

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 91,1 (2000)	15-Jul-2000

$Q(\beta^-)=2366.5$ 7; $S(n)=8760.64$ 10; $S(p)=8237.3$ 8; $Q(\alpha)=-9163.4$ 8 [2012Wa38](#)

Note: Current evaluation has used the following Q record \$ 2366.7 7 8760.62 11 8235.1 10

[1995Au04](#).

Other reactions:

$^{46}\text{Ti}(n,p)$: [1994Si01](#), [1993Sa41](#), [1992Mo12](#), [1992Be60](#).

$^{47}\text{Ti}(n,np)$: [1996Un01](#).

$^{47}\text{Ti}(\alpha,p\alpha)$: [1996La07](#).

$^{51}\text{V}(\alpha,n2\alpha)$: [1995Si11](#), [1994Ma60](#), [1994Ha60](#).

^{46}Sc Levels

Information on capture state in (n, γ) not included; see (n, γ).

Cross Reference (XREF) Flags

A	^{46}Sc IT decay	F	$^{45}\text{Sc}(d,p)$	K	$^{47}\text{Ti}(d,^3\text{He})$
B	$^{43}\text{Ca}(\alpha,p\gamma)$	G	$^{45}\text{Sc}(d,p\gamma)$	L	$^{48}\text{Ti}(p,^3\text{He})$
C	$^{44}\text{Ca}(^3\text{He},p)$	H	$^{45}\text{Sc}(t,d)$	M	$^{48}\text{Ti}(d,\alpha)$
D	$^{44}\text{Ca}(\alpha,d)$	I	$^{46}\text{Ca}(^3\text{He},t)$	N	$^{48}\text{Ti}(\text{pol } d,\alpha)$
E	$^{45}\text{Sc}(n,\gamma)$ E=thermal	J	$^{46}\text{Ti}(t,^3\text{He})$	O	$I(\gamma+ce)(\mu^-,x\gamma)$

E(level) [†]	J ^π [†]	T _{1/2}	XREF	Comments
0.0	4 ⁺	83.79 d 4	A B C D E F G H I J K L M N O	$\% \beta^- = 100$ $\mu = 3.03$ 2; $Q = +0.119$ 6 (1989Ra17) J^π : from atomic beam (1976Fu06 , 1962Pe21). $T_{1/2}$: from 1991BaZS ; weighted average (LWN) of 83.73 d 11 (1983Wa26), 83.79 d 6 (1982HoZJ), 83.79 d 6 (1980OI03), 83.819 d 6 (1980Ho17) and 83.752 d 15 (1980RuZY). Others: 83.85 d 3 (1977MeZP), 84.34 d 13 (1974Cr05), 83.69 d 9 (1972BaWG). $T_{1/2}$: weighted average of 10.6 μs 6 (n, γ) (1966Ka20), 8.8 μs 4 (d,p γ) (1968Fo01).
52.011 1	6 ⁺	9.4 μs 8	C E F G H I J K L M N	$\% \text{IT} = 100$ $T_{1/2}$: from ^{46}Sc IT decay.
142.528 7	1 ⁻	18.75 s 4	A B E F G J K L M N O	$\% \text{IT} = 100$ $T_{1/2}$: from ^{46}Sc IT decay.
227.767 9	3 ⁺	<270 [‡] ps	B C E F G H I J K L M N O	$T_{1/2}$: $T_{1/2} > 3.5$ ps from (α ,p γ) (1973Dr03).
280.701 13	5 ⁺	<270 [‡] ps	C E F G H I J K M N	$T_{1/2}$: from (α ,p γ) (1973Dr03).
289.539 8	2 ⁻	<380 [‡] ps	B E G J K L M N O	J^π : from (t, ^3He); also $J=4^-$ from (p, ^3He) and (d, α), but $J=3^-$ from (n, γ).
444.137 13	2 ⁺	<270 [‡] ps	C E F G H I J K L M N O	$T_{1/2}$: $T_{1/2} > 3.5$ ps from (α ,p γ).
584.782 13	3 ⁻	4 ps 2	B E F G J K L M N	J^π : from (t, ^3He); also $J=4^-$ from (p, ^3He) and (d, α), but $J=3^-$ from (n, γ).
627.429 24	4 ⁻	<200 [‡] ps	B E F G J K L M N	$T_{1/2}$: $T_{1/2} > 3.5$ ps from (α ,p γ).
774.021 22	5 ⁺		C D E F H I J K L M N	
835.092 22	4 ⁺	<200 [‡] ps	E F G H I J K L M N	
978 2	7 ⁺		B D F H I J M N	E(level): weighted average of values from (d,p), (^3He ,t), and (d, α). J^π : from σ and L=3 in (d,p) and L=6 in (d, α); also $J^\pi=7^+$ from (α ,d). Reported as yrast 7 ⁺ level from (α ,p γ) (1977DrZY); γ decay modes not reported.
991.33 4	1 ⁺		C E F I J K L M N	J^π : $\pi=+$ from L(d,p)=3.
1006 6			F	J^π : M1 γ 's to 3 ⁺ , 5 ⁺ levels; but $J=3^+$ from (t, ^3He).
1088.588 23	4 ⁺		E F H I J L N	

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Adopted Levels, Gammas (continued) ^{46}Sc Levels (continued)

E(level) [†]	J ^π [†]	T _{1/2}	XREF	Comments
1121 12			N	
1124.23 3	4 ⁻	1.1 ps 2	B EF JKLMN	T _{1/2} : from (α,py) (1973Dr03).
1142 4	3 ⁻ ,4 ⁻		F J N	E(level): from (d,p).
				J ^π : from L(d,p)=0.
1270.46 3	4 ⁻		EF JKLMN	J ^π : J=2 ⁻ from (t, ³ He), and (2 ⁻) from (pol d,α).
1289 12			N	E(level): observed only in (pol d,p) (1986Ba47).
1298? 5			K	
1321.12 3	3 ⁺ , (4 ⁺)		EF IJ LMN	J ^π : M1 γ to 4 ⁺ level; but J=2 ⁻ from (t, ³ He) and (pol d,α); J=0 ⁻ , 1 ⁻ , 2 ⁻ from L=1 in (d,α); possible doublet.
1394.18 4	2 ⁺		C EF IJ LMN	J ^π : J=(2 ⁻ , 3 ⁻ , 4 ⁻) from L=3 in (d,α).
1427.90 4	3 ⁺ , 4 ⁺ , (2 ⁺)		E	J ^π : E1 to 142 levels from (n,γ).
1429 4	2 ⁻		JKLMN	E(level): weighted average of values from (t, ³ He), (d, ³ He), (p, ³ He), (d,α) and (pol d,α).
				J ^π : J=2 ⁻ from (t, ³ He) and (pol d,α); J=0 ⁻ , 1 ⁻ , 2 ⁻ from L=1 in (d,α).
1438 4	3 ⁻ , 4 ⁻		F	J ^π : from L(d,p)=0.
1526.74 5	(2 ⁻ , 3, 4 ⁺)		EF J MN	J ^π : γ's to 2 ⁻ , 4 ⁺ levels; J=4 from (n,γ).
1642.68 3	4 ⁻		C EF J LMN	
1676 4			F N	E(level): from (d,p).
1692.2 3	3 ⁻		EF N	
1707.83 5	2 ⁻		EF JKLMN	J ^π : L=1+3 in (p, ³ He).
1752 4	2 ⁺ , 4 ⁺ , 6 ⁺		F J N	E(level): from (d,p).
				J ^π : from (pol d,α).
1763.24 11	2 ⁺ , 3 ⁺ , 4 ⁺		EF MN	
1799.44 7	2 ⁺ , 3 ⁺		EF IJ LMN	J ^π : E1 γ to 2 ⁻ level; L(d,α)=1(+3) suggests π=-; J=(2 ⁻) in (p, ³ He); π=+ from (pol d,α).
1825 4			F	
1852 2	1 ⁺		C F IJ LMN	E(level): weighted average of values from (d,p), (³ He,t) and (d,α).
				J ^π : from L=0+2 in (p, ³ He).
1886.06 8	3 ⁺ , (2 ⁺)		EF M	
1919.88 4	3 ⁺		EF J LMN	XREF: F(1923)L(1923)M(1926).
				J ^π : from (n,γ) and (pol d,α); however, J ^π =2 ⁺ from L=2 in (t, ³ He).
1921.10 5			EF LM	XREF: F(1923)L(1923)M(1926).
				J ^π : π=+ from L(d,p)=1; J ^π =2 ⁺ , 3 ⁺ from L(p, ³ He)=2.
2043.45 4	3 ⁻ , (2 ⁻)		E	
2062.25 5	(4 ⁻)		EF IJ LM	J ^π : E1 γ to 5 ⁺ level; L=(0) in (d,p).
2070.31 9	(3 ⁺)		EF J LM	J ^π : L=(4) in (p, ³ He); L=1 in (d,p).
2084.47 13			E	
2114.13 7	3, 4, (2)		E J L	
2119.30 6	3 ⁺ , 4 ⁺		CDEF I MN	J ^π : 1 ⁺ from (pol d,α) (1986Ba47); in conflict with L=0+2 in (d,α).
2184.9 10			EF	Fed by primary γ in (n,γ), but γ decay not observed.
2203.14 6	3 ⁻		EF LM	
2221.71 11	2 ⁺		EF IJ LM	
2252.80 11			E J L N	J ^π : J=2 ⁺ , 3 ⁺ , 4 ⁺ from (n,γ); 3 ⁺ from (t, ³ He) and (pol d,α), but γ is to 1 ⁻ level.
2291.84 15			C EF IJ LM	XREF: C(2300)F(2296)I(2295)J(2287)M(2296).
				J ^π : J=2 ⁻ from (p, ³ He), but γ's to 4 ⁺ g.s. and 4 ⁻ 627 would have to be M2 and E2.
2302.58 11	2 ⁺ , 3 ⁺ , (4 ⁺)		C EF IJ LM	XREF: C(2300)F(2296)I(2295)J(2287)M(2296).
				Fed by primary γ in (n,γ), but γ decay not observed.
2330.19 19			EF H J M	J ^π : π=+ from L(d,p)=1.
2366.75 21			C EF L	XREF: C(2370)L(2376).
2375.28 19			C E L	XREF: C(2370)L(2376).
2395.97 9			E	
2410.45 4	3 ⁺		CDEF IJ LM	J ^π : L=4 in (d,α), (p, ³ He); L=1 in (d,p); L=(2+4) in (t, ³ He).

