^{56}Fe(^{35}Cl,apng) 1995Ju04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 116, 1 (2014)	31-Dec-2013

1995Ju04: E(^{35}Cl)=120 MeV. Measured Eγ, Iγ, γγ, γγ(θ)(DCO) using OSIRIS array of six Compton-suppressed Ge detectors and a LEPS Ge detector.

^{85}Zr Levels

E(level)‡	Jπ†	E(level)‡	Jπ†	E(level)‡	Jπ†	E(level)‡	Jπ†
0	(7/2+)	1884.3@ *10*	(17/2+)	2958.3& *12*	(19/2−)	3958.9@ *15*	(25/2+)
50.12@ *4*	(9/2+)	1941.0# *9*	(15/2+)	3018.4@ *13*	(21/2+)	4373.8& *16*	(25/2−)
854.1# *8*	(11/2+)	2078.2 *9*	(15/2+)	3073.2 *13*	(21/2+)	4589.0 *15*	(27/2+)
872.2@ *8*	(13/2+)	2555.9 *11*		3386.9& *14*	(21/2−)	4886.7& *17*	(27/2−)
1494.0 *11*		2625.0& *10*	(17/2−)	3516.1 *14*	(23/2+)	4996.9@ *16*	(29/2+)
1758.5 *10*	(15/2+)	2724.6 *10*	(17/2−)	3837.7& *14*	(23/2−)	6239.9@ *19*	(33/2+)

† From γγ(DCO) data and band structures in 1995Ju04.
‡ From least-squares fit to Eγ data.
# Possible member of signature partner of band based on (9/2+).
@ Band(A): Band based on (9/2+). Band crossing at 21/2+, ħω=0.53 MeV due to the alignment of a pair of $g_{9/2}$ protons.
& Band(B): Band based on (17/2−).

γ(^{85}Zr)

Eγ	Ei(level)	Jiπ	Ef	Jfπ	Eγ	Ei(level)	Jiπ	Ef	Jfπ
50.12@ *4*	50.12	(9/2+)	0	(7/2+)	804†	854.1	(11/2+)	50.12	(9/2+)
100#	2724.6	(17/2−)	2625.0	(17/2−)	822†	872.2	(13/2+)	50.12	(9/2+)
126#	1884.3	(17/2+)	1758.5	(15/2+)	840#	2724.6	(17/2−)	1884.3	(17/2+)
169#	2724.6	(17/2−)	2555.9		866‡	2625.0	(17/2−)	1758.5	(15/2+)
234‡	2958.3	(19/2−)	2724.6	(17/2−)	879‡	3837.7	(23/2−)	2958.3	(19/2−)
333†	2958.3	(19/2−)	2625.0	(17/2−)	886‡	1758.5	(15/2+)	872.2	(13/2+)
408‡	4996.9	(29/2+)	4589.0	(27/2+)	940‡	3958.9	(25/2+)	3018.4	(21/2+)
429†	3386.9	(21/2−)	2958.3	(19/2−)	987‡	4373.8	(25/2−)	3386.9	(21/2−)
443‡	3516.1	(23/2+)	3073.2	(21/2+)	1012†	1884.3	(17/2+)	872.2	(13/2+)
443‡	3958.9	(25/2+)	3516.1	(23/2+)	1038‡	4996.9	(29/2+)	3958.9	(25/2+)
447#	1941.0	(15/2+)	1494.0		1049#	4886.7	(27/2−)	3837.7	(23/2−)
451‡	3837.7	(23/2−)	3386.9	(21/2−)	1069‡	1941.0	(15/2+)	872.2	(13/2+)
498‡	3516.1	(23/2+)	3018.4	(21/2+)	1073‡	4589.0	(27/2+)	3516.1	(23/2+)
536‡	4373.8	(25/2−)	3837.7	(23/2−)	1087‡	1941.0	(15/2+)	854.1	(11/2+)
547‡	2625.0	(17/2−)	2078.2	(15/2+)	1134†	3018.4	(21/2+)	1884.3	(17/2+)
630‡	4589.0	(27/2+)	3958.9	(25/2+)	1189†	3073.2	(21/2+)	1884.3	(17/2+)
640‡	1494.0		854.1	(11/2+)	1206#	2078.2	(15/2+)	872.2	(13/2+)
646#	2724.6	(17/2−)	2078.2	(15/2+)	1224‡	2078.2	(15/2+)	854.1	(11/2+)
684‡	2625.0	(17/2−)	1941.0	(15/2+)	1243‡	6239.9	(33/2+)	4996.9	(29/2+)
741#	2625.0	(17/2−)	1884.3	(17/2+)	1684#	2555.9		872.2	(13/2+)
784#	2724.6	(17/2−)	1941.0	(15/2+)					

Continued on next page (footnotes at end of table)

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$\gamma(^{85}Zr)$ (continued)

† Strong γ ray.
‡ Medium-intensity γ ray.
# Weak γ ray.
@ From Adopted Gammas for ^{85}Zr.

