^{24}Mg(^{28}Si,αpγ) E=87 MeV 1998Be69

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows	NDS 108, 923 (2007)	20-Feb-2007

Measured Eγ, $\gamma\gamma$- and particle-$\gamma\gamma$ coin, $\gamma\gamma(\theta)$(DCO) using PEX array of four EUROBALL cluster detectors. particles detected using a 31-silicon wafer array for protons and α's, and a 15-element array of liquid scintillator detectors for neutrons.

Analysis of 1998Be69 confirms yrast structure of ^{47}V up to the band-terminating state At 9999 keV determined by 1993Ca36 and 1994Ca04 (see ^{10}B(^{40}Ca,n2pγ),^{24}Mg(^{32}S,2αpγ),...).

^{47}V Levels

E(level)[†]	J$^\pi$[‡]	E(level)[†]	J$^\pi$[‡]	E(level)[†]	J$^\pi$[‡]	E(level)[†]	J$^\pi$[‡]
0	3/2$^-$[#]	1292.8[@] *13*	11/2$^-$[#]	5899.8[@] *21*	(23/2$^-$)	7879.9[@] *22*	(27/2$^-$)
87.49 *10*	5/2$^-$[#]	2611.8[@] *16*	15/2$^-$	6034.9[&] *21*	(21/2$^-$)	9999.3[@] *24*	(31/2$^-$)
144.7[@] *7*	7/2$^-$	4130.8[@] *19*	19/2$^-$	7396.9[&] *21*	(25/2$^-$)	10760.6[&] *24*	(29/2$^-$)[a]

[†] From least-squares fit to Eγ's assuming ΔE(γ)=1 keV when not given (evaluator).
[‡] Based on DCO measurements, except As noted; few details given parentheses added by evaluator.
[#] From the Adopted Levels.
[@] Band(A): K^π=7/2$^-$ band, α=−1/2. See band footnotes In the Adopted Levels for a comparison of band assignments In this and the other three (HI,xnγ) datasets.
[&] Band(B): K^π=7/2$^-$ band, α=+1/2. Not explicitly discussed by 1998Be69. See band footnotes In the Adopted Levels for a comparison band assignments In this and the other three (HI,xnγ) datasets.
[a] From D γ to 27/2$^-$.

γ(^{47}V)

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Mult.
58	144.7	7/2$^-$	87.49	5/2$^-$	1497[‡]	7396.9	(25/2$^-$)	5899.8	(23/2$^-$)	
(87.5[†] *1*)	87.49	5/2$^-$	0	3/2$^-$	1519[‡]	4130.8	19/2$^-$	2611.8	15/2$^-$	
144	144.7	7/2$^-$	0	3/2$^-$	1769[‡]	5899.8	(23/2$^-$)	4130.8	19/2$^-$	
483	7879.9	(27/2$^-$)	7396.9	(25/2$^-$)	1904[#]	6034.9	(21/2$^-$)	4130.8	19/2$^-$	
761	10760.6	(29/2$^-$)	9999.3	(31/2$^-$)	1980	7879.9	(27/2$^-$)	5899.8	(23/2$^-$)	
1148[‡]	1292.8	11/2$^-$	144.7	7/2$^-$	2119	9999.3	(31/2$^-$)	7879.9	(27/2$^-$)	
1319[‡]	2611.8	15/2$^-$	1292.8	11/2$^-$	2881	10760.6	(29/2$^-$)	7879.9	(27/2$^-$)	D[@]
1362[#]	7396.9	(25/2$^-$)	6034.9	(21/2$^-$)						

[†] From the Adopted Gammas.
[‡] Strong γ ray As shown In Figure 2 of 1998Be69.
[#] 1900γ-1367γ cascade placed As 25/2$^-$,7400→21/2$^-$,5500→19/2$^-$,4133 by 1998Ca26 In ^{28}Si(^{28}Si,2αpγ) E=125 MeV.
[@] DCO characteristics consistent with a dipole transition. DCO not explicitly given by 1998Be69.

