^{238}U(n,n′γ) 2014Go06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 127, 191 (2015)	1-Jun-2014

Additional information 1.
2014Go06: reactor fast neutrons; measured Eγ, Iγ.
1988FiZS: E=3 MeV; measured γ-yield of fission products.
1984BlZS: E=3 MeV; measured Eγ,Iγ.
1979Ko13: E=1060 keV; measured Iγ.
1979OlZX: E=0.6-5 MeV; measured Iγ.
1978De41: E is fast reactor neutrons; measured Eγ,Iγ.
1972Mc19: E=700-1900 keV; measured Eγ,Iγ.
1982Ch21: E=0.8-2.5 MeV; measured γ-yield.

Others: 2009Hu09, 2008HuZW, 2004Fo01, 2011Mu11.
The 1179γ was proposed by 1972Mc19 and 1978De41 to deexcite a level at 1179 keV. The 1179γ was also observed in Coulomb excitation with I(1179γ)/I(1223γ)=0.93 *6*, both gammas deexciting the level at 1224. I(1179γ)/I(1224γ)=0.93 *28* (1978De41); 1.5 *4* (1984BlZS); I(1779γ)/I(1224γ)=0.92 *8* (2014Go06) suggests that the 1179γ observed in (n,n′γ) deexcites mainly the 1224.2 level. The evaluator assigns the 1179γ entirely to the 1224 level.

^{238}U Levels

E(level)	Jπ	E(level)	Jπ	E(level)	Jπ	E(level)	Jπ
0.0	0^+	1128.31 *5*	2^-	1482.41 *8*		1805.3?‡ *3*	(2^+)
44.92 *1*	2^+	1129.19?‡ *6*	(4^+)	1491.04?‡ *11*	0^+	1805.5?‡ *2*	(2^-)
148.38 *3*	4^+	1135.8?†‡		1515.48 *10*		1814.5?‡ *3*	
307.39 *6*	6^+	1167.26 *4*	4^+	1530.49 *12*	2^+	1824.52?‡ *14*	(2^-)
518.04 *13*	8^+	1168.95 *9*	3^-	1552.18?‡ *13*	4^+	1845.7 *4*	1
680.14 *2*	1^-	1209.3† *3*		1561.39?‡ *11*	(3^-)	1866.0?‡ *3*	(4^+)
731.88 *2*	3^-	1223.95 *3*	2^+	1561.8 *2*		1892.09 *13*	$(4^+,5^-)$
776.5? *2*	(10^+)	1239.69 *10*		1594.80 *12*	(4^+)	1907.4?‡ *4*	
826.84 *4*	(5^-)	1244.98?‡ *11*	(0^+)	1606.3?‡ *2*		1918.5?‡ *2*	
926.96 *3*	0^+	1260.23 *6*	3^+	1615.3?‡ *5*	(4^+)	1933.7 *2*	3^-
930.66? *3*	1^-	1265.5?‡ *4*	(4^+)	1643.73 *12*		1975.7?‡ *3*	
950.16 *2*	2^-	1269.2 *4*	6^+	1645.0 *2*		1992.0 *2*	(3^-)
966.30 *5*	2^+	1278.57 *7*	2^+	1672.01 *15*		2003.1?‡ *4*	
966.75 *11*	7^-	1308.18?‡ *9*	(4^+)	1676.0† *3*		2125.3 *6*	2^+
996.98 *11*	0^+	1312.5 *2*	6^+	1693.3?‡ *4*		2131.7?‡ *3*	
997.68 *4*	3^-	1354.1?‡ *16*	0^+	1709.6?‡ *2*		2145.3?‡ *2*	
1027.7 *11*	4^-	1354.9† *3*		1754.7?‡ *3*	6^+	2164.5 *4*	
1037.40 *6*	2^+	1357.58?‡ *10*	4^+	1761.1 *4*	(4^+)	2209.0 *5*	1^+
1056.52 *7*	4^+	1368.4?‡ *2*		1774.7?‡ *3*	6^+	2559.0 *4*	0^+
1059.65 *4*	3^+	1381.16 *9*	(6^-)	1775.9 *6*	$(3^-,4,5^-)$	2578.5 *3*	2^+
1060.32 *2*	2^+	1413.29 *10*	2^+	1782.5 *4*	1 & 2^+	2624.6 *6*	4^+
1105.28?‡ *5*	(4^+)	1454.91 *18*		1793.3 *4*	1		
1106.15 *3*	3^+	1458.1?‡ *4*		1797.5?‡ *6*			

† Average value from 1984BlZS, 1978De41, and 1972Mc19.
‡ Uncertain level (2014Go06), not in Adopted Levels.

^{238}U(n,n′γ) 2014Go06 (continued)

γ(^{238}U)

E,Iγ are from 2014Go06, unless otherwise specified. See also table below with relative branching ratios for some intensities by other authors with a comparison to values in Coulomb excitation.

732 level:
950 level:
966 level:
998 *3*- level:
1037 level:
1128 *2*- level:
1224 level:
1278 level:

Iγ(583γ)/Iγ(687γ)=0.79 *11* (1972Mc19)
=0.74 *13* (1978De41)
=0.27 *5* (1979Ko13)
=0.90 *6* (1984BlZS)
=0.814 *23*(Coulomb excitation)
=0.85 (2014Go06)

Iγ(270γ)/Iγ(906γ)=0.75 *15* (1978De41)
=0.21 *7* (1979OlZX)
=0.37 *14* (1984BlZS)
=0.47 *9* (Coulomb excitation)
=0.37 (2014Go06)

Iγ(219γ)/Iγ(906γ)=0.80 *24* (1978De41)
=0.50 *17* (1984BlZS)
=0.52 *6* (Coulomb excitation)
=0.36 (2014Go06)

Iγ(922γ)/Iγ(818γ)=0.52 *8* (1972Mc19)
=0.31 *9* (1978De41)
=0.47 *8* (1984BlZS)
=0.60 *4* (Coulomb excitation)
>0.61 (2014Go06)

Iγ(967γ)/Iγ(818γ)=0.15 *2* (1972Mc19)
=0.65 *14* (1984BlZS)
=0.27 *2* (Coulomb excitation
>0.14 (2014Go06)

Iγ(317γ)/Iγ(849γ)=0.12 *4* (1978De41)
=0.19 *6* (1979OlZX)
=0.079 *5* (Coulomb excitation)
<0.09 (2014Go06)

Iγ(317γ)/Iγ(953γ)=0.10 *3* (1978De41)
=0.0.13 *3* (1979OlZX)
=0.140 *8* (Coulomb excitation)
<0.16 (2014Go06)

Iγ(849γ)/Iγ(953γ)=0.89 *13* (1972Mc19)
=0.89 *25* (1978De41)
=0.70 *13* (1979OlZX)
=0.93 *12* (1984BlZS)
1.76 *7* (Coulomb excitation)
1.8 *1* (2014Go06)