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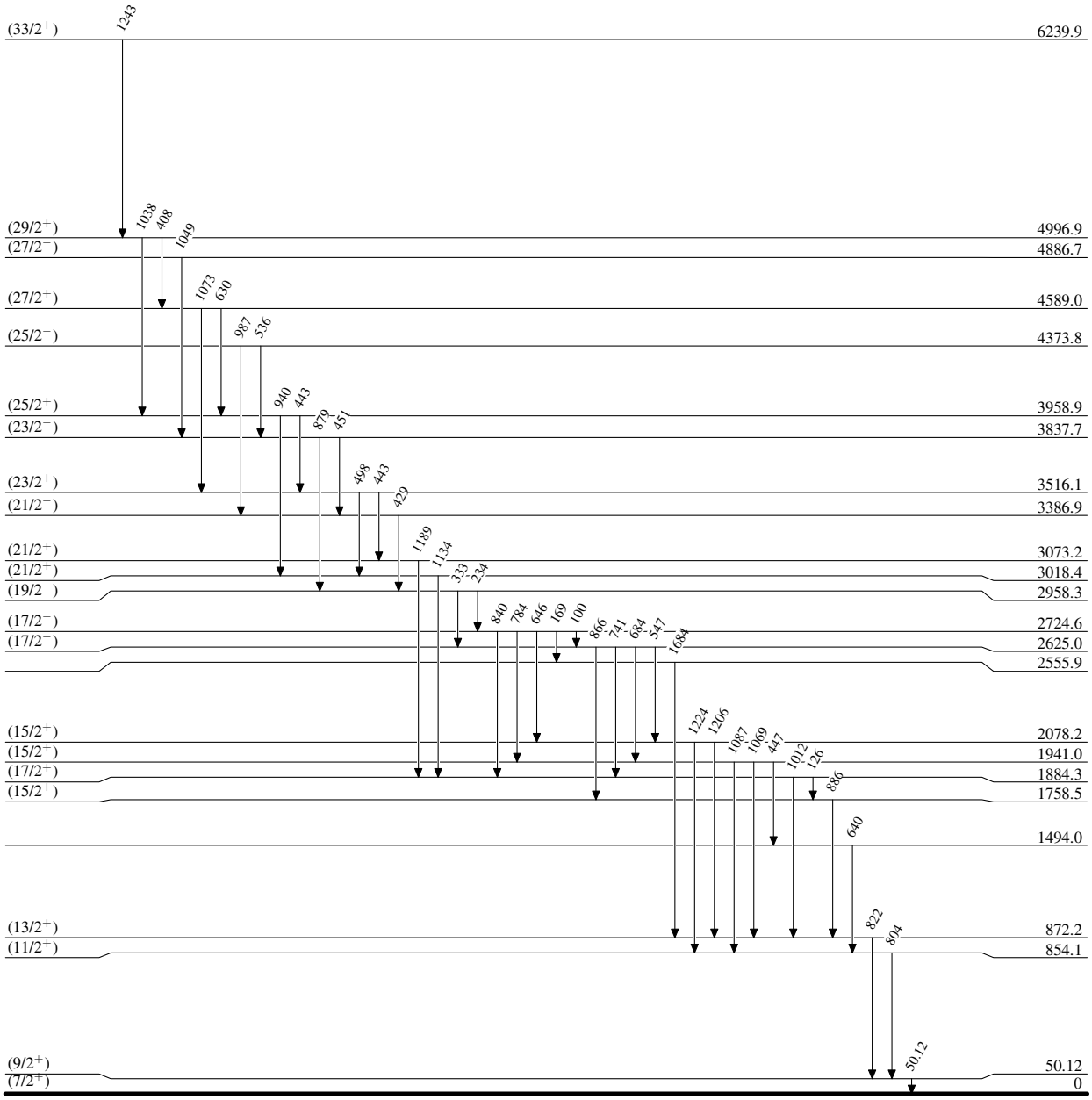
Level Scheme



$^{85}_{40}Zr_{45}$

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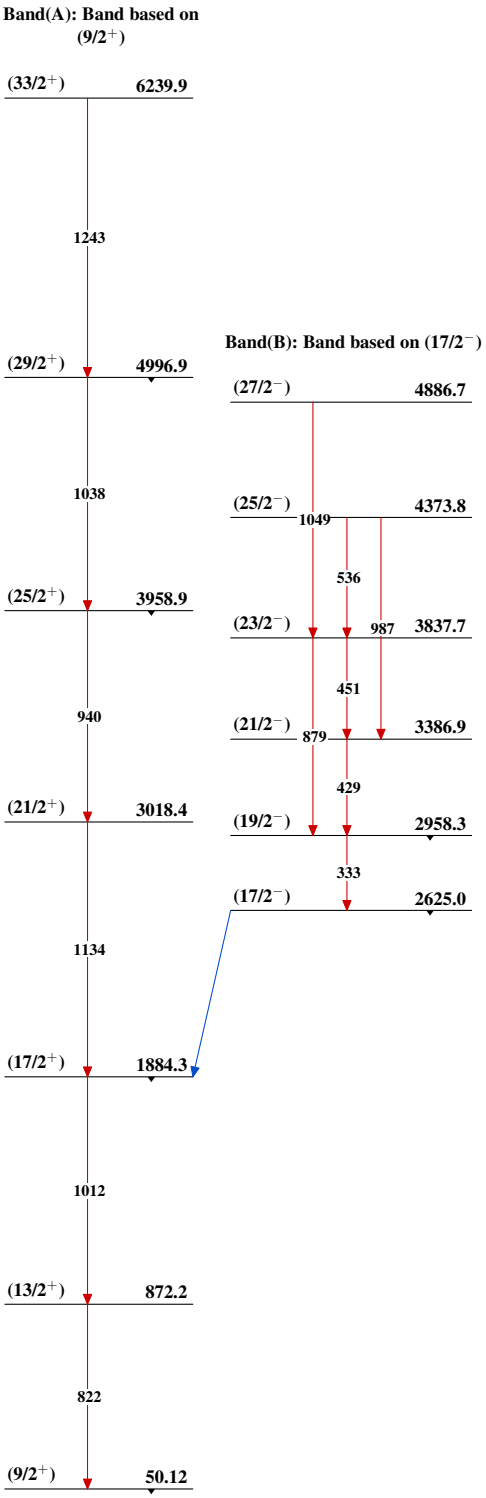

$^{85}_{40}Zr_{45}$