

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov, A. A. Rodionov and S. Sakharov, Balraj Singh		NDS 104,497 (2005)	10-Feb-2005

$Q(\beta^-) = -9.80 \times 10^3$ syst; $S(n) = 1.173 \times 10^4$ 4; $S(p) = 4.41 \times 10^3$ 6; $Q(\alpha) = 1.68 \times 10^3$ 4 [2012Wa38](#)

Note: Current evaluation has used the following Q record -9710 syst 11730 40 4440 60 1680 40 [2003Au03](#).

$\Delta(Q(\beta^-)) = 200$ (syst, [2003Au03](#)).

$Q(\epsilon p) = 1000$ 40 ([2003Au03](#)).

Mass measurement: [2004LiZX](#), [2000Be42](#), [1997Be63](#).

Isotope shifts, mean-square charge radii, resonance-ionization spectroscopy: [1992Le09](#).

 ^{132}Nd LevelsCross Reference (XREF) Flags

A	^{132}Pm ϵ decay (6.3 s)	D	$^{104}\text{Pd}(^{32}\text{S}, 2p2n\gamma)$
B	$^{92}\text{Mo}(^{46}\text{Ti}, \alpha 2p\gamma)$	E	$^{105}\text{Pd}(^{35}\text{Cl}, \alpha p3n\gamma)$
C	$^{96}\text{Ru}(^{40}\text{Ca}, 4p\gamma)$		

E(level) [†]	J^π [‡]	$T_{1/2}$ [#]	XREF	Comments
0.0 [@]	0 ⁺	94 s 8	ABCDE	$\% \epsilon + \% \beta^+ = 100$ $\Delta \langle r^2 \rangle (^{132}\text{Nd} - ^{143}\text{Nd}) = -0.072 \text{ fm}^2$ 27 (1992Le09). $T_{1/2}$: weighted average of 105 s 10 (1977Bo02) and 88 s 7 (1995Bu11).
213.16 [@] 12	2 ⁺	133 ps 8	ABCDE	J^π : $\Delta J=2$, E2 γ to 0 ⁺ . $T_{1/2}$: from 1995Ma96 in $^{105}\text{Ag}(^{32}\text{S}, \alpha p2n\gamma)$ reaction. Others: 186 ps 13 (1989Mo10), 243 ps 21 (1987Wa02), 220 ps 20 (1986Ma39). 2001Ra27 adopt 166 ps 28.
610.85 [@] 23	4 ⁺	7.62 ps 28	ABCDE	J^π : $\Delta J=2$, E2 γ to 2 ⁺ . $T_{1/2}$: others: 7.6 ps 14 (1995Ma96), 12.1 ps 5 (1987Wa02), <28 ps (1989Mo10), <21 ps (1986Ma39).
823.54 ^c 21	(2 ⁺)		A	J^π : γ' s to 0 ⁺ and 2 ⁺ .
1021.6 ^{&} 5	4 ⁺		D	
1117.65 ^c 22	(3 ⁺)		A	J^π : γ to 2 ⁺ .
1132.81 [@] 24	6 ⁺	1.59 ps 14	BCDE	J^π : $\Delta J=2$, E2 γ to 4 ⁺ . $T_{1/2}$: other: 4.4 ps 4 (1987Wa02).
1388.0 ^c 4	(4 ⁺)		A	
1633.4 ^{&} 4	(6 ⁺)		B D	XREF: B(?).
1712.24 [@] 25	8 ⁺	1.04 ps 14	BCDE	J^π : $\Delta J=2$, E2 γ to 6 ⁺ . $T_{1/2}$: other: 3.7 ps 5 (1987Wa02).
1884.1 ^b 4	(5 ⁻)		B DE	
2179.1 ^{&} 5	(8 ⁺)		B D	XREF: B(?).
2225.6 ^b 3	(7 ⁻)		B DE	
2311.7 [@] 3	10 ⁺	<2 ps	BCDE	J^π : $\Delta J=2$, E2 γ to 10 ⁺ . $T_{1/2}$: from 1986Ma39 in $^{105}\text{Ag}(^{32}\text{S}, \alpha p2n\gamma)$ reaction.
2345.6 ^a 4	(6 ⁻)		B D	
2691.2 ^b 3	(9 ⁻)		BCDE	
2698.0 ^a 4	(8 ⁻)		B D	
2850.1 ^{&} 5	(10 ⁺)		D	
2948.0 [@] 3	(12 ⁺)		BCDE	
2961.1 ^d 4	(9 ⁻)		DE	
3109.6 ^a 4	(10 ⁻)		B D	

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Adopted Levels, Gammas (continued) ^{132}Nd Levels (continued)