Iγ(306γ):Iγ(358γ):Iγ(889γ):Iγ(992γ):Iγ(1037γ)=
- : - : - : 82 *9*:100 *7* (1972Mc19)
98 *21*: 405 *48*: - : 162 *29*:100 *24* (1978De41)

- : 88 *25*: - : 38 *13*:100 *13* (1984BlZS)
11.8 *5*: 9.5 *4*: 71.7 *15*: 72.9 *15*:100 *2* (Coulomb excitation)
the 358γ, reported by 1978De41 and 1984BlZS and placed by 1984BlZS from the 1037 level is identified by 1988FiZS as a fission-fragment γ

Iγ(448γ)/Iγ(1084γ)=0.89 *13* (1972Mc19)
=1.1 *3* (1978De41)
=1.04 *14* (1984BlZS)
=1.24 *14* (Coulomb excitation)
>1.7 (2014Go06)

Iγ(1179γ)/Iγ(1224γ)=1.08 *28* (1978De41)
0.93 *5* (1984BlZS)
0.96 (Coulomb excitation)
0.92 *7* (2014Go06)

Iγ(1130γ):Iγ(1233γ):Iγ(1279γ)=59 *6*:100 *12*: 68 *7* (1972Mc19)
- :100 *21*:190 *26* (1978De41)
- :100 *13*:125 *13* (1984BlZS)
50 :100 :32 (Coulomb excitation)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Comments
44.915 *13*		44.92	2^+	0.0	0^+	E_γ: From ^{242}Pu α Decay (1972Sc01).
78.1 *4*	3 *2*	1027.7	4^-	950.16	2^-	
x94.65						
x98.42						
103.46 *3*	228 *10*	148.38	4^+	44.92	2^+	
x110.39	879 *38*					
x111.28	2238 *95*					
x114.59	964 *41*					
x154.6 *3*	3.5 *14*					
159.01 *5*	49	307.39	6^+	148.38	4^+	
164.8 *5*	3.9	1223.95	2^+	1059.65	3^+	
171.6 *3*	3.3	1168.95	3^-	997.68	3^-	
178.1 *3*	7.2 *11*	1128.31	2^-	950.16	2^-	
198.38 *4*	<31	1128.31	2^-	930.66?	1^-	
208.2†@ *10*	100‡ *29*	1135.8?		926.96	0^+	
210.65 *12*	14	518.04	8^+	307.39	6^+	
218.09 *14*	7.3	950.16	2^-	731.88	3^-	
221.9@ *2*	<6.5	1774.7?	6^+	1552.18?	4^+	
234.5 *6*	≤2	966.30	2^+	731.88	3^-	
x237.6 *4*	4.6 *7*					
237.6@ *4*	4.6	1265.5?	(4^+)	1027.7	4^-	
250.5 *2*	3.3 *3*	930.66?	1^-	680.14	1^-	
258.53@ *6*	7	776.5?	(10^+)	518.04	8^+	
267.5@ *2*	≤1.8	1265.5?	(4^+)	997.68	3^-	
269.92 *8*	10.2	950.16	2^-	680.14	1^-	
282.2† *6*	7‡ *3*	1209.3		926.96	0^+	
285.9 *3*	1.6	966.30	2^+	680.14	1^-	
295.86 *5*	≤9	1027.7	4^-	731.88	3^-	
316.87 *10*	≤2.6	997.68	3^-	680.14	1^-	
357.92 *6*	≤1	1037.40	2^+	680.14	1^-	
x365.8 *3*	1.4 *4*					
397.13 *5*	7.8	1128.31	2^-	731.88	3^-	

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^{238}U(n,n′γ) 2014Go06 (continued)

γ(^{238}U) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
405.8† *10*	<6‡	1354.9		950.16	2^-
418.13@ *18*	3.3	1368.4?		950.16	2^-
422.1 *3*	0.3	1482.41		1060.32	2^+
423.8† *3*	10‡ *2*	1354.9		930.66?	1^-
432.94 *13*	≤4.8	1561.8		1129.19?	(4^+)
437.08 *12*	8.0 *5*	1168.95	3^-	731.88	3^-
448.17 *4*	18.1 *8*	1128.31	2^-	680.14	1^-
448.74 *10*	<5.7	966.75	7^-	518.04	8^+
455.67 *12*	2.3	1561.8		1106.15	3^+
x478.13 *18*	4.2 *3*				
482.1@ *3*	2.4	1413.29	2^+	930.66?	1^-
488.79 *14*	3.9 *4*	1168.95	3^-	680.14	1^-
501.74@ *10*	3.0	1561.39?	(3^-)	1059.65	3^+
519.48 *2*	12.8	826.84	(5^-)	307.39	6^+
x533.6 *4*	0.92 *25*				
533.6@ *4*	0.92	1265.5?	(4^+)	731.88	3^-
546.93 *10*	3.8	1278.57	2^+	731.88	3^-
547.0† *3*	8‡ *2*	1676.0		1129.19?	(4^+)
551.63 *8*	1.4	1482.41		930.66?	1^-
554.28 *7*	≤4.2	1381.16	(6^-)	826.84	(5^-)
554.28@ *7*		1552.18?	4^+	997.68	3^-
564.20 *11*	2.8	1530.49	2^+	966.30	2^+
566.20 *11*	1.8	1672.01		1106.15	3^+
x579.2 *6*	1.8 *3*				
583.50 *2*	65.5	731.88	3^-	148.38	4^+
635.22 *2*	100	680.14	1^-	44.92	2^+
655.3 *3*	<2	1761.1	(4^+)	1105.28?	(4^+)
659.36 *9*	3.4	966.75	7^-	307.39	6^+
673.96@ *16*	1.8	1354.1?	0^+	680.14	1^-
678.44 *2*	23	826.84	(5^-)	148.38	4^+
680.13 *2*	61	680.14	1^-	0.0	0^+
686.96 *2*	77.4 *33*	731.88	3^-	44.92	2^+
701.9 *2*	0.7	1761.1	(4^+)	1059.65	3^+
x726.1 *12*	0.52 *25*				
726.1@ *12*	0.52	1458.1?		731.88	3^-
733.4 *3*	<2.5	1413.29	2^+	680.14	1^-
733.7 *2*	<2.5	1793.3	1	1059.65	3^+
748.99 *8*	2.2	1056.52	4^+	307.39	6^+
759.3@ *3*	1.77	1709.6?		950.16	2^-
x764.3 *4*	0.78 *24*				
764.3@ *4*	0.78	1824.52?	(2^-)	1060.32	2^+
768.40 *7*	<2	1594.80	(4^+)	826.84	(5^-)
768.40 *7*	<2	1992.0	(3^-)	1223.95	2^+
775.03 *13*	1.0	1454.91		680.14	1^-
793.37 *12*	0.4	1312.5	6^+	518.04	8^+
798.54 *6*	≤5.8	1530.49	2^+	731.88	3^-
802.9 *2*	2.2	1482.41		680.14	1^-
805.38 *8*	3.7	1933.7	3^-	1128.31	2^-
817.88 *3*	≤23	966.30	2^+	148.38	4^+
x821.7 *4*	1.4 *3*				
821.7@ *4*	1.4	1129.19?	(4^+)	307.39	6^+
849.27 *2*	28.7 *12*	997.68	3^-	148.38	4^+
x855.3 *2*	2.3 *3*				

