Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 160, 1 (2019)	21-Oct-2019

Q(β^-)=−5583 *12*; S(n)=7675 *8*; S(p)=4859 *10*; Q(α)=4118 *5* 2017Wa10
Q(ε)=3830 *18*; S(2n)=17883 *8*; S(2p)=7644 *10*; Q(εp)=896 *9* 2017Wa10
Additional information 1.

^{155}Er Levels

Detailed discussions of the nucleonic configurations assigned to the various high-spin levels populated in the heavy-ion reactions are given by 1987Be21 and, especially, 2001Ni13.

Cross Reference (XREF) Flags

A ^{155}Tm ε decay (21.6 s)
B ^{155}Tm ε decay (45 s)
C (HI,xnγ)

E(level)	J$^\pi$[†]	T$_{1/2}$	XREF	Comments
0.0	7/2$^-$	5.3 min *3*	ABC	%α=0.022 *7*; %ε+%β^+=99.978 *7* μ=−0.671 *5*; Q=−0.27 *2* J$^\pi$: favored α transition to J=7/2$^{(-)}$ g.s. of ^{151}Dy. γ from 531.7, 11/2$^-$ level indicates π=−. Assignment consistent with systematics of nearby N=87 isotones ^{151}Gd and ^{153}Dy. ν f$_{7/2}$ spherical shell-model state. T$_{1/2}$: from measured Iα(t) (1969To06). %α: From I(Kα_1 x ray)/Iα (1974To07). μ: From 2014StZZ. Q: From 2016St14.
88.08 *8*	5/2$^-$,7/2$^-$,9/2$^-$		AB	J$^\pi$: M1(+E2) to 7/2$^-$.
151.63 *8*	$^-$		AB	J$^\pi$: E2 transition to 7/2$^-$ g.s. indicates π=−.
226.79 *17*	9/2$^-$		A	J$^\pi$: M1 to 7/2$^-$ indicates J^π=5/2$^-$, 7/2$^-$, 9/2$^-$. Probable Gamow-Teller transition (1991To08, from ^{155}Tm ε decay (21.6 s), state log ft=4.7) from 11/2$^-$ indicates J^π=9/2$^-$ and establishes configuration=(ν h$_{9/2}$) for this state.
323.17 *15*	5/2$^-$,7/2$^-$,9/2$^-$		B	J$^\pi$: M1+E2 to 7/2$^-$.
398.63 *22*			AB	
467.00 *16*	$^-$		AB	J$^\pi$: E2(+M1) transition to negative-parity states indicates π=−.
531.82 *24*	11/2$^-$		A C	J$^\pi$: E1 from 13/2$^+$, γ to 7/2$^-$.
563.3[@] *3*	13/2$^+$	34.8 ns *6*	A C	μ=−0.55 *3* μ: from 2014StZZ compilation (measured g-factor in (HI,xnγ) (1984Ra11)). J$^\pi$: E1 γ to 11/2$^-$. Head of a 13/2$^+$ signature=+1/2 sequence of levels. The measured g-factor supports the 13/2$^+$ assignment, as does the systematics of the odd-A Er isotopes from ^{157}Er to ^{165}Er. T$_{1/2}$: from 1987Ra20, γ(t) in (HI,xnγ). 1977Ag02 report T$_{1/2}$=30 ns *3*, from $\gamma\gamma$(t) in (HI,xnγ).
584.47 *18*			B	
595.1 *4*			B	
606.77 *16*			A	
760.1 *6*			A	
959.7 *4*			A	
1038.5[@]	17/2$^+$	<26[‡] ps	C	
1057.0			A	
1431.0 *11*			A	

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Adopted Levels, Gammas (continued)

^{155}Er Levels (continued)

E(level)	J^{π}[†]	$T_{1/2}$	XREF	Comments
1563.0?[#]			C	
1572.7[@]	$21/2^+$	<20[‡] ps	C	
2169.1[@]	$25/2^+$	<6[‡] ps	C	
2229.6[&]	$23/2^+$		C	
2574.0[&]	$27/2^+$		C	
2838.1[@]	$29/2^+$	<13[‡] ps	C	
3354.0[&]	$31/2^+$		C	
3557.0[@]	$33/2^+$	<12[‡] ps	C	
3623.2 *8*			C	
4093.0[b]	$33/2^-$		C	
4219.2[&]	$35/2^+$		C	
4288.0[@]	$37/2^+$	<24[‡] ps	C	
4444.4[b]	$37/2^-$		C	
4787.9[&]	$39/2^+$		C	
4928.2[@]	$41/2^+$	<18[‡] ps	C	"maximally aligned" structure involving two $f_{7/2}$ neutrons, two $h_{9/2}$ neutrons and an $i_{13/2}$ neutron (2001Ni13).
5012.4[a] *8*	$43/2^+$	0.90 ns	C	$T_{1/2}$: value quoted by 1987Be21 (HI,xnγ) as a private communication from another author.
5122.6?[#b]	$41/2^-$		C	
5479.0[a]	$45/2^+$	<21[‡] ps	C	
5786.0[a]	$47/2^+$		C	
5851.7[b]	$45/2^-$		C	
6206.7[a]	$49/2^+$		C	
6223.1[b]	$49/2^-$		C	
6747.6[a]	$51/2^+$		C	
6888.6	$51/2^-$		C	
6976.7[a]	$53/2^+$		C	
7111.8[b]	$53/2^-$		C	
7196.6?[#]	$(53/2^+)$		C	
7567.5[a]	$55/2^+$		C	
7672.1[a]	$57/2^+$		C	
7813.9	$(55/2^-)$		C	
7853.7[b]	$57/2^-$		C	
7985.1[a]	$59/2^+$		C	
8008.9	$57/2^-$		C	
8397.3[b]	$61/2^-$		C	
8664.8	$61/2^-$		C	
8833.7	$61/2^+$		C	
9011.0	$63/2^-$		C	
9046.2	$61/2^+$		C	
9083.7?[#]			C	
9165.3	$63/2^-$		C	
9267.1	$65/2^-$		C	
9353.6	$65/2^-$		C	
9462.0?[#]	$65/2^+$		C	
9593.8	$65/2^-$		C	
9654.9	$65/2^+$		C	
9725.1	$(67/2)^-$		C	
9811.0	$65/2^+$		C	

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Adopted Levels, Gammas (continued)

^{155}Er Levels (continued)

E(level)	J^{π}[†]	XREF	Comments
9865.4	$67/2^-$	C	
9985.4	(69/2)	C	
10048.2	$69/2^-$	C	
10061.0	$69/2^+$	C	
10180.0?[#]	$69/2^-$	C	
10216.0?[#]	$(69/2^+)$	C	
10463.6	$(71/2^-)$	C	
10611.6	$71/2^-$	C	
10737.5?[#]	$71/2^+$	C	
10842.3	$73/2^+$	C	
11033.0	$75/2^-$	C	
11322.7	$73/2^-$	C	
11703.4	$77/2^-$	C	"double maximum alignment" structure, involving the alignment of the spins of both neutron and proton pairs outside the ^{146}Gd core, with those of the four $h_{11/2}$ valence protons being coupled to 16^+ (2001Ni13).
11754.8?[#]		C	
11933.8	$(77/2^+)$	C	
12294.4	$(79/2^+)$	C	
12304.1	$79/2^-$	C	"double maximum alignment" structure, involving the alignment of the spins of both neutron and proton pairs outside the ^{146}Gd core, with those of the four $h_{11/2}$ valence protons being coupled to 16^+ (2001Ni13). According to the calculations presented by 2001Ni13, the configurations of all the negative-parity yrast states above this one involve broken proton pairs in the ^{146}Gd core.
12944	$81/2^-$	C	
12961.4	$79/2^{(-)}$	C	
13180.4	$81/2^+$	C	According to the calculations presented by 2001Ni13, the configurations of all the positive-parity yrast states above this one involve broken proton-pairs in the ^{146}Gd core.
13668	$(83/2^-)$	C	
13720.6	$83/2^-$	C	
13876.0	$85/2^+$	C	
13910	$(81/2^-)$	C	
14001	$(81/2^-)$	C	
14063?		C	
14279?		C	
14320	$(81/2^-)$	C	
14578?	$(81/2^-)$	C	
14629?	$(85/2^+)$	C	
14668?		C	
14931?	$(87/2^-)$	C	
15410.7	$(87/2^+)$	C	
15659?		C	
17086?	$(89/2^+)$	C	

[†] The values for those levels observed in the heavy-ion studies only are those reported by 2001Ni13 and are based, among other things, on measured angular distributions, linear polarizations and DCO ratios. Their basis is not further discussed here.

[‡] From 1981Ve09, recoil-distance method, in (HI,xnγ). Values not corrected for side feedings.

[#] Location of the level energy is uncertain due to the uncertain ordering of the transitions in the cascade.

[@] Band(A): $i_{13/2}$-based yrast sequence, signature=+1/2. Likely configuration=(ν $i_{13/2}$), together with a 3^- octupole vibration built on the g.s. configuration=(ν $f_{7/2}$) (1987Be21). Note that, according to 1987Be21 and 2001Ni13, this sequence terminates at the $41/2^+$ state.

[&] Band(B): Positive-parity sequence, signature=−1/2. Levels involved in this sequence are most likely nearly spherical-equilibrium

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Adopted Levels, Gammas (continued)

^{155}Er Levels (continued)

states (2001Ni13).

[a] Band(C): Positive-parity sequence, based on $43/2^+$.

[b] Band(D): Negative-parity sequence, signature=+1/2.

Adopted Levels, Gammas (continued)

$\gamma(^{155}Er)$

Unless noted otherwise, the Eγ, Iγ, mult and δ values for the γ's connecting the levels populated in the (HI,xnγ) reaction are those from 2001Ni13 and are based on their Eγ, Iγ, $\gamma\gamma$, $\gamma(\theta)$, $\gamma\gamma(\theta)$(DCO), γ(lin pol) data.

