

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde		NDS 121, 1 (2014)	20-Jun-2014

$Q(\beta^-)=-1377.2$ 10; $S(n)=9719.12$ 12; $S(p)=12373$ 3; $Q(\alpha)=-7927.9$ 6 [2012Wa38](#)

[Additional information 1.](#)

 ^{54}Cr LevelsCross Reference (XREF) Flags

A	^{54}V β^- decay	K	$^{54}\text{Cr}(n,n'\gamma)$	U	$^{57}\text{Fe}(n,\alpha\gamma)$
B	^{54}Mn ε decay	L	$^{54}\text{Cr}(p,p'),(p,p'\gamma)$	V	$^{53}\text{Cr}(n,\gamma)$ E=res
C	$^{48}\text{Ca}(^9\text{Be},3n\gamma)$	M	$^{52}\text{Cr}(\alpha,^2\text{He})$	W	$^{54}\text{Cr}(\text{pol } d,d'), (\text{pol } d,d'\gamma)$
D	$^{50}\text{Ti}(^6\text{Li},d)$	N	$^{55}\text{Mn}(n,d)$	X	$^{12}\text{C}(^{48}\text{Ca},\alpha 2n\gamma)$
E	$^{50}\text{Ti}(^{16}\text{O},^{12}\text{C})$	O	Coulomb excitation	Y	$^{56}\text{Fe}(\mu^-, \nu p n \gamma)$
F	$^{51}\text{V}(\alpha,p),(\alpha,p\gamma)$	P	$^{55}\text{Mn}(\mu^-, n\gamma)$	Z	$^{238}\text{U}(^{64}\text{Ni}, X\gamma)$
G	$^{52}\text{Cr}(t,p)$	Q	$^{54}\text{Cr}(\alpha,\alpha')$	Others:	
H	$^{53}\text{Cr}(n,\gamma),(\text{pol } n,\gamma)$ E=th	R	$^{55}\text{Mn}(p,2p)$	AA	$\text{Cu}(K^-, x \text{ ray}\gamma)$
I	$^{53}\text{Cr}(d,p)$	S	$^{55}\text{Mn}(d,^3\text{He})$		
J	$^{54}\text{Cr}(n,n')$	T	$\text{Fe}(\mu^-, x n p \gamma)$		

E(level) [†]	J^π &	$T_{1/2}$ ^a	XREF	Comments
0.0 ^f	0 ⁺	stable	ABCDEFGHIJKLMN OPQRSTUVWXYZ	XREF: Others: AA
834.855 ^f 3	2 ⁺	8.0 ps 3	ABCDEFGHIJKL NOP STUVWXYZ	XREF: Others: AA Q=-0.21 8 (1975To06); $\mu=+1.68$ 11 (2001Wa36) B(E2) $\uparrow=0.087$ 4 (2001Ra27) XREF: G(838)N(900). μ, Q : Compiled by 2011StZZ. $T_{1/2}$: from Coulomb excitation. Other:>4.2 ps ((α,p),($\alpha,p\gamma$)).
1823.93 ^f 7	4 ⁺	1.9 ps 6	A CDEFGHIJ L NOP S UV X Z	XREF: N(1800). $T_{1/2}$: from DSAM in ($^9\text{Be},3n\gamma$). Other: 2.4 ps +12-8 (α,p),($\alpha,p\gamma$).
2619.68 4	2 ⁺	78 ^c fs 15	A FGHI L S VW	XREF: I(2627)L(2615). $T_{1/2}$: other: 0.11 ps +3-2 (α,p),($\alpha,p\gamma$).
2829.62 5	0 ⁺	0.15 ps +6-4	EFGHI KL V	XREF: E(2900)I(2835)K(2776).
3074.07 6	2 ⁺	7.1 ^c fs 4	A D FGHI L N S V	XREF: D(3080)N(3000). $T_{1/2}$: other:<0.017 ps (α,p),($\alpha,p\gamma$).
3159.57 10	4 ⁺	0.24 ps +5-4	A DEFGHI L S V	XREF: I(3167).
3222.45 ^f 13	6 ⁺	0.49 ^b ps 14	A C FG L S X Z	J^π : from L(t,p)=(6), $\gamma(\theta)$ in ($^9\text{Be},3n\gamma$), 1398 γ E2 to 4 ⁺ . $T_{1/2}$: other: 0.40 ps +8-7 (α,p),($\alpha,p\gamma$).
3393.41 7	(1 ⁻ ,2 ⁻)	15 ^c fs +14-7	FGHI L V	XREF: I(3389). $T_{1/2}$: other:<19 fs (α,p),($\alpha,p\gamma$).
3436.88 6	2 ⁺	8 ^c fs 3	A EFGHI L S V	J^π : (E1) γ from (1 ⁻); γ to 0 ⁺ . XREF: I(3442)S(3429). $T_{1/2}$: other:<10 fs (α,p),($\alpha,p\gamma$).
3468?			F	E(level): from (α,p) see 1979SmZQ.
3514 [‡] 7			F L	
3655.23 20	4 ⁺	<6 fs	A EFGHI L S V	XREF: E(3630)I(3662).
3720.03 5	1 ⁺ ,2 ⁺	16.6 ^c fs 14	FgHI l V	XREF: g(3710)I(3726). J^π : from (pol n, γ) and $\gamma\gamma(\theta)$ in (n, γ), L(d,p)=1.
3785.71 12	(4 ⁺)	>2.8 ps	A F L S V	$T_{1/2}$: other:<30 fs (α,p),($\alpha,p\gamma$). J^π : fed in β^- decay by a log ft=5.69 branch from

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{54}Cr Levels (continued)