E(level) [†]	J ^π [‡]	XREF	E(level) [†]	J ^π [‡]	XREF	E(level) [†]	J ^π [‡]	XREF
3256.2 ^b 5	(11 ⁻)	BCDE	7412.7 ^{&} 8	(22 ⁺)	B D	12091.2 ^d 16	(31 ⁻)	DE
3288.1 ^{&} 4	(12 ⁺)	B D	7435.2 ^f 7	(20,21)	D	12211.3 ^a 16	(30 ⁻)	D
3497.6 ^d 5	(11 ⁻)	DE	7487.3 ^a 12	(22 ⁻)	B D	12309.7 ^{&} 13	(30 ⁺)	D
3633.8 [@] 3	(14 ⁺)	BCDE	7847.2 ^e 6	(22 ⁺)	D	12581.8 ^f 12	(30,31)	D
3659.3 ^a 5	12 ⁻	B D	7876.5 ^g 7	(21,22)	D	12692.9 [@] 11	(32 ⁺)	B D
3848.3 ^{&} 4	(14 ⁺)	B D	8015.0 [@] 8	(24 ⁺)	B D	12882.8 ^e 11	(32 ⁺)	DE
3907.2 ^b 6	(13 ⁻)	B DE	8045.1 ^b 12	(23 ⁻)	B D	13195.7 ^g 13	(31,32)	D
4164.2 ^d 5	(13 ⁻)	DE	8080.2 ^d 12	(23 ⁻)	DE	13279.2 ^d 17	(33 ⁻)	DE
4304.3 ^a 6	(14 ⁻)	B D	8332.8 ^f 7	(22,23)	D	13811.8 ^f 13	(32,33)	D
4373.4 [@] 4	(16 ⁺)	BCDE	8526.3 ^a 13	(24 ⁻)	B D	14051.1 [@] 11	(34 ⁺)	D
4380.6 6	(16 ⁺)	D	8526.7 ^{&} 10	(24 ⁺)	B D	14093.6 ^e 11	(34 ⁺)	DE
4577.7 ^{&} 4	(16 ⁺)	B D	8723.6 ^e 7	24 ⁺	DE	14463.7 ^g 14	(33,34)	D
4620.1 ^b 7	(15 ⁻)	B DE	8805.6 ^g 7	(23,24)	D	14548.7 ^d 17	(35 ⁻)	DE
4906.2 ^d 7	(15 ⁻)	DE	8981.2 ^d 13	(25 ⁻)	DE	15110.8 ^f 14	(34,35)	D
4996.3 ^a 8	(16 ⁻)	B D	9077.2 [@] 9	(26 ⁺)	B D	15364.4 ^e 11	(36 ⁺)	DE
5185.2 [@] 5	(18 ⁺)	BCDE	9145.6 ^b 13	(25 ⁻)	B D	15507.1 [@] 12	(36 ⁺)	D
5368.1 ^b 8	(17 ⁻)	B DE	9290.8 ^f 8	(24,25)	D	15798.7 ^g 15	(35,36)	D
5431.2 ^{&} 6	(18 ⁺)	B D	9663.3 ^a 14	(26 ⁻)	B D	15905.3 ^d 18	(37 ⁻)	DE
5670.2 ^d 8	(17 ⁻)	DE	9667.4 ^e 8	(26 ⁺)	DE	16479.8 ^f 15	(36,37)	D
5733.3 ^a 9	(18 ⁻)	B D	9718.7 ^{&} 11	(26 ⁺)	D	16720.4 ^e 12	(38 ⁺)	D
6068.2 [@] 6	(20 ⁺)	B DE	9797.6 ^g 9	(25,26)	D	17041.1 [@] 13	(38 ⁺)	D
6161.7 ^e 6	(18 ⁺)	D	9947.7 ^d 14	(27 ⁻)	DE	17201.7 ^g 15	(37,38)	D
6165.1 ^b 10	(19 ⁻)	B DE	10207.4 [@] 10	(28 ⁺)	B D	17350.3 ^d 19	(39 ⁻)	DE
6221.4 ^g 6	(17,18)	D	10322.8 ^f 10	(26,27)	D	17922.8 ^f 16	(38,39)	D
6336.5 6	(18 ⁺)	D	10340.6 ^b 14	(27 ⁻)	D	18155.4 ^e 13	(40 ⁺)	D
6379.2 ^{&} 6	20 ⁺	B D	10675.7 ^e 9	(28 ⁺)	DE	18654.1 [@] 14	(40 ⁺)	D
6434.2 ^d 10	(19 ⁻)	DE	10862.6 ^g 10	(27,28)	D	18675.7 ^g 16	(39,40)	D
6556.3 ^a 11	(20 ⁻)	B D	10892.3 ^a 15	(28 ⁻)	D	18887.8 ^d 19	(41 ⁻)	DE
6587.2 ^f 8	(18,19)	D	10982.2 ^d 15	(29 ⁻)	DE	19440.8 ^f 17	(40,41)	D
6991.1 ^e 6	(20 ⁺)	DE	10982.7 ^{&} 12	(28 ⁺)	D	19674.4 ^e 14	(42 ⁺)	D
7012.8 [@] 6	(22 ⁺)	B DE	11410.7 [@] 11	(30 ⁺)	B D	20223.7 ^g 17	(41,42)	D
7015.3 ^g 6	(19,20)	D	11418.8 ^f 11	(28,29)	D	20354.2 [@] 15	(42 ⁺)	D
7052.6 ^b 11	(21 ⁻)	B DE	11598.6 ^b 15	(29 ⁻)	D	20521.8 ^d 20	(43 ⁻)	DE
7069.3 6	(20 ⁺)	D	11746.0 ^e 10	(30 ⁺)	DE	21043.9 ^f 17	(42,43)	D
7231.2 ^d 11	(21 ⁻)	DE	11995.6 ^g 12	(29,30)	D	21846.7 ^g 18	(43,44)	D

[†] From least-squares fit to $E\gamma$'s, assuming 0.5 keV uncertainty when not stated.

[‡] For high-spin ($J > 4$) states, the assignments are based on angular correlations (DCO's), band assignments and comparison with calculations. Most assignments are given in parentheses here since details of measurements of angular correlations are not available for a large number of transitions and other strong arguments are lacking.

Values for excited states are from recoil-distance method in in-beam γ -ray studies. Values from 1995Kr08 in $^{105}\text{Pd}(^{32}\text{S}, 2\text{p}3\text{n}\gamma)$ reaction are adopted, unless otherwise stated. 1995Kr08 use differential decay curve method to analyze lifetime data.

@ Band(A): g.s. band.

& Band(B): 4⁺ band.

^a Band(C): 6⁻ band.

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Adopted Levels, Gammas (continued) ^{132}Nd Levels (continued)^b Band(D): 5⁻ band.^c Band(E): Possible γ band.^d Band(F): Highly-deformed (or SD-1) band #1. Percent population=2.5. Configuration= $(\nu h_{11/2}, \alpha=+1/2) \otimes (\nu i_{13/2}, \alpha=+1/2)$
Q(transition)=4.2 2 (2001Ri20).^e Band(G): Highly-deformed (or SD-2) band #2. Percent population=3.0. Configuration= $\nu 1/2[411]^{-1} (\nu i_{13/2}, \alpha=+1/2)$.^f Band(H): Highly-deformed (or SD-3) band #3. Percent population=2.4. Configuration= $\nu 5/2[402] \nu i_{13/2}$. Highly-deformed bands #3 and #4 are signature partners.^g Band(h): Highly-deformed (or SD-4) band #4. Percent population=1.8. Configuration= $\nu 5/2[402] \nu i_{13/2}$. Highly-deformed bands #3 and #4 are signature partners. $\gamma(^{132}\text{Nd})$

