

PRELIMINARY TABLE OF SOLAR SPECTRUM
WAVE-LENGTHS. XIII.

By HENRY A. ROWLAND.

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6327.820	Ni	2	6361.031	Ni	0
6327.997		0000	6361.415		0000 N
6329.142	A (O)	000	6362.560	Zn	1
6329.855	A (O)	000	6363.090	Cr, Fe	2
6330.316	Cr	1	6364.575	Fe	1
6331.067	Fe	2	6364.920		0
6331.345		0000	6366.564	Ti	000
6331.619		0000	6366.707	Ni	0
6332.180		0 N	6366.982		0000
6333.460	A (wv)	0000	6367.350		000
6334.588	A (O), (wv?)	0000	6367.640		000
6334.903		0000	6369.244		0000
6335.307	A (O)	0000	6369.683	Fe	0
6335.554	Fe	6	6370.574	Ni	00
6336.032	A (wv)?	0000	6371.573	Fe	1 N d?
6336.329	Ti	000 N	6375.455		0000
6336.665	A?	0000	6376.033		000
6337.048	Fe	7	6376.385		0000
6339.096	Fe	2	6378.468	Ni	2
6339.335	Ni	2	6378.877		0000
6339.520		0000	6379.165		0000
6340.190		0000	6379.878		0000
6342.603	A (wv)	0000	6380.958	Fe	4
6344.030		0000	6381.359		0000
6344.371	Fe	4	6381.844		0000
6347.310		2 N	6383.932		0 N
6347.572		0000 N	6384.119		0000
6348.080		000	6384.886	Ni	1
6350.709		000	6385.303		0000 N
6350.920	A (wv)	0000	6385.680	Mn?	000 N
6351.510		0000	6385.950		0
6352.728		0000	6388.630		000
6353.160		0000	6389.502		0000
6353.602		0000	6390.715		000
6354.060		0000	6391.472		0000 N
6354.868		0000	6392.751		0
6355.246	Fe	4	6393.820 s	Fe	7
6355.410		00	6394.417		000 N
6358.808	Fe	6	6394.700		0000 N
6359.437		0000	6395.378		00 N d?

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Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6396.038		0000	6428.385		0000
6396.600		0000 N	6428.843		0000
6397.757		0000	6430.130		000
6398.205		000 N	6430.485		0000
6399.129		0000 N	6430.665		0000
6400.100		000	6431.066 s	Fe	5
6400.217 s	Fe	8	6431.466		0000
6400.538 s	Fe	2	6431.890		0000
6401.023		0000 N	6432.240		000 N
6401.296		0000 N	6432.529		0000
6401.714		0000	6432.895	Fe?	1
6402.507		0000 N	6433.110	A	0000
6403.345		000 N	6433.665	Fe?	0 N
6403.910		0000 N	6433.948		0000
6404.392		0000 N	6434.796	A	0000
6405.980		00 N d?	6435.260		0000
6406.590		0000 N	6436.267		0000
6407.350		0000 N	6436.630	Fe?	0
6407.515		0 N	6437.136		0000 N
6408.233 s	Fe	5	6437.930		000 N
6408.587		0000	6438.251		0000 N
6408.910	Sr?	000	6438.995		000
6409.497		0000	6439.293 s	Ca	8
6410.643		0000	6439.786		0000
6411.145		00	6440.326		0000
6411.330		000	6440.865		0000
6411.865 s	Fe	7	6441.158	Mn?	000
6412.445		0000	6441.835		0000
6413.800		0000 N	6442.693		0000 N
6414.147		0000	6443.180		000
6414.813	Ni	0	6443.700		0000 N
6415.199		1 N	6444.430		0000 N
6415.635		0000 N	6444.880		0000
6416.242		0000	6446.345		0000 N
6416.741		0000	6446.620		0000
6417.133	Fe?	1	6448.170		0000 N
6417.427		0000	6449.355		0 N d?
6417.900	Co	00 N	6449.650		0000 N
6418.095		0000	6450.033 s	Ca	6
6419.585		0000	6450.396	Co	0
6419.880		000	6450.552	Co	0
6420.169 s	Fe	4	6450.866		0000
6420.820		0000	6451.785		000 N
6421.022		0000	6452.536		00 N
6421.570 s	Fe	7	6452.900		0000 N
6421.740	Ni	000	6453.815		0000 N
6425.080		00	6454.350	A	0000 N
6425.748		0000	6455.230	Co	0 N
6426.510		000 N	6455.485		0000 N
6426.900		0000 N	6455.820	Ca	2.

