^{92}Mo(^{58}Ni,3pγ) 2001Ro15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	N. Nica and B. Singh	NDS 181, 1 (2022)	9-Mar-2022

2001Ro15: E=260 MeV. Measured Eγ, Iγ, $\gamma\gamma$, $\gamma\gamma(\theta)$ using the Nordball array consisting 15 BGO-shielded HPGe detectors situated in three rings at 79°, 101° and 143° relative to the beam direction. Coin window for γ's ≈ 100 ns.
1982No07: same reaction, E=240-259 MeV. Bunched, pulsed beam techniques. Measured γ, $\gamma\gamma$, γ(t).
Level scheme is from 2001Ro15.

^{147}Ho Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	Comments
0.0[#]	(11/2$^-$)	5.8 s *4*	J$^\pi$: from Adopted Levels. $T_{1/2}$: from 1982No08.
584.96[@] *14*	(13/2$^-$)		configuration: $\pi h_{11/2}\otimes\nu^{-2}(2^+)$ 3qp state analogous to 11$^+$ in ^{148}Er (2001Ro15).
764.71[#] *10*	(15/2$^-$)		configuration: $\pi h_{11/2}\otimes\nu^{-2}(2^+)$ 3qp state analogous to 12$^+$ in ^{148}Er (2001Ro15).
1526.67[@] *18*	(17/2$^-$)		configuration: πh11/2$\otimes\nu^{-2}(4^+)$ state analogous to 13$^+$, 4532 keV in ^{148}Er (2001Ro15).
1540.22 *23*	(15/2$^+$)		
1735.93[#] *17*	(19/2$^-$)		configuration: $\pi h_{11/2}\otimes\nu^{-2}(4^+)$ state analogous to 14$^+$, 4704 keV in ^{148}Er (2001Ro15).
1983.08 *18*	(19/2$^-$)		
2054.92 *22*	(19/2$^+$)		
2188.24 *19*	(19/2$^+$)		
2353.40[a] *18*	(21/2$^+$)	<20 ns	$T_{1/2}$: from 1982No07.
2431.06[c] *25*	(23/2$^+$)		
2469.31[a] *20*	(23/2$^+$)		
2541.9[@] *4*	(21/2$^-$)		
2654.8[#] *3*	(23/2$^-$)		configuration: $\pi h^3_{11/2}$ state analogous to 23/2$^-$, 2593 keV in ^{149}Ho (2001Ro15).
2687.1[&] *4*	(27/2$^-$)	315 ns *30*	E(level): 1982No07 place this level above 2655 keV level from absence of K x rays in coin with transitions from 2655-keV level. 2001Ro15 find an energy gap of 32 keV in the γ energy loops. $T_{1/2}$: from 1982No07; same value (with no uncertainty) in 2001Ro15. configuration: $\pi h^3_{11/2}$ state analogous to 27/2$^-$, 2687 keV in ^{149}Ho (2001Ro15).
3025.4[a] *3*	(25/2$^+$)		
3089.6 *3*	(25/2$^+$)		
3198.15 *22*	(25/2$^+$)		
3357.3 *7*	(25/2$^+$)		
3391.3 *4*	(27/2$^-$)		
3396.4 *4*	(27/2$^-$)		
3422.85[c] *25*	(27/2$^+$)		
3472.2[&] *4*	(29/2$^-$)		
3700.6 *6*	(27/2$^+$)		
3733.8 *9*	(27/2$^+$)		
3758.2 *5*	(29/2$^-$)		
3905.5[a] *3*	(29/2$^+$)		
3937.9[d] *4*	(31/2$^-$)		
4060.3 *4*	(31/2$^-$)		
4193.9 *6*	(31/2$^-$)		
4220.9[c] *3*	(31/2$^+$)		
4322.2[&] *4*	(33/2$^-$)		
4509.0[b] *5*	(31/2$^-$)		
4604.2 *8*	(31/2$^+$)		
4689.0[a] *4*	(33/2$^+$)		
4765.8 *9*	(33/2$^-$)		

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^{92}Mo(^{58}Ni,3pγ) 2001Ro15 (continued)

^{147}Ho Levels (continued)

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
4839.3 4	(33/2+)	5335.3[d] 5	(37/2−)	6186.5 8	(39/2−)	6895.7 5	(43/2+)
4881.9 5	(33/2+)	5381.7 4	(35/2−)	6248.5[c] 9	(39/2+)	7022.4[d] 8	(45/2−)
4889.0 5	(33/2−)	5444.0[a] 4	(37/2+)	6291.9 10	(39/2−)	7096.3[a] 5	(45/2+)
4903.7 4	(35/2−)	5561.5 6	(37/2+)	6332.9 10	(39/2−)	7099.4 5	(45/2−)
4936.7 5	(33/2−)	5562.8[d] 6	(39/2−)	6364.4[b] 8	(41/2−)	7205.0 5	(45/2−)
4980.9[b] 5	(33/2−)	5580.6 4	(37/2+)	6434.0 5	(41/2+)	7250.0 6	(45/2−)
4984.3[&] 4	(35/2−)	5685.3[&] 4	(37/2−)	6440.5 5	(41/2+)	7327.8 7	(45/2+)
5033.9 5	(35/2−)	5873.2[b] 6	(39/2−)	6466.2 7	(41/2−)	7395.1[&] 5	(47/2−)
5060.1[a] 4	(35/2+)	5953.3 6	(39/2+)	6505.2[a] 5	(41/2+)	7531.9[d] 11	(47/2−)
5081.8[d] 4	(35/2−)	6000.7[d] 7	(41/2−)	6527.5[&] 5	(43/2−)	7568.5[a] 7	(47/2+)
5184.6[b] 4	(35/2−)	6016.5[&] 4	(39/2−)	6558.6[d] 7	(43/2−)	7580.8[&] 5	(49/2−)
5189.8[c] 4	(35/2+)	6019.7 4	(39/2+)	6637.5 5	(43/2−)	7600.4 13	(43/2−)
5252.7 4	(35/2−)	6093.2[a] 4	(39/2+)	6779.1[a] 5	(43/2+)	8105.0[&] 6	(51/2−)
5319.9[b] 5	(37/2−)	6155.7[&] 4	(41/2−)	6855.5 6	(43/2+)	8661.3[&] 8	(53/2−)

† From least-squares fit to Eγ′s.
‡ From 2001Ro15 based on measured anisotropies, shell-model calculations, and comparison with ^{146}Dy, ^{148}Er, and ^{149}Ho. They also assume that $J_i \geq J_f$ (with strict inequality for most cases). All assignments are tentative (evaluator).
# Band(A): yrast sequence based on g.s..
@ Band(a): yrast sequence based on 13/2−.
& Seq.(C): γ sequence based on 27/2−.
a Seq.(D): γ sequence based on 21/2+.
b Seq.(E): γ sequence based on 31/2−.
c Band(B): γ sequence based on 23/2+.
d Seq.(F): γ sequence based on 31/2−.

