

^{102}In ε decay **2003Gi06**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne	NDS 110, 1745 (2009)	31-Dec-2008

Parent: ^{102}In : $E=0.0$; $J^\pi=(6^+)$; $T_{1/2}=23.3$ s I ; $Q(\varepsilon)=8.95\times 10^3$ I_2 ; $\% \varepsilon + \% \beta^+$ decay=100.0

^{102}In - $T_{1/2}$: from delayed gammas (**2003Gi06**).

^{102}In - $Q(\varepsilon)$: from **2003Gi06**. Other: 8.97E3 I_1 (syst,**2003Au03**).

Measured E_γ , $\gamma\gamma$, I_γ , and I_β , β strength functions using an array of 42 Ge detectors and total absorption spectroscopy (TAS) with a large NaI(Tl) detector.

All data are from **2003Gi06** as they are more complete than those of **1995Sz01**.

Others: **1995Sz01**.

 ^{102}Cd Levels

E(level) ^{†‡}	J^π [#]
0.0	0 ⁺
776.61 <i>10</i>	2 ⁺
1637.61 <i>14</i>	4 ⁺
2034.29 <i>17</i>	(5 ⁺ ,6 ⁺)
2230.64 <i>16</i>	6 ⁺
2386.79 <i>19</i>	(6 ⁺)
2402.8 <i>3</i>	
2561.09 <i>16</i>	(6 ⁺)
2589.9 <i>4</i>	
2597.63 <i>21</i>	
2674.6 <i>6</i>	
2678.0 <i>8</i>	(6 ⁺)
2718.06 <i>20</i>	(8 ⁺)
2730.6 <i>20</i>	
2827.95 <i>22</i>	
2856.2 <i>9</i>	
2868.1 <i>10</i>	
2874.24 <i>18</i>	
2930.9 <i>6</i>	
2985.0 <i>5</i>	
3029.8 <i>11</i>	
3041.9 <i>11</i>	
3052.66 <i>23</i>	8 ⁺
3058.6 <i>11</i>	
3072.7 <i>20</i>	
3098.9 <i>8</i>	
3115.4 <i>20</i>	
3128.9 <i>3</i>	
3149.7 <i>20</i>	
3193.7 <i>7</i>	
3197.2 <i>5</i>	
3218.3 <i>8</i>	
3228.8 <i>6</i>	
3263.4 <i>20</i>	
3268.1 <i>5</i>	
3271.0 <i>3</i>	
3276.9 <i>7</i>	
3339.0 <i>10</i>	
3370.9 <i>20</i>	
3381.3 <i>8</i>	
3385.1 <i>8</i>	
3389.2 <i>4</i>	

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^{102}In ε decay 2003Gi06 (continued) ^{102}Cd Levels (continued)

E(level) ^{†‡}	Comments
3422.2 5	
3449.67 25	
3477.6 11	
3481.8 20	
3494.7 6	
3498.7 20	
3537.6 5	
3552.0 3	
3563.2 3	
3572.7 10	E(level): 3572.2 and 3573.9 are considered as one level by the evaluator.
3577.4 9	
3583.3 20	
3590.0 15	
3594.9 6	
3598.4 8	
3604.8 20	
3609.1 4	
3613.3 20	
3637.4 4	
3649.0 4	
3689.4 20	
3702.9 5	
3724.0 9	E(level): 3722.8 and 3724.2 are considered as one level by evaluator.
3735.7 20	
3741.0 4	
3750.1 11	
3753.0 3	
3780.5 7	
3805.6 5	
3829.5 4	
3847.3 11	
3853.5 5	
3864.3 5	
3874.4 15	
3877.4 4	
3894.4 8	
3907.1 8	
3911.5 4	
3920.1 9	
3938.1 7	
3952.2 9	
3961.7 5	
3976.3 4	
3989.6 10	
3999.2 5	
4015.3 7	
4022.3 7	
4028.0 11	
4034.6 6	
4039.7 7	
4048.9 4	E(level): 4048.8 and 4050.9 are considered as one level by evaluator.
4071.7 4	
4082.4 11	
4085.9 6	
4088.1 10	
4103.9 11	
4121.4 10	

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^{102}In ε decay 2003Gi06 (continued) ^{102}Cd Levels (continued)

E(level) ^{†‡}	Comments
4131.2 6	
4142.4 20	
4147.0 3	
4162.0 21	
4175.8 10	
4182.8 4	
4189.5 8	
4197.2 15	
4206.2 3	
4224.1 7	
4227.9 5	
4242.5 20	
4252.7 15	
4265.63 25	
4282.8 5	
4311.7 4	
4332.7 20	
4335.2 10	
4340.2 5	
4357.9 8	
4360.6 8	
4368.1 21	
4373.0 7	
4377.4 11	
4385.7 5	
4416.0 4	
4424.3 11	
4427.6 5	
4440.8 10	
4446.0 21	
4453.6 7	
4460.1 20	
4479.3 11	
4497.1 7	
4512.8 15	E(level): 4512.1 and 4513.4 are considered as one level by evaluator.
4525.3 5	
4528.8 21	
4536.4 9	
4569.3 10	
4582.0 6	
4601.1 5	
4628.9 10	
4640.5 7	
4657.3 20	
4664.5 6	
4668.9 15	
4672.7 20	
4680.3 7	
4685.3 11	
4689.8 7	
4709.4 11	
4716.9 20	
4720.9 15	E(level): 4720.0 and 4721.9 are considered as one level by evaluator.
4735.8 9	
4739.7 5	
4754.3 15	
4777.3 4	

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^{102}In ε decay 2003Gi06 (continued) ^{102}Cd Levels (continued)

<u>E(level)†‡</u>	<u>Comments</u>
4797.9 20	
4821.1 8	
4824.0 10	
4827.8 9	
4845.5 6	
4861.8 20	
4872.1 8	
4886.4 8	
4906.7 7	
4909.6 9	
4915.6 5	E(level): 4915.4 and 4917.4 are considered as one level by evaluator.
4925.0 5	
4930.1 20	
4981.8 5	
4996.1 20	
5004.1 20	
5022.1 20	
5040.7 9	
5055.3 20	
5064.8 8	
5068.1 6	
5071.6 11	
5105.4 11	
5107.4 7	
5127.5 9	
5130.5 11	
5141.2 5	
5149.7 21	
5175.6 5	E(level): 5175.0 and 5177.0 are considered as one level by evaluator.
5182.3 21	
5191.3 10	
5193.9 6	
5237.5 7	
5246.2 9	E(level): 5246.4 and 5246.5 are considered as one level by evaluator.
5273.8 12	
5298.2 10	
5332.5 10	
5361.6 11	
5387.9 11	
5396.6 7	E(level): 5395.8 and 5397.2 are considered as one level by evaluator.
5399.1 5	E(level): 5398.6 and 5401.1 are considered as one level by evaluator.
5420.7 9	
5435.9 10	
5441.2 20	
5462.2 20	
5477.7 20	
5489.2 7	
5506.9 7	
5508.7 5	
5540.1 8	
5570.5 7	
5614.1 20	
5621.2 9	
5654.8 5	
5670.9 6	E(level): 5670.5 and 5672.3 are considered as one level by evaluator.
5691.7 4	E(level): 5691.5 and 5693.0 are considered as one level by evaluator.
5702.1 10	

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^{102}In ε decay 2003Gi06 (continued) ^{102}Cd Levels (continued)

<u>E(level)†‡</u>	<u>Comments</u>
5705.4 11	
5722.7 6	
5737.4 20	
5752.7 6	
5758.8 15	E(level): 5757.3 and 5760.1 are considered as one level by evaluator.
5769.6 20	
5779.8 8	
5787.2 10	
5797.3 11	
5811.6 21	
5838.9 20	
5849.0 10	
5857.8 12	
5861.6 20	
5865.6 8	
5879.9 11	
5888.3 20	
5895.0 20	
5902.4 21	
5909.2 7	E(level): 5909.0 and 5911.7 are considered as one level by evaluator.
5918.9 8	
5932.6 6	
5934.5 5	
5945.4 9	E(level): 5942.2 and 5946.1 are considered as one level by evaluator.
5948.3 9	
6018.9 11	
6057.6 11	
6066.3 21	
6083.5 11	
6111.2 20	
6146.0 20	
6150.4 12	
6169.4 11	
6195.6 6	
6225.9 8	E(level): 6225.0 and 6226.6 are considered as one level by evaluator.
6244.3 20	
6255.7 15	
6292.2 6	
6320.5 11	
6344.1 11	
6352.2 10	
6418.6 15	E(level): 6418.3 and 6419.1 are considered as one level by evaluator.
6447.9 11	
6504.8 20	
6525.8 11	
6554.8 11	
6612.1 11	
6650.9 20	
6666.8 20	
6688.8 20	
6746.7 20	
6800.0 21	
6963.8 20	
7007.2 20	
7124.1 11	
7361.0 20	

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^{102}In ε decay **2003Gi06** (continued) ^{102}Cd Levels (continued)

† Closely spaced (within less than 2 keV or so) levels whose energies overlap within the uncertainties are treated as one level by the evaluator, as advised in e-mail reply from M. Gierlik. It is possible that several other closely spaced levels (within 4 keV or so) also correspond to one level.

‡ From least-squares fit to $E\gamma$'s (by evaluator).

From Adopted Levels.

 ε, β^+ radiations

log ft values have not been calculated since the $\varepsilon + \beta^+$ feedings are only the apparent values and log ft values from these are not meaningful following [2003GiZX](#).

<u>E(decay)</u>	<u>E(level)</u>	<u>I($\varepsilon + \beta^+$)^{†‡}</u>	<u>E(decay)</u>	<u>E(level)</u>	<u>I($\varepsilon + \beta^+$)^{†‡}</u>
(1.59×10 ³ 12)	7361.0	0.016 6	(3.07×10 ³ 12)	5879.9	0.08 3
(1.83×10 ³ 12)	7124.1	0.016 8	(3.08×10 ³ 12)	5865.6	0.15 4
(1.94×10 ³ 12)	7007.2	0.014 10	(3.09×10 ³ 12)	5861.6	0.100 20
(1.99×10 ³ # 12)	6963.8	0.03 3	(3.09×10 ³ 12)	5857.8	0.028 10
(2.15×10 ³ 12)	6800.0	0.030 12	(3.10×10 ³ 12)	5849.0	0.14 4
(2.20×10 ³ 12)	6746.7	0.016 8	(3.11×10 ³ 12)	5838.9	0.038 20
(2.26×10 ³ 12)	6688.8	0.016 8	(3.14×10 ³ 12)	5811.6	0.036 16
(2.28×10 ³ 12)	6666.8	0.030 10	(3.15×10 ³ # 12)	5797.3	<0.23
(2.30×10 ³ 12)	6650.9	0.016 8	(3.16×10 ³ 12)	5787.2	0.13 4
(2.34×10 ³ 12)	6612.1	0.010 6	(3.17×10 ³ 12)	5779.8	0.29 8
(2.40×10 ³ 12)	6554.8	0.028 10	(3.18×10 ³ 12)	5769.6	0.11 3
(2.42×10 ³ 12)	6525.8	0.016 10	(3.19×10 ³ 12)	5758.8	0.26 7
(2.45×10 ³ 12)	6504.8	0.026 12	(3.20×10 ³ 12)	5752.7	0.52 14
(2.50×10 ³ 12)	6447.9	0.066 22	(3.21×10 ³ 12)	5737.4	0.044 22
(2.53×10 ³ 12)	6418.6	0.044 21	(3.23×10 ³ 12)	5722.7	0.22 7
(2.60×10 ³ 12)	6352.2	0.048 20	(3.24×10 ³ 12)	5705.4	0.14 3
(2.61×10 ³ 12)	6344.1	0.070 24	(3.25×10 ³ 12)	5702.1	0.018 8
(2.63×10 ³ 12)	6320.5	0.032 10	(3.26×10 ³ 12)	5691.7	0.93 14
(2.66×10 ³ 12)	6292.2	0.48 9	(3.28×10 ³ 12)	5670.9	0.16 4
(2.69×10 ³ 12)	6255.7	0.15 5	(3.30×10 ³ 12)	5654.8	0.47 11
(2.71×10 ³ 12)	6244.3	0.08 3	(3.33×10 ³ 12)	5621.2	0.048 16
(2.72×10 ³ 12)	6225.9	0.066 17	(3.34×10 ³ 12)	5614.1	0.07 4
(2.75×10 ³ 12)	6195.6	0.110 22	(3.38×10 ³ 12)	5570.5	0.21 4
(2.78×10 ³ 12)	6169.4	0.47 8	(3.41×10 ³ 12)	5540.1	0.21 4
(2.80×10 ³ 12)	6150.4	0.59 10	(3.44×10 ³ 12)	5508.7	0.14 3
(2.80×10 ³ 12)	6146.0	0.09 3	(3.44×10 ³ 12)	5506.9	0.53 8
(2.84×10 ³ 12)	6111.2	0.092 20	(3.46×10 ³ 12)	5489.2	0.25 4
(2.87×10 ³ 12)	6083.5	0.024 8	(3.47×10 ³ 12)	5477.7	0.06 3
(2.88×10 ³ 12)	6066.3	0.038 12	(3.49×10 ³ # 12)	5462.2	0.03 3
(2.89×10 ³ 12)	6057.6	0.068 18	(3.51×10 ³ 12)	5441.2	0.06 3
(2.93×10 ³ 12)	6018.9	0.08 3	(3.51×10 ³ 12)	5435.9	0.11 5
(3.00×10 ³ 12)	5948.3	0.064 22	(3.53×10 ³ 12)	5420.7	0.30 6
(3.00×10 ³ 12)	5945.4	0.24 6	(3.55×10 ³ 12)	5399.1	0.28 7
(3.02×10 ³ 12)	5934.5	0.18 4	(3.55×10 ³ 12)	5396.6	0.40 6
(3.02×10 ³ 12)	5932.6	0.38 6	(3.56×10 ³ 12)	5387.9	0.058 24
(3.03×10 ³ 12)	5918.9	0.22 5	(3.59×10 ³ 12)	5361.6	0.066 20
(3.04×10 ³ 12)	5909.2	0.27 7	(3.62×10 ³ 12)	5332.5	0.060 20
(3.05×10 ³ 12)	5902.4	0.08 3	(3.65×10 ³ 12)	5298.2	0.07 6
(3.06×10 ³ 12)	5895.0	0.12 3	(3.68×10 ³ 12)	5273.8	0.10 3
(3.06×10 ³ 12)	5888.3	0.070 22	(3.70×10 ³ 12)	5246.2	0.28 8

Continued on next page (footnotes at end of table)

^{102}In ϵ decay **2003Gi06** (continued) ϵ, β^+ radiations (continued)

