Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia and A. M. Hurst	NDS 134,1 (2016)	1-Feb-2016

Q(β^-)=−4004.43 *6*; S(n)=11093.09 *4*; S(p)=14145.7 *12*; Q(α)=−10614.8 *1* 2012Wa38

Other reactions:
^{14}C(^{14}C,2nγ): 2002Ta10.
^{24}Mg(^{18}O,^{16}O): 1980Be43.
^{26}Mg(π+,π+),(π+,π-): 1993Cl07.
^{26}Mg(n,n),(n,n′): 1983Ta09.
^{26}Mg(d,d): 1987Nu01,1983Vo08,1979To20.
^{26}Mg(t,t): 1987Pe09,1986Pe13,1983Ko18,1982Sc21.
^{26}Mg(^{3}He,^{3}He): 1989Va09,1982Ve13,1980Tr02.
^{26}Mg(HI,HI): 1989Ru05,1988Ot08,1987Wi09,1986Ci06,1982Fu09, 1982Sp05,1981Fu04,1980St06.
^{27}Al(^{13}C,^{14}N): 1988Va08,1987Ad07.
^{28}Si(^{18}O,^{20}Ne): 1979Me12.
^{29}Si(n,α): 2011Zh22,2010Zh44.
^{208}Pb(^{26}Mg,^{26}Mg), E=200 MeV: 1991He09.
Production cross section 0.394 mb *44*, from ^{136}Xe spallation by proton – 2007Na31.
^{26}Mg from bombarding ^{28}Si with protons, E=1 GeV, and 2p emission – 2004Va22.
^{26}Mg from fragmentation reactions at relativistic energies – 2001Ge05.

^{26}Mg Levels

Cross Reference (XREF) Flags

A	^{26}Na β^- decay	H	^{24}Mg(t,p)	O	^{26}Mg(e,e′)
B	^{26}Al ε decay (7.17×10^5 y)	I	^{25}Mg(n,γ) E=thermal	P	^{26}Mg(p,p′),(p,p′γ)
C	^{26}Al ε decay (6.3460 s)	J	^{25}Mg(n,γ),(n,n):res	Q	^{26}Mg(α,α′γ),^{22}Ne(α,n)
D	^{27}Na β^-n decay	K	^{25}Mg(d,p)	R	^{27}Al(μ^-,νnγ)
E	^{18}O(^{13}C,αnγ)	L	^{25}Mg(α,^{3}He)	S	^{27}Al(d,^{3}He)
F	^{22}Ne(^{6}Li,d)	M	^{26}Mg(pol γ,γ′),(γ,γ′)	T	^{27}Al(t,α)
G	^{23}Na(α,pγ)	N	^{26}Mg(γ,n):res	U	^{28}Si(μ^-,νpnγ)

E(level)[†]	J$^\pi$	T$_{1/2}$[d]	XREF	Comments
0.0	0$^+$	stable	ABCDEFGHI KLM OPQRSTU	J$^\pi$: L=0 in (t,p). Optical spectroscopy (1931Mu02,2013Ma15). Charge radius=2.99 fm *4* (2014Wa14). Matter radius=3.0340 fm *26* quoted in 2012Yo01 from literature.
1808.74 *4*	2$^+$	476 fs *21*	AB DE GHI KLM OPQR TU	μ=+1.0 *3*; Q=−0.14 *3* μ: From 1981Sp04, 2014StZZ. Q: Also −0.10 *3*, both from 1982Sp05, 2014StZZ. J$^\pi$: L=2 in (t,p) and (p,p′). T$_{1/2}$: From mean lifetime of 687 fs *30*: Weighted average of 653 fs *39* (1981Dy01 – (^{23}Na,P)), 700 fs *50* and 730 fs *30* (1977Sc36), 654 fs *34* (1982Sp05), and 683 fs *75* (1983Ko18 – (t,t′)). Uncertainty – lowest input value.
2938.33 *4*	2$^+$	141 fs *8*	AB E GHI KLM OPQR TU	J$^\pi$: L=2 in (t,p) and (p,p′). T$_{1/2}$: From mean lifetime 204 fs *12* (1981Dy01 – (^{23}Na,P)).
3082.9 *20*			E	
3420.2 *17*			E	
3564.9 *19*			E	
3588.56 *9*	0$^+$	6.45 ps *48*	E GHI KLM OPQR TU	J$^\pi$: L=0 in (t,p).

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Adopted Levels, Gammas (continued)

^{26}Mg Levels (continued)

E(level)[†]	J$^{\pi}$	$T_{1/2}$[d]	XREF	Comments
				$T_{1/2}$: From mean lifetime of 9.3 ps *7*: Weighted average of 9.6 ps *12* (1974Be08), 9.5 ps *7* (1974Be43), and 9.29 ps *23* (1984Bh03) – all from (α,p). Uncertainty – lowest input value.
3941.57 *4*	3^+	0.83 ps *12*	A E GHI KL OP R TU	J$^{\pi}$: 3 in (p,p′) and 1003.25γ M1+E2 to 2^+. $T_{1/2}$: From unweighted mean lifetime values of 1.38 ps *11* (1974Be08 – (α,p)) and 1.02 fs *13* (1981Dy01 – (^{23}Na,P)).
4318.89 *5*	4^+	272 fs *16*	A E GHI L oPQR TU	J$^{\pi}$: 4 in (p,p′),(p,p′γ). Natural parity in (α,α′). $T_{1/2}$: From mean lifetime of 392 fs *23* (1981Dy01 – (^{23}Na,P)).
4332.52 *5*	2^+	20 fs *3*	A E GHI LM OPQR U	J$^{\pi}$: (2) in (p,p′),(p,p′γ), β^- from 3^+ in ^{26}Na β^- Decay, natural parity in (α,α′). $T_{1/2}$: From mean lifetime of 29 fs *4* (1981Dy01 – (^{23}Na,P)).
4350.09 *4*	3^+	105 fs *28*	A E G I L OPQR	J$^{\pi}$: 3 in (p,p′),(p,p′γ), M1+E2 γ to 2^+. $T_{1/2}$: From mean lifetime of 150 fs *40*: Weighted average of 180 fs *55* (1972Du05 – (α,p)), 90 fs *40* (1968Ha18 – (p,p′)), 160 fs *55* (1975Wa10 – (α,α′)). Uncertainty – lowest input value.
4644.9 *13*			E	
4835.13 *5*	2^+	28 fs *6*	A E GHI KL P R T	J$^{\pi}$: L=2 in (t,p). $T_{1/2}$: From mean lifetime 41 fs *8* (1981Dy01 – (^{23}Na,P)). Other value: 37 fs *8* (1986Gl06 – (α,p).
4901.44 *7*	4^+	29 fs *6*	A E GHI KL OPQR T	J$^{\pi}$: From 1969Ca18 (α,α′γ) – α-γ angular correlation. L=4 in (p,p′),(p,p′γ). $T_{1/2}$: From mean lifetime 42 fs *8* (1981Dy01 – (^{23}Na,P)). Other value: 34 fs *8* (1986Gl06 – (α,p).
4972.30 *13*	0^+	446 fs *70*	GHI KLM OPQR T	J$^{\pi}$: L=0 in (t,p). $T_{1/2}$: From mean lifetime of 644 fs *100*: Weighted average of 760 fs *240* (1972Du05 – (α,p)), 540 fs *250* (1968Ha18 – (p,p′)), 640 fs *100* (1975Wa10 – (α,α′)). Uncertainty – lowest input value.
5180.5 *7*			E	
5291.74 *6*	2^+	<10 fs	A E GHI KLM OPQR T	J$^{\pi}$: L=2 in (e,e′) and (p,p′),(p,p′γ), L=(2) in (t,p), natural parity in (α,α′). $T_{1/2}$: From 1981Dy01 – (^{23}Na,P). Other values: 15.9 fs *76* (1986Gl06 – (α,p)), <35 fs (1968Ha18 – (p,p′)), 100 fs *60* (1975Wa10 – (α,α′)).
5476.05 *7*	4^+	21 fs *6*	A E GHI KL OPQR T	J$^{\pi}$: L=4 in (t,p). $T_{1/2}$: From mean lifetime of 30 fs *8*: Weighted average of 35 fs *15* (1974Be08 – (α,p)) and 28 fs *9* (1986Gl06 – (α,p)). Other values: <70 fs (1972Du05 – (α,p)), <50 fs (1975Wa10 – (α,α′)).
5691.08 *19*	(1^+)	<8 fs	E G I L PQR T	J$^{\pi}$: From 1990Ya07 – (α,^{3}He), based on cross section measurement and DWBA calculations. Possible unnatural parity in (α,α′). J$^{\pi}$: From (1986Gl06 – (α,p)). Other values: <35 fs (1972Du05), 70 fs *50* (1986Gl06) – both from (α,p)).
5711.2 *8*	(1^+,2^+)		E H K T	J$^{\pi}$: L=2 in (d,p), γ to 0^+.
5715.91 *8*	4^+	53 fs *16*	A E G I L OPQ	J$^{\pi}$: β^- from 3^+ in ^{26}Na β^- Decay, natural parity in (α,α′), γ transitions to 3^+, 2^+; L=4 in (e,e′). $T_{1/2}$: From mean lifetime of 77 fs *23*: weighted average of 125 fs *35* (1974Be08 – (α,p)), 48 fs *23* (1986Gl06 – (α,p)), and 220 fs *100* (1975Wa10 – (α,α′)). Other mean lifetime: <50 fs (1972Du05 – (α,p)).
6125.47 *5*	3^+	14 fs *6*	A E GHI KL OPQ ST	J$^{\pi}$: From angular distribution measurements and analysis in

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Adopted Levels, Gammas (continued)

^{26}Mg Levels (continued)

E(level)[†]	J$^{\pi}$	T$_{1/2}$[d]	XREF	Comments
				1990Ya07 – (α,^{3}He) and from (e,e′). Unnatural parity in (α,α').
6256.2 *14*	0^{+}	53 fs *31*	E GH KL OPQ T	E(level): From ((α,$\alpha\gamma$) – 1975Na06), also in ((α,pγ) – 1986Gl06). J$^{\pi}$: L=0 in (t,p). T$_{1/2}$: From mean lifetime of 77 fs *45*: Weighted average of 60 fs *50* (1968Ha18 – (p,p′)), 90 fs *45* (1975Wa10 – (α,α')). Uncertainty – lowest input value.
6483.2 *15*			E	
6622.94 *14*	(4^{+})	19 fs *5*	A E G L PQ ST	E(level): Weighted average of 6621 *3* (1976Mo27 – (p,p′)), 6623 *1* (1986Gl06 – (α,$\pi\gamma$)), and 6621 *2* (1975Na06 – (α,$\alpha\gamma$)). J$^{\pi}$: From (α,$\pi\gamma$)), based on particle-γ-ray angular correlation. T$_{1/2}$: Other: <70 fs (1975Wa10 – (α,α')).
6634.2 *3*		≤7 fs	E G I	
6745.13 *15*	2^{+}	16 fs *8*	A GHI KL PQ ST	J$^{\pi}$: L=2 in (p,p′),(p,p′γ). T$_{1/2}$: From mean lifetime of 23 fs *11* (1986Gl06 – (α,p)). Other mean lifetime values: 80 fs *40* (1968Ha18 – (p,p′)), <50 fs (1975Wa10 – (α,α')).
6876.42 *5*	3^{-}	83 fs *35*	GHI KL OPQ ST	J$^{\pi}$: L=3 in (t,p). T$_{1/2}$: From mean lifetime of 120 fs *50*: Weighted average of 100 fs *60* (1968Ha18 – (p,p′)) and 150 fs *75* (1975Wa10 – (α,α')).
6951.7 *16*			E	
6971.8 *20*	(4^{+})		E	J$^{\pi}$: 3030γ D+Q to 3^{+}; Parity from shell model calculations.
6978.3[‡] *8*	(5^{+})	14 fs *5*	E G PQ ST	J$^{\pi}$: From γ-decay and γ-feeding (Table 26.12a in 1990En08).
7061.90 *20*	1^{-}	≤7 fs	HI L oPQ ST	J$^{\pi}$: L=1 in (t,p).
7099.68 *13*	2^{+}	≤14 fs	A E HI LM oPQ ST	J$^{\pi}$: L=2 in (t,p).
7200 *20*	(0,1)$^{+}$		P	J$^{\pi}$: From 1989Cr02 (p,p′), based on measured cross section and calculation.
7246.49[‡] *17*	3^{+}[b]	≤7 fs	A OP ST	
7261.40 *4*		≤7 fs	E HI K P T	XREF: T(7252).
7282.82 *6*	(4^{-})	24 fs *8*	E HI KL P S	J$^{\pi}$: From (α,pγ) and γ-feeding.
7348.86 *6*	3^{-}		GHI KL PQ ST	J$^{\pi}$: L=3 in (t,p). Natural parity (α,^{3}He).
7371.36 *17*	2^{+}[b]		A G I OPQ ST	
7396.0[‡] *10*	(5^{+})	≤14 fs	E GH PQ ST	J$^{\pi}$: 1680γ (M1+E2) to 4^{+}. D+Q γ from 5 at 9064.
7428[#] *3*	(0,1)$^{+}$		H P S	J$^{\pi}$: From 1989Cr02 (p,p′), based on measured cross section and calculation.
7541.71 *6*	(2^{-})	≤7 fs	E HI K P T	J$^{\pi}$: From R(θ) with gate on ΔJ=2 transition and pol values (2014Bh03 – (^{13}C,αnγ)).
7677[‡] *1*	(4^{+})	≤11 fs	GH L P ST	J$^{\pi}$: γ-transition to 4^{+},3^{+}; Natural parity (α,^{3}He).
7696.8 *8*	1$^{(-)}$		HI LM OP S	J$^{\pi}$: From 1993Ve03 (d,^{3}He); 1^{+} in 1990Ya07 – (α,^{3}He).
7725.8 *4*	3^{+}[b]		A G I K OP ST	XREF: T(7716).
7773.7[‡] *6*	(4^{+})	≤7 fs	A E KL P ST	XREF: T(7762). J$^{\pi}$: From R(θ) with gate on ΔJ=2 transition and pol values (2014Bh03 – (^{13}C,αnγ)).
7817.8[@] *7*	(2,3)$^{+}$		A H K oPQ T	J$^{\pi}$: L=0+2 in (d,p).
7824[@] *3*	3^{-}[b]		G L oP RS	J$^{\pi}$: Natural parity (α,^{3}He).
7840[‡] *2*	2^{+}		G o	J$^{\pi}$: γ transitions to 0^{+}, 2^{+}, and 4^{+}.
7851 *3*			P	
7950.0[‡] *20*	5^{-}	14 fs *6*	E H KL P ST	J$^{\pi}$: From 1989Se01 (pol p,p′), based on angular distributions and analyzing power.

