^{124}Sn(^{16}O,6nγ) 1999Ob01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 103, 1 (2004)	31-Jul-2004

E=145 MeV. Measured Eγ, Iγ, $\gamma\gamma$, using 8π detector array of 20 Compton suppressed HPGe detectors and 71 BGO detectors.

^{134}Ce Levels

E(level)	J^π	Comments
0.0+x[†]	J	J^π: >18 since this band feeds Yrast structure at $\approx 18^+$.
928+x[†]	J+2	
1916+x[†]	J+4	
2966+x[†]	J+6	
4077+x[†]	J+8	
5251+x[†]	J+10	
6490+x[†]	J+12	
7789+x[†]	J+14	
9154+x[†]	J+16	
10587+x[†]	J+18	
12090+x[†]	J+20	
13665+x[†]	J+22	
15313+x[†]	J+24	
17039+x[†]	J+26	
0.0+y[‡]	J1	J^π: >26 since this band appears to feed Yrast structure at $\approx 26^+$.
911+y[‡]	J1+2	
1923+y[‡]	J1+4	
3035+y[‡]	J1+6	
4247+y[‡]	J1+8	
5573+y[‡]	J1+10	
0+z[#]	J2	J^π: >18 since this band appears to feed Yrast structure at $\approx 18^+$.
874+z[#]	J2+2	
1824+z[#]	J2+4	
2868+z[#]	J2+6	
4004+z[#]	J2+8	
5228+z[#]	J2+10	
6540+z[#]	J2+12	
7926+z[#]	J2+14	
9377+z[#]	J2+16	
10897+z[#]	J2+18	

[†] Band(A): Highly-deformed band. possible Configuration=$\nu(i^3_{13/2}f_{7/2})$. Population intensity is <0.6% of the reaction channel.

[‡] Band(B): Triaxial Band. Configuration=$\nu(h^2_{11/2}4^2)\pi h^2_{11/2}$. Population intensity is <0.6% of the reaction channel.

[#] Band(C): Triaxial Band Configuration=$\nu(h^3_{11/2}4^1)\pi h^2_{11/2}$. Population intensity is <0.6% of the reaction channel.

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γ(^{134}Ce)

E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π
874[‡]		874+z	J2+2	0+z	J2	1239	0.70 *10*	6490+x	J+12	5251+x	J+10
911		911+y	J1+2	0.0+y	J1	1299	0.40 *10*	7789+x	J+14	6490+x	J+12
928	0.85 *15*	928+x	J+2	0.0+x	J	1312		6540+z	J2+12	5228+z	J2+10
950		1824+z	J2+4	874+z	J2+2	1326		5573+y	J1+10	4247+y	J1+8
988	0.60 *20*	1916+x	J+4	928+x	J+2	1365	0.20 *5*	9154+x	J+16	7789+x	J+14
1012		1923+y	J1+4	911+y	J1+2	1386[‡]		7926+z	J2+14	6540+z	J2+12
1044		2868+z	J2+6	1824+z	J2+4	1433	0.20 *5*	10587+x	J+18	9154+x	J+16
1050[‡]	0.70 *10*	2966+x	J+6	1916+x	J+4	1451[‡]		9377+z	J2+16	7926+z	J2+14
1111	1.00 *15*	4077+x	J+8	2966+x	J+6	1503	0.20 *5*	12090+x	J+20	10587+x	J+18
1112		3035+y	J1+6	1923+y	J1+4	1520[‡]		10897+z	J2+18	9377+z	J2+16
1136		4004+z	J2+8	2868+z	J2+6	1575[‡]	0.15 *5*	13665+x	J+22	12090+x	J+20
1174	0.70 *10*	5251+x	J+10	4077+x	J+8	1648[‡]	0.10 *5*	15313+x	J+24	13665+x	J+22
1212		4247+y	J1+8	3035+y	J1+6	1726[‡]	0.10 *5*	17039+x	J+26	15313+x	J+24
1224		5228+z	J2+10	4004+z	J2+8						

[†] Relative intensities within the band, read from intensity plot in figure 1 of 1999Ob01.
[‡] Placement of transition in the level scheme is uncertain.

