

$^{165}\text{Ho}(n,\gamma) E=2\text{ keV}$ [1970Bo29,2000Pr03](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 109, 1103 (2008)	1-Mar-2008

 $J^\pi(\text{target})=7/2^-$.

[2000Pr03](#): three-crystal pair spectrometer, FWHM \approx 5.5 keV At 6.5 MeV. calibration based on S(n) and pattern of primary transitions to several well-established low-lying levels; measured E_γ , I_γ for primary transitions.

[1970Bo29](#): annihilation-pair spectrometer with high-resolution Ge(Li) detector, calibrated using $^{14}\text{N}(n,\gamma)$ reaction; measured E_γ , I_γ for primary transitions.

 ^{166}Ho Levels

E(level) [†]	J^π [‡]	Comments
54.2 2	2 ⁻ ,5 ⁻	
82.0 10	(1 ⁻ ,6 ⁻)	
170.9 2	3 ⁻ ,4 ⁻	
180.7 2	3 ⁻ ,4 ⁻	
190.7 2	3 ⁺ ,4 ⁺	
260.6 2	3 ⁺ ,4 ⁺	
263.6 2	2 ⁺ ,5 ⁺	
278.2? 10	(1 ⁻ ,6 ⁻)	
295.7? 15	1 ⁻ ,6 ⁻	
330.1 10	2 ⁻ ,5 ⁻	
348.2 2	2 ⁺ ,5 ⁺	
371.9 2	3 ⁺ ,4 ⁺	
416.3 4	2 ⁻ ,5 ⁻	
430.1 2	2 ⁺ ,5 ⁺	
452.0? 10	(1 ⁻ ,6 ⁻)	
464.0 5	2 ⁺ ,5 ⁺	
470.7 2	2 ⁺ ,5 ⁺	
475.5 10	-	
481.6 2	3 ⁺ ,4 ⁺	
521.9 2	3 ⁺ ,4 ⁺	
542.9 10	-	
547.6 2	3 ⁺ ,4 ⁺	J^π : 2 ⁺ ,5 ⁺ from (2000Pr03) inconsistent with adopted $J^\pi=4^+$.
558.3 2	3 ⁺ ,4 ⁺	
562.5 7	-	
592.0 3	3 ⁺ ,4 ⁺	
597.9 3	3 ⁺ ,4 ⁺	
604.8 3	2 ⁺ ,5 ⁺	
628.0 10	-	
634.2? 25	(⁻)	
634.20 20	(2 ⁺ ,5 ⁺)	
638.1 15	-	
654.9 5	2 ⁺ ,5 ⁺	J^π : from 2000Pr03 .
658.1 15	-	
662.3 5	3 ⁺ ,4 ⁺	J^π : from 2000Pr03 .
667.7 10	-	
671.1 5	+	
683.4 3	-	
693.0? 25	(⁻)	
693.00 20	(2 ⁺ ,5 ⁺)	
704.3 3	-	
719.0 2	3 ⁺ ,4 ⁺	
725.8 15	-	
736.0 2	3 ⁺ ,4 ⁺	
741.3 4	-	

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$^{165}\text{Ho}(n,\gamma) E=2 \text{ keV}$ **1970Bo29,2000Pr03 (continued)** ^{166}Ho Levels (continued)

E(level) [†]	J^{π} [‡]	Comments
756.0 10	-	
759.0 10	-	
768.8 3	2 ⁺ ,5 ⁺	
771.3 15	-	
783.5 15	-	
789.5 10	-	
792.3 10	-	
805.8 2	2 ⁺ ,5 ⁺	
814.3 2	3 ⁺ ,4 ⁺	
823.7 4	-	
831.1 2	2 ⁺ ,5 ⁺	J^{π} : from 2000Pr03; (2 ⁺ ,5 ⁺) In 1970Bo29.
836.5 15	-	
858.1 15	-	
860.7 15	-	E=860.3 8 from 2000Pr03; may be 858+861 doublet.
867.1 15	-	
868.7 15	-	E(level): E=869.5 5, $J^{\pi}=2^+,5^+$ In 2000Pr03 may be 867+869 doublet.
874.8 15	-	
878.6 10	-	
881.6 15	-	E=880.2 1 from 2000Pr03 may be for 879+882 doublet.
884.2 15	-	J^{π} : 2 ⁺ ,5 ⁺ from 2000Pr03 differs from adopted value.
889.8 3	3 ⁺ ,4 ⁺	J^{π} : from 2000Pr03.
902.2 10	-	
904.0 5	2 ⁺ ,5 ⁺	J^{π} : from 2000Pr03.
924.4 2	2 ⁺ ,5 ⁺	J^{π} : from 2000Pr03.
946.2 7	2 ⁺ ,5 ⁺	J^{π} : from 2000Pr03.
950.6 7	-	
960.6 3	3 ⁺ ,4 ⁺	J^{π} : from 2000Pr03.
976.1 5	-	
979.0 10	-	E=978.6 5, $J^{\pi}=3^+,4^+$ from 2000Pr03 may be 976+979 doublet.
984.6 5	2 ⁺ ,5 ⁺	J^{π} : from 2000Pr03.
998.8 5	-	
1003.5 3	-	
1008.9 3	-	
1016.1 10	-	
1020.0 15	-	
1024.5 15	-	
1028.3 4	-	
1032.3 7	-	
1040.9 15	-	
1045.7 15	-	
1053.0 2	-	
1060.5 2	-	
1077.2 2	-	
1086.4 3	-	
1090.7 15	-	
1096.3 10	-	
1113.9 2	-	
1118.7 10	-	
1120.9 15	-	
1129.6 7	-	
1134.0 15	-	
1136.6 10	-	
1146.7 5	-	
1153.0 5	-	
1155.4 15	-	
1158.5 10	-	