γ(^{147}Ho)

2001Ro15 measure γ-ray anisotropies, R=2I(143°)/(I(79°)+I(101°)) based on which they assign E2 for R≥1 and M1 for R≤1. No explicit multipolarities were listed (assignments are given graphically in Fig. 7 "Gamma-ray anisotropies" where one can not easily distinguish the Eγ values). Given in the table are the values adopted by evalutor.

Eγ	Iγ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
(32.3)		2687.1	(27/2−)	2654.8	(23/2−)		Predicted to decay from the 2687.1, 315 ns state by 2001Ro15 and 1982No07; Eγ is from 2001Ro15 who report the energy of the parent level.
72.2 3	11 2	2054.92	(19/2+)	1983.08	(19/2−)		
77.8 3	66 6	2431.06	(23/2+)	2353.40	(21/2+)	D	R=0.9 1.
80.5 2	10 3	4984.3	(35/2−)	4903.7	(35/2−)		
103.5 4	10 2	5184.6	(35/2−)	5081.8	(35/2−)		
115.9 1	157 6	2469.31	(23/2+)	2353.40	(21/2+)	D	R=0.68 4.
135.4 5	67 4	5319.9	(37/2−)	5184.6	(35/2−)	D	R=0.66 6.
139.2 1	220 6	6155.7	(41/2−)	6016.5	(39/2−)	D	R=0.63 3.
144.7 3		7395.1	(47/2−)	7250.0	(45/2−)		
150.3‡ 3	47†‡ 5	7250.0	(45/2−)	7099.4	(45/2−)		Iγ: for 150.7+150.3, about 50% for 150.3.
150.7‡ 3	47†‡ 5	5184.6	(35/2−)	5033.9	(35/2−)		Iγ: for 150.7+150.3, about 50% for 150.7.
156.4 1	64 5	5060.1	(35/2+)	4903.7	(35/2−)	D	R=0.68 8.

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^{92}Mo(^{58}Ni,3pγ) 2001Ro15 (continued)

γ(^{147}Ho) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.	Comments
165.2 *2*	72 *4*	2353.40	(21/2$^+$)	2188.24	(19/2$^+$)	D	R=0.65 *6*.
179.8 *2*	36 *3*	764.71	(15/2$^-$)	584.96	(13/2$^-$)	D	R=0.6 *1*.
185.6 *3*	75 *4*	7580.8	(49/2$^-$)	7395.1	(47/2$^-$)	D	R=0.63 *6*.
200.5 *3*	18 *3*	7096.3	(45/2$^+$)	6895.7	(43/2$^+$)		
203.7 *4*	39 *4*	5184.6	(35/2$^-$)	4980.9	(33/2$^-$)	D	R=0.7 *1*.
224.6 *2*	29 *3*	3422.85	(27/2$^+$)	3198.15	(25/2$^+$)	D	R=0.7 *1*.
227.5 *4*	40 *3*	5562.8	(39/2$^-$)	5335.3	(37/2$^-$)	D	R=0.73 *9*.
238.0 *3*	32 *3*	5319.9	(37/2$^-$)	5081.8	(35/2$^-$)	D	R=0.8 *1*.
247.6 *4*	30 *3*	5184.6	(35/2$^-$)	4936.7	(33/2$^-$)	D	R=0.8 *1*.
253.5 *2*	41 *4*	5335.3	(37/2$^-$)	5081.8	(35/2$^-$)	D	R=0.9 *1*.
261.9 *1*	70 *4*	4322.2	(33/2$^-$)	4060.3	(31/2$^-$)	D	R=0.81 *8*.
274.0 *2*	76 *4*	6779.1	(43/2$^+$)	6505.2	(41/2$^+$)	D	R=0.82 *8*.
295.2‡ *2*	209†‡ *3*	4984.3	(35/2$^-$)	4689.0	(33/2$^+$)	(D)	I_γ: for 295.2+295.5, about 95% for 295.2. R=0.98 *3*.
295.5‡ *5*	209†‡ *3*	5184.6	(35/2$^-$)	4889.0	(33/2$^-$)		I_γ: for 295.2+295.5, about 5% for 295.5.
298.4‡ *5*	84†‡ *2*	2353.40	(21/2$^+$)	2054.92	(19/2$^+$)	D	I_γ: for 298.4+299.7, about 80% intensity for 298.4. R=0.85 *4*.
299.7‡ *3*	84†‡ *2*	5381.7	(35/2$^-$)	5081.8	(35/2$^-$)		I_γ: for 298.4+299.7, about 20% intensity for 299.7.
303.5 *3*	20 *2*	5685.3	(37/2$^-$)	5381.7	(35/2$^-$)	D	R=0.6 *1*.
315.5 *7*	17 *4*	4220.9	(31/2$^+$)	3905.5	(29/2$^+$)	D	R=0.6 *2*.
317.4‡ *3*	38†‡ *5*	7096.3	(45/2$^+$)	6779.1	(43/2$^+$)	D	I_γ: for 318.7+317.4, about 50% intensity for 317.4. R=0.71 *9*.
318.7‡ *3*	38†‡ *5*	2054.92	(19/2$^+$)	1735.93	(19/2$^-$)		I_γ: for 318.7+317.4, about 50% intensity for 318.7.
331.2‡ *1*	273†‡ *4*	6016.5	(39/2$^-$)	5685.3	(37/2$^-$)	D	I_γ: for 333.5+331.2, about 80% intensity for 331.2. R=0.79 *2*.
333.5‡ *5*	273†‡ *4*	3422.85	(27/2$^+$)	3089.6	(25/2$^+$)		I_γ: for 333.5+331.2, about 20% intensity for 333.5.
338.6 *4*	12 *4*	6779.1	(43/2$^+$)	6440.5	(41/2$^+$)		
350.3 *4*	33 *4*	6855.5	(43/2$^+$)	6505.2	(41/2$^+$)		
361.8 *3*	22 *3*	3758.2	(29/2$^-$)	3396.4	(27/2$^-$)	D	R=0.8 *2*.
366.5 *4*	34 *3*	4689.0	(33/2$^+$)	4322.2	(33/2$^-$)		R=2.5 *7*.
370.2‡ *2*	279†‡ *4*	2353.40	(21/2$^+$)	1983.08	(19/2$^-$)		I_γ: for 370.2+371.1+371.8, about 10% intensity for 370.2.
371.1‡ *2*	279†‡ *4*	5060.1	(35/2$^+$)	4689.0	(33/2$^+$)	D	I_γ: for 370.2+371.1+371.8, about 60% intensity for 371.1. R=0.79 *2*.
371.8‡ *2*	279†‡ *4*	6527.5	(43/2$^-$)	6155.7	(41/2$^-$)	D	I_γ: for 370.2+371.1+371.8, about 30% intensity for 371.8.
383.9‡ *2*	131†‡ *3*	4322.2	(33/2$^-$)	3937.9	(31/2$^-$)		I_γ: for 383.9+384.0, about 70% for 383.9. R=1.18 *6*.
384.0‡ *2*	131†‡ *3*	5444.0	(37/2$^+$)	5060.1	(35/2$^+$)		I_γ: for 383.9+384.0, about 30% for 384.0.
390.3 *3*	49 *2*	6895.7	(43/2$^+$)	6505.2	(41/2$^+$)	D	R=0.74 6.
397.6 *4*	23 *2*	3422.85	(27/2$^+$)	3025.4	(25/2$^+$)	D	R=0.6 *1*.
412.0 *2*	118 *3*	6505.2	(41/2$^+$)	6093.2	(39/2$^+$)	D	R=0.89 *5*.
414.3 *3*	54 *3*	6434.0	(41/2$^+$)	6019.7	(39/2$^+$)	D	R=0.91 *7*.
420.7 *5*	31 *2*	6440.5	(41/2$^+$)	6019.7	(39/2$^+$)	D	R=0.59 *7*.
427.6 *3*	10 *2*	4936.7	(33/2$^-$)	4509.0	(31/2$^-$)		
432.7 *2*	48 *3*	5685.3	(37/2$^-$)	5252.7	(35/2$^-$)	D	R=0.75 *8*.
435.7 *3*	56 *3*	4193.9	(31/2$^-$)	3758.2	(29/2$^-$)	D	R=0.85 *9*.
437.9‡ *2*	79†‡ *3*	6000.7	(41/2$^-$)	5562.8	(39/2$^-$)		I_γ: for 437.9+438.8, about 30% for 437.9.
438.8‡ *4*	79†‡ *3*	6019.7	(39/2$^+$)	5580.6	(37/2$^+$)	D	I_γ: for 437.9+438.8, about 70% for 438.8. R=0.89 *6*.
452.2 *3*	12 *2*	2188.24	(19/2$^+$)	1735.93	(19/2$^-$)		
459.6 *2*	49 *2*	5444.0	(37/2$^+$)	4984.3	(35/2$^-$)	D	R=0.50 *5*.
463.8 *4*	37 *3*	7022.4	(45/2$^-$)	6558.6	(43/2$^-$)	D	R=0.81 *9*.
465.5 *4*	80 *3*	3937.9	(31/2$^-$)	3472.2	(29/2$^-$)	D	R=0.67 *5*.

