

Adopted Levels, Gammas

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

Q(β^-)=5255 10; S(n)=5499 12; S(p)=8780 9; Q(α)=-546 12 2021Wa16
 S(2n)=9919 10, S(2p)=20584 10, Q(β^- -n)=719 12 (2021Wa16).
 $\langle r^2 \rangle^{1/2}$ =4.8689 fm 108 (2013An02).
 Measured production cross-section from ⁹Be(²³⁸U,F), E=950 MeV/A (2019Pe09).

¹⁴¹Cs Levels

Cross Reference (XREF) Flags

- A ¹⁴¹Xe β^- decay
- B ²⁴⁸Cm, ²⁵²Cf SF decay

E(level) [†]	J π^{\ddagger}	T _{1/2}	XREF	Comments
0.0 ^a	7/2 ⁺	24.84 s 16	AB	% β^- =100; % β^- -n=0.035 3 μ =+2.438 10 (2014StZZ,1979Bo01) Q=-0.42 7 (2016St14,1981Th06) J π : from hyperfine structure studies (1979Bo01,1979Ek02); π from analysis of μ (1979Ek02). Configuration=(π 1g _{7/2}). μ : from collinear fast beam laser spectroscopy – accelerated beam (1979Bo01). Others: 2.42 3 (1979Ek02), 2.41 1 (1981Th06). Q: from atomic beam laser spectroscopy (1981Th06). Value adopted in compilation differs from values of 1981Th06 (-0.45 7) Other: -0.36 4 (1979Bo01). % β^- -n from 1993Ru01. Others: 0.029% 2 (1980Lu04), 0.043% 7 (1977Re05), 0.0529% 29 (1975As03, 1975As05), 0.073% 11 (1969Ta04). T _{1/2} : weighted average: 24.34 s 12 (1993Ru01), 24.94 s 6 (1976Ot03), 24.98 s 13 (1986Ok03). Others: 24.8 s 8 (1980Lu04), 25.6 s 3 (1974Gr29); see also 1976Lu02, 1972Ta29, 1971Kr22, 1970OsZZ, 1969Ta04.
69.061 7	(3/2) ⁺	23.3 ns 7	A	T _{1/2} : from ¹⁴¹ Xe β^- decay (1975Mo03). Other: 22 ns 6 (²⁵² Cf SF decay) (1974ClZX).
105.941 ^b 6	5/2 ⁺	8.7 ns 2	AB	J π : γ to 7/2 ⁺ is E2, log ft=6.1 via 5/2 ⁽⁻⁾ parent. T _{1/2} : from ¹⁴¹ Xe β^- decay (1975Mo03). Other: 14 ns 1 (²⁵² Cf SF decay) (1974ClZX). J π : M1+E2 γ to 7/2 ⁺ , g.s. and E2 γ from 9/2 ⁺ , 389.
116.85 4			A	J π : γ to 7/2 ⁺ is E2,(M1).
187.767 6	+	<1.9 ns	A	T _{1/2} : from 1975Mo03 (¹⁴¹ Xe β^- decay).
206.663 6		<2.1 ns	A	T _{1/2} : from 1975Mo03 (¹⁴¹ Xe β^- decay).
369.53 ^a 10	11/2 ^{+#}		AB	
389.04 ^b 3	9/2 ⁺		AB	J π : M1+E2 γ to 7/2 ⁺ , g.s. and band assignment.
467.89 3	+		A	J π : γ to 7/2 ⁺ is M1,E2.
492.77 3			A	
557.05 4	+		A	J π : γ to 7/2 ⁺ is M1,E2.
644.23 5	+		A	J π : γ to 5/2 ⁺ , 105 is M1,E2.
668.77 4			A	
800.96 3			A	
842.96 9			A	
850.6 ^a 8	15/2 ⁺		B	J π : E2 γ to 11/2 ⁺ , 370 and band assignment.
862.3 ^b 7	13/2 ^{+#}		B	
975.08 18			A	
979.72 8			A	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

¹⁴¹Cs Levels (continued)

E(level) [†]	J ^π [‡]	XREF	Comments
1097.20 3	7/2 ⁽⁻⁾ ,5/2 ⁽⁻⁾	A	J ^π : log ft=5.3 via 5/2 ⁽⁻⁾ parent, γ to 7/2 ⁺ .
1121.01 6		A	
1134.09 5		A	
1195.66 8		A	
1338.82 10		A	
1482.8 ^a 10	19/2 ⁺	B	J ^π : E2 γ to 15/2 ⁺ , 851.
1488.8 ^b 9	17/2 ⁺	B	J ^π : E2 γ to 13/2 ⁺ , 862.
1549.8 ^c 10	(15/2 ⁻) [@]	B	
1556.60 3	5/2 ⁽⁻⁾ ,7/2 ⁽⁻⁾	A	J ^π : log ft=5.4 via 5/2 ⁽⁻⁾ parent, γ to 7/2 ⁺ .
1577.1 13		B	
1632.2 ^d 12	(17/2 ⁻) [@]	B	
1660.9 10	(17/2)	B	J ^π : D γ to 15/2 ⁺ .
1941.4 ^c 10	(19/2 ⁻) [@]	B	J ^π : D γ to 17/2 ⁺ , 1489 (compatible with the assignment based on similar ¹⁴³ Cs level scheme).
2000.7 ^e 10	(19/2) ^{&}	B	
2086.7 ^d 11	(21/2 ⁻) [@]	B	J ^π : D γ to 19/2 ⁺ , 1483 (compatible with the assignment based on similar ¹⁴³ Cs level scheme).
2113.4 ^b 10	21/2 ⁺	B	J ^π : E2 γ to 17/2 ⁺ , 1489.
2131.2 ^a 11	23/2 ⁺	B	J ^π : E2 γ to 19/2 ⁺ , 1483.
2285.3 12	(23/2 ⁺) ^{&}	B	
2465.9 ^c 10	(23/2 ⁻) [@]	B	
2649.4 ^e 11	(23/2) ^{&}	B	
2675.4 ^d 12	(25/2 ⁻) [@]	B	
2784.5 ^b 12	(25/2 ⁺) [#]	B	
2789.4 ^a 14	(27/2 ⁺) [#]	B	
2994.8 ^c 11	(27/2 ⁻) [@]	B	
3056.5 14	(27/2 ⁺) ^{&}	B	
3332.7 ^e 14	(27/2) ^{&}	B	
3345.3 ^d 14	(29/2 ⁻) [@]	B	
3501.7 ^a 17	(31/2 ⁺)	B	
3504.4 ^b 16	(29/2 ⁺) [#]	B	
3603.1 ^c 14	(31/2 ⁻) [@]	B	
4272.9 ^c 17	(35/2 ⁻) [@]	B	
4345.6 ^a 20	(35/2 ⁺) [#]	B	

