^{24}Mg(d,pγ) 1991He05

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia, Anagha Chakraborty	NDS 205,1 (2025)	31-May-2025

1991He05: ^{24}Mg(d,pγ), E=6.5 MeV. Measured σ(Ep), pγ coincidences, DSA. Surface barrier proton detector and Ge(Li) detector.
1974Ro39 (other): ^{24}Mg(d,pγ), E=6 MeV. Measured DSA, pγ coincidences. Annular surface barrier detector at 180° and a Ge(Li) detector at 0°, 60°, and 90° with respect to the beam direction.
1976Ch29 (other): E=4.7 MeV; measured pγ, nγ, $\gamma\gamma$-coin. Deduced levels, γ-branching. Annular surface barrier and Ge(Li) detectors.
Others: 1961Mc17, 1969So09, 1971Al29, 1971Do13, 1972Al28, 1973Ro17, 1974Ro10, 1974Vo01.

^{25}Mg Levels

E(level)[†]	J$^\pi$[†]	T$_{1/2}$	Comments
0	5/2$^+$		
585.0[#] *2*	1/2$^+$	3.5 ns *4*	T$_{1/2}$: from τ=5.0 ns *6* (1971Do13). Other: 3.33 ns *7* (τ=4.81 ns *10* from 1961Mc17).
974.6[#] *4*	3/2$^+$	10.1 ps *17*	T$_{1/2}$: from 1972Al28 (also 1971Al29). Other value: 11 ps *4* (from τ=16 ps *4* – 1971Do13).
1611.8[#] *5*	7/2$^+$		
1964.4[#] *3*	5/2$^+$		
2563.6[#] *4*	1/2$^+$	<7[&] fs	
2737.0[#] *7*	7/2$^+$	291[&] fs *+26–29*	T$_{1/2}$: from τ=420 fs *+37–42*. In 1974Ro39, listed as τ=420 fs *+457–378*, implies τ=420 fs *+(420+37)*(upper uncertainty)*-(420-42)* (lower uncertainty).
2801.5[#] *6*	3/2$^+$	26[&] fs *3*	
3405.6[#] *6*	9/2$^+$	21[&] fs *+12–15*	
3413.3[#] *8*	3/2$^-$	11[@] fs *4*	T$_{1/2}$: other: <7 fs (1974Ro39).
3907.6[#] *9*	5/2$^+$	<7[&] fs	γs to 2561 and 1964 keV levels with branching ratios 4 and <3, respectively, are listed in 1973Ro17. These transitions are absent in 1991He05.
3970.4[#] *6*	7/2$^-$	18[&] fs *8*	
4060 *1*	9/2$^+$	34[&] fs *14*	
4277.1[#] *7*	1/2$^-$	<7[&] fs	
4359.3[#] *9*	3/2$^+$	<7[&] fs	
4710.5[#] *11*	9/2$^+$	29[&] fs *3*	
4721.8[#] *13*	5/2$^+$	<7[&] fs	
5011.9[#] *7*	7/2$^+$	<7[&] fs	
5116.4[#] *12*	1/2$^-$	18 fs *4*	T$_{1/2}$: from 1974Ro39, value is inconsistent with the reported limit of <7 fs from (p,p$'\gamma$).
5250.3 *12*	11/2$^+$	<13[&] fs	E(level): weighted average of 5251 *1* (1991He05) and 5248.2 *18* (1976Ch29).
5462.8 *13*	13/2$^+$	0.96[&] ps *+46–34*	E(level): weighted average of 5462 *1* (1991He05) and 5464.7 *15* (1976Ch29).
5475.2 *10*	1/2$^+$	<7[&] fs	E(level): weighted average of 5475 *1* (1991He05) and 5476.0 *24* (1976Ch29).
5521.1[#] *6*	5/2$^-$	<7[&] fs	E(level): other: 5511 (1974Ro39).
5533.8[#] *13*	11/2$^+$	<6[@] fs	E(level),T$_{1/2}$: other: 5524 and <7 fs (1974Ro39).
5746.4[#] *14*	7/2,9/2$^+$[‡]	<7[&] fs	
5748 *2*	1/2$^+$,3/2$^+$,5/2$^+$[‡]		

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^{24}Mg(d,pγ) 1991He05 (continued)

^{25}Mg Levels (continued)

E(level)[†]	J$^\pi$[†]	$T_{1/2}$	Comments
5793.0[#] *5*	11/2$^-$,7/2$^-$	33[@] fs *7*	$T_{1/2}$: other value: 35 fs *11* (1974Ro39).
5862 *2*	5/2$^+$	<7[&] fs	
5972 *2*	9/2$^+$	<18[&] fs	E(level),$T_{1/2}$: other: 5967; two mean lifetime values are listed with this level energy as τ < 26 fs and τ=15 fs *+28−15*.
5979.3[#] *21*	7/2$^+$	<7[&] fs	
6041 *2*	11/2$^+$,7/2$^+$	<7[&] fs	J$^\pi$: proposed in 1974Ro10, based on $\gamma(\theta)$ and p-γ angular correlation measurements.
6082 *1*	5/2$^+$	<7[&] fs	J$^\pi$: listed in Table 2. In footnote 3/2$^+$,5/2$^+$.
6169 *3*	3/2	<7[&] fs	
6362 *2*	3/2$^+$	<7[&] fs	J$^\pi$: D+Q 6361γ, ΔJ=1 transition, to 5/2$^+$.
6433 *2*	9/2$^+$	<7[&] fs	
6468 *2*	3/2$^-$	<7[&] fs	
6570 *1*	1/2$^+$,3/2	<7[&] fs	
6678 *1*	5/2	10[&] fs *+30−3*	J$^\pi$: D+Q 1666γ, ΔJ=1, to 7/2$^+$ and 2770γ D+Q, ΔJ=0, based on A_2 and A_4.
6777 *3*	1/2$^+$	<7[&] fs	
6832 *2*	3/2$^-$,5/2	<28[@] fs	
6839 *2*	5/2$^+$	<7 fs	J$^\pi$: D+Q 5864γ, ΔJ=1, to 3/2$^+$; D+Q γ to 5/2$^+$; 7/2$^+$.
6885 *3*	7/2,9/2,11/2	97[@] fs *42*	
6914 *2*	3/2$^+$,5/2		
6958 *2*	3/2$^+$,5/2	<7[&] fs	
7038 *2*	5/2	<21[@] fs	
7088 *4*	3/2$^+$,5/2$^+$	<7[&] fs	
7181 *2*	3/2$^+$,7/2	<18[&] fs	$T_{1/2}$: other: < 28 fs (1991He05).
7185 *2*		<14[@] fs	
7228 *3*	3/2$^+$,5/2$^+$	<7[&] fs	
7285 *2*	7/2$^-$	<7[&] fs	
7378 *5*	5/2$^+$		
7493 *3*	11/2	21[@] fs *8*	
7505 *3*	5/2	<10[@] fs	
7524 *2*	7/2,5/2$^+$	<10[@] fs	J$^\pi$: adopted as 7/2$^+$,5/2.
7551 *1*	13/2$^+$,9/2$^+$	<21[@] fs	
7582 *9*	5/2$^+$	<173[@] fs	
7633 *5*	(7/2$^+$)	<49[@] fs	
7653 *2*	9/2	<21[@] fs	J$^\pi$: D(+Q) 4915γ ΔJ=1, to 7/2$^+$.
7801 *2*	9/2	<12[@] fs	
7838 *2*	7/2$^+$	<28[@] fs	
7866 *2*	7/2$^+$,11/2$^+$[‡]	<12[@] fs	
7961 *2*	7/2$^+$	<14[@] fs	
8012 *3*	13/2$^+$,9/2	<28[@] fs	
8076 *3*	5/2,7/2,9/2	<14[@] fs	
8119 *3*	(7/2$^+$)	<10[@] fs	
8267 *2*	(7/2$^+$)	<10 fs	J$^\pi$: expected n_0 decay with l≤3, and spin-parity 7/2$^-$ is highly improbable (1991He05).
8530 *2*	(7/2$^+$)	<10[@] fs	
8544 *3*	(7/2$^+$)	<17[@] fs	

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^{24}Mg(d,pγ) 1991He05 (continued)

^{25}Mg Levels (continued)

E(level)†	J$^\pi$†	$T_{1/2}$	Comments
8551	11/2	<5@ fs	
8656 *2*	7/2	<10@ fs	
8811 *2*	13/2$^+$,9/2$^+$	<8@ fs	
8888 *3*		<17@ fs	J$^\pi$: 11/2,(9/2$^+$,7/2) in Fig 4. (1991He05). However, authors note in the text that the spin-parity was not assigned due to the variance of the expected n_0 decay with l≤4 (implying spin-parity ≠9/2$^+$) and the γ decay to 9/2$^+$. Also it is not predicted by their shell model calculations. The D+Q ΔJ=0 γ to 9/2$^+$, implies 9/2$^+$ for this level from ≠M2 component by RUL.
8896 *1*		17@ fs *8*	J$^\pi$: 15/2$^-$ or 11/2,15/2$^-$ in 1991He05, based on assignment in band member and 3103γ to 11/2$^-$. A_2, A_4 values of 3103γ support ΔJ=0 transition. In the adopted dataset J$^\pi$=7/2$^-$,9/2$^-$.
9014 *3*	11/2,7/2$^+$,9/2$^+$	<5@ fs	
9410 *3*	13/2,9/2	12@ fs *8*	J$^\pi$: from Fig. 4 (1991He05), in the text 13/2. In Table 2 footnote, 9/2 is highly improbable from expected n_0 decay with l≤4 and n_1 decay with l≤3.
9652 *2*	11/2,7/2	<5@ fs	J$^\pi$: from Fig. 4 (1991He05). In Table 2 footnote, 7/2 is highly improbable from expected n_0 decay with l≤4 and n_1 decay with l≤3.
9686 *3*	11/2,7/2	<5@ fs	
9830 *10*	11/2$^+$,13/2		
9946 *4*	11/2$^+$,15/2		
10136 *10*			
10996 *10*			
11200 *10*			
11409 *10*			

† From 1991He05, except as noted.
‡ Selection/rejection of parity based on the RUL for hypothetical M2 transition rate/s (1991He05).
# From 1976Ch29.
@ From 1991He05, by Doppler Shift Attenuation Method.
& From 1974Ro39. The uncertainty was deduced by the evaluators from the reported upper and lower mean lifetime values in 1974Ro39, for example: for a mean lifetime value of X, it is listed as $X^{\text{X+upper uncertainty}}_{\text{(X−lower uncertainty)}}$. For 2734 keV level, a numerical example has been listed.