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^{92}Mo(^{58}Ni,3pγ) 2001Ro15 (continued)

γ(^{147}Ho) (continued)

Eγ	Iγ	Ei(level)	J^π_i	Ef	J^π_f	Mult.	Comments
471.8‡ 5	37†‡ 3	4980.9	(33/2−)	4509.0	(31/2−)		Iγ: for 471.8+472.2, about 50% for 471.8.
472.2‡ 4	37†‡ 3	7568.5	(47/2+)	7096.3	(45/2+)	D	Iγ: for 471.8+472.2, about 50% for 472.2. R=0.58 7.
481.5‡ 2	148†‡ 3	7580.8	(49/2−)	7099.4	(45/2−)		Iγ: for 481.8+481.5, about 30% for 481.5.
481.8‡ 2	148†‡ 3	6637.5	(43/2−)	6155.7	(41/2−)	D	Iγ: for 481.8+481.5, about 70% for 481.8. R=0.63 3.
491.2 4	28 3	6364.4	(41/2−)	5873.2	(39/2−)	D	R=0.5 1.
501.4 4	37 3	5561.5	(37/2+)	5060.1	(35/2+)	D	R=0.79 9.
509.3‡ 4	67†‡ 3	5953.3	(39/2+)	5444.0	(37/2+)	D	Iγ: for 509.3+509.5, about 60% for 509.3. R=0.76 6.
509.5‡ 7	67†‡ 3	7531.9	(47/2−)	7022.4	(45/2−)		Iγ: for 509.5+509.3, about 40% for 509.5.
512.5‡ 4	47†‡ 3	6093.2	(39/2+)	5580.6	(37/2+)		Iγ: for 514.6+512.5, about 50% intensity for 512.5.
514.6‡ 3	47†‡ 3	2054.92	(19/2+)	1540.22	(15/2+)		Iγ: for 514.6+512.5, about 50% intensity for 514.6.
520.3 3	106 3	5580.6	(37/2+)	5060.1	(35/2+)		
524.2 2	43 3	8105.0	(51/2−)	7580.8	(49/2−)	D	R=0.8 1.
553.3 4	58 3	5873.2	(39/2−)	5319.9	(37/2−)	D	R=0.67 6.
556.2‡ 3	235†‡ 4	3025.4	(25/2+)	2469.31	(23/2+)	D	Iγ: for 556.2+556.3, about 80% intensity for 556.2. R=0.72 2.
556.3‡ 5	235†‡ 4	8661.3	(53/2−)	8105.0	(51/2−)	D	Iγ: for 556.2+556.3, about 20% intensity for 556.3.
557.9 3	32 3	6558.6	(43/2−)	6000.7	(41/2−)		R=0.50 6.
567.5 2	29 2	7205.0	(45/2−)	6637.5	(43/2−)	D	R=0.52 7.
571.7 3	35 2	7099.4	(45/2−)	6527.5	(43/2−)	D	R=0.9 1.
575.7 2	55 3	6019.7	(39/2+)	5444.0	(37/2+)	D	R=0.67 6.
581.5 1	137 3	4903.7	(35/2−)	4322.2	(33/2−)	D	R=0.70 3.
585.0‡ 2	214†‡ 3	584.96	(13/2−)	0.0	(11/2−)	D	Iγ: for 585.0+588.0, about 80% intensity for 585.0. R=0.69 2.