[†] From least-squares fit to E_γ values. Normalized $\chi^2=3.4 >$ critical $\chi^2=1.4$ due to E_γ values from ¹⁴¹Xe β⁻ decay dataset that are inaccurate.

[‡] For levels seen in SF decay only, J^π are from band assignments.

Based on E2-band assignment.

@ Tentative J^π assignments for bands 3 and 4 based on similar ¹⁴³Cs level scheme (²⁴⁸Cm, ²⁵²Cf SF decay, 2010Lu02).

& Postulated by 2010Lu02 in ²⁴⁸Cm, ²⁵²Cf SF decay based on level scheme arguments.

^a Band(A): Band 1: simplex=-i, π=+ and g.s. band.

^b Band(B): Band 2: simplex=+i, π=+ band.

^c Band(C): Band 3: simplex=+i, π=- band.

^d Band(D): Band 4: simplex=-i, π=- band.

^e Band(E): Band 5: based on (19/2).

Adopted Levels, Gammas (continued)

$\gamma(^{141}\text{Cs})$									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult.‡	$\delta^@$	$\alpha^\#$	Comments
69.061	(3/2) ⁺	69.05 3	100	0.0	7/2 ⁺	(E2)		7.07	B(E2)(W.u.)=44.0 14 $\alpha(\text{K})=3.53$ 5; $\alpha(\text{L})=2.79$ 4; $\alpha(\text{M})=0.608$ 9 $\alpha(\text{N})=0.1227$ 18; $\alpha(\text{O})=0.01406$ 20; $\alpha(\text{P})=9.26\times 10^{-5}$ 13 Mult.: from intensity balance in $\gamma\gamma$ 69 γ may be pure E2 or E2(+M1) (with small admixture of M1).
105.941	5/2 ⁺	37 1 105.942 6		69.061 0.0	(3/2) ⁺ 7/2 ⁺	[M1] M1+E2	5.9 16	16.48 1.50 3	$\alpha(\text{K})=14.08$; $\alpha(\text{L})=1.893$; $\alpha(\text{M})=0.386$ $\alpha(\text{exp})=1.5$ 2 $\alpha(\text{K})=1.002$ 17; $\alpha(\text{L})=0.394$ 10; $\alpha(\text{M})=0.0850$ 20 $\alpha(\text{N})=0.0173$ 4; $\alpha(\text{O})=0.00204$ 5; $\alpha(\text{P})=2.83\times 10^{-5}$ 4 Mult., δ : from $\alpha(\text{exp})$ (^{248}Cm , ^{252}Cf SF decay).
116.85 187.767	+	47.78 5 81.826 2	100 20.9 15	69.061 105.941	(3/2) ⁺ 5/2 ⁺	[M1]		1.599	$\alpha(\text{K})=1.369$ 20; $\alpha(\text{L})=0.183$ 3; $\alpha(\text{M})=0.0375$ 6 $\alpha(\text{N})=0.00792$ 11; $\alpha(\text{O})=0.001100$ 16; $\alpha(\text{P})=5.39\times 10^{-5}$ 8
		118.705 4 187.69 4	100 7 17.6 12	69.061 0.0	(3/2) ⁺ 7/2 ⁺	E2,(M1)		0.18 3	$\alpha(\text{K})=0.147$ 14; $\alpha(\text{L})=0.0271$ 96; $\alpha(\text{M})=0.0057$ 21 $\alpha(\text{N})=0.00118$ 42; $\alpha(\text{O})=1.52\times 10^{-4}$ 47; $\alpha(\text{P})=5.14\times 10^{-6}$ 12 The discrepancy between $T_{1/2}$ for 89.9 γ in ^{141}Xe β decay ($T_{1/2}<2.1$ ns) and in ^{252}Cf SF decay ($T_{1/2}=12$ ns) suggests that this γ may be a doublet in SF decay with unknown placement of $T_{1/2}=12$ ns component.
206.663		89.80 4	17.7 18	116.85					
369.53	11/2 ⁺	100.721 2 137.63 4 369.5 1	100 7 30.1 18 100	105.941 69.061 0.0	5/2 ⁺ (3/2) ⁺ 7/2 ⁺				
389.04	9/2 ⁺	283.05& 4	33 3	105.941	5/2 ⁺	E2		0.0524	$\alpha(\text{K})=0.0427$ 6; $\alpha(\text{L})=0.00772$ 11; $\alpha(\text{M})=0.001616$ 23 $\alpha(\text{N})=0.000335$ 5; $\alpha(\text{O})=4.32\times 10^{-5}$ 6; $\alpha(\text{P})=1.439\times 10^{-6}$ 21
		320.2 5 389.11 4	≤ 3.7 100 10	69.061 0.0	(3/2) ⁺ 7/2 ⁺	M1+E2		0.0211 17	$\alpha(\text{K})=0.0179$ 18; $\alpha(\text{L})=0.00255$ 5; $\alpha(\text{M})=0.000524$ 13 $\alpha(\text{N})=0.0001101$ 21; $\alpha(\text{O})=1.50\times 10^{-5}$ 3; $\alpha(\text{P})=6.6\times 10^{-7}$ 10 Mult.: based on $\alpha(\text{K})\text{exp}=0.02$ 1 in β^- decay and D γ in SF decay.
467.89	+	261.3 5 280.26 7 361.96 5	1.3 6 2.5 8 40 3	206.663 187.767 + 105.941		M1,E2		0.0258 17	$\alpha(\text{K})=0.0218$ 18; $\alpha(\text{L})=0.00316$ 13; $\alpha(\text{M})=0.00065$ 4 $\alpha(\text{N})=0.000136$ 6; $\alpha(\text{O})=1.85\times 10^{-5}$ 4; $\alpha(\text{P})=8.1\times 10^{-7}$ 11 Mult.: based on $\alpha(\text{K})\text{exp}=0.024$ 15 in β^- decay.
		398.9 2 467.81 4	11.7 8 100 8	69.061 0.0	(3/2) ⁺ 7/2 ⁺	M1,E2		0.0128 15	$\alpha(\text{K})=0.0109$ 14; $\alpha(\text{L})=0.00150$ 8; $\alpha(\text{M})=0.000309$ 13 $\alpha(\text{N})=6.5\times 10^{-5}$ 3; $\alpha(\text{O})=8.9\times 10^{-6}$ 7; $\alpha(\text{P})=4.1\times 10^{-7}$ 7 Mult.: based on $\alpha(\text{K})\text{exp}=0.015$ 6 in β^- decay.
492.77		122.5 8	2.3 12	369.53	11/2 ⁺				