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^{238}U(n,n′γ) 2014Go06 (continued)

γ(^{238}U) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
855.3[@] *2*	2.3	1805.5?	(2^-)	950.16	2^-
863.7 *2*	0.7	1992.0	(3^-)	1128.31	2^-
879.63 *11*	4.7 *3*	1027.7	4^-	148.38	4^+
882.04 *3*	14.8 *7*	926.96	0^+	44.92	2^+
885.74[@] *2*	63 *3*	930.66?	1^-	44.92	2^+
888.96 *5*	9.0 *5*	1037.40	2^+	148.38	4^+
905.24 *2*	27.4 *12*	950.16	2^-	44.92	2^+
908.14 *6*	9.5 *5*	1056.52	4^+	148.38	4^+
911.27 *3*	18.2 *8*	1059.65	3^+	148.38	4^+
912.58 *7*	3.4	1060.32	2^+	148.38	4^+
921.38 *5*	10.4 *5*	966.30	2^+	44.92	2^+
[x]928.1 *5*	1.15 *24*				
930.9[@] *2*	5.5	930.66?	1^-	0.0	0^+
932.30[#] *7*	≤6.7	1239.69		307.39	6^+
932.30[#] *7*	<6.7	1992.0	(3^-)	1059.65	3^+
947.9[@] *3*	0.3	1774.7?	6^+	826.84	(5^-)
952.06 *5*	13.5	996.98	0^+	44.92	2^+
952.80 *5*	15.8 *7*	997.68	3^-	44.92	2^+
[x]956.90 *4*	11.8 *6*				
956.90[@] *4*	11.8	1105.28?	(4^+)	148.38	4^+
957.80 *4*	10.8 *5*	1106.15	3^+	148.38	4^+
962.0 *2*	≤3.3	1269.2	6^+	307.39	6^+
966.45 *11*	3.3	966.30	2^+	0.0	0^+
980.59[@] *13*	3.5	1129.19?	(4^+)	148.38	4^+
[x]987.7 *3*	1.24 *23*				
987.7[@] *3*	1.24	1814.5?		826.84	(5^-)
992.51 *5*	≥5.7	1037.40	2^+	44.92	2^+
1000.85[@] *18*	≤2.8	1308.18?	(4^+)	307.39	6^+
1005.1 *2*	0.43 *20*	1312.5	6^+	307.39	6^+
1014.60 *3*	≈39	1059.65	3^+	44.92	2^+
1015.41 *2*	49 *2*	1060.32	2^+	44.92	2^+
1018.88 *3*	16.7 *7*	1167.26	4^+	148.38	4^+
1020.54 *9*	5.7 *3*	1168.95	3^-	148.38	4^+
1022.7[@] *2*	1.8	1754.7?	6^+	731.88	3^-
1037.46 *6*	12.3 *7*	1037.40	2^+	0.0	0^+
1044.0 *6*	1.27 *24*	1775.9	$(3^-,4,5^-)$	731.88	3^-
1050.8 *3*	0.80 *23*	1782.5	1 & 2^+	731.88	3^-
[x]1056.8 *3*	1.42 *24*				
1060.32 *2*	36	1060.32	2^+	0.0	0^+
1060.32[@] *2*	≤36	1105.28?	(4^+)	44.92	2^+
1060.98[†] *3*	≤71[‡]	1209.3		148.38	4^+
1061.23 *2*	29.0 *15*	1106.15	3^+	44.92	2^+
[x]1070.7 *12*	0.34 *22*				
1073.82 *11*	4.0 *3*	1381.16	(6^-)	307.39	6^+
[x]1077.2 *6*	0.35 *22*				
1083.30 *5*	<10.7	1128.31	2^-	44.92	2^+
[x]1084.32 *6*	11.7 *6*				
1084.32[@] *6*	11.7	1129.19?	(4^+)	44.92	2^+
1090.9[†@] *2*	71[‡] *6*	1135.8?		44.92	2^+
1091.31 *7*	4.3	1239.69		148.38	4^+
1112.0 *5*	3.0 *3*	1260.23	3^+	148.38	4^+
1120.8 *4*	≤1.41	1269.2	6^+	148.38	4^+

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^{238}U(n,n′γ) 2014Go06 (continued)

γ(^{238}U) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
1122.28 *10*	5.8 *4*	1167.26	4^+	44.92	2^+
1123.93 *12*	2.4	1168.95	3^-	44.92	2^+
1130.31 *12*	4.7 *3*	1278.57	2^+	148.38	4^+
x1150.7 *4*	2.0 *3*				
1150.7@ *4*	2.0	1458.1?		307.39	6^+
x1155.5 *8*	0.41 *21*				
1159.80@ *9*	4.5	1308.18?	(4^+)	148.38	4^+
1160.8 *3*	1.9	1892.09	$(4^+,5^-)$	731.88	3^-
x1172.3 *5*	0.81 *24*				
x1175.7 *4*	0.99 *20*				
1175.7@ *4*	0.99	1907.4?		731.88	3^-
1179.03 *3*	8.1 *5*	1223.95	2^+	44.92	2^+
x1184.3 *3*	0.79 *22*				
x1194.3 *11*	0.48 *22*				
1200.06@ *11*	4.2	1244.98?	(0^+)	44.92	2^+
1209.20@ *10*	5.1	1357.58?	4^+	148.38	4^+
1215.31 *5*	10.5 *6*	1260.23	3^+	44.92	2^+
1220.13@ *10*	2.5	1368.4?		148.38	4^+
1223.97 *6*	8.8 *5*	1223.95	2^+	0.0	0^+
1233.65 *7*	6.4	1278.57	2^+	44.92	2^+
x1236.6 *5*	0.74 *22*				
x1239.2 *3*	1.5 *3*				
x1247.7 *2*	1.73 *23*				
x1257.8 *4*	1.09 *22*				
x1263.3 *4*	1.87 *23*				
1263.3@ *4*	1.87	1308.18?	(4^+)	44.92	2^+
1265.4 *3*	1.0	1413.29	2^+	148.38	4^+
1278.57 *7*	7.8 *5*	1278.57	2^+	0.0	0^+
1287.0 *5*	0.87 *21*	1594.80	(4^+)	307.39	6^+
1306.53 *18*	2.6 *3*	1454.91		148.38	4^+
1309.44@ *15*	>0.5	1354.1?	0^+	44.92	2^+
1310.5† *4*	5‡ *1*	1354.9		44.92	2^+
1336.34 *12*	5.3 *3*	1643.73		307.39	6^+
x1346.0 *8*	0.77 *22*				
1354.5† *10*	3‡ *1*	1354.9		0.0	0^+
x1356.1 *8*	1.02 *22*				
x1359.9 *2*	4.6 *3*				
1367.3 *2*	4	1515.48		148.38	4^+
1368.37 *10*	7.8 *5*	1413.29	2^+	44.92	2^+
x1380.2 *3*	1.63 *21*				
1382.11 *12*	3.7 *3*	1530.49	2^+	148.38	4^+
x1388.9 *6*	0.94 *21*				
1394.1 *9*	0.39 *21*	2125.3	2^+	731.88	3^-
1399.5@ *5*	≤1.24	2131.7?		731.88	3^-
1404.4@ *9*	0.2	1552.18?	4^+	148.38	4^+
1410.1 *2*	3.2 *3*	1454.91		44.92	2^+
1413.4 *2*	<3.2	1413.29	2^+	0.0	0^+
1413.4@ *2*	<3.2	2145.3?		731.88	3^-
1413.8 *2*	≤0.5	1561.8		148.38	4^+
x1417.9 *3*	2.20 *24*				
1437.39 *8*	6.8	1482.41		44.92	2^+
1446.12@ *11*	≤4.1	1491.04?	0^+	44.92	2^+
1446.12 *11*	≤4.1	1594.80	(4^+)	148.38	4^+

