^{170}Er(^{238}U,^{238}U′nγ) 2004Wu05

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 109, 2033 (2008)	15-Jun-2008

E(^{238}U)=1358 MeV; GAMMASPHERE detector array (100 Compton-suppressed Ge detectors, No heavy-metal shield for BGO components), CHICO highly-segmented parallel-plate avalanche counter array; measured scattering angles and tof difference for both recoiling reaction products, Eγ, Iγ, recoil-γ-γ coin, γγγ coin.

^{169}Er Levels

E(level)[†]	Jπ[‡]	$T_{1/2}$	Comments
0.0[#]	1/2−		
64.5[@]	3/2−		E(level): rounded value from Adopted Levels.
74.6[#]	5/2−		E(level): rounded value from Adopted Levels.
224.5[@] *10*	7/2−		
241.6[#] *10*	9/2−		
243.7[&]	7/2+	200 ns *10*	E(level): rounded value from Adopted Levels. $T_{1/2}$: from Adopted Levels.
317.3[a]	9/2+		E(level): rounded value from Adopted Levels.
413.1[&] *10*	11/2+		
475.5[@] *15*	11/2−		
500.6[#] *15*	13/2−		
526.3[a] *10*	13/2+		
664.1[&] *15*	15/2+		
813.5[@] *15*	15/2−		
816.3[a] *15*	17/2+		
847.6[#] *18*	17/2−		
999.1[&] *18*	19/2+		
1186.3[a] *18*	21/2+		
1237.5[@] *20*	19/2−		
1279.6[#] *20*	21/2−		
1419.1[&] *20*	23/2+		
1632.3[a] *20*	25/2+		
1741.5[@] *23*	23/2−		
1792.6[#] *23*	25/2−		
1919.1[&] *23*	27/2+		
2149.3[a] *23*	29/2+		
2324.5[@] *25*	27/2−		
2382.6[#] *25*	29/2−		
2980[@] *3*	31/2−		
3045[#] *3*	33/2−		
3702[@] *3*	35/2−		
3773[#] *3*	37/2−		
4549[#] *3*	41/2−		

[†] From least-squares fit to Eγ, assigning 1 keV uncertainty to all Eγ data, except As noted.
[‡] Authors′ values; based on band structure known from the literature and extended In this study on the basis of Eγ, Iγ and γγ coin.
[#] Band(A): ν 1/2[521], α=+1/2 band.

Continued on next page (footnotes at end of table)

^{170}Er(^{238}U,^{238}U′nγ) 2004Wu05 (continued)

^{169}Er Levels (continued)

[@] Band(a): ν 1/2[521], α=−1/2 band.
[&] Band(b): ν 7/2[633], α=−1/2 band.
[a] Band(B): ν 7/2[633], α=+1/2 band.

γ(^{169}Er)

E_γ [†]	E_i(level)	J_i^π	E_f	J_f^π	E_γ [†]	E_i(level)	J_i^π	E_f	J_f^π
160	224.5	$7/2^-$	64.5	$3/2^-$	432	1279.6	$21/2^-$	847.6	$17/2^-$
167	241.6	$9/2^-$	74.6	$5/2^-$	446	1632.3	$25/2^+$	1186.3	$21/2^+$
169.4[‡]	413.1	$11/2^+$	243.7	$7/2^+$	500	1919.1	$27/2^+$	1419.1	$23/2^+$
209	526.3	$13/2^+$	317.3	$9/2^+$	504	1741.5	$23/2^-$	1237.5	$19/2^-$
251	475.5	$11/2^-$	224.5	$7/2^-$	513	1792.6	$25/2^-$	1279.6	$21/2^-$
251	664.1	$15/2^+$	413.1	$11/2^+$	517	2149.3	$29/2^+$	1632.3	$25/2^+$
259	500.6	$13/2^-$	241.6	$9/2^-$	583	2324.5	$27/2^-$	1741.5	$23/2^-$
290	816.3	$17/2^+$	526.3	$13/2^+$	590	2382.6	$29/2^-$	1792.6	$25/2^-$
335	999.1	$19/2^+$	664.1	$15/2^+$	655	2980	$31/2^-$	2324.5	$27/2^-$
338	813.5	$15/2^-$	475.5	$11/2^-$	662	3045	$33/2^-$	2382.6	$29/2^-$
347	847.6	$17/2^-$	500.6	$13/2^-$	722	3702	$35/2^-$	2980	$31/2^-$
370	1186.3	$21/2^+$	816.3	$17/2^+$	728	3773	$37/2^-$	3045	$33/2^-$
420	1419.1	$23/2^+$	999.1	$19/2^+$	776	4549	$41/2^-$	3773	$37/2^-$
424	1237.5	$19/2^-$	813.5	$15/2^-$					

[†] Uncertainty ≈1 keV (2004Wu05).
[‡] Unstated; value from authors′ level energy difference.

