

$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 113, 909 (2012)	1-Jan-2012

$J^{\pi}(^{28}\text{Si})=0^{+}$.

Others: 1986Fr05, 1983Pe17, 1980Cl03, 1980Ja12, 1980Ja18, 1980Sc25, 1978Ba65, 1976Te01, 1972El18, 1971Ko21, 1971Me12, 1970Ad06, 1967Be29, 1966Be26.

Other reactions:

$^{28}\text{Si}(\text{t,d})$: 1987Pe09.

$^{28}\text{Si}(^3\text{He},2\text{p})$: 1988Ka05, 1980Va09, 1971St21.

$^{28}\text{Si}(^7\text{Li},^6\text{Li})$: 1984Ec01.

$^{28}\text{Si}(^{18}\text{O},^{17}\text{O})$: 1986Fe03.

1990Pi05: $^{28}\text{Si}(\text{d,p})$: Target SiO_2 ; Projectile: d, E=12.3 MeV; multi-angle magnetic spectrograph, nuclear emulsion plates; measured and analysed proton spectra; deduced level energy.

1982Be52: $^{28}\text{Si}(\text{d,p}\gamma)$, Target: natural Si, Projectile: d, E=6.5,7 MeV; an annular surface barrier detector placed at 180° and Ge(Li) detector placed at 55° with respect to beam direction for 7 MeV beam and at 20, 30, 37.5, 45, 60, 70 and 90° for 6.5 MeV beam; measured proton spectrum, P- γ coincidence, deduced γ -ray correlation coefficient, level energy, spin. Results from $^{26}\text{Mg}(\alpha,n\gamma)$ and $^{27}\text{Al}(^3\text{He},p\gamma)$ reactions are also reported.

1974Me14: $^{28}\text{Si}(\text{d,p})$, Target: 99.58% enriched ^{28}Si , Projectile: d, E=16 MeV; split-pole magnetic spectrograph; measured proton spectra, FWHM 15 keV, deduced level energy, I_n value, and neutron width.

 ^{29}Si Levels

E(level) [†]	$J^{\pi\&}$	$T_{1/2}^b$	L^c	S^f	Comments
0	$1/2^{+a}$		0	0.37	
1273.31 17	$3/2^{+a}$	291 fs 10	2	0.75	
2028.72 25	$5/2^{+a}$	306 fs 10	2	0.29	
2425.97 [‡] 3		18.4 fs 11	2		
3066.9 5	$5/2^{+a}$	32 fs 2	2	0.10	
3624.15 15	$7/2^{-a}$	2.60 ps 13	3	0.88	
4080 [#] 1					
4741 [#] 1					
4840.2 5	$1/2^{+a}$		0	0.02	
4895 [#] 1			2		
4934.6 6	$3/2^{-a}$		1	0.55	
5255 [#] 1					
5286 [#] 1					
5652 [#] 1	$9/2^{+a}$		4	0.13	
5813 [#] 1					
5949.14 22	$3/2^{-a}$		2	0.07	
6107 [#] 1	$5/2$				
6194.14 12	$7/2^{-a}$		3	0.30	
6380.82 6	$1/2^{-a}$		1	0.26	
6423 [#] 1	$7/2^{+}$			0.07	
6496.23 21	$1/2$ to $5/2$		2^d		
6522 [#] 1	$3/2^{+}, 5/2^{+}$		2^d		
6615 [#] 1					
6695.93 14	$1/2^{+}$		0^e		
6710 [#] 1	$5/2^{+}$		2		L: For doublet.
6715 [#] 1	$3/2^{+}$		2		L: For doublet.
6781.1 7					
6907.1 3	$1/2^{-}, 3/2^{-}$				

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$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14 (continued) ^{29}Si Levels (continued)

E(level) [†]	J ^π &	L ^c	S ^f	Comments
6921 [#] 1	7/2			
7014 [#] 1				
7057.81 17	1/2 ⁺	0 ^e		
7072 [#] 1	7/2	(2) ^e		J ^π : 7/2 in 1982Be52 is not consistent with L=(2) value reported in 1983Pe17.
7139 [#] 1				
7181.77 21	3/2	2		L: For doublet.
7197 [#] 1	3/2,5/2	2		L: For doublet.
7521 [#] 1	1/2,3/2			
7622.1 8	5/2 ⁻ ,7/2 ⁻	(3)	0.04	L: L=(3) from 1983Pe17. Other: L=2 (1972El18).
7692.0 4	1/2,3/2	0,2		L: L=0 (1983Pe17), L=2 (1972El18).
7767 1	3/2,5/2			
7787 1	7/2 ⁺	2		J ^π : not consistent with L=2.
7892 1				
7987 1				L: For doublet (1983Pe17).
7995 1	3/2 ⁻	1		L: For doublet (1983Pe17).
8138 1	1/2 to 5/2			
8161 1	3/2 to 7/2			
8173 1	11/2 ⁺			
8209 1	3/2 ⁺			
8270 1	3/2 to 9/2	3		
8290 5				
8331 1	5/2,9/2			
8349 1	3/2 to 7/2			
8371 1				
8418 1	3/2			
8476 1				
8505 1	3/2 ⁺ ,5/2 ⁺	2		L: From 1972El18.
8540 1				
8557 2				
8603 2				
8609 [@] 2	(9/2,13/2)			
8610 [@] 2	5/2,9/2 ⁺			
8622 2	3/2 to 7/2			
8641 2	13/2			
8670 2	7/2 to 11/2			
8762 2				
8854 2				
8865 2	7/2 to 11/2			
8909 2				
8959 2				
9151 2				
9157 2				
9219 2				
9252 2				
9298 2				
9326 2	7/2 to 11/2			
9392 2				
9413 2				
9518 2				
9667 2				
9683 2				
9765 2				
9779 2				
9850 2				
9943 2				

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$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14 (continued) ^{29}Si Levels (continued)

<u>E(level)[†]</u>	<u>E(level)[‡]</u>	<u>E(level)[†]</u>
9952 2	10083 2	10213 2
9987 2	10131 2	10236 2
10006 2	10170 2	10252 2

[†] Up to 7692 keV from 1990Pi05, except otherwise noted. Above 7692 keV from 1982Be52.

[‡] From Adopted Levels.

From 1982Be52.

@ 8609 and 8610 keV levels were indistinguishable experimentally, the level energy has been presented in 1982Be52, based on conflicting γ -decay mode from the $^{26}\text{Mg}(\alpha, n\gamma)$ reactions with 12 and 14 MeV beam energies.

& Assigned in 1982Be52, except otherwise noted, based on γ -ray correlation coefficient measurements and other studies.