588.0‡ 2	214†‡ 3	4060.3	(31/2−)	3472.2	(29/2−)		Iγ: for 585.0+588.0, about 20% intensity for 588.0.
594.2‡ 3	25†‡ 2	3025.4	(25/2+)	2431.06	(23/2+)	D	Iγ: for 594.2+596.5, about 50% intensity for 594.2. R=0.74 9.
596.5‡ 5	25†‡ 2	5580.6	(37/2+)	4984.3	(35/2−)		Iγ: for 594.2+596.5, about 50% intensity for 596.5.
617.5 1	360 4	2353.40	(21/2+)	1735.93	(19/2−)		R=0.98 9.
620.4 5	53 2	3089.6	(25/2+)	2469.31	(23/2+)	D	R=0.87 7.
628.6 3	30 3	4689.0	(33/2+)	4060.3	(31/2−)		R=1.57 24.
648.2‡ 4	64†‡ 4	2188.24	(19/2+)	1540.22	(15/2+)		Iγ: for 648.2+648.9, about 30% intensity for 648.2.
648.9‡ 3	61†‡ 4	6093.2	(39/2+)	5444.0	(37/2+)	D	Iγ: for 648.2+648.9, about 70% intensity for 648.9. R=0.87 8.
658.5 3	40 2	3089.6	(25/2+)	2431.06	(23/2+)	D	R=0.47 5.
661.6‡ 2	173†‡ 3	2188.24	(19/2+)	1526.67	(17/2−)		Iγ: for 661.6+661.9, about 60% intensity for 661.6. R=1.24 4.
661.9‡ 2	173†‡ 3	4984.3	(35/2−)	4322.2	(33/2−)		Iγ: for 661.6+661.9, about 40% intensity for 661.9.
701.0 1	216 4	5685.3	(37/2−)	4984.3	(35/2−)	(D)	R=0.9 2.
707.1 4	25 2	3905.5	(29/2+)	3198.15	(25/2+)	E2	R=1.6 2.
728.8 1	38 2	3198.15	(25/2+)	2469.31	(23/2+)	D	R=0.72 7.
736.5 2	50 2	3391.3	(27/2−)	2654.8	(23/2−)	E2	R=1.8 1.
741.6 3	42 2	3396.4	(27/2−)	2654.8	(23/2−)	E2	R=1.4 1.
751.1 1	157 4	4689.0	(33/2+)	3937.9	(31/2−)		R=1.0 1.
755.0 9	39 2	5444.0	(37/2+)	4689.0	(33/2+)		
762.2‡ 3	1000†‡ 5	1526.67	(17/2−)	764.71	(15/2−)		Iγ: for 764.7+762.2, <10% intensity for 762.2.
764.7‡ 1	1000†‡ 5	764.71	(15/2−)	0.0	(11/2−)	E2	Iγ: for 764.7+762.2, about 90% intensity for 764.7. R=1.43 2.
775.5 4	60 3	1540.22	(15/2+)	764.71	(15/2−)		R=2.2 2.

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^{92}Mo(^{58}Ni,3pγ) 2001Ro15 (continued)

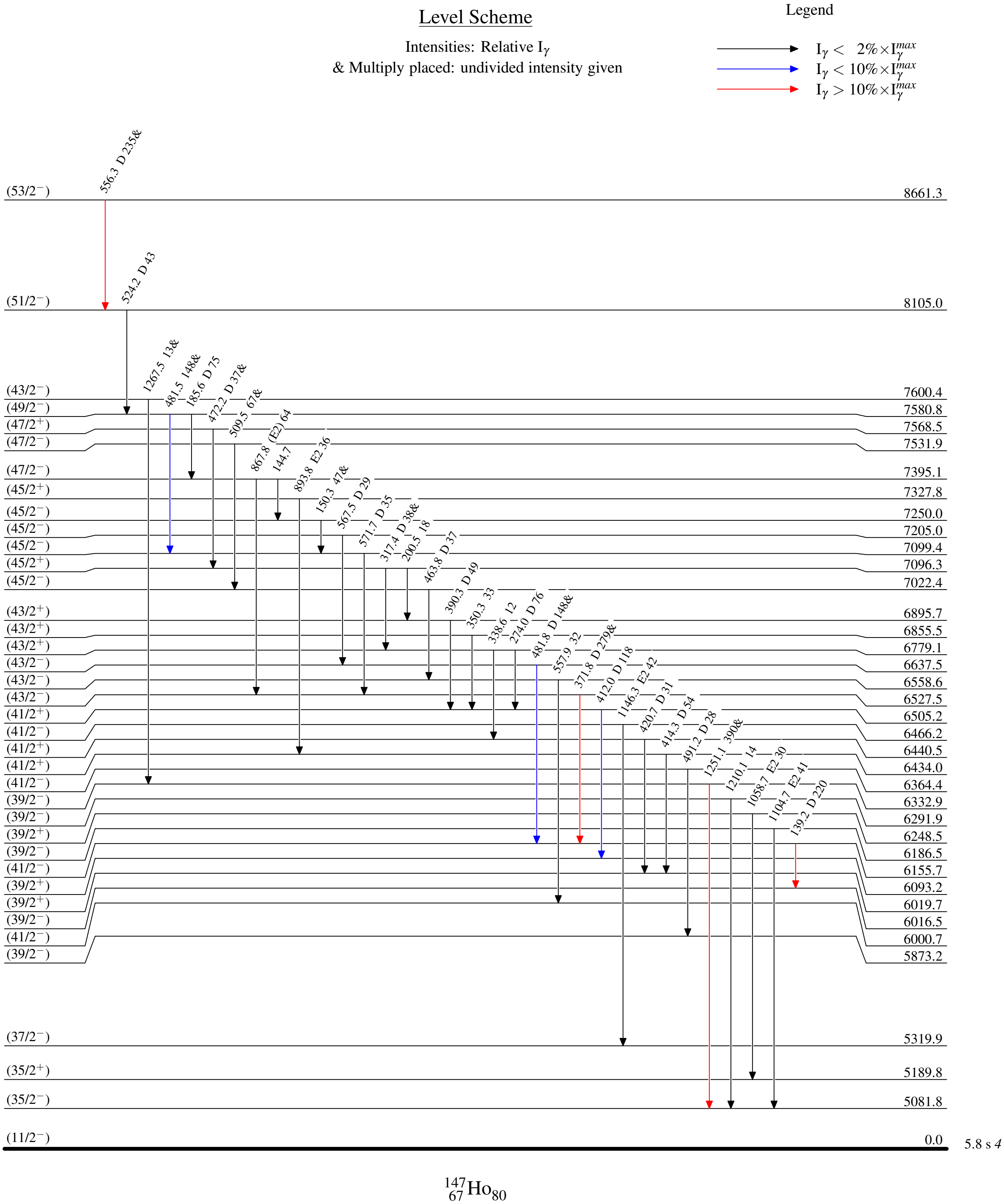
γ(^{147}Ho) (continued)

