

**Adopted Levels, Gammas**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 122, 205 (2014)	1-Feb-2014

$Q(\beta^-) = -124.0$  9;  $S(n) = 5297.5$  2;  $S(p) = 6709$  4;  $Q(\alpha) = 4678.2$  7    [2012Wa38](#)

**Additional information 1.**

Other reactions:

$^{235}\text{U}(n,n')$ :  $E < 20$  MeV ([2013He11](#), [2005Ha23](#));  $E = 0.14\text{--}15.2$  MeV ([2010Ha06](#)); Others: [2009Ch24](#), [2009Mu14](#), [2004Du20](#).

$^{235}\text{U}(n,n'\gamma)$ : [2013Ke02](#), [2012LeZZ](#), [2008HuZW](#).

$^{235}\text{U}(\alpha,\alpha')$ : [2011Bu11](#).

$^{235}\text{U}(p,p)$ :  $E = 1\text{--}200$  MeV, calculated  $\sigma$  ([2008Li05](#)).

$^{235}\text{U}(SF)$ : [2013Ka26](#), [2012Fa12](#), [2012Ha06](#), [2005Re16](#). Measured  $\sigma$  using surrogate reaction ([2012Hu01](#)); calculated fission barrier and half-life ([2012Ro34](#), [2007Ro08](#)).

$^{238}\text{U}(n,4n)$ : [2012Br11](#).

$^{235}\text{U}(n,F)$   $E = 400$  keV ([2012PrZZ](#));  $E = 2\text{--}8$  MeV ([2011Mu07](#));  $E = 0.01\text{--}3030$  MeV, calculated  $\sigma$  ([2009Go05](#)).

$^{235}\text{U}(^{12}\text{C},^{12}\text{C})$   $E = 30\text{--}1000$  MeV/nucleon;  $^{235}\text{U}(^{20}\text{C},^{20}\text{C})$   $E = 30\text{--}1000$  MeV/nucleon ([2008Li05](#)).

Cluster decay:

$^{235}\text{U}(^{29}\text{Mg})$ : calculated half-life ([2013Ta07](#)).

$^{235}\text{U}(^{24}\text{Ne}), ^{235}\text{U}(^{25}\text{Ne})$ : Calculated half-life ([2013Zd01](#), [2013Zd02](#)).

$^{235}\text{U}(^{24}\text{Ne}), ^{235}\text{U}(^{25}\text{Ne}), ^{235}\text{U}(^{28}\text{Mg})$ : Calculated half-life ([2012Ba35](#), [2012Ku29](#)). Others:  $^{235}\text{U}(^{24}\text{Ne}), ^{235}\text{U}(^{25}\text{Ne})$ : [2010Ni13](#), [2004Ba64](#).

$^{235}\text{U}(^{20}\text{O}), ^{235}\text{U}(^{22\text{--}26}\text{Ne}), ^{235}\text{U}(^{28\text{--}30}\text{Mg})$  calculated  $Q(\beta^-)$  value, half-life ([2012Sa31](#)).

$^{235}\text{U}(^{24}\text{Mg})$ : calculated half-life, isotope shift,  $Q(\beta^-)$  value ([2005Bh02](#)).

$^{235}\text{U}(^{28}\text{Mg})$ : [2010Si12](#); calculated half-life ([2009Ar11](#)). Other: [2009Do16](#).

$^{235}\text{U}(^{25}\text{Ne}), ^{235}\text{U}(^{29}\text{Mg})$ : calculated half-life ([2011Sh13](#)).

$^{235}\text{U}(^{26}\text{Ne}), ^{235}\text{U}(^{29}\text{Mg})$ : [2005Ku32](#), [2005Ku04](#).

$^{232}\text{Th}(^{16}\text{O},^{13}\text{C}), ^{232}\text{Th}(^{19}\text{F},^{16}\text{N})$  ([2000Si04](#)): Measured excitation functions.

$^{232}\text{Th}(\alpha,xnF)$  ([1997Er02](#)): Measured fission fragments.

$^{235}\text{U}(SF)$ : calculated fission barrier and half-life ([2012Ro34](#), [2012Pa40](#), [2011Hu06](#)).

$^{235}\text{U}$  isotopic abundance in natural uranium: [2012Qi02](#), [2011Be53](#), [2008We01](#).

Nuclear Structure: Level density parameters: [2006Fr21](#). Others: [2011Mu06](#), [2010Ni02](#), [2010Qu01](#), [2010To07](#), [2006Sa35](#).

Quadrupole moment: [2005Ko18](#).

 **$^{235}\text{U}$  Levels****Cross Reference (XREF) Flags**

<b>A</b>	$^{235}\text{Pa}$ $\beta^-$ decay	<b>F</b>	$^{234}\text{U}(n,\gamma)$ $E = \text{th}$	<b>K</b>	$^{236}\text{U}(d,t)$
<b>B</b>	$^{235}\text{Np}$ $\epsilon$ decay	<b>G</b>	$^{234}\text{U}(d,p)$	<b>L</b>	$^{236}\text{U}(^3\text{He},\alpha)$
<b>C</b>	$^{239}\text{Pu}$ $\alpha$ decay	<b>H</b>	$^{235}\text{U}(n,n')$	<b>M</b>	Muonic atom
<b>D</b>	Coulomb excitation	<b>I</b>	$^{235}\text{U}(n,n'\gamma)$	<b>N</b>	$^{235}\text{U}(\gamma,\gamma')$
<b>E</b>	$^{233}\text{U}(t,p)$	<b>J</b>	$^{235}\text{U}(d,d')$		

E(level) <sup>#</sup>	$J^\pi$ <sup>@</sup>	$T_{1/2}$	XREF	Comments
0.0 <sup>a</sup>	$7/2^-$	$7.04 \times 10^8$ y	I ABCD FGHIJK MN	$\% \alpha = 100$ ; $\% SF = 7 \times 10^{-9}$ 2 $\% {}^{20}\text{Ne} = 8 \times 10^{-10}$ 4; $\% {}^{25}\text{Ne} \approx 8 \times 10^{-10}$ $\% {}^{28}\text{Mg} = 8 \times 10^{-10}$ $\mu = -0.38$ 3 ( <a href="#">1983Ni08</a> , <a href="#">2011StZZ</a> ) $Q = +4.936$ 6 ( <a href="#">1984Zu02</a> , <a href="#">2011StZZ</a> ) $\mu({}^{233}\text{U})/\mu({}^{235}\text{U}) = -1.5604$ 14, consistent with 5/2[633] and 7/2[743] configurations for ${}^{233}\text{U}$ and ${}^{235}\text{U}$ ground states, respectively ( <a href="#">1990Ga28</a> ).

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**Adopted Levels, Gammas (continued)** **$^{235}\text{U}$  Levels (continued)**

E(level) <sup>#</sup>	J <sup>π</sup> @	T <sub>1/2</sub>	XREF	Comments
0.0760 <sup>†b</sup> 4	1/2 <sup>+</sup>	≈26 min	A CD F L	J <sup>π</sup> : Measured – see <a href="#">2013Ma15</a> , <a href="#">1955Va07</a> , <a href="#">1956Hu26</a> , <a href="#">1956Ka53</a> , <a href="#">1957Bl66</a> , <a href="#">1958Da21</a> . Parity and configuration assignments are from $\mu$ , Q. Charge radius deduced from optical isotope shifts ( <a href="#">1990Ga28</a> ) Others: <a href="#">1998El02</a> , <a href="#">1992An17</a> , <a href="#">1997Be64</a> . T <sub>1/2</sub> : From <a href="#">2004Sc03</a> , weighted average (CHI**/N-1=1.006) of $6.97 \times 10^8$ y 24 ( <a href="#">1939Ni03</a> ). Mass spectrometry. Measured Pb/U ratios in uranium ores); $7.11 \times 10^8$ y 14 ( <a href="#">1950Kn17</a> ). Specific activity method.); $6.77 \times 10^8$ y 21 ( <a href="#">1951Sa30</a> , Measured $^{235}\text{U}/^{238}\text{U}$ activity ratios.); $7.12 \times 10^8$ y 16 ( <a href="#">1952Fl20</a> ). Specific activity method.); $7.64 \times 10^8$ y 43 ( <a href="#">1957Cl16</a> . Measured $^{235}\text{U}/^{238}\text{U}$ activity ratios.); $6.95 \times 10^8$ y 16 ( <a href="#">1957Wu39</a> ). Measured $^{235}\text{U}/^{234}\text{U}$ activity ratios.); $7.12 \times 10^8$ y 9 ( <a href="#">1965Wh05</a> ). Specific activity method); $7.06 \times 10^8$ y 8 ( <a href="#">1966Ba58</a> ), Mass spectrometry. $7.04 \times 10^8$ y 1 ( <a href="#">1971Ja07</a> ). Specific activity method); $6.79 \times 10^8$ y 13 ( <a href="#">1974De19</a> . Measured $^{235}\text{U}/^{238}\text{U}$ $\alpha$ activity ratios); Other value: $7.04 \times 10^8$ y (Value recommended in <a href="#">2000Ho27</a> .) Others: <a href="#">1965De06</a> , <a href="#">1971Ar48</a> , <a href="#">1974Ja17</a> , <a href="#">1993Bu10</a> . T <sub>1/2</sub> (SF)= $1.0 \times 10^{19}$ y 3, value recommended in <a href="#">2000Ho27</a> from T <sub>1/2</sub> (SF)= $9.8 \times 10^{18}$ y 28 ( <a href="#">1981Vo02</a> ); T <sub>1/2</sub> (SF)> $1.8 \times 10^{18}$ y ( <a href="#">1974GrZA</a> ); T <sub>1/2</sub> (SF)= $0.35 \times 10^{18}$ y 9 ( <a href="#">1966Al23</a> ); T <sub>1/2</sub> (SF)= $0.18 \times 10^{18}$ y ( <a href="#">1952Se67</a> ). $\%^{20}\text{Ne}/\%^{24}\text{Ne}=8 \times 10^{-12}$ 4 ( <a href="#">1989Tr11</a> , <a href="#">1991Bo20</a> ). $^{24}\text{Ne}$ emission ( <a href="#">1997Ka11</a> ). T <sub>1/2</sub> ( $^{25}\text{Ne}$ )≈ $9 \times 10^{19}$ yr. Other: <a href="#">1997Tr17</a> . T <sub>1/2</sub> ( $^{28}\text{Mg}$ )= $8.8 \times 10^{20}$ yr ( <a href="#">1998Ro11</a> , <a href="#">1997Ro24</a> ); other value: > $9 \times 10^{20}$ ( <a href="#">1997MiZP</a> ). Q( $^{233}\text{U}$ )/Q( $^{235}\text{U}$ )= 0.975 3 ( <a href="#">1990Ga28</a> ). %IT=100 T <sub>1/2</sub> : depends on chemical environment ( <a href="#">1966Ma20</a> , <a href="#">1968Ne04</a> , <a href="#">1974Ne09</a> , <a href="#">1971Ar48</a> , <a href="#">1972Ne12</a> ). T <sub>1/2</sub> = 25.7 min 4 in LASER produced plasma ( <a href="#">1979Iz02</a> ). T <sub>1/2</sub> : T <sub>1/2</sub> =230 min. $^{235m}\text{U}$ placed in a silver matrix. Drastic change in T <sub>1/2</sub> may be due to a special electromagnetic field resonance ( <a href="#">1993Ko32</a> , <a href="#">1989Ko52</a> ). Others: <a href="#">1992Vs01</a> , <a href="#">1992Vo05</a> . Ultra-violet laser excitation of $^{235}\text{U}$ ( <a href="#">1992Bo26</a> ). J <sup>π</sup> : favored $\alpha$ decay from 1/2 <sup>+</sup> $^{239}\text{Pu}$ . T <sub>1/2</sub> : from $^{239}\text{Pu}$ $\alpha$ decay ( <a href="#">1970Ho02</a> ). T <sub>1/2</sub> : from B(E2)=6.7, average of B(E2)=4.834 16 in muonic atom, B(E2)=7.4 7 in Coulomb excitation ( <a href="#">1957Ne07</a> ), and B(E2)=8.0 12 in (d,d'). The approximate value of the half-life is due to the large uncertainty in the E2 $\gamma$ -ray mixing ratio ( $\delta=0.14$ 14). T <sub>1/2</sub> : from $^{239}\text{Pu}$ $\alpha$ decay ( <a href="#">1970Ho02</a> , <a href="#">1970ToZZ</a> ). T <sub>1/2</sub> : from B(E2)=1.18 16 ( <a href="#">1957Ne07</a> ) and B(E2)=1.19 4 in muonic atom ( <a href="#">1984Zu02</a> ). Other value: B(E2)=2.2 3, in (d,d'). J <sup>π</sup> : $\gamma$ -ray de-excitation (E1 to 7/2 <sup>-</sup> , M1 to 3/2 <sup>+</sup> ). T <sub>1/2</sub> : From B(E2)=2.12 5 and $\delta$ in muonic atom.
13.0339 <sup>†c</sup> 21	3/2 <sup>+</sup>	0.50 ns 3	A CD FG K	
46.103 <sup>†a</sup> 8	9/2 <sup>-</sup>	≈14 ps	CD F IJ M	
51.6968 <sup>b</sup> 11	5/2 <sup>+</sup>	191 ps 5	A CD FGH K	
81.724 <sup>c</sup> 4	7/2 <sup>+</sup>		A CD FG KL	
103.903 <sup>†&amp;</sup> 8	11/2 <sup>-</sup>	33 ps 5	CD GH JKLM	
129.2995 <sup>†d</sup> 10	5/2 <sup>+</sup>		A CD FG I K1	
150.356 <sup>†b</sup> 16	9/2 <sup>+</sup>		CD FG K1	
171.358 <sup>†e</sup> 5	7/2 <sup>+</sup>		CD F	
171.464 <sup>†a</sup> 13	13/2 <sup>-</sup>	21.9 ps 13	CD G J M	
197.087 <sup>†c</sup> 15	11/2 <sup>+</sup>		CD G K	
225.382 <sup>†d</sup> 7	9/2 <sup>+</sup>		CD FG IJK1	

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**Adopted Levels, Gammas (continued)** **$^{235}\text{U}$  Levels (continued)**

E(level) <sup>#</sup>	J <sup>π</sup> @	XREF	Comments
250.014 <sup>†&amp;</sup> 21	15/2 <sup>-</sup>	C D G JKL	
259.0 21		G	
291.135 <sup>†e</sup> 19	11/2 <sup>+</sup>	C D G JKL	
294.557 <sup>†b</sup> 16	13/2 <sup>+</sup>	C D 1	
332.845 <sup>†r</sup> 4	5/2 <sup>+</sup>	C EFG K	
339.976 <sup>a</sup> 24	17/2 <sup>-</sup>	C D JK	
357.22 <sup>c</sup> 4	15/2 <sup>+</sup>	C D JKL	
367.031 <sup>†r</sup> 8	7/2 <sup>+</sup>	C FG J 1	
368.9 <sup>d</sup> 3	13/2 <sup>+</sup>	D	
393.218 <sup>†f</sup> 5	3/2 <sup>+</sup>	A C FG IJK	
414.768 <sup>†r</sup> 11	9/2 <sup>+</sup>	C G JKL	
426.741 <sup>†g</sup> 3	5/2 <sup>+</sup>	A C FG JKL	
439.39 <sup>&amp;</sup> 3	19/2 <sup>-</sup>	D	
445.648 <sup>†s</sup> 8	7/2 <sup>+</sup>	C F IJ	J <sup>π</sup> : M1 $\gamma$ ray to 5/2 <sup>+</sup> , E1 to 7/2 <sup>-</sup> , strong $\gamma$ ray to 9/2 <sup>-</sup> .
456.84 <sup>e</sup> 7	15/2 <sup>+</sup>	D	
473.826 <sup>†f</sup> 11	7/2 <sup>+</sup>	C F JKL	
482.00 <sup>b</sup> 4	17/2 <sup>+</sup>	D	
510.49 <sup>†s</sup> 17	(9/2 <sup>+</sup> )	C E G JK	J <sup>π</sup> : $\gamma$ rays to 9/2 <sup>-</sup> and 11/2 <sup>-</sup> .
532.4 5	(13/2 <sup>+</sup> )	1	
533.208 <sup>†g</sup> 10	9/2 <sup>+</sup>	C G JKL	
551.17 <sup>a</sup> 4	21/2 <sup>-</sup>	D	
557.2 <sup>d</sup> 3	17/2 <sup>+</sup>	D	
559.34 <sup>c</sup> 5	19/2 <sup>+</sup>	D	
587.8 <sup>s</sup> 5	(11/2 <sup>+</sup> )	C G JK	
608.17 <sup>†f</sup> 3	11/2 <sup>+</sup>	C G JK	
633.092 <sup>†j</sup> 15	(5/2 <sup>-</sup> )	C EF JK	
637.794 <sup>†i</sup> 6	3/2 <sup>-</sup>	A CD FG KL	
658.96 <sup>†p</sup> 4	1/2 <sup>-</sup>	A CD FG I K	
664.531 <sup>†h</sup> 12	(5/2) <sup>-</sup>	C F J	
666.69 <sup>e</sup> 10	19/2 <sup>+</sup>	D	
670.924 <sup>†k</sup> 25	(7/2) <sup>-</sup>	C F I K	
671.94 <sup>&amp;</sup> 4	23/2 <sup>-</sup>	D J	
690.2 <sup>g</sup> 5	(13/2 <sup>+</sup> )	D K	
701.101 <sup>†i</sup> 17	(7/2) <sup>-</sup>	C FG IJK	
703.753 <sup>†p</sup> 20	3/2 <sup>-</sup>	A C F K	
710.02 <sup>b</sup> 5	21/2 <sup>+</sup>	D	
720.22 <sup>†j</sup> 3	(9/2) <sup>-</sup>	C J	
750.21 <sup>†h</sup> 16	(9/2) <sup>-</sup>	C J	J <sup>π</sup> : from (d,d').
761.017 <sup>†q</sup> 6	(1/2) <sup>-</sup>	C FG K	
769.27 <sup>†t</sup> 6	1/2 <sup>+</sup>	C F	J <sup>π</sup> : E0 to 1/2 <sup>+</sup> , low $\alpha$ HF.
769.934 <sup>†q</sup> 9	3/2 <sup>-</sup>	C FG K	
778.36 <sup>†k</sup> 19	(11/2) <sup>-</sup>	C J L	
779.51 <sup>†t</sup> 3	3/2 <sup>+</sup>	C F	
787.8 <sup>d</sup> 3	21/2 <sup>+</sup>	D	
790.9 <sup>f</sup> 8	15/2 <sup>+</sup>	D	
800.58 <sup>c</sup> 6	23/2 <sup>+</sup>	D	
805.65 <sup>a</sup> 6	25/2 <sup>-</sup>	D G	
805.651 <sup>†</sup> 10	3/2 <sup>-</sup>	C F K	J <sup>π</sup> : E1 $\gamma$ ray from 1/2 <sup>+</sup> in (n, $\gamma$ ); E2 $\gamma$ ray to 7/2 <sup>-</sup> .

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**Adopted Levels, Gammas (continued)** **$^{235}\text{U}$  Levels (continued)**

E(level) <sup>#</sup>	J <sup>π</sup> @	XREF	Comments
806.9 <sup>i</sup> 4	11/2 <sup>-</sup>	D	
811.96 <sup>‡q</sup> 3	(5/2 <sup>-</sup> )	F	
821.23 <sup>‡t</sup> 4	5/2 <sup>+</sup>	C F K	
821.83 <sup>l</sup> 7	(9/2 <sup>-</sup> )	J	J <sup>π</sup> : from (d,d').
843.859 <sup>‡u</sup> 10	(1/2) <sup>+</sup>	C FG K	J <sup>π</sup> : $\gamma$ -ray de-excitation (E2 to 5/2 <sup>+</sup> ; M1(+E0) to 1/2 <sup>+</sup> ).
845.35? <sup>‡t</sup> 2	(7/2 <sup>+</sup> )	C F	
850.56 <sup>j</sup> 3	13/2 <sup>-</sup>	D	
865.189 <sup>‡u</sup> 8	3/2 <sup>+</sup>	C FG	
879.8 <sup>h</sup> 3	13/2 <sup>-</sup>	D	
885.5 <sup>m</sup> 6	(11/2 <sup>-</sup> )	JK	
891.91 <sup>‡u</sup> 3	5/2 <sup>+</sup>	C FG	
905.262 <sup>‡v</sup> 18	5/2 <sup>+</sup>	F	
916.87 <sup>e</sup> 13	23/2 <sup>+</sup>	D	
921.1 <sup>o</sup> 4	13/2 <sup>-</sup>	D	
924.5 <sup>k</sup> 5	15/2 <sup>-</sup>	D G L	
943 2	(7/2 <sup>-</sup> )	G	J <sup>π</sup> : From (d,p).
945.58 <sup>&amp;</sup> 5	27/2 <sup>-</sup>	D	
951.05 <sup>‡</sup> 3	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	F	J <sup>π</sup> : E1 $\gamma$ ray to 1/2 <sup>+</sup> .
953.4 <sup>i</sup> 3	15/2 <sup>-</sup>	D	
960.4 <sup>l</sup> 6	(13/2 <sup>-</sup> )	D G J L	
968.443 <sup>‡</sup> 14	(3/2) <sup>+</sup>	C FG K	J <sup>π</sup> : E2 to 1/2 <sup>+</sup> .
975.94 <sup>b</sup> 7	25/2 <sup>+</sup>	D	
987.7 <sup>o</sup> 4	13/2 <sup>-</sup>	CD J	
990.229 <sup>‡</sup> 8	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	Fg	J <sup>π</sup> : E1 from 1/2 <sup>+</sup> in (n, $\gamma$ ).
992.64 <sup>‡</sup> 3	(5/2 <sup>+</sup> )	C Fg K	J <sup>π</sup> : $\gamma$ -ray de-excitation; not detected in average res. neutron capture. Detected in thermal neutron capture.
1002.28 <sup>‡</sup> 20	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	FG JK	J <sup>π</sup> : E1 from 1/2 <sup>+</sup> in (n, $\gamma$ ).
1020.6 <sup>f</sup> 7	19/2 <sup>+</sup>	D	
1023.79 <sup>j</sup> 7	17/2 <sup>-</sup>	D	
1038.231 <sup>‡</sup> 10	5/2 <sup>+</sup>	Fg k	J <sup>π</sup> : M1 $\gamma$ ray to 7/2 <sup>+</sup> ; detected in (n, $\gamma$ ).
1047.1 <sup>m</sup> 4	15/2 <sup>-</sup>	D	
1054.2 <sup>h</sup> 3	17/2 <sup>-</sup>	D	
1057.4 <sup>d</sup> 3	25/2 <sup>+</sup>	D	
1057.42 <sup>‡</sup> 11	C F I		
1066.5 <sup>n</sup> 5	15/2 <sup>-</sup>	D	
1072.82 <sup>‡</sup> 17	(1/2,3/2)	FG K	J <sup>π</sup> : detected in thermal neutron (n, $\gamma$ ).
1078.03 <sup>c</sup> 7	27/2 <sup>+</sup>	D	
1099.02 <sup>‡</sup> 11	(3/2 <sup>-</sup> )	F	J <sup>π</sup> : E1 $\gamma$ ray from 1/2 <sup>+</sup> ; $\gamma$ -ray de-excitation in (n, $\gamma$ ).
1100.98 <sup>a</sup> 6	29/2 <sup>-</sup>	D	
1108 4	(9/2 <sup>-</sup> )	g J	
1109.0 <sup>k</sup> 3	19/2 <sup>-</sup>	D	
1116.21 <sup>‡</sup> 4	(5/2 <sup>-</sup> )	C EFg I	J <sup>π</sup> : $\gamma$ -ray de-excitation (E1 to 5/2 <sup>+</sup> , $\gamma$ 's to 7/2 <sup>+</sup> , 3/2 <sup>+</sup> ); Conversely, 1972Ri08 suggested J <sup>π</sup> =5/2 <sup>+</sup> , possible configuration 5/2[633]×0 <sup>+</sup> .
1141.3 <sup>l</sup> 3	17/2 <sup>-</sup>	D	
1142.6 <sup>i</sup> 3	19/2 <sup>-</sup>	D	
1142.633 <sup>‡</sup> 8	(3/2) <sup>-</sup>	F K	J <sup>π</sup> : $\gamma$ -ray de-excitation (M1+E2 to 3/2 <sup>-</sup> . M1 to (5/2) <sup>-</sup> . $\gamma$ ray to 1/2 <sup>+</sup> ).
1156.2 <sup>o</sup> 3	17/2 <sup>-</sup>	D	
1204.16 <sup>e</sup> 15	27/2 <sup>+</sup>	D	
1235.5 <sup>j</sup> 5	21/2 <sup>-</sup>	D	

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**Adopted Levels, Gammas (continued)** **$^{235}\text{U}$  Levels (continued)**