Adopted Levels, Gammas (continued) $\gamma(^{141}\text{Cs})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. [‡]	$\alpha^\#$	Comments
492.77		286.0 & 1	≤ 11.5	206.663				
		304.9 3	8.1 12	187.767	+			
		387.00 6	29.1 23	105.941	5/2 ⁺			
		423.89 5	100 8	69.061	(3/2) ⁺			
		492.85 6	32.6 35	0.0	7/2 ⁺			
557.05	+	89.10 6	5.7 7	467.89	+			
		167.6 4	1.4 4	389.04	9/2 ⁺			
		369.5 1	≤ 57	187.767	+			
		451.5 4	8.6 21	105.941	5/2 ⁺			
		556.8 1	100 7	0.0	7/2 ⁺	M1,E2	0.0082 12	$\alpha(\text{K})=0.0070$ 11; $\alpha(\text{L})=0.00094$ 9; $\alpha(\text{M})=0.000192$ 16 $\alpha(\text{N})=4.0 \times 10^{-5}$ 4; $\alpha(\text{O})=5.6 \times 10^{-6}$ 6; $\alpha(\text{P})=2.6 \times 10^{-7}$ 5 Mult.: based on $\alpha(\text{K})\text{exp}=0.008$ 3 in β^- decay.
644.23	+	255.24 & 5	64 6	389.04	9/2 ⁺			
		437.7 4	7.6 19	206.663				
		456.8 3	37.7 38	187.767	+			
		538.4 1	100 8	105.941	5/2 ⁺	M1,E2	0.0089 12	$\alpha(\text{K})=0.0076$ 11; $\alpha(\text{L})=0.00102$ 9; $\alpha(\text{M})=0.000210$ 16 $\alpha(\text{N})=4.4 \times 10^{-5}$ 4; $\alpha(\text{O})=6.1 \times 10^{-6}$ 6; $\alpha(\text{P})=2.9 \times 10^{-7}$ 5 Mult.: based on $\alpha(\text{K})\text{exp}(538\gamma+540\gamma)=0.011$ 3 in β^- decay.
		644.2 2	47.2 38	0.0	7/2 ⁺			
668.77		462.10 4	100 13	206.663				
		480 1	31 25	187.767	+			
		599.7 3	44 13	69.061	(3/2) ⁺			
		669.3 4	31 13	0.0	7/2 ⁺			
800.96		333.0 3	10 2	467.89	+			
		412.5 7	4 2	389.04	9/2 ⁺			
		594.2 1	42 4	206.663	+			
		613.06 4	100 2	187.767	+			
		731.92 8	46 6	69.061	(3/2) ⁺			
		801.0 3	16 4	0.0	7/2 ⁺			
842.96		286.0 & 1	≤ 66	557.05	+			
		473.1 4	47 13	369.53	11/2 ⁺			
		842.7 2	100 13	0.0	7/2 ⁺			
850.6	15/2 ⁺	481.0	100	369.53	11/2 ⁺	E2	0.01048	$\alpha(\text{K})=0.00883$ 13; $\alpha(\text{L})=0.001318$ 19; $\alpha(\text{M})=0.000272$ 4 $\alpha(\text{N})=5.69 \times 10^{-5}$ 8; $\alpha(\text{O})=7.64 \times 10^{-6}$ 11; $\alpha(\text{P})=3.16 \times 10^{-7}$ 5
862.3	13/2 ⁺	473.4	100 6	389.04	9/2 ⁺			
		492.7	30.6 17	369.53	11/2 ⁺	D		
975.08		482.2 2	100 22	492.77				
		507.6 4	56 22	467.89	+			
979.72		335.4 7	2.1 11	644.23	+			
		422.4 2	18.1 53	557.05	+			
		511.9 4	22.3 43	467.89	+			
		772.9 5	100 6	206.663				

Adopted Levels, Gammas (continued)