E(decay)	E(level)	$I(\epsilon + \beta^+)^{\dagger\ddagger}$	E(decay)	E(level)	$I(\epsilon + \beta^+)^{\dagger\ddagger}$
(3.71×10 ³ 12)	5237.5	0.29 4	(4.42×10 ³ 12)	4528.8	0.21 4
(3.76×10 ³ 12)	5193.9	0.092 23	(4.42×10 ³ 12)	4525.3	0.22 4
(3.76×10 ³ 12)	5191.3	0.12 3	(4.44×10 ³ 12)	4512.8	0.21 9
(3.77×10 ³ 12)	5182.3	0.038 12	(4.45×10 ³ 12)	4497.1	0.46 7
(3.77×10 ³ 12)	5175.6	0.46 6	(4.47×10 ³ 12)	4479.3	0.052 18
(3.80×10 ³ 12)	5149.7	0.11 4	(4.49×10 ³ 12)	4460.1	0.13 4
(3.81×10 ³ 12)	5141.2	0.092 24	(4.50×10 ³ 12)	4453.6	0.30 5
(3.82×10 ³ 12)	5130.5	0.10 3	(4.50×10 ³ 12)	4446.0	0.29 6
(3.82×10 ³ 12)	5127.5	0.14 5	(4.51×10 ³ 12)	4440.8	0.042 20
(3.84×10 ³ 12)	5107.4	0.054 18	(4.52×10 ³ 12)	4427.6	0.50 8
(3.84×10 ³ 12)	5105.4	0.14 4	(4.53×10 ³ 12)	4424.3	0.10 3
(3.88×10 ³ 12)	5071.6	0.072 24	(4.53×10 ³ 12)	4416.0	1.02 19
(3.88×10 ³ 12)	5068.1	0.15 4	(4.56×10 ³ 12)	4385.7	1.17 15
(3.89×10 ³ 12)	5064.8	0.100 24	(4.57×10 ³ 12)	4377.4	0.058 20
(3.89×10 ³ # 12)	5055.3	0.014 14	(4.58×10 ³ 12)	4373.0	0.51 8
(3.91×10 ³ 12)	5040.7	0.09 5	(4.58×10 ³ 12)	4368.1	0.096 24
(3.93×10 ³ 12)	5022.1	0.18 6	(4.59×10 ³ 12)	4360.6	0.44 9
(3.95×10 ³ 12)	5004.1	0.034 20	(4.59×10 ³ 12)	4357.9	0.26 5
(3.95×10 ³ # 12)	4996.1	0.024 24	(4.61×10 ³ 12)	4340.2	0.35 6
(3.97×10 ³ 12)	4981.8	1.01 15	(4.61×10 ³ 12)	4335.2	0.24 3
(4.02×10 ³ 12)	4930.1	0.35 8	(4.62×10 ³ 12)	4332.7	0.24 5
(4.03×10 ³ 12)	4925.0	1.13 17	(4.64×10 ³ 12)	4311.7	0.42 6
(4.03×10 ³ 12)	4915.6	0.50 8	(4.67×10 ³ 12)	4282.8	0.24 5
(4.04×10 ³ 12)	4909.6	0.60 11	(4.68×10 ³ 12)	4265.63	3.00 20
(4.04×10 ³ 12)	4906.7	0.106 24	(4.70×10 ³ 12)	4252.7	0.28 5
(4.06×10 ³ 12)	4886.4	0.12 4	(4.71×10 ³ 12)	4242.5	0.11 3
(4.08×10 ³ 12)	4872.1	0.79 14	(4.72×10 ³ 12)	4227.9	0.42 7
(4.09×10 ³ # 12)	4861.8	0.008 8	(4.73×10 ³ 12)	4224.1	0.20 5
(4.10×10 ³ 12)	4845.5	0.32 6	(4.74×10 ³ 12)	4206.2	2.97 17
(4.12×10 ³ 12)	4827.8	0.062 20	(4.75×10 ³ 12)	4197.2	0.056 24
(4.13×10 ³ 12)	4824.0	0.17 8	(4.76×10 ³ 12)	4189.5	0.51 3
(4.13×10 ³ 12)	4821.1	0.50 7	(4.77×10 ³ 12)	4182.8	0.35 10
(4.15×10 ³ 12)	4797.9	0.13 6	(4.77×10 ³ 12)	4175.8	0.20 4
(4.17×10 ³ 12)	4777.3	0.34 9	(4.79×10 ³ 12)	4162.0	0.070 14
(4.20×10 ³ 12)	4754.3	0.094 20	(4.80×10 ³ 12)	4147.0	0.77 11
(4.21×10 ³ 12)	4739.7	1.47 16	(4.81×10 ³ 12)	4142.4	0.22 4
(4.21×10 ³ 12)	4735.8	0.16 3	(4.82×10 ³ 12)	4131.2	0.33 5
(4.23×10 ³ 12)	4720.9	0.17 6	(4.83×10 ³ 12)	4121.4	0.20 4
(4.23×10 ³ 12)	4716.9	0.14 4	(4.85×10 ³ 12)	4103.9	0.034 10
(4.24×10 ³ 12)	4709.4	0.21 5	(4.86×10 ³ 12)	4088.1	0.106 24
(4.26×10 ³ 12)	4689.8	0.18 5	(4.86×10 ³ 12)	4085.9	0.38 7
(4.26×10 ³ 12)	4685.3	0.23 5	(4.87×10 ³ 12)	4082.4	0.042 16
(4.27×10 ³ 12)	4680.3	0.35 5	(4.88×10 ³ 12)	4071.7	1.17 13
(4.28×10 ³ # 12)	4672.7	0.03 3	(4.90×10 ³ 12)	4048.9	1.33 11
(4.28×10 ³ 12)	4668.9	0.18 6	(4.91×10 ³ 12)	4039.7	0.85 6
(4.29×10 ³ 12)	4664.5	0.33 8	(4.92×10 ³ 12)	4034.6	0.40 5
(4.29×10 ³ # 12)	4657.3	0.03 3	(4.92×10 ³ 12)	4028.0	0.13 4
(4.31×10 ³ 12)	4640.5	0.064 20	(4.93×10 ³ 12)	4022.3	1.08 14
(4.32×10 ³ 12)	4628.9	0.16 4	(4.93×10 ³ 12)	4015.3	0.192 18
(4.35×10 ³ 12)	4601.1	0.54 8	(4.95×10 ³ 12)	3999.2	0.54 8
(4.37×10 ³ 12)	4582.0	0.50 7	(4.96×10 ³ 12)	3989.6	0.18 4
(4.38×10 ³ 12)	4569.3	0.20 5	(4.97×10 ³ 12)	3976.3	0.15 3
(4.41×10 ³ 12)	4536.4	0.15 5	(4.99×10 ³ 12)	3961.7	0.88 10

Continued on next page (footnotes at end of table)

^{102}In ϵ decay **2003Gi06** (continued) ϵ, β^+ radiations (continued)

E(decay)	E(level)	$I(\epsilon + \beta^+)^{\dagger\ddagger}$	E(decay)	E(level)	$I(\epsilon + \beta^+)^{\dagger\ddagger}$
(5.00×10 ³ 12)	3952.2	0.27 5	(5.50×10 ³ 12)	3449.67	1.26 18
(5.01×10 ³ 12)	3938.1	0.13 4	(5.53×10 ³ 12)	3422.2	0.74 9
(5.03×10 ³ 12)	3920.1	0.66 10	(5.56×10 ³ 12)	3389.2	0.80 15
(5.04×10 ³ 12)	3911.5	1.29 11	(5.56×10 ³ 12)	3385.1	0.33 6
(5.04×10 ³ 12)	3907.1	0.22 5	(5.57×10 ³ 12)	3381.3	0.21 4
(5.06×10 ³ 12)	3894.4	0.53 6	(5.58×10 ³ 12)	3370.9	0.22 4
(5.07×10 ³ 12)	3877.4	1.19 15	(5.61×10 ³ 12)	3339.0	0.088 18
(5.08×10 ³ 12)	3874.4	0.22 6	(5.67×10 ³ 12)	3276.9	0.28 7
(5.09×10 ³ 12)	3864.3	0.14 5	(5.68×10 ³ 12)	3271.0	0.35 12
(5.10×10 ³ 12)	3853.5	0.96 15	(5.68×10 ³ 12)	3268.1	3.42 17
(5.10×10 ³ 12)	3847.3	0.14 3	(5.69×10 ³ 12)	3263.4	0.180 20
(5.12×10 ³ 12)	3829.5	1.14 16	(5.72×10 ³ 12)	3228.8	0.63 9
(5.14×10 ³ 12)	3805.6	0.91 12	(5.73×10 ³ 12)	3218.3	0.33 5
(5.17×10 ³ 12)	3780.5	0.21 5	(5.75×10 ³ 12)	3197.2	0.44 9
(5.20×10 ³ 12)	3753.0	0.66 7	(5.76×10 ³ 12)	3193.7	0.15 5
(5.20×10 ³ 12)	3750.1	0.14 3	(5.80×10 ³ 12)	3149.7	0.094 24
(5.21×10 ³ 12)	3741.0	0.88 10	(5.82×10 ³ 12)	3128.9	1.13 10
(5.21×10 ³ 12)	3735.7	0.15 6	(5.83×10 ³ 12)	3115.4	0.20 4
(5.23×10 ³ 12)	3724.0	1.17 9	(5.85×10 ³ 12)	3098.9	0.23 3
(5.25×10 ³ # 12)	3702.9	0.04 9	(5.88×10 ³ 12)	3072.7	0.12 3
(5.26×10 ³ 12)	3689.4	0.072 20	(5.89×10 ³ 12)	3058.6	0.27 3
(5.30×10 ³ 12)	3649.0	0.77 9	(5.90×10 ³ # 12)	3052.66	<0.1
(5.31×10 ³ 12)	3637.4	1.21 13	(5.91×10 ³ 12)	3041.9	0.08 4
(5.34×10 ³ 12)	3613.3	0.054 18	(5.92×10 ³ 12)	3029.8	0.27 3
(5.34×10 ³ 12)	3609.1	0.88 11	(6.02×10 ³ 12)	2930.9	0.43 6
(5.35×10 ³ 12)	3604.8	0.13 3	(6.08×10 ³ 12)	2868.1	0.09 3
(5.35×10 ³ 12)	3598.4	1.13 17	(6.09×10 ³ 12)	2856.2	0.070 24
(5.36×10 ³ 12)	3594.9	0.43 7	(6.12×10 ³ 12)	2827.95	1.86 17
(5.36×10 ³ 12)	3590.0	0.20 4	(6.22×10 ³ 12)	2730.6	0.11 3
(5.37×10 ³ 12)	3583.3	0.55 8	(6.23×10 ³ 12)	2718.06	0.9 3
(5.37×10 ³ 12)	3577.4	0.22 5	(6.27×10 ³ 12)	2678.0	1.44 12
(5.38×10 ³ 12)	3572.7	0.17 3	(6.28×10 ³ 12)	2674.6	1.49 13
(5.39×10 ³ 12)	3563.2	0.94 10	(6.35×10 ³ 12)	2597.63	1.03 15
(5.40×10 ³ 12)	3552.0	2.90 19	(6.36×10 ³ 12)	2589.9	1.20 15
(5.41×10 ³ 12)	3537.6	0.64 10	(6.39×10 ³ 12)	2561.09	2.4 6
(5.45×10 ³ 12)	3498.7	0.122 24	(6.56×10 ³ 12)	2386.79	1.0 5
(5.46×10 ³ 12)	3494.7	0.62 8	(6.72×10 ³ # 12)	2230.64	0.2 9
(5.47×10 ³ 12)	3481.8	0.128 24	(7.31×10 ³ 12)	1637.61	7.7 22
(5.47×10 ³ 12)	3477.6	0.21 3			

[†] Deduced by evaluator from intensity balance. These feedings should be considered as approximate since there are probably many weak unobserved transitions as suggested by **2003Gi06** from the measured total absorption spectra.

[‡] Absolute intensity per 100 decays.

Existence of this branch is questionable.

^{102}In ε decay 2003Gi06 (continued) $\gamma(^{102}\text{Cd})$

I_γ normalization: $I(\gamma+\text{ce})(776.6)=100$, no $\varepsilon+\beta^+$ feeding is expected to g.s. and no other ground-state γ transitions are reported. All transitions are assigned on the basis of $\gamma\gamma$ coin data with gates on 777 γ and 861 γ . No direct transitions to g.s. were found beyond the first 2 $^+$ state.

E_γ †	I_γ †@	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Comments
156.7 2	3.84 8	2718.06	(8 $^+$)	2561.09	(6 $^+$)	
157.0 8	0.140 20	2561.09	(6 $^+$)	2402.8		
266.5 6	0.16 3	2827.95		2561.09	(6 $^+$)	
271.7 7	0.80 5	2674.6		2402.8		
287.8 10	1.08 10	2674.6		2386.79	(6 $^+$)	
313.2 1	3.32 6	2874.24		2561.09	(6 $^+$)	
330.4 2	1.94 6	2561.09	(6 $^+$)	2230.64	6 $^+$	
352.6 8	0.27 5	2386.79	(6 $^+$)	2034.29	(5 $^+$,6 $^+$)	
368.5 6	0.33 6	2402.8		2034.29	(5 $^+$,6 $^+$)	
396.7 1	10.12 10	2034.29	(5 $^+$,6 $^+$)	1637.61	4 $^+$	
423.9 7	0.22 5	2985.0		2561.09	(6 $^+$)	
425.1 7	0.13 6	2827.95		2402.8		
440.9 5	0.39 5	2827.95		2386.79	(6 $^+$)	
469.4 8	0.070 24	2856.2		2386.79	(6 $^+$)	
469.8 10	0.064 16	3741.0		3271.0		I_γ : uncertainty of 11.0 seems a misprint.
480.8 10	0.08 4	3041.9		2561.09	(6 $^+$)	
481.3 9	0.088 26	2868.1		2386.79	(6 $^+$)	
487.6 4	1.71 8	2718.06	(8 $^+$)	2230.64	6 $^+$	
487.6 8	0.15 4	2874.24		2386.79	(6 $^+$)	
499.6 10	0.254 24	3552.0		3052.66	8 $^+$	
500.0 20	0.11 3	2730.6		2230.64	6 $^+$	
526.9 8	0.17 6	2561.09	(6 $^+$)	2034.29	(5 $^+$,6 $^+$)	
540.7 10	0.034 10	4103.9		3563.2		
563.0 3	0.99 5	2597.63		2034.29	(5 $^+$,6 $^+$)	
567.9 4	0.70 4	3128.9		2561.09	(6 $^+$)	
575.7 3	1.11 4	3449.67		2874.24		
576.3 10	0.14 3	3847.3		3271.0		
593.0 1	31.0 6	2230.64	6 $^+$	1637.61	4 $^+$	
593.3 3	0.14 5	3864.3		3271.0		
597.4 8	0.19 6	2827.95		2230.64	6 $^+$	
606.0 9	0.132 26	3877.4		3271.0		
613.5 6	0.146 26	3598.4		2985.0		
640.2 10	0.058 20	3911.5		3271.0		
644.2 10	0.15 4	2874.24		2230.64	6 $^+$	
667.9 7	0.29 4	3228.8		2561.09	(6 $^+$)	
676.5 20	0.99 14	3552.0		2874.24		
684.1 3	0.95 5	2718.06	(8 $^+$)	2034.29	(5 $^+$,6 $^+$)	
688.9 3	0.78 5	3563.2		2874.24		
696.1 7	0.23 3	3098.9		2402.8		
696.7 4	0.35 6	4085.9		3389.2		
700.3 5	0.43 6	2930.9		2230.64	6 $^+$	
700.5 3	0.46 5	3753.0		3052.66	8 $^+$	
703.9 8	0.20 4	3422.2		2718.06	(8 $^+$)	
706.4 20	0.14 3	3268.1		2561.09	(6 $^+$)	
709.1 20	0.55 8	3583.3		2874.24		
712.3 20	0.070 14	4162.0		3449.67		
723.7 20	0.98 16	3598.4		2874.24		
723.8 20	0.100 20	4175.8		3449.67		
742.4 3	0.46 4	3128.9		2386.79	(6 $^+$)	
749.2 2	13.0 3	2386.79	(6 $^+$)	1637.61	4 $^+$	