Assignments in 1982Be52 for levels below 6 MeV and 6194-, 6380-, 6615-, 6781-, 7014-, 7139-, 8505 MeV levels were taken from 1978En02 and are not quoted in this dataset.

^a From Adopted Levels.

^b From 1980Sc25 (by Doppler Shift Attenuation Method).

^c From 1966Be26, 1971Me12, 1971Ko21, 1972El18, 1975Ha13, 1967De17, and 1970Mc12, except otherwise noted.

^d For 6500 and 6520 keV doublet (1970De31).

^e From 1983Pe17.

^f From 1972El18. For other spectroscopic factors please see 1966Be26, 1971Me12, 1971Ko21, 1983Pe17.

 $\gamma(^{29}\text{Si})$

Correlation coefficients A_2 and A_4 are from 1982Be52.

<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_γ[†]</u>	<u>I_γ</u>	<u>E_f</u>	<u>J_f^π</u>
1273.31	3/2 ⁺	1273.25	100	0	1/2 ⁺
2028.72	5/2 ⁺	755.4	5 1	1273.31	3/2 ⁺
		2028.57	95 1	0	1/2 ⁺
2425.97		397.29	1.0 5	2028.72	5/2 ⁺
		1152.66	13 1	1273.31	3/2 ⁺
		2425.80	86 2	0	1/2 ⁺
3066.9	5/2 ⁺	640.9	2 1	2425.97	
		1038.1	20 3	2028.72	5/2 ⁺
		1793.5	78 4	1273.31	3/2 ⁺
3624.15	7/2 ⁻	1198.08	11 2	2425.97	
		1595.3	87 3	2028.72	5/2 ⁺
		2350.64	2 1	1273.31	3/2 ⁺
4080		2051	44 3	2028.72	5/2 ⁺
		2806	56 3	1273.31	3/2 ⁺
4741		661	5 1	4080	
		2712	95 1	2028.72	5/2 ⁺
4840.2	1/2 ⁺	2414.0	8 1	2425.97	
		3566.4	11 1	1273.31	3/2 ⁺
4895		1828	3.0 5	3066.9	5/2 ⁺
		2469	5.0 5	2425.97	
		2866	19 2	2028.72	5/2 ⁺
		3621	55 4	1273.31	3/2 ⁺
		4894	18 2	0	1/2 ⁺
4934.6	3/2 ⁻	3660.8	5 3	1273.31	3/2 ⁺

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$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14 (continued) $\gamma(^{29}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	I_γ	E_f	J_f^π	Mult. ‡	$\delta^\#$	Comments
4934.6	$3/2^-$	4933.7	95 5	0	$1/2^+$			
5255		1630.7	100	3624.15	$7/2^-$			
5286		2219	13 1	3066.9	$5/2^+$			
		2859.7	11 1	2425.97				
		3256.9	64 3	2028.72	$5/2^+$			
	$9/2^+$	4012.1	11 1	1273.31	$3/2^+$			
5652		911	10 1	4741				
		1572	48 3	4080				
		2585	41 3	3066.9	$5/2^+$			
5813		2745.8	54 3	3066.9	$5/2^+$			
	$3/2^-$	3386.6	23 3	2425.97				
		3783.8	23 3	2028.72	$5/2^+$			
5949.14		2882	27 3	3066.9	$5/2^+$			
		3523	20 2	2425.97				
		3920	16 2	2028.72	$5/2^+$			
	$5/2$	4675	25 3	1273.31	$3/2^+$			
		5948	12 2	0	$1/2^+$			
6107		2482.6	7 1	3624.15	$7/2^-$			
		3680.5	30 2	2425.97				
		4077.7	63 3	2028.72	$5/2^+$	D+Q	$-0.4 +3-1$	$A_2=-0.17$ 5, $A_4=-0.10$ 8. $A_2=0.03$ 6, $A_4=-0.03$ 6.
6194.14	$7/2^-$	939.1	2.0 4	5255				
		2569.8	4.0 4	3624.15	$7/2^-$			
		4164.8	94 1	2028.72	$5/2^+$			
6380.82	$1/2^-$	3954.23	13 1	2425.97				
		5106.55	21 2	1273.31	$3/2^+$			
		6379.32	66 3	0	$1/2^+$			
6423	$7/2^+$	3355.7	40 4	3066.9	$5/2^+$			
		4393.6	60 4	2028.72	$5/2^+$	D+Q	$-0.32 +24-19$	$A_2=-0.21$ 4, $A_4=0.05$ 7. $A_2=-0.59$ 5, $A_4=-0.01$ 7.
6496.23	$1/2$ to $5/2$	4070	40 3	2425.97				
		4467	28 3	2028.72	$5/2^+$			
		6495	32 3	0	$1/2^+$			$A_2=0.14$ 11, $A_4=-0.26$ 17.
6522	$3/2^+, 5/2^+$	4095.4	29 2	2425.97				
		4492.5	12 2	2028.72	$5/2^+$			
		5247.7	38 3	1273.31	$3/2^+$			
		6520.4	21 3	0	$1/2^+$			
6615		2990.5	29 2	3624.15	$7/2^-$			
	$1/2^+$	4585.5	71 2	2028.72	$5/2^+$			
6695.93		1761.2	10 2	4934.6	$3/2^-$			
		5421.54	10 2	1273.31	$3/2^+$			$A_2=0.05$ 7, $A_4=0.04$ 11.
		6694.28	80 4	0	$1/2^+$			
6710	$5/2^+$	1814.9	7 1	4895		D+Q	$<+0.14$	$A_2=-0.14$ 3, $A_4=0.02$ 5. $A_2=0.76$ 13, $A_4=-0.05$ 12.
		3085.5	8 1	3624.15	$7/2^-$			
		3642.6	37 3	3066.9	$5/2^+$			
		4680.5	13 3	2028.72	$5/2^+$	D+Q	$+0.5 +6-3$	$A_2=0.14$ 8, $A_4=0.24$ 13.
		5435.6	35 3	1273.31	$3/2^+$			
6715	$3/2^+$	4288.3	17 1	2425.97				
		6713.3	83 1	0	$1/2^+$			$A_2=-0.38$ 7, $A_4=0.02$ 10.
6781.1	$1/2^-, 3/2^-$	1526.0	49 2	5255				
		3156.6	51 2	3624.15	$7/2^-$			
6907.1		1972.4	5 1	4934.6	$3/2^-$			
		3839.7	14 1	3066.9	$5/2^+$			
		4480.4	28 2	2425.97				
	$7/2$	5632.6	36 3	1273.31	$3/2^+$			$A_2=0.12$ 6, $A_4=-0.27$ 9.
		6905.4	16 1	0	$1/2^+$			$A_2=-0.32$ 10, $A_4=0.08$ 16.
6921		4891.4	100	2028.72	$5/2^+$	D+Q	-0.16 5	$A_2=-0.72$ 6, $A_4=0.16$ 11.
7014		3389.4	7 1	3624.15	$7/2^-$			

