

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 189,1 (2023)	14-Feb-2023

Q(β^-)=-809.3 15; S(n)=5518.6 5; S(p)=6163.6 11; Q(α)=5624.5 5 2021Wa16
 S(2n)=12320.0 11, S(2p)=11328.0 25 (2021Wa16).

²⁴⁵Cm Levels

Cross Reference (XREF) Flags

- A ²⁴⁵Am β^- decay
- B ²⁴⁵Bk ϵ decay
- C ²⁴⁹Cf α decay
- D ²⁴⁶Cm(d,t), ²⁴⁴Cm(d,p)

E(level) [†]	J ^{π}	T _{1/2}	XREF	Comments
0.0 [#]	7/2 ⁺	8423 y 74	ABCD	<p>$\% \alpha = 100$; $\% \text{SF} = 6.0 \times 10^{-7}$ 8 $\mu = 0.5$ 1 J^{π}: Spin from measured paramagnetic resonance (1970Ab03). Parity from Nilsson orbital assignment which is in agreement with calculation using quasiparticle-phonon model (2015Sh07) and the projected shell model (2016Sa20). μ: Electron Paramagnetic Resonance (1970Ab03,2019StZV). rms charge radius $\langle r^2 \rangle^{1/2} = 5.848$ fm 18 (2013An02). T_{1/2}: From weighted average of 8245 y 70 (2009KoZV, 2008KoZP), 8445 y 100 (1982Po14), 8532 y 53 (1971Ma32), and 8265 y 180 (1969Me01). Other evaluated values: 8250 70 (2012Ch30), 8480 y 60 (1989Ho24), 8500 y 200 (1986LoZT). Earlier measurements: 1961Ca01, 1955Br02, 1954Fr19, 1954Hu50. T_{1/2}(SF)=1.4×10¹² y 2, measured by 1985Dr10 and recommended by 2000Ho27,1989Ho24 Theoretical calculations of T_{1/2} 1/2(SF): 9.5×10¹² y (2005RoZS). Others: 1978Po09, 1990Bh02, 2005Re16. $\% \text{SF}$ is deduced by the evaluator from the adopted total and partial half-lives.</p>
54.784 [#] 12	9/2 ⁺	≤0.10 ns	ABCD	<p>J^{π}: M1 240.9γ from 7/2⁺ 295.7-keV level; band member; from L transfer in ²⁴⁶Cm(d,t),²⁴⁴Cm(d,t). T_{1/2}: From $\alpha\gamma(t)$ in the decay of ²⁴⁹Cf (1972An08).</p>
121.574 [#] 15	11/2 ⁺		A CD	J ^{π} : band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
199.8 [#] 5	13/2 ⁺		C	J ^{π} : Band member.
252.838 [@] 17	5/2 ⁺		ABCD	J ^{π} : M1+E2 252.8 γ to 7/2 ⁺ g.s.; E2 103.1 γ from 1/2 ⁺ 355.9-keV level.
295.705 [@] 13	7/2 ⁺		ABCD	J ^{π} : M1+E2 295.7 γ to 7/2 ⁺ g.s.; band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
350.640 [@] 30	9/2 ⁺		CD	J ^{π} : 229.2 γ to 11/2 ⁺ 121.6-keV level; band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
355.96 ^{&} 9	1/2 ⁺	0.29 μs 2	B D	<p>J^{π}: M1 385.6γ from (1/2⁺) 740.9-keV level; band member; from L transfer in ²⁴⁶Cm(d,t),²⁴⁴Cm(d,t). T_{1/2}: From γ-ce delayed coincidence method in the decay of ²⁴⁵Bk (1975Ya03).</p>
361.44 ^{&} 32	3/2 ⁺		B	J ^{π} : 272.2 γ from (3/2 ⁻) 633.6-keV level; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
388.170 ^a 12	9/2 ⁻	0.450 ns 20	A C	J ^{π} : (E1) 388.15 γ to 7/2 ⁺ g.s.; E1+M2 266.6 γ to 11/2 ⁺ 121.6-keV level.

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Adopted Levels, Gammas (continued) ^{245}Cm Levels (continued)