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Adopted Levels, Gammas (continued) ^{46}Sc Levels (continued)

E(level) [†]	J ^π [†]	XREF	Comments
2431.17 15	(4 ⁺ ,5 ⁺)	E	J ^π : γ's to 3 ⁺ ,6 ⁺ levels.
2442.30 4	3 ⁺	E J LM	XREF: J(2434)L(2440)M(2450).
2451.11 12		EF IJ LM	J ^π : L=(2+4) in (p, ³ He); L=4 in (d,α); J=3,4 in (n,γ).
2459.64 9		EF I M	XREF: F(2455)I(2456)J(2434)L(2440)M(2450).
2486.3 10		E	XREF: F(2455)I(2456)M(2450).
2494.48 10		E	Fed by primary γ in (n,γ), but γ decay not observed.
2521.67 13		EF LM	J ^π : (3 ⁺) from (p, ³ He); (2 ⁻) from (d,α).
2534 4		F	J ^π : π=+ from L(d,p)=1.
2558.91 14	4 ⁺	E IJ LM	J ^π : L=4 in (t, ³ He).
2568.06 10	3 ⁺ ,4 ⁺	EF	
2589.99 5	3 ⁻ ,4 ⁻	C EF J	
2643.05 18	3 ⁻ ,4 ⁻ , (2 ⁻)	EF I LM	
2662.72 10		C EF LM	J ^π : J=1 ⁺ from (p, ³ He) conflicts with γ to 4 ⁺ g.s.; possible doublet.
2694.57 13		E	
2705.24 6	3 ⁺	E I LM	
2714.09 9		EF	J ^π : π=+ from L(d,p)=1.
2733 8	2 ⁺	F J	E(level): from (d,p).
			J ^π : L=2 in (t, ³ He).
2760 8		F	E(level): from (d,p).
			J ^π : π=+ from L(d,p)=1.
2783.02 10	3 ⁻ ,4 ⁻	EF IJ LM	
2815 6	1 ⁺	E J LM	E(level): from (d,p).
			J ^π : L=0+2 in (d,α).
2833.94 22		EF M	
2855.98 11	2,3,4	C E J L	
2863.34 7	2 ⁺ , (3 ⁺)	EF I M	
2890.65 18		C EF J LM	J ^π : π=+ from L(d,p)=1.
2940.19 11	3 ⁻ ,4 ⁻	EF J LM	XREF: J(2950).
			J ^π : from L(d,p)=0.
2956.71 11		E J L	XREF: J(2950).
2979.67 8	3 ⁺ ,4 ⁺	C EF IJ M	J ^π : J=(2,3) ⁺ from (t, ³ He).
3002.36 19		EF	
3017.06 7	(3 ⁺ ,4 ⁺)	EF J LM	J ^π : γ's to 2 ⁺ ,5 ⁺ levels.
3032.02 13		EF M	J ^π : π=+ from L(d,p)=1.
3056.94 17		EF LM	J ^π : π=+ from L(d,p)=1.
3081.65 16		EF LM	XREF: F(3090)L(3080)M(3089).
3094.66 9	3 ⁺ ,4 ⁺ , (2 ⁺)	EF J LM	XREF: F(3090)J(3100)L(3080)M(3089).
3116 15	1 ⁺	J L	XREF: J(3100).
			E(level): from (p, ³ He).
			J ^π : L=0+2 in (p, ³ He).
3136.32 9	3 ⁻ ,4 ⁻	EF	
3176.54 10	4 ⁺	EF J	
3191.81 12	(2 ⁻ ,3 ⁺)	DE LM	J ^π : γ's to 1 ⁺ ,4 ⁻ levels.
3204.94 11		E	
3229.84 17	2 ⁺ ,3 ⁺ ,4 ⁺	E J L	
3242 5	0 ⁺ ,1 ⁺ #	C F M	E(level): weighted average of values from (d,p) and (d,α).
			J ^π : π=+ from L(d,p)=1.
3260.40 15		E J L	J ^π : L=(3 or 2+4) in (p, ³ He).
3278.76 10	2 ⁺ ,3 ⁺	EF L	J ^π : from (p, ³ He); π=+ from L(d,p)=1.
3314.10 7	4 ⁺	EF	J ^π : γ's to 4 ⁺ and 6 ⁺ levels; L=1 in (d,p).
3338 11		J L	E(level): weighted average of values from (t, ³ He) and (p, ³ He).
3381.48 12		E J	
3396.67 14	2 ⁺ ,3 ⁺ , (4 ⁺)	C EF L	

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Adopted Levels, Gammas (continued) ^{46}Sc Levels (continued)

E(level) [†]	J ^π [†]	XREF	Comments
3414.32 10	2 ⁺ ,3 ⁺ ,4 ⁺	E	
3424.54 8	3 ⁺ ,(4 ⁺)	EF J	
3443.28 14	2 ⁺ ,3 ⁺ ,4 ⁺	EF J L	
3474.22 8	3 ⁺ ,4 ⁺ ,(2 ⁺)	EF	
3493.24 7	2 ⁺	E J L	
3512 6		F J	E(level): from (d,p). J ^π : π=+ from L(d,p)=1.
3550.31 13	2 ⁺ ,3 ⁺ ,4 ⁺	DEF L	
3597.07 10	2 ⁺ ,3 ⁺ ,4 ⁺	EF L	
3605.26 25		E J L	
3620.43 20		EF	J ^π : π=+ from L(d,p)=1.
3631.97 14	2 ⁺ ,3 ⁺ ,4 ⁺ ,5 ⁺	E L	J ^π : L=(0+2) in (p, ³ He) conflict with γ to 5 ⁺ .
3654.77 16		EF J	J ^π : =π+ from L(d,p)=1.
3675.47 8	2 ⁺ ,3 ⁺ ,4 ⁺	E L	J ^π : γ to 6 ⁺ level conflict with L=0+2 in (p, ³ He).
3707.38 16	3 ⁺ ,4 ⁺ ,(2 ⁺)	EF J	
3721.42 20		EF	
3766.70 9	3 ⁺	EF J	J ^π : L=2+4 in (t, ³ He).
3785.36 8	4 ⁺	DEF J	
3813.81 22		EF	J ^π : π=+ from L(d,p)=1.
3841.11 14	3 ⁺ ,4 ⁺	C EF J	J ^π : γ's to 5 ⁺ ,4 ⁻ levels. L=(1) in (d,p).
3868.62 12		E	
3876.65 12	3 ⁺ ,4 ⁺	EF J	J ^π : γ's to 5 ⁺ ,4 ⁻ ,2 ⁺ levels. L=(1) in (d,p).
3937.29 11		EF	J ^π : π=+ from L(d,p)=1.
3945.3 4		E	
3961 6		F	J ^π : π=+ from L(d,p)=1.
3983 6		C F J	E(level): from (d,p). J ^π : π=+ from L(d,p)=1.
4008 6		F J	E(level): weighted average of values from (d,p) and (t, ³ He). J ^π : π=+ from L(d,p)=1.
4039.69 9		EF	J ^π : π=+ from L(d,p)=1.
4074.67 25		EF J	
4081.12 17		EF	
4103.8 3		EF J	
4131.90 13		EF	Fed by primary γ in (n,γ), but γ decay not observed.
4142.61 9		EF J	J ^π : π=- from L(d,p)=2.
4186 7	0 ⁺ ,1 ⁺ #	C F J	E(level): from (d,p).
4200 7		F	
4229 7		C F J	E(level): from (d,p). J ^π : π=+ from L(d,p)=3.
4249 7		F	
4261.46 9		EF J	
4294.65 14		EF	J ^π : π=+ from L(d,p)=1.
4319.09 16		C EF	J ^π : π=+ from L(d,p)=1.
4330 7		F	
4350 7		F	J ^π : π=+ from L(d,p)=3.
4362 10		F	J ^π : π=+ from L(d,p)=1.
4383.08 10		EF	J ^π : π=+ from L(d,p)=1.
4399 7		F	
4414 10		F	
4432.77 18		EF	
4447.83 21		EF	J ^π : π=+ from L(d,p)=1.
4467.08 15		EF	J ^π : π=+ from L(d,p)=1.
4498 7		F J	E(level): from (d,p). J ^π : π=+ from L(d,p)=1.
4522.75 10		EF	J ^π : π=+ from L(d,p)=1.

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Adopted Levels, Gammas (continued) ^{46}Sc Levels (continued)

E(level) [†]	J ^π [†]	XREF	Comments
4528.54 14		EF	
4560 7		F	
4575 7		F	J ^π : π=+ from L(d,p)=1.
4587.16 9		EF	
4606.43 9		C EF	J ^π : π=+ from L(d,p)=1.
4649 7		F J	E(level): from (d,p). J ^π : π=+ from L(d,p)=1.
4666 7		F	J ^π : π=+ from L(d,p)=1.
4694.59 11		C EF	J ^π : π=+ from L(d,p)=1.
4701.03 8		E J	
4719.64 17		EF	
4732 7		F	
4754.3 1		EF	J ^π : π=+ from L(d,p)=1.
4761.07 12		EF	
4776 7	1 ⁺	CD F	E(level): weighted average of values from (³ He,p), (d,p) and (α,d). J ^π : L=0 in (³ He,p); π=+ from L(d,p)=1.
4787.27 12		EF	
4794 7	3 ⁻ ,4 ⁻	F	J ^π : from L(d,p)=0.
4818 7		F	
4846 7		C F	E(level): from (d,p). J ^π : π=+ from L(d,p)=1.
4873.4 5		EF	
4882.57 11		C EF	XREF: C(4890).
4896 7		C F	XREF: C(4890). E(level): from (d,p). J ^π : π=+ from L(d,p)=1.
4927 7		F	J ^π : π=- from L(d,p)=2.
4961.45 10		C EF	
4972 7		F	J ^π : π=+ from L(d,p)=1.
5010 7		F	J ^π : π=+ from L(d,p)=1.
5022 5	0 ⁺	C F L	E(level): weighted average of values from (d,p) and (p, ³ He). J ^π : from IAS analysis. J ^π : π=+ from L(d,p)=1.
5049.44 17		EF	
5061 8		F	
5092.96 12		EF	J ^π : π=+ from L(d,p)=1+3.
5113 8		F	J ^π : π=+ from L(d,p)=1.
5135 8		F	
5149 8	3 ⁻ ,4 ⁻	F	J ^π : from L(d,p)=0.
5165 8		F	J ^π : π=+ from L(d,p)=1.
5192 8		F	
5207 8		F	J ^π : π=+ from L(d,p)=1.
5235 8		F	
5250 8		F	J ^π : π=+ from L(d,p)=3.
5272 8		F	
5301.83 11		EF	
5327 8		F	
5346.16 13	3 ⁻ ,4 ⁻	EF	J ^π : from L(d,p)=0.
5364 8		F	
5376 8		F	
5388 8		F	
5404 8		F	J ^π : π=+ from L(d,p)=1.
5427 12		F	J ^π : π=+ from L(d,p)=1.
5445 8		F	J ^π : π=+ from L(d,p)=1.
5465 8		F	
5491 12		D F	XREF: F(5500). E(level): from (d,p).