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
88.08	5/2$^-$,7/2$^-$,9/2$^-$	88.1 *1*	100	0.0	7/2$^-$	M1(+E2)	<0.4	4.14 *8*	α(K)=3.29 *15*; α(L)=0.66 *15*; α(M)=0.15 *4* α(N)=0.035 *8*; α(O)=0.0047 *9*; α(P)=0.000202 *11*
151.63	$^-$	63.5 *1*	68 *23*	88.08	5/2$^-$,7/2$^-$,9/2$^-$	M1(+E2)	<0.13	10.9 *2*	
		151.6 *1*	100 *31*	0.0	7/2$^-$	E2		0.649	α(K)=0.360 *5*; α(L)=0.222 *4*; α(M)=0.0534 *8* α(N)=0.01212 *18*; α(O)=0.001461 *21*; α(P)=1.587×10^{-5} *23*
226.79	9/2$^-$	226.8 *2*	100	0.0	7/2$^-$	M1+E2		0.225 *60*	α(K)=0.176 *64*; α(L)=0.038 *4*; α(M)=0.0088 *10* α(N)=0.00204 *21*; α(O)=0.000273 *9*; α(P)=1.01×10^{-5} *46* α: value calculated for δ=1.
323.17	5/2$^-$,7/2$^-$,9/2$^-$	171.5 *2*	25 *9*	151.63	$^-$	E2(+M1)	>4	0.429 *9*	α(K)=0.261 *9*; α(L)=0.1292 *25*; α(M)=0.0309 *7* α(N)=0.00703 *14*; α(O)=0.000859 *16*; α(P)=1.21×10^{-5} *7*
		323.2 *5*	100 *11*	0.0	7/2$^-$	M1+E2		0.082 *27*	α(K)=0.067 *26*; α(L)=0.0122 *13*; α(M)=0.00277 *23* α(N)=0.00064 *6*; α(O)=8.8×10^{-5} *13*; α(P)=3.9×10^{-6} *18* α: value calculated for δ=1.
398.63		247.0 *2*	100 *5*	151.63	$^-$	E2(+M1)		0.1265	α(K)=0.0879 *13*; α(L)=0.0297 *5*; α(M)=0.00702 *10* α(N)=0.001602 *23*; α(O)=0.000202 *3*; α(P)=4.35×10^{-6} *7* α: value for a pure E2 transition.
467.00	$^-$	315.2 *2*	100 *50*	151.63	$^-$	E2(+M1)		0.0595	α(K)=0.0440 *7*; α(L)=0.01194 *17*; α(M)=0.00279 *4* α(N)=0.000638 *9*; α(O)=8.25×10^{-5} *12*; α(P)=2.29×10^{-6} *4* α: value for a pure E2 transition.
		379.1 *2*	≈100	88.08	5/2$^-$,7/2$^-$,9/2$^-$	M1(+E2)		0.0716	α(K)=0.0604 *9*; α(L)=0.00881 *13*; α(M)=0.00195 *3* α(N)=0.000454 *7*; α(O)=6.59×10^{-5} *10*; α(P)=3.67×10^{-6} *6* α: value for a pure M1 transition.
531.82	11/2$^-$	305.0 *2*	7.5 *20*	226.79	9/2$^-$				
		531.7 *2*	100 *25*	0.0	7/2$^-$				
563.3	13/2$^+$	31.5 *1*	100	531.82	11/2$^-$	E1		1.381 *23*	α(L)=1.078 *18*; α(M)=0.242 *4* α(N)=0.0540 *9*; α(O)=0.00641 *11*; α(P)=0.000188 *3* B(E1)(W.u.)=9.05×10^{-5} *20*
584.47		432.7 *2*	100 *20*	151.63	$^-$				
		496.7 *3*	80 *50*	88.08	5/2$^-$,7/2$^-$,9/2$^-$				
595.1		507.0 *4*	100	88.08	5/2$^-$,7/2$^-$,9/2$^-$				
606.77		380.1 *3*	12 *3*	226.79	9/2$^-$				
		518.7 *4*	29 *6*	88.08	5/2$^-$,7/2$^-$,9/2$^-$				
		606.7 *2*	100 *20*	0.0	7/2$^-$				
760.1		533.3 *5*	100	226.79	9/2$^-$				
959.7		732.9 *3*	100	226.79	9/2$^-$				

Adopted Levels, Gammas (continued)

γ(^{155}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
1038.5	17/2$^+$	475.4	100	563.3	13/2$^+$	E2		0.0187	B(E2)(W.u.)>18 α(K)=0.01484 *21*; α(L)=0.00303 *5*; α(M)=0.000694 *10* α(N)=0.0001599 *23*; α(O)=2.15×10^{-5} *3*; α(P)=8.17×10^{-7} *12* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.04 *4*.
1057.0		830.0	17 *5*	226.79	9/2$^-$				
		1057.2	100 *23*	0.0	7/2$^-$				
1431.0		1204.2	100	226.79	9/2$^-$				
1563.0?		524.5[‡]	100	1038.5	17/2$^+$				
1572.7	21/2$^+$	534.2	100	1038.5	17/2$^+$	E2		0.01390	B(E2)(W.u.)>13 α(K)=0.01114 *16*; α(L)=0.00214 *3*; α(M)=0.000487 *7* α(N)=0.0001123 *16*; α(O)=1.529×10^{-5} *22*; α(P)=6.20×10^{-7} *9*
2169.1	25/2$^+$	596.4	100	1572.7	21/2$^+$	E2		0.01059	B(E2)(W.u.)>25 α(K)=0.00858 *12*; α(L)=0.001563 *22*; α(M)=0.000354 *5* α(N)=8.18×10^{-5} *12*; α(O)=1.124×10^{-5} *16*; α(P)=4.81×10^{-7} *7*
2229.6	23/2$^+$	656.9	100	1572.7	21/2$^+$	M1+E2	+0.48 *7*	0.0157 *5*	α(K)=0.0133 *4*; α(L)=0.00194 *5*; α(M)=0.000429 *11* α(N)=0.0001000 *25*; α(O)=1.44×10^{-5} *4*; α(P)=7.9×10^{-7} *3*
		666.6[‡]	36	1563.0?					
2574.0	27/2$^+$	344.4	100	2229.6	23/2$^+$	E2		0.0458	α(K)=0.0345 *5*; α(L)=0.00873 *13*; α(M)=0.00203 *3* α(N)=0.000465 *7*; α(O)=6.06×10^{-5} *9*; α(P)=1.82×10^{-6} *3* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.06 *2*.
		404.9	65	2169.1	25/2$^+$	M1+E2	+0.32 *1*	0.0574 *9*	α(K)=0.0482 *7*; α(L)=0.00718 *11*; α(M)=0.001592 *23* α(N)=0.000371 *6*; α(O)=5.35×10^{-5} *8*; α(P)=2.91×10^{-6} *5*
2838.1	29/2$^+$	264.1	0.6	2574.0	27/2$^+$	[M1]		0.188	B(M1)(W.u.)>0.00054 α(K)=0.1581 *23*; α(L)=0.0233 *4*; α(M)=0.00516 *8* α(N)=0.001204 *17*; α(O)=0.0001744 *25*; α(P)=9.67×10^{-6} *14*
		669.0	100	2169.1	25/2$^+$	E2		0.00807	α(K)=0.00660 *10*; α(L)=0.001145 *16*; α(M)=0.000258 *4* α(N)=5.97×10^{-5} *9*; α(O)=8.28×10^{-6} *12*; α(P)=3.72×10^{-7} *6* B(E2)(W.u.)>6.4
3354.0	31/2$^+$	515.9		2838.1	29/2$^+$	[M1+E2]		0.0237 *86*	α(K)=0.0196 *76*; α(L)=0.0031 *8*; α(M)=0.00070 *17* α(N)=0.00016 *4*; α(O)=2.31×10^{-5} *63*; α(P)=1.16×10^{-6} *49*
		780.0	100	2574.0	27/2$^+$	E2		0.00570	α(K)=0.00471 *7*; α(L)=0.000773 *11*; α(M)=0.0001733 *25* α(N)=4.02×10^{-5} *6*; α(O)=5.62×10^{-6} *8*; α(P)=2.67×10^{-7} *4* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=+0.05 *2*.
3557.0	33/2$^+$	718.9	100	2838.1	29/2$^+$	E2		0.00684	B(E2)(W.u.)>4.9 α(K)=0.00562 *8*; α(L)=0.000950 *14*; α(M)=0.000213 *3* α(N)=4.94×10^{-5} *7*; α(O)=6.88×10^{-6} *10*; α(P)=3.18×10^{-7} *5* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.03 *2*.
4093.0	33/2$^-$	469.8	41	3623.2					
		739.0	100	3354.0	31/2$^+$	[E1]		0.00245	α(K)=0.00209 *3*; α(L)=0.000286 *4*; α(M)=6.27×10^{-5} *9* α(N)=1.455×10^{-5} *21*; α(O)=2.09×10^{-6} *3*; α(P)=1.135×10^{-7} *16*
4219.2	35/2$^+$	662.2	14	3557.0	33/2$^+$	[M1+E2]		0.0127 *45*	α(K)=0.0106 *39*; α(L)=0.00162 *45*; α(M)=3.61×10^{-4} *96* α(N)=8.4×10^{-5} *23*; α(O)=1.20×10^{-5} *35*; α(P)=6.2×10^{-7} *25*

$^{155}_{68}Er_{87}$-6

Adopted Levels, Gammas (continued)

