

$^{77}\text{Se}(\text{n},\text{n}'\gamma)$ 1991Ko45

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

1991Ko45: E=fast. Measured $E\gamma$, $\gamma(\theta)$ and $T_{1/2}$ by DSA method. No level scheme, only $T_{1/2}$ of eight levels and multipolarity mixtures of γ transitions were given.

 ^{77}Se Levels

$E(\text{level})^\dagger$	$J^\pi^\ddagger$	$E(\text{level})^\dagger$	$J^\pi^\ddagger$	$T_{1/2}^\#$
0.0	$1/2^-$	1005.0	$3/2^-$	0.14 ps +28-7
239.0 @	$3/2^-$	1230.2	$(5/2)^-$	>0.21 ps
249.8 @	$5/2^-$	1366.9	$(3/2^-, 5/2^+)$	>0.49 ps
301.1 @	$5/2^+$	1608.5	$3/2^+, 5/2^+$	>0.42 ps
439.4	$5/2^-$	1622.1	$(1/2^-)$	0.14 ps +14-7
581.2	$7/2^-$	1815.8	$1/2^-$	0.055 ps +28-21
680.1 @	$5/2^+$	2393.2	$3/2^-$	0.10 ps +6-3
808.4	$7/2^-$	2894.3	$(3/2^-)$	0.049 ps +21-14
824.5	$(5/2)^-$			

† From least-squares fit to $E\gamma$ data.

‡ From the Adopted Levels.

$^\#$ From DSAM (1991Ko45).

@ Rounded value from the Adopted Levels.

 $\gamma(^{77}\text{Se})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. †	δ	$\alpha^\ddagger$	Comments
200.4	439.4	$5/2^-$	239.0	$3/2^-$	M1+E2	+0.07 3	0.0163 4	$A_2=-0.1$ 3; $A_4=-0.01$ 2
331.4	581.2	$7/2^-$	249.8	$5/2^-$	M1+E2	+1.0 2		$A_2=+0.48$ 5; $A_4=+0.05$ 4
369.0	808.4	$7/2^-$	439.4	$5/2^-$	M1+E2	+0.10 2		$A_2=-0.09$ 4; $A_4=-0.01$ 6
585.5	824.5	$(5/2)^-$	239.0	$3/2^-$	M1+E2	-0.15 5		$A_2=-0.31$ 4; $A_4=-0.005$ 30
755.2	1005.0	$3/2^-$	249.8	$5/2^-$	M1+E2	+0.4 1		$A_2=-0.16$ 3; $A_4=+0.006$ 30
991.23	1230.2	$(5/2)^-$	239.0	$3/2^-$	M1+E2	+6.0 4		$A_2=+0.30$ 4; $A_4=+0.10$ 4
1005.13	1005.0	$3/2^-$	0.0	$1/2^-$	D(+Q)	0.00 5		$A_2=-0.15$ 5; $A_4=-0.02$ 5
1117.05	1366.9	$(3/2^-, 5/2^+)$	249.8	$5/2^-$				
1285.77	2894.3	$(3/2^-)$	1608.5	$3/2^+, 5/2^+$				
1307.35	1608.5	$3/2^+, 5/2^+$	301.1	$5/2^+$				
1576.83	1815.8	$1/2^-$	239.0	$3/2^-$				
1622.09	1622.1	$(1/2^-)$	0.0	$1/2^-$				
1713.13	2393.2	$3/2^-$	680.1	$5/2^+$				

† From $\gamma(\theta)$ mult=D+Q and RUL for E1 and M2 restricts to M1+E2.

‡ 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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Level Scheme