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$^{165}\text{Ho}(n,\gamma) E=2 \text{ keV}$ **1970Bo29,2000Pr03 (continued)** ^{166}Ho Levels (continued)

E(level) [†]	J^π [‡]	Comments
1160.6 <i>10</i> (6242.6 6)	$3^-, 4^-$	E(level): deduced from $E_\gamma=6188.3$ assuming $E=54.2$ for the first excited state of ^{166}Ho . This differs from $S(n)=6243.64 2$ (2003Au03); all primary γ energies from 1970Bo29 appear to be approximately 1 keV low. J^π : assuming s-wave capture by $J^\pi=7/2^-$ target; p-wave capture is expected to be relatively small (1970Bo29).

[†] From 1970Bo29, except as noted.

[‡] The assignments are from 1970Bo29, except as noted. They are based on the measured reduced intensities in average resonance capture, coupled with empirical reduced intensities to final states with known J^π values.

 $\gamma(^{166}\text{Ho})$

1970Bo29 and 2003Pr03 have measured the average γ spectrum that results when neutrons in a relatively broad band of energy (FWHM of the order of several hundred eV) are captured in many resonances. From the γ -ray line shapes, 1970Bo29 conclude that all the γ rays they observed are primary γ rays.

1970Bo29 state that their data suggested that more than six γ rays are present in the 5559.1 γ -5584.4 γ range.

E_γ [†]	I_γ [‡]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
5081.9 <i>12</i>	352 <i>10</i>	(6242.6)	$3^-, 4^-$	1160.6		
5084.0 <i>12</i>	351 <i>10</i>	(6242.6)	$3^-, 4^-$	1158.5		
5087.1 <i>16</i>	118 <i>47</i>	(6242.6)	$3^-, 4^-$	1155.4		
5089.5 <i>8</i>	317 <i>32</i>	(6242.6)	$3^-, 4^-$	1153.0		
5095.8 <i>8</i>	235 <i>47</i>	(6242.6)	$3^-, 4^-$	1146.7		
5105.9 <i>12</i>	255 <i>25</i>	(6242.6)	$3^-, 4^-$	1136.6		
5108.5 <i>16</i>	237 <i>47</i>	(6242.6)	$3^-, 4^-$	1134.0		
5112.9 <i>9</i>	338 <i>23</i>	(6242.6)	$3^-, 4^-$	1129.6		
5121.6 <i>16</i>	49 <i>17</i>	(6242.6)	$3^-, 4^-$	1120.9		
5123.8 <i>12</i>	130 <i>32</i>	(6242.6)	$3^-, 4^-$	1118.7		
5128.6 <i>6</i>	372 <i>18</i>	(6242.6)	$3^-, 4^-$	1113.9		
5146.2 <i>12</i>	60 <i>3</i>	(6242.6)	$3^-, 4^-$	1096.3		
5151.8 <i>16</i>	48 <i>16</i>	(6242.6)	$3^-, 4^-$	1090.7		
5156.1 <i>7</i>	281 <i>14</i>	(6242.6)	$3^-, 4^-$	1086.4		
5165.3 <i>6</i>	112 <i>5</i>	(6242.6)	$3^-, 4^-$	1077.2		
5182.0 <i>6</i>	510 <i>25</i>	(6242.6)	$3^-, 4^-$	1060.5		
5189.5 <i>6</i>	351 <i>17</i>	(6242.6)	$3^-, 4^-$	1053.0		
5196.8 <i>16</i>	30 <i>10</i>	(6242.6)	$3^-, 4^-$	1045.7		
5201.6 <i>16</i>	20 <i>5</i>	(6242.6)	$3^-, 4^-$	1040.9		
5210.2 <i>9</i>	271 <i>41</i>	(6242.6)	$3^-, 4^-$	1032.3		
5214.2 <i>7</i>	676 <i>10</i>	(6242.6)	$3^-, 4^-$	1028.3		
5218.0 <i>16</i>	122 <i>42</i>	(6242.6)	$3^-, 4^-$	1024.5		
5222.5 <i>16</i>	63 <i>22</i>	(6242.6)	$3^-, 4^-$	1020.0		
5226.4 <i>12</i>	71 <i>14</i>	(6242.6)	$3^-, 4^-$	1016.1		
5233.6 <i>7</i>	272 <i>13</i>	(6242.6)	$3^-, 4^-$	1008.9		
5239.0 <i>7</i>	321 <i>16</i>	(6242.6)	$3^-, 4^-$	1003.5		
5243.7 <i>8</i>	132 <i>13</i>	(6242.6)	$3^-, 4^-$	998.8		
5257.9 <i>8</i>	182 <i>13</i>	(6242.6)	$3^-, 4^-$	984.6	$2^+, 5^+$	$E_\gamma=5258.8 6$, $I_\gamma/E_\gamma^5=63 10$ (2000Pr03).
5263.5 <i>12</i>	170 <i>25</i>	(6242.6)	$3^-, 4^-$	979.0		$E_\gamma=5265.1 5$, $I_\gamma/E_\gamma^5=91 10$ (2000Pr03).
5266.4 <i>8</i>	284 <i>20</i>	(6242.6)	$3^-, 4^-$	976.1		
5281.9 <i>7</i>	302 <i>15</i>	(6242.6)	$3^-, 4^-$	960.6	$3^+, 4^+$	$E_\gamma=5282.5 3$, $I_\gamma/E_\gamma^5=96 8$ (2000Pr03).
5291.9 <i>9</i>	77 <i>8</i>	(6242.6)	$3^-, 4^-$	950.6		
5296.3 <i>9</i>	109 <i>11</i>	(6242.6)	$3^-, 4^-$	946.2	$2^+, 5^+$	$E_\gamma=5296.6 5$, $I_\gamma/E_\gamma^5=51 6$ (2000Pr03).

