Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 201,1 (2025)	31-Oct-2024

Q(β^-)=227.2 *3*; S(n)=9200.0 *3*; S(p)=16416.0 *23*; Q(α)=−11482.7 *4* 2021Wa16
S(2n)=15787.36 *30*, S(2p)=29774.3 *13* (2021Wa16).
Mass measurements: 2009Kw02, 2003Bl17, 2001Pa52, 1997Ro26.
Mass deduced from IMME analysis: 2021Ka45, 2010Ka30, 2006Tr03.
Strong absorption radius measurement: 1999Ai02.
^{32}Si activity standardization measurements: 2023Ko25, 2023Ne09.
Structure calculations:
2022Da11,2022Lu03,2020Fo04,2017Ro08,2017Ts01,2015Pu01,2009Bo16: calculated levels, J, π, B(E2).
2021In02,2021Ku13: calculated deformation parameter.
Additional information 1.

^{32}Si Levels

Cross Reference (XREF) Flags

A	^{32}Al β^- decay (32.3 ms)	E	^{30}Si(t,pγ)
B	^{33}Al β^-n decay (41.5 ms)	F	^{31}Si(n,γ) E=th
C	^{12}C(^{22}Ne,2pγ)	G	^{208}Pb(^{37}Cl,Xγ)
D	^{30}Si(t,p)	H	Coulomb excitation

E(level)†‡	J$^\pi$	T$_{1/2}$#	XREF	Comments
0.0	0$^+$	157 y *7*	ABCDEFGH	%β^-=100 r_0^2=1.15 fm^2 *7* (1999Ai02 in Si(^{32}Si,X) at 44.78 MeV/nucleon). Also cross section measured in this work. δ<r^2>^{32,28}=0.195 fm *76* (2024Ko07). R$_{ch}$=3.153 fm *12* (2024Ko07). T$_{1/2}$: weighted average (NRM) of 159.4 y *56* (2015HeZY); 178 y *10* (1998Ni19); 132 y *13* (1993Ch10, average of 128 y *20* and 134 y *16*); 162 y *12* (1991Th06); 133 y *9* (1990Ho27, average of 135 y *10*, 132 y *9* and 136 *13*, uncertainty increased to 9.9 y in NRM); 172 y *4* (1986Al10, uncertainty increased to 7.5 y in NRM); 108 y *18* (1980El01, uncertainty increased to 20 y in NRM); and 101 y *18* (1980Ku11, uncertainty increased to 22 y in NRM). Normalized χ^2=4.4, as compared to critical χ^2=2.0. Unweighted average is 143 y *10*, while regular weighted average is 161 y *7*, with normalized χ^2=6.4. The T$_{1/2}$ values from indirect methods, described below, were not used in the averaging procedure because the accumulation rates of ^{32}Si in ice cores and sediments are not known well, and the cross sections in reactions are poorly known for determining yields that were used to determine the half-life in the pre-1970 measurements. Direct, specific activity methods for half-life measurement: 1993Ch10: source from implantation of separated projectile (^{40}Ar beam) fragments into an inert collector, decay equilibrium technique, two independent samples. 1991Th06: source produced in ^{18}O(^{16}O,2p) reaction. ^{32}Si/^{31}Si abundance ratio using AMS (accelerator mass spectrometry), and β scintillation spectrometry. 1990Ho27: source produced in ^{37}Cl(p,X) and ^{31}P(n,p) reactions. ^{32}Si/Si abundance ratio by AMS, and β spectrometry; three independent samples. 1980Ku11: source from ^{30}Si(t,p), AMS technique and β-scintillation spectrometry. 1980El01: source from Cl(p,X), AMS technique and β-scintillation spectrometry. Direct decay rate methods for half-life measurement: 2015HeZY: used the same detector system and source as in 1986Al10. Counting for 6000 hours between June 2013 and June 2015. 1986Al10: source from ^{30}Si(t,p), β decay rate measured over four years.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{32}Si Levels (continued)