E(level) <sup>#</sup>	J <sup>n</sup> @	XREF
1240.9 <sup>m</sup> 3	19/2 <sup>-</sup>	D
1258.08 <sup>&amp;</sup> 6	31/2 <sup>-</sup>	D
1261.2 <sup>n</sup> 3	19/2 <sup>-</sup>	D
1275.2 <sup>h</sup> 3	21/2 <sup>-</sup>	D
1276.84 <sup>b</sup> 8	29/2 <sup>+</sup>	D
1292.2 <sup>f</sup> 3	23/2 <sup>+</sup>	D
1333.6 <sup>k</sup> 3	23/2 <sup>-</sup>	D
1349.93 <sup>l</sup> 24	21/2 <sup>-</sup>	D
1362.5 <sup>d</sup> 3	29/2 <sup>+</sup>	D
1374.5 <sup>i</sup> 3	23/2 <sup>-</sup>	D
1389.22 <sup>c</sup> 9	31/2 <sup>+</sup>	D
1434.30 <sup>a</sup> 6	33/2 <sup>-</sup>	D
1467.17 <sup>m</sup> 24	23/2 <sup>-</sup>	D
1485.59 <sup>j</sup> 9	25/2 <sup>-</sup>	D
1504.8 <sup>n</sup> 4	23/2 <sup>-</sup>	D
1525.15 <sup>e</sup> 17	31/2 <sup>+</sup>	D
1542.4 <sup>h</sup> 4	25/2 <sup>-</sup>	D
1595.4 <sup>l</sup> 3	25/2 <sup>-</sup>	D
1599.7 <sup>k</sup> 3	27/2 <sup>-</sup>	D
1600.7 <sup>f</sup> 6	27/2 <sup>+</sup>	D
1606.32 <sup>&amp;</sup> 6	35/2 <sup>-</sup>	D
1610.04 <sup>b</sup> 10	33/2 <sup>+</sup>	D
1646.8 <sup>i</sup> 3	27/2 <sup>-</sup>	D
1656.4 7		N
1700.1 <sup>d</sup> 3	33/2 <sup>+</sup>	D
1731.65 <sup>c</sup> 10	35/2 <sup>+</sup>	D
1731.8 <sup>m</sup> 3	27/2 <sup>-</sup>	D
1733.54 19		N
1769.3 4		N
1773.49 <sup>j</sup> 10	29/2 <sup>-</sup>	D
1802.23 <sup>a</sup> 6	37/2 <sup>-</sup>	D
1815.25 18		N
1827.67 19		N
1851.6 <sup>h</sup> 5	29/2 <sup>-</sup>	D
1862.41 10		N
1877.55 <sup>e</sup> 20	35/2 <sup>+</sup>	D
1879.12 <sup>l</sup> 9	29/2 <sup>-</sup>	D
1906.1 <sup>k</sup> 3	31/2 <sup>-</sup>	D
1943.43 <sup>f</sup> 10	31/2 <sup>+</sup>	D
1958.9 <sup>i</sup> 4	31/2 <sup>-</sup>	D
1973.09 <sup>b</sup> 12	37/2 <sup>+</sup>	D
1973.8 3		N
1986.91 <sup>&amp;</sup> 6	39/2 <sup>-</sup>	D
2003.36 17		N
2005.9 4		N
2010.6 3		N
2033.4 <sup>m</sup> 3	31/2 <sup>-</sup>	D
2067.1 4		N
2067.4 <sup>d</sup> 3	37/2 <sup>+</sup>	D
2074.2 3		N

Continued on next page (footnotes at end of table)

**Adopted Levels, Gammas (continued)** **$^{235}\text{U}$  Levels (continued)**

E(level) <sup>#</sup>	J <sup>π</sup> @	T <sub>1/2</sub>	XREF	Comments
2086.7 6			N	
2097.2 <sup>j</sup> 5	33/2 <sup>-</sup>		D	
2103.36 <sup>c</sup> 13	39/2 <sup>+</sup>		D	
2110.2 3			N	
2193.0 <sup>l</sup> 5	33/2 <sup>-</sup>		D	
2201.00 <sup>a</sup> 7	41/2 <sup>-</sup>		D	
2216.1 3			N	
2249.6 <sup>k</sup> 3	35/2 <sup>-</sup>		D	
2258.69 <sup>e</sup> 24	39/2 <sup>+</sup>		D	
2314.5 <sup>f</sup> 7	35/2 <sup>+</sup>		D	
2363.80 <sup>b</sup> 18	41/2 <sup>+</sup>		D	
2368.6 <sup>m</sup> 4	35/2 <sup>-</sup>		D	
2395.90 <sup>&amp;</sup> 8	43/2 <sup>-</sup>		D	
2416.1 3			N	
2454.7 <sup>j</sup> 12	37/2 <sup>-</sup>		D	
2462.7 <sup>d</sup> 3	41/2 <sup>+</sup>		D	
2.5×10 <sup>3</sup> 3		3.6 ms 18	F	%SF=? E(level),T <sub>1/2</sub> : Fission isomer ( <a href="#">2007Ob02</a> ). From <a href="#">2007Ob02</a> . From <sup>234</sup> U(n,F), σ(SF)=10 μb 8. Produced with neutrons of E(n)=0.95 and 1.27 MeV. Separated with the isomer spectrometer neptune at the Van de Graaff laboratory of the irmm, Geel, Belgium.
2502.5 <sup>c</sup> 9	43/2 <sup>+</sup>		D	
2555.6 6			N	
2626.2 <sup>k</sup> 3	39/2 <sup>-</sup>		D	
2626.81 <sup>a</sup> 9	45/2 <sup>-</sup>		D	
2666.2 <sup>e</sup> 7	43/2 <sup>+</sup>		D	
2709.4 <sup>f</sup> 8	39/2 <sup>+</sup>		D	
2754.7 4			N	
2780.2 <sup>b</sup> 3	45/2 <sup>+</sup>		D	
2829.97 <sup>&amp;</sup> 12	47/2 <sup>-</sup>		D	
2843.4 <sup>j</sup> 15	41/2 <sup>-</sup>		D	
2883.7 <sup>d</sup> 4	45/2 <sup>+</sup>		D	
2927.9 <sup>c</sup> 9	47/2 <sup>+</sup>		D	
3075.98 <sup>a</sup> 17	49/2 <sup>-</sup>		D	
3098.3 <sup>e</sup> 7	47/2 <sup>+</sup>		D	
3124.1 <sup>f</sup> 10	43/2 <sup>+</sup>		D	
3220.6 <sup>b</sup> 3	49/2 <sup>+</sup>		D	
3286.77 <sup>&amp;</sup> 17	51/2 <sup>-</sup>		D	
3328.6 <sup>d</sup> 4	49/2 <sup>+</sup>		D	
3547.6 <sup>a</sup> 8	53/2 <sup>-</sup>		D	
3683.5 <sup>b</sup> 3	53/2 <sup>+</sup>		D	
3764.3 <sup>&amp;</sup> 6	55/2 <sup>-</sup>		D	
4040.7 <sup>a</sup> 13	57/2 <sup>-</sup>		D	

<sup>†</sup> From <sup>239</sup>Pu α decay.<sup>‡</sup> From <sup>234</sup>U(n,γ).

# Deduced by evaluators from least-squares fit to γ-ray energies.

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**Adopted Levels, Gammas (continued)**

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 **$^{235}\text{U}$  Levels (continued)**

<sup>a</sup> Spin/parity and configuration assignments are based on  $\gamma$ -ray multipolarities, B(E2) values from Coulomb Excitation, alpha hindrance factors from  $^{239}\text{Pu}$   $\alpha$  decay, and on rotational structure.

<sup>&</sup> Band(A): 7/2[743],  $\alpha=+1/2$ .

<sup>a</sup> Band(a): 7/2[743],  $\alpha=-1/2$ .

<sup>b</sup> Band(B): 1/2[631],  $\alpha=+1/2$ .

<sup>c</sup> Band(b): 1/2[631],  $\alpha=-1/2$ .

<sup>d</sup> Band(C): 5/2[622],  $\alpha=+1/2$ .

<sup>e</sup> Band(c): 5/2[622],  $\alpha=-1/2$ .

<sup>f</sup> Band(D): 3/2[631],  $\alpha=+1/2$ .

<sup>g</sup> Band(d): 3/2[631],  $\alpha=-1/2$ .

<sup>h</sup> Band(E): K=3/2  $\gamma$ -vibrational band,  $\alpha=+1/2$ .

<sup>i</sup> Band(e): K=3/2  $\gamma$ -vibrational band,  $\alpha=-1/2$ .

<sup>j</sup> Band(F): 5/2[752],  $\alpha=+1/2$ .

<sup>k</sup> Band(f): 5/2[752],  $\alpha=-1/2$ .

<sup>l</sup> Band(G): 9/2[734],  $\alpha=+1/2$ .

<sup>m</sup> Band(g): 9/2[734],  $\alpha=-1/2$ .

<sup>n</sup> Band(H): K=11/2  $\gamma$ -vibrational band,  $\alpha=+1/2$ .

<sup>o</sup> Band(h): K=11/2  $\gamma$ -vibrational band,  $\alpha=-1/2$ .

<sup>p</sup> Band(I): 1/2[501] + 1/2[770].

<sup>q</sup> Band(J): 1/2[631] $\times$ 0<sup>-</sup>.

<sup>r</sup> Band(K): 5/2[633].

<sup>s</sup> Band(L): 7/2[624].

<sup>t</sup> Band(M): 1/2[631] $\times$ 0<sup>+</sup>  $\beta$  vibration.

<sup>u</sup> Band(N): 5/2[622]-2<sup>+</sup>.

<sup>v</sup> Band(O): 5/2[622] $\times$ 0<sup>+</sup>  $\beta$  vibration.

## Adopted Levels, Gammas (continued)

$\gamma^{(235\text{U})}$										Comments
$E_i(\text{level})$	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\delta^\#$	$\alpha^\dagger$		
									$>1\times10^{10}$	
8	0.0760	$1/2^+$	0.0765 4	100	0.0	$7/2^-$	E3			E <sub>γ</sub> : weighted average of 0.0768 keV 5 ( <a href="#">1979Zh05</a> ) and 0.07616 keV 53 ( <a href="#">1996PaZY</a> ). Others: <a href="#">1995Pa45</a> .
	13.0339	$3/2^+$	12.975 10	100	0.0760	$1/2^+$	(M1+E2)	0.02	497	B(E3)(W.u.)=1.57×10 <sup>19</sup> /(1+α). α(M)≈889; α(N..)≈307 α(N)≈240; α(O)≈56.3; α(P)≈9.76; α(Q)≈0.357
	46.103	$9/2^-$	46.21 5	100	0.0	$7/2^-$	M1+E2	0.14 14	$5\times10^1$ 3	B(E2)(W.u.)≈28.7, B(M1)(W.u.)=0.041. α(L)=40 19; α(M)=10 6; α(N..)=3.5 19 α(N)=2.7 15; α(O)=0.6 4; α(P)=0.12 6; α(Q)=0.0081 4
	51.6968	$5/2^+$	38.661 2	38.0 8	13.0339	$3/2^+$	M1+E2	0.48 3	298 24	B(E2)(W.u.)= 839, B(M1)(W.u.)=0.31 18. α(L)=219 17; α(M)=59 5; α(N..)=20.2 16 α(N)=15.9 13; α(O)=3.7 3; α(P)=0.62 5; α(Q)=0.01231 24
			51.624 1	100 2	0.0760	$1/2^+$	E2		310	B(E2)(W.u.)= 65 7, B(M1)(W.u.)= 0.00141 7. α(L)=226 4; α(M)=62.6 9; α(N..)=21.5 3 α(N)=16.97 24; α(O)=3.89 6; α(P)=0.630 9; α(Q)=0.001600 23
	81.724	$7/2^+$	30.04 2	60.3 17	51.6968	$5/2^+$	(M1)		156.7	B(E2)(W.u.)= 215 10. α(L)=118.1 17; α(M)=28.7 4; α(N..)=10.01 14 α(N)=7.73 11; α(O)=1.88 3; α(P)=0.363 5; α(Q)=0.0292 4
			68.696 6	100 28	13.0339	$3/2^+$	E2		78.5	α(L)=57.2 8; α(M)=15.86 23; α(N..)=5.45 8 α(N)=4.30 6; α(O)=0.987 14; α(P)=0.1604 23; α(Q)=0.000474 7
	103.903	$11/2^-$	57.828 3	100 1	46.103	$9/2^-$	M1+E2	0.23 2	32.6 16	B(M1)(W.u.)=0.086 14, B(E2)(W.u.)≈420.
			103.06 3	18.7 5	0.0	$7/2^-$	E2		11.58	B(E2)(W.u.)≈204.
	129.2995	$5/2^+$	47.60 3	0.99 4	81.724	$7/2^+$	(M1)		40.4	α(L)=30.4 5; α(M)=7.37 11; α(N..)=2.57 4 α(N)=1.99 3; α(O)=0.483 7; α(P)=0.0932 14; α(Q)=0.00749 11
			77.592 14	6.02 8	51.6968	$5/2^+$	M1(+E2)	0.5 5	17 11	α(L)=12 8; α(M)=3.2 22; α(N..)=1.1 8 α(N)=0.9 6; α(O)=0.20 14; α(P)=0.036 21; α(Q)=0.0015 5
			116.26 2	8.99 17	13.0339	$3/2^+$	M1(+E2)	0.56 56	14 3	α(K)=0.211 3; α(L)=0.0482 7; α(M)=0.01173 17; α(N..)=0.00400 6
			129.296 1	100.0 6	0.0	$7/2^-$	E1		0.275	α(N)=0.00313 5; α(O)=0.000734 11; α(P)=0.0001295 19; α(Q)=6.71×10 <sup>-6</sup> 10
	150.356	$9/2^+$	68.74 CA	9 4	81.724	$7/2^+$	(M1+E2)	0.5 SY	30 10	α(L)=10.28 15; α(M)=2.85 4; α(N..)=0.981 14
			98.78 2	100 5	51.6968	$5/2^+$	E2		14.11	α(N)=0.774 11; α(O)=0.1779 25; α(P)=0.0291 4; α(Q)=0.0001143 16
	171.358	$7/2^+$	41.93 5	100 10	129.2995	$5/2^+$	M1+E2	0.14 10	$7\times10^1$ 3	α(L)=55 21; α(M)=14 6; α(N..)=4.8 20 α(N)=3.7 16; α(O)=0.9 4; α(P)=0.17 6; α(Q)=0.0107 3
			89.64 3	18.5 14	81.724	$7/2^+$	(M1+E2)		14 8	α(L)=10 6; α(M)=2.8 17; α(N..)=1.0 6

## Adopted Levels, Gammas (continued)

 $\gamma(^{235}\text{U})$  (continued)

$E_i$ (level)	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\delta^\#$	$\alpha^\dagger$	Comments
171.358	7/2 <sup>+</sup>	119.70 3	13 6	51.6968	5/2 <sup>+</sup>	(M1+E2)	10 4		$\alpha(\text{N})=0.8\ 5; \alpha(\text{O})=0.18\ 11; \alpha(\text{P})=0.030\ 16; \alpha(\text{Q})=0.0007\ 5$
		125.21 10	38.6 10	46.103	9/2 <sup>-</sup>	(E1)	0.296		$\alpha(\text{K})=5\ 6; \alpha(\text{L})=3.1\ 11; \alpha(\text{M})=0.8\ 4; \alpha(\text{N+..})=0.29\ 12$
		158.1 3	0.68 7	13.0339	3/2 <sup>+</sup>	(E2)	1.86		$\alpha(\text{N})=0.23\ 10; \alpha(\text{O})=0.053\ 21; \alpha(\text{P})=0.009\ 3; \alpha(\text{Q})=0.00028\ 23$
		171.393 6	75.3 14	0.0	7/2 <sup>-</sup>	(E1)	0.1414		$\alpha(\text{K})=0.227\ 4; \alpha(\text{L})=0.0523\ 8; \alpha(\text{M})=0.01275\ 18;$ $\alpha(\text{N+..})=0.00434\ 7$ $\alpha(\text{N})=0.00340\ 5; \alpha(\text{O})=0.000797\ 12; \alpha(\text{P})=0.0001403\ 20;$ $\alpha(\text{Q})=7.20\times10^{-6}\ 11$
171.464	13/2 <sup>-</sup>	67.674 12	100 2	103.903	11/2 <sup>-</sup>	M1+E2	0.194 3	16.43 25	$\alpha(\text{K})=0.211\ 3; \alpha(\text{L})=1.204\ 20; \alpha(\text{M})=0.333\ 6; \alpha(\text{N+..})=0.1147\ 19$
		124.51 3	45 2	46.103	9/2 <sup>-</sup>	E2	5.01		$\alpha(\text{N})=0.0904\ 15; \alpha(\text{O})=0.0208\ 4; \alpha(\text{P})=0.00345\ 6;$ $\alpha(\text{Q})=2.42\times10^{-5}\ 4$
		197.087	11/2 <sup>+</sup>	115.31 14	100	81.724	7/2 <sup>+</sup>	E2	$\alpha(\text{L})=23\ 5; \alpha(\text{M})=5.5\ 13; \alpha(\text{N+..})=1.9\ 5$
		225.382	9/2 <sup>+</sup>	54.039 8	100 2	171.358	7/2 <sup>+</sup>	M1(+E2)	$\alpha(\text{N})=1.5\ 4; \alpha(\text{O})=0.36\ 8; \alpha(\text{P})=0.069\ 13; \alpha(\text{Q})=0.00512\ 14$
250.014	15/2 <sup>-</sup>	96.14 3	19.5 9	129.2995	5/2 <sup>+</sup>	[E2]	16.02		$\alpha(\text{L})=11.67\ 17; \alpha(\text{M})=3.24\ 5; \alpha(\text{N+..})=1.114\ 16$
		143.35 20	8.7 5	81.724	7/2 <sup>+</sup>	(M1+E2)	5 3		$\alpha(\text{N})=0.879\ 13; \alpha(\text{O})=0.202\ 3; \alpha(\text{P})=0.0330\ 5; \alpha(\text{Q})=0.0001264\ 18$
		173.70 5	1.5 4	51.6968	5/2 <sup>+</sup>	(E2)	1.280		$\alpha(\text{K})=3\ 3; \alpha(\text{L})=1.5\ 4; \alpha(\text{M})=0.41\ 11; \alpha(\text{N+..})=0.14\ 4$
		179.220 12	34.0 4	46.103	9/2 <sup>-</sup>	(E1)	0.1273		$\alpha(\text{N})=0.11\ 3; \alpha(\text{O})=0.026\ 7; \alpha(\text{P})=0.0046\ 8; \alpha(\text{Q})=0.00017\ 14$
		225.42 4	7.6 3	0.0	7/2 <sup>-</sup>	(E1)	0.0747		$\alpha(\text{K})=0.190\ 3; \alpha(\text{L})=0.795\ 12; \alpha(\text{M})=0.220\ 3; \alpha(\text{N+..})=0.0757\ 11$
		250.014	15/2 <sup>-</sup>	78.78 3	100 12	171.464	13/2 <sup>-</sup>	M1(+E2)	$\alpha(\text{N})=0.0596\ 9; \alpha(\text{O})=0.01375\ 20; \alpha(\text{P})=0.00229\ 4;$ $\alpha(\text{Q})=1.85\times10^{-5}\ 3$
		146.25 3	99 19	103.903	11/2 <sup>-</sup>	E2	2.56		$\alpha(\text{K})=0.0995\ 14; \alpha(\text{L})=0.0210\ 3; \alpha(\text{M})=0.00509\ 8;$ $\alpha(\text{N+..})=0.001741\ 25$
		250.014	15/2 <sup>-</sup>	78.78 3	100 12	171.464	13/2 <sup>-</sup>	M1(+E2)	$\alpha(\text{N})=0.001359\ 19; \alpha(\text{O})=0.000321\ 5; \alpha(\text{P})=5.78\times10^{-5}\ 8;$ $\alpha(\text{Q})=3.28\times10^{-6}\ 5$
		146.25 3	99 19	103.903	11/2 <sup>-</sup>	E2			$\alpha(\text{K})=0.0589\ 9; \alpha(\text{L})=0.01191\ 17; \alpha(\text{M})=0.00288\ 4;$ $\alpha(\text{N+..})=0.000988\ 14$
		250.014	15/2 <sup>-</sup>	78.78 3	100 12	171.464	13/2 <sup>-</sup>	M1(+E2)	$\alpha(\text{N})=0.000770\ 11; \alpha(\text{O})=0.000183\ 3; \alpha(\text{P})=3.33\times10^{-5}\ 5;$ $\alpha(\text{Q})=2.00\times10^{-6}\ 3$
		146.25 3	99 19	103.903	11/2 <sup>-</sup>	E2			$\alpha(\text{K})=0.12\ 7; \alpha(\text{M})=3.0\ 20; \alpha(\text{N+..})=1.0\ 7$
		250.014	15/2 <sup>-</sup>	78.78 3	100 12	171.464	13/2 <sup>-</sup>	M1(+E2)	$\alpha(\text{N})=0.8\ 6; \alpha(\text{O})=0.19\ 13; \alpha(\text{P})=0.034\ 19; \alpha(\text{Q})=0.0014\ 5$
		146.25 3	99 19	103.903	11/2 <sup>-</sup>	E2			$\alpha(\text{K})=0.223\ 4; \alpha(\text{L})=1.703\ 24; \alpha(\text{M})=0.472\ 7; \alpha(\text{N+..})=0.1624\ 23$

## Adopted Levels, Gammas (continued)

 $\gamma(^{235}\text{U})$  (continued)

$E_i(\text{level})$	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\delta^\#$	$\alpha^\dagger$	Comments
291.135	11/2 <sup>+</sup>	65.708 30	100 7	225.382	9/2 <sup>+</sup>	M1(+E2)	0.23 20	20 9	$\alpha(N)=0.1280$ 18; $\alpha(O)=0.0295$ 5; $\alpha(P)=0.00487$ 7; $\alpha(Q)=3.06 \times 10^{-5}$ 5
		119.0 10	$\approx$ 18	171.358	7/2 <sup>+</sup>	[E2]		6.15 25	$\alpha(L)=15$ 7; $\alpha(M)=3.7$ 18; $\alpha(N+..)=1.3$ 6 $\alpha(N)=1.0$ 5; $\alpha(O)=0.24$ 11; $\alpha(P)=0.044$ 18; $\alpha(Q)=0.00279$ 25 $\alpha(K)=0.196$ 6; $\alpha(L)=4.34$ 19; $\alpha(M)=1.20$ 5; $\alpha(N+..)=0.414$ 18 $\alpha(N)=0.327$ 14; $\alpha(O)=0.075$ 4; $\alpha(P)=0.0123$ 6; $\alpha(Q)=5.94 \times 10^{-5}$ 19
		188.23 10	21 3	103.903	11/2 <sup>-</sup>	[E1]		0.1135	$\alpha(K)=0.0889$ 13; $\alpha(L)=0.0186$ 3; $\alpha(M)=0.00450$ 7; $\alpha(N+..)=0.001540$ 22 $\alpha(N)=0.001202$ 17; $\alpha(O)=0.000285$ 4; $\alpha(P)=5.13 \times 10^{-5}$ 8; $\alpha(Q)=2.95 \times 10^{-6}$ 5
		244.92 5	10 1	46.103	9/2 <sup>-</sup>	[E1]		0.0618	$\alpha(K)=0.0489$ 7; $\alpha(L)=0.00974$ 14; $\alpha(M)=0.00236$ 4; $\alpha(N+..)=0.000808$ 12 $\alpha(N)=0.000629$ 9; $\alpha(O)=0.0001498$ 21; $\alpha(P)=2.74 \times 10^{-5}$ 4; $\alpha(Q)=1.676 \times 10^{-6}$ 24
294.557	13/2 <sup>+</sup>	97.6 3	28 CA	197.087	11/2 <sup>+</sup>	M1+E2	0.5 3	7.0 19	$\alpha(L)=5.2$ 14; $\alpha(M)=1.3$ 4; $\alpha(N+..)=0.46$ 14
		144.201 3	100 2	150.356	9/2 <sup>+</sup>	E2		2.70	$\alpha(N)=0.36$ 11; $\alpha(O)=0.085$ 25; $\alpha(P)=0.015$ 4; $\alpha(Q)=0.00076$ 16 $\alpha(K)=0.224$ 4; $\alpha(L)=1.80$ 3; $\alpha(M)=0.499$ 7; $\alpha(N+..)=0.1720$ 25 $\alpha(N)=0.1356$ 19; $\alpha(O)=0.0312$ 5; $\alpha(P)=0.00516$ 8; $\alpha(Q)=3.19 \times 10^{-5}$ 5
332.845	5/2 <sup>+</sup>	161.450 15	21.1 4	171.358	7/2 <sup>+</sup>	M1		5.67	$\alpha(K)=4.51$ 7; $\alpha(L)=0.880$ 13; $\alpha(M)=0.213$ 3; $\alpha(N+..)=0.0742$ 11 $\alpha(N)=0.0574$ 8; $\alpha(O)=0.01395$ 20; $\alpha(P)=0.00269$ 4; $\alpha(Q)=0.000215$ 3
		203.550 5	100 2	129.2995	5/2 <sup>+</sup>	M1		2.95	$\alpha(K)=2.35$ 4; $\alpha(L)=0.456$ 7; $\alpha(M)=0.1103$ 16; $\alpha(N+..)=0.0385$ 6 $\alpha(N)=0.0297$ 5; $\alpha(O)=0.00723$ 11; $\alpha(P)=0.001394$ 20; $\alpha(Q)=0.0001112$ 16
		281.2 2	0.37 5	51.6968	5/2 <sup>+</sup>	M1+E2		0.7 5	$\alpha(K)=0.5$ 5; $\alpha(L)=0.15$ 4; $\alpha(M)=0.037$ 8; $\alpha(N+..)=0.013$ 3 $\alpha(N)=0.0099$ 21; $\alpha(O)=0.0024$ 6; $\alpha(P)=0.00044$ 13; $\alpha(Q)=2.5 \times 10^{-5}$ 20
		319.68 10	0.85 9	13.0339	3/2 <sup>+</sup>	M1+E2		0.5 4	$\alpha(K)=0.4$ 3; $\alpha(L)=0.10$ 4; $\alpha(M)=0.024$ 7; $\alpha(N+..)=0.0085$ 24 $\alpha(N)=0.0066$ 19; $\alpha(O)=0.0016$ 5; $\alpha(P)=0.00029$ 11; $\alpha(Q)=1.8 \times 10^{-5}$ 14
		332.845 5	86.8 5	0.0	7/2 <sup>-</sup>	E1		0.0313	$\alpha(K)=0.0250$ 4; $\alpha(L)=0.00476$ 7; $\alpha(M)=0.001145$ 16; $\alpha(N+..)=0.000394$ 6 $\alpha(N)=0.000306$ 5; $\alpha(O)=7.33 \times 10^{-5}$ 11; $\alpha(P)=1.356 \times 10^{-5}$ 19; $\alpha(Q)=8.87 \times 10^{-7}$ 13
339.976	17/2 <sup>-</sup>	90.17 3	71 6	250.014	15/2 <sup>-</sup>	[M1]		6.24	$\alpha(L)=4.70$ 7; $\alpha(M)=1.138$ 16; $\alpha(N+..)=0.397$ 6 $\alpha(N)=0.307$ 5; $\alpha(O)=0.0746$ 11; $\alpha(P)=0.01440$ 21; $\alpha(Q)=0.001153$ 17
		168.13 3	100 8	171.464	13/2 <sup>-</sup>	[E2]		1.456	$\alpha(K)=0.197$ 3; $\alpha(L)=0.918$ 13; $\alpha(M)=0.253$ 4; $\alpha(N+..)=0.0873$ 13