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$^{165}\text{Ho}(n,\gamma) E=2\text{ keV}$ **1970Bo29,2000Pr03 (continued)** $\gamma(^{166}\text{Ho})$ (continued)

E_γ †	I_γ ‡	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
5318.1 6	192 10	(6242.6)	3 ⁻ ,4 ⁻	924.4	2 ⁺ ,5 ⁺	$E_\gamma=5318.5\ 4$, $I_\gamma/E_\gamma^5=71\ 6$ (2000Pr03).
5338.5 8	165 50	(6242.6)	3 ⁻ ,4 ⁻	904.0	2 ⁺ ,5 ⁺	$E_\gamma=5338.5\ 3$, $I_\gamma/E_\gamma^5=83\ 6$ (2000Pr03).
5340.3 12	119 36	(6242.6)	3 ⁻ ,4 ⁻	902.2		
5352.7 7	322 16	(6242.6)	3 ⁻ ,4 ⁻	889.8	3 ⁺ ,4 ⁺	$E_\gamma=5352.9\ 3$, $I_\gamma/E_\gamma^5=119\ 8$ (2000Pr03).
5358.3 16	112 39	(6242.6)	3 ⁻ ,4 ⁻	884.2		$E_\gamma=5358.8\ 1$, $I_\gamma/E_\gamma^5=39\ 9$ (2000Pr03).
5360.9 16	115 46	(6242.6)	3 ⁻ ,4 ⁻	881.6		$E_\gamma=5363.5\ 1$, $I_\gamma/E_\gamma^5=39\ 6$ (2000Pr03).
5363.9 12	106 26	(6242.6)	3 ⁻ ,4 ⁻	878.6		
5367.7 16	50 20	(6242.6)	3 ⁻ ,4 ⁻	874.8	-	
5373.8 16	63 17	(6242.6)	3 ⁻ ,4 ⁻	868.7	-	$E_\gamma=5384.2\ 5$, $I_\gamma/E_\gamma^5=59\ 6$ (2000Pr03).
5375.4 16	65 17	(6242.6)	3 ⁻ ,4 ⁻	867.1	-	
5381.8 16	18 5	(6242.6)	3 ⁻ ,4 ⁻	860.7	-	$E_\gamma=5383.4\ 8$, $I_\gamma/E_\gamma^5=36\ 5$ (2000Pr03).
5384.4 16	27 6	(6242.6)	3 ⁻ ,4 ⁻	858.1	-	
5406.0 16	47 12	(6242.6)	3 ⁻ ,4 ⁻	836.5	-	$E_\gamma=5406.7\ 13$, $I_\gamma/E_\gamma^5=29\ 12$ (2000Pr03).
5411.4 6	252 7	(6242.6)	3 ⁻ ,4 ⁻	831.1	2 ⁺ ,5 ⁺	$E_\gamma=5411.8\ 7$, $I_\gamma/E_\gamma^5=67\ 12$ (2000Pr03).
5418.8 7	91 6	(6242.6)	3 ⁻ ,4 ⁻	823.7	-	$E_\gamma=5419.1\ 1$, $I_\gamma/E_\gamma^5=32\ 6$ (2000Pr03).
5428.2 6	416 12	(6242.6)	3 ⁻ ,4 ⁻	814.3	3 ⁺ ,4 ⁺	$E_\gamma=5428.7\ 2$, $I_\gamma/E_\gamma^5=106\ 6$ (2000Pr03).
5436.7 6	225 7	(6242.6)	3 ⁻ ,4 ⁻	805.8	2 ⁺ ,5 ⁺	$E_\gamma=5437.8\ 4$, $I_\gamma/E_\gamma^5=53\ 5$ (2000Pr03).
5450.2 12	94 20	(6242.6)	3 ⁻ ,4 ⁻	792.3	-	$E_\gamma=5450.7\ 1$, $I_\gamma/E_\gamma^5=30\ 9$ (2000Pr03).
5453.0 12	86 20	(6242.6)	3 ⁻ ,4 ⁻	789.5	-	$E_\gamma=5455.2\ 7$, $I_\gamma/E_\gamma^5=32\ 8$ (2000Pr03).
5459.0 16		(6242.6)	3 ⁻ ,4 ⁻	783.5	-	$E_\gamma=5462.1\ 10$, $I_\gamma/E_\gamma^5=13\ 5$ (2000Pr03).
5471.2 16	51 20	(6242.6)	3 ⁻ ,4 ⁻	771.3	-	
5473.7 7	199 10	(6242.6)	3 ⁻ ,4 ⁻	768.8	2 ⁺ ,5 ⁺	$E_\gamma=5473.8\ 3$, $I_\gamma/E_\gamma^5=72\ 6$ (2000Pr03).
5483.5 12	75 20	(6242.6)	3 ⁻ ,4 ⁻	759.0	-	$E_\gamma=5484.2\ 1$, $I_\gamma/E_\gamma^5=17\ 11$ (2000Pr03).
5486.5 12	50 20	(6242.6)	3 ⁻ ,4 ⁻	756.0	-	$E_\gamma=5486.0\ 1$, $I_\gamma/E_\gamma^5=22\ 11$ (2000Pr03).
5501.2 7	93 18	(6242.6)	3 ⁻ ,4 ⁻	741.3	-	$E_\gamma=5501.6\ 1$, $I_\gamma/E_\gamma^5=32\ 6$ (2000Pr03).
5506.5 6	380 11	(6242.6)	3 ⁻ ,4 ⁻	736.0	3 ⁺ ,4 ⁺	$E_\gamma=5507.2\ 3$, $I_\gamma/E_\gamma^5=87\ 6$ (2000Pr03).
5516.7 16	30 7	(6242.6)	3 ⁻ ,4 ⁻	725.8	-	
