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SPECTRAL STUDIES RELATED TO DISSOCIATION OF HBr, HCℓ AND BrO

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ABSTRACT

Concern over halogen catalyzed decomposition of O_3 in the upper atmosphere has generated need for data on the atomic and molecular species X, HX and XO (where X is Cℓ and Br). Of special importance are Cℓ produced from freon decomposition and Cℓ and Br produced from natural processes and from other industrial and agricultural chemicals. We have provided basic spectral data on HCℓ, HBr, and BrO necessary (1) to detect specific states and energy levels, (2) to enable detailed modeling of the processes involving molecular dissociation, ionization, etc., and (3) to help evaluate field experiments to check the validity of model calculations for these species in the upper atmosphere. Results from this research contained in four published papers and two major spectral compilations are summarized in this report together with other results obtained from this project.

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INTRODUCTION

Assessments[1] by the National Academy of Science and NASA identify a critical need for reaction rate and spectral data on X, HX and XO (X=Cℓ or Br), atomic and molecular species which are intimately involved in halogen catalyzed ozone decomposition. Under NASA grant NSG 7430, the University of Maryland has provided basic spectral data on HCℓ, HBr, HI and BrO to the national program charged with understanding the effects of catalytic destruction of O_3 in the upper atmosphere.

Hydrogen chloride and hydrogen bromide participate in numerous chemical and photochemical reactions which lead to halogen atom production and serve as the principal sink whereby halogens are removed from the stratosphere. The detailed modeling of the halogen/ozone chemistry in the earth's atmosphere and the design of field experiments to observe the pertinent species to quantify these models benefit from precise knowledge of the absorption spectra of HCℓ, HBr and BrO. Because of extensive overlapping by a great multitude of spectral features of vastly differing character (i.e., diffuseness, strength, etc.), these data can be obtained only from highly resolved (reciprocal dispersion ~0.6 Å/mm or better) spectra. Low dispersion spectra[2] for hydrogen chloride and hydrogen bromide can prove useful, however, for intercomparing intensities for selected, very diffuse features.

HYDROGEN CHLORIDE AND HYDROGEN BROMIDE

The complex analyses of the high resolution absorption spectra of the diatomic hydrogen halides in the vacuum ultraviolet region for wavelengths longer than the lithium fluoride cutoff were brought near completion under NSG 7340. We have found that these spectra are associated with transitions from the ground state, $\sigma^2\pi^4\ X^1\Sigma^+$, to the states associated with the following

configurations (listed roughly in order of appearance energy above the ground configuration).

$(\sigma^2\pi^3)a\sigma^*$	$a^3\Pi_i(2,1,0^\pm)$, $A^1\Pi(1)$
$(\sigma\pi^4)a'\sigma^*$	$t^3\Sigma^+(1,0^-)$, $V^1\Sigma^+(0^+)$
$(\sigma^2\pi^3)b\sigma$	$b^3\Pi_i(2,1,0^\pm)$, $C^1\Pi(1)$
$(\sigma^2\pi^3)c\sigma$	$d^3\Pi_i(2,1,0^\pm)$, $D^1\Pi(1)$
$(\sigma^2\pi^3)c\pi$	$e^3\Sigma^+(1,0^-)$, $E^1\Sigma^+(0^+)$, $f^3\Delta_i(3,2,1)$, $F^1\Delta(2)$, $g^3\Sigma^-(1,0^+)$, $G^1\Sigma^+(0^-)$
$(\sigma^2\pi^3)d\pi$	$h^3\Sigma^+(1,0^-)$, $H^1\Sigma^+(0^+)$, $i^3\Delta_i(3,2,1)$, $I^1\Delta(2)$, $j^3\Sigma^-(1,0^+)$, $J^1\Sigma^+(0^-)$
$(\sigma^2\pi^3)a\delta$	$k^3\Pi_r(0^\pm,1,2)$, $K^1\Pi(1)$, $\ell^3\Phi(4,3,2)$, $L^1\Phi(3)$
$(\sigma^2\pi^3)d\sigma$	$n^3\Pi_i(2,1,0^\pm)$, $N^1\Pi(1)$
$(\sigma^2\pi^3)e\sigma$	$m^3\Pi_i(2,1,0^\pm)$, $M^1\Pi(1)$
$(\sigma^2\pi^3)f\sigma$	$r^3\Pi_i(2,1,0^\pm)$, $R^1\Pi(1)$

Both Λ,S and Ω,ω notations are indicated, since there often are major changes in coupling between molecules and/or configurations. For example, the electronic states associated with the $(\sigma^2\pi^3)b\sigma$ configuration for HCℓ, HBr and HI rapidly approach Ω,ω coupling with increasing numbers of electrons, while the states associated with the $(\sigma^2\pi^3)c\sigma$ configurations in each molecule tend more toward Ω,ω coupling than the states associated with $(\sigma^2\pi^3)b\sigma$. It is useful to retain both Λ,S and Ω,ω notations, since the former is more descriptive in discussions of state ancestry and configurational assignments while the latter often provides a better representation of "valid" term symbols. The X, a, A and t states are correlated with the ground state atomic limit and a, A and t are repulsive. The $a\sigma$, $b\sigma$, $c\sigma$ and $c\pi$ would be 6σ, 7σ, 8σ and 3π, respectively, in HCℓ with appropriate increases in orbital labeling for the

analogous configurations in HBr and HI. While there is significant configuration interaction in all of the excited states of the hydrogen halides, persons who feel driven to apply conventional, one electron Rydberg state taxonomy would likely correlate $b\sigma$, $c\sigma$ and $c\pi$ with the first members of $ns\sigma$, $np\sigma$ and $np\pi$ series, respectively.

Although major emphasis was placed on the absorption spectrum of HCℓ and HBr, unique characterization of the excited electronic structures for these molecules was possible only with concurrent analyses of the analogous spectra for DCℓ, DBr, HI and DI. The band analyses for HX and DX(X=Cℓ, Br and I) in the VUV which characterize the configurations listed above are summarized in four papers[3-6], the abstract pages of which appear in Appendices A through D. Atlases on the VUV absorption spectra of HCℓ and HBr appear in Appendices E and F, respectively. These atlases contain complete listings for all observed absorption lines and features (wavelength, wavenumber, linewidth, descriptions, etc.) together with their spectral assignments whenever possible. Less than two percent of the lines remain unassigned for $\lambda>\sim1110$ Å and $\lambda>\sim1170$ Å for HCℓ and HBr, respectively, with the unassigned lines being among the weakest observed in these spectra.

Predissociations affect many of the band systems, and considerable attention was given to identifying predissociating levels in the HX molecules. It is most likely that $t^3\Sigma^+$ is the major contributor to the extensive predissociations of the state from $(\sigma^2\pi^3)b\sigma$, while the vibrational levels of the b and c states affect selected levels of several states associated with more highly excited configurations. There are several instances (see Appendices A-F) of moderately intense predissociation in the extensive manifold of 0^+ states and a general disappearance of spectra <u>obviously</u> attributable to transitions with $\Omega>0$ for states with $n^*>\sim3.5$ -phenomena which do not have unique explanations

at present. The general features of the various arguments regarding predissociation are apparent from the potential energy curves for HCℓ which appear on the following page.

OTHER RESEARCH

We spent considerable effort on attempts to better characterize the spectra and structures of BrO, Br, and Cℓ. While we could have used tunable multiphoton spectroscopy to obtain new energy level data for these species, we felt the time involved in scanning the visible and near ultraviolet in search of resonances would be excessive, if not prohibitive. Therefore, we attempted to obtain the same information by studying absorption transitions from metastable, levels lying at intermediate energies in the species electronic state manifold. The experimental system which showed the best promise for this kind of work was a pulsed discharge, long path (multipass White cell) system, and we developed such a system at the University (see Appendix G) specifically for these studies. Unfortunately, our results in these areas did not provide significant improvements over existing data to warrant continued efforts in these areas.

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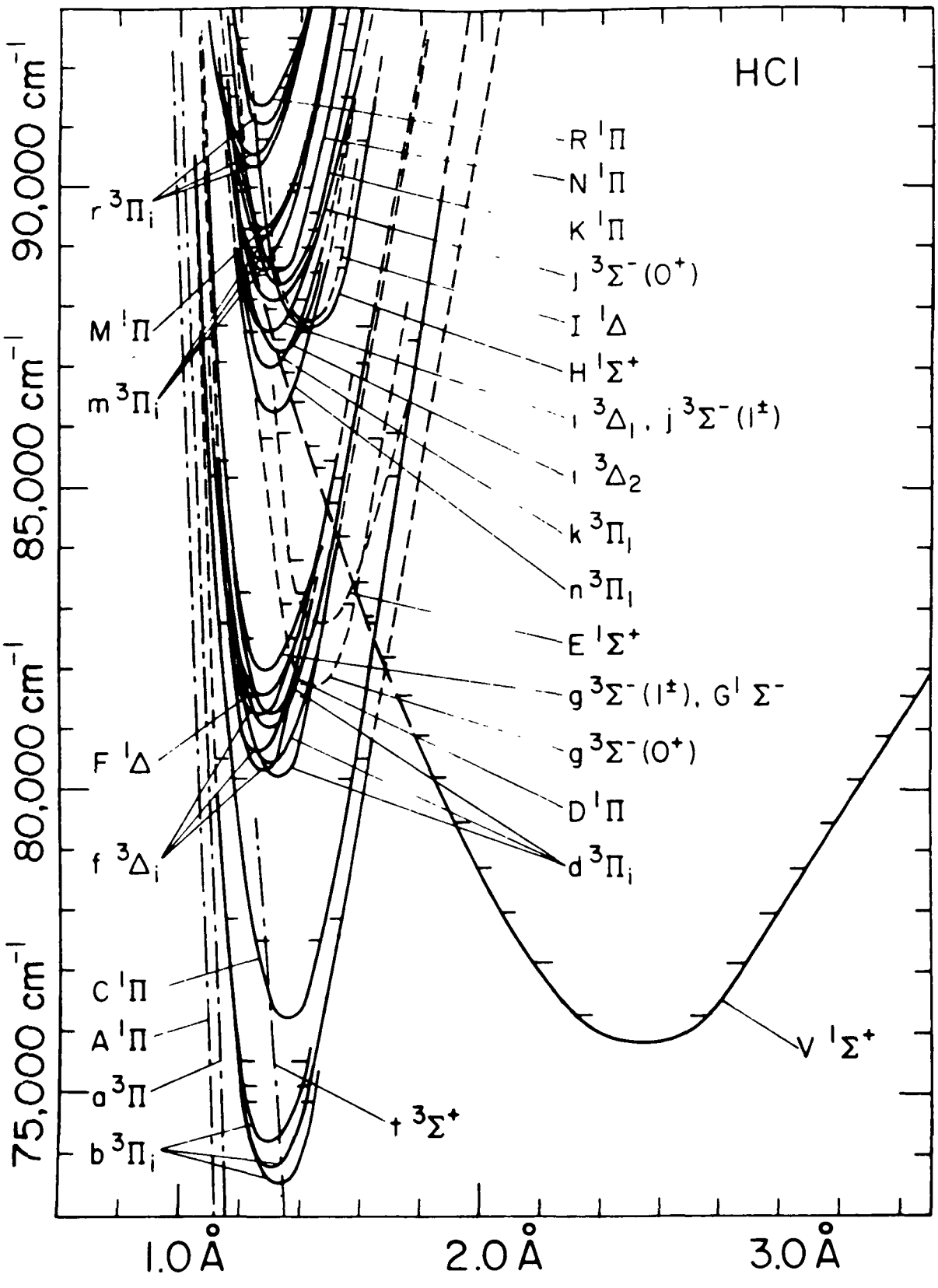
HCl
90,000 cm⁻¹
85,000 cm⁻¹
80,000 cm⁻¹
75,000 cm⁻¹
1.0 Å
2.0 Å
3.0 Å
R ¹Π
N ¹Π
K ¹Π
j ³Σ⁻(0⁺)
I ¹Δ
H ¹Σ⁺
i ³Δ₁, j ³Σ⁻(1±)
i ³Δ₂
k ³Π₁
n ³Π₁
E ¹Σ⁺
g ³Σ⁻(1±), G ¹Σ⁻
g ³Σ⁻(0⁺)
D ¹Π
d ³Πᵢ
V ¹Σ⁺
r ³Πᵢ
M ¹Π
m ³Πᵢ
F ¹Δ
f ³Δᵢ
C ¹Π
A ¹Π
a ³Π
b ³Πᵢ
t ³Σ⁺

APPENDIX A

A copy of the first page of reference 3 appears below, while a complete reprint of the article is included in the pocket on the cover.

Electronic Spectra and Structure of the Hydrogen Halides: Characterization of the Electronic Structures of HBr and DBr Lying between 79 500 and 83 900 cm^{-1} above $X^1\Sigma^+$

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The high-resolution absorption spectra of HBr and DBr were reinvestigated in the 1258-Å (79 500 cm^{-1}) to 1192-Å (83 900 cm^{-1}) region. This spectral region was found to contain bands attributable to (1) $V^1\Sigma^+ - X^1\Sigma^+(v' - 0)$ with $v' > 0$, (2) $(v' - 0)$ transitions with $v' > 0$ from $X^1\Sigma^+(v'' = 0)$ to states associated with the $(\sigma^2\pi^3)c\pi$ and $(\sigma^2\pi^3)c\sigma$ configurations, and (3) $(v' - 0)$ transitions with $v' \geqq 0$ from $X^1\Sigma^+(v'' = 0)$ to states associated with the previously unreported configurations $(\sigma^2\pi^3)d\sigma$, $d\pi$, $a\delta$, $e\sigma$, and $f\sigma$.

INTRODUCTION

This paper is the seventh in a series in which results are presented on the high-resolution absorption spectra and electronic structures of the diatomic hydrogen halides. Previous papers in this series describe the electronic states associated with the $(\sigma^2\pi^3)b\sigma$, $(\sigma^2\pi^3)c\sigma$, and $(\sigma^2\pi^3)c\pi$ configurations of HCl and DCl (*1*, *2*), HBr and DBr (*3*, *4*), and HI and DI (*5*, *6*). The present paper describes the spectroscopic identifications and characterizations of electronic states associated with several more highly excited configurations in HBr and DBr, which include the $(\sigma^2\pi^3)d\sigma$, $d\pi$, $a\delta$, $e\sigma$ and $f\sigma$ configurations.

The lowest-lying configurations and corresponding electronic states for the hydrogen halides may be represented as

$\sigma^2\pi^4$	$X^1\Sigma^+(0^+)$
$(\sigma^2\pi^3)a\sigma^*$	$a^3\Pi_i(2, 1, 0)$, $A^1\Pi(1)$
$(\sigma\pi^4)a'\sigma^*$	$t^3\Sigma^+(1, 0^-)$, $V^1\Sigma^+(0^+)$
$(\sigma^2\pi^3)b\sigma$	$b^3\Pi_i(2, 1, 0^\pm)$, $C^1\Pi(1)$
$(\sigma^2\pi^3)c\sigma$	$d^3\Pi_i(2, 1, 0^\pm)$, $D^1\Pi(1)$
$(\sigma^2\pi^3)c\pi$	$e^3\Sigma^+(1, 0^-)$, $E^1\Sigma^+(0^+)$, $f^3\Delta_i(3, 2, 1)$, $F^1\Delta(2)$, $g^3\Sigma^-(1, 0^+)$, $G^1\Sigma^-(0^-)$.

APPENDIX B

A copy of the first page of reference 4 appears below, while a complete reprint of the article is included in the pocket on the cover.

Electronic Spectra and Structure of the Hydrogen Halides: Characterization of the Electronic Structure of HI Lying between 67 800 and 74 400 cm^{-1} above $X^1\Sigma^+$

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High-resolution absorption spectra of HI were reinvestigated in the 1475-Å (67 800 cm^{-1}) to 1344-Å (74 400 cm^{-1}) region. This spectral region was found to contain bands attributable to (1) $V^1\Sigma^+$–$X^1\Sigma^+(v'$–$0)$ with $v' > 0$, (2) $(v'$–$0)$ transitions with $v' \geq 0$ from $X^1\Sigma^+$ to states associated with the $(\sigma^2\pi^3)c\pi$ and $(\sigma^2\pi^3)c\sigma$ configurations, and (3) $(v'$–$0)$ transitions with $v' \geq 0$ from $X^1\Sigma^+$ to states associated with the previously unreported configurations $(\sigma^2\pi^3)d\sigma$, $d\pi$, $a\delta$, $e\sigma$, and $f\sigma$

INTRODUCTION

This paper is the ninth in a series in which results are presented on the high-resolution absorption spectra and electronic structures of the diatomic hydrogen halides. Previous papers in this series describe the electronic states associated with the $(\sigma^2\pi^3)b\sigma$, $c\sigma$, $c\pi$, $d\pi$, $d\sigma$, $a\delta$, $e\sigma$, and $f\sigma$ configurations in HCl and DCl (*1–3*) and in HBr and DBr (*4–6*), and with the $(\sigma^2\pi^3)b\sigma$, $c\sigma$, and $c\pi$ configurations in HI and DI (*7, 8*). The present paper is devoted mainly to the spectroscopic identifications and characterizations of electronic states associated with the $(\sigma^2\pi^3)d\pi$, $d\sigma$, $a\delta$, $e\sigma$, and $f\sigma$ configurations in HI.

The lowest lying configurations and corresponding electronic states for the hydrogen halides may be represented as

$(\sigma^2\pi^3)$	$X^1\Sigma^+(0^+)$
$(\sigma^2\pi^3)a\sigma^*$	$a^3\Pi_i(2, 1, 0^\pm)$, $A^1\Pi(1)$
$(\sigma\pi^4)a'\sigma^*$	$t^3\Sigma^+(1, 0^-)$, $V^1\Sigma^+(0^+)$
$(\sigma^2\pi^3)b\sigma$	$b^3\Pi_i(2, 1, 0^\pm)$, $C^1\Pi(1)$
$(\sigma^2\pi^3)c\sigma$	$d^3\Pi_i(2, 1, 0^\pm)$, $D^1\Pi(1)$
$(\sigma^2\pi^3)c\pi$	$e^3\Sigma^+(1, 0^-)$, $E^1\Sigma^+(0^+)$, $f^3\Delta_i(3, 2, 1)$, $F^1\Delta(2)$, $g^3\Sigma^-(1, 0^+)$, $G^1\Sigma^-(0^-)$
$(\sigma^2\pi^3)d\pi$	$h^3\Sigma^+(1, 0^-)$, $H^1\Sigma^+(0^+)$, $i^3\Delta_i(3, 2, 1)$, $I^1\Delta(2)$, $j^3\Sigma^-(1, 0^+)$, $J^1\Sigma^-(0^-)$
$(\sigma^2\pi^3)d\sigma$	$n^3\Pi_i(2, 1, 0^\pm)$, $N^1\Pi(1)$
$(\sigma^2\pi^3)a\delta$	$k^3\Pi_i(0^\pm, 1, 2)$, $K^1\Pi(1)$, $l^3\Phi(4, 3, 2)$, $L^1\Phi(3)$
$(\sigma^2\pi^3)e\sigma$	$m^3\Pi_i(2, 1, 0^\pm)$, $M^1\Pi(1)$
$(\sigma^2\pi^3)f\sigma$	$r^3\Pi_i(2, 1, 0^\pm)$, $R^1\Pi(1)$.

APPENDIX C

A copy of the first page of reference 5 appears below, while a complete reprint of the article is included in the pocket on the cover.