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\ddagger$	E_f	J_f^π	Mult. [@]	$\alpha^\&$	Comments
213.16	2 ⁺	213.16 12	100	0.0	0 ⁺	E2	0.16 1	$\alpha(K)=0.1206$; $\alpha(L)=0.0315$; $\alpha(M)=0.00696$; $\alpha(N+..)=0.00188$ B(E2)(W.u.)=209 22
610.85	4 ⁺	397.7 2	100	213.16	2 ⁺	E2	0.0225	$\alpha(K)=0.01835$; $\alpha(L)=0.00329$; $\alpha(M)=0.00071$; $\alpha(N+..)=0.00019$ B(E2)(W.u.)=183 7
823.54	(2 ⁺)	610.4 3	100 14	213.16	2 ⁺			
		823.5 3	93 14	0.0	0 ⁺			
1021.6	4 ⁺	411		610.85	4 ⁺			
1117.65	(3 ⁺)	294.1 4	14 7	823.54	(2 ⁺)			
		904.5 2	100 14	213.16	2 ⁺			
1132.81	6 ⁺	521.94 5	100	610.85	4 ⁺	E2		B(E2)(W.u.)=230 21
1388.0	(4 ⁺)	564.5 3	100	823.54	(2 ⁺)			
1633.4	(6 ⁺)	501		1132.81	6 ⁺			
		612		1021.6	4 ⁺			
		1023		610.85	4 ⁺			
1712.24	8 ⁺	579.41 6	100	1132.81	6 ⁺	E2		B(E2)(W.u.)=210 30
1884.1	(5 ⁻)	751		1132.81	6 ⁺			
		1274		610.85	4 ⁺			
2179.1	(8 ⁺)	547		1633.4	(6 ⁺)			
		1045 ^a		1132.81	6 ⁺			
2225.6	(7 ⁻)	341.5	46 6	1884.1	(5 ⁻)	Q		
		513	89 3	1712.24	8 ⁺	D		
		592		1633.4	(6 ⁺)			
		1093.5	100 9	1132.81	6 ⁺	D		
2311.7	10 ⁺	599.38 7	100	1712.24	8 ⁺	E2		B(E2)(W.u.)>92
2345.6	(6 ⁻)	462		1884.1	(5 ⁻)			
		1213		1132.81	6 ⁺			
2691.2	(9 ⁻)	378 ^a		2311.7	10 ⁺			
		465.67 11	100 3	2225.6	(7 ⁻)	Q		
		979		1712.24	8 ⁺			
2698.0	(8 ⁻)	353	38 8	2345.6	(6 ⁻)			
		472		2225.6	(7 ⁻)			
		986	100 15	1712.24	8 ⁺	D		Mult.: $\Delta J=0$ transition.
2850.1	(10 ⁺)	671		2179.1	(8 ⁺)			
2948.0	(12 ⁺)	636.31 8	100	2311.7	10 ⁺	Q		
2961.1	(9 ⁻)	269.8		2691.2	(9 ⁻)			
		735.9		2225.6	(7 ⁻)			
		1249.2		1712.24	8 ⁺	D		
3109.6	(10 ⁻)	412	100 4	2698.0	(8 ⁻)	Q		
		418		2691.2	(9 ⁻)			
		798		2311.7	10 ⁺			

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Adopted Levels, Gammas (continued)

$\gamma(^{132}\text{Nd})$ (continued)						
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\ddagger$	E_f	J_f^π	Mult. @
3256.2	(11 ⁻)	564.9 4	100	2691.2	(9 ⁻)	Q
3288.1	(12 ⁺)	340		2948.0	(12 ⁺)	
		438		2850.1	(10 ⁺)	
		977		2311.7	10 ⁺	
3497.6	(11 ⁻)	241.5		3256.2	(11 ⁻)	
		537		2961.1	(9 ⁻)	
		805.8		2691.2	(9 ⁻)	
3633.8	(14 ⁺)	685.81 9	100	2948.0	(12 ⁺)	Q
3659.3	12 ⁻	403		3256.2	(11 ⁻)	
		550	100 6	3109.6	(10 ⁻)	Q
3848.3	(14 ⁺)	214		3633.8	(14 ⁺)	
		560.5		3288.1	(12 ⁺)	
		900.5		2948.0	(12 ⁺)	
3907.2	(13 ⁻)	651	100	3256.2	(11 ⁻)	Q
4164.2	(13 ⁻)	257		3907.2	(13 ⁻)	
		666.5		3497.6	(11 ⁻)	
		907.9		3256.2	(11 ⁻)	
4304.3	(14 ⁻)	397		3907.2	(13 ⁻)	
		645	100 6	3659.3	12 ⁻	Q
4373.4	(16 ⁺)	739.4 3	100	3633.8	(14 ⁺)	Q
4380.6	(16 ⁺)	747		3633.8	(14 ⁺)	
4577.7	(16 ⁺)	204		4373.4	(16 ⁺)	
		729.5		3848.3	(14 ⁺)	
		944		3633.8	(14 ⁺)	
4620.1	(15 ⁻)	713	100	3907.2	(13 ⁻)	Q
4906.2	(15 ⁻)	286.2		4620.1	(15 ⁻)	
		742		4164.2	(13 ⁻)	
4996.3	(16 ⁻)	692	100	4304.3	(14 ⁻)	
5185.2	(18 ⁺)	812	100	4373.4	(16 ⁺)	Q
5368.1	(17 ⁻)	748	100	4620.1	(15 ⁻)	
5431.2	(18 ⁺)	246		5185.2	(18 ⁺)	
		853.5		4577.7	(16 ⁺)	
5670.2	(17 ⁻)	764		4906.2	(15 ⁻)	
5733.3	(18 ⁻)	737		4996.3	(16 ⁻)	
6068.2	(20 ⁺)	883	100	5185.2	(18 ⁺)	Q
6161.7	(18 ⁺)	1788		4373.4	(16 ⁺)	
6165.1	(19 ⁻)	797	100	5368.1	(17 ⁻)	
6221.4	(17,18)	1848		4373.4	(16 ⁺)	
6336.5	(18 ⁺)	1956		4380.6	(16 ⁺)	
6379.2	20 ⁺	311		6068.2	(20 ⁺)	
		948		5431.2	(18 ⁺)	
6434.2	(19 ⁻)	764		5670.2	(17 ⁻)	
6556.3	(20 ⁻)	823	100	5733.3	(18 ⁻)	Q
6991.1	(20 ⁺)	829	0.36 [#] 15	6161.7	(18 ⁺)	
		1806		5185.2	(18 ⁺)	
7012.8	(22 ⁺)	944.5	100	6068.2	(20 ⁺)	Q
7015.3	(19,20)	794		6221.4	(17,18)	
		1830		5185.2	(18 ⁺)	
7052.6	(21 ⁻)	887.5		6165.1	(19 ⁻)	
7069.3	(20 ⁺)	733		6336.5	(18 ⁺)	
		1884		5185.2	(18 ⁺)	
7231.2	(21 ⁻)	797	1.00 [#] 14	6434.2	(19 ⁻)	
7412.7	(22 ⁺)	1033.5		6379.2	20 ⁺	
7435.2	(20,21)	420		7015.3	(19,20)	
		848		6587.2	(18,19)	