5523.5 6	367 11	(6242.6)	3 ⁻ ,4 ⁻	719.0	3 ⁺ ,4 ⁺	$E_\gamma=5524.0\ 3$, $I_\gamma/E_\gamma^5=99\ 7$ (2000Pr03).
5538.2 7	76 5	(6242.6)	3 ⁻ ,4 ⁻	704.3	-	$E_\gamma=5538.2\ 10$, $I_\gamma/E_\gamma^5=14\ 4$ (2000Pr03).
5549.5# 6	267 8	(6242.6)	3 ⁻ ,4 ⁻	693.00	(2 ⁺ ,5 ⁺)	$E_\gamma=5550.4\ 3$, $I_\gamma/E_\gamma^5=78\ 5$ (2000Pr03).
5559.1 7	94 6	(6242.6)	3 ⁻ ,4 ⁻	683.4	-	$E_\gamma=5562.4\ 9$, $I_\gamma/E_\gamma^5=26\ 4$ (2000Pr03).
5571.4 8	358 15	(6242.6)	3 ⁻ ,4 ⁻	671.1	+	$E_\gamma=5571.5\ 7$, $I_\gamma/E_\gamma^5=84\ 13$ (2000Pr03).
5574.8 12	39 10	(6242.6)	3 ⁻ ,4 ⁻	667.7	-	$E_\gamma=5576.2\ 10$, $I_\gamma/E_\gamma^5=25\ 12$ (2000Pr03).
5580.2 8	399 20	(6242.6)	3 ⁻ ,4 ⁻	662.3	3 ⁺ ,4 ⁺	$E_\gamma=5581.8\ 9$, $I_\gamma/E_\gamma^5=95\ 13$ (2000Pr03).
5584.4 16		(6242.6)	3 ⁻ ,4 ⁻	658.1	-	
5587.6 8	279 15	(6242.6)	3 ⁻ ,4 ⁻	654.9	2 ⁺ ,5 ⁺	$E_\gamma=5588.8\ 5$, $I_\gamma/E_\gamma^5=54\ 8$ (2000Pr03).
5604.4 16	17 10	(6242.6)	3 ⁻ ,4 ⁻	638.1	-	$E_\gamma=5605.5\ 1$, $I_\gamma/E_\gamma^5=20\ 9$ (2000Pr03).
5608.3# 6	360 18	(6242.6)	3 ⁻ ,4 ⁻	634.20	(2 ⁺ ,5 ⁺)	$E_\gamma=5610.1\ 6$, $I_\gamma/E_\gamma^5=68\ 9$ (2000Pr03).
5614.5 12	17 9	(6242.6)	3 ⁻ ,4 ⁻	628.0	-	$E_\gamma=5615.3\ 1$, $I_\gamma/E_\gamma^5=12\ 8$ (2000Pr03).
5637.7 7	247 12	(6242.6)	3 ⁻ ,4 ⁻	604.8	2 ⁺ ,5 ⁺	$E_\gamma=5638.1\ 4$, $I_\gamma/E_\gamma^5=59\ 5$ (2000Pr03).
5644.6 7	493 25	(6242.6)	3 ⁻ ,4 ⁻	597.9	3 ⁺ ,4 ⁺	$E_\gamma=5645.2\ 1$, $I_\gamma/E_\gamma^5=106\ 10$ (2000Pr03).
5650.5 7	524 25	(6242.6)	3 ⁻ ,4 ⁻	592.0	3 ⁺ ,4 ⁺	$E_\gamma=5651.2\ 2$, $I_\gamma/E_\gamma^5=139\ 8$ (2000Pr03).
5680.0 9	69 17	(6242.6)	3 ⁻ ,4 ⁻	562.5	-	$E_\gamma=5681.1\ 10$, $I_\gamma/E_\gamma^5=25\ 13$ (2000Pr03).
5684.2 6	450 13	(6242.6)	3 ⁻ ,4 ⁻	558.3	3 ⁺ ,4 ⁺	$E_\gamma=5685.7\ 6$, $I_\gamma/E_\gamma^5=96\ 13$ (2000Pr03).
5694.9 6	374 12	(6242.6)	3 ⁻ ,4 ⁻	547.6	3 ⁺ ,4 ⁺	$E_\gamma=5695.7\ 1$, $I_\gamma/E_\gamma^5=71\ 7$ (2000Pr03).
5699.6 12	36 12	(6242.6)	3 ⁻ ,4 ⁻	542.9	-	$E_\gamma=5700.0\ 1$, $I_\gamma/E_\gamma^5=18\ 5$ (2000Pr03).
5720.6 6	480 15	(6242.6)	3 ⁻ ,4 ⁻	521.9	3 ⁺ ,4 ⁺	$E_\gamma=5721.9\ 2$, $I_\gamma/E_\gamma^5=110\ 7$ (2000Pr03).
5760.9 6	352 7	(6242.6)	3 ⁻ ,4 ⁻	481.6	3 ⁺ ,4 ⁺	$E_\gamma=5762.0\ 3$, $I_\gamma/E_\gamma^5=83\ 5$ (2000Pr03).
5767.0 12	82 16	(6242.6)	3 ⁻ ,4 ⁻	475.5	-	$E_\gamma=5768.0\ 1$, $I_\gamma/E_\gamma^5=28\ 8$ (2000Pr03).
5771.8 6	326 23	(6242.6)	3 ⁻ ,4 ⁻	470.7	2 ⁺ ,5 ⁺	$E_\gamma=5772.8\ 1$, $I_\gamma/E_\gamma^5=66\ 8$ (2000Pr03).
5778.5 8	187 13	(6242.6)	3 ⁻ ,4 ⁻	464.0	2 ⁺ ,5 ⁺	$E_\gamma=5779.3\ 4$, $I_\gamma/E_\gamma^5=63\ 6$ (2000Pr03).
5790.5 12	11 4	(6242.6)	3 ⁻ ,4 ⁻	452.0?	(1 ⁻ ,6 ⁻)	
5812.4 6	293 5	(6242.6)	3 ⁻ ,4 ⁻	430.1	2 ⁺ ,5 ⁺	$E_\gamma=5813.5\ 2$, $I_\gamma/E_\gamma^5=72\ 4$ (2000Pr03).

