

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia, A. Chakraborty		NDS 197,1 (2024)	31-May-2024

Q(β^-)=-4232.11 6; S(p)=13514.2 3 [2021Wa16](#)
 S(n)=10609.199 22, Q(α)=-10643.33 4, S(2n)=19082.801 22, S(2p)=23990.96 26 ([2021Wa16](#)).

There are 27 neutron resonances for the ²⁹Si+n reaction in the 15 keV to 1389 keV energy range ([2018MuZY](#)). Others: [1974Ke18](#), [1975Bo36](#), [1976Ke04](#), [1983Ke11](#), [2003Gu05](#).

[2007No13](#): Production cross section ~80 mb and ~70 mb, measured in ⁴⁰Ar fragmentation reactions of ⁹Be(⁴⁰Ar,X), E=90 MeV/nucleon, and ¹⁸¹Ta(⁴⁰Ar,X), E=94 MeV/nucleon, respectively.

[1960Ve06](#): ³¹Si(n,d), E_n=14.1 MeV (not mentioned explicitly); two proportional counters as a telescope, a scintillation counter; measured deuteron energy spectrum, $\sigma(\theta)$; deduced L=0 for the g.s. transition to ³⁰Si and $\sigma=(21.8\ 12) \times 10^{-27}$ cm²/sr at $\theta=0$ (Lab).

[1961Be38](#): Measured ³⁰Mg(γ ,n) reaction threshold to be 10618 keV 7.

[1970Fi01](#) - ³⁰Si(d,d'), E=11.8 MeV; measured $\sigma(\theta)$. Also [1972Be78](#), E=10 MeV; measured $\sigma(\theta)$, deduced deformation parameter. Also [1973Da26](#).

[1985Ke01](#): ³¹P(γ ,p), E=14.6-25 MeV; measured absolute $\sigma(E,\theta)$; deduced $\sigma(E,p')$, deduced integral C²S.

[1977Pa11](#): ²⁷Al(¹⁶O,X), E=35 MeV, measured ³⁰Si g.s. production cross section to be 8 μ b/sr ($\pm 40^\circ$).

³⁰Si Levels

Cross Reference (XREF) Flags

A	³⁰ Al β^- decay	I	²⁷ Al(α ,p γ)	Q	³⁰ Si(n,n' γ)
B	³⁰ P ϵ decay	J	²⁸ Si(t,p),(t,p γ)	R	³⁰ Si(pol ³ He, ³ He),(³ He, ³ He')
C	¹⁴ C(¹⁶ O, ¹⁶ O):res	K	²⁸ Si(α , ² He),(¹⁸ O, ¹⁶ O)	S	³⁰ Si(α , α' γ)
D	¹⁴ C(¹⁸ O,2n γ)	L	²⁹ Si(n, γ) E=thermal	T	³¹ P(γ ,p γ')
E	²⁶ Mg(α ,n),(α , γ),(α , α):res	M	²⁹ Si(d,p)	U	³¹ P(e,e' γ)
F	²⁶ Mg(⁶ Li,d), ³⁴ S(d, ⁶ Li)	N	³⁰ Si(γ , γ'),(pol γ , γ')	V	³¹ P(d, ³ He)
G	²⁶ Mg(¹⁶ O, ¹² C)	O	³⁰ Si(e,e')		
H	²⁷ Al(α ,p)	P	³⁰ Si(p,p')		

E(level) [†]	J ^π	T _{1/2} ^g	XREF	Comments
0	0 ⁺	stable	AB D FGH IJKLMN PQRSTU	$\langle r^2 \rangle^{1/2} = 3.17$ fm +15-7 (1977Br16). $\delta \langle r^2 \rangle^{30,28} = 0.070$ fm 29 (2024Ko07).
2235.325 24	2 ⁺	236 fs 12	AB D FGH IJKLM PQRSTU	$\mu = +0.9$ 2 $Q = -0.05$ 6 J^π : L=2 in (t,p). μ : from 2020StZV , 1978Za13 - Perturbed angular correlation after ion implantation. Q: from 1981Sp07 , 2021StZZ - Coulomb Excitation Reorientation. Other: +0.01 6 in 1979Fe08 and 1989Vo02 - depending on constructive or destructive interference from the 2nd excited state - Coulomb Excitation Reorientation. T _{1/2} : weighted average of 223 fs 12 from (α ,p γ), 243 fs 13 from (t,p), 248 fs 12 from (α , ² He), and 249 fs 27 from (α , α' γ), 187 fs 130 (1977Sc36 - from $\tau=0.27$ ps 14 13), and 187 fs +35-24 (1985GeZY - $\tau=270$ fs +50-35).
3498.49 3	2 ⁺	61 fs 6	AB D GHIJKLM PQRSTU	XREF: J(3510). J^π : L=2 in (t,p). T _{1/2} : weighted average of 63 fs 6 from (α ,p γ) and 58.9 fs 55

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{30}Si Levels (continued)

E(level) [†]	J ^π	T _{1/2} ^g	XREF	Comments
3769.48 4	1 ⁺ ^c	42 fs 9	AB F IJKLMN QRSTU	from (t,p). XREF: F(3700)R(3700).
3787.72 5	0 ⁺	8.9 ps 6	B IJKLM PQ STUV	T _{1/2} : other: 35 fs 19 (γ,γ'). XREF: V(3772).
4810.33 11	2 ⁺ ^c	131 fs 14	A IJKLM PQRS V	J ^π : 1552.36γ(θ), isotropic distribution, in (α,py) (1971Sy01) and L(d,p)=0. XREF: V(4823).
4830.86 4	3 ⁺ @ ^c	87 fs 17	A D IJKLM PQ S	J ^π : see footnote. L=2 in (d,p). 2 ⁺ in $^{30}\text{Si}(\alpha,\alpha'\gamma)$ (1970Oh03).
5231.52 9	3 ⁺ ^c	63 fs 14	A D IJ LM PQ S UV	J ^π : see footnote. L=2 in (d,p). For 3 ⁻ in 1970Di10 (n,n'γ) is inconsistent – no arguments for a 3 ⁻ assignment are available. XREF: P(5220).
5279.25 13	4 ⁺	96 fs 10	D F IJK Q S	J ^π : L=4 in (t,p).
5372.2 6	0 ⁺	59 fs 21	IJKL PQ S V	J ^π : L=0 in (d, ³ He), absence of γ to g.s.
5487.49 [#] 6	3 ⁻	46 fs 12	D F IJKLM PQRS	XREF: P(5477).
5614.05 13	2 ⁺	<14 fs	A EF IJKLM P S V	J ^π : L=3 in (t,p). XREF: V(5620).
5950.69 14	4 ⁺ ^e	16 fs 8	A D F IJK S	J ^π : L=2 in (t,p). J ^π : see footnote. Also in 1971Sy01 based on (α,α') population at 180° and γ(θ).
6503.42 [#] 8	4 ⁻	124 fs 31	D IJK M S	J ^π : L=3 in (d,p), M1+E2 γ from 5 ⁻ at 7043.
6537 [‡] 4	2 ⁺	33 fs 24	HIJK S V	XREF: H(6.55E3)J(6528).
6641 [‡] 4	0 ⁺		IJK	J ^π : L=2 in (t,p). Spin 4 in (α,p) is not consistent.
6641.21 7	2 ⁻	25 fs 9	I KLM	J ^π : L=0 in (t,p). XREF: M(6636).
6744.06 4	1 ⁻	<10.4 fs	F IJKLM ST	J ^π : L=0 in (t,p). XREF: M(6636). J ^π : 1810.4γ to 3 ⁺ , 1153.6γ to 3 ⁻ . For the second member of the doublet, 1973Ba50 (t,p) suggested J ^π =0 ⁻ , 1 ⁻ or 2 ⁻ , 1980Bi14 excluded 0 ⁻ and 1 ⁻ assignments from 1810.4γ intensity and feeding the 3 ⁺ state. L=1 in (d,p).
6865 [‡] 2	3 ⁺	23 fs 11	HIJK V	J ^π : L=1 in (t,p). J ^π : L=2 in (d, ³ He), M1(+E2) 914γ to 4 ⁺ . J ^π =4 ⁺ is rejected from E2 strength calculations (1971Sy01).
6914.77 25	2 ⁺	<24.3 fs	F IJKL S	J ^π : L=2 in (d, ³ He), L=(2) in (t,p).
6998.78 15	5 ⁺	115 fs 17	D IJ	XREF: J(6993). J ^π : assigned in 1980Bi14 based on unnatural parity, population from 8196 keV (J ^π =5 ⁻) level, and RUL.
7043.17 12	5 ⁻	0.83 ps +14-10	D F HIJK	J ^π : L=5 in (t,p).
7079 [‡] 1	3 ⁺	<14 fs	IJ V	XREF: J(7070). J ^π : L=2 in (d, ³ He). D γ to 2 ⁺ and γ from 4 ⁺ . Unnatural parity from absence in (α,α') 1971Sy01. Shell model predictions in 1980Bi14 (α,py).
7223.2 4	4 ⁺ ^b	<14 fs	D hIJ	J ^π : L=4 in (α,p).
7255 [‡] 4	2 ⁺	35 fs 14	E hIJ V	XREF: E(7.3E3). J ^π : L=2 in (t,p).
7440 [‡] 4	0 ⁺		IJ V	XREF: J(7441). J ^π : L=0 in (t,p). L=2 in (d, ³ He) is not consistent.
7507.87 5	(2 ⁻)	<24 fs	IJ LM	
7613 [‡] 1	4 ⁻ @	13 fs 6	I	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{30}Si Levels (continued)

E(level) [†]	J ^π	T _{1/2} ^g	XREF	Comments
7623 [‡] 4	2 ⁺ @	<17 fs	IJ M	XREF: J(7612). J ^π : L=2 in (t,p) for doublet (7613 and 7623), J ^π (7613)=4 ⁻ and the evaluators consider L=2 in (t,p) for this level.
7634 [‡] 4	(1,2) ⁺		I K M U	J ^π : L=2 in (d, ³ He), γ to 0 ⁺ .
7667.4 6	(1,2) ⁺	<14 fs	IJ LM V	XREF: J(7660). J ^π : L=2 in (d, ³ He), γ to 0 ⁺ .
7810 [‡] 2	4 ⁺	12 fs 8	IJ	XREF: J(7800). J ^π : L=4 in (t,p).
7911 [‡] 2	2 ⁺	24 fs 14	IJK M	XREF: J(7897)M(7925). J ^π : L=2 in (t,p).
8104.9 3	(2 ⁺ ,3 ⁺)	25 fs 17	IJ LM	J ^π : γs to 1 ⁺ ; 2 ⁺ ; 3 ⁺ ; 3 ⁻ ; 2628γ from (3 ⁻ ,4 ⁺). 2 ⁺ ,3 ⁻ in 1980Bi14 – (α,py). L=(0) in (t,p) is inconsistent with this assignment.
8156.2 7	(1,2)		IJ LM V	J ^π : L=1 in (d,p) yields (0,1,2) ⁻ , L=2 in (d, ³ He) yields (1,2,3) ⁺ .
8163.22 7	1 ⁻		IJKL	J ^π : L=1 in (t,p).
8190 [‡] 4	(2 ⁺)@	25 fs 17	IJ	XREF: J(8177).
8193.9 [#] 4	5 ⁻	38 fs 12	D IJ	XREF: J(8204). J ^π : L=5 in (t,p).
8290 [‡] 4	(1 ⁻ ,2,3)		IJ	XREF: J(8279). J ^π : γs to 2 ⁺ and 3 ⁻ .
8330 [‡] 4			IJ	XREF: J(8319).
8442 [‡] 4	3 ⁻		IJ M	XREF: M(8461). J ^π : L=3 in (t,p).
8537 [‡] 3	(3 ⁺ ,4 ⁺)	38 fs 16	IJ	J ^π : 1538 to 5 ⁺ , 6301γ to 2 ⁺ .
8554 [‡] 2	3 ⁻	<14 fs	IJ	XREF: J(8564). J ^π : L=3 in (t,p).
8577			j M	E(level): from (d,p).
8596 [‡] 4	4 ⁻ @	<17 fs	IjK M	J ^π : L=3 in (d,p); shell model predictions (α,py) (1980Bi14).
8640 [‡] 4	(4 ⁺) ^f	<17 fs	HIJ M	XREF: H(8.66E3). J ^π : 4 in (α,p) – see the footnote, γ to 2 ⁺ and 3 ⁺ .
8673 [‡] 4	(1 ⁻ ,2 ⁺)@		IJ	XREF: J(8661).
8684 [‡] 4	2 ⁺	<17 fs	hIJ	J ^π : L=2 in (t,p).
8735 [‡] 3	0 ⁺ ,1,2,3 ⁺		IJ	XREF: J(8720). J ^π : γ to 2 ⁺ .
8799 [‡] 4	(1,2 ⁺)@		IJ M V	XREF: J(8785). J ^π : L=(1) in (d,p).
8887 [‡] 4	(2 ⁺ ,3 ⁻)		IJ	J ^π : L=(2,3) in (t,p).
8898.10 11	1 ⁻		I LM	J ^π : L=1 in (d,p), γ to 0 ⁺ .
8930 40	(6 ⁺)		F K	E(level): from (α, ² He),(¹⁸ O, ¹⁶ O). J ^π : from (⁶ Li,d),(d, ⁶ Li). Spin and parity proposed by the authors in 1977De33, based on dσ/dΩ (10° to 40°) and DWBA analysis and fit.
8938 4	(2 ⁺)		IJ L O V	J ^π : L=2 in (d, ³ He) yields 1 ⁺ ,2 ⁺ ,3 ⁺ ; L=(2,3) in (t,p) yields 2 ⁺ ,3 ⁻ .
8953.4 5	(1,2)	0.13 fs 4	I LMN T	XREF: N(8942.7). J ^π : L=2 in (d, ³ He); tentative L=(1) in (d,p). T _{1/2} : from (γ,γ').
8958.8 8	(5 ⁻)	17 fs 10	D IJ	J ^π : L=(5) in (t,p).
8980 3	(1,2 ⁺)		I	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{30}Si Levels (continued)

E(level) [†]	J ^π	T _{1/2} ^g	XREF		Comments
9035 [‡] 4	(1 ⁺ ,2 ⁺)			I J	XREF: J(9021). J ^π : γs to 0 ⁺ ; 1 ⁺ ; and 2 ⁺ .
9045 4	(3,4)	35 fs 14		I M	
9103.73 6	(1,2) ⁻	25 fs 17		I J K L M	XREF: J(9092). J ^π : L=1 in (d,p), 998.9γ to (2 ⁺ ,3 ⁻).
9106.71 16	6 ^{-b}	24 fs 6	D	I	
9131 [‡] 4	(5 ⁺) ^f	28 fs 14		H I J	XREF: H(9.11E3)J(9120). J ^π : 5 in (α,p) – see the footnote, γ to 3 ⁺ , and 4 ⁺ , and 5 ⁺ .
9167 [‡] 4	(1 ⁺ ,2,3 ⁺)	31 fs 15		I J	J ^π : γs to 1 ⁺ ; 2 ⁺ ; and 3 ⁺ . L=3 in (t,p) is not consistent.
9255 [‡] 4	(2 ⁺ ,3 ⁺)			I J M	V XREF: J(9241)V(9240).
9308.11 22	(1 ⁻ ,2 ⁻)	<24.3 fs		I J K L M	XREF: J(9296). J ^π : tentative L=(1) in (d,p), γ to 1 ⁺ , and 2 ⁺ , and 2 ⁻ .
9350 [‡] 4	4 ⁻	<24.3 fs		I J	XREF: J(9338). J ^π : assignment from 1980Bi14 (α,pγ). Authors assign unambiguous spin-parity assignment 4 ⁻ for this level. In general, their assignments are based on γ-rays linear polarization measurements, angular correlation coefficients and recommended upper limits (RUL). J ^π : γs to 3 ⁺ ; 3 ⁻ ; and (4 ⁻).
9362 [‡] 4	(1,2 ⁺) [@]	0.07 fs 2		H I NO	XREF: N(9356.6). T _{1/2} : from (γ,γ').
9367.0 4	6 ^{+b}	<17.3 fs	D	I	J ^π : E2 γ, ΔJ=2, to 4 ⁺ .
9406 [‡] 4	4 ⁺	<24.3 fs		I J	J ^π : L=4 in (t,p).
9440 [‡] 4	1 ⁻			I J M	XREF: J(9418). J ^π : L=1 in (d,p), γ to 0 ⁺ .
9475 [‡] 4	(2 ⁺ ,3,4 ⁺)			I J	XREF: J(9457). J ^π : γs to 2 ⁺ and 4 ⁺ .
9507 4	(5 ⁻) [@]	<17.3 fs		I	
9576 4	(1 ⁺ ,2,3,4 ⁺)			I	J ^π : γs to 2 ⁺ and 3 ⁺ .
9597.3 3	(1 ⁺ ,2,3,4 ⁺)		e	I L M	J ^π : γs to 2 ⁺ and 3 ⁺ .
9605 [‡] 4	(2,3,4 ⁺)		e	I	J ^π : γs to 2 ⁺ ; 3 ⁺ ; and 3 ⁻ .
9619.74 13	(1 ⁻)			I L	J ^π : γ to 0 ⁺ , primary γ from (0 ⁺ ,1 ⁺) capture state in (n,γ) E=Thermal.
9648 4	(3 ⁻ ,4)	<35 fs		I	J ^π : γs to 3 ⁺ ; 3 ⁻ ; and 5 ⁻ .
9689 [‡] 4	(0 ⁻ ,2,3 ⁻)			I K	J ^π : γ to 1 ⁻ .
9726 4				I	
9761 4	(2 ⁺ ,3,4 ⁺)	<35 fs		I	J ^π : γs to 2 ⁺ and 4 ⁺ .
9770 [‡] 4	1 ⁺	0.23 fs 9		I NO	J ^π : from M1 excitation in (γ,γ'). T _{1/2} : from (γ,γ').
9773.6 [#] 5	6 ^{-b}	<24.3 fs	D	I	
9792.3 3	1 ⁻			I L N	J ^π : from the difference in excitation magnitude in (γ,γ') and (pol γ,γ') excitation (Fig 1, 1984Be26).
9815 [‡] 4				hI	
9882 [‡] 4	4 ⁺			H I J	XREF: H(9840). J ^π : L=4 in (t,p). L=5 in (α,p) for doublet.
9897 4				I	
9955 2	(4,5)	<14 fs		I	J ^π : proposed in 1980Bi14 (α,pγ), angular correlation coefficients data imply ΔJ=0 or 1 transitions. γs to 3 ⁺ , and 4 ⁺ , and 5 ⁺ imply (3 ⁺ ,4,5 ⁺).
9958 [‡] 4	(1,2 ⁺)			I O	J ^π : γ to 0 ⁺ .