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

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. [‡]	$\alpha^\#$	Comments
979.72		791.9 1	16.0 21	187.767	+			
		873.8 4	4.3 11	105.941	5/2 ⁺			
		979.7 3	70 7	0.0	7/2 ⁺			
1097.20	7/2 ⁽⁻⁾ , 5/2 ⁽⁻⁾	254.1 & 6	≤0.47	842.96				
		453.2 2	2.3 4	644.23	+			
		540.12 4	22 2	557.05	+	(E1)	0.00259	$\alpha(\text{K})=0.00225$ 4; $\alpha(\text{L})=0.000279$ 4; $\alpha(\text{M})=5.67 \times 10^{-5}$ 8 $\alpha(\text{N})=1.195 \times 10^{-5}$ 17; $\alpha(\text{O})=1.657 \times 10^{-6}$ 24; $\alpha(\text{P})=8.07 \times 10^{-8}$ 12 Mult.: from $\alpha(\text{K})\exp(540\gamma+538\gamma)=0.011$ 3 in β^- decay.
		604.3 2	2.3 2	492.77				
		628.8 3	2.5 3	467.89	+			
		708.6 7	0.4 2	389.04	9/2 ⁺			
		909.23 5	100 7	187.767	+			
		1097.41 8	0.36 6	0.0	7/2 ⁺			
1121.01		320.2 & 5	≤5.4	800.96				
		476.6 5	10.9 44	644.23	+			
		913.4 5	52 20	206.663				
		933 1	8.7 87	187.767	+			
		1015.0 1	28.3 22	105.941	5/2 ⁺			
		1051.96 9	100 9	69.061	(3/2) ⁺			
		1121.1 1	61 7	0.0	7/2 ⁺			
1134.09		641.19 7	100 17	492.77				
		744.9 3	13.3 33	389.04	9/2 ⁺			
		946.1 6	8.3 17	187.767	+			
		1028.25 7	85 7	105.941	5/2 ⁺			
		1134.8 4	15.0 33	0.0	7/2 ⁺			
1195.66		551.7 1	100 10	644.23	+			
		807.0 4	40 10	389.04	9/2 ⁺			
		988.9 5	40 10	206.663				
		1007.6 1	95 15	187.767	+			
		1089.6 5	30 10	105.941	5/2 ⁺			
1338.82		1132.0 6	22 9	206.663				
		1150.6 3	39 9	187.767	+			
		1232.9 1	100 13	105.941	5/2 ⁺			
		1270.4 5	13.0 44	69.061	(3/2) ⁺			
1482.8	19/2 ⁺	632.2	100	850.6	15/2 ⁺	E2	0.00504	$\alpha(\text{K})=0.00429$ 6; $\alpha(\text{L})=0.000599$ 9; $\alpha(\text{M})=0.0001232$ 18 $\alpha(\text{N})=2.59 \times 10^{-5}$ 4; $\alpha(\text{O})=3.52 \times 10^{-6}$ 5; $\alpha(\text{P})=1.565 \times 10^{-7}$ 22
1488.8	17/2 ⁺	626.5	100 6	862.3	13/2 ⁺	E2	0.00516	$\alpha(\text{K})=0.00439$ 7; $\alpha(\text{L})=0.000614$ 9; $\alpha(\text{M})=0.0001263$ 18 $\alpha(\text{N})=2.65 \times 10^{-5}$ 4; $\alpha(\text{O})=3.60 \times 10^{-6}$ 5; $\alpha(\text{P})=1.600 \times 10^{-7}$ 23
1549.8	(15/2 ⁻)	638.2	5.4 3	850.6	15/2 ⁺			
		687.5	100	862.3	13/2 ⁺			

Adopted Levels, Gammas (continued)

γ(¹⁴¹Cs) (continued)

<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_γ[†]</u>	<u>I_γ[†]</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.[‡]</u>	<u>α[#]</u>	<u>Comments</u>
1556.60	5/2 ⁽⁻⁾ ,7/2 ⁽⁻⁾	422.4 ^{&} 2	7.4 22	1134.09				
		435.6 3	3.0 4	1121.01				
		459.30 4	100 9	1097.20	7/2 ⁽⁻⁾ ,5/2 ⁽⁻⁾	M1,E2	0.0135 16	α(K)=0.0115 15; α(L)=0.00158 7; α(M)=0.000325 12 α(N)=6.8×10 ⁻⁵ 3; α(O)=9.4×10 ⁻⁶ 6; α(P)=4.3×10 ⁻⁷ 7
		576.4 2	7.0 9	979.72				
		755.32 6	24.4 22	800.96				
		999.8 6	2.6 9	557.05		+		
		1064.62 7	14.4 13	492.77				
		1168 1	0.9 4	389.04		9/2 ⁺		
		1368.8 1	23.0 26	187.767		+		
		1556.66 8	52.2 44	0.0		7/2 ⁺		
1577.1		726.5	100	850.6		15/2 ⁺		
1632.2	(17/2 ⁻)	781.6	100	850.6		15/2 ⁺		
1660.9	(17/2)	810.3	100	850.6		15/2 ⁺		D
1941.4	(19/2 ⁻)	391.6	12 5	1549.8		(15/2 ⁻)		
		452.6	100 7	1488.8		17/2 ⁺		D
2000.7	(19/2)	339.8	20 7	1660.9		(17/2)		
		511.9	100 7	1488.8		17/2 ⁺		
		517.9	89 9	1482.8		19/2 ⁺		
2086.7	(21/2 ⁻)	454.5	22 6	1632.2		(17/2 ⁻)		
		603.9	100 6	1482.8		19/2 ⁺		D
2113.4	21/2 ⁺	452.5	21 3	1660.9		(17/2)		
		624.6	100 11	1488.8		17/2 ⁺		E2 0.00520 α(K)=0.00442 7; α(L)=0.000620 9; α(M)=0.0001273 18 α(N)=2.67×10 ⁻⁵ 4; α(O)=3.63×10 ⁻⁶ 5; α(P)=1.613×10 ⁻⁷ 23
		630.6	3.6 4	1482.8		19/2 ⁺		
2131.2	23/2 ⁺	648.4	100	1482.8		19/2 ⁺		E2 0.00473 α(K)=0.00402 6; α(L)=0.000560 8; α(M)=0.0001149 16 α(N)=2.41×10 ⁻⁵ 4; α(O)=3.29×10 ⁻⁶ 5; α(P)=1.471×10 ⁻⁷ 21
2285.3	(23/2 ⁺)	198.6 ^a		2086.7		(21/2 ⁻)		
		802.5	100	1482.8		19/2 ⁺		
2465.9	(23/2 ⁻)	352.5	32 8	2113.4		21/2 ⁺		
		465.2	21 5	2000.7		(19/2)		
		524.5	100 11	1941.4		(19/2 ⁻)		
2649.4	(23/2)	518.2	15 3	2131.2		23/2 ⁺		
		648.7	100 22	2000.7		(19/2)		
2675.4	(25/2 ⁻)	390.1	14 4	2285.3		(23/2 ⁺)		
		544.2	63 16	2131.2		23/2 ⁺		
		588.7	100 26	2086.7		(21/2 ⁻)		
2784.5	(25/2 ⁺)	671.1	100	2113.4		21/2 ⁺		
2789.4	(27/2 ⁺)	658.2	100	2131.2		23/2 ⁺		
2994.8	(27/2 ⁻)	210.3	32 11	2784.5		(25/2 ⁺)		
		345.4	29 10	2649.4		(23/2)		