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Adopted Levels, Gammas (continued) $\gamma(^{132}\text{Nd})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\ddagger$	E_f	J_f^π	Mult. [@]
7487.3	(22 ⁻)	931	100	6556.3	(20 ⁻)	
7847.2	(22 ⁺)	778		7069.3	(20 ⁺)	
		856		6991.1	(20 ⁺)	
		1779		6068.2	(20 ⁺)	
7876.5	(21,22)	441 ^a		7435.2	(20,21)	
		861		7015.3	(19,20)	
8015.0	(24 ⁺)	1002	100	7012.8	(22 ⁺)	Q
8045.1	(23 ⁻)	992.5		7052.6	(21 ⁻)	
8080.2	(23 ⁻)	849	0.96 [#] 14	7231.2	(21 ⁻)	
8332.8	(22,23)	456 ^a		7876.5	(21,22)	
		898		7435.2	(20,21)	
		1320 ^a		7012.8	(22 ⁺)	
8526.3	(24 ⁻)	1039		7487.3	(22 ⁻)	
8526.7	(24 ⁺)	1114		7412.7	(22 ⁺)	
8723.6	24 ⁺	876.5	0.79 [#] 16	7847.2	(22 ⁺)	
		1711		7012.8	(22 ⁺)	
8805.6	(23,24)	473		8332.8	(22,23)	
		929		7876.5	(21,22)	
8981.2	(25 ⁻)	901	1.05 [#] 14	8080.2	(23 ⁻)	
9077.2	(26 ⁺)	1062	100	8015.0	(24 ⁺)	Q
9145.6	(25 ⁻)	1100.5		8045.1	(23 ⁻)	
9290.8	(24,25)	958		8332.8	(22,23)	
9663.3	(26 ⁻)	1137		8526.3	(24 ⁻)	
9667.4	(26 ⁺)	944	0.86 [#] 15	8723.6	24 ⁺	
9718.7	(26 ⁺)	1192		8526.7	(24 ⁺)	
9797.6	(25,26)	992		8805.6	(23,24)	
9947.7	(27 ⁻)	966.5	0.81 [#] 12	8981.2	(25 ⁻)	
10207.4	(28 ⁺)	1130	100	9077.2	(26 ⁺)	
10322.8	(26,27)	1032		9290.8	(24,25)	
10340.6	(27 ⁻)	1195		9145.6	(25 ⁻)	
10675.7	(28 ⁺)	1008.5	0.86 [#] 13	9667.4	(26 ⁺)	
10862.6	(27,28)	1065		9797.6	(25,26)	
10892.3	(28 ⁻)	1229		9663.3	(26 ⁻)	
10982.2	(29 ⁻)	1034.5	0.84 [#] 11	9947.7	(27 ⁻)	
10982.7	(28 ⁺)	1264		9718.7	(26 ⁺)	
11410.7	(30 ⁺)	1203	100	10207.4	(28 ⁺)	
11418.8	(28,29)	1096		10322.8	(26,27)	
11598.6	(29 ⁻)	1258		10340.6	(27 ⁻)	
11746.0	(30 ⁺)	1070.5	0.34 [#] 12	10675.7	(28 ⁺)	
11995.6	(29,30)	1133		10862.6	(27,28)	
12091.2	(31 ⁻)	1109	0.86 [#] 9	10982.2	(29 ⁻)	
12211.3	(30 ⁻)	1319		10892.3	(28 ⁻)	
12309.7	(30 ⁺)	1327		10982.7	(28 ⁺)	
12581.8	(30,31)	1163		11418.8	(28,29)	
12692.9	(32 ⁺)	1282		11410.7	(30 ⁺)	
12882.8	(32 ⁺)	1137	0.30 [#] 10	11746.0	(30 ⁺)	
13195.7	(31,32)	1200		11995.6	(29,30)	
13279.2	(33 ⁻)	1188	0.56 [#] 9	12091.2	(31 ⁻)	
13811.8	(32,33)	1230		12581.8	(30,31)	
14051.1	(34 ⁺)	1358		12692.9	(32 ⁺)	
14093.6	(34 ⁺)	1211	0.22 [#] 11	12882.8	(32 ⁺)	
14463.7	(33,34)	1268		13195.7	(31,32)	

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Adopted Levels, Gammas (continued) $\gamma(^{132}\text{Nd})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\ddagger$	E_f	J_f^π
14548.7	(35 ⁻)	1269.5	0.38 [#] 10	13279.2	(33 ⁻)
15110.8	(34,35)	1299		13811.8	(32,33)
15364.4	(36 ⁺)	1271	0.08 [#] 8	14093.6	(34 ⁺)
		1313		14051.1	(34 ⁺)
15507.1	(36 ⁺)	1456		14051.1	(34 ⁺)
15798.7	(35,36)	1335		14463.7	(33,34)
15905.3	(37 ⁻)	1356.5	0.33 [#] 10	14548.7	(35 ⁻)
16479.8	(36,37)	1369		15110.8	(34,35)
16720.4	(38 ⁺)	1356		15364.4	(36 ⁺)
17041.1	(38 ⁺)	1534		15507.1	(36 ⁺)
17201.7	(37,38)	1403		15798.7	(35,36)
17350.3	(39 ⁻)	1445	0.16 [#] 11	15905.3	(37 ⁻)
17922.8	(38,39)	1443		16479.8	(36,37)
18155.4	(40 ⁺)	1435		16720.4	(38 ⁺)
18654.1	(40 ⁺)	1613		17041.1	(38 ⁺)
18675.7	(39,40)	1474		17201.7	(37,38)
18887.8	(41 ⁻)	1537.5	0.21 [#] 11	17350.3	(39 ⁻)
19440.8	(40,41)	1518		17922.8	(38,39)
19674.4	(42 ⁺)	1519		18155.4	(40 ⁺)
20223.7	(41,42)	1548		18675.7	(39,40)
20354.2	(42 ⁺)	1700		18654.1	(40 ⁺)
20521.8	(43 ⁻)	1634	0.14 [#] 11	18887.8	(41 ⁻)
21043.9	(42,43)	1603		19440.8	(40,41)
21846.7	(43,44)	1623		20223.7	(41,42)

[†] From average of all available data. E_γ 's from $^{92}\text{Mo}(^{46}\text{Ti},\alpha 2p\gamma)$ (1988Wa01) have not been used in averaging since these seem to be systematically lower by 0.5-1 keV as compared to values from other studies. The E_γ 's from 1988Wa01 for other nuclides ^{134}Nd and ^{135}Pm also seem systematically lower by 0.5-1 keV.

