^{58}Ni(^{64}Zn,2p2nγ) 1998Sm01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	07-Jan-2022

1998Sm01: E=265 MeV. Measured Eγ, Iγ, γγ-coin, γ(recoil)-coin, γ(x ray)-coin using Gammasphere array of 56 Compton-suppressed HPGe detectors.

^{118}Ba Levels

E(level)	Jπ†	E(level)	Jπ†	E(level)	Jπ†	E(level)	Jπ†
0‡	0+	1658.2#	5−	3072.2#	11−	5376#	(17−)
194.0‡	2+	2012.4#	7−	3756.2#	13−	5532‡	(18+)
554.0‡	4+	2312.0‡	10+	3836‡	14+	6446‡	(20+)
1042.8‡	6+	2488.2#	9−	4531#	(15−)		
1636.0‡	8+	3051.0‡	12+	4660‡	(16+)		

† As proposed by 1998Sm01 based on band structures and systematics. The assignments are the same in the Adopted Levels, except that all are given in parentheses due to the lack of strong supporting arguments, as details of angular distributions/correlations measurements are not available in literature.

‡ Band(A): g.s. band. Evidence of alignment at $\hbar\omega$=0.41 MeV due to $\pi h^2_{11/2}$.

Band(B): 5− band. This band cannot be explained as a pure 2-quasiparticle rotational structure, there is possibility of octupole correlations (1998Sm01).

γ(^{118}Ba)

Eγ	Ei(level)	Jiπ	Ef	Jfπ	Eγ	Ei(level)	Jiπ	Ef	Jfπ
194	194.0	2+	0	0+	775	4531	(15−)	3756.2	13−
354	2012.4	7−	1658.2	5−	785	3836	14+	3051.0	12+
360	554.0	4+	194.0	2+	824	4660	(16+)	3836	14+
476	2488.2	9−	2012.4	7−	845	5376	(17−)	4531	(15−)
489	1042.8	6+	554.0	4+	852	2488.2	9−	1636.0	8+
584	3072.2	11−	2488.2	9−	872	5532	(18+)	4660	(16+)
593	1636.0	8+	1042.8	6+	914	6446	(20+)	5532	(18+)
676	2312.0	10+	1636.0	8+	970	2012.4	7−	1042.8	6+
684	3756.2	13−	3072.2	11−	1104	1658.2	5−	554.0	4+
739	3051.0	12+	2312.0	10+					