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$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14 (continued) $\gamma(^{29}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	I_γ	E_f	J_f^π	Mult. ‡	$\delta^\#$	Comments
7014		3946.5	8 1	3066.9	5/2 ⁺			
		4587.2	30 3	2425.97				
		4984.4	5 1	2028.72	5/2 ⁺			
		5739.5	49 3	1273.31	3/2 ⁺			
7057.81	1/2 ⁺	2123.0	6 1	4934.6	3/2 ⁻			
		4631.01	9.0 5	2425.97				
		5783.27	5 1	1273.31	3/2 ⁺			
		7055.98	80 2	0	1/2 ⁺			
7072	7/2	5042.4	100	2028.72	5/2 ⁺	D+Q	-0.19 +3-5	$A_2=-0.04$ 4, $A_4=-0.06$ 6.
7139		1486.9	20 2	5652	9/2 ⁺	D+Q	-0.29 +4-6	$A_2=-0.68$ 4, $A_4=-0.11$ 5.
		2397.8	25 2	4741				$A_2=0.22$ 7, $A_4=0.04$ 4.
		3058.7	55 3	4080				
7181.77	3/2	4755	9 2	2425.97				
		5152	74 4	2028.72	5/2 ⁺			
		7180	17 2	0	1/2 ⁺			$A_2=-0.05$ 7, $A_4=-0.24$ 12.
7197	3/2,5/2	4129.5	40 5	3066.9	5/2 ⁺			
		4770.2	16 2	2425.97				$A_2=-0.47$ 7, $A_4=-0.28$ 11.
		5167.3	44 5	2028.72	5/2 ⁺			
7521	1/2,3/2	5094.0	64 6	2425.97				$A_2=0.09$ 8, $A_4=0.00$ 10.
		6246.3	20 3	1273.31	3/2 ⁺			
		7518.9	16 3	0	1/2 ⁺			
7622.1	5/2 ⁻ ,7/2 ⁻	3997.3	76 3	3624.15	7/2 ⁻	D+Q	-0.36 +6-14	$A_2=0.31$ 4, $A_4=0.00$ 6.
		4554.4	4.0 5	3066.9	5/2 ⁺			
		5592.2	20 2	2028.72	5/2 ⁺			
7692.0	1/2,3/2	2757.1	8 1	4934.6	3/2 ⁻			
		7689.8	92 1	0	1/2 ⁺			$A_2=-0.07$ 9, $A_4=-0.01$ 14.
7767	3/2,5/2	6492.1	100	1273.31	3/2 ⁺			$A_2=-0.31$ 9, $A_4=-0.14$ 13.
7787	7/2 ⁺	1171.9	2.0 5	6615				
		1973.9	4.0 5	5813				
		2500.8	16 1	5286				$A_2=0.47$ 7, $A_4=-0.17$ 11.
		3045.7	21 2	4741				$A_2=-0.39$ 7, $A_4=0.28$ 9.
		3706.5	8 1	4080				
		5757.1	48 5	2028.72	5/2 ⁺			$A_2=-0.33$ 8, $A_4=0.36$ 11.
7892		5464.9	30 3	2425.97				
		5862.0	19 2	2028.72	5/2 ⁺			
		6617.1	51 2	1273.31	3/2 ⁺			
7987		2334.8	34 3	5652	9/2 ⁺			$A_2=0.40$ 5, $A_4=0.05$ 7.
		3906.4	66 3	4080				$A_2=-0.22$ 4, $A_4=-0.01$ 6.
7995	3/2 ⁻	3060.1	7 1	4934.6	3/2 ⁻			
		3154.4	7 1	4840.2	1/2 ⁺			$A_2=-0.32$ 7, $A_4=0.05$ 11.
		4927.2	25 3	3066.9	5/2 ⁺			
		5567.9	5 1	2425.97				
		5965.0	25 2	2028.72	5/2 ⁺			$A_2=0.06$ 6, $A_4=-0.13$ 10.
		6720.0	11 1	1273.31	3/2 ⁺			
		7992.7	20 2	0	1/2 ⁺			$A_2=0.03$ 8, $A_4=-0.32$ 13.
8138	1/2 to 5/2	3203	13 2	4934.6	3/2 ⁻			
		6863	87 2	1273.31	3/2 ⁺			$A_2=0.01$ 13, $A_4=-0.17$ 2.
8161	3/2 to 7/2	5093.2	66 4	3066.9	5/2 ⁺			$A_2=-0.24$ 7, $A_4=-0.00$ 11.
		6130.9	33 4	2028.72	5/2 ⁺			
8173	11/2 ⁺	3431.6	26 2	4741		D+Q	+0.67 +23-15	$A_2=0.70$ 6, $A_4=0.22$ 8.
		4092.4	74 2	4080				$A_2=0.26$ 6, $A_4=-0.10$ 10.
8209	3/2 ⁺	6933.9	38 4	1273.31	3/2 ⁺			$A_2=0.29$ 11, $A_4=0.19$ 15.
		8206.5	62 4	0	1/2 ⁺			$A_2=0.01$ 9, $A_4=0.25$ 15.
8270	3/2 to 9/2	4645.1	62 4	3624.15	7/2 ⁻			$A_2=-0.02$ 12, $A_4=0.36$ 18.
		6239.9	38 4	2028.72	5/2 ⁺			
8290		3395	19 2	4895				

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$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14 (continued) $\gamma(^{29}\text{Si})$ (continued)