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Adopted Levels, Gammas (continued) ^{46}Sc Levels (continued)

E(level) [†]	J ^π [†]	XREF	Comments
5514 8		D F	XREF: F(5500). E(level): from (d,p). J ^π : π=+ from L(d,p)=1.
5541.5 4		EF	
5563 8	3 ⁻ , 4 ⁻	F	J ^π : from L(d,p)=0.
5595 8		F	J ^π : π=+ from L(d,p)=1.
5620 8		F	J ^π : π=+ from L(d,p)=1.
5644 12		F	
5659 8		F	J ^π : π=+ from L(d,p)=1.
5694 8		F	
5727 8		F	
5753 8		F	J ^π : π=+ from L(d,p)=3.
5772 8		F	J ^π : π=+ from L(d,p)=1.
5796 8		F	
5814 8		F	J ^π : π=+ from L(d,p)=1.
5837 8		F	J ^π : π=+ from L(d,p)=1.
5878 8		F	J ^π : π=+ from L(d,p)=1.
5908 8		F	
5928 8		F	J ^π : π=+ from L(d,p)=1.
5955 8		F	
5979 8		F	
6004 12		F	J ^π : π=+ from L(d,p)=1.
6037 14		F	J ^π : π=+ from L(d,p)=1+3.
6061 14		F	J ^π : π=+ from L(d,p)=1.
6083 14		F	J ^π : π=+ from L(d,p)=1.
6110 14		F	J ^π : π=+ from L(d,p)=1.
6134 14		F	
6145 14		F	J ^π : π=+ from L(d,p)=1.
6159 14		F	J ^π : π=+ from L(d,p)=1.
6191 14		F	J ^π : π=+ from L(d,p)=3.
6230 30		D	
6253 14		F	
6276 14		F	J ^π : π=+ from L(d,p)=1.
6295 14		F	J ^π : π=+ from L(d,p)=3.
6327 14		F	
6362 14		F	J ^π : π=+ from L(d,p)=1.
6380 14		F	J ^π : π=+ from L(d,p)=1.
6405 14		F	J ^π : π=+ from L(d,p)=3.
6429 14		F	J ^π : π=+ from L(d,p)=1.
6454 14		F	J ^π : π=+ from L(d,p)=1.
6469 14		F	J ^π : π=+ from L(d,p)=1.
6482 14		F	
6497 14		F	J ^π : π=+ from L(d,p)=1.
6525 14		F	J ^π : π=+ from L(d,p)=1.
6549 14		F	J ^π : π=+ from L(d,p)=1.
6568 14		F	
6593 14		F	
6612 14		F	J ^π : π=+ from L(d,p)=1.
6650 14		F	J ^π : π=+ from L(d,p)=1.
6682 14		F	
6698 14		F	
6728 14		F	
6762 14		F	
6810 14		F	
6853 14		F	
6874 14		F	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{46}Sc Levels (continued)

[†] From (n, γ), except as noted; J deduced from combined analysis of circular polarization and angular distributions of γ 's using oriented and unoriented nuclei and polarized n; parity from reaction L values.

[‡] From (d,p γ).

[#] From L($^3\text{He,p}$)=0.

 $\gamma(^{46}\text{Sc})$

γ 's from capture state in (n, γ) not included; see (n, γ).

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [†]	$\alpha^\#$	Comments
52.011	6 ⁺	52.011 1	100.0	0.0	4 ⁺	E2	4.12	B(E2)(W.u.)=3.2 3.
142.528	1 ⁻	142.528 8	100.0	0.0	4 ⁺	E3	0.612	B(E2)(W.u.)=0.268 4. $\alpha(\text{exp})=0.47$ 8 in (n, γ).
227.767	3 ⁺	227.767 16	100.0	0.0	4 ⁺	M1		
280.701	5 ⁺	228.707 22	100.0 8	52.011	6 ⁺	M1		
		280.721 18	6.2 8	0.0	4 ⁺	M1		
289.539	2 ⁻	61.771 1	0.5 1	227.767	3 ⁺			
		147.010 7	100.0 1	142.528	1 ⁻	M1		
444.137	2 ⁺	216.367 10	100.00 2	227.767	3 ⁺	M1		
		301.75 30	0.09 2	142.528	1 ⁻			
584.782	3 ⁻	295.239 13	100.0 17	289.539	2 ⁻	M1		B(M1)(W.u.)=0.14 8.
		357.00 3	0.75 15	227.767	3 ⁺	E1		B(E1)(W.u.)=1.4 $\times 10^{-5}$ 8.
		442.41 7	2.0 5	142.528	1 ⁻	E2		B(E2)(W.u.)=11 7.
		584.79 3	47.7 17	0.0	4 ⁺	E1		B(E1)(W.u.)=0.00021 11.
627.429	4 ⁻	399.70 6	8.9 5	227.767	3 ⁺	E1		
		627.48 4	100.0 5	0.0	4 ⁺	E1		
774.021	5 ⁺	492.9 [‡] 7		280.701	5 ⁺	M1		
		721.86 4	81.8 19	52.011	6 ⁺	M1		
		773.92 4	100.0 19	0.0	4 ⁺	M1		
835.092	4 ⁺	554.53 3	100.0 8	280.701	5 ⁺	M1		
		835.07 4	19.0 8	0.0	4 ⁺	M1		
991.33	1 ⁺	547.11 4	100.0	444.137	2 ⁺	M1		
1088.588	4 ⁺	314.623 20	8.7 13	774.021	5 ⁺	M1		
		807.80 6	100.0 20	280.701	5 ⁺	M1		
		860.72 4	63.9 18	227.767	3 ⁺	M1		
		1088.72 25	4.4 7	0.0	4 ⁺			
1124.23	4 ⁻	496.77 10	2.7 14	627.429	4 ⁻	M1		B(M1)(W.u.)=0.0036 20.
		539.42 3	100.0 15	584.782	3 ⁻	M1		B(M1)(W.u.)=0.105 20.
		843.46 6	18.5 9	280.701	5 ⁺	E1		B(E1)(W.u.)=0.000122 23.
1270.46	4 ⁻	643.08 5	94 3	627.429	4 ⁻	M1		
		685.77 6	52.2 25	584.782	3 ⁻	M1		
		1270.43 6	100 3	0.0	4 ⁺			
1321.12	3 ⁺ , (4 ⁺)	485.994 21	100.0	835.092	4 ⁺	M1		
		1321.8 [‡] 2		0.0	4 ⁺			
1394.18	2 ⁺	402.72 4	26.3 17	991.33	1 ⁺	M1		
		1166.63 6	100.0 17	227.767	3 ⁺	M1		
		1251.4 [‡] 2		142.528	1 ⁻	E1		
1427.90	3 ⁺ , 4 ⁺ , (2 ⁺)	1285.35 4	100.0	142.528	1 ⁻			
1526.74	(2 ⁻ , 3, 4 ⁺)	899.57 10	98 4	627.429	4 ⁻			
		941.6 [‡] 2		584.782	3 ⁻			
		1082.54 6	100 4	444.137	2 ⁺			
1642.68	4 ⁻	517.1 [‡] 2		1124.23	4 ⁻	M1		
		1015.22 4	77.6 16	627.429	4 ⁻	M1		

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

$\gamma(^{46}\text{Sc})$ (continued)						
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [†]
1642.68	4 ⁻	1057.95 4	100.0 16	584.782	3 ⁻	M1
1692.2	3 ⁻	1064.8 3	100.0	627.429	4 ⁻	M1
1707.83	2 ⁻	437.49 5	11.4 24	1270.46	4 ⁻	
		1123.6 3	100 5	584.782	3 ⁻	M1
		1707.34 15	30 5	0.0	4 ⁺	
1763.24	2 ⁺ , 3 ⁺ , 4 ⁺	1763.28 14	100.0	0.0	4 ⁺	
1799.44	2 ⁺ , 3 ⁺	476.2 [‡] 2		1321.12	3 ⁺ , (4 ⁺)	M1
		711.19 10	100 3	1088.588	4 ⁺	M1
		1509.3 [‡] 2		289.539	2 ⁻	E1
		1799.66 17	49 3	0.0	4 ⁺	
1886.06	3 ⁺ , (2 ⁺)	1658.30 11	100 6	227.767	3 ⁺	
		1885.93 11	96 6	0.0	4 ⁺	
1919.88	3 ⁺	929.8 [‡] 4		991.33	1 ⁺	E2
		1335.07 4	100.0	584.782	3 ⁻	E1
1921.10		600.22 18	6.6 10	1321.12	3 ⁺ , (4 ⁺)	
		1693.29 5	100.0 10	227.767	3 ⁺	
2043.45	3 ⁻ , (2 ⁻)	1415.7 6	3.7 13	627.429	4 ⁻	
		1753.86 6	56.3 16	289.539	2 ⁻	
		1900.84 6	100.0 18	142.528	1 ⁻	
2062.25	(4) ⁻	1227.79 5	100.0	835.092	4 ⁺	
		1285.2 [‡] 1		774.021	5 ⁺	E1
2070.31	(3) ⁺	749.11 13	100 6	1321.12	3 ⁺ , (4 ⁺)	
		1235.15 16	85 6	835.092	4 ⁺	
2084.47		1803.66 14	100.0	280.701	5 ⁺	
2114.13	3, 4, (2)	2114.10 7	100.0	0.0	4 ⁺	
2119.30	3 ⁺ , 4 ⁺	1829.73 6	100.0	289.539	2 ⁻	
2203.14	3 ⁻	881.9 3	19 4	1321.12	3 ⁺ , (4 ⁺)	
		1618.40 19	100 14	584.782	3 ⁻	M1
		1913.22 16	24 4	289.539	2 ⁻	
		1975.40 10	29 6	227.767	3 ⁺	
2221.71	2 ⁺	1134.7 [‡] 3		1088.588	4 ⁺	E2
		1777.3 3	100 6	444.137	2 ⁺	
		1932.3 5	20 6	289.539	2 ⁻	
2252.80		2109.92 17	100.0	142.528	1 ⁻	
2291.84		1664.47 25	85 8	627.429	4 ⁻	
		2291.74 19	100 8	0.0	4 ⁺	
2330.19		2278.28 20	100.0	52.011	6 ⁺	
2366.75		1592.7 2	100.0	774.021	5 ⁺	
2375.28		2094.34 21	100.0	280.701	5 ⁺	
2395.97		2106.25 10	100 6	289.539	2 ⁻	
		2254.3 6	20 6	142.528	1 ⁻	
2410.45	3 ⁺	1321.87 10	52 3	1088.588	4 ⁺	
		1575.30 5	100 4	835.092	4 ⁺	M1
		2129.72 13	22.2 15	280.701	5 ⁺	
		2410.38 25	41 5	0.0	4 ⁺	
2431.17	(4 ⁺ , 5 ⁺)	2203.57 18	100.0 16	227.767	3 ⁺	
		2380.3 8	55.0 16	52.011	6 ⁺	
2442.30	3 ⁺	1668.0 5	7.2 16	774.021	5 ⁺	
		1814.89 6	69.9 20	627.429	4 ⁻	
		1857.42 6	100.0 24	584.782	3 ⁻	
		2442.6 3	18 3	0.0	4 ⁺	
2451.11		1362.61 15	100 7	1088.588	4 ⁺	
		2170.0 3	75 7	280.701	5 ⁺	
2459.64		1065.18 15	97 9	1394.18	2 ⁺	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

