## Sódio (Na) - NIST Atomic Spectra Database Lines Data

## $Wavelength = 6000 \text{\AA}, \pm 4000 \text{Na} \hspace{0.2cm} (http://physics.nist.gov/PhysRefData/contents-atomic.html)$

Spec.	Waveleng	Rel.	Aki	Acc	Ei Ek	Configur-	Terms	Ji Jk	gi gk	Туре	TP	Line
	Air(Å)	Int.	$(10^8 s^{-1})$		$(cm^{-1})$	ations					Refs	Refs
NaI	2433.765		3.87e 05	C+'	0.000	3s 18p	2S 2P*	1/2	2 4		9,10n	
					[41076.132			3/2				
NaI	2433.768		3.87e 05	C+'	0.000	3s 18p	2S 2P*	1/2	2 2		9 <b>,</b> 10n	
					[41076.096			1/2				
NaI	2436.594		4.64e 05	C+'	0.000	3s 17p	2S 2P*	1/2	2 4		9 <b>,</b> 10n	
					[41028.453			3/2				
NaI	2436.597		4.64e 05	C+'	0.000	3s 17p	2S 2P*	1/2	2 2		9,10n	
					[41028.410			1/2				
NaI	2440.010		5.6e 05	C+'	0.000	3s 16p	2S 2P*	1/2	2 4		9,10n	
					[40971.019			3/2				
NaI	2440.013		5.6e 05	C+'	0.000	3s 16p	2S 2P*	1/2	2 2		9,10n	
					[40970.967			1/2				
NaI	2444.189		6.8e 05	C+'	0.000	3s 15p	2S 2P*	1/2	2 4		9 <b>,</b> 10n	
					[40900.976			3/2				
NaI	2444.192		6.8e 05	C+'	0.000	3s 15p	2S 2P*	1/2	2 2		9 <b>,</b> 10n	
				_	[40900.913			1/2				
NaI	2449.377		8.6e 05	C+'	0.000	3s 14p	2S 2P*	1/2	2 4		9,10n	
					[40814.344			3/2				
NaI	2449.382		8.6e 05	C+'	0.000	3s 14p	2S 2P*	1/2	2 2		9,10n	
	0.455 0.01		1 10 04	~	[40814.265	2 12	00.051	1/2			0 10	
NaI	2455.931		1.12e 04	C+'	0.000	3s 13p	2S 2P*	1/2	2 4		9,10n	
	0.455 0.05		1 10 04	~	[40705.437	2 12	00.051	3/2			0 10	
NaI	2455.937		1.12e 04	C+'	0.000	3s 13p	2S 2P*	1/2	2 2		9,10n	
N - T	2464 270		1 44- 04	Q + 1	[40705.337	2 - 10	00 004	1/2	0.4		0 10-	
NaI	2464.379		1.44e 04	C+'	0.000	3s 12p	2S 2P*	1/2	2 4		9,10n	
NaI	2464.387		1.44e 04	C+'	[40565.906	3s 12p	2S 2P*	3/2	2 2		9,10n	
Nal	2404.307		1.446 04	C+ ·	[40565.777	38 12p	25 ZP^	1/2	2 2		9,1011	
Ma T	2475.536		1.94e 04	C+'	0.000	3s 11p	2S 2P*	1/2	2 4		9,10n	
NaI	24/3.336		1.946 04	C+ ·	40383.091	os iip	25 ZP^	3/2	2 4		9,1011	
NaI	2475.547		1.94e 04	C+'	0.000	3s 11p	2S 2P*	1/2	2 2		9,10n	
Naı	24/3.34/		1.946 04	CT	40382.920	38 11p	25 ZF"	1/2	2 2		9,1011	
NaI	2490.713		2.76e 04	C+'	0.000	3s 10p	2S 2P*	1/2	2 4		9,10n	
IVAI	2490.713		2.700 04		40137.039	22 IOD	Z3 ZE"	3/2	4		9,1011	
NaI	2490.727		2.76e 04	C+'	0.000	3s 10p	2S 2P*	1/2	2 2		9,10n	
IVAL	2470.727		2.700 04		[40136.805	22 10b	20 21	1/2			J, 1011	
NaI	2512.134		4.05e 04	C+'	0.000	3s 9p	2S 2P*	1/2	2 4		9,10n	
