}$

Legend

● Coincidence