E(level) [†]	J ^{π&}	T _{1/2} ^a	XREF				Comments
							J ^π =3 ⁺ and 594γ to 6 ⁺ .
3798.54 12	4 ⁺	51 fs +9-8	A	FG I L		V	T _{1/2} : from $^{51}\text{V}(\alpha, p), (\alpha, p\gamma)$.
3861.02 5	2 ⁺			FGHi l		V	XREF: I(3805).
3870.4 5		>28 fs		F i l			XREF: G(3862).
3925.55 7	2 ⁺			GH	S	V	T _{1/2} : from $^{51}\text{V}(\alpha, p), (\alpha, p\gamma)$.
3927.69 8	2 ⁺			FGHI L		V	J ^π : from (n, γ) E=res and γγ(θ).
3987.42 21		>42 fs		F Mn			XREF: F(3934)I(3937).
							XREF: M(3980)n(4000).
4012.90 7	0 ⁺	1.4 ^c fs +21-14		GHI L n		V	T _{1/2} : from $^{51}\text{V}(\alpha, p), (\alpha, p\gamma)$.
4043.3 ^h 3	5 ⁺	28 fs +13-10	C eF	L	S	X	XREF: I(4020)n(4000).
							XREF: e(4060).
							J ^π : 820γ to 6 ⁺ , cascade of the yrast levels; 2221γ to 4 ⁺ .
4083.25 6	(2,3,4) ⁺		A	e GHI L		V	T _{1/2} : other: T _{1/2} <0.12 ps from ($^9\text{Be}, 3n\gamma$).
							XREF: e(4060)I(4092).
							J ^π : fed in β ⁻ decay by a log ft=4.81 from 3 ⁺ .
4126.0 7	2 ^e					V	
4127.05 7	3 ⁻			GHI L	S	V	XREF: I(4134).
							J ^π : from L(t,p)=3 and (pol n, γ). But L(d,p)=3 from 1964Le03 and log ft=5.69 from JPI=3 ⁺ give π=+.
4190.8 5	2 ⁺			E G I L		V	XREF: E(4200)L(4195).
							J ^π : From L(t,p)=2.
4217.51 5	(2) ⁺ , 3 ^{+e}		A	HI L		V	XREF: I(4225).
4239.1 5	2 ⁺			G i L	S	V	XREF: G(4248)i(4250)L(4241).
							J ^π : from L(t,p)=2+3 for E=4248 11.
4256.4 4	2 ⁺			gHi L		V	XREF: g(4248)i(4250)L(4257).
							J ^π : from L(t,p)=2+3 for E=4248 11.
4380.95 11	(2 ⁻)			GHI L		V	XREF: L(4377).
							E(level): unresolved doublet in (t,p) based on fit to σ(θ).
							J ^π : from L(t,p)=(1+3), but L(d,p)=1, π=+.
4451.0 5	4 ⁺		A	G L		V	XREF: L(4454).
4458.4 5	1 ⁺ , (2 ⁺) ^e					V	
4570.8 9	(2 ⁻), 3 ^{-e}			E L	S	V	XREF: E(4550)L(4572)S(4551).
4583 [#] 5	0 ⁺			G L			J ^π : From L(t,p)=0.
4618 17				I L	S		E(level): from weighted average of 4619 7 (p,p'), (p,p'γ) and 4617 10 (d,p).
4633.60 14	2 ⁺			GHI L		V	XREF: L(4632).
							J ^π : from L(t,p)=2, but L(d,p)=2, π=-.
4681.5 ^f 3	(8) ⁺	0.55 ^b ps 7	C			X Z	J ^π : from E2 γ to 6 ⁺ .
4689.1 6						X	
4740 [@]				E			
4844.7 9	2 ^{-e}			I L		V	
4865 5	(1 ⁻ , 4 ⁺)			G L	S		E(level): from weighted average of 4864 7 (p,p'), (p,p'γ) and 4866 5 (t,p). Unresolved doublet in (t,p) based on fit to σ(θ).
							J ^π : from L(t,p)=(1+4).
4872.36 6	2 ^{+d}			HI L		V	
4921 [‡] 7				LM			XREF: M(4900).
4936 7				I L	S		XREF: I(4940)L(4934).
							E(level): from weighted average of 4934 7 (p,p'), (p,p'γ) and 4940 10 (d,p).
4997 [‡] 7				L			

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{54}Cr Levels (continued)

E(level) [†]	J ^π &	T _{1/2} ^a	XREF		Comments
5017 [‡] 10				L	
5026 [‡] 10				L	
5062 10	4 ⁺		G	L	XREF: G(5065)L(5060). J ^π : From L(t,p)=4. E(level): from weighted average of 5060 10 (p,p'),(p,p'γ) and 5065 12 (t,p). J ^π : from DCO and 1043γ to 5 ⁺ .
5085.8 4	(7)				X
5113.6 5	2 ⁺ e		G I	L	V
5156 [‡] 10				L	
5189.62 12	2 ⁺ d		GHI	L	S V
5191 [‡] 10				L	r
5215 [‡] 10				L	r
5226.56 11	2 ⁺ d		HI	L	V
5268.46 10	2 ⁺ d		H	L	V
5275 7	2 ⁺		G I	L	
5291.3 6	2 ⁺ e			l	V
5294.23 9	1 ⁺ ,2 ⁺		HI	l	V
5321 [‡] 10				L	S
5345.7 12	2 ^e			L	V
5363.9 ^h 3	7 ⁺	0.24 ^b ps 6	C E g		X
5387 10			g I		
5458 6	2 ⁺		G I		
5498 10				I	
5557 7	4 ⁺		G I		
5586.94 7	1 ⁺ ,2 ⁺ e		GHI		S V
5670 10				I	
5698 10				I	
5740 10				I	
5771 12					S
5797.9 ^g 5	(7)			I	X
5821.50 13			HI	M	
5856.4 4			HI		
5893 10	(⁺)			I	
5935 10			E	I	
5981 10				I	S
6113 10				I	S
6120 10				I	
6142.31 17			HI		
6193 10				I	
6212 10				I	
6255 10				I	
6289 10				I	
6316.39 9			HI		
6350 10				I	
6374 10				I	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{54}Cr Levels (continued)

