

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 187,1 (2023)	12-Oct-2022

Q(β⁻)=3197 7; S(n)=4536 9; S(p)=9972 10; Q(α)=226 5 [2021Wa16](#)

S(2n)=10961 5, S(2p)=18666 6 ([2021Wa16](#)).

Check rounding for S(n):VAL.

<r²>^{1/2}=4.8807 fm 69 ([2013An02](#)).

Measurement of average n energy/multiplicity: [2019Na12](#), [2018Na01](#), [1981Re12](#).

¹⁴¹Ba Levels

Cross Reference (XREF) Flags

- A ¹⁴¹Cs β⁻ decay
- B ²⁴⁸Cm, ²⁵²Cf SF decay
- C ²³⁵U(n,Fγ)

E(level) [†]	J ^π [‡]	T _{1/2}	XREF	Comments
0.0	3/2 ⁻	18.27 min 7	ABC	%β ⁻ =100 μ=-0.337 5 (2014StZZ , 1988We07); Q=+0.454 10 (2016St14 , 1988We07) J ^π : hfs (1988We07 , 1983Mu12 , 1981Ne06), comparison with μ from theory. μ: from collinear fast beam laser spectroscopy – accelerated beam (1988We07). Other: -0.346 16 (1983Mu12 , 1981Ne06). Q: from collinear fast beam laser spectroscopy – accelerated beam (1988We07). Other: +0.43 4 (1983Mu12). T _{1/2} : from 1969Ca03 . Others: 18.03 min 19 (1972Eh02), 18 min 1 (1959Sc36); see also 1962Fr04 , 1958Ma57 .
48.528& 8	(5/2) ⁻	2.3 ns 4	ABC	J ^π : γ to 3/2 ⁻ is M1+E2, M1 from (7/2) ⁻ , syst configuration=(ν f _{7/2}) ³ . T _{1/2} : from 1984Is08 (¹⁴¹ Cs β decay). Others: <3.4 ns (1975Mo03) (¹⁴¹ Cs β decay), 20 ns 7 (1974ClZX) (²⁵² Cf SF decay).
55.001@ 19	(7/2) ⁻	5.2 ns 5	ABC	T _{1/2} : from 1984Is08 . Other 5.0 ns 1 (55+49 levels) (1982Ya04); see 1975Mo03 . J ^π : γ to (5/2) ⁻ is M1, log ft=6.1 via 7/2 ⁺ parent, syst. configuration=(ν f _{7/2}) ³ .
610.14& 4	(9/2) ⁻		AB	J ^π : 5/2,7/2,9/2 from log ft=6.9 from 7/2 ⁺ parent in ¹⁴¹ Cs β ⁻ decay; γ from (13/2 ⁻), 1187 in ²⁴⁸ Cm, ²⁵² Cf SF decay dataset; configuration=((ν h _{9/2})(ν f _{7/2}) ²).
643.79@ 5	(11/2) ⁻		ABC	
709.45 6			A	
747.03 5	(9/2) ⁻		AB	
827.00 6			A	
1056.21 7			A	
1116.79 6			A	
1187.49& 6	(13/2) ⁻		BC	J ^π : stretched D to (11/2) ⁻ , 644. Configuration=(ν f _{7/2}) ³ ⊗3 ⁻ .
1195.51 5			A	
1202.09 5			A	
1214.43 6			A	
1226.51 7			A	
1229.80 9			A	
1231.65 9			A	
1249.04 6			A	
1256.78 6	(11/2)		AB	J ^π : (11/2 ⁺) from ²⁴⁸ Cm, ²⁵² Cf SF decay (2002Ur04 , based on syst); however log ft=7.8 from 7/2 ⁺ parent rather suggests (11/2 ⁻).
1302.21@ 5	(15/2) ⁻		BC	

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Adopted Levels, Gammas (continued) ^{141}Ba Levels (continued)

E(level) [†]	J ^π [‡]	XREF	Comments
1341.29 ^a 16	(13/2 ⁺)	AB	J ^π : Level being fed from 7/2 ⁺ parent in β ⁻ decay makes the 13/2 ⁺ assignment doubtful. However, unless there are two different levels, this is supported in ²⁴⁸ Cm, ²⁵² Cf SF decay by Q γ from (17/2 ⁺), 1836, and D γ to (11/2 ⁻), 644, where the (tentative) character of the two gammas result from band assignment configuration=((ν i _{13/2})(ν f _{7/2}) ²).
1432.31 11		A	
1504.00 8		A	
1546.01 10		A	
1572.50 11		A	
1583.14 9		A	
1629.74 9		A	
1654.10 11		A	
1677.03 21		A	
1690.32 15		A	
1709.93 15		A	
1717.27 17		A	
1719.81 ^{&} 6	(17/2 ⁻)	B	
1764.10 18		A	
1765.33 10		A	
1836.43 ^a 8	(17/2 ⁺)	B	
1844.54 6		A	
1853.87 22		A	
1874.03 9		A	
1942.49 11		A	
2010.19 10		A	
2062.44 17		A	
2107.26 11		A	
2115.13 [@] 7	(19/2 ⁻)	BC	
2142.86 13		A	
2172.36 ^c 8	(19/2 ⁻)	B	
2274.05 8		A	
2329.30 ^{&} 9	(21/2 ⁻)	B	
2363.56 24		A	
2382.74 19		A	
2394.62 15		A	
2433.44 ^a 8	(21/2 ⁺)	B	
2449.90 16		A	
2781.69 ^c 12	(23/2 ⁻)	B	
2874.71 15		A	
2943.96 ^b 10	(23/2 ⁺)	B	
2950.57 [@] 15	(23/2 ⁻)	BC	
2972.68 20		A	
3004.58 17		A	
3031.97 19		A	
3043.05 20		A	
3078.44 22		A	
3087.60 17		A	
3099.54 19		A	
3112.06 25		A	
3120.36 9		A	
3127.98 ^a 10	(25/2 ⁺)	B	
3132.90 20		A	
3170.36 23		A	
3175.30 ^{&} 12	(25/2 ⁻)	B	
3189.69 14		A	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{141}Ba Levels (continued)

<u>E(level)[†]</u>	<u>J^π[‡]</u>	<u>XREF</u>	<u>E(level)[†]</u>	<u>J^π[‡]</u>	<u>XREF</u>
3243.07 17		A	3834.40 ^a 14	(29/2 ⁺)	B
3247.42 15		A	3908.67 ^{&} 16	(29/2 ⁻)	B
3259.28 21		A	4238.96 15	5/2 ⁺ , 7/2 ⁺ , 9/2 ⁺ #	A
3273.57 16		A	4244.43 ^b 16	(31/2 ⁺)	B
3315.55 19		A	4303.85 ^c 24	(31/2 ⁻)	B
3334.91 19		A	4364.48? 25	5/2 ⁺ , 7/2 ⁺ , 9/2 ⁺ #	A
3431.77 24		A	4533.46 20	5/2 ⁺ , 7/2 ⁺ , 9/2 ⁺ #	A
3441.7 3		A	4544.77? 22	5/2 ⁺ , 7/2 ⁺ , 9/2 ⁺ #	A
3456.57 20		A	4591.1? 3	5/2 ⁺ , 7/2 ⁺ , 9/2 ⁺ #	A
3472.35 ^c 21	(27/2 ⁻)	B	4618.83 ^a 20	(33/2 ⁺)	B
3493.41 ^b 12	(27/2 ⁺)	B	4670.98 22	5/2 ⁺ , 7/2 ⁺ , 9/2 ⁺ #	A
3820.2 [@] 5	(27/2 ⁻)	B	4931.86 ^b 21	(35/2 ⁺)	B

[†] From least-squares fit to Eγ's.