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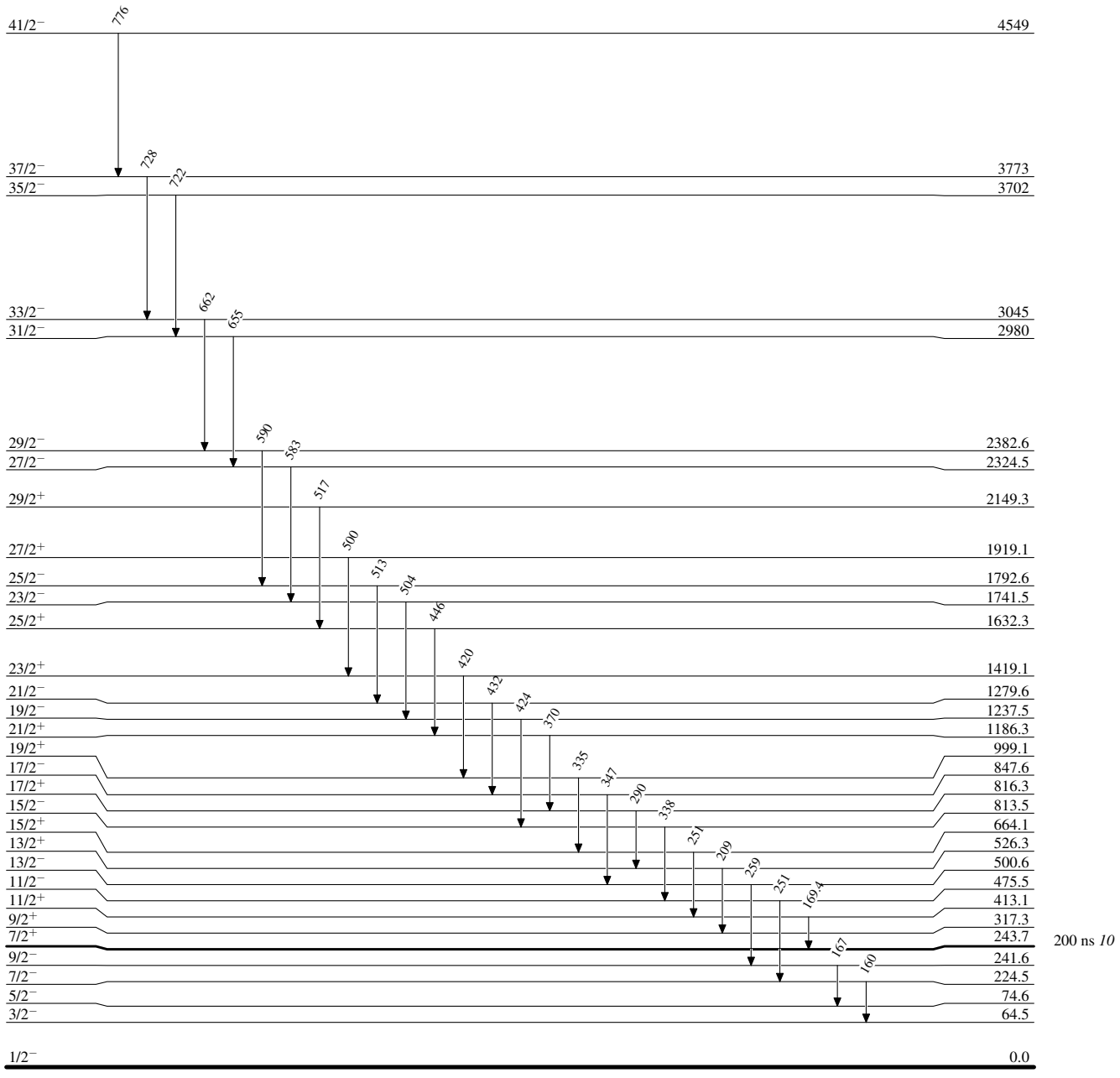
Level Scheme



