^{170}Er(^{40}Ar,5nγ) 1999No03,2002BeZV

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 166, 1 (2020)	20-Apr-2020

Reaction: ^{170}Er(^{40}Ar,5nγ) E=183 MeV and ^{197}Au(^{14}N,6nγ) E=90-110 MeV. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma(\theta)$, $\gamma\gamma(\theta)$(DCO) with an array of 15 EUROGAM and 10 TESSA Compton-suppressed Ge detectors in the ^{170}Er(^{40}Ar,5nγ) experiment and the YRAST ball array consisting of 20 Compton-suppressed Ge detectors and three unsuppressed clover detectors in the ^{197}Au(^{14}N,6nγ) experiment. Other: 2015Ma63.

^{205}Rn Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	Comments
0.0	$5/2^-$	170 s *4*	J$^\pi$,$T_{1/2}$: From Adopted Levels.
657.1[@] *6*	$(13/2^+)$	>10 s	Additional information 1. J$^\pi$: Assumed value based on the expected configuration and systematics of similar structures in neighboring nuclei. The assignment is tentative. $T_{1/2}$: From Adopted Levels.
1157.30[@] *10*	$(17/2^+)$		
1647.33[@] *14*	$(21/2^+)$		
2264.78[@] *17*	$(25/2^+)$		
2337.27[&] *14*	$(21/2^+)$		
2394.30 *17*	$(23/2^+)$[#]		
2453.84[&] *19*	$(23/2^+)$		
2623.97[&] *17*	$(25/2^+)$		
2640.60 *19*	$(25/2^+)$[#]		
2781.89[&] *19*	$(27/2^+)$		
2803.88 *19*	$(27/2^+)$[#]		
2903.09[&] *21*	$(29/2^+)$		
2933.78[@] *20*	$(29/2^+)$		
3151.09[&] *24*	$(31/2^+)$		
3244.08 *21*	$(31/2^+)$[#]		
3499.28[@] *22*	$(33/2^+)$		
3518.8[&] *3*	$(33/2^+)$		
3821.2[&] *3*	$(35/2^+)$		
4109.4[&] *3*	$(37/2^+)$		
4187?[@]	$(37/2^+)$		
4247.3 *3*	$(37/2^+)$		
4310.7[&] *3*	$(39/2^+)$		
4716.5[&] *4*	$(41/2^+)$		

[†] From a least-squares fit to Eγ, relative to E$(13/2^+)$=657.1 keV *6* from Adopted Levels.

[‡] From the measured angular distributions and DCO ratios, and the apparent band structures, unless otherwise stated.

[#] The spin value is one unit lower compared to that given by 1999No03 and 2002BeZV. If the spin assignments of 1999No03 and 2002BeZV are adopted then this band would become yrast, and hence, it should be populated much stronger compared to the $\nu(i^{-1}_{13/2})$ band. This is, however, in contradiction with the measured band-population pattern.

[@] configuration=$\nu(i^{-1}_{13/2})$.

[&] configuration=$\nu(i^{-1}_{13/2})\otimes\pi(i^{+2}_{13/2})$, weakly oblate band. The assignment is tentative. It is based on the observed J$^\pi$ and predictions made using the Total Routhian Surface and Tilted Axis Cranked models. Note, that calculations predict (1999No03) that configuration=$\nu(i^{-1}_{13/2})\otimes\pi(h^{+1}_{9/2}i^{+1}_{13/2})$ is about 300 keV lower compared to configuration=$\nu(i^{-1}_{13/2})\otimes\pi(i^{+2}_{13/2})$.

^{170}Er(^{40}Ar,5nγ) 1999No03,2002BeZV (continued)