E(level) [†]	J ^{π&}	T _{1/2} ^a	XREF		Comments
6391 10				I	
6421 10				I	
6446.2 6	(9)			X	J ^π : from 1360.4γ to (7).
6510 10				I	
6525 10				I	
6556 10				I	
6585 10				I	
6617.8 ^h 4	9 ⁺			X	J ^π : from 1254.2γ to 7 ⁺ and 1936.0γ to (8) ⁺ .
6633 10				I	
6658 10				I	
6678 10				I	
6699 [#] 10			E G		
6719.52 79	(10 ⁺)	<0.10 ^b ps	C	I	
6726.2 ^f 7	(10) ⁺			X	J ^π : from 2042γ E2 to (8) ⁺ .
6743 10				I	
6780 10				I	
6814 10				I	
6831 10				I	
6875 10				I	
6899 10				I	
6941 10				I	
6960 10				I	
6991 [#] 10			E G I		XREF: E(7000)I(7000).
7050 10				I	
7084 10				I	
7103 10				I	
7127 10				I	
7159 10				I	
7174 10				I	
7199 10				I M	
7235.3 4	(9)			X	J ^π : from 6184γ to 9 ⁺ , 1870γ to 7 ⁺ , 2555γ to 8 ⁺ .
7292.1 ^g 5	(9)			X	J ^π : from 1494γ to (7), 1928γ to 7 ⁺ , 2611γ to 8 ⁺ .
7370				I	
7400 [@]			E		
7590	(-)			I	J ^π : from L(d,p)=(0).
7850 [@]			E		
7895.0 9	(10)			X	J ^π : from 3213γ to 8 ⁺ .
8236.9 ^h 6	(11 ⁺)			X	J ^π : 1513γ to 10 ⁺ , 1619γ to 9 ⁺ .
8300 [@]			E		
8500 [@]			E		
8825.4 ^f 8	(12 ⁺)			X	J ^π : from 2101γ to (10) ⁺ .
8859.1 ^g 7	(10)			X	J ^π : from 1567γ to (9).
8990	+			M	J ^π : from unresolved L=8 and L=6 in (α, ² He).
9154.4 6	(11)			X	J ^π : from 1919γ to (9), 2430γ to 10 ⁺ .
9300 [@]			E		
9420	+			M	J ^π : from unresolved L=8 and L=6 in (α, ² He).
9634.4 9	(12 ⁺)			X	J ^π : from 2910γ to 10 ⁺ .
9971.8 ^h 8	(13 ⁺)			X	J ^π : from 1735γ to (11) ⁺ .
10551.6 11	(11 ⁺)			X	J ^π : from 3827γ to 10 ⁺ .
11115.9 ^g 9	(11)			X	J ^π : from 2257γ to (10).
11785.9 ^h 9	(15 ⁺)			X	J ^π : from 1814γ to 13 ⁺ .
12539.9 11	(13)			X	J ^π : from 3385γ to (11).

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{54}Cr Levels (continued)

† Energies for states connected by γ -rays from using least-squares fits. Others from (d,p), except as noted.

‡ From (p,p'),(p,p' γ).

From (t,p).

@ From (^{16}O , ^{12}C).

& From L values reported in (t,p), except as noted.

^a From DSAM in (α ,p γ), except as noted.

^b From (^9Be ,3n γ).

^c From (n, γ),(pol n, γ) E=th.

^d From (n, γ),(pol n, γ) E=th and $\gamma\gamma(\theta)$ measurements.

^e Deduced both from primary and secondary gamma-rays in (n, γ) E=res.

^f Band(A): Yrast sequence from (^{48}Ca , α 2n γ).

^g Band(B): Cascade based on (7) from (^{48}Ca , α 2n γ).

^h Band(C): Cascade based on (5⁺) from (^{48}Ca , α 2n γ).

$E_i(\text{level})$	J_i^π	$\gamma(^{54}\text{Cr})$						δ^\dagger	Comments
		E_γ^\dagger	I_γ^b	E_f	J_f^π	Mult. [†]			
834.855	2 ⁺	834.848 3	100	0.0	0 ⁺	E2		B(E2)(W.u.)=14.4 6 E $_\gamma$: from ^{54}Mn ε decay. Mult.: from ax(exp) In ^{54}Mn ε decay.	
1823.93	4 ⁺	989.08@ 2	100	834.855	2 ⁺	E2		B(E2)(W.u.)=26 9	
2619.68	2 ⁺	1784.65@ 9	100 1	834.855	2 ⁺	M1+E2	-0.53 18	B(M1)(W.u.)=0.037 9; B(E2)(W.u.)=7 4	
2829.62	0 ⁺	2619.57 9	4.3 3	0.0	0 ⁺	[E2]		B(E2)(W.u.)=0.20 4	
3074.07	2 ⁺	1994.56 5	100	834.855	2 ⁺	E2		B(E2)(W.u.)=10 +3-4	
		2239.07 5	100.0 5	834.855	2 ⁺	M1+E2	0.02 5	B(M1)(W.u.)=0.273 16; B(E2)(W.u.)=0.05 +23-5	
		3073.95 18	1.1 2	0.0	0 ⁺	[E2]		B(E2)(W.u.)=0.26 5	
3159.57	4 ⁺	1336.0& 3	100 [‡] & 7	1823.93	4 ⁺				
		2325.0 [‡] 4	69 8	834.855	2 ⁺	[E2]		B(E2)(W.u.)=1.17 +25-29	
3222.45	6 ⁺	1398.63 [‡] 13	100 [‡] 15	1823.93	4 ⁺	E2		B(E2)(W.u.)=18 5	
3393.41	(1 ⁻ ,2 ⁻)	2558.45 5	100	834.855	2 ⁺				
		3393.35 7	58 5	0.0	0 ⁺				
3436.88	2 ⁺	817.20 7	3.0 4	2619.68	2 ⁺				
		2601.91 8	100 6	834.855	2 ⁺	M1+E2	-0.11 +12-16	B(M1)(W.u.)=0.15 6; B(E2)(W.u.)=0.6 +13-6	
3655.23	4 ⁺	1831.27 [‡] 19	100 [‡]	1823.93	4 ⁺	M1		B(M1)(W.u.)>0.60 Mult.: from RUL.	
3720.03	1 ⁺ ,2 ⁺	890.41 2	12 1	2829.62	0 ⁺				
		1100.38 6	17 1	2619.68	2 ⁺				
		3719.84 7	100.0 5	0.0	0 ⁺				
3785.71	(4) ⁺	563.68 [‡] 19	42 [‡] 2	3222.45	6 ⁺				
		626.56 [‡] 27	7 [‡] 3	3159.57	4 ⁺				
		1961.53 [‡] 11	100 [‡] 10	1823.93	4 ⁺				
3798.54	4 ⁺	639.35 [‡] 25	80 [‡] 10	3159.57	4 ⁺				
		1974.33 [‡] 12	100 [‡] 22	1823.93	4 ⁺				
		2964.29 [‡] 25	78 [‡] 20	834.855	2 ⁺	[E2]		B(E2)(W.u.)=1.2 4	
3861.02	2 ⁺	1241.36 7	100 6	2619.68	2 ⁺				
		3026.05 6	60 5	834.855	2 ⁺				
3870.4		1250.8# 5		2619.68	2 ⁺				