Continued on next page (footnotes at end of table)

^{102}In ε decay 2003Gi06 (continued) $\gamma(^{102}\text{Cd})$ (continued)

E_γ^\dagger	$I_\gamma^\dagger@$	$E_i(\text{level})$	J_i^π	E_f	J_f^π
762.9 20	0.094 24	3149.7		2386.79	(6 ⁺)
763.5 7	0.064 20	4034.6		3271.0	
763.7 20	0.128 24	3481.8		2718.06	(8 ⁺)
765.1 9	0.14 3	3750.1		2985.0	
765.3 6	2.58 5	2402.8		1637.61	4 ⁺
776.6 1	100.0 20	776.61	2 ⁺	0.0	0 ⁺
793.7 2	1.89 10	2827.95		2034.29	(5 ⁺ ,6 ⁺)
800.7 9	0.120 24	4071.7		3271.0	
810.4 6	0.086 26	3197.2		2386.79	(6 ⁺)
822.0 2	4.50 12	3052.66	8 ⁺	2230.64	6 ⁺
824.0 7	0.33 6	3385.1		2561.09	(6) ⁺
828.4 9	0.26 5	3389.2		2561.09	(6) ⁺
842.1 20	0.12 3	3072.7		2230.64	6 ⁺
851.4 3	0.40 6	3449.67		2597.63	
854.3 10	0.068 20	3572.7		2718.06	(8 ⁺)
861.0 1	100 2	1637.61	4 ⁺	776.61	2 ⁺
873.9 20	0.134 16	3276.9		2402.8	
876.6 20	0.180 20	3263.4		2386.79	(6 ⁺)
876.6 5	0.132 26	4147.0		3271.0	
884.6 4	1.58 6	3271.0		2386.79	(6 ⁺)
884.8 20	0.20 4	3115.4		2230.64	6 ⁺
885.5 9	0.24 3	4335.2		3449.67	
889.1 7	0.15 4	3449.67		2561.09	(6) ⁺
890.3 8	0.16 3	4453.6		3563.2	
898.6 10	0.43 4	3128.9		2230.64	6 ⁺
919.6 5	0.032 12	3637.4		2718.06	(8 ⁺)
923.5 1	18.9 4	2561.09	(6) ⁺	1637.61	4 ⁺
923.6 3	0.15 3	3976.3		3052.66	8 ⁺
933.8 6	0.41 6	3494.7		2561.09	(6) ⁺
947.4 4	0.45 6	3537.6		2589.9	
952.4 8	2.40 6	2589.9		1637.61	4 ⁺
954.9 5	0.058 20	3829.5		2874.24	
959.9 2	0.91 9	2597.63		1637.61	4 ⁺
962.6 6	0.192 18	4015.3		3052.66	8 ⁺
963.1 6	0.15 5	3193.7		2230.64	6 ⁺
977.5 8	0.12 3	4680.3		3702.9	
977.9 4	0.50 8	4427.6		3449.67	
987.0 6	0.85 6	4039.7		3052.66	8 ⁺
987.0 10	0.084 16	4689.8		3702.9	
987.7 7	0.33 5	3218.3		2230.64	6 ⁺
990.4 9	0.11 3	3552.0		2561.09	(6) ⁺
994.5 7	0.21 4	3381.3		2386.79	(6 ⁺)
994.5 5	<0.086	4265.63		3271.0	
995.5 10	0.27 3	3029.8		2034.29	(5 ⁺ ,6 ⁺)
997.9 10	0.34 8	3228.8		2230.64	6 ⁺
1002.1 10	0.128 12	3563.2		2561.09	(6) ⁺
1002.5 5	0.124 12	3389.2		2386.79	(6 ⁺)
1024.3 10	0.27 3	3058.6		2034.29	(5 ⁺ ,6 ⁺)
1034.4 7	0.12 4	3594.9		2561.09	(6) ⁺
1034.7 4	0.20 4	3753.0		2718.06	(8 ⁺)
1035.7 7	0.10 3	3422.2		2386.79	(6 ⁺)
1037.6 6	0.35 6	4022.3		2985.0	
1038.3 6	2.51 12	3268.1		2230.64	6 ⁺
1040.4 7	1.44 12	2678.0	(6 ⁺)	1637.61	4 ⁺
1045.9 8	0.66 10	3920.1		2874.24	
1064.6 10	0.14 3	4453.6		3389.2	

Continued on next page (footnotes at end of table)

^{102}In ε decay **2003Gi06** (continued) $\gamma(^{102}\text{Cd})$ (continued)

E_γ †	I_γ †@	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ †	I_γ †@	$E_i(\text{level})$	E_f	J_f^π
1064.9 9	0.14 5	3449.67		2386.79	(6 ⁺)	1391.6 4	0.43 6	4265.63	2874.24	
1065.9 10	0.43 5	3894.4		2827.95		1395.1 10	0.15 4	3780.5	2386.79	(6 ⁺)
1079.1 8	0.066 20	3907.1		2827.95		1401.2 10	0.15 4	3961.7	2561.09	(6 ⁺)
1136.0 3	0.22 4	4525.3		3389.2		1407.3 5	0.31 6	3637.4	2230.64	6 ⁺
1136.8 7	0.51 3	4189.5		3052.66	8 ⁺	1416.6 8	0.50 4	3449.67	2034.29	(5 ⁺ ,6 ⁺)
1142.4 6	0.40 4	3702.9		2561.09	(6 ⁺)	1417.9 5	0.34 6	3649.0	2230.64	6 ⁺
1144.4 20	0.030 12	4197.2		3052.66	8 ⁺	1424.3 20	0.22 4	4142.4	2718.06	(8 ⁺)
1147.4 10	0.73 12	4022.3		2874.24		1426.2 20	0.12 4	3829.5	2402.8	
1150.4 20	0.22 3	3552.0		2402.8		1428.5 9	0.18 4	3989.6	2561.09	(6 ⁺)
1152.2 ^a 10	0.38 ^a 6	3537.6		2386.79	(6 ⁺)	1437.5 3	0.288 14	4311.7	2874.24	
1152.2 ^a 10	0.118 ^a 24	4206.2		3052.66	8 ⁺	1437.8 6	0.13 3	4265.63	2827.95	
1158.6 10	0.150 24	3389.2		2230.64	6 ⁺	1438.1 4	0.54 8	3999.2	2561.09	(6 ⁺)
1162.9 7	0.35 8	3197.2		2034.29	(5 ⁺ ,6 ⁺)	1443.3 10	0.21 3	3477.6	2034.29	(5 ⁺ ,6 ⁺)
1165.9 10	0.12 4	3552.0		2386.79	(6 ⁺)	1454.5 8	0.082 20	4282.8	2827.95	
1171.0 20	0.100 20	3572.7		2402.8		1460.9 20	0.18 4	4048.9	2589.9	
1176.6 10	0.092 26	3563.2		2386.79	(6 ⁺)	1464.4 20	0.122 24	3498.7	2034.29	(5 ⁺ ,6 ⁺)
1185.8 20	0.15 3	3590.0		2402.8		1465.2 8	0.048 16	4182.8	2718.06	(8 ⁺)
1191.5 9	0.19 5	3422.2		2230.64	6 ⁺	1466.0 4	0.35 6	4340.2	2874.24	
1207.4 8	0.056 20	3594.9		2386.79	(6 ⁺)	1466.4 8	0.18 3	4915.6	3449.67	
1208.3 10	0.052 18	4479.3		3271.0		1466.9 10	0.13 4	4028.0	2561.09	(6 ⁺)
1210.6 10	0.060 20	5064.8		3853.5		1471.6 20	0.088 26	4739.7	3721.0	
1211.8 8	0.056 18	4265.63		3052.66	8 ⁺	1473.1 6	0.052 12	5175.6	3702.9	
1222.4 4	0.20 6	3609.1		2386.79	(6 ⁺)	1476.1 20	0.21 4	4528.8	3052.66	8 ⁺
1230.5 9	0.23 4	4680.3		3449.67		1487.8 3	1.07 10	4048.9	2561.09	(6 ⁺)
1232.8 7	0.19 4	3268.1		2034.29	(5 ⁺ ,6 ⁺)	1488.2 6	1.61 10	4206.2	2718.06	(8 ⁺)
1236.6 20	3.51 24	2874.24		1637.61	4 ⁺	1488.5 9	0.054 18	5040.7	3552.0	
1239.7 9	0.16 4	4628.9		3389.2		1491.1 10	0.11 3	3877.4	2386.79	(6 ⁺)
1243.7 10	0.19 6	3276.9		2034.29	(5 ⁺ ,6 ⁺)	1492.2 10	0.10 3	3894.4	2402.8	
1244.0 10	0.20 6	3805.6		2561.09	(6 ⁺)	1493.6 9	1.13 8	3724.0	2230.64	6 ⁺
1246.8 5	0.09 4	3649.0		2402.8		1510.3 7	0.18 6	4071.7	2561.09	(6 ⁺)
1251.2 20	0.11 4	3637.4		2386.79	(6 ⁺)	1510.4 4	0.55 6	3741.0	2230.64	6 ⁺
1256.6 7	0.12 3	4131.2		2874.24		1517.5 6	0.106 24	4906.7	3389.2	
1263.4 10	0.21 5	3494.7		2230.64	6 ⁺	1519.3 10	0.20 6	3552.0	2034.29	(5 ⁺ ,6 ⁺)
1276.8 20	0.09 4	3874.4		2597.63		1519.3 9	0.018 8	5702.1	4182.8	
1304.4 20	0.062 16	4754.3		3449.67		1524.1 4	0.59 3	3911.5	2386.79	(6 ⁺)
1304.7 9	0.088 18	3339.0		2034.29	(5 ⁺ ,6 ⁺)	1525.5 20	0.032 24	4085.9	2561.09	(6 ⁺)
1305.3 10	0.088 14	4357.9		3052.66	8 ⁺	1527.1 20	0.14 3	3563.2	2034.29	(5 ⁺ ,6 ⁺)
1311.5 10	0.024 20	4582.0		3271.0		1534.3 10	<0.10	4981.8	3449.67	
1315.4 20	0.096 24	4368.1		3052.66	8 ⁺	1534.6 5	0.22 3	5237.5	3702.9	
1321.4 3	1.27 8	3552.0		2230.64	6 ⁺	1536.3 10	0.072 20	3938.1	2402.8	
1332.5 4	0.63 10	4206.2		2874.24		1543.1 10	0.13 4	3577.4	2034.29	(5 ⁺ ,6 ⁺)
1336.6 20	0.22 4	3370.9		2034.29	(5 ⁺ ,6 ⁺)	1548.8 10	0.060 20	4601.1	3052.66	8 ⁺
1346.2 20	0.15 4	3907.1		2561.09	(6 ⁺)	1549.3 20	0.17 5	4821.1	3271.0	
1346.6 20	0.090 22	3577.4		2230.64	6 ⁺	1550.7 8	0.060 24	3938.1	2386.79	(6 ⁺)
1346.6 8	0.16 3	4735.8		3389.2		1555.4 6	0.054 18	5107.4	3552.0	
1354.4 10	0.43 8	3389.2		2034.29	(5 ⁺ ,6 ⁺)	1557.0 20	0.046 18	3590.0	2034.29	(5 ⁺ ,6 ⁺)
1354.4 10	0.16 3	3741.0		2386.79	(6 ⁺)	1559.0 6	0.43 6	3961.7	2402.8	
1354.4 7	0.12 4	4227.9		2874.24		1570.5 20	0.128 26	3604.8	2034.29	(5 ⁺ ,6 ⁺)
1363.2 10	0.18 3	4416.0		3052.66	8 ⁺	1575.0 9	0.23 5	3805.6	2230.64	6 ⁺
1364.0 20	0.25 5	3594.9		2230.64	6 ⁺	1579.0 20	0.054 18	3613.3	2034.29	(5 ⁺ ,6 ⁺)
1375.3 6	0.39 8	4360.6		2985.0		1599.0 4	0.54 14	3829.5	2230.64	6 ⁺
1378.3 5	0.52 7	3609.1		2230.64	6 ⁺	1614.3 7	0.34 5	3649.0	2034.29	(5 ⁺ ,6 ⁺)
1387.4 20	0.25 4	3422.2		2034.29	(5 ⁺ ,6 ⁺)	1623.8 20	0.41 10	3853.5	2230.64	6 ⁺
1387.7 ^a 5	0.072 ^a 24	5570.5		4182.8		1630.2 20	0.58 10	3268.1	1637.61	4 ⁺
1387.7 ^a 5	0.070 ^a 24	5670.9		4282.8		1644.6 9	0.43 6	4206.2	2561.09	(6 ⁺)
1391.1 8	0.27 5	3952.2		2561.09	(6 ⁺)	1646.8 4	1.00 14	3877.4	2230.64	6 ⁺

Continued on next page (footnotes at end of table)

¹⁰²In ε decay 2003Gi06 (continued)

γ(¹⁰²Cd) (continued)

<u>E_γ[†]</u>	<u>I_γ^{†@}</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_f</u>	<u>J_f^π</u>
1647.8 8	0.34 4	4034.6		2386.79	(6 ⁺)
1648.6 4	0.098 20	4777.3		3128.9	
1655.1 20	0.072 20	3689.4		2034.29	(5 ⁺ ,6 ⁺)
1659.3 10	0.058 20	4377.4		2718.06	(8 ⁺)
1661.6 20	0.076 26	4048.9		2386.79	(6 ⁺)
1666.3 8	0.14 4	4227.9		2561.09	(6) ⁺
1668.2 20	0.11 4	3702.9		2034.29	(5 ⁺ ,6 ⁺)
1668.2 10	0.14 4	4497.1		2827.95	
1682.3 10	0.072 24	5071.6		3389.2	
1682.6 7	0.64 10	3911.5		2230.64	6 ⁺
1685.2 7	0.27 3	4071.7		2386.79	(6 ⁺)
1685.3 9	0.106 24	4088.1		2402.8	
1687.0 9	0.084 24	4739.7		3052.66	8 ⁺
1691.5 4	0.092 24	5141.2		3449.67	
1695.6 10	0.042 16	4082.4		2386.79	(6 ⁺)
1704.7 20	0.18 8	4265.63		2561.09	(6) ⁺
1716.5 5	0.084 20	4845.5		3128.9	
1730.7 7	0.23 5	3961.7		2230.64	6 ⁺
1734.6 9	0.20 4	4121.4		2386.79	(6 ⁺)
1736.2 10	0.10 3	5273.8		3537.6	
1743.7 8	0.048 16	5621.2		3877.4	
1744.2 5	0.062 20	5193.9		3449.67	
1744.9 9	0.21 4	4131.2		2386.79	(6 ⁺)
1745.3 8	0.062 10	3780.5		2034.29	(5 ⁺ ,6 ⁺)
1745.9 10	0.068 18	6057.6		4311.7	
1751.2 8	1.296 16	3389.2		1637.61	4 ⁺
1754.6 20	0.038 12	6066.3		4311.7	
1760.4 20	0.11 4	5149.7		3389.2	
1761.4 20	0.14 4	4147.0		2386.79	(6 ⁺)
1771.4 6	0.40 8	3805.6		2034.29	(5 ⁺ ,6 ⁺)
1771.4 20	0.29 6	4446.0		2674.6	
1780.1 5	0.12 3	4182.8		2402.8	
1789.6 10	0.10 3	4175.8		2386.79	(6 ⁺)
1795.3 10	0.36 6	3829.5		2034.29	(5 ⁺ ,6 ⁺)
1813.3 20	0.55 8	3449.67		1637.61	4 ⁺
1816.3 20	0.04 4	4689.8		2874.24	
1818.4 9	0.066 20	4206.2		2386.79	(6 ⁺)
1821.0 8	0.096 24	4224.1		2402.8	
1841.1 4	0.60 10	4071.7		2230.64	6 ⁺
1854.9 5	0.49 7	4416.0		2561.09	(6) ⁺
1855.7 20	0.11 3	4242.5		2386.79	(6 ⁺)
1865.7 20	0.13 4	4252.7		2386.79	(6 ⁺)
1878.8 3	1.36 8	4265.63		2386.79	(6 ⁺)
1881.1 20	0.066 20	5420.7		3537.6	
1883.0 4	0.33 6	4601.1		2718.06	(8 ⁺)
1883.9 5	0.044 14	6195.6		4311.7	
1895.8 8	0.27 3	4282.8		2386.79	(6 ⁺)
1899.9 10	0.042 20	5175.6		3276.9	
1900.7 10	0.024 8	6083.5		4182.8	
1916.1 3	0.50 10	4147.0		2230.64	6 ⁺
1926.7 10	0.050 12	5489.2		3563.2	
1926.9 20	0.15 6	3563.2		1637.61	4 ⁺
1936.4 9	0.040 12	5064.8		3128.9	
1942.2 10	0.27 5	2718.06	(8 ⁺)	776.61	2 ⁺
1943.8 10	0.038 12	6225.9		4282.8	
1951.1 10	0.24 8	4182.8		2230.64	6 ⁺

