

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Shaofei Zhu	NDS 182, 2 (2022).	1-Apr-2022

$Q(\beta^-) = -9.3 \times 10^2$ 5; $S(n) = 6545.5$ 3; $S(p) = 7133$ 14; $Q(\alpha) = 4573.0$ 9 [2021Wa16](#)

$S(2n) = 11843.0$ 3, $S(2p) = 12746.3$ 24 ([2021Wa16](#)).

Spontaneous fission: [2005Xu01](#), [2004Ro01](#), [2001Vi04](#), [1997Ro12](#), [1993Mo16](#), [2001Po31](#) and [1994Pi12](#) (ternary fission accompanied by emission of light charged particles); [2000Gu28](#) (fission fragments distribution, theory).

α : [Additional information 1](#).

 ^{236}U LevelsCross Reference (XREF) Flags

A	^{236}Pa β^- decay	G	$^{235}\text{U}(\text{d},\text{p}\gamma)$	M	$^{237}\text{Np}(\text{t},\alpha\gamma)$
B	^{236}Np ε decay (155×10^3 y)	H	$^{235}\text{U}(\text{n},\gamma)$ E=thermal	N	$^{238}\text{U}(\text{p},\text{t})$
C	^{236}Np ε decay (22.5 h)	I	$^{235}\text{U}(\text{n},\gamma)$ E=2 keV	O	Coulomb excitation
D	^{240}Pu α decay	J	$^{236}\text{U}(\text{d},\text{d}')$	P	Inelastic scattering
E	$^{234}\text{U}(\text{t},\text{p})$	K	$^{236}\text{U}(\text{d},\text{pn}\gamma)$	Q	$^{236}\text{U}(\gamma,\gamma')$
F	$^{235}\text{U}(\text{d},\text{p})$	L	$^{236}\text{U}(\gamma,\text{xn}),(\gamma,\text{F})$ E=resonance	R	$^{237}\text{Np}(^{209}\text{Bi},^{210}\text{Po}\gamma)$

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
0.0 [@]	0 ⁺	2.342×10^7 y 4	ABCDE GH JK MNOPQR	$\% \alpha = 100$; $\% \text{SF} = 9.4 \times 10^{-8}$ 4 T _{1/2} : recommended value in 1989Ho24 , based on measured values of 2.45×10^7 y 7 (1951Ja09), 2.391×10^7 y 18 (1952Fi20) and 2.3415×10^7 y 39 with uncertainty adjusted from 0.06% to 0.25% (1972Fi03). $\% \text{SF}$: from T _{1/2} (SF)= 2.49×10^{16} y 11, the weighted average of 2.0×10^{16} y 16 (1949JaZZ), 2.7×10^{16} y 3 (1971Co35) taking T _{1/2} (SF)(^{238}U)= 8.2×10^{15} y 1 in 2000Ho27 , 2.43×10^{16} y 13 (1981Vo02) and 2.7×10^{16} y 4 (1982BeYI , 1983Be66). Q ₀ =13.8 b ² 2 from Isotope shifts (1978Ge10). B(E2)↑=11.60 15 T _{1/2} : from ^{240}Pu α decay; other: 218 ps 4 deduced using measured B(E2)↑ value from Coul. ex. J ^π : E2 γ to 0 ⁺ and g.s. band member. Q(^{236}U)/Q(^{234}U)=1.13 9 (1974Me18), 0.99 5 (1974Mo12). Ratio of gyromagnetic factors g-factor (^{236}U)/g-factor (^{234}U)=0.98 6 (1974Me18). Measured isotopic shift, gyromagnetic factors. $\Delta \langle r^2 \rangle / \langle r^2 \rangle = -21 \times 10^{-6}$ 21 (1974Mo12), $< 6 \times 10^{-6}$ (1974Me18). B(E2)↑: from Coul. ex.; other: 12.2 6 from $^{236}\text{U}(\text{d},\text{d}')$. J ^π : E2 γ to 2 ⁺ and g.s. band member. T _{1/2} : weighted average of 124 ps 7 (1976Gu06) from Coul. ex. and 142 ps 10 (1970ToZZ) from ^{240}Pu α decay. B(E4)↑=1.7 e ² b ⁴ 6 (1973Be44) from Coul. ex. J ^π : E2 γ to 4 ⁺ and g.s. band member. B(E2)↑=6.1 8 B(E2)↑: from Coul. ex. J ^π : E2 γ to 6 ⁺ and g.s. band member. T _{1/2} : from ^{236}Np ε decay (22.5 h).
45.2431 [@] 20	2 ⁺	235 ps 6	ABCDE GHIJK MNOPQR	
149.480 [@] 5	4 ⁺	130 ps 9	ABCDE GHIJK MNOP R	
309.788 [@] 6	6 ⁺	$58^{\pm}$ ps 3	B DE GH JK MNOP R	
522.26 [@] 4	8 ⁺	$23.9^{\pm}$ ps 19	D G JK MNOP R	
687.56 ^{&} 4	1 ^{-k}	3.78 ns 9	ABCD FGH JK M O	

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Adopted Levels, Gammas (continued) ^{236}U Levels (continued)

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
744.18 ^{&} 7	3 ^{-k}		AB DEFGH JK O	J ^π : E3 γ to 4 ⁺ , E1 γ to 0 ⁺ . B(E3)↑=0.70 5 B(E3)↑: from (d,d'); other: 0.53 7 from Coul. ex. J ^π : γ to 4 ⁺ , γ to 1 ⁻ , member K ^π =0 ⁻ band.
782.4 [@] 5	10 ⁺	11.6 [‡] ps 11	K M O R	B(E2)↑=5.0 4 B(E2)↑: from Coul. ex. J ^π : E2 γ to 8 ⁺ and g.s. band member.
848.3 ^{&} 10	5 ⁻		B GH JK O	J ^π : (E2) γ to 3 ⁻ , member of K ^π =0 ⁻ band.
919.18 ^c 12	0 ⁺		A D H J N	J ^π : from L(p,t)=0.
957.90 ^d 15	2 ⁺		A D H J NO	B(E2)↑=0.195 14 B(E2)↑: from (d,d'); other: 0.18 2 from Coul. ex. J ^π : γ to 2 ⁺ , γ to 0 ⁺ , L(p,t)=(2), Coul. ex. and (d,d'), probable bandhead of K ^π =2 ⁺ . J ^π : (E0+M1) γ to 2 ⁺ .
960.05 ^c 20	(2 ⁺)		D HI	J ^π : (E1) γ to 0 ⁺ , (E1) γ to 2 ⁺ and γ to 1 ⁻ .
966.58 ^e 9	(1 ⁻) ^k		A D FGH	J ^π : (E1) γ to 2 ⁺ , M1+E2 γ to 3 ⁻ , γ to 1 ⁻ , log ft=8.0 from J=1 in ^{236}Pa β ⁻ decay.
987.66 ^e 8	2 ^{-k}		A FGH	J ^π : from Coul. ex., E2 γ to 5 ⁻ , member of K ^π =0 ⁻ band.
999.8 ^{&} 12	7 ⁻		JK O	J ^π : γ to 4 ⁺ , γ to 3 ⁻ , γ to 2 ⁺ . Strongly populated in (n,γ) E=2 keV.
1001.6 ^d 3	(3 ⁺)		HI	B(E3)↑=0.35 2 XREF: O(1040). B(E3)↑: from (d,d'); other: 0.31 8 from Coul. ex. J ^π : from (d,d').
1035.6 ^e 22	3 ^{-k}		F H J O	J ^π : strong population in (n,γ), γ to 2 ⁺ , (E0+E2) γ to 4 ⁺ . J ^π : (E1) γ to 4 ⁺ , M1+E2 γ to 3 ⁻ , (d,p) favors 4 ⁻ . T _{1/2} : weighted average of 97 ns 6 (1979McZP, 1978ClZR), 103 ns 6 (1980Bu13) and 125 ns 20 (1973Br05). Configuration=((ν 1/2[631])+(ν 7/2[743])) from (d,p) strength.
1050.86 ^c 15	(4 ⁺)		HI	J ^π : M1 γ to 4 ⁺ , γ to 2 ⁺ , strongly populated in (n,γ); probable member of K ^π =2 ⁺ band.
1052.9 ^f 4	4 ^{-k}	101 ns 6	FGH	J ^π : strongly fed in (n,γ). J ^π : γ to 4 ⁺ , (d,p) favors 4 ⁻ .
1058.8 ^d 3	(4 ⁺)		HIJ	B(E2)↑=4.1 6 B(E2)↑: from Coul. ex. J ^π : E2 γ to 10 ⁺ and g.s. band member.
1066.1 10	(3 ⁺ ,4 ⁺)		I	J ^π : from strength of average resonance (n,γ) capture.
1070.0 ^e 10	(4 ⁻) ^k		EF H	J ^π : (d,p) favors 5 ⁻ .
1085.4 [@] 7	12 ⁺	5.5 [#] ps +18-33	K O R	J ^π : γ to 2 ⁺ ; γ to 1 ⁻ ; γ to 3 ⁻ ; log ft=7.6 from J=1 in ^{236}Pa β ⁻ decay.
1093.8 10	(2 ⁺ ,5 ⁺)		I	J ^π : γ to 4 ⁺ , fed strongly in (n,γ).
1104.4 ^f 14	(5 ⁻) ^k		F	J ^π : strongly fed through E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1110.66 ^g 8	(2 ⁻)		A H M	B(E3)↑=0.26 3 B(E3)↑: from (d,d'), other: 0.16 6 from Coul. ex. J ^π : γ to 3 ⁻ , (d,d') favors (3 ⁻);
1127.38 ^d 20	(5 ⁺)		HI	J ^π : from (d,p), possible member of K ^π =1 ⁻ band.
1147.0 10	(3 ⁺ ,4 ⁺)		I	J ^π : from (d,p), possible member of K ^π =4 ⁻ band.
1149.4 ^g 10	(3 ⁻)		H J O	
≈1164 ^e	(5 ⁻) ^k		F	
1164 ^f 3	(6 ⁻) ^k		F	
1171.8 2			H	

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Adopted Levels, Gammas (continued) ^{236}U Levels (continued)

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
1191.6 ^a 10	(3 ⁻)		F	J ^π : from (d,p), possible member of K ^π =3 ⁻ band.
1198.6 ^b 12	9 ⁻		E K O	J ^π : from Coul. ex. E2 γ to 7 ⁻ , member of K ^π =0 ⁻ band.
1221.4 10	(2 ⁺ ,5 ⁺)		HI	J ^π : from the feeding strength of E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
≈1232 ^f	(7 ⁻) ^k		F	J ^π : from (d,p), possible member of K ^π =4 ⁻ band.
1232.2 ^a 10	(4 ⁻) ^k		F	J ^π : from (d,p), possible member of K ^π =3 ⁻ band.
1240 2			J N	
1249.3 10	(2 ⁺ ,5 ⁺)		I	J ^π : from the feeding strength of E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1265.2 10	(3 ⁺ ,4 ⁺)		E IJ	J ^π : strongly fed through E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1271.10 8	(1 ⁻ ,2,3)		A	J ^π : γ to 2 ⁺ , γ to 3 ⁻ , log ft=8.3 from J=1 in ^{236}Pa β ⁻ decay.
1282.2 ^a 10	(5 ⁻) ^k		F	J ^π : from (d,p), possible member of K ^π =3 ⁻ band.
1320 ^f 4	(8 ⁻) ^k		F	J ^π : from (d,p), possible member of K ^π =4 ⁻ band.
1320.4 10	(2 ⁺ ,5 ⁺)		I	J ^π : from the feeding strength of E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1329.0 10	(3 ⁺ ,4 ⁺)		I	J ^π : strongly fed through E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1332.8 10	(3 ⁺ ,4 ⁺)		HIJ	J ^π : strongly fed through E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1342.8 ^a 10	(6 ⁻) ^k		F	J ^π : from (d,p), possible member of K ^π =3 ⁻ band.
1347.5 10	(3 ⁺ ,4 ⁺)		HI	J ^π : strongly fed through E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1351.3 10	(3 ⁺ ,4 ⁺)		E I	J ^π : strongly fed through E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1381.3 10	(3 ⁺ ,4 ⁺)		I	J ^π : strongly fed through E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1392 5			E	
1399.8 10	(2 ⁺ ,5 ⁺)		I	J ^π : from the feeding strength of E1 γ in resonance (n,γ) E=2 keV capture states with J ^π =3 ⁻ ,4 ⁻ .
1413.3 ^a 19	(7 ⁻) ^k		F	J ^π : from (d,p), possible member of K ^π =3 ⁻ band.
1426.4 [@] 9	14 ⁺	2.8 [#] ps 3	K O R	B(E2)↑=4.5 5 B(E2)↑: from Coul. ex. J ^π : E2 γ to 12 ⁺ and g.s. band member.
1443.6 ^b 13	11 ⁻		K O	J ^π : from Coul. ex. E2 γ to 9 ⁻ , member of K ^π =0 ⁻ band.
1471.7 ^b 10	(6 ⁻) ^k		F	J ^π : from (d,p), possible member of K ^π =6 ⁻ band.
1541.8 ^b 13	(7 ⁻) ^k		F	J ^π : from (d,p), possible member of K ^π =6 ⁻ band.
1572.2 6			H	
1580? 13	(1,2)		FG	J ^π : populated by 1170γ from 2750-keV (J ^π =0 ⁺) fission isomer. E(level): Possible but unlikely the order of 1580 and 1170 are reversed which would result instead with a level at E(level)=1170.
1604.80 7	(1 ⁻ ,2 ⁺)		A F	XREF: F(1600.8). J ^π : γ to 0 ⁺ , γ to 2 ⁺ , γ to 3 ⁻ .
1621.8 ^b 12	(8 ⁻) ^k		F	J ^π : from (d,p), possible member of K ^π =6 ⁻ band.
1642.5 20			H	
1662.36 8	(1,2 ⁺)		A F H	J ^π : γ to 0 ⁺ , γ to 2 ⁺ , log ft=7.1 from J=1 in ^{236}Pa β ⁻ decay.
1689.6 17			F	
1732.6 ^b 17	13 ⁻		K O	J ^π : from Coul. ex. E2 γ to 11 ⁻ , member of K ^π =0 ⁻ band.
1748 3			F	
1775.9 22			F	
1791.3 7	1 ⁽⁺⁾ ^l		Q	B(M1)↑=0.38 5 B(M1)↑: from (γ,γ').