$\gamma(^{205}Rn)$

E_γ †	I_γ #	E_i(level)	J_i^π	E_f	J_f^π	Mult. @	α &	$I_{(\gamma+ce)}$ †	Comments
116.7 *2*	1.59 *11*	2453.84	(23/2$^+$)	2337.27	(21/2$^+$)	(M1)	8.46 *13*	15.0 *10*	ce(K)/(γ+ce)=0.721 *6*; ce(L)/(γ+ce)=0.1315 *24*; ce(M)/(γ+ce)=0.0312 *6* ce(N)/(γ+ce)=0.00815 *16*; ce(O)/(γ+ce)=0.001783 *35*; ce(P)/(γ+ce)=0.000260 *5* α(K)=6.83 *10*; α(L)=1.245 *18*; α(M)=0.296 *4* α(N)=0.0771 *11*; α(O)=0.01687 *25*; α(P)=0.00246 *4* Mult.: DCO=1.2 *9*; A_2=−0.37.
121.2 *1*	2.44 *12*	2903.09	(29/2$^+$)	2781.89	(27/2$^+$)	(M1)	7.60 *11*	21.0 *10*	ce(K)/(γ+ce)=0.713 *6*; ce(L)/(γ+ce)=0.1298 *23*; ce(M)/(γ+ce)=0.0308 *6* ce(N)/(γ+ce)=0.00804 *15*; ce(O)/(γ+ce)=0.001759 *33*; ce(P)/(γ+ce)=0.000257 *5* α(K)=6.13 *9*; α(L)=1.116 *16*; α(M)=0.265 *4* α(N)=0.0691 *10*; α(O)=0.01513 *21*; α(P)=0.002209 *31* Mult.: DCO=1.4 *4*; A_2=−0.42.
129.0 *5*		2394.30	(23/2$^+$)	2264.78	(25/2$^+$)				
157.9 *1*	5.5 *4*	2781.89	(27/2$^+$)	2623.97	(25/2$^+$)	(M1)	3.58 *5*	25.0 *20*	ce(K)/(γ+ce)=0.631 *5*; ce(L)/(γ+ce)=0.1143 *19*; ce(M)/(γ+ce)=0.0271 *5* ce(N)/(γ+ce)=0.00708 *13*; ce(O)/(γ+ce)=0.001548 *28*; ce(P)/(γ+ce)=0.000226 *4* α(K)=2.89 *4*; α(L)=0.524 *7*; α(M)=0.1244 *18* α(N)=0.0324 *5*; α(O)=0.00710 *10*; α(P)=0.001036 *15* Mult.: DCO=0.72 *16*; A_2=−0.27.
163.6 *2*	0.94 *24*	2803.88	(27/2$^+$)	2640.60	(25/2$^+$)	[M1]	3.24 *5*	4.0 *10*	ce(K)/(γ+ce)=0.617 *5*; ce(L)/(γ+ce)=0.1117 *19*; ce(M)/(γ+ce)=0.0265 *5* ce(N)/(γ+ce)=0.00691 *12*; ce(O)/(γ+ce)=0.001513 *27*; ce(P)/(γ+ce)=0.000221 *4* α(K)=2.62 *4*; α(L)=0.473 *7*; α(M)=0.1125 *16* α(N)=0.0293 *4*; α(O)=0.00641 *9*; α(P)=0.000937 *14*
170.2 *2*	5.0 *5*	2623.97	(25/2$^+$)	2453.84	(23/2$^+$)	(M1)	2.90 *4*	20.0 *20*	ce(K)/(γ+ce)=0.601 *5*; ce(L)/(γ+ce)=0.1086 *18*; ce(M)/(γ+ce)=0.0258 *5* ce(N)/(γ+ce)=0.00672 *12*; ce(O)/(γ+ce)=0.001471 *26*; ce(P)/(γ+ce)=0.000215 *4* α(K)=2.341 *34*; α(L)=0.423 *6*; α(M)=0.1005 *14* α(N)=0.0262 *4*; α(O)=0.00573 *8*; α(P)=0.000837 *12* Mult.: DCO=1.3 *5*; A_2=−0.13.
201.3 *1*	2.9	4310.7	(39/2$^+$)	4109.4	(37/2$^+$)	(M1)	1.807 *25*	8	ce(K)/(γ+ce)=0.520 *4*;

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^{170}Er(^{40}Ar,5nγ) 1999No03,2002BeZV (continued)

$\gamma(^{205}Rn)$ (continued)

