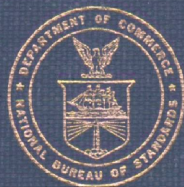


THE SOLAR SPECTRUM 2935Å to 8770Å

Second Revision of Rowland's
Preliminary Table of
Solar Spectrum Wavelengths



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NATIONAL BUREAU OF STANDARDS • A. V. Astin, *Director*

THE SOLAR SPECTRUM 2935 Å to 8770 Å

Second Revision of Rowland's Preliminary Table of Solar Spectrum Wavelengths

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Foreword

The present Monograph has been prepared in response to a request by the International Astronomical Union. At the Seventh General Assembly of this Union, held in 1948 in Zürich, Switzerland, the following proposal from the Commission on Solar Radiation and Spectroscopy was adopted: "La Commission considère que la publication d'une table révisée du spectre solaire dans le plus court délai possible est de la plus haute importance pour les astronomes qui s'occupent de recherches sur le soleil et sur les spectres stellaires . . .".

It was further stipulated that such a revision should "contain wavelengths on the scale of 1928, measured intensities or equivalent widths from Utrecht, and definitive identifications from Moore-Sitterly".

The authors have made every effort to carry out the above recommendations. Throughout the span of years since this solar program was started the data collected for the *Atomic Energy Levels* project, which has been carried out simultaneously, have aided greatly in the identification work.

The generous support of the International Astronomical Union is warmly acknowledged. This compendium could not have been completed without the equally cordial cooperation of the Utrecht Observatory and the Spectroscopy Section at the National Bureau of Standards.

A. V. ASTIN, *Director*

WASHINGTON, D.C., January 6, 1966.

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The Solar Spectrum 2935 Å to 8770 Å

Second Revision of Rowland's Preliminary Table of Solar Spectrum Wavelengths

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The present compendium of solar spectrum wavelengths and intensities is essentially a second revision of Rowland's Table, corrected and supplemented by material from the Utrecht Photometric Atlas [1].¹ Approximately 24,000 lines are listed. In a number of cases new wavelengths were determined. Measured equivalent widths from the Atlas records replace the Rowland estimated line intensities recorded in the 1928 revision. From these directly measured equivalent widths have been derived reduced widths, which, if necessary, were corrected for disturbing influences. The intensity behavior of atomic lines in the spot spectrum as compared with the spectrum of the solar disk is indicated by letters denoting strengthening, weakening, and the like. Atomic lines present only in the spot spectrum are, also, included, 223 in all.

Revised identifications of the lines, as to chemical origin, are given for both atomic and molecular lines. For classified atomic lines the lower excitation potential and multiplet number are listed. For molecular lines the rotation branch and quantum number, and the vibration band are indicated. Note numbers refer to notes in which the complete designation of the band is given.

An introductory text gives a detailed description of each column of the solar ledger. Figures are included to illustrate the procedure used to derive the observed equivalent widths $\Delta\lambda$ (mÅ) and the reduced widths $\Delta\lambda/\lambda(F)$.

Tables include counts of lines of each spectrum recorded in the identification column, leading lines in the first and second spectra, and summaries of molecules and elements present in the sun. About 73 percent of the lines are wholly or partially identified. Sixty-three elements are recorded as present. A number need further study. The number of molecules identified in the sun totals 11.

Key Words: Elements in sun, equivalent widths of solar lines, identification of solar lines, molecules in sun, solar spectrum, wavelengths of solar lines.

1. Introduction

In 1895-1897 Rowland published a Preliminary Table of Solar Spectrum Wavelengths that is still a challenge to spectroscopists [2].¹ The span of observations was from 2975 Å to 7330 Å. Many features of this rich spectrum still defy interpretation. Throughout the years this classical work has provided a threefold incentive: (1) to extend laboratory observations and interpretations of atomic and molecular spectra of various chemical elements, for the purpose of identifying more of the observed solar lines as to chemical origin; (2) to extend Rowland's observations in both directions, to shorter and to longer wavelength-regions by means of modern observing techniques, photographic developments, and the like; (3) finally, to reobserve the solar spectrum in the "accessible" range. All of these incentives are still being carried out.

The first revision of the Rowland Table was made at the Mount Wilson Observatory in 1928 by C. E. St. John, and others [3]. At this time the Rowland wavelength-scale was converted to the international scale. The correction curve used for this conversion is described in detail in the text to the 1928 publication. Further minor corrections to the international scale are discussed in § 2.1.

By comparing the observed solar lines with laboratory spectra, Rowland reported the presence of 39 chemical elements in the sun, all but 2 of which have since been

confirmed. In 1928, 57 elements were reported as present and 57% of the lines in the solar spectrum were identified. The number of known chemical elements in the sun is now 63, with 2 others dubiously identified. To date some 73% of the lines are wholly or partially identified as to chemical origin. This is described more fully in §§ 3.2, 3.3.

In the 1928 revision no attempt was made to replace the estimated line intensities from Rowland's Table by measured equivalent widths. Provisional graphs for the approximate conversion of the Rowland scale into equivalent widths were published by Mulders [4]. In 1943, however, the staff at the Utrecht Observatory started to prepare a catalogue of measured equivalent widths, based primarily on the Utrecht Photometric Atlas of the Solar Spectrum [5], in which the profiles of all Fraunhofer lines between 3612 Å and 8771 Å are recorded. The spectrograms were obtained by Mulders at the Mount Wilson Observatory, and the photometric data were elaborated under the direction of Minnaert and Houtgast. This Utrecht program became part of the cooperative project suggested by the International Astronomical Union in 1948. The catalogue, just as the Atlas on which it is based, refers to the spectrum of the center of the solar disk, little different from the spectrum of integrated sunlight. The Utrecht contribution, consisting of a list of photometric data has already, to a large extent, been published separately [6]

¹ Figures in brackets indicate the literature references in § 4.

because the data are so urgently needed for abundance determinations and for comparisons with other stellar spectra.

The range of the present table has been limited to that long span of the solar spectrum that overlaps the more recent and current observations from rocket and orbiting-solar-observatory spectra in the ultraviolet (short of 3000 Å), and from the Jungfrauoch spectra in the infrared (long of 7500 Å). It is essentially a second revision of Rowland's Table corrected and supplemented by the Utrecht Atlas material. Even in this range the work is far from completed. Many more solar lines

will doubtless be added when the spectrum has been completely reobserved under the best observing conditions and with the best available modern instruments. The task of remeasuring the complex spectrum and of extending identifications and intensity measurements is a heavy one in itself, and one that requires, also, much additional work on the analysis of individual laboratory spectra. The present contribution is intended as a convenient handbook for the astrophysicist until the ideal self-contained compendium of the solar spectrum from the x-ray to the microwave region becomes a reality.

2. Description of the Solar Spectrum Compendium

The successive columns of the solar ledger are described. The general procedure by which the data on measured intensities have been obtained is fully explained. The many users require, also, more detailed information on the analyses of individual spectra than can be recorded here, for the many lines classified from laboratory investigations. Sufficient information is given in the ledger to provide convenient cross reference to the separate papers on spectrum analysis. For special details concerning individual lines the column headed "Notes" should be consulted.

2.1 The Wavelengths: Column One

A comprehensive revision of Rowland's *Preliminary Table of Solar Spectrum Wavelengths* entails a thorough study of the wavelengths of the lines reported by Rowland. These remarkably accurate measurements by Jewell, that date back to 1895-97 [2], were reduced to the International Scale of Wavelengths in the first revision of Rowland's Table in 1928 [3].

The tremendous amount of work that has gone into interferometric observations for precise wavelength standards need not be discussed here. Details may be found in the early Transactions of the International Astronomical Union [7], in the Allegheny Publications by Burns, Meggers, and Kiess [8], and in the Mount Wilson Contributions by St. John, H. D. Babcock and others. St. John discussed the method used for the reduction to the international system, and has published the correction curve based on the International Standard Wavelength Scale of 1922 [3]. The wavelengths listed in the 1928 edition are based on this curve. They are in three categories: (1) Lines marked "m". These lines were observed by Rowland, but remeasured for use in correcting Rowland's wavelength scale. (2) Lines marked "w", denoting weighted means of remeasured lines and Rowland's corrected values. (3) Undesignated wavelengths; these formed the great majority. They were lines listed by Rowland but corrected to the international scale of 1922 by means of the correction curve adopted in 1928.

Throughout the years in which the 1928 edition has been actively used, several problems regarding wavelengths have arisen. Further work on the International Standards has indicated that a small running correction is required to reduce the wavelengths based on the 1922 scale to the scale adopted in 1928 by the International Astronomical Union. These corrections, reported by H. D. Babcock [9] are as follows:

Table 1. Wavelength Corrections for Reduction to the 1928 Scale of Standards

Region (Å)	Correction to 1922 Scale (Å)	Region (Å)	Correction to 1922 Scale (Å)
2995-3133	-0.0012	6125-6290	-0.006
3133-3370	*(-0.0010)	6290-6455	-0.007
3370-3705	-0.0006	6455-6630	-0.008
3719-3849	-0.0015	6630	-0.009
3850-3969	-0.0015	6800	-0.010
4000-5600	-0.002	6900	-0.012
5600-5780	*(-0.003)	7000	-0.014
5780-5960	*(-0.004)	7100	-0.016
5960-6125	-0.005		

* Values in parentheses are interpolated.

They must be applied to all wavelengths published in the 1928 edition, in order to comply with the standards recommended by Commission 14 of the Union.

Although Rowland's observations extend from 2975 Å to 7330 Å, his spectrograms did not record the solar spectrum completely in the ranges short of 3060 Å and long of 6600 Å. With the development of new photographic emulsions, Rowland's work has been superseded in the short- and long-wave regions. Meggers made a thorough study of the spectrum from 6500 Å to 9000 Å in 1919 [10] and by means of Doppler displacements, carefully separated the solar lines from the telluric lines. This work was subsequently extended at Mount Wilson by H. D. Babcock and others, by comparing line intensities at high and low sun. In the present table the

Table 2. Spectrograms from the Utrecht-Mount Wilson Collection used for Wavelength Measurement

Plate No.	Wavelength Range (Å)	Plate No.	Wavelength Range (Å)	Plate No.	Wavelength Range (Å)
82	3949 to 4035	54	5205 to 5290	60	4690 to 4775
206	3994 to 4081	52	5260 to 5345	56	4875 to 4960
83	4071 to 4158	55	5320 to 5406	66	4933 to 5018
79	4144 to 4228	93	5367 to 5450	89	5018 to 5045
196	4190 to 4275	241	5740 to 5820	90	5070 to 5155
75	4262 to 4347	36	5885 to 5970	46	5395 to 5480
197	4315 to 4400	98	5953 to 6037	49	5462 to 5547
190	4375 to 4460	37	6004 to 6088	A	5520 to 5595
210	4430 to 4516	40	6055 to 6140	B	5580 to 5650
191	4495 to 4580	250	6195 to 6275	C	5635 to 5715
195	4560 to 4640	248	6250 to 6330	41	5663 to 5749
70	4592 to 4678	251	6305 to 6385	42	5800 to 5885
73	4655 to 4738	249	6370 to 6450	18	6125 to 6210
67	4753 to 4840	252	6420 to 6500	120	6582 to 6664
65	4820 to 4907	119	6497 to 6578		
59	5044 to 5130	102	6575 to 6655		
51	5145 to 5230				

wavelengths from 6600 Å to 8770 Å are mostly taken from the 1947 Monograph by H. D. Babcock and C. E. Moore [11]. Details regarding the wavelength scale in this region are given in the Introduction to this Monograph.

In the interval 2935 Å to 3060 Å, H. D. Babcock has reobserved the solar spectrum. New measurements for some 665 lines have been reported [12] and used for the present work. The reference standards for this region require a correction of -0.002 Å according to Babcock [9]. In this interval Babcock's measurements thus corrected have been adopted with Standards indicated by "S". See Table 3.

In the course of the work on intensities by Minnaert and his staff, many questions have arisen regarding new lines not listed by Rowland, the reality of faint Rowland lines, the resolution of close pairs, and the like. A set of spectrograms taken from the collection made for the preparation of the Atlas has been measured by C. E. Moore in an effort to settle some questions about apparent inconsistencies between the Atlas and the Rowland lines, and also because it seems desirable to examine further the lines recorded heretofore only by Rowland. These measurements extend from 3949 Å to 6600 Å.

The spectrograms from the Utrecht-Mount Wilson collection that have been measured, are listed in Table 2. In the last column a list of auxiliary spectrograms of poorer quality than the others is given. These were used only to supplement the good ones.

Finally, two Mount Wilson sun-spot spectrograms T' 1969 and T' 1971 were used to cover the respective intervals 4732 Å to 4755 Å and 4900 Å to 4933 Å. The reciprocal dispersion of the Atlas plates is 0.35 Å/mm; that of the T' plates is 0.22 Å/mm. The measurements have been made on comparators at the National Bureau of Standards, partly by visual and partly by oscilloscope

Table 3. References to Standard Wavelengths in the Solar Spectrum

Wavelength Range (Å)	Reference: Trans. Intern. Astron. Union	Comments
2995 to 3133	7, 150, 1950	Reference Standards to be corrected by -0.002 Å.
3592 to 7122	3, 93, 1928	Recommended λ.
7568 to 9889	6, 90, 1938	Recommended λ.

settings. An attempt has been made to obtain at least two measurements for every line.

The standards have been taken from the second reference of Table 3. This table contains a complete list of references to solar standards given by Commission 14 in the Transactions of the International Astronomical Union.

A supplementary list of "temporary" standards in the interval 7333 Å to 11204 Å is given in these Transactions 4, 83, 1932, but these are not designated by "S" in column one, as are those from Table 3.

In drawing the correction curves for the measurements described above, the lines marked "m" in the 1928 solar table as corrected from Table 1, have also been utilized in addition to the "Standards" mentioned above. These lines were all measured at Mount Wilson prior to 1928.

It is evident that many of the fainter lines that can be detected on the spectrograms under low-power magnification and in the Atlas, are too faint to measure on the comparators. Some of these faint lines can, however, be measured to 0.01 Å on high-dispersion spectrograms, with the aid of handscales.

For one region, 5000 Å to 6000 Å, Zalubas [13] has made spectrograms at the Georgetown University Observatory, especially for the purpose of observing faint lines. He used a 21-foot concave Rowland grating having 20,000 lines to the inch, in a Wadsworth mounting; the reciprocal dispersion (first order) was about 3 Å/mm. The spectrograms were made in the second order and have a reciprocal dispersion of 1.4 Å/mm. He has remeasured some 4,072 previously known lines, and added 234 new faint lines, many of which may be of atmospheric origin. All of his wavelengths represent means of measurements made on three spectrograms. Of these new lines, 55 that were clear and also measurable in the Atlas records have been included here.

For the remeasured lines, a weighting system was devised to combine the various kinds of measurements available. The weighting factors are described in Table 4.

The authors have had, also, the benefit of unpublished notes from H. D. Babcock regarding close pairs, new lines, improved wavelengths of atmospheric and other molecular lines, identifications, reality of faint lines, and other details. The wavelengths published by him and L. Herzberg [14] in their analysis of the Atm O₂ bands have been adopted with the label "m" (see Table 5).

In examining the Atlas, Minnaert and Houtgast have measured a number of lines to ± 0.01 Å. Some of these indicate further corrections to Rowland's list; many others are new lines (see § 3.1 and Table 8). Long of 6600 Å it seemed inefficient to include all of the faintest lines in the catalogue, which are mostly of atmospheric origin. Many of them have been dropped, especially if they were not included in the 1928 edition or in the 1947 catalogue of H. D. Babcock and C. E. Moore. All identified solar lines have been kept. The wavelengths determined from the Atlas cannot be compared in precision with those measured by means of a modern comparator. If precise wavelengths are needed, the positions of several neighboring lines should be checked, and the scale, if necessary, slightly adjusted by fractions of a millimeter. The Atlas is superior, however, when faint lines appear on the slopes of strong lines, when lines are broad and assymmetric, or when they are revealed only by a tracing, which, being flat, nevertheless fails to reach the continuum line.

Table 4. Weighting Factors for Measurements

Weight	Description of Source Material
10	Wavelengths marked "w" in the 1928 edition as corrected from Table 1.
5	Rowland wavelength from the 1928 edition as corrected from Table 1.
5	Measurement by Zalubas [13].
5	Three or more measurements by C. E. Moore.
3	Two measurements by C. E. Moore.
1	One measurement by C. E. Moore.
½	One dubious measurement by C. E. Moore.

The behavior of atomic lines in the spot spectrum is discussed in § 2.4. A study of such lines was made by C. E. Moore in 1932 [15], and a list was published by her in 1933 [16]. Atomic lines appearing only in the spot spectrum are entered to two decimals only. They are taken from the 1933 paper. Her measurements of spot lines have been supplemented by those included in the 1928 revision, and also by unpublished measurements by R. S. Richardson in the interval from 4900 Å to 5403 Å [17]. The rounded-off wavelengths of spot lines quoted from Richardson are indicated by a dagger in note 13. His wavelengths have also been utilized for a number of lines formerly listed as spot lines and later seen on the Atlas spectrograms.

Table 5 contains the letters used in column one to indicate wavelengths in the different categories discussed above.

In two special cases, laboratory wavelengths are quoted with special notes:

Note 10. The Balmer series of H, $n=8$ through 17.

Note 31. The Paschen series of H, $n=12$ through 18.

All other wavelengths not designated by the letters in Table 5, are weighted means. All wavelengths are in air.

More remains to be done, especially on improving wavelengths of faint solar lines, and, above all, on extending the list to include many more faint solar lines that appear on spectrograms and photometric records made with the finest solar instruments available today. The demand for the present compendium is so great that the further delay that would be necessary to make a more detailed study of new faint solar lines, does not appear justifiable. This is one of the most challenging problems of the near future.

Table 5. Letters in Column One: Wavelengths

S	Standard Wavelength, see Table 3.
m	This letter is used: <ol style="list-style-type: none"> (1) To denote lines measured at Mount Wilson, recorded as "m" in the 1928 revision, in the interval 3062 Å to 6600 Å. The 1928 entries corrected from Table 1 are recorded here. For lines longer than 6600 Å, many have been remeasured, but the letter "m" has been retained only for those solar lines thus noted in the 1928 edition. (2) For wavelengths of lines in the Atm O₂ bands as reported by H. D. Babcock and L. Herzberg [14]. (3) For a few unpublished measurements by H. D. Babcock. (4) For measurements of sun-spot lines [16], and for other measurements taken from Richardson. (5) For selected lines having special notes.
r	Lines whose wavelengths are from Rowland's Table. Short of 6600 Å the listed wavelengths are from the 1928 edition corrected as described in Table 1. To longer waves, the lines in this category are quoted from the 1947 Solar Table [11], where the correction factors occasionally deviate slightly from those listed in Table 1.
a	Two-place measurements furnished by Minnaert and Houtgast, from their study of the photometric tracings. All of these lines have been seen as traces on the solar spectrograms as well as in the Atlas recordings.

2.2 The Measured Equivalent Widths, $\Delta\lambda(\text{m}\text{\AA})$: Column Two

According to the general use in astrophysics, the *equivalent width* of a Fraunhofer line is the width of a hypothetical absorption line, which, being perfectly black and having sharp edges, would absorb from the neighbouring continuum the same amount of energy as the real line (Fig. 1). Another measure for the line strength called the *reduced width*, which will be defined in § 2.3, is listed in column three [18].

The present table has the short-wave limit 2935 \AA , in order to provide an overlap with subsequent solar tables that extend to shorter wavelengths. From 2935 \AA to 3061 \AA no calibrated plates were available for intensity measurements. In this range, eye-estimates of the line intensities are entered in brackets between the two columns containing measured intensities. The quoted estimated intensities are from H. D. Babcock [12]. They are not to be confused with the measured equivalent widths.

In the present volume, several errors in the provisional publication [6] have been corrected. The ultraviolet data have been modified, taking into account the more recently published Göttingen Atlas [19]. In the red part of the spectrum a number of dubious faint lines have been rejected, others have been added, and wavelengths have been adjusted, so that the catalogue is now a better description of the Atlas.

The intensity measurements were based on the Utrecht Photometric Atlas of the Solar Spectrum [5], in which the profiles of all Fraunhofer Lines between 3612 \AA and 8771 \AA

are recorded, from spectrograms made by G. F. W. Mulders at the Mount Wilson Observatory, Pasadena. In the introduction of this Atlas, full details about the microphotometric work are found. The region from 3612 \AA to 6977 \AA was photographed in the 2nd order; the one from 6923 \AA to 8771 \AA in the 1st order. For the atmospheric lines it may be useful to remember that $\sec \zeta$ varied between 1.26 and 4.92, as listed in the introduction of the Atlas. Longer than 5560 \AA it did not exceed 2.22. In the small stretches where two spectrograms overlap, that with the greatest value of ζ was selected.

The spectral region short of 3612 \AA was included in the Atlas only as an Appendix based on Utrecht spectra with much less resolution. It proved surprisingly difficult to find an observatory provided with adequate instruments for an improved study of this part of the solar spectrum. Fortunately the Dunsink Observatory was so kind as to obtain a complete set of the ultraviolet region between 3100 \AA and 3650 \AA and to record these spectra with a direct intensity microphotometer, similar to that originally used for the Utrecht Atlas. It is clearly an advantage that the same institute that made the spectrograms also recorded them, making all necessary photometric checks. For some sections, plates kindly taken by H. D. Babcock at the Mount Wilson Observatory were also used. On the Dublin records the lines have a total half-width only slightly (5%) greater than that of the Mount Wilson-Utrecht records; 10 lines in the region of overlap yielded $h=27.8$ (Mount Wilson) and 29.1 (Dublin), expressed in micro-wavelengths ($\mu\lambda$). An analysis of the apparatus curve in this

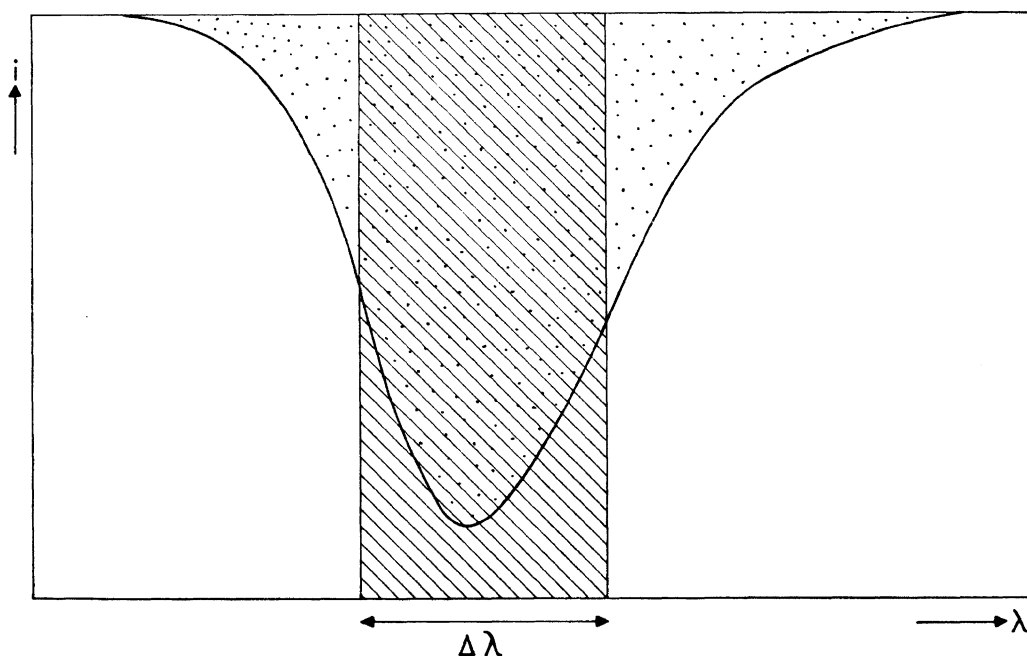


FIGURE 1. Definition of equivalent width.

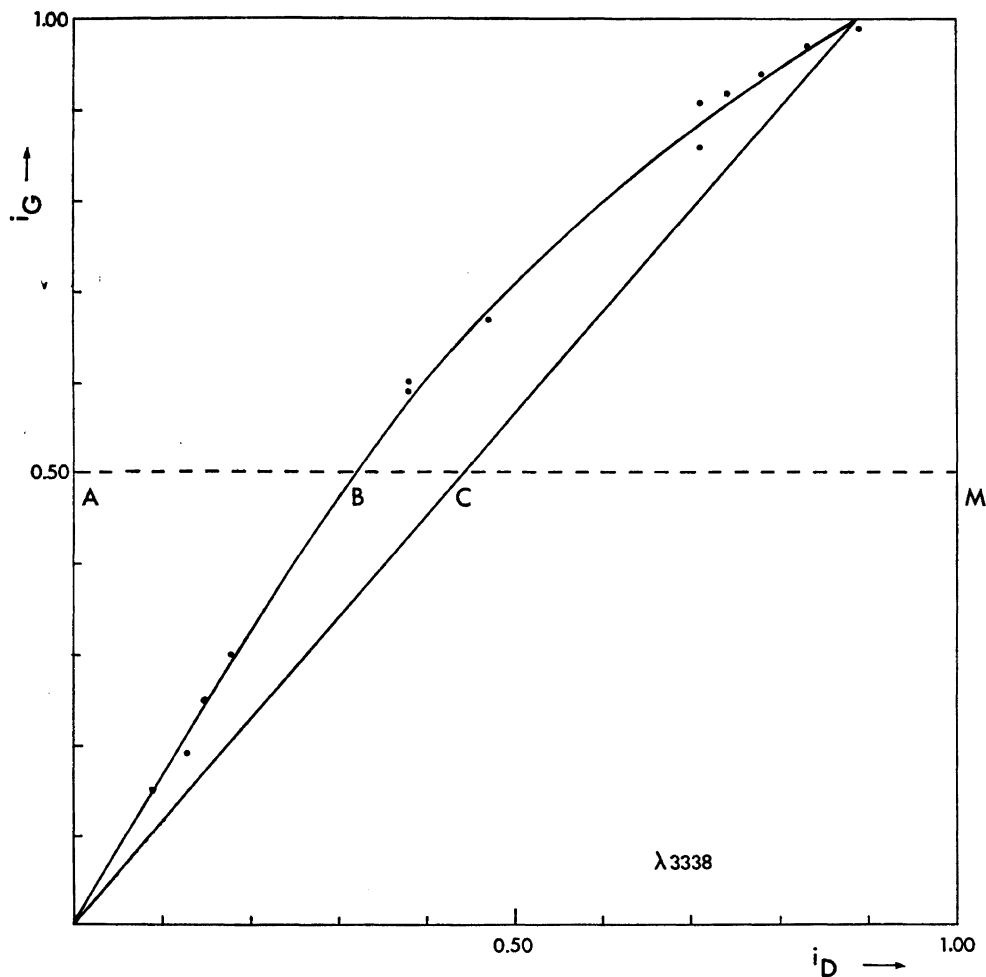


FIGURE 2. Comparison of UV monochromatic intensity measurements at Göttingen and at Dunsink. Coordinates i_G and i_D in arbitrary units.

region, approximated by a Voigt profile, showed that the Dublin damping coefficient (β_1) was much smaller, practically absent, while the Doppler coefficient (β_2) was considerably greater. (Mount Wilson: $\beta_1=2.19$; $\beta_2=3.48$. Dublin: $\beta_1=0.01$; $\beta_2=11.0$). The curve relating the half-width to the central intensity, was practically the same for both series. This was a fortunate circumstance, owing to which we felt justified at first in applying to the whole of the material the same tables and graphs.

After the Preliminary Photometric Catalogue was published by the Utrecht Observatory, an Atlas was published at Göttingen that provided new photometric tracings for the ultraviolet region [19]. It seemed important to check against these new records the results which had been obtained on the basis of the Dublin registrations. Both series of tracings were direct intensity records.

On first inspection it became clear that the resolving power of the Dublin records is slightly better than that

obtained at Göttingen. More important, however, was the photometric comparison, the more so, since we had been warned by the Dublin observers that there might be some deviations.

A plot of $E.W.$ (Dublin) against $E.W.$ (Göttingen), for 210 lines near 3330 Å, showed a systematic difference, the ratio D/G varying between 1.2 and 1.4. By plotting for individual, well selected points the intensities in arbitrary units i_D against i_G , it was also shown that this difference was due to fundamental deviations in the photometric scale. This method of comparison worked quickly and efficiently and was independent of the assumed background intensity, the deviations appearing as a curvature of the plot (Fig. 2). In order to decide which of the two scales was correct, use was made of ultraviolet spectral records obtained by J. Houtgast [23] at the Mount Wilson Observatory in 1960, with the Snow Telescope and the apparatus of W. E. Mitchell for direct photometric recording of the spectrum. Cross-comparisons showed unambiguously that the Göttingen photometry is the correct one.

The effect of a curvature in the photometric scale might be expected to be different according to the *E.W.* of the spectral lines and the intensity of the background on which they are superposed. This was actually found. However in practice these differences in the correction for the individual spectral lines were not important. Considering the necessity of a simple and practical procedure, in view of the great number of lines involved, it seemed sufficient to divide all values of $E.W._D$ by a mean factor of $(1+\Delta)$,

where
$$\Delta = \frac{EW_D - EW_G}{EW_G}$$

measures the relative deviation in the *E.W.* Near 3330 Å the factor $(1+\Delta)$ amounted to 1.35.

It was then necessary to ascertain how the factor $(1+\Delta)$ varied with the spectral region. We assumed that the photometric scale would be homogeneous within each Dublin microphotometer record, corresponding to about 10 Å. For each of the 52 records, a graph was made of i_D against i_G (Fig. 2); the curvature, thus the deviation from the right scale, was characterised by the ratio $r = \frac{AB-AC}{AM}$,

measured at the height $i_G = 0.50 i_{G(\max)}$. The ratio r was 0.130 near 3330 Å and varied between 0 and 0.15 in the wavelength region 3075 Å to 3550 Å, the difference between both scales disappearing at longer wavelengths.

We assumed that Δ is approximately proportional to r , so that, in general,

$$1+\Delta = 1 + 0.35 \frac{r}{0.13}$$

The difficult and lengthy determination of Δ was thus replaced by a very quick measurement of r , easily applied at a great number of wavelengths.

The correction, finally applied, amounted to dividing all equivalent widths and reduced widths of the Preliminary Catalogue (1960) by the factor $(1+\Delta)$, which is a function of wavelength; this factor varied in general between 1 and 1.30 and reached higher values, up to 1.43 at only two places.

The equivalent widths, $\Delta\lambda$, in milli-Ångströms, as determined by direct measurement from the records, are tabulated in column two. In the first place the *continuous background* was located, which sometimes deviates a little from the Atlas continuum. This was relatively easy in the infrared and visual regions, but it became increasingly difficult towards the shorter wavelengths. Special difficulties were encountered short of 4000 Å, where the determination of the continuous background has been a matter of serious concern. In general we first traced the profiles of the strongest lines, then the profiles of fainter lines superposed on the first ones, etc. So for each line we obtained a *local continuum*. The local continuum for the strongest lines is determined by the highest points of the stretch of spectrum considered. Of course some indeterminacy resulted from the extent

of the interval inside of which these highest points were selected. It is with respect to this local continuum that equivalent widths of column two have been computed.

In view of further reductions, to be explained in § 2.3, we had, also, to locate the true or *maximum continuum*, this being defined as the continuum which would be found theoretically from the tables of κ_c in general use, e.g. from those of Vitense [26]. These tables yield in the UV a continuum which at the Balmer limit jumps discontinuously to a lower value. In the region short of 4000 Å, we have adopted the mean of the continuum as found by Michard [20], and by Rauer [21], later confirmed by Mrs. Pecker [22]. This locates the maximum continuum at an Atlas ordinate, gradually increasing from 100 at 4000 Å to 140 at 3647 Å. There it is considered to jump discontinuously to a lower value, the place of the jump being indicated by parallel horizontal bars in our catalogue. There is no doubt that actually the background is depressed gradually and smoothly, because of the accumulating Balmer lines and (nearer to the limit) by the pre-ionization of the hydrogen atoms. However, these effects are not included in the ordinary tables of the continuous absorption coefficient. In computing a line profile, the theorist will, therefore, refer the spectral line to this high continuum, and consider the profile as formed by the blend between the line proper and the higher Balmer lines. The location of our maximum continuum, as described, conforms to the continuum of the theorists. Short of 3647 Å, we have conservatively assumed that the Atlas ordinate 100 corresponds more or less to the true continuum, as was assumed by Michard. An investigation by Minnaert concerning the profiles of strong lines in the region 3500 Å to 3600 Å suggests that there the real continuum should also be higher. Before accepting the consequences of such a conclusion, more discussion seems to be necessary.

Recent photoelectric measurements of Houtgast on high-dispersion spectra give the detailed absolute intensities of 200 selected points over the range 3000 Å to 4000 Å, which should be used in the future as the basis for the location of the maximum continuum [23].

For each individual line, where necessary, smoothed individual profiles of the wings were traced with a sharp pencil on the Atlas records. In blends, the separation of a line from the neighbouring ones was made there where it could be done without complications by simple application of the "product rule," meaning that an ordinate with relative intensity $\frac{i_2}{i_0}$, superposed on a background $\frac{i_1}{i_0}$,

becomes $\frac{i_{12}}{i_0} = \frac{i_1}{i_0} \times \frac{i_2}{i_0}$ (Fig. 3). This applies to the following cases:

1. two telluric lines, or a telluric line combined with a solar line;
2. two solar lines, the overlapping parts of which do not descend below 80% of the continuum.

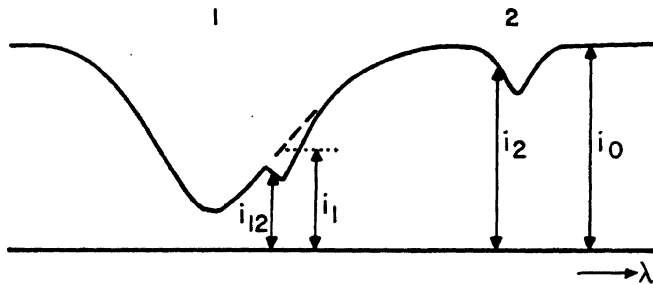


FIGURE 3. Disturbed and undisturbed Fraunhofer line.

In all other cases the separation of the blend components was made only in column three (see § 2.3).

The areas of profiles whose dip exceeded 20%, were determined by a Coradi polar planimeter, of which the precision had been tested before. Each profile was measured clockwise and counterclockwise and the mean was taken. For lines with a maximum dip less than 30%, the planimeter measurements were not considered to be sufficiently precise, and the areas were found by counting square millimeters. For a group of medium strong lines there is an overlap, and the mean was taken of the planimeter result and of the counts. The same was done for overlapping parts of the successive Atlas strips; their differences were treated as accidental, though in many cases it was obvious that the deviations were systematic. The areas were reduced to *equivalent widths* in $m\text{\AA}$, taking into account the dispersion and the height of the (local) continuum. All single lines and all of the lines which had been directly separated by applying the product rule were treated in this way. For blends not satisfying the conditions mentioned, the equivalent width of the entire blend as a whole is mentioned in the second column.

The Balmer lines of the hydrogen spectrum presented special difficulties near the series limit at 3647 \AA . Very striking is the great depth of H_{10} , which we considered as a real anomaly. The lines H_{12} , H_{13} , H_{14} are masked by strong superposed lines; H_{15} , H_{16} and H_{17} are measurable. The line H_{18} is certainly not seen; we assumed, therefore, that H_{19} and H_{20} are also invisible, and that slight depressions there are due to the combination of neighboring lines. The profiles for H_{12} , H_{13} and H_{14} were found by interpolation. For the further reduction in column three, where results of other observers are combined with ours, the results of de Jager (Table 6) have been taken into account up to H_{11} .

2.3 The Reduced Widths, $\Delta\lambda/\lambda \times 10^6$ (F): Column Three

Next to the equivalent width, another measure for line-strength has proved useful for many theoretical investigations: it is the *reduced width*, defined as 10^6 times $\Delta\lambda/\lambda$, and expressed in a unit called the *fraunhofer* (F) [18]. This is a dimensionless number, having a convenient order of magnitude and independent of the

unit in which both $\Delta\lambda$ and λ are measured. The reduced width is equal to the equivalent width, expressed in *microwavelengths* ($\mu\lambda = 10^{-6}\lambda$). The reduced widths are found in column three, improved, however, because the directly measured equivalent widths of column two had to be revised, before reduction, taking into account several considerations, now to be explained.

For a number of Fraunhofer lines, equivalent widths have already been determined earlier by other workers. A list of references is found in Table 6, at the end of § 2.3. We assumed, that these measurements are direct determinations of the equivalent width, without the correction for the blend factor to be discussed later. For this reason all comparisons were made with the numbers of our second column, where the blend correction has not yet been applied. We have listed for each line all available measurements, and have taken mean values, assuming double weight for the Atlas determinations, in order to obtain greater homogeneity in the catalogue between lines measured at Utrecht only, and lines also measured elsewhere. For all lines where other measurements have been taken into account, the reduced width in the third column is in italics.

The following remarks should be made: (a) The measurements of Phillips (Table 6) in the ultraviolet have not been used, because his numbers are so much smaller than our results, from both Mount Wilson and Dublin plates, that the homogeneity of the catalogue would have been lost. The same applies to Woolley's measurements (Table 6). Short of 3813 \AA , except for the Balmer lines, no measurements other than the Utrecht values were used. (b) Of the equivalent widths measured by Allen (Table 6), these have been used which were derived by photometry of the profiles, but not those obtained from depth and halfwidth only. (c) No use has been made of profiles determined by some authors, but not converted by them into *E.W.*; in most of these cases the shape of the outer wings had not been ascertained.

The next task was to disentangle those *blends*, which could not be analyzed by the simple product rule. Practically all blends, even in complicated cases, could be reduced: (a) to combinations of two lines, or (b) to the case of a line, formed on a background lower than the normal continuum. When three lines A, B, C were found combined, it was in general sufficient to consider the interaction of A and B and the interaction of B and C, the mutual influence of A and C being mostly negligible.

It is well known that two Fraunhofer lines combine according to rules more complicated than those of terrestrial absorption lines, as has been shown by Thackeray, Houtgast and Minnaert [24] and later by Unsöld [25] and by Rauer [21].² When these last investigations were published, our work, started in 1943, had already progressed so far that it would not have been possible to change the

² In the mean the effects of blending, calculated by Rauer, are less pronounced than those taken into account by us. This is due mainly to our assumption, that both lines originate in the same layers of the solar atmosphere.

method of reduction. Nor would it have been possible, in a treatment of many blends, to consider the individual details of each combination. The explanation and graphs published in paper [24] give more ample information about the methods applied. For the reduction it was assumed that the lines behaved as scattering lines, because some of the strongest ones were resonance lines and because we wished, also, to reduce in the simplest way the very low central intensities. For moderately deep profiles, the choice between absorption and scattering is practically unimportant. Two-dimensional *combination tables* were

calculated, giving the resultant intensity i_{12} at a wavelength where the individual intensities i_1 and i_2 are superposed; a first table referred to atoms distributed according to Schwarzschild-Schuster, another to atoms distributed according to Milne-Eddington. Finally, the geometric mean of both combination tables was taken, square by square. Fig. 4 gives $V = \frac{i_1 - i_{12}}{i_0 - i_2}$ for a hypothetical monochromatic line, indicating in what proportion it is reduced when superposed on a background i_1 . If we compare lines superposed on a more or less

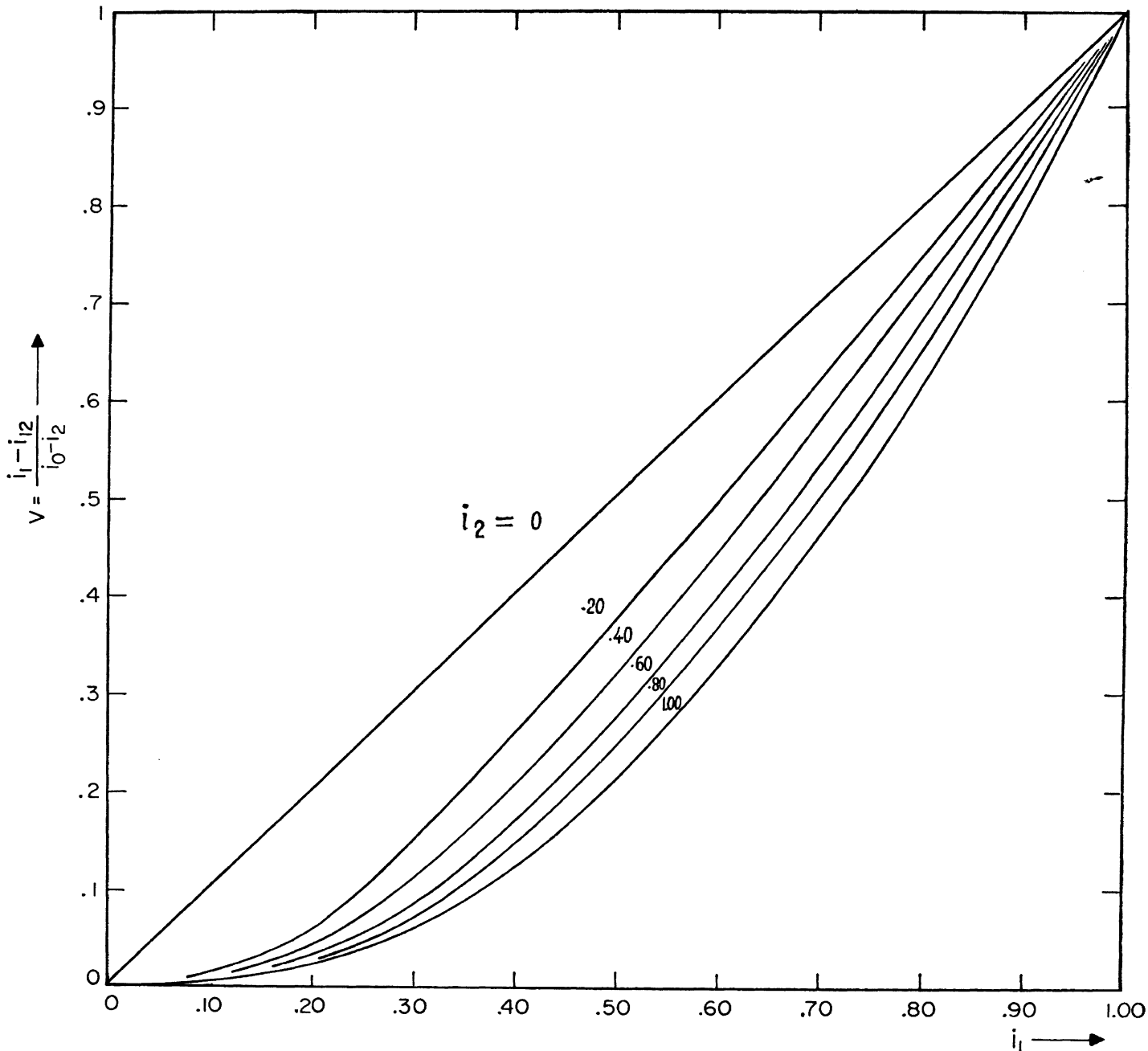


FIGURE 4. Monochromatic blend factor.

homogeneous background i_1 , with the lines which would have been formed by the same atoms on the background of the true continuum i_0 , we would expect by the product rule that the blend factor would be simply equal to $\frac{i_1}{i_0}$, the area having decreased in this proportion but the equivalent width remaining the same. According to the combination table, however, a further reduction of the area is observed, which affects the equivalent width and which can be computed easily for normal profiles derived from the Atlas for lines of different equivalent widths

(Fig. 5). Conversely, the observed equivalent widths $\int \frac{(i_1 - i_2) d\lambda}{i_1}$ have to be divided by a factor smaller than unity, and found in the figure quoted.

Lines forming a close doublet were analysed by means of *model doublets*. Two normal profiles, freed from the apparatus function, were drawn at a chosen distance from each other, then combined, ordinate by ordinate, according to the combination table. The resulting doublets, slightly smoothed by combining them with the apparatus

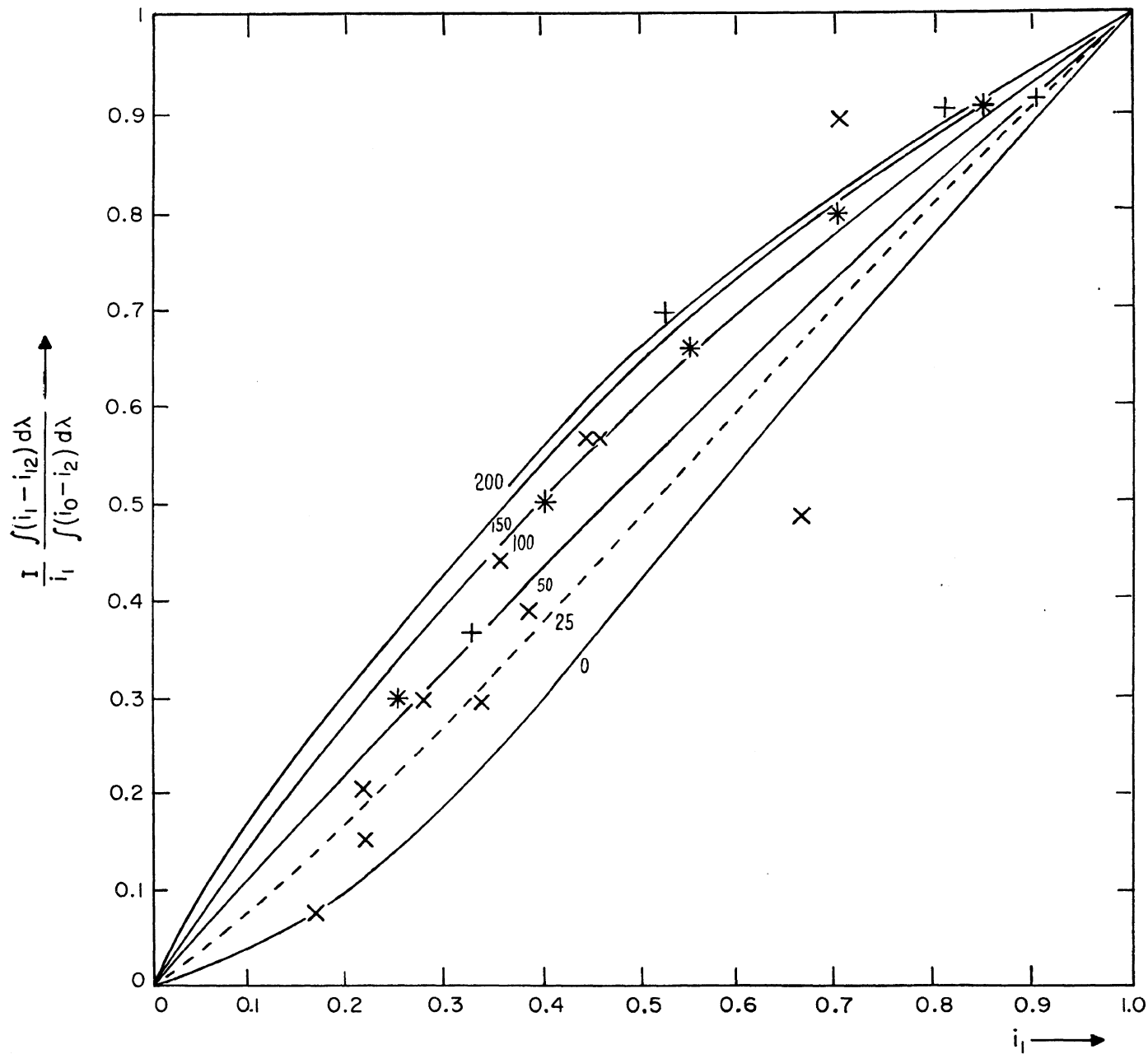


FIGURE 5. Influence of background on equivalent width.

Ratio between the equivalent widths of a Fraunhofer line on a background i_1 and the same line undisturbed. Parameter: equivalent width of the disturbed line in mÅ. Asterisks represent calculated values for the strong D₂ line. The crosses correspond to Thackeray's observations; upright crosses for lines stronger than 100 mÅ

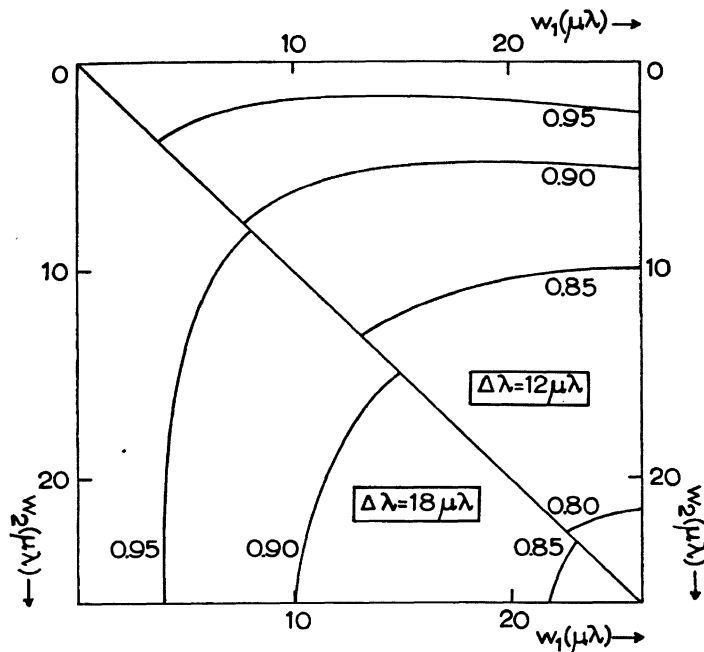


FIGURE 6. Complementing correction.

Ratio $\frac{w_{12}}{w_1 + w_2}$ of the equivalent width of a blend w_{12} to the sum of the equivalent widths of the undisturbed components w_1 and w_2 (in $\mu\lambda$)

function, were considered to apply to the whole spectrum indiscriminately, provided their abscissae were taken proportional to the wavelength.³ This was obtained by assuming as a unit the microwavelength $\mu\lambda = 10^{-6}\lambda$.

Lines of very different equivalent widths were combined two by two, the profile of each pair being computed for distances of 0, 6, 12, 18, 24 $\mu\lambda$. Atlas doublets could then be compared with the model doublets. This process of comparison was made easier by computing once for all from the model doublets the ratio: equivalent width of fainter line/sum of the two equivalent widths

as a function of: $\left\{ \begin{array}{l} \text{minimum intensity in fainter line;} \\ \text{minimum intensity in stronger line;} \\ \text{width of blend at height 60\% of } i_0; \\ \text{minimum intensity in stronger line.} \end{array} \right.$
 or as a function of: $\left\{ \begin{array}{l} \text{width of blend at height 60\% of } i_0; \\ \text{minimum intensity in stronger line.} \end{array} \right.$

The first graph was used for the faint lines, the second graph for the strong lines. In many cases both graphs could be used, and the results were, in general, found to agree remarkably well; the mean of the two was taken. The model doublets give only the ratio between the two components. When the measured equivalent width of the blend is divided in that ratio, a correction must still be applied because the equivalent width of the blend is less than the sum of the equivalent widths of the components. The amount of this *complementing correction* was also obtained as a byproduct of the construction of the model

³ The apparatus function of a grating appears to have its abscissae proportional to λ . A special test, made later on near 3800 Å, seems to show that the line widths there, measured in $\mu\lambda$, are somewhat narrower than near 6000 Å, by a factor varying between 1.00 and 1.30; this means that we might have overestimated somewhat the blending effects in the UV

doublets. As an example we reproduce the graph for two lines at distances of $\Delta\lambda = 12\mu\lambda$ or $\Delta\lambda = 18\mu\lambda$ (Fig. 6).

For the closest doublets, the methods thus far described would not suffice. Often the record and the plate showed only slight indications of asymmetry, which it would have been very difficult to translate into quantitative ratios. In these cases we have relied on Rowland's original visual estimates; we transformed them into equivalent widths according to Mulders [4], divided the measured equivalent width in that ratio, and applied the complementing correction. A special investigation showed that for lines of a given Rowland number the equivalent width does not systematically change when they are found superposed on the wings of other lines. This means that Rowland automatically corrected for the influence of the background on the equivalent width.

In all cases, where there is a difference between the local and the maximum background, a reduction was applied, in the same way as explained for "lines, superposed on a more or less homogeneous background" (Fig. 3). This applies especially to the whole stretch between 3647 Å and 4000 Å.

Finally all equivalent widths, already corrected for the effects thus far mentioned, had to be converted to *reduced widths*:

$$\text{reduced width (F)} = \text{equivalent width (mÅ)} \times \frac{1000}{\lambda(\text{Å})}$$

We shall give a few examples of the procedure followed.

3991.121 Å Area = 136 mm² (planimeter)

Local background = 93 mm. Dispersion = 19.8 mm/Å

$$\text{Equivalent width} = \frac{136}{93 \times 19.8} = 0.0739 \text{ Å} = \boxed{73.9} \text{ mÅ}$$

Measurements by other authors: Thackeray 71, Rauer 80.

Weighted mean = 74.5

Max. background = 102 mm. Thus $\frac{\text{local background}}{\text{max. background}} = 0.91$

Reduction to max. background (by Fig. 5)

$$\frac{74.5}{0.93} = 80.2$$

$$\text{Reduced width} = \frac{80.2}{3.991} = \boxed{20.1} \text{ F}$$

4476.021 Å } Area = 297 mm² (planimeter)
 4476.089 Å }

Background = 100. Dispersion = 19.6 mm/Å

$$\text{Equivalent width} = \frac{297}{100 \times 19.6} = 0.152 \text{ Å} = \boxed{152} \text{ mÅ}$$

Separation not detectable.

Rowland estimates: $\left. \begin{array}{l} 4 \\ 3 \end{array} \right\} 202 \text{ (Mulders)}$

Proportional equivalent width of components: $\left. \begin{array}{l} 86.5 \\ 65.5 \end{array} \right\} 152$

Complementing correction for mutual influence (by Fig. 6):

$$\frac{86.5}{0.86}=101; \quad \frac{65.5}{0.86}=76$$

$$\text{Reduced width}=\frac{101}{4.476}=\boxed{22.6} \text{ F}; \quad \frac{76}{4.476}=\boxed{17.0} \text{ F}$$

$$\left. \begin{array}{l} 4238.760 \text{ \AA} \\ 4238.816 \text{ \AA} \end{array} \right\} \text{Area}=297.5 \text{ mm}^2 \text{ (planimeter)}$$

Local background=99. Dispersion=19.4 mm/\AA

Equivalent width= $\boxed{155}$ m\AA

Ratio of components from model doublets: 0.15

$$\text{Equivalent width of components: } \frac{155}{1.15}=135; \quad \frac{155 \times 0.15}{1.15}=20.$$

Increase for mutual influence ($\Delta\lambda=0.056 \text{ \AA}$):

$$\frac{135}{0.91}=148; \quad \frac{20}{0.91}=22$$

$$\text{Reduced width}=\frac{148}{4.238}=\boxed{34.9} \text{ F}; \quad \frac{22}{4.238}=\boxed{5.2} \text{ F}.$$

The computation of the equivalent width and of the reduced width may in some cases increase the importance of a line in a most surprising way; this occurs especially for lines superposed on the deepest parts of a spectral profile. Take e.g. the line 3967.431 \AA with an area of only 5 sq. mm in the Atlas, superposed on a local background of 15%. The equivalent width becomes $\frac{5.0}{15 \times 17.3}=0.0192 \text{ \AA}=19.2 \text{ m\AA}$. Now consider, that this local background is only 11% of the maximum background, and since we consider a faint line, the reduction factor is very important. We have to divide by 0.08. Eventually the reduced width becomes 240 m\AA or 60.4 F. Even more striking examples could be given.

The reduced widths ($10^6\Delta\lambda/\lambda$), in fraunhofers, obtained by taking into account measurements of other authors and eliminating, as well as possible, perturbing influences of neighboring lines, are directly adapted to the theoretical work, but much more uncertain than the entries in column two. We are well aware of the uncertainties in this process of reduction. Our calculations give at least an idea of the order of the blending effect, and a warning that it may become very important, especially in the ultraviolet spectrum.

In such cases where measurements of different authors are available, great divergencies are sometimes found. While the data in italics may be expected to be, in general, more reliable than the others, they may be worse in individual cases, and they are inevitably less homogeneous.

We have refrained from using question marks for those many cases in which there were doubts concerning the reality of a line, the exact profile, the separation of blends, the correction for the background, etc. Even in the most dubious cases, we have compelled ourselves to make a decision, considering that others would have to struggle with the same difficulties, without having more solid ground than we did. It must be clear that our catalogue is full of weak points in all these respects, and that anyone interested in special lines should study them in detail himself, on several spectrograms and repeated records, by using his own critical sense. Nevertheless we hope that the intensity data of the catalogue will be useful in the present period of solar research.

Symbols and Special Signs Used in Columns Two and Three

- Horizontal separation, indicating the overlap
- between successive plates in the spectral region where telluric lines occur. Equivalent widths of telluric lines may be compared only on one and the same plate.
- $\overline{5}$ The line is so closely blended with adjacent faint lines, not mentioned in the RRT or in the BM catalogue, that a separation seems impossible. The equivalent width given refers to the total blend.
- | 5 | The line is partly blended with adjacent faint lines, not mentioned in the RRT or in the BM catalogue, which have been separated by us. The equivalent width refers to the line alone.
- } The lines have not been analyzed in the second column, either because an analysis of the profile was practically impossible, or because such an analysis required too uncertain theoretical assumptions. The equivalent width relates to the blend as a whole.
- 5* The reduced width, when entered in italics, is the weighted mean of the Utrecht measurement and of measurements by other observers.
- () The equivalent width could not be directly measured, but it was derived by interpolation, or from multiplets, or from Rowland's estimates.

Table 6. References to Papers Where Equivalent Widths of Fraunhofer Lines Are Found

Adam, M. G.: Mon. Not. Roy. Astron. Soc. 96 , 112 and 544, 1938; 100 , 595, 1940.	Plaskett, H. H.: Mon. Not. Roy. Astron. Soc. 91 , 870, 1931.
Allen, C. W.: Mem. Commonwealth Solar Obs., Canberra 1 , No. 5, 1934; 2 , No. 6, 1938. Astroph. J. 85 , 165, 1937; 88 , 125, 1938.	Rauer, W.: Zeit. Astroph. 37 , 1, 1955.
Mon. Not. Roy. Astron. Soc. 96 , 508 and 843, 1936; 100 , 10, 1939.	Righini, G.: Mem. Oss. Astrof. Arcetri 48 , 29, 1931. Zeit. Astroph. 10 , 349, 1935.
Barocas, V. and Righini, G.: Astroph. J. 114 , 443, 1951.	Roach, F. E. and Phillips, J. G.: Astroph. J. 96 , 71, 1942.
Bretz, M.: Zeit. Astroph. 38 , 259, 1956.	Shane, C. D.: Bull. Lick Obs. 16 , No. 449, 1932; 19 , No. 507, 1941.
Cherrington, E.: Bull. Lick Obs. 17 , 161, 1935.	Thackeray, A. D.: Mon. Not. Roy. Astron. Soc. 94 , 99, 1934; 95 , 293, 1935. Astroph. J. 84 , 433, 1936.
Dahme, A.: Zeit. Astroph. 11 , 93, 1935.	Ten Bruggencate, P. and von Klüber, H.: Veröff. Göttingen No. 78; Nach. Akad. Wiss. Göttingen, Math.-Phys. Kl., pp. 165 to 183, 1944.
Hindmarsh, W. R.: Mon. Not. Roy. Astron. Soc. 115 , 270, 1955.	Ten Bruggencate, P. and Houtgast, J.: Zeit. Astroph. 20 , 149, 1940.
Houtgast, J.: Dissertation, Utrecht, 1942.	Ten Bruggencate, P.; Golnow, H.; Günther, S.; Strohmeier, W.: Zeit. Astroph. 26 , 51, 1949.
De Jager, C.: Recherch. Astron. Obs. Utrecht, 13 (1), 1952.	Unsöld, A.: Zeit. Phys. 46 , 765, 1928.
Korff, S. A.: Astroph. J. 76 , 294, 1932.	Weidemann, V.: Zeit. Astroph. 36 , 101, 1955.
Minnaert, M. and Mulders, G. F. W.: Zeit. Astroph. 1 , 192, 1930.	Woolley, R.v.d.R.: Ann. Solar Phys. Obs. Cambridge 3 , 88, 1933.
Mulders, G. F. W.: Dissertation, Utrecht, 1934.	Mon. Not. Roy. Astron. Soc. 93 , 706, 1933.
Pecker, J. Cl. and Peytureaux, R.: Ann. d'Astroph. 11 , 90, 1948.	
Pecker, J. Cl.: Ann. d'Astroph. 12 , 197, 1949.	
Phillips, J. G.: Astroph. J. 96 , 61, 1942.	

2.4 Behavior of Atomic Lines in the Sun-Spot Spectrum: Column Four

The physical conditions prevailing in sun-spots have long attracted the attention of the astrophysicist. The great importance of spot behavior in assigning identifications to the solar lines has been recognized throughout the present work. The most extensive spot data available are those based on the Mount Wilson observations of spot spectra. One of the authors (C.E.M.) used this material for a detailed study of *Atomic Lines in the Sun-Spot Spectrum*, in 1932 [15]. At this time an attempt was made to estimate spot intensities on approximately the same scale as Rowland used for estimating the disk intensities. Although estimated intensities are far from ideal for work on determining abundances of chemical elements in the stars, yet they provide reliable general information as to whether the line is strengthened, unchanged, weakened, or obliterated in the spot spectrum as compared with the disk spectrum.

The spectrograms were made with the 150-foot tower telescope at Mount Wilson with the use of a Nicol prism and quarter-wave plate to reveal the Zeeman effect in the spot spectra. The zigzag effect thus produced enables one to select atomic from molecular lines in the spot spectrum.

For the present it is impossible to include measured equivalent widths for lines in the spot spectrum, such as are contained in columns two and three for the disk lines. The great amount of stray light in most sun-spot spectra vitiates the photometric measurements by an amount often unknown. In place of the equivalent widths the following letters are introduced in column four to indicate the spot behavior as compared with the disk intensity, and thus add weight to the assigned identifications in column five.

- | | |
|-----------|---|
| <i>S</i> | The line is greatly strengthened in the spot spectrum as compared with the disk spectrum. For atomic lines appearing only in the spot spectrum, the estimated spot spectrum is 0 or greater, on the Rowland scale of intensities. For disk lines, the strengthening is estimated to be 3 or more units on that scale. This letter is used, also, for selected unweakened winged lines, which were labeled "W" in the 1933 publication [16]. |
| <i>s</i> | The line is strengthened in the spot spectrum, probably less than 3 units on the Rowland scale. For atomic lines present only in the spot spectrum the intensity is estimated as "-1" or less, i.e. 00 or less, on Rowland's scale. |
| <i>u</i> | The line is unchanged in intensity in the spot spectrum. |
| <i>W</i> | The line is greatly decreased in intensity in the spot spectrum, 3 or more units on the Rowland scale. |
| <i>w</i> | The line is weakened in the spot spectrum, but the weakening is estimated to be less than 3 units. |
| <i>o</i> | The line is obliterated in the spot spectrum. |
| <i>N</i> | The line is diffuse. |
| <i>NN</i> | The line is very diffuse. |
| <i>d</i> | The line is double. |

The spot spectrum data are taken mostly from the publication entitled *Atomic Lines in the Sun-Spot Spectrum* for the region 3894 Å to 6635 Å [16]. In general, for wavelengths longer than 6635 Å the estimated spot intensities from the 1947 publication [11] have been used. In addition, for a limited number of lines, miscellaneous unpublished notes furnished by H. D. Babcock and some unpublished estimates by C. E. Moore have been used.

It is hoped that the next revision of the solar spectrum will include homogeneous measured equivalent widths for atomic lines in the spot spectrum, derived from high-dispersion spot spectrograms covering the whole range with the *same* spot. This is one of the crying needs in solar spectroscopy today. Difficult as such an observing program is, it would well repay the effort. The spot spectrum contains thousands of lines that have not yet been measured. Many are of molecular origin, but the atomic lines interspersed with these have not yet been fully studied.

2.5 The Identifications: Column Five

The entries in this column consist of both atomic and molecular lines, each of which can be recognized easily from their chemical symbols. The wealth of material collected at The National Bureau of Standards for the program on *Atomic Energy Levels* has been used to revise and extend the identifications of atomic lines. Data were collected for as many atomic spectra as possible, from laboratories engaged in spectroscopy throughout the world. The collaboration of many spectroscopists has made possible the revisions included in this column. For each atomic spectrum, the individual lines arranged by multiplets in order of increasing excitation potential have been examined in making the final identification assignments. The intensity behavior in the spot spectrum as compared with the disk has also been a valuable guide throughout.

For molecular spectra the services of various specialists in molecular spectroscopy have been solicited. These identifications have been made not by coincidence of wavelength alone, but rather by a study of the behavior of the various rotation branches of a given molecular spectrum. The procedure has been similar to that of studying multiplet structure for atomic lines. If the intensities of the solar lines vary consistently with the observed laboratory intensities along the lines of the branch, and the wavelengths are in reasonable agreement, the identifications are considered to be plausible. Further details are discussed in the descriptions of the last three columns of the table. §§ 2.6, 2.7, 2.8.

Several symbols have been used in column five to explain the identifications in some detail. These symbols have the following meanings:

|| Parallel lines preceding the chemical symbol indicate the predominant contributor in the case of a blend.

Example: 4844.022 Å ||Fe I
Ti I

Fe I is the predominant contributor, but Ti I is not completely masked.

| A single vertical line preceding the chemical symbol denotes one of the principal contributors to a blend.

Example: 5247.923 Å |Co I
Cr I

Here Co I is a stronger contributor than Cr I.

In cases where more than one identification is given and no such symbols are used, no choice has been possible as to the leading or predominant contributor.

— A dash is used for blends of three types:

Example: 5041.450 Å —C I

Here it is felt that C I does not account fully for the solar intensity. The dash indicates that the line is probably a blend. It precedes the "C I" because the laboratory wavelength is longer than the solar wavelength. The other unknown contributor(s) may well be a line (or lines) having shorter wavelengths.

Example: 5092.309 Å C₂—

This blend is similar to the one described above, except that the C₂ laboratory wavelength is shorter than the solar wavelength. Other contributors may be on the long-wave side or to the red of the solar line.

Example: 4466.165 Å Cr I—
Fe I

In the case of this blend, the Cr I is on the short-wave side of the solar line and Fe I is to longer waves.

() Parentheses indicate masked lines. Only more important masked lines are entered throughout the solar table. Usually the multiplet evidence indicates that the masked line should be present. The most conspicuous examples occur in the wings of very strong solar lines.

Example: 3933.682 Å Ca II (K)
(Sc I) (V I) (Co I)

? A question mark denotes that the identification is somewhat dubious.

p Chemical symbols followed by "p" indicate identifications based on wavelengths "predicted" from known atomic energy levels. Such lines have mostly not yet been observed in the laboratory, but the multiplet behavior confirms the suggested solar identification.

Example: 4481.031 Å Fe I p

The method of identifying solar lines by prediction is particularly fruitful for a spectrum like Fe I. The solar spectrum still provides more Fe I lines than have as yet been observed in the laboratory. This situation indicates the need for reobserving this complex spectrum with a modern laboratory source, such as an electrodeless discharge. Still more solar identifications of Fe I could be made if the analysis were extended by means of a new homogeneous line list.

2.6 The Low Excitation Potential or Rotation Line: Column Six

This column contains two types of data. For atomic lines, the lower excitation potential of the individual line is tabulated. This excitation potential is that of the lower level involved in the transition giving rise to the laboratory line, expressed in eV. The multiplication factor used to convert cm^{-1} to eV is 0.00012395. This conversion factor has been used throughout to obtain all the ionization potentials listed in the volumes on *Atomic Energy Levels* [27]. The excitation energies listed in this solar table appear slightly larger than those in the 1928 edition, because of the revision in the conversion factor.

For molecular lines, this column has been used to enter the rotation branch and quantum number. For example, the solar line at 4084.327 Å is identified as CH. This line in the laboratory spectrum of CH occurs in the "P" branch and has the quantum number 7, denoted as "P 7" in column six.

2.7 The Multiplet Number or Vibration Band: Column Seven

This is arranged similarly to column six. It contains the multiplet numbers taken from the published Multiplet Tables. These are old multiplet numbers, but since they are well established in the literature, every effort has been made to retain them. In cases where lines have been added to the multiplet, if the multiplet has been assigned a number, that same number is now used for the additional lines. For lines longer than 3000 Å the Multiplet Numbers are from the Princeton University Observatory Contribution No. 20, 1945 [28]. For lines short of 3000 Å, the *Ultraviolet Multiplet Table* has been used, as indicated by "UV" preceding the listed multiplet number [29].

For molecular spectra the vibration bands are indicated in this column. For example, the solar line at 4096.941 Å is identified as CN. This line of CN belongs to the vibration band (1, 2); which is entered in column seven.

2.8 Notes to the Solar-Spectrum Ledger: Column Eight

The numbers in the last column refer to notes that follow the solar ledger (pp. 344 to 349). Most of these are self-explanatory.

Molecular Spectra—Solar Lines

A large number of the notes contain information regarding the molecular lines present in the solar spectrum. Each classified molecular line has a note number. For each molecule all lines having the same electronic transition have the same note number. The note gives the transition, the vibration bands, the spectral range of the individual bands from laboratory spectra, and references used for the material on analysis. Only the bands represented in the present solar ledger are included in the notes.

Molecular Spectra—Atmospheric Lines

For Atm O₂ the limiting range of wavelength is quoted from the paper on analysis by H. D. Babcock and L. Herzberg [14]. A different note number is used for each isotope of O, the electronic transition being the same.

For the classified lines of atmospheric water vapor, Atm H₂O, the limiting spectral range quoted in the notes is taken from the solar table itself. No attempt has been made to include a detailed picture of this complex molecule. In general, the identifications of atmospheric lines have been taken from the 1928 [3] and 1947 [11] tables. This has been supplemented by unpublished data from W. S. Benedict, who has made a most exhaustive study of the bands and has kindly furnished his analysis for use here.

Unclassified atmospheric lines are entered as "Atm", although they are probably due to the water vapor molecule.

A summary of the notes referring to molecular lines is given in Table 7:

Table 7. Notes on Molecular Lines in the Solar-Spectrum Ledger

Note Number	Molecule	Note Number	Molecule	Note Number	Molecule
1	OH	11	CN (blue)	22	Atm O ₂ O ¹⁶ O ¹⁶
2	CH	12	CN (red)	23	Atm O ₂ O ¹⁶ O ¹⁷
3	CH	19	C ₂	24	Atm O ₂ O ¹⁶ O ¹⁸
4	CH	20	MgH	26	Atm H ₂ O
6	NH				

Selected Lists of Solar Lines

Six notes give solar wavelengths of lines that are in special categories (notes 5, 7, 8, 15, 18, 27). Three refer to pairs of lines: (1) formerly listed as double, but recorded here as single (note 7); (2) lines that may be double but are still unresolved (notes 15 and 18).

There are 223 atomic lines appearing only in the sun-spot spectrum. These are included in the main ledger and listed separately in note 13. They can be detected readily by the absence of equivalent width data in columns two and three. Numerous spot lines recorded in the 1932 survey [15, 16] have since been detected on the Atlas spectrograms as present, also, in the disk spectrum, which explains their absence from the listing in note 13 as compared with the 1932 listing [16].

In selecting the atomic lines in the sun-spot spectrum from the appearance of the Zeeman effect, many cases were noted in which it was difficult to separate atomic from molecular lines with certainty. In cases where the spot line is possibly a molecular line, note 16 is entered. Definite blends of atomic and molecular lines in the spot spectrum are indicated by note 17.

Laboratory Wavelengths in the Table

Laboratory wavelengths have been used for higher members of the Balmer and Paschen series of hydrogen, because of the diffuseness of these lines in the solar spectrum. The Balmer lines from H_8 through H_{17} are listed

in note 10; and the Paschen lines from n equals 12 through 18, in note 31.

Seven notes contain special comments concerning the data on widths of lines: (notes 9, 14, 21, 28, 29, 30, 32).

The only "forbidden" lines entered in the table are those of [O I] reported by Bowen in 1948 (note 25).

3. General Results

In August 1963 an International Symposium on the Solar Spectrum was held in Utrecht. One paper on this program dealt with the present revision of the solar spectrum, and gave a general account of this solar program [30]. Since that date a new summary of the data included in the table, has been prepared.

3.1 Number of Lines

It is interesting to compare the approximate counts of lines in the present revision with similar counts from the 1928 edition. The 1963 summary [30] has been revised and extended in Table 8. Short of 3061 Å and long of 6600 Å, new observations replace those of Rowland. The counts have been made by regions in order to emphasize the comparison over the long interval from 3061 Å

to 6600 Å, where the Rowland Table has not yet been superseded.

Separate counts have not been made for the 223 atomic spot lines in the various categories: unblended, blended, and unidentified. They are included in the overall counts of lines recorded in Table 8. With the aid of note 13 the spot lines can be easily segregated and counted.

The last three columns of Table 8 answer a question that has been persistent over the years, namely, the reality of the faintest Rowland lines. Rowland's Table started at 2975 Å; consequently the counts of new lines short of this wavelength are handled separately. A glance at the last column of this Table indicates an important trend. It seems extremely evident that many more faint solar lines remain to be found and that the rejections of those now recorded will be on the decrease.

Table 8. Counts of Lines in the Solar Ledger

Range (Å)	Unblended	Blended	Unidentified	Total	Percentage Identified	Range (Å)	New Lines Added	Rowland Lines Rejected	Difference
1966 Edition									
2935 to 3061	389	114	153	656	77	{ 2935 to 2975 } { 2975 to 3061 }	142	37	+43
							80		
3061 to 4000	4509	1138	1786	7433	76		165	50	+115
4000 to 5000	3327	697	2143	6157	65		430	76	+354
5000 to 6600	3372	380	1830	5582	67		604	346	+258
6600 to 7330	1306	163	356	1825	80				
7330 to 8770	1699	303	312	2314	87				
2935 to 8770	14602	2795	6580	23977	73				
3061 to 6600	11208	2215	5759	19182	70		1199	472	+727
1928 Edition									
2975 to 3061	186	49	236	471	50				
3061 to 4000	3527	933	2868	7328	61				
4000 to 5000	2440	533	2764	5737	52				
5000 to 6600	2725	235	2280	5240	56				
6600 to 7330	695	48	504	1247	60				
2975 to 7330	9573	1798	8652	20023	57				
3061 to 6600	8692	1701	7912	18305	57				

The strongest unidentified lines are listed in Table 9. The limiting intensities are 2 on the scale of eye estimates ($<3061 \text{ \AA}$). To longer waves the selection is quite arbitrary, since both the measured equivalent width in column two and the reduced width in column three have been used as guides. The total number listed is 241.

3.2 Atoms and Ions in the Sun

In 1941, W. F. Meggers published tables of leading lines in first and second spectra [31]. These tables have been invaluable for astrophysicists. They have been quoted for the *Ultimate Lines* of individual spectra in both the Princeton and the Ultraviolet Multiplet Tables [28], [29]. Since 1941 our knowledge of atomic spectra has increased steadily, and some of the material in these tables has been superseded. Pending the publication of a complete revision containing the designations and a current bibliography for the "Raies Ultimes", the leading lines from his tables, with some revisions and extensions, are given in Table 10 with the low excitation potential of the transition giving rise to the line. Wavelengths in vacuo are denoted by "v" in columns three and nine. All other wavelengths are in air. Laboratory data are in columns three and four for first spectra, and nine and ten for second spectra. The laboratory lines are observed in emission. These are followed by solar data. Some *raies ultimes* short of 3000 \AA are strong solar lines, as, for example, Lyman α of H I at 1215 \AA . In Table 10, however, the solar material is limited to the range of the present volume, 2935 \AA to 8770 \AA , all of which is an absorption spectrum. Special notes refer to spectra whose lines are known in solar, spot, or chromospheric spectra, particularly in cases where the lines occur beyond the above ranges.

Many absences can be explained from a glance at Table 10. For the less abundant elements having their ultimate lines in the far ultraviolet, the search for the element should be made in the ultraviolet solar spectrum. The accessible lines have high excitation potentials, which is unfavorable for their appearance. This was pointed out by H. N. Russell in 1929 [32], as was, also, the greater abundance of elements having even atomic numbers.

3.3 Molecules in the Sun

A general survey of this subject was presented by H. P. Broida and C. E. Moore at a symposium in Liège in 1957 [33]. They prepared tables giving counts of the lines of the various bands of CH, OH, and CN present in the sun [34]. Two subsequent papers give the detailed identifications of CH [34] and OH [35] in the solar ledger. A later summary of the solar lines of molecular origin, in the range of the present ledger, was given in Utrecht in 1963 [30]. In 1964 the general question of *Molecules in the Sun*, including spot spectra and the infrared solar spectrum was discussed at the Florence symposium

honoring Galileo [36]. To this should be added the recent identification by L. Goldberg and his associates [37] of CO in the solar spectrum near 1600 \AA . The molecules identified to date from a detailed study of the laboratory observations and analysis are listed briefly in Table 11 [36].

The present identifications of C_2 can be extended when the Berkeley Monograph on this molecule has been completed. Further study is also needed on SiH; this molecule may be present in the disk spectrum.

3.4 Summary of Identifications

It is well known that some spectra, like Fe I, are well represented in the sun. This laboratory spectrum can be matched line for line in both position and relative intensity with a solar line. Other less abundant elements have only their leading lines present in the sun, as, for example Ag I. In order to summarize the present identifications, counts have been made of the number of lines of each spectrum contained in this compendium. These are recorded in Table 12. The spectra are in order of increasing atomic number. The counts are by regions, and the blended and unblended lines in the solar spectrum have been counted separately. Blended lines are solar lines having more than one contributor to the identification, as, for example:

4046.341 Å Ce II
 V II

4043.768 Å —Ti I

Masked lines, entered in parentheses in the ledger, are not included in the counts. Lines whose identifications are subject to question are counted in with the others. Counts for spot lines are included.

Finally, a condensed summary of all elements present in the sun is contained in Table 13. The results given here are based on material over the entire spectral range, i.e. from the far ultraviolet solar spectrum to the infrared. In preparing Table 13 one of the authors (C.E.M.) has had the benefit of communication with R. Tousey regarding identifications in the short-wave region. The notes to Tables 10 and 13 indicate cases where the evidence rests upon observations beyond the range of the present work.

There are 63 elements proven as present without doubt in the sun. Of these, the spectroscopic evidence is least certain for Os and Ir, but the data from the accessible region are more favorable for these elements than for the two elements (Tb and Er) listed as dubiously present. Both Au and Cd were formerly identified from one line each, in the accessible region. R. Tousey [38] reports additional confirmation for these elements from the presence of the *raies ultimes* in the short-wave region. The *raie ultime* of Pt I is also present [38]. One element, Ne, was first detected from the ultraviolet rocket solar spectrum, where the resonance lines of Ne VIII near 780 \AA , were identified [38]. The element Ar was first found

Table 9. The Strongest Unidentified Solar Lines

Wave-length	Estimated Intensity	Wave-length	Equiv- alent Width	Reduced Width	Wave-length	Equiv- alent Width	Reduced Width	Wave-length	Equiv- alent Width	Reduced Width	
2942. 85	[5d ²]	3088. 188	64	34. 0	3618. 523	12	20. 2	3935. 216	6	22. 4	
2975. 038	[2]	3088. 355	101	32. 7	3618. 999	31	43. 2	3937. 974	28	28. 8	
2984. 574	[2]	3088. 752	105	54. 2	3619. 114	12	21. 8	3947. 693	45	21. 6	
2987. 052	[2]	3089. 505	66	21. 5	3621. 105	84	25. 3	3965. 930	25	30. 2	
2990. 876	[2]	3091. 693	45	32. 0	3631. 265	35	45. 4	3967. 636	7	26. 4	
2991. 774	[4]	3091. 876	96	31. 2	3631. 586	10	31. 2	3967. 859	7. 5	29. 5	
2993. 798	[4]	3092. 473	63	29. 2	3634. 412	36	22. 8	3968. 715	3	20. 6	
2995. 494	[2]	3097. 785	66	23. 5	3638. 104	78**	21. 1	3968. 936	6	37. 2	
2996. 849	[2]	3099. 790	44	47. 2	3648. 082	24	34. 5	4001. 163	127**	27. 2	
2997. 222	[2N]	3101. 417	88	47. 4	3649. 837	75	26. 7	4004. 915	72. 5	24. 1	
2998. 152	[2]	3101. 694	97	77. 4	3688. 804	72	24. 6	4005. 072	52	26. 5	
2998. 966	[2]	3101. 974	45	26. 2	3730. 308	38	21. 7	4007. 926	68	17. 0	
3000. 339	[2]	3113. 838	66	21. 1	3735. 118	6. 5	42. 8	4009. 146	53	13. 2	
3001. 791	[3]	3119. 198	77	24. 8	3735. 244	14	56. 0	4015. 611	88	21. 9	
3006. 573	[4d]	3130. 631	63	32. 7	3736. 712	12	29. 2	4017. 573	74	18. 4	
3007. 96	[3NN]	3148. 900	67	21. 4	3737. 032	10	67. 0	4020. 272	107**	18. 2	
3008. 470	[3]	3152. 000	75	23. 8	3737. 299	4. 5	31. 6	4025. 823	64	15. 2	
3016. 872	[3]	3179. 166	73	45. 4	3743. 218	25	22. 2	4033. 588	46	11. 4	
3017. 418	[3]	3183. 05	47	22. 6	3745. 349	(68)#	(72. 5)#	4045. 715	7. 5	13. 3	
3017. 854	[2]	3186. 86	98	43. 0	3749. 244	46	103	4045. 968	14	23. 0	
3023. 068	[3]	3186. 964	64	28. 7	3749. 365	4	31. 2	4063. 789	19	18. 7	
3024. 242	[2]	3196. 195	33	21. 3	3749. 740	15	33. 4	4066. 120	48	10. 8	
3024. 802	[3]	3196. 835	48	30. 4	3749. 850	7. 5	22. 7	4132. 711	40	10. 2	
3027. 016	[2]	3199. 662	55	21. 4	3757. 959	29	37. 2	4146. 990	45	10. 8	
3027. 699	[2]	3205. 223	66	25. 2	3758. 437	15	38. 6	4167. 722	44	10. 6	
3028. 869	[2]	3211. 634	73	40. 6	3763. 008	53	21. 2	4181. 974	93	22. 2	
3029. 000	[2N]	3215. 844	69	21. 5	3763. 979	16	33. 8	4219. 199	42	10. 0	
3029. 990	[3]	3222. 944	24	25. 3	3766. 968	24	27. 5	4226. 970	45	55. 8	
3034. 60	[3]	3225. 712	33	57. 7	3767. 081	7	23. 9	4227. 321	44	28. 9	
3037. 23	[3]	3227. 631	46	38. 3	3767. 356	18	34. 5	4231. 954	45	10. 6	
3040. 761	[2]	3281. 716	70	21. 5	3780. 706	110	36. 2	4299. 831	93	21. 6	
3041. 038	[2]	3286. 628	41	31. 0	3792. 686	121**	36. 0	4300. 744	33	11. 8	
3044. 228	[2N]	3289. 027	48	33. 8	3794. 887	14	24. 0	4302. 65	43	19. 5	
3051. 04	[3]	3305. 864	44	24. 5	3795. 155	547**	20. 6	4308. 289	31	12. 8	
3053. 744	[2]	3306. 093	65	27. 3	3796. 803	33	26. 0	4337. 252	46	12. 2	
3057. 963	[3]	3315. 420	74	34. 3	3815. 328	27	21. 7	4393. 284	46	10. 5	
3058. 706	[3]	3335. 923	50	21. 6	3815. 617	38	58. 7	4401. 022	58	13. 2	
3060. 773	[2]	3336. 831	32	41. 3	3820. 056	27	41. 6	4403. 187	62	14. 5	
Wave-length	Equiv- alent Width	Reduced Width	3344. 936	70	21. 1	3820. 196	13	43. 7	4518. 342	40	10. 0
			3349. 266	19	27. 7	3824. 573	84	97. 5	4599. 843	56	12. 2
3062. 83	55	21. 5	3360. 351	36	22. 9	3826. 026	7	26. 9	4672. 334	56	12. 0
3064. 015	147	48. 0	3369. 665	33	77. 1	3827. 692	6. 5	21. 9	4678. 172	62	13. 2
3064. 515	65	21. 2	3380. 313	76	43. 4	3828. 019	24	33. 9	4699. 340	64	13. 6
3064. 829	80	26. 2	3391. 107	36	31. 9	3829. 250	10	32. 4	4748. 141	78	16. 4
3068. 476	75	24. 6	3392. 894	17	26. 2	3832. 510	9. 5	27. 6	4771. 472	70	14. 7
3069. 334	57	20. 4	3414. 511	53	34. 2	3834. 10	20	43. 1	4971. 351	55	11. 1
3074. 07	82	30. 3	3414. 918	49	157	3836. 920	34	20. 8	5053. 577	50	9. 9
3075. 035	50	24. 7	3415. 098	15	24. 9	3838. 208	3	23. 5	5271. 054	31	5. 9
3075. 455	39	22. 6	3440. 099	25	22. 1	3840. 303	12	25. 0	5298. 497	65**	11. 9
3075. 595	78	49. 0	3440. 192	26	31. 0	3840. 583	26	40. 4	5341. 151	180**	10. 2
3078. 915	52	21. 4	3442. 148	34	20. 5	3841. 190	14	25. 5	5390. 527	30	5. 6
3079. 105	78	25. 5	3458. 594	32	37. 6	3859. 400	39	32. 6	5418. 775	49	8. 7
3080. 877	65	27. 8	3461. 796	32	30. 9	3859. 741	20	45. 8	5421. 178	44	8. 1
3081. 725	120	39. 0	3466. 002	24	22. 5	3881. 980	56	31. 2	5654. 501	75	13. 3
3082. 38	64	24. 5	3475. 519	22	74. 0	3884. 292	66**	23. 4	6020. 016	49	8. 1
3083. 850	40	24. 0	3492. 369	60	21. 5	3903. 854	224**	25. 0	6299. 588	36	5. 7
3085. 043	64	20. 7	3492. 815	23	20. 2	3911. 989	76	25. 6	6449. 127	34	5. 3
3085. 395	58	23. 5	3504. 684	70	20. 0	3921. 187	59	24. 0	7032. 319	33	4. 1
3085. 720	79	25. 6	3505. 294	92	26. 2	3927. 797	42	41. 7	7375. 251	45	6. 1
3086. 988	161	52. 2	3524. 358	16	24. 6	3929. 357	24	27. 7	7435. 584	32	4. 3
3087. 693	58	25. 3	3610. 508	250**	42. 6	3930. 150	26	40. 8			

**Blend.

#Parentheses indicate that the equivalent width could not be measured directly. See p. XVI.

as [Ar x] in the coronal spectrum. The only radioactive element known to be present is Th; here the *raie ultime* of Th II provides the only evidence.

Two elements, Tb and Er, are listed as questionably present. For both Tb II and Er II, the behavior of the lines in the flash spectrum as having the rare-earth characteristic described by Menzel [40], has been a guiding factor in assigning identifications.

No positive statement can be made about the four elements in the category "Further study needed". The presence of BH has been reported, but further data are needed [33]. The strongest lines of B I lie near 2500 Å. Because of blending they can neither be clearly identified nor ruled out as definitely absent [38].

Sixteen elements are listed as absent on the basis of

spectroscopic study. Two, Tc and Ta, have been added to this group as a result of additional solar observations. R. Tousey finds no evidence of the presence of the leading Tc II multiplet near 2600 Å. The strong Ta I line at 2714 Å is masked and other strong lines are absent [38].

Further laboratory work on the lanthanon group of rare earths may add to line identifications in spectra of elements known to be present, and may increase the number of rare-earth elements present. The third spectra of these elements extend into the infrared and may well be of astrophysical importance. Only one third spectrum is mentioned in the present table, namely Ce III. In this spectrum the strongest accessible line is at 3055.589 Å, and it may explain the chemical origin of the faint solar line observed at 3055.594 Å.

Table 10. Leading Lines in First and Second Spectra

Z	Laboratory			Sun-Present Volume			Laboratory			Sun-Present Volume		
	Sp	λ (Å)	Low E P	λ (Å)	Reduced Width	Low E P	Sp	λ (Å)	Low E P	λ (Å)	Reduced Width	Low E P
1	H I	1215.668v ^A	0.00	6562.808	649	10.20						
2	He I	584.334v ^A	0.00				⁴ He II	303.780v ^A	0.00			
3	Li I	6707.761	0.00	6707.76 \blacktriangle	0.2	0.00	Li II	199.282v	0.00			
4	Be I	2348.610	0.00	3321.352	2.7	2.72	Be II	3130.420	0.00	3130.414	27.3	0.00
5	B I	2497.725	0.00				B II	1362.460v	0.00			
6	C I	1657.008v	0.01	8335.150	13.7	7.68	C II	1335.708v	0.01			
7	N I	1134.979v	0.00	8683.384	0.9	10.33	N II	1085.701v	0.02			
8	O I	1302.169v	0.00	7771.954	9.4	9.14	O II	834.467v	0.00			
9	F I	924.825v	0.00				F II	606.81 v	0.00			
10	Ne I	735.892v	0.00				Ne II	460.725v	0.00			
11	Na I	5889.953	0.00	5889.973	120	0.00	Na II	372.069v	0.00			
12	Mg I	2852.127	0.00	3838.302	641	$\left. \begin{matrix} 2.72 \\ 2.72 \end{matrix} \right\}$	Mg II	2795.528	0.00	4481.140	14.3	8.86
13	Al I	3961.520	0.01	3961.535	220	0.01	Al II	1670.786v	0.00	3900.660?	7.1	7.42
14	Si I	2516.112	0.03	3905.532	219	1.91	Si II	1533.445v	0.04	3856.026	26.0	6.86
15	P I	1774.942v \square	0.00				P II	1542.321v	0.06			
16	S I	1807.341v	0.00	8694.641	3.9	7.87	S II	1259.53 v	0.00			
17	Cl I	1347.238v	0.00				Cl II	1071.036v	0.00			
18	Ar I	1048.219v	0.00				Ar II	919.782v	0.00			
19	K I	7664.899	0.00	7698.977	19.4	0.00	K II	600.765v	0.00			
20	Ca I	4226.728	0.00	4226.740	342	0.00	Ca II	3933.663	0.00	3933.682	(4874)	0.00
21	Sc I	3911.810	0.02	3911.825	18.2	0.02	Sc II	3613.836	0.02	$\left. \begin{matrix} 3613.809 \\ 3613.881 \end{matrix} \right\}$	$\left. \begin{matrix} 29.6 \\ 29.6 \end{matrix} \right\}$	0.02
22	Ti I	3653.497	0.05	3729.813	39.4	0.00	Ti II	3349.399	0.05	3349.447	163	0.05
23	V I	3185.396	0.07	3185.388	38.8	0.07	V II	3093.108	0.39	3556.803	55.7	1.13
24	Cr I	3578.682	0.00	3578.693	142	0.00	Cr II	2055.59	0.00	3368.058	56.3	2.48
25	Mn I	4030.755	0.00	4030.763	75.2	0.00	Mn II	2576.106	0.00	3441.982	107	1.78

Table 10. Leading Lines in First and Second Spectra—Continued

Z	Laboratory			Sun-Present Volume			Laboratory			Sun-Present Volume		
	Sp	λ (\AA)	Low E P	λ (\AA)	Reduced Width	Low E P	Sp	λ (\AA)	Low E P	λ (\AA)	Reduced Width	Low E P
26	Fe I	3719.934	0.00	3734.874	945	0.86	Fe II	2382.034	0.00	3196.106	76.7	1.67
27	Co I	3453.516	0.43	3453.512	87.9	0.43	Co II	2286.165	0.42	3387.718	15.2	2.27
28	Ni I	3414.764	0.03	3524.536	363	0.03	Ni II	1751.914v	0.00	3407.314	26.0	3.08
29	Cu I	3247.538	0.00	3247.569	76.0	0.00	Cu II	1358.764v	0.00			
30	Zn I	2138.56	0.00	3345.024	21.4	4.08	Zn II	2025.512	0.00			
31	Ga I	4172.056	0.10	4172.053	13.9	0.10	Ga II	1414.44 v	0.00			
32	Ge I	2094.258	0.17	4226.568	53.2	2.03	Ge II	1649.192v	0.22			
33	As I	1890.42v	0.00				As II	1266.36 v	0.31			
34	Se I	1960.901v	0.00				Se II	1192.29 v	0.00			
35	Br I	1488.452v	0.00				Br II	1036.983v	0.00			
36	Kr I	1164.868v	0.00				Kr II	917.434v	0.00			
37	Rb I	7800.227	0.00	7800.29 \blacktriangle	0.6	0.00	Rb II	697.04 v	0.00			
38	Sr I	4607.331	0.00	4607.338	7.8	0.00	Sr II	4077.714	0.00	4077.724	100	0.00
39	Y I	4102.38	0.07	3620.971	8.2	0.07	Y II	3710.30	0.18	3664.623	31.4	0.18
40	Zr I	3601.18	0.15	3575.765	9.5	0.07	Zr II	3391.96	0.16	3165.958	26.7	0.16
41	Nb I	4058.933	0.13	3802.959	7.1?	0.09	Nb II	3094.172	0.51	3619.536	17.0	0.98
42	Mo I	3798.249	0.00	5533.039	1.3	1.33	Mo II	2020.32	0.00	3320.915	2.6	3.11
43	Tc I	3636.070	0.32				Tc II	2543.227	0.00			
44	Ru I	3498.944	0.00	3728.042	20.0	0.00	Ru II	1574.337v	0.00	3177.080	4.6	2.40
45	Rh I	3434.893	0.00	3434.896	3.6	0.00	Rh II	1607.86 v	0.00	3187.899	4.2	3.45
46	Pd I	3404.580	0.81	3404.584	10.6	0.81	Pd II	1363.76 v	0.00			
47	Ag I	3280.682	0.00	3280.681	15.3	0.00	Ag II	1112.46 v	0.00			
48	Cd I	2288.018	0.00	3261.065	7.0	0.00	Cd II	2144.408	0.00			
49	In I	4511.323	0.27	4511.31 \blacktriangle	0.4	0.27	In II	1586.37 v	0.00			
50	Sn I	2839.99	0.42	3801.025	2.5	1.07	Sn II	1899.890v	0.53			
51	Sb I	2068.33	0.00	3267.539	3.5	2.03	Sb II	1438.11 v	0.00			
52	Te I	2142.75	0.00				Te II	1404.65 v	0.00			
53	I I	1782.758v	0.00				I II	1220.887v	0.00			
54	Xe I	1295.587v	0.00				Xe II	1100.432v	0.00			
55	Cs I	8521.133	0.00				Cs II	813.85 v	0.00			
56	Ba I	5535.484	0.00	5535.51 \boxtimes		0.00	Ba II	4554.033	0.00	4554.036	36.7	0.00
57	La I	6249.929	0.51	6249.91	0.1	0.51	La II	3949.10	0.40	3794.773	34.3	0.24
58	Ce I	5699.226					Ce II	4186.599	0.86	3560.802	13.7	0.68
59	Pr I	4951.355	0.00				Pr II	4100.746	0.55	3994.810	3.9	0.05
60	Nd I	4924.516	0.00				Nd II	4303.573	0.00	4303.595	15.1	0.00
61	Pm I	4781.291	0.00				Pm II	3998.961				
62	Sm I	4296.743	0.50				Sm II	3568.271	0.48	3735.964	18.0	0.28

Table 10. Leading Lines in First and Second Spectra—Continued

Z	Laboratory			Sun-Present Volume			Laboratory			Sun-Present Volume		
	Sp	λ (\AA)	Low E P	λ (\AA)	Reduced Width	Low E P	Sp	λ (\AA)	Low E P	λ (\AA)	Reduced Width	Low E P
63	Eu I	4594.03	0.00	4627.221▲	0.9	0.00	Eu II	3819.67	0.00	3819.688	28.2	0.00
64	Gd I	4225.850	0.21				Gd II	3422.466	0.24	3100.524	69.6 ?	0.24
65	Tb I						Tb II			3568.55 ? ^	1.8	
66	Dy I						Dy II			3407.805	18.8	0.00
67	Ho I						Ho II					
68	Er I	4007.97	0.00				Er II			3896.248 ?	8.7	0.05
69	Tm I	4094.188	0.00	4094.20 ?	0.9	0.00	Tm II	3848.02	0.00	3462.213	4.0	0.00
70	Yb I	3987.98	0.00	3987.966▲	5.0	0.00	Yb II	3694.19	0.00	3694.199	25.6	0.00
71	Lu I	3359.56	0.25				Lu II	2615.42	0.00	3397.062	12.1	1.46
72	Hf I	2916.48	0.57	3616.878	0.1	0.29	Hf II	3399.793	0.00	3505.232	8.3	1.04
73	Ta I	2714.66	0.00				Ta II	2400.62	0.77			
74	W I	4008.753	0.37	3207.248	4.0	0.37	W II	2204.482	0.76			
75	Re I	3460.465	0.00				Re II	1973.13 v	0.00			
76	Os I	2909.061	0.00	3232.076	5.8	0.52	Os II					
77	Ir I	2543.971	0.35	3220.775	10.5	0.35	Ir II					
78	Pt I	2659.454	0.00	3064.713	53.6 ?	0.00	Pt II	1777.086v	0.59			
79	Au I	2427.95	0.00	3122.784 ?	1.6	1.14	Au II	1224.57 v	0.00			
80	Hg I	1849.499v	0.00				Hg II	1649.939v	0.00			
81	Tl I	3519.24	0.97				Tl II	1321.71 v	0.00			
82	Pb I	2833.067	0.00	3683.480	3.9	0.97	Pb II	1682.15 v	0.00			
83	Bi I	3067.732	0.00				Bi II	1436.83 v	0.00			
84	Po I	2450.11	0.00				Po II					
85	At I	2244.01	0.00				At II					
86	Rn I	1786.07 v	0.00				Rn II					
87	Fr I						Fr II					
88	Ra I	4825.91	0.00				Ra II	3814.42	0.00			
89	Ac I	4179.98	0.00				Ac II	4507.20	0.00			
90	Th I	3719.435	0.00				Th II	4019.129	0.00	4019.136	2.1	0.00
91	Pa I						Pa II					
92	U I	3584.88	0.00				U II	3859.580	0.04			

△ Prominent in the ultraviolet region of the solar spectrum. Lines of He I and He II conspicuous in the spectrum of the chromosphere.

▲ Prominent in the sun-spot spectrum.

□ First identified in the sun from strong lines near $\lambda 10500$.

☒ Present only in the spot spectrum.

^ Identification doubtful; Tb II lines may account for some lines observed in the spectrum of the chromosphere.

Table 11. Molecules in the Sun—Summary

Spectrum	Molecule											Number	
Disk	OH	CH	NH	C ₂	CN	CO	MgH						7
Spot		CH		C ₂	CN		MgH	CaH	SiH	TiO	ZrO		8
Disk and Spot		CH		C ₂	CN		MgH						4
Total No.	represented from detailed study of lines											11	
Total No.	reported prior to 1964											28	

Table 12. Counts of Lines of Individual Spectra in the Solar Ledger

Range (Å) →	2935 to 3061		3061 to 4000		4000 to 5000		5000 to 6600		6600 to 7330		7330 to 8770		2935 to 8770	
	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended
H			11		3		1				4		19	
Li I									2				2	
Be I			1	2									1	2
Be II			2										2	
C I	1	1	1		9	2	16	3	15	5	10	5	52	16
N I											9	4	9	4
O I			2				5	1	1	1	4	2	12	4
Na I			2		12	3	8				2		24	3
Mg I		2	17	2	12		9	1	5	1	24	4	67	10
Mg II	1		2		2		2				2	1	7	1
Al I	2	1	5	3			1	1	4	1	5	2	17	8
Al II			1										1	
Si I	4		1		24	4	50	13	33	6	64	25	176	48
Si II			2	1		1	3						5	2
P I									1	1		1	1	2
S I					4		5	4	5	2	13	5	27	11
K I				1	2		6	1	1		1	1	10	3
Ca I	4	1	39	17	34	5	47	3	6	1	6	5	136	32
Ca II			7		2	1	5	1			5	1	19	3
Sc I	1	3	4	2	13	6	33	7					51	18
Sc II	2	1	18	12	14	5	19	2	1				54	20
Ti I	6	9	141	84	275	98	231	31	23	10	61	27	737	259
Ti II	9	10	140	72	70	24	16	4	2		1		237	111
V I	18	7	71	65	128	57	99	14	9	1	7	5	332	149
V II	30	21	110	78	29	21	14	7					183	127
Cr I	32	8	211	115	346	126	180	39	25	5	15	9	809	302
Cr II	37	11	125	83	38	16	27	5					227	115
Mn I	16	7	94	42	79	20	31	11	3	1	8		231	81
Mn II	10	7	18	2	3	2							31	11
Fe I	114	50	1517	394	1075	241	869	135	237	54	214	63	4026	937
Fe II	33	25	150	79	76	16	73	23	5	3	7	5	344	151
Co I	14	7	277	127	91	32	95	23	12	3	19	10	508	202
Co II			15	7	2								17	7
Ni I	19	3	220	72	167	60	172	25	40	9	42	6	660	175
Ni II	1	1	10	6	3								14	7

Table 12. Counts of Lines of Individual Spectra in the Solar Ledger—Continued

Range (Å)	2935 to 3061		3061 to 4000		4000 to 5000		5000 to 6600		6600 to 7330		7330 to 8770		2935 to 8770	
Sp. ↓	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended
Cu I	2	2	4	1	5		6				2		19	3
Zn I			4	2	5		1						10	2
Ga I					1	1							1	1
Ge I	1		1	1	1	1							3	2
Rb I											2		2	
Sr I			2	2	9		6		2				19	2
Sr II			1	2	3	1							4	3
Y I			1	1	19	3	7	6	1	2			28	12
Y II	2		25	15	12	4	11	6	4	1	1		55	26
Zr I	1	3	16	20	35	14	27	4	6	1	7	5	92	47
Zr II	12	9	109	54	30	24	5	3	1	1		1	157	92
Nb I			4	1	6	2	1					1	11	4
Nb II	3		13	8		1							16	9
Mo I			2	4	8	2	5	1					15	7
Mo II	1		7	2	1	1							9	3
Ru I			12	5	10	3	1	1					23	9
Ru II			2	8	1	1							3	9
Rh I	1		13	2		3	1						15	5
Rh II	1		2	2									3	2
Pd I		1	7	6	1								8	7
Ag I			2										2	
Cd I			1										1	
In I					1								1	
Sn I	1		1	1									2	1
Sb I			2										2	
Ba I							2						2	
Ba II			1		4		2	1					7	1
La I							1						1	
La II			12	6	16	15	10	3	1				39	24
Ce II	2		36	32	49	32	13	2					100	66
Ce III	1												1	
Pr II			3	3	4	3	6						13	6
Nd II			18	14	26	14	24	6					68	34
Sm II			39	31	44	16	1		1		1		85	48
Eu I					2								2	
Eu II		1	6	4	3		1	1	1				11	6
Gd II	4	1	25	11	9	8	1				1		39	21
Tb II			3	1	1								4	1
Dy II			31	13	4	3	3			1	1		39	17
Er II			1										1	
Tm I					2								2	
Tm II			6	3		1	1						7	4
Yb I			1										1	1
Yb II			1	1				1					1	1

Table 12. Counts of Lines of Individual Spectra in the Solar Ledger—Continued

Range (Å) →	2935 to 3061		3061 to 4000		4000 to 5000		5000 to 6600		6600 to 7330		7330 to 8770		2935 to 8770	
	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended	Un-blended	Blended
Lu II			1	2									1	2
Hf I			2							2			2	2
Hf II			11	4	2		1						14	4
W I		2	4	3	2	2	2						8	7
Os I		1	3	1	1	1							4	3
Ir I			4	2	3	1							7	3
Pt I	1		1	3							1		3	3
Au I			1										1	
Pb I			1			1							1	1
Th II					1								1	
CH			100	102	304	214							404	316
CN			428	207	88	62	18	12	105	35	396	221	1035	537
C ₂					99	18	348	90					447	108
NH			159	106									159	106
MgH					2		81	31					83	31
OH	4		164	127									168	127
Atm							283	53	186	45	106	46	575	144
Atm H ₂ O							407	44	410	84	439	93	1256	221
Atm O ₂							81	8	158	11	222	3	461	22
Total	391	195	4507	2079	3327	1192	3372	627	1306	287	1699	554	14602	4934
Total	586		6586		4519		3999		1593		2253		19536	

Table 13. Chemical Elements in the Sun

Classification	Element															No.
Present	H	He	Li	Be	C	N	O	Ne ¹	Na	Mg	Al	Si	P	S	Ar ²	63
	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	Rb	
	Sr	Y	Zr	Nb	Mo	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Ba	La	
	Ce	Pr	Nd	Sm	Eu	Gd	Dy	Tm	Yb	Lu	Hf	W	Os	Ir	Pt	
	Au	Pb	Th													
Present ?	Tb	Er													2	
Further study needed	B ³	As	Ho	Hg											4	
Absent	F ⁴	Cl	Se	Br	Kr	Tc	Te	I							16	
	Xe	Cs	Ta	Re	Tl	Bi	Ra	U								
Not to be expected	Remaining radioactive elements															

¹ Evidence based on discovery of Ne VIII and Ne VII in the UV spectrum [38].

² Evidence based on discovery of [Ar X] in the coronal spectrum [39].

³ BH has been reported as present, but further evidence is needed [33].

⁴ No atomic lines present. MgF has been reported as present but further evidence is needed [33].

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5. The Solar Spectrum Ledger

5.1 Letters, Symbols, and Special Signs

For ready reference the letters and symbols used in this ledger are listed below with brief descriptions. They are explained fully in the text.

Wavelengths: Column one (see Table 5, p. VIII)

S	Standard Wavelength
m	Measured lines; not taken from Rowland's Table.
r	Wavelength from Rowland's Table (corrected to 1928 scale).
a	Wavelengths from Atlas Recordings and Atlas Spectrograms.

Equivalent and Reduced Widths: Columns two and three (see p. XVI)

——— Horizontal separation indicating overlap between successive plates in region where telluric lines occur.

⊆	Unresolved blend; equivalent width refers to the total blend.
5	Partial blend with adjacent faint lines; equivalent width refers to the line alone.
}	Lines not analyzed in column two. Equivalent width relates to the blend as a whole.
<i>δ</i>	The reduced width, when entered in italics, is the weighted mean of Utrecht measurements and of those by other observers.
()	Equivalent width not directly measured; derived by interpolation, from multiplets, or from Rowland's estimated intensities.

== On page 78 the discontinuity in the Balmer continuum near 3646 Å is thus indicated.

Behavior in Sunspots: Column four (see p. XVII)

<i>S</i>	The line is greatly strengthened.
<i>s</i>	The line is strengthened.
<i>u</i>	The line is unchanged in intensity.
<i>W</i>	The line is greatly weakened.
<i>w</i>	The line is weakened.
<i>o</i>	The line is obliterated.
<i>N</i>	The line is diffuse.
<i>NN</i>	The line is very diffuse.
<i>d</i>	The line is double.

The Identifications: Column five (see p. XVIII)

	Predominant contributor to a blend.
	Principal contributor to a blend.
—	In case of blends the dash indicates whether the contributor is on the short- or the long-wave side of the solar line; or whether the solar line has been completely identified.
()	Masked lines.
p	Identification based on predicted laboratory wavelength.

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NATIONAL BUREAU OF STANDARDS
UTRECHT OBSERVATORY
JANUARY 6, 1966.

The Solar Spectrum

Wave-length (Å)	Estimated Intensity	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Estimated Intensity	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
2935.9	[5?]		V I— Fe II	0.04 4.15	UV3 UV323		2948.44	[-1]		Fe I	2.73	UV166	
2936.20	[5?]		Ti II— Fe I?	3.82 1.61	UV26 UV89		2948.66	[-1]		—Fe I	2.20	104	
2936.5	[5?]		Mg II	4.43	UV2		2948.95	[3]		Fe I Zr II	0.97	77	
2936.8	[5?]		Fe I	0.00	10		2949.18	[5]		Fe II (Mn II)	3.77 1.17	UV277 UV5	
2937.2	[5?]		Ti I	0.02	UV1		2949.62	[3]		V I	0.02	UV3	
2937.65	[5]		V I Fe I	{0.00 0.02 2.20	UV3 UV3 UV122		2950.22	[5]		Fe I (V II)	2.18 0.32	UV120 UV10	
2938.41	[5]		Mg I— Ti II	2.70 3.84	UV3 UV26		2950.62	[-1]					
2939.23	[20?]		Fe I— Mn II	2.22 1.17	104 UV5		2950.77	[-1]					
2939.6	[2?]		Fe II	1.04	2		2950.87	[-1]		Nb II	0.51	UV14	
2940.13	[2]		Mn I	3.13	UV17		2951.09	[0]		Fe II	3.20	UV214	
2940.50	[3]		Mn I— Mn I Fe I	2.32 2.32 2.83	UV10 UV10 UV173		2951.37	[0]		Cr II	4.15	59	
2941.29	[10d?]		Fe I (V II) (V II)	0.09 0.33 0.39	10 UV10 UV10		2951.53	[0]		Fe I			
2942.31	[5d?]		Ti I Mg I V I	{0.00 2.72 0.07	UV1 UV3 UV1 UV3		2952.03	[2]		V II Ti II (Cr II)	0.35 3.86 4.15	2 UV26 59	
2942.85	[5d?]						2952.24	[0]		Zr II	0.16	UV1	
2943.10	[3]		V I	0.00	UV1		2952.86	[-1]		Mn I?	2.16	UV4	
2943.59	[3]		Fe I (Ga I)	0.10	UV1		2953.36	[-1]		Cr II	3.71	27	
2943.87	[5]		Ni I	0.03	26		2953.48	[-1]		Fe I	2.76	UV166	
2944.09	[0]						2953.84	[25]		Fe II— Fe I	1.04 0.09	2 10	
2944.54	[0]		Fe II— V II	1.69 0.37	8 UV10		2954.31	[-3]		V I	0.02	18	
2944.98	[0]		—Fe I	2.45			2954.58	[2N]		—Fe I	2.28	UV132	
2945.37	[-1]		Fe II	1.04	2		2954.89	[0]		Ti II	4.31	UV34	
2945.42	[-1]		Ti II	3.88	UV26		2955.11	[0]		Cr II	4.17	59	
2945.65	[-1]		Fe I				2955.33	[-3]		Co I?			
2945.79	[-1]		Fe II				2955.61	[-2]		V II	3.76	UV196	
2946.08	[-1]		Fe I	1.61			2955.79	[-2]		Zr II V I	1.74 0.07	UV61 UV3	
2946.80	[-1]		Cr II	4.32	66		2955.92	[-3]					
2947.04	[-1]		W I— Fe I?	0.37 3.30	UV5 UV182		2956.08	[2]		Ti I	0.05	30	
2947.70	[30]		Fe II— Fe I (V II)	1.67 0.05 3.76	8 10 UV196		2956.34	[-1]		Cr I	0.94	UV5	
2948.22	[-1]		Ti I	0.02	UV1		2956.64	[8N]		Cr II Fe I	4.15 2.18	58 104	
							2956.82	[2]		Ti I Fe I	0.02 2.69	30 UV165	
							2956.95	[-3]		Mn I?	2.19	UV4	
							2957.17	[-1]		V I?	1.19	UV76	
							2957.24	[-1]					

The Solar Spectrum—Continued

Wave-length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
2957.38	[10]		Fe I	0.11	10		2964.604	[6N]		-Fe II	1.72	8	
2957.52	[-1]		V II	0.33	2		2964.84	[1N]		Cr I	0.00	UV1	
2957.64	[-1]		Co I	2.08	UV134		2955.02	[4]		Fe II	1.69	8	
2958.07	[-3]		Fe I?				2965.26	[10]		Fe I (Ti I)	0.12 1.05	10 94	
2958.26	[-1]		Ni I Ti II	1.93 3.88	UV74 UV26		2965.41	[-1]		Fe II	3.42	59	
2958.45	[0N]		Fe I	2.73	317		2965.81	[4ns]		Fe I Ti I	2.43 {1.05 1.07	UV147 94 94	
2958.73	[0N]		V II	3.75	UV196		2966.08	[2]		Cr II	3.87	33	
2958.98	[0N]		Ti II	4.28	UV34		2966.26	[2]		Fe I	2.22	104	
2959.32	[1N]		Fe I				2966.93	[30]		Fe I	0.00	10	
2959.62	[3N]		Fe II— Fe I	3.39 2.81	62 334		2967.23	[0N]		Cr I Ti I	0.01 0.05	UV1 30	
2959.95	[2N]		Fe II— Cr II Fe I	5.57 4.17 2.69	180 59 316		2967.662	[3]		Cr I	1.00	28	
2960.28	[1]		Fe I	2.48	148		2968.090	[1]		-Fe II	5.58	160	
2960.52	[0]		Fe I				2968.20	[-3]		Ti I	0.00	29	
2960.65	[1N]		-Fe I	2.95	UV178		2968.389	[3]		V II	1.70	28	
2961.09	[1N]		V I Cu I	1.22 1.39	UV76 UV15		2968.516	[2N]		Fe I—	2.42	UV135	
2961.27	[3]		Fe II	1.08	2		2968.740	[1]		Fe II Cr II	3.39 4.18	61 58	
2961.40	[-1N]		-Ti I?	1.05			2968.97	[-1]		Zr II	0.47	14	
2961.56	[-1N]						2969.04	[-3]					
2961.71	[3]		Cr II (Fe I)	{3.76 4.18 2.18	27 59 105		2969.19	[1]		Ni I	1.95	UV74	
2961.91	[-3]						2969.35	[1]		Fe I	0.11	11	
2961.91	[-3]						2969.46	[8]		Fe I	0.86	30	
2962.12	[3]		Fe I	1.48	57		2969.67	[-1N]		Cr II	4.32	66	
2962.38	[0]						2969.96	[3]		Fe II	3.81	70	
2962.59	[-1]		Fe I				2970.12	[8]		Fe I	{0.09 0.11	11 10	
2962.67	[-2]		Zr II	0.36	UV9		2970.36	[3]		Si I	0.78	1	
2962.77	[-2]		V I	0.04	18		2970.519	[5]		Fe II	1.08	2	
2962.93	[-3]		Fe II	5.55	160		2970.68	[1N]		Fe II	3.77	69	
2963.05	[-1]						2970.92	[1N]					
2963.27	[-2]		V II	2.60	154		2971.118	[2]		Cr I	0.98	28	
2963.52	[3N]		Fe I? Cr II	4.17	58		2971.24	[0]					
2963.68	[3]		Fe I	2.86	UV173		2971.622	[0]		Fe II	3.39	60	
2963.80	[-2]		V I	1.22	UV75		2971.77	[1]		Fe I			
2964.13	[6N]		Fe II	3.39	60		2971.936	[3]		Cr II	3.77	28	
2964.52	[0]		W I— Zr II	0.37 0.09	UV5 UV1		2972.03	[-1]		Fe I Fe II	5.60	160	

The Solar Spectrum—Continued

Wave-length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
2972.274	[4]		V II— Fe I	2.37 2.20	87 104		2979.120	[6]		Fe II (V II) (Zr II)	{3.97 5.57 2.03 0.36	100 180 44 14	
2972.415	[-1]												
2972.65	[-2]		Cr II	3.75	28		2979.370	[8]		Fe II	1.10	2	
2973.201	[40]		Fe I— Fe I	0.05 0.09	10 10		2979.59	[-3]					
2973.745	[2]		Ni I?	1.68	UV66		2979.742	[2]		Cr II	3.76	28	
2973.93	[-1N]		V II	3.79	218		2979.88	[1]		Fe I			
2974.223	[1]		Mn I?	4.23	UV41		2980.02	[1]					
2974.43	[-1N]						2980.219	[1]					
2974.640	[0]						2980.396	[0]					
2974.791	[3]		Fe I	2.83	335		2980.558	[5]		Fe I	2.76	317	
2974.92	[-2]		Ti I	1.07	94		2980.795	[4]		Cr I	0.96	28	
2975.038	[2]						2980.979	[4]		Fe II Zr II	3.42 0.56	61 24	
2975.278	[3]		- Fe I				2981.20	[0]		V II	2.38	87	
2975.480	[4]		Cr I	0.97	28		2981.458	[6N]		Fe I	0.05	11	
2975.665	[3]		V II	1.67	28		2981.658	[3]		Ni I	0.11	26	
2975.823	[0]		Fe I?				2981.866	[3]		Fe I	2.18	104	
2975.924	[5]		Fe II	1.10	2		2982.067	[3]		Fe II	4.48	139	
2976.156	[7]		Fe I— V II	2.28 1.67	146 28		2982.243	[3]		Fe I Fe II	2.99 3.81	460 70	
2976.37	[-2]		Mn II?	4.93			2982.393	[1]					
2976.540	[7]		V II (Fe I)	1.69	28		2982.488	[1]					
2976.724	[3]		Cr II	3.83	27		2982.768	[2]		V II	1.67	28	
2976.913	[5]		- Fe I	2.83	334		2982.98	[-2]		V II	{1.68 1.69	22 28	
2977.236	[-3]						2983.20	[-1]		- Ti I	0.02	29	
2977.533	[2]		V I	0.07	18		2983.576	[40]		Fe I (V II)	0.00 1.69	9 28	
2977.685	[-1]		Rh I?	0.70			2983.84	[1]					
2977.84	[-3]		Mn II? Fe I?	4.93			2984.144	[4]		Ni I	0.00	12	
2978.055	[3]		Fe I Zr II	2.45 0.41	14		2984.35	[-2]					
2978.204	[0]		V II	2.37	87		2984.574	[2]					
2978.294	[0]						2984.71	[1]		Cr II—	3.76	27	
2978.456	[1]						2984.840	[7N]		Fe II Fe I	1.67 0.86	8 29	
2978.557	[1]		- Mn I?	2.16	UV3		2985.19	[-3]		V II	3.80	218	
2978.692	[1]						2985.324	[0]		Cr II (Zr I)	3.75 0.00	28 22	
2978.848	[1]		Fe II	3.77	69		2985.49	[1]		Ti I—	0.02	29	

The Solar Spectrum—Continued

Wave-length (Å)	Estimated Intensity	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Estimated Intensity	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Note
2985.56	[5Nd]		Fe II—	1.72	8		2992.098	[1]		Ni I?			
2985.73	[1]		Fe I				2992.407	[5]		—Cr II	3.76	28	
2985.872	[4]		Cr I	0.98	28		2992.600	[7]		Ni I	0.03	25	
2986.004	[4]		Cr I	1.00	28		2992.958	[—1]					
2986.145	[2]		Cr I	0.97	28		2993.046	[0]					
2986.298	[2]		Fe I				2993.25	[1d?]					
2986.478	[6]		Cr I Fe I	1.03 0.11	28 11		2993.398	[2]		Fe II	4.49	139	
2986.641	[6]		Fe II— Fe I	3.42 2.43	62 200		2993.798	[4]					
2986.873	[0N]						2994.074	[4]		Cr I	0.94	14	
2987.052	[2]						2994.436	[40]		Fe I— Ni I	{0.05 0.12 0.03	9 11 27	
2987.20	[2]		Co I	0.00	11		2994.758	[3]		Cr II	3.75	28	
2987.291	[10]		Fe I	0.91	30		2994.951	[4]		Ca I	1.88	17	
2987.662	[10N]		Si I	0.78	1		2995.113	[3]		Cr I (Co I)	0.94 2.14	15	UV129
2988.033	[6]		V II Cr II Ni II	1.69 3.77 3.10	27 28 6		2995.260	[3]		Fe I			
2988.195	[0]						2995.373	[—1]					
2988.31	[—3]						2995.494	[2]					
2988.481	[1]		Fe I	1.48	56		2995.588	[—2n]					
2988.644	[2]		Cr I	0.94	14		2995.839S	[2]		Fe I	3.02	460	
2988.774	[0]		Zr II?	4.14	148		2996.008	[4nl]		V II	1.67	27	
2988.926	[1d?]		Fe I Sc I Sc II	2.73 0.02 3.23	316 11 34		2996.396S	[5]		Fe I	2.42	148	
2989.14	[3]		Cr II	3.74	28		2996.588S	[5]		Cr I	0.98	28	
2989.32	[—1N]		Cr II	3.74	28		2996.73	[—2N]		V II	1.70	28	
2989.32	[—1N]		V II—	2.38	87		2996.849	[2]					
2989.630	[4]		V II Co I	1.70 0.00	28 13		2996.849	[2]					
2989.630	[4]		V II Co I	1.70 0.00	28 13		2997.00	[—3N]		V I	2.03	116	
2989.78	[0N]		V II—	2.38	87		2997.222S	[2N]					
2990.035	[0]		Ti I?—	1.43			2997.32	[3]		Ca I Fe II— Cu I	1.89 4.49 1.64	17 139 5	
2990.390	[6]		Fe I	2.73	316		2997.54	[—3]					
2990.618	[—2N]						2997.72	[—3]		Fe II	3.90	85	
2990.876	[2]						2997.862	[—2]		V I	2.04	116	
2991.096	[5]		Ni I	{0.27 1.93	14 80		2997.978S	[2]		Pt I	0.10	3	
2991.242	[1]		Fe II	3.42	60		2998.152	[2]					
2991.411	[1]		Zr II	0.00	6		2998.336	[1]					
2991.635	[5]		Fe I				2998.497S	[1]					
2991.774	[4]						2998.795	[4]		Cr I (Fe II)	0.94 3.42	14 60	
2991.882	[4]		Cr I	0.97	28		2998.966	[2]					

The Solar Spectrum—Continued

Wave-length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
2999.04	[-3]		Gd II	0.03	12		3005.968S	[2]		Fe I?			
2999.205	[3]		Fe I				3006.179	[0]		-V I	2.07	116	
2999.366	[4]		Cr II-	3.86	33		3006.318	[0N]		-Fe I			
2999.521	[10]		Fe I	0.86	30		3006.434	[0N]					
2999.67	[2]		Ca I	1.89	17		3006.573	[4d]					
2999.943	[2]		Cr II	4.01	42		3006.740S	[3]		Si I	0.01		
3000.065	[2]		Fe II	3.81	69		3006.868S	[3]		Ca I (V I)	1.90 2.10	17 116	
3000.21	[-3]						3007.152	[5]		Fe I	1.48	55	
3000.339	[2]						3007.291	[6]		[Fe I- V II	0.09 1.67	11 27	
3000.462	[3]		Fe I	1.48	56		3007.497	[1]		Ti I?			
3000.576	[2]		Co I	0.10	13		3007.65	[0]		Mn I	3.13	35	
3000.75	[0]		Fe II- Ti I	0.05	29		3007.77	[-1]		Fe Ip	2.59	262	
3000.946	[25]		Fe I (Ca I) (Cr I)	0.09 1.89 1.00	9 17 28		3007.96	[3NN]					
3001.230	[5N]		V II	1.70	27		3008.152	[15]		Fe I	0.11	9	
3001.432	[1N]		-Fe II				3008.293	[2]		[Mn I Ti II	3.13 1.57	35 85	
3001.658	[2]		Fe I	3.02	506		3008.470	[3]					
3001.791	[3]						3008.648	[4d]		V II-	1.67	26	
3001.932	[-2]		V I	2.05	116		3008.801S	[-2]		Ce II	0.32	122	
3002.041	[-2]						3008.922	[-3]					
3002.193	[-2]						3009.102	[3]		Fe I (Sn I)	2.40 0.21	198 1	
3002.341	[-3]		Fe II	3.94	98		3009.214	[2]		Ca I	1.90	17	
3002.486	[25]		Ni I	0.03	26		3009.36	[1N]					
3002.660	[10]		Fe II	1.69	8		3009.582	[12]		Fe I	0.91	30	
3003.045	[8]		Fe I	0.96	30		3009.921	[-3]					
3003.463	[3N]		V II	1.69	27		3010.029	[-3]		Fe I			
3003.649	[8]		Ni I	0.11	26		3010.180S	[2]		Fe II Fe I	5.82	181	
3003.895	[5]		Cr II	3.86	33		3010.421	[0]					
3004.120S	[3]		Fe I	2.43	199		3010.628S	[1]		Fe I			
3004.271	[2]		Fe II	3.81	69		3010.847	[0]		Cu I	1.39	3	
3004.362	[0]						3011.167S	[0]		Mn I	3.13	35	
3004.480	[-2]		Fe Ip	2.22	105		3011.277S	[1]					
3004.630S	[3]		Fe I	1.56	57		3011.369	0N]		Mn I (Cr II)	3.13 3.83	35 27	
3005.052S	[4]		Cr I	1.03	28		3011.478	[4]		Fe I	2.76	316	
3005.308S	[3]		Fe I	2.40	199		3011.632	[-2]					
3005.494	[-1N]		Zr I	1.00	60		3011.736	[0]		Zr I-	0.07	2	
3005.755	[4d?]		Co I-	1.88	77								

The Solar Spectrum—Continued

Wave-length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3011.88	[0N]		Fe I	2.48	UV135		3017.255	[4]		Co I	1.88	78	
3012.012	[12]		Ni I— V II	0.42 2.05	41 43		3017.418	[3]					
3012.346	[-3]		Cr II?	4.01	42		3017.631	[12]		Fe I Cr I Co I	0.11 1.00 0.10	9 27 11	
3012.450S	[3]		Fe I				3017.854	[2]					
3012.60	[-3]		Fe IIp	3.81	69		3017.953	[0]		Ni I	1.93	UV74	
3012.736	[-2]						3018.031	[0]		—Os I	0.00		
3012.937	[3]		Fe I				3018.141S	[3]		Fe I	2.40	199	
3013.048	[3]		Cr I	0.96	26		3018.254	[1]		Fe I p	2.56	263	
3013.101	[3]		V II	1.67	26		3018.496	[4]		Cr I	0.97	26	
3013.331	[1N]		Zr II—	0.56	27		3018.599	[-2]		Ca I?	1.90		
3013.497S	[1]						3018.701	[-2]					
3013.595S	[2]		Co I	0.00	10		3018.821	[4]		Cr I	0.98	26	
3013.730	[6]		Cr I	0.97	26		3018.992	[7]		Fe I	0.96	30	
3013.831	[0]		Fe II	4.15	124		3019.154	[7]		Ni I	0.00	11	
3013.970S	[-1]		Fe I				3019.313	[4]		Fe I— Sc I	2.45 0.02	199 10	
3014.105	[2]		Fe I	2.95	458		3019.56	[-2]					
3014.164	[3]		Fe I	0.96	31		3019.911	[0d]		Zr II?— Mn II	0.04 4.31	6	
3014.320S	[1]		V I	2.12	116		3020.015	[5]		Si I	0.03		
3014.457	[0N]		Zr I?—	0.00	21		3020.27	[-1]					
3014.648	[0]		Mn I	3.13	35		3020.490	[20]		Fe I	0.09	9	
3014.781	[9]		Cr I V II	0.97 1.69	27 27		3020.656	[40]		Fe I (Cr I)	0.00 0.97	9 27	
3014.919	[8]		Cr I	0.98	27		3021.077	[30]		Fe I	0.05	9	
3015.202S	[6]		Cr I	0.96	27		3021.22	[-1]					
3015.366	[-2]		Sc I	0.00	10		3021.572	[5]		Cr I	1.03	27	
3015.508	[4]		Cr II	4.41	87		3021.719	[0]		—Mn II	4.31		
3015.688	[-1]		Co I	1.88	76		3021.883	[1]					
3015.818	[-1]						3022.12	[-3]		V II?	2.38	86	
3015.929	[5]		Fe I	2.43	198		3022.266	[1]					
3015.989	[0N]		V II	2.04	42		3022.359	[2]		Co I	1.71		
3016.196	[10]		Fe I (V II)	0.99 1.69	30 26		3022.472	[-1]					
3016.449	[2]		Mn I	3.13	35		3022.602	[3N]		V II	1.67	26	
3016.522	[0]						3022.747S	[3]		Mn I	3.13	35	
3016.784	[5]		V II	1.70	27		3022.91	[-3]					
3016.872	[3]						3023.068	[3]					
3017.08	[-2]						3023.30	[-3]		Mo II?	4.39		
3017.187	[4]		Ti II	1.58	85								

The Solar Spectrum—Continued

Wave-length (Å)	Estimated Intensity	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Estimated Intensity	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3023.438	[0]						3029.288	[2]		Ni I	{1.68 1.95	56 UV74	
3023.695	[1N]						3029.345	[-2]					
3023.851	[4N]		-Fe II V II	3.89 2.05	84 41		3029.430	[-3]		Mn II?	4.33		
3024.060	[12]		Fe I	0.11	11		3029.548	[-2N]		Zr I— V II	0.15 1.70	22 26	
3024.242	[2]						3029.734	[5nl]		Ti II	1.57	85	
3024.353	[6]		Cr I	0.98	26		3029.990S	[3]					
3024.577	[-2]						3030.147	[5]		Fe I	2.43	198	
3024.677	[1]		Cr I	2.97	117		3030.254	[5]		Cr I	1.00	27	
3024.802S	[3]						3030.484	[-3]		OH?	S 9	0.0	1
3024.981	[2N]		V II	2.37	85		3030.607S	[2]		Fe I	2.28	1.45	
3025.286	[6]		Fe I	0.91	29		3030.760	[-2]		Fe I Sc I	2.99 0.02	459 10	
3025.644	[8]		Fe I	2.40	198		3030.85	[-3]					
3025.866	[18]		Fe I	0.12	9		3030.941	[2d?]		Zr II	0.00	6	
3026.221	[-1N]						3031.052	[2]		Mn II	4.31		
3026.377	[3]		Co I	1.88	77		3031.211	[6]		Fe I	2.45	198	
3026.495	[8]		Fe I	0.99	30		3031.346	[6]		Cr I—	0.98	27	
3026.645	[6]		Cr II	4.43	95		3031.474	[1]		Cr I	2.98	117	
3026.836	[2]		Cr II	4.01	41		3031.668	[10]		Fe I	1.01	30	
3026.942	[2]		Fe I?				3031.867	[5]		Ni I	0.00	11	
3027.016	[2]						3032.036	[-2]		Zr II?	2.43	144	
3027.213	[-2N]						3032.228	[-2N]					
3027.35	[-2]		Fe II p	3.94	99		3032.469	[1]		Ni II	2.86	3	
3027.607	[1]		V II Gd II	2.38 0.14	85 12		3032.645	[-3N]					
3027.699	[2]						3032.855	[-2]		Gd II	0.08	12	
3027.890	[-1N]		-Pd I	0.96	5		3032.929	[3]		Cr II	2.70	15	
3028.020	[4]		V II Zr II	2.38 0.97	85 76		3033.105S	[2]		Fe I	2.42	146	
3028.127	[4]		Cr II	4.41	87		3033.434	[4d?]		V II (Fe II)	2.52 5.87	123 181	
3028.287	[0]						3033.607	[1N]					
3028.445	[-2N]		Nb II	0.44	2		3033.817S	[3]		V II	1.82	34	
3028.604	[1]		Rh II?	3.40	1		3033.949	[-2N]					
3028.686	[1]						3034.061	[-1]		Gd II	0.03	12	
3028.869	[2]						3034.12	[-3]		Sn I	0.21	1	
3029.000	[2N]						3034.196	[3]		Cr I	1.00	26	
3029.069	[2N]		Mn II	5.38	10		3034.45	[3]		Co I	0.17	12	
3029.155	[4]		Cr I	0.98	26		3034.50	[3]		Fe I	1.61	57	
3029.227	[3]		Fe I	1.56	56		3034.55	[3]		Cr II	3.86	33	

The Solar Spectrum—Continued

Wave-length (Å)	Estimated Intensity	Spot	Solar Identifi- cation	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Estimated Intensity	Spot	Solar Identifi- cation	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3034.60	[3]						3040.35	[-3]		OH	S 6	0,0	1
3034.812	[0]		Mn II	4.50	21		3040.43	[10]		Fe I	0.91	30	
3034.988	[1]		Cr II	4.04	42		3040.606	[2]		Mn I	3.13	34	
3035.118	[-3]		Fe I?				3040.761	[2]					
3035.232	[1]		Fe I p	3.07	506		3040.843	[4]		Cr I	1.00	27	
3035.360	[2]		Mn II	4.33			3040.938	[4]		Cr II	4.29	65	
3035.456	[-2]						3041.038	[2]					
3035.747	[4]		Fe I—				3041.136	[-3]					
3035.886	[0]						3041.220	[0]		Mn I	3.13	34	
3035.999	[-3]						3041.412	[2nl]		V II	2.03	40	
3036.108	[1N]		Cu I	1.64	5		3041.625	[5]		Fe I	1.56	56	
3036.252	[0]						3041.754	[5]		Fe I Cr II	0.96 4.41	30 95	
3036.397	[2]		Zr II	0.56	25		3041.901	[1]					
3036.509	[0]		Zr II	0.53	24		3042.026	[7]		Fe I	1.01	30	
3036.62	[-2N]		Y II	3.56	68		3042.263S	[3]		V II	2.03	40	
3036.754	[2N]		-Ti II	1.57	78		3042.486S	[3]		Co I	0.10	10	
3036.94	[-2]		Fe II	5.82	181		3042.664	[10]		Fe I (Mn I)	0.99 3.13	30 34	
3037.044	[8]		Cr I	1.03	27		3042.854	[3]		Cr II	4.07	47	
3037.23	[3]						3042.854	[3]					
3037.396	[30]		Fe I	0.11	9		3043.017	[-3]					
3037.64	[0]						3043.129S	[1]		V I (Mn I) (Mn II)	0.02 3.13 4.51	17 34 21	
3037.788	[3]		Fe I	0.99	31								
3037.946	[15]		Ni I	0.03	25		3043.263	[-2]					
3038.091	[1]		Mn II	4.34			3043.355S	[2]		Mn I	3.13	34	
3038.312	[3]		Fe I				3043.543	[3]		V I V II	0.00 2.04	17 40	
3038.513	[2]		V II Cr II	2.47 4.01	96 41		3043.759	[-2n]		Mn I	3.13	34	
3038.747	[3d]		Ti II— Fe II	1.58 3.89	85 84		3043.853	[2]		Ti II— Cr II	1.57 4.07	78 48	
3038.978	[1]						3044.009	[5]		Co I	0.00	11	
3039.066	[3]		Ge I	0.88	2		3044.124	[2]		Zr II—	0.56	26	
3039.202	[-3]		Mn II?	4.69			3044.228	[2N]					
3039.325	[3nl]		Fe I	2.43	199		3044.333	[-2]		OH	S 5	0,0	1
3039.38	[-3]						3044.44	[-3]					
3039.597	[4ns]		Co I Mn II—	1.71 5.39	52 10		3044.568	[3]		Mn I	2.11	15	
3039.761	[3]		Cr I— Cr I	3.00 1.00	117 26		3044.720	[-3]		Nb II?	1.69		
3040.020	[-2N]						3044.837	[2]		Fe II	3.97	98	
3040.218	[-3]		Cr II?				3044.94	[-2]		V I	0.04	17	
							3045.01	[4]		Ni I	0.17	12	

The Solar Spectrum—Continued

Wave-length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Estimated Intensity	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3045.07	[4]		Fe I	0.91	29		3050.132	[3]		Cr II	4.32	65	
3045.340	[-3]		Fe II	5.57	179		3050.273	[-2]					
3045.48	[-2N]		Cr II?	4.07	48		3050.396	[-2]		V I	1.38	74	
3045.582	[2]		Mn I Fe I	3.13 2.45	34 198		3050.504	[0]		Co I	1.96	77	
3045.723	[1]		Sc II	3.40	37		3050.67	[1N]		Mn II	4.50	21	
3045.778	[1]		Mn I	3.13	34		3050.815	[10]		Ni I	0.03	25	
3045.96	[-3]						3051.04	[3]					
3046.046S	[1]		Fe I				3051.24	[-3]					
3046.17	[-3]						3051.416	[2]		- Mn II	4.34		
3046.266	[0N]		Mn II	5.40	10		3051.61	[-3N]		Cr II?			
3046.503S	[0]						3051.794	[-1N]		Fe I?			
3046.672	[3]		Ti II	1.16	47		3051.987	[-3d?]		Ce II?	0.54	180	
3046.805S	[0]		Fe I	2.73	315		3052.148	[-1]					
3046.935	[2]		Fe I	2.43	198		3052.213	[0]		V I— Cr I	0.02 3.08	15 164	
3047.048	[2]		Fe I Mn I	2.95 3.13	457 34		3052.268	[0d?]					
3047.200	[0]		Fe I	2.84	382a		3052.491S	[1]					
3047.43	[1]		- Cr I	3.09	164		3052.580	[-1]					
3047.614	[35]		Fe I	0.09	9		3052.67	[-3]					
3047.79	[3?]		Cr II	2.71	15		3052.788	[0]		Fe I p	2.56	262	
3048.003	[0]						3052.926	[-1]		Sc II	3.42	37	
3048.094	[0]		Co I	1.96	77		3053.068	[3]		Fe I	2.42	146	
3048.219S	[3]		V II	2.51	123		3053.246	[-3]		Y II	3.54	68	
3048.352	[-1N]						3053.420	[7d]		V II— Fe I	1.80 {1.01 2.94	34 31 398	
3048.454	[5]		Fe I—				3053.55	[-2]		Gd II?	0.49	25	
3048.569	[-3]		OH	S 4	0,0	1	3053.669	[1]		V I (Cr II)	0.00 4.29	17 64	
3048.651	[-3]		V II?	2.27	67		3053.744	[2]					
3048.762	[2]		Ti II	1.58	78		3053.880	[4]		Cr I V II	1.03 2.05	26 40	
3048.887	[4]		Co I V II (Mn I)	0.17 2.04 3.13	11 40 34		3054.315	[12]		Ni I Mn I	0.11 2.14	25 15	
3049.015	[2]		Fe II— Mn II	5.87 4.52	181 21		3054.698	[2Ns]		Al I Co I	3.60 0.17	7 13	
3049.156	[-2]		Fe II p	4.08	109		3054.830	[1]		Zr II	1.01	76	
3049.349	[3]		Fe I				3054.940	[1]		Fe I Eu II	2.61 0.21	263 7	
3049.546	[2]		Fe I				3055.116	[1]					
3049.754	[-3N]						3055.296	[6d]		Fe I— Fe II	1.56 5.90	55 181	

The Solar Spectrum—Continued

Wave-length (Å)	Estimated Intensity	Spot	Solar Identifi- cation	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identifi- cation	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3055.457	[1]		Cr II	3.85	33		3060.989	[2]			Fe I	1.56	55	
3055.594	[-3]		Ce III?	2.25	1		3061.12	[-1]						
3055.720	[4d]		Fe I—				3061.28	[-3]						
3055.934	[-3N]		V II	2.52	123		3061.35	[-1]			Zr II	0.09	6	
3056.110S	[1]						3061.40	[-1]						
3056.233	[2]		Fe I	2.61			3061.57	[1]			Cr II	4.04	41	
3056.340S	[2]		V I	0.02	17		3061.66	38	12.4		Cr I	2.54	55	
3056.461	[-3]						3061.825	91	29.7		Co I	0.10	11	
3056.581	[1N]						3061.972	67	22.0		-Co I?	1.74	52	
3056.768	[5d]		Ti II— Fe II	1.16 4.07	47 109		3062.12	61	23.8		Mn I	2.16	15	
3057.004	[0N]						3062.18	127	41.5		Co I	0.10	12	
3057.134	[2]		Al I	3.61	7		3062.29	59	22.0		Fe II	4.08	108	
3057.436	[25]		Ti II— Fe I	0.00 0.86	5 28		3062.52	39	12.7		OH?	S 1	0,0	1
3057.643	[10]		Ni I	0.21	26		3062.70	27	8.3		V II	1.82	34	
3057.788	[2]		Fe I _p	0.96	29		3062.83	55	21.5					
3057.873	[-3]		Cr II	4.32	65		3062.873	72	23.7		Fe I	2.95	456	
3057.963	[3]						3063.045r	23	7.7		Ce II	0.90	185	
3058.075	[7]		Ti II	1.18	47		3063.175r	44	25.6		Fe I	2.18	102	
3058.240	[-2N]						3063.241r	106	34.6		V II	2.51	123	
3058.356	[3]		Cr II	4.07	48		3063.405r	43	14.2		Cu I	1.64	4	
3058.488	[4]		Fe I				3063.505r	60	27.3		Ti II	1.16	47	
3058.706S	[3]						3063.555r	119	38.9		OH	R 9	0,0	1
			(Os I)	0.00	1		3063.729r	101	33.0		OH	R 8,10	0,0	1
3059.094	[25]		Fe I (Al I)	0.05 3.60	9 7		3063.805r	78	37.9		Cr II	3.87	32	
3059.383	[0]		Cr II	2.70	15		3063.936r	86	35.6		Ni II— Fe I	2.95 2.42	3 147	
3059.516	[2d?]		Cr II	{2.71 2.71	15 15		3064.015r	147	48.0					
3059.738	[3]		Ti II	{0.01 1.16	5 47		3064.12 a	23	11.0					
3060.039	[0d]		Fe II— Co I	4.08 1.96	109 77		3064.216r	135	44.1		OH— OH	R 7 R 11	0,0 0,0	1 1
3060.12	[-1]		Zr II	0.04	6		3064.377S	132	50.0		Co I	0.10	13	
3060.24	[-1]						3064.515r	65	21.2					
3060.345S	[-1]						3064.622r	149	48.7		Ni I	0.11	26	
3060.455S	[0]		V I	0.04	17		3064.713S	83	53.6		Pt I	0.00	2	
3060.548	[0]		Fe I	2.99	457		3064.829r	80	26.2					
3060.633	[0]						3064.955r	83	27.3		OH	R 6	0,0	1
3060.773	[2]						3065.094r	133	43.5		OH Cr I (Sc II)	{R 12 R' 6 3.09 3.45	{0.0 0.0 184 37	} 1

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3065.316r	103	33.6		Fe II	3.94	97		3070.380r	58	25.4		OH	R' 2	0,0	1
3065.495r	34	11.2						3070.492r	86	28.0		OH	R 6	0,0	1
3065.615r	42	13.8		V II	2.49	112		3070.695r	68	22.2		Fe II	3.77	68	
3065.775r	22	7.2						3070.795r	49	18.2					
3065.994r	95	40.4		OH— Mn I	R 5 2.14	0,0 15	1	3071.005r	38	12.5		Cr II	4.04	41	
3066.144r	565	18.9		OH— Al I	R' 5 3.61	0,0 7	1	3071.145r	59	22.0		OH Fe II	R 14 5.90	0,0 181	1
3066.227r		86.5		Ti II	0.01	5		3071.253r	132	43.1		Ti II	1.18	47	
3066.364r		39.1		Ti II V I	0.00 0.07	5 17		3071.429S	41	13.5					
3066.501r		86.5		Fe I— Ti II	2.73 1.16	313 47		3071.555r	27	8.8		Cr II	4.07	47	
3066.694S		33	16.0		Fe I? p	2.95	456		3071.677r	53	17.4		Fe II	4.15	123
3066.816r	31	15.0		V II	2.51	123		3071.798r	37	12.8					
3066.994r	663	42.4		Fe I				3071.965r	69	29.4		Co I	0.22	12	
3067.123r		93.3		Fe I V II (Cr II)	1.61 1.79 {2.71 2.71	56 34 15 15		3072.115r	202	65.6		Ti II	0.03	5	
3067.262r		93.3		Fe I	0.91	28		3072.182r	155	79.5		OH	R 5	0,0	1
3067.386r		42.4		OH—	R' 4	0,0	1	3072.328r	109	35.6		OH— Co I	R 16 0.17	0,0 11	1
3067.657r		121	46.6		OH	R 10	0,0	1	3072.495r	78	25.5		Cr II?—	3.86	32
3067.781S	110	35.8		OH	R 9	0,0	1	3072.670r	31	10.2		Co I? OH?	2.28 R' 16	125 0,0	1
3067.939r	128	41.8		OH— Fe I	{R 11 R 14 2.69	0,0 0,0 315a	1	3072.984r	243	79.1		Ti II	0.00	5	
3068.176r	130	42.3		Fe I	1.61	55		3073.125r	86	39.0		Mn I	2.18	15	
3068.281r	103	33.7		OH	{R 8 R' 14	0,0 0,0	1	3073.235r	62	28.8		Fe I Cr II	3.05 4.07	549 47	
3068.476r	75	24.6						3073.370r	15	4.9					
3068.598r	63	23.4		OH	R 12	0,0	1	3073.525r	22	7.3		Co I	1.74	51	
3068.725r	148	48.3		OH— Fe II	R 3 4.15	0,0 122	1	3073.677r	40	13.2		Cr I	3.12	184	
3068.796r	102	46.1		OH	R' 3	0,0	1	3073.832r	50	16.4		V I	{0.02 0.04	15 17	
3068.944S	52	18.7		Fe I	1.48	53		3073.997r	52	29.0		Fe I	2.69	313	
3069.181r	69	22.5		OH	R 7	0,0	1	3074.07 a	82	30.3					
3069.334r	57	20.4						3074.155r	143	46.5		Fe I	3.02	457	
3069.455r	141	46.3		Fe I				3074.385r	39	18.4		OH	R 4	0,0	1
3069.681r	80	26.4		OH V I	R 13 0.04	0,0 15	1	3074.435r	105	34.2		Fe I			
3069.915r	66	21.5		OH	R 15	0,0	1	3074.696r	49	15.9		V II?—	2.49	112	
3070.038r	55	17.9						3074.905r	29	9.4		Cr II?	4.38	73	
3070.265r	129	42.0		Mn I	2.16	15		3075.035r	50	24.7					
								3075.135r	108	47.5		OH	R 17	0,0	1
								3075.239r	222	72.2		Fe II Ti II	3.81 0.01	68 5	
								3075.355r	103	102.1		OH	R 16	0,0	1

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3075.455r	39	22.6						3079.979r	111	36.2		OH— Fe I	Q 2	0,0	1
3075.595r	78	49.0						3080.116r	73	23.9		Fe I			
3075.733r	436	141.7		Fe I	0.96	28		3080.245r	37	12.2		OH	R 2	0,0	1
3075.895r	51	33.6		Zn I (V I)	0.00 1.19	1 57		3080.368r	31	12.3		V I—	1.18	57	
3075.998r	57	35.4		V II	1.80	34		3080.422r	46	14.9		Fe II	4.08	108	
3076.265r	40	13.2						3080.595r	45	14.6					
3076.435r	51	16.6		Fe II	5.87	181		3080.757r	130	33.4		Ni I	0.21	26	
3076.585r	16	5.2		Cr I?	2.54	55		3080.877r	65	27.8					
3076.750r	24	8.5						3081.005r	56	18.2		—V II	2.50	112	
3076.831r	24	8.0						3081.12 a	19	7.5					
3076.91 a	10	3.7		Gd II	0.00	10		3081.247r	58	27.3		OH Fe I	R 18 3.02	0,0 457	1
3077.027r	44	15.3		OH	R 3	0,0	1	3081.312r	100	32.5		Mn I	2.18	15	
3077.188r	57	33.1		Fe II	4.07	108		3081.460r	37	14.0					
3077.225r	92	29.9		—Cr II	4.50	103		3081.550r	82	26.6		OH	Q 3	0,0	1
3077.395r	12	4.1						3081.680r	91	43.0		OH	P 1	0,0	1
3077.558r	30	12.3		Lu II? Cr II?	1.54 3.86	4 32		3081.725r	120	39.0					
3077.640r	91	29.7		Mo II	4.39			3081.840r	61	33.9		Fe I	1.48	53	
3077.735r	57	19.8						3082.035r	82	40.4		Mn I OH	2.16 R 19	15 0,0	1
3077.835r	46	15.1		Cr I Cr II	3.11 4.47	184 103		3082.168r	257	83.6		Al I V I	0.00 0.07	3 17	
3078.044r	141	45.8		Fe I— OH	0.96 R 17	29 0,0	1	3082.28 a	56	38.8					
3078.252r	29	13.0						3082.38 a	64	24.5					
3078.387r	88	47.2		OH	R 18	0,0	1	3082.525r	40	13.0		V II	2.04	39	
3078.445r	173	68.2		OH Fe I	Q 1 2.48	0,0 146	1	3082.626S	107	34.9		Co I	0.00	10	
3078.662r	321	104		Ti II— Fe II	0.03 5.82	5 181		3082.75 a	34	13.6		Mn I?	4.23		
3078.825r	18	11.8						3082.850r	53	17.2		Co I—	1.88	73	
3078.825r	18	11.8						3083.042r	85	27.7		Fe II—	3.97	97	
3078.915r	52	21.4						3083.168r	61	19.8		Fe I V II	2.45 2.52	197 112	
3079.105r	78	25.5						3083.282r	110	35.6		OH	Q 4	0,0	1
3079.308r	35	13.3		Cr II	4.50	102		3083.382r	58	28.4		OH	Q' 4	0,0	1
3079.375r	94	30.7		Fe II— Co I	4.15 0.00 1.71	122 10 49		3083.503r	117	52.9		—V I	1.22	57	
3079.50 a	6	2.7						3083.620r	22	25.2		Cr II	4.07	47	
3079.617r	79	25.8		Mn I	2.19	15		3083.749S	295	95.7		Fe I	0.99	28	
3079.755r	22	7.3						3083.850r	40	24.0					
3079.825r	20	6.7		Fe I p	2.20	102		3084.055r	67	24.8		OH	R 1	0,0	1
								3084.165r	46	15.0					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3084.290r	44	14.4						3089.22 a	24	7.9					
3084.455r	67	21.7		Cr II—	4.30	71		3089.403r	70	22.7		Ti II Fe II	1.89 4.73	90 158	
3084.575r	28	9.2		Cr I	3.12	184		3089.505S	66	21.5					
3084.685r	3.5	1.0						3089.613r	94	30.4		Co I	0.10	10	
3084.795r	4	1.3		Ti I?	1.05	93		3089.745r	134	58.5		OH	Q 7	0,0	1
3084.897r	69	22.6		OH	R 19	0,0	1	3089.868r	162	52.6		OH	{Q 2,3 Q' 2,3,7}	0,0 0,0	} 1
3085.043r	64	20.7						3090.222r	129	41.7		Fe I— Co I	2.76 2.01	313 77	
3085.206r	98	31.7		OH	Q 5	0,0	1	3090.374r	98	32.0		OH	Q 4	0,0	1
3085.331r	98	31.9		Cr II	4.07	47		3090.486r	112	40.7		OH OH	Q 1 Q' 1	0,0 0,0	1 1
3085.395r	58	23.5						3090.733r	50	19.7					
3085.545r	12	4.0						3090.868r	65	32.4		OH	R 21	0,0	1
3085.673r	37	16.7						3091.071r	356	115		Mg I	2.71	5	
3085.720r	79	25.6						3091.213r	77	46.4		CH OH	R 21 {P 3 Q' 5}	0,0 0,0 0,0	} 2 1
3085.885r	38	12.3						3091.371r	58	34.8		OH	Q 5	0,0	1
3085.995r	31	10.0						3091.583r	301	97.4		Fe I	1.01	28	
3086.111r	41	13.4						3091.693r	45	32.0					
3086.229r	75	24.3		OH	R 20	0,0	1	3091.876S	96	31.2					
3086.400S	64	20.7		Co I OH	1.71 P 2	50 0,0	1	3092.093r	102	36.4		Mo II—	1.94		
3086.530r	122	39.5		V II—	2.03	39		3092.233r	13	5.7					
3086.636r	40	15.9						3092.403r	48	34.6		OH	Q 8	0,0	1
3086.787r	177	57.3		Co I	0.22	11		3092.473r	63	29.2					
3086.988r	161	52.2						3092.598r	41	44.9		CH OH	R 20 Q' 8	0,0 0,0	2 1
3087.076r	54	22.4		Ni II	3.10	7		3092.712r		183		Al I (Fe I) (OH)	0.01 0.96 Q 6	3 29 0,0	1
3087.345r	107	40.5		OH	Q 6	0,0	1	3092.851r		927		Al I	0.01	3	
3087.453r	71	25.3		Fe I— OH	3.24 Q' 6	0,0	1	3092.983r		45.9		Mg I	2.71	5	
3087.533r	62	20.7		Cr I?	3.09			3093.123r		97.5		V II (V II p)	0.39 2.05	1 39	
3087.693r	58	25.3						3093.346r	56	34.1		Fe I			
3087.843r	38	28.8		Co I— Cr II?	2.01 4.47	77 102		3093.498r	94	39.0		Cr II (Rh II)	4.78 3.49	125 4	
3088.039r	370	119		Ti II	0.05	5		3093.608r	46	19.2		OH	R 21	0,0	1
3088.188r	64	34.0						3093.723r	35	12.3		OH	P' 1	0,0	1
3088.355r	101	32.7						3093.823r	106	57.0		Fe I	1.61	55	
3088.610r	41	13.3						3093.883r	109	35.4		Fe I	2.56	261	
3088.752r	105	34.2													
3088.823r	36	11.7													
3089.000r	60	19.4		OH	R 20	0,0	1								
3089.096r	39	12.6		V I	1.19	57									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3093.943r	70	35.7		Cr II	4.07	47		3098.325r	14	4.4					
3094.068r	24	7.9		Fe I p	2.45	165		3098.453S	26	8.6		Mo II?	2.15		
3094.205r	88	45.6		V II Nb II	2.04 0.51	39 1		3098.588r	87	28.2		OH	Q 10	0,0	1
3094.295r	111	35.9		CH—	R 19	0,0	2	3098.720r	31	10.1		OH	R 22	0,0	1
3094.364r	58	24.9		CH	R 19	0,0	2	3098.825r	53	17.2		OH	Q' 10	0,0	1
3094.469r	28	9.0		OH	Q' 7	0,0	1	3098.968r	57	18.4		Fe I	2.22	102	
3094.626r	67	22.2		OH	Q 7	0,0	1	3099.115r	105	34		Ni I	0.17	13	
3094.724r	9	2.9		V I	1.18	56		3099.235r	68	23.2		Zr II OH	0.00 Q' 9	5 0,0	1
3094.897r	75	24.2		Fe I— Cr II	2.73 4.07	315a 47		3099.418r	77	29.3		OH	Q 9	0,0	1
3095.078S	27	8.9		Zr II	0.04	5		3099.575r	65	30.5		OH— OH	P' 3 {O 2 P 3}	0,0 0,0 0,0	1 1
3095.254r	60	21.2		Fe I	2.69	314		3099.675r	24	16.6		Co I	1.96	75	
3095.347r	103	33.4		OH	Q 9	0,0	1	3099.790r	44	47.2					
3095.554r	14	4.5		OH	Q' 9	0,0	1	3099.896r	465	{115 115		Fe I	1.01	28	
3095.724r	29	9.5		Co I	1.74	49		3099.987r					Fe I	0.91	28
3095.884r	32	10.6		Cr I Y II	2.71 0.13	11		3100.150r	61	64.5		CH CH	R 16 R 16	0,0 0,0	2 2
3096.039r	82	30.3		Fe I	2.73			3100.325r	263	85.0		Fe I	0.99	28	
3096.138r	86	31.2		OH Cr II	P 4 4.78	0,0 126	1	3100.524r	98	69.6		Gd II	0.24	12	
3096.324r	43	18.3		Fe II— OH	3.97 {P 2 P' 2}	97 0,0 0,0	1	3100.682r	216	69.6		Fe I Ti I	0.96 {1.07 1.07}	28 92 93	
3096.404r	99	40.9		Co I— Ti II	1.78 1.57	52 77		3100.839r	100	38.5		Fe I	2.40	196a	
3096.549r	41	23.2		Cr I	2.71			3100.942r	61	38.2		V II	2.03	39	
3096.624r	55	36.6		—OH	Q' 8	0,0	1	3101.012r	102	32.9		Fe I	2.73	313	
3096.764r	45	47.9		Rh II—	3.60	4		3101.242r	123	44.3		OH	P 5	0,0	1
3096.902r	647	209		Mg I	2.72	5		3101.417r	88	47.4					
3097.130r	148	33.3		Ni I	0.17	11		3101.574r	284	91.6		Ni I	0.11	25	
3097.177r		29.6		Ti II	1.23	67		3101.694r	97	77.4					
3097.355r	21	10.9						3101.895r	201	64.6		Ni I	0.42	40	
3097.433r	26	12.1		Fe II	3.94	96		3101.974r	45	26.2					
3097.490r	45	18.6		Fe I	2.42	165		3102.148r	94	30.4		OH	{Q 11 Q' 10}	0,0 0,0	1
3097.618r	38	14.6		Ti II	1.57	77		3102.299r	53	29.2		CH— V II	R 15 0.37	0,0 1	2
3097.785r	66	23.5						3102.369r	192	61.9		OH	{Q 10 Q' 11}	0,0 0,0	1
3097.830r	54	19.0						3102.519r	29	9.4		Ti I	2.00	181	
3097.965r	28	8.8						3102.643r	68	22.4		Fe I	0.99	29	
3098.072r	68	21.9		CH	R 17	0,0	2	3102.764r	48	15.4					
3098.193r	98	31.9		Fe I Co I	2.69 0.17	313 10									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3102.882r	69	22.4		Fe I				3107.725r	54	17.4		Ni I	0.17	12	
3102.979r	24	7.8		Ti II	1.22	58		3107.854r	29	9.4					
3103.109r	23	7.5						3107.983r	58	18.8		Fe I	2.69		
3103.284r	28	12.5		OH	P' 4	0,0	1	3108.133r	11	3.4					
3103.349r	80	25.9		OH	P 4	0,0	1	3108.263r	20	6.4					
3103.494r	44	14.3		Cr II	4.30	71		3108.363r	6.5	2.1					
3103.614r	16	5.3						3108.555r	30	9.6		Ca I	1.90		
3103.781r	129	8.8		Co I	1.88	73		3108.681r	63	21.2		Cr II— V II	4.15 2.04	55 39	
3103.819r		40.3		Ti II	1.89	90									
3103.982r	58	18.7		Co I	1.71	48		3108.885r	26	8.9					
3104.167S	48	15.6						3108.951r	52	16.8		Ti II	1.58	77	
3104.274r	18	6.0		Cr II?	4.50	102		3109.073r	45	14.6		Fe I	2.47	165	
3104.349r	39	13.2		OH	R 23	0,0	1	3109.333r	77	24.8		OH CH	Q 12 R 12	0,0 0,0	1 2
3104.571r	106	34.1		CH— Ti II?	R 14 1.89	0,0 90	2	3109.503r	25	8.0		Co I	1.74	50	
3104.71 a to 3104.79 a	44	14.3		Mg II	8.86	6		3109.622S	47	15.1		Fe I			
				Mg II	8.86	6		3109.803r	8.5	2.8		OH?	S 3	1,1	1
3104.914r	42	13.7		V II	2.05	39		3109.928r	43	14.0		Ti IIp	1.22	58	
3105.094r	131	22.2		Ti II	1.22	67		3110.084r	83	26.7		Ti II	1.58	77	
3105.174r		24.9		Fe II	{3.89 4.15	82 122		3110.245r	140	45.2		OH— Fe I	Q 13	0,0	1
3105.324r	20	6.4						3110.529r	39	12.5		OH	{R 24 Q' 13	0,0 0,0	1
3105.464r	66	21.3		Ni I	0.27	12		3110.704r	148	47.5		Ti II— V II	1.23 0.35	67 1	
3105.563r	26	11.5		Fe II	3.89	82		3110.849r	108	34.7		Fe I Co I	0.22	11	
3105.677r	99	31.9		OH	Q 11	0,0	1	3110.894r	97	63.6		Zr II—	0.09	5	
3105.894r	21	7.0		Co I	0.51	26		3110.974r	12	4.0					
3106.032r	89	28.7		OH	{Q 12 O 3	0,0 0,0	1	3111.074r	12	4.0					
3106.241r	117	37.7		Ti II	1.24	67		3111.179r	38	12.2		Zr II?	0.56	24	
3106.559r	96	31.2		Fe II OH— Zr II	3.81 P 6 1.00	68 0,0 63	1	3111.304r	34	11.1		Ti I	1.98	181	
3106.809r	26	10.0		Ti I	1.05	92		3111.424r	9.5	3.1					
3106.907r	76	24.5		CH	R 13	0,0	2	3111.534r	7.5	2.4					
3107.092r	48	15.7		Co I?	1.71	49		3111.685r	57	18.4		Fe I	2.56	260	
3107.322r	53	17.1		Fe I				3111.814r	87	28.0		Fe I CH	R 11	0,0	2
3107.40 a	7	3.0		Ca I	1.89	16		3111.944r	59	18.9		Cr II	4.14	55	
3107.459r	36	12.6		OH— Ti I	P 5 1.97	0,0 181	1	3112.077r	119	38.4		Ti II— Fe I OH	1.22 2.95 {P 7 P' 6	67 455 0,0 0,0	1
3107.565r	82	26.5		OH Cr II	P 5 4.77	0,0 125	1	3112.214r	96	30.8		OH	P 6	0,0	1

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3112.469r	50	16.2		Ti I	1.05	92		3116.917r	63	25.1		CH	R 9	0,0	2
3112.609r	15	4.7						3116.982r	100	32.2		CH	R 9	0,0	2
3112.684r	28	9.2						3117.037r	34	20.7		OH	P' 7	0,0	1
3112.804r	13	4.2						3117.201r	72	23.1		OH	P 7	0,0	1
3112.954r	39	12.6		V I— Cr I?	1.19 3.11	56		3117.249r	59	35.4		Cr II	4.07	46	
3113.097r	39	12.5		OH	{Q' 13 O 4	{0,0 0,0	1	3117.432r	52	16.7		— Ti I	1.07	92	
3113.214r	17	5.5						3117.662r	101	32.6		Fe I— Ti II	0.99 1.23	29 67	
3113.384r	112	36.1		OH	Q 13	0,0	1	3117.768S	63	20.4		OH	Q 14	0,0	1
3113.454r	44	20.8		Co I	1.71	48		3117.890r	74	23.9		OH— Ti I	P 8 1.05	0,0 92	1
3113.591r	89	28.2		V II	2.90	174		3118.141S	66	21.2		Ti I Cr II	2.02 4.17	181 55	
3113.666r	50	21.1		Fe I _p	2.47	165		3118.253S	53	17.0		Co I	0.17	11	
3113.838r	66	21.1						3118.390r	118	38.0		V II	0.33	1	
3114.078r	74	33.5		Ti I	2.00	181		3118.557r	42	20.7		Ni I	3.19	94	
3114.125r	125	40.5		Ni I	0.11	24		3118.656r	122	39.2		Cr II	2.42	5	
3114.316r	125	40.1		Fe II CH	3.89 R 10	82 0,0	2	3118.827S	59	19.1		Ti II?	1.08	27	
3114.353r	94	53.0		CH	R 10	0,0	2	3119.035r	23	7.4		Fe I	2.76	315a	
3114.483r	13	5.5		Y II? Cr I?	3.41 3.12	58		3119.198r	77	24.8					
3114.628r	39	15.9						3119.351r	88	28.2		V II?	2.52	110	
3114.673r	47	16.5		Fe II	3.89	82		3119.504r	128	41.0		Fe I	2.43	194	
3114.778r	101	32.4		OH	Q 14	0,0	1	3119.678r	120	38.6		OH CH— Cr I (Ti I)	Q 15 R 8 3.09 1.50	0,0 0,0 183 137	1 2
3115.043r	84	26.8		Fe I				3119.802r	97	31.2		Ti II	1.24	67	
3115.283r	43	14.0		Cr II	4.17	54		3120.012r	27	8.7		OH— Fe II	Q' 15 3.97	0,0 96	1
3115.353r	27	8.6		Fe II				3120.092r	8	2.6		Co I?	1.88	74	
3115.468r	30	9.8		Mn I Fe II	3.37 3.97	38 96		3120.237r	68	29.2		Fe I	2.76		
3115.563r	35	11.3						3120.372r	151	48.4		Cr II	2.43	5	
3115.668r	57	18.2		Fe I Cr II	3.07 4.07 5.32	46		3120.430r	100	56.3		Fe I	2.45	194	
3115.883r	31	10.1		Fe I	3.02	456		3120.602r	41	13.1		OH	O 5	0,0	1
3116.053r	28	9.1						3120.732r	60	19.2		V II Zr I	2.56 0.52	138 37	
3116.263r	82	26.3		Fe I	2.45	165		3120.877r	78	24.9		Fe I			
3116.393r	46	14.8		Fe I	2.59	261		3121.081r	35	16.7		Cr II?	4.38	72	
3116.503r	140	57.3		Fe I	2.20?			3121.160r	140	44.8		V II	0.39	1	
3116.633r	149	47.9		Fe I Fe II	1.01 3.89	28 82		3121.419r	54	17.3		Co I	0.00	9	
3116.727r	69	28.2		Ni I— Cr II	3.19 4.77	95 126		3121.604r	119	38.3		Ti II Co I	0.00 0.10	4 11	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3121.783r	84	27.1		OH Fe I	R 7 2.22	1,1 102	1	3126.207r	150	48.0		Fe I— V II	0.37	1	
3121.859r	50	19.3		Cr II— OH	4.38 R 9	72 1,1	1	3126.332r	33	12.0		OH	R 9	1,1	1
3121.969r	37	11.8		Cr II	4.15	55		3126.472r	37	11.8		OH	R 8	1,1	1
3122.079S	57	18.3		Ti II	1.24	58		3126.617r	75	24.0		CH OH OH	R 12 R 10 R 13	1,1 1,1 1,1	2 1 1
3122.219r	56	24.4		OH CH	R 6 R 7	1,1 0,0	1 2	3126.767r	80	25.8		Fe I			
3122.317r	145	46.5		Fe I CH	R 7	0,0	2	3126.847r	44	17.7		Fe I	2.56	260	
3122.570r	144	46.2		OH OH— Cr II	P 8 Q 15 4.18	0,0 0,0 54	1 1	3127.047r	24	7.7		OH	R 7	1,1	1
3122.664r	41	18.7		Fe I	2.73	314		3127.117r	13	4.1					
3122.784r	5	1.6		Au I	1.14	1		3127.247r	29	9.2		Co I	0.43	26	
3122.909r	62	17.7		V II	2.90	173		3127.362r	33	10.6		OH	R 11	1,1	1
3122.949r		4.6		OH	R 5	1,1	1	3127.491r	29	9.4		—Nb II	2.16		
3123.092r	38	12.2		Ti I	0.90	67		3127.671r	86	27.7		OH CH Ti I?	Q 16 R 5 1.97	0,0 0,0 180	1 2
3123.260r	35	11.3						3127.846r	51	16.4		CH	R 5	0,0	2
3123.349r	53	17.0		Fe I	2.42	164		3128.086r	36	11.7		OH— OH	R 6 P 9	1,1 0,0	1 1
3123.443r	28	9.1		OH	R 11	1,1	1	3128.289r	73	23.2		Sc II OH	3.46 P 9	39 0,0	1
3123.561r	60	19.4		Fe I	2.73			3128.386r	47	15.3					
3123.698r	11	3.8		Rh I?	0.00			3128.521r	60	19.4		OH	{O 6 R 12	0,0 1,1	1
3123.778r	42	13.6		Ti I	2.04	181		3128.706r	98	31.3		Cr II	2.43	5	
3123.959r	27	8.6		OH	P 9	0,0	1	3128.776r	32	15.1		OH Y II?	R 14 3.37	1,1 51	1
3124.097r	33	10.5		Fe I	2.48	165		3128.897r	47	15.1		Fe I	1.56	54	
3124.283r	10	3.3						3129.007r	25	8.1		Co I— Fe II	0.51 3.97	96	
3124.488r	11	3.8						3129.107r	60	19.4		Fe I			
3124.638r	18	5.9		OH?	R 26	0,0	1	3129.177r	32	12.2		Zr II Fe I	0.53 2.45	23 161	
3124.688r	11	3.4						3129.320r	85	27.2		Ni I— Fe I	0.27 1.48	12 52	
3124.803r	30	10.5		OH— Ge I	R 12 0.88	1,1 1	1	3129.532r	34	10.9		OH	R 5	1,1	1
3124.918r	124	70.9		CH OH	R 6 Q 16	0,0 0,0	2 1	3129.767r	50	16.0		Zr II	0.04	5	
3124.998r	149	47.8		Cr II	2.45	5		3129.947r	23	7.3		Y II?	3.41	51	
3125.053r	111	57.0		Cr II CH	4.30 R 6	70 0,0	2	3130.137r	48	15.4		OH— Ti I	R 13 1.98	1,1 180	1
3125.288r	156	49.8		V II	0.32	1		3130.267r	104	33.2		V II— OH	0.35 P 10	1 0,0	1
3125.467r	47	14.9		Cr II	4.18	55		3130.414m	85	27.3		Be II	0.00	1	5
3125.667r	152	48.6		Fe I— Fe I p	{0.99 2.40 2.40	28 160 194									
3125.920S	48	15.4		Zr II	0.00	5									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3130.567r	77	24.7		OH Fe II	Q 17 3.77	0,0 66	1	3134.937r	87	27.8		V II	2.52	122	
3130.631r	63	32.7						3135.046r	24	8.3		Ti I	2.00	180	
3130.795r	106	33.9		Ti II Ti I (Nb II)	0.01 0.44	4 1		3135.181r	24	7.8		Y II	0.18	11	
								3135.356r	92	29.4		Fe II Cr II	3.89 4.77	82 124	
3131.058m	80	25.6		Be II	0.00	1	5	3135.453r	62	19.7		Fe I			
3131.236r	38	12.2		Cr I— Tm II	3.11 0.00	183		3135.589r	53	17.1		Fe I	2.73		
3131.361r	29	9.3						3135.706r	87	28.0		Cr II	4.43	94	
3131.446r	44	14.1		OH	R 15	1,1	1	3135.870r	69	22.1		Fe I	2.45	194	
3131.526r	42	13.5		OH— Cr II	R 4 {4.17 4.18	1,1 55 53	1	3136.015r	43	13.9		Ca I	1.88	15	
								3136.085r	28	8.8		Fe I p	2.40	160	
3131.708r	51	16.5		Fe II Ni I	4.08 3.31	107 94		3136.195r	53	17.1		OH Fe I	Q 2	1,1	1
3131.806r	18	6.8		Co I	1.74	48		3136.345r	46	14.8		CH	R 2	0,0	2
3131.951r	37	13.9						3136.506r	82	26.4		V II	2.51	122	
3132.055r	137	44.0		Cr II	2.48	5		3136.590r	145	46.2		OH	Q 18	0,0	1
3132.189r	89	36.2		OH	R 14	1,1	1	3136.707r	141	45.1		Cr II— Co I	2.45 0.00	5 8	
3132.288r	73	30.4		Mn I?—	4.33			3136.890r	84	26.7		OH	P 11	0,0	1
3132.521r	96	30.8		Fe I	3.21	578		3137.025r	47	15.0		Co I?— OH	1.74 R 2	48 1,1	1
3132.635r	84	34.5		—Fe I				3137.100r	29	9.3		Cr II?	5.33		
3132.821r	49	15.7		Cr I	3.12	183		3137.330r	88	28.2		Co I	0.22	10	
3133.066r	69	22.1		Fe II— Sc II	3.89 3.47	82 39		3137.445r	32	12.3		Co I	2.04	108	
3133.216r	87	28.0		OH	Q 17	0,0	1	3137.560r	31	9.8		Cr II	4.15	54	
3133.335r	95	30.4		V II	0.33	1		3137.710r	26	10.2		OH	R 16	1,1	1
3133.491S	62	19.9		Zr II	0.96	63		3137.765r	66	21.0		Co I OH	1.78 P 1	49 1,1	1
3133.59 a	7	2.7		Nd II				3137.896r	53	17.1		OH	Q 3	1,1	1
3133.676r	7.5	2.8						3138.014r	34	10.9					
3133.966r	108	62.7		Fe I p— OH	2.42 R 3	161 1,1	1	3138.076r	19	6.5		V II— OH	3.76 R 17	205 1,1	1
3134.116r	414	132		Fe I Ni I	0.96 0.21	28 25		3138.206r	8	2.6		Cr I	3.12	183	
3134.337r	106	55.9		OH Cr II	P 10 4.41	0,0 94	1	3138.306r	6	1.9		Cr I?	3.85		
3134.396r	63	41.2		Fe I?	2.69			3138.406r	25	8.1		Fe I	1.56	53	
3134.541r	28	11.9		OH— OH	R 16 Q 1	1,1 1,1	1 1	3138.518r	78	24.8		Fe I			
3134.626r	60	22.3		OH	Q' 1	1,1	1	3138.674r	57	18.3		Zr II	0.09	5	
3134.716r	48	24.4		OH— Hf II	R 15 0.38	1,1 5	1	3138.786r	37	11.9					
								3138.916r	27	8.8					
								3139.106r	11	3.6		Fe I p	2.45	161	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3139.164r	57	18.3		OH	Q 18	0,0	1	3143.486r		73.1		V II	2.51	122	
3139.306r	23	7.3		CH	R 1	0,0	2					CH	{Q 14 to Q 17}	{0,0 0,0}	2
3139.486r	13	4.3		Fe I								CH	{Q 13 Q 18}	{0,0 0,0}	2
3139.666r	61	19.6		Fe I	2.40	155		3143.575r		33.4		CH	{Q 13 Q 18}	{0,0 0,0}	2
3139.761r	107	34.2		V II Sc II— OH	2.51 3.49 Q 4	122 39 1,1	1	3143.764r		133.3		Ti II CH— OH	0.03 Q 11 P 12	4 0,0 0,0	2 1
3139.937r	106	25.1		Fe I Co I (Cr II)	0.10 4.14	9 54		3143.896r		15.9		CH Cr II	Q 9, 10 4.43	0,0 94	2
3140.016r	36	16.6						3143.996r		73.1		CH Fe I	Q 8, 9 3.21	0,0 578	2
3140.209r	50	16.1		Cr II	4.78	124		3144.116r	1237	15.9		CH	Q 6, 8	0,0	2
3140.388r	81	25.9		Fe I	3.24	578		3144.236r		15.9		CH	{Q 3 to Q 5 Q 7 Q 21}	{0,0 0,0 0,0 0,0}	2
3140.511r	62	19.8		OH	P' 11	0,0	1	3144.236r		15.9		CH	{Q 3 to Q 5 Q 7 Q 21}	{0,0 0,0 0,0 0,0}	2
3140.757r	101	32.1		OH— Ca I	P 11 1.89	0,0 15	1	3144.326r		15.9		CH OH	Q 6 Q 6	0,0 1,1	2 1
3140.938r	13	4.1						3144.453r		33.4		CH—	Q 5	0,0	2
3141.106r	39	15.8		CH?— Dy II	R 5	1,1	2	3144.501r		33.4		Fe I CH	2.47 Q 4	161 0,0	2
3141.181r	54	17.2		Ca I	1.89	15		3144.629r		15.9		CH	{Q 3 Q 22}	{0,0 0,0}	2
3141.296r	29	9.5						3144.737r		33.4		V II— Fe II	2.52 3.90	122 82	
3141.513r	56	18.1		Ti I (V II)	0.90 2.60	66 152		3144.816r		37	17,7				
3141.666r	23	7.3		Ti I	2.13	192		3144.925r		67	21.3	CH Fe I	Q 1 2.43	0,0 195	2
3141.801r	5.5	1.7		Cr II?	5.32	175		3145.091r	123	39.3		Fe I Cr II (CH)	2.99 2.45 Q 23	455 5 0,0	2
3141.908r	68	21.8		—OH	Q 5	1,1	1	3145.136r		80	40.4	Ni I—	0.00	7	
3142.021r	20	6.5		OH	Q' 5	1,1	1	3145.369r	128	40.8		V II	{0.35 0.39}	1 1	
3142.156r	21	8.1		OH— V II?	R 18 2.90	1,1 172	1	3145.526r		71	22.6	OH	Q 19	0,0	1
3142.224r	58	18.4		Fe II	1.67	7		3145.725r		115	36.6	Ni I	0.17	11	
3142.470r	123	38.7		Fe I— V II	2.45 2.22	164 52		3145.791r		80	34.5	Cr II CH— CH	4.41 Q 24 Q 24	85 0,0 0,0	2 2
3142.511r		0.5		OH	P 2	1,1	1	3145.976r		74	23.7	V II	0.37	1	
3142.676r	13	4.7		Mn I	2.89			3146.106r		18	5.9				
3142.731r	32	10.1		Cr II	4.41	85		3146.256r		69	21.9	V II	2.56	138	
3142.897r	88	28.1		Fe I	2.28	144		3146.301r		18	7.8	Fe I			
3143.016r	75	23.7		OH	Q 19	0,0	1	3146.466r		47	14.9	Fe I	2.42	160	
3143.156r	27	9.3		Ti I? p	0.00	28									
3143.242r	76	25.6		Fe I	0.00	7									
3143.336r	23	7.8		Ti I	2.04	180									

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3146.598r	106	33.9		CH— CH OH	Q 25 Q 25 Q 3	0,0 0,0 1,1	2 2 1	3151.005r	66	20.9		OH	P 13	0,0	1
3146.756r	48	15.3		Fe II	3.77	67		3151.097r	20	6.5		Ti I? Ca I	0.00 1.90	28 15	
3146.934r	73	23.2		OH	Q 7	1,1	1	3151.237r	69	21.9		Ni I Ca I	1.90	15	
3147.068r	89	28.2		Co I	0.17	10		3151.352r	114	36.2		Fe I (V II)	2.73 2.54	311 138	
3147.235r	152	34.3		Cr II	2.48 4.17	5 54		3151.517r	11	3.5					
3151.642r								14	4.4		Ca I	1.90	15		
3147.267r		25.1		Fe I— OH	Q 4	1,1	1	3151.863r	82	26.5		Fe I	0.05	7	
3147.447r	96	30.4		OH— OH	P 3 P 12	1,1 0,0	1 1	3152.000r	75	23.8					
3147.599r	102	32.4		Fe I— CH	Q 26	0,0	2	3152.117r	66	21.1		OH	Q 7	1,1	1
3147.784r	100	31.9		Fe I	3.02	455		3152.262r	142	45.1		Ti II— OH	0.12 Q 20	10 0,0	1
3148.042r	114	36.2		Ti II	0.00	4		3152.457r	38	12.2		OH	P 4	1,1	1
3148.168r	65	20.6		Mn I	2.28	19		3152.597r	10	3.3					
3148.307r	43	13.8		—OH?	Q' 5	1,1	1	3152.737r	65	20.8		Co I— CH	2.01 P 3	73 0,0	2
3148.440r	103	32.8		OH Fe I Cr I	Q 5 2.43 2.97	1,1 194 115	1	3152.857r	14	4.4		Cr I?	3.00	116	
3148.642r	14	4.4		Fe I?	2.20			3152.957r	58	18.4		OH— OH	P' 2 P 2	1,1 1,1	1 1
3148.797r	61	19.4						3153.058r	50	16.0		Fe I	{2.20 2.95	99 452	
3148.900r	67	21.4						3153.191r	118	37.4		Fe I OH	2.45 Q 9	161 1,1	1
3149.122r	8	2.5		Cr II?	4.41	84		3153.319r	95	30		Fe I	2.45	160	
3149.317r	63	20.0		Co I	0.17	9		3153.568r	27	8.6		Cr I— Ti I?	3.37	200	
3149.397r	20	7.6						3153.751r	70	22.3		Fe I			
3149.497r	27	8.7		Fe I	2.95	453		3153.870r	10	3.2					
3149.642r	11	3.6						3154.005r	31	10.0					
3149.724r	55	17.4						3154.120r	57	21.4		Fe I	1.61	53	
3149.852r	133	31.2		OH (Cr II)	Q 20 4.14	0,0 54	1	3154.200r	144	45.7		Fe II Ti II	3.77 0.11	66 10	
3149.898r									20.6		OH	Q 8	1,1	1	3154.420r
3150.077r	93	29.5		OH— Cr II	Q 6 4.15	1,1 54	1	3154.493r	93	29.5		OH Fe I	P 13 2.47	0,0 161	1
3150.229r	49	17.2		Fe I? p	2.48	161		3154.595r	82	26.0		Ni I— OH	1.95 Q 8	78 1,1	1
3150.307r	94	29.8		Fe I— OH	3.28 P' 1	578a 1,1	1	3154.643r	75	45.3		OH	O 9	0,0	1
3150.417r	39	12.7		CH	P 2	0,0	2	3154.788r	76	24.1		Co I	1.88	73	
3150.512r	20	6.5						3154.940r	18	5.7					
3150.652r	18	5.7		Co I?				3155.130r	101	32.0		Cr I Fe I	2.98 2.48	115 161	
3150.747r	73	23.3		Ca I	1.90	15									
3150.832r	16	5.5		Co I?											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3155.290r	85	27.1		Fe I	2.43	193		3159.261r	94	39.0		Rh II Fe I	3.15 2.61	2 259	
3155.405r	35	11.2		V II	2.22	51		3159.349r	95	30.2		Fe II? V II?	4.15 2.37	120 83	
3155.622r	160	{36.2		CH	P 4	0,0	2	3159.436r	39	15.4		Fe I	2.76		
3155.658r		{36.2		Ti II Zr II	0.13 0.93	10 63		3159.531r	122	38.7		Ni I OH	0.17 Q 21	11 0,0	1
3155.795r	66	20.9		Fe I p	2.40	192a		3159.671r	85	38.6		Co I	{0.22 0.58	9 26	
3155.905r	84	{23.8		CH	P 4	0,0	2	3159.831r	38	14.4		-Cr II	4.17	54	
3155.940r		{6.4		Fe II	3.77	67		3159.935r	127	40.4		CH- Mn I	Q 13 2.92	1,1	2
3156.090r	6	1.9						3160.082r	46	16.0		OH- Cr II	P 4 4.15	1,1 54	1
3156.190r	18	7.0		OH	P' 3	1,1	1	3160.213r	121	38.5		Fe I	3.26	578	
3156.272r	137	43.6		Fe I	3.24	578		3160.347r	72	22.8		Fe I	2.40	192a	
3156.450r	65	20.7		Fe I	2.99	454		160.472r	35	12.3					
3156.565r	48	15.4		CH Pt I	Q 2 1.26	1,1 2	2	3160.612r	188	{27.2		Cr I CH	2.98 Q 14	115 1,1	2
3156.727r	38	12.2		CH	Q 4	1,1	2	3160.647r		{48.1		Fe I	2.42	155	
3156.845r	69	33.9		OH	Q 10	1,1	1	3160.801r	109	34.7		V II- OH	{2.26 2.56 Q 10 Q 11	65 138 1,1 1,1	1
3156.916r	89	40.9		-CH	Q 5	1,1	2	3160.923r	84	37.0		Fe I p	2.47	160	
3157.031r	234	74.1		Fe I (Zr II)	2.42 0.53	160 23		3161.033r	68	21.7		Mn I	2.30	19	
3157.143r	148	88.6		OH- Fe I p	Q 21 2.28	0,0 144	1	3161.204r	147	46.6		Ti II	0.11	10	
3157.294r	49	24.6		Fe I				3161.382r	145	{39.8		Fe I CH	1.56 P 6	52 0,0	2
3157.411r	189	59.9		Ti II	0.01	4		3161.423r		{14.8					
3157.501r	123	64.0		-OH	Q 9	1,1	1	3161.553r	46	14.6		Fe I	2.45	195	
3157.634r	46	18.2		CH	Q 8	1,1	2	3161.653r	44	14.2		Co I	1.96	73	
3157.751r	95	30.1		CH OH?	Q 9 P 5	1,1 1,1	2 1	3161.774r	147	46.6		Ti II	0.12	10	
3157.882r	153	48.6		Fe I- V II	2.47 2.22	164 50		3161.901r	44	21.1		OH	P 14	0,0	1
3157.996r	95	30.1		Fe I	2.42	159		3161.952r	123	39.1		Fe I Fe II	2.40 1.69	160 7	
3158.049r	90	63.0		Cr II-	4.38	70		3162.123r	10	3.3					
3158.191r	46	14.7		Mo I	0.00	2		3162.178r	13	4.2					
3158.351r	48	26.9		Fe II p-	3.94	95		3162.353r	107	33.8		Fe I CH	{2.45 2.69 Q 16	159 310 1,1	2
3158.403r	137	43.5		CH	P 5	0,0	2	3162.433r	33	15.3		Cr II	4.07	46	
3158.521r	96	30.4		OH	P 14	0,0	1	3162.570r	172	54.4		Ti II	0.13	10	
3158.633r	80	32.3		CH	P 5	0,0	2	3162.703r	26	11.2		V II	2.38	83	
3158.783r	78	60.2		Co I CH	0.10 Q 11	10 1,1	2	3162.803r	68	21.6		Fe II	4.15	120	
3158.886r	288	91.2		Ca II	3.12	4									
3159.011r	70	43.4		Fe I	2.95	452									
3159.111r	83	33.3		Cr II	2.48	5									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3162.923r	8	2.5						3166.767r	69	35.7		CH	P 8	0,0	2
3163.028r	101	4.7		V II	2.37	84		3166.865r	16	6.2					
3163.095r		27.4		Fe II	1.67	7		3166.985r	50	15.7		Fe I	3.02	455	
3163.223r	45	14.3		OH	P 6	1,1	1	3167.177r	53	16.7		OH	Q 22	0,0	1
3163.423r	89	28.2		Nb II— CH	0.38 Q 17	1 1,1	2	3167.295r	3.5	1.0					
3163.558r	4	1.2						3167.415r	19	5.9		V II	3.79	217	
3163.683r	13	4.2						3167.595r	38	12.2					
3163.768r	51	16.2		Cr I	3.00	115		3167.790r	199	14.3		Fe I CH	2.18 Q 20	99 1,1	2
3163.888r	96	30.8		Fe I				3167.859r		37.0		Fe II	3.81	66	
3163.930r	78	50.7		Cr II— CH	4.30 P 7	69 0,0	2	3167.910r		17.5		Fe I Fe II p	3.24 3.89	578 82	
3164.068r	63	20.0		CH	P 7	0,0	2	3168.045r	20	8.5		Co I	2.08	108	
3164.173r	36	11.5		Ni I	1.95	79		3168.151r	1077	340		V II	1.07	8	
3164.295r	84	26.5		Fe I Zr II	2.45 0.71	163 50		3168.280r	24	8.2					
3164.418r	61	19.1		OH	P 5	1,1	1	3168.435r	217	10.1					
3164.548r	72	22.9		OH	Q 11	1,1	1	3168.528r		61.9		Ti II	0.15	10	
3164.685r	70	22.3		CH	Q 18	1,1	2	3168.672r	100	58.0		OH	Q 12	1,1	1
3164.833r	80	25.5		V II OH	1.10 Q 22	8 0,0	1	3168.856r	89	28.1		Fe I	2.47	160	
3164.898r	32	17.0		Ti II				3168.955r	79	25.0		—OH	P 7	1,1	1
3165.005r	90	28.6		Fe I	2.42	155		3169.075r	24	7.9		OH— Fe I p	P' 6 3.57	1,1 813	1
3165.084r	18	5.7		Fe I p	2.45	194		3169.192r	48	15.2		OH— Cr II	P 6 4.78	1,1 123	1
3165.157r	72	22.8		OH Fe I p	Q 12 2.18	1,1 100	1	3169.366r	87	27.4		CH	P 9	0,0	2
3165.266r	62	20.7		Fe I				3169.427r	71	28.6		CH	P 9	0,0	2
3165.35 a	7.5	2.8						3169.616r	74	23.5		OH	P 15	0,0	1
3165.420r	23	7.7		Zr II	1.00	63		3169.753r	81	25.7		Co I	2.08	109	
3165.512r	64	20.4		Ni I	0.03	21		3169.861r	56	18.5		OH	Q 13	1,1	1
3165.675r	16	5.1						3170.006r	18	5.7		Dy II			
3165.875r	95	29.9		Fe I	2.45	160		3170.128r	39	12.5					
3165.958r	84	26.7		Zr II	0.16	5		3170.256r	19	7.7					
3166.130r	71	22.6		CH	Q 19	1,1	2	3170.344r	107	33.9		Fe II	1.69	6	
3166.255r	83	26.4		Fe I— Zr II	2.45 0.80	155 48		3170.481r	47	15.8					
3166.335r	46	14.7		OH	P 15	0,0	1	3170.54 a	9	3.1					
3166.438r	108	33.2		Fe I	2.56	259		3170.711r	65	20.7		Ni I	1.93	78	
3166.595r	46	18.2		Fe I p	2.20	100		3170.806r	13	4.2					
3166.674r	120	37.9		CH Fe II	P 8 1.67	0,0 6	2	3170.985r	43	13.9		Fe I?			
								3171.141r	22	7.0					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3171.216r	13	4.3						3175.39 a	16	9.1					
3171.355r	73	23.1		Fe I	{1.48 3.05	52 548		3175.451r	119	37.5		Fe I	2.40	155	
3171.466r	12	3.7						3175.555r	29	11.5		Mn I	4.34		
3171.665r	75	23.8		Fe I	2.48	160		3175.710r	12	3.8		Mn I?	4.33		
3171.771r	33	11.1						3175.820r	12	3.9					
3171.936r	19	7.2						3175.988r	57	18.0		Fe I	2.88	333	
3172.051r	144	26.2		Fe I Cr II Fe I p (CH)	{2.20 2.45 4.38 2.20 P 10	99 193 71 100 0,0	2	3176.100r	7.5	2.4					
3172.087r								31.5					3176.299r	83	41.6
3172.297r	46	14.9		Fe I	2.76	312		3176.351r	94	29.8		Fe I	2.61	258	
3172.377r	7	2.4						3176.445r	37	14.5					
3172.507r	43	13.3						3176.600r	5	1.5		W I?	0.21	5	
3172.647r	19	6.2		-Ru II?	4.18			3176.675r	6	2.1					
3172.722r	12	4.0		Ti I	0.90	65		3176.835r	7	2.4		Hf II?	0.61	8	
3172.852r	16	5.1		Tm II?	0.03	8		3176.930r	3	1.1					
3172.997r	58	18.3		OH	Q 23	0,0	1	3177.080r	14	4.6		Ru II	2.40	2	
3173.210r	67	21.2		OH	Q 13	1,1	1	3177.302r	91	28.8		Co I— CH	P 12	0,0	2
3173.408r	87	27.4		Fe I	2.88	333		3177.542r	74	23.3		Fe II	3.90	82	
3173.550r	121	15.4		Co I Cr II?	1.88 4.41	72 83		3177.680r	61	19.3		OH	P 16	0,0	1
3173.605r								28.1					3177.822r	56	17.7
3173.683r	82	25.9		Fe I	2.86	333		3178.021r	129	40.6		Fe I	2.40	156	
3173.840r	12	4.0		OH	O 11	0,0	1	3178.161r	58	18.3		OH	Q 14	1,1	1
3173.950r	5	1.5						3178.326r	5	1.9					
3174.055r	26	8.2		V II	2.38	84		3178.431r	26	8.5					
3174.155r	23	7.5		Co I	2.70	138		3178.509r	68	22.4		Mn I— Fe I	2.32 3.02	19 454	
3174.221r	39	12.3		Fe I p	3.28	578		3178.641r	18	6.1		Ti II Fe I	3.84	120	
3174.380r	35	11.0		OH	P 7	1,1	1	3178.786r	16	5.8		Cr II?	5.33	173	
3174.490r	69	21.7		OH (V II)	P 16 3.80	0,0 217	1	3178.966r	46	17.4		Fe I	2.43	192a	
3174.697r	98	31.0		CH	P 11	0,0	2	3179.061r	21	11.3					
3174.785r	31	10.2		Ti II				3179.166r	73	45.4					
3174.953r	94	29.8		OH	Q 14	1,1	1	3179.342r	580	182		Ca II	3.15	4	
3175.045r	69	25.8		Sn I OH (Fe II)	0.42 P 8 4.73	1 1,1 157	1	3179.513r	92	63.5		Fe II Fe I— Fe I	4.73 1.61	157 52	
3175.165r	26	8.2						3179.671r	17	9.2					
3175.314r	83	26.4		OH Fe I	Q 23 2.76	0,0	1	3179.786r	16	5.8		CH	P 13	0,0	2
								3179.901r	71	26.3		OH	P 8	1,1	1
								3179.966r	34	17.4		-Fe II	4.74	157	
								3180.121r	59	22.3					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3180.236r	53	17.8		Fe I	2.45	155		3184.114r	67	21.1		Ti II	0.01	3	
3180.491r	82	26.2		OH—	Q 15	1,1	1	3184.210r	49	15.4		Fe I			
3180.710r	476	110		Cr II	2.54	9		3184.379r	93	29.1		Ni I	0.27	11	
3180.746r			110	Fe I	0.09	7		3184.442r	32	17.4		Fe II p	3.81	67	
3180.881r	27	8.7						3184.547r	20	6.8					
3180.991r	16	5.0						3184.615r	49	15.4		Fe I	{2.45 2.45}	155 162	
3181.131r	9.5	3.6		Fe I				3184.762r	19	5.9					
3181.201r	21	12.8						3184.895r	130	41.0		Fe I	0.05	7	
3181.276r	182	57.4		Ca II	3.15	4		3185.022r	96	34.1		CH	P 15	0,0	2
3181.420r	76	30.6		OH Cr II	P 9 2.54	1,1 9	1	3185.092r	25	13.3		Fe II	3.81	67	
3181.531r	91	35.4		Fe I	2.59	258		3185.222r	17	6.3					
3181.641r	50	15.7		OH	Q 24	0,0	1	3185.327r	114	35.8		Fe II	1.72	7	
3181.745r	27	8.5		Ni I	1.93	78		3185.388r	82	38.8		V I	0.07	14	
3181.864r	71	22.4		Fe I	2.87	333		3185.564r	39	12.3					
3181.911r	49	15.4		{Fe I Zr II	{2.47 3.02 0.71	155 505 48		3185.674r	55	17.4					
3182.061r	78	24.5		{Fe I— CH	{2.42 2.85 P 9	159 333 1,1	2	3185.979r	46	14.6		OH	P 9	1,1	1
3182.121r	44	17.1		Co I	2.01	73		3186.104r	86	27.5		OH	P 17	0,0	1
3182.246r	43	13.5						3186.272r	25	9.1		Fe I			
3182.316r	37	11.6						3186.383r	63	26.2		Co I OH	0.17 Q 16	8 1,1	1
3182.316r	37	11.6						3186.453r	124	39.0		Ti I	0.00	27	
3182.471r	81	25.6		CH	P 14	0,0	2	3186.634r	18	6.8					
3182.651r	35	11.0		—V II	2.60	150		3186.752r	163	43.9 19.2		Fe II	1.69	6	
3182.807r	34	14.2					3186.794r					—Fe I	2.22	100	
3182.850r	41	12.9		Zr II	0.56	23		3186.86 a	98	43.0					
3182.990r	85	26.7		{Fe I Ni I	2.20 1.99	100 78		3186.964r	64	28.7					
3183.05 a	47	22.6						3187.064r	15	6.3		Mn II	4.69		
3183.124r	87	27.4		Fe II	1.69	7		3187.168r	63	20.1		Fe I	2.88	333	
3183.261r	62	19.4		Ni I	1.95	78		3187.308r	69	21.8		Fe II	4.15	120	
3183.317r	36	11.8		Cr II	4.41	82		3187.556r	87	27.3		CH— CH	P 16 P 16	0,0 0,0	2 2
3183.422r	73	23.0		V I	0.02	14		3187.713r	111	34.9		V II	1.07	8	
3183.520r	36	11.3		OH (Ce II)	Q 15 0.56	1,1 216	1	3187.899r	13	4.2		Rh II	3.45	4	
3183.581r	66	20.8		Fe I p	2.43	192a		3188.034r	119	29.8 19.8 2.8		OH Cr I	P 10 2.99	1,1 92	1
3183.762r	2	0.8					3188.059r					V II	2.22	49	
3183.964r	119	24.7		V I	0.04	14		3188.199r			9	2.8			
3183.998r			22.5	V I	0.00	14									