**Adopted Levels, Gammas (continued)** **$\gamma(^{235}\text{U})$  (continued)**

$E_i$ (level)	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\alpha^\ddagger$	Comments
357.22	15/2 <sup>+</sup>	62.6 10 160.08 4	3.9 10 100 20	294.557 197.087	13/2 <sup>+</sup> 11/2 <sup>+</sup>			$\alpha(N)=0.0688 10; \alpha(O)=0.01587 23; \alpha(P)=0.00263 4; \alpha(Q)=2.03\times10^{-5} 3$
367.031	7/2 <sup>+</sup>	141.657 20	29.8 7	225.382	9/2 <sup>+</sup>	[M1]	8.22	$\alpha(K)=6.52 10; \alpha(L)=1.279 18; \alpha(M)=0.309 5; \alpha(N+..)=0.1079 16$ $\alpha(N)=0.0834 12; \alpha(O)=0.0203 3; \alpha(P)=0.00391 6; \alpha(Q)=0.000312 5$
		195.679 8	100 2	171.358	7/2 <sup>+</sup>	M1	3.30	$\alpha(K)=2.62 4; \alpha(L)=0.510 8; \alpha(M)=0.1233 18; \alpha(N+..)=0.0430 6$ $\alpha(N)=0.0332 5; \alpha(O)=0.00808 12; \alpha(P)=0.001558 22; \alpha(Q)=0.0001244 18$
		237.77 10	13.7 6	129.2995	5/2 <sup>+</sup>	[M1]	1.91	$\alpha(K)=1.519 22; \alpha(L)=0.295 5; \alpha(M)=0.0712 10; \alpha(N+..)=0.0248 4$ $\alpha(N)=0.0192 3; \alpha(O)=0.00467 7; \alpha(P)=0.000900 13; \alpha(Q)=7.18\times10^{-5} 10$
		285.3 2	1.7 4	81.724	7/2 <sup>+</sup>	(M1+E2)	0.7 5	$\alpha(K)=0.5 5; \alpha(L)=0.14 4; \alpha(M)=0.035 8; \alpha(N+..)=0.012 3$ $\alpha(N)=0.0095 21; \alpha(O)=0.0023 6; \alpha(P)=0.00042 13; \alpha(Q)=2.4\times10^{-5} 19$
		320.862 20	50.4 10	46.103	9/2 <sup>-</sup>	[E1]	0.0339	$\alpha(K)=0.0270 4; \alpha(L)=0.00517 8; \alpha(M)=0.001246 18; \alpha(N+..)=0.000429 6$ $\alpha(N)=0.000333 5; \alpha(O)=7.96\times10^{-5} 12; \alpha(P)=1.472\times10^{-5} 21;$ $\alpha(Q)=9.56\times10^{-7} 14$
		354.0 5	0.6 2	13.0339	3/2 <sup>+</sup>	[E2]	0.1155	$\alpha(K)=0.0549 8; \alpha(L)=0.0445 7; \alpha(M)=0.01195 18; \alpha(N+..)=0.00413 7$ $\alpha(N)=0.00324 5; \alpha(O)=0.000756 12; \alpha(P)=0.0001306 20; \alpha(Q)=3.11\times10^{-6} 5$
		367.063 25	83.3 20	0.0	7/2 <sup>-</sup>	[E1]	0.0254	$\alpha(K)=0.0203 3; \alpha(L)=0.00382 6; \alpha(M)=0.000918 13; \alpha(N+..)=0.000316 5$ $\alpha(N)=0.000246 4; \alpha(O)=5.88\times10^{-5} 9; \alpha(P)=1.093\times10^{-5} 16;$ $\alpha(Q)=7.29\times10^{-7} 11$
368.9	13/2 <sup>+</sup>	78.7 10	40 16	291.135	11/2 <sup>+</sup>			
393.218	3/2 <sup>+</sup>	143.7 10 263.95 3	1.0×10 <sup>2</sup> 5 7.6 3	225.382 129.2995	9/2 <sup>+</sup> 5/2 <sup>+</sup>	M1	1.428	$\alpha(K)=1.136 16; \alpha(L)=0.220 3; \alpha(M)=0.0531 8; \alpha(N+..)=0.0185 3$ $\alpha(N)=0.01432 20; \alpha(O)=0.00348 5; \alpha(P)=0.000672 10; \alpha(Q)=5.35\times10^{-5} 8$
		341.506 10	18.2 6	51.6968	5/2 <sup>+</sup>	M1	0.701	$\alpha(K)=0.559 8; \alpha(L)=0.1076 15; \alpha(M)=0.0260 4; \alpha(N+..)=0.00906 13$ $\alpha(N)=0.00700 10; \alpha(O)=0.001703 24; \alpha(P)=0.000328 5; \alpha(Q)=2.62\times10^{-5} 4$
		380.191 6	87.4 18	13.0339	3/2 <sup>+</sup>	M1	0.523	$\alpha(K)=0.417 6; \alpha(L)=0.0801 12; \alpha(M)=0.0193 3; \alpha(N+..)=0.00674 10$ $\alpha(N)=0.00521 8; \alpha(O)=0.001267 18; \alpha(P)=0.000244 4; \alpha(Q)=1.95\times10^{-5} 3$
		393.14 3	100 10	0.0760	1/2 <sup>+</sup>	M1	0.477	$\alpha(K)=0.380 6; \alpha(L)=0.0731 11; \alpha(M)=0.01764 25; \alpha(N+..)=0.00615 9$ $\alpha(N)=0.00475 7; \alpha(O)=0.001155 17; \alpha(P)=0.000223 4; \alpha(Q)=1.776\times10^{-5} 25$
414.768	9/2 <sup>+</sup>	123.62 5	26.9 10	291.135	11/2 <sup>+</sup>	[M1]	12.08	$\alpha(K)=9.57 14; \alpha(L)=1.89 3; \alpha(M)=0.457 7; \alpha(N+..)=0.1595 23$ $\alpha(N)=0.1232 18; \alpha(O)=0.0300 5; \alpha(P)=0.00578 9; \alpha(Q)=0.000462 7$
		189.360 10	94.3 11	225.382	9/2 <sup>+</sup>	[M1+E2]	2.3 14	$\alpha(K)=1.5 14; \alpha(L)=0.553 10; \alpha(M)=0.143 8; \alpha(N+..)=0.0496 25$ $\alpha(N)=0.0387 23; \alpha(O)=0.0092 4; \alpha(P)=0.00164 8; \alpha(Q)=8.E-5 6$
		218.0 5	1.4 12	197.087	11/2 <sup>+</sup>			$\alpha(K)=0.8 7; \alpha(L)=0.23 5; \alpha(M)=0.059 8; \alpha(N+..)=0.021 3$ $\alpha(N)=0.0161 20; \alpha(O)=0.0038 6; \alpha(P)=0.00070 15; \alpha(Q)=4.E-5 3$
		243.38 3	28.7 5	171.358	7/2 <sup>+</sup>	[M1+E2]	1.1 7	$\alpha(K)=0.0287 4; \alpha(L)=0.00552 8; \alpha(M)=0.001331 19; \alpha(N+..)=0.000458 7$ $\alpha(N)=0.000356 5; \alpha(O)=8.51\times10^{-5} 12; \alpha(P)=1.570\times10^{-5} 22;$ $\alpha(Q)=1.014\times10^{-6} 15$
		311.78 4	29.3 8	103.903	11/2 <sup>-</sup>	[E1]	0.0361	
		368.554 20	100 2	46.103	9/2 <sup>-</sup>	[E1]	0.0252	$\alpha(K)=0.0202 3; \alpha(L)=0.00378 6; \alpha(M)=0.000910 13; \alpha(N+..)=0.000313 5$

**Adopted Levels, Gammas (continued)**
 $\gamma(^{235}\text{U})$  (continued)

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E <sub>i</sub> (level)	J <sub>i</sub> <sup><math>\pi</math></sup>	E <sub><math>\gamma</math></sub> <sup><math>\ddagger</math></sup>	I <sub><math>\gamma</math></sub> <sup><math>\ddagger</math></sup>	E <sub>f</sub>	J <sub>f</sub> <sup><math>\pi</math></sup>	Mult.	$\alpha^{\dagger}$	Comments
426.741	5/2 <sup>+</sup>	255.384 15	5.2 2	171.358	7/2 <sup>+</sup>	[M1]	1.565	$\alpha(N)=0.000243$ 4; $\alpha(O)=5.83\times10^{-5}$ 9; $\alpha(P)=1.083\times10^{-5}$ 16; $\alpha(Q)=7.23\times10^{-7}$ 11
		297.46 3	3.2 2	129.2995	5/2 <sup>+</sup>	[M1]	1.025	$\alpha(K)=1.245$ 18; $\alpha(L)=0.241$ 4; $\alpha(M)=0.0583$ 9; $\alpha(N+..)=0.0203$ 3
		345.013 4	35 2	81.724	7/2 <sup>+</sup>	M1	0.682	$\alpha(N)=0.01570$ 22; $\alpha(O)=0.00382$ 6; $\alpha(P)=0.000737$ 11; $\alpha(Q)=5.87\times10^{-5}$ 9
		375.054 3	100 2	51.6968	5/2 <sup>+</sup>	M1	0.543	$\alpha(K)=0.816$ 12; $\alpha(L)=0.1577$ 22; $\alpha(M)=0.0381$ 6; $\alpha(N+..)=0.01328$ 19
		413.713 5	94 2	13.0339	3/2 <sup>+</sup>	M1	0.415	$\alpha(N)=0.01026$ 15; $\alpha(O)=0.00250$ 4; $\alpha(P)=0.000481$ 7; $\alpha(Q)=3.84\times10^{-5}$ 6
		426.68 3	1.51 4	0.0760	1/2 <sup>+</sup>	(E2)	0.0699	$\alpha(K)=0.543$ 8; $\alpha(L)=0.1046$ 15; $\alpha(M)=0.0253$ 4; $\alpha(N+..)=0.00881$ 13
439.39	19/2 <sup>-</sup>	98.92 3	41 8	339.976	17/2 <sup>-</sup>			$\alpha(N)=0.00681$ 10; $\alpha(O)=0.001655$ 24; $\alpha(P)=0.000319$ 5; $\alpha(Q)=2.54\times10^{-5}$ 4
		189.56 3	100 4	250.014	15/2 <sup>-</sup>			$\alpha(K)=0.432$ 6; $\alpha(L)=0.0832$ 12; $\alpha(M)=0.0201$ 3; $\alpha(N+..)=0.00700$ 10
		274.370@ 10	8 4	171.358	7/2 <sup>+</sup>	M1	1.282	$\alpha(N)=0.00541$ 8; $\alpha(O)=0.001315$ 19; $\alpha(P)=0.000254$ 4; $\alpha(Q)=2.02\times10^{-5}$ 3
		316.41 3	100 3	129.2995	5/2 <sup>+</sup>	M1	0.865	$\alpha(K)=0.331$ 5; $\alpha(L)=0.0636$ 9; $\alpha(M)=0.01534$ 22; $\alpha(N+..)=0.00535$ 8
		399.536 3	46 3	46.103	9/2 <sup>-</sup>	[E1]	0.0213	$\alpha(N)=0.00413$ 6; $\alpha(O)=0.001005$ 14; $\alpha(P)=0.000194$ 3; $\alpha(Q)=1.544\times10^{-5}$ 22
		445.72 3	67 5	0.0	7/2 <sup>-</sup>	E1	0.01698	$\alpha(K)=0.0387$ 6; $\alpha(L)=0.0230$ 4; $\alpha(M)=0.00610$ 9; $\alpha(N+..)=0.00211$ 3
456.84	15/2 <sup>+</sup>	88.0 10	49 16	368.9	13/2 <sup>+</sup>			$\alpha(N)=0.001653$ 24; $\alpha(O)=0.000387$ 6; $\alpha(P)=6.79\times10^{-5}$ 10; $\alpha(Q)=2.06\times10^{-6}$ 3
		165.70 6	100 23	291.135	11/2 <sup>+</sup>			
		248.95 5	3.5 4	225.382	9/2 <sup>+</sup>	[M1]	1.680	$\alpha(K)=1.337$ 19; $\alpha(L)=0.259$ 4; $\alpha(M)=0.0626$ 9; $\alpha(N+..)=0.0218$ 3
		302.87 5	2.4 2	171.358	7/2 <sup>+</sup>	[M1]	0.976	$\alpha(N)=0.01687$ 24; $\alpha(O)=0.00410$ 6; $\alpha(P)=0.000791$ 11; $\alpha(Q)=6.31\times10^{-5}$ 9
		323.84 3	26.2 4	150.356	9/2 <sup>+</sup>	M1	0.811	$\alpha(K)=0.777$ 11; $\alpha(L)=0.1500$ 21; $\alpha(M)=0.0362$ 5; $\alpha(N+..)=0.01263$ 18
		341.014 30	<24	129.2995	5/2 <sup>+</sup>	[M1]	0.704	$\alpha(N)=0.00976$ 14; $\alpha(O)=0.00237$ 4; $\alpha(P)=0.000458$ 7; $\alpha(Q)=3.65\times10^{-5}$ 6
473.826	7/2 <sup>+</sup>	100 10	81.724	7/2 <sup>+</sup>	M1	0.479	$\alpha(K)=0.646$ 9; $\alpha(L)=0.1246$ 18; $\alpha(M)=0.0301$ 5; $\alpha(N+..)=0.01049$ 15	
		392.53 3	100 10	81.724	7/2 <sup>+</sup>	M1	0.479	$\alpha(N)=0.00811$ 12; $\alpha(O)=0.00197$ 3; $\alpha(P)=0.000380$ 6; $\alpha(Q)=3.03\times10^{-5}$ 5
		422.598 19	59.5 10	51.6968	5/2 <sup>+</sup>	M1	0.392	$\alpha(K)=0.561$ 8; $\alpha(L)=0.1081$ 16; $\alpha(M)=0.0261$ 4; $\alpha(N+..)=0.00909$ 13
		428.4 3	0.50 5	46.103	9/2 <sup>-</sup>	[E1]	0.0184	$\alpha(N)=0.00703$ 10; $\alpha(O)=0.001709$ 24; $\alpha(P)=0.000330$ 5; $\alpha(Q)=2.63\times10^{-5}$ 4
								$\alpha(K)=0.382$ 6; $\alpha(L)=0.0734$ 11; $\alpha(M)=0.01772$ 25; $\alpha(N+..)=0.00617$ 9
								$\alpha(N)=0.00477$ 7; $\alpha(O)=0.001160$ 17; $\alpha(P)=0.000224$ 4; $\alpha(Q)=1.784\times10^{-5}$ 25

## Adopted Levels, Gammas (continued)

 $\gamma(^{235}\text{U})$  (continued)

$E_i$ (level)	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\delta^\#$	$\alpha^\dagger$	Comments
473.826	7/2 <sup>+</sup>	461.25 5	1.11 2	13.0339	3/2 <sup>+</sup>	[E2]	0.0575		$\alpha(\text{K})=0.0334~5; \alpha(\text{L})=0.01772~25; \alpha(\text{M})=0.00467~7;$ $\alpha(\text{N}+..)=0.001617~23$
		473.9 5	0.026 13	0.0	7/2 <sup>-</sup>	[E1]	0.01501		$\alpha(\text{K})=0.01210~18; \alpha(\text{L})=0.00220~4; \alpha(\text{M})=0.000526~8;$ $\alpha(\text{N}+..)=0.000182~3$
									$\alpha(\text{N})=0.0001409~20; \alpha(\text{O})=3.39\times 10^{-5}~5; \alpha(\text{P})=6.35\times 10^{-6}~9;$ $\alpha(\text{Q})=4.43\times 10^{-7}~7$
482.00	17/2 <sup>+</sup>	125.2 10	1.7 7	357.22	15/2 <sup>+</sup>				
		187.48 4	100 13	294.557	13/2 <sup>+</sup>				
510.49	(9/2 <sup>+</sup> )	406.8 2	100 20	103.903	11/2 <sup>-</sup>				
		463.9 3	11.2 12	46.103	9/2 <sup>-</sup>				
533.208	9/2 <sup>+</sup>	242.08 3	2.8 2	291.135	11/2 <sup>+</sup>	[M1]	1.82		$\alpha(\text{K})=1.445~21; \alpha(\text{L})=0.280~4; \alpha(\text{M})=0.0677~10; \alpha(\text{N}+..)=0.0236~4$
		307.85 5	2.1 2	225.382	9/2 <sup>+</sup>	[M1]	0.933		$\alpha(\text{N})=0.0182~3; \alpha(\text{O})=0.00444~7; \alpha(\text{P})=0.000856~12;$ $\alpha(\text{Q})=6.82\times 10^{-5}~10$
		336.113 12	43.2 8	197.087	11/2 <sup>+</sup>	M1	0.733		$\alpha(\text{K})=0.743~11; \alpha(\text{L})=0.1434~20; \alpha(\text{M})=0.0346~5;$ $\alpha(\text{N}+..)=0.01207~17$
		361.89 5	4.7 3	171.358	7/2 <sup>+</sup>	[M1]	0.598		$\alpha(\text{N})=0.00933~13; \alpha(\text{O})=0.00227~4; \alpha(\text{P})=0.000438~7;$ $\alpha(\text{Q})=3.49\times 10^{-5}~5$
		382.75 5	100 2	150.356	9/2 <sup>+</sup>	(M1)	0.513		$\alpha(\text{K})=0.583~9; \alpha(\text{L})=0.1125~16; \alpha(\text{M})=0.0272~4;$ $\alpha(\text{N}+..)=0.00947~14$
		430.08 10	1.67 5	103.903	11/2 <sup>-</sup>	[E1]	0.0183		$\alpha(\text{N})=0.00732~11; \alpha(\text{O})=0.001779~25; \alpha(\text{P})=0.000343~5;$ $\alpha(\text{Q})=2.73\times 10^{-5}~4$
		451.481 10	73.1 6	81.724	7/2 <sup>+</sup>	M1(+E2)	1.0 10	0.19 14	$\alpha(\text{K})=0.477~7; \alpha(\text{L})=0.0918~13; \alpha(\text{M})=0.0222~4;$ $\alpha(\text{N}+..)=0.00772~11$
		481.66 12	1.8 1	51.6968	5/2 <sup>+</sup>	[E2]	0.0517		$\alpha(\text{N})=0.00597~9; \alpha(\text{O})=0.001451~21; \alpha(\text{P})=0.000280~4;$ $\alpha(\text{Q})=2.23\times 10^{-5}~4$
									$\alpha(\text{K})=0.409~6; \alpha(\text{L})=0.0787~11; \alpha(\text{M})=0.0190~3;$ $\alpha(\text{N}+..)=0.00662~10$
									$\alpha(\text{N})=0.00511~8; \alpha(\text{O})=0.001244~18; \alpha(\text{P})=0.000240~4;$ $\alpha(\text{Q})=1.91\times 10^{-5}~3$
									$\alpha(\text{K})=0.01469~21; \alpha(\text{L})=0.00270~4; \alpha(\text{M})=0.000648~9;$ $\alpha(\text{N}+..)=0.000223~4$
									$\alpha(\text{N})=0.0001734~25; \alpha(\text{O})=4.16\times 10^{-5}~6; \alpha(\text{P})=7.77\times 10^{-6}~11;$ $\alpha(\text{Q})=5.34\times 10^{-7}~8$
									$\alpha(\text{K})=0.15~12; \alpha(\text{L})=0.035~16; \alpha(\text{M})=0.009~4; \alpha(\text{N}+..)=0.0030~13$
									$\alpha(\text{N})=0.0023~10; \alpha(\text{O})=0.00056~24; \alpha(\text{P})=0.00010~5;$ $\alpha(\text{Q})=7.E-6~6$
									$\alpha(\text{K})=0.0309~5; \alpha(\text{L})=0.01538~22; \alpha(\text{M})=0.00404~6;$ $\alpha(\text{N}+..)=0.001399~20$
									$\alpha(\text{N})=0.001095~16; \alpha(\text{O})=0.000257~4; \alpha(\text{P})=4.55\times 10^{-5}~7;$ $\alpha(\text{Q})=1.590\times 10^{-6}~23$