E(level)[†‡]	J^π	$T_{1/2}$[#]	XREF	Comments
				Indirect methods (accumulation rates of the naturally occurring ^{32}Si in different environments) for $T_{1/2}$: 178 y *10* (1998Ni19, measurement of the decrease of activity with depth in an accurately dated varved sediment core from the Kassjon lake, North Sweden, note that this value is close to the values from direct measurements, thus included in averaging); 276 y *32* (1980De46, natural source from varved core of Gulf of California, later corrected to 217 y *29* by J.B. Cumming, Radiochem. Radioanaly. Lett. 58, 297 (1983)); 330 y *40* (1973Cl15, natural source from Greenland ice cores, later corrected to 250 y in 1980De46). Indirect methods (reaction yields, mainly in successive neutron captures in ^{30}Si) for $T_{1/2}$: ≈280 y (Jantsch, Kernenergie 10, 89 (1967)); ≈500 y (1964Ho31); ≈ 650 y (1962Ge16); ≈ 42 y (1957Ro59, 600 y/barn for ^{31}Si(n,γ) reaction, and σ=0.07 for E=thermal); ≈60 y (1954Tu02); ≈710 y (1953Li21). See 1991Ku26 for a review of ^{32}Si half-life measurements, 2009Se07 for discussion of possible oscillations in exponential decay of ^{32}Si in the measurement by 1986Al10; and 2010Ja03 and 2010St07 for power-spectrum analyses and discussion of variation of decay constant from solar influence. Using the BNL counting system and the ^{32}Si and ^{36}Cl sources (as used by 1986Al10), 2018Fi04 investigated correlation between the two decays in a 5-hour time interval immediately following the GW170817 binary neutron star inspiral on August 17, 2017; claiming observation of a correlation of the two decay rated on August 17, 2017, with an upward fluctuation peaking at 93 min following the arrival of the gravity wave detected by the LIGO apparatus (2017Ab06). See also 2021Ve11 for separation and purification of non-carrier-added source of ^{32}S in preparation for a precise re-determination of ^{32}Si half-life.
1941.7 *3*	2^+	0.57 ps *9*	ABCDE GH	Q=0.11 *10* (2024He01) B(E2)↑=0.0135 *20* XREF: H(1930) J^π: 1941.4γ E2 to 0^+; L(t,p)=2. $T_{1/2}$: unweighted average of 0.33 ps *5* (1974Gu11), 0.64 ps *22* (1972Pr18) from DSAM in (t,pγ), 0.54 ps *8* from (^{22}Ne,2pγ), and 0.76 ps *+13−10* from adopted B(E2)↑=0.0135 *20* from Coulomb excitation. B(E2)↑: weighted average of 0.0113 *33* (1998Ib01) and 0.0143 *20* (2024He01) in Coulomb excitation. Q: from Coulomb excitation (2024He01).
4231.0 *4*	2^+	0.26 ps *9*	A DE	J^π: spin=2 from pγ(θ) in (t,pγ); L(t,p)=2 from 0^+.
4984.2 *11*	0^+	≤0.30 ps	A DE	XREF: D(4996) J^π: L(t,p)=0 from 0^+.
5219.9 *11*	(1^+)	<80 fs	CDE	XREF: D(5229) J^π: proposed by 1982Fo02 in (t,p) based on shell-model prediction and possible unnatural-parity state.
5289.0 *5*	3^-	137 fs *28*	CDE	J^π: spin=3 from pγ(θ) in (t,pγ); L(t,p)=3 from 0^+. $T_{1/2}$: weighted average of 180 fs *62* from (^{22}Ne,2pγ) and 128 fs *28* from (t,pγ), both by DSAM.
5412.5 *4*	$1^{(-)}$	<49 fs	E	E(level): see comment for 5427 level. J^π: spin 1 from pγ(θ) and natural parity suggested from relative excitation in (t,pγ).
5427 *14*	2^+		D	E(level): this level from (t,p) is considered different from the 5412 level in (t,pγ), as the spin assignments in (t,p) and (t,pγ) are different. J^π: L(t,p)=2 from 0^+.
5504.81 *34*	5^-	32.5 ns *4*	CDE G	J^π: 3563.8γ E3, ΔJ=3 to 2^+. Additional information 2. $T_{1/2}$: from 3563γ(t) in (^{22}Ne,2pγ) (2023Wi06). Other: 33.4 ns *5* (2002AsZY).
5583.8? *11*	(5^-)	27 ns *2*	G	E(level): level proposed by 1997Fo01 (also 1998Fo07) in ^{208}Pb(^{37}Cl,X). But