E_γ	I_γ	E_i(level)	J^π_i	E_f	J^π_f	Mult.	Comments
783.5 *2*	196 *6*	4689.0	(33/2+)	3905.5	(29/2+)	E2	R=1.6 *1*.
785.1 *1*	355 *6*	3472.2	(29/2−)	2687.1	(27/2−)	E2	R=0.44 *3*.
798.1 *1*	123 *3*	4220.9	(31/2+)	3422.85	(27/2+)	E2	R=1.64 *6*.
805.6 *5*	13 *2*	2541.9	(21/2−)	1735.93	(19/2−)		
815.9 *3*	92 *3*	3905.5	(29/2+)	3089.6	(25/2+)	E2	R=1.81 *9*.
850.1 *1*	118 *3*	4322.2	(33/2−)	3472.2	(29/2−)	E2	R=1.1 *1*.
867.8 *3*	64 *3*	7395.1	(47/2−)	6527.5	(43/2−)	(E2)	R=1.1 *2*.
880.1 *1*	136 *3*	3905.5	(29/2+)	3025.4	(25/2+)	E2	R=1.64 *7*.
893.8 *4*	36 *2*	7327.8	(45/2+)	6434.0	(41/2+)	E2	R=1.5 *1*.
903.6‡ *5*	28†‡ *2*	4604.2	(31/2+)	3700.6	(27/2+)	E2	I_γ: for 903.6+903.8, about 50% for 903.6. R=1.4 *2*.
903.8‡ *5*	28†‡ *2*	6093.2	(39/2+)	5189.8	(35/2+)		I_γ: for 903.6+903.8, about 50% for 903.8.
918.9 *2*	382 *4*	2654.8	(23/2−)	1735.93	(19/2−)	E2	R=1.52 *3*.
933.8 *3*	48 *2*	4839.3	(33/2+)	3905.5	(29/2+)	E2	R=1.28 *8*.
941.7 *2*	113 *3*	1526.67	(17/2−)	584.96	(13/2−)	E2	R=1.40 *5*.
955.3 *4*	61 *4*	1540.22	(15/2+)	584.96	(13/2−)		R=1.1 *1*.
969.0 *3*	103 *4*	5189.8	(35/2+)	4220.9	(31/2+)	E2	R=1.5 *1*.
971.1 *2*	825 *5*	1735.93	(19/2−)	764.71	(15/2−)	E2	R=1.42 *2*.
976.4 *4*	52 *2*	4881.9	(33/2+)	3905.5	(29/2+)	E2	R=1.07 *6*.
991.8 *1*	105 *3*	3422.85	(27/2+)	2431.06	(23/2+)	E2	R=1.72 *8*.
1003.9 *6*	24 *2*	3357.3	(25/2+)	2353.40	(21/2+)	E2	R=1.8 *3*.
1015.5 *4*	22 *2*	2541.9	(21/2−)	1526.67	(17/2−)	E2	R=1.6 *2*.
1033.5 *4*	42 *3*	6093.2	(39/2+)	5060.1	(35/2+)	E2	R=1.7 *2*.
1036.6 *3*	34 *2*	4509.0	(31/2−)	3472.2	(29/2−)	D	R=0.62 *8*.
1058.7 *8*	30 *3*	6248.5	(39/2+)	5189.8	(35/2+)	E2	R=1.6 *2*.
1095.5 *9*	15 *3*	5033.9	(35/2−)	3937.9	(31/2−)		
1104.7 *6*	41 *3*	6186.5	(39/2−)	5081.8	(35/2−)	E2	R=2.2 *2*.
1144.0 *3*	98 *4*	5081.8	(35/2−)	3937.9	(31/2−)	E2	R=1.31 *9*.
1146.3 *5*	42 *4*	6466.2	(41/2−)	5319.9	(37/2−)	E2	R=1.6 *3*.
1210.1 *9*	14 *2*	6291.9	(39/2−)	5081.8	(35/2−)		
1218.4 *2*	70 *2*	1983.08	(19/2−)	764.71	(15/2−)	(E2)	R=1.0 *2*.
1231.3 *5*	28 *2*	3700.6	(27/2+)	2469.31	(23/2+)	E2	R=1.7 *2*.
1246.7 *4*	48 *2*	5184.6	(35/2−)	3937.9	(31/2−)	E2	R=1.39 *7*.
1250.9‡ *3*	390†‡ *24*	3937.9	(31/2−)	2687.1	(27/2−)	E2	I_γ: for 1250.9+1251.1, about 95% for 1250.9. R=1.53 *3*.
1251.1‡ *9*	390†‡ *24*	6332.9	(39/2−)	5081.8	(35/2−)		I_γ: for 1250.9+1251.1, about 5% for 1251.1.
1264.5‡ *8*	13†‡ *2*	3733.8	(27/2+)	2469.31	(23/2+)		I_γ: for 1264.5+1267.5, about 50% for 1264.5.
1267.5‡ *8*	13†‡ *2*	7600.4	(43/2−)	6332.9	(39/2−)		I_γ: for 1264.5+1267.5, about 50% for 1267.5.
1293.6 *8*	20 *3*	4765.8	(33/2−)	3472.2	(29/2−)		
1315.4 *4*	33 *2*	5252.7	(35/2−)	3937.9	(31/2−)	E2	R=1.5 *1*.
1373.5 *4*	97 *2*	4060.3	(31/2−)	2687.1	(27/2−)	(E2)	R=1.1 *2*.
1416.6 *5*	17 *2*	4889.0	(33/2−)	3472.2	(29/2−)	E2	R=1.9 *4*.
1444.0 *7*	12 *2*	5381.7	(35/2−)	3937.9	(31/2−)		

† Unresolved structure. Intensity and R ratios are combined for both components. Based on the widths of arrows as shown in the level-scheme figures, the XUNDL compilers have given under comments estimates of separate intensities for the components, which however are not adopted by evaluator.