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Adopted Levels, Gammas (continued) ^{236}U Levels (continued)

E(level) [†]	J ^π	T _{1/2}	XREF			Comments
1801.0 @ 10	16 ⁺	2.1 [#] ps 2		K	O R	J ^π : (M1) γ to 0 ⁺ and 2 ⁺ . B(E2)↑=3.8 3 B(E2)↑: from Coul. ex. J ^π : E2 γ to 14 ⁺ and g.s. band member.
1807.88 7	(1,2 ⁺)		A	F	N	J ^π : γ to 0 ⁺ , γ to 2 ⁺ and log ft=6.3 from J=1 in ^{236}Pa β ⁻ decay.
1854.8 20				F		
1865.39 15	(1,2 ⁺)		A			J ^π : γ to 0 ⁺ and 1 ⁻ , log ft=7.3 from J=1 in ^{236}Pa β ⁻ decay.
1896.9 7				H		
1912.0 16				F		
1946.8 20				F		
1972.62 9	(1,2 ⁺)		A			J ^π : γ to 0 ⁺ and 2 ⁺ , log ft=6.6 from J=1 in ^{236}Pa β ⁻ decay.
1979.15 8	(1 ⁻ ,2)		A			J ^π : γ to 1 ⁻ , 2 ⁺ and 3 ⁻ ; log ft=6.4 from J=1 in ^{236}Pa β ⁻ decay.
1981.04 16	(1,2 ⁺)		A			J ^π : γ to 0 ⁺ and 2 ⁺ ; log ft=6.7 from J=1 in ^{236}Pa β ⁻ decay.
2054.2 7	1 ⁽⁺⁾ l	‡		F	Q	B(M1)↑=0.25 4 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2060.6 & 19	15 ⁻				O	J ^π : from Coul. ex. E2 γ to 13 ⁻ , member of K ^π =0 ⁻ band.
2086.54 9	1 ⁽⁻⁾		A		Q	B(E1)↑=2.7 7 B(E1)↑: from (γ,γ'). J ^π : (E1) γ to 0 ⁺ and 2 ⁺ ; log ft=6.3 from J=1 in ^{236}Pa β ⁻ decay.
2095.7 7	1 ⁽⁺⁾ j l				Q	B(M1)↑=0.15 3 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2114 3				F		
2155.40 12	(0,1,2)		A	F		J ^π : log ft=6.6 from J=1 in ^{236}Pa β ⁻ decay.
2176.9 18				F		
2188.8 7	1 ⁽⁺⁾ j l				Q	B(M1)↑=0.92 9 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2190 12	(1,2 ⁺)			G		J ^π : γ from 0 ⁺ (2750-keV fission isomer), 2190γ to 0 ⁺ .
2204.0 @ 12	18 ⁺	1.17 [#] ps 12		F	O R	B(E2)↑=4.7 5 B(E2)↑: from Coul. ex. J ^π : E2 γ to 16 ⁺ and g.s. band member.
2226.9? 3	(0,1,2)		A			J ^π : γ to 2 ⁺ , log ft=7.21 from J=1 in ^{236}Pa β ⁻ decay.
2234 4				F		
2243.9 10	1 ^j				Q	
2251.1 7	1 ⁽⁺⁾ j				Q	B(M1)↑=0.25 4 B(M1)↑: from (γ,γ'). J ^π : γ to 0 ⁺ and 2 ⁺ .
2260.4 10				F		
2284.7 7	1 ⁽⁺⁾ j l				Q	B(M1)↑=0.31 4 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2426.6 & 22	17 ⁻				O	J ^π : from Coul. ex. E2 γ to 15 ⁻ , member of K ^π =0 ⁻ band.
2435.6 7	1 ⁽⁺⁾ j l				Q	B(M1)↑=0.25 3 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2440.2 7	1 ⁽⁺⁾ j l				Q	B(M1)↑=0.19 3 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2457.3 7	1 ⁽⁺⁾ j l				Q	B(M1)↑=0.21 3 B(M1)↑: from (γ,γ').

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Adopted Levels, Gammas (continued) ^{236}U Levels (continued)

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
2494.5 7	1 ⁽⁺⁾ <i>jl</i>		Q	J ^π : (M1) γ to 0 ⁺ and 2 ⁺ . B(M1) $\uparrow$ =0.21 3 B(M1) $\uparrow$: from (γ, γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2498.5 7	1 ⁽⁺⁾ <i>jl</i>		Q	B(M1) $\uparrow$ =0.20 3 B(M1) $\uparrow$: from (γ, γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2631.8 @ 13	20 ⁺	0.84 [#] ps 12	O R	B(E2) $\uparrow$ =4.9 7 B(E2) $\uparrow$: from Coul. ex. J ^π : E2 γ to 18 ⁺ and g.s. band member.
2699.0 7	1 ⁽⁺⁾ <i>jl</i>		Q	B(M1) $\uparrow$ =0.19 3 B(M1) $\uparrow$: from (γ, γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2712.1 7	1 ⁽⁻⁾ <i>j</i>		Q	B(E1) $\uparrow$ =1.4 3 B(E1) $\uparrow$: from (γ, γ'). J ^π : (E1) γ to 0 ⁺ and 2 ⁺ .
2750 7	(0 ⁺)	67 ns 3	G K	%IT=88 3; %SF=12 3 %IT,%SF: deduced from weighted average of $\Gamma(\gamma)/\Gamma(f)$ =7 2 (1976An11) and Γ_γ/Γ_f =8 3 (1989Sc30) with % α =0. Others: Γ_γ/Γ_f ≈6 (1978Gu02), Γ_γ/Γ_f <4.5 (1980Bu13), Γ_γ/Γ_f =8 3 (1989Sc30), $\Gamma(\gamma)/\Gamma(f)$ <1.5 (1978Ba47), Γ_γ/Γ_f =6.6 6 (2020Ba53) for En=0.2-1.2 eV and Γ_γ/Γ_f =12.5 18 (2020Ba53) for En=1.2-12 eV; %SF≈10 (1979Be33). % α : <10, quoted by 1989Sc30 from unpublished work, and no reported measurements. J ^π : (E1) γ to 1 ⁻ ; interpreted as the g.s. in second minimum of the nuclear potential. T _{1/2} : weighted average of 68 ns 6 (2020Ba53), 66 ns 3 (2020Ba53), 92 ns 15 (1972PiZR), 80 ns 20 (1971Bo61), 70 ns 30 (1971Be62), 70 ns 14 (1970Re05) and 66.6 ns 87 (1970El03). Others: 110 ns 50 (1969La14), 105 ns 20 (1970Wo06), 130 ns 15 (1971Br38), 130 ns 40 (1972Pe01), 116 ns 7 (1975Ch09), 120 ns 15 (1977Bo09), 115 ns 5 (1978Gu02, 1980Gu20), 137 ns 18 (1982Go02), 125 ns 30 (1989Sc30), 121 ns 2 (1989Ma57, 1990Ma59), 144 ns 32 (1974HeZE), ≈110 ns (1972HoXQ), and 114 ns 46 (1970Vi05). Data are clustered around two values, one approximately 70 ns and the other approximately 120 ns. Evaluator adopts the former, as 2020Ba53 note the possibility of contributions of higher lying states in measurements with longer lifetimes. E(level): from $^{235}\text{U}(\text{d}, \text{p}\gamma)$. Others: ≈2400 keV (1968Ca23, 1969Bj02), <2960 (1970El03), ≈2350 (1970So06) and 2795 keV 5 (1987ScZP). ce's preceding fission observed, interpreted as g.s. cascade in second minimum with inertia constant A=3.54 (1974HeZE), and A=3.36 keV 1 (1977Bo09) following E=AJ(J+1). One ternary fission per 160 binary fissions observed by 1989Ma57, 1989Ma54.
2756.2 7	1 ⁽⁺⁾ <i>jl</i>		Q	B(M1) $\uparrow$ =0.08 2 B(M1) $\uparrow$: from (γ, γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2770 ^h 7	(2 ⁺) <i>i</i>		G	
2817 ^h 7	(4 ⁺) <i>i</i>		G	
2823 & 4	(19 ⁻)		O	J ^π : from Coul. ex. (E2) γ to 17 ⁻ , member of $K^\pi=0^-$ band.

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Adopted Levels, Gammas (continued) ^{236}U Levels (continued)

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
2823.3 7	1 ⁽⁺⁾ <i>jl</i>		Q	B(M1)↑=0.11 3 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2838.3 7	1 ⁽⁺⁾ <i>jl</i>		Q	B(M1)↑=0.09 3 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2877.8 7	1 ⁽⁻⁾ <i>j</i>		Q	B(E1)↑=1.6 4 B(E1)↑: from (γ,γ'). J ^π : (E1) γ to 0 ⁺ and 2 ⁺ .
2891 ^h 8	(6 ⁺) <i>i</i>		G	
2924.0 7	(1,2 ⁺)		Q	J ^π : γ to 0 ⁺ and 2 ⁺ .
2969.0 7	1 ⁽⁺⁾ <i>jl</i>		Q	B(M1)↑=0.12 3 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
2991 ^h 8	(8 ⁺) <i>i</i>		G	
3081.0 @ 14	22 ⁺	0.65 [#] ps 15	O R	B(E2)↑=4.9 11 B(E2)↑: from Coul. ex. J ^π : E2 γ to 20 ⁺ and g.s. band member.
3143.8 7	1 ⁽⁺⁾ <i>jl</i>		Q	B(M1)↑=0.15 3 B(M1)↑: from (γ,γ'). J ^π : (M1) γ to 0 ⁺ and 2 ⁺ .
3434 7	(0 ⁺)	<20 ns	K	J ^π : (E0) to 2750-keV, 0 ⁺ isomer; bandhead of β band in second minimum. T _{1/2} : from $^{236}\text{U}(\text{d,pn}\gamma)$.
3550.0 @ 17	24 ⁺	0.41 [#] ps 8	O	B(E2)↑=6.3 12 B(E2)↑: from Coul. ex. J ^π : E2 γ to 22 ⁺ and g.s. band member.
4039.0 @ 20	26 ⁺	0.33 [#] ps 9	O	B(E2)↑=6.3 16 B(E2)↑: from Coul. ex. J ^π : E2 γ to 24 ⁺ and g.s. band member.
4549.0 @ 22	28 ⁺	0.17 [#] ps 7	O	B(E2)↑=10 4 B(E2)↑: from Coul. ex. J ^π : E2 γ to 26 ⁺ and g.s. band member.
5077 @ 4	(30 ⁺)		O	J ^π : member of g.s. band member.

[†] Deduced by evaluator from a least-squares fit to adopted γ-ray energies.[‡] From Recoil Distance Doppler Method (RDDM) in Coul. ex.[#] From B(E2) in Coul. ex.@ Band(A): K^π=0⁺ g.s. Rotational band.& Band(B): K^π=0⁻ Octupole vibrational band.^a Band(C): K^π=3⁻ Configuration=((ν 7/2(743))-(ν 1/2(631))).^b Band(D): K^π=6⁻ Configuration=((ν 7/2(743))+(ν 5/2(622))).^c Band(E): K^π=0⁺.^d Band(F): K^π=(2⁺).^e Band(G): K^π=1⁻ Configuration=((ν 7/2(743))-(ν 5/2(622))).^f Band(H): K^π=4⁻ Configuration=((ν 7/2(743))+(ν 1/2(631))).^g Band(I): K^π=2⁻.^h g.s. band in second potential well with inertia constant A=3.36 keV I following E=AJ(J+1).ⁱ From (d,py). Based on ce cascade interpreted as rotational band (in second minimum) built on fission isomer.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{236}U Levels (continued)

- ^j J^π from $\gamma'(\theta)$ in $^{236}\text{U}(\gamma,\gamma')$.
- ^k From cross section signature in $^{235}\text{U}(\text{d,p})$.
- ^l (M1) γ rays to g.s. ($J^\pi=0^+$) and 45.2-keV level ($J^\pi=2^+$).