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{32}Si Levels (continued)

E(level)[†‡]	J$^{\pi}$	T$_{1/2}$[#]	XREF	Comments
				2002AsZY using ^{198}Pt(^{37}Cl,X) at 9 MeV/nucleon did not confirm this level since they did not observe a 79-keV γ ray. It is not confirmed in (^{22}Ne,2pγ) by 2023Wi06. J$^{\pi}$: assigned in 1997Fo01, from systematics of (5$^-$) to (4$^+$) transitions in N=18 isotones, e.g., ^{34}S and ^{36}Ar. T$_{1/2}$: from γ(t) in ^{208}Pb(^{37}Cl,X) (1997Fo01).
5772.2 *5*	(3$^-$)	28 fs *21*	C E	J$^{\pi}$: 3831γ D+Q to 2$^+$; (3$^-$) from shell-model predictions in (^{22}Ne,2pγ). T$_{1/2}$: from DSAM in (^{22}Ne,2pγ). Other: <139 fs from DSAM in (t,pγ).
5786.0 *15*	(0,1,2)$^+$	≥0.83 ps	A DE	J$^{\pi}$: allowed β feeding (log *ft*=4.8) from 1$^+$ parent. One component of a doublet at 5786 *6* with L(t,p)=(0) could correspond this level and the other component could correspond to 5773 level.
5880.9 *14*	4$^+$	12.5 fs *56*	C	J$^{\pi}$: 3938.9γ E2, ΔJ=2 to 2$^+$. T$_{1/2}$: from DSAM in (^{22}Ne,2pγ) (2003Wi06).
5893 *8*	(3$^+$)		D	E(level): possible doublet in (p,t) (1982Fo02). J$^{\pi}$: tentatively proposed by 1980Fo02 in (t,p) based on theoretical predictions.
5953.8 *7*	2$^+$	≤55 fs	E	J$^{\pi}$: spin=2 from p$\gamma(\theta)$ in (t,pγ); 5953γ E2 to 0$^+$.
5967 *4*	3$^-$		D	E(level): this level in (p,t) is considered different from the 5954 in (t,pγ), as the spins from the two studies are different. J$^{\pi}$: L(t,p)=3 from 0$^+$.
6171.0 *11*	(2$^+$)	≤55 fs	dE	XREF: d(6208) E(level),J$^{\pi}$: 6208 *9* with L=1+2 in (t,p) is a doublet. See comment for 6196 level.
6195.8 *7*	1$^-$	≤38 fs	dE	XREF: d(6208) E(level),J$^{\pi}$: 6208 *9* with L=1+2 in (t,p) is a doublet, with L=1 component corresponding to the 6196, J=1 level in (t,pγ) and L=2 component possibly corresponding to the 6170 level in (t,pγ). Spin=1 from p$\gamma(\theta)$ in (t,pγ).
6243.1 *11*	0$^+$	≤55 fs	DE	XREF: D(6256) J$^{\pi}$: L(t,p)=0 from 0$^+$.
6347.0 *5*	(4$^-$)	0.68 ps *10*	C	J$^{\pi}$: from shell-model predictions (2023We06).
6392.1 *8*	2$^+$	<42 fs	DE	XREF: D(6394) J$^{\pi}$: L(t,p)=2 from 0$^+$.
6477 *6*	3$^-$		D	J$^{\pi}$: L(t,p)=3 from 0$^+$.
6705.3 *6*	1$^-$		DE	XREF: D(6734) J$^{\pi}$: spin=1 from p$\gamma(\theta)$ in (t,pγ); L(t,p)=1 from 0$^+$.
6860 *5*	3$^-$		D	J$^{\pi}$: L(t,p)=3 from 0$^+$.
7083 *5*	2$^+$		D	J$^{\pi}$: L(t,p)=2 from 0$^+$.
7482 *9*			D	
7743 *6*			D	
7793 *9*	3$^-$,4$^+$		D	J$^{\pi}$: L(t,p)=3,4 from 0$^+$.
7887 *18*			D	
7978 *14*	3$^-$		D	J$^{\pi}$: L(t,p)=3 from 0$^+$.
8066 *9*	2$^+$		D	J$^{\pi}$: L(t,p)=2 from 0$^+$.
8321 *8*	5$^-$		D	J$^{\pi}$: L(t,p)=5 from 0$^+$.
8361 *10*	2$^+$		D	J$^{\pi}$: L(t,p)=2 from 0$^+$.
8422 *10*			D	
8567 *8*	3$^-$		D	J$^{\pi}$: L(t,p)=3 from 0$^+$.
8650 *15*	2$^+$		D	J$^{\pi}$: L(t,p)=2 from 0$^+$.
8758 *9*	3$^-$,4$^+$		D	J$^{\pi}$: L(t,p)=3,4 from 0$^+$.
8842 *13*			D	
8877 *8*			D	
8971 *9*			D	
9003 *7*			D	
9192 *12*			D	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{32}Si Levels (continued)