**Adopted Levels, Gammas (continued)**
 $\gamma^{(235)\text{U}}$  (continued)

E <sub>i</sub> (level)	J <sup>π</sup> <sub>i</sub>	E <sub>γ</sub> <sup>‡</sup>	I <sub>γ</sub> <sup>‡</sup>	E <sub>f</sub>	J <sup>π</sup> <sub>f</sub>	Mult.	$\delta^{\#}$	$\alpha^{\dagger}$	Comments	
									$\alpha(\text{K})=0.01147 \text{ 16}; \alpha(\text{L})=0.00208 \text{ 3}; \alpha(\text{M})=0.000497 \text{ 7};$ $\alpha(\text{N+..})=0.0001714 \text{ 24}$ $\alpha(\text{N})=0.0001330 \text{ 19}; \alpha(\text{O})=3.20\times10^{-5} \text{ 5}; \alpha(\text{P})=6.00\times10^{-6} \text{ 9};$ $\alpha(\text{Q})=4.21\times10^{-7} \text{ 6}$	
533.208	9/2 <sup>+</sup>	487.06 10	0.10 I	46.103	9/2 <sup>-</sup>	[E1]		0.01421		
551.17	21/2 <sup>-</sup>	111.67 3	34 5	439.39	19/2 <sup>-</sup>					
		211.67 4	100 3	339.976	17/2 <sup>-</sup>					
557.2	17/2 <sup>+</sup>	100.0 10	35 8	456.84	15/2 <sup>+</sup>					
		188.30 13	100 19	368.9	13/2 <sup>+</sup>					
559.34	19/2 <sup>+</sup>	76.6 10	2.7 5	482.00	17/2 <sup>+</sup>					
		202.08 4	100 10	357.22	15/2 <sup>+</sup>					
608.17	11/2 <sup>+</sup>	411.15 3	100 50	197.087	11/2 <sup>+</sup>	[M1]		0.422	$\alpha(\text{K})=0.337 \text{ 5}; \alpha(\text{L})=0.0647 \text{ 9}; \alpha(\text{M})=0.01560 \text{ 22};$ $\alpha(\text{N+..})=0.00544 \text{ 8}$	
		457.61 5	21.9 4	150.356	9/2 <sup>+</sup>	[M1]		0.316	$\alpha(\text{K})=0.252 \text{ 4}; \alpha(\text{L})=0.0483 \text{ 7}; \alpha(\text{M})=0.01165 \text{ 17};$ $\alpha(\text{N+..})=0.00406 \text{ 6}$	
		526.4 4	0.84 30	81.724	7/2 <sup>+</sup>	[E2]		0.0419	$\alpha(\text{K})=0.0262 \text{ 4}; \alpha(\text{L})=0.01160 \text{ 17}; \alpha(\text{M})=0.00303 \text{ 5};$ $\alpha(\text{N+..})=0.001048 \text{ 15}$	
									$\alpha(\text{N})=0.000819 \text{ 12}; \alpha(\text{O})=0.000193 \text{ 3}; \alpha(\text{P})=3.44\times10^{-5} \text{ 5};$ $\alpha(\text{Q})=1.322\times10^{-6} \text{ 19}$	
633.092	(5/2 <sup>-</sup> )	633.15 6	100	0.0	7/2 <sup>-</sup>	M1(+E2)	<0.5	0.122 11	$\alpha(\text{K})=0.097 \text{ 9}; \alpha(\text{L})=0.0187 \text{ 14}; \alpha(\text{M})=0.0045 \text{ 4}; \alpha(\text{N+..})=0.00157 \text{ 12}$	
									$\alpha(\text{N})=0.00122 \text{ 9}; \alpha(\text{O})=0.000296 \text{ 21}; \alpha(\text{P})=5.7\times10^{-5} \text{ 5};$ $\alpha(\text{Q})=4.5\times10^{-6} \text{ 4}$	
637.794	3/2 <sup>-</sup>	211.056 7	0.7 4	426.741	5/2 <sup>+</sup>					
		244.583 8	1.7 9	393.218	3/2 <sup>+</sup>					
		586.3 3	8.0 8	51.6968	5/2 <sup>+</sup>					
		624.78 5	18 1	13.0339	3/2 <sup>+</sup>	(E1)		0.00877 13	$\alpha=0.00877 \text{ 13}; \alpha(\text{K})=0.00712 \text{ 10}; \alpha(\text{L})=0.001252 \text{ 18};$ $\alpha(\text{M})=0.000299 \text{ 5}; \alpha(\text{N+..})=0.0001032$	
									$\alpha(\text{N})=8.00\times10^{-5} \text{ 12}; \alpha(\text{O})=1.93\times10^{-5} \text{ 3}; \alpha(\text{P})=3.64\times10^{-6} \text{ 5};$ $\alpha(\text{Q})=2.66\times10^{-7} \text{ 4}$	
		637.7		0.0760	1/2 <sup>+</sup>	(E1)		0.00844 12	$\alpha=0.00844 \text{ 12}; \alpha(\text{K})=0.00685 \text{ 10}; \alpha(\text{L})=0.001202 \text{ 17};$ $\alpha(\text{M})=0.000287 \text{ 4}; \alpha(\text{N+..})=9.91\times10^{-5} \text{ 14}$	
									$\alpha(\text{N})=7.68\times10^{-5} \text{ 11}; \alpha(\text{O})=1.85\times10^{-5} \text{ 3}; \alpha(\text{P})=3.50\times10^{-6} \text{ 5};$ $\alpha(\text{Q})=2.56\times10^{-7} \text{ 4}$	
		637.8	100 10	0.0	7/2 <sup>-</sup>	E2		0.0273	$\alpha(\text{K})=0.0185 \text{ 3}; \alpha(\text{L})=0.00655 \text{ 10}; \alpha(\text{M})=0.001683 \text{ 24};$ $\alpha(\text{N+..})=0.000583 \text{ 9}$	
									$\alpha(\text{N})=0.000455 \text{ 7}; \alpha(\text{O})=0.0001078 \text{ 15}; \alpha(\text{P})=1.95\times10^{-5} \text{ 3};$ $\alpha(\text{Q})=8.96\times10^{-7} \text{ 13}$	
658.96	1/2 <sup>-</sup>	265.7 3	11 2	393.218	3/2 <sup>+</sup>	[E1]		0.0514	$\alpha(\text{K})=0.0408 \text{ 6}; \alpha(\text{L})=0.00802 \text{ 12}; \alpha(\text{M})=0.00194 \text{ 3};$	

## Adopted Levels, Gammas (continued)

 $\gamma(^{235}\text{U})$  (continued)

$E_i$ (level)	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\alpha^\dagger$	Comments
658.96	1/2 <sup>-</sup>	645.94 4	100 3	13.0339	3/2 <sup>+</sup>	E1	0.00824 12	$\alpha(\text{N+..})=0.000665 \text{ 10}$ $\alpha(\text{N})=0.000518 \text{ 8}; \alpha(\text{O})=0.0001234 \text{ 18}; \alpha(\text{P})=2.26\times 10^{-5} \text{ 4};$ $\alpha(\text{Q})=1.412\times 10^{-6} \text{ 20}$
		658.86 6	66.8 13	0.0760	1/2 <sup>+</sup>	E1	0.00794 12	$\alpha=0.00824 \text{ 12}; \alpha(\text{K})=0.00669 \text{ 10}; \alpha(\text{L})=0.001172 \text{ 17}; \alpha(\text{M})=0.000280 \text{ 4};$ $\alpha(\text{N+..})=9.66\times 10^{-5} \text{ 14}$ $\alpha(\text{N})=7.49\times 10^{-5} \text{ 11}; \alpha(\text{O})=1.81\times 10^{-5} \text{ 3}; \alpha(\text{P})=3.41\times 10^{-6} \text{ 5};$ $\alpha(\text{Q})=2.50\times 10^{-7} \text{ 4}$
664.531	(5/2) <sup>-</sup>	493.0 <sup>c</sup> 3	43 2	171.358	7/2 <sup>+</sup>	[E1]	0.01387	$\alpha(\text{K})=0.01120 \text{ 16}; \alpha(\text{L})=0.00202 \text{ 3}; \alpha(\text{M})=0.000484 \text{ 7}; \alpha(\text{N+..})=0.0001671 \text{ 24}$ $\alpha(\text{N})=0.0001297 \text{ 19}; \alpha(\text{O})=3.12\times 10^{-5} \text{ 5}; \alpha(\text{P})=5.85\times 10^{-6} \text{ 9};$ $\alpha(\text{Q})=2.41\times 10^{-7} \text{ 4}$
		582.89 10	30 2	81.724	7/2 <sup>+</sup>	[E1]	0.01001	$B(\text{E1})(\text{W.u.})=4.1\times 10^{-6} \text{ 25}.$ $\alpha(\text{K})=0.00811 \text{ 12}; \alpha(\text{L})=0.001437 \text{ 21}; \alpha(\text{M})=0.000343 \text{ 5}; \alpha(\text{N+..})=0.0001185 \text{ 17}$ $\alpha(\text{N})=9.19\times 10^{-5} \text{ 13}; \alpha(\text{O})=2.21\times 10^{-5} \text{ 4}; \alpha(\text{P})=4.17\times 10^{-6} \text{ 6};$ $\alpha(\text{Q})=3.01\times 10^{-7} \text{ 5}$
		612.83 3	47 2	51.6968	5/2 <sup>+</sup>	E1	0.00910 13	$B(\text{E1})(\text{W.u.})=1.7\times 10^{-6} \text{ 10}.$ $\alpha=0.00910 \text{ 13}; \alpha(\text{K})=0.00738 \text{ 11}; \alpha(\text{L})=0.001300 \text{ 19}; \alpha(\text{M})=0.000310 \text{ 5};$ $\alpha(\text{N+..})=0.0001072$ $\alpha(\text{N})=8.31\times 10^{-5} \text{ 12}; \alpha(\text{O})=2.00\times 10^{-5} \text{ 3}; \alpha(\text{P})=3.78\times 10^{-6} \text{ 6};$ $\alpha(\text{Q})=2.75\times 10^{-7} \text{ 4}$
		618.28 6	100 3	46.103	9/2 <sup>-</sup>	(E2)	0.0292	$B(\text{E1})(\text{W.u.})=2.3\times 10^{-6} \text{ 14}.$ $\alpha(\text{K})=0.0196 \text{ 3}; \alpha(\text{L})=0.00716 \text{ 10}; \alpha(\text{M})=0.00184 \text{ 3}; \alpha(\text{N+..})=0.000639 \text{ 9}$ $\alpha(\text{N})=0.000499 \text{ 7}; \alpha(\text{O})=0.0001180 \text{ 17}; \alpha(\text{P})=2.13\times 10^{-5} \text{ 3}; \alpha(\text{Q})=9.53\times 10^{-7} \text{ 14}$
		664.58 5	81.3 16	0.0	7/2 <sup>-</sup>	E2	0.0251	$B(\text{E2})(\text{W.u.})=0.46 \text{ 28}.$ $\alpha(\text{K})=0.01721 \text{ 25}; \alpha(\text{L})=0.00583 \text{ 9}; \alpha(\text{M})=0.001493 \text{ 21}; \alpha(\text{N+..})=0.000517 \text{ 8}$ $\alpha(\text{N})=0.000403 \text{ 6}; \alpha(\text{O})=9.57\times 10^{-5} \text{ 14}; \alpha(\text{P})=1.736\times 10^{-5} \text{ 25};$ $\alpha(\text{Q})=8.25\times 10^{-7} \text{ 12}$
666.69	19/2 <sup>+</sup>	110.0 10	23 4	557.2	17/2 <sup>+</sup>			$B(\text{E2})(\text{W.u.})=0.26 \text{ 16}.$
670.924	(7/2) <sup>-</sup>	209.84 8	100 13	456.84	15/2 <sup>+</sup>			$\alpha(\text{K})=0.1094 \text{ 16}; \alpha(\text{L})=0.0208 \text{ 3}; \alpha(\text{M})=0.00501 \text{ 7}; \alpha(\text{N+..})=0.001745 \text{ 25}$ $\alpha(\text{N})=0.001349 \text{ 19}; \alpha(\text{O})=0.000328 \text{ 5}; \alpha(\text{P})=6.33\times 10^{-5} \text{ 9}; \alpha(\text{Q})=5.05\times 10^{-6} \text{ 7}$
		624.78 3	100 5	46.103	9/2 <sup>-</sup>	M1	0.1369	$\alpha(\text{K})=0.076 \text{ 15}; \alpha(\text{L})=0.0149 \text{ 23}; \alpha(\text{M})=0.0036 \text{ 6}; \alpha(\text{N+..})=0.00126 \text{ 19}$ $\alpha(\text{N})=0.00097 \text{ 15}; \alpha(\text{O})=0.00024 \text{ 4}; \alpha(\text{P})=4.5\times 10^{-5} \text{ 7}; \alpha(\text{Q})=3.5\times 10^{-6} \text{ 7}$
		670.99 4	2	0.0	7/2 <sup>-</sup>	M1+E2	0.096 18	
671.94	23/2 <sup>-</sup>	120.93 3	25.4 18	551.17	21/2 <sup>-</sup>	[E2]	0.435	$\alpha(\text{K})=0.1200 \text{ 17}; \alpha(\text{L})=0.230 \text{ 4}; \alpha(\text{M})=0.0631 \text{ 9}; \alpha(\text{N+..})=0.0218 \text{ 3}$ $\alpha(\text{N})=0.01713 \text{ 24}; \alpha(\text{O})=0.00396 \text{ 6}; \alpha(\text{P})=0.000668 \text{ 10}; \alpha(\text{Q})=8.48\times 10^{-6} \text{ 12}$

## Adopted Levels, Gammas (continued)

 $\gamma^{(235)\text{U}}$  (continued)

$E_i(\text{level})$	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$a^\dagger$	Comments
16	701.101	(7/2) <sup>-</sup>	550.5 2	19 2	150.356	9/2 <sup>+</sup>	[E1]	0.01117  $\alpha(K)=0.00904$ 13; $\alpha(L)=0.001613$ 23; $\alpha(M)=0.000385$ 6; $\alpha(N+..)=0.0001331$ 19 $\alpha(N)=0.0001032$ 15; $\alpha(O)=2.48\times 10^{-5}$ 4; $\alpha(P)=4.68\times 10^{-6}$ 7; $\alpha(Q)=3.35\times 10^{-7}$ 5 $B(E1)(W.u.)\approx 4\times 10^{-6}$ .
	597.99 5	74 3	103.903	11/2 <sup>-</sup>	[E2]		0.0314	$\alpha(K)=0.0208$ 3; $\alpha(L)=0.00789$ 11; $\alpha(M)=0.00204$ 3; $\alpha(N+..)=0.000706$ 10 $\alpha(N)=0.000551$ 8; $\alpha(O)=0.0001304$ 19; $\alpha(P)=2.35\times 10^{-5}$ 4; $\alpha(Q)=1.019\times 10^{-6}$ 15 $B(E2)(W.u.)\approx 1.4$ .
	619.21 6	54 4	81.724	7/2 <sup>+</sup>	[E1]		0.00892 13	$\alpha=0.00892$ 13; $\alpha(K)=0.00724$ 11; $\alpha(L)=0.001274$ 18; $\alpha(M)=0.000304$ 5; $\alpha(N+..)=0.0001050$ $\alpha(N)=8.14\times 10^{-5}$ 12; $\alpha(O)=1.96\times 10^{-5}$ 3; $\alpha(P)=3.71\times 10^{-6}$ 6; $\alpha(Q)=2.70\times 10^{-7}$ 4 $B(E1)(W.u.)\approx 9\times 10^{-6}$ .
	649.32 6	32 2	51.6968	5/2 <sup>+</sup>	[E1]		0.00816 12	$\alpha=0.00816$ 12; $\alpha(K)=0.00662$ 10; $\alpha(L)=0.001160$ 17; $\alpha(M)=0.000277$ 4; $\alpha(N+..)=9.56\times 10^{-5}$ 14 $\alpha(N)=7.41\times 10^{-5}$ 11; $\alpha(O)=1.79\times 10^{-5}$ 3; $\alpha(P)=3.38\times 10^{-6}$ 5; $\alpha(Q)=2.48\times 10^{-7}$ 4 $B(E1)(W.u.)\approx 4\times 10^{-6}$ .
	654.88 8	100 2	46.103	9/2 <sup>-</sup>	(E2)		0.0258	$\alpha(K)=0.01767$ 25; $\alpha(L)=0.00607$ 9; $\alpha(M)=0.001558$ 22; $\alpha(N+..)=0.000540$ 8 $\alpha(N)=0.000421$ 6; $\alpha(O)=9.98\times 10^{-5}$ 14; $\alpha(P)=1.81\times 10^{-5}$ 3; $\alpha(Q)=8.50\times 10^{-7}$ 12 $B(E2)(W.u.)\approx 1.5$ .
	701.01 2	22.7 6	0.0760	1/2 <sup>+</sup>	[M1+E2]		0.06 4	$\alpha(K)=0.05$ 4; $\alpha(L)=0.010$ 6; $\alpha(M)=0.0025$ 12; $\alpha(N+..)=0.0009$ 5 $\alpha(N)=0.0007$ 4; $\alpha(O)=0.00016$ 8; $\alpha(P)=3.1\times 10^{-5}$ 16; $\alpha(Q)=2.2\times 10^{-6}$ 15 $B(E2)(W.u.)\approx 0.2$ .
	703.753	3/2 <sup>-</sup>	652.05 2	100 2	51.6968	5/2 <sup>+</sup>	E1	0.00809 12  $\alpha=0.00809$ 12; $\alpha(K)=0.00657$ 10; $\alpha(L)=0.001151$ 17; $\alpha(M)=0.000274$ 4; $\alpha(N+..)=9.48\times 10^{-5}$ 14 $\alpha(N)=7.35\times 10^{-5}$ 11; $\alpha(O)=1.773\times 10^{-5}$ 25; $\alpha(P)=3.35\times 10^{-6}$ 5; $\alpha(Q)=2.46\times 10^{-7}$ 4
		690.81 8	14 4	13.0339	3/2 <sup>+</sup>	E1	0.00727 11	$\alpha=0.00727$ 11; $\alpha(K)=0.00591$ 9; $\alpha(L)=0.001029$ 15; $\alpha(M)=0.000245$ 4; $\alpha(N+..)=8.47\times 10^{-5}$ 12 $\alpha(N)=6.57\times 10^{-5}$ 10; $\alpha(O)=1.584\times 10^{-5}$ 23; $\alpha(P)=3.00\times 10^{-6}$ 5; $\alpha(Q)=2.22\times 10^{-7}$ 4
		703.6 5	59.0 12	0.0760	1/2 <sup>+</sup>	E1	0.00702 10	$\alpha=0.00702$ 10; $\alpha(K)=0.00571$ 8; $\alpha(L)=0.000993$ 14; $\alpha(M)=0.000237$ 4; $\alpha(N+..)=8.18\times 10^{-5}$ 12 $\alpha(N)=6.34\times 10^{-5}$ 9; $\alpha(O)=1.529\times 10^{-5}$ 22; $\alpha(P)=2.90\times 10^{-6}$ 4; $\alpha(Q)=2.15\times 10^{-7}$ 3
	710.02	21/2 <sup>+</sup>	152.0 10	1.2 5	557.2	17/2 <sup>+</sup>		
		228.06 4	100 8	482.00	17/2 <sup>+</sup>			
	720.22	(9/2) <sup>-</sup>	617.10 10	100 5	103.903	11/2 <sup>-</sup>	M1	0.1415

## Adopted Levels, Gammas (continued)

 $\gamma(^{235}\text{U})$  (continued)

$E_i$ (level)	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\delta^\#$	$\alpha^\dagger$	Comments	
720.22 750.21	$(9/2)^-$	674.05 3	38 2	46.103	$9/2^-$	M1	0.1118		$\alpha(K)=9.66$ 14; $\alpha(L)=1.91$ 3; $\alpha(M)=0.461$ 7; $\alpha(N+..)=0.1609$ 23 $\alpha(N)=0.1244$ 18; $\alpha(O)=0.0303$ 5; $\alpha(P)=0.00584$ 9; $\alpha(Q)=0.000467$ 7	
		579.4 3	43 9	171.358	$7/2^+$					
		599.6 2	100 10	150.356	$9/2^+$					
		668.2 5	20 7	81.724	$7/2^+$					
761.017	$(1/2)^-$	123.228 @ 5	2.0 4	637.794	$3/2^-$	[M1]	12.19	$\alpha(K)=0.00628$ 9; $\alpha(K)=0.00511$ 8; $\alpha(L)=0.000883$ 13; $\alpha(M)=0.000210$ 3; $\alpha(N+..)=7.27\times 10^{-5}$ 11 $\alpha(N)=5.63\times 10^{-5}$ 8; $\alpha(O)=1.360\times 10^{-5}$ 19; $\alpha(P)=2.58\times 10^{-6}$ 4; $\alpha(Q)=1.93\times 10^{-7}$ 3		
		747.970 @ 10	100 8	13.0339	$3/2^+$	E1	0.00628 9			
		760.98 @ 4	8.0 16	0.0760	$1/2^+$	[E1]	0.00608 9			
769.27	$1/2^+$	639.99 10	100 2	129.2995	$5/2^+$	[E2]	0.0271	$\alpha(K)=0.0184$ 3; $\alpha(L)=0.00647$ 9; $\alpha(M)=0.001663$ 24; $\alpha(N+..)=0.000576$ 8 $\alpha(N)=0.000449$ 7; $\alpha(O)=0.0001065$ 15; $\alpha(P)=1.93\times 10^{-5}$ 3; $\alpha(Q)=8.88\times 10^{-7}$ 13		
		756.4 2	32 6	13.0339	$3/2^+$	[M1+E2]	0.05 4			
		769.15 8	59 11	0.0760	$1/2^+$	E0+M1	0.00676 10	$\alpha(K)=0.00676$ 10; $\alpha(K)=0.00550$ 8; $\alpha(L)=0.000954$ 14; $\alpha(M)=0.000227$ 4; $\alpha(N+..)=7.86\times 10^{-5}$ 11 $\alpha(N)=6.09\times 10^{-5}$ 9; $\alpha(O)=1.470\times 10^{-5}$ 21; $\alpha(P)=2.79\times 10^{-6}$ 4; $\alpha(Q)=2.07\times 10^{-7}$ 3		
769.934	$3/2^-$	718.231 @ 10	41 3	51.6968	$5/2^+$	E1				
		756.87 @ 6	10 3	13.0339	$3/2^+$	[E1]	0.00614 9	$\alpha(K)=0.00614$ 9; $\alpha(K)=0.00500$ 7; $\alpha(L)=0.000864$ 12; $\alpha(M)=0.000206$ 3; $\alpha(N+..)=7.11\times 10^{-5}$ 10 $\alpha(N)=5.51\times 10^{-5}$ 8; $\alpha(O)=1.330\times 10^{-5}$ 19; $\alpha(P)=2.52\times 10^{-6}$ 4; $\alpha(Q)=1.89\times 10^{-7}$ 3		
		769.870 @ 16	100 18	0.0760	$1/2^+$	E1	0.00596 9			
778.36	$(11/2)^-$	606.9 2	23.3 23	171.464	$13/2^-$	M1(+E2)	<1	0.12 3	$\alpha(K)=0.094$ 25; $\alpha(L)=0.019$ 4; $\alpha(M)=0.0045$ 9; $\alpha(N+..)=0.0016$ 3 $\alpha(N)=0.00123$ 24; $\alpha(O)=0.00030$ 6; $\alpha(P)=5.7\times 10^{-5}$ 12; $\alpha(Q)=4.3\times 10^{-6}$ 12	
		674.4 5	100 3	103.903	$11/2^-$	(M1)	0.1116			

## Adopted Levels, Gammas (continued)

 $\gamma(^{235}\text{U})$  (continued)

$E_i$ (level)	$J^\pi_i$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J^\pi_f$	Mult.	$\delta^\#$	$\alpha^\dagger$	Comments
779.51	3/2 <sup>+</sup>	697.8 <sup>c</sup> 5	54 12	81.724	7/2 <sup>+</sup>	[E2]		0.0226	$\alpha(\text{N+..})=0.001420\ 20$ $\alpha(\text{N})=0.001098\ 16; \alpha(\text{O})=0.000267\ 4; \alpha(\text{P})=5.15\times10^{-5}\ 8;$ $\alpha(\text{Q})=4.11\times10^{-6}\ 6$ $\alpha(\text{K})=0.01578\ 23; \alpha(\text{L})=0.00509\ 8; \alpha(\text{M})=0.001300\ 19;$ $\alpha(\text{N+..})=0.000450\ 7$ $\alpha(\text{N})=0.000351\ 5; \alpha(\text{O})=8.34\times10^{-5}\ 12; \alpha(\text{P})=1.518\times10^{-5}\ 22;$ $\alpha(\text{Q})=7.50\times10^{-7}\ 11$ $\alpha(\text{K})=0.061\ 12; \alpha(\text{L})=0.0120\ 19; \alpha(\text{M})=0.0029\ 5;$ $\alpha(\text{N+..})=0.00101\ 15$ $\alpha(\text{N})=0.00078\ 12; \alpha(\text{O})=0.00019\ 3; \alpha(\text{P})=3.6\times10^{-5}\ 6;$ $\alpha(\text{Q})=2.8\times10^{-6}\ 6$ $\alpha(\text{K})=0.04\ 3; \alpha(\text{L})=0.008\ 4; \alpha(\text{M})=0.0019\ 10; \alpha(\text{N+..})=0.0007\ 4$ $\alpha(\text{N})=0.0005\ 3; \alpha(\text{O})=0.00013\ 7; \alpha(\text{P})=2.4\times10^{-5}\ 13;$ $\alpha(\text{Q})=1.8\times10^{-6}\ 12$ $\alpha(\text{K})=0.049\ 12; \alpha(\text{L})=0.0096\ 20; \alpha(\text{M})=0.0023\ 5;$ $\alpha(\text{N+..})=0.00081\ 16$ $\alpha(\text{N})=0.00062\ 13; \alpha(\text{O})=0.00015\ 3; \alpha(\text{P})=2.9\times10^{-5}\ 6;$ $\alpha(\text{Q})=2.2\times10^{-6}\ 6$
727.9	2	86 5	51.6968	5/2 <sup>+</sup>	M1(+E2)	<0.8	0.077 14		
766.47	3	90 5	13.0339	3/2 <sup>+</sup>	E0+M1+E2		0.05 3		
779.4		100 6	0.0760	1/2 <sup>+</sup>	M1(+E2)	<1	0.061 15		
787.8	21/2 <sup>+</sup>	121.4 10 230.64 10	27 5 100 17	666.69 557.2	19/2 <sup>+</sup> 17/2 <sup>+</sup>				
790.9	15/2 <sup>+</sup>	434.1 10	100	357.22	15/2 <sup>+</sup>				
800.58	23/2 <sup>+</sup>	90.65 6 241.19 4	1.8 6 100 7	710.02 559.34	21/2 <sup>+</sup> 19/2 <sup>+</sup>				
805.65	25/2 <sup>-</sup>	134.2 2 254.5 2	28 2 100 5	671.94 551.17	23/2 <sup>-</sup> 21/2 <sup>-</sup>	[E2]	0.319		$\alpha(\text{K})=0.1019\ 15; \alpha(\text{L})=0.1589\ 23; \alpha(\text{M})=0.0434\ 7;$ $\alpha(\text{N+..})=0.01497\ 22$ $\alpha(\text{N})=0.01178\ 17; \alpha(\text{O})=0.00273\ 4; \alpha(\text{P})=0.000462\ 7;$ $\alpha(\text{Q})=6.75\times10^{-6}\ 10$
805.651	3/2 <sup>-</sup>	172.560 <sup>&amp;</sup> 11	9 <sup>&amp;</sup> 3	633.092	(5/2 <sup>-</sup> )	[M1]	4.7		$\alpha(\text{K})=3.73\ 6; \alpha(\text{L})=0.728\ 11; \alpha(\text{M})=0.1761\ 25; \alpha(\text{N+..})=0.0614\ 9$ $\alpha(\text{N})=0.0475\ 7; \alpha(\text{O})=0.01155\ 17; \alpha(\text{P})=0.00223\ 4;$ $\alpha(\text{Q})=0.0001777\ 25$
		378.83 <sup>&amp;</sup> 16	29 <sup>&amp;</sup> 15	426.741	5/2 <sup>+</sup>	[E1]	0.0238		$\alpha(\text{K})=0.0190\ 3; \alpha(\text{L})=0.00356\ 5; \alpha(\text{M})=0.000856\ 12;$ $\alpha(\text{N+..})=0.000295\ 5$ $\alpha(\text{N})=0.000229\ 4; \alpha(\text{O})=5.49\times10^{-5}\ 8; \alpha(\text{P})=1.020\times10^{-5}\ 15;$ $\alpha(\text{Q})=6.85\times10^{-7}\ 10$
		412.31 <sup>&amp;</sup> 12	69 <sup>&amp;</sup> 23	393.218	3/2 <sup>+</sup>	[E1]			$\alpha=0.00565\ 8; \alpha(\text{K})=0.00460\ 7; \alpha(\text{L})=0.000791\ 11;$
		792.58 <sup>&amp;</sup> 5	77 <sup>&amp;</sup> 9	13.0339	3/2 <sup>+</sup>	(E1)	0.00565 8		$\alpha(\text{M})=0.000188\ 3; \alpha(\text{N+..})=6.51\times10^{-5}\ 10$ $\alpha(\text{N})=5.04\times10^{-5}\ 7; \alpha(\text{O})=1.218\times10^{-5}\ 17; \alpha(\text{P})=2.31\times10^{-6}\ 4;$ $\alpha(\text{Q})=1.741\times10^{-7}\ 25$