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

$\gamma(^{54}\text{Cr})$ (continued)							
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^b	E_f	J_f^π	Mult. ‡	Comments
3870.4		3034.6 [#] 13		834.855	2 ⁺		
3925.55	2 ⁺	205.62 20	17 3	3720.03	1 ⁺ , 2 ⁺		
		1095.7 5		2829.62	0 ⁺		
		2101.1 3		1823.93	4 ⁺		
		3090.63 8	100 17	834.855	2 ⁺		
3927.69	2 ⁺	3927.57 9	100	0.0	0 ⁺		
3987.42		594.0 [#] 2	100 [#]	3393.41	(1 ⁻ , 2 ⁻)		E_γ : not reported by 1980St04 in $^{51}\text{V}(\alpha, p), (\alpha, p\gamma)$.
4012.90	0 ⁺	1394.3 7		2619.68	2 ⁺		
		3177.93 7		834.855	2 ⁺		
4043.3	5 ⁺	820.4 ^a 3	100 ^a 3	3222.45	6 ⁺		Additional information 2.
		2220.9 ^a 6	18.5 ^a 11	1823.93	4 ⁺		Additional information 3.
4083.25	(2, 3, 4) ⁺	646.27 [‡] 24	4.9 [‡] 9	3436.88	2 ⁺		
		923.29 [‡] 20	17.7 [‡] 17	3159.57	4 ⁺		
		1009.25 [‡] 16	3.0 [‡] 13	3074.07	2 ⁺		
		1463.51 [‡] 9	18.9 [‡] 15	2619.68	2 ⁺		
		2259.35 [‡] 11	100 [‡] 3	1823.93	4 ⁺		
4126.0	2	1052.0 7	100	3074.07	2 ⁺		
4127.05	3 ⁻	1508.24 25	46 15	2619.68	2 ⁺		
		3292.11 8	100 23	834.855	2 ⁺		
4190.8	2 ⁺	3356.1 5		834.855	2 ⁺		
		4189.8 9		0.0	0 ⁺		
4217.51	(2) ⁺ , 3 ⁺	1597.72 4	27 18	2619.68	2 ⁺		
		2394.82 [‡] 36	76 36	1823.93	4 ⁺		
		3382.96 [‡] 18	100 20	834.855	2 ⁺		
4239.1	2 ⁺	1619.8 9		2619.68	2 ⁺		
		3403.9 6		834.855	2 ⁺		
4256.4	2 ⁺	3421.4 4		834.855	2 ⁺		
		4256.2 9		0.0	0 ⁺		
4380.95	(2 ⁻)	3545.92 13	100	834.855	2 ⁺		
4451.0	4 ⁺	2627.00 [‡] 42	100 [‡]	1823.93	4 ⁺		
4458.4	1 ⁺ , (2 ⁺)	4458.2 5	100	0.0	0 ⁺		
4570.8	(2 ⁻), 3 ⁻	2746.8 9	100	1823.93	4 ⁺		
4633.60	2 ⁺	1804.00 14		2829.62	0 ⁺		
		2013.5 4		2619.68	2 ⁺		
4681.5	(8) ⁺	1459.1 ^a 4	100 ^a	3222.45	6 ⁺	E2 ^a	B(E2)(W.u.)=12.8 17 Additional information 4. Mult.: from $\gamma(\theta)$ in $^{12}\text{C}(^{48}\text{Ca}, \alpha 2n\gamma)$ and RUL.
4844.7	2 ⁻	4009.7 9	100	834.855	2 ⁺		
4872.36	2 ⁺	745.37 16	5.7 9	4127.05	3 ⁻		
		944.57 19	2.8 9	3927.69	2 ⁺		
		946.80 15	4.7 9	3925.55	2 ⁺		
		1435.49 18	21.79 19	3436.88	2 ⁺		
		1712.4 3		3159.57	4 ⁺		
		1798.22 5	23.6 19	3074.07	2 ⁺		
		4872.27 10	100 8	0.0	0 ⁺		
5085.8	(7)	1042.7 ^a 4	100 ^a	4043.3	5 ⁺		Additional information 5.
5113.6	2 ⁺	4278.3 6		834.855	2 ⁺		
		5113.9 9		0.0	0 ⁺		
5189.62	2 ⁺	1106.38 10		4083.25	(2, 3, 4) ⁺		
		2358.2 10		2829.62	0 ⁺		
		5189.6 14		0.0	0 ⁺		
5226.56	2 ⁺	845.57 12		4380.95	(2 ⁻)		