мат	2012.104		4.000 04	<u> </u>	0.000	1 22 25	20 21	1/4	4 7		J, 1011	

					39794.810			3/2			
NaI	2512.155		4.05e 04	C+'	0.000 [39794.480	3s 9p	2S 2P*	1/2 1/2	2 2	9,10n	
NaI	2543.841	20	6.6e 04	C+ '	0.000	3s 8p	2S 2P*	1/2 3/2	2 4	9,10n	268
NaI	2543.872	10	6.6e 04	C+ '	0.000	3s 8p	2S 2P*	1/2	2 2	9,10n	268
NaI	2593.869	70	1.20e 03	C+'	0.000	3s 7p	2S 2P*	1/2 3/2	2 4	9,10n	268
NaI	2593.919	35	1.20e 03	C+'	0.000	3s 7p	2S 2P*	1/2 1/2	2 2	9,10n	268
NaI	2680.341	200	2.26e 03	C+'	0.000	3s 6p	2S 2P*	1/2 3/2	2 4	4	268
NaI	2680.433	100	2.26e 03	C+'	0.000 37296.32	3s 6p	2S 2P*	1/2 1/2	2 2	4	268
NaI	2852.811	400	6.0e 03	C+	0.000	3s 5p	2S 2P*	1/2 3/2	2 4	ls	268
NaI	2853.012	200	6.0e 03	C+	0.000	3s 5p	2S 2P*	1/2 1/2	2 2	ls	268
NaI	2893.62	2						<u>'</u>			268
NaI	3302.369	1200	2.81e 02	C+	0.000 30272.58	3s 4p	2S 2P*	1/2 3/2	2 4	CRC	268
NaI	3302.978	600	2.81e 02	C+	0.000	3s 4p	2S 2P*	1/2 1/2	2 2	CRC	268
NaI	3426.86	50						<u> </u>			268
NaI	4193.012		1.70e 03	С	16956.172 [40798.656	3p 13d	2P* 2D	1/2 3/2	2 4	ls	
NaI	4196.039		3.40e 04	С	16973.368 [40798.656	3p 13d	2P* 2D	3/2 3/2	4 4	ls	
NaI	4196.039		2.04e 03	С	16973.368 [40798.656	3p 13d	2P* 2D	3/2 5/2	4 6	ls	
NaI	4199.138		5.9e 04	С	16956.172 [40763.874	3p 14s	2P* 2S	1/2 1/2	2 2	ls	
NaI	4202.174		1.18e 03	С	16973.368 [40763.874	3p 14s	2P* 2S	3/2 1/2	4 2	ls	
NaI	4213.001		2.20e 03	С	16956.172 [40685.535	3p 12d	2P* 2D	1/2 3/2	2 4	ls	
NaI	4216.057		4.39e 04	С	16973.368 [40685.535	3p 12d	2P* 2D	3/2 3/2	4 4	ls	
NaI	4216.057		2.63e 03	С	16973.368 [40685.535	3p 12d	2P* 2D	3/2 5/2	4 6	ls	
NaI	4220.899		7.1e 04	С	16956.172 [40641.138	3p 13s	2P* 2S	1/2 1/2	2 2	ls	
NaI	4223.966		1.41e 03	С	16973.368	3p 13s	2P* 2S	3/2	4 2	ls	

					[40641.138			1/2			
NaI	4238.988	6	2.90e 03	С	16956.172	3p 11d	2P* 2D	1/2	2 4	ls	268
					40540.07			3/2			
NaI	4242.081	10*	5.8e 04	С	16973.368	3p 11d	2P* 2D	3/2	4 4	ls	268
					40540.07			3/2			
NaI	4242.081	10*	3.46e 03	С	16973.368	3p 11d	2P* 2D	3/2	4 6	ls	268
					40540.07			5/2			
NaI	4249.411	1	8.7e 04	С	16956.172	3p 12s	2P* 2S	1/2	2 2	ls	268
					40482.22			1/2			
NaI	4252.520	2	1.73e 03	С	16973.368	3p 12s	2P* 2S	3/2	4 2	ls	268
					40482.22			1/2			
NaI	4273.643	15	3.91e 03	С	16956.172	3p 10d	2P* 2D	1/2	2 4	ls	268
					40348.83			3/2			