$^{165}\text{Ho}(n,\gamma) E=2 \text{ keV}$ [1970Bo29,2000Pr03](#) (continued) $\gamma(^{166}\text{Ho})$ (continued)

E_γ †	I_γ ‡	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
5826.2 7	46 5	(6242.6)	3 ⁻ ,4 ⁻	416.3	2 ⁻ ,5 ⁻	$E_\gamma=5827.6$ 1, $I_\gamma/E_\gamma^5=13$ 2 (2000Pr03).
5870.6 6	648 12	(6242.6)	3 ⁻ ,4 ⁻	371.9	3 ⁺ ,4 ⁺	$E_\gamma=5871.9$ 2, $I_\gamma/E_\gamma^5=124$ 5 (2000Pr03).

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$^{165}\text{Ho}(n,\gamma) E=2\text{ keV}$ **1970Bo29,2000Pr03 (continued)** $\gamma(^{166}\text{Ho})$ (continued)

E_γ^\dagger	I_γ^\ddagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
5894.3 6	332 9	(6242.6)	$3^-,4^-$	348.2	$2^+,5^+$	$E_\gamma=5895.3\ 2$, $I_\gamma/E_\gamma^5=75\ 5$ (2000Pr03).
5912.4 12	47 5	(6242.6)	$3^-,4^-$	330.1	$2^-,5^-$	$E_\gamma=5914.0\ 5$, $I_\gamma/E_\gamma^5=24\ 4$ (2000Pr03).
5946.8@ 16	11 4	(6242.6)	$3^-,4^-$	295.7?	$1^-,6^-$	
5964.3@ 12	10 3	(6242.6)	$3^-,4^-$	278.2?	$(1^-,6^-)$	
5978.9 6	243 45	(6242.6)	$3^-,4^-$	263.6	$2^+,5^+$	$E_\gamma=5979.9\ 1$, $I_\gamma/E_\gamma^5=45\ 6$ (2000Pr03).
5981.9 6	570 40	(6242.6)	$3^-,4^-$	260.6	$3^+,4^+$	$E_\gamma=5983.0\ 1$, $I_\gamma/E_\gamma^5=112\ 6$ (2000Pr03).
6051.8 6	585 17	(6242.6)	$3^-,4^-$	190.7	$3^+,4^+$	$E_\gamma=6052.5\ 2$, $I_\gamma/E_\gamma^5=122\ 5$ (2000Pr03).