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3188.335r	111	21.3		CH	P 11	1,1	2	3192.396r	115	36.3		Fe I	{2.22 3.40	100 711	
3188.376r		21.3		Co I	1.96	74		3192.534r	89	30.1		Fe I— CH?	P 18	0,0	2
3188.544r	168	55.5		V II— Fe I	1.10 2.40	8 159		3192.617r	39	20.1		CH	P 18	0,0	2
3188.822r	111	34.7		Fe I	2.48	159		3192.724r	71	35.7		OH	Q 17	1,1	1
3188.934r	24	9.3						3192.824r	172	54.0		Fe I	2.48	155	
3189.084r	2.5	0.8						3192.917r	152	67.0		Fe II	1.67	6	
3189.169r	0.5	0.6						3193.054r	38	18.3		OH	Q 25	0,0	1
3189.317r	35	10.9		OH	Q 16	1,1	1	3193.234r	264	{64.4 55.2		Fe I	0.00	7	
3189.494r	18	5.7		Ti II	3.82	120		3193.301r					Fe I	2.47	159
3189.634r	1.5	0.5		Fe I				3193.549r	24	8.1		Hf II—	0.38	2	
3189.764r	29	9.1		Co I	0.22	9		3193.734r	217	{25.5 51.1		Fe I Fe II p	3.27 3.89	682 79	
3189.824r	10	3.7		Cr II?	4.78	123		3193.816r					Fe II	1.72	6
3189.964r	15	5.0		Mn I	{4.35 4.36			3193.979r	32	11.3		Mo I V II	0.00 2.22	3 49	
3190.042r	95	29.8		Fe I— CH	2.59 P 17	259 0,0	2	3194.094r	67	20.9		—Cu I	1.64	3	
3190.104r	105	52.2		CH	P 17	0,0	2	3194.234r	55	17.4		Hf II— Ti II	0.45 3.86	10 120	
3190.164r	33	11.5						3194.339r	26	9.4					
3190.294r	23	7.4		OH	R 7, 12	2,2	1	3194.431r	98	30.7		Fe I	2.47	155	
3190.404r	11	3.4		OH?	R 9	2,2	1	3194.524r	74	23.1		CH	P 13	1,1	2
3190.539r	24	7.7						3194.586r	94	29.5		Ti II	3.88	120	
3190.683r	97	30.6		V II Fe I	1.13 3.05	8 548		3194.764r	20	6.4		Ti II? Ni I p	3.42	108	
3190.849r	202	44.5		Fe I	3.05	548		3194.849r	68	21.3		OH Ce II	P 18 0.61	0,0 217	1
3190.899r		34.7		Ti II	1.08	26		3194.973r	41	12.9		Nb II	0.33	1	
3191.124r	62	19.6		Fe I	2.56	258		3195.085r	76	23.7		CH OH	P 19 P 11	0,0 1,1	2 1
3191.194r	23	9.3		Fe I	2.99	452		3195.140r	45	18.5		Ru II CH	4.22 P 19	0,0	2
3191.314r	20	6.2		Co I	0.17	7		3195.230r	80	25.3		Fe I			
3191.414r	81	25.4		Fe I p CH	3.25 P 12	682 1,1	2	3195.37 a	19	7.2					
3191.564r	11	3.9		W I?	0.00	5		3195.405r	24	7.5					
3191.664r	89	28.1		Fe I	0.00	8		3195.593r	126	39.4		Ni I— Y II	0.27 0.10	12 10	
3191.799r	57	17.9		OH	P 18	0,0	1	3195.725r	70	22.7		Ti II	1.08	25	
3191.889r	46	14.5		Ni I— Zr II	3.54 0.80	125 50		3195.875r	20	7.2					
3192.008r	145	37.3		Ti I	0.02	27		3195.990r	51	32.2		Fe I	2.45	192a	
3192.039r		17.8		Fe II	3.81	66		3196.106r	245	76.7		Fe II	1.67	7	
3192.194r	65	20.6		Co I	1.96	72									
3192.274r	71	22.3		Ti II	1.08	25									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3196.195r	33	21.3						3200.791r	81	25.5		Fe I	0.09	8	
3196.340r	39	13.6		Cr II?	2.54	9		3200.962r	71	22.2		OH	P 19	0,0	1
3196.465r	30	9.4						3201.014r	50	16.5					
3196.570r	49	15.5		V II	2.27	62		3201.127r	12	3.8		Fe I			
3196.625r	47	14.9		Fe II p	3.97	95		3201.262r	40	12.5		Cr II	4.74	114	
3196.75 a	31	11.6						3201.382r	26	8.3					
3196.835r	48	30.4						3201.512r	42	13.3		OH	Q 4	2,2	1
3196.925r	218	43.9		Fe I	2.42	155		3201.612r	34	10.8		Ti I	1.05	90	
3196.973r			43.9	Cr II— Fe I	2.54 0.05	9 8		3201.722r	10	3.1		Ce II	0.86	76	
3197.110r	274	96.3		Cr II— Ni I	2.54 0.21	9 24		3201.892r	14	4.5		Fe I	2.45	159	
3197.206r	25	13.0						3201.957r	17	5.3					
3197.206r	25	13.0						3202.141r	68	21.4		Ni I	3.19	94	
3197.361r	8.5	2.7						3202.257r	40	13.4		OH	Q 18	1,1	1
3197.541r	105	32.8		Ti II Fe I	0.03 3.42	3 711		3202.382r	76	26.7		V I OH	0.04 P 12	14 1,1	1
3197.596r	64	25.8		V II?— CH	2.60 P 20	150 0,0	2	3202.539r	156	48.9		Ti II— Fe I	1.08 3.05	26 547	
3197.710r	75	23.6		CH	P 20	0,0	2	3202.667r	86	26.9		Fe I p	1.61	52	
3197.871r	1	0.3						3202.695r	29	9.1		CH OH	P 22 Q 26	0,0 0,0	2 1
3198.021r	57	17.8		V I	0.02	14		3202.822r	50	15.6		CH	P 22	0,0	2
3198.101r	25	8.8		Cr I	2.99	91		3202.942r	15	4.7		Fe I			
3198.20 a	17	5.5						3203.032r	16	5.2		Co I	0.10	9	
3198.276r	48	15.0		Fe I	2.61	258		3203.162r	4	1.3					
3198.487r	58	18.2		Fe I				3203.323r	71	22.4		Y II	0.10	10	
3198.687r	23	7.2		Co I	0.63	26		3203.440r	78	24.4		Ti II	0.00	3	
3198.902r	10	3.3		Fe I?—				3203.512r	24	7.5		Fe II— Cr II	3.90 4.07	79 46	
3199.137r	52	16.2		OH—	P 11	1,1	1	3203.612r	3	1.3		Ti I?	0.02	26	
3199.237r	11	3.6						3203.712r	3	1.1		Fe II	5.95	196	
3199.342r	60	19.7		Co I—	0.17	9		3203.832r	57	17.9		Ti I	0.02	27	
3199.527r	196	61.2		Fe I (Fe I p)	2.42 0.11	156 7		3203.980r	37	11.5		OH	P 19	0,0	1
3199.662r	55	21.4						3204.113r	2	0.6					
3199.822r	23	9.4		V I?	1.86			3204.284r	52	16.2		—Fe I	3.27		
3199.922r	114	35.8		Ti I	0.05	27		3204.453r	14	4.5		Fe I			
3200.137r	59	20.6		CH	P 21	0,0	2	3204.573r	2	0.6					
3200.295r	147	46.2		Y II—	0.13	10		3204.693r	2.5	0.8					
3200.460r	207	64.8		Ni I— Fe I	0.03 {2.47 2.47	23 155 162		3204.863r	28	8.7		Ti I	1.05	90	
3200.622r	13	5.3						3204.953r	20	6.3		Nb II	2.16		

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3205.113r	41	12.9		Cr II	4.75	114		3209.185r	117	36.5		Cr II	2.54	9	
3205.223r	66	25.2						3209.299r	130	40.5		Fe I	{2.81 3.42	333 711	
3205.333r	18	17.7		CH	P 23	0,0	2	3209.434r	35	10.9		OH	Q 19	1,1	1
3205.408r	168	52.5		Fe I CH	2.48 P 23	155 0,0	2	3209.489r	16	5.2		OH	Q 7	2,2	1
3205.573r	36	11.3		V I	1.35	73		3209.624r	12	3.8		Fe II	4.48	137	
3205.653r	28	8.7		Ti II p	1.16	46		3209.674r	5.5	1.7					
3205.783r	35	11.0		Fe I	2.56?	252		3209.764r	10	3.1					
3205.838r	20	6.2		Ti I	0.00	26		3209.934r	72	22.6		Ca I Ni I	1.88 3.31	13 94	
3206.007r	45	14.0		Ti II	1.08	26		3210.046r	35	11.1		OH	P 13	1,1	1
3206.113r	12	4.0						3210.225r	158	49.5		Fe I	2.42	159	
3206.238r	30	9.5		OH	P 12	1,1	1	3210.452r	164	{39.3 28.2		Fe II	1.72	6	
3206.348r	19	5.9		Ti I	2.02	179		3210.480r						OH	P 20
3206.493r	9	3.6		Fe I?				3210.639r	52	16.5		Fe I?			
3206.533r	16	5.0		OH	Q 6	2,2	1	3210.724r	42	20.5		CH OH	P 25 Q 27	0,0 0,0	2 1
3206.763r	45	14.1		—OH	Q 19	1,1	1	3210.836r	113	35.3		Fe I	2.47	156	
3206.943r	65	20.2		Mn I— Ni I	2.11 3.40	14 94		3210.944r	26	8.3		Zr II	1.00	63	
3207.081r	59	18.5		Fe I	2.40	159		3211.064r	25	7.9		Fe II	3.94	95	
3207.178r	203	63.3		Sm II	0.00	2		3211.169r	32	10.1					
3207.248r	12	4.0		W I	0.37	9		3211.209r	28	8.8		CH?	P 18	1,1	2
3207.34 a	5.5	1.7		Ti I	1.05	90		3211.309r	18	5.7		Cr I	3.42	220	
3207.413r	30	9.6		V I	0.07	14		3211.490r	91	28.4		Fe I	2.48	162	
3207.563r	15	4.8						3211.634r	73	40.6					
3207.676r	58	13.3		Fe I—	2.83	382		3211.684r	121	37.7		Fe I	3.33	711	
3207.711r		7.5		Fe I				3211.884r	88	46.0		Fe I	{2.22 3.40	98 711	
3207.893r	10	3.2		Ti I	1.98	179		3212.005r	200	62.4		Fe I	2.40	158	
3207.989r	36	11.3		CH—	P 24	0,0	2	3212.165r	76	29.1		Fe I			
3208.094r	45	14.0		CH	P 24	0,0	2	3212.323r	59	18.4					
3208.214r	10	3.1		Cu I	1.64	3		3212.440r	24	8.5		Fe I? V I	1.38	73	
3208.352r	66	20.5		V II	1.10	8		3212.545r	57	17.9		Cr II	4.41	81	
3208.474r	90	28.0		Fe I	3.43	711		3212.690r	33	10.2		Ti II p	0.11	9	
3208.595r	88	27.8		Cr II	2.54	9		3212.892r	94	29.2		Mn I (Cr II)	2.11 4.76	14 114	
3208.689r	45	17.5						3213.135r	91	31.8		Ti I Ti II	1.07 0.01	90 3	
3208.794r	21	8.4		OH	P 3	2,2	1	3213.311r	185	57.5		Fe II	1.69	6	
3208.894r	27	8.8		Ni II	2.86	2		3213.404r	28	18.4		Ni I	3.40	91	
3209.004r	22	8.8		Ti I	1.97	179									
3209.117r	51	30.3		Fe I	2.18	97									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3213.474r	57	22.8		OH	P 20	0,0	1	3217.392r	133	41.6		Fe I Cr II	2.40 2.54	157 9	
3213.564r	32	10.6		Ti II Fe I	3.88	120		3217.545r	65	32.3		Fe I p	2.59	254	
3213.694r	44	13.9						3217.725r	11	3.6					
3213.744r	55	17.4		OH— Fe I	P 13 3.02	1,1 452	1	3217.841r	72	22.3		Ni I	3.19	91	
3213.929r	26	15.4						3217.935r	35	11.1		Ti I	1.97	179	
								3218.075r	37	11.6		OH	P 14	1,1	1
3214.030r	229	46.0		Fe I	{2.45 3.37	156 711		3218.205r	12	3.7					
3214.072r			56.1	Ni I Fe I		3.19 2.45	93 158		3218.276r	84	26.1		Ti II	1.57	84
3214.222r	68	27.7		Zr II— Ti I	0.09 0.05	3 27		3218.450r	13	4.2		Ti II p	1.16	46	
3214.402r	105	32.7		Fe I	0.09	7		3218.614r	28	8.8		Sm II			
3214.494r	44	18.4		OH	Q 20	1,1	1	3218.684r	33	10.2		Cr I	2.99	92	
3214.614r	38	12.0		Fe I	2.28	143		3218.864r	16	5.8		V I	1.35	72	
3214.776r	106	33.2		Ti II V II	0.05 1.13	3 8		3218.984r	29	9.0		Ce II?	0.86	75	
3214.864r	30	11.3		CH?	P 19	1,1	2	3219.146r	76	23.6		Co I	0.10	8	
3215.029r	29	9.0		OH	Q 7	2,2	1	3219.199r	34	12.0		Ti I	1.98	179	
3215.179r	105	20.4		Ca I	1.89	13		3219.369r	35	14.7		Fe I p	2.69	308	
3215.204r			20.4	Fe I					3219.429r	8.5	4.6		OH?	P 5	2,2
3215.354r	28	10.8		Ca I	1.89	13		3219.597r	192	59.6		Fe I	2.45	156	
3215.404r	71	22.2		Fe I				3219.805r	167	52.0		Fe I	2.42	158	
3215.594r	8.5	2.7		Nb II	0.44	1		3219.965r	43	15.2					
3215.644r	19	6.1		Fe I	2.81	332		3220.145r	31	9.5					
3215.714r	14	4.3						3220.312r	51	16.1					
3215.844r	69	21.5						3220.433r	60	18.7		OH	P 21	0,0	1
3215.948r	123	38.6		Fe I	2.47	156		3220.550r	39	12.2		Ti II	0.12	9	
3216.049r	23	9.3		Fe I p	3.30	682		3220.607r	30	10.1		Co I	2.96	152	
3216.214r	50	15.7		Ti I	1.07	90		3220.775r	32	10.5		Ir I	0.35	5	
3216.359r	4.5	1.4		Fe I?				3220.835r	30	9.2		Fe II	4.08	106	
3216.546r	62	19.5		Cr II	4.41	82		3220.970r	22	7.1					
3216.694r	69	21.6		Y II	0.13	10		3221.135r	46	14.3		OH— Ti I	Q 9 0.02	2,2 26	1
3216.815r	49	15.3		Ni I	3.31	93		3221.274r	80	24.8		Ni I	3.83	185	
3216.927r	119	37.0		Mn I Fe I	0.00	3		3221.385r	39	13.1		Ti I	2.00	179	
3217.070r	168	39.6		Ti II	0.03	2		3221.545r	38	12.1		OH	Q 28	0,0	1
3217.097r			27.6	V I V II	0.04 2.05	14 38			3221.659r	104	32.4		Ni I	0.00	8
3217.300r	10	4.8						3221.760r	29	12.2		Ti II p	1.16	46	
								3221.888r	98	18.8					
								3221.920r			34.2		Fe I	2.48	156

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3222.087r	258	80.0		Fe I	2.40	156		3226.446r	48	16.9		OH	P 15	1,1	1
3222.260r	33	18.2						3226.541r	42	14.1		Cr I	0.98	25	
3222.444r	36	12.2		Zr II	1.76	104		3226.738r	130	24.8		Fe I	0.09	8	
3222.584r	44	13.7					3226.764r	27.0					Ti II	0.03	3
3222.729r	51	28.7		Ti I	0.02	26		3226.891r	40	14.4		V II	3.12	185	
3222.855r	205	63.6		Ti II	0.01	2		3227.007r	92	28.5		Co I Ni I	2.33 0.00	124 7	
3222.944r	24	25.3						3227.059r	61	19.1		Fe I	2.48	156	
3223.099r	44	13.8		Fe I	3.30	682		3227.176r	70	27.0		Fe I p	2.56	247	
3223.263r	85	26.5		Fe I	1.48	51		3227.276r	19	7.0					
3223.364r	44	13.7		OH	P 21	0,0	1	3227.426r	24	10.5		V I?	2.37	134	
3223.449r	32	13.8		Fe I	3.30			3227.496r	19	10.2					
3223.516r	66	20.5		Ti I Ni I	2.02 {3.19 3.50	179 92 94		3227.631r	46	38.3					
3223.639r	34	10.5						3227.761r	424	99.6		Fe II	1.67	6	
3223.744r	25	7.4		Gd II? OH?	0.24 Q 28	10 0.0	1	3227.809r			99.6			Fe I	2.42
3223.847r	51	15.8		Fe I	0.99	27		3227.996r	57	45.9		Fe I	2.83	379	
3224.039r	9.5	3.0		Fe I p	3.64	920		3228.103r	75	33.9		Mn I	2.11	14	
3224.253r	104	32.5		Ti II	1.58	84		3228.254r	107	38.2		Fe I	2.47	157	
3224.425r	9.5	3.0						3228.387r	31	15.2		Ti II p	1.16	46	
3224.485r	11	3.3						3228.502r	52	16.9		Ru II—	4.04		
3224.635r	45	14.1		Co I	1.88	71		3228.619r	106	33.1		Ti II Fe I Fe II	1.08	24	
3224.767r	31	9.5		Mn I	0.00	3									
3224.925r	76	23.5		Fe I				3228.837r	54	21.6		Zr II	0.80	49	
3225.031r	125	41.4		Ni I	0.42	39		3228.900r	95	29.6		Fe I OH	2.48 P 15	157 1,1	1
3225.122r	22	14.7		OH	Q 11	2,2	1	3229.147r	191	37.2		Fe I	0.12	8	
3225.267r	23	8.7		OH	Q 21	1,1	1	3229.208r			49.6			Ti II	0.00
3225.372r	18	7.8		Cr II	4.92	140		3229.352r	26	10.9		Co I Cr II	3.02 4.07	152 46	
3225.462r	27	13.5		Cr II— Nb II	4.07 0.29	45 1		3229.426r	104	32.3		Ti II	1.13	36	
3225.617r	36	29.5		Fe I	{2.43 3.64	192 920		3229.588r	99	30.9		Fe I	2.83	333	
3225.712r	33	57.7						3229.795r	66	25.8		Fe I	2.59	247	
3225.804r	506	157.1		Fe I	2.40	155		3229.883r	104	32.3		—Cr II	4.76	114	
3225.909r	26	27.6		Ca I	1.90	13		3229.990r	104	34.6		Fe I	3.05	546	
3226.028r	40	26.4		Mn I	2.14	14		3230.097r	45	18.8		Fe I	0.96	27	
3226.151r	59	29.4		Ca I Ti I	1.90 2.04	13 179		3230.207r	131	40.6		Fe I	2.47	158	
3226.227r	14	6.5		Ti I	0.05	27		3230.472r	56	17.4		—Fe II	3.97	95	
3226.347r	18	7.0		Ca I	1.90	13		3230.592r	34	10.5		Sm II	0.18	21	
								3230.727r	70	22.5		OH Mn I	P 22 2.14	0,0 14	1

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3230.846r	44	13.5						3234.932r	50	21.2		Fe II	0.99	1	
3231.007r	97	32		Fe I	2.45	157		3235.027r	30	11.7		Mn I	3.07		
3231.077r	24	9.0		Ni I p	3.42	106		3235.187r	35	12.4		Fe I— OH	P 16	1,1	1
3231.11 a	10	3.7						3235.327r	58	19.1		Fe I Mn I	2.73 3.07	309	
3231.222r	42	13.1		OH?— Ce II	P 7 0.50	2,2 149	1	3235.557r	71	10.2		Co I	{1.96 2.79	71 138	
3231.326r	106	36.5		Ti II	0.13	9		3235.584r			15.7		Fe I	2.69	308
3231.472r	36	11.3		OH	{Q 22 P 6	1,1 2,2	1	3235.771r	84	19.5		Ni I	0.27	11	
3231.587r	49	16.4		Fe I	1.48	50		3235.796r			11.6		Co I	2.01	72
3231.707r	27	8.4		Fe II Zr II	3.89 0.04	80 3		3235.933r	10	3.0		Ti I? p	0.83	47	
3231.842r	6.5	2.0						3236.134r	96	31.6		Ti II	1.08	24	
3231.947r	39	12.2		V II	2.26	61		3236.232r	47	18.8		Fe I	0.05	7	
3232.076r	18	5.8		Os I	0.52	3		3236.423r	41	23.7		Nb II—	0.38	1	
3232.156r	30	9.5		Fe I	2.61	258		3236.586r	385	118		Ti II	0.03	2	
3232.290r	87	27.1		Ti II	1.12	36		3236.788r	89	49.4		Mn I	{2.14 3.07	14	
3232.392r	13	4.2						3236.923r	10	4.0		OH	P 7	2,2	1
3232.547r	3	0.9		Sb I	2.29	2		3237.037r	49	16.6		Co I	0.10	7	
3232.687r	36	12.9		Fe I—				3237.143r	13	4.5					
3232.797r	45	20.4		Fe II	4.15	119		3237.233r	52	16.7		Fe I	2.59	256	
3232.938r	214	66.1		Ni I	0.00	7		3237.431r	83	25.7		Mn I Fe II	3.07 3.89	81	
3233.054r	93	46.6		Fe I	3.24	620		3237.583r	21	6.5		OH	P 8	2,2	1
3233.167r	52	23.6		Ni I	{3.31 3.83	91 184		3237.723r	23	7.1		Cr I	2.97	114	
3233.277r	45	14.8		Cr I— Fe I	0.97 2.28	25 142		3237.850r	87	26.3		Fe II— V II	3.89 2.04	81 38	
3233.437r	4.5	1.5						3238.038r	22	9.8					
3233.537r	33	10.9		V II	2.27	61		3238.088r	71	22.0		Cr I	2.98	114	
3233.669r	51	16.8		OH	P 22	0,0	1	3238.213r	12	3.9		Ti I	2.02	179	
3233.762r	65	25.6		V II	2.27	61		3238.318r	14	4.5		Fe I	3.05	545	
3233.976r	127	45.0		Fe I Mn I	2.42 3.07	158		3238.518r	47	5.5		Cr II— Fe I	4.07 3.04	45 397	
3234.072r	88	53.0		Cr II— Mn I	4.29 3.07	63		3238.553r			8.8		OH	P 16	1,1
3234.277r	11	6.2		Ce II	0.27	80		3238.767r	52	18.8		Cr II	4.32	63	
3234.352r	32	22.3		Ru II?—	4.08			3238.897r	73	37.2		OH— Co I	Q 13 3.07	2,2	1
3234.518r	49	15.2		Ti II	0.05	2		3239.052r	267	82.5		Ti II	0.01	2	
3234.647r	109	69.0		Ni I Fe I	0.11 0.05	21 8		3239.317r	94	41.0		—Fe I p	2.84	379	
3234.777r	13	9.6		Fe I?				3239.456r	161	49.7		Fe I	2.42	157	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3239.668r	102	31.6		Ti II	1.08	24		3244.139r	177	9.3		Cr I	1.00	25	
3239.848r	16	4.9		V II	2.27	61		3244.199r		58.9		Fe I	2.42	156	
3240.019r	35	10.9		Fe I	3.05	545		3244.354r	53	21.6		OH	{P 23 P 17}	{0,0 1,1}	1
3240.121r	25	7.9		Fe I	2.45	158		3244.498r	24	7.4		OH—	Q 14	2,2	1
3240.263r	9	2.8						3244.548r	18	5.5		Ti I? p	0.84	47	
3240.404r	53	16.6		Mn I	2.11	13		3244.703r	24	7.4		—Cr I?	2.98	114	
3240.498r	7	2.1						3244.868r	30	9.4					
3240.608r	49	15.1		Mn I	2.16	14		3245.018r	39	12.1					
3240.708r	62	19.2		Ti II	0.11	9		3245.138r	34	10.5		La II	0.17	32	
3240.873r	8	2.5		Ti I? p	0.85	47		3245.278r	35	10.9		Cr II?	4.32	62	
3240.963r	20	6.4		Cr I	0.96	25		3245.398r	76	23.6		Ni I	3.48	108	
3241.050r	49	15.1		Zr II	0.04	4		3245.49 a	25	10.6		Cr I	0.98	25	
3241.138r	9.5	2.8		OH?— Sm II	Q 14 0.04	2,2 6	1	3245.543r	48	14.8		Cr I	2.97	113	
3241.248r	5.5	1.6						3245.728r	9.5	2.9		Co I	2.79	138	
3241.391r	47	14.5		Fe I				3245.788r	18	5.5		Fe I p	3.64	920	
3241.489r	63	19.5		Fe I	1.01	27		3245.985r	111	23.3		Fe I	0.91	27	
3241.603r	20	6.3		Sm II?	0.19	22		3246.031r		18.5		Fe I	0.11	8	
3241.688r	42	13.2		Fe II	3.90	80		3246.171r	6.5	2.0					
3241.818r	27	11.8						3246.310r	8.5	2.6					
3242.007r	270	83.0		Ti II	0.00	2		3246.494r	68	21.0		Fe I	2.59	252	
3242.108r	14	8.8						3246.684r	12	3.7		Ce II?	0.42	130	
3242.277r	66	23.6		Fe I— Y II	2.59 0.18	255 10		3246.770r	16	5.1					
3242.413r	5.5	1.8						3246.977r	108	33.4		Fe I	2.20	95	
3242.489r	4	1.3						3247.192r	110	34.0		[Fe II Co I]	3.89 1.88	81 70	
3242.629r	27	8.5						3247.301r	76	23.6		[Fe I Cr I]	2.47 0.97	157 25	
3242.709r	26	8.0		Pd I	0.81	3		3247.406r	46	29.7		Fe II	4.15	119	
3242.834r	20	6.2		OH	P 8	2,2	1	3247.569r	246	76.0		Cu I	0.00	1	
3243.014r	157	16.7						3247.789r	40	14.4					
3243.071r		39.2		Ni I	0.03	22		3247.976r	21	6.5					
3243.214r	40	14.8		OH	Q 23	1,1	1	3248.129r	80	38.0		Fe I—			
3243.414r	83	25.6		Fe I	{2.83 3.33}	381 710		3248.220r	117	36.1		Fe I	2.45	157	
3243.564r	20	6.4		Co I	1.74	47		3248.323r	20	7.6					
3243.765r	98	30.5		Fe II— Mn I	4.15 2.16	119 14		3248.470r	43	14.0		Ni I	0.03	21	
3243.860r	67	32.0		Co I	1.88	69		3248.518r	62	22.6		Mn I	2.16	14	
3244.029r	6.5	2.0						3248.612r	148	46.0		[Ti II Ti I]	1.24 1.05	66 89	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3248.722r	54	16.7		Ti II p	0.12	9		3253.154r	25	9.0					
3248.868r	21	6.7						3253.271r	23	7.1		Cr I—	3.00	114	
3249.028r	56	17.4		Fe I	2.73	308		3253.411r	15	4.8		Sm II			
3249.194r	95	29.6		Fe I	2.56	253		3253.564r	73	4.5	20.8	Fe I	3.25	681	
3249.378r	55	20.4		Ti II	1.08	23	3253.611r								
3249.458r	81	25.1		Ni I	0.27	10		3253.721r	11	3.5		Hf II	0.38	1	
3249.535r	42	19.7		Fe I— V I	1.56 0.07	51 13		3253.844r	61	19.0		Fe I	2.56	250	
3249.635r	18	7.9		V II	2.05	38		3253.958r	58	19.4		Fe I	2.61	257	
3249.684r	59	18.4		Fe II	3.89	81		3254.060r	37	13.1		Mn I	2.11	12	
3249.861r	34	10.5		Fe I				3254.194r	48	47.7		Co I	1.88	69	
3249.927r	26	8.2		Fe II	3.89	78		3254.261r	161	49.5		Ti II (Fe I)	0.05 2.56	2 249	
3250.017r	53	16.5		Co I	0.58	26		3254.377r	80	33.0		Fe I	3.27	620	
3250.151r	31	9.6						3254.470r	53	16.4		Fe I p	2.45	158	
3250.395r	130	40.2		Fe I (Zr II)	2.28 2.86 1.77	142 379 125		3254.761r	93	28.6		Fe I— V I V II	2.69 0.07 2.03	308 13 38	
3250.637r	116	35.8		Fe I	2.18	95		3255.030r	17	5.2					
3250.767r	114	40.5		Ni I— V II	0.42 2.90	39 171		3255.163r	10	3.0					
3250.941r	25	7.8						3255.293r	18	5.4		Cr II?	4.92	138	
3251.154r	76	29.1		Mn I	2.18	14		3255.497r	31	9.7		OH—	P 24	0,0	1
3251.256r	109	33.5		Fe I	2.20	93		3255.680r	23	7.2		Sc I V I?	0.00 1.08	9	
3251.353r	58	25.1		Fe II p Sc II?	4.49 0.01	137 5		3255.817r	124	0.1	37.9	Fe II	0.99	1	
3251.539r	18	5.6					3255.982r								
3251.612r	22	6.7		Cr I?				3256.144r	56	17.4		Mn I	2.18	14	
3251.685r	25	7.7		Pd I? Co I	1.25 2.93	6 152		3256.262r	10	3.1					
3251.857r	162	16.7		Cr I— V II	2.98 2.52	113 108		3256.496r	45	13.9		Fe I p	2.47 3.00	158 397	
3251.937r		38.4		Ti II	0.01	2		3256.710r	52	16.2		Fe I			
3252.125r	24	7.3		Fe I p	2.56	247		3256.961r	12	3.9					
3252.239r	17	5.2		—Fe I				3257.103r	47	14.5		OH— Fe I	P 18	1,1	1
3252.440r	88	27.2		Fe I				3257.235r	69	21.4		Fe I	0.99 2.99	27 451	
3252.609r	39	12.0		OH	P 24	0,0	1	3257.360r	26	8.3		Fe II	3.97	94	
3252.745r	40	12.5		—Fe I				3257.428r	56	17.4					
3252.892r	175	44.4		Ti II Fe I	0.03 2.56	2 252		3257.600r	77	24.7		Fe I	2.18	90	
3252.970r		33.9		Mn I (Ti II p)	2.18 1.08	14 23		3257.823r	42	12.9		Cr I	3.00	113	
3253.038r	0.7			OH	Q 24	1 1	1	3257.907r	30	9.2		V II (Fe II)	2.49 5.57	108 178	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3258.020r	26	8.0		Co I	1.71	47		3263.133r	30	9.4		OH	P 11	2,2	1
3258.100r	27	8.3		Fe I				3263.234r	19	5.9		Co I— V I	2.28 0.00	124 12	
3258.287r	6.5	2.0						3263.370r	62	19.2		—Fe I (V II)	2.42 2.04	144 38	
3258.421r	50	15.4		Mn I	2.19	14		3263.466r	19	6.0		Fe I	3.25	680	
3258.631r	33	10.2		Fe I	2.48	157		3263.691r	64	19.7		Ti II	1.16	45	
3258.783r	62	19.3		Fe II	3.89	81		3263.838r	25	7.8		OH—	P 19	1,1	1
3258.913r	7	2.2						3263.975r	24	8.9		Fe I?			
3259.062r	58	18.0		Fe II	3.90	81		3264.065r	34	10.4					
3259.236r	5	1.5		Co I?	3.07	153		3264.185r	29	10.4		OH	P 25	0,0	1
3259.373r	2	0.6						3264.283r	50	15.5		Cr II	4.29	61	
3259.446r	5.5	1.7		Fe II? p	5.57	178		3264.406r	38	11.6		Ni I			
3259.599r	25	7.9		—Cr I?	0.98	25		3264.524r	73	22.4		Fe I	2.20	90	
3259.713r	20	6.1		Fe I				3264.711r	100	16.6		Mn I— Fe I (Co I)	2.14 2.47 1.74	13 157 47	
3259.856r	13	3.9		Co I?				3264.784r				Fe II p	1.04	1	
3259.989r	70	21.7		Fe I Cr I	2.45 3.00	157 114		3264.861r	29	8.9		Co I	2.04	105	
3260.145r	17	5.3		Zr I	0.52	35		3265.054r	87	26.8		Fe I	0.09	8	
3260.265r	96	31.6		Ti I Ti II Mn I— Fe I	1.07 1.16 2.19 2.56	89 45 14 250		3265.188r	11	3.5					
3260.472r	10	3.3		Fe I?				3265.332r	54	16.7		—Co I	2.08	106	
3260.552r	20	6.1		Nb II	2.17			3265.556r	59	27.3		Fe I p	2.73	308	
3260.692r	10	3.2		Fe I?				3265.640r	102	24.2		Fe I	2.18	91	
3260.829r	38	11.9		Co I	2.04	107		3265.700r	18	8.1		La II	0.32	45	
3260.958r	7	2.3		Ce II?	1.01	258		3265.894r	37	11.3		V II	2.37	74	
3261.065r	23	7.0		Cd I	0.00	1		3265.980r	10	3.1					
3261.198r	9.5	2.9						3266.153r	9.5	2.9					
3261.339r	59	18.1		Fe I	3.42	712		3266.240r	12	3.9		Cr II	4.32 4.78	62 121	
3261.584r	142	26.6		Ti II	1.23 1.89	66 89		3266.439r	35	10.9		Ti II—	1.24	57	
3261.639r		26.6		Fe I?—				3266.676r	5.5	1.6		Cr I—	1.03	25	
3261.817r	39	12.1		Fe I	1.56	50		3266.950r	49	15.0		Fe II	3.77	65	
3262.021r	62	19.0		Fe I	3.37	710		3267.062r	56	17.3		Fe II— OH	3.90 P 25	80 0,0	1
3262.288r	69	21.3		Fe I (Sn I) (Os I)	1.07 0.52	3 3		3267.206r	26	8.1					
3262.437r	5	1.6						3267.269r	16	4.9		Fe I			
3262.717r	10	3.3						3267.439r	23	7.2					
3262.902r	50	15.5		Fe I				3267.539r	11	3.5		Sb I	2.03	2	
3263.073r	30	9.2		Fe I				3267.712r	82	25.2		V II	1.07	7	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3267.788r	24	7.8		Fe I— Mn I	4.23			3272.435r	26	8.1		Co I	3.07	152	
3268.063r	52	15.9		Ni I				3272.606r	51	15.8		Fe I	1.56	51	
3268.243r	67	20.6		Fe I	2.22	95		3272.732r	42	12.9		Fe I	3.43	712	
3268.345r	8	2.4						3272.848r	19	5.7					
3268.435r	16	5.0		Cr II?	4.29	62		3273.052r	78	23.9		Zr II	0.16	3	
3268.521r	39	12.0		Fe II	4.15	118		3273.188r	7	2.1					
3268.724r	17	5.2		Mn I	4.19			3273.354r	8	2.4					
3268.860r	14	4.3		Fe I?				3273.482r	60	18.5		Sm II Fe II	4.15	118	
3268.975r	29	9.7		Ni I—	3.46	91		3273.634r	37	11.4		Sc I	0.02	9	
3269.084r	34	10.5		Ca I	1.88	12		3273.720r	6	2.1					
3269.232r	61	18.8		Fe I	3.40	710		3273.846r	221	0.2					
3269.339r	28	8.5		Fe I			3273.972r	39			13.3		Cu I	0.00	1
3269.432r	28	8.7		Fe I	2.20	95			3274.226r					OH— Fe I p	P 20 2.22
3269.504r	44	13.5		Ge I	0.88	1		3274.451r	28	8.7		Fe I	3.37	710	
3269.624r	12	3.9		—Zr I	0.52	34		3274.553r	5	1.5					
3269.767r	51	15.6		Fe II Ti II	4.15 1.22	118 57		3274.676r	34	10.3		Ca I	1.89	12	
3269.910r	80	6.3		Sc I	0.00	9		3274.783r	3.5	1.0					
3269.966r		19.8		Fe I	2.18	90		3274.909r	39	12.0		Ni II	2.86	1	
3270.142r	68	20.8		Cr II V II	4.32 2.47	61 94		3275.025r	4	1.4					
3270.350r	30	9.2		Mn I	4.25			3275.152r	6	2.0		Zr II	0.36	12	
3270.533r	29	9.0		Ti I?	1.44	123		3275.229r	66	3.4		Nd II— Fe I p	1.01	27	
3270.671r	55	17.0		Fe I p	3.69	954		3275.299r				17.7		Ti II	1.08
3270.749r	14	5.0		OH	P 12	2,2	1	3275.405r	4	1.2					
3271.006r	172	52.7		Fe I	2.20	91		3275.479r	5	1.5					
3271.143r	107	40.4		V II Ni I (Zr II)	1.10 0.11 0.53	7 23 22		3275.592r	16	5.0		Ni I	3.48	107	
3271.313r	24	8.3						3275.685r	54	16.5		Fe I	2.76	308	
3271.413r	24	8.5						3275.845r	39	11.9		Fe I	2.95	450a	
3271.498r	62	19.2		Fe I	3.25	680		3275.979r	20	6.2					
3271.668r	130	39.9		Ti II— Fe I (V I)	1.24 1.48 0.02	66 49 12		3276.135r	104	31.9		V II	1.13	7	
3271.795r	35	14.4		Co I	1.96	70		3276.262r	31	9.5		OH	P 26	0,0	1
3271.962r	23	7.1						3276.470r	94	26.1		Fe I	2.20	90	
3272.094r	104	31.9		Ti II	1.22	66		3276.617r	49	15.0		Fe II	3.94	92	
3272.244r	78	23.8		Zr II— Ce II	0.00 0.70	3 73		3276.781r	84	25.8		Ti II	1.18	45	
								3277.000r	63	19.2		—Ti II	0.12	8	
								3277.101r	19	5.9		V II	2.56	137	
								3277.191r	47	14.5		Ni I	3.46	90	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3277.358r	155	47.5		Fe II	0.99	1		3282.334r	94	28.9		Zn I Ti II	4.00 1.22	4 66	
3277.671r	41	13.5		Co I	2.96	152		3282.447r	29	9.0		Fe I			
3277.724r	46	14.7		V II—	2.56	137		3282.540r	51	15.6		V II	2.37	72	
3277.873r	34	10.5		Fe II—	3.77	65		3282.705r	82	25.0		Ni I— Fe I	0.17 2.95	7 449	
3278.096r	27	8.4		Co I	2.96	153		3282.837r	109	18.8		Ni I Zr II	3.48 1.83	106 125	
3278.295r	98	30.0		Ti II	1.23	66		3282.904r		18.8		Fe I	3.27	680	
3278.449r	16	5.0						3283.054r	21	6.4		Cr II	4.99	159	
3278.562r	45	13.8		Mn I	2.14	12		3283.161r	36	6.4		Ti II p	1.24	57	
3278.742r	91	27.9		Fe I	{2.42 2.59}	{144 250}		3283.207r		6.0					
3278.849r	24	10.0		Co I	2.01	72		3283.333r	26	8.2		Co I V I	2.28 0.04	12	
3278.935r	110	33.7		Ti II Ti I	1.08 0.90	23 63		3283.450r	100	30.6		Fe I— Co I	0.96 2.08	27 107	
3279.154r	54	16.5		OH	P 26	0,0	1	3283.554r	33	13.4		Fe I			
3279.275r	76	23.2		Zr II Co I	0.09 1.96	3 70		3283.686r	5.5	1.7					
3279.449r	28	8.8						3283.803r	13	4.1		Co I	1.74	47	
3279.519r	15	4.8		Cr II	4.77	121		3283.933r	11	3.8		NH?	R 25	0,0	6
3279.659r	44	13.3		Fe II	4.15	118		3283.990r	28	8.5		NH?	R 25	0,0	6
3279.747r	61	18.8		Fe I	2.99	449		3284.130r	5.5	1.6					
3279.848r	73	22.5		V II	2.37	73		3284.240r	4.5	1.4					
3279.995r	76	23.1		Ti II	1.12	35		3284.363r	8.5	2.9		V I Ni I	1.38	71	
3280.131r	29	8.8						3284.433r	47	14.3		Ni I	3.31	96	
3280.267r	90	27.3		Fe I	3.30	620		3284.522r	28	11.5					
3280.368r	23	7.2		—Ti I?	1.07	88		3284.597r	75	22.8		Fe I	2.20	91	
3280.498r	16	5.0						3284.721r	43	13.1		Zr II	0.00	4	
3280.681r	44	15.3		Ag I	0.00	1		3284.842r	5	1.5					
3280.775r	64	19.7		Fe I Mn I	3.02 2.14	451 10		3285.022r	28	8.8		V II— OH	2.52 P 21	108 1,1	1
3280.975r	23	7.1		NH?	{R 29 R 30 R 31}	{0,0 0,0 0,0}	6	3285.198r	43	13.2		Fe I (Ce II)	3.00 0.50	396 148	
3281.125r	44	13.4		V II	2.56	136		3285.295r	33	10.3		NH	R 24	0,0	6
3281.304r	117	36.0		Fe II	1.04	1		3285.421r	72	23.1		Fe II	1.08	1	
3281.527r	18	5.5						3285.552r	34	11.2		Fe I p	2.56	248	
3281.600r	19	5.9		Co I	0.17	8		3285.702r	16	5.7					
3281.716r	70	21.5						3285.782r	23	8.1		Zr II	1.49	91	
3281.868r	66	20.2		Ni I	3.54	106		3285.908r	45	16.0		Zr II	1.00	62	
3281.997r	19	5.7		NH?	R 27	0,0	6	3286.038r	71	25.6		Fe I	2.22	90	
3282.247r	27	9.3		Co I	1.78	47									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3286.071r	28	19.8		Ca I	1.90	12		3289.862r	16	4.9					
3286.184r	8	3.3						3289.909r	13	4.5					
3286.258r	21	8.7		Sm II	0.48	48		3290.112r	9.5	2.9		Mg I?p	6.59		
3286.368r	4.5	2.2		Cr I?				3290.249r	22	6.8		V II	2.49	108	
3286.454r	46	21.5		Fe I	3.40	710		3290.349r	7.5	2.2					
3286.541r	25	14.9		Co I?	1.74	46		3290.476r	22	7.7		NH	R 21	0,0	6
3286.628r	41	31.0						3290.516r	44	13.4		NH— Ni II?	R 21 3.10	0,0 5	6
3286.772r	660	201		Fe I	2.18	91		3290.639r	15	4.7					
3286.854r	20	43.5		NH	R 23	0,0	6	3290.716r	70	21.2		Fe I (Ni II)	2.18 2.95	90 1	
3286.960r	58	44.3		Ni I	0.03	19		3290.993r	92	28.1		Fe I	2.22	95	
3287.098r	44	26.4		Fe I	2.94	396		3291.134r	43	14.9		Mg I?p	6.59		
3287.221r	65	32.8		Ni I Co I	1.68 1.96	55 71		3291.284r	14	4.2					
3287.334r	21	10.3		Zr II	0.32	12		3291.430r	26	8.1		Fe I	3.69	954	
3287.434r	11	5.1						3291.544r	8.5	2.8					
3287.471r	32	13.3		Fe II	4.15	118		3291.697r	26	7.9		Fe I			
3287.583r	9	4.1		Co I	3.10	154		3291.770r	49	15.1		Cr II	4.30	68	
3287.667r	97	33.2		Ti II	1.89	89		3292.024r	111	23.6		Fe I	3.25	680	
3287.737r	24	16.5						3292.079r		15.6		Ti I	0.90	62	
3287.860r	8.5	2.9		Co I?	1.71	43		3292.210r	11	3.3		Gd II?— Co I?	1.10 3.10	74 153	
3288.049r	31	10.2		Cr II?—	4.32	62		3292.324r	39	11.9		Mo II—	3.14	6	
3288.155r	89	28.7		Ti II—	0.13	8		3292.509r	31	10.2		NH	R 20	0,0	6
3288.327r	36	11.5		V II Fe I	2.38	89		3292.601r	95	28.8		Fe I	2.22	91	
3288.435r	74	23.2		Ti II	1.24	66		3292.743r	13	4.1					
3288.579r	79	24.2		Ti II	1.23	66		3292.869r	10	3.2		Fe II? p	4.49	136	
3288.675r	81	37.7		Fe I	2.42	144		3292.926r	6.5	2.0					
3288.813r	45	13.8		Zr II	{0.09 0.96	4 62		3293.149r	54	16.5		Fe I (V II)	1.61 4.24	51 235	
3288.977r	72	22.8		Fe I— V II	2.20 2.52	90 109		3293.223r	16	5.8		Co I	3.02	154	
3289.027r	48	33.8						3293.478r	23	7.0		Ti II p	1.24	57	
3289.146r	11	3.5		Rh I?	0.43			3293.673r	42	12.7		Fe I			
3289.246r	12	3.6						3293.773r	24	7.5					
3289.372r	111	21.1		Fe II Yb II— V II	3.81 0.00 1.10	65 1 7		3293.862r	11	3.5		Co I Cr I	2.08 3.45	107 219	
3289.442r				Fe I	2.83	380		3293.998r	5	1.5					
3289.579r	25	7.6						3294.108r	8	2.5		Co I	3.10	154	
3289.749r	10	3.2						3294.198r	7.5	2.2		—Ru II	2.54	2	
								3294.335r	4.5	1.4		Nb II?	1.98		

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3294.442r	6.5	2.0						3298.742r	66	20.1		V II	1.13	7	
3294.555r	7.5	2.5		Co I	3.13	152		3298.868r	8	2.3					
3294.622r	29	8.8		Fe I				3299.084r	32	9.9		Fe I	3.40	710	
3294.722r	23	7.2		NH	R 19	0,0	6	3299.178r	12	3.6					
3294.822r	37	11.5		NH— NH	R 19 R 19	0,0 0,0	6 6	3299.350r	8.5	2.8					
3294.942r	44	13.5		Fe I?				3299.437r	67	20.5		Ti I	0.90	61	
3295.022r	20	6.1		Zr II?	0.76	36		3299.525r	52	21.0		Fe I— NH	1.56 R 17	49 0,0	6
3295.116r	39	11.8						3299.677r	24	7.2		NH	R 17	0,0	6
3295.248r	47	14.5		Fe II	3.89	79		3299.778r	22	6.6		NH Fe II?	R 17 6.70	0,0	6
3295.435r	53	16.1		Cr II	4.18	51		3299.890r	6	1.8					
3295.605r	16	5.0						3300.077r	1	0.4					
3295.635r	9	3.3						3300.170r	47	14.3		Ce II?— Nd II?	0.72	166	
3295.824r	76	23.1		Fe II	1.08	1		3300.317r	0.5	0.2					
3296.041r	16	4.8		Mn I	2.16	11		3300.490r	3.5	1.1		Rh I?	1.28		
3296.261r	40	12.4		Ni I—	3.40	93		3300.675r	6	1.8					
3296.377r	14	4.9		Zr II	0.96	62		3300.817r	3.5	1.1					
3296.475r	47	14.2		Fe I	2.59	250		3300.912r	6	1.8		V II	2.27	60	
3296.594r	8	2.5						3301.016r	6	1.8					
3296.821r	47	14.2		Fe I— Fe II	3.30 3.97	619 92		3301.136r	4	1.3					
3296.887r	30	11.1		Mn I	2.16	12		3301.225r	43	13.0		Fe I	2.84	380	
3297.067r	22	6.6		NH	R 18	0,0	6	3301.425r	25	7.7		Fe I			
3297.174r	22	6.6		NH	R 18	0,0	6	3301.579r	6	1.8		Os I	0.00	1	
3297.254r	22	6.6		NH	R 18	0,0	6	3301.681r	41	12.4		—Ti II	1.16	44	
3297.384r	2	0.6		Fe I?				3301.782r	16	5.0		Sr I?	1.77	7	
3297.517r	2.5	0.8		V II	2.50	108		3301.869r	11	3.8		OH? Pt I	P 28 0.81	0,0 7	1
3297.593r	3.5	1.1						3301.928r	37	11.3		Fe I	3.24	617	
3297.666r	9	2.8						3302.105r	86	26.1		Ti II—	0.15	8	
3297.836r	57	3.8						3302.162r				NH Pd I	R 16 1.25	0,0 3	6
3297.882r		15.1		Fe II	3.94	91		3302.316r	18	7.3		NH	R 16	0,0	6
3298.013r	8	2.5		Ni I p	3.50	91		3302.383r	112	34		Na I	0.00	2	
3298.141r	77	23.5		Fe I (V I)	2.22 0.07	90 12		3302.593r	55	16.8		Zn I	4.03	4	
3298.234r	39	14.7		Mn I	3.37			3302.768r	15	4.8					
3298.324r	25	8.8		Cr I	3.09	161		3302.863r	72	21.9		Fe II	1.04	1	
3298.418r	17	5.4						3302.982r	83	25.1		Na I (Zn I)	0.00 4.03	2 4	
3298.558r	37	11.4		Fe I	3.43	710									
3298.691r	16	6.5		Co I	2.01	70									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3303.121r	21	6.5		La II	0.23	45		3307.037r	99	30.2		{Fe I Ni I Cr II	2.95 3.42 4.17	450 107 51	
3303.271r	30	9.3		Mn I	3.38										
3303.474r	69	20.9		Fe II	1.10	1		3307.152r	50	15.1		Co I	1.96	69	
3303.571r	76	23.0		Fe I	3.02	449		3307.246r	65	19.8		Fe I	3.24	617	
3303.781r	16	4.9						3307.345r	10	3.0		Rh II?	3.49	5	
3303.895r	14	4.3		Co I	1.78	47		3307.508r	20	6.1		NH? Sr I	R 25 1.80	1,1 7	6
3304.136r	18	5.4		Co I	3.07	154		3307.717r	97	29.3		Fe I? Ti II? {Cr I	0.12 2.71	8 78	
3304.248r	20	6.1													
3304.365r	52	15.7		Fe I	3.42	710		3307.907r	48	14.6		NH	R 14	0,0	6
3304.450r	37	11.3		Fe II	3.94	93		3308.111r	59	17.9		NH	R 14	0,0	6
3304.484r	13	6.0		V II	2.54	136		3308.277r	14	4.4		NH?	R 23	1,1	6
3304.592r	25	7.5						3308.399r	32	9.7		Ti I	1.05	87	
3304.754r	34	10.3		OH?—	P 28	0,0	1	3308.491r	17	5.3		{Co I V II	3.07 2.54	155 137	
3304.874r	22	6.7		NH	R 15	0,0	6								
3304.962r	55	16.6		Ni I	3.42	108		3308.621r	14	4.4					
3305.067r	26	8.1		NH	R 15	0,0	6	3308.760r	29	10.6		Fe I p— Mn I	2.40 2.18	190 11	
3305.156r	72	21.8		Fe I Zr II	0.04	2		3308.819r	84	25.6		Co I {Ti II	3.07 0.13	153 7	
3305.227r	20	7.4		NH	R 15	0,0	6								
3305.307r	9	2.9						3308.937r	24	14.5		Ni I p	3.60	107	
3305.414r	7	2.2						3309.031r	6	1.8		Co I?	2.54		
3305.477r	8	2.4						3309.084r	15	4.7		NH	R 22	1,1	6
3305.627r	57	17.4		Fe II	3.90	79		3309.197r	7.5	2.3		V I	1.19	55	
3305.750r	46	16.0		Co I Fe I p	3.10 3.27	152 618		3309.324r	13	3.9		Ni I p	3.42	105	
3305.864r	44	24.5						3309.430r	37	11.3		Ni I			
3305.977r	153	47.1		Fe I	2.20	91		3309.530r	73	22.1		Ti I	1.05	87	
3306.093r	65	27.3						3309.723r	30	9.1		Ti I	2.12	190	
3306.168r	23	11.6						3309.846r	12	3.6		Cr I	{3.00 3.09	161	
3306.284r	49	15.0		Zr II	0.04	3		3309.903r	7	2.5		Zr II	0.97	72	
3306.378r	145	43.9		Fe I	2.22	91		3310.030r	28	8.5		NH	{R 21 R 28	1,1 1,1}	6
3306.495r	61	25.5		Fe I	3.30	680		3310.120r	20	6.5		NH	R 21	1,1	6
3306.598r	60	18.5		Fe I				3310.210r	56	16.9		Ni I	0.42	38	
3306.702r	17	5.2		Fe I	3.00	396		3310.344r	76	23.0		Fe I	2.95	449	
3306.775r	14	4.3						3310.498r	59	17.2		Fe I	3.25	679	
3306.882r	28	8.6		Ti I	2.13	190		3310.649r	67	20.1		Cr II	{4.78 4.98	120 158	
3306.986r	16	8.1		Cr II— Mn I	4.94 3.38	150						NH	R 13	0,0	6
								3310.868r	46	13.8		NH	R 13	0,0	6

The Solar Spectrum—Continued

Wave-length (Å)	Equi-valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equi-valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3310.918	14	6.3		Fe I			7	3314.535r	58	17.6		Ti I— Cr II	1.05 4.93	87 150	
3311.110r	45	13.6		NH	R 13	0,0	6	3314.614r	55	20.5		NH	R 18	1,1	6
3311.215r	39	11.8		Fe I				3314.748r	90	27.2		Fe I	3.30	680	
3311.349r	20	6.0		Zr II	0.71	34		3314.867r	52	15.8		V II Mn I	2.56 3.07	136 30	
3311.459r	32	9.8		Fe I	0.99	27		3315.050r	26	8.0		Co I Pt I?	{2.28 3.13 0.00	154 1	
3311.599r	9	2.7		NH	R 29	1,1	6	3315.175r	32	9.8		Fe I V II	3.30 2.37	618 71	
3311.715r	19	5.9		Sc II— NH	3.69 R 29	41 1,1	6	3315.257r	11	4.8		Ti I— Cr II	2.09 4.18	190 51	
3311.895r	23	11.8		Mn I	2.18	10		3315.329r	96	29		Ti II	1.22	65	
3311.935r	68	20.6		Cr II	4.15	51		3315.420r	74	34.3					
3312.059r	19	5.3		Cr I	2.71	78		3315.557r	25	9.9		V II	2.56	136	
3312.197r	63	19.2		Cr II Co I— Fe I	4.14 1.96 2.99	51 69 450a		3315.679r	153	46.2		Ni I	0.11	22	
3312.325r	54	16.5		Ni I	3.42	106		3315.953r	17	5.1					
3312.435r	35	10.7		Sm II	0.18	21		3316.000r	10	3.7					
3312.601r	53	15.9						3316.197r	24	7.2		Fe II p— NH	1.67 R 17	5 1,1	6
3312.699r	76	23.0		Ti I— Fe II (Sc II)	2.10 1.08 3.70	190 1 41		3316.339r	23	7.0		Mn I Dy II?	2.19	11	
3312.842r	25	7.6		NH	R 19	1,1	6	3316.432r	43	13.1		Mn I	3.07	30	
3312.925r	23	7.5		NH	R 19	1,1	6	3316.486r	14	4.4		NH— Cr I	R 17 3.85	1,1 255	6
3313.009r	66	19.9		Ni I	3.60	106		3316.569r	31	8.5		Fe I— Sm II	2.18?	86	
3313.078r	36	12.1		—Mn I	3.07	30		3316.649r	33	10.2					
3313.173r	9	2.6		Eu II	3.00	24		3316.742r	35	10.7		NH	R 11	0,0	6
3313.304r	9	2.6		Eu II	3.00	24		3316.851r	34	10.2		Fe I— V II	2.54	137	
3313.434r	28	8.7		Mn I	3.07	30		3317.045r	20	6.0		NH	R 11	0,0	6
3313.548r	30	9.2		Mn I	3.07	30		3317.133r	74	22.4		Fe I	2.28	139	
3313.646r	59	17.8		NH	R 12	0,0	6	3317.264r	53	16.0		Mn I	3.07	30	
3313.725r	35	12.5		Fe I	1.61	50		3317.385r	44	13.2		NH	R 11	0,0	6
3313.801r	12	4.1						3317.591r	36	11.0		Ni I	1.68		
3313.914r	30	9.1		NH	R 12	0,0	6	3317.701r	6	1.9					
3313.996r	59	17.8		Fe II	1.10	1		3317.831r	14	4.4					
3314.086r	44	17.6		Co I Fe I	{1.74 2.88 3.41	43 149 736		3318.031r	103	31.0		Ti II	0.12	7	
3314.206r	14	4.4		NH	R 12	0,0	6	3318.210r	29	8.7		NH	R 16	1,1	6
3314.348r	34	11.3		Co I— NH	3.07 R 18	152 1,1	6	3318.367r	60	18.1		Ti I— Co I	2.08 1.71	190 45	
3314.446r	72	21.7		Ti I— Fe I (Zr II)	1.07 2.61 0.71	87 250 47									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3318.516r	24	7.3		NH Zr II	R 16 0.76	1,1 35	6	3322.481r	68	23.4		Fe I	2.94	396	
3318.612r	19	5.8		Fe II? p	4.49	136		3322.655r	40	17.5		NH	R 14	1,1	6
3318.766r	27	8.0						3322.704r	15	11.2		Cr II	4.17	51	
3318.906r	18	5.6		V II	2.56	137		3322.874r	495	23.1 157.3		NH—	R 14	1,1	6
3319.043r	23	7.3		Zr II	0.04	4	3322.949						Ti II (Zr II)	0.15 0.76	7 34
3319.078r	59	18.0		Ti II	0.13	8		3323.084r	41	39.4		Fe II	3.97	92	
3319.169r	18	5.5		Co I	3.02	155		3323.127r	19	18.2		NH	R 9	0,0	6
3319.258r	54	16.3		Fe I	2.99	449		3323.297r	5.5	2.3		Cr I?	3.10		
3319.362r	30	9.0						3323.395r	47	17.8					
3319.490r	48	14.5		Co I	2.93	154		3323.540r	42	14.5		NH Cr II	R 9 4.15	0,0 51	6
3319.544r	34	13.1		Co I	1.71	45		3323.752r	84	28.5		Fe I	2.83	379	
3319.686r	5.5	1.6						3323.919r	18	6.3		Ti I?	2.32	255	
3319.824r	32	9.8		Co I	2.93	153		3323.999r	11	5.9		NH	R 9	0,0	6
3319.903r	41	12.4		NH Dy II	R 10 0.00	0,0	6	3324.071r	87	27.8		Cr II— Cr II	2.43 4.77	4 120	
3320.032r	12	3.7						3324.150r	31	13.6		Fe I?			
3320.129r	15	5.0		Sm II	0.18	20		3324.364r	64	19.7		Cr II— Fe I	4.41 3.27	80 617	
3320.262r	122	36.8		Ni I	0.17	9		3324.544r	60	18.0		Fe I	2.40	191	
3320.379r	19	7.7		NH	R 15	1,1	6	3324.678r	40	12.1					
3320.492r	39	11.9						3324.791r	42	12.6		Fe I			
3320.654r	77	23.2		Fe I NH	2.43 R 10	190 0,0	6	3325.012r	33	10.0		Fe II	3.97	93	
3320.778r	79	23.8		Ni I— Fe I	3.60 3.04	108 396		3325.038r	10	4.0		NH	R 13	1,1	6
3320.915r	8.5	2.6		Mo II	3.11	6		3325.158r	6.5	2.0		Ti I	2.13	190	
3321.043m	7.5	2.2		Be I Be I	2.72 2.72	1 1	5	3325.251r	46	14.0		Co I	2.01	70	
3321.195r	11	3.4		Cr I? Sm II	3.11 0.38	182 40		3325.332r	15	6.3		NH	R 13	1,1	6
3321.237r	31	9.5		Ni I	3.31	92		3325.479r	61	18.4		Fe I	2.45	191	
3321.352m	9	2.7		Be I	2.72	1	5	3325.582r	15	4.6		NH	R 13	1,1	6
3321.430m	16	5.1						3325.690r	3	1.0					
3321.538r	33	12.8		V II	2.37	71		3325.756r	4	1.2					
3321.586r	40	12.6		Ti I	1.07	87		3325.898r	4.5	1.3					
3321.707r	92	28.7		Ti II	1.23	65		3325.975r	3.5	1.0					
3321.918r	23	7.5		Co I	2.08	106		3326.082r	3	0.8					
3322.061r	12	4.1						3326.205r	11	3.6					
3322.202r	43	14.5		Co I	{2.04 2.87	104 149		3326.302r	10	3.3		Co I?	{1.78 3.05	46 157	
3322.325r	108	35.8		Ni I	0.42	39		3326.423r	24	8.1		NH	R 8	0,0	6
								3326.597r	31	14.8		Cr I	3.09	182	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3326.695r	25	29.9		Ni I	3.54	108		3330.435r	8.5	2.7					
3326.777r	214	64.0		Ti II— Zr II	0.11 1.53	7 91		3330.515r	17	5.2					
3326.868r	42	22.8		—NH	R 8	0,0	6	3330.615r	20	7.8		NH	R 11	1,1	6
3326.997r	38	14.9		Co I	2.93	152		3330.672r	47	14.1		Mn I	2.16	9	
3327.167r	14	4.5						3330.784r	24	7.2		Mn II	4.69		
3327.294r	7.5	2.3						3330.926r	38	11.3		NH—	R 7	0,0	6
3327.403r	53	16.1		Ni I— NH	3.31 R 8	90 0,0	6	3331.064r	8.5	2.5					
3327.503r	59	20.1		Fe I	2.40	190		3331.254r	19	5.7		Ni I p—	3.54	107	
3327.627r	20	6.1		NH— Zr II	R 12 0.32	1,1 11	6	3331.397r	10	3.1		Gd II	0.00	8	
3327.731r	7.0	2.1						3331.617r	43	12.9		Fe I	2.43	191	
3327.886r	64	19.4		Y II	0.41	18		3331.785r	48	14.5		Fe I	2.48	144	
3327.971r	37	16.8		Fe I	2.18	86		3331.930r	31	11.2		Zr II—	0.36	11	
3328.211r	34	10.4		NH Co I	R 12 3.10	1,1	6	3332.053r	22	12.2					
3328.357r	66	19.9		Cr II	2.42	4		3332.109r	194	35.7		Ti II	1.24	65	
3328.475r	28	8.5		Fe I			3332.195r	35.7					Mg I	2.71	4
3328.583r	6.5	2.0		Fe I?				3332.290r	15	9.8					
3328.719r	42	12.6		Ni I	0.11	20		3332.350r	24	10.9					
3328.803r	7	3.4		Cr I	3.09	160		3332.41 a	11	4.0					
3328.870r	67	20.3		Fe I	3.27	617		3332.576r	11	3.5					
3328.96 a	5.5	2.1						3332.719r	8.5	2.6					
3329.056r	55	16.7		Cr I Fe I— Fe II	3.12	182		3332.834r	33	10.1		Fe I?			
3329.103r	33	16.5						3332.895r	12	4.9		Cr I	3.11	182	
3329.208r	6.5	2.1		Mo II	3.06	6		3333.029r	10	3.0		NH	R 10	1,1	6
3329.305r	12	5.8						3333.119r	29	8.9		NH	R 6	0,0	6
3329.438r	183	54.9		Ti II Co I	0.13 3.02	7 153		3333.222r	10	3.0					
3329.518r	42	26.1		Fe I	3.05	542a		3333.395r	49	14.7		Co I	0.51	25	
3329.632r	9	4.6		Fe I				3333.597r	42	12.5		Cr I	2.90		
3329.772r	33	11.0		NH	R 7	0,0	6	3333.723r	32	9.6		NH	R 6	0,0	6
3329.852r	15	7.4		V I	1.22	55		3333.822r	21	6.4		NH	R 10	1,1	6
3329.914r	118	24.0		Mg I	2.71	4		3333.915r	9.5	2.8		Ti I	0.00	25	
3329.972r		17.8		Fe I	3.02			3333.985r	21	6.4					
3330.082r	23	8.7						3334.135r	51	32.2		Co I	0.43	23	
3330.234r	30	9.2		Fe I— NH	2.83 R 7	378 0,0	6	3334.225r	92	27.7		Fe I	2.43	190	
3330.308r	49	14.7		Fe I	3.02			3334.275r	44	13.2		Fe I Zr II	3.27 1.00	617 58	
								3334.482r	33	10.1		NH Nd II	R 6 0.18	0,0 42	6
								3334.622r	27	8.2		Zr II	0.56	21	
								3334.715r	30	9.1		Cr I	2.89		

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3334.802r	10	3.3		Cr I?	3.37			3338.920r	12	3.8		Cr II?	6.79		
3334.934r	21	6.4		Cr I	3.08	160		3339.049r	41	12.3		Ni I	3.54	104	
3335.061r	15	6.7						3339.202r	62	18.8		Fe I	{2.45 2.95}	{190 446}	
3335.185	144	43.0		Ti II	0.12	7	7	3339.307r	16	5.0		NH	R 8	1,1	6
3335.308r	69	21.7		Cr II	4.41	80		3339.446r	11	3.4					
3335.422r	40	12.1		Fe I Cr II	2.56 4.43	246 92		3339.582r	52	15.6		Fe I	3.02	502	
3335.535r	121	53.6		Fe I—	1.56	49		3339.687r	39	11.6		Fe I			
3335.728r	25	7.6		Fe I p	2.73	307		3339.801r	97	29.2		Co I— Cr II	2.96 2.43	155 4	
3335.784r	89	27.1		Fe I	2.84	379		3339.879r	45	21.1		NH— Cr II	R 4 4.41	0,0 92	6
3335.848r	33	18.0		NH	R 9	1,1	6	3340.041r	19	5.6					
3335.923r	50	21.6						3340.178r	9.5	2.7		Fe I			
3336.128r	34	12.1						3340.356	157	47.2		Ti II	0.11	7	7
3336.260r	58	30.5		Fe I	3.30	618		3340.570r	79	26.0		Fe I Zr II	2.28 0.16	139 3	
3336.346r	84	32.5		Cr II	2.42	4		3340.691r	29	9.6		NH	R 4	0,0	6
3336.504r	25	16.3		NH	R 5	0,0	6	3340.825r	6	1.8					
3336.548r	12	16.2		Fe I p	3.02	450a		3340.895r	43	12.8		Fe I			
3336.689r	416	124.8		Mg I	2.72	4		3341.005r	11	3.3		Dy II			
3336.831r	32	41.3						3341.168r	14	4.2					
3336.967r	11	5.9		Ti II	1.18	43		3341.285r	5.5	1.9					
3337.007r	54	23.3		Ni I	0.03	17		3341.348r	33	10.1		Co I	2.87	148	
3337.188r	55	19.6		Co I— NH	0.43 R 5	25 0,0	6	3341.451r	9.5	2.9		Mn II?	4.69		
3337.340r	11	3.8		Ni I p	3.61	122		3341.558r	13	6.0		Ti I?	{0.90 1.98}	60 178	
3337.393r	18	5.8		Mn II	4.69			3341.688r	25	14.0					
3337.499r	49	15.2		La II	0.40	45		3341.835r	152	126		Ti I Ti II	0.00 0.57	24 16	
3337.672r	65	19.4		Fe I	2.69	304		3341.930r	194	58.1		Fe I	2.69	303	
3337.853r	81	24.5		V II Ti II	3.12 1.24	184 55		3342.148r	27	10.7		Ti I	0.00	23	
3337.923r	51	31.3		Fe I	3.02			3342.226r	110	33.0		Fe I	2.28	137	
3338.010r	5	1.4						3342.310r	58	27.6		Fe I	2.84	378	
3338.116r	31	9.4		NH	R 5	0,0	6	3342.374r	5	2.0		NH	R 7	1,1	6
3338.237r	26	8.0						3342.474r	8.5	2.9		Cr I?	3.37		
3338.347r	18	5.6						3342.585r	89	26.8		Cr II	2.45	4	
3338.430r	24	7.2		Zr II	0.96	61		3342.697r	45	14.6		Ti I Co I	0.00 2.08	25 105	
3338.520r	37	11.1		Fe II	3.89	76		3342.760r	30	17.0		Fe I p	3.04	396	
3338.628r	93	28.0		Fe I	3.00	396		3342.900r	16	5.0					
3338.774r	41	12.3		Ni I	1.68	54									
3338.813r	22	11.3		NH	R 8	1,1	6								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3343.024r	18	5.5		NH	R 7	1,1	6	3347.135r	7.5	2.3		Cr II?	6.77		
3343.234r	57	17.2		NH— Fe I	R 3 2.18	0,0 88	6	3347.318r	4	1.2		Sm II	0.48	48	
3343.347r	21	6.3		Cr I	3.09	159		3347.375r	30	9.1					
3343.524r	23	7.0		Sm II—				3347.506r	30	8.9		Fe I	2.99	449	
3343.672r	42	12.6		Fe I	3.02	449		3347.628r	14	4.2		NH	R 2	0,0	6
3343.776r	90	27.0		Ti II	0.15	7		3347.838r	68	20.5		Cr II	2.43	4	
3343.904r	8.5	2.5						3347.939r	64	19.2		Fe I	2.28	138	
3344.083r	17	5.2		Fe I	2.99	450		3348.121r	42	12.5		Co I	2.04	103	
3344.183r	29	8.6		NH	R 3	0,0	6	3348.237r	11	4.0					
3344.389r	13	4.0						3348.387r	10	3.2		V II—	2.56	136	
3344.523r	59	17.7		Ca I	1.88	11		3348.540r	29	9.5		Ti I	0.00	25	
3344.589r	19	6.7		La II	0.23	45		3348.687r	32	11.0		Sm II— NH	R 5	1,1	6
3344.699r	10	3.1						3348.910r	122	43.9		Ti II—	0.12	7	
3344.792r	38	11.5		Zr II (Ce II)	1.01 0.53	72 165		3349.002r	135	29.6		Ti II	0.61	16	
3344.883r	21	9.6		NH	R 6	1,1	6	3349.079r		23.3		Cr I	3.01		
3344.936r	70	21.1						3349.266r		27.7					
3345.024r	62	21.4		Zn I	4.08	4		3349.447	546	163		Ti II	0.05	1	7
3345.166r	17	5.1		Co I? Cr I?	1.74 3.45	45 218		3349.562r	39	58.1		NH	R 2	0,0	6
3345.363r	28	8.4		Mn I Cr I?	2.18 3.43	218		3349.652r	4	4.2		NH Cr II?	R 5 2.71	1,1 14	6
3345.486r	13	4.2		NH	R 6	1,1	6	3349.741r	14	8.2		Fe I	2.83	377	
3345.583r	50	14.9		Zn I	4.08	4		3349.832r	1.5	6.9					
3345.629r	27	10.1		NH	R 3	0,0	6	3349.947r	11	4.2					
3345.703r	16	5.2		Fe I	2.42	141		3350.081r	16	5.5					
3345.823r	12	3.7						3350.214r	69	22.1		Ca I	1.89	11	
3345.915r	20	6.0		V II— Zn I	4.51 4.08	244 4		3350.296r	29	9.6		Fe I	{2.43 2.45}	191 191	
3346.022r	34	10.3		Cr I	3.00	112		3350.379r	55	17.2		Ca I	1.89	11	
3346.152r	19	5.8						3350.412r	12	4.0		Ni II	2.95	1	
3346.282r	28	8.5		NH— Co I	R 6 1.74	1,1 45	6	3350.515r	58	17.3		Ti I Ti II (Gd II)	1.98 1.16 0.14	178 43 7	
3346.425r	39	11.7		NH	R 2	0,0	6	3350.64 a	4.5	1.4					
3346.602r	22	7.0						3350.75 a	5	1.5					
3346.746r	119	35.6		Ti II (Cr I) (Cr I)	0.13 2.98 2.97	7 112 112	7	3350.852r	11	3.5		NH— Sm II?	R' 1	0,0	6
3346.934r	65	19.6		Co I— Fe I	2.96 2.18	153 87		3350.956r	16	4.6		NH	R 1	0,0	6
3347.025r	22	7.8						3351.068r	18	5.5		Ni I p— NH	0.00 R 4	3 1,1	6
								3351.156r	9.5	2.8					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3351.246r	7.5	2.3		Sr I	1.85	7		3356.098r	34	10.3		Zr II	0.09	3	
3351.339r	7.5	2.3						3356.237r	21	6.4		Fe II	4.07	105	
3351.418r	11	3.3		Mn I	2.19	9		3356.328r	37	14.8		Fe I	0.91	25	
3351.525r	59	17.5		Fe I	2.20	89		3356.414r	73	21.9		Fe I	2.28	137	
3351.612r	24	9.4		Cr I	3.10	160		3356.542r	26	7.9		NH	Q 2	0,0	6
3351.751r	58	17.5		Fe I	2.73	304		3356.687r	50	14.9		Fe I	3.05		
3351.968r	45	14.5		Cr I	0.00	5		3356.842r	14	4.2		Co I?	3.07	151	
3352.065r	71	21.4		Ti II Sc II	1.22 0.00	54 4		3356.958r	7.5	2.3					
3352.185r	12	4.2						3357.122r	12	3.8					
3352.445r	17	5.3						3357.278r	50	15.1		Zr II— NH	0.00 Q 3	3 0,0	6
3352.638r	14	4.2						3357.403r	36	10.5		Cr II	4.41	79	
3352.775r	6	1.8						3357.569r	30	8.9		Fe I			
3352.825r	18	5.5		Co II	2.24	2		3357.682r	4	1.2					
3352.932r	47	14.1		Fe I Ti I	2.45 0.02	190 25		3357.740r	33	9.6		NH	Q 1,4	0,0	6
3353.129r	67	20.0		Cr II	2.48	4		3357.825r	35	10.6		Fe I	2.99	448	
3353.269r	43	12.8		Fe I	2.43	190		3357.942r	8	2.4		Fe II	4.15	117	
3353.405r	14	4.2						3358.048r	44	13.5		[NH Fe I?	{Q 5 R 0	{0,0 0,0}	6
3353.528r	8	2.4						3358.142r	13	4.1					
3353.635r	24	7.8		[NH— Zr I?	R 1 0.15	0,0 18	6	3358.282r	75	23.6		[Ti I Fe II— NH	0.00 3.89 Q 6	23 77 0,0	6
3353.742r	80	23.8		Sc II	0.31	12		3358.408r	35	10.3		NH	Q 2	0,0	6
3353.924r	18	5.5		NH	R' 0	0,0	6	3358.515r	100	30.0		Cr II	2.45	4	
3354.066r	51	15.4		Fe I	2.86	378		3358.637r	23	9.0		Gd II	0.03	8	
3354.217r	32	9.6		Co I	2.96	152		3358.698r	59	17.7		NH	Q 8	0,0	6
3354.390r	68	19.6		Co I Zr II	0.51 0.76	23 34		3358.795r	32	9.5		NH Fe II p	Q 3 1.67	0,0 5	6
3354.537r	19	5.6		Fe I? Ti II? p	1.22	64		3358.901r	70	20.9		NH— [Fe I	Q 9 2.99	0,0	6
3354.645r	65	19.5		Ti I	0.02	24		3359.010r	21	6.9		NH	Q 4	0,0	6
3354.890r	18	5.5						3359.114r	106	32.1		Ni I	3.48	108	
3355.064r	17	5.2						3359.286r	89	27.5		Co I NH	1.71 {Q 6 Q 11	44 0,0 0,0}	6
3355.230r	71	21.2		Fe I	3.30	617		3359.408r	38	12.1		NH	Q 7	0,0	6
3355.364r	8	2.4		V II	2.60	149		3359.502r	90	28.3		[Fe I— NH	0.86 {Q 8 Q 12	25 0,0 0,0}	6
3355.528r	21	6.4		Fe I	0.96	25		3359.635r	27	9.1		NH	Q 9	0,0	6
3355.664r	6	1.7						3359.689r	102	32.2		Sc II	0.01	4	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3359.802r	69	28.4		NH— Fe I	{Q 10 Q 13 3.30	{0,0 0,0 617	6	3362.648r	49	15.5		Ti II	1.22	64	
3359.932r	39	18.1		NH Zr II	Q 11 1.49	0,0 91	6	3362.973r	30	8.8		NH	Q 21	0,0	6
3360.047r	89	29.7		NH— NH	{Q 7,8 Q 14 Q 6, 9	{0,0 0,0 0,0	6 6	3363.164r	15	4.7					
3360.124r	79	28.0		NH Fe II— NH	{Q 10 Q 12 4.08 Q 5	{0,0 0,0 105 0,0	6 6	3363.408r	50	14.8		Fe I			
3360.211r	40	19.9		NH	Q 11	0,0	6	3363.616r	50	15.0		{Ni I NH	3.48 Q 22	105 0,0	6
3360.310r	89	31.9		Cr II NH— NH—	3.10 Q 15 {Q 4,12 Q 13	21 0,0 0,0	6 6	3363.720r	55	16.4		Cr II	2.43	3	
3360.351r	36	22.9						3363.821r	31	9.2		Fe I (Zr II)	2.76 0.36	307 11	
3360.497r	51	21.7		NH	Q 13	0,0	6	3363.921r	33	9.7		NH	Q 22	0,0	6
3360.607r	32	15.1		NH— NH	Q3,14 Q 16	0,0 0,0	6 6	3364.014r	25	8.3		NH	Q 22	0,0	6
3360.694r	23	12.9		NH	Q 14	0,0	6	3364.098r	5.5	1.6					
3360.808m	14	8.1		NH	Q 15	0,0	6, 8	3364.228r	14	6.1		Fe II p	1.72	5	
3360.921r	22	16.1		NH— Fe I	Q 15 2.42	0,0 142	6	3364.274r	47	14.1		Fe I			
3361.007r	26	22.1		NH Ti I	{Q 2 Q 17 0.02	{0,0 0,0 24	6	3364.400r	29	8.7		Fe I NH	3.05 Q 23	0,0	6
3361.107r	8	19.7		NH	Q 16	0,0	6	3364.614r	55	16.4		Ni I— Fe I	3.38 2.59	107 245	
3361.193r	939	{265 69.3		Ti II	0.03	1		3364.651m	23	10.3		NH	Q 23	0,0	6,8
3361.287r			{Ti I Sc II	0.02 0.00	23 4		3364.735m	20	6.4		NH	Q 23	0,0	6,8	
3361.434r	20	25.7		NH	{Q 17 Q 18	{0,0 0,0	6	3364.946r	5	1.6		NH Nd II?	P' 2	0,0	6
3361.570r	90	46.4		Ni I (V II)	0.11 2.37	19 70		3365.032r	8	2.3		Co I	2.01	69	
3361.772r	47	22.3		Cr II	3.10	21		3365.112r	3.5	1.0					
3361.854r	60	27.5		NH— Ti I	{Q 18 Q 19 0.02	{0,0 0,0 25	6	3365.206r	16	4.9		NH	Q 24	0,0	6
3361.953r	81	30.9		{Ca I {Sc II— Fe I	1.90 0.00 2.84	11 4 377		3365.316r	7	2.1					
3362.141r	61	22.1		Ca I	1.90	11		3365.446r	31	9.2		Fe II— NH	3.89 Q 24	78 0,0	6
3362.268r	76	26.6		Cr I— Fe I NH (Gd II)	2.54 Q 19 0.08	54 0,0 8	6	3365.549r	27	8.2		V I	1.18	54	
3362.394r	26	9.0		NH	Q 20	0,0	6	3365.773r	107	31.9		Ni I	0.42	38	
3362.593r	8	2.7		Tm II	0.03			3365.992r	24	7.3					
								3366.176r	116	34.6		Ti I {Ti II {Ni I	2.04 1.24 0.17	178 54 8	
								3366.359r	19	5.7		NH Sr I	Q 25 1.85	0,0 7	6
								3366.459r	14	4.4		NH	Q 25	0,0	6
								3366.552r	8	2.4		Ce II	0.55	99	
								3366.656r	5	1.5					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3366.796r	180	31.5		Fe I— Ni I	2.69 3.38	302 108		3370.195r	30	9.6		NH—	Q 9	1,1	6
3366.874r		31.5		Fe I	2.20	87		3370.333r	54	16.6		Co I	0.58	24	
3366.982r	23	7.1		Fe II	5.57	177		3370.449r	69	20.7		Ti I	0.00	23	
3367.098r	146	22.1		Co I	0.43	22		3370.635r	61	18.6		NH—	Q 8,10	1,1	6
3367.162r		29.2		Fe I	2.42	142		3370.798r	118	35.2		Fe I	2.69	304	
3367.299r	30	9.0		Fe I				3370.884r	18	9.2					
3367.392r	12	3.9		NH	Q 26	0,0	6	3370.974r	83	24.9		NH Co II	Q 7,9 2.27	1,1 2	6
3367.440r	45	13.2		Cr II	4.41	79		3371.110r	39	13.9		NH	Q 3	1,1	6
3367.552r	80	23.9		Cr I	{2.54 2.54	54 54		3371.160r	28	11.2		NH	Q 8,11	1,1	6
3367.677r	48	14.5		NH Fe I	Q 3	1,1	6	3371.295r	51	15.2		Fe I			
3367.818r	29	11.6		Zr II	0.32	11		3371.399r	17	11.7		NH	Q 9,10	1,1	6
3367.894r	29	11.6		Ni I	0.03	20		3371.457r	107	31.5		Ti I	0.05	24	
3368.058r	189	56.3		Cr II	2.48	4		3371.609r	24	7.2		NH	Q 12	1,1	6
3368.184r	26	12.9		Fe I				3371.716r	65	{10.9 10.9		NH	Q 10	1,1	6
3368.247r	8.5	3.4		Fe I p	3.25	678		3371.763r						NH	Q 11
3368.361r	5.5	1.8		NH	Q 27	0,0	6	3371.988r	104	47.7		Ni I	0.17	7	
3368.445r	6.5	2.0		Fe II?	4.49	134		3372.089r	118	59.9		{Fe I NH	2.18 P 3	83 0,0	6
3368.545r	19	5.7		NH	Q 27	0,0	6	3372.178r	216	{16.3 73.1		Sc II	0.02	4	
3368.658r	22	6.6		NH	{Q 5 Q 27	1,1 0,0	6	3372.226r						{Ti II NH	0.61 P 4
3368.725r	36	10.9		Cr II	4.43	91		3372.352r	24	11.9		Fe I	2.99	447	
3368.821r	45	13.9		Fe I				3372.473r	29	14.0		NH Fe I	Q 12	1,1	6
3368.948r	101	32.4		{Sc II— Fe I	0.01 2.83	4 376		3372.623r	9	8.8					
3369.055r	18	9.1		NH Cr II	Q 6 4.38	1,1 68	6	3372.812	459	135.9		Ti II	0.01	1	7
3369.151r	39	30.6		{Fe I NH	2.45 P 2	191 0,0	6	3372.969r	22	20.3		NH—	Q 13	1,1	6
3369.217r	75	28.2		Ti II NH	1.23 Q 3	64 1,1	6	3373.093r	6	3.1					
3369.371r	27	15.0		Fe II— NH	3.89 Q 7	76 1,1	6	3373.233r	34	12.4		Co I	2.28	122	
3369.498r	13	17.5		NH	Q 4	1,1	6	3373.316r	44	14.4		Fe I			
3369.578r	407	120.5		{Ni I Fe I	0.00 2.73	6 304		3373.419r	39	12.5		NH Zr II	P 4 1.01	0,0 74	6
3369.665r	33	77.1						3373.506r	36	11.4		NH—	{Q 14 Q 15	{1,1 1,1}	6
3369.797r	30	15.2		NH Fe II p	Q 5,8 3.89	1,1 76	6	3373.606r	9	2.8		Ce II W I	0.56 0.41	212	
3369.917r	26	10.9						3373.736r	11	3.5		Fe I	2.73	303	
3370.038r	20	6.9		NH	Q 6	1,1	6	3373.880r	35	10.7		Co I	1.71	44	
								3373.983r	72	21.4		Ni II	2.86	1	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3374.135r	7.5	3.6		NH	Q 15	1,1	6	3377.587r	68	20.3		Ti I	0.02	23	
3374.222r	150	44.8		Ni I Fe I	0.03 2.22	17 89		3377.701r	5.5	1.7					
3374.351r	32	9.5		Ti II	1.24	54		3377.807r	5.5	1.6		-Fe I?			
3374.452r	53	16.6		Fe I				3377.977r	68	20.3		Fe I			
3374.642r	98	28.9		Ni I	3.38	106		3378.066r	7	2.1					
3374.736r	58	24.5		Zr II— NH	1.00 Q 16	61 1,1	6	3378.183r	19	5.7		NH	Q 20	1,1	6
3374.845r	12	4.0		NH	Q 16	1,1	6	3378.586r	19	6.5		NH	Q 20	1,1	6
3374.932r	35	10.7		Cr I? Cr II	3.12 2.48	181 4		3378.687r	143	30.7		Fe I	2.69	301	
3375.095r	24	7.2		NH	Q 17	1,1	6	3378.744r			17.9		Co I NH Fe I p	2.28 P 5 2.28	121 0,0 137
3375.215r	9	2.8		Co I?	3.07	153		3378.868r	50	18.1					
3375.342r	19	5.7		NH Fe I	P 4	0,0	6	3379.024r	92	27.6		Fe I	2.18	85	
3375.465r	8.5	2.5						3379.200r	71	21.9		Cr I Ti I	0.00 0.05	5 24	
3375.562r	43	12.8		Ni I— NH	3.60 Q 17	108 1,1	6	3379.377r	75	23.2		Cr II	3.10	21	
3375.632r	15	5.3		NH	Q 17	1,1	6	3379.440r			0.9		NH	Q 21	1,1
3375.730r	20	5.9		Fe I	2.99			3379.550r	7.5	2.5		Cr I?	2.54	54	
3375.855r	8	2.3						3379.646r	1.5	0.4					
3375.945r	7	2.1						3379.706r	2	0.8		Fe I			
3376.028r	20	5.9		NH— V I	Q 18 1.19	1,1 54	6	3379.824r	71	25.3		Cr II Cr I	3.10 2.54	21 54	
3376.102r	11	3.4						3379.923r	44	21.1		Ti II	1.24	64	
3376.205r	8	2.3		Co I?	3.02			3380.020r	2.5	1.3		Fe I	3.33	709	
3376.278r	24	7.2		Cr II? Zr II— NH	4.41 0.96 P 5	78 60 0,0	6	3380.118r	62	27.5		Fe I	2.76	304	
3376.335r	56	16.7		Ni I	3.48	104		3380.260r	30	31.2		Ti II	0.05	1	
3376.494r	54	15.9		NH— Fe I	Q 18	1,1	6	3380.468r	6	9.7					
3376.595r	8	2.4		Cr II?	4.41	90		3380.585r	809	239		Ni I	0.42	37	
3376.678r	7	2.1		Cr II?	4.74	112		3380.752r	17	27.1		Sr II— Fe I	2.94	4	
3376.758r	12	3.8		Fe I				3380.889r	87	51.0		Ni I	0.27	7	
3376.842r	7	2.1						3381.033m	3	1.9		Fe II— NH	5.57 P 6	177 0,0	8 6
3376.948r	5.5	1.6		Co I?	2.54			3381.132r	30	14.1		Fe I—			
3377.066r	35	10.5		Co I NH	1.71 Q 19	42 1,1	6	3381.353r	58	21.6		Fe I	{2.84 3.25	376 677	
3377.272r	17	4.9		NH	P 5	0,0	6	3381.495r	2	0.8		Co I Fe I	2.04 1.61	88 49	
3377.361r	5.5	1.6		Fe I— V I	1.19	54		3381.532r	4.5	1.4					
3377.486r	54	16.1		Ti I Zr II	0.05 0.41	25 11		3381.649r	2.5	0.9					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3381.759r	6	1.8						3385.673r		17.8		Ti I	0.05	24	
3381.866r	11	3.5		NH?	P 3	1,1	6	3385.725r	70	4.2		NH Fe I?	P 7	0,0	6
3381.993r	33	9.8		Fe I	3.04			3385.869r	7.5	2.5		NH	Q 25	1,1	6
3382.088r	16	4.9		Co I? Cr I?	2.33 3.12	123 181		3385.949r	70	20.7		Ti I	0.05	23	
3382.204r	21	6.3		NH	P 6	0,0	6	3386.174r	30	9.0		NH	{P 5 Q 25	{1,1 1,1	6
3382.314r	30	11.9		Ti I	1.07	86		3386.272r	16	5.7		NH Nb II?	Q 25 1.22	1,1	6
3382.413r	123	36.5		Fe I	2.18	84		3386.352r	10	3.1					
3382.468r	35	19.2						3386.452r	17	5.0		Fe II	3.94	88	
3382.588r	9	3.4						3386.555r	24	7.1					
3382.689r	85	25.2		Cr II	2.45	3		3386.739r	8.5	2.4		Fe II			
3382.790r	14	5.4						3386.785r	25	7.4					
3382.900r	22	6.6		Ag I	0.00	1		3386.878r	18	5.3					
3382.993r	35	10.6		Fe I				3387.058r	15	4.4					
3383.096r	9.5	2.9						3387.171r	16	5.0		NH	P 5	1,1	6
3383.206r	7.5	2.4		Co I?	3.07			3387.308r	33	9.7		-Fe II	3.97		
3383.313r	5	1.6		NH	P 4	1,1	6	3387.418r	87	25.8		Fe I	2.76	306	
3383.376r	28	10.1		Fe I	2.61	245		3387.464r	38	20.0		Ni I	0.11	17	
3383.493r	7	3.0						3387.626r	86	25.5		Fe I			
3383.573r	13	7.9						3387.718r	31	15.2		Co II	2.27	2	
3383.697r	430	56.2		Fe I	{2.20 2.95	85 444		3387.852r	187	55.2		{Ti II— Zr II	0.03 0.97	1 74	
3383.765r		127		Ti II	0.00	1		3388.054r	22	6.8		NH	Q 26	1,1	6
3383.997r	64	32.2		Fe I	2.18	83		3388.175r	103	30.4		{Co I Co II	0.58 2.24	23 2	
3384.089r	19	8.7		NH	P 7	0,0	6	3388.312a	52	15.5		Zr II	0.00	2	
3384.239r	6	1.8		Cr I	2.54	54		3388.468r	44	13.1		NH	P 8	0,0	6
3384.325r	11	3.6		NH	Q 24	1,1	6	3388.625r	52	15.5		Fe I			
3384.425r	14	4.4		Fe I?				3388.760r	89	26.6		Ti II	1.24	53	
3384.592r	8.5	2.8		V I? Mo I?	1.06 1.47	46 9		3388.858r	13	4.3		Dy II	0.59		
3384.646r	32	9.4		Cr I	2.54	54		3388.971r	42	12.4		Fe I	3.07	502	
3384.772r	56	16.7		Fe I— NH	0.99 P 7	25 0,0	6	3389.121r	19	5.8					
3384.925r	11	3.2		Fe I				3389.251r	37	11.2		NH— Fe I	P 8	0,0	6
3385.031r	29	8.7		Dy II				3389.324r	16	5.0		Sm II	0.54	52	
3385.079r	13	4.9						3389.404r	38	11.4					
3385.225r	77	22.7		Co I	0.51	22		3389.611r	6	1.8					
3385.332r	13	4.1		Cr I	3.55	236		3389.748r	48	14.1		Fe I	2.22	87	
3385.441r	47	14.2		Fe I											
3385.552r	57	16.8		Fe I											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3389.824r	8	3.0		Hf II	0.45	8		3393.845r	90	27.9		Cr II	3.10	21	
3389.924r	4	1.2						3393.927r	43	16.5		Fe I	2.28	136	
3390.018r	17	5.2		NH	{Q 27 P 6	1,1 1,1	6	3394.085r	63	18.5		Fe I	2.45	188	
3390.108r	17	5.2		Fe II?	6.80	207		3394.17 a	10	3.0					
3390.264r	21	6.3		Fe I p	2.43	188		3394.297r	93	27.6		Cr II	3.10	21	
3390.408r	24	7.4		Co I	2.04	102		3394.383r	41	20.3		Fe I			
3390.518r	12	3.8						3394.550r	204	{ 36.8 36.8		Ti II	0.01	1	
3390.600r	21	6.9					3394.611r						Fe I	2.20	81
3390.683r	40	11.9		Ti I	1.05	86		3394.740r	24	9.3					
3390.783r	20	6.5		Cr I?— Co I?	3.55 3.19	236		3394.823r	13	4.4					
3390.897r	14	6.2						3394.950r	12	3.5		Co I	1.71	42	
3391.039r	238	70.2		Ni I	0.00	5		3395.077r	29	8.7		Fe I	3.02		
3391.107r	36	31.9						3395.16 a	7	2.2					
3391.273r	21	7.5		Fe II	4.15	117		3395.273r	19	6.5		NH	P 10	0,0	6
3391.373r	15	5.8		Cr I	3.85	254		3395.386	111	32.8		Co I (Fe II)	0.58 4.15	25 117	7
3391.442r	99	29.2		Cr II	2.42	3		3395.615r	44	12.9		Cr II	4.47	100	
3391.590r	40	11.8		NH	P 9	0,0	6	3395.747r	40	11.8		NH	P 10	0,0	6
3391.670r	11	3.8						3395.877r	16	5.2		Fe I? p	{2.45 3.05	189 543	
3391.841r	30	9.0		Fe I p	3.30	678		3395.990r	35	15.1		Fe I			
3391.973r	113	20.0		Zr II	0.16	1		3396.043r	79	23.6		Fe I			
3392.017r		20.0		Fe I	3.02	499		3396.185r	63	18.5		Ni I	3.61	122	
3392.123r	48	19.2		NH	P 9	0,0	6	3396.302r	31	9.3		[NH— Zr II	P 10 0.96	0,0 58	6
3392.305r	102	32.9		Fe I	2.20	83		3396.388r	47	14.0		Fe I	0.96	25	
3392.498r	31	11.5		—Gd II	0.08	7		3396.507r	15	4.4		Ni I p	3.61	118	
3392.624r	144	41.0		Fe I	2.18	85		3396.607r	6.5	2.2		Eu II?	3.33	30	
3392.678r		25.4		V II— Ti I	2.37 1.50	70 136		3396.657r	25	7.4		Zr II	1.66	103	
3392.791r	18	17.1		NH	P 9	0,0	6	3396.830r	8.5	2.6		Rh I	0.00	3	
3392.894r	17	26.2						3396.927r	19	7.7					
3392.978r	570	160		Ni I	0.03	20		3396.981r	79	23.3		Fe I	0.96	26	
3393.025r		70.7		Cr II	3.10	21		3397.062r	28	12.1		Lu II	1.46	4	
3393.150r	54	41.3		Zr II	0.04	3		3397.221r	40	12.1		Fe I	3.02	503	
3393.292r	31	14.1						3397.316r	8.5	2.7					
3393.391r	47	18.5		Fe I	2.86	376		3397.436r	29	8.8					
3393.61 a	56	18.7		Fe I Dy II	{2.76 2.83	305 376		3397.556r	43	13.8		Fe I	3.02	447	
3393.710r	7	2.0						3397.644r	68	20.3		Fe I	0.99	26	
								3397.796r	13	4.6					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3397.839r	37	10.9		Ni II	3.60	8		3402.218r	114	0.6					
3398.017r	5.5	1.5					3402.266r	33.5					Fe I	3.24	614
3398.110r	6	1.8		Fe I p	3.24	615		3402.420r	95	27.9		Ti II Cr II	1.22 3.10	53 21	
3398.223r	45	13.2		Fe I	2.76	304		3402.552r	28	8.4		NH—	P 12	0.0	6
3398.307r	58	8.8						3402.709r	9.5	2.6					
3398.377r		9.2		Fe II	4.07	105		3402.792r	14	4.1		Mo II?	4.16		
3398.417r	10	2.9					3402.900r	35	10.3			NH Zr II	P 12 1.53	0.0 91	6
3398.612r	41	11.8		Fe I Ti I	1.05	86		3403.012r	12	3.7					
3398.705r	15	4.9					3403.155r	21	6.2						
3398.815r	14	4.1		Co I	3.13	157		3403.271r	155	23.8		Fe I	{2.73 2.83}	304 377	
3398.925r	48	13.5		NH	P 11	0,0	6	3403.345r		28.8			Cr II	{2.43 3.10}	3 21
3398.992r		0.6						3403.439r	59	18.5		Ni I	3.42	108	
3399.05 a	4	1.2		Fe I				3403.592r	27	7.9		Cr I	3.85	254	
3399.160r	28	13.1		—NH	P 8	1,1	6	3403.693r	22	6.6		Zr II	1.00	59	
3399.242r	83	31.0		Fe I	2.73	302		3403.792r	7	1.9					
3399.355r	159	46.6		Fe I Zr II	2.20 0.32	85 11		3403.872r	6.5	1.9					
3399.520r	26	8.2		Cr II	4.50	100		3403.995r	8.5	2.6		Cr I?	3.37		
3399.612r	12	3.7		Fe I				3404.069r	13	3.8					
3399.808r	38	11.3		NH	P 11	0,0	6	3404.159r	17	5.3					
3400.019r	8.5	2.5		Gd II	0.35	22		3404.280r	176	26.2		Fe I	{1.01 2.73}	25 301	
3400.145r	16	4.7		Ti I Mn II	2.40 4.93			3404.31 a		51.3			Mo I?	1.47	9
3400.232r	8	2.3						3404.378r	35.3			Fe I	2.20	83	
3400.395r	8.5	2.5		V I	1.08	46		3404.448r	10	3.4		V II?	4.51	243	
3400.495r	9	2.6		Co I	1.74	42		3404.584r	36	10.6		Pd I	0.81	2	
3400.645r	35	10.3		Fe I	3.02			3404.764r	70	21.2		Fe I	2.73	300	
3400.845r	19	5.6						3404.839r	43	15.8		Zr II	0.36	11	
3400.987r	42	12.2		Fe I	3.02			3404.911r	30	11.6		Fe I	2.69	300	
3401.173r	25	7.4		Ni I	3.42	107		3404.964r	10	4.8		Ti II?	1.22	63	
3401.344r	28	8.2						3405.126	206	60.5		Co I	0.43	23	7
3401.530r	104	30.6		Fe I	0.91	26		3405.26 a	7	2.5					
3401.644r	17	5.1		Co I?	1.74	44		3405.371r	10	3.2		NH?	P 10	1,1	6
3401.766r	37	10.9		Ni II	3.07	4		3405.504r	10	3.2		Ni I p	3.70	122	
3401.858r	10	3.1						3405.583r	35	10.4		Fe I			
3401.924r	20	6.0		Co I	3.23	157		3405.704r	10	3.1					
3402.074r	20	5.9		Co I	2.33	123		3405.838r	56	16.6		Fe I	2.69	299	
3402.128r	13	4.1		NH	P 9	1,1	6								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3405.978r	17	5.1		Ce II—	0.55	96		3410.651r	7	2.2					
3406.121r	35	10.3		NH	P 13	0,0	6	3410.791r	20	5.9					
3406.171r	14	4.0		Fe I p	2.84	376		3410.903r	84	24.8		Fe I	0.91	25	
3406.258r	6	1.8						3411.028r	26	7.6		Cr I?—			
3406.358r	9.5	3.1						3411.142r	54	16.0		Fe I	2.69	299	
3406.439r	76	22.2		Fe I	3.27	676		3411.234r	9.5	2.8					
3406.564r	34	9.8						3411.366r	70	20.5		Fe I	2.73	301	
3406.810r	136	39.9		Fe I	2.22	85		3411.568r	6	1.8					
3407.054r	28	8.2		Fe I? p	2.83	377		3411.67 a	17	5.0		Ti I	2.41		
3407.205r	101	30.5		Ti II	0.05	1		3411.751r	6	1.8					
3407.314r	56	26.0		Ni II	3.08	4		3411.877r	14	4.1		Fe I p	2.69	298	
3407.404r	16	12.5						3411.977r	20	5.9					
3407.464r	248	50.9		Fe I	2.18	83		3412.030r	4	1.2					
3407.561r		28.4		Fe I p	2.18	81		3412.170r	23	6.6					
3407.712r	10	3.7						3412.349r	123	36.0		Co I	0.51	25	
3407.805r	60	18.8		Dy II	0.00			3412.463r	9.5	3.2		Ni I p	3.40	90	
3407.959r	37	10.8		Mn I	2.92	26		3412.643r	108	32.0		Co I	0.00	6	
3408.085r	58	17.0		Zr II	0.97	72		3412.777r	8.5	2.6					
3408.185r	20	6.9						3412.887r	30	9.1		NH	P 12	1,1	6
3408.352r	13	3.8						3413.00 a	11	3.7					
3408.505r	22	6.5		Fe I				3413.143r	156	48.4		Fe I	2.20	85	
3408.679r	8.5	2.9		Sm II				3413.270r	29	10.7		NH	P 12	1,1	6
3408.779r	131	38.4		Cr II	2.48	3		3413.410r	160	1.8		Zr II—	1.00	60	
3408.938r	56	17.9		—V II	2.51	120		3413.492		54.4		NH	P 15	0,0	6
3409.078r	9	2.9						3413.650r	53	17.5		Ni I	0.17	5	7
3409.170r	134	23.5		Co I	0.51	23		3413.723r	19	8.6		NH	P 15	0,0	6
3409.214r		23.5		Fe I	3.24	614		3413.803r	8	2.9		Dy II	0.10		
3409.398r	40	11.7		Fe I p	3.02	445		3413.947r	112	36.1		Ni I	0.11	17	
3409.579r	100	29.2		Ni I	0.00	5		3414.137r	28	10.0		Fe II	3.94	91	
3409.671r	25	9.1		NH Co I	P 14 0.51	0,0 24	6	3414.267r	6.5	2.6					
3409.818r	80	23.6		Ti II	0.03	1		3414.403r	9	4.7		Fe I?			
3409.948r	21	6.3		NH	P 14	0,0	6	3414.511r	53	34.2					
3410.038r	60	17.6		Fe I	3.05	542		3414.637r	54	156		Zr II Zr I	1.01 0.07	73 17	
3410.181r	80	23.5		Fe I	3.41	735		3414.779r	816	237		Ni I	0.03	19	
3410.254r	48	21.1		Zr II	0.41	11		3414.918r	49	157					
3410.394r	5.5	1.6						3415.098r	15	24.9					
3410.564r	23	6.7		Fe I	2.59	244		3415.147r	8	4.4					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3415.330r	3.5	1.3		Cr I?	3.45			3419.704r	60	17.7		Fe I	2.84	377	
3415.443r	6	2.2		Cr II?	4.50	100		3419.80 a	4.5	1.5					
3415.540r	82	28.1		Fe I (Co I)	2.22 0.00	83 5		3419.881r	4	1.2					
3415.683r	44	14.4		Ni I p	3.54	123		3420.001r	3.5	1.0		Mn II?	4.93		
3415.790r	28	9.4		Co II	2.20	2		3420.108r	18	5.3		NH	P 17	0,0	6
3415.897r	4	1.3						3420.228r	9	2.9		Fe I?			
3416.032r	63	19.6		Fe II	2.28	16		3420.285r	23	6.9		NH	P 17	0,0	6
3416.142r	6.5	2.1						3420.443r	30	8.8		NH	P 17	0,0	6
3416.289r	42	12.9		Fe I				3420.488r	23	6.7		Co I	1.74	42	
3416.409r	6	1.9						3420.598r	6.5	1.9					
3416.512r	10	2.9		Fe I p	3.37	708		3420.748r	84	22.8		Ni I	0.27	9	
3416.639r	5.5	1.9		NH	P 16	0,0	6	3420.808r		2.6		Mn I Co I	4.23 2.08	102	
3416.676r	44	13.2		Fe I	2.48	142		3421.015r	14	4.1		NH	P 14	1,1	6
3416.782r	16	4.7						3421.121r	9	3.1		Ni I? p	3.42	105	
3416.869r	21	6.1		NH Fe I	P 16	0,0	6	3421.221r	103	30.2		Cr II	2.42	3	
3416.963r	68	19.9		Ti II	1.24	53		3421.350r	50	16.7		Ni I	3.54	122	
3417.066r	12	4.4		NH	P 16	0,0	6	3421.487r	10	2.8					
3417.169r	121	35.3		Co I	0.58	23		3421.625r	23	6.7		Cr II? Co I?	{4.29 4.32 2.04	60 60 101	
3417.269r	51	20.3		Fe I	1.01	26		3421.727r	20	6.0					
3417.359r	25	9.4		NH Ru I	P 13 0.26	1,1 4	6	3421.900r	2	0.6		Fe I			
3417.486r	6	1.8		Ce II?	0.70	100		3421.954r	4	1.0					
3417.549r	5	1.5						3422.127r	45	13.1		Fe I			
3417.687r	28	8.0		Co I	2.33	122		3422.214r	8.5	2.5					
3417.816r	139	22.5		Co I	0.43	19		3422.335r	48	14.0		Ni I	3.54	105	
3417.870r		22.5		Fe I	2.22	81		3422.496r	113	33.5		Fe I (Gd II)	2.99 0.24	444 2	
3418.029r	26	7.6		Fe II p	4.08	104		3422.661r	65	33.0		Fe I	2.22	85	
3418.171r	70	20.5		Fe I	3.28	577		3422.759r	165	48.1		Cr II (Ce II)	2.45 0.45	3 144	
3418.316r	13	3.9						3422.883r	43	14.9		Ni I Co I	3.70 1.74	122 42	
3418.39 a	8.5	2.7						3423.020r	12	3.6		Cr I?			
3418.522r	111	32.4		Fe I	2.22	81		3423.08 a	7.5	2.3					
3418.732r	29	8.5		Gd II	0.00	7		3423.174r	14	4.5		Cr I?	3.85		
3418.881r	55	16.1		Fe I	3.04			3423.247r	19	6.0					
3418.976r	4	1.2						3423.320r	9	3.1					
3419.150r	48	14.0		Fe I	3.24	576		3423.534r	6.5	3.2		NH— Fe I?	P 18	0,0	6
3419.292r	3.5	1.0		Fe I?											
3419.422r	6	1.8		Mn II	4.93										

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3423.627r	17	16.9						3427.522r	19	5.7					
3423.715r	366	104		Ni I	0.21	20		3427.612r	11	3.1		Cr I?			
3423.839r	18	16.2		NH— Co II	P 18 2.27	0,0 2	6	3427.765r	14	4.5		Co I?	3.19		
3423.994r	22	8.9		Fe I				3427.838r	24	7.1					
3424.13 a	12	3.9						3427.948r	11	3.5		NH	P 16	1,1	6
3424.178r	6	2.6						3428.020r	41	11.9		Fe I p	3.30	616	
3424.299r	128	38.8		NH Fe II? p	P 15 4.15	1,1 116	6	3428.207r	117	34.1		Fe I	2.20	81	
3424.446r	17	5.8		Fe I	2.18	81		3428.325r	11	3.5		Ru I	0.00		
3424.513r	51	14.9		NH	P 15	1,1	6	3428.427r	110	17.8		Ni I p Fe I p	3.70 2.76	123 302	
3424.599r	21	7.0		Co I	2.08	103	3428.492r				17.8				
3424.713r	20	6.0		Gd II	0.35	22		3428.642r	24	6.8		Fe II p	3.97	90	
3424.833r	30	9.0		NH	P 15	1,1	6	3428.758r	69	20.1		Fe I	3.60	836	
3425.019r	96	27.7		Zr II	0.04	2		3428.932r	19	5.5		Ti I	1.89	168	
3425.063r		0.6		Fe I	3.05	541		3429.038r	6.5	1.9					
3425.299r	7	2.0		Tm II	0.03	7		3429.148r	4.5	1.3		Fe I?			
3425.37 a	8	2.3						3429.334r	10	2.9					
3425.446r	16	4.7		Fe I Nb II	1.35	7		3429.471r	8	2.3					
3425.583r	52	15.2		Fe II	1.67	5		3429.584r	5	1.5					
3425.746r	6.5	1.9						3429.717r	18	5.4					
3425.843r	19	5.5						3429.817r	22	6.4		Fe I	{2.61 3.05}	244 540	
3425.968r	11	3.2		Cr I	3.09	158		3429.937r	5	1.5					
3426.092r	22	6.6		Fe I p	3.11	502		3430.083r	2	0.6		Fe I?			
3426.215r	15	6.5		Ce II	0.12	44		3430.160r	6.5	1.9		Fe II p	3.94	89	
3426.332r	143	21.3		Fe I	2.28	135		3430.293r	19	5.4		NH	P 20	0,0	6
3426.401r		26.0		Fe I	{0.99 2.18}	25 82		3430.410r	22	6.4		NH	P 20	0,0	6
3426.635r	121	23.6		Fe I	2.20	82		3430.536r	49	14.3		Zr II	0.47	11	
3426.673r		17.8		Fe I p	3.27	615		3430.642r	5.5	1.6					
3426.795r	10	3.2		Fe II p	4.08	103		3430.735r	5	1.5		Ru I	0.34	3	
3426.912r	5	1.9		NH	P 19	0,0	6	3430.885r	1.5	0.4		Fe I p	3.27	614	
3426.992r	101	48.4		Fe I	0.99	26		3430.955r	8	2.3					
3427.086m	9	14.0		NH—	P 19	0,0	6,8	3431.072r	3	0.9					
3427.129r	218	63.8		Fe I	2.18	81		3431.185r	8	2.3					
3427.206r	18	15.2						3431.288r	20	5.8		Cr I	2.54	53	
3427.358r	5	1.6						3431.455r	21	6.3					
3427.462r	3.5	1.2						3431.586r	106	30.9		Co I	0.10	6	
								3431.695r	13	3.9		Cr I	2.54	53	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3431.830r	90	26.2		Fe I	{2.83 3.30	376 676		3435.826r	39	11.3		Cr I	{2.54 2.54	53 53	
3431.942r	8	2.5		NH	P 17	1,1	6	3436.038r	40	11.8		Fe I	3.27	614	
3432.022r	47	13.7		Fe I	2.86	377		3436.114r	15	5.9		Fe II	3.97	91	
3432.135r	18	5.1		NH	P 17	1,1	6	3436.196r	80	23.3		Cr I	{2.54 2.54	52 52	
3432.215r	7.5	2.2						3436.336r	9	2.6					
3432.312r	38	11.1		Cr I Co I	2.54 2.08	53 102		3436.416r	16	4.6					
3432.415r	19	5.5		Zr II	0.93	58		3436.530r	7.5	2.3					
3432.572r	13	3.8						3436.650r	6	1.7					
3432.728r	42	12.5		Nb II	2.01			3436.746r	13	3.8		Ru I	0.15	4	
3432.888r	15	4.7						3436.840r	15	4.4					
3433.048	111	40.9		Co I	0.63	23	7	3436.980r	6.5	2.3		Co I?— NH	3.13 P 22	0,0	6
3433.155r	4	1.6						3437.054r	126	36.4		Fe I	3.05	539	
3433.318r	80	33.8		Cr II	2.43	3		3437.146r	22	12.8		Zr II	0.71	33	
3433.455r	12	12.2		Pd I—	1.45	11		3437.291r	184	53.6		Ni I	0.00	3	
3433.579r	492	143		Ni I— Cr I	0.03 2.54	19 52		3437.480r	34	10.5					
3433.769r	26	15.1		NH NH	P 21 P 21	0,0 0,0	6 6	3437.636r	49	14.2		Fe I	2.43	187	
3433.917r	6.5	2.6		Zr II	1.00	58		3437.693r	20	7.8		Co I	3.25	162	
3433.981r	4.5	1.7						3437.790r	7.5	2.2					
3434.047r	64	21.4		Fe I	2.76	300		3437.876r	9	2.6					
3434.123r	25	10.5		Cr I	2.54	52		3437.958r	61	17.9		Fe I	3.27	614	
3434.247r	13	4.1						3438.100r	22	6.4		Fe I p	2.73	300	
3434.376r	11	3.3		Dy II	0.00			3438.240r	132	23.0		Zr II	0.09	1	
3434.490r	3.5	1.0						3438.319r		22.7		Fe I			
3434.610r	2.5	0.7						3438.420r	13	4.2					
3434.693r	1.5	0.6						3438.503r	23	6.7					
3434.826r	8.5	2.5						3438.715r	27	8.1		Co I	2.04	87	
3434.896r	13	3.6		Rh I	0.00	2		3438.956r	140	27.0		Mn II	1.17	1	
3434.966r	14	4.1		Fe I	3.55	776		3439.035r		18.9		Fe I	2.73	299	
3435.043r	2	0.6						3439.132r	7.5	2.3					
3435.160r	3	0.9						3439.229r	10	3.5		Gd II	0.38	23	
3435.246r	3.5	1.0		Fe I?				3439.342r	12	3.8		Ti I— Al I	1.46 0.00	120 2	
3435.373r	4.5	1.3		V II	2.56	133		3439.499r	5	1.7		NH	P 19	1,1	6
3435.492r	29	8.4		Ni I	1.68	53		3439.599r	8	2.9		NH	P 19	1,1	6
3435.593r	14	4.4						3439.705r	9	3.6					
3435.683r	29	8.4		Cr I	2.54	52		3439.805r	66	26.4		Gd II	0.42	22	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3439.872r	13	6.7		Fe I				3444.081r	5.5	3.2					
3440.002r	7.5	5.4		Gd II	0.24	7		3444.266r	148	22.9		Ni I	3.74	122	
3440.099r	25	22.1					3444.331r	37.2				Ti II	0.15	6	
3440.192r	26	31.0					3444.454r	5.5	3.0						
3440.369r	10	32.2		NH	P 23	0,0	6	3444.518r	38	13.2		Fe I			
3440.499r	8	33.2		—Sm II?	0.66	54		3444.638r	4.5	1.5					
3440.626r	1243	361		Fe I	0.00	6		3444.711r	16	5.4					
3440.739r	11	40.1		Fe I p	2.76	301		3444.894r	11	3.5		Al I?	0.00	2	
3441.019r	634	322		Fe I	0.05	6		3445.125r	137	41.9		—Fe I	2.20	81	
3441.112r	16	53.5		Cr I	2.54	52		3445.342r	11	3.5		Fe I			
3441.255r	14	15.1						3445.462r	17	5.4					
3441.452r	40	20.6		Cr I	{2.54 2.54	52 52		3445.606r	66	20.2		Cr I (Dy II)	{2.54 2.54 0.00	51 51	
3441.552r	6.5	3.5						3445.770r	66	21.0		Fe I			
3441.672r	4	2.0						3445.812r	8	2.9					
3441.739r	9	4.8						3445.992r	2.5	1.2					
3441.899r	14	11.9						3446.105r	29	15.8		Co I	3.21	162	
3441.982r	329	107		Mn II	1.78	3		3446.179r	6.5	4.9					
3442.052r	9	10.8		Ni I	3.42	104		3446.271r	470	136		Ni I	0.11	20	
3442.148r	34	20.5						3446.401r	19	13.3		{Co II K I	2.24 0.00	2 4	
3442.232r	13	6.2		Fe II	3.97	89		3446.485r	6	2.9					
3442.367r	70	27.0		Fe I	2.28	134		3446.612r	3	1.0		Ti I	1.88	168	
3442.560r	36	12.9		Ni I	3.70	124		3446.722r	12	4.9					
3442.677r	85	27.8		Fe I	0.96	26		3446.796r	65	20.8		Fe I	2.61	244	
3442.785r	5.5	1.9		Fe II p	3.89	76		3446.954r	77	23.8		Fe I	1.01	26	
3442.923r	131	35.4		Co I	0.17	6		3447.019r	34	24.3		Cr I	2.54	52	
3442.965r		19.5		Fe I	{3.07 3.55	499 776		3447.155r	9.5	2.9		NH	P 21	1,1	6
3443.045r	20	8.4						3447.285r	100	29.8		Fe I	2.20	82	
3443.194r	42	14.4		Co I				3447.434r	48	14.0		Cr I (K I)	2.54 0.00	52 4	
3443.299r	8.5	3.8		—NH	P 20	1,1	6	3447.539r	8.5	2.5					
3443.381r	60	21.2		Ti II	2.05	99		3447.639r	16	4.6					
3443.439r	9	4.6		Co I?	3.05			3447.766r	45	13.0		Cr I	2.54	52	
3443.555r	15	11.4		Zr II	0.97	73		3447.905r	11	3.2					
3443.655r	141	59.0		Co I (Al I)	0.51 0.01	22 2		3448.009r	66	19.1		Fe I			
3443.772r	28	31.1		Cr I	2.97	110		3448.092r	9.5	5.8					
3443.884r	655	190		Fe I	0.09	6		3448.205r	44	12.8		Fe I	2.40	186	
3443.991r	8.5	13.1													

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3448.359r	29	8.4		Co I	3.25	163		3453.035r	50	26.8		Fe I	2.76	301	
3448.462r	27	7.8		Fe II— Fe I	3.97 3.02	90 444		3453.121r	17	6.7		V II	2.56	132	
3448.592r	23	6.7		Fe I				3453.221r	3.5	1.3		Cr I	3.85		
3448.692r	14	4.1						3453.335r	24	10.3		Cr I	2.54	52	
3448.791r	88	13.6		Fe I— Y II	2.83	372		3453.512a	310	87.9		Co I	0.43	22	
					0.41	17		3453.751r	20	7.5	Cr I	2.54	52		
3448.868r		13.6		Fe I	2.56	242		3453.848r	9	2.9					
3448.964r	20	6.6		Ir I	0.50	1		3454.169r	59	17.5		Ni II	2.95	1	
3449.051r	21	6.8		Fe I p	2.95	442		3454.321r	24	7.0		Dy II			
3449.175r	115	33.3		Co I	0.58	22		3454.468r	5	1.4					
3449.311r	12	3.9						3454.591r	9.5	2.9		Zr II	0.93	59	
3449.448r	138	40.0		Co I	0.43	22		3454.695r	6	1.7					
3449.631r	11	3.3		Gd II?	0.03	7		3454.800r	3	0.9					
3449.698r	14	4.2		Co I?	3.30	160		3454.924r	8.5	2.6		Gd II	0.03	7	
3449.861r	23	6.7		Ti I	0.82	46		3454.987r	39	11.3		Cr II	4.94	136	
3449.988r	26	7.4						3455.070r	14	4.3		NH	P 23	1,1	6
3450.140r	25	7.3		Fe I p	2.59	242		3455.245r	114	33.0		Co I Cr I	0.22 2.54	6 51	
3450.238r	5	1.7						3455.360r	30	9.3		Fe I?			
3450.334r	97	28.4		Fe I	2.22	82		3455.467r	16	4.6					
3450.454r	12	3.8						3455.602r	44	12.9		Cr I	{2.54 2.54	51 51	
3450.607r	5	1.4		Mn I	4.27			3455.694r	11	3.5		Fe I?			
3450.747r	7	2.0		Fe I Ti I	0.81	46		3455.794r	12	3.4		Ti I—	0.82	46	
3450.860r	9.5	2.8		Cr II?	4.29	60		3455.947r	14	4.3					
3450.994r	8.5	2.5		NH	P 22	1,1	6	3456.014r	40	11.7		Fe II p	1.67	4	
3451.120r	18	5.2		NH—	P 22	1,1	6	3456.094r	20	6.1					
3451.234r	13	3.8		Gd II Fe II?	0.38 6.81	22 208		3456.249r	62	18.7		Fe I			
3451.342r	37	10.7		Fe II?	6.81			3456.394r	115	33.3		Ti II	2.06	99	
3451.474r	38	10.9						3456.500r	15	5.6					
3451.626r	72	20.7		Fe I Fe I p	2.42 2.56	139 241		3456.580r	13	3.9		Dy II			
3451.780r	8	2.6		Fe I				3456.667r	44	12.7		Ti I	1.50	134	
3451.922r	110	31.8		Fe I	2.22	81		3456.810r	19	5.5					
3452.284r	151	43.7		Fe I	0.96	25		3456.934r	64	18.5		Fe II Co I	3.90 0.10	76 5	
3452.475r	68	20.5		Ti II	2.05	99		3457.096r	92	25.5		Fe I	{2.83 3.60	374 835	
3452.628r	19	6.2					3457.147r					2.0		V II	2.60
3452.785r	15	6.5						3457.280r	9	2.9		Ti I	0.83	46	
3452.905r	247	73.1		Ni I	0.11	17		3457.404r	10	3.2					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3457.514r	15	2.0		Fe I	2.45	187		3462.213r	11	4.0		Tm II	0.00		
3457.574r	56	17.5		Zr II	0.56	20		3462.358r	66	21.8		Fe I	2.20	79	
3457.624r	12	4.6		Cr II	4.94	135		3462.533r	6.5	2.2					
3457.774r	3	0.9						3462.733r	32	17.5		Cr II	2.42	2	
3457.894r	22	7.5		Fe I—				3462.816r	126	38.4		Fe I Co I	2.83 0.63	373 23	
3458.010r	8.5	4.0		Ti I	0.84	46		3463.019r	33	10.1		Zr II	1.49	90	
3458.120r	30	13.0		Cr I Fe II? p	3.85 1.96	253 10		3463.189r	23	7.1		NH— Ti I	P 25 1.05	1,1 85	6
3458.308r	52	37.0		Fe I	2.42	139		3463.310r	70	20.8		Fe I	1.48	48	
3458.467r	656	189		Ni I	0.21	19		3463.386r	14	4.9					
3458.594r	32	37.6						3463.526r	13	3.9		Co I	1.78	42	
3458.700r	18	9.8						3463.643r	16	4.8		Mn I	4.68		
3458.940r	14	5.1		Zr II	0.96	58		3463.803r	25	7.2					
3459.060r	5.5	2.0		NH	P 24	1,1	6	3463.979r	59	17.3		Fe II	1.67	4	
3459.154r	12	4.0						3464.033r	19	7.4		Cr II	2.43	2	
3459.280r	35	11.3		Cr II Fe I p	4.92 3.28	136 576		3464.141r	65	18.8		Fe I			
3459.434r	81	24.2		Fe I	2.69	297		3464.31 a	10	2.9					
3459.580r	11	3.3						3464.474r	63	18.2		Sr II (Fe II)	3.04 4.15	4 114	
3459.627r	13	3.8		Fe I p	3.28	577		3464.709r	10	3.0					
3459.747r	70	21.2		Fe I				3464.836r	6.5	2.0		Cr I	2.54	51	
3459.918r	159	53.8		Fe I— Fe I p	3.02 2.28	501 133		3464.918r	44	13.0		Fe I	2.59	241	
3460.040r	100	36.7		Mn II—	1.17	1		3465.033r	7.5	2.3					
3460.160r	24	9.0						3465.166r	5	1.4		Mn I?			
3460.326r	181	53.3		Mn II	1.81	3		3465.256r	21	6.9		Cr I	2.54	51	
3460.434r	44	18.3		Cr I—	3.01	141		3465.333r	2	0.9					
3460.557r	32	5.5						3465.439r	3.5	1.2					
3460.607r		5.5		NH?	P 29	0,0	6	3465.553r	56	22.2		Ti II Cr I	2.06 2.54	99 51	
3460.740r	34	10.8		Co I— Pd I	0.92 0.81	35 2		3465.645r	23	16.9		Ni II	3.07	4	
3460.887r	20	7.1						3465.766r	69	84.2		Co I	0.00	5	
3460.977r	35	12.4		Dy II	0.00			3465.880r	544	158		Fe I	0.11	6	
3461.187r	91	32.9		Co I	3.17	162		3466.002r	24	22.5					
3461.279r	12	7.1		Cr II?	4.94	148		3466.052r	7	4.9					
3461.499r	120	74.8		Ti II	0.13	6		3466.185r	18	8.2					
3461.667r	758	219		Ni I	0.03	17		3466.285r	36	13.7		Fe I	2.40	185	
3461.796r	32	30.9						3466.372r	5.5	2.0					
3461.939r	22	12.4						3466.504r	74	23.4		Fe I	0.86	24	
3462.083r	4	1.6		Rh I?—	0.32	3		3466.638r	52	15.9					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3466.718r	15	4.6						3471.000r	2	0.6					
3466.898r	70	20.3		Fe I				3471.120r	7.5	2.3		Zr II Zr I	1.74 0.00	114 15	
3467.018r	21	6.0		Cr I	{3.01 3.85	141 253		3471.268r	169	{26.8 33.2		Fe I	2.22	82	
3467.135r	22	6.3		Ni I	3.77	123	3471.363r						Fe I (Co I) (Ni II)	2.28 3.17 3.08	130 161 4
3467.272r	29	8.4		Ti I	1.05	84		3471.462r	29	12.1		Cr I	2.71	77	
3467.382r	10	2.9		-NH	P 26	1,1	6	3471.614r	14	4.5		Ni I p	3.70	124	
3467.509r	96	27.7		Ni I	0.17	3		3471.720r	7.5	2.3					
3467.710r	70	20.2		Cr I Ni I	2.98 3.74	110 123		3471.774r	12	3.7		NH	P 27	1,1	6
3467.872r	18	5.2		Y II	0.41	17		3471.899r	36	11.4		Fe I			
3468.02 a	5	1.4						3472.054r	37	11.5		Cr II	4.92	135	
3468.075r	22	6.3						3472.180r	43	14.8					
3468.212r	13	3.7						3472.307r	32	14.0		-Fe I			
3468.351r	7.5	2.3						3472.457r	16	16.8		-Lu II	1.54	4	
3468.477r	40	11.5		Ca I	1.88	10		3472.558	374	136		Ni I	0.11	20	7
3468.686r	66	19.0		Fe II	4.15	114		3472.714r	7.5	4.9		Co I-	3.17	160	
3468.851r	75	21.8		Fe I	2.56	242		3472.780r	11	4.5		Cr I	2.71	77	
3468.979r	81	4.9		Co I	3.28	159		3472.904r	9.5	3.3		Cr I Fe II?	2.97 4.74	111 156	
3469.020r		20.6		Fe I	3.30	614						Fe I	3.26	576	
3469.16 a	11	3.2						3473.010r	9.5	3.2		Fe I			
3469.26 a	18	5.6		Fe I	2.56			3473.054r	3.5	1.2					
3469.397r	19	8.8		Fe I	2.84	375		3473.227r	3	1.1		Gd II Fe I p	0.03 3.21	7 576	
3469.493r	180	52.2		Ni I (V II)	0.27 2.27	8 58		3473.299r	61	18.5		Fe I	3.05		
3469.601r	26	9.9		Cr I- Fe I	{2.71 3.01	77 141		3473.501r	62	18.5		Fe I	0.99	26	
3469.691r	10	3.0		Co I?	2.70	137		3473.620r	10	3.7		Cr I	2.71	77	
3469.837r	59	17.9		Fe I	2.61	242		3473.686r	54	16.1		Fe I			
3469.941r	7.5	2.1		Zr II	1.00	59		3473.813r	6	2.0					
3470.021r	3	0.8		Mn I	4.68			3473.969r	27	11.2	}	Co I	{0.00 0.58	4 23	
3470.141r	1.5	0.5						3474.060r	203	59.2		Mn II	1.81	3	
3470.244r	5.5	1.5		Fe II- V II	3.97 2.27	89 58		3474.150r	78	46.7		Mn II	1.83	3	
3470.400r	17	5.0		Cr I	2.71	77		3474.273r	5.5	2.0					
3470.542r	25	7.2		Cr I	2.71	77		3474.386r	4.5	2.4		Cr I?			
3470.640r	11	3.0		Rh I?	0.43	3		3474.439r	79	23.8		Fe I			
3470.740r	15	4.3		Cr I	2.71	77		3474.532r	19	7.4		Co I	0.58	24	
3470.864r	1	0.3						3474.663r	3.5	1.1					
								3474.767r	30	10.7		Ca I	1.89	10	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- len gth (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3474.886r	13	4.8		Cr I Sr II	3.01 3.04	141 4		3478.915r	10	3.1		Ti I	1.05	84	
3475.006r	1	0.3						3479.025r	28	8.2		Zr II	0.53	20	
3475.133r	49	22.9		Cr II	2.43	2		3479.135r	7	2.1		Cr I	3.01	141	
3475.269r	23	16.0		Fe II p	1.69	4		3479.263r	45	12.9		Ni I	3.48	105	
3475.319r	8.5	13.6						3479.393r	50	14.2		Zr II	0.71	46	
3475.457r	622	179		Fe I	0.09	6		3479.565r	14	4.0		Co I? Nb II	1.78 1.31	6	
3475.519r	22	74.0						3479.691r	48	13.8		Fe I	{2.95 3.57}	443 812	
3475.665r	112	56.0		Fe I	2.18	78		3479.831r	31	10.9		V II	1.07	6	
3475.757r	34	28.2		Fe II p	1.67	4		3479.923r	78	22.3		Fe II	1.69	4	
3475.873r	30	12.3		Fe I	{2.43 2.84}	186 373		3480.033r	25	7.2		Co I	1.88	67	
3476.026r	6	2.2		Co I?	1.74			3480.177r	62	17.8		Ni I	{3.61 3.77}	123 124	
3476.193r	8.5	3.2		NH	P 28	1,1	6	3480.304r		0.2		Cr I	3.01	141	
3476.342r	59	22.6		Fe I	{2.28 3.60}	133 835		3480.338r	82	23.6		Fe I			
3476.453r	4	2.3		Ti I	1.07	85		3480.411r	12	4.0		Zr II	0.93	58	
3476.619r	17	17.9		Ni I	3.70	123		3480.531r	58	16.7		Ti I	1.07	84	
3476.712r	465	136		Fe I	0.12	6		3480.647r	19	5.2					
3476.865r	46	38.4		Fe I (Ce II)	2.59 1.32	242 132		3480.737r	9	2.9					
3476.988r	74	35.4		Ti II— Fe I	0.15 2.42	6 139		3480.886r	75	21.5		Ti II	1.08	22	
3477.186r	102	26.8		Ti II	0.12	6		3481.057r	25	7.8					
3477.363r	9.5	3.2						3481.164r	74	21.5		Zr II	0.80	46	
3477.499r	16	4.9		V II	2.27	58		3481.301r	53	15.2		Cr I	2.71	77	
3477.633r	40	12.1						3481.451r	15	4.3		Zr II?	0.96	59	
3477.719r	7.5	2.2						3481.557r	70	20.2		Fe I Cr I	2.28 3.00	132 110	
3477.865r	88	26.8		Fe I Ni I	2.22 3.61	82 124		3481.664r	13	4.6		Ti I?	2.49	271	
3477.985r	17	5.0		Fe I p	3.65	836		3481.751r		7.2					
3478.118r	5	1.5						3481.814r	78	17.8		Gd II	0.49	22	
3478.178r	10	2.9						3481.937r	31	8.9		Fe II p	4.07	102	
3478.300r		13.8		Zr II— Ni I	0.09 3.70	2 173		3482.057r	23	6.6		Fe II? p	2.03	10	
3478.366r	88	15.3		Fe I	2.43	185		3482.187r	63	18.1		Fe I			
3478.551r	45	18.1		Co I	2.28	120		3482.22 a		2.0					
3478.634r	80	23.6		Fe I				3482.30 a	12	1.7					
3478.738r	10	3.6		Co I	1.88	67		3482.451r	37	10.6		Fe I Fe II			
3478.785r	55	15.7		Cr I Fe I	3.01 2.42	141 137		3482.574r	50	14.7		Cr II	5.67	184	
								3482.717r	52	14.9		Ni I	3.61	120	
								3482.909r	153	43.9		Mn II	1.83	3	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3483.017r	109	44.4		Fe I	0.91	24		3487.276r	8.5	2.4					
3483.157r	26	7.5		Co I?	2.28			3487.403r	13	3.7					
3483.414r	114	35.1		Co I	0.51	23		3487.604r	64	18.2		Ca I	1.90	10	
3483.528r	43	13.2		Fe I?— Zr II	0.76	33		3487.718r	31	9.0		Co I	1.88	65	
3483.630r	14	5.3		Ni I p	3.70	120		3487.820r	20	5.7					
3483.784r	198	56.8		Ni I	0.27	6		3487.992r	65	18.6		Fe II	1.69	4	
3483.884r	35	13.4		Fe I				3488.150r	19	5.6					
3484.033r	13	4.0						3488.298r	46	13.2		Ni I	3.61	121	
3484.156r	87	25.0		Cr II	2.45	2		3488.450r	36	10.5		Cr I	2.97	109	
3484.213r	22	6.3						3488.563r	17	5.2		Ce II?	0.87	187	
3484.343r	32	9.5		Fe II	4.15	115		3488.678r	126	36.0		Mn II	1.85	3	
3484.553r	27	7.8		Fe I?				3488.826r	66	19.5		Fe I			
3484.670r	27	8.9		V II?	1.10	6		3489.003r	52	16.5					
3484.783r	35	10.0						3489.163r	98	28.9		Fe II p	4.07	102	
3484.856r	63	18.1		Fe I	2.45	185		3489.253r	43	14.3					
3484.982r	110	31.5		Fe I— (Ce II)	2.42 0.00	138 44		3489.407r	135	40.2		Co I	0.92	36	
3485.110r	100	29.2		Ni I	3.70	118		3489.674r	130	24.6		Fe I	2.95	442	
3485.230r	21	6.0					3489.750r	18.3			Ti II	0.13	6		
3485.354r	150	45.8		[Fe I— Co I	2.20 3.12	78 162		3489.909r	8	2.9					
3485.506r	22	6.3						3489.965r	3.5	1.3		V II	2.56	131	
3485.580r	22	6.3						3490.052r	4	1.6		Fe I? p	2.87	331	
3485.706r	60	17.2		Co I Ti I	1.96 1.05	68 84		3490.162r	20	9.2					
3485.902r	122	35.8		Ni I V II	0.21 1.10	17 6		3490.202r	5.5	3.2					
3486.040r	18	5.2						3490.302r	5	3.6					
3486.143r	35	10.3		Fe I				3490.395r	11	10.8					
3486.223r	16	4.9						3490.489r	10	17.3		Fe I p	3.60	835	
3486.336r	66	4.0						3490.594r	830	238		Fe I	0.05	6	
3486.383r		16.1						3490.757r	34	26.4		Co I (Fe I p)	0.51 2.28	20 133	
3486.552r	64	18.3		Fe I	2.22	79		3490.869r	12	7.2					
3486.643r	13	4.0						3491.056r	104	39.5		Ti II	0.11	6	
3486.750r	11	3.2						3491.215r	22	8.4					
3486.823r	8	2.3						3491.323r	76	26.6		Co I—	0.22	6	
3486.956r	42	7.2						3491.522r	9	3.0					
3487.006r		5.4						3491.755r	20	6.6		Fe I?			
3487.150r	13	3.7		Fe I?	4.14			3491.882r	10	3.3					
								3491.973r	34	11.5		Co I	3.25	159	
								3492.035r	8.5	3.0					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3492.145r	11	3.9						3496.209r	96	28.0		Fe I Zr II	2.45 0.04	186 1	
3492.229r	35	12.5						3496.352r	64	19.0		Ni I	3.61	118	
3492.369r	60	21.5						3496.475r	14	4.1					
3492.539r	28	12.9						3496.582r	49	17.1		Fe I p	3.21	572	
3492.719r	10	7.0						3496.681r	101	30.3		Co I	0.51	19	
3492.815r	23	20.2						3496.813r	77	24.1		Mn II (Co I)	1.83 3.12	3 161	
3492.975r	826	239		Ni I	0.11	18		3497.009r	62	32.3		-V II	2.60	146	
3493.089r	11	15.6						3497.102r	166	34.0 30.6		Fe I	2.18	78	
3493.174r	21	14.9		V II	1.07	6	3497.162r						Fe I	2.20	78
3493.291r	47	23.8		Fe I	1.48	48		3497.282r	8.5	3.3		Co II			
3493.479r	38	15.2		Fe II	4.15	114		3497.395r	31	12.4					
3493.582r	28	10.6		Fe I p	2.83	327		3497.529r	59	25.9		Mn II	1.85	3	
3493.695r	53	18.6		Fe I	2.73	297		3497.735r	12	12.3		Fe II p-	4.15	114	
3493.865r	21	7.2		Fe I?				3497.843r	726	205		Fe I (Fe I p)	0.11 3.02	6 499	
3494.015r	8.5	2.7						3497.977r	12	9.4					
3494.169r	53	16.3		Fe I	2.42	137		3498.183r	49	22.3		Fe I p- Ni I p	2.81 0.00	326 2	
3494.262r	7	2.1		Fe I p	2.43	185		3498.312r	15	6.1					
3494.359r	10	3.0						3498.395r	11	4.1					
3494.412r	13	3.7		Gd II	0.08	7		3498.529r	20	7.0					
3494.515r	46	13.2		Cr II Dy II	2.48 0.10	2		3498.749r	42	13.4		Fe I	2.85	330	
3494.676r	94	26.6		Fe II	2.28	16		3498.945r	31	9.7		Ru I	0.00	4	
3494.732r		0.9		Ni I	3.80	154		3499.109r	31	9.4		Ti I	1.07	84	
3494.855r	14	4.0						3499.269r	21	6.6		Fe I			
3494.969r	33	9.5		Cr I	2.98	109		3499.353r	23	6.7					
3495.039r	6.5	2.0						3499.469r	2	0.6					
3495.12 a	11	3.0						3499.572r	26	7.3		Zr II	0.41	9	
3495.245r	116	5.7						3499.709r	5	1.4					
3495.284r		30.8		Fe I	2.56	238		3499.835r	44	0.3 12.5		V II	1.07	5	
3495.383r	61	20.0		Cr II	2.45	2	3499.874r						Fe II	4.15	115
3495.519r	30	8.6		Cr II	4.94			3499.992r	21	6.0					
3495.663r	138	26.9		Co I (Fe II)	0.63 4.15	22 115		3500.157r	39	11.1		Fe I	2.87	327	
3495.714r		20.0		-Ti I	1.05	84		3500.335r	90	25.6		Ti II	0.12	6	
3495.835r	141	24.3		Mn II	1.85	3		3500.438r	7	2.1					
3495.885r		24.3		Fe I				3500.567r	86	24.6		Fe I	2.59	238	
3495.962r	10	3.7						3500.691r	16	5.1					
3496.085r	48	13.7		Y II	0.00	3									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Not
3500.857r	163	46.6		Ni I	0.17	6		3505.232r	24	8.3		Hf II	1.04	7	
3500.955r	4	1.3						3505.294r	92	26.2					
3501.071r	21	2.9						3505.386r	9.5	3.0					
3501.157r		2.9						3505.489r	51	14.5		Zr II (Gd II)	1.53 0.49	90 22	
3501.255r	7	2.0						3505.671r	53	15.1		Zr II	0.16	1	
3501.333r	10	2.9		Zr I?	0.07	14		3505.789r	9.5	2.7					
3501.466r	12	3.4		Ce II	0.23	67		3505.899r	38	11.0		Ti II	1.89	88	
3501.571r	13	3.7						3506.050r	28	8.0		Zr II	1.24	84	
3501.702r	84	15.1						3506.241r	45	24.0		Fe I	2.87	327	
3501.729r		15.1		Co II	2.20	2		3506.328r	140	40.0		Co I	0.51	21	
3501.831r	15	4.3						3506.506r	132	37.6		Fe I	2.28	130	
3501.965r	18	5.1		Mo II	3.74			3506.594r	71	31.4		Fe I p	2.88	327	
3502.026r	8	2.4					3506.654r	1.0			Ti I	0.05	22		
3502.10 a	16	4.6						3506.752r	14	4.4					
3502.291	111	31.6		Co I	0.43	21	7	3506.841r	46	13.8		Dy II—	0.10		
3502.469r	37	10.7		Fe I p	3.24	576		3506.938r	15	4.4		Fe I			
3502.598r	111	17.1		Ni I	0.00	3		3507.145r	94	18.8		Fe I	3.65	835	
3502.636r		21.2		Co I	0.17	6		3507.211r		11.1					
3502.760r	12	3.6						3507.308r	10	3.0		Rh I	0.32	2	
3502.862r	28	8.0		Fe I	3.26	577		3507.404r	50	14.3		Fe II Fe I	2.34 3.07	16 500	
3502.973r	9	2.5		Co I?	2.63	135		3507.548r	13	3.7		V II	2.76	159	
3503.117r	16	4.6						3507.698r	80	23.1		Ni I	0.17	3	
3503.303r	7.5	2.1						3507.818r	17	4.8		Co II			
3503.473r	50	14.3		Fe II	1.72	4		3507.951r	19	5.6		Ce II—	0.17	51	
3503.560r	6	1.7						3508.095r	11	3.2		Cr I?			
3503.727r	22	6.3		Co I	2.14	88		3508.211r	48	13.4		Fe II	1.72	4	
3503.909r	13	3.7						3508.348r	11	3.3					
3504.053r	3	0.9						3508.487r	105	22.0		Fe I	2.99	442	
3504.193r	3.5	1.0					3508.531r	13.4			Fe I	2.56	239		
3504.260r	6	1.7						3508.708r	23	6.7					
3504.442r	65	18.5		V II Fe I	1.10 2.83	6 371		3508.898r	21	6.0					
3504.594r	15	4.3						3509.018r	14	4.2		V II	2.52	117	
3504.684r	70	20.0						3509.125r	69	19.8		Fe I	2.83	326	
3504.892	132	37.6		Fe I Ti II	2.28 1.89	131 88	7	3509.331r	18	5.4		Zr I	0.07	15	
3505.063r	94	26.8		Fe I	3.02	498		3509.431r	14	3.9					
3505.149r	7	2.4		Co I	3.12	160		3509.551r	16	4.9					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3509.731r	41	13.4		Fe I	2.88	327		3514.33 a	12	4.1					
3509.853r	105	33.9		Co I— Fe I (Ti II)	0.58 2.22 1.89	22 78 88		3514.468r	47	15.9		Fe I p	1.48	47	
								3514.635r	56	21.9		Fe I	2.40	183	
3510.070r	7.5	3.2						3515.066r	718	202		Ni I	0.11	19	
3510.192r	22	13.1		Fe I p	3.69	836		3515.409r	18	8.3		Fe I	2.61	243	
3510.327r	489	140		Ni I	0.21	18		3515.535r	17	6.8		Fe I			
3510.457r	25	22.5		Fe I Co I (Zr II)	2.48 0.10 0.56	139 6 20		3515.647r	4.5	1.5					
								3515.807r	3	1.1		Fe II?	6.80	208	
3510.554r	10	5.7		Cr I	3.00	109		3515.881r	2	0.6					
3510.685r	33	13.5		Fe I				3516.016r	7	2.3		V II	1.13	6	
3510.846r	87	29.1		Ti II	1.89	88		3516.121r	4.5	1.3					
3511.070r	10	3.1						3516.219r	55	16.8		Ni I	3.54	123	
3511.217r	11	3.2		Sm II	0.10	12		3516.301r	6.5	2.3					
3511.314r	9	2.6						3516.414r	60	18.2		Fe I	3.02	442	
3511.444r	13	3.6						3516.561r	67	19.9		Fe I	2.86	326	
3511.537r	16	4.6		Zr II?	1.83	124		3516.714r	9.5	2.9					
3511.624r	31	8.7		Ni I	3.63	152		3516.819r	35	10.5					
3511.744r	41	13.6		Fe I	2.56	238		3516.953r	22	6.6		Pd I	0.96	1	
3511.839r	90	26.1		Cr II	2.48	2		3517.033r	16	4.5		Ni I p	3.74	123	
3511.927r	27	9.4		Ni I	3.74	124		3517.170r	15	4.2					
3512.089r	71	20.0		Fe I	2.85	327		3517.306r	79	22.9		V II	1.13	6	
3512.230r	70	19.8		Fe I	2.85	326		3517.383r	10	3.5		Ce II	0.90	230	
3512.381r	42	12.1						3517.513r	16	4.5		Co II—	2.24	1	
3512.500r	9	2.8		Gd II?	1.25	89		3517.720r	3	0.9					
3512.646r	132	37.2		Co I	0.58	21		3517.820r	5.5	1.4					
3512.730r	27	12.7		Fe I p	3.27	613		3517.963r	8	2.3					
3512.811r	24	8.2		Fe I p	2.86	330		3518.060r	7	2.0					
3512.960r	50	17.7		Fe I	3.07	501		3518.220r	15	4.2		Fe I p	3.24	575	
3513.060r	97	27.7		Cr II— Fe I	4.74 1.56	107 48		3518.348r	93	26.3		Co I	1.05	36	
3513.282r	24	7.2						3518.496r	12	3.5					
3513.483r	98	31.8		Co I	0.10	5		3518.650r	96	18.6		Ni I	3.54	124	
3513.604r	20	9.7		Fe I p	2.81	327		3518.685r		14.2		Fe I	2.87	327	
3513.728r	2.5	1.8						3518.793r	6	2.1					
3513.825r	307	87.5		Fe I	0.86	24		3518.874r	67	19.1		Fe I	2.20	78	
3513.942r	43	7.7		Ni I Ni II	0.21 2.86	17 1		3519.099r	18	5.2		Ce II?	0.33	92	
3513.998r		5.9						3519.270a	3.5	1.0					
3514.242r	10	3.3		Co II	2.27	1		3519.505r	3.5	1.0		Fe I			
								3519.618r	7.5	2.6		Zr I	0.00	13	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3519.764r	171	49.4		Ni I	0.27	5		3524.081r	63	27.2		Fe I	2.59	239	
3519.881r	9.5	5.3						3524.244r	100	54.6		Fe I	2.28	130	
3520.028r	114	16.9		V II	1.07	5		3524.358r	15	24.6					
3520.088r		19.2		Co I	0.10	4		3524.536r	1271	363		Ni I	0.03	18	
3520.257r	75	22.3		Ti II	2.05	98		3524.742r	39	33.3		V II	1.10	5	
3520.391r	5.5	1.7						3524.922r	12	7.6					
3520.535r	13	4.1		Ce II— V II	0.17 2.27	55 57		3525.130r	14	6.1					
3520.611r	4	1.2						3525.275r	4	1.5					
3520.731r	4.5	1.4						3525.388r	2.5	1.0					
3520.851r	47	16.2		Fe I Zr II	2.61 0.56	238 19		3525.515r	3.5	1.3					
3520.978r	3	1.2						3525.618r	30	11.3		—Fe I			
3521.065r	25	10.2						3525.845r	75	32.3		Zr II— Fe I	0.36 2.85	9 329	
3521.178r	12	9.3						3525.962r	13	11.6					
3521.270r	381	110		Fe I	0.91	24		3526.042r	84	62.5		Fe I	0.09	6	
3521.546r	109	17.6		Co I	0.43	20		3526.170r	422	132		Fe I	0.96	24	
3521.608r		27.1						3526.257r	23	29.2	Fe I	2.86	327		
3521.748r	18	6.9		Co I	0.63 2.04	24 100		3526.385r	108	49.2		Fe I	2.86	326	
3521.844r	72	23.4		V II Fe I	2.27 2.22	57 78		3526.484r	67	38.2		Fe I	2.28	131	
3522.044r	6.5	2.0		Fe II? p	2.03	10		3526.545r	23	18.9		Ni I	3.65	155	
3522.144r	7	2.2		Cr II?	5.67	184		3526.680r	82	35.8		Fe I	2.87	326	
3522.272r	61	19.0		Fe I	2.83	326		3526.847r	209	63.0		Co I	0.00	4	
3522.449r	21	6.4						3526.974r	24	12.6		Fe I p	3.65	835	
3522.537r	5.5	2.0						3527.111r	18	5.6		Cr I	3.98	274	
3522.617r	16	5.2						3527.227r	2.5	0.6					
3522.737r	12	3.9		Fe I p	3.05	538		3527.317r	17	5.1					
3522.834r	20	7.3		Co I	3.21	159		3527.447r	8.5	2.5		Zr II	1.76	103	
3522.908r	58	18.3		Fe I	2.87	330		3527.531r	18	6.1		Nd II?			
3523.072r	43	14.2		Ni I	0.42	34		3527.609r	48	14.1					
3523.184r	35	11.5		Fe I p	3.25	673		3527.795r	107	31.4		Fe I	2.85	326	
3523.312r	55	18.4		Fe I	2.87	326		3527.900r	47	17.1		Fe I p	2.76	296	
3523.444r	96	30.9		Ni I Co I	0.03 0.63	16 21		3527.992r	87	25.1		Ni I	0.17	6	
3523.560r	21	8.2						3528.241r	49	14.1		Fe I	2.45	182	
3523.710r	21	7.5		Co I	1.88	66		3528.324r	12	3.4		Fe I?	1.56		
3523.784r	4	1.5						3528.411r	11	3.1					
3523.990r	4	6.5		Dy II	0.54			3528.574r	7	1.9		Os I	0.00	1	
								3528.787r	3.5	1.0					
								3528.894r	49	13.5		Ni I	3.65	154	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3529.040r	76	21.7		Co I	0.17	5		3534.530r	44	12.5		Fe I	3.57	811	
3529.187r	8.5	2.3						3534.591r	8.5	2.8					
3529.354r	12	3.3						3534.688r	6.5	1.8					
3529.521r	68	19.2		Fe I	3.05	537		3534.778r	21	5.9		Co I	2.28	118	
3529.627r	25	8.8		Ni I	1.93	76		3534.918r	66	18.0		Fe I	1.48	48	
3529.731r	46	17.8		V I	1.19	53		3534.948r		1.2		Dy II	1.56	48	
3529.823r	148	42.0		Fe I Co I	2.88 0.51	326 22		3535.038r	3.5	1.0					
3529.994r	20	5.9		Zr II	1.21	84		3535.158r	3	1.0		Zr I V II? p	1.00 1.07	59 4	
3530.122r	9	2.5						3535.304r	25	7.7		Nb I?	0.09	4	
3530.232r	14	3.9		Zr I	0.63	52		3535.412r	79	22.5		Ti II	2.06	98	
3530.391r	92	25.9		Fe I	2.81	326		3535.518r	14	4.2		Hf II	0.61	9	
3530.592r	34	9.7		Ni I	3.54	121		3535.624r	25	8.2		Fe II	3.89	75	
3530.777r	75	21.3		V II	1.07	5		3535.726r	73	20.7		Sc II	0.31	11	
3530.965r	23	6.4		Fe I	2.48	138		3535.847r	1.5	0.4					
3531.105r	4.5	1.3		Cr I?				3535.92 a	4.5	1.3		Co II			
3531.282r	7	1.9						3536.023r	23	6.7		Dy II			
3531.440r	60	17.1		Fe I (V II)	2.43 1.10	182 4		3536.117r	7.5	2.2					
3531.619r	20	5.6						3536.263r	4	1.3					
3531.709r	45	12.5		Dy II				3536.567r	189	53.6		Fe I	2.87	326	
3531.840r	68	19.2		Mn I	2.28	18		3536.690r	11	4.3					
3532.001r	81	24.5		Mn I	2.28	18		3536.792r	39	11.6					
3532.120r	101	28.7		Mn I	2.28	18		3536.963r	36	10.2		Zr II	0.36	10	
3532.327r	45	12.8						3537.123r	2.5	0.7					
3532.459r	31	8.7						3537.243r	40	11.2		Cr I	2.54 2.54	50 50	
3532.579r	76	21.6		Fe I—				3537.297r	10	3.1					
3532.635r	50	16.8		Fe II	4.48	132		3537.496r	70	19.7		Fe I	2.59	239	
3532.82 a	7	2.9						3537.630r	31	12.3		Ni I	3.54	120	
3532.899r	12	4.5		Cr I?	3.37			3537.737r	83	23.8		Fe I	2.61	239	
3533.014r	97	31.4		Fe I	2.88	326		3537.903r	107	31.3		Fe I	2.83	327	
3533.203r	223	63.2		Fe I	2.88	326		3538.077r	16	4.6					
3533.364r	72	26.1		Co I	0.22	5		3538.257r	40	16.5		V II	1.13	4	
3533.538r	6	2.1						3538.310r	60	16.9		Fe I	3.55	775	
3533.694r	21	6.0		V I— V I	1.22 1.18	53 53		3538.413r	8.5	2.5					
3533.858r	43	12.3		Ti II	2.06	98		3538.501r	20	5.6		Dy II	0.00		
3534.064r	14	4.1		Ce II	0.52	44		3538.559r	63	17.8		Fe I	2.48	137	
3534.258r	20	5.6													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3538.690r	7.5	2.1		Fe I				3543.265r	44	12.6		Co I	1.88	64	
3538.795r	29	8.1		Fe I	3.57	811		3543.389r	59	16.5		Fe I	2.43	183	
3538.939r	13	3.6						3543.495r	13	3.6		V I	1.18	53	
3539.076r	12	3.4		Ce II	0.32	118		3543.682r	61	17.3		Fe I	3.41	734	
3539.249r	2	0.5						3543.795r	6.5	1.8					
3539.371r	3	1.0		Fe I				3543.933r	5	1.3		Rh I?	0.70		
3539.446r	5.5	1.5						3544.013r	13	3.8					
3539.542r	2.5	0.5		Fe II?				3544.087r	15	4.1					
3539.629r	6	1.8						3544.229r	38	10.6					
3539.750r	7.5	2.3						3544.347r	2	0.5					
3539.896r	23	6.5						3544.520r	11	3.1					
3539.956r	5	1.5						3544.634r	57	16.1		Fe I	2.61	239	
3540.126r	93	26.4		Fe I	2.86	329		3544.746r	3	0.7					
3540.322r	10	2.8						3544.859r	4.5	1.3		Fe I p	2.48	154	
3540.396r	9	2.7						3544.912r	13	3.6					
3540.502r	8	2.3		-V I?	1.06	45		3544.986r	20	5.6					
3540.715r	95	26.6		Fe I	0.91	23		3545.052r	4	1.0		Co II	2.20	1	
3540.808r	43	15.4		Fe I				3545.194r	73	20.5		V II	1.10	5	
3540.966r	21	9.1		Nb II	1.03	4		3545.339r	3	1.0		V I	1.19	53	
3541.095r	214	60.9		Fe I	2.85	326		3545.512r	43	13.3		Ni I	3.65		
3541.242r	14	5.8		Fe I p	1.48	47		3545.644r	108	30.5		Fe I	2.85	321	
3541.332r	16	5.4		V II	2.60	145		3545.829r	72	20.3		Fe I (Gd II)	3.05 0.14	536 2	
3541.545r	16	4.6						3545.906r	16	6.6					
3541.648r	14	4.0						3546.019r	2.5	0.7					
3541.875r	39	13.2						3546.206r	42	12.0		Fe I	2.43	183	
3541.987r	21	13.4						3546.346r	6.5	1.8					
3542.090r	224	63.7		Fe I	2.86	326		3546.426r	3.5	1.0					
3542.255r	47	17.1		Fe I	2.28	128		3546.542r	9.5	2.7					
3542.331r	10	3.6		Dy II				3546.64 a	4	1.0					
3542.441r	4	1.5						3546.709r	13	3.8		Co I	1.71	41	
3542.491r	6.5	2.0						3546.779r	7	2.0					
3542.571r	60	17.2		Fe I p	2.86	321		3546.832r	6.5	1.7		Dy II	0.10		
3542.633r	18	7.2		Zr II	1.76	113		3546.979r	30	0.1					
3542.768r	7.5	2.2						3547.026r		8.5		Ti I	1.50	133	
3542.948r	3	2.3						3547.199	100	28.2		Fe I	2.81 3.30	321 613	7
3543.001r	16	4.5		Co I	0.43	19		3547.369r	18	5.1		Ca I	2.52		
3543.101r	11	3.4		Fe I p	2.40	182		3547.498r	6	1.7					
3543.168r	12	3.3													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3547.638r	28	4.2						3551.871r	6	1.7					
3547.67 a		4.2		Zr I	0.07	13		3551.957r	56	15.4		Zr II	0.09	1	
3547.799r	124	34.3		Mn I	2.30	18		3552.112r	70	19.5		Fe I	3.07	499	
3547.945r	35	12.7						3552.308r	2.5	0.7					
3548.033r	107	34.0		Mn I— Fe I	2.30 3.02	18 496		3552.433r	32	9.0		Fe I	2.45	182	
3548.190r	139	38.4		Ni I— Mn I	{0.27 0.21 2.30	3 20 18		3552.558r	4.5	1.3					
3548.190r								3552.62 a	7.5	2.1					
3548.305r	3.5	1.0						3552.725r	55	16.6		Co I (Y I)	0.22 0.00	6 8	
3548.38 a	2.5	0.8						3552.845r	120	33.1		Fe I	2.87	321	
3548.451r	38	10.5		Co I	1.71	41		3552.945r	14	5.1					
3548.545r	28	7.6		Fe II p	4.49	132		3552.991r	37	10.4		Co I	1.96	67	
3548.651r	9	2.5						3553.095r	48	{ 3.4 10.1		Pd I	1.45	9	
3548.738r	6	1.7		Cr I?	3.43		3553.163r					Co I	2.79	137	
3548.84 a	7	1.9						3553.275r	12	3.4		V I	1.22	53	
3548.905r	10	3.1						3553.350r	8.5	2.5					
3549.009r	54	15.1		Y II	0.13	9		3553.483r	96	26.6		Ni I	0.11	16	
3549.118r	4	1.1						3553.594r	27	8.5					
3549.242r	38	10.4						3553.746r	116	32.3		Fe I	3.57	810	
3549.371r	26	7.0		Gd II	0.24	7		3553.870r	17	5.4					
3549.525r	12	3.4		Zr II	1.24	84		3553.974r	3	0.8		Cr I?	3.08	157	
3549.631r	1	0.2						3554.122r	127	35.3		Fe I (Zr II)	0.96 1.18	23 83	
3549.72 a	5	1.4		Zr I	1.00			3554.277r	16	{ 3.8 1.0					
3549.765r	7.5	2.3					3554.297r								
3549.872r	84	23.1		Fe I	1.61	48		3554.36 a	18	6.2					
3550.106r	9.5	2.7		Ca I	2.52			3554.452r	46	18.1		Fe I p	2.94	395	
3550.222r	43	12.0		—Dy II				3554.510r	86	27.2		Fe I	2.88	325	
3550.369r	22	6.1						3554.648r	41	17.7		Fe I p	2.47	154	
3550.486r	19	5.6		Zr I?	0.00	12		3554.797r	16	9.0					
3550.599r	87	24.0		Co I	0.17	4		3554.937	404	111		Fe I	2.83	326	
3550.798r	24	6.3						3555.044r	15	13.5					
3550.951r	13	3.5						3555.177r	6	3.1		V I?	1.19	53	
3551.112r	53	14.5		Fe I	2.85	321		3555.284r	2	0.7					
3551.235r	14	3.8						3555.357r	5.5	1.8					
3551.401r	26	7.3						3555.455	49	14.6					
3551.533r	94	26.1		Ni I	0.17	5		3555.617r	4	1.1		Cr I?	1.00		
3551.659r	44	12.4		Co I	1.96	67		3555.724r	12	3.2		Fe I			
3551.771r	10	3.0						3555.804r	4.5	1.3		Cr I?	2.54		

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Not
3555.947r	16	4.5		Co II	2.27	1		3560.163r	26	7.3					
3556.150r	8.5	2.2		Ti I				3560.296r	23	6.5		Co I	1.88	64	
3556.264r	8.5	2.5						3560.416r	22	6.2					
3556.374r	4	1.3						3560.509r	10	3.9					
3556.490r	13	3.9						3560.589r	62	18.8		V II	1.10	4	
3556.597r	23	7.0		Zr II	0.47	9		3560.704	75	21.0		Fe I	3.25	675	
3556.689r	95	34.3		Fe I	2.86	325		3560.802r	32	13.7		Ce II	0.68	51	
3556.803r	143	55.7		V II	1.13	5		3560.897r	82	22.4		Co I	0.63	21	
3556.896r	243	67.2		Fe I	2.85	327		3561.063r	17	4.8					
3557.064r	5	1.7		Gd II	0.60	22		3561.136r	16	4.5		Co II			
3557.164r	9.5	3.1						3561.279r	12	3.5					
3557.230r	11	3.4						3561.376r	14	3.9					
3557.355r	15	4.4						3561.469r	6	1.7					
3557.464r	4	1.1						3561.582	58	16.3		Ti II	0.57	15	
3557.677r	5.5	1.5						3561.656r	8.5	2.7		Hf II	0.00	1	
3557.767r	8	2.4						3561.757	77	21.6		Ni I	0.00	2	
3557.880r	4	1.3						3561.903r	57	15.6		Fe I— Ti II	1.16	42	
3558.000r	3.5	1.1						3562.021r	11	3.4					
3558.072	30	10.7		Fe I p	3.24	572		3562.096r	32	8.8		Co I	2.28	115	
3558.210r	6	2.4		Fe I p	2.61	239		3562.191r	7	2.1					
3558.337r	7.5	4.6						3562.270r	40	10.9		Fe I?— Cr I?	3.25 4.45	308	
3558.430r	13	15.9						3562.410r	7.5	1.9					
3558.532r	485	137		Fe I— Sc II	0.99 0.01	24 3		3562.550r	6.5	1.9					
3558.634r	10	10.5						3562.607r	11	2.9		Fe I p	2.56	237	
3558.783r	38	16.4		Co I	0.58	20		3562.709r	7.5	1.9					
3558.877r	5	1.8						3562.926r	37	10.1		Co I	1.88	64	
3558.984r	2.5	1.0						3563.013r	6	1.6					
3559.079r	41	12.8		Fe I				3563.159r	20	5.6		Dy II	0.10		
3559.207r	25	7.2		Fe I?				3563.403r	8.5	2.3					
3559.274r	9.5	2.8						3563.611r	23	6.3		Fe I	2.81	325	
3559.464r	94	7.9		Fe I p	2.88	321		3563.716r	4	1.1		V II	1.13	4	
3559.516r		22.2		Fe I	3.07	498		3563.789r	18	5.2					
3559.610r	6.5	2.0						3563.926r	4	1.2		Cr II?	4.94	134	
3559.700r	8	2.2						3564.126	71	21.0		Fe I (Co I)	1.61 3.17	48 159	
3559.814r	24	6.7		Cr I?	2.87	89		3564.279r	2.5	0.8		Cr I?	4.10	281	
3559.923r	48	13.5		Ni I	3.54	118		3564.398r	12	3.9		Ca I	2.52		
3560.076r	42	11.6		Fe I	2.86	321									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3564.524r	71	16.0		Fe I	2.45	183		3568.55 a	5	1.8		Tb II?			
3564.565r		11.5		Fe I p	2.45	183		3568.628r	16	5.2					
3564.683r	11	4.3		Fe I				3568.829r	72	23.4		Fe I	3.25	673	
3564.796r	15	6.4						3568.983r	82	27.2		Fe I	2.69	294	
3564.959	70	32.7		Co I	0.58	19	7	3569.142r	6.5	2.5		Cr I?	4.10	281	
3565.129r	7.5	7.2		—Cr I	2.54	50		3569.232r	9.5	3.8					
3565.306r	13	26.6		—Ti II Cr II	1.58 4.75	76 107		3569.384r	116	44.0		Co I	0.92	35	
3565.396r	990	274		Fe I	0.96	24		3569.510r	86	41.7		Mn I	2.32	18	
3565.596r	49	42.8		Fe I	2.86 2.86	321 328		3569.622r	8	4.1					
									3569.734r	12	13.6				
3565.716r	4	3.1						3569.819r	37	33.4		Mn I	2.32	18	
3565.838r	16	7.8		Fe I p	3.26	571		3569.921r	5	6.2					
3565.972r	41	20.6		Ti II	1.16	42		3570.044r	10	30.5		[Mn I Fe I	2.32 2.42	18 135	
3566.088r	13	7.6		Zr I Cr I	0.15 3.14 4.19	15 284		3570.134r	1380	387		Fe I	0.91	24	
3566.175r	53	30.2		[V II Fe II	1.07 4.49	4 132		3570.276r	42	61.3		Fe I	2.81	326	
3566.315r	9.5	16.0		Fe I p	2.28	127		3570.427r	7.5	9.9					
3566.383r	458	141		Ni I	0.42	36		3570.521r	10	8.8					
3566.485r	10	18.2						3570.597r	6	4.2		Fe I p— Ru I	2.45 1.93	154	
3566.589r	28	17.2		Fe I	2.40	181		3570.687r	7	3.9					
3566.668r	4	2.1						3570.861r	4	1.7					
3566.758r	3	1.3						3570.987r	16	6.3					
3566.845r	5.5	2.4		Sm II				3571.111r	9.5	3.5					
3566.922r	38	14.0						3571.233m	60	20.7		Fe I	1.48	46	
3567.042r	82	25.9		Fe I	2.87	325		3571.30 a	5	1.8					
3567.195r	11	3.4						3571.407r	11	3.6					
3567.377	58	16.5		Fe I	2.45	183		3571.551r	5.5	1.8					
3567.455r	11	3.1						3571.689r	49	19.7					
3567.572r	22	6.2						3571.774r	9.5	6.0					
3567.696r	110	25.8		Sc II	0.00	3		3571.875r	237	69.8		Ni I	0.17	5	
3567.742r		9.5		Fe I	3.24	571		3572.016r	64	29.7		Fe I	2.83	321	
3567.944r	22	6.4		Ni I	3.61			3572.141r	52	17.2					
3568.008r	3.5	1.1						3572.321r	39	11.6		Fe I p	2.43	182	
3568.142r	6.5	2.1		Zr II	0.80	46		3572.478r	106	30.6		Zr II	0.00	1	
3568.248r	28	8.5		Sm II	0.48	47		3572.573r	112	32.0		Sc II (Fe I)	0.02 2.85	3 325	
3568.312r	12	3.6						3572.751r	30	8.6		Cr I	2.71	75	
3568.448	70	21.4		Fe I	2.87	321		3572.878r	1	0.3					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3572.948r	7.5	2.1						3577.063r	10	3.1					
3573.067	40	11.5		Fe I Zr II	0.32	9		3577.159r	4.5	1.1					
3573.181r	4	1.1						3577.245	39	10.9		Ni I— Co I	0.27 1.74	3 41	
3573.278r	6	1.7		Ni I p	3.70	123		3577.392r	11	3.4					
3573.402	66	18.5		Fe I	3.30	673		3577.465r	47	13.1		Ce II Fe I	0.47	51	
3573.511r	21	5.9		V I— V II?	2.13 2.37	122 78		3577.565r	4	1.1					
3373.653r	39	13.5		Cr I	2.71	75		3577.745r	22	6.8					
3573.735r	84	25.5		Ti II	0.57	15		3577.875	105	30.6		Mn I	2.11	8	
3573.836r	156	27.5		Fe I	2.40	181		3577.998r	12	4.5		Co II	2.24	1	
3573.911r		22.4		Fe I	3.30	611		3578.100r	48	15.2		Co I	2.28	117	
3573.996r	69	11.9						3578.218r	14	4.8		Zr II	1.21	83	
3574.035r		11.9		Cr I	{2.71 4.45}	74 308		3578.392	52	21.9		Fe I—	2.88	321	
3574.158r	7.5	2.0		Dy II				3578.562r	4.5	3.1					
3574.253	45	12.6		Ti I— Fe I	2.27 3.28	247 574		3578.693	488	142		Cr I	0.00	4	
3574.360r	24	7.3		V II Fe I	2.37 2.43	78 181		3578.838r	8.5	8.1					
3574.416	60	16.8						3578.907r	13	8.9		Co I	1.74	41	
3574.584r	5.5	1.5		Fe I				3578.982r	11	6.4					
3574.805	50	14.3		Cr I	2.71	75		3579.045r	14	6.3		Co I	1.74	41	
3574.967	90	25.1		Co I	0.58	21		3579.128r	4	1.5					
3575.121	75	22.5		Fe I	2.88	321		3579.368r	7.5	2.7					
3575.252r	83	26.5		Fe I	2.83	322		3579.508r	5	1.8					
3575.374	115	32.2		Co I Fe I	0.10 3.02	4 496	7	3579.562r	27	9.9		Fe I			
3575.560r	15	4.2						3579.672r	6.5	2.5					
3575.765r	34	9.5		Zr I	0.07	12		3579.835	34	13.4		Fe I	3.24	573	
3575.94 a	90	8.9		Ni I	3.70	120		3579.90 a	9	5.0					
3575.994a		21.3		Fe I	{2.87 2.87}	321 328		3579.958r	6	2.8					
3576.156r	9.5	2.8						3580.087r	9	4.6		Mn I	3.07		
3576.253r	12	3.8		Dy II	0.59			3580.216r	24	12.1					
3576.329r	116	30.8		Sc II	0.01	3		3580.412r	20	12.5		Fe I			
3576.387r		2.8						3580.542r	14	12.0					
3576.599r	3	0.8						3580.758r	13	15.8					
3576.766r	87	24.3		Fe I Ni II	3.27 3.07	613a 4		3580.927r	54	53.5		Se II	0.00	3	
3576.863r	44	13.5		Zr II	0.41	9		3581.044r	6.5	19.7					
3576.959r	1.5	0.4						3581.209r	2144	599		Fe I	0.86	23	
								3581.391r	7	15.6					
								3581.477r	8.5	16.0					
								3581.665r	36	34.2		Fe I	2.69	295	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3581.817r	29	22.7		Fe I	3.07	497		3585.844r	25	22.6		Co I?— Ti I	2.08	100	
3581.941r	24	16.4		Fe I				3585.907r	50	26.6		Ni I p	3.70	172	
3582.091r	12	8.6		Zr II	1.66	101		3586.017r	24	12.7					
3582.205	64	30.2		Fe I	3.24	612		3586.118m	122	38.4		Fe I (Fe I p)	3.24 3.02	611 497	
3582.331r	33	15.2		Fe I	3.28	568		3586.250r	16	6.0		Cr I?— Zr I	3.10 0.00	157 12	
3582.437r	17	7.8		Fe I				3586.354r	21	7.2		Fe I?			
3582.571r	40	17.7		Fe I	2.45	181		3586.484r	10	4.5					
3582.698r	72	26.5		Fe I	2.88	328		3586.544r	74	27.3		Mn I	2.14	8	
3582.744r	19	7.7						3586.750r	42	22.2		Fe I	2.81	325	
3582.877r	18	6.6		Fe I?				3586.884r	12	15.3					
3582.964r	16	5.9		Fe I				3586.990m	532	147		Fe I	0.99	23	
3583.104r	16	5.4						3587.146r	3.5	11.4		Ti II	0.61	15	
3583.217r	18	6.8						3587.230r	250	145		Co I— Fe I	1.05 2.86	35 325	
3583.339	122	38.6		Fe I—	3.29	574		3587.357r	7	4.6		Fe I?			
3583.441r	9.5	3.6						3587.429m	54	23.4		Fe I	2.42	134	
3583.497r	17	5.7						3587.617r	110	34.9		Fe I?			
3583.597r	11	3.9		Fe I				3587.760m	112	32.3		Fe I	3.27		
3583.697r	112	33.2		Fe I— V I	1.08	45		3587.943r	129	35.6		Ni I (Zr II)	0.03 0.32	16 10	
3583.911r	96	27.9		Fe I				3588.122r	35	9.8		—V II	2.38	78	
3584.007r	8	3.1						3588.246r	80	22.3		Fe I p	1.56	47	
3584.097r	34	10.3		Fe I				3588.325r	36	11.0		Zr II	0.41	10	
3584.257r	5	1.5		Fe I				3588.422r	9.5	2.8					
3584.317r	10	3.2		Cr I	3.19			3588.534r	161	22.6		Fe I	2.94	394	
3584.383r	25	7.9		Fe I				3588.622r		27.3		Fe I	2.83	325	
3584.476r	4	1.4		Fe I?				3588.775r	33	8.9		Zr II	1.00	57	
3584.520r	44	20.0		Y II	0.10	9		3588.925	94	25.6		Fe I	2.87	322	
3584.661	182	59.7		Fe I	2.69	294		3589.112m	104	28.4		Fe I	0.86	23	
3584.800r	72	39.3		Co I Fe I	0.17 2.86	6 322		3589.222r	18	5.7		Ru I	0.38	4	
3584.965	78	33.8		Fe I	3.00 3.27	395 611		3589.305r	24	6.7					
3585.074r	8.5	7.5		Dy II	0.00			3589.461m	97	26.5		Fe I	2.73	295	
3585.170r	45	37.0		Co I— Fe I	0.51 2.95	21 438		3589.632r	108	29.6		Sc II	0.01	3	
3585.339r	839	231		Fe I Cr II	0.96 2.70	23 13		3589.767r	102	28.0		V II	1.07	4	
3585.518r	35	28.8		Cr II	2.71	13		3589.882r	16	4.7		Fe I?			
3585.637r	7	9.2						3589.968r	45	12.8		Mn I	2.93	25	
3585.714m	168	63.0		Fe I	0.91	23		3590.094r	76	20.9		Fe I	2.95	440	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3590.242r	16	5.0						3595.413r	5.5	1.5		Fe I?			
3590.302r	33	11.9		Fe I p	3.02?	497		3595.540r	1	0.3		Fe I			
3590.368r	44	16.2						3595.683r	14	4.0		Fe I	2.88	322	
3590.489	136	37.9		Sc II	0.02	3	7	3595.879m	50	13.9		Fe I	2.45	181	
3590.662r	20	5.6		Fe I	3.69	953		3596.054r	95	26.7		Ti II	0.61	15	
3590.835r	2	0.6						3596.205r	57	15.9		Fe I (Ru I)	2.43 0.26	181 3	
3591.008r	44	12.3		Fe I	3.21	573		3596.313r	2.5	0.7		Fe I?			
3591.142r	4	1.1		Fe I?				3596.392r	0.5	0.2					
3591.225r	13	3.6		Ca I	2.52			3596.509r	22	6.4		Co I	2.28	118	
3591.355r	59	16.5		Fe I	2.85	321		3596.645r	3.5	1.1		Fe I?			
3591.488r	60	16.8		Fe I	3.29	568		3596.752r	1.5	0.4		Fe I?			
3591.591r	11	3.1						3596.859r	3	0.8		Fe I			
3591.744r	10	2.8		Co I	2.54	134		3597.047m	86	23.9		Fe I	3.26	569	
3591.904r	10	2.9						3597.152r	11	3.3		Rh I	0.41	5	
3592.027S	75	21.0		V II	1.10	4		3597.252r	6	1.7		Fe I p	3.63	856	
3592.207r	4	1.1						3597.399r	6	1.7					
3592.271r	15	4.2						3597.512r	13	3.6		Fe I?			
3592.367r	3.5	1.1		Fe I				3597.712r	181	50.2		Ni I	0.21	18	
3592.477	42	12.3		Fe I	2.59	237		3597.852r	26	8.3					
3592.604r	15	6.0		Sm II	0.38	39		3597.979r	3	0.9					
3592.678r	79	23.0		Fe I	3.24	569		3598.025r	15	4.3					
3592.899r	48	14.5		Fe I Y I	2.20 0.00	77 8		3598.182r	8	2.2		Ce II?	0.33	116	
3593.017r	3	1.1		Ru I	0.34	4		3598.271	67	18.6					
3593.082r	32	10.3		Ti II	1.58	76		3598.469r	4	1.1					
3593.261r	2.5	1.0						3598.612r	11	3.0					
3593.340r	88	39.6		V II Fe I	1.13 3.26	4 571		3598.720r	60	16.7		Ti I Fe I	0.90 3.25	59 674	
3593.495r	436	127		Cr I	0.00	4		3598.811r	6	1.7					
3593.694r	5	2.1						3598.939r	87	13.9		Fe I	3.28	568	
3593.794r	10	3.8		Fe I	2.45	182		3598.986r		13.9		Fe I	2.88	322	
3593.997r	40	14.0		Ca I	2.52			3599.145r	87	24.2		Fe I			
3594.104r	11	3.9		Fe I p	2.42	154		3599.381r	28	7.8		Cr I?	2.91	89	
3594.317r	7	2.1		Fe I?				3599.544r	18	5.0		Ni I	3.61	121	
3594.387r	6	1.8						3599.631m	78	22.0		Fe I	3.57	809	
3594.638m	146	40.8		Fe I	2.85	322		3599.764r	6.5	1.9		Ru I	1.09		
3594.876r	92	25.7		Co I	0.17	4		3599.831r	6.5	1.8		Fe I			
3595.115r	74	20.6		Mn I	2.16	8		3599.970r	58	16.2		Fe I			
3595.308r	74	20.6		Fe I	2.87	322		3600.171r	12	3.6					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3600.371r	2.5	0.7						3604.277	42	12.8		Ti I (Sm II)	0.02 0.48	21 47	
3600.454r	3.5	1.1		Tb II?				3604.378	75	20.8		Fe I	2.88	323	
3600.591r	2.5	0.8		Ce II	0.79	236		3604.464r	9.5	2.8		Co I	2.79	136	
3600.739m	69	19.2		Y II	0.18	9		3604.558r	5	1.4					
3600.824r	6.5	1.7		Co I	1.96	63		3604.702m	60	17.3		Fe I	3.30		
3600.918r	3.5	1.0						3604.805r	2.5	0.8					
3601.078r	2.5	0.7						3604.933r	17	5.5		Cr I	2.71	74	
3601.198r	13	3.6		Zr I	0.15	13		3605.019r	18	6.9		Co I	2.04	97	
3601.284r	6	1.7		Fe I				3605.082r	16	7.8					
3601.358r	8	2.2						3605.201r	26	24.1		-Fe I	3.30		
3601.428r	16	4.4		Fe I	2.28	127		3605.339r	495	136		Cr I Co I	0.00 0.51	4 20	
3601.544r	5	1.4						3605.475r	83	43.8 43.8		Fe I	2.73	294	
3601.664	51	14.2		Cr I	2.71	74		3605.529r					Fe I p	2.81	322
3601.788r	8	2.2		Mn I	2.92	25		3605.692r	4.5	1.7		Mn I	2.94	25	
3601.922m	57	15.8		Y II	0.10	9		3605.916m	75	21.8		Fe I			
3602.085	103	28.5		[Co I— Fe I	0.22 2.88	4 322	7	3606.039r	26	7.5		Fe I? Co II?			
3602.287m	94	26.2		Ni I	0.17	3		3606.132r	9	2.8		Dy II			
3602.469r	172	25.3		Fe I	2.86	322		3606.251r	4.5	1.4		Fe I			
3602.544r		29.2		Fe I	{2.86 2.94	324 391		3606.378r	31	9.6		Fe I	2.56	233	
3602.598r		0.1		Cr I	2.71	74		3606.538r	44	21.4		Fe I	2.42	133	
3602.708r	13	4.7		Fe I p	2.94	390		3606.611r	9	10.5					
3602.771r	47	13.2		Fe I	2.83	370		3606.694	271	75.1		Fe I	2.69	294	
3602.878r	1.5	0.5		Fe I				3606.854r	18	6.9		Ni I	{3.61 3.83	120 173	
3602.971r	3	0.9						3607.004r	1.5	0.4					
3603.097r	45	14.8						3607.124r	6	1.7		Fe I			
3603.210m	119	33.6		Fe I	2.69	295		3607.251r	3	0.8		Fe I			
3603.438r	3.5	0.9		Fe I				3607.379r	13	3.9		Zr II	1.24	83	
3603.578r	106	11.8		Fe I	2.43	181		3607.533m	66	19.0		Mn I	2.14	8	
3603.621r		23.9		Cr II	2.70	13		3607.625r	2	0.7		Ce II	0.67	178	
3603.691r	18	9.0		Fe I	{2.56 2.69			3607.772r	6	1.8		Fe I			
3603.781r	155	28.6		Cr II	2.71	13		3607.865r	12	3.7		-Ca I?	1.89		
3603.831r		23.6		Fe I— Cr II	3.07 2.71	496 13		3607.972r	55	0.2 18.6					
3603.950r	43	12.6		Fe I			3608.010r								
3604.07 a	2	0.5		Fe I?				3608.07 a	1.5	1.0					
3604.118r	2	0.5						3608.155m	82	32.8		Fe I	{2.85 2.99	325 438	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	
3608.319r	11	5.7		Co I	0.63	20		3612.941	90	25.2		Fe I	{1.56 2.18}	46 77		
3608.412r	15	8.6		Cr I	3.85	252		3613.109r	139	{25.7 18.5}		Zr II Fe I p	0.04 2.87	1 322		
3608.491r	38	22.4		Mn I	2.16	8		3613.176r						Fe I— Cr II	2.87 2.71	324 13
3608.589r	2	2.5						3613.332r	14	3.9		Cr II	2.71	13		
3608.639r	5.5	7.2						3613.449m	86	23.8		Fe I	3.25	672		
3608.732r	6	13.3		Ni II p—	3.09	4		3613.605m	86	24.4		Fe I	3.30			
3608.869	1046	287		Fe I	1.01	23		3613.719r	21	9.7		Fe I Ce II	2.45 0.32	110		
3608.995r	3	8.2						3613.809r	194	{29.6 29.6}		Sc II	0.02	2		
3609.105r	6	7.3					3613.881r									
3609.328r	69	32.0		Ni I	0.11	16		3613.952r	9	3.6		Fe I	3.27	612		
3609.472r	42	17.2		Fe I Cr I Sm II	2.86 2.54 0.28	322 49 30		3614.021r	19	5.3						
3609.558r	13	5.0		Pd I	0.96	2		3614.118m	80	22.5		Fe I	3.30			
3609.714r	1	0.4		Ce II	0.90	179		3614.23 a	4.5	1.4		Ti I?				
3609.768r	9	3.0		Co I	2.88	147		3614.308r	10	2.9						
3609.978r	3	1.2		Fe I?				3614.411r	7.5	2.0		Fe I?				
3610.056r	10	5.4		Cr I	2.54	49		3614.561m	98	27.0		Fe I				
3610.166r	231	65.4		Fe I Ti I	2.81 0.90	321 58		3614.651r	3	1.1						
3610.296r	35	25.5		Mn I	2.18	8		3614.718r	141	{25.1 18.0}		Fe I	3.25			
3610.460r	250	52.0		Ni I	0.11	18		3614.784r						Zr II	0.36	9
3610.508r		42.6						3614.891r	28	8.0		Fe II	4.15	112		
3610.702m	76	24.8		Fe I	2.87	323		3615.004r	7.5	2.0		Fe I	2.40	154		
3610.831r	17	5.1						3615.084r	3.5	0.9						
3610.944r	4.5	1.4		Fe I?				3615.197m	62	17.1		Fe I	3.28	569		
3611.050r	80	22.2		Y II	0.13	9		3615.324r	3	0.8		Fe I				
3611.184r	54	15.0		Fe I				3615.393r	26	7.0		Co I	1.96	66		
3611.304r	18	5.3						3615.531r	2	0.5		Fe I?				
3611.459r	34	9.3						3615.665m	71	19.6		Cr I Fe I	0.00 1.48	3 46		
3611.558r	23	6.4		Ni I p	0.17	2		3615.811r	9	2.5		Fe I				
3611.723r	61	16.9		Co I	2.33	115		3615.962r	37	10.2		Fe I	3.30			
3611.894m	25	7.3		Zr II	1.74	113		3616.07 a	3	0.8		Fe I f				
3612.075m	118	31.6		Fe I	2.83	325		3616.156r	116	{21.0 14.5}		Fe I	3.21	569		
3612.245r	9	2.6		Ti I			3616.219r									
3612.382r	5	1.5						3616.327r	56	16.6		Fe I	2.42	132		
3612.519r	20	5.8		Fe I	3.30	613a		3616.431r	2.5	0.8						
3612.605r	13	3.9		Cr I	3.85	252		3616.570m	92	25.9		Fe I				
3612.744m	160	45.2		Ni I	0.27	6										