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Adopted Levels, Gammas (continued)

^{26}Mg Levels (continued)

E(level)[†]	J^π	$T_{1/2}$[d]	XREF	Comments
8034[@] 2			G P ST	L=6 in (p,p′),(p,p′γ) probably erroneous.
8052.4 7	$2^{(+)}$		GHI P RS	J^π: L=2 in (t,p). L=1 in (d,^{3}He).
8184.93 15	3^-[b]		G I L OPQ ST	
8201.1 7	(6^+)	≤14 fs	E G PQ S	E(level): Weighted average of 8201 2 (1975Na06 – (α,α′γ) and 8202 1 (1986Gl0 – (α,pγ)). J^π: 1223γ d to (5^+), γ to 4^+.
8227.31 24	1^-[b]	1.0[e] fs 2	GHI M OP ST	XREF: H(8240). J^π: L=1 in (t,p).
8250.58 16	(3^+)[b]		G I L OP S	J^π: Natural parity in (α,^{3}He) does not agree.
8399 3			P T	XREF: T(8384).
8458.9 4	3^+[b]		G I OP ST	J^π: L=2 in (d,^{3}He).
8464 2			G	
8472.3[‡] 16	(6^+)	≤14 fs	E G PQ S	J^π: 1494γ D+Q to (5^+), γ transitions to 4^+.
8503.7 3	1^-		G I M P ST	XREF: T(8488). J^π: In (pol γ,γ), based on angular correlation and polarization measurements (2009Lo06).
8532.1 4	(2^+)[b]		G I OP ST	XREF: T(8518).
8576[#] 3			P ST	XREF: T(8566).
8625[‡] 1	5^-	29 fs 6	GH L PQ ST	XREF: T(8611). J^π: From 1989Se01 (pol p,p′), based on angular distributions and analyzing power. Also in (α,pγ). Natural parity (α,^{3}He).
8670[‡] 1	(3,5)	≤7 fs	G P ST	XREF: T(8660). J^π: 3193γ and 4350.7γ D+Q to 4^+.
8705.6 3	$(2\text{ to }4)^+$		G I L PQRST	J^π: L=2 in (d,^{3}He) and from γ decay.
8863.8 4	2^+		GHI P ST	J^π: L=2 in (t,p).
8903.52 9	(2^+)[b]		E G I L OP ST	XREF: L(8914)T(8889).
8930[‡] 2			GH P ST	XREF: T(8917).
8959.4 5	1^-		I M P S	J^π: In (pol γ,γ), based on angular correlation and polarization measurements (2009Lo06).
9020[‡] 2			G T	
9043.4 9	$3^{(+)}$[b]		G I L OP RS	J^π: Natural parity (α,^{3}He) does not agree. Also L=1 in (d,^{3}He).
9064[@] 2	5^+	≤7 fs	G PQ S	J^π: From 1986Gl06 – (α,pγ), 1668γ D+Q to (5^+), γ transition to 4^+.
9111.2[‡] 5	6^+	≤11 fs	G PQ ST	J^π: From 1986Gl06 – (α,pγ), γ transitions to 4^+, (5^+).
9139.5 13	1		M	J^π: From (γ,γ′).
9169[‡] 3	(6^-)[&]	26 fs 8	E G L P ST	
9206[‡] 2			G T	
9238.9 8	$1^{(+)}$	314[e] as 40	I LM OP ST	XREF: L(9256). J^π: From (γ,γ′) based on angular correlation and polarization measurements. Also in 1989Cr02 – (p,p′). Uncertain parity by evaluators for L=1 in (d,^{3}He).
9261[‡] 2	(4^+)		GH P	J^π: L=4 in (t,p); γ to 3^+.
9281[#] 3	(2^+)[b]		oP	
9291[‡] 2			G o T	
9304 2			G oP	
9316[@] 2			G P	
9325.57 20	$(2^+\text{ to }4^+)$		G I L P	J^π: γ to 2^+, 3^+, and 4^+.

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Adopted Levels, Gammas (continued)

^{26}Mg Levels (continued)

E(level)[†]	J^π	$T_{1/2}$[d]	XREF	Comments
9371[‡] *2*	4^+		GH p T	J^π: L=4 in (t,p).
9383[‡] *1*	6^+	≤7 fs	fG p S	J^π: (4^+,6^+) in 1986Gl06 (α,pγ); 2404.6γ d to (5^+) and 2759.9γ and 3666.8γ Q to 4^+.
9427.8 *4*	3^+[b]		fG I OP ST	
9471[‡] *2*	(1 to 5)$^+$		G P ST	J^π: L=2 in (d,^{3}He), γ to 3^+.
9540.3[@] *15*	5^+	≤14 fs	E G P ST	J^π: From 1986Gl06 (α,pγ). 2562γ d to (5^+), 5221γ D+Q to 4^+.
9563.5 *8*	1^+	563[e] as *99*	LM P T	E(level),J^π: From 2009Lo06 – (γ,γ)). Spin and parity based on angular correlation and polarization measurements.
9574.06 *11*	(2^- to 4)		G I P S	J^π: From γ decay.
9579[#] *3*	4^+		H P	J^π: L=4 in (t,p).
9590 *2*			G	
9617.0 *9*	(1 to 3)$^-$		I P ST	J^π: L=1 in (d,^{3}He); γ to 2^+.
9681[‡] *2*	(0 to 5)$^+$		G P ST	J^π: L=2 in (d,^{3}He).
9714[#] *3*			L OP T	
9770.8 *9*	$1^{(-)}$		M	J^π: From (γ,γ').
9771[‡] *2*			G P T	
9779[#] *3*	1^+		L P	J^π: From 1989Cr02 – (p,p′) – angular distribution measurements.
9814[‡] *2*			G Op T	
9829.5[‡] *14*	(5,7)$^+$	37 fs *10*	E G p T	J^π: From 1986Gl06 – (α,pγ) – angular distribution measurements.
9856.8[#] *4*	2^+		HI OP	J^π: L=2 in (t,p).
9883[#] *3*			P T	
9900.3[@] *10*	3^+[b]		G OP	
9927[‡] *2*			G T	
9939[‡] *2*			G P	
9967[@] *2*	2^+		GH P T	J^π: L=2 in (t,p).
9982[‡] *2*			fG p	
9989[‡] *1*	(6^+)	≤7 fs	fG p	J^π: (M1+E2) γ to (5^+) and (6^+).
10040[@] *2*	5^-		GH P T	J^π: L=5 in (t,p).
10069[‡] *2*			G T	
10102.5 *4*	1^-		I M P	J^π: From (γ,γ').
10126.7 *6*	4^+		GHI P T	XREF: G(10122)H(10108). J^π: L=4 in (t,p).
10136 *3*			P	
10147.1 *1*	1^+	112[e] as *15*	LM P	E(level),J^π: From (γ,γ').
10159[#] *3*	0^+		H P	J^π: L=0 in (t,p).
10184[‡] *2*			G o	
10219.9 *9*			I oP T	
10234 *2*			G	
10271[#] *3*	2^+		H P T	J^π: L=2 in (t,p).
10319.5 *7*	1^+	345[e] as *83*	M P T	E(level),J^π: From (γ,γ').
10328 *3*			P	
10341[#] *3*			L P	J^π: 1^+ in (α,^{3}He).
10349.4 *9*	(0^+ to 4^+)		G I P	J^π: γ to 2^+.
10362.26 *21*	(2^+ to 4^+)		G I P T	J^π: γ to 2^+, 3^+, 4^+.
10377 *2*			G	

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Adopted Levels, Gammas (continued)

^{26}Mg Levels (continued)

E(level)[†]	J^π	$T_{1/2}$[d]	XREF	Comments
10400 *15*			T	
10414[#] *3*	4^+		H P T	J^π: L=4 in (t,p).
10487[#] *3*			oP T	
10493[#] *3*	2^+		oP	J^π: From (e,e′). Note for doublet.
10516[#] *3*	(2^+)		H oP T	J^π: L=(2) in (t,p).
10529[@] *2*			G P	
10567 *3*			f P	
10573.3 *8*	1^-	0.20 eV *5*	M	J^π: From (γ,γ').
10576 *2*			fG	
10600.1 *4*	(1^+ to 4^+)		G I P	XREF: G(10590). J^π: From γ decay.
10647.3 *8*	1^+	97[e] as *5*	LM P	E(level),J^π: From (γ,γ')).
10650 *1*	(4^- to 7^-)	21 fs *6*	G	J^π: From γ decay.
10681.9 *3*			P	
10693 *3*			G L P	
10707[@] *3*			G P	
10718.75 *9*			P	
10726 *3*			P	
10745.98 *12*			P	
10767[@] *2*			G P	
10805.9 *4*	(0^+ to 4^+)		f I M P	J^π: γ to 2^+.
10824[#] *3*	(2^+)		f OP	J^π: From (e,e′).
10881 *3*			P	
10893 *3*			P	
10915 *3*			P	
10927[#] *3*	+		L P	J^π: Natural parity from (α,^{3}He).
10945[@] *3*			G J P	
10949.1 *8*	1^-	1.87 eV *30*	M	E(level),J^π: From (γ,γ').
10978[#] *3*			oP	
10998[#] *3*			oP	
11012[@] *3*			G oP	
11048 *3*			P	
11084 *3*			P	
11114 *3*	(2^+)		J P	J^π: Assignment in 2012Ma14 ((n,γ),(n,n):res, based on R-matrix analysis.
11142 *6*			Q	
11153.5 *10*	1^+[a]		J MN P	E(level),J^π: From (γ,γ').
11162.93 *7*	2^+[c]	5.08 keV *8*	J	
11169.30 *7*	(3^+)[c]	1.56 keV *8*	J	
11171[#] *3*			J L P	
11183.06 *6*	(1^-)[c]	0.6 eV *2*	J	
11189.24 *6*	3^+[c]	5.24 keV *4*	J	
11191 *2*			G J	
11196.51 *6*		2 eV *1*	J	
11243.36 *6*	(2^-)[c]	5.520 keV *20*	J	
11274.13 *5*	$(2)^+$[c]	0.590 keV *20*	J	
11280.03 *5*	$4^{(-)}$[c]	1.730 keV *20*	J	
11285.52 *7*	1^-[c]	1.41 keV *6*	J	
11286.24 *5*	(2^+)[c]	0.7 eV *7*	J	
11289.06 *4*	(2^-)[c]	2 eV *1*	J	
11293.28 *5*		0.230 eV *20*	J	

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Adopted Levels, Gammas (continued)

^{26}Mg Levels (continued)

E(level)[†]	J^π	$T_{1/2}$[d]	XREF	Comments
11296.04 *9*	(2^-)	12.40 keV *10*	J	J^π: Spin assignment based on χ^2 in 2012Ma14 ((n,γ),(n,n):res).
11310.57 *4*	(1^-)[c]	0.4 eV *2*	J q	
11326.15 *6*	(1^-)	0.3 eV *2*	J q	
11328.20 *7*	(1^-)[c]	50 eV *20*	J	
11329.11 *4*			FG J	E(level): From (n,γ),(n,n):res.
11336.88 *5*	(1^-)[c]	0.1 eV *1*	J	
11344.77 *7*	$4^{(-)}$[c]	3.49 keV *6*	J	
11361.84 *23*	(2^+)[c]	3.29 keV *5*	J	
11392.57 *5*	(5^+)[c]	240 eV *10*	J	
11441.08 *6*	4^+[c]	2.020 keV *40*	J Q	
11457 *2*			FG	
11465.62 *8*	(5^-)[c]	8.91 keV *8*	J Q	XREF: Q(11461).
11500.09 *5*	(1^-)[c]	25 eV *10*	J Q	
11526.82 *10*	(3^-)[c]	3.00 keV *10*	J Q	
11570 *2*			G	
11587.99 *7*	(2^-)[c]	1.80 keV *10*	J	
11608.29 *6*	(4^-)[c]	0.84 keV *4*	J	
11611 *5*			f Q	
11630 *2*			Q	
11646 *5*		<3 keV	f Q	
11749 *10*			Q	
11795 *10*		<3 keV	Q	
11827 *2*		<3 keV	F Q	
11890 *2*		<3 keV	Q	
11909 *2*		6 keV *1*	Q	
11945 *10*	(6^-)[&]		L P	E(level): From (α,^{3}He).
12049 *2*		6 keV *2*	Q	
12088 *2*			G	
12110 *2*		25 keV *2*	Q	
12141 *2*		15 keV *2*	Q	
12196 *2*			G	
12345 *2*	0	40 keV *5*	Q	
12479[‡] *2*	(6^-)[&]		G L P	XREF: L(12512).
12865 *10*	(6^-)[&]		L P	E(level): From (α,^{3}He).
12958 *10*			L	
13958 *10*			L	
14542 *10*	(6^-)[&]		L P	E(level): From (α,^{3}He).
16580 *10*	(6^-)[&]		L P	E(level): From (α,^{3}He).
18050 *50*	(6^-)[&]		P	T=2

[†] From a least-squares fit to γ-ray energies, except otherwise noted. γ rays without uncertainty were calculated after the fit. Source of excited level energies for particle data sets are noted. During least-squares fit, the uncertainty for 1384.70γ from 5716 keV level 958.81γ from 4901 keV level were doubled to obtain the χ^2 value below normalized χ^2=1.33. Yet 892.85γ from 4835, 569.67γ from 4901, 2776.82γ from 5716, and 1223.35γ from 6125 yield poor fit including aforementioned γ rays.

[‡] From 1986Gl06 (α,pγ).

[#] From 1976Mo27 − (p,p′),(p,p′γ).

[@] Weighted average of data from (1976Mo27 − (p,p′)) and (1986Gl06 − (α,pγ)).

[&] From 1989Se01 (pol p,p′), based on measured angular distributions and analyzing power.

[a] Assignment in 2012Ma14 (n,γ),(n,n):res, based on R-matrix analysis.

[b] From (e,e′), based on form factors, γ decay and shell model calculations.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued)

^{26}Mg Levels (continued)

[c] Assignment in 2012Ma14 (n,γ),(n,n):res, based on R-matrix analysis.
[d] From 1986Gl06 (α,pγ), except otherwise noted.
[e] Deduced by evaluators from Γ_0 in 1984Be26 – (γ,γ').

