^{23}Na(t,pγ),^{26}Mg(t,$\alpha\gamma$) 1977Be20,1978Fo28,1983Ko18

History

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

1962Hi05: ^{23}NA(t,pγ),^{26}Mg(t,$\alpha\gamma$) E=6 MeV. Magnetic spectrometer.
1969Be23: ^{26}Mg(t,$\alpha\gamma$), E=2.6 MeV; ^{23}Na(t,pγ), E=2 MeV. Measured σ(Eα,Eγ,$\theta(\alpha\gamma)$), σ(Ep,Eγ).
1977Be20: ^{26}Mg(t,$\alpha\gamma$), E=1.9-3.2 MeV. Measured σ(Eγ,$\theta(\gamma)$), $\alpha\gamma$-coincidence, DSA.
1983kO18: E(^{26}Mg)=E=40 MeV. Measured Doppler broadened lineshapes, particleγ-coincidence.

^{25}Na Levels

E(level)†	$T_{1/2}$‡	L	Comments
0		2+4	
90 *1*	5.1 ns *3*	0	E(level): 90 5 from 1962Hi01. $T_{1/2}$: Average of 5.1 ns 5 (1969Be63) and 5.1 ns 3 (1977Be20).
1068 *2*	1.32 ps *14*		E(level): 1068 7 from 1962Hi01. $T_{1/2}$: From 1983Ko18. Other value 1.6 ps +14-6 (1977Be20).
2201 *2*	25 fs *4*	0+2	E(level): 2204 7 from 1962Hi01.
2416 *3*	140 fs *100*		E(level): 2418 7 from 1962Hi01. $T_{1/2}$: From 1977Be20.
2788 *3*	173 fs *34*	2(+4)	E(level): 2788 5 from 1962Hi01.
2914 *4*	10 fs *4*		E(level): 2913 5 from 1962Hi01.
3353 *3*	16 fs *5*		E(level): 3353 5 from 1962Hi01.
3455 *4*	146 fs *17*		E(level): 3456 7 from 1962Hi01.
3685 *4*	18 fs *8*		E(level): 3685 7 from 1962Hi01.
3928 *7*	<28 fs		E(level): From 1962Hi01.
3950 *4*	<83 fs		E(level): 3952 7 from 1962Hi01.
3995 *5*	31 fs *7*		E(level): 3995 7 from 1962Hi01.
4132 *5*	16 fs *6*		E(level): 4137 7 from 1962Hi01.
4286 *7*			
4340 *7*			
4450 *10*			
4710 *10*			
4800 *10*			
4962 *10*			
5146 *10*			
5190 *10*			
5223 *10*			
5347 *10*			
5378 *10*			
5465 *10*			
5484 *12*			
5690 *12*			
5713 *12*			
5746 *12*			

† From 1969Be63 for E<4200, 1962Hi01 for E>4200.
‡ From 1983Ko18 except as noted.

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$\gamma(^{25}Na)$

E_γ [†]	I_γ [†]	E_i(level)	E_f	Mult.	δ	Comments
90 *1*	100	90	0	M1+E2	<0.15	
979 *1*	90 *2*	1068	90			
1043 *2*	100	3455	2416			
1068 *2*	10 *2*	1068	0	E2		I_γ: Average of 9 1 (1969Be63) and 12.5 15 (1977Be20).
1132 *2*	26 *3*	2201	1068	M1+E2	+0.05 *9*	I_γ: Average of 28 4 (1969Be63) and 25 3 (1977Be20).
1207 *3*	100	3995	2788			
[x]2066 *5*						
2110 *3*	20 *2*	2201	90	M1+E2	+0.8 *4*	I_γ: Average of 19 2 (1969Be63) and 22 3 (1977Be20).
2201 *2*	53 *3*	2201	0			I_γ: Average of 53 3 (1969Be63) and 53 4 (1977Be20).
[x]2280 *3*						
2416 *3*	100	2416	0	E2(+M1)	+8 *+19−3*	
2788 *2*	100	2788	0			
2825 *3*	100	2914	90			
2887 *3*		3950	1068			
3263 *3*	10 *3*	3353	90			
3353 *3*	90 *3*	3353	0			
3595 *4*	20 *5*	3685	90			
3685 *5*	80 *5*	3685	0			
3861 *5*	81 *2*	3950	90			
3928 *7*	100	3928	0			
3950 *5*	19 *2*	3950	0			
4132 *5*	100	4132	0			

[†] From 1969Be63.
[x] γ ray not placed in level scheme.