NaI	4276.787	20*	7.8e 04	С	16973.368	3p 10d	2P* 2D	3/2	4 4	ls	268
					40348.83			3/2			
NaI	4276.787	20*	4.69e 03	С	16973.368	3p 10d	2P* 2D	3/2	4 6	ls	268
					40348.83			5/2			
NaI	4287.840	2	1.19e 03	С	16956.172	3p 11s	2P* 2S	1/2	2 2	ls	268
					40271.38			1/2			
NaI	4291.004	3	2.38e 03	С	16973.368	3p 11s	2P* 2S	3/2	4 2	ls	268
					40271.38			1/2			
NaI	4321.401	30	5.5e 03	С	16956.172	3p 9d	2P* 2D	1/2	2 4	ls	268
			1		40090.31			3/2			
NaI	4324.616	40*	1.09e 03	С	16973.368	3p 9d	2P* 2D	3/2	4 4	ls	268
				_	40090.31			3/2			
NaI	4324.616	40*	6.6e 03	С	16973.368	3p 9d	2P* 2D	3/2	4 6	ls	268
T	4041 400	2	1 60 00	~	40090.31	2 10	0.54 0.0	5/2	0.0	7	0.60
NaI	4341.489	3	1.60e 03	С	16956.172	3p 10s	2P* 2S	1/2	2 2	ls	268
N - T	4244 724	-	2 20- 02	0	39983.27	2 10	254 23	1/2	4 0	7 -	260
NaI	4344.734	5	3.20e 03	С	16973.368 39983.27	3p 10s	2P* 2S	3/2	4 2	ls	268
No T	4200 022	4.0	7 7 - 02	Б	<del></del>	2 0-1	20+ 20	1/2	2 4	CDC	2.00
NaI	4390.023	40	7.7e 03	D	16956.172 39728.70	3p 8d	2P* 2D	1/2 3/2	2 4	CRC	268
NaI	4393.340	60*	1.6e 03	С	16973.368	25 04	2P* 2D	3/2	4 4	ls	268
Nal	4393.340	00^	1.66 03		39728.70	3p 8d	ZP^ ZD	3/2	4 4	IS	200
NaI	4393.340	60*	9.2e 03	D	16973.368	2n 0d	2P* 2D	3/2	4 6	CRC	268
Mai	4333.340	00.	J. ZE U3	ע	39728.70	3p 8d	ZF ZD	5/2	7 0	CRC	200
NaI	4419.884	5	2.33e 03	С	16956.172	3p 9s	2P* 2S	1/2	2 2	ls	268
IVAL	4417.004		2.336 03		39574.85	JP 75	21 20	1/2		1 2	200
NaI	4423.247	8	4.66e 03	С	16973.368	3p 9s	2P* 2S	3/2	4 2	ls	268
IVGI	1120.247		1.000 00		39574.85		21 20	1/2	1 2	1 2 3	
NaI	4494.180	60	1.2e 02	С	16956.172	3p 7d	2P* 2D	1/2	2 4	CRC	268
1101	1154.100		1.20 02		39200.93	JP / G		3/2			
NaI	4497.657	100*	2.4e 03	D	16973.368	3p 7d	2P* 2D	3/2	4 4	CRC	268
11/11/1	4407.007	100	2.40 00	<i>-</i>	100/0.000	5p / G	21 21	5/2	1 1	CINC	200

					39200.93			3/2			
NaI	4497.657	100*	1.4e 02	С	16973.368	3p 7d	2P* 2D	3/2	4 6	CRC	268
					39200.93			5/2			
NaI	4541.633	10	3.59e 03	С	16956.172	3p 8s	2P* 2S	1/2	2 2	ls	268
					38968.51			1/2			
NaI	4545.184	15	7.2e 03	С	16973.368	3p 8s	2P* 2S	3/2	4 2	ls	268
					38968.51			1/2			
NaI	4664.811	120	2.33e 02	С	16956.172	3p 6d	2P* 2D	1/2	2 4	CRC	268
					38387.270			3/2			
NaI	4668.557	200*	4.1e 03	D	16973.368	3p 6d	2P* 2D	3/2	4 4	CRC	268
					38387.270			3/2			
NaI 466	4668.559	200*	2.5e 02	С	16973.368	3p 6d	2P* 2D	3/2	4 6	CRC	268
