^{164}Er(pol n,γ) E=res:arc 1970Bo29

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 194,460 (2024)	31-Oct-2022

1970Bo29: polarized reactor neutrons at Argonne National Laboratory. Average-resonance neutron capture. Measured Eγ, Iγ of primary γ transitions.
Additional information 1.

^{165}Er Levels

E(level)	J$^\pi$‡	Comments
0.0	5/2$^-$	
47.2	5/2$^+$	
77.3	7/2$^-$	
242.9 *3*	3/2$^-$	
297.6 *2*	1/2$^-$	
356.4 *2*	3/2$^-$	
506.4 *20*	1/2$^+$	
532.8 *15*	3/2$^+$	
590.2 *10*	3/2$^+$&1/2$^-$	
608.5 *2*	3/2$^-$	
745.7?†		
853.3 *15*	3/2$^+$	
921.0 *3*	1/2$^-$	
962.5 *10*	3/2$^-$	
1032.1?†		
1045.0 *3*		
(6650.2 *7*)	1/2,3/2	S(n)(^{165}Er)=6650.1 *6* (2021Wa16). J$^\pi$: s- and/or p-wave capture in ^{164}Er g.s.

† Level not included in the Adopted Levels, Gammas dataset.
‡ As given by 1970Bo29, based mainly on literature values.

γ(^{165}Er)

E$_\gamma$†	I$_\gamma$‡	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
5605.1 *7*	30.5 *16*	(6650.2)	1/2,3/2	1045.0		Iγ/Eγ^3=173 *9* (1970Bo29).
5618.1#	<1.8	(6650.2)	1/2,3/2	1032.1?		Iγ/Eγ^3<10 (1970Bo29).
5687.6 *12*	40 *4*	(6650.2)	1/2,3/2	962.5	3/2$^-$	Iγ/Eγ^3=219 *20* (1970Bo29).
5729.1 *7*	27.3 *13*	(6650.2)	1/2,3/2	921.0	1/2$^-$	Iγ/Eγ^3=145 *7* (1970Bo29).
5796.8 *16*	5.5 *12*	(6650.2)	1/2,3/2	853.3	3/2$^+$	Iγ/Eγ^3=28 *6* (1970Bo29).
5904.5#	<2.1	(6650.2)	1/2,3/2	745.7?		Iγ/Eγ^3<10 (1970Bo29).
6041.6 *6*	40.4 *20*	(6650.2)	1/2,3/2	608.5	3/2$^-$	Iγ/Eγ^3=183 *9* (1970Bo29).
6059.9 *12*	42 *3*	(6650.2)	1/2,3/2	590.2	3/2$^+$&1/2$^-$	Iγ/Eγ^3=189 *15* (1970Bo29).
6117.3 *16*	7.8 *30*	(6650.2)	1/2,3/2	532.8	3/2$^+$	Iγ/Eγ^3=34 *13* (1970Bo29).
6143.7 *21*	6.5 *23*	(6650.2)	1/2,3/2	506.4	1/2$^+$	Iγ/Eγ^3=28 *10* (1970Bo29).
6293.7 *6*	61.1 *25*	(6650.2)	1/2,3/2	356.4	3/2$^-$	Iγ/Eγ^3=245 *10* (1970Bo29).
6352.5 *6*	62.0 *26*	(6650.2)	1/2,3/2	297.6	1/2$^-$	Iγ/Eγ^3=242 *10* (1970Bo29).
6407.2 *7*	39.2 *18*	(6650.2)	1/2,3/2	242.9	3/2$^-$	Iγ/Eγ^3=149 *7* (1970Bo29).
6572.7# *6*	<2.8	(6650.2)	1/2,3/2	77.3	7/2$^-$	Iγ/Eγ^3<10 (1970Bo29).
6602.7# *6*	<2.9	(6650.2)	1/2,3/2	47.2	5/2$^+$	Iγ/Eγ^3<10 (1970Bo29).
6649.9# *6*	<2.9	(6650.2)	1/2,3/2	0.0	5/2$^-$	Iγ/Eγ^3<10 (1970Bo29).