$\gamma(^{46}\text{Sc})$ (continued)						
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π	Mult. [†]
2459.64		2179.30 21	100 9	280.701	5 ⁺	
		2317.41 23	81 9	142.528	1 ⁻	
2494.48		1405.70 12	100.0	1088.588	4 ⁺	
2521.67		478.08 13	100.0	2043.45	3 ⁻ , (2 ⁻)	
2558.91	4 ⁺	2331.04 17	100.0	227.767	3 ⁺	
2568.06	3 ⁺ , 4 ⁺	1246.7 4	37 12	1321.12	3 ⁺ , (4 ⁺)	
		1940.4 5	95 24	627.429	4 ⁻	
		2287.12 19	100 19	280.701	5 ⁺	
2589.99	3 ⁻ , 4 ⁻	1162.15 11	25.4 19	1427.90	3 ⁺ , 4 ⁺ , (2 ⁺)	
		1268.3 [‡] 4		1321.12	3 ⁺ , (4 ⁺)	E1
		1963.1 3	14.6 17	627.429	4 ⁻	
		2005.19 6	100 5	584.782	3 ⁻	
		2146.4 8	14 7	444.137	2 ⁺	
2643.05	3 ⁻ , 4 ⁻ , (2 ⁻)	2643.5 4	100.0	0.0	4 ⁺	
2662.72		2662.8 3	100.0	0.0	4 ⁺	
2694.57		1920.9 3	79 15	774.021	5 ⁺	
		2551.3 6	100 15	142.528	1 ⁻	
2705.24	3 ⁺	1870.11 8	100 4	835.092	4 ⁺	
		2477.35 16	85 4	227.767	3 ⁺	
2714.09		651.3 3	91 13	2062.25	(4) ⁻	
		1879.1 8	26 9	835.092	4 ⁺	
		2270.1 4	100 16	444.137	2 ⁺	
2783.02	3 ⁻ , 4 ⁻	2501.87 24	100.0	280.701	5 ⁺	
2833.94		391.6 [‡] 3		2442.30	3 ⁺	
		2389.7 8	100.0	444.137	2 ⁺	
2855.98	2, 3, 4	2020.8 3	30 4	835.092	4 ⁺	
		2628.5 2	100 4	227.767	3 ⁺	
2863.34	2 ⁺ , (3 ⁺)	2418.7 6	14 4	444.137	2 ⁺	
		2635.66 9	100 4	227.767	3 ⁺	
2890.65		2600.3 5	100.0	289.539	2 ⁻	
2940.19	3 ⁻ , 4 ⁻	2797.55 12	100.0	142.528	1 ⁻	
2956.71		2667.01 16	100.0	289.539	2 ⁻	
2979.67	3 ⁺ , 4 ⁺	2351.8 3	100 11	627.429	4 ⁻	
		2536.81 13	20 11	444.137	2 ⁺	
3002.36		2721.41 23	100.0	280.701	5 ⁺	
3017.06	(3 ⁺ , 4 ⁺)	2243.08 9	100 8	774.021	5 ⁺	
		2572.0 9	21 8	444.137	2 ⁺	
		2789.43 23	38 4	227.767	3 ⁺	
3032.02		2196.92 21	100.0	835.092	4 ⁺	
3056.94		942.43 21	100 20	2114.13	3, 4, (2)	
		2614.0 11	54 20	444.137	2 ⁺	
3081.65		2497.4 4	100.0	584.782	3 ⁻	
3094.66	3 ⁺ , 4 ⁺ , (2 ⁺)	1970.48 16	100 8	1124.23	4 ⁻	
		2259.8 5	38 10	835.092	4 ⁺	
		2805.01 21	100 8	289.539	2 ⁻	
3136.32	3 ⁻ , 4 ⁻	2300.6 3	30 4	835.092	4 ⁺	
		2362.1 3	100 10	774.021	5 ⁺	
		2908.6 4	39 8	227.767	3 ⁺	
		3136.8 6	17 4	0.0	4 ⁺	
3176.54	4 ⁺	1649.5 6	18 8	1526.74	(2 ⁻ , 3, 4 ⁺)	
		2547.3 14	31 15	627.429	4 ⁻	
		2895.3 3	100 14	280.701	5 ⁺	
3191.81	(2 ⁻ , 3 ⁺)	2200.4 9	49 14	991.33	1 ⁺	
		2567.7 17	40 25	627.429	4 ⁻	
		2963.1 4	100 19	227.767	3 ⁺	

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Adopted Levels, Gammas (continued) $\gamma(^{46}\text{Sc})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π
3204.94		1134.57 10	100 6	2070.31	(3) ⁺
		2214.3 3	47 6	991.33	1 ⁺
		2759.4 5	26 6	444.137	2 ⁺
3229.84	2 ⁺ ,3 ⁺ ,4 ⁺	2139.7 12	7. $\times 10^1$ 3	1088.588	4 ⁺
		3002.2 7	1.0 $\times 10^2$ 3	227.767	3 ⁺
3260.40		3117.33 25	100.0	142.528	1 ⁻
3278.76	2 ⁺ ,3 ⁺	2652.0 5	29 6	627.429	4 ⁻
		2693.71 17	100 8	584.782	3 ⁻
		2834.4 4	63 8	444.137	2 ⁺
3314.10	4 ⁺	1251.67 7	100 7	2062.25	(4) ⁻
		3261.0 7	41 7	52.011	6 ⁺
3381.48		3328.3 10	100.0	52.011	6 ⁺
3396.67	2 ⁺ ,3 ⁺ ,(4 ⁺)	2768.7 8	20 6	627.429	4 ⁻
		3396.7 3	100 6	0.0	4 ⁺
3414.32	2 ⁺ ,3 ⁺ ,4 ⁺	2578.9 5	100 16	835.092	4 ⁺
		3125.1 3	82 12	289.539	2 ⁻
		3185.9 5	40 12	227.767	3 ⁺
3424.54	3 ⁺ ,(4 ⁺)	929.85 13	68 12	2494.48	
		2839.8 6	68 18	584.782	3 ⁻
		2980.9 10	35 15	444.137	2 ⁺
		3280.4 10	100 32	142.528	1 ⁻
		3373.5 13	24 12	52.011	6 ⁺
3443.28	2 ⁺ ,3 ⁺ ,4 ⁺	3443.14 24	100.0	0.0	4 ⁺
3474.22	3 ⁺ ,4 ⁺ ,(2 ⁺)	2079.72 13	100 13	1394.18	2 ⁺
		2153.38 16	88 10	1321.12	3 ⁺ ,(4 ⁺)
		2845.5 8	56 17	627.429	4 ⁻
3493.24	2 ⁺	1966.66 16	41 3	1526.74	(2 ⁻ ,3,4 ⁺)
		2404.91 21	78 6	1088.588	4 ⁺
		3049.5 3	58 9	444.137	2 ⁺
		3265.55 17	100 6	227.767	3 ⁺
3550.31	2 ⁺ ,3 ⁺ ,4 ⁺	2714.98 20	100 8	835.092	4 ⁺
		3106.1 5	61 8	444.137	2 ⁺
3597.07	2 ⁺ ,3 ⁺ ,4 ⁺	1375.4 4	19 6	2221.71	2 ⁺
		2968.4 7	32 8	627.429	4 ⁻
		3153.5 3	38 4	444.137	2 ⁺
		3596.97 15	100 6	0.0	4 ⁺
3605.26		1519.8 6	37 12	2084.47	
		3552.0 9	56 16	52.011	6 ⁺
		3605.6 6	100 18	0.0	4 ⁺
3620.43		2529.7 9	69 21	1088.588	4 ⁺
		3478.3 3	100 21	142.528	1 ⁻
3631.97	2 ⁺ ,3 ⁺ ,4 ⁺ ,5 ⁺	3351.26 20	100.0	280.701	5 ⁺
3654.77		2819.6 14	39 16	835.092	4 ⁺
		3026.7 8	100 16	627.429	4 ⁻
3675.47	2 ⁺ ,3 ⁺ ,4 ⁺	3623.12 11	100.0	52.011	6 ⁺
3707.38	3 ⁺ ,4 ⁺ ,(2 ⁺)	3081.3 10	8. $\times 10^1$ 3	627.429	4 ⁻
		3418.8 6	1.0 $\times 10^2$ 3	289.539	2 ⁻
3721.42		3721.2 3	100.0	0.0	4 ⁺
3766.70	3 ⁺	2058.85 10	100 17	1707.83	2 ⁻
		2678.5 3	66 13	1088.588	4 ⁺
		3323.1 19	5. $\times 10^1$ 3	444.137	2 ⁺
3785.36	4 ⁺	2697.2 3	22 3	1088.588	4 ⁺
		3011.9 3	100 5	774.021	5 ⁺
		3201.4 7	11 3	584.782	3 ⁻
		3502.9 11	12 5		