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6456.070		0000	6474.330	A (wv)	000 N
6456.238		0000	6474.830	A?	0000 N
6456.603		3	6475.280	A (wv)	00
6456.872		0000	6475.435	A (wv);	00
6457.080		00 N	6475.846		2
6457.335	A?	0000	6476.046	A (wv)	0
6457.595		000	6476.584		0000
6458.770		0000	6476.795		0000
6459.115	A	000	6477.240		0000
6459.300	A	0000	6477.550	A (wv)	0000 d
6459.904	A	0000	6478.110		000 N
6460.210	A	0000	6479.408	A (wv)	00
6460.440	A	0000	6479.715	A (wv)	000
6461.154	A?	0000	6480.285 s	A (wv)	1
6461.345		0000	6480.475	A (wv)	0000
6462.060	A	0000	6481.220	A (wv)	000 N
6462.260	A	0000	6481.910	A (wv)	0000
6462.784 } s	Ca	5	6482.098		3
6462.965 } s	Fe	3	6482.410		000
6463.188		0000	6482.690		0000
6463.334	A?	0000	6483.027	Ni	1
6463.475	A?	0000	6483.286	A (wv)	0000
6463.715	A (wv)	000	6483.468	A (wv)	1
6463.965	A?	0000	6483.677	A (wv)	0000
6464.170		0000	6483.975	A (wv)	0000 N
6464.398		0000	6484.170	A (wv)	00 N
6464.650	A (wv)	000	6484.694	A (wv)	0000
6464.897		00	6484.900	A (wv)	000
6465.630	A?	0000	6485.120	A (wv)	0000
6466.002		0000	6485.360		0000 N
6466.490	A	000 N	6485.790	A (wv)	00
6466.960	A	000 N	6486.495		0000 N
6467.212		0000	6487.005	A (wv)	0
6467.823	A	0000 N	6487.515	A?	0000
6468.120	A	000	6487.755	A?	0000
6468.590	A?	0000	6488.250	A (wv)	000 N
6469.050		0000	6489.350	A (wv)	00
6469.408		2	6489.870		0000 N
6469.593	A (wv)	0000	6490.595		0000 N
6469.860	A (wv)	000 N	6490.877	A (wv)	0000
6470.210	A (wv)	000 N	6491.015	A (wv)	1
6470.794		0000 N	6491.465		0000 N
6471.118		0000 N	6491.800		1
6471.522		0000	6491.876	Mn	000
6471.885 s	Ca	5	6493.130	A (wv)	0
6472.360		0000 N	6493.480	A (wv)	000
6472.700	A (wv)	00	6494.004 s	Ca	6
6472.823	A?	0000	6494.273		0000
6473.405	A (wv)	00	6494.530	A?	0000
6473.744		0000 N	6494.725	A (wv)	1

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Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6495.213 s	Fe	8	6517.925		0000
6495.962		1	6518.245	A (wv)	00
6496.082	A (wv)	2	6518.599 s	Fe?	2
6496.340		0000	6518.973		0 N
6496.688	Fe	2	6519.410	A (wv)	00 N
6497.128	Fe	4	6519.682	A (wv)	1 N
6497.840	A (wv)	00 Nd?	6520.350		0000 N
6498.407		0000 N	6520.983		0000 N
6498.654		0000	6522.123	A (wv)	0000
6499.168	Fe	1	6522.430	A (wv)	0000
6499.437		000 N	6523.145		0000 N
6499.880 s	Ca	4	6523.580	A (wv)	0000
6500.122		0000	6523.907	A (wv)	0000
6500.353		0000	6524.080	A (wv)	1
6501.060		0000	6524.968		0000
6501.440		000 N	6526.040	A (wv)	0000
6501.901		0	6526.655		0000
6502.425		0000 N	6526.888		0
6502.747	A	0000	6527.444		1
6503.114	A	0000	6527.825		0000 N
6503.840	A?	0000 N	6528.340		0000 N
6504.415	A (wv),-	0	6528.777		00
6504.700		0000	6529.415		0000 N
6505.053		0000 N	6530.247		0000
6505.710		0000 N	6530.845	A (wv)	00
6506.560		0000 N	6531.311		0000
6507.340		0000 N	6531.667		000
6507.890	A (wv)	0000 N	6532.595 s	A (wv)	1
6508.380		0000	6532.800		0000
6508.826	A (wv)	0	6533.110	Ni?	0
6509.080		00	6533.330		0000
6509.845		000	6533.763		0000 N
6510.410		0000 N	6534.172 s	-,A (wv)	2
6511.679		0000	6534.470		0000
6512.240	A (wv)	00	6534.875	A (wv)	0000
6512.470	A (wv)	00	6535.210		0000
6513.145	A?	0000	6536.212		0000
6513.300		0000	6536.955	A (wv)	00
6513.847	A	0000 N	6537.480		0000
6514.185	A?	0000	6537.666		0000
6514.530	A (wv)	000 N	6538.170		000 Nd?
6514.956	A (wv),-	2	6538.770	A?	000 Nd?
6515.456		0000	6540.665	A?	000 N
6516.080	A (wv)	000	6541.510	A?	0000
6516.311 s		2	6542.550	A (wv)	00
6516.634		0000	6543.280	A?	0000 N
6516.750	A (wv)	1	6544.140	A (wv)	2
6516.855	A (wv)	2	6546.030	A (wv)	000 N
6517.315	A (wv)	0	6546.479 s	Ti-Fe	6
6517.657		0000	6547.945	A (wv)	0