Continued on next page (footnotes at end of table)

^{102}In ε decay **2003Gi06** (continued) $\gamma(^{102}\text{Cd})$ (continued)

E_{γ}^{\dagger}	$I_{\gamma}^{\dagger @}$	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	E_{γ}^{\dagger}	$I_{\gamma}^{\dagger @}$	$E_i(\text{level})$	E_f	J_f^{π}
1951.1 20	0.08 8	4512.8		2561.09	(6) ⁺	2300.0 10	0.13 3	5175.6	2874.24	
1971.2 20	0.16 6	3609.1		1637.61	4 ⁺	2302.6 10	0.054 18	4689.8	2386.79	(6) ⁺
1975.3 7	0.12 4	4206.2		2230.64	6 ⁺	2320.1 10	0.028 10	5857.8	3537.6	
1982.9 7	0.11 3	4385.7		2402.8		2322.9 20	0.07 4	3961.7	1637.61	4 ⁺
1996.9 7	0.16 4	4227.9		2230.64	6 ⁺	2334.8 20	0.008 8	4720.9	2386.79	(6) ⁺
1998.8 5	0.76 10	3637.4		1637.61	4 ⁺	2345.5 10	0.044 14	5909.2	3563.2	
1998.8 9	0.26 8	4385.7		2386.79	(6) ⁺	2348.4 20	0.18 6	4909.6	2561.09	(6) ⁺
1998.8 20	0.14 4	4716.9		2718.06	(8) ⁺	2348.4 10	0.12 4	5399.1	3052.66	8 ⁺
2008.2 9	0.20 5	4569.3		2561.09	(6) ⁺	2350.0 5	0.15 4	5068.1	2718.06	(8) ⁺
2008.8 10	0.032 10	6320.5		4311.7		2353.0 20	0.13 3	4582.0	2230.64	6 ⁺
2021.3 10	0.36 8	4739.7		2718.06	(8) ⁺	2359.4 20	0.064 22	5909.2	3552.0	
2022.0 10	0.32 6	4582.0		2561.09	(6) ⁺	2363.6 10	0.19 6	4925.0	2561.09	(6) ⁺
2022.2 20	0.15 3	4252.7		2230.64	6 ⁺	2369.5 20	0.15 4	4601.1	2230.64	6 ⁺
2035.0 5	0.80 14	4265.63		2230.64	6 ⁺	2389.5 7	0.082 26	4777.3	2386.79	(6) ⁺
2037.5 10	0.10 3	4424.3		2386.79	(6) ⁺	2409.4 8	0.14 5	5127.5	2718.06	(8) ⁺
2053.3 20	0.038 12	5182.3		3128.9		2419.1 20	0.18 6	4981.8	2561.09	(6) ⁺
2065.1 20	0.030 10	5193.9		3128.9		2437.2 20	0.14 5	4668.9	2230.64	6 ⁺
2065.5 20	0.08 3	3702.9		1637.61	4 ⁺	2454.6 10	0.23 5	4685.3	2230.64	6 ⁺
2079.4 6	0.064 20	4640.5		2561.09	(6) ⁺	2461.0 20	0.18 6	5022.1	2561.09	(6) ⁺
2079.9 ^a 20	0.040 ^a 12	4668.9		2589.9		2482.9 10	0.056 18	4886.4	2402.8	
2079.9 ^a 20	0.032 ^a 12	4754.3		2674.6		2500.3 10	0.048 24	5175.6	2674.6	
2080.8 20	0.18 4	4311.7		2230.64	6 ⁺	2508.5 8	0.38 9	4739.7	2230.64	6 ⁺
2082.2 10	0.032 12	5934.5		3853.5		2528.6 [#] 10	0.17 [#] 5	4915.6	2386.79	(6) ⁺
2085.2 20	0.040 20	3724.0		1637.61	4 ⁺	2528.6 [#] 20	0.17 [#] 6	5246.2	2718.06	(8) ⁺
2095.9 20	0.11 3	4497.1		2402.8		2544.3 10	0.14 4	5105.4	2561.09	(6) ⁺
2098.1 20	0.15 6	3735.7		1637.61	4 ⁺	2559.6 20	0.026 20	4197.2	1637.61	4 ⁺
2102.0 20	0.24 5	4332.7		2230.64	6 ⁺	2569.3 10	0.048 16	5396.6	2827.95	
2103.1 8	0.33 5	4821.1		2718.06	(8) ⁺	2578.4 8	0.096 24	4981.8	2402.8	
2103.4 5	0.33 8	4664.5		2561.09	(6) ⁺	2614.4 9	0.060 20	5332.5	2718.06	(8) ⁺
2120.0 9	0.094 24	5670.9		3552.0		2615.3 20	0.24 5	4845.5	2230.64	6 ⁺
2127.1 10	0.17 4	4357.9		2230.64	6 ⁺	2638.9 6	0.64 12	5691.7	3052.66	8 ⁺
2142.2 8	0.38 8	4739.7		2597.63		2641.4 7	0.79 14	4872.1	2230.64	6 ⁺
2142.3 6	0.51 8	4373.0		2230.64	6 ⁺	2679.7 20	0.35 8	4909.6	2230.64	6 ⁺
2148.3 ^a 10	0.058 ^a 16	4182.8		2034.29	(5 ⁺ ,6 ⁺)	2699.4 [#] 20	0.35 [#] 8	4930.1	2230.64	6 ⁺
2148.3 ^a 10	0.21 ^a 5	4709.4		2561.09	(6) ⁺	2699.4 6	0.35 12	5752.7	3052.66	8 ⁺
2149.3 9	0.07 3	4536.4		2386.79	(6) ⁺	2702.6 20	0.070 20	5420.7	2718.06	(8) ⁺
2154.9 10	0.29 6	4385.7		2230.64	6 ⁺	2714.9 20	0.026 10	6418.6	3702.9	
2159.0 20	0.16 6	4720.9		2561.09	(6) ⁺	2717.3 10	0.09 4	5435.9	2718.06	(8) ⁺
2168.4 20	0.08 3	3805.6		1637.61	4 ⁺	2726.4 20	0.046 20	4360.6	1637.61	4 ⁺
2178.4 10	0.18 6	4739.7		2561.09	(6) ⁺	2743.7 10	0.10 3	5130.5	2386.79	(6) ⁺
2185.3 4	0.30 4	4416.0		2230.64	6 ⁺	2744.6 10	0.05 18	5797.3	3052.66	8 ⁺
2187.5 5	0.16 8	4777.3		2589.9		2748.3 8	0.51 10	4385.7	1637.61	4 ⁺
2190.2 10	0.10 4	4224.1		2034.29	(5 ⁺ ,6 ⁺)	2750.4 9	0.56 12	4981.8	2230.64	6 ⁺
2190.7 5	0.108 20	5175.6		2985.0		2758.9 20	0.036 16	5811.6	3052.66	8 ⁺
2192.6 20	0.064 22	3829.5		1637.61	4 ⁺	2779.4 20	0.05 16	4416.0	1637.61	4 ⁺
2193.0 10	0.030 10	4582.0		2386.79	(6) ⁺	2785.6 20	0.046 16	3563.2	776.61	2 ⁺
2206.9 4	0.94 16	4925.0		2718.06	(8) ⁺	2803.1 10	0.042 20	4440.8	1637.61	4 ⁺
2215.9 5	0.64 10	3853.5		1637.61	4 ⁺	2827.2 10	0.084 26	5879.9	3052.66	8 ⁺
2224.0 10	0.076 20	5787.2		3563.2		2835.9 10	0.028 12	6225.9	3389.2	
2236.8 ^{&} 20	0.13 ^{&‡} 6	3874.4		1637.61	4 ⁺	2851.8 10	0.028 10	6554.8	3702.9	
2236.8 ^{&} 20	0.13 ^{&‡} 6	4797.9		2561.09	(6) ⁺	2860.0 ^a 10	0.21 ^a 5	4497.1	1637.61	4 ⁺
2237.8 8	0.062 20	4827.8		2589.9		2860.0 ^a 10	0.16 ^a 5	5420.7	2561.09	(6) ⁺
2262.9 9	0.17 8	4824.0		2561.09	(6) ⁺	2866.4 20	0.016 16	5540.1	2674.6	
2277.0 7	0.13 3	4311.7		2034.29	(5 ⁺ ,6 ⁺)	2866.4 10	0.084 26	5918.9	3052.66	8 ⁺
2282.8 20	0.13 4	4512.8		2230.64	6 ⁺	2875.1 10	0.074 24	4909.6	2034.29	(5 ⁺ ,6 ⁺)

Continued on next page (footnotes at end of table)

^{102}In ε decay **2003Gi06** (continued)

$\gamma(^{102}\text{Cd})$ (continued)

- † From priv. comm. (2003GiZX) received as e-mail reply on June 26 and July 8,2003 from M. Gierlik of 2003Gi06. Intensities are not corrected for summing effects which could amount to 5% for 100% cascades. As suggested by the total absorption spectroscopy (tas), a large number of weak γ rays remain unobserved.
- ‡ Same intensity is quoted for two components but with different uncertainties. It is not clear whether the values correspond to divided or undivided intensities.
- # The energy and intensity values are the same for the doublet, but different uncertainties are quoted. It is not clear whether the values correspond to divided or undivided intensities.
- @ Absolute intensity per 100 decays.
- & Multiply placed with undivided intensity.
- ^a Multiply placed with intensity suitably divided.

¹⁰²In ε decay 2003Gi06

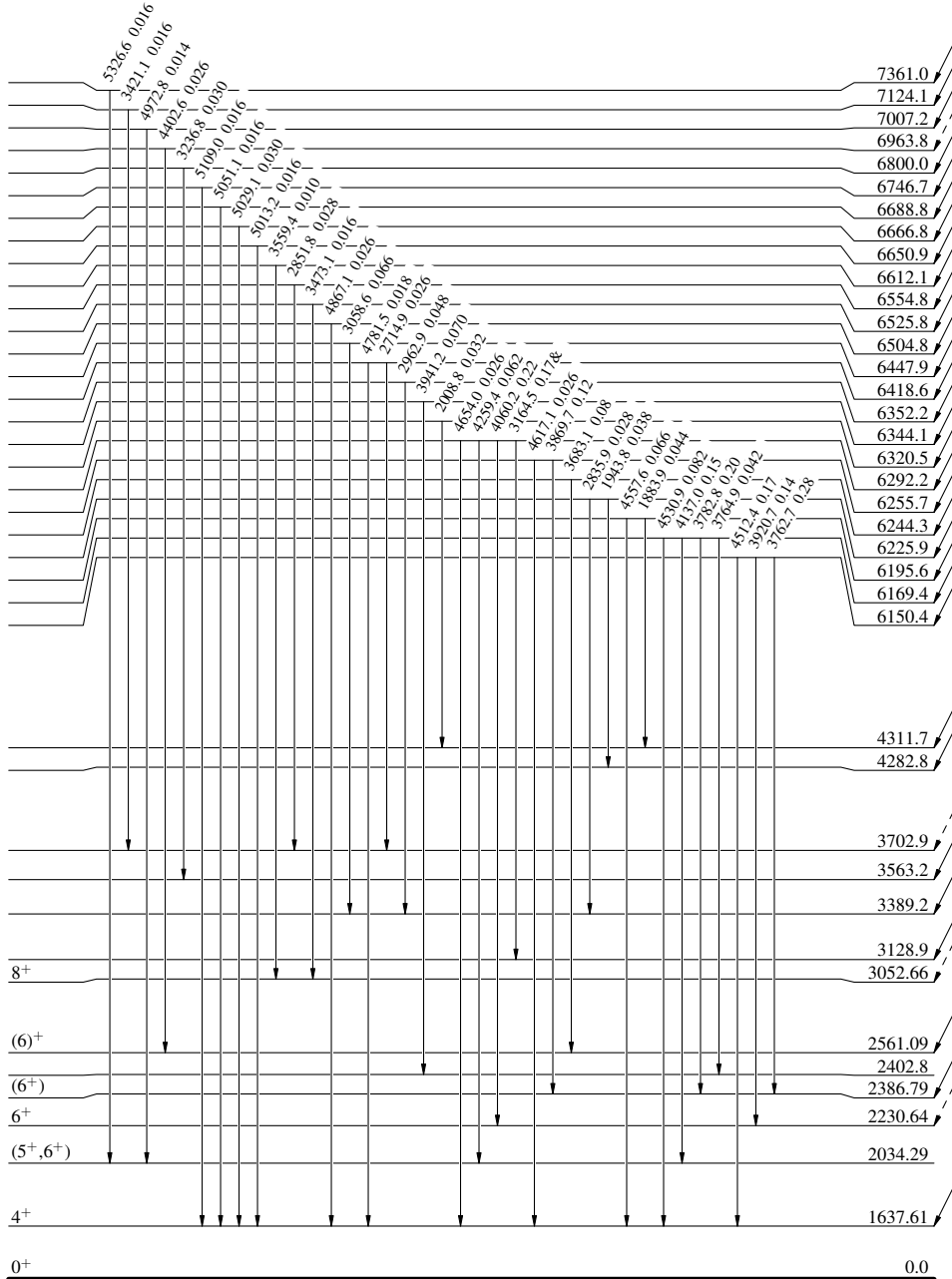
Decay Scheme

Intensities: Relative I_γ
& Multiplied: undivided intensity given

Legend

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}

$Q_{\epsilon} + \% \beta^{+} = 100.0$
 $Q_{\epsilon} = 8.95 \times 10^3 \text{ keV}$
¹⁰²In₅₃
 (6⁺) 0.0 23.3 s I