E_γ †	I_γ #	E_i(level)	J_i^π	E_f	J_f^π	Mult. @	α &	$I_{(\gamma+ce)}$ †	Comments
									ce(L)/(γ+ce)=0.0938 *15*; ce(M)/(γ+ce)=0.0223 *4* ce(N)/(γ+ce)=0.00581 *10*; ce(O)/(γ+ce)=0.001271 *21*; ce(P)/(γ+ce)=0.0001855 *31* α(K)=1.461 *21*; α(L)=0.263 *4*; α(M)=0.0625 *9* α(N)=0.01630 *23*; α(O)=0.00357 *5*; α(P)=0.000521 *7*
248.0 *1*	12.9 *5*	3151.09	(31/2$^+$)	2903.09	(29/2$^+$)	(M1)	1.010 *14*	26.0 *10*	Mult.: DCO=0.60 *21*; A_2=−0.26. ce(K)/(γ+ce)=0.406 *4*; ce(L)/(γ+ce)=0.0730 *11*; ce(M)/(γ+ce)=0.01733 *27* ce(N)/(γ+ce)=0.00452 *7*; ce(O)/(γ+ce)=0.000988 *16*; ce(P)/(γ+ce)=0.0001443 *23* α(K)=0.817 *11*; α(L)=0.1468 *21*; α(M)=0.0348 *5* α(N)=0.00908 *13*; α(O)=0.001987 *28*; α(P)=0.000290 *4*
288.2 *1*	4.2 *6*	4109.4	(37/2$^+$)	3821.2	(35/2$^+$)	(M1)	0.667 *9*	7.0 *10*	Mult.: DCO=0.59 *9*; A_2=−0.36. ce(K)/(γ+ce)=0.3238 *33*; ce(L)/(γ+ce)=0.0580 *8*; ce(M)/(γ+ce)=0.01376 *21* ce(N)/(γ+ce)=0.00359 *5*; ce(O)/(γ+ce)=0.000785 *12*; ce(P)/(γ+ce)=0.0001146 *17* α(K)=0.540 *8*; α(L)=0.0967 *14*; α(M)=0.02294 *32* α(N)=0.00598 *8*; α(O)=0.001308 *18*; α(P)=0.0001911 *27*
302.4 *1*	7.6 *6*	3821.2	(35/2$^+$)	3518.8	(33/2$^+$)	(M1)	0.584 *8*	12.0 *10*	Mult.: A_2=−0.34. ce(K)/(γ+ce)=0.2986 *31*; ce(L)/(γ+ce)=0.0534 *8*; ce(M)/(γ+ce)=0.01268 *19* ce(N)/(γ+ce)=0.00330 *5*; ce(O)/(γ+ce)=0.000723 *11*; ce(P)/(γ+ce)=0.0001056 *16* α(K)=0.473 *7*; α(L)=0.0847 *12*; α(M)=0.02009 *28* α(N)=0.00523 *7*; α(O)=0.001145 *16*; α(P)=0.0001673 *23*
328.2 *3*	2.7	2781.89	(27/2$^+$)	2453.84	(23/2$^+$)	[E2]	0.1059 *15*	3	Mult.: DCO=0.61 *16*; A_2=−0.35. ce(K)/(γ+ce)=0.0513 *7*; ce(L)/(γ+ce)=0.0331 *5*; ce(M)/(γ+ce)=0.00864 *12* ce(N)/(γ+ce)=0.002251 *33*; ce(O)/(γ+ce)=0.000465 *7*; ce(P)/(γ+ce)=5.64×10^{-5} *8* α(K)=0.0567 *8*; α(L)=0.0366 *5*; α(M)=0.00956 *14* α(N)=0.00249 *4*; α(O)=0.000514 *7*; α(P)=6.23×10^{-5} *9*
367.7 *1*	12.7 *7*	3518.8	(33/2$^+$)	3151.09	(31/2$^+$)	(M1)	0.343 *5*	17.0 *10*	ce(K)/(γ+ce)=0.2069 *23*; ce(L)/(γ+ce)=0.0369 *5*; ce(M)/(γ+ce)=0.00874 *13* ce(N)/(γ+ce)=0.002277 *33*;

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^{170}Er(^{40}Ar,5nγ) 1999No03,2002BeZV (continued)

$\gamma(^{205}Rn)$ (continued)