Adopted Levels, Gammas (continued) $\gamma(^{141}\text{Cs})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult. [‡]	$\alpha^\#$	Comments
2994.8	(27/2 ⁻)	528.9	100 33	2465.9	(23/2 ⁻)	E2	0.00806	$\alpha(\text{K})=0.00682$ 10; $\alpha(\text{L})=0.000993$ 14; $\alpha(\text{M})=0.000205$ 3 $\alpha(\text{N})=4.29 \times 10^{-5}$ 6; $\alpha(\text{O})=5.78 \times 10^{-6}$ 8; $\alpha(\text{P})=2.46 \times 10^{-7}$ 4
3056.5	(27/2 ⁺)	381.1	96	2675.4	(25/2 ⁻)			
		771.2	100	2285.3	(23/2 ⁺)			
3332.7	(27/2)	683.3	100	2649.4	(23/2)			
3345.3	(29/2 ⁻)	288.9 ^a		3056.5	(27/2 ⁺)			
		555.9	36.3	2789.4	(27/2 ⁺)			
		670.0	100	2675.4	(25/2 ⁻)			
3501.7	(31/2 ⁺)	712.3	100	2789.4	(27/2 ⁺)			
3504.4	(29/2 ⁺)	719.9	100	2784.5	(25/2 ⁺)			
3603.1	(31/2 ⁻)	270.4	<8.4	3332.7	(27/2)			
		608.3	100	2994.8	(27/2 ⁻)			
4272.9	(35/2 ⁻)	669.8	100	3603.1	(31/2 ⁻)			
4345.6	(35/2 ⁺)	843.9	100	3501.7	(31/2 ⁺)			

[†] From β^- decay for γ 's coming from this dataset alone or also observed in $^{248}\text{Cm}, ^{252}\text{Cf}$ SF decay dataset; from $^{248}\text{Cm}, ^{252}\text{Cf}$ SF decay for γ 's coming only from this dataset.

[‡] For γ 's from $^{248}\text{Cm}, ^{252}\text{Cf}$ SF decay, from angular correlations measured: Mult=Q, E2 since $T_{1/2}(\text{level}) < 10$ ns is for $\Delta J=2$; mult=D for $\Delta J=1$ or 0.

[#] [Additional information 1.](#)

[@] If No value given it was assumed $\delta=1.00$ for E2/M1, $\delta=1.00$ for E3/M2 and $\delta=0.10$ for the other multipolarities.

[&] Multiply placed.

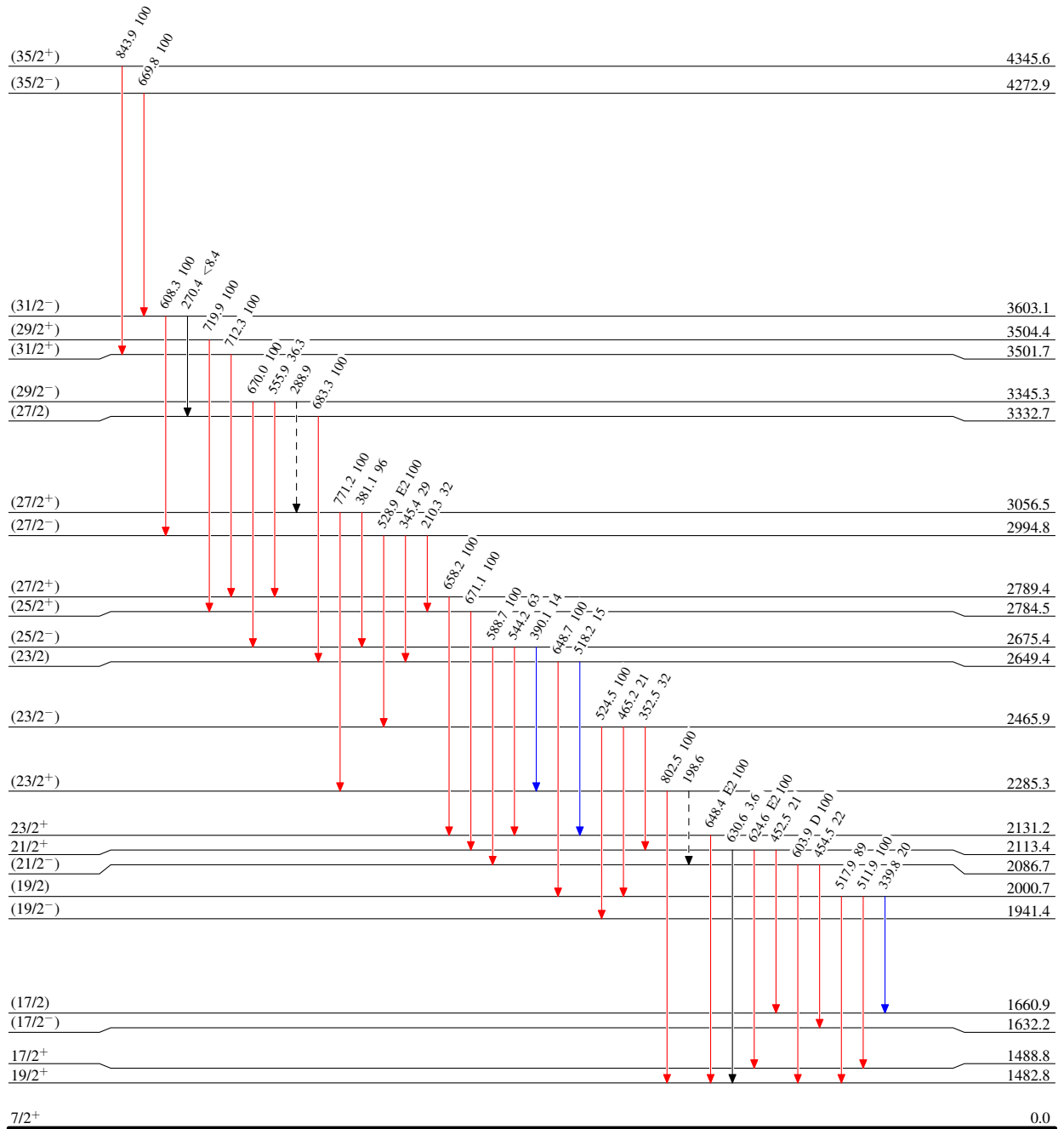
^a Placement of transition in the level scheme is uncertain.