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Adopted Levels, Gammas (continued) $\gamma(^{46}\text{Sc})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π
3785.36	4 ⁺	3506.0 13	8 5	280.701	5 ⁺
		3557.6 4	12.7 20	227.767	3 ⁺
3813.81		1591.8 3	89 17	2221.71	2 ⁺
		3525.3 8	100 17	289.539	2 ⁻
3841.11	3 ⁺ , 4 ⁺	3066.8 7	100 23	774.021	5 ⁺
		3213.3 9	92 23	627.429	4 ⁻
3868.62		2781.0 8	40 16	1088.588	4 ⁺
		3241.1 14	52 24	627.429	4 ⁻
		3424.7 5	96 20	444.137	2 ⁺
		3578.5 9	40 12	289.539	2 ⁻
		3641.1 5	100 16	227.767	3 ⁺
		3867.5 5	72 12	0.0	4 ⁺
3876.65	3 ⁺ , 4 ⁺	2607.0 10	29 16	1270.46	4 ⁻
		3102.0 5	79 14	774.021	5 ⁺
		3249.3 11	55 21	627.429	4 ⁻
		3431.95 22	100 14	444.137	2 ⁺
3937.29		879.4 5	5 2	3056.94	
		3310.6 10	100 2	627.429	4 ⁻
3945.3		3716.9 7	100.0	227.767	3 ⁺
4039.69		1818.46 21	44 5	2221.71	2 ⁺
		2916.6 7	21 9	1124.23	4 ⁻
		2950.97 17	100 9	1088.588	4 ⁺
		3750.05 21	37 4	289.539	2 ⁻
		3760.6 12	6 3	280.701	5 ⁺
4074.67		3931.9 3	100.0	142.528	1 ⁻
4081.12		2373.5 3	100 6	1707.83	2 ⁻
		3090.3 3	47 6	991.33	1 ⁺
4103.8		4052.2 5	100.0	52.011	6 ⁺
4142.61		1552.23 22	82 11	2589.99	3 ⁻ , 4 ⁻
		3017.9 8	82 21	1124.23	4 ⁻
		3862.3 3	100 14	280.701	5 ⁺
4261.46		2340.53 17	52 7	1921.10	
		2990.95 21	100 7	1270.46	4 ⁻
		3174.5 13	11 5	1088.588	4 ⁺
4294.65		3205.8 6	1.0×10 ² 3	1088.588	4 ⁺
		3303.4 20	8.×10 ¹ 5	991.33	1 ⁺
		4013.65 24	68 20	280.701	5 ⁺
4319.09		2249.0 4	100 20	2070.31	(3) ⁺
		3543.9 8	88 20	774.021	5 ⁺
		4267.1 20	54.6 25	52.011	6 ⁺
4383.08		2299.0 6	100 19	2084.47	
		2741.4 14	29 15	1642.68	4 ⁻
		3938.5 7	29 8	444.137	2 ⁺
		4093.54 25	81 12	289.539	2 ⁻
4432.77		2510.9 6	100 6	1921.10	
		4433.4 13	11 6	0.0	4 ⁺
4447.83		4166.6 6	100.0	280.701	5 ⁺
4467.08		2035.7 7	48 14	2431.17	(4 ⁺ , 5 ⁺)
		3693.0 4	80 9	774.021	5 ⁺
		3839.8 3	100 12	627.429	4 ⁻
4522.75		2814.96 22	76 8	1707.83	2 ⁻
		2995.61 24	100 8	1526.74	(2 ⁻ , 3, 4 ⁺)
		3530.2 8	27 8	991.33	1 ⁺
		4522.5 4	41 5	0.0	4 ⁺
4528.54		2887.3 6	100 18	1642.68	4 ⁻

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Adopted Levels, Gammas (continued)

$\gamma(^{46}\text{Sc})$ (continued)					
$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	$I_\gamma^\dagger$	E_f	J_f^π
4528.54		3403.2 7	67 16	1124.23	4 ⁻
		4083.70 22	90 16	444.137	2 ⁺
4587.16		2943.5 11	19 12	1642.68	4 ⁻
		3158.7 3	59 7	1427.90	3 ⁺ ,4 ⁺ , (2 ⁺)
		3193.18 18	100 12	1394.18	2 ⁺
		3812.62 18	97 8	774.021	5 ⁺
		4141.8 18	19 12	444.137	2 ⁺
		4534.3 3	76 7	52.011	6 ⁺
		4589.6 12	16 7	0.0	4 ⁺
4606.43		3615.5 5	27 5	991.33	1 ⁺
		4021.47 10	100 6	584.782	3 ⁻
		4607.9 9	16 5	0.0	4 ⁺
4694.59		2772.8 8	25 9	1921.10	
		3569.6 9	18 7	1124.23	4 ⁻
		4109.7 3	100 9	584.782	3 ⁻
		4551.6 9	21 7	142.528	1 ⁻
4701.03		1422.13 20	39 7	3278.76	2 ⁺ ,3 ⁺
		1509.03 16	55 10	3191.81	(2 ⁻ ,3 ⁺)
		2901.22 23	100 17	1799.44	2 ⁺ ,3 ⁺
		3274.1 17	5.×10 ¹ 4	1427.90	3 ⁺ ,4 ⁺ , (2 ⁺)
		3379.1 7	42 10	1321.12	3 ⁺ , (4 ⁺)
		4701.4 5	32 10	0.0	4 ⁺
4719.64		4136.6 9	100 18	584.782	3 ⁻
		4667.8 10	79 18	52.011	6 ⁺
4754.3		3359.84 26	100 7	1394.18	2 ⁺
		4526.7 3	64 7	227.767	3 ⁺
4761.07		3335.6 17	6.×10 ¹ 3	1427.90	3 ⁺ ,4 ⁺ , (2 ⁺)
		3636.24 24	100 25	1124.23	4 ⁻
		3768.5 7	14 7	991.33	1 ⁺
4787.27		2584.5 4	100 10	2203.14	3 ⁻
		3516.6 5	55 10	1270.46	4 ⁻
		4788.6 9	12 4	0.0	4 ⁺
4873.4		3166.1 5	100 15	1707.83	2 ⁻
		4582.4 16	29 13	289.539	2 ⁻
		4870.2 12	32 12	0.0	4 ⁺
4882.57		2098.5 9	72 21	2783.02	3 ⁻ ,4 ⁻
		2506.5 4	100 21	2375.28	
4961.45		2708.2 8	46 19	2252.80	
		2737.8 17	32 25	2221.71	2 ⁺
		3073.8 8	46 19	1886.06	3 ⁺ , (2 ⁺)
		3317.1 16	1.0×10 ² 5	1642.68	4 ⁻
		4124.8 9	46 17	835.092	4 ⁺
5049.44		2929.1 5	100 12	2119.30	3 ⁺ ,4 ⁺
		3924.5 4	72 12	1124.23	4 ⁻
5092.96		3822.44 16	100 2	1270.46	4 ⁻
		5092.5 9	10 2	0.0	4 ⁺
5301.83		1681.46 23	31 5	3620.43	
		2871.3 3	100 12	2431.17	(4 ⁺ ,5 ⁺)
		2973.5 14	17 8	2330.19	
		3905.5 13	10 4	1394.18	2 ⁺
		4176.8 10	45 17	1124.23	4 ⁻
		4672.7 10	29 8	627.429	4 ⁻
		5024.9 17	6 4	280.701	5 ⁺
5346.16	3 ⁻ ,4 ⁻	4075.5 3	59 7	1270.46	4 ⁻
		4354.76 16	100 9	991.33	1 ⁺

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

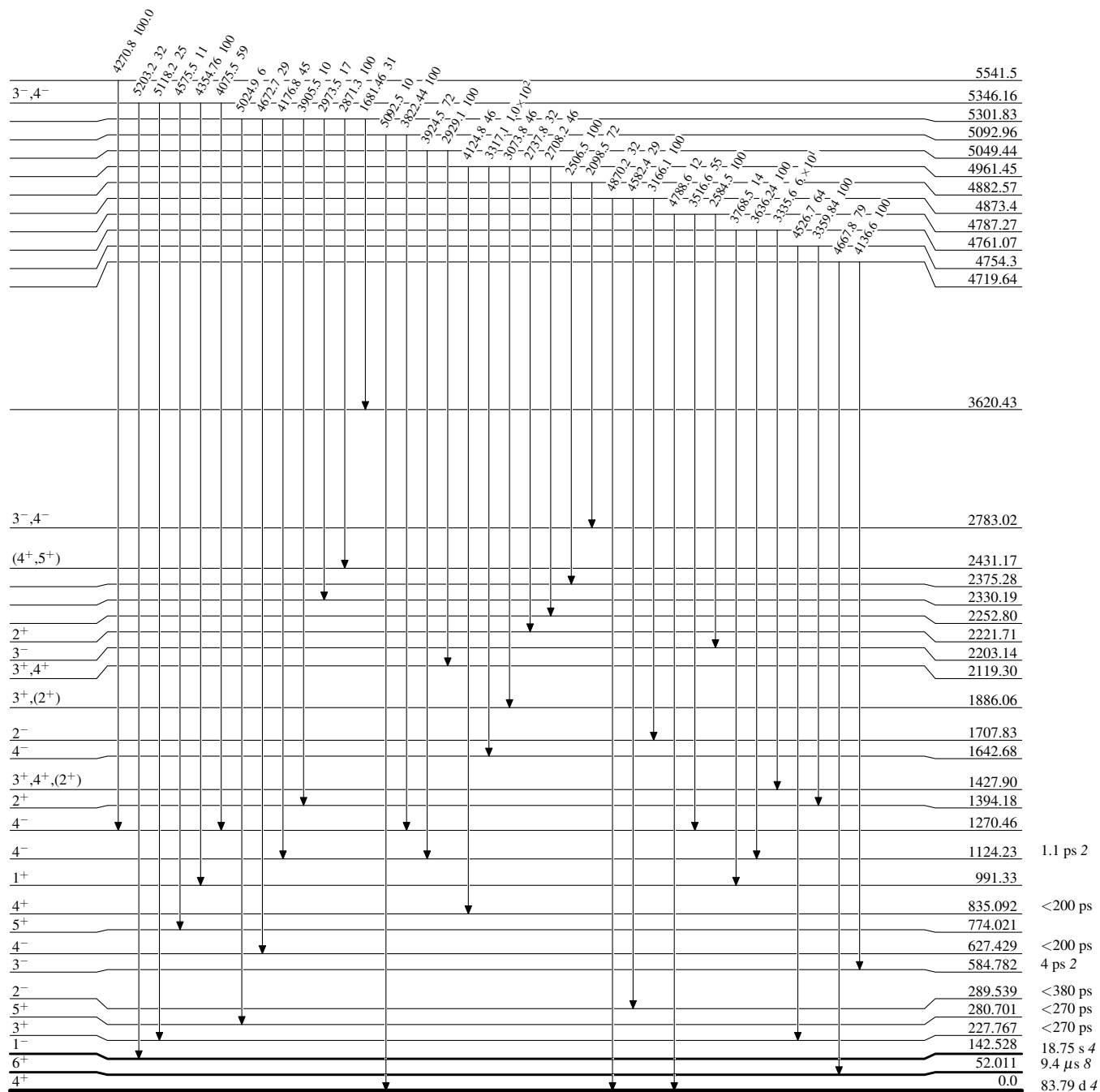
$\gamma(^{46}\text{Sc})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{$\dagger$}</u>	<u>I_{γ}^{$\dagger$}</u>	<u>E_f</u>	<u>J_f^{π}</u>
5346.16	3 ⁻ ,4 ⁻	4575.5 21	11 7	774.021	5 ⁺
		5118.2 11	25 9	227.767	3 ⁺
		5203.2 10	32 9	142.528	1 ⁻
5541.5		4270.8 7	100.0	1270.46	4 ⁻

^{$\dagger$} From (n, γ), except as noted.
 ^{$\ddagger$} For relative intensity, see (n, γ).
[#] 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.