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6548.855	A (wv)	1	6583.787	A (wv)	0000
6549.290	A?	0000	6583.967		00
6550.515	A?	0000	6584.550	A?	0000
6551.940		000	6584.797	A?	000
6552.275		0000 N	6585.470	A (wv)	0000 N
6552.865 s	A (wv)	1	6585.763	A?	000
6554.025	A (wv)-	00 Nd?	6585.950		0000
6554.470	Ti	0	6586.550	Ni	1
6555.080		0000 N	6586.764	A (wv)	000
6555.700		1 N	6586.935	A (wv)	0000
6556.087		0000	6587.864		00 N
6556.308	Ti, A (wv)	1	6588.828	A (wv)	0000 N
6556.558		0000	6590.245		0000 N
6557.046	Fe?	0	6591.575	Fe?	00
6557.408	A (wv)	0	6591.833		0000
6558.095	A?	0000	6592.076		0000
6558.392	A (wv)	00 N	6592.372		0000
6558.830	A?	0000 N	6592.770	Ni	00
6559.193		0000	6593.161 s	Fe	6
6559.815		0	6594.121 s	Fe	4
6560.045		0000	6594.600	A (wv)	000
6560.307		0000	6595.590		0000
6560.490		0000	6596.135		000 N
6560.800	A (wv)-	1 Nd?	6597.273		0000 N
6561.335		000	6597.807	Cr	1
6563.045 s C [†]	H	40	6598.552		0000 N
6563.763	A (wv)	000	6598.848	Fe?	0
6564.305	A (wv)	00	6599.131		0000
6564.450	A (wv)	0	6599.353	Ti	00
6565.083	A?	0000 N	6599.570	A (wv)	000
6565.783	A?	000	6599.925		0000
6566.075	A?	0000	6602.370	A (wv)	0000Nd?
6569.040	A (wv)	000 N	6603.601		0000 N
6569.460 s	Fe	5	6604.837		1
6570.103		0000 N	6605.810		000
6570.965		0000 Nd?	6606.160		000 N
6571.436		0000	6607.215		00 N
6572.330 s	A (wv)	1	6607.586		0000 N
6573.030	Ca?	1	6608.280		0
6573.765		0000 N	6609.360 s		3
6574.468 s		1	6609.818		00
6574.707		0000	6609.929		000
6575.085 } s	A (wv)	1	6610.315		0000
6575.270 } s	Fe	2	6610.990		0000
6576.615		000 Nd?	6611.612		0000
6577.131		0000	6612.474		000
6580.470	A (wv)-	00 N	6612.790		0000
6581.025	A (wv)	00	6613.675		00 N
6581.452		0	6614.045	Ni	00 Nd?
6583.505	A?	0000	6617.267		000 Nd?

[†]The width of C is 0.963; and that of the extreme shading is 1.240. C is either faintly double or reversed in the Sun.

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6617.980		000 N	6657.205		000 N
6618.586		0000 N	6657.878		000
6619.825		000 N	6659.164		0000
6621.441		0000 N	6660.105		000
6622.639		0000 N	6660.830		0000
6624.161		0000 N	6661.320	Cr	00
6624.605		0000 N	6661.580		000
6625.077		0000 N	6662.011		0000 N
6625.276		0	6662.819		0000 N
6626.504		0000	6663.487 s		1
6627.797	Fe?	0	6663.701 s	Fe	3
6628.402		000 N	6664.030		0000 N
6629.210		000 N	6664.550		0000 N
6629.628		0000	6665.420		000 N
6629.924		0000	6665.998		0000
6630.270	Cr	000	6666.780		000 N
6631.325		000 N	6667.695		000
6632.011		0000	6667.980	Fe?	00
6632.267		000	6668.640		000 N
6632.710		00 N	6669.041		0000 N
6633.665		0	6669.550		000 N
6633.995 s	Fe	2	6672.915		0000
6634.361		0	6678.235 s	Fe	5
6635.001		0000 N	6678.817		0000
6635.375	Ni	0 N	6679.090		000 N
6635.636		0000	6680.396		000
6635.940		00 N	6680.864		0000
6636.570		0000 N	6685.131		0000
6638.314		0000	6687.750		0000
6639.505		0000 N	6691.067		000 N
6639.955		0	6692.547		000 N
6640.135		00 N	6693.099		000 N
6642.510		0000 N	6695.886		0000 N
6643.457		0000 Nd?	6696.275		1 N
6643.876 s	Ni	5	6696.565		00
6644.102		0000	6697.070		0000
6644.520		000 N	6697.650		000 N
6645.365		000 N	6698.336		0000 N
6646.309		0000	6698.913		0
6647.205		00	6699.380		00
6648.095		0000	6701.163		0000
6648.360		000	6701.621		000
6648.930		0000	6703.820 s		1
6651.371		0000	6704.286		0000 N
6652.600		0000 N	6704.745		000
6653.215		0000	6705.352 s		1
6654.105		00	6705.753		0000
6654.660		0000	6705.942		0000
6655.770		000 N	6707.695		000
6656.620		0000	6708.176		0000

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6709.226		0000 N	6743.826		000 N
6710.182		0000 N	6745.364		00
6710.570		0	6745.798		000 N
6710.789		0000	6746.235		00
6711.529		0000	6747.226		000
6712.094		000 N	6747.812		0000 N
6712.714		000 N	6748.390		000
6713.290		I	6748.686		0000
6713.454		000	6749.029		000
6713.993		I	6749.120		000
6715.635		I	6749.791		0000 N
6716.500		0	6750.033		0000 N
6716.914		000 N	6750.407 s	Fe	3
6717.775		000	6751.690		0000
6717.940 s	Ca	5	6752.965 s	Fe	I
6719.880		000 N	6753.265		000 N
6721.020		0000 N	6753.720		000 N
6722.096 s		2	6754.233		0000
6722.959		0000 N	6755.189		000
6724.935		000 N	6755.855		0
6725.219		0000	6756.818		000 N
6725.615	Fe	0	6757.445		00 Nd?
6725.960		0000	6757.909		0000 N
6726.539		0000	6759.146		000 Nd?
6726.925 s	Fe	2	6761.260		000 Nd?
6728.922		0000	6761.852		0000Nd?
6729.270		00	6762.405		0000 N
6729.996		000 N	6762.647		000
6730.558		000 N	6763.549		0000 N
6732.320		00	6763.939		0000 N
6732.921		0000	6764.330		000 Nd?
6733.410	Fe	I	6767.602		0000Nd?
6733.783		0000 Nd?	6768.028 s	Ni	4
6734.524		000 N	6768.248		0000
6735.277		0000	6769.930		000
6735.708		000 N	6771.310	-, Co	0 d
6736.099		0000 N	6771.789		0000
6736.798		000	6772.152		0000
6737.619		0000 N	6772.568 s	Ni	2
6738.230		0	6775.047		0000 N
6738.485		00	6776.595		0000 N
6739.080		00 N	6777.653		00
6739.370		0000	6778.022		0000 N
6739.775		0	6781.172		0000 N
6740.244		0000	6782.061		0000 N
6741.268		0000	6782.465		000 N
6741.880		0 N	6782.748		0000 N
6742.535		0000	6783.609		0000 N
6742.816		0000 N	6783.960		00
6743.381	Ti	I	6784.460		000 N