					38387.257			5/2			
NaI	4747.941	20	6.3e 03	D	16956.172	3p 7s	2P* 2S	1/2	2 2	CRC	268
					38012.044			1/2			
NaI	4751.822	30	1.27e 02	С	16973.368	3p 7s	2P* 2S	3/2	4 2	CRC	268
					38012.044			1/2			
NaI	4978.541	200	4.1e 02	С	16956.172	3p 5d	2P* 2D	1/2	2 4	CRC	268
					37036.774			3/2			
NaI	4982.808		8.2e 03	D	16973.368	3p 5d	2P* 2D	3/2	4 4	CRC	
					37036.774			3/2			
NaI	4982.813	400	4.89e 02	С	16973.368	3p 5d	2P* 2D	3/2	4 6	CRC	268
					37036.754			5/2			
NaI	5148.838	40	1.17e 02	С	16956.172	3p 6s	2P* 2S	1/2	2 2	CRC	268
					36372.620			1/2			
NaI	5153.402	80	2.33e 02	С	16973.368	3p 6s	2P* 2S	3/2	4 2	CRC	268
					36372.620			1/2			
NaI	5682.633	280	1.03e 01	С	16956.172	3p 4d	2P* 2D	1/2	2 4	CRC	268
					34548.766			3/2			
NaI	5688.193	70	2.1e 02	D	16973.368	3p 4d	2P* 2D	3/2	4 4	CRC	268
					34548.766			3/2			
NaI	5688.205	560	1.2e 01	С	16973.368	3p 4d	2P* 2D	3/2	4 6	CRC	268
					34548.731			5/2			
NaI	5889.950	8000	6.22e 01	A	0.000	3s 3p	2S 2P*	1/2	2 4	CRC	268
		0			16973.368			3/2			
NaI	5895.924	4000	6.18e 01	A	0.000	3s 3p	2S 2P*	1/2	2 2	CRC	268
	6154 005	0			16956.172	2 5	0.54 0.0	1/2			0.66
NaI	6154.225	120	2.6e 02	С	16956.172	3p 5s	2P* 2S	1/2	2 2	CRC	268
	61.60 5.45	0.40	F 0 00		33200.675	2 5	0.54 0.0	1/2	1.0		0.66
NaI	6160.747	240	5.2e 02	С	16973.368	3p 5s	2P* 2S	3/2	4 2	CRC	268
	6621 052		6 2 05	G.1	33200.675	4 14	0.0 0.0 1	1/2	0.4		
NaI	6631.952		6.3e 05	C'	25739.991	4s 14p	2S 2P*	1/2	2 4	9	
NT - T	6621 007		6 2- 05	0.1	[40814.344	4 - 1 4	0.0 0.5 4	3/2			
NaI	6631.987		6.3e 05	C '	25739.991	4s 14p	2S 2P*	1/2	2 2	9	

					[40814.265			1/2			
NaI	6680.215		8.5e 05	C'	25739.991	4s 13p	2S 2P*	1/2	2 4	9	
					[40705.437	_		3/2			
NaI	6680.260		8.5e 05	C'	25739.991	4s 13p	2S 2P*	1/2	2 2	9	
					[40705.337			1/2			
NaI	6743.085		1.11e 04	C '	25739.991	4s 12p	2S 2P*	1/2	2 4	9	
					[40565.906			3/2			
NaI	6743.144		1.11e 04	C '	25739.991	4s 12p	2S 2P*	1/2	2 2	9	
					[40565.777			1/2			
NaI	6827.271		1.53e 04	C '	25739.991	4s 11p	2S 2P*	1/2	2 4	9	
					[40383.091			3/2			
NaI	6827.351		1.53e 04	C '	25739.991	4s 11p	2S 2P*	1/2	2 2	9	
					[40382.920			1/2			
NaI	6943.953		2.23e 04	C '	25739.991	4s 10p	2S 2P*	1/2	2 4	9	
					[40137.039			3/2			
NaI	6944.066		2.23e 04	C '	25739.991	4s 10p	2S 2P*	1/2	2 2	9	
					[40136.805			1/2			