γ(^{155}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
4219.2	35/2$^+$	865.2	100	3354.0	31/2$^+$	E2		0.00455	α(K)=0.00378 *6*; α(L)=0.000601 *9*; α(M)=0.0001343 *19* α(N)=3.11×10^{-5} *5*; α(O)=4.39×10^{-6} *7*; α(P)=2.15×10^{-7} *3* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.03 *2*.
4288.0	37/2$^+$	731.0	100	3557.0	33/2$^+$	E2		0.00659	B(E2)(W.u.)>2.3 α(K)=0.00542 *8*; α(L)=0.000910 *13*; α(M)=0.000204 *3* α(N)=4.73×10^{-5} *7*; α(O)=6.60×10^{-6} *10*; α(P)=3.07×10^{-7} *5* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.01 *1*.
4444.4	37/2$^-$	225.2	100	4219.2	35/2$^+$	[E1]		0.0382	α(K)=0.0322 *5*; α(L)=0.00473 *7*; α(M)=0.001045 *15* α(N)=0.000241 *4*; α(O)=3.35×10^{-5} *5*; α(P)=1.615×10^{-6} *23*
		351.4	70	4093.0	33/2$^-$	E2		0.0432	α(K)=0.0327 *5*; α(L)=0.00814 *12*; α(M)=0.00189 *3* α(N)=0.000433 *6*; α(O)=5.66×10^{-5} *8*; α(P)=1.729×10^{-6} *25* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=+0.03 *7*.
4787.9	39/2$^+$	499.9	96	4288.0	37/2$^+$	M1+E2	+0.14 *5*	0.0346 *6*	α(K)=0.0291 *5*; α(L)=0.00423 *7*; α(M)=0.000934 *15* α(N)=0.000218 *4*; α(O)=3.16×10^{-5} *5*; α(P)=1.76×10^{-6} *3*
		568.7	100	4219.2	35/2$^+$	E2		0.01190	α(K)=0.00960 *14*; α(L)=0.00179 *3*; α(M)=0.000405 *6* α(N)=9.36×10^{-5} *14*; α(O)=1.281×10^{-5} *18*; α(P)=5.36×10^{-7} *8* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.11 *2*.
4928.2	41/2$^+$	640.1	100	4288.0	37/2$^+$	E2		0.00895	α(K)=0.00729 *11*; α(L)=0.001288 *18*; α(M)=0.000291 *4* α(N)=6.73×10^{-5} *10*; α(O)=9.29×10^{-6} *13*; α(P)=4.11×10^{-7} *6* B(E2)(W.u.)>5.8
5012.4	43/2$^+$	84.2	90	4928.2	41/2$^+$	E2+M1	−4.3 *4*	5.65	α(K)=1.67 *4*; α(L)=3.05 *5*; α(M)=0.742 *13* α(N)=0.168 *3*; α(O)=0.0196 *4*; α(P)=7.52×10^{-5} *21* B(M1)(W.u.)=0.00026 *5*; B(E2)(W.u.)=358 *22*
		224.5	100	4787.9	39/2$^+$	E2		0.1720	α(K)=0.1159 *17*; α(L)=0.0433 *6*; α(M)=0.01025 *15* α(N)=0.00234 *4*; α(O)=0.000292 *4*; α(P)=5.61×10^{-6} *8* B(E2)(W.u.)=3.12
5122.6?	41/2$^-$	334.7[@]		4787.9	39/2$^+$	[E1]		0.01418	α(K)=0.01198 *17*; α(L)=0.001717 *24*; α(M)=0.000378 *6* α(N)=8.76×10^{-5} *13*; α(O)=1.235×10^{-5} *18*; α(P)=6.25×10^{-7} *9*
		678.2[‡]	100	4444.4	37/2$^-$	E2		0.00782	α(K)=0.00640 *9*; α(L)=0.001105 *16*; α(M)=0.000249 *4* α(N)=5.76×10^{-5} *8*; α(O)=7.99×10^{-6} *12*; α(P)=3.61×10^{-7} *5*
5479.0	45/2$^+$	466.6	100	5012.4	43/2$^+$	M1+E2	+0.35 *3*	0.0393 *7*	α(K)=0.0330 *6*; α(L)=0.00489 *8*; α(M)=0.001084 *17* α(N)=0.000253 *4*; α(O)=3.64×10^{-5} *6*; α(P)=1.99×10^{-6} *4* B(M1)(W.u.)>0.0086; B(E2)(W.u.)>2.2
5786.0	47/2$^+$	307.0	100	5479.0	45/2$^+$	M1+E2	+0.04 *2*	0.1253	α(K)=0.1054 *15*; α(L)=0.01549 *22*; α(M)=0.00343 *5* α(N)=0.000800 *12*; α(O)=0.0001158 *17*; α(P)=6.43×10^{-6} *9*
		773.4	37	5012.4	43/2$^+$	E2		0.00581	α(K)=0.00480 *7*; α(L)=0.000790 *11*; α(M)=0.0001770 *25* α(N)=4.10×10^{-5} *6*; α(O)=5.74×10^{-6} *8*; α(P)=2.72×10^{-7} *4*
5851.7	45/2$^-$	729.1[‡]	100	5122.6?	41/2$^-$	E2		0.00663	α(K)=0.00545 *8*; α(L)=0.000916 *13*; α(M)=0.000206 *3* α(N)=4.77×10^{-5} *7*; α(O)=6.64×10^{-6} *10*; α(P)=3.09×10^{-7} *5*
		839.3	10	5012.4	43/2$^+$	[E1]		0.00191	α(K)=0.001625 *23*; α(L)=0.000221 *3*; α(M)=4.85×10^{-5} *7* α(N)=1.126×10^{-5} *16*; α(O)=1.620×10^{-6} *23*; α(P)=8.87×10^{-8} *13*

$^{155}_{68}Er_{87}$-7

Adopted Levels, Gammas (continued)

γ(^{155}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
6206.7	49/2$^+$	420.7	8.9	5786.0	47/2$^+$	M1(+E2)	+0.05 *4*	0.0545	α(K)=0.0459 *7*; α(L)=0.00668 *10*; α(M)=0.001478 *21* α(N)=0.000345 *5*; α(O)=5.00×10^{-5} *7*; α(P)=2.78×10^{-6} *4*
		727.7	100	5479.0	45/2$^+$	E2		0.00666	α(K)=0.00548 *8*; α(L)=0.000920 *13*; α(M)=0.000207 *3* α(N)=4.79×10^{-5} *7*; α(O)=6.68×10^{-6} *10*; α(P)=3.10×10^{-7} *5*
6223.1	49/2$^-$	371.4	97	5851.7	45/2$^-$	E2		0.0368	α(K)=0.0281 *4*; α(L)=0.00673 *10*; α(M)=0.001558 *22* α(N)=0.000358 *5*; α(O)=4.70×10^{-5} *7*; α(P)=1.502×10^{-6} *21* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.02 *1*.
		437.1	100	5786.0	47/2$^+$	E1(+M2)	+0.04 *2*	0.0078 *4*	α(K)=0.0066 *3*; α(L)=0.00094 *5*; α(M)=0.000207 *11* α(N)=4.80×10^{-5} *25*; α(O)=6.8×10^{-6} *4*; α(P)=3.55×10^{-7} *19*
6747.6	51/2$^+$	961.6	100	5786.0	47/2$^+$	E2		0.00364	α(K)=0.00304 *5*; α(L)=0.000470 *7*; α(M)=0.0001047 *15* α(N)=2.43×10^{-5} *4*; α(O)=3.44×10^{-6} *5*; α(P)=1.731×10^{-7} *25* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.02 *1*.
6888.6	51/2$^-$	665.5	100	6223.1	49/2$^-$	M1+E2	+0.22 *3*	0.0165 *3*	α(K)=0.01391 *22*; α(L)=0.00200 *3*; α(M)=0.000442 *7* α(N)=0.0001030 *16*; α(O)=1.494×10^{-5} *23*; α(P)=8.35×10^{-7} *14*
6976.7	53/2$^+$	770.0	100	6206.7	49/2$^+$	E2		0.00587	α(K)=0.00484 *7*; α(L)=0.000798 *12*; α(M)=0.000179 *3* α(N)=4.15×10^{-5} *6*; α(O)=5.80×10^{-6} *9*; α(P)=2.75×10^{-7} *4* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.03 *2*.
7111.8	53/2$^-$	223.2	69	6888.6	51/2$^-$	M1+E2	−0.06 *1*	0.297	α(K)=0.249 *4*; α(L)=0.0370 *6*; α(M)=0.00821 *12* α(N)=0.00191 *3*; α(O)=0.000277 *4*; α(P)=1.528×10^{-5} *22*
		364.2	6.7	6747.6	51/2$^+$	E1		0.01157	α(K)=0.00979 *14*; α(L)=0.001396 *20*; α(M)=0.000307 *5* α(N)=7.12×10^{-5} *10*; α(O)=1.006×10^{-5} *14*; α(P)=5.14×10^{-7} *8* Mult.: from (HI,xnγ), 2001Ni13 report δ(M2/E1)=+0.11 *6*.
		888.7	100	6223.1	49/2$^-$	E2		0.00430	α(K)=0.00358 *5*; α(L)=0.000564 *8*; α(M)=0.0001259 *18* α(N)=2.92×10^{-5} *4*; α(O)=4.12×10^{-6} *6*; α(P)=2.03×10^{-7} *3*
7196.6?	(53/2$^+$)	449.0[‡]	100	6747.6	51/2$^+$	[M1+E2]	+0.46 *14*	0.0418 *23*	α(K)=0.0350 *21*; α(L)=0.00528 *20*; α(M)=0.00117 *4* α(N)=0.000273 *10*; α(O)=3.93×10^{-5} *16*; α(P)=2.11×10^{-6} *13*
7567.5	55/2$^+$	590.8	100	6976.7	53/2$^+$	[M1+E2]		0.0168 *60*	α(K)=0.0140 *53*; α(L)=0.00219 *59*; α(M)=4.9×10^{-4} *13* α(N)=1.13×10^{-4} *30*; α(O)=1.61×10^{-5} *46*; α(P)=8.3×10^{-7} *34*
		819.9	72	6747.6	51/2$^+$	E2		0.00511	α(K)=0.00423 *6*; α(L)=0.000684 *10*; α(M)=0.0001531 *22* α(N)=3.55×10^{-5} *5*; α(O)=4.98×10^{-6} *7*; α(P)=2.40×10^{-7} *4*
7672.1	57/2$^+$	104.6		7567.5	55/2$^+$				
		475.5[‡]		7196.6?	(53/2$^+$)				
		695.4	100	6976.7	53/2$^+$	E2		0.00738	α(K)=0.00605 *9*; α(L)=0.001035 *15*; α(M)=0.000233 *4* α(N)=5.39×10^{-5} *8*; α(O)=7.49×10^{-6} *11*; α(P)=3.42×10^{-7} *5* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.03 *2*.
7813.9	(55/2$^-$)	702.1	100	7111.8	53/2$^-$	D			
		925.3	100	6888.6	51/2$^-$	[E2]		0.00395	α(K)=0.00329 *5*; α(L)=0.000513 *8*; α(M)=0.0001145 *16* α(N)=2.66×10^{-5} *4*; α(O)=3.75×10^{-6} *6*; α(P)=1.87×10^{-7} *3*
7853.7	57/2$^-$	286.2	10	7567.5	55/2$^+$	E1		0.0208	α(K)=0.01757 *25*; α(L)=0.00254 *4*; α(M)=0.000561 *8* α(N)=0.0001296 *19*; α(O)=1.82×10^{-5} *3*; α(P)=9.04×10^{-7} *13*
		741.9	100	7111.8	53/2$^-$	E2		0.00638	α(K)=0.00525 *8*; α(L)=0.000876 *13*; α(M)=0.000197 *3*