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) $\gamma(^{54}\text{Cr})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^b	E_f	J_f^π	Mult. ‡	Comments
5226.56	2 ⁺	2066.99 7 4390.7 4		3159.57 834.855	4 ⁺ 2 ⁺		
5268.46	2 ⁺	1340.81 10 1831.34 17 4433.43 21		3927.69 3436.88 834.855	2 ⁺ 2 ⁺ 2 ⁺		
5291.3	2 ⁺	5268.3 11 4455.9 9		0.0 834.855	0 ⁺ 2 ⁺		
5294.23	1 ⁺ ,2 ⁺	5291.3 7 2464.23 19	23 8	0.0 2829.62	0 ⁺ 0 ⁺		
		2674.49 11	53 5	2619.68	2 ⁺		
		4459.28 21	100 13	834.855	2 ⁺		
5345.7	2	4510.6 12	100	834.855	2 ⁺		
5363.9	7 ⁺	278.3 ^a 3 682.3 ^a 3	2.9 ^a 3 100 ^a 10	5085.8 4681.5	(7) (8) ⁺		Additional information 6.
		1319.9 ^a 5	25 ^a 1	4043.3	5 ⁺		Additional information 7.
		2141.3 ^a 6	38 ^a 2	3222.45	6 ⁺		Additional information 8.
5586.94	1 ⁺ ,2 ⁺	1460.10 14 1503.62 9	22 11 33 11	4127.05 4083.25	3 ⁻ (2,3,4) ⁺		
		2967.05 19	94 17	2619.68	2 ⁺		
		4751.83 10	100 22	834.855	2 ⁺		
5797.9	(7)	1110.9 ^a 4 2575.7 ^a 6	22.9 ^a 15 100 ^a 3	4689.1 3222.45	(7) 6 ⁺		Additional information 9.
		2101.43 12	100	3720.03	1 ⁺ ,2 ⁺		Additional information 10.
5821.50		5021.29 34	100	834.855	2 ⁺		
5856.4		847.90 17	100 12	5294.23	1 ⁺ ,2 ⁺		
6142.31		2749.56 36	62 25	3393.41	(1 ⁻ ,2 ⁻)		
6316.39		2233.09 6	100	4083.25	(2,3,4) ⁺		
6446.2	(9)	1360.4 ^a 4	100 ^a	5085.8	(7)		Additional information 11.
6617.8	9 ⁺	1254.2 ^a 4	100 ^a 4	5363.9	7 ⁺	^a	Additional information 12.
		1936.0 ^a 5	47 ^a 2	4681.5	(8) ⁺		Additional information 13.
6719.52	(10 ⁺)	2038.9 8	100	4681.5	(8) ⁺	E2	B(E2)(W.u.)>13
							E_γ : From ($^9\text{Be},3n\gamma$).
6726.2	(10) ⁺	2042.5 ^a 5	100 ^a	4681.5	(8) ⁺	E2 ^a	Additional information 14.
7235.3	(9)	617.6 ^a 4	56 ^a 3	6617.8	9 ⁺		Additional information 15.
		1870.5 ^a 5	94 ^a 3	5363.9	7 ⁺		Additional information 16.
		2554.9 ^a 6	100 ^a 3	4681.5	(8) ⁺		Additional information 17.
7292.1	(9)	1494.3 ^a 4	70 ^a 4	5797.9	(7)		Additional information 18.
		1927.9 ^a 5	31.1 ^a 15	5363.9	7 ⁺		Additional information 19.
		2610.6 ^a 6	100 ^a 4	4681.5	(8) ⁺		Additional information 20.
7895.0	(10)	3213.4 ^a 8	100 ^a 6	4681.5	(8) ⁺		Additional information 21.
8236.9	(11 ⁺)	1512.7 ^a 5	14.6 ^a 11	6726.2	(10) ⁺		
		1619.2 ^a 5	100 ^a 4	6617.8	9 ⁺	^a	Additional information 22.
8825.4	(12 ⁺)	2101.2 ^a 6	100 ^a	6726.2	(10) ⁺		Additional information 23.
8859.1	(10)	1567.0 ^a 5	100 ^a	7292.1	(9)		Additional information 24.
9154.4	(11)	1919.0 ^a 5	41 ^a 4	7235.3	(9)		Additional information 25.
		2430.2 ^a 6	100 ^a 4	6726.2	(10) ⁺		Additional information 26.
9634.4	(12 ⁺)	2910.2 ^a 7	100 ^a	6726.2	(10) ⁺		Additional information 27.
9971.8	(13 ⁺)	1734.8 ^a 5	100 ^a	8236.9	(11 ⁺)		Additional information 28.
10551.6	(11 ⁺)	3827.3 ^a 9	100 ^a	6726.2	(10) ⁺		Additional information 29.
11115.9	(11)	2256.7 ^a 6	100 ^a	8859.1	(10)		Additional information 30.
11785.9	(15 ⁺)	1814.1 ^a 5	100 ^a	9971.8	(13 ⁺)		Additional information 31.
12539.9	(13)	3385.4 ^a 9	100 ^a	9154.4	(11)		Additional information 32.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

 $\gamma(^{54}\text{Cr})$ (continued)

† From (n, γ),(pol n, γ) E=th, except as noted.

‡ From ^{54}V β^- decay.

From (α ,p γ).

@ From weighted average of values in (n, γ),(pol n, γ) E=th and ^{54}V β^- decay.