E(level) [†]	J ^π	XREF	Comments
416.59 [@] 4	11/2 ⁺	CD	T _{1/2} : From αγ(t) in the decay of ²⁴⁹ Cf (1972An08). J ^π : 65.95γ to 9/2 ⁺ 350.6-keV level; 356γ from (11/2 ⁻) 771-keV level; band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
418.7 ^{&} 4	5/2 ⁺	B	J ^π : Band member.
431 ^{‡&} 2	7/2 ⁺	D	J ^π : Band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t)1.
442.892 ^a 20	11/2 ⁻	C	J ^π : M1+E2 54.77γ to 9/2 ⁻ 388.2-keV level; band member.
495.8 [@] 5	13/2 ⁺	CD	J ^π : Band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
508.842 ^a 28	13/2 ⁻	C	J ^π : 65.95γ to 11/2 ⁻ 442.9-keV level; band member.
532 ^{‡&} 2	9/2 ⁺	D	J ^π : Band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
554.71 ^{&} 30	(11/2 ⁺)	CD	J ^π : Band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
585.4 ^a 5	15/2 ⁻	CD	J ^π : Band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
633.64 10	(3/2 ⁻)	AB	J ^π : E1 380.8γ to 5/2 ⁺ 252.8-keV level; no γ to 7/2 ⁺ 295.7-keV level; logft = 7.1 for ε branch from 3/2 ⁻ excludes 7/2 ⁻ .
643.632 ^c 19	7/2 ⁻	A C	J ^π : M1(+E2) 255.47γ to 9/2 ⁻ 388.2-keV level; large HF in α decay from 9/2 ⁻ parent excludes 9/2 ⁻ ; systematics of the experimental and calculated bandhead energies with the 7/2 ⁻ [743] assignment in N=149 isotones: ²⁴⁵ Cm, ²⁴⁷ Cf, ²⁴⁹ Fm (2012Zh01).
661.52 7	(5/2 ⁻)	B D	XREF: D(?). J ^π : From E1 365.8γ to 7/2 ⁺ 295.7-keV level, 408.7γ to 5/2 ⁺ .
674.2 ^a	17/2 ⁻	C	J ^π : Band member.
701.831 ^c 20	9/2 ⁻	C	J ^π : M1 259.15γ to 11/2 ⁻ 442.9-keV level; band member.
736.3 5		C	
740.97 ^b 12	(1/2 ⁺)	B D	J ^π : 488.2γ to 5/2 ⁺ 252.8-keV level; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
763 [‡] 6	(3/2 ⁺)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
769.2 ^b 4	(3/2 ⁺)	B	J ^π : M1 350.5γ to 5/2 ⁺ 418-keV level, band member.
771.85 ^c 4	(11/2 ⁻)	CD	J ^π : 421.0γ to 9/2 ⁺ 350.6-keV level; 650.3γ to 11/2 ⁺ 121.6-keV level; band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
774.3 7		C	
785.23 ^d 8	(9/2 ⁺)	CD	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
791 ^{‡b} 4	(5/2 ⁺)	D	J ^π : Band member; from L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
841.1 5		C	
849.19 26		C	
852.58 ^c 10	(13/2 ⁻)	C	J ^π : Band member.
856 ^{‡b} 3	(7/2 ⁺)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
890.61 ^b 9	(9/2 ⁺)	CD	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
900.1 5		C	
906.6 5		C	
908 ^{‡e} 5	(3/2 ⁺)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
913 ^{‡f} 3	1/2 ⁻	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
942 ^{‡e} 3	(5/2 ⁺)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
956 ^{‡f} 2	(3/2 ⁻ , 5/2 ⁻)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
971.379 21	(7/2 ⁺ , 9/2 ⁺)	C	J ^π : 718.50γ to 5/2 ⁺ 252.8-keV level; 849.9γ to 11/2 ⁺ 121.6-keV level;
980 ^g 5	(3/2 ⁻)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
995 ^{‡e} 5	(7/2 ⁺)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
995 ^{‡h} 5	(5/2 ⁺)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
1017 ^{‡g} 4	(7/2 ⁻)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
1042 ^{‡e} 5	(9/2 ⁺)	D	J ^π : From L transfer in ²⁴⁶ Cm(d,t), ²⁴⁴ Cm(d,t).
1050 [‡] 5		D	
1054.7 8		C	
1056 [‡] 3		D	

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Adopted Levels, Gammas (continued) ^{245}Cm Levels (continued)

<u>E(level)[†]</u>	<u>J^π</u>	<u>T_{1/2}</u>	<u>XREF</u>	<u>Comments</u>
1083 ^{‡h} 3	(9/2 ⁺)		D	J ^π : From L transfer in $^{246}\text{Cm}(\text{d,t})$, $^{244}\text{Cm}(\text{d,t})$.
1102.3 5			CD	
1259 [‡] 5			D	
1271 ^{‡i} 2	(5/2 ⁻)		D	J ^π : From L transfer in $^{246}\text{Cm}(\text{d,t})$, $^{244}\text{Cm}(\text{d,t})$.
1473 [‡] 3			D	
2.1×10 ³ 3		13.2 ns 18		%SF≤100 E(level): Recommended in 1990Bh02 . T _{1/2} : 13.2 ns 18 (1972Wo07), 23 ns 5 (1971Br39). 13.2 ns 18 recommended in 1973Br38 , 13 ns 2 in 1990Bh02 .

[†] From least-squares fit to E_γ data by the evaluator, except as noted.

[‡] From $^{244}\text{Cm}(\text{d,p})$, $^{246}\text{Cm}(\text{d,t})$ dataset.

Band(A): 7/2[624] rotational band.

@ Band(B): 5/2[622] rotational band.

& Band(C): 1/2[631] rotational band.

^a Band(D): 9/2[734] rotational band.