Adopted Levels, Gammas (continued)

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α	$\gamma(^{236}\text{U})$	Comments
45.2431	2 ⁺	45.243 2	100	0.0	0 ⁺	E2 ^b	589 8		$\alpha(\text{L})=429\ 6$; $\alpha(\text{M})=118.6\ 17$; $\alpha(\text{N})=32.1\ 5$; $\alpha(\text{O})=7.36\ 10$; $\alpha(\text{P})=1.191\ 17$; $\alpha(\text{Q})=0.00285\ 4$ $\text{B}(\text{E}2)(\text{W.u.})=248\ 8$ Mult.: from ^{236}Np ε decay (22.5 h) and ^{240}Pu α decay. E_γ : weighted average of 45.29 6 (1956Ho54); 45.3 2 (1959Tr37); 45.273 20 (1971Cl03,1972ClZS); 45.242 6 (1972Sc01); 45.232 5 (1971GuZY,1976GuZN); 45.244 2 (1981He16) and 45.23 3 (1983Ah02); others: 44.2 1 (1956Gr11); 45.62 1 (1958Sa21); 45.32 (1959Ga13) and 45.28 (1968Du06).
149.480	4 ⁺	104.237 4	100	45.2431	2 ⁺	E2 ^b	10.99 15		$\alpha(\text{L})=8.00\ 11$; $\alpha(\text{M})=2.220\ 31$; $\alpha(\text{N})=0.603\ 8$; $\alpha(\text{O})=0.1385\ 19$; $\alpha(\text{P})=0.02268\ 32$ $\alpha(\text{Q})=9.41\times 10^{-5}\ 13$ $\text{B}(\text{E}2)(\text{W.u.})=340\ 24$ Mult.: from ^{236}Np ε decay (155×10^3 y). E_γ : weighted average of 104.244 5 (1971GuZY,1976GuZN), 104.233 5 (1972Sc01), 104.234 6 (1981He16,1986He12); others: 103.95 50 (1958Sa21), 103.6 3 (1959Tr37), 104.15 2 (1971Cl03,1972ClZS) and 104.23 2 (1983Ah02).
309.788	6 ⁺	160.308 3	100	149.480	4 ⁺	E2 ^b	1.761 25		$\alpha(\text{K})=0.2079\ 29$; $\alpha(\text{L})=1.132\ 16$; $\alpha(\text{M})=0.313\ 4$; $\alpha(\text{N})=0.0850\ 12$; $\alpha(\text{O})=0.01958\ 27$ $\alpha(\text{P})=0.00325\ 5$; $\alpha(\text{Q})=2.327\times 10^{-5}\ 33$ $\text{B}(\text{E}2)(\text{W.u.})=385\ 21$ Mult.: from ^{236}Np ε decay (155×10^3 y). E_γ : weighted average of 160.280 15 (1971GuZY,1976GuZN), 160.310 8 (1972Sc01), 160.312 10 (1975OtZX), 160.308 3 (1981He16,1986He12), others: 160.0 15 (1959Tr37), 160.27 2 (1971Cl03,1972ClZS) and 160.33 2 (1983Ah02).
522.26	8 ⁺	212.47 4	100	309.788	6 ⁺	E2 ^b	0.599 8		$\alpha(\text{K})=0.1400\ 20$; $\alpha(\text{L})=0.335\ 5$; $\alpha(\text{M})=0.0920\ 13$; $\alpha(\text{N})=0.02498\ 35$; $\alpha(\text{O})=0.00577\ 8$ $\alpha(\text{P})=0.000968\ 14$; $\alpha(\text{Q})=1.068\times 10^{-5}\ 15$ $\text{B}(\text{E}2)(\text{W.u.})=3.9\times 10^2\ 4$ E_γ : weighted average of 212.48 5 (1975OtZX) and 212.46 5 (1982Ow01).
687.56	1 ⁻	538.09 7	1.14 8	149.480	4 ⁺	E3	0.20 8		$\alpha(\text{K})_{\text{exp}}=0.11\ 5$ $\alpha(\text{K})=0.0623\ 9$; $\alpha(\text{L})=0.0587\ 8$; $\alpha(\text{M})=0.01603\ 22$; $\alpha(\text{N})=0.00437\ 6$; $\alpha(\text{O})=0.001025\ 14$ $\alpha(\text{P})=0.0001801\ 25$; $\alpha(\text{Q})=4.97\times 10^{-6}\ 7$ $\text{B}(\text{E}3)(\text{W.u.})=56\ 5$ Mult.: from $\alpha(\text{L}1+\text{L}2)_{\text{exp}}=0.086\ 27$ (1969Le05) and $\alpha(\text{K})_{\text{exp}}=0.11\ 5$ (1983Fa15). E_γ : weighted average of 538.25 20 (1969Le05), 538.09 15 (1975OtZX), 537.92 20 (1977Po05) and 538.1 1 (1984Mi02). α : from the summation of $\alpha(\text{L}1+\text{L}2)_{\text{exp}}$ in 1969Le05 and $\alpha(\text{K})_{\text{exp}}$ in 1983Fa15 with additional 10% uncertainty for higher shells; $\alpha(\text{K})_{\text{exp}}=0.11\ 5$ (1983Fa15). I_γ : weighted average of 1.11 12 (1969Le05) 1.1 1 (1975OtZX), 1.6 6 (1977Po05) and 1.6 3 (1984Mi02). $\alpha(\text{K})_{\text{exp}}=0.111\ 10$; $\alpha(\text{L})_{\text{exp}}=0.031\ 9$ $\alpha(\text{K})=0.0091\ 23$; $\alpha(\text{L})=0.0017\ 6$; $\alpha(\text{M})=4.2\times 10^{-4}\ 14$; $\alpha(\text{N})=1.1\times 10^{-4}\ 4$; $\alpha(\text{O})=2.7\times 10^{-5}\ 9$ $\alpha(\text{P})=5.2\times 10^{-6}\ 17$; $\alpha(\text{Q})=3.9\times 10^{-7}\ 13$ $\text{B}(\text{E}1)(\text{W.u.})=5.81\times 10^{-8}\ 22$ Mult.: from $\alpha(\text{K})_{\text{exp}}=0.112\ 10$, $\alpha(\text{K})/\alpha(\text{L})=3.59\ 11$, $\alpha(\text{L}1)/\alpha(\text{L}2)=11\ 4$,
		642.23 7	100 5	45.2431	2 ⁺	E1(+M2+E3)	0.15 2		

						$\alpha(L1+L2)/\alpha(L3)=36 \pm 10-7$ (1969Le05); $\alpha(K)_{\text{exp}}=0.11 \pm 3$, $\alpha(L)_{\text{exp}}=0.031 \pm 9$, $\alpha(K)/\alpha(L)=3.56 \pm 50$ (1977Po05); $\alpha(K)_{\text{exp}}=0.11 \pm 1$, $\alpha(L1)_{\text{exp}}=0.032 \pm 3$, $\alpha(L2)_{\text{exp}}=0.0034 \pm 4$, $\alpha(L3)_{\text{exp}}=0.0016 \pm 11$, $\alpha(M1)_{\text{exp}}=0.0058 \pm 7$, Anomalous conversion due to penetration effect. The M2 and E3 admixtures are smalls (1983Fa15). E_γ: weighted average of 642.42 ± 10 (1969Le05), 642.06 ± 17 (1969BaZW), 642.48 ± 15 (1971Cl03,1972ClZS), 641.8 ± 1 (1972MaYR), 642.2 ± 1 (1973Gr20), 642.3 ± 3 (1973Or06), 642.33 ± 10 (1975OtZX), 642.24 ± 10 (1977Po05) and 642.3 ± 1 (1984Mi02). α: from the summation all subshell αs in 1983Fa15 with additional 5% uncertainty for higher shells; $\alpha(K)_{\text{exp}}=0.111 \pm 10$ from weighted average of 0.112 ± 10 (1969Le05), 0.11 ± 3 (1977Po05) and 0.11 ± 1 (1983Fa15); $\alpha(L)_{\text{exp}}=0.031 \pm 9$ (1977Po05). $\alpha(K)_{\text{exp}}=0.219 \pm 14$; $\alpha(L)_{\text{exp}}=0.069 \pm 9$ $\alpha(K)=0.00596 \pm 8$; $\alpha(L)=0.001038 \pm 15$; $\alpha(M)=0.0002473 \pm 35$; $\alpha(N)=6.63 \times 10^{-5} \pm 9$ $\alpha(O)=1.599 \times 10^{-5} \pm 22$; $\alpha(P)=3.03 \times 10^{-6} \pm 4$; $\alpha(Q)=2.237 \times 10^{-7} \pm 31$ $B(E1)(W.u.)=2.59 \times 10^{-8} \pm 8$ Mult.: from $\alpha(K)_{\text{exp}}=0.22 \pm 2$, $\alpha(K)/\alpha(L)=3.26 \pm 16$, $\alpha(L1)/\alpha(L2)=7 \pm 3$, $\alpha(L1+L2)/\alpha(L3)=46 \pm 40-20$ (1969Le05); $\alpha(K)_{\text{exp}}=0.219 \pm 14$, $\alpha(L)_{\text{exp}}=0.069 \pm 9$, $\alpha(K)/\alpha(L)=3.19 \pm 38$ (1977Po05); $\alpha(L1)_{\text{exp}}=0.059 \pm 3$, $\alpha(L2)_{\text{exp}}=0.0129 \pm 15$, $\alpha(L3)_{\text{exp}}=0.0016 \pm 11$, $\alpha(M1)_{\text{exp}}=0.0195 \pm 23$, Anomalous conversion due to
687.59 ± 6	27.4 ± 5	0.0	0 ⁺	E1	0.31 ± 2	

Adopted Levels, Gammas (continued)

$\gamma(^{236}\text{U})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α	Comments
								penetration effects. The M2 and E3 admixtures are small (1983Fa15). E_γ : Weighted average of 687.71 10 (1969Le05), 687.39 17 (1969BaZW), 688.01 15 (1971Cl03,1972ClZS), 687.5 10 (1972MaYR), 687.5 1 (1973Gr20), 687.6 3 (1973Or06), 687.57 16 (1975OtZX), 687.52 10 (1977Po05) and 687.5 1 (1984Mi02). α : from the summation all subshell α s in 1983Fa15 with additional 5% uncertainty for higher shells; $\alpha(\text{K})_{\text{exp}}=0.219$ 14 from weighted average of 0.22 2 (1969Le05) and 0.219 14 (1977Po05); $\alpha(\text{L})_{\text{exp}}=0.069$ 9 (1977Po05). I_γ : weighted average of 26.5 5 (1969Le05), 28.5 5 (1971GuZY,1976GuZN), 24.8 36 (1973Or06), 21 3 (1973Gr20), 26.2 7 (1975OtZX), 29.4 9 (1977Po05), 26.8 20 (1984Mi02) and 29 4 (1979McZP). $\alpha(\text{L})=145$ 11; $\alpha(\text{M})=40.1$ 29; $\alpha(\text{N})=10.9$ 8; $\alpha(\text{O})=2.50$ 18; $\alpha(\text{P})=0.405$ 29; $\alpha(\text{Q})=0.00107$ 7 E_γ : from $^{236}\text{U}(\text{d,pn}\gamma)$, uncertainty deduced from level energy difference, I_γ : deduced from γ -ray intensity balance in ^{236}Pa β^- decay; other: $I_\gamma \geq 5$ from $^{236}\text{U}(\text{d,pn}\gamma)$.
744.18	3^-	56.6 8	≈ 5	687.56	1^-	[E2]	199 14	
		594.5 3	100	149.480	4^+	[E1]	0.00964 14	$\alpha(\text{K})=0.00781$ 11; $\alpha(\text{L})=0.001381$ 19; $\alpha(\text{M})=0.000330$ 5; $\alpha(\text{N})=8.83 \times 10^{-5}$ 12 $\alpha(\text{O})=2.128 \times 10^{-5}$ 30; $\alpha(\text{P})=4.01 \times 10^{-6}$ 6; $\alpha(\text{Q})=2.91 \times 10^{-7}$ 4 E_γ : from ^{236}Pa β^- decay.
782.4	10^+	260.1 5	100	522.26	8^+	E2 ^b	0.297 5	$\alpha(\text{K})=0.0979$ 14; $\alpha(\text{L})=0.1456$ 23; $\alpha(\text{M})=0.0397$ 6; $\alpha(\text{N})=0.01078$ 17; $\alpha(\text{O})=0.00250$ 4 $\alpha(\text{P})=0.000423$ 7; $\alpha(\text{Q})=6.40 \times 10^{-6}$ 9 $\text{B}(\text{E}2)(\text{W.u.})=3.6 \times 10^2$ 4 E_γ : from Coul. ex.
848.3	5^-	≈ 103.4 &	100 &	744.18	3^-	(E2) ^b	11.41 16	$\alpha(\text{L}) \approx 8.31$; $\alpha(\text{M}) \approx 2.305$; $\alpha(\text{N}) \approx 0.626$; $\alpha(\text{O}) \approx 0.1438$; $\alpha(\text{P}) \approx 0.02355$ $\alpha(\text{Q}) \approx 9.69 \times 10^{-5}$
919.18	0^+	873.98 12	100	45.2431	2^+	[E2]	0.01439 20	$\alpha(\text{K})=0.01060$ 15; $\alpha(\text{L})=0.00283$ 4; $\alpha(\text{M})=0.000711$ 10; $\alpha(\text{N})=0.0001917$ 27 $\alpha(\text{O})=4.58 \times 10^{-5}$ 6; $\alpha(\text{P})=8.47 \times 10^{-6}$ 12; $\alpha(\text{Q})=4.85 \times 10^{-7}$ 7 E_γ : weighted average of 874.1 2 (1984Mi02) and 873.92 15 (1975OtZX).
957.90	2^+	918.9 [‡] 3 912.4 [‡] 3	≈ 71 ‡	0.0 45.2431	0^+ 2^+	(E0) ^c [M1+E2]	0.032 18	$\alpha(\text{K})=0.025$ 15; $\alpha(\text{L})=0.0050$ 25; $\alpha(\text{M})=0.0012$ 6; $\alpha(\text{N})=3.3 \times 10^{-4}$ 16; $\alpha(\text{O})=8\text{E}-5$ 4 $\alpha(\text{P})=1.5 \times 10^{-5}$ 8; $\alpha(\text{Q})=1.1 \times 10^{-6}$ 7
		958.0 [‡] 2	100 ‡	0.0	0^+	[E2]	0.01204 17	$\alpha(\text{K})=0.00902$ 13; $\alpha(\text{L})=0.002264$ 32; $\alpha(\text{M})=0.000565$ 8; $\alpha(\text{N})=0.0001522$ 21

Adopted Levels, Gammas (continued)