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3616.728r	3.5	1.0		Fe I				3621.105r	84	25.3					
3616.878r	0.5	0.1		Hf I	0.29			3621.201r	72	21.8		V II Co II	2.37 2.20	76 1	
3617.011r	36	10.6		Fe I				3621.261r	36	19.7		Sm II— Fe II	0.10 4.61	12 144	
3617.105r	35	11.2		Fe I	3.05	535		3621.381r	10	4.1					
3617.321	82	25.4		Fe I				3621.467m	140	40.6		Fe I	2.73	294	
3617.437r	42	16.0						3621.601r	29	9.1					
3617.539r	8.5	2.9		W I	0.37	8		3621.725m	76	22.4		Fe I	3.57	808	
3617.717r	29	10.8						3621.868r	14	4.1					
3617.796r	124	41.4		Fe I	3.02	496		3622.009m	127	36.5		Fe I	2.76	295	
3617.960r	46	18.5		Fe I	2.45	181		3622.158r	31	9.1		Ce II—	0.86	71	
3618.090r	1	0.4						3622.268r	17	5.2		V II?	2.60	144	
3618.187r	11	5.3		Fe I	3.02			3622.438r	3	0.8		Fe I			
3618.304	110	48.9		Fe I	2.83	324		3622.555r	3.5	1.0		Eu II?—	1.38	18	
3618.394	74	89.0		Fe I	{2.73 3.24	295 571		3622.655r	0.5	0.1					
3618.523r	12	20.2						3622.795r	14	4.1					
3618.615r	44	63.8		Fe I p	3.26	569		3622.901r	0.5	0.1					
3618.777m	1410	385		Fe I	0.99	23		3623.041r	2.5	0.8					
3618.923r	2	7.5		V II Fe I p	2.76 2.42	158 130		3623.095r	15	4.4		Ti I?			
3618.999r	31	43.2						3623.192m	105	29.9		Fe I	2.40	180	
3619.114r	12	21.8						3623.321r	12	4.0		Sm II	0.10	12	
3619.273r	17	34.2		Mn I	2.19	8		3623.450	97	24.2		Fe I	{2.56 2.95	233 438	
3619.400r	568	204		Ni I	0.42	35		3623.510r			5.2		Fe I p	3.00	393
3619.536r	15	17.0		Nb II	0.98	4		3623.610r	14	4.1					
3619.670r	19	11.5		Fe I	2.42	130		3623.67 a	1.5	0.5					
3619.776r	48	23.2		Fe I	2.40	180		3623.785r	118	33.8		Fe I— Mn I	2.86 2.18	323 8	
3619.937r	34	13.8		Fe I				3623.917r	46	14.2		Zr I—	0.07	12	
3620.032r	28	10.6		Ni I Fe I p	0.27 2.88	3 324		3624.064r	139	18.5		Fe I	3.26	570	
3620.156r	6.5	2.5					3624.118r	24.6				Ca I	1.88	9	
3620.247	51	17.4		Fe I	2.85	324		3624.304m	95	27.0		Fe I— Co I	2.42 1.78	133 41	
3620.36 a	3.5	1.1						3624.460r	2.5	0.7					
3620.439r	76	0.1		Co I	2.28	116		3624.567r	4	1.1					
3620.468m		24.4		Fe I—				3624.733r	132	37.1		Ni I	0.00	2	
3620.619r	2.5	0.8						3624.839r	122	34.4		Ti II (Fe II)	1.22 4.61	52 144	
3620.772r	7	2.2						3624.963r	39	11.0		Co I	0.63	21	
3620.879r	51	16.0		Fe I	{2.88 3.30	323 611		3625.147m	106	29.8		Fe I	2.83	323	
3620.971r	24	8.2		Y I	0.07	8									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3625.249r	7.5	2.4						3629.905m	47	13.9		Ni I	3.84	182	
3625.366r	1.5	0.4						3630.027m	31	9.4		Zr II	0.36	10	
3625.501r	49	13.5		Fe I				3630.112r	8	2.5					
3625.626r	10	2.8		V II	2.38	76		3630.234r	26	8.3		Dy II Ni I p	3.84	180	
3625.753r	23	6.5		Ca I	2.52			3630.355m	84	27.2		Fe I	2.85	323	
3625.853r	2	0.6						3630.478r	1.5	0.6					
3625.933r	0.5	0.1		Ni I?	3.31			3630.578r	41	14.5		Ni I	3.83	172	
3626.016r	2	0.6		Co I	1.78	41		3630.658r	9.5	6.6					
3626.109r	39	11.8		Ti I	0.02	20		3630.754	133	50.1		Ca I Sc II	1.89 0.01	9 2	7
3626.187r	50	13.9		Fe I				3630.985r	56	36.6		Ca I	1.89	9	
3626.386r	6	1.6						3631.105r	98	54.5		Fe I	2.83	322	
3626.493r	1	0.2						3631.265r	35	45.4					
3626.606r	4	1.1		Rh I	1.14			3631.356r	4.5	17.4		Co I	0.10	4	
3626.739m	59	16.3						3631.475m	1364	369		Fe I Cr II	0.96 2.70	23 12	
3626.906r	6.5	1.8						3631.586r	10	31.2					
3627.061r	56	15.5		Fe I	3.57	808		3631.711r	35	38.6		Cr II	2.71	12	
3627.169r	18	5.0		Fe II?— CH	5.95 R 3	193 1,0	3	3631.789r	5	5.2					
3627.359r	14	4.0		Fe I p	3.04	395		3631.959r	27	18.1		Co I—	2.54	133	
3627.456r	12	3.2		CH	R 1,2	1,0	3	3632.049m	117	55.6		Fe I	3.07	496	
3627.623r	40	11.3		Mg I CH	6.59 R 4	45 1,0	3	3632.173r	24	10.6					
3627.715r	19	7.2		V II Ti II	2.37 1.22	76 62		3632.299r	16	6.1		Fe II	4.15	112	
3627.813m	98	27.4		Co I	0.51	19		3632.446r	5	1.7					
3627.959r	9	2.5		Sm II?	0.10	12		3632.560m	72	22.6		Fe I	2.95	437	
3628.098r	78	21.8		Fe I	2.20	77		3632.693r	0.5	0.2					
3628.279r	24	6.8		CH	R 2	1,0	3	3632.840r	64	19.1		Co I Cr I	2.87 2.54 2.54	147 49 49	
3628.439r	8	2.2		Fe I				3632.984r	60	17.9		Fe I	2.48	135	
3628.599r	45	12.7		Ca I— Fe I	2.52			3633.076r	134	28.2		Fe I	2.94	390	
3628.707r	57	16.4		Y II	0.13	9		3633.138r		19.0		Y II	0.00	2	
3628.828m	64	18.3		Fe I	2.99	438		3633.308r	23	6.6		CH	Q 1	1,0	3
3628.879r	11	3.4		Fe I				3633.512r	47	13.8		Zr II	1.76	102	
3629.006r	15	4.4		CH	R 5	1,0	3	3633.652r	23	6.3		Fe I p	3.04	395	
3629.146r	2	0.6						3633.835r	92	25.4		Fe I	2.99	440	
3629.25 a	1	0.3						3633.892r	9	3.7					
3629.352r	16	4.4		CH	R 5	1,0	3	3634.005r	9	2.8		Ti II? p— Cr II	3.09 4.94	116 147	
3629.512r	0.5	0.1						3634.08 a	3.5	0.9					
3629.737m	48	14.0		Mn I	2.16	8									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3634.198r	58	15.7						3637.737r	48	12.9		Fe I	2.56	229	
3634.278r	7.5	4.5		Sm II	0.18	19		3637.873m	93	25.2		Fe I	2.94	385	
3634.332r	136	36.9		Fe I	2.94	389		3637.975r	23	6.9		Ti I	0.00	18	
3634.412r	36	22.8						3638.058r	78	0.3					
3634.472r	38	14.9					3638.104r	21.1							
3634.535r	60	16.2		Fe I p	2.87	323		3638.168r	28	10.2		Fe I p	2.85	324	
3634.618r	13	5.0		CH	R 7	1,0	3	3638.245r	153	19.0					
3634.710r	134	36.0		Co I	2.88	146		3638.304r			28.3				
				Fe I	0.81	1		3638.472r	5.5	1.5					
3634.865r	14	5.1		CH	R 7	1,0	3	3638.605r	7.5	2.0		CH	P 1	1,0	3
3634.952r	129	34.7		Ni I	0.42	33		3638.772r	1	0.3		Sm II			
3635.025r	34	9.1		Cr I?—	4.10			3638.905r	16	4.4		CH	Q 3	1,0	3
3635.085r	9.5	2.6		Fe I? p	3.64	919		3639.030r	34	9.1		VI—	1.80	83	
3635.197r	115	31.7		Fe I— Ti I (Mo II)	3.02 0.05 3.14	490 20 5		3639.132r	3	0.8					
3635.280r	12	3.9		Cr I	0.00	3		3639.285r	52	14.3					
3635.352r	28	7.7		Y II— Ti II p	3.41 1.23	46 62		3639.332r	11	3.3		Fe I			
3635.469S	97	26.1		Ti I	0.00	19		3639.450r	69	18.7		Co I	1.96	64	
3635.652r	17	4.7		Ti II? p CH	3.09 Q 1	116 1,0	3	3639.525r	36	12.3		Fe I—			
3635.828r	16	4.4		Fe I p	2.83	321		3639.695r	3.5	1.0					
3635.895r	1	0.3						3639.804	76	20.6		Cr I	2.54	47	
3636.045r	2	0.6						3639.985r	10	2.6		Fe I			
3636.166r	132	22.7		Fe I	{2.20 3.21	77 568		3640.118r	8.5	2.3		Fe I			
3636.238r			16.5	Fe I	3.55	774		3640.265r	12	3.4		Dy II	0.59		
3636.485r	92	24.9		Zr II— Fe I	0.47 {1.56 3.26	9 47 568		3640.394m	132	35.8		Fe I (Cr I)	{2.73 2.54 2.54	295 47 47	
3636.589r	36	10.3		Cr I	{2.54 2.54	47 47		3640.645r	18	4.9					
3636.663r	66	23.1		Fe I	3.02	493		3640.765r	1.5	0.5					
3636.751r	92	25.1		Co I	1.96	64		3640.905r	3	0.8					
3636.865r	4	1.4		Fe II p	4.15	112		3641.032r	48	13.2					
3637.000r	112	21.5		Fe I	2.59	233		3641.228r	11	3.0		Fe II? p	4.15	111	
3637.058r			10.7	Fe I	3.02	438		3641.459r	52	14.0		Ti II	1.24	52	
3637.255m	68	18.5		Fe I	2.43	180		3641.646r	51	14.0		Fe I Cr I	2.88 2.54	323 47	
3637.317r	10	3.4		Co I	2.33	117		3641.792r	72	6.3		Co I	2.04	99	
3637.444r	1	0.2					3641.832r	15.5				Cr I	2.54	47	
3637.554r	24	6.6					3641.964r	32	8.8		Fe I				
							3642.147r	8.5	2.3		—CH	P 2	1,0	3	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3642.281r	22	5.9		CH	Q 4	1,0	3	3646.352r	1.5	0.4					
3642.398r	19	5.2		Ni I	1.99	75		3646.40 a	1	0.2					
3642.537r	12	3.3		Fe II?				3646.504r	23	6.6		CH	Q 5	1,0	3
3642.682r	93	31.8		Ti I	0.02	19		3646.618r	54	15.9					
3642.806	150	40.9		Sc II	0.00	2	7	3646.809r	40	3.3					
3642.971r	20	5.4		CH	P 2	1,0	3	3646.837r			9.9		-CH	Q 5	1,0
3643.124r	94	25.8		Fe I											See §2.2
3643.204r	66	30.2		Co I— Cr II	2.04 2.48	99 1		3646.988	58	24.6		(Ce II)	0.30	66	
3643.354r	2.5	0.7						3647.095r	14	7.5		Co I	2.33	118	
3643.477r	5	1.3						3647.255r	4	2.1					
3643.627m	113	30.8		Fe I	2.94	385		3647.428m	94	50.7		Fe I Cr II	1.56 2.43	46 1	
3643.729r	112	41.2		Fe I	2.61	233		3647.562r	24	25.6		Fe I p	3.26	574	
3643.811r	81	43.4		Fe I	{1.61 3.25	46 670		3647.669r	39	59.6		Co I	0.22	4	
3643.951r	27	7.4		Ni I	3.68	174		3647.851m	970	313		Fe I (Fe I)	0.91 3.24	23 569	
3644.074r	3.5	1.0						3648.082r	24	34.5					
3644.151r	1	0.3						3648.228r	18	14.0		Fe I p— CH	3.88 P 3	978 1,0	3
3644.21 a	3	0.8		Fe II p	4.48	131		3648.322r	5.5	3.8					
3644.317r	141	0.1		Hf II	0.79	6		3648.530r	23	11.2		Cr I	2.54	47	
3644.417		38.0		Ca I	1.90	9		3648.639r	0.5	0.3					
3644.591r	46	12.4		Fe I p	2.59	235		3648.759r	5	2.3					
3644.695r	58	15.8		Cr II	2.45	1		3648.815r	36	15.3					
3644.794r	119	32.4		Ca I— Fe I	1.90 3.24	9 570		3648.998	52	21.4		Cr I	2.54	47	
3644.978r	38	12.0		Ca I	1.90	9		3649.094r	4	1.5					
3645.082r	97	26.4		Fe I	{2.85 3.02	323 495		3649.184r	13	5.2					
3645.186r	7	2.1		Co I	1.96	61		3649.298r	124	29.9		Fe I	0.00	5	
3645.313	132	35.8		Sc II	0.02	2	7	3649.336r			24.4		Co I	2.87	146
3645.413r	32	11.7		Dy II La II	0.10 0.00	14		3649.511m	134	45.7		Fe I	2.69	291	
								3649.698r	44	16.2		Fe I p	2.94	391	
3645.497r	90	24.4		Fe I	{2.86 3.00 3.02	323 391 441		3649.837r	75	26.7					
3645.626r	8	2.2						3650.037	115	39.2		Fe I	3.00	394	
3645.827m	103	28.0		Fe I	3.11	496		3650.17 a	13	5.5		La II Sm II	0.00 0.25	12 25	
3645.935r	20	6.6		V II	2.38	76		3650.285m	115	39.3		Fe I	2.43	180	
3645.989r	2.5	0.7						3650.367r	16	5.9		Cr II	4.98	156	
3646.097r	23	6.4		Fe I p	2.87	324		3650.538S	72	25.5		-Fe I	3.25		
3646.196r	52	14.0		Ti I (Gd II)	0.00 0.24	18 2		3650.720r	9	3.3		Zr II	3.12	146	
								3650.887r	10	3.7					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3651.039r	20	11.0		Fe I	3.21	571		3655.472m	88	31.2		Fe I	2.83	369	
3651.107r	98	33.8		Fe I—	{2.85 3.30	322 674		3655.580r	12	6.6		Zr II	0.97	71	
3651.197r	31	15.3		Nb II	0.93	4		3655.661	100	36.4		(Fe I)			
3651.260r	16	8.0		Co I	2.04	85		3655.851r	15	5.9		{Ce II— Cr I	0.32 2.54	51 46	
3651.353r	6.5	2.7						3655.941r	3.5	1.4					
3651.474m	136	46.6		Fe I	2.76	295		3656.078r	3	1.2					
3651.654r	80	28.0		Ni I Cr II	3.65 2.42	153 1		3656.219r	116	{31.2 17.8		Fe I	3.27		
3651.800r	114	39.1		Sc II	0.01	2	3656.265r						Cr I	{2.54 2.54	46 46
3651.921r	64	25.6		Fe I— CH	Q 6	1,0	3	3656.357r	36	13.7		Fe I p	2.87	323	
3652.107r	10	3.8		Fe II?				3656.548r	13	4.9		Ni I?	3.65		
3652.260r	27	10.4		Fe I	3.02	494		3656.705r	2.5	1.0		V I	2.05	115	
3652.397r	7	2.7						3656.858r	1	0.3					
3652.551m	70	25.6		Co I	0.17	4		3656.965r	33	12.6		Co I	0.58	21	
3652.680r	2.5	1.0						3657.137	72	26.0		Fe I	2.42	130	
3652.883r	1	0.4						3657.298r	4.5	1.6		Mn II?			
3653.020r	9.5	3.7						3657.423r	48	17.9		Fe I			
3653.120r	7.5	3.0		Ce II	0.36	38		3657.571r	5.5	2.2		Ru II	2.40	1	
3653.200r	3.5	1.4						3657.711r	57	21.2		Ni I Fe I	3.94	183	
3653.352r	44	16.6		Fe I	{2.59 2.86	229 324		3657.818r	5	2.2					
3653.501m	98	33.6		Ti I	0.05	19		3657.905r	102	35.4		Fe I	3.04	395	
3653.659r	8	3.0		Ce II	0.47	50		3658.024r	40	21.0		Fe I	3.02	438	
3653.761	66	23.6		Fe I	2.43	180		3658.099r	71	25.8		Ti I	0.02	19	
3653.912r	102	20.2		Cr I	2.54	47		3658.167r	8	3.6		Cr II	{4.92 4.93	146	
3653.979r		20.2		Fe I				3658.274r	4.5	1.8		V II	2.51	116	
3654.126r	5	1.9						3658.390r	3	1.1					
3654.252r	3.5	1.4						3658.550r	50	18.3		Fe I	2.56	231	
3654.386r	13	5.7		CH	P 4	1,0	3	3658.644r	1.5	0.7					
3654.446r	25	9.6		Co I	1.96	63		3658.864r	3	1.2		Tb II?			
3654.598r	64	23.5		Ti I (Gd II)	0.00 0.08	18 4		3658.970r	0.5	0.3		Fe II?			
3654.673r	35	17.8		Fe I	2.22	77		3659.124r	1.5	0.7		Fe I			
3654.859r	4	1.5						3659.234r	10	3.8		Ce II Fe I	0.17	54	
3655.003r	50	18.6		Fe I				3659.310r	7	2.7					
3655.059r	12	4.6						3659.524m	98	34.2		Fe I	2.45	180	
3655.219r	33	12.3						3659.762	103	35.8		Ti II	1.58	75	
3655.355r	40	14.9		Fe I	2.42	131		3659.877r	5	2.3					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Note
3659.971r	9.5	3.7						3663.831r	16	5.9					
3660.08 a	5	1.8						3663.967r	65	25.6		Fe I	2.95	435	
3660.211r	40	15.2						3664.097	130	43.8		Ni I	0.27	4	
3660.329r	60	22.0		Fe I	2.86	323		3664.211r	48	20.7		Sc II?	0.31	10	
3660.411r	32	13.1		Fe I	2.61	229	3664.238r	4.9							
3660.525r	9.5	3.6						3664.411r	16	5.9					
3660.636r	51	18.9		Ti I	0.02	18		3664.540r	103	35.0		Fe I	3.00	391	
3660.778r	50	18.4						3664.623r	68	31.4		Y II	0.18	9	
3660.921r	9	3.3		Zr II	0.76	32		3664.701r	63	33.8		Fe I	3.00	390	
3661.038r	28	10.4		CH	P 5	1,0	3	3664.828r	35	13.0		CH	Q 8	1,0	3
3661.151r	5.5	2.0		Fe II p	4.15	111		3664.945r	29	11.3		Cr II	4.99	156	
3661.258r	14	5.3		Fe I p	3.69	952		3665.028r	37	13.9		—CH	Q 8	1,0	3
3661.372m	64	22.6		Sm II Fe I— V II	0.04 2.45 3.33	6 179 191		3665.188r	12	4.6		Nd II			
3661.537r	5.5	2.0						3665.304r	7.5	2.9					
3661.637r	6	2.3						3665.437r	9.5	3.5		Cr I	2.54	48	
3661.637r	6	2.3						3665.594r	4	1.5					
3661.737r	11	4.4						3665.724r	29	10.4					
3661.837r	5	1.9						3665.850r	17	6.3		Fe I			
3661.957	70	25.4		Ni I	0.21	16		3665.997r	34	6.9		Cr I	{2.54 2.54	48 48	
3662.10 a	5.5	2.2		La II	0.13	12		3666.064r	105	35.8		Fe I			
3662.170r	59	28.2		Co I (Zr II)	2.28 1.66	115 101		3666.164r	11	5.2		Cr I	2.54	46	
3662.240r	94	32.8		Ti II	1.57	75		3666.250r	105	24.8		Fe I	{2.43 2.94	179 389	
3662.364r	17	6.8		Cr I	2.54	46		3666.284r			19.4	Fe I p	3.30	672	
3662.470r	8	3.2						3666.367r	14	5.8					
3662.624r	17	6.6						3666.539r	83	29.3		Sc II	0.02	2	
3662.737r	30	11.8		Fe I p	3.02	490		3666.644r	26	11.3		Cr I	2.54	46	
3662.841	96	33.2		Cr I	2.54	46		3666.770r	75	26.4		Fe I			
3662.897r			0.3	Fe I p— Sm II	2.95 0.38	436 39		3666.849r	16	8.0		Fe I	3.04	393	
3663.017r	9.5	3.6						3666.931r	92	31.6		—Fe I	1.61	46	
3663.070r	4.5	1.9						3667.097r	8.5	3.2		Zr II—	0.41	8	
3663.208r	100	18.6		Cr I	2.54	46		3667.14 a	4	1.9					
3663.264r			22.9	Fe I	2.99	439		3667.261m	103	35.2		Fe I	3.21	570	
3663.404r	116	16.1						3667.424r	8.5	3.3		Zr II	0.71	32	
3663.459r			21.3	Fe I	{2.56 2.59	229 231		3667.604r	7.5	2.9					
3663.598r	10	4.4		V I	2.03	114		3667.750r	15	5.5		V I	2.04	114	
3663.698r	40	15.4		Zr I—	0.15	12		3667.877r	5.5	2.2					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3667.996	89	31.0		Fe I (Ce II)	2.99 3.21 0.36	438 569 40		3672.465r	22	8.3					
3668.217r	82	29.4		[Fe I Ni I	3.24 3.94	568 182		3672.606r	6	2.2		Zr II?	0.09	1	
3668.354r	5	1.9						3672.712S	68	24.0		Fe I	2.45	180	
3668.460r	53	11.2		Zr II	0.41	9		3672.803r	5	1.9		Ce II	0.90	233	
3668.497r		11.2		Y II	3.52	46		3672.913r	1.5	0.5					
3668.659r	35	13.2						3673.046r	97	0.3					
3668.770r	6	2.2						3673.087		32.7		Fe I—			
3668.891r	47	20.6		Fe I	2.59	229		3673.226r	44	17.2		—CH	Q 9	1,0	3
3668.969r	65	23.0		Ti I	0.02	18		3673.426r	40	14.9		V I— Ca I	2.05 2.52	114 28	
3669.155r	78	35.7		Fe I	2.99	437		3673.543r	9	3.4		Nd II			
3669.244r	103	35.0		Ni I	0.17	2		3673.683r	31	10.4		Fe I	3.88	978	
3669.406r	40	18.0		V II	2.52	116		3673.773r	53	19.8		Fe II?p	4.49	131	
3669.526m	120	40.5		Fe I	2.73	291		3673.888	63	22.4		Fe I			
3669.686r	52	18.7		Fe I p	2.99	436		3674.062	178	33.0		Fe I [Ni I	0.03	15	
3669.839r	24	9.1		Mn I	2.14	7		3674.150		33.0		Ni I	0.42	32	
3670.032r	143	29.4		Fe I (Co I)	2.84 2.01	369 64		3674.316r	8	3.0					
3670.104r		24.5		Fe I	2.95	435		3674.413	58	20.6		Fe I			
3670.220r	4.5	1.6		Fe I p	1.61	47		3674.563r	8.5	3.1					
3670.310r	18	7.2						3674.729r	106	16.6		Zr II	0.32	9	
3670.431	120	40.6		Ni I	0.17	4		3674.773r		26.8		Fe I	2.83	369	
3670.542r	37	17.0		Mn I	2.11	7		3674.923r	2.5	1.1		Cr II	2.48	1	
3670.650r	52	1.1		Sm II?				3674.999r	11	4.1		Ir I?	1.62		
3670.724r		17.7						3675.119r	2	0.8		Mg I?p	6.98		
3670.817r	86	30.0		[Fe I— Sm II	2.48 0.10	133 11		3675.18 a	3	1.1					
3670.910r	13	4.9						3675.294r	42	15.6		Ca I	2.52	28	
3671.090r	4.5	1.6						3675.449r	25	9.5		Fe I	2.61	229	
3671.222r	8	3.1		V I Gd II	1.35 0.08	70 2		3675.556r	2.5	0.9					
3671.276r	37	13.9		Zr II	0.71	45		3675.689r	38	14.0		V I	0.28	29	
3671.370r	3	1.1						3675.766r	24	9.0		Fe I	3.88	996	
3671.524r	43	15.8		Fe I	3.26	570		3675.882r	1.5	0.7					
3671.682m	67	23.8		Ti I	0.05	19		3675.976r	18	6.8		Fe I?			
3671.857r	2	0.8						3676.155r	6.5	2.4					
3671.947r	10	3.8						3676.322m	102	34.7		Fe I	2.56	228	
3672.124r	16	6.0		Fe I				3676.562r	66	23.2		Co I	2.87	145	
3672.316r	10	3.8		Dy II	0.59			3676.700r	6	2.2		V I	2.12	115	
								3676.814r	16	8.2					
								3676.878	73	25.6		Fe I	3.00	389	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3676.962r	13	4.8		Mn I	4.66			3681.653m	72	25.6		Fe I	3.00	390	
3677.095r	4.5	1.6						3681.884r	30	11.1		Fe I	3.69	951	
3677.172r	2	0.7						3682.024r	15	6.8		Mn I?	4.68		
3677.318m	93	29.2		Fe I	3.55	773		3682.173r	202	31.2		Fe I p	2.94 3.00	386 385	
3677.462r	85	29.4		Fe I	2.28	125	3682.245r	45.6			Fe I	3.55			772
3677.514r	32	26.4		Fe I	3.30	666	3682.524r	47			16.8				
3677.628r	147	48.9		Fe I	2.76	291		3682.670r	44	15.8		Fe II? p	4.48	131	
3677.695r	48	34.4		Cr II	2.70	12		3682.884r	5	1.8					
3677.855r	98	38.5		Cr II	2.71	12		3683.045r	166	29.2		Co I	2.08	99	
3677.909r	88	51.8		Fe I Cr II	2.71	12		3683.092			37.0	Fe I— V I	0.05 0.27	5 29	
3678.100r	35	12.9		CH	P 7	1,0	3	3683.377r	4.5	1.9					
3678.234r	67	23.6		Ca I	2.52	28		3683.480r	10	3.9		Pb I	0.97	1	
3678.355r	7.5	2.8						3683.623	52	18.5		Fe I	2.48 3.30	130 671	
3678.455r	3.5	1.2						3683.756r	2	0.8		Fe I p	3.93	996	
3678.582r	0.5	0.1						3683.882r	6.5	2.7					
3678.728r	3	1.1		Mn II				3683.968r	6.5	2.4					
3678.869m	89	30.7		Fe I (Zr II)	2.42 1.76	131 101		3684.123m	129	43.2		Fe I	2.73	292	
3679.002	64	22.6		Fe I	2.28	124		3684.222r	8.5	4.1		Cr II	4.94	145	
3679.112r	26	11.0						3684.322r	10	3.8		V I?	2.05	114	
3679.351	35	13.9		Fe I	2.56	228		3684.462r	11	4.9		Co I	2.08	99	
3679.539	29	13.2		Fe I	3.00 3.07	393 490		3684.542r	38	14.1		Fe I	3.25		
3679.685r	43	24.7		Ti II	1.58	75		3684.720r	8.5	3.0					
3679.811r	22	21.2		Cr I	2.54	48		3684.862r	25	9.5					
3679.923m	448	140		Fe I	0.00	5		3685.002r	30	15.0					
3680.001r		8.8						3685.196m	275	84.7		Ti II	0.57 0.61	14 14	
3680.125r	4.5	3.9		V I	2.07	114		3685.527r	56	20.4		Cr I	2.54	44	
3680.211r	6.5	3.8		Cr I	2.54 2.54	48 48		3685.662r	11	4.1		Fe I p	2.61	231	
3680.389r	52	21.2		Fe I				3685.775r	15	5.7		—Nd II			
3680.505r	4	1.8						3685.888r	7.5	3.7					
3680.665r	70	30.3		Fe I	3.21	568		3686.004	151	50.0		Fe I	2.94	385	
3680.802m	128	44.6		Fe I				3686.108r	18	9.2					
3680.944r	66	23.8		Fe I				3686.188r	7	3.7		Cr I	2.54 2.54	44 44	
3681.117r	7	2.7		Ni I	1.93			3686.263m	85	32.0		Fe I (V I)	2.42 1.38	131 70	
3681.230m	59	21.0		Fe I	3.30			3686.381r	7	2.8					
3681.364r	4.5	1.9		Co II				3686.472r	7.5	2.8		Co I	2.63	134	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3686.674r	22	8.7		Cr II	4.78	118		3690.459	63	21.8		Fe I	{3.11 3.28	497 570	
3686.787r	44	18.2		Cr I	{2.54 2.54	44 44		3690.593r	3.5	1.2					
3686.871r	13	6.6						3690.731m	86	29.5		Fe I (Co I)	3.57 2.04	807 86	
3686.944r	0.5	0.3						3690.860r	2.5	0.8					
3687.102m	73	33.0		Fe I	2.18	75		3690.973r	10	3.8					
3687.241r	14	14.0		Cr I	2.54	44		3691.176r	8.5	3.0		Fe I	2.61	229	
3687.334r	13	33.1		Cr I— Ti I	2.54 0.05	44 19		3691.314	50	18.4		Fe I			
3687.466m	564	182		Fe I (V I)	0.86 2.10	21 114		3691.395r	4	1.6					
3687.551r	3.5	9.8		Cr I	2.54	44		3691.535r	4.5	1.8		Fe I p	3.43	707	
3687.660m	59	41.7		Fe I	2.73	291		3691.686r	2	0.8					
3687.760r	2.5	1.6		Gd II	0.35	20		3691.816r	0.5	0.3					
3687.866r	16	7.6		CH	P 8	1,0	3	3691.963r	3	1.1		Fe II?			
3687.986r	1.5	0.7		Nb II?	2.16			3692.113r	4.5	1.6					
3688.071r	32	13.3		V I	0.29	29		3692.226r	40	14.9		V I	0.28	29	
3688.173r	47	19.0		Fe I	3.30			3692.360r	6	2.2		Rh I	0.00	1	
3688.286r	2	0.9		Mo II	3.11	5		3692.440r	2	0.8		O I?	9.52	6	
3688.419r	134	{		Ni I Eu II	0.27	5		3692.570r	4.5	2.1		Zr II?	0.96	56	
0.00					2		3692.650m	47	16.8		Fe I (Mo II)	3.06	5		
3688.478r		{		Fe I	3.25	669		3692.816r	11	4.1		Mn I	2.16	7	
3688.63 a	2.5	0.8						3692.886r	0.5	0.3					
3688.680r	3.5	1.4						3693.032r	86	29.2		Fe I	3.02	439	
3688.804r	72	24.6						3693.120r	35	17.9		Co I	2.08	97	
3688.874r	27	14.9		Fe I	2.45	179		3693.246r	8.5	3.1					
3689.002r	52	18.2		Fe I	2.43	178		3693.366r	26	9.7		Co I	2.01	64	
3689.080r	40	19.5		Fe I				3693.478r	61	21.9		Co I	2.04	95	
3689.206r	1	0.4						3693.666r	36	15.0		Mn I	4.23		
3689.320r	68	{		Ni I? Cr I	3.68	173		3693.783r	24	11.0		Fe I p	{1.56 3.07	46 490	
2.54					48		3693.940r	24	21.4		Ni I (Sm II)	0.11 0.00	15 2		
3689.374r		{		Fe I p	3.04	391		3694.027r	272	90.0		Fe I	3.04	394	
3689.469m	158	51.0		Fe I	{2.84 2.94	369 386		3694.199m	67	25.6		Yb II	0.00	1	
3689.630r	9.5	4.1		Cr I?	3.43	216		3694.436m	38	14.9		-Ti I	1.44	117	
3689.700r	7.5	2.8						3694.654r	1	0.5					
3689.880r	79	{		Fe I	3.05	533		3694.817r	24	9.2		Dy II	0.10		
3689.914r						{		Ti I	0.05	18		3694.904r	2	0.8	Ce II
3690.066r	15	5.6		Ru II— Fe I	2.40 2.59	1 231		3695.056S	98	33.5		Fe I	3.05	534a	
3690.281r	39	14.3		V I	0.26	29									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3695.207r	2.5	1.1						3699.740r	3	1.1		Gd II Hf II	0.35 1.67	20 18	
3695.342r	27	10.1		V I	2.12	114		3699.825r	32	12.0		Fe I			
3695.521r	41	15.5		Fe I	{2.56 3.42	{225 707		3699.925r	1.5	0.5		Fe II p	4.49	131	
3695.652r	55	19.8		Fe I				3700.045r	7.5	3.0		Ti I			
3695.869r	42	16.2		V I	0.27	29		3700.132r	8	3.0		V II	2.49	102	
3696.038r	37	14.0		Fe I	2.42	128		3700.269r	34	{2.3 10.5		Tm II	0.03	6	
3696.153r	9.5	3.8					3700.342r					V II	2.51	116	
3696.296r	24	9.3		Ni I	1.93	74		3700.459r	4	1.5					
3696.383r	46	18.7		Ti II	1.57	73		3700.600r	28	10.5		Fe I	3.24	569	
3696.523r	53	17.6		Fe I	3.05	530		3700.739r	5	1.9					
3696.570r		15.4		Mn I	2.89	24		3700.805r	4.5	1.6		Fe I?			
3696.663r	12	6.1		Ni I	1.93	74		3700.915r	186	{0.8 0.8		CN? Rh I?	R 111 0.19	1,1 2	11
3696.753r	6.5	4.6					3700.995r					V II	2.49	102	
3696.812r	18	7.0		Fe I p Cr II?	3.02	434		3701.095m		59.8		Fe I	3.00	385	
3696.911r	34	13.9		Ni I	3.68	172		3701.272r	11	4.9					
3697.07 a	3.5	1.6						3701.375r	9	3.5		Tm II	0.00	2	
3697.15	217	69.0		H ₁₇	10.20	3	10	3701.535r	5.5	2.2					
3697.16 a	2	0.9						3701.612r	3	1.1		Ni I?	3.54	138	
3697.261r	5	2.3						3701.729r	20	7.8		Mn I	2.14	7	
3697.433	101	40.0		Fe I (Zr II)	3.00 0.47	389 7		3701.869r	1	0.4		Cr II?	5.32	168	
3697.537	82	30.8		Fe I	3.30	670		3702.037m	68	26.2		Fe I	2.84	369	
3697.747r	8.5	3.5		Gd II	0.03	4		3702.245r	69	{16.0 16.0		Co I	2.88	145	
3697.871r	1	0.4		Nb I?	0.05	3		3702.272r					-Ti I	1.05	83
3698.017r	37	14.4		Cr II— Fe I	4.77 2.20	118 75		3702.493	77	27.6		Fe I	{1.61 2.18	46 75	
3698.167r	52	20.3		Zr II (Ti I)	1.01 2.25	71 222		3702.645r	1.5	0.5					
3698.327r	1	0.4		CN?	R 113	0,0	11	3702.825r	3.5	1.5		CN— Tb II?	R 111	0,0	11
3698.477r	19	7.3		-CH	P 9	1,0	3	3702.961r	10	4.3		CN?	R 110	1,1	11
3698.609m	75	26.7		Fe I	3.02	491		3703.00 a	1.5	0.7					
3698.694r	13	6.8		CH	P 9	1,0	3	3703.104r	1	0.5					
3698.804r	1.5	0.6						3703.231r	5	2.0					
3699.017r	26	9.7		Co I	2.87	145		3703.448r	14	5.9		Fe I p	3.37	704	
3699.144	69	24.8		Fe I	3.02	490		3703.545r	114	{28.6 22.7		Fe I	{2.76 2.76	291 292	
3699.277r	1.5	0.7					3703.591r					V I	0.30	29	
3699.396r	5.5	2.2		Fe I p	3.93	996		3703.696r	62	28.1		Fe I	2.94	389	
3699.573r	2	0.7		Fe I p	3.02	436		3703.829m	78	30.2		Fe I (V II)	2.86 1.56	369 15	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3703.86	235	76.5		H ₁₆	10.20	3	10	3707.826m	88	30.2		Fe I	0.09	5	
3703.94 a	1.5	0.7						3707.929m	114	50.5		Fe I	2.18	76	
3704.038r	103	20.5		Fe I	3.07	495		3708.085r	40	16.5					
3704.083r		26.8		Co I	1.05	35		3708.188r	16	6.3		Fe I p	2.59	228	
3704.203r	4	1.6		Fe I				3708.315r	3	1.1					
3704.297r	50	5.9		Ti I	1.46	117		3708.435r	3	1.1		Sm II Fe I p	0.04 2.99	5 436	
3704.347r		15.7		Fe I	3.24	609									
3704.469m	98	35.4		Fe I	2.69	290		3708.611m	53	21.8		Fe I	{2.45 2.59	178 225	
3704.58 a	8	3.5						3708.695r	3	1.4		-V I?	1.89	104	
3704.704	46	18.0		V I	0.29	29		3708.825r	45	21.8		Co I	2.04	98	
3704.797r	5.5	2.4		Fe I p	3.69	950		3709.031r	60	40.0		Fe I p	3.04	390	
3704.913r	3	1.4		CN?	{R 109 R 109	{1,1 2,2}	11	3709.151r	7.5	15.4					
3705.033r	33	15.3		V I	0.28	29		3709.256m	573	186		Fe I (Zr II) (Ce II)	0.91 0.80 0.52	21 45 40	
3705.113r	7	3.6		Ni I	0.42	30		3709.401r	8	13.0		-CN	R 108	0,0	11
3705.263r	9	5.8		Fe I p	3.40	704		3709.537m	55	33.2		Fe I	2.99	435	
3705.423r	6	10.5						3709.670m	56	26.0		Fe I	2.56	225	
3705.577m	562	180		Fe I	0.05	5		3709.828r	3.5	1.6					
3705.709	44	48.3		Fe I p	{2.76 3.27	{293 610		3709.953m	39	16.1		Ce II- Ti I	0.12 1.05	40 83	
3705.830r	14	13.6						3710.075r	7.5	3.2		Cr I?	4.45		
3705.937r	6.5	10.5						3710.165r	6	2.7					
3706.037r	290	105		Ca II (Mn I)	3.12 4.25	3		3710.292S	74	27.2		Y II	0.18	7	
3706.220m	70	37.2		Ti II	1.57	73		3710.448r	23	9.3					
3706.337r	9.5	4.9						3710.638r	27	10.8					
3706.483r	1.5	0.7						3710.741r	1.5	0.7					
3706.563r	1.5	0.7						3710.881r	6	2.6		Sm II? CN?	0.18 R 106	19 1,1	11
3706.697r	10	4.2						3711.115r	7.5	3.2		V II	2.49	102	
3706.77 a	1.5	0.5		Sm II	0.48	47		3711.229m	83	32.0		Fe I	2.59	228	
3706.882r	12	5.1		CN?	R 108	1,1	11	3711.301r	12	7.0		Fe I p	2.20	75	
3707.052m	121	41.5		Fe I	{3.00 3.00	{385 392		3711.412m	66	29.6		Fe I	3.07	494	
3707.176r	10	4.7		Sm II? CN	0.33 R 109	35 0,0	11	3711.535r	6.5	3.0		Sm II	0.25	25	
3707.329r	78	27.6		-Fe I	3.02	437		3711.665r	10	4.3		Co I- CN	2.01 {R 107 R 106	63 0,0 2,2}	11
3707.465	66	25.4		Co I Fe I	2.04 2.56	96 229		3711.784r	3.5	1.6		CN V II	R 106 2.52	2,2 116	11
3707.562	83	29.2		Ti I- Fe I	2.02 3.88	177 978		3711.940r	24	10.6		Fe I p- Fe II?	2.45 5.91	178 192	
3707.676r	12	5.5						3711.97	333	108		H ₁₅	10.20	3	10

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3712.090r	19	8.5						3716.84 a	1.5	0.7		CN	R 103	1,1	11
3712.180r	11	4.9		Co I	2.04	84						CN	{R 103 R 103}	{1,1 2,2}	11
3712.304r	1.5	0.8						3716.945r	2	0.8		CN?	R 103	2,2	11
3712.400r	8.5	3.8		Fe II p	2.28	15		3717.072r	3	1.2		Nb II	1.69		
3712.527r	2	0.9		V II?	2.76	157		3717.187r	9.5	4.3		Fe I p	3.33	704	
3712.717r	9	4.2		Gd II	0.38	20		3717.271r	2.5	1.1		Ti I	1.46	116	
3712.767r	6	2.6		Sm II	0.25	25		3717.397m	48	19.9		Ti I	0.00	17	
3712.898	111	20.8		Cr II	2.71	12		3717.557r	0.5	0.3					
3712.943		30.2		Cr II	2.71	12		3717.673r	1	0.4					
3713.100r	4	1.6						3717.733r	7	3.2		Fe I p	3.88	997	
3713.207r	0.5	0.1						3717.836r	28	11.6		Fe I p	3.42	706	
3713.340r	14	5.7		Ni I	1.95	74		3717.954r	8	3.4					
3713.554r	7.5	3.0		La II	0.17	26		3718.152r	38	16.5		V II	1.68	21	
3713.714r	22	8.8		Ni I— Ti I	1.95 1.43	74 116		3718.228r	12	6.5		CN	R 104	0,0	
3713.834r	2.5	1.0		CN	R 106	0,0	11	3718.321r	15	7.0					11
3713.970r	2	0.8		V I	0.07	11		3718.412m	77	32.0		Fe I	2.76	292	
3714.157r	0.5	0.3		Zr I	0.15	12		3718.526r	4	2.3					
3714.220r	1.5	0.5						3718.615r	10	5.4		CN	R 102	2,2	11
3714.30 a	2	0.8		Y II	3.62	61		3718.706r	1	0.5		CN	R 102	2,2	11
3714.407r	3	1.2		Cr I?	3.89	269		3718.839r	7	4.0		Zr II	0.36	9	
3714.567r	2.5	1.1						3718.931r	32	17.4		Mn I Pd I	4.26 1.25	3	
3714.674r	6	2.4						3719.028r	8.5	5.6					
3714.787r	28	11.0		Zr II	0.53	18		3719.192r	8	6.7					
3714.930r	1	0.5						3719.265r	3.5	3.9		Hf II	0.61	7	
3715.040r	3	1.2						3719.458r	7	15.3		Ni I	3.70		
3715.180r	58	22.2		Cr II	3.10	20		3719.543r	6.5	2.3					
3715.397r	105	5.4		Ti I?				3719.656r	11	3.6					
3715.476r		34.0		V II	1.57	15		3719.765r	1	0.8					
3715.714r	7.5	3.2						3719.947m	1664	538		Fe I	0.00	5	
3715.799r	3.5	1.5		Ti I	1.44	116		3720.165r	1.5	1.1		Fe II p	2.54	23	
3715.916m	80	29.4		Fe I	2.28	124		3720.260r	11	3.6		Zr II? p	0.76	32	
3716.05 a	6.5	2.8		CN CN	R 105 R 105	0,0 0,0	11 11	3720.404r	10	21.2		CN Ti I	{R 103 R 101 2.04}	{0,0 2,2 177}	11
3716.154r	28	11.5						3720.48 a	10	10.5		CN	{R 103 R 101}	{0,0 2,2}	11
3716.378r	166	2.2		Ce II (Gd II)	0.00 0.03	40 2		3720.564r	11	12.5					
3716.451m		56.0		Fe I	{2.94 3.37}	388 705		3720.692r	4	4.2					
3716.538r		1.6		Cr I	3.89	269		3720.790r	1.5	1.3		CN	R 101	1,1	11
3716.699r	3.5	1.6		Fe I p	2.99	434									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3720.907r	3	2.4						3725.837r	6	2.4					
3721.030r	0.3	0.1		Ni I p	3.83	181		3725.95 a	5	2.0		Cr I?			
3721.071r		0.1						3726.023r	14	5.4		Ni I	3.84		
3721.185r	58	40.0		Fe I	3.02	491		3726.065r	3.5	1.3		Fe I p	2.95	433	
3721.277r	45	27.6		Fe I	{2.18 3.33}	{75 705}		3726.23 a	0.5	0.2		Nb I?	0.02	3	
3721.399r	41	25.1		Fe I	2.48	131		3726.36 a	2	0.7					
3721.506r	53	32.5		Fe I	3.04	389		3726.48 a	2	0.8		CN?			
3721.635m	110	55.8		{Ti II Fe I	{0.57 3.02}	{13 437}		3726.665r	37	14.5		Co I -CN	{1.71 R 98}	{40 1,1}	11
3721.930r	66	39.2		Fe I				3726.842r	9.5	5.6					
3721.94	(536)	(176)		H ₁₄	10.20	3	10	3726.920r	202	70.3		{Fe I Ru I	{3.04 0.15}	{385 2}	
3722.028m	42	28.8		Fe I	2.76	291		3727.026r	36	30.8		Fe I p	3.27	668	
3722.139r	4	4.2		V II	1.55	15		3727.098m	118	55.1		Fe I	2.94	387	
3722.236r	36	28.1		Fe I p	{2.42 3.07}	{127 490}		3727.347r	59	37.0		V II (Cr II)	{1.69 4.78}	{21 117}	
3722.377r	4	6.4						3727.449r	1	1.9					
3722.498r	22	54.8		Ni I	0.21	18		3727.531r	8.5	26.8		Fe I p	3.42	705	
3722.588r	694	249		{Ti I Fe I	{0.02 0.09}	{17 5}		3727.634m	632	205		Fe I	0.96	21	
3722.758r	8	14.8		Fe I p (Sb I)	{3.42 2.03}	{707 1}		3727.685r	14	112		{Fe I p- Zr II	{2.59 1.74}	{225 112}	
3723.284r	7	3.9						3727.818m	85	73.8		Fe I	3.00	386	
3723.392r	9.5	5.0		Cr II	4.94	144		3728.042r	40	20.0		Ru I	0.00	2	
3723.510r	10	5.4		Nd II				3728.137r	12	5.9		Nd II			
3723.609r	47	20.8		Ti II?	1.57	72		3728.332r	30	12.6		V II	2.51	116	
3723.686r	5	2.7						3728.402r	5.5	2.4		-Ce II	0.68	47	
3723.844r	41	17.6						3728.48 a	5	2.3		Sm II	0.66	54	
3723.912r	16	8.1		Fe II p	2.28	14		3728.671r	73	26.0		Fe I	2.56	227	
3724.092r	43	17.6		-Ti II	1.58	73		3728.862r	5.5	2.6		{Co I- Mn I	{2.63 2.92}	{133 24}	
3724.258r	6	3.0		Ni I p	3.94	183		3728.954r	80	28.1		Ni I- Fe I	3.84	181	
3724.385m	124	44.6		Fe I	2.28	124									
3724.574m	60	23.1		Ti I	1.50	131		3729.072r	7.5	2.7		CN	{R 99 R 96}	{0,0 2,2}	11
3724.743r	8	3.5		CN	{R 101 R 99}	{0,0 1,1}	11	3729.18 a	3	2.4		CN?	R 99	0,0	11
3724.829r	52	20.2		Ni I	3.83	182		3729.339r	10	4.0		Fe I p	3.05	530	
3724.949r	19	7.7		Eu II	0.00	2		3729.524r	6	2.4					
3725.158m	42	16.5		Ti I	1.07	83		3729.723r	7	2.7		Zr II	0.47	8	
3725.306r	12	4.6		Fe II	4.48	130		3729.813m	83	39.4		Ti I	0.00	17	
3725.496S	67	24.6		Fe I	3.05	534		3730.012r	22	8.4		CN?			
3725.665r	7	2.7		Fe I p	2.22	75		3730.141r	1.5	0.7					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3730.308r	38	21.7						3734.664r	1	8.8					
3730.392r	118	41.8		Fe I	3.05	533		3734.874m	3027	945		Fe I	0.86	21	
3730.483r	102	37.0		Co I (Fe I p)	1.88 3.00	62 389		3735.118r	6.5	42.8					
3730.590r	15	7.0		CN	R 96	1,1	11	3735.244r	14	56.0					
3730.756r	106	23.6		Ni I	0.27	2		3735.334m	69	81.3		Fe I	2.94	388	
3730.808r		22.6		Cr I	0.00	2		3735.444r	8	11.4		CN	R 96	0,0	11
3730.950m	87	33.2		Fe I	2.61	228		3735.551r	5	6.0		Nd II?			
3731.159r	14	6.4		Fe I p	3.69	950		3735.700r	15	10.6		Ti I?— Fe I p	2.42	127	
3731.261r	31	13.7		Sm II Zr II (Co I)	0.10 1.74 2.04	11 112 96		3735.898r	27	21.4		Co I	2.08	95	
3731.381m	80	32.0		Fe I	2.61	225		3735.964r	22	18.0		Sm II	0.28	29	
3731.621r	12	5.8						3736.044r	3.5	3.9		CN V II	R 92 2.52	2,2 102	11
3731.727r	8	4.0		CN?				3736.291r	1	1.2					
3731.814r	1.5	0.8		CN?				3736.476r	6.5	7.6		CN	R 93	1,1	11
3731.930r	22	10.2		Mn I	4.27			3736.592r	11	17.7					
3732.035r	54	24.0		Cr I	0.00	2		3736.712r	12	29.2					
3732.142r	3	1.7						3736.816r	39	95.9		Ni I	0.42	30	
3732.214r	7	3.7						3736.917r	290	261		Ca II	3.15	3	
3732.406m	142	58.9		Fe I Co I	2.20 1.88	76 62		3737.032r	10	67.0					
3732.634r	11	6.4		CN—	{R 95 R 94	1,1 2,2	11	3737.141m	1071	428		Fe I	0.05	5	
3732.752r	64	32.4		V II	1.56	15		3737.299r	4.5	31.6		Cr II?— CN	4.77 R 95	117 0,0	11
3732.885r	3.5	2.4		CN?				3737.576r	78	87.0					
3732.985r	4	3.2		CN?				3737.758r	6	6.1		CN?	R 91	2,2	11
3733.079r	23	14.9						3737.884r	0.5	0.5					
3733.195r	75	56.2		Fe I p	2.56	225		3737.986r	1	1.1		V I?	1.85	91	
3733.330m	228	107		Fe I	0.11	5		3738.069r	5.5	3.9		Nd II			
3733.492r	77	62.7		Co I	2.08	98		3738.139r	5	3.3		Zr II	0.56	17	
3733.655r	10	11.0						3738.312r	136	41.4		Fe I	3.27	609	
3733.767r	5.5	6.2					3738.363r	27.8			Cr II	3.10	20		
3733.841r	2	2.3		Cr I?	3.89			3738.510r	47	22.4		Fe I p?	3.64	918	
3734.017r	1.5	2.5						3738.631r	4	2.0					
3734.135r	17	18.8		Co I	2.04	96		3738.758r	6	2.8		V I	1.89	97	
3734.285r	9	21.7		CN	R 93	2,2	11	3738.998r	14	6.4					
3734.37	(1014)	(323)		H ₁₃	10.20	3	10	3739.118r	53	20.8		Fe I	2.22	75	
3734.465r	13	15.3		Ru II— CN	2.54 R 94	1 1,1	11	3739.228r	104	40.1		Ni I	0.17	2	
3734.536r		36.2		—CN	R 94	1,1	11	3739.325r	50	20.6		Fe I	2.18	74	
								3739.529m	112	39.4		Fe I	3.30		

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3739.783	55	20.8		Ni I	3.94	180		3744.110m	176	67.0		Fe I	3.04	385	
3739.944r	3	1.3					3744.162r	1.7							
3740.064	65	24.1		Fe I	{3.05 3.40	532a 707		3744.372r	1	0.5					
3740.245r	142	31.8		Fe I	3.25	667		3744.493r	84	13.9		Cr I	2.54	43	
3740.336r		12.3		-CN	R 91	1,1	11	3744.556r		26.2			Ni I	3.84	180
3740.464r	4	1.6		CN?— CN?				3744.756r	3.5	1.9		CN?			
3740.531r	1.5	0.7						3744.817r	2.5	1.3					
3740.72 a	2	0.8		Nb II?	1.62			3745.048r	(2.5)	(1.3)		CN?			
3740.811r	0.1	0.03						3745.137r	(2.5)	(1.6)					
3740.884r	0.5	0.1						3745.229r	(8)	(8.6)					
3741.065S	93	32.0		Ti I	0.02	17		3745.349r	(68)	(72.5)					
3741.198r	3.5	1.5		-CN	R 89	2,2	11	3745.475r	9.3	49.6		Co I	0.92	34	
3741.312r	13	5.0		Sm II— Eu II	1.38	11		3745.574m	1202	459		Fe I	0.09	5	
3741.479r	56	20.7		Fe I	3.43	701		3745.609r		66.6			Sm II?—	0.00	2
3741.561	15	8.8		Fe II p	2.28	15		3745.83 a	12	64.0		V II	1.55	15	
3741.645m	133	44.6		Ti II	1.58	72		3745.910m	540	301		Fe I (Zr _{II})	0.12 1.76	5 112	
3741.833r	5	2.1		CN	R 93	0,0	11	3746.048r	14	26.7		-CN	{R 91 R 88	0,0 1,1	11
3741.903r	8.5	3.2		CN	R 93	0,0	11	3746.144r	4	7.2					
3742.079r	20	10.2		Fe I	2.59	225		3746.244r	20	14.4					
3742.146r	66	24.6		Fe I	3.94	978		3746.368r	0.5	0.5					
3742.278r	6	2.4		Ru I	0.34	2		3746.475r	72	36.8		Fe I	2.20	73	
3742.567r	137	25.9		Fe I p	3.04	389		3746.574r	46	32.5		Fe II p	2.28	14	
3742.623r		36.1		Fe I	2.94	387		3746.721r	2.5	1.6		Ca I	2.71		
3742.80 a	0.5	0.3						3746.922r	141	40.3		Fe I	3.00	386	
3742.950	75	36.4		{Fe I— Cr I	3.43 2.54	704 43		3747.004r		29.5			Fe I p	3.00	388
3743.129r	20	13.6						3747.225	26	13.9		-Cr I	4.18	289	
3743.218r	25	22.2						3747.348r	6	3.5					
3743.368m	592	193		Fe I	0.99	21		3747.552	44	22.2		Y II	0.10	8	
3743.485r	92	101		Fe I (Gd II)	3.57 0.14	806 2		3747.720r	2	1.5					
3743.585r	70	43.6		{Cr I— V II	2.54 2.54 1.67	43 43 21		3747.821r	4.5	3.5		Dy II			
3743.779	47	24.0		Fe I	2.73	290		3748.000r	50	44.3		V I— Ti II	{1.87 1.93 2.60	97 98 107	
3743.888	74	32.4		Cr I (Sm II)	2.54 0.18 0.33	43 18 34		3748.088r	10	29.0		CN— Ti I?	{R 90 R 85 1.87	0,0 2,2 166	11
3743.997r	3.5	1.9		CN	R 92	0,0	11	3748.271m	497	228		Fe I	0.11	5	
								3748.405r	2.5	12.8		Ca I	2.52	27	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3748.506r	19	29.8		Fe I Fe II	3.57 4.73	805 154		3752.688r	5	2.1		Nd II?	0.00	33	
3748.605r	8	14.5		Cr I	2.54	43		3752.860m	95	34.6		Ti I	0.05	17	
3748.677r	17	19.2		Cr II	2.70	11		3752.992r	40	17.0					
3748.799r	0.5	1.2						3753.142m	60	23.2		Fe I	2.40	177	
3748.905r	15	24.0		Fe I p	2.69	289		3753.340r	56	20.8		Ca I	2.52	27	
3748.966r	103	82.9		Fe I Cr I	2.94 2.54 2.54	386 43 43		3753.525r	8.5	3.6		Dy II— CN	0.00 R 84	1,1	11
3749.051r	48	99.1		Ni I	0.00	1		3753.620m	132	45.0		Fe I— Ti I	2.18 0.02	73 17	
3749.244r	46	103						3753.751r	12	5.2		Dy II			
3749.365r	4	31.2						3753.867r	4	1.6					
3749.495m	1907	578		Fe I	0.91	21		3754.04 a	1.5	0.5		Fe I?			
3749.620r	1.5	18.1						3754.123r	0.5	0.3					
3749.740r	15	33.4						3754.225r	6.5	2.4		CN	R 87	0,0	11
3749.850r	7.5	22.7						3754.339r	18	6.9		Co I	2.54	132	
3749.938r	13	26.9		Co I	2.04	95		3754.505r	120	26.6		Fe I	3.00	386	
3750.139r	1.5	3.2		CN	R 89	0,0	3754.578r	16.5					Cr II	3.10	20
3750.15	(1388)	(430)		H ₁₂	10.20	2	10	3754.725r	22	7.7		Co II			
3750.205r	3.5	5.3		CN	R 89	0,0	11	3754.874r	5	1.9		Fe I p	3.69	949	
3750.304r	25	22.4		Ca I	2.52	27		3755.006r	3	1.1		Fe II?			
3750.505r	1.5	1.6						3755.134r	13	4.8		—CN	R 81	2,2	11
3750.678m	27	18.7		Fe I	2.61	225		3755.280r	3.5	1.3		Sm II— CN	0.33 R 81	34 2,2	11
3750.773r	8.5	6.4		Mn I	2.94	24		3755.452r	44	16.1		Co I	2.08	96	
3750.872	26	15.7		V II	1.68	21		3755.573r	15	5.3		Fe II	4.74	154	
3750.993r	1	0.7		CN?				3755.722r	1.5	0.5		V I?	2.27 2.29	124 124	
3751.090m	32	17.9		Fe I Fe I	2.20 3.30	74 667		3755.823r	2.5	0.7		Cr I	2.71	72	
3751.224r	15	8.0		V II	2.49	100		3755.939r	0.2	0.1					
3751.449r	2.5	1.3						3756.072m	65	24.8		Fe I	2.18	74	
3751.592	42	20.0		Zr II	0.97	71		3756.264r	6.5	2.4		CN	R 86	0,0	11
3751.659r	10	5.3		Co I— CN	2.08 R 85	98 1,1	11	3756.339r	6	2.1		CN	R 86	0,0	11
3751.824	50	22.7		Fe I	2.69	287		3756.45 a	1	0.4		Sm II?	0.43	44	
3751.912r	4.5	2.3						3756.564r	4.5	1.6		CN	R 80	2,2	11
3752.191r	6	2.7		CN	R 88	0,0	11	3756.650r	7.5	2.7		CN	R 80	2,2	11
3752.265r	5.5	2.7		CN	R 88	0,0	11	3756.941m	96	34.8		Fe I	3.57	805	
3752.418S	78	30.6		Fe I	3.04 3.04	385 392		3757.072r	2	0.9		CN			
3752.506r	12	6.0		Nd II— Os I	0.34	2		3757.165	32	13.5		Cr I	2.54	43	
								3757.304r	14	8.8					
								3757.368r	16	8.2		Dy II	0.10		

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3757.458m	68	30.6		Fe I	3.30	668		3762.210r	58	19.8		Fe I	3.37	705	
3757.684r	92	46.8		Ti II Cr I	1.57 2.54	72 43		3762.309r	75	15.2		CN	R 83	0,0	11
3757.810r	14	17.3		Zr II	1.83	120		3762.356r		10.4			CN	R 83	0,0
3757.959r	29	37.2						3762.477r	4	1.5					
3758.033r	13	34.8		Cr I	2.54	43		3762.618	34	12.5		Ni I	2.74		
3758.129r	2	9.6		Fe I p	3.42	704		3762.757r	8	3.2		CN	R 79	1,1	11
3758.245m	1647	497		Fe I	0.96	21		3762.870r	16	6.4		CN— Fe II	R 79 5.95	1,1 192	11
3758.316r	3	24.5		CN	{R 85 R 79	0,0 2,2	}11	3763.008m	53	21.2					
3758.437r	15	38.6						3763.175r	9	4.8		CN	R 76	2,2	11
3758.596r	10	14.9						3763.288r	4.5	2.9		CN	R 76	2,2	11
3758.723r	8.5	3.5		Cr I	0.94	12		3763.376r	6.5	4.9		Mn I	2.95	24	
3758.827r	1	0.7						3763.476r	14	14.9		Nd II			
3758.956r	4.5	3.1		Nd II?— Sm II				3763.571r	24	33.1		Fe I p	2.48	128	
3759.075r	29	19.9		La II	0.24	13		3763.803m	829	255		Fe I	0.99	21	
3759.157r	22	21.0		Fe I	3.63	855		3763.979r	16	33.8					
3759.299m	334	115		Ti II	0.61	13		3764.113r	27	30.2		—Ce II	0.36	41	
3759.473r	19	12.8		Fe II	4.74	154		3764.221r	39	24.2		Fe I	2.20	74	
3759.585r	29	13.8		Fe I	3.43	701		3764.284r	7.5	5.4		CN	R 82	0,0	11
3759.689r	4.5	2.1		Co I	2.54	131		3764.384r	28	14.4		Sm II Zr I CN	0.33 0.00 R 82	34 10 0,0	11
3759.800r	3.5	1.5						3764.590r	10	4.7		CN	R 78	1,1	11
3759.892r	8.5	3.2		CN	R 78	2,2	11	3764.650r	5	2.1		CN	R 78	1,1	11
3760.055m	105	35.0		Fe I	2.40	177		3764.849r	5	1.9		CN	R 75	2,2	11
3760.224r	24	8.6		V II	1.69	21		3764.922r	3	1.1		CN	R 75	2,2	11
3760.32 a	3	1.3		CN	R 84	0,0	11	3765.057r	4	1.6		Rh I?	0.71		
3760.392r	23	8.2		CN— Co I	R 84 1.74	0,0 40	11	3765.16 a	0.5	0.1					
3760.537S	100	32.8		Fe I	2.22	76		3765.304r	32	12.0					
3760.705r	12	4.4		Sm II	{0.18 0.54	18 51		3765.551m	174	56.2		Fe I	3.24	608	
3760.80 a	3	1.1		CN?				3765.710r	68	27.6		Fe I	3.27	608	
3760.931r	14	5.0		CN	R 80	1,1	11	3765.88 a	1.5	0.6					
3761.067r	46	18.5		Fe I	3.37	706		3766.094m	56	21.5		Fe I	2.59	226	
3761.320m	}277	61.0		Ti II	0.57	13		3766.240r	25	10.6		CN	R 81	0,0	11
3761.429r		37.2		Fe I	2.59	227		3766.323r	16	6.9		CN	R 81	0,0	11
3761.556r	12	5.2		CN	R 77	2,2	11	3766.457r	9.5	4.6		CN	{R 77 R 74	1,1 2,2	}11
3761.690	60	20.2		Cr II	2.70	11		3766.666m	78	36.1		Fe I	3.04	386	
3761.874m	78	26.2		Ti II	2.59	107		3766.820m	39	25.8		Fe I— Zr II	0.41	7	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3766.968r	24	27.5						3771.18 a	1.5	1.1		CN?			
3767.081r	7	23.9						3771.278r		0.4		Fe I?			
3767.204m	820	262		Fe I	1.01	21		3771.331r	2	1.1		CN	R 71	2,2	11
3767.356r	18	34.5						3771.38 a	3.5	2.1		CN	R 71	2,2	11
3767.437r	20	19.7		Cr I	2.54	42		3771.497	44	23.2		Fe I	3.24	607	
3767.545r	11	10.1		CN				3771.658r	62	29.8		Ti I	0.05	17	
3767.650r	15	9.3		Ca I—	2.71			3771.75 a	7	4.8		CN	{R74 R70}	1,1 3,3	11
3767.705r	13	7.7		V II	2.50	100		3771.814	14	7.7		CN	{R 74 R 70}	1,1 3,3	11
3767.897r	3	1.6		Zr II	0.71	31		3771.971r	1	0.6		Zr II?	0.71	44	
3768.034m	78	32.4		Fe I	2.22	73		3772.104	19	8.8		CN	R 78	0,0	11
3768.095r	12	6.6		Cr I CN	{2.54 2.54 R 73}	42 42 2,2	11	3772.188m	13	6.4		CN	R 78	0,0	11
3768.16 a	4.5	2.5		CN	{R 76 R 73}	1,1 2,2	11	3772.384r	3.5	1.6		CN?			
3768.248	60	24.3		Cr I Fe I	2.54 2.84	43 368		3772.533r	86	27.6		Ni I	0.21	15	
3768.406r	22	9.4		Gd II	0.08	2		3772.591r		8.1					
3768.50 a	1	0.5						3772.779r	2.5	1.2					
3768.661r	32	14.1		—Ir I?	1.47			3772.931r	24	10.0		—V II	2.49	100	
3768.733r	44	18.3		Cr I	2.54	43		3773.206r	30	12.0					
3768.89 a	6.5	3.1		CN— CN	R 72 R 72	3,3 3,3	11 11	3773.364m	43	17.0		Fe I	3.05	531	
3769.019r	21	9.2		Cr I	2.54	42		3773.472m	11	4.2		CN	R 73	1,1	11
3769.22 a	0.5	0.4						3773.561m	10	4.4		CN	R 73	1,1	11
3769.316r	5.5	2.8		Fe I—				3773.699m	88	31.7		Fe I	3.04	386	
3769.463	58	26.4		Ni II	3.10	4		3773.890r	12	5.0					
3769.653r	4	2.3		Nd II	0.20	67		3774.033m	13	5.3		CN	R 77	0,0	11
3769.722r	5	3.1		CN	R 72	2,2	11	3774.111m	11	4.2		CN	R 77	0,0	11
3769.813r	7.5	3.4		CN	R 72	2,2	11	3774.218r	0.2	0.1					
3769.994S	77	39.8		Fe I	3.00	387		3774.336m	74	26.0		Y II	0.13	7	
3770.169r	25	15.3		CN	{R 79 R 71}	0,0 3,3}	11	3774.515m	8.5	3.2		CN	R 69	2,2	11
3770.307r	65	37.7		Fe I	2.69	287		3774.652r	74	26.2		Ti II Co I?	0.57 2.08	12 96	
3770.413r	49	34.2		Fe I Ti II	2.43 2.60	177 107		3774.832m	100	34.0		Fe I	2.22	73	
3770.531r	4	3.7		Fe I?				3774.998r	6	2.4		CN			
3770.599r	23	18.6						3775.204m	10	3.7		CN	R 72	1,1	11
3770.63	1860	621		H ₁₁	10.20	2	10	3775.290m	14	5.4		CN	R 72	1,1	11
3770.719r	3	3.3						3775.423r	6.5	2.4		CN?			
3770.972m	44	29.2		V II	1.67	21		3775.578r	144	47.2		Ni I	0.42	33	
3771.113	4	3.2		CN—				3775.710r	9	3.2					
								3775.860	48	17.5		Fe I	2.73	287	
								3775.949m	12	4.6		CN	R 76	0,0	11

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Note
3776.059m	84	28.8		Ti II	1.58	72		3780.228	10	3.7		CN	R 64	3,3	11
3776.198m	21	7.7		CN—	R 68	2,2	11	3780.32 a	9	3.2		CN	R 64	3,3	11
3776.334r	7.5	2.6		CN				3780.420m	24	8.6		CN	R 69	1,1	11
3776.461r	90	30.0		Fe I	2.18	74		3780.516m	26	9.5		CN— Zr I	R 69 0.00	1,1 8	11
3776.559r	46	18.0		Y II (Mn I)	0.13 2.11	8 6		3780.706	110	36.2					
3776.692r	1.5	0.5						3780.856m	15	5.7		CN	R 65	2,2	11
3776.839r	1.5	0.5		Fe I?				3780.989r	7.5	2.6		Fe I? — CN?			
3777.074r	68	23.0		Fe I	2.99	432		3781.190S	76	25.6		Fe I	2.20	74	
3777.232r	4.5	1.6						3781.321r	3.5	1.3		Fe I?			
3777.332r	50	17.5		Cr I	2.54	41		3781.41 a	4	1.3		V I?	{0.00 1.93	10 97	
3777.456m	94	31.0		Fe I	2.56	223		3781.516r	18	6.3		Fe II	4.49	130	
3777.569m	8.5	3.2		Co I	2.08	96		3781.615m	85	25.1		CN	{R 73 R 63	0,0 3,3	}11
3777.664m	8	2.9		CN	R 67	2,2	11	3781.615m				Fe I			
3777.752m	6	2.1		CN	R 67	2,2	11	3781.687m				CN	{R 73 R 63	0,0 3,3	
3777.846m	14	5.0		CN	R 75	0,0	11	3781.796r	2.5	0.9					
3777.928m	23	7.9		CN	R 75	0,0	11	3781.796r	2.5	0.9					
3778.066	66	22.0		Ni I	0.03	15		3781.938m	70	24.6		Fe I	3.64	917	
3778.163r	20	7.1		Sm II				3782.119r	70	24.6		Fe I CN	R 68	1,1	11
3778.327m	82	27.8		Fe I— V II	2.83 1.68	367 21		3782.218m	19	7.4		CN (Os I) (Zr II)	R 68 0.52 0.80	1,1 3 44	11
3778.515m	88	29.4		Fe I	3.25	664		3782.318m	18	6.3		CN Y II	R 64 3.62	2,2 61	11
3778.703r	88	29.1		Fe I V I	2.20 0.29	73 28		3782.453m	74	24.9		Fe I	3.00	388	
3778.798m	58	23.9		CN Fe I?	{R 70 R 65	1,1 3,3	}11	3782.453m	74	24.9		Fe I	3.00	388	
								3782.613m	64	21.2		Fe I	3.07	491	
3778.911r	7	2.6		CN	R 65	3,3	11	3782.729r	4	1.6		Zr II	1.77	120	
3779.027r	13	4.6						3782.848r	3.5	1.2		Fe I			
3779.098r	1.5	0.5		CN				3782.995r	4	1.6		CN	R 62	3,3	11
3779.207m	48	16.3		Fe I	2.76	290		3783.085r	11	4.0		CN	R 62	3,3	11
3779.316m	8.5	3.1		CN	R 66	2,2	11	3783.189r	19	6.9					
3779.431r	178	35.7		Fe I Fe I	2.56 3.27	222 665		3783.349m	68	23.5		Fe II	2.28	14	
3779.519r		23.8		Fe I	2.22	74		3783.462r	164	2.1		CN	R 72	0,0	11
3779.575r		6.1		Fe II p	2.54	23		3783.535r				Ni I	0.42	30	
3779.731m		8.7		CN	R 74	0,0	11	3783.73 a	4.5	1.9		Co I Fe I	2.08		
3779.808m	16	6.1		CN	R 74	0,0	11	3783.818m	29	10.4		CN	{R 67 R 63	1,1 2,2	}11
3780.00 a	1	0.4		Cr I? Fe I?	2.71			3783.900m	24	8.7		CN	{R 67 R 63	1,1 2,2	
3780.087	3.5	1.2						3784.02 a	8.5	3.2					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3784.252r	16	5.8		Nd II— Fe I p	3.27	607		3788.145r	0.5	0.4		Sm II	0.25	25	
3784.365m	6	2.1		CN	R 61	3,3	11	3788.215r	2	1.2					
3784.504m	30	10.8						3788.439m	38	14.8		Dy II CN	0.10 R 60	2,2	11
3784.675r	6	2.1		CN Fe I?				3788.528	18	6.9		CN	R 60	2,2	11
3784.826r	4.5	2.3		Fe I CN				3788.701m	84	28.2		Y II	0.10	7	
3785.013r	6	2.1		CN				3788.815r	69	8.3		CN	R 64	1,1	11
3785.084r	6	2.1		CN			3788.861r	17.4				Cr I— CN	3.01 R 64	139 1,1	11
3785.234r	20	6.9						3788.970	30	12.4		CN	R 69	0,0	11
3785.317m	31	11.1		CN	{R 71 R 62	0,0 2,2	11	3789.046	25	8.4		CN	R 69	0,0	11
3785.397m	28	10.0		CN	{R 71 R 62	0,0 2,2	11	3789.184m	110	35.4		Fe I	2.73	289	
3785.496m	20	6.9		CN	R 66	1,1	11	3789.300	22	9.2		Ti I	1.46	115	
3785.578m	16	5.8		CN	R 66	1,1	11	3789.419	146	45.3		—Fe I			
3785.707m	96	31.4		Fe I	3.24	608		3789.499	24	18.2		Cr I?—	2.54	41	
3785.790r	46	22.2		Fe I p	3.33	704		3789.577m	56	19.8		Fe I	2.61	226	
3785.952m	122	39.0		Fe I	2.43	177		3789.728	22	7.9		Cr I	0.97	24	
3786.042r	42	20.8		Ti I	0.90	57		3789.822m	98	33.8		Fe I	3.37	702	
3786.175m	144	45.4		Fe I (Dy II)	2.83	367		3789.921r	25	10.5		CN	R 59	2,2	11
3786.329r	80	26.4		Ti II p	0.61	12		3790.098m	179	54.9		Fe I	0.99	22	
3786.448r	80	26.6		Fe I?				3790.223m	138	61.8		Cr I Mn I	3.01 2.11	139 6	
3786.522r	26	15.8						3790.332	32	13.4		V I	0.28	28	
3786.682m	132	42.0		Fe I	1.01	22		3790.447r	96	12.6		Cr I CN	3.01 R 63	139 1,1	11
3786.842	22	7.9		Fe I?				3790.491r		25.3			V I— Ru I	1.38 0.26	69
3786.965r	6	2.3						3790.657m	157	59.4		Fe I	3.04	387	
3787.101r	139	2.6						3790.759m	119	38.6		Fe I— CN	{2.18 2.48 R 68	73 127 0,0	11
3787.166m		33.4		Fe I CN	{3.64 R 70 R 65	{916 0,0 1,1	11	3790.833	38	21.6		La II CN	0.13 R 68	12 0,0	11
3787.236m		17.2		V II CN	{2.52 R 70 R 65	{100 0,0 1,1	11	3790.994r	6	2.2		CN			
3787.420r	6.5	2.6						3791.110m	45	16.3		CN—			
3787.482r	6.5	3.2		CN— Fe I				3791.194r	8.5	3.2		CN Nb I	0.13	2	
3787.575r	5	2.9						3791.26 a	4	1.6		Sm II?			
3787.714r	0.5	0.8						3791.380m	43	15.5		Cr I	3.01	139	
3787.891m	512	157		Fe I	1.01	21		3791.509m	75	25.8		Fe I	2.56	223	
3788.051r	2.5	4.2						3791.749m	69	24.0		Fe I	3.42	703	
								3791.904r	12	4.5		CN			

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3792.079r	110	2.8		CN	R 62	1,1	11	3795.743r	10	5.4		Tm II	0.03	6	
3792.158m		35.6		Fe I Cr I	2.73 3.01	287 139		3795.815r	21	11.1		CN	R 55	2,2	11
3792.347m	86	29.8		Ni I	0.27	2		3795.900	16	8.4		Ti I	1.44	115	
3792.565	33	15.0		CN Y II	R 67 3.54	0,0 61	11	3796.015m	25	14.0		Fe I	2.40	176	
3792.651r	121	11.6		CN	R 67	0,0	11	3796.107m	16	8.7		CN	R 65	0,0	11
3792.686		36.0						3796.186m	31	17.7		CN	R 65	0,0	11
3792.832m	72	26.0		Fe I	2.22	74		3796.308	3.5	2.4		CN			
3792.932r	18	7.4		CN	R 57	2,2	11	3796.391m	14	8.7		Gd II	0.03	2	
3792.991r	7	3.0						3796.496	15	9.2		Zr II	1.01	71	
3793.125r	29	11.3		Fe I? CN?				3796.66 a	3	2.6		CN?			
3793.291	27	17.6		Cr I	3.01	139		3796.887m	76	44.6		Ti II Fe I	0.57 3.30	12 667	
3793.358	66	24.8		Fe I	3.04	388		3796.974	20	16.1		CN Cr I	R 59 2.54	1,1 41	11
3793.485m	64	25.0		Fe I	3.00	387		3797.065	9.5	12.2		CN			
3793.605m	123	43.2		Ni I	0.27	4		3797.139m	37	28.7		Cr I	3.01	139	
3793.707	10	5.7		CN	R 61	1,1	11	3797.245m	20	16.6		CN	R 54	2,2	11
3793.782	9	3.4		CN	R 61	1,1	11	3797.459r	103	6.3					
3793.876S	80	30.8		Cr I Fe I	3.01 2.84	139 367		3797.522m				67.4		Fe I	3.24
3793.970r	7.5	3.0		Sm II	0.10	11		3797.720m	34	37.4		Cr I (Sm II)	3.01	139	
3794.088r	2	1.1						3797.851m	17	21.6		CN	R 64	0,0	11
3794.176r	3	1.6		Fe I?				3797.90	3463	1085		H ₁₀	10.20	2	10
3794.347m	122	44.0		Fe I (CN)	2.45 {R 66	177 0,0	11	3797.954m	54	54.6		Fe I CN	2.59 R 64	222 0,0	11
3794.418r		10.0		(V II) CN	2.52 {R 66 R 56	100 0,0 2,2		11	3798.086r	11	15.0		CN		
3794.541	10	6.6					3798.168r		6.6				CN		
3794.615	22	12.7		Cr I	3.01	139		3798.257m	12	20.6		Mo I Ti I	0.00 1.43	1 115	
3794.773m	48	34.3		La II	0.24	12		3798.348r	5	11.9		Fe II p	2.34	14	
3794.887	14	24.0						3798.521m	304	159		Fe I	0.91	21	
3795.012m	547	174		Fe I (V I)	0.99 {0.02 0.30	21 9 28		3798.648	18	35.6		CN	R 53	2,2	11
3795.155r		20.6						3798.774r	9	11.6		CN			
3795.302	25	14.8		CN	R 60	1,1	11	3798.903m	20	14.0		Ru I	0.15	1	
3795.375	10	6.6		CN	R 60	1,1	11	3799.021r	1	1.1		Fe I?			
3795.444m	30	18.5						3799.135	7	7.4		CN			
3795.538m	65	31.9		Fe I				3799.251m	30	25.3		Mn I	2.14	6	
								3799.348	16	17.1		Ru I	0.00	1	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3799.448r	5	14.4						3803.177	16	6.7		CN	R 55	1,1	11
3799.558m	622	309		Fe I	0.96	21		3803.258m	56	20.8		Fe I—	2.28	122	
3799.677	16	25.8		CN	R 63	0,0	11	3803.482m	42	16.0		V I	0.29	28	
3799.792m	41	37.4		Ti II	0.61	13		3803.576m	14	5.8		CN			
3799.908	44	26.3		V I	0.27	28		3803.678m	11	4.2		CN			
3800.034	58	29.2		CN	{R 57 R 52}	1,1 2,2	}11	3803.772r	6.5	2.5		V I?	1.35	68	
3800.113	18	13.7		CN	R 57	1,1	11	3803.906r	11	4.6		V I— CN	0.04 R 44	10 3,3	11
3800.19 a	3	1.8		Fe I? CN?				3804.015S	100	36.6		Fe I	3.33	702	
3800.319	38	18.4						3804.099	8	5.0		CN	R 49	2,2	11
3800.546	34	15.8		Mn I	3.84	45		3804.178	31	11.6		CN	R 49	2,2	11
3800.627	16	8.2						3804.286	25	9.5					
3800.739r	9	4.4		Zr II	0.53	17		3804.346r	7	2.9		CN			
3800.850m	28	13.2		—Y II (Sm II)	3.56 0.28	61 29		3804.486	19	7.1		CN— Fe I			
3801.025r	5.5	2.5		Sn I	1.07	2		3804.612m	68	23.9		CN	R 54	1,1	11
3801.113	33	15.0		Ti I?	1.88	165		3804.696m	29	14.1		CN	{R 60 R 54}	0,0 1,1	}11
3801.192	18	8.5						3804.793m	95	31.8		CN Cr I	R 60 3.01	0,0 139	11
3801.303	17	10.8		CN	R 62	0,0	11	3804.931r	19	6.7		CN			
3801.371m	75	30.2		Fe I— CN	3.69 R 62	948 0,0	11	3805.00 a	5	1.8		Fe I?			
3801.47 a	6.5	3.4		Fe I?				3805.117r	30	11.1		CN	R 43	3,3	11
3801.542	50	21.0		Ce II CN	0.90 {R 56 R 46}	172 1,1 3,3	}11	3805.198r	13	5.8		CN	R 43	3,3	11
3801.683m	108	40.0		Fe I	2.83	367		3805.349m	171	55.0		Fe I	3.30	608	
3801.683m	108	40.0		Fe I	2.83	367		3805.450	12	9.2		CN	R 48	2,2	11
3801.815m	112	40.5		Fe I	2.84	367		3805.530	60	23.2		CN	R 48	2,2	11
3801.909	2.5	2.4		Mn I CN	3.13			3805.745r	32	11.3		CN— Fe I			
3801.990m	105	38.9		Fe I	3.33	704		3805.850r	10	4.2		CN			
3802.132	30	12.9						3805.964r	7	2.6		CN			
3802.285m	80	30.5		Fe I	3.30	666		3806.119m	27	11.2		CN	R 53	1,1	11
3802.482	19	7.9		CN				3806.219m	105	34.9		[Fe I CN	3.41 R 53	731 1,1	11
3802.587r	9	3.8		CN				3806.375m	67	22.0		CN Fe I	{R 59 R 42}	0,0 3,3	}11
3802.731	28	11.1		CN	{R 50 R 45}	2,2 3,3	}11								
3802.813	23	9.3		CN	{R 50 R 45}	2,2 3,3	}11	3806.445	48	23.4		CN	{R 59 R 42}	0,0 3,3	}11
3802.959r	50	7.1		Nb I?	0.09	3		3806.572r	20	8.1		Cr I	0.98	24	
3803.009m		18.7		CN	R 61	0,0	11	3806.718m	209	64.6		Mn I Fe I	2.11 3.27	6 607	
3803.090m	61	22.9		CN	{R 61 R 55}	0,0 1,1	}11								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3806.860m	54	28.4		Cr I— CN	3.45 R 47	214 2,2	11	3811.041m	72	23.9		Co I Fe I	0.92 {2.59 2.73	31 223 287	
3807.009r	7.5	3.1						3811.176r	2.5	0.9		CN			
3807.151m	193	59.8		Ni I	0.42	33		3811.298m	67	22.0		Ni I— CN	0.21 R 56	15 0,0	11
3807.285	43	18.6		CN				3811.380m	35	16.0		CN— Ti I?	R 56 1.87	0,0 165	11
3807.397	27	11.6		CN— Zr II	0.71	31		3811.526r	0.5	0.3					
3807.544m	178	55.1		Fe I (V I)	2.22 0.26	73 28		3811.646r	3.5	1.1		CN			
3807.689	32	13.4		CN	R 52	1,1	11	3811.807m	147	21.0 31.2		Fe I—	3.37	701	
3807.775r	14	5.5		CN			3811.894m	Fe I			2.76	287			
3807.937m	111	35.2		Cr I— CN	3.01 R 58	139 0,0	11	3811.982m	48	19.9		CN	{R 49 R 43	1,1 2,2	11
3808.083r	110	14.4		Co I	0.43	17		3812.062m	37	16.5		CN	{R 49 R 43	1,1 2,2	
3808.134r		28.4		Ce II— CN	0.30 {R 58 R 46	59 0,0 2,2	11	3812.199r	44	4.5 10.7		CN Y II	R 37 3.55	3,3 61	11
3808.286m	90	29.2		Fe I	3.02	489					3812.248r	Cr I	3.43	214	
3808.522m	37	12.7		V I	0.00	9		3812.448r	18	6.3		Co I	1.78	40	
3808.630r	4.5	1.8		CN				3812.592r	3.5	1.3		CN			
3808.734m	114	36.5		Fe I	2.56	222		3812.672r	17	6.7		CN			
3809.049m	85	28.1		Fe I	2.86	367		3812.859r	322	13.4 95.7					
3809.162	24	9.5		Fe I				3812.962			Fe I	0.96	22		
3809.25 a	5	1.8						3813.075	104	97.6		Fe I	2.59	222	
3809.31 a	4	1.4		Fe I?				3813.262	40	19.1		CN	{R 42 R 36	2,2 3,3	11
3809.412r	20	8.3		CN	R 45	2,2	11	3813.394m	138	38.0		Ti II	0.61	12	
3809.490	26	11.0		CN	R 45	2,2	11	3813.491m	54	28.4		V I	0.02	9	
3809.586m	132	41.8		V I Mn I	0.28 2.14	28 6		3813.640m	86	27.8		Fe I	2.69	283	
3809.692	75	21.0		CN	R 57	0,0	11	3813.892r	182	36.2 25.6		Fe I	3.63	854	
3809.755m		16.3		CN	R 57	0,0	11	3813.928r			Co I— Fe I p	3.57 2.43	176		
3809.85 a	6	2.2		CN?	R 39	3,3	11	3814.012r	12.9			Gd II— CN	0.00	2	
3809.921r	20	7.0		CN	R 39	3,3	11	3814.122m		38	16.0		Fe II	4.74	153
3810.034r	15	5.5						3814.244r	8.5	3.1		CN			
3810.22 a	1.5	0.4		CN?				3814.358r	22	8.1		CN	R 35	3,3	11
3810.294r	21	7.3						3814.521m	170	34.9 33.6		Fe I	1.01	22	
3810.540	41	13.8		CN	R 50	1,1	11	3814.596m			Ti II (Cr I)	0.57 3.42	12 214		
3810.618	23	9.7		CN	R 50	1,1	11	3814.784m	47	18.9		Fe I	3.41		
3810.713r	120	1.0		CN	R 44	2,2	11	3814.892m	26	15.7		CN Ti I	R 47 2.09	1,1 189	11
3810.760m		37.8		Fe I	3.30	665									
3810.900m	28	10.0		Fe I p	2.61	224									

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	
3815.080r	4	1.8		CN				3818.749r	16	6.3		CN	R 31	3,3	11	
3815.210r	13	8.9		Fe I— CN				3818.890r	3.5	1.5		Nb II?	1.59			
3815.328m	27	21.7		(V II)	2.90	166		3819.063m	49	19.6		CN	R 44	1,1	11	
3815.437m	51	40.9		Cr I	2.71	71		3819.208	68	15.4		CN	R 51	0,0	11	
3815.617r	38	58.7					3819.273	17.5				CN	R 51	0,0	11	
3815.851m	1272	330		Fe I	1.48	45		3819.381	14	8.4		CN	R 37	2,2	11	
3816.110r	27	48.8		CN				3819.494m	83	38.2		Fe I	3.40	703		
3816.191	39	50.9		Cr I	{2.54 2.54 R 53 R 53 R 46	40 40 0,0 0,0 1,1		3819.573	53	44.7		Cr I	2.71	70		
				CN—				11	3819.688	43	28.2		Eu II	0.00	1	
				CN				11	3819.797r	9	9.4		CN	R 30	3,3	11
3816.345m	100	53.3		Fe I Co I	2.20 1.96	73 62		3819.901r	7.5	11.2		Co I	2.54	130		
3816.468m	68	31.8		Co I	1.96	62		3819.961r	21	27.8		V I Cr I	0.30 2.54	28 40		
3816.636	17	8.7		CN	R 33	3,3	11	3820.056r	27	41.6						
3816.745m	47	19.6		Mn I	2.16	6		3820.196r	13	43.7						
3816.856r	80	0.5		Co I	2.14	86		3820.303r	2.5	19.6		V I—	1.06	44		
3816.922m		28.8		Fe I	3.04	387		3820.436m	1712	512		Fe I	0.86	20		
3816.972r		3.1		CN	R 39	2,2	11	3820.561r	5.5	41.1		—CN	R 36	2,2	11	
3817.056r	17	7.3		CN	R 39	2,2	11	3820.656r	23	60.7		CN—	R 36	2,2	11	
3817.148r	9.5	3.7		CN				3820.748r	13	34.6		CN	{R 50 R 29	0,0 3,3	11	
3817.25 a	1	0.4		Fe I?				3820.809r	41	32.4		CN	{R 50 R 29	0,0 3,3		11
3817.382m	34	12.8		—CN				3820.877r		32.4			Cr I	2.54	40	
3817.459	18	8.0		—W I	0.37			3820.990r	7	9.2		CN				
3817.583r	165	12.0		Zr II	0.53	18		3821.187S	93	49.1		Fe I	3.27	608		
3817.647m		29.3		Ti I Fe I— CN	2.10 3.33 {R 52 R 32	189 701 0,0 3,3	11	3821.494	14	7.3		V I	0.27	28		
					CN	{R 52 R 32		0,0 3,3	11	3821.586	11	5.1		Cr I	2.54	40
3817.734		19.6		CN	{R 52 R 32	0,0 3,3	11	3821.728m	52	32.9		CN—	{R 42 R 35 R 28	1,1 2,2 3,3	11	
3817.843m	40	16.0		V I CN Cr I	0.07 R 45 2.54	10 1,1 40	11	3821.840m	130	45.2		Fe I	2.61	222		
3817.947r	13	4.7		Co I	2.54	131		3821.937r	64	28.2		Fe II p	2.34	14		
3818.083r	12	4.4		CN				3822.017r	69	36.6		V I	0.04	9		
3818.195r	75	5.2		CN	R 38	2,2	11	3822.110r	15	6.3		Cr I	2.54	40		
3818.243m		23.3		V I	0.00	9		3822.264	86	17.8		CN	R 49	0,0	11	
3818.345m	55	22.3		Y II	0.13	7		3822.328		17.0		CN	R 49	0,0	11	
3818.475m	38	13.9		Cr I	{2.54 2.54	40 40		3822.418r	17	6.8		Zr I	0.00	10		
3818.620m	60	21.7		Fe I				3822.52 a	4	1.4						
								3822.648	18	6.5		CN				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3822.785r	4.5	1.7						3826.207r	18	37.9		Sm II CN	0.54 R 31	51 2,2	11
3822.856	75	25.6		CN— CN V I	R 27 {R 34 R 27 0.29	3,3 2,2 3,3 28	11 }11	3826.313r	12	16.2		CN	R 31	2,2	11
3822.954	14	7.3		CN	R 34	2,2	11	3826.418m	25	16.2		Cr I	2.71	70	
3822.954	14	7.3		CN	R 34	2,2	11	3826.500r	1	0.8		CN			
3823.023	46	16.0		CN	R 41	1,1	11	3826.625	44	23.8		Fe I—	2.45	176	
3823.088	29	13.5		CN	R 41	1,1	11	3826.709	58	39.2		CN	{R 46 R 23	0,0 3,3	}11
3823.216m	25	8.6		V I	0.28	28		3826.770	15	11.2		CN— V I Ni I	{R 46 R 23 1.04 3.84	0,0 3,3 44	}11
3823.356	18	6.3		CN				3826.852m	88	39.5		Fe I	2.73	283	
3823.514m	116	37.4		Mn I (Cr I)	2.14 0.96	6 24		3826.957	32	21.7		CN— V II	R 38 2.56	1,1 128	11
3823.757	51	25.0		CN	{R 48 R 26	0,0 3,3	}11	3827.084	7.5	4.7		Fe II	4.73	153	
3823.818	23	15.4		CN	{R 48 R 26	0,0 3,3	}11	3827.213	8	5.2		CN?			
3823.895m	93	34.2		Mn I	2.16	6		3827.301m	34	19.3					
3824.001r	106	9.9		V I— CN	1.05 R 33	44 2,2	11	3827.383	17	13.3		CN	R 30	2,2	11
3824.082m			40.7	Fe I	2.59	224		3827.486r	8	7.8		Zr II?	1.83	121	
3824.235r	10	9.9						3827.580m	73	58.6		Fe I	2.69	284	
3824.312m	85	79.5		Fe I	3.30	607		3827.692r	6.5	21.9					
3824.452m	519	225		Fe I	0.00	4		3827.832m	897	276		Fe I	1.56	45	
3824.573	84	97.5						3828.019r	24	33.9					
3824.643r	6	7.8						3828.160r	60	39.2		CN	{R 45 R 37	0,0 1,1	}11
3824.750r	11	10.5		CN Fe I p	R 25 2.61	3,3 221	11	3828.224r	34	33.0		CN	{R 45 R 37	0,0 1,1	}11
3824.799r	3.5	3.1		CN	R 25	3,3	11	3828.404	15	10.0		CN	R 21	3,3	11
3824.926m	52	27.7		Fe II	2.58	29		3828.510r	94	36.4		{Fe I CN	2.76 R 29	287 2,2	11
3825.046r	8	5.2		CN				3828.566r			18.5		V I	0.02	9
3825.126m	11	7.1		CN	R 32	2,2	11	3828.659r	10	4.8		CN			
3825.236r	34	22.5		CN— CN	{R 47 R 32 R 47	0,0 2,2 0,0	}11 11	3828.835r	26	13.6		V I? CN	1.38	67	
3825.311r	25	21.7		CN	R 47	0,0	11	3828.972r	13	9.4		CN			
3825.408m	40	32.4		Fe I Cr I	2.28 2.71	123 70		3829.059r	9	9.7					
3825.599r	28	41.8		—CN	R 39	1,1	11	3829.154m	77	61.4		Fe I	3.69	948	
3825.683r	11	35.3		CN—	{R 39 R 24	1,1 3,3	}11	3829.250r	10	32.4					
3825.891m	1519	421		Fe I	0.91	20		3829.365m	874	308		Mg I	2.71	3	
3826.026r	7	26.9						3829.480	23	54.9		{Fe I— CN	{2.84 3.27 R 28	366 663 2,2	11
3826.093r	5	16.7		CN—											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3829.592	22	29.0		CN	R 44	0,0	11	3833.783m	34	38.4		CN	{R 41 R 15	0,0 3,3	}11
3829.685	69	54.4		Mn I	2.18	6		3833.866m	63	46.7		Mn I CN	2.18 R 41	6 0,0	11
3829.769m	40	38.7		Fe I	2.56	221		3833.959r	6	12.2		Ca I CN	2.71		
3829.901r	12	5.5		CN				3834.02 a	9.5	18.0		CN			
3830.00 a	4.5	2.1		Cr I	3.45			3834.10 a	20	43.1					
3830.076m	50	23.5		CN				3834.233m	624	497		Fe I	0.96	20	
3830.311r	7.5	3.8		CN? Sm II	0.10	10		3834.371m	21	53.7		Mn I	2.16	6	
3830.375	25	12.0		CN	R 19	3,3	11	3834.474	12	23.2		Fe I p	3.25	663	
3830.490	24	11.8						3834.55 a	17	23.5		CN	R 23	2,2	11
3830.609r	43	19.0		CN	R 35	1,1	11	3834.629	3	4.7		CN			
3830.665r	10	7.8		CN	R 35	1,1	11	3834.729m				Cr I	2.71	70	
3830.764m	75	31.0		Fe I	2.61	224		3834.841r		9.5		CN?—			
3830.867m	65	28.4		Fe I	2.69	284		3834.885r	4.5	5.2		CN			
3831.037m	77	34.2		Cr I CN— CN	1.00 R 43 R 43	24 0,0 0,0	11 11	3835.037	4	5.2		—W I?	0.41	2	
3831.198r	17	9.4		CN	R 18	3,3	11	3835.161r				CN	R 40	0,0	11
3831.380r	8.5	5.5		CN—				3835.205r		68		CN	R 40	0,0	11
3831.520r	7	5.7		Sm II	0.43	43		3835.370	13	30.4		CN CN	R 31 R 31	1,1 1,1	11 11
3831.700m	129	70.4		Ni I	0.42	31		3835.39	2362	719		H ₉	10.20	2	10
3831.888r	26	32.4		CN	R 34	1,1	11	3835.552m	33	33.1		CN— V I	R 22 1.04	2,2 44	11
3832.034r	14	24.8		CN	R 17	3,3	11	3835.725r	12	12.0		Sm II?	0.18	18	
3832.166r	12	33.2		CN?				3835.978r	4	3.7		Zr I	0.00	8	
3832.310m	1685	600		Mg I	{2.71 2.71	3 3		3836.090S	58	35.4		Ti II Cr I V I?	0.61 2.71 1.05	12 70 44	
3832.510r	9.5	27.6						3836.199r	2.5	2.2					
3832.649	16	36.5		CN	R 25	2,2	11	3836.337m	72	38.0		Fe I	3 30	664	
3832.753r	5	8.9						3836.501r				CN	{R 39 R 30 R 21	0,0 1,1 2,2	}11
3832.888m	51	42.7		Ni I Y II	0.17 0.18	1 7		3836.551r				CN	{R 39 R 30 R 21	0,0 1,1 2,2	}11
3833.019r	12	15.9		CN Fe II p	R 33 2.64	1,1 23	11	3836.670r	3	2.1					
3833.084r	33	26.4		CN Sc II	R 33 0.00	1,1 1	11	3836.769m	39	23.2		Zr II	0.56	16	
3833.208m	25	18.2		Ti I?—				3836.920m	34	20.8					
3833.317m	53	34.7		Fe I	2.56	221		3837.141m	54	31.8		Fe I	2.61	222	
3833.491r	2.5	2.1		Cr I	0.94	11		3837.266r	5.5	5.0					
3833.608m	23	17.2		CN	R 24	2,2	11	3837.423m	24	19.5		CN	R 20	2,2	11
3833.702m	25	19.8		Ti I— Cr I	2.71	70									

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3837.635m	46	38.6		CN— CN	R 29 R 29	1,1 1,1	11 11	3842.363r	14	5.3					
3837.823r	55	37.8		CN	R 38	0,0	11	3842.450r	36	12.3		CN			
3837.898r		37.8		CN	R 38	0,0	11	3842.644m	46	15.0		CN	R 14	2,2	11
3838.051r	15	44.3		Fe I?				3842.767r	12	3.9		Fe I?			
3838.208r	3	23.5						3842.903m	26	8.7		Fe I	2.59	222	
3838.302m	1920	641		Mg I	{2.72 2.72	3 3		3842.990r	141	28.4		CN	{R 34 R 24 2.59 R 34	{0,0 1,1 221 0,0	11
3838.538r	24	50.5		—Ce II	0.33	114		3843.058r			22.8		Zr II	0.36	
3838.751	63	30.8		CN— CN	R 28 R 28	1,1 1,1	11 11	3843.264S	138	42.1		Fe I	3.05	528	
3838.996m	17	15.9		Nd II— V I	0.00 1.06	28 44		3843.463	73	23.3		CN	R 13	2,2	11
3839.139	36	32.3		CN CN?	R 37 R 18	0,0 2,2	11 11	3843.626r	5	2.3		Cr I?	3.09		
3839.263m	104	52.6		Fe I	3.05	529		3843.715m	145	44.2		{Fe I Co I	{3.42 2.14	{703 84	
3839.439m	44	26.1		CN				3843.826r	15	6.5		CN			
3839.625m	68	36.2		Fe I	3.96	995		3843.998m	109	30.9		Mn I	2.19	6	
3839.785m	82	43.0		Mn I	2.19	6		3844.031r			0.4		CN	R 23	1,1
3839.850r	8	10.4		CN	R 27	1,1	11	3844.131r	126	1.0					
3839.929	11	8.1						3844.237m			39.0		CN— CN	{R 33 P 6 R 33 3.54	{0,0 4,4 0,0 137
3840.105m	20	18.2		CN	R 17	3,3	11				Ni I				
3840.201	13	18.7		Fe I p	2.28	120		3844.448m	53	17.4		V I	0.00	7	
3840.303r	12	25.0						3844.574m	38	12.8		CN Ni I	3.94	181	
3840.447m	567	257		Fe I	0.99	20		3844.725r	23	7.9		CN	P 7	4,4	11
3840.583r	26	40.4						3844.892m	46	15.3		V I	1.05	44	
3840.756m	38	39.4		V I—	0.04	9		3845.020m	72	23.2		CN	R 22	1,1	11
3840.897r	20	33.3		CN	R 26	1,1	11	3845.174r	140	33.8		Fe I	2.42	124	
3841.058m	517	165		Fe I Mn I	{1.61 2.18	{45 6		3845.222r			19.2		Fe I p	3.40	701
3841.190r	14	25.5						3845.325r	16	7.4		CN			
3841.280m	44	38.0		Cr I	2.71	69		3845.470m	135	41.6		Co I CN	{0.92 R 32	{34 0,0	11
3841.349r	9	10.2		Fe II?	4.48	128		3845.593r	13	5.7					
3841.460m	22	13.3		Co I	0.92	32		3845.700m	85	30.3		Fe I	3.55	771	
3841.583r	8.5	4.0						3845.813r	32	12.4		CN— CN	P 2	3,3	11
3841.730	124	42.4						3845.993m	104	32.5		{Fe I CN	{3.37 R 21	{703 1,1	11
3841.822r	11	7.9													
3841.950m	43	23.6		CN	R 25	1,1	11	3846.15 a	18	6.5					
3842.054m	126	39.5		Co I	0.92	33		3846.288m	55	20.8		Fe I p CN	3.69	947	
3842.217r	49	16.1		CN— CN				3846.417m	105	33.3		Fe I	3.57	804	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3846.531r	30	12.9		CN				3849.977m	608	181		Fe I	1.01	20	
3846.642r	104	26.0		CN	{R 31 R 9	0,0 2,2	}11	3850.165m	59	27.3		CN	R 28	0,0	11
3846.679r								10	6.5		CN	P 12	3,3	11	
3846.809m	160	49.4		Fe I	3.25	664		3850.402	20	9.9		CN	{P 26 P 48	4,4 4,4	}11
3846.950m	110	39.5		Fe I	2.43	176		3850.492r	65	26.0		Fe I	1.40	11	
3846.986r								9.6		CN— Zr I	R 20 0.07	1,1 10	11	3850.566r	15
3847.126r	16	7.0						3850.653m	54	28.1		CN	{P 13 P 27 P 46 R 16	3,3 4,4 4,4 1,1	}11
3847.259r	52	19.4		CN				3850.826m	222	67.7		Fe I	0.99	22	
3847.339	53	17.6		V I V II	0.02 2.76	7 156		3850.960m	42	23.9		Co I— Fe I? Gd II	0.51 0.00	17 2	
3847.432	32	11.9						3851.086r	11	4.0		CN	P 32	4,4	11
3847.519r	13	4.7		Sm II?	0.33	34		3851.172r	24	9.6		V I CN	1.06 P 32	44 4,4	11
3847.63 a	4	1.3						3851.291m	102	31.7		CN	R 27	0,0	11
3847.692r	7	2.6						3851.446r	6.5	2.3					
3847.848	146	47.0		CN—	R 30	0,0	7, 11	3851.536m	68	24.9		CN	R 15	1,1	11
3847.965r	18	12.2		CN	{R 30 R 19	0,0 1,1	}11	3851.599r	13	6.1		CN Fe I			
3848.051r	18	7.9		CN Tm II	P 16 0.00	4,4 2		11	3851.679	33	11.3		CN		
3848.114r	16	6.2		CN	R 7	2,2	11	3851.756	14	5.4		Nd II	0.18	35	
3848.194r	19	8.0		CN				3851.858m	24	8.0		CN Co I	2.54	128	
3848.297m	92	29.4		Fe I	2.61	224		3851.998r	1.5	0.5					
3848.446r	12	4.4						3852.111r	15	5.4		CN			
3848.533r	25	10.9		Nd II— CN				3852.217m	63	20.5		Cr I	0.97	24	
3848.611r	41	13.5		CN Ce II	P 18 0.52	4,4 36	11	3852.407m	52	19.5		CN	{R 26 R 14 P Head	0,0 1,1 4,4	}11
3848.706r	17	6.5		CN	{P 8 P 18	3,3 4,4	}11	3852.579m	148	45.2		Fe I	2.18	73	
3848.847m	70	24.6		CN	R 18	1,1		11	3852.709	44	{ 14.3 5.7		CN	P 52	3,3
3849.006m	121	37.7		{Cr I CN (La II)	2.71 R 29 0.00	69 0,0 12	11	3852.765r						CN	{P 20 P 52
3849.114r	12	4.7						3852.912	25	8.3		CN	P 51?	3,3	11
3849.266r	14	5.6		CN Zr I	0.00	6		3853.047m	46	15.0		Ti I	1.97	176	
3849.367m	88	31.7		Cr I	3.01	138		3853.203m	82	26.2		Cr I—	2.71	69	
3849.543m	53	23.6		Cr I	0.98	24						CN	{R 13 P 22 P 50	1,1 3,3 3,3	}11
3849.69 a	3.5	3.7		Fe I				3853.341m	54	24.6		CN?	{P 23 P 49	3,3 3,3	
3849.757m	36	25.1		CN	R 17	1,1	11								
3849.879r	13	24.1		CN	{P 11 P 23	3,3 4,4	}11								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3853.483m	148	44.6		Fe I— CN	2.95 {R 25 P 49}	429 0,0 3,3	}11	3857.000r	8	3.5		CN	{P 68 P 52?	1,1 2,2	}11
3853.670r	23	12.2		Si II— CN	6.86 {P 48? P 24}	1 3,3 3,3	}11	3857.080r	10	4.6		CN	{P 68 P 8	1,1 2,2	}11
3853.732m	58	18.7		Ti I	1.98	176		3857.154m	54	18.9		CN	R 8	1,1	11
3853.832r	31	12.2		CN	{P 47 P 25}	3,3 3,3	}11	3857.336	28	9.6		CN			
3853.905r	38	13.0		CN	P 46	3,3	11	3857.445r	23	8.0		CN	P 51?	2,2	11
3854.059m	67	21.8		CN	{R 12 P 45}	1,1 3,3	}11	3857.667m	149	46.4		Cr I— CN	2.71 R 21	69 0,0	11
3854.211	81	29.3		CN— Cr I	P 44 2.71	3,3 69	11	3857.819	73	10.9		CN	P 67	1,1	11
								3857.892m		16.6			CN	R 7	1,1
3854.266r	7.5	7.8		CN	{P 28 P 44}	3,3 3,3	}11	3858.011r	18	10.0		CN?			
3854.370m	130	40.2		Fe I	3.21	567		3858.132m	71	33.2		Ti I	2.00	176	
3854.571m	189	57.1		{CN	{P Head R 24}	3,3 0,0	}11	3858.303m	202	66.1		Ni I	0.42	32	
3854.673r	64	17.6		{CN	P Head	3,3	11	3858.472	55	24.8		CN— Fe I p	P 66 3.24	1,1 565	11
3854.734r		17.6		{CN	P Head	3,3	11	3858.507r		4.1			CN	P 66	1,1
3854.854m		27.0			{CN	R 11	1,1	11	3858.589m	38	21.5		CN	{P 49 R 6	2,2 1,1
3854.953r	84	15.0		CN				3858.689m	95	36.8		CN	{P 49 R 20	2,2 0,0	}11
3855.124r	20	6.7		CN				3858.865r	131	50.0		Mg I	4.34	21	
3855.316	151	29.4		Fe I	2.73	283		3858.917r		25.0			CN Cr I	3.01	138
3855.412r		22.8		{V I Zr II	0.00 0.56	7 18		3858.993r	6.0			CN	{P 13 P 48	2,2 2,2	}11
3855.586r	122	14.3		Cr I	2.71	69		3859.111r	17	13.7		CN	{P 65 P 48	1,1 2,2	}11
3855.631r		33.7		CN	{R 23 R 10}	0,0 1,1	}11	3859.223m	108	53.4			Fe I	2.40	175
3855.851m	96	37.1		Fe I V I	3.24 0.07	567 9		3859.280r		3.1			CN	{P 14 P 47 R 5	2,2 2,2 1,1
3855.972r	56	6.2		CN	P 53?	2,2	11	3859.400r	39	32.6					
3856.026m		26.0			Si II	6.86	1		3859.435	13	16.4		CN		
3856.147r	13	12.4						3859.668	51	62.5		CN	{P 46 R 19	2,2 0,0	}11
3856.232r	19	26.8		CN Cr I?	{P 69 P 6 2.71}	1,1 2,2 69	}11	3859.741r	20	45.8					
3856.381m	648	197		Fe I	0.05	4		3859.922m	1554	400		Fe I	0.00	4	
3856.539r	18	26.0		Mn I CN	3.37			3860.092r	17	39.5		—Cr I?	{2.54 2.54}	39 39	
3856.664m	66	39.1		CN	{P 7 R 22}	2,2 0,0	}11	3860.219r	32	41.6		CN	P 44?	2,2	11
3856.820r	7	3.6		Co I	1.88	60		3860.292r	18	28.4		CN			
3856.923m	27	11.9		CN	P 52?	2,2	11	3860.431r	21	18.5		CN	{P 63 P 43}	1,1 2,2	}11

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3860.495r	20	17.9		CN	P 63	1,1	11	3863.600r	16	7.9		CN	{P 72 P 1	0,0 1,1	}11
3860.626m	61	34.4		CN	{P 19 P 42 R 18	2,2 2,2 0,0	}11	3863.701r	}157	{18.9 40.6		Co I	2.63	131	
3860.728r	5.5	3.8		Fe I p	3.37	701					3863.754r				Fe I (V II)
3860.828m	35	18.3		CN	{P 20? P 41	2,2 2,2	}11	3863.868m	23	9.1		V I Zr I	1.35 0.07	66 8	
3860.930m	34	21.8		CN Fe II					3863.976m	50	17.1		Fe II— CN	{4.49 4.74 P 57	127 152 1,1
3861.023m	51	23.0		CN— CN	{P 21 P 40 P 40	2,2 2,2 2,2	}11	3864.111m	46	15.5		Mo I CN	0.00 P 2	1 1,1	11
3861.167m	104	39.4		Co I CN— CN	1.05 {P 62 P 22 P 39	33 1,1 2,2 2,2		}11	3864.305m	61	20.2		CN Fe I p	R 14 {2.59 3.21	0,0 221 565
3861.344m	103	42.2		Fe I	{2.69 3.27	283 663			3864.492r	}68	{13.2 10.4		CN— CN	P 71 P 71	0,0 0,0
3861.458r	12	10.4		CN	{P 24 P 37	2,2 2,2	}11	3864.586r						CN	P 3
3861.547r	}250	{40.3 65.6		CN	{P 25 P 36	2,2 2,2		}11	3864.668r	16	5.6		CN	P 3	1,1
3861.600r				CN	{R 17 P 36	0,0 2,2	}11		3864.874	78	25.6		V I	0.02	7
3861.712m	35	25.8		CN	P Head	2,2		11	3865.003m	28	9.8		—CN	P 55	1,1
3861.837m	51	22.4		CN	P Head	2,2	11	3865.079r	}76	{1.0 26.9		CN	P 55	1,1	11
3861.980m	32	10.4		CN—				3865.151m						CN	{R 13 P 4
3862.114r	1	0.4		CN				3865.320r	}40	{9.0 22.0		CN	P 70	0,0	11
3862.227r	6.5	2.2		V I	0.02	8		3865.420r						CN	P 70
3862.324r	20	7.0		CN	P 60	1,1	11	3865.533m	}377	{138 10.9		Fe I	1.01	20	
3862.407r	18	8.3		CN	P 60	1,1	11	3865.659r						CN	P 5
3862.494m	84	27.4		CN	{R 16 R 0	0,0 1,1	}11	3865.913r	}112	{9.1 31.0		CN	{R 12 P 53	0,0 1,1	}11
3862.593m	38	14.8		Si II	6.86	1					3865.990m				
3862.693r	22	9.6		CN	P 73	0,0	11	3866.104	39	16.6		CN	P 6	1,1	11
3862.763r	12	4.4		CN	P 73	0,0	11	3866.173r	17	7.1		CN	P 69	0,0	11
3862.829	31	10.9		Ti I	1.97	175		3866.247r	21	7.2		CN	P 69	0,0	11
3862.907r	13	5.2		CN	P 59	1,1	11	3866.393r	}67	{5.7 18.1		CN	P 52	1,1	11
3862.979r	14	4.7		CN	P 59	1,1	11	3866.445m						Ti I— CN	2.02 P 52
3863.068m	41	13.7		Ni I	3.83	181		3866.553m	28	9.8		CN	P 7	1,1	11
3863.207r	2.5	0.9		CN				3866.722m	31	10.6		V II	1.43	11	
3863.401m	89	29.2		CN	{R 15 P 58	0,0 1,1	}11	3866.826m	80	24.7		CN	{R 11 P 51	0,0 1,1	}11
3863.521r	26	9.6		CN	P 58	1,1		11	3866.981m	61	19.9		CN	{P 68 P 8	
								3867.064m	26	11.1		CN	P 68	0,0	11
								3867.224m	110	45.0		Fe I	3.02	488	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3867.316r	24	11.9		CN	P 50	1,1	11	3870.483	74	20.2		CN	P 39	1,1	11
3867.387r	45	15.0		CN	P 9	1,1	11	3870.552		19.4		CN	P 20	1,1	11
3867.440r	9	4.0		Fe I p	2.61	221		3870.664	53	23.0		CN	{R 6	0,0	11
3867.627	87	22.8		CN	{R 10	0,0	11				3870.714r	10.6		CN	
3867.658r		11.6		-CN	P 49	1,1		11	3870.800m	85			27.9		CN
3867.774m	54	20.1		Ti I— CN	1.98 {P 67	176 0,0	11	3870.887m	28.4		28.4		CN	{P 63	0,0
3867.863r	100	1.6		CN	P 67	0,0		11		3871.016m		19	17.0		CN
3867.929m		31.3			Fe I	2.59	221		3871.136m	13	18.8		CN	P 24	1,1
3868.040	35	15.0		CN	P 48	1,1	11	3871.234m	12	22.7		CN	P 25	1,1	11
3868.130m	50	16.8		CN	P 11	1,1	11				3871.392	764	226		CN
3868.239m	58	19.1		Fe I	2.95	430		3871.563m	77	24.5		(CH)	{R 5	0,0	3
3868.318r	7	3.0		Ni I	3.83						CH—	R 6	0,0	3	
3868.409m	78	25.3		CN Ti I	R 9 1.98	0,0 175	11					CN Ni I	P 62 3.84	0,0 181	11
3868.492	23	10.1		CN	P 47	1,1	11	3871.651r	25	15.7		La II CH	0.13 R 7	13 0,0	3
3868.569m	45	15.2		CN	{P 66	0,0	11	3871.758m	132	41.8		Fe I (CH)	2.95 R 8	429 0,0	3
3868.651	22	8.8		CN	P 66	0,0		11	3871.903m	37	14.4		CH	R 6	0,0
3868.741	80	15.5		CN—	P 46	1,1	11	3872.062	59	25.8		CN CH (Dy II)	R 4 R 8 0.00	0,0 0,0	11 3
3868.808r		13.4		CN	P 13	1,1	11				3872.179m	19	12.4		CN Fe I?
3869.047	46	20.1		CN— CN	P 45 P 45	1,1 1,1	11 11	3872.273m	28	20.9		CN— CH	P 61 R 5	0,0 0,0	11 3
3869.173m	88	29.2		CN	R 8	0,0	11	3872.510m	612	181		Fe I (Ca I)	0.99 2.52	20 26	
3869.313	120	22.5		Ti I— CN	1.97 {P 65	175 0,0	11				3872.732m	44	31.8		CN V I? CH?
3869.403m		22.2		CN	{P 65	0,0		11	3872.834	30	21.9		CH	R 9	0,0
3869.559r	154	31.0		Fe I	2.73	284		3872.932m	70	31.0		[Fe I CN	2.73 P 60	284 0,0	11
3869.612r		18.0		Fe I	2.73	284					3873.090r	135	30.0		CH—
3869.672r	15.0		CN	P 16	1,1	11	3873.133r	15	7.5		Co I			0.43	18
3869.829	94	12.1		CN	P 42	1,1	11			3873.199r	39	15.5		Ti I	2.00
3869.922m		25.0		CN	{R 7	0,0	11	3873.294	26	10.6		CN	R 2	0,0	11
3870.072m	95	15.8		CN	{P 64	0,0		11			3873.371	97	13.7		CN
3870.159m		23.8		CN	{P 64	0,0	11	3873.502r	20.9	20.9				CN CH?	P 59 R 4
3870.276	50	10.1		Cr I— CN	0.94 P 40	11 1,1	11	3873.575						CN	P 59
3870.365m		14.2		CN	P 19	1,1	11						CN	P 59	0,0

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3873.767m	105	33.4		Fe I	2.43	175		3877.609r	12	5.4		Ti I Zr I	1.98 1.00	175 58	
3873.959	106	39.6		Co I	0.51	18		3877.709r	8.5	4.0					
3874.060m	116	47.6		Fe I (CH)	2.28 R 4	120 0,0	3	3877.835	37	29.6		CN	P 5	0,0	11
3874.123r	12	9.5		CN	P 58	0,0	11	3877.935r	12	28.3		CN	P 51	0,0	11
3874.193	35	16.0		CN	P 58	0,0	11	3878.027m	555	202		Fe I	0.96	20	
3874.356r	2	0.8		Zr II?	1.49	89		3878.194	30	35.6		Fe I p	3.28	565	
3874.524m	85	23.4		-CH	R 10	0,0	3	3878.302	78	63.4		Mg I CN Y II	4.34 P 6 0.18	20 0,0 7	11
3874.573r		8.0		Cr I— CN	3.01 R 0	138 0,0	11	3878.412r	13	33.2		CH CN— CN	R 2 P 50 P 50	0,0 0,0 0,0	3 11 11
3874.726r	87	10.1		CN	P 57	0,0	11	3878.580m	724	248		Fe I	0.09	4	
3874.776		22.4		CH— CN	R 10 P 57	0,0 0,0	3 11	3878.679r	50	61.9		Fe I	2.45	175	
3875.085m	74	25.3		V I	0.04	7	3878.747r	61.9			Fe I V II— CN	3.27 1.82 P 7	664 33 0,0		11
3875.290	109	24.5		Ti I CN	{0.00 2.00 P 56	{15 175 0,0	{11 11	3878.838r	26	14.4		CN	P 49	0,0	11
3875.378r		14.7		CN	P 56	0,0	11	3878.900r		14.4		CN	P 49	0,0	11
3875.546r	45	15.0		Sm II—	0.18	17		3879.041r	6	3.0		Ru II? Zr I?	3.41 0.07	6	
3875.658r	50	16.5						3879.194r	122	28.0		CN	P 8	0,0	11
3875.780m	72	23.7		CN Ca I	P 1 2.52	0,0 26	11	3879.257r		14.0			CN Cr I	P 48 3.01	0,0 138
3875.884r	74	16.5		CN— V I	P 55 0.02	0,0 7	11	3879.321r	49	12.0		CN	P 48	0,0	11
3875.948r		19.3		CN— CH	P 55 R 3	0,0 0,0	11 3	3879.576m		21.1		CN	P 9	0,0	11
3876.051m	141	43.3		Fe I (V I)	1.01 0.07	22 8		3879.659r	84	19.6		CN	P 47	0,0	11
3876.310	30	10.2		CN	P 2	0,0	11	3879.714r		13.2		CN	P 47	0,0	11
3876.420r	64	12.1		CN	P 54	0,0	11	3879.849	21	7.6					
3876.486r		10.8		CN	P 54	0,0	11	3879.964m	45	22.4		CN	P 10	0,0	11
3876.566r	7	2.4						3880.038r	100	21.4		CN	P 46	0,0	11
3876.678m	40	13.3		Fe I	2.28	121		3880.098r		16.2		CN	P 46	0,0	11
3876.845	91	29.2		CN Co I	P 3 {0.43 2.01	0,0 17 62	11	3880.190	63	25.7		CH	R 12	0,0	3
3876.978m	84	26.9		CN— CN (CH)	P 53 P 53 R 11	0,0 0,0 0,0	11 11 3	3880.255r		1.0					
3877.096r	6.5	2.6						3880.327r	139	17.0		CN	P 11	0,0	11
3877.198m	58	19.1		CH	R 11	0,0	3	3880.394r		22.0			CN (CH)	P 45 R 12	0,0 0,0
3877.344m	54	20.6		CN	P 4	0,0	11	3880.458r	2	14.0		CN	P 45	0,0	11
3877.451r	76	19.1		CN— CH	P 52 R 2	0,0 0,0	11 3	3880.546r		0.6					
3877.510r		16.0		CN	P 52	0,0	11	3880.677r	130	16.7		CN	P 12	0,0	11
							3880.74 a	17.8			CN	P 44	0,0	11	
							3880.793r	14.7		CN	P 44	0,0	11		

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3880.900r	3	1.0						3883.639m	26	9.3		Cr I	3.01	138	
3881.002r	121	24.0		CN	P 13	0,0	11	3883.76 a	2.5	0.9		Hf II?	1.67	18	
3881.04 a		16.0		CN	P 43	0,0	11	3884.097r	5.5	1.9		Ti I	1.98	175	
3881.116r		12.0		CN	P 43	0,0	11	3884.222r	66	10.8			CH	R 13	0,0
3881.206	7.5	-Cr I	3.01	138		3884.292r	23.4								
3881.307r	147	30.6		CN	P 14	0,0	11	3884.369m	136	39.6		Fe I	2.69	282	3
3881.405r		24.2		CN Ti I	P 42 0.02	0,0 15	11	3884.440r		9.5		CH	R 13	0,0	
3881.490r	7.5	3.2		CH	R 1	0,0	3	3884.609r	69	16.2		Co I	1.05	32	
3881.591r	127	27.6		CN-	P 15	0,0	11	3884.673r	22	11.3		Fe I	3.28	565	
3881.687r		19.8		CN	P 41	0,0	11	3884.844m		8.7		V II	1.79	33	
3881.875	117	37.4		CN	{P 16 P 40 0.58 0.00}	{0,0 18 1}	11	3885.066	15	7.2		Cr I	3.01	138	
				Co I (Ni I)				3885.151	28	22.9		Fe I	2.99	430	
3881.980r	56	31.2						3885.225	115	38.1		Cr I- Cr I	0.97	23	
3882.085r	136	24.5		CN	{P 17 P 39}	{0,0 11}	11	3885.286r		7.5			Sm II Co I	0.48 0.92	46 31
3882.170r		24.5		CN Ti I	P 39 2.02	0,0 175	11	3885.519m	87	33.7		Fe I	2.42	124	
3882.300r	141	30.9		Ti I	2.02	176		3885.657r	6.5	3.9					
3882.391r		19.1		CN	{P 18 P 38}	{0,0 11}	11	3885.756m	35	19.0		Fe I p	3.26	567	
3882.511r	127	28.3		CN	{P 19 P 37}	{0,0 11}	11	3885.865r	6.5	6.4		Ni I	0.27	1	
3882.594r		17.8		CN	P 38	0,0	11	3885.933r	30	20.6		Fe I p	3.69	946	
3882.689r	112	27.8		CN	{P 20 P 36}	{0,0 11}	11	3886.065r	10	15.9					
3882.754r		13.9		CN	P 37	0,0	11	3886.155r	6.5	16.7					
3882.847r	140	28.3		CN	{P 21 P 35}	{0,0 11}	11	3886.294m	920	306		Fe I	0.05	4	3
3882.894r		28.3		Ti I	2.04	176		3886.428r	11	31.6		CH-	Q 1	0,0	
3882.996	118	38.9		CN	P 36	0,0	11	3886.564r	8.5	11.8		V I?	1.38	64	
3883.114r	91	30.4		CN	{P 22 P 34}	{0,0 11}	11	3886.804m	50	26.2		Cr I	1.00	23	
3883.200r	228	27.0		CN	{P 23 P 34 1.43}	{0,0 11 11}	11	3886.940r	4.5	5.4					
3883.287r		27.0		Cr I Fe I	0.98 3.25	23 663		3887.059m	219	96.9		Fe I	0.91	20	
3883.394r		?		CN	P 24	0,0	11	3887.372r	8	4.9		Ti I?	2.00	176	
3883.429r	band	edge		CN	P 33	0,0	11	3887.526r	1	0.5					
3883.551r	3	1.0						3887.730r	3	1.7					
				(V II)				3887.890r	10	5.4					
								3888.041	9	15.5		Ti I	2.00	175	
								3888.21 a	3.5	2.6					
								3888.29 a	4.5	4.6					
								3888.422	23	35.2		Fe I	3.26	565	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3888.524m	265	116		Fe I	1.61	45		3893.317		26.0		Fe I	2.83	364	
3888.723r	10	12.1						3893.402m	182	32.5		Fe I	2.95	430	
3888.829m	49	38.6		Fe I	3.02	488		3893.463r		4.8					
3888.938r	6	8.2		CH	Q 2	0,0	3	3893.606r	5.5	1.8					
3889.05	2346	722		H ₈	10.20	2	10	3893.795r	1	0.4					
3889.105	12.5	23.9		CH	Q 1	0,0	3	3893.920m	70	26.2		Fe I	2.43	175	
3889.231	25	22.5		CH— Fe I?	R 14 2.69	0,0 280	3	3894.029		26.1		Fe I— Cr I	3.30 0.96	663 23	
3889.358	40.5	28.9		CH Fe I	R 14 {3.21 3.27	0,0 562 660	3	3894.102		28.0		Co I	1.05	34	
								3894.218r	9	3.1		Pd I	1.45	8	
3889.676m	42	22.6		Ni I	0.21	15		3894.493	33	11.3	<i>u</i>	Fe I	3.21	566	
3889.848m	28	22.1		CH	Q 2	0,0	3	3894.631r	9	5.4	<i>u</i>	Nd II	0.06	29	
3889.929m	55	26.7		Fe I— Ti I	3.26 0.00	564 15		3894.713r	11	6.6	<i>u</i>	Gd II	0.00	1	
								3894.85 a	1.5	0.9					
3890.083r	2.5	1.4		Sm II	0.18	17		3894.986m	78	25.6	<i>s?</i>	Co I	0.63	18	
3890.196	35	16.4		V I—	0.04	8		3895.088m	58	21.2	<i>u</i>	CH— Ce II	Q 5 0.61	0,0 210	3
3890.311r	6.5	3.1		Zr I	0.15	8									
3890.399m	44	19.5		Fe I	3.24	567		3895.167r	21	12.6		CH	R 15	0,0	3
3890.568	38	16.7		CH— Nd II	Q 3	0,0	3	3895.242m	58	19.8	<i>s</i>	Ti I	2.04	176	
								3895.334	46	19.3	<i>u</i>	CH—	R 15	0,0	3
3890.722r	3	1.4		Ni I	3.54			3895.448m	87	42.3	<i>u</i>	Fe I— CH	3.29 Q 5	565 0,0	3
3890.849m	64	27.0		Fe I	2.73	280									
3890.945r	20	8.3		Nd II				3895.582r	10	15.7		Mg I	7.17		
3891.198	49	20.4		CH	Q 3	0,0	3	3895.667m		115	<i>S</i>	Fe I (Mg I)	0.11 7.17	4 47	
3891.383	16	6.4		Zr I	0.15	11		3895.794r		10.0					
3891.511	35	14.6						3896.139	58	19.9	<i>u</i>	V I V II	1.08 1.40	43 10	
3891.682r	3	1.2						3896.248r	24	8.7	<i>u</i>	Er II?	0.05		
3891.781	30	11.6		Ba II	2.51	4									
3891.934m	88	32.4		Fe I (Mg I)	3.41 7.17	733 47		3896.363r	20	6.5	<i>u</i>				
								3896.472	62	19.2	<i>s</i>				
3892.015r	9	3.9						3896.534r	14	5.9		Zr I? CH?	0.07 P 2	9 0,0	3
3892.11 a	11	4.1		Co I	2.54	130									
3892.314	28	10.3		Fe I	3.55			3896.622r	27	8.7	<i>u</i>	Fe I p	3.65	834	
3892.452r	3	1.2		Fe I?				3896.781m	21	5.9	<i>u</i>	Ni I (Ce II)	3.80 0.56	188	
3892.591m	49	16.4		CH	Q 4	0,0	3	3896.982r	2.5	0.8	<i>u</i>	Sm II	0.04	5	
3892.898	78	26.2		[Fe I V I (CH)]	2.76 0.04 P 1	283 7 0,0	3	3897.073r	2	0.6	<i>u</i>	V I?	2.26	126	
								3897.199r	6	1.9	<i>u</i>				
3892.988	72	29.8		Fe I	3.26	567		3897.345r	10	3.1	<i>u</i>	Ti I—	2.00	175	
3893.074	63	30.3		CH	Q 4	0,0	3	3897.458S	83	28.4	<i>u</i>	Fe I (CH)	2.95 P 2	429 0,0	3

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3897.648r	27	8.5	u	—Cr I				3902.430	44	14.9	u	Gd II— CH	0.42 R 16	19 0,0	3
3897.778r	26	8.8	u					3902.632	35	15.9		CH	P 3	0,0	3
3897.900m	98	28.7	s	Fe I	2.69	280		3902.779r							
3898.014	158	55.1 18.7	s	Fe I	1.01	20		3902.956m	530	6.1 14.2	u	Fe I Cr I (Mo I)	1.56 0.98 0.00	45 23 1	
3898.094r				CH	Q 6	0,0	3								
3898.277r	22	7.2	u	V I? Ce II	0.47	52		3903.079r		6.0					
3898.394m	74	22.4	u	CH	Q 6	0,0	3	3903.161m	18	15.4	s	Cr I	0.97	23	
3898.512m	42	14.9	s	Ti I Co I— Dy II	0.00 1.88 0.59	13 58		3903.257m	40	19.5	u	V II	1.48	11	
3898.65 a	2.5	0.8		Fe I?				3903.416r	4	1.5		Sm II			
3898.774r	1	0.3						3903.546r	11	3.8					
3898.878r	4	1.3						3903.731r	8.5	3.4					
3899.036m	85	25.4	s?	Fe I	2.45	175		3903.854m	224	25.0 52.2	u,n	Mg I	4.34	19	
3899.142m	62	22.6	u	V II	1.80	33		3903.915m				Fe I	2.99	429	
3899.326r	8	3.1		Mn I?				3904.076	28	10.2	u				
3899.393m	22	9.0	u					3904.173r	1.5	0.6					
3899.393m	22	9.0	u					3904.330r	4	1.3		Mn I?	4.68		
3899.719m	436	132	S	Fe I	0.09	4		3904.476r	1	0.3					
3900.224	16	5.6	u	Nd II				3904.630	20	7.3	u	Ni I p	0.42	29	
3900.333r	4.5	1.5						3904.790m	60	21.3	s	Ti I	0.90	56	
3900.412r	157	5.6 — 41	S				13	3904.879	28	13.1	u				
3900.44 m				—				3905.009	29	12.7	u	Fe I p	3.42	703	
3900.541m				41	u	Fe I— Ti II		3.24 1.13	565 34		3905.189	28	14.9	u	Fe I p
3900.660r	20	7.1		Al II?	7.42	1		3905.360r	8	15.1					
3900.770r	12	4.6						3905.532m	816	219	S	Si I	1.91	3	
3900.836	52	15.9	u					3905.679	48	46.1		CH Fe I p	Q 8 2.47	0,0 153	3
3900.963m	37	11.3	s	Ti I	0.02	15		3905.769r	24	14.9					
3901.060r	7	2.2		Fe I? p	3.60	834		3905.905m	61	25.9	u	CH	Q 8	0,0	3
3901.160r	4	1.3	u	V I?	2.29	126		3906.032r	19	7.9	u,N	—Fe II	5.57	173	
3901.337r	0.5	0.1						3906.181r	1.5	0.5					
3901.484r	4.5	1.4	u					3906.300	52	19.1	s	Co I (Er II)	0.51 0.00	17	
3901.598	62	20.0	u	CH	Q 7	0,0	3	3906.402r	7.5	4.3					
3901.741r	3	1.0						3906.490m	164	66.9	s	Fe I	0.11	4	
3901.866	71	21.4	u	CH	Q 7	0,0	3	3906.626r	8	3.1					
3901.977	36	13.3	u	CH— Cr I	P 3	0,0	3	3906.752S	77	24.3	s	Fe I	3.30	664	
3902.104r	17	5.2	u					3906.963m	34	10.7	u	Fe I p	3.28	567	
3902.262	61	21.5	s	V I (CH)	0.07 R 16	7 0,0	3	3907.114	28	8.7	u	Eu II	0.21	5	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3907.231r	17	5.4	<i>u,N</i>					3911.701	34	10.5	<i>u</i>	Fe I	3.30	664	
3907.296r	6.5	2.0		Ce II	1.11	253		3911.825m	60	18.2	<i>s</i>	Sc I	0.02	8	
3907.478	73	22.5	<i>s</i>	Sc I Fe I	0.00 2.76	8 284		3911.989	76	25.6	<i>u</i>				
3907.672m	36	11.0	<i>u</i>	Fe I				3912.087r	17	6.3	<i>u,N</i>				
3907.774m	41	12.8	<i>u</i>	Cr I CH	3.84 P 4	262 0,0	3	3912.203r	15	5.1	<i>s</i>	V I	{1.04 1.05}	42 43	
3907.940m	82	24.8	<i>u</i>	Fe I	2.76	280		3912.294m	63	20.0	<i>u</i>	Ni I	3.80	151	
3908.067r	6	1.9		Pr II?	0.55	11		3912.422	14	4.6	<i>u</i>	Ce II	0.30	60	
3908.174r	5.5	1.8						3912.594r	3.5	1.0	<i>s</i>	Ti I	2.02	175	
3908.274	45	13.8		CH	P 4	0,0	3	3912.797r	11	3.3	<i>u</i>	Fe I			
3908.411	26	7.9	<i>u</i>	Ce II— Pr II	0.86 0.00	65 11		3912.892r	6	2.0		V I— Pr II?	1.06 0.20	42 17	
3908.548	36	11.1	<i>u</i>	Ce II Fe II p	0.46 2.70	127 29		3912.981m	51	16.3	<i>s</i>	Ni I	0.03	15	
3908.685r	98	4.1	<i>s</i>	Fe I	2.45	153		3913.144r	8	2.6					
3908.762m		28.6	<i>s</i>	Cr I	1.00	23		3913.255	49	14.8	<i>u</i>				
3908.928	63	19.3	<i>u</i>	Ni I	3.61	117		3913.470	138	39.4	<i>u</i>	Ti II	1.12	34	
3909.075r	5	1.3						3913.637m	101	29.2	<i>s</i>	Fe I	2.28	120	
3909.285	25	7.8	<i>s,N</i>					3913.82 a	5.5	1.6					
3909.402r	1.5	0.5						3913.89 a	2.5	0.9					
3909.502r	18	5.8	<i>u</i>					3914.013m	53	16.6		CH	P 5	0,0	3
3909.668m	89	39.2	<i>u</i>	Fe I	3.28	565		3914.181r	35	15.8	<i>u</i>				
3909.727r		0.8						3914.287r	133	{25.0 22.2}	<i>s</i>	{Fe I Ti I (V II)}	3.28	567	
3909.837m	115	34.0	<i>u</i>	Fe I	2.84	364		3914.338r							
3909.941m	97	41.7	<i>s</i>	Co I V I	0.00 {0.07 1.35}	3 7 63		3914.426	70	26.1	<i>u</i>	CH	P 5	0,0	3
3910.075r	9	2.8						3914.512r	64	14.3	<i>u</i>	Fe II Fe I p	1.67 3.27	3 660	
3910.212r	6	2.0						3914.740r	7	2.3	<i>s</i>	Fe I— Ti I	3.25 0.00	662 14	
3910.334	79	24.3		CH	Q 9	0,0	3	3914.90 a	1	0.3					
3910.479r	114	7.8	<i>u</i>					3914.98 m	7	2.4		Cr I	3.01	137	
3910.534		30.4			CH	Q 9	0,0	3	3915.05 m	5.5	1.7				
3910.667	45	16.0	<i>u</i>					3915.218m	46	14.0	<i>u</i>	Fe I			
3910.849m	86	26.1	<i>u</i>	Fe I	2.76	284		3915.34 a	4.5	1.4		Ir I?	1.22	6	
3911.003m	74	22.5	<i>u</i>	Fe I	3.21	562		3915.473	49	14.8	<i>u</i>	Fe I— Co I	2.28	113	
3911.094r	8.5	3.1						3915.612	78	23.0		CH	Q 10	0,0	3
3911.180	40	12.3	<i>s</i>	Ti I	2.04	175		3915.811	110	32.0	<i>s?</i>	CH— Cr I	Q 10 3.01	0,0 136	3
3911.308r	8	2.6						3915.939	47	14.4	<i>u</i>	Zr II	0.53	17	
3911.417r	11	3.6	<i>u,N</i>	Mn I?	4.19			3916.067r	22	6.5	<i>u</i>	La II	0.23	42	
3911.571r	0.5	0.3													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3916.244	67	19.1	s	Cr I	0.97	23		3921.187	59	24.0	u				
3916.405	85	25.8	u	-V II	1.43	10		3921.276	40	18.6	u	Fe I	2.56	220	
3916.521r	11	3.8		Gd II	0.60	20		3921.428m	50	19.3	s	Ti I	0.00	14	
3916.605r	8	2.6		Zr I?	0.15	6		3921.556	79	27.8	w	CH	Q 11	0,0	3
3916.737S	90	30.2	u	Fe I	3.24	606		3921.716	75	26.8	u	CH	Q 11	0,0	3
3916.852r	8	2.7						3921.904r	3.5	1.3	s	V I	1.05	42	
3916.985r	17	6.1	u	Cr I-	3.01	137		3922.020r	4.5	1.8					
3917.124r	151	16.6	s	Co I	2.28	113		3922.084	24	9.5	u,d	Fe I	{2.48 3.29}	153 564	
3917.184r		42.0		Fe I	0.99	20		3922.421r	34	14.3	s	Sm II- V I	0.38 1.06	38 42	
3917.36 m	29	9.5	u					3922.674	42	28.3	u	Fe I p (Mn I)	2.99 3.85	429 44	
3917.591r	23	6.6	s	Cr I	3.01	137		3922.768r	18	24.5	u,N	Co I	1.05	32	
3917.653r		1.0							3922.923m	414	124	S	Fe I	0.05	4
3917.867r	11	3.7	u					3923.041r	23	35.0	u	Fe I p	3.25	661	
3918.017m	1	0.3						3923.107r	5.5	5.9		Ce II	0.56	191	
3918.113m	4.5	1.5	u	Hf II?	0.45	7		3923.236r	1.5	1.0					
3918.256r	190	6.6	u	Ce II	0.70	12		3923.333r	7	3.6	w	Mn I?	4.25		
3918.324m		33.4		Fe I	2.48	124		3923.502r	11	4.8	u	Sc II	0.31	9	
3918.424m		28.8		Fe I	2.84	364		3923.692r	2	0.8					
3918.573r	121	6.1	u	Fe I p	2.83	362		3923.926r	1	0.4		Hf II?	1.60	18	
3918.651m		34.4		Fe I	3.02	430		3924.067r	20	8.5	u	Mn I	3.86	44	
3918.789r	11	3.6						3924.174r	19	8.5	u	Ni I	4.10	240	
3918.895r	19	6.5	u					3924.353r	2.5	1.0					
3919.069	156	26.5	u	Fe I	2.99	430		3924.533m	68	20.4	s	Ti I	0.02	13	
3919.168		30.1		Cr I	1.03	23		3924.652r	13	5.6	u	Ce II- V I	0.56 1.87	190 90	
3919.359r	2.5	0.9						3924.790r	1	1.0					
3919.568r	9	3.3	u					3925.014r	7.5	3.1					
3919.730r	5.5	2.0	u					3925.209m	70	32.0	s	Fe I (V I)	3.29 0.07	567 8	
3919.817r	8	3.1	s	Ce II- Ti I	0.70 1.50	60 130		3925.352r	8.5	4.0					
3919.975r	4	1.8						3925.45 a	5.5	2.6		Pr II	0.00	11	
3920.125r	7.5	9.7						3925.538	33	16.6	u	Fe I p	3.25	660	
3920.269m	341	101	S	Fe I	0.12	4		3925.651m	74	32.8	u	Fe I	2.83	364	
3920.452r	28	16.1						3925.800r	9.5	4.8					
3920.629	76	31.6	u	Fe I	2.42	153		3925.949	86	38.9	u	Fe I	2.86	364	
3920.729	69	27.8	u	CH-	{P 6 R 18}	{0,0 0,0}	3	3926.027	76	51.2	u	Fe I	3.24	562	
3920.844m	77	27.6	u	Fe I	3.26	567		3926.181r	8.5	5.1					
3921.049r	125	42.1	s	Cr I (CH)	0.98 P 6	23 0,0	3								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3926.326	13	7.9	s	Ti I	2.58	292		3932.018m	10	34.7	u	Ti II	1.13	34	
3926.458	34	19.0	u	Mn I	3.84	44		3932.254	1.5	5.6	u	Fe I			
3926.639	6.5	4.2	u	Cr I	4.53			3932.484r	1	6.9	u				
3926.777r	0.5	0.5						3932.637m	10	52.9	u	Fe I	{2.73 3.27}	{280 652}	
3926.939r	2	1.4	u					3932.915r	1.5	11.9		Fe I			
3927.129r	4	3.1	u	Nd II? —				3933.682m	20253	(4874)		Ca II(K) (Sc I) (V I) (Co I)	0.00 0.02 1.08 0.58	1 8 42 17	
3927.252r	1	0.6						3934.366r	6	35.3		Fe I			
3927.344r	4	3.1						3935.216r	6	22.4	u?				
3927.443	25	16.3	u					3935.319	7.5	25.2	u	Fe I	2.84	362	
3927.608r	28	18.6		Fe I p	2.73	282		3935.446r	2	8.4					
3927.72 m	13	13.8						3935.645r	11	31.0	u,N	CH	{P 8 Q 13}	{0,0 0,0}	3
3927.797 r	42	41.7						3935.73 a	5.5	18.0		CH	Q 13	0,0	3
3927.933m	187	144	S	Fe I (CH)	0.11 P 7	4 0,0	3	3935.826m	35	66.4	u	Fe I	2.83	362	
3928.091	63	50.6	u	Fe I	3.21	565		3935.979	30	59.4	s	Co I (CH) (Fe II)	0.92 P 8 5.57	32 0,0 173	3
3928.217	68	49.4	u	CH	{P 7 Q 12}	{0,0 0,0}	3	3936.557r	7	16.2	u	Fe I			
3928.345	46	32.8		CH	Q 12	0,0	3	3936.770r	8	16.8	u	Fe I p	3.21	564	
3928.496 r	6	6.6						3936.963r	2	4.1					
3928.644m	45	32.8	s	Cr I	1.00	23		3937.06 a	2	3.8					
3928.764 r	1	1.3						3937.141r	2	4.3					
3928.93 a	2.5	3.7		Ti I p	2.04	175		3937.336S	38	41.6	s	Fe I	2.69	278	
3929.122	37	33.8	u	Fe I	2.76	280		3937.438r	4	7.1					
3929.223	37	33.8	u	Fe I La II	3.25 0.17	659 27		3937.553r	3.5	6.6					
3929.357	24	27.7	u					3937.830r	2	2.8					
3929.523 r	2	3.6	s	Zr I Zr II	0.07 2.43	7 142		3937.974r	28	28.8					
3929.724 r	20	25.6	u,N	V II	1.43	10		3938.018r	3.5	5.2	u	Fe I Ti I	2.27	246	
3929.885m	37	39.1	s	Ti I	0.00	13		3938.184r	7	8.8					
3930.040 r	20	32.5	u	V I—	1.38	63		3938.298	31	37.4	w	Fe II	1.67	3	
3930.150 r	26	40.8						3938.409	71	47.7	u	Mg I	4.34	18	
3930.308m	108	181	u	Fe I	0.09	4		3938.630r	11	11.4	u	Fe I			
3930.513r	32	49.0	u	Eu II—	0.21	5		3938.734r	2.5	2.4		Ni I	4.17	240	
3930.663 r	7.5	20.6	u	Y II	0.41	16		3938.865r	6.5	6.0	u	Co I	3.57	171	
3930.889 r	3.5	10.4	u	Fe I—	2.45			3938.970r	4	3.5		Fe II	5.91	190	
3931.129m	22	50.3	u	Fe I	3.26	565		3939.146r	8.5	7.4	u				
3931.342 r	3	11.7		V I? Ce II	1.85 0.30	90 61		3939.391r	2.5	2.3	u,N				
3931.898 r	1.5	6.1		Fe I											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes						
3939.518r	3.5	2.8	<i>u</i>	Sc II? p	0.31	9		3944.541r	2	1.0											
3939.66 a	1	0.9						3944.684r	73	11.4	<i>u</i>	Fe I? Dy II	0.00								
3939.885r	1	0.9					3944.744r	22.6													
3940.041m	28	16.2	<i>u</i>	Fe I	3.41	731	3944.898m	72								37.4	<i>u</i>	Fe I	2.84	361	
3940.183r	1.5	0.9					3944.988	32	15.6	<i>u</i>		2.99	430								
3940.358r	9.5	6.3	<i>u</i>	Ce II—	0.32	50		3945.127m	79	38.1	<i>s</i>	Fe I	2.76	280							
3940.671r	13	7.6	<i>u</i>					3945.218	28	13.8	<i>w</i>	Fe II p	1.69	3							
3940.890m	84	38.6	<i>s</i>	Co I Fe I	0.63 0.96	18 20		3945.332m	68	24.8	<i>u</i>	Co I	0.92	29							
3941.049r	7	4.1						3945.493r	10	3.8	<i>u</i>	Cr I	3.01	135							
3941.182	30	15.0	<i>u</i>					3945.687r	0.5	0.3											
3941.284r	60	37.6	<i>u</i>	Fe I	3.26	562		3945.854	36	13.7	<i>u</i>										
3941.369r	5.5	2.6						3945.961r	10	3.8	<i>u</i>	Cr I	3.01	134							
3941.496m	52	26.8	<i>s</i>	Cr I	1.03	23		3946.048r	7.5	3.0	<i>u</i>	Ca I Fe I	2.71								
3941.612r	3.5	1.6						3946.200r	2.5	1.0	<i>u</i>	Ni I	0.17	1							
3941.737	47	20.8	<i>s?</i>	Co I	0.43	17		3946.38 a	1	0.5											
3941.856	25	11.9	<i>u</i>	Ni I— Sm II	3.83 0.00	171 1		3946.459r	2.5	1.1											
3942.016r	5.5	2.5	<i>s</i>	V I	1.38	63		3946.553r	9.5	3.3	<i>u</i>										
3942.155	10	4.7	<i>u</i>	Ce II	0.00	37		3946.660r	22	6.6	<i>u</i>										
3942.239r	1.5	0.8		Cr I?	7.68			3946.813r	5.5	2.0											
3942.370	41	21.6	<i>u</i>	Fe I				3947.002m	83	38.8	<i>u</i>	Fe I	3.21	561							
3942.448	72	29.4	<i>u</i>	Fe I	2.84	364		3947.133r	24	6.6	<i>u</i>	Co I	1.96	58							
3942.607r	7	3.2					3947.161r	2.8													
3942.746r	15	6.6	<i>u</i>	Ce II	0.86	57		3947.27 a	3	1.0		O I	9.14	3							
3942.844r	15	6.6	<i>u</i>	—Mn I?	3.84			3947.385	49	17.0	<i>u</i>	Fe I	2.40	153							
3943.098r	33	15.3	<i>u</i>					3947.538m	86	38.1	<i>u</i>	Fe I	2.83 2.95	361 426							
3943.182r	22	11.5	<i>u</i>	Fe I				3947.693	45	21.6	<i>u</i>										
3943.348m	52	23.9	<i>u</i>	Fe I	2.20	72		3947.778	74	24.3	<i>s</i>	Ti I	0.02	14							
3943.482r	20	11.1	<i>u</i>					3947.978r	9.5	3.5		Fe I p	3.30	652							
3943.581r	33	18.8	<i>u</i>					3948.109m	99	31.1	<i>u</i>	Fe I	3.24	562							
3943.679r	5.5	4.6	<i>s?</i>	V I	1.08	42		3948.281	35	12.7	<i>u</i>	Fe I p	3.24	561							
3943.820r	36	39.6	<i>u, N</i>	CH	Q 14	0,0	3	3948.476	4.5	1.8		Fe I	3.21	560							
3943.918r	3	8.9		Ce II— CH	0.79	234	3	3948.680	94	32.7	<i>s</i>	Ti I	0.00	13							
					{ P 9 Q 14	{ 0,0 0,0															
3944.016m	488	198	<i>S</i>	Al I	0.00	1		3948.785m	80	25.6	<i>u</i>	Fe I	3.27	604							
3944.11 a	37	29.4 33.1	<i>u, N</i>	{ Ni I CH	3.63	151	3	3948.900	50	16.7	<i>s</i>	Ca I	1.88	6							
3944.179r								3949.061								89	11.1	<i>u, N</i>	La II	0.40	41
3944.352r								3949.141													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
3949.230	21	6.8	<i>u</i>	Fe I p	2.48	153		3953.661	7	2.1					
3949.402	3	1.0	<i>u</i>	—Pr II?	0.20	16		3953.706r	3	1.0					
3949.605	6.5	2.3	<i>u</i>	Cr I	3.01	136		3953.861S	51	16.2	<i>u</i>	Fe I	2.83	362	
3949.70 a	2	0.8		Cr I?	3.01	136		3953.966r	2.5	0.9					
3949.814	9.5	3.0	<i>u</i>					3954.046	9.5	3.0	<i>u</i>				
3949.959S	103	33.4	<i>u</i>	Fe I	2.18	72		3954.276r	0.5	0.3					
3950.139	14	4.6	<i>u</i>					3954.396	4	1.3					
3950.253	4	1.3		V I?				3954.540	37	12.1	<i>u</i>	Ni I	3.65		
3950.358	55	17.7	<i>u</i>	Y II	0.10	6		3954.718	29	9.6	<i>u</i>	Fe I	3.27	606	
3950.469	15	5.1	<i>u</i>					3954.95 a	4	1.3					
3950.58 a	1.5	0.5						3955.09 a	5	1.6					
3950.795	3.5	1.1		Fe I p	2.45	153		3955.219	38	15.4	<i>u</i>	Fe I	3.05	527	
3951.081	126	9.8	<i>u</i>	Cr I	3.01	136		3955.343	107	33.8	<i>u</i>	Fe I	3.28	562	
3951.171		30.6	<i>u</i>	Fe I	3.27	661		3955.484	16	5.4					
3951.310r	9	2.8						3955.606	11	4.0	<i>u</i>				
3951.435	10	3.2						3955.762	13	3.8	<i>u</i>	Fe I p	2.56	219	
3951.626	22	7.1	<i>u</i>	Fe I	2.86	362		3955.831r	1	0.3		Zr II? p	0.56	17	
3951.776	20	6.6	<i>u</i>	Cr I—	3.01	136		3955.963m	64	20.7	<i>u</i>	Fe I	3.07	488	
3951.839r	1	0.4		Hf I?	0.29			3956.059	9	3.2					
3951.964	63	19.2	<i>u</i>	V II	1.48	10		3956.179r	5	1.6					
3952.096	5.5	1.8						3956.339	110	35.0	<i>s</i>	Ti I	0.02	13	
3952.201	14	4.6	<i>u</i>	Nd II	0.00	23		3956.463m	94	29.3	<i>u</i>	Fe I	3.24	604	
3952.338	46	7.1	<i>s</i>	Co I	0.43	16		3956.686m	133	41.8	<i>u</i>	Fe I	2.69	278	
3952.408		7.1	<i>s?</i>	Cr I	3.01	136		3956.891	11	3.9					
3952.468r		0.9						3957.041m	123	40.3	<i>u</i>	Fe I— Ca I	3.26 1.89	562 6	
3952.545r	133	0.9		Ce II	{0.33 0.82}	{113 177}		3957.287r	2	0.8					
3952.616		37.9	<i>u</i>	Fe I	2.69	278		3957.485r	1.5	0.5					
3952.704	100	27.6	<i>u</i>	Fe I	2.84	362		3957.629	35	12.1	<i>u</i>	Fe I	3.28	564	
3952.756r		6.3		CH	P 10	0,0	3	3957.797	4.5	1.6					
3952.905r	159	28.0	<i>s</i>	Co I	0.92	28		3957.936	54	17.7	<i>s</i>	Co I	0.58	18	
3952.982		28.0		CH	{P 10 Q 15}	{0,0 0,0}	{ } 3	3958.093	9.5	3.4		Cr I?	4.45	307	
3953.082	27	12.5	<i>o?</i>	CH	Q 15	0,0	3	3958.216	86	27.0	<i>s</i>	Ti I— Zr II	0.05 0.53	13 16	
3953.158m	97	38.8	<i>u</i>	Fe I Cr I	3.02 3.01	430 136		3958.338r	2.5	0.9					
3953.256	37	14.0	<i>u</i>	Fe I				3958.416	27	9.6	<i>u</i>	Fe I			
3953.408	7	2.3						3958.508	3.5	1.3					
3953.502	40	12.7	<i>u</i>	Fe I	3.55	770		3958.636	3	1.1		Pd I	1.45	8	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
3958.740	31	10.8	u	Fe I				3964.190	15	13.2	o?	Ni I	3.65		
3958.870r	3.5	1.3		Rh I?	0.97	7		3964.280	48	30.5	s	Ti I	0.02	12	
3959.03 a	1.5	0.5						3964.406	1	0.9					
3959.195	8	2.9	u					3964.526m	53	32.8	u	Fe I	2.84	361	
3959.293	5	1.8	u					3964.759r	6.5	6.0					
3959.453	4.5	1.7	s	Fe I p	3.21	556		3965.016	1	0.9		Co I	1.05	31	
3959.542r	2.5	1.0		Gd II?	0.73	44		3965.230	3.5	4.3	u	Co I	0.92	30	
3959.726r	1	0.4						3965.349r	2.5	3.0					
3959.833	15	5.9	u					3965.470	39	2.8		Fe I	3.25	658	
3960.153	2	0.8						3965.516		33.2	u	Fe I	3.24	565	
3960.284S	50	18.7	u	Fe I	3.64	913		3965.618	2	3.5					
3960.410	2	0.8						3965.726	12	15.9	u				
3960.647	3.5	1.4	u	Fe I				3965.845	9	12.8	u	Fe I p	2.42	122	
3960.765	6.5	3.6	u	Cr I	2.71	68		3965.930	25	30.2	u				
3960.916	7.5	4.2	u	Ce II	0.32	84		3966.073m	66	60.0	s	Fe I	1.61	45	
3961.010	11	6.3	u	Co I	2.63	128		3966.356r	4	9.1					
3961.149m	44	28.0	u	Fe I	2.86	361		3966.511	35	46.1	u	Fe I	{ 3.29 3.30 3.55	{ 562 652 766	
3961.286r	2	3.0						3966.639	44	70.3	u	Fe I	{ 2.76 3.21	{ 282 562	
3961.535m	621	220	S	Al I	0.01	1		3966.824	11	28.2	u	Fe I	3.30	659	
3961.916	14	11.9	u					3967.055r	5	15.1		Ce II—	0.33	84	
3962.090	33	20.8	u	—Ni I	3.85	199		3967.431m	19	54.0	u	Fe I	3.30	604	
3962.179	41	21.4	u	CH—	P 11	0,0	3	3967.636	7	26.4					
3962.360	60	24.2	u	Fe I	3.26	566		3967.859	7.5	29.5					
3962.398r		8.8		CH	P 11	0,0	3	3967.975r	7	34.8	u?	Fe I	3.24	561	
3962.649	10	6.3	u	Fe I	3.64	913		3968.492m	15467	(3435)		Ca II(H) (V II) (Dy II)	0.00 1.40 0.00	1 9	14
3962.722	22	12.0	u	Fe I				3968.715r	3	20.6					
3962.861m	46	24.0	s	Ti I	0.00	12		3968.936	6	37.2					
3962.972r	5.5	3.3		Sm II				3969.06 a	5	18		Cr I	2.54	38	
3963.115m	81	38.6	u	Fe I (CH)	3.28 Q 16	562 0,0	3	3969.148r	5	18		Co I	2.54	128	
3963.222	47	28.5	u	CH	Q 16	0,0	3	3969.268m	52	103	u	Fe I	1.48	43	
3963.347	4	2.5		Ti I?	1.05	81		3969.407	10	35.8		Fe II p	{ 1.67 1.69	{ 3 3	
3963.437	20	12.1	u	Fe I	3.27	654		3969.507	2	8.1					
3963.564r	2	1.5						3969.641m	7.5	25.2	u	Fe I	3.25	657	
3963.691S	56	30.4	s	Cr I	2.54	38		3969.758	14	30.7	s?	Cr I	2.54	38	
3963.806	3	2.3													
3963.919	1.5	1.0													
3964.030	3.5	2.5	u												

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
3969.927	3	11.3		Fe I?				3974.398	61	27.3	<i>u</i>	Fe I (CH)	3.24 Q 17	564 0,0	3
3970.076m	76	(776)	<i>w</i>	H ϵ	10.20	1	14	3974.486	50	25.9	<i>u</i>	CH—	Q 17	0,0	3
3970.166r	3.5	8.8						3974.634	48	23.6	<i>u</i>	Ni I	3.85	198	
3970.272m	18	32.2	<i>u</i>	Fe I				3974.763	89	33.9	<i>u</i>	Fe I Co I	2.22 0.51	72 18	
3970.399m	29	42.9	<i>u</i>	Fe I	3.07	488		3975.051	4.5	2.0		Fe II?—	5.95	191	15
3970.495	10	19.7	<i>u</i>	Ni I	3.65	151		3975.210m	36	15.6	<i>u</i>	Fe I	2.47	153	
3970.569	3	6.6						3975.362	20	8.6	<i>w?</i>				
3970.660	6.5	12.4	<i>w</i>					3975.519	2.5	1.0					
3970.843	2	3.3		—Fe I?				3975.691r	1.5	0.5		Ti I?	2.10	186	
3971.007	16	21.6	<i>u,N</i>	Fe I—	4.10	1074		3975.845	43	17.1	<i>u</i>	Fe I	3.88	977	
3971.126r	4.5	7.8						3975.960	2	0.9					
3971.261	9	16.7		Cr I	2.71	67		3976.089	44	17.1	<i>u</i>				
3971.332m	56	45.0	<i>u</i>	Fe I	2.69	277		3976.185r	6.5	2.5					
3971.468	6.5	10.4						3976.276r	5.5	2.1		Sm II	0.10	9	
3971.720	5.5	7.8	<i>u</i>					3976.390	44	16.7	<i>u</i>	Fe I	3.02	487	
3971.826	15	16.2	<i>u</i>	Fe I	2.76	281		3976.553		16.3	<i>s?</i>	Fe I	3.25	655	
3971.994	17	16.7	<i>u,N</i>	Eu II	0.21	5		3976.632	162	23.9	<i>s?</i>	Fe I	3.41	729	
3972.173	51	37.0	<i>u</i>	Ni I	0.42	29		3976.694				16.7	Cr I	{2.54 2.54	{38 38
3972.263	21	15.8	<i>w?</i>	CH	P 12	0,0	3	3976.868m	64	22.6	<i>u</i>	Fe I—	{3.02 3.30	{431 662	
3972.440	44	31.2	<i>u,N</i>	CH (Co I)	P 12 3.51	0,0 171	3,18	3976.986	21	7.8	<i>u</i>				
3972.575	27	19.0	<i>s</i>	Ca I	2.71	41		3977.081	7.5	2.7		Mn I	4.27		
3972.687	6	5.0		Cr I	2.71	67		3977.191	12	4.3	<i>u</i>	Co I	2.33	113	
3972.916	17	12.1	<i>u</i>	Fe I	3.57	803		3977.336r	1.5	0.5					
3973.012r	0.5	0.4						3977.45 a	4	1.5		Fe I?			
3973.126	19	14.2	<i>u</i>	Co I	1.88	58		3977.575r	8.5	3.2		Fe I			
3973.168	9	8.3									3977.747S	104	33.2	<i>u</i>	Fe I (V II)
3973.276	11	8.0	<i>u</i>	Nd II	0.63	19		3977.895r	7	2.6					
3973.418r	1.5	1.3						3978.014	1	0.5					
3973.564	74	43.1	<i>u</i>	Ni I	0.42	31		3978.164	19	6.4	<i>u</i>				
3973.657	101	29.2	<i>s</i>	Fe I	3.55	769		3978.346	32	11.0	<i>u</i>				
3973.715		29.2		Ca I	1.90	6		3978.462m	50	16.8	<i>u</i>	Fe I	2.83	361	
3973.871	17	10.9	<i>u</i>				3978.572	8.5	3.2		Dy II				
3973.916	30	16.2	<i>u</i>	Fe I				3978.667m	68	22.8	<i>u</i>	Co I— Cr I (Ce II)	0.51 2.71 0.54	17 67 175	
3974.023	2.5	1.6						3978.775r	3.5	1.3					
3974.170	28	14.0	<i>w?</i>	Fe II	2.70	29									
3974.274	2.5	1.4													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	
3978.855	10	3.5	<i>u</i>	Co I	3.69	173		3983.540	35	10.3	<i>u</i>	Fe I				
3979.011r	1	0.3						3983.666	10	3.2	<i>u</i>	Dy II	0.54			
3979.115r	4	1.4		Fe I p	2.99	426		3983.813	155	3.4	<i>u, N</i>	Fe I p	3.02	426		
3979.196	7	2.3		Sm II Cr I?	0.54 4.45	51 307	3983.921	24.0				27.0	<i>u</i>	Cr I	2.54	38
3979.323	5.5	1.8		Cr I?	4.10	280	3983.970							Fe I	2.73	277
3979.522	67	23.4	<i>u</i>	Co I	0.10	3		3984.150	70	19.7	<i>u</i>	Ni I	3.68	171		
3979.642	42	13.6	<i>u</i>	Fe I	3.26	561		3984.336	54	15.7	<i>s</i>	Cr I	2.54 2.54	38 38		
3979.791	19	6.2	<i>s</i>	Cr I Fe I?	2.71	67		3984.451	9	2.6		Fe I	2.59	219		
3979.902r	1.5	0.5						3984.564r	3.5	1.0		Vi?	1.85	89		
3980.012	21	6.8	<i>u</i>	Fe I	3.02			3984.665	55	15.7	<i>u</i>	(Ce II)	0.96	252		
3980.147r	3	1.0						3984.839r	2.5	0.7		Ru I	1.00	9		
3980.292	4	1.2						3984.941	37	10.7	<i>u</i>	Fe I	3.28	561		
3980.522	3.5	1.1		Vi?				3985.070	5.5	1.7						
3980.634	25	8.2	<i>u</i>	Fe I	2.42	153		3985.16 a	4	1.1						
3980.821r	3.5	1.1	<i>s</i>	Ti I	2.09	186		3985.242	35	11.8	<i>u</i>	Mn I	3.13	33		
3980.883	6	1.9		Ce II	0.71	194		3985.321	27	15.8	<i>u</i>	Fe I p	2.56	219		
3980.982	23	7.2	<i>u</i>					3985.392	99	27.3	<i>u</i>	Fe I	3.30	661		
3981.105m	32	10.0	<i>u</i>	Fe I	2.42	122		3985.600	11	3.2	<i>s</i>	Ti I	2.09	188		
3981.233	25	7.5	<i>u</i>	Cr I	2.71	67		3985.628	5.5	1.8						
3981.325r	1.5	0.5						3985.789	5.5	1.5	<i>u</i>	Vi	3.75	202	15	
3981.448	3	0.9	<i>u, N</i>	Ti I	2.12	188		3985.999	5	1.5						
3981.516	16	5.2									3986.180m	82	23.2	<i>u</i>	Fe I	3.25
3981.616	21	6.5	<i>u</i>	Fe II p Fe I? p	1.72 2.99	3 428		3986.295	25	8.2	<i>u</i>	Fe I p	3.24	560		
3981.775m	101	31.0	<i>s</i>	Fe I Ti I	2.73 0.00	278 12		3986.370r	9	3.0		Ni I?	3.19			
3981.997	71	20.7	<i>u</i>	Ti II— Zr II?	0.57 2.49	11 142		3986.574r	4.5	1.5						
3982.166	12	3.6		Mn I?	4.27			3986.760	267	70.0	<i>u, N</i>	Mg I	4.34	17		
3982.332	4	1.1					3986.837	15.8				13.7	<i>u, N</i>	Mn I	3.13	33
3982.486	60	17.3	<i>s</i>	Ti I	0.00	11	3987.000							163	34.3	<i>u, N</i>
3982.598	62	18.3	<i>u</i>	Mn I Y II	3.13 0.13	33 6		3987.096								
3982.757	3	0.9						3987.183		12.3	<i>u, N</i>					
3982.911	12	3.8	<i>u</i>	Ce II—	0.82	172		3987.374	20	5.8	<i>u</i>					
3983.004	52	15.3		CH—	P 13	0,0	3	3987.473	12	3.3	<i>u</i>	Mn I	3.13	33		
3983.198	57	16.5	<i>u</i>	CH— Ca I	P 13 2.93	0,0	3	3987.612m	52	14.8	<i>u</i>	—Ti II p	0.61	11		
3983.360	24	7.0	<i>s</i>	Fe I	3.02	485		3987.80 a	4	1.0						
								3987.966	18	5.0	<i>s</i>	Yb I	0.00	2		

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes				
3988.115r	0.5	0.1						3992.486	10	2.8	<i>u</i>								
3988.332	7	2.0	<i>u</i>				15	3992.643	13	3.6	<i>u</i>	Fe I	2.59	219					
3988.473r	44	4.2	}	<i>u</i>	La II	0.40	40	3992.828	65	17.2	<i>s</i>	V I— Cr I	1.86 2.71	89 67					
3988.516		6.2																	
3988.562		2.8																	
3988.668r	5.5	1.5		—Zr I	0.62	46		3992.975r	4.5	1.1	<i>u</i>	Fe I							
3988.834	7.5	2.1		V I	1.86	89		3993.101m	43	11.5	<i>u</i>	Fe I							
3988.992	69	18.8	<i>u</i>	—Fe I	3.57			3993.304	6.5	1.6	<i>u,N</i>	—Sm II	0.04	4					
3989.084	56	19.5	<i>u</i>					3993.470r	2	0.5									
3989.251	13	3.6	<i>u</i>	Fe I p	3.28	561		3993.612	19	5.0	<i>u</i>	—Fe I							
3989.452	5	1.5		Ce II?	0.90	240		3993.733	16	4.3	<i>u</i>								
3989.607	17	4.8	<i>s</i>	Fe I p Ti I?	3.27 1.07	605 81		3993.827	11	2.9	<i>u</i>	Ce II	0.91	12					
3989.768	105	30.0	<i>s</i>	Ti I	0.02	12		3993.950	62	16.5	}	Ni I— Cr I	3.68 2.71	170 67					
3989.864	69	23.8	<i>u</i>	Fe I	3.55	768		3994.012	15	5.8						<i>u</i>	Fe I p	3.26	560
3989.983	44	13.1	<i>u</i>	Cr I (Mn I)	3.89 3.13	268 33		3994.119m	80	20.8	<i>u</i>	Fe I	3.05	526					
3990.104	27	7.5	<i>u</i>	Nd II	0.47	19		3994.270r	4.5	0.6		Fe I p	2.87	320					
3990.188r	5	1.5		Ti I?	2.08	188		3994.328r		0.6									
3990.301	21	7.0	<i>u</i>	Co I	1.96	58		3994.469	72	2.3	<i>s?</i>								
3990.379m	74	20.0	<i>u</i>	Fe I	3.05	527		3994.512		17.6	<i>u</i>	CH— Co I	P 14 0.63	0.0 17	3				
3990.565	28	7.8	<i>s</i>	V I Fe I p	1.85 1.85 3.24	89 89 556		3994.684	62	16.5	<i>u</i>	Ti I Nd II CH	P 14 0.0	188 3					
3990.760r	3.5	0.9						3994.810	15	3.9		Pr II	0.05	11					
3990.949	4	1.0						3994.950r	5	1.3									
3991.121S	74	20.1	<i>u</i>	Cr I— Zr II	2.54 0.76	38 30		3995.071r	2.5	0.6									
3991.314r	9	2.3						3995.208	146	11.7	<i>u</i>	Fe I	3.27	604					
3991.434	40	11.0	<i>u</i>					3995.315		28.4	<i>u</i>	Co I	0.92	31					
3991.544	20	5.6	<i>u</i>	Co I	3.63	173		3995.439r	12	3.3		Fe I?							
3991.685	72	14.2	}	<i>s,n</i>	Co I Cr I	0.58 2.54	17 38	3995.622r	3	0.8									
3991.745		5.8											3995.751m	38	10.0	<i>u,N</i>	La II—	0.17	27
3991.834		2.0											3995.862r	3.5	0.9		Ni I p	4.17	238
3991.898	6.5	1.9	<i>u</i>					3995.990m	82	21.4	<i>s?</i>	Fe I	2.73	279					
3992.019r	3.5	0.9		Co I	0.17	3		3996.117	15	4.0	<i>u</i>	Fe I?							
3992.115	8	2.0		Ir I? Cr I	1.22 2.54	5 38		3996.264	47	12.4	<i>u</i>	Fe I	2.99 3.29	427 561					
3992.250	56	15.0	<i>u</i>					3996.342	13	4.0	<i>u</i>	Gd II							
3992.392	30	8.0	<i>u</i>	Fe I	3.30	604		3996.546	10	2.6		Fe I							
								3996.600	18	4.6	<i>s,N</i>	Sc I	0.00	7					
								3996.697	7	1.8		Dy II	0.59						
								3996.788	32	8.5	<i>u</i>	Fe I	4.15	1074					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
3996.857r	3	0.8						4001.558r	3	0.9					
3996.971m	70	18.2	<i>u</i>	Fe I	3.69	945		4001.670m	103	24.2	<i>u</i>	Fe I	2.18	72	
3997.112	50	12.9	<i>u</i>	V II	1.48	9	4001.753	2.2							
3997.215	9	2.4		Mn I?			4001.940	16	4.0	<i>u</i>		Mn I?		15	
3997.401	170	32.6	<i>u</i>	Fe I	2.73	278	4002.077	38	9.5	<i>u</i>		Fe II	2.78	29	
3997.482		18.0	<i>u</i>	Fe I p	{3.24 3.24	{556 563	4002.162r	4	1.0			Mn I?	3.77		
3997.610r	8	2.1					4002.26 a	2	0.5						
3997.748r	6.5	1.6					4002.395	15	3.7	<i>o</i>					
3997.908	114	29.8	<i>u</i>	Co I	1.05	32	4002.503	34	8.5	<i>s</i>		{Ti I Ni I	{2.12 4.17	188	
3998.058m	115	30.5	<i>u</i>	Fe I	2.69	276	4002.665m	32	8.0	<i>s</i>		Fe	{2.88 3.25	{320 655	
3998.270r	9	2.2					4002.803r	3.5	0.9						
3998.475	30	7.7	<i>u</i>	Fe I p	3.30	606	4002.929	61	15.2	<i>u</i>		V II	1.43	9	
3998.643m	110	30.6	<i>s</i>	Ti I	0.05	12	4003.085r	1.5	0.4						
3998.746r	14	4.5		V I	1.87	89	4003.17 a	2	0.5						
3998.852r	6	1.5		Cr I?	4.45	307	4003.275	10	2.5	<i>u</i>		Mn I— Fe I	4.64		
3998.971	62	11.6	<i>u</i>	Zr II	0.56	16	4003.512	7	1.7						
3999.038		4.8	<i>u</i>												
3999.18 a	6	1.5		V II	3.76	202	4003.620	6	1.5			Co I—	2.63	130	
3999.243	16	4.1	<i>u</i>	Ce II	0.30	57	4003.769S	70	17.5	<i>u</i>		{Fe I Ti I (Ce II)	{3.41 2.13 0.93	{728 188 188	
3999.344	12	3.0	<i>s</i>	Ti I	2.10	188	4003.915	9.5	2.4	<i>u</i>		Cr I	3.89	268	
3999.500r	5	1.2					4004.016	9.5	2.4	<i>u</i>		Nd II		16	
3999.670	7	1.6	<i>s,N</i>	Cr I?			4004.164	9	2.2	<i>u</i>		Fe II p	4.48	127	
3999.797r	1.5	0.4					4004.267r	2.5	0.6					16	
4000.023	8	2.0	<i>u</i>	Fe I	2.83	360	4004.386	6.5	1.6	<i>u</i>				16	
4000.150r	2.5	0.6					4004.601	14	3.7	<i>u</i>				16	
4000.257	66	16.5	<i>u</i>	Fe I	3.26	556	4004.710r	7.5	2.0			Cr I?	4.20	295	
4000.371	14	4.2	<i>u</i>				4004.838	83	40.2	<i>u</i>		Fe I	3.24	601	
4000.465	78	19.5	<i>u</i>	{Fe I Dy II	{2.99 0.10	{426	4004.915	72	24.1	<i>u</i>					
4000.588	8	2.0					4004.983	82	36.8	<i>u?</i>		Fe I	{3.02 3.21	{486 557	
4000.73 a	4.5	1.1					4005.072m	52	26.5	<i>u</i>					
4000.812	16	4.0	<i>u</i>				4005.254m	416	110	<i>s?</i>		Fe I	1.56	43	
4000.973r	5.5	1.4	<i>s</i>	Cr I?	4.45	307	4005.388m	42	21.5	<i>u</i>		Fe I p	2.42	123	
4001.111	127	6.0					4005.482m	42	15.2	<i>u</i>		Fe I p	2.59	219	
4001.163		27.2	<i>u,N</i>				4005.657r	85	0.9						
4001.241		1.0		Fe I	3.64		4005.708		23.0	<i>u</i>		V II	1.82	32	
4001.343r		1.0													
4001.449m	68	17.0	<i>u</i>	Cr I	3.89	268									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4005.849r	2.5	0.6						4010.054r	3	0.7					
4005.965	18	4.7	s	Ti I	2.10	187		4010.179	36	9.0	u	Fe I	3.64	915	
4006.023r	2.5	0.6						4010.287r	5.5	1.4					
4006.156	54	13.5	u	Ni I Fe I p	3.26	564		4010.374	12	3.0	u				
4006.317m	89	22.2	u	Fe I	3.27	603		4010.492	11	2.7		Fe I?			
4006.473	13	3.2						4010.588	68	16.7	u	-Fe I			
4006.633m	93	23.6	u	Fe I	3.11	488		4010.650r		0.6					
4006.758	102	17.0	u	Fe I	2.88	320		4010.780m	56	14.0	u	Fe I	2.61	219	
4006.825		10.5	u,N	-CH	P 15	0,0	3	4010.933m	51	12.2	u	Fe I	2.86	320	
4006.997	65	14.5	u	CH	P 15	0,0	3	4011.080	7.5	1.9	s	Co I	0.10	2	
4007.039r		3.0						4011.20 a	3.5	0.9					
4007.164r	3.5	0.9						4011.304r	4.5	1.1		Vi?	1.22		
4007.20 a	4	1.0	s	Ti I	2.09	187		4011.414m	55	13.7	u	Fe I	2.56	218	
4007.279m	86	23.0	u	Fe I	2.76	277		4011.546	16	4.0	s	Ti I	0.00	10	
4007.443	14	3.5	u	Nd II				4011.718m	50	12.5	u	Fe I	2.45	153	
4007.596	11	2.7	u	Fe I				4011.893	10	2.5	u	Fe I p	2.95	424	
4007.72 a	5	1.2						4012.016	10	2.5	u				
4007.802r	11	2.7						4012.158	33	8.2	u	Fe I	3.24	601	
4007.926	68	17.0	u,N					4012.253	39	9.7	u	Nd II	0.63	10	
4008.060	28	7.7	s	Ti I	2.12	187		4012.390	93	23.2	u	Ce II Ti II	0.56 0.57	206 11	
4008.172	24	6.0	u	V II	1.79	32		4012.478	31	10.5	u	Cr I Cr II	3.89 5.66	268 183	
4008.361r	3.5	0.9	u					4012.602	25	6.2	u	Ni I— Fe I	4.17		
4008.418	5.5	1.4		Sc II p	0.61	16		4012.705	14	3.5	u	Nd II			
4008.602	14	3.5	u	Sc II p—	0.60	16		4012.796	5	1.2	u	Ti I	2.12	186	
4008.736r	13	3.2	u	W I	0.37	6		4012.959r	1	0.2					
4008.878	106	13.2	u	Fe I Ti I	0.02	12		4013.075	3.5	0.9	u,N				
4008.930		17.2									4013.232	7	1.7	s	Ti I p
4009.055r	7	1.7						4013.466r	2	0.5					
4009.146	53	13.2	u					4013.582	83	4.2	s	Ti I Fe I	2.13	187	
4009.255r	4.5	1.1	Fe I				4013.639m	18.2		3.21			557		
4009.420r	3.5	0.9		Fe I				4013.816m	102	25.4	u	Fe I Fe I	3.02 3.02	485 486	
4009.547	43	10.7	u	Fe I p	3.21	556		4013.960	34	8.5	u,N	Co I	2.01	58	
4009.660r	122	11.0	s	Ti I Fe I	0.02 2.22	11 72		4014.126r	3	0.7					
4009.714		24.4									4014.272m	50	12.0	s	Fe I
4009.910r	9.5	2.4		Ru II Cr?	3.75 7.68										
4009.984	18	4.5	u	Ni I	3.63	150									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4014.389r	4.5	1.1						4019.136	8.5	2.1		Th II	0.00	3	
4014.530m	117	29.1	u	Sc II— Fe I	0.31 3.57	8 802		4019.297	18	4.4	s	Co I	0.58	16	
4014.674	18	4.5	u	Cr I	3.89	268		4019.431r	1	0.2					
4014.793r	7	1.7						4019.598	2	0.5					
4014.934	34	8.5	u,N	Ce II—	0.53	157		4019.838r	4.5	1.1					
4015.150	14	3.5	u,N					4019.885r	2	0.5		Fe I			
4015.268r	3	0.7						4020.029	93	8.5	u?	—CH	P 16	0,0	3
4015.380	23	5.7	s	Ti I	2.08	185		4020.074		17.4	u	Fe I p	3.26	556	
4015.480	20	5.2	w	Ni II	4.03	12		4020.193	107	10.7	u	—CH	P 16	0,0	3
4015.611	88	21.9	u					4020.272		18.2	u,N				
4015.732r	14	3.5						4020.397	56	13.9	s	Sc I	0.00	7	
4015.879r	4.5	1.1						4020.488	44	10.9	u	Fe I	3.64	913	
4016.001	8.5	2.1	u,N					4020.650r	3	0.7					
4016.092r	5	1.2		Ca I	2.93			4020.778r	5.5	1.4					
4016.283	13	3.2	s	Ti I	2.13	186		4020.905m	80	19.9	s	Co I	0.43	16	
4016.423S	68	16.9	u	Fe I	3.28	560		4021.089r	3	0.7					
4016.546	12	3.0	u	Fe I	2.73	277		4021.197r	5.5	1.4	u				
4016.686r	12	3.0						4021.338	16	4.0	u	Nd II	0.32	36	
4016.804	30	7.5	u	Cr I V II	3.43 3.76	202		4021.496r	2.5	0.6					
4016.962	24	6.0	s	Ti I	2.16	208		4021.623m	68	16.9	u	Fe I	{2.42 3.24}	{120 557}	
4017.100	149	19.7	u	Fe I	2.76	279		4021.740	10	3.0	u				
4017.154		23.9	u	Fe I	3.05	527		4021.870m	121	30.1	u	Fe I (Ti I)	2.76 2.10	278 185	
4017.309r	24	6.2		V II	3.79	216		4022.049	23	5.7	u	Ni I	{4.09 4.10}	{241 238}	
4017.471	86	21.4	u	Ni I	3.70	171		4022.226	55	10.4	s	Fe I	2.83	360	
4017.573	74	18.4	u				4022.252r	5.5				Cr I	3.89	268	
4017.774	34	8.5	s	Ti I	2.09	185		4022.446	25	6.2	u	Fe I	2.40	173	
4017.931r	2	0.5		Cr II?	5.33	166		4022.536r	4.5	1.1		Fe I?			
4018.104	139	34.6	s	Mn I	2.11	5	7	4022.625	10	2.5	u	Cu I	3.78		
4018.271m	92	22.9	u	Fe I	3.26	560		4022.745m	52	12.9	u	Fe I	{3.25 3.28}	{654 556}	
4018.385	16	4.2		Zr II	0.96	54		4022.86 a	5	1.2		Cr I?	7.48		
4018.497	7	1.7		Fe II p	2.28	13		4023.011	18	4.6	u	Nd II			
4018.62 a	1.5	0.4						4023.14 a	5.5	1.4		V I?	{1.89 2.36}		
4018.691r	1	0.2	s					4023.230r	3	0.7	s	Sm II	0.04	4	
4018.836	9	2.2	u	Nd II	0.06	19		4023.384	67	16.6	u	V II (Co I)	1.80 1.96	32 59	
4018.938	7	1.7													
4019.053	49	12.2	s?	Ni I Fe I	1.93 2.61	72 219									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4023.556r	1	0.2						4028.346m	90	22.3	u	Ti II	1.89	87	
4023.687	57	14.2	s	Sc I	0.02	7		4028.492	9.5	2.4					
4023.831	3.5	0.9		Fe I				4028.605	6.5	1.6					
4024.003	33	9.2	u	Ni I Zr I	3.70 0.69	170 46		4028.763	43	10.7	u	Fe I			
4024.100	66	16.4	u	Fe I	2.76	277		4028.93 a	0.5	0.1	s	Zr I	0.52		
4024.224r	3	0.7		Fe II				4029.09 a	2.5	0.6					
4024.330r	3	0.7						4029.296r	3.5	0.9		Ni I p	3.70	170	
4024.441	18	4.7	u	Zr II	1.00	54		4029.443	10	2.5	u	CH	R 1	1,1	3
4024.576	80	19.9	s	Ti I (Fe II)	0.05 4.49	12 127		4029.642S	108	26.8	u	Fe I Zr II	{3.26 3.26 0.71	{556 563 41	
4024.732m	104	25.8	u	Fe I	3.24	560		4029.869	12	2.7	s				
4024.894r	8.5	2.1	s	Zr I	0.65	46		4030.049r	3	0.7	s	Zr I—	0.60	46	
4025.009	29	7.0	u	Cr I	2.54	37		4030.190S	64	16.1	u	Fe I	2.20	72	
4025.134m	84	20.9	u	Ti II Ni I	0.61 4.09	11 240		4030.348	36	9.7	u				
4025.308	14	3.5		CH	R 4	1,1	3	4030.497	92	27.3	u	Fe I Ti I	3.21 2.13	{560 185	
4025.429	48	11.9	u	Ni I Cr I	3.70 {2.54 2.54	117 37 37		4030.643	326	17.1					
								4030.763		75.2	S	Mn I	0.00	2	7
4025.584r	7	1.7						4030.892	48	17.6	u	Fe I p—	3.69	943	
4025.823	64	15.2	u					4031.116	15	4.2	u	Cr I	3.89	268	
4025.930r	6	1.5						4031.245	42	10.9	u	Fe I	3.02	486	
4026.071r	8.5	2.2						4031.340	12	3.0	u	Ce II	0.32	108	
4026.168	43	10.7	s,d	Cr I	{2.54 2.54	37 37		4031.447r	5	1.2		Fe II	4.73	151	
4026.310	7.5	1.9		CH	R 2	1,1	3	4031.563r	1.5	0.4					
4026.436	53	13.2	u	Mn I	3.13			4031.716r	94	12.6	u?	Fe I p (La II)	3.02	427	7
4026.542	42	10.4	s	Ti I	2.12	185		4031.793r		12.6	u?	Mn I (Nd II)	{0.32 3.13	{40 }	
4026.771	9	2.4	s	Fe I				4031.969m	69	17.1	u	Fe I	3.27	655	
4026.918r	4	1.0						4032.116r	3.5	0.9					
4027.043	67	11.7	s	Co I	0.17	3		4032.268	7	1.7					
4027.104		6.0	s?	Cr I	2.54	37		4032.463m	75	18.6	u	Fe I	2.88	320	
4027.251	9.5	2.4	s	Zr I— CH	0.62 R 2	46 1,1	3	4032.641m	106	26.3	u	Fe I	1.48	44	
4027.388	25	6.2	u					4032.837r	12	3.1					
4027.474	12	3.0	s					4032.964r	229	1.9		Fe II— Ga I	4.49 0.00	126 1	
4027.672	49	12.2	u	Ni I	3.90			4033.072		54.8	S	Mn I	0.00	2	
4027.790r	2	0.5						4033.186	60	28.5	u?	Fe I	2.56	218	
4027.943	28	7.0	u	CH	R 6	1,1	3	4033.277r	21	6.2		Cr I	2.54	36	
4028.123r	3	0.7		Cr I?	4.20			4033.430r	8	2.0					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4033.588	46	11.4	u					4038.627	26	6.4	u	Fe I	{3.30 3.41	600 728	
4033.660	24	7.7	u	Fe I				4038.795	64	15.8	u	Fe I			
4033.790	9.5	2.4	u	CH	Q 1	1,1	3	4038.946r	2.5	0.6					
4033.904	14	3.5	s	Ti I	2.16	208		4039.096	42	10.4	s	Cr I	3.85	251	
4033.972r	4.5	1.1		Cr I Cr I	2.54 2.54	36 36		4039.296	7	1.7	u	Cr I—	3.85	251	
4034.091	16	4.0	u	Zr II	0.80	42		4039.432r	0.5	0.1					
4034.232	50	12.9	u	—CH	P 17	0,0	3	4039.574	9	2.2	u	V II	1.82	32	
4034.386	213	9.9		CH	P 17	0,0	3	4039.743	8	2.0					
4034.492m		46.1	s	Mn I	0.00	2		4039.864	44	2.2	s	Y I	0.00	5	
4034.733	16	4.2	u				4039.946	8.9		u	Fe I	2.73	276		
4034.870	28	6.9	s	Ti I	2.15	208		4040.097m	61	15.1	u	Fe I			
4035.118	24	5.9	u	Sm II	0.33	33		4040.270	31	4.0		Zr II—	0.93	54	
4035.250	23	5.7	u	Fe I p	3.60	831		4040.310		4.0	s	Ti I CH	2.12 P 1	185 1,1	3
4035.427r	9	2.2						4040.514	27	6.9	u	—CH	Q 3	1,1	3
4035.547r	216	5.7		Co I	3.58	173		4040.647m	78	19.9	u	Fe I	3.30	655	
4035.606		18.8	u,N	V II	1.79	32		4040.790	39	9.6	s	Ce II— Nd II	0.45 0.18	138 30	
4035.732		31.2	s	Mn I	2.14	5		4040.951r	4	1.0					
4035.833		2.0		Ti I	2.17	208		4041.066	8	2.0	u				
4035.984	16	4.0	u	Fe I p Ni I p	3.02 3.65	426 150		4041.283r	168	16.3	u?	Fe I	{3.30 3.30	603 654	
4036.12 a	4.5	1.1					4041.374	28.4		s	Mn I	2.11	5		
4036.244a	6.5	1.6	u				4041.656m	58	14.3	u	Fe I				
4036.377	24	5.9	u	Fe I	2.76	279		4041.809r	3	0.7	u?	Cr I	2.54	36	
4036.567	8.5	2.1	u	Fe I				4041.914	13	3.2	u	Fe I	3.30	602	
4036.670	6	1.5		CH	Q 1	1,1	3	4042.05 a	3.5	0.9					
4036.773	31	7.7	u	V II	1.48	9		4042.149r	3.5	0.9					
4036.929r	1.5	0.4						4042.245	10	2.5	s	Cr I	2.54	36	
4037.121S	44	10.9	u	Fe I				4042.363	6	1.5	u?				
4037.301	18	4.5	s	Cr I (Gd II)	{2.54 2.54 0.66	36 36 49		4042.443r	3.5	0.9					
4037.438r	5	1.2		CH	P 1	1,1	3	4042.592	13	3.2	u	Ce II	0.50	140	
4037.548	4.5	1.0						4042.758	10	2.5	u	Fe I p	3.28	556	
4037.688	22	5.1	u	Fe I	2.28	118		4042.907	18	4.4	u	Sm II La II	0.10 0.93	9 66	
4037.913a	4.5	1.1		Gd II	0.56	49		4042.997r	1.5	0.4					
4037.976	4.5	1.1						4043.346	24	5.9	u,N	CH	Q 4	1,1	3
4038.124	13	3.2	s					4043.47 a	2.5	0.6					
4038.276	3	0.7	u,N	Ni I	3.65	150		4043.608	6.5	1.6	s	Zr I	0.52	32	
4038.479r	3.5	0.9													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4043.695	17	4.7	<i>u</i>	Cr I Fe I p	4.45 2.48	306 122		4048.400r	7	1.7					
4043.768	27	7.4	<i>u</i>	-Ti I	2.16	208		4048.555r	4	1.0		Fe I			
4043.906	146	22.0	<i>u</i>	Fe I	{2.73 3.24	276 557		4048.671	138	{8.6 28.2	<i>u?</i> <i>s</i>	Zr II Mn I Cr I	0.80 2.16 3.85	43 5 251	
4043.988								4048.753							
4044.145	16	4.2	<i>s</i>	K I	0.00	3		4048.996	29	7.2	<i>u</i>	Mn I	4.34	48	
4044.274r	0.5	0.1						4049.152	23	5.7	<i>u</i>	Cr II?	6.48	193	
4044.380	6.5	1.7		CH	P 2	1,1	3	4049.336m	62	15.3	<i>u</i>	Fe I	2.59	218	
4044.497	40	14.3	<i>u</i>	Fe I p	4.10	1073		4049.438	9	2.5		Gd II Ti I?	0.66 2.13	50 185	
4044.615	105	28.0	<i>u</i>	Fe I	2.83	359		4049.565	41	10.1	<i>u</i>	CH	P 18	0,0	3
4044.843r	2.5	0.7						4049.731	47	11.6	<i>u</i>	CH (Cr I)	P 18 3.85	0,0 251	3, 18
4044.959r	1	0.4						4049.862	11	2.7		Gd II Fe I			
4045.115	50	17.3	<i>u</i>	Fe I Mn I	3.02 4.33	425 48		4050.029	4	1.0	<i>s</i>	Cr I	2.54	36	
4045.217	19	17.4	<i>u, N?</i>	Mn I	4.23			4050.104r	1	0.2		La II	1.96	85	
4045.390	48	25.0	<i>u</i>	Co I	1.05	31		4050.329	20	4.9	<i>u</i>	Zr II	0.71	43	
4045.508	9	8.2						4050.492	13	3.2	<i>s</i>				
4045.600	29	26.4	<i>u</i>	Fe I p— Zr II	3.21 0.71	559 30		4050.566r	3.5	0.9		Dy II	0.59		
4045.715r	7.5	13.3						4050.680m	57	14.1	<i>u</i>	Fe I			
4045.825m	1174	316	<i>S</i>	Fe I	1.48	43		4050.813r	3	0.7					
4045.968	14	23.0						4050.948	6	1.5	<i>s</i>	V I	2.13	121	
4046.074	44	36.1	<i>u</i>	Fe I p—	3.26	557		4051.052	10	2.5	<i>o?</i>	V II	1.80	32	
4046.341	9	4.4		Ce II V II	0.55 3.12	81 177		4051.187	21	5.0	<i>u</i>	Ni I	4.10	239	
4046.459	19	7.1	<i>u</i>	Fe I p	4.15	1075		4051.337	33	8.1	<i>s</i>	V I V II	2.14 3.80	121 215	
4046.615r	1	0.4		Fe I	3.07	487		4051.49 a	1.5	0.4		Ru I	1.09		
4046.760	7.5	2.3	<i>u</i>	Cr I Ni I	2.54 4.09	36		4051.734	12	3.0	<i>u</i>	Mn I			
4047.016	10	2.7	<i>u</i>					4051.918	79	19.5	<i>u</i>	Fe I Cr II	3.40 3.10	700 19	
4047.189r	5	1.4						4052.020	16	4.7	<i>u</i>				
4047.23 a	5	1.4	<i>S</i>	K I	0.00	3		4052.166r	4.5	1.1					
4047.310	41	10.9	<i>u</i>	Fe I	{2.28 3.63	117 853		4052.303m	60	14.8	<i>u</i>	Fe I	{3.37 3.63	700 852	
4047.407r	3.5	1.0						4052.456	96	{11.6 15.5	<i>u?</i> <i>u?</i>	Fe I Mn I	3.28 4.35	563 48	7
4047.673	21	5.4	<i>s</i>	Y I— CH	0.00 Q 5	6 1,1	3	4052.499							
4047.802	11	2.7	<i>s</i>	Sc I	0.02	7		4052.660	88	{12.1 12.1	<i>s</i> <i>u</i>	Fe I Fe I	3.05 3.24	524 557	
4047.91 a	2	0.5						4052.720							
4048.072	24	5.9	<i>u</i>	-CH	Q 5	1,1	3	4052.842r	1	0.2					
4048.235r	1	0.2						4052.940	32	7.9	<i>u</i>	Ti I— CH	2.17 Q 6	208 1,1	3