$\gamma(^{26}Mg)$

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]	δ	Comments
1808.74	2^+	1808.68 4	100	0.0	0^+	E2		B(E2)(W.u.)=13.4 6
2938.33	2^+	1129.61 4	100.0 6	1808.74	2^+	M1+E2	−0.12 2	B(M1)(W.u.)=0.096 6; B(E2)(W.u.)=6.1 21 δ: From 1963Br15 − (p,p′γ). Other values: −0.16 4 (1975Wa10 − (α,$\alpha'\gamma$)), −0.11 6 (1977Ki02 − (p,p′γ)), −0.09 5 (1969Ca18 − (α,α')).
		2938.15 5	10.7 6	0.0	0^+	E2		B(E2)(W.u.)=0.39 4
3082.9		1274.1[#] 20	100	1808.74	2^+			
3420.2		1611.4[#] 17	100	1808.74	2^+	D+Q[#]		
3564.9		1756.1[#] 19	100	1808.74	2^+			
3588.56	0^+	1779.74 8	100	1808.74	2^+	E2		B(E2)(W.u.)=1.07 8
3941.57	3^+	1003.25 4	100.0 16	2938.33	2^+	M1+E2	−0.05 4	B(M1)(W.u.)=0.0162 24; B(E2)(W.u.)=0.23 +37−22 δ: Weighted average of −0.06 6 (1968FeZY), −0.04 5 (1974Na22), and −0.05 10 (1975Wa06).
		2132.71 4	61.3 16	1808.74	2^+	M1		B(M1)(W.u.)=0.00104 16
4318.89	4^+	1380.88 18	1.85 11	2938.33	2^+			E_γ,I_γ: From ^{26}Na β^- decay (2005Gr07).
		2510.01 5	100 2	1808.74	2^+	[E2]		B(E2)(W.u.)=4.5 3
4332.52	2^+	1394.28 7	19.3 10	2938.33	2^+			
		2523.69 6	100.0 13	1808.74	2^+			
		4332.2 3	7.6 8	0.0	0^+	[E2]		B(E2)(W.u.)=0.24 5
4350.09	3^+	409.4[f] 5	0.041[f] 25	3941.57	3^+			E_γ,I_γ: More precise 409.22γ 20 in ^{26}Na β^- decay (2005Gr07) yield poor fit. Branching from ^{26}Na β^- decay (2005Gr07).
		1411.72 4	93 4	2938.33	2^+	M1+E2	−0.31 6	B(M1)(W.u.)=0.033 9; B(E2)(W.u.)=9 4 δ: From 1974Na22. Other value: −0.31 16 (1975Wa10).
		2541.18 6	100 4	1808.74	2^+	M1+E2	−0.10 4	B(M1)(W.u.)=0.0066 18; B(E2)(W.u.)=0.06 5 δ: Weighted average of −0.11 6 (1968FeZY), −0.09 6 (1974Na22).
4644.9		2836.0[#] 13	100	1808.74	2^+	D+Q[#]		
4835.13	2^+	485.05[@] 9	2.77[@] 5	4350.09	3^+			
		502.73[@] 9	2.65[@] 4	4332.52	2^+			I_γ: 2.1 4 in (n,γ).
		892.85[@] 19	0.26[@] 4	3941.57	3^+			
		1896.72 5	100.0[@] 4	2938.33	2^+	M1		B(M1)(W.u.)=0.096 21
		3026.6[@] 5	4.19[@] 15	1808.74	2^+			I_γ: 4.8 5 in (n,γ).
		4834.61 18	10.8[@] 9	0.0	0^+	E2		B(E2)(W.u.)=0.15 4 I_γ: 13.1 12 in (n,γ).
4901.44	4^+	551.28[@] 13	1.61[@] 14	4350.09	3^+			
		569.67[@] 25	0.67[@] 11	4332.52	2^+			
		582.46[@] 21	0.88[@] 18	4318.89	4^+			
		958.81[@] 12	3.9[@] 5	3941.57	3^+			
		1962.99[@] 24	1.89[@] 14	2938.33	2^+	[E2]		B(E2)(W.u.)=2.5 6

γ(^{26}Mg) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]	δ	Comments
4901.44	4+	3092.31 *11*	100 *1*	1808.74	2+	[E2]		B(E2)(W.u.)=14 *3*
4972.30	0+	2033.88 *12*	100 *4*	2938.33	2+	E2		B(E2)(W.u.)=7.4 *13*
		3163.35	8[b] *4*	1808.74	2+	E2		B(E2)(W.u.)=0.06 *4*
5180.5		1238.9[#] *7*	100	3941.57	3+			
5291.74	2+	456.0[@] *4*	1.9[@] *7*	4835.13	2+			
		1350.20 *16*	3.4 *7*	3941.57	3+	[M1]		B(M1)(W.u.)>0.026
		2353.27 *5*	100.0 *14*	2938.33	2+			
		3482.2 *5*	6.6 *9*	1808.74	2+			E_γ: Weighted average of data from (n,γ) and ^{26}Na β^- decay (2005Gr07).
		5291.1 *5*	3.9 *7*	0.0	0+	E2		B(E2)(W.u.)>0.10
5476.05	4+	640.5[@] *3*	19[@] *6*	4835.13	2+			
		1157.23 *6*	100 *4*	4318.89	4+	M1+E2	+0.09 *7*	B(M1)(W.u.)=0.34 *10*; B(E2)(W.u.)=12 *+19−11* δ: From 1975Wa10. Other: +0.05 *19* (1974Na22).
		1534.49 *15*	51 *4*	3941.57	3+	M1+E2	−0.27 *4*	B(M1)(W.u.)=0.071 *22*; B(E2)(W.u.)=12 *5* δ: From 1974Na22. Other: −0.27 *15* (1975Wa10).
		3667.4 *5*	25 *2*	1808.74	2+	[E2]		B(E2)(W.u.)=1.1 *4* E_γ: Weighted average of data from (n,γ) and ^{26}Na β^- decay (2005Gr07).
5691.08	(1+)	1358.4 *9*	6 *2*	4332.52	2+			
		2752.56 *25*	46 *3*	2938.33	2+			
		3882.0 *3*	100 *5*	1808.74	2+			
		5691.1 *9*	11 *3*	0.0	0+	D		
5711.2	(1+,2+)	2122.5[#] *8*	100	3588.56	0+			
5715.91	4+	240.12[@] *11*	2.16[@] *17*	5476.05	4+			
		424.3[@] *3*	0.38[@] *9*	5291.74	2+			
		1365.54 *20*	95.1[@] *4*	4350.09	3+	M1+E2	−0.17 *3*	B(M1)(W.u.)=0.036 *10*; B(E2)(W.u.)=3.1 *14* δ: Weighted average of −0.18 *3* (1974Na22), −0.05 *12* (1975Wa10).
		1384.70[@] *16*	4.41[@] *17*	4332.52	2+			
		1774.0 *9*	100 *5*	3941.57	3+	M1+E2	−0.12 *4*	B(M1)(W.u.)=0.017 *5*; B(E2)(W.u.)=0.4 *2* δ: From 1974Na22.
		2776.82 *20*	51.4[@] *14*	2938.33	2+	[E2]		B(E2)(W.u.)=1.7 *5*
		3906.8[@] *7*	3.35[@] *22*	1808.74	2+			
6125.47	3+	409.4[f] *5*	0.10[f] *5*	5715.91	4+			E_γ,I_γ: More precise 409.22γ *20* in ^{26}Na β^- decay (2005Gr07) yield poor fit. Branching from ^{26}Na β^- decay (2005Gr07).
		833.47 *21*	3.4 *4*	5291.74	2+			E_γ: Unweighted average of data from (n,γ) and ^{26}Na β^- decay (2005Gr07).
		1223.35[@] *15*	1.3 *3*	4901.44	4+			
		1290.40 *7*	5.2 *4*	4835.13	2+			
		1775.31 *5*	100.0 *14*	4350.09	3+	[M1]		B(M1)(W.u.)=0.20 *9*
		1792.87 *12*	6.5 *6*	4332.52	2+			
		2183.83 *6*	13.7 *7*	3941.57	3+			

$\gamma(^{26}$Mg) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]	δ	Comments
6125.47	3^+	3187.14 *28*	5.8 *6*	2938.33	2^+			
		4316.39 *24*	4.8 *6*	1808.74	2^+			
6256.2	0^+	565.1[#] *13*	8 *4*	5691.08	(1^+)	D		
		4447.1	100 *4*	1808.74	2^+	E2		B(E2)(W.u.)=1.2 *8*
6483.2		1302.7[#] *13*		5180.5				
6622.94	(4^+)	1146.9[‡]	19[b] *2*	5476.05	4^+	[M1]		B(M1)(W.u.)=0.063 *18*
		1721.39[@] *20*	100[@] *4*	4901.44	4^+	M1(+E2)	−0.26[e] *+60−10*	B(M1)(W.u.)=0.09 *4*; B(E2)(W.u.)=12 *+52−8*
		2272.7[@] *3*	43.8[@] *18*	4350.09	3^+			
		2290.2[@] *3*	26.2[@] *14*	4332.52	2^+	[E2]		B(E2)(W.u.)=12 *4*
		2304.2[@] *3*	37.6[@] *18*	4318.89	4^+			I_γ: Other: 23 *4* (α,pγ).
		4813.7[@] *10*	3.8[@] *5*	1808.74	2^+			
6634.2		3695.63 *25*	100 *1*	2938.33	2^+			
		4825.0[‡]	6[b] *1*	1808.74	2^+			
6745.13	2^+	1453.16[@] *17*	24[@] *4*	5291.74	2^+			
		3807.0 *5*	100[@] *6*	2938.33	2^+			E_γ: Weighted average of data from (n,γ) and ^{26}Na β^- decay (2005Gr07). I_γ: Other: 59 *6* (n,γ).
		4936.3 *3*	99[@] *8*	1808.74	2^+			
		6743.9[@] *21*	1.9[@] *5*	0.0	0^+			
6876.42	3^-	2041.44 *16*	4.7 *6*	4835.13	2^+			
		2543.7 *4*	6.1 *9*	4332.52	2^+			
		2557.2 *3*	4.4 *4*	4318.89	4^+			
		2934.8 *6*	4.2 *9*	3941.57	3^+	[E1]		B(E1)(W.u.)=1.1×10^{-5} *5*
		3937.80 *11*	26.2 *12*	2938.33	2^+			
		5067.13 *4*	100.0 *19*	1808.74	2^+			
6951.7		1771.1[#] *14*	100	5180.5				
6971.8	(4^+)	3030.0[#] *20*	100	3941.57	3^+	D+Q[#]		
6978.3	(5^+)	1263.7[#] *21*	8 *2*	5715.91	4^+			
		1501.8[#] *10*	100 *8*	5476.05	4^+	M1+E2	−0.21[e] *5*	B(M1)(W.u.)=0.22 *9*; B(E2)(W.u.)=24 *15*
		2076.8	22 *4*	4901.44	4^+	M1+E2	−1.0[e] *6*	B(M1)(W.u.)=0.010 *7*; B(E2)(W.u.)=13 *9*
		2628.1	9 *2*	4350.09	3^+	[E2]		B(E2)(W.u.)=3.2 *14*
		2660.0[#] *20*	34 *4*	4318.89	4^+	M1+E2	−0.4[e] *2*	B(M1)(W.u.)=0.012 *5*; B(E2)(W.u.)=1.5 *12*
		3036.5	28 *4*	3941.57	3^+	E2		B(E2)(W.u.)=4.8 *19*
7061.90	1^-	3472.9 *3*	94 *8*	3588.56	0^+	[E1]		B(E1)(W.u.)>0.00089
		4122.9 *6*	28 *6*	2938.33	2^+			
		5252.9 *3*	56 *8*	1808.74	2^+	[E1]		B(E1)(W.u.)>0.00015
		7060.6 *7*	100 *14*	0.0	0^+			

$\gamma(^{26}Mg)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]	δ	Comments
7099.68	2^+	2264.25 *21*	40 *6*	4835.13	2^+			
		3158.4 *6*	18 *4*	3941.57	3^+			
		4160.96 *20*	100 *10*	2938.33	2^+			
		5290.3 *5*	32 *4*	1808.74	2^+			
		7098.9 *5*	10 *4*	0.0	0^+			I_γ: Other: 26 *4* – ^{26}Na β^- decay (2005Gr07).
7246.49	3^+	1953.6[@] *7*	11[@] *5*	5291.74	2^+			
		2411.5[@] *3*	100[@] *4*	4835.13	2^+			I_γ: Other: 40 *8* (α,pγ).
		2896.4[@] *4*	97[@] *5*	4350.09	3^+			
		2913.7[@] *4*	59[@] *4*	4332.52	2^+			I_γ: Other: 100 *16* (α,pγ).
		2927.2[@] *5*	22[@] *3*	4318.89	4^+			I_γ: Other: 76 *16* (α,pγ).
		3304.6[@] *5*	51[@] *3*	3941.57	3^+			I_γ: Other: 96 *16* (α,pγ).
		4308.1[@] *8*	42[@] *3*	2938.33	2^+			
		5436.1[@] *13*	3.6[@] *7*	1808.74	2^+			
7261.40		2426.09 *6*	25.1 *8*	4835.13	2^+			
		2911.12 *19*	8.0 *6*	4350.09	3^+			
		2928.56 *17*	9.4 *6*	4332.52	2^+			
		3319.66 *5*	47.4 *18*	3941.57	3^+			
		4322.68 *8*	15.2 *8*	2938.33	2^+			
		5452.03 *4*	100.0 *25*	1808.74	2^+			
7282.82	(4^-)	1567.06 *11*	9.2 *8*	5715.91	4^+			
		2381.28 *15*	10.2 *10*	4901.44	4^+			
		2932.5 *4*	18.2 *20*	4350.09	3^+			
		2963.61 *9*	62 *4*	4318.89	4^+	(E1+M2)	+0.5 *4*	B(E1)(W.u.)=0.00031 *15*; B(M2)(W.u.)=4.E+1 *+6−3*
		3341.01 *7*	100 *4*	3941.57	3^+	[E1]		B(E1)(W.u.)=0.00043 *15*
7348.86	3^-	1873.1 *5*	1.5 *4*	5476.05	4^+			
		2513.52 *8*	42 *3*	4835.13	2^+			
		3016.18 *23*	11.9 *12*	4332.52	2^+			
		3029.6 *8*	3.2 *4*	4318.89	4^+			
		4410.15 *5*	100 *4*	2938.33	2^+			
		5539.53 *15*	31.5 *19*	1808.74	2^+			
7371.36	2^+	1245.68[@] *24*	38[@] *5*	6125.47	3^+			
		2080.0[@] *6*	5.1[@] *16*	5291.74	2^+			
		3021.9 *4*	27 *4*	4350.09	3^+			E_γ: Weighted average of data from (n,γ) and ^{26}Na β^- decay (2005Gr07).
		3039.1[@] *5*	6.3[@] *10*	4332.52	2^+			
		3428.7 *4*	100 *15*	3941.57	3^+			E_γ: Other: 3430.2 *5* (2005Gr07) – ^{26}Na β^- decay.
		5562.9 *9*	27 *4*	1808.74	2^+			
		7369.8 *7*	54 *15*	0.0	0^+			
7396.0	(5^+)	1680.0[#] *10*	100 *6*	5715.91	4^+	(M1+E2)	−0.14 *2*	B(M1)(W.u.)>0.16; B(E2)(W.u.)>4.6