E(level)[†‡]	J^π	XREF	Comments
(9203.218 *5*)	$1^+,2^+$	F	E(level): this value is in disagreement with S(n)=9200.0 *3* in 2021Wa16. J^π: s-wave capture in $3/2^+$ g.s. of ^{31}S.
9543 *6*		D	
9701 *6*		D	
9782 *12*		D	
9934 *29*		D	
9975 *25*		D	
10052 *5*		D	
10237 *5*		D	
10279 *6*		D	
10317 *5*		D	
10461 *9*		D	
10603 *15*		D	
10664 *14*		D	
10725 *9*		D	
10778 *13*		D	
10846 *13*		D	
10888 *12*		D	
10971 *9*		D	
11398 *7*		D	
11454 *8*		D	

† Additional information 3.
‡ From Eγ data for levels connected with γ transitions and from (t,p) for others, unless otherwise noted. Where there are no ΔEγ, level energies are taken from (t,pγ) where quoted values of E(level) are deduced based on measured γ-ray energies which however are not explicitly listed in the references of (t,pγ).
# From DSAM in (t,pγ) for excited levels, unless otherwise stated.

Adopted Levels, Gammas (continued)

$\gamma(^{32}Si)$

Additional information 4.

E_i(level)	J^π_i	E_γ†	I_γ‡	E_f	J^π_f	Mult.#	δ#	α@	Comments
1941.7	2^+	1941.8 *4*	100	0.0	0^+	E2		0.000293 *4*	B(E2)(W.u.)=6.0 +*11*−*8* α(K)=7.28×10^{-6} *10*; α(L)=5.19×10^{-7} *7*; α(M)=3.42×10^{-8} *5* α(IPF)=0.000286 *4* E_γ: unweighted average of 1941.4 *3* from ^{32}Al β^- decay and 1942.12 *9* from (^{22}Ne,2pγ). Other: 1930 *31* from Coulomb excitation.
4231.0	2^+	2289.4 *8*	63 *7*	1941.7	2^+	M1+E2	−0.84 *44*	0.000408 *26*	B(M1)(W.u.)=0.0016 +*12*−*7*; B(E2)(W.u.)=0.9 +*7*−*6* α(K)=5.16×10^{-6} *14*; α(L)=3.68×10^{-7} *10*; α(M)=2.43×10^{-8} *7* α(IPF)=0.000403 *26* I_γ: weighted average of 79 *22* from ^{32}Al β^- decay and 61 *7* from (t,pγ).
		4230.0 *15*	100 *7*	0.0	0^+	(E2)		1.25×10^{-3} *2*	B(E2)(W.u.)=0.16 +*9*−*4* α(K)=2.083×10^{-6} *29*; α(L)=1.486×10^{-7} *21*; α(M)=9.79×10^{-9} *14* α(IPF)=0.001250 *18* I_γ: from (t,pγ). Other: 100 *22* from ^{32}Al β^- decay.
4984.2	0^+	3042.3 *10*	100	1941.7	2^+	[E2]		0.000807 *11*	B(E2)(W.u.)≥1.2 α(K)=3.40×10^{-6} *5*; α(L)=2.427×10^{-7} *34*; α(M)=1.600×10^{-8} *22* α(IPF)=0.000803 *11*
5219.9	(1^+)	3278	100	1941.7	2^+	[M1,E2]		0.00084 *7*	α(K)=2.96×10^{-6} *8*; α(L)=2.11×10^{-7} *6*; α(M)=1.39×10^{-8} *4* α(IPF)=0.00083 *7* B(M1)(W.u.)>0.0078 if M1, B(E2)(W.u.)>3.1 if E2.
5289.0	3^-	1057.9	12 *5*	4231.0	2^+	(E1(+M2))	0.0 *2*		B(E1)(W.u.)=0.00044 *19* Mult.: D(+Q) from p$\gamma(\theta)$ in (t,pγ); $\Delta\pi$=yes from level scheme.