Electronic Spectra and Structure of the Hydrogen Halides: Characterization of the Electronic Structure of HCl Lying between 82 900 and 93 500 cm^{-1} above $X^1\Sigma^+$

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The high-resolution absorption spectrum of HCl was reinvestigated in the 1208-Å (82 800-cm^{-1}) to 1070-Å (93 500-cm^{-1}) region. This spectral region was found to contain bands attributable to (1) $C^1\Pi$–$X^1\Sigma^+(v' - 0)$ and $V^1\Sigma^+$–$X^1\Sigma^+(v' - 0)$ with $v' > 0$, (2) $(v' - 0)$ transitions with $v' \geq 0$ from $X^1\Sigma^+(v = 0)$ to states associated with the $(\sigma^2\pi^3)c\pi$ and $(\sigma^2\pi^3)c\sigma$ configurations, and (3) $(v' - 0)$ transitions with $v' \geq 0$ from $X^1\Sigma^+(v = 0)$ to states associated with the previously unreported configurations $(\sigma^2\pi^3)d\sigma$, $d\pi$, $a\delta$, $e\sigma$, and $f\sigma$

INTRODUCTION

The present work expands previous analyses (*1–3*) of high-resolution spectra of HCl observed in the region 1340–1050 Å. It is the eighth paper in a series [see Ref. (*4*) for a complete listing] devoted to the determination of the electronic structures of the diatomic hydrogen halides from the interpretation of highly resolved absorption spectra of H*X* and D*X* (*X* = Cl, Br, I) observed in the vacuum ultraviolet. Previous papers in the series described the electronic states associated with the $(\sigma^2\pi^3)b\sigma$, $(\sigma^2\pi^3)c\sigma$, and $(\sigma^2\pi^3)c\pi$ configurations in H*X* and D*X* and the $(\sigma^2\pi^3)d\sigma$, $(\sigma^2\pi^3)d\pi$, $(\sigma^2\pi^3)a\delta$, $(\sigma^2\pi^3)e\sigma$, and $(\sigma^2\pi^3)f\sigma$ configurations in HBr and DBr (*4*). This paper extends existing (*1*) empirical analyses for HCl in the region ~1200–1071 Å, develops results in the region 1206–1150 Å not presented earlier (*3*), and correlates these HCl spectral data through electronic state and configuration assignments.

Since the states associated with and the general properties of the lowest-lying configurations of the hydrogen halides are summarized in the companion paper (*4*) on HBr, this information will not be repeated here. The electron configurations and corresponding states of principal interest to this work are based on the addition of an $n\lambda$ electron to the $(\sigma^2\pi^3)X^2\Pi_i$ core and may be represented as

$(\sigma^2\pi^3)d\pi$	$h^3\Sigma^+(1, 0^-)$, $H^1\Sigma^+(0^+)$, $i^3\Delta_i(3, 2, 1)$, $I^1\Delta(2)$, $j^3\Sigma^-(1, 0^+)$, $J^1\Sigma^-(0^-)$
$(\sigma^2\pi^3)d\sigma$	$n^3\Pi_i(2, 1, 0^\pm)$, $N^1\Pi(1)$
$(\sigma^2\pi^3)e\sigma$	$m^3\Pi_i(2, 1, 0^\pm)$, $M^1\Pi(1)$
$(\sigma^2\pi^3)a\delta$	$k^3\Pi_r(0^\pm, 1, 2)$, $K^1\Pi(1)$, $l^3\Phi(4, 3, 2)$, $L^1\Phi(3)$
$(\sigma^2\pi^3)f\sigma$	$r^3\Pi_i(2, 1, 0^\pm)$, $R^1\Pi(1)$.

Both Λ,S and Ω,ω notations are indicated in our state labels because there are often major changes in coupling between molecules and/or configurations.

APPENDIX D

A copy of the first page of reference 6 appears below, while a complete reprint of the article is included in the pocket on the cover.

Electronic Spectra and Structure of the Hydrogen Halides: Characterization of the Electronic Structure of DI Lying between 67 800 and 74 400 cm^{-1} above $X^1\Sigma^+$

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High-resolution absorption spectra of DI were reinvestigated in the 1475-Å (67 800 cm^{-1}) to 1344-Å (74 400 cm^{-1}) region This spectral region was found to contain bands attributable to (1) $V^1\Sigma^+$-$X^1\Sigma^+(v'\text{-}0)$ with $v' > 0$, (2) $(v'\text{-}0)$ transitions with $v' \geq 0$ from $X^1\Sigma^+$ to states associated with the $(\sigma^2\pi^3)c\pi$ and $(\sigma^2\pi^3)c\sigma$ configurations, and (3) $(v'\text{-}0)$ transitions with $v' \geq 0$ from $X^1\Sigma^+$ to states associated with the previously unreported configurations $(\sigma^2\pi^3)d\sigma$, $d\pi$, $a\delta$, $e\sigma$, and $f\sigma$.

INTRODUCTION

The present work expands earlier analyses (*1*, *2*) of high-resolution spectra of DI in the region ~1798–1423 Å and extends spectral analyses to the region 1423–1344 Å. It is the tenth paper in a series [see Ref. (*3*) for a complete listing] devoted to the determination of the electronic structures of the diatomic hydrogen halides from the interpretation of highly resolved absorption spectra of H*X* and D*X* (*X* = Cl, Br, I) observed in the vacuum ultraviolet. The present paper is devoted mainly to the spectroscopic identification and characterization of electronic states associated with the $(\sigma^2\pi^3)d\pi$, $d\sigma$, $a\delta$, $e\sigma$, and $f\sigma$ configurations in DI.

Since the states associated with, and the general properties of, the lowest lying configurations of the hydrogen halides are summarized in the companion paper (*3*) on HI, this information will not be repeated here. The electron configurations and corresponding states of principal interest to this work are based on the addition of an $n\lambda$ electron to the $(\sigma^2\pi^3)X^2\Pi_i$ core [$A = -5360$ cm^{-1} (*4*)] and may be represented as

APPENDIX E

High Resolution Spectrum of HCℓ in the 1339 to 1052 Å Region

The data table in this appendix contains the wavelengths (Å, vacuum), wavenumbers (cm^{-1}, vacuum) and lines assignments of the high resolution absorption spectrum of HCℓ. All of the transitions originate from the v"=0 level of the $X^1\Sigma^+$ ground state so that only the branch labels [Q(08) means J'-J"=0 and J=8, etc.] and upper state labels [0 b(2) means v'=0 for the Ω=2 component of the b state, etc.] are necessary to completely specify a transition. Labelings Q(HD), R(HD), etc. represent the positions of Q-type, R-type, etc. band heads, with comments edge, ±5, =Q(01), etc. indicating that the edge (something between the toe of the absorption and its half maximum), ±5 means an uncertainty of ±5 cm^{-1}, the region of the Q(1), respectively. Question marks indicate line assignment is questionable, asterisks indicate a blended line, pt indicates a perturbed line, a indicates the resolved transition of the isotopic $H^{35}C\ell$ molecule, b indicates a resolved transition of the isotopic $H^{37}C\ell$ molecules, and a prime indicates a related series.

The upper state assignments [letter and Ω value] are the same as in the state listing on page 2 of the main text.

HIGH RESOLUTION SPECTRUM OF HCL
IN THE 1339.106 TO 1052.353 A WAVELENGTH REGION

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1339.106	74676.70	P(06)	0	b(2)	
1338.563	74707.00	Q(10)?	0	b(2)	
1338.496	74710.70	P(05)	0	b(2)	
1338.154	74729.80	Q(09)?	0	b(2)	
1337.789	74750.20	Q(08)	0	b(2)	
1337.447	74769.30	Q(07)	0	b(2)	
1337.149	74786.00	Q(06)	0	b(2)	
1336.859	74802.20	Q(05)	0	b(2)	
1336.621	74815.50	Q(04)	0	b(2)	
1336.453	74824.90	Q(03)	0	b(2)	
1336.373	74829.40	Q(HD)			edge
1335.943	74853.50	P(11)?	0	b(1)	
1335.402	74883.84	P(10)?	0	b(1)	
1334.876	74913.30	P(09)	0	b(1)	
1334.811	74917.00	R(HD)	0	b(2)	±5
1334.330	74944.00	P(08)	0	b(1)	
1333.821	74972.60	P(07)	0	b(1)	
1333.328	75000.30	P(06)	0	b(1)	
1332.854	75027.00	P(05)	0	b(1)	
1332.401	75052.50	P(04)	0	b(1)	
1331.994	75075.40				
1331.968	75076.90	P(03)	0	b(1)	
1331.583	75098.59				
1331.549	75100.50	P(02)	0	b(1)	
1330.832	75140.99	Q(HD)	0	b(1)	=Q(01)
1330.470	75161.40	R(00)	0	b(1)	
1330.127	75180.80	R(01)	0	b(1)	
1329.817	75198.30	R(02)	0	b(1)	
1329.531	75214.50	R(03)	0	b(1)	
1329.273	75229.10	R(04)	0	b(1)	
1329.034	75242.60	R(05)	0	b(1)	
1328.803	75255.70	R(06)	0	b(1)	
1328.618	75266.20	R(07)	0	b(1)	
1328.462	75275.00	R(08)	0	b(1)	
1328.116	75294.60	edge			
1327.699	75318.30	P(08)	0	b(0)	
1327.306	75340.60	P(07)	0	b(0)	
1326.909	75363.10	P(06)	0	b(0)	
1326.517	75385.40	P(05)	0	b(0)	
1326.168	75405.20	P(04)	0	b(0)	
1325.789	75426.80	P(03)	0	b(0)	
1325.402	75448.80	P(02)	0	b(0)	
1324.672	75490.40	Q(HD)	0	b(1)	
1324.345	75509.00				
1323.951	75531.50	R(01)	0	b(1)	
1323.918	75533.40				
1323.595	75551.80	R(02)	0	b(0)	
1323.234	75572.40	R(03)	0	b(0)	
1322.905	75591.20	R(04)	0	b(0)	
1322.569	75610.40	R(05)	0	b(0)	
1322.249	75628.73	R(06)?	0	b(0)	
1322.227	75630.00	R(06)	0	b(0)	
1322.119	75636.13	?			
1322.105	75636.97	?			
1321.946	75646.07	?			
1321.929	75647.00	R(07)	0	b(0)	
1321.624	75664.50	R(08)	0	b(0)	
1321.327	75681.50	R(09)	0	b(0)	
1321.274	75684.51	?			
1321.060	75696.80	R(10)?	0	b(0)	
1296.459	77133.20	P(11)?	0	C(1)	
1295.708	77177.86	P(10)	0	C(1)	
1295.029	77218.36	P(09)	0	C(1)	
1295.005	77219.80	?			
1294.382	77256.93	?			
1294.368	77257.80	P(08)	0	C(1)	
1293.821	77290.44				
1293.775	77293.22	P(07)	0	C(1)	
1293.755	77294.41	?			
1293.558	77306.14	?			
1293.206	77327.22	P(06)	0	C(1)	
1293.187	77328.33	?			
1292.874	77347.08	?			
1292.676	77358.93	P(05)	0	C(1)	
1292.246	77384.63	Q(09)	0	C(1)	
1292.180	77388.58	P(04)	0	C(1)	
1291.891	77405.93	Q(08)	0	C(1)	
1291.718	77416.27	P(03)	0	C(1)	
1291.608	77422.86	Q(07)	0	C(1)	
1291.344	77438.67	Q(06)	0	C(1)	
1291.314	77440.47	P(02)	0	C(1)	
1291.117	77452.29	Q(05)	0	C(1)	
1290.933	77463.34	Q(04)	0	C(1)	
1290.786	77472.18	Q(03)	0	C(1)	
1290.675	77478.86	Q(02)	0	C(1)	
1290.607	77482.89	Q(01)	0	C(1)	
1290.257	77503.94	R(00)	0	C(1)	
1289.983	77520.38	R(01)	0	C(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1289.745	77534.69	R(02)	0	C(1)	
1289.550	77546.43	R(03)	0	C(1)	
1289.388	77556.20	R(04)	0	C(1)	
1289.271	77563.20	R(05)	0	C(1)	
1289.190	77568.09	R(06)	0	C(1)	
1289.116	77572.53	R(HD)	0	C(1)	
1288.515	77608.72				v df
1284.057	77878.14				
1283.944	77885.00	Q(HD)	1	b(1)	±15, df
1282.709	77960.00	Q(HD)	1	b(0)	±20, df
1278.740	78202.00	Q(HD)	1	b(0)	±30
1278.691	78205.00				
1277.955	78250.00				
1277.016	78307.56				
1276.699	78327.00	R(HD)	1	b(0)	+30
1254.570	79708.60	P(13)	1	C(1)	
1253.736	79761.60	P(12)	1	C(1)	
1253.009	79807.90	P(11)	1	C(1)	
1252.289	79853.80	P(10)	1	C(1)	
1251.582	79898.90	P(09)	1	C(1)	
1250.966	79938.20	P(08)	1	C(1)	
1250.375	79976.00	P(07)	1	C(1)	
1249.836	80010.50	P(06)	1	C(1)	
1249.355	80041.30	P(05)	1	C(1)	
1248.887	80071.30	P(04)	1	C(1)	
1248.825	80075.30	?			
1248.436	80100.20	P(03)	1	C(1)	
1248.079	80123.10	?			
1248.042	80125.50	P(02)	1	C(1)	
1247.505	80160.00	?			
1247.349	80170.00	Q(HD)	1	C(1)	±3
1247.079	80187.40	R(00)	1	C(1)	
1246.870	80200.80				
1246.808	80204.80	R(01)	1	C(1)	
1246.587	80219.00	R(02)	1	C(1)	
1246.295	80237.82				
1246.075	80252.00	R(HD)	1	C(1)	±5
1244.918	80326.56	?			
1242.699	80470.00	Q(HD)	2	b(1)	±50
1240.151	80635.31	P(05)	6	V(0)	a*
1239.191	80697.78	R(05)	6	V(0)	b,(1)
1239.161	80699.77	R(05)	6	V(0)	a
1238.955	80713.19	P(04)	6	V(0)	b
1238.924	80715.23	P(04)	6	V(0)	a
1238.135	80766.66	R(04)	6	V(0)	b,(1)
1238.101	80768.83	R(04)	6	V(0)	a,(1)

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1237.944	80779.11	P(03)	6	V(0)	b,(1)
1237.910	80781.29	P(03)	6	V(0)	a,(1)
1237.507	80807.60	?			
1237.403	80814.40	?			
1237.311	80820.44	R(03)	6	V(0)	b,(1)
1237.279	80822.53	R(03)	6	V(0)	a
1237.168	80829.76	P(02)	6	V(0)	b
1237.134	80831.99	P(02)	6	V(0)	a
1236.857	80850.07	P(09)	7	V(0)	b,(1)
1236.833	80851.66	P(09)	7	V(0)	a,(1)
1236.711	80859.64	R(02)	6	V(0)	b
1236.678	80861.81	R(02)	6	V(0)	a
1236.625	80865.28	P(01)	6	V(0)	b
1236.585	80867.89	P(01)	6	V(0)	a
1236.348	80883.35	R(01)	6	V(0)	b
1236.312	80885.72	R(01)	6	V(0)	a
1236.214	80892.14	R(00)	6	V(0)	b
1236.175	80894.72	R(00)	6	V(0)	a
1234.737	80988.91	P(08)	7	V(0)	b
1234.716	80990.30	P(08)	7	V(0)	a
1233.213	81089.00	R(08)	7	V(0)	b
1233.168	81091.98	R(08)	7	V(0)	a
1232.861	81112.17	P(07)	7	V(0)	b
1232.828	81114.32	P(07)	7	V(0)	a
1231.496	81202.08	R(07)	7	V(0)	b
1231.462	81204.28	R(07)	7	V(0)	a
1231.205	81221.26	P(06)	7	V(0)	b
1231.171	81223.46	P(06)	7	V(0)	a
1230.020	81299.52	R(06)	7	V(0)	b
1229.988	81301.59	R(06)	7	V(0)	a
1229.773	81315.80	P(05)	7	V(0)	b
1229.739	81318.08	P(05)	7	V(0)	a
1229.496	81334.15	R(11)	8	V(0)	
1229.428	81338.67	P(08)	0	d(2)	
1229.056	81363.23	P(10)	8	V(0)	a
1228.780	81381.54*	P(07)	0	d(2)	
1228.772	81382.09	R(05)	7	V(0)	b
1228.736	81384.43	R(05)	7	V(0)	a
1228.570	81395.43	P(04)	7	V(0)	b
1228.534	81397.86	P(04)	7	V(0)	a
1228.155	81422.96	P(06)	0	d(2)	
1227.750	81449.78	R(04)	7	V(0)	b
1227.711	81452.40	R(04)	7	V(0)	a
1227.586	81460.66*	P(03)	7	V(0)	b
1227.586	81460.66	P(05)	0	d(2)	
1227.551	81463.03	P(03)	7	V(0)	a