[‡] Unless given otherwise, J^π values are from ²⁴⁸Cm, ²⁵²Cf SF decay based upon band assignment, and level systematics.

From log ft < 5.9 from 7/2⁺ parent.

@ Band(A): simplex s=+i, α=-1/2.

& Band(a): simplex s=-i, α=+1/2.

^a Band(B): Band based on (13/2⁺); simplex s=+i, α=+1/2.

^b Band(C): Band based on (23/2⁺); simplex s=-i, α=-1/2.

^c Band(D): Band based on (19/2⁻), α=-1/2.

Adopted Levels, Gammas (continued)

$\gamma(^{141}\text{Ba})$									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. [‡]	$\delta\&$	$\alpha^@$	Comments
48.528	(5/2) ⁻	48.528 8	100	0.0	3/2 ⁻	M1+E2	0.36 11	10.2 14	B(M1)(W.u.)=0.0066 +19-13; B(E2)(W.u.)=2.2×10 ² +15-11 $\alpha(\text{K})=6.86$ 10; $\alpha(\text{L})=2.7$ 10; $\alpha(\text{M})=0.58$ 23 $\alpha(\text{N})=0.121$ 46; $\alpha(\text{O})=0.0164$ 58; $\alpha(\text{P})=0.000439$ 10 Mult.: $\alpha(\text{K})_{\text{exp}}=7.4$ 7, $\alpha(\text{L})_{\text{exp}}=1.1$ 6 (1984Is08). B(E2)(W.u.)=2.2×10 ² +15-11 upper bound exceeds RUL=300.
55.001	(7/2) ⁻	6.469 50 54.997 23	100 9 91 7	48.528 0.0	(5/2) ⁻ 3/2 ⁻	M1 [E2]		482 17.13	B(M1)(W.u.)=0.0313 +34-29 B(E2)(W.u.)=9.0 +15-12 $\alpha(\text{K})=5.85$ 9; $\alpha(\text{L})=8.87$ 13; $\alpha(\text{M})=1.96$ 3 $\alpha(\text{N})=0.404$ 6; $\alpha(\text{O})=0.0518$ 8; $\alpha(\text{P})=0.000261$ 4
610.14	(9/2) ⁻	555.15 6	80 5	55.001	(7/2) ⁻	D,E2 [#]			
		561.63 6	100 7	48.528	(5/2) ⁻	E2 [#]			
643.79	(11/2) ⁻	588.79 7	100	55.001	(7/2) ⁻	E2			
709.45		654.42 8	93 6	55.001	(7/2) ⁻				
		660.88 11	100 10	48.528	(5/2) ⁻				
		709.42 15	20 2	0.0	3/2 ⁻				
747.03	(9/2) ⁻	692.04 6	100 6	55.001	(7/2) ⁻	D,E2 [#]			
		698.52 11	15.8 13	48.528	(5/2) ⁻				
827.00		771.93 9	100 6	55.001	(7/2) ⁻				
		778.54 9	100 6	48.528	(5/2) ⁻				
		827.00 12	59 4	0.0	3/2 ⁻				
1056.21		1007.76 12	92 5	48.528	(5/2) ⁻				
		1056.24 11	100 5	0.0	3/2 ⁻				
1116.79		1061.83 7	100 6	55.001	(7/2) ⁻				
		1068.19 12	44 3	48.528	(5/2) ⁻				
		1116.77 15	13.7 11	0.0	3/2 ⁻				
1187.49	(13/2) ⁻	543.72 4	100	643.79	(11/2) ⁻	D			
		577.26 9	12	610.14	(9/2) ⁻				
1195.51		448.42 12	4.6 3	747.03	(9/2) ⁻				
		585.39 11	14.3 9	610.14	(9/2) ⁻				
		1140.50 7	53 4	55.001	(7/2) ⁻				
		1147.00 11	100 10	48.528	(5/2) ⁻				
1202.09		591.75 14	17.7 13	610.14	(9/2) ⁻				
		1147.2 3	100 18	55.001	(7/2) ⁻				
		1153.64 7	93 6	48.528	(5/2) ⁻				
1214.43		1165.87 12	42 3	48.528	(5/2) ⁻				
		1214.44 8	100 7	0.0	3/2 ⁻				
1226.51		1171.55 11	100 6	55.001	(7/2) ⁻				
		1178.03 12	70 5	48.528	(5/2) ⁻				
		1226.43 11	95 6	0.0	3/2 ⁻				
1229.80		1181.16 14	70 5	48.528	(5/2) ⁻				

Adopted Levels, Gammas (continued)