$^{26}_{12}Mg_{14}$-12

$\gamma(^{26}Mg)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]	δ	Comments
7396.0	(5^+)	2494.4	36 *4*	4901.44	4^+			
		3045.7	26 *2*	4350.09	3^+			
		3076.9	14 *4*	4318.89	4^+			
		3454.2	24 *2*	3941.57	3^+			
7541.71	(2^-)	3191.2 *6*	8.7 *11*	4350.09	3^+			
		3208.98 *8*	100 *4*	4332.52	2^+			
		3599.86 *14*	38 *3*	3941.57	3^+			
		4602.93 *7*	84 *4*	2938.33	2^+			
		5732.37 *15*	39 *3*	1808.74	2^+			
7677	(4^+)	1551.5	35 *4*	6125.47	3^+			
		1961.0	100 *8*	5715.91	4^+			
		2775.4	44 *6*	4901.44	4^+			
		3357.9	29 *4*	4318.89	4^+			
7696.8	$1^{(-)}$	4757.6[&]	37[&] *13*	2938.33	2^+			
		5887.9[&]	17[&] *5*	1808.74	2^+			
		7695.6 *8*	100[&] *31*	0.0	0^+			
7725.8	3^+	3406.9[@] *5*	100 *4*	4318.89	4^+			
		3783.7[@] *7*	19 *4*	3941.57	3^+			I_γ: Other: 50 *7* – (2005Gr07) – ^{26}Na β^- decay.
		5915.5[@] *16*	20[@] *4*	1808.74	2^+			
7773.7	(4^+)	2297.5	30 *8*	5476.05	4^+			
		2938.4	30 *8*	4835.13	2^+			
		3454.7[@] *9*	20 *6*	4318.89	4^+			
		3831.7[@] *7*	100 *14*	3941.57	3^+			
		4834.9	20 *6*	2938.33	2^+			
7817.8	$(2,3)^+$	3485.0[@] *7*	100[@] *15*	4332.52	2^+			
		6008.7[@] *16*	67[@] *9*	1808.74	2^+			
7824	3^-	3882	100 *13*	3941.57	3^+			
		4885	100 *13*	2938.33	2^+			
		6015	50 *10*	1808.74	2^+			
7840	2^+	3521	47 *10*	4318.89	4^+			
		4251	100 *12*	3588.56	0^+	E2		
		4901	63 *12*	2938.33	2^+			
		6030.5	23 *7*	1808.74	2^+			
7950.0	5^-	2234.0[#] *20*	47 *5*	5715.91	4^+	E1+M2	−0.19 *15*	B(E1)(W.u.)=0.0015 *7*; B(M2)(W.u.)=5.E+1 *+8−4*
		3633.8[#] *10*	100 *5*	4318.89	4^+	E1+M2	+0.13 *11*	B(E1)(W.u.)=0.0008 *4*; B(M2)(W.u.)=5 *+8−4*
8034		5095	100	2938.33	2^+			
8052.4	$2^{(+)}$	6242.9 *7*	100	1808.74	2^+			
8184.93	3^-	5245.9 *3*	28 *4*	2938.33	2^+			

$^{26}_{12}Mg_{14}$-13

Adopted Levels, Gammas (continued)

$\gamma(^{26}Mg)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]	δ	Comments
8184.93	3^-	6375.38 *16*	100 *4*	1808.74	2^+			
8201.1	(6^+)	1223.0 *14*	44 *4*	6978.3	(5^+)	D[e]		
		3299.5 *10*	78 *7*	4901.44	4^+			
		3881.8 *10*	100 *9*	4318.89	4^+			
8227.31	1^-	6417.9 *3*	85 *6*	1808.74	2^+			
		8225.6 *4*	100 *6*	0.0	0^+			
8250.58	(3^+)	5311.66 *16*	100 *6*	2938.33	2^+			
		6441.1 *8*	3.9 *8*	1808.74	2^+			
8458.9	3^+	4139.7 *5*	55 *8*	4318.89	4^+			
		6649.1 *7*	100 *6*	1808.74	2^+			
8464		4144.8	100	4318.89	4^+			
8472.3	(6^+)	1494.0[#] *14*	38 *5*	6978.3	(5^+)	D+Q[e]	−0.32[e] *10*	
		3570.6	100 *6*	4901.44	4^+			
		4153.1	21 *3*	4318.89	4^+			
8503.7	1^-	6694.0 *7*	39 *6*	1808.74	2^+			
		8502.2 *3*	100 *6*	0.0	0^+			
8532.1	(2^+)	4181.9 *7*	66 *11*	4350.09	3^+			
		5593.2 *4*	100 *13*	2938.33	2^+			
		6722.1 *7*	47 *9*	1808.74	2^+			
8625	5^-	2002	100 *4*	6622.94	(4^+)	E1+M2	+0.03[e] *1*	B(E1)(W.u.)=0.0028 *6*; B(M2)(W.u.)=2.9 *21*
		4305.7	18 *4*	4318.89	4^+	E1[d]		B(E1)(W.u.)=5.1×10^{-5} *16*
8670	(3,5)	3193.7	54 *8*	5476.05	4^+	D+Q	<+0.5	δ: also, >−0.5. Measured values: +0.35 *15* (for J=3); −0.13 *+7−26* (for J=5).
		4350.7	100 *8*	4318.89	4^+	D+Q	<+0.13	δ: also, >−0.13. Measured values: +0.03 *+3−9* (for J=3); +0.09 *+4−9* (for J=5).
8705.6	(2 to $4)^+$	3229.3	29[b] *7*	5476.05	4^+			
		4355.3 *6*	12 *3*	4350.09	3^+			E_γ,I_γ: γ-ray energy from (n,γ). Branching normalized to Iγ of 5766γ in 1992Wa06 and (α,pγ).
		4386.3	100[b] *11*	4318.89	4^+			
		4763.6	64[b] *9*	3941.57	3^+			
		5766.6 *3*	29[b] *7*	2938.33	2^+			
8863.8	2^+	5924.8 *4*	69 *8*	2938.33	2^+			
		7054.0 *6*	100 *8*	1808.74	2^+			
8903.52	(2^+)	1554.8 *4*	7.9 *14*	7348.86	3^-			
		1620.8 *3*	21 *2*	7282.82	(4^-)			
		1642.09 *25*	22 *2*	7261.40				
		3611.5 *4*	30 *3*	5291.74	2^+			
		4001.8 *3*	30 *3*	4901.44	4^+			
		4553.02 *13*	100 *7*	4350.09	3^+			
		4961.42 *22*	97 *7*	3941.57	3^+			

$\gamma(^{26}Mg)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]	δ	Comments
8903.52	(2+)	5964.31 *20*	36 *3*	2938.33	2+			
8930		2307	50 *11*	6622.94	(4+)			
		3214	100 *14*	5715.91	4+			
		3453.7	75 *14*	5476.05	4+			
		4987.9	53 *11*	3941.57	3+			
8959.4	1−	7149.4[&]	64[&] *7*	1808.74	2+			
		8957.7 *5*	100[&] *12*	0.0	0+			
9020		4701	100	4318.89	4+			
9043.4	3(+)	6104.3 *9*	100	2938.33	2+			
9064	5+	1668	26 *5*	7396.0	(5+)	D+Q[e]	+0.6[e] *4*	
		4162	26 *5*	4901.44	4+			
		4744.7	100 *8*	4318.89	4+	D[e]		
9111.2	6+	1715	16[b] *4*	7396.0	(5+)	[M1]		B(M1)(W.u.)>0.032
		2488	16[b] *4*	6622.94	(4+)	[E2]		B(E2)(W.u.)>9.4
		3635	100[b] *12*	5476.05	4+	[E2]		B(E2)(W.u.)>8.8
		4209.4	32[b] *6*	4901.44	4+	[E2]		B(E2)(W.u.)>1.4
		4792	36[b] *6*	4318.89	4+	[E2]		B(E2)(W.u.)>0.80
9139.5	1	9137.8	100	0.0	0+			
9169	(6−)	1218.7[#] *23*	100[b] *7*	7950.0	5−	M1+E2[d]	−0.14[e] *6*	B(M1)(W.u.)=0.25 *8*; B(E2)(W.u.)=18 *17*
		1773	39[b] *6*	7396.0	(5+)	E1+M2[d]	+0.07[e] *5*	B(E1)(W.u.)=0.0011 *4*; B(M2)(W.u.)=8 *+12−7*
		1886	24[b] *4*	7282.82	(4−)	[E2]		B(E2)(W.u.)=26 *10*
		2190.6	22[b] *4*	6978.3	(5+)	[E1]		B(E1)(W.u.)=0.00034 *13*
9206		4887	100	4318.89	4+			
9238.9	1(+)	5649.5[&]	23[&] *5*	3588.56	0+			
		9237.1 *8*	100[&] *20*	0.0	0+	M1		B(M1)(W.u.)=0.072 *9*
9261	(4+)	5319	100	3941.57	3+			
9291		7481	100	1808.74	2+			
9304		4985	100	4318.89	4+			
9316		4983	100	4332.52	2+			
9325.57	(2+ to 4+)	4424.2 *8*	27 *4*	4901.44	4+			
		4489.4 *9*	27 *4*	4835.13	2+			
		4975.3 *9*	32 *5*	4350.09	3+			
		4992.4 *8*	48 *5*	4332.52	2+			
		5383.8 *7*	16 *3*	3941.57	3+			
		6386.34 *23*	100 *8*	2938.33	2+			
9371	4+	5429	100	3941.57	3+			
9383	6+	1182	15[b] *3*	8201.1	(6+)			
		2404.6	74[b] *10*	6978.3	(5+)	D+Q[e]	−0.14[e] *6*	

Adopted Levels, Gammas (continued)

$\gamma(^{26}$Mg) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]	δ	Comments
9383	6^+	2759.9	38[b] 5	6622.94	(4^+)	Q[e]		
		3666.8	100[b] 13	5715.91	4^+	Q[e]		
		5063.6	28[b] 5	4318.89	4^+			
9427.8	3^+	5077.4 9	23 6	4350.09	3^+			
		6488.6 4	100 8	2938.33	2^+			
		7617.8 7	33 5	1808.74	2^+			
9471	$(1 \text{ to } 5)^+$	5529	100	3941.57	3^+			
9540.3	5^+	2562	5.3[b] 16	6978.3	(5^+)	D[e]		
		3824.0[#] 20	23[b] 3	5715.91	4^+			
		4638.4	34[b] 7	4901.44	4^+			
		5221.0[#] 20	100[b] 10	4318.89	4^+	D+Q[e]	+0.06[e] 5	
9563.5	1^+	7753.1[&]	49[&] 11	1808.74	2^+			
		9561.6[&]	100[&] 21	0.0	0^+	M1		
9574.06	$(2^- \text{ to } 4)$	2290.8 4	14.0 24	7282.82	(4^-)			
		2697.7 3	24.4 24	6876.42	3^-			
		3448.8 7	20.7 24	6125.47	3^+			
		5223.37 12	100 9	4350.09	3^+			
		5632.3 6	14.6 18	3941.57	3^+			
9590		6651	100[b] 13	2938.33	2^+			
		7780	67[b] 13	1808.74	2^+			
9617.0	$(1 \text{ to } 3)^-$	7807.0 9	100	1808.74	2^+			
9681	$(0 \text{ to } 5)^+$	7871	100	1808.74	2^+			
9770.8	$1^{(-)}$	7961.1[&]	69[&] 14	1808.74	2^+			
		9768.8[&]	100[&] 19	0.0	0^+			
9771		4869	100[b] 16	4901.44	4^+			
		5452	100[b] 16	4318.89	4^+			
9814		5495	100	4318.89	4^+			
9829.5	$(5,7)^+$	1357.2	6.7[b] 11	8472.3	(6^+)			
		1628.3[#] 12	100.0[b] 22	8201.1	(6^+)	M1(+E2)	<+0.24	B(M1)(W.u.)>0.084; B(E2)(W.u.)<18 δ: also, >−0.24. Measured values: +0.19 +5−11 (for $J^\pi=5^+$); −0.03 +1−4 (for $J^\pi=7^+$).
		2433.4	5.6[b] 11	7396.0	(5^+)			
9856.8	2^+	5020.7 8	62 10	4835.13	2^+			
		5523.6 7	100 12	4332.52	2^+			
		5915.8 9	31 10	3941.57	3^+			
		9854.5 7	43 10	0.0	0^+			
9900.3	3^+	6961	100	2938.33	2^+			

From ENSDF

$\gamma(^{26}Mg)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]	δ	Comments
9927		5025	100	4901.44	4^+			
9939		5619	100	4318.89	4^+			
9967	2^+	5065	100[b] *9*	4901.44	4^+			
		7028	67[b] *9*	2938.33	2^+			
9982		6040	100	3941.57	3^+			
9989	(6^+)	1517	25[b] *4*	8472.3	(6^+)	(M1+E2)[e]	−0.17[e] *10*	B(M1)(W.u.)>0.15
		3011	100[b] *7*	6978.3	(5^+)	(M1+E2)[e]	−0.09[e] *5*	B(M1)(W.u.)>0.078
		5669.5	20[b] *4*	4318.89	4^+	[E2]		B(E2)(W.u.)>0.42
10040	5^-	4323.7	100[b] *13*	5715.91	4^+			
		5138.0	51[b] *9*	4901.44	4^+			
		5720.4	71[b] *9*	4318.89	4^+			
10069		5167	100	4901.44	4^+			
10102.5	1^-	7162.4 *9*	35 *9*	2938.33	2^+			
		10100.5 *4*	100 *13*	0.0	0^+			
10126.7	4^+	7187.4 *8*	52 *9*	2938.33	2^+			
		8316.4 *8*	100 *13*	1808.74	2^+			
10147.1	1^+	8337.9[&]	43[&] *3*	1808.74	2^+			
		10145.0[&]	100[&] *9*	0.0	0^+	M1		
10184		5282	100	4901.44	4^+			
10219.9		8409.7 *9*	100	1808.74	2^+			
10234		5332	100	4901.44	4^+			
10319.5	1^+	7378.4[&]	67[&] *19*	2938.33	2^+			
		10317.3[&]	100[&] *22*	0.0	0^+	M1		
10349.4	$(0^+$ to $4^+)$	8539.2 *9*	100	1808.74	2^+			
10362.26	$(2^+$ to $4^+)$	3261.8 *4*	62 *5*	7099.68	2^+			
		4886.3 *5*	46 *8*	5476.05	4^+			
		6011.2 *5*	49 *8*	4350.09	3^+			
		8552.2 *3*	100 *10*	1808.74	2^+			
10377		4661	100	5715.91	4^+			
10529		4813	100[b] *17*	5715.91	4^+			
		6196	67[b] *17*	4332.52	2^+			
10573.3	1^-	5600.4	100[&] *17*	4972.30	0^+			
		10571.0	89[&] *19*	0.0	0^+			
10576		2044	85[b] *8*	8532.1	(2^+)			
		3597	100[b] *8*	6978.3	(5^+)			
10600.1	$(1^+$ to $4^+)$	3500.6 *9*	0.06 *2*	7099.68	2^+			
		6249.7 *9*	31 *8*	4350.09	3^+			

$^{26}_{12}Mg_{14}$-17

Adopted Levels, Gammas (continued)