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4053.113r	0.5	0.1						4057.733r	11	3.2		CH	P 4	1,1	3
4053.271m	61	15.0	<i>u</i>	Fe I				4057.813r	16	4.7	} <i>s,N</i>	}{ [Pb I Cr I	1.32	1	
4053.430	22	5.4	<i>w,N</i>				4057.893r	} 72	9.4					3.85	251
4053.491	7	1.9	<i>u?</i>	Ce II	0.00	36			4057.957	} 72	9.4	<i>u,N</i>	Mn I	3.07	29
4053.59 a	2	0.5		V II	3.80	215		4058.221	101		24.9	<i>s</i>	}{ Co I [Fe I (Ti I)	0.51	16
4053.824S	65	16.0	<i>u</i>	Ti II Fe I	1.89 3.07	87 485		4058.391r	4	1.0				3.21	558
4053.936r	5.5	1.4						4058.467r	15	3.7		Fe I p	3.64	914	
4054.077	28	6.9	<i>w,N</i>	Cr II	3.10	19		4058.598	29	7.1	<i>u</i>	Co I	2.01	58	
4054.185	50	12.3	<i>s</i>	Fe I	3.26	557		4058.765	74	18.2	<i>u</i>	Fe I Cr I	2.42 3.85	120 251	
4054.308r	0.5	0.1						4058.931	89	21.9	<i>s</i>	Mn I (Nb I)	2.18 0.13	5 1	
4054.442	28	6.9	<i>u</i>	Fe I				4059.091r	6	1.5					
4054.560	14	3.4	<i>s</i>	Sc I	{ 0.00 0.00	6 6		4059.222	23	5.7	<i>u</i>	CH	Q 7	1,1	3
4054.711	22	6.4	<i>u</i>	Mg I	4.34			4059.386	58	14.3	<i>u,N</i>	Mn I	3.07	29	
4054.815	} 135	24.7	<i>u</i>	Fe I	3.40	698		4059.502	20	5.7	<i>u</i>	CH	Q 7	1,1	3
4054.873		18.5	<i>u</i>	Fe I	3.42	698		4059.722m	70	17.2	<i>u</i>	Fe I	3.55	767	
4055.039	80	19.7	<i>u</i>	Ti I— Fe I	1.05 2.56	80 218		4059.966	6	1.5	<i>u</i>	Nd II	0.20	63	
4055.215	22	5.4	<i>u</i>	Mn I	4.36	48		4060.094	4	1.0	<i>s</i>	Ti I p	2.30	254	
4055.384r	9	2.2						4060.269m	34	8.4	<i>s</i>	Ti I	1.05	80	
4055.551m	114	28.1	<i>u</i>	Mn I	2.14	5		4060.491	17	4.2	<i>u</i>				
4055.706r	8.5	2.1	<i>u</i>					4060.634	6	1.5		Cr I	4.45		
4055.858r	2.5	0.6						4060.634	6	1.5		Cr I	4.45		
4055.990	20	4.4	<i>u</i>	Fe I	3.64	914		4060.768	25	6.2	<i>u</i>	Fe I			
4056.070	18	4.4	<i>u</i>	Cr I	4.45			4060.936	1	0.2					
4056.195	30	7.4	<i>u</i>	Ti II	0.61	11		4061.097	57	14.0	<i>u</i>	Nd II— Fe I	0.47	10	
4056.347	38	9.4	<i>u</i>	Fe I				4061.443	19	4.7	<i>u,N</i>				
4056.452	29	7.1	<i>u</i>					4061.733	64	15.8	<i>u,N</i>	Mn I	3.07	29	15
4056.559r	7	1.7		Fe I	2.86	320		4061.956	54	13.3	<i>u</i>	Fe I			
4056.65 a	2	0.5						4062.045	14	3.4					
4056.806r	6.5	1.6	<i>s</i>	Cr I	4.45	306		4062.232	6	1.5		Ce II	1.37	34	
4056.907r	12	3.0						4062.321	2	0.5					
4057.075	13	3.2	<i>s</i>	V I	2.12	121		4062.447S	98	25.2	<i>u</i>	Fe I	2.84	359	
4057.218	57	14.3	<i>s</i>	[Co I— Ni I?	0.22 3.31	3		4062.642	22	5.9	<i>w?</i>	Cu I	3.82		
4057.355m	46	14.8	<i>u</i>	Fe I	2.76	277		4062.746	12	3.4	<i>u</i>				
4057.515	197	48.5	<i>u</i>	Mg I	4.34	16		4062.952	4	1.4					
4057.670	38	13.0	<i>s,N</i>	Fe I Ti I	3.41 2.30	729 254		4063.288m	68	32.2	<i>u</i>	Fe I	3.37	698	
								4063.424r	12	8.9		Gd II			

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4063.605m	787	219	S	Fe I (Mn I)	1.56 2.16	43 5		4068.404r	0.5	0.1	s	Cr I?			
4063.789r	19	18.7						4068.544	27	6.8	u	Co I	1.96	58	
4063.926r	5.5	3.4		V I	2.11	121		4068.650r	5	1.2	s	Ti I	2.29	254	
4064.050	28	11.6	w?	Fe I p	2.95	423		4068.843	3.5	0.9	u	Ce II	0.70	82	
4064.214	28	8.6	s	Ti I	1.05	80		4068.90 a	1	0.2		Fe I			
4064.371	15	5.2	u	Ti II— Ni I	2.60 3.84	106 179		4068.968	5	1.2	s	Ti I	2.74	299	
4064.456	64	17.2	s	Fe I	1.56	44		4069.070	48	11.8	u	Fe I	3.28	557	
4064.577	9.5	2.5		Sm II	{0.25 {0.33	24 33		4069.155	5	1.2					
4064.70 a	2.5	0.6						4069.272	8.5	2.1	s,d?	Nd II	0.06	20	
4064.761	2	0.5		Fe II p	2.85	39		4069.437r	1.5	0.4					
4065.087	52	12.5	s	V II— Ti I	3.79 1.05	215 80		4069.610	34	8.4	u	Fe I			
4065.236	5.5	1.4		Cr I?	7.49			4069.84 m			s				13
4065.388m	64	15.7	u	Fe I	3.43	698		4070.036	11	2.7	u	Fe I	2.87	320	
4065.587	15	3.7	u	Ti I CH	2.15 P 5	207 1,1	3	4070.281	66	16.0	u	Mn I	2.19	5	
4065.708	14	3.4	u	Cr I	4.10	279		4070.443	5	1.2	u	Fe I	3.05	525	
4065.810r	0.5	0.1						4070.626r	3	0.7					
4066.004	12	3.0	u	Fe I p— CH	3.33 P 5	695 1,1	3	4070.777m	94	23.6	u	Fe I	3.24	558	
4066.120	48	10.8	u					4070.985	3	0.9		Cr I	4.45	306	
4066.220	25	6.8	u	—CH	P 19	0,0	3	4071.093	17	5.2	u	Zr II—	1.00	54	
4066.373	76	18.7	s	Co I	0.92	30		4071.21 a	2.5	0.9	s	Ti I	2.30	254	
4066.590m	80	19.7	u	Fe I	2.99	424		4071.350r	8.5	3.2					
4066.721	20	4.9	u	Sm II	0.28	28		4071.536m	50	22.9	u	Fe I— V I	2.59 1.93	218 96	
4066.820	30	7.6	u	CH	Q 8	1,1	3	4071.638r	7.5	12.3					
4066.984m	130	32.0	s	Fe I (Cr I)	2.83 2.71	358 66		4071.749m	723	191	S	Fe I	1.61	43	
4067.280m	96	23.6	u	Fe I	2.56	217		4071.901	19	17.9	u,N				
4067.407r	5.5	1.5		La II	0.17	26		4071.970r	3	2.5					
4067.492	18	4.4	u	Fe I p	2.95	422		4072.144r	8	2.9	u	Fe I			
4067.600	23	5.6	u	Fe I p	3.30	655		4072.351	12	3.7	u	Fe I	3.43	698	
4067.766	21	5.6	u					4072.512m	63	17.4	u	Fe I	0.69	46	
4067.856	27	7.9	u	Fe I p	4.18	1103		4072.696	7	2.0	s	Zr I	0.69	46	
4067.988m	133	32.7	u	Fe I	3.21	559		4072.888	6	1.5	u	Ni I	3.85	197	15
4068.117r	10	2.7	s	Ti I	2.15	207		4073.125	5	1.2	u	Dy II	0.54		
4068.20 a	5	1.2						4073.342r	0.5	0.1					
4068.337r	4.5	1.1		Sm II?	0.43	42		4073.486	18	4.4	u	Ce II	0.48	4	
								4073.629r	4.5	1.1	s				
								4073.767S	90	22.1	u	Fe I	3.26	558	
								4073.95 a	4	1.0					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	
4074.048	12	2.9						4078.475	56	21.6	s	Ti I	1.07	80		
4074.17 a	6	1.5						4078.650r	2.5	0.6						
4074.332	18	4.4	s,N	Ti I W I	2.32 0.37	254 6		4078.823	19	4.6	u	Fe I	3.64			
4074.530r	1	0.2						4078.89 m			s				13	
4074.684	42	14.0	u	Fe I p	3.64	912		4079.012	8	2.0	u					
4074.794	110	27.0	u	Fe I	3.05	524		4079.184	144	18.1 24.0	u	Fe I p Mn I	3.42 2.14	700 5		
4074.900	30	8.1	u	Ni I	0.42	28	4079.237									
4075.103	62	15.2	u	(Nd II)	0.20	62		4079.357r	104	1.0 25.0	s	Mn I	2.19	5		
4075.316	31	7.6	u,N	Nd II?— CH	0.06 Q 9	19 1,1	3	4079.416								
4075.510r	0.5	0.1						4079.556r	4.5	1.1						
4075.510r	0.5	0.1						4079.711	12	2.9	s	Ti I (Nb I)	2.16 0.09	207 1		
4075.65 a	2.5	0.6		Cr II? p	3.10	19		4079.843S	94	23.0	u	Fe I	2.86	359		
4075.706	12	2.9	u	Ce II	0.70	57		4080.062	8.5	2.1	u	Fe I p	3.69	944		
4075.851	14	3.9	u	Sm II— Ce II	0.54 0.61	51 206		4080.216	89	21.8	u	Fe I	3.28	558		
4075.949	83	20.4	u	Fe I				4080.36 a	2	0.5						
4076.051	16	4.4		Cr I	4.10	279		4080.437	5	1.2		Hf II?	0.61	6		
4076.132	10	2.5	s	Co I	0.58	16		4080.600r	5	1.2	s	Ru I	0.81	9		
4076.226	58	14.2	u	Fe I	3.07	486		4080.69 a	1.5	0.4	s					
4076.364	8.5	2.1	s	Ti I	0.02	9		4080.770r	1	0.2						
4076.495	62	16.2	u	Fe I	2.61	218		4080.880	61	14.9	u	Fe I	3.29	557		
4076.637m	127	31.4	u	Fe I	3.21	558		4081.039r	6.5	1.6						
4076.808	94	23.8	u	Fe I	3.26	557		4081.234r	63	6.4 12.2	s	Ce II Zr I Fe I	0.48 0.73	4 46		
4076.877	35	12.7	u,N	Cr II Fe I	3.10 3.26	19 559		4081.262								
4077.072	20	5.2	u	Zr II— Cr I	0.96 2.71	54 66		4081.429r	5	1.2	s				16	
4077.16 m			S	Ti I	2.16	207	13	4081.585r	0.5	0.1						
4077.16 m			S	Ti I	2.16	207	13	4081.736r	6.5	1.6	u	Cr I	2.71	66		
4077.198	7.5	2.1						4081.909r	7.5	1.8		Cr I?				
4077.347	41	11.8	s	La II Y I	0.23 0.00	41 7		4082.115m	76	18.6	u	Fe I	3.42	698		
4077.486	11	4.4		Ce II— Cr II	0.30 3.10	60 19		4082.278	8	2.0		Cr II?	5.32	165		
4077.580r	428	2.9	S	Sr II	0.00	1		4082.439	82	20.1	s	Fe I Se I— Ti I	3.63 0.02 1.07	906 6 80		
4077.724m								100	2.9	4082.596	14	3.4	s	Co I	0.63	16
4077.834r											2	0.5				
4077.969	26	8.8	u	Dy II	0.10			4082.943S	94	23.0	s	Mn I	2.18	5		
4078.164	3.5	1.0						4083.093r	3	0.7		CN?	R 67	1,2	11	
4078.365	124	31.9	u	Fe I	2.61	217		4083.226	26	6.4	u	Ce II	0.70	60		

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4083.365r	3.5	0.9						4088.564m	56	13.7	<i>u</i>	Fe I	3.64	906	
4083.565	181	17.9	<i>s</i>	Fe I	2.28	117		4088.727r	13	3.2		Fe II p	2.84	39	
4083.630		32.4		Mn I	2.16	5		4088.850r	8	2.0		Cr II?	3.10	19	
4083.763m	71	21.1	<i>u</i>	Fe I	3.42	697		4089.049r	16	3.9	<i>u,N</i>				
4083.999	20	4.9	<i>u</i>	CH?	P 7	1,1	3	4089.224m	62	15.2	<i>u</i>	Fe I	2.95	422	
4084.150r	5.5	1.3		Fe I p	3.21	557		4089.418r	4	1.0					
4084.327	23	6.4	<i>u</i>	CH	P 7	1,1	3	4089.598r	3	0.7		Cr I	3.85	260	
4084.501m	156	38.2	<i>u</i>	Fe I	3.33	698		4089.785r	6	1.5					
4084.611r	2	0.7		Fe II p	4.74	151		4089.961	21	5.4	<i>u</i>	Mn I	4.27		
4084.71 a	4.5	1.2						4090.081	70	17.1	<i>u</i>	Fe I	3.40	700	
4084.794r	12	2.9						4090.188r	1.5	0.4					
4085.013m	107	26.2	<i>u</i>	Fe I	2.84	358		4090.324	24	5.9	<i>s,d?</i>	Cr I Fe I	2.71 1.61	66 44	
4085.153r	5.5	1.4						4090.521	56	5.1	<i>s</i>	Zr II	0.76	29	
4085.258	152	10.5	<i>u,d</i>	Ce II Fe I p	0.67 2.76	172 276		4090.573		9.8			V I	1.08	41
4085.309		31.3		Fe I	3.24	559		4090.772	10	2.4	<i>u</i>	Fe I p	3.69	943	
4085.445r	7	1.8		CN?	R 66	1,2	11	4090.959	57	13.9	<i>u</i>	Fe I	3.37	695	
4085.574	10	2.4		Gd II	0.73	50		4091.085r	4	1.0					
4085.731r	7	1.7		Zr II	0.93	54		4091.22 a	3.5	0.9					
4085.858r	7.5	1.8						4091.438r	1	0.2					
4085.984	55	13.5	<i>u</i>	Fe I	4.15	1073		4091.557S	60	15.0	<i>u</i>	Fe I	2.83	357	
4086.134	32	7.8	<i>u</i>	Cr II	3.71	26		4091.678r	2.5	0.6					
4086.316	104	25.4	<i>u,d?</i>	Co I	1.88	58		4091.85 a	1.5	0.4					
4086.713m	42	10.3	<i>u</i>	La II	0.00	10		4091.999r	8.5	2.1	<i>s,N</i>	Ca I	2.93		
4086.838r	5	1.2						4092.098r	9	2.2	<i>u?</i>				
4086.965r	6	1.5	<i>s</i>	Cr I?	3.85			4092.281	57	16.9	<i>u</i>	Fe I	3.63		
4087.101m	81	19.8	<i>u</i>	Fe I	3.33	694		4092.396	108	26.9	<i>s</i>	Co I (V I)	0.92 1.19	29 52	
4087.277	15	3.7	<i>u</i>	Fe II p	2.58	28		4092.516m	36	9.3	<i>u</i>	Fe I	0.91	18	
4087.37 a	3.5	0.9						4092.669	115	28.6	<i>s,d?</i>	Ca I— V I	2.52 0.29	25 27	
4087.491r	2	0.5						4092.825r	12	3.2	<i>u</i>	Co I	2.01	59	
4087.601	8	2.0	<i>u,N</i>	Cr II	3.10	19		4092.892	6.5	1.7					
4087.705r	6.5	1.6		CN?	R 65	1,2	11	4093.034	12	2.9	<i>u</i>	Ni I— Cr I	4.23 3.85	260	
4087.798	19	4.6	<i>u,N</i>	Fe I p— CN?	3.65 R 65	832 1,2	11	4093.15 a	4	1.0		Hf II	0.45	6	
4087.94 a	6.5	1.6						4093.284r	6	1.5	<i>u</i>				
4088.050r	5.5	1.3						4093.48 a	4	1.3	<i>S</i>	V I	1.18	52	
4088.183r	5	1.2						4093.650r	2	0.5		Ni I	0.17	1	
4088.298r	3.5	0.9	<i>s,N</i>	Co I	0.10	2		4093.990r	3	0.7					
4088.446r	0.5	0.1													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4094.069r	3	0.7						4098.795r	3.5	1.1					
4094.20 a	3.5	0.9		Tm II?	0.00			4098.901r	4.5	1.3		Gd II?	0.60	49	
4094.304r	3	0.7		Fe I				4099.048	19	5.6	s,d	Fe I	{3.30 3.25}	600 651	}17
4094.422	47	12.0	u	Fe I				4099.175	11	3.4	s,d	Ti I CN	2.17 R.60	207 1,2	17 11
4094.610r	7.5	2.1		CN	R.62	1,2	11	4099.401r	4	1.2					
4094.698	23	5.9	u	CH	P.8	1,1	3	4099.574r	4.5	1.5	s				
4094.938S	100	25.4	s	Ca I	2.52	25		4099.788	57	17.8	S	V I	0.28	27	
4095.100r	11	2.9						4099.989	13	4.6	u	Fe I p	3.43	698	
4095.268	40	10.2	u	Mn I Fe I	4.19	1075		4100.165m	58	19.0	w	Fe I			
4095.356	18	4.9	u	Fe I				4100.345	26	9.3	s	Fe I p	{2.85 4.26}	320 1103	
4095.481	29	7.6	s	V I	1.06	41		4100.508r	4	1.6					
4095.644r	4.5	1.2		Fe I	3.63	851		4100.578r	2	0.9					
4095.749r	8.5	2.2						4100.747m	82	29.8	u	Fe I (Pr II)	0.86 0.55	18 4	
4095.816r	5.5	1.5						4100.914	9.5	4.6	u,N	Fe I p— Nb I	2.45 0.05	173 1	
4095.981m	99	25.6	s?	Fe I	2.59	217		4101.096	13	7.1	u?				17
4096.108	67	17.6	u	Fe I	3.64	911		4101.272m	47	25.6	u	Fe I	3.40	698	
4096.213	39	10.7	s	Fe I p	0.96	18		4101.378r	1.5	1.1		CN	R.59	1,2	11
4096.329r	11	2.9						4101.484r	14	14.9					
4096.523r	15	4.2						4101.682	18	43.9	u	Fe I	2.48	120	
4096.643r	45	3.7	s	Zr II	0.56	15		4101.748m	3133	746	S	H δ (In I)	10.20 0.00	1 1	
4096.696r		9.0		Fe I			16	4102.167	15	10.5	S	V I	1.05	41	
4096.824r	5.5	1.5		CN	R.61	1,2	11	4102.380	5	2.7	s	Y I	0.07	7	
4096.941	39	13.2		Fe I p CN	2.43 R.61	173 1,2	11	4102.621r	3	1.5					
4097.016r	95	2.4	u	Fe I p	3.43	700		4102.761r	2.5	1.1	u	Ni I p	4.23	255	
4097.086		23.7		Fe I	3.28	558		4102.943m	106	35.3	u,N	Si I	1.91	2	
4097.237r	15	4.2						4103.19 a	1.5	0.6					
4097.32 a	2.5	0.7						4103.315	12	4.1	u	Dy II	0.10		17
4097.460r	3.5	1.0						4103.463	8.5	2.9	s	CN	R.58	1,2	11,16
4097.581r	7.5	2.1						4103.611	28	9.3	s	Fe I	{3.25 3.65}	650 831	}17
4097.650	19	5.1	s	Cr I	2.89	97		4103.814r	3.5	1.1	s	Cr I	3.12	180	
4097.796r	5	1.3		Ru I	1.14	9		4103.988r	2	0.6					
4097.962	30	8.3	s	Cr I Cr I	2.89 2.89	97 97		4104.133m	100	28.3	u	Fe I	{2.83 3.26}	356 558	
4098.183m	113	30.8	u	Fe I	3.24	558		4104.306r	13	3.9					
4098.435r	6	1.8	s												
4098.539	111	23.0	s,n	Ca I	2.52	25									
4098.594r		13.4		Ca I (Gd II)	2.52 0.82	25 49									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4104.465	29	8.5	<i>s,d</i>	Fe I V I?	2.99 2.14	422		4109.751r	134	17.8 23.2	<i>s</i>	V I	0.26	27	
4104.54 a	5	1.5					4109.800	Fe I				2.84	357		
4104.654r	9.5	2.9					4109.960r	7	2.0			CN	R 55	1,2	11
4104.748	24	6.8	<i>s</i>	V I	1.95	112		4110.042	11	2.9		Zr II	0.76	30	
4104.862	11	3.4	<i>s</i>	Cr I	2.97	108		4110.299	8.5	2.2	<i>s</i>	Ca II— Fe I	7.51	17	17
4104.944	54	14.9	<i>u</i>	Fe I	3.33	694		4110.393r	3.5	0.9		Ce II	1.09	29	
4105.063r	8	2.4		Fe I p	3.43	700		4110.537m	97	24.4	<i>s</i>	Co I	1.05	29	
4105.164	61	16.3	<i>s</i>	V I	0.27	27		4110.700r	4.5	1.1	<i>s,N</i>				
4105.356	15	4.1	<i>u</i>	Mn I	4.33	47		4110.867	65	16.3	<i>s</i>	Mn I Cr I?	4.33 2.90	47 97	
4105.654r	2.5	0.7		CN	R 57	1,2	11								
4105.726r	3.5	1.0		CN	R 57	1,2	11	4111.000	44	10.9	<i>o</i>	Cr II	{3.10 3.76}	18 26	
4105.828r	2	0.6	<i>S</i>	Tm I?	0.00		16	4111.202r	1	0.2					
4106.05 a	1.5	0.4		Cr I	3.11	180		4111.358m	42	10.2	<i>s</i>	Cr I	2.90	97	
4106.141r	0.5	0.1						4111.47 a	4.5	1.1		Gd II?			
4106.266m	64	17.0	<i>s,n</i>	Fe I	2.59	217	16	4111.589r	6	1.5					
4106.432m	74	19.5	<i>u</i>	Fe I	3.40	697		4111.680	14	3.6	<i>s?</i>	Cr I	2.90	97	17
4106.585	14	3.7						4111.787	106	26.3	<i>s</i>	V I	0.30	27	
4106.730	15	3.8	<i>u</i>	CH	P 9	1,1	3	4111.986r	11	2.7	<i>s,N</i>				
4106.944	12	3.2	<i>u?,N</i>				17	4112.081r	14	3.4		Fe I	3.55	766	
4107.10 a	1.5	0.4						4112.174r	6.5	1.6		Fe I p	2.69	275	
4107.297	8.5	2.2	<i>s</i>				17	4112.323m	69	17.0	<i>u</i>	Fe I	3.40	695	
4107.492S	125	31.9	<i>u</i>	Fe I (V I)	2.83 1.19	354 52		4112.450r	7	1.7		Ni I	4.15		
4107.662r	1.5	0.4						4112.569	9.5	2.3		Cr II	3.10	18	
4107.781r	4	1.1		CN Fe I p	R 56 3.60	1,2 831	11	4112.716	43	9.7	<i>s</i>	Ti I	0.05	9	
4107.886	6	1.6		CN	R 56	1,2	11	4112.914r	114	10.0 22.2	<i>u</i>				
4107.886	6	1.6		CN	R 56	1,2	11	4112.958				Fe I	4.18	1103	
4108.027	14	3.6	<i>u</i>					4113.094r	8.5	2.1					
4108.134	39	10.0	<i>s</i>	Fe I	3.24	559		4113.221	29	7.3	<i>u,N</i>	Cr II	3.10	18	17
4108.301r	6	1.6		Fe I p	3.69	833		4113.528	8	2.1	<i>S</i>	V I	1.22	52	17
4108.394r	9	2.3	<i>s</i>	Cr I Zr I	2.71 0.54	65 32		4113.681	12	2.9	<i>s</i>				
4108.532	80	20.2	<i>s</i>	Ca I	2.71	39		4113.866	11	2.7	<i>u</i>	Mn I	4.35	47	
4108.75 a	2.5	0.6						4113.98 a	5	1.2	<i>u</i>				
4108.907	25	6.6	<i>w</i>					4114.118r	16	3.9		CN CN	R 53 R 53	1,2 1,2	11 11
4109.062m	75	19.0	<i>u</i>	Fe I	3.29	558		4114.308r	2.5	0.6					
4109.220r	2	0.5						4114.451m	100	25.5	<i>u</i>	Fe I	2.83	357	
4109.450	39	9.5	<i>s</i>	Nd II	0.32	10		4114.618r	9	2.2					
4109.582	18	4.6	<i>s</i>	Cr I	2.71	65		4114.780	9	2.2					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4114.942	65	15.8	<i>u</i>	Fe I	3.37	695		4119.797	24	5.8	<i>u</i>	Ce II?	1.09	22	
4115.177m	98	23.8	<i>s</i>	V I	0.29	27		4119.918	30	7.3	<i>u</i>				
4115.376	11	2.7	<i>s</i>	Ce II	0.92	22	16	4120.048	8.5	2.1	<i>s</i>	Ti I	2.30	253	
4115.562r	2	0.5						4120.212S	97	23.5	<i>u</i>	Fe I	2.99	423	
4115.681r	1	0.2						4120.472r	10	2.4	<i>S</i>				
4115.808r	5	1.2	<i>s</i>	Ir I?	1.73			4120.622	21	4.9	<i>s</i>	Cr I	2.71	65	
4115.890	15	3.9	<i>s</i>	Fe I p	3.64	910		4120.773r	4.5	1.1	<i>s?</i>				
4115.980	35	8.0	<i>u</i>	Ni I	4.15	255		4120.838	13	2.9	<i>u</i>	Ce II	0.32	112	
4116.123r	4.5	1.1	<i>u</i>					4121.06 a	7.5	1.8	<i>u</i>				
4116.208r	6.5	1.6		CN	R 52	1,2	11	4121.155r	4.5	1.1					
4116.321r	5	1.2						4121.325m	125	30.3	<i>u</i>	Co I	0.92	28	
4116.481	58	14.1	<i>s</i>	V I	0.28	27		4121.495	8	1.9	<i>s</i>	Zr I—	0.54	32	
4116.553	14	4.0						4121.650	8.5	2.1	<i>s</i>	Ti I— Rh I?	0.97	9	
4116.60 m			<i>S</i>	V I p	0.26	27	13	4121.810m	94	22.8	<i>u</i>	[Fe I— Cr I	2.83 2.98	356 108	
4116.704	35	7.3	<i>u</i>	V I—	0.27	27		4121.990	16	3.9	<i>s</i>	Ni I— Fe I p	3.66 3.55	765	
4116.821r	8	2.1						4122.150	30	7.3	<i>s</i>	Ti I— Cr I	2.66 2.71	296 65	
4116.957	34	8.2	<i>u</i>	Fe I	3.24	558		4122.243r	7	1.8		CN	R 49	1,2	11
4117.164r	0.5	0.1						4122.358	10	2.4		Mn I	4.36	47	
4117.261r	2	0.5						4122.523m	86	20.8	<i>u</i>	Fe I	2.84	356	
4117.434r	2.5	0.6	<i>s</i>					4122.665	63	14.8	<i>w,n</i>	Fe II	2.58	28	
4117.56m			<i>S</i>				13	4122.783r	10	2.4		Mn I	4.34	47	
4117.588r	9	2.2						4122.874r	4	1.0					
4117.741r	8	1.9		Fe I	3.65	833		4123.031r	7.5	1.8	<i>s,N</i>				16
4117.856	76	18.4	<i>u</i>	Fe I	{3.42 4.28	{700 1103}	17	4123.234m				La II	0.32	41	
4117.995r	7	1.7						4123.277r	54	{11.2 2.4}	<i>s</i>	Ti I	2.78	302	
4118.153	27	6.6	<i>s,N</i>	Ce II—	0.70	11		4123.388	24	5.8	<i>u</i>	Cr I	3.00	108	
4118.194r	13	3.4	<i>s?</i>	V I	1.95	112		4123.514		{17.2 1.2}	<i>s,d</i>	V I	0.27	27	
4118.428r	8	2.1	<i>s</i>					4123.561r	73			Ti I	2.68	296	
4118.555m	154	37.4	<i>u</i>	Fe I (Sm II)	3.57 0.66	801 54		4123.753m	109	26.4	<i>u</i>	Fe I	{2.61 2.99}	217 422	
4118.782	148	35.9	<i>u</i>	Co I	1.05	28		4123.878r	23	5.8	<i>u?</i>	Ce II	0.86	60	
4118.895	75	26.0	<i>u</i>	Fe I	3.26	559		4123.939	16	4.9	<i>u</i>	—Sm II?	0.48	46	
4119.054r	16	3.9	<i>s,d?</i>					4124.108r	9	2.2	<i>s</i>	V I	1.22	52	
4119.259	12	2.9	<i>u</i>					4124.207r	6.5	1.6	<i>u</i>				
4119.400m	72	17.5	<i>u</i>	Fe I				4124.358r	2	0.5		Fe I?			
4119.526	26	7.1	<i>s</i>	Fe II p	2.54	21	16	4124.489	31	7.5	<i>s</i>	Fe I	3.64		
4119.671	23	5.6	<i>s,d?</i>	Fe I p— CH	2.86 P 10	320 1,1	17 3								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4124.630r	5.5	1.3						4129.505r	3.5	1.0					
4124.786	33	7.3	u	Fe II	2.54	22		4129.608r	9.5	2.4					
4124.915	18	4.1	u	Y II	0.41	14		4129.724	54	12.1	$\left\{ \begin{smallmatrix} s,d \\ NN \end{smallmatrix} \right\}$	Eu II	0.00	1	
4125.133r	1.5	0.4						4129.958	18	4.8	u				
4125.228	6.5	1.6		Fe I p	2.45	173		4130.038	64	15.5	s	Fe I	$\left\{ \begin{smallmatrix} 1.56 \\ 3.11 \end{smallmatrix} \right\}$	44 486	
4125.377r	4	1.0						4130.139r	4	1.0		CN	R 45	1,2	11
4125.460	10	2.4		Cr I?	4.21			4130.249r	3	0.7					
4125.626	100	19.9	u	Fe I	4.22	1103		4130.368r	11	2.7		Gd II	$\left\{ \begin{smallmatrix} 0.60 \\ 0.73 \end{smallmatrix} \right\}$	19 49	
4125.694		6.3	u					4130.455	19	4.6	s?	Cr I	2.91	97	
4125.886m	75	18.2	s?	Fe I	2.84	354		4130.657m	45	10.9	u,d	Ba II	2.72	4	
4126.048r	5.5	1.5	s	—Cr I	2.71	65		4130.695r	5	1.3		Ce II	0.56	209	
4126.191m	113	27.4	u	Fe I	3.33	695		4130.856	26	6.3	u,N	—Si II	9.84	3	
4126.380	6	1.5						4130.999r	7	1.7					
4126.519	47	10.9	s	Cr I	2.54	35		4131.117	49	11.9	s	Mn I (Ce II)	4.23 0.33	112	
4126.646r	7	1.7						4131.267r	6.5	1.6	s	Ti I	2.30	253	
4126.857	36	7.3	s	Fe I	2.84	354		4131.348	21	5.1	s	Cr I	3.84	261	
4126.918	7	1.7	s	Cr I	2.71	66		4131.454r	5	1.2		Mn I	3.38	37	
4127.073r	6.5	1.6	s	Ti I? p	1.46	114		4131.596r	1.5	0.4		Fe I			
4127.275	32	7.8	u?	Cr I	$\left\{ \begin{smallmatrix} 2.54 \\ 4.10 \end{smallmatrix} \right\}$	35	17	4131.760	23	7.0	u	Fe I p	4.22	1075	
4127.376	16	4.1	u?	Ce II	0.68	4	17	4131.798	4	1.7		CN	R 44	1,2	11
4127.537r	121	2.7	s	Ti I	2.69	296		4131.957m	60	44.0	s	Fe I p Fe I p	3.26 3.42	558 695	
4127.613m		27.6	u	Fe I (Cr I)	2.86 2.71	357 65		4132.067m	404	104	S	Fe I (V I)	1.61 0.29	43 27	
4127.803m	97	23.5	u	Fe I	$\left\{ \begin{smallmatrix} 3.28 \\ 3.41 \end{smallmatrix} \right\}$	558 727		4132.283r	5	1.8		Gd II	0.60	49	
4127.941r	9	2.3		Fe I				4132.409	19	5.6	u	Cr II	3.76	26	
4128.098	107	25.9	s	V I (Si II)	0.28 9.83	27 3		4132.538	77	20.1	u	Fe I	4.26	1103	
4128.309	12	2.9	S	Y I	0.07	5		4132.711	40	10.2	s				
4128.391r	8	1.9	w?	Cr I	4.10			4132.908m	123	29.8	u	Fe I (Sc I)	2.84 1.94	357 20	
4128.506r	3.5	0.8						4133.133r	3	0.7					
4128.595r	2.5	0.6						4133.290r	2	0.5					
4128.742	50	12.1	w	Fe II	2.58	27		4133.357	11	2.7	u	Nd II	0.32	19	
4128.88 a	10	2.4		Rh I V I	0.97 1.94	8 112		4133.474r	7	1.7					
4128.975r	9	2.2						4133.610m	48	11.6	w	Fe I			
4129.184	84	20.3	s	Cr I Fe I	2.91 3.42	97 698		4133.722r	6	1.7		CN?— CH?	R 43 R 35	1,2 0,0	11 4
4129.324r	13	3.1													
4129.463	57	13.8	u	Fe I	3.40	695									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	
4133.815	108	5.6	<i>u, n</i>	Ce II	{0.52 0.86}	{4 4}		4138.618r	4	1.0						
4133.858		24.0		Fe I	3.37	698		4138.756r	8.5	2.1		CN	R 31	2,3	11	
4134.009	30	7.5	<i>u</i>					4138.853	17	4.1	<i>u</i>	Fe I	2.28	117		
4134.196	22	5.3		Fe I	2.61	217		4138.987r	10	2.4		-CN	R 40	1,2	11	
4134.347	186	20.3	<i>s</i>	Fe I	0.00	3		4139.089	27	6.5	<i>u</i>	CN-	R 40	1,2	11	
4134.438		28.0		{ Fe I V I	{3.02 3.42}	{482 697}	15	4139.225r	14	3.4	<i>u</i>					
4134.524r		6.5				0.30	27		4139.371r	14	3.4		CH	R 31	0,0	4
4134.685m	129	31.2	<i>u</i>	Fe I	2.83	357		4139.458r	8	1.9		Co I	2.04	94		
4134.897	26	6.3	<i>s</i>					4139.610	14	3.4		CH	R 31	0,0	4	
4135.037	38	9.2	<i>u</i>	Mn I	4.25			4139.732r	3.5	0.8		Fe I Nb I	0.13	1		
4135.173r	6	1.5		CH?	R 33	0,0	4	4139.936S	86	20.8	<i>u</i>	Fe I	0.99	18		
4135.297	26	6.3	<i>s, N</i>	Rh I?— Nd II	0.71			4140.062r	1	0.2						
4135.458	19	4.6	<i>u, N</i>	CN? CH? (Ce II)	R 42 R 33 0.56	{1,2 0,0 188}	{11 4}	4140.162r	4	1.0	<i>u</i>	CN?	R 30	2,3	11	
4135.686r	7	1.8	<i>s</i>	{ Zr I— Fe I Os I	0.63	50	17	4140.247	18	4.3	<i>u</i>	Fe I— Sc I	{2.95 1.95}	{418 20}		
4135.760	22	5.3						{4.19 0.52}	{1073 3}		4140.407	68	16.4	<i>u</i>	Fe I p	3.42
4135.938r	9	2.2						4140.457r	10	2.9		Fe I	3.40	694		
4136.093r	1	0.2	<i>S</i>	V I?	1.87			4140.54 a	5.5	1.3						
4136.293r	2.5	0.6						4140.755	18	4.3		CN	R 39	1,2	11	
4136.375r	4.5	1.1	<i>s</i>	V I?	0.29	26		4140.831r	6.5	1.6	<i>u</i>	CN	R 39	1,2	11	
4136.527S	73	17.6	<i>s</i>	Fe I	3.37	694		4141.056	18	4.3	<i>u</i>	Mn I	4.26			
4136.738r	6	1.5						4141.311r	5	1.2		Fe I?	3.02	480		
4136.881r	4.5	1.1	<i>s</i>	Ti I?	2.25	221		4141.529	18	4.3						
4137.005m	104	25.1	<i>u</i>	Fe I	3.41	726		4141.652	19	4.6		CN?—	R 29	2,3	11	
4137.120r	7.5	1.9		Nb I?	0.00	1		4141.755r	3	0.7		La II	0.40	40		
4137.274	48	11.6	<i>s</i>	Ti I (Mn I)	{2.32 3.38}	{253 37}		4141.871m	68	16.4	<i>u</i>	Fe I	3.02	422		
4137.415	59	14.3	<i>u</i>	Fe I	4.28	1103		4142.026	6.5	1.6	<i>s</i>					
4137.655	33	8.0	<i>s</i>	Ce II Fe I	0.52	2		4142.177	51	12.3	<i>w</i>	Ni I Cr I	{3.90 4.45}	212		
4137.773r	11	2.8						4142.308	43	10.4	<i>u</i>	Ni I				
4137.886r	12	2.9	<i>s</i>					4142.407r	10	2.9	<i>s</i>	Ce II	0.70	10	16	
4137.979	26	6.3	<i>u</i>	Fe I	2.83	320		4142.474	45	11.6	<i>u</i>	Cr I	3.12	179		
4138.136	18	4.3	<i>w</i>					4142.588	70	16.9	<i>u</i>	Fe I	4.30	1103		
4138.20 a	6	1.4						4142.768r	8	1.9						
4138.360	34	8.2						4142.842	22	5.3	<i>s</i>	Y I	0.00	5		
4138.494	13	3.1		Ni I	4.17	237		4142.944	28	6.8	<i>s</i>	V II— Ni I	{3.97 4.09}	226		
								4143.041	23	6.0	<i>s</i>	Ti I	2.30	253		
								4143.160r	12	3.1		Pr II	0.37	4		

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4143.274r	5.5	1.6		Ti I	2.29	253		4147.675m	110	26.5	s	Fe I	1.48	42	
4143.416r	134	36.2	u	Fe I	3.05	523		4147.863r	4.5	1.1					
4143.508r	35	16.9	w?	Fe I p	3.37	697		4147.975r	2.5	0.6					
4143.626r	6.5	2.7						4148.169	2.5	0.6					
4143.747r	12	8.0						4148.252	6	1.4		Fe I p	3.65	832	
4143.878m	466	121	S	Fe I (Fe I)p	1.56 2.86	43 354		4148.395	8.5	2.0		CN?	R 24	2,3	11
4143.974r	41	1.7	u,N					4148.493	13	3.1	u				
4144.075		8.2							4148.618r	3.5	0.8				
4144.197r	15	5.1		[Ru I— CN	1.00 R 37	9 1,2	11	4148.720r	6.5	1.7	u?	Ni I	3.46	89	
4144.242	6	1.8		CN	R 37	1,2	11	4148.783	20	4.8	u,N	Mn I	4.27		
4144.33 a	1	0.2	S					4148.917	5	1.2		Ce II?	1.09	28	
4144.387	6.5	1.8						4149.128	21	6.0	w,N?				
4144.519	13	3.4	s,d				17	4149.202	62	14.9	u	Zr II	0.80	41	
4144.668r	6.5	1.6						4149.370m	111	26.8	u	Fe I	3.33	694	
4144.768	14	3.4		CN?	R 27	2,3	11	4149.495	38	7.0	u,N	Fe I p	3.69	942	
4144.855	11	2.7						4149.538		2.9		CH	R 28	0,0	4
4144.855	11	2.7						4149.699r	3.5	1.0		CH	R 27	0,0	4
4145.005m	19	3.6	s,d	Ce II—	0.70	9	17	4149.765	67	16.1	s	Fe I	0.05	3	
4145.086r	2.5	0.6						4149.897	14	3.6					
4145.201	38	8.2	u	Fe I	2.69	274		4149.979	7.5	1.9					
4145.308r	6	1.4						4150.06 a	4.5	1.1		—V II p	2.03	37	
4145.442	14	3.6	w					4150.254	75	18.1	s	Fe I	3.43	695	
4145.559	32	7.7	w	—CH	R 29	0,0	4	4150.375	10	3.1	o?	Ni I	3.94	178	
4145.760	57	13.0	w	—Cr II	5.32	162		4150.445	43	10.4	w	Co I—	0.58	16	
4145.863r	6	1.7		CN?	{R 36 R 26	{1,2 2,3	} 11	4150.548r	9.5	2.3	s	Ti I	2.30	253	
4145.975	23	5.5	u					4150.706r	9	2.2		—CN?	R 33	1,2	11
4146.068	72	17.4	u	Fe I	2.99	422		4150.801	11	2.7	u	—Ti I?	2.24	221	
4146.234a	18	4.3	s,d	Cr I	3.84	260	17	4150.970	43	10.4	s	Ti I Zr II	2.17 0.80	206 42	
4146.384	5	1.2						4151.066r	5	1.2	s				
4146.500	10	2.4	w					4151.201r	2	0.5					
4146.689	19	4.6		—Cr I	2.97	107		4151.270r	2	0.5					
4146.835	6	1.4						4151.30 a to 4151.50 a	5	1.2		Fe I—			
4146.990	45	10.8	w												
4147.213	15	3.6		CN?	R 25	2,3	11	4151.567r	4	1.0		Cr I?	2.97		
4147.347	52	12.5	w	Fe I	3.33	693		4151.666	6.5	1.6					
4147.492	38	8.2	w	Fe I p	3.60	832		4151.768	36	8.7	w	Fe II p	2.28	12	
4147.520r		1.7		Mn I	3.37	37		4151.950	62	14.9	u,d	Fe I La II	3.55 0.23	764 40	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4152.092	68	27.2	<i>u</i>	Fe I p	4.07	1049		4156.455	51	12.3	<i>u</i>	Fe I	3.37	693	
4152.176	107	25.8	<i>s</i>	Fe I	0.96	18		4156.604	80	3.1					
4152.317	16	3.8		CN?	R 32	1,2	11	4156.672			17.3	<i>u</i>	Fe I	2.95	419
4152.36 m			<i>S</i>	Sc I	1.97	20	13	4156.806m	126	30.3	<i>u</i>	Fe I	2.83	354	
4152.388r	8.5	2.0		CN	R 32	1,2	11	4157.004	26	6.5		Mn I	4.64		
4152.527	8	1.9						4157.195	26	5.3	<i>s,N</i>				
4152.601	8	1.9		Nb I	0.09	1		4157.234				1.1			
4152.766	22	5.3	<i>u</i>	Cr I	3.85	261		4157.427	6	1.4					
4152.913	7.5	1.8						4157.577r	8	1.9					
4152.97 a	2.5	0.6		Fe II p	2.89	45		4157.788m	127	30.5	<i>u</i>	Fe I	3.42	695	
4153.066	9	2.2	<i>s,N</i>	Cr I	2.54	35		4158.007	56	7.0		CH	R 26	0,0	4
4153.124r	1.5	0.4						4158.081r			7.0			CN—	R 16
4153.242	1	0.2						4158.267r	3.5	0.8	<i>s</i>	Ti I?			
4153.389m	36	8.7	<i>u,d?</i>	CH Fe I	R 27	0,0	4	4158.376	34	6.0	<i>s,d</i>	Fe I			17
4153.494	3	0.7						4158.425				2.4			Co I— Fe II p
4153.620	24	5.8	<i>s</i>	CH—	R 27	0,0	4	4158.539r	6	1.4		Ni I	4.26		
4153.820	21	8.7	<i>u</i>	Cr I	{2.54 2.54	{35 35		4158.798m	103	24.8	<i>u</i>	Fe I	3.43	695	
4153.906	138	33.2	<i>u</i>	Fe I	3.40	695		4159.044	12	3.1		Ce II?	1.03	246	
4154.105	69	16.6	<i>u</i>	Fe I	3.40	694		4159.186m	114	26.7	<i>w</i>	(CH)	R 25	0,0	4
4154.204r	6.5	1.7						4159.240r				0.6			CH
4154.287	18	4.8	<i>u</i>	CH	R 26	0,0	4	4159.401r	5.5	1.3					
4154.379	23	7.0		CH	R 26	0,0	4	4159.479r	1.5	0.4	<i>s</i>				
4154.505m	126	30.3	<i>u</i>	Fe I	2.83	355		4159.645	13	3.1	<i>s</i>	Ti I— V I	2.16 0.29	206 25	
4154.665	17	4.6	<i>w</i>					4159.865	18	4.3	<i>u,N</i>	CN—	R 27	1,2	11, 17
4154.814S	120	28.9	<i>u</i>	Fe I	3.37	694		4160.092	24	5.8	<i>w</i>				
4154.966r	8	1.9						4160.246	19	4.8		CN— Fe II? p	R 14 4.74	2,3 149	11
4155.052	4.5	1.1						4160.368	64	15.4	<i>w</i>	Fe I—			
4155.199r	3.5	0.8		Sm II?	0.54	50		4160.559	30	7.2	<i>s</i>	Fe I	2.95	419	
4155.316r	2.5	0.6						4160.778	20	4.8	<i>u</i>	Fe I p	4.21	1116	
4155.428r	6.5	1.6		—CN?	R 30	1,2	11	4160.928r	2	0.5					
4155.523r	6	1.4		Mn I	3.38	37		4161.085m	52	12.5	<i>u</i>	Fe I	3.37	689	
4155.641	7	1.7						4161.208	58	13.9	<i>w</i>	Zr II	0.71	42	
4155.715r	2.5	0.6						4161.310r	7	1.9		Ni I	3.19	86	
4155.915	35	8.4	<i>w</i>	Fe I				4161.408	26	6.7	<i>u</i>	Cr I	4.45	305	
4156.083	30	7.2	<i>s</i>	Nd II	0.18	10		4161.517m	96	23.1	<i>u</i>	Fe I Ti II	3.02 1.08	422 21	
4156.235	103	7.7	<i>u</i>	Zr II	0.71	29									
4156.307		20.4	<i>u</i>	Fe I				4161.670	7.5	1.8					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4161.799m	30	7.2	<i>w</i>	Sr II	2.94	3		4166.298	20	4.1	<i>s</i>	- Ti I	1.88	163	
4161.949r	4.5	1.1					4166.352r	0.7				Zr I	0.69	45	
4162.120r	4	1.0					4166.532r	4		1.0			CN?	P 36	3,4
4162.292	6	1.4		CN	R 12	2,3	11	4166.664r	21	5.0	<i>s,d</i>				
4162.460	29	7.0	<i>o?</i>	CH— CN?	R 25 P 5	0,0 3,4	4, 17 11	4166.854	26	6.5					
4162.660	34	8.2	<i>u</i>	CH CN?	R 25 R 25	0,0 1,2	4 11	4166.965	37	8.9	<i>u?</i>	Ni I	4.10		17
4162.908r	4.5	1.1	<i>u,N</i>	Fe I p	3.02	476a		4167.038r	8	2.4		CN	P 34	3,4	11
4162.984r	3	0.7		CN	P 6	3,4	11	4167.277m	200	48.0	<i>w</i>	Mg I	4.34	15	
4163.121r	1	0.2		-Cr I	2.54	35		4167.400	14	5.8		CH	R 24	0,0	4
4163.289r	3.5	0.8		CN	R 11	2,3	11	4167.52 m	11	3.4	<i>S</i>	Y I	0.07	7	
4163.356r	7	1.7		Fe I p	4.19	1073		4167.571	54	13.2	<i>u</i>	CH	R 24	0,0	4
4163.480	42	10.1	<i>u,d</i>	CN—	P 7	3,4	11, 15 17	4167.722	44	10.6	<i>u</i>				
4163.654S	107	25.7	<i>u</i>	Ti II Cr I Fe I	2.59 2.54 2.54 2.69 3.42	105 35 35 274 699		4167.864	50	12.7	<i>u</i>	Fe I	3.30	599	
								4167.968	67	16.1	<i>u</i>	Fe I	3.64		
								4168.120r	5.5	1.3		Nb I	0.00	1	
4163.799r	6	1.4						4168.177r	3.5	0.8					
4163.909r	5.5	1.3		CN?				4168.287r	1	0.2		Cr I?	3.84	261	
4164.020r	15	3.6	<i>w?</i>	V II	2.04	37		4168.475r	13	3.1					
4164.153r	5	1.2	<i>s</i>	Ti I	1.87	163		4168.620S	51	12.2	<i>w</i>	Fe I	3.37	689	
4164.263	66	8.9	<i>u</i>	Fe I p— CH	3.42	694	16	4168.794	5.5	1.3	<i>s</i>				16
4164.330					R 24	0,0	4	4168.950	55	13.2	<i>s?</i>	Fe I	3.42	694	
4164.513r	3	0.7		CH	R 24	0,0	4,16	4169.093	8	1.9	<i>s</i>	Fe I p	1.01	18	
4164.642	19	4.6	<i>s</i>	Ni I (Nb I)	0.42 0.05	28 1		4169.252	7.5	1.8	<i>w?</i>	CN?	R 20	1,2	11
4164.642	19	4.6	<i>s</i>	Ni I (Nb I)	0.42 0.05	28 1		4169.336	10	2.4	<i>s</i>	Ti I	1.89	163	
4164.781	24	5.8	<i>s</i>	Fe I	2.99	418		4169.469	9	2.2	<i>s</i>	CN?— Sm II	R 4 0.25	2,3 24	11, 17
4164.961r	9.5	2.3						4169.615	54	12.9	<i>u,d?</i>	CH— CH	R 23 R 23	0,0 0,0	4 4
4165.119	41	7.4	<i>s,NN</i>	Mg I	4.34			4169.765	52	12.5	<i>u</i>	Fe I	3.40	693	
4165.168r					3.1			R 9 1.99	2,3 20	17 11	4169.853	17	4.3		Cr I
4165.391m	84	20.2	<i>u,d?</i>	-Fe I	3.64			4169.986	4.5	1.1		Fe II p	2.28	12	
4165.516	5.5	1.8		Cr I	4.45	305		4170.142	16	3.8	<i>u</i>				
4165.595	48	11.5	<i>u</i>	Ce II—	0.91	10		4170.210	15	3.8		Cr I	4.10	278	
4165.791r	5.5	1.3						4170.347r	1.5	0.4					
4165.999	9	2.2	<i>s</i>	Ba II CN—	2.72 P 38	4 3,4	17 11	4170.485	7.5	1.8		CN	R 19	1,2	11
4166.100	8	1.9		CN	R 8	2,3	11	4170.635	8	1.9	<i>s,d</i>	Cr II	3.10	18	
4166.193	2.5	0.6		CN	P 37	3,4	11	4170.740r	4.5	1.1					
								4170.912m	97	23.2	<i>u</i>	Fe I	3.02	482	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4171.050	92	22.0	<i>u</i>	Ti I—	2.15	206		4175.464r	7.5	1.8					
4171.273r	12	2.9						4175.643m	110	26.3	<i>u</i>	Fe I	2.84	354	
4171.432	11	2.6						4175.780r	5	1.2					
4171.558	8	1.9	<i>u, N</i>					4175.910	45	9.4	<i>u</i>	Fe I p Cr I	3.40 3.00	694 106	
4171.695	73	17.5	<i>u</i>	Fe I Cr I	3.69 3.85	941 261		4176.061r	6	1.4					
4171.908	90	21.6	<i>u</i>	Fe I Ti II	3.30 2.60	650 105		4176.267	8.5	2.0		CN— CN	R 14 R 14	1,2 1,2	11 11
4172.053	42	13.9	<i>s</i>	Ga I	0.10	1		4176.411	19	4.8		Fe II? p	4.74	149	
4172.131	99	23.7	<i>u</i>	Fe I	3.25	649		4176.577	124	29.7	<i>u</i>	Fe I	3.37	689	
4172.287r	4	1.0						4176.872	25	6.0	<i>w?</i>				
4172.349r	6	1.4						4176.990	10	2.4		CN	P 7	2,3	11
4172.482	48	12.0	<i>u</i>	CH	R 23	0,0	4	4177.080	27	6.5	<i>s</i>	Fe I	3.33	690	
4172.588r	108	5.8	<i>w</i>	Ti I Cr II?	1.88 3.10	163 18		4177.195r	2	0.5		Cr I?	3.01	133	
4172.644		25.4		Fe I	3.33	689		4177.332	29	6.9	<i>s</i>	Nd II— Ti I	0.06 1.89	10 163	
4172.759	110	26.4	<i>s</i>	Fe I	0.96	19		4177.421r	3	0.8		CN	P 8	2,3	11
4172.885r	4.5	1.2		CN	R 17	1,2	11	4177.537r	151	20.8	<i>s</i>	Y II	0.41	14	
4172.975	49	11.7	<i>w</i>	Fe I p	{3.64 4.22	909 1073		4177.611r				20.8	Fe I	0.91	18
4173.149r	11	2.6		Fe I p	3.40	698		4177.698	41	13.6	<i>o</i>	Fe II p	2.54	21	
4173.323m	76	18.2	<i>s</i>	Fe I	2.84	355		4177.849	48	11.5	<i>w, N</i>	CH— CN	R 22 P 9	0,0 2,3	4 11
4173.470	90	21.6	<i>w</i>	Fe II	2.58	27		4177.999r	83	2.4		CH	R 22	0,0	4
4173.542	59	21.8		Ti II	1.08	21		4178.059			18.2	<i>w</i>	Fe I		
4173.681r	7	1.7						4178.235	15	3.6		CN	P 10	2,3	11
4173.790r	2	0.5						4178.382	25	6.0	<i>s</i>	CN— V II	R 12 1.69	1,2 25	11, 17
4173.933m	85	20.4	<i>s</i>	Fe I	0.99	19		4178.479	16	4.1					
4174.077	40	9.8	<i>u</i>	Ti II Ti I	2.60 0.90	105 55		4178.625	16	3.8	<i>u</i>	CN	P 11	2,3	11
4174.15 m	3	0.7	<i>S</i>	Y I	0.07	6		4178.859S	79	18.9	<i>w</i>	Fe II	2.58	28	
4174.183r	2	0.5		Fe I				4178.944	7.5	1.9		CN	P 12	2,3	11
4174.317	17	4.3	<i>u, N</i>	Mn II—	1.81	2		4179.057	6.5	1.6		Cr I	3.85	250	
4174.405	33	7.9	<i>w</i>	Fe I	3.57	799		4179.198r	49	3.8		—Co I?	2.88	144	
4174.486r	6.5	1.6		Ti I	2.23	220		4179.249			8.8	<i>u, N</i>	Cr I CN?	{3.11 3.85 P 13	179 250 2,3
4174.646r	2.5	0.6						4179.383	126	30.2	<i>s</i>	— V I Cr II	0.30 3.83	25 26	
4174.812	33	9.8	<i>s</i>	Cr I				4179.578	15	3.6	<i>u</i>	CN	P 34	2,3	11, 16
4174.917m	103	24.7	<i>s</i>	Fe I	0.91	19		4179.674	2.5	0.6		Fe I			
4175.130	66	15.8	<i>w, N</i>	CH— CN	R 22 R 15	0,0 1,2	4 11	4179.811	14	3.3	<i>u</i>	Zr II CN	1.66 P 33	99 2,3	16 11
4175.222r	11	2.9		Cr I	3.85	261									
4175.332	16	3.8													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4179.86 m			S	Ti I	2. 17	206	13	4184.996r	14	3. 6	s,N	CN—	R 22	0,1	11, 16
4179.998r	10	0. 7		CN Cr I?	P 32 4. 62	2,3	11	4185.151r	2. 5	0. 6					
4180.045		1. 7		CN	{P 16 P 32}	2,3 2,3	11	4185.364	14	3. 3	s,d	Cr I	2. 98	106	17
4180.154	3	0. 7		CN	P 31	2,3	11	4185.546	14	3. 3	u,N				
4180.242	6	1. 4		CN	P 31	2,3	11	4185.651	12	2. 9		Fe I p	4. 26	1104	
4180.403	46	11. 0	u	Fe I	2. 73	274		4185.779	19	4. 5		Fe I			
4180.571r	6. 5	1. 6		CN	{P 19 P 29}	2,3 2,3	11	4185.971r	1	0. 2	s	Ti I p	2. 24	220	
4180.678r	6. 5	1. 6		CN	P 28	2,3	11	4186.126m	42	10. 0	s	Ti I	1. 50	129	
4180.811	80	19. 1		CH	R 21	0,0	4	4186.336	39	9. 3	u,N	CN— Cr I	R 21 3. 85 3. 86	0,1 249	11
4180.904r	12	3. 3		CN— CN	{P 22 P 26 P 23 P 25}	2,3 2,3 2,3 2,3	11	4186.464r	12	3. 1					
4180.99 a	4	1. 0		CN	P 24	2,3	11	4186.622	95	22. 7	u,N	Ce II— CH	0. 86 R 20	1 0,0	4
4181.083	5	1. 2						4186.797r	12	2. 9					
4181.189	13	3. 1		Fe I	3. 63	908		4186.84m			s				13
4181.353	10	2. 4		CN	R 9	1,2	11	4187.047m	204	48. 7	u	Fe I	2. 45	152	
4181.551	62	14. 8	u	Fe I	3. 55	763		4187.255	31	7. 9	u,N	Co I CN	2. 04 P 49	93 1,2	11
4181.764m	148	35. 4	u	Fe I	2. 83	354		4187.335	22	5. 5		Ce II?—	0. 55	86	
4181.974	93	22. 2	u					4187.457r	15	3. 6	s				
4182.216r	26	6. 2		—CN	R 24	0,1	11	4187.594	76	18. 6	u	Fe I	3. 43	694	
4182.387m	88	21. 0	u	Fe I	3. 02	476a		4187.720r	224	7. 2					
4182.589	7	1. 7	s	V I	0. 28	24		4187.812		53. 5	u	Fe I	2. 42	152	7
4182.763	63	15. 1	u	Fe I	3. 42	694		4188.097	39	9. 3					
4182.851	12	3. 1						4188.315	16	3. 8		Fe I CN	P 48	1,2	15 11
4183.008	36	8. 6	u	Fe I	3. 40	697		4188.450r	8. 5	2. 0		CN?	R 0?	1,2	11
4183.186	9. 5	2. 3		Fe II? p	2. 64	21		4188.583r	10	2. 4					
4183.326	32	8. 6	u	Ti I— CH	2. 24 R 21	220 0,0	4	4188.737	120	28. 6	u,d?	Fe I— (Ti I)	4. 21 2. 24	1116 220	
4183.457	78	18. 6	u	V II— CH	2. 05 R 21	37 0,0	17 4	4188.978	72	17. 2		Ni I CH	3. 70 R 20	0,0	4
4183.628	17	4. 1		Fe I				4189.102	44	11. 0		CH	R 20	0,0	4
4183.805	28	6. 7	u,N					4189.332r	2. 5	0. 6					
4183.998m	131	31. 3	w	—Fe I				4189.565	70	16. 7	u	Fe I	3. 69	940	
4184.312	76	18. 2	s?	Ti II	1. 08	21		4189.816	16	3. 4	s	V I	0. 29	24	
4184.478	21	5. 0	w?	Ni I— Fe I	3. 40	89		4189.989	21	5. 0	u	Mn I Cr I	4. 25 2. 97	106	
4184.635r	4	1. 0		Cr I?	4. 53			4190.130	25	6. 0	u	Cr I	2. 87	84	
4184.900S	97	23. 2	u	Fe I (Cr I)	2. 83 3. 09	355 155		4190.239	20	4. 8	s				
								4190.396	10	2. 4		V II	1. 67	25	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Pow E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4190.530r	7.5	1.8						4194.848	65	15.5	<i>u</i>	CH	R 19	0,0	4
4190.717	58	13.8	<i>s</i>	Co I	0.00	1		4194.996	47	11.2	<i>s,d?</i>	CH Cr I CN	R 23 3.85 P 35	1,1 248 1,2	4
4190.893	11	2.6	<i>u,N</i>	V II	2.03	37									11
4191.079	9.5	2.3		Gd II—	0.43	34		4195.161r	9.5	2.4					
4191.164r	9	2.1						4195.340m	127	30.3	<i>u</i>	Fe I	3.33	693	
4191.277	47	14.1	<i>s</i>	Cr I	2.54	35		4195.415r	11	3.6		Cr II— CH	4.98 R 22	155 1,1	4
4191.437m	181	43.2	<i>s</i>	Fe I (V I)	2.47 0.27	152 24		4195.528	38	10.7	<i>w</i>	Ni I	4.09	239	
4191.683S	98	23.4	<i>u</i>	Fe I (Cr I)	2.86 2.54	355 35		4195.627	86	20.5	<i>s</i>	Fe I	3.02	478	
4191.863	14	3.3		CN	P 4	1,2	11	4195.830r	3	0.7					
4192.016	52	12.4	<i>u</i>	CN?— CH	P 62 {R 23 R 24}	0,1 1,1 1,1	11, 17 4	4195.945	20	4.8		CN	{P 14 P 32}	1,2 1,2	11
4192.101r	22	6.9	<i>s,N</i>	Cr I	3.98	273		4196.359r	25	3.1	<i>u</i>	Ce II—	0.42	123	
4192.204	14	3.6		CH	R 24	1,1	4	4196.419r		3.1		CN	{P 16 P 30}	1,2 1,2	11
4192.400	10	2.4		CN Fe I	{P 5 P 41}	1,2 1,2	11	4196.542	67	16.0	<i>u</i>	Fe I (La II)	2.95 0.32	418 41	
4192.572	66	15.7	<i>u</i>	CH	R 19	0,0	4	4196.675	42	10.0	<i>u,N</i>	Fe I			
4192.752	2	0.5						4196.767	11	2.6		CN	{P 18 P 28}	1,2 1,2	11
4192.908	9	2.1		CN	{P 6 P 40}	1,2 1,2	11	4196.878	15	3.6		CN— CN	P 27 {P 19 P 27}	1,2 1,2 1,2	11
4193.107	7.5	1.8		Ce II—	0.74	79									
4193.278	5.5	1.3		CN	P 61	0,1	11	4196.996r	9.5	2.4		CN	{P 20 P 26}	1,2 1,2	11
4193.383	5.5	1.3		CN	{P 7 P 39}	1,2 1,2	11	4197.100m	66	15.7	<i>s</i>	Fe I CN— CN	0.99 P 25 {P 22 P 24}	18 1,2 1,2 1,2	11
4193.447	7.5	1.8		CN	P 39	1,2	11								
4193.621r	46	3.3	<i>s,d</i>	Fe I				4197.234	21	5.0	<i>s</i>	Cr I	3.85	249	
4193.679r		8.3		Cr I (Ni I)	3.85 3.83	248		4197.360	16	3.8	<i>w</i>	Fe I p	3.88	976	
4193.811	23	5.5	<i>w,N</i>	CN	{P 8 P 38}	1,2 1,2	11	4197.508r	2.5	0.6		Fe I			
4193.874	8.5	2.1		Ce II?— CN Cr I	0.55 P 38 3.85	85 1,2 248	11	4197.648r	23	2.9	<i>s,N</i>	CN?— Gd II?	P 57	0,1	11
								4197.741		2.9	<i>s,N</i>				
4194.089r	2	0.5		Fe I				4197.895r	12	2.9					
4194.241	10	2.4		CN	{P 9 P 37}	1,2 1,2	11	4198.068	93	23.1	<i>u,N</i>	Fe I—			
4194.316	6	1.4		CN	{P 60 P 37}	0,1 1,2	11	4198.138	11	5.7					
4194.488	17	4.0	<i>u</i>	Fe I	2.73	274		4198.242	234	27.5	<i>u</i>	Fe I	3.37	693	
							4198.330	36.3				Fe I	2.40	152	
4194.627r	6.5	1.7		CN	{P 10 P 36}	1,2 1,2	11	4198.426r	12	4.5		Co I	0.10	2	
4194.736	42	10.5	<i>u,N</i>	CN?— CH	P 36 R 19	1,2 0,0	11, 16 4	4198.522	24	8.1	<i>u</i>	Cr I	{3.85 3.98}	249 272	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4198.638S	128	30.5	<i>u</i>	CH— Fe I	R 18 3.42	0,0 693	4	4203.692r	1	0.2		Fe I p	4.58	1245	
4198.732r	11	2.9		Ce II?— CN	0.52 P 56	3 0,1	11	4203.773	2.5	0.6	<i>u</i>	CN—	R 5	0,1	11
4198.861r	15	3.6						4203.942r	123	14.7 19.5	<i>u</i>	Fe I Fe I	3.27 3.63	649 850	
4199.105m	183	43.6	<i>u</i>	Fe I	3.05	522	4204.004r								
4199.278	12	3.3		Y II	0.10	5		4204.200	26	6.2	<i>u</i>	V II Cr I	1.70 2.54	25 35	
4199.372	22	5.2		Fe I p	2.95	416		4204.344	5	1.2		CN	P 50	0,1	11
4199.524r	3.5	0.8		Fe I				4204.461	13	3.1	<i>u</i>	Cr I	3.98	272	
4199.673r	5	1.2		CN	P 55	0,1	11	4204.602r	1	0.2		CN	R 4	0,1	11
4199.743r	4.5	1.1		CN	P 55	0,1	11	4204.725r	82	10.5 16.4	<i>u?</i>	Y II CH	0.00 R 17	1 0,0	
4199.888	45	11.7	<i>u</i>	—Ru I	0.81	8	4204.753								
4199.990	79	18.8	<i>s,N</i>	Fe I	0.09	3		4204.895r	4	1.0					
4200.101	17	4.0	<i>w</i>	Fe I p	3.88	993		4205.027r	81	9.5 12.8	<i>u,N</i>	Eu II (V II p)	0.00 1.69	1 25	
4200.292r	0.5	0.1					4205.072								
4200.454	38	9.0	<i>w</i>	Ni I	3.31	89		4205.262r	2.5	0.6					
4200.601	56	13.3		CH	R 18	0,0	4	4205.390m	41	9.8	<i>w,N</i>	Mn II CH	1.81 R 20	2 1,1	4
4200.700	23	7.1	<i>u?</i>	CH	R 18	0,0	4								
4200.780	51	12.1	<i>u</i>	Ti I Fe I p	2.25 1.61	220 44		4205.544m	89	21.2	<i>s</i>	Fe I (CH)	3.42 R 20	689 1,1	4
4200.932m	96	22.8	<i>u</i>	Fe I	3.40	689		4205.735r	4	1.0					
4201.068	16	3.8	<i>u</i>	Ca I	2.93			4205.886	5	1.2		CN	P 48	0,1	11
4201.240	9.5	2.3						4205.963	3.5	0.8		CN	P 48	0,1	11
4201.327r	6	1.4						4206.130r	4.5	1.1		Sm II?	0.38	38	
4201.426r	5.5	1.3		Zr I?	0.62	45		4206.297	18	4.3	<i>s</i>				
4201.577	30	7.4	<i>w</i>	—CH	R 21	1,1	4	4206.423	6.5	1.5					
4201.715	65	17.1	<i>w</i>	Ni I Fe I	4.09 3.57	238 799		4206.578	44	10.5	<i>u</i>	CH	R 17	0,0	4,16
4202.040m	326	77.6	<i>S</i>	Fe I	1.48	42		4206.702m	122	30.0	<i>s</i>	Fe I CH	0.05 R 17	3 0,0	4
4202.348	63	16.4	<i>u</i>	V II	1.70	25		4206.897	13	3.1	<i>u</i>	Cr I	4.62		
4202.502	20	5.0		CN	P 52	0,1	11	4206.950r	2.5	0.6					
4202.591	11	2.9		CN	P 52	0,1	11	4207.133m	84	20.0	<i>u</i>	Fe I	2.83	352	
4202.759	58	13.8	<i>u</i>	Fe I	3.02 3.05	476a 521		4207.251	2.5	0.6		Mn II	1.83	2	
4202.940	17	4.0	<i>u,N</i>	CN? Ce II	R 6 0.56	0,1 186	11	4207.408	59	14.0	<i>w,N</i>	CH	R 19	1,1	4
4203.129	40	9.5	<i>s,d</i>	Ca I— CH	2.93 R 20	1,1	4,17	4207.628	2.5	0.6		Co I?	2.70		
4203.305r	0.5	0.1		Fe I	3.02	418		4207.820	21	5.0	<i>w</i>				
4203.305r	0.5	0.1		Fe I	3.02	418		4207.951r	1.5	0.4					
4203.461	13	3.1	<i>s</i>	Ti I	2.25	220		4208.104	4.5	1.1		CN	P 45	0,1	11
4203.574	53	12.6	<i>s</i>	Fe I— Cr I	1.01 2.54	19 35		4208.174r	4	1.0		CN	P 45	0,1	11
								4208.256r	6.5	1.5					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4208.351	16	3.8	<i>u</i>	Cr I	3.85	249		4213.160	15	3.6	<i>s,d?</i>	CN— Cr I	P 36 3.08	0,1 155	11, 17
4208.452	8.5	2.0						4213.272	4.5	1.1		CN	P 9	0,1	11
4208.608S	98	23.3	<i>s</i>	Fe I	{3.40 3.40	689 696		4213.422	6.5	1.5		Fe I p	2.73	274	
4208.784	9.5	2.3		CN	P 44	0,1	11	4213.518	10	2.4		CN	P 35	0,1	11
4208.856r	4	1.0		CN	P 44	0,1	11	4213.653m	90	21.4	<i>u</i>	Fe I	2.84	355	
4208.985	46	10.9	<i>u</i>	Zr II	0.71	41		4213.839	17	4.7	<i>u</i>	CH	R 18	1,1	4
4209.184	4.5	1.1	<i>u,N</i>					4213.909	45	10.7		CH	R 18	1,1	4
4209.363	29	6.9	<i>s</i>	Cr I	3.85	248		4214.039	7	1.7	<i>o</i>	Ce II?	0.61	203	
4209.500	27	6.4	<i>u</i>	CH	R 19	1,1	4	4214.136r	1.5	0.4		Cr I?	2.54		
4209.602	30	7.1	<i>u</i>	CH	R 19	1,1	4	4214.246	6.5	1.5		CN CN	P 33 P 33	0,1 0,1	11 11
4209.754	15	4.3	<i>u</i>	Cr I V II	3.10 1.67	155 25		4214.363	11	2.6		CN	P 12	0,1	11
4209.826	64	15.2	<i>s</i>	V I	0.30	24		4214.475	9	2.1	<i>u</i>	Fe I p	2.47	152	
4210.065r	23	5.5		CN— CN?	P 42 P 42	0,1 0,1	11 11	4214.628r	17	4.0		—CN	P 13	0,1	11
4210.335r	183	28.7	<i>w</i>	Fe I	2.48	152		4214.834	21	5.0		CN	P 31	0,1	11
4210.402r		21.8	<i>s</i>	Fe I p	3.07	482		4214.915r	8.5	2.1		CN	P 14	0,1	11
4210.503r	8	2.0						4215.057	27	6.4	<i>u</i>				
4210.618	13	3.1		CN	P 41	0,1	11	4215.170	18	4.3		CN	{P 15 P 30	0,1 0,1	11
4210.701r	5.5	1.3		CN	P 41	0,1	11	4215.297	16	4.0		CN	P 29	0,1	11
4210.967	100	23.7		CH	R 16	0,0	4	4215.423	91	45.1	<i>u</i>	Fe I	{2.76 2.99	274 419	
4211.191r	7	1.7		CN—	P 40	0,1	11	4215.539	233	55.3	<i>s</i>	Sr II	0.00	1	
4211.349	20	4.1	<i>s,d</i>	Cr I	{3.01 3.09	133		4215.764r	56	11.4		Cr II— CN	3.10 P 26	18 0,1	11
4211.512	3.5	0.8		Cr I	2.98	106		4215.811r			2.8		CN	P 26	0,1
4211.634	3	0.7						4215.976m	91	21.6	<i>u</i>	Fe I	2.69	273	
4211.740	19	4.5	<i>s</i>	Ti I	2.49	279		4216.191m	130	30.8	<i>s</i>	Fe I	0.00	3	
4211.895	65	15.4	<i>u</i>	{Zr II— CH	0.53 R 18	15 1.1	4	4216.354	27	7.4	<i>s?</i>	Cr I	3.01	132	
4212.044	8.5	2.0	<i>u</i>	Ru I Fe I p	0.81 3.42	6 697		4216.599	49	11.6	<i>u,N</i>	CH	R 17	1,1	4, 16
4212.13 a	2.5	0.6						4216.806r	0.5	0.1					
4212.225	10	2.4		CN— CN	P 38 P 38	0,1 0,1	11 11	4216.901r	0.5	0.1					
4212.398	5.5	1.3		CN	P 7	0,1	11	4217.061	10	2.4	<i>u</i>	Cr II	3.10	18	
4212.642	93	22.1	<i>u,N</i>	CH— CH (Cr I)	R 16 R 16 3.01	0,0 0,0 132	4, 16 4	4217.214	102	14.0		CH	R 15	0,0	4
								4217.268			14.0		CH	R 15	0,0
								4217.559m	128	30.3	<i>s?</i>	Fe I (Cr I)	3.43 3.01	693 132	
4212.850	7	1.7		Ni I— CN	3.85 P 8	0,1	11	4217.757r	4.5	1.1		Ni	3.54	136	
4212.971	4	0.9		Pd I	1.45	7		4217.878r	2.5	0.6					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4218.047	8.5	2.0	<i>u</i>					4223.345	15	3.6	<i>u</i>				
4218.224	44	10.4	<i>u</i>	Fe I p	2.43	172		4223.486	57	13.5		CH	R 14	0,0	4
4218.392	53	12.6	<i>u,N</i>	CH— CH	R 17 R 17	1,1 1,1	4 4	4223.574	67	15.9		CH	R 14	0,0	4
4218.565r	1	0.2						4223.731	34	8.3	<i>s</i>	Fe I	2.95	417	
4218.725	78	18.5		CH	R 15	0,0	4	4223.900r	11	2.6					
4218.920r	3	0.7						4223.978r	7.5	1.8					
4219.016r	1.5	0.4		Fe I				4224.178m	135	32.9	<i>u</i>	Fe I	3.37	689	
4219.199	42	10.0	<i>u</i>					4224.300	32	9.5	<i>u</i>	Zr II Fe I p	0.76 4.28	29 1104	
4219.355r	146	23.5	<i>u</i>	Fe I	3.57	800		4224.459r	114	5.7					
4219.419r		17.3		Fe I p	2.99	419		4224.513		23.9	<i>s</i>	Fe I Cr I	3.43 3.09	689 155	
4219.595r	10	2.4		Fe I p	3.55	763		4224.632r	11	2.8		Fe I p	2.76	274	
4219.727	7	1.7		Fe I p	3.65	832		4224.860	91	22.7		CH Cr II	R 19 5.33	0,0 162	4
4219.903r	5.5	1.3						4225.046r	3	0.8		Ni I p	3.83	169	
4220.051	48	11.4	<i>u</i>	V II Fe I	1.67 3.93	25 994		4225.215	32	8.8	<i>u</i>	V II	2.03	37	
4220.169r	4.5	1.1						4225.330r	8	2.4		Sm II Pr II	0.19 0.00	22 8	
4220.347S	87	20.6	<i>s</i>	Fe I	3.07	482		4225.461m	120	32.9	<i>s</i>	Fe I	3.42	693	
4220.482r	2	0.5		Cr I?	2.97	106		4225.716	52	15.8	<i>s</i>	Fe I p—	4.22	1102	
4220.576	5.5	1.3	<i>w,d</i>	{Mn I Sm II	4.19			4225.811r	0.5	0.1		Fe I p	2.42	118	
4220.644	11	2.6			{0.18 0.54	15 50		4225.962m	74	25.1	<i>s</i>	Fe I	3.05	521	
4220.806r	4	0.9						4226.090	3	1.4					
4221.019r	0.5	0.1						4226.222r	2	1.2					
4221.170	4.5	1.1						4226.349	6.5	7.1					
4221.304	9	2.1	<i>u</i>				16	4226.431m	71	52.5	<i>u</i>	Fe I	2.84	352	
4221.469	54	12.8		CH	R 16	1,1	4	4226.568	18	53.2		Ge I	2.03	4	
4221.572	14	3.6	<i>u</i>	Cr I	{3.08 3.85	155 248		4226.740m	1476	342	<i>S</i>	Ca I	0.00	2	
4221.692	9.5	2.3	<i>u</i>	Ni I	3.31	86		4226.970r	45	55.8					
4221.815r	3	0.7						4227.157r	9	9.2		Fe II p	2.89	45	
4221.95 a	7.5	1.8						4227.321	44	28.9	<i>u,N</i>				
4222.221m	180	42.6	<i>s</i>	Fe I	2.45	152		4227.440m	185	60.8	<i>u</i>	Fe I	3.33	693	
4222.451r	10	2.4						4227.660	12	4.5		Ti I	2.49	278	
4222.52 a	4	0.9						4227.756	35	11.1	<i>u</i>	Ce II Zr I	0.70 0.73	8 45	
4222.602	22	5.2	<i>u</i>	Ce II	0.12	36		4227.944m	54	15.6	<i>s</i>	CH	R 15	1,1	4, 16
4222.728	21	5.0	<i>u</i>	Cr I	3.01	132		4228.106r	3.5	1.1					
4222.898	12	2.8	<i>u</i>					4228.19 a	2	0.6					
4223.091	66	15.6		CH	R 16	1,1	4	4228.312	11	2.8		Cr I	7.68	17	
4223.236	22	5.2	<i>s</i>	Fe I											

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4228.557r	1.5	0.4						4233.612S	298	70.4	s	Fe I	2.48	152	
4228.720	24	6.1	u	Fe I	3.37	690		4234.010	13	3.3	s	V I Co I	{0.04 1.94 0.00	6 111 1	
4228.874r	1.5	0.4						4234.224	7	1.8	u	V II	1.69	24	
4229.048r	5.5	1.3						4234.407	2.5	0.6	u				
4229.261r	5	1.2						4234.547	18	4.2	s	V I V II (Cr I)	0.00 3.76 3.12	6 200 178	
4229.408m	28	7.1	s	Fe I				4234.737r	1.5	0.4					
4229.520m	81	19.4	s	Fe I Ni I	{2.95 3.27 3.85	416 649		4234.896r	1	0.2					
4229.774m	115	27.2	s	Fe I (CH)	1.48 R 13	41 0,0	4	4234.997r	1	0.2					
4229.914	67	16.3		CH	R 13	0,0	4	4235.144m	64	15.3	s	Mn I	2.92	23	
4230.109r	7	1.7						4235.291m	91	23.4	s	Mn I	2.89	23	
4230.254	19	4.5	u	-Cr I?	2.98	106	16	4235.521r	3	0.7		Ni I?	4.15	256	
4230.402r	2.5	0.6	u	Ni I p	3.80	150		4235.641	9.5	2.6	u	Fe I p	2.56	215	
4230.481	16	4.0	u	Cr I	3.01	132		4235.736	20	7.6	w?	Y II (V I)	0.13 1.94	5 111	
4230.575	29	6.8	u	Fe I	3.02	478		4235.836r	16	15.1		Fe I p	2.40	172	
4230.703r	1	0.2						4235.949m	385	90.9	S	Fe I (Cr I) (Y I)	2.42 3.01 0.07	152 132 5	
4230.827r	0.5	0.1						4236.122m	37	12.0		CH	R 12	0,0	4
4231.026m	95	22.4	u	Ni I (CH)	3.54 R 13	136 0,0	4	4236.263m	86	23.8		CH	R 12	0,0	4
4231.202r	3	0.7		V II	1.70	25		4236.380	24	6.4	u	Ni I	4.10	237	
4231.415r	1	0.2						4236.556r	5	1.2	u,N	Zr II-	1.76	110	
4231.609r	76	9.7	u,N	CH- Zr II	R 14 1.76	1,1 99	4, 16	4236.643r	1	0.2		Fe I p	3.64	907	
4231.688r			u,N	CH- Fe I	R 14	1,1	4, 16	4236.78 m	68	7.6	u,N	Fe I Sm II	3.63 0.66	906 53	
4231.839r	2	0.5					4236.806	32			7.8	u	CH V II	R 13 1.69	1,1 18
4231.954m	45	10.6	u				4236.958		40	17.9		u	CH	R 13	1,1
4232.043r	6	1.4		V II	3.97	225		4237.083			161	28.8	u	Fe I CH	R 12
4232.204	12	2.8	u	-Cr I	4.21	294		4237.182	14.2	s?			CH	R 12	0,0
4232.384	16	3.8	s	Nd II-	0.06	8		4237.254r			3.5	0.8	s		
4232.462	8.5	2.1	s	V I	1.95	111		4237.55 a	25	5.9			w,N	Fe I (Cr I)	3.02 3.01
4232.602	3.5	0.8						4237.677			4	0.9	s	Ti I	2.30
4232.734m	58	13.9	s	Fe I	0.11	3		4237.790	16	4.0			s	Ti I	2.50
4232.855r	5.5	1.4		Cr I	{3.01 3.09	132 155		4237.891			111	26.2	s	Fe I	{3.42 3.42
4232.927	62	15.1	u	CH- V I	R 14 1.95	1,1 111	4	4238.029m	17	4.0			u		
4233.169m	139	31.4	w?	Fe II	2.58	27		4238.240							
4233.250			2.1		Cr II	3.86	31								
4233.406r	3.5	1.1													

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4238.395m	41	9.7	<i>u,d?</i>	CH La II	R 20 0.40	2,2 41	4	4242.900r	5	1.2		V II	3.76	200	
4238.621	18	4.2	<i>s</i>	Fe I p-	3.63	849		4243.021r	1	0.2					
4238.757	155	5.2	<i>u</i>	Fe I	3.40	693		4243.203	55	14.8		CH-	R 12	1,1	4
4238.816m		34.9						4243.365	151	35.6	<i>u</i>	CH- Fe I	R 11 3.64	0,0 906	4
4238.944		29						9.7	<i>s,N</i>	Cr I	3.01	131	4243.454	39	16.3
4239.044r	14	3.8		Fe I p CH	2.76 R 22	274 2,2	4	4243.547m	56	13.7	<i>w?</i>	Fe I	3.69		
4239.145r	10	2.4						4243.819m	63	14.8	<i>w</i>	Fe I	3.88	994	
4239.23 a	1.5	0.4						4243.993r	9.5	2.2					
4239.367	66	15.6	<i>u</i>	Fe I	3.64	907		4244.085r	6.5	1.5					
4239.485	8.5	2.1	<i>u</i>	CH	R 21	2,2	4, 16	4244.244	9	2.1	<i>w?</i>				
4239.599	11	2.6	<i>u</i>	CH	R 21	2,2	4, 16	4244.340	13	3.1	<i>u</i>	CH	R 18	2,2	4, 16
4239.733	78	19.8	<i>u</i>	Mn I- Fe I	2.94 2.95	23 416		4244.403	14	3.3	<i>u</i>	CH- Fe I	R 18	2,2	4, 16
4239.848m	132	31.1	<i>s</i>	Fe I	{0.96 2.69	18 273		4244.558r	1	0.2		Fe II p	2.34	12	
4239.953	39	16.5	<i>u</i>	Fe I	3.07	476a		4244.741	3	0.7		Sm II	0.28	27	
4240.087r	1.5	0.4		V I?	1.94	111		4244.812r	8.5	2.0	<i>u,N?</i>	Ni II	4.03	9	
4240.199	20	4.7	<i>w?</i>	CH	R 19	2,2	4	4244.945r	1	0.2					
4240.380	101	23.8	<i>u</i>	Fe I	3.55	764		4245.082	28	6.6	<i>w,N</i>	CH-	R 17	2,2	4
4240.455	58	23.1	<i>s</i>	Ca I	2.71	38		4245.264m	118	28.5	<i>u</i>	Fe I	2.86	352	
4240.610	9	2.2		CH	R 20	2,2	4	4245.359	77	18.1	<i>u</i>	Fe I	3.33	691	
4240.702m	60	14.1	<i>u</i>	Cr I	{2.98 3.09	105 178		4245.512r	9.5	1.8	<i>s</i>	Ti I			
4240.800r	8.5	2.1					4245.613r	0.5							
4240.92 a	2	0.5						4245.810r	3.5	0.8					
4241.123S	50	11.8	<i>w?</i>	Fe I	2.83	351	17	4245.912r	10	2.4					
4241.328	5	1.2	<i>u</i>	CH V I?	R 25 1.95	2,2 111	4	4246.021	23	8.9	<i>u</i>	Fe I p	3.27	649	
4241.521	12	2.8	<i>s,d</i>	CH-	R 25	2,2	4, 16	4246.089	95	22.4	<i>u</i>	Fe I	3.64	906	
4241.706	3	0.7	<i>s,d</i>	Zr I-	0.65	45	17	4246.256r	3.5	0.8					
4241.843r	2.5	0.6						4246.418r	3.5	0.8		Cr II-	3.85	31	
4242.008r	2	0.5						4246.570r	3.5	0.8		Fe I	3.43	689	
4242.162	45	10.6		Tm II- CH	0.03 R 12	5 1,1	4	4246.837S	171	40.3	<i>w?</i>	Sc II	0.31	7	
4242.283r	160	5.2	<i>w,N</i>	-CH	R 12	1,1	4	4247.114	15	3.5	<i>u,N</i>				
4242.379		21.2						4247.315m	65	24.2	<i>u</i>	Fe I p Fe I p	2.45 3.63	172 905	
4242.455r		20.0						4247.432m	162	38.1	<i>u</i>	Fe I	3.37	693	
4242.604m	87	20.5	<i>u</i>	Fe I- CH	2.73 R 11	273 0,0	4	4247.560	61	18.1	<i>w,N</i>	CH-	R 11	1,1	4
4242.734m	61	15.1	<i>u</i>	Fe I	3.30	649		4247.726	49	11.5		CH	R 11	1,1	4
								4247.899r	2.5	0.6					
								4248.055	31	7.3	<i>w?,N</i>	CH	R 16	2,2	4, 17

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4248.231m	97	22.8	<i>u</i>	Fe I	3.07	482		4253.912m	63	16.4	<i>s,d</i>	CH— Fe I	R 10 3.64	1.1 905	4, 17
4248.320	22	7.3	<i>o</i>	(Cr I)	3.01	131		4254.081r	2.5	0.7					
4248.414m	65	15.3	<i>s</i>	[Fe I p CH	1.01 R 11	19 1,1	4	4254.346m	393	92.4	<i>S</i>	Cr I (V II)	0.00 1.68	1 18	
4248.534	38	9.4	<i>w</i>	CH	R 11	1,1	4	4254.666r	5.5	1.5					
4248.726m	81	19.1		CH (Cr I)	R 10 2.98	0,0 105	4	4254.846	12	3.3	<i>u</i>	CH	R 14	2,2	4
4248.944m	70	16.5		CH	R 10	0,0	4	4254.979	108	27.0	<i>u,d</i>	Fe I— CH	{3.02 3.02 R 9	419 477 0.0	} 17 4
4249.114	10	2.4	<i>s</i>	Ti I	2.30	252		4255.251m	69	16.9		CH	R 9	0,0	4
4249.258r	2.5	0.6						4255.507m	51	12.0	<i>s</i>	Cr I Fe I	3.00 3.02	105 416	
4249.347	7	1.6		Fe I p	2.42	117		4255.637m	68	16.0		CH	R 9	0,0	4
4249.494m	60	14.6		CH	R 10	0,0	4	4255.839m	83	19.5	<i>s</i>	CH— Fe I	R 9	0,0	4
4249.637m	91	23.0	<i>u,d</i>	—CH	R 10	0,0	4, 17	4256.026	20	4.7	<i>s</i>	Ti I	2.32	252	
4249.802r	4	1.2						4256.136	19	5.2	<i>o</i>	CH—	R 14	2,2	4
4250.048r	342	4.9						4256.208	54	12.7	<i>u</i>	Fe I	3.42	690	
4250.130m		79.5	<i>u</i>	Fe I	2.47	152		4256.316	23	5.4	<i>u</i>	Fe I	2.43	172	
4250.466	15	4.9	<i>u</i>					4256.420	9.5	2.3	<i>u</i>	Sm II	0.38	37	
4250.706r	400	14.1	<i>u,N?</i>	Mo II	3.14	3		4256.605	16	3.8	<i>u</i>	—Cr I	{3.01 3.01	131 131	
4250.797m		90.6	<i>s</i>	Fe I	1.56	42		4256.812	33	7.8	<i>u</i>	Fe I	4.26	1102	
4250.913	63	46.1	<i>u</i>	Fe I p	3.07	478		4257.140r	4.5	1.1					
4251.331	32	8.2	<i>s</i>	—CH	R 15	2,2	4	4257.360	7	1.6	<i>u</i>	Cr I	3.01	131	
4251.506	1.5	0.4		Fe II p	2.34	12		4257.507r	0.5	0.1					
4251.628	7.5	1.9	<i>s</i>	Ti I	1.88	162		4257.661S	56	13.2	<i>s</i>	Mn I	2.95	23	
4251.748	11	2.8	<i>u</i>	Gd II— Ti I	0.38 2.30	15 251		4257.823r	3	0.7					
4251.887	0.5	0.1	<i>s</i>	Fe I p	2.61	216		4257.925r	1.5	0.4					
4252.055	18	4.5	<i>u,d?</i>	Ni I—	3.74	136		4258.049	22	5.2	<i>u</i>	Zr II	0.56	15	
4252.232	6.5	1.5	<i>w?</i>	Cr I	3.01	131		4258.166m	61	14.3	<i>w,N</i>	Fe II	2.70	28	
4252.306	32	7.5	<i>s</i>	Co I	0.10	1		4258.324m	82	19.2	<i>s</i>	Fe I	0.09	3	
4252.461	8.5	2.0	<i>u</i>	Nd II				4258.488	37	9.4	<i>u</i>	CH— Ti I	R 9 2.29	1,1 252	4
4252.630	30	7.3	<i>u</i>	Cr II	3.86	31		4258.619m	82	19.2	<i>u</i>	Fe I	2.83	351	
4252.756m	50	11.8	<i>u</i>	CH	R 15	2,2	4	4258.731m	50	12.9	<i>w</i>	CH—	R 9	1,1	4
4253.004m	38	8.9		CH	R 10	1,1	4	4258.959m	50	11.7	<i>u</i>	Fe I	3.02	419	
4253.210m	40	9.4	<i>s</i>	CH	R 10	1,1	4, 17	4259.098	40	9.4	<i>u,N</i>	CH	R 9	1,1	4
4253.366	6.5	1.6	<i>u</i>	Gd II Ce II	0.56 0.46	46 77		4259.152r	23	6.3	<i>u,N</i>	Cr I—	3.01	131	
4253.532	9.5	2.4	<i>u,d?</i>	Fe I p Fe I p	3.33 4.59	690 1245		4259.305	59	14.3	<i>s,d?</i>	V I Fe I (CH)	0.02 2.99 R 9	6 416 1,1	4
4253.735	36	9.2		CH	R 10	1,1	4								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4259.511r	1.5	0.4	s				16	4264.925	24	5.6	w	Zr II	1.66	98	
4259.57 a	1	0.2						4265.084r	11	2.6		Sm II?	0.18	15	
4259.764	32	8.2	w?	CH—	R 13	2,2	4, 17	4265.266m	76	17.8	s	Fe I Ti I	{3.93 3.96 2.29	{993 994 252	
4260.004m	86	24.4	s	Fe I	3.33	689									
4260.128	84	26.3	u	Fe I	3.07	476a		4265.431	16	3.8	w				
4260.341r	12	8.2						4265.542	20	4.7	w	CH—	Q 31	0,0	4
4260.486m	595	139	S	Fe I	2.40	152		4265.679	25	5.9	s	Ti I	1.87	162	
4260.622	14	13.6						4265.925m	61	14.3	s	Mn I	2.94	23	
4260.733m	50	20.6	s,N	Fe I p Ti I V II	2.84 2.30 {1.67 1.70	351 251 18 24		4266.078r	4	0.9	s,N				
								4266.216	10	2.3	s	Ti I	2.30	252	
4260.828	19	6.6	w?					4266.431r	2	0.5	u,N				
4261.010	7.5	2.1						4266.623	18	4.7	w?	CH	Q 30	0,0	4
4261.223m	64	16.0		CH	R 8	0,0	4	4266.742	44	10.3		CH	Q 30	0,0	4
4261.343	28	7.0	s	Cr I	2.91	96		4266.968S	81	19.0	u	Fe I	2.73	273	
4261.531	68	16.4	w	CH	R 8	0,0	4, 16	4267.135r	2	0.5					
4261.595r	12	3.3	s?	Ti I	2.30	252		4267.283r	5	1.2					
4261.738m	66	15.7	w,d?	CH	R 8	0,0	4	4267.389	60	14.1		CH	R 7	0,0	4
4261.935	107	14.5	w	Cr II	3.86	31		4267.588	20	4.9	s	CH	R 11	2,2	4, 16
4261.978		14.5		CH	R 8	0,0	4	4267.749	156	13.1	u,N	CH	R 7	0,0	4
4262.128	23	5.4	s,d	Cr I (Gd II)	{2.91 3.11 0.73	84 178 44		4267.827		26.7	u	Fe I CH	3.11 R 7	482 0,0	4
4262.346	27	6.3	w?	—Cr I	3.08	154		4267.984	25	6.1	u				
4262.585	20	4.7	w	CH	R 12	2,2	4	4268.112m	76	17.8		CH	{R 7 Q 29	{0,0 0,0	4
4262.710	31	7.3		CH	R 12	2,2	4	4268.294	8.5	2.0	u				
4262.87 a	1	0.2						4268.448	5	1.2	s	Co I	2.54	127	16
4263.142m	47	11.0	s	Ti I Cr I	1.89 3.85	162 247		4268.628	23	5.6	s	V I	1.87	88	
4263.264	18	4.2	u					4268.756m	69	16.2	s	Fe I (Cr I)	3.30 3.98	649 271	
4263.429	6.5	1.5						4268.921	15	3.5	u	—Ti I	2.29	252	
4263.608	37	8.7	u,d?	CH— CH	R 12 R 12	2,2 2,2	4 4	4269.034	15	3.5	u	Cr I	7.68	16	16
4263.843r	9	2.1		V II	1.69	24		4269.185	4.5	1.1					
4263.980m	41	9.6	w	CH	R 8	1,1	4	4269.290	38	8.9	w	Cr II	3.85	31	
4264.217m	102	22.3	u	Fe I	3.37	692		4269.478m	39	9.1	w	CH— La II	R 7 1.78	1,1 76	4
4264.281		2.3	u	CH	R 8	1,1	4	4269.585	30	7.2	u	CH	Q 28	0,0	4
4264.468m	57	13.4	s	CH	R 8	1,1	4, 16	4269.740	76	17.8	u	Fe I			
4264.580	25	6.1	u					4269.849	76	17.8	u	CH— Fe I p	R 7 3.40	1,1 690	4
4264.741m	86	20.2	u	Fe I (CH)	3.96 R 8	993 1,1	4	4269.966	16	3.7	s	Cr I	3.09	154	

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Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4270.170m	63	15.0	<i>s,d</i>	Ti I CH	2.32 R 7	251 1,1	4	4275.513r	10	2.6		CH	R 9	2,2	4
4270.332	13	3.3	<i>u</i>	Fe I p	2.59	215		4275.557	63	14.7	<i>u?</i>	Cr II	3.86	31	17
4270.489	19	4.7	<i>o?</i>				17	4275.661	79	10.5	<i>u,d</i>	CH	R 6	1,1	4
4270.724r	22	5.6		Ce II—	0.96	21	4275.713r	10.5				Fe I	2.56	215	
4270.957r	240	0.4						4275.897r	2	0.5					
4271.057r		6.1		CH— Cr I	R 10 3.10	2,2 154	4	4275.997	11	2.6	<i>u</i>	Cr I	3.88	240	
4271.164m		52.2	<i>u</i>	Fe I	2.45	152		4276.103	20	4.7		CH Fe I	R 9	2,2	4
4271.374		42	16.2	<i>u</i>	CH	Q 27	0,0	4	4276.274	19	4.4		—CH	R 9	2,2
4271.460	21	10.3		CH	Q 27	0,0	4	4276.434	19	4.4	<i>s</i>	Ti I	1.73	148	
4271.560r	20	1.4	<i>s</i>	V I	1.86	88		4276.532r	0.5	0.1					
4271.638		3.3		Fe I p	2.20	70		4276.680S	57	13.3	<i>u</i>	Fe I Ti I	{3.27 3.88 2.30	597 976 252	
4271.774m	756	177	<i>S</i>	Fe I	1.49	42									
4271.949	28	18.2	<i>u,N</i>	Fe I p CH	2.43 R 10	171 2,2	4	4276.826	7	1.6		Na I?	2.10		
4272.144r	5	2.1						4276.995m	42	9.3	<i>s,d</i>	V I— CH	1.85 Q 26	88 0,0	4
4272.301	17	5.4	<i>w</i>					4277.233m	37	8.6		CH—	Q 26	0,0	4
4272.436	10	2.8	<i>s</i>	Ti I	0.83	44		4277.391	24	5.6	<i>u</i>	Fe I Zr II?	2.61 0.80	214 40	
4272.544m	39	10.5	<i>s,d</i>	Fe I—				4277.535m	72	16.8	<i>u,d</i>	CH— CH	Q 24 Q 24	0,0 0,0	4, 16 4
4272.714r	1	0.2													
4272.888	32	8.0	<i>u,d?</i>	—Cr I	2.90	96		4277.680	14	3.3	<i>s</i>	Fe I	2.43	172	
4273.118	2.5	0.6						4277.815r	2	0.5					
4273.332m	90	21.5	<i>u</i>	Fe II Ti I (CH)	2.70 2.30 Q 26	27 251 0,0	4	4277.907r	1	0.2					
4273.485m	58	14.3		CH	{R 6 Q 26	{0,0 0,0	4	4278.155	14	4.9	<i>u</i>	Fe II	2.69	32	
4273.682	32	7.7	<i>w</i>					4278.235	73	17.1	<i>s</i>	Fe I Ti I	3.37 2.58	691 291	
4273.797	43	14.0		CH	R 6	0,0	4	4278.442r	8.5	2.0	<i>u,N</i>				
4273.891r	114	17.3	<i>u,d</i>	Fe I	3.07	478		4278.551r	1.5	0.4		Tb II?			
4273.942r		14.0		CH	R 6	0,0	4	4278.689	11	2.6	<i>u</i>	Mn I	4.72		
4274.193m	65	15.2		CH	R 6	0,0	4	4278.79 m			<i>S</i>	Ti I	2.30	252	13
4274.391	19	4.4	<i>u</i>	—Ti I	2.29	252		4278.853m	46	10.8	<i>u</i>	CH (V II)	Q 25 4.00	0,0 225	4, 16
4274.596m	69	16.4	<i>s</i>	Ti I	{0.82 1.88	44 162		4279.067m	39	9.1	<i>u,d</i>	CH Mo II	Q 25 3.06	0,0 3	4, 17
4274.806m	196	45.8	<i>S</i>	Cr I	0.00	1		4279.227r	1.5	0.4					
4274.959	63	20.1	<i>u,N</i>	CH	R 6	1,1	4, 16	4279.490m	63	14.7	<i>u</i>	Fe I CH	3.88 R 5	993 0,0	17 4
4275.108r	14	3.5		Cu I?	4.84										
4275.258	49	15.0		CH	R 6	1,1	4	4279.720	93	21.7		CH	{R 5 Q 23	{0,0 0,0	4
4275.386	104	24.3		CH	R 6	1,1	4	4279.874m	60	14.7	<i>w</i>	Fe I	2.86	351	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4280.037m	64	15.0	w,d?	CH (Ti I)	R 5	0,0 2.32	4	4285.008m	75	17.5	s	CH Ti I	Q 22 1.74	0,0 148	4
4280.220m	70	16.4	w	CH Fe I	R 5	0,0	4, 16	4285.201	8.5	2.0	u,N	Ni I p	3.40	86	
4280.341r	7.5	2.6						4285.371r	20	7.9		CH	R 4	0,0	4
4280.403	61	14.2	w	Cr I CH	3.85 R 5	247 1,1	4	4285.450	120	28.0	u	Fe I	3.24	597	
4280.494r	7.5	2.8						4285.538r	40	15.4		CH	R 4	0,0	4
4280.494r	7.5	2.8		Gd II	0.35	15		4285.680r	2	0.5					
4280.542	57	13.8	s	Fe I	3.24	598		4285.815m	59	13.8	s	Co I— Fe I (CH)	0.17 3.64 R 4	1 904 1,1	
4280.632	24	7.2		Fe I p CH	3.02 R 5	416 1,1	4	4285.938r	5.5	1.8		CH	R 4	1,1	4
4280.788m	59	13.7		Sm II CH	0.48 Q 24	46 0,0	4	4286.015	119	27.8	s	Ti I	0.83	44	
4280.964m	49	11.4		CH	{Q 24 R 5}	{0,0 1,1}	4	4286.090r	16	6.8		CH	R 4	0,0	4
4281.100m	77	18.0	s	{Mn I— CH	2.92 R 5	23 1,1	4	4286.196m	57	14.5		CH	R 4	0,0	4
4281.257r	1.5	0.4						4286.324r	2.5	0.6					
4281.257r	1.5	0.4						4286.477m	114	26.6	u,d	Fe I CH	2.95 Q 20	414 0,0	4
4281.376	20	4.9	S,N	Ti I	0.81	44		4286.587r	31	11.2	u,N	CH	R 4	1,1	4, 16
4281.598	4	0.9	s	Fe I p	2.45	171		4286.733	2.5	0.6					
4281.71 m			s				13	4286.884m	54	13.8	u	Fe I (CH)	{2.45 3.42 Q 21	172 691 0,0	4
4281.750r	2.5	0.6						4287.004				Fe I (La II)	3.94 1.95	976 75	
4281.972m	76	17.7		CH	Q 22	0,0	4	4287.051r		19.8	u	CH	Q 21	0,0	4, 17
4282.217r	12	2.8	s	{Zr I Zr II	0.65 2.42	45 132		4287.240r	1.5	0.3					
4282.412S	146	34.1	s	Fe I	2.18	71		4287.412m	57	13.5	S	Ti I	0.84	44	
4282.579r	14	3.7						4287.582r	15	3.5	s	Fe I			17
4282.708	32	8.4	s	Ti I	1.87	162		4287.718	4	0.9	s	Ti I p	0.82	45	
4282.796	56	13.1	w	CH	Q 23	0,0	4	4287.884	90	21.0	w	Ti II	1.08	20	
4283.014m	133	31.0	s	Ca I	1.89	5		4287.992	76	19.4	u	Ni I	3.83	178	
4283.258	6.5	1.5						4288.155m	64	14.9	s	Fe I— Ti I	2.76 0.82 1.05	273 43 79	
4283.411	7	1.6	u	Fe I	2.61	215		4288.268r	5	1.2		Fe I?			
4283.752r	1	0.2		Fe I?				4288.406	12	2.8	u,N				
4283.904r	8.5	2.0	s	Fe I p	0.99	19		4288.566r	3.5	0.8					
4284.071	32	7.5	s	V I— Mn I	1.85 2.95	88 23		4288.736m	75	17.5		CH	Q 19	0,0	4
4284.228	86	20.1	w	{CH Cr II	Q 21 3.85	0,0 31	4	4288.962m	74	17.2	u	{Fe I CH	2.59 Q 20	214 0,0	4
4284.411	27	6.3	u	Fe I	2.99	417		4289.080m	73	17.0	s	Ti I (CH)	0.82 Q 20	44 0,0	4
4284.533	8.5	2.0	u	Nd II	0.63	10		4289.210r	6	1.5		Zr II?	1.83	117	
4284.686m	50	11.7	u	Ni I (Cr I)	3.19 2.89	86 96									
4284.837m	48	11.2		CH	Q 22	0,0	4								

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4289.372m	131	30.5	<i>s</i>	Ca I	1.88	5		4293.802	37	8.6	<i>u</i>				
4289.540r	5	1.5						4293.921r	3	0.8					
4289.729m	230	53.6	<i>S</i>	Cr I	0.00	1		4294.048r	36	24.7	<i>u?</i>	Fe I p—	2.56	214	
4289.922m	65	19.1	<i>u</i>	Fe I (Ce II)	3.40 0.33	691 111		4294.142	217	50.5	<i>s</i>	Fe I Ti II	1.48 1.08	41 20	
4290.057	20	4.9	<i>u</i>	CH	R 6	2,2	4	4294.370	25	6.3	<i>u</i>	CH	R 5	2,2	4, 16
4290.226m	117	27.3	<i>u</i>	Ti II	1.16	41		4294.48 m	6.5	1.5	<i>s</i>				16
4290.384m	62	14.4	<i>s</i>	Fe I	2.99	416		4294.623	31	7.2	<i>u,d</i>	W I CH	0.37 R 5	6 2,2	4
4290.573r	6	1.4						4294.781m	62	14.4	<i>u</i>	Sc II	0.61	15	
4290.709r	2.5	0.6						4294.859r	6.5	1.6		CH	R 5	2,2	4
4290.880r	35	18.2	<i>u</i>	Fe I	2.83	351		4295.040	99	23.0		CH— CH	Q 17 Q 17	0,0 0,0	4 4
4290.956	137	31.9	<i>s</i>	Ti I (CH)	0.81 Q 18	44 0,0	4	4295.226	107	24.9		CH— CH	Q 16 Q 16	0,0 0,0	4 4
4291.019r	19	10.2		CH	Q 19	0,0	4	4295.422r	5	1.2					
4291.121	110	26.1	<i>u</i>	CH	{R 3 {Q 19	{0,0 {0,0	{4	4295.591r	0.5	0.1					
4291.220r	32	14.2	<i>u</i>	CH Ti I	R 3 {0.84 {1.74	0,0 45 147	4	4295.757m	55	12.8	<i>s</i>	Ti I— Cr I	0.81 2.71	44 64	
4291.472S	84	19.6	<i>S</i>	Fe I (Fe I p)	{0.05 {1.56 {2.73	3 41 273		4295.887m	42	9.8	<i>u</i>	Ni I	3.84	178	
4291.621r	5.5	1.3						4296.075	17	4.0	<i>s</i>	V I (La II)	2.13 0.77	120 53	
4291.735	8.5	2.0						4296.217	35	8.1		CH	R 2	1,1	4
4291.839	11	2.6	<i>s,d</i>	V I—	2.14	120		4296.392	3.5	0.8					
4291.979r	77	6.5	<i>w</i>	Cr I— CH	3.42 R 3	1,1	4	4296.584	105	24.4	<i>w</i>	Fe II (CH)	2.70 R 2	28 0,0	4
4292.055															
4292.129	95	22.1	<i>u?</i>	CH— Fe I	R 3 {2.18 {2.59	0,0 70 215	4	4296.776r	110	25.6		Zr II	1.76	98	
4292.294m	50	11.6	<i>u</i>	Fe I	2.20	70		4296.956	110	25.6		CH	Q 16	0,0	4
4292.460r	4.5	1.0						4297.045r	41	18.6	<i>u</i>	Cr I	2.71	64	
4292.583r	1.5	0.3						4297.219	62	22.3		CH	Q 15	0,0	4
4292.671r	3.5	0.8	<i>s</i>	Ti I	1.05	79		4297.291r	90	20.9		CH	Q 15	0,0	4
4292.784r	1	0.2						4297.530m	75	17.4	<i>w,d?</i>	CH—	R 2	1,1	4
4292.879r	1	0.2		Zn I	4.03	3		4297.751	55	12.8	<i>s,N</i>	Cr I V I?	3.85 2.12	247 120	
4293.036r	136	15.1	<i>s</i>	CH	Q 18	0,0	4	4297.979r	15	7.4	<i>s</i>	CH	R 2	0,0	4
4293.114															
4293.330r	8	1.9	<i>s</i>				16	4298.197m	52	12.1	<i>u</i>	Fe I p	3.11	476a	16
4293.556	14	3.0	<i>s,d?</i>	Cr I	2.91	96		4298.374r	4	0.9					
4293.661r	4.5	1.0						4298.516	15	3.5	<i>u</i>	Ni I	3.84	178	
								4298.676m	76	17.7	<i>s</i>	Ti I	0.82	44	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4298.813m	96	22.3	<i>u</i>	CH	Q 15	0,0	4	4303.595m	65	15.1	<i>s</i>	Nd II	0.00	10	
4298.994m	112	27.2	<i>s</i>	Ca I	1.89	5		4303.723	41	13.2	<i>w</i>	CH—	Q 14	1,1	4
4299.138	48	24.2	<i>u?</i>	CH	Q 14	0,0	4	4303.835	81	28.6	<i>u</i>	CH	Q 12	0,0	4, 16
4299.249	212	49.3	<i>s,N</i>	Fe I Ti I (CH)	2.42 1.75 Q 14	152 148 0,0	4	4303.937	119	27.6	<i>w,N</i>	—CH	{Q 12 R 1}	{0,0 0,0}	4
4299.367r	37	19.1	<i>u</i>	(Ce II)	0.17	47		4304.141r	7.5	1.7		Fe I	3.30	647	
4299.483	71	18.1	<i>u</i>	CH Fe I p	R 1 3.25	1,1 648	4	4304.256m	63	14.6	<i>w</i>	CH	Q 15	1,1	4, 17
4299.645m	82	19.1	<i>s</i>	Ti I Fe I	0.83 3.02	43 416		4304.395m	68	16.0		CH	Q 11	0,0	4
4299.689r	22	7.4		Cr I	2.90	96		4304.571m	108	25.1	<i>w</i>	Fe I— CH	2.95 Q 11	414 0,0	4
4299.831m	93	21.6						4304.721	35	9.0		CH	Q 13	1,1	4
4299.831m	93	21.6						4304.852	56	13.0	<i>u,N</i>	CH— Fe I	Q 13 {3.30 3.55}	{1,1 598 756}	4
4299.977r	9	3.7						4305.110m	82	19.0		CH Fe I	Q 14 2.73	1,1 272	4
4300.053	166	38.6	<i>w</i>	Ti II	1.18	41		4305.217	34	9.3	<i>u</i>	Fe I	3.55	760	
4300.219	37	11.9	<i>u</i>	Fe I	3.88	975		4305.322m	52	13.5		CH	Q 11	0,0	4
4300.318	87	20.2	<i>w</i>	CH (Ce II)	R 1 0.45	0,0 134	4, 16	4305.456m	124	28.8	<i>u</i>	Fe I— CH	3.02 3.04 2.89 Q 11	476 3 96 0,0	4
4300.573m	126	29.3	<i>S</i>	Ti I— CH	0.83 Q 14	44 0,0	4					Sc II	0.60	15	
4300.744	33	11.8	<i>u,N</i>					4305.613r	20	5.6		Fe I	3.98	976	
4300.827	99	23.0	<i>u</i>	Fe I	3.98	976		4305.713m	67	15.6	<i>u</i>	CH	Q 13	0,0	4
4301.000r	48	23.7	<i>u,N</i>	CH	Q 13	0,0	4	4305.847r	15	5.8		CH	Q 12	1,1	4
4301.103	179	41.6	<i>s</i>	Ti I (V II)	0.84 4.02	44 225		4305.918	156	36.2	<i>S</i>	Ti I (CH)	0.85 Q 10	44 0,0	4
4301.174r	25	18.1	<i>u,N?</i>	CH— Cr I	Q 13 3.45	0,0	4	4306.145	90	21.1		CH	Q 10	0,0	4
4301.280	28	8.6						4306.18 m			<i>S</i>	V I	0.02	5	13
4301.501	9	2.1	<i>w</i>					4306.360	12	2.8	<i>w</i>				
4301.749	59	15.1		CH— CH	Q 16 Q 16	1,1 1,1	4 4	4306.599	33	12.5	<i>u,N</i>	Fe I	3.43	691	
4301.927m	128	29.8	<i>u</i>	Ti II	1.16	41		4306.701	95	25.1		CH	Q 10	0,0	4
4302.080r	12	3.0	<i>u</i>	Ni I	3.48	102		4306.855	120	29.2		CH	Q 10	0,0	4
4302.199	48	21.8	<i>u</i>	Fe I	3.05	520		4306.91 m			<i>s</i>	Ti I	0.81	43	13
4302.297	135	31.4		CH— CH	Q 13 Q 13	0,0 0,0	4 4	4307.058	3	0.8		Fe I p	3.37	690	
4302.530m	165	38.4	<i>S</i>	Ca I	1.90	5		4307.181	4.5	1.2	<i>s</i>	V I	0.00	5	
4302.65 a	43	19.5						4307.311m	64	17.2		CH	Q 9	0,0	4
4302.754	101	24.2		CH	Q 12	0,0	4	4307.564	82	28.8		CH?— CH	Q 10 Q 9	1,1 0,0	4 4
4302.913m	79	19.0		CH	Q 12	0,0	4	4307.748	59	40.2	<i>s</i>	Ca I	1.89	5	
4303.089r	32	9.3	<i>w?,N</i>	CH	R 1	1,1	4	4307.912m	723	165	<i>S</i>	Fe I Ti II (CH)	1.56 1.16 Q 9	42 41 0,0	4
4303.177	103	23.9	<i>w</i>	Fe II	2.70	27		4308.046r	6	7.7					
4303.426m	72	16.7		CH	Q 16	1,1	4								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4308.176m	29	16.7		CH	Q 9	0,0	4	4312.302m	70	18.6	<i>w?,d</i>	CH—	{Q 5 Q 4 2.93	0,0 0,0	4, 17
4308.289r	31	12.8										Ca I			
4308.381r	46	14.2		CH	Q 9	1,1	4	4312.504r	99	4.6 20.9	<i>u</i>	CH	Q 3	1,1	4
4308.441r	35	11.1		CH	Q 10	1,1	4	4312.564				Mn I— CH	2.94 Q 3	23 0,0	4
4308.54 m	7.5	3.7	<i>S</i>	Ti I	1.07	79		4312.709	34	8.8		CH	{Q 3 Q 2	0,0 0,0	4
4308.595	98	25.1		CH— CH	Q 8 Q 9	0,0 1,1	4 4	4312.875m	153	35.5	<i>w?</i>	Ti II— CH	1.18 Q 4	41 0,0	4
4308.777r	3.5	0.9		Cr II?											
4308.905m	71	20.4		CH	Q 8	0,0	4	4313.035m	72	19.5	<i>w,N</i>	CH Fe I p	Q 4 2.76	0,0 273	4
4309.040	131	31.6	<i>u</i>	Fe I	3.63	849		4313.237	6.5	1.5					
4309.131	79	13.2		CH	Q 8	0,0	4	4313.418	8.5	2.0					
4309.205r		13.2		CH	Q 9	1,1	4	4313.631m	81	18.8		CH— CH	Q 3 Q 3	0,0 0,0	4 4
4309.383	126	29.9	<i>u</i>	Fe I CH	2.95 Q 8	4.14 0,0	4 4	4313.890	11	2.6	<i>s</i>	—V I?	1.85		
4309.458	40	21.6	<i>w</i>	CH Fe I p	Q 8 3.11	1,1 478	4	4314.091m	108	25.0	<i>u</i>	Sc II	0.62	15	
4309.634	93	21.8	<i>u</i>	Y II CH	0.18 Q 8	5 1,1	4	4314.221	24	7.9	<i>w</i>	CH	Q 2	0,0	4
4309.711	45	17.2	<i>w?</i>	CH	Q 7	0,0	4	4314.314	66	15.3	<i>u</i>	Fe II Fe I?	2.68	32	
4309.834	29	9.5	<i>s,N</i>	CH V I	Q 7 0.04	1,1 5	4	4314.36 m			<i>S,N</i>	Ti I	0.84	45	13
4309.900	71	16.5	<i>u,N</i>	CH	Q 8	1,1	4	4314.512	19	4.4	<i>w</i>	Nd II—	0.00	9	
4310.106m	108	25.0		CH	Q 7	0,0	4	4314.733r	82	3.7 16.2	<i>S</i>	Ti I p	0.82	43	13
4310.225	53	18.3		CH	Q 7	1,1	4	4314.77 m				Ti I	0.84	43	
4310.379r	15	5.8	<i>u</i>	Fe I	3.93	994		4314.807				82	28.0	<i>u</i>	Ti II
4310.467	126	29.2		CH	Q 7	0,0	4	4315.098m	153	35.4	<i>u</i>	Fe I	2.20	71	
4310.559	24	9.3		CH	Q 7	1,1	4	4315.285r	5.5	1.3					
4310.704m	98	22.7	<i>s</i>	CH—	Q 6	0,0	4, 17	4315.458	10	2.3					15
4310.897	28	10.0		CH	{Q 6 Q 5	{1,1 1,1	4	4315.602	6.5	1.5	<i>u</i>				
4310.984	104	24.1		CH	Q 6	0,0	4	4315.740r	3	0.7					
4311.167m	77	17.9		CH	Q 6	0,0	4	4315.877	4.5	1.0		La II?	0.40	41	
4311.322	17	5.6		CH	Q 4	1,1	4	4315.951	8	1.9	<i>u,N</i>	Fe I p	2.43	171	
4311.446	14	8.8		CH	Q 6	0,0	4	4316.083	11	2.5	<i>u,N</i>	Gd II?—	0.66	43	
4311.509	171	39.6		CH	Q 5	0,0	4	4316.559r	1.5	0.3		Fe I?			
4311.63 m	18	6.5	<i>S</i>	Ti I	2.15	205		4316.671r	3.5	0.8					
4311.718	82	19.0		CH	Q 5	0,0	4	4316.802m	38	10.2	<i>u</i>	Ti II	2.05	94	
4311.888	18	4.4	<i>u</i>					4316.962	16	3.7	<i>w</i>				
4312.086r	141	23.0		CH	Q 5	0,0	4	4317.055	11	2.5	<i>w</i>	Fe I	3.55	762	
4312.150r		14.8		CH	Q 4	0,0	4	4317.15 a	2	0.5					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4317.321	13	2.8	w,N	Zr II—	0.71	40		4323.063	21	6.5		CH	{Q 2, 7 Q 12	2.2 2.2	4
4317.457r	3	0.7													
4317.719	8.5	2.0	u					4323.226m	101	23.6		CH—	{Q 5, 6 Q 10 to Q 13	2.2 2.2 2.2	4
4317.903r	1.5	0.3		Cr I	4.21							CH	{Q 4, 9 Q 13	2.2 2.2	4
4318.070	13	3.0	w												
4318.207	8.5	2.0	u					4323.367	43	11.1	u	CH Fe I p	{Q 3, 8 Q 14 2.45	2.2 2.2 171	4
4318.362	13	3.0	u,d?												
4318.470r	4	0.9						4323.512	105	24.7	u	CH—	{Q 3 to Q 9 Q 14	2.2 2.2 2.2	4
4318.659S	116	26.8	s	Ca I Ti I	1.90 2.25	5 235		4323.611r	56	18.7	u,N	CH	{Q 6 Q 10	2.2 2.2	4
4318.796	18	4.9	u	Fe I p	2.59	215									
4318.936	10	2.3	u	Sm II	0.28	27		4323.711r	12	3.7		Ni I	3.40		
4319.091r	2.5	0.6													
4319.294r	2.5	0.6						4323.851	113	26.6		CH	{Q 5 to Q 9 Q 11 Q 15	2.2 2.2 2.2 2.2	4
4319.452	13	3.0	s?	Fe I	2.61	214									
4319.636	15	3.5	s?	Cr I	2.89	96		4323.973	42	13.2		CH	{Q 4, 5 Q 10 Q 15	2.2 2.2 2.2	4
4319.808r	2.5	0.6													
4319.986	6	1.4	u					4324.087	41	9.9		CH	{Q 4 Q 11 Q 12	2.2 2.2 2.2	4
4320.143	6	1.4	w	Fe I p	4.39	1170									
4320.373	17	3.9	w	Fe I	3.40	691		4324.176	38	9.2		CH	{Q 3 Q 12	2.2 2.2	4
4320.500	24	5.6	s,d	Fe I	3.42	691	17	4324.412m	73	17.8		CH CH	{Q 2 Q 13 Q 16	2.2 2.2 2.2	4
4320.593	7.5	1.7	u	Cr I	{2.90 2.91	96 96		4324.616	6	1.5	s	Na I	2.10		
4320.749m	94	21.8	u	Sc II	0.61	15		4324.725r	7	2.0	u				
4320.958m	63	16.4	w	Ti II	1.16	41		4324.819	39	9.9	w	—CH	Q 14	2.2	4
4321.133r	5	1.2	u					4324.998m	117	29.4	u	Fe I— Sc II (Cr I)	2.20 0.60 2.97	70 15 104	
4321.232	8	1.9	s	Cr I	2.87	83									
4321.412	9.5	2.2	s	Na I—	2.10			4325.141	55	16.6	s	Ti I	2.25	235	
4321.517r	1.5	0.3						4325.356m	49	15.5	u	CH	Q 15	2.2	4
4321.658m	26	6.0	s	Ti I	2.24	235		4325.487r	20	8.6	u				
4321.798m	50	12.0	u	Fe I				4325.618	26	16.2	u	Ni I	3.31	86	
4322.043	9.5	2.2	u,N	V II—	1.68	17		4325.775m	793	17.4	S	Fe I (Fe I p)	1.61 0.00	42 2	
4322.212r	2.5	0.6						4325.953	56	32.4	u	Fe I p	3.27	598	
4322.358	4.5	1.0	u												
4322.505	12	2.8	u	La II	0.17	25		4326.052r	23	13.2	u,N	CH	{Q 16 Q 18	2.2 2.2	4
4322.701r	3	0.7		Fe I p	2.61	215		4326.222r	6.5	2.1					
4322.828	6	1.4	s				16	4326.357m	22	6.2	s	Ti I	0.83	43	
4323.013	66	15.5		CH	{Q 8 to Q 11	2.2 2.2	4	4326.479r	0.5	0.1					
								4326.616	4	1.0		Mn II?	5.40	6	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4326.762m	56	14.1	<i>u</i>	Fe I	2.95	413		4331.782r	4.5	1.0					
4326.917	34	8.6	<i>w</i>	CH— CH	Q 17 Q 17	2,2 2,2	4 4	4332.006	5	1.2	<i>o</i>	CH—	P 4	1,1	4
4326.97 m	7	2.0	<i>s</i>	Ti I	0.81	43		4332.169	4.5	1.0		CH	P 4	1,1	4
4327.110m	83	18.2	<i>w</i>	Fe I	3.55	761		4332.453	8	1.8	<i>u</i>	Fe I			16
4327.157r		2.0	<i>u?</i>	CH	{P 3 Q 19}	{1,1 2,2}	4	4332.583	29	6.7	<i>u,N</i>	Cr I— CH	3.12 Q 22	176 2,2	4
4327.317r	5.5	1.4						4332.831	20	4.8	<i>s</i>	V I	0.02	5	
4327.453	9	2.2	<i>u,N</i>					4332.918	36	8.3	<i>u</i>	CH—	P 4	1,1	4
4327.61 a	5.5	1.3						4333.051	12	2.8	<i>u</i>	CH Fe I p	Q 21 4.29	2,2 1135	4
4327.791	18	4.2	<i>u</i>					4333.206	14	3.2	<i>u</i>	Ni I? CH? (Zr II)	Q 21 2.41	2,2 132	4
4327.917m	69	16.2	<i>u</i>	Fe I	3.30	597									
4328.035	23	6.2		CH	Q 18	2,2	4	4333.365	6.5	1.5	<i>u,N</i>				
4328.203r	8	2.0		CH?	P 3	1,1	4	4333.421	3	0.7	<i>u,N</i>				
4328.284r	7.5	1.7						4333.763m	35	8.3	<i>u</i>	La II	0.17	24	
4328.439	5	1.2						4333.898	19	4.4	<i>s</i>				
4328.610	34	8.1	<i>u</i>	CH	Q 20	2,2	4, 16	4334.018	20	2.3		CH	P 4	0,0	4
4328.845r	9	2.1	<i>u</i>	CH	P 3	0,0	4	4334.067r			19	2.3	<i>s,N</i>		
4328.927r	5.5	1.3		CH	P 3	0,0	4	4334.166	19	2.3				Sm II	0.28
4329.038	12	2.8	<i>u</i>	Sm II	0.18	15		4334.246r			16	3.9		CH	P 4
4329.144	5	1.2		CH	P 3	0,0	4	4334.672	16	3.9			<i>s</i>	CH— Ti I	P 4 0.82
4329.289	30	6.9	<i>u</i>	CH	Q 19	2,2	4, 16	4334.800			13	3.2		Fe I?	
4329.391	26	6.0	<i>u</i>	CH	Q 19	2,2	4, 16	4334.938	1.5	0.3					
4329.537	7.5	1.7	<i>u</i>	Fe I p	2.22	70	16	4335.087r			31	7.6	<i>u</i>	CH	Q 23
4329.691r	3	0.7						4335.274	13	3.2				Fe I p	3.07
4329.902	9	2.1	<i>u</i>					4335.452			5	1.3			
4330.024	35	8.1	<i>s</i>	V I	0.00	5		4335.602r	5	1.3			<i>u</i>	Fe I?—	
4330.245m	38	9.7	<i>w</i>	Ti II	2.05	94		4335.783			6.5	1.6	<i>u,N</i>	Fe I	3.88
4330.408	43	5.3	<i>u,N</i>	CH	Q 21	2,2	4	4335.913	2	0.5					
4330.451		5.3		4335.987r											
4330.581r	2	0.5		Gd II?	0.52	46		4336.135r	0.5	0.1		Fe I			
4330.708m	64	14.8	<i>w</i>	Ti II Ni I	1.18 3.80	41 149		4336.273r	2.5	0.6		Ce II	0.70	89	
4330.820	10	2.5	<i>u</i>	Fe I	3.02	475		4336.442r	0.5	0.1					
4330.956m	42	9.7	<i>u</i>	Fe I	3.27	597		4336.614r	2.5	0.7		Fe I p	3.88	990	
4331.053	14	3.5	<i>w</i>	CH—	Q 20	2,2	4	4336.791	8.5	2.3	<i>u</i>	CH	P 5	1,1	4, 16
4331.243	7	1.6		Co I	3.41	168		4336.873	18	4.8		Fe I p	3.42	692	
4331.442	19	4.4	<i>w,N</i>	Fe I—				4337.055m	120	30.4	<i>u</i>	Fe I	1.56	41	
4331.651S	56	13.6	<i>u</i>	Ni I	1.68	52		4337.252	46	12.2	<i>u</i>				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4337.411	18	4.8	<i>u</i>	CH	P 5	1,1	4	4342.990r	6	1.7	<i>u?</i>	CH?	P 4	2,2	4
4337.566m	88	23.3	<i>s</i>	Cr I	0.97	22		4343.216	112	15.0	<i>u,d</i>	Cr I— Fe I p	2.71 3.25	64 644	
4337.792	14	3.9	<i>u</i>	Ce II	0.33	82	4343.268	15.0				Fe I	3.25	645	
4337.925S	89	24.0	<i>w</i>	Ti II	1.08	20	4343.416r	9.5		3.0	<i>u</i>				
4338.085r	4	1.3					4343.494	38	10.4			CH	P 6	0,0	4
4338.132r	10	3.0					4343.705m	71	18.6	<i>u</i>		Fe I (CH)	3.05 P 6	517 0,0	4
4338.271m	54	15.4	<i>u</i>	Fe I	2.18	70									
4338.445	26	7.8	<i>u,d</i>	—Ti I	2.16	204	4343.854r	3	0.8			CH— Fe I p	P 4 3.55	2,2 7.56	4
4338.627	10	3.2		CH	{P 5 Q 24}	{0,0 2,2}	4	4343.968m	44	11.5	<i>u</i>	CH	P 6	0,0	4
4338.694	30	9.2	<i>u</i>	Nd II Fe II p	0.74 2.69	68 32		4344.145r	3.5	0.9					
4338.829	20	6.4	<i>u,d</i>	Cr I Fe I p	3.37 2.48	198 117		4344.290m	75	18.2	<i>u</i>	Ti II	1.08	20	
4339.010r	7	2.3	<i>u</i>	CH	P 3	2,2	4	4344.511m	98	24.3	<i>s</i>	Cr I	1.00	22	
4339.129	19	6.4	<i>w</i>					4344.669r	8	2.1					
4339.259	23	8.1	<i>u</i>	Fe I (CH)	P 5	0,0	4	4344.746	3.5	0.9	<i>u</i>	Na I	2.10		
4339.456m	82	25.0	<i>s</i>	Cr I	0.98	22		4344.891	32	8.0	<i>u</i>	—Fe I?			
4339.722m	69	23.8	<i>s</i>	Cr I	0.96	22		4345.084	10	2.5	<i>u</i>	Cr I	3.37	198	
4339.910r	3	1.5						4345.21?m	1	0.2	<i>s,N</i>				
4340.032r	1.5	0.9	<i>s</i>	Ti I?	2.02	174		4345.238r	1.5	0.3					
4340.142	14	10.8	<i>s</i>	Cr I	2.71	64		4345.345r	1.5	0.3					
4340.475m	2855	659	<i>W,N</i>	H γ	10.20	1		4345.432r	1	0.2					
4340.848	2.5	1.8					15	4345.594	9.5	2.3	<i>u</i>				
4341.003	16	7.6	<i>S</i>	V I	0.04	5		4345.772	8	2.1	<i>u</i>				
4341.126r	1.5	0.7	<i>s</i>	Zr I	1.40	61		4345.895	23	5.8	<i>u</i>	CH	P 7	1,1	4
4341.250	6.5	3.0	<i>w</i>	Fe I	3.40	691		4346.116	10	2.5	<i>s</i>	Ti I	2.24	234	
4341.371m	53	19.6	<i>w?</i>	Ti II	1.12	32		4346.295m	49	12.0	<i>u</i>	CH	P 7	1,1	4
4341.551	12	4.8	<i>u,N</i>	Fe I p	3.27	644		4346.418r	3.5	0.8					
4341.710	16	5.8	<i>w</i>	CH	P 6	1,1	4, 16	4346.561m	68	16.6	<i>u</i>	Fe I	3.30	598	
4341.826	7.5	2.8	<i>u</i>	Fe I	3.55			4346.673	14	3.7	<i>u</i>	CH	P 7	1,1	4
4341.924	14	4.8	<i>u?</i>	CH	P 6	1,1	4	4346.831m	39	9.4	<i>u</i>	Cr I	2.98	104	
4342.059r	3.5	1.2	<i>u</i>	Ru I?	1.14	9		4346.904r	7	1.8		V II	1.67	17	
4342.180	20	6.4	<i>u</i>	Gd II CH	0.60 P 6	15 1,1	4	4347.037r	2.5	0.6					
4342.305	14	4.8	<i>u,N</i>					4347.104r	1.5	0.3					
4342.47 a	1.5	0.5						4347.242m	41	9.6	<i>s</i>	Fe I	0.00	2	
4342.590r	1.5	0.5						4347.370r	3.5	0.8		—CH	Q 26	2,2	4
4342.840	1.5	0.5	<i>s</i>	V I	1.87	103		4347.545m	37	9.0		CH	P 7	0,0	4
								4347.683r	3	0.7					
								4347.841m	65	15.4	<i>w?</i>	Fe I (Sm II)	3.60 0.38	828 37	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4347.973m	55	13.1		CH	P 7	0,0	4	4353.843	10	2.3		Co I?	3.97		
4348.104r	11	2.5		CH	P 5	2,2	4	4353.948	24	5.5	<i>u</i>	Cr I	3.37	198	
4348.187r	2.5	0.6						4354.067r	8	1.8	<i>s</i>	Ti I	2.16	204	
4348.338m	50	12.0		CH	P 7	0,0	4	4354.266	32	7.3	<i>u,N</i>	Fe I p	3.88	975	
4348.492	9.5	2.3	<i>u</i>	CH	P 5	2,2	4	4354.436r	13	3.4	<i>u,NN</i>	La II	0.92	58	
4348.636	7.5	1.7	<i>u</i>	CH	P 5	2,2	4	4354.514	34	8.3		Mg I	4.34	13	
4348.771r	1.5	0.3		Y I?	2.01	16		4354.615m	70	16.1	<i>u</i>	Sc II	0.61	14	
4348.947S	58	13.3	<i>u</i>	Fe I	2.99	414		4354.762	25	5.7		CH Fe I?	P 9	1,1	4
4349.168r	3.5	0.8						4354.951r	21	5.3	<i>s,d?</i>	-V I	1.89	103	16
4349.376r	3	0.7						4355.093m	104	23.0	<i>s</i>	Ca I (CH)	P 9	1,1	4
4349.799	7.5	1.4	<i>u</i>	Ce II	0.70	59		4355.351	48	8.0	<i>u</i>	CH	P 9	1,1	4
4349.958	4.5	1.0	<i>s,d?</i>					4355.417r		3.2	<i>u,N</i>				
4350.156	14	3.4	<i>u</i>					4355.589	10	2.3	<i>u</i>				16
4350.249	28	6.4	<i>u</i>	CH	P 8	1,1	4	4355.704	48	11.0		CH	P 9	0,0	4
4350.388	12	2.8	<i>w?</i>					4355.902	37	11.5	<i>s</i>	Ni I V I	3.63 0.02	149 5	
4350.585	36	8.3	<i>u</i>	Fe I— CH	P 8	1,1	4	4356.000	73	16.8		CH	P 9	0,0	4
4350.760r	15	3.9		CH	P 8	1,1	4	4356.136	14	3.4	<i>u</i>				
4350.840m	61	14.0	<i>u,d</i>	Ti II	2.06	94		4356.253r	8	2.0					
4351.056m	90	20.0	<i>s</i>	Cr I	0.97	22		4356.367	55	12.6		CH	P 9	0,0	4
4351.177r	6	1.4						4356.604	54	12.4		CH	P 9	0,0	4
4351.303	14	3.4		Nd II	0.18	10		4356.743	20	4.6	<i>s</i>	Cr I	3.01	130	
4351.392	16	3.7		Fe I p	3.42	691		4356.910	19	4.4	<i>u</i>				16
4351.554m	72	18.6	<i>u</i>	Fe I	2.99	413		4357.063r	2.5	0.6					
4351.710r	133	0.5		CH	P 8	0,0	4	4357.152r	4	0.9		Co I?	4.05		
4351.767m		43.2	<i>s</i>	[Cr I Fe II	1.03 2.70	22 27		4357.297	16	3.7	<i>u</i>				16
4351.921m	283	65.0	<i>w</i>	Mg I	4.34	14		4357.514	38	8.7	<i>u,d</i>	Cr I Fe I p	3.37 3.96 4.43	198 994 1170	
4352.072	38	16.8		CH	P 8	0,0	4	4357.705r	4	0.9					
4352.261	49	12.2		CH	P 8	0,0	4	4357.869	24	5.5	<i>u</i>	CH	P 7	2,2	4, 16
4352.391	26	6.2						4358.014	18	4.4	<i>u</i>				16
4352.557	52	12.2		CH	P 8	0,0	4	4358.170	38	8.7	<i>s</i>	Nd II	0.32	10	
4352.743m	142	32.6	<i>s</i>	Fe I	2.22	71		4358.361r	4	0.9					
4352.880	67	21.1	<i>S</i>	V I	0.07	5		4358.512m	95	21.8	<i>u</i>	Fe I	2.95	412	
4353.053r	11	2.5		CH	P 6	2,2	4	4358.718	75	17.2	<i>u,d?</i>	Y II	0.10	5	
4353.172	30	6.9	<i>o?</i>	-CH	P 6	2,2	4	4358.820	53	15.6	<i>u,N</i>	-CH	P 10	1,1	4
4353.435	9.5	2.3	<i>u,N</i>	CH	P 6	2,2	4, 16	4358.916	25	8.0	<i>u,N</i>	Fe I p	3.88	987	
4353.517r	27	6.2													
4353.644	16	3.7													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4359.076r	5	1.1						4364.041m	48	11.0		CH	P 11	0,0	4
4359.194	15	3.4	w?					4364.189m	53	12.1		CH	P 11	0,0	4
4359.341	29	6.6		CH	P 10	1,1	4	4364.322	14	3.2	w				
4359.493	49	13.8		CH	{ P 10 P 10	{ 0,0 1,1	4	4364.502r	3	0.7					
4359.623m	139	31.9	s	Ni I Cr I	3.40 0.98	86 22		4364.663	12	2.7	u	Ce II	0.50	135	
4359.744	53	15.6	w	Zr II CH	1.24 P 10	79 0,0	17 4	4364.871r	1	0.2		Cr I	3.10	153	
4359.907r	5	1.1						4365.008r	1.5	0.3					
4359.983	9.5	2.2	s,d	Cr I	{ 2.98 3.37	103 198		4365.286	3	0.7					
4360.120r	4	0.9						4365.532	28	6.4					
4360.289m	58	13.3		CH	P 10	0,0	4	4365.725r	1	0.2	s	V I	1.71	79	
4360.480m	59	13.5	s	Ti I CH	2.17 P 10	204 0,0	4	4365.904S	48	10.8	u	Fe I	2.99	415	
4360.636r	3	0.7						4366.086r	2.5	0.6					
4360.797m	51	11.7	u	Fe I	3.64	903		4366.202r	4	0.9					
4360.931r	5	1.1						4366.413	20	5.5	u,N	-CH	P 12	1,1	4
4361.059?r	3.5	0.8		Co I?	0.22	1		4366.500	63	14.4		CH	P 12	0,0	4
4361.252	29	3.4	w,N	Fe II-				4366.675m	72	16.5		CH	P 12	0,0	4
4361.314r								5	1.1				4366.908	14	3.2
4361.668r	2	0.5		Ce II	0.53	157		4367.060	4.5	1.0		Fe I p	4.39	1170	
4361.795r	4	0.9						4367.060	4.5	1.0		Fe I p	4.39	1170	
4361.861r	1.5	0.3						4367.195	11	2.5		Ni I CH	4.09 P 9	2,2	4
4362.038r	5	1.1	u?	Sm II	0.48	45		4367.333	12	2.7		Ni I	3.46	88	
4362.099	29	6.6	o?	Ni II	4.03	9	17	4367.475	21	5.7	u	CH	{ P 12 P 9	{ 1,1 2,2	{ 4, 16
4362.216	24	5.5	u	CH	P 8	2,2	4	4367.594	143	32.7	u	{ Fe I CH	2.99 P 12	414 0,0	4
4362.382r	4	0.9	s					4367.679	59	22.4	w,N	Ti II	2.59	104	
4362.533m	53	12.1	w?	-CH	P 11	1,1	4	4367.723r				3.2		CH	P 12
4362.746	45	10.3	u	CH	P 11	1,1	4, 16	4367.912m	90	20.6	s	Fe I	1.61	41	
4362.953	16	3.9	u	Cr I Cr II	2.87 5.66	82 179		4368.065r	6	1.6	s,N	V I	0.04	5	
4363.108m	72	16.5	u,d	CH- Cr I	P 11 2.97	0,0 103	4, 17	4368.131	38	8.7	w?				
4363.293	60	13.8	w,d	CH	P 11	0,0	4, 17	4368.303	26	6.0	u	Cr I Ni I	3.01 3.42	130 102	
4363.467	24	5.5	u	CH	P 11	1,1	4	4368.470r	1	0.2	u				
4363.54?m	3	0.8	S	V I	0.28	23		4368.639	21	4.8	u	Nd II- Fe I p	0.06 3.25	11 644	
4363.602	27	6.2	w	-CH	P 11	1,1	4	4368.897m	9.5	2.2	u?	Mn I- Cr I	4.71 3.37	198	
4363.819r	2.5	0.6						4368.92 m			S	Ti I	2.27	245	13
4363.976r	3	0.7	u,N?					4369.095r	1.5	0.3					
								4369.269r	6.5	1.5		Fe I? p	4.59	1244	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4369.406m	42	9.6	<i>w</i>	Fe II	2.78	28		4373.791	64	7.8	<i>u</i>	CH	P 14	1,1	4, 16
4369.546	29	6.6					4373.888	7.8				CH Fe I p	P 14 3.64	1,1 904	4
4369.714r	162	6.2	<i>u</i>	Ti I— Fe I p (CH)	2.58 3.94 P 13	290 976 0,0	4	4374.048r	7.5	1.7					
4369.779m		30.9	<i>u,N</i>	Fe I	3.05	518		4374.182	108	14.4	<i>u</i>	Cr I	3.00	104	
4369.866r		2.3		CH	P 13	0,0	4	4374.226r		14.4			CH	P 14	0,0
4370.034		16	3.7	<i>u</i>	Ni I	3.63	149		4374.472m	110	25.1	<i>u</i>	Sc II— Fe I	0.62 3.30	14 648
4370.154	27	6.2		CH	P 13	1,1	4	4374.617r	19	4.6	<i>u</i>				
4370.292	26	5.9		CH	P 13	1,1	4	4374.825	41	9.6	<i>w?</i>	Ti II	2.06	93	
4370.413	7	1.6						4374.944m	88	20.1	<i>u</i>	Y II	0.41	13	
4370.584r	1.5	0.3						4375.058r	10	2.3		Nd II?	0.00	8	
4370.656r	5.5	1.3						4375.202	55	12.6		CH	P 14	1,1	4
4370.857r	11	2.5		Mn I	2.30	17		4375.335	30	7.3	<i>s</i>	Cr I	2.98	103	
4370.985r	20	5.7	<i>w,d</i>	Fe I Zr II	2.18 1.21	69 79		4375.485r	9.5	2.3	<i>u</i>	Fe I p	3.57	797	
4371.062r	78	17.8		CH— CH	P 13 P 13	0,0 0,0	17 4 4	4375.578	49	15.3		CH	P 15	0,0	4
								4375.658	69	15.8		CH	P 15	0,0	4
4371.161r	30	9.2	<i>u,N</i>	Co I	2.08	93		4375.944m	152	34.7	<i>s</i>	Fe I	0.00	2	
4371.286m	110	25.2	<i>s</i>	Cr I	1.00	22		4376.216	23	5.2		CH	P 11	2,2	4
4371.426	46	11.9	<i>w,d?</i>	CH— CH	P 13 P 13	1,1 1,1	4 4	4376.405	25	5.7		CH	P 11	2,2	4
4371.582	12	2.7		CH	P 10	2,2	4	4376.563	21	4.8					
4371.794	18	4.1	<i>u</i>				16	4376.782m	52	11.9	<i>s</i>	Fe I Cr I	{3.02 3.64 4.45	471 904 304	
4371.956r	4.5	1.0						4376.955r	7	1.6					
4372.025r	5.5	1.3						4377.087	12	2.7		CH	P 11	2,2	4
4372.201r	6	1.4	<i>u?</i>	Ru I	0.93	13		4377.234m	87	19.9		CH	P 15	0,0	4
4372.335	27	6.2	<i>s,d</i>	CH—	P 10	2,2	4	4377.374	32	8.4	<i>u</i>	Fe I CH	3.88 P 15	990 1,1	16 4
4372.41 m	9.5	2.3		Ti I	2.49	277			4377.543	14	3.2	<i>s</i>	Cr I	2.91	83
4372.493	13	3.0		CH	P 10	2,2	4	4377.793m	39	8.9	<i>u</i>	Fe I (Mo II)	3.27 3.02	645 3	
4372.588r	6	1.4		Fe I				4377.991r	0.5	0.1					
4372.743	32	9.1		CH	P 14	0,0	4	4378.255m	83	19.0		CH— CH?	P 16 P 16	0,0 0,0	4 4
4372.844	69	15.8		CH	P 14	0,0	4	4378.512	25	5.7		Fe I			
4372.991m	34	7.8	<i>u</i>	Fe I	3.02	473		4378.744r	0.5	0.1		Fe I p	3.55	759	
4373.119r	5	1.1						4378.913m	44	10.0		CH	P 15	1,1	4
4373.264m	45	10.3	<i>s</i>	Cr I	0.98	22		4378.97 m	1	0.3	<i>S,N</i>				
4373.396	7.5	1.7						4379.074r	7	1.6					
4373.568m	65	14.4	<i>u</i>	Fe I	{2.56 3.02	214 413		4379.238m	110	25.6	<i>S</i>	VI	0.30	22	
4373.655r	8	1.9		Cr I Co I?	4.45 3.51	304									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4379.407r	2.5	0.6						4384.819	30	10.9	<i>u?</i>	Sc II	0.60	14	
4379.531	6	1.4						4384.983m	80	18.9	<i>s</i>	Cr I	1.03	22	
4379.640r	2.5	0.6						4385.124m	59	14.1		CH	P 19	0,0	4
4379.771	25	5.7	<i>s</i>	Cr I Zr II	3.01 1.53	130 88		4385.254m	52	12.1	<i>u</i>	Fe I — CH	3.02 P 18	415 0,0	4
4379.908r	2	0.5						4385.387m	81	18.7	<i>w</i>	Fe II	2.78	27	
4380.067	68	15.5	<i>u,N</i>	Ce II? Co I?—	0.62 3.51	155		4385.611	10	2.5		CH	P 13	2,2	4
4380.237r	4	0.9						4385.670	15	3.4	<i>s</i>	Nd II	0.20	50	
4380.367	15	3.4	<i>u</i>	Mg I (CH)	4.34 P 16	12 0,0	4	4385.857	16	3.6					
4380.496	38	8.7	<i>u</i>				16	4386.063m	43	9.8		—CH	P 17	1,1	4
4380.724	92	21.0		CH—	P 17	0,0	4	4386.275r	2.5	0.6					
4380.852	36	9.6	<i>w,N</i>	CH—	P 16	1,1	4	4386.460	14	3.2	<i>u</i>	Ni I	3.83	168	
4380.990	12	2.7	<i>u?</i>	CH	P 12	2,2	4	4386.592r	8.5	1.9		Fe I Fe II p	3.63 2.58	899 26	
4381.112	27	6.2	<i>s</i>	Cr I	2.71	64		4386.694	23	5.2	<i>u,N</i>	CH	P 13	2,2	4, 16
4381.297	4.5	1.0	<i>u</i>					4386.853m	59	13.4	<i>u</i>	Ti II	2.60	104	
4381.709	7.5	1.7	<i>u,N</i>	Mn I	4.79			4387.063m	59	13.4		CH	P 20	0,0	4
4381.885	13	3.0	<i>u</i>	CH	P 12	2,2	4	4387.20 m			<i>s</i>	V I	1.04	40	13
4381.989	11	2.5	<i>u</i>	CH— Fe I p	P 12 3.69	2,2 938	4	4387.262r	7.5	1.7					
4382.167	8	1.9	<i>u</i>	Ce II	0.68	2		4387.398	38	10.5	<i>u</i>	—CH	P 18	1,1	4
4382.317r	1	0.2	<i>u,N</i>					4387.497	61	13.9	<i>s</i>	Cr I (CH)	2.99 3.00 P 19	84 103 0,0	4
4382.521	32	8.2		CH	P 16	1,1	4	4387.595	38	9.6		CH	P 19	0,0	4
4382.689r	13	5.7		CH	P 17	0,0	4	4387.748r	2.5	0.6					
4382.764	79	22.4	<i>u</i>	CH— Fe I	P 17 3.57	0,0 799a	4	4387.899m	73	16.6	<i>s</i>	Fe I	3.07	476	
4382.998	47	16.4		—CH	P 18	0,0	4	4388.101r	26	5.9	<i>s,d</i>	Ti I—	2.24	219	
4383.174r	12	6.8						4388.252r	19	4.3					
4383.310r	16	13.0						4388.414m	103	23.5	<i>u</i>	Fe I	3.60	830	
4383.377r	10	11.4						4388.586	22	5.0	<i>u,N</i>				
4383.557m	1008	235	<i>S</i>	Fe I	1.48	41		4388.729	35	8.0	<i>u</i>				
4383.721r	9.5	12.1						4388.870	47	10.7		CH	P 21	0,0	4
4383.832r	18	13.7						4389.031r	3	0.7					
4383.964r	6.5	3.4						4389.088r	3.5	0.8					
4384.120	22	8.4		CH— CH	P 17 P 17	1,1 1,1	4 4	4389.253S	67	15.5	<i>s</i>	Fe I	0.05	2	
4384.317m	31	9.4	<i>w</i>	Fe II p	2.66	32		4389.396r	7	1.6		Fe I?			
4384.540	28	7.3	<i>u</i>	Ni I	3.46	86		4389.504	19	4.6		CH	P 18	1,1	4
4384.712m	110	26.7	<i>S</i>	V I	0.07 0.29	5 22		4389.638	45	10.2		CH	P 20	0,0	4
								4389.776	30	6.8		CH	P 20	0,0	4
								4389.877	25	5.7	<i>w?</i>	Ni I	3.46	87	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4389.988m	84	19.1	S	V I	0.28	22		4394.51 m			s,N				13
4390.114r	11	2.7		CH	P 14	2,2	4	4394.623r	7	1.6					
4390.222	16	3.6	w	CH	P 14	2,2	4	4394.791	8.5	2.5		V I?	1.35		
4390.328	18	4.1	u	Ni I	3.66	136		4394.852	51	11.6	s	Ti I	1.05	78	
4390.461	53	12.1	u	Fe I	2.99	413		4395.040m	135	30.7	w	Ti II	1.08	19	
4390.545	33	8.9		CH	P 22	0,0	4	4395.251m	100	21.6	s	V I	0.27	22	
4390.630	30	7.5	u	CH	P 19	1,1	4, 16	4395.289r							3.4
4390.773r	7	1.6						4395.504	66	15.0	u,d	CH— Fe I	P 23 {3.88 991 3.88 992	0,0 991 992	4
4390.843r	6	1.4		Sm II	0.18	15									
4390.966	92	21.0	u	Fe I	3.02	414		4395.684r	5.5	1.3					
4391.033	34	13.0	w	Ti II	1.23	61		4395.848m	61	15.0	w?	Ti II	1.24	61	
4391.147r	10	2.3						4396.079	22	5.0		CH	P 26	0,0	4
4391.299	7.5	1.7	u					4396.153r	18	4.1		—CH	P 26	0,0	4
4391.488	38	8.6		CH	P 14	2,2	4	4396.309	36	8.2		CH	P 20	1,1	4
4391.668	44	11.8	u?	Ce II— CH	0.32 P 21	81 0,0	4	4396.430	17	4.1	u	CH	P 20	1,1	4, 16
4391.768m	67	15.2	s	Cr I (CH)	1.00 P 21	22 0,0	4	4396.631r	3.5	0.8		Mo I?	2.08		
4391.863	36	9.1	w,N	Fe I	3.93	992		4396.772r	1.5	0.3					
4392.071m	54	10.9	s	V I CH	0.27 P 23	23 0,0	4	4396.961m	45	10.2		CH	P 24	0,0	4
4392.300	12	2.7	u,N	Fe I p	3.55	757		4397.143	22	5.0	u	CH	P 24	0,0	4
4392.432r	3.5	0.8	u					4397.22 m			S	Cr I	3.01	129	13
4392.432r	3.5	0.8	u					4397.264	25	5.7	u				
4392.587m	37	8.4	u	Fe I	3.88	973		4397.381	14	3.4	u				
4392.788r	6.5	1.5						4397.583r	1	0.2					
4392.924	21	4.8	u	CH	P 19	1,1	4, 16	4397.778	9.5	2.2					
4393.025	27	6.1	s?	CH Fe I	P 19 {3.02 3.55	1,1 473	4, 16	4398.020S	46	10.7	u	Y II	0.13	5	
4393.284	46	10.5	s?					4398.174	11	2.5	u				
4393.284	46	10.5	s?					4398.299	28	6.4	w	Ti II	1.22	61	
4393.33 m			S	Na I	2.10	17	13	4398.491	34	7.7		CH	{P 25 P 28 3.33	0,0 0,0 187	4
4393.524	71	16.2	u,d?	—CH (Cr I)	{P 22 P 24 2.97	0,0 0,0 102	4, 17	4398.621	24	5.4	w	V II	3.54 P 28	102 0,0	
4393.700	28	6.4	w	Fe I p CH	3.64 P 22	899 0,0		4	4398.712	17	4.3	w	CH	P 25	0,0
4393.808	28	6.4	u	CH V I	P 20 1.05	1,1 40	4	4398.844	18	4.1	w				
4393.931m	22	5.0	s	Ti I	2.27	244		4399.067	6.5	1.5	s,N				17
4394.068m	72	18.0	w	Ti II	1.22	51		4399.224	5.5	1.3	u	Ce II	0.33	81	
4394.183r	11	2.5	u					4399.290	7.5	1.7	u	Fe I?			
4394.304r	2	0.5		Fe I p	3.94	975		4399.482	15	3.6	s	CH? Ir I?	P 16 2.05	2,2	4

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4399.602m	32	7.3	w	Ni I	3.85	196		4405.033m	28	15.9	s	V I Fe I p	0.28 0.05	23 2	
4399.778m	115	26.4	w?	Ti II (Cr I)	1.24 3.01	51 129		4405.314r	0.5	0.1					
4399.989	21	4.8		CH	P 26	0,0	4	4405.411	4.5	1.4	u	Fe I p	3.93	991	
4400.185	41	9.3		Ni I CH?	3.63 P 26	146 0,0	4	4405.569	2	0.6					
4400.398	85	19.5	u	Sc II	0.61	14		4405.732	25	6.4	s,d	Ti I— CH?	1.05 P 30	78 0,0	17 4
4400.580	51	11.6	s	V I	0.26	22		4406.036	12	3.0	u	CH?	P 30	0,0	4
4400.688	8	1.8						4406.157	23	5.7	u	CH V I	P 17 1.06	2,2 40	4, 16
4400.858m	42	9.5	u	Nd II— Ni I	0.06 3.65	10 149		4406.298r	3	0.7		Cr I	3.09	152	
4401.022	58	13.2	u					4406.504	19	4.5	u	CH	P 23	1,1	4
4401.16 a	15	3.6						4406.652	78	18.2	S	V I	0.30	22	
4401.298m	101	22.9	u	Fe I	3.60	828		4406.836	10	2.3					
4401.451m	48	15.0	u	Fe I	2.83	350		4406.994	6.5	1.5					
4401.552m	115	26.1	u	Ni I	3.19	86		4407.139r	7.5	1.7					
4401.668	10	2.5		CH?	P 27	0,0	4	4407.272	25	5.7	u,N	—Ce II?	0.70	64	
4401.80 a	5.5	1.2						4407.375r	12	2.7					
4401.87 a	2	0.5						4407.522r	5	1.1					
4402.343	6	1.4						4407.652r	146	14.1 24.5	s,d	V I	0.29	22	
4402.475	7	1.6	u				4407.706							Fe I (Cr I)	2.18 3.01
4402.685r	4	0.9		Co I?	3.51			4407.864r	2.5	0.6					
4402.841a	18	4.1	u	CH	P 28	0,0	4, 16	4407.934	16	3.6	u				
4403.077	18	4.5	u,N	CH	P 28	0,0	4, 16	4408.078r	7	1.6					
4403.187m	62	14.5	u					4408.208m	74	17.2	S	V I	0.28	22	
4403.374	46	10.7	s	Cr I Zr II	3.01 1.18	128 79		4408.425m	130	29.5	s?	Fe I	2.20	68	
4403.496	21	5.4	u	Cr I	3.98			4408.523	65	24.5	s?	V I	{0.26 0.27	22 22	
4403.649	10	2.3		—V I?	1.87			4408.660	18	4.1					
4403.829	3	0.8						4408.798r	10	2.3		—Pr II?	0.00	4	
4403.972	16	4.3	w?					4408.941	19	4.3		V II	3.97	224	
4404.101	12	3.4	u	Fe I p	3.93	987		4409.128m	51	11.6	u	Fe I	3.30	645	
4404.277m	35	12.0	u	Ti I— CH	{2.25 2.25 P 29	218 219 0,0	4	4409.248m	28	6.8	w	Ti II	1.24	61	
4404.400	9	4.3	s	Ti I	1.05	78		4409.359	12	2.9	u,N	—Dy II			
4404.548r	8	5.2		CH?	P 29	0,0	4	4409.526m	33	7.9	w	Ti II	1.23	61	
4404.599r	8	7.0						4409.695r	1.5	0.3					
4404.599r	8	7.0						4409.857r	2	0.5		Mg I?	7.19	48	
4404.761m	898	181	S	Fe I	1.56	41		4410.014	25	5.7		—CH?	{P 24 P 25	1,1 1,1	4
4404.924r	6	7.3	u	Ti I— Co I	1.88 2.63	161 127									

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4410.167	25	5.7		-CH?	P 24	1,1	4	4415.563m	86	21.7	<i>u</i>	Sc II	0.60	14	
4410.306	14	3.2	<i>s</i>	Cr I	3.01	129		4415.785	11	2.5					
4410.525	51	11.6	<i>u</i>	Ni I	3.31	88		4415.915r	6	1.4					
4410.659r	3	0.7		Ce II?	1.35	33		4416.065r	12	2.7					
4410.765r	2	0.5						4416.160r	6.5	1.5		Fe I?			
4410.861r	4.5	1.0						4416.360	13	2.9		-CH?	P 19	2,2	4
4410.953r	9.5	2.2	<i>s</i>	Cr I	2.98	102		4416.475m	36	8.1	<i>S, d?</i>	V I— Ti I?	0.27 1.87	22 161	
4411.082m	56	12.7	<i>u</i>	Ti II— Cr I	3.09 3.01	115 129		4416.651r	10	2.3	<i>s</i>				
4411.227	24	5.4	<i>u, N</i>	CH— CH?	P 18 P 18	2,2 2,2	4 4	4416.828S	77	17.4	<i>w</i>	Fe II	2.78	27	
4411.35 a	6	1.4						4417.003r	7	1.6					
4411.590r	4.5	1.0		Mo I?	2.08			4417.115r	2	0.5					
4411.724r	2.5	0.6		Mo I	2.08			4417.287m	45	10.2	<i>s</i>	Ti I	1.89	161	
4411.884r	55	1.0	<i>w, d?</i>	Mn I	4.71			4417.412	15	3.4	<i>s</i>	Co I	3.07	150	
4411.935m		12.0		Ti II Fe I?	1.22	61		4417.574	11	2.5	<i>u</i>	CH	P 26	1,1	4
4412.138r	8	1.8	<i>s</i>	V I Fe I	0.26	23		4417.723m	96	22.4	<i>w?</i>	Ti II	1.16	40	
4412.257	29	6.2	<i>s, d</i>	Cr I—	1.03	22		4417.884r	4	0.9					16
4412.424	7	1.6	<i>s</i>	Ti I Fe I p	0.90 2.18	54 69		4418.035	8	1.8	<i>w</i>				
4412.698	8.5	1.9						4418.206r	6.5	1.5					
4412.877	6	1.4	<i>u</i>					4418.342m	70	15.8	<i>u</i>	Ti II	1.24	51	
4413.121	11	2.5						4418.430	21	5.4	<i>s</i>	Fe I	2.99	412	
4413.399	7.5	1.7	<i>u</i>	Fe I p	4.07	1046	16	4418.574r	7	1.6		-Fe I p	3.63	899	
4413.599m	39	8.8	<i>w</i>	Fe II CH?	2.68 P 25	32 1,1	16 4	4418.63 a	4	0.9	<i>s</i>				
4413.785r	3.5	0.8						4418.785	17	3.8	<i>u</i>	Ce II	0.86	2	
4413.853	29	6.6	<i>u</i>	Cr I	3.55	234		4418.940	22	5.0	<i>u</i>				
4414.048r	26	1.6	<i>u</i>	Fe I p	3.60	825		4419.104	12	2.7	<i>u</i>	Cr I Fe I	3.01 4.39	128 1170	
4414.124		4.3		-CH?	P 19	2,2	4	4419.273	16	3.6		Fe I p	3.63	893	
4414.234	17	3.8	<i>u</i>	Fe I p	3.07	475		4419.513	3	0.7		Fe I			
4414.458	9	2.3	<i>u</i>	Fe I	3.27	643		4419.607r	2	0.5					
4414.554	23	5.4	<i>u</i>	Zr II	1.24	79		4419.778	18	4.1	<i>u</i>	Fe I	3.30	644	
4414.737r	3.5	0.9		Fe I				4419.942m	6.5	1.5	<i>s</i>	V I	0.28	21	
4414.890	59	20.2	<i>s?</i>	Mn I	2.89	22		4420.105r	3.5	0.8					
4415.040r	417	4.5	<i>S</i>					4420.287	34	7.7	<i>u</i>	Fe I			
4415.135m		92.9		Fe I	1.61	41		4420.46 m			<i>s</i>	Os I	0.00	1	13
4415.255r		3.4						4420.526	14	3.2	<i>u</i>	Sm II	0.33	32	
4415.427r	3.5	1.1					4420.671	15	3.4	<i>w</i>	Sc II	0.62	14		
								4420.929r	2	0.5					
								4421.125	10	2.3	<i>u, N</i>	-Sm II	0.38	37	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Note
4421.334	21	4.8	<i>u</i>	Co I— CH	2.93 P 27	150 1,1	4	4426.458	14	3.2					
4421.455r	13	2.9	<i>u</i>					4426.677r	9	2.0		Cr I?—	5.24		
4421.573m	35	7.9	<i>S</i>	V I	0.28	22		4426.892r	6	1.4					
4421.763m	34	7.7	<i>s</i>	Ti I	2.24	218		4427.105m	64	14.4	<i>s</i>	Ti I	1.50	128	
4421.944m	51	11.5	<i>w</i>	Ti II	2.06	93		4427.317m	147	34.6	<i>S</i>	Fe I (Fe I p)	0.05 3.65	2 828	
4422.065	29	7.2	<i>u</i>					4427.461r	12	2.9					
4422.304	23	5.2	<i>u,N</i>					4427.598r	9.5	2.1					
4422.40 a	15	3.8						4427.713r	2.5	0.6	<i>u</i>	Cr I	3.01	129	
4422.505r	117	2.7	<i>u</i>	V I	1.71 1.86	79		4427.75 a	2.5	0.6					
4422.576m			<i>s</i>	[Fe I Y II			2.84 0.10	350 5		4427.80 a	4	0.9			
4422.711r	6	1.5		Cr I	3.56	234		4427.916	12	2.7	<i>u</i>	Ti II p	1.24	61	
4422.829m	29	6.6	<i>s</i>	Ti I	1.07	78		4428.094	6	1.4					
4422.973	34	7.7	<i>u</i>	Ni I	3.68	168		4428.276	6.5	1.5					
4423.140m	59	13.3	<i>s</i>	Fe I	2.99	412		4428.52 m	13	3.4	<i>s</i>	V I Cr I	0.27 3.01	21 129	
4423.265	37	9.0	<i>s,d?</i>	Na I— Cr I	2.10 3.01	16 128		4428.549m	35	7.9	<i>u?</i>	Fe I	3.94	973	
4423.468r	2	0.5						4428.707	10	2.3	<i>u</i>	—Fe I p	3.64	899	
4423.468r	2	0.5						4428.916r	2	0.5					
4423.585r	1	0.2						4429.203	15	3.4	<i>u</i>	Fe I p— Pr II?	3.93 {0.00 0.37}	987 2 4	
4423.681r	3	0.7		Ce II	1.06	21		4429.288	11	2.7	<i>u</i>	Ce II— Fe I	1.09 3.94	19 972	
4423.847m	53	11.8	<i>w?</i>	Fe I	3.65	830		4429.503r	2.5	0.6					
4424.072	24	5.4	<i>u</i>	Fe I— Cr I	2.91	82		4429.643r	1.5	0.3					
4424.204	14	3.4	<i>u</i>	Fe I	3.55	757		4429.794	7.5	1.8	<i>s,N</i>	V I	0.30	22	
4424.294	41	9.3	<i>u</i>	Cr I	3.01	129		4429.906	30	7.2		La II Cr I	0.23 3.55	38 234	
4424.369	7.5	1.9	<i>s,N</i>	Sm II— Ti I	0.48 2.27	45 243		4430.057m	52	11.7	<i>u</i>	Ti I—	2.41	267	
4424.586	26	5.9	<i>u,d</i>	V I?— Fe I	1.38			4430.197m	68	15.3	<i>u</i>	Fe I	3.02	472	
4424.811	9.5	2.1	<i>u</i>	Ni I?	4.16	262		4430.368	27	6.1	<i>s</i>	Ti I	1.44	113	
4425.148	8.5	1.9	<i>s</i>	Cr I	3.10	152		4430.483	20	5.0	<i>u</i>	Cr I	3.56	234	
4425.444S	145	31.6	<i>s</i>	Ca I	1.88	4		4430.622S	115	26.0	<i>s</i>	Fe I	2.22	68	
4425.664	40	9.0	<i>u</i>	Fe I	3.57	798		4430.765	40	9.7	<i>w,N</i>				
4425.769	20	5.0	<i>u,N</i>	Fe I p Fe I p	3.26 3.64	555 899		4431.036	24	5.4	<i>u</i>	Ni I	4.17		
4425.85 m	6.5	1.6	<i>s</i>	Ti I	1.07	78		4431.292r	5	1.1	<i>s</i>	Ti I	2.23	218	
4425.959r	9.5	2.3	<i>S</i>					4431.360	30	6.8	<i>u</i>	Sc II	0.61	14	
4426.040m	38	8.6	<i>s</i>	V I— Ti I	0.29 1.88	22 161		4431.499r	7.5	1.7					
4426.377	5	1.2						4431.621	6.5	1.5		Co I?	2.88	1.43	
								4431.846	41	9.2	<i>u</i>				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Note
4432.089	15	3.6	w	Ti II	1.24	51		4437.567	22	5.0	w?	Ni I	3.68	168	
4432.169	37	8.3	u	Cr I	2.87	81		4437.699	12	2.7	u	Fe I	2.69		
4432.316r	2.5	0.6						4437.842	27	6.4	S	V I	0.29	21	
4432.426r	1.5	0.3						4438.030r	6	1.4	s	Sr I	1.85	6	
4432.575m	47	10.6	u	Fe I	3.57	797		4438.197r	6	1.4					
4432.743r	5.5	1.2		- Cr I?	5.25			4438.25 m	6.5	1.5	s	Ti I	2.25	218	
4432.927r	2.5	0.6		Fe I? p	2.73	271		4438.349m	45	10.4	w	Fe I	3.69	828	
4433.046r	11	2.5	u					4438.520	8.5	1.9		Fe I p	3.88	969	
4433.230m	97	22.3	u	Fe I	3.65	830		4438.627	12	2.7	u				
4433.396	19	4.3	u	Fe I p	3.02	412		4438.790r	3.5	0.8					
4433.588	11	2.5	s	Ti I	2.40	267		4438.964r	4	0.9					
4433.788m	73	16.5	s	Fe I	3.60	825		4439.01 m	5.5	1.2	s				
4433.896	6.5	1.7		Sm II	0.43	41		4439.163	20	4.5	u,N	Fe II? p-	2.69	32	
4433.97 m			S	Cr I	3.01	128	13	4439.358r	19	4.3					
4434.000	42	9.5	s	Ti I	{1.43 1.87}	{113 161}		4439.486r	6.5	1.5					
4434.196	5	1.1						4439.642	22	5.0	u	Fe I	3.05	515	
4434.344	15	3.4	s	Sm II— Ti I?	0.38	36		4439.748r	3.5	0.8					
4434.439	33	7.4	u					4439.888S	47	10.6	s	Fe I	2.28	116	
4434.655	19	4.3	u	Si I	4.92			4440.068r	9.5	2.1					
4434.756r	9.5	2.3		Cr I	3.01	128		4440.179r	10	2.3		Fe I			
4434.967m	171	40.6	s	Ca I	1.89	4		4440.348m	25	5.6	s	Ti I	1.87	159	
4435.156m	83	20.3	s	Fe I	0.09	2		4440.482m	46	10.4	w	Fe I Zr II	3.60 1.21	829 79	
4435.328	26	5.9	u	Ni I?	3.66			4440.630	19	4.3					
4435.441	11	2.7						4440.827m	47	10.4	u	Fe I	3.96	992	
4435.688m	127	28.8	S	Ca I (Eu II)	{1.89 0.21}	{4 4}		4440.993	22	5.2	u	Fe I	3.30	645	
4435.838r	12	2.7						4441.092	36	8.1	u				
4435.838r	12	2.7						4441.273m	15	2.9	s	Ti I	1.87	160	
4436.000r	8.5	1.9		Mn I?	3.77	40		4441.436	13	3.1	u	Ni I?	3.31		
4436.145	34	8.0	s	V I	0.26	21		4441.555	20	4.5	u	Fe I p	3.88	987	
4436.356m	70	15.1	s	Mn I	2.92	22		4441.719m	79	16.7	s,N	V I— Ti II p	0.28 1.18	21 40	
4436.589	8.5	1.9	s	Ti I	1.88	160		4441.964r	13	2.9	u	Fe I			
4436.687	6	1.4	s	Ti I	2.43	267		4442.078r	9	2.0					
4436.787r	4.5	1.0						4442.15 a	5	1.2		Mo I?	2.08		
4436.951m	75	16.9	u,d	{Fe I Ni I}	{3.05 3.50}	{516 86}		4442.258r	7.5	2.1		Cr I	3.00	102	
4437.135r	2	0.5						4442.349m	171	39.2	s	Fe I	2.20	68	
4437.267r	0.5	0.1					4442.416r				Ni I	3.50	87		
4437.427r	1	0.2					4442.588r	5.5	1.2						

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4442.679r	4.5	1.0						4449.466	8	1.8					
4442.838m	57	12.8	s	Fe I	2.18	69		4449.60 m	6	1.3	s	V I	1.35	62	
4443.001	26	5.8	u	Zr II	1.49	88		4449.719	4	0.9	s	Dy II—	0.00		
4443.201m	95	22.5	u	Fe I	2.86	350		4449.930r	3.5	0.8		Si I	4.95		
4443.296r	9	2.0						4449.97 m	2.5	0.6	s	Ti I	1.88	159	
4443.560r	5	1.1						4450.101	5	1.1	u	Ni I	3.94	178	
4443.812m	124	30.8	w	Ti II	1.08	19		4450.235r	5.5	1.2		Ni I	4.10	236	
4443.970r	7.5	1.7						4450.323m	53	11.9	u	Fe I	3.11	476	
4444.080r	6.5	1.5						4450.491m	79	17.8	w?	Ti II	1.08	19	
4444.218m	31	7.4	S	V I	0.27	21		4450.631r	5	1.1					
4444.401	5.5	1.2		Ce II	0.92	19		4450.764	25	5.6	u	Fe I	3.88	972	
4444.562m	50	12.4	w	Ti II	1.12	31		4450.901m	45	10.6	s	Ti I	1.88	160	
4444.697	6	1.3		Ce II	1.06	19		4451.116r	3.5	0.8					
4444.80 a	1.5	0.3						4451.357r	2	0.4					
4445.065r	2	0.4	u	Fe I?				4451.588S	90	20.2	s	Mn I (Nd II)	2.89 0.38	22 50	
4445.319	2.5	0.6	u					4451.833r	1.5	0.3					
4445.479m	30	7.2	s	Fe I	0.09	2		4452.007m	22	4.9	s	V I	1.87	87	
4445.683	7.5	1.7	u	—Co I	3.10	150	16	4452.147r	2.5	0.6					
4445.849	5	1.1	u	Zr II?	1.66	96	16	4452.323	0.5	0.1		Fe I p	3.64	898	
4446.075r	0.5	0.1						4452.617	26	5.8	u	Fe I	3.94	969	
4446.242	4.5	1.0	u	Fe II?	5.95	187		4452.741	6.5	1.5		Sm II	0.28	26	
4446.399	8.5	1.9	s	Nd II	0.20	49		4452.809	13	2.9	u,N				
4446.541r	1.5	0.3						4453.006m	46	11.0	s	Mn I	2.94	22	
4446.630	3	0.7						4453.163r	1.5	0.3					
4446.843m	71	15.7	u,d	Fe I	3.69	828		4453.321m	59	13.7	s	Ti I	1.43	113	
4446.896		0.2		Fe I p	3.30	596		4453.524	7.5	1.7	u				
4447.027r	2	0.4						4453.710m	36	9.0	s	Ti I	1.87	160	
4447.137m	60	13.5	s	Fe I	2.20	69		4453.841	7	1.6	u				
4447.359	11	2.5	u,d?					4454.005	2	0.4					
4447.555r	2	0.4						4454.109r	2	0.4					
4447.728m	177	37.8	s,d	Fe I	2.22	68		4454.222r	4	0.9					
4447.789r		2.0						4454.388S	84	18.8	s	Fe I	2.83	350	
4448.021r	1.5	0.3						4454.535r	14	3.4					
4448.279	4.5	1.0						4454.671r	44	11.4	u?	Fe I	3.63	902	
4448.444r	1.5	0.3						4454.793m	176	46.2	s	Ca I (Zr II)	1.90 0.80	4 40	
4448.945	12	2.7	s?	Fe I p	3.64	891	16	4455.030m	90	20.2	s,N	Mn I— Fe I	3.07 3.88	28 974	
4449.150m	53	13.0	s	Ti I	1.89	160									
4449.341	15	3.4	u	Ce II	0.61	202									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes		
4455.177r	11	2.5						4460.000r	2.5	0.6		Ru I?	1.09				
4455.320m	79	17.7	s	Mn I— Ti I	3.07 1.44	28 113		4460.112r	5.5	1.2		Fe I p	2.76	271			
4455.452	6.5	1.5		Cr I	3.01	127		4460.225r	100	6.0 11.9 6.3	S,N	Ce II	0.48	2			
4455.545r	3.5	0.8					4460.301							V I	0.30	21	
4455.650r	7	1.6					4460.361r							Mn I	3.07	28	
4455.819	48	14.8	s	Mn I Ca I	3.07	28		4460.536r	5.5	1.2	u	Fe I p	4.22	1100			
4455.893	106	23.8				1.90	4		4460.778	13	2.9	s	Cr I	2.71	63		
4456.060r	15	3.4					4460.930r	6	1.3								
4456.176	6.5	1.5					4461.084m	63	14.1	u	Mn I	3.07	28				
4456.333m	48	11.4	u	Fe I	3.05	516		4461.205m	48	11.0	u	[Fe I Zr II	3.02 1.01	471 67			
4456.460r	12	2.7					4461.386	55	9.4 3.8	u	Fe I	3.41	725				
4456.627m	66	15.5	s	Ca I	1.90	4	4461.429r							Fe II p	2.58	26	
4456.780r	5.3	1.2					4461.660m	116	28.0	s	Fe I	0.09	2				
4456.875r	3	0.7		Fe I			4461.820r	11	2.5		Fe I p	3.02	412				
4457.043	38	8.5	u	Mn I	3.07	28		4462.005m	118	26.4	s	Fe I Mn I	3.07 3.60 3.64 3.07	471 825 902 28			
4457.165r	4.5	1.0					4462.204	31	6.9	w	Fe I p	3.60	824				
4457.270r	3	0.7					4462.362	17	3.8	s	V I	1.86	87				
4457.437m	81	18.2	s	[Ti I Zr II V I	1.46 1.18 0.28	113 79 21		4462.461m	62	13.9	w?	Ni I	3.46	86			
4457.547m	56	13.9	s	Mn I	3.07	28		4462.587r	4	0.9							
4457.671r	2.5	0.6					4462.700	14	3.1	w							
4457.773	13	2.9	s	V I	1.87	101		4462.769	8.5	1.9	s	Cr I	3.01	127	16		
4457.946r	6	1.3					4462.897r	6	1.3	u							
4458.088m	61	13.7	u	Fe I	3.88	992		4462.993	13	2.9	u	Nd II	0.56	50			
4458.255m	66	14.8	s	Mn I	3.07	28		4463.137	19	4.2	s	Fe I	3.07 3.64	471 901			
4458.386r	7	1.6					4463.261	9	2.0	u							
4458.529	43	9.6	s	Cr I (Sm II)	3.01 3.55 0.10	127 7		4463.407	41	9.2	s	[Ti I— Ni I	1.88 3.48	160 102			
4458.686r	10	2.2					4463.539	12	2.7	s	Ti I	.89	160				
4458.839r	8	1.8					4463.680r	1	0.2								
4459.042	190	19.7	u	Ni I	3.31	86		4463.834r	0.5	0.1							
4459.138m		26.5	u	Fe I	2.18	68		4463.975r	1	0.2							
4459.361m		70	15.7	s	Cr I	2.71	63		4464.226r	1.5	0.3						
4459.506r	9.5	2.1					4464.340r	5	1.1		V II	3.76	199				
4459.616	7	1.6					4464.457m	68	15.2	u	Ti II—	1.16	40				
4459.755S	48	10.8	S	Cr I— V I	3.01 0.29	127 21		4464.685	94	21.0	s	Mn I (Cr I)	2.92 3.01	22 127			
4459.896	4	0.9															