¹⁰²Cd₅₄

¹⁰²In ε decay 2003Gi06

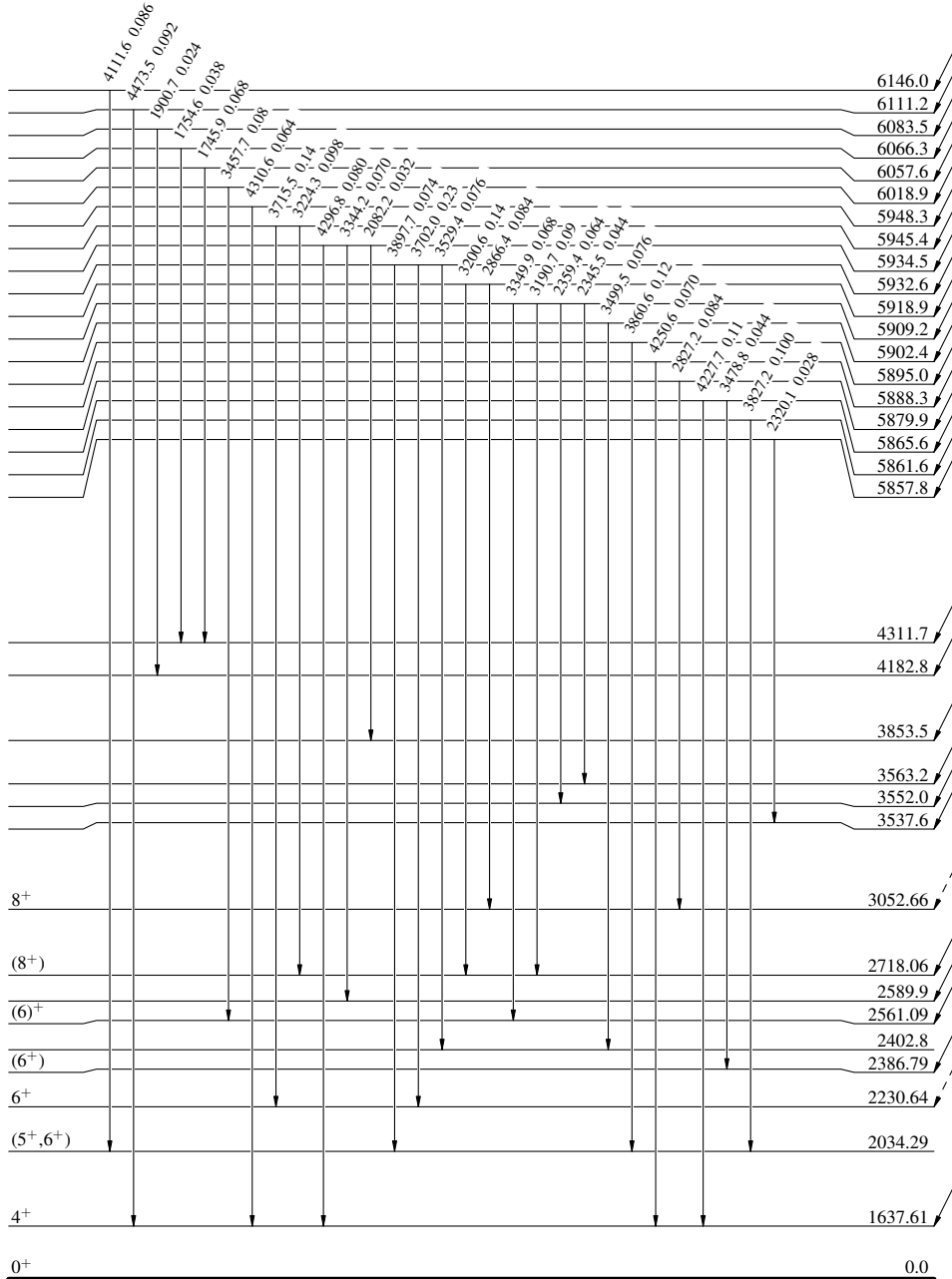
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given

Legend

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}

$Q_{\epsilon} + \% \beta^{+} = 100.0$
 $Q_{\epsilon} = 8.95 \times 10^3$ 12
¹⁰²In₅₃
 23.3 s 1
 (6⁺) 0.0



^{102}In ϵ decay 2003Gi06

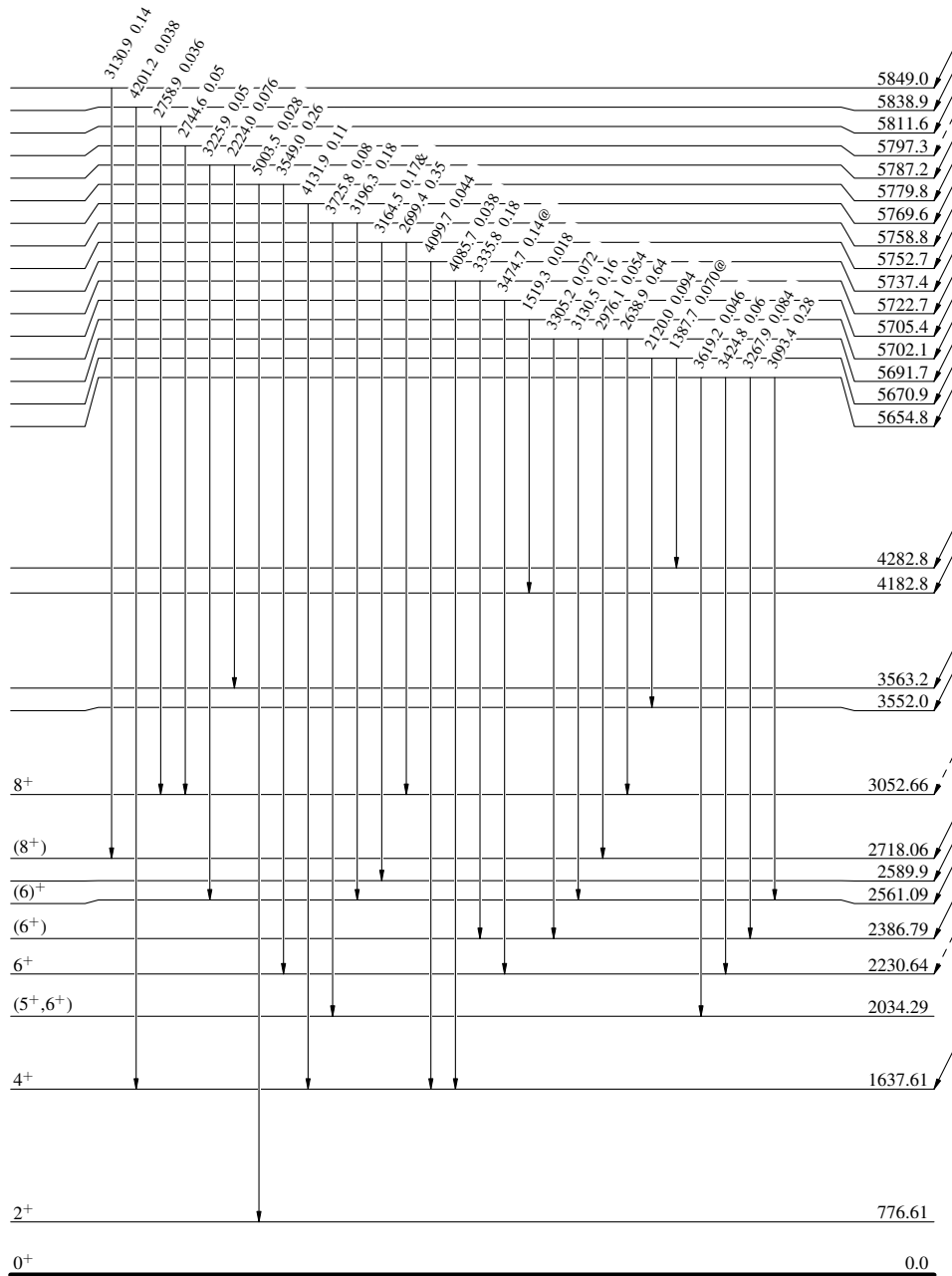
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$^{6+}$ 0.0 23.3 s I
 $Q_\epsilon = 8.95 \times 10^3$ l2
 $^{102}_{49}\text{In}_{53}$
 $\% \epsilon + \% \beta^+ = 100.0$



^{102}In ϵ decay 2003Gi06

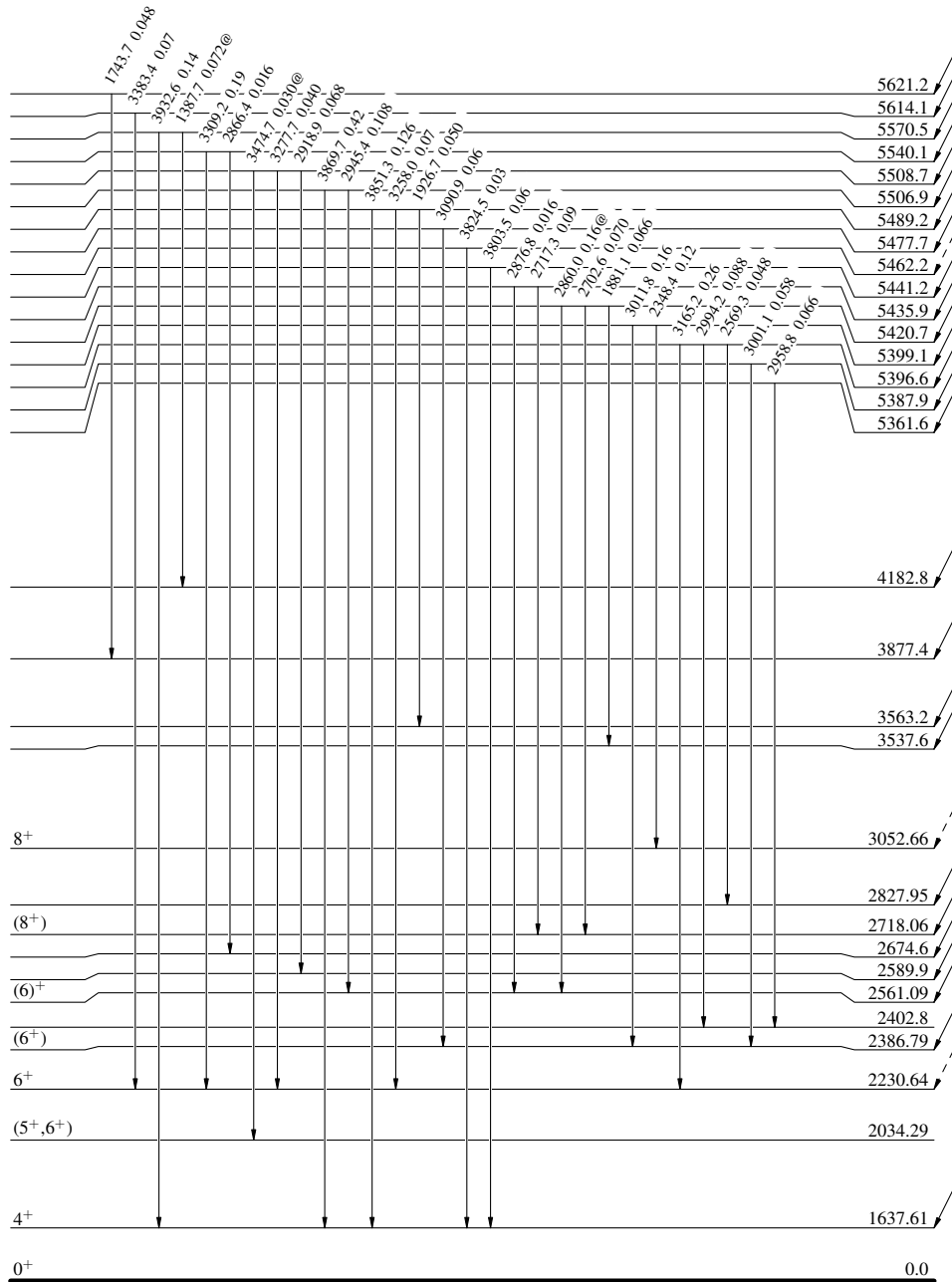
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$^{6+} \quad 0.0 \quad 23.3 \text{ s } I$
 $\% \epsilon + \% \beta^+ = 100.0$
 $Q_\epsilon = 8.95 \times 10^3 \text{ l2}$
 $^{102}_{49}\text{In}_{53}$



^{102}In ϵ decay 2003Gi06

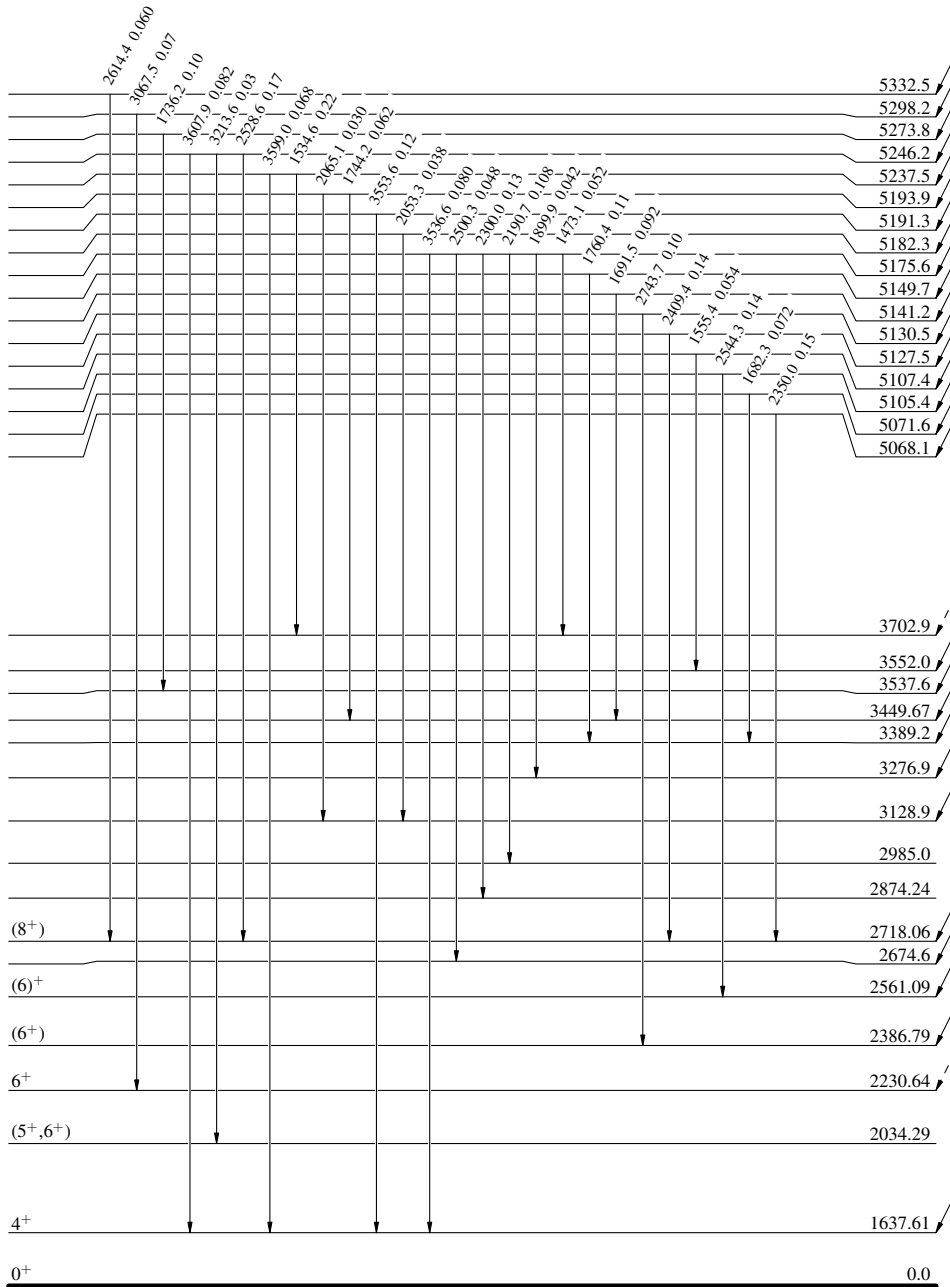
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$^{6+}$ 0.0 23.3 s I
 $Q_\epsilon = 8.95 \times 10^3$ I_2
 $^{102}_{49}\text{In}_{53}$
 $\% \epsilon + \% \beta^+ = 100.0$