$\gamma(^{236}\text{U})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	δ	α	Comments
$\alpha(\text{O})=3.64\times 10^{-5}$ 5; $\alpha(\text{P})=6.77\times 10^{-6}$ 9; $\alpha(\text{Q})=4.08\times 10^{-7}$ 6 E_γ : from ^{236}Pa β^- decay. I_γ : From $^{235}\text{U}(\text{n},\gamma)$ E=thermal.									
960.05	(2 ⁺)	$\approx 810.9^{\ddagger}$ $914.8^{\ddagger}$ 2 $\approx 959.9^{\ddagger}$	$\approx 68^{\ddagger}$ $100^{\ddagger}$ $\approx 80^{\ddagger}$	149.480 45.2431 0.0	4 ⁺ 2 ⁺ 0 ⁺	(E0+M1) ^c			
966.58	(1 ⁻)	222.4 1 $279.0^{\ddagger}$ 1 $921.2^{\ddagger}$ 2	<23 $58^{\ddagger}$ 3 $44^{\ddagger}$ 11	744.18 687.56 45.2431	3 ⁻ 1 ⁻ 2 ⁺	(E1) ^c		0.00432 6	$\alpha(\text{K})=0.00353$ 5; $\alpha(\text{L})=0.000599$ 8; $\alpha(\text{M})=0.0001423$ 20; $\alpha(\text{N})=3.81\times 10^{-5}$ 5; $\alpha(\text{O})=9.22\times 10^{-6}$ 13 $\alpha(\text{P})=1.757\times 10^{-6}$ 25; $\alpha(\text{Q})=1.345\times 10^{-7}$ 19
		$966.8^{\ddagger}$ 2	$100^{\ddagger}$ 9	0.0	0 ⁺	(E1) ^c		0.00397 6	$\alpha(\text{K})=0.00325$ 5; $\alpha(\text{L})=0.000549$ 8; $\alpha(\text{M})=0.0001302$ 18; $\alpha(\text{N})=3.49\times 10^{-5}$ 5; $\alpha(\text{O})=8.44\times 10^{-6}$ 12 $\alpha(\text{P})=1.610\times 10^{-6}$ 23; $\alpha(\text{Q})=1.239\times 10^{-7}$ 17
987.66	2 ⁻	$243.6^{\ddagger}$ 2	$26^{\ddagger}$ 3	744.18	3 ⁻	M1+E2 ^c	1.5 4	0.81 21	$\alpha(\text{K})=0.51$ 19; $\alpha(\text{L})=0.216$ 13; $\alpha(\text{M})=0.0564$ 23; $\alpha(\text{N})=0.0153$ 6; $\alpha(\text{O})=0.00360$ 17 $\alpha(\text{P})=0.00064$ 4; $\alpha(\text{Q})=2.6\times 10^{-5}$ 9 Mult., δ : from ce measurements in (n, γ), E=thermal.
		$300.0^{\ddagger}$ 1	$17^{\ddagger}$ 3	687.56	1 ⁻	[M1+E2]		0.6 4	$\alpha(\text{K})=0.4$ 4; $\alpha(\text{L})=0.12$ 4; $\alpha(\text{M})=0.030$ 7; $\alpha(\text{N})=0.0081$ 20; $\alpha(\text{O})=0.0019$ 5; $\alpha(\text{P})=3.6\times 10^{-4}$ 11 $\alpha(\text{Q})=2.1\times 10^{-5}$ 16
		$942.4^{\ddagger}$ 2	$100^{\ddagger}$ 7	45.2431	2 ⁺	(E1) ^c		0.00415 6	$\alpha(\text{K})=0.00339$ 5; $\alpha(\text{L})=0.000575$ 8; $\alpha(\text{M})=0.0001365$ 19; $\alpha(\text{N})=3.66\times 10^{-5}$ 5; $\alpha(\text{O})=8.85\times 10^{-6}$ 12 $\alpha(\text{P})=1.686\times 10^{-6}$ 24; $\alpha(\text{Q})=1.294\times 10^{-7}$ 18
999.8	7 ⁻	151.5^a 5	100^a	848.3	5 ⁻	E2 ^b		2.21 4	$\alpha(\text{K})=0.2183$ 31; $\alpha(\text{L})=1.455$ 30; $\alpha(\text{M})=0.403$ 8; $\alpha(\text{N})=0.1093$ 22; $\alpha(\text{O})=0.0252$ 5 $\alpha(\text{P})=0.00417$ 8; $\alpha(\text{Q})=2.75\times 10^{-5}$ 5
1001.6	(3 ⁺)	$\approx 258.4^{\ddagger}$ $\approx 852.2^{\ddagger}$ $956.3^{\ddagger}$ 3	$\approx 13^{\ddagger}$ $100^{\ddagger}$ 12	744.18 149.480 45.2431	3 ⁻ 4 ⁺ 2 ⁺				
1035.6	3 ⁻	$\approx 886.2^{\ddagger}$	$100^{\ddagger}$	149.480	4 ⁺	[E1]		0.00463 6	$\alpha(\text{K})\approx 0.00378$; $\alpha(\text{L})\approx 0.000643$; $\alpha(\text{M})\approx 0.0001528$; $\alpha(\text{N})\approx 4.09\times 10^{-5}$ $\alpha(\text{O})\approx 9.90\times 10^{-6}$; $\alpha(\text{P})\approx 1.885\times 10^{-6}$; $\alpha(\text{Q})\approx 1.437\times 10^{-7}$
		$\approx 990.2^{\ddagger}$	$\approx 88^{\ddagger}$	45.2431	2 ⁺	[E1]		0.00381 5	$\alpha(\text{K})\approx 0.00311$; $\alpha(\text{L})\approx 0.000526$; $\alpha(\text{M})\approx 0.0001247$; $\alpha(\text{N})\approx 3.34\times 10^{-5}$ $\alpha(\text{O})\approx 8.09\times 10^{-6}$; $\alpha(\text{P})\approx 1.543\times 10^{-6}$; $\alpha(\text{Q})\approx 1.190\times 10^{-7}$
1050.86	(4 ⁺)	$901.25^{\ddagger}$ 17 $1006.0^{\ddagger}$ 3	$100^{\ddagger}$	149.480 45.2431	4 ⁺ 2 ⁺	(E0+E2)		0.01097 15	

Adopted Levels, Gammas (continued)

$\gamma(^{236}\text{U})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	δ	α	Comments
1052.9	4^-	(≈ 65)		987.66	2^-	(E2) ^c		102.4 14	$\alpha(\text{L})\approx 74.6$; $\alpha(\text{M})\approx 20.66$; $\alpha(\text{N})\approx 5.61$; $\alpha(\text{O})\approx 1.286$; $\alpha(\text{P})\approx 0.2088$ $\alpha(\text{Q})\approx 0.000597$
		204.6 10	100 15	848.3	5^-	(E2) ^c		0.687 16	$\alpha(\text{K})=0.1490$ 24; $\alpha(\text{L})=0.393$ 10; $\alpha(\text{M})=0.1080$ 27; $\alpha(\text{N})=0.0293$ 7; $\alpha(\text{O})=0.00678$ 17 $\alpha(\text{P})=0.001134$ 29; $\alpha(\text{Q})=1.179\times 10^{-5}$ 23 E_γ, I_γ : from delayed I_γ in $^{235}\text{U}(\text{n}, \gamma)$ E=thermal.
		307.9 10	90 15	744.18	3^-	M1+E2 ^c	1.3 5	0.46 18	$\alpha(\text{K})=0.32$ 16; $\alpha(\text{L})=0.100$ 16; $\alpha(\text{M})=0.0256$ 34; $\alpha(\text{N})=0.0069$ 9; $\alpha(\text{O})=0.00165$ 24 $\alpha(\text{P})=0.00030$ 5; $\alpha(\text{Q})=1.6\times 10^{-5}$ 7 E_γ, I_γ : from delayed I_γ in $^{235}\text{U}(\text{n}, \gamma)$ E=thermal.
		903.6 4	41 7	149.480	4^+	(E1) ^c		0.00447 6	Mult., δ : from ce measurements in (n, γ), E=thermal. $\alpha(\text{K})=0.00365$ 5; $\alpha(\text{L})=0.000621$ 9; $\alpha(\text{M})=0.0001474$ 21; $\alpha(\text{N})=3.95\times 10^{-5}$ 6; $\alpha(\text{O})=9.55\times 10^{-6}$ 13 $\alpha(\text{P})=1.819\times 10^{-6}$ 26; $\alpha(\text{Q})=1.390\times 10^{-7}$ 19 I_γ : from delayed I_γ in $^{235}\text{U}(\text{n}, \gamma)$ E=thermal.
1058.8	(4^+)	909.3 [‡] 3	100 [‡] 9	149.480	4^+	M1 ^c		0.0505 7	$\alpha(\text{K})=0.0404$ 6; $\alpha(\text{L})=0.00760$ 11; $\alpha(\text{M})=0.001830$ 26; $\alpha(\text{N})=0.000493$ 7 $\alpha(\text{O})=0.0001198$ 17; $\alpha(\text{P})=2.313\times 10^{-5}$ 32; $\alpha(\text{Q})=1.852\times 10^{-6}$ 26
		1014.1 [‡]	≈ 69 [‡]	45.2431	2^+				
1070.0	(4^-)	920.5 [‡]	100 [‡]	149.480	4^+				
1085.4	12^+	303.0 [@] 5	100 [@]	782.4	10^+	E2 ^b		0.1826 27	$\alpha(\text{K})=0.0736$ 11; $\alpha(\text{L})=0.0798$ 12; $\alpha(\text{M})=0.02163$ 33; $\alpha(\text{N})=0.00587$ 9; $\alpha(\text{O})=0.001364$ 21 $\alpha(\text{P})=0.000233$ 4; $\alpha(\text{Q})=4.44\times 10^{-6}$ 6 $B(\text{E}2)(\text{W.u.})=4.1\times 10^2$ 7
1110.66	(2^-)	366.6 [†] 1	82 [†] 9	744.18	3^-				
		423.1 [†] 1	100 [†] 5	687.56	1^-				
		1065.0 [†] 2	34 [†] 4	45.2431	2^+				
1127.38	(5^+)	977.9 [‡] 2	100 [‡]	149.480	4^+				
1149.4	(3^-)	405.2 [‡]	100 [‡]	744.18	3^-				
1198.6	9^-	198.8 ^a 3	100 ^a	999.8	7^-	E2 ^b		0.764 12	$\alpha(\text{K})=0.1561$ 22; $\alpha(\text{L})=0.444$ 7; $\alpha(\text{M})=0.1222$ 19; $\alpha(\text{N})=0.0332$ 5; $\alpha(\text{O})=0.00766$ 12 $\alpha(\text{P})=0.001281$ 20; $\alpha(\text{Q})=1.273\times 10^{-5}$ 19
1271.10	($1^-, 2, 3$)	526.7 [†] 2	39 [†] 4	744.18	3^-				
		1225.9 [†] 1	100 [†] 8	45.2431	2^+				
1426.4	14^+	341.0 [@] 5	100 [@]	1085.4	12^+	E2 ^b		0.1285 19	$\alpha(\text{K})=0.0589$ 8; $\alpha(\text{L})=0.0511$ 8; $\alpha(\text{M})=0.01375$ 21; $\alpha(\text{N})=0.00373$ 6; $\alpha(\text{O})=0.000869$ 13 $\alpha(\text{P})=0.0001497$ 22; $\alpha(\text{Q})=3.38\times 10^{-6}$ 5 $B(\text{E}2)(\text{W.u.})=4.5\times 10^2$ 5
1443.6	11^-	245.0 ^a 5	100 ^a	1198.6	9^-	E2 ^b		0.363 6	$\alpha(\text{K})=0.1091$ 16; $\alpha(\text{L})=0.1855$ 30; $\alpha(\text{M})=0.0507$ 8;

Adopted Levels, Gammas (continued)