^b Band(E): 1/2[620] rotational band.

^c Band(F): 7/2[743] rotational band.

^d Band(G): 7/2[613] rotational band.

^e Band(H): 3/2[622] rotational band.

^f Band(I): 1/2[501] rotational band.

^g Band(J): 1/2[750] rotational band.

^h Band(K): 3/2[631] rotational band.

ⁱ Band(L): 5/2[503] rotational band.

Adopted Levels, Gammas (continued)

$\gamma(^{245}\text{Cm})$

Additional information 1.

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult.	δ	α^a	Comments
54.784	9/2 ⁺	54.77 2	100	0.0	7/2 ⁺				
121.574	11/2 ⁺	66.80 2	52 29	54.784	9/2 ⁺	M1+E2 [#]	0.44 [@] +6-7	39 4	$\alpha(\text{L})=28.8$ 31; $\alpha(\text{M})=7.6$ 9 $\alpha(\text{N})=2.10$ 25; $\alpha(\text{O})=0.52$ 6; $\alpha(\text{P})=0.094$ 10; $\alpha(\text{Q})=0.00357$ 14
		121.60 4	100 14	0.0	7/2 ⁺	E2 [#]		7.60 11	$\alpha(\text{L})=5.49$ 8; $\alpha(\text{M})=1.552$ 22 $\alpha(\text{N})=0.432$ 6; $\alpha(\text{O})=0.1047$ 15; $\alpha(\text{P})=0.01749$ 25; $\alpha(\text{Q})=8.63 \times 10^{-5}$ 12
252.838	5/2 ⁺	198.1 3	0.34 13	54.784	9/2 ⁺	E2 ^{&}		1.021 15	$\alpha(\text{K})=0.1474$ 21; $\alpha(\text{L})=0.633$ 10; $\alpha(\text{M})=0.1774$ 27 $\alpha(\text{N})=0.0493$ 8; $\alpha(\text{O})=0.01200$ 19; $\alpha(\text{P})=0.002042$ 31; $\alpha(\text{Q})=1.827 \times 10^{-5}$ 27
		252.82 3	100 3	0.0	7/2 ⁺	M1+E2	0.16 +6-4	2.25 5	$\alpha(\text{K})=1.76$ 4; $\alpha(\text{L})=0.366$ 6; $\alpha(\text{M})=0.0895$ 14 $\alpha(\text{N})=0.0246$ 4; $\alpha(\text{O})=0.00626$ 10; $\alpha(\text{P})=0.001229$ 20; $\alpha(\text{Q})=8.66 \times 10^{-5}$ 21
									Mult., δ : From conversion electron data in ²⁴⁹ Cf α decay, ²⁴⁵ Am β^- decay, and ²⁴⁵ Bk ϵ decay.
295.705	7/2 ⁺	42.87 2	16.9 7	252.838	5/2 ⁺				
		240.90 4	100 4	54.784	9/2 ⁺	M1 [#]		2.63 4	$\alpha(\text{K})=2.064$ 29; $\alpha(\text{L})=0.423$ 6; $\alpha(\text{M})=0.1033$ 14 $\alpha(\text{N})=0.0284$ 4; $\alpha(\text{O})=0.00722$ 10; $\alpha(\text{P})=0.001421$ 20; $\alpha(\text{Q})=0.0001015$ 14
		295.73 2	65.3 23	0.0	7/2 ⁺	M1+E2 [#]	0.39 [@] +17-24	1.32 14	$\alpha(\text{K})=1.02$ 12; $\alpha(\text{L})=0.223$ 13; $\alpha(\text{M})=0.0550$ 28 $\alpha(\text{N})=0.0151$ 8; $\alpha(\text{O})=0.00384$ 20; $\alpha(\text{P})=0.00075$ 5; $\alpha(\text{Q})=5.0 \times 10^{-5}$ 6
350.640	9/2 ⁺	(97.8)		252.838	5/2 ⁺				
		229.20 8	100	121.574	11/2 ⁺				
355.96	1/2 ⁺	103.1 [‡] 1	100 [‡]	252.838	5/2 ⁺	E2 ^{&}		16.25 24	B(E2)(W.u.)=0.107 8 $\alpha(\text{L})=11.74$ 17; $\alpha(\text{M})=3.32$ 5 $\alpha(\text{N})=0.924$ 14; $\alpha(\text{O})=0.2238$ 33; $\alpha(\text{P})=0.0372$ 5; $\alpha(\text{Q})=0.0001572$ 23
388.170	9/2 ⁻	37.55 3	0.0223 11	350.640	9/2 ⁺				
		92.51 2	0.467 27	295.705	7/2 ⁺				
		266.63 2	1.07 4	121.574	11/2 ⁺	E1+M2 [#]	0.076 [@] +7-8	0.094 8	B(E1)(W.u.)=1.74 $\times 10^{-7}$ 11; B(M2)(W.u.)=0.065 13 $\alpha(\text{K})=0.069$ 5; $\alpha(\text{L})=0.0183$ 18; $\alpha(\text{M})=0.0046$ 5 $\alpha(\text{N})=0.00128$ 13; $\alpha(\text{O})=0.000323$ 34; $\alpha(\text{P})=6.1 \times 10^{-5}$ 7; $\alpha(\text{Q})=3.7 \times 10^{-6}$ 4
		333.37 2	22.4 6	54.784	9/2 ⁺	(E1) [#]		0.0348 5	B(E1)(W.u.)=1.87 $\times 10^{-6}$ 11 $\alpha(\text{K})=0.0274$ 4; $\alpha(\text{L})=0.00553$ 8; $\alpha(\text{M})=0.001347$ 19