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Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6785.306		000 N	6820.630 s	Fe	2
6786.010		000 N	6820.987		0000 N
6786.450		0000 N	6822.293		0000 N
6786.706		000 N	6825.108		000 N
6787.100 s	Fe	1	6827.529		0000
6787.850		0000 N	6828.215		000 N
6789.400		000 N	6828.445		0000 N
6789.776		0000	6828.850 s	Fe	2
6790.206		000	6829.293		0000
6790.569		0000	6829.832		0000
6790.933		000	6831.098		0000
6792.577		0000	6831.730		0000
6793.088		0000 N d?	6832.727		0000
6793.520		00	6833.501		00
6793.875		0 N	6833.845		0000 N
6794.219		0000	6835.622		0000 N
6794.560		000	6836.956		0000 N
6794.870		000	6837.268		0
6795.675		000 Nd?	6838.612		0000 N
6796.045		000 N	6838.980		00
6796.375		0	6839.088		0
6796.737		000 N	6840.086		1
6797.061		0000	6840.698		0000 N
6797.410		0000	6841.598 s	Fe	3
6798.715		00	6841.897		0000 N
6799.136		0000 N	6842.294		0
6800.265		0000	6842.624		0000 Nd?
6800.855		00 N	6842.945		1
6801.450		0000 N	6843.420		000 N
6802.097		0000	6843.913 s	Fe	3
6804.102		0000	6844.939		0000
6804.258	Fe	0	6845.937		0000
6804.545	Fe	0	6847.860		000
6805.126		0000	6848.468		0000 N
6805.354		000	6848.823		0 Nd?
6806.000		0000 N	6849.559		000 N
6806.593		0000 N	6850.110		0000 N
6807.103 s	Fe	1	6850.696		00 N
6807.630		0000 Nd?	6851.309		0000 N
6808.141		0000 N	6851.910		000
6809.017		0000 N	6852.980		000
6809.878		0000 N	6854.109		0000
6810.519 s	Fe	3	6854.590		000
6812.605		000 N	6854.796		0000
6813.865		000 Nd?	6855.105		00
6814.160		0000 N	6855.419 s	Fe	3
6815.210	Co	0	6855.700		0000
6817.903		0000	6855.990		0
6819.845		00 Nd?	6856.290		0000
6820.098		000 Nd?	6857.515		0

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6857.773		0000 N	6875.415		0000 N
6858.109		0000 N	6875.830 s	A (O)	13
6858.415		2	6876.255		000 N
6858.661		0000	6876.595		000 N
6858.863		0000	6876.958 s	A (O)	13
6859.227		0000	6877.440		0000Nd?
6859.752		0000	6877.882 s	A (O)	12
6860.007		000	6878.342		0000 N
6860.358		0000	6878.570		0000Nd?
6860.590		000	6878.800		0000 N
6861.044		0000	6879.288 s	A (O)	12
6861.213		000	6879.528		0000
6861.529		0000	6879.784		000
6861.770	Ti?	000	6880.040		0000
6862.014		0000	6880.172 s	A (O)	6
6862.210		0	6880.455		0000
6862.431		0000 N	6880.887		00
6862.760		1	6881.305		0000 N
6863.119		0000	6881.720		00
6864.048		0000	6881.983 s	Cr	0
6864.585		000	6882.784 s	Cr	1
6864.775		0000	6883.325 s	Cr	1
6865.206		0000	6883.635		0000
6865.704		0000	6884.076 s ³	A (O)	10
6865.906		000	6884.656		0000 N
6866.243		0000	6885.221	A?	0000
6866.604		000 N	6885.598	A?	0000
6867.037		0000 N	6886.000 s	A (O)	11
6867.457 s ¹	A (O)	6d?	6886.446	A?	0000 N
6867.631	A	1	6886.990 s	A (O)	12
6867.800 s	A (O)	5	6887.242		000
6868.092 s	A	0 Nd?	6887.444		000
6868.336 } s	A (O)	6	6887.765	A	000 Nd?
6868.478 } s	A (O)	6	6887.969	A	000
6868.645 } s	A	1	6888.250	A	000
6868.795 } s	A	3	6888.670		0000
6869.142 s	A (O)	7	6888.830		0000
6869.353 s	A (O)	6	6889.192 s	A (O)	13
6869.850	A?	00	6889.490		000
6870.116 } s ²	A (O)	7 } d	6889.827		0000Nd?
6870.249 } s ²	A (O)	7 } d	6890.151 s	A (O)	14
6870.853	A?	000 N	6890.460		000
6871.180 s	A(O)	8	6891.000	A	000
6871.532 s	A (O)	10	6891.180	A	000
6872.105	A?	000	6891.617		0000 N
6872.486 s	A (O)	11	6891.843	A	000
6873.080 s	A (O)	12	6891.970	A	0000
6873.630	A?	0000	6892.618 s	A (O)	14
6874.037 s	A (O)	12	6893.099		000
6874.899 s	A (O)	13	6893.560 s	A (O)	15

¹ First line in the head of the B group, due to atmospheric oxygen. ² Principal line in the head of the B group. ³ First line in the tail of the B group.