$\gamma(^{141}\text{Ba})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. [‡]	$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. [‡]
1229.80		1229.95 12	100 6	0.0	3/2 ⁻		1765.33		938.34 16	100 11	827.00		
1231.65		1176.67 12	100 6	55.001	(7/2) ⁻		1836.43	(17/2 ⁺)	495.17 15	11	1341.29	(13/2 ⁺)	
		1183.07 15	32 2	48.528	(5/2) ⁻				534.22 8	100	1302.21	(15/2) ⁻	D
1249.04		501.98 12	3.1 2	747.03	(9/2) ⁻		1844.54		340.56 13	6.0 4	1504.00		
		605.28 6	26 2	643.79	(11/2) ⁻				587.66 13	97 10	1256.78	(11/2)	
		639.00 16	3.4 3	610.14	(9/2) ⁻				613.3 4	11 6	1231.65		
		1194.02 11	100 6	55.001	(7/2) ⁻				642.60 14	13.6 14	1202.09		
1256.78	(11/2)	509.7 3	17 4	747.03	(9/2) ⁻				648.98 8	100 7	1195.51		
		612.97 8	23 2	643.79	(11/2) ⁻				1097.59 11	53 3	747.03	(9/2) ⁻	
		646.66 7	100 10	610.14	(9/2) ⁻	D,E2 [#]			1789.38 22	62 4	55.001	(7/2) ⁻	
1302.21	(15/2 ⁻)	658.42 2	100	643.79	(11/2) ⁻	Q	1853.87		1210.0 3	100 21	643.79	(11/2) ⁻	
1341.29	(13/2 ⁺)	697.7 4	100	643.79	(11/2) ⁻				1243.8 3	53 8	610.14	(9/2) ⁻	
1432.31		1383.39 22	20 2	48.528	(5/2) ⁻		1874.03		1126.96 14	16 1	747.03	(9/2) ⁻	
		1432.35 16	100 5	0.0	3/2 ⁻				1263.93 12	44 5	610.14	(9/2) ⁻	
1504.00		894.07 16	24 2	610.14	(9/2) ⁻				1818.99 23	100 6	55.001	(7/2) ⁻	
		1449.02 16	100 6	55.001	(7/2) ⁻				1825.42 23	52 3	48.528	(5/2) ⁻	
		1455.28 22	28 2	48.528	(5/2) ⁻		1942.49		1195.63 18	100 25	747.03	(9/2) ⁻	
		1503.7 3	11.9 15	0.0	3/2 ⁻				1232.96 13	79 5	709.45		
1546.01		902.25 10	100	643.79	(11/2) ⁻		2010.19		808.12 14	65 5	1202.09		
1572.50		1517.57 18	100 6	55.001	(7/2) ⁻				954.10 14	67 5	1056.21		
		1523.85 23	27 3	48.528	(5/2) ⁻				1955.03 25	100 7	55.001	(7/2) ⁻	
		1572.55 19	69 4	0.0	3/2 ⁻				1961.2 3	63 5	48.528	(5/2) ⁻	
1583.14		939.18 14	33 7	643.79	(11/2) ⁻		2062.44		1315.27 20	100 7	747.03	(9/2) ⁻	
		973.06 10	100 6	610.14	(9/2) ⁻				1452.6 3	35 4	610.14	(9/2) ⁻	
1629.74		985.98 13	100 6	643.79	(11/2) ⁻		2107.26		1360.30 17	53 3	747.03	(9/2) ⁻	
		1019.58 13	76 5	610.14	(9/2) ⁻				1497.13 17	51 3	610.14	(9/2) ⁻	
		1574.8 3	35 4	55.001	(7/2) ⁻				2052.4 4	9.5 11	55.001	(7/2) ⁻	
1654.10		1043.96 14	59 4	610.14	(9/2) ⁻				2058.50 23	100 7	48.528	(5/2) ⁻	
		1598.90 24	50 5	55.001	(7/2) ⁻		2115.13	(19/2 ⁻)	278.79 17	12	1836.43	(17/2 ⁺)	
		1605.72 21	100 7	48.528	(5/2) ⁻				395.17 22	5	1719.81	(17/2) ⁻	
1677.03		1066.88 24	100	610.14	(9/2) ⁻				812.94 5	100	1302.21	(15/2) ⁻	Q
1690.32		441.28 14	100	1249.04			2142.86		2087.81 22	100 6	55.001	(7/2) ⁻	
1709.93		1661.51 16	100 6	48.528	(5/2) ⁻				2094.35 23	99 6	48.528	(5/2) ⁻	
		1709.5 3	31 2	0.0	3/2 ⁻				2142.83 23	93 6	0.0	3/2 ⁻	
1717.27		1073.48 16	100	643.79	(11/2) ⁻		2172.36	(19/2 ⁻)	335.96 16	42	1836.43	(17/2 ⁺)	
1719.81	(17/2 ⁻)	417.58 4	96	1302.21	(15/2) ⁻	D			452.5 1	59	1719.81	(17/2) ⁻	
		532.34 14	100	1187.49	(13/2) ⁻				870.14 8	100	1302.21	(15/2) ⁻	
1764.10		1715.40 22	100 7	48.528	(5/2) ⁻		2274.05		728.09 14	30 2	1546.01		
		1764.4 3	31 2	0.0	3/2 ⁻				1017.31 14	33 2	1256.78	(11/2)	
1765.33		550.92 17	44 6	1214.43					1025.03 13	46 3	1249.04		
		569.79 15	65 4	1195.51					1071.94 13	100 6	1202.09		

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Adopted Levels, Gammas (continued)