γ(^{25}Mg)

E_i(level)	J^π_i	E_γ†	I_γ‡	E_f	J^π_f	Mult.#	Comments
585.0	1/2$^+$	585.0	100	0	5/2$^+$		
974.6	3/2$^+$	389.6	49 *5*	585.0	1/2$^+$		
		974.6	51 *5*	0	5/2$^+$		
1611.8	7/2$^+$	1611.8	100	0	5/2$^+$	D+Q	A_2=−0.55 *3*; A_4=+0.01 *5* (1969So09)
1964.4	5/2$^+$	989.8	28 *3*	974.6	3/2$^+$		
		1379.4	41 *4*	585.0	1/2$^+$		A_2=+0.56 *5*; A_4=−0.36 *8* (1969So09)
		1964.4	31 *3*	0	5/2$^+$	D+Q	A_2=+0.00 *7*; A_4=+0.01 *5* (1969So09)
2563.6	1/2$^+$	1589.0	15 *5*	974.6	3/2$^+$		
		1978.6	82 *8*	585.0	1/2$^+$		
		2563.6	3 *1*	0	5/2$^+$		
2737.0	7/2$^+$	772.6	9 *3*	1964.4	5/2$^+$	D+Q	A_2=+0.46 *21*; A_4=−0.34 *35* (1969So09)
		1762.4	82 *8*	974.6	3/2$^+$	Q	A_2=+0.43 *5*; A_4=−0.33 *8* (1969So09)
		2737.0	9 *3*	0	5/2$^+$	D+Q	A_2=−0.42 *15*; A_4=−0.01 *26* (1969So09)
2801.5	3/2$^+$	836.9	43 *4*	1964.4	5/2$^+$	D+Q	A_2=−0.07 *3*; A_4=−0.04 *5* (1969So09)
		2216.5	35 *4*	585.0	1/2$^+$		A_2=−0.30 *5*; A_4=−0.14 *8* (1969So09)

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^{24}Mg(d,pγ) 1991He05 (continued)

$\gamma(^{25}Mg)$ (continued)

E_i(level)	J_i^π	E_γ †	I_γ ‡	E_f	J_f^π	Mult.#	Comments
2801.5	$3/2^+$	2801.5	22 *7*	0	$5/2^+$	D+Q	A_2=+0.25 *6*; A_4=+0.08 *8* (1969So09)
3405.6	$9/2^+$	1793.8	83 *8*	1611.8	$7/2^+$		
		3405.6	17 *5*	0	$5/2^+$		
3413.3	$3/2^-$	2438.7	17 *5*	974.6	$3/2^+$		A_2=−0.22 *10*; A_4=−0.30 *17* (1969So09)
		2828.3	68 *7*	585.0	$1/2^+$		A_2=−0.28 *3*; A_4=−0.02 *5* (1969So09)
		3413.3	15 *5*	0	$5/2^+$	D+Q	A_2=+0.06 *5*; A_4=+0.18 *9* (1969So09)
3907.6	$5/2^+$	1106.1		2801.5	$3/2^+$		I_γ: 6 *2* (1973Ro17).
		1170.6		2737.0	$7/2^+$		I_γ: 8 *3* (1973Ro17).
		2932.8		974.6	$3/2^+$		I_γ: 72 *7* (1973Ro17).
		3907.6		0	$5/2^+$		I_γ: 10 *3* (1973Ro17).
3970.4	$7/2^-$	1233.4	2 *1*	2737.0	$7/2^+$		
		2006.0	15 *1*	1964.4	$5/2^+$		
		2358.6	2 *1*	1611.8	$7/2^+$		
		3970.4	81 *2*	0	$5/2^+$	D+Q	A_2=−0.33 *3*; A_4=−0.07 *4* (1969So09)
4060	$9/2^+$	654		3405.6	$9/2^+$		E_γ: transition absent in 1973Ro17. In 1991He05, the branching is 1.0 *5* from the literature.
		2448	44 *5*	1611.8	$7/2^+$		
		4060	56 *6*	0	$5/2^+$		
4277.1	$1/2^-$	863.8	4 *2*	3413.3	$3/2^-$		
		1713.4	11 *1*	2563.6	$1/2^+$		
		3302.5	76 *8*	974.6	$3/2^+$		A_2=−0.03 *9*; A_4=−0.23 *16* (1969So09)
		3692.1	9 *3*	585.0	$1/2^+$		
4359.3	$3/2^+$	1795.7	1.0 *3*	2563.6	$1/2^+$		
		3384.4	57 *6*	974.6	$3/2^+$		
		3774.3	42 *4*	585.0	$1/2^+$	D+Q	A_2=−0.64 *14*; A_4=+0.15 *24* (1969So09)
4710.5	$9/2^+$	1973.5		2737.0	$7/2^+$		I_γ: This transition feeding 2737.95 keV level is absent in 1973Ro17, instead feeding a level at 3965 (3970 in the adopted) with a weaker branching ratio of 1.
		2746.1	99 *10*	1964.4	$5/2^+$		A_2=+0.68 *12*; A_4=+0.13 *18* (1969So09)
4721.8	$5/2^+$	2757.4	15 *5*	1964.4	$5/2^+$		
		3747.2	84 *4*	974.6	$3/2^+$		
		4721.8	1.0 *5*	0	$5/2^+$		
5011.9	$7/2^+$	1041.5	1.0 *5*	3970.4	$7/2^-$		
		1104.3	2 *1*	3907.6	$5/2^+$		
		2210.4	8 *2*	2801.5	$3/2^+$		
		3047.5	40 *4*	1964.4	$5/2^+$		
		3400.1	11 *2*	1611.8	$7/2^+$		
		5011.4	38 *4*	0	$5/2^+$		
5116.4	$1/2^-$	1703.1		3413.3	$3/2^-$		
		2552.8		2563.6	$1/2^+$		
		4141.8		974.6	$3/2^+$		A_2=−0.02 *9*; A_4=−0.19 *15* (1969So09)
		4531.4		585.0	$1/2^+$	D+Q	A_2=+0.03 *10*; A_4=−0.08 *17* (1969So09)
5250.3	$11/2^+$	1190	23 *8*	4060	$9/2^+$		
		1845	34 *4*	3405.6	$9/2^+$		
		2513	13 *4*	2737.0	$7/2^+$		
		3638	30 *3*	1611.8	$7/2^+$		
5462.8	$13/2^+$	2057	100	3405.6	$9/2^+$		A_2=+0.05 *3*; A_4=−0.03 *5* (1969So09)
5475.2	$1/2^+$	2062	5 *2*	3413.3	$3/2^-$		
		2911	3 *1*	2563.6	$1/2^+$		
		4500	28 *3*	974.6	$3/2^+$		
		4890	64 *7*	585.0	$1/2^+$		
5521.1	$5/2^-$	1550.7	14 *4*	3970.4	$7/2^-$		
		2107.8	3 *1*	3413.3	$3/2^-$		
		2719.4	11 *4*	2801.5	$3/2^+$		
		3556.7	13 *4*	1964.4	$5/2^+$		

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^{24}Mg(d,pγ) 1991He05 (continued)

$\gamma(^{25}Mg)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	Comments
5521.1	5/2$^-$	3909.3	29 *3*	1611.8	7/2$^+$		
		5520.4	30 *3*	0	5/2$^+$		
5533.8	11/2$^+$	2128.2		3405.6	9/2$^+$		
		3922.0		1611.8	7/2$^+$		
5746.4	7/2,9/2$^+$	1686.4	3 *2*	4060	9/2$^+$	D+Q	A_2=−0.35 *11*; A_4=+0.00 *11* (1991He05) δ: +0.18 *+7−2* for J^π=7/2; δ< +0.6 or δ > +1 for 9/2$^+$ (1991He05).
		2340.8	5 *2*	3405.6	9/2$^+$		
		3009.4	7 *2*	2737.0	7/2$^+$		
		5745.7	85 *15*	0	5/2$^+$		
5748	1/2$^+$,3/2$^+$,5/2$^+$	1840	2 *1*	3907.6	5/2$^+$		
		2946	5 *2*	2801.5	3/2$^+$		
		3783	14 *3*	1964.4	5/2$^+$		A_2=−0.01 *5*; A_4=+0.05 *5* (1991He05) δ: +0.25 *6* for 5/2$^+$ (1991He05).
		4773	30 *5*	974.6	3/2$^+$		A_2=+0.06 *3*; A_4=+0.07 *4* (1991He05) δ: ∞ for 1/2$^+$; +5.7 *+14−32* for 5/2$^+$ (1991He05).
		5162	4 *2*	585.0	1/2$^+$		
		5747	45 *15*	0	5/2$^+$		
5793.0	11/2$^-$,7/2$^-$	1822.5	39 *4*	3970.4	7/2$^-$		
		2387.3	61 *4*	3405.6	9/2$^+$		
5862	5/2$^+$	3125	19 *4*	2737.0	7/2$^+$		
		4887	16 *4*	974.6	3/2$^+$		
		5861	65 *8*	0	5/2$^+$		
5972	9/2$^+$	1912	39 *4*	4060	9/2$^+$		
		4360	58 *6*	1611.8	7/2$^+$		
		5971	3 *2*	0	5/2$^+$		
5979.3	7/2$^+$	3242.3	30 *3*	2737.0	7/2$^+$		
		4014.9	62 *6*	1964.4	5/2$^+$		
		5978.5	8 *3*	0	5/2$^+$		
6041	11/2$^+$,7/2$^+$	1981	5 *1*	4060	9/2$^+$		
		2635	75 *7*	3405.6	9/2$^+$		
		3304	12 *3*	2737.0	7/2$^+$		
		4429	8 *2*	1611.8	7/2$^+$		
6082	5/2$^+$	1723	2 *1*	4359.3	3/2$^+$		
		2112	4 *1*	3970.4	7/2$^-$		
		2669	6 *1*	3413.3	3/2$^-$	D+Q	A_2=−0.36 *7*; A_4=+0.08 *7* (1991He05) δ: +0.03 *+5−35* or −3.1 *6* for 5/2$^+$ (1991He05).
		3280	3 *1*	2801.5	3/2$^+$		
		4117	25 *4*	1964.4	5/2$^+$		
		4470	46 *5*	1611.8	7/2$^+$	D+Q	A_2=−0.06 *3*; A_4=−0.05 *4* (1991He05) δ: +0.14 *+8−20* or −5.0 *+8−20* for 5/2$^+$ (1991He05).
		5107	4 *1*	974.6	3/2$^+$		
		6081	10 *1*	0	5/2$^+$	D+Q	A_2=−0.31 *8*; A_4=−0.05 *9* (1991He05) δ: −0.97 *14* or −4.0 *+5−16* for 5/2$^+$ (1991He05).
6169	3/2	1892	3 *1*	4277.1	1/2$^-$		A_2=−0.43 *6*; A_4=−0.11 *7* (1991He05) δ: < +0.45 or −2.1 < δ < +0.1 for 3/2 (1991He05).
		2756	2 *1*	3413.3	3/2$^-$		
		3367	8 *2*	2801.5	3/2$^+$		A_2=+0.05 *7*; A_4=+0.10 *7* (1991He05)
		4204	33 *4*	1964.4	5/2$^+$		A_2=−0.08 *3*; A_4=−0.04 *4* (1991He05)
		5194	40 *5*	974.6	3/2$^+$		A_2=−0.01 *3*; A_4=+0.01 *4* (1991He05)
		5583	6 *2*	585.0	1/2$^+$		
		6168	8 *2*	0	5/2$^+$		
6362	3/2$^+$	2003	2 *1*	4359.3	3/2$^+$		
		4397	7 *2*	1964.4	5/2$^+$		
		5387	12 *3*	974.6	3/2$^+$		