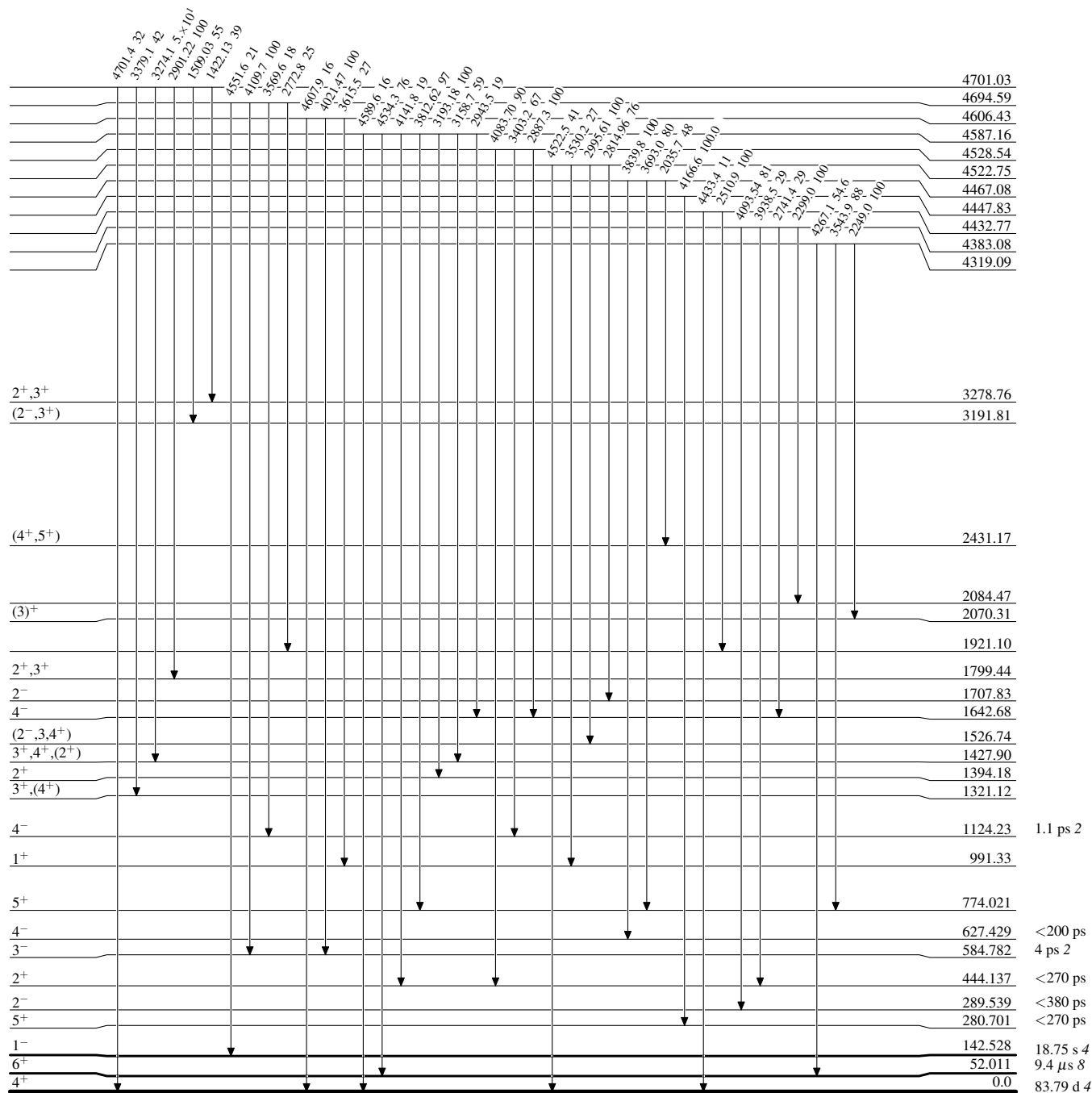
Adopted Levels, Gammas**Level Scheme**

Intensities: Relative photon branching from each level

 $^{46}_{21}\text{Sc}_{25}$

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

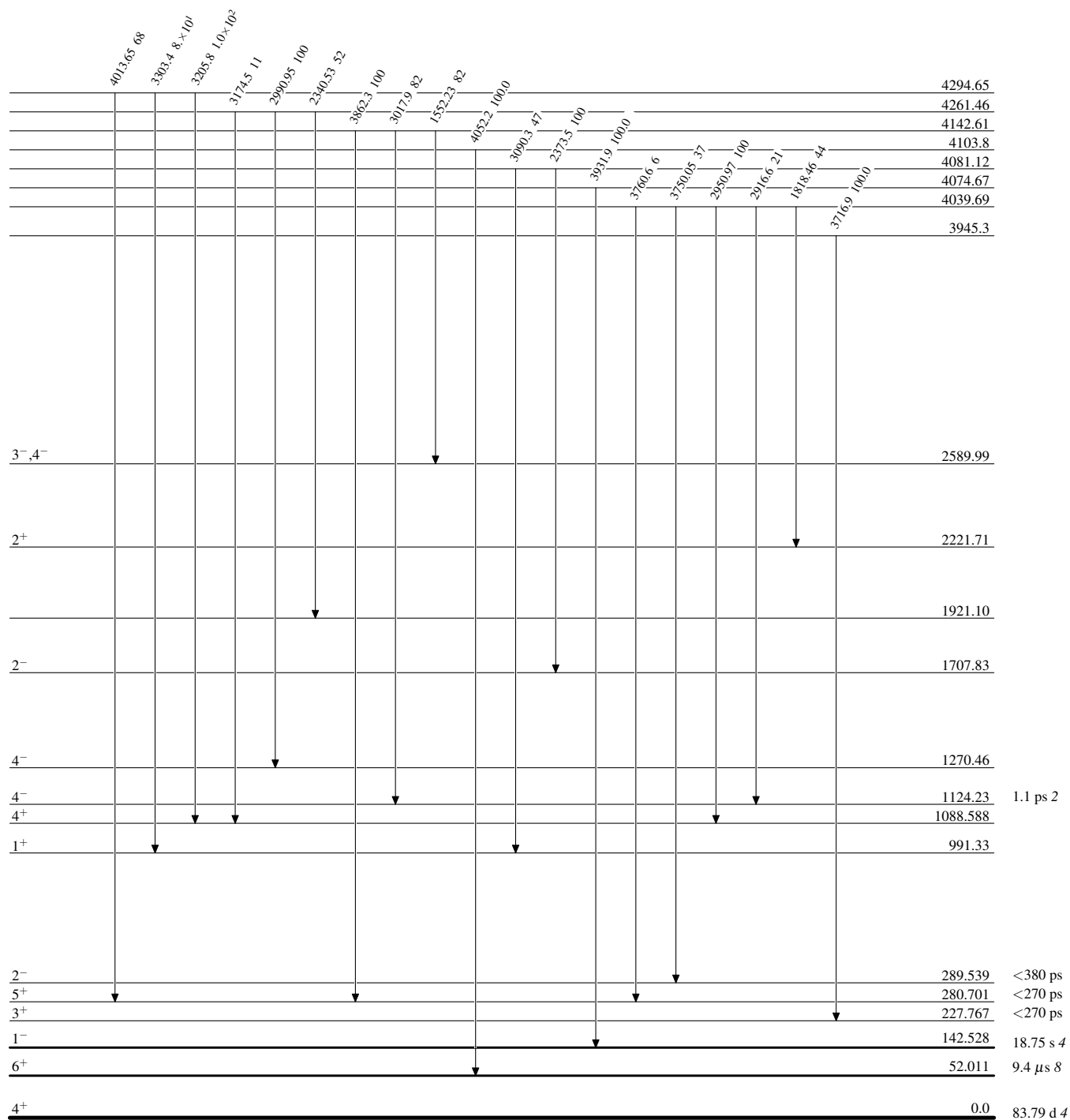
Intensities: Relative photon branching from each level

 $^{46}_{21}\text{Sc}_{25}$

Adopted Levels, Gammas

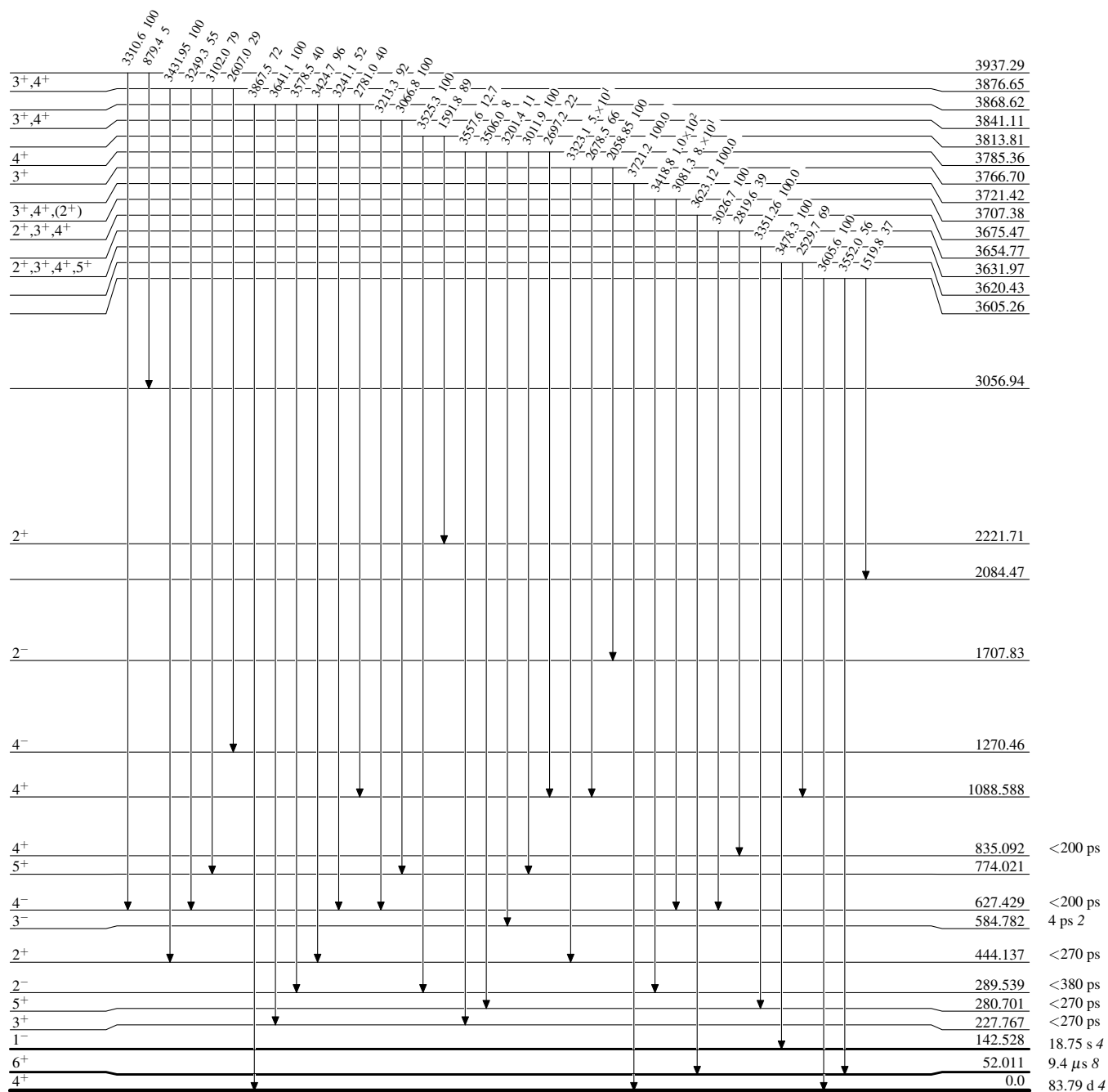
Level Scheme (continued)