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^{238}U(n,n′γ) 2014Go06 (continued)

γ(^{238}U) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
x1447.5 8	0.32				
1447.5@ 8	0.32	1754.7?	6^+	307.39	6^+
1454.8@ 2	<0.6	1761.1	(4^+)	307.39	6^+
1457.92@ 8	3.5	1606.3?		148.38	4^+
x1467.1 5	0.63 21				
1467.1@ 5	0.63	1615.3?	(4^+)	148.38	4^+
1470.56 10	4.2	1515.48		44.92	2^+
1485.3 3	1.30 21	1530.49	2^+	44.92	2^+
x1490.4 4	1.23 22				
1496.6 2	1.98 23	1645.0		148.38	4^+
1507.26@ 13	4.1	1552.18?	4^+	44.92	2^+
1507.26@ 13	4.1	1814.5?		307.39	6^+
1517.0 7	≤0.7	1561.8		44.92	2^+
1523.63 15	3.6 3	1672.01		148.38	4^+
x1527.7 4	0.41 20				
1530.0 7	0.74 20	1530.49	2^+	0.0	0^+
x1547.6 5	1.52 23				
1549.88 12	4.0 3	1594.80	(4^+)	44.92	2^+
x1558.0 7	0.66 20				
1558.0@ 7	0.66	1866.0?	(4^+)	307.39	6^+
x1561.2 2	2.49 25				
1561.2@ 2	2.49	1709.6?		148.38	4^+
x1570.1 5	0.99 21				
1570.1@ 5	0.99	1615.3?	(4^+)	44.92	2^+
1584.70 12	3.7 3	1892.09	$(4^+,5^-)$	307.39	6^+
x1585.7 8	1.96 23				
1600.1 3	1.98 23	1645.0		44.92	2^+
x1606.4 2	2.17 23				
1606.4@ 2	2.17	1606.3?		0.0	0^+
1606.4@ 2	2.17	1754.7?	6^+	148.38	4^+
x1611.2 2	1.67 22				
1611.2@ 2	1.67	1918.5?		307.39	6^+
1613.2 3	0.86	1761.1	(4^+)	148.38	4^+
1627.0# 2	<1.92	1672.01		44.92	2^+
1627.0# 2	<1.92	1775.9	$(3^-,4,5^-)$	148.38	4^+
x1630.7 11	0.33 20				
x1635.4 8	0.28 18				
x1648.64 17	3.2 3				
1648.64@ 17	3.2	1693.3?		44.92	2^+
1648.64@ 17	3.2	1797.5?		148.38	4^+
x1657.0 3	1.70 23				
1657.0@ 3	1.70	1805.3?	(2^+)	148.38	4^+
x1675.8 6	1.37 21				
x1677.4 2	1.80 21				
x1684.7 5	1.37 21				
x1690.7 8	0.88 21				
1693.3@ 4	≤0.69	1693.3?		0.0	0^+
x1695.8 8	0.64 22				
1695.8@ 8	0.64	2003.1?		307.39	6^+
x1698.3 5	1.11 22				
x1702.5 11	0.76 22				

Continued on next page (footnotes at end of table)

^{238}U(n,n′γ) 2014Go06 (continued)

γ(^{238}U) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
1716.2 *4*	1.44 *22*	1761.1	(4^+)	44.92	2^+
x1717.6 *3*	2.9 *3*				
1717.6@ *3*	2.9	1866.0?	(4^+)	148.38	4^+
x1723.9 *7*	0.93 *20*				
x1733.6 *14*	0.52 *19*				
1737.8 *5*	2.16 *23*	1782.5	1 & 2^+	44.92	2^+
1748.8 *6*	1.57 *22*	1793.3	1	44.92	2^+
1752.6@ *6*	0.79	1797.5?		44.92	2^+
1760.5@ *2*	2.7	1805.5?	(2^-)	44.92	2^+
x1776.3 *3*	1.18 *21*				
1779.60@ *14*	3.6	1824.52?	(2^-)	44.92	2^+
1782.3 *4*	2.43 *26*	1782.5	1 & 2^+	0.0	0^+
1793.1 *4*	1.01 *19*	1793.3	1	0.0	0^+
1801.4 *3*	≤2.27	1845.7	1	44.92	2^+
1805.2@ *3*	2.55	1805.3?	(2^+)	0.0	0^+
x1815.0 *4*	1.09 *22*				
1821.0@ *6*	0.79	1866.0?	(4^+)	44.92	2^+
1824.4@ *3*	1.54	2131.7?		307.39	6^+
1827.4@ *3*	1.72	1975.7?		148.38	4^+
1845.7 *4*	1.66 *22*	1845.7	1	0.0	0^+
1854.7@ *4*	1.23	2003.1?		148.38	4^+
1857.1 *4*	1.93 *24*	2164.5		307.39	6^+
x1862.4 *5*	1.12 *21*				
1862.4@ *5*	1.12	1907.4?		44.92	2^+
1873.1@ *7*	0.96	1918.5?		44.92	2^+
1878.7 *4*	0.35	2559.0	0^+	680.14	1^-
x1883.2 *6*	1.09 *23*				
x1887.9 *8*	0.80 *22*				
1890.7 *11*	0.62 *21*	1933.7	3^-	44.92	2^+
1907.2@ *4*	0.87	1907.4?		0.0	0^+
x1911.1 *4*	1.13 *21*				
x1919.1 *5*	0.92 *19*				
x1923.6 *10*	1.04 *21*				
x1926.4 *6*	0.73 *20*				
1930.4@ *6*	0.64	1975.7?		44.92	2^+
x1959.9 *7*	0.74 *21*				
1976.7 *6*	0.76 *20*	2125.3	2^+	148.38	4^+
1983.7@ *9*	0.67	2131.7?		148.38	4^+
x1992.2 *4*	1.25 *20*				
1996.9@ *2*	2.3	2145.3?		148.38	4^+
x1999.3 *10*	0.21 *17*				
x2009.3 *7*	0.96 *20*				
2015.8 *2*	1.5	2164.5		148.38	4^+
x2041.0 *9*	0.66 *19*				
x2072.0 *6*	0.65 *19*				
2080.9 *6*	0.66 *19*	2125.3	2^+	44.92	2^+
x2085.8 *7*	0.69 *19*				
x2088.9 *6*	1.18 *20*				
x2110.3 *7*	0.75 *17*				
2124.9 *6*	0.30 *8*	2125.3	2^+	0.0	0^+
x2155.0 *6*	0.69 *17*				
2165.9 *9*	0.41 *17*	2209.0	1^+	44.92	2^+