NaI	7113.036		3.36e 04	C '	25739.991	4s 9p	2S 2P*	1/2	2 4	9	
					[39794.810			3/2			
NaI	7113.203		3.36e 04	C '	25739.991	4s 9p	2S 2P*	1/2	2 2	9	
					[39794.480			1/2			
NaI	7373.23	20	5.6e 04	C <b>'</b>	25739.991	4s 8p	2S 2P*	1/2	2 4	9	268
				_	39298.84			3/2			
NaI	7373.49	10	5.6e 04	C'	25739.991	4s 8p	2S 2P*	1/2	2 2	9	268
					39298.35			1/2			
NaI	7809.78	50	1.04e 03	C '	25739.991	4s 7p	2S 2P*	1/2	2 4	9	268
N. T.	7010 04	0.5	1 04 02	~ ·	38540.93	4 7	0.0 0.0 4	3/2	0.0	0	0.60
NaI	7810.24	25	1.04e 03	C '	25739.991	4s 7p	2S 2P*	1/2	2 2	9	268
NI - T	8183.255	4400	4.53e 01	0	38540.18	2 2-1	254 25	1/2	2 4	OD O	268
NaI	8183.255	4400	4.53e U1	С	16956.172	3p 3d	2P* 2D	1/2	2 4	CRC	∠68
N. T	8194.790	0.00	0.00.00	D	29172.889	2 2-1	20+ 20	3/2	4 4	CDC	268
NaI	8194.790	800	9.0e 02	D	16973.368 29172.889	3p 3d	2P* 2D	3/2	4 4	CRC	∠68
NaI	8194.824	8800	5.4e 01	С	16973.368	3p 3d	2P* 2D	3/2	4 6	CRC	268
Naı	8194.824	8800	5.4e UI		29172.839	3p 3a	ZP^ ZD	5/2	4 6	CRC	200
NaI	8649.93	100	2.31e 03	C'	25739.991	4s 6p	2S 2P*	1/2	2 4	9	268
Naı	0049.93	100	2.31e 03	C	37297.61	45 op	25 ZF"	3/2	2 4	9	200
NaI	8650.89	60	2.31e 03	C'	25739.991	4s 6p	2S 2P*	1/2	2 2	9	268
1101	0000.09		2.316 03		37296.32	12 Ob	25 21	1/2	2 2		200
NaI	8793.091		1.63e 04	C'	29172.839	3d 11f	2D 2F*	5/2	6 6	9	
1101	0755.051		1.050 04		[40542.282	00 111		5/2			
NaI	8793.091		2.45e 03	C'	29172.839	3d 11f	2D 2F*	5/2	6 8	9	
11011	0,00.001		2.100 00		[40542.282	04 111		7/2			
NaI	8793.130		2.29e 03	C'	29172.889	3d 11f	2D 2F*	3/2	4 6	9	
1141	0,00.100		7.276 03	$\sim$	27112.009	J 4 T T T	2D 2E	9/4	¬ U	 1	

					[40542.282			5/2				
NaI	8942.94	25*	2.47e 04	C '	29172.839	3d 10f	2D 2F*	5/2	6 6		9	268
					40351.77			5/2				
NaI	8942.94	25*	3.71e 03	C'	29172.839	3d 10f	2D 2F*	5/2	6 8		9	268
					40351.77			7/2				
NaI	8942.98		3.46e 03	C'	29172.889	3d 10f	2D 2F*	3/2	4 6		9	
					40351.77			5/2				
NaI	9153.86	40*	3.5e 04	C '	29172.839	3d 9f	2D 2F*	5/2	6 6		9	268
					40094.19			5/2				
NaI	9153.86	40*	5.3e 03	C '	29172.839	3d 9f	2D 2F*	5/2	6 8		9	268
					40094.19			7/2				
NaI	NaI 9153.91		4.9e 03	C '	29172.889	3d 9f	2D 2F*	3/2	4 6		9	
					40094.19			5/2				
NaI	9465.92	60*	5.3e 04	C'	29172.839	3d 8f	2D 2F*	5/2	6 6		9	268
					39734.16			5/2				
NaI	9465.92	60*	7.9e 03	C'	29172.839	3d 8f	2D 2F*	5/2	6 8		9	268
					39734.16			7/2				