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{30}Si Levels (continued)

E(level) [†]	J ^π	T _{1/2} ^g	XREF	Comments
10027 4	(2,3,4 ⁺)		I	J ^π : γs to 2 ⁺ ; 3 ⁺ ; and 3 ⁻ .
10057 4	4 ⁺		IJ	J ^π : L=4 in (t,p).
10079 4	(1 ⁺ ,2 ⁺ ,3 ⁺ ,4 ⁺)		I	J ^π : γs to 2 ⁺ and 3 ⁺ .
10116 4	(2 ⁺ ,3,4 ⁺)		I	J ^π : γs to 2 ⁺ ; 3 ⁻ ; and 4 ⁺ .
10184 4	(0 ⁺ ,1,2,3 ⁺)		I	J ^π : γs to 1 ⁺ and 2 ⁺ .
10188 2	5 ⁻ @	19 fs 14	I	
10202.4 5	(1 ⁻)		I L	J ^π : γs to 0 ⁺ ; 1 ⁺ ; and 2 ⁺ ; primary γ from (0 ⁺ ,1 ⁺) capture state (n,γ) E=thermal.
10218 4			I	
10275.5 7			I L 0	
10288 2	(4 ⁺ ,5 ⁺)	<28 fs	I	J ^π : proposed in 1980Bi14 (α,py), angular correlation coefficients data imply ΔJ=0 or 1 transitions. γs to 4 ⁺ and 5 ⁺ imply (3 ⁺ ,4,5,6 ⁺).
10305 4	3 ⁻ @		I	
10349 4	(3 ⁺ ,4)	<24.3 fs	I	J ^π : γs to 3 ⁻ ; 3 ⁺ ; 4 ⁺ ; and 5 ⁺ .
10355 4			I	
10397 4	2 ⁺ ,3,4,5 ⁺	<24.3 fs	I	J ^π : γs to 3 ⁺ and 4 ⁺ ; L=6 in (α,p) for a multiplet. Other: 3,5 ⁽⁺⁾ in 1980Bi14.
10420 4			I	
10449 [‡] 4	(0 ⁺ ,1,2,3 ⁺)		I K	J ^π : γs to 1 ⁺ and 2 ⁺ .
10465 4	3 ⁺ ,4,5 ⁺	<35 fs	I	J ^π : γs to 3 ⁺ ; 4 ⁺ ; and 5 ⁺ . Other: 4,3 ⁺ in 1980Bi14.
10470 [‡] 4	1 ⁺	0.14 fs 5	I NO	XREF: N(10478.0)O(10480). J ^π : from M1 excitation in (γ,γ'). J ^π : γs to 1 ⁺ and 2 ⁺ .
10508 4	(0 ⁺ to 3 ⁺)		I	
10554.5 3	(6 ⁻)@	<35 fs	D I	
10582 4	(0 ⁺ ,1,2,3 ⁺)		I	J ^π : γ to 1 ⁺ .
10621 [‡] 4			I 0	
10669 4	(5,4,3 ⁻)	<17.3 fs	I	J ^π : γs to 4 ⁺ ; 4 ⁻ ; and 5 ⁻ .
10674.8 12	6 ⁺	12 fs 8	D F HIJK	XREF: F(10.6E3)H(10.72E3)K(10640). J ^π : L=6 in (t,p).
10719.28 18	7 ⁻ ^b	17 fs 9	D I	J ^π : M1+E2 γ, ΔJ=1, to 6 ⁻ ; E2 γ, ΔJ=2, to 5 ⁻ .
10732 [‡] 3	(3 ⁻ ,4 ⁺)	<28 fs	hIJ	J ^π : γs to (2 ⁺ ,3 ⁺); 4 ⁺ ; 4 ⁻ ; and 5 ⁻ . L=5 in (t,p) for doublet – is more likely associated with this level, which imply J ^π =5 ⁻ . (3 ⁻ ,4 ⁻ ,5 ⁻) in 1980Bi14 (α,py). However, for a 5 ⁻ assignment, J ^π (8104.9)=(2 ⁺ ,3 ⁺) is not consistent.
10766			M 0	E(level): From (d,p).
10795 4	(2 to 4)		I	
10805 4			I	
10823 4	(4,5,6 ⁺)	<24.3 fs	I	J ^π : γs to 4 ⁺ ; 5 ⁺ ; and 5 ⁻ .
10835 4			I	
10866 [‡] 4	(5,4,3 ⁻)	<35 fs	I	J ^π : γs to 4 ⁺ ; 4 ⁻ ; and 5 ⁻ .
10909 10	(2 ⁺)		J	E(level),J ^π : from (t,p), L=(2) in (t,p).
10930 10	(7) ^f		H 0	XREF: H(10.91E3).
10975 4			I	
10991 4	(3 ⁺ ,4,5 ⁺)		IJ	J ^π : γs to 3 ⁺ ; 4 ⁻ ; and 5 ⁺ .
11003 10	2 ⁺		J	J ^π : L=2 in (t,p).
11015 4	(2 ⁺ ,3,4 ⁺)		I	J ^π : γs to 2 ⁺ and 4 ⁺ .
11038 4	(3 ⁻ ,4,5,6 ⁺)	<52 fs	I	J ^π : γs to 4 ⁺ and 5 ⁻ .
11073 4	(2 ⁺ ,3,4 ⁺ ,5,6 ⁺)	<35 fs	I	J ^π : γ to 4 ⁺ .
11083.5 22	(6 ⁻ ,5 ⁻ ,4 ⁻)	24 fs 9	D I	J ^π : γs to 4 ⁻ ; 5 ⁻ ; and 6 ⁻ . In 2010St13 (¹⁸ O,2nγ) J ^π 6 ⁻ or 7 ⁻ was proposed based on γ-ray feeding.
11091 4	(2 ⁺ ,3,4 ⁺ ,5,6 ⁺)	<35 fs	I	J ^π : γ to 4 ⁺ .

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{30}Si Levels (continued)					
E(level) [†]	J ^π	T _{1/2} ^g	XREF		Comments
11180	10			0	
11205	4		I		
11210	4		I		J ^π : γ to 3 ⁺ ; 4 ⁺ ; and 5 ⁻ .
11250	4	(4,5 ⁺)	I		J ^π : γs to 3 ⁻ ; 4 ⁺ ; 4 ⁻ ; 5 ⁺ ; 5 ⁻ ; and 6 ⁻ .
11268	4	4 ⁻ ,5 ⁻	I		J ^π : γs to 3 ⁺ and 4 ⁺ .
11322	4	(2 ⁺ ,3,4,5 ⁺)	I		J ^π : γs to 3 ⁺ and 4 ⁺ .
11348	4	(2 ⁺ ,3,4,5 ⁺)	I		
11360	10			0	
11380	4		I		
11417	4	(6 ⁺ ,4 ⁺)	I		J ^π : proposed in 1980Bi14 (α,pγ), angular correlation coefficients data imply a ΔJ=2 or 0 γ transition. γs to 4 ⁺ and 5 ⁺ imply (3 ⁺ ,4,5,6 ⁺).
11477	4	(6 ⁻ ,5 ⁻)	I		J ^π : proposed in 1980Bi14 (α,pγ), angular correlation coefficients data imply a ΔJ=0 or 1 γ transition, γs to 5 ⁺ ; 5 ⁻ ; and 6 ⁻ imply (4 ⁻ ,5,6).
11493	4	(3 ⁺ ,4,5,6 ⁺)	I		J ^π : γs to 4 ⁺ and 5 ⁺ .
11512	4	(4 ⁻ ,5,6 ⁺)	I		J ^π : γs to 4 ⁺ and 6 ⁻ .
11539.1 [#]	9	7 ^{-b}	D	I	
11564	4	(5,3)	I		J ^π : D γ, ΔJ=1, to 4 ⁺ . Other: 5,3 ⁺ in 1980Bi14 (α,pγ).
11661	2	(4,5,6)	I		J ^π : γs to 5 ⁺ and 5 ⁻ .
11700	10			0	
11740	4	(3 ⁻ ,4,5)	I		J ^π : γs to 4 ⁺ ; 4 ⁻ ; and 5 ⁻ .
11782	2	(3 ⁺ ,4,5 ⁺)	I		J ^π : γs to 3 ⁺ ; 4 ⁺ ; and 5 ⁺ .
11840 [‡]	4		I	0	
11880	4		I		
12015	4	(4,5,6 ⁺)	I		J ^π : γs to 4 ⁺ ; 5 ⁺ ; and 5 ⁻ .
12020	10			0	
12200	10			0	
12.34×10 ³	5	(6) ^f	H		
12393.7	24		D	0	XREF: O(12400).
12510	3		D		
12700	10			0	
12714.8	15		D		
12830	10			0	E(level): excited in (e,e'), presumably different than 12832 (8 ⁻) level.
12831.96	24	(8 ⁻) ^d	D		
13022	5		E	0	XREF: O(13030). E(level): from (α,n),(α,γ),(α,α):Res.
13077	5	>4 keV	E		
13140	10			0	
13182	5	>4 keV	E		
13202.8	5	(8 ⁻) ^d	D		
13220	5	>18 keV	E		
13234	5	>12 keV	E		
13307	5	>52 keV	E		
13403	5	>4 keV	E	0	E(level): from (α,n),(α,γ),(α,α):Res.
13471	5	>13 keV	E		
13489	5	>17 keV	E		
13588	5	>12 keV	E		
13604	5	>10 keV	E	0	E(level): from (α,n),(α,γ),(α,α):Res.
13674	5	>20 keV	E		
13705	5	>20 keV	E		
13725	5	>20 keV	E		
13747	5	>13 keV	E		

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{30}Si Levels (continued)

E(level) [†]	J ^π	T _{1/2} ^g	XREF	Comments
13773 5	0 ⁺ ^a	>19 keV	E	
13796 5		>13 keV	E	0 E(level): from (α,n),(α,γ),(α,α):Res.
13858 5	1 ⁻ ^a	>17 keV	E	
13888 5	(1 ⁻) ^a	>14 keV	E	
13938 5		>4 keV	E	
13957 5		>6 keV	E	
13986 5		>20 keV	E	
14007 5	0 ⁺ ^a	>13 keV	E	0 E(level): from (α,n),(α,γ),(α,α):Res.
14094 5	1 ⁻ ^a	>18 keV	E	
14147 5		>13 keV	E	
14177 5		>20 keV	E	
14190	0 ⁺ ^a		E	0 E(level): from (α,n),(α,γ),(α,α):Res.
14237 5	(8) ^f	>7 keV	E H	E(level): from (α,n),(α,γ),(α,α):Res. Γ from (α,n),(α,γ),(α,α):Res.
14253 5	(2 ⁺) ^a	>11 keV	E	
14311 5	1 ⁻ ^a	>19 keV	E	
14320	(0 ⁺) ^{&}		E	
14376	(0 ⁺) ^{&}		E	
14596 50	(0 ⁺) ^{&}		E	
14630 10	(2 ⁺) ^{&}		E	0 XREF: E(14647). E(level): from (e,e').
14675	(1 ⁻) ^{&}		E	
14.69×10 ³ 5	(8) ^f		H	
14718	(3 ⁻) ^{&}		E	
14874	(0 ⁺) ^{&}		E	
14918	(3 ⁻) ^{&}		E	
1.499×10 ⁴ 3			E	
15022	(4 ⁺) ^{&}		E	
15191.3 5	(9 ⁻) ^d		D	
15528.8 14	(9 ⁻) ^d		D	
15.95×10 ³ 5	(8) ^f		H	
16.70×10 ³ 5	(9) ^f		H	
40.9×10 ³			C	
41.8×10 ³			C	
45.0×10 ³			C	
45.6×10 ³			C	
46.5×10 ³			C	

[†] From a least squares fit to the γ-ray energies. Four E_γ fitted poorly above 3 or 4 σ. In the least squares fit, the uncertainties of the γ-rays 3043.2(1), 2168.9(3), 1556.3(1) and 3676.7(2) depopulating the states 5279, 6998, 7043 and 10719 keV, respectively, were doubled for a better fitting.

[‡] From (α,pγ).

K^π=3⁻ band; with an absolute value of intrinsic quadrupole moment Q₀=350 mb +250-70.

@ From γ-rays linear polarization measurements, measured angular correlation coefficients and recommended upper limits (RUL) in (α,pγ) (1980Bi114).

& From ²⁶Mg(α,α') (1977NaZI). No details are given. Evaluators list as tentative in parentheses.

^a As proposed by authors in 1972Ru02, based on angular distribution data for the ground state transitions in (α,γ) and α(θ)

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) **^{30}Si Levels (continued)**

measurements in $(\alpha, \alpha\gamma)$.

^b Consistent with γ -ray polarization data $((\alpha, p\gamma) - 1980\text{Bi14})$.

^c Assigned in [1971Sy01](#) ($^{27}\text{Al}(\alpha, p\gamma)$), based on γ -rays angular correlation and expected natural/unnatural parity from $^{30}\text{Si}(\alpha, \alpha')$ studies.

^d Assigned by [2010St13](#) ($^{18}\text{O}, 2n\gamma$), based on γ -feeding sequence to the lower levels.

^e 4 from α - $\gamma(\theta)$ and parity from expected excitation of natural parity states in the $^{30}\text{Si}(\alpha, \alpha'\gamma)$ reaction, i.e. 0^+ target and 0^+ projectile ([1970Du03](#)).

^f From (α, p) based on measured $\sigma(\theta)$ and calculations using Hauser-Feshbach theory.

^g From $(\alpha, p\gamma)$, except otherwise noted.

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$

Additional information 1.

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
2235.325	2 ⁺	2235.23 [#] 3	100	0	0 ⁺	E2		4.36×10 ⁻⁴ 6	B(E2)(W.u.)=7.76 +40-38 $\alpha(\text{K})=5.65\times 10^{-6}$ 8; $\alpha(\text{L})=4.03\times 10^{-7}$ 6; $\alpha(\text{M})=2.66\times 10^{-8}$ 4 $\alpha(\text{IPF})=0.000429$ 6
3498.49	2 ⁺	1263.13 [@] 3	100 ^a 3	2235.325	2 ⁺	M1+E2	+0.18 6	2.90×10 ⁻⁵ 5	B(M1)(W.u.)=0.096 +12-10; B(E2)(W.u.)=9 +7-5 $\alpha(\text{K})=1.359\times 10^{-5}$ 21; $\alpha(\text{L})=9.70\times 10^{-7}$ 15; $\alpha(\text{M})=6.39\times 10^{-8}$ 10 $\alpha(\text{IPF})=1.438\times 10^{-5}$ 26 δ : From 1971Sh11 ($\alpha,\text{p}\gamma$). Also same in 1963Br15 (p,p') – no dataset presented – measured γ yields, $\gamma(\theta)$, deduced δ .
		3498.33 [#] 5	81 7	0	0 ⁺	E2		9.94×10 ⁻⁴ 14	B(E2)(W.u.)=1.43 +17-15 $\alpha(\text{K})=2.75\times 10^{-6}$ 4; $\alpha(\text{L})=1.960\times 10^{-7}$ 27; $\alpha(\text{M})=1.292\times 10^{-8}$ 18 $\alpha(\text{IPF})=0.000991$ 14 I_γ : unweighted average of 80.8 24 from ³⁰ Al β^- decay, 93 12 from ³⁰ P ϵ decay, 73 4 from (¹⁸ O,2n γ), 89 9 from ($\alpha,\text{p}\gamma$), 98.4 31 from (n, γ) E=thermal, and 54 8 from (n,n' γ).
3769.48	1 ⁺	1534.12 [#] 4	100 [#] 3	2235.325	2 ⁺	M1+E2	-0.09 4	8.40×10 ⁻⁵ 12	B(M1)(W.u.)=0.078 +21-14; B(E2)(W.u.)=1.2 +15-9 $\alpha(\text{K})=9.60\times 10^{-6}$ 14; $\alpha(\text{L})=6.85\times 10^{-7}$ 10; $\alpha(\text{M})=4.52\times 10^{-8}$ 6 $\alpha(\text{IPF})=7.37\times 10^{-5}$ 11
		3769.22 [#] 5	84.8 25	0	0 ⁺	M1		9.49×10 ⁻⁴ 13	B(M1)(W.u.)=0.0045 +12-8 $\alpha(\text{K})=2.371\times 10^{-6}$ 33; $\alpha(\text{L})=1.691\times 10^{-7}$ 24; $\alpha(\text{M})=1.115\times 10^{-8}$ 16 $\alpha(\text{IPF})=0.000947$ 13 I_γ : weighted average of 80 10 from ³⁰ P ϵ decay, 82 9 from ($\alpha,\text{p}\gamma$), and 85.1 25 from (n, γ) E=thermal. Other: 100 19 from (n,n' γ).
3787.72	0 ⁺	1552.36 [#] 4	100	2235.325	2 ⁺	E2		1.21×10 ⁻⁴ 2	B(E2)(W.u.)=1.28 9 $\alpha(\text{K})=1.121\times 10^{-5}$ 16; $\alpha(\text{L})=8.00\times 10^{-7}$ 11; $\alpha(\text{M})=5.27\times 10^{-8}$ 7 $\alpha(\text{IPF})=0.0001091$ 15
4810.33	2 ⁺	1040.9 ^{#e}	10 3	3769.48	1 ⁺				
		1311.80 [#] 14	89 [#] 7	3498.49	2 ⁺	M1+E2	-0.17 6	3.58×10 ⁻⁵ 6	B(M1)(W.u.)=0.0284 +38-34; B(E2)(W.u.)=2.2 +19-13 $\alpha(\text{K})=1.268\times 10^{-5}$ 19; $\alpha(\text{L})=9.06\times 10^{-7}$ 14; $\alpha(\text{M})=5.97\times 10^{-8}$ 9 $\alpha(\text{IPF})=2.22\times 10^{-5}$ 4
		2574.8 [#] 5	28 [#] 7	2235.325	2 ⁺	M1+E2	-0.52 11	5.13×10 ⁻⁴ 10	B(M1)(W.u.)=9.6×10 ⁻⁴ 25; B(E2)(W.u.)=0.18 +8-7 $\alpha(\text{K})=4.21\times 10^{-6}$ 6; $\alpha(\text{L})=3.00\times 10^{-7}$ 4; $\alpha(\text{M})=1.979\times 10^{-8}$ 30 $\alpha(\text{IPF})=0.000509$ 10
		4810.0 [#] 3	100 [#] 7	0	0 ⁺	E2		1.43×10 ⁻³ 2	B(E2)(W.u.)=0.133 +17-15

9

³⁰Si
14
16-9

From ENSDF

³⁰Si
14
16-9

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
4830.86	3 ⁺	1332.48 [#] 16	10 3	3498.49	2 ⁺	M1+E2 ^c	+0.7 +6-4	4.4×10 ⁻⁵ 5	$\alpha(\text{K})=1.741\times 10^{-6}$ 24; $\alpha(\text{L})=1.242\times 10^{-7}$ 17; $\alpha(\text{M})=8.18\times 10^{-9}$ 11 $\alpha(\text{IPF})=0.001432$ 20 $\alpha(\text{K})=1.33\times 10^{-5}$ 10; $\alpha(\text{L})=9.5\times 10^{-7}$ 7; $\alpha(\text{M})=6.3\times 10^{-8}$ 5 $\alpha(\text{IPF})=2.93\times 10^{-5}$ 35 B(M1)(W.u.)=0.0065 34; B(E2)(W.u.)=8 +8-7 I _γ : unweighted average of 16.1 16 from ³⁰ Al β ⁻ decay, 3.2 5 from (¹⁸ O,2nγ), 9.0 20 from (α,pγ), and 10.3 11 from (n,γ) E=thermal.
		2595.39 [#] 4	100.0 20	2235.325	2 ⁺	M1+E2	+0.72 +11-9	5.36×10 ⁻⁴ 10	B(M1)(W.u.)=0.0087 +22-17; B(E2)(W.u.)=3.1 +10-7 $\alpha(\text{K})=4.19\times 10^{-6}$ 6; $\alpha(\text{L})=2.99\times 10^{-7}$ 4; $\alpha(\text{M})=1.973\times 10^{-8}$ 29 $\alpha(\text{IPF})=0.000531$ 10 I _γ : weighted average of 100.0 24 from ³⁰ Al β ⁻ decay, 100 4 from (¹⁸ O,2nγ), 100.0 20 from (α,pγ), and 100.0 29 from (n,γ) E=thermal.
5231.52	3 ⁺	400.2 4	3.80 27	4830.86	3 ⁺				E _γ : weighted average of 400.0 2 from (¹⁸ O,2nγ) and 400.9 4 from (n,γ) E=thermal. I _γ : weighted average of 3.78 27 from (¹⁸ O,2nγ) and 4.5 18 from (n,γ) E=thermal.
		421.0 [#] 5	5.4 [#] 18	4810.33	2 ⁺				
		1732.3 8	100 ^{&} 4	3498.49	2 ⁺	M1+E2	+0.12 6	1.49×10 ⁻⁴ 2	B(M1)(W.u.)=0.055 +15-10; B(E2)(W.u.)=1.2 +16-9 $\alpha(\text{K})=7.82\times 10^{-6}$ 11; $\alpha(\text{L})=5.58\times 10^{-7}$ 8; $\alpha(\text{M})=3.68\times 10^{-8}$ 5 $\alpha(\text{IPF})=0.0001410$ 22 E _γ : unweighted average of 1731.5 2 from (¹⁸ O,2nγ) and 1733.0 1 from (n,γ) E=thermal.
		2995.0 8	12.5 9	2235.325	2 ⁺				E _γ : weighted average of 2994.5 6 from (¹⁸ O,2nγ) and 2996.2 9 from (n,γ) E=thermal. I _γ : weighted average of 12.6 9 from (¹⁸ O,2nγ), 13.0 20 from (α,pγ), and 10.8 27 from (n,γ) E=thermal. Other: 11 6 from (n,n'γ).
5279.25	4 ⁺	1781	1.0 3	3498.49	2 ⁺	[E2]		2.19×10 ⁻⁴ 3	$\alpha(\text{K})=8.55\times 10^{-6}$ 12; $\alpha(\text{L})=6.11\times 10^{-7}$ 9; $\alpha(\text{M})=4.02\times 10^{-8}$ 6 $\alpha(\text{IPF})=0.0002094$ 29 B(E2)(W.u.)=0.59 19
		3043.2 ^{&} 1	100.0 3	2235.325	2 ⁺	(E2)		8.07×10 ⁻⁴ 11	B(E2)(W.u.)=4.04 +45-39 $\alpha(\text{K})=3.40\times 10^{-6}$ 5; $\alpha(\text{L})=2.426\times 10^{-7}$ 34; $\alpha(\text{M})=1.599\times 10^{-8}$ 22 $\alpha(\text{IPF})=0.000803$ 11
5372.2	0 ⁺	1602.8 [#] 9	78 11	3769.48	1 ⁺	M1		1.05×10 ⁻⁴ 2	B(M1)(W.u.)=0.040 +21-11

