^{25}Mg(p,p′γ) 1975Ol02,1974Ol07

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	R. B. Firestone	NDS 110, 1691 (2009)	1-Feb-2008

1975Ol02, 1974Ol07: ^{25}Mg(p,p′γ) E=5.2-6.1 MeV. Measured Ep, γγ-coincidences, DSA.
Other references. 1969So09, 1968Sh13, 1967Mc11, 1961Mc08, 1957Go88.

^{25}Mg Levels

E(level)[†]	Jπ[#]	$T_{1/2}$	Comments
0			
585 *1*		3.38 ns *6*	$T_{1/2}$: Weighted average of 3.5 ns 2 (1960Fe05), 3.34 ns 7 (1963Mc07), and 3.44 ns 10 (1965Bo28).
975 *1*			
1612 *1*	7/2+	15[‡] fs *+5−3*	$T_{1/2}$: Other value 19 fs 14 (1968Sh13).
1965 *1*		700 fs *280*	$T_{1/2}$: Average of discrepant values 960 fs 80 (1974Ol07) and 416 fs 97 (1968Sh13).
2562 *1*		8 fs *5*	$T_{1/2}$: Other value 41 fs 18 (1968Sh13) is inconsistent with <7 fs from (d,pγ).
2739 *1*	7/2+	420 fs *110*	$T_{1/2}$: Average of discrepant values 201 fs 35 (1968Sh13) and 354 fs 28 (1974Ol07).
2801 *1*		41 fs *19*	$T_{1/2}$: Average of discrepant values 46 fs +4-6 (1974Ol07) and 19 fs 4 (1968Sh13).
3406 *1*	9/2+	12 fs *7*	$T_{1/2}$: Average of 7 fs 5 (1974Ol07) and 23 fs 13 (1968Sh13).
3414 *1*		<7 fs	
3907 *1*		<7 fs	
3970 *1*		28 fs *11*	$T_{1/2}$: Average of 32 fs 15 (1974Ol07) and 17 fs 8 (1968Sh13).
4060 *2*		40 fs *5*	$T_{1/2}$: Average of 42 fs 5 (1974Ol07) and 37 fs 7 (1968Sh13).
4277 *2*		<7 fs	
4357 *2*		<7 fs	
4712 *2*		18 fs *11*	
4721 *2*		<7 fs	
5011 *2*		<7 fs	
5114 *2*		<7 fs	
5252 *2*		14 fs *+4−3*	
5463 *2*		3.2 fs *4*	
5474 *2*		<22 fs	
5522 *2*		<7 fs	
5535 *2*		<7 fs	
5747 *2*		<7 fs	
5794 *2*		58 fs *+9−5*	
5859 *2*		12 fs *12*	
5974 *2*		<7 fs	
5978 *2*		<7 fs	
6040 *2*		<27 fs	
6082 *2*		<8 fs	

[†] From 1974Ol07 and 1975Ol02.
[‡] From 1968Sh13.
[#] From γγ(theta) 1968So03.

γ(^{25}Mg)

Eγ[†]	Iγ[†]	Ei(level)	J_i^π	Ef	J_f^π	Mult.[#]	δ[#]	Comments
390 *1*	49[‡] *2*	975		585				
585 *1*	100	585		0				
654 *2*	1.0 *2*	4060		3406	9/2+			
774 *1*	7 *1*	2739	7/2+	1965		M1+E2	+0.47 *+20−12*	δ: Other value +4.2 +35-18.

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^{25}Mg(p,p′γ) 1975Ol02,1974Ol07 (continued)

γ(^{25}Mg) (continued)