Adopted Levels, Gammas (continued)

$\gamma(^{245}\text{Cm})$ (continued)

<u>E_i(level)</u>	<u>J^{π}_i</u>	<u>E_{γ}</u> †	<u>I_{γ}</u> †	<u>E_f</u>	<u>J^{π}_f</u>	<u>Mult.</u>	<u>δ</u>	<u>α^a</u>	<u>Comments</u>
388.170	9/2 ⁻	388.15 2	100 3	0.0	7/2 ⁺	(E1) [#]		0.0254 4	$\alpha(\text{N})=0.000367$ 5; $\alpha(\text{O})=9.20\times 10^{-5}$ 13; $\alpha(\text{P})=1.726\times 10^{-5}$ 24; $\alpha(\text{Q})=9.91\times 10^{-7}$ 14 B(E1)(W.u.)=5.30×10 ⁻⁶ 24 $\alpha(\text{K})=0.02012$ 28; $\alpha(\text{L})=0.00396$ 6; $\alpha(\text{M})=0.000962$ 13 $\alpha(\text{N})=0.000263$ 4; $\alpha(\text{O})=6.59\times 10^{-5}$ 9; $\alpha(\text{P})=1.244\times 10^{-5}$ 17; $\alpha(\text{Q})=7.38\times 10^{-7}$ 10
416.59	11/2 ⁺	65.95 2	100	350.640	9/2 ⁺				
442.892	11/2 ⁻	54.77 2	100 3	388.170	9/2 ⁻	M1+E2 [#]	0.63 [@] 4	121 8	$\alpha(\text{L})=88$ 5; $\alpha(\text{M})=24.1$ 16 $\alpha(\text{N})=6.7$ 4; $\alpha(\text{O})=1.64$ 10; $\alpha(\text{P})=0.280$ 17; $\alpha(\text{Q})=0.00582$ 16
		321.25 3	31.6 15	121.574	11/2 ⁺	[E1]		0.0376 5	$\alpha(\text{K})=0.0296$ 4; $\alpha(\text{L})=0.00601$ 8; $\alpha(\text{M})=0.001464$ 20 $\alpha(\text{N})=0.000399$ 6; $\alpha(\text{O})=0.0001000$ 14; $\alpha(\text{P})=1.872\times 10^{-5}$ 26; $\alpha(\text{Q})=1.066\times 10^{-6}$ 15
508.842	13/2 ⁻	65.95 2	100	442.892	11/2 ⁻				
554.71	(11/2 ⁺)	259.0 3	100	295.705	7/2 ⁺				
633.64	(3/2) ⁻	272.2 [‡] 3	0.50 [‡] 12	361.44	3/2 ⁺	[E1]		0.0537 8	$\alpha(\text{K})=0.0420$ 6; $\alpha(\text{L})=0.00878$ 12; $\alpha(\text{M})=0.002142$ 30 $\alpha(\text{N})=0.000584$ 8; $\alpha(\text{O})=0.0001458$ 21; $\alpha(\text{P})=2.71\times 10^{-5}$ 4; $\alpha(\text{Q})=1.486\times 10^{-6}$ 21
		380.8 [‡] 1	100 [‡] 7	252.838	5/2 ⁺	E1 ^{&}		0.0264 4	$\alpha(\text{K})=0.02091$ 29; $\alpha(\text{L})=0.00413$ 6; $\alpha(\text{M})=0.001003$ 14 $\alpha(\text{N})=0.000274$ 4; $\alpha(\text{O})=6.87\times 10^{-5}$ 10; $\alpha(\text{P})=1.296\times 10^{-5}$ 18; $\alpha(\text{Q})=7.65\times 10^{-7}$ 11
643.632	7/2 ⁻	255.47 3	100 9	388.170	9/2 ⁻	M1(+E2) [#]	0.19 [@] 23	2.17 21	$\alpha(\text{K})=1.69$ 19; $\alpha(\text{L})=0.354$ 17; $\alpha(\text{M})=0.0867$ 33 $\alpha(\text{N})=0.0238$ 9; $\alpha(\text{O})=0.00606$ 24; $\alpha(\text{P})=0.00119$ 6; $\alpha(\text{Q})=8.3\times 10^{-5}$ 9
		347.8 3	10.9 16	295.705	7/2 ⁺				
		390.84 5	52 5	252.838	5/2 ⁺				
		588.79 4	1.66 13	54.784	9/2 ⁺				
		643.64 3	39 4	0.0	7/2 ⁺				
661.52	(5/2) ⁻	365.8 [‡] 1	100 [‡] 8	295.705	7/2 ⁺	E1 ^{&}		0.0287 4	$\alpha(\text{K})=0.02268$ 32; $\alpha(\text{L})=0.00451$ 6; $\alpha(\text{M})=0.001096$ 15 $\alpha(\text{N})=0.000299$ 4; $\alpha(\text{O})=7.50\times 10^{-5}$ 11; $\alpha(\text{P})=1.412\times 10^{-5}$ 20; $\alpha(\text{Q})=8.27\times 10^{-7}$ 12
		408.7 [‡] 1	51 [‡] 8	252.838	5/2 ⁺	[E1]		0.02287 32	$\alpha(\text{K})=0.01816$ 25; $\alpha(\text{L})=0.00355$ 5; $\alpha(\text{M})=0.000861$ 12 $\alpha(\text{N})=0.0002349$ 33; $\alpha(\text{O})=5.90\times 10^{-5}$ 8; $\alpha(\text{P})=1.116\times 10^{-5}$ 16; $\alpha(\text{Q})=6.69\times 10^{-7}$ 9
701.831	9/2 ⁻	259.15 7	100 11	442.892	11/2 ⁻	M1 [#]		2.143 30	$\alpha(\text{K})=1.684$ 24; $\alpha(\text{L})=0.344$ 5; $\alpha(\text{M})=0.0842$ 12 $\alpha(\text{N})=0.02311$ 32; $\alpha(\text{O})=0.00589$ 8; $\alpha(\text{P})=0.001158$ 16; $\alpha(\text{Q})=8.26\times 10^{-5}$ 12
		314.0 3	34 7	388.170	9/2 ⁻				
		405.93 6	56.5 35	295.705	7/2 ⁺				