TABLE OF SOLAR SPECTRUM WAVE-LENGTHS 365

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6894.068		0000 N	6913.810		0000
6894.320		0000 N	6913.945		000
6894.660	A	000	6914.158		0000
6895.200	A?	000 N	6914.337 s	A (O)	11
6895.630		000 N	6914.668		0000
6895.737	A?	0000	6914.823 s	Ni	4
6896.289s	A (O)	14	6915.075		0000 N
6896.660		0000 N	6915.270		0000 N
6896.882		0000	6915.775	A	000 N
6897.208 s	A (O)	15	6916.136	A	000 N
6897.673		0000 N	6916.325		0000 N
6897.837		0000 N	6916.743	A	0000 N
6898.160	A?	000 N	6916.948 s		2
6898.556		00	6917.235		000 N
6898.766		0000 N	6917.710	A	000 Nd?
6899.130		0000 N	6918.015		0000
6899.710		0000	6918.370 s	A (O)	9
6900.199 s	A (O)	14	6918.655	A?	000
6900.734		000 N	6918.860		0000
6901.117 s	A (O)	15	6919.250 s	A (O)	9
6901.527		0000	6919.556	A	000
6901.810		000 N	6920.430		00
6902.065		0000	6920.650		0000
6902.443		0000	6921.135	A?	0000
6902.901		0000	6921.615	A?	000
6903.120		00	6921.834	A?	0000
6904.362 s	A (O)	14	6922.238	A?	000
6904.785		000	6922.548	A?	0000
6905.083		0000	6922.735	A	000
6905.271 s	A (O)	14	6922.912		0000
6905.540		000	6923.553 s	A (O)	9
6905.915		0000	6924.080	Cr?	0000 N
6906.295	A	000	6924.427 s	A (O)	9
6906.560		000 Nd?	6924.713	A	000 N
6907.282	A	000	6925.134	Cr?	0000 N
6907.920	A	000	6925.543		1
6908.360		0000	6925.752		0000
6908.783 s	A (O)	13	6926.170		0000
6908.251		0000 N	6926.363		0
6909.676 s	A (O)	13	6926.660		0000
6910.270		0000 N	6926.850		000
6910.510	A?	000 N	6927.020	A	00
6910.994		0000	6927.520	A?	000
6911.310	A	000 N	6927.948		0000
6911.790	A,-	00 N	6928.500		000
6912.173	A	000 N	6928.796		0000
6912.690		0000 N	6928.977 s	A (O)	4
6913.038	A	000 N	6929.227	A?	0000
6913.284	Ti?	0000	6929.375	A	000
6913.448 s	A (O)	11	6929.560	A (wv)	00

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6929.840 s	A (O)	4	6943.379		0000
6930.075	A	00	6943.689		0000
6930.185	A	000	6943.904		0000
6930.600		0000 N	6944.060	A (wv)	3
6930.890		00 N	6944.510		0000
6931.355		0000	6944.861		0000
6931.575	A	00 N	6945.135		0000
6932.012	A	00	6945.477		4
6932.298		0000	6945.745		0000 N
6932.445	A	00	6946.160		00 N
6932.765		0000	6946.638		0000
6933.024		0000	6946.860	A (O)	0
6933.305		0 N	6947.191		0000 N
6933.469		0000	6947.406		0000
6933.715		000	6047.702	A (O)	0
6933.887		2	6947.782 s	A (wv)	5
6934.075	A (wv)	2	6947.863	A wv	00
6934.325		0000	6948.146		0000 N
6934.468		0000	6949.240	A (wv)	1
6934.670 s	A (O)	2	6949.310	A (wv)	1
6934.870		000	6950.188		0000 N
6935.153		0000	6951.010	A (wv)	1
6935.355	A?	000	6951.518		1
6935.530 s	A (O)	2	6951.900	A?	000
6935.704	A?	0000	6952.593	A	000 N
6936.075	A	000 N	6953.337	-A (O)	00 N
6936.290		0000	6953.828 } s	A (wv)	1
6936.755		000 N	6954.020 } s	A (wv)	00
6937.122		0000	6954.147	A (O)	000
6937.420		000 N	6954.718	A ?	0000 N
6937.957	A (wv)	2 N	6955.307		00
6938.195		000	6955.507	A	0000
6938.520	A (wv)	1 N	6955.915	A (wv)	000 N
6938.727		000	6956.660 } s	A (wv)	4
6939.050		000	6956.746 } s	A (wv)	1
6939.460		0000	6957.675	A	000
6939.875	A (wv)	2	6957.985		0000
6940.030		0000	6958.753	A?	0000
6940.270		0000	6959.704 s	A (wv)	3
6940.436	A (wv)	2	6960.105	A (O)	000 N
6940.625	A (O)	1	6960.590		00
6940.861		0000 N	6960.880	A (O)	0000
6941.023		0000	6961.136		0000
6941.260	A (wv)	000 N	6961.515 s	A (wv)	4
6941.475	A (O), A (wv)	1	6962.075		0000 N
6941.979		0000 N	6962.213		0000 N
6942.402	A (wv)	2	6963.100		000 N
6942.630	A (wv)	1	6963.900	A	000 N
6942.746		0000	6964.447		0000
6943.083		000	6964.812	A (wv)	1