E_γ †	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Mult.#	δ#	Comments
836 *1*	38 *2*	2801		1965				
863 *2*	4 *1*	4277		3414				
975 *1*	51‡ *2*	975		0		M1+E2	+0.36 *12*	
990 *1*	27 *1*	1965		975		M1+E2	−0.25 *7*	
1106 *1*	10 *1*	3907		2801				
1168 *1*	13 *1*	3907		2739	$7/2^+$			
1192 *3*	24 *1*	5252		4060				
1380 *1*	47 *1*	1965		585				
1552 *2*	16 *1*	5522		3970				
1587 *1*	19 *2*	2562		975				
1612 *1*	>99.4	1612	$7/2^+$	0		M1+E2	−0.23 *4*	
1715 *2*	12 *1*	4277		2562				
1764 *1*	87 *2*	2739	$7/2^+$	975		E2		
1794 *1*	82 *1*	3406	$9/2^+$	1612	$7/2^+$	M1+E2	−0.13 *3*	
1795 *2*	3 *1*	4357		2562				
1824 *2*	34 *1*	5794		3970				
1846 *2*	26 *1*	5252		3406	$9/2^+$			
1914 *2*	40 *2*	5974		4060				
1965 *1*	26 *1*	1965		0		M1+E2	−0.56 *+8−11*	
1973 *2*	6 *1*	4712		2739	$7/2^+$			
1977 *1*	81 *2*	2562		585				
1980 *2*	4 *2*	6040		4060				
2005 *1*	20 *1*	3970		1965				
2057 *2*	100	5463		3406	$9/2^+$			
2108 *2*	6 *2*	5522		3414				
2129 *2*	57 *3*	5535		3406	$9/2^+$			
2210 *2*	13 *1*	5011		2801				
2216 *1*	39 *2*	2801		585				
2341 *2*	3 *1*	5747		3406	$9/2^+$			
2388 *2*	66 *1*	5794		3406	$9/2^+$			
2439 *1*	14 *1*	3414		975				
2448 *2*	39 *1*	4060		1612	$7/2^+$			
2453 *2*	15 *12*	5859		3406	$9/2^+$			
2513 *2*	12 *1*	5252		2739	$7/2^+$			
2552 *2*		5114		2562				
2634 *2*	84 *2*	6040		3406	$9/2^+$			
2668 *2*	12 *2*	6082		3414				
2721 *2*	10 *1*	5522		2801				
2739 *1*	6 *1*	2739	$7/2^+$	0		M1+E2	−0.12 *6*	δ: Other value −2.9 5 is inconsistent with value from (e,e′).
2747 *2*	94 *1*	4712		1965				
2801 *1*	23 *1*	2801		0				
2829 *1*	75 *1*	3414		585				
2932 *1*	66 *2*	3907		975				
3046 *2*	43 *1*	5011		1965				
3239 *2*	35 *2*	5978		2739	$7/2^+$			
3302 *2*	79 *2*	4277		975				
3382 *2*	42 *1*	4357		975				
3399 *2*	12 *1*	5011		1612	$7/2^+$			
3406 *1*	18 *1*	3406	$9/2^+$	0				
3414 *1*	11 *1*	3414		0				
3557 *2*	16 *2*	5522		1965				
3640 *2*	38 *1*	5252		1612	$7/2^+$			
3692 *2*	5 *1*	4277		585				
3746 *2*	>99	4721		975				
3772 *2*	55 *1*	4357		585				

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^{25}Mg(p,p′γ) 1975Ol02,1974Ol07 (continued)

γ(^{25}Mg) (continued)