‡ Multiply placed with undivided intensity.

^{92}Mo(^{58}Ni,3pγ) 2001Ro15



^{92}Mo(^{58}Ni,3pγ) 2001Ro15

Level Scheme (continued)

Intensities: Relative I_γ

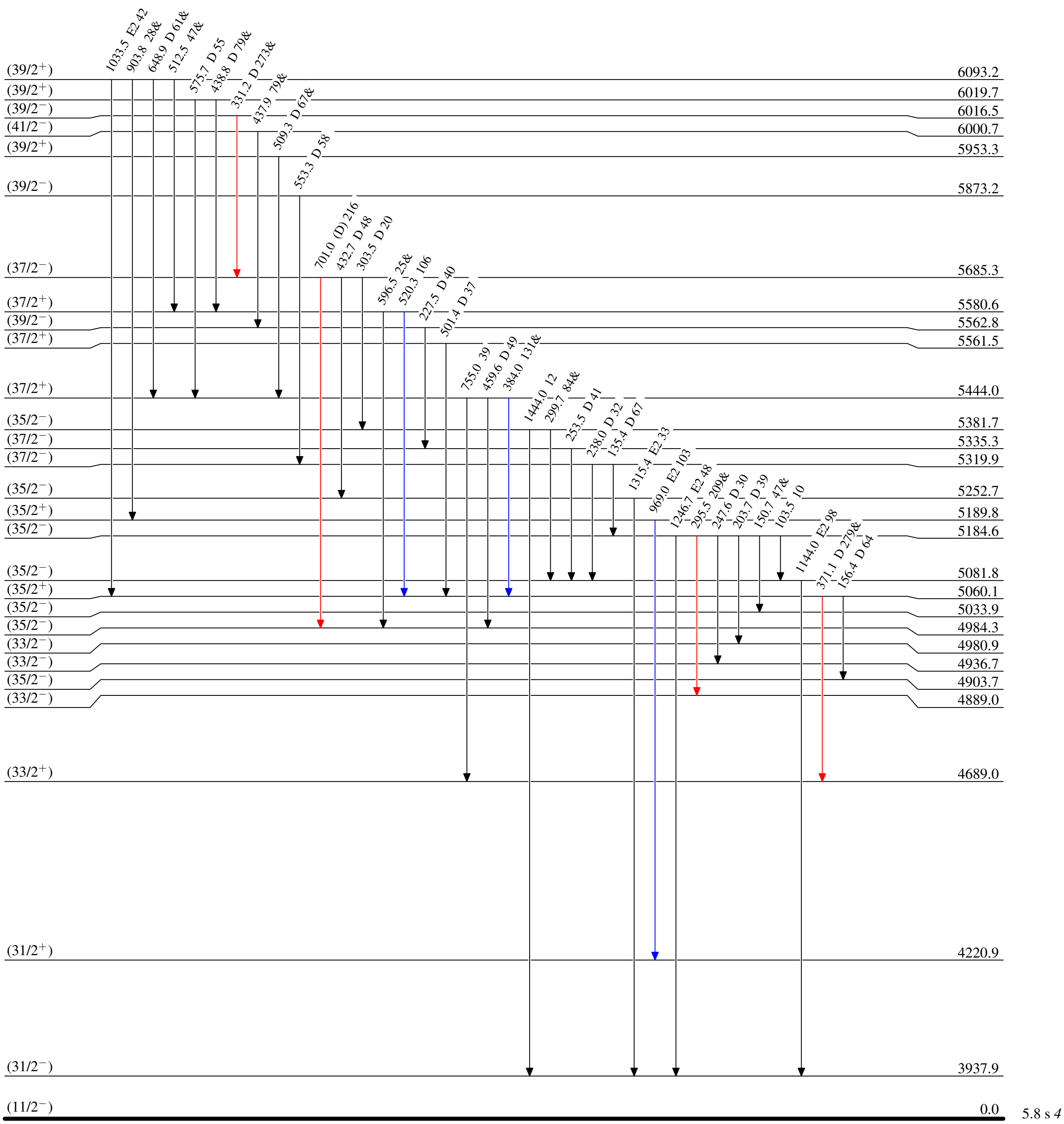
& Multiply placed: undivided intensity given