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4464.774	41	13.7	<i>u</i>	Fe I	3.02	472		4469.937r	5.5	1.2					
4464.911	14	3.1	<i>s</i>	Cr I	3.01	127		4470.138m	49	11.6	<i>u</i>	Mn I	2.94	22	
4464.980r	6.5	1.5		Eu II?	3.38	27		4470.314r	7.5	1.7					
4465.132	19	4.2	<i>u,d</i>	—Cr I	3.89	267		4470.485S	69	16.6	<i>u</i>	Ni I	3.40	86	
4465.222r	7.5	1.7						4470.636r	6	1.3					
4465.358	20	4.5	<i>s</i>	Cr I	3.01	127		4470.712r	2.5	0.6					
4465.504r	2	0.4						4470.858m	54	12.5	<i>u</i>	—Ti II	1.16	40	
4465.611	2.5	0.6	<i>u</i>					4471.003r	3.5	0.8					
4465.73 a	2.5	0.6						4471.087r	2.5	0.6					
4465.814m	30	7.5	<i>s</i>	Ti I	1.74	146		4471.244m	35	8.5	<i>s</i>	Ti I (Ce II)	1.73 0.70	146 8	
4465.984r	0.5	0.1						4471.408r	6	1.3					
4466.165	7	1.6	<i>s</i>	Cr I— Fe I	3.01 3.64	127 901		4471.560	12	2.7	<i>u</i>	Co I	3.07	150	
4466.252r	2.5	0.6						4471.682	19	4.2	<i>s</i>	Fe I	0.11	2	
4466.387	24	5.4	<i>u</i>	Ni I	3.70	168		4471.810	6.5	1.5	<i>u,N</i>	Fe I	3.94	972	
4466.562m	125	28.0	<i>s</i>	Fe I (Fe I p)	2.83 0.11	350 2		4471.913r	3.5	0.8					
4466.723r	8	1.8						4472.078r	2.5	0.6		Ca II	6.47	6	
4466.854r	11	2.5	<i>w?,n</i>	Co I	3.02	150		4472.208r	4.5	1.0					
4466.940m	48	11.6		Fe I	3.93	992		4472.415r	3.5	0.8					
4467.085r	3	0.7						4472.541	4	0.9	<i>s</i>	Fe I p— Fe I p	1.48 2.95	39 411	
4467.210r	3	0.7						4472.723	63	14.1	<i>u</i>	Fe I	{3.27 3.64	595 900	
4467.339	8	1.8	<i>u</i>	Sm II	0.66	53		4472.802	33	9.8	<i>s</i>	Mn I	2.95	22	
4467.440r	1.5	0.3		Fe I	4.14	1048		4472.930	39	8.7	<i>w</i>	Fe II	2.84	37	
4467.555	11	2.5	<i>s</i>	Cr I	3.01	127		4473.137r	4.5	1.0					
4467.830	10	2.2	<i>u</i>					4473.222r	3	0.7		Mo I?	2.29		
4467.999	8	1.6	<i>s</i>	V I	1.85	87		4473.470r	0.5	0.1					
4468.154r	5	1.1						4473.635r	2	0.4					
4468.300r	6.5	1.5	<i>u</i>	Mo I—	2.08			4473.764r	5.5	1.2	<i>u?</i>	Cr I	2.71	63	
4468.500m	120	29.3	<i>w</i>	Ti II	1.13	31		4473.834	4	0.9	<i>s</i>				
4468.637r	7.5	1.8						4474.049	4.5	1.0	<i>s</i>	V I	1.95	110	
4468.751r	9.5	2.1	<i>s</i>	V I	1.87	102		4474.169r	5	1.1		Fe II?	5.57	171	
4468.987r	6.5	1.5	<i>s</i>					4474.402r	7.5	1.7	<i>w?</i>				
4469.154m	49	11.0	<i>w?</i>	Ti II	1.08	18		4474.569	12	2.7	<i>u</i>	Mo I	2.06		
4469.278r	110	0.2						4474.755	15	3.4	<i>s</i>	V I	1.89	101	
4469.383m		24.6	<i>u</i>	Fe I	3.65	830		4474.859m	18	4.0	<i>s</i>	Ti I	{1.44 2.10	113 184	
4469.564	38	8.5	<i>u,N</i>	Co I	2.96	150		4475.011r	4	0.9					
4469.711m	18	4.0	<i>s</i>	V I	1.85	87		4475.096r	2.5	0.6					
4469.808r	6	1.3													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4475.171r	1.5	0.3	s	Ti I p Cr I p	2.09 2.71	184 63		4480.704r	4.5	1.0					
4475.306	14	3.3	s	Cr I	2.89	95		4480.825	30	6.9	u				
4475.469r	2	0.4						4481.031r	10	2.5		Fe I p	3.63	893	
4475.50 m	1.5	0.3	s	Ti I	2.12	184		4481.140m	63	14.3	w	Mg II	8.86	4	
4475.722r	9	2.0		Y I V II	1.40 3.75	14 199		4481.273m	97	16.3	s	Ti I	1.75	146	
							4481.338m	8.5			o	Mg II	8.86	4	
4476.033	152	22.6	u	Fe I	2.84	350		4481.483r	5.5	1.2	s	Cr I	3.98 4.59	270	
4476.089r		17.0		Fe I	3.69	830									
4476.235r	11	2.5						4481.616S	46	10.3	u	Fe I	3.69	827	
4476.432r	6	1.3						4481.776r	6	1.3					
4476.62 m			s	Ti I p	2.08	184	13	4481.914r	7.5	1.7					
4476.640r	3	0.7						4482.006r	2	0.4		Zr II?	2.41	131	
4476.864r	2.5	0.6	u					4482.174	165	25.0	s?	Fe I	0.11	2	
4477.058	7	1.7	s	Cr I	2.71	63		4482.268			14.7	u	Fe I	2.22	68
4477.236	5	1.1	u					4482.439r	12	2.7		Ti II p	1.12	30	
4477.469	8	1.8	u	Y I	1.36	14		4482.540r	6.5	1.5					
4477.646r	2.5	0.6	s					4482.740m	67	14.9	s,d	Ti I— Fe I	1.46 3.65	113 828	
4477.851r	0.5	0.1						4482.873	16	3.6	s	Cr I	3.37	197	
4478.024	15	3.6	s	Fe I	2.20	69		4483.029r	2.5	0.6					
4478.142r	1.5	0.3						4483.182r	1	0.2					
4478.323	10	2.2	u	Co I	3.10	150		4483.351	1.5	0.3					
4478.44 a	4	0.9		Ir I?	1.62			4483.538	2	0.4					
4478.626	12	2.7	u	—Fe I				4483.661r	1	0.2					
4478.818r	4	0.9	u					4483.782	11	2.5	u	Fe I	3.64	898	
4478.998	4	0.9		Fe I p Fe I p	3.64 3.96	899 987		4483.911	15	3.3	u	Co I	3.13	150	
4479.240r	0.5	0.1		Ca II	6.47	6		4484.086r	5	1.1					
4479.386	18	4.0	u	Ce II—	0.56	203		4484.227m	77	19.2	u	Fe I	3.60	828	
4479.611m	61	13.6	s	Fe I	3.69 3.63	828 848		4484.391r	5.3	1.2					
4479.713m	16	4.2	s	Ti I	1.73	146		4484.503r	6	1.3	s	Ni I— Co I	3.60 0.92	102 27	
4479.851r	2.5	0.6						4484.695r	1.5	0.3		Cr I	3.08	151	
4479.968	42	9.4	u	Fe I p	3.98	974		4484.829r	1	0.2					
4480.145m	54	12.0	s	Fe I	3.05	515		4485.080r	2	0.4		Ti I?	2.08	184	
4480.273	24	5.4	u,N	Cr I Fe I? p	3.37 3.60	197 823		4485.209r	1	0.2					
4480.384r	6	1.3		Cu I	3.78	8		4485.422r	5	1.1		Zr II	1.24	79	
4480.469r	2.5	0.6						4485.537r	6.5	1.4					
4480.588	33	7.4	s	Ni I Ti I	3.90 1.74	211 146		4485.683m	65	15.4	u	Fe I	3.69	830	
								4485.839r	3	0.7					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4485.976	18	4.0	<i>w</i>	Fe I p	3.65	825		4490.614r	6	1.3	<i>u</i>	Fe I p	3.64	891	
4486.122r	0.5	0.1						4490.781	76	14.2	<i>w?</i>	Fe I	{3.94	973	
4486.223r	1	0.2					4490.811r	4.0				V I	1.85	86	
4486.324r	2.5	0.6					4490.949r	3.5				0.8			
4486.598r	3	0.7	<i>u</i>				4491.108r	2.5	0.6						
4486.750r	1	0.2	<i>u</i>				4491.18 m				<i>s</i>	V I	1.38	62	13
4486.914	11	2.5	<i>u</i>	Ce II	0.30	57		4491.213r	1.5	0.3					
4487.004r	5.5	1.2	<i>u</i>	Fe I p	3.93	988	16	4491.408m	66	16.0	<i>w</i>	Fe II	2.85	37	
4487.12 a	1.5	0.3						4491.660	20	4.4	<i>s</i>	Cr I	2.90	95	
4487.258	10	2.2	<i>u</i>	Y I	1.37	14		4491.852	10	2.2	<i>s</i>	Cr I	2.99	83	
4487.370	6	1.3	<i>u</i>	Fe I p	3.60	824		4491.975r	1.5	0.3					
4487.513	5.5	1.2	<i>s</i>	Y I	1.36	14		4492.114r	1.5	0.3					
4487.747	15	3.3	<i>u</i>	Fe I	3.24	594		4492.312	21	5.0	<i>s</i>	Cr I	3.37	197	
4487.870r	4.5	1.0	<i>u</i>					4492.541	8	1.8	<i>s</i>	Ti I	2.10	184	
4487.944r	3	0.7						4492.688m	29	6.2	<i>u</i>	Fe I	3.98	969	
4488.061	11	2.9	<i>u</i>	Cr I	2.99	283		4492.852r	1.5	0.3					
4488.138m	46	10.2	<i>w</i>	Fe I	3.60	819		4492.968r	0.5	0.1		Nb II? Fe I p	{2.61 3.25	639	
4488.329m	45	10.7	<i>w</i>	Ti II	3.12	115		4493.227r	0.5	0.1					
4488.523r	2.5	0.6						4493.380	5	1.1	<i>s</i>	Fe I	3.57	796	
4488.59 a	1	0.2						4493.530m	26	6.4	<i>w</i>	Ti II	1.08	18	
4488.688r	0.5	0.1						4493.753r	9	2.0					
4488.764r	1	0.2						4493.952	19	4.2	<i>w</i>				
4488.912m	45	10.0	<i>s</i>	V I	{1.85 1.94	{86 110		4494.062m	32	7.1	<i>u</i>	Fe I p	3.98	973	
				Fe I	{2.56 3.65	{213 827		4494.196	18	3.3	<i>s</i>	Na I	2.10	15	
4489.101	25	6.9	<i>s</i>	Ti I	1.74	146		4494.384r	16	3.6		Zr II	2.41	130	
4489.184	61	13.6	<i>w, N</i>	Fe II	2.83	37		4494.492r	16	5.1		Fe I p	2.95	411	
4489.341r	6	1.3						4494.573m	139	37.2	<i>u, N</i>	Fe I	2.20	68	
4489.467	17	3.8	<i>u</i>	Cr I	{2.71 3.56	63		4494.739r	10	2.4		Co I	3.53	168	
4489.602r	3.5	0.8						4494.867r	10	2.2					
4489.748m	81	18.9	<i>s</i>	Fe I	0.12	2		4495.008m	12	2.7	<i>s</i>	Ti I			
4489.928	3.5	0.8						4495.15 a	4	0.9					
4490.089m	67	15.4	<i>s</i>	Fe I Mn I	3.02 2.95	469 22		4495.267	8	1.8	<i>u</i>	Cr I	4.10	275	
4490.234r	7	1.6		Fe I p	2.88	319		4495.423	23	5.1	<i>u</i>	Fe I Zr II	{2.88 3.88 1.21	{319 970 79	
4490.397r	1.5	0.3						4495.575	24	5.3	<i>u</i>	Fe I	3.60	827	
4490.543	20	4.4	<i>w?</i>	Ni I— Cr I	{3.54 4.17 3.89	{134 235 267		4495.757r	5.5	1.2					
								4495.961	41	9.1	<i>u</i>	Fe I	3.65	825	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes		
4496.157m	39	10.2	s	Ti I	1.75	146		4502.052r	3.5	0.8							
4496.245r	9.5	2.2	s	Ti I	0.02	8		4502.221S	49	11.8	s	Mn I	2.92	22			
4496.377r	2.5	0.6						4502.441	7.5	1.7	u						
4496.515	7.5	1.7						4502.600m	21	4.9	u	Fe I	3.57	796			
4496.661r	7	1.6						4502.760	1	0.2							
4496.860m	79	21.1	s	Cr I	0.94	10		4503.063r	2	0.4		Cr I?	4.70	310			
4496.974	24	5.8	u	Zr II	0.71	40		4503.320a	2.5	0.6							
4497.103r	2.5	0.6						4503.354r	2	0.4							
4497.264r	1.5	0.3						4503.489r	0.5	0.1							
4497.406r	4	0.9						4503.761r	8	1.8	s	Ti I	2.13	184			
4497.680m	27	5.2	s,N	Na I	2.10	15		4503.874	7	1.6	u						
4497.73 m			s	Ti I	2.12	184	13	4504.059r	0.5	0.1							
4497.865r	6.5	1.4		Ce II?	0.96	19		4504.206r	1	0.2		Fe I p	3.96	988			
4498.000a	2.5	0.6						4504.542r	2	0.4							
4498.13 a	2.5	0.6						4504.737	46	1.8	u						
4498.296	7	1.6	u				4504.838m	8.4		u	Fe I	3.26	555				
4498.560r	8	1.8		Fe I p	3.88	988		4505.031r	4.5	1.0		Ca I	2.52	24			
4498.732	21	4.7	s	Cr I	2.91	81		4505.239r	4	0.9							
4498.900m	48	10.7	s	Mn I	2.94	22		4505.482r	1	0.2							
4499.036r	4	0.8						4505.73 m	1	0.2	s	Ti I	2.10	184			
4499.143m	43	9.6	u					4505.791	4.5	1.0	u						
4499.360r	3	0.7						4505.926r	2	0.4	s	Y I	1.37	14			
4499.501r	2	0.4		Sm II?	0.25	23		4506.093r	4	0.9	u,N						
4499.68 a	1.5	0.3						4506.326	9	2.0	s	Ni I Ti I	3.54	133			
4499.957r	2.5	0.6						4506.452r	1.5	0.3							
4500.288	39	6.2	s	Cr I	3.08	150		4506.608	7	1.6	s	Ca I	2.52	24			
4500.369		2.4	w							4506.747	7.5	1.7	o	Ti II p	1.13	30	
4500.504r		1.5	0.3							4506.842	9.5	2.1	s	Cr I	4.18	288	
4500.639	14	2.9	u	Fe I				4506.973r	1	0.2							
4500.767r	2	0.4						4507.100r	3	0.7	S	Zr I	0.54	31			
4500.949r	3	0.7						4507.227	6.5	1.4	w?	Fe I	3.11	474			
4501.102	27	6.0	s	Cr I	{2.91 3.55}	81		4507.395	7.5	1.7	s	Ca I	2.52	24			
4501.278m	111	29.1	w	Ti II	1.12	31		4507.754	3.5	0.8	s						
4501.457	10	2.2	u,N					4507.858	3.5	0.8	s	Ca I	2.52	24			
4501.651	8.5	1.9	u	Cr I?— Ni I	3.56 3.70	115		4508.011r	6	1.3	s	Ti I	2.78				
4501.780	22	4.9	s	Cr I	2.91	81		4508.084r	3.5	0.8							
4501.990	5.5	1.2	s	V I	1.38	62		4508.289S	74	17.5	w	Fe II	2.85	38			

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4508.472r	3	0.3						4514.432	68	9.3	<i>u?</i>				
4508.550r		0.3						4514.496		6.9	<i>s?</i>	Cr I	2.91	95	
4508.689	13	3.1	<i>w</i>					4514.651r	2	0.4					
4508.97 a	1	0.2						4514.791r	3.5	0.8	<i>u</i>				16
4509.128r	2	0.4		Fe I p	2.61	213		4514.968r	2.5	0.6					
4509.290	14	3.1	<i>u</i>	Fe I	{3.05 3.69	{514 937		4515.107r	4	0.9		Sm II			
4509.449	14	3.1	<i>s</i>	Ca I	2.52	24		4515.178	14	3.1	<i>u</i>	Fe I	2.87	319	
4509.742m	34	8.0	<i>u</i>					4515.343m	75	17.9	<i>w</i>	Fe II	2.84	37	
4509.995r	3.5	0.8	<i>u</i>	Cr I	4.53			4515.440r		1.8	<i>s</i>	Cr I	3.01	126	
4510.178r	1.5	0.3		Pr II	0.42	20		4515.597r	6.5	1.4	<i>s,N</i>	V I— Ti I	1.89 2.12	100 184	
4510.830	8	1.8	<i>w?,N</i>	Fe I p	3.60	823		4515.863	3.5	0.8	<i>u,N</i>				
4510.96 m	0.5	0.1						4516.089r	1	0.2		Fe I p	3.25	639	
4511.072	5	1.1	<i>w</i>	Fe I p	3.94	970		4516.272	9.5	2.6	<i>u</i>	Fe I	3.60	819	
4511.171	8	1.8	<i>s</i>	Ti I				4516.461	3.5	0.8	<i>s</i>	Fe I p	3.65	825	
4511.31 m	2	0.4	<i>s</i>	In I	0.27	1		4516.661	12	3.5	<i>u,N</i>				
4511.350r	0.5	0.1						4516.928r	2	0.4	<i>u</i>				
4511.567	8	1.8	<i>w,N</i>					4517.089r	28	0.7	<i>u?</i>	Co I	3.13	150	
4511.82 m			<i>s</i>				13	4517.154		6.6	<i>u</i>	Fe I?			
4511.900m	31	8.4	<i>s</i>	Cr I	3.09	150		4517.305r	2.5	0.6					
4512.062	4.5	1.0	<i>u</i>					4517.373r	1	0.2					
4512.273	18	4.0	<i>s</i>	Ca I	2.52	24		4517.534S	61	12.4	<i>u</i>	Fe I	3.07	472	
4512.436r	0.5	0.1						4517.598r		1.1	<i>u?</i>	Fe I p	3.96	992	
4512.497r	1	0.2						4517.757r	2	0.4					
4512.566r	1	0.2						4517.838r	3.5	0.8		Ni I?	3.54	103	
4512.741S	55	13.5	<i>s</i>	Ti I	0.84	42		4518.032m	62	14.8	<i>S</i>	Ti I	0.83	42	
4512.997	16	3.5	<i>w</i>	Ni I	3.70	163		4518.183r	2	0.4					
4513.219r	2.5	0.6		Cr I?	3.09	150		4518.342m	40	10.0	<i>u</i>				
4513.325r	3.5	0.8						4518.447	6	1.3	<i>u</i>	Fe I	3.24	593	
4513.437	13	2.9	<i>w</i>					4518.587	14	3.1	<i>u,d</i>	Fe I Cr I	2.22 2.54 2.97	69 34 100	
4513.582	5	1.1	<i>s</i>	Y I	1.90	15		4518.700m	12	2.6	<i>s</i>	Ti I	1.43	112	
4513.720	9	2.0	<i>s</i>	Ti I Fe I	1.43 2.59	112 213		4518.861r	1.5	0.3					
4513.872r	3	0.7		Ni I p Cr I?	3.54 3.09	131 175		4518.982r	1	0.2		Mn II?			
4513.912r	3	0.7						4519.08 a	1	0.2					
4514.193m	48	10.6	<i>s</i>	V I Fe I	1.94 3.05	110 514		4519.299r	1	0.2		Co I?	3.71		
4514.320r	1	0.2	<i>s</i>	Cr I?	4.18	287		4519.458r	0.5	0.1					
								4519.637	5	1.1	<i>s</i>	Sm II—	0.54	49	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4519.843r	3.5	0.8	<i>u</i>	Cr I	3.01	126		4524.944	32	7.1	<i>w</i>	Ba II	2.51	3	
4519.992	30	6.6	<i>s</i>	Ni I	1.68	51		4525.146S	120	25.6	<i>s</i>	Fe I	3.60	826	
4520.116r	1	0.2					4525.245r	0.9							
4520.229m	69	16.2	<i>w</i>	Fe II Fe I	2.81 3.07	37 471		4525.616r	2	0.4					
4520.399r	3	0.7		Ti II p	1.12	30		4525.72 a	1.5	0.3					
4520.536	6.5	1.4	<i>u, N</i>				17	4525.866	17	3.8	<i>u, d</i>	Fe I	2.88	319	
4520.62 a	1.5	0.3						4526.103	16	3.5	<i>s</i>	Cr I (La II)	3.37 0.77	196 50	
4520.804r	5	0.7						4526.264r	2	0.4	<i>s</i>				
4520.966r		0.4						4526.442	107	23.6	<i>s</i>	Fe I p— Cr I	3.88 2.54	969 33	7
4521.136	11	2.4	<i>s</i>	Cr I	{4.10 4.18}	277 287		4526.568m	38	8.4	<i>u</i>	Fe I	3.11	471	
4521.33 a	3	0.7						4526.720r	3.5	0.8					
4521.432r	0.5	0.1						4526.788r	3.5	0.8		Co I	3.71	177	
4521.668r	0.5	0.1		Fe I p	3.27	641		4526.933m	75	17.4	<i>s</i>	Ca I	2.71	36	
4521.78 a	1.5	0.3						4527.165r	4	0.9					
4521.887r	2	0.4		Ni I—	3.74	116		4527.325m	67	14.8	<i>S</i>	Ti I Cr I (Ce II)	0.81 2.54 0.32	42 33 108	
4522.029r	1.5	0.3	<i>s</i>	Cr I	3.09	173									
4522.120r	2	0.4						4527.468m	25	5.5	<i>s</i>	Ti I Cr I	0.00 2.99	7 82	
4522.252r	0.5	0.1						4527.640r	1.5	0.3					
4522.372	8.5	1.9	<i>u</i>	La II	{0.00 1.25}	8 74		4527.788	21	4.6	<i>u</i>	Fe I	3.25	641	
4522.528	101	4.6	<i>u</i>	Fe I				4527.930r	4.5	1.0		Co I Fe I	3.05 3.64	156 897	
4522.638m		18.8	<i>w</i>	Fe II (Eu II)	2.84 0.21	38 4		4527.98 m	1	0.2	<i>s</i>	V I			
4522.807m	65	15.5	<i>S</i>	Ti I	0.82	42		4528.05 a	2	0.4		Si I			
4522.950r	1	0.2						4528.143r	4.5	1.0					
4523.080	12	2.6	<i>u</i>	Ce II	0.52	2		4528.306r	4.5	1.0					
4523.246r	1.5	0.3						4528.484	275	7.3	<i>w?, N</i>	Ce II— V II	0.86 2.27	1 56	
4523.407m	36	8.2	<i>s</i>	Fe I	3.65	829		4528.627m			43.0	<i>S</i>	Fe I	2.18	68
4523.585r	3.5	0.8	<i>s, N</i>					4528.768		8.4	<i>u</i>	Fe I p	3.30	595	
4523.744r	6	1.3		Ni I?	{3.54 4.23}	99		4528.824		8.4	<i>u</i>	Fe I p	3.02	468	
4523.924	11	2.4	<i>u</i>	Sm II	0.43	41		4529.018r	3	0.7					
4524.096r	5.5	1.2	<i>u</i>	Fe I			16	4529.227r	2.5	0.6					
4524.223	8	1.5	<i>s</i>	V I	1.89	99		4529.315r	2.5	0.6	<i>s</i>	V I	1.89	95	
4524.418r	2	0.4						4529.492	99	13.0	<i>u</i>	Ti II	1.57	82	
4524.519r	1.5	0.3					4529.560	11.0			<i>u</i>	Fe I (V I)	3.88 1.87	987 99	
4524.691	18	4.0	<i>u</i>	Ti II	1.23	60		4529.686m	55	8.8	<i>u</i>	Fe I			
4524.843r	8	1.5	<i>u</i>	Cr I	4.10	276		4529.852	15	3.3	<i>s</i>	Cr I	2.54	33	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4530.005r	0.5	0.1						4535.925m	147	16.3	s	Ti I	0.82	42	
4530.16 a	1	0.2					4536.054m	16.3		s	Ti I	0.81	42		
4530.338r	1	0.2					4536.209r	1.5	0.3						
4530.500r	3	0.7	s				4536.364r	4	0.9	s?					
4530.698r	76	7.1	s?	Cr I	2.54	33	4536.504	10	2.2	u	Fe I (Cr I)	3.64 3.32	896 190		
4530.738		12.8	s	Cr I	2.54	33									
4530.955m	69	15.2	u,N	Co I	2.93	150	4536.75 a	1	0.2						
4531.158m	106	23.4	s	Fe I	1.48	39	4536.907r	1	0.2						
4531.350r	2	0.4					4537.05 m	2	0.4	s					
4531.457r	2	0.4		Fe I			4537.221r	5	1.1	s	Ti I				
4531.631S	55	13.2		Fe I	3.21 3.63 3.93	555 847 992	4537.424r	3	0.7	u					
4531.806r	1.5	0.3					4537.676	13	2.9	s	Fe I	3.27	594		
4531.907r	2	0.4	u				4537.818r	1.5	0.3	s,N	Ti I?				
4532.138r	2	0.4	s	(V II)	3.80	212	4537.970r	4.5	1.0	u	Sm II	0.48	45		
4532.317r	2	0.4					4538.12 a	0.5	0.1						
4532.50 a	1	0.2					4538.371r	1.5	0.3						
4532.776r	4	0.9	u	Cr I	3.42	212	4538.466r	2	0.4						
4532.968	72	8.8	u				4538.597	9.5	2.1	u,d?	Fe I p	3.98	972		
4533.046		7.5	u	Fe I?			4538.758	51	5.3	u	Fe I	2.28	115		
4533.249m	90	20.9	S	Ti I	0.85	42	4538.843		6.4	u	Fe I	3.94	969		
4533.542r	2	0.4					4538.956r	2.5	0.6	u	Fe I p	4.19	1048		
4533.719r	9	2.0					4539.094	4	0.9	s	Ti I				
4533.970	109	24.0	w	Ti II	1.24	50	4539.250	5.5	1.2	u					
4534.171m	53	11.7	w	Fe II	2.85	37	4539.397r	2.5	0.6						
4534.37 a	1	0.2					4539.593	12	2.6	w,N					
4534.478r	3	0.7					4539.777	37	8.1	s	Ce II— Cr I	0.33 2.54	108 33		
4534.620r	5.5	1.2		Fe I p	4.43	1169	4539.999r	2	0.6	s	V I	1.89	100		
4534.785S	81	20.5	s	Ti I	0.84	42	4540.217r	2	0.4	s					
4534.984r	4	0.9					4540.278r	1	0.2						
4535.143	26	6.0	s	Cr I	2.54	33	4540.406	57	2.4	s					17
4535.322	12	2.6	w				4540.506m		10.1	s	Cr I	2.54	33		
4535.447r	1	0.2					4540.710m	52	12.3	s	Cr I	3.10	150		
4535.576m	79	19.8	s	Ti I	0.83	42	4540.873	9.5	2.1	s,N	Ti I Cr I	1.44 2.99 3.10	112 82 150		
4535.712	84	18.5	u	Cr I— Zr I	2.54 2.54 4.10 0.52	33 33 276 30	4541.068	22	5.3	s	Cr I	2.54	33		
4535.86 m			s	Ti I p	1.44	112	4541.185r	2.5	0.6	s					16
							4541.318	17	3.7	w	Fe I	3.25	640		
							4541.35 m			s					13

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4541.523S	58	12.8	<i>w</i>	Fe II (Cr I)	2.85 3.08	38 149		4546.679	7.5	1.6	<i>u</i>	Fe I p	3.96	989	
4541.61 m			<i>s</i>	Na I	2.10	14	13	4546.807r	1	0.2	<i>s</i>	Nb I?	0.20		
4541.656r	3.5	0.8						4546.934	92	8.8	<i>w</i>	Ni I	4.16	261	
4541.809r	3	0.7					4547.022	13.0		<i>s</i>	Fe I	1.56	39		
4541.943	8	1.8	<i>w</i>	Fe I	3.27	593		4547.232	34	7.0	<i>u</i>	Ni I	3.63	146	
4542.067r	2	0.4	<i>s</i>				4547.30 m	0.4		<i>s</i>	Ti I?				
4542.234	4.5	1.0	<i>s</i>	Zr I	0.63	49		4547.418r	1	0.2					
4542.433m	40	8.8	<i>uN</i>	Fe I	3.64	894		4547.646r	1	0.2					
4542.617	31	3.1	<i>s</i>	Cr I	3.09 4.10	149 275		4547.853S	73	17.6	<i>s</i>	Fe I (Ti I)	3.55 2.48	755 270	
4542.704		3.7	<i>u</i>	Fe I	3.69	827		4547.996r	3	0.7					
4542.845r	1.5	0.3						4548.132r	3	0.7	<i>s</i>	Ti I	2.49	270	
4542.90 m	0.5	0.1	<i>s</i>					4548.20 a	0.5	0.1					
4543.035r	1	0.2						4548.445r	2	0.4					
4543.13 m	1.5	0.3	<i>s</i>					4548.583	6	1.3	<i>w,N</i>				
4543.229	3	0.7	<i>u,N</i>	Fe I p	3.64	893		4548.770S	63	14.5	<i>S</i>	Ti I	0.83	42	
4543.740	3.5	0.8	<i>s</i>	Cr I	2.98	100		4548.900r	2	0.4					
4543.818	14	3.1	<i>u,d</i>	Co I	2.72	142	17	4549.018r	1.5	0.3					
4544.022m	35	7.7	<i>w</i>	Ti II—	1.24	60		4549.104r	2.5	0.6					
4544.198r	0.5	0.1						4549.189	33	2.4	<i>o</i>	Fe II	5.91	186	
4544.281	1	0.2						4549.283		5.0	<i>u</i>				
4544.488r	8	1.8	<i>u</i>	Fe I p	3.98	970		4549.474m	231	18.2	<i>w</i>	Fe II	2.83	38	
4544.621	97	11.0	<i>u</i>	Cr I	2.54	33		4549.638m		32.5	<i>w</i>	Ti II (Co I)	1.58 3.07	82 150	
4544.694		13.9	<i>s</i>	Ti I	0.82	42		4549.820	53	11.6	<i>u</i>	Ti II p	1.18	39	
4544.841r	3	0.7						4549.992r	2	0.4					
4544.971	9	2.0	<i>u</i>					4550.121	15	3.3	<i>u</i>				
4545.143m	42	10.6	<i>u</i>	Ti II	1.13	30		4550.274	6	1.3					
4545.338	30	4.6	<i>s,d</i>	Cr I	2.54	33		4550.431r	1.5	0.3					
4545.397		2.0		V I	1.95	109		4550.573r	1.5	0.3					
4545.545r	2	0.4		Fe I p	3.64	894		4550.773S	72	16.0	<i>w</i>	Fe I			
4545.602r	1.5	0.3						4550.969r	3.5	0.8					
4545.693r	2.5	0.6		Ir I?	1.62			4551.091r	1.5	0.3					
4545.815r	3	0.7						4551.228	23	4.9	<i>u,d</i>	Ni I	4.17	236	
4545.962m	73	17.4	<i>S</i>	Cr I	0.94	10		4551.521r	0.5	0.1					
4546.108r	2.5	0.6						4551.654	23	5.3	<i>u</i>	Fe I	3.94	972	
4546.260r	1.5	0.3						4551.848r	1	0.2	<i>s</i>	V I?	1.80	82	
4546.476	5.5	1.2	<i>u</i>	Fe I	4.19	1047		4552.144	20	4.4	<i>w?,N</i>				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4552.293	27	5.9	<i>u</i>	Ti II? p	1.12	30		4558.113m	19	4.2	<i>s</i>	[Fe I	{3.64	894	
4552.463	109	15.4	<i>s</i>	Ti I	0.84	42						Ti I	{3.98	974	
4552.549		10.3	<i>u</i>	Fe I									{2.34	262	
4552.653r		3	0.7		Sm II	0.25	23	4558.226	7	1.5	<i>w</i>			{2.34	263
4552.894r	1	0.2					4558.470	5	1.1	<i>u</i>		V II La II	3.80 0.32	212 39	
4553.048r	2	0.4	<i>s</i>	Zr I— V I	0.52 2.36	31 133		4558.650m	66	15.4	<i>w</i>	Cr II	4.07	44	
4553.174	12	2.6	<i>w</i>	Ni I	3.66	135	4558.774	8	1.8						
4553.375r	3.5	0.8					4558.930	1	0.2						
4553.625r	3	0.7					4559.353	1.5	0.3						
4553.838r	1.5	0.3					4559.556r	0.5	0.1						
4554.036m	159	36.7	<i>s</i>	Ba II	0.00	1	4559.72 a	2	0.4						
4554.252r	1.5	0.3					4559.808r	1	0.2						
4554.313r	1.5	0.3					4559.930	18	3.9	<i>s</i>		Ti I (Ni I)	1.46 3.54	112 115	
4554.460m	26	5.7	<i>s</i>	Fe I	2.86	319	4560.097m	42	9.2	<i>u</i>		Fe I	3.60	823	
4554.536r	4	0.9	<i>S</i>	Ru I	0.81	5	4560.278	13	2.8	<i>u</i>		Ce II	0.91	8	
4554.698r	1.5	0.3					4560.417r	1.5	0.3	<i>s</i>					
4554.834	7.5	1.6	<i>s</i>	Cr I	3.11	173	4560.568r	2	0.4						
4554.992m	39	8.6	<i>w</i>	Cr II	4.07	44	4560.720	7.5	1.7	<i>s</i>		V I	1.95	109	
4555.092	8	1.8	<i>s</i>	Ti I Cr I	2.41 3.10	266 149	4560.869	14	3.1	<i>w</i>		Fe I?			
4555.295	3.5	0.8	<i>s</i>	Cr I	3.43	212	4560.966	4.5	1.0	<i>u</i>		Ce II	0.68	2	
4555.492m	54	13.2	<i>s</i>	Ti I	0.85	42	4561.192	6	1.7	<i>u,N</i>					
4555.658r	2.5	0.5					4561.417m	28	6.1	<i>u</i>		Fe I	2.76		
4555.738r	3	0.7	<i>s</i>	Fe I p	3.27	640	4561.731	4	0.9	<i>s</i>					
4555.892m	77	16.9	<i>w</i>	Fe II	2.83	37	4561.985	1	0.2						
4556.137m	100	21.9	<i>u</i>	Fe I (Cr I)	2.95 3.60 3.94 3.11	410 820 974 173	4562.234r	0.5	0.1						
4556.377r	2	0.4					4562.367	17	3.7	<i>u</i>		Ce II	0.48	1	
4556.547r	2	0.4					4562.477r	1.5	0.3	<i>s</i>					
4556.760	1	0.2					4562.637m	8	2.4	<i>S</i>		Ti I	0.02	7	
4556.932m	21	4.6	<i>s</i>	Fe I	3.25	638	4562.885	1.5	0.3						
4557.088	1.5	0.3					4563.08 a	1.5	0.3						
4557.284	26	5.7	<i>w,N</i>	Fe I			4563.237	6	1.3	<i>s</i>		Cr I	3.85	246	
4557.520	1.5	0.3					4563.237	6	1.3	<i>s</i>		Cr I	3.85	246	
4557.62 a	1	0.2					4563.427m	11	2.4	<i>s</i>		Ti I	2.43	266	
4557.754	3.5	0.8					4563.66 m			<i>S</i>		Cr I	3.09	172	13
4557.867m	5.5	1.2	<i>s</i>	Ti I	2.47	270	4563.766S	120	28.0	<i>w</i>		Ti II	1.22	50	
							4563.886	6	1.3	<i>u,N</i>					
							4564.031r	2.5	0.5						
							4564.173	13	2.8	<i>u</i>		Cr I	4.78	312	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4564.23 m			s	Ti I	1.46	112	13	4569.525	10	2.2	s	Cr I	3.12	173	
4564.329	5.5	1.2	w					4569.618	24	5.2	s	Cr I	3.12	173	
4564.457r	4.5	1.0						4569.820r	1	0.2					
4564.578	14	3.1	w	V II	2.27	56		4570.025	5	1.1	u,N	Co I—	3.63	178	
4564.702	30	6.6	w,N	Fe I	3.65	823		4570.29 a	0.5	0.1					
4564.828	24	5.2	u	Fe I	3.07	472		4570.387r	2	0.4	s,N	—V I	1.95	109	
4565.043r	3	0.7		Cr I? p	7.48			4570.609r	2	0.4					
4565.15 a	2.5	0.5		Ni I p	3.40	88		4570.918	6.5	1.4	s	Ti I	2.40	266	
4565.316	26	5.7	u	Fe I	3.27	641		4571.102S	92	20.8	s	Mg I	0.00	1	
4565.418	26	5.7	u	Zr II? Ni I? p	1.77 3.38	116 99		4571.298r	4	0.9					
4565.518m	67	14.7	s	Cr I (Co I)	0.98 3.02	21 150		4571.444	18	3.9	u	Fe I	2.87	319	
4565.668	76	14.9	u	Fe I	3.24	554		4571.675m	39	8.5	s	Cr I	2.54	32	
4565.729		3.1	u?	Cr II?	4.04	39		4571.803	14	3.1	s	V I Cr I	1.94 3.10 3.85	109 149 246	
4565.856	5	1.1		Ce II	1.09	21									
4566.026r	1.5	0.3		Fe I p	4.47	1169		4571.982S	126	29.7	w	Ti II	1.57	82	
4566.233	7.5	1.6	u,N	Sm II—	0.33	32		4572.194r	5	1.1	s	Cr I	3.32 3.85	190 246	
4566.383r	0.5	0.1						4572.284	15	3.3	u	Ce II	0.68	1	
4566.524m	36	7.9	u	Fe I	3.30	641		4572.428r	2.5	0.5					
4566.662r	5	1.1		Fe I p	2.56	212		4572.593	4.5	1.0	s,d?				17
4566.873m	40	8.8	w	Fe I				4572.70 a	3	0.7					
4566.993	17	3.7	s	Fe I	3.41	723		4572.864	11	2.4	w?	Fe I—	3.65	819	17
4567.173r	0.5	0.1						4572.94 m	1.5	0.3	S				
4567.28 a	1.5	0.3						4573.059r	0.5	0.1					
4567.409	2	0.4	u	Ni I	3.54	102		4573.09 m			s,N	Nb I?	0.27		13
4567.583r	2	0.4						4573.656r	0.5	0.1		Si I			
4567.745r	0.5	0.1						4573.790	2	0.4					
4567.89 a	1	0.2						4573.996r	3	0.7	s	Sc I? Si I?			
4568.043	1.5	0.3						4574.225m	33	7.2	u	Fe I	3.21	554	
4568.20 a	3	0.7						4574.365r	1.5	0.3					
4568.328m	25	6.1	w	Ti II	1.22	60		4574.483	5	1.1	u,N	Zr II Cr I	2.43 3.08	139 148	
4568.50 a	3	0.7						4574.567r	0.5	0.1					
4568.608	14	3.1	u	Fe I p	3.93	989		4574.728m	52	11.4	s	Fe I	2.28	115	
4568.771	60	9.6	w?	Fe I	3.26	554		4574.902	9.5	2.1	u,N	La II—	0.17	23	
4568.855		5.0	u	Fe I	3.63	894		4575.113	9	2.0	s	Cr I	3.37	196	
4569.071r	3	0.7	u	Fe I p	3.27	593		4575.230r	1.5	0.3					
4569.253r	2	0.4		Co II											
4569.360	5.5	1.2	u												

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4575.428r	5	1.1						4581.046	3.5	0.8	s	Cr I	{3.01 3.09}	{125 148}	
4575.48 m			S	Zr I	0.00	5	13	4581.196	22	4.8	w	Fe I			
4575.546	10	2.2	s					4581.30 m			s	Y I	1.90	15	13
4575.790	15	3.3	u	Fe I	{3.30 3.88}	{593 970}		4581.406		21.8	s	Ca I	2.52	23	
4575.924r	2	0.4						4581.519	201	21.8	u	Fe I	3.24	555	
4576.096r	0.5	0.1						4581.630		4.4	u,N	Co I	2.96	150	
4576.339S	56	12.4	w	Fe II	2.84	38		4581.835r	5	1.1					
4576.517	6.5	1.4	s	Ti I	2.33	262		4582.075	5	1.1					
4576.597r	2.5	0.5						4582.309	16	3.5	w	Fe I			
4576.785r	1	0.2	s	Cr I	3.08	148		4582.437m	3	0.7	s				16
4577.009r	2	0.4						4582.510	4	0.9					
4577.184	25	5.9	S	V I	0.00	4		4582.679r	1.5	0.3					
4577.331	3	0.7						4582.833m	49	10.7	w	Fe II	2.84	37	
4577.484r	1.5	0.3	u					4582.952	6	1.3	u	Fe I	2.84	348	
4577.694	4	0.9	u	Sm II	0.25	23		4583.123	10	2.2	u				
4577.816	1.5	0.3						4583.251r	0.5	0.1					
4578.047	3	0.7	u,N					4583.415	25	5.4	u	Ti II	1.16	39	
4578.326	4.5	1.0	s	Cr I	3.85	246		4583.576r	2	0.4					
4578.47 m			S				13	4583.724		2.8	s	Fe I	3.11	472	
4578.559S	73	15.9	s	Ca I	2.52	23		4583.839m	124	24.2	w	Fe II	2.81	38	
4578.732	11	2.4	s	V I	1.94	109		4583.90 m			s	Cr I	3.01	125	13
4578.890	3	0.7	u					4583.992	16	3.5	o?	Fe II p	2.70	26	
4579.054	12	2.6	u,d	Fe I p Fe I p	{3.27 3.88}	{640 988}		4584.090	11	2.4	s,d.	Cr I	3.12	172	
4579.187r	1.5	0.3	s	V I	1.95	109		4584.274	2.5	0.5					
4579.338m	22	4.8	u	Fe I	{2.83 3.69}	{319 936}		4584.443	1.5	0.3	s	Ru I	1.00	5	
4579.514	3.5	0.8	s				16	4584.726	32	7.0	u	Fe I Cr I	{3.60 3.01}	{820 125}	
4579.687	7.5	1.6	w	Fe I p	3.64	894		4584.824m	49	10.7	u	Fe I	3.60	822	
4579.820	20	4.4	w,N	Fe I	3.07	469		4584.945r	5.5	1.2	s	Cr I	3.37	196	
4579.908r	3.5	0.8						4585.079	5.5	1.2	u	Cr I	3.45	212	
4580.062m	80	17.6	S	Cr I	0.94	10		4585.195r	1.5	0.3					
4580.154r	7	1.5	s	Co I	0.92	27		4585.343	14	3.0	w,N	Fe I			
4580.291r	1.5	0.3						4585.597	2	0.4		Fe I p	3.02	468	
4580.414m	42	9.8	S	V I	0.02	4		4585.698	3.5	0.8		Si I			
4580.589m	40	8.7	u	{Fe I Ni I}	{3.65 3.65}	{827 146}		4585.874		23.5	s	Ca I	2.52	23	
4580.739r	4	0.9						4585.973		6.8	s	V I Ca I?	{1.35 2.52}	{61 23}	
4580.881	3	0.7						4586.144	15	3.3	s	Cr I	3.11	172	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4586.234	38	8.3	<i>w</i>					4592.219r	3.5	0.8					
4586.378m	38	8.7	<i>S</i>	V I	0.04	4		4592.355	12	2.6	<i>w,N</i>				
4586.543r	0.5	0.1						4592.531m	67	14.6	<i>u</i>	Ni I	3.54	98	
4586.721	0.5	0.1						4592.659m	95	20.7	<i>s</i>	Fe I	1.56	39	
4586.93 m			<i>s</i>	Ti I p	2.43	266	13	4592.816r	3	0.7					
4586.994	9.5	2.1	<i>u</i>	Cr I?	3.01	126		4592.928r	2	0.4					
4587.134S	46	10.0	<i>u</i>	Fe I	3.57	795		4593.170	6.5	1.4	<i>u</i>				
4587.396	3.5	0.8						4593.533m	22	4.8	<i>u</i>	Fe I	3.94	971	
4587.602	7	1.5						4593.709r	1	0.2					
4587.723	14	3.0	<i>u</i>	Fe I p	3.98	971		4593.832	10	2.2	<i>u</i>	Cr I	3.32	190	
4587.878r	2.5	0.5		Cr I	3.01	125		4593.935	12	2.6	<i>u</i>	Ce II	0.70	6	
4588.006r	3	0.7						4594.126m	46	10.0	<i>S</i>	V I (Eu I)	0.07 0.00	4 1	
4588.204m	66	14.4	<i>w</i>	Cr II	4.07	44		4594.285r	1.5	0.3					
4588.400	2	0.4						4594.416r	1.5	0.3		Cr I?			
4588.523r	1.5	0.3						4594.507m			<i>s</i>	Ti I p	2.34	262	13
4588.682	12	2.6	<i>u</i>					4594.639	10	2.2	{ <i>o?</i> <i>u</i> }	Co I—	3.63	176	
4588.76 m	1.5	0.3	<i>s</i>	Co I	0.43	15		4594.790r	1	0.2					
4589.017	2	0.4	<i>u,N</i>					4594.894	26	5.6	<i>u</i>	Ni I			
4589.294	3.5	0.8	<i>u</i>			16		4595.052r	4.5	1.0	<i>s</i>	Cr I	3.32	190	
4589.36 m	0.5	0.1	<i>s</i>					4595.216	10	2.2	<i>u</i>	Fe I p	3.63	846	
4589.512r	0.5	0.1						4595.365m	61	13.3	<i>s</i>	Fe I	3.30	594	
4589.738r	2	0.4						4595.476	8.5	1.8	<i>u</i>				
4589.953S	70	15.9	<i>w</i>	-Ti II	1.24	50		4595.593	21	4.6	<i>s</i>	Cr I	4.18	286	
4590.072r	5.5	1.2						4595.690r	8.5	1.8		Fe II p	2.85	38	
4590.216	2	0.4						4595.88 m	3.5	0.8	<i>s</i>				
4590.340	1	0.2		Mo I?				4595.956	34	7.4	<i>u</i>	Ni I	3.42	101	
4590.494	1	0.2		V II?	3.79	210		4596.069m	61	13.3	<i>u</i>	Fe I	3.60	820	
4590.55 m			<i>s</i>	Zr I	0.54	31	13	4596.242	3	0.7					
4590.677r	2	0.4	<i>s</i>	Cr I	3.01	125		4596.416m	29	6.3	<i>u</i>	Fe I	3.65	823	
4590.793	25	5.4	<i>w</i>	Fe I				4596.578	6	1.3	<i>u</i>				
4590.945	3.5	0.8						4596.682r	2.5	0.5					
4591.113	4.5	1.0	<i>u</i>					4596.905	14	3.0	<i>u</i>	Co I Cr I?	3.63 3.09	177 171	
4591.247r	2.5	0.5	<i>s</i>	V I	2.37	133		4597.036r	5.5	1.2	<i>s</i>	Fe I p	0.99	17	
4591.400m	59	12.8	<i>s</i>	Cr I	0.97	21		4597.255	18	3.9	<i>u</i>				
4591.520m	34	7.4	<i>u</i>	Fe I	2.76			4597.383	23	5.0	<i>u</i>	Fe I			
4591.737r	1.5	0.3						4597.601	6	1.3	<i>s,N</i>				
4591.850	1.5	0.3		Sm II?—	0.18	14									
4592.057m	44	9.8	<i>w</i>	Cr II	4.07	44									

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Not
4597.754	36	7.8	w					4603.490r	1	0.2					
4597.876m	44	9.6	u					4603.620	1.5	0.3					
4598.125S	76	16.5	s	Fe I	3.28	554		4603.729	2.5	0.5					
4598.364	16	3.5	s	Fe I p Fe I p	0.96 3.94	17 970		4603.852	10	2.2	u				
4598.437r	6	1.3	s	Cr I	3.11	172		4603.953	15	3.2	u	Fe I	2.99	410	
4598.617r	2	0.4						4604.13 a	1.5	0.3					
4598.745	12	2.6	u,d	Fe I	3.69	819		4604.239	5	1.1	s	Fe I p	2.83	348	
4599.008r	2	0.4	u	Cr I Ti I p	3.09 2.33	171 262		4604.405r	1	0.2	S	Zr I	0.52	29	
4599.227	6	1.3	s	Ti I				4604.560m	37	8.0	w	-Fe I (Cr I)	3.32	190	
4599.577	1	0.2						4604.688r	6	1.3					
4599.74 a	3	0.7					13	4604.852	10	2.2	s?	Fe I	3.63	846	
4599.79 m			s					4604.996m	62	13.5	u	Ni I	3.48	98	
4599.843m	56	12.2	u					4605.104	8	1.7	s	Fe I	2.86	348	
4599.970	1.5	0.3						4605.255r	3.5	0.7		Fe I?			
4600.107m	28	6.1	s	Cr I	2.54	32		4605.357	19	4.1	u	-Mn I	4.72		
4600.204	12	2.6	u	V II	2.26	56		4605.466	15	3.2	u				
4600.364m	53	11.5	w	Ni I	3.60	98		4605.594m	40	8.6	w	Fe I			
4600.562r	4.5	1.0						4605.75 a	2	0.4		La II	0.71	52	
4600.757m	80	18.2	S	Cr I	1.00	21		4605.844	10	2.3	s,d?				
4600.938	26	5.6	u	Fe I	3.24	591		4606.014	2.5	0.5		Fe I p	3.64	893	
4601.025	27	5.9	s	Cr I	2.54	32		4606.12 m	3	0.7	S	V I	0.02	4	
4601.144	7	1.5	s	Cr I	3.12	172		4606.226m	39	8.5	u	Ni I	3.60	100	
4601.270	7.5	1.6		Si I	5.08			4606.396	9.5	2.1	u	Cr I— Ce II	4.45 0.91	303 6	
4601.376	7.5	1.6	o	Fe II p	2.89	43		4606.511r	3	0.7		Sm II	0.00	1	
4601.556	1	0.2						4606.797	5.5	1.2	s,d?	Nb I	0.35		
4601.742r	0.5	0.1						4607.087	3.5	0.8	w	Fe I p	3.41	724	
4601.838r	0.5	0.1						4607.217	1	0.2					
4602.008S	60	13.0	s	Fe I	1.61	39		4607.338m	36	7.8	s	Sr I	0.00	2	
4602.181r	2	0.4						4607.511	4.5	1.0					
4602.389	1	0.2						4607.654S	75	16.3	u	Fe I	{3.26 3.98}	554 969	
4602.542r	3	0.7	s	Cr I?— Zr I?	3.45 1.87	210		4607.856	8.5	1.8					
4602.756	5.5	1.2		Fe II? p	2.54	19		4608.126	3	0.7					
4602.949S	97	22.2	s	Fe I	1.48	39		4608.230r	1.5	0.3					
4603.107r	10	2.2						4608.709	4	0.9	o				
4603.20 a	3	0.7						4608.842	4.5	1.0					
4603.348	14	3.0	s,d	Si I Fe I p	2.84	348		4608.98 a	2	0.4					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4609.266	11	2.4	<i>o</i>	Ti II p	1.18	39		4615.456r	2.5	0.5		Sm II	0.54	49	
4609.362	5	1.1	<i>s</i>	Ti I				4615.569m	24	5.2	<i>u</i>	Fe I			
4609.576r	2	0.4						4615.720r	8.5	1.8	<i>s</i>	Sm II	0.19	22	16
4609.657r	2.5	0.5	<i>s</i>	V I	1.38	61		4615.938r	4	0.9					
4609.912	22	4.8	<i>w</i>	Ni I?	4.09			4616.132m	71	17.1	<i>S</i>	Cr I	0.98	21	
4609.97 m			<i>s</i>				13	4616.296r	5	1.1					
4610.091r	3	0.7						4616.466	4	0.9					
4610.186	11	2.4	<i>w?</i>				17	4616.628m	37	8.0	<i>w</i>	Cr II	4.07	44	
4610.31 a	3	0.7						4616.747r	3.5	0.8					
4610.595r	2.5	0.5						4617.068r	1.5	0.3					
4610.941	3	0.7	<i>s</i>	V I	1.04	39		4617.276S	49	12.1	<i>s</i>	Ti I	1.75	145	
4611.070	131	3.2	<i>u</i>	Fe I p	3.30	641		4617.460r	4	0.9					
4611.194		4.3	<i>u</i>	Fe I p	2.85	319		4617.870	6	1.3	<i>u</i>				
4611.290		22.8	<i>s</i>	Fe I (Fe I p)	3.65 3.65	826 819		4617.967	7.5	1.6	<i>u</i>	Ni I	3.77	115	
4611.488r	12	2.6						4618.127r	2	0.4					
4611.640r	8.5	1.8						4618.360r	3	0.7					
4611.824	6.5	1.4						4618.512r	4	0.9					
4611.956	6.5	1.4	<i>s</i>	Cr I	3.37	196		4618.60 a	1.5	0.3		Fe I p	4.31	1151	
4612.075r	3.5	0.8		Pr II?	0.00			4618.792m	78	16.9	<i>w,d</i>	Fe I— Cr II	2.95 4.07	409 44	
4612.270r	4	0.9	<i>s,d</i>				17	4618.958r	7	1.5					
4612.470r	2.5	0.5	<i>s,d?</i>				17	4619.110r	3	0.7					
4612.611	8	1.7	<i>u</i>	Fe I p	2.83	349		4619.297m	70	15.2	<i>s</i>	Fe I	3.60	821	
4612.749r	3.5	0.8						4619.432	3	0.7					
4612.952	12	2.6	<i>u,N</i>					4619.539m	33	7.1	<i>s</i>	Ti I Cr I	2.33 2.99	261 81	
4613.213m	66	14.3	<i>u</i>	Fe I	3.29	554		4619.677r	3.5	0.8	<i>s</i>	V I			
4613.367m	62	13.4	<i>s</i>	Cr I	0.96	21		4619.780	6.5	1.5	<i>S</i>	V I	0.04	4	
4613.562r	7	1.5	<i>u</i>					4619.897r	2.5	0.5		La II	1.75	76	
4613.713	11	2.4	<i>s</i>					4620.132	5	1.1	<i>u</i>	Fe I p	3.07	468	
4613.921m	29	6.3	<i>u</i>	Zr II	0.97	67		4620.347	5	1.1	<i>u</i>	—Ni I	3.68	163	16
4614.208m	27	5.8	<i>s,d</i>	Cr I— Fe I	3.10 3.30	148 638		4620.520m	47	10.4	<i>w</i>	Fe II	2.83	38	
4614.353r	1.5	0.3						4620.811r	1.5	0.3		Co I	2.72		
4614.534	5	1.1	<i>s</i>	Cr I	3.85	245		4621.033	2	0.4	<i>s?</i>	Cr I	2.54	32	
4614.585r	5	1.1	<i>u</i>	Ni I	3.60	99		4621.124	3	0.6					
4614.726	5	1.1	<i>s</i>	Cr I	3.37	196		4621.35 a	1.5	0.3		Mg I?	2.71		
4614.938r	1.5	0.3						4621.479r	2.5	0.5		Si I			
4615.20 a	1	0.						4621.618	2.5	0.5		Fe I p	3.96	981	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4621.770	0.5	0.1						4627.549	12	2.6	N,s?	Fe I	3.30	593	
4621.888	45	3.2	s	Cr I	2.54	32		4627.654r	2.5	0.5					
4621.942		7.4	s	Cr I	{2.54 3.85}	{32 244}		4628.160	14	3.0	u	Ce II	0.52	1	
4622.132r	3.5	0.8					4628.276	2	0.4						
4622.258r	2.5	0.5					4628.457	6	1.3	s		Cr I	3.14	186	
4622.453m	33	7.1	s	Cr I	3.55	233		4628.685r	3.5	0.8		Fe I	3.69	819	
4622.558r	8.5	1.8					4628.917r	7	1.5	s,N		Co I	0.51	15	
4622.751	20	4.5	s	Cr I	2.99	81		4629.064	5	1.1		Zr II	2.49	139	
4622.896r	4.5	1.0					4629.342m	80	18.1	s		{Ti I Fe II— Co I}	{1.73 2.81 3.05}	{145 37 156}	
4623.02 a	3	0.6		Co I	3.19	156		4629.533	11	2.4	s,d				17
4623.101m	46	11.0	S	Ti I	1.74	145		4629.669r	2.5	0.5					
4623.303	4	0.9					4629.804r	4	0.9			Zn I	5.79	8	
4623.578	17	3.7	u				4629.950r	5.5	1.2			Ni I p	4.09	223	
4623.878r	0.5	0.1					4630.128S	61	13.6	u		Fe I	2.28	115	
4624.083	8	1.7	w				4630.407r	4	0.9						
4624.269	1.5	0.3					4630.563	14	3.0	w					
4624.419r	6	1.3	s	V I	1.05	39		4630.783	3.5	0.8	o	Fe I	3.94	969	
4624.558	6.5	1.4	u	Co I— Cr I?	2.72	141		4631.036	7	1.5	o	Fe I p	4.10	1071	
4624.748r	4	0.9					4631.212	2.5	0.5						
4624.901	6	1.3		Ce II—	1.12	27		4631.337r	0.5	0.1					
4625.052S	76	17.3	s?	Fe I	3.24	554		4631.484	10	2.2	w	Fe I	{4.37 4.55}	1152	
4625.203r	3.5	0.8					4631.725r	1	0.2						
4625.314r	5	1.1		Cr I?—	3.11	171		4631.954r	3	0.6					
4625.441	4	0.9		Fe I p	3.98	974		4632.139	12	2.7	s	Fe I p— Cr I	{3.55 3.56}	{754 233}	
4625.771	7	1.5	u,N	Co I—	3.71	176		4632.331	2	0.4					
4625.920	12	2.6	s	Cr I	3.85	244		4632.479r	1.5	0.3					
4626.023r	1	0.2					4632.650r	4	0.9						
4626.182m	67	15.6	S,d	Cr I	0.97	21		4632.819	97	6.9	u	Fe I p	3.65	820	
4626.357r	5	1.1		Fe I p	3.25	636		4632.918			14.0	s	Fe I	1.61	39
4626.49?m			s	V I	1.04	39	13	4633.097r	5.5	1.2		Fe I? p—	1.01	17	
4626.538	21	4.5	s	Mn I—	4.71			4633.256	10	2.2	s	Cr I	3.12	186	
4626.650r	2	0.4					4633.380r	0.5	0.1						
4626.792	6.5	1.4	u	Fe I	2.99	410		4633.547r	1.5	0.3					
4627.015r	1	0.2		Fe I p	3.25	637		4633.767	21	4.5	u	Fe I	3.02	410	
4627.221	4	0.9	s	Eu I	0.00	1		4634.012r	53	0.2	S	Zr I	0.07	5	
4627.368	14	3.0	o	Si I	5.08		4634.079	11.2			w		Cr II	4.07	44
4627.49 a	5	1.1		Mo I?	2.28										

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4634.266r	4.5	1.0						4640.292m	33	7.1	w				
4634.372r	1.5	0.3						4640.44 m	3	0.6	s	Ti I	2.33	261	
4634.605r	1	0.2		Cr I Fe II p	3.11 2.58	171 25		4640.504	8.5	1.8	o				
4634.719m	28	6.0	u	Fe I?				4640.709r	1	0.2	S,N	V I	1.06	39	
4634.871	4	0.9	s	Ti I?				4640.83 a	1.5	0.3		Co I	0.58		
4635.035r	0.5	0.1						4640.973r	15	3.2		Fe I?			
4635.177	2.5	0.5	S	V I	0.07	4		4641.216	24	5.2	w	Fe I p	2.83	347	17
4635.311	14	3.0	o	Fe II	5.95	186		4641.37 a	7	1.5					
4635.423r	2	0.4						4641.519r	4.5	1.0					
4635.561r	4	0.9	s	Ti I	2.33	261		4641.677r	1.5	0.3					
4635.620	10	2.2	u	Fe I p	2.86	319		4641.89 a	0.5	0.1					
4635.709r	2	0.4						4642.000	3	0.6	s	Cr I	3.85	244	
4635.853S	44	10.1	u	Fe I	2.84	349		4642.132r	2.5	0.5	o				
4636.017r	2	0.4						4642.245	7.5	1.6	u	Sm II	0.38	36	
4636.164r	2	0.4						4642.40 a	1.5	0.3					
4636.324	14	3.2	w	Ti II	1.16	38		4642.584	7.5	1.6	u?	-Fe I	3.40	688	17
4636.565r	1	0.2						4642.831r	4	0.9	w,N?				17
4636.675	4.5	1.0	u	Fe I	3.05	513		4643.061r	0.5	0.1					
4636.934r	2.5	0.5						4643.202	6.5	1.4	s	Fe I p	1.48	38	
4637.044	3.5	0.8						4643.301r	2	0.4					
4637.178	18	3.9	s	Cr I Ti I	2.54 2.33	32 261		4643.470S	63	13.6	u	Fe I	3.65	820	
4637.300r	6.5	1.4						4643.72 m			S	Y I	0.00	4	13
4637.300r	6.5	1.4						4643.738r	15	3.2					
4637.510S	77	17.2	u	Fe I	3.28	554		4643.892r	8	1.7					
4637.671r	4.5	1.0						4643.94 m			s				13
4637.764	20	4.3	s	Cr I	{2.54 2.54	{32 32		4644.05 a	5	1.1					
4637.875	10	2.2	s	Ti I	2.34	261		4644.19 a	3.5	0.8					
4638.017S	82	18.3	u	Fe I	3.60	822		4644.398r	8.5	1.8					
4638.531	8	1.7	u?				17	4644.526	8.5	1.8	o?				17
4638.705r	2	0.4						4644.80 a	2.5	0.5					
4638.956	13	2.8	u					4644.86 m			s	Zr I	{1.44 1.82	64	13
4639.176	3.5	0.8						4645.04 a	2	0.4					
4639.368m	36	8.4	s	Ti I	1.74	145		4645.193	16	3.4	s,d	Ti I	1.73	145	21
4639.506	15	3.2	u	Cr I	3.11	186		4645.308r	2	0.4		La II	0.13	8	17
4639.671m	37	8.8	s	Ti I	1.75	145		4645.492	9	1.9	o?				
4639.946m	31	7.3	S	Ti I	1.73	145		4645.644r	1.5	0.3					
4640.106r	4.5	1.0	s	V I—	1.05	39		4645.790r	2	0.4					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4645.883r	1	0.2						4652.31 a	3	0.6					
4645.94 a	1	0.2						4652.55 a	5	1.1					
4645.993r	1.5	0.3		V I?	0.04	4		4652.78 a	1.5	0.3					
4646.169m	77	20.0	S	Cr I	1.03	21		4652.895r	1	0.2					
4646.376	14	3.0	s	V I	1.06	39		4653.042r	1	0.2					
4646.498	9.5	2.0	s	Cr I	3.08	147		4653.149r	0.5	0.1					
4646.640m	27	5.8	s					4653.314	3.5	0.8					
4646.780	16	3.4	s	Cr I	3.10	186		4653.370	9	1.9					
4646.970r	3.5	0.8		Ni I? p	3.63	145		4653.490	8	1.7	s	Fe I p	0.99	17	
4647.185	5.5	1.2	s					4653.645r	1.5	0.3					
4647.283	19	4.1	u					4653.786r	1	0.2					
4647.442S	78	16.8	u	Fe I	2.95	409		4653.903r	0.5	0.1					
4647.701r	9.5	2.0		Fe I p	3.41	722		4654.044r	1	0.2		C ₂			
4647.958m	42	9.0	u					4654.153	14	3.0	s				
4648.120	19	4.1	s	Cr I	2.54	32		4654.303	4	0.9					
4648.322r	5.5	1.2	s					4654.504m		16.8	s	Fe I	1.56	38	
4648.416r	1.5	0.3						4654.629m	171	21.0	u	Fe I	(3.21 3.60)	554 821	
4648.657m	67	15.7	u	Ni I	3.42	98		4654.730		2.6	s	Cr I	3.10	186	
4648.852	16	3.4	S,N	Cr I	(2.54 3.55)	32 233		4654.93 a	3	0.6					
4648.948	18	3.9	o	Fe II	2.58	25		4655.10 a	1	0.2					
4649.163r	3.5	0.8						4655.245r	5	1.1	u				
4649.302r	0.5	0.1						4655.460r	1	0.2		La II	1.95	75	
4649.438	20	4.3	s	Cr I	(2.54 3.56)	32 233		4655.656	16	3.4	s	Ni I Ti I	3.70 2.34	115 261	21
4649.643	20	4.3	u,N					4655.787	12	2.6	u				
4649.817	16	3.4	s	Fe I	3.24	592		4655.953r	3	0.6					
4650.019	14	3.0	s	Ti I	1.74	145		4656.051	9	1.9	s,d	Ti I	1.75	145	
4650.122r	3.5	0.8						4656.188	18	3.9	s	Cr I	3.09	147	
4650.308	10	2.1	u					4656.307r	1.5	0.3					
4650.550	5	1.1	u				17	4656.474S	55	13.8	s	Ti I	0.00	6	
4650.815	3.5	0.8	u				17	4656.641r	4	0.9					
4650.947r	2	0.4						4656.818r	1.5	0.3		Cr I	4.78	311	
4651.119	6	1.3		Cu I?	5.07			4656.981m	27	6.6	w	Fe II	2.89	43	
4651.290m	66	15.6	S	Cr I	0.98	21		4657.204m	38	9.2	w	Ti II	1.24	59	
4651.511r	5	1.1		Pr II	0.20	6		4657.380r	3.5	0.8		Co I Ni I	3.23 4.26	156 254	
4651.871r	1	0.2						4657.451r	1	0.2					
4652.024r	2	0.4		C ₂				4657.590m	24	5.6	u	Fe I	2.84	346	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4657.861r	1.5	0.3						4663.822m	28	6.0	s	Cr I	3.11	186	
4658.044r	2.5	0.5		Fe II? p— C ₂ ?	5.57	170		4663.954	12	2.6	s, N				
4658.11 a	1	0.2						4664.185r	3.5	0.8					
4658.170r	0.5	0.1						4664.324r	4	0.9		Ni I p C ₂ ?	3.63 R 30	147 2,1	19
4658.300	14	3.0	u, d	Fe I	3.27	591		4664.547r	1.5	0.3					
4658.502r	4.5	1.0						4664.794S	52	11.4	s, N	Cr I Na I	3.12 2.10	186 12	
4658.654r	5.5	1.2						4665.172	5.5	1.2	s				
4658.881r	11	2.4						4665.257r	3	0.6		Fe I p	4.21	1115	
4659.165r	4	0.9						4665.42 a	1	0.2					
4659.374r	3	0.6						4665.547	5	1.1	u, N	Fe I	4.07	1044	
4659.534r	2.5	0.5						4665.679r	3.5	0.8		C ₂			
4659.767r	0.5	0.1						4665.76 m	4.5	1.0	s				
4659.971	3	0.6						4665.825r	6.5	1.4		Fe II p	2.70	26	
4660.071	4	0.9						4665.906	28	6.0	s	Cr I	3.55	233	
4660.241	2.5	0.5		C ₂				4666.111	23	4.9	u	V I	1.89	94	
4660.426	17	3.6	w					4666.203	18	3.8	s	Cr I	2.97	99	
4660.628r	1	0.2		Co II				4666.353r	0.5	0.1					
4660.729r	1.5	0.3						4666.484m	34	7.3	s	Cr I	3.14	186	
4660.907	19	4.1	u	Fe I?				4666.615	16	3.4	u				
4661.151	3	0.6	o	Fe II? p	5.57	170		4666.754m	45	9.6	w	Fe II	2.83	37	
4661.328	3	0.6	u	Fe I p	2.83	347		4666.893r	3.5	0.8					
4661.539m	28	6.9	w?, d?	Fe I	4.56	1207		4666.986	35	7.5	w?, d	Ni I	3.80	146	
4661.788	2	0.4	o?	Zr II	2.41	129		4667.162	16	3.4	s	Cr I	2.97	99	
4661.927m			s	Eu I	0.00	1	13	4667.255	34	7.3	w?, N				
4661.979m	35	8.6	s	Fe I	2.99	409		4667.460m	75	16.1	u	Fe I	3.60	822	
4662.105r	4.5	1.0						4667.594m	60	12.8	s	Ti I	0.02	6	
4662.217r	2.5	0.5						4667.770m	36	7.7	w, N	Ni I	3.70	163	
4662.323r	1	0.2						4667.924	4	0.9		C ₂ ?	P 64	2,1	19
4662.512	4.5	1.0	s	La II—	0.00	8		4668.073	112	8.6	u	Fe I p	3.69	826	
4662.755	11	2.4	u, N	Ti II p— Mo I?	1.18 1.47	38 6		4668.149		17.6	u	Fe I	3.26	554	
4662.98 a	2.5	0.5					21	4668.375	11	2.4	s	Ti I	1.05	77	
4663.182	18	3.9	u	Fe I	3.55	754		4668.572m	39	10.0	S	Na I	2.10	12	
4663.287m			S				13	4668.78 a	5	1.1		C ₂ ?			
4663.317	27	5.8	s	Cr I	3.10	186		4668.844r	1.5	0.3					
4663.406	25	5.4	s, N?	Co I	3.13	156		4668.991r	2	0.4					
4663.561r	4	0.9						4669.176m	60	12.8	w?	Fe I	3.65	821	
4663.709	21	4.5	o	Fe II	2.89	44		4669.323	31	7.3	s	Cr I	3.17	186	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4669.395r	6.5	1.4		Sm II	0.10	7		4675.112m	30	6.4	S	Ti I	1.07	77	
4669.527r	2.5	0.5						4675.280r	2.5	0.5					
4669.651	6.5	1.4	s	Sm II Cr I	0.28 3.09	26 170		4675.392	4	0.9	w?				
4669.828r	0.5	0.1		Si I				4675.604	14	3.0	w	Ni I	3.61	115	
4669.982r	2	0.4						4675.846r	1	0.2					
4670.173m	27	5.8	w	Fe II	2.58	25		4676.015r	2	0.4					
4670.413m	55	12.2	u	Sc II	1.36	24		4676.165r	2.5	0.5					
4670.559r	6.5	1.4	s,N					4676.234	3	0.6					
4670.742r	0.5	0.1						4676.358	5.5	1.2	s				
4670.905	2.5	0.5						4676.540r	1.5	0.3	s,N				
4671.049r	2.5	0.5						4676.656r	2	0.4					
4671.215r	1	0.2		Si I?				4676.926	3.5	0.7	s,N	Sm II Ti I?	0.04 2.50	3	17
4671.422m	27	5.8	w					4677.086r	1.5	0.3					
4671.569r	3.5	0.7		C ₂	{P 63 P 64}	{2,1 2,1}	19	4677.30 a	1	0.2		C ₂	R 25	2,1	19
4671.687	11	2.4	s,N	Mn I	2.89	21		4677.431r	3.5	0.7		C ₂	R 24	2,1	19
4671.914r	2	0.4		C ₂				4677.53?m	1	0.2	s	Co I	0.58	15	
4672.036r	4.5	1.0		Fe I p	4.14	1045		4677.596	12	2.6	w	Fe I	4.15	1072	17
4672.197r	5	1.1						4677.724r	4	0.9	o?				
4672.334m	56	12.0	w					4677.873r	3	0.6					
4672.46 a	2	0.4						4677.997r	5.5	1.2					
4672.537r	4.5	1.0						4678.172S	62	13.2	w				
4672.632r	1	0.2						4678.420r	9	1.9	u	Fe I p	3.42	688	
4672.837m	31	6.6	s	Fe I p	1.61	40		4678.521	10	2.1	u				
4672.971r	3	0.6	u					4678.625r	6	1.3					
4673.169m	72	15.4	w?	Fe I	3.65	820		4678.854S	97	21.2	u	Fe I	3.60	821	
4673.278m	39	8.3	u	Fe I p	3.65	822		4679.076r	7	1.5					
4673.444r	2	0.4		C ₂				4679.230m	47	10.0	w	Fe I—	3.37	688	
4673.645r	2	0.4						4679.421r	4	0.9					
4673.790	7.5	1.6						4679.578r	1	0.2		C ₂			
4673.958r	2	0.4						4679.73 m			S	Ti I p	1.05	77	13
4674.099m	34	7.3	u					4679.822r	1	0.2		C ₂			
4674.303	13	2.8	u,N	Fe I				4679.983r	6.5	1.4		Fe I p	4.22	1071	
4674.475r	1.5	0.3		C ₂				4680.142m	42	9.0	w	Zn I	4.00	2	
4674.656	18	3.8	s	Fe I (Sm II)	1.56 0.18	40 14		4680.306m	43	9.2	S	Fe I	1.61	39	
4674.762	14	3.0	w	Ni I	3.63			4680.482	58	7.3	s	Fe I— Cr I	2.86 3.11	346 186	
4674.880r	1	0.2	S	Y I	0.07	4		4680.560			u				
								4680.749	4	0.9	s	Nd II?	0.06	4	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4680.863	26	5.6	s	Cr I	3.09	170		4685.854r	5	1.1		Ge I Co I	2.03 0.92	3	
4681.049r	5.5	1.2		Ni I p	3.63	143		4686.006r	3.5	0.7		C ₂	R 18	2,1	19
4681.208r	1.5	0.3						4686.122r	2.5	0.5					
4681.308r	0.5	0.1						4686.222	56	12.4	u	Ni I	3.60	98	
4681.474m	26	5.8	u,d	Fe I				4686.370r	5	1.1		Fe I?			
4681.607r	2.5	0.5						4686.630r	1.5	0.3		Fe I?			
4681.744r	1	0.2						4686.750r	2.5	0.5					
4681.919m	64	15.0	S	Ti I	0.05	6		4686.87 m	2	0.4	s	Ti I	2.15	203	
4682.121m	49	10.5	u	Fe I				4686.96 m	2	0.4	s	V I	1.87	93	
4682.351m	39	8.3	u	Y II— Co I	0.41 3.19	12 156		4687.186	5	1.1	s?,N	Sm II— C ₂ ?	0.04 R 19	3 2,1	19
4682.570	22	4.5	u	Fe I	2.94	384		4687.312	44	2.3	s	Fe I p	0.96	17	
4682.766r	6.5	1.4					4687.393	7.0		u	Fe I	2.83	347		
4682.960r	0.5	0.1		C ₂			4687.538r	3	0.6						
4683.15 a	1	0.2					4687.676	6.5	1.4	u	Fe I p	2.86	347		
4683.253r	3	0.6		C ₂	{P 56 P 57}	{2,1 2,1}	19	4687.805	7.5	1.6	S	Zr I	0.73	43	
4683.401r	6	1.3					4687.943r	1.5	0.3			C ₂			
4683.44 m			s	Zr I	1.53	63	13	4688.184m	40	9.0	w	—Fe I			
4683.567S	46	10.0	u	Fe I	2.83	346		4688.372	17	3.6	u	Fe I p— Ti I	4.19 3.09	1071 306	
4683.708r	2.5	0.5					4688.477r	11	2.3	S	Zr I	0.15	5		
4683.827r	1.5	0.3					4688.56 a	7	1.5						
4683.981r	6	1.3					4688.688r	30	6.4			C ₂ C ₂	R 28 Head	1,0 2,1	19 19,30
4684.12 a	3.5	0.7					4689.062r	4	0.9			C ₂			
4684.218r	7	1.5					4689.214r	3	0.6			C ₂			
4684.28 m			s				4689.361m	31	6.6	s	Cr I	3.12	186		
4684.351	9	1.9		C ₂	{R 32 R 19}	{1,0 2,1}	19	4689.499m	25	5.3	u	Fe I			
4684.50 m			S	Ti I	2.16	203	13	4689.760r	0.5	0.1					
4684.528r	4	0.9		C ₂	R 30	1,0	19	4689.974r	0.5	0.1					
4684.601	22	4.7	u	Cr I Ce II?	3.08 0.90	146 228		4690.144S	51	10.9	w	Fe I	3.69	820	
4684.750r	6	1.3		C ₂ ?	{P 65 P 66}	{1,0 1,0}	19	4690.379	13	2.8	s	Fe I	1.01	17	
4684.884r	5	1.1	s,N	C ₂	P 64	1,0	16,19	4690.559r	5	1.1		C ₂			
4685.034	16	3.4	s	Fe I	2.84	347		4690.798	3	0.6	S	Ti I	1.07	76	
4685.17 m	2	0.4	s					4690.974r	4.5	1.0					
4685.275m	53	11.5	s	Ca I	2.93	51		4691.197r	3.5	0.7					
4685.499r	4.5	1.0		C ₂				4691.347	104	6.0	S	Ti I	1.07	75	
4685.696r	1	0.2					4691.420	18.1		u	Fe I	2.99	409		
								4691.599m	37	7.9	w,N				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	
4691.779r	6	1.3		C ₂ ?—	R 17?	2,1	19	4697.808r	0.5	0.1						
4691.969r	5.5	1.2		C ₂ ?—	R 17?	2,1	19	4698.081r	4.5	1.0		C ₂ ?	R 12?	2,1	19	
4692.219r	4	0.9						4698.280	10	2.1		Sc II	0.60	13		
4692.45 m	3.5	0.7	S	Ti I p	1.07	77		4698.402	65	5.5	u	Co I	3.25	156		
4692.524r	8.5	1.8		La II—	1.75	75		4698.462			s	Cr I	4.09	235		
4692.653	21	4.5	w,N	—C ₂	R 29	1,0	17, 19	4698.623m			45	9.4	s	Cr I	3.14	186
4692.847r	8.5	1.8						4698.623m	45	9.6	s	Cr I	{2.71 3.09}	{62 146}		
4692.974r	5.5	1.2		Cr I	2.98	99		4698.771m	40	8.5	S	Ti I	1.05	75		
4693.195	17	3.6	u,d?	Co I	3.23	156	17	4698.83 m			S	Ti I	2.16	203	13	
4693.338r	4	0.9		C ₂ ?—	R 16?	2,1	19	4698.942	9.5	2.0	s	Cr I	3.08	146		
4693.674	12	2.7	S	Ti I	0.02	6		4699.134r	5	1.1						
4693.789r	3	0.6						4699.340m	64	13.6	w					
4693.947m	22	4.9	s	Cr I	2.98	99		4699.583	8	1.7	s	Cr I	4.21	292		
4694.117	12	2.6	o?	Si I	6.52	2	17	4699.724r	3	0.6						
4694.303r	1	0.2						4699.854r	2	0.4						
4694.457r	3.5	0.7		—C ₂	R 28	1,0	19	4699.990r	1.5	0.3						
4694.655r	10	2.1						4700.162S	52	11.1	u	Fe I	3.69	935		
4694.870	32	5.5	w,N	Fe I				4700.298r	3	0.6		C ₂				
4694.903r		1.9						4700.431	2	0.4	u	Fe I p	2.20	67		
4695.152	17	3.6	s	Cr I	2.98	99		4700.619	12	2.8	s	Cr I	2.71	62		
4695.446	8	1.7		Si I	6.52	2		4700.814r	0.5	0.1						
4695.607r	1	0.2		C ₂ ?	R 13	2,1	19	4700.915r	4.5	1.0						
4695.751r	1	0.2		C ₂	R 14?	2,1	19	4701.054m	38	8.1	s	Fe I	3.69	820		
4695.857r	1	0.2		C ₂				4701.172	10	2.1	s	Mn I	2.92	21		
4696.030	3	0.6		C ₂	R 11	2,1	19	4701.361m	34	7.2	u	Ni I	3.48	101		
4696.262	8	1.7		Si I	6.52	2		4701.542m	46	9.8	u	Ni I	4.09	235		
4696.38 a	4	0.9		—C ₂	R 27	1,0	19	4701.719r	4	0.9		C ₂ ?	R 24	1,0	19	
4696.512r	1	0.2		C ₂	R 27	1,0	19	4701.898	15	3.2	u	Fe I p— Cr I	3.43 3.11	688 170	17	
4696.622	4	0.9		C ₂	{P 59 P 60}	{1,0 1,0}	19	4702.135r	4	0.9						
4696.755r	1.5	0.3						4702.295	12	2.6	u					
4696.932	6	1.3	s	Ti I	2.15	203		4702.603	11	2.3	w					
4697.058m	26	5.5	s	Cr I	2.71	62		4703.003m	326	71.9	S	Mg I	4.34	11		
4697.294r	4	0.9	u	C ₂	{R 10 P 46 P 47}	{2,1 2,1 2,1}	19	4703.491r	3	0.6		C ₂	R 23	1,0	19	
4697.398	14	3.0	s	Cr I	3.37	195		4703.584	10	2.1	s					
4697.603	4	0.9		C ₂				4703.818m	58	12.3	w	Ni I	3.66	133		
								4704.021r	5	1.1						
								4704.190r	7	1.5						

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes			
4704.412	4	0.9	} <i>w,d</i>	Sm II	0.00	1	17	4710.561r	4	0.8	<i>s</i>	V I	2.13	119				
4704.482	17	3.6						4711.021r	2	0.4								
4704.675r	2	0.4						4711.491m	28	5.9	<i>w?</i>	Fe I						
4704.787r	1.5	0.3					4711.628	3.5	0.7		C ₂	R 18	1,0	19				
4704.954S	58	12.5	<i>u</i>	Fe I	3.69	821		4711.68 m	1	0.2	<i>s</i>	Ti I p	1.44	111				
4705.150r	6	1.3		C ₂ ?	R 22	1,0	19	4711.81 a	2	0.4								
4705.246	5.5	1.2		C ₂	R 22	1,0	19	4711.91 m	2.5	0.5	<i>s</i>	Zr I	1.53	64				
4705.473m	36	7.6	<i>s</i>	Fe I	3.55	752		4712.083	34	7.2	<i>u,d</i>	Ni I— Fe I	3.66 3.02	131 467				
4705.65 a	2	0.4						4712.257	18	3.8	<i>u</i>				16			
4705.79 a	2.5	0.5						4712.497	13	2.8	<i>u</i>	Fe I			16			
4705.925	9	1.9	<i>u,d?</i>	Ni I?	3.66	128		4712.701	16	3.4	<i>u,N</i>				17			
4706.094	7.5	1.6	<i>s</i>	Cr I	3.11	170		4712.975r	18	3.8		C ₂ ?	R 17	1,0	19			
4706.17 m	1	0.2	<i>s</i>	V I	1.93	94		4713.185	14	3.0		Fe II p	2.78	26				
4706.302	6.5	1.4	<i>u</i>	Fe I p	3.64	890		4713.34 a	3.5	0.7		C ₂	R 17	1,0	19			
4706.554	26	5.5	<i>s</i>	Nd II— V I	0.00 2.14	3 119		4713.520r	3	0.6								
4706.72 a	4	0.9		Si I	5.08			4713.65 a	2	0.4								
4706.83 a	5	1.1		C ₂ ?	R 21	1,0	19	4713.803	9	1.9	<i>u,N</i>	Ni I? p	3.54	128				
4706.94 a	4	0.9		C ₂ ?	R 21	1,0	19	4714.071	36	7.6	<i>u,N</i>	Fe I	4.56	1206				
4707.074r	8.5	1.8						4714.12 m			<i>s</i>	V I	2.12	119	13			
4707.285m	107	22.7	<i>s</i>	Fe I	3.24	554		4714.206	22	4.7	<i>u</i>	Fe I	3.30	591				
4707.496m	65	13.8	<i>s</i>	Fe I	2.84	346		4714.371r	} 132	} 5.7	<i>u</i>	Fe I						
4707.697m			<i>s</i>				4714.420					25.0	<i>u</i>	Ni I	3.38	98		
4707.752	8	1.7	<i>s</i>	Cr I	3.37	195		4714.553r	16	3.4		C ₂	R 16	1,0	19			
4708.019m	52	11.3	<i>s</i>	Cr I	3.17	186		4714.732r	17	3.6		C ₂	R 16	1,0	19			
4708.288r	4	0.9		C ₂	{P 35 P 36	{2,1 2,1	} 19	4714.911r	17	3.6								
4708.461r	6	1.3						4715.102r	12	2.5								
4708.672m	46	10.0	<i>w</i>	Ti II	1.24	49		4715.299	11	2.8	<i>S</i>	Ti I	0.05	6				
4708.976	} 111	} 7.8	<i>u</i>	Fe I Ti I	3.64 2.16	889 203		4715.453r	1	0.2	<i>s</i>							
4709.096m			15.7	<i>u</i>	Fe I	3.65	821		4715.607	6.5	1.4	<i>u</i>	Nd II?	0.20	49			
4709.332r	4.5	1.0	<i>s</i>	Sc I?	2.30	22		4715.767m	68	15.0	<i>u</i>	Ni I	3.54	98				
4709.505r	3.5	0.7	<i>s</i>	Ru I	1.13	14		4715.893	14	3.0	<i>s,N</i>	V I?	2.36	136				
4709.718m	62	14.0	<i>s</i>	Mn I	2.89	21		4716.141r	2.5	0.5		Sc II p— C ₂	0.61 R 15	13 1,0	19			
4709.868r	4	0.9						4716.508r	2	0.4		Fe I?						
4710.077	9.5	2.0	<i>S</i>	Zr I	0.69	43		4716.833	5	1.1	<i>s</i>	Fe I	3.25	634				
4710.192	} 98	} 3.0	<i>S</i>	Ti I	{1.05 2.17	{75 203		4717.127r	6	1.3								
4710.290m			17.8	<i>u</i>	Fe I	3.02	409		4717.314	9	1.9	<i>w</i>						
								4717.579	28	5.9	<i>u</i>							

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4717.710	9	1.9	s	V I Cr I	2.11 3.12	119 170		4724.538r	7.5	1.6	u				
4717.877	8	1.7	u					4724.68 m	2.5	0.5	s	Ti I	2.17	203	
4718.05 a	2	0.4						4724.847	4.5	1.0	u,N	C ₂ —	R 8	1,0	19
4718.23 a	2.5	0.5						4725.098r	1.5	0.3		C ₂	R 7	1,0	19
4718.423m	60	12.9	s	Cr I	3.19	186		4725.455	3	0.6	u	—C ₂	P 40	1,0	19
4718.587r	6	1.3						4725.584r	1.5	0.3		{ C ₂ C ₂	P 40 R 7	1,0 1,0	19 19
4718.833r	2	0.4		C ₂	R 13	1,0	19	4725.81 a	2	0.4					
4719.12 m	2.5	0.5	s	Zr I	1.86	66		4725.948	7	1.5	s	{ Cr I Fe I	3.00 4.29	99 1134	
4719.225	4	0.8		Fe I?				4726.145	16	3.8	u	Fe I	3.00	384	
4719.510	11	2.3	w	Ti II	1.24	59		4726.334	4	0.8		C ₂	P 39	1,0	19
4719.686	7.5	1.6	o?					4726.80 a	2.5	0.5		Si I?	5.08		
4719.856r	5.5	1.2		Sm II	0.04	3		4727.003	7.5	1.6	s,N	Fe I p	3.27	635	
4720.133	3.5	0.7		Fe II p	3.20	54		4727.156	25	5.3	s	Cr I	3.00	99	
4720.391r	1	0.2						4727.272	17	3.6	u				
4720.577r	4.5	1.0		Fe I? p	4.21	1114		4727.406	} 122	{ 16.5	u	Fe I	3.69	821	
4720.816r	1.5	0.3		C ₂	R 11	1,0	19	4727.488			s	Mn I	2.92	21	
4720.999S	47	10.0	s	Fe I	{2.99 4.15	409 1071		4727.850	8.5	1.8	w?	Ni I	3.63	146	
4721.130r	5.5	1.2		C ₂ — Cr I?	R 11 3.55	1,0 232	19	4727.947	8.5	1.8	s	Co I	0.43	15	
4721.312	5	1.1						4728.167	18	3.8	u	Fe I			
4721.525r	3	0.6	S	V I	1.95	108		4728.416r	7.5	1.6	u	Ni I	3.74	115	
4721.975r	3	0.6		C ₂	R 10	1,0	19	4728.552S	73	16.3	u	Fe I	3.65	822	
4722.163m	63	14.2	w	Zn I	4.03	2		4728.787r	6	1.3	S	Sc I	1.44	14	
4722.284r	4.5	1.0	s	Sr I	1.80	5		4729.023m	35	7.4	u	Fe I	4.07	1043a	
4722.466r	1	0.2	s				16	4729.202r	8.5	1.8	S,N	Sc I	{1.43 1.43	14 14	
4722.615	14	3.0	S	Ti I	1.05	75		4729.277	16	3.4	u	Ni I	4.10	235	
4722.754	3	0.6	s	Cr I	3.37	195		4729.45 a	7	1.5					
4722.881r	1	0.2	s	V I	1.95	108		4729.54 m	1	0.2	s,N	V I	1.89	93	
4722.999r	4.5	1.0		Ni I	4.15			4729.682m	45	9.5	u	Fe I	3.40	688	
4723.114	} 31	3.4	S	Cr I	3.08	145		4729.859	11	2.3	s,N	Cr I	3.09	169	
4723.175		3.4	S	Ti I	1.07	75		4730.038m	65	13.3	u	Mg I	4.34	10	
4723.347r	6	1.3		Ni I p C ₂	3.68 P 42	162 1,0	19	4730.403	11	2.3	s	V I—	1.94	108	
4723.448r	3.5	0.7		C ₂	R 9	1,0	19	4730.60 m	1	0.2	s				
4723.752r	3.5	0.7		C ₂	R 9	1,0	19	4730.720m	43	9.5	s	Cr I	3.08	145	
4723.898r	2.5	0.5		Ni I	3.68	167		4730.997	31	6.6	u				
4724.10 a	2	0.4		C ₂	R 8	1,0	19	4731.173	11	2.3	S	Ti I	2.17	202	
4724.415	27	5.5	s	Cr I	3.09	145		4731.287r	0.5	0.1					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4731.473m	79	16.7	w	Fe II Fe I	2.89	43		4738.30 a	4	0.8					
4731.662r	0.5	0.1						4738.44 a	3	0.6					
4731.804m	39	8.2	u	Ni I	3.83	163		4738.65 a	1.5	0.3					
4732.049r	1.5	0.3	s	Co I	0.51	15		4738.83 a	1	0.2		Si I? p	4.93		
4732.174r	2	0.4		C ₂	P 32	1,0	19	4738.958r	5	1.1					
4732.323r	1.5	0.3	s	Zr I	0.63	48		4739.113m	56	11.4	s	Mn I	2.94	21	
4732.466m	39	8.7	w	Ni I	4.10	235		4739.290r	1.5	0.3					
4732.817r	2	0.4		C ₂	P 31	1,0	19	4739.454	6	1.3	S	Zr I	0.65	43	
4732.948r	3	0.6		Ti II p	1.13	29		4739.656r	1	0.2					
4733.222r	1	0.2						4739.81 a	0.5	0.1					
4733.426	11	2.3	s	Ti I	2.16	202		4739.916r	0.5	0.1					
4733.598S	76	16.0	S	Fe I	1.48	38		4739.96 a	0.5	0.1					
4733.758r	4	0.8						4740.168	14	3.0	s,d	Ni I	3.48	99	
4733.984	13	2.7	s					4740.344m	37	7.8	s	Fe I	3.02	409	
4734.105m	30	6.3	s	Fe I Sc I	4.29 1.43	1133 14		4740.483	31	6.5	s				
4734.183r	3	0.6						4740.70 a	3	0.6					
4734.183r	3	0.6						4740.948	32	7.0	w				
4734.28 a	3	0.6						4741.075	33	7.0	s	Sc I— Fe I	1.44 3.33	14 688	
4734.434r	4.5	1.0		C ₂	P 28	1,0	19	4741.355r	3.5	0.7		Ni I p	3.68	166	
4734.577	8	1.7		C ₂	P 28	1,0	19	4741.535S	69	14.6	u	Fe I	2.83	346	
4734.669r	3	0.6	S	Ti I	2.24	233		4741.796r	3	0.6					
4734.832	5	1.1		Co I	3.25	156		4741.942r	1.5	0.3	s	Sr I	1.77	5	
4735.003r	3	0.6		C ₂	P 27	1,0	19	4742.124r	5	1.1	S	Ti I	2.15	202	
4735.314r	4.5	1.0		C ₂ ?	P 26	1,0	19	4742.294	11	2.3	s,d	Ti I p	1.46	111	
4735.446r	2.5	0.5		C ₂	P 26	1,0	19	4742.546	8	1.7	w?				
4735.664	5	1.1		C ₂ ?	P 25	1,0	19	4742.64 m	1	0.2	s	V I	2.33	128	
4735.848S	59	12.4	u	Fe I	4.07	1042		4742.798m	27	5.7	s	Ti I	2.24	233	
4736.030	13	2.7		C ₂	P 24	1,0	19	4742.936	10	2.1	u	Fe I	4.19	1072	
4736.232r	6	1.3		C ₂	P 23	1,0	19	4743.105r	8	1.7	u,N	La II— Cr I	1.78 4.20	75 290	
4736.508	12	2.5		Ni I	3.48	99		4743.297r	1.5	0.3					
4736.783S	144	30.8	s	Fe I	3.21	554		4743.490r	0.5	0.1					
4736.965r	18	3.8		C ₂	P 19	1,0	19	4743.817	7.5	1.6	S,N	Sc I	1.45	14	
4737.117r	10	2.1		C ₂	P 20	1,0	19	4744.117r	3.5	0.7		Fe I? p	4.39	1168	
4737.355m	55	11.2		Cr I	3.09	145		4744.387m	60	12.6	w	Fe I			
4737.635m	38	8.0	u	Fe I	3.27	590		4744.642r	8.5	1.8	s	Fe I	0.99	17	
4737.66 m			S	Sc I	1.43	14	13	4744.836r	9	1.9					
4737.764r	6	1.3		Co I	1.96	57		4744.946	7.5	1.6	u				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4745.138	12	2.3	<i>s,d</i>	Fe I	2.22	67		4752.55 a	8	1.7					
4745.312	12	2.3	<i>s</i>	Cr I	2.71	61		4752.80 a							
4745.48 a	1.5	0.3						4752.902r	[3]	0.6	<i>s</i>	Cr I	3.37	194	
4745.706r	3	0.6		Sm II	0.10	7		4753.18 m	[2.5]	0.5	<i>S</i>	Sc I	0.00	5	
4745.807S	69	15.0	<i>u</i>	Fe I	{3.65 4.10	{821 1068		4753.375r	[1]	0.2					
4745.960r	3.5	0.7						4753.55 a	5	1.1					
4746.120r	3	0.6		Co I	3.93	182		4753.80 a							
4746.266	6	1.3	<i>u</i>					4754.039m	130	27.8	<i>s</i>	Mn I (V I)	2.28 2.07	16 113	
4746.39 a	1.5	0.3						4754.360	11	2.3	<i>u</i>	Co I	3.23	156	
4746.64 m	0.5	0.1	<i>s,N</i>	V I	2.03	113		4754.62 a	[2.5]	0.5					
4747.07 a	2	0.4						4754.765m	49	10.3	<i>s</i>	Ni I Cr I	3.63 3.09	141 168	
4747.27 m			<i>S</i>	Ti I	1.07	75	13								
4747.284r	1.5	0.3						4755.149	7.5	1.6	<i>s</i>	Cr I	3.01	124	
4747.683r	4.5	0.9	<i>s</i>	Ti I	2.25	233		4755.264	5.5	1.2	<i>o?</i>	Si I	4.92		
4747.830r	3	0.6						4755.529r	1.5	0.3					
4747.96 m			<i>S</i>	Na I	2.10	11	13	4755.704	26	5.5	<i>w</i>				
4747.980	15	2.5		Si I	4.93			4755.837	14	2.9	<i>u?</i>	Fe I			
4748.141m	78	16.4	<i>w</i>					4756.117m	60	12.6	<i>s</i>	Cr I	3.10	145	
4748.367r	8	1.7						4756.366	11	2.3	<i>o</i>	Fe I			
4748.50 m	3	0.6	<i>s</i>	V I	2.04	113		4756.521m	75	15.8	<i>u</i>	Ni I	3.48	98	
4748.549r	1	0.2						4756.728r	7	1.5		Co I	3.93		
4748.737r	4	0.8		La II	0.93	65		4756.98 a	1	0.2					
4749.258r	6	1.3		Fe I p	4.26	1098		4757.027r	0.5	0.1					
4749.662	35	7.4	<i>u,d</i>	Co I	3.05	156		4757.313	6	1.3	<i>s</i>	[Cr I V I	4.24 2.10	290 113	17
4749.952m	33	6.7	<i>u</i>	Fe I	4.56	1206		4757.48 m			<i>s</i>	V I	2.03	113	13
4751.00 m	2	0.4	<i>s</i>	V I	2.05	113		4757.585m	54	11.1	<i>s?</i>	Fe I	{3.27 4.26 3.55	{634 1115 231	
4751.093	26	5.3	<i>w</i>	Fe I								(Cr I)			
4751.29 m	1.5	0.3	<i>s,N</i>					4757.856r	3	0.6		Ru I	0.93	12	
4751.363r	2.5	0.5						4758.124m	40	8.2	<i>s</i>	Ti I	2.25	233	
4751.553r	6	1.3						4758.425	5	1.1		Ni I	3.85	193	
4751.58 m			<i>s</i>	V I	1.93	94	13	4758.726	11	2.3	<i>s,N</i>	-V I?	1.22	51	
4751.825	15	5.7	<i>S,d</i>	Na I	2.10	11		4758.917	4	0.8	<i>S</i>	Ti I	0.84	41	
4751.940r	2	0.4						4758.99 a	2	0.4		Si I	4.95		
4752.104m	47	9.9	<i>s</i>	Cr I (Ni I)	4.18 3.68	165		4759.276m	41	8.6	<i>s</i>	Ti I	2.25	233	
4752.286r	3	0.6						4759.44 a	1	0.2					
4752.430m	60	12.6	<i>w</i>	Ni I	3.66	132		4759.529r	1	0.2					
								4759.671r	3	0.6		Ti I	2.17	202	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4759.772r	2	0.4	s	Cr I	3.01	124		4767.150r	7.5	1.6		Co I Fe I	4.06	182	
4759.926r	5	1.1	s	Cr I	3.11	169		4767.270	14	2.9	s,d	Cr I	3.56	231	17
4760.074	8	1.7		Fe I	3.04	384		4767.40 a to 4767.75 a	11	2.3					
4760.218r	2	0.4		Ni I p	3.70	114		4767.857	20	4.2	s	Cr I	3.56	231	
4760.45 a	2	0.4						4768.082	14	2.9	s,d	Co I	3.19	156	17
4760.80 a	1.5	0.3						4768.326	110	14.3	u	Fe I	3.69	821	
4760.97 m	2.5	0.5	S	Y I	0.07	4		4768.400	110	10.7	u	Fe I	2.94	384	
4761.101	16	3.4	u					4768.700	25	5.2	u	Fe I			
4761.246	11	2.3	s	Cr I	3.12	169		4768.832	6	1.3					
4761.528m	74	15.5	s	Mn I	2.95	21		4769.033r	1.5	0.3					
4761.711r	3	0.6	s	Cr I	3.37	194		4769.50 a	2	0.4					
4762.08 a	2.5	0.5						4769.799	16	3.4	s	Ti I	2.25	233	
4762.375m	105	22.0	s	Mn I (C I)	2.89 7.48 7.48	21 6 6		4769.997	16	3.4	o?	Cr I	7.48	6	
4762.631m	53	11.1	s	Ni I	1.93	71		4770.39 a	3	0.6					
4762.782	30	6.3	u	Ti II	1.08	17		4770.683	5.5	1.2	s	Cr I	3.01	124	
4763.29 a	1.5	0.3						4771.089	20	4.2	S	Ti I Co I	0.83 3.13	41 156	
4763.62 a	1.5	0.3						4771.288	13	2.7	u				
4763.89 m	90	11.8	u					4771.472m	70	14.7	w				
4763.93 m		11.8	u	Ni I	3.65	146		4771.712m	61	12.8	s	Fe I (C I)	2.20 7.49	67 6	
4764.094r	3.5	0.7						4771.897r	6.5	1.4					
4764.293	26	5.4	s	Cr I	3.55	231		4772.170r	2.5	0.5					
4764.531	31	6.5	u	Ti II?	1.24	48		4772.310	7	1.5	S	Zr I	0.62	43	
4764.650r	5.5	1.2	s	Cr I	3.01	124		4772.625r	1	0.2					
4764.757	11	2.3						4772.823S	88	19.1	s	Fe I	1.56 3.02	38 467	
4764.87 m	2	0.4	s,N					4773.021r	3	0.6					
4764.994r	2.5	0.5						4773.143	11	2.3	u				
4765.125r	2.5	0.5						4773.283r	1.5	0.3					
4765.472m	95	19.9	s,N	Fe I	1.61	40		4773.413	17	3.6	u	Ni I	3.70	167	
4765.662r	3	0.6						4773.527r	4.5	0.9		Fe I	3.02	408	
4765.864m	71	15.5	s	Mn I	2.94	21		4773.704	5	1.0					
4766.08 a	4	0.8						4773.959	8.5	1.8	u?	Ce II	0.92	17	
4766.33 m	5	1.0	S?	Ti I	2.25	233	17	4774.540r	1	0.2	s	Cr I	3.01	124	
4766.423m	89	18.7	s	Mn I	2.92	21		4775.127	5.5	1.2	u	Cr I	3.55	230	
4766.636	21	4.4	S	V I Cr I (C I)	2.04 3.55 7.48	113 231 6		4775.502r	5.5	1.2		Cr I?	4.16	283	
4766.780	33	6.9	u					4775.67 a	1.5	0.3					
4766.869	20	4.2	u	Fe I p	3.42	688									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4775.877	20	4.2	<i>o?</i>	Cr I	7.49	6	17	4784.711r	3.5	0.7					
4776.070	29	6.1	<i>s</i>	Fe I	3.30	635		4784.94 m	1	0.2	<i>S</i>	Zr I	0.69	44	
4776.32 m	52	4.0	<i>s</i>	—Co I	3.30	158		4785.057	1.5	0.3		Co I?	3.95	186	
4776.360		8.2	<i>s</i>	Fe I — V I	4.56 2.05	1206 113		4785.19 a	2	0.4					
4776.487	24	5.0	<i>s</i>	—V I	2.38	128		4785.34 a	2	0.4					
4776.81 a	2	0.4						4785.688	16	3.3	<i>s</i>				17
4777.183r	2	0.4						4785.960m	30	6.0	<i>u?</i>	Fe I	4.14	1044	
4777.593r	1.5	0.3		Cr I	3.01	124		4786.120	3.5	0.7					
4777.725	2.5	0.5						4786.289m	41	8.6	<i>s</i>	Ni I	1.68	50	
4777.85 a	1.5	0.3		Sm II	0.04	3		4786.542m	110	23.0	<i>s</i>	Ni I V I	3.42 2.07	98 113	
4778.258m	16	3.3	<i>s</i>	Ti I	2.24	232		4786.814m	95	19.0	<i>u</i>	Fe I	3.02	467	
4778.580r	3	0.6						4787.102r	4.5	0.9					
4779.05 a	5	1.0						4787.503	[1.5]	0.3		Fe I p	3.02	408	
4779.34 m			<i>S,N</i>	Sc I	0.02	5	13	4787.64 m			<i>s</i>	Ti I p	0.82	40	13
4779.445m	51	9.8	<i>u</i>	Fe I	3.41	720		4787.833m	43	8.8	<i>u</i>	Fe I	3.00	384	
4779.69 a	4	0.8						4787.97 a	3	0.6					
4779.984m	76	15.9	<i>w</i>	Co I Ti II	3.28 2.05	158 92		4788.218	2.5	0.5					
4780.453r	3	0.6						4788.51 a	1.5	0.3					
4780.54 a	2	0.4						4788.765S	72	14.4	<i>u</i>	Fe I	3.24	588	
4780.810	10	2.1	<i>w</i>	Fe I	3.25	633		4788.935r	2	0.4					
4781.014r	1.5	0.3						4789.137r	2.5	0.5					
4781.32 a	1.5	0.3						4789.342m	71	14.7	<i>s</i>	Cr I	2.54	31	
4781.452r	8	1.7		Co I	1.88	57		4789.451r	5	1.0	<i>s</i>				
4781.720	15	3.1	<i>S</i>	Ti I	0.85	41		4789.658S	96	19.4	<i>u</i>	Fe I	3.55	753	
4782.068	10	2.1	<i>w</i>				17	4789.79 m	3.5	0.7	<i>S</i>	Ti I	0.84	41	
4782.280r	2	0.4						4789.92 a	1.5	0.3					
4782.56 a	3	0.6						4790.334	16	3.1	<i>s</i>	Cr I	2.54 2.54	31 31	
4782.801	5.5	1.1		Fe I	3.24	588		4790.560	10	2.1	<i>u</i>	Fe I	4.15	1068	
4782.983	29	6.1	<i>o</i>	Si I	4.95			4790.748	10	2.1	<i>u</i>	Fe I	3.25	632	
4783.14 a	5	1.0						4790.968	14	2.9	<i>s</i>	Ni I	1.95	71	
4783.424m	157	31.8	<i>s</i>	Mn I	2.30	16		4791.143	30	6.3	<i>u,d</i>				16
4783.69 a	7	1.5						4791.256m	40	8.3	<i>u</i>	Fe I	3.27	633	
4783.862	10	2.1	<i>s</i>				16	4791.53 m	1	0.2	<i>S</i>	Sc I	0.02	5	
4784.000	31	6.5	<i>w</i>					4791.597	2.5	0.5		Sm II	0.10	7	
4784.10 a to 4784.55 a	6	1.3		(Sr I)	1.80	5		4791.83 a	1	0.2					
4784.45 m			<i>S</i>	V I	0.02	3	13		4792.214	12	2.5	<i>s,N?</i>	Si I Ti I p	4.93 0.81	40

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4792.315	28	5.8	<i>s,d</i>	Si I	4.95		17	4800.319r	1	0.2					
4792.514m	77	16.1	<i>s</i>	Cr I Ti I	3.11 2.33	168 260		4800.545	8.5	1.8		Fe I p	3.30	590	
4792.862m	40	7.5	<i>u</i>	Co I	3.25	158		4800.653m	72	15.0	<i>w</i>	Fe I	4.14	1042	
4793.10 a	1	0.2						4800.841r	2.5	0.5					
4793.30 a	2	0.4						4801.031m	56	11.7	<i>s</i>	Cr I	3.12	168	
4793.433	4.5	0.9		Ni I	3.70	158		4801.235r	4	0.8					
4793.741r	3.5	0.7						4801.612	6	1.2		Fe I p	4.28	1115	
4793.967	9	1.9	<i>w</i>	Fe I	3.05	512		4801.914r	1	0.2	<i>S,N</i>	Ti I p Ti I p	0.83 0.82	40 40	
4794.359	13	2.3	<i>u</i>	Fe I	2.42	115		4802.30 a	1.5	0.3					
4794.644r	[1]	0.2						4802.522	19	4.0	<i>u</i>	Fe I	4.61	1206	
4794.838r	2.5	0.5		Ti II p	1.13	29		4802.693r	1.5	0.3					
4795.835	7	1.5	<i>s,d</i>	Co I	3.95	185	17	4802.887S	70	13.7	<i>u</i>	Fe I	{3.64 3.69	888 934	
4796.042r	6.5	1.4						4803.047r	3.5	0.7					
4796.189	24	5.0	<i>s</i>	Cr I— Ti I	4.19 2.33	283 260		4803.31 a	1.5	0.3					
4796.365r	3.5	0.7	<i>s</i>	Co I	0.43	14		4803.685r	3.5	0.7					
4796.54 a	2	0.4						4804.047r	4	0.8					
4796.657	6	1.3						4804.13 a	3	0.6					
4796.905	12	2.5	<i>S</i>	V I	2.10	113		4804.23 a	1.5	0.3					
4797.046	9	1.9						4804.38 a	2	0.4		Zr II	1.21		
4797.168	2.5	0.5	<i>s,d</i>				17	4804.521	26	5.4	<i>u</i>	Fe I	3.57	794	
4797.358r	0.5	0.1						4804.648r	8.5	1.8	<i>s</i>	Cr I	2.71	61	
4797.622	6	1.3	} <i>s,N</i>	Cr I	3.56	230		4804.850r	3	0.6					
4797.722r	3	0.6									4805.007	} 128	6.0	<i>u</i>	
4797.975	7.5	1.6	<i>S</i>	Ti I	2.33	260		4805.099	} 20.6	}	<i>w</i>		Ti II	2.06	92
4798.107r	2.5	0.5						4805.292			3.5	0.7		Cr I?	4.17
4798.270m	47	9.2	<i>u</i>	Fe I	4.19	1042		4805.420m	37	7.7	<i>s</i>	Ti I	2.34	260	
4798.537m	50	9.6	<i>w?</i>	Ti II	1.08	17		4805.55 a	4	0.8		Fe I?	4.64	1207	
4798.736	35	6.9	<i>s</i>	Fe I	1.61	38		4805.89 m	2	0.4	<i>S</i>	Zr I	0.69	43	
4799.070	2.5	0.5		Fe I p	4.28	1098		4806.252	7	1.5	<i>s</i>	Cr I	2.71	61	
4799.251r	0.5	0.1						4806.333	6	1.2	<i>u</i>	Ti II p	1.08	17	
4799.413m	36	7.5	<i>u</i>	Fe I	3.64	888		4806.616r	5.5	1.1					
4799.585r	3	0.6						4806.799r	4.5	0.9	<i>S</i>	Ti I p	0.81	40	
4799.794m	} 75	10.2	<i>s</i>	V I— Ti I	0.00 2.27	3 242		4806.994m	70	13.7	<i>w</i>	Ni I	3.68	163	
4799.890		6.0	<i>u</i>	Fe I					4807.225	16	3.3	<i>s,N</i>	Fe I	{3.30 4.26	634 1098
4800.022	1.5	0.5						4807.40 a	4	0.8					
4800.134	19	4.0	<i>s</i>	Fe I	3.04	384	17	4807.533	15	3.1	<i>S</i>	V I	2.12	113	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4807.716m	60	11.4	s	Fe I	3.37	688		4815.491r	2	0.4					
4807.91 a	3	0.6						4815.637r	2	0.4	S	Zr I	0.60	43	
4808.00 a	2	0.4						4815.816	2.5	0.5	u	Sm II	0.18	14	
4808.158m	30	6.2	s	Fe I	3.25	633		4815.932	16	3.3	s,d	Ni I	3.54	131	17
4808.545m	34	7.1	s	Ti I	3.06	305		4816.129	4	0.8	s?,N	Cr I	4.53		
4808.685	47	9.8	u	Fe I				4816.423r	3	0.6		Cr I?	4.19	283	
4808.879	28	5.8	u	Ni I	3.70	160		4816.46 m	3	0.6	S,N	Ti I p	0.82	40	
4809.02 a	2.5	0.5		La II?	0.23	37		4816.682r	3	0.6		Fe I p	3.27	588	
4809.145	17	3.5	u	Fe I	3.69	933		4816.965r	3	0.6					
4809.267	12	2.5	u?	Fe I Cr I?	4.07 3.55	1039 230		4817.20 a	1.5	0.3					
4809.477r	3	0.6	s	Zr I?	1.58			4817.376r	9.5	2.0		Cr I	7.48	5	
4809.619r	2	0.4						4817.637r	2.5	0.4					
4809.941	20	4.2	s	Fe I	3.57	793		4817.808m	62	12.9	s,d	[Fe I— Ni I	2.22 4.15	67 254	
4810.26 a	3.5	0.7		Cr I?	4.53			4818.032	19	3.9	u	Fe I			
4810.537m	84	16.2	w	Zn I	4.08	2		4818.245r	8.5	0.8		Fe II p	2.28	11	
4810.733	13	2.7	s	Cr I	3.08	144		4818.29 m		0.8	s				
4811.046m	16	3.3	s	Fe I Ti I	3.07 1.89	467 158		4818.386r	4	0.8					
4811.352	9.5	2.0	s	Nd II	0.06	3		4818.660r	2.5	0.5		Fe I p	3.41	719	
4811.89 m	3.5	0.7	s	Sr I	1.85	5		4819.022r	3	0.6	s	Ti I			
4811.993	25	5.2	w	Ni I	3.66	130		4819.186r	10	2.1					
4812.241	6	1.2	S	Ti I	2.34	260		4819.342r	4	0.8					
4812.352	41	8.5	w	Cr II	3.86	30		4819.644	3	0.6		Y I?	1.36	13	
4812.894	8.5	1.8	s,N	Ti I	0.85	41		4820.13 a	1	0.2					
4813.005	7.5	1.6									4820.414m	44	8.7	s	Ti I
4813.117	24	5.0	s	Fe I	3.27	630		4820.58 a	1.5	0.3					
4813.264r	2.5	0.5						4820.78 a	1.5	0.3					
4813.479m	51	10.0	s	Co I	3.21	158		4821.000	6.5	1.3		Ti II p	1.12	29	
4813.719	6.5	1.3		Fe I p	4.58	1243		4821.126	33	6.8	w	Ni I	4.15	254	
4813.973	9.5	2.0	s,d	Co I V II	3.30 3.76	158 197	17	4821.29 m	3	0.6	s	Ti I	2.16	201	
4814.268	12	2.5	s	Cr I	3.09	144		4821.479	8	1.7	o				
4814.369	13	2.7	s,d	Fe I			17	4821.601	4	0.8		Fe I			
4814.594	20	3.7	w	Ni I	3.60	98	17	4821.85 a	2	0.4					
4814.874r	4.5	0.9						4822.324	7	1.4					
4815.056r	2	0.4	s	Zr I	0.65	44		4822.564	11	2.3					
4815.223	14	2.9	u	Fe I	3.41	720		4822.667	9	1.9	u	Fe I	3.27	633	
4815.309r	5	1.0						4822.820r	3	0.6					
								4822.962r	5	1.0					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4823.084r	9.5	2.0	s,N					4831.182m	81	15.9	w	Ni I	3.61	111	
4823.309	29	6.0	w	Y II	0.99	22		4831.393	24	5.0	s				
4823.514m	165	32.5	s	Mn I	2.32	16		4831.651	16	3.5	S	V I (Cr I)	0.02 3.42	3 208	
4823.896	16	3.3		Cr I	4.53			4831.916r	2	0.4		C ₂	{R 92 R 93}	{0,0 0,0}	19
4824.143S	94	19.5	w	Cr II Fe I	3.87 3.63	30 888		4832.041	7	1.4	s	Sr I (Ti I)	{1.77 1.80 2.30}	4 5 250	
4824.29 m	5	1.0	S	Zr I	0.65	43		4832.277r	3	0.6	s				
4824.36 a	2	0.4						4832.431	12	2.7	S	V I	0.00	3	21
4824.430	6.5	1.3						4832.553	1.5	0.3					
4824.54 a	2.5	0.5		Ni I	4.09			4832.719S	68	14.1	w	Ni I— Fe I	3.80 3.64 4.30	146 888 1098	
4824.592r	1.5	0.3						4832.892r	2	0.4					
4824.835r	2	0.4						4833.03 m	1.5	0.3	s,N	V I	1.71	78	
4824.956	8.5	1.8						4833.192	9	1.9		Fe II p	2.66	30	
4825.10 a	3	0.6						4833.376r	2.5	0.5					
4825.349	30	6.2	w	Fe I				4833.578r	2.5	0.5					
4825.484	18	3.7	s	Nd II Ti I— Cr I	0.18 2.32 3.09	3 250 144		4833.819	8	1.7	s	Fe I			
4825.604r	6.5	1.3		Mn I	3.84	43		4833.981r	7.5	1.5					
4825.720	7.5	1.6		Fe II p	2.63	30		4834.173r	5	1.0					
4826.12 a	1.5	0.3						4834.355r	1	0.2		Co I?	2.01	57	
4826.364	5	1.0						4834.517m	28	5.8	u	Fe I	2.42	115	
4826.841	19	3.9	s,N	C I?— Mn I?	7.49 3.85	5 43	17	4834.609	8	1.7		Sm II?	0.48	45	
4827.275r	1	0.2						4834.815r	2.5	0.5		Ni I p	3.68	158	
4827.457	13	2.7	S	V I	0.04	3		4835.092r	1	0.2					
4827.618	21	4.3	w?,N	Ti I—	2.30	250		4835.272	5.5	1.1					
4828.06 m	0.5	0.1	s	Zr I	0.62	44	21	4835.545r	2.5	0.5					
4828.330r	2.5	0.5						4835.704	2	0.4	s	Cr I	3.55	229	
4828.699	9.5	2.0	s	Cr I?	2.54	31		4835.875m	44	9.1	s	Fe I	4.10	1068	
4828.859r	3	0.6						4835.999	5	1.0					
4829.027m	91	18.0	u	Ni I	3.54	131		4836.122	5.5	1.1	S	Ti I	2.27	241	
4829.168r	3.5	0.7						4836.238	33	6.8	w	Cr II Ni I	3.86 3.74	30 114	
4829.309r	1.5	0.3	S?					4836.35 a	2	0.4		Cr I	3.89		
4829.369m	84	17.4	s	Cr I	{2.54 2.54}	31 31		4836.460	7	1.4					
4829.695r	5.5	1.1		Fe I? p	4.24	1038		4836.674r	3	0.6					
4830.303r	1.5	0.3						4836.857	16	3.3	s	Cr I	3.10	144	
4830.519	3	0.6						4837.046r	2	0.4					
4830.93 a	1.5	0.3													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4837.198r	0.5	0.1						4844.022m	39	8.2	s	Fe I Ti I	3.55 2.24	750 217	
4837.402	1.5	0.3	s	Ti I p	2.29	250		4844.222r	4	0.8		Sm II	0.28	26	
4837.666r	3.5	0.7		Fe I	4.58	1243		4844.311	12	2.5	s,N	Mn I	3.84	43	
4837.825r	2.5	0.5		C ₂	{R 91 R 92}	{0,0 0,0}	}19	4844.503	12	2.5	s				
4837.946r	1.5	0.3		Co I	0.63	15		4844.701r	0.5	0.1					
4838.092	9	1.9	u	Fe I	3.25	630	17	4844.875r	1	0.2					
4838.219r	4	0.8		Mn I	3.86	43		4845.165	3.5	0.7	s	Ni I	3.70	115	
4838.341r	2	0.4						4845.338	3	0.6					
4838.521m	51	10.5	s?	Fe I	3.42	687		4845.506r	0.5	0.1					
4838.650m	45	9.3	u	Ni I	4.16	260		4845.656m	36	7.6	s	Fe I (Y I)	{3.27 3.63 1.40}	588 888 13	
4838.827r	3.5	0.7		Fe I? p	4.43	1167									
4839.120r	4.5	0.9						4845.805r	4.5	0.9					
4839.25 m	1.5	0.3	s	Ti I	2.23	217		4846.001r	0.5	0.1					
4839.363r	2	0.4						4846.156r	2	0.4					
4839.551S	55	11.8	s?	Fe I	3.27	588		4846.33 m	5	1.0	s,N	Cr I	3.45	208	
4839.782	7.5	1.5		Fe I p	4.61	1206		4846.385r	10	2.1					
4839.884	12	2.5	s	Y I	1.43	13		4846.64 a	1	0.2					
4840.004	9	1.9		Fe II p	2.68	30		4846.712r	3	0.6					
4840.263	88	8.7	u	Co I	3.17	158		4846.87 a	1	0.2					
4840.316		12.6	u	Fe I	4.15	1068		4847.191	3.5	0.7		Cr I	3.10	144	
4840.66 a	3.5	0.7						4847.311	20	4.3	s	Ca I	2.93	50	
4840.884m	60	12.6	s	Ti I	0.90	53		4847.448r	6	1.2					
4841.497r	3.5	0.7						4847.623r	3	0.6		Fe II p	2.69	30	
4841.674	8	1.7	s?	Fe I p	3.30	633		4847.734	4.5	0.9		Sm II	0.66	53	
4841.791	24	5.0	w	Fe I	4.19	1070		4847.924r	0.5	0.1					
4841.969	6	1.2	s,N	Ni I	4.16	260		4848.087r	1.5	0.3					
4842.209r	2	0.4		Fe I? p	3.05	511		4848.252m	52	11.1	w	Cr II	3.86	30	
4842.588r	2.5	0.5						4848.418	5	1.0	S	Ti I p	2.25	217	
4842.727	44	1.7		Fe I p	4.22	1098		4848.471	11	2.3	S	Ti I	2.17	201	
4842.793		7.8	u	Fe I	4.10	1069		4848.650r	2.5	0.5					
4842.937r	4.5	0.9		C ₂ ?	{R 90 R 91}	{0,0 0,0}	}19	4848.887m	33	6.8	s	Fe I	2.28	114	
4843.152m	67	13.8	u	Fe I Ni I	3.40 1.68	687 50		4849.076r	4	0.8					
4843.368r	12	2.5		Fe I p	3.57	794		4849.172	32	6.6	w	Ni I p— Ti II p	3.54 1.13	112 29	
4843.507	20	4.1	u	Co I Ni I	3.28 4.17	158 235		4849.341r	6.5	1.3					
4843.694r	3	0.6						4849.42 a	4	0.8					
4843.846r	1	0.2		W I	0.41	1		4849.553r	9	1.9					
								4849.663	16	3.3	u	Fe I	3.57	793	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4849.81 a	3	0.6						4857.099r	4	0.8		Zr II	1.24		
4849.878r	3	0.6						4857.395m	42	9.5	w	Ni I	3.74	111	
4850.201r	1.5	0.3		Cr I?	3.37			4857.563r	2.5	0.5					
4850.749r	2	0.4						4857.786r	2	0.4					
4850.941r	1	0.2		Cr I?	3.37			4857.97 a	1	0.2		Co I	0.58	15	
4851.136r	1	0.2						4858.142	8	1.9	w?				
4851.323r	2.5	0.5						4858.254	8.5	2.0		Fe I	{4.19 4.28}	{1069 1098}	
4851.35 m			S	Zr I	0.62	43	13	4858.330	5.5	1.2					
4851.496m	31	6.8	S	V I (Cr I)	0.00 3.43	3 208		4858.494r	1	0.2					
4851.680r	5	1.0						4859.039	5.5	1.3	s	Nd II—	0.32	3	
4851.873	8.5	1.7	w					4859.134	18	4.7	u	Fe I	4.19	1068	
4852.019	11	2.3	s					4859.304r	1	0.2	u,N	Fe I p	3.30	632	
4852.562m	36	7.4	w	Ni I	3.54	130		4859.486r	2.5	0.7					
4852.68 m	1	0.2	s	Y I	1.37	13		4859.747m	108	27.4	s	Fe I	2.87	318	
4852.743r	0.5	0.1						4860.022r	2.5	0.7					
4853.037r	3.5	0.7						4860.217	9	2.7	o	Cr II	3.87	30	
4853.277	7	1.4	w	Ni I p	3.90	207		4860.986	3.5	2.3	s	Fe I	3.40	688	
4853.543r	2	0.4		Cr I? p	2.71	61		4861.19 m			S?	Cr I	2.54	31	13
4853.777	16	3.3	w	Ni I	3.54	99		4861.342m	3680	750	w	H β	10.20	1	
4853.877	5	1.0		C ₂	{R 88 R 89}	{0,0 0,0}	19	4861.849	15	5.6	s	Cr I	2.54	31	
4854.161	3	0.6	s	Fe I p	4.59	1243		4861.952	11	4.1	s	Fe I (Mn I)	3.85	43	
4854.352r	2.5	0.5	s	Sm II	0.38	36	17	4862.187r	2.5	0.8					
4854.616	4	0.8		Mn I	3.86	43		4862.26 m			S,d?				13,16
4854.76 m	2.5	0.5	s	Ti I	2.24	217		4862.551r	1.5	0.4		Fe I p	4.15	1070	
4854.873m	41	8.8	w	Y II Fe I	0.99 4.14	22 1043		4862.598	16	4.5	s	Fe I? p—	4.15	1069	
4855.154	7.5	1.5	s	Cr I	2.71	61		4862.90 m			s				13
4855.234r	3.5	0.7	s?	Co I	0.51	14		4863.096r	1.5	0.4					
4855.418m	73	15.4	w	Ni I	3.54	130		4863.250r	1.5	0.4					
4855.556	13	2.7	o	Fe II p	2.70	25		4863.468r	0.5	0.1		Co I?	1.96		
4855.681m	60	13.0	s	Fe I	3.37	687		4863.650m	48	11.7	u	Fe I	3.43	687	
4855.905	14	2.9	w					4863.75 m			s	Ti I p	2.25	217	13
4856.019m	39	8.4	s	Ti I	2.25	231		4863.784	8.5	2.2		Fe I p	3.04	384	
4856.195	19	3.9	w,N	Cr II	3.85	30		4863.936m	22	5.3	u	Ni I	3.74	113	
4856.398r	3	0.6						4864.180	3	0.7	S	Ti I	2.16	201	
4856.62 a	1.5	0.3						4864.323m	50	11.7	w,d	Cr II	3.86	30	
4856.901r	2	0.4						4864.738	24	5.8	S	V I	0.02	3	
								4864.85 m	2	0.4	s	V I p	1.18	50	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4865.08 a	1	0.2						4873.092r	2	0.4					
4865.21 a	1	0.2						4873.255	24	4.9	w	Ni I p	3.74	112	
4865.42 a	1.5	0.3						4873.446m	58	11.9	w	Ni I	3.70	111	
4865.618m	34	7.6	w	Ti II	1.12	29		4873.608r	2.5	0.5					
4866.07 m	3	0.6	s	Zr I	0.73	44	17	4873.750	12	2.5	s	Fe I	3.30	633	
4866.277m	66	14.6	u	Ni I	3.54	111		4873.872r	1	0.2					
4866.50 a to 4866.65 a	3	0.6						4874.014	34	7.0	w	-Ti II	3.09?	114	
4866.743	2	0.4		Fe I p	4.18	1093		4874.196r	3	0.6					
4866.883	2	0.4		Si I?	4.95			4874.360	18	3.7	s	Fe I	3.07	467	
4867.26 a	1	0.2						4874.510r	2	0.4					
4867.537	7.5	1.5	s,N	Fe I	1.61	38		4874.651r	2.5	0.5	s	Cr I	3.11	167	
4867.639r	2.5	0.5		Fe I p	3.27	587		4874.793	21	4.3	w?	Ni I	3.54	98	
4867.874m	54	11.5	u	Co I	3.12	158		4874.85 m	3.5	0.7	s,N				
4868.122	5.5	1.1	u					4874.994r	27	0.3	u				
4868.263m	26	5.5	s	Ti I	2.24	231		4875.033							
4868.38?m	26	2.9	u?	Fe I	1.56	38	18	4875.198r	3	0.6		CH?	Q 8	0,1	4
4868.45?m		2.9	u?					4875.26 m	2	0.4	s,N				
4868.808r	2	0.4		Fe II p	2.68	30		4875.339r	2.5	0.5		Fe I? p	4.19	1038	
4868.931	2.5	0.5	o					4875.492m	41	8.4	S	V I	0.04	3	
4869.147r	2.5	0.5		Ru I	0.93	11		4875.739r	3.5	0.7		Fe I p	4.59	1243	
4869.469	20	4.1	u	Fe I	3.55	751		4875.881m	55	11.3	s	Fe I	3.33	687	
4869.65 a	1.5	0.3						4876.093r	3.5	0.7		Sr I?	1.80	4	
4870.043	12	2.5	u	Fe I?	3.93	985		4876.195	8	1.6		Fe I	3.25	631	
4870.136m	36	8.8	s	Ti I	2.25	231		4876.401	41	8.4	w	Cr II	3.85	30	
4870.419r	5.5	1.1		C ₂	{R 85 R 86}	{0,0 0,0}	19	4876.485	25	5.1	o	Cr II	3.86	30	
4870.645r	3	0.6						4876.673r	4.5	0.9					
4870.816m	74	15.2	u	{Cr I Ni I}	{3.08 3.74}	{143 131}		4876.80 a	2	0.4					
4870.94 a	4	0.8						4877.08 a to 4877.33 a	2	0.4	u	Fe I	3.00	384	
4871.049	9	1.8					4877.596	21							
4871.325m	228	46.6	u	Fe I	2.86	318		4877.851r	13	2.7					
4871.680	15	3.1						4878.128	187	19.5	s	Ca I	2.71	35	
4871.935m	45	9.2	u	Fe I p	3.25	630		4878.220							
4872.144m	195	39.2	s	Fe I	2.88	318		4878.509r	5	1.0					
4872.508r	7	1.4	s	Sr I	1.80	4		4878.721r	3	0.6		CH	Q 7	0,1	4
4872.688	9	1.8		Fe I p	4.26	1115		4879.150r	2	0.4		CH?	Q 7	0,1	4
4872.908	10	2.1	u	Fe I p	4.22	1097		4879.520r	1	0.2					
								4879.702r	0.5	0.1					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identifi- cation	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identifi- cation	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4880.045	5	1.0	s	Cr I	3.12	167		4886.709	8	1.6		Ni I	3.70	158	
4880.27 m	1.5	0.1	S	Co I	0.51	15		4886.846	3	0.6	s	V I— CH?	1.19 Q 4	50 0,1	16 4
4880.320r		0.2						4887.009m	63	12.9	s	Cr I Ni I	3.09 3.63	143 141	
4880.527	8	1.8	s,N	V I	1.19	50		4887.195m	62	12.7	w,N	Fe I—	4.19	1065	
4880.59 m	1	0.2	S					4887.363	18	3.7	u	Fe I p	4.07	1037	
4880.935	9	1.8	S	Ti I	2.15	201		4887.533r	5	1.0					
4881.08 a	3	0.6						4887.690	7	1.4	s	Zr I? Cr I	0.73 2.54	43 31	16
4881.24 m			s	Zr I	0.65	44	13	4887.690	7	1.4	s	Zr I? Cr I	0.73 2.54	43 31	16
4881.267r	2	0.4		CH?	Q 6	0,1	4	4888.158	3.5	0.7					
4881.31 a	2	0.4						4888.525	91	3.7	s	Cr I	2.54	31	
4881.561m	49	10.0	S	V I	0.07	3		4888.639m		15.7	u	Fe I	4.10	1066	
4881.724m	61	12.5	u	Fe I	{3.30 4.14	{588 1041		4888.829r	7.5	1.5		—CH?	Q 3	0,1	4
4881.948r	5	1.0						4889.004	121	14.3	s	Fe I	{2.20 3.55	67 749	
4882.148m	70	13.9	u	Fe I	3.42	687		4889.111		12.7	u	Fe I	3.88	985	
4882.337r	9	1.8	s	Ti I	2.25	231		4889.648r	1	0.2		C ₂			
4882.489r	4	0.8		Ce II	1.35			4890.215r	5	1.0	s	Cr I	{5.49 5.50		
4882.60 a	1.5	0.3						4890.438r	9	1.8	s	Ni I	3.77	114	
4882.705	6	1.2	s	Co I	3.25	158		4890.763m	220	47.6	u	Fe I	2.87	318	
4882.910r	3	0.6						4891.041	12	2.4	s				
4883.132r	2.5	0.5						4891.150	15	3.1	o?				
4883.35 a	2	0.4						4891.502m	312	64.8	u	Fe I	2.85	318	
4883.44 a	6.5	1.3	u	V II—	3.79	209		4891.866r	2.5	0.5	s?	Ti I	2.17	201	
4883.690m	51	10.6	w	Y II	1.08	22		4891.957r	2	0.4		Cr I?	2.71	61	
4883.900	6.5	1.3	o					4892.865m	44	9.0	w	Fe I	4.22	1070	
4884.051	7.5	1.5		V II	3.76	197		4893.047r	3	0.6	s	Ti I	2.25	231	
4884.598	21	4.3	o	Cr II	3.86	30		4893.13 m	0.5	0.1	s	Zr I	{0.69 1.58	43	
4884.803r	7.5	1.5		CH?—	Q 5	0,1	4	4893.253r	0.5	0.1					
4884.941	11	2.2	S,N	Cr I	2.54	30	17	4893.425r	2	0.4	s	Ti I			
4885.088m	53	12.5	s	Ti I	1.89	157		4893.570r	1	0.2		Fe I p	4.18	1096	
4885.236r	3	0.6						4893.704	4	0.8	u	Fe I	4.21	1113	
4885.434m	60	12.7	u	Fe I	3.88	966		4893.817	11	2.2	o	Fe II	2.83	36	
4885.620r	1	0.2	s?					4893.92 m			s	Ti I	2.16	201	13
4885.774	22	5.1	s	Cr I	2.54	30		4893.960r	1.5	0.3		Ce II?	1.33	31	
4885.949	12	2.4	s	Cr I	3.09	143		4894.370r	3	0.6		Cr I	5.52		
4886.086r	1	0.2		CH?	Q 4	0,1	4	4894.562	8.5	1.7	w				
4886.177r	0.5	0.1	s	Fe I p	3.11	467		4894.797r	1	0.2					
4886.337m	68	13.9	s	Fe I—	4.15	1066									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4894.85 a	1.5	0.3						4902.236	11	2.2	<i>w</i>				
4895.034r	0.5	0.1						4902.384	8.5	1.7	<i>u</i>	Fe I			
4895.661r	2	0.4		Fe I?				4902.62 a	3	0.6					
4895.85 a	1	0.2						4902.75 a	2	0.4					
4895.99 m			<i>s</i>				13	4902.97 a	2	0.4					
4896.05 a	1	0.2						4903.099r	4.5	0.9		Fe I? p	3.30	589	
4896.442m	26	5.3	<i>u</i>	Fe I	3.88	984		4903.259	157	9.0	<i>s</i>	Cr I	2.54	31	
4896.580	8	1.6					4903.316	27.5			<i>u?</i>	Fe I	2.88	318	
4896.94 m	0.5	0.1	<i>s</i>					4903.61 a	3	0.6					
4897.200r	4	0.8		Co I	3.93			4903.717r	1.5	0.3	<i>s</i>	Ti I?			
4897.36 a	1.5	0.3						4904.171r	4	0.8		Co I	2.87	141	
4897.473r	6.5	1.3	<i>o?</i>				17	4904.30 m			<i>s</i>	V I	1.19	50	13
4897.65 m	1.5	0.3	<i>s</i>					4904.418m	91	18.6	<i>u</i>	Ni I	3.54	129	
4897.85 a	3	0.6						4904.830r	2	0.4					
4898.27 m	1	0.2	<i>s</i>				17	4905.138m	30	6.1	<i>u</i>	Fe I	3.93	986	
4898.473r	2	0.4		Cr I	5.50			4905.22 a	2.5	0.5					
4898.619r	2.5	0.5						4905.32 a	2.5	0.5					
4898.81 a	1.5	0.3						4905.802r	1	0.2					
4898.94 a	3.5	0.7		Fe I?				4905.90 a	2.5	0.5					
4899.513	5	1.0	<i>u, N</i>	Co I	2.04	92		4906.133	5	1.0		Fe I?			
4899.56 a	2.5	0.5						4906.44 a	1.5	0.3	<i>S, N</i>				17
4899.738r	0.5	0.1						4906.706r	3	0.6					
4899.917m	57	12.2	<i>s</i>	Ti I La II (Ba II)	1.88 0.00 2.72	157 7 3		4906.775	7	1.4	<i>o</i>	Fe I p	4.22	1096	
4900.02?m			<i>s?</i>	Ti I p	2.66	295	13	4907.053r	5	0.4					
4900.124m	54	10.8	<i>u</i>	Y II	1.03	22		4907.12 a			0.6		Co I	0.43	14
4900.276r	3	0.6						4907.315r	1	0.2					
4900.469r	2	0.4						4907.43 a	1.5	0.3					
4900.629r	3	0.6	<i>s, d</i>	Ti I V I	2.68 2.12	295 118		4907.502r	1	0.2					
4900.821	12	2.4	<i>s</i>	Fe I				4907.735m	61	12.0	<i>s</i>	Fe I	3.43	687	
4900.970	17	3.5	<i>u, d</i>	Ni I Ti I	3.48	98		4908.032	37	7.5	<i>s</i>	-Fe I	4.22	1065	
4901.319r	1	0.2						4908.272r	1.5	0.3					
4901.614r	2	0.4						4908.45 m			<i>s</i>	Ti I	2.69	295	13
4901.75 a	1	0.2						4908.495r	1.5	0.3		Co I	3.53		
4901.91 a	3	0.6						4908.611	4.5	0.9	<i>u</i>	Fe I	2.48	115	
4902.078r	3.5	0.7		Cr I?	{4.21 4.21			4908.834r	0.5	0.1					
								4908.95 a	1	0.2					
								4909.105r	5.5	1.1	<i>S</i>	Ti I	0.83	39	
								4909.199r	3	0.6					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4909.387m	66	13.6	u	Fe I	3.93	985		4916.674	4.5	0.9	o	Fe I p	3.93	986	
4909.51 a	3	0.6						4916.852r	3.5	0.7		C ₂	R 76 R 77	0,0 0,0	} 19
4909.710r	5	1.0		Ni I	3.77			4916.958r	2.5	0.5					
4909.87 a	2	0.4						4917.235m	60	12.2	u	Fe I	4.19	1066	
4910.020m	91	18.1	s	Fe I	3.40	687		4917.353r	5.5	1.1					
4910.330m	79	16.1	u	Fe I	4.19	1068	16	4917.828r	2	0.4					
4910.44 m	2.5	0.5	s						4918.015m	53	10.8	u	Fe I	4.23	1070
4910.570m	80	16.3	u	Fe I	4.22	1068		4918.173r	4.5	0.9					
4910.774r	4	0.8						4918.371m	75	15.2	u	Ni I	3.84	177	
4911.027r	1.5	0.3						4918.50 m	3	0.6	S				16
4911.199m	50	10.6	u	-Ti II	3.12	114		4918.709m	39	7.9	u	Ni I	3.77	113	
4911.390r	6.5	1.3						4918.998m	278	53.7	s	Fe I	2.86	318	
4911.536	24	4.9	u	Fe I p	4.26	1098		4919.306r	3	0.6		C ₂	R 69	1, 1	19
4911.782m	44	8.8	u	Fe I	3.93	984		4919.448r	9	1.8		Cr I	5.52		
4912.025m	47	9.6	u	Ni I	3.77	111		4919.749	11	2.2	s	Fe I p	3.27	631	
4912.185r	4.5	0.9						4919.872	24	4.9	s	Ti I	2.16	200	
4912.397m	1	0.2	s?	Co I	0.58	14		4920.065r	4	0.8					
4912.491	9.5	1.9	u	Fe I	4.14	1040		4920.298r		1.1		Co I	1.96	57	
4912.62 a	1.5	0.3						4920.514m	471	85.6	S	Fe I	2.83	318	
4912.787r	0.5	0.1					4920.686r				6.9	s, N?	-Nd II	0.06	2
4912.980r	1	0.2						4920.963m	29	5.9	u	Cr I— La II	3.10 0.13	143 7	
4913.135	12	2.4	w					4921.168r	2.5	0.5		Ni I? p	3.60	100	
4913.273r	2	0.4		Sm II	0.66	53		4921.30 a	1	0.2					
4913.622m	49	10.0	s	Ti I	1.87	157		4921.42 a	1	0.2					
4913.803r	3	0.6						4921.50 a	0.5	0.1					
4913.978m	57	11.4	w	Ni I	3.74	132		4921.598r	0.5	0.1					
4914.13 a	4	0.8						4921.785m	40	8.1	s	Ti I— La II	2.17 0.24	200 7	
4914.224r	3.5	0.7						4921.988r	1.5	0.3					
4914.406r	6.5	1.3	s					4922.162	97	4.1	u	Fe I p	4.21	1110	
4914.522	5.5	1.1	u?				4922.267m				15.8	s	Cr I	3.10	143
4914.68 a	2.5	0.5						4922.489r	2.5	0.5					
4914.92 a	[2.5]	0.5						4922.62 a	0.5	0.1					
4915.234	6	1.2	S	Ti I	1.89	157		4922.821	6.5	1.3	s?				
4915.775r	2	0.4	S	Ti I? Fe I?				4922.979r	1	0.2					
4915.849r	3.5	0.7						4923.154	16	3.2	u?	Fe I			17
4916.238	6.5	1.3	w					4923.28 a	4	0.8		Cr I?			
4916.487	14	2.8	u												

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4923.40 a	3.5	0.7						4930.479r	3.5	0.7					
4923.57 a	4.5	0.9						4930.66 m	2.5	0.5	s				
4923.68 a	5.5	1.1						4930.800	19	3.8	s	Ni I?	3.85	193	
4923.930m	167	33.3	w	Fe II	2.89	42		4930.94 a	2	0.4					
4924.123r	4.5	0.9		C ₂	{R 69 R 70}	{1,1 1,1}	19	4931.120r	5	1.0	u	Cr I	5.54		
4924.302	18	3.6	s					4931.50 m	1	0.2	s				
4924.56 m			S,N				13	4931.735r	4.5	0.9					
4924.588r	5	1.0						4932.016	45	1.8	s	V I	1.22	50	
4924.777m	101	20.3	s	Fe I	2.28	114		4932.068		7.5		C I	7.68	13	
4924.964r	5.5	1.1						4932.29 m	1.5	0.3	s				
4925.085r	2	0.4						4932.98 a	4.5	0.9					
4925.279	20	4.1	s	Fe I	4.10	1065		4933.190	39	7.9	w	Fe I p	4.19	1070	
4925.418	7.5	1.5	S	Ti I	1.88	157		4933.338m	97	19.7	u	Fe I	4.23	1065	
4925.574m	58	11.8	u	Ni I	3.65	141		4933.671r	5.5	1.1					
4925.70 a	3	0.6	S,N	V I—	1.22	50	16	4933.873m	41	8.3	s?	Fe I	3.94	968	
4925.89 a	1.5	0.3						4934.030	207	21.5	s?	Fe I	4.15	1068	
4926.154	5.5	1.1	S	Ti I	0.82	39		4934.095		27.8	u?	Ba II	0.00	1	
4926.401r	1.5	0.3						4934.41 a	1.5	0.3					
4926.694	4.5	0.9	u				16	4934.66 a	2	0.4					
4926.845	6.5	1.3	s	Fe I p	3.63	844		4934.872r	4	0.8		Cr I	3.85	259	
4926.947r	3	0.6	s					4935.00 a	2.5	0.5					
4927.271r	5.5	1.1						4935.16 a	1.5	0.3					
4927.428m	55	10.4	s	Fe I	3.57	792		4935.419r	2.5	0.5		Fe I p	3.64	886	
4927.474r		1.0						4935.651r	3	0.6					
4927.59 m	3	0.6	s				13	4935.834m	65	13.2	u	Ni I	3.94	177	
4927.666r	2	0.4						4936.15 a	1.5	0.3					
4927.872m	68	14.0	u	Fe I				4936.341m	43	8.9	s	Cr I	3.11	166	
4928.03 a	4.5	0.9						4936.699	3	0.6		C ₂	{R 72 R 73}	{0,0 0,0}	19
4928.124	3.5	0.7						4937.061	18	3.6	o				
4928.341m	30	6.1	s	Ti I	2.15	200		4937.16 m			s				13
4928.47 a	2	0.4						4937.348m	86	17.4	w	Ni I	3.61	114	
4928.89 m	1	0.2	s	Ti I	0.84	39		4937.530r	2	0.4					
4929.44 a	[1.5]	0.3						4937.60 m	2.5	0.5	s				
4929.80 a	[2.5]	0.5						4937.733m	10	2.0	S	Ti I	0.81	39	
4930.065r	5.5	1.0		Fe I p	3.30	631		4937.88 m	4	0.8	s				
4930.21 m			s	Cr I	3.84	259	13	4937.973	3.5	0.7					
4930.310m	82	16.6	u	Fe I	3.96	985		4937.99 m			s	Ti I	2.00	173	13

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4938.177m	92	16.0	<i>u</i>	Fe I	3.94	966		4945.289	3	0.6		Fe I p	3.02	466	
4938.293		2.6	<i>S</i>	Ti I	2.58	289		4945.447m	44	8.9	<i>w</i>	Ni I	3.80	145	
4938.46 a	2	0.4						4945.642m	42	8.5	<i>u</i>	Fe I	4.21	1113	
4938.62 a	1	0.2		Si I?				4945.82 a	2.5	0.5					
4938.820m	119	23.5	<i>s</i>	Fe I	2.87	318		4946.034	24	4.8	<i>u</i>	Ni I	3.80	148	
4939.05 a	4	0.8						4946.168r	3	0.6					
4939.242m	88	17.8	<i>u</i>	Fe I	{4.22 4.15}	{1065 1070}		4946.395m	113	22.4	<i>u</i>	Fe I	3.37	687	
4939.479r	2	0.4		Fe I p	4.19	1043		4947.04 a	1	0.2					
4939.694S	96	19.6	<i>s</i>	Fe I	0.86	16		4947.19 a	1.5	0.3					
4939.823r	3	0.6						4947.33 m			<i>s?</i>				13
4939.972	8.5	1.7	<i>u?</i>					4947.40 a	2	0.4		Fe I?			
4940.069	14	2.8	<i>u?</i>					4947.600	17	3.4	<i>u</i>	V II— Si I	{3.75 5.08}	197	
4940.30 m			<i>s</i>				13	4947.944r	2	0.4					
4940.492	6	1.2						4947.98 m			<i>S</i>	Ti I	0.82	39	13
4940.710r	3.5	0.7						4948.191	7.5	1.5	<i>S</i>	Ti I	2.17	200	
4940.958r	0.5	0.1						4948.345	7.5	1.5	<i>w?</i>				
4941.02 m			<i>s</i>	Ti I	1.98	173	13	4948.597r	3	0.6		Sm II	0.54	49	
4941.219	3.5	0.7						4948.78 m	1	0.2	<i>s</i>	Zr I	0.52	28	
4941.322r	2	0.4	<i>S</i>	Ti I	0.83	39		4948.87 m	1	0.2	<i>s</i>				
4941.38 m			<i>s</i>				13	4949.10 a	5	1.0					
4941.569	3	0.6	<i>S</i>	Ti I	2.16	200		4949.34 a	2	0.4					
4941.833	3.5	0.7		C ₂ ?	R 73	0,0	19	4949.576r	3	0.6		Cr I	3.85	259	
4941.907	5	1.0		Ni I	3.61	114		4949.78 a	2	0.4					
4942.25 a	4	0.8						4950.111m	76	16.0	<i>u</i>	Fe I	3.42	687	
4942.484m	100	17.2	<i>s</i>	Cr I	0.94	9		4950.378r	8	1.6					
4942.598		3.0	<i>u?</i>	Fe I p	4.26	1097		4950.624r	6	1.2		C ₂	{R 63 R 64}	{1,1 1,1}	19
4942.78 a		2	0.4									C ₂	{R 69 R 70}	{0,0 0,0}	19
4942.94 a	2	0.4						4951.411	4.5	0.9					
4943.06 m	1	0.2	<i>s</i>	Ti I	0.90	52		4951.52 a	2.5	0.5					
4943.305r	1.5	0.3						4951.75 a	1	0.2					
4943.448r	1.5	0.3		Ce II?	1.21			4952.284m	28	5.6	<i>u</i>	Ni I— Fe I	3.61	113	
4943.82 a	1.5	0.3						4952.458r	5	1.0	<i>s</i>				
4943.912r	2	0.4						4952.647m	54	10.5	<i>w</i>	Fe I	{4.10 4.21}	{1068 1111}	
4944.10 a	1	0.2						4952.839r	3	0.6		Cr II	6.28		
4944.287	10	2.0	<i>s, d</i>	Fe I			17	4953.021r	2	0.4					
4944.564	5	1.0	<i>s</i>	Cr I	3.85	259		4953.212m	53	10.7	<i>u</i>	Ni I	3.74	111	
4944.82 m			<i>s</i>				13								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4953.36 m	3	0.5	s	Ti I p	0.85	39		4963.550r	2	0.4		C ₂			
4953.436r		0.2						4963.75 a	1.5	0.3					
4953.49 m		2.5	0.2	s				4964.131	14	2.8	w				
4953.57 m	0.3		s				4964.726m	7	1.4	S	Ti I	1.97	173		
4953.728	5	1.0	s	Cr I	3.12	166		4964.933m	35	7.3	s	Cr I	0.94	9	
4954.016	4	0.8		Fe II?	5.57	168		4965.173	27	5.4	w	Ni I	3.80	147	
4954.296r	4	0.8		Fe I p	4.18	1093		4965.30 a	2	0.4					
4954.605m	37	7.5	u	Fe I				4965.405r	5.5	1.1		V II	3.80	209	
4954.809m	54	10.3	s	Cr I	3.12	166		4965.58 a	2	0.4					
4955.974	6	1.2		C ₂ ?	R 70	0,0	19	4965.811r	31	1.8					
4956.09 a	2	0.4						4965.857		4.6	s,N	Mn I	2.89	20	
4956.746r	2.5	0.5		MgH	R 38	0,0	20	4966.095m	114	23.0	s	Fe I	3.33	687	
4957.307m	696	56.7	s	Fe I (Dy II)	2.85	318		4966.281	16	3.2		Fe I p	3.96	986	
4957.475r		5.6						4966.576	3	0.6	s,N	Co I	0.43	14	
4957.613m		128	S	Fe I	2.81	318		4966.803r	2.5	0.5		Cr I	3.85	259	
4957.697		8.7		Fe I p	4.19	1066		4967.273r	2	0.4					
4958.032r	5	1.0					4967.32 m				s	Ti I	0.00	5	13
4958.257	14	2.8	s	Ti I	0.90	52		4967.395r	2	0.4		C ₂	{R 59 R 60}	1,1 1,1	19
4959.12 m			s				13	4967.523	12	2.4	o?	Ni I	3.80	141	
4959.145r	7	1.4		Nd II	0.06	1		4967.683r	1.5	0.3					
4959.202	14	2.8	o?				17	4967.80?m	2.5	0.5	S				
4959.36 a	1.5	0.3						4967.903m	74	14.9	u	Fe I (Sr I)	4.19 1.85	1067 4	
4959.70 a	1	0.2		Co I	0.63	14		4968.391	21	4.2	s				
4960.351r	4	0.8						4968.593	29	5.8	s	Ti I—	1.98	173	
4960.856	7	1.4		C ₂	{R 67 R 68}	{0,0 0,0}	19	4968.705	46	9.2	u	Fe I	3.64	887	
4961.054	17	3.4	w?	Fe I			17	4968.852r	2	0.4					
4961.389r	5	1.0						4968.93 a	1	0.2					
4961.48 a	1.5	0.3						4969.922m	69	13.9	u	Fe I	4.22	1066	
4961.70 a	2.5	0.5						4970.115r	10	2.0		C ₂	{R 65 R 66}	0,0 0,0	19
4961.920	26	5.2	u	Fe I	3.63	845		4970.206r	6.5	1.3		C ₂	R 64	0,0	19
4962.123r	1	0.2						4970.501m	51	10.3	s	Fe I	3.63	883	
4962.267	2	0.4	s	Sr I	1.85	4		4970.651m	31	6.2	s,d	—Fe I p	3.96	985	
4962.292r	5.5	1.1		Zr II	0.97	66		4971.06 a	1.5	0.3					
4962.576m	52	10.5	s?	Fe I	4.18	1097		4971.351m	55	11.1	s				
4962.730r	2.5	0.5						4971.50 a	3.5	0.7					
4962.912r	2.5	0.5		C ₂				4971.62 m			s				13,16
4963.070r	3	0.6		C ₂											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
4971.920r	2.5	0.5		Co I	3.17	158		4978.937r	4.5	0.9					
4972.03 a	1	0.2						4979.057r	3.5	0.7					
4972.181r	2	0.4						4979.206	7	1.4		MgH?	R 35	0,0	20
4972.396r	0.5	0.1		Fe I	4.18	10,0		4979.310r	5	1.0					
4972.656r	3	0.6		C ₂ ?	{R 51 R 52}	{2,2 2,2}	19	4979.40 a	2	0.4					
4972.916	4.5	0.9		Fe I p	3.30	631		4979.590	19	3.8	s	Fe I	3.64	883	
4973.06 m			S	Ti I	2.00	173	13	4979.705	5.5	1.1					
4973.104m	88	17.3	u	Fe I	3.96	984		4979.835	4.5	0.9		Fe I p	3.02	465	
4973.352	10	2.0						4979.967	6	1.2		Co I	4.06		
4973.51 a	1	0.2						4980.177m	112	20.1	u	Ni I	3.61	112	
4973.652r	1	0.2					4980.296	2.8				u,N	Fe I	4.18	1092
4974.05 a	2	0.4						4980.539	10	2.0					
4974.247	8	1.6		Fe I				4981.10 a	1.5	0.3					
4974.363	8.5	1.7		Ni I	3.80	144		4981.279r	5	1.0					
4974.460	7.5	1.5		C ₂	{R 64 R 65}	{0,0 0,0}	19	4981.358	8.5	1.7		Ti II p	1.57	71	
4974.552	4	0.8		C ₂ ?	R 66	0,0	19	4981.740m	112	22.9	S	Ti I	0.85	38	
4975.351	35	3.6	s	Ti I	2.50	283		4982.136	14	2.8	u	Y II	1.03	20	
4975.412		3.6	w?	Fe I	3.30	586		4982.507m	138	27.7	u	Fe I	4.10	1067	
4975.554r	4.5	0.9		C ₂	{R 57 R 58}	{1,1 1,1}	19	4982.825m	83	16.2	s	Na I	2.10	9	
4975.85 a	1.5	0.3						4983.031r	7	1.4					
4976.00 a	2.5	0.5						4983.260S	114	22.9	u	Fe I	4.15	1067	
4976.138m	27	5.4	w	Ni I	3.61	112		4983.470r	14	2.8		C ₂	R 64	0,0	19
4976.333m	36	7.2	s	Ni I	1.68	49		4983.603r	10	2.0					
4976.496r	2	0.4						4983.859m	123	24.7	u	Fe I	4.10	1066	
4976.693	6	1.2		Ni I p	4.23	254		4984.122m	91	18.2	u	Ni I	3.80	143	
4976.881r	2.5	0.5		C ₂	{P 92 P 93}	{0,0 0,0}	19	4984.302r	5.5	1.1					
4977.24 a	1.5	0.3						4984.458r	5.5	1.1					
4977.655	34	5.2	w	Fe I	3.93	985		4984.625	18	3.6	u				
4977.719		1.8	S	Ti I	2.02	173		4984.76 a	3	0.6					
4977.929r	1.5	0.3						4984.83 a	2	0.4					
4978.112	34	1.8	w?	Fe I	3.96	986		4984.96 a	3	0.6					
4978.194		5.0	S	Ti I	1.97	173		4985.259m	101	20.1	u	Fe I	3.93	984	
4978.369r	5	1.0						4985.554m	103	21.5	s	Fe I	2.86	318	
4978.555	118	9.0	s	Na I	2.10	9		4985.758	11	2.2					
4978.606		17.5	u	Fe I	3.98	966		4985.986	25	5.0	u	Fe I p	4.26	1094	
4978.691		1.2		Fe I p	4.07	1035		4986.228m	45	9.0	w	Fe I	4.22	1070	
								4986.45 a	2.5	0.5		Co I?	2.72		
								4986.908	18	3.6	w	Fe I	4.26	1092	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
4987.085r	1.5	0.3						4995.56 m			s?				13
4987.277r	2	0.4		C ₂	{R 54 R 55}	{1,1 1,1}	19	4995.659	16	3.2	w	Ni I	3.63	145	
4987.435r	3	0.6						4995.877	1.5	0.3		Ti II p	1.58	71	
4987.652r	2.5	0.5		Fe I p	4.18	1094		4996.00 a	1	0.2					
4987.852	4.5	0.9		Co I Fe I? p	0.58 3.88	14 966		4996.195	7	1.4		Fe I?			
4988.01 a	2.5	0.5		Co I	4.06			4996.378	12	2.4	w?				
4988.138r	6	1.2		C ₂	{R 61 R 62}	{0,0 0,0}	19	4996.50 a	2	0.4					
4988.24 a	3.5	0.7						4996.633	1	0.2					
4988.360r	3	0.6						4996.846m	49	9.8	u	Ni I	3.63	144	
4988.64 a	1.5	0.3						4996.979	3.5	0.7					
4988.955m	80	16.0	s	Fe I	4.15	1066		4997.100m	27	5.6	S	Ti I	0.00	5	
4989.141m	29	5.8	S	Ti I	1.98	173		4997.353	0.5	0.1					
4989.41 a	2	0.4						4997.56 a	1	0.2					
4989.553	3.5	0.7						4997.74 m	2.5	0.5	s				
4989.954	6.5	1.3		Nd II?				4997.959	9.5	1.9	u				
4990.453m	26	5.2	u	Fe I				4998.230m	56	11.0	w	Ni I	3.61	111	
4991.072m	102	21.2	S	Ti I	0.84	38		4998.44 a	2	0.4					
4991.275m	87	17.4	u	Fe I	4.19	1065		4998.567	3.5	0.7		Cr I?	3.01	123	
4991.861	16	3.2	s	-Fe I	4.22	1094		4998.959	2.5	0.5		C ₂	{R 51 R 52}	{1,1 1,1}	19
4992.076r	0.5	0.1						4999.119	29	5.8	w	Fe I	4.19	1040	
4992.287	6	1.2		C ₂	R 62	0,0	19	4999.264	6	1.2					
4992.480r	4.5	0.9		Fe I?				4999.510m	104	21.0	S	Ti I	0.83	38	
4992.778	8	1.6	u	Fe I	4.26	1110		4999.82 a	3.5	0.7					
4992.996r	1	0.2		Co I?	4.07			4999.93 a	2.5	0.5					
4993.352	34	6.8	w?	Fe II	2.81	36	17	5000.01 a	2	0.4					
4993.522r	1	0.2		Si?				5000.208	24	4.8	s				
4993.683	51	8.4	u	Fe I	4.21	1111		5000.349m	70	14.0	w	Ni I	3.63	145	
4993.747		2.2	s				16	5000.546	2.5	0.5		MgH	R 32	0,0	20
4993.937r	2.5	0.5						5000.735	12	2.4		Fe II p	2.78	25	
4994.138S	95	19.6	s	Fe I	0.91	16		5000.990m	44	8.8	s	Ti I	2.00	173	
4994.60 a	2.5	0.5						5001.210	7.5	1.5		MgH?	R 32	0,0	20
4994.99 m			s				13	5001.472	20	4.0		Ca II	7.50	15	
4995.028	3.5	0.7						5001.870m	168	31.4	u	Fe I	3.88	965	
4995.08 m	3	0.6	s	Ti I	2.25	216		5002.328	6.5	1.3	s	V I	2.36	132	
4995.267	1.5	0.3						5002.592	18	3.6	s				17
4995.409	13	2.6	w	Fe I	4.26	1113		5002.798S	85	16.4	s	Fe I	3.40	687	
								5003.098	10	2.0					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5003.25 a to 5003.60 a	8	1.6						5011.204	2	0.4		Fe I	4.22	1066	
5003.747			34	6.8	s	Ni I	1.68	50	5011.37 a to 5011.70 a	5	1.0				
5003.879	1	0.2		Fe I p	2.61	211		5011.761	3.5	0.7		Ce II?	1.05		
5004.049m	50	10.0	s	Fe I—	4.21	1112		5012.075	154	24.0	s	Fe I	0.86	16	
5004.212	8	1.6	s	Co I?	2.87	141		5012.156		11.5	u?		Fe I p	4.19	1070
5004.365	17	3.4	s,d	Cr I	3.01	122		5012.307	8	1.6					
5004.50 a to 5004.75 a	5	1.0						5012.448m	58	11.6	u	Ni I	3.70	111	
5004.894			14	2.8	s	Mn I	2.92	20	5012.594	4	0.8				
5005.171	26	5.2	s,d?	Ti II p	1.57	71		5012.700	40	8.0	u	Fe I	4.28	1093	
5005.401	14	2.8		C ₂	R 59	0,0	19	5012.87 a to 5013.13 a	6	1.2					
5005.509	6	1.2		C ₂ ?	R 59	0,0	19	5013.305m	59	11.8	s	Ti I— Cr I	2.02 2.71	173 60	
5005.719m	136	27.2	s?	Fe I	3.88	984		5013.472	6	1.2					
5006.120m	190	38.0	s	Fe I	2.83	318		5013.690	55	8.5	w	Ti II	1.58	71	
5006.379	11	2.2						5013.779		3.0			C ₂	R 57	0,0
5006.533	13	2.6						5013.920	22	4.4	w	Fe I			
5006.694	9.5	1.9		Fe I p	2.59	211		5014.197	148	13.5	s	Ti I	0.00	5	
5006.897	6	1.2						5014.285		19.2	s		Ti I	0.81	38
5007.217	174	24.1	s	Ti I	0.82	38		5014.47 a	3.5	0.7					
5007.280		19.2	u	Fe I	{3.94 4.10	{966 1065		5014.60 a	7	1.4		V I	{2.37 2.68	132	
5007.734	33	6.6	s	Fe I?	4.29			5014.74 a	4	0.8					
5007.922	2	0.4						5014.951S	125	24.9	u	Fe I	3.94	965	
5008.044	4	0.8						5015.126	2.5	0.5					
5008.225	3	0.6		MgH	R 31	0,0	20	5015.303	16	3.2		Fe I	3.98	968	
5008.453	1	0.2						5015.41 a	4	0.8		MgH	R 30	0,0	20
5008.646	14	2.8	w					5015.66 a to 5015.93 a	5	1.0					
5009.196	3	0.6						5016.039	6	1.2		C ₂ —	{P 83 P 84	{0,0 0,0	19
5009.427	12	2.4	w	C ₂ — Fe I?	R 58	0,0	19	5016.168m	60	12.1	S	Ti I	0.85	38	
5009.534	1	0.2		C ₂ ?	R 58	0,0	19	5016.326	2.5	0.5					
5009.655	24	4.6	S	Ti I	0.02	5		5016.480	33	6.6	u	Fe I	4.26	1089	
5009.832	5	1.0	u					5016.686	2.5	0.5					
5010.024	35	7.0	w	Ni I	3.77	111		5016.886m	45	9.0	s	Fe I			
5010.218	25	5.0	o	Ti II	3.09	113									
5010.327	9.5	1.9		Fe I p	2.56	211									
5010.943m	46	9.2	u	Ni I	3.63	144									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5017.047	7.5	1.5		C ₂	{R 46 R 47}	1,1 1,1	}19	5024.218	15	3.0	w				
5017.193	6	1.2		C ₂	R 45	1,1	19	5024.595	3	0.6					
5017.381	5	1.0						5024.850m	62	13.0	S	Ti I	0.82	38	
5017.584m	90	17.9	w	Ni I	3.54	111		5025.082	20	4.0	u	Fe I p	4.26	1110	
5017.814	18	3.6		C ₂	R 56	0,0	19	5025.305	18	3.6	u	Fe I	4.28		
5018.036	17	3.4		Fe I p	3.63	884		5025.566m	52	10.3	S	Ti I (Cr I)	2.04 0.98	173 20	
5018.286m	58	11.6	u	Ni I	3.83	162		5025.764	11	2.2		Fe I	3.07	466	
5018.450m	210	41.8	w	Fe II	2.89	42		5025.908	5	1.0		C ₂ ?	R 54	0,0	19
5018.878	3	0.6						5026.189	1.5	0.3					
5019.176	10	2.0		Fe I	4.58	1242		5026.488	3	0.6		Ni I	3.70	158	
5019.22 m	4	0.8	s	Cr I	0.97	20		5026.740	2.5	0.5					
5019.478	7.5	1.5	u,N	Fe II?—	5.57	168		5026.877	5	1.0					
5019.732	24	4.8	u,N	Fe I	3.98	966		5027.130	105	20.9	u	Fe I	4.15	1065	
5020.031m	86	16.5	S	Ti I (Ca II)	0.84 7.51	38 15		5027.230	46	9.2	u	Fe I	3.64	883	
5020.347	2	0.4	s				16	5027.354	32	6.4	w?	Fe I p	3.98	968	
5020.496	8.5	1.7						5027.525	12	1.8		Fe I p	3.88	960	
5020.688	13	2.6	u	Fe I p	3.25	629		5027.617	7	1.3					
5020.819	17	3.4	u	Fe I	3.55	748		5027.762m	61	12.1	w	Fe I	4.21	1110	
5020.997	6	1.2						5027.924	4.5	0.9					
5021.151	4	0.8		Ca II	7.51	15		5028.133S	83	16.5	s	Fe I	3.57	791	
5021.35 a	2	0.4						5028.351	13	2.6					
5021.602	69	9.5	s	Fe I—	4.26	1093		5028.545	7	1.4					
5021.686		5.0	u	Fe I p	4.22	1067		5028.78 a	5	1.0					
5021.923	22	4.4	s,d	Cr I Fe I C ₂	0.94 3.27 R 55	8 629 0,0	17	5029.03 a	5	1.0		MgH	R 28	0,0	20
5022.059	4.5	0.9	o?	C ₂ ?	R 55	0,0	17,19	5029.484	4.5	0.9		MgH	R 28	0,0	20
5022.241m	114	22.7	w?	Fe I	3.98	965		5029.623m	41	8.2	u	Fe I	3.41	718	
5022.629	4	0.8						5029.815	12	2.4	u	Mn I	2.94	20	
5022.874m	72	14.5	S	Ti I	0.83	38		5029.917	9.5	1.9		C ₂	R 53	0,0	19
5023.043	3	0.6	s					5030.035	5	1.0		C ₂ ?	R 53	0,0	19
5023.189	35	7.0	u	Fe I	4.28	1095		5030.633	4	0.8	s,N				
5023.348	3.5	0.7	s	Ti I	2.16	199		5030.782	20	4.0	u	Fe I	3.24	585	
5023.496	26	5.2	u	Fe I	4.31	1150		5030.880	1	0.2		C ₂	R 41	1,1	19
5023.644	6	1.2						5031.024m	65	12.9	w	Sc II— Fe I	1.36 3.55 3.64	23 746 883	
5023.832	6.5	1.3		Cr I	7.94			5031.182	11	2.2	u	Fe I?	3.64	885	
5024.010	4	0.8		C ₂	{R 44 R 45}	1,1 1,1	}19	5031.753	6.5	1.3					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5031.916	21	4.2	<i>u</i>	Fe I	4.37	1150		5039.366	31	6.2	<i>w</i>	Ni I	3.63	142	
5032.076	5.5	1.1		C ₂	{P 79 P 80}	{0,0 0,0}	}19	5039.507	7.5	1.5					
5032.379	8	1.6						5039.774	7	1.4		C ₂	{P 77 P 78}	{0,0 0,0}	}19
5032.733	23	4.6	<i>u</i>	Ni I	3.90	207		5039.964m	66	14.1	<i>s</i>	Ti I	0.02	5	
5033.129	{3}	0.6						5040.122	7	1.4		C I	7.94		
5033.538	4.5	0.9		C ₂				5040.249	10	2.0	<i>s</i>	Fe I p	4.22	1093	16
5033.61 m			<i>s</i>				13,16	5040.465	3	0.6		C ₂			
5033.652	4.5	0.9		C ₂	R 52	0,0	19	5040.614	16	3.2	<i>S,N</i>	Ti I	0.83	38	
5033.777	4.5	0.9		C ₂	R 52	0,0	19	5040.735	4.5	0.9					
5034.057	2	0.4		Co I	2.04	91		5040.890m	116	23.0	<i>u,d</i>	Fe I	{4.28 4.26}	{1094 1092}	}18
5034.178	5	1.0		C ₂	{R 41 R 42}	{1,1 1,1}	}19	5041.076m	112	22.2	<i>s</i>	Fe I	0.96	16	
5034.356	7	1.4		C ₂	R 40	1,1	19	5041.324	28	5.6	<i>u,N</i>	C ₂	R 50	0,0	19
5034.520	6	1.2										Fe I p	{4.28 5.02}	{1110 1328}	
5034.678	4	0.8						5041.450	37	7.3	<i>u,N</i>	-C I	7.94		
5034.991	{4}	0.8		Fe I	3.64	885		5041.619m	86	17.0	<i>s</i>	Ca I	2.71	34	
5035.12 a	3	0.6						5041.763							
5035.370m	109	21.1	<i>u</i>	Ni I	3.63	143		5041.854							
5035.733	{13}	2.6						5042.027	3.5	0.7					
5035.910		16.8	<i>s</i>	Ti I	1.46	110		5042.192m	61	12.1	<i>u</i>	Ni I	3.66	131	
5035.974	115	11.2	<i>u?</i>	Ni I	3.65	145		5042.58 m	8.5	1.7	<i>s</i>	Mn I?	2.95	20	
5036.277	42	8.3	<i>w</i>	Fe I				5042.921	8	1.6		MgH	R 26	0,0	20
5036.471m	66	13.1	<i>s</i>	Ti I	1.44	110		5043.094	8	1.6					
5036.731	4.5	0.9						5043.295	10	2.0		C ₂	{P 76 P 77}	{0,0 0,0}	}19
5036.924	23	4.6	<i>s,d</i>	Fe I Fe II	3.02 2.83	465 36	17	5043.461	3.5	0.7					
5037.200	3.5	0.7		Atm				5043.588m	14	2.8	<i>S</i>	Ti I	0.84	38	
5037.314	13	2.6		C ₂				5043.709	3.5	0.7		C ₂	{R 38 R 39}	{1,1 1,1}	}19
5037.489	3.5	0.7		C ₂	R 39	1,1	19	5043.833	2.5	0.5		C ₂	R 37	1,1	19
5037.709	20	4.0		C ₂	R 51	0,0	19	5043.988	7	1.4					
5037.808	7	1.4		C ₂ ? Ti II p	R 51 1.58	0,0 71	19	5044.033	1	0.2		Ce II?	1.21	16	
5038.403m	60	12.9	<i>s</i>	Ti I	1.43	110		5044.218m	70	13.9	<i>s</i>	Fe I	2.85	318	
5038.596m	50	9.9	<i>w</i>	Ni I	3.83	166		5044.635	1	0.2					
5038.799	2	0.4		Fe I? p	3.05	510		5044.772	1.5	0.3		C ₂	{P 67 P 68}	{1,1 1,1}	}19
5038.891	8	1.6						5045.082	2.5	0.5		Fe I?			
5039.060	16	3.2		C I	7.94	4		5045.270	12	2.4	<i>o</i>	C ₂ -	R 49	0,0	19
5039.258m	73	14.5	<i>w?</i>	Fe I	3.37	687		5045.407	10	2.0	<i>s</i>	Ti I	0.85	38	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5045.636	5	1.0						5052.627	11	2.2	<i>u</i>	-C ₂	R 47	0,0	19
5045.77 a } to 5046.07 a }	5	1.0						5052.738	6	1.2	<i>u</i>	C ₂ ?	R 47	0,0	19
5046.202	4	0.8						5052.880m	14	2.8	<i>s</i>	Ti I	2. 17	199	
5046.55 m			<i>s</i>	Zr I?	1. 53	62	13	5052.990	12	2.4	<i>u</i>	Fe I	3. 27	585	
5046.929m	4. 5	0.9		C ₂	{R 37 R 38	{1,1 1,1	19	5053.125	5	1.0					
5047.120	7	1.4	<i>s</i>	Fe I p	4. 58	1242	16	5053.295	3. 5	0.7	<i>s</i>	W I	0. 21	1	
5047.302	7. 5	1.5		V I— V II	1. 93 2. 56		127	5053.577	50	9.9					
5047.404	4	0.8						5053.818	2. 5	0.5					
5047.558	2	0.4		C ₂	{P 66 P 67	{1,1 1,1	19	5054.083m	7. 5	1.5	<i>s</i>	Ti I	2. 68	294	
5047.719	5	1.0		C ₂	P 65	1,1	19	5054.647m	35	6.9	<i>s</i>	Fe I	3. 64	884	
5047.942	22	4.4	<i>w</i>					5055.426a	1. 5	0.3	<i>s, d</i>	MgH	Q 38	0,0	20
5048.062	30	5.9	<i>u</i>	Ni I	3. 83	161		5055.583	6	1.2	<i>s, d</i>				17
5048.225	26	5.2	<i>s</i>	Ti I	2. 15	199		5055.794	6. 5	1.3		MgH	Q 38	0,0	20
5048.439m	70	13.9	<i>u</i>	Fe I	3. 96	984		5055.988	24	4.7	<i>s</i>	Fe I	4. 31	1149	17
5048.64 m	3	0.6	<i>s?</i>	Ti I?				5056.126	12	2.4		C ₂	R 46	0,0	19
5048.76 m	9. 5	1.9	<i>S</i>	Cr I	0. 98	20		5056.252	11	2.2		C ₂	R 46	0,0	19
5048.853m	52	10.3	<i>u</i>	Ni I	3. 85	195		5056.434	12	2.4		-MgH	R 24	0,0	20
5049.016	3. 5	0.7						5056.846m	{24	4. 7	<i>w?</i>	Fe I MgH	4. 26 R 24	1111 0,0	17 20
5049.204	3	0.6						5057.487	17	3.4	<i>w</i>	Fe I	{4. 19 4. 41	1067 1150	
5049.425	5	1.0		C ₂				5057.594	10	2.0					
5049.592	8	1.6		MgH	R 25	0,0	20	5057.696	1	0.2					
5049.682	4	0.8		C ₂	R 26	2,2	19	5057.839	7. 5	1.5		Fe I p	4. 55	1185	
5049.827m	135	27. 3	<i>u</i>	Fe I	2. 28	114		5057.985m	29	5.7	<i>w</i>	Fe I	3. 94	967	17
5050.138	6. 5	1.3		Fe I p MgH	3. 88 R 25	963 0,0	20	5058.242	7	1.4					
5050.291	2. 5	0.5						5058.28 m	1	0.2		Ti I?			16
5050.443	5	1.0						5058.495	10	2.0	<i>s, d</i>	Fe I	3. 64	884	
5050.571	2	0.4						5058.812	5. 5	1.1		C ₂	{R 33 R 34	{1,1 1,1	19
5050.737	6	1.2		C ₂				5058.930	5	1.0		C ₂	P 73	0,0	19
5050.965	10	2.0						5059.229m	3. 5	0.7		C ₂			
5051.305	3. 5	0.7		Fe I p	4. 22	1089		5059.393	1. 5	0.3		C ₂			
5051.504m	47	9.3	<i>u</i>	Ni I	3. 65	144		5059.788	12	2.4	<i>o</i>	-C ₂	R 45	0,0	19
5051.642m	111	22.0	<i>s</i>	Fe I	0. 91	16		5059.929	5. 5	1.1		C ₂	R 48	0,0	19
5051.905	20	4. 3	<i>s</i>	Cr I	0. 94	8		5060.074m	60	11. 3	<i>s</i>	Fe I	{0. 00 4. 30	1 1095	
5052.151	40	7.9	<i>o</i>	C I	7. 68	12		5060.313	3	0.6					
5052.388	6	1.2						5060.436	2. 5	0.5					
								5061.108	3	0.6					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5061.396	2	0.4		C ₂				5069.088	15	3.0	<i>s,d</i>	Ti II	3.12	113	17
5061.525	3.5	0.7		MgH	Q 37	0,0	20	5069.36 m			<i>s</i>	Ti I	2.15	199	13
5061.697	8.5	1.7		—C ₂	P 72	0,0	19	5069.415	6	1.2					
5061.892	3	0.6		MgH	Q 37	0,0	20	5069.46 m	9.5	1.9	<i>s</i>				
5062.104m	15	3.0	<i>s</i>	Ti I	2.16	199		5069.625	2	0.4		MgH Fe I p	R 22 2.59	0,0 211	20
5062.384	4.5	0.9		C ₂	{P 61 P 62}	{1,1 1,1}	}19	5069.795	2	0.4		C ₂	R 31	1,1	19
5062.910	3	0.6						5069.991	9	1.8		C ₂ —	R 31	1,1	19
5063.07 a	3	0.6		MgH	R 23	0,0	20	5070.140	9	1.8		C ₂ MgH	R 42 R 22	0,0 0,0	19 20
5063.174	11	2.2		C ₂ —	R 44	0,0	19	5070.23 m			<i>s</i>	Sc I	1.43	13	13,16
5063.306	5.5	1.1		C ₂	R 44	0,0	19	5070.295	3	0.6		C ₂ ?	R 42	0,0	19
5063.522	2.5	0.5		MgH	R 23	0,0	20	5070.438	2	0.4					
5063.753	1	0.2						5070.922	2.5	0.5					
5063.884	1	0.2						5071.133	2	0.4					
5064.066m	6.5	1.3	<i>s</i>	Ti I	2.69	294		5071.260	1.5	0.3					
5064.336	10	0.8	<i>u</i>	Sc I—	1.44	13		5071.491m	25	4.9	<i>s</i>	Ti I	1.46	110	
5064.386		1.2						5071.774	7.5	1.5		C ₂	P 69	0,0	19
5064.658m	79	16.4	<i>S</i>	Ti I	0.05	5		5071.909	3	0.6					
5064.815	3	0.6						5072.080m	80	15.8	<i>w</i>	Fe I	4.28	1089	
5064.974	118	7.9	<i>u</i>	Fe I p (Zr I)	4.26 1.48	1095 62		5072.298	31	6.1	<i>w</i>	Ti II	3.12	113	
5065.030		19.8	<i>u</i>	Fe I	4.26	1094		5072.473	5	1.0					
5065.194m	68	13.4	<i>s</i>	Fe I	3.64	883		5072.677m	60	11.8	<i>w?</i>	Fe I	4.22	1095	
5065.375	4.5	0.9						5072.922m	31	6.5	<i>s</i>	Cr I	0.94	8	
5065.714	2	0.4						5073.170	4.5	0.9					
5065.904	12	2.4	<i>s</i>	Cr I	2.71	60		5073.453	9.5	1.9	<i>o?</i>	C ₂ —	R 41	0,0	17,19
5065.989	19	3.8	<i>S</i>	Ti I	1.44	110		5073.592	4.5	0.9		C ₂	R 41	0,0	19
5066.268	4	0.8		Fe I p	3.63	882		5073.748	5.5	1.1		MgH	Q 35	0,0	20
5066.368	6	1.2						5074.072	1.5	0.3					
5066.727	10	2.0		C ₂	R 43	0,0	19	5074.342	1.5	0.3					
5066.859	7.5	1.5		C ₂	R 43	0,0	19	5074.753m	115	22.7	<i>u</i>	Fe I	4.22	1094	
5067.155m	73	14.4	<i>w</i>	Fe I	4.22	1092		5074.976	10	2.0		C ₂ ?	R 29	1,1	19
5067.504	6	1.2		MgH C ₂	Q 36	0,0	20	5075.164	7	1.4		Fe I p	4.18	1089	
5067.746	24	4.7	<i>s</i>	Cr I	2.71	60		5075.300	28	5.5	<i>s</i>	C ₂ —	P 68	0,0	17,19
5067.829	12	2.4	<i>o?</i>	Ni I	3.80	141		5075.541	5	1.0					
5068.302	10	2.0	<i>S,d</i>	Cr I Ti I	1.00 2.66	20 294		5075.818	4.5	0.9	<i>s?</i>	Sc I	1.43	13	
5068.454	2.5	0.5						5076.093	4.5	0.9		MgH	R 21	0,0	20
5068.771m	129	25.4	<i>s</i>	Fe I	2.94	383		5076.275m	78	13.4	<i>u</i>	Fe I	4.30	1089	
							5076.326	3.6				Ni I	3.65	143	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5076.478	6.5	1.3						5083.032	14	2.8		C ₂ —	R 38	0,0	19
5076.617	15	3.0	<i>s,d</i>	C ₂ MgH	R 40 R 21	0,0 0,0	17,19 20	5083.186	7	1.4		C ₂	R 38	0,0	19
5076.766	6.5	1.3		C ₂	R 40	0,0	19	5083.345m	95	19.8	<i>s</i>	Fe I	0.96	16	
5076.879	4	0.8						5083.535	2.5	0.5					
5077.380	8.5	1.7		C ₂ — Co I?	R 28 3.95	1,1 184	19	5083.703	7.5	1.5	<i>s</i>	Sc I	1.44	13	
5077.55 m			<i>s</i>				13	5083.858	12	2.4					
5077.603	2	0.4		C ₂ ?	R 28	1,1	19	5084.105m	93	18.3	<i>w</i>	Ni I	3.68	162	
5077.834	1	0.2						5084.414	2	0.4					
5078.074	4	0.8	<i>u</i>	C ₂	{P 55 P 56}	{1,1 1,1}	16,19	5084.552	8.5	1.8		{Fe I— C ₂ ?	3.69 R 25	932 1,1	19
5078.180	1	0.2						5084.696	7	1.4		C ₂	P 65	0,0	19
5078.28 m			<i>s</i>	Zr I	1.44	62	13	5084.838	5	1.0		C ₂ ?— MgH	R 25 Q 33	1,1 0,0	19 20
5078.352	5.5	1.1		C ₂	P 67	0,0	19	5085.010	2.5	0.5		C ₂			
5078.455	3.5	0.7						5085.167	3.5	0.7		C ₂	{P 35 P 36}	2,2 2,2	19
5078.539	7	1.4		Fe I? p	3.55	744		5085.340	5.5	1.1	<i>s</i>	Ti I	1.43	109	
5078.711	7.5	1.5		Cr I				5085.489	18	3.5	<i>s</i>	Ni I— Sc I	3.66 1.43	130 13	
5078.981m	93	18.3	<i>s</i>	—Fe I	4.30	1092		5085.679	6	1.1	<i>u</i>	Fe I p	4.18	1093	
5079.230m	100	19.7	<i>s</i>	Fe I	2.20	66		5085.911	2.5	0.5		Fe I p	3.94	963	
5079.544	6	1.2		MgH	Q 34	0,0	20	5086.248	12	2.6	<i>w</i>	C ₂	R 37	0,0	16,19
5079.745S	87	18.7	<i>S</i>	Fe I	0.99	16		5086.398	6.5	1.3	<i>u</i>	C ₂	R 37	0,0	16,19
5079.965m	47	9.2	<i>s</i>	Ni I	1.83	60		5086.623	5	1.0					
5080.111	10	2.0		C ₂	{R 39 R 27}	{0,0 1,1}	19	5086.772	7.5	1.5	<i>s</i>	Fe I p	4.15	1067	
5080.347	25	4.9	<i>u</i>	Fe I				5086.931	3	0.6	<i>s,N</i>	Sc I	1.43	13	
5080.539m	93	18.3	<i>w</i>	Ni I	3.65	143		5087.062m	22	4.3	<i>s</i>	Ti I	1.43	109	
5080.789	9	1.8						5087.254	1.5	0.3		C ₂			
5080.938	12	2.4	<i>s</i>	Fe I	3.27	585		5087.426m	40	8.4	<i>w</i>	Y II	1.08	20	
5081.119m	91	17.5	<i>u</i>	Ni I	3.85	194		5087.847	1	0.2		Co I?	4.02		
5081.358	2	0.4		—Ti I p	1.43	109		5088.006	4.5	0.9		C ₂	P 64	0,0	19
5081.581	8	1.6	<i>S,N</i>	Sc I	1.45	13		5088.158	32	6.3	<i>u</i>	Fe I	4.15	1066	
5081.767	4	0.8		C ₂	P 66	0,0	19	5088.543	26	5.1	<i>s,NN</i>	Ni I—	3.85	190	
5081.852	6	1.2		Fe I p	3.88	962		5088.757	3	0.6		MgH	R 19	0,0	20
5082.053	1	0.2						5088.960	25	4.9	<i>w,d?</i>	Ni I	3.68	162	
5082.190	2.5	0.5		C ₂	R 26	1,1	19	5089.212	14	2.8		C ₂ — C ₂	R 36 R 36	0,0 0,0	15,19 19
5082.349m	58	11.6	<i>w</i>	Ni I	3.66	130		5089.367	7	1.4		C ₂	{R 36 R 23}	0,0 1,1	19
5082.55 a	2.5	0.5		MgH	R 20	0,0	20	5089.831	1.5	0.3		Nd II?	0.20	46	
5082.654	1	0.2		Fe I p	3.11	466									
5082.895	3	0.6		MgH	R 20	0,0	20								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5090.068	0.5	0.1						5097.492m	38	7.4	<i>u</i>	Fe I			
5090.221	7	1.5						5097.711	5.5	1.1		C ₂	{P 46 P 47 R 16}	{1,1 1,1 1,1}	} 19
5090.393	[2.5]	0.5		MgH	Q 32	0,0	20	5097.876	1	0.2		C ₂	P 45	1,1	19
5090.782S	85	16.7	<i>u</i>	Fe I	4.26	1090		5098.132	16	2.9	<i>s</i>	-C ₂	R 33	0,0	19
5090.976	6	1.2		C ₂ ?	P 61	0,0	19	5098.318	7.5	1.5	<i>u</i>				
5091.179	2	0.4		C ₂	R 22	1,1	19	5098.578m	70	13.7	<i>u</i>	Fe I	3.93	984	
5091.302	6	1.3		C ₂	R 22	1,1	19	5098.707m	102	20.0	<i>s</i>	Fe I	2.18	66	
5091.491	2	0.4		C ₂	R 22	1,1	19	5098.930	9	1.8					
5091.725	7.5	1.6		Fe I	{3.41 3.55}	{717 745}		5099.081	52	10.2	<i>s,N</i>	Fe I	3.98	965	
5091.888	9.5	2.1	<i>s,d</i>	Cr I	1.00	20		5099.329m	70	13.7	<i>u,N</i>	Ni I (Sc I)	3.65 1.44	141 13	
5092.114	2.5	0.5						5099.575	10	2.0		C ₂	R 18	1,1	19
5092.309	14	2.9		C ₂ -	R 35	0,0	19	5099.788	7	1.4		C ₂	P 60	0,0	19
5092.485	[8]	1.6	<i>o?</i>	C ₂	R 32	0,0	17,19	5099.936m	79	15.5	<i>w?</i>	Ni I	3.68	161	
5092.803	6.5	1.3	<i>s</i>	Nd II-	0.38	48		5100.239	4.5	0.8					
5093.284	1.5	0.3		C ₂ ?	R 21	1,1	19	5100.466	1.5	0.3					
5093.450	2.5	0.5	<i>s</i>	Cr I	1.03	20		5100.656	17	3.1		Fe II	2.81	35	
5093.684	5.5	1.2		C ₂ ?	{P 48 P 49}	{1,1 1,1}	} 19	5100.854	12	2.4		Fe II	5.91	185	
5094.026	[8.5]	1.9	<i>u?</i>	C ₂ -	P 62	0,0	17,19	5100.945	10	2.0		C ₂ Fe II	R 32	0,0	19
5094.418m	25	5.5	<i>w</i>	Ni I	3.83	164		5101.083	9	1.8		C ₂ - Sc I	{R 32 R 17 1.45}	{0,0 1,1 13}	} 19
5094.612	1	0.2						5101.275	5	1.0		C ₂	R 17	1,1	19
5094.85 a	3	0.6		MgH	R 18	0,0	20	5101.486	4.5	0.9		C ₂	R 17	1,1	19
5094.945	10	2.0	<i>s,d</i>	Co I	2.04	92	17	5101.60 a	3.5	0.7		C ₂	P 43	1,1	19
5095.03 m	1	0.2	<i>s</i>					5101.823r	3	0.7					
5095.176	[5.5]	1.1		-C ₂	R 34	0,0	15,19	5102.013r	0.5	0.1		C ₂			
5095.341	7.5	1.7		MgH	R 18	0,0	20	5102.243	3	0.6		Fe I p	2.22	65	
5095.503	1	0.2		C ₂	R 18	1,1	19	5102.431	12	2.2		C ₂ ?	P 59	0,0	19
5095.665	2.5	0.5		C ₂	R 17	1,1	19	5102.673	3	0.6					
5095.892	4.5	0.9		C ₂	{P 47 P 48}	{1,1 1,1}	} 19	5102.973m	42	8.4	<i>u</i>	Ni I	1.68	49	
5096.046	1.5	0.3		C ₂				5103.125	3.5	0.7		Sm II?	1.17		
5096.183	3	0.6		MgH	Q 31	0,0	20	5103.391	6	1.2		C ₂	{P 43 P 44}	{1,1 1,1}	} 19
5096.487	1	0.2						5103.551	1.5	0.3		C ₂	P 42	1,1	19
5096.586	1	0.2	<i>s?</i>					5103.743	11	2.2		C ₂ - C ₂	R 31 R 31	0,0 0,0	19 19
5096.740	5.5	1.1	<i>s</i>	Sc I	1.43	13		5103.912	4	0.8		C ₂	R 31	0,0	19
5096.865	35	6.9	<i>u</i>	Ni I	3.74	111									
5097.005	90	17.9	<i>u</i>	Fe I	4.28	1092									
5097.321	12	2.4	<i>u</i>	Cr II	3.71	24									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5104.033	25	4.9	s	Fe I	3.02	465		5111.253	4	0.8		MgH C ₂	Q 28 R 11	0,0 1,1	20 19
5104.195	25	4.9	w	Fe I	4.18	1092									
5104.440	29	5.7	w	Fe I	4.28	1090		5111.367	7	1.9		C ₂	{P 37 P 38 P 39}	1,1 1,1 1,1	19
5104.645	3.5	0.7		C ₂ ?	R 15	1,1	19	5111.634	9	1.8		MgH C ₂	Q 28 R 28	0,0 0,0	20 19
5104.896	2.5	0.5													
5105.091	2	0.4		C ₂	R 15	1,1	19	5111.740	6.5	1.3		C ₂ ?	R 28	0,0	19
5105.182	2.5	0.5		C ₂	P 41	1,1	19	5111.871	8	1.6		C ₂	R 25	0,0	19
5105.364	7.5	1.5		C ₂	P 58	0,0	19	5112.279	8	1.6	u	Zr II	1.66	95	
5105.545m	82	16.0	u	Cu I	1.39	2		5112.490	3.5	0.8	s	Cr I	1.00	19	
5105.752	3	0.6						5112.648	3	0.6		MgH	R 15	0,0	20
5105.957	1	0.2						5112.779	1	0.2		C ₂	R 10	1,1	19
5106.009	0.5	0.1						5112.983	4	0.8		C ₂	{P 37 P 38}	1,1 1,1	19
5106.238	2.5	0.5		V II	2.56	127									
5106.379	4.5	0.8		C ₂	R 30	0,0	19	5113.127	23	4.5	s,d	{Cr I MgH}	2.71 R 15	60 0,0	17 20
5106.451	10	2.0		Fe I? C ₂	R 30	0,0	19	5113.246	8.5	1.7		Co I	2.08	91	
5106.601	9.5	1.9		MgH	Q 29	0,0	20	5113.447m	23	4.5	s	Ti I	1.44	109	
5106.877	4.5	0.9		MgH	R 16	0,0	20	5113.753	1	0.2					
5107.457m	91	17.8	s	Fe I	0.99	16		5114.028	1.5	0.3					
5107.651m	97	19.0	s	Fe I	1.56	36		5114.263	16	3.1	o	-C ₂	R 27	0,0	19
5107.884	11	1.8		C ₂ - C ₂	P 57 R 13	0,0 1,1	19 19	5114.505	16	3.1		Fe I p La II	4.59 0.23	1242 36	
5107.977	3	0.6		C ₂	P 55	0,0	19	5115.001	2	0.5		C ₂	R 8	1,1	19
5108.187	4	0.8		C ₂	R 13	1,1	19	5115.199	4	0.8					
5108.394	18	3.5	u,N					5115.398m	72	14.1	w?	Ni I	3.83	177	
5108.629	3.5	0.7						5115.672	6	1.2					
5108.85 m	1.5	0.3	s				16	5115.790	23	4.5	u	Fe I	3.57	789	
5108.912	4.5	0.9		Co I? Cr I	3.93 2.71	181 60		5115.878	5	1.0		C ₂	R 8	1,1	19
5109.122	10	2.0		C ₂ - C ₂	R 29 R 29	0,0 0,0	19 19	5116.049	3.5	0.7		Cr II	3.71	24	
5109.306	4.5	0.9		C ₂	R 29	0,0	19	5116.188	4.5	0.9		MgH- C ₂	Q 27 R 7	0,0 1,1	20 19
5109.435m	5	1.0	S	Ti I	1.44	109		5116.473	7	1.4		MgH	Q 27	0,0	20
5109.657S	69	13.7	s	Fe I	4.30	1089		5116.662	7.5	1.5		C ₂ ?	R 26	0,0	19
5109.772								5116.772	12	2.3		-C ₂	R 26	0,0	19
5110.017	4	0.8		C ₂ ?	R 12	1,1	19	5116.902	6.5	1.3		C ₂	R 26	0,0	19
5110.372	126	10.9		Fe I p	3.57	790		5117.166	3	0.6		Ce II?	1.40	23	
5110.435		18.7	s	Fe I	0.00	1		5117.348	3.5	0.7		C ₂ ?	R 6	1,1	19
5110.763		5.3	s	Cr I	2.71	60		5117.764	2	0.4					
5110.972	2.5	0.5		C ₂	R 11	1,1	19	5117.942	21	4.1	s	Mn I	3.13	32	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5118.073	7.5	1.5		C ₂	P 53	0,0	19	5124.197	2.5	0.5		C ₂ Fe I	P 26 4.19	1,1 1035	19
5118.184	9	1.8		C ₂ ?	P 51	0,0	19	5124.389	3.5	0.7		MgH	R 13	0,0	20
5118.360	3	0.6		MgH	R 14	0,0	20	5124.617	20	3.7	s,N	Fe I p	3.30	585	
5118.557	1	0.2						5124.810	10	1.6		C ₂ ?	P 27	1,1	19
5118.822	5	0.9		MgH	R 14	0,0	20	5124.92 a		0.4	s	C ₂ ?	P 27	1,1	16,19
5119.120	14	2.7	o	Y II	0.99	20		5125.128	100	19.5	u	Fe I	4.22	1090	
5119.212	4	0.8	o	C ₂ ?	R 25	0,0	19	5125.250	52	10.1	u	Ni I	3.68	160	
5119.25 m	2	0.4	s					5125.475	11	2.1		C ₂ MgH	P 26 Q 25	1,1 0,0	19 20
5119.379	7	1.3		C ₂	R 25	0,0	19	5125.637	10	2.0		Si I?	5.08		
5119.652	2.5	0.6						5125.839	11	2.1		MgH	Q 25	0,0	20
5119.773	1.5	0.3		C ₂				5125.990	8	1.6		C ₂ — C ₂	R 22 P 25	0,0 1,1	19 19
5119.903	3.5	0.8		Fe I p	3.88	960		5126.199m	75	14.6	u	Fe I (Co I)	4.26 3.62	1089 170	
5120.111	2	0.4						5126.513	3	0.6		Cr I	3.37		
5120.346	14	2.7		Fe II p C ₂	2.83 R 2	35 1,1	19	5126.686	5	1.0		C ₂ ?	P 24	1,1	19
5120.420	31	6.0	s	Ti I	2.58	288		5126.864	6.5	1.3		C ₂	P 22	1,1	19
5120.633	8.5	1.6		—C ₂	P 52	0,0	19	5127.018	4	0.8		C ₂			
5120.729	3.5	0.7		C ₂	P 52	0,0	19	5127.189	4.5	0.9		C ₂	P 23	1,1	19
5120.886	7.5	1.5		MgH Fe I p	Q 26 4.44	0,0 1150	20	5127.368m	85	17.6	s	Fe I	0.91	16	
5121.030	3	0.6						5127.688	20	3.9	s	Fe I p	0.05	1	
5121.226	3.5	0.7		MgH	Q 26	0,0	20	5127.874	9	1.7		Fe II C ₂	5.57 P 20	167 1,1	19
5121.438	11	2.1	w?	Ni I	3.94	177		5128.081	18	3.3		C ₂ ?	P 21	1,1	19
5121.563	34	6.6	u	Fe I	4.28	1095						Ni I	3.70	113	
5121.649	71	13.9	u	Fe I	4.28	1095		5128.201	7	1.4		C ₂ ?	{R 21 P 21}	{0,0 1,1}	{19
5121.982	5	1.0		Fe I? p	3.55	745		5128.316	5.5	1.1		C ₂	R 21	0,0	19
5122.121	11	2.1	s	Cr I	1.03	19		5128.494	8.5	1.7	s	C ₂ — V I	{R 21 P 20 2.29}	{0,0 1,1 123}	{17,19
5122.309	5	1.0		C ₂ ?	P 30	1,1	19	5128.642	3	0.6		C ₂ ?	P 18	1,1	19
5122.447	2	0.4		C ₂ ?	P 30	1,1	19	5128.913	6.5	1.3		C ₂	P 17	1,1	19
5122.798	19	3.5		C ₂ Co I	P 51 3.66	0,0 170	19	5129.162m	70	13.6	w	Ti II	1.89	86	
5123.006	11	2.1	u	La II	0.32	36		5129.377m	62	12.1	w	Ni I	3.68	159	
5123.222	29	5.7	u	Y II	0.99	21		5129.634m	48	9.4	w	Fe I	3.94	965	
5123.291	13	2.5	o	Fe I	{3.30 4.41}	{629 1150}		5129.823	4	0.8		MgH	R 12	0,0	20
5123.470	17	3.3	S	Cr I	1.03	20		5129.945	2.5	0.5		MgH	Q 24	0,0	20
5123.730m	101	20.1	s	Fe I	1.01	16		5130.135	2.5	0.5					
5123.901	5	1.0		MgH	R 13	0,0	20	5130.260	8	1.6		C ₂	R 20	0,0	19
5124.051	19	3.1		C ₂	R 23	0,0	19								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5130.372	23	4.5	w?	Ni I	3.84	177		5137.867	2	0.4					
5130.588	15	2.9		C ₂ — Nd II	R 20 1.30	0,0 75	19	5137.961	3.5	0.8		Cr I	3.42	207	
5130.930	1.5	0.3		Fe I p	4.31	1149		5138.110	7.5	1.4		C ₂	R 16	0,0	19
5131.308	11	2.1		Ti II p	1.89	86		5138.347	11	2.1		MgH	Q 22	0,0	20
5131.476m	72	15.3	s?	Fe I	2.22	66		5138.516	11	1.9		C ₂	R 16	0,0	19
5131.602	11	2.1		C ₂	P 47	0,0	19	5138.717	13	2.4	s	Cr I— MgH	0.98 Q 22	19 C.0	17 20
5131.773m	42	8.2	u	Ni I	3.70	114		5138.869	6.5	1.3		Cr I?	3.37		
5132.165	2	0.4						5139.021	13	2.5					
5132.351	7.5	1.5	u	C ₂	R 19	0,0	16,19	5139.261m	137	26.6	s	Fe I	3.00	383	
5132.501	5	1.0	s	C ₂ —	R 19	0,0	19	5139.473m	152	29.6	s	Fe I	2.94	383	
5132.674	24	4.7	w	Fe II p	2.81	35		5139.648	46	8.9	s	Cr I	3.42	207	
5132.950	3.5	0.7	s	Ti I	2.25	230		5139.924	13	2.5	o?	C ₂ ?	R 15	0,0	19
5133.038	1	0.2						5140.160	9	1.7	s?,N	C ₂ ?— MgH?	R 15 R 10	0,0 0,0	19 20
5133.198	[6]	1.2		Fe I p	3.60	818		5140.380	5.5	1.1		C ₂	R 15	0,0	19
5133.478	18	3.5		Co I	3.93	180		5140.823	17	3.1	w?	Fe I			
5133.699m	165	30.4	u	Fe I	4.18	1092		5140.925	2.5	0.5	s				17
5133.820		3.5		C ₂	P 44	0,0	19	5141.025	2.5	0.5	s				
5134.072	6	1.4						5141.211	13	2.4		C ₂	P 42	0,0	19
5134.205	4.5	0.9		MgH	Q 23	0,0	20	5141.323	7.5	1.6		C ₂	P 42	0,0	19
5134.333	8.5	1.7		C ₂	R 18	0,0	19	5141.540	5	1.0		Fe I p	3.69	930	
5134.528	18	3.5		MgH	{Q 23 R 11}	{0,0 0,0}	20	5141.746m	90	16.9	s	Fe I	2.42	114	
5134.683	17	3.3		C ₂	R 18	0,0	19	5141.902	7.5	1.5		C ₂	R 14	0,0	19
5134.855	3	0.6						5142.109	7	1.4		C ₂	R 14	0,0	19
5134.855	3	0.6						5142.276	6.5	1.3	s	Cr I	2.71	60	
5135.104	2	0.4		MgH	R 11	0,0	20	5142.32 a	7	1.4		MgH	Q 21	0,0	20
5135.184	6.5	1.2		Y I?	2.29			5142.530m	117	22.8	s,d?	Fe I	{4.26 4.30}	{1092 1090}	15
5135.582	10	1.9	o	C ₂ —	P 45	0,0	19	5142.786m	89	17.3	w	Ni I	3.70	161	
5135.707	6.5	1.3		C ₂	P 43	0,0	19	5142.936m	111	21.6	s	Fe I	0.96	16	
5135.931	1.5	0.3		Cr I	3.37			5143.121	14	2.7					
5136.099	20	3.9	s	Fe I	4.19	1036		5143.342	8.5	1.6		C ₂	R 13	0,0	19
5136.273	11	2.0		C ₂	R 17	0,0	19	5143.593	8.5	1.7		C ₂	R 13	0,0	19
5136.455	8	1.5		C ₂	R 17	0,0	19	5143.728	23	4.3	s	Fe I	2.20	65	16
5136.664	5.5	1.1		C ₂	R 17	0,0	19	5143.864	6	1.2		C ₂	R 13	0,0	19
5136.800	14	2.7	o	Fe II	2.84	35		5144.039	4	0.8					
5137.080m	92	17.9	s	Ni I	1.68	48		5144.374	4.5	0.9					
5137.393m	102	19.8	u	Fe I	4.18	1090		5144.585	12	2.5	o?	C ₂ —	P 40	0,0	19
5137.579	20	3.9		C ₂	P 44	0,0	19	5144.64 m			s,N	Cr I	2.71	60	13
5137.696	8	1.6		C ₂ —	P 44	0,0	19								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5144.674	21	4.1		MgH C ₂ —	R 9 P 40	0,0 0,0	20 19	5151.174	7	1.4		C ₂	R 8	0,0	19
5144.927	6.5	1.3		C ₂	R 12	0,0	19	5151.463	6	1.1					
5145.102m	44	9.2	u	Fe I	2.20	66		5151.917m	100	19.8	S	Fe I	1.01	16	
5145.237	7	1.4		C ₂	R 12	0,0	19	5152.190m	38	6.8	S	Ti I	0.02	4	
5145.468m	37	6.4	s	Ti I	1.46	109		5152.529	4	0.8		C ₂	R 5	0,0	19
5145.740	9.5	1.8		Fe I p	3.69	931		5152.959	4	0.8		C ₂ ?	R 7	0,0	19
5146.119	37	6.6	o?	Fe II p C ₂	2.83 {P 38 P 39}	35 0,0 0,0	17 19	5153.168 5153.241m	56	3.2 8.5	u,N	C ₂	P 34	0,0	19
5146.314	27	5.2	u?	Fe I	4.37	1150	17	5153.410				24	4.6	s,N	Na I
5146.491m	76	14.8	u	Ni I	3.70	162		5153.505	21	4.1		Cr II	3.76	24	
5146.776	28	5.4	o?	Co I— C ₂	3.57 R 11	170 0,0	15,17 19	5153.679	7.5	1.5		MgH	Q 18	0,0	20
5147.103	24	5.0	o	Fe I Fe II				5153.756	2.5	0.5		C ₂ ?	R 6	0,0	19
5147.290	4	0.8						5153.818	3.5	0.7		C ₂	R 4	0,0	19
5147.482m	36	6.7	S	Ti I	0.00	4		5154.075m	73	14.2	u	Ti II	1.57	70	
5147.697	18	3.0		C ₂	P 38	0,0	19	5154.337	13	2.5	o?	{C ₂ Fe II p	P 33	0,0	17,19
5147.823	10	1.9		C ₂	P 36	0,0	19	5154.412	28	5.4				2.84	35
5148.051m	74	14.4	u	Fe I	4.28	1090		5154.747	4.5	0.9		MgH	R 7	0,0	20
5148.237m	89	17.3	s	Fe I	4.26	1095		5154.881	3.5	0.7		Co I?	4.15		
5148.458	3.5	0.7		C ₂ ?	R 10	0,0	19	5154.951m	52	9.3	u	Ni I	3.90	206	17
5148.549a	3	0.8		C ₂ ?	R 10	0,0	19	5155.132m	14	2.5	u	C ₂ ?	P 32	0,0	19
5148.676	13	2.5	s	Ni I	3.68	158		5155.524	78	14.9	s?	Ni I	3.90	210	
5148.846	14	2.4	s,N	Na I	2.10	8		5155.771m	17	3.3		Fe II			
5149.095	18	3.5	w?	C ₂ ?	P 37	0,0	19	5156.072	10	1.9		Co I	4.06	180	
5149.214	9	1.7	u	C ₂ ?	P 37	0,0	19	5156.356	16	3.1		C ₂	P 31	0,0	19
5149.343	4	0.8		C ₂	R 8	0,0	19	5156.557	26	4.8		MgH—	Q 17	0,0	20
5149.520	6	1.1		MgH Fe I— Fe II	R 8 3.94	0,0 962	20	5156.652	6.5	1.3		MgH	Q 17	0,0	20
5149.796	11	2.1		Co I MgH	1.74 Q 19	39 0,0	20	5156.997	18	3.5		La II	2.21	97	
5150.042	2.5	0.5		MgH	R 8	0,0	20	5157.204	12	2.3	s,d	C ₂	P 30	0,0	17,19
5150.197	22	3.9		MgH Fe I p	Q 19 3.57	0,0 789	20	5157.424	12	2.3	u	C ₂ ?	P 30	0,0	19
5150.359	4	1.0						5157.619	19	3.5	u	Ni I	3.61	111	
5150.563	13	2.4		C ₂	P 36	0,0	19	5157.742			S,N				13
5150.674	9.5	1.8		C ₂	P 36	0,0	19	5157.984	1	0.2		C ₁ —	P 29	0,0	19
5150.852S	114	20.3	S	Fe I	0.99	16		5158.30 m	11	2.1	o	C ₂	P 29	0,0	19
5150.938		3.7		Fe II p	2.85	35		5158.37 a	6	1.3		C ₂	P 29	0,0	19
								5158.664	4.5	0.9		Co I	4.05	188	
								5158.860	0.5	0.1	s				
								5158.93 m	65	13.4	w	Fe I	4.28	1091	
								5159.065S							