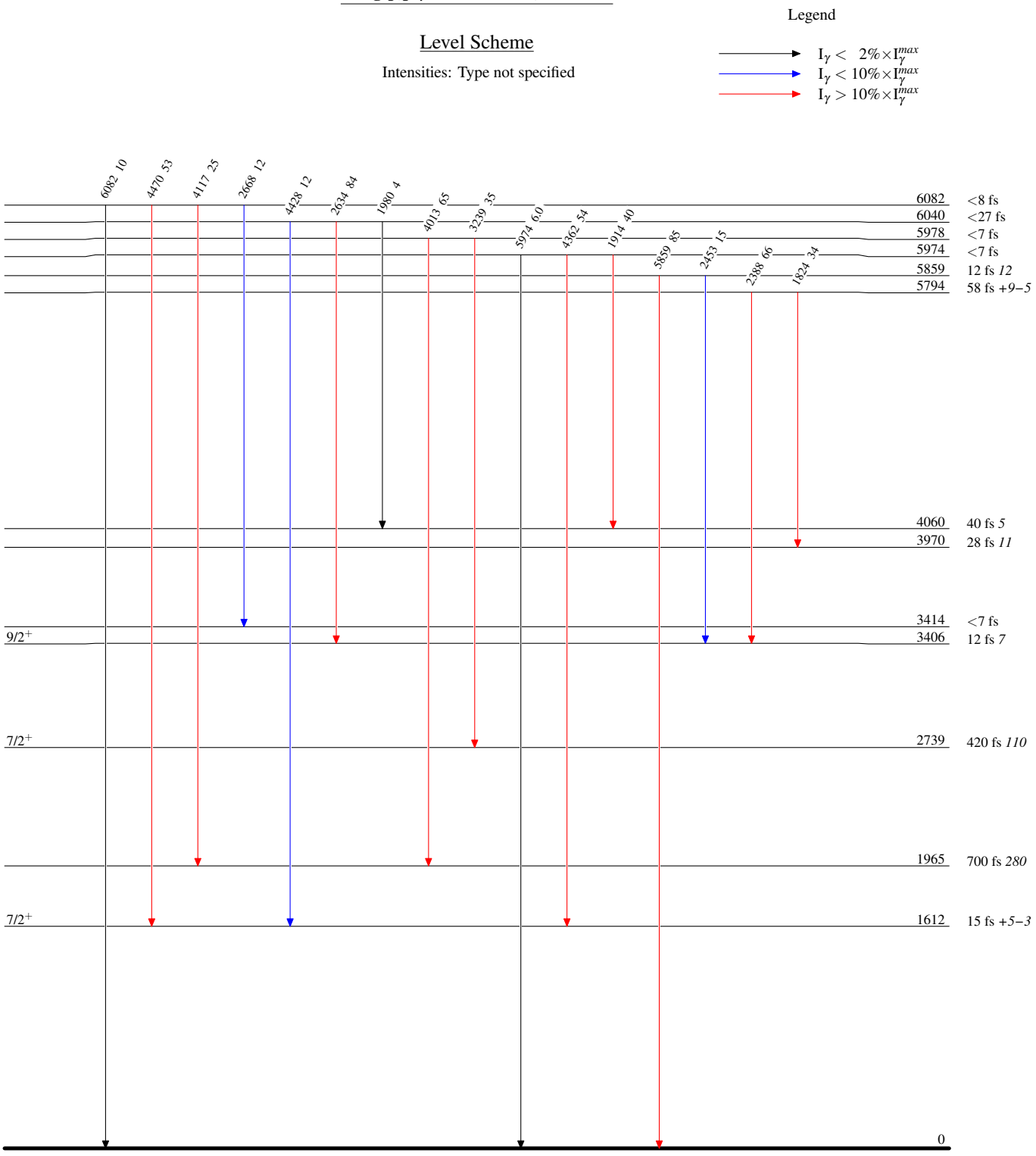
E_γ[†]	I_γ[†]	E_i(level)	E_f	J^π_f	E_γ[†]	I_γ[†]	E_i(level)	J^π_i	E_f	J^π_f
3782 *2*	7 *1*	5747	1965		4428 *2*	12 *2*	6040		1612	$7/2^+$
3907 *1*	11 *1*	3907	0		4470 *2*	53 *2*	6082		1612	$7/2^+$
3910 *2*	30 *3*	5522	1612	$7/2^+$	4772 *2*	12 *1*	5747		975	
3923 *2*	43 *3*	5535	1612	$7/2^+$	4889 *2*	100	5474		585	
3970 *1*	80 *1*	3970	0		5011 *2*	32 *1*	5011		0	
4013 *2*	65 *2*	5978	1965		5522 *2*	22 *1*	5522		0	
4060 *2*	60 *1*	4060	0		5747 *2*	78 *1*	5747		0	
4117 *2*	25 *2*	6082	1965		5859 *2*	85 *12*	5859		0	
4139 *2*		5114	975		5974 *2*	6.0 *6*	5974		0	
4362 *2*	54 *2*	5974	1612	$7/2^+$	6082 *2*	10 *1*	6082		0	

[†] From 1974Ol07 and 1975Ol02 except as noted.
[‡] From 1957Go88 (Nucl. Phys. 2, 1332 (1956)).
[#] From 1961Mc08, 1968So03 and 1969So09.