Legend

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

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

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



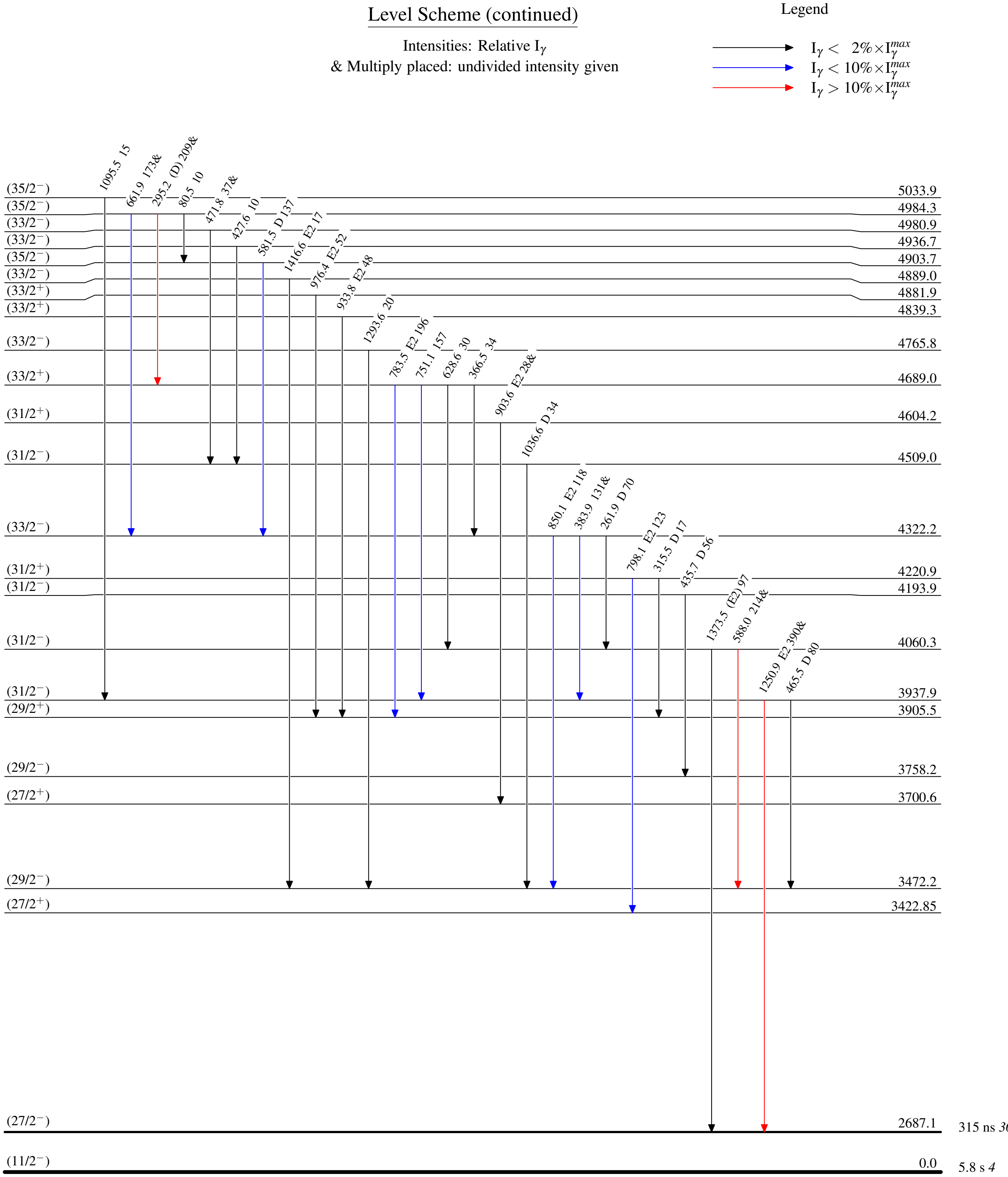
$^{147}_{67}Ho_{80}$

^{92}Mo(^{58}Ni,3pγ) 2001Ro15

Level Scheme (continued)

Intensities: Relative I_γ

& Multiply placed: undivided intensity given



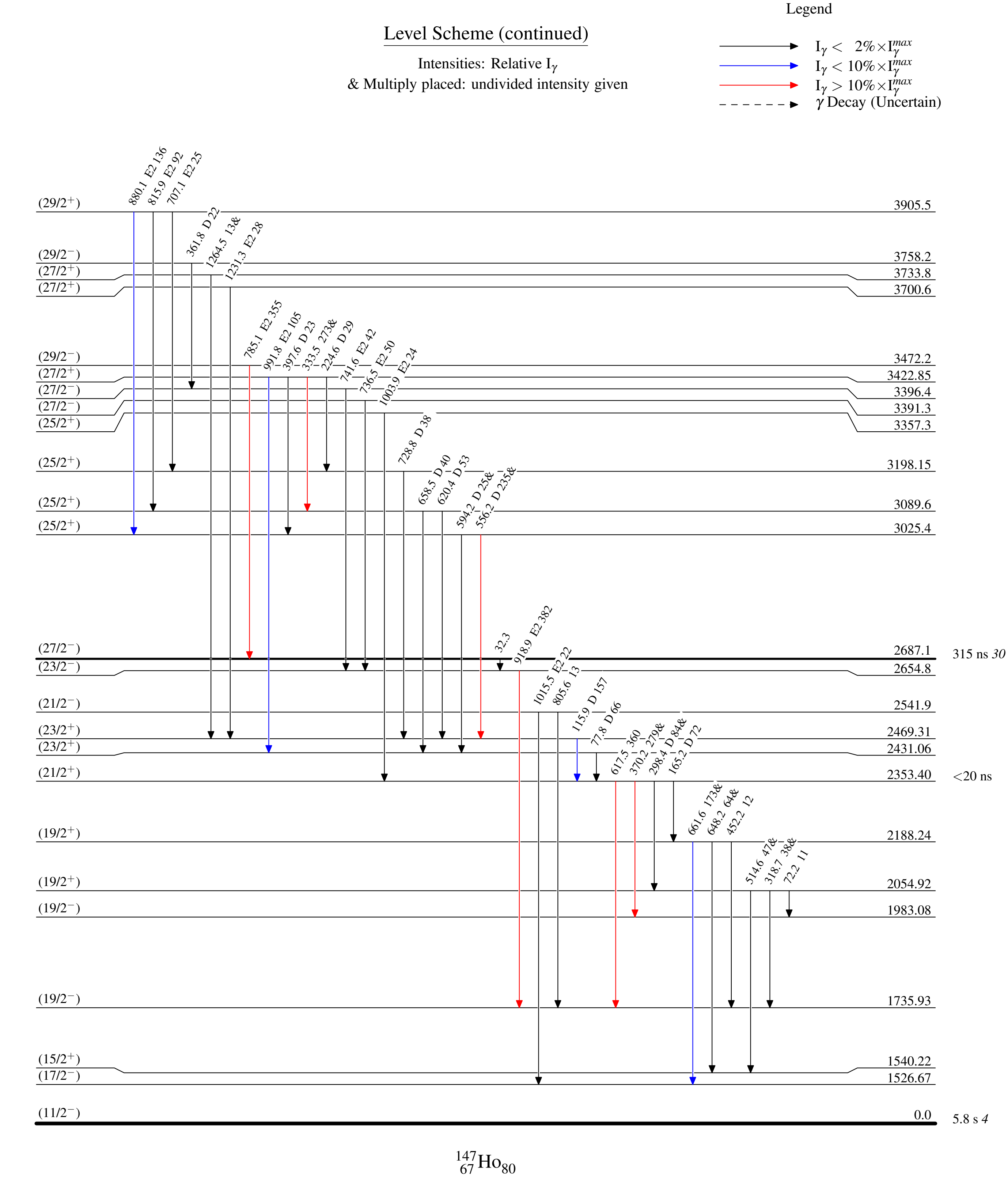
$^{147}_{67}Ho_{80}$

$^{92}Mo(^{58}Ni,3p\gamma)$ 2001Ro15

Level Scheme (continued)