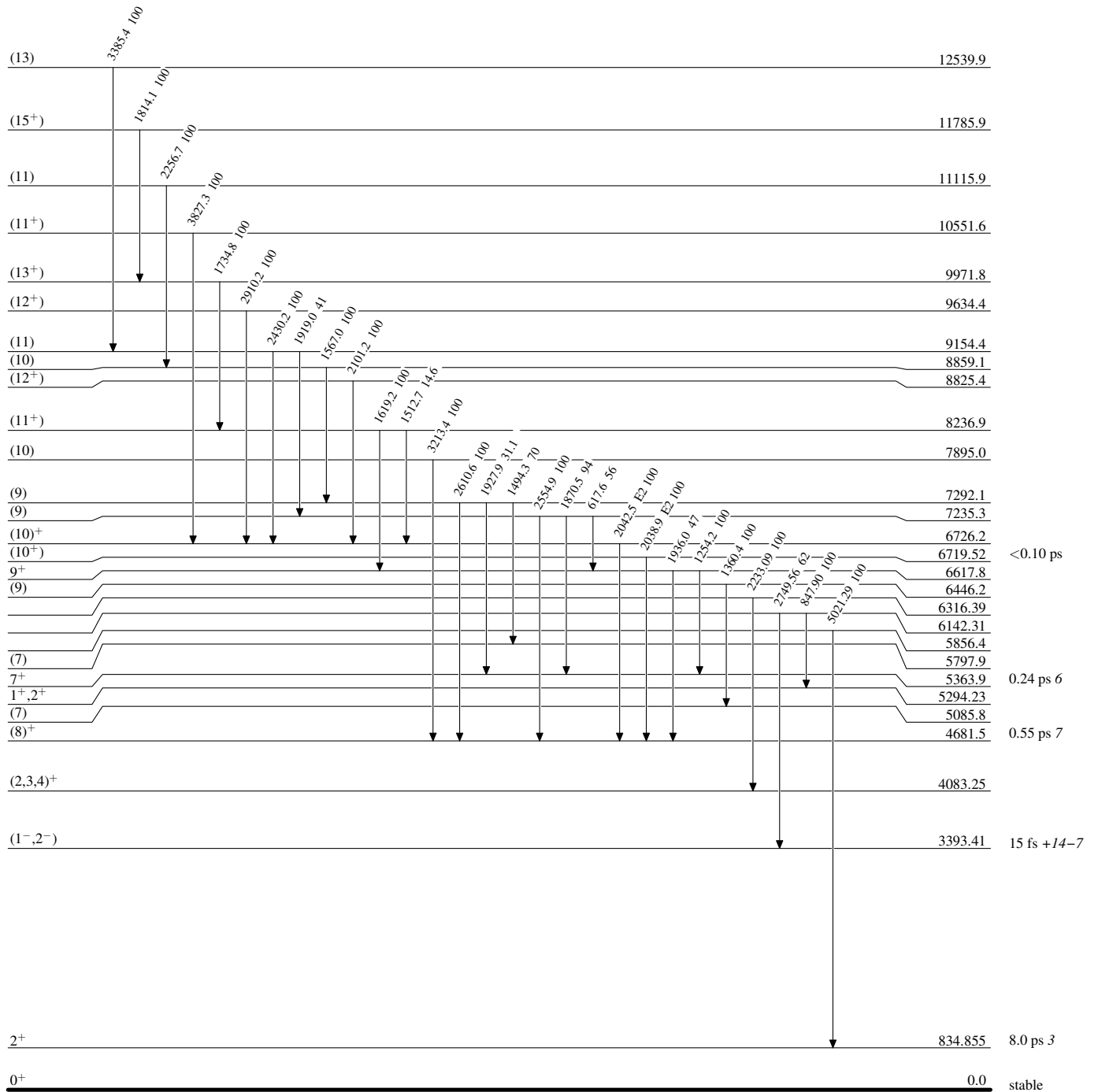
& From weighted average of values in (α ,p γ) and ^{54}V β^- decay.

^a From (^{48}Ca , α 2n γ).

^b Branching ratio from (n, γ),(pol n, γ) E=th, except as noted.