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^{24}Mg(d,pγ) 1991He05 (continued)

$\gamma(^{25}Mg)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[@]	Comments
6362	3/2$^+$	5776	10 *2*	585.0	1/2$^+$			
		6361	69 *7*	0	5/2$^+$	D+Q		A_2=−0.29 *3*; A_4=+0.01 *4* (1991He05) δ: −0.37 < δ < −1.5 or δ < +0.14 for 3/2 (1991He05).
6433	9/2$^+$	899	7 *2*	5533.8	11/2$^+$	D(+Q)	−0.03 *13*	A_2=−0.25 *10*; A_4=+0.03 *1* (1991He05)
		1183	3 *1*	5250.3	11/2$^+$			
		1421	18 *4*	5011.9	7/2$^+$			
		1722	9 *2*	4710.5	9/2$^+$			
		2373	13 *3*	4060	9/2$^+$	D+Q		A_2=+0.08 *8*; A_4=−0.07 *10* (1991He05) δ: +2.5 *5* or −0.5 *1* for 9/2 (1991He05).
		2525	15 *3*	3907.6	5/2$^+$	Q		A_2=+0.41 *9*; A_4=−0.38 *10* (1991He05) δ: ∞ (1991He05).
		3696	8 *2*	2737.0	7/2$^+$			
		4821	27 *6*	1611.8	7/2$^+$	D+Q	1.0 *+15−6*	A_2=+0.75 *10*; A_4=+0.14 *12* (1991He05)
6468	3/2$^-$	1352	11 *3*	5116.4	1/2$^-$			A_2=−0.07 *5*; A_4=−0.12 *5* (1991He05)
		1746	4 *1*	4721.8	5/2$^+$			
		2191	6 *1*	4277.1	1/2$^-$			
		2560	17 *4*	3907.6	5/2$^+$			A_2=−0.06 *5*; A_4=−0.05 *6* (1991He05)
		3054	3 *1*	3413.3	3/2$^-$			
		4503	28 *5*	1964.4	5/2$^+$			A_2=−0.08 *6*; A_4=−0.06 *6* (1991He05)
		5493	14 *3*	974.6	3/2$^+$			
		5882	17 *4*	585.0	1/2$^+$			A_2=−0.35 *10*; A_4=+0.06 *9* (1991He05)
6570	1/2$^+$,3/2	2293	3 *1*	4277.1	1/2$^-$			
		2662	4 *1*	3907.6	5/2$^+$			
		4006	14 *3*	2563.6	1/2$^+$			A_2=+0.02 *6*; A_4=−0.05 *7* (1991He05)
		4605	17 *3*	1964.4	5/2$^+$			A_2=+0.00 *6*; A_4=+0.00 *8* (1991He05)
		5595	29 *4*	974.6	3/2$^+$			A_2=−0.06 *6*; A_4=−0.04 *7* (1991He05)
		5984	33 *4*	585.0	1/2$^+$			A_2=−0.12 *6*; A_4=+0.06 *7* (1991He05)
6678	5/2	1157	1.0 *5*	5521.1	5/2$^-$			
		1666	2 *1*	5011.9	7/2$^+$	D+Q		A_2=−0.57 *9*; A_4=+0.09 *9* (1991He05) δ: +5.7 *+38−20* or +0.29 *8* (1991He05).
		2770	5 *1*	3907.6	5/2$^+$	D+Q	−0.10 *9*	A_2=+0.32 *9*; A_4=+0.00 *10* (1991He05)
		3876	75 *7*	2801.5	3/2$^+$	D+Q	−0.30 *4*	A_2=−0.45 *3*; A_4=+0.04 *3* (1991He05)
		4713	4 *1*	1964.4	5/2$^+$	D(+Q)	+0.4 *+7−4*	A_2=+0.64 *11*; A_4=+0.03 *13* (1991He05)
		6677	13 *3*	0	5/2$^+$	D(+Q)	+0.25 *+12−35*	A_2=+0.43 *9*; A_4=+0.00 *9* (1991He05)
6777	1/2$^+$	2500	1.0 *5*	4277.1	1/2$^-$			
		3363	21 *4*	3413.3	3/2$^-$			
		3975	3 *2*	2801.5	3/2$^+$			
		4213	9 *2*	2563.6	1/2$^+$			
		5802	19 *4*	974.6	3/2$^+$			A_2=−0.05 *7*; A_4=+0.07 *7* (1991He05)
		6191	40 *8*	585.0	1/2$^+$			
		6776	7 *2*	0	5/2$^+$			
6832	3/2$^-$,5/2	2473	20 *4*	4359.3	3/2$^+$			
		2861	22 *4*	3970.4	7/2$^-$			
		3418	22 *6*	3413.3	3/2$^-$			
		4030	36 *6*	2801.5	3/2$^+$	D(+Q)	−0.36 *+46−22*	A_2=−0.21 *10*; A_4=−0.15 *10* (1991He05) δ: for J^π=5/2.
6839	5/2$^+$	4102	41 *10*	2737.0	7/2$^+$	D+Q	+0.07 *8*	A_2=−0.23 *7*; A_4=+0.05 *8* (1991He05)
		5227	17 *4*	1611.8	7/2$^+$			
		5864	26 *6*	974.6	3/2$^+$	D+Q	+0.1 *+1−2*	A_2=−0.36 *7*; A_4=+0.00 *3* (1991He05)
		6838	16 *4*	0	5/2$^+$	D(+Q)	+0.1 *+26−3*	A_2=+0.50 *12*; A_4=+0.50 *12* (1991He05)
6885	7/2,9/2,11/2	3479	16 *4*	3405.6	9/2$^+$	D+Q		A_2=−0.43 *13*; A_4=+0.10 *10* (1991He05) δ: −0.14 *+40−14* for J^π=7/2; >−0.7 for 9/2; −0.04 *12* (1991He05).
		5273	84 *4*	1611.8	7/2$^+$	D(+Q)		A_2=+0.35 *5*; A_4=+0.08 *10* (1991He05)

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^{24}Mg(d,pγ) 1991He05 (continued)

$\gamma(^{25}Mg)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[@]	Comments
								δ: −0.14 *+200−21* for J^π=7/2; +0.40 *+27−15* for 9/2; ∞ for 11/2 (1991He05);
6914	3/2$^+$,5/2	3006	3 *1*	3907.6	5/2$^+$			A_2=+0.23 *8*; A_4=+0.01 *9* (1991He05) δ: +2.05 *+10−5* or +0.18 *41* for 5/2 (1991He05).
		4112	15 *3*	2801.5	3/2$^+$			A_2=−0.15 *9*; A_4=+0.05 *11* (1991He05)
		4177	11 *2*	2737.0	7/2$^+$			
		4949	8 *2*	1964.4	5/2$^+$			
		5302	6 *2*	1611.8	7/2$^+$			
		5939	9 *2*	974.6	3/2$^+$			
		6913	48 *7*	0	5/2$^+$			A_2=+0.24 *4*; A_4=+0.06 *4* (1991He05) δ: < +0.07 or −0.25 < δ < 2.0 for 3/2$^+$; +2.25 *15* or 0.00 *25* for 5/2$^+$ (1991He05).
6958	3/2$^+$,5/2	3544	3 *1*	3413.3	3/2$^-$			
		4156	8 *1*	2801.5	3/2$^+$			
		4221	14 *2*	2737.0	7/2$^+$			
		5983	14 *2*	974.6	3/2$^+$			
		6957	61 *6*	0	5/2$^+$			A_2=+0.17 *3*; A_4=−0.05 *4* (1991He05) δ: +2.75 *2* or −0.21 *+40−5* for 5/2 (1991He05).
7038	5/2	3067	4 *1*	3970.4	7/2$^-$			
		3624	9 *2*	3413.3	3/2$^-$	D+Q		A_2=−0.23 *9*; A_4=−0.13 *11* (1991He05) δ: −0.36 *+18−10* or −3.5 *+5−13* (1991He05).
		4301	6 *1*	2737.0	7/2$^+$			
		5073	40 *6*	1964.4	5/2$^+$	D(+Q)	−0.14 *+94−28*	A_2=+0.18 *5*; A_4=+0.12 *6* (1991He05)
		5426	25 *5*	1611.8	7/2$^+$			
		6063	16 *3*	974.6	3/2$^+$			
7088	3/2$^+$,5/2$^+$	6113	12 *4*	974.6	3/2$^+$			
		7087	88 *4*	0	5/2$^+$	D+Q		A_2=−0.21 *12*; A_4=+0.05 *18* (1991He05) δ: <−0.05 or >−3.5 for J^π=3/2; δ<+4.5 or >−0.45 for J^π=5/2 (1991He05).
7181	3/2$^+$,7/2	5216	80 *4*	1964.4	5/2$^+$	D+Q		A_2=−0.47 *3*; A_4=+0.04 *3* (1991He05) δ: <+0.25 for J=3/2; −0.10 *12* or 2.75 *30* for 7/2 (1991He05).
		7180	20 *4*	0	5/2$^+$			
7185		4448	8 *2*	2737.0	7/2$^+$			
		5573	92 *2*	1611.8	7/2$^+$			A_2=−0.14 *2*; A_4=−0.01 *3* (1991He05)
7228	3/2$^+$,5/2$^+$	6253	18 *4*	974.6	3/2$^+$	D+Q		A_2=+0.33 *7*; A_4=+0.09 *8* (1991He05) δ: +0.36 *+6−2* for J^π=5/2$^+$; +5<δ<−0.07 or −0.5<δ<−5 for 3/2$^+$ (1991He05).
		7227	82 *4*	0	5/2$^+$	D+Q	−0.53 *+10−22*	A_2=−0.10 *3*; A_4=−0.01 *4* (1991He05) δ: for J^π=5/2$^+$. No value calculated for J^π=3/2$^+$ (1991He05).
7285	7/2$^-$	5320	35 *4*	1964.4	5/2$^+$	D+Q		A_2=−0.56 *3*; A_4=−0.13 *7* (1991He05) δ: −0.10 *15* or −2.25 *3* for J^π=7/2$^-$ (1991He05).
		5673	10 *2*	1611.8	7/2$^+$	D(+Q)	+0.73 *75*	A_2=+0.38 *10*; A_4=+0.20 *14* (1991He05) δ: +0.18 *+20−45* or −2.75 *10* for J^π=7/2 (1991He05).
		7284	55 *6*	0	5/2$^+$	D+Q		A_2=−0.40 *3*; A_4=−0.07 *3* (1991He05) δ: −0.18 *+20−45* or −2.75 *10* for J^π=7/2 (1991He05).
7378	5/2$^+$	7377	100	0	5/2$^+$	D+Q		A_2=+0.20 *6*; A_4=−0.12 *7* (1991He05) δ: −0.00 *31* or +2.5 *5* for 5/2$^+$ (1991He05).
7493	11/2	1521	15 *4*	5972	9/2$^+$	D(+Q)	+0.00 *3*	A_2=−0.34 *11*; A_4=−0.00 *16* (1991He05)
		1959	11 *3*	5533.8	11/2$^+$			