$\gamma(^{236}\text{U})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α	Comments
$\alpha(\text{N})=0.01377\ 23$; $\alpha(\text{O})=0.00319\ 5$ $\alpha(\text{P})=0.000538\ 9$; $\alpha(\text{Q})=7.42\times 10^{-6}\ 11$								
1580?	(1,2)	1580 ^{&h} 11	&	0.0	0 ⁺			
1604.80	(1 ⁻ ,2 ⁺)	333.7 [†] 1	37 [†] 2	1271.10	(1 ⁻ ,2,3)			
		617.1 [†] 2	9.5 [†] 20	987.66	2 ⁻			
		860.6 [†] 1	35 [†] 1	744.18	3 ⁻			
		917.0 [†] 3	62 [†] 4	687.56	1 ⁻			
		1559.6 [†] 1	100 [†] 9	45.2431	2 ⁺			
		1604.9 [†] 2	18 [†] 5	0.0	0 ⁺			
1662.36	(1,2 ⁺)	674.5 [†] 2	23 [†] 8	987.66	2 ⁻			
		975.0 [†] 2	21 [†] 5	687.56	1 ⁻			
		1617.1 [†] 1	100 [†] 9	45.2431	2 ⁺			
		1662.4 [†] 2	66 [†] 7	0.0	0 ⁺			
1732.6	13 ⁻	289 [@] 1	100 [@]	1443.6	11 ⁻	E2 ^b	0.211 4	$\alpha(\text{K})=0.0805\ 12$; $\alpha(\text{L})=0.0959\ 19$; $\alpha(\text{M})=0.0260\ 5$; $\alpha(\text{N})=0.00706\ 14$; $\alpha(\text{O})=0.001641\ 32$ $\alpha(\text{P})=0.000280\ 5$; $\alpha(\text{Q})=4.97\times 10^{-6}\ 8$
1791.3	1 ⁽⁺⁾	1746.1 [#] 10	38 [#] 8	45.2431	2 ⁺	(M1) ^d	0.00926 13	$\alpha(\text{K})=0.00717\ 10$; $\alpha(\text{L})=0.001332\ 19$; $\alpha(\text{M})=0.000320\ 5$; $\alpha(\text{N})=8.61\times 10^{-5}\ 12$
		1791.3 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00870 12	$\alpha(\text{O})=2.096\times 10^{-5}\ 30$; $\alpha(\text{P})=4.05\times 10^{-6}\ 6$; $\alpha(\text{Q})=3.27\times 10^{-7}\ 5$ $\alpha(\text{K})=0.00669\ 9$; $\alpha(\text{L})=0.001243\ 18$; $\alpha(\text{M})=0.000299\ 4$; $\alpha(\text{N})=8.04\times 10^{-5}\ 11$
1801.0	16 ⁺	374.6 [@] 5	100 [@]	1426.4	14 ⁺	E2 ^b	0.0987 14	$\alpha(\text{O})=1.957\times 10^{-5}\ 28$; $\alpha(\text{P})=3.78\times 10^{-6}\ 5$; $\alpha(\text{Q})=3.05\times 10^{-7}\ 4$ $\alpha(\text{K})=0.0493\ 7$; $\alpha(\text{L})=0.0363\ 5$; $\alpha(\text{M})=0.00971\ 14$; $\alpha(\text{N})=0.00263\ 4$; $\alpha(\text{O})=0.000614\ 9$ $\alpha(\text{P})=0.0001066\ 16$; $\alpha(\text{Q})=2.74\times 10^{-6}\ 4$ B(E2)(W.u.)= $3.8\times 10^2\ 4$
1807.88	(1,2 ⁺)	1762.7 [†] 1	100 [†] 5	45.2431	2 ⁺			
		1807.8 [†] 1	37 [†] 2	0.0	0 ⁺			
1865.39	(1,2 ⁺)	1177.7 [†] 2	100 [†] 14	687.56	1 ⁻			
		1865.5 [†] 2	67 [†] 8	0.0	0 ⁺			
1972.62	(1,2 ⁺)	1927.0 [†] 2	100 [†] 7	45.2431	2 ⁺			
		1972.7 [†] 1	100 [†] 9	0.0	0 ⁺			
1979.15	(1 ⁻ ,2)	1234.9 [†] 1	100 [†] 8	744.18	3 ⁻			
		1291.6 [†] 1	100 [†] 8	687.56	1 ⁻			
		1934.1 [†] 2	98 [†] 8	45.2431	2 ⁺			
1981.04	(1,2 ⁺)	870.4 [†] 2	100 [†] 9	1110.66	(2 ⁻)			

Adopted Levels, Gammas (continued)

$\gamma(^{236}\text{U})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α	Comments
1981.04	(1,2 ⁺)	1023.1 [†] 3	84 [†] 8	957.90	2 ⁺			
		1981.0 [†] 3	74 [†] 7	0.0	0 ⁺			
2054.2	1 ⁽⁺⁾	2009.0 [#] 10	75 [#] 14	45.2431	2 ⁺	(M1) ^d	0.00668 9	$\alpha(\text{K})=0.00492$ 7; $\alpha(\text{L})=0.000913$ 13; $\alpha(\text{M})=0.0002193$ 31; $\alpha(\text{N})=5.90\times 10^{-5}$ 8 $\alpha(\text{O})=1.436\times 10^{-5}$ 20; $\alpha(\text{P})=2.77\times 10^{-6}$ 4; $\alpha(\text{Q})=2.243\times 10^{-7}$ 32
		2054.2 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00637 9	$\alpha(\text{K})=0.00463$ 7; $\alpha(\text{L})=0.000859$ 12; $\alpha(\text{M})=0.0002065$ 29; $\alpha(\text{N})=5.56\times 10^{-5}$ 8 $\alpha(\text{O})=1.352\times 10^{-5}$ 19; $\alpha(\text{P})=2.61\times 10^{-6}$ 4; $\alpha(\text{Q})=2.113\times 10^{-7}$ 30
2060.6	15 ⁻	328 [@] 1	100 [@]	1732.6	13 ⁻	E2 ^e	0.1439 24	$\alpha(\text{K})=0.0634$ 10; $\alpha(\text{L})=0.0591$ 11; $\alpha(\text{M})=0.01593$ 29; $\alpha(\text{N})=0.00432$ 8; $\alpha(\text{O})=0.001006$ 18 $\alpha(\text{P})=0.0001729$ 31; $\alpha(\text{Q})=3.70\times 10^{-6}$ 6
2086.54	1 ⁽⁻⁾	2041.3 [†] 1	100 [†] 5	45.2431	2 ⁺	(E1) ^d	1.66 $\times 10^{-3}$ 2	$\alpha(\text{K})=0.000929$ 13; $\alpha(\text{L})=0.0001512$ 21; $\alpha(\text{M})=3.57\times 10^{-5}$ 5; $\alpha(\text{N})=9.57\times 10^{-6}$ 13 $\alpha(\text{O})=2.325\times 10^{-6}$ 33; $\alpha(\text{P})=4.48\times 10^{-7}$ 6; $\alpha(\text{Q})=3.64\times 10^{-8}$ 5
		2086.5 [†] 2	56 [†] 5	0.0	0 ⁺	(E1) ^d	1.65 $\times 10^{-3}$ 2	$\alpha(\text{K})=0.000896$ 13; $\alpha(\text{L})=0.0001458$ 20; $\alpha(\text{M})=3.44\times 10^{-5}$ 5; $\alpha(\text{N})=9.22\times 10^{-6}$ 13 $\alpha(\text{O})=2.242\times 10^{-6}$ 31; $\alpha(\text{P})=4.32\times 10^{-7}$ 6; $\alpha(\text{Q})=3.52\times 10^{-8}$ 5
2095.7	1 ⁽⁺⁾	2050.5 [#] 10	47 [#] 15	45.2431	2 ⁺	(M1) ^d	0.00639 9	$\alpha(\text{K})=0.00466$ 7; $\alpha(\text{L})=0.000864$ 12; $\alpha(\text{M})=0.0002075$ 29; $\alpha(\text{N})=5.58\times 10^{-5}$ 8 $\alpha(\text{O})=1.359\times 10^{-5}$ 19; $\alpha(\text{P})=2.63\times 10^{-6}$ 4; $\alpha(\text{Q})=2.123\times 10^{-7}$ 30
		2095.7 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00610 9	$\alpha(\text{K})=0.00439$ 6; $\alpha(\text{L})=0.000814$ 11; $\alpha(\text{M})=0.0001956$ 27; $\alpha(\text{N})=5.26\times 10^{-5}$ 7 $\alpha(\text{O})=1.281\times 10^{-5}$ 18; $\alpha(\text{P})=2.475\times 10^{-6}$ 35; $\alpha(\text{Q})=2.002\times 10^{-7}$ 28
2155.40	(0,1,2)	550.6 [†] 1	100 [†]	1604.80	(1 ⁻ ,2 ⁺)			
2188.8	1 ⁽⁺⁾	2143.6 [#] 10	49 [#] 3	45.2431	2 ⁺	(M1) ^d	0.00582 8	$\alpha(\text{K})=0.00413$ 6; $\alpha(\text{L})=0.000766$ 11; $\alpha(\text{M})=0.0001840$ 26; $\alpha(\text{N})=4.95\times 10^{-5}$ 7 $\alpha(\text{O})=1.205\times 10^{-5}$ 17; $\alpha(\text{P})=2.328\times 10^{-6}$ 33; $\alpha(\text{Q})=1.884\times 10^{-7}$ 26
		2188.8 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00558 8	$\alpha(\text{K})=0.00391$ 5; $\alpha(\text{L})=0.000724$ 10; $\alpha(\text{M})=0.0001738$ 24; $\alpha(\text{N})=4.68\times 10^{-5}$ 7 $\alpha(\text{O})=1.139\times 10^{-5}$ 16; $\alpha(\text{P})=2.200\times 10^{-6}$ 31; $\alpha(\text{Q})=1.781\times 10^{-7}$ 25
2190	(1,2 ⁺)	2190 ^{&} 30	100 ^{&}	0.0	0 ⁺			
2204.0	18 ⁺	403.0 [@] 5	100 [@]	1801.0	16 ⁺	E2 ^e	0.0811 12	$\alpha(\text{K})=0.0430$ 6; $\alpha(\text{L})=0.0280$ 4; $\alpha(\text{M})=0.00746$ 11; $\alpha(\text{N})=0.002021$ 30; $\alpha(\text{O})=0.000473$ 7 $\alpha(\text{P})=8.25\times 10^{-5}$ 12; $\alpha(\text{Q})=2.330\times 10^{-6}$ 33 B(E2)(W.u.)=4.9 $\times 10^2$ 5
2226.9?	(0,1,2)	2181.6 [†] 3	100 [†]	45.2431	2 ⁺			
2243.9	1	2243.9 [#] 10	100 [#]	0.0	0 ⁺			
2251.1	1 ⁽⁺⁾	2205.9 [#] 10	100 [#]	45.2431	2 ⁺			

Adopted Levels, Gammas (continued)

$\gamma(^{236}\text{U})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α	Comments	
2251.1	1 ⁽⁺⁾	2251.1 [#] 10	96 [#] 13	0.0	0 ⁺				
2284.7	1 ⁽⁺⁾	2239.5 [#] 10	51 [#] 7	45.2431	2 ⁺	(M1) ^d	0.00533 7	$\alpha(\text{K})=0.00367$ 5; $\alpha(\text{L})=0.000680$ 10; $\alpha(\text{M})=0.0001634$ 23; $\alpha(\text{N})=4.40\times 10^{-5}$ 6 $\alpha(\text{O})=1.070\times 10^{-5}$ 15; $\alpha(\text{P})=2.068\times 10^{-6}$ 29; $\alpha(\text{Q})=1.674\times 10^{-7}$ 24	
		2284.7 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00512 7	$\alpha(\text{K})=0.00348$ 5; $\alpha(\text{L})=0.000644$ 9; $\alpha(\text{M})=0.0001547$ 22; $\alpha(\text{N})=4.17\times 10^{-5}$ 6 $\alpha(\text{O})=1.014\times 10^{-5}$ 14; $\alpha(\text{P})=1.959\times 10^{-6}$ 28; $\alpha(\text{Q})=1.586\times 10^{-7}$ 22	
2426.6	17 ⁻	366 [@] 1	100 [@]	2060.6	15 ⁻	E2 ^e	0.1052 17	$\alpha(\text{K})=0.0515$ 8; $\alpha(\text{L})=0.0394$ 7; $\alpha(\text{M})=0.01057$ 18; $\alpha(\text{N})=0.00286$ 5; $\alpha(\text{O})=0.000669$ 12 $\alpha(\text{P})=0.0001158$ 20; $\alpha(\text{Q})=2.88\times 10^{-6}$ 4	
2435.6	1 ⁽⁺⁾	2390.4 [#] 10	34 [#] 7	45.2431	2 ⁺	(M1) ^d	0.00471 7	$\alpha(\text{K})=0.00308$ 4; $\alpha(\text{L})=0.000570$ 8; $\alpha(\text{M})=0.0001368$ 19; $\alpha(\text{N})=3.68\times 10^{-5}$ 5; $\alpha(\text{O})=8.96\times 10^{-6}$ 13 $\alpha(\text{P})=1.732\times 10^{-6}$ 24; $\alpha(\text{Q})=1.404\times 10^{-7}$ 20	
		2435.6 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00456 6	$\alpha(\text{K})=0.00292$ 4; $\alpha(\text{L})=0.000541$ 8; $\alpha(\text{M})=0.0001300$ 18; $\alpha(\text{N})=3.50\times 10^{-5}$ 5; $\alpha(\text{O})=8.52\times 10^{-6}$ 12 $\alpha(\text{P})=1.646\times 10^{-6}$ 23; $\alpha(\text{Q})=1.334\times 10^{-7}$ 19	
2440.2	1 ⁽⁺⁾	2395.0 [#] 10	26 [#] 7	45.2431	2 ⁺	(M1) ^d	0.00470 7	$\alpha(\text{K})=0.00306$ 4; $\alpha(\text{L})=0.000567$ 8; $\alpha(\text{M})=0.0001361$ 19; $\alpha(\text{N})=3.66\times 10^{-5}$ 5; $\alpha(\text{O})=8.92\times 10^{-6}$ 13 $\alpha(\text{P})=1.723\times 10^{-6}$ 24; $\alpha(\text{Q})=1.396\times 10^{-7}$ 20	
		2440.2 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00455 6	$\alpha(\text{K})=0.00291$ 4; $\alpha(\text{L})=0.000539$ 8; $\alpha(\text{M})=0.0001293$ 18; $\alpha(\text{N})=3.48\times 10^{-5}$ 5; $\alpha(\text{O})=8.47\times 10^{-6}$ 12 $\alpha(\text{P})=1.637\times 10^{-6}$ 23; $\alpha(\text{Q})=1.328\times 10^{-7}$ 19	
2457.3	1 ⁽⁺⁾	2412.1 [#] 10	50 [#] 9	45.2431	2 ⁺	(M1) ^d	0.00464 7	$\alpha(\text{K})=0.00300$ 4; $\alpha(\text{L})=0.000556$ 8; $\alpha(\text{M})=0.0001335$ 19; $\alpha(\text{N})=3.59\times 10^{-5}$ 5; $\alpha(\text{O})=8.75\times 10^{-6}$ 12 $\alpha(\text{P})=1.690\times 10^{-6}$ 24; $\alpha(\text{Q})=1.370\times 10^{-7}$ 19	
		2457.3 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00449 6	$\alpha(\text{K})=0.00285$ 4; $\alpha(\text{L})=0.000528$ 7; $\alpha(\text{M})=0.0001269$ 18; $\alpha(\text{N})=3.42\times 10^{-5}$ 5; $\alpha(\text{O})=8.31\times 10^{-6}$ 12 $\alpha(\text{P})=1.607\times 10^{-6}$ 23; $\alpha(\text{Q})=1.303\times 10^{-7}$ 18	
2494.5	1 ⁽⁺⁾	2449.3 [#] 10	29 [#] 8	45.2431	2 ⁺	(M1) ^d	0.00452 6	$\alpha(\text{K})=0.00288$ 4; $\alpha(\text{L})=0.000533$ 7; $\alpha(\text{M})=0.0001280$ 18; $\alpha(\text{N})=3.45\times 10^{-5}$ 5; $\alpha(\text{O})=8.39\times 10^{-6}$ 12 $\alpha(\text{P})=1.621\times 10^{-6}$ 23; $\alpha(\text{Q})=1.314\times 10^{-7}$ 18	
		2494.5 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00438 6	$\alpha(\text{K})=0.00274$ 4; $\alpha(\text{L})=0.000507$ 7; $\alpha(\text{M})=0.0001218$ 17; $\alpha(\text{N})=3.28\times 10^{-5}$ 5; $\alpha(\text{O})=7.98\times 10^{-6}$ 11 $\alpha(\text{P})=1.542\times 10^{-6}$ 22; $\alpha(\text{Q})=1.251\times 10^{-7}$ 18	
2498.5	1 ⁽⁺⁾	2453.3 [#] 10	66 [#] 12	45.2431	2 ⁺	(M1) ^d	0.00451 6	$\alpha(\text{K})=0.00287$ 4; $\alpha(\text{L})=0.000531$ 7; $\alpha(\text{M})=0.0001275$ 18; $\alpha(\text{N})=3.43\times 10^{-5}$ 5; $\alpha(\text{O})=8.35\times 10^{-6}$ 12 $\alpha(\text{P})=1.614\times 10^{-6}$ 23; $\alpha(\text{Q})=1.308\times 10^{-7}$ 18	
		2498.5 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00437 6	$\alpha(\text{K})=0.00273$ 4; $\alpha(\text{L})=0.000505$ 7; $\alpha(\text{M})=0.0001213$ 17; $\alpha(\text{N})=3.26\times 10^{-5}$ 5; $\alpha(\text{O})=7.95\times 10^{-6}$ 11 $\alpha(\text{P})=1.535\times 10^{-6}$ 22; $\alpha(\text{Q})=1.245\times 10^{-7}$ 17	