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1227.411	81472.30				
1227.273	81481.49	Q(08)	0	d(2)	
1227.148	81489.73	R(10)	8	V(0)	a
1227.056	81495.88	P(04)	0	d(2)	
1226.996	81499.88	P(10)	0	d(1)	
1226.952	81502.80	R(03)	7	V(0)	b
1226.910	81505.56	R(03)	7	V(0)	a
1226.892	81506.78	Q(07)	0	d(2)	
1226.831	81510.82	P(02)	7	V(0)	b
1226.790	81513.55*	P(09)	8	V(0)	a
1226.790	81513.55	P(02)	7	V(0)	a
1226.580	81527.48	P(03)	0	d(2)	
1226.563	81528.66	Q(06)	0	d(2)	
1226.490	81533.49	P(09)	0	d(1)	
1226.374	81541.18	R(02)	7	V(0)	b
1226.334	81543.88	R(02)	7	V(0)	a
1226.291	81546.68	P(01)	7	V(0)	b
1226.259	81548.84	P(01)	7	V(0)	a
1226.259	81548.84*	Q(05)	0	d(2)	
1226.138	81556.90				
1226.012	81565.30*	R(01)	7	V(0)	b
1226.012	81565.30	P(08)	0	d(1)	
1226.012	81565.30*	Q(04)	0	d(2)	
1225.985	81567.08	R(01)	7	V(0)	a
1225.950	81569.40				
1225.926	81570.96	P(09)	0	f(3)	
1225.892	81573.25	R(00)	7	V(0)	b
1225.849	81576.09	R(00)	7	V(0)	a
1225.804	81579.09	Q(03)	0	d(2)	
1225.641	81589.97	Q(02)	0	d(2)	
1225.545	81596.34	P(07)	0	d(1)	
1225.396	81606.25	P(08)	0	f(3)	
1225.103	81625.80	P(06)	0	d(1)	
1225.035	81630.32	R(09)	8	V(0)	a
1225.017	81631.52	R(01)	0	d(2)	
1224.944	81636.40				
1224.888	81640.10*	P(07)	0	f(3)	
1224.864	81641.69	R(02)	0	d(2)	
1224.827	81644.20				
1224.763	81648.45	R(03)	0	d(2)	
1224.748	81649.47*	R(06)	0	d(2)	
1224.748	81649.47*	P(08)	8	V(0)	b
1224.711	81651.91*	P(08)	8	V(0)	a
1224.711	81651.91*	R(05)	0	d(2)	
1224.711	81651.91	R(04)	0	d(2)	
1224.681	81653.90	P(05)	0	d(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1224.528	81664.10				
1224.407	81672.16	P(06)	0	f(3)	
1224.279	81680.70	P(04)	0	d(1)	
1224.145	81689.70				
1223.982	81700.52	Q(10)	0	d(1)	
1223.958	81702.16	P(05)	0	f(3)	
1223.900	81706.04	P(03)	0	d(1)	
1223.770	81714.69	Q(09)	0	d(1)	
1223.580	81727.38	Q(08)	0	d(1)	
1223.544	81729.81	P(02)	0	d(1)	
1223.544	81729.81*	P(04)	0	f(3)	
1223.417	81738.25	Q(07)	0	d(1)	
1223.337	81743.65	Q(09)	0	f(3)	
1223.281	81747.35	Q(06)	0	d(1)	
1223.168	81754.91	Q(05)	0	d(1)	
1223.152	81756.01	R(08)	8	V(0)	a
1223.123	81757.90*	Q(08)	0	f(3)	
1223.071	81761.40	Q(04)	0	d(1)	
1222.999	81766.24	Q(03)	0	d(1)	
1222.946	81769.73	Q(02)	0	d(1)	
1222.911	81772.08*	P(07)	8	V(0)	b
1222.911	81772.08	Q(01)	0	d(1)	
1222.898	81773.00*	Q(07)	0	f(3)	
1222.878	81774.30	P(07)	8	V(0)	a
1222.709	81785.59	Q(06)	0	f(3)	
1222.605	81792.54	R(00)	0	d(1)	
1222.543	81796.74	Q(05)	0	f(3)	
1222.461	81802.18				
1222.426	81804.56	P(11)	0	f(2)	
1222.396	81806.55	Q(04)	0	f(3)	
1222.340	81810.30	R(01)	0	d(1)	
1222.098	81826.49*	P(10)	0	f(2)	
1222.098	81826.49	R(02)	0	d(1)	
1221.874	81841.51	R(03)	0	d(1)	
1221.819	81845.18	P(09)	0	f(2)	
1221.676	81854.74	R(04)	0	d(1)	
1221.538	81864.04	R(07)	8	V(0)	b
1221.529	81864.63	P(08)	0	f(2)	
1221.503	81866.38	R(05)	0	d(1)	
1221.503	81866.38*	R(07)	8	V(0)	a
1221.349	81876.70	R(02)	0	f(3)	
1221.349	81876.70	R(06)	0	d(1)	
1221.296	81880.21	P(06)	8	V(0)	b
1221.258	81882.79	P(06)	8	V(0)	a
1221.258	81882.79*	P(07)	0	f(2)	
1221.214	81885.75	R(07)	0	d(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1221.153	81889.81	R(03)	0	f(3)	
1221.108	81892.85	R(08)	0	d(1)	
1221.022	81898.61	R(09)	0	d(1)	
1220.990	81900.75*	R(04)	0	f(3)	
1220.990	81900.75*	P(06)	0	f(2)	
1220.851	81910.10	R(05)	0	f(3)	
1220.752	81916.70				
1220.726	81918.44	R(06)	0	f(3)	
1220.726	81918.44*	P(05)	0	f(2)	
1220.646	81923.84	R(07)	0	f(3)	
1220.576	81928.51	R(08)?	0	f(3)	
1220.457	81936.54	P(04)	0	f(2)	
1220.182	81954.97	P(03)	0	f(2)	
1220.099	81960.59	R(06)	8	V(0)	b
1220.059	81963.24	R(06)	8	V(0)	a
1219.904	81973.66	P(05)	8	V(0)	b
1219.864	81976.38*	P(05)	8	V(0)	a
1219.864	81976.38	P(10)	0	d(0)	
1219.811	81979.90				
1219.731	81985.27				
1219.500	82000.79	P(10)	9	V(0)	a
1219.357	82010.41				
1219.315	82013.24	P(09)	0	d(0)	
1219.252	82017.47	Q(02)	0	f(2)	
1219.216	82019.95	Q(03)	0	f(2)	
1219.174	82022.76	Q(04)	0	f(2)	
1219.129	82025.78	Q(05)	0	f(2)	
1219.088	82028.52	Q(06)	0	f(2)	
1219.054	82030.85	Q(07)	0	f(2)	
1219.024	82032.81*	Q(08)	0	f(2)	
1219.024	82032.81*	Q(09)	0	f(2)	
1218.888	82042.01	R(05)	8	V(0)	b
1218.846	82044.84	R(05)	8	V(0)	a
1218.783	82049.07	P(08)	0	d(0)	
1218.730	82052.62	P(04)	8	V(0)	b
1218.690	82055.32	P(04)	8	V(0)	a
1218.634	82059.08	R(01)	0	f(2)	
1218.285	82082.62*	P(07)	0	d(0)	
1218.285	82082.62*	R(02)	0	f(2)	
1217.936	82106.10	R(03)	0	f(2)	
1217.897	82108.77	R(04)	8	V(0)	b
1217.855	82111.60	R(04)	8	V(0)	a
1217.793	82115.76	P(06)	0	d(0)	
1217.775	82117.00	P(03)	8	V(0)	b
1217.733	82119.79	P(03)	8	V(0)	a
1217.673	82123.84				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1217.587	82129.66	R(04)	0	f(2)	
1217.547	82132.36				
1217.453	82138.69				
1217.409	82141.65				
1217.357	82145.18	Q(11)?	0	d(0)	
1217.334	82146.73	P(05)	0	d(0)	
1217.292	82149.56	P(09)	9	V(0)	a
1217.243	82152.86	R(05)	0	f(2)	
1217.204	82155.50				
1217.125	82160.85	R(03)	8	V(0)	b
1217.082	82163.75	R(03)	8	V(0)	a
1217.057	82165.39	Q(10)	0	d(0)	
1217.035	82166.92	P(02)	8	V(0)	b
1216.991	82169.90	P(02)	8	V(0)	a
1216.907	82175.54*	R(06)	0	f(2)	
1216.907	82175.54*	P(04)	0	d(0)	
1216.786	82183.74	Q(09)	0	d(0)	
1216.574	82198.03*	R(07)	0	f(2)	
1216.574	82198.03*	R(02)	8	V(0)	b
1216.528	82201.14	Q(08)	0	d(0)	
1216.511	82202.31	R(02)	8	V(0)	a
1216.519	82201.79*	P(01)	8	V(0)	b
1216.519	82201.79	P(03)	0	d(0)	
1216.466	82205.32	P(01)	8	V(0)	a
1216.306	82216.17	Q(07)	0	d(0)	
1216.276	82218.21	R(08)	0	f(2)	
1216.232	82221.17	R(01)	8	V(0)	b
1216.186	82224.27	R(01)	8	V(0)	a
1216.107	82229.63*	R(00)	8	V(0)	b
1216.107	82229.63	Q(06)	0	d(0)	
1216.064	82232.54	R(00)	8	V(0)	a
1216.024	82235.23?				
1215.984	82237.94	R(09)	0	f(2)	
1215.927	82241.80	Q(05)	0	d(0)	
1215.829	82248.40				
1215.781	82251.66*	Q(04)	0	d(0)	
1215.549	82267.34				
1215.379	82278.87	P(8)?	0	D(1)	
1215.237	82288.48*				
1215.211	82290.21	R(00)	0	d(0)	
1215.038	82301.96	?			
1214.966	82306.84	R(01)	0	d(0)	
1214.852	82314.52	P(07)	0	D(1)	
1214.753	82321.29	R(02)	0	d(0)	
1214.633	82329.39				
1214.568	82333.83	R(03)	0	d(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1214.413	82344.30*	R(04)	0	d(0)	
1214.413	82344.30*	P(06)	0	D(1)	
1214.303	82351.76	P(08)?	0	f(1)	
1214.279	82353.40	R(05)	0	d(0)	
1214.193	82359.20	?			
1214.178	82360.23	R(06)	0	d(0)	
1214.127	82363.73	?			
1214.097	82365.72	R(07)	0	d(0)	
1214.038	82369.73	R(08)	0	d(0)	
1214.000	82372.33	P(05)	0	D(1)	
1213.878	82380.62				
1213.759	82388.65				
1213.725	82390.96	R(08)	9	V(0)	b
1213.686	82393.65	R(08)	9	V(0)	a
1213.658	82395.51	P(06)	0	f(1)	
1213.623	82397.88*	?			
1213.613	82398.58	P(04)	0	D(1)	
1213.572	82401.38	P(07)	9	V(0)	b
1213.531	82404.14	P(07)	9	V(0)	a
1213.458	82409.09	Q(10)?	0	D(1)	
1213.341	82417.08	P(05)	0	f(1)	
1213.269	82421.95	Q(09)	0	D(1)	
1213.250	82423.24	P(03)	0	D(1)	
1213.122	82431.96				
1213.051	82436.77	Q(08)	0	D(1)	
1213.025	82438.56	P(04)	0	f(1)	
1212.905	82446.66	P(02)	0	D(1)	
1212.875	82448.71	Q(07)	0	D(1)	
1212.710	82459.97*	P(03)	0	f(1)	
1212.710	82459.97*	Q(06)	0	D(1)	
1212.584	82468.52	Q(05)	0	D(1)	
1212.476	82475.83	Q(04)	0	D(1)	
1212.391	82481.63*	P(02)	0	f(1)	
1212.391	82481.63*	Q(03)	0	D(1)	
1212.333	82485.62	Q(02)	0	D(1)	
1212.296	82488.13	Q(01)	0	D(1)	
1212.136	82499.02	R(07)	9	V(0)	b
1212.092	82501.96	R(07)	9	V(0)	a
1212.059	82504.26				
1212.035	82505.84*	P(06)	9	V(0)	b
1211.990	82508.95*	P(06)	9	V(0)	a
1211.988	82509.10	R(00)	0	D(1)	
1211.920	82513.67				
1211.783	82523.00	Q(HD)	0	f(1)	
1211.718	82527.42	R(01)	0	D(1)	
1211.466	82544.63*	R(02)	0	D(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1211.466	82544.63*	R(00)	0	f(1)	
1211.244	82559.73	R(03)	0	D(1)	
1211.171	82564.71	R(01)	0	f(1)	
1211.048	82573.14	R(04)	0	D(1)	
1210.947	82579.97				
1210.878	82584.72*	R(02)	0	f(1)	
1210.878	82584.72	R(05)	0	D(1)	
1210.796	82590.27*	R(06)	0	D(1)	pt, 9 V(0)
1210.708	82596.29	P(05)	9	V(0)	b
1210.664	82599.28*	P(05)	9	V(0)	a
1210.664	82599.28*	R(07)	0	D(1)	
1210.613	82602.78	R(08)	0	D(1)	
1210.586	82604.61	R(03)	0	f(1)	
1210.295	82624.51	R(04)	0	f(1)	
1210.258	82627.04	P(10)	0	F(2)	
1209.917	82650.31	P(09)	0	F(2)	
1209.610	82671.26*	R(05)	9	V(0)	b
1209.599	82672.04	P(04)	9	V(0)	b
1209.572	82673.90	P(08)	0	F(2)	
1209.569	82674.10	R(05)	9	V(0)	a
1209.558	82674.80	P(04)	9	V(0)	a
1209.436	82683.16	?			
1209.237	82696.74	P(07)	0	F(2)	
1208.910	82719.13*	P(06)	0	F(2)	
1208.824	82725.00	Q(HD)			±15
1208.696	82733.76	P(03)	9	V(0)	b
1208.685	82734.54	R(04)	9	V(0)	b
1208.652	82736.81	P(03)	9	V(0)	a
1208.641	82737.52	R(04)	9	V(0)	a
1208.590	82741.06	P(05)	0	F(2)	
1208.273	82762.78	P(04)	0	F(2)	
1207.998	82781.60	P(02)	9	V(0)	b
1207.966	82783.79*	R(03)	9	V(0)	b
1207.962	82784.06*	P(03)	0	F(2)	
1207.957	82784.41	P(02)	9	V(0)	a
1207.924	82786.66	R(03)	9	V(0)	a
1207.846	82792.00	R(HD)	2	C(1)	±20
1207.497	82815.96	P(01)	9	V(0)	b
1207.467	82818.02*	R(02)	9	V(0)	b
1207.454	82818.86	P(01)	9	V(0)	a
1207.424	82820.95	R(02)	9	V(0)	a
1207.368	82824.79	Q?			
1207.334	82827.14	Q(10)?	0	F(2)	
1207.289	82830.24	?			
1207.264	82831.91	Q(09)?	0	F(2)	
1207.222	82834.80	P(07)	0	G(0)	g

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1207.207	82835.81	Q(08)	0	F(2)	
1207.174	82838.08	R(01)	9	V(0)	b
1207.162	82838.90	Q(07)	0	F(2)	
1207.128	82841.27*	R(01)	9	V(0)	a
1207.128	82841.27*	Q(06)	0	F(2)	
1207.096	82843.42*	Q(05)	0	F(2)	
1207.077	82844.73*	R(00)	9	V(0)	b
1207.077	82844.73*	Q(04)	0	F(2)	
1207.062	82845.78	Q(03)	0	F(2)	
1207.052	82846.50	Q(02)	0	F(2)	
1207.042	82847.14	R(00)	9	V(0)	a
1206.740	82867.91				
1206.489	82885.15	P(06)	0	G(0)	g
1206.443	82888.32	R(01)	0	F(2)	
1206.149	82908.50	R(02)	0	F(2)	
1206.069	82913.97				
1206.039	82916.05				
1205.860	82928.35	R(03)	0	F(2)	
1205.835	82930.10	P(05)	0	g(0)	
1205.579	82947.72	R(04)	0	F(2)	
1205.304	82966.59	R(05)	0	F(2)	
1205.236	82971.33	P(04)	0	g(0)	
1205.199	82973.83				
1205.038	82984.90	R(06)	0	F(2)	
1204.782	83002.55	R(07)	0	F(2)	
1204.699	83008.27	P(03)	0	g(0)	
1204.664	83010.73	P(07)	0	g(1)	
1204.601	83015.05				
1204.532	83019.81	R(08)	0	F(2)	
1204.302	83035.65	R(09)	0	F(2)	
1204.230	83040.61	P(02)	0	g(0)	
1204.164	83045.18				
1204.126	83047.81	R?			
1204.118	83048.32				
1204.102	83049.44	R(07)?	0	g(0)	
1203.842	83067.38	P(01)	0	g(0)	
1203.550	83087.56	R(06)?	0	g(0)	
1203.465	83093.37	P(06)	0	g(1)	
1203.454	83094.18				
1203.428	83095.97	Q(14)	0	G(0)	
1203.320	83103.38	R(00)	0	g(0)	
1203.297	83105.00	R(05)	0	g(0)	
1203.234	83109.36	Q(14)	0	g(1)	
1203.184	83112.79	R(01)	0	g(0)	
1203.169	83113.87	R(04)	0	g(0)	
1203.118	83117.39*	R(02)	0	g(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1203.118	83117.39*	R(03)	0	g(0)	
1202.928	83130.47	Q(13)	0	G(0)	
1202.640	83150.40	P(05)	0	g(1)	
1202.533	83157.81	Q(12)	0	G(0)	
1202.366	83169.32				
1202.346	83170.75	Q(11)	0	g(1)	
1202.337	83171.35				
1202.275	83175.67				
1202.229	83178.83	Q(11)	0	G(0)	
1202.172	83182.79	P(04)	0	g(1)	
1202.107	83187.24	Q(10)	0	g(1)	
1202.052	83191.08				
1202.003	83194.48	Q(10)	0	G(0)	
1201.898	83201.76	Q(09)	0	g(1)	
1201.838	83205.88*	P(03)	0	g(1)	
1201.838	83205.88*	Q(09)	0	G(0)	
1201.756	83211.58	P(10)	0	H(0)	a
1201.709	83214.81	Q(08)	0	g(1)	
1201.666	83217.77				
1201.584	83223.48	R(02)	0	g(1)	
1201.556	83225.44	R(06)	0	g(1)	
1201.437	83233.67	P(05)	10	V(0)	b
1201.411	83235.46	P(01)	0	g(1)	
1201.411	83235.46	P(05)	10	V(0)	a
1201.401	83236.15				
1200.776	83279.49				
1200.762	83280.44	R(05)	0	g(1)	
1200.671	83286.73	P(04)	10	V(0)	b
1200.634	83289.31	R(00)	0	g(1)	
1200.634	83289.31*	P(04)	10	V(0)	a
1200.441	83302.73	P(09)	0	E(0)	b
1200.424	83303.92	P(09)	0	E(0)	a
1200.414	83304.62				
1200.349	83309.13				
1200.334	83310.11	R(01)	0	g(1)	
1200.164	83321.93	R(04)	0	g(1)	
1200.073	83328.26	R(02)	0	g(1)	
1199.940	83337.52	R(03)	0	g(1)	
1199.940	83337.52	P(03)	10	V(0)	b
1199.919	83338.93				
1199.906	83339.88	P(03)	10	V(0)	a
1199.900	83340.27				
1199.342	83379.05	P(02)	10	V(0)	b
1199.307	83381.51	P(02)	10	V(0)	a
1199.175	83390.64	P(08)	0	E(0)	b
1199.155	83392.06	P(08)	0	E(0)	a

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1199.092	83396.45				
1199.075	83397.64				
1199.067	83398.20				
1198.891	83410.41	P(01)	10	V(0)	b
1198.854	83412.99	P(01)	10	V(0)	a
1198.744	83420.68	R(03)	10	V(0)	b
1198.712	83422.89	R(03)	10	V(0)	a
1198.620	83429.30				
1198.568	83432.90	R(02)	10	V(0)	b
1198.561	83433.39				
1198.532	83435.37	R(02)	10	V(0)	a
1198.445	83441.44	R(01)	10	V(0)	b
1198.445	83441.44	R(00)	10	V(0)	b
1198.405	83444.25	R(01)	10	V(0)	a
1198.405	83444.25	R(00)	10	V(0)	a
1198.342	83448.61				
1198.112	83464.62				
1198.052	83468.84	P(07)	0	E(0)	b
1198.031	83470.28	P(07)	0	E(0)	a
1197.350	83517.80				
1197.163	83530.78	P(10)	11	V(0)	a
1197.070	83537.33	P(06)	0	E(0)	b
1197.049	83538.78	P(06)	0	E(0)	a
1196.667	83565.47				
1196.216	83596.94	P(05)	0	E(0)	b
1196.193	83598.57	P(05)	0	E(0)	a
1196.126	83603.22	R(08)	0	E(0)	b
1196.099	83605.12	R(08)	0	E(0)	a
1195.739	83630.29	P(09)	11	V(0)	b
1195.474	83648.82	P(04)	0	E(0)	b
1195.451	83650.44	P(04)	0	E(0)	a
1195.394	83654.46	R(07)	0	E(0)	b
1195.362	83656.64	R(07)	0	E(0)	a
1195.104	83674.75				
1194.847	83692.74	P(03)	0	E(0)	b
1194.820	83694.59	P(03)	0	E(0)	a
1194.721	83701.56	R(06)	0	E(0)	b
1194.693	83703.54	R(06)	0	E(0)	a
1194.424	83722.37				
1194.389	83724.80				
1194.360	83726.84				
1194.349	83727.64	P(08)	11	V(0)	a
1194.320	83729.66	P(02)	0	E(0)	b
1194.301	83731.00	P(02)	0	E(0)	a
1194.255	83734.24				
1194.192	83738.66	R(05)	0	E(0)	b
1194.167	83740.41	R(05)	0	E(0)	a
1194.027	83750.18				
1194.000	83752.10				
1193.915	83758.08	P(01)	0	E(0)	b
1193.888	83759.98	P(01)	0	E(0)	a
1193.852	83762.46				
1193.843	83763.12				
1193.807	83765.66	R(04)	0	E(0)	b
1193.777	83767.74	R(04)	0	E(0)	a
1193.757	83769.14				
1193.669	83775.32				
1193.574	83781.99				
1193.542	83784.22	R(03)	0	E(0)	b
1193.515	83786.10	R(03)	0	E(0)	a
1193.435	83791.75	R(00)	0	E(0)	b
1193.400	83794.19	R(00)	0	E(0)	a
1193.400	83794.19	R(02)	0	E(0)	b
1193.367	83796.54	R(02)	0	E(0)	a
1193.367	83796.54	R(01)	0	E(0)	b
1193.334	83798.82	R(01)	0	E(0)	a
1193.242	83805.27				
1193.117	83814.05				
1193.075	83817.03				
1193.057	83818.32	P(07)	11	V(0)	b
1193.027	83820.38	P(07)	11	V(0)	a
1192.988	83823.17				
1192.902	83829.16				
1192.779	83837.83				
1192.718	83842.09				
1192.454	83860.70	R(09)	11	V(0)	b
1192.426	83862.64	R(09)	11	V(0)	a
1191.809	83906.07				
1191.799	83906.73				
1191.691	83914.38				
1191.588	83921.62	R(08)	11	V(0)	b
1191.557	83923.83	R(08)	11	V(0)	a
1191.444	83931.80				
1191.255	83945.11				
1191.168	83951.19				
1190.963	83965.65				
1190.757	83980.21	R(07)	11	V(0)	b
1190.721	83982.72	R(07)	11	V(0)	a
1190.697	83984.44	P(05)	11	V(0)	a
1189.964	84036.13	R(06)	11	V(0)	b
1189.955	84036.81				
1189.924	84038.95	R(06)	11	V(0)	a