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^{24}Mg(d,pγ) 1991He05 (continued)

$\gamma(^{25}Mg)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[@]	Comments
7493	11/2	2030	18 *4*	5462.8	13/2$^+$	D+Q	+0.07 *6*	A_2=−0.23 *10*; A_4=+0.11 *15* (1991He05)
		3433	34 *6*	4060	9/2$^+$	D+Q	−0.07 *6*	A_2=−0.48 *5*; A_4=−0.08 *8* (1991He05)
		4087	10 *3*	3405.6	9/2$^+$			
		5880	12 *3*	1611.8	7/2$^+$	Q		A_2=+0.26 *19*; A_4=−0.07 *27* (1991He05)
7505	5/2	4768	49 *6*	2737.0	7/2$^+$	D+Q		A_2=−0.34 *6*; A_4=+0.04 *7* (1991He05) δ: −0.33 *+43−20* or −3.0 *+7−20* for J^π=5/2 (1991He05).
		6529	36 *6*	974.6	3/2$^+$	D+Q	+0.10 *+90−3*	A_2=−0.28 *8*; A_4=−0.08 *9* (1991He05)
		7504	15 *4*	0	5/2$^+$			
7524	7/2,5/2$^+$	3616	18 *3*	3907.6	5/2$^+$	D+Q		A_2=−0.21 *3*; A_4=−0.08 *9* (1991He05) δ: >−0.45 for 5/2$^+$; −0.00 *13* for J^π=7/2 (1991He05).
		4787	41 *6*	2737.0	7/2$^+$	D+Q		A_2=+0.44 *6*; A_4=+0.07 *7* (1991He05) δ: −0.80 *+23−50* for 5/2$^+$; +0.90 *+15−33* or +0.14 *+10−28* for J^π=7/2 (1991He05).
		6548	7 *3*	974.6	3/2$^+$			
		7523	34 *5*	0	5/2$^+$	D+Q		A_2=−0.47 *9*; A_4=−0.04 *9* (1991He05) δ: −1.5 *+6−20* for J^π=5/2$^+$; −0.07 *+4−25* for J^π=7/2 (1991He05).
7551	13/2$^+$,9/2$^+$	2017	20 *7*	5533.8	11/2$^+$			
		2088	10 *5*	5462.8	13/2$^+$			
		2301	40 *10*	5250.3	11/2$^+$	D+Q		A_2=−0.36 *12*; A_4=+0.01 *18* (1991He05) δ: +0.10 *5* for J^π=9/2$^+$; −0.03 *4* for J^π=13/2$^+$.
		4145	30 *10*	3405.6	9/2$^+$			
7582	5/2$^+$	5969	100	1611.8	7/2$^+$	D+Q	+2.7 *+50−15*	A_2=−0.18 *12*; A_4=−0.26 *13* (1991He05) δ: for 5/2$^+$.
7633	(7/2$^+$)	6020	62 *8*	1611.8	7/2$^+$			
		7632	38 *8*	0	5/2$^+$	D+Q		A_2=−0.59 *14*; A_4=+0.23 *17* (1991He05) δ: −0.10 *+12−25* or −2.4 *40* for 7/2; <+0.18 or +0.8 *+4−7* for 3/2; −1.7 *+10−52* for 5/2$^+$.
7653	9/2	1681	7 *2*	5972	9/2$^+$	D+Q	+0.5 *4*	A_2=+0.59 *11*; A_4=−0.22 *14* (1991He05)
		1906	8 *1*	5746.4	7/2,9/2$^+$			
		2119	3 *1*	5533.8	11/2$^+$			
		2641	10 *2*	5011.9	7/2$^+$	D+Q		A_2=−0.62 *10*; A_4=+0.07 *9* (1991He05) δ: −0.18 *7* or −2.1 *+3−7*.
		3593	12 *3*	4060	9/2$^+$			
		4915	46 *6*	2737.0	7/2$^+$	D(+Q)	0.00 *5*	A_2=−0.45 *8*; A_4=+0.18 *8* (1991He05)
		6040	14 *3*	1611.8	7/2$^+$			
7801	9/2	2008	5 *2*	5793.0	11/2$^-$,7/2$^-$	D+Q	+0.14 *2*	A_2=−0.42 *11*; A_4=−0.01 *17* (1991He05)
		2267	2 *1*	5533.8	11/2$^+$			
		2551	3 *1*	5250.3	11/2$^+$			
		5063	12 *3*	2737.0	7/2$^+$			
		6188	78 *7*	1611.8	7/2$^+$	D(+Q)	−0.10 *15*	A_2=−0.51 *6*; A_4=+0.06 *6* (1991He05)
7838	7/2$^+$	2092	3 *1*	5746.4	7/2,9/2$^+$			
		4432	23 *4*	3405.6	9/2$^+$	D(+Q)	+0.07 *7*	A_2=−0.13 *8*; A_4=−0.12 *9* (1991He05)
		5100	7 *2*	2737.0	7/2$^+$			
		7837	67 *7*	0	5/2$^+$	D(+Q)	−0.04 *8*	A_2=−0.23 *7*; A_4=+0.08 *9* (1991He05)
7866	7/2$^+$,11/2$^+$	2332	8 *3*	5533.8	11/2$^+$			
		2616	10 *3*	5250.3	11/2$^+$			
		2854	10 *3*	5011.9	7/2$^+$	D+Q		A_2=+0.11 *14*; A_4=−0.51 *19* (1991He05) δ: <−0.65 for J^π=7/2$^+$; ∞ for 11/2$^+$ (1991He05).
		3806	20 *4*	4060	9/2$^+$	D+Q		A_2=−0.29 *10*; A_4=+0.08 *14* (1991He05)

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^{24}Mg(d,pγ) 1991He05 (continued)

$\gamma(^{25}Mg)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	δ[@]	Comments
								δ: +0.10 *7* for J^π7/2$^+$; −0.00 *4* for J^π=11/2$^+$.
7866	7/2$^+$,11/2$^+$	4460	22 *4*	3405.6	9/2$^+$			
		5128	30 *5*	2737.0	7/2$^+$			
7961	7/2$^+$	3239	4 *2*	4721.8	5/2$^+$			
		3250	7 *3*	4710.5	9/2$^+$	D+Q		A$_2$=−0.54 *10*; A$_4$=+0.18 *10* (1991He05) δ: <+3.5 or +0.18 *+50−14* (1991He05).
		4555	4 *2*	3405.6	9/2$^+$			
		5996	8 *3*	1964.4	5/2$^+$			
		6348	17 *4*	1611.8	7/2$^+$	D(+Q)	+0.5 *7*	A$_2$=+0.36 *9*; A$_4$=+0.05 *11* (1991He05)
		7960	60 *9*	0	5/2$^+$	D+Q		A$_2$=−0.58 *5*; A$_4$=−0.08 *5* (1991He05) δ: −0.40 *7* or −1.9 *1* (1991He05).
8012	13/2$^+$,9/2	1971	26 *6*	6041	11/2$^+$,7/2$^+$			
		2762	34 *6*	5250.3	11/2$^+$	D+Q		A$_2$=−0.62 *12*; A$_4$=+0.03 *19* (1991He05) δ: −0.18 *1* for J^π=13/2$^+$; +0.27 *3* for J=9/2.
		3301	40 *8*	4710.5	9/2$^+$			
8076	5/2,7/2,9/2	6463	100	1611.8	7/2$^+$	D+Q		A$_2$=−0.30 *7*; A$_4$=+0.00 *7* (1991He05) δ: +0.14 *3* for 5/2; −0.62 *9* for 7/2; −0.00 *3* for 9/2 (1991He05).
8119	(7/2$^+$)	4211	13 *5*	3907.6	5/2$^+$			
		8118	87 *5*	0	5/2$^+$	D+Q		A$_2$=−0.35 *12*; A$_4$=+0.14 *13* (1991He05) δ: +0.04 *++5−17* or −4.0 *10* for 7/2; −1.9 *+9−38* for 5/2 (1991He05).
8267	(7/2$^+$)	4861	17 *5*	3405.6	9/2$^+$	D(+Q)		A$_2$=−0.14 *11*; A$_4$=−0.09 *14* (1991He05) δ: +0.00 *6* for 7/2; −0.63 *15* for 9/2 (1991He05).
		6302	10 *4*	1964.4	5/2$^+$			
		6654	49 *10*	1611.8	7/2$^+$	D+Q		A$_2$=+0.44 *10*; A$_4$=−0.26 *13* (1991He05) δ: +1.2 *+2−3* or −0.14 *15* for 7/2; +0.32 *10* for 9/2 (1991He05).
		8266	24 *8*	0	5/2$^+$			
8530	(7/2$^+$)	3819	21 *8*	4710.5	9/2$^+$	D+Q		A$_2$=−0.45 *7*; A$_4$=+0.07 *10* (1991He05) δ: +0.13 *+35−10* or +7 *+8−4* for 7/2; −0.07 *8* or −3.1 *+5−15* for 11/2 (1991He05).
		4470	12 *5*	4060	9/2$^+$			
		5124	67 *13*	3405.6	9/2$^+$	D+Q	+0.10 *6*	A$_2$=−0.27 *7*; A$_4$=−0.10 *7* (1991He05) δ: for 7/2; −0.00 *4* for 9/2 (1991He05).
8544	(7/2$^+$)	5138	20 *10*	3405.6	9/2$^+$			
		6931	80 *10*	1611.8	7/2$^+$	D+Q	−1.4 *+6−36*	A$_2$=−0.34 *10*; A$_4$=−0.09 *15* (1991He05) δ: for 7/2; +0.12 *10* for 5/2 (1991He05).
8551	11/2	2510	13 *3*	6041	11/2$^+$,7/2$^+$			
		3017	14 *3*	5533.8	11/2$^+$	D+Q		A$_2$=+0.39 *9*; A$_4$=−0.13 *12* (1991He05) δ: +0.97 *40* or −0.03 *25* (1991He05).
		3300	12 *3*	5250.3	11/2$^+$	D+Q	−0.14 *9*	A$_2$=+0.38 *10*; A$_4$=−0.03 *14* (1991He05)
		3840	14 *3*	4710.5	9/2$^+$			
		4491	47 *8*	4060	9/2$^+$	D(+Q)	−0.03 *3*	A$_2$=−0.35 *6*; A$_4$=−0.01 *9* (1991He05)
8656	7/2	3945	9 *2*	4710.5	9/2$^+$	D+Q	+0.21 *15*	A$_2$=−0.36 *10*; A$_4$=−0.08 *10* (1991He05) δ: +0.21 *15* or +4.7 *+60−15* (1991He05).
		5250	15 *3*	3405.6	9/2$^+$			
		5918	26 *6*	2737.0	7/2$^+$			
		6691	12 *3*	1964.4	5/2$^+$			
		7043	14 *3*	1611.8	7/2$^+$			
		8654	24 *6*	0	5/2$^+$	D(+Q)	+0.04 *9*	A$_2$=−0.20 *8*; A$_4$=−0.04 *9* (1991He05)
8811	13/2$^+$,9/2$^+$	2770	34 *5*	6041	11/2$^+$,7/2$^+$	D+Q		A$_2$=−0.38 *9*; A$_4$=+0.03 *13* (1991He05)