Intensities: Relative photon branching from each level



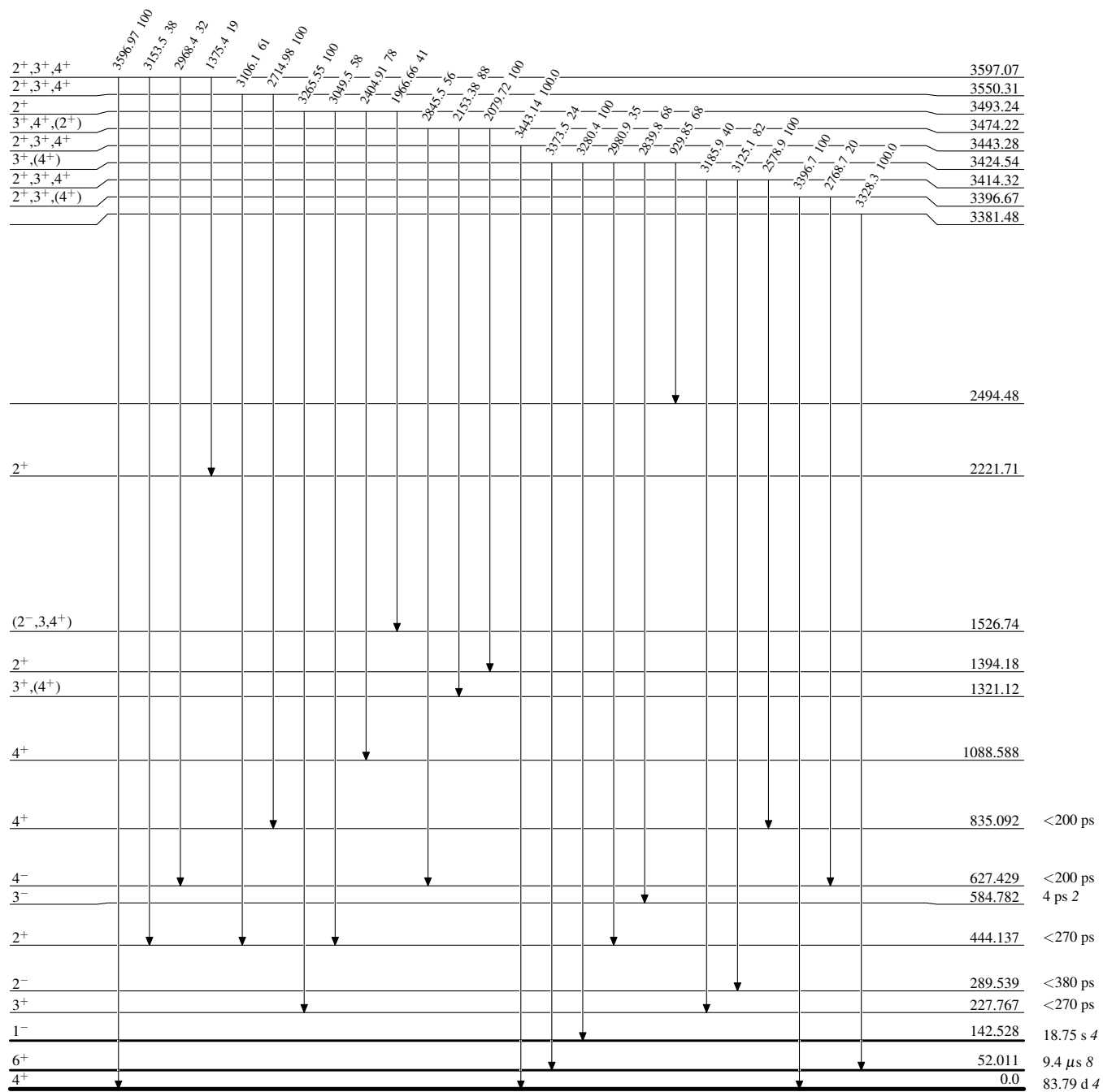
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Relative photon branching from each level

 $^{46}_{21}\text{Sc}_{25}$

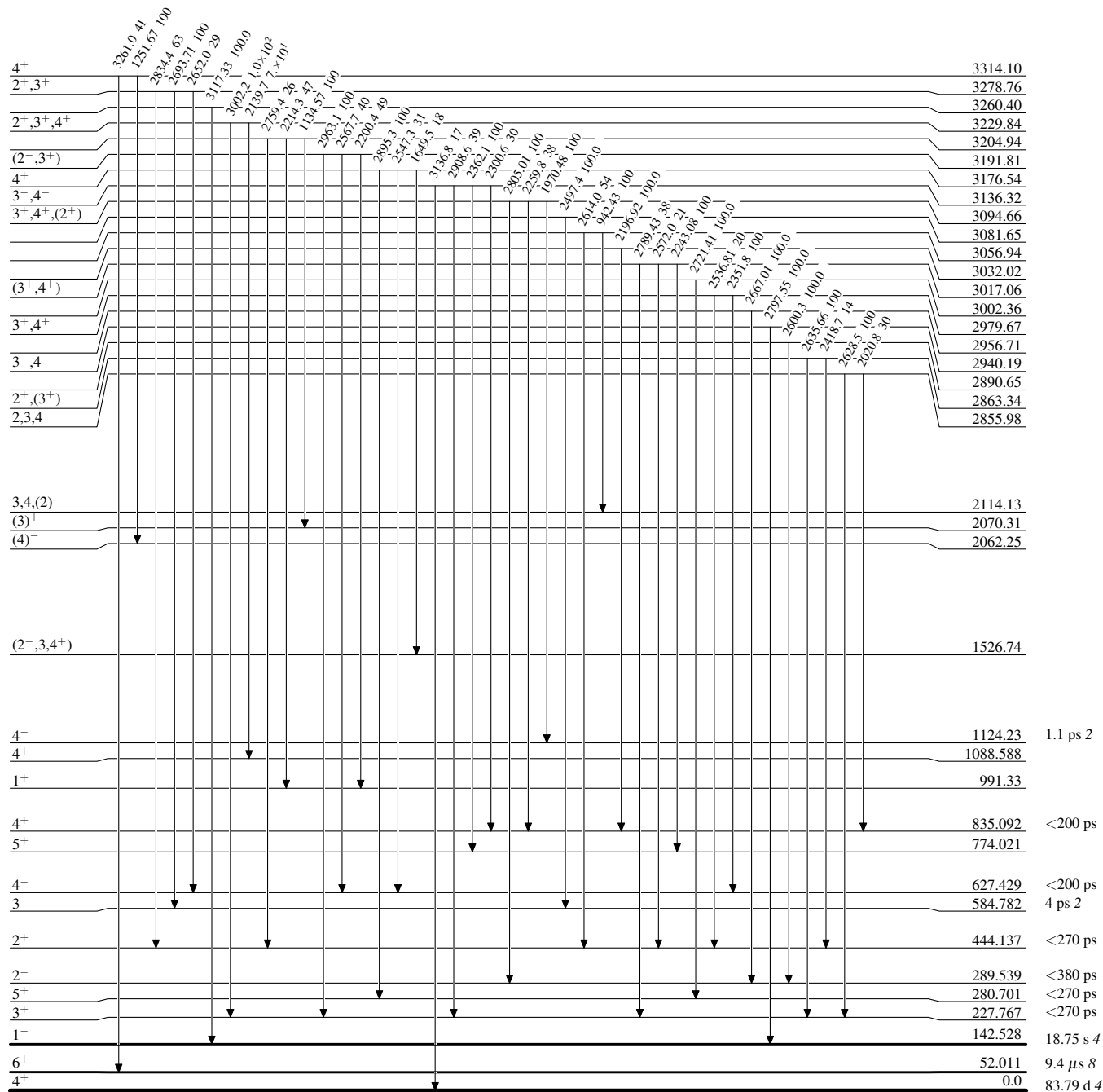
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Relative photon branching from each level