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1189.785	84048.80	P(04)	11 V(0)	b
1189.761	84050.48			
1189.735	84052.32	P(04)	11 V(0)	a
1189.236	84087.58			
1189.224	84088.44	R(05)	11 V(0)	b
1189.191	84090.77	R(05)	11 V(0)	a
1189.137	84094.60	P(09)	12 V(0)	b
1189.083	84098.43	P(09)	12 V(0)	a
1189.037	84101.70			
1188.986	84105.25	P(03)	11 V(0)	b
1188.935	84108.87	P(03)	11 V(0)	a
1188.605	84132.25	R(04)	11 V(0)	b
1188.557	84135.63	R(04)	11 V(0)	a
1188.357	84149.81			
1188.351	84150.24	P(02)	11 V(0)	b
1188.299	84153.91	P(02)	11 V(0)	a
1188.114	84167.04			
1188.046	84171.85	R(03)	11 V(0)	a
1187.886	84183.15	P(01)	11 V(0)	b
1187.831	84187.04	P(01)	11 V(0)	a
1187.729	84194.32	R(02)	11 V(0)	b
1187.674	84198.16	R(02)	11 V(0)	a
1187.515	84209.45	R(01)	11 V(0)	b
1187.464	84213.07	R(01)	11 V(0)	a
1187.464	84213.07	R(00)	11 V(0)	b
1187.415	84216.53	R(00)	11 V(0)	a
1187.383	84218.82	P(08)	12 V(0)	b
1187.335	84222.21	P(08)	12 V(0)	a
1187.033	84243.68			
1185.851	84327.60	P(07)	12 V(0)	b
1185.799	84331.29	P(07)	12 V(0)	a
1185.715	84337.31			
1185.553	84348.81	P(11)	13 V(0)	b
1185.516	84351.45	P(11)	13 V(0)	a
1185.473	84354.48			
1185.431	84357.51			
1185.378	84361.26			
1185.236	84371.35			
1185.164	84376.52			
1185.052	84384.49			
1184.960	84391.02			
1184.676	84411.27			
1184.623	84415.03			
1184.607	84416.21			
1184.496	84424.11			
1184.462	84426.53	P(06)	12 V(0)	b
1184.412	84430.06	P(06)	12 V(0)	a
1184.311	84437.27			
1184.173	84447.13	R(07)	12 V(0)	b
1184.121	84450.81	R(07)	12 V(0)	a
1183.968	84461.75			
1183.512	84494.31	P(10)	13 V(0)	b
1183.451	84498.67	P(10)	13 V(0)	a
1183.290	84510.12	P(05)	12 V(0)	b
1183.264	84511.97			
1183.234	84514.15	P(05)	12 V(0)	a
1183.016	84529.70	R(06)	12 V(0)	b
1182.960	84533.74	R(06)	12 V(0)	a
1182.806	84544.75			
1182.643	84556.38			
1182.454	84569.91			
1182.373	84575.65			
1182.281	84582.23	P(04)	12 V(0)	b
1182.226	84586.19	P(04)	12 V(0)	a
1182.070	84597.37	R(05)	12 V(0)	b
1182.013	84601.46	R(05)	12 V(0)	a
1181.749	84620.32			
1181.606	84630.60	P(09)	13 V(0)	b
1181.554	84634.32	P(09)	13 V(0)	a
1181.454	84641.49	P(03)	12 V(0)	b
1181.426	84643.44			
1181.395	84645.71	P(03)	12 V(0)	a
1181.268	84654.77	R(04)	12 V(0)	b
1181.212	84658.84	R(04)	12 V(0)	a
1181.179	84661.20			
1180.804	84688.04	P(02)	12 V(0)	b
1180.744	84692.37	P(02)	12 V(0)	a
1180.677	84697.19	R(03)	12 V(0)	b
1180.617	84701.50	R(03)	12 V(0)	a
1180.391	84717.67			
1180.334	84721.75	P(01)	12 V(0)	b
1180.274	84726.11	P(01)	12 V(0)	a
1180.250	84727.82	R(02)	12 V(0)	b
1180.189	84732.19	R(02)	12 V(0)	a
1180.104	84738.30			
1180.002	84745.60	R(01)	12 V(0)	b
1179.939	84750.17	R(00)	12 V(0)	b
1179.939	84750.17	R(01)	12 V(0)	a
1179.905	84752.58	P(08)	13 V(0)	b
1179.872	84754.97	R(00)	12 V(0)	a
1179.850	84756.52	P(08)	13 V(0)	a
1179.598	84774.64			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1179.511	84780.89	R(09)	13 V(0)	b
1179.458	84784.72	R(09)	13 V(0)	a
1179.115	84809.34			
1178.785	84833.14			
1178.412	84859.95	P(07)	13 V(0)	b
1178.379	84862.37	P(07)	13 V(0)	a
1178.275	84869.84			
1178.213	84874.33	P(11)	14 V(0)	b
1178.164	84877.81	P(11)	14 V(0)	a
1178.034	84887.22	R(08)	13 V(0)	b
1177.985	84890.73			
1177.976	84891.36	R(08)	13 V(0)	a
1177.749	84907.74			
1177.620	84917.02			
1177.325	84938.34			
1177.261	84942.94			
1177.242	84944.33			
1177.003	84961.57	P(06)	13 V(0)	b
1176.971	84963.89			
1176.961	84964.61	P(06)	13 V(0)	a
1176.715	84982.36	R(07)	13 V(0)	b
1176.656	84986.61	R(07)	13 V(0)	a
1176.276	85014.03	P(10)	14 V(0)	b
1176.227	85017.58	P(10)	14 V(0)	a
1176.217	85018.35			
1176.191	85020.19			
1176.167	85021.92			
1176.144	85023.60			
1176.051	85030.32			
1175.782	85049.79	P(05)	13 V(0)	a
1175.592	85063.49	R(06)	13 V(0)	b
1175.532	85067.90	R(06)	13 V(0)	a
1175.302	85084.52			
1175.056	85102.30			
1175.022	85104.82			
1174.864	85116.26	P(04)	13 V(0)	b
1174.805	85120.54	P(04)	13 V(0)	a
1174.679	85129.67			
1174.626	85133.51			
1174.607	85134.89	R(05)	13 V(0)	a
1174.561	85138.22	P(09)	13 V(0)	b
1174.525	85140.79	P(09)	13 V(0)	a
1174.098	85171.75			
1174.075	85173.42	P(03)	13 V(0)	b
1174.013	85177.94	P(03)	13 V(0)	a
1173.960	85181.79			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1173.904	85185.87			
1173.852	85189.60			
1173.826	85191.53			
1173.805	85193.03			
1173.795	85193.78			
1173.598	85208.02			
1173.535	85212.66			
1173.507	85214.68			
1173.477	85216.82			
1173.452	85218.68	P(02)	13 V(0)	b
1173.428	85220.39			
1173.388	85223.28	P(02)	13 V(0)	a
1173.245	85233.70			
1173.233	85234.54	R(03)	13 V(0)	a
1173.090	85244.97			
1173.082	85245.55			
1173.073	85246.17	P(08)	14 V(0)	b
1173.040	85248.56			
1173.023	85249.84	P(08)	14 V(0)	a
1172.997	85251.73	P(01)	13 V(0)	b
1172.957	85254.59			
1172.933	85256.36	P(01)	13 V(0)	a
1172.858	85261.84	R(02)	13 V(0)	b
1172.830	85263.82			
1172.803	85265.84			
1172.795	85266.42	R(02)	13 V(0)	a
1172.642	85277.52	R(01)	13 V(0)	b
1172.590	85281.31	R(00)	13 V(0)	b
1172.577	85282.22	R(01)	13 V(0)	a
1172.527	85285.86	R(00)	13 V(0)	a
1172.468	85290.17			
1172.425	85293.33			
1172.233	85307.27	R(09)	14 V(0)	b
1172.177	85311.34	R(09)	14 V(0)	a
1171.807	85338.28	P(07)	14 V(0)	b
1171.654	85349.46			
1171.632	85351.05			
1171.615	85352.27			
1171.591	85354.05			
1171.567	85355.79			
1171.544	85357.45			
1171.532	85358.33			
1171.509	85360.00			
1171.483	85361.87			
1171.315	85374.15			
1171.252	85378.75			

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1171.079	85391.30				
1170.872	85406.46	R(08)	14	V(0)	b
1170.813	85410.77	R(08)	14	V(0)	a
1170.813	85410.77	P(06)	14	V(0)	b
1170.762	85414.42	P(06)	14	V(0)	a
1170.677	85420.69	R(01)	1	F(2)	b
1170.650	85422.62	R(01)	1	F(2)	a
1170.506	85433.11	P(08)	1	g(0)	b
1170.482	85434.88	P(08)	1	g(0)	a
1170.424	85439.11	R(02)	1	F(2)	b
1170.397	85441.09	R(02)	1	F(2)	a
1170.268	85450.49				
1170.184	85456.67	R(03)	1	F(2)	b
1170.158	85458.56	R(03)	1	F(2)	a
1169.960	85472.98	R(04)	1	F(2)	b
1169.930	85475.19	R(04)	1	F(2)	a
1169.923	85475.71	P(05)	14	V(0)	b
1169.887	85478.33	P(05)	14	V(0)	a
1169.820	85483.26				
1169.780	85486.17				
1169.755	85487.98				
1169.739	85489.17	R(07)	14	V(0)	b
1169.686	85493.02	R(07)	14	V(0)	a
1169.656	85495.22				
1169.616	85498.15				
1169.572	85501.34				
1169.543	85503.46				
1169.513	85505.71	P(07)?	1	g(0)	b
1169.491	85507.25				
1169.465	85509.17				
1169.457	85509.75	P(07)	1	F(2)	a
1169.452	85510.16				
1169.370	85516.11				
1169.263	85523.99				
1169.221	85527.01				
1169.116	85534.71	P(04)	14	V(0)	a
1168.964	85545.85				
1168.920	85549.05				
1168.877	85552.23				
1168.807	85557.29	R(06)	14	V(0)	b
1168.797	85558.07				
1168.753	85561.28	R(06)	14	V(0)	a
1168.521	85578.25	P(03)	14	V(0)	b
1168.486	85580.85*	P(06)	1	F(2)	a
1168.486	85580.85*	P(03)	14	V(0)	a
1168.354	85590.52				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS	
1168.277	85596.13					
1168.243	85598.66					
1168.232	85599.40					
1168.142	85606.03	R(05)	14	V(0)	b	
1168.091	85609.76	R(05)	14	V(0)	a	
1167.971	85618.55	P(02)	14	V(0)	b	
1167.930	85621.55	P(02)	14	V(0)	a	
1167.907	85623.23	P(09)	1	E(0)	b	
1167.907	85623.23	P(02)	14	V(0)		
1167.870	85625.96	P(09)	1	E(0)	a	
1167.702	85638.31					
1167.677	85640.10					
1167.671	85640.55	R(04)	14	V(0)	b	
1167.665	85641.03					
1167.632	85643.39	R(04)	14	V(0)	a	
1167.632	85643.39	P(05)	1	g(0)		
1167.549	85649.54	P(01)	14	V(0)	b	?
1167.507	85652.58	P(01)	14	V(0)	a	
1167.437	85657.74					
1167.370	85662.65	R(03)	14	V(0)	b	
1167.326	85665.86	R(03)	14	V(0)	a	
1167.243	85671.95	P(08)	1	E(0)	b	
1167.230	85672.95	P(08)	1	E(0)	a	
1167.183	85676.39	R(02)	14	V(0)	b	
1167.139	85679.62	R(02)	14	V(0)	a	
1167.121	85680.90	R(00)	14	V(0)	b	
1167.094	85682.92	R(01)	14	V(0)	b	
1167.075	85684.29	R(00)	14	V(0)	a	
1167.053	85685.92	P(04)	1	g(0)	?	
1167.053	85685.92	R(00)	14	V(0)		
1167.053	85685.92	R(01)	14	V(0)	a	
1166.926	85695.24					
1166.908	85696.55					
1166.884	85698.35	P(07)	1	E(0)	b	
1166.853	85700.61	P(07)	1	E(0)	a	
1166.845	85701.20	P(10)	15	V(0)	b	
1166.809	85703.85	P(10)	15	V(0)	a	
1166.722	85710.21					
1166.689	85712.68					
1166.645	85715.86	P(03)	1	g(0)	b	
1166.624	85717.45	P(03)	1	g(0)	a	
1166.507	85726.02					
1166.496	85726.85	P(06)	1	E(0)	b	
1166.465	85729.12	P(06)	1	E(0)	a	
1166.372	85735.93					
1166.324	85739.44					

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1166.305	85740.87				
1166.264	85743.87	P(02)	1	g(0)	b
1166.264	85743.87	R(06)	1	g(0)	b
1166.232	85746.26	P(02)	1	g(0)	a
1166.232	85746.26	R(06)	1	g(0)	a
1166.090	85756.64	P(05)	1	E(0)	b
1166.054	85759.35	P(05)	1	E(0)	a
1165.927	85768.67				
1165.893	85771.17				
1165.838	85775.20				
1165.814	85776.98	R(05)	1	g(0)	b
1165.773	85780.00	R(05)	1	g(0)	a
1165.686	85786.36	P(09)	15	V(0)	b
1165.636	85790.10	P(09)	15	V(0)	a
1165.619	85791.31	P(04)	1	E(0)	b
1165.574	85794.66	P(04)	1	E(0)	a
1165.416	85806.27	R(00)	1	g(0)	b
1165.416	85806.27	R(04)	1	g(0)	b
1165.390	85808.21				
1165.375	85809.30	R(00)	1	g(0)	a
1165.375	85809.30	R(04)	1	g(0)	a
1165.228	85820.14	R(01)	1	g(0)	b
1165.214	85821.13				
1165.202	85822.05	R(01)	1	g(0)	a
1165.157	85825.36	R(03)	1	g(0)	b
1165.118	85828.23				
1165.105	85829.20	P(03)	1	E(0)	b
1165.105	85829.20	R(02)	1	g(0)	b
1165.105	85829.20	R(03)	1	g(0)	a
1165.053	85833.04	P(03)	1	E(0)	a
1165.053	85833.04	R(02)	1	g(0)	a
1164.769	85853.95				
1164.617	85865.14	P(02)	1	E(0)	b
1164.602	85866.22				
1164.560	85869.32	P(02)	1	E(0)	a
1164.546	85870.38				
1164.330	85886.31				
1164.286	85889.55	P(08)	15	V(0)	b
1164.234	85893.42				
1164.221	85894.32	P(08)	15	V(0)	a
1164.221	85894.32	P(01)	1	E(0)	b
1164.160	85898.81	P(01)	1	E(0)	a
1164.087	85904.21				
1163.908	85917.42				
1163.880	85919.48				
1163.841	85922.39				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1163.770	85927.65	R(00)	1	E(0)	b
1163.743	85929.62				
1163.711	85931.96	R(00)	1	E(0)	a
1163.691	85933.45	R(01)	1	E(0)	b
1163.638	85937.39	R(01)	1	E(0)	a
1163.638	85937.39	R(02)	1	E(0)	b
1163.594	85940.60	R(02)	1	E(0)	a
1163.550	85943.88	R(03)	1	E(0)	b
1163.530	85945.34				
1163.510	85946.82	R(03)	1	E(0)	a
1163.495	85947.97				
1163.393	85955.45	R(04)	1	E(0)	b
1163.357	85958.12	R(04)	1	E(0)	a
1163.247	85966.29	P(14)	17	V(0)	a
1163.220	85968.23	R(05)	1	E(0)	b
1163.186	85970.78	R(05)	1	E(0)	a
1163.152	85973.30				
1163.124	85975.33	R(07)	1	E(0)	b
1163.085	85978.24	R(07)	1	E(0)	a
1163.058	85980.20				
1163.012	85983.62	P(11)	16	V(0)	b
1163.012	85983.62	R(06)	1	E(0)	b
1162.990	85985.23	R(06)	1	E(0)	a
1162.953	85988.02	P(11)	16	V(0)	a
1162.902	85991.80	P(07)	15	V(0)	b
1162.838	85996.51	P(07)	15	V(0)	a
1162.803	85999.08				
1162.767	86001.73				
1162.590	86014.81				
1162.425	86027.04				
1162.281	86037.70				
1162.191	86044.35				
1162.178	86045.34				
1161.752	86076.92				
1161.714	86079.68				
1161.635	86085.58	P(06)	15	V(0)	b
1161.569	86090.47	P(06)	15	V(0)	a
1161.525	86093.69	R(08)	15	V(0)	b
1161.482	86096.91	R(08)	15	V(0)	a
1161.408	86102.35				
1161.399	86103.06				
1161.029	86130.51	P(10)	16	V(0)	b
1160.994	86133.09				
1160.967	86135.10	P(10)	16	V(0)	a
1160.925	86138.21	R(07)	15	V(0)	b
1160.868	86142.40	R(07)	15	V(0)	a

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1160.706	86154.44	P(13)	17 V(0)	a
1160.630	86160.12			
1160.610	86161.59			
1160.577	86164.04			
1160.518	86168.40	P(05)	15 V(0)	b
1160.508	86169.14			
1160.493	86170.26			
1160.450	86173.48	P(05)	15 V(0)	a
1160.290	86185.32			
1160.125	86197.61			
1160.085	86200.60	R(06)	15 V(0)	b
1160.021	86205.36	R(06)	15 V(0)	a
1159.942	86211.22			
1159.869	86216.64			
1159.561	86239.51	P(04)	15 V(0)	b
1159.492	86244.65	P(04)	15 V(0)	a
1159.269	86261.24	R(05)	15 V(0)	b
1159.253	86262.42			
1159.203	86266.18			
1159.194	86266.82	R(05)	15 V(0)	a
1159.194	86266.82	P(09)	16 V(0)	b
1159.131	86271.55	P(09)	16 V(0)	a
1159.062	86276.63			
1158.772	86298.22	P(03)	15 V(0)	b
1158.701	86303.54	P(03)	15 V(0)	a
1158.647	86307.58	R(10)	16 V(0)	a
1158.590	86311.81			
1158.558	86314.19	R(04)	15 V(0)	b
1158.489	86319.34	R(04)	15 V(0)	a
1158.391	86326.67	P(12)	17 V(0)	b
1158.383	86327.25			
1158.330	86331.17	P(12)	17 V(0)	a
1158.152	86344.48	P(02)	15 V(0)	b
1158.078	86349.96	P(02)	15 V(0)	a
1158.041	86352.74			
1158.002	86355.64	R(03)	15 V(0)	b
1157.931	86360.96	R(03)	15 V(0)	a
1157.886	86364.30			
1157.798	86370.85			
1157.702	86378.05	P(01)	15 V(0)	b
1157.664	86380.88			
1157.628	86383.57	P(01)	15 V(0)	a
1157.606	86385.17	R(02)	15 V(0)	b
1157.580	86387.10			
1157.532	86390.67	R(02)	15 V(0)	a
1157.532	86390.67	P(08)	16 V(0)	b

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1157.461	86395.99	P(08)	16 V(0)	a
1157.407	86400.03			
1157.376	86402.37	R(01)	15 V(0)	b
1157.312	86407.14	R(00)	15 V(0)	b
1157.301	86407.91	R(01)	15 V(0)	a
1157.238	86412.62	R(00)	15 V(0)	a
1157.185	86416.61	R(09)	16 V(0)	b
1157.160	86418.45			
1157.118	86421.63	R(09)	16 V(0)	a
1157.064	86425.65			
1156.880	86439.37			
1156.800	86445.33			
1156.765	86447.96			
1156.579	86461.90			
1156.535	86465.18			
1156.298	86482.89			
1156.221	86488.68			
1156.099	86497.75	P(11)	17 V(0)	b
1156.042	86502.07	P(11)	17 V(0)	a
1156.028	86503.06	P(07)	16 V(0)	b
1155.957	86508.39	P(07)	16 V(0)	a
1155.927	86510.66			
1155.916	86511.44			
1155.879	86514.23			
1155.872	86514.79			
1155.830	86517.88			
1155.809	86519.49	R(12)	17 V(0)	a
1155.784	86521.39			
1155.761	86523.09	R(08)	16 V(0)	b
1155.693	86528.19	R(08)	16 V(0)	a
1155.568	86537.55			
1155.558	86538.26			
1155.501	86542.51			
1155.493	86543.14			
1155.385	86551.22			
1155.172	86567.18			
1155.047	86576.57			
1154.999	86580.18			
1154.957	86583.32			
1154.845	86591.72			
1154.823	86593.33			
1154.789	86595.94			
1154.703	86602.38	P(06)	16 V(0)	b
1154.630	86607.86	P(06)	16 V(0)	a
1154.576	86611.85			
1154.556	86613.40			