$E_i(\text{level})$	J_i^π	$E_\gamma^\dagger$	I_γ	E_f	J_f^π	Mult. ‡	$\delta^\#$	Comments
8290		5863	28 3	2425.97				
		6260	32 3	2028.72	5/2 ⁺			
		7015	21 2	1273.31	3/2 ⁺			
8331	5/2,9/2	3044.7	20 3	5286				
		4706.0	80 3	3624.15	7/2 ⁻			$A_2=-0.33$ 3, $A_4=-0.04$ 4.
8349	3/2 to 7/2	5281.1	61 5	3066.9	5/2 ⁺			
		6318.8	39 5	2028.72	5/2 ⁺			$A_2=-0.30$ 6, $A_4=-0.05$ 5.
8371		4290.3	100	4080				
8418	3/2	5990.7	39 6	2425.97				
		8415.4	61 6	0	1/2 ⁺	D+Q	+0.44 5	$A_2=0.31$ 15, $A_4=0.15$ 20.
8476		2823.7	34 3	5652	9/2 ⁺			
		3734.5	26 2	4741				
		4395.3	40 3	4080				
8505	3/2 ⁺ ,5/2 ⁺	5437	24 3	3066.9	5/2 ⁺			
		7229.8	76 3	1273.31	3/2 ⁺			$A_2=-0.05$ 7, $A_4=-0.24$ 12.
8540		7264.8	100	1273.31	3/2 ⁺			
8557		4476	26 2	4080				
		6527	61 3	2028.72	5/2 ⁺			
8603		4522.3	100	4080				
8609	(9/2,13/2)	3867.5	100	4741				$A_2=0.33$ 2, $A_4=-0.15$ 3.
8610	5/2,9/2 ⁺	3324	42 6	5286				
		4529	22 5	4080				$A_2=-0.39$ 7, $A_4=-0.14$ 10.
		4985	28 2	3624.15	7/2 ⁻			
8622	3/2 to 7/2	4541	57 4	4080				
		4997	11 1	3624.15	7/2 ⁻			
		6592	33 3	2028.72	5/2 ⁺	D+Q	-0.53 11	$A_2=-0.13$ 8, $A_4=-0.01$ 11.
8641	13/2	1502	6 1	7139		D+Q	+1.0 +7-4	$A_2=0.98$ 7, $A_4=0.35$ 9.
		3899	94 1	4741				$A_2=0.25$ 3, $A_4=-0.26$ 4.
8670	7/2 to 11/2	3928	100	4741		D+Q	+0.20 +4-3	$A_2=0.09$ 6, $A_4=0.03$ 8.
								δ : For J=11, for J=7 $\delta=0.15$ +4-2 or 3.5 5.
8762		1981	33 2	6781.1				
		3507	67 2	5255				
8854		3958	17 2	4895				
		6824	48 4	2028.72	5/2 ⁺			
		8851	26 4	0	1/2 ⁺			
8865	7/2 to 11/2	4123	100	4741		D+Q	-0.9 3	$A_2=-0.17$ 8, $A_4=0.12$ 13.
8909		3623	23 3	5286				
		3654	11 2	5255				
		5284	66 4	3624.15	7/2 ⁻			
8959		3704	28 2	5255				
		4063	16 2	4895				
		4218	25 3	4741				
		4878	31 3	4080				
9151		6083	100	3066.9	5/2 ⁺			
9157		2542	39 4	6615				
		3342	61 4	5813				
9219		3567	26 3	5652	9/2 ⁺			
		7188	74 6	2028.72	5/2 ⁺			
9252		7221	100	2028.72	5/2 ⁺			
9298		4042	80 2	5255				
		5673	20 2	3624.15	7/2 ⁻			
9326	7/2 to 11/2	3674	25 5	5652	9/2 ⁺			
		4584	75 5	4741		D+Q	-0.13 +9-6	$A_2=-0.64$ 11, $A_4=0.15$ 15.
								δ : For J=11. for J=7 $\delta=+0.26$ +9-12.
9392		4650	100	4741				
9413		9410	100	0	1/2 ⁺			

Continued on next page (footnotes at end of table)

$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14 (continued) $\gamma(^{29}\text{Si})$ (continued)

$E_i(\text{level})$	$E_\gamma^\dagger$	I_γ	E_f	J_f^π	$E_i(\text{level})$	$E_\gamma^\dagger$	I_γ	E_f	J_f^π
9518	3705	35 5	5813		9943	5862	30 5	4080	
	4776	26 5	4741		9952	3337	100	6615	
	5437	17 4	4080		9987	3205	59 5	6781.1	
	7487	23 5	2028.72	5/2 ⁺		4731	41 5	5255	
9667	4411	100	5255		10006	7975	100	2028.72	5/2 ⁺
9683	4941	100	4741		10083	5341	69 6	4741	
9765	3150	9 2	6615			8052	31 6	2028.72	5/2 ⁺
	4478	57 5	5286		10131	4478	64 6	5652	9/2 ⁺
	5023	34 4	4741			5388	36 6	4741	
9779	6154	100	3624.15	7/2 ⁻	10170	4914	100	5255	
9850	2710.7	32 5	7139		10213	6132	100	4080	
	5108.0	68 5	4741		10236	4583	100	5652	9/2 ⁺
9943	3162	18 5	6781.1		10252	7183.2	100	3066.9	5/2 ⁺
	5201	51 5	4741						

[†] Deduced by the evaluator from level energy differences and recoil energy subtraction. Measured γ -ray energies are not listed in source references.