E_γ[†]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	α[&]	$I_{(\gamma+ce)}$[†]	Comments
									ce(O)/(γ+ce)=0.000498 *7*; ce(P)/(γ+ce)=7.28×10^{-5} *11* α(K)=0.278 *4*; α(L)=0.0495 *7*; α(M)=0.01173 *16* α(N)=0.00306 *4*; α(O)=0.000669 *9*; α(P)=9.78×10^{-5} *14*
375.9 *1*	6.8 *8*	2640.60	(25/2$^+$)	2264.78	(25/2$^+$)	[M1]	0.323 *5*	9.0 *10*	Mult.: DCO=0.81 *17*; A_2=−0.48. ce(K)/(γ+ce)=0.1978 *23*; ce(L)/(γ+ce)=0.0352 *5*; ce(M)/(γ+ce)=0.00835 *12* ce(N)/(γ+ce)=0.002176 *31*; ce(O)/(γ+ce)=0.000476 *7*; ce(P)/(γ+ce)=6.96×10^{-5} *10* α(K)=0.262 *4*; α(L)=0.0466 *7*; α(M)=0.01105 *15* α(N)=0.00288 *4*; α(O)=0.000630 *9*; α(P)=9.20×10^{-5} *13*
405.8 *1*	1.6	4716.5	(41/2$^+$)	4310.7	(39/2$^+$)	[M1]	0.263 *4*	2	ce(K)/(γ+ce)=0.1686 *20*; ce(L)/(γ+ce)=0.0300 *4*; ce(M)/(γ+ce)=0.00710 *10* ce(N)/(γ+ce)=0.001851 *26*; ce(O)/(γ+ce)=0.000405 *6*; ce(P)/(γ+ce)=5.92×10^{-5} *8* α(K)=0.2128 *30*; α(L)=0.0378 *5*; α(M)=0.00897 *13* α(N)=0.002336 *33*; α(O)=0.000511 *7*; α(P)=7.47×10^{-5} *10*
409.5 *1*	3.8	2803.88	(27/2$^+$)	2394.30	(23/2$^+$)	(E2)	0.0578 *8*	4	ce(K)/(γ+ce)=0.0336 *5*; ce(L)/(γ+ce)=0.01570 *22*; ce(M)/(γ+ce)=0.00405 *6* ce(N)/(γ+ce)=0.001054 *15*; ce(O)/(γ+ce)=0.0002194 *31*; ce(P)/(γ+ce)=2.74×10^{-5} *4* α(K)=0.0355 *5*; α(L)=0.01661 *23*; α(M)=0.00428 *6* α(N)=0.001115 *16*; α(O)=0.0002320 *33*; α(P)=2.90×10^{-5} *4*
426.1 *1*	2.4	4247.3	(37/2$^+$)	3821.2	(35/2$^+$)	[M1]	0.2302 *32*	3	Mult.: DCO=0.8 *2*. ce(K)/(γ+ce)=0.1517 *18*; ce(L)/(γ+ce)=0.0269 *4*; ce(M)/(γ+ce)=0.00638 *9* ce(N)/(γ+ce)=0.001663 *24*; ce(O)/(γ+ce)=0.000364 *5*; ce(P)/(γ+ce)=5.32×10^{-5} *8* α(K)=0.1866 *26*; α(L)=0.0331 *5*; α(M)=0.00785 *11* α(N)=0.002046 *29*; α(O)=0.000448 *6*; α(P)=6.54×10^{-5} *9*
440.2 *1*	2.9	3244.08	(31/2$^+$)	2803.88	(27/2$^+$)	[E2]	0.0480 *7*	3	ce(K)/(γ+ce)=0.0292 *4*; ce(L)/(γ+ce)=0.01243 *17*; ce(M)/(γ+ce)=0.00319 *4* ce(N)/(γ+ce)=0.000830 *12*; ce(O)/(γ+ce)=0.0001733 *24*; ce(P)/(γ+ce)=2.186×10^{-5} *31* α(K)=0.0306 *4*; α(L)=0.01303 *18*;

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^{170}Er(^{40}Ar,5nγ) 1999No03,2002BeZV (continued)

$\gamma(^{205}Rn)$ (continued)