		3347.1	100 *5*	1941.7	2^+	(E1+M2)	−0.06 *4*	1.41×10^{-3} *2*	B(E1)(W.u.)=1.16×10^{-4} +*30*−*21*; B(M2)(W.u.)=0.17 +*32*−*15* α(K)=2.110×10^{-6} *32*; α(L)=1.505×10^{-7} *23*; α(M)=9.91×10^{-9} *15* α(IPF)=0.001404 *20* Mult.: D+Q from p$\gamma(\theta)$ in (t,pγ); $\Delta\pi$=yes from level scheme.
5412.5	$1^{(-)}$	1181.5	11 *4*	4231.0	2^+	[E1]		5.70×10^{-5} *8*	α(K)=9.69×10^{-6} *14*; α(L)=6.92×10^{-7} *10*; α(M)=4.56×10^{-8} *6* α(IPF)=4.65×10^{-5} *7* B(E1)(W.u.)>4.6×10^{-4}
		3470.6	100 *4*	1941.7	2^+	(E1(+M2))	+0.13 *33*	0.00145 *14*	α(K)=2.04×10^{-6} *26*; α(L)=1.45×10^{-7} *19*; α(M)=9.6×10^{-9} *12* α(IPF)=0.00145 *14*

$^{32}_{14}Si_{18}$-5

Adopted Levels, Gammas (continued)

$\gamma(^{32}$Si) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[‡]	E_f	J^π_f	Mult.[#]	δ[#]	α[@]	Comments
									B(E1)(W.u.)>2.1×10^{-4} Mult.: D(+Q) from p$\gamma(\theta)$ in (t,pγ); $\Delta\pi$=(yes) from level scheme.
5412.5	1$^{(-)}$	5411.9	12.4 *25*	0.0	0$^+$	(E1)		2.15×10^{-3} *3*	α(K)=1.188×10^{-6} *17*; α(L)=8.47×10^{-8} *12*; α(M)=5.58×10^{-9} *8* α(IPF)=0.002144 *30* B(E1)(W.u.)>6.6×10^{-6} Mult.: D from p$\gamma(\theta)$ in (t,pγ); $\Delta\pi$=(yes) from level scheme.
5504.81	5$^-$	3562.84 *14*	100	1941.7	2$^+$	E3		0.000747 *10*	B(E3)(W.u.)=0.0843 *11* α(K)=3.60×10^{-6} *5*; α(L)=2.57×10^{-7} *4*; α(M)=1.691×10^{-8} *24* α(IPF)=0.000743 *10* E$_\gamma$,Mult.: from ($^{+2}$Ne,2pγ), with Mult based on $\gamma\gamma$(DCO) and γ(lin pol). Additional information 5.
5583.8?	(5$^-$)	79[&] *1*	100	5504.81	5$^-$				E$_\gamma$: from 1997Fo01 in ^{208}Pb(^{37}Cl,X), not confirmed by 2002AsZY and 2023Wi06.
5772.2	(3$^-$)	3831	100	1941.7	2$^+$	(E1+M2)			Mult.: D+Q from $\gamma(\theta)$ in (t,pγ); $\Delta\pi$=(yes) from level scheme. δ: <0.06 from RUL=3 for B(M2)(W.u.). B(E1)(W.u.)=4×10^{-4} +*5*−*2* if E1.
5786.0	(0,1,2)$^+$	3844.0 *15*	100	1941.7	2$^+$				
5880.9	4$^+$	3938.9 *13*		1941.7	2$^+$	E2		1.15×10^{-3} *2*	B(E2)(W.u.)=8 +*6*−*3* α(K)=2.307×10^{-6} *32*; α(L)=1.646×10^{-7} *23*; α(M)=1.085×10^{-8} *15* α(IPF)=0.001148 *16* E$_\gamma$,Mult.: from (^{22}Ne,2pγ), with Mult based on $\gamma\gamma$(DCO) and γ(lin pol).
5953.8	2$^+$	4012	100 *4*	1941.7	2$^+$	(M1(+E2))	−0.01 *6*	1.03×10^{-3} *1*	B(M1)(W.u.)≥0.0044 α(K)=2.173×10^{-6} *30*; α(L)=1.550×10^{-7} *22*; α(M)=1.022×10^{-8} *14* α(IPF)=0.001030 *14* B(E2)(W.u.)<123 upper limit exceeds RUL=100. Mult.: D(+Q) from p$\gamma(\theta)$ in (t,pγ); $\Delta\pi$=no from level scheme.
		5953	35 *4*	0.0	0$^+$	E2		1.74×10^{-3} *2*	B(E2)(W.u.)≥0.052 α(K)=1.308×10^{-6} *18*; α(L)=9.33×10^{-8} *13*; α(M)=6.15×10^{-9} *9* α(IPF)=0.001735 *24*