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)



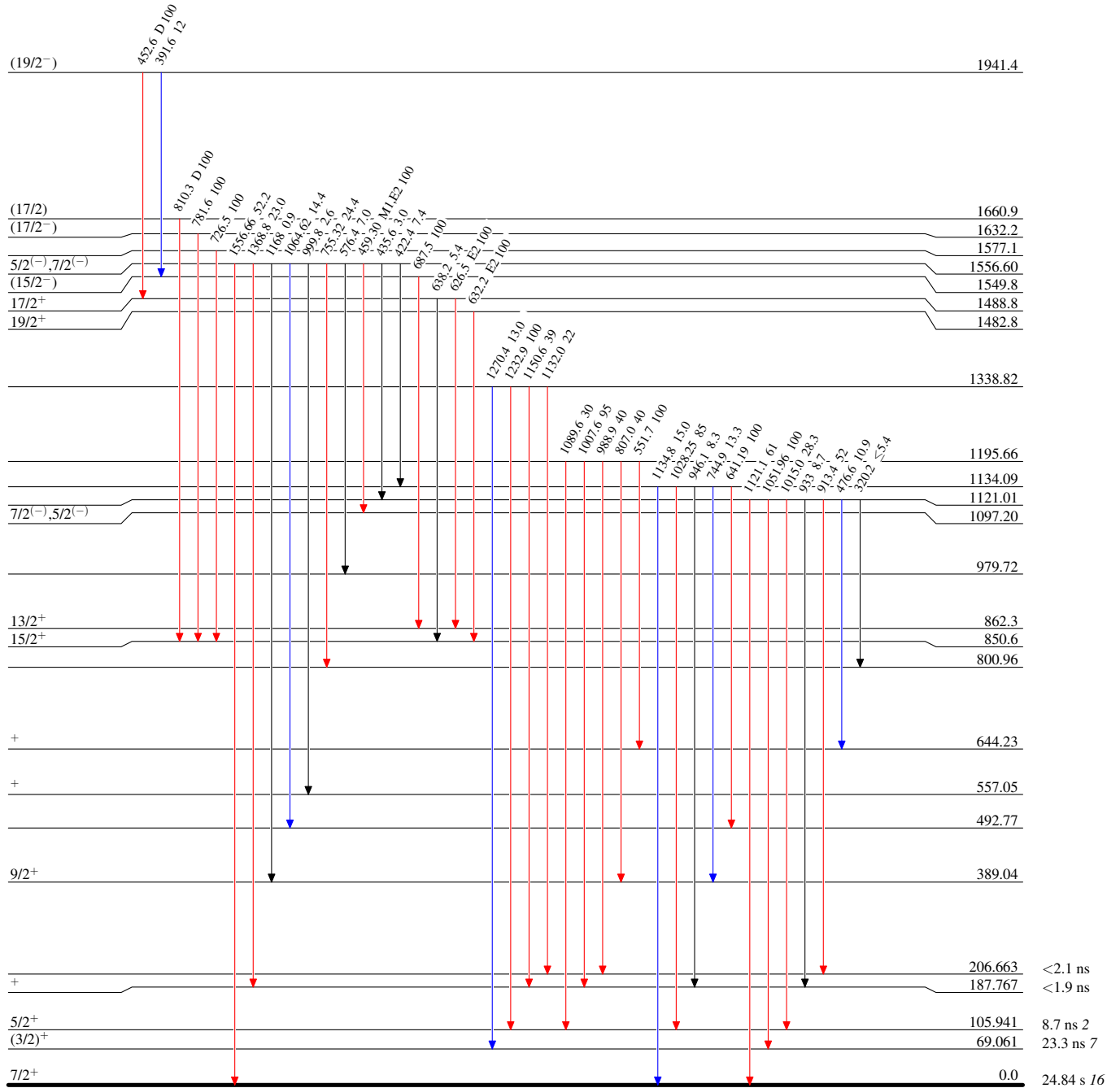
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