E_γ[†]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	α[&]	$I_{(\gamma+ce)}$[†]	Comments
									α(M)=0.00334 *5* α(N)=0.000870 *12*; α(O)=0.0001816 *25*; α(P)=2.291×10^{-5} *32* Mult.: DCO=0.9 *2*.
[x]465.8[‡] *1*								6.0 *10*	
490.0 *1*	74	1647.33	(21/2$^+$)	1157.30	(17/2$^+$)	E2	0.0369 *5*	77	ce(K)/(γ+ce)=0.02373 *32*; ce(L)/(γ+ce)=0.00888 *12*; ce(M)/(γ+ce)=0.002260 *32* ce(N)/(γ+ce)=0.000589 *8*; ce(O)/(γ+ce)=0.0001234 *17*; ce(P)/(γ+ce)=1.580×10^{-5} *22* α(K)=0.02460 *34*; α(L)=0.00921 *13*; α(M)=0.002343 *33* α(N)=0.000610 *9*; α(O)=0.0001279 *18*; α(P)=1.639×10^{-5} *23* Mult.: DCO=1.09 *7*.
500.2 *1*	97	1157.30	(17/2$^+$)	657.1	(13/2$^+$)	E2	0.0351 *5*	100	ce(K)/(γ+ce)=0.02281 *31*; ce(L)/(γ+ce)=0.00834 *12*; ce(M)/(γ+ce)=0.002119 *30* ce(N)/(γ+ce)=0.000552 *8*; ce(O)/(γ+ce)=0.0001158 *16*; ce(P)/(γ+ce)=1.487×10^{-5} *21* α(K)=0.02361 *33*; α(L)=0.00863 *12*; α(M)=0.002193 *31* α(N)=0.000571 *8*; α(O)=0.0001198 *17*; α(P)=1.539×10^{-5} *22* Mult.: DCO=1.09 *7*.
565.5 *1*	7.8	3499.28	(33/2$^+$)	2933.78	(29/2$^+$)	(E2)	0.0264 *4*	8	ce(K)/(γ+ce)=0.01804 *25*; ce(L)/(γ+ce)=0.00579 *8*; ce(M)/(γ+ce)=0.001458 *20* ce(N)/(γ+ce)=0.000380 *5*; ce(O)/(γ+ce)=8.00×10^{-5} *11*; ce(P)/(γ+ce)=1.046×10^{-5} *15* α(K)=0.01851 *26*; α(L)=0.00594 *8*; α(M)=0.001496 *21* α(N)=0.000390 *5*; α(O)=8.22×10^{-5} *12*; α(P)=1.073×10^{-5} *15* Mult.: DCO=1.9 *6*.
617.5 *1*	43	2264.78	(25/2$^+$)	1647.33	(21/2$^+$)	E2	0.02174 *30*	44	ce(K)/(γ+ce)=0.01527 *21*; ce(L)/(γ+ce)=0.00451 *6*; ce(M)/(γ+ce)=0.001128 *16* ce(N)/(γ+ce)=0.000294 *4*; ce(O)/(γ+ce)=6.21×10^{-5} *9*; ce(P)/(γ+ce)=8.21×10^{-6} *12* α(K)=0.01561 *22*; α(L)=0.00461 *6*; α(M)=0.001152 *16*

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^{170}Er(^{40}Ar,5nγ) 1999No03,2002BeZV (continued)

$\gamma(^{205}Rn)$ (continued)