$^{32}_{14}$Si$_{18}$-6

Adopted Levels, Gammas (continued)

$\gamma(^{32}Si)$ (continued)

E_i(level)	J^{π}_i	E_γ†	I_γ‡	E_f	J^{π}_f	Mult.#	δ#	α@	Comments
6171.0	(2+)	4229		1941.7	2+				
6195.8	1−	4254	100 9	1941.7	2+	[E1]		1.78×10^{-3} 3	α(K)=1.572×10^{-6} 22; α(L)=1.121×10^{-7} 16; α(M)=7.39×10^{-9} 10 α(IPF)=0.001776 25 B(E1)(W.u.)≥1.3×10^{-4}
		6195	56 9	0.0	0+	(E1)			B(E1)(W.u.)≥2.2×10^{-5} Mult.: D from p$\gamma(\theta)$ in (t,pγ); $\Delta\pi$=yes from level scheme.
6243.1	0+	4301	100	1941.7	2+	[E2]		1.28×10^{-3} 2	B(E2)(W.u.)≥1.2 α(K)=2.034×10^{-6} 28; α(L)=1.451×10^{-7} 20; α(M)=9.57×10^{-9} 13 α(IPF)=0.001276 18
6347.0	(4−)	574.9 3		5772.2	(3−)				E_γ: from (^{22}Ne,2pγ).
		842.1 3		5504.81	5−				E_γ: from (^{22}Ne,2pγ).
6392.1	2+	2161	6.4 11	4231.0	2+	[M1,E2]		0.00036 4	α(K)=5.72×10^{-6} 29; α(L)=4.08×10^{-7} 21; α(M)=2.69×10^{-8} 14 α(IPF)=0.00035 4 B(M1)(W.u.)>0.0026 if M1, B(E2)(W.u.)>2.4 if E2.
		4450	100.0 11	1941.7	2+	(M1(+E2))	+0.04 4	1.18×10^{-3} 2	B(M1)(W.u.)>0.0055 α(K)=1.885×10^{-6} 26; α(L)=1.344×10^{-7} 19; α(M)=8.86×10^{-9} 12 α(IPF)=0.001173 16 B(E2)(W.u.)<155 upper limit exceeds RUL=100. Mult.: D(+Q) from p$\gamma(\theta)$ in (t,pγ); $\Delta\pi$=no from level scheme.
6705.3	1−	2474	22 5	4231.0	2+				
		4763	9 7	1941.7	2+				
		6705	100 7	0.0	0+	D			
(9203.218)	1+,2+	9201.798 5		0.0	0+				E_γ: from (n,γ).

† Values with uncertainties are from ^{32}Al β^- decay and others from level-energy differences in (t,pγ), unless otherwise noted.
‡ From (t,pγ), unless otherwise stated.
# From p$\gamma(\theta)$ in (t,pγ) with magnetic/electric nature determined based on RUL when level half-lives are known, unless otherwise noted.
@ Additional information 6.
& Placement of transition in the level scheme is uncertain.