^{102}In ϵ decay 2003Gi06

Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

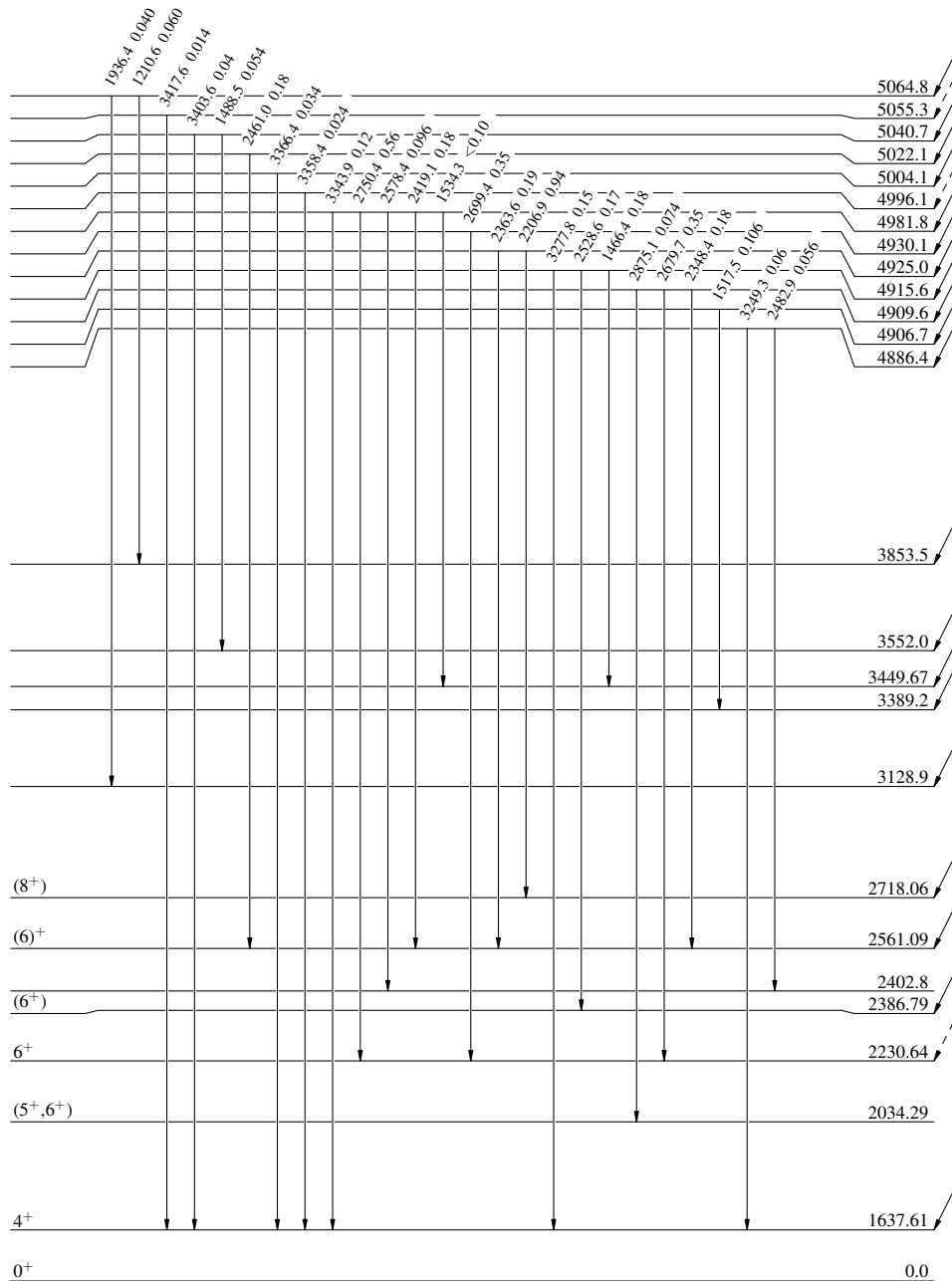
- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

$\% \epsilon + \% \beta^+ = 100.0$

$(6^+) \quad 0.0 \quad 23.3 \text{ s } I$

$Q_\epsilon = 8.95 \times 10^3 \text{ l2}$

$^{102}_{49}\text{In}_{53}$



^{102}In ϵ decay 2003Gi06

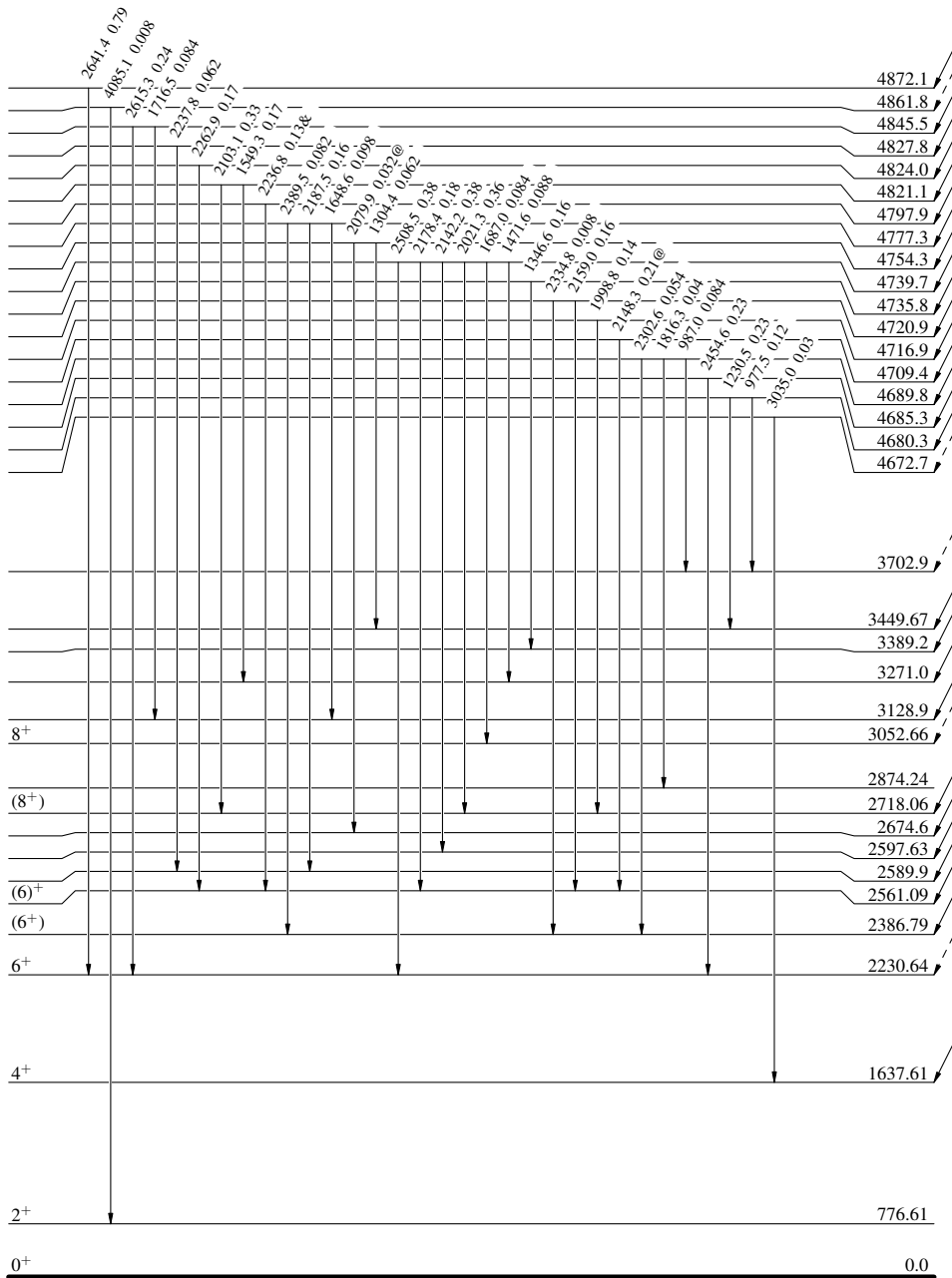
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$^{6+} \quad 0.0 \quad 23.3 \text{ s } 1$
 $\% \epsilon + \% \beta^+ = 100.0$
 $Q_\epsilon = 8.95 \times 10^3 \text{ l2}$
 $^{102}_{49}\text{In}_{53}$



¹⁰²In ε decay 2003Gi06

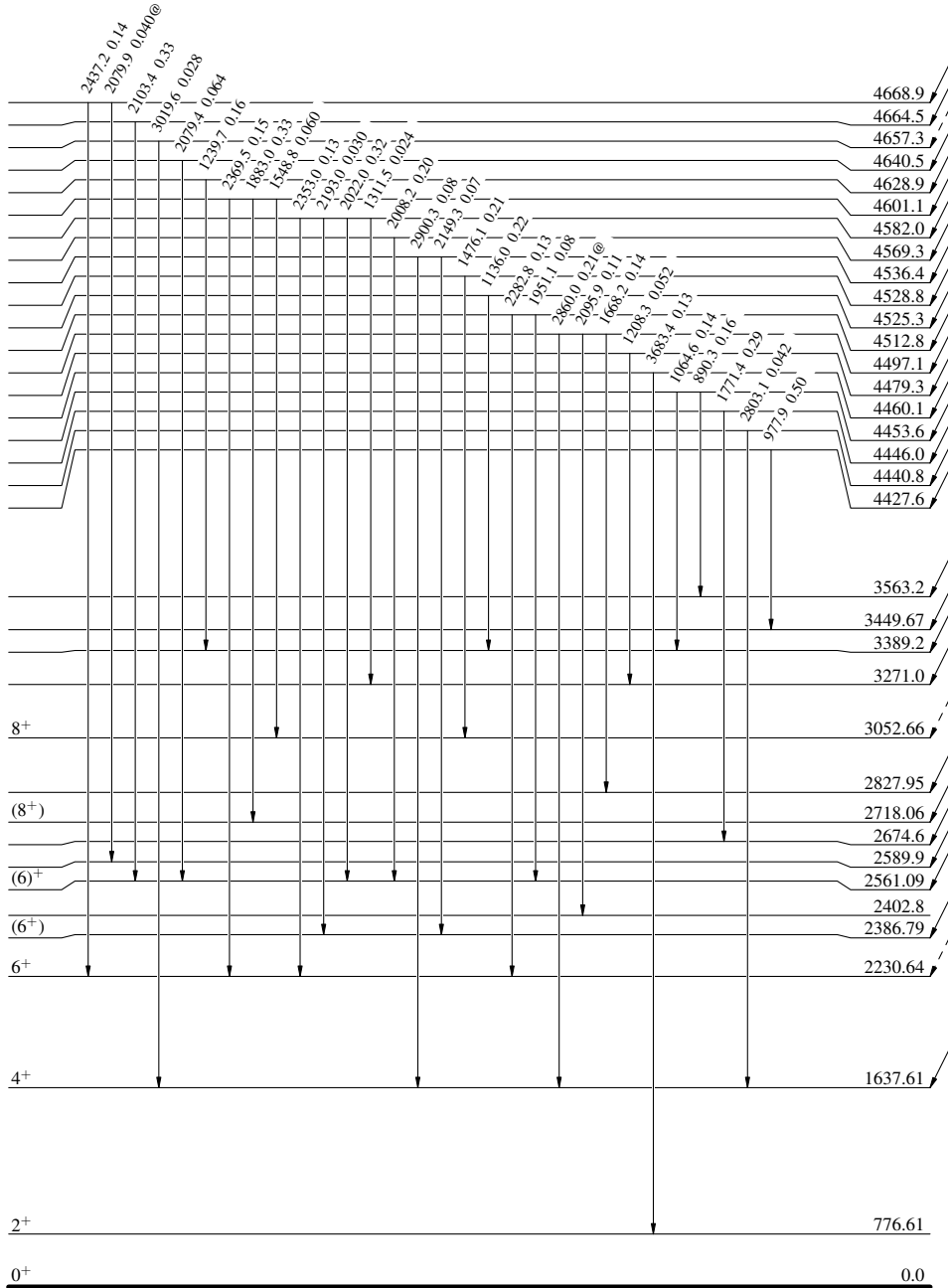
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}

$\% \epsilon + \% \beta^+ = 100.0$
 $Q_\epsilon = 8.95 \times 10^3 \text{ I2}$
¹⁰²In₅₃ (6⁺) 0.0 23.3 s 1