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1154.488	86618.46	R(07)	16	V(0)	b
1154.416	86623.85	R(07)	16	V(0)	a
1154.278	86634.22				
1154.033	86652.67	P(10)	17	V(0)	a
1153.893	86663.18	R(11)	17	V(0)	b
1153.826	86668.18	R(11)	17	V(0)	a
1153.765	86672.78				
1153.756	86673.40				
1153.689	86678.49				
1153.659	86680.69				
1153.638	86682.32				
1153.626	86683.17				
1153.549	86689.01	P(05)	16	V(0)	b
1153.474	86694.66	P(05)	16	V(0)	a
1153.453	86696.21				
1153.377	86701.89	R(06)	16	V(0)	b
1153.304	86707.42	R(06)	16	V(0)	a
1152.947	86734.29				
1152.905	86737.44				
1152.691	86753.48				
1152.570	86762.59	P(04)	16	V(0)	b
1152.533	86765.38				
1152.495	86768.30	P(04)	16	V(0)	a
1152.433	86772.95	R(05)	16	V(0)	b
1152.406	86775.00				
1152.357	86778.65	R(05)	16	V(0)	a
1152.205	86790.08				
1152.185	86791.60	P(09)	17	V(0)	b
1152.120	86796.53	P(09)	17	V(0)	a
1152.077	86799.77	R(10)	17	V(0)	b
1152.031	86803.24				
1152.008	86804.95	R(10)	17	V(0)	a
1151.989	86806.38				
1151.849	86816.92				
1151.768	86823.02	P(03)	16	V(0)	b
1151.742	86825.01				
1151.705	86827.82				
1151.689	86829.03	P(03)	16	V(0)	a
1151.662	86831.04	R(04)	16	V(0)	b
1151.596	86836.01	R(04)	16	V(0)	a
1151.531	86840.89				
1151.518	86841.90				
1151.510	86842.47				
1151.484	86844.47				
1151.444	86847.48				
1151.342	86855.14				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1151.312	86857.40				
1151.265	86860.96				
1151.245	86862.50				
1151.235	86863.25				
1151.201	86865.80				
1151.139	86870.51	P(02)	16	V(0)	b
1151.096	86873.75				
1151.061	86876.38	R(03)	16	V(0)	b
1151.061	86876.38	P(02)	16	V(0)	a
1150.984	86882.17	R(03)	16	V(0)	a
1150.926	86886.54				
1150.874	86890.50				
1150.855	86891.89				
1150.847	86892.51				
1150.798	86896.20				
1150.786	86897.14				
1150.735	86900.97				
1150.702	86903.50				
1150.684	86904.84	P(01)	16	V(0)	b
1150.638	86908.30	R(02)	16	V(0)	b
1150.605	86910.80	P(01)	16	V(0)	a
1150.559	86914.26	R(02)	16	V(0)	a
1150.559	86914.26	P(08)	17	V(0)	b
1150.549	86915.00				
1150.517	86917.41				
1150.475	86920.65	P(08)	17	V(0)	a
1150.434	86923.75				
1150.388	86927.22	R(01)	16	V(0)	b
1150.342	86930.64	R(09)	17	V(0)	b
1150.310	86933.11	R(00)	16	V(0)	b
1150.310	86933.11	R(01)	16	V(0)	a
1150.276	86935.64	R(09)	17	V(0)	a
1150.231	86939.05	R(00)	16	V(0)	a
1150.172	86943.50				
1150.161	86944.37				
1150.104	86948.65				
1150.059	86952.07				
1150.032	86954.13				
1150.027	86954.46				
1150.023	86954.78				
1149.933	86961.60				
1149.902	86963.91				
1149.879	86965.65				
1149.873	86966.14				
1149.865	86966.72				
1149.815	86970.50				

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1149.764	86974.36			
1149.741	86976.09			
1149.734	86976.63			
1149.723	86977.45			
1149.694	86979.65			
1149.671	*86981.41*			
1149.612	86985.88			
1149.603	86986.52			
1149.570	86989.01			
1149.544	86991.02			
1149.509	86993.65			
1149.481	86995.76			
1149.473	86996.41			
1149.462	86997.20			
1149.444	86998.61			
1149.428	86999.83			
1149.365	87004.58			
1149.354	87005.38			
1149.307	87008.97			
1149.280	87010.96			
1149.257	87012.77			
1149.224	87015.26			
1149.207	87016.55			
1149.160	87020.08			
1149.122	87022.97			
1149.106	87024.14			
1149.096	87024.94			
1149.089	87025.48			
1149.062	87027.49			
1149.039	87029.23	P(07)	17 V(0)	b
1149.021	87030.64			
1148.981	87033.65			
1148.965	87034.88	P(07)	17 V(0)	a
1148.933	87037.28			
1148.913	87038.78	R(08)	17 V(0)	b
1148.869	87042.13			
1148.841	87044.21	R(08)	17 V(0)	a
1148.821	87045.78			
1148.781	87048.76			
1148.752	87051.02			
1148.721	87053.32			
1148.697	87055.13			
1148.662	87057.84			
1148.627	87060.44			
1148.604	87062.21			
1148.590	87063.26			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1148.503	87069.86			
1148.356	87081.02			
1148.303	87085.05			
1148.254	87088.76			
1148.114	87099.34			
1148.057	*87103.67*			
1147.864	87118.34			
1147.767	87125.72			
1147.756	87126.54			
1147.734	87128.22			
1147.707	87130.27	P(06)	17 V(0)	b
1147.631	87136.04	P(06)	17 V(0)	a
1147.533	87143.45	R(07)	17 V(0)	b
1147.462	87148.89	R(07)	17 V(0)	a
1147.188	87169.67			
1146.984	87185.18			
1146.801	87199.09			
1146.630	87212.10			
1146.590	87215.17			
1146.557	87217.63	P(05)	17 V(0)	b
1146.512	87221.06			
1146.479	87223.58	P(05)	17 V(0)	a
1146.445	87226.16	R(06)	17 V(0)	b
1146.368	87232.06	R(06)	17 V(0)	a
1146.322	87235.55			
1146.297	87237.39			
1146.056	87255.80			
1146.045	87256.58			
1145.890	87268.44			
1145.869	87270.01			
1145.815	87274.09			
1145.615	87289.34	P(04)	17 V(0)	b
1145.579	87292.13			
1145.550	87294.29	P(04)	17 V(0)	a
1145.518	87296.73			
1145.487	87299.10	R(05)	17 V(0)	b
1145.465	87300.81			
1145.448	87302.08			
1145.407	87305.19	R(05)	17 V(0)	a
1145.339	87310.36			
1145.275	87315.30			
1145.251	87317.13			
1145.202	87320.84			
1144.965	87338.92			
1144.784	87352.70			
1144.753	87355.11	P(03)	17 V(0)	b

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1144.705	87358.78	R(04)	17	V(0)	b
1144.675	87361.01	P(03)	17	V(0)	a
1144.623	87365.04	R(04)	17	V(0)	a
1144.459	87377.56				
1144.299	87389.72	P(09)	0	n(1)	
1144.204	87396.97				
1144.148	87401.29				
1144.138	87402.02				
1144.130	87402.64				
1144.101	87404.86	R(03)	17	V(0)	b
1144.020	87411.09	R(03)	17	V(0)	a
1143.974	87414.60	P(02)	17	V(0)	a ?
1143.899	87420.32				
1143.808	87427.29				
1143.780	87429.43				
1143.707	87435.01	R(02)	17	V(0)	b
1143.640	87440.08	R(02)	17	V(0)	a
1143.598	87443.30	P(08)	0	n(1)	
1143.566	87445.77	P(01)	17	V(0)	b
1143.566	87445.77	P(07)	0	n(1)	
1143.522	87449.12				
1143.494	87451.28	P(01)	17	V(0)	a
1143.471	87453.00				
1143.448	87454.75				
1143.388	87459.36	R(01)	17	V(0)	b
1143.388	87459.36	R(00)	17	V(0)	b
1143.309	87465.38	R(01)	17	V(0)	a
1143.261	87469.09				
1143.211	87472.95				
1143.151	87477.50	R(00)	17	V(0)	a
1143.082	87482.76				
1143.035	87486.39				
1142.751	87508.16				
1142.613	87518.73				
1142.555	87523.14	P(05)	2	D(1)	b
1142.507	87526.80	P(05)	2	D(1)	a
1142.113	87557.00				
1142.070	87560.33	P(04)	2	D(1)	b
1142.037	87562.85				
1142.025	87563.78	P(04)	2	D(1)	a
1141.985	87566.80	Q(11)	0	n(1)	
1141.932	87570.87				
1141.849	87577.23				
1141.802	87580.87	P(07)			?
1141.748	87585.02				
1141.709	87588.01				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1141.616	87595.13	P(03)	2	D(1)	b
1141.598	87596.48	Q(10)	0	n(1)	
1141.565	87599.06	P(03)	2	D(1)	a
1141.457	87607.33				
1141.433	87609.15	Q(08)	0	n(1)	
1141.412	87610.80				
1141.286	87620.48	Q(07)	0	n(1)	
1141.205	87626.69	Q(04)	2	D(1)	b
1141.186	87628.17	P(02)	2	D(1)	a
1141.161	87630.03	Q(06)	0	n(1)	
1141.106	87634.26				
1141.061	87637.74	Q(07)	0	n(1)	
1140.982	87643.81	Q(03)	2	D(1)	b
1140.944	87646.70	Q(03)	2	D(1)	a
1140.906	87649.67*	Q(03)	0	n(1)	
1140.862	87653.04	Q(02)	0	n(1)	
1140.843	87654.48	P(06)	18	V(0)	a
1140.812	87656.86				
1140.803	87657.58*	Q(02)	2	D(1)	b
1140.755	87661.26	Q(02)	2	D(1)	a
1140.713	87664.47				
1140.687	87666.50	Q(01)	2	D(1)	b
1140.633	87670.58	Q(01)	2	D(1)	a
1140.580	87674.69				
1140.436	87685.75				
1140.413	87687.54	R(00)	2	D(1)	b
1140.361	87691.53	R(00)	2	D(1)	a
1140.320	87694.71	R(01)	0	n(1)	
1140.285	87697.41				
1140.259	87699.34	R(01)	2	D(1)	b
1140.207	87703.35	R(01)	2	D(1)	a
1140.168	87706.37	R(04)	2	D(1)	a
1140.168	87706.37	R(02)	2	D(1)	b
1140.125	87709.70	R(02)	2	D(1)	a
1140.078	87713.26				
1140.061	87714.62	R(03)	2	D(1)	a
1139.888	87727.89	R(03)	0	n(1)	
1139.825	87732.73	P(05)	18	V(0)	b
1139.746	87738.82	P(05)	18	V(0)	a
1139.703	87742.15	R(04)	0	n(1)	
1139.660	87745.46				
1139.541	87754.66	R(05)	0	n(1)	
1139.428	87763.37				
1139.398	87765.68	R(06)	0	n(1)	
1139.386	87766.56				
1139.275	87775.09	R(07)	0	n(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1139.229	87778.68		
1139.175	87782.81	R(08) 0 n(1)	
1139.100	87788.61	R(09) 0 n(1)	
1139.056	87791.96		
1139.047	87792.67		
1139.018	87794.96		
1138.971	87798.53		
1138.899	87804.06	P(04) 18 V(0)	b
1138.821	87810.13	P(04) 18 V(0)	a
1138.693	87819.95		
1138.628	87824.98		
1138.531	87832.51		
1138.488	87835.79		
1138.422	87840.92		
1138.379	87844.24	P(07)	
1138.294	87850.77		
1138.176	87859.84	P(10) 0 k(1)	
1138.147	87862.12	P(03) 18 V(0)	b
1138.068	87868.18	P(03) 18 V(0)	a
1137.949	87877.39	R(04) 18 V(0)	b
1137.870	87883.48	R(04) 18 V(0)	a
1137.767	87891.48	P(09) 0 k(1)	
1137.714	87895.52		
1137.693	87897.21		
1137.639	87901.38		
1137.628	87902.18		
1137.613	87903.35		
1137.586	87905.47		
1137.559	87907.49	P(02) 18 V(0)	b
1137.481	87913.53	P(02) 18 V(0)	a
1137.395	87920.18	R(03) 18 V(0)	b
1137.374	87921.80	P(08) 0 k(1)	
1137.314	87926.45	R(03) 18 V(0)	a
1137.257	87930.89		
1137.178	87937.01		
1137.132	87940.51	P(01) 18 V(0)	b
1137.095	87943.40		
1137.053	87946.64	P(01) 18 V(0)	a
1137.012	87949.82	R(02) 18 V(0)	b
1137.000	87950.77	P(07) 0 k(1)	
1136.974	87952.77		
1136.962	87953.71		
1136.930	87956.14	R(02) 18 V(0)	a
1136.876	87960.36		
1136.840	87963.14		
1136.799	87966.27	R(01) 18 V(0)	b

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1136.752	87969.97	R(00) 18 V(0)	b
1136.719	87972.49	R(01) 18 V(0)	a
1136.671	87976.21	R(00) 18 V(0)	a
1136.638	87978.72	P(06) 0 k(1)	
1136.612	87980.77		
1136.534	87986.80		
1136.444	87993.81		
1136.384	87998.45		
1136.294	88005.43	P(05) 0 k(1)	
1136.247	88009.06		
1136.186	88013.74		
1136.136	88017.66		
1135.963	88031.01	P(04) 0 k(1)	
1135.846	88040.10	Q(11) 0 k(1)	
1135.791	88044.39		
1135.732	88048.95		
1135.699	88051.53		
1135.672	88053.61	Q(10) 0 k(1)	
1135.647	88055.55	P(03) 0 k(1)	
1135.594	88059.61		
1135.559	88062.35		
1135.539	88063.90		
1135.503	88066.70	Q(09) 0 k(1)	
1135.485	88068.06		
1135.360	88077.79	Q(08) 0 k(1)	
1135.349	88078.67	P(02) 0 k(1)	
1135.245	88086.70		
1135.233	88087.61	Q(07) 0 k(1)	
1135.196	88090.48	R(06)	
1135.182	88091.58		
1135.122	88096.25	Q(06) 0 k(1)	
1135.098	88098.14		
1135.069	88100.37	P(01) 0 k(1)	
1135.048	88101.98		
1135.029	88103.49	Q(05) 0 k(1)	
1134.950	88109.57	Q(04) 0 k(1)	
1134.936	88110.72		
1134.889	88114.37	R(05)	
1134.889	88114.37	Q(03) 0 k(1)	
1134.850	88117.34		
1134.842	88118.00	Q(02) 0 k(1)	
1134.810	88120.45	Q(01) 0	
1134.753	88124.91	P(13) 0 H(0)	
1134.740	88125.94		
1134.700	88129.02		
1134.679	88130.65		

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1134.649	88133.01				
1134.632	88134.31	R(04)			
1134.600	88136.81				
1134.542	88141.32	R(00)	0	k(1)	
1134.522	88142.87				
1134.468	88147.04				
1134.355	88155.80				
1134.305	88159.73	R(01)	0	k(1)	
1134.305	88159.73	R(02)			
1134.256	88163.55	R(01)			
1134.144	88172.24				
1134.084	88176.92	R(02)	0	k(1)	
1133.944	88187.75	P(12)	0	H(0)	
1133.935	88188.50				
1133.878	88192.91	R(03)	0	k(1)	
1133.769	88201.37				
1133.689	88207.58	R(04)	0	k(1)	
1133.640	88211.43				
1133.598	88214.69				
1133.543	88218.96				
1133.518	88220.91	R(05)	0	k(1)	
1133.463	88225.20				
1133.435	88227.37				
1133.419	88228.62	P(10)	20	V(0)	a
1133.363	88233.00	R(06)	0	k(1)	
1133.296	88238.17				
1133.254	88241.50				
1133.226	88243.62	R(07)	0	k(1)	
1133.186	88246.77	P(11)	0	H(0)	
1133.177	88247.47	P(06)	19	V(0)	b
1133.107	88252.89	R(08)	0	k(1)	
1133.078	88255.16	P(06)	19	V(0)	a
1133.024	88259.42	P(11)	0	i(2)	
1132.977	88263.06				
1132.926	88267.04	R(10)	0	k(1)	
1132.864	88271.83	R(11)	0	k(1)	
1132.847	88273.17				
1132.820	88275.30	R(12)	0	k(1)	
1132.800	88276.86	R(13)	0	k(1)	
1132.784	88278.05				
1132.774	88278.83				
1132.754	88280.41				
1132.725	88282.67				
1132.693	88285.14				
1132.653	88288.26				
1132.625	88290.48				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1132.600	88292.39				
1132.578	88294.13	P(10)	0	i(2)	
1132.492	88300.82	P(05)	19	V(0)	b
1132.440	88304.90	P(05)	19	V(0)	a
1132.375	88309.94	P(10)	0	H(0)	
1132.313	88314.80				
1132.290	88316.62				
1132.266	88318.45				
1132.232	88321.15	P(10)	0	H(0)	
1132.176	88325.46				
1132.145	88327.91				
1132.105	88331.01	P(09)	0	i(2)	
1132.034	88336.55				
1132.017	88337.91				
1131.954	88342.81				
1131.847	88351.18	P(09)	0	H(0)	
1131.586	88371.57				
1131.259	88397.09	P(04)	19	V(0)	b
1131.214	88400.63				
1131.186	88402.83	P(04)	19	V(0)	a
1131.143	88406.18	P(08)	0	H(0)	
1131.134	88406.86				
1131.064	88412.32				
1130.755	88436.45				
1130.700	88440.75				
1130.656	88444.21				
1130.595	88448.98				
1130.524	88454.54	P(07)	0	H(0)	
1130.513	88455.45	P(03)	19	V(0)	b
1130.417	88462.95	P(03)	19	V(0)	a
1130.392	88464.87				
1130.284	88473.36				
1130.233	88477.35				
1130.153	88483.63				
1130.144	88484.30				
1130.091	88488.48	R(03)?			
1130.035	88492.81	R(03)?			
1129.956	88499.03	P(06)	0	H(0)	
1129.947	88499.70				
1129.939	88500.35	Q(09)	0	i(2)	
1129.898	88503.56	P(02)	19	V(0)	b
1129.813	88510.20	P(02)	19	V(0)	a
1129.790	88512.04				
1129.754	88514.88				
1129.716	88517.84	Q(08)	0	i(2)	
1129.678	88520.83	P(08)	20	V(0)	b