## Adopted Levels, Gammas (continued)

 $\gamma(^{235}\text{U})$  (continued)

$E_i$ (level)	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\alpha^\ddagger$	Comments
805.651	$3/2^-$	$805.65 \& 1$	$101 \& 10$	0.0	$7/2^-$	E2	0.01688	$\alpha(\text{K})=0.01223$ 18; $\alpha(\text{L})=0.00348$ 5; $\alpha(\text{M})=0.000877$ 13; $\alpha(\text{N}+..)=0.000304$ 5 $\alpha(\text{N})=0.000237$ 4; $\alpha(\text{O})=5.65\times10^{-5}$ 8; $\alpha(\text{P})=1.038\times10^{-5}$ 15; $\alpha(\text{Q})=5.67\times10^{-7}$ 8
806.9	$11/2^-$	557.0 5 635.3 5	100 25 $1.0\times10^2$ 10	250.014 171.464	$15/2^-$ $13/2^-$			
811.96	$(5/2^-)$	760.26 $\oplus$ 5	45 9	51.6968	$5/2^+$	[E1]	0.00609 9	$\alpha=0.00609$ 9; $\alpha(\text{K})=0.00496$ 7; $\alpha(\text{L})=0.000856$ 12; $\alpha(\text{M})=0.000204$ 3; $\alpha(\text{N}+..)=7.05\times10^{-5}$ 10 $\alpha(\text{N})=5.46\times10^{-5}$ 8; $\alpha(\text{O})=1.318\times10^{-5}$ 19; $\alpha(\text{P})=2.50\times10^{-6}$ 4; $\alpha(\text{Q})=1.87\times10^{-7}$ 3
		798.92 $\oplus$ 3	100 10	13.0339	$3/2^+$	(E1)	0.00557 8	$\alpha=0.00557$ 8; $\alpha(\text{K})=0.00454$ 7; $\alpha(\text{L})=0.000780$ 11; $\alpha(\text{M})=0.000186$ 3; $\alpha(\text{N}+..)=6.42\times10^{-5}$ 9 $\alpha(\text{N})=4.97\times10^{-5}$ 7; $\alpha(\text{O})=1.201\times10^{-5}$ 17; $\alpha(\text{P})=2.28\times10^{-6}$ 4; $\alpha(\text{Q})=1.718\times10^{-7}$ 24
821.23	$5/2^+$	428.03 $\textcolor{blue}{c}$ 4 596.0 5	32 16	393.218 225.382	$3/2^+$ $9/2^+$	[E2]	0.0318	$\alpha(\text{K})=0.0210$ 3; $\alpha(\text{L})=0.00800$ 12; $\alpha(\text{M})=0.00207$ 3; $\alpha(\text{N}+..)=0.000717$ 11 $\alpha(\text{N})=0.000560$ 8; $\alpha(\text{O})=0.0001323$ 19; $\alpha(\text{P})=2.38\times10^{-5}$ 4; $\alpha(\text{Q})=1.029\times10^{-6}$ 15
		670.8 $\textcolor{blue}{c}$ 5	7	150.356	$9/2^+$	[E2]	0.0246	$\alpha(\text{K})=0.01693$ 24; $\alpha(\text{L})=0.00568$ 8; $\alpha(\text{M})=0.001454$ 21; $\alpha(\text{N}+..)=0.000504$ 8 $\alpha(\text{N})=0.000393$ 6; $\alpha(\text{O})=9.32\times10^{-5}$ 14; $\alpha(\text{P})=1.692\times10^{-5}$ 24; $\alpha(\text{Q})=8.10\times10^{-7}$ 12
		769.59 $\&$ 14 808.19 $\&$ 4	<42 $\&$ 92 $\&$ 17	51.6968 13.0339	$5/2^+$ $3/2^+$	E0+(M1) M1	0.0690	$\alpha(\text{K})=0.0552$ 8; $\alpha(\text{L})=0.01042$ 15; $\alpha(\text{M})=0.00251$ 4; $\alpha(\text{N}+..)=0.000874$ 13 $\alpha(\text{N})=0.000675$ 10; $\alpha(\text{O})=0.0001643$ 23; $\alpha(\text{P})=3.17\times10^{-5}$ 5; $\alpha(\text{Q})=2.54\times10^{-6}$ 4
		821.16 $\oplus$ CA 821.3 $\&$ 2	100 $\&$ 25	0.0760 0.0	$1/2^+$ $7/2^-$	[E2] [E1]	0.00530 8	$\alpha=0.00530$ 8; $\alpha(\text{K})=0.00432$ 6; $\alpha(\text{L})=0.000741$ 11; $\alpha(\text{M})=0.0001761$ 25; $\alpha(\text{N}+..)=6.09\times10^{-5}$ 9 $\alpha(\text{N})=4.72\times10^{-5}$ 7; $\alpha(\text{O})=1.140\times10^{-5}$ 16; $\alpha(\text{P})=2.17\times10^{-6}$ 3; $\alpha(\text{Q})=1.638\times10^{-7}$ 23
843.859	$(1/2)^+$	714.70 $\oplus$ 10	65 7	129.2995	$5/2^+$	E2	0.0215	$\alpha(\text{K})=0.01512$ 22; $\alpha(\text{L})=0.00477$ 7; $\alpha(\text{M})=0.001215$ 17; $\alpha(\text{N}+..)=0.000421$ 6 $\alpha(\text{N})=0.000328$ 5; $\alpha(\text{O})=7.80\times10^{-5}$ 11; $\alpha(\text{P})=1.423\times10^{-5}$ 20; $\alpha(\text{Q})=7.15\times10^{-7}$ 10
845.35?	$(7/2^+)$	843.780 $\oplus$ 10	100 5	0.0760	$1/2^+$	M1(+E0)		
850.56	$13/2^-$	763.61 $\textcolor{blue}{\oplus c}$ 2 600.47 6	100 100 15	81.724 250.014	$7/2^+$ $15/2^-$	E0(+M1)		

## Adopted Levels, Gammas (continued)

 $\gamma^{(235\text{U})}$  (continued)

$E_i(\text{level})$	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\delta^\#$	$\alpha^\dagger$	Comments
850.56	$13/2^-$	$679.22 \ 3$	$75 \ 17$	171.358	$7/2^+$				
865.189	$3/2^+$	$693.810 \& \ 10$	$44 \& \ 5$	171.358	$7/2^+$	E2		0.0229	$\alpha(K)=0.01594 \ 23; \alpha(L)=0.00517 \ 8; \alpha(M)=0.001321 \ 19;$ $\alpha(N+..)=0.000458 \ 7$
									$\alpha(N)=0.000357 \ 5; \alpha(O)=8.47\times10^{-5} \ 12; \alpha(P)=1.542\times10^{-5} \ 22;$ $\alpha(Q)=7.58\times10^{-7} \ 11$
		$735.910 \& \ 15$	$69 \& \ 7$	129.2995	$5/2^+$	M1+E2	1.2 2	0.048 7	$\alpha(K)=0.037 \ 6; \alpha(L)=0.0081 \ 9; \alpha(M)=0.00198 \ 20;$ $\alpha(N+..)=0.00069 \ 7$
									$\alpha(N)=0.00053 \ 6; \alpha(O)=0.000129 \ 13; \alpha(P)=2.4\times10^{-5} \ 3;$ $\alpha(Q)=1.73\times10^{-6} \ 24$
		$783.40 \& \ 5$	$8.7 \& \ 18$	81.724	$7/2^+$	[E2]		0.0179	$\alpha(K)=0.01285 \ 18; \alpha(L)=0.00374 \ 6; \alpha(M)=0.000946 \ 14;$ $\alpha(N+..)=0.000328 \ 5$
									$\alpha(N)=0.000255 \ 4; \alpha(O)=6.08\times10^{-5} \ 9; \alpha(P)=1.116\times10^{-5} \ 16;$ $\alpha(Q)=5.99\times10^{-7} \ 9$
		$813.510 \& \ 17$	$100 \& \ 10$	51.6968	$5/2^+$	M1		0.0678	$\alpha(K)=0.0542 \ 8; \alpha(L)=0.01024 \ 15; \alpha(M)=0.00246 \ 4;$ $\alpha(N+..)=0.000859 \ 12$
									$\alpha(N)=0.000664 \ 10; \alpha(O)=0.0001614 \ 23; \alpha(P)=3.11\times10^{-5} \ 5;$ $\alpha(Q)=2.49\times10^{-6} \ 4$
20	879.8	$13/2^-$	$629.7 \ 5$	100 12	250.014	$15/2^-$			
		$708.4 \ 5$		42 12	171.464	$13/2^-$			
885.5	( $11/2^-$ )	$63.5 \ 5$			821.83	$(9/2^-)$			
		$108.7 \ 5$			778.36	$(11/2)^-$			
		$165.8 \ 5$			720.22	$(9/2)^-$			
		$215.6 \ 5$			670.924	$(7/2)^-$			
		$297.9 \ 5$			587.8	$(11/2^+)$			
		$715.3 \ 5$			171.464	$13/2^-$			
		$734.4 \ 3$			150.356	$9/2^+$			
		$782.8 \ 3$			103.903	$11/2^-$			
		$839.5 \ 5$			46.103	$9/2^-$			
891.91	$5/2^+$	$720.55 \& \ 3$	$27 \& \ 7$	171.358	$7/2^+$	[M1+E2]	0.06 4		$\alpha(K)=0.04 \ 3; \alpha(L)=0.009 \ 5; \alpha(M)=0.0023 \ 12;$ $\alpha(N+..)=0.0008 \ 4$
									$\alpha(N)=0.0006 \ 3; \alpha(O)=0.00015 \ 8; \alpha(P)=2.9\times10^{-5} \ 15;$ $\alpha(Q)=2.1\times10^{-6} \ 14$
		$762.6 \& \ 2$	$13 \& \ 6$	129.2995	$5/2^+$	[M1+E2]	0.05 3		$\alpha(K)=0.04 \ 3; \alpha(L)=0.008 \ 4; \alpha(M)=0.0020 \ 10;$ $\alpha(N+..)=0.0007 \ 4$
									$\alpha(N)=0.0005 \ 3; \alpha(O)=0.00013 \ 7; \alpha(P)=2.5\times10^{-5} \ 13;$ $\alpha(Q)=1.8\times10^{-6} \ 12$
		$840.25 @ \ 9$	$64 \ 7$	51.6968	$5/2^+$	M1+E0			$\alpha(K)=0.027 \ 17; \alpha(L)=0.006 \ 3; \alpha(M)=0.0014 \ 7;$ $\alpha(N+..)=0.00047 \ 23$
		$879.2 \ 3$	$48 \ 5$	13.0339	$3/2^+$	[M1+E2]	0.035 21		$\alpha(N)=0.00036 \ 18; \alpha(O)=9.E-5 \ 5; \alpha(P)=1.7\times10^{-5} \ 9;$ $\alpha(Q)=1.3\times10^{-6} \ 8$

## Adopted Levels, Gammas (continued)

 $\gamma^{(235\text{U})}$  (continued)

$E_i$ (level)	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\alpha^\dagger$	Comments
891.91	$5/2^+$	891.0 3	100 10	0.0760	$1/2^+$	[E2]	0.01385	$\alpha(\text{K})=0.01024$ 15; $\alpha(\text{L})=0.00270$ 4; $\alpha(\text{M})=0.000677$ 10; $\alpha(\text{N+..})=0.000235$ 4
905.262	$5/2^+$	679.83 <sup>@</sup> 6	100 13	225.382	$9/2^+$	E2	0.0239	$\alpha(\text{K})=0.01653$ 24; $\alpha(\text{L})=0.00547$ 8; $\alpha(\text{M})=0.001399$ 20; $\alpha(\text{N+..})=0.000485$ 7
		733.93 <sup>@</sup> 4	67 15	171.358	$7/2^+$	M1	0.0891	$\alpha(\text{N})=0.000378$ 6; $\alpha(\text{O})=8.97\times10^{-5}$ 13; $\alpha(\text{P})=1.630\times10^{-5}$ 23; $\alpha(\text{Q})=7.89\times10^{-7}$ 11
916.87	$23/2^+$	775.96 <sup>&amp;</sup> 2	47 <sup>&amp;</sup> 15	129.2995	$5/2^+$	E0+M1		
		129.0 10	13.0 25	787.8	$21/2^+$			
		250.17 8	100 9	666.69	$19/2^+$			
921.1	$13/2^-$	671.1		250.014	$15/2^-$			
924.5	$15/2^-$	584.5 5	100	339.976	$17/2^-$			
945.58	$27/2^-$	140.13 4	18.9 10	805.65	$25/2^-$			
		273.63 3	100 4	671.94	$23/2^-$			
951.05	$1/2^-, 3/2^-$	171.548 <sup>&amp;</sup> 8	2.8 <sup>&amp;</sup> 14	779.51	$3/2^+$	[E1]	0.1411	$\alpha(\text{K})=0.1101$ 16; $\alpha(\text{L})=0.0234$ 4; $\alpha(\text{M})=0.00569$ 8; $\alpha(\text{N+..})=0.00194$ 3
		950.94 <sup>@</sup> 15	100 10	0.0760	$1/2^+$	E1	0.00409 6	$\alpha=0.00409$ 6; $\alpha(\text{K})=0.00334$ 5; $\alpha(\text{L})=0.000565$ 8; $\alpha(\text{M})=0.0001342$ 19; $\alpha(\text{N+..})=4.65\times10^{-5}$ 7
								$\alpha(\text{N})=3.60\times10^{-5}$ 5; $\alpha(\text{O})=8.70\times10^{-6}$ 13; $\alpha(\text{P})=1.659\times10^{-6}$ 24; $\alpha(\text{Q})=1.274\times10^{-7}$ 18
953.4	$15/2^-$	595.8 5	38 4	357.22	$15/2^+$			
		614.2 5	100 10	339.976	$17/2^-$			
		702.9 5	24.0 20	250.014	$15/2^-$			
960.4	$(13/2^-)$	74.88 7		885.5	$(11/2^-)$			
		138.3 5		821.83	$(9/2^-)$			
		183.5 5		778.36	$(11/2^-)$			
		240.3 5		720.22	$(9/2^-)$			
		372.5 3		587.8	$(11/2^+)$			
		601.1 4		357.22	$15/2^+$			
		622.3 6		339.976	$17/2^-$			
		763.3 5		197.087	$11/2^+$			
		790.3 5		171.358	$7/2^+$			
		858.8 4		103.903	$11/2^-$			
968.443	$(3/2)^+$	916.78 <sup>&amp;</sup> 8	16 <sup>&amp;</sup> 5	51.6968	$5/2^+$	[M1+E2]	0.031 19	$\alpha(\text{K})=0.025$ 15; $\alpha(\text{L})=0.0050$ 25; $\alpha(\text{M})=0.0012$ 6; $\alpha(\text{N+..})=0.00042$

## Adopted Levels, Gammas (continued)

 $\gamma(^{235}\text{U})$  (continued)

$E_i$ (level)	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\delta^\#$	$\alpha^\dagger$	Comments
968.443	(3/2) <sup>+</sup>	955.40 <sup>&amp;</sup> 2	100 <sup>&amp;</sup> 11	13.0339	3/2 <sup>+</sup>	M1+E2	0.6 2	0.036 5	$\alpha(N)=0.00033$ 16; $\alpha(O)=8.\text{E}-5$ 4; $\alpha(P)=1.5\times10^{-5}$ 8; $\alpha(Q)=1.1\times10^{-6}$ 7
		968.37 <sup>&amp;</sup> 2	89 <sup>&amp;</sup> 9	0.0760	1/2 <sup>+</sup>	M1+E2	0.6 3	0.035 6	$\alpha(K)=0.028$ 4; $\alpha(L)=0.0055$ 6; $\alpha(M)=0.00133$ 14; $\alpha(N..)=0.00046$ 5
									$\alpha(N)=0.00036$ 4; $\alpha(O)=8.7\times10^{-5}$ 9; $\alpha(P)=1.67\times10^{-5}$ 18; $\alpha(Q)=1.30\times10^{-6}$ 16
975.94	25/2 <sup>+</sup>	174.6 10 265.93 4	1.6 8 100 6	800.58 710.02	23/2 <sup>+</sup> 21/2 <sup>+</sup>				$\alpha(K)=0.027$ 5; $\alpha(L)=0.0053$ 8; $\alpha(M)=0.00128$ 19; $\alpha(N..)=0.00045$ 7
987.7	13/2 <sup>-</sup>	737.2 5 816.7 5	1.0 $\times10^2$ 4 7. $\times10^1$ 4	250.014 171.464	15/2 <sup>-</sup> 13/2 <sup>-</sup>				$\alpha(N)=0.00035$ 5; $\alpha(O)=8.4\times10^{-5}$ 12; $\alpha(P)=1.61\times10^{-5}$ 24; $\alpha(Q)=1.26\times10^{-6}$ 22
990.229	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	125.040 <sup>&amp;</sup> 2	9 <sup>&amp;</sup> 3	865.189	3/2 <sup>+</sup>	[E1]		0.297	$\alpha(K)=0.227$ 4; $\alpha(L)=0.0525$ 8; $\alpha(M)=0.01280$ 18; $\alpha(N..)=0.00436$ 6
		229.24 <sup>&amp;</sup> 2	8 <sup>&amp;</sup> 5	761.017	(1/2) <sup>-</sup>	[M1]		2.12	$\alpha(N)=0.00341$ 5; $\alpha(O)=0.000800$ 12; $\alpha(P)=0.0001408$ 20; $\alpha(Q)=7.22\times10^{-6}$ 11
		990.13 <sup>&amp;</sup> 4	100 <sup>&amp;</sup> 10	0.0760	1/2 <sup>+</sup>	[E1]		0.00381 6	$\alpha(K)=1.682$ 24; $\alpha(L)=0.326$ 5; $\alpha(M)=0.0789$ 11; $\alpha(N..)=0.0275$ 4
									$\alpha(N)=0.0213$ 3; $\alpha(O)=0.00517$ 8; $\alpha(P)=0.000997$ 14; $\alpha(Q)=7.95\times10^{-5}$ 12
									$\alpha=0.00381$ 6; $\alpha(K)=0.00311$ 5; $\alpha(L)=0.000526$ 8; $\alpha(M)=0.0001247$ 18; $\alpha(N..)=4.32\times10^{-5}$ 6
									$\alpha(N)=3.34\times10^{-5}$ 5; $\alpha(O)=8.09\times10^{-6}$ 12; $\alpha(P)=1.543\times10^{-6}$ 22; $\alpha(Q)=1.190\times10^{-7}$ 17
992.64	(5/2 <sup>+</sup> )	978.9 <sup>&amp;</sup> 7 992.64 <sup>&amp;</sup> 3	35 <sup>&amp;</sup> 10 100 <sup>&amp;</sup> 10	13.0339	3/2 <sup>+</sup> 0.0 7/2 <sup>-</sup>				$\alpha(K)=0.1437$ 21; $\alpha(L)=0.0274$ 4; $\alpha(M)=0.00660$ 10; $\alpha(N..)=0.00230$ 4
1002.28	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	1002.2 <sup>@</sup> 2	100	0.0760	1/2 <sup>+</sup>				$\alpha(N)=0.001777$ 25; $\alpha(O)=0.000432$ 6; $\alpha(P)=8.34\times10^{-5}$ 12; $\alpha(Q)=6.65\times10^{-6}$ 10
1020.6	19/2 <sup>+</sup>	230.0 10 461.2 10	3. $\times10^1$ 3 1.0 $\times10^2$ 5	790.9 559.34	15/2 <sup>+</sup> 19/2 <sup>+</sup>				
1023.79	17/2 <sup>-</sup>	583.90 12 683.99 7	100 5 87 6	439.39 339.976	19/2 <sup>-</sup> 17/2 <sup>-</sup>				
1038.231	5/2 <sup>+</sup>	564.070 <sup>&amp;</sup> 17	80 <sup>&amp;</sup> 20	473.826	7/2 <sup>+</sup>	M1		0.180	$\alpha(K)=0.0200$ 3; $\alpha(L)=0.00738$ 11; $\alpha(M)=0.00190$ 3; $\alpha(N..)=0.000660$ 10
		611.630 <sup>&amp;</sup> 11	100 <sup>&amp;</sup> 20	426.741	5/2 <sup>+</sup>	(E2)		0.0299	

## Adopted Levels, Gammas (continued)

 $\gamma(^{235}\text{U})$  (continued)

$E_i$ (level)	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\alpha^\dagger$	Comments
1038.231	5/2 <sup>+</sup>	1024.7 & 6	60 & 20	13.0339	3/2 <sup>+</sup>			$\alpha(N)=0.000515~8; \alpha(O)=0.0001219~17; \alpha(P)=2.20\times 10^{-5}~3;$ $\alpha(Q)=9.74\times 10^{-7}~14$
1047.1	15/2 <sup>-</sup>	85.15 12 122.1 2 124.4 5 160.1 2 195.5 5 268.2 4 606.7 5 706.5 5 796.4 4 874.7 2		960.4 924.5 921.1 885.5 850.56 778.36 439.39 339.976 250.014 171.464	(13/2 <sup>-</sup> ) 15/2 <sup>-</sup> 13/2 <sup>-</sup> (11/2 <sup>-</sup> ) 13/2 <sup>-</sup> (11/2) <sup>-</sup> 19/2 <sup>-</sup> 17/2 <sup>-</sup> 15/2 <sup>-</sup> 13/2 <sup>-</sup>			
1054.2	17/2 <sup>-</sup>	174.3 5 614.6 5 714.6 8	22 9 1.0×10 <sup>2</sup> 4 39 8	879.8 439.39 339.976	13/2 <sup>-</sup> 19/2 <sup>-</sup> 17/2 <sup>-</sup>			
1057.4	25/2 <sup>+</sup>	141.0 10 269.60 9 832.5 2 886.0 & 5 927.8 & 2 1005.7 3 1057.3 2	8.4 22 100 9 66 5 11 & 5 70 & 20 40 7 100 16	916.87 787.8 225.382 171.358 129.2995 51.6968 0.0	23/2 <sup>+</sup> 21/2 <sup>+</sup> 9/2 <sup>+</sup> 7/2 <sup>+</sup> 5/2 <sup>+</sup> 5/2 <sup>+</sup> 7/2 <sup>-</sup>			
1066.5	15/2 <sup>-</sup>	816.5 5	100.0	250.014	15/2 <sup>-</sup>			
1072.82	(1/2,3/2)	1060.1 & 3 1072.6 & 2	34 & 11 100 & 20	13.0339 0.0760	3/2 <sup>+</sup> 1/2 <sup>+</sup>			$\alpha(N)=3.02\times 10^{-5}~5; \alpha(O)=7.31\times 10^{-6}~11; \alpha(P)=1.396\times 10^{-6}~20;$ $\alpha(Q)=1.082\times 10^{-7}~16$
1078.03	27/2 <sup>+</sup>	102.9 10 277.44 4	0.5 5 100 6	975.94 800.58	25/2 <sup>+</sup> 23/2 <sup>+</sup>			
1099.02	(3/2 <sup>-</sup> )	1047.40 & 13 1085.8 & 2	100 & 23 50 & 12	51.6968 13.0339	5/2 <sup>+</sup> 3/2 <sup>+</sup>	[E1]	0.00345 5 [E1]	$\alpha=0.00345~5; \alpha(K)=0.00283~4; \alpha(L)=0.000475~7; \alpha(M)=0.0001127~16; \alpha(N+..)=3.90\times 10^{-5}~6$ $\alpha(N)=3.02\times 10^{-5}~5; \alpha(O)=7.31\times 10^{-6}~11; \alpha(P)=1.396\times 10^{-6}~20;$ $\alpha(Q)=1.082\times 10^{-7}~16$ $\alpha=0.00324~5; \alpha(K)=0.00266~4; \alpha(L)=0.000445~7; \alpha(M)=0.0001056~15; \alpha(N+..)=3.65\times 10^{-5}~6$ $\alpha(N)=2.83\times 10^{-5}~4; \alpha(O)=6.85\times 10^{-6}~10; \alpha(P)=1.309\times 10^{-6}~19;$ $\alpha(Q)=1.019\times 10^{-7}~15$
		1099.0 & 3	38 & 13	0.0	7/2 <sup>-</sup>	[E2]	0.00928 13	$\alpha=0.00928~13; \alpha(K)=0.00709~10; \alpha(L)=0.001643~23; \alpha(M)=0.000406~6; \alpha(N+..)=0.0001409$ $\alpha(N)=0.0001094~16; \alpha(O)=2.63\times 10^{-5}~4; \alpha(P)=4.92\times 10^{-6}~7;$ $\alpha(Q)=3.16\times 10^{-7}~5$