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

<u>E_i(level)</u>	<u>J_i^{π}</u>	<u>E_{γ}^{\dagger}</u>	<u>I_{γ}^{\ddagger}</u>	<u>E_f</u>	<u>J_f^{π}</u>	<u>Mult.^b</u>	<u>δ^b</u>	<u>α^d</u>	<u>Comments</u>
									$\alpha(\text{K})=8.89 \times 10^{-6}$ 12; $\alpha(\text{L})=6.35 \times 10^{-7}$ 9; $\alpha(\text{M})=4.18 \times 10^{-8}$ 6 $\alpha(\text{IPF})=9.54 \times 10^{-5}$ 14 I _{γ} : weighted average of 82 11 from (α ,p γ) and 62 23 from (n, γ) E=thermal.
5372.2	0 ⁺	3136.6 [#] 7	100 [#] 11	2235.325	2 ⁺	E2		8.47 × 10 ⁻⁴ 12	B(E2)(W.u.)=3.2 +17-9 $\alpha(\text{K})=3.24 \times 10^{-6}$ 5; $\alpha(\text{L})=2.314 \times 10^{-7}$ 32; $\alpha(\text{M})=1.525 \times 10^{-8}$ 21 $\alpha(\text{IPF})=0.000843$ 12 I _{γ} : weighted average of 100 11 from (α ,p γ) and 100 23 from (n, γ) E=thermal.
5487.49	3 ⁻	1989.02 [#] 7	92 4	3498.49	2 ⁺	E1		6.40 × 10 ⁻⁴ 9	B(E1)(W.u.)=9.3 × 10 ⁻⁴ +33-20 $\alpha(\text{K})=4.21 \times 10^{-6}$ 6; $\alpha(\text{L})=3.00 \times 10^{-7}$ 4; $\alpha(\text{M})=1.978 \times 10^{-8}$ 28 $\alpha(\text{IPF})=0.000635$ 9 I _{γ} : weighted average of 90 4 from (¹⁸ O,2n γ), 92 8 from (α ,p γ), and 96 5 from (n, γ) E=thermal.
		3252.00 [#] 9	100 [#] 5	2235.325	2 ⁺	E1		1.37 × 10 ⁻³ 2	B(E1)(W.u.)=2.3 × 10 ⁻⁴ +8-5 $\alpha(\text{K})=2.180 \times 10^{-6}$ 31; $\alpha(\text{L})=1.555 \times 10^{-7}$ 22; $\alpha(\text{M})=1.025 \times 10^{-8}$ 14 $\alpha(\text{IPF})=0.001365$ 19
5614.05	2 ⁺	783 804	6 2 2 1	4830.86 4810.33	3 ⁺ 2 ⁺	M1+E2	+0.20 11	3.65 × 10 ⁻⁵ 14	$\alpha(\text{K})=3.39 \times 10^{-5}$ 13; $\alpha(\text{L})=2.43 \times 10^{-6}$ 9; $\alpha(\text{M})=1.60 \times 10^{-7}$ 6
		1844.40 [#] 16	100 [#] 8	3769.48	1 ⁺	M1+E2	+0.11 5	1.91 × 10 ⁻⁴ 3	$\alpha(\text{K})=7.04 \times 10^{-6}$ 10; $\alpha(\text{L})=5.03 \times 10^{-7}$ 7; $\alpha(\text{M})=3.31 \times 10^{-8}$ 5 $\alpha(\text{IPF})=0.0001831$ 27
		3378.68 [#] 25	77 8	2235.325	2 ⁺	(M1+E2)	-0.29 4	8.19 × 10 ⁻⁴ 12	$\alpha(\text{K})=2.78 \times 10^{-6}$ 4; $\alpha(\text{L})=1.983 \times 10^{-7}$ 28; $\alpha(\text{M})=1.307 \times 10^{-8}$ 18 $\alpha(\text{IPF})=0.000816$ 12 I _{γ} : weighted average of 81 8 from (α ,p γ) and 73 8 from (n, γ) E=thermal.
5950.69	4 ⁺	671 719 1120 2452.6 ^{&} 13	0.5 2 0.3 1 1.7 4 4.9 19	5279.25 5231.52 4830.86 3498.49	4 ⁺ 3 ⁺ 3 ⁺ 2 ⁺	(E2)		5.40 × 10 ⁻⁴ 8	B(E2)(W.u.)=3.3 +31-16 $\alpha(\text{K})=4.82 \times 10^{-6}$ 7; $\alpha(\text{L})=3.44 \times 10^{-7}$ 5; $\alpha(\text{M})=2.268 \times 10^{-8}$ 32 $\alpha(\text{IPF})=0.000535$ 8 I _{γ} : unweighted average of 3.0 5 from (¹⁸ O,2n γ) and 6.7 17 from (α ,p γ).
		3714.9 ^{&} 2	100.0 20	2235.325	2 ⁺	(E2)		1.07 × 10 ⁻³ 2	B(E2)(W.u.)=8 +7-3 $\alpha(\text{K})=2.513 \times 10^{-6}$ 35; $\alpha(\text{L})=1.793 \times 10^{-7}$ 25; $\alpha(\text{M})=1.182 \times 10^{-8}$ 17 $\alpha(\text{IPF})=0.001071$ 15

Adopted Levels, Gammas (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	$\gamma(^{30}\text{Si})$ (continued)			Comments
						Mult. ^b	δ^b	α^d	
6503.42	4 ⁻	551.9 & 11	1.11 & 19	5950.69	4 ⁺	[E1]			B(E1)(W.u.)=2.1×10 ⁻⁴ +8-6
		1016.0 & 1	12.8 9	5487.49	3 ⁻	(M1+E2)	-0.23 2		B(M1)(W.u.)=0.0118 +39-25; B(E2)(W.u.)=2.8 +11-7 I _γ : weighted average of 13.0 9 from (¹⁸ O,2n γ) and 9 4 from (α ,p γ).
		1271.9 & 2	100 & 4	5231.52	3 ⁺	(E1)		1.15×10 ⁻⁴ 2	B(E1)(W.u.)=0.0016 +5-3 α (K)=8.51×10 ⁻⁶ 12; α (L)=6.08×10 ⁻⁷ 9; α (M)=4.00×10 ⁻⁸ 6 α (IPF)=0.0001060 15
		1672.4 & 1	61.1 & 18	4830.86	3 ⁺	(E1)		4.08×10 ⁻⁴ 6	B(E1)(W.u.)=4.2×10 ⁻⁴ +14-9 α (K)=5.45×10 ⁻⁶ 8; α (L)=3.89×10 ⁻⁷ 5; α (M)=2.56×10 ⁻⁸ 4 α (IPF)=0.000402 6
6537	2 ⁺	923	13 4	5614.05	2 ⁺				
		1305	16 7	5231.52	3 ⁺				
		2767	35 9	3769.48	1 ⁺				
		3038	100 7	3498.49	2 ⁺				
		4301	27 7	2235.325	2 ⁺				
		6536	31 7	0	0 ⁺	E2			B(E2)(W.u.)=0.036 +42-17 α (IPF)=0.001863 26
6641	0 ⁺	4405	100	2235.325	2 ⁺				
6641.21	2 ⁻	1153.61 # 13	15.5 # 10	5487.49	3 ⁻				
		1810.42 # 22	15.5 # 10	4830.86	3 ⁺	[E1]		5.11×10 ⁻⁴ 7	α (K)=4.83×10 ⁻⁶ 7; α (L)=3.45×10 ⁻⁷ 5; α (M)=2.271×10 ⁻⁸ 32 α (IPF)=0.000506 7
		1830.6 # 4	7.9 # 10	4810.33	2 ⁺	[E1]		5.26×10 ⁻⁴ 7	B(E1)(W.u.)=4.7×10 ⁻⁴ +26-13 B(E1)(W.u.)=2.3×10 ⁻⁴ +13-7 α (K)=4.75×10 ⁻⁶ 7; α (L)=3.39×10 ⁻⁷ 5; α (M)=2.234×10 ⁻⁸ 31 α (IPF)=0.000521 7
		2871.6 # 3	11.7 # 14	3769.48	1 ⁺	[E1]		1.18×10 ⁻³ 2	α (K)=2.55×10 ⁻⁶ 4; α (L)=1.821×10 ⁻⁷ 26; α (M)=1.200×10 ⁻⁸ 17 α (IPF)=0.001178 16
		4405.56 # 8	100 # 3	2235.325	2 ⁺	[E1]		1.83×10 ⁻³ 3	B(E1)(W.u.)=8.9×10 ⁻⁵ +50-25 B(E1)(W.u.)=2.1×10 ⁻⁴ +12-6 α (K)=1.508×10 ⁻⁶ 21; α (L)=1.075×10 ⁻⁷ 15; α (M)=7.09×10 ⁻⁹ 10 α (IPF)=0.001833 26
6744.06	1 ⁻	6640.7 # 9	4.8 # 14	0	0 ⁺	[M2]			B(M2)(W.u.)=0.31 +20-11
		1933.9 # 5	0.60 # 11	4810.33	2 ⁺	[E1]		6.01×10 ⁻⁴ 8	α (K)=4.38×10 ⁻⁶ 6; α (L)=3.13×10 ⁻⁷ 4; α (M)=2.061×10 ⁻⁸ 29 α (IPF)=0.000596 8
		2956.25 # 12	3.55 # 19	3787.72	0 ⁺	[E1]		1.22×10 ⁻³ 2	α (K)=2.460×10 ⁻⁶ 34; α (L)=1.755×10 ⁻⁷ 25; α (M)=1.156×10 ⁻⁸ 16 α (IPF)=0.001219 17 I _γ : Other: 100 5 (α ,p γ).

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
6744.06	1 ⁻	4508.64 [#] 17	2.15 [#] 13	2235.325	2 ⁺	(E1)		1.86×10 ⁻³ 3	$\alpha(\text{K})=1.468\times 10^{-6}$ 21; $\alpha(\text{L})=1.047\times 10^{-7}$ 15; $\alpha(\text{M})=6.90\times 10^{-9}$ 10 $\alpha(\text{IPF})=0.001862$ 26
		6743.22 [#] 4	100 [#] 3	0	0 ⁺	E1			$\alpha(\text{IPF})=0.002465$ 35 I_γ : Other: 5 2 ($\alpha,\text{p}\gamma$). $\text{B}(\text{M1})(\text{W.u.})=0.04$ +8-2
6865	3 ⁺	914	6 2	5950.69	4 ⁺	M1+(E2) ^c	-0.03 10		
		1251	4 2	5614.05	2 ⁺				
		1586	4 2	5279.25	4 ⁺				
		1633	4 2	5231.52	3 ⁺				
		2034	73 12	4830.86	3 ⁺	M1+E2 ^c	+1.2 5	3.08×10 ⁻⁴ 19	$\alpha(\text{K})=6.40\times 10^{-6}$ 20; $\alpha(\text{L})=4.57\times 10^{-7}$ 14; $\alpha(\text{M})=3.01\times 10^{-8}$ 9 $\alpha(\text{IPF})=0.000302$ 19 $\text{B}(\text{M1})(\text{W.u.})=0.017$ +20-8; $\text{B}(\text{E2})(\text{W.u.})=27$ +21-14
		2055	12 4	4810.33	2 ⁺				
		4629	100 16	2235.325	2 ⁺	M1+E2 ^c	-0.15 +9-15	1.23×10 ⁻³ 2	$\alpha(\text{K})=1.788\times 10^{-6}$ 25; $\alpha(\text{L})=1.275\times 10^{-7}$ 18; $\alpha(\text{M})=8.41\times 10^{-9}$ 12 $\alpha(\text{IPF})=0.001229$ 19 $\text{B}(\text{M1})(\text{W.u.})=0.0047$ +36-17
6914.77	2 ⁺	1301	4.2 22	5614.05	2 ⁺				
		3145.1 [#]	20 7	3769.48	1 ⁺				
		3415.7 [#] 7	29 7	3498.49	2 ⁺				I_γ : weighted average of 27 7 from ($\alpha,\text{p}\gamma$) and 30 7 from (n, γ) E=thermal.
		4679.2 [#] 3	100 [#] 7	2235.325	2 ⁺	M1+E2	-0.63 14	1.29×10 ⁻³ 2	$\alpha(\text{K})=1.774\times 10^{-6}$ 25; $\alpha(\text{L})=1.266\times 10^{-7}$ 18; $\alpha(\text{M})=8.34\times 10^{-9}$ 12 $\alpha(\text{IPF})=0.001284$ 23
		6913.7 [#] 5	77 12	0	0 ⁺	E2			$\alpha(\text{IPF})=0.001939$ 27 I_γ : weighted average of 71 16 from ($\alpha,\text{p}\gamma$) and 79 12 from (n, γ) E=thermal.
6998.78	5 ⁺	1048.2 ^{&} 2	22.0 17	5950.69	4 ⁺	M1+E2 ^c	+0.12 2		$\text{B}(\text{M1})(\text{W.u.})=0.0214$ +42-31; $\text{B}(\text{E2})(\text{W.u.})=1.3$ +6-4 I_γ : weighted average of 22.7 13 from (¹⁸ O,2n γ) and 18.0 30 from ($\alpha,\text{p}\gamma$).
		1719.4 ^{&} 1	100 ^{&} 4	5279.25	4 ⁺	M1+E2 ^c	+0.25 5	1.47×10 ⁻⁴ 2	$\alpha(\text{K})=7.97\times 10^{-6}$ 12; $\alpha(\text{L})=5.69\times 10^{-7}$ 8; $\alpha(\text{M})=3.75\times 10^{-8}$ 5 $\alpha(\text{IPF})=0.0001384$ 22 $\text{B}(\text{M1})(\text{W.u.})=0.0211$ +38-28; $\text{B}(\text{E2})(\text{W.u.})=2.1$ +10-8
		1767.7 ^{&} 10	7.5 ^{&} 15	5231.52	3 ⁺	[E2]		2.13×10 ⁻⁴ 3	$\alpha(\text{K})=8.68\times 10^{-6}$ 12; $\alpha(\text{L})=6.19\times 10^{-7}$ 9; $\alpha(\text{M})=4.08\times 10^{-8}$ 6 $\alpha(\text{IPF})=0.0002033$ 29 $\text{B}(\text{E2})(\text{W.u.})=2.3$ +6-5

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
6998.78	5 ⁺	2168.9 & 3	38.9 27	4830.86	3 ⁺	E2 ^c		4.03×10 ⁻⁴ 6	$\alpha(\text{K})=5.96\times 10^{-6}$ 8; $\alpha(\text{L})=4.25\times 10^{-7}$ 6; $\alpha(\text{M})=2.80\times 10^{-8}$ 4 $\alpha(\text{IPF})=0.000397$ 6 B(E2)(W.u.)=4.3 +8-6 I_γ : weighted average of 40.0 27 from (¹⁸ O,2n γ) and 35 5 from (α ,p γ).
7043.17	5 ⁻	539.5 & 3	97.2 & 28	6503.42	4 ⁻	M1+E2	+0.04 1	7.58×10 ⁻⁵ 11	B(M1)(W.u.)=0.060 9; B(E2)(W.u.)=1.5 +9-7 $\alpha(\text{K})=7.04\times 10^{-5}$ 10; $\alpha(\text{L})=5.04\times 10^{-6}$ 7; $\alpha(\text{M})=3.32\times 10^{-7}$ 5
		1092.1 & 2	100.0 & 35	5950.69	4 ⁺	E1+M2 ^c	-0.02 1		B(E1)(W.u.)=2.37×10 ⁻⁴ +33-35; B(M2)(W.u.)=0.36 +46-28
		1556.3 & 1	30.3 14	5487.49	3 ⁻	E2 ^c		1.23×10 ⁻⁴ 2	$\alpha(\text{K})=1.115\times 10^{-5}$ 16; $\alpha(\text{L})=7.96\times 10^{-7}$ 11; $\alpha(\text{M})=5.24\times 10^{-8}$ 7 $\alpha(\text{IPF})=0.0001108$ 16 B(E2)(W.u.)=1.49 22 I_γ : weighted average of 30.1 14 from (¹⁸ O,2n γ) and 32 4 from (α ,p γ).
		1763.8 & 1	46.2 & 21	5279.25	4 ⁺	E1+M2 ^c	+0.06 3	4.75×10 ⁻⁴ 7	$\alpha(\text{K})=5.05\times 10^{-6}$ 8; $\alpha(\text{L})=3.61\times 10^{-7}$ 6; $\alpha(\text{M})=2.37\times 10^{-8}$ 4 $\alpha(\text{IPF})=0.000470$ 7 B(E1)(W.u.)=2.58×10 ⁻⁵ 38; B(M2)(W.u.)=0.14 +17-10 I_γ : other: 62 6 from (α ,p γ).
7079	3 ⁺	1847	<8	5231.52	3 ⁺				
		2269	45 8	4810.33	2 ⁺	D+Q	+0.15 1		
		3580	22 5	3498.49	2 ⁺				
		4843	100 17	2235.325	2 ⁺	D			
7223.2	4 ⁺	720	<2	6503.42	4 ⁻				
		1272	24 7	5950.69	4 ⁺				
		1736	<9	5487.49	3 ⁻				
		1943.0 & 11	100 7	5279.25	4 ⁺	M1+E2	+0.3 4	2.34×10 ⁻⁴ 16	$\alpha(\text{K})=6.53\times 10^{-6}$ 22; $\alpha(\text{L})=4.66\times 10^{-7}$ 16; $\alpha(\text{M})=3.07\times 10^{-8}$ 10 $\alpha(\text{IPF})=0.000227$ 16
		1991.5 & 4	30 7	5231.52	3 ⁺	M1+E2	+0.6 1	2.67×10 ⁻⁴ 6	$\alpha(\text{K})=6.40\times 10^{-6}$ 10; $\alpha(\text{L})=4.57\times 10^{-7}$ 7; $\alpha(\text{M})=3.01\times 10^{-8}$ 5 $\alpha(\text{IPF})=0.000260$ 6 I_γ : other: 63 15 in (¹⁸ O,2n γ).
		2392	23 4	4830.86	3 ⁺	D+Q	+0.10 3		
		3725.5 & 10	25 5	3498.49	2 ⁺				I_γ : other: 89 22 in (¹⁸ O,2n γ).
7255	2 ⁺	1767	31 7	5487.49	3 ⁻	[E1]		4.79×10 ⁻⁴ 7	$\alpha(\text{K})=5.01\times 10^{-6}$ 7; $\alpha(\text{L})=3.58\times 10^{-7}$ 5; $\alpha(\text{M})=2.355\times 10^{-8}$ 33 $\alpha(\text{IPF})=0.000474$ 7 B(E1)(W.u.)=3.3×10 ⁻⁴ +22-11
		2023	24 7	5231.52	3 ⁺				
		2424	17 7	4830.86	3 ⁺				
		2445	45 10	4810.33	2 ⁺	M1+E2 ^c	-1.5 +7-20	5.06×10 ⁻⁴ 31	$\alpha(\text{K})=4.74\times 10^{-6}$ 13; $\alpha(\text{L})=3.38\times 10^{-7}$ 9; $\alpha(\text{M})=2.23\times 10^{-8}$ 6 $\alpha(\text{IPF})=0.000501$ 31 B(M1)(W.u.)=0.0017 +24-12; B(E2)(W.u.)=3.0 +20-16