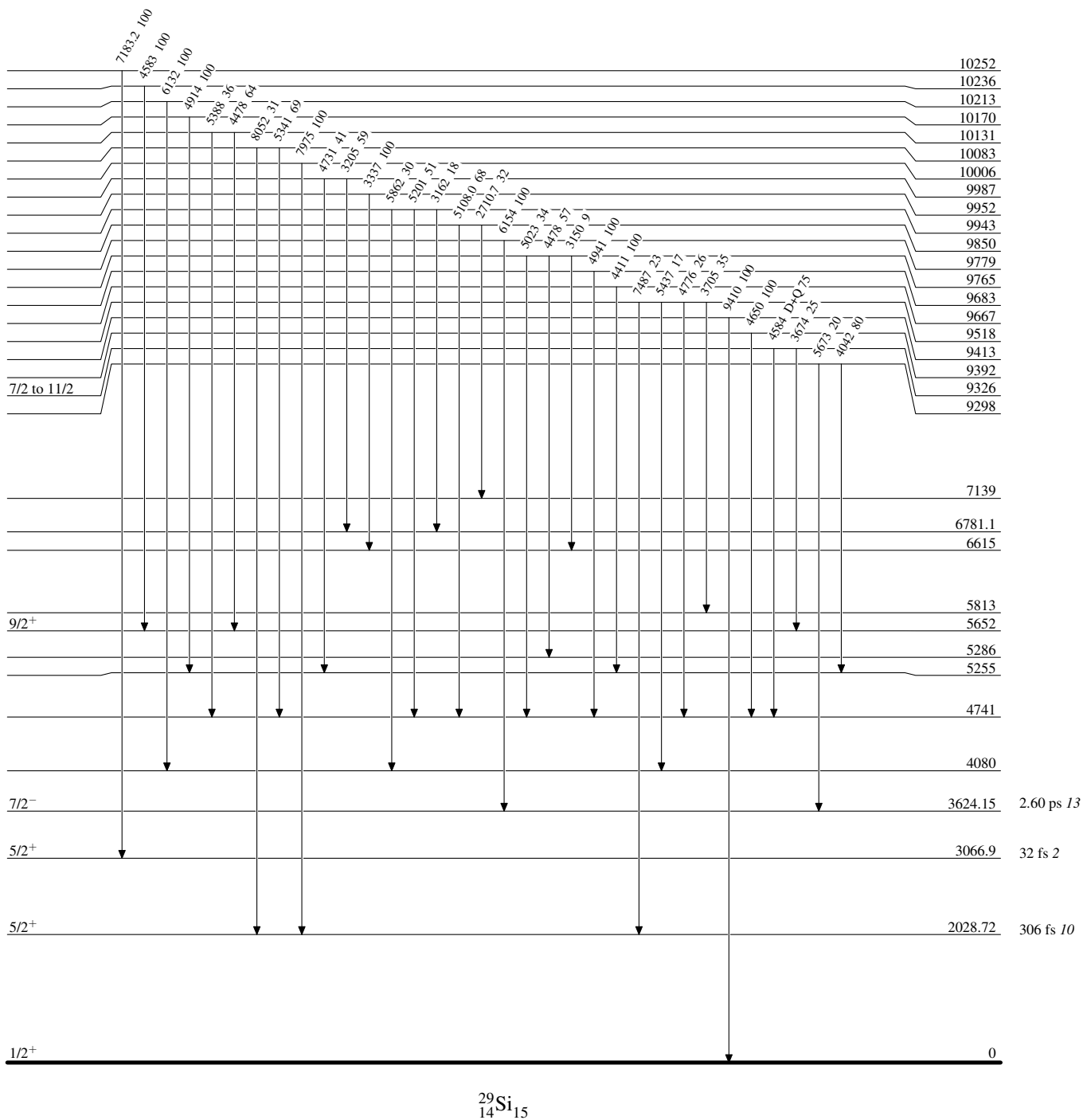
[‡] Assigned by the evaluator based on the mixing ratio data reported in 1982Be52.

[#] From 1982Be52. Sign convention as of the ENSDF policy (Krane and Steffen (1970Kr03)).

$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14

Level Scheme

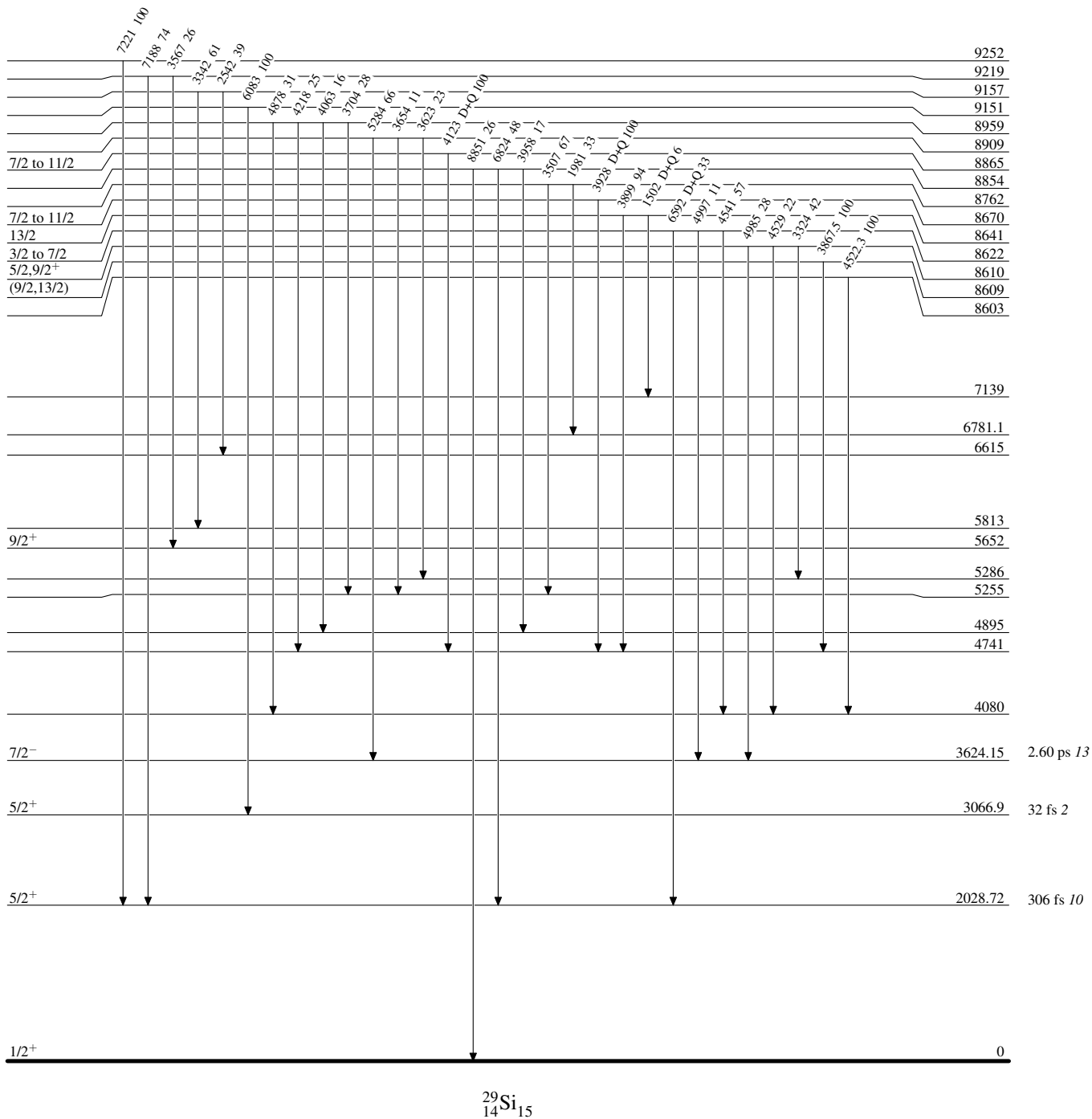
Intensities: % photon branching from each level



$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14

Level Scheme (continued)