$^{32}_{14}Si_{18}$-7

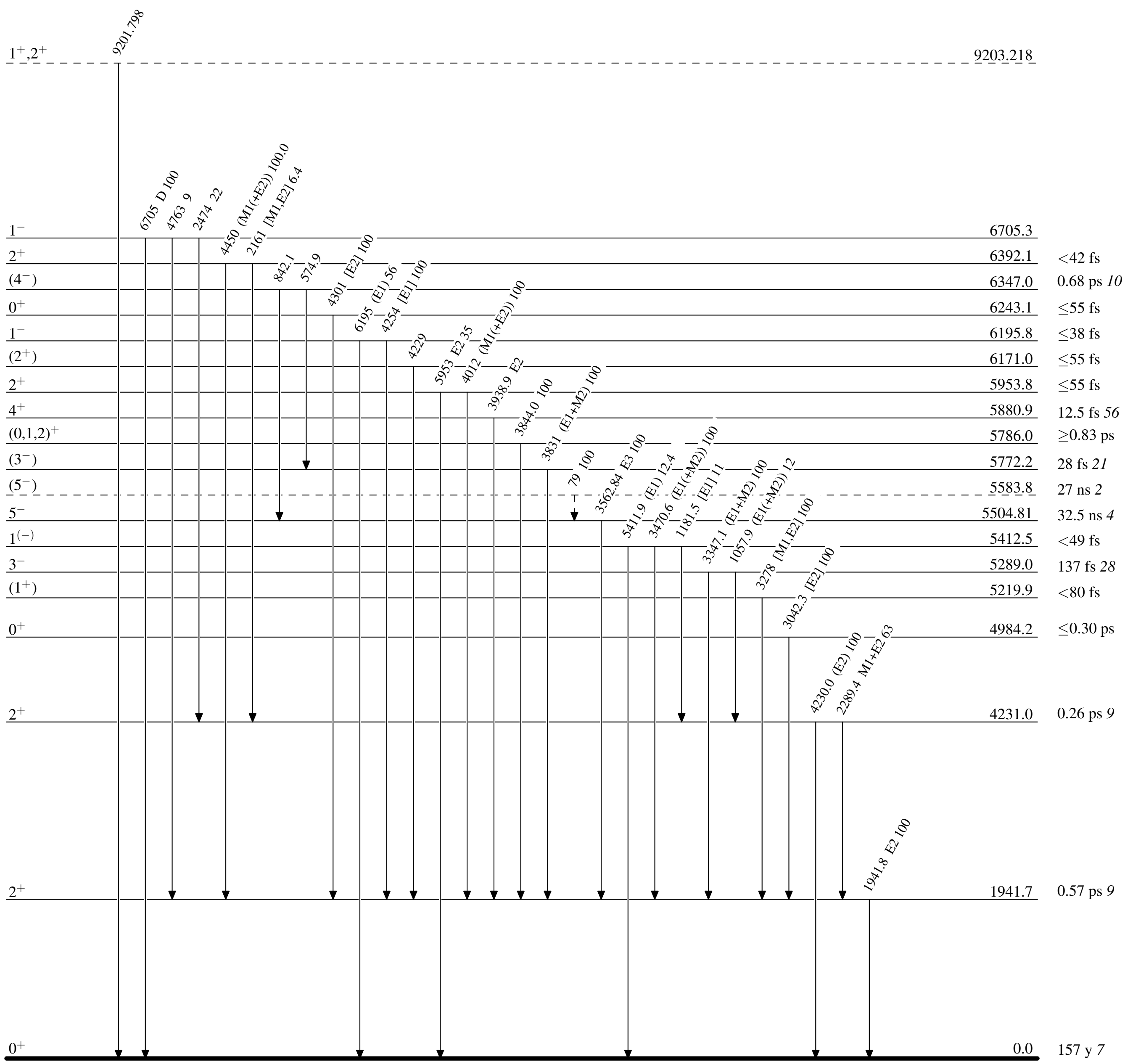
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{32}_{14}Si_{18}$