Adopted Levels, Gammas (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	$\gamma(^{30}\text{Si})$ (continued)			Comments
						Mult. ^b	δ^b	α^d	
7255	2 ⁺	3756	66 14	3498.49	2 ⁺	D+Q			B(M1)(W.u.)=1.0×10 ⁻⁴ +22-5; B(E2)(W.u.)=0.25 +14-9 α(K)=1.640×10 ⁻⁶ 23; α(L)=1.170×10 ⁻⁷ 17; α(M)=7.71×10 ⁻⁹ 11 α(IPF)=0.001483 27 B(E2)(W.u.)=0.027 +17-8 α(IPF)=0.001998 28
		5019	100 10	2235.325	2 ⁺	M1+E2	+3.7 15	1.48×10 ⁻³ 3	
		7254	63 8	0	0 ⁺	E2			
7440	0 ⁺	3670	100	3769.48	1 ⁺				
7507.87	(2 ⁻)	1893.6 [#] 5	1.01 [#] 19	5614.05	2 ⁺				
		2020.33 [#] 23	8.0 [#] 3	5487.49	3 ⁻				
		2276.22 [#] 8	7.9 [#] 4	5231.52	3 ⁺				
		2676.87 [#] 6	13.8 [#] 6	4830.86	3 ⁺				
		3738.20 [#] 18	10.8 [#] 5	3769.48	1 ⁺				
		4009.09 [#] 21	5.89 [#] 25	3498.49	2 ⁺				
		5272.09 [#] 7	100 [#] 3	2235.325	2 ⁺				
7613	4 ⁻	7507.4 [#] 8	0.89 [#] 19	0	0 ⁺				
		1110	7 2	6503.42	4 ⁻				
		2125	98 12	5487.49	3 ⁻	(M1+E2) ^c	+0.25 3	3.07×10 ⁻⁴ 4	
									α(K)=5.63×10 ⁻⁶ 8; α(L)=4.02×10 ⁻⁷ 6; α(M)=2.65×10 ⁻⁸ 4 α(IPF)=0.000301 4 B(M1)(W.u.)=0.07 +5-2; B(E2)(W.u.)=4.4 +38-16 B(E1)(W.u.)=3.0×10 ⁻⁴ +26-12 α(K)=3.36×10 ⁻⁶ 5; α(L)=2.399×10 ⁻⁷ 34; α(M)=1.580×10 ⁻⁸ 22 α(IPF)=0.000866 12
		2334	17 5	5279.25	4 ⁺	[E1]		8.70×10 ⁻⁴ 12	
		2381	17 5	5231.52	3 ⁺	[E1]	8.99×10 ⁻⁴ 13		
		2782	100 10	4830.86	3 ⁺	(E1) ^c	1.13×10 ⁻³ 2		
7623	2 ⁺	4124	100 16	3498.49	2 ⁺				
		5387	61 11	2235.325	2 ⁺	D+Q	+0.38 6		
		7622	14 5	0	0 ⁺	(E2)			
7634	(1,2) ⁺	3846	43 14	3787.72	0 ⁺			α(IPF)=0.002061 29	
		3864	100 14	3769.48	1 ⁺				

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)									
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
7667.4	(1,2) ⁺	4168.4 [#]	23 [#] 5	3498.49	2 ⁺				E_γ : uncertain placement in (n, γ) E=thermal.
		5431.5 [#] 6	100 [#] 10	2235.325	2 ⁺				
		7666	12 4	0	0 ⁺				
7810	4 ⁺	731	4 2	7079	3 ⁺				
		945	12 4	6865	3 ⁺				
		1859	46 8	5950.69	4 ⁺				
		2531	100 10	5279.25	4 ⁺				
		2578	18 4	5231.52	3 ⁺				
		2979	20 4	4830.86	3 ⁺				
7911	2 ⁺	2423	11 4	5487.49	3 ⁻	[E1]		9.25×10^{-4} 13	$\alpha(\text{K})=3.20 \times 10^{-6}$ 4; $\alpha(\text{L})=2.280 \times 10^{-7}$ 32; $\alpha(\text{M})=1.502 \times 10^{-8}$ 21 $\alpha(\text{IPF})=0.000921$ 13 $\text{B}(\text{E1})(\text{W.u.})=1.3 \times 10^{-4}$ +13-6
		4141	40 9	3769.48	1 ⁺				
		4412	25 7	3498.49	2 ⁺				
		5675	100 18	2235.325	2 ⁺	M1+E2 ^c	+0.7 3	0.00156 4	$\alpha(\text{K})=1.374 \times 10^{-6}$ 20; $\alpha(\text{L})=9.80 \times 10^{-8}$ 14; $\alpha(\text{M})=6.46 \times 10^{-9}$ 9 $\alpha(\text{IPF})=0.00156$ 4 $\text{B}(\text{M1})(\text{W.u.})=0.0019$ +20-9; $\text{B}(\text{E2})(\text{W.u.})=0.14$ +15-9
8104.9	(2 ⁺ ,3 ⁺)	1190	3 2	6914.77	2 ⁺				
		2491	5 3	5614.05	2 ⁺				
		2617	9 3	5487.49	3 ⁻				
		2873	14 5	5231.52	3 ⁺				
		3294.9 [#] 9	19 5	4810.33	2 ⁺				I_γ : weighted average of 17 5 from (α ,p γ) and 28 11 from (n, γ) E=thermal.
		4335	6 3	3769.48	1 ⁺				
8156.2	(1,2)	5868.8 [#] 7	100 15	2235.325	2 ⁺				I_γ : weighted average of 29 10 from (α ,p γ) and 39 15 from (n, γ) E=thermal.
		2669	32 10	5487.49	3 ⁻				
		4657	43 14	3498.49	2 ⁺				
		5920.2 [#] 7	100 [#] 14	2235.325	2 ⁺				
8163.22	1 ⁻	4375.18 [#] 15	41.6 [#] 17	3787.72	0 ⁺				
		4393.43 [#] 23	24.2 [#] 14	3769.48	1 ⁺				
		4664.36 [#] 12	38.6 [#] 14	3498.49	2 ⁺				
		5927.24 [#] 15	45.7 [#] 24	2235.325	2 ⁺				
		8162.01 [#] 11	100 [#] 3	0	0 ⁺				
8190	(2 ⁺)	2576	18 6	5614.05	2 ⁺				
		4691	100 6	3498.49	2 ⁺				

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
8193.9	5 ⁻	970.3 & 7	34 3	7223.2	4 ⁺	E1 ^c			B(E1)(W.u.)=0.0024 +11-6
		1151	6 1	7043.17	5 ⁻	M1+E2	-0.15 3	1.974×10 ⁻⁵ 28	$\alpha(\text{K})=1.604\times 10^{-5}$ 23; $\alpha(\text{L})=1.146\times 10^{-6}$ 16; $\alpha(\text{M})=7.55\times 10^{-8}$ 11
		1195	6 1	6998.78	5 ⁺	[E1]		6.48×10 ⁻⁵ 9	$\alpha(\text{IPF})=2.47\times 10^{-6}$ 4 B(M1)(W.u.)=0.0078 +39-22; B(E2)(W.u.)=0.61 +45-27
		1690.2 & 5	100 6	6503.42	4 ⁻				B(E1)(W.u.)=2.3×10 ⁻⁴ +11-7
		2242.7 & 18	77 6	5950.69	4 ⁺	[E1]		8.12×10 ⁻⁴ 11	$\alpha(\text{K})=9.49\times 10^{-6}$ 13; $\alpha(\text{L})=6.78\times 10^{-7}$ 9; $\alpha(\text{M})=4.46\times 10^{-8}$ 6 $\alpha(\text{IPF})=5.46\times 10^{-5}$ 8
2707.5 & 16	43 9	5487.49	3 ⁻	[E2]		6.58×10 ⁻⁴ 9	$\alpha(\text{K})=4.10\times 10^{-6}$ 6; $\alpha(\text{L})=2.92\times 10^{-7}$ 4; $\alpha(\text{M})=1.926\times 10^{-8}$ 27 $\alpha(\text{IPF})=0.000654$ 9		
		2915	20 3	5279.25	4 ⁺	E1+M2 ^c	+0.06 3	1.20×10 ⁻³ 2	B(E2)(W.u.)=2.8 +14-8 I _{γ} : Other: 90 19 in (¹⁸ O,2n γ). $\alpha(\text{K})=2.51\times 10^{-6}$ 4; $\alpha(\text{L})=1.793\times 10^{-7}$ 26; $\alpha(\text{M})=1.181\times 10^{-8}$ 17
									$\alpha(\text{IPF})=0.001197$ 17 B(E1)(W.u.)=5.2×10 ⁻⁵ +25-15; B(M2)(W.u.)=0.10 +15-8
8290	(1 ⁻ ,2,3)	2802	9 4	5487.49	3 ⁻				
		4791	16 5	3498.49	2 ⁺				
		6054	100 7	2235.325	2 ⁺				
8330		1107	13 4	7223.2	4 ⁺				
		1251	30 7	7079	3 ⁺				
		1331	7 4	6998.78	5 ⁺				
		2716	27 7	5614.05	2 ⁺				
		2842	20 4	5487.49	3 ⁻				
		3051	37 10	5279.25	4 ⁺				
		3499	100 17	4830.86	3 ⁺				
		3519	13 7	4810.33	2 ⁺				
		6094	87 14	2235.325	2 ⁺				
		8442	3 ⁻	2954	16 4	5487.49	3 ⁻		
		4943	100 11	3498.49	2 ⁺				
8537	(3 ⁺ ,4 ⁺)	6206	63 11	2235.325	2 ⁺				
		1538	39 7	6998.78	5 ⁺				
		3305	23 5	5231.52	3 ⁺				
		3726	100 14	4810.33	2 ⁺				
		5038	16 5	3498.49	2 ⁺				
6301	50 9	2235.325	2 ⁺						

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b
8554	3 ⁻	1913	6.3 25	6641.21	2 ⁻		
		3066	100 7	5487.49	3 ⁻		
		3743	19 7	4810.33	2 ⁺		
8596	4 ⁻	1373	16 5	7223.2	4 ⁺	D(+Q)	-0.13 13
		2645	24 5	5950.69	4 ⁺		
		3108	82 12	5487.49	3 ⁻	D+Q	+0.08 3
		3364	100 12	5231.52	3 ⁺	D	
8640	(4 ⁺)	1775	25 13	6865	3 ⁺		
		3026	25 13	5614.05	2 ⁺		
		5141	100 25	3498.49	2 ⁺		
		6404	100 25	2235.325	2 ⁺		
8673	(1 ⁻ ,2 ⁺)	3185	100 20	5487.49	3 ⁻		
		4903	53 14	3769.48	1 ⁺		
		5174	87 17	3498.49	2 ⁺		
		6437	77 17	2235.325	2 ⁺		
		8672	20 10	0	0 ⁺		
8684	2 ⁺	1461	11 4	7223.2	4 ⁺		
		1605	21 8	7079	3 ⁺		
		2733	54 15	5950.69	4 ⁺		
		3070	21 8	5614.05	2 ⁺		
		3405	100 18	5279.25	4 ⁺		
		3452	50 11	5231.52	3 ⁺		
		3853	43 11	4830.86	3 ⁺		
		3873	57 15	4810.33	2 ⁺		
8735	0 ⁺ ,1,2,3 ⁺	5236	100 12	3498.49	2 ⁺		
		6499	47 12	2235.325	2 ⁺		
8799	(1,2 ⁺)	5029	100 30	3769.48	1 ⁺		
		8798	100 30	0	0 ⁺		
8887	(2 ⁺ ,3 ⁻)	6651	100	2235.325	2 ⁺		
8898.10	1 ⁻	1390.3 [#] 5	3.7 [#] 12	7507.87	(2 ⁻)		
		2154.3 [#] 6	7.3 [#] 18	6744.06	1 ⁻		
		2256.7 [#] 4	12.8 [#] 18	6641.21	2 ⁻		
		3283.8 [#] 3	22.0 [#] 24	5614.05	2 ⁺		
		4087.6 [#] 5	20.7 [#] 18	4810.33	2 ⁺		
		5128.18 [#] 17	100 [#] 4	3769.48	1 ⁺		
		5398.8 [#] 4	24 [#] 3	3498.49	2 ⁺		
		6662.00 [#] 25	63 [#] 3	2235.325	2 ⁺		
		8896.7 [#] 3	31 [#] 3	0	0 ⁺		
8938	(2 ⁺)	5168	100 40	3769.48	1 ⁺		

Adopted Levels, Gammas (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	$\gamma(^{30}\text{Si})$ (continued)			Comments
						Mult. ^b	δ^b	α^d	
8938	(2 ⁺)	6702	100 40	2235.325	2 ⁺				
8953.4	(1,2)	6717.3 [#] 8	89 [#] 15	2235.325	2 ⁺				
8958.8	(5 ⁻)	8951.9 [#] 5	100 [#] 11	0	0 ⁺				
		765	11 4	8193.9	5 ⁻	(M1+E2)	-0.04 3		B(M1)(W.u.)=0.09 +9-4; B(E2)(W.u.)=1.1 +29-10
		1149	5.6 19	7810	4 ⁺	[E1]		4.07×10 ⁻⁵ 6	$\alpha(\text{K})=1.019\times 10^{-5}$ 14; $\alpha(\text{L})=7.28\times 10^{-7}$ 10; $\alpha(\text{M})=4.79\times 10^{-8}$ 7 $\alpha(\text{IPF})=2.97\times 10^{-5}$ 4
		1346	30 4	7613	4 ⁻	(M1+E2)	+0.22 5	4.16×10 ⁻⁵ 7	B(E1)(W.u.)=4.1×10 ⁻⁴ +47-20 $\alpha(\text{K})=1.217\times 10^{-5}$ 18; $\alpha(\text{L})=8.69\times 10^{-7}$ 13; $\alpha(\text{M})=5.73\times 10^{-8}$ 9 $\alpha(\text{IPF})=2.85\times 10^{-5}$ 5
		1915.6 ^{&} 7	93 12	7043.17	5 ⁻	(M1)		2.18×10 ⁻⁴ 3	B(M1)(W.u.)=0.041 +42-16; B(E2)(W.u.)=5 +6-3 $\alpha(\text{K})=6.61\times 10^{-6}$ 9; $\alpha(\text{L})=4.72\times 10^{-7}$ 7; $\alpha(\text{M})=3.11\times 10^{-8}$ 4 $\alpha(\text{IPF})=0.0002107$ 30
		1960	19 4	6998.78	5 ⁺	[E1]		6.19×10 ⁻⁴ 9	B(M1)(W.u.)=0.046 +46-18 δ : -0.03 13 (α , $\pi\gamma$). B(E1)(W.u.)=2.8×10 ⁻⁴ +29-12
		2455	52 8	6503.42	4 ⁻	(M1+E2)	-0.13 3	4.42×10 ⁻⁴ 6	$\alpha(\text{K})=4.30\times 10^{-6}$ 6; $\alpha(\text{L})=3.07\times 10^{-7}$ 4; $\alpha(\text{M})=2.021\times 10^{-8}$ 28 $\alpha(\text{IPF})=0.000615$ 9
		3008	15 4	5950.69	4 ⁺	[E1]		1.25×10 ⁻³ 2	$\alpha(\text{K})=4.46\times 10^{-6}$ 6; $\alpha(\text{L})=3.19\times 10^{-7}$ 4; $\alpha(\text{M})=2.100\times 10^{-8}$ 29 $\alpha(\text{IPF})=0.000437$ 6
		3471	48 8	5487.49	3 ⁻	[E2]		9.83×10 ⁻⁴ 14	B(M1)(W.u.)=0.012 +12-5; B(E2)(W.u.)=0.16 +20-8 $\alpha(\text{K})=2.406\times 10^{-6}$ 34; $\alpha(\text{L})=1.716\times 10^{-7}$ 24; $\alpha(\text{M})=1.131\times 10^{-8}$ 16 $\alpha(\text{IPF})=0.001245$ 17
		3679	100 12	5279.25	4 ⁺	(E1)		1.56×10 ⁻³ 2	B(E1)(W.u.)=6×10 ⁻⁵ +6-3 $\alpha(\text{K})=2.78\times 10^{-6}$ 4; $\alpha(\text{L})=1.983\times 10^{-7}$ 28; $\alpha(\text{M})=1.307\times 10^{-8}$ 18 $\alpha(\text{IPF})=0.000980$ 14 B(E2)(W.u.)=1.5 +16-6 $\alpha(\text{K})=1.872\times 10^{-6}$ 26; $\alpha(\text{L})=1.335\times 10^{-7}$ 19; $\alpha(\text{M})=8.80\times 10^{-9}$ 12 $\alpha(\text{IPF})=0.001553$ 22
8980	(1,2 ⁺)	6744	100 40	2235.325	2 ⁺				δ : -0.02 3 (α , $\pi\gamma$).
9035	(1 ⁺ ,2 ⁺)	8979	100 40	0	0 ⁺				
		5265	100 20	3769.48	1 ⁺				
		5536	60 16	3498.49	2 ⁺				
9045	(3,4)	9034	40 12	0	0 ⁺				
		2541	48 17	6503.42	4 ⁻				
		3094	65 13	5950.69	4 ⁺				
		3557	100 17	5487.49	3 ⁻				

Adopted Levels, Gammas (continued)

E _i (level)	J _i ^π	γ(³⁰ Si) (continued)				J _f ^π	γ(³⁰ Si) (continued)			Comments
		E _γ [†]	I _γ [‡]	E _f	Mult. ^b		δ ^b	α ^d		
9045	(3,4)	3813	29 10	5231.52	3 ⁺					
		4214	81 17	4830.86	3 ⁺					
9103.73	(1,2) ⁻	998.9 [#] 3	7.1 [#] 9	8104.9	(2 ⁺ ,3 ⁺)					
		2359.57 [#] 4	100 [#] 3	6744.06	1 ⁻					
9106.71	6 ⁻	914.0 ^{&} 13	2.6 6	8193.9	5 ⁻					
		2063.4 ^{&} 1	100.0 6	7043.17	5 ⁻	M1+E2	+0.35 4	2.86×10 ⁻⁴ 4		α(K)=5.93×10 ⁻⁶ 8; α(L)=4.23×10 ⁻⁷ 6; α(M)=2.79×10 ⁻⁸ 4 α(IPF)=0.000279 4 B(M1)(W.u.)=0.091 +31-19; B(E2)(W.u.)=12.1 +49-32
9131	(5 ⁺)	1908	43 9	7223.2	4 ⁺					
		2132	100 11	6998.78	5 ⁺					
		3180	62 11	5950.69	4 ⁺					
		4300	65 9	4830.86	3 ⁺					
9167	(1 ⁺ ,2,3 ⁺)	2302	40 12	6865	3 ⁺					
		2630	40 12	6537	2 ⁺					
		4336	100 20	4830.86	3 ⁺					
		4356	40 20	4810.33	2 ⁺					
		5397	80 20	3769.48	1 ⁺					
		5668	20 12	3498.49	2 ⁺					
		6931	80 24	2235.325	2 ⁺					
9255	(2 ⁺ ,3 ⁺)	3641	24 6	5614.05	2 ⁺					
		4023	48 6	5231.52	3 ⁺					
		4444	13 4	4810.33	2 ⁺					
		7019	100 10	2235.325	2 ⁺					
9308.11	(1 ⁻ ,2 ⁻)	2667.0 [#] 6	16 [#] 4	6641.21	2 ⁻					
		5538.05 [#] 24	100 [#] 6	3769.48	1 ⁺					
		7071.8 [#] 7	19 [#] 6	2235.325	2 ⁺					
9350	4 ⁻	754	13 5	8596	4 ⁻					
		1737	63 25	7613	4 ⁻					
		2271	10 5	7079	3 ⁺					
		2846	40 15	6503.42	4 ⁻					
		3862	25 8	5487.49	3 ⁻					
		4118	100 25	5231.52	3 ⁺					
9362	(1,2 ⁺)	9360	100	0	0 ⁺					
9367.0	6 ⁺	2368.0 ^{&} 4	83 10	6998.78	5 ⁺	D+Q	+0.24 3			I _γ : other: 100 7 (¹⁸ O,2nγ) – presumably the intensity of 2368.0γ and 4088.7γ were switched in 2010St13.
		3418.8 ^{&} 14	55 8	5950.69	4 ⁺	E2		9.62×10 ⁻⁴ 13		α(K)=2.84×10 ⁻⁶ 4; α(L)=2.029×10 ⁻⁷ 28; α(M)=1.337×10 ⁻⁸ 19 α(IPF)=0.000958 13