^{25}Mg(p,p′γ) 1975Ol02,1974Ol07

Level Scheme

Intensities: Type not specified

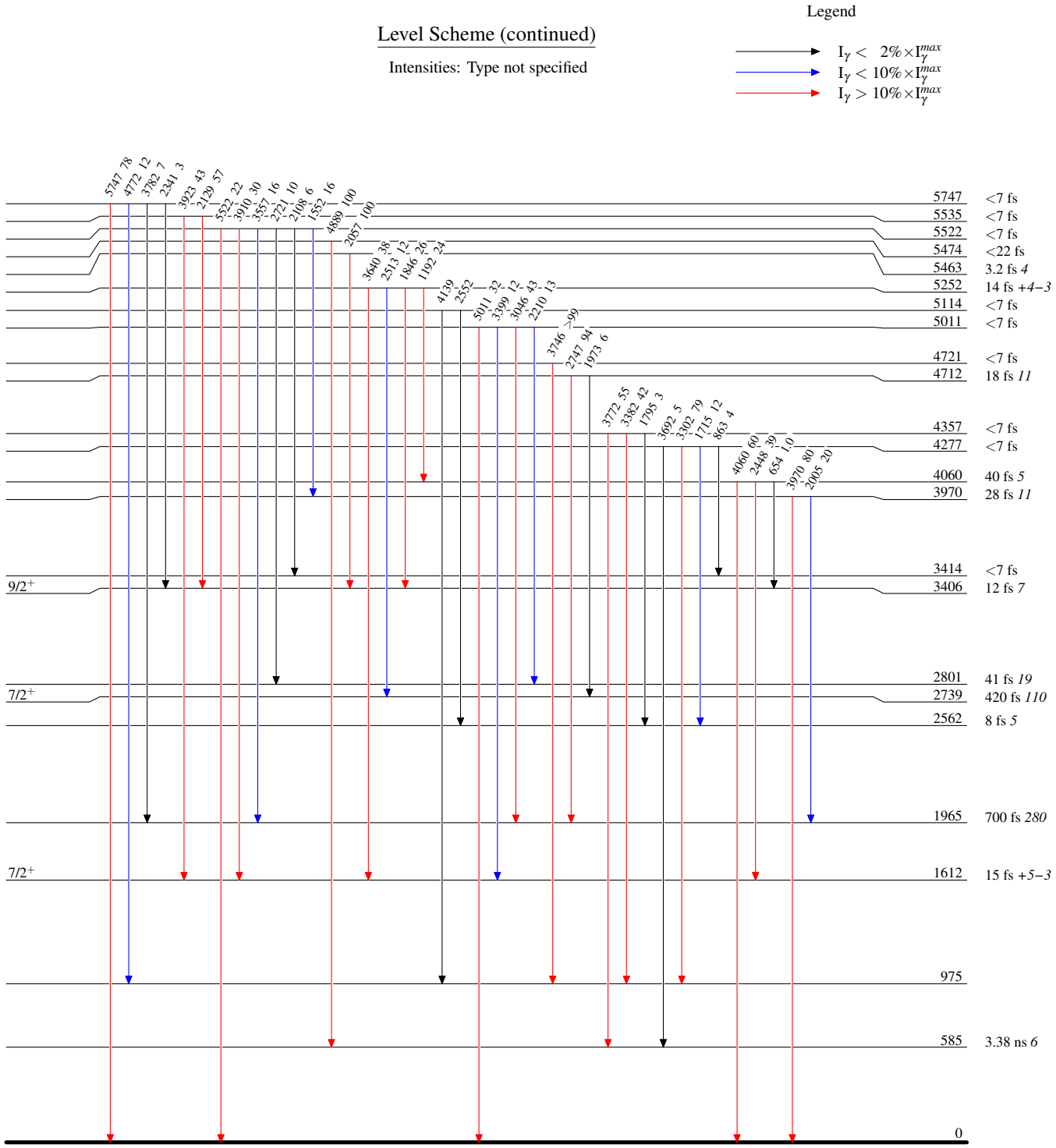


$^{25}_{12}Mg_{13}$

^{25}Mg(p,p′γ) 1975Ol02,1974Ol07

Level Scheme (continued)

Intensities: Type not specified

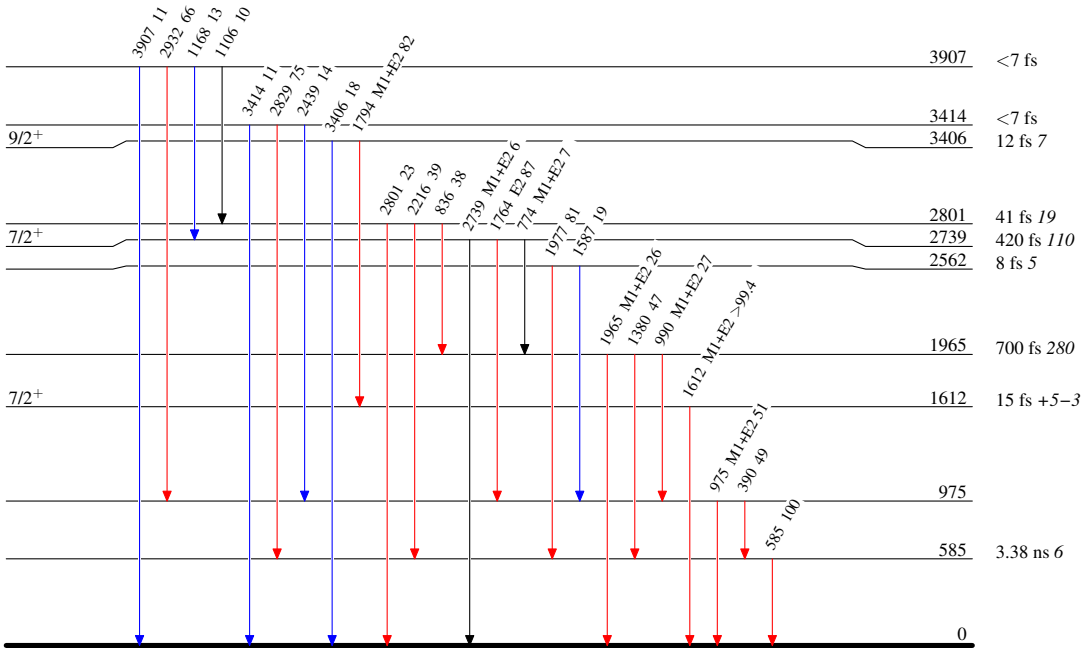


$^{25}_{12}Mg_{13}$

^{25}Mg(p,p′γ) 1975Ol02,1974Ol07

Level Scheme (continued)

Intensities: Type not specified



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