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1129.656	88522.53		
1129.634	88524.25	*	
1129.628	88524.75	*	
1129.617	88525.61	*	
1129.601	88526.81	P(08) 20 V(0)	a
1129.434	88539.90	P(05) 0 H(0)	
1129.377	88544.37	Q(06) 0 i(2)	
1129.377	88544.37	P(01) 19 V(0)	a
1129.343	88547.02		
1129.323	88548.64	R(02) 19 V(0)	a
1129.237	88555.36	Q(05) 0 i(2)	
1129.194	88558.73		
1129.185	88559.42		
1129.171	88560.53	R(01) 19 V(0)	b
1129.157	88561.61		
1129.123	88564.33	Q(04) 0 i(2)	
1129.096	88566.39	R(00) 19 V(0)	b
1129.086	88567.24	R(01) 19 V(0)	a
1129.065	88568.89		
1129.029	88571.67	Q(03) 0 i(2)	
1129.013	88572.90	R(00) 19 V(0)	a
1128.965	88576.72	P(04) 0 H(0)	
1128.892	88582.42		
1128.797	88589.85	R(00) 0 i(2)	
1128.718	88596.05		
1128.676	88599.37		
1128.666	88600.14		
1128.624	88603.44		
1128.544	88609.71	P(03) 0 H(0)	
1128.477	88614.98		
1128.429	88618.78	R(01) 0 i(2)	
1128.392	88621.68	R(08) 20 V(0)	
1128.384	88622.32		
1128.322	88627.22		
1128.234	88634.09	R(02) 0 i(2)	
1128.196	88637.08	P(07) 20 V(0)	b
1128.172	88638.94	P(02) 0 H(0)	
1128.114	88643.49	P(07) 20 V(0)	a
1128.071	88646.88		
1128.058	88647.89	R(03) 0 i(2)	
1127.911	88659.48	R(04) 0 i(2)	
1127.886	88661.46	R(10) 0 H(0)	
1127.862	88663.29		
1127.853	88664.02	P(01) 0 H(0)	
1127.787	88669.19	R(05) 0 i(2)	
1127.717	88674.71		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1127.685	88677.24	R(06) 0 i(2)	
1127.646	88680.32	R(09) 0 H(0)	
1127.606	88683.44	R(07) 0 i(2)	
1127.559	88687.19	R(08) 0 i(2)	
1127.483	88693.17	R(09) 0 i(2)	
1127.376	88701.55	R(00) 0 H(0)	
1127.362	88702.62		
1127.348	88703.74	R(07) 0 H(0)	
1127.216	88714.16	R(08) 0 H(0)	'
1127.216	88714.16	R(01) 0 H(0)	
1127.172	88717.60	R(06) 0 H(0)	
1127.109	88722.56	R(02) 0 H(0)	
1127.079	88724.94	R(05) 0 H(0)	
1127.071	88725.57		
1127.046	88727.49	R(03) 0 H(0)	
1127.039	88728.07	R(04) 0 H(0)	
1127.030	88728.82		
1126.877	88740.83		
1126.835	88744.14	P(06) 20 V(0)	b
1126.794	88747.35	R(07) 20 V(0)	b
1126.782	88748.32	P(09) 0 i(1)	
1126.758	88750.19	P(06) 20 V(0)	a
1126.726	88752.75	R(07) 20 V(0)	a
1126.626	88760.62	P(07) 0 I(2)	pt
1126.518	88769.09		
1126.471	88772.82		
1126.414	88777.31		
1126.358	88781.68	P(08) 0 i(1)	
1126.305	88785.89		
1126.191	88794.85	P(06) 0 I(2)	
1126.132	88799.52		
1126.002	88809.76	P(07) 0 i(1)	
1125.913	88816.84		
1125.888	88818.78		
1125.839	88822.67		
1125.811	88824.83		
1125.797	88825.99	P(05) 0 I(2)	
1125.755	88829.25		
1125.723	88831.77	R(06) 20 V(0)	b
1125.691	88834.34	P(05) 20 V(0)	b
1125.666	88836.26	P(06) 0 i(1)	
1125.641	88838.31	R(06) 20 V(0)	a
1125.622	88839.76	P(05) 20 V(0)	a
1125.547	88845.65		
1125.478	88851.10		
1125.387	88858.36	P(04) 0 I(2)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1125.338	88862.22	P(05)	0	i(1)	
1125.275	88867.15				
1125.245	88869.57				
1125.240	88869.94				
1125.192	88873.74				
1125.170	88875.48				
1125.144	88877.49	Q(09)	0	j(1)	
1125.078	88882.72	P(04)	0	i(1)	pt
1125.021	88887.22	Q(08)	0	T(>1)	
1124.995	88889.29	P(03)	0	I(2)	
1124.975	88890.90	Q(07)?			
1124.952	88892.67				
1124.917	88895.48				
1124.900	88896.76				
1124.833	88902.10				
1124.788	88905.68	Q(08)	0	j(1)	
1124.788	88905.68	P(03)	0	i(1)	pt
1124.768	88907.24	R(05)	20	V(0)	b
1124.742	88909.29				
1124.717	88911.29	P(04)	20	V(0)	b
1124.685	88913.80	R(05)	20	V(0)	a
1124.659	88915.82	Q(07)	0	T(>1)	Q
1124.633	88917.90	P(04)	20	V(0)	a
1124.599	88920.58	Q(05)?			
1124.570	88922.90*	Q(07)	0	j(1)	
1124.570	88922.90*	P(02)	0	i(1)	pt
1124.529	88926.10	Q(06)	0	T(>1)	Q'
1124.514	88927.27				
1124.489	88929.27				
1124.477	88930.25	Q(04)?			
1124.418	88934.87	Q(06)	0	T(>1)	
1124.392	88936.98	Q(06)	0	j(1)	
1124.374	88938.41				
1124.365	88939.09				
1124.327	88942.11	Q(05)	0	T(>1)	Q'
1124.284	88945.51				
1124.250	88948.21*	Q(05)	0	j(1)	
1124.250	88948.21*	Q(05)	0	T(>1)	
1124.214	88951.06				
1124.177	88953.96	Q(04)	0	T(>1)	Q'
1124.159	88955.36	Q(04)	0	T(>1)	
1124.134	88957.35	P(04)	0	j(1)	
1124.099	88960.15	Q(03)	0	T(>1)	
1124.092	88960.71	Q(03)	0	T(>1)	Q'
1124.085	88961.25	Q(03)	0	T(>1)	Q'
1124.067	88962.69	Q(02)	0	T(>1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1124.009	88967.27	Q(02)	0	T(>1)	Q'
1123.951	88971.83				
1123.940	88972.71	R(04)	20	V(0)	b
1123.899	88975.98	P(03)	20	V(0)	b
1123.890	88976.66				
1123.859	88979.17	R(04)	20	V(0)	a
1123.819	88982.30	P(03)	20	V(0)	a
1123.775	88985.78	R(00)	0	i(1)	pt
1123.677	88993.58	R(01)	0	I(2)	
1123.660	88994.88				
1123.597	88999.91				
1123.588	89000.61				
1123.573	89001.77				
1123.543	89004.18	R(02)	0	I(2)	
1123.517	89006.23	R(04)?			
1123.474	89009.61	R(01)	0	i(1)	pt
1123.427	89013.36	R(03)	0	I(2)	
1123.407	89014.96				
1123.396	89015.81				
1123.378	89017.27				
1123.322	89021.65	R(03)	20	V(0)	b
1123.298	89023.58*	R(04)	0	I(2)	
1123.298	89023.58	P(02)	20	V(0)	b
1123.249	89027.46	R(03)	20	V(0)	a
1123.233	89028.74*	R(02)	0	i(1)	pt
1123.233	89028.74*	P(02)	20	V(0)	b
1123.223	89029.51	P(02)	20	V(0)	a
1123.209	89030.62	R(05)	0	I(2)	pt
1123.187	89032.39				
1123.172	89033.55				
1123.139	89036.17	R(06)?	0	I(2)	
1123.091	89039.97	P(09)	0	j(0)	
1123.075	89041.22				
1123.061	89042.39				
1122.990	89047.95				
1122.969	89049.62	R(03)	0	i(1)	
1122.875	89057.08	R(02)	20	V(0)	b
1122.829	89060.74	P(01)	20	V(0)	b
1122.829	89060.74	P(09)	0	j(0)	'
1122.788	89064.02	R(02)	20	V(0)	a
1122.773	89065.21	R(04)	0	i(1)	
1122.765	89065.80	P(01)	20	V(0)	a
1122.699	89071.06				
1122.587	89079.94	R(01)	20	V(0)	b
1122.587	89079.94	R(05)	0	i(1)	
1122.519	89085.35	R(00)	20	V(0)	b

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1122.502	89086.71	R(01) 20 V(0)	a
1122.466	89089.58		
1122.426	89092.70	R(00) 20 V(0)	a
1122.426	89092.70	R(06) 0 i(1)	
1122.403	89094.57	P(08) 0 j(0)	
1122.328	89100.54	R(07) 0 i(1)	
1122.319	89101.20	P(07) 0 j(0)	
1122.292	89103.36	S(02) 0 j(1)	
1122.283	89104.06		
1122.183	89112.00		
1122.029	89124.26		
1121.948	89130.71		
1121.901	89134.43	P(06) 0 j(0)	
1121.885	89135.66	S(03) 0 j(1)	
1121.821	89140.78		
1121.747	89146.69		
1121.547	89162.57	P(05) 0 j(0)	
1121.506	89165.84	S(04) 0 j(1)	
1121.462	89169.30		
1121.320	89180.61		
1121.306	89181.72		
1121.211	89189.25	P(04) 0 j(0)	
1121.161	89193.25	S(05) 0 j(1)	
1120.893	89214.58	P(03) 0 j(0)	
1120.863	89216.99	S(06) 0 j(1)	
1120.734	89227.20		
1120.701	89229.83	S(07) 0 j(1)	pt
1120.591	89238.61	P(02) 0 j(0)	
1120.413	89252.83		
1120.376	89255.71		
1120.322	89260.03		
1120.310	89261.04	P(01) 0 j(0)	
1120.271	89264.10	P(06) 21 V(0)	b
1120.242	89266.45		
1120.185	89270.98	P(06) 21 V(0)	a
1120.160	89272.99		
1120.146	89274.04		
1120.111	89276.89		
1120.086	89278.84		
1120.050	89281.75		
1119.999	89285.81		
1119.980	89287.32		
1119.921	89291.98		
1119.834	89298.92		
1119.806	89301.20	R(00) 0 j(0)	
1119.764	89304.55		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1119.585	89318.82	R(01) 0 j(0)	
1119.441	89330.29		
1119.381	89335.08	R(02) 0 j(0)	
1119.320	89339.95		
1119.195	89349.96	R(03) 0 j(0)	
1119.141	89354.21	P(05) 21 V(0)	b
1119.116	89356.26		
1119.052	89361.34	P(05) 21 V(0)	a
1119.030	89363.13	R(04) 0 j(0)	
1118.941	89370.21		
1118.925	89371.48	R(05) 0 j(0)	
1118.855	89377.07		
1118.824	89379.59		
1118.787	89382.54		
1118.743	89386.05		
1118.663	89392.42	P(10) 0 K(1)	
1118.618	89396.06		
1118.551	89401.38		
1118.504	89405.13	R(06) 0 j(0)	"
1118.491	89406.14		
1118.407	89412.92	R(07) 0 j(0)	"
1118.334	89418.71		
1118.263	89424.44		
1118.224	89427.48	P(09) 0 K(1)	
1118.178	89431.18	P(04) 21 V(0)	b
1118.152	89433.29		
1118.128	89435.22		
1118.086	89438.56	P(04) 21 V(0)	a
1118.064	89440.31		
1117.848	89457.59		
1117.800	89461.46	P(08) 0 K(1)	
1117.729	89467.11		
1117.679	89471.14		
1117.616	89476.15		
1117.598	89477.64		
1117.570	89479.85		
1117.538	89482.45		
1117.519	89483.92		
1117.506	89484.94		
1117.408	89492.84	R(04) 21 V(0)	b
1117.390	89494.26	P(07) 0 K(1)	
1117.390	89494.26	P(03) 21 V(0)	b
1117.321	89499.81	R(04) 21 V(0)	a
1117.292	89502.08	P(03) 21 V(0)	a
1117.239	89506.34		
1117.195	89509.91		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1117.174	89511.53		
1117.133	89514.84		
1117.030	89523.13		
1116.994	89525.97	P(06) 0 K(1)	
1116.939	89530.42		
1116.878	89535.29		
1116.801	89541.49	R(03) 21 V(0)	b
1116.773	89543.68	P(02) 21 V(0)	b
1116.737	89546.63	Q(10)? 0 K(1)	
1116.709	89548.82	R(03) 21 V(0)	a
1116.679	89551.25	P(02) 21 V(0)	a
1116.617	89556.22	P(05) 0 K(1)	
1116.600	89557.61		
1116.462	89568.65	Q(09)? 0 K(1)	
1116.415	89572.43		
1116.358	89577.01	R(02) 21 V(0)	b
1116.336	89578.76	P(01) 21 V(0)	b
1116.309	89580.92		
1116.260	89584.83	P(04) 0 K(1)	
1116.260	89584.83	R(02) 21 V(0)	a
1116.254	89585.36		
1116.246	89586.00	P(01) 21 V(0)	a
1116.207	89589.09	Q(08) 0 k(1)	
1116.197	89589.92		
1116.088	89598.67	R(01) 21 V(0)	b
1115.993	89606.31	R(00) 21 V(0)	b
1115.993	89606.31	R(01) 21 V(0)	a
1115.963	89608.68		
1115.927	89611.62	P(03) 0 K(1)	
1115.927	89611.62	Q(07)? 0 K(1)	
1115.920	89612.12		
1115.901	89613.70	R(00) 21 V(0)	a
1115.769	89624.28		
1115.754	89625.50	Q(06) 0 K(1)	
1115.615	89636.65	P(02) 0 K(1)	
1115.577	89639.74		
1115.565	89640.67	Q(05) 0 K(1)	
1115.416	89652.63		
1115.407	89653.36	Q(04) 0 K(1)	
1115.395	89654.36		
1115.276	89663.93	Q(03) 0 K(1)	
1115.238	89666.97		
1115.175	89672.02	Q(02) 0 K(1)	
1115.107	89677.53	Q(01) 0 K(1)	
1115.020	89684.49		
1114.942	89690.79		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1114.912	89693.19		
1114.867	89696.83	P(10) 0 m(2)	
1114.839	89699.09	R(00) 0 K(1)	
1114.756	89705.71		
1114.698	89710.40		
1114.671	89712.58		
1114.642	89714.94	Q(08)?	
1114.628	89716.03	R(01) 0 K(1)	
1114.611	89717.42		
1114.550	89722.27	P(09) 0 m(2)	
1114.539	89723.21		
1114.447	89730.58	R(02) 0 K(1)	
1114.377	89736.24		
1114.328	89740.20		
1114.294	89742.93		
1114.284	89743.71	R(03) 0 K(1)	
1114.274	89744.52	P(08) 0 m(2)	
1114.227	89748.34		
1114.160	89753.75		
1114.143	89755.05	R(04) 0 K(1)	
1114.084	89759.87	Q(05)?	
1114.029	89764.26		
1114.024	89764.64	R(05) 0 K(1)	
1113.995	89767.00	P(07) 0 m(2)	
1113.995	89767.00	P(10)? 0 N(1)	
1113.975	89768.65	Q(04)?	
1113.923	89772.79		
1113.897	89774.88		
1113.839	89779.56	R(07) 0 K(1)	
1113.772	89784.97		
1113.765	89785.58	R(08) 0 K(1)	
1113.726	89788.67	P(06) 0 m(2)	
1113.721	89789.12		?
1113.678	89792.57		
1113.653	89794.56		
1113.623	89797.00	P(09) 0 N(1)	
1113.511	89806.04		
1113.468	89809.46	P(05) 0 m(2)	
1113.456	89810.43		
1113.423	89813.11		
1113.414	89813.88		
1113.339	89819.93		
1113.295	89823.47		
1113.252	89826.89	P(08) 0 N(1)	
1113.215	89829.93	P(04) 0 m(2)	
1113.140	89835.98		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1113.128	89836.94		
1113.081	89840.73		
1113.011	89846.35		
1112.962	89850.34	P(03) 0	m(2)
1112.923	89853.45		
1112.890	89856.11	P(07) 0	N(1)
1112.836	89860.51		
1112.774	89865.54		
1112.747	89867.65		
1112.728	89869.19		
1112.720	89869.85		
1112.695	89871.85		
1112.678	89873.26		
1112.645	89875.91		
1112.613	89878.52		
1112.584	89880.87		
1112.539	89884.50	P(06) 0	N(1)
1112.500	89887.65		
1112.437	89892.74		
1112.375	89897.71		
1112.356	89899.24		
1112.346	89900.07		
1112.278	89905.56		
1112.230	89909.49		
1112.200	89911.92	P(05) 0	N(1)
1112.193	89912.46		
1112.181	89913.44	Q(H) 0	m(2)
1112.173	89914.10		
1112.029	89925.71		
1112.013	89927.02		
1111.982	89929.48		
1111.936	89933.25		
1111.896	89936.50		
1111.875	89938.16	P(04) 0	N(1)
1111.817	89942.82		
1111.800	89944.22		
1111.756	89947.78		
1111.736	89949.38		
1111.715	89951.12		
1111.715	89951.12		
1111.701	89952.22		
1111.671	89954.66	R(01) 0	m(2)
1111.613	89959.35		
1111.606	89959.96		
1111.566	89963.13	P(03) 0	N(1)
1111.541	89965.21		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1111.532	89965.92		
1111.493	89969.06		
1111.450	89972.57		
1111.423	89974.77	Q(09) 0	L(1)
1111.409	89975.86	R(02) 0	m(2)
1111.310	89983.91	Q(08) 0	N(1)
1111.274	89986.79	P(02) 0	N(1)
1111.231	89990.32		
1111.200	89992.79	Q(07) 0	N(1)
1111.173	89994.99	P(07) 0	m(1)
1111.147	89997.06	R(03) 0	m(2)
1111.097	90001.14	Q(06) 0	N(1)
1111.004	90008.65	Q(05) 0	N(1)
1110.942	90013.72	P(06) 0	m(1)
1110.921	90015.41	Q(04) 0	N(1)
1110.894	90017.56	R(04) 0	m(2)
1110.852	90020.96	Q(03) 0	N(1)
1110.799	90025.27	Q(02) 0	N(1)
1110.762	90028.28	Q(01) 0	N(1)
1110.707	90032.74	P(05) 0	m(1)
1110.652	90037.23	R(05) 0	m(2)
1110.614	90040.25		
1110.578	90043.20		
1110.518	90048.09		
1110.501	90049.42	R(00) 0	N(1)
1110.481	90051.06		
1110.468	90052.13	P(04) 0	m(1)
1110.422	90055.85	R(06) 0	m(2)
1110.369	90060.16		
1110.331	90063.20		
1110.311	90064.89		
1110.279	90067.45	R(01) 0	N(1)
1110.223	90071.96	P(03) 0	m(1)
1110.192	90074.51	R(07) 0	m(2)
1110.152	90077.78		
1110.075	90084.01	R(02) 0	N(1)
1110.060	90085.23		
1109.999	90090.13	R(08) 0	m(2)
1109.977	90091.96	P(02) 0	m(1)
1109.886	90099.38	R(03) 0	N(1)
1109.823	90104.44	R(09) 0	m(2)
1109.803	90106.07		
1109.712	90113.43	R(04) 0	N(1)
1109.668	90117.07		
1109.668	90117.07		
1109.554	90126.29	R(05) 0	N(1)

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1109.459	90134.05	Q(01)	0 m(1)	
1109.451	90134.68	Q(02)	0 m(1)	
1109.434	90136.05	Q(03)	0 m(1)	
1109.415	90137.56	Q(04)	0 m(1)	
1109.399	90138.86	Q(05)	0 m(1)	
1109.385	90140.07	Q(06)	0 m(1)	
1109.375	90140.86	Q(07)	0 m(1)	
1109.273	90149.12	R(07)	0 N(1)	
1109.207	90154.51	R(00)	0 m(1)	
1109.134	90160.41	R(08)?	0 N(1)	
1109.033	90168.65	R(08)?	0 N(1)	
1109.033	90168.65	R(09)?	0 N(1)	
1108.970	90173.79			
1108.942	90176.05	R(01)	0 m(1)	
1108.900	90179.47			
1108.833	90184.90			
1108.788	90188.59			
1108.751	90191.55			
1108.671	90198.05	R(02)	0 m(1)	
1108.635	90201.04			
1108.606	90203.40			
1108.592	90204.47			
1108.538	90208.89			
1108.491	90212.76			
1108.469	90214.50			
1108.427	90217.96			
1108.399	90220.19	R(03)	0 m(1)	
1108.316	90226.99			
1108.283	90229.64			
1108.250	90232.31			
1108.188	90237.39			
1108.124	90242.62	R(04)	0 m(1)	
1108.032	90250.11			
1108.005	90252.28			
1107.849	90264.98	R(05)	0 m(1)	
1107.810	90268.15			
1107.777	90270.86			
1107.768	90271.64			
1107.752	90272.94			
1107.593	90285.84	R(06)	0 m(1)	
1107.571	90287.70			
1107.513	90292.40			
1107.497	90293.69			
1107.441	90298.29			
1107.415	90300.42	P(07)	0 m(0)	
1107.392	90302.22			
1107.350	90305.66			
1107.340	90306.53			
1107.290	90310.54			
1107.257	90313.25			
1107.234	90315.17			
1107.137	90323.04	P(06)	0 m(0)	
1107.104	90325.72			
1106.993	90334.80			
1106.969	90336.77			
1106.942	90338.94			
1106.913	90341.32			
1106.898	90342.52			
1106.853	90346.26	P(05)	0 m(0)	
1106.820	90348.93			
1106.780	90352.20			
1106.738	90355.61			
1106.706	90358.24			
1106.650	90362.83	P(04)	0 m(0)	pt
1106.631	90364.36			
1106.563	90369.92			
1106.507	90374.52			
1106.477	90376.94			
1106.470	90377.50			
1106.457	90378.56			
1106.431	90380.72			
1106.396	90383.52	P(03)	0 m(0)	pt
1106.339	90388.19			
1106.333	90388.70			
1106.295	90391.81			
1106.245	90395.85			
1106.229	90397.19			
1106.210	90398.72			
1106.136	90404.82			
1106.108	90407.05			
1106.093	90408.35			
1106.037	90412.85	Q(07)?	0 m(0)	
1105.990	90416.71			
1105.984	90417.26			
1105.960	90419.18			
1105.923	90422.17			
1105.912	90423.09			
1105.899	90424.20			
1105.884	90425.41			
1105.871	90426.42			
1105.848	90428.37	Q(06)?	0 m(0)	
1105.794	90432.73	P(09)	24 V(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1105.765	90435.16				
1105.736	90437.51				
1105.701	90440.39	Q(05)?	0	m(0)	
1105.673	90442.64				
1105.635	90445.79				
1105.619	90447.06	Q(04)?	0	m(0)	
1105.563	90451.69	Q(03)?	0	m(0)	
1105.543	90453.28				
1105.519	90455.27	Q(02)?	0	m(0)	Q(01)
1105.465	90459.69				
1105.359	90468.35				
1105.284	90474.46				
1105.194	90481.82				
1105.121	90487.86	R(01)	0	m(0)	pt
1105.095	90489.93	P(06)	0	M(1)	
1105.030	90495.25				
1104.996	90498.05				
1104.952	90501.68				
1104.922	90504.11				
1104.901	90505.87				
1104.865	90508.78	R(02)	0	m(0)	
1104.833	90511.41				
1104.796	90514.47				
1104.762	90517.20				
1104.715	90521.08				
1104.686	90523.43				
1104.672	90524.59				
1104.649	90526.52	P(05)	0	M(1)	
1104.622	90528.72				
1104.581	90532.10				
1104.564	90533.44	R(03)	0	m(0)	
1104.544	90535.06				
1104.492	90539.34				
1104.427	90544.67				
1104.420	90545.30				
1104.399	90547.02				
1104.380	90548.54				
1104.338	90551.95	R(04)	0	m(0)	
1104.329	90552.74	P(07)	1	H(0)	
1104.274	90557.25				
1104.261	90558.30	P(04)	0	M(1)	
1104.172	90565.59				
1104.128	90569.20				
1104.112	90570.55	R(05)	0	m(0)	
1104.033	90577.00				
1104.022	90577.87	R(00)	?		