$^{155}_{68}Er_{87}$-8

Adopted Levels, Gammas (continued)

γ(^{155}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
									α(N)=4.56×10^{-5} *7*; α(O)=6.36×10^{-6} *9*; α(P)=2.97×10^{-7} *5* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.08 *2*.
7985.1	59/2$^+$	313.0	100	7672.1	57/2$^+$	M1+E2	+0.38 *6*	0.112 *3*	α(K)=0.0932 *24*; α(L)=0.01439 *22*; α(M)=0.00321 *5* α(N)=0.000746 *11*; α(O)=0.0001068 *18*; α(P)=5.63×10^{-6} *16*
		417.6	50	7567.5	55/2$^+$	[E2]		0.0265	α(K)=0.0206 *3*; α(L)=0.00456 *7*; α(M)=0.001050 *15* α(N)=0.000242 *4*; α(O)=3.21×10^{-5} *5*; α(P)=1.120×10^{-6} *16*
8008.9	57/2$^-$	155.2	100	7853.7	57/2$^-$	E2+M1	+7.0 *10*	0.602	α(K)=0.344 *6*; α(L)=0.198 *3*; α(M)=0.0477 *7* α(N)=0.01083 *16*; α(O)=0.001311 *19*; α(P)=1.55×10^{-5} *3*
		195.0	42	7813.9	(55/2$^-$)	D			
		897.3	61	7111.8	53/2$^-$	E2		0.00421	α(K)=0.00351 *5*; α(L)=0.000552 *8*; α(M)=0.0001231 *18* α(N)=2.86×10^{-5} *4*; α(O)=4.03×10^{-6} *6*; α(P)=1.99×10^{-7} *3*
8397.3	61/2$^-$	388.4	23	8008.9	57/2$^-$	E2		0.0324	α(K)=0.0250 *4*; α(L)=0.00579 *9*; α(M)=0.001338 *19* α(N)=0.000307 *5*; α(O)=4.06×10^{-5} *6*; α(P)=1.342×10^{-6} *19* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.10 *4*.
		543.6	100	7853.7	57/2$^-$	E2		0.01330	α(K)=0.01069 *15*; α(L)=0.00203 *3*; α(M)=0.000462 *7* α(N)=0.0001067 *15*; α(O)=1.455×10^{-5} *21*; α(P)=5.95×10^{-7} *9*
8664.8	61/2$^-$	811.1	100	7853.7	57/2$^-$	E2		0.00523	α(K)=0.00433 *6*; α(L)=0.000702 *10*; α(M)=0.0001572 *22* α(N)=3.64×10^{-5} *6*; α(O)=5.11×10^{-6} *8*; α(P)=2.46×10^{-7} *4*
8833.7	61/2$^+$	848.6	24	7985.1	59/2$^+$	M1+E2	+0.29 *4*	0.00887 *16*	α(K)=0.00750 *14*; α(L)=0.001070 *18*; α(M)=0.000236 *4* α(N)=5.51×10^{-5} *10*; α(O)=7.99×10^{-6} *14*; α(P)=4.48×10^{-7} *8*
		1161.6	100	7672.1	57/2$^+$	E2		0.00248	α(K)=0.00209 *3*; α(L)=0.000309 *5*; α(M)=6.85×10^{-5} *10* α(N)=1.593×10^{-5} *23*; α(O)=2.27×10^{-6} *4*; α(P)=1.189×10^{-7} *17*; α(IPF)=2.08×10^{-6} *3* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=+0.03 *2*.
9011.0	63/2$^-$	613.7	100	8397.3	61/2$^-$	M1+E2	+0.22 *1*	0.0202	α(K)=0.01705 *25*; α(L)=0.00246 *4*; α(M)=0.000544 *8* α(N)=0.0001268 *18*; α(O)=1.84×10^{-5} *3*; α(P)=1.025×10^{-6} *15*
9046.2	61/2$^+$	1374.1	100	7672.1	57/2$^+$	E2		0.00182	α(K)=0.001509 *22*; α(L)=0.000217 *3*; α(M)=4.80×10^{-5} *7* α(N)=1.117×10^{-5} *16*; α(O)=1.603×10^{-6} *23*; α(P)=8.60×10^{-8} *12*; α(IPF)=3.50×10^{-5} *5*
9083.7?		250[‡]	100	8833.7	61/2$^+$				
9165.3	63/2$^-$	500.5	52	8664.8	61/2$^-$	[M1+E2]		0.0256 *92*	α(K)=0.0212 *82*; α(L)=0.0034 *9*; α(M)=0.00077 *18* α(N)=0.00018 *5*; α(O)=2.51×10^{-5} *67*; α(P)=1.25×10^{-6} *53*
		768.0	100	8397.3	61/2$^-$	M1+E2	+0.15 *2*	0.01167	α(K)=0.00987 *15*; α(L)=0.001408 *20*; α(M)=0.000311 *5* α(N)=7.24×10^{-5} *11*; α(O)=1.052×10^{-5} *15*; α(P)=5.91×10^{-7} *9*
9267.1	65/2$^-$	869.8	100	8397.3	61/2$^-$	E2		0.00450	α(K)=0.00374 *6*; α(L)=0.000594 *9*; α(M)=0.0001326 *19* α(N)=3.07×10^{-5} *5*; α(O)=4.33×10^{-6} *6*; α(P)=2.13×10^{-7} *3*
9353.6	65/2$^-$	342.6	100	9011.0	63/2$^-$	M1+E2	+0.08 *3*	0.0933 *14*	α(K)=0.0785 *12*; α(L)=0.01152 *17*; α(M)=0.00255 *4* α(N)=0.000595 *9*; α(O)=8.61×10^{-5} *13*; α(P)=4.78×10^{-6} *7*
		956.3	34	8397.3	61/2$^-$	E2		0.00369	α(K)=0.00308 *5*; α(L)=0.000476 *7*; α(M)=0.0001060 *15* α(N)=2.46×10^{-5} *4*; α(O)=3.48×10^{-6} *5*; α(P)=1.751×10^{-7} *25*
9462.0?	65/2$^+$	628.3[‡]	100	8833.7	61/2$^+$	E2		0.00935	α(K)=0.00761 *11*; α(L)=0.001355 *19*; α(M)=0.000306 *5*

$^{155}_{68}Er_{87}$-9

Adopted Levels, Gammas (continued)