Adopted Levels, GammasLevel Scheme

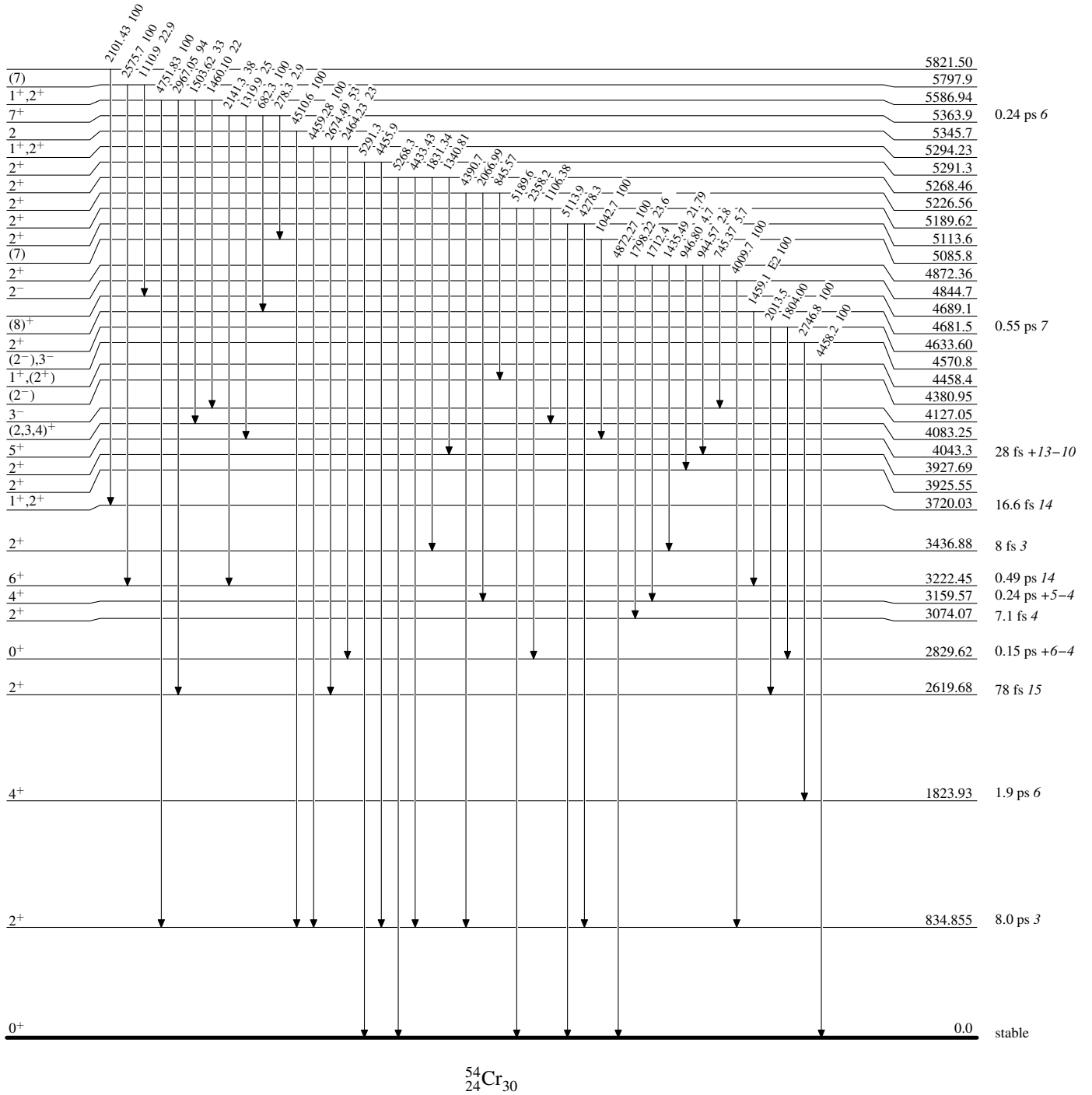
Intensities: Relative photon branching from each level

 $^{54}_{24}\text{Cr}_{30}$

Adopted Levels, Gammas

Level Scheme (continued)

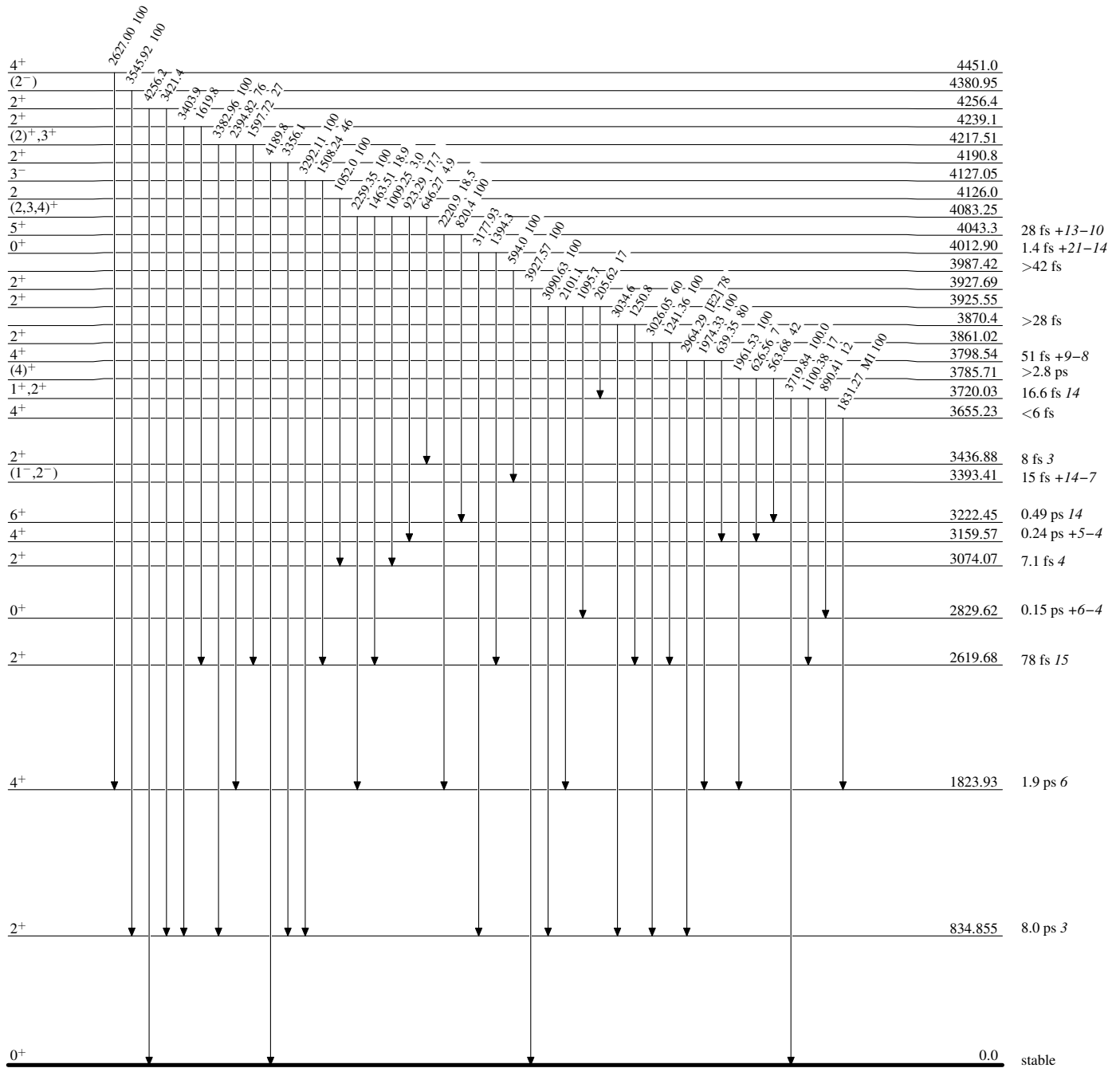
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