TABLE OF SOLAR SPECTRUM WAVE-LENGTHS 367

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
6965.320	A	000 N	6992.065	A	000 N
6965.716		00	6992.571		0000
6966.158		000	6993.145	A	00 N
6967.054		0000	6993.776	A (wv)	2
6968.837		0000	6994.360	A (wv)	I
6969.302		0000	6994.635		0000
6970.763	A	00	6994.880	A	00
6971.135	A (wv)	0	6995.260		0000
6971.400		0000	6996.930		0000
6971.772		000	6997.420	A?	0000
6972.205		00	6998.070	A?	0000
6973.132		0000	6998.283	A	00
6973.743	A	0000 N	6998.500		0000 N
6974.600		0000	6998.978 } s	A (wv)	0
6974.996	A?	000 N	6999.223 } s	A (wv)	2
6975.706		0	6999.488	A	0000
6975.976		0000	6999.823	A	0000
6976.535		000 N	7000.155 s		I
6976.783		I	7000.411		0000
6977.198		00	7000.555		0000
6977.715	A (wv)	3	7000.880		00
6978.138		0000	7001.125	A	000
6978.310		0000	7001.475		0000
6978.670 s		I N	7001.810		00
6979.120		2	7002.385	A	00 N
6979.420	A	000 N	7002.870		0000 N
6979.610		0000	7003.837		I
6980.060		I	7004.240		0000 N
6980.620	A?	0000 N	7004.575	A (wv)	0 N
6981.196		000	7004.995	A (wv)	2
6981.722	A (wv)	I	7005.365	A (wv)	0 N
6981.860	A?	000	7005.608	A	0000
6982.501		000 N	7005.850	A	000
6982.780		0000 N	7006.157 s		I
6983.810		000 N	7006.420	A	000 Nd?
6984.380		0000 N	7006.915	A	000
6984.870		0000	7007.140		0000 N
6985.220	A (wv)	0 N	7007.385	A	0000 N
6985.776		0000	7007.970	A	000 N
6986.080	A	000	7008.225		0
6986.833 s	A (wv)	3 N	7008.515	A	00 N
6988.125	A (wv)	0 N	7008.920	A?	0000
6988.536		0000 N	7009.485	A	000 N
6988.805		0	7010.135	A (wv)	0 N
6989.075		0000	7010.618		000 N
6989.237 s	A (wv)	3	7010.920	A	0000 N
6989.825		000 N	7011.230	A	000 N
6990.230	A?	0000	7011.590 s	A (wv)	2
6990.632	A (wv)	I	7012.130		0000
6991.295	A	000	7012.490	A	0000

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
7012.880		o N	7037.800	A	I
7013.550		ooo N	7038.061		0000
7014.080		ooo	7038.202		0000
7014.810		0000 N	7038.500 s		I
7015.260		ooo	7039.040		o
7015.560	A	ooo N	7039.560	A	o N
7015.800		0000 N	7040.053 s		I N
7016.176		0000	7040.861		0000
7016.330 s	-,A (wv)	I	7042.025		oo N
7016.675 s	-,A (wv)	3	7042.745		0000
7017.020		ooo Nd	7044.265		0000 N
7017.575	-,A	oo Nd	7044.777		ooo
7017.935		o	7044.952		oo
7018.250		0000	7045.313		ooo
7019.043	A	ooo	7045.517		0000
7019.620	A	o	7046.056		0000
7020.445	A?	0000	7047.133		oo
7020.900	A	ooo	7047.631		ooo
7021.100	A	ooo	7048.291		0000
7021.790	A	0000	7049.273		0000
7022.302		0000	7050.783	A?	ooo
7022.662		ooo	7051.115		o
7022.810	A	ooo	7052.030	A?	0000 N
7023.230 s		2	7052.665	A?	ooo N
7023.550		0000	7053.070		I
7023.770 s	A (wv)	2	7053.191	A?	o
7023.983		0000 N	7053.755		0000 N
7024.310		o	7054.280		ooo N
7024.660		0000	7054.970	A	oo N
7024.913 } s	A	I	7056.210		oo N
7025.140 } s	A	o	7056.750		0000
7026.660	A	oo	7057.260	A	o N
7026.890		0000	7057.590		0000
7027.213 s	-,A (wv)	o	7057.820		0000
7027.740 s	-,A (wv)	2	7058.186		0000
7028.115	A	o	7058.490	A?	ooo
7028.466		0000	7059.825		0000 N
7028.860		0000 N	7060.314		0000
7029.260	A	o	7060.725		I N
7029.390		oo	7061.780	A	oo N
7029.975	A	0000 N	7062.265		0000
7030.295		o	7062.750		0000
7030.657		0000	7063.255		ooo N
7031.215	A	oo N	7063.770	A?	o N
7032.585		I	7064.400		0000
7034.360	A?	0000 N	7064.917	A?	ooo
7034.670	A	0000 N	7065.496		0000
7035.170 s		2 N	7065.920		I
7036.129		0000	7066.495		ooo Nd?
7037.465	A	o	7067.210		oo N