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^{24}Mg(d,pγ) 1991He05 (continued)

$\gamma(^{25}Mg)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[‡]	E_f	J_f^π	Mult.[#]	Comments
							δ: −0.03 *4* for 13/2; +0.14 *5* for 9/2 (1991He05).
8811	13/2$^+$,9/2$^+$	3277	35 *5*	5533.8	11/2$^+$	D+Q	A_2=−0.41 *10*; A_4=−0.02 *15* (1991He05) δ: −0.04 *4* for 13/2; +0.14 *2* for 9/2 (1991He05).
		4100	31 *8*	4710.5	9/2$^+$		
8888		4828	100	4060	9/2$^+$	D+Q	A_2=−0.28 *10*; A_4=−0.00 *15* (1991He05) δ: +0.00 *3* for 11/2; >−0.67 for 9/2; +0.07 *2* for 7/2 (1991He05).
8896		3103	100	5793.0	11/2$^-$,7/2$^-$		A_2=+0.34 *4*; A_4=−0.19 *6* (1991He05) δ: ∞ for 15/2; +1.04 *18* or −0.18 *15* for 11/2 (1991He05).
9014	11/2,7/2$^+$,9/2$^+$	3763	25 *5*	5250.3	11/2$^+$		
		4303	40 *8*	4710.5	9/2$^+$		
		4953	35 *7*	4060	9/2$^+$	D(+Q)	A_2=−0.19 *14*; A_4=+0.11 *21* (1991He05) δ: +0.03 *5* for 11/2; >−0.49 for 9/2; +0.07 *10* for 7/2 (1991He05).
9410	13/2,9/2	3369	26 *5*	6041	11/2$^+$,7/2$^+$	D(+Q)	A_2=−0.38 *14*; A_4=+0.10 *21* (1991He05) δ: −0.07 *8* for 13/2; +0.14 *14* for J^π=9/2.
		3617	20 *5*	5793.0	11/2$^-$,7/2$^-$		
		4159	54 *8*	5250.3	11/2$^+$	D+Q	A_2=−0.35 *7*; A_4=−0.02 *10* (1991He05) δ: −0.03 *4* for 13/2; +0.10 *10* for J^π=9/2.
9652	11/2,7/2	4189	100	5462.8	13/2$^+$	D+Q	A_2=+0.36 *7*; A_4=−0.17 *10* (1991He05) δ: −0.45 *15* for 11/2; −0.84 *15* or −0.17 *17* for 13/2; +0.40 *12* for 15/2; ∝ for 17/2 (1991He05).
9686	11/2,7/2	6280	100	3405.6	9/2$^+$	D+Q	A_2=−0.61 *17*; A_4=+0.02 *25* (1991He05) δ: −0.14 *7* for 11/2; +0.32 *12* for 7/2 (1991He05).
9830	11/2$^+$,13/2	6424	100	3405.6	9/2$^+$		
9946	11/2$^+$,15/2	2395	35 *10*	7551	13/2$^+$,9/2$^+$		
		4484	55 *15*	5462.8	13/2$^+$		
		4695	10 *5*	5250.3	11/2$^+$		
10136		4602	100	5533.8	11/2$^+$		
10996		5533	100	5462.8	13/2$^+$		
11200		5736	100	5462.8	13/2$^+$		
11409		5945	100	5462.8	13/2$^+$		

[†] From level energy differences.

[‡] From 1973Ro17, for levels up to 5533, except for levels at 3971, 4722, and 5012. For these three levels and above 5433 keV level, the branching ratios are from 1991He05. In 1991He05, the branching ratios up to 5433 keV level are from compilation, except those three levels. In 1973Ro17, authors note that the uncertainty for the branching ratios is 10% and 30% for strong and weaker transitions, respectively. The evaluators consider 10% for Iγ≥25, otherwise 30%.

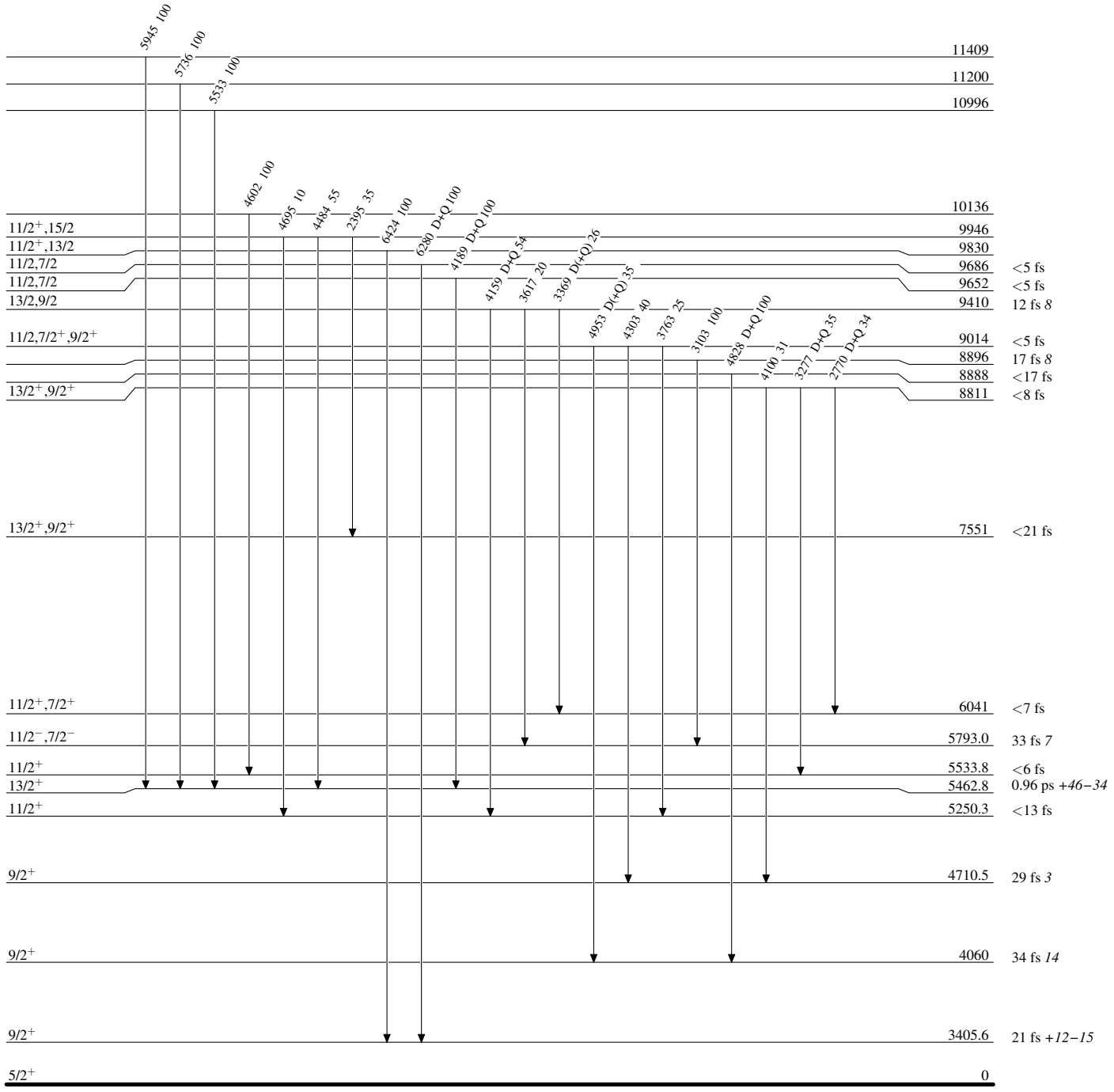
[#] Assigned by the evaluators based on the $\gamma(\theta)$ and δ data.

[@] From 1991He05, except as noted.