Legend

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



$^{141}_{55}\text{Cs}_{86}$

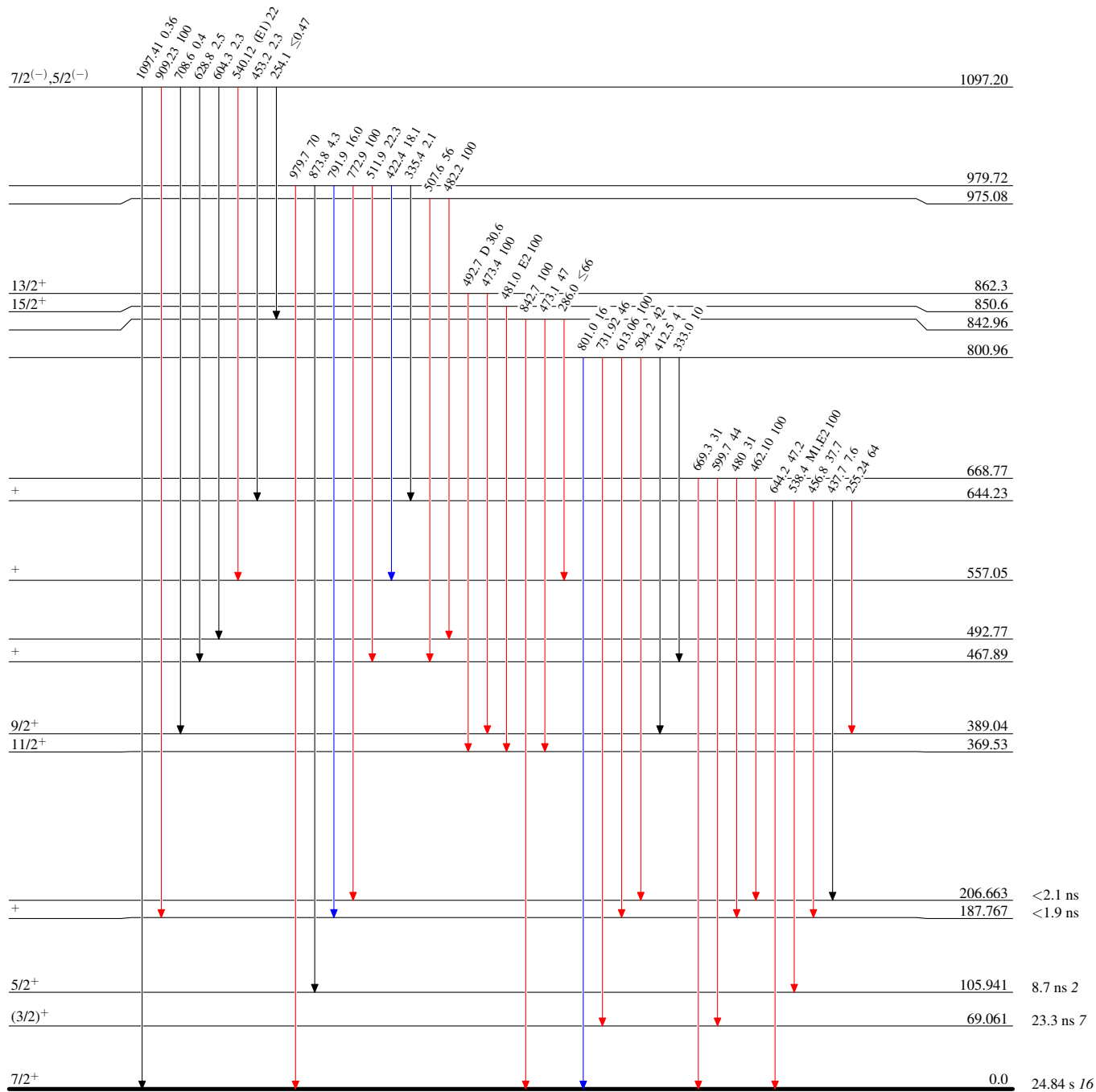
Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Type not specified