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1103.993	90580.31				
1103.924	90585.94	P(03)	0	M(1)	
1103.877	90589.80	R(06)	0	m(0)	
1103.823	90594.25				
1103.813	90595.02	P(06)	1	H(0)	b
1103.799	90596.17	P(06)	1	H(0)	a
1103.743	90600.81	P(08)	24	V(0)	b
1103.720	90602.65				
1103.683	90605.71	P(08)	24	V(0)	a
1103.659	90607.69				
1103.650	90608.46				
1103.638	90609.38	Q(09)	0	M(1)	
1103.625	90610.51	P(02)	0	M(1)	
1103.522	90618.95	Q(08)	0	M(1)	
1103.426	90626.84	Q(07)	0	M(1)	
1103.417	90627.53				
1103.379	90630.71	P(05)	1	H(0)	b
1103.358	90632.42	P(05)	1	H(0)	a
1103.346	90633.39	Q(06)	0	M(1)	
1103.272	90639.46	Q(05)	0	M(1)	
1103.234	90642.63				
1103.216	90644.08	Q(04)	0	M(1)	
1103.168	90647.99	Q(03)	0	M(1)	
1103.134	90650.82	Q(02)	0	M(1)	
1103.111	90652.72	Q(01)	0	M(1)	
1103.049	90657.77				
1103.002	90661.63				
1102.953	90665.66	P(04)	1	H(0)	b
1102.932	90667.41	P(04)	1	H(0)	a
1102.864	90672.99	R(00)	0	M(1)	
1102.816	90676.93				
1102.752	90682.23				
1102.694	90686.99				
1102.686	90687.62				
1102.652	90690.42	R(01)	0	M(1)	
1102.622	90692.94				
1102.596	90695.08				
1102.549	90698.88	P(03)	1	H(0)	b
1102.523	90701.09	P(03)	1	H(0)	a
1102.487	90704.04	R(02)	0	M(1)	
1102.435	90708.28				
1102.422	90709.38				
1102.367	90713.89	R(03)	0	M(1)	
1102.329	90717.00				
1102.319	90717.85	R(04)?	0	M(1)	
1102.309	90718.63	R(04)	0	M(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1102.180	90729.28	P(02) 1 H(0)	b
1102.153	90731.53	P(02) 1 H(0)	a
1102.107	90735.30		
1102.021	90742.39		
1102.007	90743.51		
1101.972	90746.39		
1101.939	90749.16		
1101.920	90750.72		
1101.904	90751.99		
1101.865	90755.22	P(01) 1 H(0)	b
1101.834	90757.78	P(01) 1 H(0)	a
1101.757	90764.11		
1101.562	90780.18	R(07) 24 V(0)	b
1101.503	90785.05	R(07) 24 V(0)	a
1101.421	90791.77	R(00) 1 H(0)	b
1101.391	90794.27	R(00) 1 H(0)	a
1101.309	90801.01	P(06) 24 V(0)	b
1101.284	90803.10	R(01) 1 H(0)	b
1101.258	90805.23	R(01) 1 H(0)	a
1101.226	90807.92	P(06) 24 V(0)	a
1101.184	90811.35	R(02) 1 H(0)	b
1101.163	90813.06		
1101.159	90813.40	R(02) 1 H(0)	a
1101.105	90817.89	R(03) 1 H(0)	b
1101.082	90819.72	R(03) 1 H(0)	a
1101.042	90823.09	R(04) 1 H(0)	b
1101.018	90825.07	R(04) 1 H(0)	a
1100.999	90826.64		
1100.974	90828.68		
1100.718	90849.79	R(07) 24 V(0)	b ?
1100.660	90854.56	R(07) 24 V(0)	a ?
1100.526	90865.60		
1100.415	90874.82		
1100.322	90882.45		
1100.307	90883.69		
1100.287	90885.40		
1100.219	90890.99	P(05) 24 V(0)	b
1100.129	90898.45	P(05) 24 V(0)	a
1100.086	90901.95		
1099.963	90912.18	R(06) 24 V(0)	b
1099.928	90915.00		
1099.903	90917.07	R(06) 24 V(0)	a
1099.888	90918.36		
1099.838	90922.44		
1099.789	90926.55		
1099.757	90929.19		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1099.690	90934.73		
1099.680	90935.54		
1099.648	90938.21		
1099.638	90938.98		
1099.613	90941.10		
1099.602	90942.01		
1099.537	90947.40		
1099.523	90948.52		
1099.469	90953.00		
1099.449	90954.62		
1099.435	90955.84		
1099.284	90968.30	P(04) 24 V(0)	b
1099.257	90970.51	R(05) 24 V(0)	b
1099.191	90975.96	P(04) 24 V(0)	a
1099.183	90976.67		
1099.174	90977.44	R(05) 24 V(0)	a
1099.089	90984.47		
1099.045	90988.07		
1098.961	90995.02		
1098.948	90996.12		
1098.858	91003.53		
1098.782	91009.86		
1098.749	91012.59		
1098.700	91016.67		
1098.643	91021.35		
1098.619	91023.37		
1098.600	91024.95		
1098.544	91029.59	R(04) 24 V(0)	b
1098.516	91031.86	P(03) 24 V(0)	b
1098.455	91036.96	R(04) 24 V(0)	a
1098.423	91039.62	P(03) 24 V(0)	a
1098.262	91052.92		
1098.212	91057.13		
1098.199	91058.15		
1098.160	91061.37		
1098.105	91066.01		
1097.957	91078.23	R(03) 24 V(0)	b
1097.919	91081.37	P(02) 24 V(0)	b
1097.864	91085.95	R(03) 24 V(0)	a
1097.824	91089.24	P(02) 24 V(0)	a
1097.525	91114.08	R(02) 24 V(0)	b
1097.495	91116.56	P(01) 24 V(0)	b
1097.431	91121.89	R(02) 24 V(0)	a
1097.400	91124.48	P(01) 24 V(0)	a
1097.343	91129.23		
1097.299	91132.86		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1097.282	91134.24		
1097.261	91135.99	R(01) 24 V(0)	b
1097.188	91142.11		
1097.166	91143.92	R(01) 24 V(0)	a
1097.166	91143.92	R(00) 24 V(0)	b
1097.070	91151.88	R(00) 24 V(0)	a
1096.946	91162.16		
1096.867	91168.78		
1096.747	91178.72		
1096.725	91180.53		
1096.622	91189.14		
1096.597	91191.24		
1096.586	91192.09		
1096.545	91195.49		
1096.489	91200.22		
1096.460	91202.57		
1096.233	91221.45		
1096.210	91223.37		
1096.177	91226.13		
1096.137	91229.49		
1095.992	91241.57		
1095.976	91242.91		
1095.887	91250.28		
1095.863	91252.31		
1095.839	91254.24		
1095.783	91258.96		
1095.744	91262.17	P(06)	
1095.724	91263.88		
1095.709	91265.12		
1095.683	91267.30		
1095.626	91272.05		
1095.599	91274.30		
1095.416	91289.53		
1095.402	91290.65		
1095.377	91292.79		
1095.320	91297.55		
1095.273	91301.46		
1095.225	91305.46		
1095.111	91314.92	P(05) >0 j(0)	b
1095.091	91316.65	P(05) >0 j(0)	a
1095.006	91323.69		
1094.993	91324.79		
1094.957	91327.75		
1094.859	91335.93		
1094.769	91343.49		
1094.748	91345.19		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1094.669	91351.82		
1094.596	91357.90	P(04) >0 j(0)	b
1094.573	91359.82	P(04) >0 j(0)	a
1094.442	91370.78		
1094.397	91374.55		
1094.365	91377.15		
1094.343	91379.02		
1094.284	91383.95		
1094.264	91385.60		
1094.249	91386.88		
1094.239	91387.75		
1094.217	91389.52		
1094.192	91391.64		
1094.156	91394.62		
1094.127	91397.10		
1094.088	91400.34	P(03) >0 j(0)	b
1094.060	91402.63	P(03) >0 j(0)	a
1094.048	91403.63		
1093.982	91409.20		
1093.974	91409.84		
1093.923	91414.09		
1093.906	91415.53		
1093.893	91416.61		
1093.874	91418.22		
1093.782	91425.89		
1093.692	91433.40		
1093.680	91434.40		
1093.630	91438.64	P(02) >0 j(0)	b
1093.603	91440.84	P(02) >0 j(0)	a
1093.570	91443.61		
1093.546	91445.63		
1093.508	91448.84		
1093.494	91449.95		
1093.438	91454.62		
1093.414	91456.65		
1093.395	91458.25	P(08) 0 r(2)	
1093.350	91462.02		
1093.275	91468.29	P(01) >0 j(0)	b
1093.247	91470.61	P(01) >0 j(0)	a
1093.222	91472.69		
1093.160	91477.93		
1093.131	91480.38		
1093.101	91482.87	P(07) 0 r(2)	
1093.066	91485.79		
1093.046	91487.42		
1093.022	91489.47		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1093.002	91491.16	R(04)? >0 j(0)	b
1092.971	91493.74	R(05)? >0 j(0)	a
1092.938	91496.48		
1092.904	91499.32		
1092.882	91501.16		
1092.869	91502.28	R(03) >0 j(0)	b
1092.852	91503.71	R(00) >0 j(0)	a
1092.845	91504.28	R(03) >0 j(0)	a
1092.826	91505.88	R(02) >0 j(0)	a
1092.814	91506.84	R(01) >0 j(0)	a
1092.799	91508.13		
1092.769	91510.62		
1092.736	91513.40		
1092.719	91514.82		
1092.700	91516.46		
1092.681	91518.00		
1092.655	91520.19		
1092.639	91521.50		
1092.620	91523.10	P(06) 0 r(2)	
1092.564	91527.80		
1092.538	91529.99		
1092.503	91532.89		
1092.503	91532.89		
1092.483	91534.61		
1092.437	91538.44	P(03)	?
1092.415	91540.27	P(04) 0 r(2)	
1092.395	91541.94		
1092.372	91543.90		
1092.353	91545.48		
1092.337	91546.85		
1092.302	91549.75		
1092.290	91550.74		
1092.262	91553.10		
1092.242	91554.84	P(03) 0 r(2)	pt
1092.214	91557.13		
1092.197	91558.55		
1092.179	91560.10		
1092.159	91561.74		
1092.128	91564.33		
1092.102	91566.55		
1092.078	91568.53		
1092.048	91571.07		
1092.028	91572.73		
1091.952	91579.13		
1091.921	91581.75		
1091.917	91582.04		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1091.867	91586.27		
1091.823	91589.94		
1091.805	91591.43		
1091.761	91595.13		
1091.740	91596.87		
1091.720	91598.61		
1091.690	91601.13		
1091.677	91602.16		
1091.656	91603.93		
1091.614	91607.46		
1091.578	91610.47		
1091.563	91611.73		
1091.539	91613.77		
1091.515	91615.82		
1091.495	91617.42	Q(02) 0 r(2)	pt
1091.478	91618.87	Q(06) 0 r(2)	pt
1091.410	91624.62	Q(03) 0 r(2)	
1091.395	91625.82	Q(05) 0 r(2)	
1091.371	91627.90	Q(04) 0 r(2)	
1091.336	91630.78		
1091.310	91633.03		
1091.208	91641.59		
1091.208	91641.59	P(10) 0 r(1)	?
1091.197	91642.44		
1091.175	91644.35		
1091.121	91648.87		
1091.111	91649.69		
1091.095	91651.02		
1091.047	91655.08		
1091.016	91657.66		
1090.996	91659.38	R(01) 0 r(2)	pt
1090.909	91666.70		
1090.871	91669.89		
1090.851	91671.55	P(09) 0 r(1)	?
1090.806	91675.33		
1090.769	91678.45		
1090.742	91680.74		
1090.670	91686.74	R(02) 0 r(2)	
1090.586	91693.82		
1090.562	91695.82		
1090.538	91697.87	P(08) 0 r(1)	
1090.519	91699.42		
1090.474	91703.21		
1090.450	91705.25		
1090.404	91709.10		
1090.382	91710.96*	R(03) 0 r(2)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1090.259	91721.33		
1090.241	91722.82	P(07) 0 r(1)	
1090.162	91729.45		
1090.118	91733.22	R(04) 0 r(2)	
1090.032	91740.43		
1089.987	91744.20	P(06) 0 r(1)	'
1089.935	91748.62		
1089.883	91752.95*	R(05) 0 r(2)	P(06) r(1)
1089.837	91756.80		
1089.805	91759.56		
1089.772	91762.34		
1089.748	91764.35		
1089.707	91767.79	P(05) 0 r(1)	
1089.684	91769.73	R(06) 0 r(2)	
1089.678	91770.24		
1089.545	91781.39		
1089.519	91783.65	R(07)? 0 r(2)	pt
1089.472	91787.62	P(04) 0 r(1)	
1089.416	91792.28		
1089.267	91804.88		
1089.239	91807.21	P(03) 0 r(1)	
1089.204	91810.16		
1089.161	91813.83		
1089.109	91818.17		
1089.100	91818.95		
1089.025	91825.28		
1089.015	91826.13	P(02) 0 r(1)	
1088.969	91829.96		
1088.935	91832.88		
1088.881	91837.41	P(05) 26 V(0)	b
1088.864	91838.86		
1088.822	91842.39		
1088.777	91846.13	P(05) 26 V(0)	a
1088.733	91849.88		
1088.724	91850.67		
1088.700	91852.68		
1088.662	91855.87	Q(08) 0 r(1)	
1088.580	91862.76	Q(07) 0 r(1)	
1088.543	91865.90		
1088.526	91867.31	Q(06) 0 r(1)	
1088.517	91868.09	Q(HD) 0 r(1)	
1088.510	91868.71		
1088.431	91875.33		
1088.389	91878.91		
1088.348	91882.34		
1088.306	91885.90		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1088.271	91888.90	R(00) 0 r(1)	
1088.223	91892.95		
1088.181	91896.49		
1088.136	91900.28		
1088.105	91902.93	R(05) 26 V(0)	?
1088.095	91903.77		
1088.049	91907.59		
1088.020	91910.09		
1088.004	91911.39	R(01) 0 r(1)	
1087.961	91915.02		
1087.926	91918.03	P(04) 26 V(0)	b
1087.868	91922.92		
1087.825	91926.55	P(04) 26 V(0)	a
1087.772	91931.01		
1087.741	91933.65	R(02) 0 r(1)	
1087.728	91934.76		
1087.684	91938.44		
1087.677	91939.05		
1087.630	91943.01		
1087.582	91947.12		
1087.532	91951.31		
1087.498	91954.20		
1087.484	91955.34	R(03) 0 r(1)	
1087.477	91955.95		
1087.435	91959.51		
1087.382	91964.02		
1087.369	91965.08		
1087.359	91965.97		
1087.332	91968.24	P(10) 1 K(1)	
1087.323	91968.95		
1087.276	91972.99	R(04) 0 r(1)	'
1087.226	91977.19		
1087.168	91982.10	R(04) 0 r(1)	
1087.159	91982.87	P(03) 26 V(0)	b
1087.124	91985.85		
1087.053	91991.81	P(03) 26 V(0)	a
1087.040	91992.97	R(05) 0 r(1)	
1086.931	92002.20	P(10) 0 q(2)	
1086.873	92007.04		
1086.849	92009.09	R(06) 0 r(1)	
1086.849	92009.09	P(09) 1 K(1)	
1086.684	92023.03	R(07) 0 l(1)	?
1086.661	92025.06	R(03) 26 V(0)	b
1086.557	92033.82	R(08) 0 L(1)	
1086.557	92033.82	R(03) 26 V(0)	a
1086.557	92033.82	P(02) 26 V(0)	b