γ(^{155}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
									α(N)=7.08×10^{-5} *10*; α(O)=9.76×10^{-6} *14*; α(P)=4.28×10^{-7} *6*
9593.8	65/2$^-$	240.2	100	9353.6	65/2$^-$	M1+E2	−0.28 *5*	0.236 *5*	Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=+0.08 *3*. α(K)=0.197 *4*; α(L)=0.0304 *5*; α(M)=0.00678 *10* α(N)=0.001578 *23*; α(O)=0.000226 *4*; α(P)=1.20×10^{-5} *3*
		582.8	52	9011.0	63/2$^-$	M1+E2	+0.43 *7*	0.0217 *7*	α(K)=0.0182 *6*; α(L)=0.00268 *7*; α(M)=0.000593 *14* α(N)=0.000138 *4*; α(O)=1.99×10^{-5} *5*; α(P)=1.09×10^{-6} *4*
9654.9	65/2$^+$	608.7	92	9046.2	61/2$^+$	E2		0.01009	α(K)=0.00819 *12*; α(L)=0.001478 *21*; α(M)=0.000334 *5* α(N)=7.73×10^{-5} *11*; α(O)=1.063×10^{-5} *15*; α(P)=4.60×10^{-7} *7*
		821.3	100	8833.7	61/2$^+$	E2		0.00509	Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.04 *3*. α(K)=0.00422 *6*; α(L)=0.000681 *10*; α(M)=0.0001524 *22* α(N)=3.53×10^{-5} *5*; α(O)=4.96×10^{-6} *7*; α(P)=2.40×10^{-7} *4*
9725.1	(67/2)$^-$	371.5	100	9353.6	65/2$^-$	M1+E2	+0.13 *7*	0.0749 *14*	α(K)=0.0631 *12*; α(L)=0.00925 *15*; α(M)=0.00205 *3* α(N)=0.000477 *8*; α(O)=6.91×10^{-5} *11*; α(P)=3.83×10^{-6} *8*
		458.0	73	9267.1	65/2$^-$	[M1]		0.0437	α(K)=0.0369 *6*; α(L)=0.00535 *8*; α(M)=0.001183 *17* α(N)=0.000276 *4*; α(O)=4.00×10^{-5} *6*; α(P)=2.23×10^{-6} *4*
		714.1	93	9011.0	63/2$^-$	[E2]		0.00695	α(K)=0.00571 *8*; α(L)=0.000966 *14*; α(M)=0.000217 *3* α(N)=5.03×10^{-5} *7*; α(O)=7.00×10^{-6} *10*; α(P)=3.23×10^{-7} *5*
9811.0	65/2$^+$	800.0	100	9011.0	63/2$^-$	E1		0.00209	α(K)=0.001784 *25*; α(L)=0.000243 *4*; α(M)=5.33×10^{-5} *8* α(N)=1.239×10^{-5} *18*; α(O)=1.781×10^{-6} *25*; α(P)=9.73×10^{-8} *14*
9865.4	67/2$^-$	140.3	21	9725.1	(67/2)$^-$	E2+M1	−4.0 *5*	0.866	α(K)=0.474 *11*; α(L)=0.301 *6*; α(M)=0.0724 *13* α(N)=0.0164 *3*; α(O)=0.00198 *4*; α(P)=2.15×10^{-5} *7*
		271.6	21	9593.8	65/2$^-$	[M1+E2]	−0.13 *10*	0.173 *4*	α(K)=0.145 *4*; α(L)=0.0216 *3*; α(M)=0.00479 *7* α(N)=0.001115 *16*; α(O)=0.0001612 *24*; α(P)=8.87×10^{-6} *23*
		700.1	100	9165.3	63/2$^-$	E2		0.00727	α(K)=0.00596 *9*; α(L)=0.001017 *15*; α(M)=0.000229 *4* α(N)=5.30×10^{-5} *8*; α(O)=7.36×10^{-6} *11*; α(P)=3.37×10^{-7} *5*
		781.7[‡]		9083.7?					
		854.4	55	9011.0	63/2$^-$	E2		0.00468	α(K)=0.00388 *6*; α(L)=0.000619 *9*; α(M)=0.0001384 *20* α(N)=3.21×10^{-5} *5*; α(O)=4.52×10^{-6} *7*; α(P)=2.21×10^{-7} *3*
9985.4	(69/2)	260.3	100	9725.1	(67/2)$^-$	D			
10048.2	69/2$^-$	694.6	100	9353.6	65/2$^-$	E2		0.00740	α(K)=0.00607 *9*; α(L)=0.001038 *15*; α(M)=0.000234 *4* α(N)=5.41×10^{-5} *8*; α(O)=7.51×10^{-6} *11*; α(P)=3.43×10^{-7} *5*
		781.1		9267.1	65/2$^-$	[E2]		0.00569	α(K)=0.00470 *7*; α(L)=0.000770 *11*; α(M)=0.0001727 *25* α(N)=4.00×10^{-5} *6*; α(O)=5.60×10^{-6} *8*; α(P)=2.66×10^{-7} *4*
10061.0	69/2$^+$	406.1	62	9654.9	65/2$^+$	E2		0.0287	α(K)=0.0222 *4*; α(L)=0.00500 *7*; α(M)=0.001152 *17* α(N)=0.000265 *4*; α(O)=3.51×10^{-5} *5*; α(P)=1.201×10^{-6} *17*
		599.1[‡]	100	9462.0?	65/2$^+$	[E2]		0.01048	α(K)=0.00849 *12*; α(L)=0.001544 *22*; α(M)=0.000350 *5* α(N)=8.08×10^{-5} *12*; α(O)=1.110×10^{-5} *16*; α(P)=4.76×10^{-7} *7*
10180.0?	69/2$^-$	586.7[‡]	100	9593.8	65/2$^-$	E2		0.01102	α(K)=0.00892 *13*; α(L)=0.001637 *23*; α(M)=0.000371 *6* α(N)=8.57×10^{-5} *12*; α(O)=1.175×10^{-5} *17*; α(P)=5.00×10^{-7} *7*
10216.0?	(69/2$^+$)	405.0[‡]	100	9811.0	65/2$^+$				

$^{155}_{68}Er_{87}$-10

Adopted Levels, Gammas (continued)

γ(^{155}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
10463.6	(71/2$^-$)	247.6[‡]	11	10216.0?	(69/2$^+$)	[E1]		0.0300	α(K)=0.0253 *4*; α(L)=0.00369 *6*; α(M)=0.000815 *12* α(N)=0.000188 *3*; α(O)=2.63×10^{-5} *4*; α(P)=1.281×10^{-6} *18*
		598.2	100	9865.4	67/2$^-$	[E2]		0.01052	α(K)=0.00852 *12*; α(L)=0.001550 *22*; α(M)=0.000351 *5* α(N)=8.11×10^{-5} *12*; α(O)=1.115×10^{-5} *16*; α(P)=4.78×10^{-7} *7*
10611.6	71/2$^-$	746.2	100	9865.4	67/2$^-$	E2		0.00629	α(K)=0.00518 *8*; α(L)=0.000864 *12*; α(M)=0.000194 *3* α(N)=4.49×10^{-5} *7*; α(O)=6.27×10^{-6} *9*; α(P)=2.94×10^{-7} *5*
10737.5?	71/2$^+$	676.5[‡]	100	10061.0	69/2$^+$	[M1+E2]	+0.10 *2*	0.01611	α(K)=0.01362 *20*; α(L)=0.00195 *3*; α(M)=0.000430 *6* α(N)=0.0001004 *15*; α(O)=1.457×10^{-5} *21*; α(P)=8.18×10^{-7} *12*
10842.3	73/2$^+$	104.8[‡]	27	10737.5?	71/2$^+$	E2+M1	−2.1 *5*	2.47	α(K)=1.17 *11*; α(L)=1.00 *9*; α(M)=0.241 *21* α(N)=0.055 *5*; α(O)=0.0065 *5*; α(P)=5.6×10^{-5} *9*
		230.7	19	10611.6	71/2$^-$	E1		0.0359	α(K)=0.0303 *5*; α(L)=0.00444 *7*; α(M)=0.000980 *14* α(N)=0.000226 *4*; α(O)=3.15×10^{-5} *5*; α(P)=1.522×10^{-6} *22*
		378.7	14	10463.6	(71/2$^-$)	[E1]		0.01055	α(K)=0.00893 *13*; α(L)=0.001270 *18*; α(M)=0.000280 *4* α(N)=6.48×10^{-5} *9*; α(O)=9.16×10^{-6} *13*; α(P)=4.70×10^{-7} *7* Mult.: from (HI,xnγ), 2001Ni13 report δ=0.05 *3*.
		781.3	100	10061.0	69/2$^+$	E2		0.00568	α(K)=0.00469 *7*; α(L)=0.000770 *11*; α(M)=0.0001725 *25* α(N)=4.00×10^{-5} *6*; α(O)=5.60×10^{-6} *8*; α(P)=2.66×10^{-7} *4*
11033.0	75/2$^-$	190.7	100	10842.3	73/2$^+$	E1		0.0589	α(K)=0.0494 *7*; α(L)=0.00736 *11*; α(M)=0.001626 *23* α(N)=0.000375 *6*; α(O)=5.18×10^{-5} *8*; α(P)=2.43×10^{-6} *4* Mult.: from (HI,xnγ), 2001Ni13 report δ(M2/E1)=−0.04 *3*.
11322.7	73/2$^-$	711.1	66	10611.6	71/2$^-$	M1(+E2)	−0.04 *3*	0.01428 *21*	α(K)=0.01208 *17*; α(L)=0.001724 *25*; α(M)=0.000381 *6* α(N)=8.88×10^{-5} *13*; α(O)=1.289×10^{-5} *19*; α(P)=7.25×10^{-7} *11*
		1142.2[‡]	19	10180.0?	69/2$^-$	E2		0.00257	α(K)=0.00216 *3*; α(L)=0.000321 *5*; α(M)=7.11×10^{-5} *10* α(N)=1.652×10^{-5} *24*; α(O)=2.36×10^{-6} *4*; α(P)=1.229×10^{-7} *18*; α(IPF)=1.176×10^{-6} *17*
		1274.5	100	10048.2	69/2$^-$	E2		0.00208	α(K)=0.001743 *25*; α(L)=0.000254 *4*; α(M)=5.62×10^{-5} *8* α(N)=1.307×10^{-5} *19*; α(O)=1.87×10^{-6} *3*; α(P)=9.93×10^{-8} *14*; α(IPF)=1.482×10^{-5} *21* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=+0.04 *3*.
11703.4	77/2$^-$	380.7	100	11322.7	73/2$^-$	E2		0.0343	α(K)=0.0263 *4*; α(L)=0.00619 *9*; α(M)=0.001432 *20* α(N)=0.000329 *5*; α(O)=4.33×10^{-5} *6*; α(P)=1.411×10^{-6} *20* Mult.: from (HI,xnγ), 2001Ni13 report δ(M3/E2)=−0.04 *1*.
		670.4	60.7	11033.0	75/2$^-$	M1+E2	+0.16 *6*	0.0164 *3*	α(K)=0.01382 *25*; α(L)=0.00198 *4*; α(M)=0.000438 *8* α(N)=0.0001021 *17*; α(O)=1.48×10^{-5} *3*; α(P)=8.30×10^{-7} *16*
11754.8?		912.5[‡]	100	10842.3	73/2$^+$				
11933.8	(77/2$^+$)	230.4	44	11703.4	77/2$^-$	[E1+M2]	−0.93 *35*	0.64 *28*	α(K)=0.51 *22*; α(L)=0.103 *45*; α(M)=0.024 *11* α(N)=0.0055 *25*; α(O)=7.9×10^{-4} *35*; α(P)=4.0×10^{-5} *18*
		1091.5	100	10842.3	73/2$^+$	[E2]		0.00281	α(K)=0.00236 *4*; α(L)=0.000354 *5*; α(M)=7.86×10^{-5} *11* α(N)=1.82×10^{-5} *3*; α(O)=2.60×10^{-6} *4*; α(P)=1.344×10^{-7} *19*
12294.4	(79/2$^+$)	360.6	100	11933.8	(77/2$^+$)	M1+E2	−0.09 *1*	0.0814	α(K)=0.0685 *10*; α(L)=0.01004 *14*; α(M)=0.00222 *4* α(N)=0.000518 *8*; α(O)=7.51×10^{-5} *11*; α(P)=4.17×10^{-6} *6*