E_γ[†]	I_γ[#]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[@]	α[&]	$I_{(\gamma+ce)}$[†]	Comments
									α(N)=0.000300 *4*; α(O)=6.35×10^{-5} *9*; α(P)=8.39×10^{-6} *12* Mult.: DCO=1.10 *8*.
[x]633.6[‡] *1*								13.0 *10*	
669.0 *1*	15.7 *10*	2933.78	(29/2$^+$)	2264.78	(25/2$^+$)	E2	0.01828 *26*	16.0 *10*	ce(K)/(γ+ce)=0.01315 *18*; ce(L)/(γ+ce)=0.00362 *5*; ce(M)/(γ+ce)=0.000900 *13* ce(N)/(γ+ce)=0.0002343 *33*; ce(O)/(γ+ce)=4.97×10^{-5} *7*; ce(P)/(γ+ce)=6.64×10^{-6} *9* α(K)=0.01339 *19*; α(L)=0.00369 *5*; α(M)=0.000916 *13* α(N)=0.0002385 *33*; α(O)=5.06×10^{-5} *7*; α(P)=6.76×10^{-6} *9* Mult.: DCO=1.04 *17*.
[x]672.6[‡] *1*								11.0 *10*	
688.7[a] *2*	1	4187?	(37/2$^+$)	3499.28	(33/2$^+$)	[E2]	0.01719 *24*	1	ce(K)/(γ+ce)=0.01245 *17*; ce(L)/(γ+ce)=0.00335 *5*; ce(M)/(γ+ce)=0.000831 *12* ce(N)/(γ+ce)=0.0002163 *30*; ce(O)/(γ+ce)=4.60×10^{-5} *6*; ce(P)/(γ+ce)=6.16×10^{-6} *9* α(K)=0.01267 *18*; α(L)=0.00341 *5*; α(M)=0.000845 *12* α(N)=0.0002200 *31*; α(O)=4.68×10^{-5} *7*; α(P)=6.26×10^{-6} *9*
746.9 *1*	5.8 *10*	2394.30	(23/2$^+$)	1647.33	(21/2$^+$)	[M1]	0.0519 *7*	6.0 *10*	ce(K)/(γ+ce)=0.0402 *5*; ce(L)/(γ+ce)=0.00702 *10*; ce(M)/(γ+ce)=0.001660 *23* ce(N)/(γ+ce)=0.000432 *6*; ce(O)/(γ+ce)=9.47×10^{-5} *13*; ce(P)/(γ+ce)=1.385×10^{-5} *19* α(K)=0.0422 *6*; α(L)=0.00738 *10*; α(M)=0.001746 *24* α(N)=0.000455 *6*; α(O)=9.96×10^{-5} *14*; α(P)=1.457×10^{-5} *20* Mult.: DCO=1.0 *2*.
976.6 *1*	11.0 *10*	2623.97	(25/2$^+$)	1647.33	(21/2$^+$)	(E2)	0.00851 *12*	11.0 *10*	ce(K)/(γ+ce)=0.00657 *9*; ce(L)/(γ+ce)=0.001409 *20*; ce(M)/(γ+ce)=0.000342 *5* ce(N)/(γ+ce)=8.89×10^{-5} *12*;

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^{170}Er(^{40}Ar,5nγ) 1999No03,2002BeZV (continued)

$\gamma(^{205}Rn)$ (continued)

E_γ [†]	I_γ [#]	E_i(level)	J_i^π	E_f	J_f^π	Mult. [@]	α [&]	$I_{(\gamma+ce)}$ [†]	Comments
									ce(O)/(γ+ce)=1.913×10^{-5} *27*; ce(P)/(γ+ce)=2.66×10^{-6} *4*
									α(K)=0.00663 *9*; α(L)=0.001421 *20*; α(M)=0.000345 *5*
									α(N)=8.97×10^{-5} *13*; α(O)=1.929×10^{-5} *27*; α(P)=2.68×10^{-6} *4*
									Mult.: DCO=1.3 *2*.
1180.0 *1*	7	2337.27	(21/2$^+$)	1157.30	(17/2$^+$)	(E2)	0.00593 *8*	7	ce(K)/(γ+ce)=0.00468 *7*; ce(L)/(γ+ce)=0.000922 *13*; ce(M)/(γ+ce)=0.0002216 *31*
									ce(N)/(γ+ce)=5.76×10^{-5} *8*; ce(O)/(γ+ce)=1.245×10^{-5} *17*; ce(P)/(γ+ce)=1.755×10^{-6} *25*; α(IPF)/T$_{1/2}$=2.162×10^{-6} *31*
									α(K)=0.00471 *7*; α(L)=0.000928 *13*; α(M)=0.0002229 *31*
									α(N)=5.80×10^{-5} *8*; α(O)=1.253×10^{-5} *18*; α(P)=1.766×10^{-6} *25*; α(IPF)=2.175×10^{-6} *31*
									Mult.: DCO=1.4 *4*.

