^{118}Sn(γ,γ') 1982Be35,1982Be18,1969Ce02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	K. Kitao	NDS 75,99 (1995)	1-Feb-1993

1982Be35, 1982Be18 E=6988, 6325 from Cu(n,γ); 98.5% enriched target; semi, $\gamma(\theta)$.
1969Ce02 E=6988 from Cu(n,γ); natural target; semi $\gamma\gamma$-coin, $\gamma(\theta)$.
1969Mi13 E=7010 from Cu(n,γ); natural target; semi $\gamma(\theta)$.
1974Wo05 E=6988 from Cu(n,γ).
1966Hr03 E=1.22 MeV from ^{118}Sb decay.
1981Ca10 E=0.5-1.65 MeV (bremsstrahlung).
The level scheme is from 1969Ce02 except for the 7010 level.

^{118}Sn Levels

E(level)[†]	J$^\pi$[‡]	T$_{1/2}$[#]	Comments
0.0	0$^+$		
1230[@]	2$^+$	0.46 ps *3*	T$_{1/2}$: weighted av of 0.44 ps *4* (1966Hr03) and 0.48 ps *5* (1981Ca10).
2057[@]	0$^+$		
2328[@]	2$^+$		
4604 *7*			
6325 *7*	1	5.7 fs *24*	$\Gamma_{\gamma 0}$=0.06 eV *3*, Γ=0.08 eV *4* (1982Be18). J$^\pi$: from $\gamma(\theta)$ (1982Be18).
6988 *5*	1$^-$	2.9 fs *6*	$\Gamma_{\gamma 0}$=0.128 eV *3* (1974Wo05), 0.135 eV *8* (1982Be35); Γ=0.152 eV *5* (1974Wo05), 0.340 eV *25* (1982Be35); 0.84 *13* as upper limit of $\Gamma_{\gamma 0}/\Gamma$ (1974Wo05). J$^\pi$: from A$_2$ in $\gamma(\theta)$ and γ(pol) (1974Wo05). T$_{1/2}$: from weighted av of widths from 1974Wo05 and 1982Be35.
7010[&] *10*	1		0.802 *42* as upper limit of $\Gamma_{\gamma 0}/\Gamma$ (1969Mi13). J$^\pi$: from $\gamma(\theta)$ (1969Mi13).

[†] Energy values are those of γ's to g.s., unless otherwise noted.
[‡] From Adopted Levels unless otherwise noted.
[#] From level Γ.
[@] Rounded-off value from Adopted Levels.
[&] From 1969Mi13.

γ(^{118}Sn)

E$_i$(level)	J$_i^\pi$	E$_\gamma$[†]	I$_\gamma$[†]	E$_f$	J$_f^\pi$	Mult.[b]	Comments
1230	2$^+$	1229.64[@] *4*		0.0	0$^+$		
2057	0$^+$	830[&]		1230	2$^+$		
2328	2$^+$	1086[ac]		1230	2$^+$		
4604		4604[‡] *7*	3.5[‡] *9*	0.0	0$^+$		
6325	1	6325[‡] *7*	0.9[‡] *3*	0.0	0$^+$	D	
6988	1$^-$	4672 *5*	3.4 *7*	2328	2$^+$		E$_\gamma$: possible doublet (1969Ce02).
		4940 *5*	2.3 *7*	2057	0$^+$		
		5762 *3*	20.1 *19*	1230	2$^+$		
		6988[‡] *5*	100[‡] *5*	0.0	0$^+$	E1	E$_\gamma$: uncertainty is from that of 4940γ. Mult.: E1 from level scheme.
7010	1	5780[#] *10*	25[#] *4*	1230	2$^+$	D,Q	
		7010[#] *10*	100[#] *5*	0.0	0$^+$	D	

Continued on next page (footnotes at end of table)

^{118}Sn(γ,γ') 1982Be35,1982Be18,1969Ce02 (continued)

$\gamma(^{118}Sn)$ (continued)

† From weighted average of values from 1969Ce02 and 1982Be35, unless otherwise noted.
‡ From 1969Ce02.
# From 1969Mi13. Measured at 90° and corrected for the expected 0-1-0 and 0-1-2 anisotropy. Branchings are the ratio of values of Γ.
@ From 1981Ca10.
& From 1969Ce02, but 820 keV in authors′ drawing.
a From drawing in 1969Ce02.
b From $\gamma(\theta)$.
c Placement of transition in the level scheme is uncertain.

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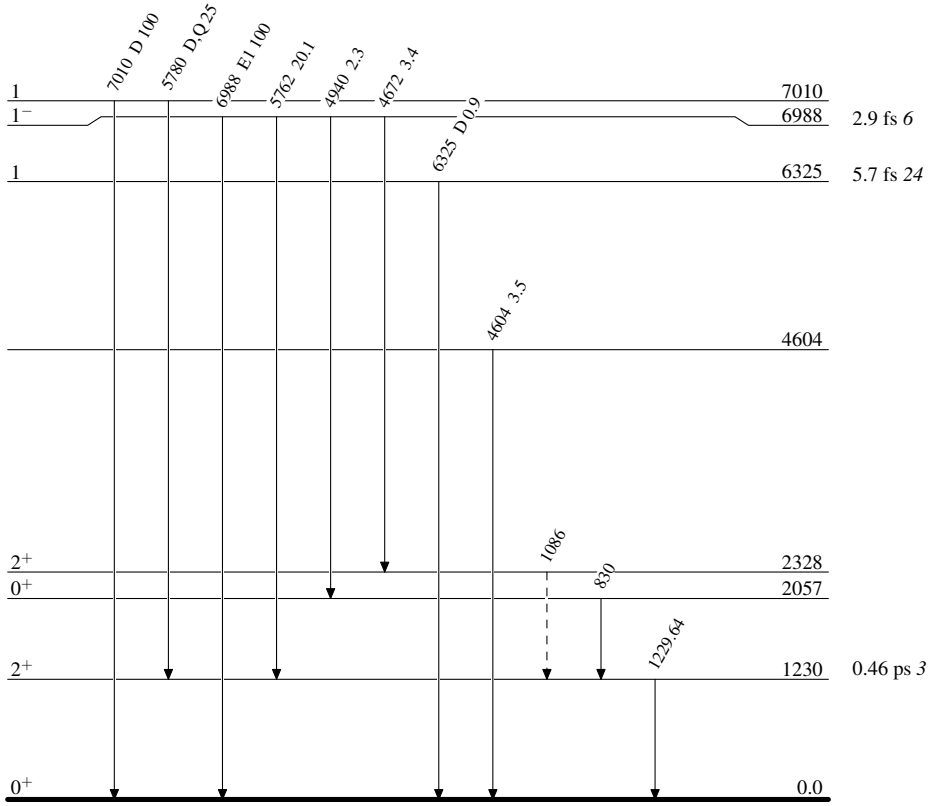
Legend

Level Scheme

Intensities: Relative photon branching from each level

- - - - - - ► γ Decay (Uncertain)



$^{118}_{50}Sn_{68}$