[‡] Relative photon branching ratios. For high-spin data, the values are available mostly from $^{92}\text{Mo}(^{46}\text{Ti},\alpha 2p\gamma)$ (1988Wa01). For highly-deformed (or SD) bands, values are relative gamma-ray intensities, normalized to ≈ 1 for the most intense transition in the cascade.

[#] Relative intensity within the band from $^{105}\text{Pd}(^{35}\text{Cl},\alpha p 3n\gamma)$ (1996Jo13).

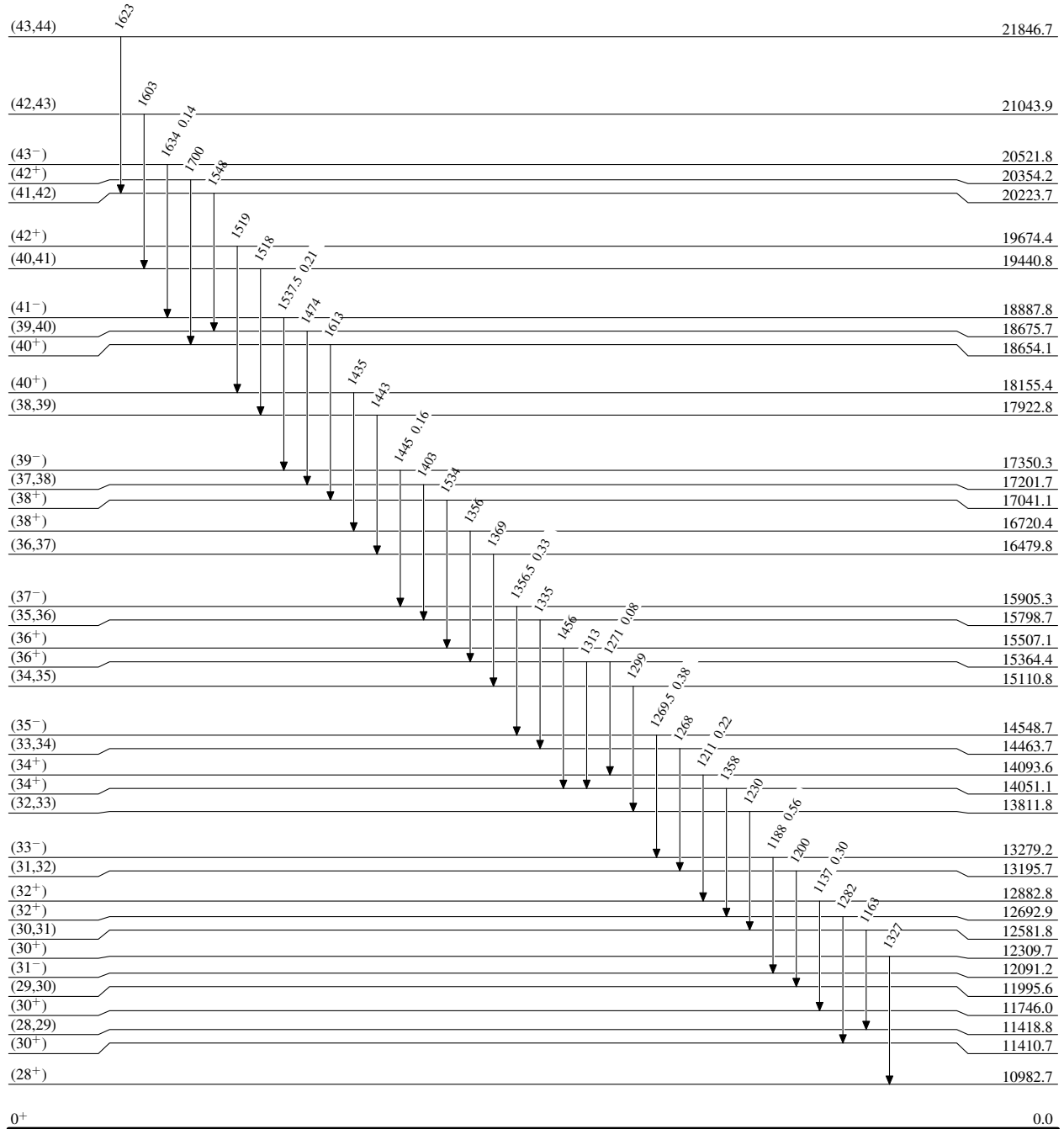
[@] From $\gamma\gamma(\theta)(\text{DCO})$; RUL applied when lifetimes are known. The mult=Q corresponds to $\Delta J=2$ and mult=D or D+Q to $\Delta J=1$ (in a few cases to $\Delta J=0$) transitions, as deduced from $\gamma\gamma(\theta)(\text{DCO})$ results.

[&] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ -ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

^a Placement of transition in the level scheme is uncertain.

Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level

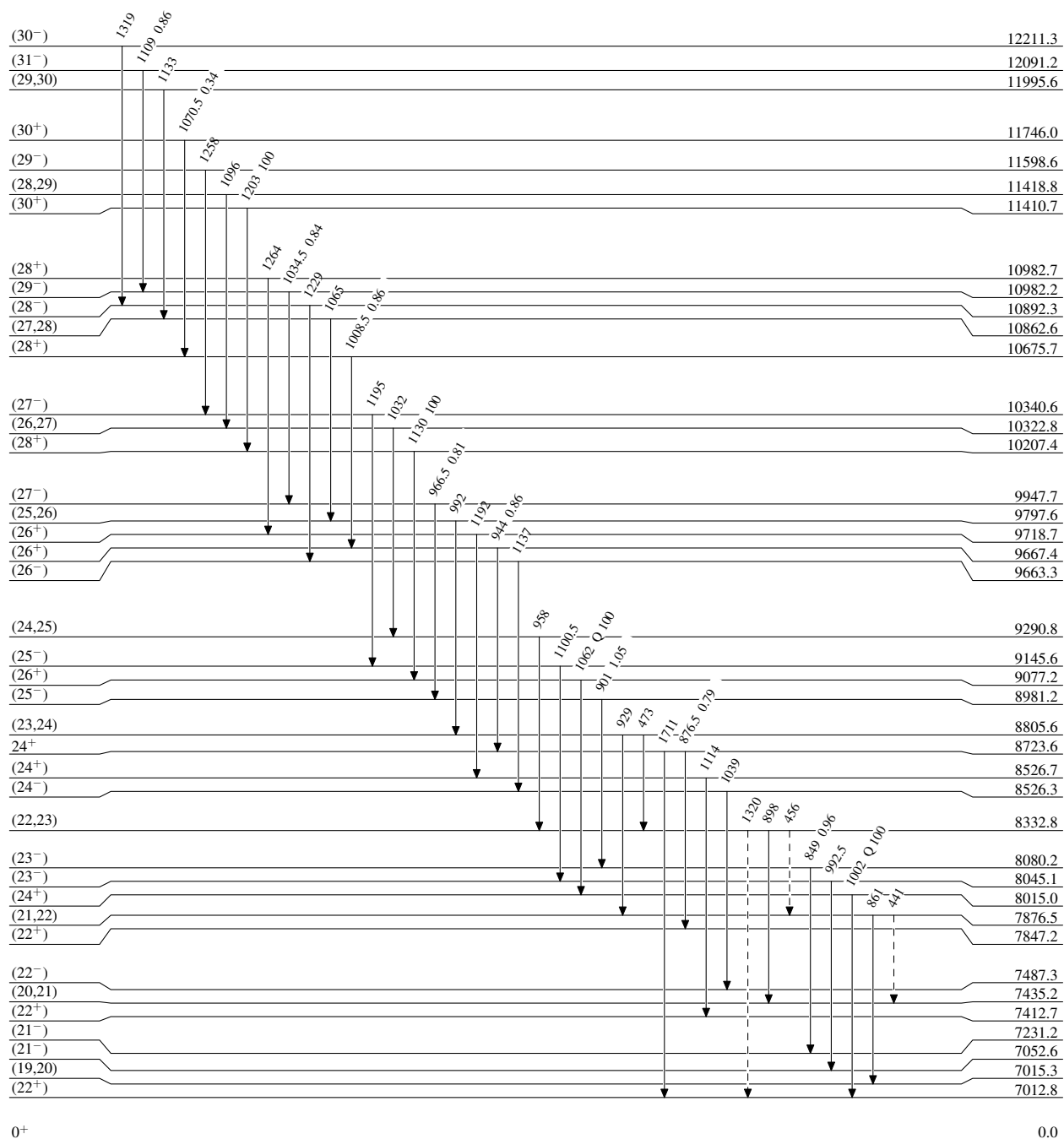


Adopted Levels, Gammas

Legend

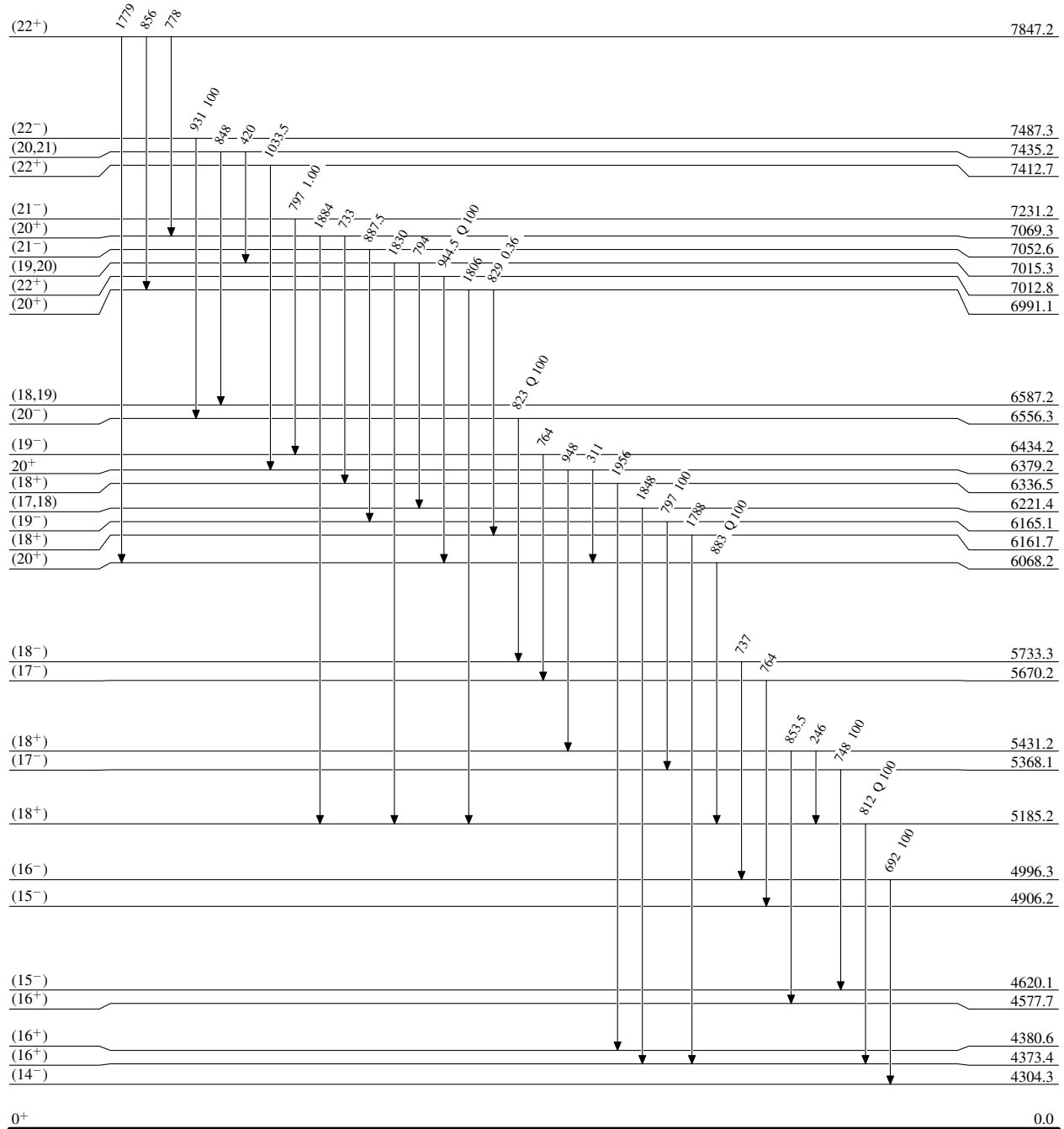
Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)

Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level

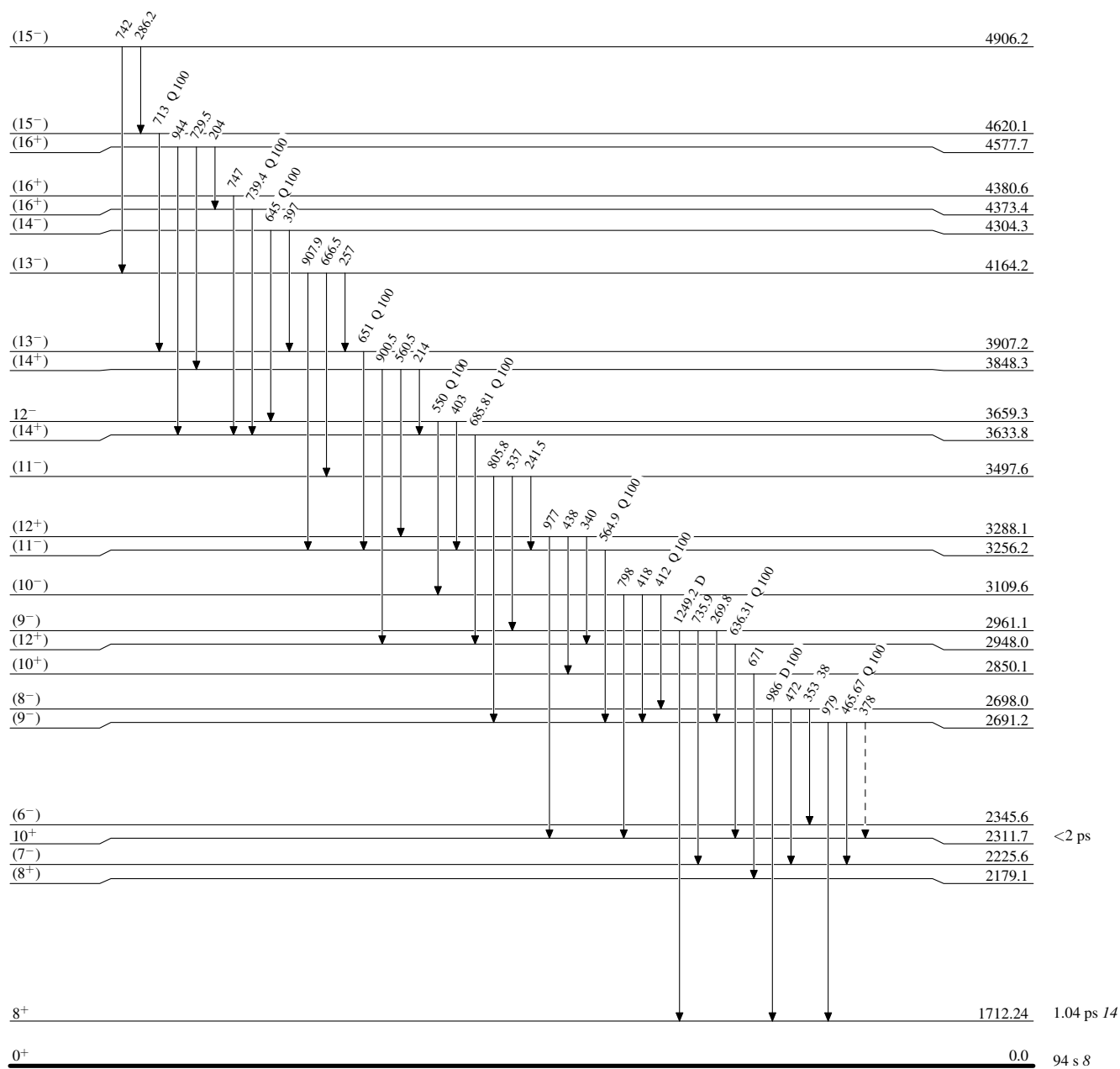


Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

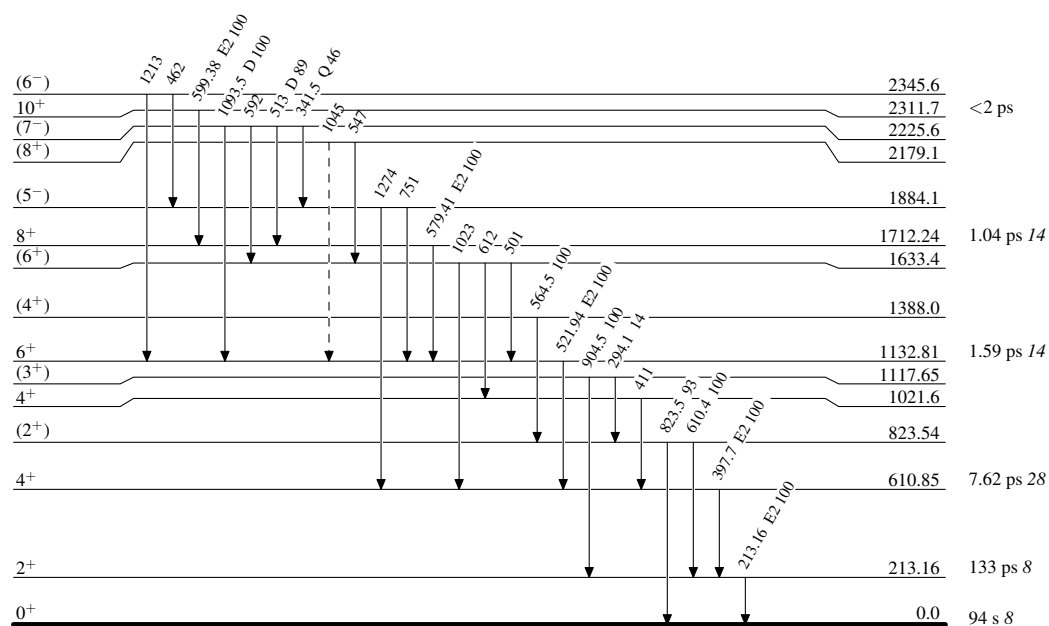
-----► γ Decay (Uncertain)