Adopted Levels, Gammas (continued)

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	$\gamma(^{236}\text{U})$ (continued)	
							α	Comments
2631.8	20 ⁺	427.8 [@] 5	100 [@]	2204.0	18 ⁺	E2 ^e	0.0694 10	$\alpha(\text{K})=0.0385$ 5; $\alpha(\text{L})=0.02281$ 33; $\alpha(\text{M})=0.00605$ 9; $\alpha(\text{N})=0.001638$ 24; $\alpha(\text{O})=0.000384$ 6 $\alpha(\text{P})=6.73\times 10^{-5}$ 10; $\alpha(\text{Q})=2.047\times 10^{-6}$ 29 B(E2)(W.u.)= 5.1×10^2 8
2699.0	1 ⁽⁺⁾	2653.8 [#] 10	62 [#] 10	45.2431	2 ⁺	(M1) ^d	0.00398 6	$\alpha(\text{K})=0.002315$ 32; $\alpha(\text{L})=0.000428$ 6; $\alpha(\text{M})=0.0001028$ 14; $\alpha(\text{N})=2.77\times 10^{-5}$ 4 $\alpha(\text{O})=6.74\times 10^{-6}$ 9; $\alpha(\text{P})=1.302\times 10^{-6}$ 18; $\alpha(\text{Q})=1.057\times 10^{-7}$ 15
		2699.0 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00388 5	$\alpha(\text{K})=0.002210$ 31; $\alpha(\text{L})=0.000409$ 6; $\alpha(\text{M})=9.82\times 10^{-5}$ 14; $\alpha(\text{N})=2.64\times 10^{-5}$ 4; $\alpha(\text{O})=6.43\times 10^{-6}$ 9 $\alpha(\text{P})=1.243\times 10^{-6}$ 17; $\alpha(\text{Q})=1.009\times 10^{-7}$ 14
2712.1	1 ⁽⁻⁾	2666.9 [#] 10	100 [#] 12	45.2431	2 ⁺	(E1)	1.67×10^{-3} 2	$\alpha(\text{K})=0.000603$ 8; $\alpha(\text{L})=9.74\times 10^{-5}$ 14; $\alpha(\text{M})=2.296\times 10^{-5}$ 32; $\alpha(\text{N})=6.15\times 10^{-6}$ 9 $\alpha(\text{O})=1.497\times 10^{-6}$ 21; $\alpha(\text{P})=2.89\times 10^{-7}$ 4; $\alpha(\text{Q})=2.378\times 10^{-8}$ 33
		2712.1 [#] 10	44 [#] 8	0.0	0 ⁺	(E1)	1.68×10^{-3} 2	$\alpha(\text{K})=0.000587$ 8; $\alpha(\text{L})=9.47\times 10^{-5}$ 13; $\alpha(\text{M})=2.234\times 10^{-5}$ 31; $\alpha(\text{N})=5.99\times 10^{-6}$ 8 $\alpha(\text{O})=1.456\times 10^{-6}$ 20; $\alpha(\text{P})=2.81\times 10^{-7}$ 4; $\alpha(\text{Q})=2.315\times 10^{-8}$ 32
2750	(0 ⁺)	560 ^{&} 10	12 ^{&}	2190	(1,2 ⁺)	(E1) ^g	0.0108 4	$\alpha(\text{K})=0.00875$ 33; $\alpha(\text{L})=0.00156$ 6; $\alpha(\text{M})=0.000372$ 15; $\alpha(\text{N})=0.000100$ 4; $\alpha(\text{O})=2.40\times 10^{-5}$ 10 $\alpha(\text{P})=4.52\times 10^{-6}$ 18; $\alpha(\text{Q})=3.24\times 10^{-7}$ 12 B(E1)(W.u.)= 5.6×10^{-10} 4
		1170 ^{&} 10	20 ^{&}	1580?	(1,2)	(E1) ^g	0.00286 6	$\alpha(\text{K})=0.00234$ 5; $\alpha(\text{L})=0.000390$ 8; $\alpha(\text{M})=9.25\times 10^{-5}$ 19; $\alpha(\text{N})=2.48\times 10^{-5}$ 5; $\alpha(\text{O})=6.00\times 10^{-6}$ 12 $\alpha(\text{P})=1.149\times 10^{-6}$ 24; $\alpha(\text{Q})=9.00\times 10^{-8}$ 18 B(E1)(W.u.)= 1.02×10^{-10} 5
		1783 ^{&} 10	100 ^{&}	966.58	(1 ⁻)	(E1)	1.76×10^{-3} 3	$\alpha(\text{K})=0.001159$ 19; $\alpha(\text{L})=0.0001895$ 32; $\alpha(\text{M})=4.48\times 10^{-5}$ 8; $\alpha(\text{N})=1.200\times 10^{-5}$ 20 $\alpha(\text{O})=2.91\times 10^{-6}$ 5; $\alpha(\text{P})=5.60\times 10^{-7}$ 9; $\alpha(\text{Q})=4.53\times 10^{-8}$ 8 B(E1)(W.u.)= 1.45×10^{-10} 6
		2062 ^{&} 10	26 ^{&}	687.56	1 ⁻	(E1)	1.66×10^{-3} 2	$\alpha(\text{K})=0.000914$ 15; $\alpha(\text{L})=0.0001487$ 24; $\alpha(\text{M})=3.51\times 10^{-5}$ 6; $\alpha(\text{N})=9.41\times 10^{-6}$ 15 $\alpha(\text{O})=2.29\times 10^{-6}$ 4; $\alpha(\text{P})=4.40\times 10^{-7}$ 7; $\alpha(\text{Q})=3.58\times 10^{-8}$ 6 B(E1)(W.u.)= 2.43×10^{-11} 10
2756.2	1 ⁽⁺⁾	2711.0 [#] 10	55 [#] 16	45.2431	2 ⁺	(M1) ^d	0.00386 5	$\alpha(\text{K})=0.002184$ 31; $\alpha(\text{L})=0.000404$ 6; $\alpha(\text{M})=9.70\times 10^{-5}$ 14; $\alpha(\text{N})=2.61\times 10^{-5}$ 4; $\alpha(\text{O})=6.36\times 10^{-6}$ 9 $\alpha(\text{P})=1.228\times 10^{-6}$ 17; $\alpha(\text{Q})=9.97\times 10^{-8}$ 14
		2756.2 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00377 5	$\alpha(\text{K})=0.002087$ 29; $\alpha(\text{L})=0.000386$ 5; $\alpha(\text{M})=9.27\times 10^{-5}$ 13; $\alpha(\text{N})=2.496\times 10^{-5}$ 35 $\alpha(\text{O})=6.08\times 10^{-6}$ 9; $\alpha(\text{P})=1.174\times 10^{-6}$ 16; $\alpha(\text{Q})=9.53\times 10^{-8}$ 13
2770	(2 ⁺)	(20 ^{&} CA)	100 ^{&}	2750	(0 ⁺)	(E2) ^f	1.96×10^4	$\alpha(\text{L})=1.125\times 10^4$ 16; $\alpha(\text{M})=6.23\times 10^3$ 9; $\alpha(\text{N})=1686$ 24; $\alpha(\text{O})=385$

Adopted Levels, Gammas (continued)

$\gamma(^{236}\text{U})$ (continued)								
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α	Comments
								6; $\alpha(\text{P})=61.9$ 9; $\alpha(\text{Q})=0.1021$ 15 $\alpha(\text{N}+..)=2.13\times 10^3$ 3 E_γ : from level energy difference.
2817	(4 ⁺)	47.0 ^{&}	100 ^{&}	2770	(2 ⁺)	(E2) ^f	489 7	$\alpha(\text{L})=357$ 5; $\alpha(\text{M})=98.6$ 14; $\alpha(\text{N})=26.7$ 4; $\alpha(\text{O})=6.12$ 9; $\alpha(\text{P})=0.990$ 14; $\alpha(\text{Q})=0.002409$ 34
2823	(19 ⁻)	≈ 396 @	100 @	2426.6	17 ⁻	(E2) ^e	0.0849 12	$\alpha(\text{K})\approx 0.0444$; $\alpha(\text{L})\approx 0.0298$; $\alpha(\text{M})\approx 0.00794$; $\alpha(\text{N})\approx 0.002152$; $\alpha(\text{O})\approx 0.000503$
2823.3	1 ⁽⁺⁾	2778.1 [#] 10	97 [#] 26	45.2431	2 ⁺	(M1) ^d	0.00373 5	$\alpha(\text{P})\approx 8.77\times 10^{-5}$; $\alpha(\text{Q})\approx 2.422\times 10^{-6}$
		2823.3 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00365 5	$\alpha(\text{K})=0.002042$ 29; $\alpha(\text{L})=0.000378$ 5; $\alpha(\text{M})=9.07\times 10^{-5}$ 13; $\alpha(\text{N})=2.442\times 10^{-5}$ 34
								$\alpha(\text{O})=5.94\times 10^{-6}$ 8; $\alpha(\text{P})=1.149\times 10^{-6}$ 16; $\alpha(\text{Q})=9.33\times 10^{-8}$ 13
								$\alpha(\text{K})=0.001954$ 27; $\alpha(\text{L})=0.000361$ 5; $\alpha(\text{M})=8.68\times 10^{-5}$ 12; $\alpha(\text{N})=2.336\times 10^{-5}$ 33
2838.3	1 ⁽⁺⁾	2793.1 [#] 10	100 [#]	45.2431	2 ⁺	(M1) ^d	0.00370 5	$\alpha(\text{O})=5.69\times 10^{-6}$ 8; $\alpha(\text{P})=1.099\times 10^{-6}$ 15; $\alpha(\text{Q})=8.93\times 10^{-8}$ 13
								$\alpha(\text{K})=0.002013$ 28; $\alpha(\text{L})=0.000372$ 5; $\alpha(\text{M})=8.94\times 10^{-5}$ 13; $\alpha(\text{N})=2.406\times 10^{-5}$ 34
		2838.3 [#] 10	92 [#] 27	0.0	0 ⁺	(M1) ^d	0.00363 5	$\alpha(\text{O})=5.86\times 10^{-6}$ 8; $\alpha(\text{P})=1.132\times 10^{-6}$ 16; $\alpha(\text{Q})=9.19\times 10^{-8}$ 13
								$\alpha(\text{K})=0.001926$ 27; $\alpha(\text{L})=0.000356$ 5; $\alpha(\text{M})=8.55\times 10^{-5}$ 12; $\alpha(\text{N})=2.303\times 10^{-5}$ 32
2877.8	1 ⁽⁻⁾	2832.6 [#] 10	100 [#]	45.2431	2 ⁺	(E1) ^d	1.70×10^{-3} 2	$\alpha(\text{O})=5.61\times 10^{-6}$ 8; $\alpha(\text{P})=1.083\times 10^{-6}$ 15; $\alpha(\text{Q})=8.80\times 10^{-8}$ 12
								$\alpha(\text{K})=0.000547$ 8; $\alpha(\text{L})=8.83\times 10^{-5}$ 12; $\alpha(\text{M})=2.081\times 10^{-5}$ 29; $\alpha(\text{N})=5.58\times 10^{-6}$ 8
		2877.8 [#] 10	45 [#] 12	0.0	0 ⁺	(E1) ^d	1.71×10^{-3} 2	$\alpha(\text{O})=1.357\times 10^{-6}$ 19; $\alpha(\text{P})=2.62\times 10^{-7}$ 4; $\alpha(\text{Q})=2.161\times 10^{-8}$ 30
								$\alpha(\text{K})=0.000534$ 7; $\alpha(\text{L})=8.60\times 10^{-5}$ 12; $\alpha(\text{M})=2.028\times 10^{-5}$ 28; $\alpha(\text{N})=5.44\times 10^{-6}$ 8
2891	(6 ⁺)	73.9 ^{&}	100 ^{&}	2817	(4 ⁺)	(E2) ^f	55.5 8	$\alpha(\text{O})=1.322\times 10^{-6}$ 19; $\alpha(\text{P})=2.55\times 10^{-7}$ 4; $\alpha(\text{Q})=2.108\times 10^{-8}$ 30
								$\alpha(\text{L})=40.4$ 6; $\alpha(\text{M})=11.20$ 16; $\alpha(\text{N})=3.04$ 4; $\alpha(\text{O})=0.697$ 10; $\alpha(\text{P})=0.1135$ 16; $\alpha(\text{Q})=0.000352$ 5
2924.0	(1,2 ⁺)	2878.8 10	100	45.2431	2 ⁺			
		2924.0 10	60 17	0.0	0 ⁺			
2969.0	1 ⁽⁺⁾	2923.8 [#] 10	50 [#] 12	45.2431	2 ⁺	(M1) ^d	0.00350 5	$\alpha(\text{K})=0.001775$ 25; $\alpha(\text{L})=0.000328$ 5; $\alpha(\text{M})=7.88\times 10^{-5}$ 11; $\alpha(\text{N})=2.122\times 10^{-5}$ 30
								$\alpha(\text{O})=5.17\times 10^{-6}$ 7; $\alpha(\text{P})=9.98\times 10^{-7}$ 14; $\alpha(\text{Q})=8.11\times 10^{-8}$ 11
		2969.0 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00344 5	$\alpha(\text{K})=0.001702$ 24; $\alpha(\text{L})=0.000315$ 4; $\alpha(\text{M})=7.56\times 10^{-5}$ 11; $\alpha(\text{N})=2.035\times 10^{-5}$ 29
								$\alpha(\text{O})=4.95\times 10^{-6}$ 7; $\alpha(\text{P})=9.57\times 10^{-7}$ 13; $\alpha(\text{Q})=7.78\times 10^{-8}$ 11
2991	(8 ⁺)	100.8 ^{&}	&	2891	(6 ⁺)	(E2) ^f	12.84 18	$\alpha(\text{L})=9.35$ 13; $\alpha(\text{M})=2.59$ 4; $\alpha(\text{N})=0.705$ 10; $\alpha(\text{O})=0.1619$ 23; $\alpha(\text{P})=0.0265$ 4
								$\alpha(\text{Q})=0.0001062$ 15