6061.8 6	136 6	(6242.6)	$3^-,4^-$	180.7	$3^-,4^-$	$E_\gamma=6063.4\ 7$, $I_\gamma/E_\gamma^5=20\ 3$ (2000Pr03).
6071.6 6	89 4	(6242.6)	$3^-,4^-$	170.9	$3^-,4^-$	$E_\gamma=6072.9\ 5$, $I_\gamma/E_\gamma^5=23\ 3$ (2000Pr03).
6160.5 12	6 3	(6242.6)	$3^-,4^-$	82.0	$(1^-,6^-)$	
6188.3 6	73 3	(6242.6)	$3^-,4^-$	54.2	$2^-,5^-$	$E_\gamma=6189.8\ 4$, $I_\gamma/E_\gamma^5=17\ 2$ (2000Pr03).

[†] From 1970Bo29; the authors have corrected for the 0.65 keV shift due to the non-zero energies of the captured resonance neutrons; thus, the energies they reported are those that would be expected in thermal-neutron capture. However, they are consistently lower than the similarly-corrected E_γ from 2000Pr03 by about 1 keV. Uncertainties include 0.6 keV systematic uncertainty.

[‡] Relative reduced photon intensity, $I_\gamma E_\gamma^{-3}$, from 1970Bo29 for a ^{10}B absorber thickness of 0.107 g/cm²; see 1970Bo29 for reduced intensities for ^{10}B absorber thicknesses of 0.036 and 0.418 g/cm². Relative reduced intensities from 2000Pr03, defined instead as $I_\gamma E_\gamma^{-5}$, are given in comments; values for M1 transitions are about a factor of 6 lower than those for E1 transitions.

Probably a doublet.

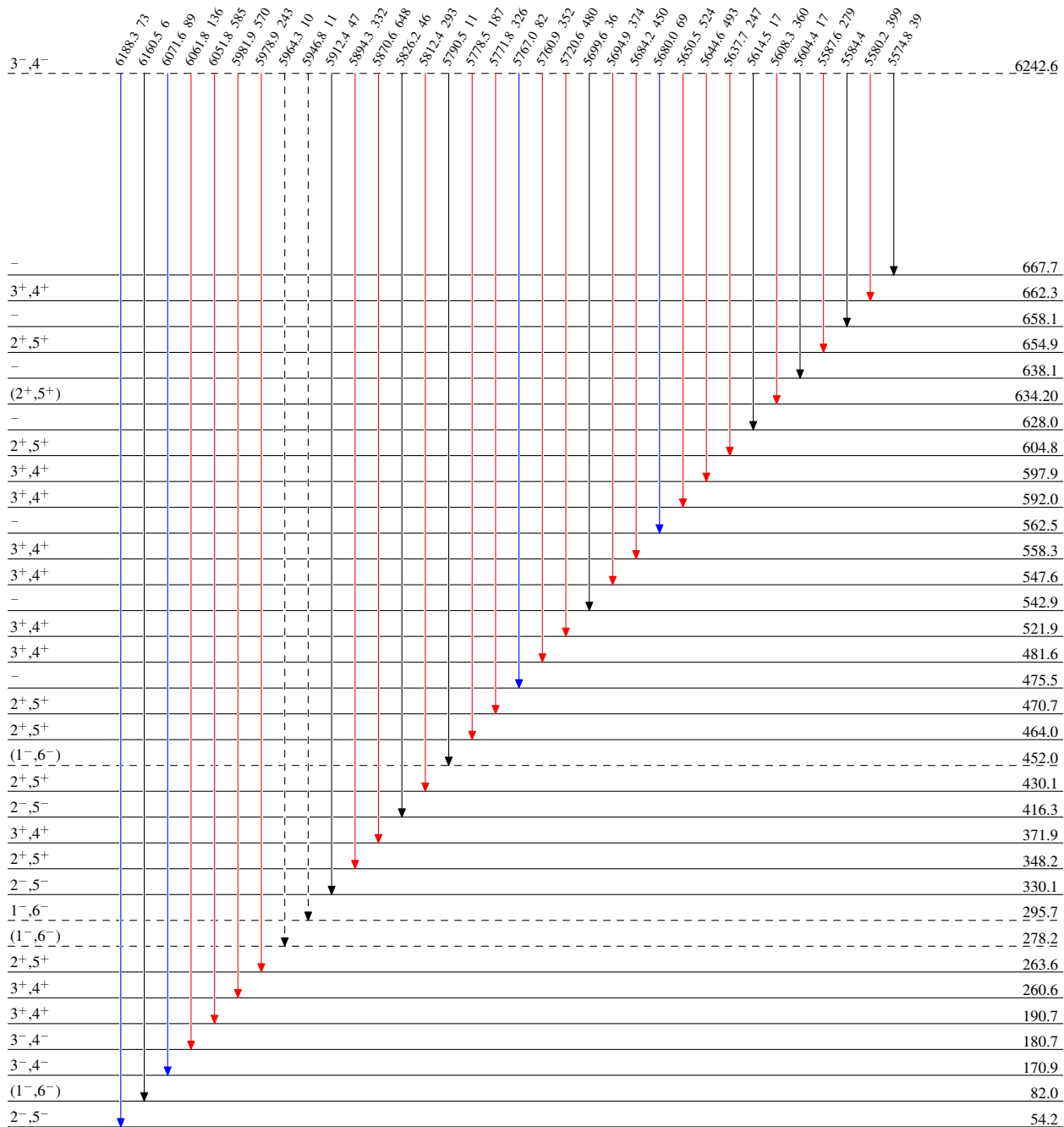
@ Placement of transition in the level scheme is uncertain.