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^{238}U(n,n′γ) 2014Go06 (continued)

γ(^{238}U) (continued)

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π
[x]2182.2 *7*	0.89 *18*					[x]2431.8 *5*	0.27 *6*				
2209.0 *5*	1.30 *17*	2209.0	1^+	0.0	0^+	[x]2435.7 *7*	0.67 *16*				
[x]2288.5 *5*	0.81 *16*					2476.2 *6*	0.26 *6*	2624.6	4^+	148.38	4^+
2317.3 *9*	0.16 *6*	2624.6	4^+	307.39	6^+	2514.4 *4*	0.34 *7*	2559.0	0^+	44.92	2^+
[x]2322.1 *3*	1.16 *18*					2533.6 *3*	0.40 *6*	2578.5	2^+	44.92	2^+
[x]2326.0 *6*	0.73 *17*					2578.5 *4*	0.22 *4*	2578.5	2^+	0.0	0^+
[x]2359.1 *11*	0.38 *11*					[x]2602.3 *9*	0.43 *13*				
[x]2379.2 *8*	0.88 *13*					[x]2625.2 *10*	0.33 *10*				
2430.0 *3*	0.39 *7*	2578.5	2^+	148.38	4^+						

† Weighted average of data from 1984BlZS, 1978De41, and 1972Mc19.
‡ From 1984BlZS relative to Iγ(635γ)=100.
# Multiply placed.
@ Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