TABLE OF SOLAR SPECTRUM WAVE-LENGTHS 369

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
7067.742		000 N	7097.395		000 N
7068.265		000 Nd?	7097.940		0000
7068.685		2	7099.219		0000 N
7068.870		000 N	7099.812		0000 N
7069.350		0000 N	7100.415		000 N
7069.820		0000	7100.960		0000 N
7070.934		0000	7102.222		0000 N
7072.130		0 N	7102.560		000 N
7072.720		000	7103.430		000
7073.070		0000	7105.422		0000
7073.890		000 N	7106.434	A?	000 Nd?
7074.757		0000 N	7107.300		0000 N
7075.188		0000	7107.740		0
7075.875		0000	7108.187		0000 N
7077.087		0000	7108.387		0000 N
7078.109		000 N	7109.310	A	000 Nd?
7078.540	A?	00 N	7110.700		0000 N
7079.130		000 N	7111.180		I
7079.685		0000	7111.730	A	000 N
7079.870		000 N	7112.199	A	0000
7081.210		000	7112.450		0
7082.445		0000 N	7113.010		0000 N
7082.755		0000 N	7113.455	A?	00 N
7083.104		0000 N	7113.700		0000
7083.680		00 N	7113.870		0000
7083.993		000 N	7114.313	A?	0000
7084.235		000 N	7114.447	A?	0000
7084.531		0000	7114.860		000
7084.920		0000 N	7115.444	A?	000
7085.265		2 N	7115.591	A?	0000
7085.810		0000 N	7116.670		0000 N
7086.590		0000	7117.240		000 Nd?
7087.008		00	7117.549		000
7087.550		0000 N	7117.948		0000 N
7088.099		0000 N	7118.390	A?	000
7088.430	A?	00 N	7118.554	A	I
7090.000		0000 N	7119.254		0000
7090.660		2	7119.955		000 N
7091.430		0000	7120.320		000 N
7091.640		000	7121.965		0000 N
7092.220		000 N	7122.484		4
7093.120		0000	7123.000	A?	0000
7093.395		000	7125.269	A?	0000
7094.009		0000	7126.414	A?	0000
7094.305		0000	7127.087		0000 N
7094.615		0000	7127.845		0 N
7095.295		0000 N	7128.390	A?	000 N
7095.690		0	7128.810		0000 N
7096.140		000	7129.410	A?	0000 N
7096.660		0000	7130.140		0000 N

Wave-length	Substance	Intensity and Character	Wave length	Substance	Intensity and Character
7131.204		3	7164.725 ¹	, A	2
7131.650		000 N	7165.018		000 N
7132.043	A?	0000	7165.396		0000 N
7133.263		I	7165.845	A,-	I N
7133.660		000 N	7166.355	A	000 N
7134.423	A	00 N	7166.553	A	0000
7136.120		000 N	7166.931		0000
7137.720	A	I N	7167.305	A	000 Nd?
7138.209	A?	0000 N	7167.645	A	00
7139.215		000	7168.170	,A	4 N
7139.973		0000 N	7168.465	A	0000
7140.568	A	000 N	7168.748	A	0000
7141.360	A	0000	7169.017	A	0000
7141.930		0000 N	7169.355	A?	00
7142.451	A	0000 N	7170.162	A?	0000
7142.800		0	7170.360	A	00
7143.257	A	I	7170.619	A?	0000
7143.660		0000	7170.833	,A	I
7144.229		0000	7171.130	A	0000 N
7145.022	A	0000	7172.250	A	300 N
7145.615		I	7172.970	A,-	I
7147.939	A	2 N	7173.200		000 N
7148.435		3 N	7173.675	A,-	2
7148.793		0000	7174.040	A	0
7148.995		000 N	7174.440	A	0
7149.574		0000	7174.930		0000 N
7150.100	A?	0000	7175.580	A?	0000 Nd?
7150.450	A?	0000 N	7176.225	A,-	I
7150.947	A	I	7176.430	A	I
7151.442	A	I	7176.719		0000
7151.765		00	7177.170	A	0
7152.375		0000	7177.390	A	0
7153.627	A?	0000	7177.640	A,-	2
7154.030		0000	7177.915	A	2 N
7155.014		0000 N	7178.690	A	00 N
7155.945		0 N	7179.060		0000
7156.700	A	I N	7179.570	A	000
7157.438		0000	7179.910		0000 N
7158.084	A?	0000	7180.300	A	000
7158.790		000 N	7181.500	A	0
7159.045	A	0 N	7181.790	,A	2
7159.590	A	00 N	7182.045	A	I
7160.602		0000 N	7182.260	A?	00
7161.154		0000 N	7182.658	A	0000
7161.746		0000 N	7183.089	A	0000
7162.352	A	00 N	7184.650	A	3
7162.630		000 N	7184.785		4
7163.012		0000	7185.205		000 N
7163.469		0000	7185.580		0000 N
7164.125	A?	000 N	7185.870		0000 N

¹This is the beginning of the "a" group; most of the atmospheric lines are produced by water vapor, but as the identification is somewhat uncertain in many cases, and as some of the lines may be due to other atmospheric gases, they have simply been marked A.