$^{165}\text{Ho}(n,\gamma) E=2\text{ keV}$ 1970Bo29,2000Pr03

Legend

Level Scheme
Intensities: Relative I_γ

- \longrightarrow $I_\gamma < 2\% \times I_\gamma^{max}$
- \longrightarrow $I_\gamma < 10\% \times I_\gamma^{max}$
- \longrightarrow $I_\gamma > 10\% \times I_\gamma^{max}$
- \dashrightarrow γ Decay (Uncertain)



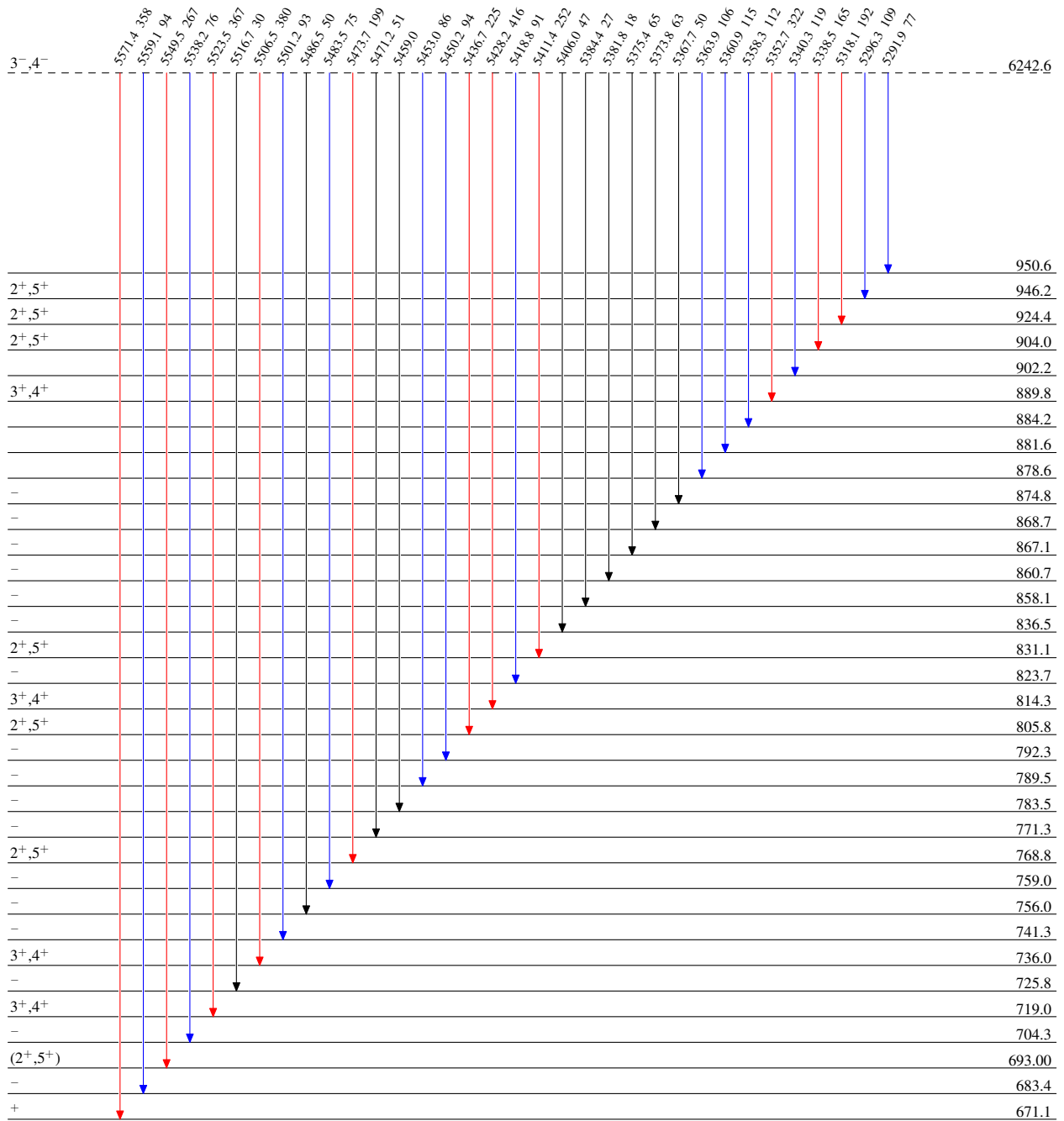
$^{165}\text{Ho}(n,\gamma) E=2\text{ keV}$ 1970Bo29,2000Pr03