$\gamma(^{26}Mg)$ (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	Mult.[c]
10600.1	$(1^+$ to $4^+)$	6267.0 *6*	100 *17*	4332.52	2^+	
		6657.3 *5*	86 *17*	3941.57	3^+	
		7660.4 *9*	39 *6*	2938.33	2^+	
10647.3	1^+	3547.4	1.41[&] *14*	7099.68	2^+	
		5355.0	1.84[&] *15*	5291.74	2^+	
		5674.4	1.84[&] *15*	4972.30	0^+	
		7707.7	7.3[&] *4*	2938.33	2^+	
		8837.0	1.76[&] *21*	1808.74	2^+	
		10645.0	100[&] *4*	0.0	0^+	M1
10650	$(4^-$ to $7^-)$	1481	56[b] *8*	9169	(6^-)	
		3254	100[b] *8*	7396.0	(5^+)	
10693		3297	100	7396.0	(5^+)	
10707		4991	100	5715.91	4^+	
10767		6416	100[b] *9*	4350.09	3^+	
		7827	45[b] *9*	2938.33	2^+	
10805.9	$(0^+$ to $4^+)$	8995.5 *4*	100[&] *12*	1808.74	2^+	
		10803.3	28[&] *8*	0.0	0^+	
10945		1562	16[b] *4*	9383	6^+	
		1776	100[b] *9*	9169	(6^-)	
		2320	48[b] *7*	8625	5^-	
10949.1	1^-	6615.6	18.9[&] *18*	4332.52	2^+	
		7359.4	8.2[&] *13*	3588.56	0^+	
		8009.4	23.7[&] *23*	2938.33	2^+	
		9138.7	100[&] *6*	1808.74	2^+	
		10946.6	24[&] *4*	0.0	0^+	
11012		6110	61[b] *12*	4901.44	4^+	
		6692	100[b] *12*	4318.89	4^+	
11153.5	1^+	6180.4	14[&] *4*	4972.30	0^+	
		6820.0	11.2[&] *16*	4332.52	2^+	
		7563.8	16[&] *4*	3588.56	0^+	
		9343.0	4.2[&] *6*	1808.74	2^+	
		11150.9	100[&] *12*	0.0	0^+	
11191		3241	72[b] *14*	7950.0	5^-	

$^{26}_{12}Mg_{14}$-18

$\gamma(^{26}$Mg) (continued)

E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f	E_i(level)	J^π_i	E_γ[†]	I_γ[a]	E_f	J^π_f
11191		5474	100[b] *14*	5715.91	4^+	12088		4692	79[b] *15*	7396.0	(5^+)
11329.11		3933	100[b] *8*	7396.0	(5^+)			5109	100[b] *15*	6978.3	(5^+)
		4350	56[b] *8*	6978.3	(5^+)	12196		3723	45[b] *8*	8472.3	(6^+)
11457		6555	100	4901.44	4^+			3995	100[b] *8*	8201.1	(6^+)
11570		3098	100[b] *15*	8472.3	(6^+)	12479	(6^-)	2649	100[b] *10*	9829.5	$(5,7)^+$
		4174	82[b] *15*	7396.0	(5^+)			4278	64[b] *10*	8201.1	(6^+)

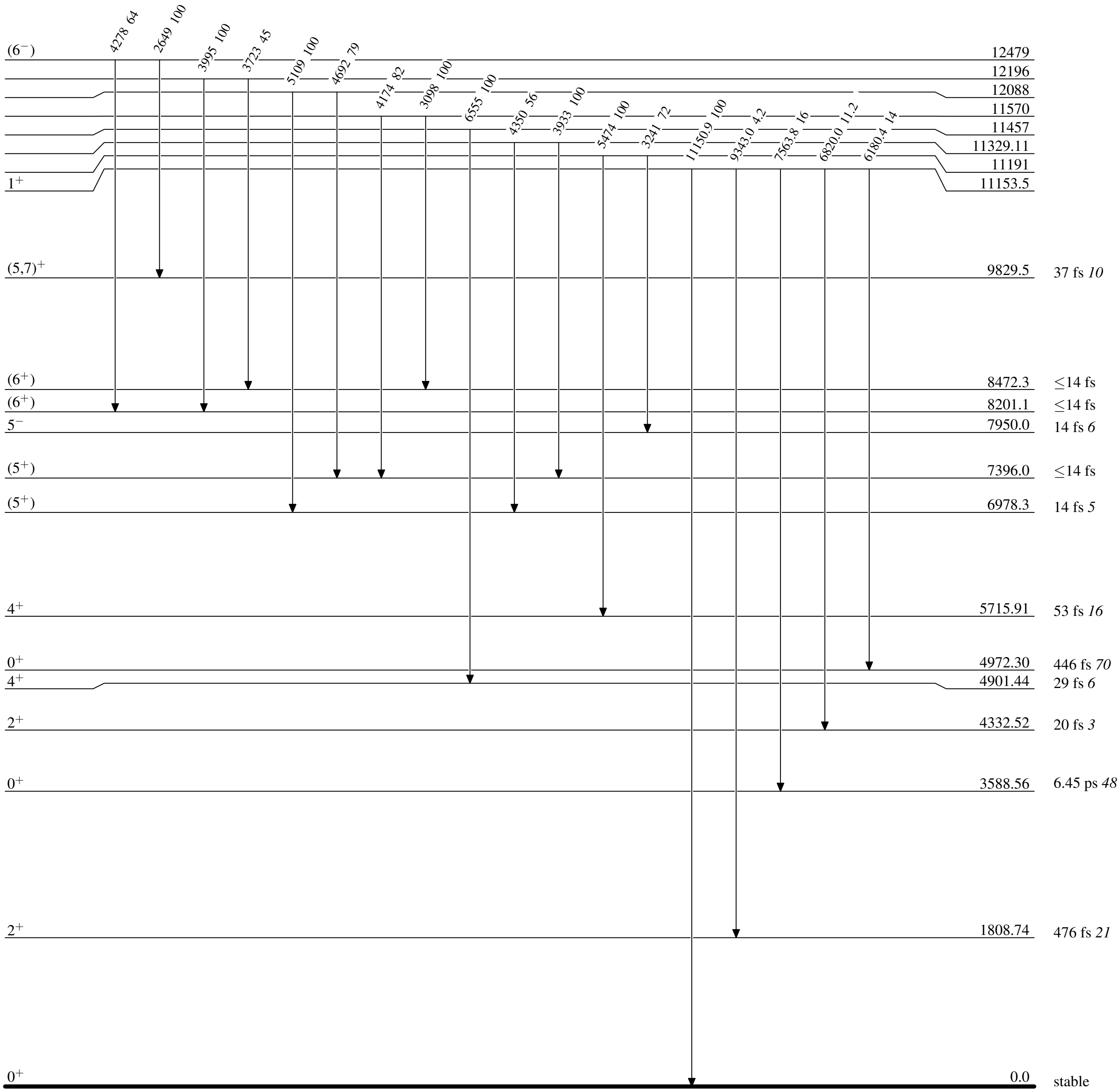
† From (n,γ), except otherwise noted.
‡ From level energy differences. Recoil energy subtracted.
# From (^{13}C,αnγ).
@ From ^{26}Na β^- decay (2005Gr07).
& From (pol γ,γ'),(γ,γ').
a Relative photon branching from each level.
b γ-ray branching from (α,pγ) 1986Gl06.
c Based on reported mixing ratio and RUL. Details are noted as comments.
d From (α,pγ) and recommended upper limits for γ-ray transition strengths.
e From (α,pγ) − 1986Gl06.
f Multiply placed with intensity suitably divided.