$\gamma(^{141}\text{Ba})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π
2274.05		1630.11 18	68 4	643.79	(11/2 ⁻)	3120.36		1905.93 15	69 4	1214.43	
2329.30	(21/2 ⁻)	214.3 3	6	2115.13	(19/2 ⁻)			1917.9 4	58 4	1202.09	
		609.49 7	100	1719.81	(17/2 ⁻)			2064.08 24	66 4	1056.21	
2363.56		1654.10 23	100	709.45				2410.9 3	26 2	709.45	
2382.74		1738.7 3	25 4	643.79	(11/2 ⁻)			3071.93 22	100 6	48.528	(5/2 ⁻)
		1772.74 25	100 7	610.14	(9/2 ⁻)			3120.5 3	26 2	0.0	3/2 ⁻
		2327.8 6	21 5	55.001	(7/2 ⁻)	3127.98	(25/2 ⁺)	346.3 ^a		2781.69	(23/2 ⁻)
2394.62		1277.91 17	42 4	1116.79				694.53 6		2433.44	(21/2 ⁺)
		2394.40 25	100 6	0.0	3/2 ⁻	3132.90		2489.3 3	30 4	643.79	(11/2 ⁻)
2433.44	(21/2 ⁺)	261.08 16	10	2172.36	(19/2 ⁻)			3077.72 25	100 6	55.001	(7/2 ⁻)
		318.34 6	35	2115.13	(19/2 ⁻)	3170.36		3115.32 23	100	55.001	(7/2 ⁻)
		596.96 14	100	1836.43	(17/2 ⁺)	3175.30	(25/2 ⁻)	231.42 14	8	2943.96	(23/2 ⁺)
2449.90		1200.85 15	100	1249.04				845.97 9	100	2329.30	(21/2 ⁻)
2781.69	(23/2 ⁻)	348.44 22		2433.44	(21/2 ⁺)	3189.69		1933.06 22	80 5	1256.78	(11/2)
		452.2 ^a 3		2329.30	(21/2 ⁻)			1940.5 3	100 7	1249.04	
		609.28 11		2172.36	(19/2 ⁻)			1994.19 23	63 4	1195.51	
2874.71		1625.76 20	69 5	1249.04				2545.6 6	13 5	643.79	(11/2 ⁻)
		2819.56 21	100 11	55.001	(7/2 ⁻)			3134.4 4	38 5	55.001	(7/2 ⁻)
2943.96	(23/2 ⁺)	614.66 5	100	2329.30	(21/2 ⁻)	3243.07		2047.58 25	100 7	1195.51	
2950.57	(23/2 ⁻)	517.1 ^a	32	2433.44	(21/2 ⁺)			2533.5 3	25 3	709.45	
		835.44 13	100	2115.13	(19/2 ⁻)			3188.6 7	11 3	55.001	(7/2 ⁻)
2972.68		1343.01 23	37 4	1629.74				3194.4 4	57 15	48.528	(5/2 ⁻)
		1758.1 3	100 8	1214.43		3247.42		1998.34 19	52 3	1249.04	
3004.58		1809.2 3	70 5	1195.51				2637.5 3	28 2	610.14	(9/2 ⁻)
		2949.49 20	100 7	55.001	(7/2 ⁻)			3192.2 3	100 12	55.001	(7/2 ⁻)
3031.97		1783.2 3	85 7	1249.04		3259.28		2056.8 6	100 20	1202.09	
		2387.9 4	60 7	643.79	(11/2 ⁻)			2615.5 3	96 8	643.79	(11/2 ⁻)
		2976.8 3	100 7	55.001	(7/2 ⁻)			3204.3 3	64 6	55.001	(7/2 ⁻)
3043.05		1539.2 3	19 3	1504.00		3273.57		2044.1 3	94 8	1229.80	
		2399.14 25	100 6	643.79	(11/2 ⁻)			2564.4 4	67 5	709.45	
3078.44		1401.4 3	29 4	1677.03				3218.2 4	26 3	55.001	(7/2 ⁻)
		1851.93 25	100 7	1226.51				3224.9 3	100 7	48.528	(5/2 ⁻)
3087.60		1885.9 3	80 5	1202.09				3273.1 4	76 6	0.0	3/2 ⁻
		3032.4 3	14 5	55.001	(7/2 ⁻)	3315.55		2066.7 3	100 8	1249.04	
		3038.87 25	100 7	48.528	(5/2 ⁻)			2671.7 3	70 5	643.79	(11/2 ⁻)
3099.54		1842.7 3	87 9	1256.78	(11/2)			3260.2 4	61 8	55.001	(7/2 ⁻)
		1868.1 4	84 12	1231.65		3334.91		1751.65 21	100 7	1583.14	
		2489.3 3	100 13	610.14	(9/2 ⁻)			2139.6 3	25 7	1195.51	
3112.06		1897.61 24	100 6	1214.43		3431.77		3376.9 3	100 9	55.001	(7/2 ⁻)
		3056.9 32	17 8	55.001	(7/2 ⁻)			3382.9 4	50 6	48.528	(5/2 ⁻)
3120.36		1687.89 21	24 2	1432.31		3441.7		2385.5 3	100	1056.21	
		1893.92 22	69 4	1226.51		3456.57		2709.8 3	80 9	747.03	(9/2 ⁻)

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Adopted Levels, Gammas (continued)

$\gamma(^{141}\text{Ba})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π
3456.57		2846.21 25	100 7	610.14	(9/2 ⁻)	4364.48?	5/2 ⁺ ,7/2 ⁺ ,9/2 ⁺	3132.5 4	100 13	1231.65	
3472.35	(27/2 ⁻)	690.66 17	100	2781.69	(23/2 ⁻)			3169.1 3	49 4	1195.51	
3493.41	(27/2 ⁺)	318.14 9	100	3175.30	(25/2 ⁻)	4533.46	5/2 ⁺ ,7/2 ⁺ ,9/2 ⁺	3303.8 3	34 5	1229.80	
		549.44 8	74	2943.96	(23/2 ⁺)			3331.2 3	100 7	1202.09	
3820.2	(27/2 ⁻)	869.8 ^a 4	100	2950.57	(23/2 ⁻)			3416.5 5	15 3	1116.79	
3834.40	(29/2 ⁺)	706.42 9	100	3127.98	(25/2 ⁺)	4544.77?	5/2 ⁺ ,7/2 ⁺ ,9/2 ⁺	3312.9 3	68 7	1231.65	
3908.67	(29/2 ⁻)	415.2 2		3493.41	(27/2 ⁺)			3349.4 3	100 8	1195.51	
		733.34 15		3175.30	(25/2 ⁻)	4591.1?	5/2 ⁺ ,7/2 ⁺ ,9/2 ⁺	3395.6 9	41 18	1195.51	
4238.96	5/2 ⁺ ,7/2 ⁺ ,9/2 ⁺	1965.1 3	100 7	2274.05				3474.3 3	100 8	1116.79	
		3183.1 3	87 7	1056.21		4618.83	(33/2 ⁺)	784.43 14	100	3834.40	(29/2 ⁺)
		3529.2 2	24 4	709.45		4670.98	5/2 ⁺ ,7/2 ⁺ ,9/2 ⁺	2728.6 4	74 8	1942.49	
4244.43	(31/2 ⁺)	335.64 22	50	3908.67	(29/2 ⁻)			3098.6 3	100 9	1572.50	
		751.04 11	100	3493.41	(27/2 ⁺)			3238.2 4	45 6	1432.31	
4303.85	(31/2 ⁻)	831.50 12	100	3472.35	(27/2 ⁻)	4931.86	(35/2 ⁺)	687.43 14	100	4244.43	(31/2 ⁺)

[†] From the respective dataset when the levels are populated in one dataset; from the ¹⁴¹Cs β^- decay when the levels are populated in both ¹⁴¹Cs β^- decay and ²⁴⁸Cm,²⁵²Cf SF decay datasets.

[‡] From 1976Ot03 analysis of ce(K) for gammas from ¹⁴¹Cs β^- decay dataset; and from 2002Ur04 angular distributions for gammas from ²⁴⁸Cm,²⁵²Cf SF decay dataset, where the intraband transitions are stretched Q, probably E2, while the interband transitions are stretched D. For gammas measured in both datasets a note is given separately.

From ¹⁴¹Cs β^- decay alone.