^{24}Mg(d,pγ) 1991He05

Level Scheme

Intensities: % photon branching from each level

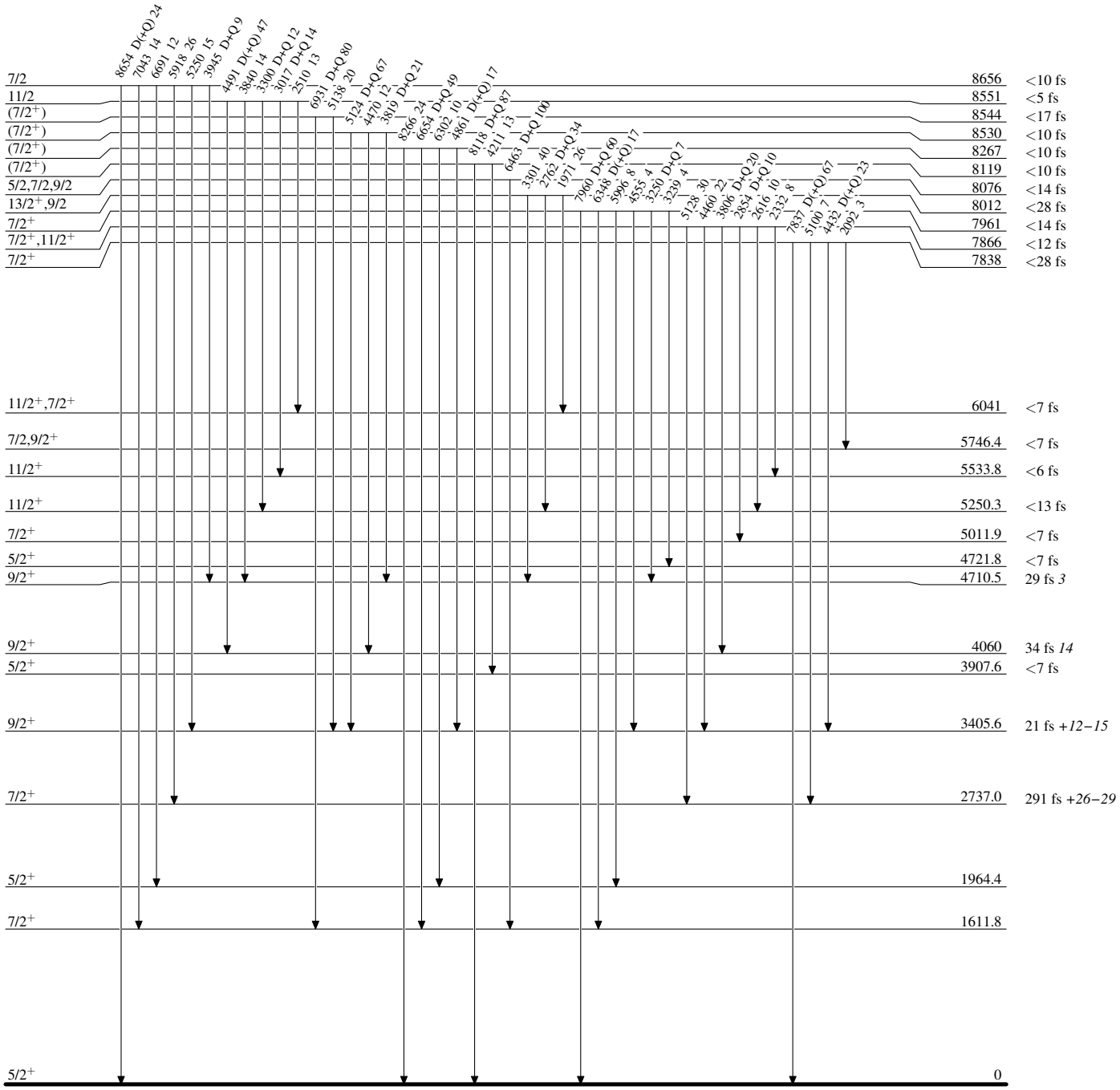


$^{25}_{12}Mg_{13}$

^{24}Mg(d,pγ) 1991He05

Level Scheme (continued)

Intensities: % photon branching from each level

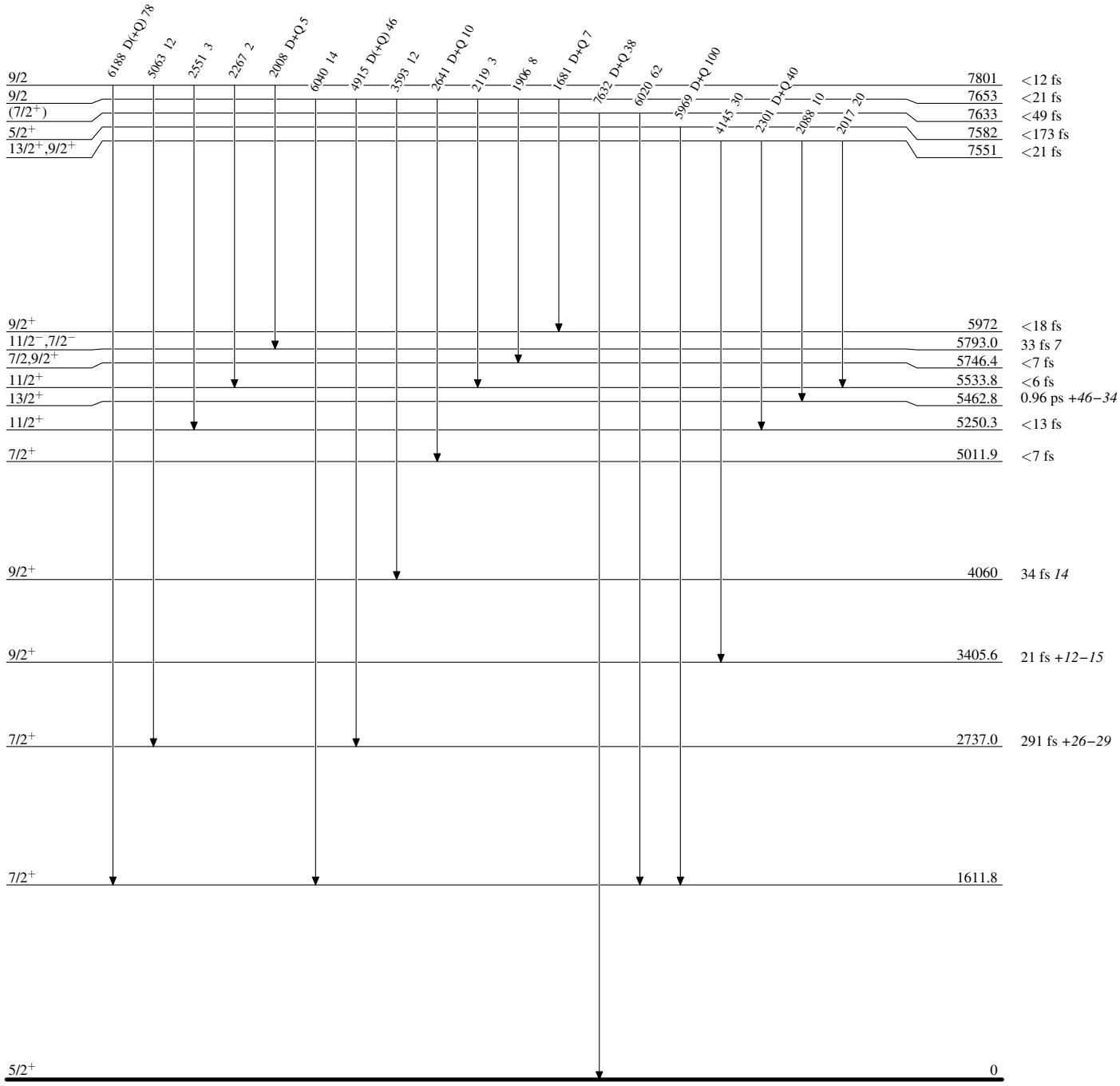


$^{25}_{12}Mg_{13}$

^{24}Mg(d,pγ) 1991He05

Level Scheme (continued)

Intensities: % photon branching from each level

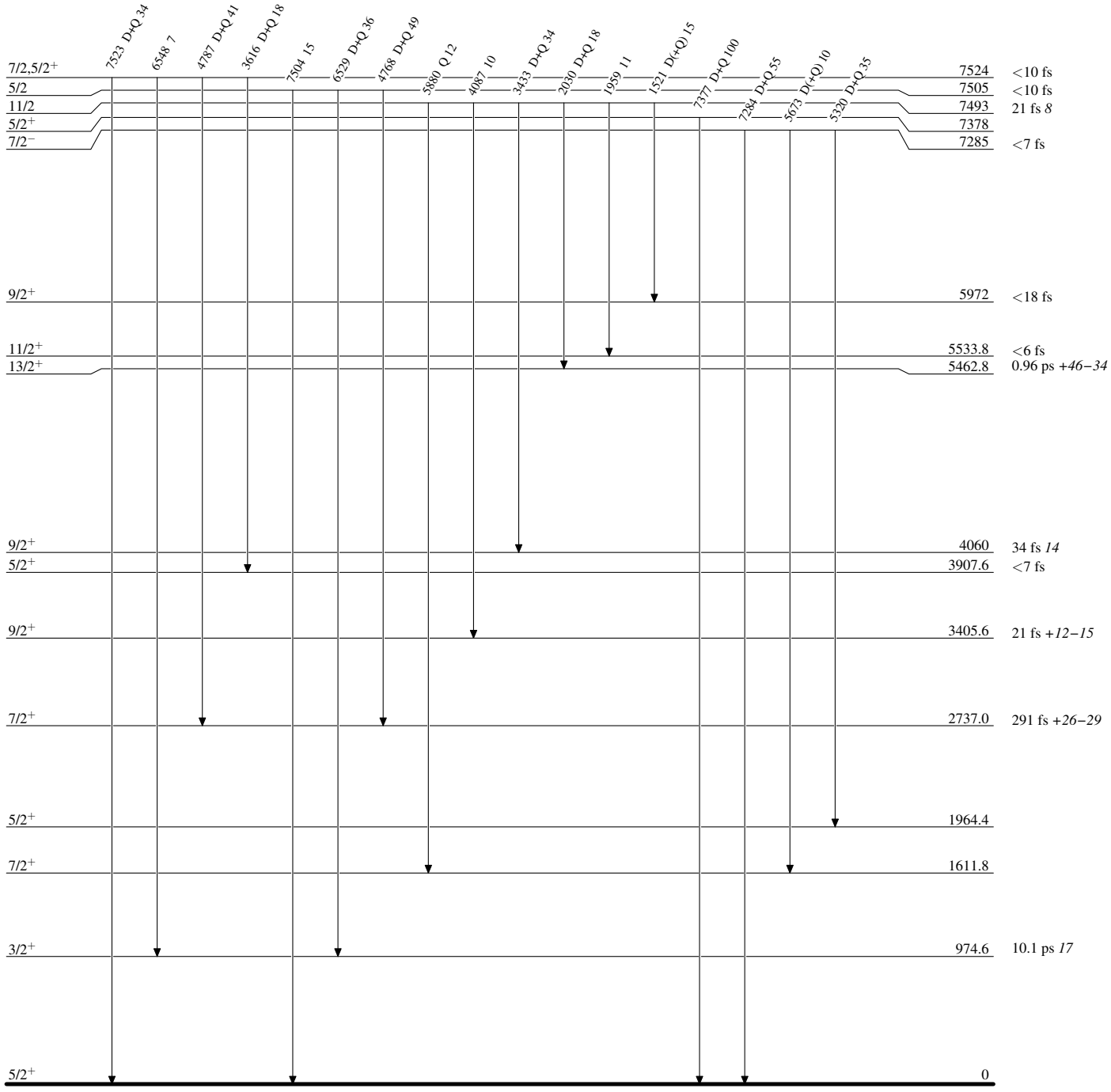


$^{25}_{12}Mg_{13}$

^{24}Mg(d,pγ) 1991He05

Level Scheme (continued)