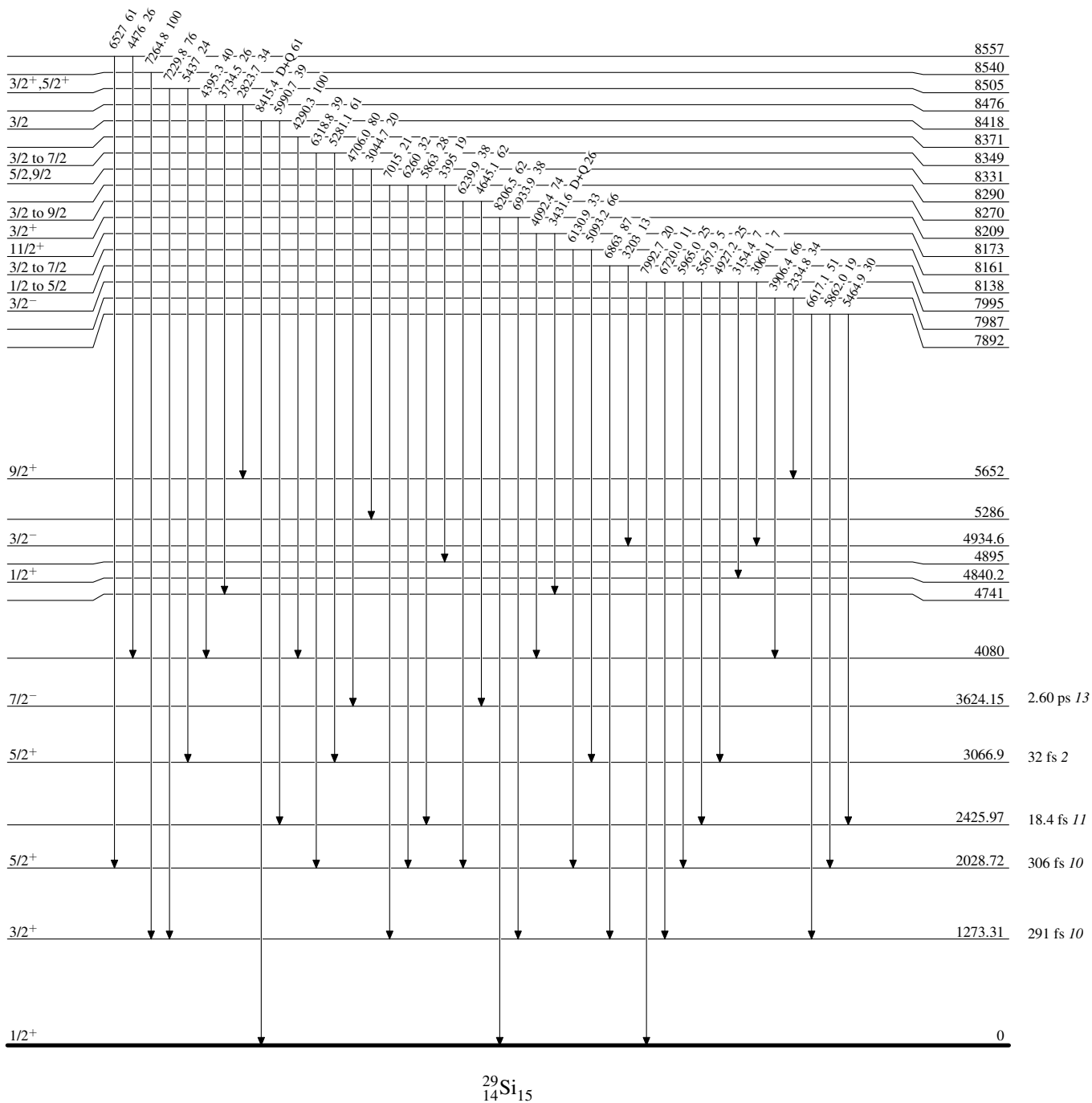
Intensities: % photon branching from each level



$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14

Level Scheme (continued)

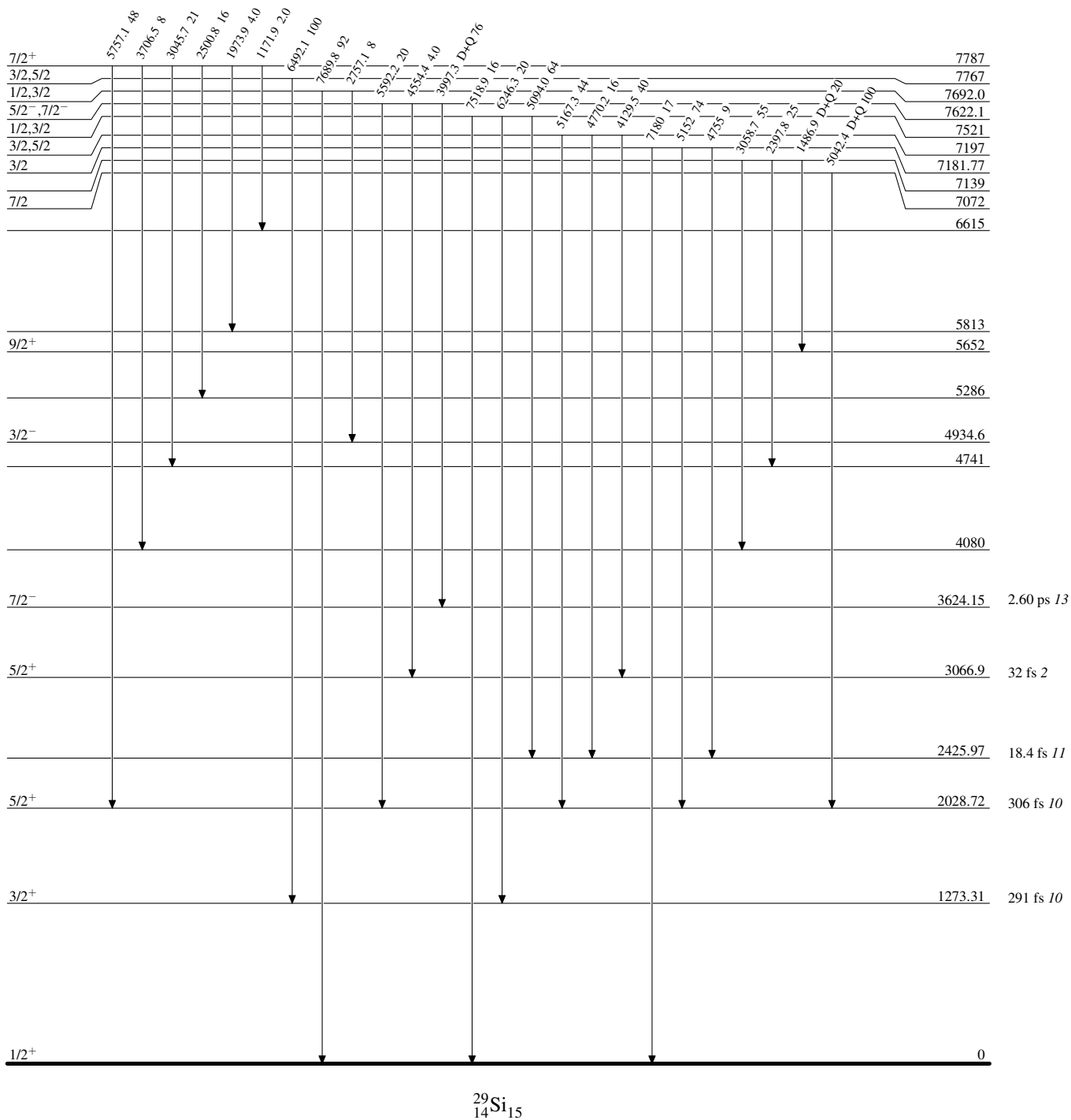
Intensities: % photon branching from each level