@ [Additional information 1.](#)

& [Additional information 2.](#)

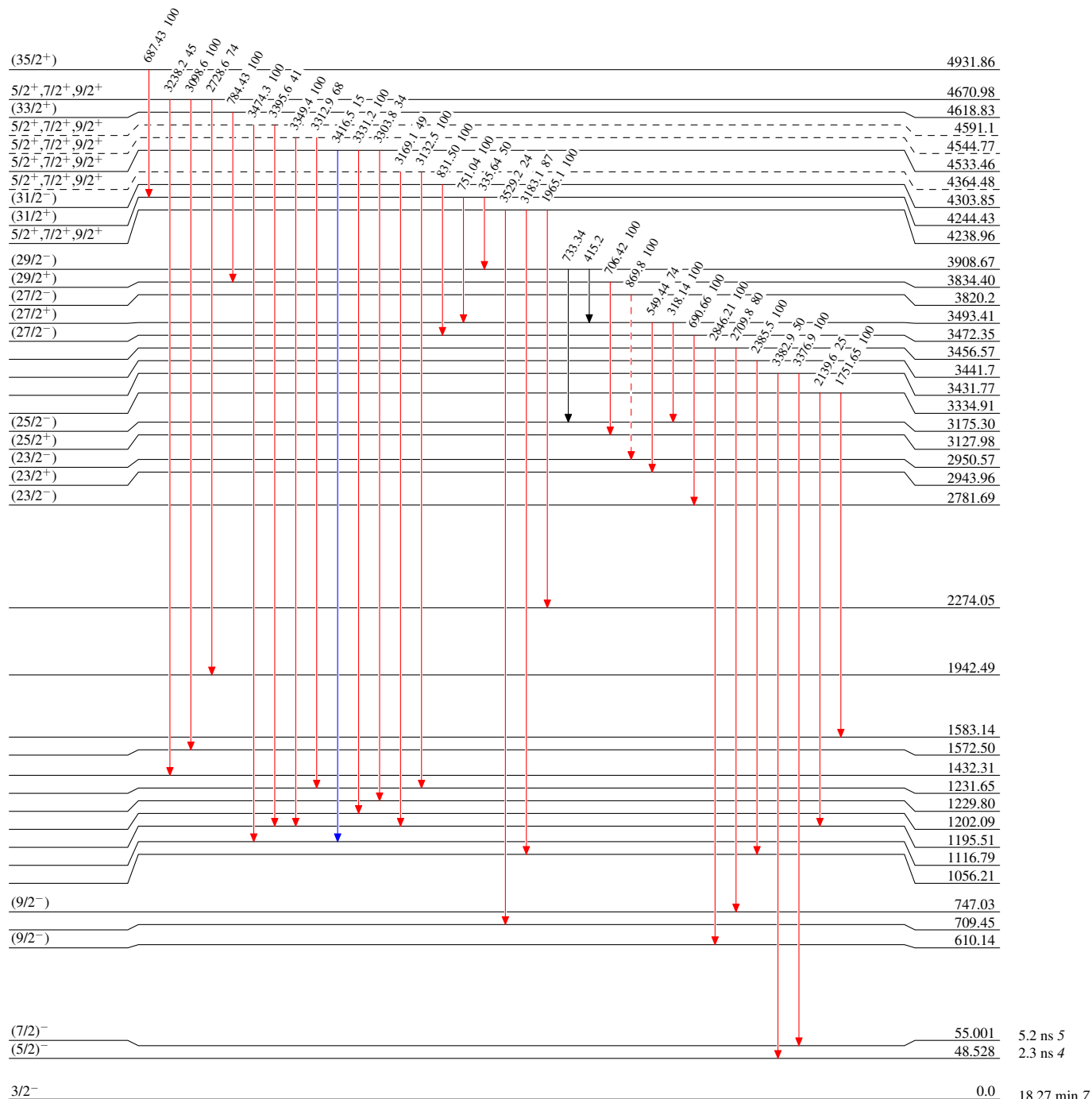
^a Placement of transition in the level scheme is uncertain.

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)



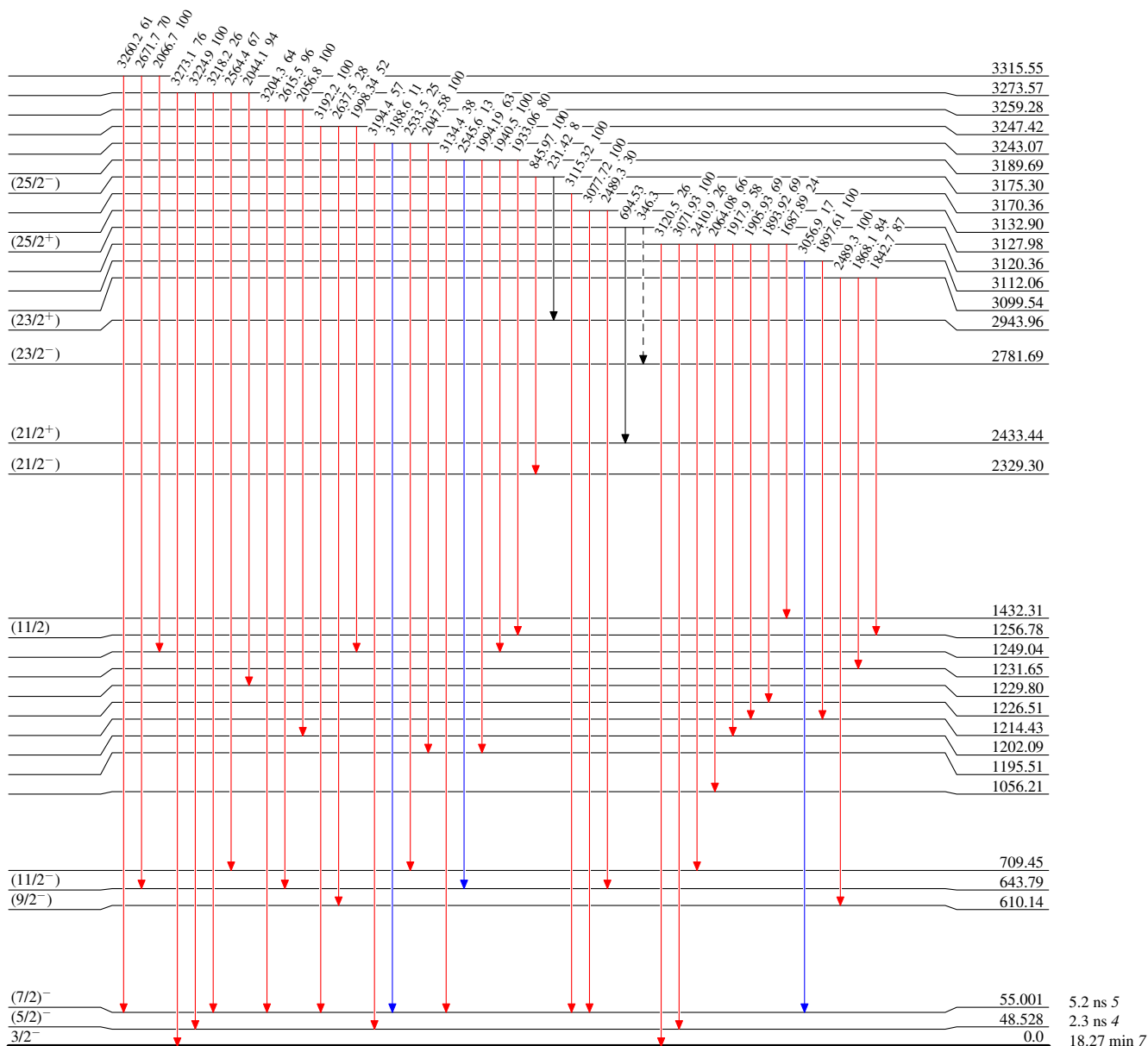
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Type not specified