^{102}In ϵ decay 2003Gi06

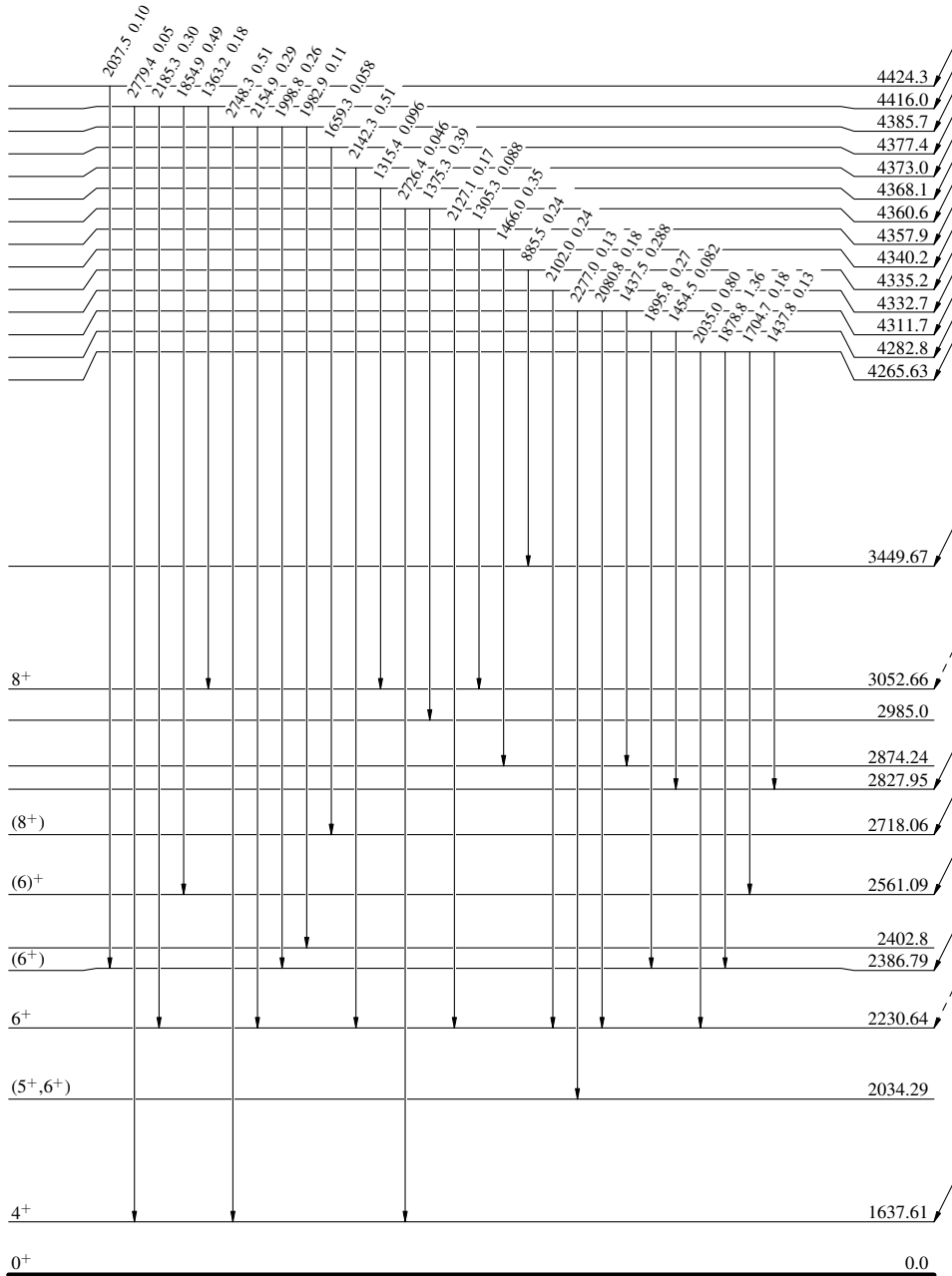
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$^{6+}$ 0.0 23.3 s I
 $Q_\epsilon = 8.95 \times 10^3$ I_2
 $^{102}_{49}\text{In}_{53}$
 $\% \epsilon + \% \beta^+ = 100.0$



^{102}In ϵ decay 2003Gi06

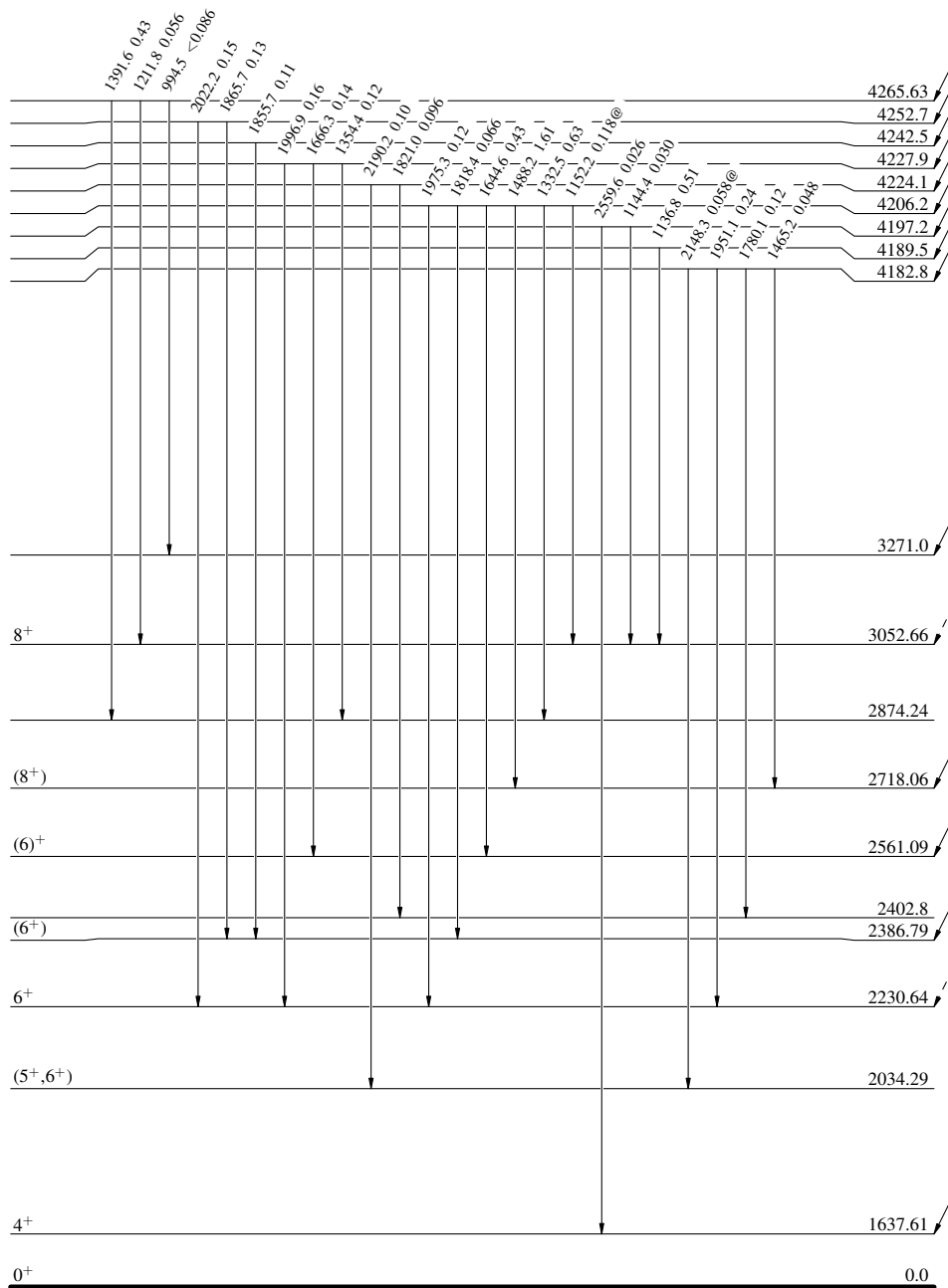
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$^{6+} \quad 0.0 \quad 23.3 \text{ s } 1$
 $\% \epsilon + \% \beta^+ = 100.0$
 $Q_\epsilon = 8.95 \times 10^3 \text{ l2}$
 $^{102}_{49}\text{In}_{53}$



¹⁰²In ε decay 2003Gi06

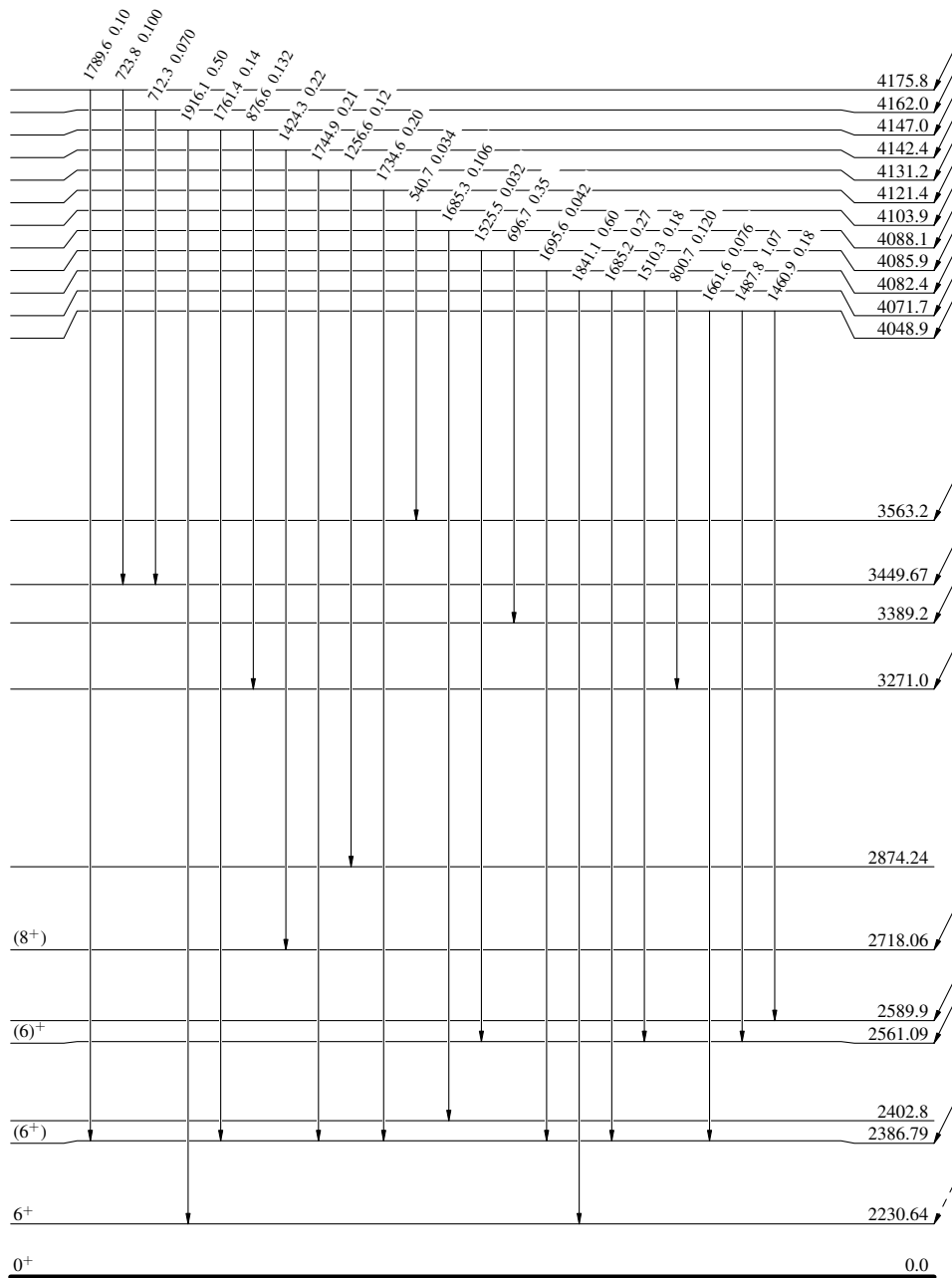
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}

$\frac{(6^+)}{0.0} \xrightarrow{23.3 \text{ s } 1} \frac{0.0}{Q_\epsilon = 8.95 \times 10^3 \text{ l2}}$
¹⁰²In₅₃
 %ε + %β⁺ = 100.0



^{102}In ϵ decay 2003Gi06

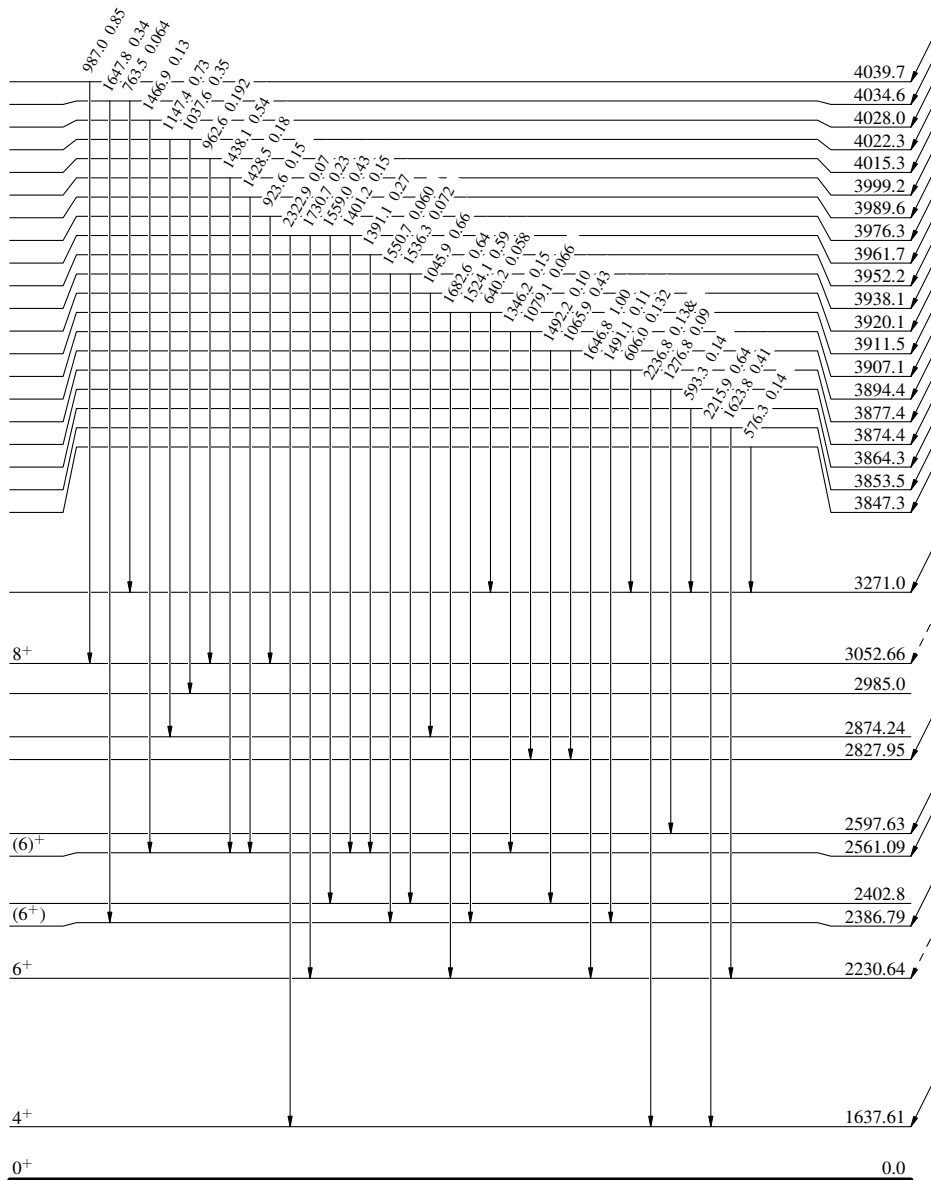
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiplied: undivided intensity given
@ Multiplied: intensity suitably divided

Legend

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

$^{102}_{49}\text{In}_{53}$ (6⁺) 0.0 23.3 s 1
 $Q_\epsilon = 8.95 \times 10^3$ keV
 $\% \epsilon + \% \beta^+ = 100.0$