**Adopted Levels, Gammas (continued)**
 $\gamma(^{235}\text{U})$  (continued)

$E_i(\text{level})$	$J_i^\pi$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J_f^\pi$	Mult.	$\delta^\#$	$\alpha^\dagger$	Comments
1100.98	29/2 <sup>-</sup>	155.74 4 295.21 3	19.7 10 100 5	945.58 805.65	27/2 <sup>-</sup> 25/2 <sup>-</sup>				
1109.0	19/2 <sup>-</sup>	557.6 5 669.3 5 769.6 5	7. $\times$ 10 <sup>1</sup> 10 1.0. $\times$ 10 <sup>2</sup> 10 8. $\times$ 10 <sup>1</sup> 10	551.17 439.39 339.976	21/2 <sup>-</sup> 19/2 <sup>-</sup> 17/2 <sup>-</sup>				
1116.21	(5/2 <sup>-</sup> )	944.9 <sup>&amp;</sup> 4	34 <sup>&amp;</sup> 11	171.358	7/2 <sup>+</sup>	[E1]		0.00413 6	$\alpha=0.00413$ 6; $\alpha(K)=0.00338$ 5; $\alpha(L)=0.000572$ 8; $\alpha(M)=0.0001358$ 19; $\alpha(N+..)=4.70\times10^{-5}$ 7 $\alpha(N)=3.64\times10^{-5}$ 6; $\alpha(O)=8.80\times10^{-6}$ 13; $\alpha(P)=1.678\times10^{-6}$ 24; $\alpha(Q)=1.288\times10^{-7}$ 18
		986.92 <sup>&amp;</sup> 4	100 <sup>&amp;</sup> 10	129.2995	5/2 <sup>+</sup>	E1		0.00383 6	$\alpha=0.00383$ 6; $\alpha(K)=0.00313$ 5; $\alpha(L)=0.000529$ 8; $\alpha(M)=0.0001255$ 18; $\alpha(N+..)=4.34\times10^{-5}$ 6 $\alpha(N)=3.36\times10^{-5}$ 5; $\alpha(O)=8.13\times10^{-6}$ 12; $\alpha(P)=1.552\times10^{-6}$ 22; $\alpha(Q)=1.196\times10^{-7}$ 17
		1102.9 <sup>&amp;</sup> 7	9 <sup>&amp;</sup> 6	13.0339	3/2 <sup>+</sup>	[E1]		0.00316 5	$\alpha=0.00316$ 5; $\alpha(K)=0.00259$ 4; $\alpha(L)=0.000433$ 6; $\alpha(M)=0.0001027$ 15; $\alpha(N+..)=3.61\times10^{-5}$ 5 $\alpha(N)=2.75\times10^{-5}$ 4; $\alpha(O)=6.67\times10^{-6}$ 10; $\alpha(P)=1.274\times10^{-6}$ 18; $\alpha(Q)=9.93\times10^{-8}$ 14; $\alpha(IPF)=4.98\times10^{-7}$ 18
24		1115.6 <sup>&amp;</sup> 3	20 <sup>&amp;</sup> 6	0.0760	1/2 <sup>+</sup>				
	1141.3	17/2 <sup>-</sup>	802.0 5 890.9 5	339.976 250.014	17/2 <sup>-</sup> 15/2 <sup>-</sup>				
	1142.6	19/2 <sup>-</sup>	583.1 5 592.0 5 702.9 5	84 10 97 20 100 20	559.34 551.17 439.39	19/2 <sup>+</sup> 21/2 <sup>-</sup> 19/2 <sup>-</sup>			
	1142.633	(3/2) <sup>-</sup>	478.100 <sup>&amp;</sup> 10	664.531	(5/2) <sup>-</sup>	M1		0.281	$\alpha(K)=0.224$ 4; $\alpha(L)=0.0429$ 6; $\alpha(M)=0.01034$ 15; $\alpha(N+..)=0.00360$ 5 $\alpha(N)=0.00278$ 4; $\alpha(O)=0.000677$ 10; $\alpha(P)=0.0001306$ 19; $\alpha(Q)=1.041\times10^{-5}$ 15
		504.840 <sup>&amp;</sup> 6	66 <sup>&amp;</sup> 7	637.794	3/2 <sup>-</sup>	M1+E2	1.2 2	0.127 18	$\alpha(K)=0.096$ 15; $\alpha(L)=0.0230$ 22; $\alpha(M)=0.0057$ 5; $\alpha(N+..)=0.00198$ 18 $\alpha(N)=0.00154$ 14; $\alpha(O)=0.00037$ 4; $\alpha(P)=6.9\times10^{-5}$ 7; $\alpha(Q)=4.5\times10^{-6}$ 7
		1090.9 <sup>&amp;</sup> 2	24 <sup>&amp;</sup> 6	51.6968	5/2 <sup>+</sup>	[E1]		0.00322 5	$\alpha=0.00322$ 5; $\alpha(K)=0.00264$ 4; $\alpha(L)=0.000442$ 7; $\alpha(M)=0.0001047$ 15; $\alpha(N+..)=3.63\times10^{-5}$ 5 $\alpha(N)=2.81\times10^{-5}$ 4; $\alpha(O)=6.80\times10^{-6}$ 10; $\alpha(P)=1.299\times10^{-6}$ 19; $\alpha(Q)=1.011\times10^{-7}$ 15
		1142.2 <sup>&amp;</sup> 2	100 <sup>&amp;</sup> 20	0.0760	1/2 <sup>+</sup>	[E1]		0.00298 5	$\alpha=0.00298$ 5; $\alpha(K)=0.00244$ 4; $\alpha(L)=0.000407$ 6; $\alpha(M)=9.65\times10^{-5}$ 14; $\alpha(N+..)=3.58\times10^{-5}$ 5 $\alpha(N)=2.59\times10^{-5}$ 4; $\alpha(O)=6.26\times10^{-6}$ 9; $\alpha(P)=1.198\times10^{-6}$ 17; $\alpha(Q)=9.36\times10^{-8}$ 14; $\alpha(IPF)=2.39\times10^{-6}$ 4
	1156.2	17/2 <sup>-</sup>	716.1 5	50 17	439.39	19/2 <sup>-</sup>			





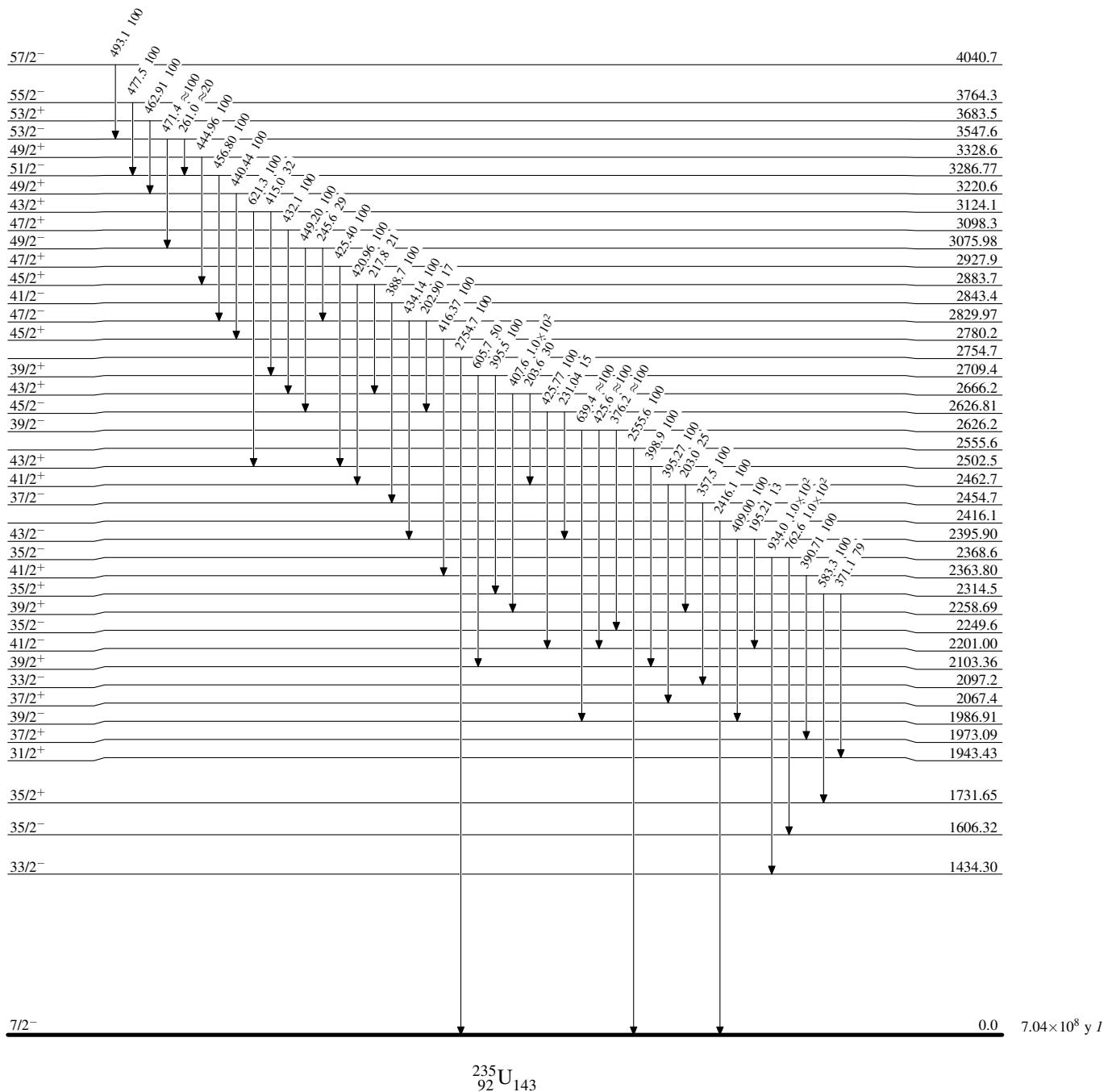
**Adopted Levels, Gammas (continued)** **$\gamma(^{235}\text{U})$  (continued)**

$E_i$ (level)	$J^\pi_i$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J^\pi_f$	$E_i$ (level)	$J^\pi_i$	$E_\gamma^\ddagger$	$I_\gamma^\ddagger$	$E_f$	$J^\pi_f$
3124.1	$43/2^+$	$415.0$ 10	$32$ 23	$2709.4$	$39/2^+$	3547.6	$53/2^-$	$261.0$ 10	$\approx 20$	$3286.77$	$51/2^-$
		$621.3$ 10	$100$ 20	$2502.5$	$43/2^+$			$471.4$ 10	$\approx 100$	$3075.98$	$49/2^-$
3220.6	$49/2^+$	$440.44$ 8	100	$2780.2$	$45/2^+$	3683.5	$53/2^+$	$462.91$ 10	100	$3220.6$	$49/2^+$
3286.77	$51/2^-$	$456.80$ 13	100	$2829.97$	$47/2^-$	3764.3	$55/2^-$	$477.5$ 5	100	$3286.77$	$51/2^-$
3328.6	$49/2^+$	$444.96$ 10	100	$2883.7$	$45/2^+$	4040.7	$57/2^-$	$493.1$ 10	100	$3547.6$	$53/2^-$

<sup>†</sup> Additional information 2.<sup>‡</sup> From Coulomb Excitation or  $^{239}\text{Pu}$   $\alpha$  decay, unless otherwise specified.<sup>#</sup> From  $^{239}\text{Pu}$   $\alpha$  decay.<sup>@</sup> From  $^{234}\text{U}(n,\gamma)$ .<sup>&</sup> From  $^{234}\text{U}(n,\gamma)$ .<sup>a</sup> Unresolved from a  $1782\gamma$  in  $^{238}\text{U}$ .<sup>b</sup> Multiply placed with undivided intensity.<sup>c</sup> Placement of transition in the level scheme is uncertain.

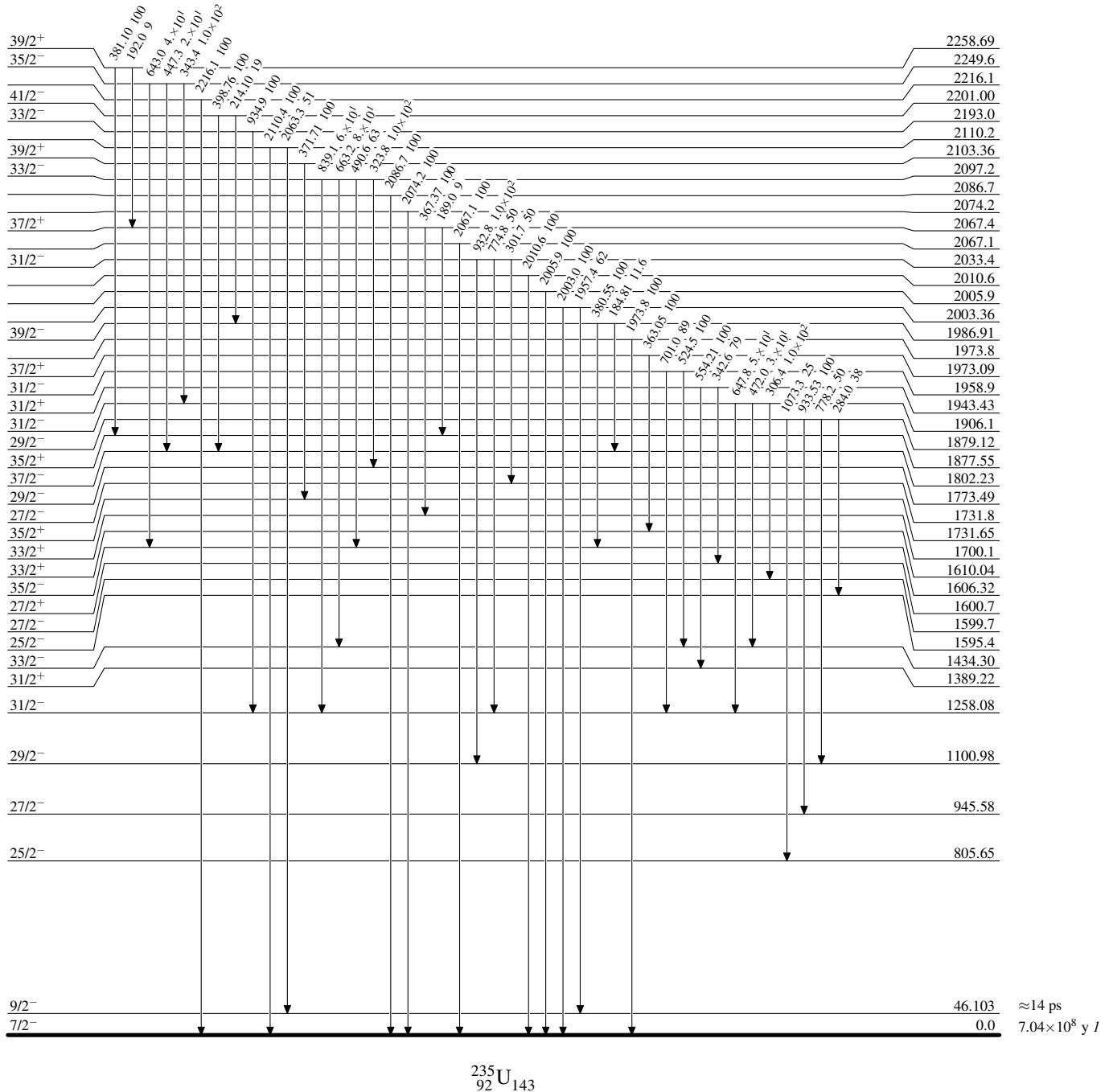
Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level



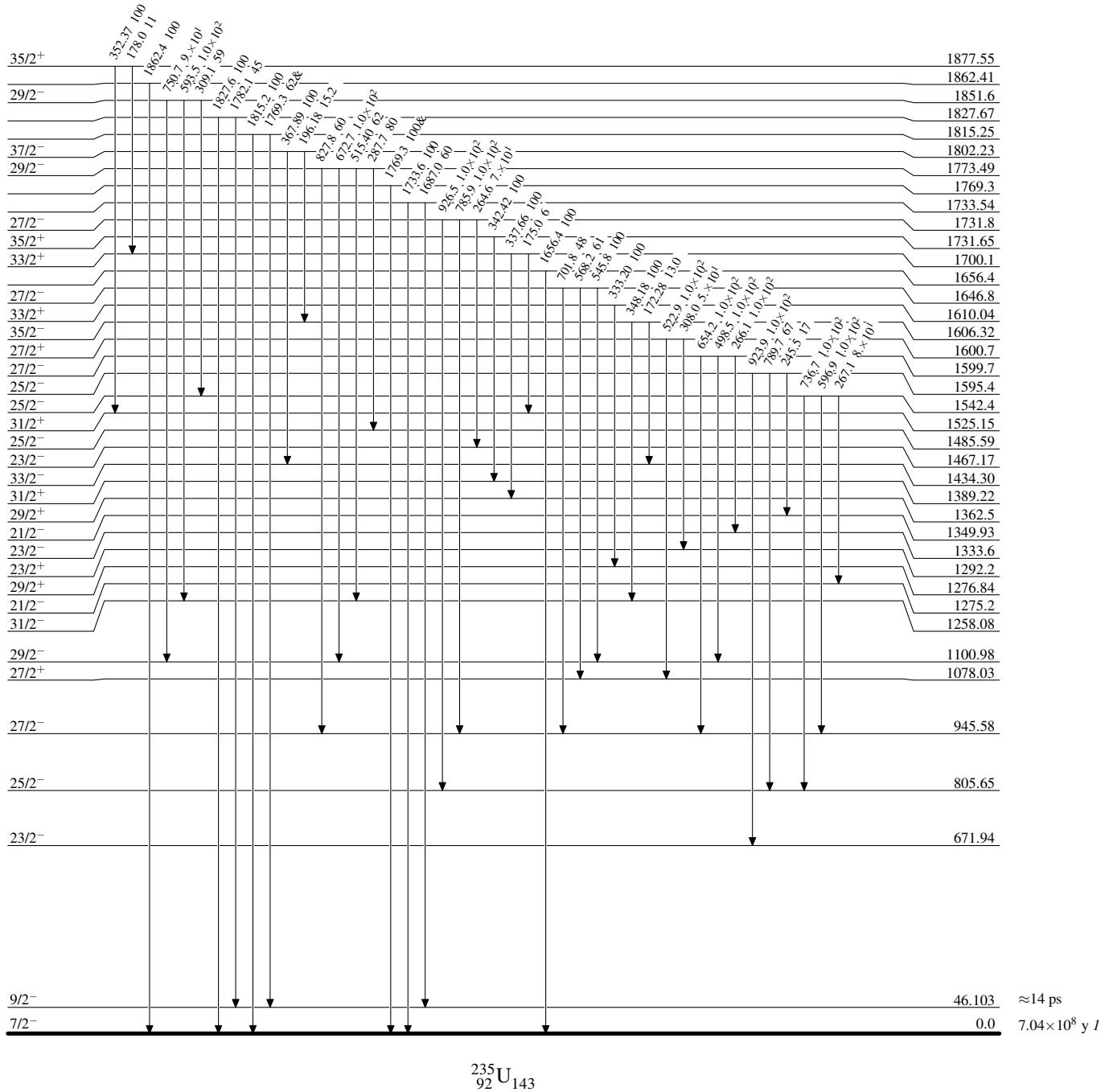
**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level



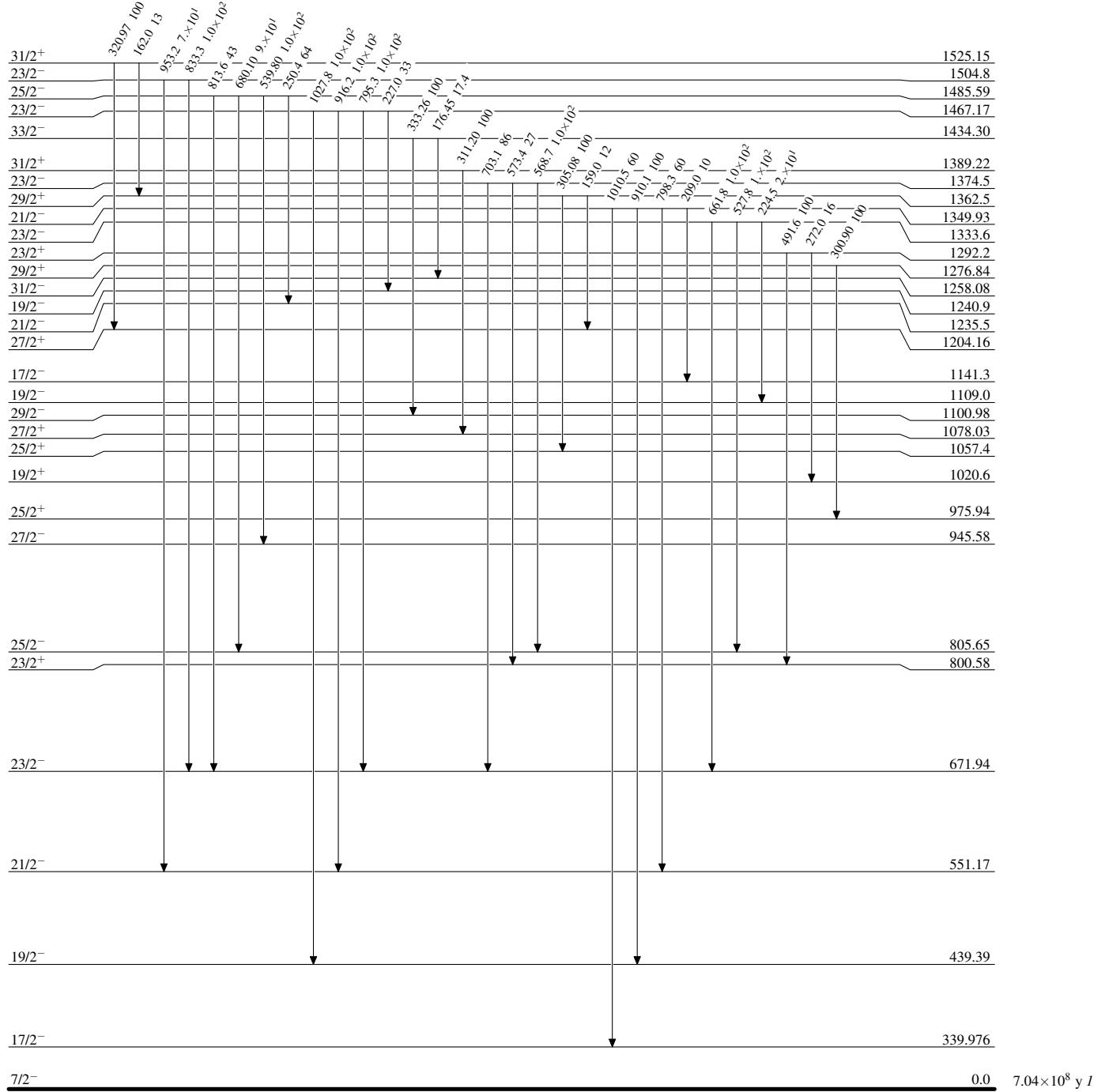
**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given