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5159.282	4	0.8		MgH	R 6	0,0	20	5164.913	22	4.2	s?	C ₂	{P 17 P 18 4.14	{0,0 0,0 1033	}17,19
5159.464	12	2.3	w?	C ₂ —	P 28	0,0	16,19	5165.035	29	5.6		C ₂ ?	P 17	0,0	19
5159.605	6	1.4	s					5165.128	15	2.9		C ₂ —	{P 16 P 17 1.71	{0,0 0,0 39	}19
5159.779	4	0.8		MgH	Q 16	0,0	20	5165.248	17	3.3		C ₂	{P 15 P 16	{0,0 0,0	}19
5159.966	4	0.8		Fe I p	4.30	1095		5165.415m	87	18.0	w	Fe I	4.22	1089	
5160.124	4	0.8		Fe I?				5165.581	9	1.7		MgH	Q 14	0,0	20
5160.244	16	3.1		—C ₂	P 27	0,0	19	5165.963	5	1.1		MgH	Q 14	0,0	20
5160.387	6	1.2		C ₂	P 27	0,0	19	5166.284m	115	22.2	S	Fe I (Cr I)	0.00 3.43	1 207	
5160.568	2.5	0.5						5167.327				Fe I	0.00	1	
5160.835	12	2.3		Fe II	5.57	167		5167.508m				Mg I	2.71	2	
5161.028	16	3.1		C ₂	P 26	0,0	19	5167.718	18	6.4	u	Fe I p	3.41	717	
5161.179	16	3.1	w?	Fe II p— C ₂ ?	2.85 P 24	35 0,0	16 19	5167.954	4.5	1.2		Cr I	3.43	207	
5161.28 a	4.5	0.9						5168.194	8	1.8		MgH Fe I p	Q 13 3.94 3.94	0,0 964 960	20
5161.683	6	1.2		C ₂ ?	P 25	0,0	19	5168.663m	67	13.7	u	Ni I	3.70	112	
5161.764	14	2.7	u?	C ₂	P 25	0,0	{15,16, 19	5168.908m	114	23.0	s	Fe I	0.05	1	
5161.78 m			s	Cr I	2.71	60	13	5169.050m	154	31.0	w	Fe II	2.89	42	
5161.856	9	1.7		C ₂ ?	P 25	0,0	19	5169.300	30	6.0	w	Fe I p	4.07	1032	
5161.987	12	2.3						5169.43 m	10	2.0	s				
5162.281m	154	31.4	w	Fe I	4.18	1089		5169.495	3.5	0.7					
5162.525	25	4.8		C ₂	P 24	0,0	19	5169.707	4	0.8		Dy II			
5162.733	16	3.1		MgH	Q 15	0,0	20	5170.106	3	0.6		Fe I p	4.59	1241	
5162.907	21	4.1		C ₂	P 23	0,0	19	5170.46 m	2.5	0.5	s				
5163.040	14	2.7		C ₂	P 23	0,0	19	5170.479	3	0.6					
5163.160	9	1.7		C ₂ — MgH	P 7 Q 15	0,0 0,0	19 20	5170.598	6	1.2		MgH	Q 12	0,0	20
5163.415	14	2.7		C ₂	P 22	0,0	19	5170.767	32	6.6	w	Fe I			
5163.591	14	2.7		C ₂	P 22	0,0	19	5171.028	5	1.0		Ru I MgH	0.93 Q 12	11 0,0	20
5163.834	13	2.5		C ₂	P 21	0,0	19	5171.610m	160	32.9	s?	Fe I	1.48	36	
5164.001	11	2.1		C ₂	P 21	0,0	19	5172.221	13	5.4		Fe I p	2.56	210	
5164.13 a	6	1.2						5172.698m	1259	234	S	Mg I	2.71	2	
5164.236	18	3.5		C ₂	P 20	0,0	19	5173.326	2.5	0.8		MgH	Q 11	0,0	20
5164.391	10	1.9		C ₂	P 20	0,0	19	5173.487	3	0.9	s	Fe I			
5164.552m	48	9.3	u	Fe I	4.43	1166		5173.749m	67	13.5	s	Ti I	0.00	4	
5164.680	15	2.9	u	Fe I p C ₂	2.59 P 10	210 0,0	19	5173.911	3.5	0.8		Pr II	0.97	35	
5164.781	17	3.3	u	C ₂	{P 11 P 18	{0,0 0,0	}19								

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identifi- cation	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identifi- cation	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5174.035	3	0.7						5184.829	1.5	0.4		MgH	P 31	0,0	20
5174.427	5.5	1.2						5185.035	2.5	0.6	<i>S,d</i>	— MgH	Q 3	0,0	17,20
5174.943	4	0.8		MgH	Q 10	0,0	20	5185.75 m	1.5	0.3	<i>S,d</i>	MgH—	Q 2	0,0	20
5175.252	5	1.0						5185.908m	58	12.7	<i>w</i>	Ti II	1.89	86	
5175.411	4.5	0.9		MgH	Q 10	0,0	20	5186.109	3	0.6					
5175.749	5.5	1.1		Fe I p— Ni I? p	0.09 3.85	1 188		5186.331	7	1.3	<i>s,d</i>	Ti I—	2.12	183	
5176.026	6	1.2						5186.557	16	3.1	<i>u</i>	Ni I	3.90	205	
5176.138	9.5	1.8		Co I	2.08	92		5187.11 m	2	0.4	<i>s</i>				
5176.565m	56	10.8	<i>w</i>	Ni I	3.90	209		5187.263	3	0.6					
5176.792	10	1.9		V I— MgH	Q 9	0,0	20	5187.457	5.5	1.1		Ce II	1.21	15	
5177.011	4	0.8						5187.838r	8	1.5		Ni I	3.70	159	
5177.241	24	4.6	<i>u</i>	Fe I	3.69	930		5187.917m	50	10.4	<i>w?</i>	Fe I	4.14	1032	
5177.411	20	3.9	<i>u</i>	Cr I	3.43	201		5188.062	7	1.3		MgH	P 30	0,0	20
5177.610	4	0.8		MgH	P 33	0,0	20	5188.238	5	1.0		La II	2.45	95	
5177.811	2	0.4		Cr I	3.42	206		5188.407	5.5	1.1					
5177.994	2.5	0.5						5188.698m	202	20.5	<i>w</i>	Ti II	1.58	70	
5178.480	5.5	1.1		MgH	Q 8	0,0	20	5188.852m		21.6	<i>s</i>	Ca I	2.93	49	
5178.801	24	4.6	<i>w</i>	Fe I	4.39	1166		5189.136	7.5	1.4					
5179.125	18	3.5	<i>o</i>	Ni I	3.90	202		5189.338	1.5	0.3					
5179.530	2.5	0.5						5189.581	2	0.4	<i>s</i>	Si I?— Ti I p	2.24	215	
5179.800	7.5	1.5		Nd II				5189.785	1.5	0.3					
5180.069m	50	9.4	<i>u</i>	Fe I	4.47	1166		5190.19 m			<i>s</i>				13,17
5180.405	6	1.2						5190.26 a	1.5	0.3					
5180.583	4.5	0.9		MgH	Q 7	0,0	20	5190.50 a to 5190.90 a	7	1.3		MgH	P 29	0,0	20
5180.875	2.5	0.5		MgH	P 32	0,0	20	5191.078		9	1.7		MgH	P 29	0,0
5181.165	4.5	0.9						5191.465m	160	32.4	<i>s</i>	Fe I	3.04	383	
5181.330	18	3.7	<i>u</i>	MgH Fe I?	{P32 Q 6}	{0,0 0,0}	17,20	5191.602	18	3.5		Zr II Fe II p	1.76 3.20	95 52	
5181.545	6	1.3						5191.747	18	3.5					
5181.844	8.5	1.8						5191.868	4.5	0.9					
5181.957	3.5	0.8		MgH	Q 6	0,0	20	5191.998	42	8.1	<i>s</i>	Cr I	3.39	201	
5182.241	2.5	0.6						5192.353m	176	36.6	<i>s</i>	Fe I	3.00	383	
5182.740r	0.5	0.2		Ni I?	4.09			5192.497	25	4.8		Ni I	3.70	111	
5183.619m	1584	303	<i>S</i>	Mg I	2.72	2		5192.621	14	2.7	<i>s</i>	Nd II	1.14	75	
5184.196	9	4.4		Fe I p	4.31	1147		5192.755	5	1.0					
5184.273m	42	14.5	<i>w</i>	Fe I	4.28	1089		5192.978m	80	15.8	<i>s</i>	Ti I	0.02	4	
5184.562m	43	11.6	<i>u</i>	Ni I Cr I	3.70 3.41	159 201		5193.177	5	1.0					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5193.336	3	0.6		MgH	P 28	0,0	20	5204.246	8	1.5		MgH	P 23	0,0	20
5193.502	10	1.9	s	Cr I	3.42	206		5204.513r	} 212	{ 28.8 21.8	} s,d	{ Cr I Fe I	0.94 0.09	7 1	
5193.863	2	0.4		MgH	P 28	0,0	5204.601r								
5194.056	10	1.9	s	Ti I	2.10	183		5204.945	6.5	1.2		Fe I	2.99	407	
5194.77 m			s	V I?	{2.29 2.26	{125 125	} 13	5205.15 a	2	0.4		MgH	P 8	0,0	20
5194.949m	126	25.0	s	Fe I	1.56	36			5205.302	6	1.2		Fe I p	4.26	1112
5195.480m	114	21.9	u	Fe I	4.22	1092		5205.730m	52	10.0	u	Y II	1.03	20	
5196.065m	78	15.0	w	Fe I	4.26	1091		5206.044m	} 216	{ 36.6 8.4	} S u	Cr I (Ti I)	0.94 2.49	7 276	
5196.268	1	0.2		Fe I p	2.95	406		5206.202							
5196.452	34	6.5	s?	Cr I	3.45	207		5206.545	17	3.3	s	Cr I p	3.43	206	
5196.578	32	6.2	s	Cr I Mn I	{2.71 3.45 3.13	{58 207 32		5206.811	5.5	1.1	w?	Fe I p	4.28	1095	
5197.170	25	4.8	u	Ni I	3.90	204		5207.286	2	0.4		MgH	P 10	0,0	20
5197.376	4	0.8	s					5207.623	4.5	0.9		MgH	P 21	0,0	20
5197.576m	80	15.4	w	Fe II	3.23	49		5207.864	8	1.5	s,N	Ti I	2.09	183	
5197.789	4.5	0.9						5207.935m	19	3.6	u	Fe I	3.63	880	
5197.942	37	7.1	u	Fe I	4.30	1091		5208.105	12	2.5	u				
5198.342	2	0.4		MgH	P 26	0,0	20	5208.432m	247	47.4	S	Cr I	0.94	7	
5198.718S	87	17.9	s	Fe I	2.22	66		5208.601m	117	22.5	w?	Fe I	3.24	553	
5198.866r	5.5	1.1		MgH Fe I	P 26 3.55	0,0 743	20	5209.09 a	4	0.8		MgH	P 19	0,0	20
5199.600	3.5	0.7	s,d	-MgH	P 5	0,0	17,20	5209.24 a	4	0.8		MgH	P 12	0,0	20
5199.718	3	0.6		V II	2.27	55		5209.609	1	0.2		MgH	P 19	0,0	20
5200.185	22	4.4	s,N	Cr I	3.38	201		5209.777	3	0.6		MgH	{P 12 P 13 P 18	{0,0 0,0 0,0	} 20
5200.415m	37	7.1	w?	Y II	0.99	20		5209.892	9.5	1.8	u	Fe I	3.24	584	
5200.824	3	0.6		MgH	P 6	0,0	20	5210.043	3.5	0.7		Co I	3.41	167	
5201.095	11	2.1	s	Ti I	2.09	183	17	5210.257	4.5	0.9	S,N	MgH	{P 14 P 17 P 18	{0,0 0,0 0,0	} 16,20
5201.294	3	0.6						5210.392m	86	17.3	S	Ti I	0.05	4	
5201.606	3.5	0.7	S,d	MgH	P 6	0,0	17,20	5210.851	12	2.3		Cr II	3.76	24	
5201.82 m			s				13	5210.939	3.5	0.7		MgH	{P 15 P 16	{0,0 0,0	} 20
5201.931	3.5	0.7						5211.206	8	1.5	s	Ti I	0.84	37	
5202.00 a	6	1.2						5211.535	29	5.8	w	Fe I— Ti II	2.59	103	
5202.082	11	2.1						5211.816	3	0.6		Co I?	3.95	184	
5202.273	} 155	14.9	u?	Fe I	4.26	1090		5212.231	10	1.9	s,N	Cr I	3.32	189	
5202.348		21.8	u?	Fe I	2.18	66		5212.27 m	6	1.2	s	Ti I	2.25	215	
5202.781	2	0.4	s	MgH	P 7	0,0	16,20	5212.346	4.5	0.9		Nd II	0.20	44	
5202.990	2.5	0.5		MgH	P 24	0,0	20								
5203.513	3.5	0.7	s,d	-MgH	P 7	0,0	17,20								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5212.691	21	4.0	w,d?	Co I	3.51	170		5223.190	26	5.0	s	Fe I	3.63	880	
5212.996	5	1.0	s	Ti I?	2.23	215		5223.368	1	0.2		Fe I?			
5213.352	9	1.5	w?	Fe I p	4.39	1165		5223.543	4	0.8					
5213.57 a	2	0.4						5223.628	11	2.1	S	Ti I	2.09	183	
5213.812	7.5	1.4	u	Fe I	3.94	962		5223.896	2.5	0.5	s				
5214.130	16	3.5	s	Cr I	3.37	193		5224.074	10	1.9	s	Cr I	3.41	201	
5214.616	17	2.9	s,N	Cr I	3.32	189		5224.16 m	1	0.2	s	Ti I	0.83	37	
5214.732	3	0.6						5224.310m	36	6.9	S	Ti I	2.13	183	
5215.188m	116	24.7	s	Fe I	3.26	553		5224.551	26	5.0	S	Cr I— Ti I	{2.71 3.37 2.10}	{59 193 183}	
5215.571	26	5.0	w				16								
5215.885	1.5	0.3		V II?	2.27	55		5224.725	1.5	0.3					
5216.283m	108	22.2	s	Fe I	1.61	36		5224.937							
5216.484	29	5.6	u	Ni I	3.74	113		5225.032	80	{10.0 6.2}	{S,N s}	{Ti I— Cr I Cr I}	{2.12 3.45 3.43}	{183 201 201}	
5216.853	1	0.2						5225.348	2	0.4					
5217.396m	102	20.7	s	Fe I	3.21	553		5225.534S	68	12.4	S	Fe I	0.11	1	
5217.675	2.5	0.5		Fe I p	3.98	965		5225.713	3.5	0.7					
5217.870	43	2.6						5225.813	16	3.1	s	Cr I	2.71	58	
5217.922		6.1	u	Fe I	3.64	880		5226.061	17	3.2	u	Fe I	3.41	716	
5218.09 m			s	Ti I			13	5226.209	12	2.3					
5218.209m	48	9.8	u	Cu I	3.82	7		5226.384	10	1.9		Fe I p	2.95	406	
5218.516	3	0.6		Fe I p	4.58	1240		5226.545m	94	18.4	w?	Ti II	1.57	70	
5219.028	2.5	0.5		Pr II	0.79	37		5226.870m	160	32.5	s	Fe I (Cr I)	{3.04 3.37}	{383 193}	
5219.706m	25	4.6	S	Ti I	0.02	4		5227.192m	277	53.4	u	Fe I	{1.56 (2.42)}	{37 114}	
5219.883	2.5	0.5						5227.473	2.5	0.5					
5220.086	14	2.7	u	Cu I	3.82	7		5227.737	5	1.0	s	Cr I	2.71	58	
5220.296	26	5.0	u	Ni I	3.74	114		5227.881	2.5	0.5		Ti II p	2.60	103	
5220.585	3.5	0.7						5228.103	22	4.2	s	Cr I	3.37	193	
5220.912	9.5	1.8	s	Cr I	3.38	201		5228.333m	60	11.5	u	Fe I	4.22	1091	
5221.039	19	3.6	s,d?	—Fe I	4.29			5228.562	7.5	1.4					
5221.763	27	5.0	s	{Cr I Fe I}	{3.37 3.27}	{193 628}		5228.60 m			s				
5222.190	2	0.4		Sr I?	2.25			5229.25 a to 5229.80 a	5.5	1.1					
5222.397	18	3.4	s,N	Cr I Fe I p	{3.43 2.28}	{206 112}		5229.860m	124	23.5	u	Fe I	{3.28 4.22}	{553 1090}	
5222.509	5	1.0		Co I	3.97			5230.056	3.5	0.7					
5222.67 m			s,N	Cr I	2.71	59	13	5230.216	25	4.8	s	{Co I Cr I}	{1.74 2.71}	{39 58}	
5222.684	23	4.4	s	Ti I	2.08	183									
5222.876	5.5	1.1													
5222.98 m			s				13,16								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5230.392	5	1.0		Fe I?				5240.359	5	1.0	<i>u</i>	Fe I p	3.27	584	
5230.696	6.5	1.2	<i>u</i>					5240.475	8.5	1.6	<i>s</i>	Cr I	3.67	237	
5230.984	3.5	0.7	<i>s</i>	Ti I	2.24	215		5240.878	4.5	1.1	<i>s</i>	V I	2.37	131	
5231.25 m	3	0.6	<i>s</i>				16	5241.182	0.5	0.1		V II	4.52	241	
5231.396	9	1.7	<i>u</i>	Fe I	3.57	787		5241.461	3.5	0.7	<i>s</i>	Cr I	2.71	59	
5231.46 a	4	0.8						5241.923	5.5	1.0	<i>u</i>	Fe I	4.41	1150	
5231.52 m			<i>s</i>				13	5242.070	15	2.9	<i>w</i>				
5231.63 a	4	0.8						5242.284	2	0.4					
5231.83 a	3	0.6						5242.500S	80	16.0	<i>s</i>	Fe I	3.63	843	
5232.503	12	1.4	<i>w,N</i>	Cr II	4.07	43		5243.178	14	2.7	<i>w</i>				
5232.827m			<i>s,N</i>				13	5243.360	19	3.6	<i>s</i>	Cr I	3.39	201	
5232.952m	346	64.9	<i>S</i>	Fe I	2.94	383		5243.471	6.5	1.2					
5233.72 m	1.5	0.3	<i>s</i>					5243.783m	60	11.4	<i>s</i>	Fe I	4.26	1089	
5233.854	2	0.4	<i>s</i>	Ti I	0.82	37		5244.170	1.5	0.3					
5234.090	5.5	1.1	<i>s</i>	V I	2.36	131		5244.535	4	0.8					
5234.213	8	1.5	<i>u</i>	Nd II	0.55	74	16	5244.951	1	0.2					
5234.436	2	0.4						5245.629	6	1.1	<i>s</i>	Ni I? Fe I p	4.09 4.31	1149	
5234.630m	81	16.2	<i>w</i>	Fe II	3.22	49		5245.737	6	1.1	<i>s</i>	Fe I	3.41	715	
5234.82 m			<i>s</i>				13	5246.004	3	0.6	<i>s</i>	Fe I p	3.25	628	
5234.879	3	0.6						5246.147	2.5	0.5	<i>s</i>	Ti I	2.50	282	
5235.032	8.5	1.6	<i>s</i>					5246.556	4	0.9	<i>S</i>	Ti I	0.84	37	
5235.188	23	4.4	<i>s</i>	Co I	2.14	83		5246.65 m	1.5	0.3	<i>s</i>	Ti I			
5235.390m	96	14.2	<i>u</i>	Fe I	{2.59 4.07	{210 1031		5246.777	17	3.2	<i>w</i>	Cr II	3.71	23	
5235.508			<i>u</i>	Ni I	3.90	208		5247.058m	59	11.4	<i>S</i>	Fe I	0.09	1	
5236.207	27	5.2	<i>u</i>	Fe I	4.19	1034		5247.297m	10	1.9	<i>S</i>	Ti I	2.10	183	
5236.378	9	1.7	<i>u</i>	Fe I p	4.31	1146		5247.574m	76	14.8	<i>s</i>	Cr I	0.96	18	
5237.087	4	0.8		Co I?	4.17			5247.923	16	3.0	<i>s,N</i>	Co I Cr I	1.78 2.71	39 58	
5237.325m	49	9.4	<i>w,N</i>	Cr II	4.07	43		5248.375	5.5	1.0	<i>s</i>	Ti I	{0.81 1.88	37 156	
5237.843	3.5	0.7						5248.991	6.5	1.2	<i>s</i>				
5238.249	3	0.6	<i>u?,N</i>	Fe I	3.98	962		5249.111	30	5.7	<i>u</i>	Fe I	4.47	1166	
5238.52 m			<i>S</i>	Sr I	2.26		13	5249.425	11	2.1	<i>u</i>	Cr II	3.76	23	
5238.568m	15	2.9	<i>S</i>	Ti I	{0.85 2.09	{37 183		5249.579	11	2.1	<i>u</i>	Nd II	0.98	75	
5238.969	16	3.0	<i>s</i>	Cr I	2.71	59		5249.717	7	1.3					
5239.460	5	1.0						5249.829	3	0.6					
5239.823m	55	10.5	<i>w</i>	Sc II	1.45	26		5250.023	4.5	0.9	<i>u</i>	Co I	4.17	190	
5239.95 m	3	0.6	<i>s</i>	Ti I	0.81	37		5250.216m	62	11.6	<i>s</i>	Fe I	0.12	1	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5250.433	3	0.6						5261.35 a	2	0.4					
5250.654m	104	19.6	s	Fe I	2.20	66		5261.501	3	0.6		Fe I p	2.95	406	
5250.913	15	2.8	S	Ti I	0.83	37		5261.708m	99	20.0	s	Ca I	2.52	22	
5251.487	2.5	0.5	S	Ti I	0.82	37		5261.959	3.5	0.7					
5251.607	1	0.2						5262.150	128	5.7	u	Ti II	1.58	70	
5251.974m	40	7.6	u	Fe I			5262.248	20.0			s	Ca I	2.52	22	
5252.106m	16	3.0	S	Ti I	0.05	4		5262.457	4.5	0.9		Fe II p	3.20	52	
5252.36 m			s,N				13	5262.623	12	2.3	u	Fe I p	4.32	1149	
5253.033	16	3.0	s	Fe I p	2.28	113		5262.887	19	3.6	s	Fe I p	3.25	628	
5253.259	3.5	0.7		Fe I p	3.63	875		5263.077	6	1.1		Fe I?			
5253.468S	75	14.9	s	Fe I	3.28	553		5263.314m	121	24.5	s	Fe I	3.26	553	
5253.685	4.5	0.9						5263.494	13	2.5	s	Ti I	2.13	183	
5253.951	8.5	1.6						5263.718	11	2.1	s,N	Cr I	4.49	309	
5254.651	7	1.3		Co I	3.97	187		5263.865m	47	8.9	u	Fe I	3.57	788	
5254.953m	92	17.5	s	Cr I— [Fe I]	3.41 0.11	201 1		5263.992	3.5	0.7					
5255.123	38	7.2	s	Cr I	3.46	225		5264.160	153	19.1	s,d	Cr I	0.97	18	
5255.325	36	6.8	s,N	Mn I	3.13	32		5264.246				15.5	Ca I	2.52	22
5255.325	36	6.8	s,N	Mn I	3.13	32		5264.405	9	1.7	u				
5255.517	7	1.3	s	Nd II	0.20	43		5264.591	2	0.4	u				
5255.663	41	3.2	u	Fe I p	4.22	1089		5264.808m	45	8.5	w	Fe II	3.33	48	16
5255.743		4.9	u	Fe I p	4.28	1091		5264.977	3	0.6					
5255.812		0.3	S	Ti I	2.12	183		5265.153	27	5.1	s	Cr I	3.43	201	
5256.933	18	3.4	w	Fe II (Sr I)	2.89 2.27	41		5265.254	9	1.7	s	Fe I p	3.02	407	
5257.080	2	0.4		Cr I?	3.43	205		5265.418	13	2.5	s	Fe I p	4.31	1145	
5257.362	3	0.6						5265.560m	112	21.3	s	Ca I	2.52	22	
5257.645	20	3.8	u,d	Co I Fe I p	3.97 3.57	188 788		5265.723m	93	17.7	S	Cr I	0.97	18	
5257.832	3.5	0.7						5265.964m	55	10.4	s	Ti I	1.89	156	
5258.323	1.5	0.3	s	Sc I	2.51	23		5266.078	9.5	1.8		Cr I?	3.43	205	
5258.828	12	2.3	o					5266.309	12	2.3	u	Co I	3.69	172	
5259.089	4	0.8		Fe I p	4.37	1149		5266.472	252	2.0		Ti I? p [Co I]	0.83 2.04	36 83	
5259.488	[7.5]	1.4	u	Ni I	3.74			5266.563m			46.3	s	Fe I	3.00	383
5259.735	3	0.6		Pr II	0.63	35		5267.034	5	0.9					
5259.974	6	1.1	s	Ti I	2.74	298		5267.104	4	0.8	u				
5260.265	2	0.4						5267.275	25	4.7	u	Fe I p	4.37	1146	
5260.390	28	5.3	s,N	Ca I	2.52	22		5267.492	2.5	0.5					
5260.670	7	1.3						5267.655	8	1.5					
5260.778	3.5	0.7	s	Mn I	3.13	32									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes					
5267.80 a to 5268.10 a	6	1.1						5275.594	2.5	0.5		V II	3.76	195						
5275.759m								73	13.8	s	Cr I	2.89	94							
5268.186r	3.5	0.7						5276.002	152	21.4	w	Fe II	3.20	49						
5268.342	37	7.3	u	Ni I	4.54	273		5276.071		8.4	u?	Cr I	2.89	94						
5268.495	9	1.8	u	Co I	3.73	172		5276.174		2.8		Co I	4.11	190						
5268.614	28	5.6	u	Fe I Ti II	2.60	103		5276.441	3	0.6										
								5276.878	1.5	0.3		Nd II	0.86	81						
5268.803	3	0.6						5277.308	7.5	1.4	u	Fe I p	3.27 4.41	584 1149						
5268.961	10	2.1	u					5277.42 m	2	0.4	s	Zr I	0.54	27						
5269.418	478	7.4	S	Fe I	0.86	15		5277.572	2	0.4		Fe I	3.96	983						
5269.550m								7.4					5277.812	4	0.8					
5269.701													5278.10 a	4	0.8					
5269.905	6.5	1.6	s?	Ti I	1.87	156		5278.254	8	1.5	s	Cr I	4.47	309						
5270.064	7.5	1.7	u?	Fe I p	3.63	877		5278.577	2	0.4										
5270.269	255	30.0	s	Ca I	2.52	22		5278.787	9	1.7	u									
5270.383								35.0	u	Fe I	1.61	37								
5271.054	31	5.9	u					5278.961	6.5	1.2	o	Si I	6.86	4						
5271.291	21	4.0	u					5279.179	3	0.6										
5271.618	5.5	1.0	s	Ti I?				5279.315	4	0.8										
5271.844	1	0.2		Fe I				5279.671	5.5	1.0	s	Fe I p	3.30	584						
5272.003	21	4.0	s	Cr I	3.45	225		5279.877	18	3.4	w	Cr II	4.07	43						
5272.265	14	2.6	u					5280.072	16	3.0	w?	Fe I— Cr II	4.07	43						
5272.400	9.5	1.8	o	Fe II	5.95	185		5280.284	60	3.1	s	Cr I	3.37	192						
5273.170m	103	19.5	s	Fe I	3.29	553		5280.369		8.8	u	Fe I	3.64	880						
5273.389S	104	19.8	u	Fe I	2.48	114		5280.633	20	3.8	u	Co I	3.63	172						
5273.43 m			s	Cr I	3.45	201	13	5280.928	1.5	0.3		Fe I p	2.61	210						
5273.602	2	0.4		Fe I p	4.31	1147		5281.163	4	0.8	u?	Fe I p	4.58	1240	17					
5273.755	1.5	0.3						5281.321	11	2.1	u									
5274.236	6.5	1.2	w	Ce II	1.04	15		5281.511	3.5	0.7										
5274.403	2	0.4						5281.666	164	1.4		Ni I	4.10	231						
5274.534	9	1.7	u					5281.798m		30.1	s	Fe I	3.04	383						
5274.787	4.5	0.9	s					5282.170	4	0.8										
5274.979	48	9.1	w,N	Cr II Fe I	4.07 4.07	43 1029		5282.402m	22	4.3	S	Ti I	1.05	74						
5275.107	8	1.5						5283.163	4.5	0.9										
5275.170	39	7.4	s	Cr I (Cr I)	2.89 3.37	94 192		5283.443	212	3.0	S	Ti I	1.88	156						
								5283.629m		39.6	s	Fe I	3.24	553						
5275.284m	62	11.8	s	Fe I p	3.55	742		5283.917	7	1.3										
5275.473	3	0.6						5284.112m	67	12.7	w	Fe II	2.89	41						

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5284.280	3	0.6		Fe I p	3.63	875		5294.122	5	0.9					
5284.428	23	4.4	S	Fe I Ti I	3.63 1.05	842 74		5294.31 m			s				13,16
5284.615	21	4.0	s	Fe I p	4.19	1032		5294.399	1	0.2					
5284.772	1	0.2						5294.553	13	2.4	s	Fe I	3.64	875	
5285.130	25	4.7	u,d	Fe I p	4.43	1166		5295.070	1	0.2					
5285.262	3	0.6		Ca II	7.50	14		5295.321	27	5.1	u	Fe I	4.41	1146	
5285.386	2	0.4		Cr I?	4.18	285		5295.608	2	0.4	s?				
5285.649	4	0.8	s	Cr I	3.37	192		5295.784	10	1.9	S	Ti I	1.07	74	
5286.07 m	1	0.2	s,N				16	5296.075	4	0.8					
5286.241	2.5	0.5						5296.483	2.5	0.5					
5287.183	9.5	1.8	s	Cr I	3.44	225		5296.702m	95	17.7	S	Cr I	0.98	18	
5287.569	3.5	0.7		Co I	3.63	175		5297.02 a	6	1.1					
5287.788	6	1.1		Co I	4.05	187		5297.233	18	3.4	S	Ti I	1.87	156	
5288.218	2	0.4		Fe I p	3.60	818		5297.385m	87	16.4	s	Cr I	2.90	94	
5288.375	2	0.4		Fe I p	2.99	406		5298.023m	83	15.7	S	Cr I	2.90	94	
5288.40 m			s				13	5298.283m	110	20.8	S	Cr I	0.98	18	
5288.533S	56	10.3	s?	Fe I	3.69	929		5298.415	65	0.6	S	Ti I Cr I p	2.50	281	
5288.804	3	0.6	s	Ti I?			5298.497m	11.9		S			2.90		
5288.99 m	1.5	0.3	s,N					5298.784m	46	8.3	s	Fe I	3.64	875	
5289.282	2	0.4	s	Ti I Cr I	0.84 3.37	36 192		5298.832r		0.4					
5289.510	3	0.6						5299.643	0.5	0.1					
5289.510	3	0.6						5299.984	21	4.0	s	Ti I	1.05	74	
5289.820	2.5	0.5		Y II	1.03	20		5300.408	5	0.9		Fe I	4.59	1240	
5290.817	[5]	0.9	u?	Fe I p— La II?	4.32 0.00	1147 6	17	5300.562	2	0.4		Cr I	8.64		
5291.60 m			s				13,16	5300.751S	56	11.8	S	Cr I	0.98	18	
5291.650	1	0.2						5300.919	2	0.4					
5292.216	4	0.8						5301.047	21	4.0	s	Co I	1.71	39	
5292.399	2.5	0.5						5301.312	3	0.6	u,N?	Fe I p	4.39	1162	
5292.590	36	6.6	u	Fe I				5301.490	2	0.4					
5292.81 m	2.5	0.5	s					5301.874	9.5	1.8	s				
5292.873	4	0.8	s	Cr I Mn I	3.45 3.38	205 36		5302.054	3.5	0.7					
5293.042	12	2.3	u	Fe I p	4.39	1165		5302.307m	157	30.0	s	Fe I	3.28	553	
5293.169	10	1.9	u	Nd II	0.82	75		5302.563	9	1.7					
5293.375	4.5	0.8	s,d	Cr I	3.37	192		5302.657	6	1.1					
5293.64 m	1.5	0.3	s					5302.953	3	0.6		Mn I	5.40		
5293.773	1	0.2	s					5303.223	4	0.8		V II	2.27	54	
5293.963	29	5.5	u	Fe I	4.14	1031		5303.415	1.5	0.3					
								5303.567	2.5	0.5					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5303.845	7	1.3	<i>o?</i>	Fe I?				5314.272	1	0.2					
5304.00?m	1.5	0.3	<i>s</i>					5314.57 m	1	0.2	<i>s,N</i>				
5304.185	14	2.6	<i>s</i>	Cr I	3.46	225		5314.741	2.5	0.5	<i>u</i>				
5304.566	2	0.4						5314.927	8	1.5	<i>u</i>				
5304.992	2	0.4						5315.077m	34	6.4	<i>u</i>	Fe I	4.37	1147	
5305.430	2	0.4		Fe I	3.63	877		5315.784	[5]	0.9	<i>u</i>	Fe I p	3.64	877	
5305.866	25	4.7	<i>w</i>	Cr II	3.83	24		5316.216	[2.5]	0.5					
5306.198	2.5	0.5						5316.397	4.5	0.8					
5306.494	1	0.2	<i>s</i>					5316.620m	112	21.1	<i>w</i>	Fe II	3.15	49	
5306.89 a	1	0.2						5316.729r	97	5.3	<i>u?</i>				
5306.965	0.5	0.1					5316.780	13.0		<i>w</i>	Fe II (Co I)	3.22 4.02	48 192		
5307.231	7	1.3		Ca II	7.51	14		5317.075	3.5	0.7	<i>s</i>	Mn I	3.38	36	
5307.281a	2	0.4		Cr I	3.70	237		5317.26 m	1.5	0.3	<i>s</i>				16
5307.369S	86	16.6	<i>S</i>	Fe I	1.61	36		5317.526	6	1.1	<i>u</i>	Fe I p	4.14	1032	
5308.212	0.5	0.1		Fe I?				5317.570	5	0.9					
5308.429	28	5.3	<i>w</i>	Cr II	4.07	43		5317.73 m	0.5	0.1	<i>s,N</i>				16
5308.691	7.5	1.4	<i>u</i>	Fe I	4.26	1091		5317.89 m			<i>s,N</i>				13,16
5308.893	5.5	1.0						5318.040	1.5	0.3		Fe I	3.02	406	
5309.180	1	0.2						5318.361	12	2.2	<i>w</i>	Sc II	1.36	22	
5309.457	1	0.2		Cr I	4.18	285		5318.597	0.5	0.1	<i>s</i>	-V II?p	2.27	53	
5310.242	3	0.6		Co I?	4.21	196		5318.776	14	2.6	<i>s</i>	Cr I	3.44	225	
5310.481	5	0.9						5319.045	7.5	1.4	<i>u</i>				
5310.697	14	2.6	<i>o</i>	Cr II	4.07	43		5319.214	4	0.8		Fe I p	4.07	1029	
5311.133	0.5	0.1						5319.319	5.5	1.0	<i>u,N</i>				
5311.20 m			<i>s</i>				13,16	5319.73 a	2	0.4					
5311.43 m			<i>s</i>	Zr I	0.52	27	13	5319.820	11	2.1	<i>s</i>	Nd II	0.55	75	
5311.476	2.5	0.5		Nd II	0.99	80		5320.040	18	3.4	<i>s</i>	Fe I	3.64	877	
5311.631	3	0.6	<i>u</i>	Hf II	1.78	37		5320.48 m	1.5	0.3	<i>s</i>				16
5311.782	3	0.6		Zr II?—	1.76	95		5320.831	5	0.9		Y II—	1.08	20	
5312.19 a	2.5	0.5						5321.114m	43	7.9	<i>s</i>	Fe I	4.43	1165	
5312.494	0.5	0.1						5321.29 m	1.5	0.3	<i>s,N</i>				
5312.656	7.5	1.4	<i>w</i>	Co I	4.21	197		5321.750	3	0.6					
5312.863	19	3.6	<i>s</i>	Cr I	3.45	225		5321.84 m	2.5	0.5	<i>s</i>				
5313.079	4.5	0.8	<i>s</i>					5322.049S	60	11.1	<i>s</i>	Fe I	2.28	112	
5313.244m	3	0.6	<i>S</i>	Ti I	1.07	74		5322.819	2	0.4		Pr II	0.48	35	
5313.411	1.5	0.3		Fe I p	4.58	1239		5323.507	1	0.2		Fe I	2.28	113	
5313.585m	35	6.6	<i>u</i>	Cr II—	4.07	43		5323.789	0.5	0.1					
5313.755	2	0.4		Ti II? p	1.57	81									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5323.93 m			S	Ti I	0.83	36	13	5333.769	2.5	0.5	s	Fe I p—	3.02	464	
5324.097	334	1.0		Cr I?	3.37			5334.13 m	1	0.2	s,N				
5324.191m		59.5	s	Fe I	3.21	553		5334.222	3.5	0.7		Sc II	1.50	30	
5324.705		1.5	0.3		Dy II?			5334.330	2	0.4		Fe I p	4.10	1064	
5325.280	8	1.5	w?	Co I	4.02	192	16	5334.44 m	0.5	0.1	s				
5325.388	0.5	0.1						5334.870m	32	6.0	w	Cr II (Co I)	4.07 4.02	43 191	
5325.560m	45	8.4	w	Fe II	3.22	49		5334.966	3.5	0.7					
5325.959	3	0.6	u	Co I	4.21	194		5335.09 m	1	0.2	s				
5326.149m	32	6.0	s	Fe I	{3.02 3.57	{407 785		5335.24 m			s				13
5326.354	2	0.4						5335.36 m			s,N	Ti I?			13
5326.41 m			s				13,16	5335.43 m			s,N				13
5326.505	1.5	0.3						5335.587	1.5	0.3					
5326.823	11	2.1	u,N	Fe I	4.41	1147		5336.07	1	0.2	S				
5327.263	3.5	0.7	u	Fe I p	3.64	875		5336.169	4	0.7		Co I	4.02	191	
5328.051m	375	70.4	S	Fe I	0.91	15		5336.295	2	0.4					
5328.332m	74	19.5	s	Cr I	2.91	94		5336.475	2.5	0.5	s				
5328.542m	210	39.4	s	Fe I	1.56	37		5336.591	2.5	0.5					
5328.925	2	0.4						5336.794m	71	12.9	w	Ti II	1.58	69	
5329.147m	78	13.4	s	Cr I	2.91	94		5337.16 m	1	0.2	s				
5329.40 a to 5329.68 a	5	0.9						5337.382	2	0.4					
5329.794			31	5.8	s	Cr I	2.91	94	5337.727r	35	5.4 1.8	w,d	Fe II	3.23	48
5329.996 m	60	11.2	u	Fe I	4.07	1028	5337.760							Cr II	4.07
5330.44 a	1	0.2						5337.979	1.5	0.3					
5330.564	3	0.6	s	Ce II?	0.87	13	17	5338.333	13	2.4	s	Ti I	0.83	35	15
5331.199	1	0.2						5338.544	3	0.6	s				17
5331.435	15	0.8	s,N	Co I	1.78	39		5338.743	3	0.6					
5331.480		2.1			Fe I p	2.59	210		5338.974	2	0.4				
5331.766	1	0.2						5339.217	3	0.6		Ca II	8.44	20	
5331.98 m			s					5339.35 m	2	0.4	S,N				
5332.14 m			s				13	5339.426	9	1.7	o?	Fe I p	4.43	1162	
5332.363	6	1.1					13	5339.535	3.5	0.7		Co I	4.23	199	
5332.665m	45	8.4		V II Fe I	2.27 4.19	54 1031		5339.65 m	2	0.4	s,N				
5332.908S	96	17.2	s	Fe I	1.56	36		5339.696	1	0.2	s	K I	1.62		
5333.148	4.5	0.8						5339.827m			s				13
5333.253	8.5	1.6						5339.937m	161	29.1	u	Fe I	3.26	553	
5333.656	7	1.3	o	Co I	4.02	190		5340.193	12	2.4	u				
								5340.454	16	3.0	s	Cr I	3.44	225	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Ban	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5340.672	5.5	1.0	s	Ti I	0.82	36		5348.326S	92	17.8	S	Cr I	1.00	18	
5340.781	3	0.6						5348.760	5.5	1.0	s				16
5341.033m	180	25.5	s	Fe I Mn I (Sc I)	1.61	37		5349.098	5	0.9	u	Co I	4.15		
					2.11	4		5349.292	2	0.4	s	Sc I	1.85		17
5341.151		10.2	s?		1.94	19		5349.469m	91	17.0	s	Ca I	2.71	33	
5341.328	12	2.2	u	Co I	4.14	199		5349.745m	49	9.2	s	Fe I Sc I	4.39	1163	
5341.483m	4	0.7	s	Ti I	4.33	316							0.02	4	
5342.092	1	0.2						5349.872	16	3.0		Mn I	5.37		
5342.228	1	0.2		Fe I?				5350.093	6	1.1	o	Zr II	1.83	115	
5342.504	0.5	0.1					18	5350.363	6	1.1	w,N	Zr II V II	1.77 2.26	115 54	
5342.708m	29	5.4	w?	Co I	4.02	190		5350.454	1	0.2		Fe I?			
5342.88?m	1	0.2	s					5350.55 a	0.5	0.1					
5342.962	1	0.2	S	Sc I K I	0.00 1.61	4		5350.789	3.5	0.7		Fe I			
5343.125	1.5	0.3						5350.919	2	0.4					
5343.225	1.5	0.3						5351.071	9.5	1.8	s	Ti I	2.78	300	
5343.392	65	4.7	w	{ Co I Fe I	4.02	190		5351.652	1	0.2		Cr I?			
5343.438								8.7			5351.838	2	0.4		Ni I p
5343.66 m	2	0.4	s,N					5352.049m	21	3.9	u	Co I	3.58	172	
5343.874	3	0.6						5352.232	1.5	0.3					
5344.16?m	2	0.4	s,N	Nb I?	0.35			5352.405	1	0.2		Pr II?	0.48		
5344.25 a	0.5	0.1						5352.800	2	0.4					
5344.458	11	2.0	w	Mn I	5.38			5352.995	2	0.4					
5344.583	2.5	0.5		Co I	4.02	191		5353.167	2.5	0.5					
5344.763	8.5	1.6	s	Cr I	3.45	225		5353.383m	75	14.0	s	Fe I Ni I	4.10 1.95	1062 70	
5345.037	1.5	0.3						5353.515	30	5.6	u	Co I	4.14	198	
5345.543	8.5	1.6		Cr I p	3.46	225		5353.670	2	0.4					
5345.807m	107	21.0	S	Cr I	1.00	18		5353.920	3	0.6					
5346.082	15	2.8	o	Cr II p	3.83	24		5354.68 m			s				13
5346.336	3	0.6		Fe I p	3.60	817		5354.727	1	0.2					
5346.545	20	3.7	u,d	Cr II— Fe II	3.76 3.23	23 49	16	5354.900	0.5	0.1					
5346.815	6	1.1	s					5355.625	1	0.2					
5346.970	2.5	0.5						5355.731	4	0.7	s,N	Sc I	1.95	19	
5347.092	1.5	0.3	s					5356.084	2	0.4	S	Sc I	1.86	17	
5347.514	3.5	0.7		Co I—	4.15	196		5356.43 m			s				13
5347.717	4.5	0.8	w	Ni I	3.80	145		5356.60 m			s				13
5347.89 m	0.5	0.1	s					5356.991	2	0.4		Nd II?	1.26	80	
5348.070	4.5	0.8	s	Mn I	3.38	36		5357.190	4	0.7		Sc II	1.51	30	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5358.120	8	1.5	s	Fe I p	3.30	628		5368.546	5	0.9	s	Cr I	3.85	258	
5358.287	1	0.2						5368.850	1	0.2					
5358.478	0.5	0.1						5368.920	1.5	0.3		Co I	3.53	167	
5358.665	1	0.2						5369.220	1.5	0.3					
5358.940	4.5	0.8		Co I?	4.14			5369.360	6	1.1		Cr II	3.87	29	
5359.05 m			s				13	5369.596m	40	7.8	s	Co I	1.74	39	
5359.203	9.5	1.8	w?	Co I	4.15	194		5369.974m	182	33.9	u	Fe I	4.37	1146	
5359.528	2	0.4		K I	1.62			5370.330	14	2.6	u	-Cr I			
5359.718	3.5	0.7						5371.339m	294	11.6	u	Ni I	4.42		
5360.144	1.5	0.3					5371.501m	44.1			S	Fe I (Fe I p)	0.96 4.43	15 1163	
5360.467	2	0.4		Cr I?				5371.927	9	1.8		Nd II	1.41	79	
5360.710	0.5	0.1						5373.58 a	1.5	0.3					
5360.928	2	0.4						5373.714m	59	10.6	s	Fe I	4.47	1166	
5361.372	3	0.6						5373.950	3	0.6					
5361.507	9	1.7	s,N	Nd II—	0.68	74		5374.158	2.5	0.5					
5361.629m	36	6.7	u	Fe I	4.41	1143		5374.413	2	0.4					
5361.71 m			s	Ti I	0.84	35	13	5374.767			1	0.2		Fe I p	3.57
5361.818	3	0.6						5374.887	1	0.2					
5362.176r	1.5	0.3						5375.180	2	0.4					
5362.57 m	1.5	0.3	s	Zr I	0.54	27		5375.323	2.5	0.5	s	Sc I	1.97	19	
5362.760	110	7.5	s	Fe I— Co I	4.23	198		5375.875	2.5	0.5		Cr I			
5362.867		14.1	w	Fe II	3.20	48		5375.978	3	0.6					
5364.166		3	0.6					5376.132	3	0.6		Cr I			
5364.426	4.5	0.8						5376.30 a	2	0.4					
5364.880m	133	24.6	u	Fe I	4.44	1146		5376.464	2.5	0.5					
5365.224	8	1.5						5376.60 m	0.5	0.1	s	Ti I	0.00	3	
5365.407S	78	14.7	u	Fe I	3.57	786		5376.673	0.5	0.1	s?				16
5366.417	6	1.1	s,d?					5376.836	13	2.4	s	Fe I	4.29	1132	
5366.645	2.5	0.7	S	Ti I	0.82	35		5377.064	4	0.7	u	La II	2.30	95	
5366.759	4.5	0.8						5377.193	2.5	0.5	u				
5366.85 a to 5367.13 a	8	1.5						5377.310	1	0.2					
5367.476m			157	29.1	u	Fe I	4.41	1146	5377.35 m			s,N			
5367.772	2	0.4						5377.408	0.5	0.1					
5367.94 a	1.5	0.3						5377.614m	45	8.4	s	Mn I	3.84	42	
5368.296	5.5	1.0						5377.793	8.5	1.6	s,N				16
5368.438	5	0.9						5377.928	3	0.6					
								5378.223	6	1.1	u				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5379.144	1	0.2						5387.70 a to 5388.00 a	4	0.7					
5379.325	0.5	0.1													
5379.581S	56	10.4	s	Fe I	3.69	928		5388.351	12	2.2	s	Ni I	1.93	70	
5379.950	0.5	0.1						5388.504	5	0.9	u,N	Mn I	3.37	36	
5380.322	26	4.8	? ,N	Cr I	7.68	11		5388.675	1	0.2					
5380.737	12	2.2						5388.796	0.5	0.1					
5381.028m	56	10.4	u	Ti II Fe I?	1.57	69		5389.169	5	1.1	S	Ti I	0.81	35	
5381.172	3	0.6						5389.486S	90	16.7	s	Fe I	4.41	1145	
5381.318	1.5	0.3						5389.678	3	0.6					
5381.772	5.5	1.0	s,N	Co I—	4.24	196		5389.847	12	2.2	w				
5382.033	1.5	0.3						5390.007m	7.5	1.4	S	Ti I	1.87	155	
5382.277	23	4.3	s?					5390.377	12	2.2	s	Cr I	3.37	191	
5382.484	2	0.4						5390.527	30	5.6	u				
5382.649	2	0.4						5390.777	5	0.9					
5382.755	1	0.2		Fe I	3.55	741		5391.070	1	0.2	s	Ti I p	1.88	155	
5382.92 m			s	Ti I p	1.87	155	13	5391.35 m	3	0.6	s	Cr I	3.37	191	
5383.015	1.5	0.3						5391.465m	76	14.1	s	Fe I	4.15	1062	
5383.07 a	1	0.2						5391.623	37	6.9	s	Fe I			
5383.380m	204	36.0	s	Fe I	4.31	1146		5391.796	3	0.6		Fe I p	2.69	270	
5383.766	2	0.4						5392.014	7	1.3					
5384.073	4	0.7						5392.06 m			s,N	Sc I	1.99	19	13
5384.205	1.5	0.3		Fe I p	3.65	817		5392.330	14	2.6	u,N	Ni I	4.15	250	
5384.636	2	0.4	S	Ti I	0.83	35		5392.50 a to 5392.95 a	12	2.2					
5384.873	2.5	0.5		V II	2.27	53		5393.176m	153	27.2	s	Fe I	3.24	553	
5385.128	1.5	0.3	S	Zr I	0.52	26		5393.381	12	2.2		Ce II	1.10	24	
5385.305	1	0.2		Cr I?	3.84			5393.67 m	2.5	0.5		Atm? O			
5385.587	5.5	1.0	u	Fe I p	3.69	927		5393.92 m	2	0.4					
5385.890	1.5	0.3		Nd II				5394.200	0.5	0.1		Atm?			
5386.102	1.5	0.3						5394.351	2	0.4					
5386.340m	30	5.6	s	Fe I	4.15	1064		5394.641		7.3					
5386.556	1	0.2						5394.706	74	7.3	S	Mn I	0.00	1	
5386.797	2	0.4						5395.011	1.5	0.3					
5386.971	21	3.9	s	Fe I— Cr I	3.64 3.37	875 191		5395.222	20	3.7	s	Fe I	4.44	1143	
5387.126	2	0.4		Fe II				5395.470	3.5	0.6					
5387.283	1	0.2						5396.001	4.5	0.8					
5387.484		2.9	s	—Fe I	4.14	1031		5396.247	12	2.2	w?				
5387.565	25	1.8	s	Cr I	3.37	191									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5396.578	7.5	1.4	S,N	Ti I	{0.00 0.02	3 3		5405.785m	266	46.8	S	Fe I	0.99	15	
5396.734	3	0.6						5406.183	1	0.2					
5396.904	2.5	0.5		Fe I p	3.02	464		5406.337	9	1.7	u	Fe I p	4.07	1026	
5397.141m	239	41.7	S	Fe I (Ti I)	0.91 1.88	15 155		5406.480	2	0.4					
5397.623m	24	4.4	s	Fe I	3.63	841		5406.603	0.5	0.1					
5397.930	4	0.7						5406.779m	37	6.8	s	Fe I	4.37	1148	
5398.287S	76	14.1	s	Fe I	4.44	1145		5406.93 a	2.5	0.5					
5398.519	4.5	0.8		Atm?				5407.112	3	0.6					
5398.859	3.5	0.6	s				16	5407.384	67	{ 6.3 6.3 }	s,d	Mn I	2.14	4	
5399.479	39	7.2	s,d?	Mn I	3.85	42	15	5407.482							21
5399.777	5	0.9		Co I?	4.21			5407.617	2.5	0.5					
5400.263	2	0.4						5407.825	3	0.6		Co I?	2.28	112	
5400.423r	143	0.4						5408.088	3.5	0.6					
5400.511m		21.0	s,d?	Fe I	4.37	1145		5408.205	1	0.2					
5400.629		7.6	s	Cr I	3.37	191		5408.367	5.5	1.0		Fe II	5.95	184	
5400.855	2	0.4						5408.823	3.5	0.6	s	Ti I	0.00	3	16
5401.271	24	4.4	u	Fe I	4.32	1146		5408.932	57	10.5	s	Fe I	4.37	1147	
5401.39 m	3.5	0.6	s	Ti I	0.82	35		5409.139m	3	0.6					
5401.701	6.5	1.2	s,N				16	5409.428	3.5	0.6					
5401.92 m			s	V I	{2.36 2.68	130 139	13	5409.501	8.5	1.7	s	Ti I	1.89	155	
5401.949	4.5	0.8						5409.609m	154	27.0	S	Cr I	1.03	18	
5402.072	16	3.0	u					5409.799S	1.5	0.3		Si I?	5.61		
5402.320	1.5	0.3						5410.054	8.5	1.6	s				
5402.600	1	0.2						5410.428	169	29.0	s	Fe I	4.47	1165	
5402.783	12	2.2	w	Y II	1.84	35		5410.918m	30	5.9	u	Ni I	4.09	222	
5403.07 a	1	0.2						5411.223m	4	0.7		Fe I p	3.64	870	
5403.468	2	0.4						5411.395	1.5	0.3					
5403.829m	60	11.8	s	Fe I	4.07	1029		5411.558	1	0.2					
5403.98 m			s?	Ti I	2.33	259	13	5411.725	3	0.6					
5404.145m	239	44.2	s	Fe I— Fe I	4.31 4.43	1145 1165		5412.007	3.5	0.6					
5404.550	9	1.7	u					5412.184	2	0.4		Fe I p	4.58	1237	
5404.677	12	2.2	u					5412.574	19	3.5	s	Fe I p	4.43	1162	
5404.842	2	0.4						5412.791	18	3.3	w	☉ Atm			
5404.993	10	1.9	s	Cr I	3.37	191		5413.101	5	0.9					
5405.136	5	0.9						5413.17 a to 5413.50 a			24	4.4	s,N	Mn I	3.86
5405.358m	43	8.0	s	Fe I p	4.39	1162		5413.684							

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5413.915	2.5	0.5						5423.961		1.3	s				
5414.075	31	5.7	w	Fe II	3.22	48		5424.080m	239	42.8	s	Fe I	4.32	1146	
5414.242	1	0.2					5424.204	0.4				Fe I? p	4.07	1026	
5414.367	12	2.2	s,N	Atm H ₂ O O?	R 3	411	26	5424.544	10	1.8	u	Ni I	4.17	231	
5414.881	5	0.9		Fe I p	3.64	874		5424.654m	42	7.7	s	Ni I	1.95	70	
5415.210S	212	37.5	s	Fe I	4.39	1165		5424.873	4	0.7					
5416.085	3	0.6						5425.259m	48	8.8	w,N	Fe II	3.20	49	
5416.384	1	0.2		Nd II	0.86	80		5425.627	2	0.4	s,N	Co I	4.07	196	
5417.042	37	6.8	s	Fe I	4.41	1148		5426.258m	5.5	1.1	S	Ti I	0.02	3	
5417.30 a	2.5	0.5						5426.83 a to 5427.06 a	5	0.9					
5417.929	2.5	0.5						5427.224		1	0.2				
5418.156	8	1.5						5427.803	5.5	1.0	o	Fe II			
5418.288	3.5	0.6						5427.997	1	0.2		Cr I?	3.85		
5418.775m	49	8.7	s	(Ti II)	1.58	69		5428.327	4	0.7					
5419.109	2.5	0.5						5428.616	3	0.6					
5419.217r	3.5	0.6	s,NN	Ti I?	2.34	258		5428.707	6	1.1		Fe I p	4.19	1032	
5419.393	5	0.9		Atm H ₂ O	R 2	411	26	5428.850	5.5	1.0		Ni I	3.83	161	
5419.703	1.5	0.3						5428.981	2	0.4					
5419.905	2	0.4						5429.150m	10	1.8	s	Ti I	2.34	259	
5420.318	78	7.6	S	Mn I	2.14	4		5429.432r	53	0.8	u,N	Fe I p	4.14	1029	
5420.412		7.6						10.2		Fe I p		4.19	1062		
5420.622	7	1.3		Atm H ₂ O	R 1	411	26	5429.706m	285	48.0	S	Fe I	0.96	15	
5420.929	20	3.7	s?	Cr II	3.76	23	17	5429.854		4.6	u	Fe I p	4.47	1162	
5421.178	44	8.1	u,N	Si I—	5.62			5430.364	8	1.5	w	Ni I	3.83		
5421.403	7	1.3		Fe I p	3.64	874		5431.062	1	0.2					
5421.577	2.5	0.5		Nd II? Fe I?	0.74	79		5431.381	2.5	0.5					
5421.843	14	2.6	s,d	Fe I p	4.55	1183		5431.541r	4.5	0.8		Nd II	1.12	80	
5422.162	9.5	1.8	u	Fe I p	4.32	1145		5431.80 a	1	0.2					
5422.510	2	0.4						5432.068	0.5	0.1		V II?	2.26	53	
5422.661	1	0.2						5432.33?m	1.5	0.2	s	Ti I	2.41	265	
5422.951	6.5	1.2		Atm H ₂ O	R 1	411	26	5432.354		0.1			Cr I	3.42	
5423.327	1.5	0.3						5432.548m	46	8.5	S	Mn I	0.00	1	
5423.483	4.5	0.8						5432.746	1.5	0.3	s				
5423.598	1	0.2						5432.955S	72	13.2	s	Fe I—	4.44	1143	
5423.752	6.5	1.2	s	Fe I p	3.69	927		5433.200	6	1.1	u				
								5433.403	6.5	1.2	u	—Mn I?	5.37		
								5433.644	6.5	1.2	u				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5433.938	1.5	0.3						5441.947	1.5	0.3					
5434.045	1	0.2						5442.293	5	0.9	<i>s,N</i>	Atm H ₂ O Nd II	P 1 0.68	411 76	16,26
5434.179	4	0.7						5442.420	8.5	1.6	<i>s</i>	Cr I	3.42	204	
5434.534m	184	34.0	<i>S</i>	Fe I	1.01	15		5442.768	1.5	0.3					
5434.861	3	0.6						5442.977	2.5	0.5					
5435.039	3.5	0.6	<i>u</i>					5443.426	3.5	0.6	<i>u</i>	Fe I p	4.10	1059	
5435.183	8.5	1.6	<i>s</i>	Fe I p	4.43	1161		5443.619	4	0.7	<i>u</i>				
5435.587	4	0.7						5443.80 a	0.5	0.1					
5435.704	1	0.2						5444.089	0.5	0.1					
5435.866m	46	8.5	<i>s</i>	Ni I	1.99	70		5444.588	14	2.6	<i>s</i>	Co I—	4.07	196	
5436.058	1	0.2						5444.727	3.5	0.6					
5436.161	0.5	0.1						5444.85 m	3.5	0.6	<i>s</i>				13,16
5436.302m	36	6.6	<i>u</i>	Fe I	4.39	1161	5444.875								
5436.447	1	0.2						5445.053S	121	23.0	<i>s</i>	Fe I	4.39	1163	
5436.596m	37	6.8	<i>s</i>	Fe I	2.28	113		5445.341	2	0.4					
5436.731	3.5	0.6	<i>s</i>	Ti I	0.90	51		5445.504	2	0.4					
5436.845	1	0.2		O I?	10.74	11		5445.606	2	0.4					
5436.990	1.5	0.3		Co I?	4.11			5445.776	3	0.6		Cr I?			
5437.091	8.5	1.6	<i>s</i>					5445.854	2.5	0.5					
5437.203	16	2.9	<i>u</i>	Fe I p	4.31	1145		5445.959	2	0.4		Fe II p	3.34	53	
5438.051	2.5	0.5	<i>u</i>	Fe I	4.59	1237		5446.061	2	0.4					
5438.307	4	0.7	<i>s</i>	Ti I	1.43	108		5446.230	3.5	0.6					
5438.468	1	0.2						5446.372	2	0.4					
5438.716	0.5	0.1						5446.591m	74	14.5	<i>s</i>	Ti I Fe I p	{0.02 2.33 4.41	3 259 1144	
5438.925	1.5	0.3						5446.924m	238	42.8	<i>S</i>	Fe I	{0.99 (1.61)	15 37	
5439.054	2.5	0.5						5447.248	3	0.6		Ni I? p	3.84		
5439.303	2	0.4		V II	2.27	53		5447.533	2.5	0.5	<i>u</i>				
5439.475	1	0.2						5447.687	2	0.4					
5439.708r	2	0.4		Atm				5447.938	1.5	0.3	<i>s,N</i>	Ti I?			
5439.920	2	0.4		Fe I				5448.098	3	0.6	<i>s</i>				
5440.503	2	0.4	<i>s</i>	Ti I p	1.43	107	16	5448.378	16	2.9	<i>s</i>	Fe I			
5440.652	3.5	0.6	<i>s</i>				16	5448.674	1	0.2					
5440.824	1	0.2						5448.933	2	0.4	<i>s</i>	Ti I	2.33	259	
5440.978	1.5	0.3						5449.159	2	0.4	<i>s</i>	Ti I	1.44	107	
5441.146	2	0.4						5449.403	1.5	0.3					
5441.347m	28	5.1	<i>s</i>	Fe I	4.31	1144		5449.707	1.5	0.3					
5441.528	1.5	0.3		Fe I											
5441.678	1	0.2													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5450.798	8.5	1.6	<i>u</i>					5460.701	2	0.4					
5450.924	4	0.7						5460.888	7	1.3	<i>u</i>	Fe I	3.07	464	
5451.127	6	1.1	<i>u,N</i>	Nd II				5461.144	1	0.2					
5451.40 a	4	0.7						5461.393	1	0.2					
5451.957	3.5	0.6	<i>s,N</i>	Ti I	2.40	265		5461.559	22	4.0	<i>s,d</i>	Fe I	4.44	1145	17
5452.101	12	2.2	<i>u</i>	Fe I	3.64	870		5461.823	2.5	0.5		Fe I p	3.69	817	
5452.298	3.5	0.6		Co I	3.81	175		5462.065r	1.5	0.3					
5452.850	14	2.6	<i>u</i>	Ni I	3.84			5462.269	1.5	0.3					
5453.085	3	0.6						5462.501m	40	7.3	<i>s</i>	Ni I	3.85	192	
5453.236	11	2.0	<i>u</i>	Ni I	4.09	231		5462.662	3	0.5					
5453.40 m	1	0.2	<i>s</i>					5462.784	2.5	0.5					
5453.650	4	0.7	<i>S</i>	Ti I	1.44	108		5462.970S	93	17.4	<i>u</i>	Fe I	4.47	1163	
5453.857	2.5	0.5						5463.114	1.5	0.3					
5453.996	6.5	1.2	<i>u</i>	Fe I p	4.15	1064		5463.289m	118	21.6	<i>s</i>	Fe I	4.43	1163	
5454.128	4.5	0.8						5463.481	1.5	0.3					
5454.364	1	0.2	<i>s,N</i>					5463.641	2	0.4					
5454.580	13	2.4	<i>s</i>	Co I—	4.07	195		5463.829	2.5	0.5					
5455.095	2	0.4		Fe I p	3.25	627		5463.89 m	2.5	0.5	<i>s</i>				
5455.465m	112	24.6	<i>s</i>	Fe I	4.32	1145		5463.972	9.5	1.7	<i>s</i>	Cr I	3.43	204	
5455.624m	219	40.1	<i>S</i>	Fe I	1.01	15		5464.116	1.5	0.3					
5455.914	2.5	0.5						5464.288m	33	6.0	<i>s</i>	Fe I	4.14	1030	
5456.113	1	0.2						5465.154	2.5	0.5		Atm H ₂ O	P 4	411	26
5456.366r	8.5	1.6		Atm H ₂ O	P 3	411	26	5465.380	1.5	0.3					
5456.528	8	1.5	<i>s</i>	Fe I	3.60	817		5465.75 m			<i>S</i>				13,17
5456.800	2	0.4						5466.031	2.5	0.5		Fe II			
5456.885	1.5	0.3	<i>s,N?</i>					5466.201	1.5	0.3					
5457.104	3	0.5	<i>u?</i>					5466.405m	76	13.9	<i>s</i>	Fe I (Y I)	4.37 1.43	1144 12	
5457.244	1	0.2						5466.592	2	0.4					
5457.474	11	2.0	<i>s,N</i>	Mn I	2.16	4	7	5466.766	2.5	0.5					
5457.832	[1]	0.2		Cr I				5466.993m	29	5.3	<i>s</i>	Fe I	{3.57 3.65}	784 817	
5458.58 a	6	1.1		Fe I				5467.152	1	0.2					
5459.201r	1.5	0.3		Atm H ₂ O	P 3	411	26	5467.277	1	0.2					
5459.389	5.5	1.0	<i>s,d?</i>					5467.402	2	0.4					
5459.745	1	0.2						5467.571	1.5	0.3					
5460.060	2	0.4						5467.785	3.5	0.6	<i>s,N</i>	Fe I p—	3.55	741	
5460.190	2	0.4						5467.862	0.5	0.1					
5460.365	7.5	1.4	<i>o</i>					5468.114	10	1.8	<i>s</i>	Ni I	3.85	192	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5468.392	3.5	0.6	<i>s,d</i>	Ce II?	1.40	24	17	5476.921m	164	29.9	<i>s</i>	Ni I	1.83	59	
5468.637	1.5	0.3	<i>s,N</i>				16	5477.090	6	1.3		Co I	3.71	175	
5468.846	0.5	0.1						5477.285	4.5	0.8					
5469.068	1	0.2		Fe I p	4.29	1131		5477.502	6.5	1.2		Cr II?	4.14	50	
5469.280	7.5	1.4	<i>s,N</i>	Co I Fe I p	1.88 4.31	56 1143	16	5477.705	26	2.9	<i>s</i>	Ti I	2.43	265	
5469.44 a	6	1.0						5477.791		2.0	<i>u</i>	Zr II?	1.83	115	
5469.80 a								5477.968		1.5	0.3				
5470.093	22	4.0	<i>s</i>	Fe I	4.44	1144		5478.157r	2	0.4		Atm			
5470.228	5	0.9		Atm H ₂ O	P 5	411	26	5478.378	46	2.9	<i>w?</i>	Cr II	4.18	50	
5470.446	3.5	0.6		Co I	3.77	175		5478.464		5.7	<i>s</i>	Fe I	4.19	1062	
5470.48 m		0.2	<i>s</i>	Ti I	1.44	108	13	5478.697		1	0.2	<i>s?</i>			
5470.636	46	8.4	<i>s,N</i>	Mn I	2.16	4	15	5478.793	2	0.4					
5470.965	0.5	0.1	ϕ					5479.028	1	0.2		Ni I? p	3.83	159	
5471.205m	6.5	1.2	<i>S</i>	Ti I	1.44	106		5479.248	1	0.2					
5471.32 a	1	0.2						5479.427	3	0.5					
5471.96 a	2	0.4						5479.785	0.5	0.1					
5472.304	3	0.5		Ce II	1.25	24		5479.980	1.5	0.3		Fe I p	4.95	1282	
5472.487	2.5	0.5						5480.205	0.5	0.1					
5472.713m	39	7.1	<i>s</i>	Ti I— Fe I	1.44 4.21	107 1108		5480.362	1	0.2					
5472.928	2	0.4						5480.518	9.5	1.7	<i>s</i>	Cr I	{3.45 3.89}	204	
5473.010	0.5	0.1						5480.761	68	1.8		Y II Ni I	1.72 3.85	27 191	
5473.168	18	3.3	<i>s</i>	Fe I	4.19	1064		5480.865m		10.5	<i>s</i>	—Fe I (Sr I)	4.22 2.27	1062 9	
5473.394	7.5	1.4	<i>u</i>	Y II	1.74	27		5481.072		1.5	0.3				
5473.553	4	0.7	<i>s</i>	Ti I	2.33	259		5481.252m	56	10.2	<i>s</i>	Fe I	4.10	1058	
5473.742	3.5	0.6						5481.443m	64	11.7	<i>s</i>	Ti I Mn I— Fe I	2.41 2.16 4.19	265 4 1061	
5473.910S	80	14.4	<i>s</i>	Fe I	4.15	1062		5481.610	1	0.2					
5474.094	2	0.4		Fe I p	4.99	1314		5481.71 m			<i>s</i>				13,16
5474.232m	9.5	2.0	<i>S</i>	Ti I	1.46	108		5481.742	3	0.5					
5474.467	3	0.5	<i>s</i>	Ti I	2.34	259		5481.873m	10	1.8	<i>s</i>	Ti I	1.43	106	
5474.764	1.5	0.3						5481.999	3	0.5	<i>S</i>	Sc I	1.86	16	
5475.440	4	0.7	<i>w</i>	Ni I	3.83	159		5482.264	3	0.5		Fe I p	3.63	873	
5475.729	3	0.5						5482.606	3	0.5					
5476.016	2.5	0.5						5482.931	0.5	0.1					
5476.183	86	4.0	<i>u</i>					5483.108m	42	7.7	<i>s</i>	Fe I	4.15	1061	
5476.295m		12.4	<i>s</i>	Fe I	4.14	1029		5483.364m	42	7.7	<i>s</i>	Co I	1.71	39	
5476.576m	104	19.0	<i>s</i>	Fe I	4.10	1062									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5483.555	1	0.2						5492.894	12	2.2	<i>w</i>				
5483.683	2	0.4						5493.068	3	0.5					
5483.912	3.5	0.6		—Co I	3.63	175		5493.244	16	2.9	<i>u</i>	Si I	5.08		
5484.042	3.5	0.6						5493.354	1.5	0.3		Fe I p	3.64	873	
5484.314	1	0.2						5493.506m	35	6.4	<i>s</i>	Fe I	4.10	1061	
5484.646	3	0.5	<i>S</i>	Sc I	1.85	16		5493.661	1	0.2					
5485.068	1.5	0.3						5493.857	27	4.9	<i>s?,d</i>	Fe I	{3.02 4.22}	{464 1062}	
5485.378	1	0.2						5493.990	4	0.7					
5485.548	3.5	0.6						5494.155	2.5	0.5					
5485.706	2.5	0.5		Nd II	1.26	79		5494.328	1.5	0.3					
5485.813	3	0.5	<i>o?</i>					5494.474	25	4.6	<i>s</i>	Fe I	4.07	1024	
5486.120	1.5	0.3						5494.706	5	0.9	<i>s</i>	Ti I	1.46	108	16
5486.524	1	0.2		Cr I?	4.53			5494.888	18	3.3	<i>u</i>	Ni I	4.10	231	
5486.767	1	0.2						5495.706	2	0.4		Co I?	3.41	166	
5486.965	4.5	0.8		—V II	2.26	53		5495.916	1	0.2					
5487.153m	32	5.8	<i>s?</i>	Fe I	4.41	1143		5496.258	0.5	0.1					
5487.327	1.5	0.3						5496.45 a	2	0.4					
5487.524	22	4.0	<i>s</i>	Fe I p	{3.64 4.19}	{870 1064}		5496.573	9	1.6	<i>s</i>	Fe I p	4.91	1281	
5487.755S	88	16.0	<i>s</i>	Fe I	4.14	1025		5496.807	5	0.9					
5487.934	8.5	1.5	<i>s</i>	V I	2.37	129		5496.991	1.5	0.3					
5488.170	18	3.3	<i>s,d</i>	Fe I p— Ti I	{4.61 2.40}	{1183 265}		5497.115	4	0.7					
5488.344	2	0.4						5497.241	3	0.5					
5488.514	1	0.2						5497.356	128	{1.8 22.2}		Y II	1.75	27	
5488.989	18	3.3	<i>w,N</i>				5497.526m					<i>S</i>	Fe I	1.01	15
5489.686	6	1.1	<i>u,N</i>	Co I	4.07			5497.707	2	0.4					
5489.868	14	2.6	<i>s</i>	Fe I p	4.44	1148		5497.901	3	0.5		C ₂ ?			
5490.159m	18	3.5	<i>S</i>	Ti I	1.46	107		5497.98 m	2	0.4	<i>s</i>	Ti I? p	0.90	51	
5490.327	1	0.2		C ₂ ?	R 24	2,3	19	5498.189	2.5	0.5		Si I Fe II p	7.86 2.58	12 24	
5490.475	0.5	0.1						5498.365	1.5	0.3					
5490.703	17	3.1	<i>w?</i>					5498.749	0.5	0.1		C ₂	R 21	2,3	19
5490.840	2.5	0.5	<i>S</i>	Ti I	0.05	3		5499.030	2.5	0.5		C ₂	{P 59 P 46}	{1,2 2,3}	19
5491.149	1	0.2						5499.169	[1.5]	0.3		C ₂	{P 57 P 44}	{1,2 2,3}	
5491.688	1	0.2	<i>s</i>					5499.434	2.5	0.5		Ni I	3.84	176	
5491.845	11	2.0	<i>u,N</i>	Fe I	4.19	1031		5499.598	3	0.5		Fe I p	4.47	1159	
5492.037	1	0.2						5500.355	0.5	0.1		C ₂			
5492.218	3.5	0.6						5500.603	2.5	0.4		C ₂			
5492.362	3.5	0.6													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5500.749	3	0.6		C ₂	R 19	2,3	19	5508.633	17	3.1	w	Cr II	4.15	50	
5500.983	3.5	0.5		C ₂	R 20	2,3	19	5508.851	2	0.4					
5501.259	4.5	0.8		C ₂ ?	R 20	2,3	19	5509.114	0.5	0.1		Pr II?	0.48		
5501.477S	115	22.2	S	Fe I	0.96	15		5509.544	7.5	1.4	u,N	Mg I?	5.11		16
5501.712	7.5	1.4		C ₂	R 42	0,1	19	5509.727	5.5	1.0	u				
5501.876	8.5	1.5		C ₂				5509.909	19	3.4	u	Y II	0.99	19	
5502.092	23	4.2	u	Cr II	4.17	50		5510.020	41	7.4	u	Ni I	3.85	190	
5502.270	1.5	0.3						5510.237	2.5	0.4	s,N	Fe I p	4.07	1023	16
5502.577	0.5	0.1						5510.376	1	0.2					
5502.747	1	0.2						5510.619	15	2.7	u,N	C ₂ —	R 16	2,3	19
5502.943	14	2.5	w					5510.730	16	2.9	u,N	Cr II—	3.83	23	
5503.080m	42	7.6	s	Fe I				5510.958	0.5	0.1					
5503.240	15	2.7	w	Cr II	4.14	50		5511.167	1	0.2					
5503.500	10	1.8	u,N					5511.436	4.5	0.8		C ₂ — C ₂	R 30 R 29	1,2 1,2	19 19
5503.720	3	0.5						5511.659	2	0.4		Fe I			
5503.904m	13	2.4	s	Ti I	2.58	287		5511.802	6.5	1.2	s	Ti I	{1.46 2.49}	108 275	
5504.106	10	1.8	u	Ni I	3.83	175		5512.062	9	1.6	u	Ce II	1.01	24	
5504.227	2	0.4		Mn I	3.13	31		5512.265m	38	6.9	u	Fe I	4.37	1143	
5504.395	11	2.0	s					5512.408	15	2.7	u	Fe I p	4.41	1148	
5504.665	1.5	0.3		C ₂	R 30	1,2	19	5512.535m	47	8.5	s	Ti I	1.46	106	
5504.894	1	0.2	s					5512.715	2.5	0.4		Cr I	3.01	121	
5505.284	0.5	0.1						5512.818	3.5	0.6		C ₂ ?	R 15	2,3	19
5505.543	1.5	0.3		C ₂ ?	R 18	2,3	19	5512.989S	94	16.8	s	Ca I	2.93	48	
5505.728	2.5	0.4		Fe I p	4.47	1162		5513.231	2	0.4		C ₂	P 55	1,2	19
5505.889m	52	9.4	s,N	{Mn I— Fe I	2.18 4.41	4 1145		5513.384	2.5	0.4		C ₂	P 53	1,2	19
5506.043	3	0.5		C ₂ ?	R 18	2,3	19	5513.558	2	0.4					
5506.189	6.5	1.2		C ₂	R 41	0,1	19	5513.714	1	0.2					
5506.368	4	0.8		C ₂				5513.850	0.5	0.1		Fe I p	3.69	925	
5506.510	5.5	1.0	s	Mo I	1.33	4		5514.221	1.5	0.3	s	Sc I	1.85	15	
5506.618	1.5	0.3						5514.353m	35	6.2	s	Ti I	1.43	106	
5506.791m	120	23.0	S	Fe I	0.99	15		5514.544m	43	7.6	s	Ti I	1.44	106	
5506.992	7	1.2		S I	7.87	12		5514.689	1	0.2		W I	0.41	1	
5507.771	{2.5}	0.4	s	V I	2.36	129		5514.802	7.5	1.4	u	Ni I	3.85	189	
5507.951	1	0.2						5514.935	5	0.9		C ₂	R 40	0,1	19
5508.083	0.5	0.1		C ₂ ?	R 15	2,3	19	5515.110	3	0.5		C ₂	{R 39 R 27}	0,1 1,2	19
5508.245	0.5	0.1		Cr I?				5515.354	2	0.4		C ₂			
5508.419	18	3.3	u												

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5515.491	2	0.4						5522.454m	43	7.8	<i>u</i>	Fe I	4.21	1108	
5515.649	7	1.3	<i>u</i>					5522.673	2.5	0.4					
5515.93 a	1	0.2						5522.971	0.5	0.1					
5516.045	2	0.4						5523.261	11	0.9	<i>u,N</i>	Co I	2.33	112	
5516.300	4.5	0.8	<i>u</i>	C ₂ Fe I p	4.10	1057	5523.338								
5516.502	5	0.9	<i>s,N</i>	C ₂	R 11	2,3	19	5523.573	5	0.9	<i>u,N</i>				
5516.738	41	3.3	<i>s,N</i>	Mn I	2.18	4		5523.753	2	0.4					
5516.821		4.4						5523.870	3	0.5	C ₂	{P 33 P 34}	2,3 2,3	19	
5517.075	18	3.3	<i>u</i>	Fe I	4.21	1109		5524.000	9.5	1.7	<i>u</i>				
5517.18 m			<i>s</i>	V I?	0.00	2	13	5524.108	1	0.2					
5517.254	0.5	0.1						5524.268	5	0.9		Fe I	4.15	1059	
5517.380	0.5	0.1						5524.471	1.5	0.3		C ₂	R 26	1,2	19
5517.552	14	2.5	<i>u,N</i>	Si I	5.08			5524.578	2	0.4		C ₂	R 25	1,2	19
5517.774	1.5	0.3						5524.800	2	0.4		C ₂	{R 24 R 7}	1,2 2,3	19
5518.095	2	0.4	<i>s</i>	Ti I p	2.41	265		5524.999	3.5	0.6	<i>s,N</i>	Co I	4.11	192	16
5518.170	1.5	0.3		C ₂	R 27	1,2	19	5525.135	13	2.4	<i>w</i>	Fe II? p	3.27	56	
5518.371	2	0.4		C ₂	R 12	2,3	19	5525.354	2	0.4					
5518.545	4.5	0.8		Fe I p	5.03	1314		5525.552S	102	18.4	<i>u</i>	Fe I	4.23	1062	
5518.796	2	0.4		C ₂	R 12	2,3	19	5525.716	3.5	0.6					
5518.980	1.5	0.3						5525.853	4.5	0.8					
5519.077	2	0.4						5526.194	3.5	0.6		C ₂	{P 51 R 6}	1,2 2,3	19
5519.426	4	0.8		C ₂	{R 39 R 40}	0,1 0,1	19	5526.313	1	0.2					
5519.585	25	4.5	<i>d,w?</i>	Fe I				5526.572	1	0.2					
5519.858	5.5	1.0	<i>s,N</i>	Fe II p— C ₂	3.34 {P 53 R 10}	52 1,2 2,3	17 19	5526.821m	76	13.8	<i>u</i>	Sc II	1.77	31	
5520.035	2	0.4						5526.993	1.5	0.3		C ₂	P 31	2,3	19
5520.226	3	0.5		Fe I? p	4.44	1144		5527.112	2	0.4		C ₂	P 30	2,3	19
5520.511	7.5	1.4	<i>s,d</i>	Sc I	1.86	15		5527.410	1.5	0.3					
5520.715	1.5	0.3						5527.580	6	1.1	<i>s,d?</i>	Y I— Ti I	1.40 2.43	12 265	
5520.946	10	1.9	<i>u</i>					5527.873	6.5	1.2		C ₂	{R 37 R 38}	0,1 0,1	19
5521.139	7	1.3	<i>u</i>	Ca I Fe I	1.89 3.63	839		5528.086	3	0.5					
5521.302	6.5	1.2	<i>u</i>	Fe I p	4.43	1162		5528.418m	293	58.8	<i>S</i>	Mg I	4.34	9	
5521.437	3	0.5		Ni I	3.84	175		5528.905	22	4.0	<i>u</i>	Fe I p	4.47	1161	
5521.590	5.5	1.0	<i>w</i>	Y I Y II	1.90 1.74	27		5529.171	17	3.1	<i>s</i>	Fe I	3.64	872	
5521.791	1.5	0.3		Sr I?	2.25	9		5529.347	4	0.7					
5522.167	5.5	1.0		C ₂	P 34	2,3	19	5529.46 a	2	0.4					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	
5529.791	1.5	0.3		Fe I p	2.86	344		5537.119	3	0.5	o?	Ni I	3.85	188		
5529.966	5	0.9						5537.297	1	0.2						
5530.281	1	0.2						5537.517	2	0.4						
5530.491	11	2.0	s					5537.718	34	2.7	s	Mn I	2.19	4		
5530.786	[14]	2.5	s,d	Co I	1.71	38	5537.811									
5531.113	1.5	0.3		C ₂	P 27	2,3	19	5538.045	2	0.4						
5531.444	1.5	0.3						5538.189	2	0.4						
5531.697	1.5	0.3						5538.316	1.5	0.3						
5531.985	18	3.2	w	Fe I	4.91	1281		5538.522m	38	6.9	u	Fe I	{3.63 4.22}	{839 1064}		
5532.137	6.5	1.2		C ₂	{R 35 P 28}	{0.1 2,3}	19	5538.718	3	0.5		C ₂	P 20	2,3	19	
5532.355	5	0.9		C ₂	{P 47 P 26}	{1,2 2,3}	19	5539.063	2.5	0.4		C ₂	R 22	1,2	19	
5532.751m	39	7.0	u	Fe I	3.57	783		5539.291	22	4.0	u	Fe I	3.64	871		
5532.879	21	3.8	w	Fe I?				5539.534	3.5	0.6		Cr I— C ₂	P 19	2,3	19	
5533.039	7	1.3	s	Mo I	1.33	4		5539.832	9.5	1.7	u	Fe I	4.29	1130		
5533.156	[3.5]	0.6						5539.978	5	0.9		C ₂ ?	{P 17 P 18}	{2,3 2,3}	19	
5533.438	2	0.4		C ₂	{R 23 P 25}	{1,2 2,3}	19	5540.181	4.5	0.8		C ₂	P 17	2,3	19	
5533.584	2	0.4		C ₂	R 24	1,2	19	5540.452	8	1.4		C ₂	{P 15 P 16}	{2,3 2,3}	19	
5533.798	3	0.5		C ₂	R 24	1,2	19	5540.724	5.5	1.0		C ₂	{P 14 P 16}	{2,3 2,3}	19	
5534.295	3	0.5		C ₂	P 25	2,3	19	5540.898	6.5	1.2	u	C ₂	P 44	1,2	16,19	
5534.406	[2.5]	0.4						5540.898	6.5	1.2	u	C ₂	P 44	1,2	16,19	
5534.676	10	1.8	s	Fe I	{3.64 4.15}	{871 1063}		5541.290	1	0.2						
5534.848S	63	11.4	w	Fe II	3.24	55		5541.592	1.5	0.3		Fe I p	3.30	627		
5535.062	2	0.4						5541.909	1.5	0.3		C ₂ ?	R 21	1,2	19	
5535.190	5	0.9	u?	C ₂	{P 48 P 25}	{1,2 2,3}	19	5542.149	1.5	0.3		C ₂	R 21	1,2	19	
5535.425m	113	13.6	u	Fe I	{3.25 4.19}	{626 1029}		5542.326	1.5	0.3						
5535.51 m			S	Ba I	0.00	2	13	5542.541	1	0.2						
5535.561			u						5542.749	0.5	0.1					
5535.767	1	0.2						5542.897	2	0.4						
5535.859	1.5	0.3						5543.046	10	1.8	u	Fe I p	{3.69 4.19}	{926 1064}		
5536.086	3.5	0.6		C ₂	P 24	2,3	19	5543.199m	61	11.0	u	Fe I	3.69	926		
5536.280	4.5	0.8		C ₂	R 34	0,1	19	5543.411	3.5	0.6						
5536.465	2	0.4		C ₂ ?	R 23	1,2	19	5543.57 a	2	0.4						
5536.598	7	1.3	s	Fe I p	2.83	345		5543.758	2	0.4						
5536.814	1	0.2		C ₂	P 23	2,3	19	5543.944m	63	11.4	u	Fe I	4.22	1062		
5536.929	1	0.2		C ₂ ?	P 23	2,3	19	5544.174	6	1.1						
								5544.348	4	0.7		C ₂ ?	R 20	1,2	19	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5544.616	8	1.4	<i>u?</i>	Y I Y II	1.90 1.74		17 27	5552.855	1.5	0.3		Fe I p	2.83	344	
5544.770	2	0.4		C ₂	R 20	1,2	19	5553.130	5.5	1.0	<i>u?</i>				
5545.052	4	0.7		C I	{8.64 8.64			5553.235	3.5	0.6		Fe I p	4.22	1064	
5545.275	2.5	0.4		Fe II p	2.58	24		5553.589m	40	7.2	<i>s?</i>	Fe I	4.43	1161	
5545.433	2	0.4						5553.707	22	4.0	<i>s</i>	Ni I	1.93	69	
5545.704	0.5	0.1						5554.00 a	2	0.4		C ₂	R 16	1,2	19
5545.936	5	0.9	<i>s, d</i>	V I Co I	1.06 4.11	38 191		5554.245	2	0.4		C ₂	R 16	1,2	19
5546.032	6.5	1.2		Y II	1.75	27		5554.528	1.5	0.3		C ₂	R 16	1,2	19
5546.344	1	0.2						5554.660	2	0.4					
5546.514S	53	9.6	<i>u</i>	Fe I	4.37	1145		5554.820	102	2.2 16.9	<i>s</i>	Fe I	4.55	1183	
5546.745	6	1.1	<i>u</i>				5554.900m								
5547.000m	29	4.1 0.7	<i>u</i>	Fe I	4.22	1061		5555.178	7	1.3		Fe I p	3.55	740	
5547.06 m			<i>S</i>	V I	1.08	38		5555.358	2	0.4					
5547.306	4	0.7						5555.469	2.5	0.4					
5547.694	3.5	0.6						5555.646	3.5	0.6	<i>s, d</i>	C ₂	P 38	1,2	17,19
5547.945	2.5	0.4		C ₂ ?	R 31	0,1	19	5555.734	5.5	1.0					
5548.200	2.5	0.4						5556.202	1	0.2		Cr I C ₂	3.01 R 15	121 1,2	19
5548.318	3	0.5						5556.478	1	0.2	<i>s?</i>	Yb I— C ₂	0.00 R 15	1 1,2	17 19
5548.481	2.5	0.4						5556.714	1.5	0.2					
5548.617	2	0.4		Cr I?	3.42			5556.974	4	0.7	<i>u?</i>				
5548.76 m			<i>s</i>				13	5557.070	5	1.1	<i>s</i>	Al I	3.14	6	
5548.93 a	1.5	0.3						5557.482	5	1.1	<i>s</i>	C ₂ V I?	{P 37 P 39 0.02	1,2 1,2 1	16,19
5549.325	1.5	0.3		C ₂	R 18	1,2	19								
5549.532	1	0.2		Fe I p	4.39	1159		5557.728	2	0.4					
5549.656	9.5	1.7	<i>u</i>	Fe I p	4.99	1314		5557.916	57	4.1 6.8	<i>u</i>	Fe I p Al I	{3.11 4.47 3.14	464 1164 6	
5549.958	10	1.8	<i>s</i>	Fe I	3.69	926		5557.995							
5550.29 a	1.5	0.3						5558.177	2	0.4					
5550.659	1	0.2						5558.260	2.5	0.4					
5550.891	1	0.2						5558.600	1	0.2		C ₂	R 14	1,2	19
5551.025	2.5	0.4						5558.77 a	3	1.1	<i>s, N</i>	V I	1.71	77	
5551.311	1	0.2		Fe I p	3.41	714		5558.850	3	0.5		Co I?	3.53	166	
5551.548	5.5	1.0		C I?	8.64			5559.061	5.5	1.0					
5551.778	6	1.1		Fe I p	4.10	1059		5559.648	7.5	1.3	<i>o</i>	Fe I p	4.99	1282	
5551.978	8.5	1.5	<i>u</i>	Mn I	5.49			5559.896	4.5	0.8	<i>u</i>				
5552.237	5.5	1.0	<i>w</i>	Sc II	1.45	25		5560.025	0.5	0.1					
5552.459	1	0.2	<i>s</i>				16								
5552.700	7	1.3	<i>u</i>	Fe I p	4.95	1281									

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5560.220m	44	8.3	<i>u</i>	Fe I	4.43	1164		5567.776	7.5	1.3	<i>s</i>	Y I? Mn I	1.92 5.52		
5560.431	2	0.4						5568.075	3	0.5	<i>s,d</i>	Fe I p	4.15	1059	17
5560.552	1	0.2	<i>s</i>	V I	0.04	1		5568.280	3.5	0.6	<i>s</i>	Cr I	3.00		16
5560.694	1	0.2		C ₂	R 13	1,2	19	5568.470	1	0.2		Fe I p	4.15	1058	
5561.015	1.5	0.3		C ₂	R 13	1,2	19	5568.705	2.5	0.4		Fe I p	4.14	1026	
5561.246	8.5	1.5	<i>w?</i>					5568.871	8.5	2.0	<i>s</i>	Fe I	3.63	869	
5561.479	2	0.4						5569.034	1.5	0.3					
5561.608	4	0.9						5569.157	2	0.4					
5561.825	3.5	0.6						5569.329	1.5	0.3					
5562.125	8	1.4	<i>o</i>	Fe I p	4.39	1162		5569.631m	162	30.3	<i>s</i>	Fe I	3.42	686	
5562.283	5.5	1.0		C ₂	R 12	1,2	19	5570.069	2.5	0.4	<i>u,N</i>	Fe I p	2.84	345	
5562.497	5	0.9						5570.397	6.5	1.2	<i>s</i>	Mo I	1.33	4	
5562.716m	52	9.3	<i>u</i>	Fe I	{3.27 4.43}	{626 1163}		5570.613	2.5	0.4					
5562.929	3.5	0.6						5570.763	1.5	0.3		C ₂	R 7	1,2	19
5563.286	5	0.9						5571.488	4.5	0.8		C ₂ Cr I	R 7	1,2	19
5563.405	1	0.2						5572.155	4.5	0.8		C ₂ -	R 6	1,2	19
5563.608	92	14.0	<i>u</i>	Fe I	4.19	1062		5572.352	4.5	0.4					
5563.702		3.4	<i>s</i>	Fe I p	{2.42 4.14}	{112 1023}		5572.454			0.4				
5564.134	1.5	0.3		-C ₂ ?	R 11	1,2	19	5572.652	4.5	0.8		C ₂ ?	R 27	0,1	19
5564.58 a	1	0.2		C ₂	R 11	1,2	19	5572.851m	205	36.8	<i>s</i>	Fe I	3.40	686	
5564.972	4	0.7		C ₂	R 11	1,2	19	5573.107m	44	7.9	<i>u</i>	Fe I	4.19	1061	
5565.32 a	2.5	0.4						5573.308	1.5	0.3					
5565.485m	[16]	2.9	<i>S</i>	Ti I	2.24	229		5573.544	2	0.4	<i>o</i>	-C ₂	{R 6 R 5}	{1,2 1,2}	}19
5565.713m	79	14.2	<i>s</i>	Fe I	4.61	1183		5573.655	4	0.7		Mn I?	5.54		
5565.953	4.5	0.8		C ₂	{R 28 R 10}	{0,1 1,2}	}19	5573.757	2	0.4		C ₂	P 28	1,2	19
5566.085	16	2.9	<i>u</i>					5574.04m	1	0.2	<i>s</i>	V I?	0.04		
5566.241	2	0.4						5574.399m	3	0.5	<i>s</i>	Cr I	4.45		
5566.415	0.5	0.1		C ₂	R 10	1,2	19	5574.912	2	0.4		C ₂	P 29	1,2	19
5566.563	0.5	0.1		Cr I?	3.43			5575.093	1.5	0.3		C ₂	R 5	1,2	19
5566.729	5	0.9						5575.396	0.5	0.1					
5566.814	3	0.5		C ₂ Fe I p	R 10 3.25	1,2 625	19	5575.544	1.5	0.3		C ₂	R 26	0,1	19
5566.994	1	0.2						5575.683	2.5	0.4		C ₂	R 26	0,1	19
5567.152	0.5	0.1						5575.862	4	0.7		C ₂	R 26	0,1	19
5567.285	10	1.8	<i>s</i>					5576.099m	113	21.9	<i>u</i>	Fe I	3.43	686	
5567.400m	57	10.2	<i>s</i>	Fe I	2.61	209		5576.371	6	1.1					
5567.586	2	0.4						5577.028	13	2.7	<i>w</i>	Fe I	5.03	1314	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5577.341	6	1.1	w?	C ₂ [[O I]	P 27 1.97	1,2 3F	19 25	5585.325	3	0.5		C ₂	{ P 11 P 12 P 13	1,2 1,2 1,2	} 19
5577.562	3	0.5						5585.513	4	0.7		C ₂	P 16	1,2	19
5577.76 a	1	0.2						5585.663	5.5	1.0	s	Ti I			
5578.525	5	0.9						5586.002	2	0.4	s,N	V I	1.86	85	
5578.729m	46	9.3	s	Ni I	1.68	47		5586.280	8.5	1.5	s				17
5579.039	4	0.7		C ₂	R 25	0,1	19	5586.682r		1.2					
5579.165	2.5	0.4	s	Ti I?				5586.771m	245	43.5	s	Fe I	3.37	686	
5579.352	10	1.8	s	Fe I p	4.23	1061	17	5586.91 m			5.9	s			
5579.493	3.5	0.6		C ₂	P 25	1,2	19	5587.132	4	0.7					
5579.70 a	3.5	0.6						5587.369	1.5	0.3		Fe I p	3.27	583	
5579.907	3	0.5	s,N				17	5587.581m	31	6.4	u	Fe I	4.14	1026	
5580.04 a	3.5	0.6						5587.728	1	0.2		C ₂ ?	R 22	0,1	19
5580.309	2	0.4	s					5587.868m	49	9.8	s	Ni I	1.93	70	
5580.453	3.5	0.6		C ₂	P 24	1,2	19	5588.142	4.5	0.8					
5580.664	4.5	0.8						5588.251	3	0.5					
5581.058	3.5	0.6						5588.764m	141	28.1	s	Ca I	2.52	21	
5581.284	5	0.9		C ₂	P 23	1,2	19	5589.010	11	2.0	s,N	Fe I p-	4.47	1160	
5581.524	3	0.5		C ₂	P 21	1,2	19	5589.207	0.5	0.1					
5581.706	5	0.9		C ₂	R 24	0,1	19	5589.366	25	5.2	u	Ni I	3.90	205	
5581.979m	91	16.7	S	Ca I	2.52	21		5589.578	1	0.2					
5582.149	2.5	0.4						5589.861	16	2.9	w	Fe I			
5582.287	5.5	1.0		C ₂	{ P 3 P 20	1,2 1,2	} 19	5590.126S	86	16.3	S	Ca I	2.52	21	
5582.414	3.5	0.6		C ₂	{ P 4 P 15	1,2 1,2	} 19	5590.371	2.5	0.4		C ₂	R 21	0,1	19
5582.757	5.5	1.0		C ₂	P 21	1,2	19	5590.508	1	0.2		C ₂	R 21	0,1	19
5582.970	3.5	0.6	s	Ti I				5590.706	6	1.1	s	Co I	2.04	90	
5583.145	1	0.2						5590.818	5.5	1.0	s				
5583.391	2	0.4		C ₂	P 20	1,2	19	5591.003	1.5	0.3					
5583.627	1.5	0.3		C ₂	{ P 5,6 P 18	1,2 1,2	} 19	5591.369	7	1.3	s,N	Sc I— Fe II? p	1.99 3.27	18 55	
5583.991	8	1.4	u,N	Fe I p	4.19	1059		5591.978	[2]	0.4					
5584.313	1.5	0.3		C ₂	P 18	1,2	19	5592.152	32	5.7	u	Ni I	4.23	250	
5584.514	4.5	1.1	s	V I	1.06	37		5592.266m	50	8.9	s	Ni I	1.95	69	
5584.773m	32	6.3	s	Fe I (V I)	3.57 1.87	782 85		5592.427	5	0.9	s	V I	1.05	37	
5585.045	4.5	0.8		C ₂	{ R 23 P 17	0,1 1,2	} 19	5592.663	5	0.9	s				
5585.180	12	2.1		C ₂	P 16	1,2	19	5592.958	1	0.2	s,N	V I	0.04	1	
								5593.240	0.5	0.1		C ₂	R 20	0,1	19
								5593.458	3	0.5	u?				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5593.746m	42	8.0	<i>u</i>	Ni I	3.90	206		5602.773	215	6.6	<i>s</i>	Fe I	4.15	1062	
5593.979	1.5	0.3					5602.864	15.9		Ca I		2.52	21		
5594.169	2.5	0.4					5602.969	18.6		Fe I		3.43	686		
5594.471m	117	20.9	<i>s</i>	Ca I (Nd II)	2.52 1.12	21 79		5603.303	6.5	1.2		C ₂	R 16	0,1	19
5594.666m	60	10.7	<i>s</i>	Fe I	4.55	1182		5603.519	2.5	0.4		C ₂	R 16	0,1	19
5594.897	1.5	0.3					5603.771	20	3.7	<i>u</i>					
5595.067	6.5	1.2	<i>s</i>	Fe I p	5.06	1314		5604.198	1	0.2	<i>s</i>	V I	{1.85 1.95}	85	
5595.486	1	0.2					5604.956	3.5	0.9	<i>S</i>	V I	1.04	37		
5595.691	0.5	0.1		C ₂	R 19	0,1	19	5605.348	1.5	0.3		C ₂	R 15	0,1	19
5595.912	1.5	0.3		C ₂ ?	R 19	0,1	19	5605.649	1.5	0.3		C ₂ ?	R 15	0,1	19
5596.185	6	1.1		C ₂				5605.903	5	0.9		C ₂	R 15	0,1	19
5596.341	1	0.2		C ₂	P 41	0,1	19	5606.049	2	0.4		C ₂	P 37	0,1	19
5596.591	1	0.2						5607.003	2	0.4	<i>o</i> ?	Ni I	3.90	205	
5597.072	3.5	0.6	<i>u</i>					5607.154	0.5	0.1		Fe II? p	2.58	24	
5597.248	0.5	0.1						5607.399	1	0.2					
5597.471	2	0.4						5607.542	1.5	0.3		C ₂	R 14	0,1	19
5597.69 m			<i>s,N</i>	Ti I?			13,16	5607.669	13	2.3	<i>u</i>	Fe I p	4.15	1058	
5597.876	3	0.5	<i>s,N</i>	Cr I	3.84	239	16	5607.842	1.5	0.3		C ₂	R 14	0,1	19
5598.305m	83	14.8	<i>u</i>	Fe I	4.65	1183		5608.174	1.5	0.3		C ₂	{P 37 P 38}	{0,1 0,1}	19
5598.491m	118	21.1	<i>s</i>	Ca I	2.52	21		5608.314	1	0.2		C ₂	P 36	0,1	19
5598.820	3	0.4		C ₂	P 42	0,1	19	5608.981	8.5	1.7	<i>u</i>	Fe I p	4.21	1108	
5598.867m		0.2	<i>s</i>					5609.180	0.5	0.1	<i>s,N</i> ?	Cr I	3.45	223	
5598.956	2	0.4		C ₂	P 40	0,1	19	5609.682	1.5	0.3		C ₂	R 13	0,1	19
5599.147	3	0.5						5609.806	3	0.5	<i>u</i>				
5600.028	23	4.1	<i>u</i>	Ni I	4.09	219		5609.987	6	1.1	<i>s</i>	Fe I p	3.64	866	
5600.103	5	0.9						5610.246	5	0.9	<i>s</i>	Ce II C ₂	1.05 P 37	26 0,1	17 19
5600.234	35	6.2	<i>u,N</i>	Fe I	{3.63 4.26}	{866 1108}		5610.391	4	0.7		C ₂	P 35	0,1	19
5600.463	2	0.4						5610.601	2.5	0.5					
5600.695	3.5	0.6		C ₂	R 17	0,1	19	5610.90 a	2	0.4					
5600.821	12	2.1	<i>s</i>	Ti I				5611.056	2	0.4					
5601.286S	100	17.8	<i>S</i>	Ca I	2.52	21		5611.368	8	1.4	<i>u</i>	Fe I p	3.63	869	
5601.435	4.5	0.8						5611.644	3	0.5	<i>o</i>				
5601.820	16	2.8	<i>u,N</i>	Cr I?	3.45			5612.350	4	0.7		C ₂	R 12	0,1	19
5602.076	7	1.2	<i>s,N</i>				17	5612.498	1	0.2		C ₂	P 34	0,1	19
5602.562	9	1.6	<i>u</i>	Fe I p	4.95	1281		5613.715	3	0.5	<i>u,N</i>	Fe I p	5.01	1282	
								5614.041	1.5	0.3		C ₂	R 11	0,1	19

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5614.282	14	2.5	<i>u,N</i>	Fe I p	5.08	1314		5621.77 a to 5622.12 a	5.5	1.0					
5614.423	2	0.4		C ₂	{P 35 R 11}	{0,1 0,1}	19	5622.231	5.5	1.0		Si I	4.93	11	
5614.602	2	0.4		Fe I? p	3.55	739		5622.782	2.5	0.4	<i>u</i>	C ₂			
5614.781m	40	7.1	<i>w?</i>	Ni I	4.15	250		5622.959	7	1.2	<i>u,N</i>	C ₂	P 28	0,1	19
5614.983	8.5	1.5						5623.639	2	0.4		Fe I p	3.27	625	
5615.163	68	0.4		Fe I p	4.37	1143		5624.030m	49	9.2	<i>u</i>	Fe I	4.39	1160	
5615.308m		12.6	<i>s</i>	Fe I	2.59	209		5624.192	4.5	0.8		C ₂	P 29	0,1	19
5615.529	288	8.7	<i>u,N?</i>					5624.356	2.5	0.4		-C ₂ ?	P 29	0,1	19
5615.658m		45.2	<i>S</i>	Fe I	3.33	686		5624.558S	140	25.6	<i>s</i>	Fe I— V I	3.42 1.06	686 37	
5616.188	3	0.5						5624.880	6	1.1	<i>S</i>	V I	1.05	37	
5616.331	2.5	0.4		C ₂	{P 34 R 10}	{0,1 0,1}	19	5625.092	2	0.4					
5616.952	1	0.2						5625.328m	37	7.1	<i>w</i>	Ni I	4.09	221	
5617.148	30	2.8	<i>u</i>	Fe I p	4.22	1088		5625.541	1	0.2		C ₂ ?	P 28	0,1	19
5617.236		2.5	<i>w?</i>	Fe I	3.25	626		5625.687	28	5.2	<i>w?,N</i>	-Fe I			
5617.421	1	0.2						5626.027	3.5	0.7	<i>S,d?</i>	V I	1.04	37	17
5617.755	0.5	0.1		C ₂	R 9	0,1	19	5626.250	1	0.2					
5617.918	1.5	0.3		C ₂	P 33	0,1	19	5626.599	1.5	0.3					
5618.080	1	0.2		C ₂	P 33	0,1	19	5626.819	3.5	0.6		C ₂	P 27	0,1	19
5618.38 m	1	0.1	<i>S</i>				16	5627.097	2.5	0.4		Fe I p	4.18	1084	
5618.431		0.1						5627.262	1	0.2					
5618.642m	42	8.0	<i>s</i>	Fe I	4.21	1107		5627.373	0.5	0.1					
5618.847	1.5	0.3		C ₂	R 8	0,1	19	5627.502	7.5	1.3	<i>o</i>	Fe II p	3.39	57	
5618.979	0.5	0.1						5627.642	20	3.6	<i>S</i>	V I	1.08	37	
5619.239	3.5	0.6	<i>w</i>	Fe I? p	3.69	923		5627.874	0.5	0.1					
5619.423	1	0.2						5628.022	2.5	0.4	<i>o</i>	-C ₂	P 26	0,1	19
5619.609	29	6.0	<i>u</i>	Fe I	4.39	1161		5628.193	1.5	0.3		C ₂	P 26	0,1	19
5619.819	3	0.5		C ₂	P 32	0,1	19	5628.354	14	2.8	<i>u</i>	Ni I	4.09	215	
5620.030	7	1.2	<i>w?,N</i>	Fe I	{4.14 4.56}	{1026 1205}		5628.650	15	2.7	<i>s</i>	Cr I	3.42	203	
5620.17?m	0.5	0.1	<i>s</i>	Zr I	0.52	25		5628.883	0.5	0.1					
5620.236	0.5	0.1						5629.048	2	0.4		C ₂ ?	P 25	0,1	19
5620.411	7	1.2	<i>s?</i>					5629.237	4	0.7		C ₂ ?	P 25	0,1	19
5620.496	30	5.3	<i>u</i>	Fe I	4.15	1061		5629.709	1	0.2					
5620.647	2	0.4		Nd II	1.54	86		5629.876	0.5	0.1					
5621.221	5	0.9		C ₂	P 30	0,1	19	5630.101	3	0.5	<i>s</i>	C ₂ Y I?	P 24 1.36	0,1 12	19
5621.385	5	0.9		C ₂	P 29	0,1	19	5630.303	2	0.4		C ₂	P 24	0,1	19
5621.621	11	2.0	<i>s,d?</i>	Si I	5.08		16	5630.980	1.5	0.3		C ₂	P 23	0,1	19

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5631.157	1.5	0.3						5640.687	1	0.2					
5631.693	3	0.5		Fe I	4.47	1159		5640.989m	39	6.9	w	Sc II	1.50	29	
5631.826	8.5	1.5		C ₂	P 22	0,1	19	5641.131	4	0.7		Ni I	4.10	230	
5632.011	2.5	0.4		C ₂	P 20	0,1	19	5641.291	1	0.2					
5632.455	3.5	0.7	s,N	V I	0.07	1		5641.448S	64	12.0	u	Fe I	4.26	1087	
5632.756	3	0.5		C ₂	P 21	0,1	19	5641.737	3.5	0.6		Cr I	3.82		
5633.220	4	0.7		C ₂	P 20	0,1	19	5641.893	24	4.2	w?	Ni I	4.10	234	
5633.443	1.5	0.3		C ₂	P 20	0,1	19	5642.178	3	0.5					
5633.646	2.5	0.4		C ₂				5642.381	5	0.9	s	Cr I	3.86	239	
5633.753	2.5	0.4		C ₂	P 19	0,1	19	5642.623	4.5	0.8	u	Ni I	3.90	203	
5633.953m	68	12.4	u	Fe I	4.99	1314		5642.761	9.5	1.7	s?	Fe I p	4.61	1184	
5634.231	3.5	0.6		C ₂	P 18	0,1	19	5643.087	14	2.8	w?	Ni I	4.16	259	
5634.523	4.5	0.8		C ₂ Fe I p	P 18 4.99	0,1 1281	19	5643.290	0.5	0.1					
								5643.934	10	1.8	u	Fe I p	4.07	1021	
5634.874	7.5	1.3		C ₂	{P 16 P 17}	{0,1 0,1}	}19	5644.037	14	2.5	u	Fe I			
5635.198	[6.5]	1.2		C ₂ ?	P 16	0,1	19	5644.146m	29	5.1	s	Ti I	2.27	240	
5635.346	3	0.5		C ₂	P 15	0,1	19	5644.350	4	0.7		Fe I p	4.15	1057	
5635.514	3	0.5		C ₂	{P 13 P 14}	{0,1 0,1}	}19	5645.039	[5.5]	1.0	o				
								5645.292	2	0.4					
5635.831m	30	5.7	s?	Fe I	4.26	1088		5645.618m	35	6.2	w,N	Si I	4.93	10	
5636.003	0.5	0.1		Fe I p	4.19	1058		5645.837	12	2.1	u				
5636.124	1.5	0.3		Co I	4.15			5646.111	5	0.9	S	V I	1.05	37	
5636.234	3.5	0.6	u,N	Ru I	1.06	10		5646.319	0.5	0.1					
5636.475	1	0.2						5646.689	6	1.6	w?	Fe I p	4.26	1109	17
5636.705	17	3.5	s?	Fe I	3.64	868		5647.241	11	2.3	s	Co I	2.28	112	
5636.901	0.5	0.1						5647.447	1	0.2					
5637.123m	31	5.8	u	Ni I	4.09	218		5647.550	0.5	0.1					
5637.414m	44	8.2	w	Fe I				5647.779	1.5	0.3					
5637.707	3.5	0.6		-Co I?	4.15	195		5647.896	2	0.4		Cr I	3.82		
5638.271m	74	13.6	s	Fe I	4.22	1087		5648.279	5	1.2	u	Cr I	3.82	239	
5638.485	2.5	0.4						5648.578m	10	1.9	s	Ti I	2.49	269	
5638.758	10	1.8	u	Ni I	3.90	203		5648.756	2	0.4	s?				
5639.353	4	0.7	u				16	5648.914	1	0.2		Fe I p	3.25	625	
5639.555	1	0.2	s?					5649.087	10	1.9	s				
5639.996	1	0.2		Co I	2.04			5649.390	8	1.4	s	Cr I	3.84	239	
5640.176	4	0.7						5649.682	32	6.2	{u- o}	Fe I- Ni I	3.63 4.17	838 231	
5640.319	18	3.2	w					5649.996m	33	6.4	u	Fe I	5.10	1314	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5650.204	1.5	0.3						5659.916	1	0.2					
5650.285	1	0.2		Fe I p	4.55	1180		5660.144	1.5	0.3					
5650.460	5.5	1.0						5660.310	1.5	0.3					
5650.694m	34	6.7	w?	Fe I	5.08	1314		5660.520	11	1.9	o	Si I	5.61		
5650.883	1.5	0.3						5660.680	13	2.3	w	Si I	5.61		
5651.040	0.5	0.1						5660.809	16	2.8	s	Fe I	3.64	869	
5651.275	1.5	0.3						5661.025	4.5	0.8	s,N	Fe I p	4.58	1234	
5651.477	16	3.5	w?	Fe I p	4.47	1161		5661.204	1	0.2					
5651.742	2	0.4		Co I?	{1.96 4.26	56		5661.354	19	3.9	u	Fe I	4.28	1108	
5652.029	2.5	0.4		Fe I p	4.22	1059		5661.497	1.5	0.2					
5652.327m	24	4.6	u	Fe I	4.26	1108	5661.617	0.1							
5653.171	1.5	0.3						5661.86 a	1	0.2					
5653.685	2	0.4						5661.986	4.5	0.8	u?	Fe I p	4.26	1109	
5653.874m	36	6.7	u	Fe I	4.39	1159		5662.159m	21	3.7	s	Ti I	2.32	249	
5654.018	1	0.2	s					5662.319	2.5	0.4					
5654.501	75	13.3	u,N					5662.524m	92	17.1	s	Fe I	4.18	1087	
5654.774	0.5	0.1						5662.754	3	0.5					
5654.937	16	2.8	u	Si I	5.61			5662.939m	49	9.4	s	{Fe I Ti I— Y II	3.69 2.48 1.94	924 269 38	
5655.183m	49	8.7	u	Fe I	5.06	1314		5663.132	1	0.2					
5655.343	1	0.2						5663.25 a	2.5	0.4					
5655.500S	68	12.0	s?	Fe I	{4.26 5.03	1107 1314		5663.523	4	0.7					
5655.694	3.5	0.6						5663.824	5	0.9					
5656.900	1	0.2	s,N			16		5664.009m	35	6.2	s	{Ni I Cr I	4.54 3.43	272 203	
5657.260	0.5	0.1						5664.198	1.5	0.3					
5657.450	5.5	1.2	S	V I	1.06	37		5664.26 m			s				13
5657.677	1.5	0.3						5664.365	1.5	0.3					
5657.880m	64	12.2	w	Sc II	1.51	29		5664.52 m	0.5	0.1	s	Zr I	0.63	47	
5658.165	3.5	0.6						5664.581	4.5	0.8	s	Cr I	3.82		16
5658.346	31	5.5	w	Sc II	1.50	29		5664.77 a	1.5	0.3					
5658.542m	222	9.5	u,N	Fe I	3.43	686		5665.00 a	1	0.2					
5658.668		7.4	u	Fe I p	4.28	1087		5665.343	2	0.4					
5658.830m		21.4	s	Fe I	3.40	686		5665.563m	40	7.2	w, N	Si I	4.92	10	
5659.112	9	1.6		Ti I?	0.90	50		5665.920	1.5	0.3		Atm H ₂ O	R 3	203	26
5659.16 m			s	Co I	2.04	82	13	5666.686	22	3.9	w	Si I	5.61		
5659.335	3	0.5						5666.794	6	1.1	u?	Fe I	{4.15 4.15	1053 1060	
5659.593	19	3.9	w,N												
5659.784	1.5	0.3													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5667.153	25	4.4	w?	Sc II	1.50	29		5678.063	1	0.2		Fe I p	4.98	1290	
5667.328	2.5	0.4						5678.390	5	1.2	o?	Fe I p	3.88	982	17
5667.524S	48	8.5	u	Fe I				5678.609	3.5	0.6	u	Fe I p	2.42	113	
5667.786	3	0.5						5678.808r	1.5	0.3		Atm			
5668.091	2	0.4						5679.032S	58	10.9	u	Fe I	4.65	1183	
5668.369	5	1.1	S, d?	V I	1.08	37		5679.284	3.5	0.6					
5668.916	3	0.5		Ce II— C I?	1.01 8.53	23		5679.604r	1	0.2		Atm			
5669.040m	34	6.4	w	Sc II	1.50	29		5679.70 a	1.5	0.3					
5669.251	2	0.4						5679.933	6.5	1.1	S	Ti I	2.47	269	
5669.746	19	3.4	w, N	Si I	5.62			5680.248	10	1.8	u, N	Fe I	4.19	1026	
5669.950	16	2.8	u	Ni I	4.26	250		5680.551r	0.5	0.1		Atm?			
5670.153	1	0.2						5680.760r	1	0.2		Atm			
5670.358	1	0.2		Atm				5680.91 m	1	0.2	s	Zr I	0.54	25	
5670.858	16	3.0	S	V I	1.08	36		5681.068	4	0.7	w?	Cr I?			
5671.073	2	0.4						5681.237	5	0.9	u	Cr I?			
5671.491	9.5	1.7	w					5681.529	3	0.5					
5671.826	14	2.5	S	Sc I	1.45	12		5681.747	5	0.4		Atm			
5672.266	3	0.5		Fe I	4.58	1234		5681.813r		0.4		Atm?			
5672.807	1	0.2						5682.208m	52	9.7	w?	Ni I	4.10	232	
5673.059	1.5	0.3	s	Ti I?				5682.493	7	1.2	u	Cr I	3.84	239	
5673.422	3.5	0.6	s	Ti I	3.11			5682.647m	104	18.5	s	Na I	2.10	6	
5673.75 a	1.5	0.3						5683.006	[8]	1.4	u				
5673.982r	1.5	0.3		Atm?				5683.25 a	3	0.5					
5674.170	2.5	0.4	s	Cr I?	3.55			5683.479r	8	1.4	u				
5674.280r	2	0.4		Atm				5683.782	3	0.5		Atm			
5674.45 a	2	0.4						5683.878	8	1.4		Atm H ₂ O	R 7	203	26
5674.623	4.5	0.8						5684.198m	37	6.9	w	Sc II	1.51	29	
5674.88 a	3.5	0.6						5684.493m	63	11.2	w	Si I	4.95	11	
5675.092	[7.5]	1.3	s	Fe I p	3.30	583		5684.733	3.5	0.6					
5675.434m	71	12.5	s	Si I Ti I	5.62 2.30	249		5685.033r	[2]	0.4		Atm			
5675.732	12	2.1	u, N	Si I?—	5.62		16	5685.438	3.5	0.6		Atm H ₂ O	R 6	203	26
5676.105	3.5	0.6						5685.779r	1	0.2		Atm?			
5676.351	3	0.5						5685.881	2	0.4		Fe I p	4.99	1281	
5676.790	2	0.4		Atm H ₂ O	R 5	203	26	5686.155r	27	0.7					
5676.957	1.5	0.3						5686.207		4.0	w	Fe I?			
5677.462	1.5	0.3						5686.360	10	1.8	u	Rh I?	1.68		
5677.695	6.5	1.3	u	Fe I p	4.10	1057		5686.540m	72	12.7	u	Fe I	4.55	1182	
								5686.839	12	2.1	S	Sc I	1.44	12	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5686.972	2	0.4						5697.399r	1	0.2		Atm H ₂ O	R 3	203	26
5687.32 a	2.5	0.4						5697.579r	1.5	0.3		Atm			
5687.486	12	2.1		Atm H ₂ O	R 3	203	26	5697.832r	1.5	0.3		Atm?			
5687.617	3	0.5		Atm?				5698.027	14	2.4	u	Fe I	3.64	867	
5688.217m	121	22.3	S	Na I (Na I)	2.10 2.10	6 6		5698.194	8.5	1.5		Atm H ₂ O	R 2	203	26
5688.535	} 24	4.2	u?	{ Nd II Co I	0.99	79		5698.340m	30	5.3	s	Cr I Fe I	3.88 4.29	239 1130	
5688.598					2.08	90		5698.530m	34	5.8	S	V I	1.06	35	
5688.88 a	3	0.5						5698.695	4.5	0.8		Atm H ₂ O	R 2	203	26
5689.039r	2.5	0.4		Atm?				5698.887	2	0.4					
5689.477m	11	1.9	s	Ti I	2.30	249		5699.321	7	1.2		Atm H ₂ O (Fe I)	R 1	203	26
5689.599	6	1.1		Atm H ₂ O	R 4	203	26	5699.424	4	0.7	u				
5689.901	2	0.4		Atm				5699.590r	1	0.2					
5690.070	1	0.2		Fe I p	5.01	1281		5699.76 a	1	0.2					
5690.228	4	0.7		Atm H ₂ O	R 3	203	26	5700.186	} 29	{ 2.6	S	Sc I	1.43	12	
5690.433S	53	9.7	w	Si I	4.93	10	5700.284	s			Cu I	1.64	2		
5690.957	3.5	0.6		Cr I?	3.10			5700.524	6	1.1	s,N	Cr I	{3.45 3.55	203 228	
5691.08 a to 5691.38 a	} 5.5	1.0						5700.727	9.5	1.7	w	Atm H ₂ O—	R 1	203	26
5691.505m								38	7.0	u	Ni I— Fe I	4.10 4.30	228 1087	5700.920	2.5
5691.699	5.5	1.0		Fe I p	4.22	1084		5701.108m	40	7.2	w	Si I	4.93	10	
5692.424	9.5	1.7		Atm H ₂ O	R 3	203	26	5701.335	4	0.7	s				16
5692.756	2.5	0.4						5701.557S	86	15.6	s	Fe I	2.56	209	
5692.873	6	1.1						5701.743	2.5	0.4					
5693.132	2.5	0.4		Cr I	8.53			5701.895	5	0.9		Atm H ₂ O	R 1	500	26
5693.325	3	0.5						5702.013	2	0.4					
5693.650m	48	8.6	w?	Fe I				5702.328m	27	4.7	s	Cr I	3.45	203	
5693.952	1	0.2						5702.535	1.5	0.3					
5694.163	2	0.4		Atm H ₂ O	R 3	203	26	5702.661	7	1.2	S	Ti I	2.29	249	
5694.744	19	3.3	s	Cr I	3.86	239		5702.797r	2	0.4		Atm			
5694.991m	41	7.6	w	Ni I	4.09	220		5702.917	6	1.1	w?				
5695.241r	3.5	0.6		Atm?				5703.090	2	0.4		Fe I p	4.19	1053	
5695.959	2.5	0.4		Atm H ₂ O	R 2	203	26	5703.223	3	0.5		Atm H ₂ O	R 1	203	26
5696.099	13	2.3	w,N	Fe I p Fe II p	4.55 2.64	1179 18		5703.382	1.5	0.3					
5696.367r	3	0.5	u,N					5703.587m	26	4.6	S	V I	1.05	35	
5696.652	3.5	0.6		Si?	7.86	11		5703.697	5.5	1.0		Ni I	3.94		
5696.824	5	0.9		Atm H ₂ O	R 3	203	26	5703.882	1.5	0.3					
								5704.212r	1	0.2		Atm H ₂ O	Q 4	203	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5704.390	0.5	0.1						5713.11a	2	0.3					
5704.57 a	1	0.2						5713.458	2	0.3					
5704.740	21	3.7	w	Fe I				5713.896	5	0.8	S	Ti I	2.29	249	17
5705.066r	0.5	0.1		Atm?				5714.060r	1.5	0.3		Atm H ₂ O	Q 1	203	26
5705.309r	1	0.2		Atm? Fe I p	4.22	1058		5714.159	21	3.7	u	Fe I			
5705.473m	37	6.8	u	Fe I	4.30	1087		5714.397	2	0.3					
5706.008m	74	13.0	w	Fe I	4.61	1183		5714.554	7.5	1.3	o				
5706.108	25	4.4	w,N	Fe I p	4.28	1088		5714.744	1	0.2					
5706.34 a	5.5	1.0						5714.901	1.5	0.3		Fe I p	3.24	552	
5706.715	14	2.4	w,N					5715.094m	73	13.1	s?	Ni I Fe I Ti I	4.09 4.19 4.28 2.25	231 1061 1086 228	
5706.982	43	1.9	S	V I	1.04	35									
5707.048		5.6	u	Fe I	3.64	868		5715.318	2.5	0.4					
5707.245	4	0.7		Fe I p	3.64	866		5715.471	4	0.7	u	Fe I p	4.15	1054	
5707.398	1.5	0.3						5715.821	3.5	0.6	s	Ca I Fe I p	2.71 4.56	1198	
5707.713	1.5	0.3		Fe I p	4.10	1056		5716.226	2	0.3					
5707.921	1	0.2						5716.455m	6.5	1.1	S,d	Ti I	2.30	249	
5708.102m	37	6.5	w	Fe I	4.43	1161		5716.970r	1.5	0.3		Atm			
5708.214	4	0.7	S	Ti I	2.32	249		5717.311	2.5	0.4	S	Sc I	1.44	12	
5708.405m	77	13.7	w	Si I	4.95	10		5717.508	7.5	1.3		Atm H ₂ O	Q 1	203	26
5708.663	6	1.1	S	Sc I	1.45	12		5717.695	3.5	0.6					
5708.892?	6	1.1	s					5717.841m	63	11.2	u	Fe I	4.28	1107	
5709.110	4	0.7						5718.122	4	0.7		Nd II?	1.41	86	
5709.386m	103	18.0	s	Fe I	3.37	686		5718.294r	4.5	0.8		—Atm?			
5709.555m	90	15.8	s?	Ni I	1.68	46		5718.60 a	1	0.2					
5709.779	3	0.5						5718.938	5	0.8		Atm H ₂ O	Q 4	203	26
5709.929	12	2.1	u	Fe I p	4.26	1088		5718.992r		0.1		Atm H ₂ O—	Q 3	500	26
5710.297	1	0.2						5719.320r	3.5	0.6		Atm?			
5710.800r	6	1.0		Atm H ₂ O	R 1	500	26	5719.584	5.5	1.0	o	Atm H ₂ O—	Q 2	203	26
5711.095m	107	18.9	u	Mg I	4.34	8		5719.718	1	0.2		Atm H ₂ O	Q 3	203	26
5711.398r	8.5	1.5		Atm H ₂ O	Q 2	203	26	5719.828	5	0.8	s	Cr I	3.01	119	
5711.543r	3	0.5		Atm H ₂ O?	R 2	500	26	5720.450	3.5	0.6	s,N	Ti I	2.29	249	
5711.76 m	3.5	0.6	S,N	Sc I	1.43	12		5720.54 a	3	0.5		Atm H ₂ O	Q 2	203	26
5711.884m	77	13.5	s	[Fe I Ni I	4.28 1.93	1087 69		5720.722	0.5	0.1					
5712.138m	54	9.8	w?	Fe I	3.42	686		5720.898	14	2.4	u	Fe I p	4.55	1178	
5712.400	3	0.5						5721.053	2	0.3					
5712.627	5	0.8	s	Cr I	4.53			5721.706	4.5	0.8		Fe I p	4.15 4.28	1057 1088	
5712.778	17	3.0	s	Cr I	3.01	119									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5721.831r	2	0.3		Atm H ₂ O	Q 1	500	26	5731.552	1	0.2					
5721.955	3	0.5		Atm H ₂ O	P 1	203	26	5731.772S	59	10.1	w	Fe I	4.26	1087	
5722.181r	1.5	0.3		Atm				5731.996	2.5	0.4					
5722.510	2.5	0.4						5732.121	1	0.2					
5722.781	1	0.2						5732.304	15	2.6	w?	Fe I p	4.99	1313	
5723.374r	1	0.2		Atm?				5732.576r	1.5	0.3		Atm H ₂ O	Q 1	500	26
5723.543	1.5	0.3						5732.730	3.5	0.6		Fe II p	3.39	57	
5723.671	4	0.7	} s,N	Fe I	4.47	1160		5732.881	3.5	0.6		Fe I p	4.10	1055	
5723.773	3.5	0.6		Atm H ₂ O	P 2	203	26	5733.092r	3.5	0.6					
5723.895	4	0.7		Atm H ₂ O	Q 3	203	26	5733.332	1.5	0.3					
5724.095	1.5	0.3	S	Sc I	1.43	12		5733.694r	1	0.2		Atm H ₂ O	Q 5	203	26
5724.466	5	0.8	o	Fe I	4.28	1109		5733.891	0.5	0.1		Gd II	1.37	94	
5725.008	0.5	0.1						5734.048	4	0.7	s	V I	2.36	135	
5725.298	0.5	0.1						5734.355	1.5	0.3					
5725.36 m	0.5	0.1	s				16	5734.569	6	1.0	w				
5725.658	2	0.5	s	V I	2.36	135		5735.574	4.5	0.8		Atm H ₂ O	Q 4	203	26
5725.953r	2.5	0.4		Fe II p— Atm	3.42	57		5735.713	7.5	1.3	s	Zr I—	0.00	4	
5726.489	1	0.2						5736.026	1.5	0.3					
5726.705	1.5	0.3		Atm H ₂ O	Q 3	203	26	5736.644	4	0.7		Cr I	3.56	228	
5726.885	4	0.7		Atm H ₂ O	Q 3	203	26	5737.073	11	1.9	S	V I	1.06	35	
5727.057m	37	6.5	S	V I	1.08	35		5737.316r	1.5	0.3		Atm H ₂ O	Q 5	203	26
5727.286	1	0.2						5737.476	1	0.2					
5727.467	0.5	0.1						5737.691	8.5	1.5	o?	Atm H ₂ O Fe II p	P 3 3.42	203 58	26
5727.661	7.5	1.3	S	V I	1.05	35		5737.90 a	1	0.2					
5727.882	0.5	0.1						5738.240	13	2.3	u	Fe I	4.22	1084	
5728.106	1	0.2						5738.479r	4	0.4		Atm?			
5728.26 a	1	0.2					5738.552	s			0.4		Cr I	3.55	227
5728.527r	3	0.5		Atm H ₂ O	Q 4	203	26	5739.061r	1	0.2	s,N	Ti I p	2.30	249	
5728.877	4.5	0.8	o	Atm— Y II	1.84	34		5739.244	0.5	0.1					
5729.202	3	0.5	s	Cr I	3.84	257		5739.483m	6.5	1.1	s	Ti I	2.25	228	
5729.668	5.5	1.0		Atm H ₂ O	P 2	203	26	5739.807r	0.5	0.1		Atm? Fe I p	4.19	1057	
5729.822	2	0.3		Atm H ₂ O	P 2	203	26	5739.987	7	1.4	s	Ti I	2.24	228	
5729.901r	0.5	0.1		Atm H ₂ O	Q 4	203	26	5740.158	0.5	0.1					
5730.862	7	1.2	w,d?					5740.369r	0.5	0.1		Atm			
5731.037	1	0.2						5740.606	0.5	0.1					
5731.220	7.5	1.3	S	V I	1.06	36		5740.875r	2	0.3		Atm Nd II?	1.16	86	
5731.323	3.5	0.6	S												

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
5741.219r	1.5	0.3	S	Ti I Atm?	2.50	280		5749.641	2	0.3		Fe I p	4.43	1160	
5741.400	2	0.3						5750.057r	2.5	0.4		Atm			
5741.502r	[0.5]	0.1						5750.216	1	0.2					
5741.712	0.5	0.1						5750.510r	1	0.2		Atm			
5741.856S	31	5.6	u	Fe I	4.26	1086		5750.643	1	0.2					
5742.079	2.5	0.4						5751.145	4	0.7					
5742.212	4.5	0.8		Atm H ₂ O	P 3	203	26	5751.42 m	1	0.2	s, N	Mo I?	1.42	5	
5742.572r	2.5	0.4		Atm—				5751.805r	3	0.5	s	Atm H ₂ O	P 4	203	26
5742.812	1	0.2						5752.042S	56	10.1	w?	Fe I	4.55	1180	
5742.968	12	2.4	w?	Fe I	4.18	1084		5752.246r	3	0.5		—Atm?			
5743.195	7	1.2	u					5752.86 m	7.5	1.3	s	Ti I	2.24	214	13
5743.432	8	1.4	S	V I	1.08	35	5752.892r								
5743.561r	1	0.2		Atm H ₂ O	P 3	203	26	5753.132m	78	14.6	u	Fe I	4.26	1107	
5743.748r	1.5	0.3		Atm H ₂ O	Q 3	500	26	5753.396	12	2.1		Fe I p	4.26	1084	
5743.940	4	0.8						5753.646m	49	8.5	w, N	Si I	5.61		
5744.202	0.5	0.1						5753.990	6.5	1.1	s	Fe I p Atm?	2.45	170	16
5744.470	1	0.2		Ti I?	3.21			5754.093	7.5	1.3					
5744.782r	3	0.5		Atm H ₂ O?	P 3	500	26	5754.235	12	2.1	w	Si I	4.95	10	
5744.952r	3.5	0.6		Atm H ₂ O	P 3	203	26	5754.411	18	3.1	u	Fe I	3.64	866	
5745.077r	1.5	0.3		Atm				5754.666m	73	13.4	s	Ni I	1.93	68	
5745.278r	1	0.2		Atm				5754.922	4.5	0.8		Fe I p	2.48	113	
5745.493r	1	0.2		Atm				5755.157r	6	1.0		Atm			
5745.719r	2	0.3		Atm H ₂ O	P 4	203	26	5755.372r	2	0.3		Atm			
5745.793	6.5	1.1		Atm H ₂ O	P 4	203	26	5755.488r	2	0.3		Atm			
5746.422	3.5	0.6	s	Cr I	3.85	243		5755.757r	1	0.2		Atm			
5746.812r	3	0.5		—Atm				5755.969	1	0.2		Atm			
5747.289r	[3]	0.5		Atm H ₂ O	Q 2	500	26	5756.40?m			s	Ti I	2.25	228	13
5747.41 a	2.5	0.4						5756.60 a	1	0.2					
5747.669m	35	6.1	w, N	Si I	5.61			5756.828m	28	5.0	w?				
5747.858	7	1.2		Cr I Fe I p	3.89 2.83	343		5757.080r	1.5	0.3		Atm			
5747.955m	35	6.1	u	Fe I	4.61	1182		5757.948r	1.5	0.3		Atm H ₂ O	Q 4	500	26
5748.170	2	0.3		Fe I p	5.01	1290		5758.280r	1.5	0.3		Atm			
5748.361m	26	4.5	s	Ni I	1.68	45		5758.441r	1.5	0.3		Atm H ₂ O	P 2	500	26
5748.524	2.5	0.4						5758.764	2.5	0.4					
5748.725	1.5	0.3						5758.907r	1.5	0.3		Atm H ₂ O	P 4	203	26
5748.899	2.5	0.4	s	V I	1.89	92		5759.02?m	0.5	0.1	s	Cr I			
5749.298	6	1.0	w?	Ni I	3.94	176	17	5759.125r	1	0.2		Atm			

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5759.273	6.5	1.1	w	Fe I	4.65	1184		5771.828	1	0.2					
5759.545	10	1.7	w,N	Fe I	{4.30 4.56	{1087 1204		5772.149m	47	8.5	w	Si I	5.08	17	
5760.359m	18	3.6	u	Fe I	3.64	867		5772.415	2.5	0.7	S	V I	1.93	92	
5760.532	3.5	0.6	u	Fe I p	4.15	1054		5772.586r	1.5	0.3		Atm H ₂ O	P 6	203	26
5760.701r	1.5	0.3		Atm? Fe I p	4.15	1056		5772.674	2	0.3	s	Cr I	3.56	227	
5760.841S	28	5.6	w,d	Ni I	4.10	231		5772.941r	1	0.2		Atm			
5761.091	2.5	0.4		Fe I p	4.22	1057		5773.149r	1	0.2		Atm H ₂ O	P 7	203	26
5761.270	2.5	0.4		Fe I p	4.22	1057		5773.504r	2	0.3		Atm—			
5761.270	2.5	0.4		Fe I Atm?	3.63	867		5773.769	0.5	0.1					
5761.424	0.5	0.1		V I?	1.06	35		5774.038	9	1.6	s	Ti I	3.30	309	
5761.588	7	1.2		Atm H ₂ O—	P 5	203	26	5774.240	5	0.8	o				
5761.854	1	0.2						5774.38 a	2	0.3					
5762.266	7	1.2	S	Ti I	3.28	309		5774.547	2.5	0.3		Atm Ti I?	2.25	228	
5762.423m	22	3.8	u	Fe I	3.64	866		5774.803	0.5	0.1					
5762.626r	3	0.5	u,N	Atm—				5775.088m	48	9.4	u	Fe I	4.22	1087	
5762.845	10	1.9	s	Fe I p	4.30	1086		5775.305	2.5	0.4					
5763.002m	101	17.5	u	Fe I	4.21	1107		5775.617	1	0.2					
5763.246r	1	0.2		Atm H ₂ O	P 6	203	26	5775.755r	0.5	0.1		Atm			
5763.410	8.5	1.5		Atm H ₂ O	P 6	203	26	5776.079r	1.5	0.3		Atm H ₂ O	P 5	203	26
5765.866r	1	0.2		Atm				5776.254r	2.5	0.4		Atm			
5766.271r	8.5	0.2		—Atm H ₂ O	P 5	500	26	5776.744r	1.5	0.3	S,d	V I?—	1.08	36	
5766.333		1.3	s	Ti I	3.29	309		5776.978	2	0.3		Atm			
5766.592	0.5	0.1						5777.07 a	1.5	0.3		Cr I?			
5767.144r	[2]	0.4		Atm H ₂ O	P 5	203	26	5777.521	1	0.2					
5768.011r	1.5	0.3		Atm				5777.762	1.5	0.3		Cr I	3.85	257	
5768.361r	1	0.2		Atm				5778.296	1	0.2					
5768.902	1	0.2		Ce II?	1.32	32		5778.463m	16	3.1	s	Fe I	2.59	209	
5769.081r	2.5	0.4						5778.676r	1.5	0.3		—Atm			
5769.28 m	7	1.2	u	Atm H ₂ O	P 5	203	26	5778.811r	1	0.2		Atm? Fe I p	4.56	1203	
5769.335				Fe I	4.61	1179									
5769.482	1	0.2						5779.098	1	0.2					
5769.686r	1.5	0.3		Atm				5779.369r	1.5	0.2		Atm			
5770.191r	1	0.2		Atm H ₂ O Fe I p	P 5 4.58	203 1236a	26	5779.564	1	0.2					
5770.305	1.5	0.3						5779.696	3.5	0.6					
5770.500r	1.5	0.3	u	Atm			16	5779.963r	2	0.3		Atm			
5771.381r	1.5	0.3		Atm				5780.167	3.5	0.6		Atm H ₂ O Mn I	P 6 4.25	203	26
5771.608	6.5	1.1	s					5780.306	4	0.7					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5780.388	22	3.8	w	Si I	4.92	9		5787.730	0.5	0.1					
5780.608m	29	5.0	u	Fe I	3.24	552		5787.926m	36	7.1	s	Cr I	3.32	188	
5780.812	21	3.6	s	Ti I—	2.25	214		5788.102m	2.5	0.4		Atm O ₂	R 13	3,0	22
				[Fe I	{3.26	552		5788.187m	1	0.2		Atm O ₂	R 11	3,0	22
					{3.69	922		5788.289m	0.5	0.1		Atm O ₂	R 15	3,0	22
					{4.43	1159		5788.394	5	0.8	s	Cr I	3.01	119	
5780.919	6.5	1.1	s	Cr I	3.32	188		5788.549m	1.5	0.3		Atm O ₂	R 9	3,0	22
5781.067	0.5	0.1						5788.61 m			s	V I	1.87	92	13
5781.187	12	2.1	s	Cr I	{3.01	119		5788.650r	0.5	0.1		Atm			
					{3.32	188		5788.763m				Atm O ₂	R 17	3,0	22
5781.359	2.5	0.4						5788.801m	1	0.1		Atm O ₂	R 13	3,0	22
5781.549	1	0.2						5788.877m	1	0.2		Atm O ₂	R 11	3,0	22
5781.759	16	2.8	s,d?	Cr I	3.32	188		5788.995m	1	0.2		Atm O ₂	R 15	3,0	22
5781.923	3.5	0.6						5789.189m				Atm O ₂	R 7	3,0	22
5782.136	62	10.7	s	Cu I	1.64	2	7	5789.234m	2.5	0.2		Atm O ₂	R 9	3,0	22
5782.371	3	0.5		K I	1.61			5789.350r	0.5	0.1		Atm			
5782.601	1	0.2	s,N	V I	{1.08	35		5789.489m	1	0.2		Atm O ₂	{R 17	3,0	22
					{2.38	127		5789.635r	0.5	0.1		Fe I Atm?	{R 19	3,0	
5782.863	0.5	0.1						5789.763r	0.5	0.1	s	Ti I?			
5783.073m	24	4.7	s,d	Cr I	3.32	188		5789.865m	1	0.2		Atm O ₂	R 7	3,0	22
5783.248	1.5	0.3						5789.971r	0.5	0.1		Atm			
5783.485	0.5	0.1						5790.101m	1	0.2		Atm O ₂	R 5	3,0	22
5783.676	0.5	0.1						5790.15 m	6	1.0	S				
5783.866m	34	6.6	s	Cr I	3.32	188		5790.227m	1.5	0.3		Atm O ₂	R 19	3,0	22
5784.051	2	0.4						5790.366r	1	0.2					
5784.385	1	0.2	s	V I	2.77	141		5790.534m	1	0.2		Atm O ₂	R 21	3,0	22
5784.666m	20	4.1	u	Fe I	3.40	686		5790.663r	2	0.3	S	Cr I	1.00	17	
5784.822	1	0.2						5790.769m	2	0.3		Atm O ₂	R 5	3,0	22
5784.976m	26	5.4	s	Cr I	3.32	188		5790.990	74	12.8	s	Cr I Fe I	3.32 3.21	188 552	7
5785.285m	40	7.8	w	Mg I Fe I	5.11	24		5791.191	4.5	0.8					
5785.561	12	2.1	u?	Mg I	5.11	24		5791.293m	3	0.5		Atm O ₂	{R 3 R 21	{3,0 3,0	22
5785.735m	24	4.1	s	Cr I	3.32	188		5791.405r	1	0.2		Atm			
5785.94 m			S	Cr I	{0.97	17	13	5791.533	7	1.2	u,d	Fe I p	4.58	1234	
					{0.98	17			5791.760	4	0.7	s	Cr I	3.85	243
5785.980	11	1.9	s	Ti I	3.32	309		5791.92 m	1	0.2	s				
5786.159	2	0.3	s	V I	{2.72	141		5791.946m	1	0.2		Atm O ₂	R 3	3,0	22
					{2.74	141									
5786.536	0.5	0.1													
5787.021	6	1.4	s,d	Cr I Fe I p	3.01	119									
					4.26	1084									
5787.275	0.5	0.1		Fe I p	3.25	625									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5792.096r	0.5	0.1		Atm				5801.271	5.5	1.0	<i>u,d</i>				
5792.190r	0.5	0.1	<i>s</i>	Cr I	0.96	17		5801.749r	1.5	0.3		K I	1.62		
5792.769m	0.5	0.1		Atm O ₂	R 1	3,0	22	5802.330r	0.5	0.1					
5792.790r	1	0.2						5802.663m	1	0.2		Atm O ₂	P 7	3,0	22
5792.873	0.5	0.1						5803.327m	1	0.2		Atm O ₂	P 7	3,0	22
5793.079m	38.	7.2	<i>w,N</i>	Si I	4.93	9		5803.590	1	0.2					
5793.411m	4.5	0.8		Atm O ₂	R 1	3,0	22	5804.038m	20	3.4	<i>u</i>	Fe I	3.88	959	
5793.705r	2.5	0.4		Fe I p	4.59	1236a		5804.266m	12	2.1	<i>s</i>	Ti I	3.34	309	
5793.922m	28	5.2	<i>u</i>	Fe I	4.22	1086		5804.462	18	3.1	<i>w,N</i>	Fe I	4.28	1087	
5794.168	1.5	0.3						5805.030	0.5	0.1					
5794.348	0.5	0.1						5805.226S	38	6.6	<i>w</i>	Ni I	4.17	234	
5794.455	1	0.2		Cr I?	7.94			5805.419	2	0.3					
5794.624	1.5	0.3		Cr I?	4.53			5805.631m	1	0.2		Atm O ₂	P 9	3,0	22
5794.999	0.5	0.1						5805.769	11	1.9	<i>u</i>	Fe I (La II)	5.03 0.13	1313 4	
5795.292	0.5	0.1						5805.98 m	0.5	0.1		Atm			
5795.884	2	0.3						5806.289m	2	0.3		Atm O ₂	P 9	3,0	22
5796.092m	6.5	1.1	<i>u</i>	Atm O ₂ Ni I	P 1 1.95	3,0 68	22	5806.534	0.5	0.1					
5796.422	1	0.2						5806.732m	51	9.1	<i>u</i>	Fe I	4.61	1180	
5796.671	2	0.3		Fe I p	4.19	1054		5807.097	2	0.3					
5796.770	2.5	0.4	<i>s</i>	Cr I	4.53			5807.14 m			<i>s</i>	Vi I	3.09	142	13
5797.282r	0.5	0.1		Atm				5807.249	0.5	0.1		Fe I p	3.24	581	
5797.436	2	0.3	<i>s</i>	Ti I	3.30	309		5807.30 m			<i>s</i>				13
5797.530m	2.5	0.4		Atm O ₂	P 3	3,0	22	5807.792	7.5	1.3	<i>u?</i>	Fe I	3.29	552	
5797.55 m			<i>s</i>	Cr I? p	3.10	185	13	5807.992	3.5	0.6		Fe I p	4.61	1178	
5797.601	1.5	0.2		La II	0.24	4		5808.190r	1	0.2	<i>s</i>	Cr I?			
5797.751	2	0.3	<i>S</i>	Zr I	0.07	4		5808.314	0.5	0.1		La II?	0.00	4	
5797.865m	32	5.5	<i>W,N</i>	Si I	4.95	9		5808.565r	0.5	0.1		Atm?			
5798.010	3.5	0.6		Atm				5808.878m	1	0.2		Atm O ₂	P ₁₁	3,0	22
5798.182m	37	6.4	<i>s</i>	Atm O ₂ Fe I	P 3 3.93	3,0 982	22	5809.040	0.5	0.1					
5798.513r	2.5	0.4	<i>s</i>	Cr I	1.03	17		5809.224S	50	8.6	<i>u</i>	Fe I	3.88	982	
5799.150	0.5	0.1		Atm				5809.451	1.5	0.3					
5799.840r	1.5	0.3		Atm				5809.523m	5	0.8		Atm O ₂	P 11	3,0	22
5799.90 m			<i>s</i>				13	5809.614		0.2					
5799.963m	1.5	0.3		Atm O ₂	P 5	3,0	22	5809.873	[2.5]	0.4		Fe I p	4.28	1084	
5800.228r	4.5	0.8		Atm—				5810.08 a	1.5	0.3					
5800.640m	7	1.2		Atm O ₂	P 5	3,0	22	5810.38 a	1	0.2					
5800.842r	2	0.3		Atm											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5810.792	6.5	1.1	<i>w</i>				16	5820.912m	1	0.2		Atm O ₂	P 17	3,0	22
5811.00 a	2.5	0.4						5821.30 a	1	0.2					
5811.117	1	0.2						5821.890	7	1.2	<i>u</i>				
5811.606	5.5	1.0	<i>s,N</i>				16	5822.465	5.5	1.0	<i>s</i>				
5811.919	10.5	1.9	<i>u</i>	Fe I	4.14	1022		5822.863	0.5	0.1					
5812.131	1	0.2		K I	1.61			5823.176	2	0.3		Fe II	5.57	164	
5812.400m	2.5	0.4		Atm O ₂	P 13	3,0	22	5823.366	1	0.2					
5812.502		0.1						5823.695	3	0.5	<i>S</i>	Ti I	2.27	239	
5812.839	2.5	0.4	<i>s</i>	Ti I	3.32	309		5824.173	1.5	0.3					
5813.041m	4	0.7		Atm O ₂	P 13	3,0	22	5824.414	2.5	0.4		Fe II p	3.42	58	
5813.339	2	0.3		Fe I p	4.19	1054		5824.636m	1.5	0.3		Atm O ₂	P 19	3,0	22
5813.670	5	0.8	<i>o</i>	Fe II	5.57	163		5825.755	4	0.7	<i>s,d</i>				
5813.81 a	1	0.2						5825.817m	1	0.2		Cr I	0.96	17	
5813.97 m			<i>S</i>	Ti I	1.07	73	13	5826.110	0.5	0.1		Fe II? p	5.91	182	
5814.006	6.5	1.1	<i>u,N</i>					5826.330	1	0.2		Co I	3.62	169	
5814.570	0.5	0.1						5826.646	3.5	0.6	<i>s</i>	Fe I p	4.28	1084	16
5814.815m	21	3.6	<i>s</i>	Fe I	4.28	1086		5827.086	1	0.2					
5815.029	0.5	0.1						5827.377	2.5	0.4					
5815.224	10	1.7	<i>u</i>	Fe I	{4.15 4.59	{1055 1234		5827.475	5	0.8	<i>u</i>				16
5815.448	0.5	0.1		Fe I p	4.22	1053		5827.682r	2	0.3		—Atm			
5815.546	0.5	0.1						5827.884	9.5	1.7	<i>u</i>	Fe I p	3.28	552	
5815.650	3.5	0.6	<i>o?</i>					5828.245r	0.5	0.1		Atm H ₂ O	R' 6	321	26
5815.868	1	0.2		Cr I?	3.85			5828.765	2.5	0.4					
5816.068	12	2.1	<i>w</i>	Fe I? p	4.29	1127		5829.147	0.5	0.1					
5816.263m	85	3.6	<i>u</i>	Atm O ₂ —	P 15	3,0	22	5829.44 a	1.5	0.3					
5816.380S		11.3	<i>s?</i>	Fe I	4.55	1179		5829.983	2	0.3					
5816.631	0.5	0.1						5830.090r	3.5	0.6		Atm H ₂ O	R' 4	401	26
5816.833m	3	0.5	<i>u,N</i>	Atm O ₂ — Mn I	P 15 4.26	3,0	22	5830.684	3	0.5	<i>s</i>	V I	3.11	142	
5817.080	14	2.4	<i>s</i>	V I—	1.89	92		5831.253r	0.5	0.1		Atm			
5817.381	1.5	0.3						5831.606m	22	3.8	<i>u</i>	Ni I	{4.17 4.23	{233 250	
5817.493	2	0.3	<i>s</i>	V I	3.10	142		5831.753	4	0.7					
5817.493	2	0.3	<i>s</i>	V I	3.10	142		5831.938	0.5	0.1	<i>s,N</i>	K I	1.62		
5818.173	0.5	0.1		Atm				5832.017m	1	0.2	<i>s,N</i>				
5818.279	0.5	0.1		Atm				5832.275	0.5	0.1					
5819.302	1.5	0.3						5832.480	2	0.3	<i>s</i>	Ti I	3.34	309	
5819.564	(2)	0.3						5832.978	2	0.3					
5819.931	3.5	0.6	<i>w?</i>	V II	2.52	99		5833.52 a	1.5	0.3					
5820.278m	(2.5)	0.4		Atm O ₂	P 17	3,0	22								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5833.670	0.5	0.1		Fe II				5845.750r	1	0.2		Atm?			
5833.937	3	0.5	<i>s,N</i>	Fe I p	2.61	209		5845.970	5	0.8	<i>w</i>				
5834.036	14	2.4	<i>s</i>	Fe I				5846.272	5	0.8	<i>s,d</i>	-V I	3.13	142	17
5834.225r	1	0.2						5846.569	2	0.3		Co I	3.57	169	
5834.537	1.5	0.3						5846.799	0.5	0.1					
5834.855r	1.5	0.3						5847.006m	19	3.4	<i>s</i>	Ni I	1.68	44	
5835.109	12	2.2	<i>w?</i>	Fe I p	4.26	1084		5847.719	1	0.2		Atm H ₂ O	R' 4	321	26
5835.262	1.5	0.3		Fe I				5847.893	1	0.2					
5835.434	8	1.4	<i>u</i>	Fe I p	5.06	1313		5848.03 m	38	0.4	<i>s</i>		3.26 4.61	552 1175	
5835.588	7	1.2	<i>w</i>	Fe I p	2.83	343	5848.122m	<i>u</i>			6.3				
5836.149	1	0.2						5848.449	1	0.2	<i>s</i>				16
5836.777	1.5	0.4						5848.673r	0.5	0.1		Atm			
5837.28 m	2	0.3		Atm				5848.975	3.5	0.6	<i>s,NN</i>	Mn I?— Atm H ₂ O	4.27 R' 3	321	26
5837.709	9	1.6	<i>s,d</i>	Fe I	4.29	1129	16	5849.204	2	0.3	<i>s,NN</i>				
5838.015	3	0.5	<i>s</i>					5849.691	7	1.2	<i>s?,d?</i>	Fe I p	3.69	922	
5838.167	5	0.8	<i>u,N</i>					5849.933	0.5	0.1					
5838.381m	16	2.9	<i>u</i>	-Fe I	3.94	959		5850.105	3	0.5					
5838.555r	1	0.2		Atm				5850.338r	1	0.3		Atm			
5838.678	5	0.8	<i>s</i>	Cr I	3.01	119		5850.810r	1.5	0.3		Atm H ₂ O	R' 4	321	26
5838.939r	2	0.3		-Atm H ₂ O	R' 5	401	26	5851.005r	0.5	0.1		Atm H ₂ O	R' 3	321	26
5839.42 m	1	0.2		Atm				5851.210	5.5	1.0	<i>w</i>				
5839.53 m	0.5	0.1	<i>s</i>	Cr I				5851.791	1	0.2					
5839.607	3.5	0.6						5852.011	2.5	0.4					
5839.768	1	0.2	<i>s</i>	Ti I	1.46	105		5852.228m	36	6.5	<i>s?</i>	Fe I	4.55	1178	
5839.92 a	1	0.2						5852.34 m	2	0.2	<i>S</i>	Ti I			
5840.835r	1	0.2		Atm				5852.569	4	0.7					
5841.188	1.5	0.3	<i>s,N</i>	Ti I?				5853.161	7	1.2	<i>s</i>	Fe I	1.48	35	
5842.385	1.5	0.3		Nd II?	1.28	86		5853.326	1	0.2					
5842.541r	2	0.3		Atm				5853.479	2	0.2		Fe I? p	5.07	1340	
5842.897	3	0.5						5853.688S	55	10.1	<i>s</i>	Ba II	0.60	2	
5843.227	3	0.5	<i>s</i>	Cr I	3.01	119		5853.953r	1.5	0.3		Atm			
5843.654r	1	0.2		Atm?				5854.112r	0.5	0.1		Atm?			
5843.842r	0.5	0.1		Atm?				5854.319	3.5	0.6		Sc II? p	1.36	21	
5844.190r	1	0.2		Atm?				5854.596r	1	0.2		Atm H ₂ O—	R' 5	321	26
5844.608	4.5	0.8	<i>s</i>	Cr I	3.01	119		5854.845r	2	0.2		Atm			
5844.933	3	0.5	<i>w</i>	Fe I	4.15	1056		5855.086m	18	3.2	<i>u</i>	Fe I	4.61	1179	
5845.294	6.5	1.1	<i>u</i>	Fe I p	5.03	1313									
5845.481r	2.5	0.4		Atm H ₂ O	R' 5	321	26								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5855.262	2.5	0.2		Atm?				5864.812r	1	0.2		Atm			
5855.352r		0.2						5865.026	0.5	0.1					
5855.540	0.5	0.1	s					5865.418r	0.5	0.1		Atm			
5855.888	2	0.3						5865.637r	2	0.3					
5856.096m	29	5.1	u	Fe I	4.29	1128		5865.853r	1.5	0.3		Atm			
5856.28 a	2	0.3		Atm H ₂ O	R' 2	401	26	5865.957r	0.5	0.1		Atm			
5856.433	1.5	0.3						5866.148r	3	0.2					
5856.623	2	0.3						5866.264			3	0.2			
5857.048	11	1.9						5866.461S	40	7.3					
5857.459S	132	24.5	S	Ca I	2.93	47		5866.642	1	0.2		Fe I p	4.64	1203	
5857.608		0.4	5867.004	0.5	0.1										
5857.758m	56	9.6	u	Ni I	4.17	228		5867.084	3.5	0.6		Cr I	3.55		
5857.992	5	0.8	s	Mo I Fe I p	1.47 2.43	5 170		5867.248	2	0.3		Ca I	2.93	46	
5858.280	4.5	0.8						5867.572S	22	4.3					
5858.533	3	0.5	u	Fe I p	4.22	1084		5867.797	1.5	0.3					
5858.785	12	2.0	u				5867.920	1	0.2						
5859.000r	1	0.2		—Atm				5868.151	1	0.2					
5859.245	4.5	0.8		Fe I	4.30	1084		5868.296	1.5	0.3					
5859.411	1.5	0.3	s	Fe I	4.55	1181		5868.773r	3.5	0.6		Atm			
5859.596S	74	13.1						5869.106	4	0.7					
5859.959	2.5	0.4		Fe I p	4.19	1054		5869.351r	1.5	0.3		Atm H ₂ O	R' 4	321	26
5860.091r	1	0.2		Atm?				5869.673r	2.5	0.4		Atm			
5861.111	8.5	1.4	u	Fe I p	4.28	1084		5869.793r	3	0.5		Atm			
5861.630r	[4]	0.7		Atm H ₂ O	R' 3	401	26	5870.644	7	1.2		Fe I p	4.58	1235	
5861.806r	2.5	0.4		Atm				5870.887	0.5	0.1					
5862.03 a	3.5	0.6	s	Fe I	4.55	1180		5871.149r	3	0.5		Atm			
5862.368S	87	15.2						5871.308	7.5	1.3					u,d?
5862.599	5	0.8						5871.784r	1	0.2		Atm			
5862.859	5	0.8						5872.031r	1	0.2		Atm			
5863.165r	1.5	0.3		Atm				5872.211r	1.5	0.3		Atm			
5863.470r	3	0.5	u	Atm H ₂ O?	R 3	302	26	5872.274r	1.5	0.3		Atm H ₂ O	R' 2	401	26
5863.722	1.5	0.3		La II?	0.93	62		5872.939	2.5	0.4		Fe I			
5863.952	5	0.8		Cr I Ni I?	3.12 4.26	185 253		5873.123	2.5	0.4					
5864.053	2	0.3	u					5873.218m	18	3.1	u	Fe I	4.26	1087	
5864.246	6.5	1.1	w	Fe I	4.30	1086		5873.579	3.5	0.6		Atm H ₂ O	R 6	401	26
5864.360r	4	0.7		Atm				5873.769	6	1.0	w,N	Si I	4.93		
5864.531	2.5	0.4		Fe II p	2.70	24		5873.959r	2	0.3		Atm			

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5874.649r	2	0.3		Atm				5881.279	16	2.7	<i>u</i>	Fe I p	4.61	1178	
5874.778	0.5	0.1						5881.420r	3.5	0.6		Atm			
5875.143	6.5	1.1	<i>s, N</i>	Atm—			16	5881.545	2.5	0.4					
5875.444r	[4]	0.7		Atm H ₂ O	R' 2	302	26	5881.722	5.5	1.0		Fe I	2.18	63	
5875.596	8	1.4		Atm H ₂ O	R 5	401	26	5881.871	12	2.0		Atm H ₂ O	R 7	401	26
5875.769r	3	0.5	<i>s, N</i>	Atm—				5881.987r	7	1.2		Atm H ₂ O	R 4, 7	401	26
5876.124	11	1.9		Atm H ₂ O	R 5	302	26	5882.196r	3.5	0.6		Atm			
5876.296	7	1.2	<i>u</i>	Fe I p	4.30	1084		5882.373r	3	0.5		Atm H ₂ O	R 5	401	26
5876.449	9.5	1.6		Atm H ₂ O	R 5	401	26	5882.493	4	0.7		Atm H ₂ O	R 4	401	26
5876.556	3	0.5	<i>s</i>	Cr I	3.01	119		5882.808	12	2.0		Atm H ₂ O	R 4	401	26
5877.057r	2	0.3		Atm				5883.001	8.5	1.4		Atm			
5877.328	4	0.7		Atm H ₂ O	R 4	302	26	5883.070	2	0.3		Fe I? p	4.29	1124	
5877.426	1.5	0.3		Co I?	4.39			5883.313r	0.5	0.1					
5877.564r	2	0.3		Atm				5883.373r	1	0.2		Atm			
5877.685	1.5	0.3						5883.442	1	0.2		Co I	2.04	90	
5877.797	16	2.7	<i>s</i>	Fe I Ti I	4.18 {3.56 3.58}	1083		5883.574	0.5	0.1					
5878.029	3.5	0.6	<i>u</i>	Fe I— Cr I	5.66			5883.814	95	13.3	<i>s</i>	Fe I	3.96	982	
							5883.905	3.3				Atm H ₂ O	R 6	401	26
5878.288r	1	0.2		Atm				5884.033	1.5	0.3					
5878.572	2	0.3	<i>s, N</i>				16	5884.194	8	1.4		Atm H ₂ O	R 4	401	26
5879.009r	[5]	0.8	<i>s, NN</i>	Atm—				5884.439	3	0.5	<i>s</i>	Cr I	3.01	119	
5879.201r	5	0.8		Atm				5884.744r	2.5	0.4		Atm			
5879.294	3	0.5						5884.94 a	1	0.2					
5879.493	12	2.0	<i>s, d?</i>	Fe I p	4.61	1201		5885.050	6	1.0	<i>u, d?</i>	—Cr I?	3.85		17
5879.606	12	2.0		Atm H ₂ O	{R 3 R 6}	{302 401}	26	5885.377	3	0.5					
5879.729	12	2.0		Atm H ₂ O	R 5	401	26	5885.517r	2	0.3		Atm H ₂ O	R 1	302	26
5879.79 m			<i>S</i>	Zr I	0.15	4	13	5885.629	2.5	0.4	<i>u</i>	Zr I—	0.07	2	
5879.819r	2	0.3						5885.757r	0.5	0.1		Atm? Fe II?			
5879.88 a	2	0.3						5885.977m	19	3.2		Atm H ₂ O	R 5	401	26
5880.026	15	2.6	<i>w?</i>	Fe I	4.56	1201	16	5886.170	3	0.5					
5880.270	7.5	1.3	<i>S</i>	Ti I	1.05	71		5886.337	8	1.4		Atm H ₂ O	R 4, 5	401	26
5880.429	1	0.2						5886.405	4	0.7		Atm			
5880.509r	2.5	0.4		Atm				5886.687	4	0.7		Atm			
5880.616	1.5	0.3						5886.829r	2.5	0.4		Atm			
5880.734	7	1.2		Atm H ₂ O	R 4	401	26	5887.222m	17	2.9		Atm H ₂ O	R 3	401	26
5880.933	14	2.4		Atm H ₂ O	R 8	401	26	5887.476	6	1.0	<i>u</i>	Fe I p	4.56	1203	
5881.101	10	1.7		Atm				5887.660m	14	2.4		Atm H ₂ O	R 3	401	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes		
5887.840	5.5	1.0		Atm H ₂ O	R 1	302	26	5895.140	5.5	1.0		Atm H ₂ O	R 2	401	26		
5888.193	1	0.2						5895.366	2	0.3							
5888.440	1	0.2						5895.685		0.2							
5888.703	10	1.7		Atm H ₂ O	R 4	302	26	5895.940m	564	91.0	S	Na I(D ₁)	0.00	1			
5888.898	3	0.5					5896.145										
5889.085	3	0.5		Atm H ₂ O	R 4	401	26	5896.294	5	1.0		Atm H ₂ O	Q 6	401	26		
5889.370	0.5	0.1						5896.418	18	1.3		Atm H ₂ O	R 5	321	26		
5889.637	14	2.4		Atm H ₂ O	R 4	401	26	5896.492				2.4		Atm H ₂ O	R 2	401	26
5889.756	752	3.7	S	S I?	7.87			5896.643	1	0.2		Atm H ₂ O	Q' 4	401	26		
					Atm H ₂ O	R 3	401	26									
5889.884r				16.0		Atm				5896.832	10	1.7		Atm H ₂ O	R 2	401	26
5889.973m				180		Na I(D ₂)	0.00	1		5897.084r	2.5	0.4		Atm			
5890.203				2.5		Atm H ₂ O	R 4	302	26	5897.186	4	0.7					
5890.314				0.4						5897.250	4	0.7					
5890.495		4.5		0.8	s?	Co I Fe I p	2.04 5.06	82 1313		5897.461	7.5	1.3		Atm H ₂ O	{Q 2 R 5}	{401 321}	26
5890.734r	1	0.2		Atm				5897.542	2.5	0.4		V II	2.49	98			
5890.909r	1	0.2		Atm?				5897.755	3.5	0.6		Atm					
5891.178	17	2.9	s	Atm H ₂ O Fe I p	R 3 4.65	401 1179	17,26	5897.939	3	0.5		Atm					
5891.361	1.5	0.3		Fe II	7.27	211		5898.166S	30	4.7	u	Atm H ₂ O	R 2	401	26		
5891.500	6	1.0		Atm				5898.218					0.4		Fe I	4.73	1259
5891.660	18	3.0		Atm H ₂ O	R 3	302	26	5898.399r	3.5	0.6		Atm					
5891.887	4.5	0.8	u	Fe I	4.59	1236		5898.533	0.5	0.1							
5891.874r				Fe I	4.59	1236		5898.764r	1	0.2		Atm					
5892.055r	1	0.2		Atm?				5898.998	12	2.0		Atm H ₂ O	R 1	302	26		
5892.277r	1.5	0.3		Atm?				5899.106	0.5	0.1		Fe I	3.55	738			
5892.397m	17	2.9		Atm H ₂ O	R 3	401	26	5899.304m	26	4.7	S	Ti I	1.05	72			
5892.478	3	0.5		Fe I p	4.64	1201		5899.532	14	2.4	w, N						
5892.700	18	3.0	u	Fe I	4.26	1086		5899.673	4	0.7							
5892.883S	66	11.2	s	Ni I	1.99	68		5899.919	14	2.4		Atm H ₂ O	R 2	302	26		
5893.045	11	1.9		Atm H ₂ O	R 2	401	26	5900.045	32	5.4		Atm H ₂ O	R 1	401	26		
5893.231	7	1.2	u, N	Fe I p	4.22	1055		5900.42 a	1	0.2		Atm					
5893.508	9.5	1.6		Atm H ₂ O	R 3	401	26	5900.48 a	0.5	0.1							
5893.68 a	2.5	0.4						5900.760	1	0.2		Atm H ₂ O	Q 2	302	26		
5893.834r	0.5	0.1		Atm?				5900.920	5	0.8		Atm H ₂ O	R 6	321	26		
5894.22 a	1	0.2		Atm?				5901.080r	1	0.2		Atm?					
5894.385	5	0.8		Atm H ₂ O	R 3	302	26	5901.243	6	1.0		Atm H ₂ O	R 5	321	26		
5894.604r	2.5	0.4		Atm				5901.468m	42	6.3		Atm H ₂ O	R 1	401	26		
5894.944	8.5	1.4		Atm H ₂ O	R 2	302	26	5901.529r				0.9	u	Fe I p	4.22	1083	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5901.712	1.5	0.3						5907.852	15	2.5	<i>u</i>	Atm H ₂ O?	{ Q 3 R 4	302 321	} 16,26
5901.815	0.5	0.1					5908.042r	1.5	0.3			Atm H ₂ O	Q 3	302	26
5902.025	2.5	0.4		Atm			5908.208	9.5	1.6			Atm H ₂ O (Fe I)	R 0 2.48	401 150	26
5902.143	10	1.7		Atm (Cr I)	3.01	119	5908.424r	2	0.3			Fe I Atm?			
5902.248	2.5	0.4	<i>s</i>				5908.579r	0.5	0.1			Atm?			
5902.476	[12]	2.0	<i>s?</i>	Fe I	4.59	1234	5908.726	0.5	0.1						
5902.654r	1.5	0.3		Atm H ₂ O	R' 1	321	5908.802	0.5	0.1						
5902.819r	1.5	0.3		Atm			5908.997m	18	3.0			Atm H ₂ O	R' 3	321	26
5903.118r	0.5	0.1					5909.179	2.5	0.4						
5903.332	5.5	1.0	<i>S</i>	Ti I	1.07	71	5909.447	2.5	0.4			Atm H ₂ O	Q 3	401	26
5903.534	9.5	1.6		Atm H ₂ O	R 1	401	5909.662r	0.5	0.1			Atm?			
5903.702r	4	0.7		Atm H ₂ O	R 4	321	5909.844r	1.5	0.3			Atm H ₂ O	Q 2	302	26
5903.854r	4.5	0.8		Atm			5909.983	30	5.1		<i>s</i>	Fe I	3.21	552	
5903.944r	3	0.5		Atm H ₂ O	R 5	321	5910.181	10	1.7			Atm H ₂ O	R 3	321	26
5904.204r	2	0.3		Cr I Atm?	5.67		5910.312r	4	0.7			Atm			
5904.376r	1.5	0.3		Atm H ₂ O	R 0	302	5910.489	4.5	0.8			Atm			
5904.634r	1.5	0.3		Atm			5910.639r	6	1.0			Atm H ₂ O	R' 3	321	26
5904.834r	2.5	0.4		Atm			5910.769	12	2.0			Atm H ₂ O	R' 3	321	26
5904.938	4	0.7					5910.924r	3.5	0.6			Atm H ₂ O	Q' 1	302	26
5905.05 a	2	0.3		Fe I?	5.41		5911.148		0.2						
5905.119	4	0.7		Atm H ₂ O	Q 4	401	5911.219r		0.2			Atm H ₂ O	Q' 5	321	26
5905.289	7	1.2		Atm H ₂ O	R 4	321	5911.494r	1	0.2			Atm			
5905.372		0.5		Atm H ₂ O	R 4	321	5911.877	2	0.3			Atm			
5905.436	3.5	0.1					5912.020	2.5	0.4			Atm H ₂ O	R' 5	321	26
5905.529r	1	0.2		Atm?			5912.129	2	0.3						
5905.680S	58	10.2	<i>u</i>	Fe I	4.65	1181	5912.541r	4	0.7			Atm H ₂ O	Q 6	401	26
5905.914r	2	0.3		Atm?			5912.698	6.5	1.1		<i>u</i>	Atm H ₂ O?	R' 3	321	26
5906.174r	1	0.2		Atm			5912.996m	16	2.7			Atm H ₂ O	Q' 2	401	26
5906.289r	2	0.3		Atm H ₂ O	R 1	302	5913.142r	2.5	0.4			Atm?			
5906.512	4.5	0.8	<i>s</i>	Ti I	1.46	105	5913.353	0.5	0.1			Fe I p	3.57	781	
5906.843	14	2.5	<i>u</i>				5913.719	1	0.2		<i>S</i>	Ti I	0.02	2	
5907.001	4	0.7	<i>u</i>				5913.905	2.5	0.4						
5907.260	6.5	1.1		Atm H ₂ O	R 2	302	5914.120		10.1		<i>u</i>	Fe I	4.61	1180	
5907.359	3	0.5		Atm H ₂ O	R 4	321	5914.213		15.2		<i>s</i>	Fe I	4.61	1181	
5907.476	3	0.5		Atm			5914.484r	4	0.7			Atm?			
5907.661	1	0.2					5914.636	1.5	0.3						

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5914.928	9	1.5		Atm				5922.123m	17	2.9	S	Ti I	1.05	72	
5915.166	1.5	0.3		Dy II?			5922.365	7.5	1.3			Atm H ₂ O	Q 3	401	26
5915.432	10	1.7		Atm H ₂ O	Q 1	401	26	5922.519	15	2.5		Atm H ₂ O	Q 3	401	26
5915.565	5	0.8	S	Co I	2.14	82		5922.711	6	1.0		Atm H ₂ O	Q 4	401	26
5915.626	10	1.7		Atm H ₂ O	{R 4 Q 5	{321 401	}26	5922.92 a	0.5	0.1		Atm H ₂ O	Q 5	321	26
5915.834r	2.5	0.4		Atm				5923.188r	3	0.5		Atm H ₂ O	R 2	321	26
5916.024	5.5	1.0	s	Cr I—	{1.03 3.14	{17 185		5923.284	1.5	0.3					
5916.257S	50	8.8	S	Fe I—	2.45	170		5923.484	1.5	0.3					
5916.456	2	0.3						5923.646	14	2.4		Atm H ₂ O	R 2	321	26
5916.456	2	0.3						5923.751	5.5	0.9					
5916.585	6	1.0		Atm H ₂ O	R 2	321	26	5923.827	19	3.2		Atm H ₂ O	Q 2, 3	401	26
5916.772	4	0.7	s	Cr I	3.14	185		5923.963	8	1.4	u, N	Ni I	4.16	259	
5916.877r	1	0.2		Atm				5924.272m	26	4.4		Atm H ₂ O	P 1	401	26
5917.149r	1	0.2		Atm				5924.570	2.5	0.4		Atm H ₂ O	Q 5	401	26
5917.385	6.5	1.1		Atm H ₂ O	R 2	321	26	5924.752	2.5	0.4		Atm			
5917.609	1	0.2						5924.865	0.5	0.1					
5917.806	1	0.2		Fe I				5925.003	16	2.7		Atm H ₂ O	Q 4	401	26
5918.009r	5	0.8		Atm				5925.246	2.5	0.4					
5918.204r	1.5	0.3		Atm H ₂ O	Q' 4	401	26	5925.582r	0.5	0.1		Atm?			
5918.422	27	4.6		Atm H ₂ O	{R 2, 3 Q 4	{321 401	}26	5925.830	0.5	0.1		Ni I p	1.68	42	
5918.554	14	2.4	S	Ti I	1.07	71		5926.199	1	0.2		Fe I			
5918.764	3	0.5	s, ?N					5926.618r	2	0.3		Atm H ₂ O	Q 2	302	26
5918.959	8.5	1.4		Atm H ₂ O Fe I	R 3 4.26	321 1083	26	5926.823r	3.5	0.6		Fe I p Atm?	4.58	1231	
5919.054S	34	5.7		Atm H ₂ O	Q 1	401	26	5927.210	1	0.2					
5919.291	3	0.5		Cr I?				5927.532	0.5	0.1					
5919.369r	1.5	0.3		Atm?				5927.797S	39	6.7	u	Fe I	4.65	1175	
5919.644S	41	6.9		Atm H ₂ O	Q 2	401	26	5928.059	2	0.3					
5919.844r	2.5	0.4		Atm?				5928.291	18	3.0		Atm H ₂ O	Q 5	401	26
5920.163	1.5	0.3		Atm				5928.523	3	0.5		Fe I p	4.22	1055	
5920.330r	0.5	0.1		Atm H ₂ O	P' 3	401	26	5928.673r	1	0.2		Atm?			
5920.560	12	2.0		Atm H ₂ O (Fe I)	Q 2 3.24	401 581	26	5928.843	4.5	0.8		Atm H ₂ O	Q 4	321	26
5920.765r	1.5	0.3		Atm?				5928.888	3.5	0.6		V II	2.52	98	
5920.765r	1.5	0.3						5929.129	4.5	0.8		Atm H ₂ O	R 1	321	26
5921.154	3.5	0.6		Atm				5929.413r	2	0.3		Atm H ₂ O	Q 4	401	26
5921.341r	0.5	0.1		Cr I Atm?				5929.682m	38	6.7	s	Fe I	4.55	1176	
5921.655	3.5	0.6		Atm				5929.928r	2	0.4		Atm?			
5921.884	2	0.3		Atm?				5930.013	2	0.4					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5930.191S	86	14.5	s	Fe I	4.65	1180		5939.235	1	0.2		Fe I			
5930.423	2	0.3						5939.423	1.5	0.3					
5930.607	5	0.8		Atm				5939.757	0.5	0.1					
5930.766	2.5	0.4						5939.966	6.5	1.1		Atm H ₂ O	Q 4	321	26
5931.014	3.5	0.6		Atm H ₂ O	Q 3	401	26	5940.183r	3.5	0.6		Atm H ₂ O	Q 4	401	26
5931.903	3	0.5		Fe I p	4.07	1017		5940.423	16	2.7		Atm H ₂ O	P 3	401	26
5932.092S	26	4.4		Atm H ₂ O	P 2	401	26	5940.658	4.5	0.8	S	Ti I	0.05	2	
5932.239r	3.5	0.6		Atm?				5940.872	7	1.2		Atm H ₂ O	Q 1	321	26
5932.482r	1.5	0.3		Atm?				5940.997	14	2.4	u	Fe I	4.18	1083	
5932.784m	17	2.9		Atm H ₂ O	P 2	401	26	5941.076m	37	6.2		Atm H ₂ O	P 3	401	26
5933.016r	3	0.5		Atm H ₂ O	Q 2	302	26	5941.252	7	1.2		Atm H ₂ O	Q 3	321	26
5933.208	1	0.2						5941.413r	5	0.8		Atm?			
5933.453r	1.5	0.3		Atm?				5941.627	28	4.7		Atm H ₂ O	Q 2	321	26
5933.655r	1.5	0.3		Atm H ₂ O	Q 6	321	26	5941.764	17	2.9	S	Ti I	1.05	72	
5933.803	7.5	1.3		Fe I p	4.64	1198		5942.003r	2.5	0.4		Atm?			
5933.923r	2	0.3		Atm H ₂ O	Q 3	321	26	5942.179	2	0.3					
5934.088	5	0.8		Atm				5942.285	6.5	1.1		Atm			
5934.275	2.5	0.4		Atm H ₂ O	Q 3	302	26	5942.419	19	3.2		Atm H ₂ O	Q 2,3	321	26
5934.441	2	0.3						5942.573	33	5.6		Atm H ₂ O	Q 3	321	26
5934.665S	78	12.8	s	Fe I	3.93	982		5942.721	9	1.5		Fe I p Atm H ₂ O	4.58 Q 5	1233 302	26
5934.948r	3.5	0.6						5942.905	2.5	0.4					
5935.186	6.5	1.1	s	Zr I Atm H ₂ O	0.00 R 0	2 321	26	5943.110	3	0.5		Fe I p	4.19	1021	
5935.402	3.5	0.6	u	Co I	1.88	55		5943.394	5	0.8	u,N				
5935.646r	1	0.2		Atm?				5943.592	10	1.7	s,N	Fe I p	{2.20 4.26	63 1085	
5935.818	9.5	1.6		Atm H ₂ O	P 2	401	26	5943.849	0.5	0.1					
5936.068	0.5	0.1						5944.015	0.5	0.1					
5936.211r	0.5	0.1		Atm?				5944.312	16	2.7		Atm H ₂ O	Q 4	321	26
5936.966	1.5	0.3		Atm H ₂ O	Q 5	321	26	5944.500	0.5	0.1					
5937.128r	2	0.3		Atm				5944.68 m	1	0.2	S	Ti I	0.00	2	
5937.306r	1.5	0.3		Atm				5944.732	12	2.0		Atm H ₂ O	Q 1	321	26
5937.453r	2.5	0.4		Atm H ₂ O	Q 5	401	26	5945.015	3.5	0.6					
5937.814	7	1.2	S	Ti I	1.07	72		5945.250	11	0.9		Atm H ₂ O	P 3	401	26
5937.944	3.5	0.6		Atm H ₂ O	Q 2	302	26	5945.313		0.9		Atm H ₂ O	Q 4	321	26
5938.052	8	1.3		Atm H ₂ O	Q 2	321	26	5945.648	10	1.7		Atm H ₂ O	Q 3	321	26
5938.283r	2	0.3		Atm				5945.887r	4.5	0.8		Atm H ₂ O	Q 5	321	26
5938.593r	2.5	0.4		Atm H ₂ O	P 3	302	26	5946.006S	28	4.7		Atm H ₂ O	P 3	401	26
5938.753	1.5	0.3		Fe I				5946.268r	1	0.2		Atm?			