- I_γ < 2% × I_γ^{max}
- I_γ < 10% × I_γ^{max}
- I_γ > 10% × I_γ^{max}
- - - - - → γ Decay (Uncertain)



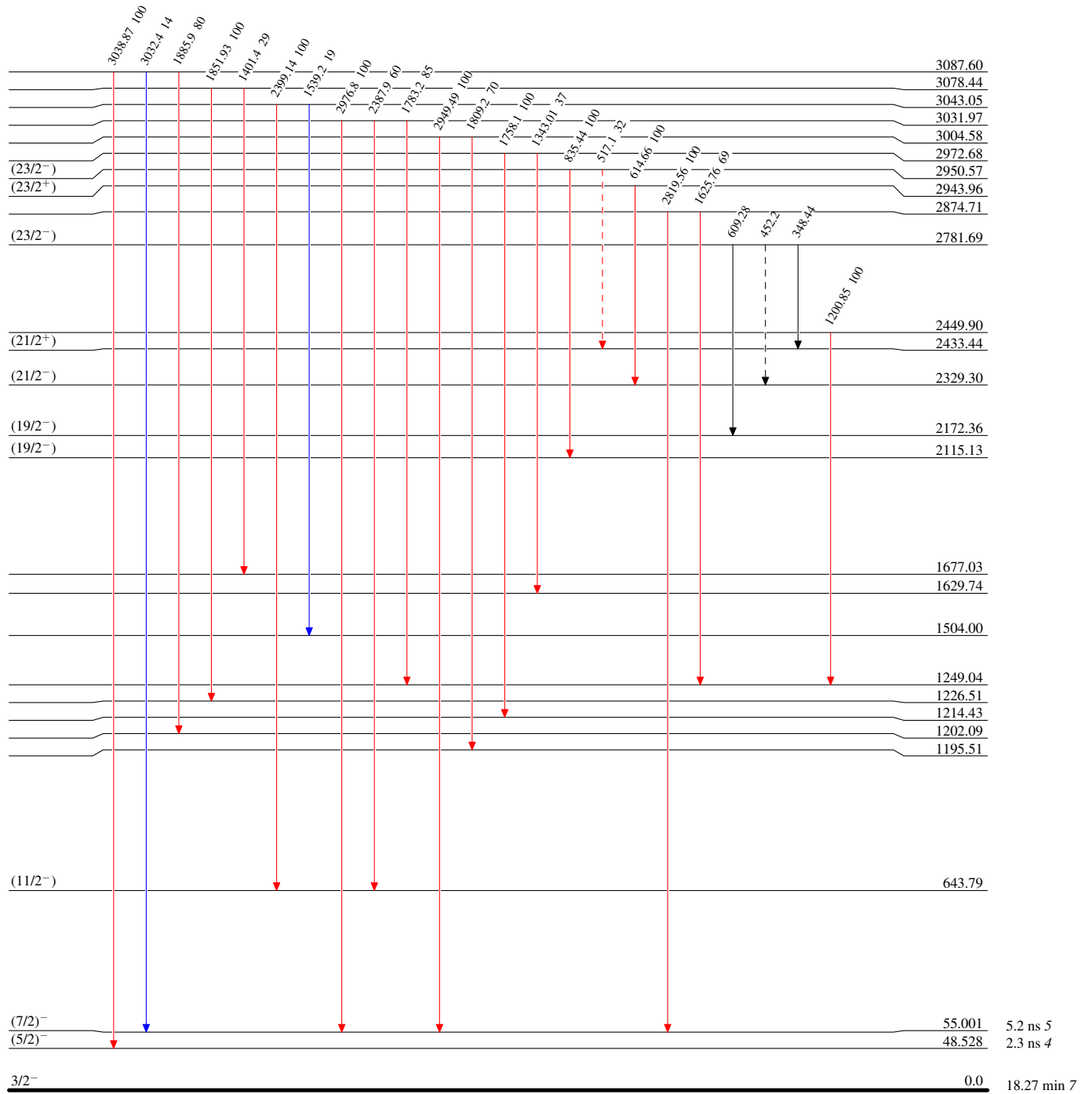
Adopted Levels, Gammas

Legend

Level Scheme (continued)

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)



$^{141}_{56}\text{Ba}_{85}$

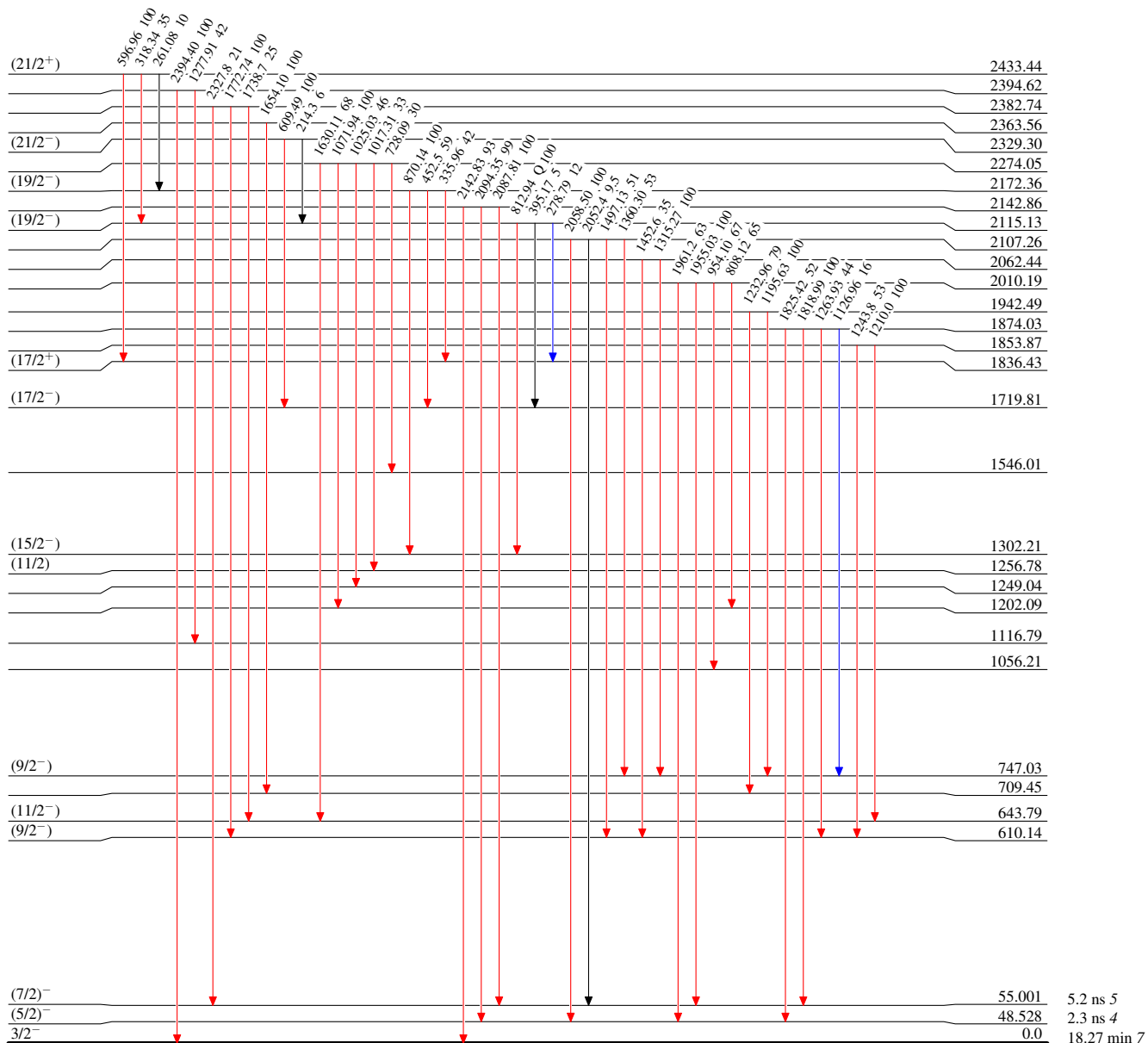
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

