^{77}As IT decay (114.0 μs)   1980Jo11,1968Io01,1957Sc11

		History		
Type	Author	Citation	Literature Cutoff Date	
Full Evaluation	Balraj Singh	ENSDF	30-Sep-2020	

Parent: ^{77}As: E=475.48 *4*; J$^\pi$=9/2$^+$; T$_{1/2}$=114.0 μs *25*; %IT decay=100.0

Measured Eγ, isomer half-life.

1970BeYN: measured g factor of isomer by PAD method.

^{77}As Levels

E(level)†	J$^{\pi\dagger}$	T$_{1/2}$†	Comments
0.0	3/2$^-$	38.79 h *5*	
264.426 *20*	5/2$^-$	304 ps *3*	T$_{1/2}$: from Adopted Levels.
475.48 *4*	9/2$^+$	114.0 μs *25*	μ=+5.525 *9* (1970BeYN)
			T$_{1/2}$: from 1980Jo11 (time digitized multiscaling). Others: 116 μs *4* (1968Io01,1957Sc11), >2 μs (1997Is13).
			μ: from g factor by PAD method (1970BeYN).

† From the Adopted Levels, unless otherwise stated.

γ(^{77}As)

Iγ normalization: from I(γ+ce)(211γ+475.46γ)=100.

E$_\gamma$†	I$_\gamma$†‡	E$_i$(level)	J$^\pi_i$	E$_f$	J$^\pi_f$	Mult.†	$\delta^\dagger$	$\alpha^\#$	Comments
211.03 *4*	100.0 *25*	475.48	9/2$^+$	264.426	5/2$^-$	(M2+E3)	+0.100 *7*	0.0734	α(K)=0.0646 *10*; α(L)=0.00757 *12*; α(M)=0.001162 *17*; α(N)=8.64×10^{-5} *13*
264.450 *25*	105.8 *28*	264.426	5/2$^-$	0.0	3/2$^-$	M1+E2		0.014 *8*	α(K)=0.013 *7*; α(L)=0.0014 *8*; α(M)=0.00021 *11*; α(N)=1.6×10^{-5} *8*
									I$_\gamma$: deduced from I(γ+ce) of 211.03γ and α.
									δ: −1.46 *2* or −0.321 *11* from (211γ)(264γ)(θ) and (367γ)(264γ)(θ) (1974LeYO). Other: −0.8 *3* from (211γ)(264γ)(θ) (1989Mo14).
475.46 *10*	3.6 *3*	475.48	9/2$^+$	0.0	3/2$^-$	[E3]		0.00910	

† From the Adopted Gammas, unless otherwise stated.

‡ For absolute intensity per 100 decays, multiply by 0.902 *24*.

$^\#$ 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

Legend

I$_\gamma$ < 2%×I$_\gamma^{max}$
I$_\gamma$ < 10%×I$_\gamma^{max}$
I$_\gamma$ > 10%×I$_\gamma^{max}$

475.46 [E3] 3.3
211.03 (M2+E3) 97
264.450 M1+E2 97

9/2$^+$ 475.48   114.0 μs 25

5/2$^-$ 264.426   304 ps 3

3/2$^-$ 0.0   38.79 h 5

$^{77}_{33}$As$_{44}$