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)							
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	Comments
9367.0	6 ⁺	4088.7& 20	100 12	5279.25	4 ⁺	Q	I_γ : other: 72 10 ($^{18}\text{O},2n\gamma$) – presumably the intensity of 4088.7 γ and 2368.0 γ were switched in 2010St13.
9406	4 ⁺	4174	66 11	5231.52	3 ⁺		
		4575	100 15	4830.86	3 ⁺		
		4595	21 9	4810.33	2 ⁺		
		5907	26 7	3498.49	2 ⁺		
9440	1 ⁻	5670	100 40	3769.48	1 ⁺		
		9438	100 40	0	0 ⁺		
9475	(2 ⁺ ,3,4 ⁺)	2396	50 20	7079	3 ⁺		
		4195	100 20	5279.25	4 ⁺		
		7239	50 10	2235.325	2 ⁺		
9507	(5 ⁻)	2464	6 3	7043.17	5 ⁻		
		2508	17 3	6998.78	5 ⁺	D	δ : -0.00 +1-4 ($\alpha,\text{p}\gamma$).
		3003	6 3	6503.42	4 ⁻		
		4019	14 5	5487.49	3 ⁻		
		4227	100 8	5279.25	4 ⁺	D	δ : -0.00 +4-10 ($\alpha,\text{p}\gamma$).
9576	(1 ⁺ ,2,3,4 ⁺)	4745	54 16	4830.86	3 ⁺		
		6077	100 16	3498.49	2 ⁺		
9597.3	(1 ⁺ ,2,3,4 ⁺)	4766.7 [#] 7	19 [#] 6	4830.86	3 ⁺		
		4786.5 [#] 8	15 [#] 6	4810.33	2 ⁺		
		6098.0 [#] 3	100 [#] 9	3498.49	2 ⁺		
		7361	43 11	2235.325	2 ⁺		
9605	(2,3,4 ⁺)	4117	43 12	5487.49	3 ⁻		
		4373	100 18	5231.52	3 ⁺		
		6106	71 15	3498.49	2 ⁺		
		7369	71 15	2235.325	2 ⁺		
9619.74	(1 ⁻)	9618.08 [#] 13	100 [#]	0	0 ⁺		
9648	(3 ⁻ ,4)	2605	38 8	7043.17	5 ⁻		
		4160	29 6	5487.49	3 ⁻		
		4368	25 8	5279.25	4 ⁺		
		4817	100 12	4830.86	3 ⁺		
9689	(0 ⁻ ,2,3 ⁻)	2945	100	6744.06	1 ⁻		
		9726	6227	100 13	3498.49	2 ⁺	
9761	(2 ⁺ ,3,4 ⁺)	7490	54 13	2235.325	2 ⁺		
		3810	100 14	5950.69	4 ⁺		
		4930	78 12	4830.86	3 ⁺		
		6262	22 7	3498.49	2 ⁺		
9770	1 ⁺	7525	22 7	2235.325	2 ⁺		
		7534	67 17	2235.325	2 ⁺		
		9768	100 17	0	0 ⁺		

Adopted Levels, Gammas (continued)

E _i (level)	J ^π _i	γ(³⁰ Si) (continued)							Comments
		E _γ [†]	I _γ [‡]	E _f	J ^π _f	Mult. ^b	δ ^b	α ^d	
9773.6	6 ⁻	1578.7 & 6	79 6	8193.9	5 ⁻	D+Q	+0.26 5	9.02×10 ⁻⁴ 13	I _γ : other: 46 3 (¹⁸ O,2nγ).
		2730.5 & 8	100 9	7043.17	5 ⁻	D+Q	+0.10 3		I _γ : other: 69 6 (¹⁸ O,2nγ).
		2776.1 & 16	30 6	6998.78	5 ⁺	D			I _γ : other: 51 10 (¹⁸ O,2nγ).
		3271.6 & 10	94 9	6503.42	4 ⁻	E2			δ: -0.00 5 (α,pγ).
9792.3	1 ⁻	6004.4 [#] 9	8 [#] 3	3787.72	0 ⁺				α(K)=3.04×10 ⁻⁶ 4; α(L)=2.169×10 ⁻⁷ 30;
		9790.5 [#] 3	100 [#] 5	0	0 ⁺				α(M)=1.430×10 ⁻⁸ 20
9815	4 ⁺	6316	100	3498.49	2 ⁺				α(IPF)=0.000899 13
9882		3378	51 9	6503.42	4 ⁻				I _γ : other: 100 13 (¹⁸ O,2nγ).
		3931	89 11	5950.69	4 ⁺				
		4394	30 6	5487.49	3 ⁻				
9897		4650	100 11	5231.52	3 ⁺				
		2982	83 24	6914.77	2 ⁺				
		5086	67 17	4810.33	2 ⁺				
		6398	100 20	3498.49	2 ⁺				
9955	(4,5)	7661	83 17	2235.325	2 ⁺				
		1418	13 4	8537	(3 ⁺ ,4 ⁺)				
		2145	100 8	7810	4 ⁺				
		2956	25 4	6998.78	5 ⁺				
		3090	21 4	6865	3 ⁺				
		4004	11.5 20	5950.69	4 ⁺				
		4675	13 4	5279.25	4 ⁺				
		4723	7.7 20	5231.52	3 ⁺				
9958	(1,2 ⁺)	7722	100 11	2235.325	2 ⁺				
		9956	54 11	0	0 ⁺				
10027	(2,3,4 ⁺)	4539	30 6	5487.49	3 ⁻				
		4795	70 12	5231.52	3 ⁺				
		6528	100 14	3498.49	2 ⁺				
10057	4 ⁺	3553	50 10	6503.42	4 ⁻				
		4106	100 20	5950.69	4 ⁺				
		4777	100 20	5279.25	4 ⁺				
		5226	83 17	4830.86	3 ⁺				
10079	(1 ⁺ ,2 ⁺ ,3 ⁺ ,4 ⁺)	3164	60 10	6914.77	2 ⁺				
		5248	40 8	4830.86	3 ⁺				
		5268	100 12	4810.33	2 ⁺				
10116	(2 ⁺ ,3,4 ⁺)	4165	75 13	5950.69	4 ⁺				
		4628	100 15	5487.49	3 ⁻				

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
10116	(2 ⁺ ,3,4 ⁺)	7880	75 13	2235.325	2 ⁺				
10184	(0 ⁺ ,1,2,3 ⁺)	5373	56 12	4810.33	2 ⁺				
		6414	100 18	3769.48	1 ⁺				
		7948	67 14	2235.325	2 ⁺				
10188	5 ⁻	1994	15 8	8193.9	5 ⁻				
		2378	50 10	7810	4 ⁺	E1 ^c		8.97×10 ⁻⁴ 13	$\alpha(\text{K})=3.28\times 10^{-6}$ 5; $\alpha(\text{L})=2.339\times 10^{-7}$ 33; $\alpha(\text{M})=1.541\times 10^{-8}$ 22 $\alpha(\text{IPF})=0.000894$ 13 B(E1)(W.u.)=6×10 ⁻⁴ +6-3
		3145	100 15	7043.17	5 ⁻	M1+E2 ^c	-0.26 6	7.28×10 ⁻⁴ 11	$\alpha(\text{K})=3.08\times 10^{-6}$ 4; $\alpha(\text{L})=2.200\times 10^{-7}$ 31; $\alpha(\text{M})=1.450\times 10^{-8}$ 20 $\alpha(\text{IPF})=0.000725$ 11 B(M1)(W.u.)=0.014 +17-6; B(E2)(W.u.)=0.4 +6-3
		3189	23 5	6998.78	5 ⁺				
		3684	63 10	6503.42	4 ⁻	M1+E2 ^c	-0.10 5	9.20×10 ⁻⁴ 13	$\alpha(\text{K})=2.450\times 10^{-6}$ 34; $\alpha(\text{L})=1.747\times 10^{-7}$ 24; $\alpha(\text{M})=1.152\times 10^{-8}$ 16 $\alpha(\text{IPF})=0.000918$ 13 B(M1)(W.u.)=0.006 +7-3; B(E2)(W.u.)=0.020 +40-16
10202.4	(1 ⁻)	6432	60 14	3769.48	1 ⁺				
		7965.8 [#] 9	25 [#] 8	2235.325	2 ⁺				
		10200.6 [#] 6	100 [#] 13	0	0 ⁺				
10218		5407	100	4810.33	2 ⁺				
10275.5		5465	20 4	4810.33	2 ⁺				
		6487.0 [#] 7	#	3787.72	0 ⁺				
		6776	13 4	3498.49	2 ⁺				
		8039	100 5	2235.325	2 ⁺				
10288	(4 ⁺ ,5 ⁺)	3289	100 8	6998.78	5 ⁺				
		4337	30 4	5950.69	4 ⁺				
		5008	70 8	5279.25	4 ⁺				
10305	3 ⁻	2692	100 18	7613	4 ⁻				
		3801	83 14	6503.42	4 ⁻				
		4691	52 11	5614.05	2 ⁺				
		5025	59 11	5279.25	4 ⁺				
		6806	52 11	3498.49	2 ⁺				
10349	(3 ⁺ ,4)	3350	100 14	6998.78	5 ⁺				
		4861	30 6	5487.49	3 ⁻				
		5069	40 10	5279.25	4 ⁺				
		5518	30 6	4830.86	3 ⁺				
10355		5544	100 20	4810.33	2 ⁺				
		6856	75 15	3498.49	2 ⁺				

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
10355		8118	75 15	2235.325	2 ⁺				
10397	2 ⁺ ,3,4,5 ⁺	5117	100 8	5279.25	4 ⁺				
		5165	25 8	5231.52	3 ⁺				
10420		4469	100	5950.69	4 ⁺				
10449	(0 ⁺ ,1,2,3 ⁺)	6679	67 17	3769.48	1 ⁺				
		8212	100 17	2235.325	2 ⁺				
10465	3 ⁺ ,4,5 ⁺	3466	29 15	6998.78	5 ⁺				
		4514	100 15	5950.69	4 ⁺				
		5233	71 15	5231.52	3 ⁺				
		5634	86 18	4830.86	3 ⁺				
10470	1 ⁺	6971	100 30	3498.49	2 ⁺				
		10468	100 30	0	0 ⁺				
10508	(0 ⁺ to 3 ⁺)	5697	36 9	4810.33	2 ⁺				
		6738	45 11	3769.48	1 ⁺				
		8271	100 15	2235.325	2 ⁺				
10554.5	(6 ⁻)	1047	30.2 24	9507	(5 ⁻)				
		1447.9 & 5	44 5	9106.71	6 ⁻	D+Q	-0.10 5		
		1596	7.0 24	8958.8	(5 ⁻)				
		3511.0 & 3	100 10	7043.17	5 ⁻	D+Q	+0.27 2		
		3555	42 5	6998.78	5 ⁺	D+Q	-0.04 8		
		4050	9.3 24	6503.42	4 ⁻				
10582	(0 ⁺ ,1,2,3 ⁺)	6812	100	3769.48	1 ⁺				
10621		7122	100	3498.49	2 ⁺				
10669	(5,4,3 ⁻)	2859	7 3	7810	4 ⁺				
		3626	14 5	7043.17	5 ⁻				
		4165	100 8	6503.42	4 ⁻				
		5389	21 5	5279.25	4 ⁺				
10674.8	6 ⁺	3631.4 & 12	100 4	7043.17	5 ⁻	(E1)		1.54×10 ⁻³ 2	B(E1)(W.u.)=1.0×10 ⁻³ +11-4 $\alpha(\text{K})=1.902\times 10^{-6}$ 27; $\alpha(\text{L})=1.356\times 10^{-7}$ 19; $\alpha(\text{M})=8.94\times 10^{-9}$ 13 $\alpha(\text{IPF})=0.001534$ 21
		4171	12.5 25	6503.42	4 ⁻	[M2]		8.29×10 ⁻⁴ 12	$\alpha(\text{K})=2.71\times 10^{-6}$ 4; $\alpha(\text{L})=1.932\times 10^{-7}$ 27; $\alpha(\text{M})=1.274\times 10^{-8}$ 18 $\alpha(\text{IPF})=0.000826$ 12 B(M2)(W.u.)=21 +24-10 exceeds RUL=3.
		5395	12.5 25	5279.25	4 ⁺	[E2]		1.60×10 ⁻³ 2	$\alpha(\text{K})=1.490\times 10^{-6}$ 21; $\alpha(\text{L})=1.062\times 10^{-7}$ 15; $\alpha(\text{M})=7.00\times 10^{-9}$ 10 $\alpha(\text{IPF})=0.001600$ 22 B(E2)(W.u.)=0.19 +21-9
10719.28	7 ⁻	1353.2 & 13	7.2 & 6	9367.0	6 ⁺	[E1]		1.69×10 ⁻⁴ 3	$\alpha(\text{K})=7.66\times 10^{-6}$ 11; $\alpha(\text{L})=5.47\times 10^{-7}$ 8;

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
10719.28	7 ⁻	1612.5 & 1	95 & 3	9106.71	6 ⁻	M1+E2 ^c	+0.27 3	1.11×10 ⁻⁴ 2	$\alpha(\text{M})=3.60\times 10^{-8}$ 5 $\alpha(\text{IPF})=0.0001612$ 24 B(E1)(W.u.)=6×10 ⁻⁴ +6-2 $\alpha(\text{K})=8.91\times 10^{-6}$ 13; $\alpha(\text{L})=6.36\times 10^{-7}$ 9; $\alpha(\text{M})=4.19\times 10^{-8}$ 6 $\alpha(\text{IPF})=0.0001011$ 15 B(M1)(W.u.)=0.14 +13-5; B(E2)(W.u.)=18 +17-7
		3676.7 & 2	100 & 5	7043.17	5 ⁻	E2		1.06×10 ⁻³ 2	$\alpha(\text{K})=2.55\times 10^{-6}$ 4; $\alpha(\text{L})=1.820\times 10^{-7}$ 25; $\alpha(\text{M})=1.200\times 10^{-8}$ 17 $\alpha(\text{IPF})=0.001058$ 15 B(E2)(W.u.)=4.4 +41-16 I_γ : Strongest in (¹⁸ O,2n γ).
10732	(3 ⁻ ,4 ⁺)	2538	20 10	8193.9	5 ⁻				
		2627	20 6	8104.9	(2 ⁺ ,3 ⁺)				
		4228	100 10	6503.42	4 ⁻				
		4781	30 6	5950.69	4 ⁺				
		5452	30 6	5279.25	4 ⁺				
10795	(2 to 4)	3930	100 25	6865	3 ⁺				
		5307	50 13	5487.49	3 ⁻				
		5563	100 25	5231.52	3 ⁺				
10805		8568	100	2235.325	2 ⁺				
10823	(4,5,6 ⁺)	2629	22 7	8193.9	5 ⁻				
		3600	11 5	7223.2	4 ⁺				
		3824	11 5	6998.78	5 ⁺				
		4872	78 18	5950.69	4 ⁺				
		5543	100 20	5279.25	4 ⁺				
10835		5603	100	5231.52	3 ⁺				
10866	(5,4,3 ⁻)	2672	18 6	8193.9	5 ⁻				
		3823	18 4	7043.17	5 ⁻				
		4362	27 6	6503.42	4 ⁻				
		4915	18 4	5950.69	4 ⁺				
		5586	100 9	5279.25	4 ⁺				
10975		8738	100	2235.325	2 ⁺				
10991	(3 ⁺ ,4,5 ⁺)	2454	100 25	8537	(3 ⁺ ,4 ⁺)				
		3992	100 50	6998.78	5 ⁺				
		4487	75 15	6503.42	4 ⁻				
		5040	100 25	5950.69	4 ⁺				
		5711	75 15	5279.25	4 ⁺				
		6159	50 10	4830.86	3 ⁺				
11015	(2 ⁺ ,3,4 ⁺)	5064	100 34	5950.69	4 ⁺				
		5400	67 34	5614.05	2 ⁺				

Adopted Levels, Gammas (continued)

γ(³⁰Si) (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>
11038	(3 ⁻ ,4,5,6 ⁺)	3995	100 35	7043.17	5 ⁻
		5087	75 25	5950.69	4 ⁺
		5758	75 25	5279.25	4 ⁺
11073	(2 ⁺ ,3,4 ⁺ ,5,6 ⁺)	5122	100	5950.69	4 ⁺
11083.5	(6 ⁻ ,5 ⁻ ,4 ⁻)	1972	17 5	9106.71	6 ⁻
		2487	25 5	8596	4 ⁻
		3470	17 9	7613	4 ⁻
		4040.0 & 22	100 10	7043.17	5 ⁻
		4580	8 4	6503.42	4 ⁻
11091	(2 ⁺ ,3,4 ⁺ ,5,6 ⁺)	5811	100	5279.25	4 ⁺
11205		7705	54 16	3498.49	2 ⁺
		8968	100 16	2235.325	2 ⁺
11210	(4,5 ⁺)	1022	43 15	10188	5 ⁻
		3400	43 15	7810	4 ⁺
		5259	100 29	5950.69	4 ⁺
		5978	100 29	5231.52	3 ⁺
11250	4 ⁻ ,5 ⁻	1476	17 7	9773.6	6 ⁻
		2143	10 7	9106.71	6 ⁻
		2291	23 7	8958.8	(5 ⁻)
		2920	13 7	8330	
		3056	10 7	8193.9	5 ⁻
		3637	67 7	7613	4 ⁻
		4207	17 7	7043.17	5 ⁻
		4251	100 17	6998.78	5 ⁺
		4746	17 7	6503.42	4 ⁻
		5762	33 10	5487.49	3 ⁻
11268	(2 ⁺ ,3,4,5 ⁺)	5970	27 7	5279.25	4 ⁺
		5988	54 12	5279.25	4 ⁺
11322	(2 ⁺ ,3,4,5 ⁺)	6436	100 12	4830.86	3 ⁺
		3512	88 15	7810	4 ⁺
		4099	100 20	7223.2	4 ⁺
11348		6090	63 10	5231.52	3 ⁺
		6068	100	5279.25	4 ⁺
11380		9143	100	2235.325	2 ⁺
11417	(6 ⁺ ,4 ⁺)	4193	21 4	7223.2	4 ⁺
		4418	28 4	6998.78	5 ⁺
		5466	100 9	5950.69	4 ⁺
		6137	26 4	5279.25	4 ⁺
11477	(6 ⁻ ,5 ⁻)	922	36 6	10554.5	(6 ⁻)
		1703	39 9	9773.6	6 ⁻
		2370	67 15	9106.71	6 ⁻

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	Mult. ^b	δ^b	α^d	Comments
11477	(6 ⁻ ,5 ⁻)	4433	100 12	7043.17	5 ⁻				
		4478	61 9	6998.78	5 ⁺				
11493	(3 ⁺ ,4,5,6 ⁺)	4269	78 11	7223.2	4 ⁺				
		4494	100 22	6998.78	5 ⁺				
		6213	44 9	5279.25	4 ⁺				
11512	(4 ⁻ ,5,6 ⁺)	2405	100 17	9106.71	6 ⁻				
		6232	67 17	5279.25	4 ⁺				
11539.1	7 ⁻	1765	42 6	9773.6	6 ⁻	M1+E2	+0.25 3	1.63×10 ⁻⁴ 2	$\alpha(\text{K})=7.63\times 10^{-6}$ 11; $\alpha(\text{L})=5.45\times 10^{-7}$ 8; $\alpha(\text{M})=3.59\times 10^{-8}$ 5 $\alpha(\text{IPF})=0.0001553$ 23 B(M1)(W.u.)=0.05 +6-2; B(E2)(W.u.)=4 +6-2
		2172	42 6	9367.0	6 ⁺	E1 ^c		7.65×10 ⁻⁴ 11	$\alpha(\text{K})=3.71\times 10^{-6}$ 5; $\alpha(\text{L})=2.65\times 10^{-7}$ 4; $\alpha(\text{M})=1.746\times 10^{-8}$ 24 $\alpha(\text{IPF})=0.000761$ 11 B(E1)(W.u.)=9×10 ⁻⁴ +10-4 δ : -0.04 +4-1 in ($\alpha,\text{p}\gamma$).
		2431.8& 11	86 6	9106.71	6 ⁻	M1 ^c		4.30×10 ⁻⁴ 6	$\alpha(\text{K})=4.52\times 10^{-6}$ 6; $\alpha(\text{L})=3.23\times 10^{-7}$ 5; $\alpha(\text{M})=2.128\times 10^{-8}$ 30 $\alpha(\text{IPF})=0.000425$ 6 B(M1)(W.u.)=0.039 +46-17 I_γ : 35 6 in (¹⁸ O,2n γ). δ : -0.03 3 ($\alpha,\text{p}\gamma$).
		3345.7& 13	100 8	8193.9	5 ⁻	E2		9.32×10 ⁻⁴ 13	$\alpha(\text{K})=2.94\times 10^{-6}$ 4; $\alpha(\text{L})=2.096\times 10^{-7}$ 29; $\alpha(\text{M})=1.382\times 10^{-8}$ 19 $\alpha(\text{IPF})=0.000929$ 13 B(E2)(W.u.)=7 +9-3
		4496	8 3	7043.17	5 ⁻	[E2]		1.34×10 ⁻³ 2	$\alpha(\text{K})=1.911\times 10^{-6}$ 27; $\alpha(\text{L})=1.363\times 10^{-7}$ 19; $\alpha(\text{M})=8.99\times 10^{-9}$ 13 $\alpha(\text{IPF})=0.001340$ 19 B(E2)(W.u.)=0.13 +16-7 δ : -0.0 +1-10 ($\alpha,\text{p}\gamma$).
11564	(5,3)	4340	100 3	7223.2	4 ⁺	D			
		6284	11 3	5279.25	4 ⁺				
11661	(4,5,6)	3467	100 6	8193.9	5 ⁻				
		4617	13 4	7043.17	5 ⁻				
		4662	13 4	6998.78	5 ⁺				
11740	(3 ⁻ ,4,5)	4696	100 20	7043.17	5 ⁻				
		5236	100 20	6503.42	4 ⁻				
		5789	100 20	5950.69	4 ⁺				
		6460	100 20	5279.25	4 ⁺				
11782	(3 ⁺ ,4,5 ⁺)	4783	100 7	6998.78	5 ⁺				
		6502	20 4	5279.25	4 ⁺				
		6950	13 4	4830.86	3 ⁺				
11840		9603	100	2235.325	2 ⁺				
11880		4836	100	7043.17	5 ⁻				

Adopted Levels, Gammas (continued)

$\gamma(^{30}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π	$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ^\ddagger	E_f	J_f^π
12015	(4,5,6 ⁺)	4971	67 <i>11</i>	7043.17	5 ⁻	12831.96	(8 ⁻)	2112.7 ^{&} 2	100 4	10719.28	7 ⁻
		5016	100 <i>18</i>	6998.78	5 ⁺			3724.7 ^{&} 3	37 7	9106.71	6 ⁻
		6064	56 <i>11</i>	5950.69	4 ⁺	13202.8	(8 ⁻)	2483.4 ^{&} 4	100	10719.28	7 ⁻
12393.7		3286.8 ^{&} 24	100	9106.71	6 ⁻	15191.3	(9 ⁻)	2358.9 ^{&} 6	67 7	12831.96	(8 ⁻)
12510		3403 ^{&} 3	100	9106.71	6 ⁻			4472.1 ^{&} 6	100 7	10719.28	7 ⁻
12714.8		3607.9 ^{&} 15	100	9106.71	6 ⁻	15528.8	(9 ⁻)	2696.7 ^{&} 13	100	12831.96	(8 ⁻)

[†] From (α,γ), except where otherwise noted. E_γ without uncertainty are from level energy difference with recoil energy subtracted. These E_γ were not considered in the least squares fit.