Legend

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



$^{141}_{55}\text{Cs}_{86}$

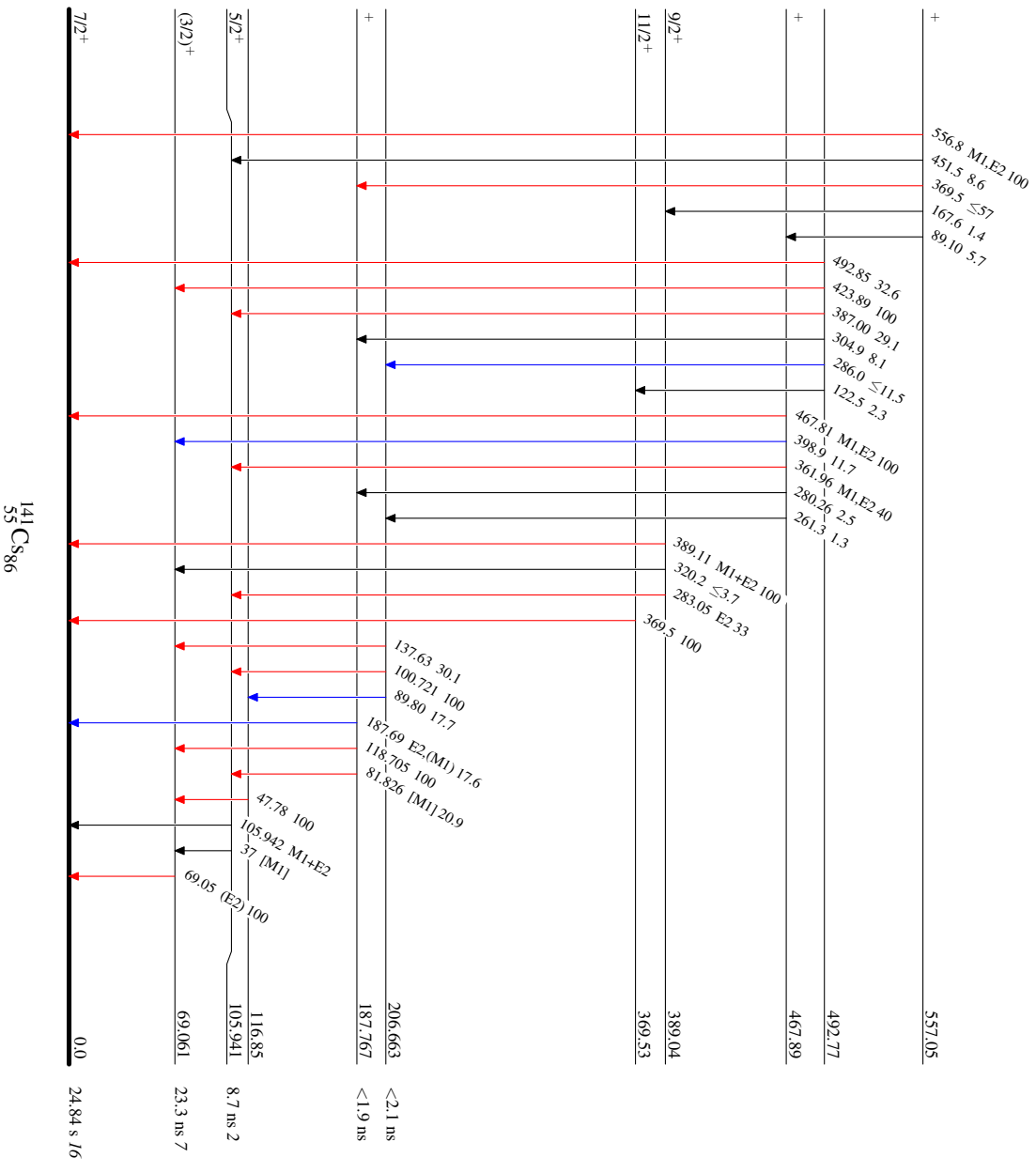
Adopted Levels, Gammas

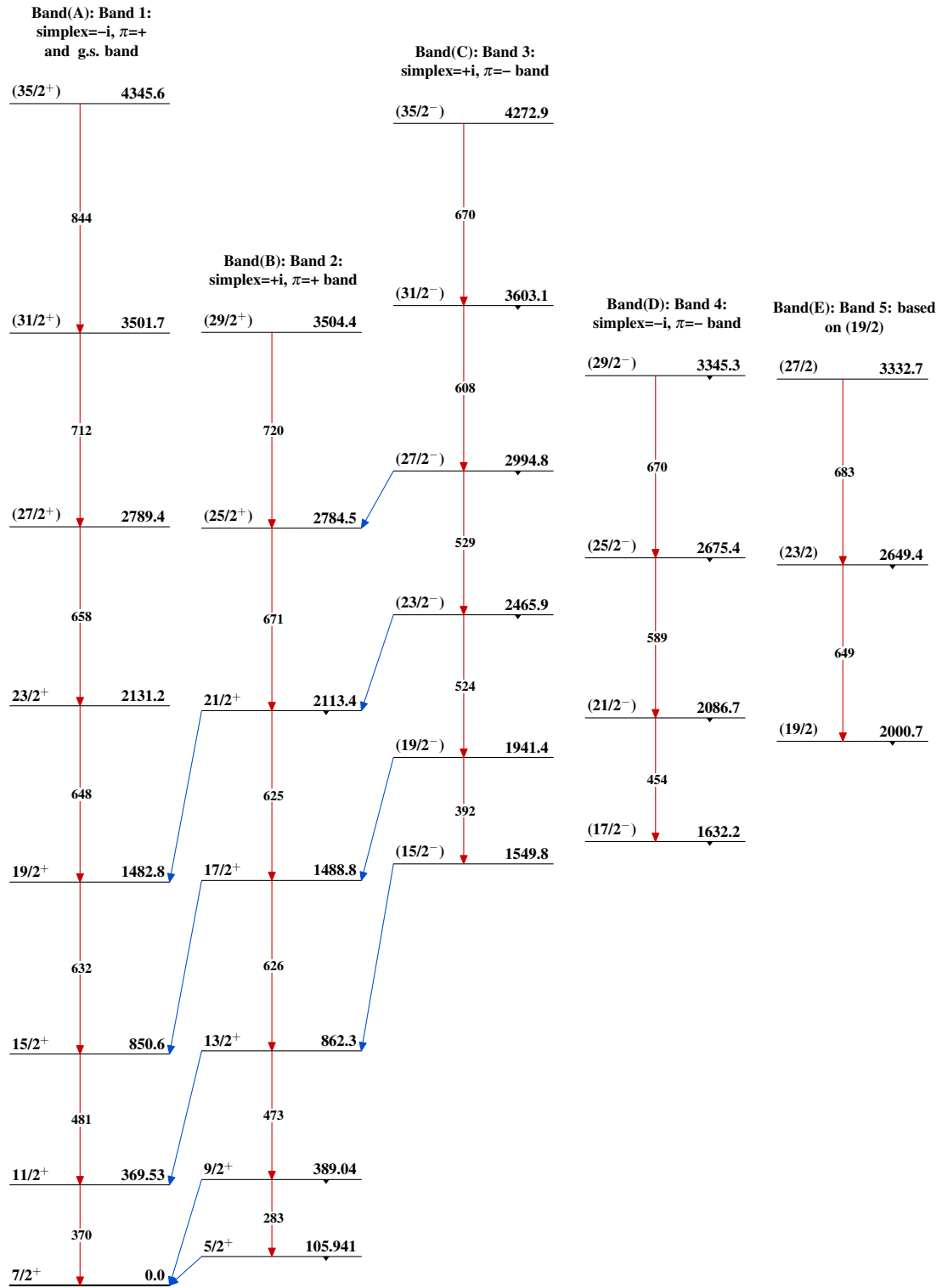
Level Scheme (continued)

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 $^{141}_{55}\text{Cs}_{86}$