$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14

Level Scheme (continued)

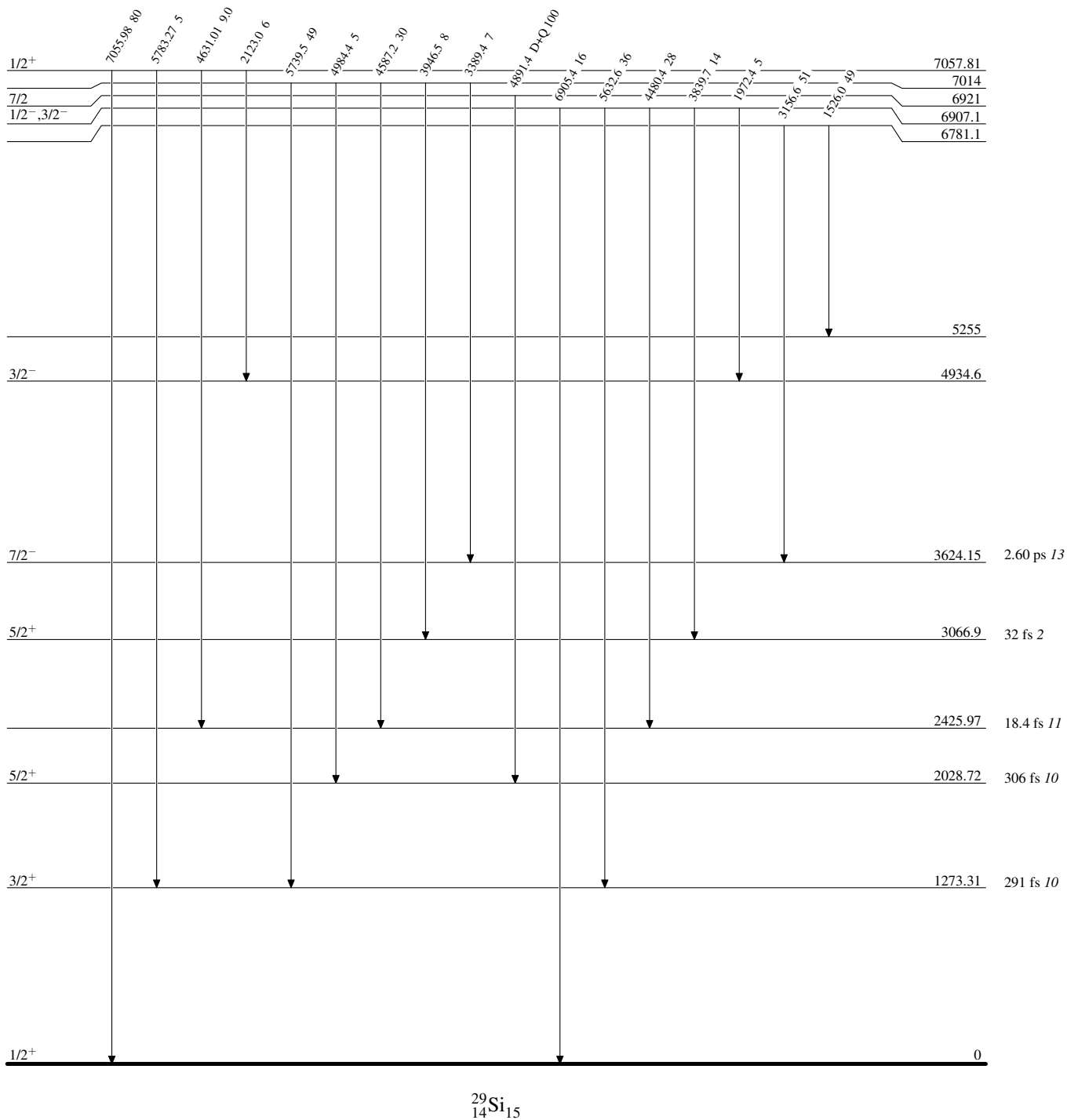
Intensities: % photon branching from each level



$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14

Level Scheme (continued)