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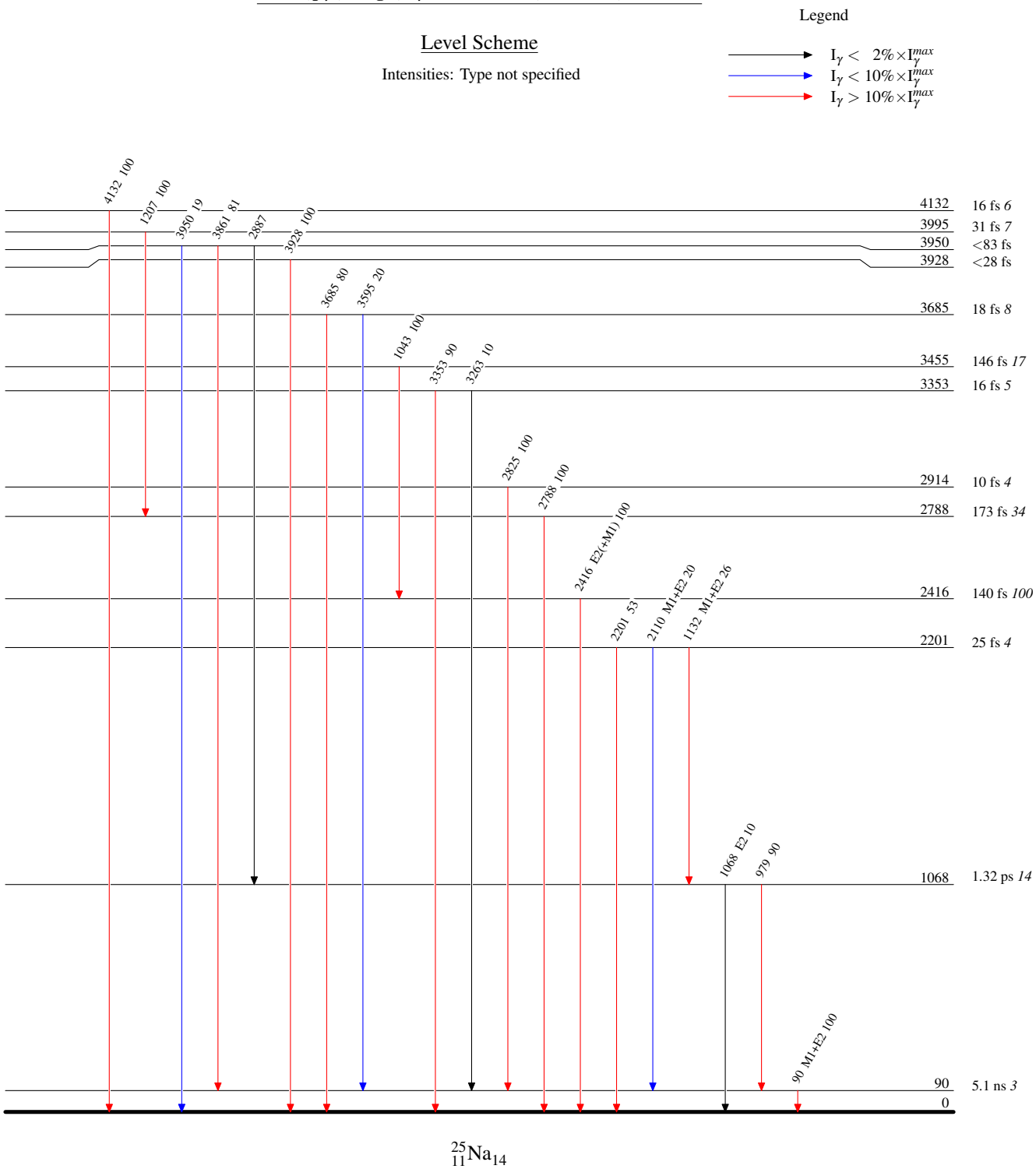
Level Scheme

Intensities: Type not specified



$^{25}_{11}Na_{14}$