† From 2002BeZV.
‡ Placed below the (21/2$^+$) level at 1680.17 keV, in parallel to the $\nu(i^{-1}_{13/2})$ band, by 1999No03 and 2002BeZV. These transitions likely feed toward the 5/2$^-$ g.s..
# From I(γ+ce) and the corresponding total electron conversion coefficient values.
@ From the measured angular distributions and DCO ratios, and the apparent band structures.
& Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
a Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

^{170}Er(^{40}Ar,5nγ) 1999No03,2002BeZV

Level Scheme

Intensities: Relative I_γ

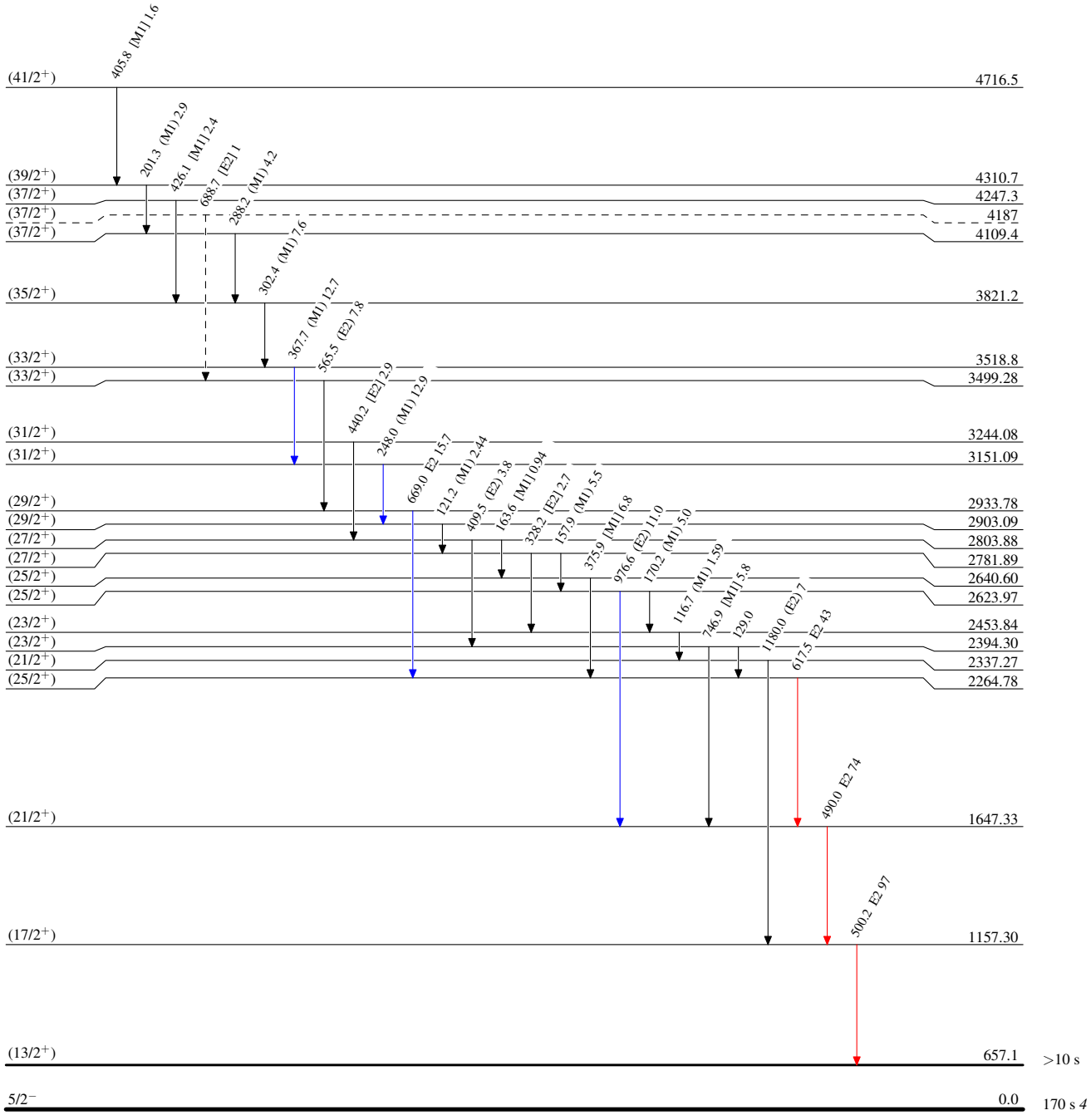
Legend

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

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

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

γ Decay (Uncertain)



$^{205}_{86}Rn_{119}$