$^{26}_{12}$Mg$_{14}$-19

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

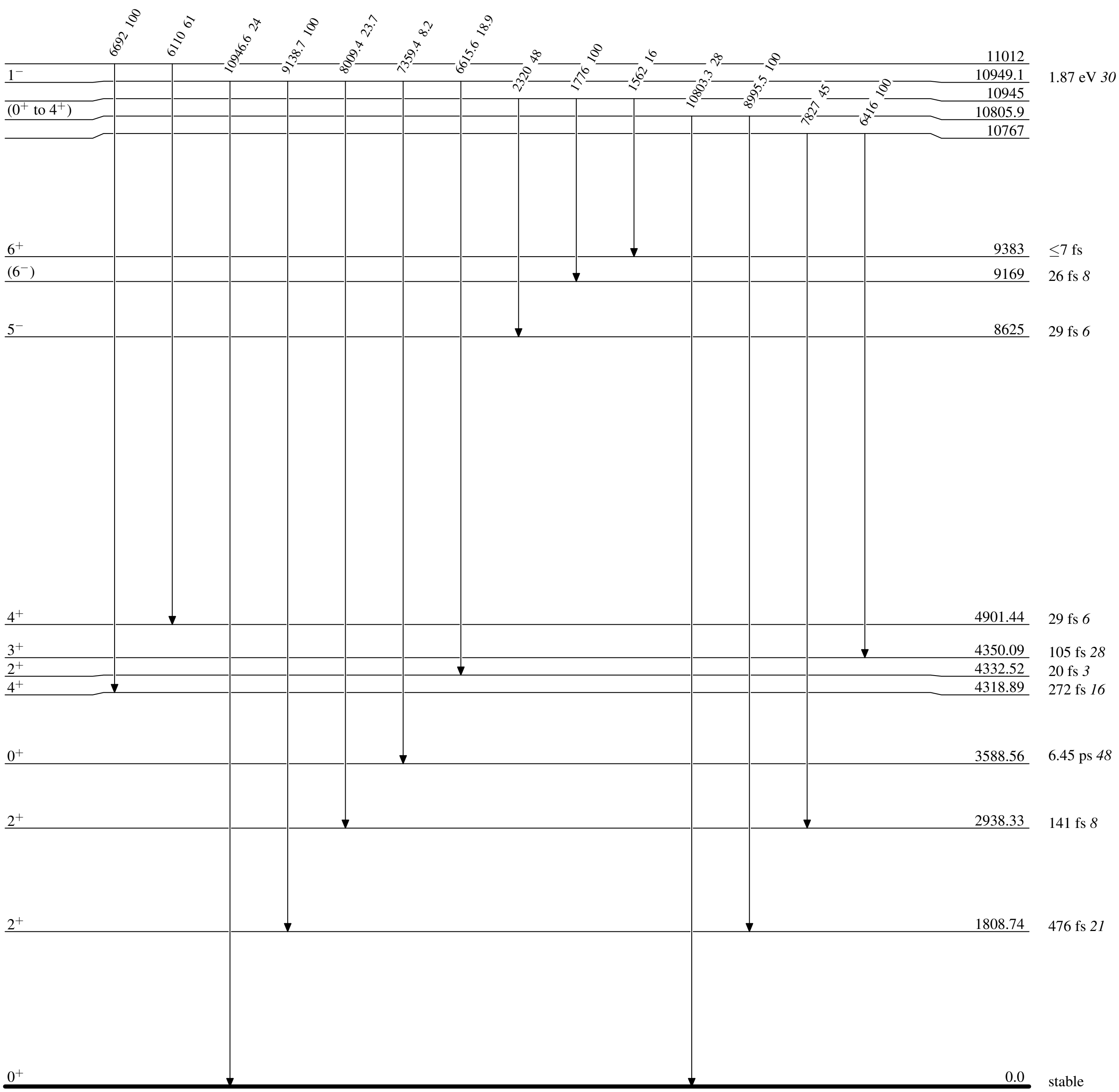


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

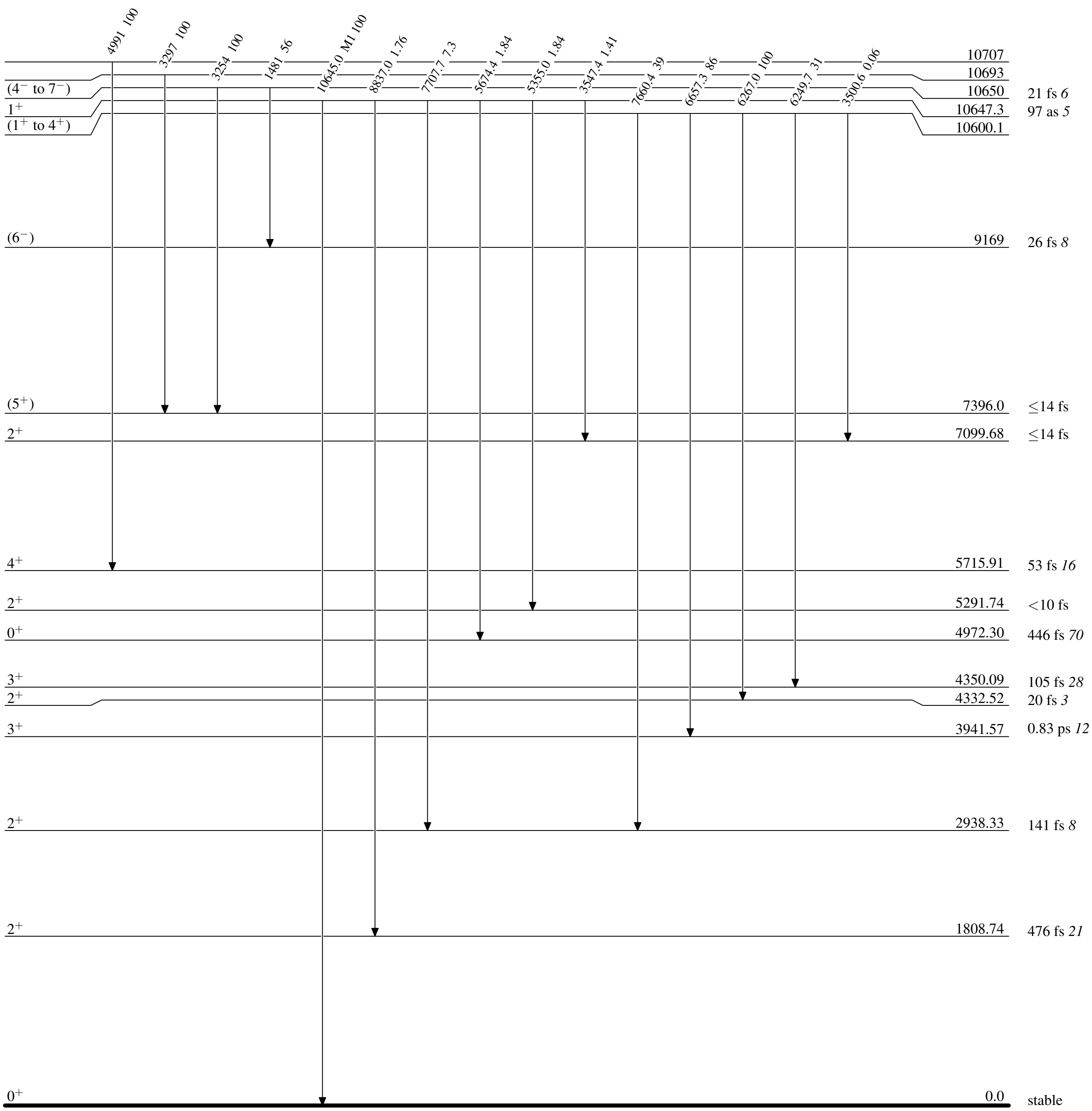


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

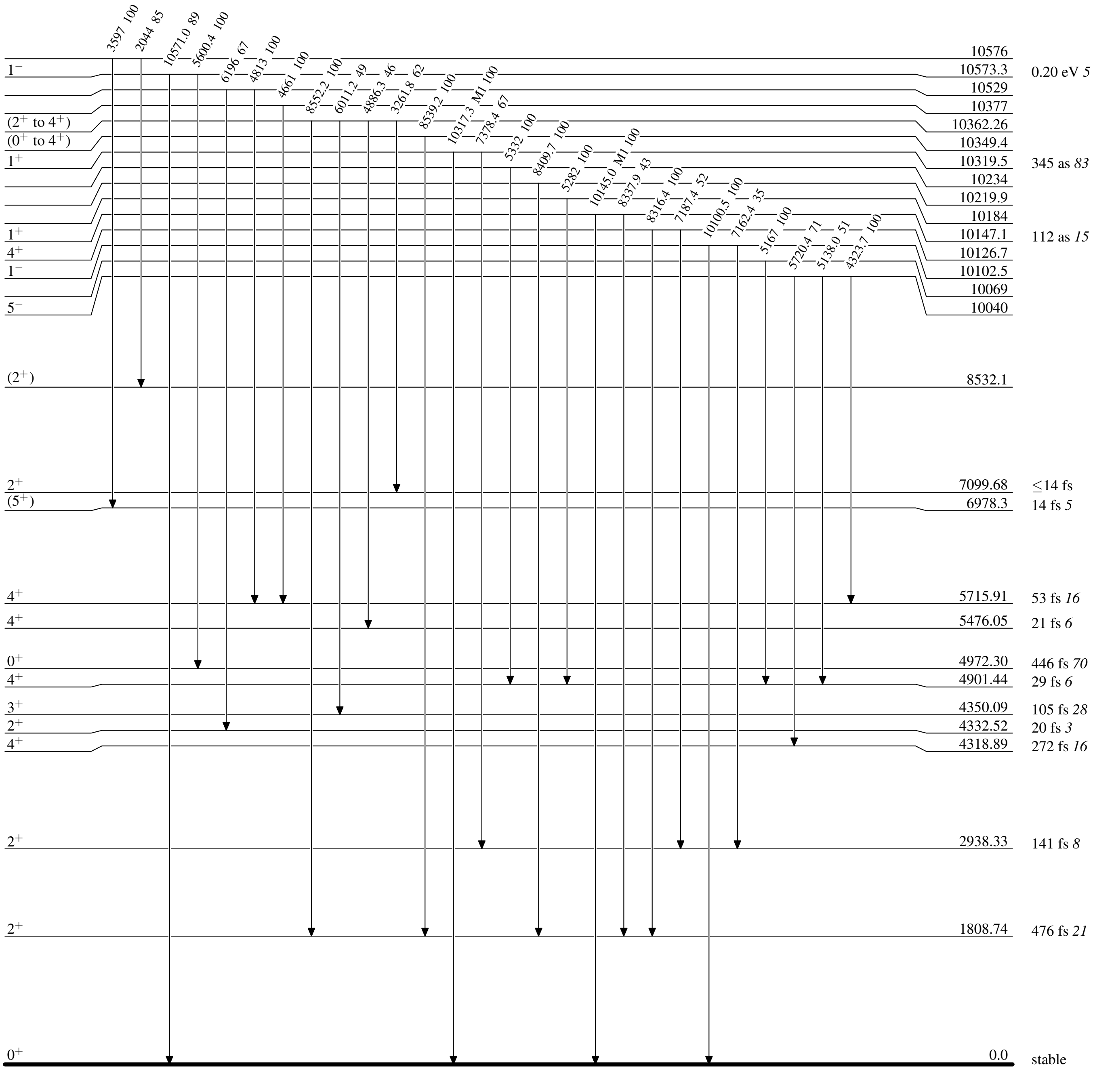


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

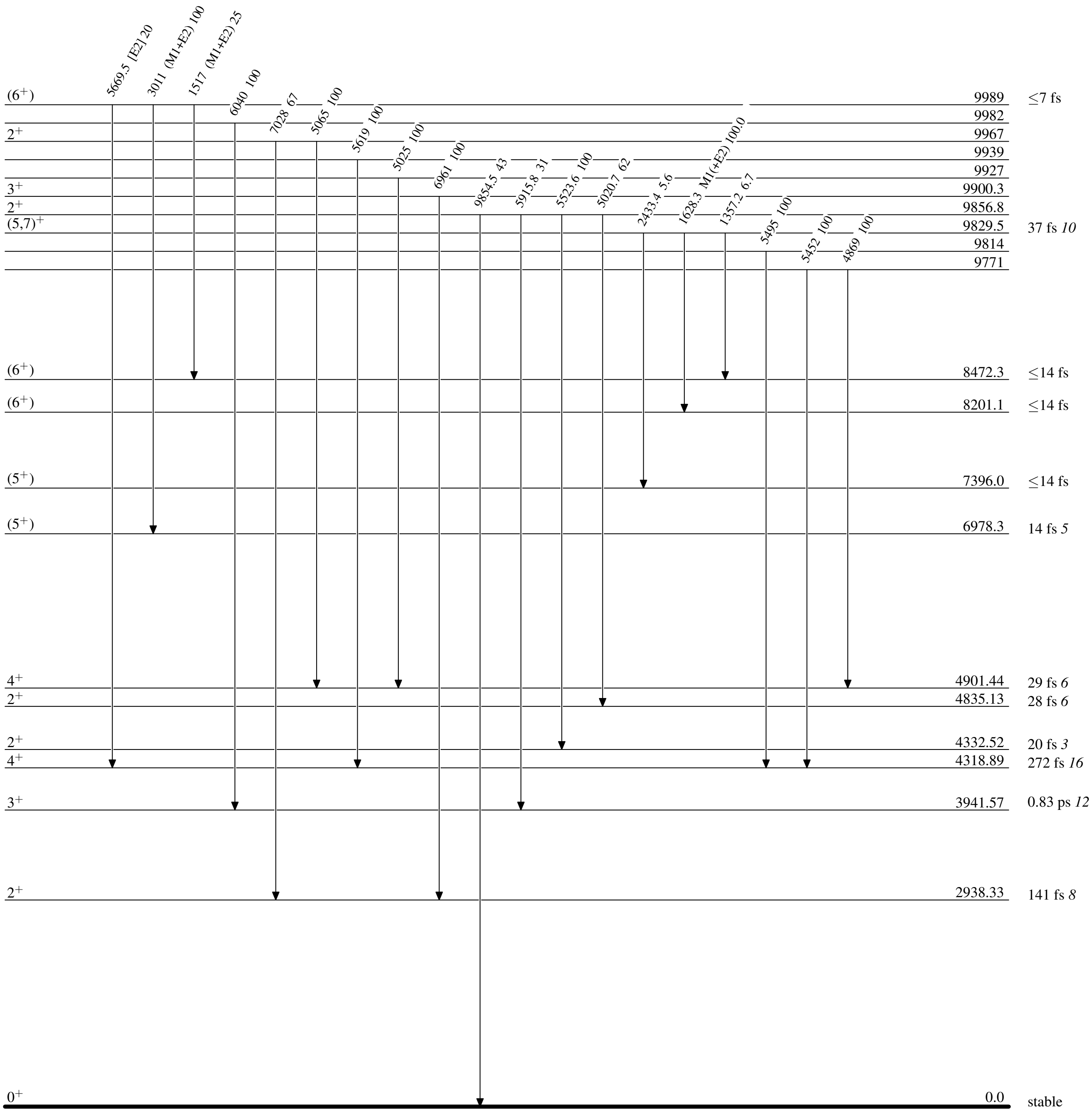