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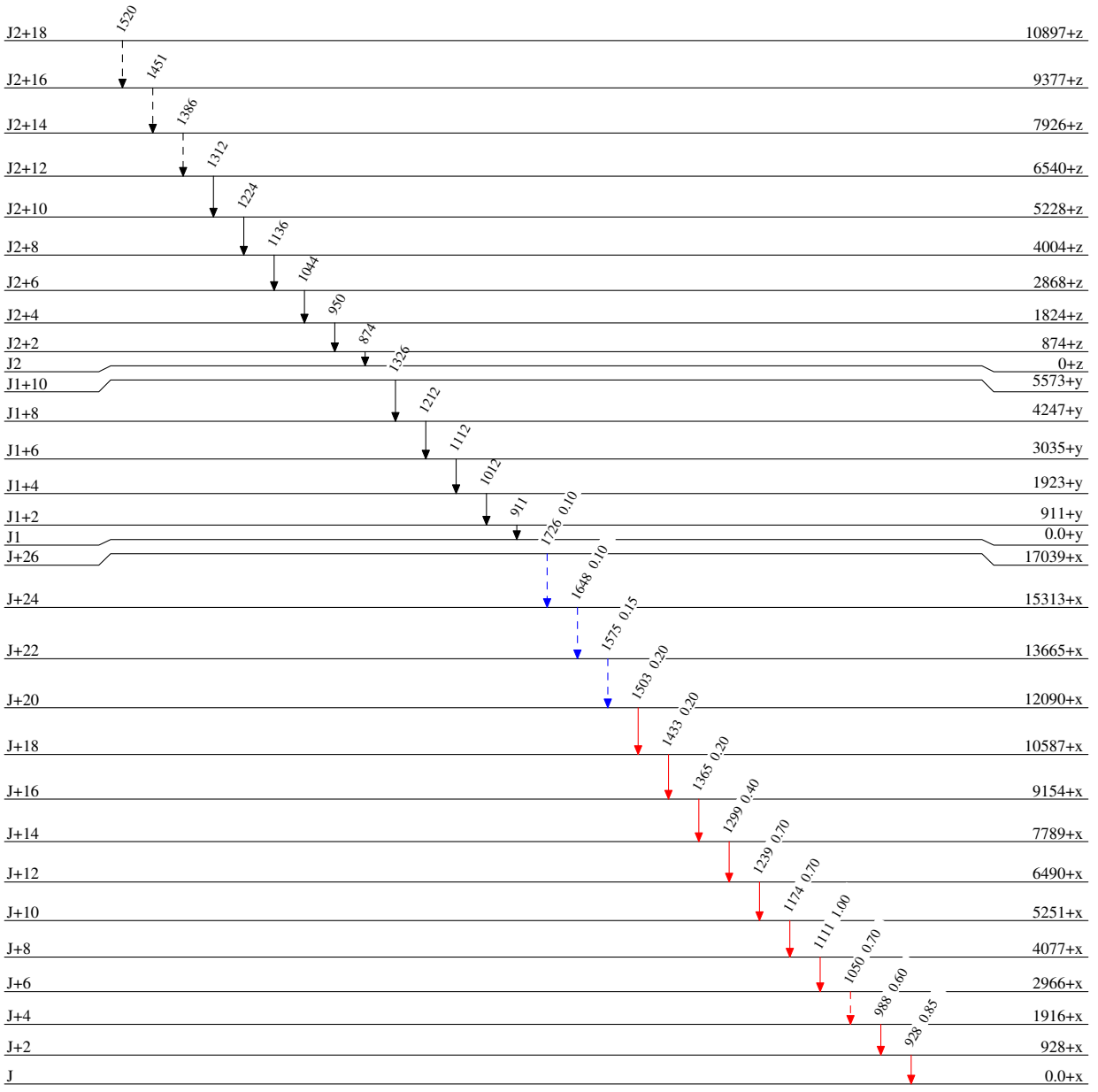
Level Scheme

Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)



$^{134}_{58}Ce_{76}$

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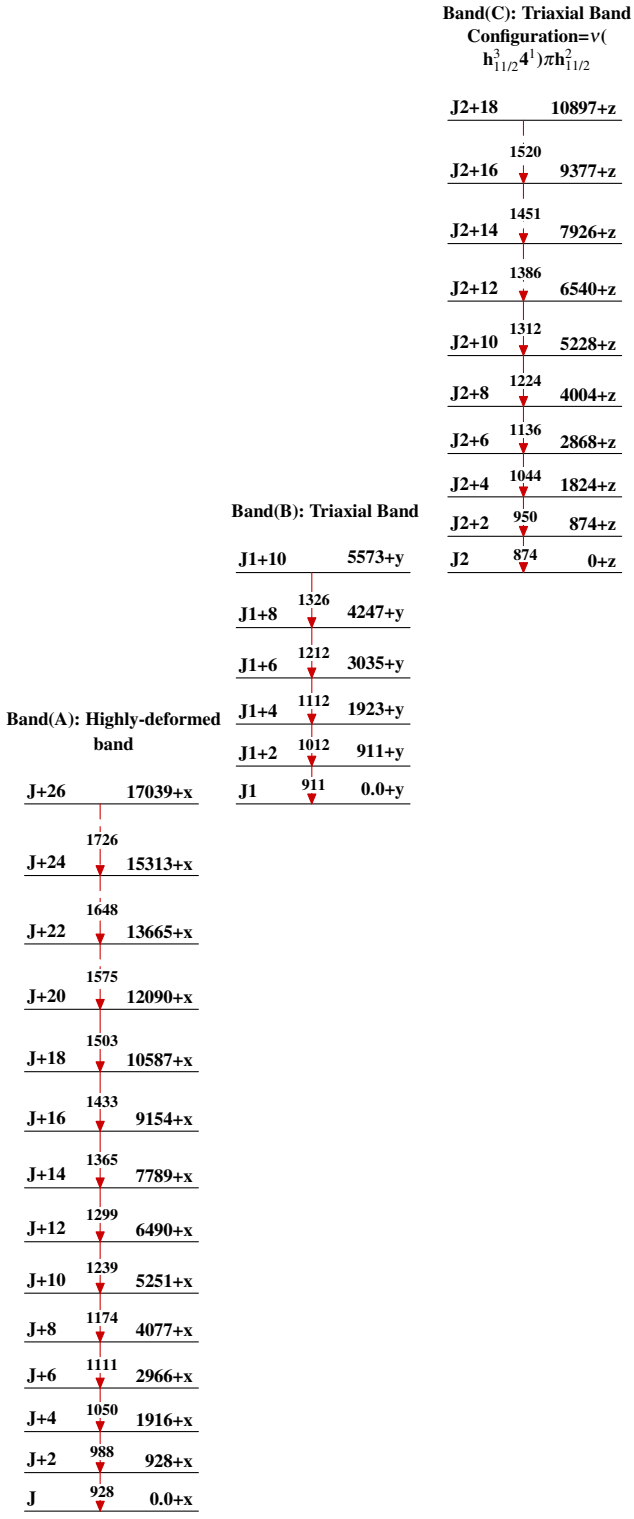

$^{134}_{58}Ce_{76}$