[‡] From (α,γ), except where otherwise noted. In a few cases the data from (α,γ) differed compared to that in (¹⁸O,2n γ). The evaluators preferred I_γ data in (α,γ) and possible causes of the deviations are noted. Also I_γ data from the (α,γ) dataset is also preferred, when more E_γ are reported in the dataset compared to others.

[#] From (n, γ) E=Thermal.

[@] From ³⁰Al β^- decay.

[&] From (¹⁸O,2n γ).

^a From (n, γ) E=Thermal.

^b From (α,γ), multipolarities are based on γ -ray linear polarization and angular correlation measurements.

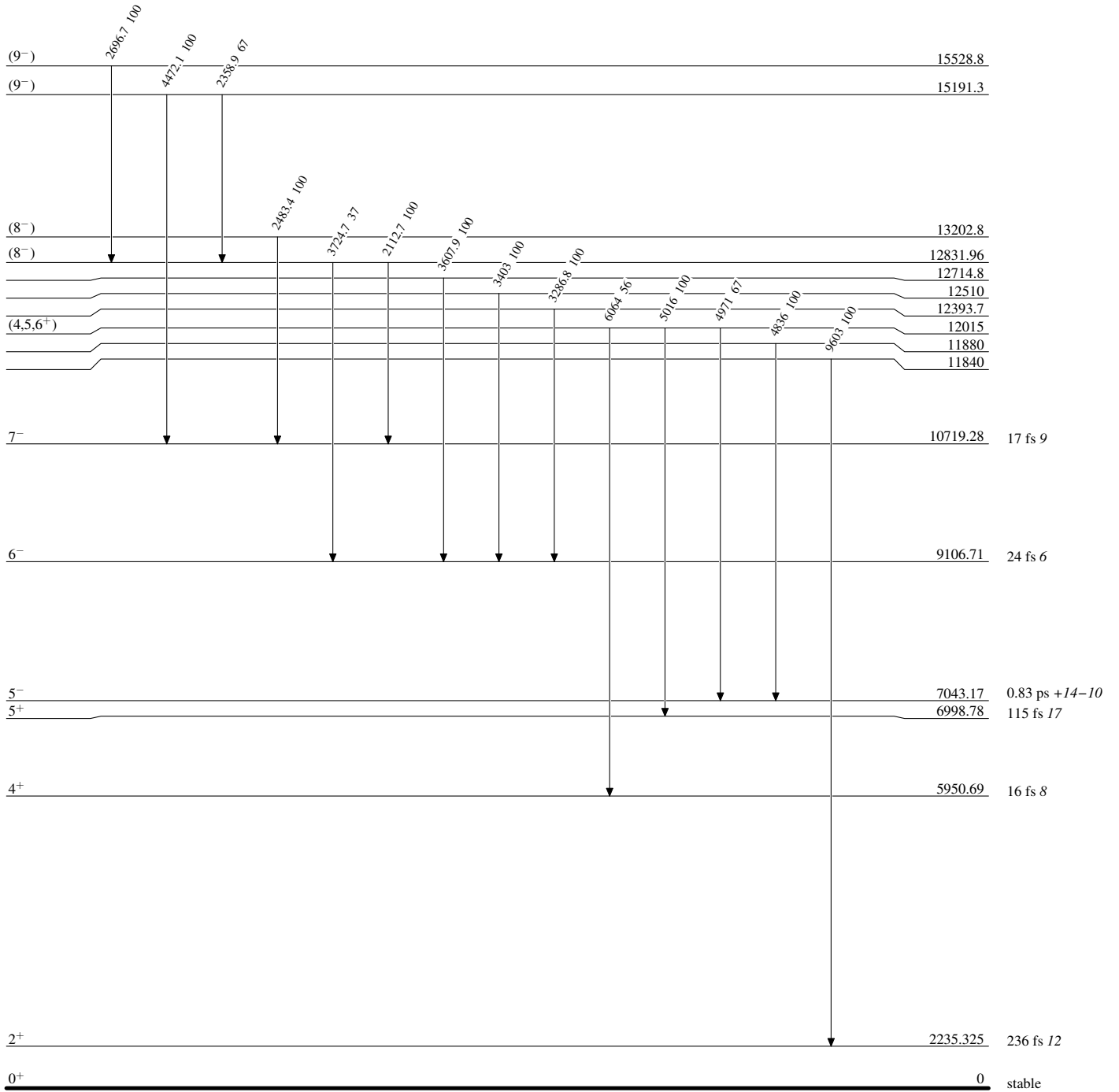
^c Magnetic or/and electric character assigned by the evaluators based on RUL.

^d [Additional information 2.](#)

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

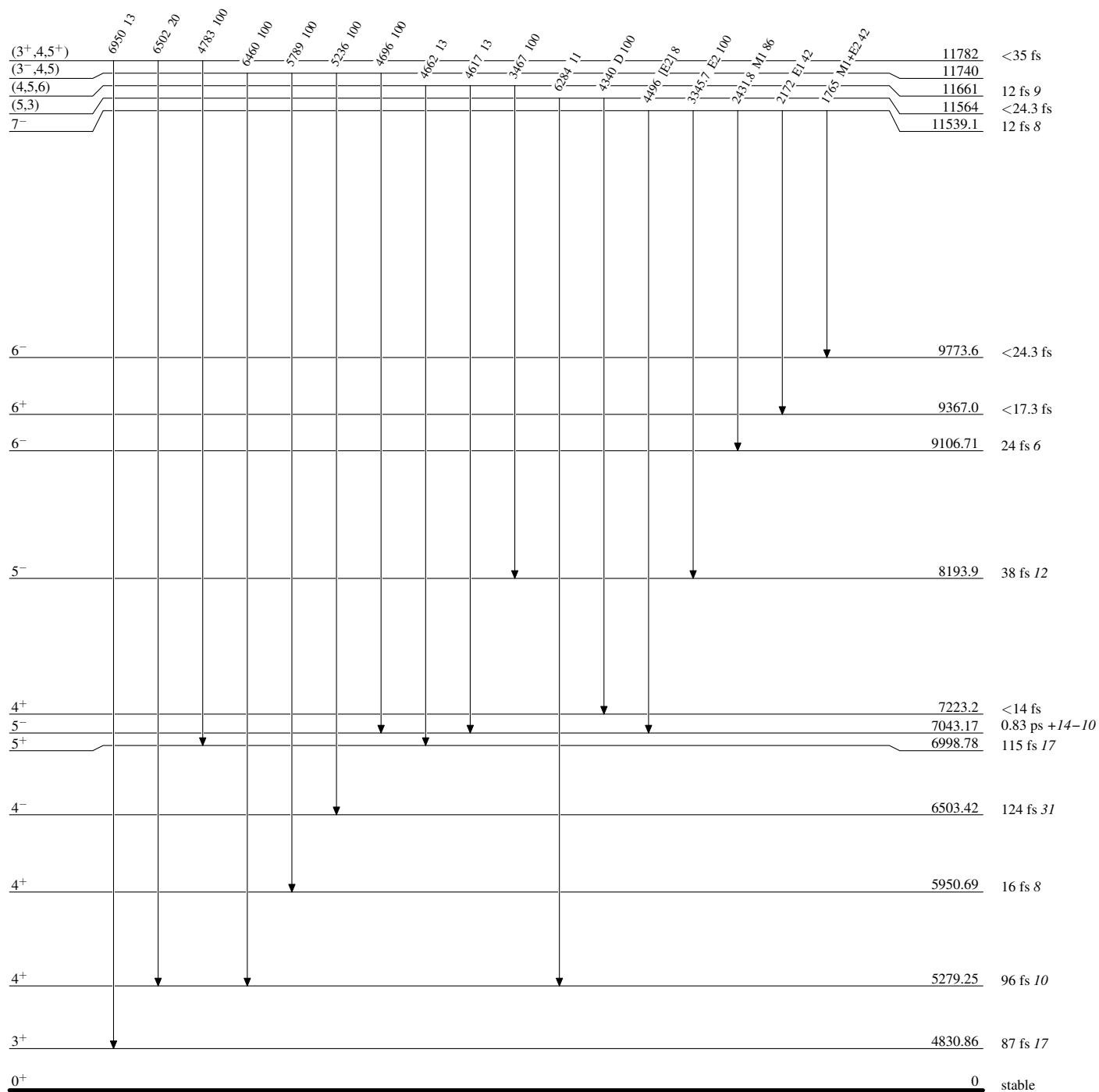
Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level

 $^{30}_{14}\text{Si}_{16}$

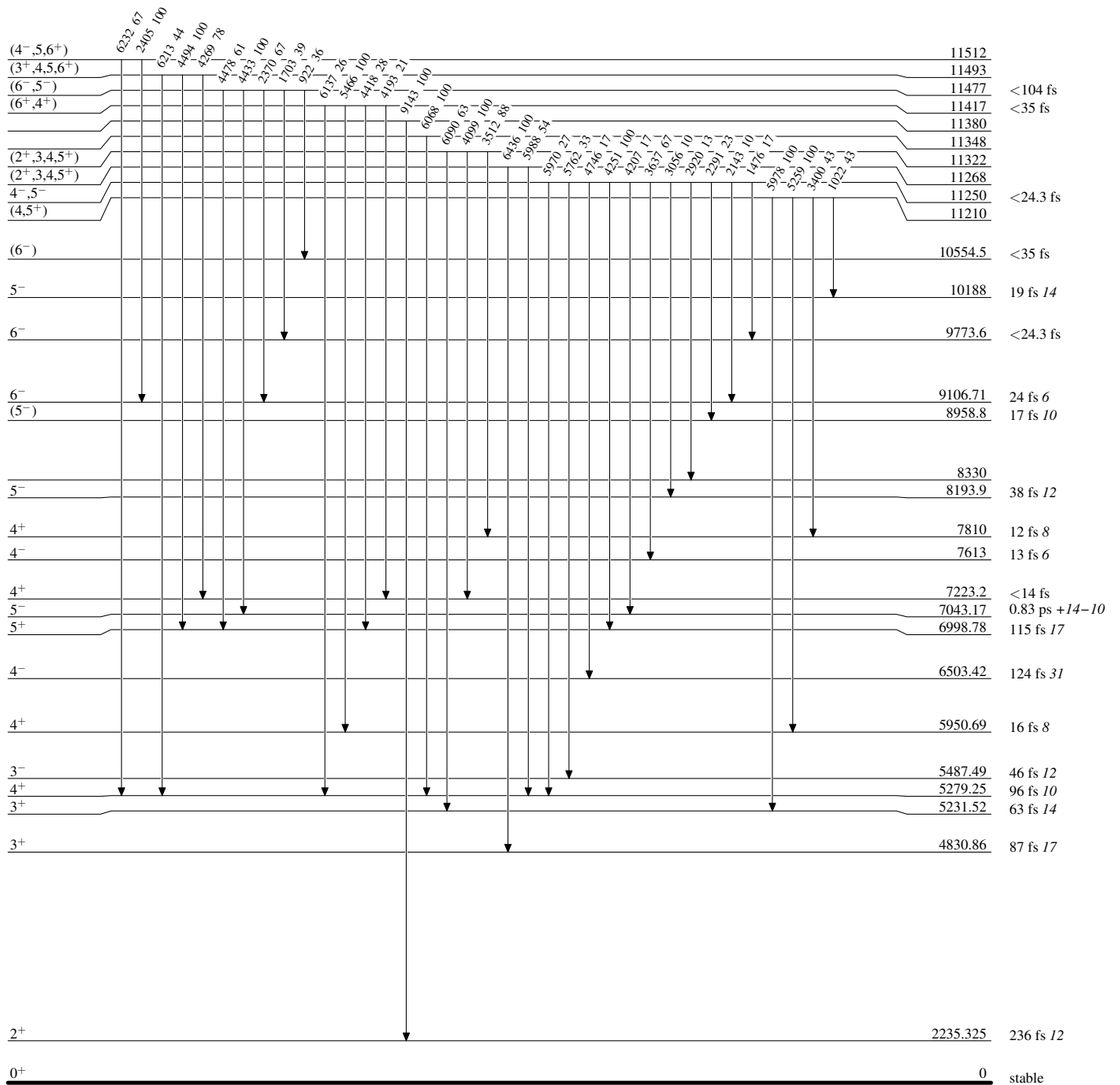
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Relative photon branching from each level



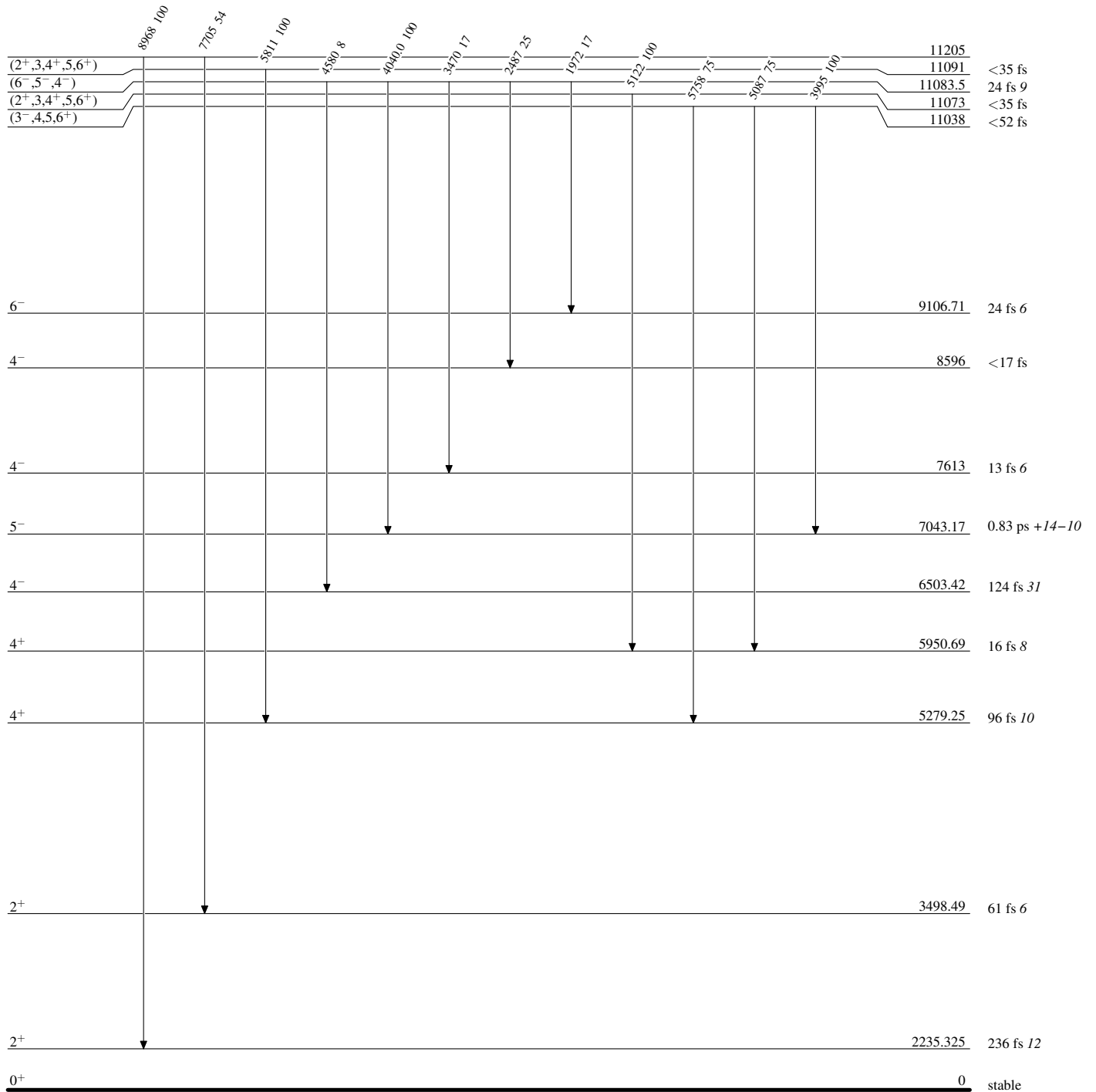
Adopted Levels, Gammas**Level Scheme (continued)**

Intensities: Relative photon branching from each level



Adopted Levels, GammasLevel Scheme (continued)