Level Scheme (continued)

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$



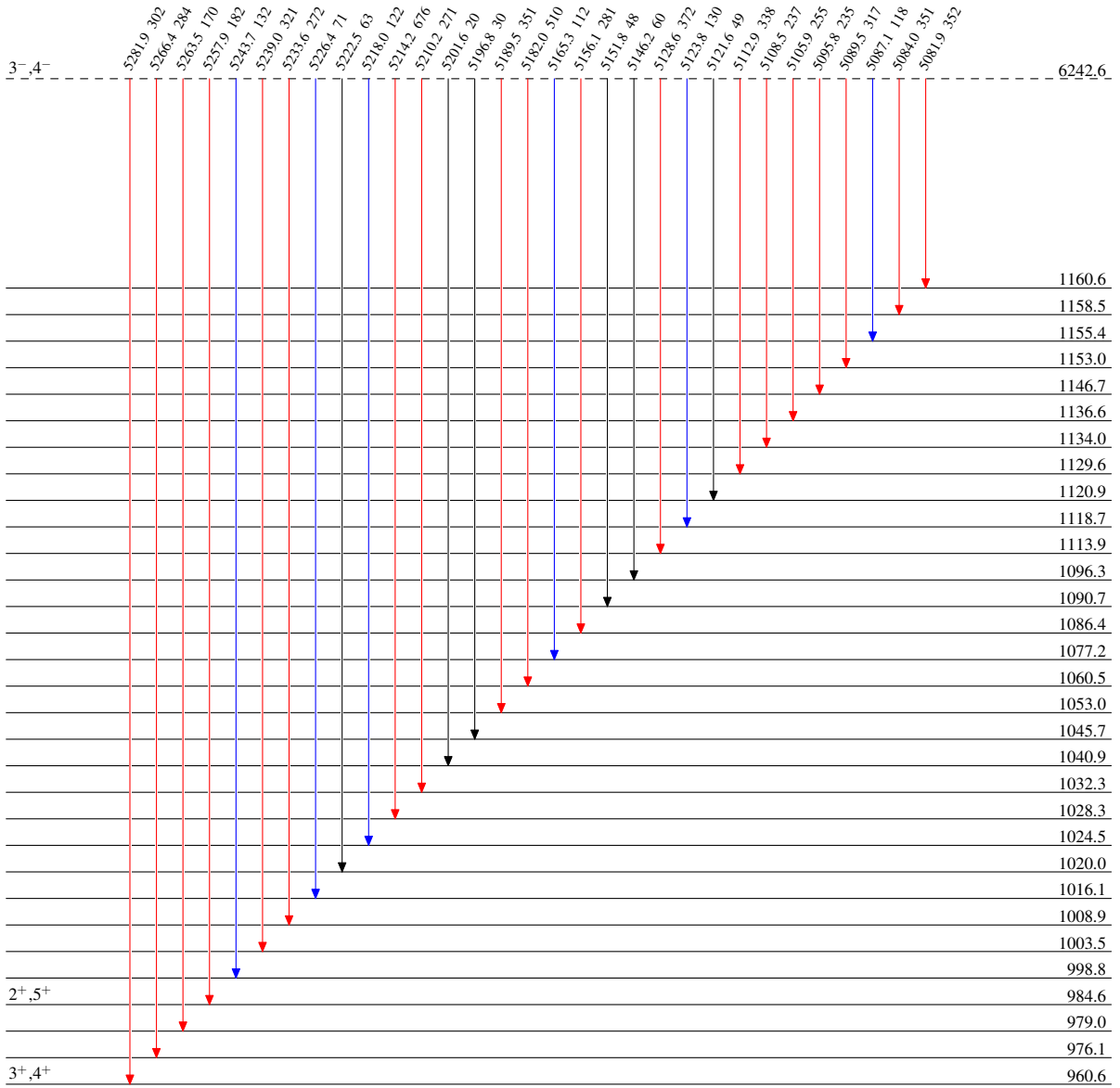
$^{165}\text{Ho}(n,\gamma) E=2\text{ keV}$ 1970Bo29,2000Pr03

Level Scheme (continued)

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$



$^{166}_{67}\text{Ho}_{99}$