NaI	9465.96		7.4e 03	C '	29172.889	3d 8f	2D 2F*	3/2	4 6		9	
					39734.16			5/2				
NaI	9492.57		8.3e 04	С	30266.99	4p 13d	2P* 2D	1/2	2 4		ls	
					[40798.656			3/2			_	
NaI	9497.61		1.66e 04	С	30272.58	4p 13d	2P* 2D	3/2	4 4		ls	
				_	[40798.656			3/2			_	
NaI	9497.61		1.00e 03	С	30272.58	4p 13d	2P* 2D	3/2	4 6		ls	
				_	[40798.656			5/2			_	
NaI	9524.02		2.85e 04	С	30266.99	4p 14s	2P* 2S	1/2	2 2		ls	
T	0500 10		F 7 04	<u> </u>	[40763.874	4 1 4	0.54-0.0	1/2	4 0		7	
NaI	9529.10		5.7e 04	С	30272.58	4p 14s	2P* 2S	3/2	4 2		ls	
N - T	0505 64		1 07- 02	0	[40763.874	4 10-1	254 25	1/2	2 4		7 -	
NaI	9595.64		1.07e 03	С	30266.99	4p 12d	2P* 2D	1/2	2 4		ls	
No T	0.000 7.0		2 14 2 04	0	[40685.535 30272.58	1 - 1 O al	20+ 20	3/2	4 4		1 ~	
NaI	9600.79		2.14e 04	С	[40685.535	4p 12d	2P* 2D	3/2	4 4		ls	
NaI	9600.79		1.28e 03	С	30272.58	4p 12d	2P* 2D	3/2	4 6		ls	
Naı	9600.79		1.200 03		[40685.535	4p 12d	ZP^ ZD	5/2	4 6		IS	
NaI	9636.70		3.33e 04	С	30266.99	4p 13s	2P* 2S	1/2	2 2		ls	
Naı	9636.70		3.336 04		[40641.138	4p 135	ZF" Z5	1/2	2 2		15	
NaI	9641.90		6.6e 04	С	30272.58	4p 13s	2P* 2S	3/2	4 2		ls	
naı	2041.90		0.06 04		[40641.138	45 102	21 23	1/2	7 2		13	
NaI	9731.51		1.41e 03	С	30266.99	4p 11d	2P* 2D	1/2	2 4	1	ls	
1401	3/31.31		1.410 00		40540.07	15 110	21 20	3/2	2 3		1.0	
NaI	9736.81		2.81e 04	С	30272.58	4p 11d	2P* 2D	3/2	4 4		ls	
11011	3,30.01		2.010 04	~	40540.07	12 114		3/2	1 1		15	
NaI	9736.81		1.69e 03	С	30272.58	4p 11d	2P* 2D	3/2	4 6	+	ls	
иат	2/30.01		1.026 02	$\sim$	30272.30	1 1 T T T	41 41	J/ Z	T 0		13	

					40540.07			5/2			
NaI	9786.62		4.02e 04	С	30266.99	4p 12s	2P* 2S	1/2	2 2	ls	
					40482.22			1/2			
NaI	9791.98		8.0e 04	С	30272.58	4p 12s	2P* 2S	3/2	4 2	ls	
					40482.22			1/2			
NaI	9916.11		1.92e 03	С	30266.99	4p 10d	2P* 2D	1/2	2 4	ls	
					40348.83			3/2			
NaI	9921.61		3.83e 04	С	30272.58	4p 10d	2P* 2D	3/2	4 4	ls	
					40348.83			3/2			
NaI	9921.61		2.30e 03	С	30272.58	4p 10d	2P* 2D	3/2	4 6	ls	
					40348.83			5/2			
NaI	9961.26	80*	8.47e 04	C '	29172.839	3d 7f	2D 2F*	5/2	6 6	9	268
					39208.98			5/2			
NaI	9961.26	80*	1.27e 02	C '	29172.839	3d 7f	2D 2F*	5/2	6 8	9	268
					39208.98			7/2			
NaI	9961.31		1.19e 02	C '	29172.889	3d 7f	2D 2F*	3/2	4 6	9	
					39208.98			5/2			
NaI	9992.87		5.6e 04	С	30266.99	4p 11s	2P* 2S	1/2	2 2	ls	
					40271.38			1/2			