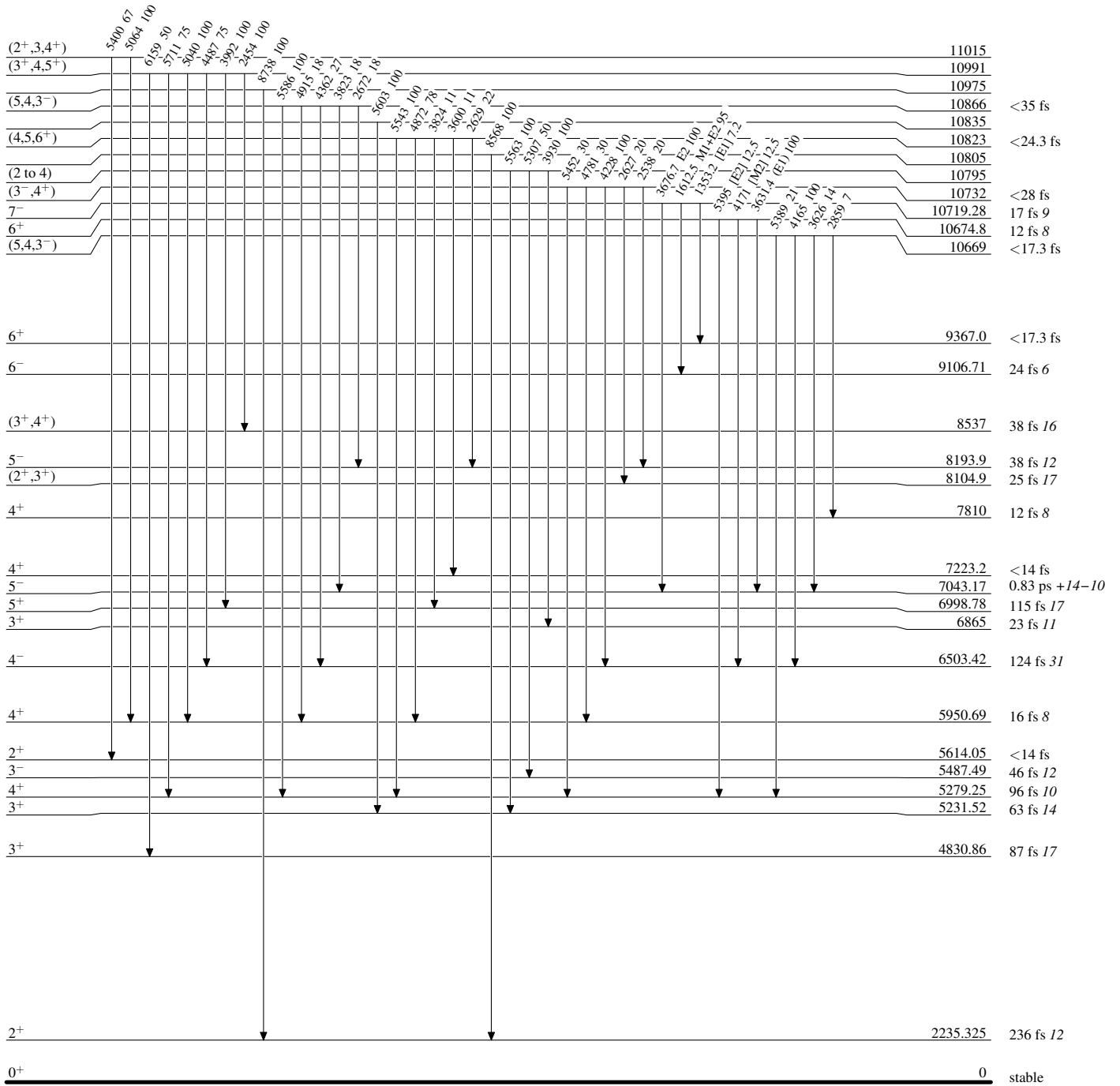
Intensities: Relative photon branching from each level

 $^{30}_{14}\text{Si}_{16}$

Adopted Levels, Gammas

Level Scheme (continued)

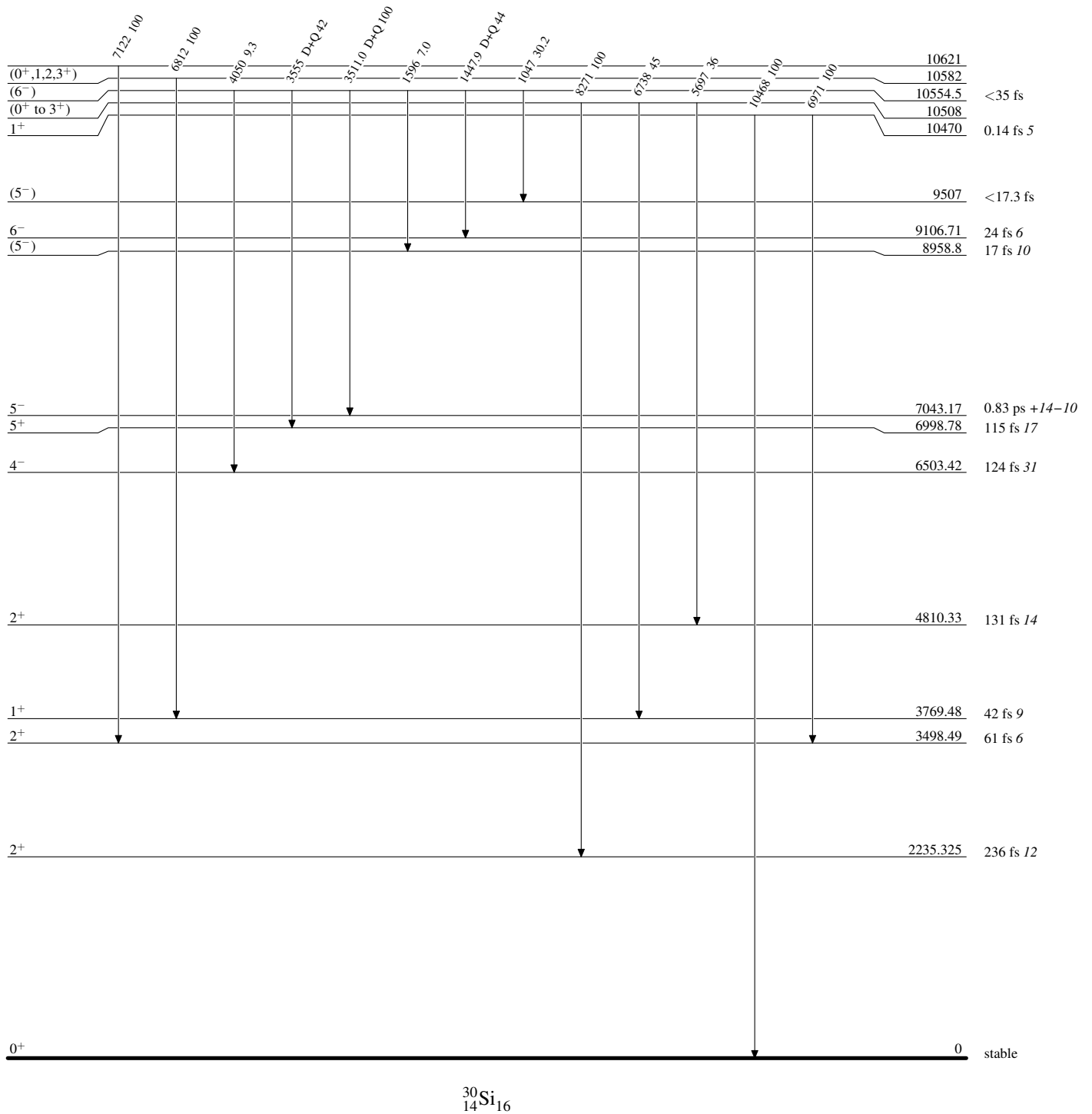
Intensities: Relative photon branching from each level



$^{30}_{14}\text{Si}_{16}$

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

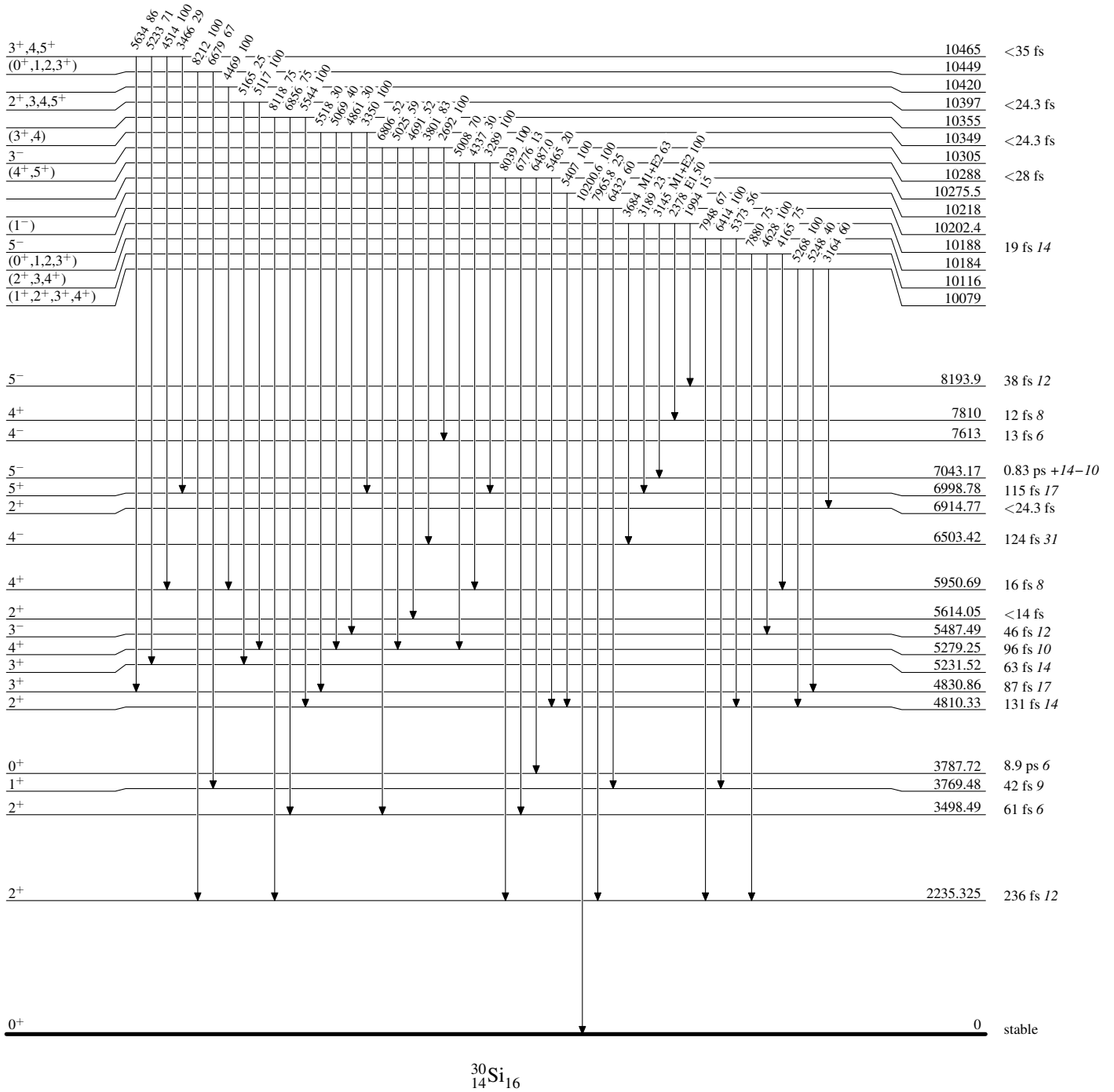
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

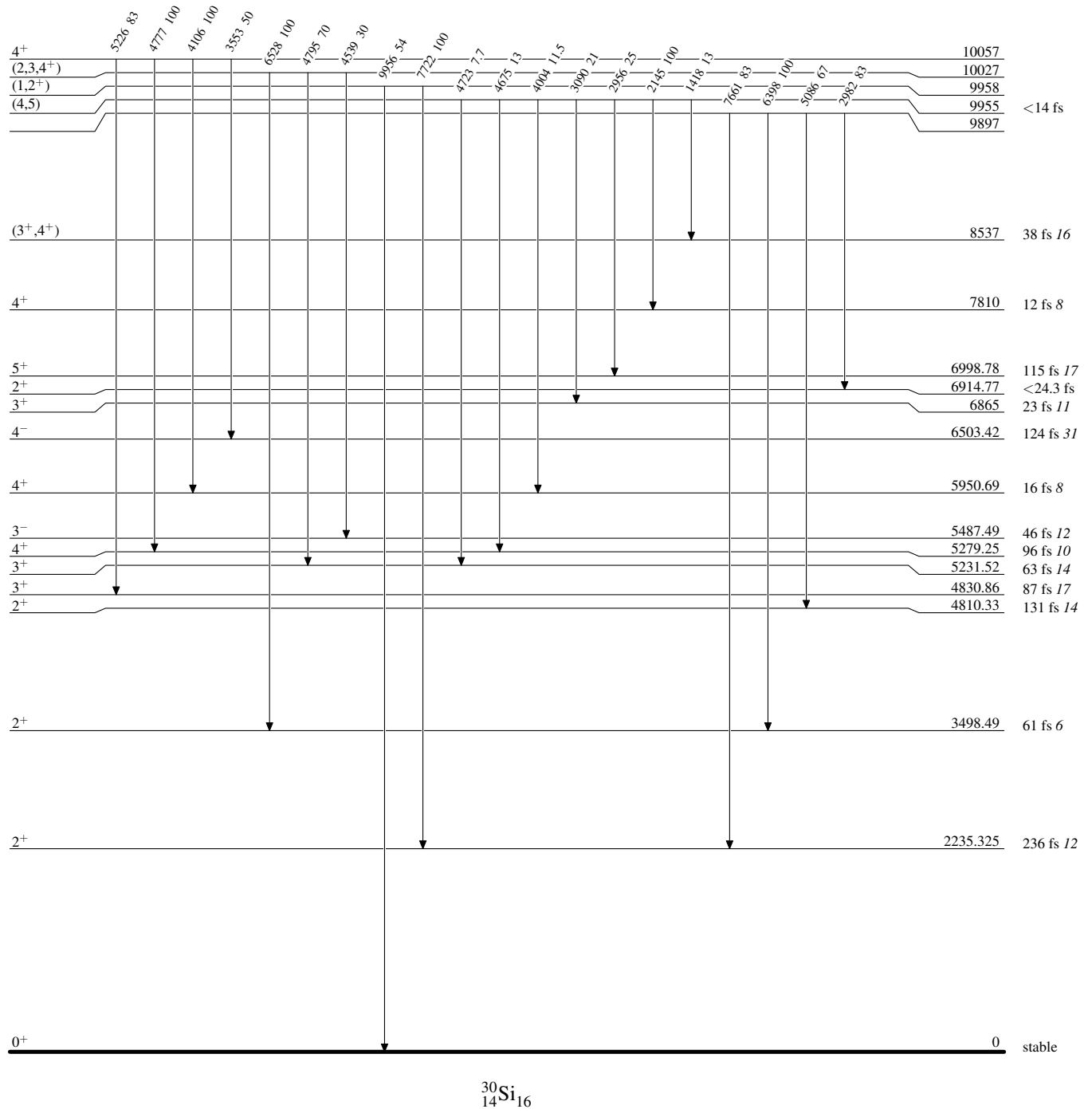
Level Scheme (continued)

Intensities: Relative photon branching from each level



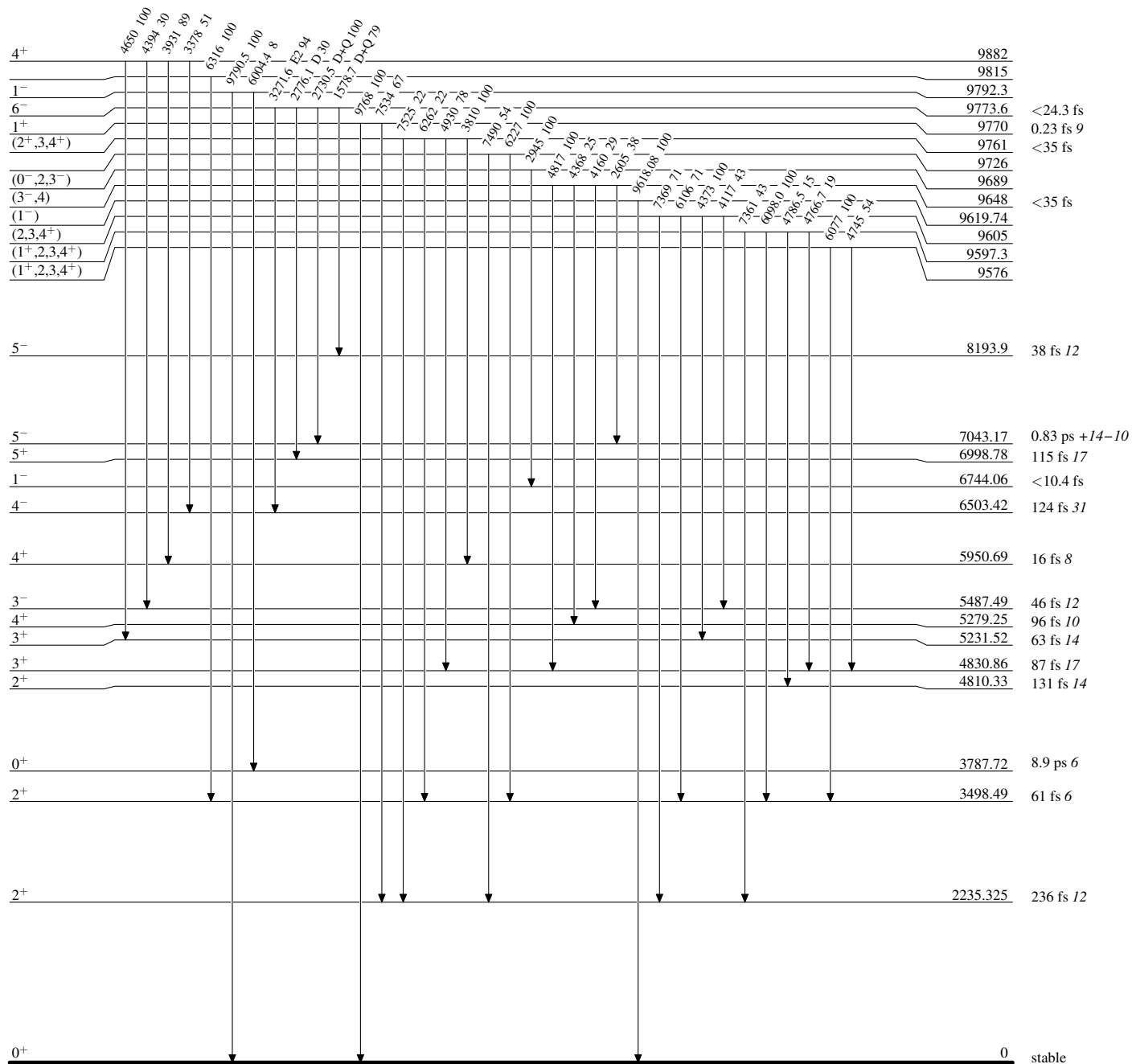
Adopted Levels, GammasLevel Scheme (continued)

Intensities: Relative photon branching from each level

 $^{30}_{14}\text{Si}_{16}$

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

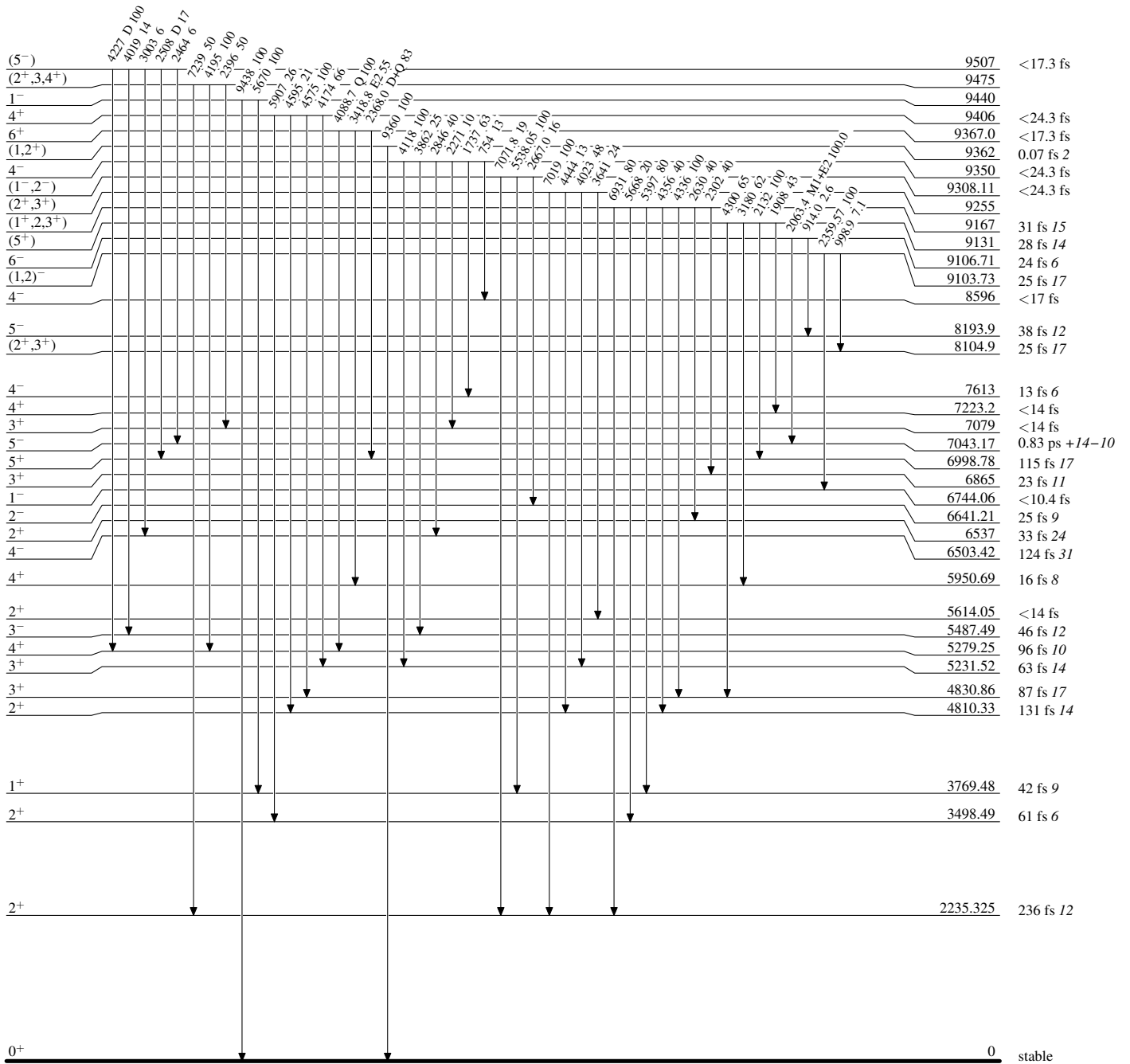
Intensities: Relative photon branching from each level