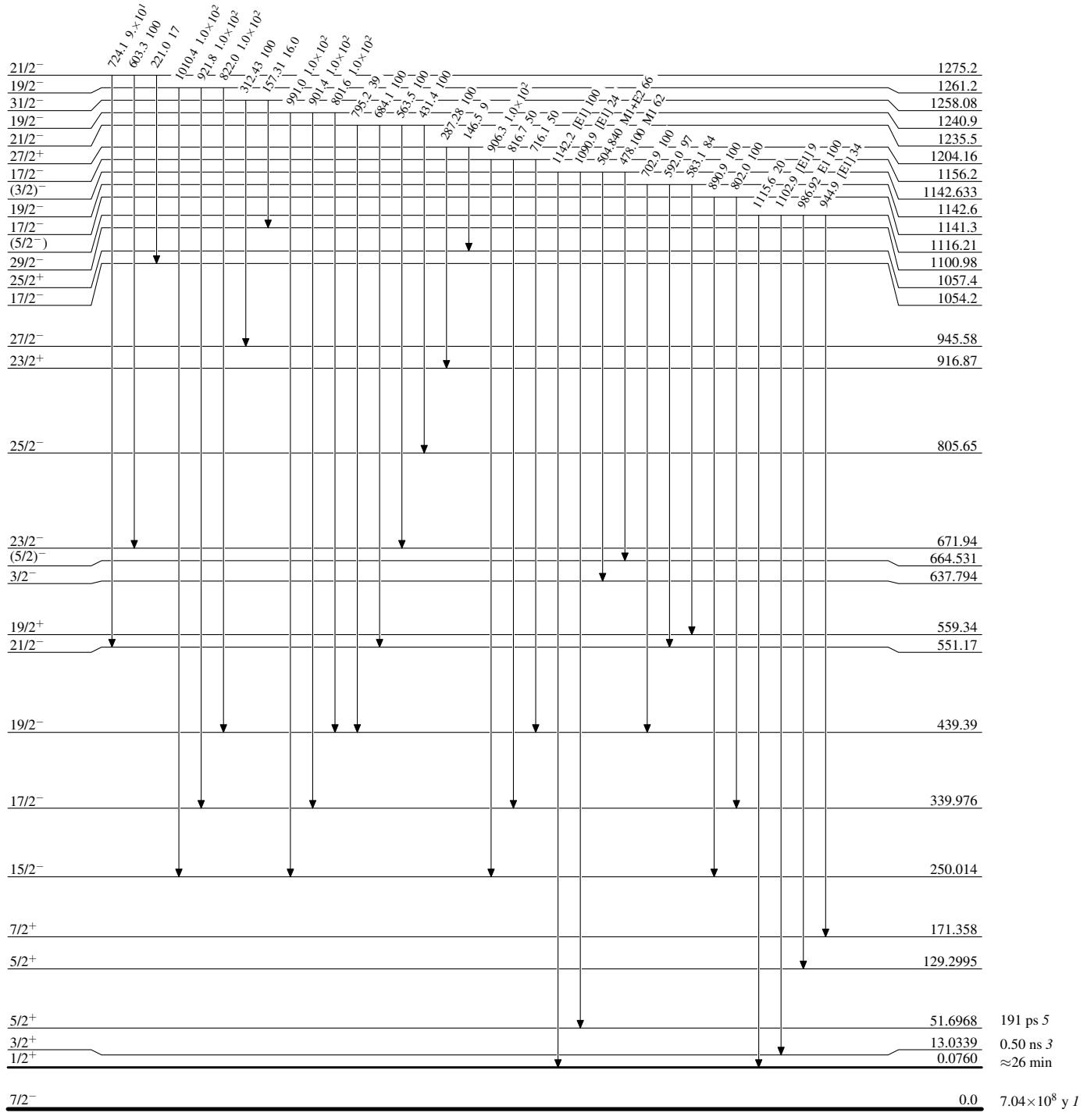
Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given



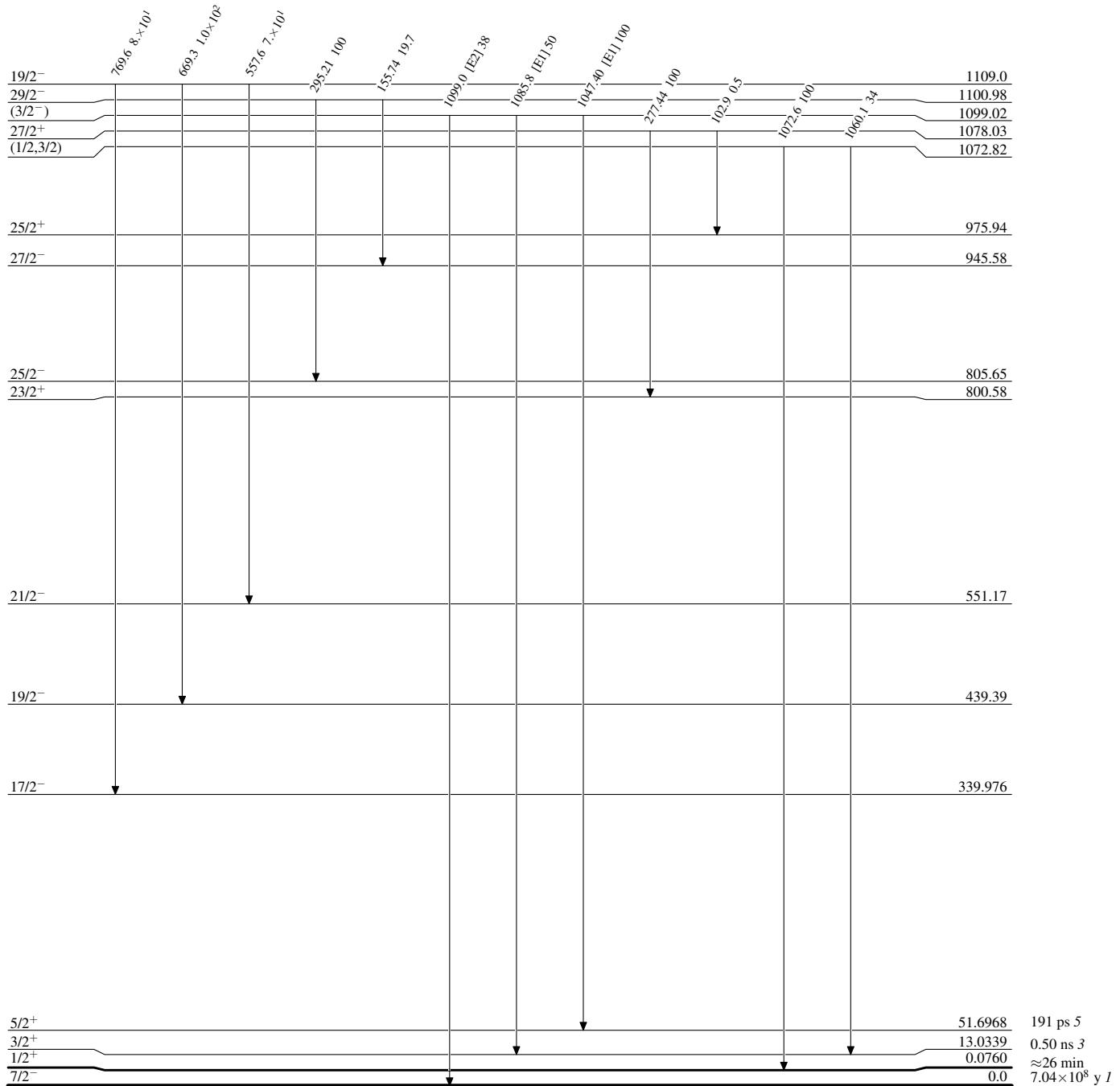
Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given



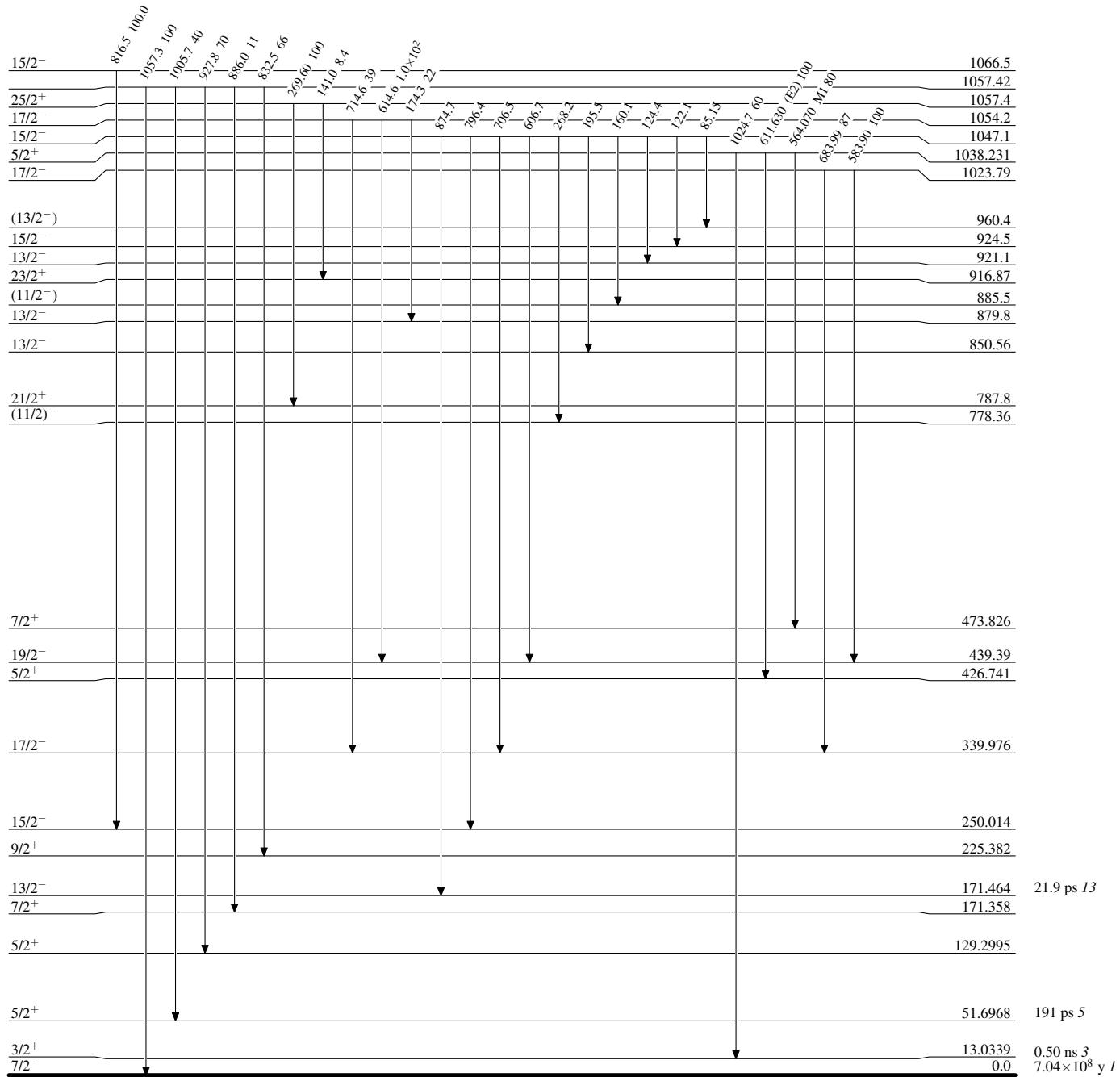
**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given



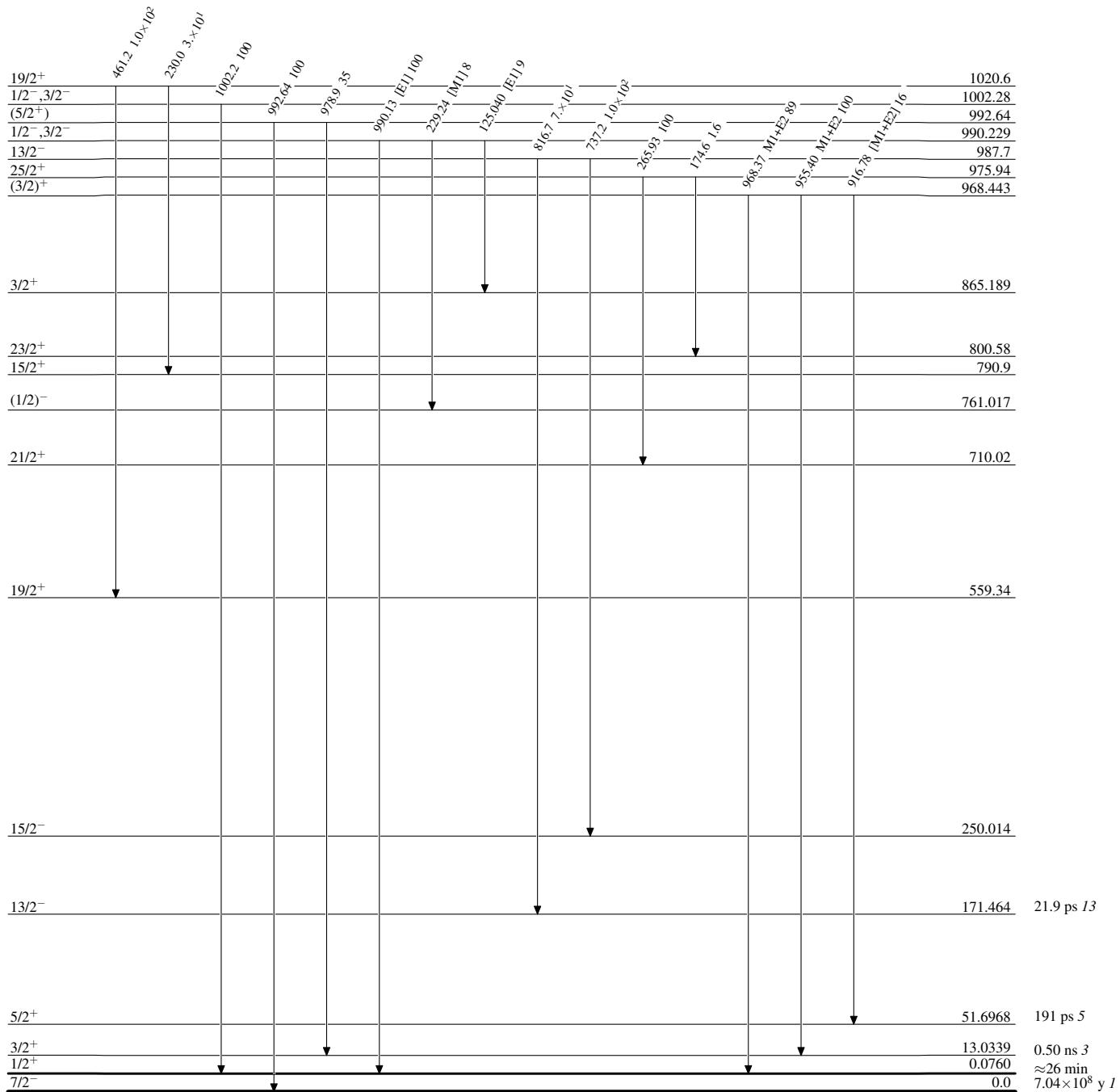
**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given



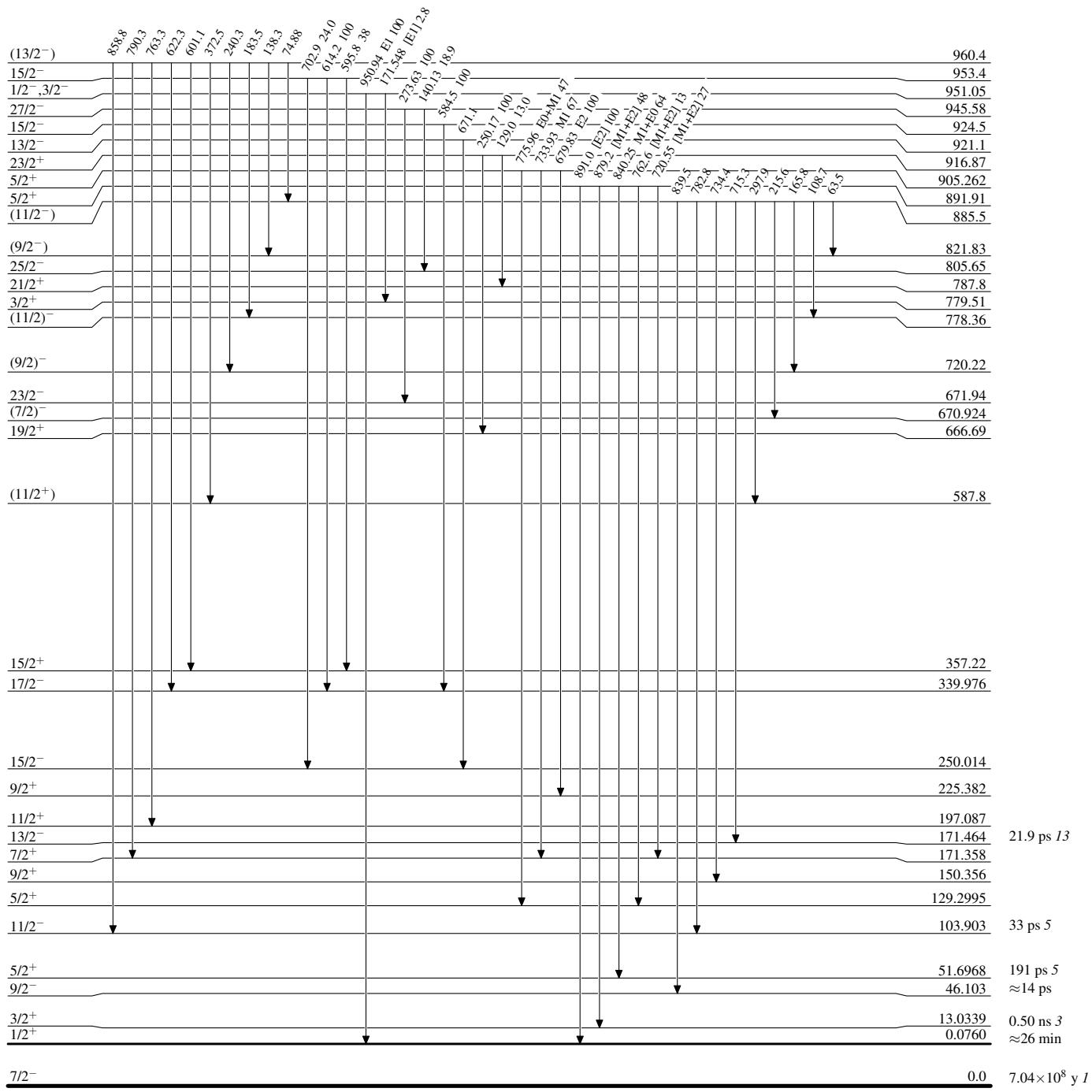
**Adopted Levels, Gammas****Level Scheme (continued)**

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given



Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given

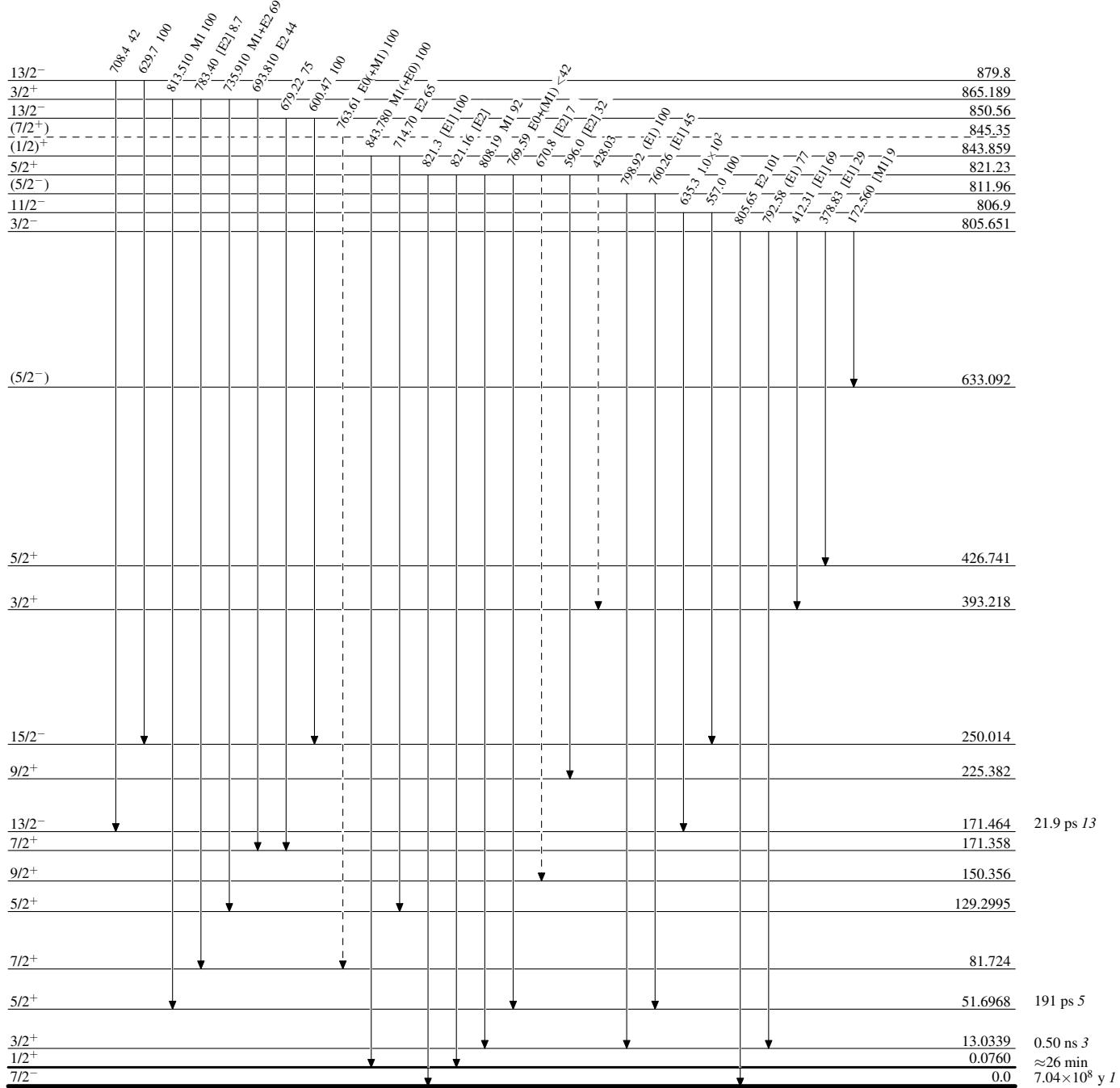


Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level  
& Multiply placed: undivided intensity given

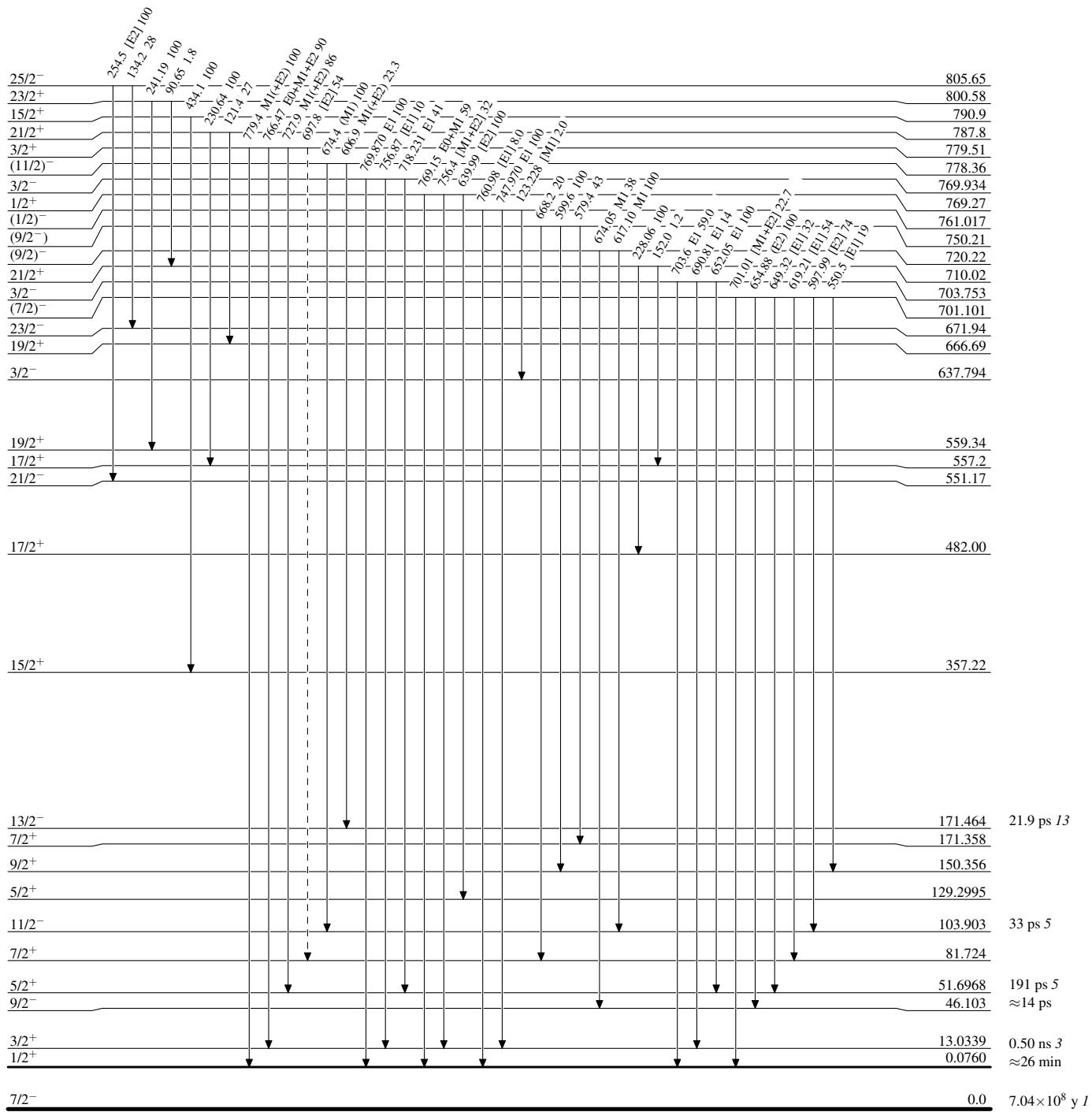


Adopted Levels, Gammas

Legend

Level Scheme (continued)