$^{102}_{48}\text{Cd}_{54}$

^{102}In ϵ decay 2003Gi06

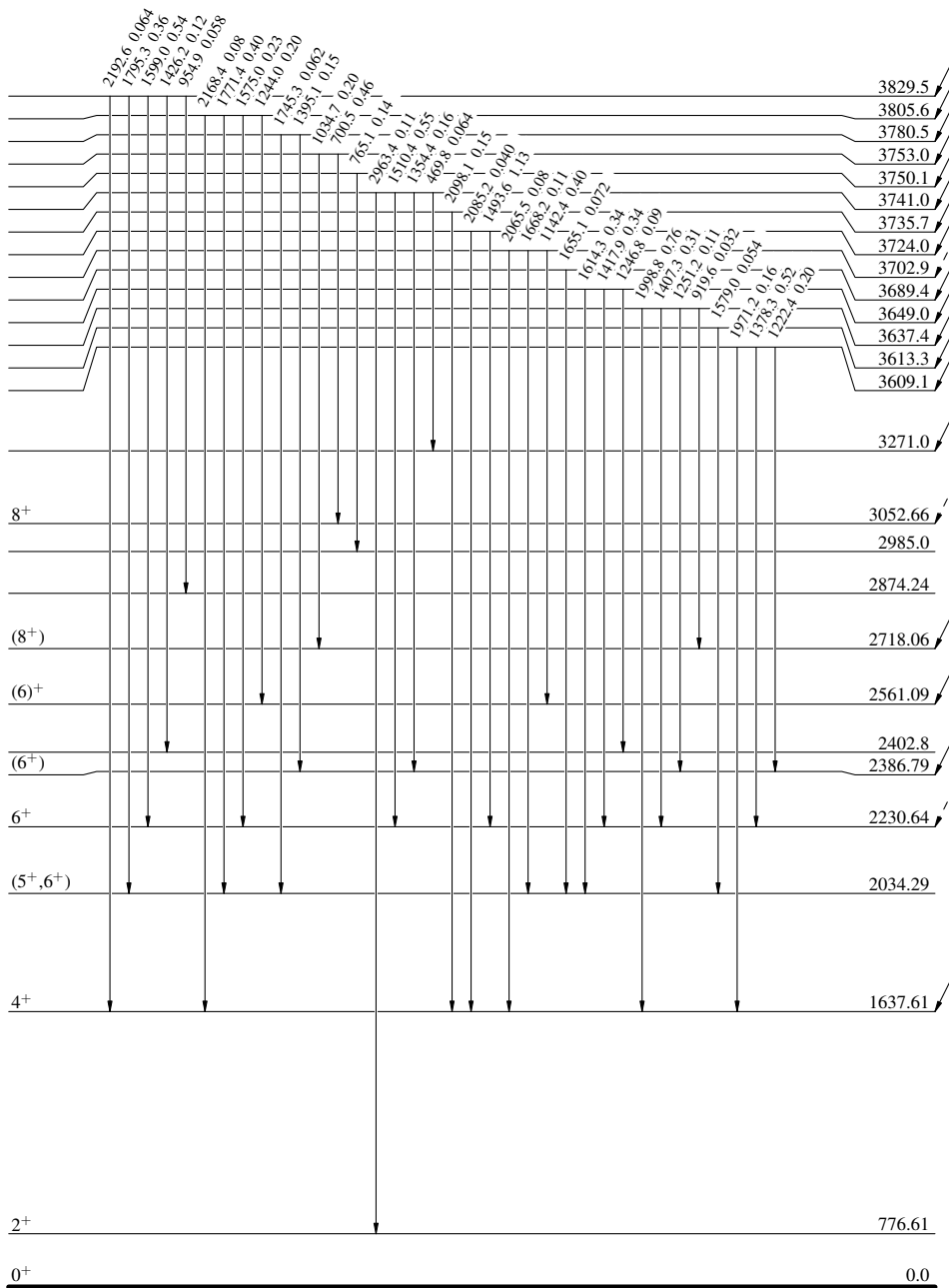
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$^{6+}$ 0.0 23.3 s I
 $Q_\epsilon = 8.95 \times 10^3$ $I2$
 $^{102}_{49}\text{In}_{53}$
 $\% \epsilon + \% \beta^+ = 100.0$



¹⁰²In ε decay 2003Gi06

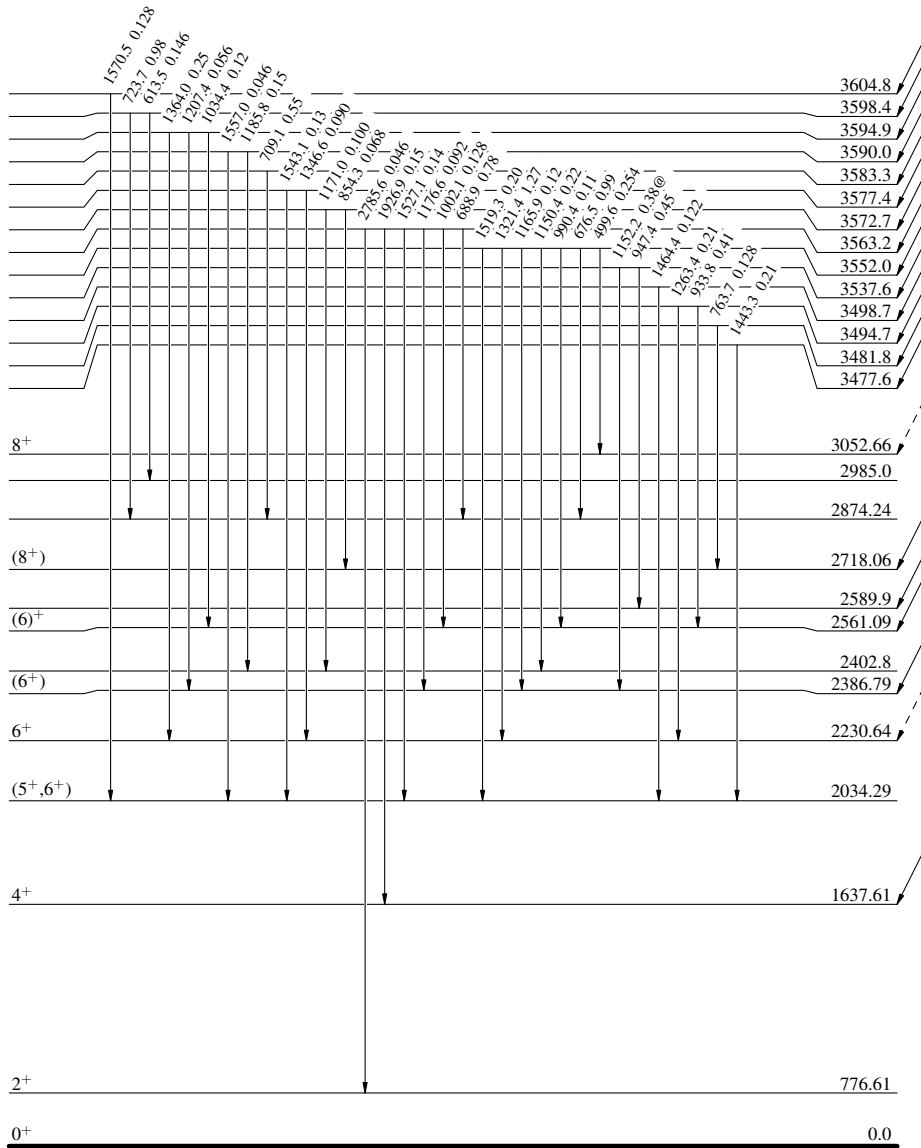
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}

(6⁺) 0.0 23.3 s t
Q_ε = 8.95 × 10³ l2
¹⁰²In₅₃



¹⁰²Cd₅₄

^{102}In ϵ decay 2003Gi06

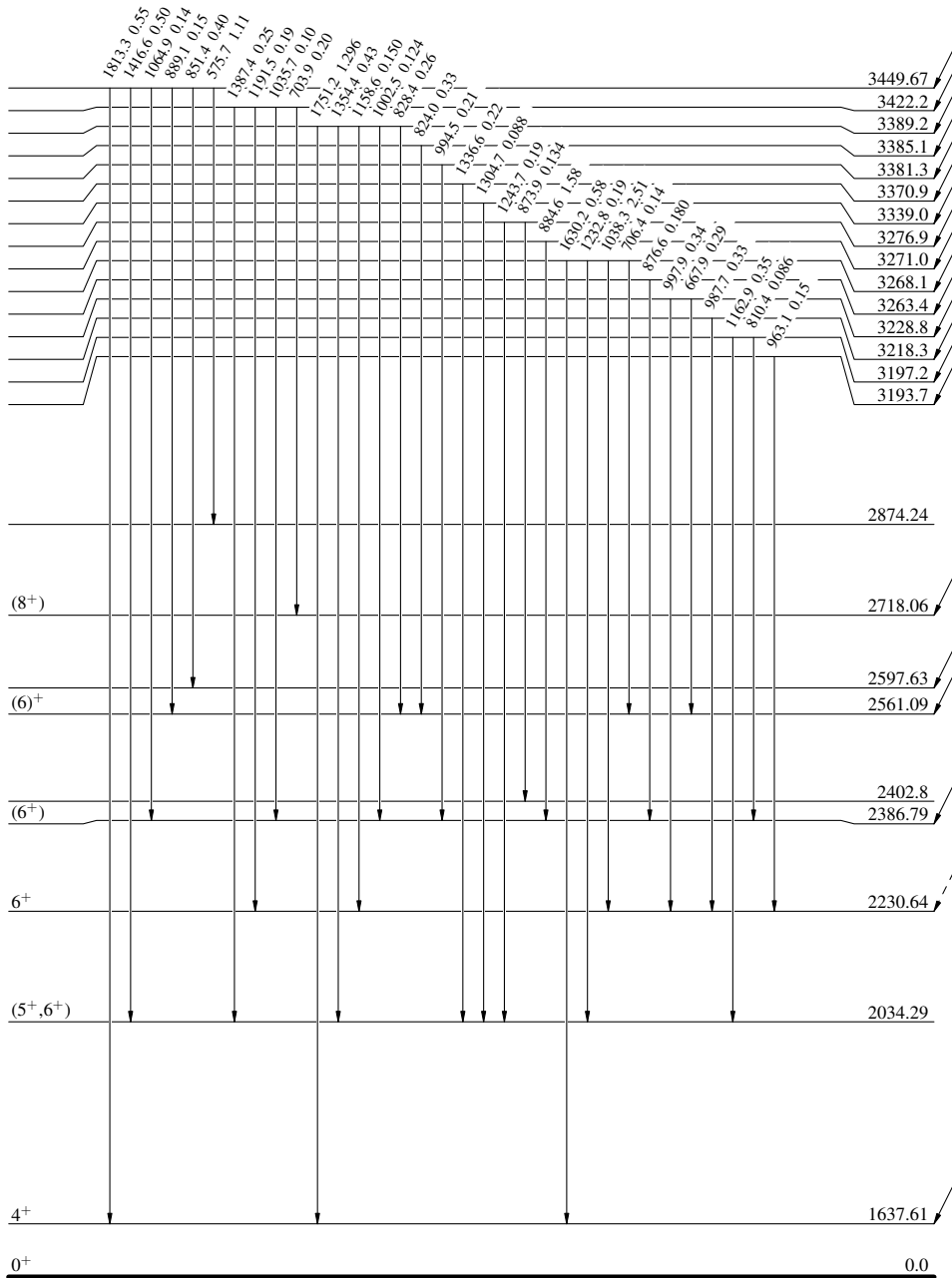
Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$^{6+}$ 0.0 23.3 s I
 $Q_\epsilon = 8.95 \times 10^3$ I_2
 $^{102}_{49}\text{In}_{53}$
 $\% \epsilon + \% \beta^+ = 100.0$



^{102}In ϵ decay 2003Gi06

Decay Scheme (continued)

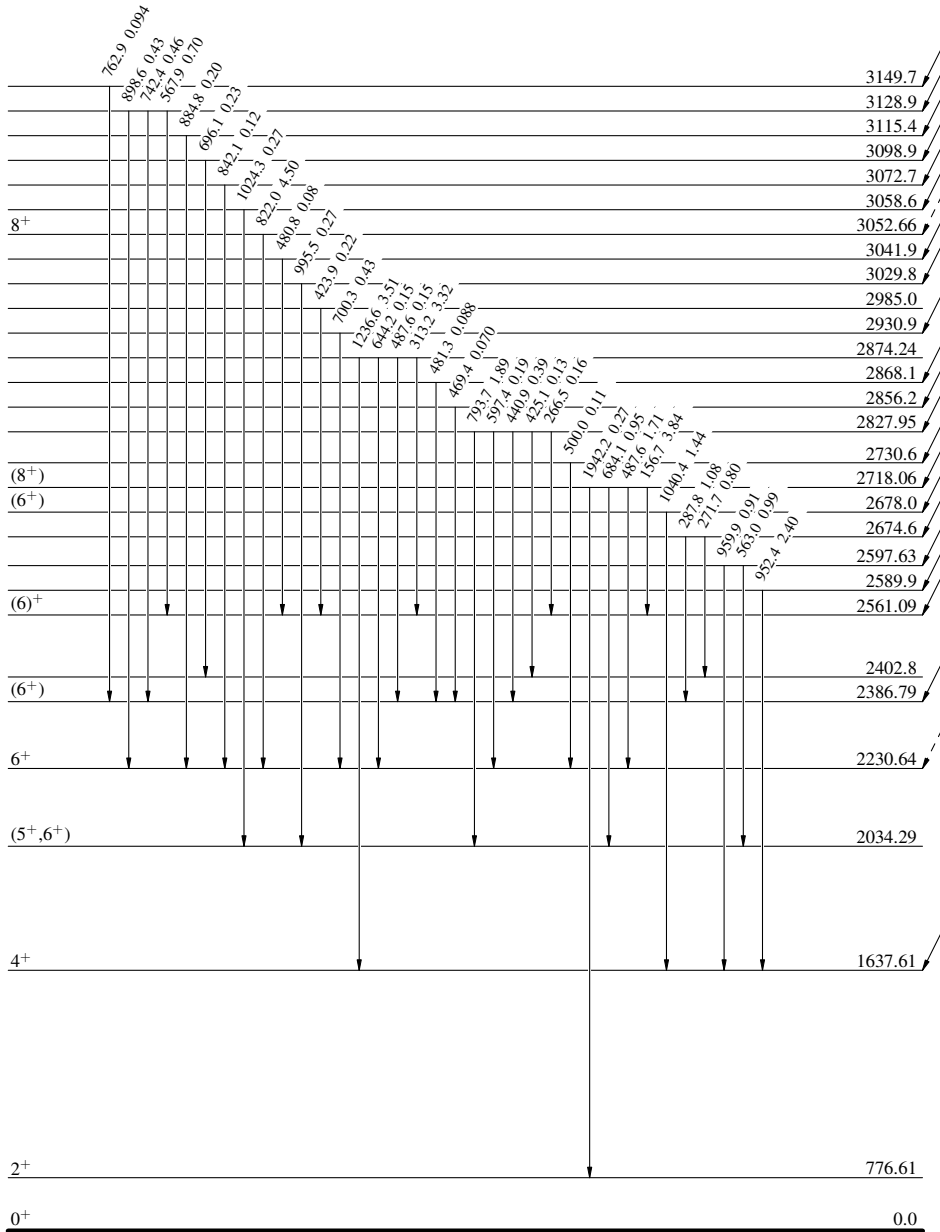
Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$\% \epsilon + \% \beta^+ = 100.0$

$(6^+) \quad 0.0 \quad 23.3 \text{ s } t$
 $Q_\epsilon = 8.95 \times 10^3 \text{ keV}$
 $^{102}_{49}\text{In}_{53}$



$^{102}_{48}\text{Cd}_{54}$

^{102}In ϵ decay 2003G106

Decay Scheme (continued)

Intensities: Relative I_γ
& Multiply placed: undivided intensity given
@ Multiply placed: intensity suitably divided

Legend

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

$\% \epsilon + \% \beta^+ = 100.0$

$(6^+) \quad 0.0 \quad 23.3 \text{ s } t$

$Q_\epsilon = 8.95 \times 10^3 \text{ J2}$

$^{102}_{49}\text{In}_{53}$