 $^{46}_{21}\text{Sc}_{25}$

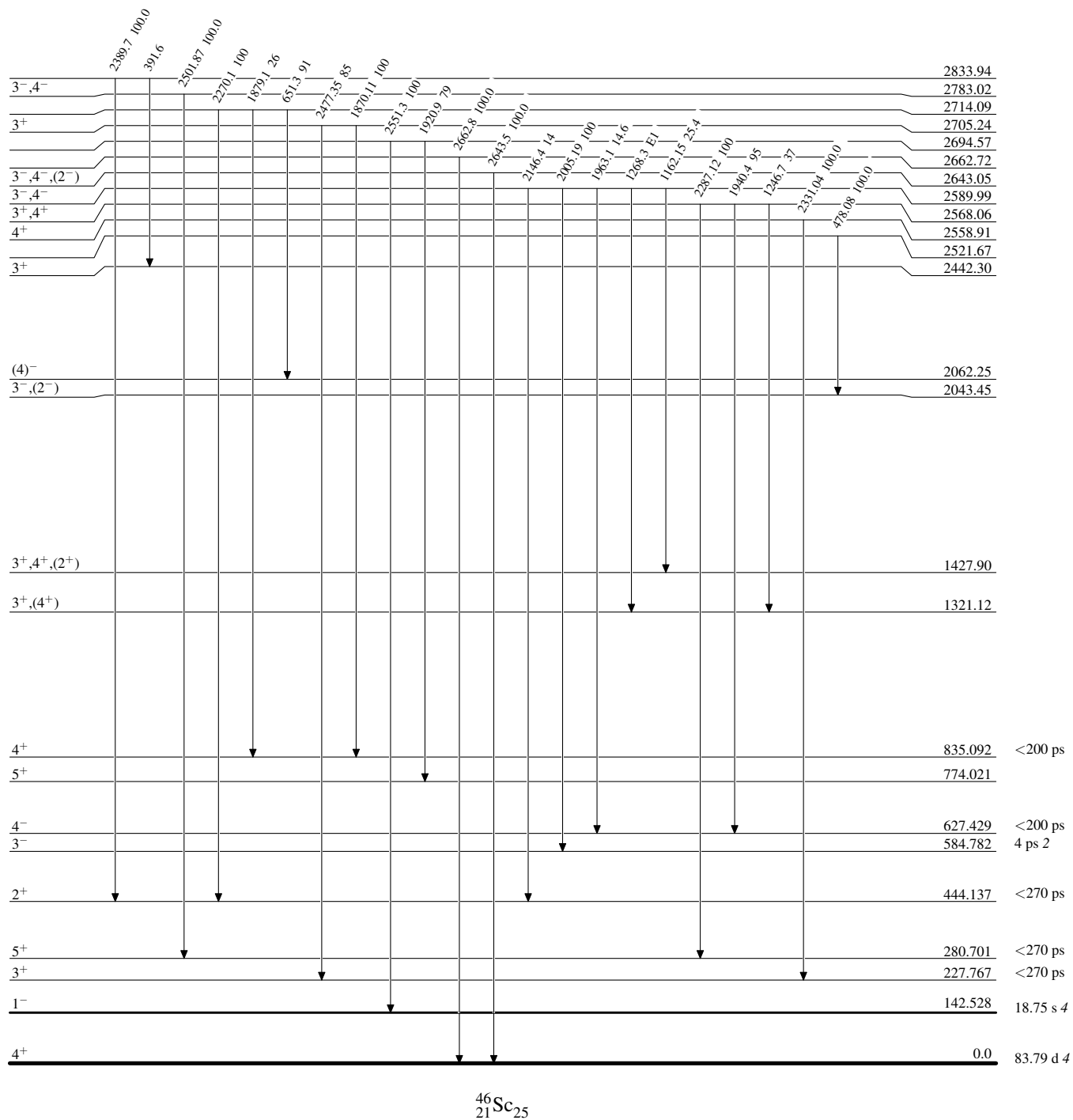
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Relative photon branching from each level



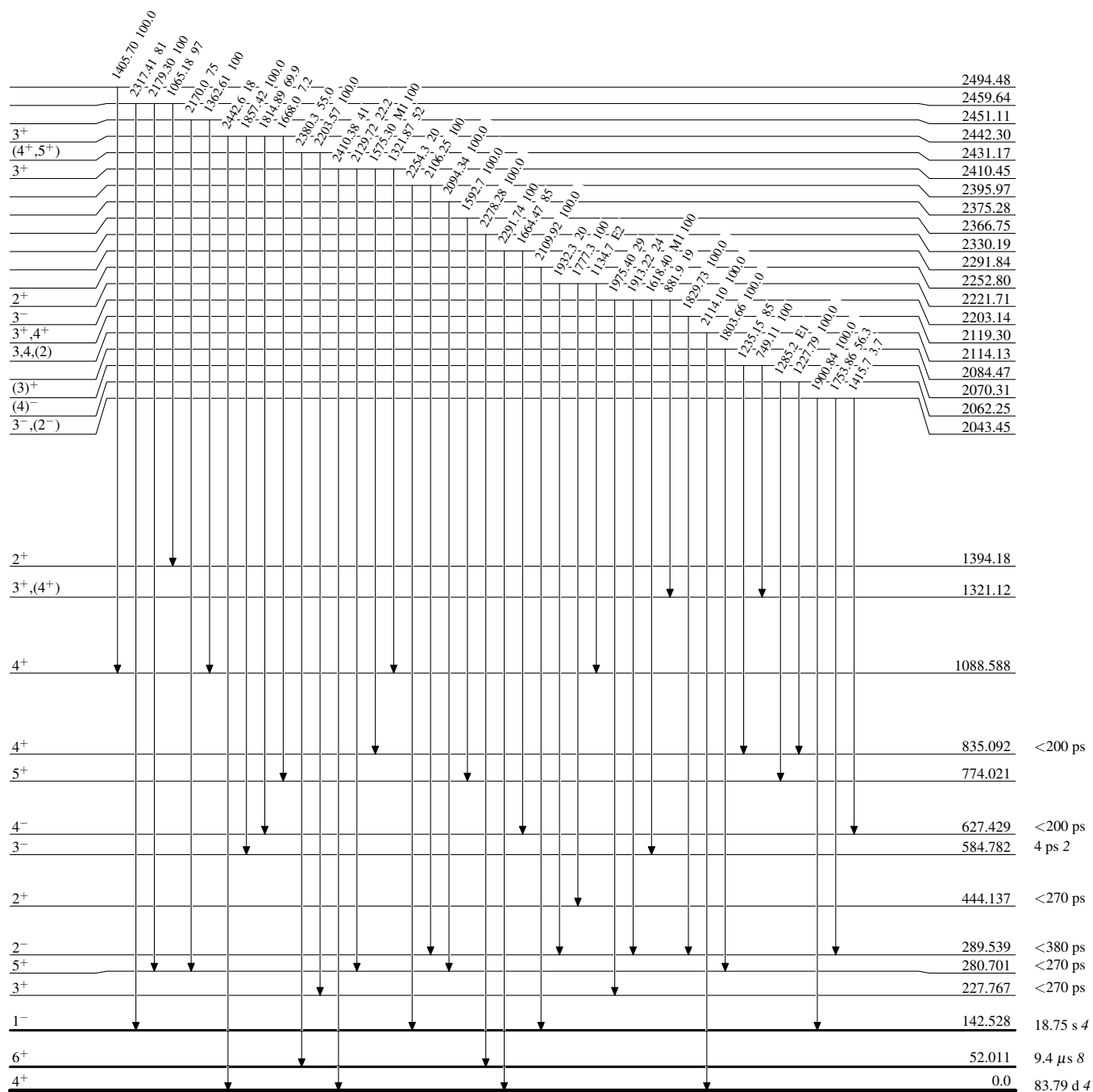
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Relative photon branching from each level



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

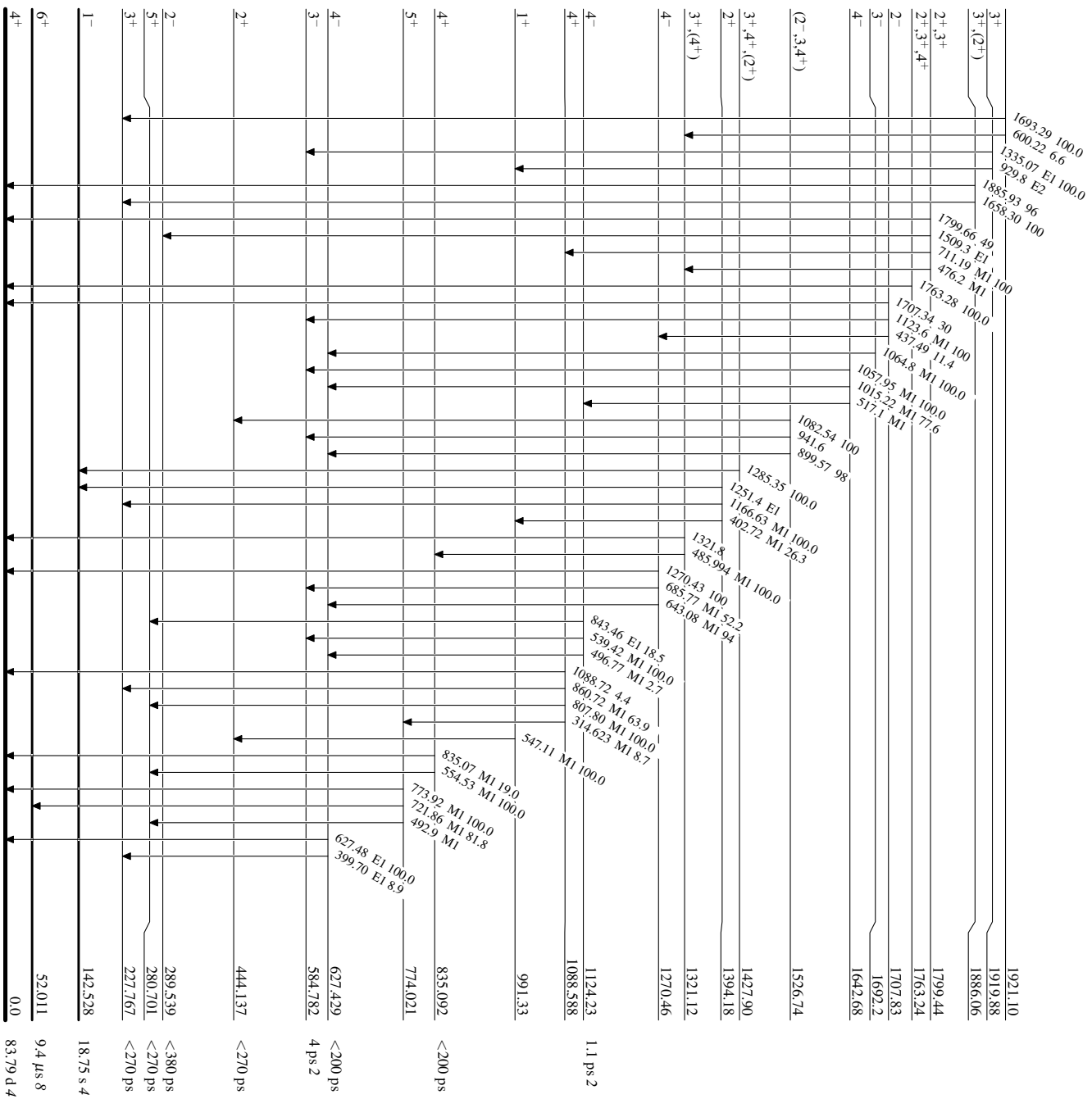
Intensities: Relative photon branching from each level

 $^{46}_{21}\text{Sc}_{25}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

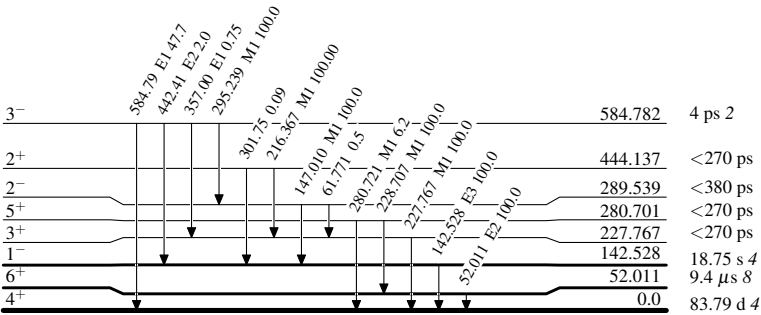


⁴⁶Sc₂₅

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



⁴⁶Sc₂₅