TABLE OF SOLAR SPECTRUM WAVE-LENGTHS 371

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
7186.405	A	4	7209.780	A,-	3
7186.655	A	5	7210.679	A	000 N
7187.280	A	2	7211.473	A	I
7187.645	-,A	5 N	7212.308	A	000 N
7188.286		0000 N	7212.740	A	00
7188.875		0000 N	7214.166	A	000
7189.242	A	0000	7215.042	A,-	000 N d
7189.445	A	00	7215.782	A?	000 N
7189.740		0000	7216.482	A	000
7190.159		000	7216.791	A,-	2
7190.427		000	7216.927	A?	0000
7191.755	A,-	6 N	7217.479		0000 N
7192.150	A	2 N	7218.323	A	000 N
7192.745	A	1 N	7218.799		000 Nd
7193.039		0000	7219.337	A	0000 N
7193.475	A	000 N	7219.987		0
7193.835	A	3	7220.306	A	0000 N
7194.040	A	3	7221.088	A	0000 N
7194.655		0000	7221.492		0
7194.871		0000	7221.870	A?	0000
7195.290	-,A	2	7222.691		000 N
7195.827		0000	7223.216	A	00 N
7196.070	A	0 N	7223.930 s	A	3
7196.716	A?	0000 N	7224.414		0000
7197.300	A	0	7224.791		000 N
7197.515	A	I	7225.356		0000
7197.698	A	000	7226.522	-,A	000 N
7198.145	A	1 N	7227.781 s		3
7198.705	A	2	7228.468	A?	0000
7199.152		0000 N	7229.013	A?	000
7200.095		000	7229.424		0000
7200.378		0000	7229.424		0000
7200.665	A	2	7232.520 s	A	I
7200.800	A,-	4	7233.170 s	A,-	3
7201.460	-,A	4	7234.688	A	0
7201.728	A	0	7235.011	A	2
7202.485		1 N	7235.658		000 N
7202.843		0000	7236.142		000 N
7202.138		0000	7236.418	A	I
7203.135	A	2	7236.695	A	00
7204.577	A,-	5	7238.216	A	0000 N
7204.672		00	7239.281	A	0000
7205.022		0000	7239.765		0000
7206.692	-,A	6	7240.149	A	I
7207.165		0000	7240.883 } s	A	3
7207.415		00	7241.099 } s	A	2
7207.715		I	7243.750 } s	A	I
7208.079		0000	7244.004 } s	A	2
7208.511		0000	7245.152		00
7209.427		0000	7245.959	A	2
			7246.457		0000

Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
7247.091		0000	7277.469	A	000
7247.494 s	A	1 N	7277.678		2 N
7248.047		0000 N	7278.385	A	0 N
7249.244	A	0 N	7278.762	A?	000
7249.581		0000	7280.042	A	00 N
7250.511	A	1 N	7280.890	A	00 Nd
7250.928		00 N	7281.913		0000 N
7252.032		000 N	7282.600	A	1 N
7252.355	A	0	7283.112		000 N
7252.664	A	2 N	7283.435	A	000
7253.137	A	00	7284.107		0000 N
7253.493	A	1	7285.158		00
7254.002	A	1	7285.576	A	000
7254.576		0000	7286.249		0000 N
7254.940		000	7286.828		0000 N
7255.586		0000	7287.673 s	A	2 N
7256.422		000	7288.073	A	0000 N
7257.392	A	000	7288.416		1
7257.674	A	00	7289.049		00
7258.226	A	1 N	7289.466		0 Nd?
7258.939		0000 N	7290.087	A	00 N
7259.357		0000 N	7290.686 s	-,A?	3 N
7259.895		0000 N	7291.366	A	0 Nd?
7260.462	A	000 Nd?	7291.757	A	00
7261.028	A	0	7292.025		0000 N
7261.310		0000	7292.409	-,A	0 N
7261.808	A?	00 N	7293.009	-,A	0 N
7262.260	A	1	7293.372	A	000 N
7262.576		0000	7293.655	A	00
7263.277	A	000	7294.166		0000 N
7263.640	A	0000	7294.651	A	00
7264.125		0000	7295.042	A	000
7264.676	A	00	7295.325	A	1
7264.892 s	-,A	2	7295.903	A	00 N
7265.431		0000 N	7296.536	A	00
7265.868 s	-,A	5	7299.917 } s	A	0 N
7266.441		0000 N	7300.226 } s	A	1 N
7267.101		0000 N	7300.846		000 N
7268.865		0000 N	7301.169		0000
7269.566		0000 N	7301.599		0000
7270.065 } s	A	00 N	7301.801		0000
7270.414 } s	A	000	7302.394	A	00
7273.255 s	A?,-	5 N	7302.906	A	000 N
7273.941		0000 N	7303.162	A	0000
7274.952		0000 N	7303.485		2
7275.675		2 N	7304.078		0000 N
7276.083	A	000 N	7304.468 s	-,A	3 N
7276.581	A	00	7305.195	A	0000 N
7276.810	A	00	7306.878		00
7277.146	A	00	7307.282		0000 N

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Wave-length	Substance	Intensity and Character	Wave-length	Substance	Intensity and Character
7308.253		oo Nd?	7316.223	A	ooo N
7309.047	A	I	7317.112	A	oo N
7309.788	A	2 N	7317.611	A	o N
7310.474	A	oo	7318.405	A	oo
7311.403	-,A	o Nd?	7319.015	-,A?	I
7312.279		oooo	7321.030 s	A	I Nd
7312.911	A	I	7324.249	A	I
7313.504	A	ooo N	7326.462		o
7314.797	A,-	ooo	7327.750	A	I
7315.416		oooo N	7331.225 s		I N
7315.834	A	o			