Adopted Levels, Gammas (continued)

$\gamma(^{245}\text{Cm})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\dagger	E_f	J_f^π	Mult.	α^a	Comments
701.831	9/2 ⁻	580.27 9 647.04 3 701.84 3	2.0 2 18.6 9 11.6 11	121.574 54.784 0.0	11/2 ⁺ 9/2 ⁺ 7/2 ⁺			
736.3		483.5 5	100	252.838	5/2 ⁺			
740.97	(1/2 ⁺)	385.0 [‡] 1	100 [‡]	355.96	1/2 ⁺	M1&	0.718 10	$\alpha(\text{K})=0.565$ 8; $\alpha(\text{L})=0.1147$ 16; $\alpha(\text{M})=0.0280$ 4 $\alpha(\text{N})=0.00769$ 11; $\alpha(\text{O})=0.001958$ 27; $\alpha(\text{P})=0.000385$ 5; $\alpha(\text{Q})=2.74 \times 10^{-5}$ 4
		488.2 [‡] 2	2.5 [‡] 5	252.838	5/2 ⁺	[E2]	0.0623 9	$\alpha(\text{K})=0.0345$ 5; $\alpha(\text{L})=0.02039$ 29; $\alpha(\text{M})=0.00546$ 8 $\alpha(\text{N})=0.001511$ 21; $\alpha(\text{O})=0.000373$ 5; $\alpha(\text{P})=6.73 \times 10^{-5}$ 9; $\alpha(\text{Q})=2.012 \times 10^{-6}$ 28
769.2	(3/2 ⁺)	350.5 [‡] 1	100 [‡] 8	418.7	5/2 ⁺	M1&	0.929 13	$\alpha(\text{K})=0.731$ 10; $\alpha(\text{L})=0.1487$ 21; $\alpha(\text{M})=0.0363$ 5 $\alpha(\text{N})=0.00996$ 14; $\alpha(\text{O})=0.00254$ 4; $\alpha(\text{P})=0.000499$ 7; $\alpha(\text{Q})=3.56 \times 10^{-5}$ 5
		407.8 [‡] 2	37 [‡]	361.44	3/2 ⁺			
771.85	(11/2 ⁻)	356 1 421.0 3 650.30 5 717.04 5	≤ 100 7.4 7 2.22 20 3.13 20	416.59 350.640 121.574 54.784	11/2 ⁺ 9/2 ⁺ 11/2 ⁺ 9/2 ⁺			
774.3		652.7 7	100	121.574	11/2 ⁺			
785.23	(9/2 ⁺)	663.65 8	100	121.574	11/2 ⁺			
841.1		841.1 5	100	0.0	7/2 ⁺			
849.19		596.1 3 849.9 5	100 15 14.0 23	252.838 0.0	5/2 ⁺ 7/2 ⁺			
852.58	(13/2 ⁻)	731.0 1 798.0 5	100 11 19.7 30	121.574 54.784	11/2 ⁺ 9/2 ⁺			
890.61	(9/2 ⁺)	890.61 9	100	0.0	7/2 ⁺			
900.1		483.5 5	100	416.59	11/2 ⁺			
906.6		906.6 5	100	0.0	7/2 ⁺			
971.379	(7/2 ⁺ , 9/2 ⁺)	718.50 3 849.9 5 916.63 3 971.38 4	48.7 34 1.01 17 16.8 8 100 7	252.838 121.574 54.784 0.0	5/2 ⁺ 11/2 ⁺ 9/2 ⁺ 7/2 ⁺			
1054.7		1054.7 8	100	0.0	7/2 ⁺			
1102.3		1102.3 5	100	0.0	7/2 ⁺			