Legend

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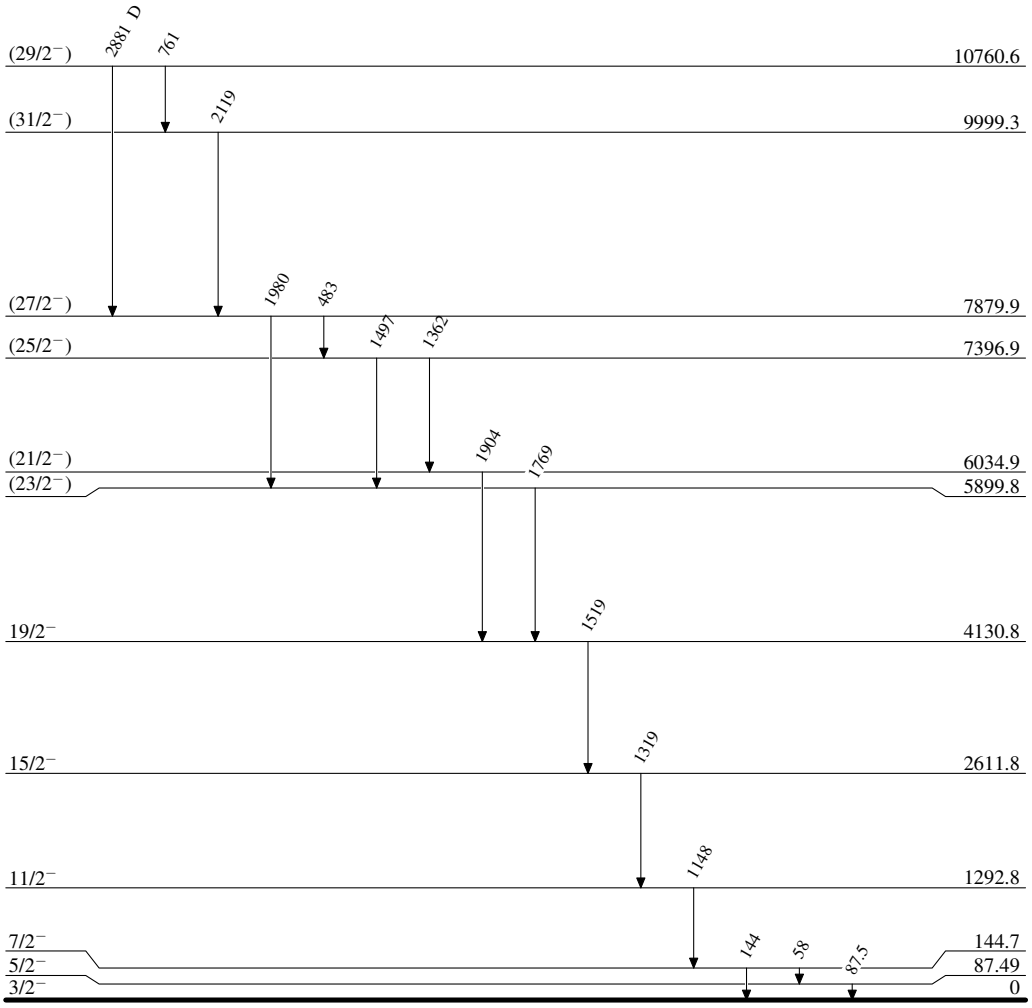
Level Scheme

γ Decay (Uncertain)



$^{47}_{23}V_{24}$

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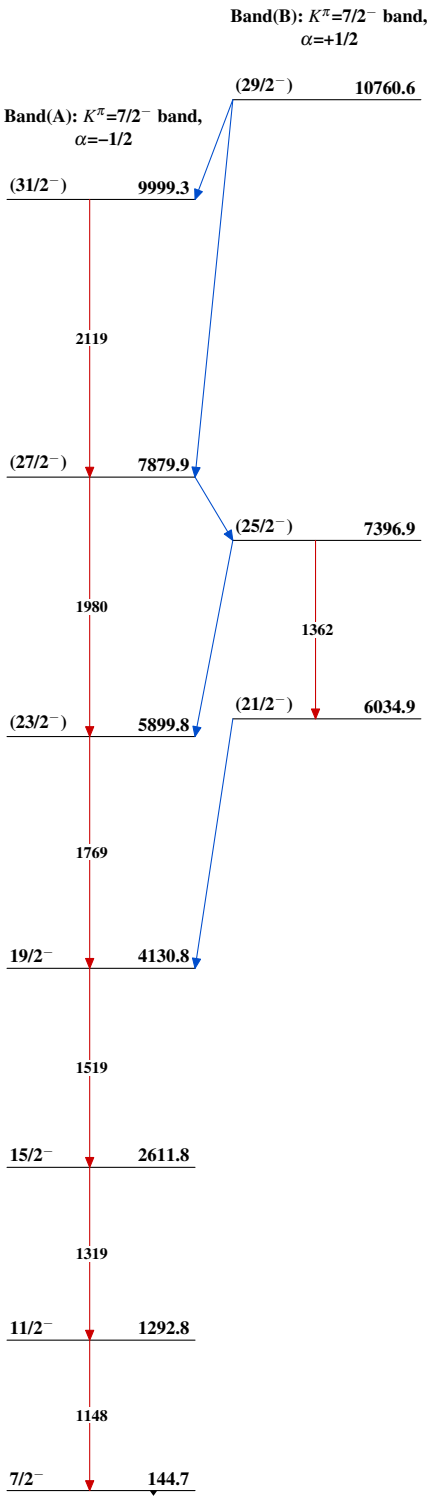

$^{47}_{23}V_{24}$