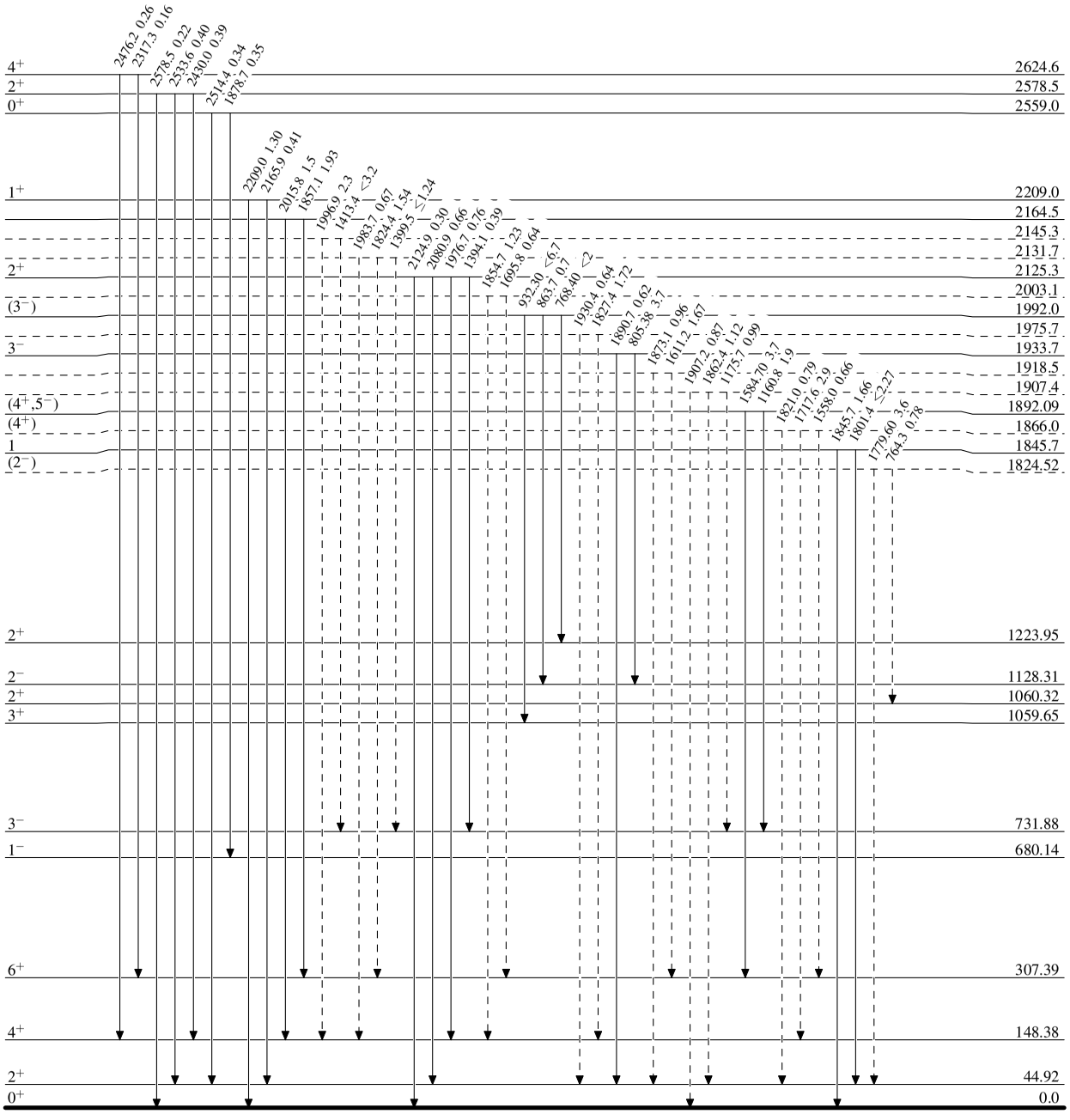
^{238}U(n,n′γ) 2014Go06

Level Scheme

Intensities: Type not specified

Legend

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



$^{238}_{92}U_{146}$

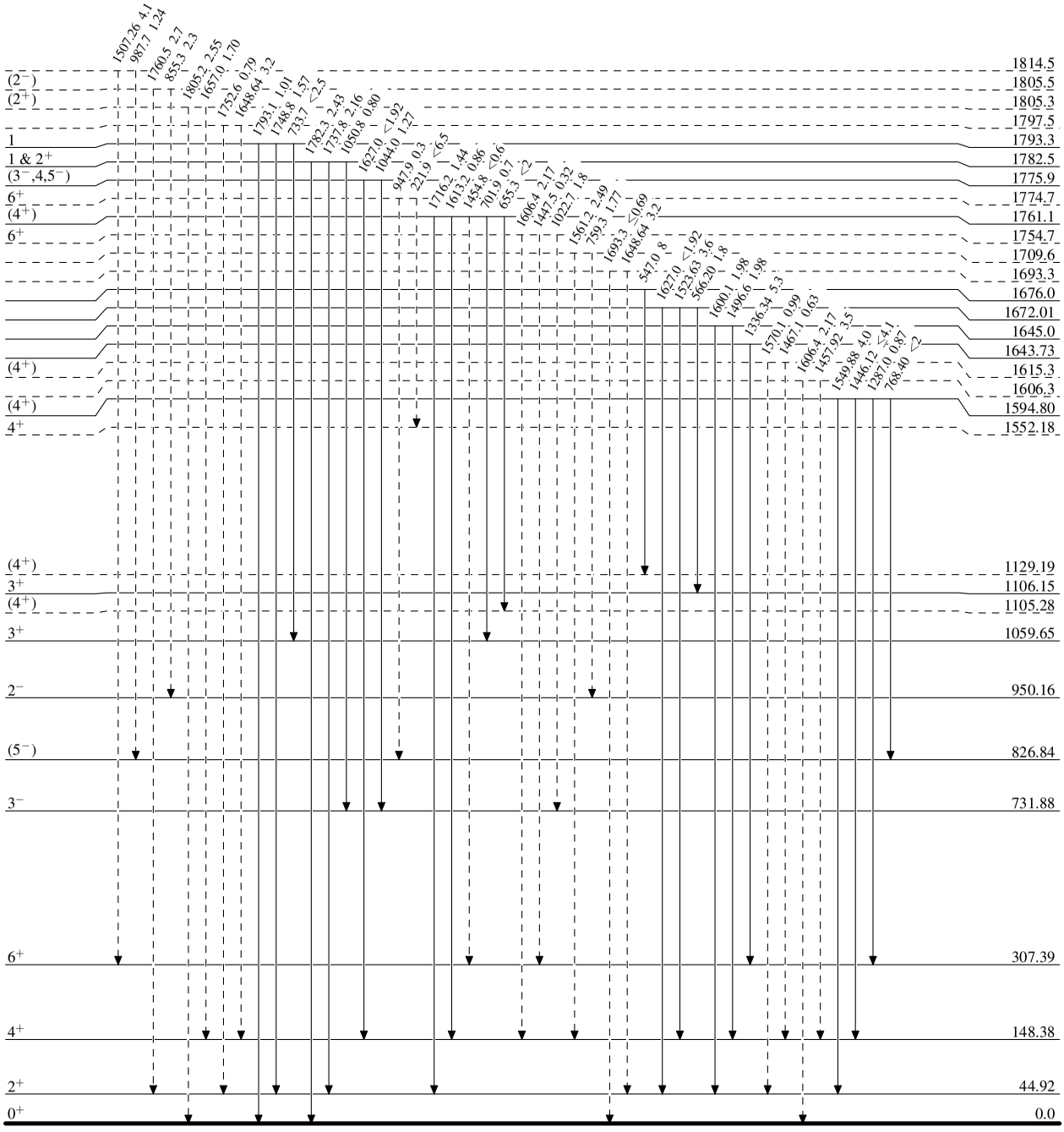
^{238}U(n,n′γ) **2014Go06**

Level Scheme (continued)