 $^{30}_{14}\text{Si}_{16}$

Adopted Levels, Gammas

Level Scheme (continued)

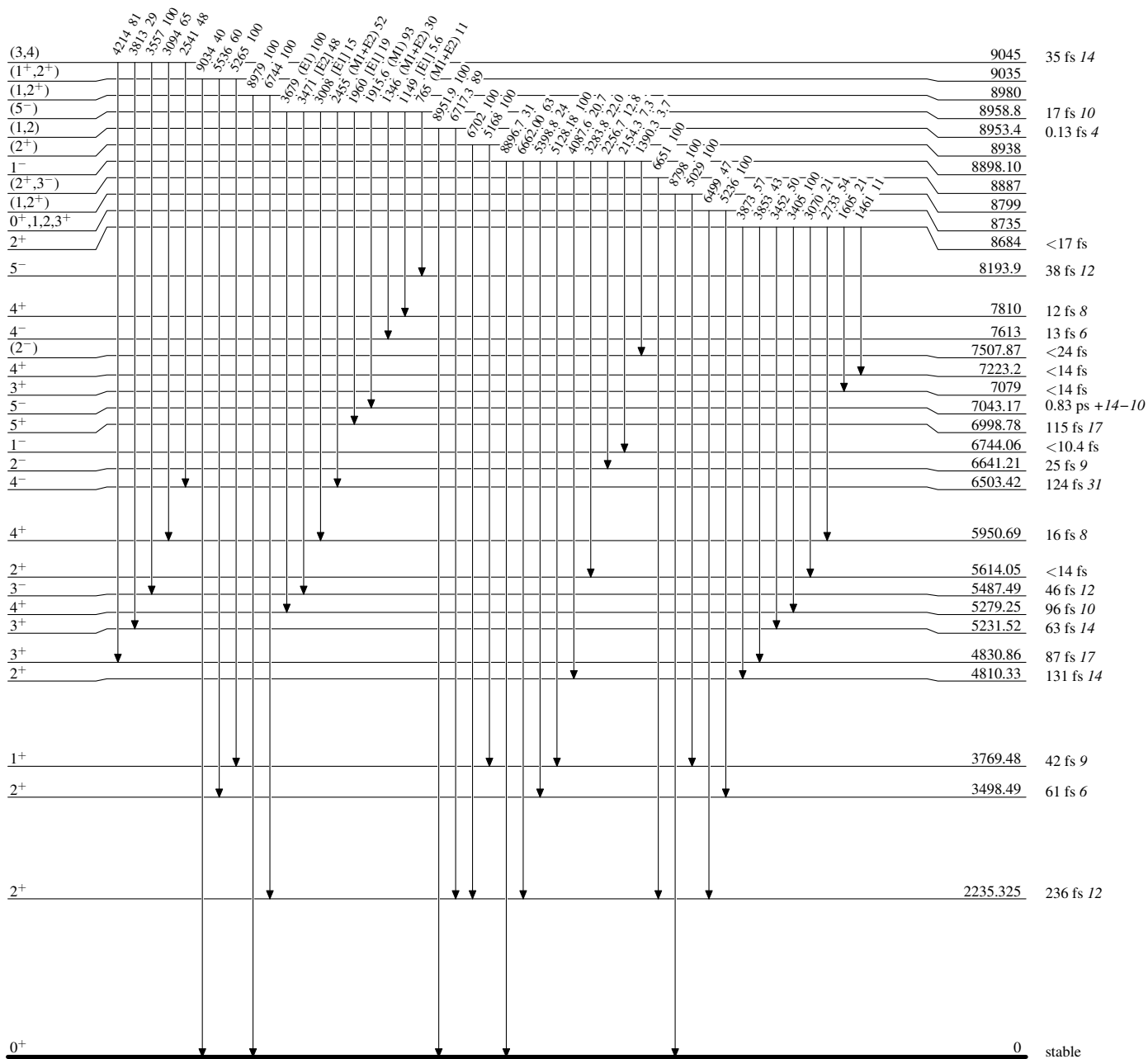
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

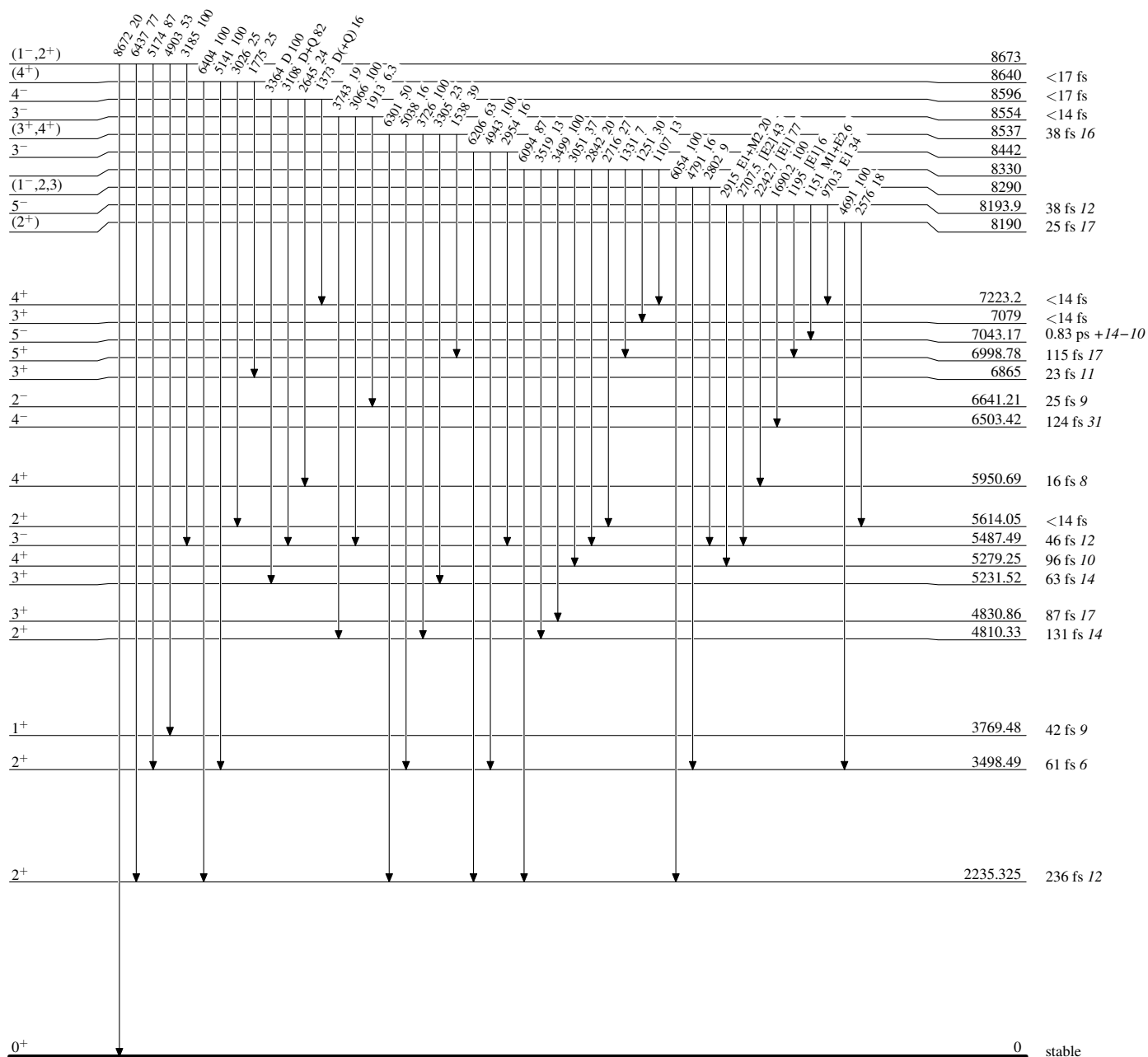


$^{30}_{14}\text{Si}$

Adopted Levels, Gammas

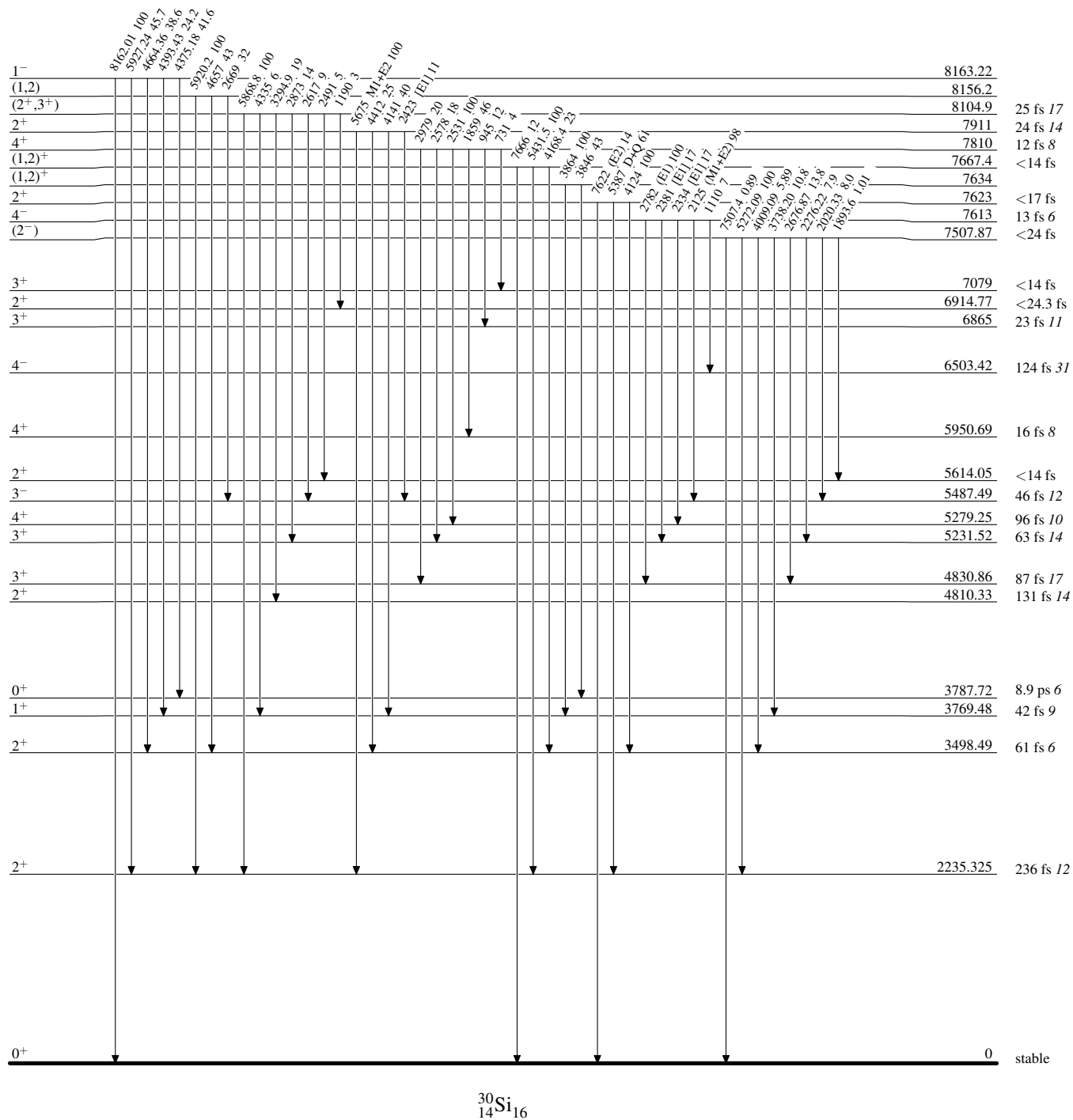
Level Scheme (continued)

Intensities: Relative photon branching from each level



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

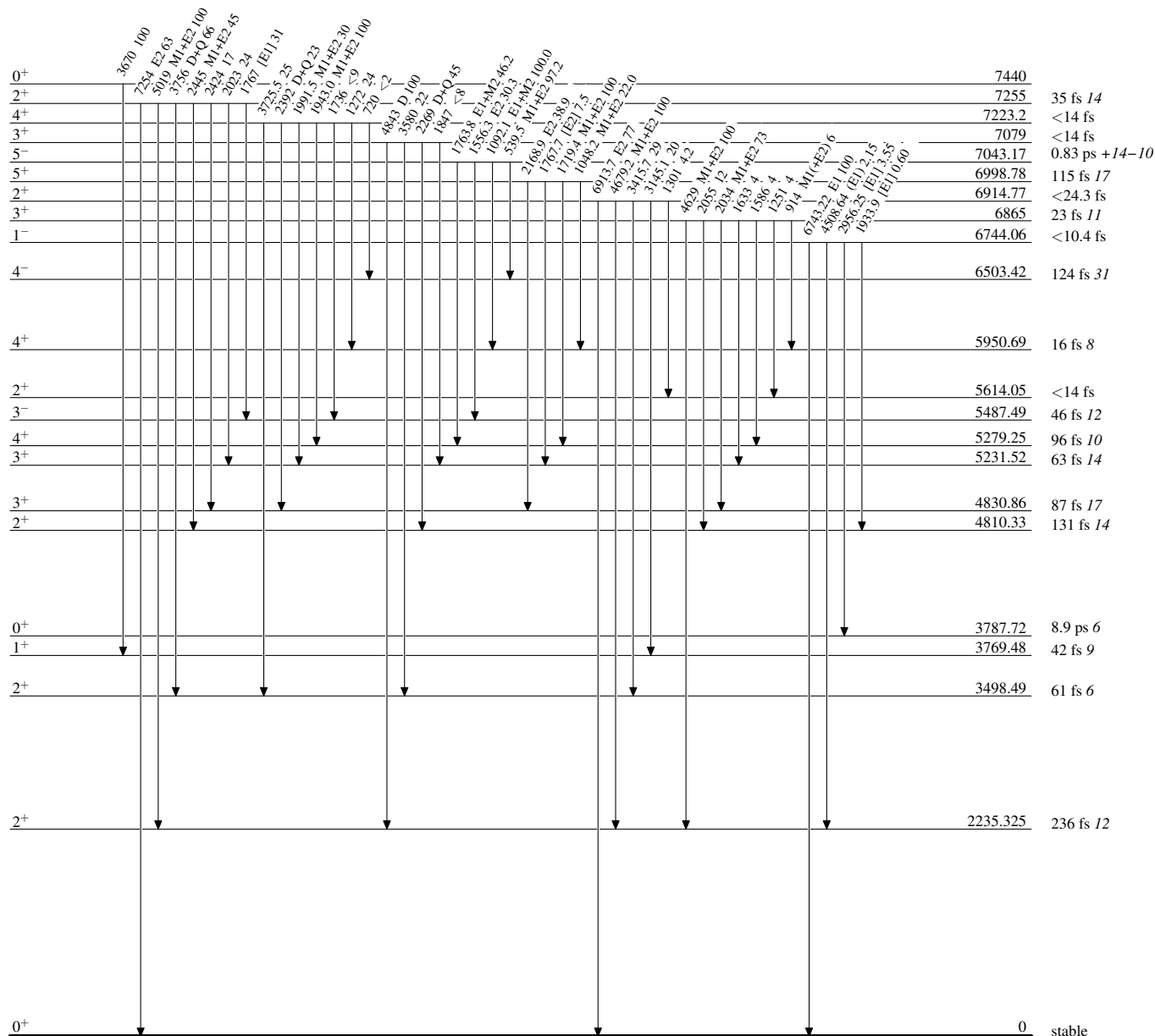
Intensities: Relative photon branching from each level

 $^{30}_{14}\text{Si}_{16}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level



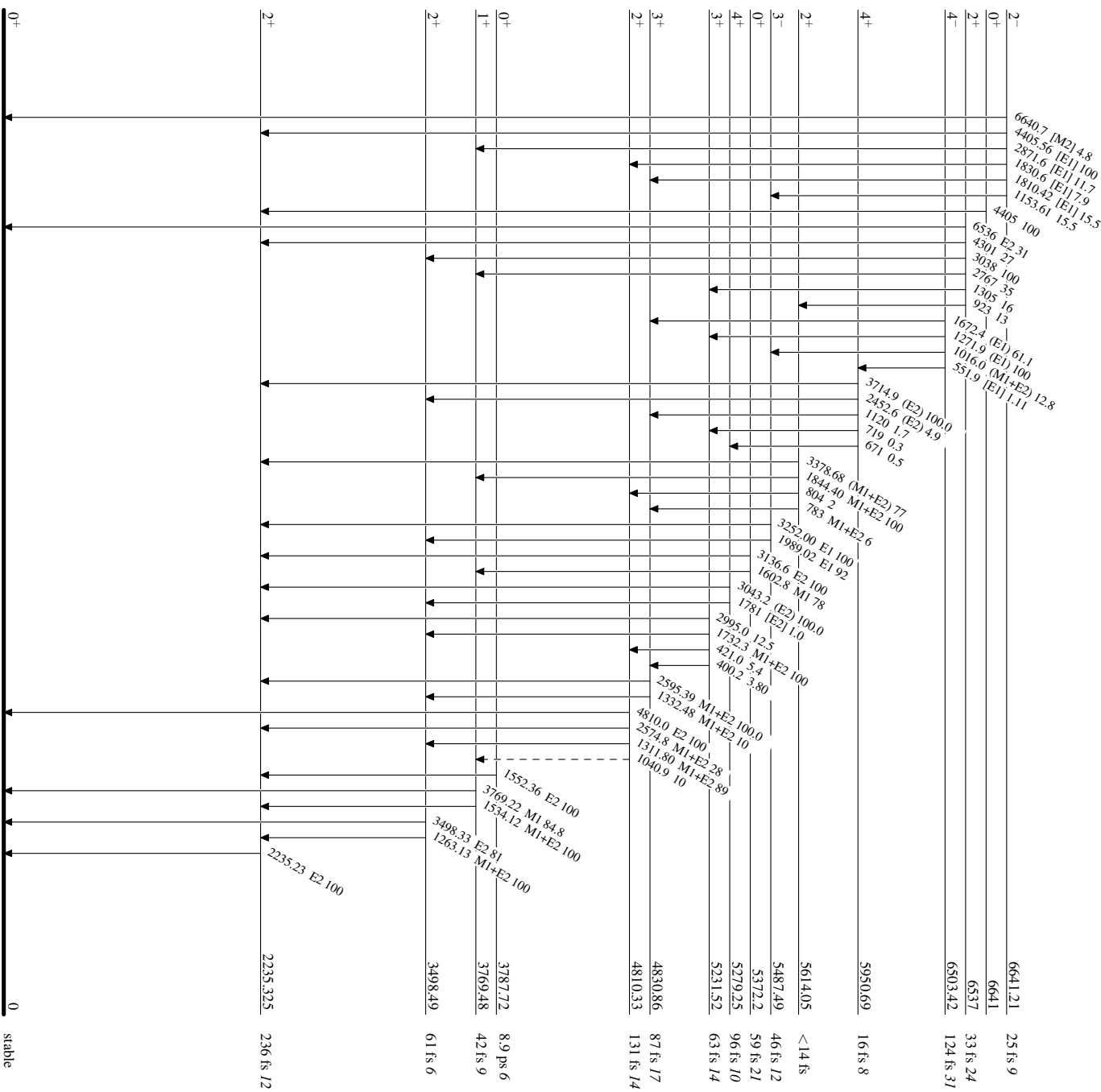
Adopted Levels, Gammas

Level Scheme (continued)

Legend

Intensities: Relative photon branching from each level

-----▶ γ Decay (Uncertain)



³⁰Si₁₆