Legend

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



$^{141}_{56}\text{Ba}_{85}$

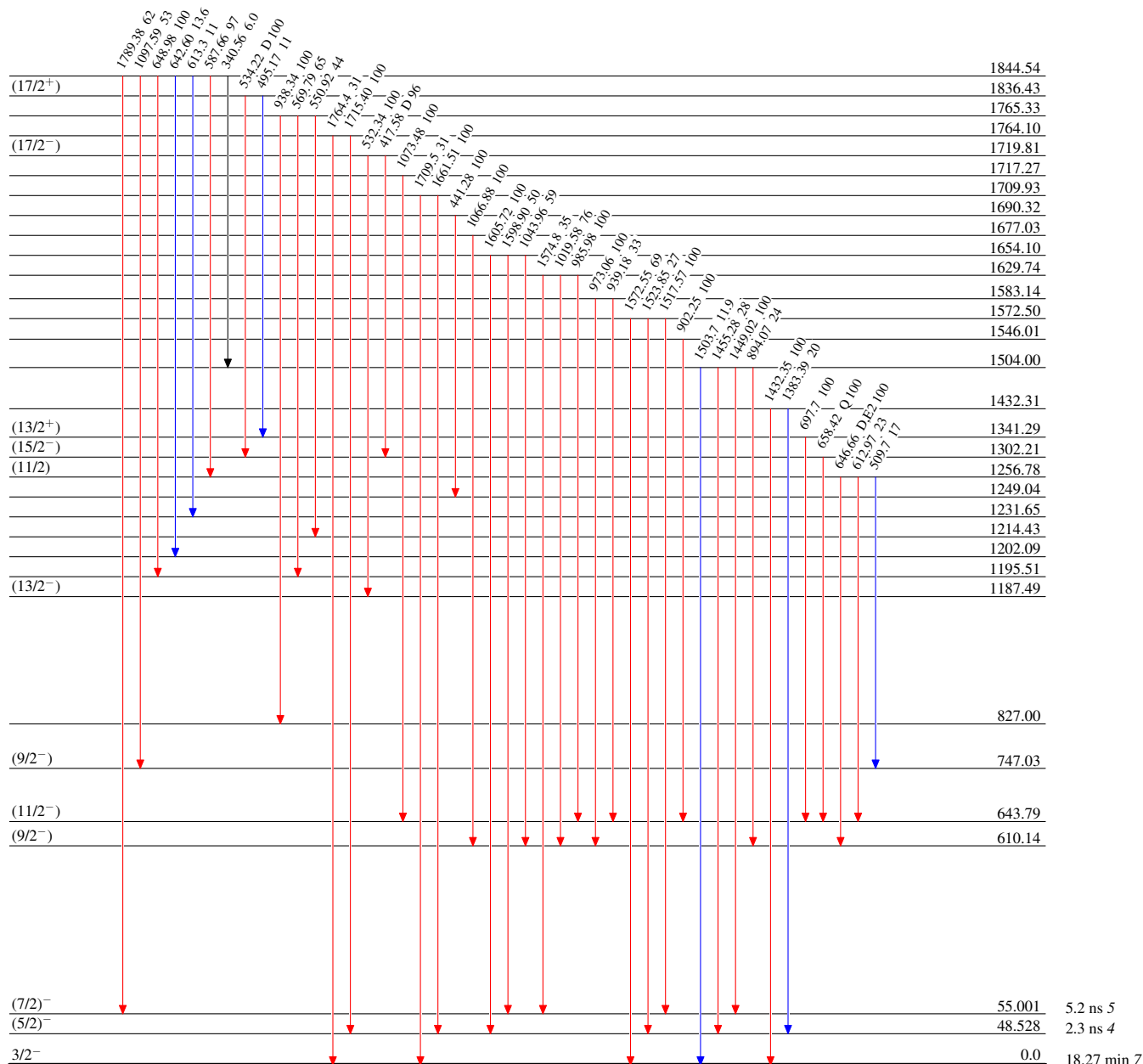
Adopted Levels, Gammas

Level Scheme (continued)