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

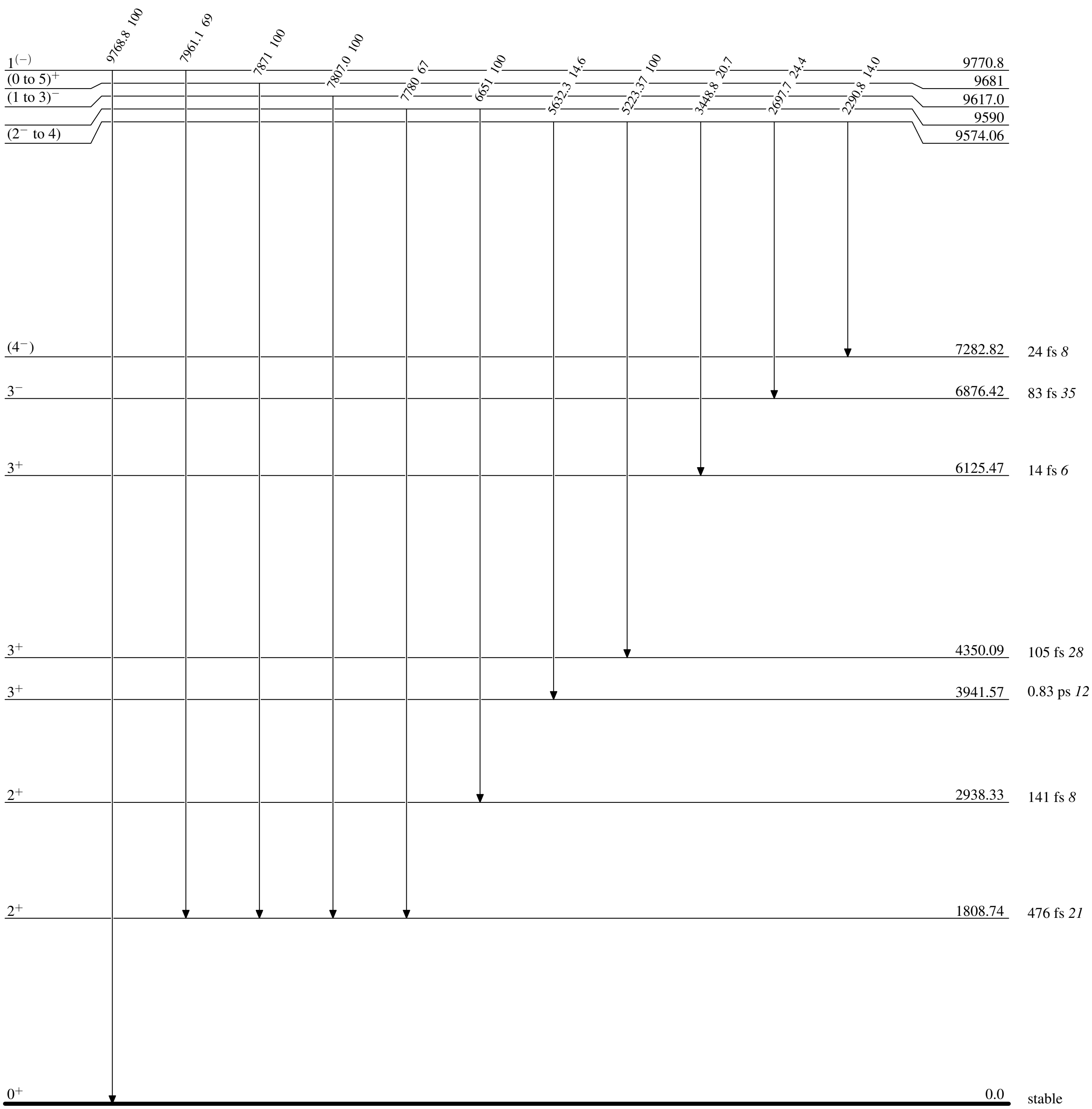


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

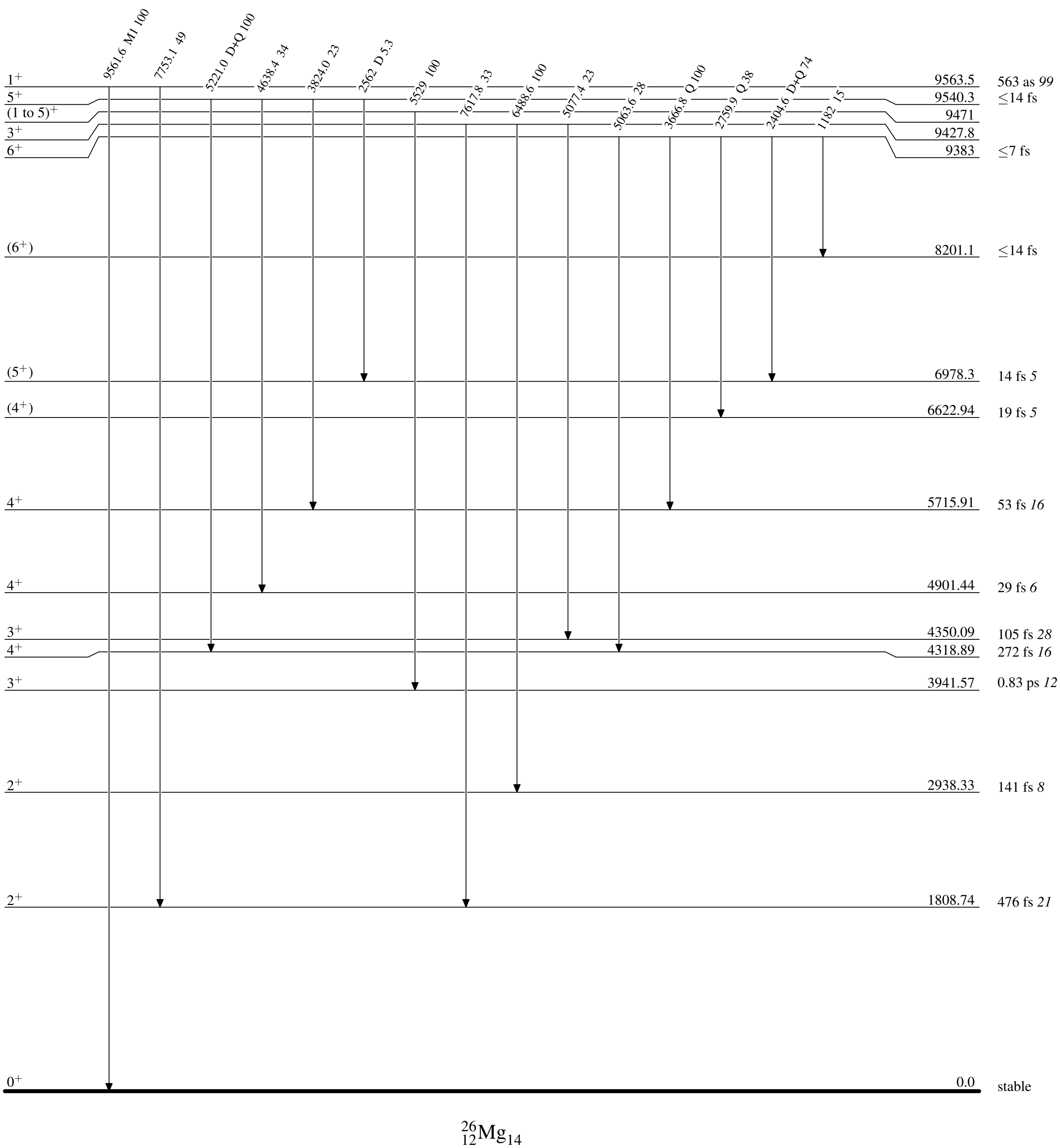


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

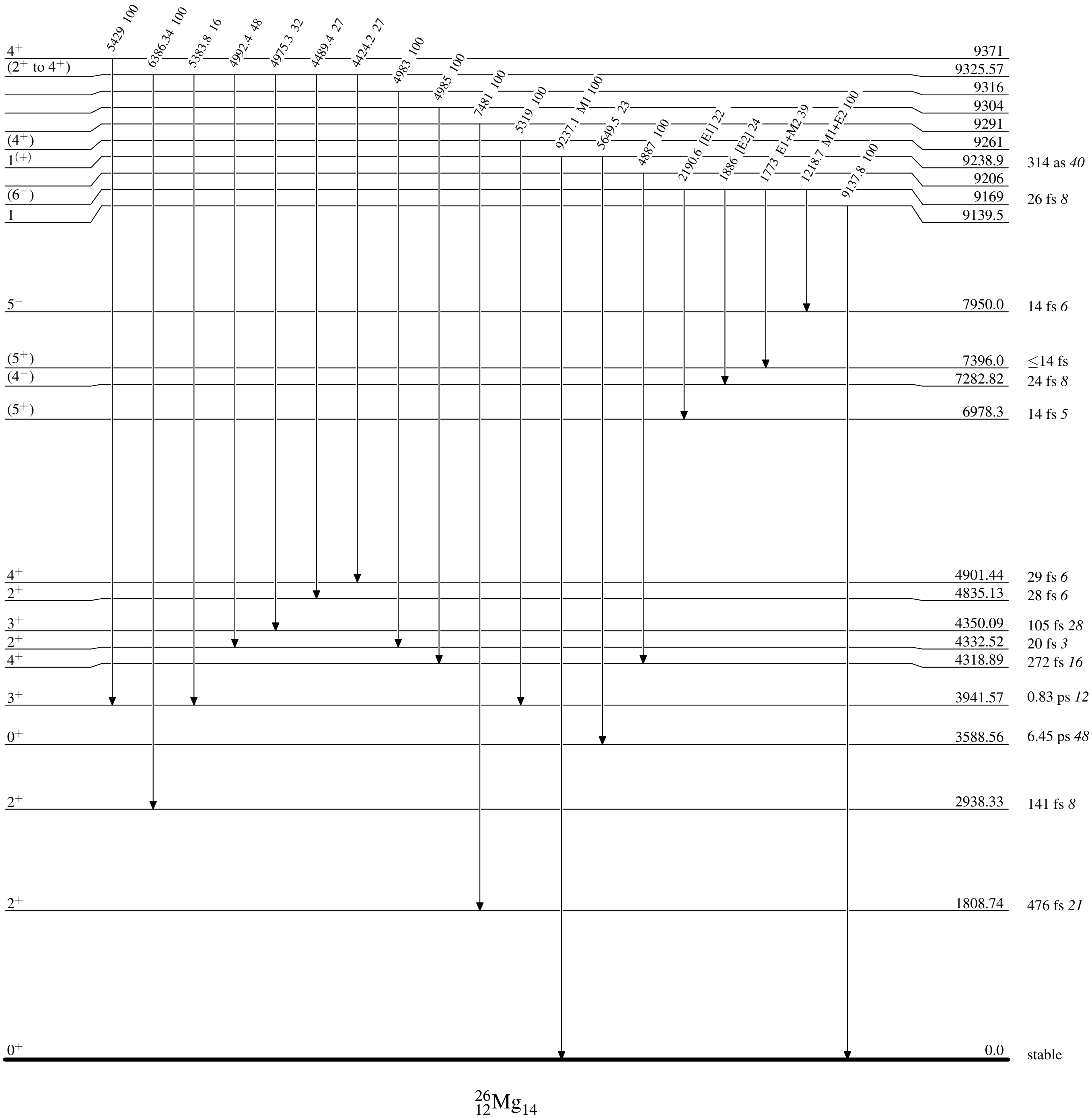
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

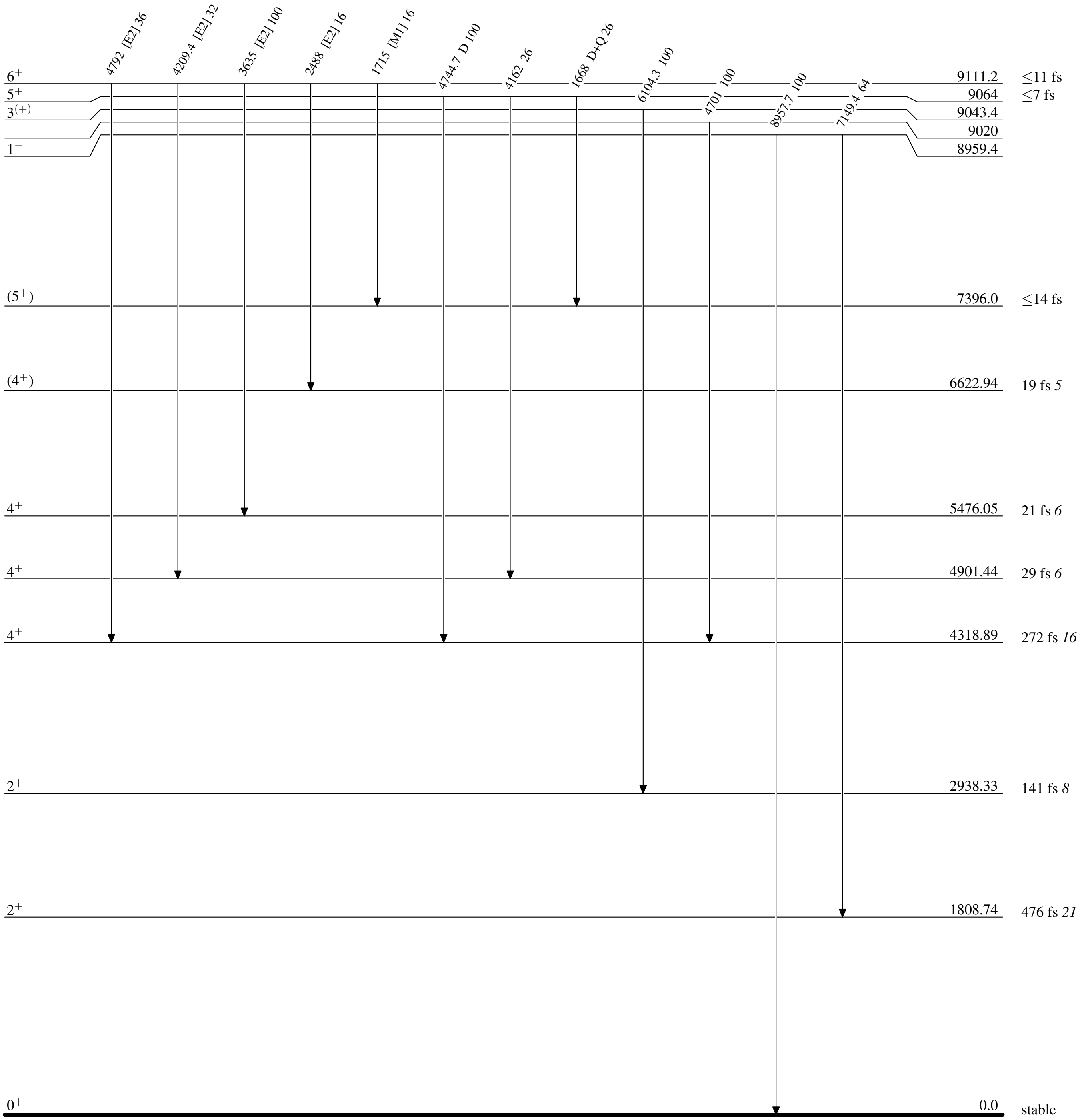
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