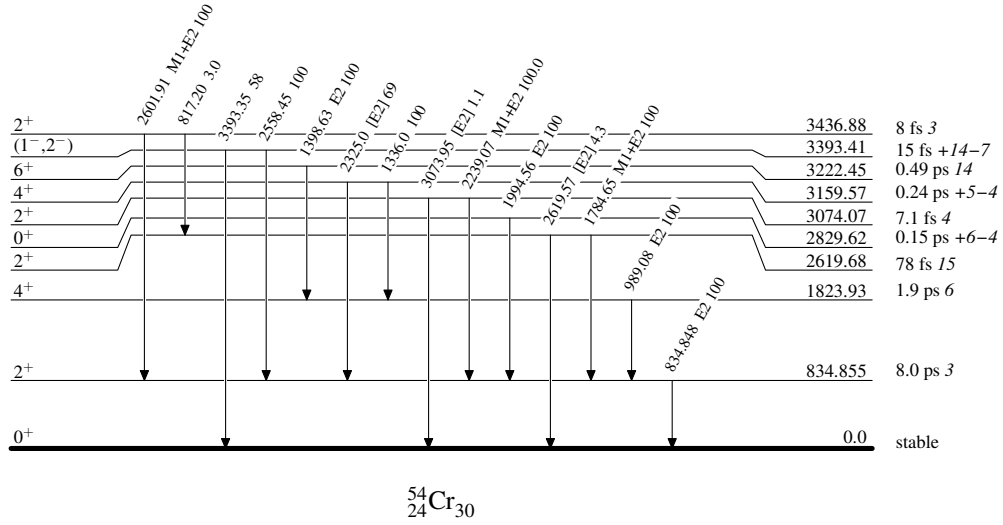
Intensities: Relative photon branching from each level

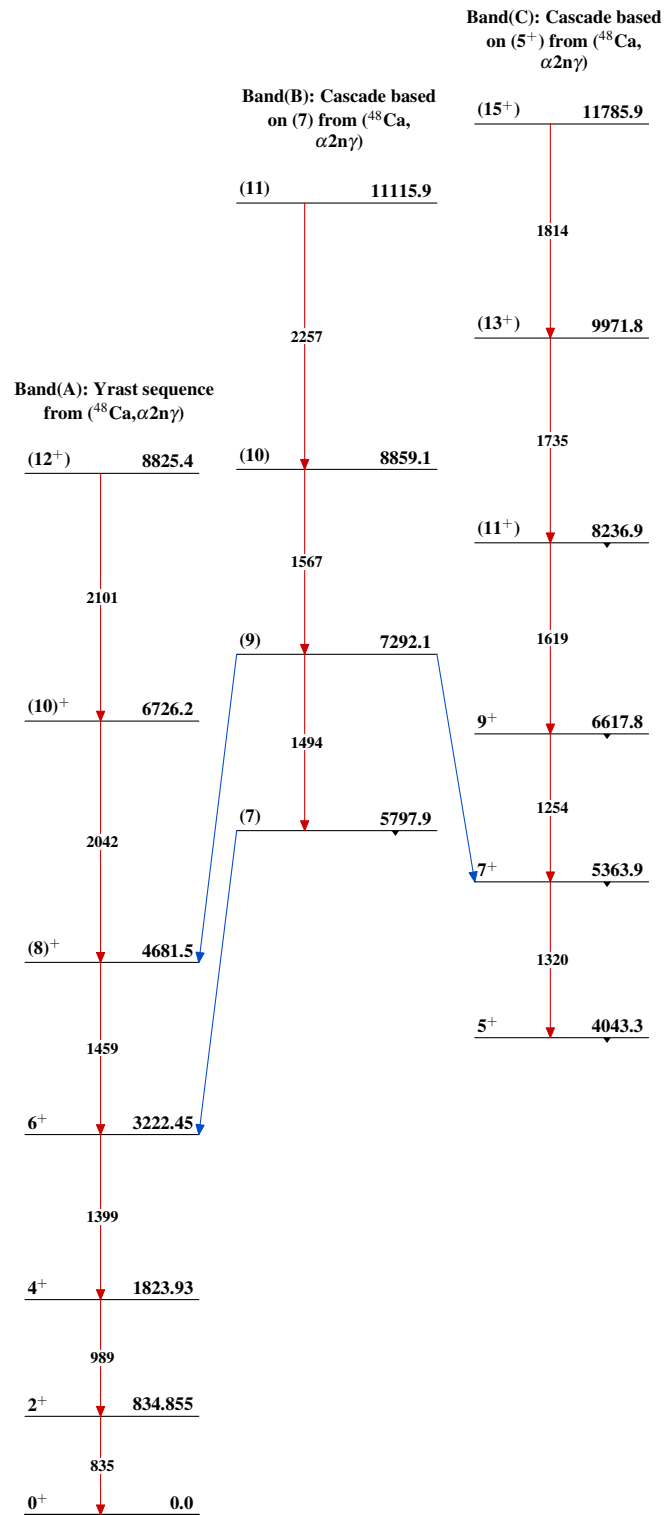


⁵⁴Cr₃₀

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

Intensities: Relative photon branching from each level

 $^{54}_{24}\text{Cr}_{30}$

Adopted Levels, Gammas $^{54}_{24}\text{Cr}_{30}$