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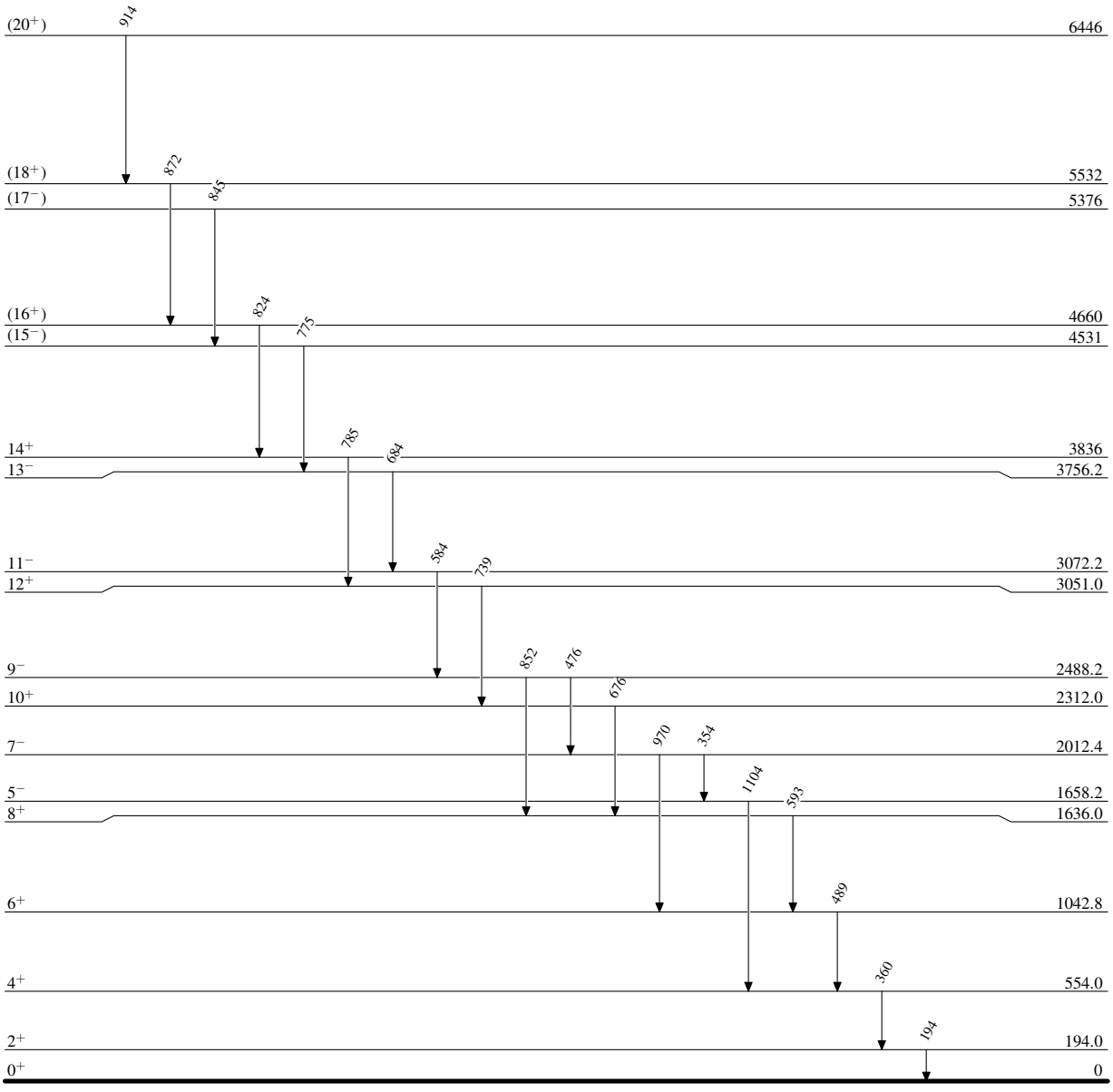
Level Scheme



$^{118}_{56}Ba_{62}$

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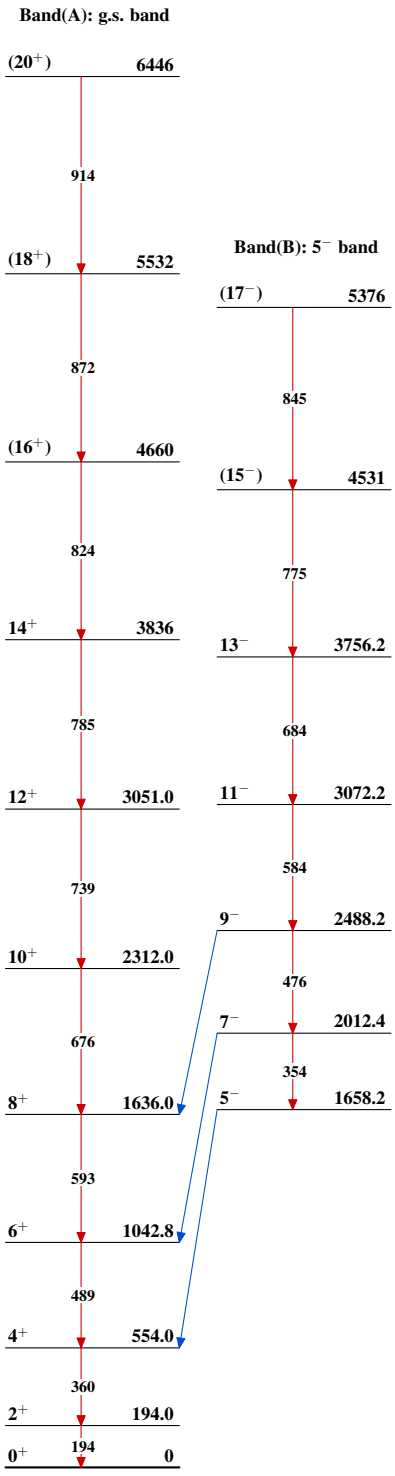

$^{118}_{56}Ba_{62}$