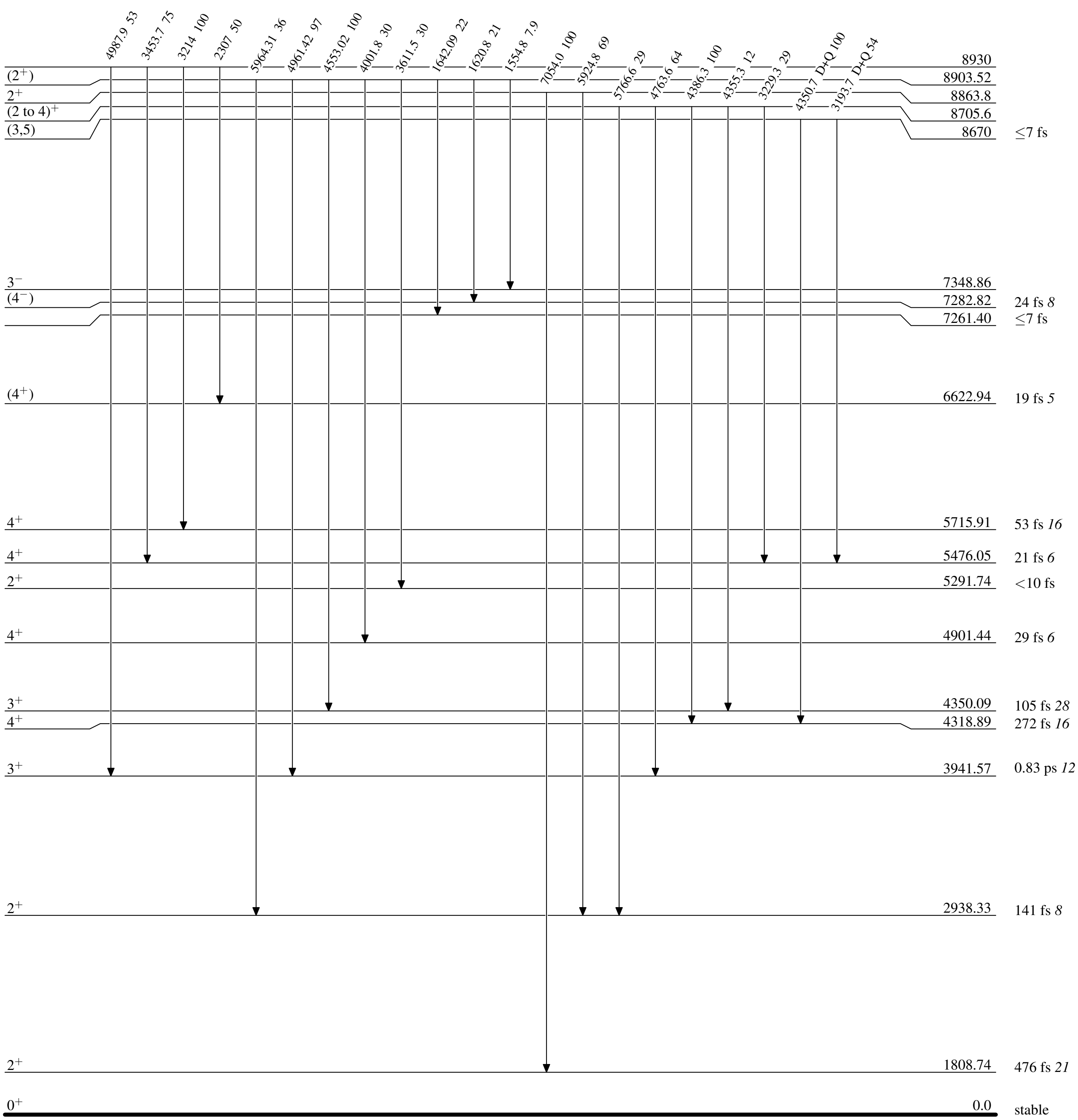


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

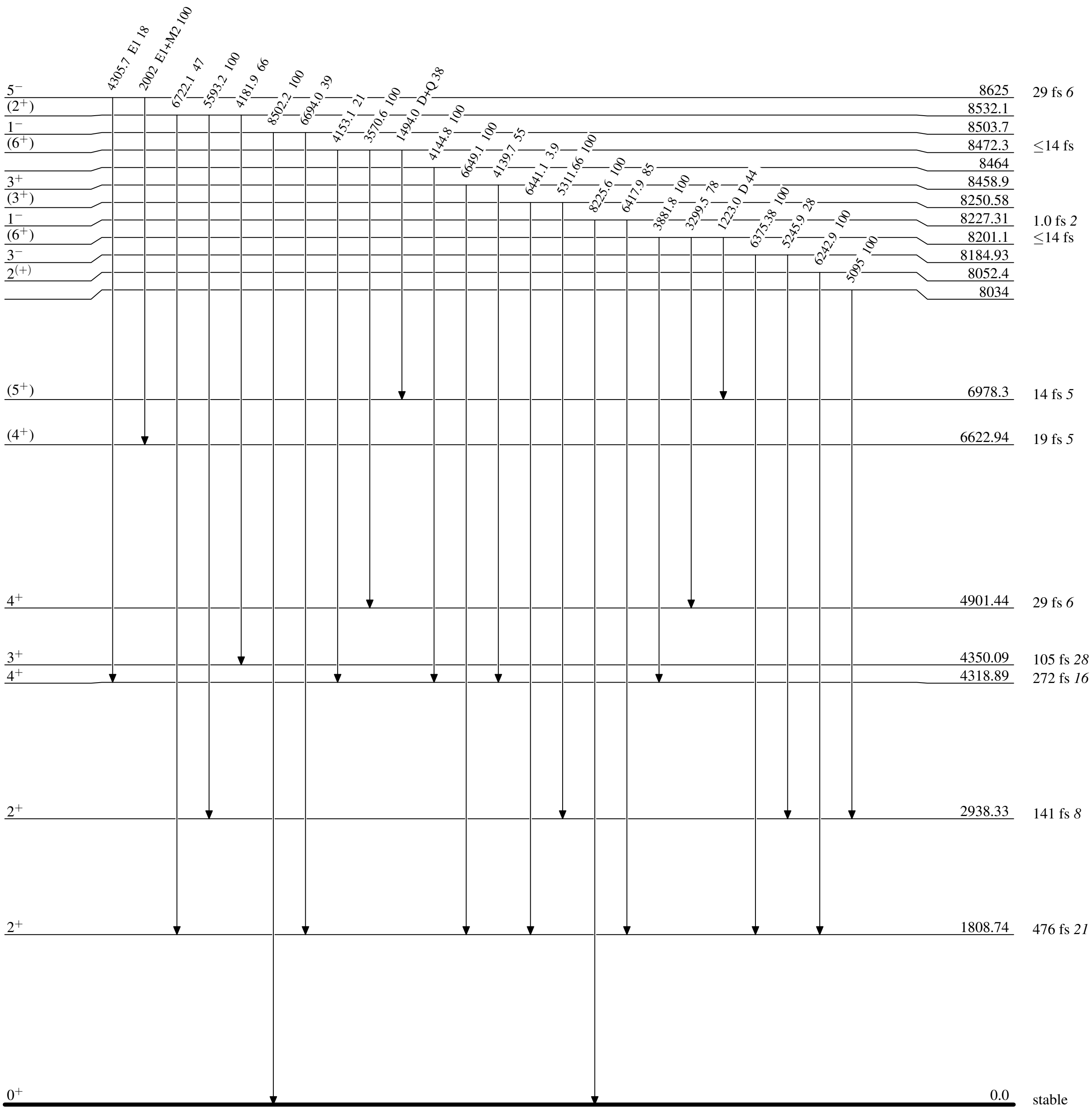


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

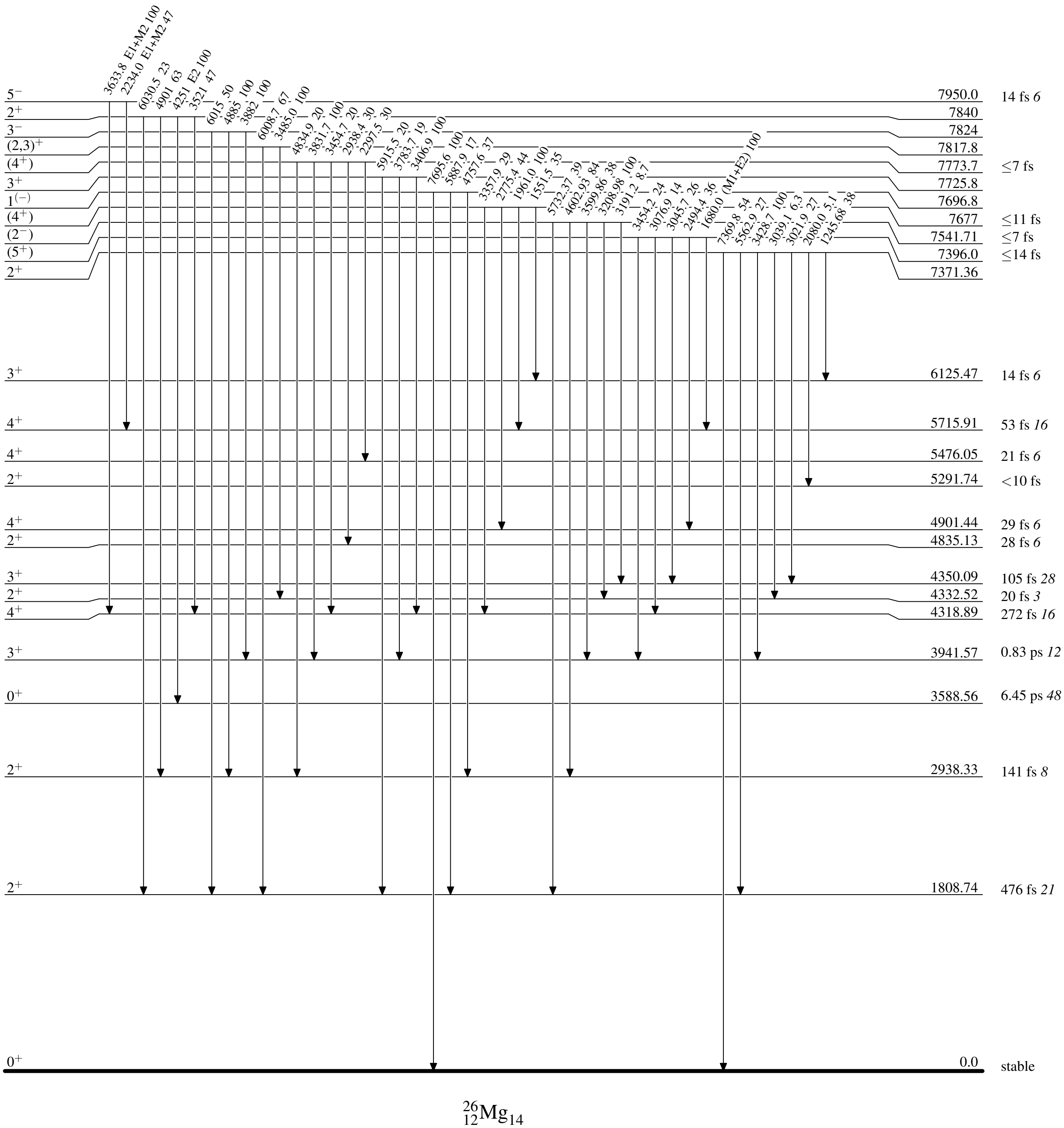


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

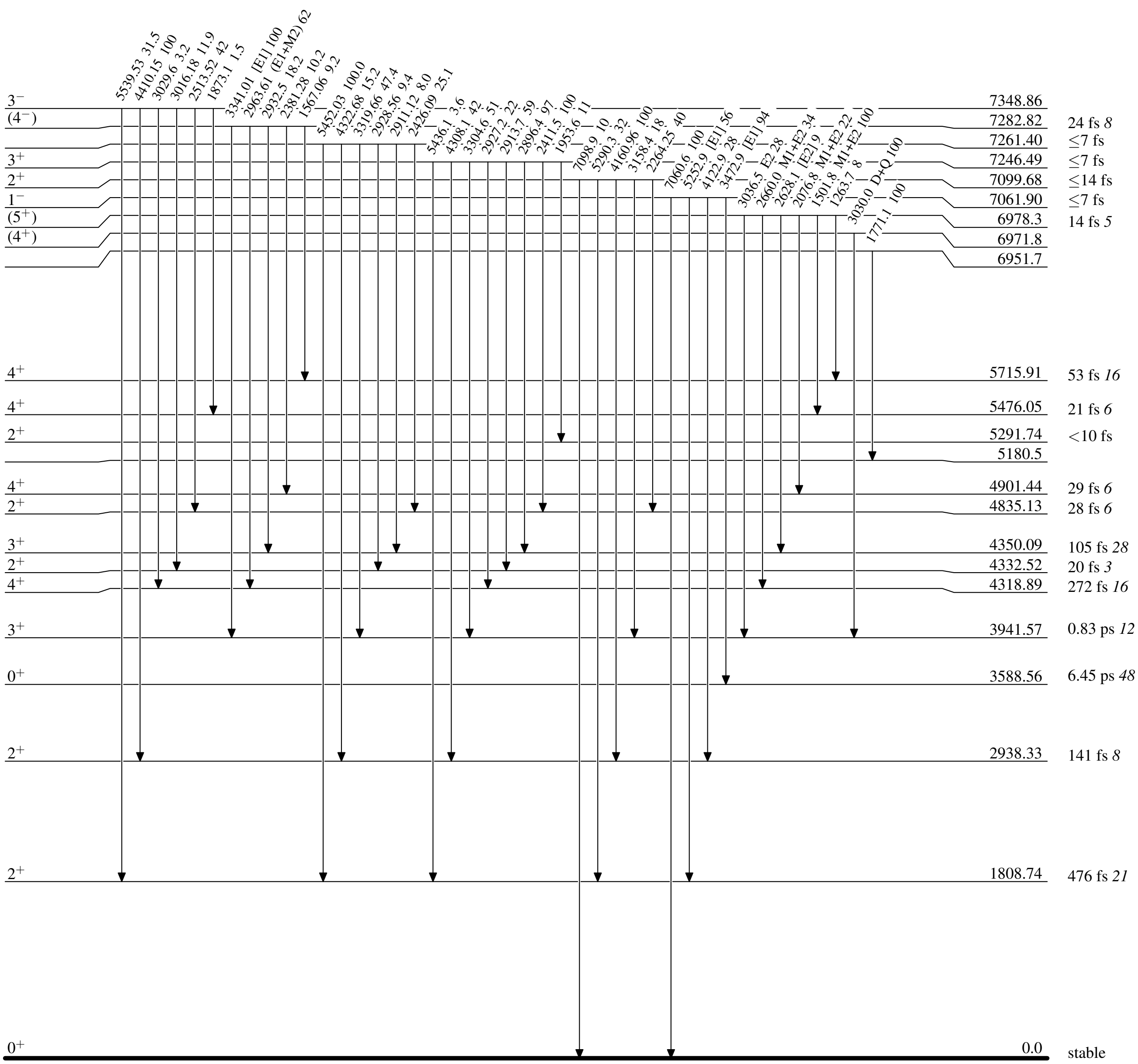
Intensities: Relative photon branching from each level



Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level

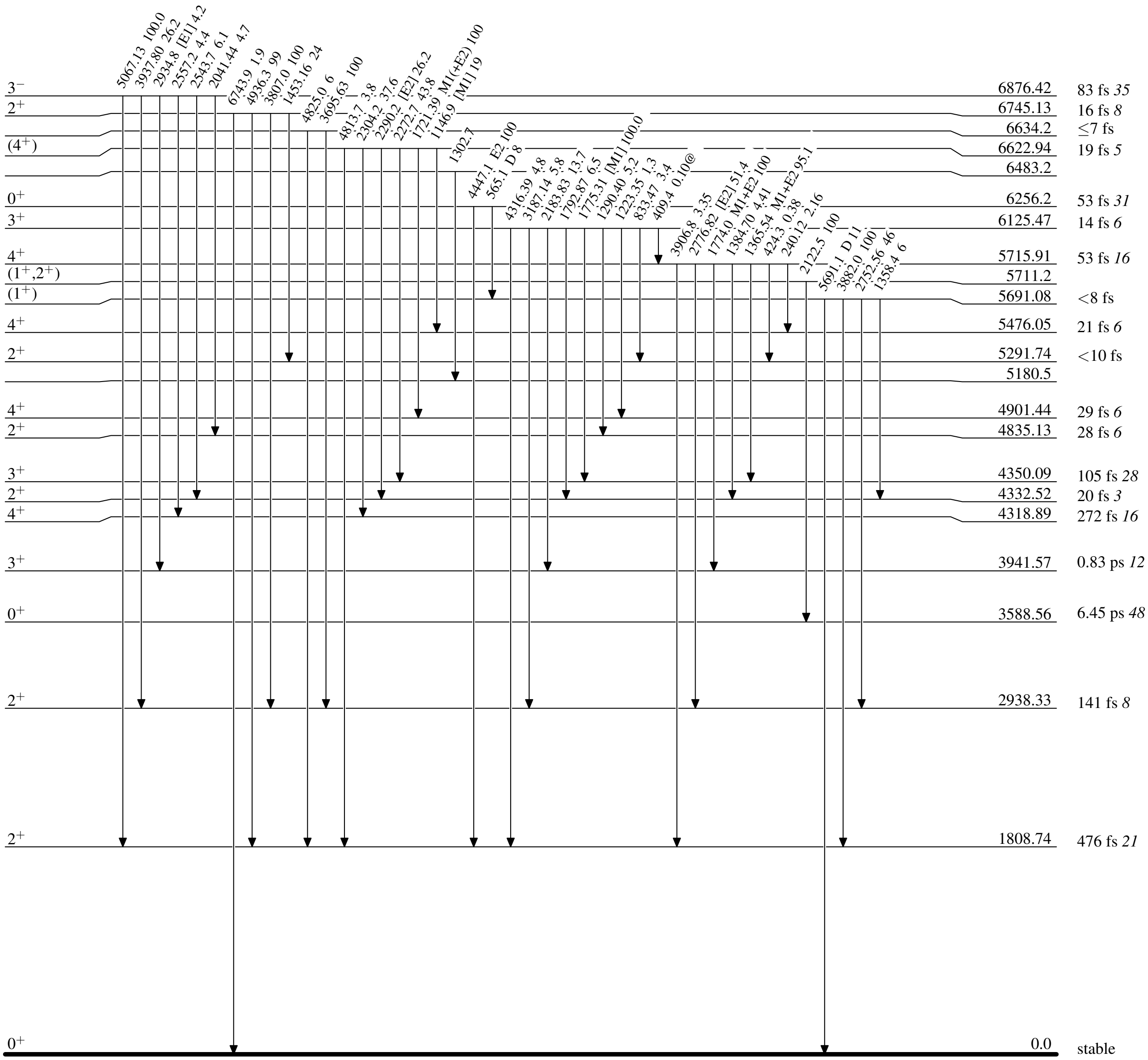


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided

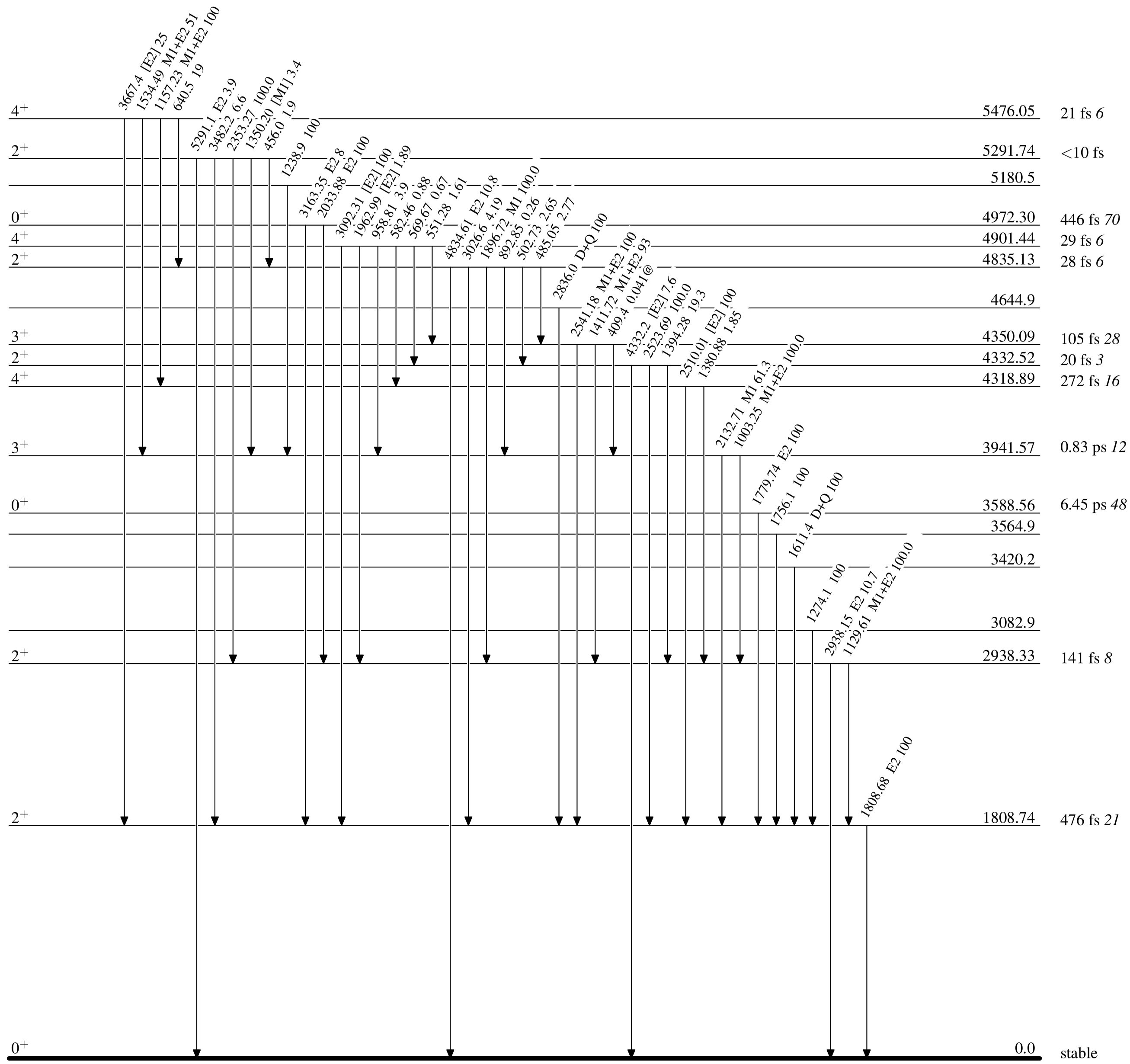


$^{26}_{12}Mg_{14}$

Adopted Levels, Gammas

Level Scheme (continued)

Intensities: Relative photon branching from each level
@ Multiply placed: intensity suitably divided



$^{26}_{12}Mg_{14}$