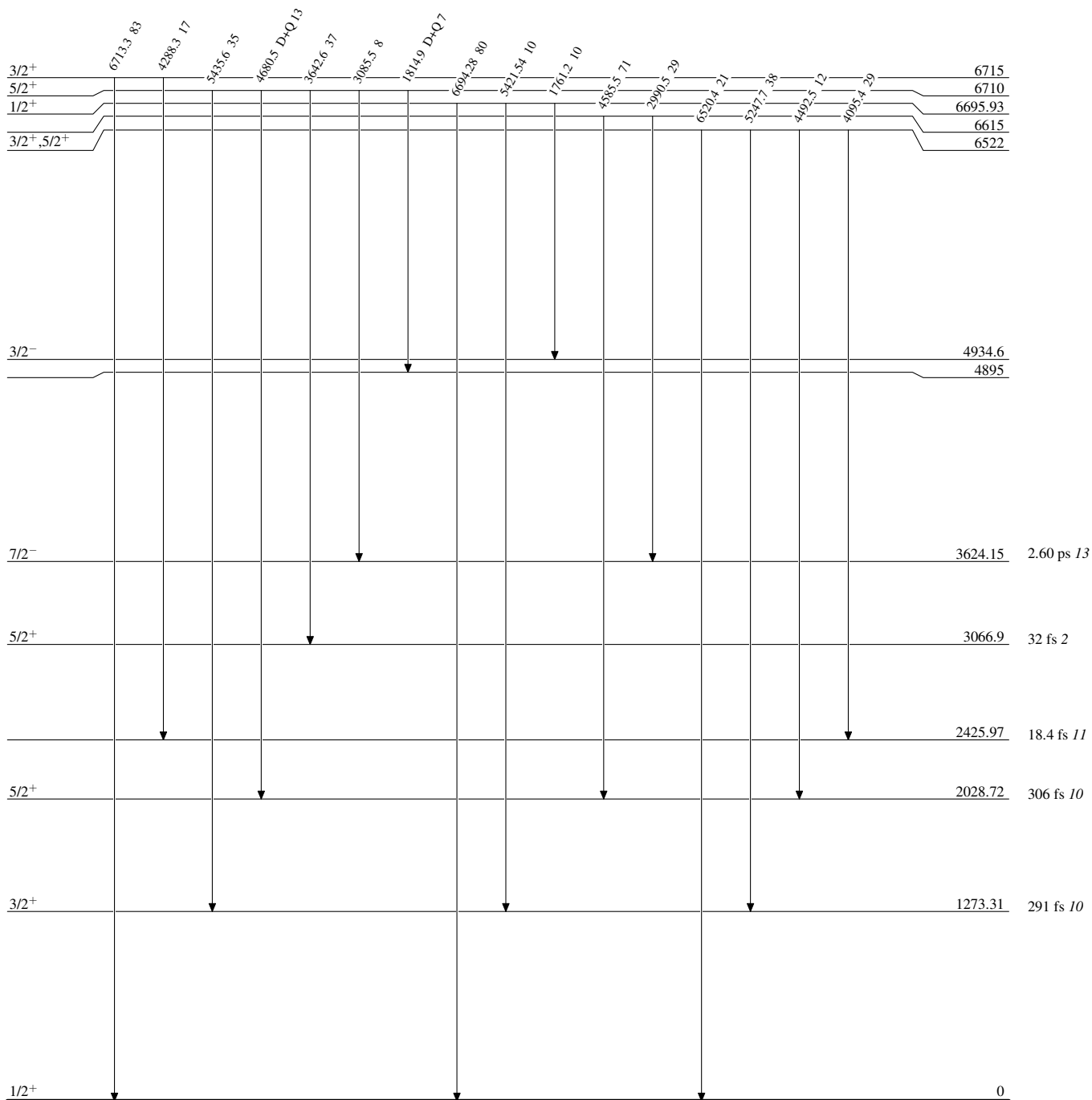
Intensities: % photon branching from each level



$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14

Level Scheme (continued)

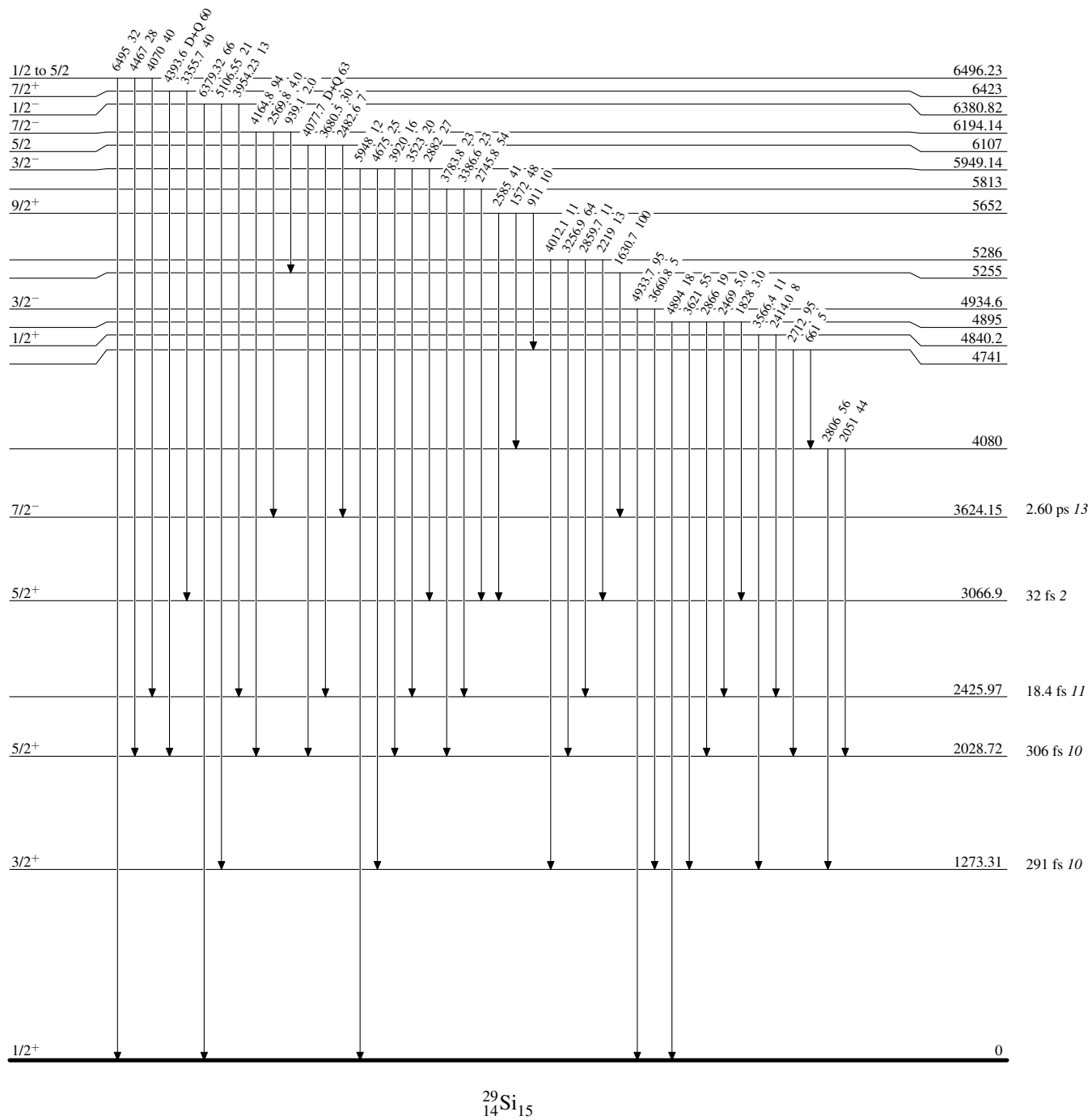
Intensities: % photon branching from each level


 $^{29}_{14}\text{Si}_{15}$

$^{28}\text{Si}(\text{d,p}),(\text{d,p}\gamma)$ 1990Pi05,1982Be52,1974Me14

Level Scheme (continued)

Intensities: % photon branching from each level



²⁸Si(d,p),(d,pγ) 1990Pi05,1982Be52,1974Me14

Level Scheme (continued)

Intensities: % photon branching from each level