Adopted Levels, Gammas (continued)

$\gamma(^{236}\text{U})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	α	Comments	
3081.0	22 ⁺	449.2 [@] 5	100 [@]	2631.8	20 ⁺	E2 ^e	0.0614 9	$\alpha(\text{K})=0.0351$ 5; $\alpha(\text{L})=0.01935$ 28; $\alpha(\text{M})=0.00511$ 7; $\alpha(\text{N})=0.001384$ 20; $\alpha(\text{O})=0.000325$ 5 $\alpha(\text{P})=5.72\times 10^{-5}$ 8; $\alpha(\text{Q})=1.844\times 10^{-6}$ 26 $\text{B}(\text{E}2)(\text{W.u.})=5.2\times 10^2$ 12	
3143.8	1 ⁽⁺⁾	3098.6 [#] 10	56 [#] 14	45.2431	2 ⁺	(M1) ^d	0.00330 5	$\alpha(\text{K})=0.001514$ 21; $\alpha(\text{L})=0.000280$ 4; $\alpha(\text{M})=6.72\times 10^{-5}$ 9; $\alpha(\text{N})=1.809\times 10^{-5}$ 25; $\alpha(\text{O})=4.40\times 10^{-6}$ 6 $\alpha(\text{P})=8.51\times 10^{-7}$ 12; $\alpha(\text{Q})=6.92\times 10^{-8}$ 10	
		3143.8 [#] 10	100 [#]	0.0	0 ⁺	(M1) ^d	0.00326 5	$\alpha(\text{K})=0.001454$ 20; $\alpha(\text{L})=0.000269$ 4; $\alpha(\text{M})=6.45\times 10^{-5}$ 9; $\alpha(\text{N})=1.738\times 10^{-5}$ 24; $\alpha(\text{O})=4.23\times 10^{-6}$ 6 $\alpha(\text{P})=8.18\times 10^{-7}$ 11; $\alpha(\text{Q})=6.65\times 10^{-8}$ 9 $E_\gamma, \text{Mult.}$: from $^{236}\text{U}(\text{d}, \text{pn}\gamma)$.	
3434	(0 ⁺)	684.5 7		2750	(0 ⁺)	(E0)			
3550.0	24 ⁺	469 [@] 1	100 [@]	3081.0	22 ⁺	E2 ^e	0.0552 8	$\alpha(\text{K})=0.0324$ 5; $\alpha(\text{L})=0.01678$ 26; $\alpha(\text{M})=0.00442$ 7; $\alpha(\text{N})=0.001196$ 19; $\alpha(\text{O})=0.000281$ 4 $\alpha(\text{P})=4.96\times 10^{-5}$ 8; $\alpha(\text{Q})=1.682\times 10^{-6}$ 25 $\text{B}(\text{E}2)(\text{W.u.})=6.7\times 10^2$ 13	
4039.0	26 ⁺	489 [@] 1	100 [@]	3550.0	24 ⁺	E2 ^e	0.0498 7	$\alpha(\text{K})=0.0300$ 4; $\alpha(\text{L})=0.01465$ 23; $\alpha(\text{M})=0.00385$ 6; $\alpha(\text{N})=0.001041$ 16; $\alpha(\text{O})=0.000245$ 4 $\alpha(\text{P})=4.34\times 10^{-5}$ 7; $\alpha(\text{Q})=1.541\times 10^{-6}$ 23 $\text{B}(\text{E}2)(\text{W.u.})=6.7\times 10^2$ 19	
4549.0	28 ⁺	510 [@] 1	100 [@]	4039.0	26 ⁺	E2 ^e	0.0451 7	$\alpha(\text{K})=0.0278$ 4; $\alpha(\text{L})=0.01281$ 20; $\alpha(\text{M})=0.00335$ 5; $\alpha(\text{N})=0.000907$ 14; $\alpha(\text{O})=0.0002137$ 33 $\alpha(\text{P})=3.80\times 10^{-5}$ 6; $\alpha(\text{Q})=1.411\times 10^{-6}$ 21 $\text{B}(\text{E}2)(\text{W.u.})=1.1\times 10^3$ 5	
5077	(30 ⁺)	≈ 528 [@]	100 [@]	4549.0	28 ⁺	(E2)	0.0416 6	$\alpha(\text{K})\approx 0.0261$; $\alpha(\text{L})\approx 0.01149$; $\alpha(\text{M})\approx 0.00300$; $\alpha(\text{N})\approx 0.000812$ $\alpha(\text{O})\approx 0.0001913$; $\alpha(\text{P})\approx 3.41\times 10^{-5}$; $\alpha(\text{Q})\approx 1.313\times 10^{-6}$ Mult.: from in-band transition of ground-state band in Coul. ex.	

[†] From ^{236}Pa β^- decay.

[‡] From $^{235}\text{U}(\text{n}, \gamma)$ E=thermal.

[#] From $^{236}\text{U}(\gamma, \gamma')$.

[@] From Coulomb excitation.

[&] From $^{235}\text{U}(\text{d}, \text{p}\gamma)$.

^a From $^{236}\text{U}(\text{d}, \text{pn}\gamma)$.

^b From conversion electron subshell ratios in $^{236}\text{U}(\text{d}, \text{pn}\gamma)$.

^c From conversion electron data in $^{235}\text{U}(\text{n}, \gamma)$ E=thermal.

^d From $\gamma'(\theta)$ and systematics of branching ratios to the first $J^\pi=2^+$ excited states in $^{236}\text{U}(\gamma, \gamma')$.

Adopted Levels, Gammas (continued)

$\gamma(^{236}\text{U})$ (continued)

- ^e From E2 matrix elements deduced in Coulomb excitation measurements.
^f From in-band transition of rotational band in the second well of the nuclear potential in $^{235}\text{U}(\text{d},\text{p}\gamma)$.
^g From $\gamma\gamma$ angular correlations in $^{235}\text{U}(\text{d},\text{p}\gamma)$.
^h Placement of transition in the level scheme is uncertain.

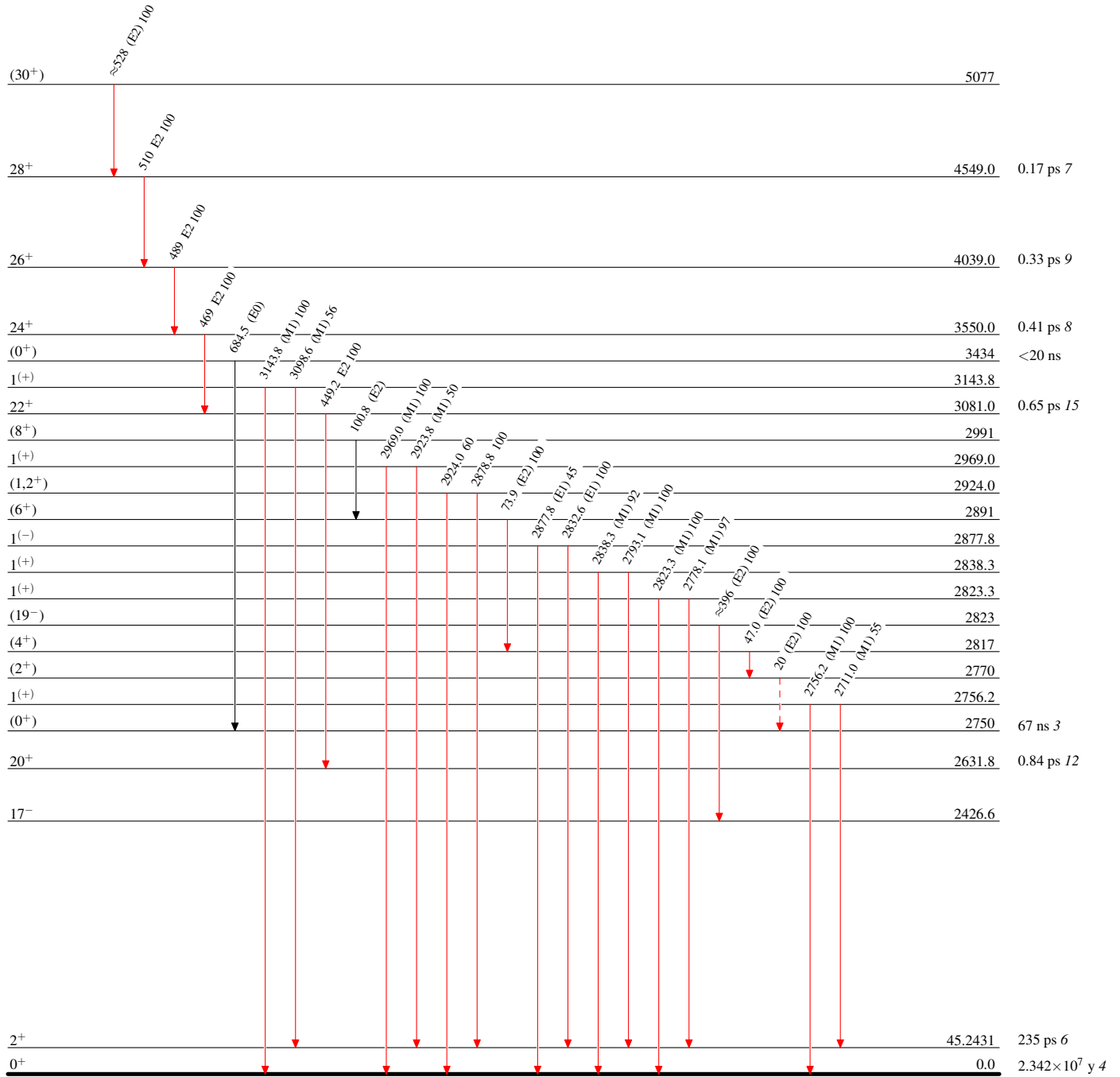
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Type not specified