$^{155}_{68}Er_{87}$-11

Adopted Levels, Gammas (continued)

γ(^{155}Er) (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
12304.1	79/2$^-$	370.3	7.6	11933.8	(77/2$^+$)	[E1(+M2)]	−0.09 *5*	0.013 *3*	α(K)=0.0112 *25*; α(L)=0.00166 *45*; α(M)=3.7×10^{-4} *11* α(N)=8.5×10^{-5} *24*; α(O)=1.21×10^{-5} *34*; α(P)=6.2×10^{-7} *18*
		549.3[‡]	20	11754.8?					
		600.7	100	11703.4	77/2$^-$	M1(+E2)	−0.01 *3*	0.0218	α(K)=0.0185 *3*; α(L)=0.00265 *4*; α(M)=0.000585 *9* α(N)=0.0001365 *20*; α(O)=1.98×10^{-5} *3*; α(P)=1.111×10^{-6} *16*
12944	81/2$^-$	1241	100	11703.4	77/2$^-$	E2		0.00219	α(K)=0.00183 *3*; α(L)=0.000269 *4*; α(M)=5.95×10^{-5} *9* α(N)=1.382×10^{-5} *20*; α(O)=1.98×10^{-6} *3*; α(P)=1.046×10^{-7} *15*; α(IPF)=1.000×10^{-5} *14*
12961.4	79/2$^{(-)}$	1258.0	100	11703.4	77/2$^-$	[M1]		0.00356	α(K)=0.00301 *5*; α(L)=0.000421 *6*; α(M)=9.27×10^{-5} *13* α(N)=2.16×10^{-5} *3*; α(O)=3.15×10^{-6} *5*; α(P)=1.785×10^{-7} *25*; α(IPF)=1.492×10^{-5} *21*
13180.4	81/2$^+$	219.0	100	12961.4	79/2$^{(-)}$	[E1(+M2)]	+0.04 *2*	0.044 *4*	α(K)=0.0365 *25*; α(L)=0.0055 *6*; α(M)=0.00122 *12* α(N)=0.00028 *3*; α(O)=3.9×10^{-5} *4*; α(P)=1.89×10^{-6} *20*
		876.3	100	12304.1	79/2$^-$	E1		1.76×10^{-3}	α(K)=0.001496 *21*; α(L)=0.000203 *3*; α(M)=4.45×10^{-5} *7* α(N)=1.034×10^{-5} *15*; α(O)=1.489×10^{-6} *21*; α(P)=8.18×10^{-8} *12*
13668	(83/2$^-$)	1364	100	12304.1	79/2$^-$	[E2]		0.00185	α(K)=0.001530 *22*; α(L)=0.000221 *3*; α(M)=4.88×10^{-5} *7* α(N)=1.134×10^{-5} *16*; α(O)=1.627×10^{-6} *23*; α(P)=8.72×10^{-8} *13*; α(IPF)=3.25×10^{-5} *5*
13720.6	83/2$^-$	1416.5	100	12304.1	79/2$^-$	E2		1.73×10^{-3}	α(K)=0.001425 *20*; α(L)=0.000204 *3*; α(M)=4.51×10^{-5} *7* α(N)=1.049×10^{-5} *15*; α(O)=1.507×10^{-6} *22*; α(P)=8.12×10^{-8} *12*; α(IPF)=4.64×10^{-5} *7*
13876.0	85/2$^+$	695.6	100	13180.4	81/2$^+$	E2		0.00738	α(K)=0.00605 *9*; α(L)=0.001034 *15*; α(M)=0.000233 *4* α(N)=5.39×10^{-5} *8*; α(O)=7.48×10^{-6} *11*; α(P)=3.42×10^{-7} *5*
13910	(81/2$^-$)	1606	100	12304.1	79/2$^-$	[M1+E2]	+0.50 *8*	0.00198 *5*	α(K)=0.00157 *4*; α(L)=0.000219 *5*; α(M)=4.83×10^{-5} *11* α(N)=1.13×10^{-5} *3*; α(O)=1.64×10^{-6} *4*; α(P)=9.27×10^{-8} *23*; α(IPF)=0.0001293 *23*
14001	(81/2$^-$)	1696	100	12304.1	79/2$^-$	[M1+E2]	+0.52 *17*	0.00180 *7*	α(K)=0.00139 *6*; α(L)=0.000193 *8*; α(M)=4.24×10^{-5} *17* α(N)=9.9×10^{-6} *4*; α(O)=1.44×10^{-6} *6*; α(P)=8.1×10^{-8} *4*; α(IPF)=0.000171 *5*
14063?		342[@]	100	13720.6	83/2$^-$				
14279?		1318[@]	100	12961.4	79/2$^{(-)}$				
14320	(81/2$^-$)	410	100	13910	(81/2$^-$)				
		2016	64	12304.1	79/2$^-$	[M1+E2]	+0.30 *10*	0.00149 *3*	α(K)=0.000973 *20*; α(L)=0.000134 *3*; α(M)=2.95×10^{-5} *6* α(N)=6.89×10^{-6} *14*; α(O)=1.003×10^{-6} *21*; α(P)=5.72×10^{-8} *12*; α(IPF)=0.000350 *6*
14578?	(81/2$^-$)	1617[@]	100	12961.4	79/2$^{(-)}$	[M1+E2]	+0.56 *18*	0.00194 *9*	α(K)=0.00153 *7*; α(L)=0.000213 *9*; α(M)=4.69×10^{-5} *20*

$^{155}_{68}Er_{87}$-12

Adopted Levels, Gammas (continued)

$\gamma(^{155}Er)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.[†]	δ[†]	α[#]	Comments
									α(N)=1.09×10^{-5} *5*; α(O)=1.59×10^{-6} *7*; α(P)=9.0×10^{-8} *5*; α(IPF)=0.000133 *4*
14629?	(85/2$^+$)	1449[@]	100	13180.4	81/2$^+$	[E2]		1.67×10^{-3}	α(K)=0.001365 *20*; α(L)=0.000195 *3*; α(M)=4.31×10^{-5} *6* α(N)=1.002×10^{-5} *14*; α(O)=1.440×10^{-6} *21*; α(P)=7.78×10^{-8} *11*; α(IPF)=5.59×10^{-5} *8*
14668?		348[@]	100	14320	(81/2$^-$)				
14931?	(87/2$^-$)	1210[@]	100	13720.6	83/2$^-$	[E2]		0.00230	α(K)=0.00193 *3*; α(L)=0.000283 *4*; α(M)=6.28×10^{-5} *9* α(N)=1.459×10^{-5} *21*; α(O)=2.09×10^{-6} *3*; α(P)=1.098×10^{-7} *16*; α(IPF)=6.19×10^{-6} *9*
15410.7	(87/2$^+$)	1534.7	100	13876.0	85/2$^+$	[M1+E2]	+0.44 *8*	0.00219 *5*	α(K)=0.00177 *5*; α(L)=0.000247 *6*; α(M)=5.44×10^{-5} *13* α(N)=1.27×10^{-5} *3*; α(O)=1.84×10^{-6} *5*; α(P)=1.04×10^{-7} *3*; α(IPF)=9.90×10^{-5} *17*
15659?		1339[@]	100	14320	(81/2$^-$)				
17086?	(89/2$^+$)	1675[@]	100	15410.7	(87/2$^+$)	[M1+E2]	+0.55 *21*	0.00183 *9*	α(K)=0.00142 *7*; α(L)=0.000197 *10*; α(M)=4.33×10^{-5} *21* α(N)=1.01×10^{-5} *5*; α(O)=1.47×10^{-6} *7*; α(P)=8.3×10^{-8} *5*; α(IPF)=0.000161 *5*