Intensities: % photon branching from each level

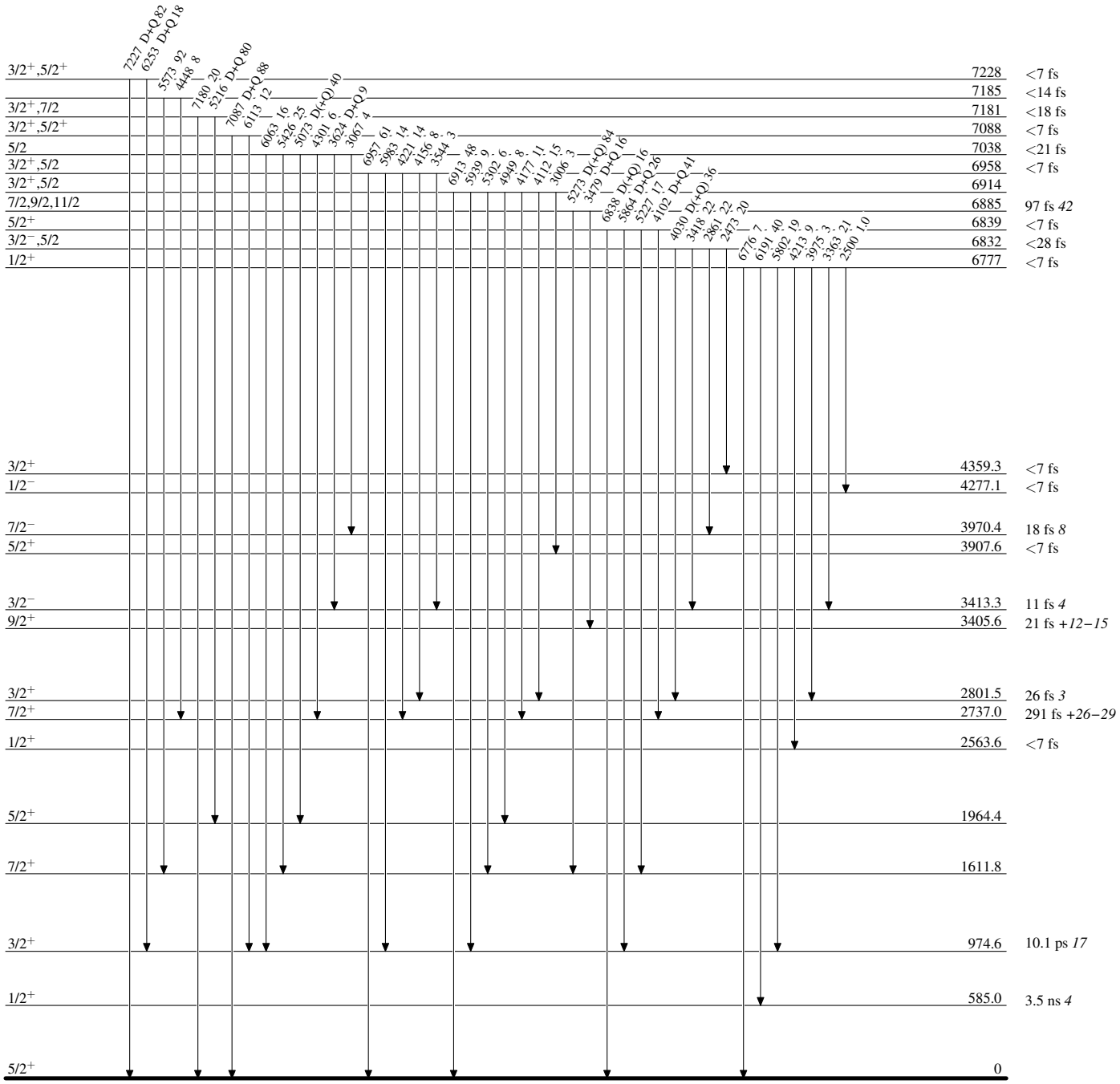


$^{25}_{12}Mg_{13}$

^{24}Mg(d,pγ) 1991He05

Level Scheme (continued)

Intensities: % photon branching from each level

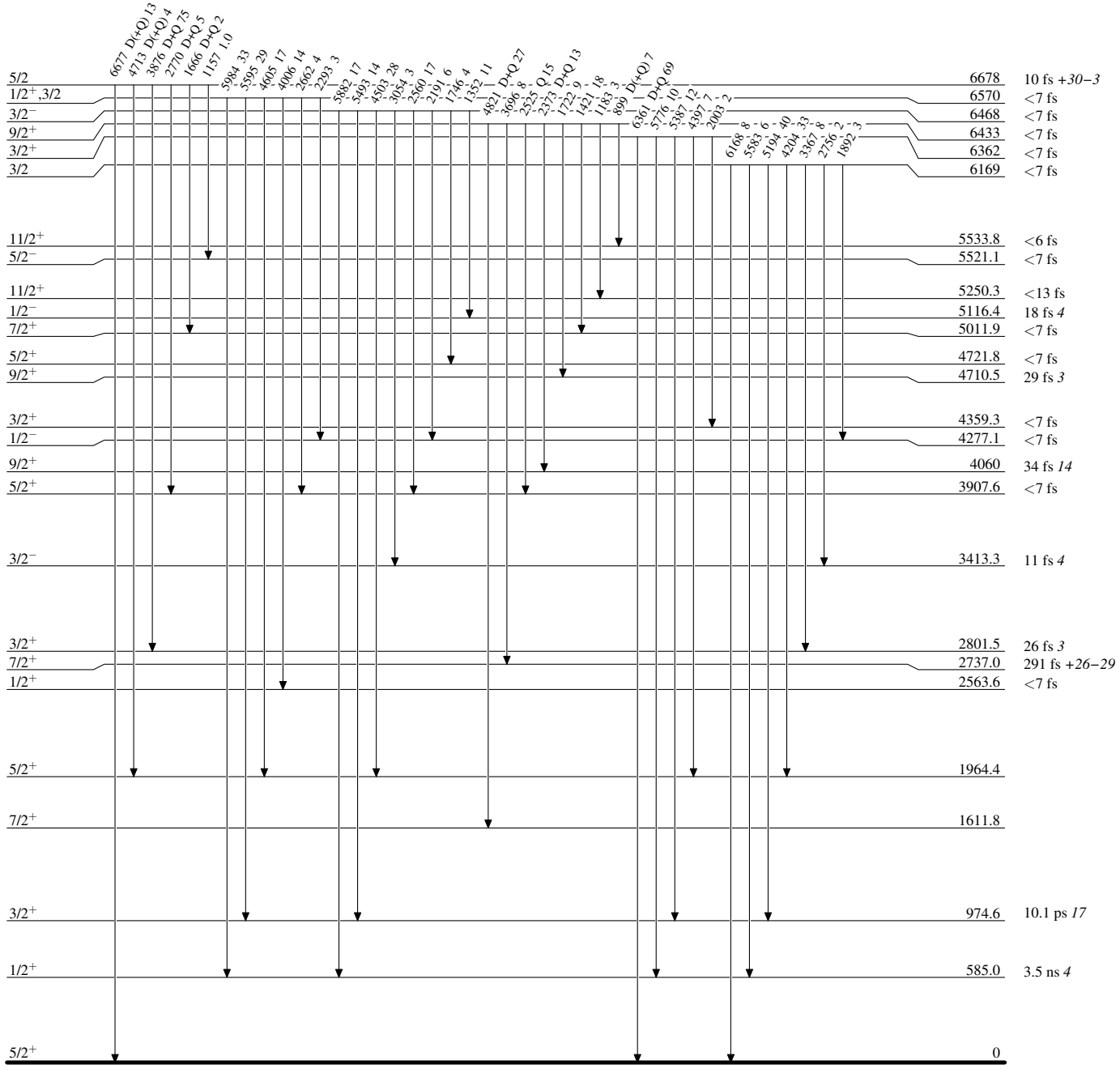


$^{25}_{12}Mg_{13}$

^{24}Mg(d,pγ) 1991He05

Level Scheme (continued)

Intensities: % photon branching from each level

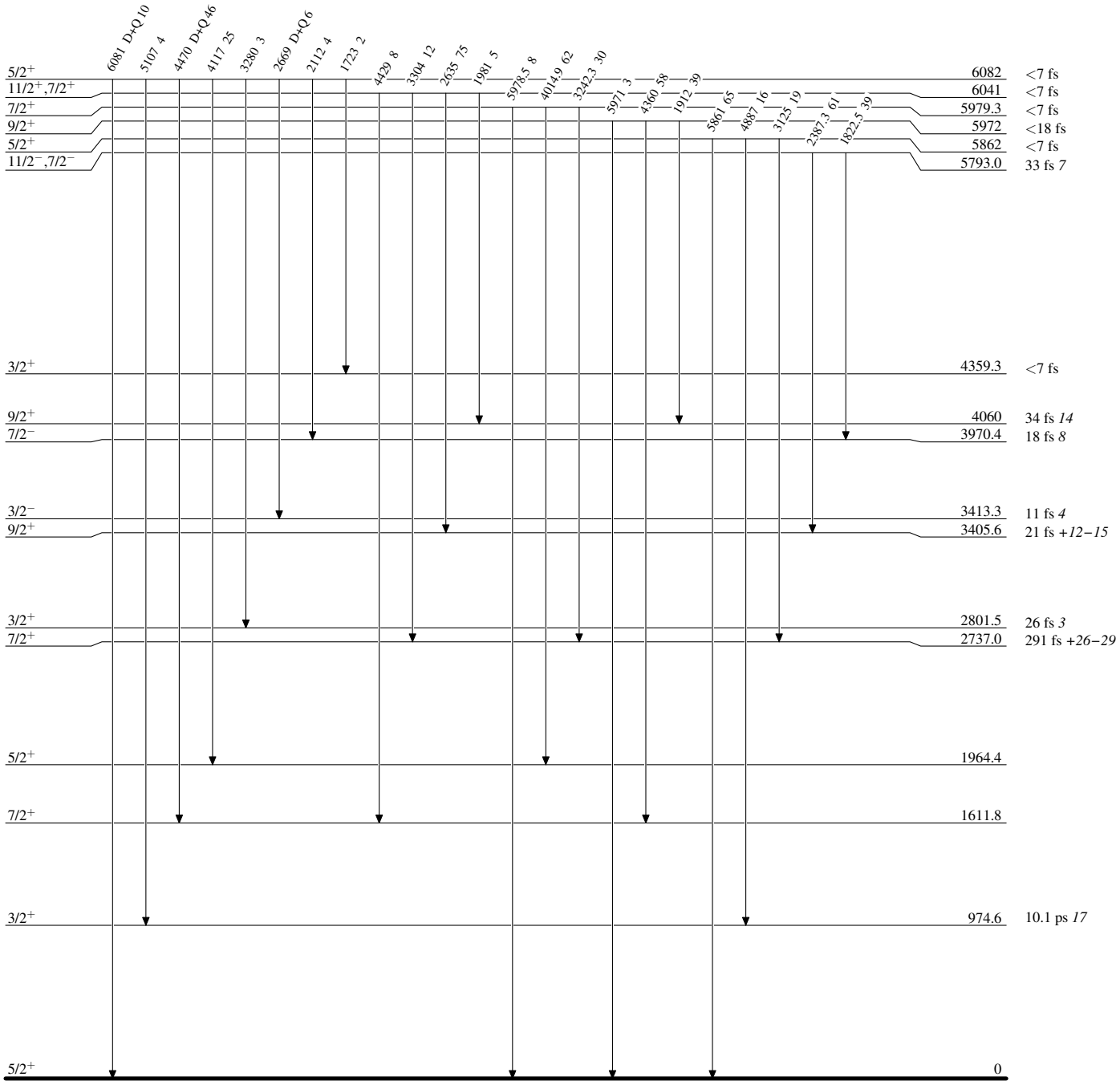


$^{25}_{12}Mg_{13}$

^{24}Mg(d,pγ) 1991He05

Level Scheme (continued)