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5946.466	1.5	0.3		Co I	3.66	169		5953.717	0.5	0.1					
5946.646	2	0.3		Atm H ₂ O	Q 6	321	26	5953.982r	2	0.3		Atm			
5946.846	14	2.4		Atm H ₂ O	P 3	401	26	5954.377r	3	0.5		Atm H ₂ O	Q 6	321	26
5947.067	23	3.9		Atm H ₂ O	Q 4	321	26	5954.688	3	0.5					
5947.284	1	0.2		Fe I p	4.19	1056		5954.953	22	3.7		Atm H ₂ O	P 4	401	26
5947.427r	9.5	0.2	u,d?	Atm H ₂ O	Q 3	302	26	5955.113	2.5	0.4		Fe I p	4.58	1233	
5947.506		1.4		Fe I	4.61	1199	16	5955.16 m				s			
5947.738r	0.5	0.1		Atm?				5955.352r	1	0.2	S	Zr I	0.00	3	
5947.978r	0.5	0.1		Atm H ₂ O	Q 6	401	26	5955.671	1.5	0.3		Fe I	4.26	1106	
5948.224	7.5	1.3		Atm H ₂ O	P 4	302	26	5955.821r	4	0.6		Atm H ₂ O	Q 5	321	26
5948.548m	88	14.8	w	Si I	5.08	16		5956.034r	1	0.2		Atm			
5948.767	11	1.8		Atm				5956.146r	1	0.2		Atm H ₂ O	P' 2	401	26
5949.020	7	1.2		Atm H ₂ O	Q 4	302	26	5956.352	12	2.0		Atm H ₂ O	P 4	401	26
5949.175	32	5.4		Atm H ₂ O	P 4	401	26	5956.505	3.5	0.6					
5949.346	40	6.7	s,d	Fe I	{0.91 4.61	{14 1176		5956.706S	60	2.6	S	Fe I	0.86	14	
5949.576r	4.5	0.8		Atm H ₂ O	Q 2	321	26	5956.957	2.5	0.4					
5949.673	8	1.3		Atm H ₂ O	Q 5	321	26	5957.037	1.5	0.3					
5949.820	15	2.5		Atm H ₂ O	P 4	401	26	5957.147r	1.5	0.3		Atm?			
5950.010	2	0.3						5957.569	5.5	0.9					
5950.145	6	1.0	o?	Atm H ₂ O	Q 5	321	26	5957.881	35	5.9		Atm H ₂ O	{P 5 P 2	{302 321	}26
5950.344	12	2.0		Atm H ₂ O	Q 5	321	26	5958.244	36	6.0	u,N	{Atm H ₂ O Fe I	{P 5 0.96 4.56	{401 14 1199	17,26
5950.474	1	0.2													
5950.852r	2.5	0.4		Atm H ₂ O	Q 5	401	26	5958.344	12	2.0	s	Fe I p	2.18	63	
5950.966	6.5	1.1		Atm H ₂ O	P 4	302	26	5958.623	24	4.0		Atm H ₂ O	P 5	401	26
5951.095	4	0.6						5958.807r	5.5	0.9		Atm?			
5951.222r	4	0.6		Atm H ₂ O	Q 4	321	26	5959.160	5.5	0.9		Cr I? Atm H ₂ O	{4.45 P 5	{302 321	26
5951.312r	3	0.5		Atm				5959.320	4	0.6		Atm H ₂ O	Q 5	321	26
5951.500	16	2.7		Atm H ₂ O	P 1	321	26	5959.610	5	0.8					
5951.802	3	0.5						5959.720	4.5	0.8		Atm H ₂ O	Q 7	321	26
5952.190	0.5	0.1		Fe I p	5.08	1313		5959.90 a	3	0.5		Fe I	4.14	1020	
5952.360r	1	0.2		Atm				5959.990	10	1.7	u,d?	Atm H ₂ O—	P 2	321	17,26
5952.522	5	0.8		Fe II? p	5.95	182		5960.343	3	0.5					
5952.726S	68	11.4	s?	Fe I	3.98	959		5960.587	2.5	0.4					
5952.997	7.5	1.3						5961.228	2	0.4					
5953.170m	34	5.5	S	Ti I	1.89	154		5961.445	8.5	1.4		Atm H ₂ O	P 2	321	26
5953.365r	2.5	0.4		Atm?				5961.738	5.5	0.9					
5953.467	6	1.0		Atm H ₂ O	Q 6	321	26								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5961.894	3	0.5		Fe I p	4.22	1080		5970.260r	1	0.2		Atm			
5962.170r	7	1.2		Atm				5970.687r	1	0.2		Atm			
5962.299	2	0.3		Atm?				5971.145r	0.5	0.1	s				
5962.469	13	1.8	s	Atm				5971.335	10	1.7		Atm H ₂ O	P 3	321	26
5962.53 m		0.4			5971.771	1	0.2								
5962.621	3	0.5						5972.755	3.5	0.6		Atm H ₂ O	P 3	302	26
5962.914	2	0.3		Fe I				5972.986	1.5	0.3					
5963.104	1.5	0.3						5973.356	2	0.3		Fe I p	4.65	1175	
5963.268	4	0.6	s,N	Atm Fe I	2.22	63	16	5973.475	2	0.3					
5963.570	5	0.8		Atm H ₂ O	Q 6	302	26	5973.67 a	2	0.3		Ni I	4.17	226	
5963.983	2	0.3		C I	8.64			5973.870	1.5	0.3					
5964.612	1.5	0.3		Cr I?	3.01			5974.277	3	0.5					
5964.943r	2.5	0.4		Atm (Co I)	3.51	169		5974.596	1	0.2		Fe I p	4.19	1055	
5965.150r	0.5	0.1		Atm?				5975.101	10	1.7		Atm H ₂ O	P 4	321	26
5965.323r	0.5	0.1		Atm?				5975.200	3	0.5		Atm H ₂ O	P 6	401	26
5965.516	1.5	0.3						5975.353S	44	7.9	u	Fe I	{4.07 4.83}	{1017 1260}	
5965.516	1.5	0.3						5975.602	1.5	0.3					
5965.835	23	4.2	s	Ti I	1.88	154		5975.824	1	0.2		Ce II?	1.33	30	
5966.005	4.5	0.8						5975.929r	1	0.2		Atm			
5966.214	2.5	0.4		Atm				5976.168	2	0.4		Fe I p	4.29	1125	
5966.333	3.5	0.6		Atm H ₂ O	P' 3	302	26	5976.281	1	0.2		Atm H ₂ O	Q 4	321	26
5966.486r	1.5	0.3						5976.479	16	0.9	s,d	Atm H ₂ O—	P 6	401	26
5966.665	10	1.7		Atm H ₂ O	P 5	401	26	5976.509r		1.8			Atm		
5966.998r	4.5	0.8		Atm				5976.787S	64	11.4	s	Fe I	3.94	959	
5967.319	5	0.8		Atm H ₂ O	P 3	321	26	5977.028	18	3.0		Atm H ₂ O	P 4	321	26
5967.501	2	0.3						5977.291	1.5	0.3					
5967.672	6	1.0	s,N	Atm H ₂ O	{Q' 2 P 6}	{321 302}	26	5977.434r	3.5	0.6		Atm H ₂ O	Q 5	321	26
5967.840	14	2.3		Atm H ₂ O	P 6	401	26	5977.804	7.5	1.3		Atm H ₂ O	P 7	401	26
5968.063	4.5	0.8	u	Atm H ₂ O?	P 6	401	26	5977.970	2	0.3					
5968.278	14	2.3		Atm H ₂ O	P 3	321	26	5978.072	3.5	0.1					
5968.409	3.5	0.6		Atm H ₂ O	P 6	302	26	5978.144r		0.5	u	Fe I p	4.64	1199	
5968.662r	[1.5]	0.3		Atm?				5978.343	1	0.2					
5968.90 a	2	0.3						5978.549m	20	3.5	s	Ti I	1.87	154	
5969.035	6	1.0		Atm H ₂ O	P 3	321	26	5978.789	2.5	0.4					
5969.290r	3.5	0.6		Atm?				5978.910	5.5	0.9		Si II?	10.07	4	
5969.578	5	0.8	s,d	Fe I	4.28	1086	17	5979.311	0.5	0.1					
5970.058	7	1.2		Atm H ₂ O	P 5	321	26	5979.692	1	0.2					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5980.171	3.5	0.6		Atm				5988.768	6	1.0	w				
5980.519r	1.5	0.3		Atm H ₂ O	P 6	302	26	5988.966	1.5	0.3					
5980.744r	0.5	0.1	S	V I	1.19	49		5989.093r	1.5	0.3		Atm?			
5980.822r	1	0.2	S	Ti I	1.07	72		5989.287	6	1.0	u,d?	Atm H ₂ O—	P 5	321	17,26
5980.93 m	0.5	0.1	S,N					5989.568	1	0.2					
5981.229r	3	0.5		Atm H ₂ O	P 4	321	26	5989.812	1	0.2					
5981.392	1.5	0.3		Fe I p	3.63	837		5990.072	0.5	0.1					
5981.709r	2	0.4		Atm H ₂ O	P 6	401	26	5990.377	1	0.2					
5981.868	2	0.4	s?,NN					5990.610r	3.5	0.6		Atm H ₂ O	P 5	321	26
5981.983	[2]	0.4		Cr I Atm H ₂ O	3.17 P 4	185 302	26	5990.845	6.5	1.1	w	Atm H ₂ O—	P 5	321	17,26
5982.312	3.5	0.6						5991.015	0.5	0.1					
5982.537	1	0.2	S	Ti I?	2.41	264		5991.378m	29	5.2	w	Fe II	3.15	46	
5982.617r	1	0.2						5991.569	0.5	0.1		Fe I p	4.58	1232	
5982.877r	4	0.6	s	Cr I	3.17	185		5991.791	6.5	0.7	s,N				
5983.186	1	0.2		Atm H ₂ O	P'4	401	26	5991.90?m				Co I	2.08	90	
5983.304r	3	0.5		Atm H ₂ O	P 7	302	26	5991.998r	12	2.0		Atm H ₂ O	P 5	321	26
5983.428	1.5	0.3						5992.183	1	0.2					
5983.688S	68	11.9	u	Fe I	4.55	1175		5992.332	0.5	0.1					
5983.974r	5	0.8						5992.677	1.5	0.3		Fe I p	4.18	1080	
5984.066	4.5	0.8		Co I	1.74	37		5993.055r	2.5	0.4		Atm			
5984.274	4.5	0.8	s	Co I Atm H ₂ O	4.39 P 5	201 321	16 26	5993.453	1	0.2					
5984.440	1	0.2						5993.655	1.5	0.3					
5984.440	1	0.2						5993.915r	2.5	0.4		Atm H ₂ O	P 7	401	26
5984.594	2	0.4	S	Ti I V I	0.02 1.18	2 49		5994.41 a	1	0.2					
5984.826S	84	14.9	s	Fe I	4.73	1260		5994.529	5	0.8		Atm H ₂ O	P 6	321	26
5985.215	12	2.0		Atm H ₂ O	P 5	321	26	5995.18 a	2	0.4					
5985.394r	1.5	0.3		Atm?				5995.271r	0.5	0.1		Atm H ₂ O	P 6	321	26
5985.510r	0.5	0.1		Atm?				5995.698	1.5	0.3	S	Ti I	3.46	311	
5985.703r	1.5	0.3		Atm H ₂ O	P 7	401	26	5995.944	2	0.4		Fe I p	4.61	1198	
5986.122	3	0.5	u				16	5996.033	2	0.4	S	Ti I	1.88	154	
5986.454	1	0.2						5996.505	1	0.2		Fe I p	4.28	1083	
5986.755	1.5	0.3						5996.740m	19	3.3	w?	Ni I	4.23	249	
5987.070m	68	12.0	u	Fe I	4.79	1260		5996.978	1.5	0.3					
5987.310	6	1.0						5997.214	2	0.4					
5988.105r	1.5	0.3		Atm H ₂ O	P 5	321	26	5997.352	10	1.7		Atm H ₂ O	P 6	321	26
5988.361	1	0.2						5997.604	11	1.8	w,N	Ni I	4.23	252	
5988.562	9.5	1.6	s	Ti I Atm H ₂ O	1.89 P 8	154 401	26	5997.782m	67	11.2	u	Fe I	4.61	1175	
								5998.225	3	0.5					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
5998.544	2.5	0.4						6010.65 a	5	0.8		Cr	8.64		
5998.897	3.5	0.6		Ni I?	4.10	226		6011.45 a	1	0.2					
5998.984	2.5	0.4	s					6011.67 m	2	0.3					
5999.047	0.5	0.1	S	Ti I	2.17	198		6011.95 a	1	0.2					
5999.209	7.5	1.3	w					6012.229	22	3.6	u	Ni I			
5999.698	11	1.8	S,d	Atm H ₂ O Ti I	P 9 2.24	401 227	26	6012.443r	3	0.5					
6000.150r	2	0.3		Atm H ₂ O	P 6	321	26	6012.770	4	0.7	s	Fe I p-	4.56	1198	
6000.678	4	0.7	s,d?	Co I	3.62	169		6012.98 m	1	0.2	s,N				
6001.126r	3	0.5		Atm				6013.199r	7	1.2		Cr	{8.64 8.64		
6001.546r	2	0.3		Atm				6013.497S	86	14.1	S	Mn I	3.07	27	
6002.156r	1	0.2		Atm				6013.914r	4	0.7					
6002.30 m	1.5	0.5	S	V I	1.22	49		6014.425r	1.5	0.2					
6002.648	6	1.0	S	V I Atm H ₂ O?	1.05 P 6	34 321	26	6014.842r	4.5	0.7		Cr	8.64		
6002.751r	1.5	0.2						6015.042r	2.5	0.4					
6003.022S	86	14.5	s	Fe I	3.88	959		6015.253	4	0.7		Fe I p	2.22	63	
6003.319r	2	0.3						6015.611	0.5	0.1		Atm H ₂ O	P 7	321	26
6003.52 a	3	0.5						6015.850	2	0.3		Atm H ₂ O	P 7	321	26
6003.876r	3	0.5		Atm				6016.017r	1	0.2		Atm H ₂ O	P 7	321	26
6004.384r	1	0.2						6016.408r	2	0.3		Cr?	8.64		
6004.670	3	0.5		Atm H ₂ O	P 7	321	26	6016.647S	92	15.4	S	Mn I	3.07	27	
6004.879r	1	0.2		Atm?			6016.925r	0.5						Fe I p	4.59
6005.009r	1	0.2		Co I	1.71	37		6017.00 m	1.5	0.2	s				
6005.367r	1	0.2						6017.56 m	1.5	0.2	s	Ti I? p	2.33	257	
6005.551m	21	3.7	s	Fe I	{2.59 4.18	207 1079		6017.92 m	0.5	0.3	s	Vi?	1.19	49	
6005.784r	1.5	0.2						6018.300	8	1.3	o	-Fe I p	4.65	1176	
6006.061r	3.5	0.6		Atm Cr?	8.64			6018.40 m	1	0.2	S	Ti I	2.15	198	
6006.387r	4.5	0.7		Atm				6018.545r	2	0.3					
6007.317m	20	3.7	s	Ni I	1.68	42		6018.66 m	0.5	0.1	S	Ti I	1.05	70	
6007.68 m	4	0.2	s				16	6018.824r				Atm?			
6007.717		0.5		Fe I p	3.27	581		6019.157r	2	0.3		Atm H ₂ O	P 8	321	26
6007.968m	59	10.0	s	Fe I	4.65	1178		6019.364	5	0.8	s,d?	Fe I p	3.57	780	
6008.566S	88	15.1	s	Fe I	3.88	982		6019.785r	1.5	0.2					
6008.813r	2	0.3						6020.016	49	8.1	u				
6009.359	2	0.3		Atm H ₂ O	P 7	321	26	6020.186	94	15.6	u	Fe I	4.61	1178	
6009.848r	1	0.2		Fe I p Atm?	3.25	624		6021.803m	96	16.0	S	Mn I	3.07	27	
								6022.04 a	2.5	0.4					
								6022.226r	4.5	0.7					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6022.476r	3.5	0.6		Si I?				6036.221r	2	0.3					
6023.025r	0.5	0.1						6036.459	7	1.2	u	Atm— ⊙			
6023.42 m	1.5	0.2	S	Y I	0.00	3		6036.796r	[1.5]	0.2					
6023.957r	117	0.2	u	Fe I	4.55	1178		6037.10 m	1.5	0.2					
6024.068S		19.8													
6025.211r	[2.5]	0.4						6039.327r	2	0.3		Ni I	4.23	248	
6025.44 m	1	0.2	s	Zr I?	0.15	3		6039.736	11	2.2	S	V I	1.06	34	
6025.767	4	0.7	u	Ni I	4.23	251	16	6039.977r	1.5	0.2					
6026.166r	2	0.3						6041.93 a	[3.5]	0.6		Si I	7.86	10	
6026.401r	1.5	0.2		Atm?				6042.104S	51	8.4	w	Fe I			
6026.826r	1.5	0.2						6042.267r	3.5	0.6					
6027.059S	[61]	10.8	u	Fe I	4.07	1018		6043.40 a	2	0.3	u,N	Ce II	1.21	30	
6027.436r	1.5	0.2						6045.492r	3.5	0.6		Fe II	6.21	200	
6027.726	4	0.7		Fe I p Atm	4.99	1312		6045.772r	3	0.5					
6028.006r	2	0.3		Atm				6046.015?	16	2.6	o	— Si I	7.87	10	
6028.276r	3	0.5		V II?— Atm?	2.49	97		6047.067r	1.5	0.2	s?	Cr I?	3.85	242	
6028.506r	0.5	0.1						6047.667r	1.5	0.2	S,d	⊙— Atm			17
6029.00 a	3	0.5		V II	2.56	125		6048.798r	[2]	0.3					
6029.286r	2	0.3		Cr I	3.85	242		6049.124r	[4]	0.7		Co I	4.50	201	
6029.876	15	2.5	u,NN	Atm—			16	6051.032r	1.5	0.2		Fe I p—	2.56	207	
6030.336r	2.5	0.4						6051.848r	2	0.3					
6030.68 m	1.5	0.2	S,N	Mo I	1.53	5		6052.615r	[3]	0.5					
6031.016	6	1.0	w,N	—V II	2.52	97		6052.682	11	1.8		Si I	7.87	10	
6031.306r	2	0.3		Nd II?	1.28			6052.93 a	1.5	0.2					
6031.718r	1	0.2	S	Ti I	0.05	2		6053.08 a	1.5	0.2					
6032.00?m	1	0.2						6053.263r	1	0.2					
6032.161r	2	0.3						6053.263r	1	0.2		Cr II	4.74	105	
6032.60 m			s	Zr I?	1.48		13	6053.475	5	0.8					
6032.672r	1	0.2	s	Fe I	4.22	1082	16	6053.693	18	3.0	u	Ni I	4.23	247	
6033.317r	1.5	0.2						6053.912r	2	0.3					
6033.597r	2	0.3						6054.075	8	1.3	u	Fe I	4.37	1142	
6034.038	7	1.2	s	Fe I p	4.31	1142		6055.097r	3	0.5		Cr I?			
6034.227r	1	0.2		Nd II?	1.54			6055.407r	2.5	0.4					
6034.502r	1	0.2						6055.767r	1.5	0.2					
6034.924r	2	0.3						6056.013m	73	12.2	u	Fe I	4.73	1259	
6035.350	6	1.0	u	Fe I? p	4.29	1125		6056.343	5	0.8					
6035.97 a	2	0.3						6056.897r	[1.5]	0.2					
								6057.08 m	1.5	0.2	s				
								6057.251	5	0.8	o?				

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6057.867r	1.5	0.2						6078.499S	91	15.0	<i>u</i>	Fe I	4.79	1259	
6058.172r	3	0.7	<i>S</i>	V I	1.04	34		6078.766r	2.5	0.4					
6058.76 m			<i>S</i>	Ti I p	1.07	70	13	6079.016S	55	9.0	<i>w</i>	Fe I	4.65	1176	
6059.271r	[3]	0.5		Sc II? p	1.36	20		6080.018r	4.5	0.7					
6059.757r	1.5	0.2						6080.238r	3	0.5					
6060.17 a	1.5	0.2						6081.210r	2	0.3					
6060.45 a	2	0.3						6081.448	15	2.6	<i>S</i>	V I	1.05	34	
6060.640r	1.5	0.2						6081.718r	3	0.5		Fe I p	4.41	1142	
6060.824r	1.5	0.2		Fe I p	4.22	1081		6081.838r	2	0.3		Fe I p	4.14	1018	
6061.05 a	2	0.3						6082.35 a	5	0.8	<i>u</i>	Co I	3.51	169	
6061.657r	2.5	0.4	<i>u?</i>					6082.54 m	5.5	0.9	<i>s</i>				
6062.676	4	0.7	<i>S</i>	Cr I	3.19	185		6082.718S	34	5.6	<i>s</i>	Fe I	2.22	64	
6062.856	18	3.0	<i>S</i>	Zr I Fe I	0.07 2.18	3 63		6083.703r	[3]	0.5	<i>s?, N</i>	Fe I p—	3.88	981	
6063.15 a	1	0.2	<i>s</i>					6084.105	22	3.6	<i>w</i>	Fe II	3.20	46	
6063.309r	2	0.3						6085.257S	40	6.6	<i>S</i> <i>s</i>	Ti I Fe I	1.05 2.76	69 269	
6064.046r	3.5	0.6						6086.288S	43	7.1	<i>w</i>	Ni I	4.26	249	
6064.626	7	1.2	<i>S</i>	Ti I	1.05	69		6086.673r	4.5	0.7	<i>s</i>	Co I	3.41	165	
6065.18 a	3.5	0.6						6087.50 m	1.5	0.2	<i>s</i>	V I	1.05	33	
6065.494S	115	19.4	<i>s</i>	Fe I	2.61	207		6087.790	[17]	2.8	<i>o?</i>	Si I	5.87		17
6065.808r	2.5	0.4		Fe I p	3.30	581		6088.278r	1.5	0.2					
6067.638r	4	0.7		Si I	5.08	15		6088.65 a	1	0.2					
6067.960r	3	0.5						6089.063r	2.5	0.4					
6068.39 a	1.5	0.2						6089.574S	32	5.2	<i>u</i>	Fe I	5.02	1327	
6070.091r	1	0.2						6089.798r	1.5	0.2					
6070.55 a	4	0.7						6089.974r	1	0.2					
6071.363r	2	0.3						6090.075r	1	0.2					
6071.758r	2	0.3						6090.216S	29	4.6	<i>S</i>	V I	1.08	34	
6073.198r	2.5	0.4						6090.510r	1.5	0.2	<i>s</i>	V I p	1.06	33	
6073.560r	1.5	0.2						6091.177	14	2.3	<i>S</i>	Ti I	2.27	238	
6074.018r	2	0.3						6091.368r	3	0.5					
6076.148r	3	0.5						6091.502r	2.5	0.4					
6076.608r	2	0.3						6091.730	6	1.0	<i>u</i>	Fe I p	4.61	1200	
6076.896	12	2.0	<i>u, N</i>				17	6091.920	30	4.9	<i>w</i>	Si I—	5.87		15, 17
6077.268r	[1.5]	0.2						6092.18 a	5.5	0.9					
6077.37 m			<i>s</i>	V I?	0.00		13	6092.525r	3	0.5					
6077.490r	1	0.2						6092.818r	6	1.0	<i>S</i>	Ti I	1.89	153	
6077.848r	4.5	0.7						6093.151	11	1.8	<i>s</i>	Co I	1.74	37	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6093.368r	2	0.3		Atm?				6107.350r	2.5	0.4		Fe I p	4.07	1015	
6093.649S	31	5.1	<i>u</i>	Fe I	4.61	1177		6107.898r	3.5	0.6					
6093.863r	2	0.3		VI?	0.04			6108.125m	60	10.3	<i>s</i>	Ni I	1.68	45	
6094.20 a	3	0.5						6108.293r	4	0.7					
6094.377	20	3.3	<i>u</i>	Fe I	4.65	1177		6108.465r	2.5	0.4					
6094.70 a	2.5	0.4						6108.895r	5	0.8					
6095.364r	3	0.5		Ni I	4.42			6110.345r	3	0.5					
6096.149r	1	0.2						6110.795r	2	0.3	<i>s</i>				
6096.671S	36	5.9	<i>s?</i>	Fe I	3.98	959		6111.078S	36	5.9	<i>w</i>	Ni I	4.09	230	
6096.884r	2.5	0.4						6111.336r	1.5	0.2					
6097.101r	4.5	0.7	<i>s</i>	Fe I p	2.18	64		6111.652	12	1.8	<i>S</i>	VI	1.04	34	
6097.294r	4	0.7	<i>S</i>	Ca I	2.52			6112.026r	3	0.5					
6097.46 m	2	0.3	<i>s</i>	VI	1.08	33		6112.291r	3.5	0.6					
6097.67 a	3	0.5						6112.412r	1	0.2					
6098.250	16	2.6	<i>u</i>	Fe I p	4.56	1200		6112.932	11	1.8	<i>w?,N</i>	-Si I	5.61		
6098.664	7	1.1	<i>S</i>	Ti I	3.06	304		6113.131r	6	1.0		Si I	5.61	30	
6100.271	10	1.6	<i>u?</i>	{Fe I p Fe I p}	4.56 4.61	1199 1199	17	6113.329	17	2.8		Fe II	3.22	46	
6100.95 a	2	0.3						6114.391r	1.5	0.2		Fe I p	3.93	981	
6102.183S	84	14.4	<i>w?</i>	Fe I	4.83	1259		6114.801r	1.5	0.2		Zr II	1.66	93	
6102.425r	8	1.3		Ca I p	2.52			6115.751r	2	0.3					
6102.727S	135	22.1	<i>S</i>	Ca I	1.88	3		6116.059r	5	0.8		Fe II p	3.23	46	
6103.079r	89	0.2						6116.198S	65	8.9	<i>u</i>	Ni I	4.09 4.26	218 251	
6103.190		10.0	<i>u</i>	Fe I	4.83	1260		6116.246r		2.9	<i>u</i>	Fe I			
6103.298		5.1	<i>u</i>					6116.456r		3	0.5				
6103.480r	3.5	0.6						6116.76 a	1.5	0.2					
6103.586r	2	0.3						6117.001	8	1.3	<i>s</i>	Co I	1.78		
6104.620r	2	0.3						6117.206r	5	0.8	<i>u</i>	Ca I p	2.71		
6105.132	12	2.0	<i>u</i>	Fe I p	4.55	1175		6117.414r	1	0.2					
6105.520r	1.5	0.2		Co I	2.04			6117.637r	1.5	0.2					
6105.785r	3	0.5		Ni I	4.23			6117.819r	2	0.1					
6106.441r	3.5	0.6		Zr II	1.76	106		6117.930r		0.2					
6106.616	10	1.6	<i>o</i>	Si I	5.61	30		6118.111r	5	0.8		Ni I	4.09	230	
6106.78 m			<i>s</i>				13	6119.175r	1.5	0.2					
6106.860r	3.5	0.6		Fe I p	2.61	208		6119.532	20	3.3	<i>S</i>	VI	1.06	34	
6106.98 m			<i>S</i>	VI	1.38	60	13	6119.760	12	2.0	<i>w?</i>	Ni I	4.26	244	
6107.099r	3	0.5		Fe I	4.26	1081		6120.249	6	1.0	<i>s</i>	Fe I	0.91	14	
6107.26 m	2	0.3	<i>s</i>	Ca I	2.71			6120.50 a	2.5	0.4					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6120.802r	4	0.7						6135.370	12	1.8	S	V I	1.05	34	
6121.006	5	0.8	S	Ti I	1.88	153		6135.775	17	2.8	w	Cr I?—	4.82	314	
6121.333r	4	0.7						6136.293r	4	0.7					
6121.778r	2	0.3						6136.624S	137	22.8	s	Fe I	2.45	169	
6122.226S	222	33.8	S	Ca I	1.89	3		6137.002S	64	10.4	s	Fe I	2.20	62	
6122.622r	3	0.5		Co I	3.57	169		6137.221r	2.5	0.4					
6123.260r	[4.5]	0.7						6137.294	7	1.1	s				
6123.45 m	4	0.7	o?	Si I? p	5.62			6137.506	12	2.0	s	Fe I p	3.33	685	
6124.495r	1	0.2						6137.702S	129	21.8	s	Fe I	2.59	207	
6124.82 m	1.5	0.2	S	Zr I	0.52	24		6138.059r	3	0.5					
6125.026m	36	5.9	w	Si I	5.61	30		6138.43 m	8	1.3	S	Ti I?— Y I	2.15 0.07	197 3	
6125.313r	4	0.7						6138.522	17	2.8	o				
6126.224m	20	3.3	S	Ti I	1.07	69		6139.651	3	0.5		Fe I p	2.59	208	
6126.456r	1	0.2						6140.46 m	2	0.3	S	Zr I	0.52	24	
6126.792r	2	0.3						6141.058r	2	0.3					
6127.475r	3.5	0.6	S	Zr I	0.15	2		6141.388r	3.5	0.6					
6127.643r	1.5	0.2						6141.727S	113	19.4	s	[Ba II— Fe I	0.70 3.60	2 816	
6127.912S	48	7.8	u	Fe I	{4.14 4.28	1017 1082		6142.018r	5	0.8		Ni I	4.15	244	
6128.112r	5	0.8						6142.213r	4	0.7		Si I p	5.62	30	
6128.33 m	2	0.3	s	V I	1.05	33		6142.494	34	5.5	w	Si I	5.62	30	
6128.984S	21	3.5	s	Ni I	1.68	42		6142.837r	3.5	0.6					
6129.222r	3	0.5		Cr II	4.75	105		6143.183r	2.5	0.4	S	Zr I	0.07	2	
6129.532r	7	1.1						6144.343r	2.5	0.4					
6129.732r	5	0.8		Fe II p	3.20	46		6144.781r	1	0.2					
6130.141m	23	3.6	w	Ni I	4.26	248		6145.020S	38	6.2	W	Si I	5.61	29	
6130.352r	2.5	0.4		Fe I p	3.25	624		6145.411	4	0.7	u	Fe I p	3.37	685	
6131.282r	6	1.0						6146.235	3	0.5	S	Ti I	1.87	153	
6131.577	26	4.2	o	Si I	5.61	30		6146.85 m	3.5	0.6					
6131.858	27	4.4	o	Si I	5.61	30		6147.173r	1	0.2		Cr II?	4.76	105	
6132.282r	4	0.7						6147.742	76	5.4	o	Fe II	3.89	74	
6132.496r	4	0.7					6147.834	7.6		u	Fe I	4.07	1016		
6132.812r	1.5	0.2						6148.092r	2	0.3					
6133.232r	5	0.8						6148.272r	0.5	0.1					
6133.977	5	0.8		Ni I	4.09	229		6148.662r	3.5	0.6		Fe I p	4.32	1141	
6134.57 m	3.5	0.6	S	Zr I	0.00	2		6149.001r	2	0.3					
6134.71 m			s				13	6149.249S	35	5.8	W	Fe II	3.89	74	
6135.072r	2.5	0.5	S	V I	1.35	60		6149.558r	2	0.3					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6149.742r	2.5	0.4	S	Ti I	2.16	197		6164.567r	2	0.3					
6150.154	12	1.8	S	V I	0.30	20		6165.168r	1	0.2					
6151.623S	41	7.0	s	Fe I	2.18	62		6165.363S	33	6.0	s	Fe I	4.14	1018	
6151.846r	1	0.2						6165.550r	1	0.2					
6152.018r	2	0.3						6165.895r	2	0.3					
6152.312r	3	0.5						6166.056r	1	0.2					
6152.646r	1.5	0.2						6166.440S	54	10.2	s	Ca I	2.52	20	
6152.847r	2	0.3		Fe I? p	5.03	1312		6167.872r	1.5	0.2					
6153.921r	1	0.2						6168.75 a	2.5	0.4					
6154.230S	27	4.6	S	Na I	2.10	5		6169.044m	85	13.8	S	Ca I	2.52	20	
6154.442r	2.5	0.4		Cr I?	4.80	314		6169.564S	98	16.5	S	Ca I	2.52	20	
6154.689r	2	0.3						6169.967r	6	1.0					
6154.892r	2.5	0.4						6170.209r	2	0.3					
6155.142m	72	11.0	W,N	Si I	5.62	29		6170.33 m	3	0.5	S	V I	0.29	20	
6155.241r		0.6		Fe II? p	5.57	161		6170.516S	66	10.7	w	Fe I (Ni I)	4.79 (4.09 4.10)	1260 228 230	
6155.706	5	0.8	u	Si I	5.62	29									
6156.030	7	1.1	S	Ca I (O I)	2.52 10.74	20 10		6170.817r	3.5	0.6					
6156.281r	4	0.6						6171.004r	2.5	0.4		Fe I p	4.73	1256	
6156.801r	5	0.8	o?	O I	10.74	10		6171.232r	1	0.2					
6157.241r	[1.5]	0.2						6171.59 a	2	0.3					
6157.421r	3	0.5	u	Fe I p	3.30	624		6171.950r	1.5	0.2					
6157.733S	48	8.4	s?	Fe I	4.07	1015		6172.734r	1.5	0.2					
6157.921r	1.5	0.2						6173.065r	1.5	0.2		Eu II	1.32	9	
6158.171r	3.5	0.6		O I	10.74	10		6173.341S	50	9.7	u	Fe I	2.22	62	
6158.679r	1.5	0.2						6173.571r	2.5	0.4					
6159.091r	0.5	0.1						6174.737r	2	0.3		Ti I?	2.66	293	
6159.382	8	1.3	u,d?	Fe I	4.61	1175	16	6175.11 m	3	0.5	s				
6160.228r	2.5	0.4					6175.162							Fe II	6.22
6160.40 a	2	0.3						6175.370S	36	5.8	w	Ni I	4.09	217	
6160.753m	44	7.5	S	Na I	2.10	5		6175.595r	3	0.5					
6161.089r	2.5	0.4						6176.816S	50	8.7	u	Ni I	4.09	228	
6161.295S	52	8.4	S	Ca I	2.52	20		6177.043r	2.5	0.4					
6161.634r	3	0.5						6177.253	10	1.6	s	Ni I	1.83	58	
6162.180S	222	38.5	S	Ca I	1.90	3		6177.535r	2	0.3		Ni I p	4.23	244	
6163.421	29	4.7	u?	Ni I	4.10	230		6178.518r	3	0.5					
6163.554	24	3.9	u	Fe I	2.20	64		6179.395	2.5	0.4		Fe II	5.57	163	
6163.754m	49	8.0	S	Ca I	2.52	20		6180.061	3	0.5					
								6180.209S	40	7.1	s	Fe I	2.73	269	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6180.375r	5	0.8						6203.345r	1.5	0.2					
6182.637r	1.5	0.2						6204.610m	16	2.6	w	Ni I	4.09	226	
6183.122r	1.5	0.2		Ni I	3.46			6205.23 m	1.5	0.2	S				
6183.574	12	1.9	o?				15,17	6205.47 m	1	0.2					
6183.872	5	0.8		Ni I	4.17	226		6207.232	2.5	0.6		Fe I			
6185.38 a	1.5	0.2		Fe I				6208.212	3.5	0.6					
6185.704	12	1.9	w?,d?					6208.560	5	0.8					
6186.14 m	9	0.3	S	Ti I	2.17	197		6208.892r	0.5	0.1					
6186.217		1.1						6209.754r	1	0.2		Fe I p	3.96	981	
6186.717S	22	3.9	w	Ni I	4.10	229		6210.671	2	0.3	S	Sc I	0.00	2	
6187.410	2.5	0.4		Fe I p	2.83	342		6211.19 m	1	0.2					
6187.995S	36	6.3	u	Fe I	3.94	959		6212.067r	2.5	0.4		Fe I	4.37	1142	
6188.55 a	1	0.2						6212.271r	1	0.2	s				
6188.998	6	1.0	s,N	Co I	1.71	37		6213.12 m	0.5	0.1	s	Zr I	0.54	24	
6189.383r	—	0.3	S	V I	0.28	20		6213.437S	61	11.3	S	Fe I	2.22	62	
6190.400r	2	0.3						6213.632r	0.5	0.1					
6190.837r	2	0.3						6213.866	3	0.8	S	V I	0.30	20	
6191.186m	56	9.8	s	Ni I	1.68	45		6214.50 m	1	0.2	s				
6191.571S	110	19.7	u	Fe I	2.43	169		6214.663	4.5	0.7	s,d				17
6191.74 m	3	0.5	S	Y I	0.00	2		6215.023r	3	0.5					
6192.95 m			s,N	Zr I	0.54	24	13	6215.149S	40	6.4	u	Fe I	4.19	1018	
6193.69 m			S	Sc I	0.00	3	13	6215.22 m	11	1.8	S	Ti I	2.69	293	
6193.77 a	1.5	0.2						6215.420	7	1.1	o				
6194.230r	2	0.3						6215.723r	1	0.2					
6194.424	11	1.8	o					6215.884	4.5	0.7					
6194.873	3	0.5						6216.358S	30	5.1	S	V I	0.28	19	
6195.18 m	1.5	0.2		Cr II	4.76	105		6216.602r	3	0.5					
6195.448	13	2.1	w					6217.45 m	0.5	0.1					
6196.163r	1	0.2						6217.690	3	0.5					
6196.68 m	2	0.3		Fe II? p	3.22	46		6218.60 a	1.5	0.2					
6198.655r	1	0.2		Ni I	4.26			6218.91 a	1	0.2					
6199.186	8	1.4	S	V I	0.29	19		6219.287S	82	13.8	S	Fe I	2.20	62	
6199.508	3.5	0.6	s	Fe I	2.56	208		6219.522r	2.5	0.4		Fe I p	3.42	685	
6200.321S	55	9.5	s	Fe I	2.61	207		6219.943	5	0.8					
6200.481r	1.5	0.2						6220.235	11	1.8	o				
6200.64 a	2	0.3						6220.488	9	1.4	S	Ti I	2.68	293	
6200.967r	2	0.3						6220.791	17	2.7	u,d	Fe I	3.88	958	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6221.015r	1.5	0.2						6243.114m	24	3.8	S	V I	0.30	19	
6221.342	13	2.1	S	Ti I Fe I	2.66 3.93	293 981		6243.331r	2	0.3					
6221.643r	2.5	0.4		Fe I	0.86	13		6243.57 a	1.5	0.2					
6221.72 m	1	0.2	s					6243.823m	43	6.9	w	Si I	5.61	28	
6222.61 m	1.5	0.2	S	Y I	0.00	2		6244.118	7	1.1		Si I p	5.61	28	
6223.990m	24	4.0	u	Ni I	4.10	228		6244.476S	45	7.4	W	Si I	5.61	27	
6224.196	2	0.3		Fe I? p	4.73	1257		6245.204r	1	0.2	S	V I	0.26	20	
6224.506	5	0.8	S	V I	0.29	20		6245.620S	30	5.0	w?	Sc II	1.51	28	
6225.173r	2.5	0.4						6245.891r	2.5	0.4		Fe I?	5.01	1289	
6225.493r	2.5	0.4						6246.327S	112	19.4	s	Fe I	3.60	816	
6226.320r	3.5	0.6		V II?	2.56	124		6247.350	5	0.8					
6226.740S	24	4.2	s?	Fe I	3.88	981		6247.562S	49	8.3	W	Fe II	3.89	74	
6227.556	8	1.3	s, N, d				17	6248.26 m	1.5	0.2					
6229.232S	33	5.4	s	Fe I	2.84	342		6248.910	[4]	0.6		Fe II	5.51		
6229.645r	1	0.2						6249.05 a	3	0.5					
6229.843r	1.5	0.2						6249.501r	4	0.6		Co I	2.04		
6230.098	18	2.7	w	Ni I	4.10	227		6249.643	6	1.0		Fe I	3.37	685	
6230.736S	151	25.4	s	Fe I V I	2.56 0.27	207 19		6249.91 m	0.5	0.1	s, N	La I	0.51	7	
6230.85 m			S				13	6251.286r	2	0.3		Fe I p	4.61	1176	
6231.003r	2.5	0.4		Co I	1.78	37		6251.825	11	2.1	S	V I	0.29	19	
6231.34 m	2	0.3						6252.201r	1.5	0.2					
6232.648S	[76]	12.8	s	Fe I	3.65	816		6252.565S	109	18.7	s	Fe I	2.40	169	
6233.201	4	0.8	S	V I	0.28	20		6253.55 a	2.5	0.4		Si I?	5.08		
6233.498	4	0.6	s, d	-Fe II	5.48		17	6253.834	17	2.7	s, d	Fe I p	4.73	1256	17
6235.92 a	2	0.3						6254.173r?	115	4.7	s	{ Si I Fe I	5.62	28	
6237.328m	60	9.8	w	Si I	5.61	28	6254.253S	15.0					2.28	111	
6237.84 m	2.5	0.4						6254.845	4.5	0.7		Si I	5.62	28	
6238.390m	41	6.9	o	Fe II (Si I)	3.89 5.08	74		6255.952	18	2.7	s	Fe I			
6239.361	6	1.0	S, N	Sc I	0.00	2		6256.367S	81	12.9	S	Fe I Ni I	2.45 1.68	169 43	
6239.771r	2	0.3	S	Sc I	0.00	3		6256.887	3	0.5	S	V I	0.28	19	
6239.948	10	1.6	o	Fe II	3.89	74		6257.594r	2	0.3		Co I	3.71		
6240.161r	2	0.3	S	V I	0.27	20		6257.63 m			s?				13
6240.318	13	2.1	s	Fe I—	4.14	1015		6257.81 m	3	0.5	S	Ti I	0.00	1	
6240.653S	40	6.9	s	Fe I	2.22	64		6258.110S	42	7.2	S	Ti I	1.44	104	
6241.31 m			s				13	6258.362r	2	0.3					
6242.838	7	1.1	S	V I	0.26	19									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6258.573	14	2.2	S	V I	0.26	19		6273.39 m			S	Ti I	0.02	1	13
6258.713S	43	6.9	S	Ti I	1.46	104		6273.65 m	1	0.2					
6258.936r	3	0.5	S	Sc I	0.02	3		6273.949	3	0.5					
6259.594	14	2.2	w	Ni I	4.09	216	17	6274.658	6	1.1	S	V I	0.27	19	
6259.772r	4	0.6						6275.278	3	0.5		Atm H ₂ O	R 6	113	26
6259.93 a	3	0.5						6275.72 m	1	0.2					
6261.106m	40	7.0	S	Ti I	1.43	104		6276.32 m			S	Sc I	0.02	2	13
6261.23 m			S	V I	0.27	20	13	6276.44 m	2	0.3		Atm H ₂ O	R 3	113	26
6261.293r	2	0.3						6276.590m	} 24	3.8		Atm O ₂	R 15	2,0	22
6261.552r	2.5	0.4					6276.633m						Atm O ₂	R 17	2,0
6261.965r	1	0.2						6276.818m	21	3.3		Atm O ₂	R 13	2,0	22
6262.250r	3	0.5		-La II?	0.40	33		6276.938m	8	1.3		Atm O ₂ - Fe I?	R 19	2,0	22
6264.807r	2.5	0.4	s	Ti I	1.74	144		6277.151r	5	0.8	u?	Atm?			
6265.141S	72	12.4	S	Fe I	2.18	62		6277.312m	26	4.1		Atm O ₂	R 11	2,0	22
6265.600	3	0.5	u?					6277.419m	} 27	1.8	s,N	Atm O ₂	R 15	2,0	22
6266.015r	1	0.2	S	Ti I	1.75	144		6277.470m					1.6		Atm O ₂ - Ti I
6266.326	3	0.5	S	V I	0.28	20		6277.525m		1.0		Atm O ₂	R 21	2,0	22
6266.834r	1	0.2						6277.638m	19	3.0		Atm O ₂	R 13	2,0	22
6267.216r	1	0.2						6277.785m	8	1.3		Atm O ₂	R 19	2,0	22
6267.62 m	4	0.6		Atm				6277.85m	8	1.3		Atm O ₂	R 19	2,0	22
6267.845	5	0.8		Fe I	4.29	1123		6278.00 m	4	0.6		Atm H ₂ O	R 5	113	26
6268.225r	0.5	0.1						6278.073m	} 52	4.9		Atm O ₂	R 9	2,0	22
6268.53 m	} 2.5	0.1	S	Ti I	1.43	103		6278.126m				4.0		Atm O ₂	R 11
6268.611r		0.3							6278.374m	3.5	0.6		Atm O ₂	{R 21 R 23	{2,0 2,0
6268.872r	3	0.5	S	V I	{0.30 0.29	{20 20		6278.878m	22	3.5		Atm O ₂	R 9	2,0	22
6269.422r	0.5	0.1						6279.101S	27	4.3		Atm O ₂	R 7	2,0	22
6269.977	6	1.0	o?					6279.233m	4	0.6		Atm O ₂	R 23	2,0	22
6270.231S	46	8.0	s	Fe I	2.86	342		6279.318	12	1.9		Atm- Si I	5.86		
6270.420r	1	0.2						6279.506m	2	0.3		Atm O ₂	R 25	2,0	22
6270.904r	1	0.2						6279.740	23	3.7	u	Sc II	1.50	28	
6271.283m	19	3.0	s	Fe I	3.33	685		6279.896S	23	3.7		Atm O ₂	R 7	2,0	22
6271.495r	3	0.5		Fe I p	4.58	1231		6280.393S	26	4.1		Atm O ₂	R 5	2,0	22
6271.767	3.5	0.6		Ni I	3.31			6280.622S	52	8.3	S	Fe I	0.86	13	
6271.949r	2	0.3		Atm				6280.791	6	1.0					
6272.415r	3	0.5		Atm				6280.89 m	1.5	0.2		Atm O ₂	R 27	2,0	22
6272.645	4	0.6		Ni I	4.26	244		6281.020r	1	0.2					
6273.098r	1.5	0.2						6281.178S	20	3.2		Atm O ₂	R 5	2,0	22

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6281.627r	1	0.2		Atm H ₂ O	R 3	113	26	6295.287 ^r m			s	Ti I	{0.05 1.75}	{1 144}	13
6281.781m	0.5	0.1		Atm O ₂	R 27	2,0	22	6295.380r	1.5	0.2					
6281.956S	22	3.5		Atm O ₂	R 3	2,0	22	6295.650r	0.5	0.1		Atm			
6282.500m	5	0.8		Atm H ₂ O	R 4	113	26	6295.960S	24	3.8		Atm O ₂	P 7	2,0	22
6282.599r	6	1.0	s,N	Co I	1.74	37		6296.149r	4.5	0.7					
6282.726m	22	3.5		Atm O ₂	R 3	2,0	22	6296.371r	2.5	0.4					
6282.816	13	2.1	u					6296.495	6	1.1	S,d	V I	0.30	19	
6283.796S	12	1.9		Atm O ₂	R 1	2,0	22	6296.66 m	2	0.3	S	Ti I	0.00	1	
6284.001r	0.5	0.1		Fe I p	3.30	624		6297.262	7	1.1		Atm H ₂ O	R 1	113	26
6284.536m	6	1.0		Atm O ₂	R 1	2,0	22	6297.799S	65	11.0	s	Fe I	2.22	62	
6285.165	7	1.1	S	V I	0.28	19		6298.084r	5	0.8		Ti I?	1.73	144	
6285.42 m			s				13,16	6298.457m	22	3.5		Atm O ₂	P 9	2,0	22
6285.801	10	1.6	w	-Atm H ₂ O	R 3	113	26	6298.60 a } to 6299.05 a }	9	1.4					
6286.142	19	3.0	w					6299.228S	30	4.8		Atm O ₂ , Atm H ₂ O	P 9 R 1	2,0 113	22 26
6286.40 a	1	0.2		Atm				6299.414r	3.5	0.6					
6287.285r	2.5	0.4		Atm H ₂ O	R 3	113	26	6299.588	36	5.7	u,N				
6287.749m	13	2.1		Atm O ₂	P 1	2,0	22	6300.311	5	0.8		[O I]	0.00	1F	25
6287.945r	3	0.5		Atm				6300.49 m	1	0.2					
6288.315	3.5	0.6						6300.678	6	1.0		Sc II	1.51	28	
6289.140	2.5	0.4		Atm H ₂ O	R 2	113	26	6301.508S	127	19.4	s?	Fe I	3.65	816	
6289.398S	[15]	2.4		Atm O ₂	P 3	2,0	22	6301.845r	1.5	0.2		Fe I p	3.64	863	
6289.581r	1.5	0.2						6302.000m	23	3.6		Atm O ₂	P 11	2,0	22
6289.95 a	1.5	0.2		Atm H ₂ O	Q ₃	113	26	6302.190r	3.5	0.6					
6290.221S	21	3.3		Atm O ₂	P 3	2,0	22	6302.499S	83	13.0	w	Fe I	3.69	816	
6290.532	6	1.0		Fe I p	2.59	208		6302.764S	21	3.3		Atm O ₂	P 11	2,0	22
6290.974m	66	10.5	s?	Fe I	4.73	1258		6302.948r	5	0.8					
6292.162S	[19]	3.0		Atm O ₂	P 5	2,0	22	6303.461	4	0.6	u	Fe I	4.32	1140	15
6292.362r	2	0.3						6303.767m	5	0.8	S	Ti I	1.44	104	
6292.614	8	1.3		Atm H ₂ O	R 2	113	26	6304.324	4.5	0.7		Zr I?	0.54	24	
6292.816	9	1.9	S	V I	0.29	19		6305.314r	5	0.8		Fe II Atm H ₂ O	6.22 Q 1	200 113	26
6292.958S	25	4.0		Atm O ₂	P 5	2,0	22	6305.667r	3.5	0.6	S	Sc I	0.02	2	
6293.21 a	2	0.3						6305.810S	18	2.8		Atm O ₂	P 13	2,0	22
6293.60 a	1.5	0.2						6306.04 m	1.5	0.2	S	Sc I	0.02	3	
6293.933	12	1.9	u,NN	Fe I p-	4.83	1260		6306.218r	1.5	0.2		Fe I p	4.59	1230	
6294.650	3.5	0.6		Atm H ₂ O	R 1	113	26	6306.565S	17	2.7		Atm O ₂	P 13	2,0	22

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6306.738r	2.5	0.4	s					6319.943	4.5	0.7		Atm H ₂ O	Q 3	113	26
6307.551r	2.5	0.4						6320.429	[4]	0.6	<i>u, N</i>	La II	0.17	19	
6307.854	5	0.8	s	Fe I p	3.64	863		6320.843	6	0.9	<i>u</i>	Sc II	1.50	28	16
6308.62 m			s				13	6321.329	1.5	0.2	<i>o?</i>	Atm H ₂ O—	Q 4	113	17, 26
6308.813	6	1.0	<i>u</i>					6322.169	19	3.0	<i>w</i>	Ni I	4.15	249	
6309.394	2.5	0.4		Atm H ₂ O	Q 2	113	26	6322.359m	2	0.3		Atm H ₂ O	Q 2, 4	113	26
6309.886S	22	3.5		Atm O ₂ Sc II	P 15 1.50	2,0 28	22	6322.694S	75	11.9	<i>s</i>	Fe I	2.59	207	
6310.266	[13]	2.1	<i>u</i>					6323.750m	4.5	0.7		Atm O ₂	P 21	2,0	22
6310.636m	12	1.9		Atm O ₂	P 15	2,0	22	6323.870m	3.5	0.6		Atm H ₂ O	P 1	113	26
6311.239	[8]	1.3	s	Ti I?	1.44	103	17	6324.479m	4	0.6		Atm O ₂	P 21	2,0	22
6311.504m	23	3.6	s	Fe I	2.83	342		6325.165	2	0.3	<i>S</i>	Ti I	0.02	1	
6311.724r	2	0.3						6326.46 m	1.5	0.2					
6312.241m	5	0.8	<i>S</i>	Ti I	1.46	104		6326.823r	2	0.5	<i>S</i>	V I	1.87	84	
6312.758	2.5	0.4						6327.270r	1	0.2					
6312.876m	1	0.2		Atm H ₂ O	Q 1	113	26	6327.604S	36	5.7	<i>s</i>	Ni I	1.68	44	
6313.03 m	1	0.2	s	Zr I	1.58	65	17	6328.913m	2.5	0.4		Atm O ₂	P 23	2,0	22
6314.235m	10	1.6		Atm O ₂	P 17	2,0	22	6329.636m	2.5	0.4		Atm O ₂	P 23	2,0	22
6314.668m	67	10.8	s	Ni I	{ 1.93 (4.15)	{ 67 249		6330.096m	25	4.3	<i>S</i>	Cr I	0.94	6	
6314.977m	11	1.7		Atm O ₂	P 17	2,0	22	6330.852S	32	5.0	<i>w</i>	Fe I	4.73	1254	
6315.314S	52	8.2	<i>w</i>	Fe I	4.14	1015		6331.129r	1	0.2					
6315.412	16	2.5	s	Fe I p Atm	4.14	1016		6331.58 m	2	0.3					
6315.814S	33	5.2	<i>u</i>	Fe I	4.07	1014		6331.953	11	1.7	<i>o</i>	Si I Fe II	5.08 6.22	199	
6316.319	3.5	0.6		Atm H ₂ O	Q 2	113	26	6332.066m	[5]	0.8		Atm H ₂ O	P 2	113	26
6316.584	2	0.3		Ni I	4.15	248		6333.235	2	0.3		Atm H ₂ O	P 2	113	26
6317.214	3.5	0.6		Atm H ₂ O	Q 1	113	26	6334.358m	2.5	0.4		Atm O ₂	P 25	2,0	22
6317.418	4.5	0.7		Atm H ₂ O	Q 2	113	26	6334.687r	1.5	0.2					
6318.027S	96	15.7	s	Fe I (Ti I)	2.45 1.43	168 103		6335.072m	3.5	0.6		Atm O ₂	P 25	2,0	22
6318.311r	3	0.5						6335.337S	103	16.1	<i>s</i>	Fe I	2.20	62	
6318.61	49	7.7		Ca I	4.43	53	27	6336.113m	8	1.3	<i>S</i>	Ti I	1.44	103	
6318.708	37	5.9	<i>u</i>	Mg I	5.11	23		6336.450r	[3,5]	0.6		Atm?			
6318.853m	4.5	0.7		Atm O ₂	P 19	2,0	22	6336.830S	121	18.5	<i>s</i>	Fe I	3.69	816	
6319.242	18	2.8	<i>w</i>	Mg I	5.11	23		6337.59 m	2	0.3					
6319.490	9.5	1.5		Atm (Mg I)	5.11	23		6338.15 a	3	0.5					
6319.591m	4.5	0.7		Atm O ₂	P 19	2,0	22	6338.45 a	2	0.3					
6319.84 a	2	0.3						6338.880	42	6.6	<i>w</i>	Fe I	4.79	1258	
								6339.118	[44]	6.9	<i>u</i>	Ni I	4.15	248	
								6339.92 m			<i>s, N</i>				13

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6339.975r	1	0.2		Fe I p	3.40	685		6364.706	12	1.9	w	Fe I	4.58	1229	
6341.26 m	2	0.3		Atm H ₂ O	P 3	113	26	6366.356	4	0.6	S	Ti I	1.46	103	
6342.26 m			s				13	6366.491m	26	4.1	w	Ni I	4.17	230	
6342.389	4.5	0.7		Atm H ₂ O	P 3	113	26	6366.772r	1.5	0.2					
6342.86 a	2	0.3						6367.128	2.5	0.4	o				
6343.71 a	70	11.0		Ca I	4.44	53	27	6367.418	2.5	0.4					
6344.155S	56	8.8	s	Fe I	2.43	169		6367.82 m			s,N				13
6344.82 m			S	Sc I	0.00	1	13	6367.92 m			s				13
6347.095	54	8.5	o	Si II	8.12	2		6368.464	2.5	0.4		Atm H ₂ O	P 5	113	26
6347.305m	6	0.9		Atm H ₂ O	P 3	113	26	6368.96 a	1.5	0.2					
6347.860	4	0.6		Co I	4.39	200		6369.463	18	2.8	o	Fe II	2.89	40	
6349.48 m	3	0.6	S	V I	1.85	84		6370.357	11	1.7	u	Ni I	3.54	127	
6349.75 m	4.5	0.7						6370.61 m	3	0.5	S				16
6350.495	8	1.3		Ni I—	4.16			6371.26 m		1.4					
6350.719	4	0.6		Atm H ₂ O	P 4	113	26	6371.355m	35	4.1	o	Si II	8.12	2	
6351.287	[3]	0.4	s,NN	Fe I p	4.31	1140		6371.568	[4.5]	0.7		Atm H ₂ O	P 6	113	26
6352.517r	2.5	0.4						6372.231m	1	0.2		Atm H ₂ O	P 5	113	26
6352.944	4.5	0.7	S					6374.50 a	2.5	0.4					
6353.388	3.5	0.6						6374.73 m	1	0.2	S				
6353.849r	1.5	0.2	S	Fe I p	0.91	13		6375.225	3	0.5		Ni I	4.16		
6354.657r	3	0.5						6375.818	4	0.6		Atm H ₂ O	P 5	113	26
6355.035S	62	9.8	s	Fe I	2.84	342		6376.198	1.5	0.2		Fe I p	4.32	1140	
6355.187	17	2.7	s?	Atm H ₂ O	P 4	113	26	6378.256S	27	4.4	w	Ni I	4.15	247	
6357.29 m	1.5	0.2	S	V I	1.85	84		6378.72 a	1	0.2					
6357.86 m	1	0.2						6378.85 m			S	Sc I	0.00	1	13
6358.687S	[82]	12.9	s	Fe I	0.86	13		6378.953r	1.5	0.2					
6359.91 m			S	Ti I	0.05	1	13	6379.39 m	1	0.2	S	V I?	2.12		16
6360.818	16	2.5	w	Ni I	4.17	229		6379.666r	1	0.2					
6361.07 m			s				13	6380.750S	40	7.2	w	Fe I	4.19	1015	
6361.205r	4.5	0.2	s					6380.93 m	1.5	0.2	s				
6361.252		0.5		Atm H ₂ O	P 5	113	26	6381.142	2	0.3		Ni I	4.42		
6361.94	89?	14.2?		Ca I	4.45	53	27	6381.44 m			S				13, 16
6362.350m	23	3.6	w	Zn I	5.79	6	17	6381.632r	1.5	0.2	s				
6362.876m	30	4.7	S	Cr I Fe I	0.94 4.19	6 1019		6382.60 a	2	0.3					
6363.79 m	3	0.5		[O I]	0.02	1F	25	6383.44 m			s				13
6364.00 a	1.5	0.2						6383.715	8	1.3	o	Fe II	5.55		
6364.369m	25	3.9	w?	Fe I	4.79	1253		6383.906r	2	0.3		CN	Q 20	5,1	12
								6384.42 a	1.5	0.2					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6384.668	20	3.1	w?	Mn I— Ni I	3.77 4.15	39 246	17	6408.682	8	1.2	s	Atm H ₂ O	R' 5	311	16, 26
6385.458	2	0.3		Fe II	5.55			6410.431r	2	0.3					
6385.726	8	1.3	u	Fe I p	4.73	1253		6410.926	6	0.9	u				
6388.22 a	2	0.3						6411.113	6	0.9	o?	Fe I	4.73	1256	
6388.427	2.5	0.4		CN Fe I p	Q 21 3.37	5,1 685	12	6411.658S	129	20.1	s	Fe I	3.65	816	
6390.493	2	0.3		La II	0.32	33		6413.14 a	0.5	0.1	s	Ti I p	0.05	1	
6391.259r	2	0.3						6413.32 m	1.5	0.2	S	Sc I	0.02	1	
6392.538	10	1.6	s	Fe I	2.28	109		6413.588r	2.5	0.4					
6393.19 a	2	0.3						6413.932	2	0.3		CN	Q 26	5,1	12
6393.612S	117	19.1	s	Fe I	2.43	168		6414.594	15	2.3	w	Ni I	4.15	244	
6394.223	6	0.9						6414.987	45	7.2	W	Si I	5.87		
6394.487r	1.5	0.2		Atm H ₂ O	P 8	113	26	6415.424r	5	0.8		CN	Q 25	5,1	12
6395.148	6	0.9		Co I Ca I	3.81	174	15	6416.031r	2	0.3					
6395.47 m	1	0.2	S					6416.530r	2	0.3					
6396.388r	1	0.2		CN Fe I p	Q 21 3.69	5,1 921	12	6416.928m	[47.5]	7.3	w	Fe II	3.89	74	
6397.545r	1	0.2		Atm				6417.685	9	1.4	s	Ca I	4.44		
6397.974	3	0.5	s,d?	CN	Q 23	5,1	12	6417.884r	2.5	0.4					
6398.917r	3	0.5		Atm				6419.09 m	1.5	0.2	S	Ti I	2.17	196	
6400.009S	181	28.3	s	Fe I	3.60	816		6419.374r	2	0.3					
6400.323S	46	7.2	S	Fe I	0.91	13		6419.650	9	1.4	u?	CN Fe I p	Q 27 3.94	5,1 958	12
6400.811r	2	0.3		CN	Q 22	5,1	12	6419.956S	80	13.2	w	Fe I	4.73	1258	
6401.95 m			s	Y I	0.07	2	13	6420.75 m	2	0.3		CN	Q 26	5,1	12
6402.295r	1.5	0.2						6421.360S	87	13.5	s	Fe I	2.28	111	
6403.127	2	0.3	o	CN—	Q 24	5,1	12	6421.526	16	2.5	o?	Ni I	4.16	258	
6403.698r	1	0.2						6424.862	11	1.7	u o?	Atm H ₂ O Ni I	R 4 4.17	212 227	17, 26
6404.180r	1	0.2						6425.537r	2.5	0.4		CN	Q 28	5,1	12
6405.45 m	6	0.9		CN	Q 23	5,1	12	6426.281	2	0.3		CN	Q 27	5,1	12
6405.763	13	2.0	u?,NN					6426.683	3	0.5					
6406.07 m	1.5	0.2	s				16	6428.174r	1	0.2		Ca I? p	4.44		
6406.28 m	2	0.3						6428.67 a	0.5	0.1					
6407.113	6	0.9		Si I? p	5.87			6429.902	2.5	0.4	u,N	Co I	2.14	81	
6407.291	26	4.0	o	Si I Fe II	5.87 3.89	74		6430.274r	2	0.3		Atm			
6408.026S	80	12.5	s	Fe I	3.69	816		6430.454r	1.5	[0.1 0.1]					
6408.375r	5	0.8		CN	Q 25	5,1	12	6430.50 m			s	VI	1.95	107	
6408.47 m	3	0.5	s	Sr I	2.27	8		6430.856S	106	16.8	s	Fe I	2.18	62	
								6431.255r	1.5	0.2					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identifi- cation	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identifi- cation	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6431.63 m			s	V I	1. 95	107	13	6450.654r	1	0. 2		CN	Q 31	5,1	12
6431.679r	1.5	0. 2		—CN	Q 29	5,1	12	6451.573r	3	0. 5		Ni I Fe I	4. 16 3. 69	257 921	
6432.023	1.5	0. 2		CN Ni I	Q 28 3. 54	5,1 126	12	6452.08 m			s?				13
6432.683m	38	5. 9	W	Fe II	2. 89	40		6452.315	6	0. 9	S	V I	1. 19	48	
6432.966	4.5	0. 7		Atm H ₂ O	R 3	212	26	6452.688r	1.5	0. 2	s	Ni I? Atm	4. 09	226	
6433.452	15	2. 3	u,N				17	6453.602r	2.5	0. 4					
6433.737r	5	0. 8						6453.92 a	1	0. 2		Atm			
6434.571	2	0. 3	o?	Atm?				6454.139	4	0. 6		Atm H ₂ O	R 6	311	26
6435.049r	[1.5]	0. 2	S	Y I	0. 07	2		6455.001	11	1. 7	s,d?	Co I	3. 63	174	
6436.25 a	1.5	0. 2		Atm				6455.605S	48	7. 4	S	Ca I	2. 52	19	
6436.413	7	1. 1	s	Fe I	4. 19	1016		6455.90 m	2	0. 3					
6436.923r	1.5	0. 2		Atm				6456.391S	57	9. 3	W	Fe II	3. 90	74	
6437.698	6	0. 9		Eu II—	1. 32	8		6456.58 a	3	0. 5					
6438.040r	2	0. 3		CN— CN	Q 29 Q 30	5,1 5,1	12 12	6456.865	17	2. 6	w?	Fe I p Ca II	4. 79 8. 44	1256 19	
6438.773	7	1. 1	s	Fe I	4. 43	1158		6457.114	6	0. 9	s,d?	—Atm?			17
6439.083m	156	25. 6	S	Ca I	2. 52	18		6457.380	8	1. 2					
6439.53 a	2	0. 2						6458.556r	2	0. 3		CN	Q 33	5,1	12
6439.72 a		0. 1						6458.682	3	0. 5		Atm			
6440.19 a	1.5	0. 2		Atm				6458.892	10	1. 5		Atm H ₂ O	R 5	311	26
6440.645	1.5	0. 2						6459.080r	1	0. 2		Atm			
6440.934	4	0. 6	s,d?	Mn I	3. 77	39		6459.683	5	0. 8		Atm H ₂ O	R 5	311	26
6441.624r	1.5	0. 2		Atm				6459.987	3	0. 5		Atm			
6442.482r	2	0. 3						6460.223	2.5	0. 4		Atm H ₂ O	R 5	311	26
6442.950	3.5	0. 5		Fe II	5. 55			6460.934r	3	0. 5		Atm?			
6443.55 a	4	0. 6		Atm H ₂ O	R' 3	311	26	6461.10 m	[1.5]	0. 2					
6444.218r	4.5	0. 2		CN	Q 30	5,1	12	6461.838	5	0. 8		Atm			
6444.41 a		0. 5						6462.032	4.5	0. 7		Atm			
6444.71 a		0. 5		CN	Q 31	5,1	12	6462.570	216	23. 2	S	Ca I	2. 52	18	
6445.727m	1	0. 2	s	Zr I	1. 00	57	6462.749	11. 6			s	Fe I	(2. 45 (0.91))	168 13	
6446.133r	2	0. 3		Atm				6463.19 m	4	0. 6		Atm H ₂ O	R 5	311	26
6446.400	5	0. 8		Fe II	6. 22	199		6463.493	8	1. 2		Atm			
6447.943	2.5	0. 4		Atm H ₂ O	R 3	212	26	6463.744r	3	0. 5		Atm			
6449.127	34	5. 3	s,N,d				17	6463.955r	1.5	0. 2					
6449.601	2.5	0. 4		Atm				6464.183r	2	0. 3		CN	Q 33	5,1	12
6449.820S	98	15. 2	S	Ca I	2. 52	19		6464.427	9	1. 4		Atm H ₂ O	R 5	311	26
6450.179	24	3. 7	s,N	Co I	1. 71	37		6464.679	10	1. 5	S	Ca I	2. 52	19	
6450.325	20	3. 1	s,N												

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6465.409r	2	0.3		Atm?				6478.65 a	4.5	0.7		CN	Q 35	5,1	12
6465.787r	2.5	0.4		CN	Q 34	5,1	12	6479.188	5	0.8		Atm			
6466.138	4	0.6		Atm H ₂ O	R 9	311	26	6479.490	2.5	0.4		Atm H ₂ O	{R 3 R 4}	{311 311}	}26
6466.265	8	1.2		Atm H ₂ O	R 4	311	26	6480.066	9	1.4		Atm H ₂ O	R 4	311	26
6466.726	5	0.8		Atm H ₂ O	R 5	311	26	6480.252r	1	0.2		Atm			
6466.997	5	0.8	s	V I	1.05	32		6480.983	1.5	0.2		CN Atm	Q 36	5,1	12
6467.593	6	0.9		Atm H ₂ O	R 8	311	26	6481.684	1	0.2		Atm			
6467.83 m			s				13	6481.878m	63	9.7	s	Fe I	2.28	109	
6467.887	5	0.8		Atm H ₂ O	{R' 1 R 4}	{311 311}	26	6482.185	7	1.1		Fe II?	6.22	199	
6467.984	4	0.6						6482.809S	38	5.9	s	Ni I	1.93	66	
6468.363	3	0.5		Atm H ₂ O	R 4	311	26	6483.062r	1.5	0.2		Atm			
6468.834r	3	0.5		Fe I p	4.79	1254		6483.245	10	1.5		Atm H ₂ O	R 3	311	26
6469.192m	52	8.0	u	Fe I	{4.83 (2.40)}	{1258 168}		6483.453r	1	0.2		Atm			
6469.364	6	0.9		Atm H ₂ O	R 4	311	26	6483.762	5	0.8		Atm H ₂ O	R 2	311	26
6469.642	12	1.8		Atm H ₂ O	R 7	311	26	6483.940	11	1.7	s	{Fe I p Atm H ₂ O}	{1.48 R 3}	{34 212}	26
6469.989	9	0.7		Atm H ₂ O	R 4	311	26	6484.470r	2	0.3		Atm			
6470.02 m		0.7	s					6484.672	2.5	0.4		Atm H ₂ O	R 2	311	26
6470.23 m	1	0.2	s	Zr I	1.58	65		6485.18 a	3	0.5					
6470.896	2.5	0.4						6485.559	2.5	0.4		Atm H ₂ O	R 3	311	26
6471.17 m	1.5	0.2						6486.277r	3	0.5		CN Fe I?	Q 36	5,1	12
6471.668S	83	13.4	S	Ca I	2.52	18		6486.782	4.5	0.7		Atm H ₂ O	R 2	311	26
6472.144r	2.5	0.4		Fe I p	4.37	1140		6487.291r	2	0.3		Atm			
6472.477	12	1.8		Atm H ₂ O	R 6	311	26	6487.539	1.5	0.2		Atm H ₂ O	Q 3	311	26
6472.605	6	0.9		Atm?				6488.025	2	0.3		Atm H ₂ O	R 2	212	26
6473.183	17	2.6		Atm H ₂ O	R 4	311	26	6489.129	5	0.8		Atm H ₂ O	R 2	311	26
6473.528r	1	0.2						6489.651r	6	0.9	s	Zr I	1.55	65	
6474.117	4	0.6		Atm				6490.376r	5	0.8		Co I	2.04	81	
6474.614r	4	0.6		Fe I	3.63	861		6490.652r	2.5	0.4		Atm			
6475.058	18	2.8		Atm H ₂ O	R 3	311	26	6490.793	14	2.2		Atm H ₂ O	R 2	311	26
6475.213	25	3.9		Atm H ₂ O	R 5	311	26	6491.246r	3.5	0.5		Fe II	5.58		
6475.632S	57	8.8	s	Fe I	2.56	206		6491.582m	45	5.9	w	Ti II	2.06	91	
6475.824	16	2.5		Atm H ₂ O	R 3	311	26	6491.666			s	Mn I	3.76	39	
6476.568	4.5	0.7		Atm				6492.909	10	1.5		Atm H ₂ O	R 1	311	26
6477.013	4	0.6		Atm H ₂ O	R 3	311	26	6493.06 m	6	0.9		Fe II	5.58		
6477.329	5	0.8		Atm— Fe I?				6493.245	5	0.8		Atm H ₂ O	{R 1 R 2}	{212 212}	}26
6477.869	6	0.9	o	Co I	3.77	174									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6493.788S	133	20.5	s	Ca I	2.52	18		6506.39 m			s	Zr I	0.63		13
6494.10 a	2	0.3		Atm				6507.661r	3	0.5		Atm H ₂ O	Q 1	212	26
6494.304r	3	0.5		Atm?				6508.154r	3	0.5	S	Ti I	1.43	102	
6494.499	34	5.2	w	Fe I p	4.73	1255		6508.593	14	2.2	o	Atm H ₂ O	Q 2	311	26
6494.994S	165	26.2	s	Fe I	2.40	168		6508.846	11	1.7	S	Ca I	2.52	18	
6495.740	42	6.5	w?	Fe I	4.83	1253		6509.608	3.5	0.5	u,d?	Fe I p	4.07	1012	16
6495.862	8	1.2		Atm H ₂ O	R 1	311	26	6510.42 a	2	0.3		CN	Q 39	5,1	12
6496.120r	3	0.5						6511.10 m	3	0.5					
6496.472m	69	10.6	w?	Fe I	4.79	1258		6511.449r	0.5	0.1		Atm			
6496.908m	98	15.4	s	Ba II	0.60	2		6511.999	8	1.2		Atm H ₂ O	Q 1	311	26
6497.50	2	0.3		Atm H ₂ O	Q 4	311	26	6512.242	8	1.2		Atm H ₂ O	Q 4	311	26
6497.594	3	0.5		Atm H ₂ O	R 1	311	15,26	6512.921r	0.5	0.1					
6497.68 a	5	0.8	S	Ti I	1.44	102		6513.070r	3	0.5		Atm			
6498.24 a	2	0.3						6513.602	2	0.3		Atm H ₂ O	Q 5	311	26
6498.433r	1.5	0.2						6514.288	6	0.9		Atm H ₂ O	Q 3	311	26
6498.75 m			s	Bar?	1.19	6	13	6514.727	33	5.1		Atm H ₂ O—	Q 2	311	26
6498.945S	43	8.6	S	Fe I	0.96	13		6515.231r	0.5	0.1					
6499.216r	4.5	0.7						6515.73 m	4	0.6					
6499.654S	81	12.5	S	Ca I	2.52	18		6515.848	12	1.8		Atm H ₂ O	Q 2	311	26
6499.93 m	2	0.3		Atm?				6516.083S	61	9.4	w	Fe II	2.89	40	
6500.39 m	3.5	0.5						6516.437		1.1		Atm H ₂ O	Q 3	311	26
6500.839r	2.5	0.4						6516.543	56	3.5		Atm H ₂ O	Q 1	311	26
6501.203	9	1.4	S,d	Cr I— Atm	0.98	16		6516.625		4.0		Atm H ₂ O	Q 3	311	26
6501.678	25	3.5	s	Fe I]				6517.082	18	2.8		Atm H ₂ O	Q 4	311	26
6502.22 a	7	1.1		Ni I	3.40			6517.700r	1.5	0.2					
6502.40 a	2	0.3		Atm				6518.011	12	1.8		Atm H ₂ O	Q 4	311	26
650.95 a	6	0.9		Atm				6518.373S	61	9.4	s	Fe I	2.83	342	
6503.45 a	4	0.6		Atm H ₂ O	Q 6	311	26	6518.741	23	3.5	w	Si I Atm H ₂ O	5.95 Q 6	62 311	26
6503.75 a	5	0.8		Atm H ₂ O	Q 3	311	26	6519.02 a	3	0.5					
6504.00 m	1.5	0.2	s	Sr I	2.26	8		6519.170	5	0.8		Atm H ₂ O	Q 4	311	26
6504.186	17	2.6	s	V I Atm H ₂ O	1.18 R 0	48 311	26	6519.452	20	3.1		Atm H ₂ O	Q 3	311	26
6504.472r	1.5	0.2		Atm				6519.75 a	3.5	0.5					
6504.92 a	1.5	0.2						6520.124	1.5	0.2					
6505.08 a	1	0.2						6521.50 a to 6521.65 a	10	1.5					
6505.488r	6	0.9		CN—	Q 39	5,1	12	6521.891r	1	0.2		Atm H ₂ O	Q 6	311	26
6506.36 m	2	0.3		Atm Fe II	5.59			6522.192	3	0.5		Atm H ₂ O	Q 2	311	26

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6522.913r	3	0.4		Atm CN	Q 41	5,1	12	6540.430r	3.5	0.5		Atm H ₂ O	Q 2	212	26
6523.327	3	0.5		Atm H ₂ O	Q 5	311	26	6541.274r	2	0.3		Atm H ₂ O	P 3	212	26
6523.656	4	0.6		Atm H ₂ O	Q 1	212	26	6542.313	14	2.1		Atm H ₂ O	P 3	311	26
6523.843	21	3.2		Atm H ₂ O	P 1	311	26	6543.044r	5	0.8		Atm H ₂ O	Q' 2	311	26
6524.7 a to 6525.3 a	5	0.8		Fe I p—	5.01	1280		6543.51 m	3	0.6	S	V I	1.19	48	
6543.907								34	5.2		Atm H ₂ O	P 3	311	26	
6525.807r	3.5	0.5		Atm H ₂ O	Q 4	311	26	6545.781	8	1.2		Atm H ₂ O	{P 3 Q 3}	311 212	26 26
6526.421	6	0.9		Si I? p	5.87			6546.252m	103	15.7	s	Fe I Ti I	2.76 1.43	268 102	
6526.653	28	4.3	w,d	Si I—	5.87		17	6546.94 m	2.5	0.4					
6526.95 a	2	0.3		La II?	0.23	33		6547.29 m	1	0.2		Atm			
6527.215m	53	8.1	o?	Si I	5.87	52	17	6547.705	16	2.4	u,d?	Atm H ₂ O—	P 3	311	17, 26
6527.30 m			s				13	6548.34 m	3.5	0.5	s	Ti I?			
6527.598r	4	0.6		CN	Q 41	5,1	12	6548.622	20	3.0		Atm H ₂ O	P 3	311	26
6528.113r	1	0.2						6549.054r	2.5	0.4		Atm			
6528.539	11	1.7	s	Fe I				6550.26 m	5	0.4	s	Sr I	2.69	12	
6529.187r	2	0.3	s	Cr I	3.89	265		6550.278r		0.4			Atm		
6530.10 a	1	0.2						6550.90 a	2	0.3					
6530.598	7	1.1		Atm H ₂ O	Q 3	311	26	6551.701	8	1.2	S	Fe I p	0.99	13	
6531.077r	2	0.3		Atm				6552.035	3	0.5		Atm?—			
6531.429	5	0.8	S	V I	1.22	48		6552.629	19	2.9		Atm H ₂ O	P 4	311	26
6532.359	24	3.7		Atm H ₂ O	P 2	311	26	6552.77 m	1.5	0.2		Atm H ₂ O Fe I	Q 4 5.02	311 1325	26
6532.572r	3	0.5	u					6553.785	13	2.0		Atm H ₂ O	P 4	311	26
6532.881	18	2.8	s	Ni I	1.93	64		6554.238	14	2.1	S	Ti I	1.44	102	
6533.102r	2.5	0.4						6554.843	3	0.5	S				
6533.535r	2	0.3						6555.11 a	3	0.5		Atm H ₂ O	P 4	212	26
6533.940	46	5.2	w,d	Fe I	4.56	1197	17	6555.466	40	6.1	w	Si I	5.98	62	
6534.000		1.9		Atm H ₂ O	P 2	311	26	6555.856r	4	0.6	s?	Fe I p	4.07	1007	
6534.236r	7	1.1		Atm				6556.077	14	2.1	S	Ti I	1.46	102	
6534.641	2.5	0.4		Atm				6556.321r	1.5	0.2		Atm?			
6534.975r	4	0.6		Atm H ₂ O	Q 5	311	26	6556.806	16	2.4	u?,d	Fe I— Atm	4.79	1255	17
6535.60 a	2.5	0.4						6557.171	15	2.3		Atm H ₂ O	P 4	311	26
6535.977r	0.5	0.1		Atm			16	6557.37 m			s	Y I	0.00	1	13
6536.47 m	3	0.5	s				16	6557.857r	1.5	0.2		Atm			
6536.720r	8	1.2		Atm H ₂ O	P 2	311	26	6558.03 m	1	0.2	S,N	V I Sc I?	1.38 2.61	59 24	
6537.431r	2	0.3		Atm				6558.149	7	1.1		Atm H ₂ O	P 4	311	26
6537.938	2.5	0.9	S	Cr I	1.00	16	15								
6538.538r	6	0.9		Atm H ₂ O— S I?	P 2 8.04	212	26								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6558.65 a	1.5	0.2		Atm H ₂ O	P 4	311	26	6578.28 a	3	0.5					
6558.955r	1.5	0.2		Atm				6578.96 m	2	0.3	s	VI	1.04	32	
6559.576	14	2.1	w	Ti II	2.05	91		6579.08 m	1	0.2	s?				
6559.813r	3	0.5						6580.233r	10	1.5	o	Ni I— Atm	4.42	265	
6560.258r	3	0.5						6580.785	3.5	0.5		Atm H ₂ O	P 6	311	26
6560.555	22	3.4	w,d	Atm H ₂ O— Si I	P 4 5.96	311 62	17, 26	6580.99 a	2	0.3	s	Cr I	1.03	16	
6561.097	[5]	0.8		Atm H ₂ O	P 4	311	26	6581.218	14	2.4	s	Fe I	1.48	34	
6562.808m	4020	649	W	H α	10.20	1		6583.259	1.5	0.2		Atm H ₂ O	P 6	311	26
6563.41 m			S	Co I	2.04	80	13	6583.538	1.5	0.2		Atm H ₂ O	P 6	311	26
6563.521	4.5	0.7		Atm H ₂ O	P 5	212	26	6583.710	15	2.3	o?,d	Si I	5.95		17
6564.061	4.5	0.7		Atm H ₂ O	P 5	311	26	6584.558	3	0.5		Atm			
6564.206	14	2.1		Atm H ₂ O	P 5	311	26	6585.529r	1.5	0.2					
6565.545	3	0.5	s	Atm H ₂ O—	R 3	231	26	6585.710r	2	0.3		Atm H ₂ O	Q 3	231	26
6565.90 a	1	0.2	s?	VI	1.18	48		6586.319m	35	5.3	s	Ni I	1.95	64	
6567.85 a	2	0.3		Atm				6586.511	4	0.6		Atm H ₂ O	P 7	311	26
6568.806	3.5	0.5		Atm H ₂ O	P 5	311	26	6586.682	4	0.6		Atm H ₂ O	P 6	311	26
6568.90 m	5	0.8						6587.622	21	2.7	o	Cr I	8.53	22	
6569.224S	71	11.9	w	Fe I (Sm II)	4.73 1.49	1253 62		6588.590	2	0.3		Atm			
6570.052m	[1]	0.2		Atm H ₂ O	R 2	231	26	6589.10 a	2.5	0.4					
6570.630m	4	0.6		Atm H ₂ O	P 5	311	26	6590.011r	1	0.2					
6570.84 a	3	0.5						6591.326	10	1.5	w	Fe I	4.59	1229	
6570.979m	2	0.3		Atm				6591.599r	1.5	0.2					
6571.18 a	5	0.8		Fe I	4.29	1121		6591.841r	4	0.6					
6572.086	[19]	2.9		Atm H ₂ O	P 5	311	26	6592.522	23	3.5	w	Ni I	4.23	248	
6572.795	[26]	4.1	S	Ca I	0.00	1		6592.926S	123	18.8	s	Fe I (Ti I p)	2.73 1.44	268 102	
6573.526r	[1]	0.2		Atm H ₂ O	R 4	231	26	6593.63 a	1.5	0.2					
6574.254	22	3.6	s	Fe I	0.99	13		6593.884m	89	13.3	S	Fe I	2.43	168	
6574.474r	[1.5]	0.2						6594.361	8	1.2		Atm H ₂ O	P 7	311	26
6574.852	19	2.9		Atm H ₂ O	{P 5 P 6}	{311 311}	}26	6595.355r	4	0.6	s	Ti I?			
6575.037	64	9.7	s	Fe I	2.59	206		6595.887	7	1.1	o?	Co I	3.71	174	
6575.18 m	0.5	0.1	s	Ti I	2.58	286		6597.038r	1.5	0.2		Atm H ₂ O	P 7	311	26
6576.376	5	0.8		Atm H ₂ O Ni I	P 6	311	26	6597.571	44	6.7	w	Fe I (Cr I)	4.79 4.17	1253 282	
6576.59 m	2	0.3	s					6598.38 m	3	0.5					
6576.894	1.5	0.2						6598.611	26	3.8	w	Ni I	4.23	249	
6577.60 a	9	1.4						6599.113	8.5	1.4	S	Ti I	0.90	49	
								6599.324	4	0.6		Atm H ₂ O	P 8	311	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6600.65 a	4	0.6						6617.14	3	0.5		Atm? Ni I	4.23	248	
6601.20 a	1	0.2						6617.27	0.5	0.1	s	Sr I	2.25	8	
6601.48	2	0.3	s	☉?				6617.60	2.5	0.4		Co I?	4.47		
6601.98	3	0.5		{ Atm H ₂ O Atm	P 7	311	26	6617.743r	3.5	0.5		☉?			
6602.134r								6618.349r	2.5	0.4		☉?			
6603.25	1.5	0.2		Fe I ? p	3.64	862		6619.12	2.5	0.4		Atm?			
6603.43	1.5	0.2		Atm				6619.588r	{3}	0.5		Si I? p	5.96		
6603.65	3	0.4		Fe I p	3.63	860		6621.11	1	0.2	S				17
6604.40	1	0.2						6621.204r	2.5	0.4		Ni I?	3.60	97	
6604.600	36	5.6	w	Sc II	1.36	19		6622.402r	{3}	0.5		Fe I p	4.39	1157	
6604.80 a	1.5	0.2						6622.94	2	0.3		Atm?			
6605.574r	6	0.9	s	Cr I Atm H ₂ O	4.14 P 8	282 311	17 26	6623.22 a	2	0.3					
6605.924r	5	0.8	S	V I	1.19	48		6623.82	5	0.8		{ Fe I p ☉?	4.07	1010	
6606.04 a	3	0.5					6623.924r	{							☉?
6606.75	2	0.3		☉?				6624.368r	2	0.3		☉?			
6606.979r	8	1.5	o	Ti II p	2.06	91		6624.840r	4	0.6	S	V I	1.22	48	
6607.40 a	5	0.8		☉				6625.039r	{11}	1.8	s	Fe I	1.01	13	
6607.90			s	V I	1.35	59	13	6626.267r	1.5	0.2		Atm			
6608.044r	18	2.7	s	Fe I	2.28	109		6626.43	{1}	0.2		Atm H ₂ O	P 10	311	26
6609.118S	76	10.9	s	Fe I	2.56	206		6627.32	2.5	0.4		Fe II	7.27	210	
6609.582r	13	2.0	s,N	Fe I				6627.560r	24	3.9	w	Fe I	4.55	1174	
6609.693r	5	0.8	s	Fe I p	0.99	13		6628.165r	1	0.2		Atm?			
6610.079r	3	0.5		☉				6629.390r	1	0.2		Atm			
6610.82 a	4	0.6		Ni I?	5.28			6629.686r	1	0.2		☉			
6611.50 a	3	0.5						6630.032r	6	0.9	S	Cr I	1.03	16	
6611.96	1	0.2		Atm				6630.73 a	2	0.3					
6612.237r	5	0.8	s	Cr I	4.16	282		6631.087r	1.5	0.2		Si I? p	5.98	62	
6612.553r	0.5	0.1		Atm H ₂ O	P 9	311	26	6631.773r	1.5	0.2		Atm?			
6613.420	10	1.5	w	☉				6632.029r	4	0.6		☉			
6613.73	4	0.6	w,N	Y II	1.75	26		6632.472r	5	0.8	u	Co I	2.28	111	
6613.83	5	0.8	s	Fe I p	1.01	13	16	6632.73	1	0.2		☉?			
6614.71	1	0.2		Atm?				6633.427r	30	4.1	w	Fe I	4.83	1258	
6615.01	2	0.3		Fe I p	4.47	1155		6633.758m	70	10.4	w	Fe I	4.56	1197	
6615.63	3	0.5		☉?				6634.123r	40	5.6	w	Fe I	4.79	1258	
6616.20	{2.5}	0.4		Si I? p	5.95			6635.137r	19	3.5	w	Ni I	4.42	264	
6616.83	3	0.5		☉?				6635.398r	1	0.2		CN?	R 10	7,3	12
6616.95 a	2	0.3						6635.702r	7	1.1	w	Si I Fe I p	5.86 4.43	1155	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6636.332r	2	0.3		Cr I	4.14	282		6659.00 a	1	0.2					
6637.24			S	☉			13	6659.866r	3	0.5	o?	☉			
6638.14 a	4	0.6						6660.32	0.5	0.1		Atm?			
6639.45 a	2	0.3		CN	Q 5	7,3	12	6661.081r	10	1.5	s	Cr I	4.19	282	
6639.717r	17	2.6	w	Fe I p	4.61	1195		6661.341r	6	1.2	w	Ni I	4.23	246	
6639.897	11	1.7	s	Fe I	4.07	1007		6662.580r	1.5	0.2		☉?			
6640.95 a	1.5	0.2						6663.01	[3]	0.5		Cr I	8.85		
6641.63 a	1	0.2						6663.246	31	4.7	w	Fe I	4.56	1195	
6642.272r	1.5	0.2		Atm?				6663.448	76	11.9	s	Fe I	2.42	111	
6642.53	1	0.2		Atm?				6663.84 a	2	0.3					
6643.00	2	0.3		Cr I	3.84	256		6664.310r	1	0.2		CN?	R 19	7,3	12
6643.638S	83	13.6	s	Ni I	1.68	43		6665.06	1	0.2		☉			
6643.864r	2	0.3		☉?				6665.27	5	0.8					
6644.35 a	2	0.3		CN	R 15	7,3	12	6665.47	2	0.3	S	Fe I p	1.56	34	
6645.127r	4	0.6		Eu II	1.38	8		6665.83	1.5	0.2		Atm?			
6645.41 a	1	0.2						6666.540r	2	0.3	S	Ti I	1.46	101	
6646.20			s	☉			13	6666.73	1.5	0.2		Atm?			
6646.966r	[7]	1.2	s	Fe I	2.61	206		6667.23	1.5	0.2		CN?	{P 6 R 20}	{7,3 7,3}	12
6647.856r	2.5	0.4		Fe I p	3.24	551		6667.455r	3.5	0.5	s	Fe I	2.45	168	
6648.121r	5	0.8	S	Fe I p	1.01	13		6667.740r	7	1.2	s	Fe I	4.58	1228	
6649.20	$\overline{2}$	0.3		☉				6668.400r	3	0.6	s	☉			
6649.51			S	☉			13	6668.801r	[1]	0.1		Si I? p	5.96		
6650.60	1	0.2		Atm				6669.01 a	1.5	0.2					
6651.132r	1.5	0.2		☉				6669.310r	5	0.7	u	Cr I	4.17	282	
6652.361r	3	0.5		Si I? p	5.96			6671.82	6	0.9		Cr I	8.85		
6653.04 a	1	0.2		CN?	R 1	7,3	12	6672.675r	2.5	0.4		☉			
6653.37 a	1	0.2						6673.88	1	0.1		Fe I p	4.73	1254	
6653.67	0.5	0.1		☉				6674.19	1	0.1		Cr I?	8.84		
6653.911r	8	1.4	w	Fe I	4.15	1052		6676.89	1	0.1		Fe I p	4.56	1194	
6655.531r	3	0.5		Atm Cr I	8.53			6677.24	2	0.3	S	Ti I	2.49	274	
6656.36	1.5	0.2		☉				6677.54	3	0.4		Fe I p Fe I p	3.21 5.01	551 1280	
6656.65	1.5	0.2		☉				6677.997S	122	19.0	s	Fe I	2.69	268	
6657.00 a	1.5	0.2		CN?	R 16	7,3	12	6678.576r	2	0.3	s	Ti I	2.25	213	
6657.43	0.5	0.1		Cr I Atm?	4.16	282		6678.849r	5	0.7		Co I	1.96	54	
6657.639r	2	0.3						6679.58	1	0.1		Cr I? p	8.85		
6657.95	1	0.2		Atm?				6680.155r	6	0.9	w, N	Cr I	4.16	282	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6680.32 a	2.5	0.4						6703.97 a	2.5	0.4		CN	P 16	7,3	12
6681.30	3	0.4		CN?— Fe I p	Q 16 4.39	7,3 1155	12	6704.500r	5	0.7	s	Fe I	4.22	1052	
6682.00 a	1.5	0.2						6705.105	42	6.6	w	Fe I (Fe I p)	4.61 4.95	1197 1280	
6682.24	1	0.1		Fe I p	4.07	1008		6705.507r	1.5	0.2		⊙?			
6682.78	2	0.3						6706.75	1	0.1		CN?	Q 22	7,3	12
6683.69	1	0.1		Atm?				6707.05	1.5	0.2		Si I? p	5.95	61	
6684.05	2	0.3		Atm				6707.449r	5	0.7	s?	⊙			
6684.890r	2	0.3		{ Co I ⊙	2.72	140		6707.76	1.5	0.2	S	Li I	0.00	1	
6685.04								6707.98	0.5	0.1	S,N	Li I	0.00	1	
6687.26 a	1	0.1						6708.32	0.5	0.1		⊙			
6687.508r	3	0.4	S	Y I	0.00	1		6708.80	1	0.1	u,NN	⊙			
6687.74	2	0.3		⊙?				6709.10 a	2	0.3	o	CN?	P 17	7,3	12
6687.96	1	0.1		CN	Q 20	7,3	12	6709.87 m			s	Ca I	2.93	45	13
6688.83 a	1.5	0.2		Cr I? CN?	8.85 Q 18	7,3	12	6709.935r	2	0.3					
6689.30	1	0.1		⊙?				6710.323r	12	1.8	s	Fe I	1.48	34	
6690.61	0.5	0.1		⊙?				6710.542r	1	0.1		⊙			
6690.825r	3	0.4		Ni I	3.63	140		6710.70 a	1.5	0.2					
6691.61	1	0.1		⊙				6711.282r	2	0.3		Fe I p	4.58	1220	
6692.304r	2	0.3		Fe I?				6711.58	1	0.1		⊙			
6692.50 a	1.5	0.2		Fe I	4.56	1192		6711.847r	3	0.4		CN?	Q 23	7,3	12
6692.856r	3	0.4		CN?	Q 19	7,3	12	6712.467r	2.5	0.4		Fe I p	4.99	1279	
6694.62	1	0.1		CN?	P 14	7,3	12	6713.044	24	3.6	o	Fe I	4.61	1195	
6696.032	33	5.1	s	Al I	3.14	5		6713.207r	7	1.0	s	Fe I	4.14	1013	
6696.322r	16	2.4	w	Fe I p	4.83	1255		6713.745	23	3.5	w	Fe I	4.79	1255	
6696.69	1.5	0.2		⊙?				6714.80	2	0.3		Atm			
6696.92 a	3	0.4						6715.386	33	4.6	u	Fe I (Cr I)	4.61 4.17	1174 282	
6697.406r	4	0.6		⊙				6715.70 a	2.5	0.4					
6698.00	1.5	0.2		CN	Q 22	7,3	12	6716.252r	15	2.4	W	Fe I	4.58	1225	
6698.669r	21	3.1	s	Al I	3.14	5		6716.666r	2	0.3	S	Ti I	2.49	273	
6699.136r	7	1.0	u	Fe I	4.59	1228		6716.95 a	1	0.1		⊙			
6700.56 a	1	0.1		⊙				6717.19 a	1.5	0.2		CN	Q 24	7,3	12
6700.919r	1.5	0.2		Ni I Fe I p	4.26 4.47 5.07	248 1156 1333		6717.38 a	2	0.3					
6701.377r	1.5	0.2		⊙				6717.527r	11	1.9	o?	Fe I	4.61	1194	
6702.55	1	0.1		⊙?				6717.687S	120	17.7	s	Ca I	2.71	32	
6703.37 a	1	0.1		CN	Q 23	7,3	12	6719.62	21	3.1	s,N	⊙			
6703.576m	32	5.2	s	Fe I	2.76	268		6720.77	2	0.3		⊙			
								6721.844m	55	7.5	o	Si I	5.86	38	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6722.82 a	2	0.3		CN?	Q 25	7,3	12	6744.50	2.5	0.4		⊙			
6724.685r	4	0.7	<i>o?</i>	⊙				6745.113r	7	1.0	<i>u</i>	Fe I	4.58	1227	
6725.364m	17	2.5	<i>w</i>	Fe I	4.10	1052		6745.547r	4	0.6	<i>S</i>	Ti I p	2.24	226	
6725.710r	—	—		⊙				6745.984	8	1.2	<i>s?</i>	Fe I	4.07	1005	
6726.282	1	0.1		O I	9.14	2		6746.20 a	2	0.3					
6726.673m	50	7.6	<i>w</i>	Fe I	4.61	1197		6746.36	0.5	0.1	<i>S, N</i>	Ti I	1.89	152	
6729.05 a	9	1.3	<i>s</i>	Fe I				6746.975r	5	0.7		Fe I	2.61	205	
6729.745r	5	0.7		Atm Cr I	4.39	301		6747.40 a	3	0.4					
6730.307r	5	0.7						6747.62 a	2	0.3		CN	Q 29	7,3	12
6731.89 a	3	0.4		Sm II?	1.17	59		6748.139r	4	0.6		⊙			
6732.068r	8	1.2	<i>u, N</i>	Fe I	4.58	1225		6748.435r	11	1.6		Atm Ti I?	1.88	152	
6732.669r	1	0.1		Atm?				6748.65 a	5	0.7					
6733.153m	25	3.7	<i>w</i>	Fe I	4.64	1195		6748.779r	5	0.7		Si I	7.87	8	
6733.531r	5	0.7		⊙				6748.870r	17	2.5		Cr I	4.39		
6734.272r	7	1.0		Cr I?—	4.19	282		6749.541r	1	0.1		Fe I p	3.64	860	
6734.67	2	0.3		Atm				6749.88	3	0.4		Atm?			
6735.025r	2	0.3		Fe I p	4.43	1157		6750.164	75	11.1	<i>s</i>	Fe I	2.42	111	
6735.456r	5	0.7	<i>S?</i>	⊙				6751.440r	3	0.4		Cr I	5.28	315	
6735.847r	3	0.4		⊙				6752.43	2	0.3		Atm			
6736.546r	1.5	0.2		Fe I p	4.29	1122		6752.716m	42	5.9	<i>w</i>	Fe I	4.64	1195	
6737.28	1.5	0.2		Fe I p	3.26	551		6753.470r	5	0.7		Fe I p	4.56	1196	
6737.978r	24	3.4	<i>u</i>	Fe I	4.56	1192		6754.44	2	0.3		⊙?			
6738.233	10	1.5		⊙				6754.68	0.5	0.1		Atm			
6738.62	5	0.7		⊙?				6754.939r	4	0.6		⊙			
6738.828r	8	1.2	<i>o?</i>	⊙				6755.605r	12	1.8	<i>u</i>	Fe I			
6739.21	1	0.1		Si I? p	5.96	61		6755.82 a	3	0.4					
6739.524r	11	1.6	<i>s</i>	Fe I	1.56	34		6756.568r	5	0.7		Fe I p	4.29	1120	
6740.11 a	3	0.4						6757.08	5	0.7		⊙?			
6740.95 a	3	0.4		CN?	Q 28	7,3	12	6757.195r	19	2.8	<i>o</i>	Si I	7.87	8	
6741.629r	18	2.4	<i>o?</i>	Si I	5.98			6757.660r	1	0.1		Atm			
6741.92 a	2	0.3						6758.27	2.5	0.4		Atm			
6742.284r	1.5	0.2		⊙				6758.897r	7	1.0		⊙			
6742.565r	1	0.1		Atm?— Ni I?	4.42			6759.46	1.5	0.2		Ni I	4.23	245	
6742.90	1	0.1		⊙?				6761.011r	3.5	0.5		Fe I p	4.58	1227	
6743.127m	19	2.4	<i>S</i>	Ti I	0.90	48		6762.156r	2	0.3		CN?	Q 32	7,3	12
6743.575r	12	1.8	<i>o</i>	Si I	7.86	8		6762.398r	2	0.3	<i>S</i>	Zr I	0.00	1	
6743.89	2.5	0.4		⊙				6763.690r	1	0.1		⊙			

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6763.95 a	1.5	0.2						6790.322r	1.5	0.2		Atm?			
6764.11 a	2	0.3		Fe I p	4.59	1225		6790.686r	1.5	0.2		☉?			
6766.16	1	0.1		☉?				6792.330r	0.5	0.1		☉?			
6766.50 m			S,N	V I	1.06	31	13	6793.273r	10	1.5	s,N	Fe I	4.07	1005	
6767.784	83	12.1	s	Ni I	1.83	57		6793.628r	12	1.8	w?	Fe I— Y I	0.07	1	
6768.83	1	0.1		CN?	Q 32	7,3	12	6794.313r	4	0.6		☉			
6769.682r	3	0.4		Fe I p	4.58	1226		6794.623r	3	0.4		Fe I p	4.95	1279	
6770.97	5	0.7		Co I	1.88	54		6795.428r	3	0.4		Y II	1.72 1.74	26 26	
6771.12	10	1.6		☉				6795.798r	6	0.9		☉			
6772.321	51	7.8	u	Ni I	3.66	127		6796.128r	8	1.2	s	Fe I	4.14	1007	
6773.37	1	0.1		☉				6796.490r	3	0.4		Cr I	4.40	301	
6774.33	2	0.3		La II	0.13	2		6796.814r	3	0.4		☉			
6774.800r	2.5	0.4		☉				6798.15	0.5	0.1		Cr I	3.85		
6776.26	2	0.3		☉				6798.467r	4	0.6	S	Ca I	2.71	31	
6776.42 a	1	0.1		CN?	Q 33	7,3	12	6798.888r	3	0.4		☉			
6777.15	1.5	0.2		☉				6799.05	1.5	0.2		Mg I p	5.75		
6777.406r	6	1.2	w	Fe I	4.14 4.19	1010 1013		6800.607r	9	1.3	w	☉			
6777.775r	[1.5]	0.2		☉?				6801.202r	0.5	0.1		Fe I? p	3.28	551	
6780.25	1	0.1		Atm				6801.849r	1	0.1		Fe I p	1.61	34	
6780.925r	1.5	0.2		☉?				6803.27	1	0.1		Fe I p	4.56	1192	
6781.815r	1.5	0.2		☉				6803.854r	2.5	0.4		Fe I p	4.56	1191	
6782.219r	4	0.6		☉				6804.010r	14	2.5	u	Fe I	4.65	1174	
6782.502r	4	0.6		Ni I	5.34			6804.297r	10	1.9	u	Fe I	4.58	1225	
6783.28	2	0.3		Fe I p	2.56	206		6804.61	2.5	0.4		☉			
6783.714r	[9]	1.3	s	Fe I	2.59	205		6805.106r	0.5	0.1		Cr I	3.85		
6784.214r	11	1.6	s,NN	☉				6806.856m	24	4.1	s	Fe I	2.73	268	
6785.00 a	3	0.4		V I	1.05	31		6807.893r	0.5	0.1		Atm			
6785.76	2.5	0.4		Fe I	4.58	1226		6808.769r	0.5	0.1		Fe I p	2.83	340	
6785.88	1.5	0.2		Fe I p	4.07	1007		6809.27	0.5	0.1		☉			
6786.204	2	0.3						6809.630r	1	0.1		☉			
6786.46	4	0.6		Fe I p	3.24	551		6810.14	1.5	0.2					
6786.860m	16	2.8	w?	Fe I	4.19	1052		6810.267S	42	6.8	s	Fe I	4.61	1197	
6787.16	2	0.3		Zr II?	2.49	135		6811.56	1	0.1		☉			
6787.604r	1	0.1		Fe I p	4.47	1156		6812.356r	2	1.2		V I?	1.04	31	
6789.154r	3	0.4		Cr I	3.84			6813.00	0.5	0.1		Cr I	3.85		
6789.530r	1.5	0.2		Atm				6813.54	1.5	0.2		Fe I? p	4.98	1288	
6789.960r	2	0.3						6813.616r	4	0.6		Ni I	5.34	288	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6813.911r	2	0.3						6836.702r	5	0.7		☉			
6814.83	1.5	0.2		☉?				6837.013	15	2.9	<i>o?</i>	Fe I	4.59	1225	
6814.961r	12	1.9	<i>s</i>	Co I	1.96	54		6837.39	4	0.6		☉			
6815.96	0.5	0.1		Atm				6838.04 a	4	0.6					
6816.96 a	0.5	0.1						6838.357r	5	0.7		☉?			
6817.653r	0.5	0.1		☉				6838.70 a	3.5	0.5					
6819.49	1.5	0.2		Fe I p	3.02	463		6838.85 a	31	4.5	<i>w</i>	Fe I			
6819.595r	5	0.7	<i>s</i>	Fe I	4.10	1051		6839.15 a	5	0.7		☉			
6820.374m	37	5.4	<i>s</i>	Fe I	4.64	1197		6839.835	30	4.2	<i>s</i>	Fe I	2.56	205	
6822.042r	1	0.1	<i>s</i>	Fe I	{2.48 4.58	{110 1220		6840.443r	3	0.4		Atm			
6823.67	1	0.1		☉?				6841.19	8	1.2		Mg I p	5.75		
6824.52	1	0.1		☉?				6841.341	65	9.6	<i>s</i>	Fe I	4.61	1195	
6824.857r	2	0.3		Fe I p	4.99	1280		6841.642r	3	0.4		Fe I p	5.10	1333	
6826.04	1	0.1		☉				6841.85 a	4	0.6		V I?	1.05	31	
6827.15	1.5	0.2		☉?				6842.043m	26	3.9	<i>w</i>	Ni I	3.66	126	
6827.277r	1	0.1						6842.40 a	5	0.7		Si I p	5.98	61	
6827.963r	7	1.0		☉				6842.689m	41	6.0	<i>u</i>	Fe I	4.64	1197	
6828.193r	5	0.7		Cr I	8.53	21		6843.164r	4	0.6		☉?			
6828.37	3	0.4		☉				6843.655	59	8.9	<i>w</i>	Fe I	4.55	1173	
6828.596	56	8.0	<i>u</i>	Fe I	4.64	1195		6844.683r	{3}	0.4		Fe I	1.56	34	
6728.97a	1	0.1						6845.22	3.5	0.5	<i>s</i>	Y I Atm	2.37	16	
6829.13a	1.5	0.2						6845.57	1	0.1		☉?			
6829.580r	3	0.4		☉				6845.98	3.5	0.5		Fe I p Atm H ₂ O	4.56 R 7	1190 103	26
6830.04	1	0.1		V I?	1.08	31		6846.33	1	0.1		☉?			
6830.846r	0.5	0.1		Atm				6847.06	2	0.3		Atm H ₂ O—	R 5	103	26
6831.478r	1	0.1		Fe I? p	3.21	550		6847.603r	{5}	0.7		Atm Fe I	4.26	1078	
6831.74 a	1	0.1						6848.566r	15	2.2		Si I	5.86	37	
6832.18	2	0.3		☉?				6848.87	3	0.4		Fe I p	4.61	1192	
6832.474r	0.5	0.1		V I? Y II?	1.06 1.75	31 26		6849.302r	2	0.3		☉?			
6833.08	3	0.4		Zr I?	0.07	1		6850.439	10	1.5		Ni I	3.68	157	
6833.248r	8	1.2	<i>o?</i>	Fe I	4.64	1194		6851.47	{3}	0.4		☉			
6833.592r	3	0.4		☉				6851.652r	4.5	0.7		Fe I	1.61	34	
6834.11	1	0.1		☉?				6852.28	1.5	0.2		Atm			
6834.34	2.5	0.4		☉				6852.722r	{4}	0.6		Atm			
6835.12	7	1.0						6853.50	1	0.1		☉?			
6835.368r	2	0.3		☉				6853.851r	{2}	0.3		☉?			
6835.75	3	0.4		☉?											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6854.332r	4.5	0.7		⊙				6865.645r	6	0.9		Atm H ₂ O	R 5	103	26
6854.538r	4	0.6		⊙				6866.01	5	0.7		Atm H ₂ O	R 4	103	26
6854.850	12	1.7	<i>o?</i>	Fe I	4.59	1224a		6866.342r	6	0.9					
6855.166	85	12.1	<i>s</i>	Fe I	4.56	1195		6866.56	3	0.4		⊙?			
6855.723m	23	3.1	<i>u</i>	Fe I	4.61	1194		6866.775r	2	0.3		⊙?			
6856.13	3.5	0.5						6867.05	3	0.4		⊙?			
6856.64	3	0.4		⊙?			6867.187m	153 ⁴ ₆	22.3			Atm O ₂	R 21	1,0	22
6856.87	3.5	0.5		⊙?		6867.252m	Atm O ₂					R 19	1,0	22	
6857.251	27	3.6	<i>w</i>	Fe I	4.07	1006		6867.394m	29 ²	4.2		Atm O ₂	R 23	1,0	22
6857.850r	3	0.4		⊙				6867.547m	154 ⁷	22.5		Atm O ₂	R 17	1,0	22
6858.155S	57	8.2	<i>u</i>	Fe I	4.61	1173		6867.856m	32 ²	4.7		Atm O ₂	R 25	1,0	22
6858.29	5	0.7		Y II?	1.74	26		6868.105m	137 ¹¹	20.0		Atm O ₂	R 15	1,0	22
6858.47 a	4	0.6						6868.245m	174 ⁵	25.4		Atm O ₂	R 19	1,0	22
6859.03 a	3	0.4		⊙?				6868.421m	35 ²	5.1		Atm O ₂	R 23	1,0	22
6859.23 a	1.5	0.2						6868.525m	149 ⁸ ₂	21.7		Atm O ₂	R 17	1,0	22
6859.493r	1.5	0.2		Fe I p	2.84	340	6868.577m	Atm O ₂					R 27	1,0	22
6859.748r	2	0.3		⊙				6868.915m	216 ¹²	31.4		Atm O ₂	{R 13 R 25}	{1,0 1,0}	22
6860.099r	2	0.3		Fe I p	4.83	1255		6869.096m	216 ¹¹	31.4		Atm O ₂	R 15	1,0	22
6860.327	7	1.0		Fe I	2.61	205		6869.567m	6 ⁻³	0.9		Atm O ₂	R 29	1,0	22
6860.46 a	3.5	0.5						6869.627m	9 ²	1.3		Atm O ₂	R 27	1,0	22
6860.80	7	1.0		⊙				6869.887m	382 ¹² ₂	55.6		Atm O ₂	R 13	1,0	22
6860.953r	6	0.9		Fe I	2.83	341	6870.007m	Atm O ₂					R 11	1,0	22
6861.268r	5	0.7		Ni I	5.36	293		6870.620m	7 ⁻¹	1.0		Atm O ₂	R 29	1,0	22
6861.50	12	1.7	<i>S?</i>	Ti I	2.27	237		6870.819m	6 ⁻³	0.9		Atm O ₂	R 31	1,0	22
6861.753r	4	0.6		⊙				6870.946S	233 ¹²	34.0		Atm O ₂	R 11	1,0	22
6861.945	22	2.8	<i>s?</i>	Fe I	2.42	109		6871.285m	264 ¹⁵	38.5		Atm O ₂	R 9	1,0	22
6862.496	39	5.1	<i>u?</i>	Fe I	4.56	1191		6871.872m	6 ⁻³	0.9		Atm O ₂	R 31	1,0	22
6862.858r	3	0.4		⊙?				6872.247m	257 ¹⁴	37.4		Atm O ₂	R 9	1,0	22
6863.00	2	0.3		⊙?				6872.44	5	0.7		Co I	2.01	54	
6863.18	2	0.3		⊙?				6872.843m	272 ¹⁶	39.6		Atm O ₂	R 7	1,0	22
6863.41	2	0.3		⊙?				6873.392m	1 ⁻⁴ ₅	0.2		Atm O ₂	R 33	1,0	22
6863.787r	2	0.3		⊙?				6873.798m	258 ¹⁴	37.6		Atm O ₂	R 7	1,0	22
6863.95	3	0.4		⊙?				6874.653m	268 ¹⁶	39.0		Atm O ₂	R 5	1,0	22
6864.17	2	0.3		Atm				6875.45	4	0.6		Fe I	2.45	167	
6864.324r	9	1.3		Fe I p	4.56	1186		6875.590m	249 ¹⁴	36.2		Atm O ₂	R 5	1,0	22
6864.514r	3	0.4		⊙?				6875.995	12	1.7		Fe I	4.19	1013	
6865.24	5	0.7		⊙				6876.38	10	1.5		Si I?	5.98		
6865.443r	1.5	0.2		⊙											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6876.715m	241 ¹²	35.1		Atm O ₂	R 3	1,0	22	6885.754m	175	25.4		Atm O ₂ (Fe I)	P 3 4.65	1,0 1173	22
6876.972m	7	1.0		Atm O ₂	R 17	1,0	23	6886.048m	0.5	0.1		Atm O ₂	R 3	1,0	23
6877.637m	200	29.1		Atm O ₂	R 3	1,0	22	6886.131	1	0.1		Atm Atm O ₂	R 20	1,0	24
6877.991m	6 ^u	0.9		Atm O ₂	{R 14 R 17}	{1,0 1,0}	{23	6886.209m							
6878.315m	3	0.4		Atm O ₂	R 16	1,0	23	6886.303m	2	0.3		Atm O ₂	R 21	1,0	24
6878.436m	1.5	0.2		Atm O ₂	R 13	1,0	23	6886.372m							
6878.630m	5 ^u	0.7		Atm O ₂	R 15	1,0	23	6886.476m	1	0.1		Atm O ₂	R 18	1,0	24
6879.041m	191	27.8		Atm O ₂	R 1	1,0	22	6886.579m	1	0.1		Atm O ₂	{R 14 R 17}	{1,0 1,0}	{24
6879.265r								6886.743m	208	30.2	Atm O ₂	P 3	1,0	22	
6879.55	10	1.5		Fe I p— Atm H ₂ O Fe I p	4.47 R 5 3.26	1157 103 551	26	6887.000m	3	0.4		Atm O ₂	{R 3 R 13 R 16}	{1,0 1,0 1,0}	{23 24
6879.928 S	117	17.0		Atm O ₂	R 1	1,0	22	6887.154m	2.5	0.4		Atm O ₂	R 2	1,0	23
6880.08 m	4	0.6		Atm O ₂	R 10	1,0	23	6887.196m							
6880.446m	4	0.6		Atm O ₂	R 11	1,0	23	6887.476m	4	0.6		Atm O ₂	R 12	1,0	24
6880.637	14	1.9		Fe I	4.15	1051		6887.564m	4 ⁵	0.7		Atm O ₂	R 14	1,0	24
6880.757m	{2}	0.3		Atm O ₂	R 9	1,0	23	6887.75	3	0.4		Atm O ₂	R 14	1,0	24
6881.054	4.5	0.7		Fe I p Atm O ₂	4.65 R 10	1174 1,0	23	6888.000m	5	0.7		Atm O ₂	{R 2 R 11 R 13}	{1,0 1,0 1,0}	{23 24
6881.25 a	2.5	0.4						6888.323m	1	0.1		Atm O ₂	R 1	1,0	23
6881.463	11	1.6		Fe I Atm O ₂	R 8	1,0	23	6888.457m	1.5	0.2		Atm O ₂	R 12	1,0	24
6881.716	28	4.1	s?	Cr I (Atm O ₂)	3.44 R 9	222 1,0	23	6888.612m	2.5	0.4		Atm O ₂	R 10	1,0	24
6882.277m	2	0.3		Atm O ₂	R 7	1,0	23	6888.948m	190	27.6		Atm O ₂	P 5	1,0	22
6882.502	34	4.6	s	Cr I	3.44	222		6889.271m	2.5	0.4		Atm O ₂	R 9	1,0	24
6882.74 a	4.5	0.6		Atm H ₂ O	R 3	103	26	6889.585m	2.5	0.4		Atm O ₂	R 10	1,0	24
6883.070	31	4.4	s	Cr I	3.44	222		6889.903m	222	32.2		Atm O ₂	P 5	1,0	22
6883.230m	5	0.7		Atm O ₂	R 7	1,0	23	6890.10 m	3	0.4		Atm O ₂	R 8	1,0	24
6883.371	3	0.4		☉?				6890.240m	3	0.4		Atm O ₂	R 9	1,0	24
6883.833m	146	21.2		Atm O ₂	P 1	1,0	22	6890.760m	2	0.3		Atm O ₂	R 7	1,0	24
6884.041m	9	1.3		Atm O ₂	{R 5 R 6}	{1,0 1,0}	{23	6890.948m	2	0.3		Atm O ₂	R 8	1,0	24
6884.78 a	4	0.6						6891.593m	2.5	0.4		Atm O ₂	R 6	1,0	24
6885.004m	4	0.6		Atm O ₂	{R 4 R 5}	{1,0 1,0}	{23	6891.719	2	0.3		Atm O ₂ ☉	R 7	1,0	24
6885.279m	2	0.3		Atm O ₂	{R 20 R 21}	{1,0 1,0}	{24	6892.369m	208	30.2		Atm O ₂	P 7	1,0	22
6885.349m	2	0.3		Atm O ₂	{R 19 R 22}	{1,0 1,0}	{24	6892.57 m	1	0.1		Atm O ₂	{R 5 R 6}	{1,0 1,0}	{24
6885.477m	2.5	0.4		Atm O ₂	R 18	1,0	24	6893.309m	213	30.9		Atm O ₂	P 7	1,0	22
								6893.40 m	3	0.4		Atm O ₂	R 5	1,0	24

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6894.18 a	2	0.3						6905.023m	169	24.5		Atm O ₂	P 13	1,0	22
								6905.317	14	2.0		☉			
6894.379	1.5	0.2		— Atm O ₂	R 4	1,0	24	6905.494m	4	0.6		Atm O ₂	P 4	1,0	24
6894.451m	2	0.3		Atm O ₂	R 3	1,0	24	6905.786m	5	0.7		Atm O ₂	P 9	1,0	23
6894.68 a	3	0.4						6906.000	4.5	0.7		Atm H ₂ O	R 3	103	26
6894.89	[6]	0.9		Mg I	5.75	34		6906.059m	3	0.4		Atm O ₂	P 5	1,0	24
6895.12 a	5	0.7						6906.27	6	0.9		Al I? p	4.02		
6895.382m	4	0.6		Atm O ₂	R 3	1,0	24	6906.60				Atm			
6895.521m	2	0.3		Atm O ₂	R 2	1,0	24	6906.728m				Atm O ₂	P 10	1,0	23
6895.73	4	0.6		Atm				6906.830	10	1.4		Atm HO	R 2	103	26
6896.037m	202	29.3		Atm O ₂	P 9	1,0	22	6907.023m	1.5	0.2		Atm O ₂	P 5	1,0	24
6896.445m	1.5	0.2		Atm O ₂	R 2	1,0	24	6907.39	2.5	0.4		Atm			
6896.664m	1	0.1		Atm O ₂	R 1	1,0	24	6907.655m	3	0.4		Atm O ₂	P 6	1,0	24
6896.965m	216	31.4		Atm O ₂	P 9	1,0	22	6908.28	2	0.3		Atm			
6897.562m	0.5	0.1		Atm O ₂	R 1	1,0	24	6908.534m	137	19.8		Atm O ₂	P 15	1,0	22
6897.688	1	0.1		Atm				6908.75 a	3.5	0.5					
6897.886	2	0.3		Atm				6909.32 m	1	0.1		Atm O ₂	P 7	1,0	24
6897.946m	1	0.1		Atm O ₂	P 5	1,0	23	6909.431m	143	20.7		Atm O ₂	P 15	1,0	22
6898.14 a	2	0.3						6909.87 a	3.5	0.5					
6898.307	[16]	2.0	w?	Fe I	4.22	1078		6910.250m	2	0.3		Atm O ₂	P 7	1,0	24
6899.34 a	4	0.6						6910.648m	1	0.1		Atm O ₂	P 12	1,0	23
6899.500				Atm H ₂ O	R 2	103	26	6910.728r	4	0.6		☉?			
6899.596m	2.5	0.4		Atm O ₂	P 6	1,0	23	6911.015m	5	0.7		Atm O ₂	P 8	1,0	24
6899.954m	191	27.7		Atm O ₂	P 11	1,0	22	6911.369	6	0.9		Atm H ₂ O	R 7	103	26
6900.543m	4	0.6		Atm O ₂	P 6	1,0	23	6911.522	14	2.0		Fe I	2.42	109	
6900.868m	211	30.6		Atm O ₂	P 11	1,0	22	6911.72 a	2.5	0.4					
6901.10 a	5	0.7						6911.952m	3	0.4		Atm O ₂	P 8	1,0	24
6901.271m	2	0.3		Atm O ₂	P 1	1,0	24	6912.27	0.5	0.1		☉			
6901.607m	7	1.0		Atm O ₂	P 2	1,0	24	6912.45	3	0.4		Fe I? p	2.84	341	
6901.90 a	6	0.9		Ni I?	5.36			6912.73 m	1	0.1		Atm O ₂	P 13	1,0	23
6902.230m	1	0.1		Atm O ₂	P 7	1,0	23	6912.786m	3	0.4		Atm O ₂	P 9	1,0	24
6902.620m	3	0.4		Atm O ₂	P 2	1,0	24	6913.200m	112	16.2		Atm O ₂	P 17	1,0	22
6902.874	22	3.2	w, N	Fe I				6913.371	5	0.7		Atm			
6903.040m	2.5	0.4		Atm O ₂	P 3	1,0	24	6913.615m	4	0.6		Atm O ₂	P 13	1,0	23
6903.149	2	0.3		Atm H ₂ O	R 3	400	26	6913.713m	6	0.9		Atm O ₂	P 9	1,0	24
6903.828	1.5	0.2		Atm				6913.88 a	2.5	0.4					
6904.117m	165	23.9		Atm O ₂	P 13	1,0	22	6914.090m	107	15.5		Atm O ₂	P 17	1,0	22
6904.531m	4.5	0.7		Atm O ₂	P 4	1,0	24								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	
6914.26	4	0.6		Atm				6923.369	93	11.2		Atm O ₂ Atm H ₂ O	P 14 R 8	1,0 103	24 26	
6914.564	83	11.9	S	Ni I	1.95	62	6923.44 a			1.7						
6915.004r	1	0.1		☉?			6923.50 a			0.6						
6915.19	3	0.4		Fe I?			6923.756	5		0.7						
6915.43	1	0.1		Atm			6923.86	6	0.9			Atm				
6915.533m	3	0.4		Atm O ₂	P 10	1,0	24	6924.164m	95	13.7		Atm O ₂	P 21	1,0	22	
6915.670	3	0.4		Atm			6924.450	10	1.4			Atm H ₂ O	R 7	103	26	
6916.475	4	0.6		Atm Atm O ₂	P 11	1,0	24	6924.597m	2	0.3		Atm O ₂	P 15	1,0	24	
6916.686	60	8.2	w	Fe I	4.15	1052	6924.820	4	0.6			Atm				
6917.018	6	0.9		☉			6925.280	45	5.9	s	Cr I	3.45	222			
6917.409m	4	0.6		Atm O ₂	P 11	1,0	24	6925.497	1	0.1		Atm O ₂ Atm	P 15	1,0	24	
6917.505	7	1.0		Atm H ₂ O (Fe I p)	R 6 4.56	103 1190	26	6926.097	21	2.9	s	Cr I	3.45	222		
6917.815	6	0.9		Atm			6926.385	2	0.3			Fe I p	4.58	1222		
6918.122S	89	12.9		Atm O ₂	P 19	1,0	22	6926.567	5	0.7		Atm				
6918.429m	13	1.9		Atm O ₂	P 12	1,0	24	6926.767	20	2.9		Atm H ₂ O	R 8	103	26	
6918.592r	7	1.0		☉?			6926.91	3	0.4			Atm				
6919.002S	97	14.0		Atm O ₂	P 19	1,0	22	6927.120	4	0.6		Atm				
6919.327	7	1.0		Atm Atm O ₂	P 12	1,0	24	6927.261	2	0.3		Atm H ₂ O	R 3	400	26	
6919.77	5	0.7		Atm				6927.675m	1.5	0.2		Atm O ₂	P 16	1,0	24	
6919.97									6927.89	1	0.1			☉?		
6920.149	9	1.3		Atm Atm O ₂ Fe I p	P 16	1,0	23	6928.330	4	0.6		Ni I?	3.70	110		
6920.168												6928.491	5	0.7		
6920.274	2	0.3		☉?			6928.728S	42	6.1			Atm O ₂	P 23	1,0	22	
6920.426m	4	0.6		Atm O ₂	P 13	1,0	24	6928.88	4	0.6		☉				
6920.672	1.5	0.2		Atm			6929.091	30	4.3			Atm H ₂ O	R 6	103	26	
6920.900	4	0.6		Atm			6929.310	47	6.8			Atm H ₂ O	R 5	103	26	
6921.168	0.5	0.1		Atm			6929.599m	45	6.5			Atm O ₂	P 23	1,0	22	
6921.338m	4	0.6		Atm O ₂	P 13	1,0	24	6929.839	30	4.3		Atm H ₂ O	R 7	103	26	
6921.577	5	0.7		Atm			6929.938	[13]	1.9			Atm H ₂ O	R 7	103	26	
6921.924	4	0.6		Atm H ₂ O	R 2	103	26	6930.384	1.5	0.2		Fe I? p	4.56	1186		
6922.243	5	0.7		☉ Atm				6930.605	17	2.5		Fe I Atm	4.58	1221		
6922.260									6930.837	2	0.3			Atm		
6922.478m	8	1.2		Atm O ₂	P 14	1,0	24	6931.103	2	0.3		☉				
6922.661	2	0.3		Atm ☉?			6931.323	19	2.7			Atm H ₂ O	R 5	103	26	
6923.05 a	5	0.7					6931.769	[12]	1.7			Atm H ₂ O	{R 5 R 4}	{103 103}	26	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6932.042	3	0.4		Atm				6941.218	26	3.8		Atm H ₂ O Atm O ₂	R 4 P 27	103 1,0	26 22
6932.150	10	1.4		Atm H ₂ O ⊙	R 5	103	26	6941.356	2.5	0.4		Atm			
6932.498r	3	0.4		Atm (Fe I p)	4.58	1220		6941.72 a	1.5	0.2					
6932.757r	3	0.4		Atm				6942.153	29	4.2		Atm H ₂ O	R 3	103	26
6933.026	16	2.3	w,N	Fe I	4.19	1051		6942.372	20	2.9		Atm H ₂ O	R 4	103	26
6933.163	3	0.4		⊙				6942.488	3	0.4		Atm			
6933.467	7	1.0		Atm H ₂ O	R 6	103	26	6942.84	1.5	0.2		Fe I? p	4.14	1008	
6933.605	54	7.8		Atm H ₂ O Fe I	R 4 (2.43 4.14)	103 167 1005	26	6943.18	1.5	0.2		⊙			
6933.817	29	4.2		Atm H ₂ O	R 6	103	26	6943.803	39	5.6		Atm H ₂ O	R 4	103	26
6934.422S	35	5.0		Atm O ₂	P 25	1,0	22	6944.90 a	3.5	0.5					
6934.531m	2	0.3		Atm O ₂	P 19	1,0	24	6945.210	82	11.4	u	Fe I	2.42	111	
6934.886r	2.5	0.4		Atm				6945.520	2	0.3		⊙			
6935.113	3	0.4		Atm H ₂ O	R 1	103	26	6945.900	3	0.4		⊙?			
6935.280m	33	4.8		Atm O ₂	P 25	1,0	22	6946.330	2	0.3		Co I?	2.28	110	
6935.422	7	1.0		Atm				6946.590m	7	1.0		Atm O ₂	P 29	1,0	22
6935.818	8	1.2		Atm H ₂ O	R 4	400	26	6946.728	1.5	0.2		Atm			
6936.066m	1.5	0.2		Atm O ₂	P 20	1,0	24	6947.139r	5	0.7					
6936.496	6	0.9		Fe I	4.61	1196		6947.48 a	88	1.4		Atm H ₂ O Atm H ₂ O	R 5 R 3	103 103	26 26
6936.80 a	1	0.1					6947.55 a	88			11.5		Fe I	{4.58 4.59	1221 1224
6936.962m	0.5	0.1		Atm O ₂	P 20	1,0	24		6947.64	5		0.9		Atm H ₂ O	R 3
6937.17 a	1	0.1	s,NN	⊙				6947.879	5		0.7			Atm H ₂ O	R 5
6937.703	[38]	5.5		Atm H ₂ O	R 5	103	26	6948.979		16		2.3		Atm H ₂ O	R 2
6938.199	1.5	0.2		Atm				6949.086	[27]		3.9			Atm H ₂ O	R 3
6938.269	10	1.4		Atm H ₂ O	R 5	103	26	6949.782		1		0.1		Atm H ₂ O ⊙	R 4
6938.548m	2	0.3		Atm O ₂	P 21	1,0	24	6949.921r	1		0.1			Atm?	
6938.737	3	0.4	s	K I	1.62			6950.749		[19]		2.7		Atm H ₂ O	R 3
6939.277	0.5	0.1		⊙?				6951.237	[60]		8.8			Atm H ₂ O Fe I	R 3 {4.56 4.56
6939.40 a	2	0.3						6951.656		7		1.0		Fe I Atm H ₂ O	4.28 Q 5
6939.613	31	4.5		Atm H ₂ O	R 4	103	26	6952.33	2		0.3		s,N	⊙ Atm H ₂ O Atm	Q 6
6939.738	6	0.9		Atm H ₂ O	R 4	103	26	6952.920		1		0.1			
6940.192	37	5.3		Atm H ₂ O	R 3	103	26	6953.057	2		0.3		w,N	Fe I p— Atm O ₂	3.60 P 31
6940.375m	23	3.3		Atm O ₂	P 27	1,0	22	6953.072m		27		3.9			
6940.62 a	1	0.1						6953.576	24		3.5			Atm H ₂ O	R 2
6940.77 a	0.5	0.1													
6940.998	6	0.9		Atm											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6953.776	10	1.4		Atm H ₂ O	R 2	103	26	6965.052	6	0.9		Atm H ₂ O	Q 4	103	26
6953.912m	3	0.4		Atm O ₂	P 31	1,0	22	6965.408	25	3.6	<i>o</i>	Mg I	5.75	33	
6954.014m	1	0.1		Atm O ₂	R 17	2,1	22	6965.925	8	1.1		CN	Q 12	3,0	12
6954.22	0.5	0.1		☉?				6966.75 a	2.5	0.4		CN	Q 16	3,0	12
6954.494m	2	0.3		Atm O ₂	R 15	2,1	22	6966.95 a	2.5	0.4					
6955.040	13	1.9	<i>o</i> ?	Ni I	3.70	157		6967.650m	1.5	0.2		{Atm O ₂ —	P 35	1,0	22
6955.241	2	0.3		Atm H ₂ O	Q 4	103	26	6967.743					{Atm		
6955.521m	0.5	0.1		Atm O ₂	R 15	2,1	22	6967.999	3	0.4		☉?			
6955.641	1.5	0.2		Atm H ₂ O	R 4	103	26	6968.265	1	0.1		☉?			
6955.818	0.5	0.1		Atm H ₂ O	R 5	400	26	6968.582	2	0.3		CN?	Q 13	3,0	12
6956.214m	1.5	0.2		Atm O ₂	{R 11 R 13}	{2,1 2,1}	{22}	6969.015	2	0.3		Atm H ₂ O	Q 7	103	26
6956.401	56	8.0		Atm H ₂ O	R 2	103	26	6970.495	11	1.6	<i>w</i>	{Fe I p Atm H ₂ O}	{3.02 R 2}	{463 400}	26
6956.487	30	4.3		Atm H ₂ O	R 2	103	26	6970.874	10	1.4		Atm H ₂ O	R 0	103	26
6957.009	2	0.3		Atm H ₂ O	R 3	400	26	6971.136	6	0.9		Atm H ₂ O	R 2	400	26
6957.204m	1	0.1		Atm O ₂	R 11	2,1	22	6971.136	6	0.9		Atm H ₂ O	R 2	400	26
6957.404	1.5	0.2		Atm H ₂ O	Q 3	103	26	6971.51	3	0.4		CN	Q 14	3,0	12
6957.404	1.5	0.2		Atm H ₂ O	Q 3	103	26	6971.799	1	0.1		Atm H ₂ O	Q 3	103	26
6957.703	2	0.3		CN	{Q 8 R 19}	{3,0 3,0}	{12}	6971.917	17	2.3	<i>s</i> ?	Fe I	3.02	404	
6958.247	0.5	0.1		Atm H ₂ O	{Q 2 Q 5}	{103 103}	{26}	6973.027	1.5	0.2		Atm			
6958.462m	0.5	0.1		Atm O ₂	R 9	2,1	22	6973.374	0.5	0.1		Atm H ₂ O	R 2	400	26
6958.936	1.5	0.2		Atm H ₂ O	R 5	103	26	6973.52 a	3.5	0.5		Ni I	5.30		
6959.452S	33	2.8		Atm H ₂ O	R 1	103	26	6974.32 a	1.5	0.2					
6959.812m	7	1.0		Atm O ₂	P 33	1,0	22	6974.489	1	0.1		Atm H ₂ O	R 5	400	26
6959.946m	0.5	0.1		Atm O ₂	R 7	2,1	22	6974.763	2	0.3		Atm H ₂ O	Q 6	103	26
6960.330	13	1.7	<i>o</i> ?	Fe I	4.59	1222		6975.239m	2	0.3		Atm O ₂	P 5	2,1	22
6960.476	1	0.1		Atm				6975.440	22	2.9	<i>w</i>	Fe I			
6960.647m	2	0.3		Atm O ₂	P 33	1,0	22	6975.754	1	0.1		☉?			
6960.746m	2	0.3		{Atm O ₂	R 5	2,1	22	6976.24	11	1.6	<i>o</i>	Fe I	4.64	1194	
6960.89			{Atm					<i>w</i>	Si I	5.95	60				
6961.260S	51	7.3		Atm H ₂ O	R 1	103	26	6976.708	2	0.3		Atm			
6961.707m	2	0.3		Atm O ₂	R 5	2,1	22	6976.908	16	2.3		Fe I	4.58	1221	
6961.808r	1	0.1		☉?				6977.466	48	6.9	<i>u</i>	{Atm H ₂ O Fe I}	{Q 2 4.59}	{103 1225}	26
6961.946r	2	0.3		Atm?				6978.045r	3	0.4		☉			
6962.804m	2	0.3		Atm O ₂	R 3	2,1	22	6978.383	68	9.3	<i>s</i>	Cr I	3.46	222	
6963.01	2	0.3		Fe I p	4.19	1007		6978.862S	90	12.2	<i>s</i>	Fe I	2.48	111	
6963.622	6	0.9		Atm H ₂ O	R 3	400	26	6979.156	9	1.3		{Fe I p	2.83	340	
6964.538	18	2.6		Atm H ₂ O	R 1	103	26	6979.251					{Atm H ₂ O	R 3	400

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
6979.45 a	1.5	0.2						6994.05	1	0.1		Si I? Atm H ₂ O	8.04 R 4	400	26
6979.806	41	5.4	S	Cr I	3.46	222		6994.110m	38	5.4		Atm H ₂ O	Q 3	103	26
6980.369	2	0.3		⊙?				6994.371r	8	1.1		CN	Q 20	3,0	12
6980.910	8	1.1	s?	Cr I	3.46	222		6994.622	13	1.9		Si I? Atm H ₂ O	8.04 R 3	400	26
6981.464	23	3.3		Atm H ₂ O—	Q 1	103	26	6994.83	2.5	0.4		CN?	Q 22	3,0	12
6981.601r	8	1.1		⊙				6994.958	8	1.1		Atm			
6981.946	3	0.4		⊙?				6995.378	2	0.3		Atm O ₂	P 15	2,1	22
6982.285	5	0.7		⊙?				6995.92 a	1	0.1					
6982.501m	2	0.3		Atm O ₂	P 9	2,1	22	6996.310	2	0.3		Atm O ₂	P 15	2,1	22
6983.52	5	0.7		Fe I? p	4.59	1220		6996.634	4	0.6	s,N	Ti I	2.33	256	
6984.114	4	0.6		⊙ Atm H ₂ O	{R 2 R 3}	{400 103}	}26	6997.080	7	1.0		Fe I p	4.95	1273	
6984.606r	2	0.3		⊙ Atm?				6997.811r	4	0.6		Atm H ₂ O	Q 6	400	26
6984.936	13	1.9		Atm H ₂ O	Q 4	103	26	6998.012	17	2.4	S	Atm H ₂ O ⊙	R 4	103	26
6985.512	2	0.3		Atm?				6998.236r	3	0.4		Atm H ₂ O	R 3	400	26
6985.812	8	1.1		⊙?				6998.718	15	2.1		Atm H ₂ O	Q 3	103	26
6986.087	1.5	0.2		⊙?				6998.962	79	11.3		Atm H ₂ O	Q 3	103	26
6986.579S	75	10.7		Atm H ₂ O	Q 1	103	26	6999.228r	8	1.1		Atm H ₂ O	Q 4	103	26
6987.482	1	0.1		Atm O ₂	P 11	2,1	22	6999.563r	8	1.1		Atm H ₂ O	R 2	400	26
6987.731	3	0.4		Atm				6999.885	71	9.1	u	Fe I	4.10	1051	
6987.866	11	1.6		Atm H ₂ O	{R 1 Q 3}	{400 103}	}26	7000.291r	5	0.7		CN	Q 23	3,0	12
6988.272r	—	—		⊙?				7000.623	23	3.3	w	Fe I	4.14	1005	
6988.533	36	4.7	s	Fe I	2.40	167		7000.91 a	5	0.7		Atm H ₂ O	Q 4	103	26
6988.986S	75	10.7		Atm H ₂ O	Q 2	103	26	7001.215r	3	0.4		⊙			
6989.561r	4	0.6		⊙				7001.551	11	1.6	s,N	Ni I	1.93	64	
6989.72	1	0.1		Fe I p	4.61	1191		7001.92	1.5	0.2		Atm? O I?	10.99	21	
6990.073	4	0.6		⊙?				7002.128	18	2.6		Atm H ₂ O (O I)	Q 3 10.99	103 21	26
6990.370	32	4.6		Atm H ₂ O	Q 2	103	26	7002.62	4	0.6		Atm H ₂ O	Q 5	103	26
6990.90 a	2	0.3		Atm O ₂ ?	P 13	2,1	22	7003.574	81	10.4	w,N	Si I	5.96	60	
6991.026	8	1.1		Atm H ₂ O	R 1	400	26	7003.977r	4	0.6		CN?	Q 22	3,0	12
6991.804	9	1.3		Atm H ₂ O	R 4	400	26	7004.314	23	3.3		Atm H ₂ O	Q 4	400	26
6992.00 a	1.5	0.2						7004.41	6	0.9		Atm H ₂ O	Q 4	400	26
6992.16	1.5	0.2		Atm				7004.745	65	9.3		Atm H ₂ O	P 2	103	26
6992.50 a	1	0.1						7005.119	27	3.8		Atm H ₂ O	P 2	103	26
6992.846	29	4.2		Atm H ₂ O	Q 2	103	26	7005.37	9	1.3		Atm H ₂ O	Q 3	400	26
6993.521	48	6.9		Atm H ₂ O	P 1	103	26								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7005.61	23	3.3		Atm H ₂ O	R 1	400	26	7017.45	13	1.9		Atm H ₂ O	Q 3	400	26
7005.900	89	12.7	<i>W,N</i>	Si I	5.98	60		7017.666	51	7.3	<i>o?</i>	Si I	5.87	51	
7006.156	11	1.6		Atm H ₂ O	R 2	400	26	7018.06	5	0.7		CN	Q 26	3,0	12
7006.31	5	0.7		Atm H ₂ O	Q 5	400	26	7018.79	6	0.9		Atm H ₂ O	Q 6	103	26
7006.876	12	1.7		Atm				7019.10	6	0.9		☉			
7007.115	8	1.1		Atm H ₂ O	Q 3	400	26	7019.356	20	2.8		Atm H ₂ O	Q 3	400	26
7007.75 a	4	0.6		Atm H ₂ O	Q 6	400	26	7020.14	7	1.0		Atm H ₂ O— CN	Q 3 Q 25	103 3,0	26 12
7007.976	31	4.0	<i>w?</i>	Fe I	4.18	1078		7020.63	8	1.1		Atm			
7008.265	7	1.0	<i>s,N</i>	Atm H ₂ O Ti I	Q 3 2.33	400 256	26	7020.83	10	1.4		Atm H ₂ O	Q 2	400	26
7008.42	2	0.3		Atm?				7021.54	5	0.7		Atm H ₂ O	Q 4	400	26
7009.18 a	3	0.4		Atm H ₂ O CN?	Q 2 Q 23	400 3,0	26 12	7022.035r	2	0.3		Atm?			
7009.26 a	5	0.7		Atm				7022.395r	16	2.3		Fe I p	4.30	1078	
7009.90 a	16	2.3		Atm H ₂ O	P 2	103	26	7022.52	8	1.1		Atm H ₂ O	Q 1	400	26
7010.37 a	13	1.9	<i>o?</i>	Fe I	4.58	1221		7022.957S	72	9.8	<i>s</i>	Fe I	4.19	1051	
7010.62	7	1.0		Atm				7023.504S	65	9.3		Atm H ₂ O	P 3	103	26
7010.71				Atm H ₂ O	Q 5	103	26	7023.73	5	0.7		Atm			
7010.99 a	16	2.3	<i>s</i>	Atm Ti I	2.33	256		7024.065	31	4.3	<i>w</i>	Fe I	4.07	1003	
7011.323	60	8.5		Atm H ₂ O (Fe I)	Q 4 4.59	103 1221	26	7024.644	51	7.6	<i>w,N</i>	Fe I	4.56	1187	
7011.92 a	5	0.7		CN	Q 25	3,0	12	7024.86	34	4.8	<i>u</i>	Ni I (Atm H ₂ O)	4.54 P 3	271 103	26
7012.229r	9	1.3		Atm H ₂ O	Q 4	400	26	7025.58	1.5	0.2		☉?			
7012.612	47	6.7	<i>o</i>	☉				7025.75	1.5	0.2		☉?			
7013.31	10	1.4		Atm H ₂ O	R 0	400	26	7026.18	2	0.3		Atm CN?	Q 26	3,0	12
7013.816r	5	0.7		Atm				7026.394	18	2.6		Atm H ₂ O	R 3	400	26
7014.08	2	0.3		Atm				7026.61	13	1.8		Atm H ₂ O Si I	Q 5 5.86	103	26
7014.28	2	0.3		Atm?				7026.937	37	5.3		Atm H ₂ O	P 3	103	26
7014.546r	2	0.3		CN	Q 24	3,0	12	7027.478S	62	8.8		Atm H ₂ O	P 4	103	26
7014.996	13	1.9	<i>u</i>	Fe I	2.45	167		7027.65	2	0.3		Fe I Atm?	4.58	1221	
7015.295	12	1.7		Atm H ₂ O	Q 5	103	26	7027.859	28	4.0		Atm H ₂ O	P 4	103	26
7015.536r	4	0.6		Atm H ₂ O	Q 2	103	26	7028.196r	2	0.3		☉?			
7015.77	2	0.3		Atm H ₂ O	R 1	400	26	7028.59	5	0.7		Fe I p Ni I	3.07 3.70	463 156	
7015.915r	8	1.1		Atm H ₂ O	P 3	103	26	7029.05	20	2.8	<i>u,N</i>	Ni I Atm H ₂ O	1.93 Q 5	61 103	26
7016.067	62	9.8	<i>s</i>	Fe I	2.42	109		7029.712r	1.5	0.2		☉?			
7016.442	146	20.8	<i>u</i>	Fe I Atm H ₂ O	4.15 P 3	1051 103	26	7030.021	23	3.0	<i>w</i>	Ni I	3.54	126	
7016.62	38	5.4		Co I	2.01	54									
7016.72				Si I	5.96	60									
7017.312r	12	1.7	<i>o?</i>	Si I	5.87	51									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7030.386r	1.5	0.2		Atm				7045.038r	2	0.3		CN	Q 30	3,0	12
7030.68	4	0.6		Atm H ₂ O	Q 6	103	26	7045.233	6	0.8		⊙?			
7030.944 r	5	0.7		Atm				7045.44	2	0.3		CN?	Q 29	3,0	12
7031.09	4	0.6		CN Fe I p	Q 28 4.65	3,0 1173	12	7045.781r	1	0.1		⊙?			
7031.40	1.5	0.2		Fe I p	4.99	1278		7046.863	17	2.4		Atm H ₂ O	P 4	103	26
7032.09	1.5	0.2		⊙?				7047.08	5	0.7		⊙?			
7032.319	33	4.1	w	⊙				7047.349	5	0.7		Atm H ₂ O	P 4	103	26
7032.51	3	0.4		Atm				7048.00	2	0.3		Atm H ₂ O	P 2	400	26
7033.40 a	2	0.4		Atm				7048.22	3	0.4		Atm H ₂ O	P 1	400	26
7034.090	7	1.0		Fe I p	{4.56 4.61	{1190 1190		7048.68	2	0.3		Atm			
7034.380	11	1.6	u?	Ni I	3.54	97		7048.996	3	0.4		Atm H ₂ O	Q 6	103	26
7034.910S	[80]	10.5	w	Si I	5.87	50		7049.41	1	0.1		Atm			
7035.22 a	10	1.4		Si I	5.87	50		7049.60 a	1.5	0.2		Ni I?	5.28		
7035.856r	3	0.4	s, N	Ti I	3.14	307		7050.50	9	1.3		Atm H ₂ O	P 5	103	26
7036.96	0.5	0.1		Fe I? p	2.22	61		7050.78	2	0.3	s	Ti I	2.34	256	
7037.196	21	3.0		Atm H ₂ O	P 4	103	26	7050.853	28	4.0		Atm H ₂ O	P 5	103	26
7037.38	6	0.9		Ni I	5.49	288		7051.22	5	0.7		Atm			
7037.534	31	4.4		Atm H ₂ O	P 4	103	26	7051.72	3	0.4		⊙?			
7037.98	3	0.4		CN	Q 29	3,0	12	7051.85	3	0.4		Atm H ₂ O	P 4	400	26
7038.220	76	9.8	s	Fe I	4.22	1051		7052.34	1.5	0.2		CN	{Q 30 Q 31	{3,0 3,0	}12
7038.765	40	5.3	s	Fe I Ti I	4.26 2.34	1078 256		7052.404	13	1.8		Atm H ₂ O	P 6	103	26
7039.284	21	3.0		Atm H ₂ O (Ti I)	P 5 3.15	103 307	26	7052.60	6	0.9		Atm H ₂ O	Q 3	400	26
7039.793	62	8.8		Atm H ₂ O	P 5	103	26	7052.776	52	7.4		Atm H ₂ O	P 6	103	26
7040.587r	2	0.3		Atm				7052.87	13	1.8	s	Co I	1.96	54	
7040.81	1	0.1		⊙?				7053.484	2	0.3		Atm			
7041.095	1	0.1		Atm				7053.85	1	0.1		Atm H ₂ O?	P 3	103	26
7041.751	10	1.4		Atm H ₂ O	P 4	103	26	7054.000	5	0.7		Co I	2.72	140	
7042.13	3	0.4		Atm				7054.58	6	0.8		Atm			
7042.44	4	0.6		Atm?				7054.706	7	1.0		Atm H ₂ O	Q 3	400	26
7042.96	1.5	0.2		Atm				7054.98 a	[3]	0.4		⊙?			
7043.40	2	0.3		⊙?				7055.80	[3]	0.4		Atm H ₂ O	P 3	400	26
7043.74	3	0.4		Atm				7055.927	20	2.8	o?	⊙			
7043.990r	3	0.4		Atm H ₂ O	Q 6	103	26	7056.30	4	0.6		Atm			
7044.50	7	1.0		Atm H ₂ O	Q 2	400	26	7056.474r	4	0.6		⊙?			
7044.65	14	2.0		Fe I	4.95	1276		7056.65	2.5	0.4		⊙?			
7044.93	2	0.3		⊙?				7056.997	26	3.7		Atm H ₂ O—	P 5	103	26
								7057.20 a	1.5	0.2					

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7057.35 a	1.5	0.2						7067.83	4	0.6		CN? Atm H ₂ O	Q 33 P 3	3,0 400	12 26
7057.544r	1	0.1		Atm				7068.07	7	1.0		Fe I p	4.99	1276	
7057.92	4	0.6		Fe I p	3.65	815		7068.423	64	8.4	u	Fe I	4.07	1004	
7058.20	8	1.1		Atm H ₂ O	P 2	400	26	7068.64	11	1.6		Fe I p	4.91	1276	
7058.632	5	0.7		Atm H ₂ O	P 5	103	26	7068.84	2	0.3		Atm			
7058.96 a	2.5	0.4		⊙?				7069.06	3	0.4	s	Ti I	3.18	307	
7059.17 a	2	0.3		⊙?				7069.54	4.5	0.6		Fe I	2.56	205	
7059.47	3	0.4		CN	Q 31	3,0	12	7069.80	1.5	0.2		Atm			
7059.64	4	0.6		Atm H ₂ O	{Q 7 R 7}	{103 301}	}26	7070.10	1	0.1	s	Sr I	1.85	3	
7060.00	5	0.7		CN	Q 32	3,0	12	7070.35	1	0.1		Atm H ₂ O	R 5	301	26
7060.446	47	6.7	u?	Atm H ₂ O Mg I	{P 5 Q 2 5.75}	{103 400 32}	}26	7070.663r	4	0.6		Atm H ₂ O	R 6	301	26
7060.62 a	11	1.6						7071.63	2	0.3		Atm			
7060.62 a	11	1.6						7071.866	35	4.8	o	Fe I	4.61	1194	
7060.85 a	3	0.4						7072.07	3.5	0.5		Atm H ₂ O	{P 5 P 6}	{103 103}	}26
7061.35	2	0.3						7072.46	5	0.7		Atm H ₂ O	P 6	103	26
7061.507	11	1.6		Atm H ₂ O	P 3	400	26	7072.80	6	0.8	o?	Fe I	4.07	1003	
7062.31	1.5	0.2		Atm H ₂ O	Q 7	103	26	7073.21	1	0.1		Atm H ₂ O	P 4	400	26
7062.473r	1.5	0.2		⊙?				7073.49	3	0.4		Atm H ₂ O	P 6	400	26
7062.79	3	0.4		Atm Fe I p	4.99	1273		7073.618r	2	0.3		Atm H ₂ O	R 6	301	26
7062.978r	13	1.8	u	Ni I	1.95	64		7074.50	7	1.0	o?	Atm H ₂ O? Fe I p— CN	P 4 4.61 Q 33	103 1173 3,0	26 12
7063.36	1	0.1	w?	⊙?— Atm H ₂ O	P 6	103	26	7074.90	6	0.8		Atm H ₂ O	P 4	400	26
7063.483	17	2.5	w					7075.08	3	0.4		Atm H ₂ O	Q 3	400	26
7063.60 a	5	0.7		Ni I	4.54	270		7075.27	3	0.4		Atm H ₂ O	Q 5	400	26
7064.12	4	0.6		Atm H ₂ O	Q 4	400	26	7075.43	1	0.1		Atm H ₂ O	Q 4	400	26
7064.64	5	0.7		Atm H ₂ O	P 6	103	26	7075.63	2	0.3		Atm H ₂ O	Q 4	400	26
7064.88	4	0.6		Atm				7075.89	3	0.4		CN	Q 34	3,0	12
7065.24	1.5	0.2						7076.10	3.5	0.5		{Atm H ₂ O	{P 6 P 7}	{103	26
7065.642	21	3.0		Atm H ₂ O	{P 7 P 7}	{103 103}	}26	7076.34				{Atm			
7065.91	1	0.1		C I? p	8.64			7076.52	2	0.3		Atm? C I	8.64		
7066.218r	6	0.8	w?	Fe I? p	4.99	1277		7076.815r	3	0.4		Atm?			
7066.29	5	0.7		Atm H ₂ O	Q 5	400	26	7077.22	1	0.1		Atm H ₂ O (Eu II)	R 4 1.25	301 8	26
7066.60	1	0.1		Atm?				7077.61	3	0.4		Atm			
7066.933r	8	1.1		Atm H ₂ O	P 5	400	26	7077.81	8	1.1		Atm H ₂ O	P 2	400	26
7067.04	4	0.6		Atm H ₂ O	Q 3	400	26	7078.05	3	0.4		Atm H ₂ O	Q 3	400	26
7067.460	13	1.8	w	Fe II											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7078.252	15	2.1		Atm H ₂ O	P 4	400	26	7092.31	1.5	0.2		CN Ca I? p	R 10 2.93	4,1	12
7078.841	10	1.4		Atm H ₂ O	P 7	103	26	7092.59	0.5	0.1		Atm H ₂ O	P 8	103	26
7079.27	5	0.7		Fe I p	4.91	1278		7092.848	8	1.1		CN— Fe I	Q 36 4.56	3,0 1187	12
7079.51	1.5	0.2		Atm				7093.09	18	2.5	w?	Fe I	4.56	1189	
7079.591	11	1.6		Atm H ₂ O	P 8	103	26	7093.34	4	0.6		C I	8.64		
7079.89	3	0.4		Atm				7093.68	2	0.3		CN	R 11	4,1	12
7080.970	7	1.0	w	Atm H ₂ O	P 2	400	26	7094.05	5	0.7		Atm H ₂ O	P 9	103	26
7082.168r	4	0.6	s,N	☉				7094.334	5	0.7		Fe I p	3.57	778	
7082.480	5	0.7		Atm CN	Q 34	3,0	12	7095.01	3	0.4		Atm			
7082.827r	5	0.7	s,N	☉				7095.18	1.5	0.2		CN	R 12	4,1	12
7083.394	27	3.8	W	Fe I	4.91	1277		7095.407	32	3.9	o?	Ni I?— Fe I	5.28 4.21	276 1105	
7083.716r	6	0.8						7095.58	2	0.3		Atm			
7083.960	21	3.0	w	Al I Si I	4.02 5.98	60		7095.859	7	1.0		Atm H ₂ O	P 7	103	26
7084.254r	7	1.0	s.	CN Ti I p	Q 35 1.43	3,0 99	12	7096.383r	2	0.3		Atm			
7084.656	17	2.4		Al I	4.02			7096.63	1	0.1		☉?			
7084.975	61	8.1	s?	Co I Atm H ₂ O	1.88 P 7	54 103	26	7096.93 a	2	0.3		CN	R 13	4,1	12
7085.533r	3	0.4		C I	8.64			7097.123	20	2.8		Atm ☉			
7086.319	5	0.7		Atm H ₂ O	Q 5	400	26	7097.45 a	2.5	0.4		Si I p	5.98	60	
7086.730	23	3.0	w	Fe I	{3.60 5.08	815 1311		7097.666	3.5	0.5		Atm H ₂ O	R 4	301	26
7087.35	3	0.4						7097.76 m	1	0.1	s	Zr I	0.69	42	
7087.59	3	0.4		☉				7098.02	6	0.8		Atm H ₂ O	Q 6	400	26
7087.822r	7	1.0		C I	8.64			7098.63	1.5	0.2		Atm?			
7088.154	24	3.4		Atm H ₂ O	{P 7 P 5	103 400	}26	7098.80	1	0.1		Atm?			
7088.23	2	0.3						7098.91	5	0.7		Atm H ₂ O	P 4	400	26
7088.64	2	0.3		Atm H ₂ O	P 3	400	26	7099.22	2	0.3		CN?	Q 36	3,0	12
7089.04	3	0.4						7099.38	2	0.3		Atm H ₂ O	R 5	221	26
7089.71	6	0.8		Atm H ₂ O Fe I? p	P 5 4.58	400 1220	26	7099.540r	2	0.3		Atm H ₂ O	Q 4	400	26
7090.390	73	9.7	u	Fe I	4.23	1051		7100.130	16	2.3	w?	Atm H ₂ O C I	Q 4 8.64	400	26
7090.69	4.5	0.6		CN	Q 35	3,0	12	7100.75 a	4	0.6		Atm H ₂ O	R 5	301	26
7090.92	1	0.1						7101.09	1.5	0.2		CN	R 15	4,1	12
7091.18	5	0.7		CN Atm H ₂ O	R 9 P 5	4,1 400	12 26	7101.31	1	0.1		Fe I p	2.20	61	
7091.363r	1	0.1		☉				7101.59	}	0.7		Atm			
7091.942	16	2.3	s.	Fe I p Fe I	4.95 4.95	1277 1278		7101.69				Atm H ₂ O CN	P 6 Q 37	400 3,0	26 12
								7101.96	7	1.0		Atm			
								7102.279	8	1.1		Atm H ₂ O	P 6	400	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7102.89 m			s	Zr I	0.65	42	13	7113.90				{ Atm?			
7103.150	6	0.8	s,N	Atm Fe I p	2.43	167		7114.041r	6	0.8		{ Atm H ₂ O	R 6	221	26
7103.47	3	0.4		CN	R 16	4,1	12	7114.175r	1	0.1		Atm?			
7103.80	1.5	0.2	s	Zr I	0.62	42		7114.574	8	1.1	u,N	Fe I	2.69	267	
7103.90	1.5	0.2		Atm				7115.05	2	0.3		⊙			
7104.39	1	0.1		Atm H ₂ O	P 8	103	26	7115.17	33	4.6	o	C I	{ 8.64 8.64	26	
7104.71	1	0.1		Atm H ₂ O	P 7	103	26	7115.33	3.5	0.5		Fe I? p	4.61	1186	
7105.28	0.5	0.1		Atm H ₂ O	R 4	301	26	7115.47	5	0.7		Atm H ₂ O	P 7	400	26
7105.61	1	0.1		⊙?				7115.66	1	0.1		Atm?			
7105.87	2.5	0.4		Fe I p	4.19	1008		7115.83 a	1.5	0.2		CN	R 0	4,1	12
7106.164	11	1.5		Atm H ₂ O	R 5	301	26	7116.388	3	0.4		Atm H ₂ O	P 7	103	26
7106.44	5.5	0.8		Atm H ₂ O ⊙	R 4	301	26	7116.963	21	2.9	o?	C I	8.64		
7107.01	3	0.4						7117.25 a	2	0.3		CN	R 17	4,1	12
7107.25	1	0.1		Fe I p	5.02	1324		7117.669r	4	0.6		Atm? CN	Q 1	4,1	12
7107.468	24	3.4	s	Fe I	4.19	1005		7118.105	16	2.2	u	Fe I	5.01	1278	
7107.65	1.5	0.2						7118.284	16	2.2	w,d	Atm H ₂ O ⊙	R 5	301	26
7107.909r	3	0.4		CN?	Q 37	3,0	12	7118.42	5	0.7		Atm			
7108.109r	2	0.3		Atm?				7118.975r	4	0.6		CN	R 21	4,1	12
7108.92	3.5	0.5		C I	8.64			7119.38	3	0.4		CN	Q 6	4,1	12
7109.06	6	0.8		Atm H ₂ O	P 9	103	26	7119.704	19	2.7		Atm H ₂ O (C I)	P 6 8.64	400	26
7109.23	2.5	0.4		Atm H ₂ O	P 10	103	26	7120.03	13	1.8		Atm Fe I CN	4.56 Q 7	1187 4,1	12
7109.32	3.5	0.5		Atm H ₂ O Dy II?	Q 6	400	26								
7109.70	2	0.3		Fe I p	4.61	1190		7120.58	1.5	0.2		Fe I p	4.14	1006	
7109.96	1	0.1						7120.96 a	1.5	0.2					
7110.14	1	0.1		CN				7121.67	1.5	0.2		CN	P 9	4,1	12
7110.33	2	0.3						7122.206S	107	14.9	s	Ni I	3.54	126	
7110.46	1.5	0.2						7122.50	13	1.8		Atm H ₂ O	R 3	301	26
7110.905	41	5.2	w?	Ni I	1.93	64		7122.75	5	0.7		CN Atm?	R 22	4,1	12
7111.14	3	0.4		Atm H ₂ O	P 3	400	26	7123.41	2	0.3		CN	Q 14	4,1	12
7111.450	23	3.2		C I	8.64	26		7123.80 a	1	0.1		CN	Q 9	4,1	12
7111.94	7	1.0		Atm H ₂ O Zr I?	P 3 0.52	400 23	26	7124.00 a	2	0.3		Atm H ₂ O ⊙	P 4	400	26
7112.170	33	4.6	u	Fe I	2.99	404		7124.70 a	3.5	0.5		⊙ Atm			
7113.171	30	4.2	o	C I	8.64	26		7125.02 a	3	0.4		Fe I p	3.69	815	
7113.422r								7125.33	1	0.1	s	Fe I p Atm?	4.59	1220	
7113.592r	5	0.7													

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7125.84 a	1.5	0.2		CN	Q 10	4,1	12	7139.20	2	0.3		CN Atm?	P 9	4,1	12
7126.06 a	4	0.6		Atm H ₂ O	{P 7 R 6	400 301	}26	7139.55	1	0.1		Atm?			
7126.25 a	1.5	0.2		Atm				7139.68	2.5	0.4		CN?	Q 41	3,0	12
7126.71	5	0.7		Ni I	3.54	97		7139.80 a	3	0.4		CN	{Q 15 R 24	4,1 4,1	}12
7127.37	1	0.1		CN CN	Q 15 P 5	4,1 4,1	12 12	7140.279	10	1.4	<i>u, N</i>	Atm H ₂ O? ☉?	R 4	202	26
7127.573	29	4.1	<i>W</i>	Fe I	4.99	1273		7141.03	}	2		CN?	P 13	4,1	12
7127.76	4	0.6		☉— Atm H ₂ O	P 4	400	26	7141.14							
7128.150	9	1.3		Atm H ₂ O	R 4	301	26	7141.64	3	0.4		Ni I?	5.30	283	
7128.528r	1	0.1		Atm H ₂ O	P 9	103	26	7142.16	3	0.4		Atm			
7129.129	7	1.0		Atm H ₂ O ☉	R 4	301	26	7142.517	44	5.9	<i>w</i>	Fe I	4.95	1274	
7129.23	5	0.7		Fe I? p	4.59	1219		7142.987	15	2.1	<i>o?</i>	Atm H ₂ O ☉	R 4	202	26
7129.47	4	0.6		Atm?				7143.382	3	0.4		Atm CN	Q 16	4,1	12
7129.87	10	1.4		Atm? Si I? p	5.86			7143.96	3	0.4		CN	R 25	4,1	12
7130.12	4	0.6		Atm				7144.754	1.5	0.2		Atm?			
7130.64	3	0.4		CN	Q 12	4,1	12	7145.14	3	0.4		Atm H ₂ O CN?	R 2 Q 19	301 4,1	26 12
7130.925	105	13.6	<i>u</i>	Fe I	4.22	1051		7145.312	42	5.9	<i>w?</i>	Fe I	{4.61 4.61	1186 1193	
7131.360	11	1.5		CN	Q 16	4,1	12	7145.55	3	0.4					
7131.63	2	0.3		Atm H ₂ O	R 4	202	26	7145.90	1.5	0.2		Atm?			
7131.82	2	0.3		Hf I? Atm?	0.00			7146.16	2.5	0.4		Atm H ₂ O	P 6	400	26
7132.21	3	0.4		C I?	8.64	26		7146.57	12	1.7		Atm H ₂ O	P 4	400	26
7132.985	44	5.9	<i>w</i>	Fe I	4.07	1002		7147.28	3	0.4		CN	Q 17	4,1	12
7133.389	6	0.8		CN	Q 13	4,1	12	7147.634	28	3.9		Atm H ₂ O	R 3	301	26
7134.116	10	1.4		Atm				7148.150	157	20.3	<i>s</i>	Ca I	2.71	30	
7134.32	2	0.3		Co I?	4.06	179		7148.50 a	3	0.4		CN	R 26	4,1	12
7134.61	1.5	0.2		Atm?				7148.704	14	2.0	<i>w</i>	Fe I	{4.28 5.07	1078 1339	
7135.03	2	0.3		Atm				7149.33	3	0.4		☉?			
7135.58	2	0.3		CN? Atm	Q 40	3,0	12	7149.750	6	0.8		CN	Q 42	3,0	12
7135.83	5	0.7		Atm				7150.172	12	1.7		CN—	Q 20	4,1	12
7136.56	1.5	0.2		Atm				7150.680	11	1.5		Atm H ₂ O	R 5	202	26
7137.21	4	0.6		Atm H ₂ O	R 2	301	26	7151.143	18	2.5		Atm H ₂ O	R 3	202	26
7137.469	26	3.6		Atm H ₂ O	R 3	301	26	7151.464	24	3.4	<i>s</i>	Fe I	2.48	109	
7137.88	2	0.3		Atm				7151.80 a	2	0.3		☉?			
7138.08	4	0.6	<i>s?</i>	Ti I p	1.43	98		7152.22	2.5	0.3		☉?			
7138.926	5	0.7	<i>S</i>	Ti I	1.44	99		7152.51	1.5	0.2		Atm?			