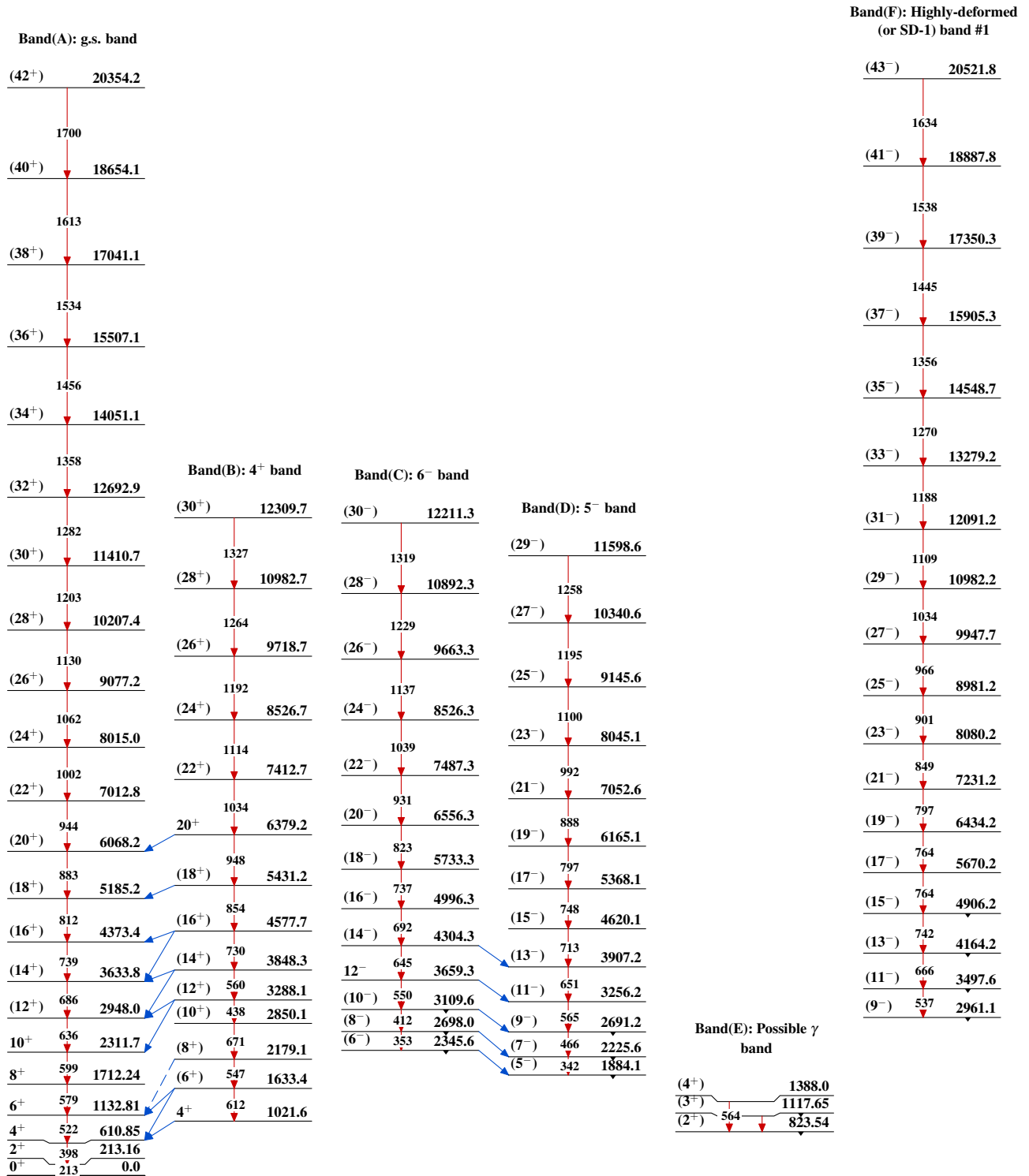
Adopted Levels, Gammas

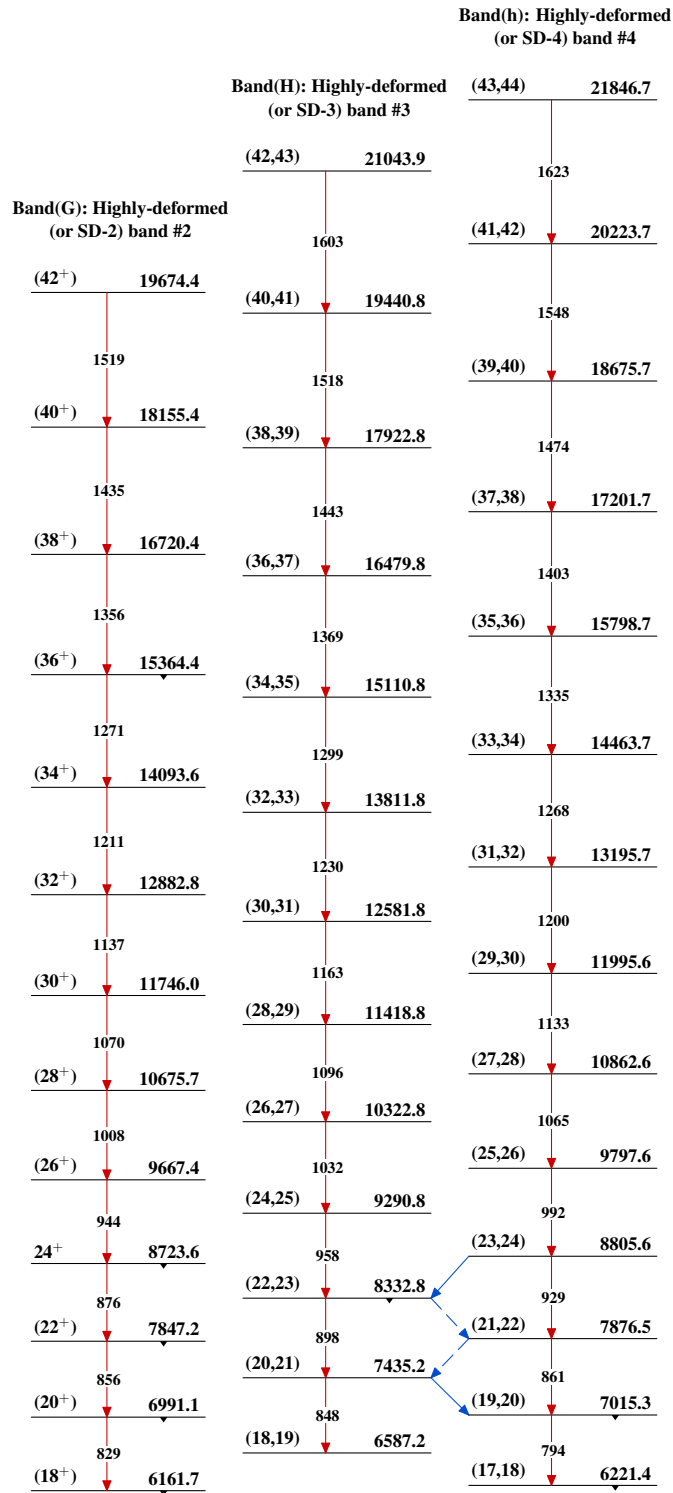
Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain) $^{132}_{60}\text{Nd}_{72}$

Adopted Levels, Gammas

Adopted Levels, Gammas (continued) $^{132}_{60}\text{Nd}_{72}$