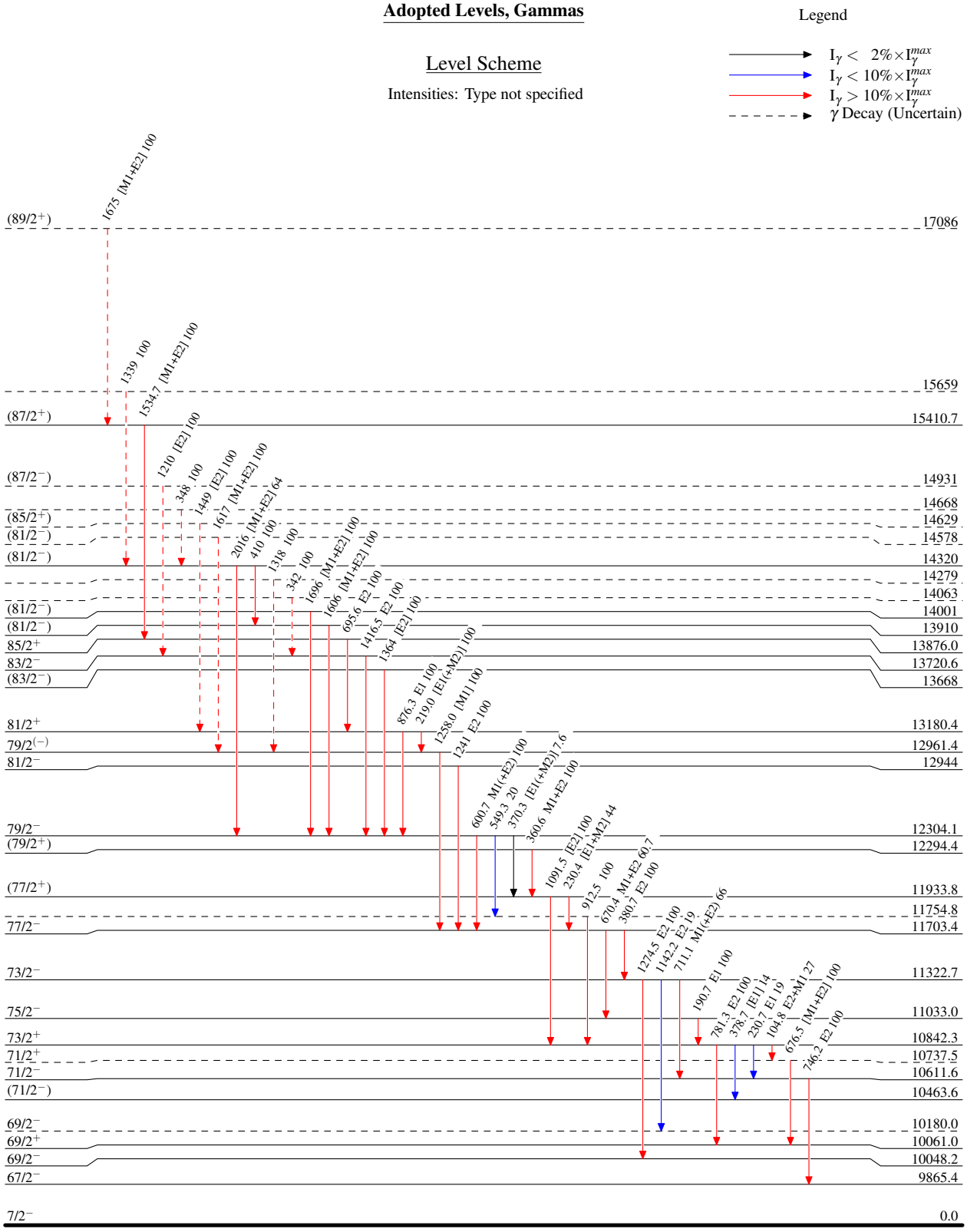
[†] For those γ's observed in the ε decay studies, the mults are deduced from the measured α(K)exp values. The δ values for these transitions are those computed by the evaluator from these α(K)exp data.
[‡] Ordering of the transition in the cascade is uncertain.
[#] Additional information 2.
[@] Placement of transition in the level scheme is uncertain.