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7153.06	2.5	0.3		Atm?				7166.27	7	1.0		Atm ⊙?			
7153.330	7	1.0		Atm				7166.57	5	0.7		CN	Q 23	4,1	12
7153.746	6	0.8		Atm H ₂ O	R 4	202	26	7166.71	4	0.6		Atm			
7154.707	4.5	0.6		Atm Co I	2.04	89		7166.96	14	2.0	<i>o</i>	Ni I	3.74	109	
7155.09	5	0.7		Atm				7167.10	23	3.2		Atm H ₂ O	{R 3 R 8}	202 301	}26
7155.37 a	3	0.4		CN Atm H ₂ O	{Q 42 Q 21 R 3}	{3,0 4,1 202}	}12 26	7167.360	46	6.4		Atm H ₂ O	R 7	301	26
7155.634	45	6.1	<i>w,d</i>	Fe I	5.01	1276		7167.904	132	18.4		Atm H ₂ O	R 5	301	26
7156.422	21	2.9		Atm				7168.73	6	0.8	<i>o?</i>	⊙			
7157.73	7	1.0	<i>w,NN</i>	⊙				7169.063	21	2.9		Atm H ₂ O	R 7	301	26
7158.508	14	2.0	<i>u,N</i>	Fe I	3.65	815		7169.11 m			<i>S</i>	Zr I	0.73	42	13
7158.776	20	2.8	<i>u,d</i>	⊙ Atm H ₂ O	R 7	301	26	7169.895	18	2.5	<i>u,N</i>	Atm H ₂ O—	R 2	202	26
7159.310	15	2.1		Atm H ₂ O	R 3	202	26	7170.086	40	5.6		Atm H ₂ O	R 6	301	26
7160.20 a	3	0.4		CN	{Q 43 P 14}	{3,0 4,1}	}12	7170.33	23	3.2		Atm			
7160.35 a	4	0.6	<i>S,N</i>	Ti I Atm	1.43	98		7170.568	80	11.2		Atm H ₂ O	R 8	301	26
7160.859	4	0.6		CN Fe I p	Q 22 5.03	4,1 1310	12	7170.869	25	3.5		Atm			
7161.11	2	0.3		Atm Fe I p	4.64	1190		7171.038	12	1.7		Atm			
7161.57	4	0.6		Atm H ₂ O	P 5	400	26	7171.33 a	2	0.3					
7162.053	21	2.9		Atm H ₂ O	R 6	301	26	7171.75	1.5	0.2					
7162.34	15	2.1	<i>o?</i>	Atm H ₂ O? Fe I p	P 5 5.02	400 1278	26	7171.954	23	3.2		Atm			
7162.731	7	1.0		Atm H ₂ O	R 6	301	26	7172.714	126	17.6		Atm H ₂ O	R 5	301	26
7163.13	2.5	0.3		Atm?				7172.90	36	5.0		Atm H ₂ O	R 6	301	26
7163.27	2.5	0.3		Atm?				7173.417	120	16.7		Atm H ₂ O	R 7	301	26
7163.54	3	0.4		Atm H ₂ O	R 13	301	26	7173.774	62	8.6		Atm H ₂ O	R 6	301	26
7163.82	15	2.1		Atm H ₂ O	{R 2 R 12}	{301 301}	}26	7174.166	66	9.2		Atm H ₂ O	R 5	301	26
7164.23	3	0.4						7174.45 a	3	0.4		Mn I?	3.76		
7164.432	153	21.4	<i>u</i>	Fe I	4.19	1051		7174.84	2	0.3		Atm			
7164.62	33	5.0	<i>o</i>	Si I	5.87	49		7175.316	7.5	1.0		P I?— Atm H ₂ O	8.15 R 6	301	26
7164.83	3	0.4						7175.50	1.5	0.2		Atm			
7165.14	12	1.7		Si I p	5.87	49		7175.960	79	11.0	<i>w</i>	Fe I— Atm H ₂ O	4.56 R 3	1188 202	26
7165.578	93	12.4	<i>o</i>	Si I	5.87	48		7176.146	64	8.9		Atm H ₂ O	R 4	301	26
7165.71	8	1.3	<i>u?</i>	⊙				7176.37 a	2.5	0.3					
7166.09	15	2.1		Atm H ₂ O	R 10	301	26	7176.59	2	0.3		P I?	8.13		
								7176.878	44	6.1	<i>u</i>	Fe I	4.99	1276	
								7177.112	22	3.1		Atm H ₂ O	{R 6 R 6}	{301 301}	}26
								7177.367	48	6.7		Atm H ₂ O	R 6	301	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7177.618	30	4.2		Atm H ₂ O	R 4	301	26	7189.860	13	1.8	S	Ti I	2.58	285	
7178.422	13	1.8		Atm H ₂ O	R 5	301	26	7190.128	15	2.1	u	Fe I	3.11	463	
7178.765	4	0.6		CN	Q 25	4,1	12	7190.42	1.5	0.2		Atm H ₂ O	Q 1	301	26
7178.97	0.5	0.1		○?				7190.96	1	0.1		Atm H ₂ O	Q 7	301	26
7179.298	5.5	0.8		Atm H ₂ O	R 5	301	26	7191.497	115	16.0		Atm H ₂ O	R 3	301	26
7179.61	1	0.1		Atm H ₂ O Zr II?	R 5 1.74	221	26	7191.67	5	0.7	w?	Fe I	4.99	1274	
7180.004	19	2.6	S	Fe I	1.48	33		7191.868	37	5.1		Atm H ₂ O	R 3	301	26
7180.202	3	0.4		CN? Atm	R 33	4,1	12	7192.465	32	4.4	u,d	Fe I Atm H ₂ O	R 3	202	26
7180.56	2.5	0.3						7192.759r	4	0.6					
7180.79	2	0.3		CN	R 32	4,1	12	7193.183	60	8.3	o?	Mg I	5.75	31	
7181.198	71	9.9	s	Fe I	4.22	1078		7193.561	75	10.4		Atm H ₂ O (Si I)	{R 4 R 2 5.61	{301 301 25	}26
7181.520	67	9.3		Atm H ₂ O	R 5	301	26	7193.768	54	7.5		Atm H ₂ O (Si I)	R 3 5.61	301 25	26
7181.760	30	4.2		Atm H ₂ O	R 5	301	26								
7181.955	81	11.3	w	Ni I (Fe I)	3.74 4.91	126 1274		7194.07	7	1.0		Fe I p	5.03	1307	
7182.400	3	0.4	s?	Atm?				7194.38	4	0.6		CN	P 20	4,1	12
7182.825	2	0.3		Atm				7194.569r	1	0.1		Fe I			
7183.46	1	0.1		CN Atm?	P 20	4,1	12	7194.93	33	4.6	w	Fe I	5.02	1273	
7184.38	2.5	0.3		Atm H ₂ O	R 5	301	26	7195.044	26	3.6		Atm H ₂ O	R 3	301	26
7184.526	146	20.4		Atm H ₂ O	{R 4 R 3	{301 301	}26	7195.27 a	2	0.3		Atm H ₂ O	Q 6	202	26
7184.90	24	3.3	w,N	Si I Atm H ₂ O	5.61 R 5	25 301	26	7195.525r	10	1.4		Cr I?	4.19		
7185.15	} 6	0.8		CN	Q 26	4,1	12	7195.797	12	1.7		Atm H ₂ O	R 3	301	26
7185.29				{Atm H ₂ O	P 5	400	26	7197.020	70	9.7	s	Ni I	1.93	62	
7185.56	7	1.0	s	Cr I	3.89	264		7197.231	25	3.5		Atm H ₂ O	R 2	202	26
7185.70 a	5	0.7						7197.41	6	0.8		Atm H ₂ O	{Q 5 Q 6	{301 301	}26
7186.141	45	6.3		Atm H ₂ O	R 4	301	26	7197.865	22	3.1		Atm H ₂ O	R 2	301	26
7186.384	73	10.2		Atm H ₂ O	R 3	301	26	7198.440	35	4.9		Atm H ₂ O	R 2	301	26
7187.010	43	6.0		Atm H ₂ O	R 4	301	26	7198.86	4	0.6		CN	Q 28	4,1	12
7187.388	240	33.5	u,d	Fe I— Atm H ₂ O	4.10 R 4	1051 301	26	7199.07 a	1.5	0.2		Atm			
7188.00	8	1.1		Atm H ₂ O Cr I?	Q 8 3.89	301 264	26	7199.42	2	0.3		Atm H ₂ O	Q 6	301	26
7188.27 a	3	0.4						7199.80	8	1.1		○?			
7188.62	9	1.3	S	Ti I	1.43	99		7200.027	4	0.6		Atm H ₂ O	Q 4	301	26
7188.99	4	0.6		Atm H ₂ O	R 5	301	26	7200.097r	3	0.4		○?			
7189.141	43	5.8	u	Fe I	3.07	463		7200.22 a	5	0.7		CN	Q 27	4,1	12
7189.45 a	3	0.4						7200.37	9	1.2		Atm H ₂ O	R 2	221	26
								7200.56	73	10.2		Atm H ₂ O	R 2	301	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7201.197	100	13.9		Atm H ₂ O	R 2	301	26	7215.539	6	0.8		Atm H ₂ O ⊙	R 2	202	26
7201.476	5	0.7		Atm H ₂ O	{Q 3 Q 7}	301 301	26	7216.19	22	3.0	S	Ti I	1.44	98	
7201.63	1.5	0.2		Atm H ₂ O	Q 2	301	26	7216.527	24	3.3		Atm H ₂ O	R 0	301	26
7201.80	3	0.4		Atm H ₂ O	R 2	320	26	7216.63	20	2.8	o?	Fe I	5.01	1273	
7202.208	124	16.6	s	Ca I	2.71	29		7217.28	0.5	0.1		Atm H ₂ O Co I?	Q 7 2.54	301 126	26
7202.543	1.5	0.2		Atm H ₂ O	Q 4	202	26	7217.63	4	0.6		Atm			
7202.900a	[1.5]	0.2		Atm H ₂ O	R 3	202	26	7218.022	7	1.0		Atm H ₂ O	Q 3	301	26
7203.10 a	1.5	0.2						7218.47	31	4.3	o?	⊙— Atm H ₂ O	Q 3	202	26
7203.27	1	0.1		Atm H ₂ O	P 6	400	26	7218.65	4	0.6		Atm H ₂ O	R 6	221	26
7203.850	12	1.7		Atm H ₂ O	R 1	202	26	7219.056	3	0.4		Atm H ₂ O	R 5	221	26
7204.08	1.5	0.2		Atm H ₂ O	Q 5	301	26	7219.40 m							13
7204.308	[82]	11.4		Atm H ₂ O	R 1	301	26	7219.680	53	7.1	s	Fe I	4.07	1001	
7204.85 a	2.5	0.3		Atm H ₂ O	Q 4	202	26	7220.12	1.5	0.2		Atm			
7205.22 a	1	0.1		Atm				7220.786	10	1.4		Ni I	5.36	294	
7205.536	2	0.3		Atm H ₂ O Fe I p	Q 6 4.73	202 1251	26	7221.204	49	6.1	w	Fe I	4.56	1189	
7206.15	3	0.4		Atm				7221.586r	0.5	0.1		Atm H ₂ O	Q 5	202	26
7206.421	102	14.2		Atm H ₂ O	R 1	301	26	7222.397	27	3.3	o	Fe II	3.89	73	
7206.861r	1	0.1		CN	Q 28	4,1	12	7222.90 a	24	3.3	w?	Fe I	{4.61 5.06}	1187 1311	
7207.131	72	10.4	u	Fe I	4.07	1001		7223.00	2	0.3		Atm H ₂ O	Q 6	301	26
7207.396	150	21.0	u	Fe I	4.15	1051		7223.636	101	14.0	u?	Atm H ₂ O [Fe I]	Q 2 3.02	301 463	26
7207.90 a	4	0.6		Atm H ₂ O	Q 2	202	26	7224.129r	3	0.4		Atm?			
7208.220	8	1.1		Si I	5.62	25		7224.464	28	3.9	o	Fe II	3.89	73	
7208.60 a	1.5	0.2		CN	R 37	4,1	12	7225.056	3.5	0.5	s?	Ni I?	5.61		
7209.504	81	11.2	u,d	Ti I— [Atm H ₂ O]	1.46 R 1	99 301	26	7225.85 a	5	0.7		Fe I p	4.99	1278	
7210.08	3	0.4		Atm?				7226.05	5	0.7					
7210.37 a	6	0.8		Atm H ₂ O	R 6	221	26	7226.208	46	6.4	o	Si I	5.61	26	
7211.203	12	1.7		Atm H ₂ O	Q 4	301	26	7227.493	42	5.8		Atm H ₂ O	Q 1	301	26
7212.037	4	0.6		Atm H ₂ O	R 0	202	26	7227.63	1.5	0.2		Atm H ₂ O	R 5	221	26
7212.440	34	4.3	w,N	Fe I	4.95	1273		7228.243	4.5	0.6		Atm H ₂ O	Q 5	301	26
7212.91	1	0.1		CN	P 24	4,1	12	7228.700	29	4.0	u	Fe I	2.76		267
7213.28	1	0.1		Atm?				7229.121	15	2.1		CN	{P 26 Q 32}	4,1 4,1	12
7213.41 m			S	Ti I	1.74	143	13	7229.46	7	1.0		Atm H ₂ O— ⊙	R 5	301	26
7213.51	3	0.4		CN	Q 30	4,1	12	7230.06	3	0.4		⊙?			
7213.847	9	1.2	w,N	Fe I	4.26	1105		7230.56	2	0.3		Cr I?	4.62		
7214.74	25	3.5	o?	Ti I p	2.59	101									
7214.93	13	1.8	s	Ti I	3.70?	314									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7230.677	2.5	0.3		Atm H ₂ O	R 3	301	26	7245.40	2	0.3		Atm H ₂ O	P 5	301	26
7231.06 a	2	0.3		Atm H ₂ O	R 6	221	26	7245.676	41	5.7		Atm H ₂ O	Q 4	301	26
7231.50 a	3.5	0.5						7245.90 a	2	0.3		CN	Q 34	4,1	12
7231.69	0.5	0.1		Atm H ₂ O	R 3	202	26	7246.09	2	0.3		Atm H ₂ O	P 2	202	26
7232.234	26	3.6		Atm H ₂ O	Q 4	301	26	7246.37 a	3	0.4		CN	{P 27 P 28}	{4,1 4,1}	12
7232.55 a	2	0.3		CN	R 40	4,1	12	7246.794	4	0.6		Atm H ₂ O	R 6	221	26
7232.902	89	12.3		Atm H ₂ O	Q 1	301	26	7247.07	5	0.7	s	Atm H ₂ O— \odot	Q 6	301	26
7233.33	2.5	0.3		CN	Q 49	3,0	12								
7234.09	1.5	0.2		Atm				7247.210	20	2.8		Atm H ₂ O	{Q 4 Q 5}	{301 301}	26
7234.400	18	2.5		Atm H ₂ O	Q 3	301	26	7247.39	2	0.3		Atm H ₂ O	R 4	221	26
7234.738	100	13.8		Atm H ₂ O	Q 2	301	26	7248.26 a	3	0.4		\odot ?			
7235.325	47	6.5	W	Si I	5.61	26		7248.924	13	1.8		Atm H ₂ O	{Q 4 R 4}	{301 221}	26
7235.85	31	4.3	w	Si I	5.61	25									
7236.136	38	5.3		Atm H ₂ O	Q 2	301	26	7249.34	4	0.6		Atm H ₂ O	Q 3	221	26
7236.425	7	1.0		Atm H ₂ O	R 5	221	26	7249.47			\odot				
7237.40	4.5	0.6		CN Hf I?	Q 33 0.57	4,1	12	7249.90 a	1.5	0.2		CN	R 42	4,1	12
7237.84	2	0.3		Atm H ₂ O	R 4	221	26	7250.216	23	3.2		Atm H ₂ O	Q 3	301	26
7237.946	5	0.7		Atm H ₂ O	R 4	221	26	7250.64	71	9.3	o	Si I	5.62	25	
7238.24	3	0.4		Atm?			7250.68	Atm H ₂ O			R 5	221	26		
7238.58	3	0.4		CN Atm?	R 40	4,1	12	7251.717	34	4.1	s	Ti I	1.43	99	
7239.042	8	1.1		Atm H ₂ O	R 7	221	26	7252.075	3	0.4	u?,N	—Atm H ₂ O	R 4	221	26
7239.50	1.5	0.2		Atm H ₂ O	R 5	221	26	7252.374	[77]	10.6		Atm H ₂ O	P 2	301	26
7239.848	75	10.4	u,N	Atm H ₂ O— Fe I	Q 2 4.21	301 1105	26	7252.853	[18]	2.5		Atm H ₂ O	Q 5	301	26
7240.53	2	0.3	u?	Atm H ₂ O	R 5	221	26	7253.224	34	4.7		Atm H ₂ O	P 2	301	26
7240.62	86	11.9		Atm H ₂ O	P 1	301	26	7253.42	2	0.3		Atm H ₂ O	Q 3	202	26
7240.822	67	9.3		Atm H ₂ O	Q 3	301	26	7253.728	42	5.8		Atm H ₂ O (Ti I)	Q 4 {1.75 2.16}	{301 143}	26
7241.26	2	0.3		Atm H ₂ O C I	Q 8 9.00	301	26	7254.648	32	4.4	u	Fe I			
7242.24	7	1.0		\odot				7254.93 a	1.5	0.2		CN—	P 28	4,1	12
7242.49	3	0.4		Si?	8.04	15		7255.29	3	0.4		Si I p	5.96	59	
7243.09	6	0.8		Si I	8.04	15		7255.42	4	0.6		CN	P 29	4,1	12
7243.48	26	3.6		Atm H ₂ O	Q 3	301	26	7255.79	5	0.7		CN	R 42	4,1	12
7243.72	88	12.2		Atm H ₂ O	Q 3	301	26	7256.142	17	2.3	w?	Fe I	4.95	1278	
7244.48	4	0.6		CN	Q 33	4,1	12	7256.58 a	2.5	0.3		Atm H ₂ O	R 1	221	26
7244.850	63	8.5	S	Ti I Fe I (Si)	1.44 4.95 8.04	99 1276 15		7256.80 a	0.5	0.1		Ni I	3.60	97	
								7256.99	2	0.3		Atm H ₂ O	P 3	202	26
								7257.104	9	1.2		Atm H ₂ O	Q 5	301	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7257.371	20	2.8		Atm H ₂ O	Q 5	301	26	7269.05 a	8	1.1		⊙?			
7257.934	31	4.3		⊙?— Atm H ₂ O	P 2	301	26	7269.752	15	2.1		Atm H ₂ O	R 3	221	26
7258.45	2.5	0.3		Atm?				7269.94	2	0.3		Atm H ₂ O	R 3	221	26
7258.65	4.5	0.6		Atm H ₂ O	R 3	221	26	7270.131	12	1.6		Atm H ₂ O	R 5	221	26
7258.90 a	3	0.4		Atm				7270.300	5	0.7		Atm H ₂ O	R 5	221	26
7259.10	5	0.7		Atm H ₂ O	R 3	221	26	7270.60 a	3	0.4					
7259.556	1	0.1		Atm H ₂ O	P 2	202	26	7270.95 a	4	0.6		Atm			
7260.066	3	0.4		Atm H ₂ O	R 4	221	26	7271.18	0.5	0.1		Atm?			
7260.066	3	0.4		Atm H ₂ O	R 4	221	26	7271.40 a	3	0.4					
7260.266	3	0.4		Atm H ₂ O	R 7	221	26	7271.55	6	0.8	s	Ti I	1.44	97	
7260.730	12	1.7		Atm H ₂ O	{Q 5 Q 6}	{301 301}	}26	7272.112	10	1.4		⊙			
7261.016	19	2.6		Fe I	2.73	267		7272.973	100	13.8		Atm H ₂ O	{P 3 P 3}	{301 301}	}26
7261.30	9	1.2		Fe I p	4.91	1273		7273.835	8	1.1		Atm H ₂ O	Q 7	301	26
7261.45	45	6.2	u	Atm H ₂ O	R 4	221	26	7274.259	3	0.4		Atm			
7261.52				Fe I	4.56	1188			7274.73 a	1.5	0.2		Atm H ₂ O	Q 5	221
7261.97	78	9.6	s	Ni I	1.95	62		7275.33	94	12.9	o?	{Si I Atm H ₂ O}	5.61	24	
7262.01				Atm H ₂ O	Q 5	301	26	7275.398							Atm H ₂ O
7262.272r	1	0.1		⊙?				7275.819	9	1.2		Atm H ₂ O	R 4	221	26
7262.47	0.5	0.1		Fe I? p	3.64	859		7276.316	19	2.6		Atm H ₂ O	R 4	221	26
7262.973	14	1.9		Atm H ₂ O	P 3	202	26	7276.560	11	1.5		Atm			
7263.380	3	0.4		Atm H ₂ O	Q 4	301	26	7276.850	14	1.9		Atm H ₂ O	P 4	202	26
7263.63	5	0.7		CN	{Q 36 P 29}	{4,1 4,1}	}12	7277.148	9	1.2		Atm H ₂ O	{Q 4 R 2}	{301 221}	}26
7264.04	1	0.1		⊙?				7277.402	73	10.0		Atm H ₂ O	P 4	301	26
7264.20 a	4	0.6		Y II	1.84	33		7278.085	25	3.4		Atm H ₂ O	P 4	301	26
7264.390	11	1.5		Atm H ₂ O	{R 3 R 6}	{221 221}	}26	7278.526	16	2.2		Atm Fe I p	4.99	1274	
7264.598	44	6.0		Atm H ₂ O	P 3	301	26	7278.792	4	0.6		Atm H ₂ O	Q 5	301	26
7264.90 a	3	0.4						7279.03 a	6	0.8		Atm H ₂ O	Q 5	202	26
7265.149	2	0.3		Atm (Fe II)	6.22	197		7279.38	5	0.7		CN	Q 37	4,1	12
7265.594	89	12.2		Atm H ₂ O	P 3	301	26	7279.698	8	1.1		Atm H ₂ O	R 2	221	26
7265.86	8	1.1		Atm H ₂ O	Q 4	202	26	7280.32	1.5	0.2		Atm H ₂ O	Q 5	202	26
7266.28	12	1.6	s	Ti I	1.73	143		7280.671	9	1.2		Atm H ₂ O	Q 3	221	26
7266.96	2	0.3		Fe I p	2.18	61		7280.967	4	0.5		Atm H ₂ O	R 2	221	26
7267.75	6	0.8		⊙?				7281.540	2	0.3		Atm H ₂ O	P 4	320	26
7268.05	1	0.1		Atm H ₂ O	Q 5	202	26	7282.02	4	0.5		Atm			
7268.217	3	0.4		Atm H ₂ O	Q 7	301	26	7282.302	48	6.6		Atm H ₂ O (Fe I)	R 3 5.01	221 1274	26
7268.566	8	1.1		Atm H ₂ O Fe I p	Q 3 3.88	202 957	26	7282.844	68	9.3	w, N	Si I—	6.20		

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7283.220	14	1.9		Atm H ₂ O	R 3	221	26	7295.031	39	5.4		Atm H ₂ O	P 4	301	26
7283.61	8	1.1						7295.28	4	0.5		Fe I p	4.61	1189	
7283.770	13	1.8	<i>o?</i>	Mn I	4.42	50		7295.610	6	0.8		Atm H ₂ O	P 4	301	26
7284.18	2	0.3		☉?				7295.78 a	2	0.3		CN	Q 9	5,2	12
7284.56	0.5	0.1		☉?				7296.265	6	0.8		Atm H ₂ O	Q 6	221	26
7284.842	41	5.6	<i>u</i>	Fe I	4.14	1004		7297.072	1.5	0.2		Atm H ₂ O	Q 4	221	26
7285.09	1	0.1	<i>s?,N</i>	☉				7297.33	2	0.3		Atm H ₂ O	Q 5	301	26
7285.305	25	3.4	<i>w,N</i>	Fe I	4.61	1188		7297.70	10	1.4		Atm? Ni I?	5.63	293	
7285.78 a	0.5	0.1		Atm?				7297.93	2	0.3		CN?	R 47	4,1	12
7285.98	4	0.5		Si I?	5.96	58		7298.169	8	1.1		Atm H ₂ O	R 1	320	26
7286.52	5	0.7		Ni I	3.77	109		7298.51	5	0.7		CN	Q 39	4,1	12
7286.90 a	1.5	0.2		CN?	R 16	5,2	12	7299.33 a	5	0.7					
7287.378	46	6.3		Atm H ₂ O (Fe II)	P 4 6.22	301 197	26	7299.643	14	1.9	<i>s</i>	Atm H ₂ O Ti I	R 1 1.43	221 97	26
7287.858	6	0.8		Atm H ₂ O	Q 5	301	26	7299.77	1	0.1		Atm H ₂ O	R 1	221	26
7288.132	28	3.8		Atm H ₂ O	P 4	301	26	7299.926	19	2.6		Atm H ₂ O	R 4	221	26
7288.47	3	0.4						7300.50	33	4.5		Fe I— Fe I	4.99 4.14	1275 1003	
7288.741	70	9.3	<i>u,N</i>	Fe I	4.22	1077		7300.63	6	0.8		Atm H ₂ O	Q 7	221	26
7289.188	116	14.6	<i>w,N</i>	Si I	5.62	24		7300.874	8	1.1		Atm H ₂ O	Q 6	301	26
7289.53	9	1.2		Atm				7301.262	4	0.5		Atm H ₂ O	Q 6	202	26
7289.818	8	1.1		Atm H ₂ O	R 2	221	26	7301.577	7	1.0	<i>o</i>	Fe II	3.89	72	
7290.25 a	4	0.5		Si I	5.62	24		7302.129	8	1.1		Atm H ₂ O	P 5	301	26
7290.415	91	12.5		Atm H ₂ O	{P 5 P 5}	{301 301}	}26	7302.348	3	0.4		CN Atm H ₂ O	Q 40 Q 5	4,1 221	12 26
7290.895	16	2.2		Atm? Ni I	5.34	287		7302.603	4	0.5		Atm H ₂ O	Q 5	221	26
7291.098	25	3.4		Atm H ₂ O (Mg I)	R 2 5.39	221	26	7302.777	16	2.2	<i>o</i>	Atm H ₂ O	P 3	202	26
7291.438	47	6.5	<i>u</i>	Atm H ₂ O— Ni I	P 5 1.93	202 63	26	7302.88				Mn I	4.43	50	
7291.75	4	0.5		Atm H ₂ O?	P 3	202	26	7303.197	42	5.8		Atm H ₂ O	P 5	301	26
7292.172	19	2.6		Atm H ₂ O	P 4	301	26	7303.76	7	1.0		Atm H ₂ O	P 6	202	26
7292.695	7	1.0		Atm H ₂ O	Q 5	221	26	7304.134	15	2.1		Atm H ₂ O	P 6	301	26
7292.841	47	6.7	<i>u</i>	Fe I	4.56	1189		7304.214	42	5.8		Atm H ₂ O	P 6	301	26
7293.052	85	12.0	<i>u</i>	Fe I	4.26	1077		7304.80	1	0.1		Atm H ₂ O	Q 5	202	26
7293.372	8	1.1		Atm H ₂ O	R 1	221	26	7304.954	3	0.4	<i>s</i>	☉ Atm H ₂ O	Q 6	221	26
7293.889	3	0.4		Atm H ₂ O	Q 7	301	26	7305.628	3	0.4		Atm H ₂ O	P 3	301	26
7294.20	1	0.1		Atm H ₂ O	Q 4	301	26	7305.873	3	0.4	<i>s</i>	Ti I	1.73	143	
7294.364	4	0.5		Atm H ₂ O	P 5	202	26	7306.03	1.5	0.2		Atm H ₂ O	Q 3	221	26
7294.863	2	0.3		Atm H ₂ O	Q 6	301	26	7306.570	43	5.5	<i>u</i>	Fe I	4.18	1077	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7307.48	4	0.5		☉				7320.689	72	10.1	W	Fe I	{4.56	1188	
7307.960	52	7.4	u	Fe I Fe II	4.14 3.89	1002 73						Fe II	{4.91 3.89	{1276 73	
7308.08	26	3.7	u	☉				7320.846	19	2.7		Atm H ₂ O	Q 3	221	26
7308.50 a	4.5	0.6		CN	Q 40	4,1	12	7321.27 a	2.5	0.3					
7308.757	17	2.3		Atm H ₂ O	Q 3	221	26	7321.44	1	0.1	s	V I	2.12	117	
7309.518	37	5.1		Atm H ₂ O	P 5	301	26	7321.52	2	0.3		Atm?			
7310.201	23	3.2		Atm H ₂ O Fe II	Q 4 3.89	221 73	26	7322.201	4	0.5		Atm			
7310.402	2	0.2		Atm H ₂ O	R 0	221	26	7323.10	3	0.4		Atm H ₂ O	Q 6	221	26
7310.62	3	0.4		Atm H ₂ O	Q 6	221	26	7323.354	9	1.2		CN Fe I? p	Q 42 3.64	{4.1 859	12
7310.73 a	2.5	0.3						7323.972	31	4.2		Atm H ₂ O ☉	Q 1	221	26
7311.080	67	9.2	s	Fe I	4.28	1077		7324.29	5	0.7		CN	R 49	4,1	12
7311.265	28	4.0		Fe I p Atm H ₂ O	4.26 Q 4	1105 221	26	7324.680	10	1.4	u	Atm H ₂ O ☉	P 6	202	26
7311.484	1	0.1		Atm H ₂ O	Q 4	221	26	7325.28	2	0.3		CN? Fe I p	Q 56 3.93	{3.0 980	12
7311.64	5	0.7		☉?				7325.56	4	0.5		☉?			
7311.80 a	2	0.2		CN	P 34	4,1	12	7325.89 a	1	0.1		CN	P 36	4,1	12
7312.08	6	0.8		Fe I p	5.03	1310		7326.160	136	16.9	S	Ca I	2.93	44	
7312.270	1	0.1		Atm H ₂ O	Q 7	301	26	7326.456	25	3.4	u,N	Mn I Atm	4.43	50	
7312.616	20	2.7		Atm H ₂ O	P 5	301	26	7326.713	2	0.3		Atm H ₂ O	P 7	202	26
7312.962	6	0.8		Atm H ₂ O	Q 6	202	26	7326.713	2	0.3		Atm H ₂ O	P 7	202	26
7313.176	6	0.8		Atm H ₂ O	Q 2	221	26	7327.104	11	1.5		Atm H ₂ O	P 6	301	26
7313.50 a	2.5	0.3		Atm H ₂ O	P 5	202	26	7327.370	11	1.5		Atm H ₂ O	P 6	301	26
7313.72 a	1	0.1		CN	R 48	4,1	12	7327.650	18	2.5		Ni I	3.80	140	
7314.545	5	0.7		Atm H ₂ O	Q 3	221	26	7328.25	1.5	0.2		Atm H ₂ O	Q 4	221	26
7314.96	1	0.1		CN	P 35	4,1	12	7328.45 a	1.5	0.2					
7315.516	32	4.4		Atm H ₂ O Fe I	Q 2 4.28	221 1105	26	7328.828	5	0.7		CN	Q 21	5,2	12
7315.886	2.5	0.3		Atm H ₂ O	Q 5	221	26	7329.30 a	5	0.7		Atm H ₂ O— CN	P 4 Q 42	{202 4,1	{26 12
7316.41	3	0.4		☉ Atm H ₂ O	P 3	202	26	7330.150	17	2.3		Fe I	4.64	1187	
7316.739	16	2.2		Fe I	2.69	267		7330.34	5	0.7		☉?			
7316.858	5	0.7		Atm H ₂ O	Q 2	221	26	7330.859	68	9.3		Atm H ₂ O	{P 6 Q 2	{301 221	}26
7317.291	21	2.9		Atm H ₂ O	P 6	301	26	7331.04	0.5	0.1	s	Ti I	1.74	143	
7317.43	13	1.8		Fe I	5.01	1278		7332.28	1.5	0.2	s,N	Ti I	1.75	143	
7318.09	13	1.8		Atm H ₂ O	{P 6 Q 1	{301 221	}26	7332.49	2	0.3		Cr I?	5.15		
7318.382	17	2.3	s,d	Atm H ₂ O Ti I	P 7 2.25	301 212	26	7332.74	1.5	0.2		Atm H ₂ O	P 3	301	26
7318.692	33	4.5		Atm H ₂ O	P 7	301	26	7332.905	6	0.8		Atm H ₂ O	P 7	301	26
				Atm H ₂ O	P 7	301	26	7333.049	8	1.1		Atm H ₂ O	P 7	301	26

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7333.58	36	4.9		Fe I	4.26	1078		7347.309	1	0.1		Atm			
7333.684	24	3.3		Atm H ₂ O	P 8	301	26	7348.047	3.5	0.5		Atm H ₂ O	P 2	221	26
7334.25	4	0.5		CN	{Q 43 Q 20}	{4,1 5,2}	12	7348.214	3	0.4		Atm			
7334.62	1.5	0.2		Fe II CN	7.27 Q 22	209 5,2	12	7348.51	5	0.7		CN? Fe I p	P 38 4.14	4,1 1004	12
7334.91	1.5	0.2		☉?				7348.76	0.5	0.1		Atm			
7335.335	16	2.2		Atm H ₂ O	{P 6 P 1}	{301 221}	26	7349.249	7	1.0		Atm H ₂ O	{P 8 P 2}	{301 221}	26
7335.712	6	0.8		Atm H ₂ O	P 6	301	26	7349.493	8	1.1		Atm H ₂ O	P 9	301	26
7336.02	1.5	0.2		☉?				7350.088	5	0.7		Atm H ₂ O	P 7	301	26
7337.043	5	0.7		Atm CN	P 37	4,1	12	7350.49	5	0.7		CN Fe I p	Q 23 3.05	5,2 509	12
7337.78	[2]	0.3	s	Ti I p	2.24	212		7351.113	48	6.5	w	Fe I	4.99	1273	
7338.07	1.5	0.2		CN	R 29	5,2	12	7351.519	62	8.4	w	Fe I	4.95	1275	
7338.94	2	0.3	s	V I	2.14	117		7352.14	6	0.8	S	Ti I	2.49	272	
7339.340	3	0.4		Atm H ₂ O CN	Q 5 Q 21	221 5,2	26 12	7352.72 a	[3]	0.4					
7339.67	1.5	0.2		CN?	Q 57	3,0	12	7352.791	5	0.7	w,N	☉ Atm H ₂ O	P 7	301	26
7339.90	1.5	0.2		☉?				7352.90 a	3	0.4					
7340.188	[2.5]	0.3	u	Atm H ₂ O CN	P 6 Q 43	301 4,1	26 12	7353.03	1.5	0.2		Atm H ₂ O	P 5	202	26
7340.60	1.5	0.2		CN	Q 23	5,2	12	7353.213	2.5	0.3		Atm H ₂ O	{P 4 Q 6}	{202 221}	26
7341.351	3	0.4		Atm H ₂ O	Q 3	221	26	7353.379	2.5	0.3	s	CN Atm H ₂ O	Q 25 P 4	5,2 202	12 26
7341.78	1	0.1	s	Atm H ₂ O Fe I p	P 5 4.99	202 1307	26	7353.507	37	5.0	u	Fe I	4.73	1251	
7342.317	6	0.8		CN	R 31	5,2	12	7353.923	7	1.0		Atm H ₂ O ☉?	P 7	301	26
7343.226	20	2.7		☉				7354.26 a	2	0.3		CN	Q 58	3,0	12
7343.52 a	2.5	0.3						7354.606	6	0.8	u,d?	Atm H ₂ O Co I	P 3 1.88	221 53	26
7343.63 a	1	0.1		Atm?				7355.108	4	0.5	s?	☉			
7343.939	21	2.9		Atm H ₂ O	P 2	221	26	7355.457	22	3.0	w,N	Atm H ₂ O Ti II p	P 5 2.60	301 101	26
7344.200	14	1.9	u	Fe I— Atm H ₂ O	2.73 P 7	266 301	26	7355.891	79	9.8	S	Cr I	2.89	93	
7344.46	1	0.1		CN	P 16	5,2	12	7356.262	10	1.4		Atm H ₂ O	P 3	221	26
7344.759	40	5.4	S,d	Ti I— Atm H ₂ O	1.46 P 7	97 301	26	7356.40	4	0.5	s	CN— V I	Q 24 2.13	5,2 117	12
7345.21	5	0.7		Dy II?				7356.76	[2]	0.3		Fe I p	4.64	1187	
7345.42	4	0.5		CN	Q 44	4,1	12	7356.95 a	2.5	0.3		CN	Q 45	4,1	12
7346.37 a	2	0.3						7357.097	[5]	0.7		Ti I? p Atm H ₂ O	1.05 P 3	221	26
7346.56	1.5	0.2		CN	R 51	4,1	12	7357.739	26	3.5	S	Ti I	1.44	97	
7346.87 a	2	0.3		CN Fe I p	Q 24 3.30	5,2	12	7358.26	3.5	0.5		☉?			
7347.17 a	4	0.5		Fe I p	2.76	266									

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7358.856	5	0.7		Atm H ₂ O ☉?	P 3	320	26	7370.798	0.5	0.1		Atm H ₂ O	P 8	301	26
7359.983	6	0.8		Fe I	4.99	1310		7371.496	7	1.0		Atm H ₂ O	P 4	221	26
7360.13 a	3	0.4		CN	{P 39 Q 26}	{4,1 5,2}	12	7372.13 a	2	0.3		CN	P 40	4,1	12
7360.347	9	1.2		Atm H ₂ O	P 3	221	26	7372.383	1	0.1		Atm? Nb I?	1.41		
7360.70	0.5	0.1	s	☉				7373.011	42	5.7	w,N	Si I— Fe I p	5.98 2.28	58 108	
7361.029	4	0.5		Atm H ₂ O	P 4	221	26	7373.25	4	0.5		Atm H ₂ O	P 8	301	26
7361.550	31	4.2	s	Al I Ti I p	4.02 2.25	11 212		7373.622	8	1.1		Atm H ₂ O	P 4	221	26
7361.782	4	0.5		☉				7374.29	7	1.0	S	CN—	Q 46	4,1	12
7361.994	3	0.4		Atm H ₂ O	P 5	301	26	7374.45 a	2.5	0.3		CN— Atm?	Q 28	5,2	12
7362.291	43	5.8	s	Al I	4.02	11		7375.251	45	6.1	s,N	☉			
7362.568	14	1.9		CN CN Atm H ₂ O	Q 45 Q 25 P 8	4,1 5,2 301	12 12 26	7375.932	5	0.7		CN	Q 27	5,2	12
7362.95	8	1.1		Atm H ₂ O Si I?	Q 3 5.98	221	26	7376.275	2	0.3	o?	CN	P 21	5,2	12
7362.95	8	1.1		Atm H ₂ O Si I?	Q 3 5.98	221	26	7376.494	39	5.3	o?	Fe II Fe I			
7363.742	11	1.5		Atm H ₂ O	P 3	221	26	7377.01	6	0.8		CN?	{R 54 R 35}	{4,1 5,2}	12
7363.916	41	5.8	o	Fe I	4.95	1274		7377.57	3	0.4		CN?	R 36	5,2	12
7364.106	24	3.4	S	Ti I	1.43	97		7377.865	5	0.7		Atm H ₂ O ☉?	P 4	221	26
7364.38	0.5	0.1		Atm?				7378.332	4	0.5		Atm H ₂ O	P 5	221	26
7364.75	5	0.7		CN C I?	R 53 9.00	4,1	12	7378.77	1.5	0.2		Atm H ₂ O	P 40	4,1	12
7365.305	6	0.8		Atm H ₂ O	P 9	301	26	7380.10	2	0.3		CN	P 40	4,1	12
7365.70	8	1.1		☉? Atm				7380.492	1	0.1		Atm H ₂ O	P 9	301	26
7366.036	1	0.1		Atm?				7380.73	3	0.4		CN	Q 47	4,1	12
7366.367	19	2.6		Fe I	4.64	1188		7381.342	10	1.4		☉			
7366.602	3	0.4	S,N	Atm Ti I	1.43	96		7381.504	2	0.3		Atm H ₂ O	P 6	221	26
7366.83	7	1.0		CN	P 39	4,1	12	7381.942	26	3.5	W	Ni I	5.36	292	
7367.21	1.5	0.2		CN	Q 27	5,2	12	7382.357	3	0.4		Atm H ₂ O	P 5	221	26
7367.76	2.5	0.3		☉?				7382.614	11	1.5	u	Fe I Atm H ₂ O	2.69 P 5	266 221	26
7368.468	6	0.8		Atm H ₂ O	P 4	221	26	7382.933	35	4.7	u	Fe I CN	{4.59 4.61 Q 28}	1188 5,2	12
7368.75 a	2.5	0.3		CN	Q 46	4,1	12	7383.350	1.5	0.2		Atm H ₂ O	P 11	301	26
7368.97 a	2	0.3						7383.54	1.5	0.2		CN Atm?	P 22	5,2	12
7369.206	18	2.4		Atm H ₂ O	P 4	221	26	7383.721	9	1.2		Atm H ₂ O	P 5	221	26
7369.60	1	0.1		Atm H ₂ O?	P 5	202	26	7384.45	5	0.7		CN	{Q 60 P 41 R 36}	{3,0 4,1 5,2}	12
7369.88	6	0.8		CN— CN	R 53 R 35	4,1 5,2	12 12	7384.77	1	0.1					
7370.119	24	3.2	w,d?	Atm H ₂ O— Fe I	{Q 4 Q 5 4.73}	{221 221 1250}	26								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7385.244	52	7.0	<i>u</i>	Ni I	2.74	84		7398.96	2	0.3		Fe I p	4.99	1306	
7385.51	3	0.4		CN Fe I p	R 37 4.79	5,2 1251	12	7399.308	2	0.3		Atm H ₂ O	P 7	221	26
7385.89	6	0.8		☉?				7400.188	89	11.1	<i>S</i>	Cr I	2.90	93	
7386.201	16	2.8		Ni I	5.34	286		7400.48	1	0.1					
7386.336	94	12.7	<i>w</i>	Fe I	4.91	1275		7400.851	8	1.1		Fe I p	2.61	204	
7386.66	3	0.4		Atm?				7401.134	19	2.6	<i>w</i>	Ni I	5.36	291	
7387.00 a	5	0.7		Mg I Atm H ₂ O	5.75 P 7	301	26	7401.46	0.5	0.1		Atm H ₂ O	P 3	221	26
7387.25 a	2.5	0.3						7401.691	48	6.5	<i>u</i>	Fe I	4.19	1004	
7387.700	118	16.0	<i>w</i>	Mg I	5.75	30		7401.96	2	0.3		Atm? CN	R 39	5,2	12
7388.15 a	7	1.0						7402.155	8	1.1		CN	R 56	4,1	12
7388.605	13	1.8	<i>s, N</i>	Atm H ₂ O— Co I	P 7 2.72	221 139	26	7403.33	1	0.1		CN?	P 42	4,1	12
7389.391	144	18.1	<i>w</i>	Fe I p— Fe I	4.91 4.30	1274 1077		7403.857	1.5	0.2		Atm H ₂ O	P 6	221	26
7389.66 a	3.5	0.5						7405.17	1	0.1		Atm?			
7389.88	9	1.2		CN	Q 30	5,2	12	7405.790	108	13.6	<i>W</i>	Si I	5.61	23	
7390.241	7	1.0		Atm H ₂ O	P 5	221	26	7406.289	4.5	0.6		CN Atm H ₂ O	Q 32 P 6	5,2 221	12 26
7390.88	1	0.1		Atm? CN?	P 41	4,1	12	7406.61	1.5	0.2		Atm H ₂ O	P 8	221	26
7391.270	6	0.8		Atm H ₂ O	P 5	221	26	7407.06	[1.5]	0.2		Atm?			
7391.48	2	0.3		Atm?				7408.135	1	0.1		Atm H ₂ O	P 7	301	26
7391.717	7	1.0		Atm H ₂ O ☉	P 6	221	26	7408.43	3	0.4		CN	R 39	5,2	12
7392.13	4	0.5		CN?	R 37	5,2	12	7408.78	0.5	0.1		Atm?			
7392.654	2	0.3		Atm H ₂ O	P 5	202	26	7409.100	72	10.2	<i>W, N</i>	Si I	5.61	23	
7393.111	4	0.5		CN	Q 48	4,1	12	7409.352	98	12.3	<i>W</i>	Ni I	3.80	139	
7393.609	[112]	14.1	<i>w</i>	Ni I	3.61	109		7409.99	2	0.3		CN	P 43	4,1	12
7393.85 a	6	0.8						7410.324	3	0.4		Atm H ₂ O	P 7	221	26
7394.06 a	3	0.4						7410.733	4	0.5		Atm H ₂ O	P 7	221	26
7395.539	[11]	1.5		Atm (Si I)	5.95			7411.162	140	17.1	<i>w</i>	Fe I	4.28	1077	
7396.053	6	0.8		Atm H ₂ O	P 6	221	26	7413.06	4	0.5		☉?			
7396.526	14	1.9	<i>o?</i>	Fe I p	4.99	1278		7413.52	1.5	0.2		Atm?			
7396.752	2	0.3		Atm H ₂ O	P 6	221	26	7414.00	3	0.4		CN	Q 32	5,2	12
7397.123	5	0.7		Atm H ₂ O	P 6	221	26	7414.514	76	9.6	<i>u</i>	Ni I	1.99	62	
7397.535	1	0.1		☉				7414.93	3	0.4		CN	Q 33	5,2	12
7397.939	4	0.5		CN	Q 31	5,2	12	7415.193	13	1.8	<i>u</i>	Fe I p CN?	4.99 P 26	1308 5,2	12
7398.52	2	0.3		CN	Q 48	4,1	12	7415.363	28	3.8	<i>o?</i>	Si I	5.61	23	
7398.76	2	0.3		Fe I p CN?	3.43 P 24	684 5,2	12	7415.68	3	0.4					
								7415.958	118	14.3	<i>W, N</i>	Si I	5.61	22	
								7417.06	1.5	0.2		CN Ti I p	R 40 1.07	5,2	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7417.39	12	1.6	<i>s,N</i>	Co I	2.04	89		7435.584	32	4.3	<i>W,N</i>	☉			
7418.330	4	0.5		Fe I p	4.14	1002		7435.95	2	0.3		☉?			
7418.672	49	6.3	<i>w</i>	Fe I	4.14	1001		7437.07	3	0.4		Co I?	1.96	53	
7419.31	6	0.8		Ni I	5.49	287		7437.608	7	0.9		☉			
7419.670	4	0.5		CN	R 41	5,2	12	7437.87	1	0.1		Atm?			
7420.241	4	0.5	<i>s</i>	Fe I p	5.08	1307		7438.38	2	0.3		CN Fe I?	R 43	5,2	12
7420.75 a	1.5	0.2						7439.24	0.5	0.1	<i>s,N</i>	☉			
7421.030	2	0.3		Atm H ₂ O	P 7	221	26	7439.87 m			<i>S</i>	Zr I	0.54	23	13
7421.560	20	2.7	<i>o</i>	Fe I	4.64	1188		7440.253	7	0.9		CN— Atm?	Q 35	5,2	12
7421.86	1	0.1		☉?				7440.58	3	0.4	<i>S</i>	Ti I	2.25	225	
7422.286	106	13.4	<i>w</i>	Ni I	3.63	139		7440.919	68	8.4	<i>w</i>	Fe I	4.91	1273	
7422.77	[3]	0.4		☉?— Atm H ₂ O	P 4	221	26	7441.81	2	0.3		☉?			
7423.16	1.5	0.2	<i>s</i>	Ti I	1.44	97		7442.23	3	0.4		N I	10.33	3	
7423.509	120	15.2	<i>W</i>	Si I (N I)	5.62 10.32	23 3		7442.47	2	0.3	<i>s?</i>	CN	Q 36	5,2	12
7423.842	10	1.3		CN	{Q 50 Q 34}	{4,1 5,2}	}12	7442.71	1	0.1		Atm H ₂ O	P 8	221	26
7424.27	2	0.3		Atm?				7443.026	38	5.1	<i>w</i>	Fe I	4.19	1002	
7424.647	22	3.0	<i>u,N</i>	Si I Atm H ₂ O	5.62 P 8	23 221	26	7443.25	7	0.9		Fe I p	5.08	1309	
7425.048	0.5	0.1		—Fe II? p	7.27	209		7444.47	[1.5]	0.2		CN	R 43	5,2	12
7425.560	1	0.1		Atm				7445.758	178	21.4	<i>w</i>	Fe I	4.26	1077	
7425.850	1	0.1		Atm H ₂ O	P 8	221	26	7446.99	1.5	0.2		Atm?			
7427.562	8	1.1	<i>w</i>	☉				7447.400	38	5.1	<i>s</i>	Fe I	4.95	1273	
7427.98 a	2	0.3						7447.912	20	2.7	<i>o</i>	—Fe I p	5.52	1352	
7429.78 a	2	0.3						7448.20	2.5	0.3		CN Ca I	R 44 3.91	5,2	12
7430.553	14	1.9	<i>s</i>	Fe I	2.59	204		7448.92	2.5	0.3		☉?			
7430.846	32	4.3	<i>o</i>	Fe I— Fe I Si I p	5.48 4.61 5.61	1351 1189 23		7449.338	24	3.2	<i>w</i>	Fe II	3.89	73	
7431.19	2	0.3		CN?	Q 34	5,2	12	7450.33	11	1.5		Y II	1.75	25	
7431.599	14	1.9	<i>u</i>					7451.478	3	0.4		CN—	P 30	5,2	12
7431.97	1.5	0.2	<i>s</i>	CN? Ti I p Fe I p	Q 51 1.74 4.64	4,1 142 1189	12	7452.110	11	1.5	<i>o</i>	Fe I p	5.06	1303	
7432.19 a	4	0.5	<i>o</i>	CN?	Q 63	3,0	12	7452.96	2.5	0.3		CN	P 31	5,2	12
7432.44	4	0.5		☉?				7454.004	11	1.5	<i>w</i>	Fe I	4.19	1001	
7432.98 a	2	0.3	<i>w,N</i>	CN	Q 35	5,2	12	7455.389	8	1.1	<i>o</i>	Si I	5.96		
7433.460	[6]	0.8	<i>u,N</i>	Ni I Ti I p	5.41 0.81	280		7456.28 a	1.5	0.2	<i>S?</i>	CN— Ti I p	P 46 0.82	4,1	12
7434.58	[0.5]	0.1	<i>s</i>	☉				7457.354	5	0.7		Co I?	3.93		
7435.08	2	0.3	<i>s</i>	☉				7458.00	1.5	0.2		☉?			
								7458.384	1	0.1		Atm H ₂ O	P 10	221	26
								7459.00 a	2	0.3		CN	Q 37	5,2	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7459.33 a	0.5	0.1		CN	Q 53	4,1	12	7483.415	9	1.2		C I	8.77		
7460.549	4	0.5		⊙				7484.308	9	1.2	o?	Fe I p	5.08	1306	
7461.25	2	0.3		CN— Fe I p	P 31 5.51	5,2 1352	12	7484.68	1.5	0.2		CN CN	P 48 P 34	4,1 5,2	12 12
7461.527	26	3.5	s	Fe I	2.56	204		7485.00	<2.5	<0.3		⊙?			
7462.342	119	15.0	s	Cr I (Fe II)	2.91 3.89	93 73		7485.14	1.5	0.2		CN— CN	R 47 R 62	5,2 4,1	12 12
7463.19	1	0.1		CN Atm?	P 32	5,2	12	7486.118	5	0.7		Fe I p	3.88	980	
7463.395	8	1.1	o?	Fe I p	5.06	1307		7486.667	13	1.8		⊙			
7463.99	1.5	0.2	s	⊙				7488.00	2	0.3		CN	Q 55	4,1	12
7464.268	12	1.6	o	Si I? p	8.04			7488.706	3	0.4		Ni I	3.83	157	
7465.85	3	0.4		⊙				7488.92	1.5	0.2		Atm?			
7466.533	5	0.7	s, NN	Ti I p—	1.74	142		7489.569	9	1.2	S	CN— Ti I	Q 40 2.25	5,2 225	12
7467.51	1	0.1		Atm?				7490.84	4	0.5		Fe I p— Si I?	3.30 6.12		
7468.27	4	0.5	o	N I	10.33	3		7491.08	3	0.4		Si I p	5.96		
7468.927	2	0.3	s	CN	Q 38	5,2	12	7491.652	71	9.1	s	Fe I	4.30	1077	
7470.05	1	0.1	S	Ti I p	0.84			7492.333	2	0.3		CN	P 34	5,2	12
7470.61	1	0.1		CN	R 61	4,1	12	7492.941	2	0.3		⊙?			
7471.34	2	0.3	s	Ti I p	0.81			7493.11	1.5	0.2		Atm?			
7471.757	2	0.3		Fe I p	2.73	267		7493.58	2	0.3		CN	P 49	4,1	12
7472.755	16	2.2		⊙				7493.940	3	0.4		CN	Q 41	5,2	12
7473.563	23	3.1	w	Fe I	4.61	1188		7494.404	13	1.7	o	⊙			
7474.513	6	0.8		Fe I p— Fe I p	3.98 3.93	957 980		7494.74	1.5	0.2		Fe I p	1.56	33	
7474.92	1.5	0.2	s, N	Ti I	1.75	142		7495.077	174	22.5	u	Fe I	4.22	1077	
7475.87	0.5	0.1	s	⊙				7495.66	1	0.1		Fe I p CN	4.99 P 35	1275 5,2	12
7476.149	12	1.6	o	C I	8.77			7496.12	6	0.8	S	Ti I	2.24	225	
7476.376	18	2.4	s	Fe I	4.79	1251		7497.44	1	0.1		⊙?			
7477.595	21	2.8	u, N	Fe I p	3.88	957		7498.535	21	2.8	u	Fe I	4.14	1001	
7478.84	3	0.4	s, N	CN Fe I p	P 48 3.37	4,1 683	12	7498.78	1	0.1		⊙?			
7479.10	2	0.3	s	CN—	Q 39	5,2	12	7499.18	4	0.5		CN	P 49	4,1	12
7479.701	11	1.5	o	Fe II p	3.89	72		7500.242	4	0.5		CN	{R 63 Q 41}	{4,1 5,2}	{12 }
7480.816	5	0.7		Atm H ₂ O	P 5	221	26	7500.55	<3	<0.4		⊙?			
7481.478	13	1.8	w	Ni I	5.49	286		7501.280	3	0.4		Fe I p	4.19	1002	
7481.736	5	0.7		Fe I p	2.76	266		7501.76	5	0.7		CN— Ni I?	R 49 5.59	5,2 282	12
7481.934	15	2.0	s, N?	Fe I	4.79	1250		7502.78	1.5	0.2	S	CN—	Q 56	4,1	12
7482.213	20	2.7	u	Si I Fe I p	5.86 5.08	1308		7503.31	2	0.3		CN	P 35	5,2	12
7482.871	3	0.4		⊙											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7503.94	2.5	0.3		☉				7528.18	4	0.5	s	Fe I p— CN	5.03 Q 44	1307 5,2	12
7504.276	8	1.1		☉				7528.41	2	0.3		☉?			
7504.940	10	1.3	<i>o?</i>	Si I? p	5.96			7529.48	2.5	0.3		CN	{P 51 Q 24}	4,1 6,3	}12
7505.19	3	0.4		CN	Q 42	5,2	12	7530.58	2	0.3		Atm			
7506.030	26	3.5	<i>u, N</i>	Fe I	5.06	1306		7531.153	101	12.9	s	Fe I	4.37	1137	
7507.273	67	8.1	<i>u</i>	Fe I	4.41	1137		7531.789	20	2.7	<i>o</i>	☉			
7507.80 a	2	0.3						7532.12	2	0.3		☉?			
7508.60	2	0.3		CN Fe I p	P 50 4.99	4,1 1274	12	7533.373	18	2.4	<i>u</i>	CN— Fe II	Q 58 3.90	4,1 72	12
7511.031	221	27.3	<i>u</i>	Fe I	4.18	1077		7534.28	3	0.4		☉			
7511.51	3	0.4		☉?				7534.60 a	2.5	0.3		Ni I?	5.51		
7511.80	1	0.1		☉?				7534.85	3	0.4		Fe II p	3.94	87	
7512.166	5	0.7		Fe I p	{2.28 4.14}	108 1001		7536.25 a	1.5	0.2					
7512.77	1.5	0.2		☉?				7537.475	6	0.8		Fe I?	4.07	1000	
7513.16	1.5	0.2		CN	R 50	5,2	12	7537.96	1.5	0.2		CN— Fe I p	P 38 5.52	5,2 1352	12
7514.205	19	2.5	<i>w</i>	☉				7538.17 a	1.5	0.2					
7514.54	1.5	0.2		CN Atm?	P 36	5,2	12	7539.52	2	0.3		CN? CN?	P 52 Q 24	4,1 6,3	12
7515.10	4	0.5		☉?				7540.444	8	1.1	s	Fe I	2.73	266	
7515.43	1.5	0.2		☉?				7541.57	3	0.4		Fe I	3.94	957	
7515.837	15	2.0	<i>o</i>	Fe II	3.90	73		7541.920	9	1.2	<i>w</i>	☉			
7516.21	2	0.3		CN?	Q 20	6,3	12	7545.63 a	5	0.7		—Ni I	5.61	287	
7516.623	3	0.4		CN	Q 43	5,2	12	7546.183	40	5.3	s	Fe I			
7516.82	6	0.8		☉?				7546.63	1.5	0.2		☉?			
7517.96 a	2	0.3		CN Atm?	Q 57	4,1	12	7547.00	4	0.5		☉?			
7518.66	2	0.3		CN	{Q 68 R 50}	3,0 5,2	}12	7547.38	4	0.5		☉?			
7519.89	5	0.7		Fe I				7547.904	24	3.2	<i>w</i>	Fe I	5.10	1306	
7521.06	5	0.7	<i>w, N</i>	Ni I	5.51	282		7549.08	1	0.1		CN	Q 59	4,1	12
7521.58	2	0.3		CN?	Q 21	6,3	12	7549.82	1	0.1		CN	R 53	5,2	12
7522.778	84	10.8	<i>u</i>	Ni I	3.66	126		7550.13 a	1	0.1		CN	P 39	5,2	12
7523.217	20	2.7	<i>w</i>	☉				7551.108	9	1.2	<i>w</i>	Fe I p	5.08	1303	
7523.93	1	0.1		CN	P 51	4,1	12	7552.501	9	1.2	<i>u</i>	Ni I p	5.61	286	
7525.118	73	9.7	s	Ni I	3.63	139		7552.795	2	0.2	s	Fe I p— CN	5.03 Q 46	1303 5,2	12
7526.10	1.5	0.2		CN	P 37	5,2	12	7553.42	1.5	0.2					
7526.43	1	0.1		☉?				7553.953	4	0.5		Co I?	3.95	183	
7526.67	3	0.4		Fe I p	5.51	1352		7554.841	13	1.7	<i>u, N</i>	☉			
7527.26	1	0.1		CN?	Q 22	6,3	12	7555.607	98	12.7	<i>u</i>	Ni I	3.85	187	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7557.695	9	1.2		☉				7583.12	1.5	0.2		CN?	{Q 30 Q 31 5.98	6,3 6,3	}12
7558.16	6	0.8		☉?								Si I p			
7558.87	1.5	0.2		☉?				7583.796	81	11.0	<i>u</i>	Fe I	3.02	402	
7559.705	34	4.5	<i>u, d</i>	[Fe I Ni I	5.06 5.52	1308 292		7584.29	1.5	0.2		☉?			
7561.00 a	0.5	0.1		Atm?				7584.77	1	0.1		Atm?			
7562.62	1	0.1		CN	P 40	5,2	12	7586.027S	132	17.5	<i>u</i>	Fe I	4.31	1137	
7563.016	16	2.1	<i>u</i>	Fe I	4.83	1251		7586.52	0.5	0.1		☉?			
7563.66	1	0.1		☉?				7586.70 a	2	0.3		Co I	2.87	139	
7564.498	5	0.7		☉				7586.92	1	0.1		Atm?			
7564.95 a	1.5	0.2		Co I	4.91			7588.310	28	3.7	<i>u</i>	Fe I	5.03	1306	
7565.21	1.5	0.2		☉?				7588.849	9	1.2	<i>u</i>	Fe I?			
7565.534	8	1.1		CN?—	Q 47	5,2	12	7590.76	2	0.3		Atm? CN?	Q 31	6,3	12
7566.34	3	0.4		CN?	Q 29	6,3	12	7591.32	2	0.3		☉			
7567.170	21	2.8	<i>w, NN</i>	☉				7591.80 a	4	0.5		CN? Atm?	Q 32	6,3	12
7567.61	2.5	0.3		☉											
7568.60	1.5	0.2		CN	P 41	5,2	12	7593.695m	193	25.4		Atm O ₂	{R 27 R 29	0,0 0,0	}22
7568.906S	90	11.1	<i>S</i>	Fe I	4.28	1077		7593.850m	3	0.4		Atm O ₂	R 31	0,0	22
7569.556	10	1.3	<i>w</i>	☉				7593.997m	226	29.8		Atm O ₂	R 25	0,0	22
7569.95 a	2.5	0.3		☉?				7594.287m	11	1.4		Atm O ₂	R 24	0,0	24
7570.22	1.5	0.2		☉?				7594.507m	288	37.9		Atm O ₂	R 23	0,0	22
7570.79	1	0.1		Cr I?	5.18			7594.974m	139	18.3		Atm O ₂	{R 27 R 29	0,0 0,0	}22
7571.40	1.5	0.2		☉?											
7572.38	1.5	0.2		☉?				7595.235m	446	58.7		Atm O ₂	{R 21 R 25	0,0 0,0	}22
7573.426	18	2.4	<i>u</i>	Fe I				7595.590m	5	0.7		Atm O ₂	{R 25 R 26 R 27	0,0 0,0 0,0	}24
7573.72	1.5	0.2		Fe I p	3.98	957									
7574.048S	64	8.4	<i>u</i>	Ni I	3.83	156		7595.770S	299	39.4		Atm O ₂	R 23	0,0	22
7574.36	2.5	0.3		☉?				7596.228m	425	55.9		Atm O ₂	R 19	0,0	22
7574.58	1	0.1		CN?	Q 30	6,3	12	7596.503m	485	63.8		Atm O ₂	R 21	0,0	22
7574.88	1	0.1		CN?	Q 29	6,3	12	7596.768m	8	1.1		Atm O ₂	R 18	0,0	24
7575.39	4	0.5	<i>s, N</i>	CN—	P 41	5,2	12	7596.975m	6	0.8		Atm O ₂	R 20	0,0	24
7577.30	1	0.1	<i>s</i>	☉				7597.438m	845	111.2		Atm O ₂	{R 17 R 19	0,0 0,0	}22
7578.47	1.5	0.2		Atm											
7578.787	6	0.8	<i>o?</i>	☉				7598.006m	25	3.3		Atm O ₂	{R 16 R 18	0,0 0,0	}24
7579.08	1	0.1	<i>s, N</i>	☉				7598.650m				Atm O ₂	R 17	0,0	22
7580.28	1	0.1	<i>S</i>	Ti I	2.23	211		7598.847m		147		Atm O ₂	R 15	0,0	22
7582.120	8	1.1	<i>u</i>	Fe I p	4.95	1274		7599.228m	14	1.8		Atm O ₂	R 16	0,0	24
7582.48	1	0.1		☉?				7599.462S	17	2.2		Atm O ₂	R 14	0,0	24

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7599.550m	1	0.1		Atm O ₂	R 17	0,0	23	7612.578m	26	3.4		Atm O ₂	R 2	0,0	24
7600.066m	1530	201		Atm O ₂	R 15	0,0	22	7612.745m	3	0.4		Atm O ₂	R 3	0,0	23
7600.493m			Atm O ₂	R 13	0,0	22	7613.194m	1120	147		Atm O ₂	R 3	0,0	22	
7601.127m	17	2.2		Atm O ₂	R 12	0,0	24	7613.705m	14	1.8		Atm O ₂	R 2	0,0	24
7601.240m	1.5	0.2		Atm O ₂	R 14	0,0	23	7614.026m	20	2.6		Atm O ₂	R 1	0,0	24
7601.470m	?	2.6		Atm O ₂	R 13	0,0	24, 28	7614.15 m	2	0.3		Atm O ₂	R 2	0,0	23
7601.697m	1210	159		Atm O ₂	R 13	0,0	22	7614.516	8	1.1	s	Ti I	2.24	211	
7602.036m	?	3.0		Atm O ₂	R 11	0,0	24, 28	7615.061m	985	129		Atm O ₂	R 1	0,0	22
7602.363m	1430	188		Atm O ₂	R 11	0,0	22	7615.552m	17	2.2		Atm O ₂	R 0	0,0	24
7602.995S	30	3.9		Atm O ₂	R 10	0,0	24	7616.146m	833	109		Atm O ₂	R 1	0,0	22
7603.216m	25	3.3		Atm O ₂	R 11	0,0	24	7616.980S	120	14.8	s	Ni I	3.65	139	
7603.556m	1250	164		Atm O ₂	R 11	0,0	22	7617.245	12	1.6	w	Fe I	5.06	1304	
7604.013m	32	4.2		Atm O ₂	R 9	0,0	24	7617.985	9	1.2	u	Fe I	4.19	1001	
7604.453m	1500	197		Atm O ₂	R 9	0,0	22	7618.28 a	2	0.3					
7605.076m	33	4.3		Atm O ₂	R 8	0,0	24	7619.214S	69	8.3	s	Ni I	3.68	156	
7605.186m	33	4.3		Atm O ₂	R 9	0,0	24	7619.698m	20	1.6		Atm O ₂	P 1	0,0	24
7605.635m	1480	195		Atm O ₂ (Fe I)	R 9 5.03	0,0 1308	22	7620.077m	16	2.1		Atm O ₂	P 2	0,0	24
7606.198m	64	8.4		Atm O ₂	R 7	0,0	24	7620.322m	2.5	0.3		Atm O ₂	P 1	0,0	23
7606.238m			Atm O ₂	R 8	0,0	24	7620.513	72	9.4	s	Fe I	4.73	1250		
7606.767m	1530	201		Atm O ₂	R 7	0,0	22	7620.996m	1030	135		Atm O ₂	P 1	0,0	22
7607.366m	46	6.0		Atm O ₂	{R 6 R 7}	{0,0 0,0}	{24	7621.323m	27	3.5		Atm O ₂	P 2	0,0	24
7607.933m	1510	199		Atm O ₂	R 7	0,0	22	7621.802S	24	3.2		Atm O ₂	P 3	0,0	24
7607.933m	1510	199		Atm O ₂	R 7	0,0	22	7621.988m	7	0.9		Atm O ₂	P 2	0,0	23
7608.530m	61	8.0		Atm O ₂	R 6	0,0	24	7622.29	2.5	0.3		☉			
7608.586m			Atm O ₂	R 5	0,0	24	7622.503m	5	0.7		Atm O ₂	P 3	0,0	23	
7608.82 m	8	1.1		Atm O ₂	R 6	0,0	23	7623.012m	30	3.9		Atm O ₂	P 3	0,0	24
7608.91 m			Atm O ₂	R 5	0,0	23	7623.288m	1055	138		Atm O ₂	P 3	0,0	22	
7609.302m	1450	191		Atm O ₂	R 5	0,0	22	7623.552m	?	4.0		Atm O ₂	P 4	0,0	24, 28
7609.746m	24	3.2		Atm O ₂	R 5	0,0	24	7623.715m	12	1.6		Atm O ₂	P 3	0,0	23
7609.868m	25	3.3		Atm O ₂	R 4	0,0	24	7624.500m	1240	163		Atm O ₂ (Ni I)	P 3 5.63	0,0 292	22
7610.06 m	4	0.5		Atm O ₂	R 5	0,0	23	7625.354S	36	4.7		Atm O ₂	P 5	0,0	24
7610.455m	1330	175		Atm O ₂	R 5	0,0	22	7625.475m	6	0.8		Atm O ₂	P 4	0,0	23
7611.007m	22	2.9		Atm O ₂	R 4	0,0	24	7626.157m	6	0.8		Atm O ₂	P 5	0,0	23
7611.194S	24	3.2		Atm O ₂	R 3	0,0	24	7626.524m	40	5.2		Atm O ₂	P 5	0,0	24
7611.364m	5	0.7		Atm O ₂	R 4	0,0	23	7627.054m	1165	153		Atm O ₂	P 5	0,0	22
7611.584m	7	0.9		Atm O ₂	R 3	0,0	23	7628.225m	1490	195		Atm O ₂	P 5	0,0	22
7612.060m	1390	183		Atm O ₂	R 3	0,0	22	7629.092m	40	5.2		Atm O ₂	P 7	0,0	24
7612.314m	?	2.6		Atm O ₂	R 3	0,0	24, 28								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7629.196m	3	0.4		Atm O ₂	P 6	0,0	23	7650.894m	54	7.1	u	Atm O ₂	P 17	0,0	24
7629.988m	6	0.8		Atm O ₂	P 7	0,0	23	7650.975				Fe I	2.69	266	
7630.245m	37	4.9		Atm O ₂	P 7	0,0	24	7651.50	1.5	0.2		☉			
7631.016m	1310	172		Atm O ₂	P 7	0,0	22	7651.963S	20	2.6		Atm O ₂	P 17	0,0	24
7632.168m	1500	197		Atm O ₂	P 7	0,0	22	7652.383m	4.5	0.6		Atm O ₂	P 17	0,0	23
7633.036m	44	5.8		Atm O ₂	P 9	0,0	24	7653.343m	13	1.7		Atm O ₂	P 18	0,0	24
7633.131m	3	0.4		Atm O ₂	P 8	0,0	23	7653.47 m	2	0.3		Atm O ₂	P 17	0,0	23
7634.052m	4	0.5		Atm O ₂	P 9	0,0	23	7653.757	49	6.4		Fe I	4.79	1250	
7634.170m	43	5.6		Atm O ₂	P 9	0,0	24	7654.094m	756	98.8		Atm O ₂	P 17	0,0	22
7635.192m	1310	172		Atm O ₂	P 9	0,0	22	7654.428m	24	3.1	s,N	Atm O ₂	P 18	0,0	24
7636.328m	1350	177		Atm O ₂	P 9	0,0	22					Ti I	2.25	211	
7637.183m	41	5.4		Atm O ₂	P 11	0,0	24	7655.182m	747	97.5		Atm O ₂	P 17	0,0	22
7637.276m	2	0.3		Atm O ₂	P 10	0,0	23	7655.48	15	2.0	o?	Fe II	3.89	73	
7638.306S	46	6.0		Atm O ₂	P 11	0,0	24	7655.847m	11	1.4		Atm O ₂	P 19	0,0	24
7639.339m	30	3.9		Atm O ₂	P 12	0,0	24	7656.00 m	2	0.3		Atm O ₂	P 18	0,0	23
7639.585m	1170	155		Atm O ₂	P 11	0,0	22	7656.940m	15	2.0		Atm O ₂	P 19	0,0	24
7640.457m	31	4.1		Atm O ₂	P 12	0,0	24	7657.26	7	0.9		Ni I	5.41	278	
7640.707m	1220	160		Atm O ₂	P 11	0,0	22	7657.606S	142	15.1	u,N	Mg I	5.11	22	29
7641.535m	36	4.7		Atm O ₂	P 13	0,0	24	7658.03	1	0.1					
7641.644m	4	0.5		Atm O ₂	P 12	0,0	23	7658.420m	13	1.7		Atm O ₂	P 20	0,0	24
7642.651m	37	4.8		Atm O ₂	P 13	0,0	24	7658.60	1	0.1		Atm O ₂	P 19	0,0	23
7642.786m	4.5	0.6		Atm O ₂	P 13	0,0	23	7659.148	17	2.2		Mg I	5.11	22	
7643.793m	23	3.0		Atm O ₂	P 14	0,0	24	7659.370m	657	85.8		Atm O ₂	P 19	0,0	22
7644.200m	1010	132		Atm O ₂	P 13	0,0	22	7659.91	31	4.0	o	Mg I	5.11	22	
7644.900m	28	3.7		Atm O ₂	P 14	0,0	24	7660.454m	645	84.1		Atm O ₂	P 19	0,0	22
7645.312m	1060	139		Atm O ₂	P 13	0,0	22	7661.05 m	8	1.0		Atm O ₂	P 21	0,0	24
7646.098m	29	3.8		Atm O ₂	P 15	0,0	24	7661.198	79	10.3	u	Fe I	4.26	1077	
7646.209m	5	0.7		Atm O ₂	P 14	0,0	23	7661.48	13	1.7		Fe I p	5.08	1309	
7647.202S	29	3.8		Atm O ₂	P 15	0,0	24	7662.122m	9	1.2		Atm O ₂	P 21	0,0	24
7647.460m	6	0.8		Atm O ₂	P 15	0,0	23	7662.42 a	8	1.0		C I	8.77		
7647.84	9	1.2		Fe I	4.44	1137		7662.84 m	2	0.3		Atm O ₂	P 21	0,0	23
7648.12	2	0.3						7663.00 a	1.5	0.2					
7648.454m	21	2.8		Atm O ₂	P 16	0,0	24	7663.22	0.5	0.1		☉?			
7648.580m	2	0.3		Atm O ₂	P 15	0,0	23	7663.726m	5	0.7		Atm O ₂	P 22	0,0	24
7649.035m	842	110		Atm O ₂	P 15	0,0	22	7663.90 m	1	0.1		Atm O ₂	P 21	0,0	23
7649.553S	25	3.3		Atm O ₂	P 16	0,0	24	7664.15 a	7	0.9		Fe I p	4.83	1250	
7650.135m	918	120		Atm O ₂	P 15	0,0	22	7664.294	120	14.1	s	Fe I	2.99	402	
								7664.872	521	68.0	S	K I Atm O ₂	0.00 P 21	1 0,0	22

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7665.944S	468	61.0		Atm O ₂	P 21	0,0	22	7686.830m	2	0.3		Atm O ₂	R 17	1,1	22
7666.44	4.5	0.6		Atm O ₂	P 23	0,0	24	7687.034m	1.5	0.2		Atm O ₂	R 19	1,1	22
7666.669m	0.5	0.1		Atm O ₂	P 22	0,0	23	7687.51	6	0.8		CN?	Q 16	7,4	12
7667.518m	5	0.7		Atm O ₂	P 23	0,0	24	7688.127m	7	0.9		Atm O ₂	{R 17 R 15}	{1,1 1,1}	22
7668.399m	[1]	0.1		Atm O ₂	P 23	0,0	23	7688.40	17	2.2	<i>o?</i>	Si I p	6.19		
7668.93 a	1.5	0.2						7689.04	15	1.9		CN Fe I p	P 49 5.10	5,2 1304	12
7669.233m	5	0.7		Atm O ₂	P 24	0,0	24	7689.177m	107	13.9		Atm O ₂	P 29	0,0	22
7669.47 m	63	8.2	<i>w</i>	Atm O ₂	P 23	0,0	23	7689.387m	2	0.3		Atm O ₂	R 15	1,1	22
7669.668				-Si I	6.19										
7670.31 m	3	0.4		Atm O ₂	P 24	0,0	24	7689.703m	3	0.4		Atm O ₂	R 13	1,1	22
7670.600m	307	40.1		Atm O ₂	P 23	0,0	22	7690.218S	95	12.4		Atm O ₂	P 29	0,0	22
7671.669S	307	40.1		Atm O ₂	P 23	0,0	22	7690.939m	4	0.5		Atm O ₂	R 13	1,1	22
7672.09 m	3	0.4		Atm O ₂	P 25	0,0	24	7691.487	172	17.6	<i>w,N</i>	Atm O ₂	R 11	1,1	22
7672.32 m	1	0.1		Atm O ₂	P 24	0,0	23	7691.569				Mg I	5.75	29	
7673.127m	3	0.4		Atm O ₂	P 25	0,0	24	7691.95 a	17	2.2		⊙			
7674.183m	1	0.1		Atm O ₂	P 25	0,0	23	7692.722m	3.5	0.5		Atm O ₂	R 11	1,1	22
7674.962m	<2	<0.3		Atm O ₂	P 26	0,0	24	7693.530m	4.5	0.6		Atm O ₂	R 9	1,1	22
7675.240m	1	0.1		Atm O ₂	P 25	0,0	23	7694.748m	4	0.5		Atm O ₂	R 9	1,1	22
7675.82 a	1.5	0.2						7695.62	12	1.6		⊙			
7676.026m	1	0.1		Atm O ₂	P 26	0,0	24	7695.838S	64	8.3		Atm O ₂	P 31	0,0	22
7676.565S	196	25.6		Atm O ₂	P 25	0,0	22	7696.72 a	2.5	0.3		Si I	7.87	7	
7677.619S	214	27.9		Atm O ₂	P 25	0,0	22	7696.869S	57	7.4		Atm O ₂	P 31	0,0	22
7678.953m	1	0.1		Atm O ₂	P 27	0,0	24	7696.996m	2	0.3		Atm O ₂	R 7	1,1	22
7679.60	4	0.5		Si I	7.86	7		7698.322m	4	0.5		Atm O ₂	R 5	1,1	22
7680.267	106	12.1	<i>w,N</i>	Si I (Mn I)	5.86 5.49	36 55		7698.977	154	19.4	<i>S</i>	K I	0.00	1	
								7699.506m	3	0.4		Atm O ₂	R 5	1,1	22
7680.912m	1	0.1		Atm O ₂	P 28	0,0	24	7701.078m	3	0.4		Atm O ₂	R 3	1,1	22
7681.953m	[0.5]	0.1		Atm O ₂	P 28	0,0	24	7702.240m	2.5	0.3		Atm O ₂	R 3	1,1	22
7682.758S	124	16.2		Atm O ₂	P 27	0,0	22	7702.739m	26	3.4		Atm O ₂	P 33	0,0	22
7683.47 a	1.5	0.2		CN?	Q 15	7,4	12	7703.759m	27	3.5		Atm O ₂	P 33	0,0	22
7683.802S	133	17.4		Atm O ₂	P 27	0,0	22	7704.076m	1.5	0.2		Atm O ₂	R 1	1,1	22
7684.331m	1	0.1		Atm O ₂	R 23	1,1	22	7705.207m	0.5	0.1		Atm O ₂	R 1	1,1	22
7684.964m	0.5	0.1		Atm O ₂	{R 21 P 29}	1,1 0,0	22 24	7709.70 a	2	0.3					
7685.12	6	0.8	<i>s,NN</i>	⊙				7709.871m	9	1.2		Atm O ₂	P 35	0,0	22
7685.281m	0.5	0.1		Atm O ₂	R 25	1,1	22	7710.099m	2	0.3		Atm O ₂	P 1	1,1	22
7685.764m	1	0.1		Atm O ₂	R 19	1,1	22	7710.367	70	8.7	<i>u</i>	Fe I	4.22	1077	
7686.13	6	0.8		Si I	7.87	7		7710.874m	11	1.3		Atm O ₂	P 35	0,0	22
7686.203m	1	0.1		Atm O ₂	R 21	1,1	22	7711.731	48	6.1	<i>w</i>	Fe II	3.90	73	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7712.416m	4	0.5		Atm O ₂ (Mn I)	P 3 5.52	1,1 55	22	7735.94	4	0.5		Ni I?	5.29	281	
								7737.65	3	0.4		Fe I p	4.41	1137	
7712.66	8	1.0		Co I	2.54	126		7738.848m	2	0.3		Atm O ₂	P 15	1,1	22
7713.658m	4	0.5		Atm O ₂	P 3	1,1	22	7739.978m	2	0.3		Atm O ₂	P 15	1,1	22
7714.310S	103	13.6	s	Ni I	1.93	62		7740.50	2	0.3		Atm?			
7714.59	9	1.2		Fe I?				7741.44	4	0.5		☉			
7714.91 a	1.5	0.2						7742.722	126	14.6	w	Fe I	4.99	1306	
7715.219	12	1.6	w	☉				7744.080m	1.5	0.2		Atm O ₂	P 17	1,1	22
7715.591	48	6.2	w	Ni I	3.70	109		7745.202m	2	0.3		Atm O ₂	P 17	1,1	22
7716.251m	4	0.5		Atm O ₂	P 5	1,1	22	7745.521	22	2.8	u	Fe I	5.08	1305	
7717.251m	3	0.4		Atm O ₂	P 37	0,0	22	7746.605	18	2.3	u	Fe I p	5.06	1309	
7717.450m	4	0.5		Atm O ₂	P 5	0,0	22	7747.58	1	0.1		☉?			
7718.257m	3	0.4		Atm O ₂	P 37	0,0	22	7748.284S	103	13.2	s	Fe I	2.95	402	
7719.046	27	3.5	w,N	Fe I	5.03	1304		7748.894	92	11.3	s	Ni I	3.70	156	
7720.304m	4	0.5		Atm O ₂	P 7	1,1	22	7749.554m	1.5	0.2		Atm O ₂	P 19	1,1	22
7720.72	6	0.8		Fe I p— CN	5.08 P 51	1304 5,2	12	7750.670m	1	0.1		Atm O ₂	P 19	1,1	22
7721.482m	4	0.5		Atm O ₂	P 7	1,1	22	7751.116S	46	5.8	w	Fe I	4.99	1304	
7722.64	16	2.1	w,N	Mg I	5.94	44		7755.275m	0.5	0.1		Atm O ₂	P 21	1,1	22
7723.210	41	5.2	s	Fe I	2.28	108		7755.36	10	1.3	u,NN				
7724.586m	3	0.4		Atm O ₂	P 9	1,1	22	7756.378m	0.5	0.1		Atm O ₂	P 21	1,1	22
7724.880m	1.5	0.2		Atm O ₂	P 39	0,0	22	7759.37 a	7	0.9	u,NN	Mg I?	5.93		
7725.17	4	0.5		☉				7760.641	17	2.2	o?	Si I p	6.20		
7725.746m	5	0.6		Atm O ₂	P 9	1,1	22	7761.232m	0.5	0.1		Atm O ₂	P 23	1,1	22
7725.862m	2	0.3		Atm O ₂	P 39	0,0	22	7764.66	4	0.5		Mn I	5.37	54	
7727.616S	94	11.8	s	Ni I	3.68	156		7765.19	1	0.1		☉			
7729.101m	3	0.4		Atm O ₂	P 11	1,1	22	7766.62	0.5	0.1		Fe I p	3.94	957	
7729.40	1	0.1		☉				7767.458m	0.5	0.1		Atm O ₂	P 25	1,1	22
7730.03 a	0.5	0.1		☉				7768.513m	0.5	0.1		Atm O ₂	P 25	1,1	22
7730.254m	4	0.5		Atm O ₂	P 11	1,1	22	7771.954	75	9.4	W,N	O I	9.14	1	
7730.97	2	0.3		☉				7772.68	2	0.3		☉?			
7732.49	13	1.7		☉				7774.177	66	8.5	W,N	O I	9.14	1	
7732.746m	0.5	0.1		Atm O ₂	P 41	0,0	22	7775.395	50	6.8	W,N	O I	9.14	1	
7733.12	2.5	0.3		Mn I	5.38	54		7777.10 a	3	0.4					
7733.738m	10	1.3	s	Atm O ₂ Fe I p	P 41 5.06	0,0 1306	22	7777.91 a	2	0.3		Si I p	6.08		
7733.854m	2.5	0.3		Atm O ₂	P 13	1,1	22	7780.568S	102	14.8	s	Fe I	4.47	1154	
7734.40	1	0.1		Mn I?	5.54	55		7788.933S	82	10.8	s	Ni I	1.95	62	
								7797.588S	79	9.9	s	Ni I	3.90	201	
7734.995m	2.5	0.3		Atm O ₂	P 13	1,1	22	7798.86	5.5	0.7		Fe I? p	3.02	403	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7799.21	10	1.3		☉				7852.71	5	0.6	<i>S, d</i>	CN?— Ti I p	R' 9 0.85	2,0 34	12
7800.000	61	7.1	<i>W, N</i>	Si I	6.18	81		7854.692	0.5	0.1		Atm H ₂ O	R 6	013	26
7800.29	5	0.6	<i>S</i>	Rb I	0.00	1		7855.16	6	0.8		Ni I	4.54	267	
7801.16	1.5	0.2		☉				7555.405	25	3.6	<i>w</i>	Fe I	5.06	1305	
7802.51	12	1.5	<i>u</i>	Fe I p	5.08	1303		7855.822	3	0.4	<i>o</i>	Co I?	4.11		
7804.70 a	1	0.1						7860.76	5	0.6	<i>w</i>	C I Atm	8.85	32	
7807.916S	64	7.7	<i>u</i>	Fe I	4.99	1303		7861.045	12	1.5	<i>w</i>	Ni I	3.70	156	
7810.815	13	1.7	<i>w</i>	Fe I	5.03	1303		7861.32	3	0.4		Atm			
7811.16	46	5.9	<i>W, N</i>	Mg I	5.94	43		7861.32	3	0.4		Atm			
7813.67	3	0.4		Fe I? p	5.10	1305		7862.28	1	0.1		Atm?			
7815.82	2	0.3		☉				7863.193	2	0.3		Atm			
7820.81	5	0.6		Fe I p	4.29	1118		7863.799	[15]	1.9	<i>w</i>	Ni I	4.54	268	
7821.73	3	0.4		Si I?	6.08			7864.437S	6	0.8		Atm H ₂ O	R 7	013	26
7826.77	11	1.4	<i>u</i>	Ni I	3.70	109		7865.71	2	0.3		Atm			
7830.78 a	2	0.3						7866.080	8	1.0		Atm H ₂ O	R 5	013	26
7832.208S	150	18.5	<i>s</i>	Fe I	4.43	1154		7866.710	3	0.4		Atm H ₂ O	R 10	013	26
7832.68 a	5	0.6		C I	8.84			7869.635	26	3.3	<i>w</i>	Fe I	4.37	1137	
7833.06 a	4	0.5		Si I p	6.08	68		7869.94	10	1.3	<i>s</i>	Zr I Atm H ₂ O	0.69 R 5	41 013	26
7835.317	42	5.4	<i>s, N</i>	Al I	4.02	10		7870.50	1	0.1		Atm H ₂ O	R 9	013	26
7836.130S	64	7.5	<i>s, N</i>	Al I	4.02	10		7871.30 a	2	0.3		Co I	4.17	189	
7837.10 a	[2]	0.3		C I	8.85	32		7871.67 a	1.5	0.2					
7838.15	5	0.6		Co I Fe II p	3.97 3.97	87		7872.79	11	1.4	<i>s</i>	Atm H ₂ O (CN) (CN)	R 6 R 5 R 6	013 2,0 2,0	26 12 12
7839.64	1.5	0.2		☉?				7873.34	3	0.4		CN	R 7	2,0	12
7840.05 a	2	0.3		Co I	4.11			7873.96	1	0.1		CN	R 8	2,0	12
7841.37	3	0.4		Fe II p	3.90	72		7874.84	1.5	0.2		CN	R 9	2,0	12
7843.04	13	1.7	<i>o?</i>	☉				7875.320	(8)	1.0		Atm H ₂ O	R 8	013	26
7844.569	11	1.4	<i>w</i>	Fe I	4.83	1250		7876.114	6	0.8		Atm H ₂ O (CN)	R 5 R 10	013 2,0	26 12
7845.27	2	0.3		Atm				7876.570	11	1.4		Atm H ₂ O	R 5	013	26
7846.272	1	0.1		Atm H ₂ O	R 7	013	26	7876.705	1.5	0.2		Atm			
7846.52	2	0.3		Atm? Fe I? p	5.02	1323		7877.059	20	2.6	<i>o</i>	Mg II	9.99	8	
7848.20 a	1.5	0.2		C I	8.85			7877.45 a	[11]	1.4		Co I?— (CN)	R 11	2,0	12
7848.74	2	0.3		Atm H ₂ O	R' 3	013	26	7877.80 a	3	0.4					
7849.38	1.5	0.2	<i>s</i>	Zr I	0.69	40		7878.89	2	0.3		CN	R 12	2,0	12
7849.984	[66]	7.8	<i>W, N</i>	Si I	6.19	81		7879.78	8	1.0		Fe I	5.03	1306	
7850.88	3.5	0.4	<i>s?</i>	CN?	R' 11	2,0	12	7879.86	3	0.4		Atm H ₂ O	R 4	013	26
7851.95	2	0.3		☉?											

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7880.699	7	0.9		Atm H ₂ O	R 7	013	26	7898.12 a	1	0.1		CN	R 14	2,0	12
7880.847	3	0.4		CN	R 13	2,0	12	7898.38	2	0.3		CN— CN	Q 10 P 6	2,0 2,0	12 12
7881.67	8	1.0	} <i>w, N</i>	{ Mg I Atm H ₂ O	5.93			7899.53	1	0.1		Atm H ₂ O	R 4	112	26
7881.92	17	2.2			R 5	013	26	7899.86	3	0.4		CN	R 15	2,0	12
7882.30	1.5	0.2		CN	Q 4	2,0	12	7900.797	13	1.6		Atm H ₂ O (CN)	R 4 R 20	013 2,0	26 12
7882.84	1.5	0.2		CN	R 14	2,0	12	7901.16	0.5	0.1		☉			
7884.44	2	0.3		CN	Q 5	2,0	12	7901.780	40	5.1		Atm H ₂ O	{ R 4 R 3 (CN) R 11 R 16	013 013 2,0 2,0	} 26 } 12
7885.014S	5	0.6	<i>S</i>	Atm H ₂ O Ti I p	R 4 0.84	013 34	26								
7885.18 a	4	0.5		CN	R 15	2,0	12	7902.880	2	0.3		Atm H ₂ O	R 3	013	26
7885.72	0.5	0.1		Atm? CN	P 3	2,0	12	7903.160	6	0.8	<i>s</i>	Atm H ₂ O CN	R 3 P 7	013 2,0	26 12
7886.202	2	0.3		Atm H ₂ O	R 4	013	26	7903.794	2	0.3		Atm H ₂ O	R 3	112	26
7886.802	6	0.8		Atm H ₂ O	R 6	013	26	7904.18	4	0.5		CN Fe I? p	R 17 2.99	2,0 403	12
7887.117S	12	1.5		Atm H ₂ O	R 6	013	26	7904.53	3	0.4	<i>u</i>	CN	R 21	2,0	12
7887.78	2	0.3		CN	R 16	2,0	12	7905.60	3	0.4	<i>u</i>	CN	Q 12	2,0	12
7889.339	7	0.9		Atm H ₂ O (CN)	R 4 Q 7	013 2,0	26 12	7906.33	0.5	0.1		Atm H ₂ O	Q 6	013	26
7890.12	5	0.6	<i>u, N</i>	Ni I	{ 3.90 4.54	200 267		7906.80	1.5	0.2		CN	R 18	2,0	12
7890.420	1.5	0.2	<i>u, N</i>	☉				7907.46	0.5	0.1		Atm H ₂ O	Q 5	013	26
7890.63 a	2	0.3		CN	R 17	2,0	12	7908.14	3	0.4		CN Cr I?	P 8 5.62	2,0 316	12
7890.99	1.5	0.2		Atm H ₂ O	R 4	013	26	7908.750	42	5.3		Atm H ₂ O	R 3	013	26
7891.144	3.5	0.4		Atm H ₂ O	R 4	013	26	7909.05	1.5	0.2		CN	Q 4	2,0	12
7891.90	14	1.8		Atm H ₂ O	R 4	013	26	7909.370	8	1.0	<i>s, N</i>	Atm H ₂ O Ti I p	R 2 3.32	013 308	26
7892.10 a	3	0.4		CN	Q 8	2,0	12	7909.610	17	2.2		CN	{ Q 13 R 19	2,0 2,0	12 12
7892.57 a	2.5	0.3						7910.664	13	1.6		Atm H ₂ O	R 3	013	26
7893.512S	19	2.4		Atm H ₂ O	R 5	013	26	7911.84 a	2	0.3		CN	Q 7	2,0	12
7893.62	3	0.4		CN	R 18	2,0	12	7912.004	5	0.6	<i>s</i>	Atm H ₂ O— ☉	R 2	013	26
7894.15	6	0.8		CN— CN CN	R 9 R 8 R 10	2,0 2,0 2,0	12 12 12	7912.384	15	1.9	<i>w</i>	Si I	6.10	68	
7894.849	[6]	0.8		Atm H ₂ O CN	R 5 R 11	013 2,0	26 12	7912.870S	40	5.1	<i>S</i>	Fe I	0.86	12	
7895.13	2.5	0.3		CN	Q 9	2,0	12	7913.12 a	3	0.4		CN	R 23	2,0	12
7895.515	23	2.9	<i>u</i>	Atm H ₂ O (Ti I p) (CN)	R 3 0.83 R 12	013 34 2,0	26 12 12	7913.438	17	2.2	<i>w</i>	Si I CN— CN	5.86 P 9 Q 8	35 2,0 2,0	12 12
7896.035	27	3.4		Atm H ₂ O	R 3	013	26	7913.80	5	0.6	<i>s</i>	CN	Q 14	2,0	12
7896.378	28	3.6	<i>o</i>	Mg II	10.00	8		7915.35	6	0.8		CN	Q 9	2,0	12
7896.66	3	0.4		CN	R 13	2,0	12	7915.634S	14	1.8		Atm H ₂ O	R 2	013	26
7897.06	2	0.3		CN	R 19	2,0	12								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7916.32	2.5	0.3		CN	R 21	2,0	12	7933.12	22	2.8	s?	Cu I (CN)	3.78 Q 18	6 2,0	12
7916.532	2.5	0.3		Atm H ₂ O	R 4	112	26	7933.48	6	0.8	s	CN— CN	R 27 Q 15	2,0 2,0	12 12
7916.79	1.5	0.2		Atm H ₂ O	Q 3	013	26	7934.11	2.5	0.3		○?			
7917.428	31	3.9	s	Ni I	3.74	109		7934.11	2.5	0.3		○?			
7917.561	10	1.3		Atm H ₂ O	{R 4 R 2}	{112 013}	}26	7934.90 a	4	0.5		CN	P 9	2,0	12
7917.78	7	0.9		CN	{Q 10 R 24}	{2,0 2,0}	}12	7936.39	3	0.4		CN	P 13	2,0	12
7918.383	100	11.9	W	Si I	5.95	57		7937.65	3	0.4		CN	Q 16	2,0	12
7920.03	2	0.3		CN	R 22	2,0	12	7938.05	3	0.4		CN	R 26	2,0	12
7920.24	3	0.4		CN	Q 11	2,0	12	7938.61	6	0.8	s	Ti I p— CN	1.88 Q 19	151 2,0	12
7920.666S	32	4.0		Atm H ₂ O	R 2	013	26	7938.96	1	0.1		Atm H ₂ O	Q 3	013	26
7922.77 a	2	0.3		CN	R 25	2,0	12	7938.96	1	0.1		Atm H ₂ O	Q 3	013	26
7922.98	7	0.9	s, NN	CN— CN	Q 16 Q 12	2,0 2,0	12 12	7939.23	6	0.8		CN	{P 10 R 28}	2,0 2,0	}12
7923.81	3	0.4	o?	Si I CN	8.41 P 6	22 2,0	12	7941.096S	38	4.8	s	Fe I	3.27	623	
7924.169	16	2.0	o?	Fe I CN	4.79 R 23	1250 2,0	12	7941.79	11	1.4		Atm H ₂ O Fe I	R 0 3.05	013 508	26
7924.348	21	2.7		Atm H ₂ O (CN)	R 1 P 11	013 2,0	26 12	7942.00	8	1.0	s	Cr I CN	4.39 Q 17	300 2,0	12
7925.30	2	0.3		Atm? Si I? p	6.20	81		7942.74	4	0.5		Atm H ₂ O (CN)	Q 5 P 14	013 2,0	26 12
7925.82	15	1.9	o	Si I	6.22			7943.28	2.5	0.3	u?	CN	R 27	2,0	12
7926.29	5	0.6	s	CN Ti I	Q 13 3.28	2,0 308	12	7944.001	147	17.6	w, N	Si I (Ti I)	5.98 3.29	57 308	
7926.54	5	0.6		○				7944.38	2	0.3		CN	Q 20	2,0	12
7927.14	1	0.1		CN	P 7	2,0	12	7945.27	2	0.3		CN	R 29	2,0	12
7927.928	8	1.0		CN	{Q 17 R 26}	{2,0 2,0}	}12	7945.858S	185	22.6	s	Fe I	4.39	1154	
7928.24	2	0.3		Atm H ₂ O	Q 4	013	26	7946.744	5	0.6		Atm H ₂ O (CN)	Q 3 Q 18	112 2,0	26 12
7928.618S	27	3.4		Atm H ₂ O (Si)	R 1 8.41	013 22	26	7947.63	2.5	0.3	S	Rb I	0.00	1	
7929.20	0.5	0.1		Atm H ₂ O	R 3	112	26	7947.726	10	1.3		Atm H ₂ O	Q 2	013	26
7929.339	4	0.5		Atm H ₂ O	R 3	112	26	7948.78	6	0.8	u	CN	{P 12 R 28}	2,0 2,0	}12
7929.81	3	0.4		CN	Q 14	2,0	12	7949.149	9	1.1	S	Ti I	1.50	125	
7929.939	1	0.1		Atm H ₂ O	R 4	112	26	7949.38 a	2	0.3		CN	Q 21	2,0	12
7930.28	2	0.3		Gd II CN— Si I	P 12 8.41	2,0 22	12	7950.42	7	0.9	s	CN	Q 21	2,0	12
7930.819	44	5.5	u, N	Mg I	5.94	42		7950.889	9	1.1		Atm H ₂ O	Q 4	013	26
7931.772	5	0.6		Atm H ₂ O (Si)	R 1 8.42	013 22	26	7951.176	10	1.3		Atm H ₂ O	R 3	112	26
7932.351	90	11.3	W, N	Si I	5.96	57		7951.76	10	1.3	s	CN CN	Q 19 R 30	2,0 2,0	12 12
								7951.73	10	1.3	s	CN CN	Q 19 R 30	2,0 2,0	12 12
								7953.07	2.5	0.3		Atm? Ni I	4.54	266	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7953.39	1.5	0.2		☉?				7970.11	2	0.3	} <i>w,N</i>	CN	Q 24	2,0	12
7953.64	10	1.3		Atm?			7970.300	35	4.4	Si I		5.96	57		
7953.84	8	1.0		Atm H ₂ O	Q 1	013	26	7970.81	1.5	0.2		CN	P 18	2,0	12
7954.12	2	0.3		CN	P 13	2,0	12	7971.522S	30	3.8		Atm H ₂ O	P 1	013	26
7954.57	3	0.4	} <i>s,N</i>	{CN Fe I p	R 29	2,0	12	7971.86	4	0.5		Atm CN	P 16	2,0	12
7954.97	7	0.9					2.99	402		7972.15	7	0.9	<i>o?</i>	CN	R 33
7955.71	27	3.4	<i>w</i>	Fe I	5.03	1305		7973.79	3	0.4		CN	R 32	2,0	12
7956.19	10	1.3		Atm H ₂ O (CN)	Q 3 P 16	013 2,0	26 12	7974.136	6	0.8		Atm H ₂ O	P 2	112	26
7956.71	7	0.9	<i>s</i>	Zr I CN	0.65 Q 22	41 2,0	12	7974.69	7	0.9		CN	Q 23	2,0	12
7957.01	6	0.8	<i>s</i>	CN	Q 20	2,0	12	7975.002	6	0.8		Atm H ₂ O	Q 5	013	26
7957.77	4	0.5		Atm				7975.58	6	0.8		Si I	6.08	68	
7958.21	3	0.4		CN	R 31	2,0	12	7976.30	2	0.3		☉?			
7958.492S	52	6.6		Atm H ₂ O	Q 2	013	26	7976.586	4	0.5		Atm H ₂ O	Q 5	112	26
7959.148	23	2.8	<i>w</i>	Fe I	5.03	1304		7977.215	4	0.5		CN	Q 25	2,0	12
7959.70	1.5	0.2		CN	P 14	2,0	12	7977.995	3	0.4		Atm			
7960.270	15	1.9		Atm H ₂ O	Q 2	013	26	7978.46 a	4	0.5		CN— CN	P 17 P 19	2,0 2,0	12 12
7960.734	49	6.2		Atm H ₂ O	Q 1	013	26	7978.834	13	1.6	<i>S</i>	Ti I	{1.89 3.32}	151 308	
7961.604	27	3.4	<i>s</i>	Atm H ₂ O Ti I	{R 2 Q 5 3.30}	{112 013 308}	}26	7979.00 a	3	0.4					
7962.606	12	1.5		CN	Q 21	2,0	12	7979.81	3	0.4		CN	R 34	2,0	12
7962.861	14	1.8		Atm H ₂ O	Q 3	013	26	7980.008	9	1.1	<i>u</i>	Atm H ₂ O Fe I p	Q 3 5.08	013 1304	26
7963.00 a	8	1.0		Atm H ₂ O	{Q 4 R 2}	{013 112}	}26	7980.452	13	1.6		Atm H ₂ O	Q 3	112	26
7963.132	43	5.4		Atm H ₂ O	Q 3	013	26	7980.79	4	0.5		CN	R 33	2,0	12
7963.42 a	6	0.8		CN CN	Q 23 P 17	2,0 2,0	12 12	7981.150	6	0.8	<i>s</i>	CN	Q 24	2,0	12
7964.349	27	3.4		Atm H ₂ O	Q 3	013	26	7981.54	1	0.1		☉?			
7964.970	24	3.0	<i>w,d</i>	Atm H ₂ O Fe I p (CN)	Q 4 5.06 R 32	013 1303 2,0	26 12	7982.06 a	1.5	0.2		Atm			
7965.55	3	0.4	<i>s,N</i>	Fe I p— CN	5.08 P 15	1305 2,0	12	7982.87	1	0.1		Atm			
7966.43	1.5	0.2		Atm				7983.65	3	0.4		Atm H ₂ O	Q 5	013	26
7967.10	3	0.4	<i>s</i>	CN	R 31	2,0	12	7984.00	30	3.8		Atm H ₂ O	P 2	013	26
7967.70	2	0.3		Atm H ₂ O	Q 5	013	26	7984.342S	8	1.0		CN	Q 26	2,0	12
7968.121	30	3.8		Atm H ₂ O	{Q 5 Q 4}	{013 013}	}26	7985.17	1.5	0.2		CN	P 18	2,0	12
7968.473	14	1.8		Atm H ₂ O CN	Q 2 Q 22	013 2,0	26 12	7986.264	13	1.6		Atm H ₂ O	P 2	013	26
7968.765	6	0.8		Atm H ₂ O	Q 5	013	26	7986.48 a	3	0.4		CN	P 20	2,0	12
								7987.24	} 22	} 2.8	{ <i>s,N</i> <i>s</i>	☉			
							7987.391	Atm Co I				2.08	89		

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
7987.97	5	0.6	s?	CN	Q 25	2,0	12	8004.971	7	0.9		Atm H ₂ O	P 3	013	26
7988.113	11	1.4		Atm H ₂ O (CN)	P 3 R 34	112 2,0	26 12	8006.46	14	1.8		☉?			
7988.40 a	1	0.2						8006.62	4	0.5		Atm H ₂ O	Q 5	112	26
7990.729	15	1.9		Atm H ₂ O	P 2	013	26	8006.97	5	0.6		☉?			
7990.90	7	0.9		Atm?				8007.470	95	11.9		Atm H ₂ O	P 3	013	26
7991.52	1	0.1		Atm?				8007.720	14	1.8		Atm H ₂ O	P 3	013	26
7991.71	2	0.3		☉?				8008.455	14	1.8		CN	Q 29	2,0	12
7992.322	9	1.1	s	CN	{P 19 Q 27}	2,0 2,0	}12	8009.38	4	0.5		Si i p	6. 12	74	
7993.048	5	0.6	u,N	Al i Atm H ₂ O	4. 08 R 6		211 26	8010.088	6	0.7		CN	Q 28	2,0	12
7993.43	3	0.4		Cr i?	9. 33			8010.896	[10]	1.2		Atm H ₂ O	Q 3	112	26
7993.86	4	0.5	s	Atm H ₂ O— ☉	R 5	112	26	8011.72	4	0.5		CN	R 37	2,0	12
7994.02 a	6	0.8	w	Atm H ₂ O	R 1	112	26	8011.98	3	0.4		CN	P 23	2,0	12
7994.488S	50	6.0	u	Fe i				8012.273	10	1.2	o?	Si i ? p Atm H ₂ O?	7. 87 R 3	112	26
7994.75 a	3.5	0.4		CN	P 21	2,0	12	8012.484	15	1.9	w	—CN	R 38	2,0	12
7995.019	12	1.5	s	CN Si i p	Q 26 5. 61	2,0 21	12	8012.940S	43	5.4		Atm H ₂ O	P 4	013	26
7995.63	6	0.8	} s,N	{ CN ☉	{R 35 R 36}	2,0 2,0	}12	8013.384	17	2.1		Atm H ₂ O	Q 4	112	26
7995.809	2.5	0.3							8013.81	3	0.4		Atm H ₂ O	R 7	211
7996.485	11	1.4	S	Ti i	3. 34	308		8014.051	25	3.1		Atm H ₂ O	P 4	013	26
7996.80	2	0.3		Co i?	2. 14	79		8014.713	6	0.7		Atm H ₂ O	R 2	112	26
7997.572	1.5	0.2		Atm				8015.03 a	3	0.4					
7998.247	23	2.9		Atm H ₂ O	R 1	112	26	8015.652	4	0.5		Atm? CN	P 22	2,0	12
7998.499	15	1.9		Atm H ₂ O	P 3	013	26	8016.523	7	0.9		Atm H ₂ O Fe i p	Q 4 4. 79	112 1249	26
7998.953	172	20.4	u	Fe i	4. 37	1136		8017.04	8	1.0		CN	Q 30	2,0	12
7999.88	3	0.4		CN	P 20	2,0	12	8017.425	12	1.5		Atm H ₂ O	Q 5	112	26
8000.300S	57	7.1		Atm H ₂ O (CN)	P 3 Q 28	013 2,0	26 12	8018.044	13	1.6		Cr i— CN	4. 39 Q 29	299 2,0	12
8000.52	2	0.2		Atm?				8018.304	6	0.7		Atm H ₂ O	Q 3	112	26
8000.959	4	0.5		Atm H ₂ O	R 4	112	26	8018.64 a	2	0.2					
8001.40	1.5	0.2		Atm?				8020.240	[6]	0.7	s	CN	R 38	2,0	12
8002.40	5	0.6		CN	Q 27	2,0	12	8020.709	23	2.9		Atm H ₂ O	P 4	013	26
8002.56	7	0.9		Fe i	4. 58	1217		8021.07 a	5	0.6		CN	P 24	2,0	12
8003.237	14	1.8		Atm H ₂ O (CN)	R 4 P 22	112 2,0	26 12	8021.44	2	0.2		CN	R 39	2,0	12
8003.53	6	0.7		Atm? CN	R 36	2,0	12	8022.055	14	1.8		Atm H ₂ O	Q 2	112	26
8003.93	[3]	0.4		CN	R 37	2,0	12	8022.52	2	0.2	u	Atm H ₂ O	R 6	211	26
8004.588	3.5	0.4		Atm				8022.971	10	1.2		Atm H ₂ O	Q 5	112	26
								8023.166	20	2.5		Atm H ₂ O	R 1	112	26
								8023.852	14	1.8		Atm H ₂ O	P 4	013	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8024.178	12	1.5		Atm H ₂ O	R 2	112	26	8041.77	[3]	0.4	s,N	CN— Atm H ₂ O	P 25 P 5	2,0 013	12 26
8024.547	14	1.8	<i>o</i>					8042.321	9	1.1	<i>u</i>	Atm H ₂ O—	Q 2	112	26
8024.861	11	1.4	<i>S</i>	Ti I	1.88	151		8043.169	[23]	2.9		Atm H ₂ O	P 6	013	26
8025.193	8	1.0		Atm H ₂ O	P 4	013	26	8043.612	[7]	0.9		Atm H ₂ O	P 6	013	26
8025.865	8	1.0		Atm H ₂ O CN	P 4 Q 31	013 2,0	26 12	8043.874	17	2.1		CN Atm H ₂ O	Q 32 P 5	2,0 013	12 26
8026.09	6	0.7		Atm				8044.398	[25]	3.1		Atm (CN)	Q 33	2,0	12
8026.38	6	0.7		CN	Q 30	2,0	12								
8026.925	[41]	5.1	<i>w</i>	Si I Atm H ₂ O	6.26 R 4	211	26	8045.530S	[39]	4.8		Atm H ₂ O	{Q 1 R 3}	112 211	}26
8027.39	[2]	0.2	<i>S,N</i>	V I	1.06	30		8046.058S	146	18.6	<i>u</i>	Fe I	4.41	1136	
8027.838	13	1.6	<i>W</i>	☉				8046.49	7	0.9		Atm H ₂ O	P 5	013	26
8027.93	19	2.4	<i>w</i>	Fe I	3.25	623		8046.80	7	0.9		Si I p	6.12	73	
8028.318	70	9.5	<i>w</i>	Fe I	4.47	1154		8047.625S	[58]	7.3	<i>S</i>	Fe I	0.86	12	
8028.544	44	5.5		Atm H ₂ O	P 5	013	26	8048.980	10	1.2		Atm H ₂ O	R 4	211	26
8029.02 a	3	0.4		CN	R 39	2,0	12	8049.33	[18]	2.2	<i>w,NN</i>	☉			
8029.21 a	2.5	0.3		Co I	4.05			8049.54 a	12	1.5					
8029.453	3.5	0.4		Atm H ₂ O	R 5	211	26	8049.90	[42]	5.2		Mg I	5.93		
8030.36	2	0.2		CN	P 25	2,0	12	8050.24 a	Plate	Defect					
8030.67	3	0.4		CN	R 40	2,0	12	8051.12	2	0.2		CN	P 26	2,0	12
8031.269	9	1.1		Atm H ₂ O	Q 2	112	26	8052.435	11	1.4		Atm H ₂ O	P 6	013	26
8032.04	1	0.1		Atm?				8052.88	2	0.2		☉?			
8032.77	3	0.4		CN	P 24	2,0	12	8053.098	8	1.0	<i>s</i>	CN—	Q 33	2,0	12
8033.606	[18]	2.2		Atm H ₂ O	Q 5	112	26	8053.81	2	0.2		☉?			
8034.293	23	2.9		Atm H ₂ O	Q 3	112	26	8054.311	52	6.5	<i>s,N</i>	Mg I (CN)	5.93 Q 34	2,0	12
8034.50 a	3	0.4		Ni I	3.74	109		8054.903	8	1.0		Atm H ₂ O	P 6	013	26
8034.962	14	1.7	<i>s</i>	CN	{Q 31 Q 32}	{2,0 2,0}	}12	8055.995	7	0.9	<i>s?</i>	Co I?	4.15	193	
8035.36	9	1.1		Atm H ₂ O	{R 2 Q 4}	{112 112}	}26	8056.36	3	0.4		☉?			
8035.608	32	4.0	<i>w,N</i>	Si I	5.98	57		8056.67	2	0.2		☉?			
8036.460S	35	4.4		Atm H ₂ O	{Q 3 P 5}	{112 013}	}26	8056.95	3	0.4		☉?			
8037.878	3	0.4		Atm H ₂ O	{R 1 Q 6}	{112 013}	}26	8057.27	4	0.5	<i>s</i>	CN	R 42	2,0	12
8038.15	3	0.4		Atm? CN	R 40	2,0	12	8057.91	2.5	0.3		Si I? p	6.10	68	
8039.600S	25	3.1		Atm H ₂ O	P 5	013	26	8058.54	6	0.7		Atm			
8040.00	2.5	0.3		CN	P 26	2,0	12	8058.74	7	0.9	<i>o?</i>	C I Atm H ₂ O?	8.85 P 6	013	26
8040.28	3	0.4		CN	R 41	2,0	12	8059.538	13	1.6		Atm H ₂ O	P 7	013	26
8041.038	3	0.4		Atm				8060.249	11	1.4		Atm H ₂ O CN	P 7 {P 28 R 43}	013 2,0 2,0	}12
								8060.70	2	0.2		CN	P 27	2,0	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8061.16 m			s	Cr I	4.41	300	13	8076.293	10	1.2		Atm H ₂ O	{P 8 P 8}	013 013	}26
8062.161	10	1.2		Atm H ₂ O Atm H ₂ O	P 6 P 6	013 013	26 26	8077.012	2	0.2		CN	Q 4	3,1	12
8062.594	8	1.0	s	CN	Q 34	2,0	12	8077.68	2.5	0.3		CN	R 44	2,0	12
8062.89	1.5	0.2		Atm H ₂ O	P 6	013	26	8077.96	3	0.4		CN	R 14	3,1	12
8063.10 m			s	Zr I	0.62	40	13	8078.501	11	1.4	w	Atm H ₂ O C I	R 4 8.85	211	26
8063.286S	14	1.7		Atm H ₂ O	R 5	211	26	8079.00 a	1	0.1					
8064.106	7	0.9		CN	Q 35	2,0	12	8079.252	3	0.4		Atm H ₂ O	P 2	112	26
8064.61	1.5	0.2		Atm?				8079.597	3	0.4		Atm H ₂ O	P 7	013	26
8065.226	8	1.0		Atm				8080.00 a	1	0.1					
8065.876	6	0.7		Al I	4.08	16		8080.30 a	1.5	0.2					
8066.07 m			s	Ti I	1.89	151	13	8080.582	28	3.9		Ti I p	2.17	195	
8067.08 a	1.5	0.2		CN	{R 4 R 5}	{3,1 3,1}	}12	8080.69	12	1.5	S,N	Fe I	3.30	623	
8067.26	6	0.7		CN	{R 43 R 6}	{2,0 3,1}	}12	8080.97 a	2.5	0.3		CN	P 29	2,0	12
8067.78	5	0.6		CN	R 7	3,1	12	8081.523	12	1.5	s,N	Atm H ₂ O CN— CN	P 1 R 45 P 30	112 2,0 2,0	26 12 12
8068.261	7	0.9	S	Ti I	1.87	151		8082.16	1	0.1		Atm H ₂ O	P 7	013	26
8068.50	3	0.4	o	Sm II CN	1.75 R 8	68 3,1	12	8082.54	9	1.1		CN	Q 36	2,0	12
8069.34	2	0.2		⊙?				8082.969	4	0.5	s	⊙ Atm H ₂ O	P 3	112	26
8069.79	9	1.1		Si I? p	6.27			8083.19	3	0.4		CN	R 16	3,1	12
8070.016	25	3.1	o?	⊙ Atm H ₂ O?	Q 1	112	26	8083.82	5	0.6		C I	8.85		
8070.34	7	0.9	S	Zr I	0.73	40		8084.807	1.5	0.2		Atm H ₂ O	R 4	310	26
8070.620	29	3.6		Si I— CN C I	6.08 {P 28 R 44 R 10 8.85}	2,0 2,0 3,1	}12	8085.175	150	19.6	w	Fe I	4.44	1136	
8071.262	21	2.6	o	Si I	6.10		32	8085.431	14	1.7		Atm H ₂ O	{R 4 Q 3}	211 112	}26
8071.50 a	2	0.2						8085.82	5	0.6		Atm H ₂ O	R 4	310	26
8072.162	12	1.5	s	Fe I	2.42	108		8086.18	6	0.7		CN	R 17	3,1	12
8072.381	6	0.7		CN	Q 35	2,0	12	8087.46	2.5	0.3		CN	Q 8	3,1	12
8073.029	14	1.7	w,N	⊙				8088.31	3	0.4		CN	R 45	2,0	12
8073.80	1.5	0.2		CN	R 12	3,1	12	8088.56	2	0.2		Atm?			
8074.430	6	0.7		CN	Q 36	2,0	12	8089.361	13	1.6	w?	CN?	R 18	3,1	12
8074.744	4	0.5		⊙				8089.76	6	0.7		CN CN— CN	R 9 R 8 R 10	3,1 3,1 3,1	12 12 12
8075.158S	33	3.8	S	Fe I	0.91	12		8090.30 a	12	1.5		Fe I	4.58	1218	
8075.35 a	5	0.6		Al I	4.09	16		8090.464	15	1.9	w,N	Atm H ₂ O— CN CN	R 3 R 11 Q 9	211 3,1 3,1	26 12 12
8075.549	6	0.7	o	⊙				8091.082	2	0.2		Atm H ₂ O	R 2	211	26
8075.75 a	3.5	0.4		CN	R 13	3,1	12	8091.50	3	0.4		CN	P 30	2,0	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8092.00 a	4	0.5		CN	R 5	3,1	12	8107.32	9	1.1		○			
8092.640	38	4.7	w	Cu I	3.82	6		8107.842S	20	2.5		Atm H ₂ O	R 7	211	26
8093.04	5	0.6		CN	Q 37	2,0	12	8108.312	11	1.4		Fe I	2.73	265	
8093.232	66	8.2	W,N	Si I V I?	5.86 1.05	34 30		8109.018	7	0.9		Atm H ₂ O	R 5	310	26
8093.76	1	0.1		Atm H ₂ O?	P 9	013	26	8109.65 a	2	0.2		CN	R 20	3,1	12
8093.937	25	2.9	w	Co I	4.02	189		8109.840	8	1.0		CN— CN	Q 8 R 23	3,1 3,1	12 12
8094.270	12	1.5		Atm H ₂ O	P 2	112	26	8110.090	7	0.9		CN	Q 14	3,1	12
8094.836	6	0.7		○?				8110.568	13	1.6		Atm H ₂ O	R 7	211	26
8095.352	2.5	0.3		Atm H ₂ O	Q 2	112	26	8111.01	2	0.2		Atm?			
8096.02	12	1.5	u	CN CN	Q 38 R 15	2,0 3,1	12 12	8111.85	3	0.4		CN	Q 9	3,1	12
8096.580S	16	2.0		Atm H ₂ O	P 3	112	26	8112.179	18	2.2		Fe I	2.69	265	
8096.874	36	4.0	u	Fe I	4.07	999		8112.406	16	2.0		Atm H ₂ O	R 3	211	26
8097.524	10	1.2		—CN	Q 11	3,1	12	8113.28 a	3	0.4		CN	R 21	3,1	12
8098.00 a	4	0.5		CN	R 16	3,1	12	8113.631	22	2.7		Atm H ₂ O	R 8	211	26
8098.746	114	14.1	w,N	Mg I Atm H ₂ O	5.94 Q 4	41 112	26	8113.948	27	3.3		Atm H ₂ O	R 7	211	26
8098.90	6	0.8		CN	P 7	3,1	12	8114.69	35	4.3	w	○			
8099.418	16	2.0		Atm			8114.890	u			CN	Q 39	2,0	12	
8099.75 a	4	0.5		CN	R 1	3,1	12					CN	Q 15 R 24	3,1 3,1	12
8100.43	4	0.5		CN	R 17	3,1	12	8115.70 a	2.5	0.3		CN	R 48	2,0	12
8100.90 a	3	0.4		CN	R 21	3,1	12	8115.931	4	0.5	s	CN	P 33	2,0	12
8101.09	2.5	0.3						8116.38 a	2.5	0.3		Co I	4.02		
8101.382	10	1.2		Atm				8116.94 a	6	0.7		V I— CN	1.08 Q 11	30 3,1	12
8101.86	1.5	0.2		Atm?				8117.301	5	0.6	u?	CN— CN	R 22 P 5	3,1 3,1	12 12
8102.285	6	0.7		CN	P 31	2,0	12								
8103.165S	9	1.1		Atm H ₂ O	Q 3	112	26	8118.105	6	0.7		Atm H ₂ O	P 2	112	26
8103.764	8	1.0		CN	Q 38	2,0	12	8118.446	2	0.2		Atm H ₂ O	R 10	211	26
8103.95 a	3	0.4		CN	R 47	2,0	12	8118.72 a	3.5	0.4		CN	Q 40	2,0	12
8104.14 a	4	0.5		CN CN	P 8 P 32	3,1 2,0	12 12	8118.910S	11	1.4		Atm H ₂ O	P 4	112	26
8104.709	8	1.0		Atm H ₂ O	R 8	211	26	8119.70	4	0.5	s	CN	Q 16	3,1	12
8105.25 a	1.5	0.2		CN	R 2	3,1	12	8119.992	8	1.0		Atm CN CN	Q 12 R 25	3,1 3,1	12 12
8105.69	5	0.6		CN CN	Q 13 Q 5	3,1 3,1	12 12	8120.661	14	1.7		Atm H ₂ O	R 6	211	26
8105.937	1.5	0.2						8120.95 a	1	0.1		CN	P 11	3,1	12
8106.385	5	0.6		Atm H ₂ O	P 3	112	26	8121.248	6	0.7		Atm H ₂ O	R 7	211	26
8106.708	8	1.0		CN	Q 6	3,1	12	8121.499	14	1.7		Atm H ₂ O	R 6	211	26
8107.12	8	1.0		CN	Q 39	2,0	12	8122.22	3	0.4		CN	R 48	2,0	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8122.576	15	1.8		Atm H ₂ O	{ R 6 P 2	211 112	}26	8139.718S	22	2.7		Atm H ₂ O	R 9	211	26
8122.820	10	1.2		Atm H ₂ O	R 9	211	26	8140.674	135	16.6		Atm H ₂ O	R 6	211	26
8123.316	10	1.2		Atm H ₂ O	R 3	310	26	8140.82 a	22	2.7		Atm H ₂ O	R 5	211	26
8123.579	7	0.9		Atm H ₂ O	R 6	211	26	8141.936	152	18.7		Atm H ₂ O	R 5	211	26
8124.289	1	0.1	<i>u, N</i>	Atm?—				8142.761	7	0.9		CN	Q 42	2,0	12
8125.054	19	2.4	<i>s, N</i>	—CN	P 33	2,0	12	8143.56	7	0.9		Atm H ₂ O	P 4	112	26
8125.445S	[22]	2.7		Atm H ₂ O	R 6	211	26	8143.794	65	8.0		Atm			
8126.227	13	1.6	<i>s</i>	CN— CN	R 24 Q 40	3,1 2,0	12 12	8144.193	30	3.7		Atm			
8126.48	5	0.6		Fe I?	4.58	1218		8144.515	20	2.5	<i>s, N</i>	[Atm H ₂ O V I	{ R 5 R 7 1.04	131 131 30	}26
8126.852	23	2.8		Atm H ₂ O	R 8	211	26	8144.76	5	0.6		CN	Q 18	3,1	12
8127.130	9	1.1		Atm H ₂ O CN	P 5 P 12	112 3,1	26 12	8145.478	18	2.2	<i>s</i>	Fe I			
8127.70 a	1.5	0.2		CN	R 49	2,0	12	8146.213S	83	10.2		Atm H ₂ O	R 5	310	26
8127.94	4	0.5	<i>s, N</i>	CN CN	P 34 P 8	2,0 3,1	12 12	8146.67	15	1.8		CN Fe I p	P 12 3.27	3,1 623	12
8129.35	4	0.5		Fe I p	2.76	265		8147.188S	96	11.8		Atm			
8130.01	22	2.7		Atm H ₂ O	P 5	112	26	8147.55 a	6	0.7		CN	R 28	3,1	12
8130.23	7	0.9		Atm				8147.80 a	5	0.6					
8130.460	51	6.3		Atm H ₂ O	R 6	211	26	8148.078	48	5.9		Atm?			
8131.00	7	0.9		CN— CN	Q 15 R 25	3,1 3,1	12 12	8148.392	145	18.8		Atm H ₂ O	R 7	211	26
8131.213	24	3.0		Atm H ₂ O	R 7	211	26	8149.269	55	6.8		Atm H ₂ O	R 7	211	26
8131.38	7	0.9		CN Atm H ₂ O	R 27 P 3	3,1 112	12 26	8149.58 a	16	2.0		Fe I	{ 4.58 4.58	1217 1218	
8131.709	1.5	0.2		Atm H ₂ O	R 12	211	26	8149.689	140	17.2		Atm H ₂ O	{ R 4 R 5	211 211	}26
8132.373	4	0.5		Atm H ₂ O	P 5	112	26	8149.876	63	7.7		Atm H ₂ O	R 4	211	26
8133.04	1	0.1	<i>s</i>	Zr I	0.69	40		8150.05 a	4	0.5		CN	{ Q 42 Q 19	2,0 3,1	}12
8133.209S	24	3.0		Atm H ₂ O	{ R 5 R 7	211 211	}26	8150.54	6	0.7		Si I CN	5.61 R 30	20 3,1	12
8133.564	13	1.6		Atm H ₂ O	R 11	211	26	8151.336	3	0.4		○?			
8133.777	94	11.6		Atm H ₂ O	R 5	211	26	8151.95	1	0.1		Co I	4.07	193	
8134.520	7	0.9		Atm H ₂ O	R 2	211	26	8152.498	142	17.4		Atm H ₂ O	{ R 1 R 4	211 211	}26
8135.047	76	9.4		Atm H ₂ O	R 5	211	26	8153.06	16	2.0		CN	P 36	2,0	12
8136.207	17	2.1		Atm H ₂ O	R 10	211	26	8153.703	99	12.2		Atm H ₂ O	R 4	211	26
8136.525	25	3.1		Atm H ₂ O	R 5	211	26	8154.409		5.4		Atm H ₂ O	R 3	310	26
8137.149	10	1.2		Atm H ₂ O	R 5	211	26	8154.63 a		27.5		Atm H ₂ O	R 6	211	26
8137.47	3	0.4	<i>s</i>	CN—	R 28	3,1	12	8154.70 a		6.7		Atm H ₂ O	R 6	211	26
8137.974	5	0.6	<i>s</i>	CN	Q 41	2,0	12	8154.90 a		1.0		Si I	6.10		
8138.777	16	2.0		Atm H ₂ O	R 6	230	26								

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
8155.22	7	0.9		Atm CN— CN	Q 22 Q 43	3,1 2,0	12 12	8169.386S	114	13.9		Atm H ₂ O	R 3	211	26
								8169.995	309	37.8		Atm H ₂ O	{Q 6 R 4}	211 211	}26
8155.467	13	1.6		Atm ☉?				8170.75 a	1	0.1		CN	P 16	3,1	12
8155.85	3	0.4		Atm H ₂ O	P 3	112	26	8171.239	23	2.8	w	Si I	6.10		
8156.13 a	1.5	0.2						8171.647	6	0.7		Atm H ₂ O	P 4	112	26
8156.51	1	0.1		Atm H ₂ O?	Q 9	211	26	8172.00	2	0.2		CN	R 52	2,0	12
8156.854	8	1.0		Atm H ₂ O	P 3	112	26	8172.36	2.5	0.3		CN	R 33	3,1	12
8157.57	1.5	0.2		CN	R 31	3,1	12	8172.80 a	2	0.2					
8158.019	205	25.2		Atm H ₂ O	R 4	211	26	8173.008	12	1.5		Atm H ₂ O	R 1	310	26
8158.84	2.5	0.3		☉— Atm H ₂ O	Q 4	211	26	8173.36	3	0.4		☉			
								8173.754	10	1.2		Atm H ₂ O	Q 6	211	26
8159.15	9	1.1	s,N	Mg I CN	5.93 R 51	2,0	12	8174.12	7	0.9		CN	Q 23	3,1	12
8159.38 a	1.5	0.2						8174.678	31	3.8		Atm H ₂ O	Q 5	211	26
8159.60 a	1	0.1						8175.12	6	0.7		CN	Q 44	2,0	12
8159.88 a	1	0.1						8175.72	2	0.2		Atm?			
8160.16	2	0.2		CN	R 30	3,1	12	8176.20 a	4	0.5					
8160.78	1.5	0.2		☉				8176.32	4	0.5					
8160.98	0.5	0.1	S,N	V I	1.06	30		8176.975	350	42.8		Atm H ₂ O	R 3	211	26
8161.434	239	29.3		Atm H ₂ O	R 5	211	26	8177.40 a	9	1.2					
8161.972	116	14.2		Atm H ₂ O	R 5	211	26	8177.60 a	3.5	0.4		CN	{P 17 P 19}	3,1 3,1	}12
8162.35	257	31.5		Atm H ₂ O	R 3	211	26	8177.932S	190	23.3		Atm H ₂ O	R 2	211	26
8162.801	9	1.1		Atm H ₂ O	Q 7	211	26	8178.491S	104	12.7		Atm H ₂ O	R 2	211	26
8163.02	8	1.0	s,N	Atm Cr I	4.39	298		8179.056	190	23.3		Atm H ₂ O (Fe I)	R 3 4.31	211 1136	26
8163.776	7	0.9		Atm				8179.48	5	0.6		Si I p	5.86	33	
8164.157	16	2.0		Atm H ₂ O	{R 4 R 6}	131 131	}26	8179.913	16	2.0		Atm H ₂ O	Q 4	211	26
8164.54	350	42.8		Atm H ₂ O	{R 3 R 3}	211 211	}26	8180.23	4	0.5		CN	R 34	3,1	12
8165.337S	52	6.4		Atm H ₂ O	R 3	211	26	8180.878	6	0.7		CN	Q 24	3,1	12
8165.79	3	0.4		CN	R 52	2,0	12	8181.273	6	0.7		CN	Q 45	2,0	12
8166.06	2	0.2		CN	P 37	2,0	12	8181.848S	219	26.8		Atm H ₂ O	R 2	211	26
8166.450	5	0.6		Atm H ₂ O	P 6	112	26	8182.25	10	1.2		Atm H ₂ O	Q 5	310	26
8166.75	3	0.4		Cr I?	4.41	299		8182.48	8	1.0		Atm ☉			
8166.88 a	2	0.2		CN	R 31	3,1	12	8183.12	19	2.3		Atm H ₂ O	Q 3	211	26
8167.138	6	0.7		Atm				8183.25 a	180	22.0	S,N	Na I	2.10	4	
8167.660	6	0.7		CN	Q 22	3,1	12	8184.207	8	1.0		☉			
8168.107	8	1.0		CN	Q 44	2,0	12					Atm H ₂ O	Q 2	211	26
8168.820	163	20.0		Atm H ₂ O	R 4	211	26	8184.50	5	0.6		CN	Q 26	3,1	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes
8184.78	8	1.0		Atm CN	P 18	3,1	12	8202.94	3	0.4		Vi?	3.13		
8185.34	3	0.4		CN	R 53	2,0	12	8203.230	5	0.6	<i>o?</i>	CN Si i?	Q 27	3,1	12
8185.67	3	0.4		Cr i?	4.41	299		8203.48 a	1.5	0.2		CN	P 22	3,1	12
8186.371	193	23.6		Atm H ₂ O	R 2	211	26	8204.09	4	0.5	<i>S</i>	Fe i p	0.91		12
8186.791	[50]	6.1	<i>s</i>	Fe i (Vi)	4.91 1.05	1272 30		8204.827	21	2.6	}	Atm H ₂ O	Q 6	211	26
8187.852	12	1.5		Atm H ₂ O Ni	Q 5 10.32	211 2	26	8204.95	14	1.7			Fe i	0.96	
8188.11	13	1.6	<i>s,N</i>	CN— CN	Q 25 Q 45	3,1 2,0	12 12	8205.67	2	0.2		CN	R 37	3,1	12
8188.38 a	2	0.2		CN	R 35	3,1	12	8206.785	4	0.5		Atm			
8189.272	359	43.9		Atm H ₂ O	R 2	211	26	8207.04	2	0.2		CN	P 40	2,0	12
8190.83	4	0.5		☉				8207.749S	64	8.4	<i>s</i>	Fe i	4.44		1136
8191.02	3.5	0.4		Atm H ₂ O	R 2	310	26	8208.15	1.5	0.2		CN	P 21	3,1	12
8192.069	3	0.4		Atm H ₂ O	P 4	112	26	8208.56	[5]	0.6		CN— Co i	Q 47 4.24	2,0 193	12
8192.24	4	0.5		CN	P 19	3,1	12	8209.559	38	4.6		Atm H ₂ O	Q 3	211	26
8192.55	3	0.4		CN	Q 27	3,1	12	8209.85	6	0.7		Mg i	5.75		
8193.113	290	35.4		Atm H ₂ O	R 1	211	26	8210.321	22	2.7		Atm H ₂ O	R 0	310	26
8193.738	4	0.5		Atm H ₂ O	Q 7	211	26	8210.96 a	1.5	0.2		Ni?	10.33		2
8194.233	1	0.1		Atm				8211.151	[3.5]	0.4		Atm H ₂ O	P 5	112	26
8194.836S	304	34.3	<i>S,N</i>	Na i (Na i)	2.10 2.10	4 4		8211.32 a	2	0.2		CN	Q 28	3,1	12
8195.452	4	0.5		Si i? CN	5.96 Q 26	3,1	12	8211.57	1	0.1		Si i	5.61		19
8196.51	5	0.6		Fe i	4.59	1217		8212.132S	93	11.3		Atm H ₂ O	R 0	211	26
8196.96	5	0.6		CN CN	R 35 R 36	3,1 3,1	12 12	8212.55	2.5	0.3	<i>S?</i>	Zr i	0.65		40
8197.704	320	39.1		Atm H ₂ O	R 1	211	26	8213.041	157	17.3	<i>w,N</i>	Mg i	5.75		28
8198.278	8	1.0		☉				8213.85	10	1.2	<i>s,N</i>	Atm H ₂ O— Mg ii?	Q 3 9.99	310 7	26
8198.98	129	15.8	<i>S</i>	Fe i Atm H ₂ O Vi	4.43 Q 4 1.04	1154 211 30	26	8214.413	18	2.2		Atm H ₂ O	Q 5	211	26
8199.49	0.5	0.1		Atm				8214.71	6	0.7	<i>o?</i>	CN	R 38	3,1	12
8199.989	69	8.4		Atm H ₂ O	R 1	310	26	8215.155	35	4.2	<i>w,N</i>	Si i CN— CN	6.26 P 40 Q 47	2,0 2,0	12
8200.694S	138	16.9		Atm H ₂ O	R 1	211	26	8215.798	8	1.0	<i>o</i>				
8200.99	8	1.0		CN	Q 28	3,1	12	8216.303	7	0.9	<i>o</i>	Ni	10.33		2
8201.20	1.5	0.2		CN	P 39	2,0	12	8216.975	2	0.2		Atm			
8201.57	10	1.2		Atm (CN)	Q 46	2,0	12	8217.041	10	1.2	<i>s,N</i>	Atm H ₂ O— Mg ii?	Q 3 9.99	310 7	26
8201.695	42	5.1	<i>w</i>	Atm Ca ii	7.50	13		8218.51	6	0.7		—CN	Q 30	3,1	12
8202.14	2	0.2		Atm Ca ii	7.50	13		8219.710	5	0.6		CN	Q 29	3,1	12
								8220.388	221	25.8	<i>s</i>	Fe i	4.32		1136
								8221.553S	112	13.6		Atm H ₂ O	Q 4	211	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low EP or Rot. Line	RMT No. or Vib. Band	Notes		
8222.24	1	0.1		CN	P 24	3,1	12	8242.50 a	11	1.3		N I	10.33	2			
8222.70	2	0.2		CN	Q 48	2,0	12	8243.130	33	4.0		Atm H ₂ O	Q 4	211	26		
8222.88	5	0.6		Atm H ₂ O CN	Q 1 R 38	310 3,1	26 12	8243.488	278	33.8		Atm H ₂ O	P 1	211	26		
8223.10 a	1.5	0.2		N I	10.33	2		8244.05	4	0.5		Atm CN	{P 25 R 41}	{3,1 3,1}	}12		
8223.990	133	16.2		Atm H ₂ O	Q 1	211	26	8246.629	9	1.1		Atm H ₂ O	Q 6	211	26		
8224.460	22	2.7		Atm H ₂ O	Q 6	211	26	8246.81	6	0.7		CN	Q 32	3,1	12		
8224.82	1	0.1		Pt I?	2.72			8247.307	6	0.7		CN	Q 33	3,1	12		
8225.124	3	0.4		Atm?				8247.85	1	0.1		Atm					
8225.688S	88	10.7		Atm H ₂ O	Q 3	211	26	8248.137S	81	9.9	w	Fe I	4.37	1136			
8226.962	347	42.2		Atm H ₂ O	Q 2	211	26	8248.802S	98	11.9	W	Ca II	7.51	13			
8227.986	196	23.8	}	{ Atm H ₂ O Atm H ₂ O Atm H ₂ O Atm H ₂ O Atm H ₂ O	Q 5	211	}26	8249.620	5	0.6		Atm					
8228.32	463	56.2			Q 3	211			8250.38	3	0.4		Atm ☉				
8228.761	218	26.5			Q 3	211											
8228.86	20	2.4			Q 4	211											
8228.86	20	2.4			Q 2	211											
8229.27	5	0.6		CN	{P 41 Q 48}	{2,0 2,0}	}12	8250.99	5	0.6		CN	P 43	2,0	12		
8229.762S	175	21.3		Atm H ₂ O	Q 4	211	26	8251.636	5	0.6		CN	R 41	3,1	12		
8230.486	22	2.7		Atm H ₂ O	Q 4	211	26	8252.02	8	1.0		CN	Q 50	2,0	12		
8230.63	12	1.5		Si I	5.62	19		8252.727S	104	12.6		Atm H ₂ O	Q 3	211	26		
8231.289	328	39.9		Atm H ₂ O	Q 5	211	26	8253.60 m			S,N	V I	1.08	30	13		
8231.703	197	24.0		Atm H ₂ O	Q 1	211	26	8253.81	4	0.5		CN Fe I? p	P 26 4.58	3,1 1216	12		
8232.319	91	10.8	s	Fe I	4.41	1136		8254.32	2	0.2		CN Fe I p	R 42 3.05	3,1 508	12		
8233.906S	213	25.9		Atm H ₂ O	Q 5	211	26	8254.681	24	2.9	W	Ca II	7.51	13			
8234.628S	53	6.4		Atm H ₂ O (Mg II)	Q 6 10.00	211 7	26	8255.57	4	0.5		☉?					
8235.34	2.5	0.3		Ca I?	4.45			8256.00	0.5	0.1	S,N	V I	1.06	30			
8235.81	9	1.1		Cr I Atm H ₂ O	4.40 Q 7	298 211	26	8256.515	294	35.6		Atm H ₂ O	P 2	211	26		
8236.121	29	3.5		Atm H ₂ O	Q 7	211	26	8257.283	8	1.0		☉					
8237.341S	90	10.9		Atm H ₂ O	Q 7	211	26	8257.51	8	1.0		CN	Q 34	3,1	12		
8238.538	6	0.7		Atm H ₂ O	Q 5	211	26	8257.860	14	1.7		Atm H ₂ O	P 2	310	26		
8239.132S	39	4.6	s	Atm H ₂ O	Q 8	211	26	8258.40	4	0.5		CN	Q 50	2,0	12		
8239.924S	64	7.8		Fe I	2.42	108		8258.72	2	0.2		CN	P 43	2,0	12		
8240.379	3	0.4		Atm H ₂ O	Q 2	211	26	8259.692S	130	15.8		Atm H ₂ O	P 2	211	26		
8241.277	1	0.1		Atm H ₂ O	Q 8	211	26	8260.355	11	1.3		Atm H ₂ O	Q 7	211	26		
8241.60 m			S,N	Atm H ₂ O	Q 8	211	26	8260.79	3	0.4		Atm?					
8241.765	3.5	0.4	s?	V I	1.05	30	13	8261.00	1.5	0.2		Atm					
8242.14 a	1.5	0.2		CN	R 40	3,1	12	8261.849	6	0.7		Atm					
8242.365	18	2.2		CN	P 26	3,1	12	8262.733	4	0.5		Atm					
				Atm H ₂ O	Q 7	211	26	8263.445S	107	12.9		Atm H ₂ O	P 2	211	26		

The Solar Spectrum—Continued

Wave-length (Å)	Equi-valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equi-valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8263.850	32	3.9	<i>u</i>	Fe I	4.95	1272		8285.71	4	0.5		CN	P 30	3,1	12
8264.276	26	3.1	<i>o?</i>	Fe I	5.10	1332		8286.17	3	0.4		Atm			
8264.642	6	0.7		Atm H ₂ O	Q 2	310	26	8287.233	18	2.2		Atm			
8264.969	9	1.1		Atm H ₂ O	Q 3	310	26	8287.50	6	0.7		Atm H ₂ O	Q 3	310	26
8265.69	1.5	0.2		☉?								CN	{ Q 36 R 45 }	{ 3,1 3,1 }	12
8266.433	11	1.3	<i>s</i>	CN— CN	P 44 Q 34	2,0 3,1	12	8287.940	290	35.0		Atm H ₂ O	P 4	211	26
8267.118	6	0.7	<i>u</i>	CN	Q 51	2,0	12	8288.221	23	2.8		Atm H ₂ O	Q 5	211	26
8268.073	12	1.4		CN	Q 35	3,1	12	8288.63	1.5	0.2					
8268.47	3	0.4		Atm ☉				8288.955	9	1.1	<i>s</i>	CN	Q 52	2,0	12
8268.83	4	0.5		Atm ☉				8289.535	140	16.9		Atm H ₂ O	P 4	211	26
8269.186	19	2.3		Atm H ₂ O ☉	Q 4	211	26	8290.01	9	1.1		CN	Q 37	3,1	12
8269.32 a	5	0.6		Co I	5.15			8290.45	2.5	0.3					
8269.644	16	1.9	<i>w</i>	Fe I	4.59	1218		8290.98	1.5	0.2		☉			
8270.16	1	0.1		☉				8291.229	6	0.7		Atm H ₂ O	R 4	131	26
8272.042S	124	15.0		Atm H ₂ O	P 3	211	26	8292.07	2	0.2		CN	Q 8	4,2	12
8272.47	8	1.0		CN	R 43	3,1	12	8292.806	15	1.8	<i>w</i>	☉ Atm H ₂ O	Q 4	310	26
8273.076	15	1.8		Atm H ₂ O	Q' 2	211	26	8293.52	52	6.5	<i>s</i>	Fe I	3.30	623	
8273.475	10	1.2	<i>s</i>	CN	Q 51	2,0	12	8294.160	193	23.3		Atm H ₂ O	P 4	211	26
8274.354	296	35.8		Atm H ₂ O (Fe I)	P 3 5.07	211 1332	26	8294.541	106	12.8		Atm H ₂ O	P 4	211	26
8275.553	4	0.5		Atm H ₂ O	Q 6	211	26	8295.299	39	4.7		Atm H ₂ O	P 4	211	26
8275.899	36	4.3	<i>w</i>	Fe I	4.95	1270		8295.668	11	1.3		Atm H ₂ O	Q 7	211	26
8276.54	76	9.2		Atm H ₂ O	P 3	211	26	8296.028	15	1.8		Atm H ₂ O	Q 4	310	26
8276.69	118	14.3		Atm H ₂ O	P 3	310	26	8296.562	5	0.6		Atm ☉			
8278.19	2	0.2		☉				8297.37	1.5	0.2		CN	P 31	3,1	12
8278.710	19	2.3	<i>u</i>	Atm H ₂ O CN	Q' 3 Q 36	211 3,1	26 12	8297.65	4	0.5		Cr I? Si I?	4.41 6.12	297	
8279.600S	203	24.5		Atm H ₂ O	P 3	211	26	8298.066	7	0.8		Atm H ₂ O	Q 5	310	26
8282.024	311	37.6		Atm H ₂ O	P 3	211	26	8298.454	12	1.4		CN— CN	Q 37 Q 53	3,1 2,0	12 12
8282.67	4	0.5		CN	Q 52	2,0	12	8298.973	7	0.8		Atm H ₂ O— CN	P 4 R 46	310 3,1	26 12
8283.06	2	0.2		Atm?				8299.45	1	0.1		☉ Atm			
8283.42	[2.5]	0.3		Atm?— CN	R 44	3,1	12	8299.985	12	1.4		Fe I	5.07	1331	
8284.53	6	0.7		☉ Atm				8300.408S	[170]	20.5		Atm H ₂ O	{ P 4 P 4 }	{ 211 211 }	26
8285.17	14	1.7		CN Atm	P 29	3,1	12	8301.49	5	0.6	<i>o</i>	CN	Q 38	3,1	12
8285.40 a	2	0.2						8302.681	1.5	0.2		☉			
								8303.17	3	0.4		Fe I p Cr I?	2.73 2.71	265 57	

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Reduced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identification	Low E P or Rot. Line	RMT No. I or Vib. Band	Notes
8303.39	10	1.2		Mg I	5.93			8320.90 a	4	0.5		CN	Q 54	2,0	12
8303.65 a	1.5	0.2		CN?	R 16	4,2	12	8321.242	168	20.2		Atm H ₂ O	P 6	211	26
8304.300S	89	10.7		Atm H ₂ O	P 5	211	26	8321.587	190	22.8		Atm H ₂ O	{P 5 P 6}	211 211	}26
8305.092	213	25.7		Atm H ₂ O	P 5	211	26	8322.527	5	0.6					
8305.617	31	3.7	<i>o</i>	Mg I	5.93			8322.924	4	0.5		☉?			
8306.20	4	0.5	<i>s</i>	Zr I?— CN Ti I?	0.62 R 46 3.44	40 3,1	12	8323.42	3	0.4		CN	R 48	3,1	12
8306.699	6	0.7		Atm (Si I)	5.61	19		8324.142	8	1.0		☉			
8307.12	1	0.1		Atm?				8324.608	10	1.2		Atm ☉			
8307.54 m			<i>s</i>	Ti I	0.83	33	13	8324.99	3	0.4		Ca I	4.53		
8307.603	15	1.8		Atm H ₂ O Fe I p	P 5 0.99	310 12	26	8325.450	5	0.6		CN	Q 40	3,1	12
8308.670	3	0.4		Atm H ₂ O	Q 6	211	26	8325.737	2	0.2		Atm H ₂ O	P 4	310	26
8309.39	2.5	0.3		CN	P 32	3,1	12	8326.03 a	1.5	0.2					
8309.71	8	1.0		CN	Q 38	3,1	12	8326.316	13	1.6		Atm H ₂ O	P' 3	211	26
8310.115	30	3.6	} <i>w,d</i>	Atm H ₂ O	P 5	310	26	8326.68	2	0.2		Atm			
8310.252	60	7.2		Mg I	5.93			8326.82S	125	1.5	<i>s</i>	Fe I	2.20	60	
8310.829	19	2.3		Atm H ₂ O	Q' 6	211	26	8327.061S	193	24.0	<i>o?</i>	☉			
8311.28	11	1.3						8328.474	12	1.4		Atm H ₂ O	P 6	211	26
8311.767	29	3.5	<i>w</i>	[Atm H ₂ O ☉	P 5	211	26	8328.950	17	2.1		Atm H ₂ O	Q 7	211	26
8311.956S	97	11.7		Atm H ₂ O	{P 5 P 5}	211 211	}26	8329.254	12	1.4		Atm H ₂ O	Q 7	211	26
8312.44	7	0.8						8329.682S	125	1.5		Atm H ₂ O	P 6	211	26
8312.874	4	0.5		Atm H ₂ O	P 3	310	26	8330.26	5	0.6		CN	R 48	3,1	12
8313.301	5	0.6		CN	Q 39	3,1	12	8330.489	12	1.4		Atm H ₂ O	R 4	131	26
8313.873	30	3.6		Atm H ₂ O	P 5	211	26	8331.20	4	0.5		CN Atm H ₂ O	P 48 P 6	2,0 310	12 26
8314.45	2	0.2	<i>o?</i>	CN	P 47	2,0	12	8331.432	12	1.4	<i>u?</i>	CN	{Q 55 P 33}	2,0 3,1	}12
8314.77	5	0.6		CN	Q 54	2,0	12	8331.926	130	16.1	<i>s</i>	Fe I	4.39	1153	
8315.67	9	1.1		Atm				8332.145	35	4.2		Atm H ₂ O	P 6	211	26
8315.927	13	1.6		Atm H ₂ O	Q' 6	211	26	8332.55 a	10	1.2					
8316.224S	83	10.0		Atm H ₂ O	P 5	211	26	8332.726	11	1.3	<i>w,N</i>	Atm H ₂ O	P 6	211	26
8317.02	0.5	0.1						8332.88	8	1.0		☉ Atm			
8317.394	4	0.5		Si I	5.61	19		8333.584S	[58]	7.0		Atm H ₂ O	P 6	211	26
8318.139	172	20.7		Atm H ₂ O	P 5	211	26	8333.891	9	1.1		Atm			
8319.36	3	0.4		CN	P 32	3,1	12	8334.20 a	6	0.7					
8319.90 a	1.5	0.2						8334.33 m	11	1.3	<i>S</i>	Ti I	0.82	33	
8320.183	7	0.8		☉				8334.50 a	22	2.6		Atm H ₂ O	R 5	131	26
8320.443	8	1.0		CN	R 62	2,0	12	8335.150	114	13.7	<i>o</i>	C I	7.68	10	
								8335.508	40	4.8		Atm H ₂ O	P 6	211	26

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8335.80 a	3	0.4						8352.43	3	0.4		CN Ca I	Q 18 4.53	4,2	12
8336.108	9	1.1		Atm H ₂ O	P 7	310	26	8352.806	9	1.1		Atm			
8336.236	18	2.2	w	☉				8353.123	9	1.1	S	Ti I	0.81	33	
8336.98	0.5	0.1		☉?				8353.55	12	1.4		Atm H ₂ O	P 7	211	26
8337.34	7	0.8		CN— CN	Q 18 Q 55	4,2 2,0	12	8353.642	36	4.3		Atm H ₂ O	P 7	310	26
8337.916	7	0.8		CN Ca I?	{Q 41 Q 15 4.53	{3,1 4,2	}12	8354.36	6	0.7		CN	Q 56	2,0	12
								8354.723	18	2.2		Atm H ₂ O	P 7	211	26
8338.343	19	2.3		CN Si I	P 48 5.86	2,0 33	12	8355.15	1.5	0.2		Fe I p	4.10	1050	
8338.666	28	3.4		Atm H ₂ O	P 6	211	26	8355.36	1.5	0.2		CN	P 49	2,0	12
8338.902	28	3.4		Atm H ₂ O	P 7	211	26	8356.02	4	0.5		CN Fe I p	R 28 4.29	4,2 1117	12
8339.034	111	13.3		Atm H ₂ O	P 7	211	26	8356.37	4.5	0.5		CN	Q 21	4,2	12
8339.413	109	13.1	w	Fe I	4.43	1153		8356.70 a	3	0.4		CN	P 35	3,1	12
8340.500	8	1.0	w?	Ni I p	3.80	139		8357.040S	72	8.6		Atm H ₂ O	P 8	211	26
8341.443	7	0.8		Atm H ₂ O	P 3	211	26	8357.441	29	3.5		Atm H ₂ O	P 8	211	26
8341.874	11	1.3		Atm H ₂ O	P 3	211	26	8357.873	17	2.0	o?	—CN	Q 19	4,2	12
8342.290S	50	6.0		Atm H ₂ O (Fe I p)	P 6 2.95	211 401	26	8358.504	21	2.5	u,N	Fe I	2.99	401	
8342.836	19	2.3	w	Fe I	4.99	1270		8359.542	15	1.8		Atm H ₂ O	R 4	131	26
8343.33	1.5	0.2		CN	Q 19	4,2	12	8360.795	50	6.1	u	Fe I	4.47	1153	
8343.716	7	0.8	o	☉				8362.000	35	4.2		Atm H ₂ O	P 7	211	26
8343.932	7	0.8		Atm H ₂ O	P 7	131	26	8362.302S	45	5.4		Atm H ₂ O	P 7	211	26
8344.765	2	0.2		Atm				8362.56	5	0.6		CN—	{R 51 R 29	{3,1 4,2	}12
8345.19	[4]	0.5		Fe I p	2.69	265		8363.254	2	0.2		CN	Q 22	4,2	12
8345.73	1	0.1		CN	Q 41	3,1	12	8363.58 m			S	Ti I p	2.09	182	13
8346.131	146	16.1	w?,N	Mg I	5.94	40		8363.837	7	0.8		CN CN	Q 43 Q 20	3,1 4,2	12 12
8346.39	1.5	0.2		Atm				8364.243	16	1.9	S	Ti I	0.84	33	
8347.326	13	1.6	s	CN Atm H ₂ O	Q 17 P 7	4,2 310	12 26	8364.948	1.5	0.2		☉?			
8347.829	4	0.5	w	☉ Atm H ₂ O	P 7	310	26	8365.640	51	6.7	u	Fe I	3.25	623	
8348.304	12	1.4	S	Cr I	2.71	56		8366.022	3	0.4		Atm			
8349.02 m			S	Fe I p	0.91	12	13	8366.542	10	1.2		Atm H ₂ O	P 8	211	26
8349.162S	57	6.8		Atm H ₂ O	P 7	211	26	8367.022	3	0.4		Atm H ₂ O	P 8	131	26
8349.383	29	3.5		Atm H ₂ O	{P 7 P 7	{211 211	}26	8367.331S	51	6.1		Atm H ₂ O	P 8	211	26
8349.77	2	0.2		CN	Q 20	4,2	12	8369.06	0.5	0.1		Atm H ₂ O	R 4	131	26
8349.964	3	0.3		Atm H ₂ O	R 4	131	26	8369.25	2	0.2		CN— CN	R 51 R 30	3,1 4,2	12 12
8350.733	4	0.5	w	CN	Q 42	3,1	12	8369.77	5	0.6		Atm H ₂ O	R 7	131	26
8352.18	1.5	0.2		Atm				8369.858	5	0.6	u?,N	CN Fe I p	P 36 4.91	3,1 1271	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8370.472	5	0.6		Atm H ₂ O	P 8	230	26	8385.48	13	1.6	<i>u</i>	Atm H ₂ O O?	R 5	131	26
8370.802	1.5	0.2		Atm H ₂ O	P 8	211	26	8385.63	5	0.6		Atm			
8371.457	5	0.6		CN— CN	Q 43 Q 57	3,1 2,0	12 12	8385.95 a	2	0.2		CN	Q 25	4,2	12
8372.177	8	1.0		Atm H ₂ O	P 9	131	26	8386.182	4	0.5		Atm H ₂ O	P 9	211	26
8372.55 a	2	0.2						8386.35 m			<i>s</i>	Ti I p	2.10	182	13
8372.777	11	1.3		CN Co I	P 50 4.07	2,0 193	12	8386.53	3	0.4		CN	P 19	4,2	12
8373.236	4	0.5		Atm				8386.933	9	1.1		Atm H ₂ O	P 9	211	26
8373.711	43	5.1		Atm H ₂ O	P 8	211	26	8387.782	170	20.8	<i>s</i>	Fe I	2.18	60	
8373.95 a	8	1.0		Ca I	4.44			8388.328	10	1.2		CN	P 38	3,1	12
8374.27 a	4	0.5		CN	P 37	3,1	12	8389.19	4	0.5		CN	Q 58	2,0	12
8374.546	10	1.2		Atm H ₂ O	Q 4	131	26	8389.521	6	0.7	<i>S</i>	Ti I Zr I	2.09 0.60	182 40	
8374.80 a	1	0.1						8390.459	7	0.8		CN	{P 51 Q 24}	{2,0 4,2}	}12
8375.35 a	1.5	0.2						8391.185	4.5	0.5		CN	Q 45	3,1	12
8375.713	5	0.6		Atm H ₂ O	R 6	131	26	8393.72 a	2	0.2		Atm H ₂ O	P 9	211	26
8376.187	12	1.4		Atm H ₂ O	Q 5	131	26	8394.020S	18	2.2		Atm H ₂ O	R 4	131	26
8376.381S	38	4.5		Atm H ₂ O	P 9	211	26	8394.518	4	0.5		Atm H ₂ O	P 5	211	26
8376.594	9	1.1		Atm H ₂ O	Q 6	131	26	8394.882	4	0.4		Atm H ₂ O	R 4	131	26
8376.90	4	0.5		⊙				8395.134	12	1.4		Fe I?			
8377.160	16	1.9		Atm H ₂ O	P 9	211	26	8396.900	23	2.8	<i>S</i>	Ti I	0.81	33	
8377.39	4	0.5	<i>o</i>	CN—	Q 44	3,1	12	8397.152S	15	1.8		Atm H ₂ O	P 10	211	26
8377.870	25	3.2	<i>S</i>	Ti I	0.83	33		8397.635	4	0.5		Atm H ₂ O	P 10	211	26
8378.25	8	1.0		⊙ Atm H ₂ O	P 8	211	26	8397.99	2.5	0.3		CN Si I? p	Q 25 5.61	4,2 18	12
8379.37	1.5	0.2		Co I	4.21	193		8398.481	4	0.5		CN	Q 45	3,1	12
8381.440	8	1.0		Atm H ₂ O	P 8	211	26	8399.12	4	0.5					
8382.217	8	1.0		Fe I p	0.99	12		8399.947	9	1.1		Atm H ₂ O Fe I?	P 9	211	26
8382.541	29	3.5	<i>S</i>	Ti I	0.82	33		8400.640	8	1.0		Atm H ₂ O	R 2	131	26
8382.781	23	2.8	<i>S</i>	Ti I	0.81	33		8401.15 a	2	0.2					
8383.302	7	0.8		CN	{Q 58 P 37 Q 23}	{2,0 3,1 4,2}	}12	8401.401	25	3.0	<i>s</i>	Fe I	2.48	108	
8383.58	0.5	0.1		CN	P 51	2,0	12	8401.695	9	1.1		Fe I p	4.44	1136	
8383.861	7	0.8		Atm H ₂ O	P 5	310	26	8402.629	5	0.6	<i>s</i>	Ti I	2.25	224	
8384.170	17	2.0		Atm H ₂ O	R 3	131	26					CN	{P 39 Q 27}	{3,1 4,2}	}12
8384.40 a	1.5	0.2						8403.001	2.5	0.3		Atm H ₂ O	P 9	211	26
8384.831	7	0.8		Atm H ₂ O CN	R 5 Q 44	131 3,1	26 12	8404.182	6	0.7		Atm H ₂ O	R 3	131	26
8385.03 a	1.5	0.2						8404.382	11	1.3	<i>u, N</i>	⊙			
								8404.73	1.5	0.2		CN	R 54	3,1	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8405.374	22	2.6		Atm H ₂ O	R 3	131	26	8424.44	3	0.4	S	Ti I	2.10	182	
8405.665	11	1.3		Atm H ₂ O	P 10	211	26	8425.62	2	0.2		CN	Q 60	2,0	12
8407.257	6	0.7		CN	Q 59	2,0	12	8425.889	5	0.6		Fe I p	1.01	12	
8408.229	10	1.2		Atm H ₂ O	P 9	211	26	8426.126	6	0.7		CN	R 37	4,2	12
8408.550	10	1.2		Atm H ₂ O	Q 3	131	26	8426.514S	43	5.1	S	Ti I	0.83	33	
8408.755	26	3.1		Atm H ₂ O	Q 3	131	26	8426.997	10	1.2		CN—	Q 47	3,1	12
8409.585	12	1.4		Atm H ₂ O	Q 4	131	26	8427.769	2	0.2		Atm H ₂ O	R 1	131	26
8409.88 a	2	0.2		Mn I?	5.13			8428.107	1	0.1		Atm H ₂ O	P 11	211	26
8410.12 a	3	0.4		CN?	P 20	4,2	12	8429.595	4	0.4		Atm H ₂ O	Q 4	131	26
8410.43	1	0.1		☉				8429.967	3	0.4		CN	Q 30	4,2	12
8411.127	4	0.5		Atm H ₂ O	Q 4	131	26	8430.798	18	2.1		Atm H ₂ O	R 1	131	26
8411.36	5	0.6		CN— CN	P 39 Q 28	3,1 4,2	12	8431.236	6	0.7		CN	Q 29	4,2	12
8411.62	3	0.4	<i>s, NN</i>	☉				8432.389	3	0.4		CN	P 41	3,1	12
8412.356	44	5.0	<i>S</i>	Ti I	0.82	33		8433.23	2	0.2		CN	P 24	4,2	12
8413.33	4	0.5		Atm?				8434.509	15	1.8	<i>w</i>	Fe I	5.01	1270	
8414.084	12	1.4	<i>u, d</i>	Zr I Fe I p— Atm H ₂ O	0.69 4.47 P 10	40 1154 211	26	8434.968S	57	6.8	<i>S</i>	Ti I	0.85	33	
8414.59	1	0.1		Atm?				8435.655	52	6.9	<i>S</i>	Ti I	0.84	33	
8415.450	37	4.4		Atm H ₂ O	R 2	131	26	8436.376	18	2.1		Atm H ₂ O	Q 2	131	26
8416.82 a	4	0.4		CN	R 36	4,2	12	8437.232	4	0.4		☉?			
8416.934	5	0.6	<i>S</i>	Ti I	2.24	224		8437.462	5	0.6	<i>u, N</i>	☉?			
8417.222	15	1.8	<i>w</i>	Ni I Atm H ₂ O	3.83 R 2	156 131	26	8437.96				H I	12.08	10	31
8417.51 m			<i>S, N</i>	Ti I	2.12	182	13	8438.054	5	0.6		Atm H ₂ O	Q 2	131	26
8417.96	1	0.1		Si I	5.62	18		8438.64	3.5	0.4		CN	Q 61	2,0	12
8418.408	9	1.1		Atm H ₂ O	R 1	131	26	8438.920	11	1.3	<i>S</i>	Ti I	2.25	224	
8418.639	9	1.1		Atm H ₂ O	P 11	211	26	8439.581S	79	9.1	<i>u</i>	Fe I	4.55	1172	
8419.639	9	1.1		Atm H ₂ O	P 11	211	26	8440.02	2	0.2					
8419.292	18	2.1	<i>w, N</i>	☉				8440.40	2	0.2		CN	Q 30	4,2	12
8419.59	1.5	0.2		CN	R 55	3,1	12	8440.751	7	0.8		Atm H ₂ O CN	P 12 P 41	211 3,1	26 12
8419.872	7	0.8		CN	Q 47	3,1	12	8441.480	4	0.4		☉			
8420.496	6	0.7	<i>u, d</i>	CN	Q 29	4,2	12	8441.765	4	0.4		CN	Q 48	3,1	12
8421.443	10	1.2	<i>w, d?</i>	☉				8442.476	11	1.3		Atm H ₂ O	Q 3	131	26
8422.06	1	0.1		☉?				8443.00 m			<i>s</i>	Ti I	2.25	210	13
8422.412	2	0.2		CN	Q 28	4,2	12	8443.975	32	3.8	<i>o</i>	Si I	5.87	46	
8422.923	21	2.5	<i>u</i>	Fe I	4.14	999		8444.377	3	0.4		Si I	5.87	46	
8423.14	13	1.5	<i>S?</i>	Ti I Ca I?	1.88 4.45	150		8444.783	3	0.4		Atm H ₂ O	Q 2	131	26
8424.139	32	3.7	<i>o</i>	Fe I	4.95	1272		8445.278	1.5	0.2		CN	R 39	4,2	12

The Solar Spectrum—Continued

Wave-length (Å)	Equivalent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re-duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8445.729	4	0.4		○?				8468.418S	128	15.1	S	Fe I (Ti I)	2.22 1.89	60 150	
8446.359	[74]	8.4	W	O I O I (Fe I)	9.52 9.52 4.99	4 4 1272		8468.839	10	1.2		Mg I	5.93		
8446.741	50	5.0	o	O I (Fe I p)	9.52 4.91	4 1267		8469.20	7	0.8		Atm H ₂ O	Q 2	131	26
								8469.892	3	0.4		CN	Q 33	4,2	12
8447.34	1	0.1		Fe I p	4.91	1266		8470.377	6	0.7		○?			
8447.678	4	0.4	s	Fe I p— CN	0.96 P 42	12 3,1	12	8470.949	4	0.4		CN	Q 34	4,2	12
8448.60	1	0.1		Atm H ₂ O	P 12	211	26	8471.28	0.5	0.1		Atm?			
8450.022	(11)	1.3	u,N	CN	Q 49	3,1	12	8471.744S	44	5.2	w	Fe I	4.95	1270	
8450.247	4	0.4	s	Cr I	2.71	56		8472.399	8	0.9		CN	Q 50	3,1	12
8450.880	8	0.9	S	Ti I	2.25	224		8473.663	11	1.3	o	Mg I	5.93		
8452.086	5	0.6		S I Atm H ₂ O	8.04 Q 1	14 131	26	8474.12 a	1	0.1					
								8474.362	4	0.4		Atm			
8453.661	7	0.8	w,N	○				8476.35	1	0.1		CN	P 28	4,2	12
8455.295	4	0.4	S	Cr I	2.71	56		8476.69	1	0.1		CN	R 42	4,2	12
8456.01	[1.5]	0.2		CN	P 42	3,1	12	8477.127	5	0.6		○			
8456.945	5	0.6		Atm CN	Q 49	3,1	12	8477.54	1.5	0.2		CN	Q 63	2,0	12
8457.15	2.5	0.3	S	Ti I	1.75	141		8477.999	6	0.7	o?	○ Atm H ₂ O	P 4	131	26
8457.88	2.5	0.3						8478.456	3	0.4		CN	P 56	2,0	12
8458.70	1	0.1		CN	P 55	2,0	12	8478.890	3.5	0.4		Atm H ₂ O	P 4	131	26
8458.99	4	0.4		Fe I p	4.99	1270		8479.67	2	0.2		CN	P 44	3,1	12
8459.734	3.5	0.4		CN	Q 32	4,2	12	8479.864	13	1.5	w,N	CN Atm H ₂ O	R 43 P 1	4,2 131	12 26
8460.245	24	2.8		Atm H ₂ O	Q 1	131	26	8480.18 a	2	0.2					
8461.472	3	0.4		Fe I p— Si I	3.60 5.96	814		8480.42 a	2.5	0.3		CN	Q 34	4,2	12
8462.39	4	0.4		○?				8480.636	16	1.9	w	Fe I p	4.99	1272	
8462.90	1	0.1		Atm H ₂ O	Q 5	131	26	8481.22	0.5	0.1					
8463.539	4	0.4		CN	P 43	3,1	12	8481.60	2.5	0.3		CN	Q 51	3,1	12
8464.03	1.5	0.2		Fe I p	5.07	1330		8481.986	22	2.6	u	Fe I	4.19	999	
8464.69 m			s	Zr I	0.65	40	13	8482.412	3	0.4		Atm H ₂ O	Q 3	131	26
8465.173	7	0.8		Fe I p	5.01	1270		8482.876	4	0.4		Atm ○			
8465.634	[4]	0.4		CN	Q 50	3,1	12	8483.16	4.5	0.5	s,N	CN Ti I	Q 63 1.87	2,0 150	12
8466.102	5	0.6		Fe I p	4.99	1269		8483.447	10	1.2		○			
8466.510	8	0.9		Mg I— Fe I p	5.93 4.14	999		8486.914	13	1.5		Atm H ₂ O	P 2	131	26
8467.158	4	0.4	S	Ti I	2.12	182		8487.62	1.5	0.2		CN	P 44	3,1	12
8467.26				H I	12.08	10	31	8487.92	7	0.8		CN	{P 28 P 29}	{4,2 4,2}	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8488.306	8	0.9		Atm H ₂ O	P 3	131	26	8514.082S	108	12.9	s	Fe I	2.20	60	
8491.291	3	0.4		CN	Q 35	4,2	12	8514.63	4	0.4		CN Si I? p	Q 53 5.61	3,1 18	12
8491.735	13	1.5		Atm H ₂ O	P 3	131	26	8515.122S	79	8.9	u	Fe I	3.02	401	
8492.082	10	1.2		Si I	5.86			8515.63	1.5	0.2					
8493.39	2.5	0.3		CN	Q 36	4,2	12	8516.007	6	0.7		Atm H ₂ O—	P 6	131	26
8493.796	11	1.3	w	Fe I p Atm H ₂ O	4.95 P 2	1269 131	26	8516.75	0.5	0.1					
8494.44 m			S	Ti I	1.74	141	13	8517.295	11	1.3		CN—	Q 38	4,2	12
8495.73	2	0.2						8518.011	6	0.7	S	Ti I	2.13	182	
8496.075	3	0.4	S	Ti I— CN	{2.25 3.70? P 45}	209 313 3,1	12	8518.397	21	2.5	s	Ti I	1.88	150	
8496.483	5	0.7		Atm H ₂ O Fe I p	P 2 4.41	131 1136	26	8519.640	19	2.2		Atm H ₂ O	P 4	131	26
8496.994	34	5.3	u	Fe I	4.61	1172		8520.73	1.5	0.2		CN	P 46	3,1	12
8498.062	1470	1.7	S	Ca II	1.69	2		8521.219	4.5	0.5	s,N	CN—	Q 53	3,1	12
8499.326	7	1.1	o	CN—	{P 29 R 44}	4,2 4,2	12	8522.01	2	0.2		CN	R 61	3,1	12
8499.883	6	0.7		Atm H ₂ O	P 5	131	26	8522.99	6	0.7	s,NN	CN—	P 31	4,2	12
8500.330	1.5	0.2		⊙				8523.46	2	0.2		CN	{Q 65 R 46}	2,0 4,2	12
8501.553	34	4.0	w	Si I	5.87	47		8524.72	3	0.4		CN	P 32	4,2	12
8501.803	17	2.1	o?	Ni I	3.85	186		8525.008	13	1.5	w	Zr II—	2.41		
8502.228	50	6.6	W	Si I	5.87	46		8525.50	3	0.4		⊙?			
8502.49				(H I)	12.08	10	31	8525.72	4.5	0.5	s	Ca I	4.43		
8502.50 a	5	0.6		CN	Q 36	4,2	12	8525.97 a	3	0.4		CN	Q 38	4,2	12
8502.76	4	0.4		⊙				8526.32	7	0.8		Atm H ₂ O	P 4	131	26
8503.145	12	1.4		Atm H ₂ O	P 3	131	26	8526.676S	58	7.3	w	Fe I	4.91	1270	
8503.54	3	0.4						8526.994	10	1.2		Atm			
8503.966	4	0.4		CN	P 45	3,1	12	8527.847	11	1.3		Fe I p	5.02	1270	
8504.536	5	0.6		CN	Q 52	3,1	12	8529.68	3	0.4		CN	Q 39	4,2	12
8505.112	6	0.7		CN	Q 37	4,2	12	8529.90	4	0.4		⊙ Atm H ₂ O	P 4	131	26
8505.852	12	1.4		Atm H ₂ O	P 4	131	26	8530.17	3	0.4		CN	P 47	3,1	12
8509.65	4	0.4		Fe I p	4.37	1136		8531.51	4	0.4	s,d	Ti I— Atm	1.73	141	
8510.253	8	0.9		Si I	6.18			8531.71	4	0.4	s?	CN	Q 54	3,1	12
8510.92	1.5	0.2		CN	P 30	4,2	12	8533.34	1	0.1		CN	R 62	3,1	12
8511.912	28	3.3		Atm H ₂ O	P 3	131	26	8534.781	6	0.7		Atm H ₂ O	P 5	131	26
8512.294	22	2.6		Atm H ₂ O	P 3	131	26	8535.50	2	0.2		⊙?			
8512.97	3	0.4		CN Fe I p	P 46 3.02?	3,1 462	12	8536.163	58	6.6	W	Si I	6.18	80	
8513.26	3	0.4		Atm H ₂ O—	P 4	131	26	8536.45 a	3	0.4					
8513.45	2	0.2		⊙?				8536.68	3	0.4		Atm			

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8538.021	31	3.7	w	Fe I	4.91	1266		8564.62	1.5	0.2		CN	P 35	4,2	12
8538.25 a	2	0.2		CN	Q 39	4,2	12	8565.456	1.5	0.2	s	Ti I CN	1.74 Q 67	141 2,0	12
8538.77	0.5	0.1	s	CN?—	Q 66	2,0	12	8567.043	3	0.4		CN	Q 56	3,1	12
8539.33	1	0.1	S	CN— Ti I	R 62 2.24	3,1 209	12	8567.776	7	0.8		Fe I p	4.91	1269	
8539.888	3.5	0.6		Atm H ₂ O	P 6	131	26	8568.724	4	0.4		Atm			
8540.817	8	0.9		Atm H ₂ O	P 5	131	26	8569.02	1.5	0.2		CN	Q 42	4,2	12
8542.144	3670	398	S	Ca II	1.70	2		8569.25 a	1	0.1		CN?	R 64	3,0	12
8545.38				(H I)	12.08	10	31	8569.67	1	0.1	s	Ti I	2.23	209	
8546.222	5	0.6		Atm H ₂ O	P 5	131	26	8571.08	3	0.4					
8547.19	1.5	0.2		Atm				8571.328	6	0.7		Si I p	6.19		
8547.74	3.5	0.5		CN	P 48	3,1	12	8571.807S	36	4.2	W	Fe I	5.01	1272	
8548.079	8	0.9	S	Ti I	1.87	150		8572.55 a	4	0.4					
8548.863	4.5	0.5	s,N	CN Cr I	R 48 2.71	4,2 56	12	8573.141	9	1.0		Atm H ₂ O	P 7	131	26
8549.188	3	0.4		CN	Q 55	3,1	12	8573.47	10	1.2	u,N	⊙			
8549.74	1.5	0.2		⊙				8573.96	2	0.2					
8550.366	9	1.1	w	Si I p	6.22	88		8574.538	7	0.8	s,N	CN Co I	P 35 2.70	4,2	12
8550.52m			s,N	Ti I	1.75	141	13	8575.268	7	0.8		CN— Co I	R 64 2.79	3,1	12
8550.85 a	5	0.6		CN	Q 40	4,2	12	8575.75	5	0.6		CN	R 50	4,2	12
8553.762	9	1.0		Atm H ₂ O	P 6	131	26	8576.48	2.5	0.3		Fe I p	4.59	1215	
8554.271	3.5	0.4						8577.19	2.5	0.3		CN	Q 42	4,2	12
8555.000	7	0.8		Atm H ₂ O—	P 6	131	26	8578.43 m							
8555.569	7	0.8	s	Cr I CN	2.71 {Q 55 Q 41}	56 3,1 4,2	12	8579.08	4	0.4		Si I	5.98	56	
8555.96 a	4	0.5		Si I?	5.61	18		8581.76	2	0.2		CN?	Q 68	2,0	12
8556.32	2	0.2		Atm H ₂ O	P 6	131	26	8582.271S	86	9.4	s	Fe I	2.99	401	
8556.797S	134	15.1	W,N	Si I	5.87	45		8582.857	8	0.9		CN	Q 43	4,2	12
8558.563	3	0.4						8584.09	2.5	0.3		CN	P 50	3,1	12
8559.061	7	0.8						8584.791	5	0.6		Fe I p	5.01	1270	
8559.751	5	0.6						8585.27	2	0.2		CN	Q 57	3,1	12
8560.02	2	0.2		Fe I CN	5.02 Q 67	1321 2,0	12	8585.577	13	1.5	o?	Si I			
8560.639	3	0.4						8586.211	11	1.3	w	Ni I? p	5.45	296	
8561.05	2	0.2		CN	P 34	4,2	12	8586.64	1	0.1		Co I?	4.15		
8561.61	7	0.8	o					8586.90	0.5	0.1		Atm			
8562.109	16	1.9	w?	Fe I	4.47	1153		8587.04	2.5	0.3		CN	Q 68	2,0	12
8562.365	5	0.6						8587.93	2	0.2		CN	R 65	3,1	12
8563.83	1.5	0.2		CN	Q 41	4,2	12	8588.34	5	0.6		CN	P 36	4,2	12

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8589.59	10	1.2		-Co I?	4.15	193		8622.05	2.5	0.3		CN	P 52	3,1	12
8590.327	3	0.4						8622.753	17	2.0	w,N	⊙			
8590.86 a	2.5	0.3		CN	Q 43	4,2	12	8623.738	4	0.4					
8591.191	3	0.4						8624.46	2	0.2		Atm?			
8591.54	6	0.7		CN	Q 57	3,1	12	8626.26 a	5	0.6		CN	R 67	3,0	12
8592.119	3	0.4		Fe I p	5.01	1269		8626.59	5	0.6		CN	Q 46	4,2	12
8592.969	[48]	6.1	w	Fe I	4.95	1267		8629.16	7	0.8		N I CN	10.69 Q 59	8 3,1	12
8595.968S	54	5.5	w,N	Si I	6.19	80		8631.25	3	0.4					
8597.059	[36]	4.2	w,N	Si I	6.19	80		8631.92	3	0.4		CN?	R 67	3,1	12
8598.17	1	0.1	S	Ti I	2.27	236		8632.424	15	1.7	w	Fe I p	4.10	1050	
8598.39				H I	12.08	9	31	8633.10	7	0.8		⊙?			
8598.836S	54	6.6	w	Fe I	4.39	1153		8633.956	17	2.0	s	Ca I	4.45		
8601.03	2	0.2	S	Ti I	{1.73 2.25}	141 209		8634.16	5	0.6		CN	Q 46	4,2	12
8602.18	[4]	0.4		⊙?				8636.26	1	0.1	s,d?	Cr I	2.71	56	
8602.77	8	0.9	S	Ca I— Ti I? p	4.44 2.49			8637.003	13	1.5	w	Ni I	3.85	186	
8603.82	9	1.0	u	CN	Q 58	3,1	12	8641.94 a	2	0.2		CN	Q 47	4,2	12
8604.92	2	0.2		CN	Q 44	4,2	12	8642.35 a	2	0.2					
8605.74	1.5	0.2		Atm?				8643.00	3	0.4	} u,N	Cr I	2.71	56	
8606.00	9	1.0	o	Si I	5.95	55		8643.35	3	0.4		Fe I p	4.91	1261	
8606.383	8	0.9	o?	Ni I	5.28	275		8646.358	9	1.0	o	Si I			
8607.075	19	2.2	w	Fe I p	5.01	1272		8647.88	7	0.8		⊙?			
8607.78	3	0.4	s	⊙				8648.472S	161	18.7	W	Si I	6.20		
8608.337	12	1.4	w	⊙				8650.91	3	0.4		Atm?			
8608.98 m			s				13	8652.475	6	0.7		Fe I p	4.15	1050	
8610.10	4	0.4		CN	Q 58	3,1	12	8654.04	3.5	0.4		⊙?			
8610.609	26	3.6	w	Fe I p	4.43	1153		8654.436	9	1.0	w	Fe I p	3.30	623	
8611.11 m			s				13	8655.20	2	0.2		⊙?			
8611.812S	99	11.7	s	Fe I	2.84	339		8656.672	9	1.0	w	Fe I	5.02	1269	
8612.90 m			s,N	Ti I	1.74	141	13	8657.57	3	0.4		CN?	Q 48	4,2	12
8613.946S	33	4.2	W	Fe I p	4.99	1272		8658.94 a	1	0.1					
8615.314	8	0.9	u,N	⊙				8661.97	40	11.6	s?	Fe I	2.22	60	
8616.284S	42	5.3	w	Fe I	4.91	1266		8662.170	2600	297	u	Ca II	1.69	2	
8616.99	4	0.4		-CN	P 38	4,2	12	8663.723	6	1.0	o?	Fe I p	4.99	1270	
8618.41	[2]	0.2	s,N	Ti I	2.24	209		8664.90 a	1	0.1		CN	Q 48	4,2	12
8619.10	8	0.9	u,N					8665.02				(H I)	12.08	9	31
8619.45	7	0.8	u,N	CN—	Q 45	4,2	12	8667.366	8	0.9	u	Fe I? p— Si I	2.45 5.96	166 55	
8621.618	75	9.0	s	Fe I	2.95	401		8668.07 a	2	0.2					

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8668.456	9	1.0		☉				8700.949	5	0.6	<i>w,N</i>	Mn I	4.43	49	
8670.20	8	0.9		Si I	7.86	6		8701.15 a	2.5	1					
8670.627	12	1.4		Si I	7.86	6		8701.73	2	0.2		CN?	Q 74	2,0	12
8671.308	6	0.7		Si I	7.86	6		8702.510	9	1.0		Ni I	2.74	83	
8671.879	13	1.5	<i>w</i>	Fe I p	5.02	1272		8703.15	8	0.9		CN— Ni I	Q 63 10.32	3,1 1	12
8674.756S	113	14.2	<i>s</i>	Fe I	2.83	339		8703.73	23	2.6	<i>u,N</i>	Mn I	4.43	49	
8675.370	18	2.1	<i>S</i>	Ti I	1.07	68		8704.52	1.5	0.2		CN	P 66	2,0	12
8675.88	6	0.7						8705.18	5	0.6		☉?			
8677.12	2.5	0.3						8706.055	5	0.6		☉?			
8678.950	8	0.9		Si I	7.87	6		8706.89	3.5	0.4		CN	Q 51	4,2	12
8679.646	41	4.7	<i>w</i>	[Fe I p— Si I	4.96 7.87	1286 6		8707.31	7	0.8		Cr I	2.71	56	
8680.097	19	2.2	<i>o</i>	Si I— Ni I	5.86 10.33	1		8707.942	5	0.6		Cr I	4.39	296	
8680.405	25	2.9	<i>o</i>	Si I	7.87	6		8709.28	4	0.4					
8680.82	9	1.0		Fe I p	4.19	999		8710.21	21	2.5		Mg I	5.93		
8681.85	3	0.4		CN	P 55	3,1	12	8710.398	82	10.4	<i>w</i>	Fe I	4.91	1267	
8682.45	3	0.4		CN	Q 62	3,1	12	8711.671	4.5	0.5		Ni I	10.33	1	
8682.987	12	1.4	<i>S</i>	Ti I	1.05	68		8712.701	57	5.9	<i>W</i>	Mg I	5.93		
8683.384	8	0.9	<i>w</i>	Ni I	10.33	1		8713.208S	58	6.5	<i>u</i>	Fe I	{2.95 4.99}	400 1267	
8686.368	54	5.5	<i>W</i>	Si I p (Ni I)	6.20 10.32	80 1		8713.56 a	3	0.4					
8686.75	7	0.8	<i>S,N</i>	Fe I p	{3.88 4.99}	956 1269		8713.89	3	0.4		CN	Q 51	4,2	12
8687.23	2	0.2		☉?				8716.62	3	0.4		Atm?			
8687.49	5	0.6		Si I p	6.20	80		8717.833S	105	10.8	<i>W,N</i>	Mg I	5.93		
8687.90	4	0.4		☉?				8718.76	5	0.6		Ni I	10.33	1	
8687.90	4	0.4		☉?				8719.66 m			<i>S</i>	Ti I	1.74	140	13
8688.642	268	30.1	<i>s,N</i>	Fe I	2.18	60		8724.13	3	0.4		CN— CN	Q 52 Q 64	4,2 3,1	12
8689.70 a	8	0.9	} <i>w,N</i>	Fe I p	3.05	507		8725.216	4	0.4		☉?			
8689.88 a	10	1.1		Fe I p	5.10	1330		8725.95	2	0.2		Ti I?	1.73	139	
8692.342	5	0.6	<i>S</i>	Ti I	1.05	68		8727.19	4	0.4		Fe I p	4.19	999	
8693.15	3	0.4		Si I	7.87	6		8728.024	107	11.6	<i>o</i>	Si I	6.18	79	
8693.958	17	2.0	<i>o</i>	Si I	7.87	6		8728.604	16	1.8	<i>o</i>	Si I (Ni I)	6.18 10.33	79 1	
8694.641	34	3.9	<i>o</i>	Si I	7.87	6		8729.171	22	2.5	<i>u</i>	Fe I p	3.41	713	
8696.45 a	1.5	0.2						8729.35 a	5	0.6		Si I p	6.18		
8697.20 a	1.5	0.2		CN	Q 50	4,2	12	8730.22	3	0.4	<i>o?</i>				
8698.717	20	2.3	<i>u</i>	Fe I p	2.99	400		8734.74	4	0.4	<i>S</i>	Ti I	1.05	68	
8699.461S	73	8.0	<i>W</i>	Fe I	4.95	1267		8736.040	289	28.0	<i>W,N</i>	Mg I	5.94	39	
8700.314	4	0.4	<i>o?</i>	Fe I p	4.95	1266		8737.40	4	0.4	<i>u</i>	Mn I	4.43	49	

The Solar Spectrum—Continued

Wave-length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes	Wave- length (Å)	Equi- valent Width $\Delta\lambda$ (mÅ)	Re- duced Width $\Delta\lambda/\lambda$ (F)	Spot	Solar Identi- fication	Low E P or Rot. Line	RMT No. or Vib. Band	Notes
8738.76	1.5	0.2		Atm?				8751.198	14	1.6	<i>o?</i>	Si I	5.87	44	
8739.50	1.5	0.2		Atm?				8752.025	94	11.8	<i>W,N</i>	Si I	5.87	43	
8740.68 a	7	0.8						8753.11	2	0.2		C I	9.00		
8741.00 a	7	0.8		Mn I	4.43	49		8755.75	6	0.7		☉			
8741.68	2	0.2		CN P I?	Q 53 7.96	4,2	12	8757.199	91	10.0	<i>s</i>	Fe I	2.84	339	
8742.466	97	11.3	<i>W,N</i>	Si I	5.87	44		8758.466	1	0.1		Atm H ₂ O	R' 8	003	26
8743.53	4	0.4		☉?				8759.72 a	0.5	0.1		CN	Q 54	4,2	12
8745.34	3	0.4		CN?	P 58	3,1	12	8763.978	99	11.5	<i>u</i>	Fe I	4.65	1172	
8745.81	3	0.4		CN?	Q 65	3,1	12	8764.94	2	0.2		Si I? p	6.22		
8747.438S	16	1.8	<i>w?</i>	Fe I (N I)	3.02 10.33	401 1		8766.417	13	1.5	<i>w</i>	Si I	5.96	54	
8747.85	2.5	0.3						8766.68	5	0.6	<i>S</i>	Ti I	1.07	68	
8750.48				H I	12.08	9	31	8767.05	3	0.4					
8750.57	1	0.1		CN?	Q 75	2,0	12	8767.68	3.5	0.4		CN Fe I p	Q 66 3.65	3,1 814	12
								8770.681	11	1.3	<i>w</i>	Ni I	2.74	82	

Notes to the Solar Spectrum Ledger (See § 2.8)

Note
Number

Designations for molecular lines in the solar spectrum; notes 1, 2, 3, 4, 6:

Spectrum	Electronic Transition	Vibration Band	Spectral Range (Å)	References for Analysis	
1	OH	$A^2\Sigma^+ - X^2\Pi$	0, 0 1, 1 2, 2	3021 to 3362 3109 to 3378 3184 to 3375	G. H. Dieke and H. M. Crosswhite, The Johns Hopkins University Bumblebee Series Report No. 87, 118 pp. (1948). See also C. E. Moore and H. P. Broida, J. Research Nat. Bur. Std. 63A , 279 to 295 (1959).
2	CH	$C^2\Sigma^+ - X^2\Pi$	0, 0 1, 1	3086 to 3219 3119 to 3222	T. Heimer, Zeit. Phys. 78 , 771 to 780 (1932). See, also, C. E. Moore and H. P. Broida, J. Research Nat. Bur. Std. 63A , 19 to 53 (1959).
3	CH	$B^2\Sigma^- - X^2\Pi$	0, 0 1, 0 1, 1	3871 to 4084 3627 to 3710 4025 to 4119	L. Gerö, Zeit. Phys. 118 , 27 to 36 (1941). See also, C. E. Moore and H. P. Broida, Ref. in Note 2.
4	CH	$A^2\Delta - X^2\Pi$	0, 0 1, 1 2, 2 0, 1	4133 to 4413 4185 to 4446 4238 to 4468 4726 to 4941	L. Gerö, Zeit. Phys. 118 , 27 to 36 (1941). N. H. Kiess and H. P. Broida, Astroph. J. 123 , 166 to 171 (1956). See also, C. E. Moore and H. P. Broida, Ref. in Note 2.

5 Wavelength measurement by J. L. Greenstein and E. Tanbørg-Hanssen, Astroph. J. **119**, 113 to 119 (1954):

Be II 3130.414 Å; 3131.058 Å.
Be I 3321.043 Å; 3321.252 Å.
3321.430 Å.

Spectrum	Electronic Transition	Vibration Band	Spectral Range (Å)	References for Analysis	
6	NH	$A^2\Pi_1 - X^2\Sigma^-$	0, 0 1, 1	3280 to 3487 3307 to 3485	R. N. Dixon, Canadian J. Phys. 37 , 1171 to 1186 (1959). G. W. Funke, Zeit. Phys. 96 , 787 to 798 (1935). G. W. Funke, Zeit. Phys. 101 , 104 to 112 (1936). A. Fowler and C. C. L. Gregory, Phil. Trans. Roy. Soc. London [A] 218 , 351 to 372 (1919).

7 Lines recorded in Rowland's Table as double, but not resolved in Atlas. For lines short of 4000 Å the adopted wavelength is a mean of the Rowland lines weighted according to the estimated Rowland intensity. To longer waves, additional measurements are included in the adopted values.

Some of these lines are probably single but broadened by hyperfine structure or isotope effect. cf A. Abt, Astroph. J. **115**, 199 to 205 (1952).

λ Recorded Pair (Å)	λ Adopted (Å)	λ Recorded Pair (Å)	λ Adopted (Å)	λ Recorded Pair (Å)	λ Adopted (Å)	λ Recorded Pair (Å)	λ Adopted (Å)
3310. 913r} 3310. 923r}	3310. 918	3413. 465r} 3413. 519r}	3413. 492	3602. 068r} 3602. 111r}	3602. 085	4526. 412r} 4526. 465r}	4526. 442
3322. 927r} 3322. 987r}	3322. 949	3433. 028r} 3433. 077r}	3433. 048	3630. 736r} 3630. 778r}	3630. 754	4535. 711r} 4535. 741r}	4535. 712
3335. 168r} 3335. 219r}	3335. 185	3472. 544r} 3472. 594r}	3472. 558	3642. 774r} 3642. 827r}	3642. 806	5457. 435r} 5457. 496r}	5457. 474
3340. 332r} 3340. 391r}	3340. 356	3502. 255r} 3502. 327r}	3502. 291	3645. 290r} 3645. 336r}	3645. 313	5782. 099r} 5782. 176r}	5782. 136
3646. 728r} 3346. 772r}	3346. 746	3504. 876r} 3504. 917r}	3504. 892	3847. 826r} 3847. 871r}	3847. 848	5790. 959r} 5791. 028r}	5790. 990
3349. 386r} 3349. 464r}	3349. 447	3547. 178r} 3547. 220r}	3547. 199	4018. 085r} 4018. 120r}	4018. 104		
3372. 765r} 3372. 858r}	3372. 812	3564. 936r} 3564. 989r}	3564. 959	4030. 729r} 4030. 798r}	4030. 763		
3395. 370r} 3395. 409r}	3395. 386	3575. 355r} 3575. 394r}	3575. 374	4052. 453r} 4052. 500r}	4052. 482		
3405. 084r} 3405. 169r}	3405. 126	3590. 468r} 3590. 510r}	3590. 489	4187. 785r} 4187. 861r}	4187. 812		

Notes to the Solar Spectrum Ledger, continued (See § 2.8)

8 Wavelength measurements of selected solar lines of NH, from A. Fowler and C. C. L. Gregory, Phil. Trans. Roy. Soc. London [A] 218, 351 to 372 (1919), corrected to present scale adopted for Rowland lines.

λ Adopted (Å)	Rowland λ Corrected (Å)	Remarks
3360. 808m	3360. 854r	
3364. 651m		Solar line from Higgs
3364. 735m	3364. 697r	
3381. 033m	3381. 065r	
3427. 086m		Solar line from Higgs

9 The two components of this line, 4054.815 Å and 4054.873 Å have in the Atlas and on the plate, intensities which are clearly in the reverse order from that given by Rowland.

10 The Balmer Series of hydrogen extends through H₁₇. Because of the width and diffuseness of these solar lines, the calculated laboratory wavelength is given in column one for the members of this series from H₈ through H₁₇:

H I					
Calc. λ (Å)	Series Member	Multiplet No.	Calc. λ (Å)	Series Member	Multiplet No.
3697. 15	H ₁₇	3	3750. 15	H ₁₂	2
3703. 86	H ₁₆		3770. 63	H ₁₁	
3711. 97	H ₁₅		3797. 90	H ₁₀	
3721. 94	H ₁₄		3835. 39	H ₉	
3734. 37	H ₁₃		3889. 05	H ₈	

Measurement of the equivalent widths of these difficult wide lines is described in § 2.2.

Notes to the Solar Spectrum Ledger, continued (See § 2.8)

Designations for molecular lines in the solar spectrum, continued; notes 11, 12:

Spectrum	Electronic Transition	Vibration Band	Wavelength Range (Å)	References for Analysis																														
11	CN	$B^2\Sigma^+ - X^2\Sigma^+$	<table border="0"> <tr> <td>0, 0</td> <td rowspan="4">} 3583 to 3883</td> </tr> <tr> <td>1, 1</td> </tr> <tr> <td>2, 2</td> </tr> <tr> <td>3, 3</td> </tr> <tr> <td>4, 4</td> <td rowspan="4">} 3961 to 4216</td> </tr> <tr> <td>0, 1</td> </tr> <tr> <td>1, 2</td> </tr> <tr> <td>2, 3</td> </tr> <tr> <td>3, 4</td> <td></td> </tr> </table>	0, 0	} 3583 to 3883	1, 1	2, 2	3, 3	4, 4	} 3961 to 4216	0, 1	1, 2	2, 3	3, 4		<p>H. S. Uhler and R. A. Patterson, <i>Astroph. J.</i> 42, 434 to 468 (1915) Measurement of solar equivalent width (228mÅ) refers to integrated first head of CN band, λ3883.287.</p> <p>T. Heurlinger, Lund Dissertation, Chapter VI, pp. I to XXIX following p. 66 (1918). J. Genard and J. Weinard, <i>Ann. d'Astroph.</i> 18, 329 to 333 (1955). J. Weinard, Dissertation, Univ. des Saarlandes, 86 pp. (1955); <i>Ann. d'Astroph.</i> 18, 334 to 353 (1955).</p>																		
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12	CN	$A^2\Pi_1 - X^2\Sigma^+$	<table border="0"> <tr> <td>0, 0 etc. 1, 0 etc.</td> <td rowspan="2">} Beyond range of present publication.</td> </tr> <tr> <td>2, 0</td> </tr> <tr> <td>3, 1</td> <td rowspan="2">} 7850 to 8798</td> </tr> <tr> <td>4, 2</td> </tr> <tr> <td>3, 0</td> <td rowspan="2">} 8044 to 8812</td> </tr> <tr> <td>4, 1</td> </tr> <tr> <td>5, 2</td> <td rowspan="2">} 8247 to 9008</td> </tr> <tr> <td>6, 3</td> </tr> <tr> <td>3, 0</td> <td rowspan="2">} 6910 to 7593</td> </tr> <tr> <td>4, 1</td> </tr> <tr> <td>5, 2</td> <td rowspan="2">} 7072 to 7588</td> </tr> <tr> <td>6, 3</td> </tr> <tr> <td>5, 1</td> <td rowspan="2">} 7242 to 7812</td> </tr> <tr> <td>7, 3</td> </tr> <tr> <td></td> <td rowspan="2">} 7423 to 7801</td> </tr> <tr> <td></td> </tr> <tr> <td></td> <td rowspan="2">} 6320 to 6741</td> </tr> <tr> <td></td> </tr> <tr> <td></td> <td rowspan="2">} 6619 to 7180</td> </tr> <tr> <td></td> </tr> </table>	0, 0 etc. 1, 0 etc.	} Beyond range of present publication.	2, 0	3, 1	} 7850 to 8798	4, 2	3, 0	} 8044 to 8812	4, 1	5, 2	} 8247 to 9008	6, 3	3, 0	} 6910 to 7593	4, 1	5, 2	} 7072 to 7588	6, 3	5, 1	} 7242 to 7812	7, 3		} 7423 to 7801			} 6320 to 6741			} 6619 to 7180		<p>S. P. Davis and J. G. Phillips, Berkeley Analysis of Molecular Spectra, Monograph 1, 1963. Referred to below as "Mono".</p> <p>W. S. Benedict, Unpubl. material, 1964. M. Rigutti and F. Drago-Chiuderi, <i>Ann. d'Astroph.</i> 26, 253 to 262 (1963). (2, 0) and (3, 1). Mono pp. 168 to 174 and unpubl. material 1964. Mono pp. 175 to 182. Mono pp. 183 to 189.</p> <p>Mono pp. 129 to 134. Mono pp. 138 to 144. Mono pp. 145 to 151. Mono pp. 152 to 156.</p> <p>Mono pp. 99 to 104. Mono pp. 118 to 123.</p>
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13 Atomic lines present only in the sun-spot spectrum, based chiefly on work done by C. E. Moore in 1933 from a study of the Mount Wilson spot spectrograms.

$\lambda(\text{Å})$	$\lambda(\text{Å})$	$\lambda(\text{Å})$	$\lambda(\text{Å})$	$\lambda(\text{Å})$	$\lambda(\text{Å})$	$\lambda(\text{Å})$	$\lambda(\text{Å})$
3900.44	4564.23	4784.45	5033.61	†5331.98	5797.55	6367.92	8349.02
4069.84	4573.09	4787.64	†5046.55	†5332.14	5799.90	6378.85	8363.58
4077.16	4575.48	4851.35	†5069.36	5335.24	5807.14	6381.44	8386.35
4078.89?	4578.47	4861.19	5070.23	5335.36	5807.30	6383.44	8417.51
4116.60	4581.30	4862.26	†5077.55	†5335.43	5813.97	6401.95?	8443.00
4117.56	4583.90	4862.90	†5078.28	5339.82?	5879.79	6431.63	8464.69
4152.36	4586.93	4863.75	5144.64	†5354.68	5955.16	6452.08	8494.44
4179.86	4590.55	4881.24	†5158.30	†5356.43	6032.60	6467.83?	8550.52
4186.84	4594.50?	4893.92	5161.78	†5356.60	6058.76	6498.75	8578.43
4278.79	4599.79	4895.99	†5190.19	5359.05	6077.37	6506.39	8608.98
4281.71	4609.97	4900.02?	†5194.77	5361.71	6106.78?	6527.30	8611.11
4306.18	4626.49?	4904.30	†5201.82	†5377.35	6106.98	6557.37	8612.90
4306.91	4643.72	4908.45	†5218.09	†5382.92	6134.71	6563.41	8719.66
4314.36	4643.94	4924.56	5222.67	†5392.06	6192.95	6607.90	
4314.77	4644.86	†4927.59	†5222.98	5401.92	6193.69	6637.24	
4368.92	4661.92?	4930.21	5228.60	†5403.98	6230.85	6646.20	
4387.20	4663.28?	4937.16	†5231.52	5444.85	6241.31?	6649.51	
4393.33	4679.73	†4937.99	5232.82?	5465.75	6257.63	6709.87	
4394.51	4683.44	†4940.30	†5234.82	5470.48	6261.23	6766.50	
4397.22	4684.28	4941.02	5238.52	5481.71	6273.39	7102.89	
4420.46	4684.50	4941.38	†5252.36	5517.18	6276.32	7169.11	
4433.97	4698.83	†4944.82	5273.43	5535.51	6285.42	7213.41	
4476.62	4707.69?	†4947.33	5288.40	5548.76	6295.28	7219.40	
4491.18	4714.12	4947.98	†5291.60	5597.69	6308.62	7439.87	
4497.73	4737.66	†4959.12	†5294.31	5659.16	6339.92	8061.16	
4511.82	4747.27	4967.32	5311.20	5664.26	6342.26	8063.10	
4535.86	4747.96	†4971.62	5311.43	5752.86	6344.82	8066.07	
4541.35	4751.58	4973.06	†5317.89	5756.40?	6359.91	8241.60	
4541.61	4757.48	†4994.99	†5323.93	5785.94	6361.07	8253.60	
4563.66	4779.34	†4995.56	†5326.41	5788.61	6367.82	8307.54	

†Rounded off wavelength measured by R. S. Richardson (unpublished) and kindly furnished to C.E.M. in 1932. Except for one line, at 5377 Å, all were measured independently by C.E.M.

Notes to the Solar Spectrum Ledger, continued (See § 2.8)

14 The observed equivalent width, (column two) relates to the combined lines 3968.492 Å, (Ca II) and 3970.076 Å, (H I). The reduced width (column three) for 3968.492 Å, Ca II (H), has been derived by theory from 3933.682 Å, Ca II (K); for 3970.076 Å, (Hε), it has been interpolated between the other Balmer lines.

15 The line may be double.

$\lambda(\text{Å})$	$\lambda(\text{Å})$	$\lambda(\text{Å})$	$\lambda(\text{Å})$
3975. 051	4134. 438	5095. 176	6091. 920
3985. 789	4163. 480	5142. 530	6183. 574
3988. 332	4188. 315	5146. 776	6303. 461
4001. 940	4315. 458	5161. 764	6395. 148
4057. 957	4334. 166	5338. 333	6497. 594
4061. 733	4340. 848	5399. 479	6537. 938
4072. 888	5089. 212	5470. 636	

16 Possibly a molecular line in the sun-spot spectrum.

17 Blend of a molecular and an atomic line in the sun-spot spectrum.

18 Special notes pertaining to double lines:

$\lambda(\text{Å})$	Remarks
3972. 440	Recorded by Rowland as two lines, but appears as single on Atlas records.
4049. 731	Line is a close unresolved double.
4868. 414	Line is a close unresolved double in the disk spectrum; two lines seen in the spot spectrum.
5040. 890	Line is an unresolved double in the disk spectrum, with separation 0.05 Å (HDB); two lines seen in the spot spectrum.
5342. 504	Line may be a close unresolved double.

Designations for molecular lines in the solar spectrum, continued notes 19, 20, 22, 23, 24, 26.

Spectrum	Electronic Transition	Vibration Band	Wavelength Range (Å)	References for Analysis
19	$A^3\Pi_g - X^3\Pi_u$	0, 0 1, 1 2, 2 1, 0 2, 1 0, 1 1, 2 2, 3	4831 to 5165 4919 to 5129 4972 to 5097 4671 to 4737 4664 to 4708 5501 to 5635 5499 to 5585 5475 to 5540	R. C. Johnson, Phil. Trans. Roy. Soc. [A] 226 , 157 to 230 (1927). J. G. Phillips, unpublished material (Nov. 1963). Present identifications can be extended when Berkeley Monograph on C ₂ has been completed.
20	$A^3\Pi_{3/2,1/2} - X^3\Sigma$	0, 0	4956 to 5210	R. H. Fowler, Mon. Not. Roy. Astron. Soc. 67 , 530 to 534 (1907). Phil. Trans. Roy. Soc. [A] 209 , 447 to 478 (1909). R. S. Richardson, Astroph. J. 73 , 216 to 249 (1931). A. Guntch, Zeit. Phys. 104 , 585 to 591 (1936). A. Schadee, Dissertation, Utrecht (1964); Bull. Astron. Inst. Netherlands 17 , 311 (1964).

Notes to the Solar Spectrum Ledger, continued (See § 2.8)

21 There are probably regions of continuous absorption from 4643 Å to 4650 Å; 4654 Å to 4658 Å; 4661 Å to 4665 Å; and also from: 4826 Å to 4830 Å; 4831 Å to 4835 Å. The note number appears near the strongest absorption dip in these intervals. The extent of the absorption is indicated by a vertical dashed line in the note column.

Spectrum	Electronic Transition	Isotope	Vibration Band	Wavelength Range (Å)	References for Analysis	
22	Atm O ₂	$^1\Sigma_g^+ \rightarrow ^3\Sigma_g^-$	O ¹⁶ O ¹⁶	0, 0 1, 1 1, 0 2, 1 2, 0 3, 0	7593 to 7733 7684 to 7768 6867 to 6967 6954 to 6996 6276 to 6353 5788 to 5829	H. D. Babcock and L. Herzberg, <i>Astroph. J.</i> 108 , 167 to 190 (1948). First line in head of B group: 6867.187 Å. First line of α group: 6276.590 Å.
23	Atm O ₂	$^1\Sigma_g^+ \rightarrow ^3\Sigma_g^-$	O ¹⁶ O ¹⁷	0, 0 1, 0	7599 to 7675 6876 to 6920	H. D. Babcock and L. Herzberg. See above.
24	Atm O ₂	$^1\Sigma_g^+ \rightarrow ^3\Sigma_g^-$	O ¹⁶ O ¹⁸	0, 0 1, 0	7594 to 7684 6885 to 6938	H. D. Babcock and L. Herzberg. See above.

25 [O 1] Brackets denote forbidden transition. Identification suggested by I. S. Bowen, *Rev. Mod. Phys.* **20**, 109 to 112 (1948) 5577.341 Å, 6300.311 Å, 6363.79 Å.

26 Unclassified "Atm" lines are probably due to H₂O. They are entered as "Atm" to distinguish them from classified lines in the H₂O Band System. In the present work they start at 5393 Å and extend to 8739 Å. Two short regions in this interval are free from atmospheric lines: 5478 Å to 5665 Å and 6093 Å to 6267 Å.

All lines identified as "Atm H₂O" have been assigned to specific transitions in the vibration-rotation spectrum. The designations are from the detailed analysis kindly furnished in advance of publication by W. S. Benedict (Dec. 1963). These lines occur in the range 5414 Å to 8758 Å. The following bands are represented in the solar table:

Atm H₂O

Vibration-Rotation Band	Range (Å)	Vibration-Rotation Band	Range (Å)	Vibration-Rotation Band	Range (Å)
411	5414 to 5470	212	6424 to 6563	013	7846 to 8093
203	5665 to 5769	231	6565 to 6585	112	7899 to 8211
500	5701 to 5766	103	6845 to 7128	310	8084 to 8383
321	5828 to 6019	400	6903 to 7203	211	7993 to 8448
401	5830 to 5999	301	7059 to 7408	230	8138 to 8370
302	5863 to 5983	221	7099 to 7480	131	8144 to 8573
113	6275 to 6375	202	7131 to 7392	003	8758
311	6408 to 6626	320	7201 to 7358		

This Band System is described by W. S. Benedict in the introduction to the Michigan Table on the infrared solar spectrum: See O. Mohler, *A Table of Solar Spectrum Wave Lengths*, 11984 Å to 25578 Å, p. 9, Univ. Michigan Press, 83 pp., 1955. A fuller discussion will appear in a forthcoming Table of Identifications in the Solar Spectrum, which is based on *The Photometric Atlas of the Solar Spectrum from λ7498 to λ12016*, by L. Delbouille and G. Roland, *Mém. Soc. Roy. Sci. Liège, Special Volume 4* (1963). For the text and ledger accompanying this Atlas see J. W. Swensson, W. S. Benedict, O. C. Mohler, L. Delbouille and G. Roland; *ibid* **5**, in press (1966).

Notes to the Solar Spectrum Ledger, continued (See § 2.8)

27 The presence of this Ca I multiplet in the solar spectrum was first reported by W. Mitchell and explained by L. Goldberg, of L. Goldberg, Harvard College Obs. Sci. Report No. 4, 22 pp (1965); W. E. Mitchell, Jr., and O. C. Mohler, *Astroph. J.* **141**, 1126 to 1130 (1965). See, also, R. F. Griffin, *The Obs.* **84**, 154 to 156 (1964).

Ca I		
Solar λ (\AA) Mitchell and Mohler	Lab. λ (\AA)	Multiplet No.
6318. 61	6318. 11	} 53
6343. 71	6343. 29	
6361. 94 ¹	6361. 79	

¹ Equivalent width not measurable; multiplet rules used to determine $\Delta\lambda$ and $\Delta\lambda/\lambda$.

28 The value of $\Delta\lambda/\lambda$ in column three has been interpolated between neighboring lines of the Atm O₂ band: 7601.470 \AA , 7602.036 \AA , 7612.314 \AA , 7623.552 \AA .

29 This line, 7657.606 \AA , remeasured from the original plate, yields an equivalent width of 113 m \AA , corresponding to $\Delta\lambda/\lambda=14.7$.

30 The measured intensities correspond to the total area of the band head, 4688.60 \AA to 4689.00 \AA .

31 For the members of the Paschen series of H having $n=12$ through 18, laboratory wavelengths are entered in column one. In the solar spectrum there is a background haze caused by the first of these Paschen lines.

n	Lab. λ (\AA)	Remarks	n	Lab. λ (\AA)	Remarks
12	8750. 48	$\Delta\lambda$ 220 m \AA ; $\Delta\lambda/\lambda$ 34	16	8502. 49	masked by Ca II
13	8665. 02	masked by Ca II	17	8467. 26	
14	8598. 39		18	8437. 96	
15	8545. 38	masked by Ca II			

32 The equivalent width refers to the central, symmetric component of this complex line, 8071.262 \AA .

~~JUL 17 1988~~

~~JUL 05 1988~~



~~JUL 10 1988~~