Continued on next page (footnotes at end of table)

^{164}Er(pol n,γ) E=res:arc 1970Bo29 (continued)

$\gamma(^{165}Er)$ (continued)

† Uncertainty in primary Eγ value is the uncertainty in level energy as given by 1970Bo29 with additional 0.6 keV added in quadrature, as specified in caption of Table X in 1970Bo29.
‡ Deduced by evaluators from measured reduced γ intensity=Iγ/Eγ^3.
# Placement of transition in the level scheme is uncertain.

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Level Scheme

Intensities: Relative I_γ

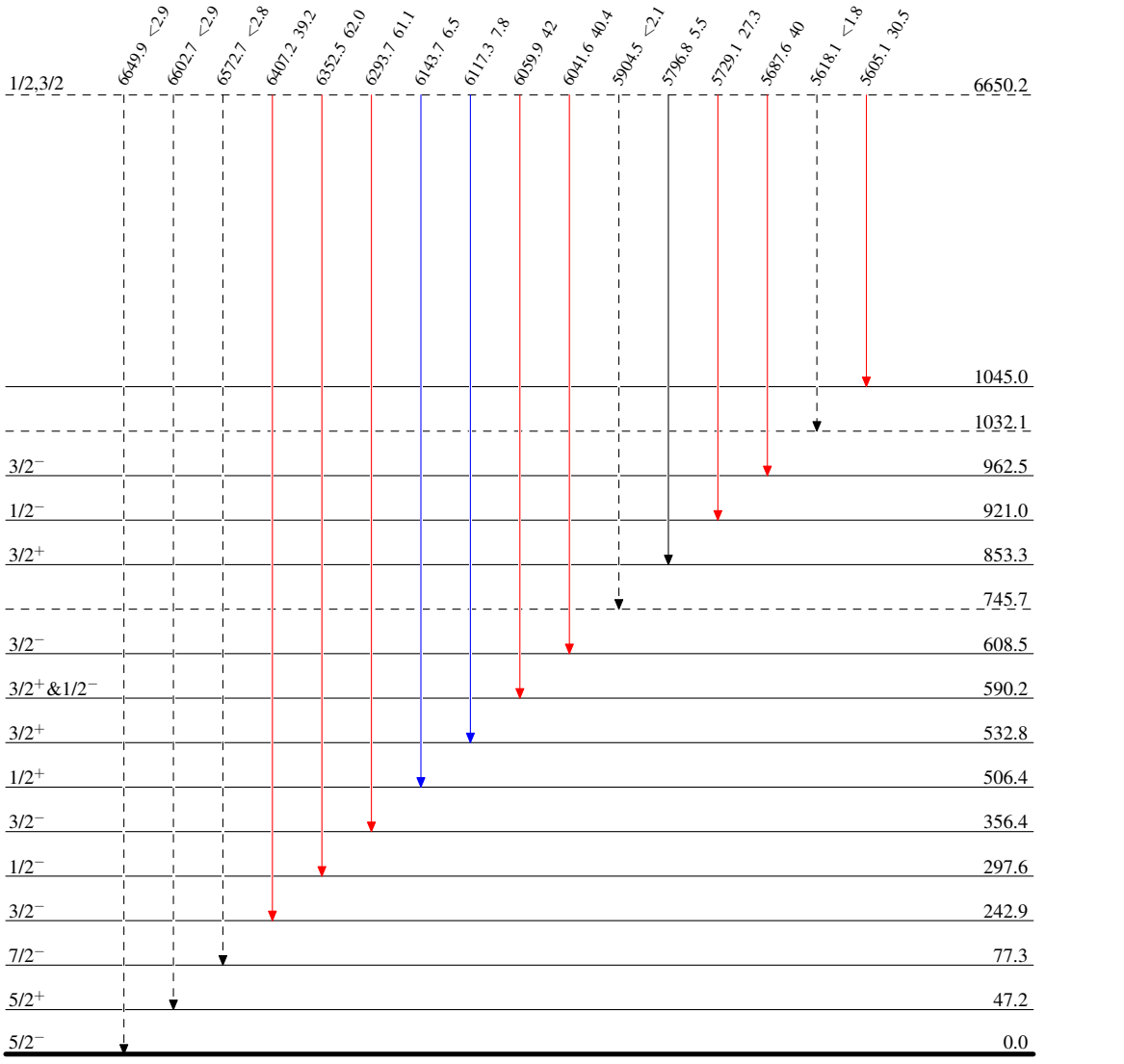
Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$

γ Decay (Uncertain)



$^{165}_{68}Er_{97}$