$^{155}_{68}Er_{87}$-13

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

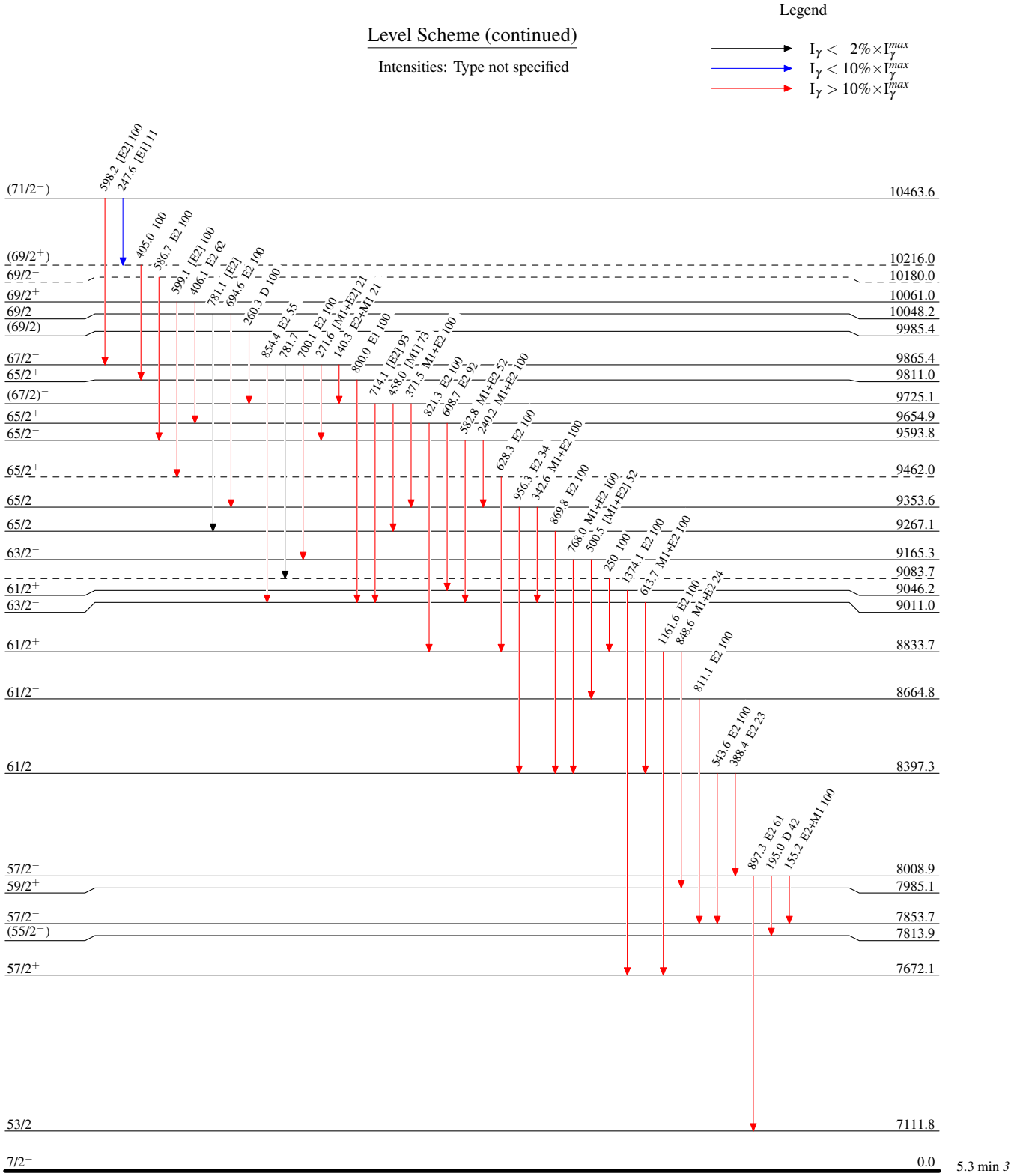


$^{155}_{68}Er_{87}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

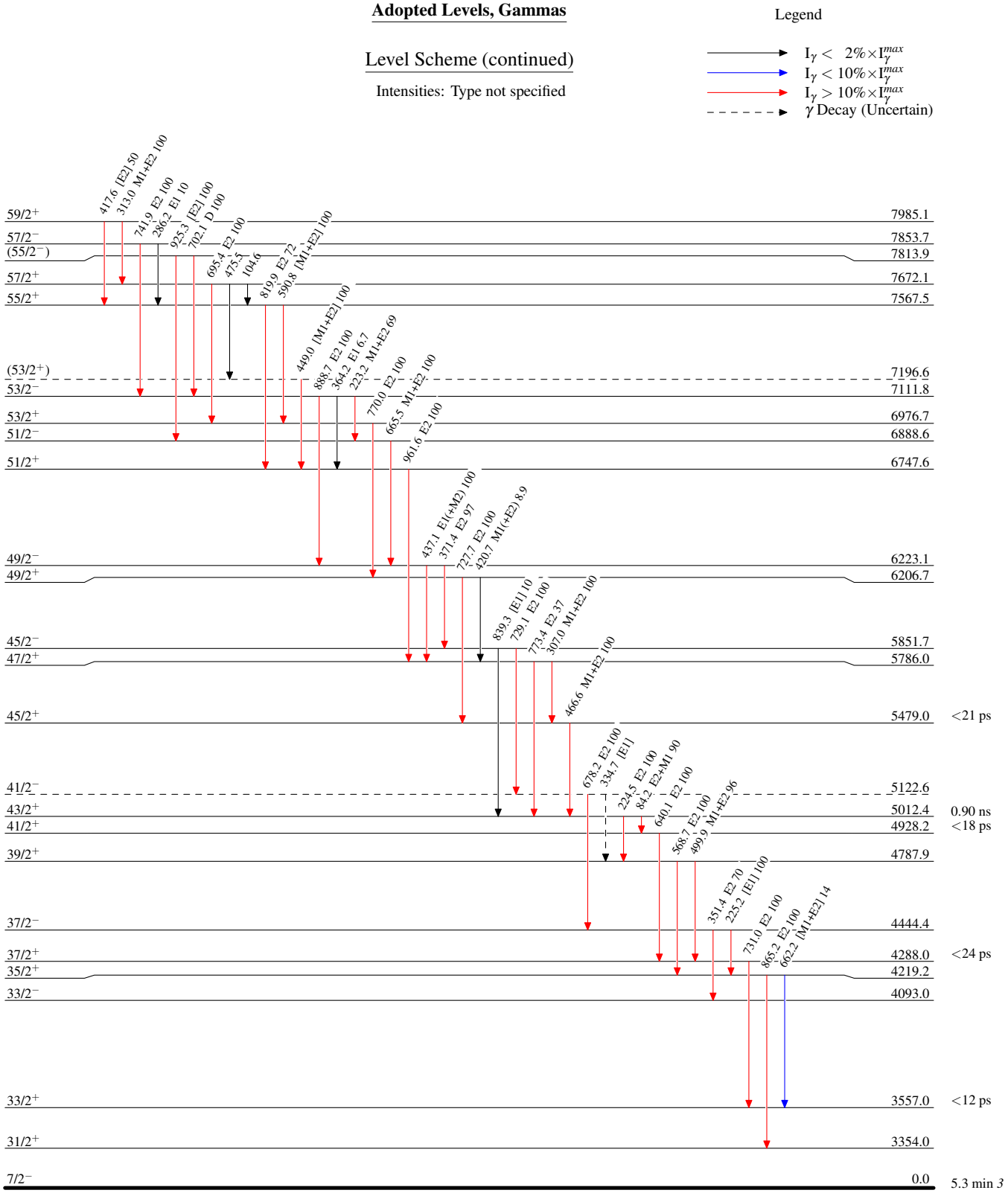


$^{155}_{68}Er_{87}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

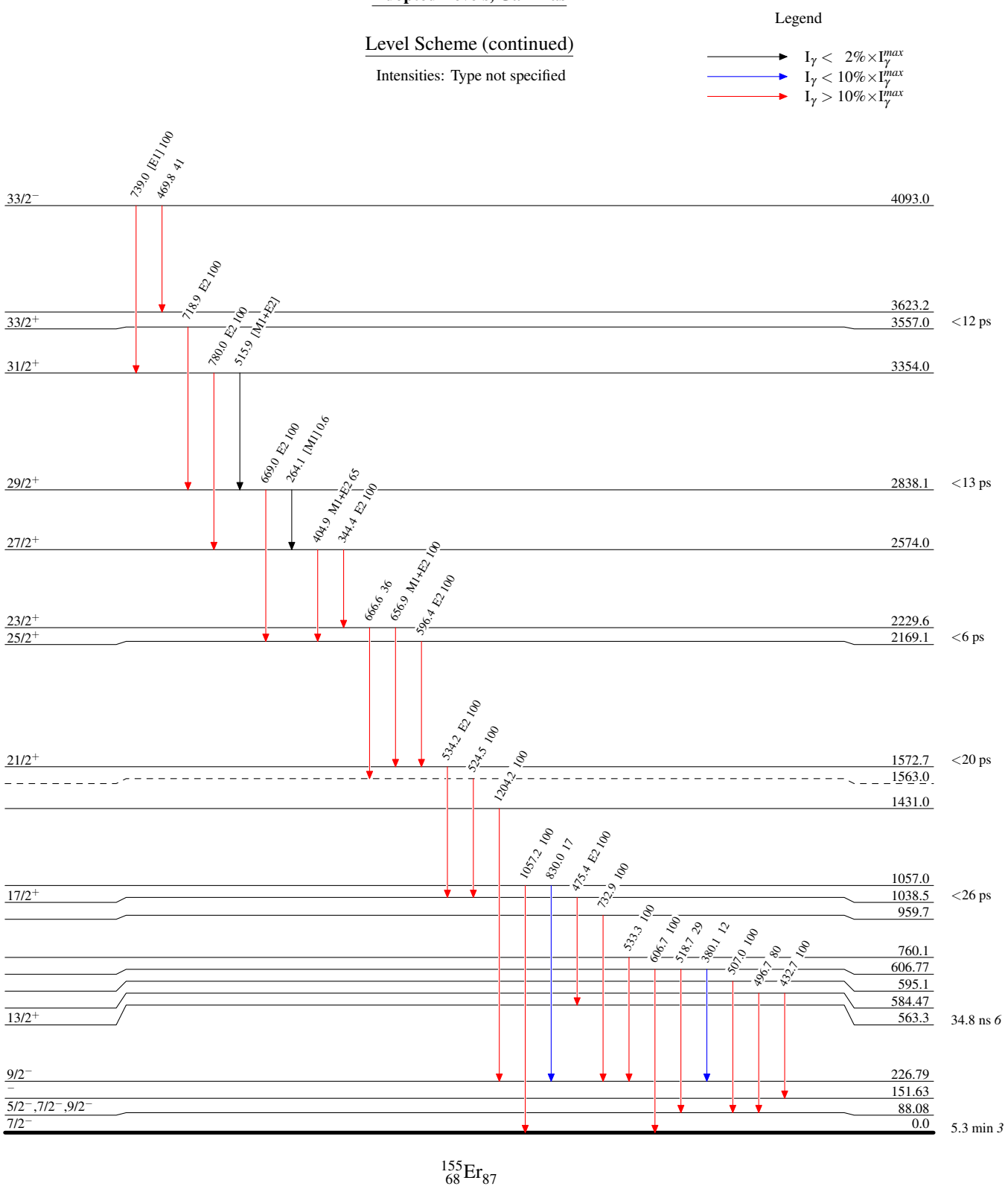


$^{155}_{68}Er_{87}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

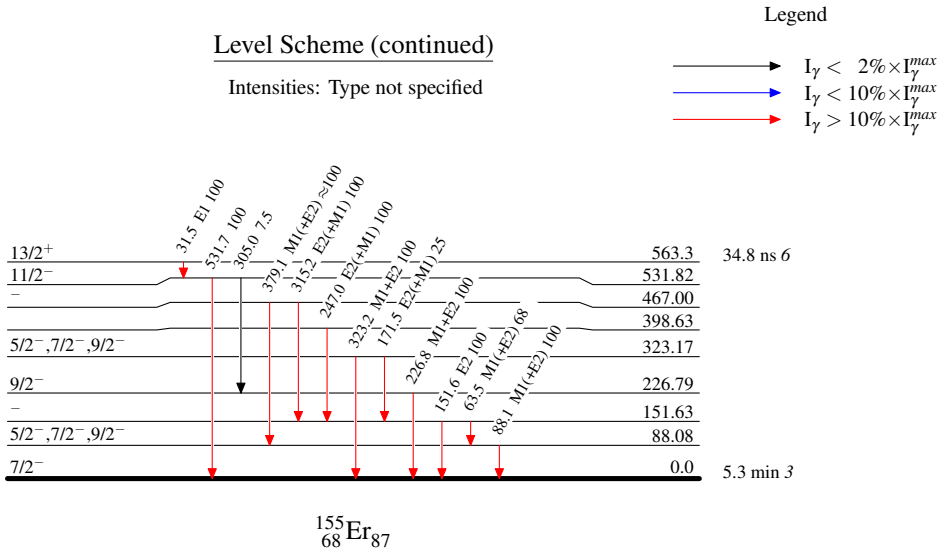


$^{155}_{68}Er_{87}$

Adopted Levels, Gammas

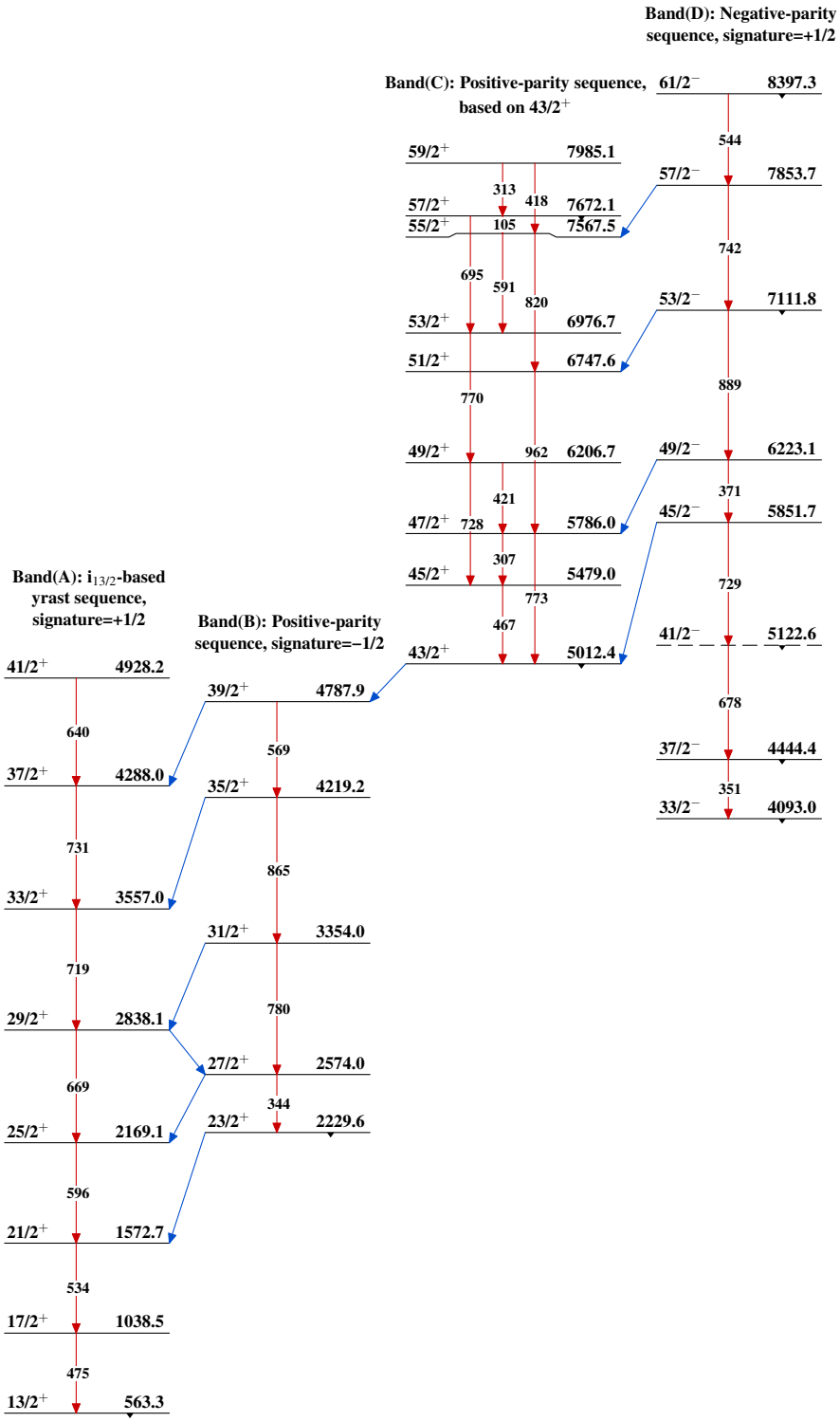
Level Scheme (continued)

Intensities: Type not specified



$^{155}_{68}Er_{87}$

Adopted Levels, Gammas



$^{155}_{68}Er_{87}$