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

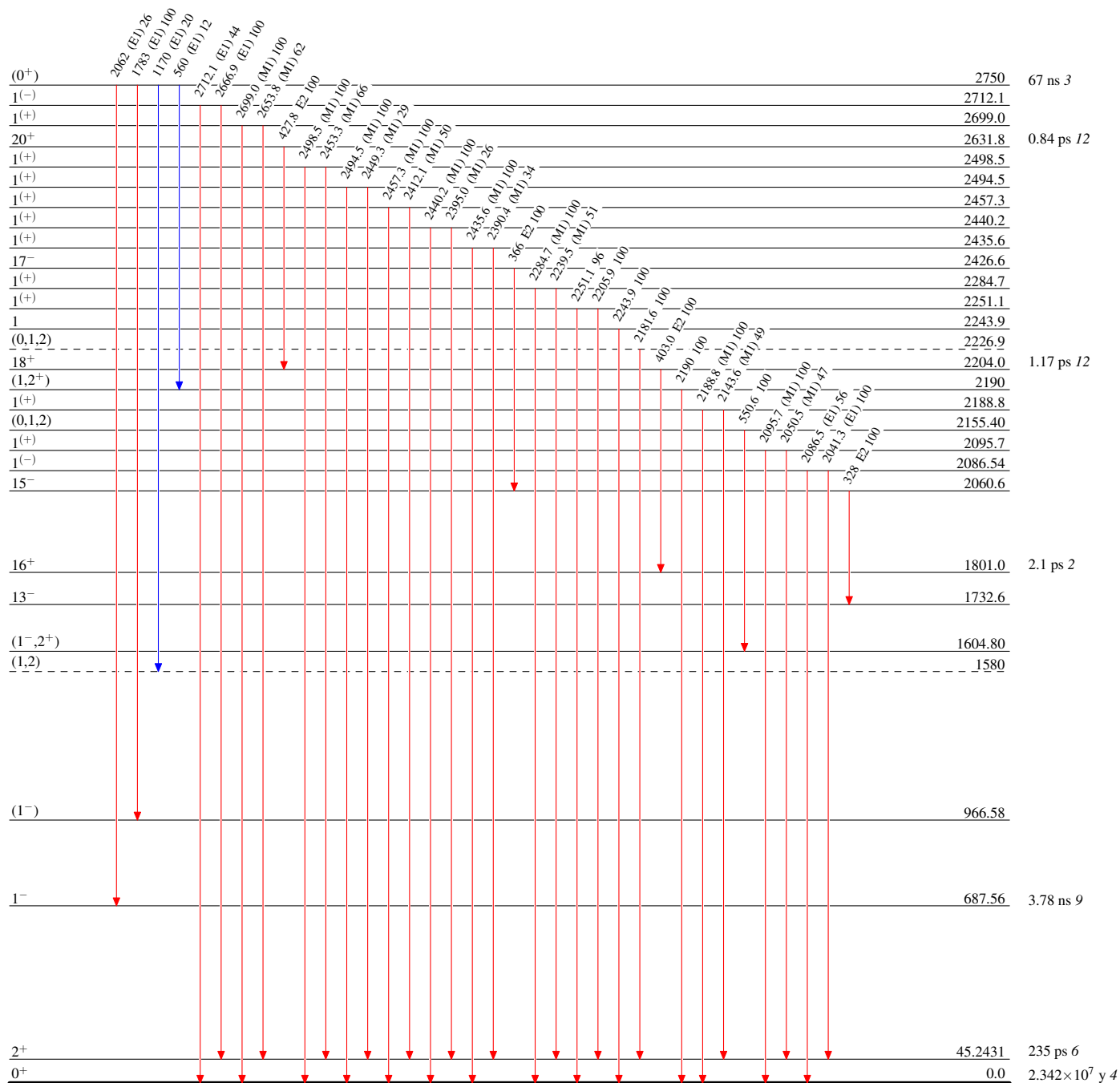
 $^{236}_{92}\text{U}_{144}$

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

Intensities: Type not specified

Legend

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

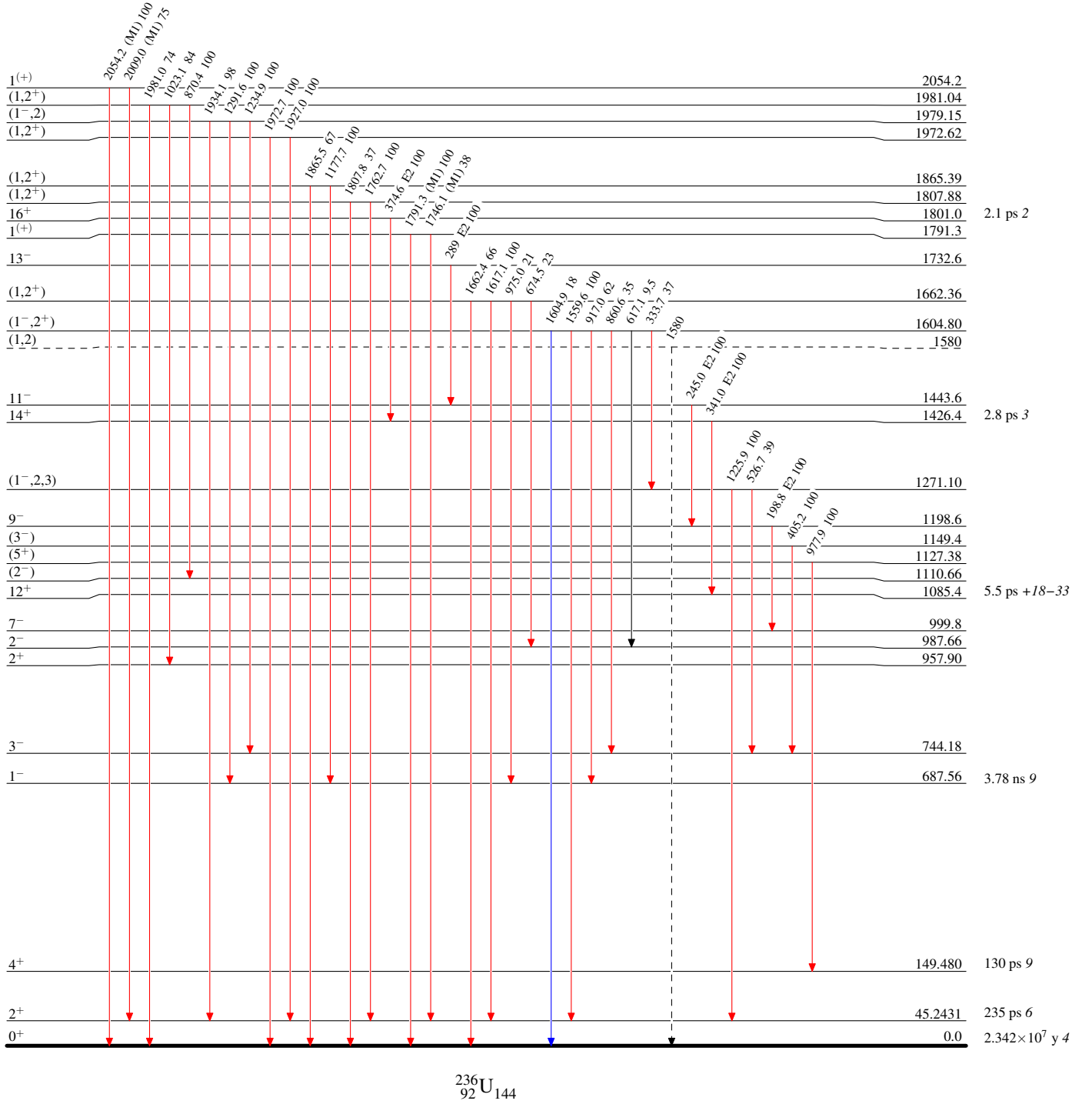


Adopted Levels, Gammas**Level Scheme (continued)**

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)



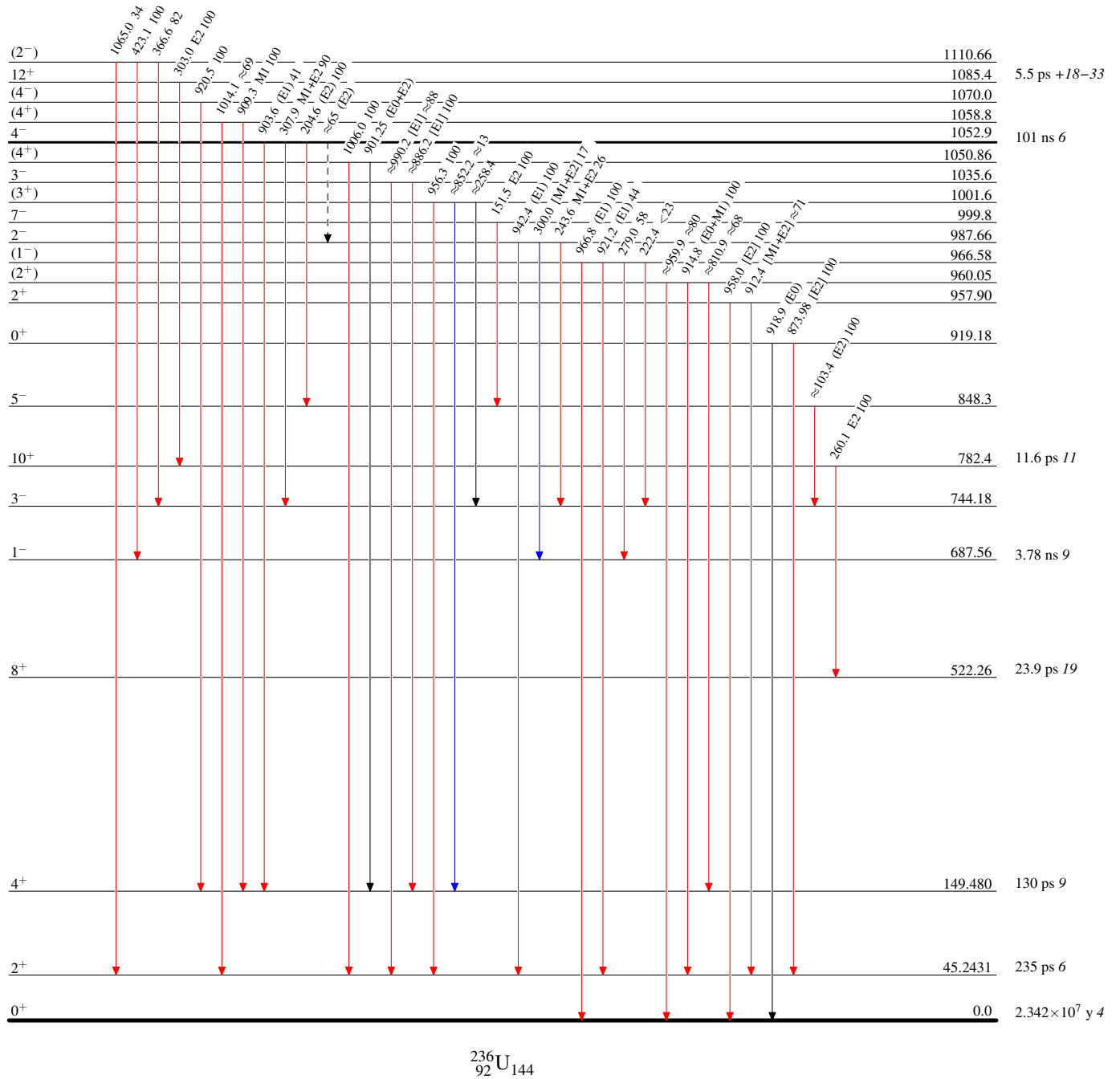
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

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



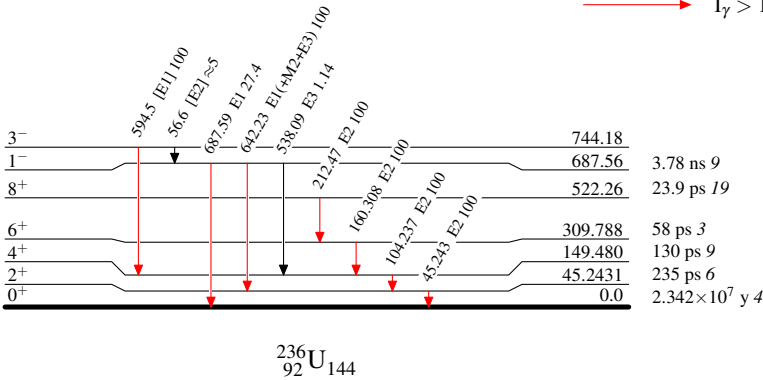
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

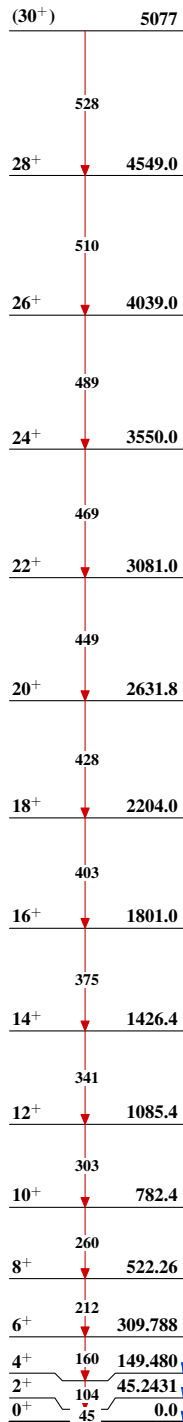
Legend

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

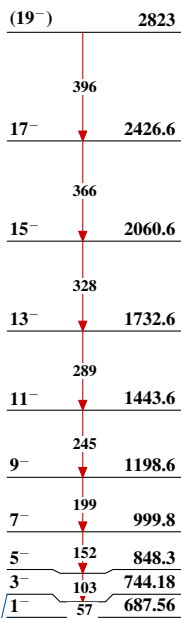


Adopted Levels, Gammas

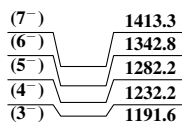
Band(A): $K^\pi=0^+$ g.s.
Rotational band



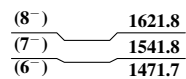
Band(B): $K^\pi=0^-$
Octupole vibrational band



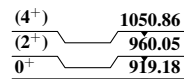
Band(C): $K^\pi=3^-$
Configuration= $((\nu 7/2(743))-(\nu 1/2(631)))$



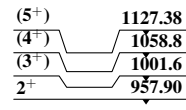
Band(D): $K^\pi=6^-$
Configuration= $((\nu 7/2(743))+(\nu 5/2(622)))$



Band(E): $K^\pi=0^+$



Band(F): $K^\pi=(2^+)$



Adopted Levels, Gammas (continued)