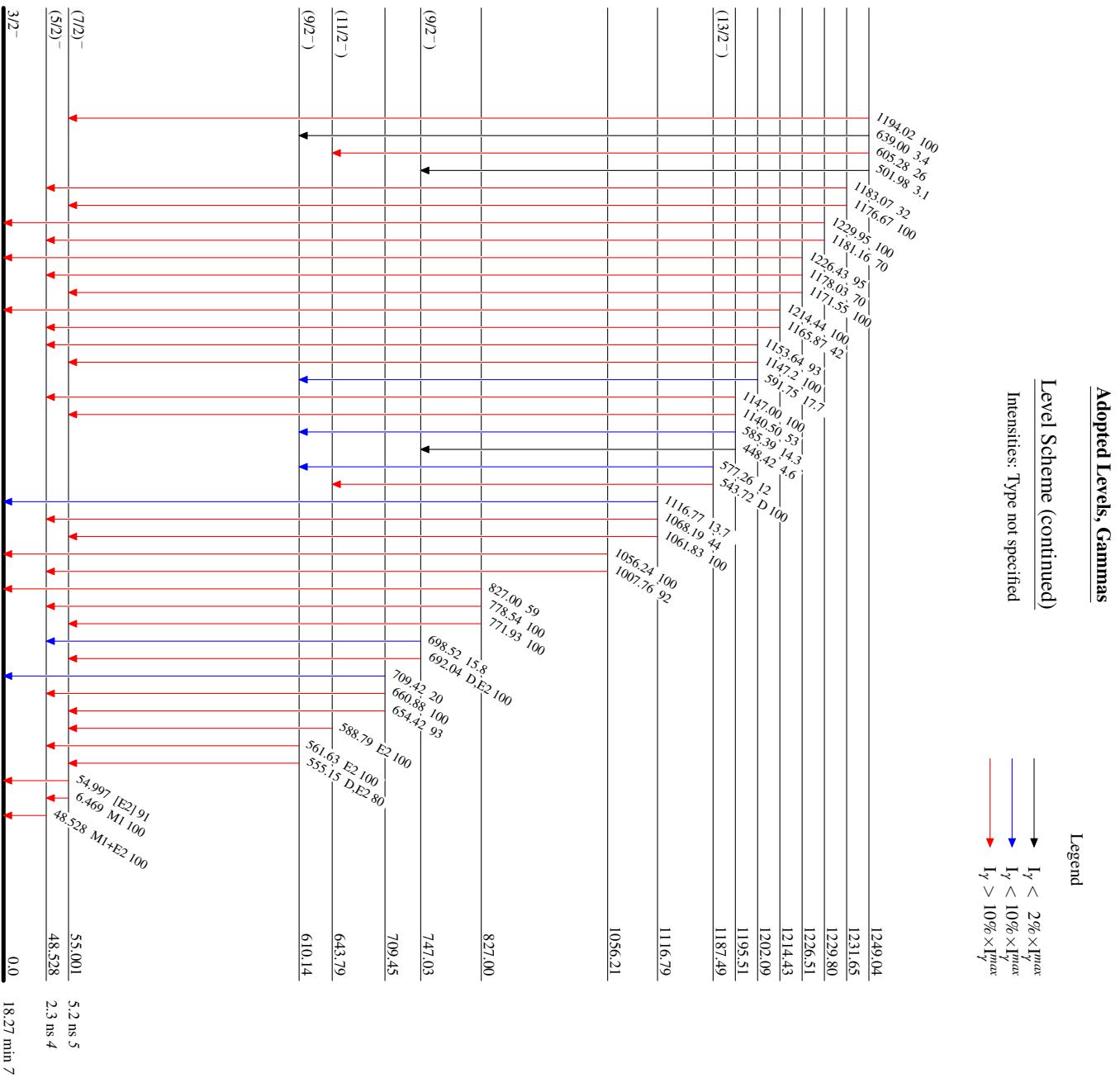
Intensities: Type not specified

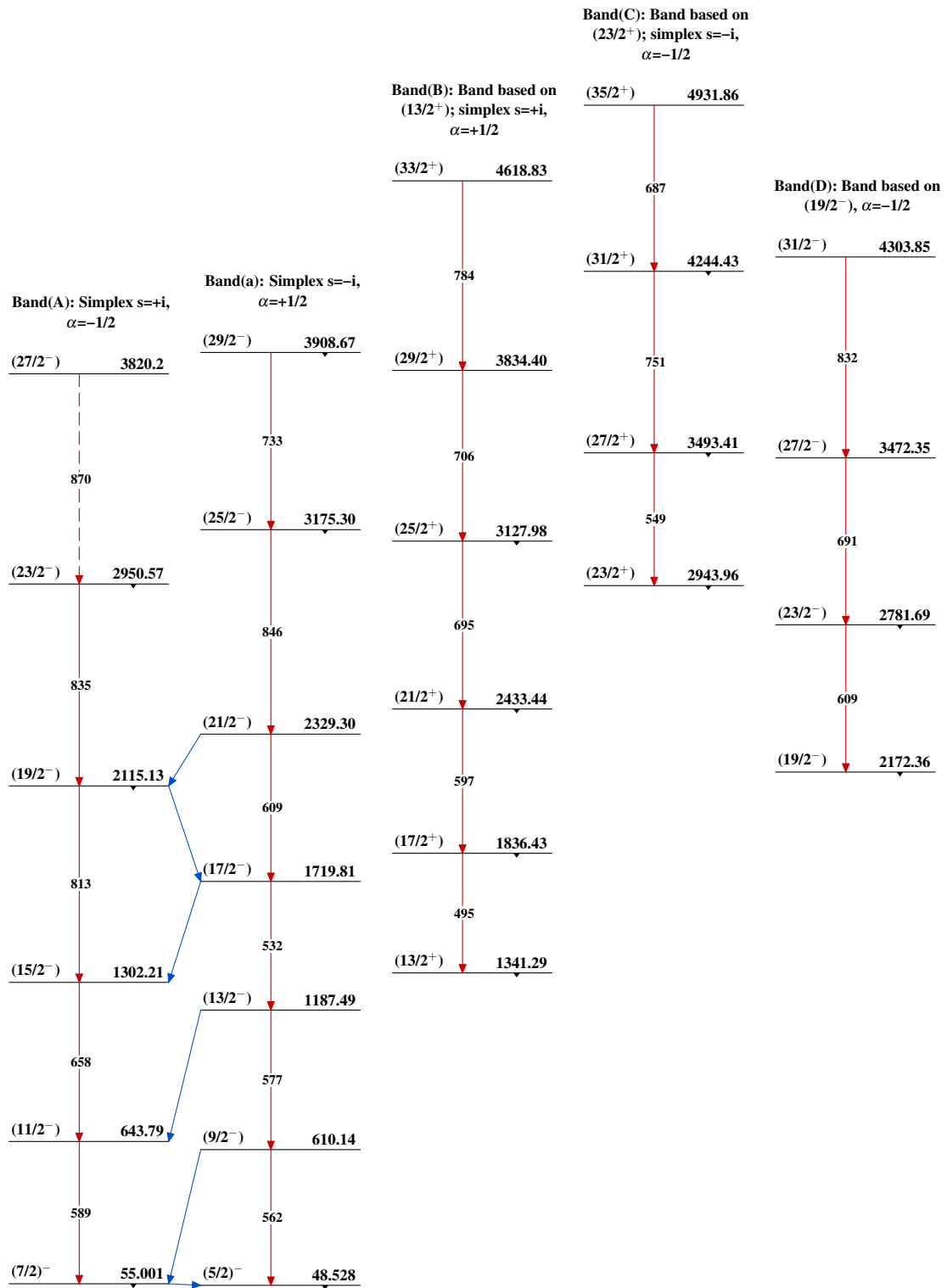
Legend

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



$^{141}_{56}\text{Ba}_{85}$



Adopted Levels, Gammas $^{141}_{56}\text{Ba}_{85}$