[†] From ²⁴⁹Cf α decay, except as noted.

[‡] From ²⁴⁵Bk ϵ decay.

From conversion electron data in ²⁴⁹Cf α decay.

@ From conversion electron data in ²⁴⁹Cf α decay.

Adopted Levels, Gammas (continued) $\gamma({}^{245}\text{Cm})$ (continued)

& From conversion electron data in ${}^{245}\text{Bk}$ ε decay.

^a [Additional information 2.](#)

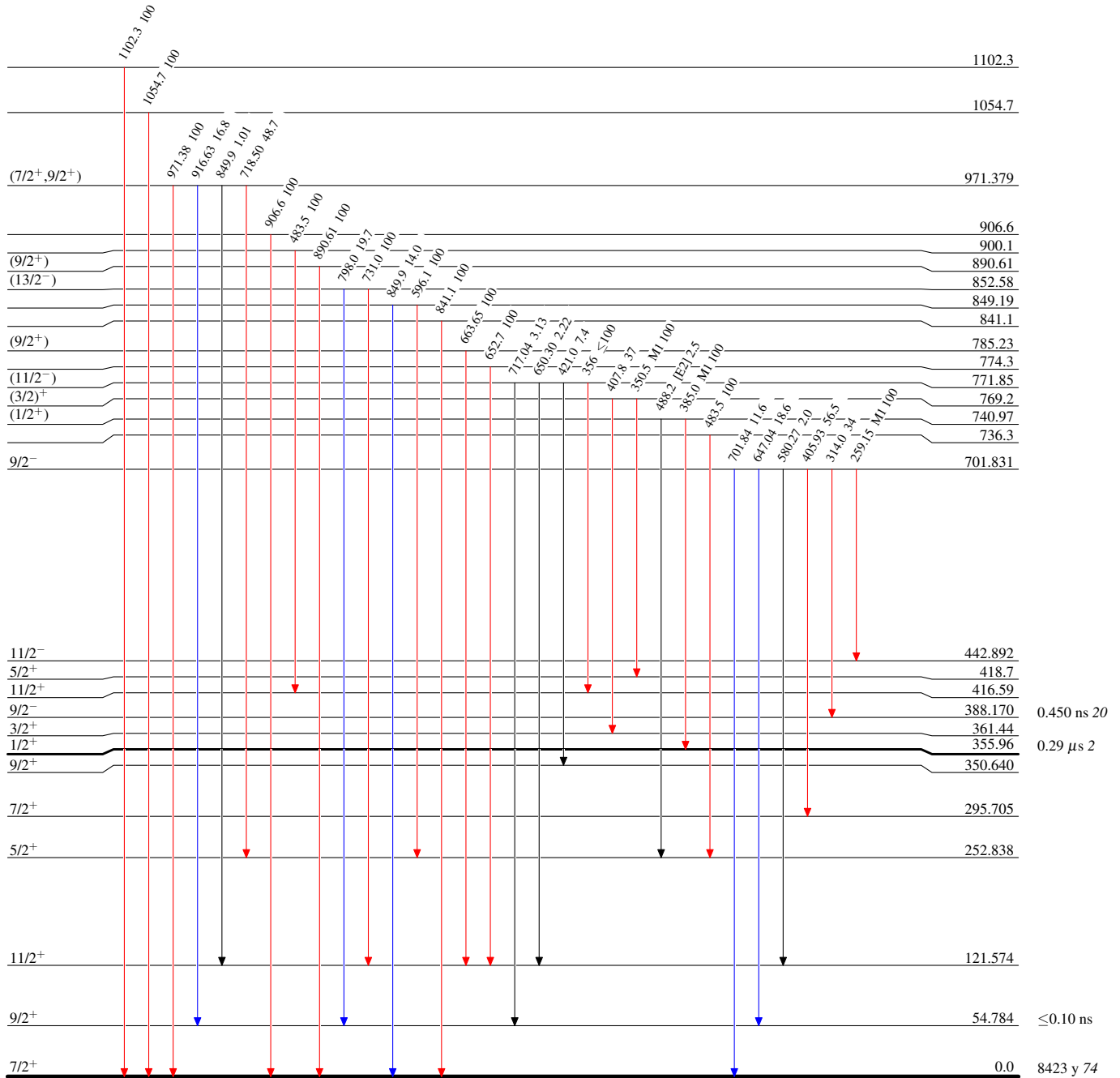
Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified

Legend

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



$^{245}_{96}\text{Cm}_{149}$

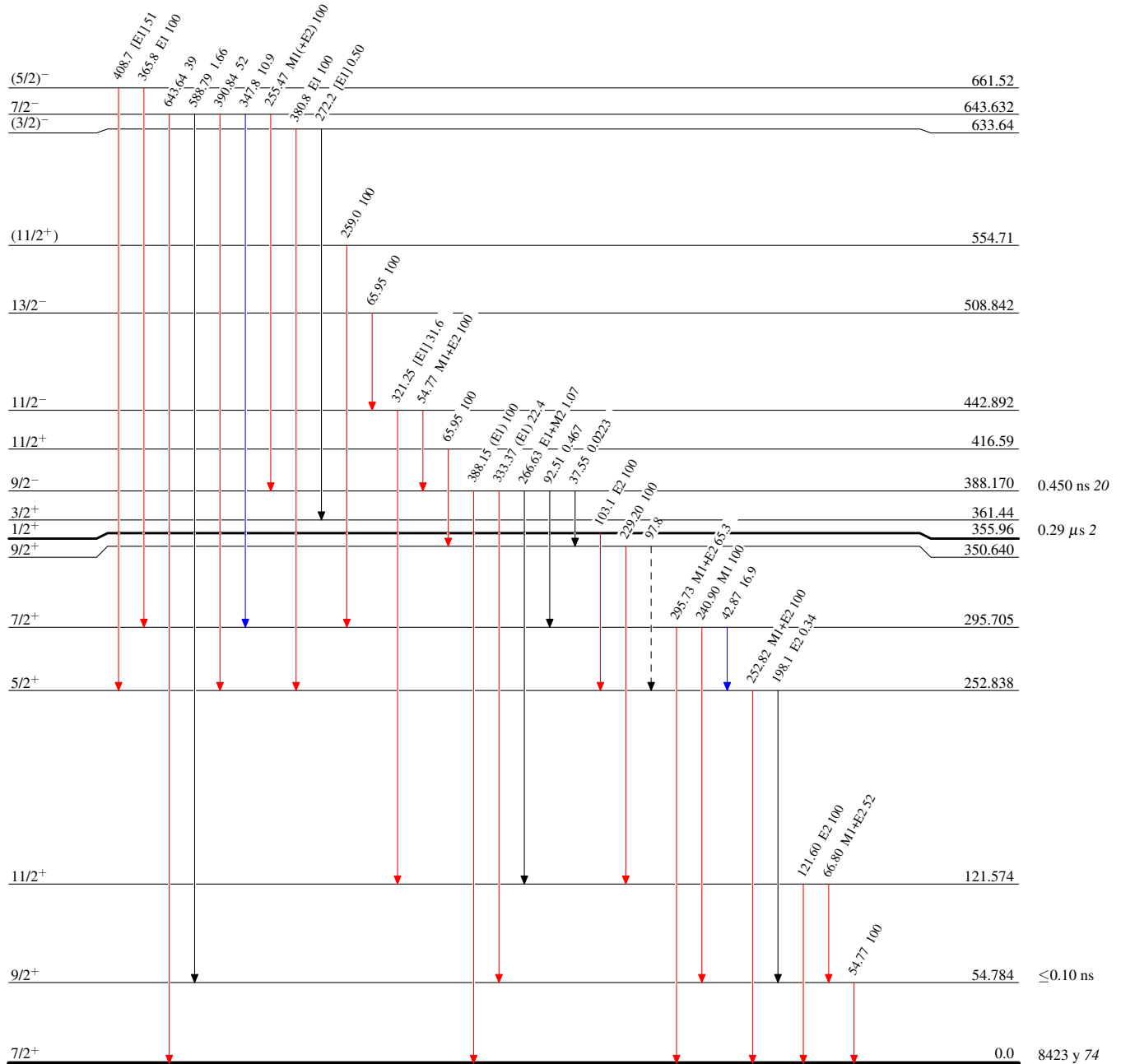
Adopted Levels, Gammas

Legend

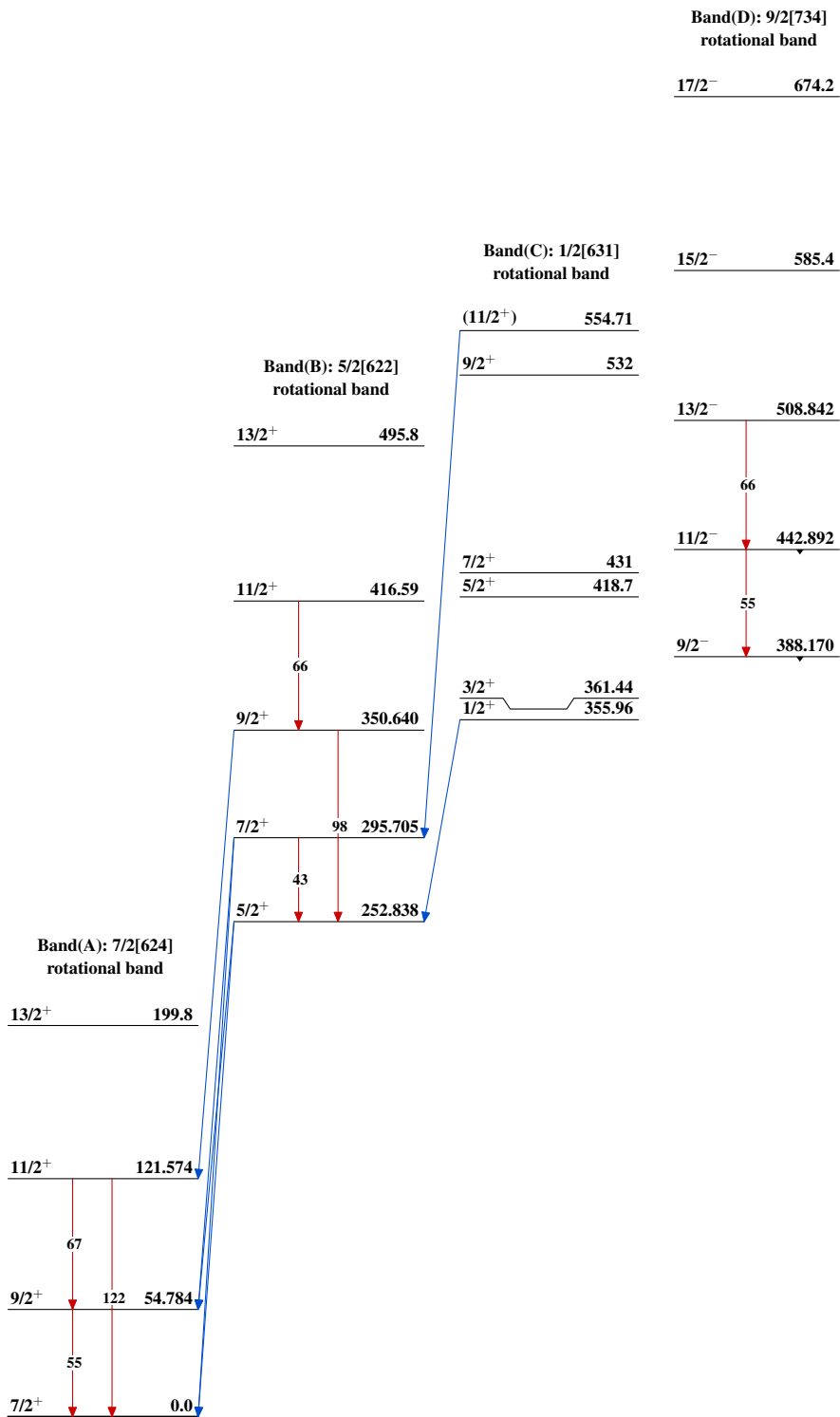
Level Scheme (continued)

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)



²⁴⁵₉₆Cm₁₄₉

Adopted Levels, Gammas $^{245}_{96}\text{Cm}_{149}$

Adopted Levels, Gammas (continued)

		Band(H): 3/2[622] rotational band		Band(J): 1/2[750] rotational band
		<u>(9/2⁺)</u>	<u>1042</u>	<u>(7/2⁻)</u>
				<u>1017</u>
		<u>(7/2⁺)</u>	<u>995</u>	
				<u>(3/2⁻)</u>
				<u>980</u>
			Band(I): 1/2[501] rotational band	
			<u>(3/2⁻, 5/2⁻)</u>	<u>956</u>
		<u>(5/2⁺)</u>	<u>942</u>	
Band(E): 1/2[620] rotational band		<u>(3/2⁺)</u>	<u>908</u>	<u>1/2⁻</u>
<u>(9/2⁺)</u>	<u>890.61</u>			<u>913</u>
		Band(F): 7/2[743] rotational band		
<u>(7/2⁺)</u>	<u>856</u>	<u>(13/2⁻)</u>	<u>852.58</u>	
		Band(G): 7/2[613] rotational band		
<u>(5/2⁺)</u>	<u>791</u>	<u>(9/2⁺)</u>	<u>785.23</u>	
<u>(3/2⁺)</u>	<u>769.2</u>	<u>(11/2⁻)</u>	<u>771.85</u>	
<u>(1/2⁺)</u>	<u>740.97</u>			
		<u>9/2⁻</u>	<u>701.831</u>	
		<u>7/2⁻</u>	<u>643.632</u>	

Adopted Levels, Gammas (continued)

**Band(L): 5/2[503]
rotational band**

(5/2⁻) 1271

**Band(K): 3/2[631]
rotational band**

(9/2⁺) 1083

(5/2⁺) 995

$^{245}_{96}\text{Cm}_{149}$