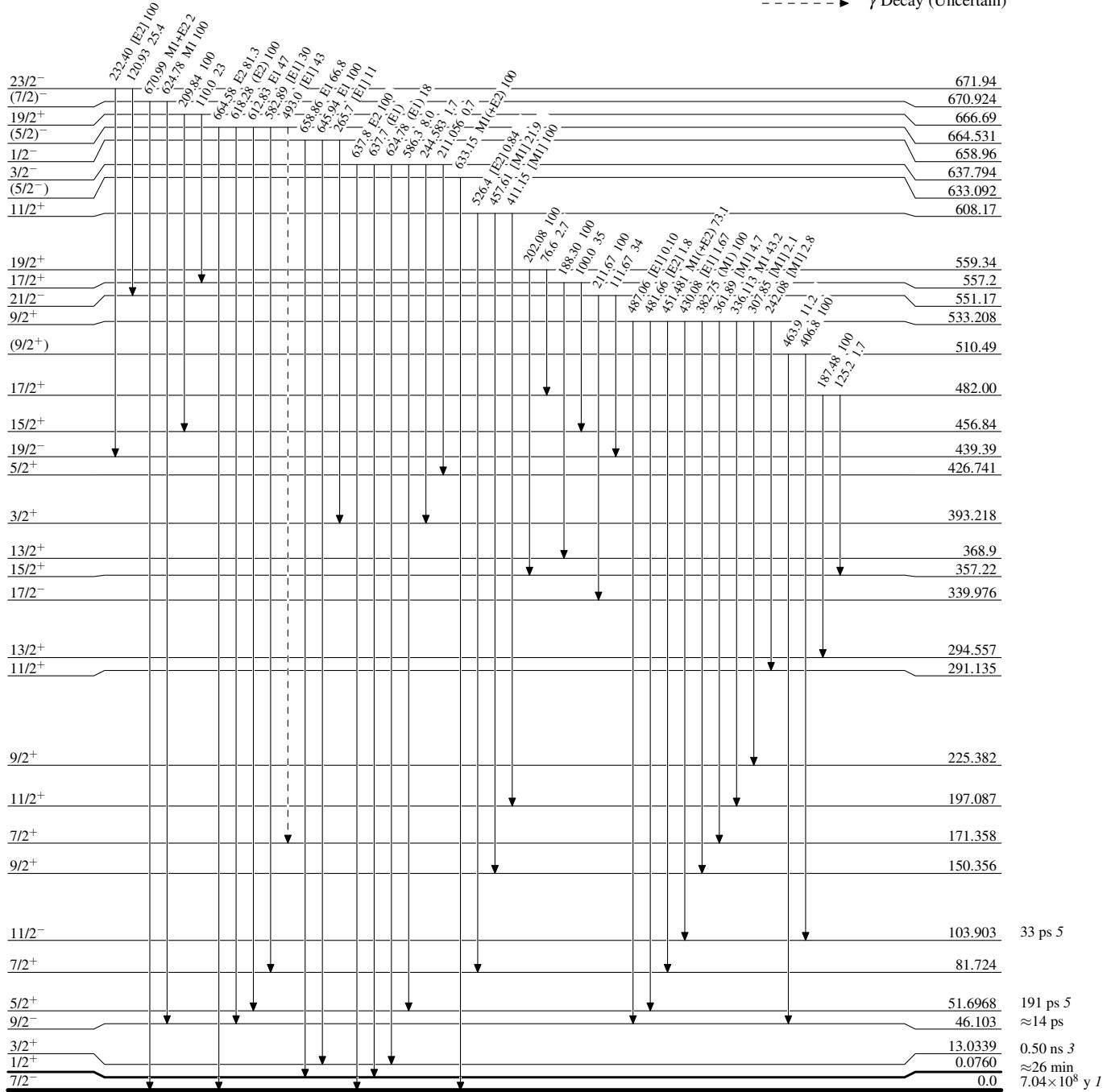
Intensities: Relative photon branching from each level  
& Multiply placed: undivided intensity given



**Adopted Levels, Gammas****Level Scheme (continued)**

Legend

Intensities: Relative photon branching from each level  
 & Multiply placed: undivided intensity given

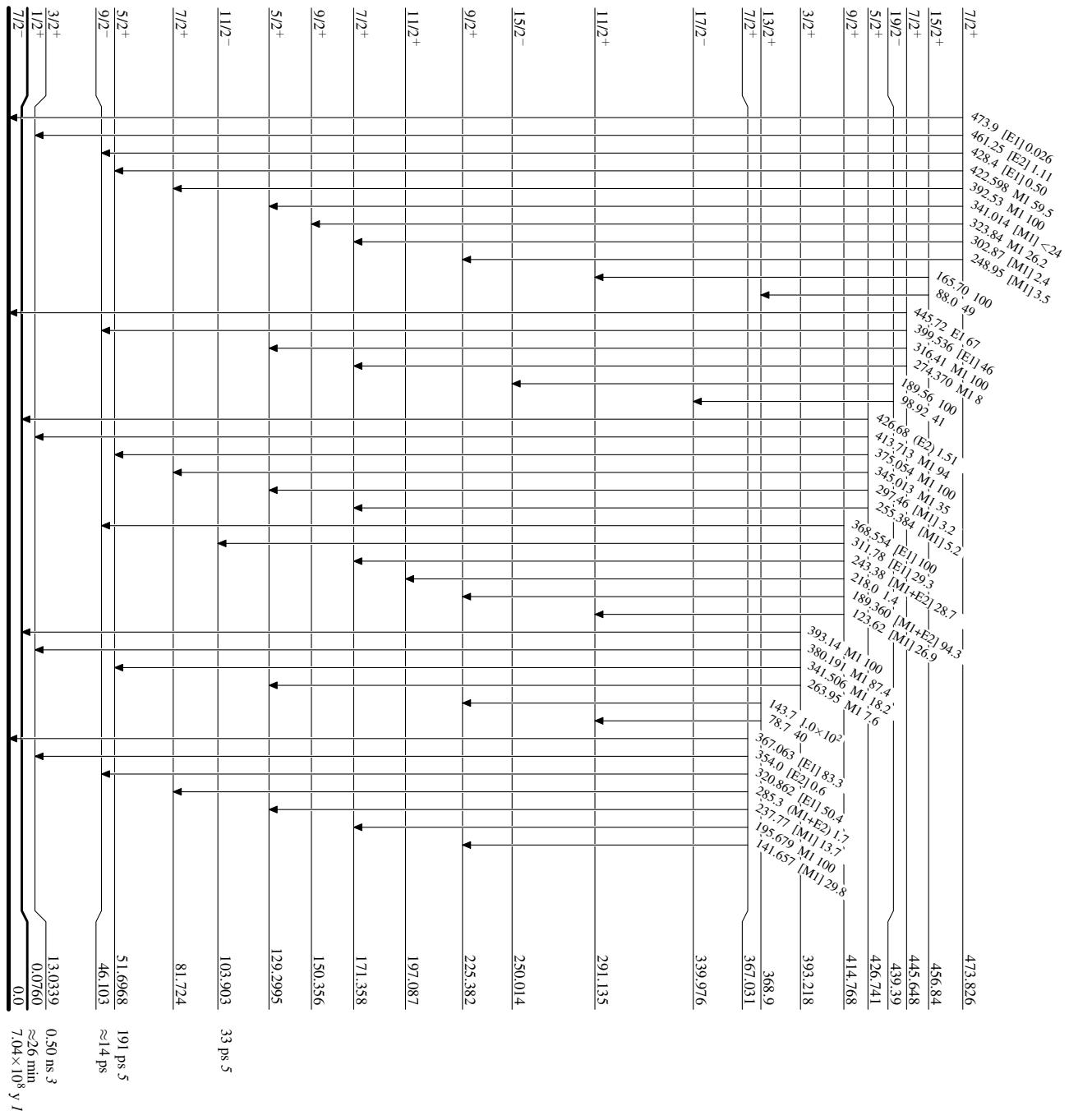
- - - - -  $\gamma$  Decay (Uncertain)

### Adopted Levels, Gammas

#### Level Scheme (continued)

Intensities: Relative photon branching from each level

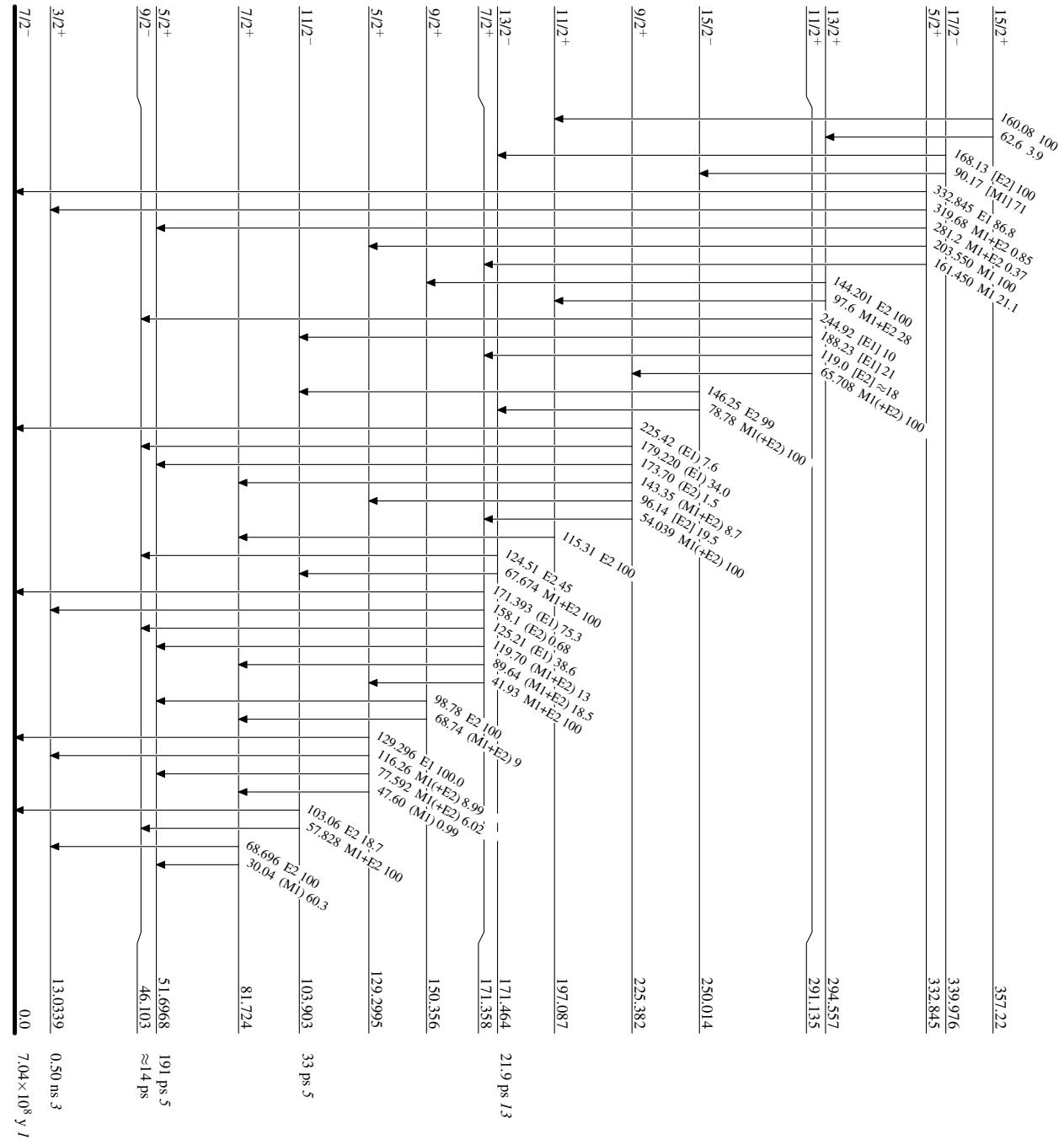
& Multiply placed: undivided intensity given



**Adopted Levels, Gammas****Level Scheme (continued)**

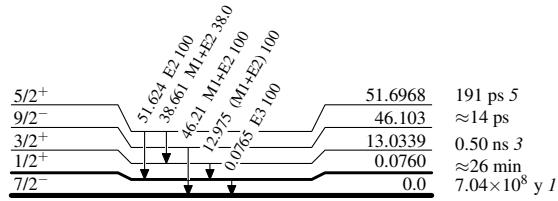
Intensities: Relative photon branching from each level

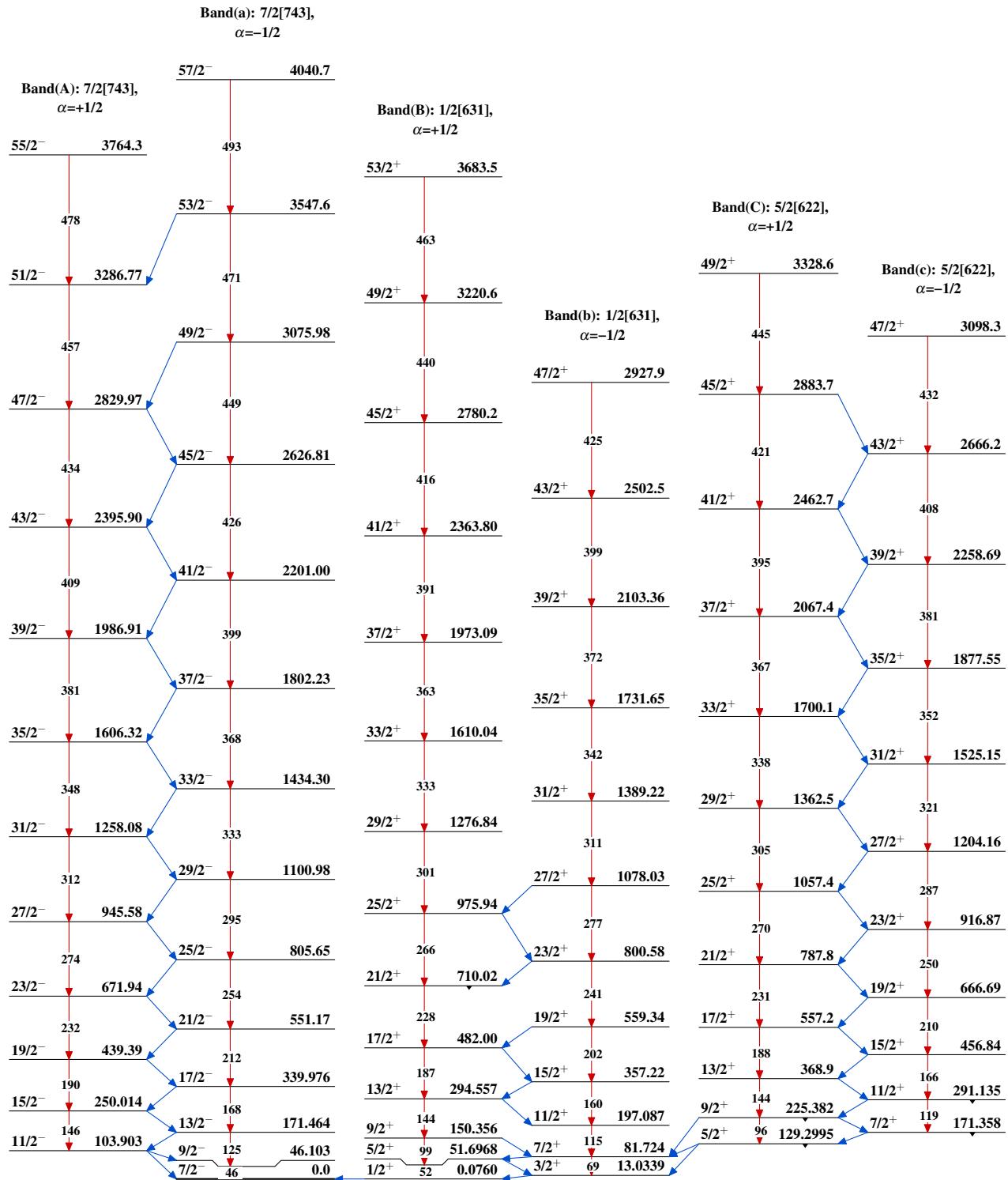
&amp; Multiply placed: undivided intensity given



**Adopted Levels, Gammas****Level Scheme (continued)**

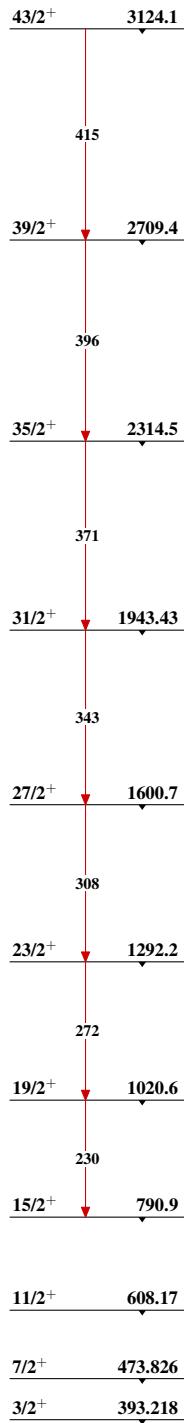
Intensities: Relative photon branching from each level  
& Multiply placed: undivided intensity given

 $^{235}_{92}\text{U}_{143}$

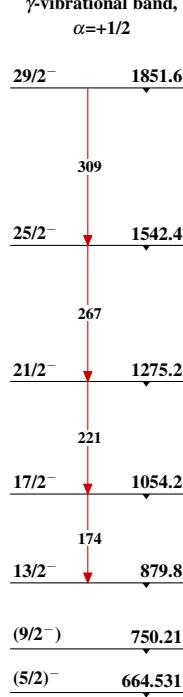
Adopted Levels, Gammas

Adopted Levels, Gammas (continued)

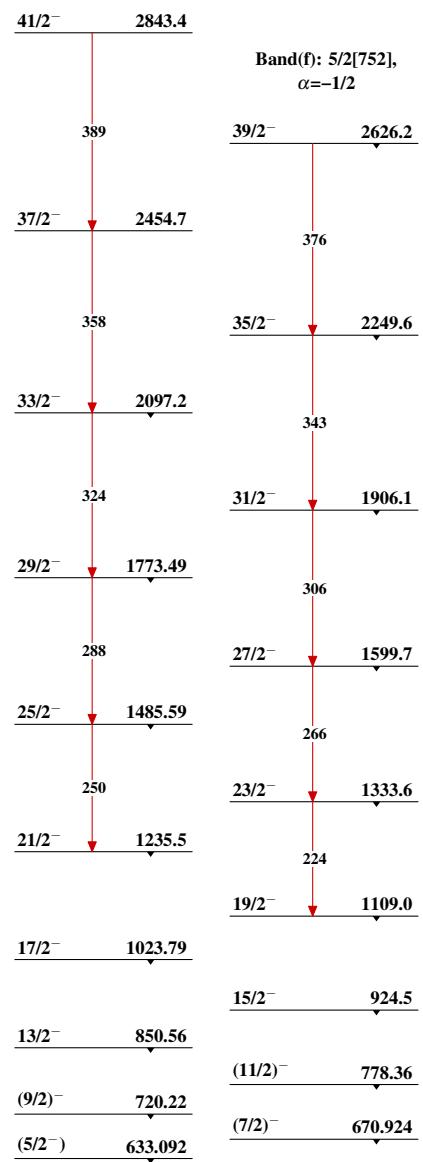
**Band(D): 3/2[631],**  
 $\alpha=+1/2$



**Band(E): K=3/2  
 $\gamma$ -vibrational band,  
 $\alpha=+1/2$**



**Band(F): 5/2[752],**  
 $\alpha=+1/2$



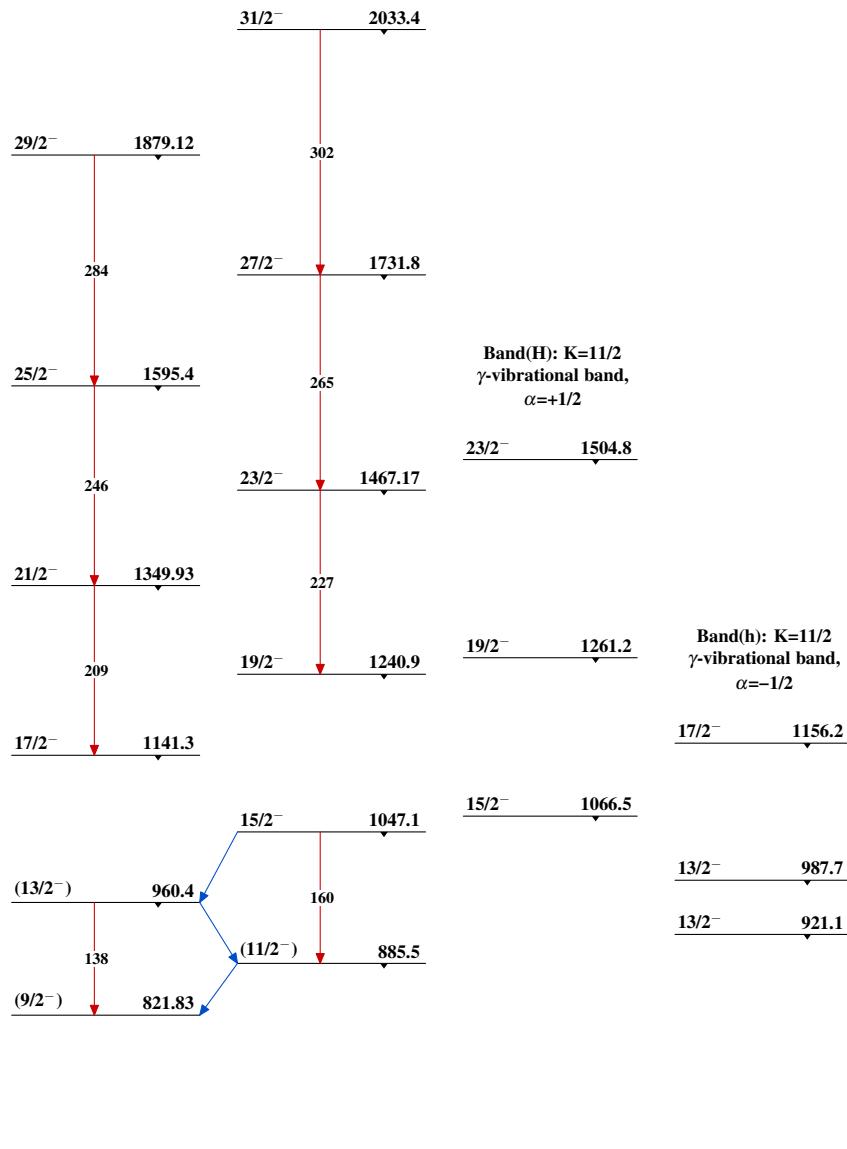
Adopted Levels, Gammas (continued)

Band(g): 9/2[734],  
 $\alpha=-1/2$

$$\frac{35/2^-}{\downarrow} \quad \frac{2368.6}{\downarrow}$$

Band(G): 9/2[734],  
 $\alpha=+1/2$

$$\frac{33/2^-}{\downarrow} \quad \frac{2193.0}{\downarrow}$$



**Adopted Levels, Gammas (continued)**