$^{169}_{68}Er_{101}$

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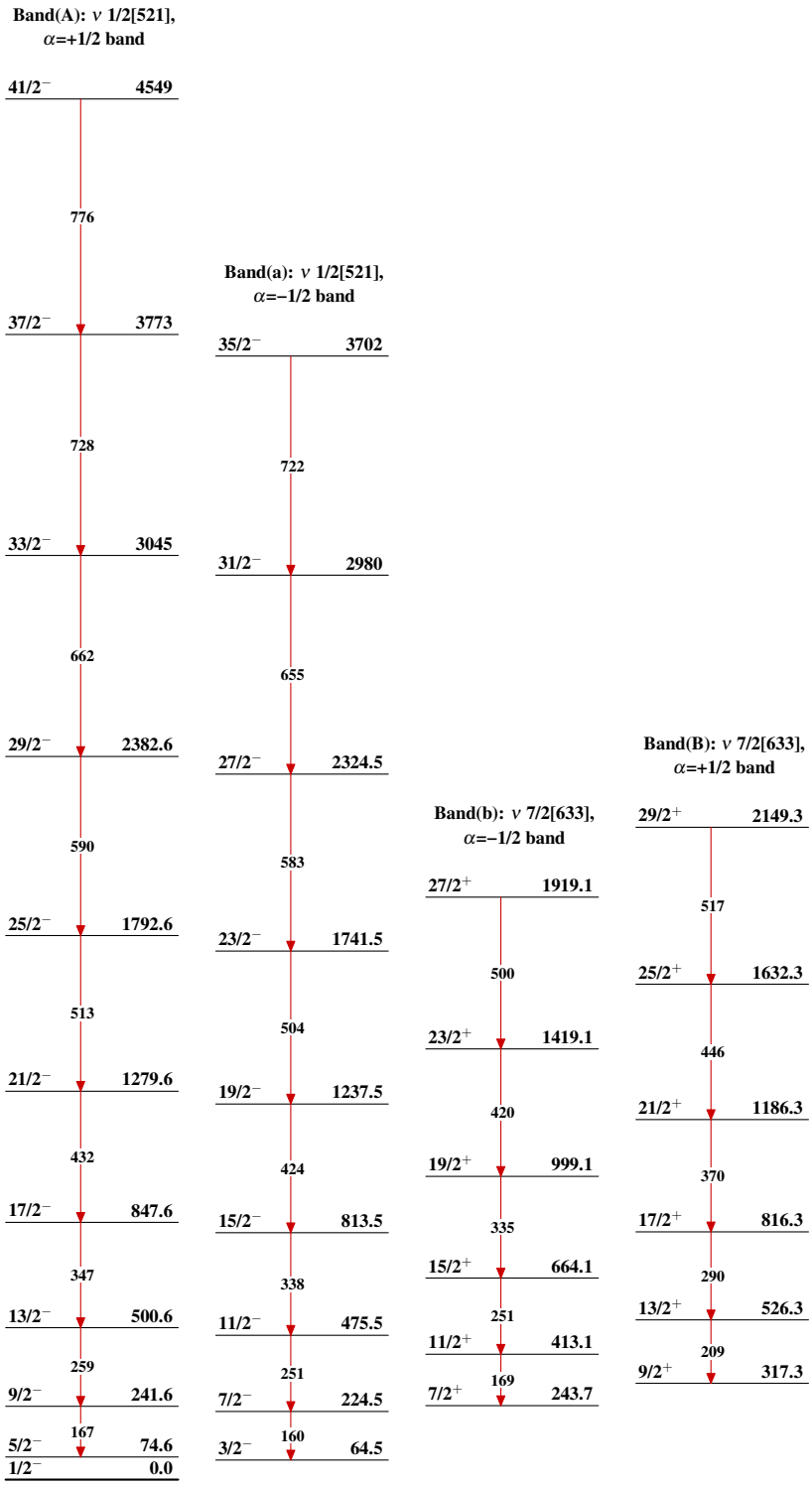

$^{169}_{68}Er_{101}$