Intensities: Type not specified

Legend

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



$^{238}_{92}U_{146}$

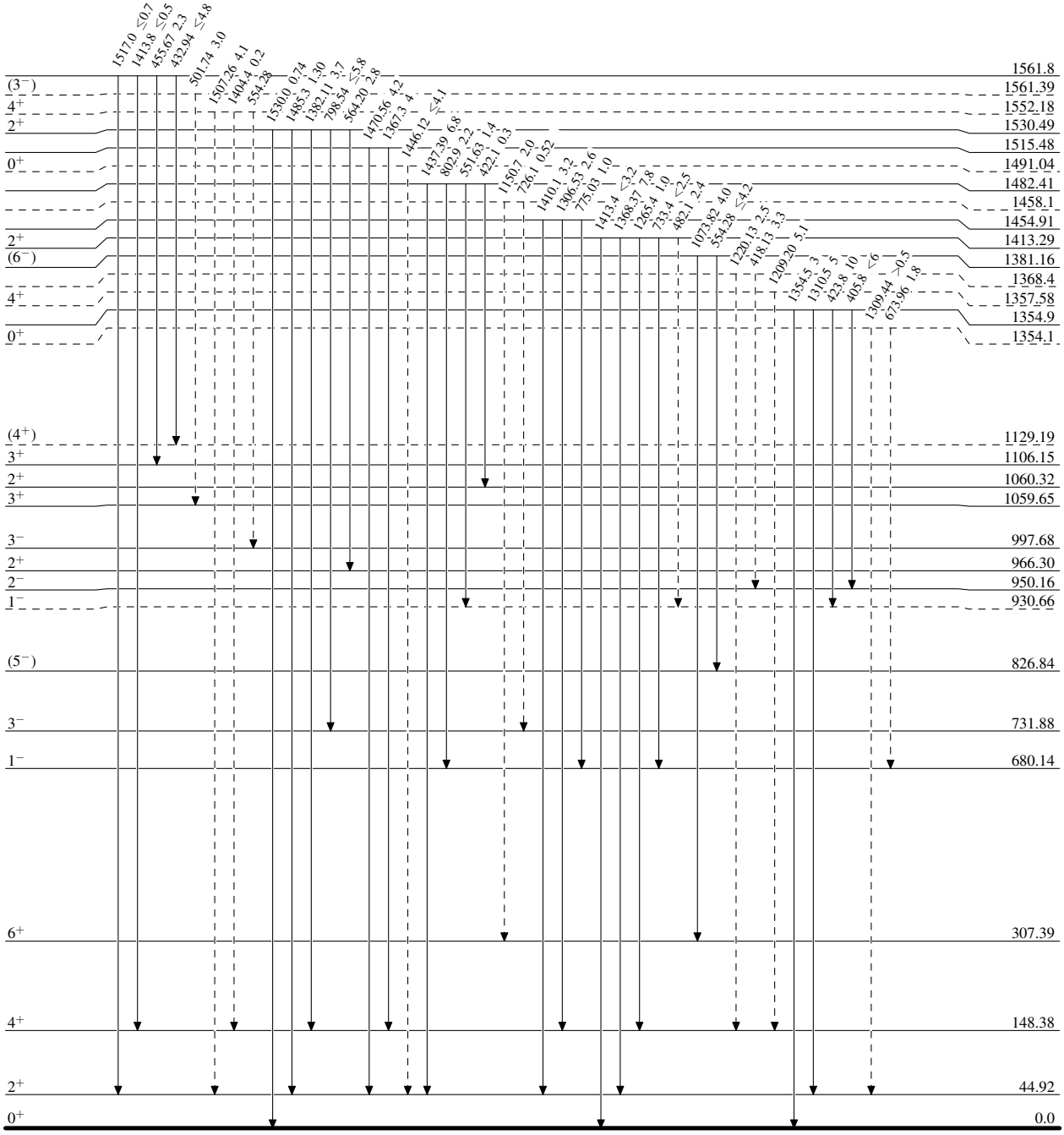
^{238}U(n,n′γ) **2014Go06**

Level Scheme (continued)

Intensities: Type not specified

Legend

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

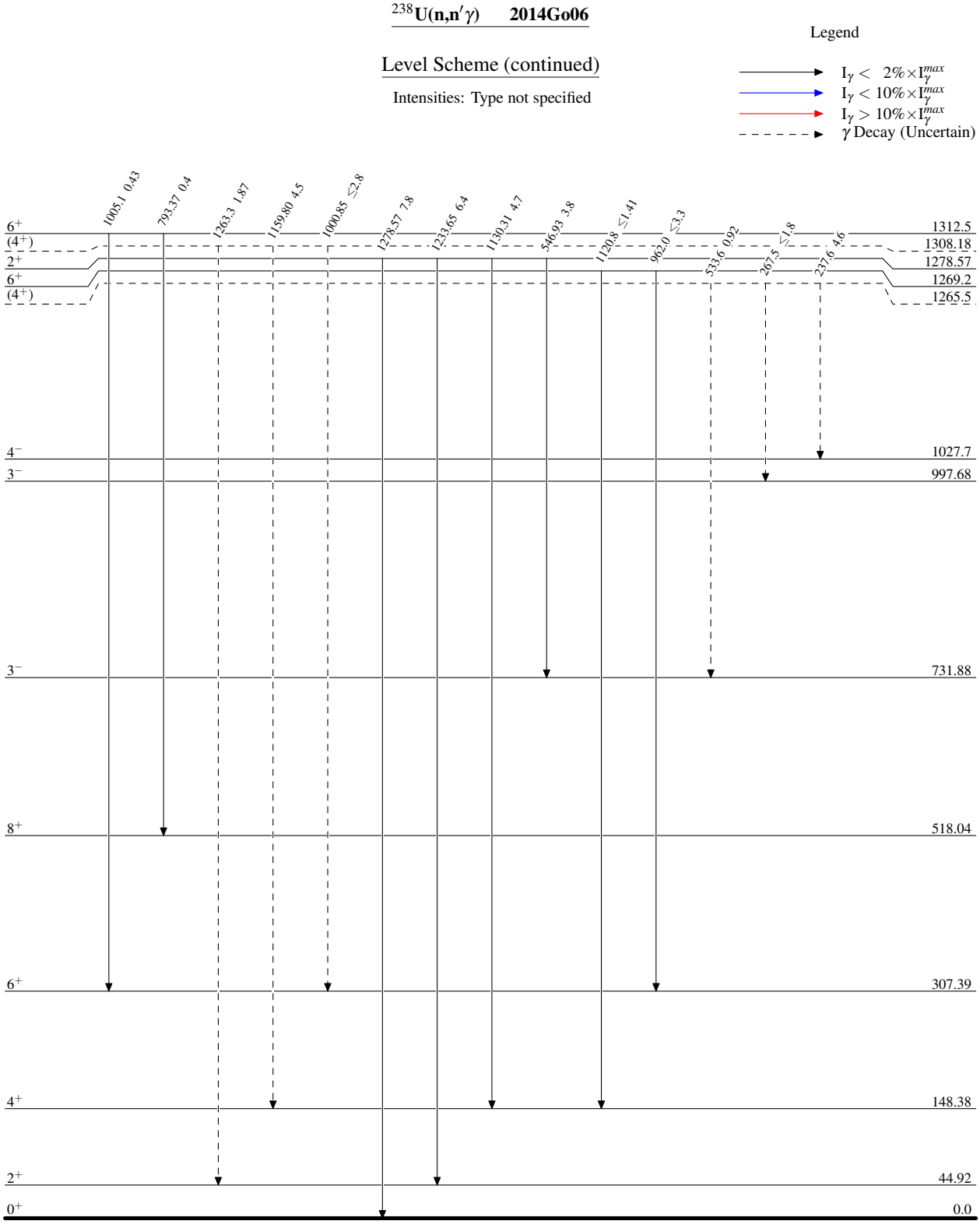


$^{238}_{92}U_{146}$

^{238}U(n,n′γ) **2014Go06**

Level Scheme (continued)