Intensities: Relative I_γ

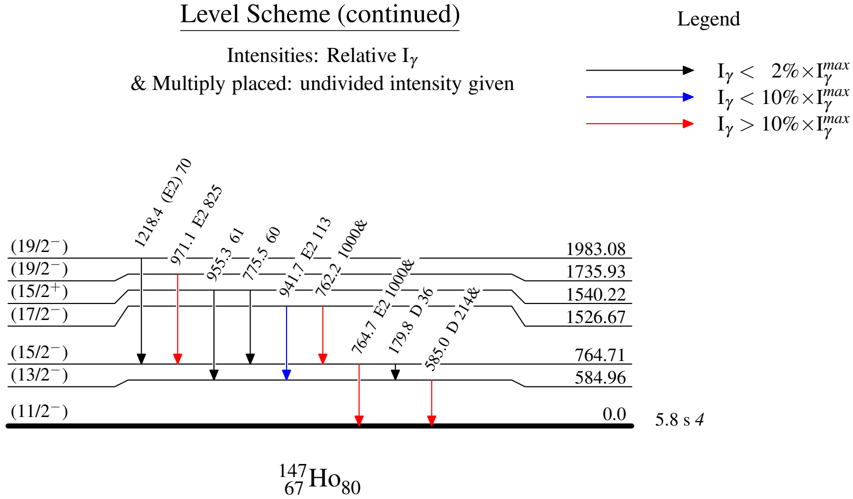
& Multiply placed: undivided intensity given



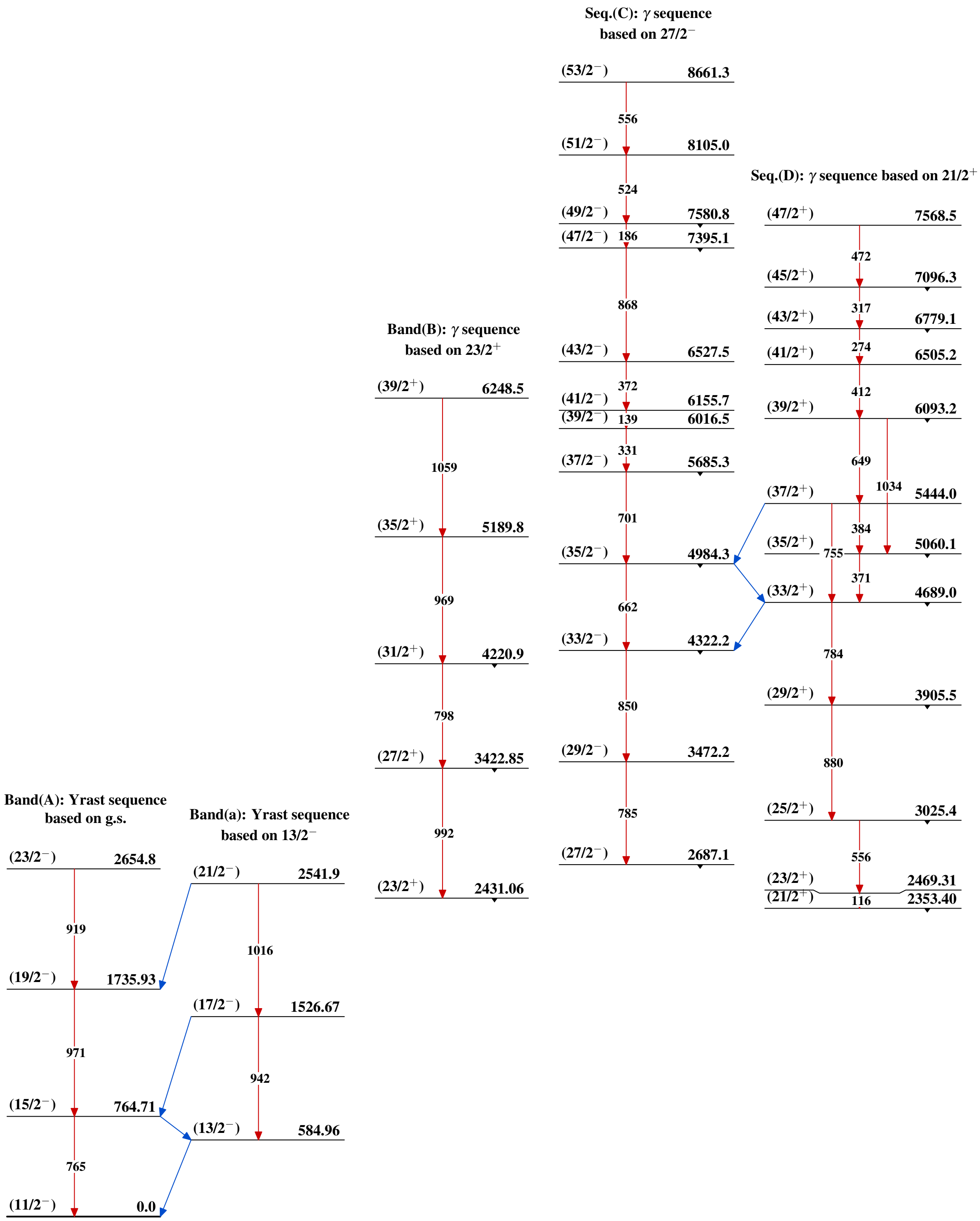
$^{92}Mo(^{58}Ni,3p\gamma)$ 2001Ro15

Level Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given



$^{92}Mo(^{58}Ni,3p\gamma)$ 2001Ro15



$^{147}_{67}Ho_{80}$

^{92}Mo(^{58}Ni,3pγ) 2001Ro15 (continued)