Intensities: % photon branching from each level

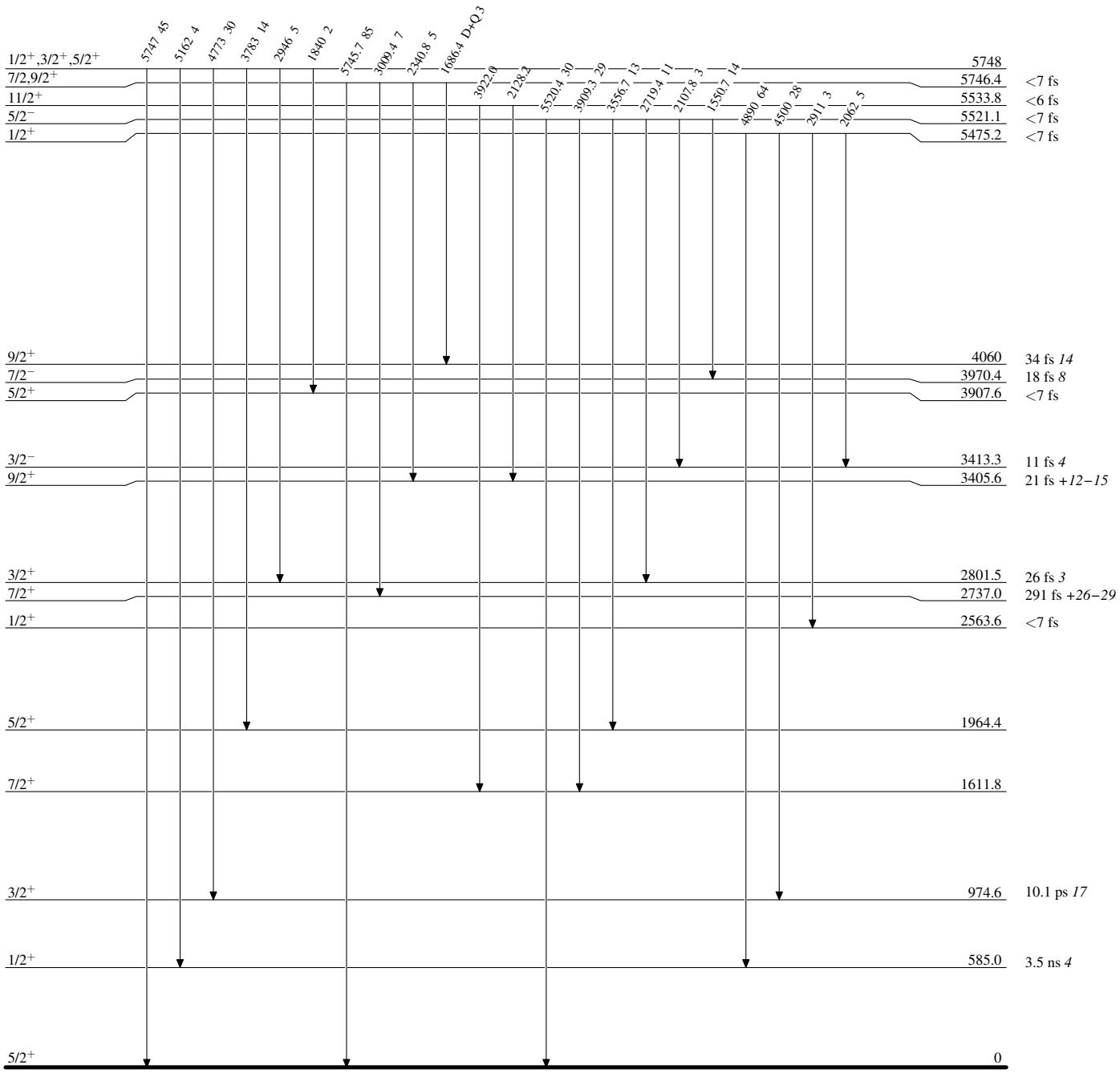


$^{25}_{12}Mg_{13}$

^{24}Mg(d,pγ) 1991He05

Level Scheme (continued)

Intensities: % photon branching from each level

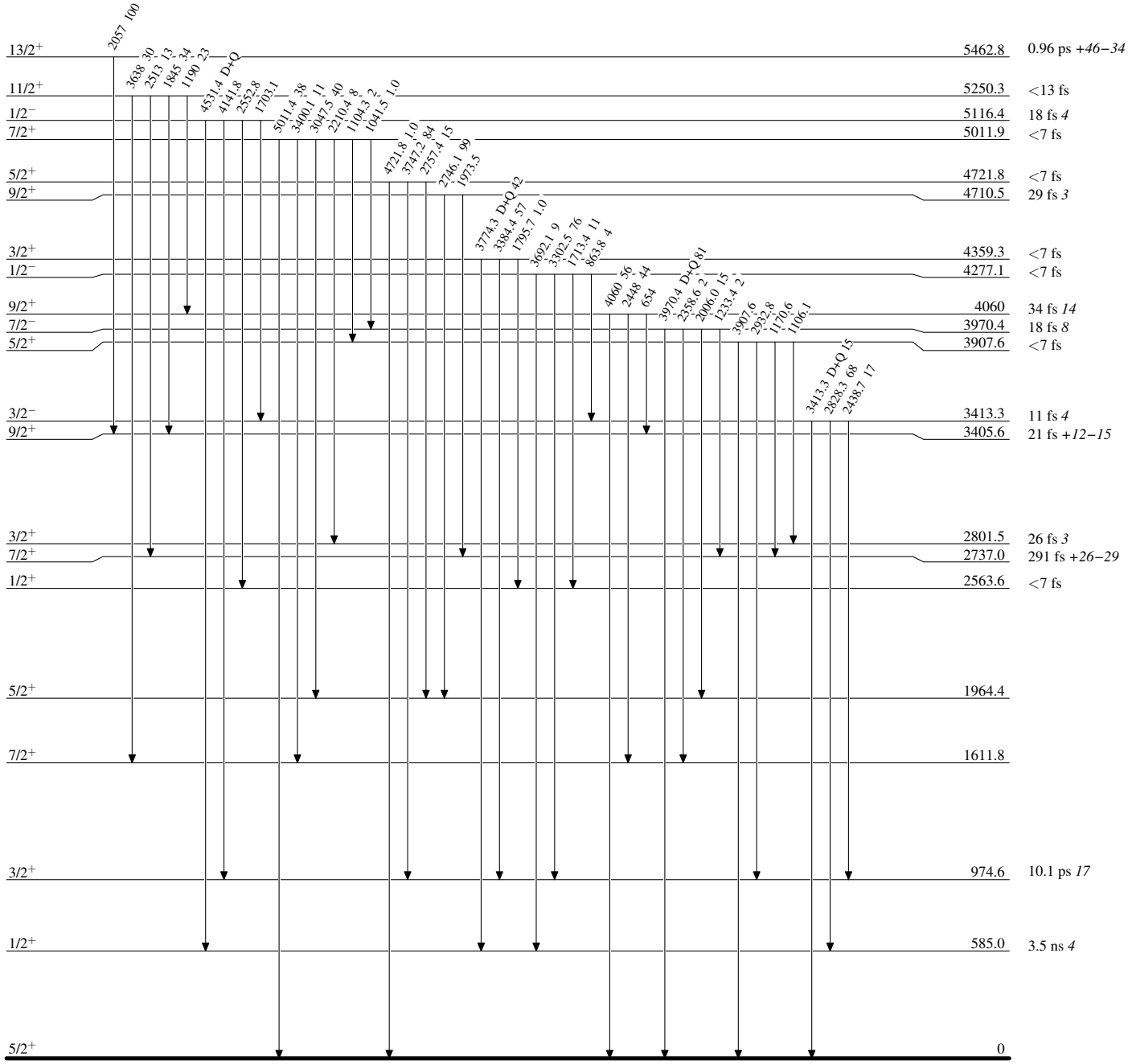


$^{25}_{12}Mg_{13}$

^{24}Mg(d,pγ) 1991He05

Level Scheme (continued)

Intensities: % photon branching from each level

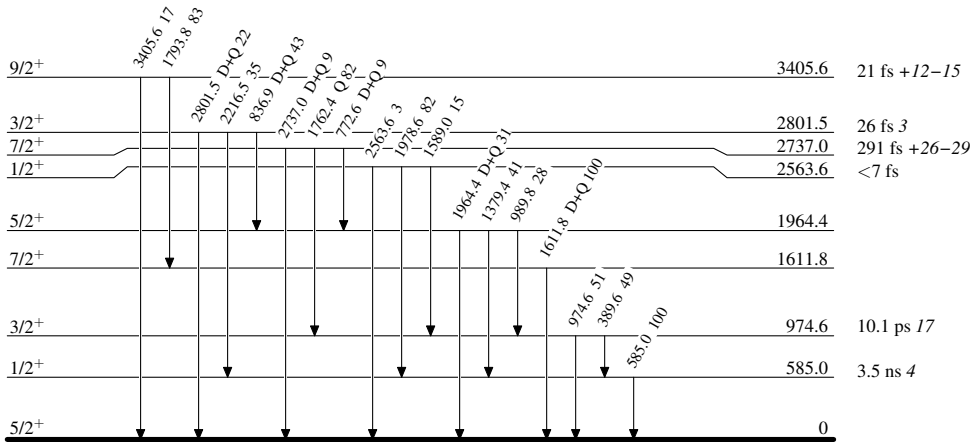


$^{25}_{12}Mg_{13}$

^{24}Mg(d,pγ) 1991He05

Level Scheme (continued)

Intensities: % photon branching from each level



$^{25}_{12}Mg_{13}$