Intensities: Type not specified



$^{238}_{92}U_{146}$

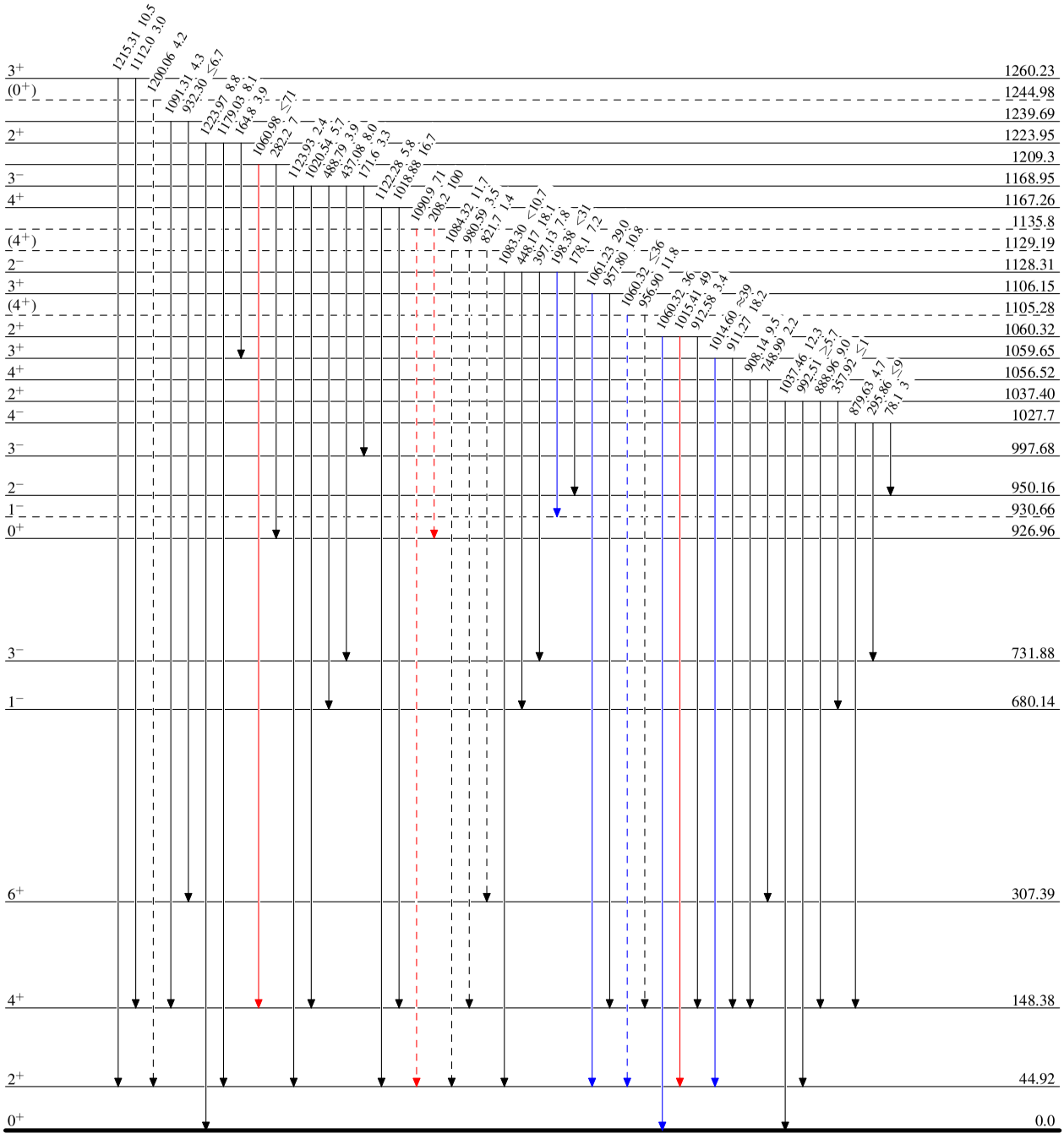
^{238}U(n,n′γ) **2014Go06**

Level Scheme (continued)

Intensities: Type not specified

Legend

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

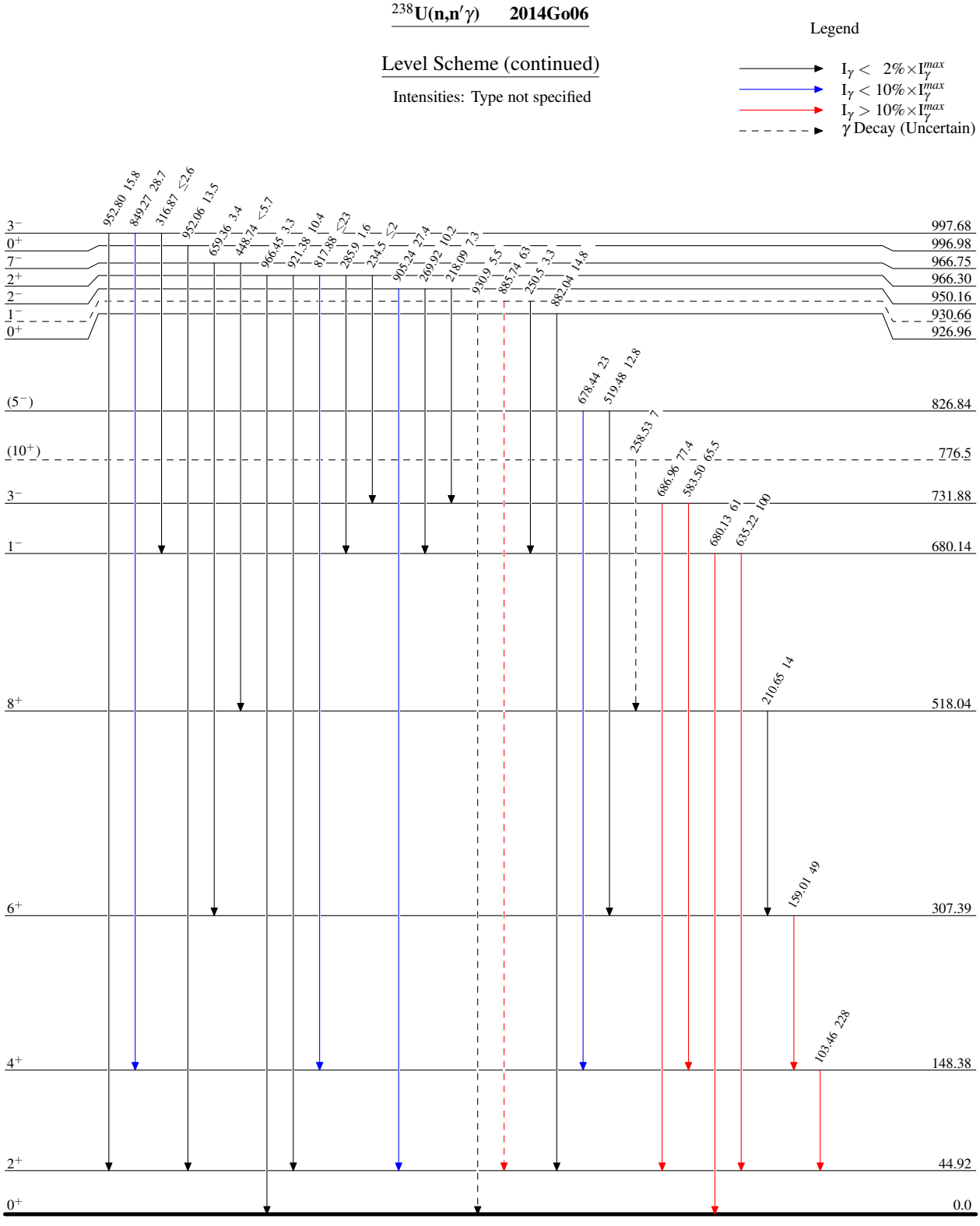


$^{238}_{92}U_{146}$

^{238}U(n,n′γ) 2014Go06

Level Scheme (continued)

Intensities: Type not specified



$^{238}_{92}U_{146}$