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1086.454	92042.52	P(02) 26 V(0)	a
1086.422	92045.30		
1086.412	92046.12		
1086.391	92047.88	P(08) 1 K(1)	
1086.374	92049.32	P(09) 0 r(2)	
1086.336	92052.57		
1086.309	92054.82		
1086.276	92057.60		
1086.260	92059.02		
1086.230	92061.51		
1086.203	92063.80	R(02) 26 V(0)	b
1086.168	92066.80		
1086.133	92069.74	P(01) 26 V(0)	b
1086.103	92072.30	R(02) 26 V(0)	a
1086.032	92078.33	P(01) 26 V(0)	a
1085.977	92082.96		
1085.934	92086.62	P(07) 1 K(1)	*
1085.934	92086.62	R(01) 26 V(0)	b
1085.923	92087.58		
1085.891	92090.28	P(08) 0 r(2)	
1085.871	92091.96		
1085.821	92096.22	R(00) 26 V(0)	b
1085.821	92096.22	R(01) 26 V(0)	a
1085.715	92105.17	R(00) 26 V(0)	a
1085.674	92108.66		
1085.547	92119.44	P(06) 1 K(1)	b
1085.531	92120.82	P(06) 1 K(1)	a
1085.501	92123.32		
1085.450	92127.72		
1085.409	92131.20	P(07) 0 r(2)	
1085.358	92135.51		
1085.344	92136.69		
1085.331	92137.76		
1085.302	92140.26		
1085.254	92144.31		
1085.215	92147.67		
1085.200	92148.94		
1085.152	92153.00	P(05) 1 K(1)	b
1085.136	92154.31	P(05) 1 K(1)	a
1085.073	92159.68		
1085.054	92161.33		
1085.046	92162.02		
1085.026	92163.69		
1084.995	92166.35	P(06) 0 r(2)	
1084.938	92171.17		
1084.910	92173.53		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1084.895	92174.83		
1084.844	92179.13		
1084.840	92179.52		
1084.814	92181.73		
1084.786	92184.04	P(04) 1 K(1)	b
1084.769	92185.49	P(04) 1 K(1)	a
1084.715	92190.11		
1084.689	92192.28		
1084.672	92193.74		
1084.635	92196.94		
1084.618	92198.37	Q(07) 1 K(1)	
1084.603	92199.66	P(05) 0 r(2)	
1084.562	92203.09		
1084.526	92206.21		
1084.448	92212.80	P(03) 1 K(1)	b
1084.431	92214.27	P(03) 1 K(1)	a
1084.383	92218.35	Q(06) 1 K(1)	
1084.335	92222.40		
1084.311	92224.47		
1084.283	92226.82		
1084.246	92229.98	P(04) 0 r(2)	
1084.239	92230.58		
1084.164	92236.98	Q(05) 1 K(1)	
1084.143	92238.77	P(02) 1 K(1)	b
1084.122	92240.50	P(02) 1 K(1)	a
1084.074	92244.60		
1084.056	92246.16		
1083.993	92251.51	Q(04) 1 K(1)	b
1083.972	92253.30	Q(04) 1 K(1)	a
1083.972	92253.30	P(08) 0 R(1)	
1083.910	92258.54	P(03) 0 r(2)	
1083.846	92264.03	Q(03) 1 K(1)	b
1083.826	92265.77	Q(03) 1 K(1)	a
1083.733	92273.69	Q(02) 1 K(1)	b
1083.714	92275.24	Q(02) 1 K(1)	a
1083.673	92278.78	Q(06) 0 r(2)	?
1083.658	92280.05	Q(01) 1 K(1)	b
1083.639	92281.69	Q(01) 1 K(1)	a
1083.639	92281.69	P(07) 0 R(1)	
1083.609	92284.22	P(02) 0 r(2)	
1083.558	92288.58		
1083.536	92290.41	Q(05) 0 r(2)	
1083.514	92292.27		
1083.445	92298.21		
1083.406	92301.50	R(00) 1 K(1)	b
1083.387	92303.16	R(00) 1 K(1)	a

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1083.378	92303.91	Q(04)	0 r(2)	
1083.320	92308.79	P(06)	0 R(1)	
1083.265	92313.50	Q(03)	0 r(2)	
1083.225	92316.96	R(01)	1 K(1)	b
1083.205	92318.60	R(01)	1 K(1)	a
1083.180	92320.74	Q(02)	0 r(2)	
1083.145	92323.71			
1083.127	92325.27			
1083.074	92329.83	R(02)	1 K(1)	b
1083.054	92331.49	R(02)	1 K(1)	a
1083.021	92334.33	P(05)	0 R(1)	
1082.974	92338.36			
1082.953	92340.11	R(03)	1 K(1)	b
1082.933	92341.79	R(03)	1 K(1)	a
1082.872	92346.99			
1082.856	92348.40	R(04)	1 K(1)	b
1082.841	92349.69	R(04)	1 K(1)	a
1082.804	92352.79			
1082.786	92354.33			
1082.760	92356.55	R(05)	1 K(1)	b ?
1082.739	92358.38	R(05)	1 K(1)	a ?
1082.739	92358.38	P(04)	0 R(1)	
1082.718	92360.17			
1082.702	92361.54			
1082.687	92362.77	R(01)	0 r(2)	
1082.666	92364.62			
1082.648	92366.16			
1082.636	92367.12			
1082.576	92372.30			
1082.550	92374.47			
1082.528	92376.32	R(02)	0 r(2)	
1082.514	92377.58			
1082.491	92379.51			
1082.465	92381.75	P(03)	0 R(1)	
1082.401	92387.24	R(03)	0 R(1)	
1082.378	92389.19			
1082.357	92390.92			
1082.326	92393.59	Q(09)	0 R(1)	
1082.308	92395.15	R(04)	0 r(2)	
1082.308	92395.15	R(08)	0 r(2)	
1082.236	92401.26	R(05)	0 r(2)	
1082.236	92401.26	R(06)	0 r(2)	
1082.236	92401.26	R(07)	0 r(2)	
1082.203	92404.07	Q(08)	0 R(1)	
1082.203	92404.07	P(02)	0 R(1)	
1082.170	92406.96			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1082.127	92410.60			
1082.093	92413.53	Q(07)	0 R(1)	
1082.075	92415.04			
1082.053	92416.95			
1081.996	92421.79	Q(06)	0 R(1)	
1081.924	92427.96			
1081.910	92429.13	Q(05)	0 R(1)	
1081.845	92434.69	Q(04)	0 R(1)	
1081.831	92435.84			
1081.802	92438.37			
1081.791	92439.30	Q(03)	0 R(1)	
1081.749	92442.87	Q(02)	0 R(1)	
1081.722	92445.17	Q(01)	0 R(1)	
1081.697	92447.33			
1081.675	92449.21			
1081.646	92451.70			
1081.609	92454.84			
1081.565	92458.60			
1081.536	92461.06			
1081.511	92463.19			
1081.471	92466.64	R(00)	0 R(1)	
1081.434	92469.77			
1081.405	92472.30			
1081.371	92475.21			
1081.351	92476.94			
1081.338	92478.04			
1081.308	92480.61			
1081.261	92484.64			
1081.244	92486.04	R(01)	0 R(1)	
1081.207	92489.26			
1081.168	92492.54			
1081.124	92496.31			
1081.092	92499.10			
1081.072	92500.78			
1081.032	92504.16	R(02)	0 R(1)	
1117.227	89507.29			
1080.974	92509.12			
1080.964	92509.99			
1080.947	92511.49			
1080.933	92512.64			
1080.913	92514.34			
1080.895	92515.96			
1080.872	92517.86			
1080.827	92521.75	R(03)	0 R(1)	
1080.800	92524.04			
1080.772	92526.45			

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1080.749	92528.45		
1080.698	92532.82		
1080.643	92537.52	R(04) 0 R(1)	
1080.613	92540.07		
1080.596	92541.51		
1080.577	92543.12		
1080.523	92547.77		
1080.474	92551.96	R(05) 0 R(1)	
1080.457	92553.46		
1080.420	92556.57		
1080.410	92557.42		
1080.390	92559.19		
1080.358	92561.92		
1080.326	92564.63	R(06) 0 R(1)	
1080.306	92566.39		
1080.289	92567.78		
1080.271	92569.37		
1080.244	92571.70		
1080.227	92573.11		
1080.208	92574.75		
1080.188	92576.50	R(07) 0 R(1)	
1080.150	92579.76		
1080.135	92581.06		
1080.114	92582.82		
1080.071	92586.53	R(08) 0 R(1)	?
1080.004	92592.29		
1079.974	92594.84	P(10) 2 H(0)	
1079.963	92595.78		
1079.950	92596.89		
1079.927	92598.82		
1079.900	92601.14		
1079.856	92604.97		
1079.813	92608.61		
1079.801	92609.62		
1079.777	92611.68		
1079.719	92616.65		
1079.700	92618.30		
1079.668	92621.09		
1079.646	92622.93		
1079.632	92624.13		
1079.592	92627.59		
1079.567	92629.74		
1079.509	92634.70		
1079.502	92635.28		
1079.492	92636.18		
1079.481	92637.15		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1079.461	92638.79		
1079.406	92643.54		
1079.388	92645.05		
1079.353	92648.13		
1079.341	92649.09	P(09) 2 H(0)	b
1079.327	92650.31	P(09) 2 H(0)	a
1079.294	92653.18		
1079.243	92657.56		
1079.227	92658.93		
1079.219	92659.64		
1079.195	92661.64		
1079.152	92665.36		
1079.134	92666.88		
1079.103	92669.53		
1079.103	92669.53	P(06) 1 m(0)	b
1079.058	92673.40		
1079.046	92674.48		
1079.027	92676.11	P(06) 1 m(0)	a
1079.001	92678.34		
1078.970	92680.94		
1078.927	92684.71		
1078.884	92688.34		
1078.846	92691.66		
1078.817	92694.09		
1078.778	92697.45		
1078.767	92698.46		
1078.699	92704.24	P(08) 2 H(0)	b
1078.689	92705.12	P(08) 2 H(0)	a
1078.615	92711.49		
1078.606	92712.25		
1078.562	92716.05		
1078.556	92716.55		
1078.510	92720.50		
1078.497	92721.64		
1078.483	92722.87		
1078.447	92725.90		
1078.430	92727.36		
1078.415	92728.65		
1078.394	92730.49		
1078.385	92731.24		
1078.370	92732.57		
1078.345	92734.73		
1078.311	92737.66		
1078.290	92739.40		
1078.267	92741.39		
1078.245	92743.26		

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1078.226	92744.94	P(05)	1 m(0)	b
1078.216	92745.83			
1078.181	92748.83			
1078.170	92749.79	P(05)	1 m(0)	a
1078.141	92752.22			
1078.119	92754.11	P(07)	2 H(0)	b
1078.108	92755.08	P(07)	2 H(0)	a
1078.076	92757.88			
1078.052	92759.87			
1078.046	92760.44			
1078.015	92763.12			
1078.003	92764.09			
1077.983	92765.86			
1077.955	92768.22			
1077.934	92770.02			
1077.927	92770.63			
1077.919	92771.37			
1077.907	92772.40			
1077.887	92774.13			
1077.867	92775.84			
1077.853	92777.06			
1077.833	92778.77			
1077.821	92779.75			
1077.811	92780.61			
1077.798	92781.78			
1077.780	92783.35			line like
1077.761	92784.93			line line
1077.747	92786.14			
1077.727	92787.87			
1077.705	92789.73			
1077.688	92791.24			
1077.666	92793.12			
1077.642	92795.20			
1077.621	92797.01			
1077.603	92798.57			
1077.594	92799.34			
1077.570	92801.42	P(06)	2 H(0)	b
1077.551	92803.02	P(06)	2 H(0)	a
1077.520	92805.73			
1077.504	92807.09			
1077.475	92809.62	P(04)	1 m(0)	b
1077.436	92812.95			
1077.422	92814.12	P(04)	1 m(0)	a
1077.379	92817.83			
1077.363	92819.21			
1077.337	92821.47			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1077.298	92824.79			
1077.281	92826.25			
1077.270	92827.27			
1077.246	92829.33			
1077.224	92831.19			
1077.191	92834.01			
1077.149	92837.68			
1077.140	92838.46			
1077.085	92843.16			
1077.065	92844.94	P(05)	2 H(0)	b
1077.040	92847.09	P(05)	2 H(0)	a
1076.998	92850.67			
1076.984	92851.92			
1076.965	92853.55	P(03)	1 m(0)	b
1076.951	92854.70			
1076.925	92856.94	P(03)	1 m(0)	a
1076.901	92859.06			
1076.885	92860.41			
1076.868	92861.90			
1076.843	92864.02			
1076.835	92864.73			
1076.811	92866.84			
1076.785	92869.01			
1076.777	92869.76			
1076.747	92872.33			
1076.739	92872.98			
1076.709	92875.63			
1076.691	92877.19			
1076.684	92877.79			
1076.676	92878.48			
1076.666	92879.33			
1076.650	92880.68			
1076.639	92881.62			
1076.628	92882.56			
1076.621	92883.21	P(04)	2 H(0)	b ?
1076.607	92884.38	P(02)	1 m(0)	b '
1076.587	92886.13	P(04)	2 H(0)	a
1076.587	92886.13	P(02)	1 m(0)	b
1076.577	92886.97	P(02)	1 m(0)	a ?
1076.546	92889.68			
1076.531	92890.98			
1076.520	92891.93			
1076.508	92892.91			
1076.497	92893.90			
1076.488	92894.64			
1076.462	92896.91			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1076.448	92898.16			
1076.439	92898.89			
1076.418	92900.71	P(02)	1 m(0)	
1076.382	92903.84			
1076.367	92905.14	R(04)	1 m(0)	a
1076.337	92907.74			
1076.320	92909.19			
1076.291	92911.66			
1076.285	92912.21			
1076.261	92914.28			
1076.236	92916.46			
1076.211	92918.58			
1076.171	92922.07	P(03)	2 H(0)	
1076.132	92925.44			
1076.119	92926.49			
1076.100	92928.18			
1076.077	92930.15			
1076.051	92932.39	R(03)	1 m(0)	b
1076.035	92933.75			
1076.015	92935.50			
1075.996	92937.15	R(03)	1 m(0)	a
1075.978	92938.70			
1075.967	92939.63			
1075.942	92941.83			
1075.922	92943.56			
1075.916	92944.07			
1075.889	92946.35	R(00)	1 m(0)	b
1075.864	92948.52	R(00)	1 m(0)	b
1075.847	92950.04	R(00)	1 m(0)	a
1075.816	92952.74			
1075.786	92955.31	R(02)	1 m(0)	b
1075.760	92957.55	R(01)	1 m(0)	b
1075.728	92960.26	R(02)	1 m(0)	a
1075.719	92961.06	R(01)	1 m(0)	a
1075.690	92963.57	R(00)	1 m(0)	
1075.667	92965.55			
1075.638	92968.06			
1075.615	92970.11			
1075.599	92971.47			
1075.585	92972.65			
1075.575	92973.50			
1075.554	92975.35			
1075.531	92977.30			
1075.526	92977.77	P(02)	2 H(0)	?
1075.505	92979.57			
1075.497	92980.28			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1075.480	92981.72			
1075.473	92982.33			
1075.462	92983.30			
1075.455	92983.86			
1075.437	92985.45			
1075.429	92986.17			
1075.411	92987.73	R(08)	2 H(0)	
1075.403	92988.39			
1075.376	92990.70			
1075.347	92993.25			
1075.339	92993.89			
1075.312	92996.29			
1075.293	92997.88			
1075.273	92999.62			
1075.259	93000.84	R(07)	2 H(0)	b
1075.235	93002.91	R(07)	2 H(0)	a
1075.229	93003.45			
1075.188	93007.03			
1075.169	93008.64			
1075.139	93011.24			
1075.089	93015.59	R(06)	2 H(0)	b
1075.077	93016.55	R(06)	2 H(0)	a
1075.061	93017.95			
1075.036	93020.12			
1075.022	93021.36			
1074.993	93023.89	R(05)	2 H(0)	b
1074.976	93025.34	R(05)	2 H(0)	a
1074.976	93025.34	R(01)	2 H(0)	a
1074.922	93030.01	R(04)	2 H(0)	b
1074.897	93032.14	R(04)	2 H(0)	a
1074.897	93032.14	R(02)	2 H(0)	a
1074.897	93032.14	R(03)	2 H(0)	b
1074.869	93034.63	R(03)	2 H(0)	a
1074.843	93036.85			
1074.827	93038.26			
1074.813	93039.45			
1074.789	93041.52			
1074.772	93042.99			
1074.752	93044.69			
1074.733	93046.39			
1074.709	93048.43			
1074.694	93049.73			
1074.677	93051.17			
1074.647	93053.77			
1074.626	93055.67			
1074.610	93057.01			

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1074.587	93058.99		
1074.567	93060.71		
1074.546	93062.52		
1074.531	93063.86		
1074.514	93065.29		
1074.480	93068.27		
1074.464	93069.64		
1074.451	93070.76		
1074.415	93073.92		
1074.393	93075.85		
1074.371	93077.73	P(07) 1 M(1)	b
1074.349	93079.63	P(07) 1 M(1)	a
1074.344	93080.09		
1074.313	93082.71		
1074.302	93083.68		
1074.285	93085.20		
1074.271	93086.39		
1074.265	93086.94		
1074.239	93089.14		
1074.219	93090.90		
1074.187	93093.64		
1074.160	93096.04		
1074.128	93098.74	P(06) 1 M(1)	b
1074.103	93100.91	P(06) 1 M(1)	a
1074.065	93104.22		
1074.058	93104.87		
1074.034	93106.88		
1074.013	93108.77		
1074.001	93109.78		
1085.649	92110.84		
1073.959	93113.40		
1073.946	93114.59		
1085.587	92116.03		
1073.874	93120.77		
1073.803	93126.93	P(05) 1 M(1)	b
1073.784	93128.61	P(05) 1 M(1)	a
1073.724	93133.80		
1073.606	93144.04		
1073.591	93145.38		
1073.514	93152.05	P(04) 1 M(1)	b
1073.501	93153.13	P(04) 1 M(1)	a
1073.432	93159.18		
1073.340	93167.09	Q(09) 1 M(1)	b
1073.321	93168.76	Q(09) 1 M(1)	a
1073.246	93175.29	P(03) 1 M(1)	b
1073.228	93176.86	P(03) 1 M(1)	a

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1073.202	93179.09		
1073.170	93181.89	Q(08) 1 M(1)	b
1073.153	93183.39	Q(08) 1 M(1)	a
1073.118	93186.42		
1073.089	93188.90		
1073.077	93189.98		
1073.057	93191.65		
1073.020	93194.88	Q(07) 1 M(1)	b
1073.000	93196.63	Q(07) 1 M(1)	a
1072.991	93197.42	P(02) 1 M(1)	b
1072.964	93199.73	P(02) 1 M(1)	a
1072.922	93203.40		
1072.892	93205.99	Q(06) 1 M(1)	b
1072.871	93207.83	Q(06) 1 M(1)	a
1072.814	93212.77		
1072.777	93216.05	Q(05) 1 M(1)	b
1072.758	93217.63	Q(05) 1 M(1)	a
1072.708	93222.03	P(08) >0 (0+?)	'
1072.683	93224.20	Q(04) 1 M(1)	b
1072.666	93225.70	Q(04) 1 M(1)	a
1072.609	93230.61	Q(03) 1 M(1)	b
1072.590	93232.24	Q(03) 1 M(1)	a
1072.574	93233.69		
1072.554	93235.42	Q(02) 1 M(1)	b
1072.534	93237.11	Q(02) 1 M(1)	a
1072.519	93238.44	Q(01) 1 M(1)	b
1072.497	93240.35	Q(01) 1 M(1)	a
1072.449	93244.50		
1072.421	93246.99		
1072.404	93248.46		
1072.378	93250.74		
1072.357	93252.50		
1072.342	93253.85		
1072.314	93256.29		
1072.288	93258.56		
1072.266	93260.41	R(00) 1 M(1)	b
1072.248	93262.01	R(00) 1 M(1)	a
1072.175	93268.34	P(07) >0 (0+?)	'
1072.143	93271.15		
1072.122	93272.98		
1072.095	93275.35		
1072.060	93278.33		
1072.047	93279.46	R(01) 1 M(1)	b
1072.025	93281.40	R(01) 1 M(1)	a
1072.019	93281.96		
1071.969	93286.29		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1071.940	93288.80		
1071.921	93290.49		
1071.877	93294.29		
1071.839	93297.62	R(02) 1 M(1)	b
1071.820	93299.26	R(02) 1 M(1)	a
1071.795	93301.40		
1071.748	93305.49		
1071.664	93312.87	P(06) >0 (0+?)	'
1071.652	93313.88	R(03) 1 M(1)	b
1071.625	93316.20	R(03) 1 M(1)	a
1071.578	93320.33		
1071.559	93321.94		
1071.529	93324.60		
1071.496	93327.44	R(04) 1 M(1)	b
1071.467	93329.94	R(04) 1 M(1)	a
1071.433	93332.92		
1071.427	93333.49		
1071.405	93335.42		
1071.382	93337.40		
1071.352	93340.04		
1071.323	93342.54		
1071.303	93344.23		
1071.295	93344.98		
1071.283	93346.03		
1071.260	93348.00	R(05) 1 M(1)	b
1071.234	93350.29	R(05) 1 M(1)	a
1071.190	93354.12		
1071.171	93355.79		
1071.156	93357.06		
1071.149	93357.71	P(05) >0 (0+?)	'
1071.118	93360.41		
1071.095	93362.41		
1071.075	93364.15		
1071.067	93364.88		
1071.021	93368.89		
1070.984	93372.06		
1070.964	93373.86		
1070.927	93377.05		
1070.887	93380.50		
1070.876	93381.47		
1070.850	93383.79		
1070.817	93386.62		
1070.804	93387.80		
1070.792	93388.86		
1070.754	93392.09		
1070.737	93393.64		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1070.718	93395.24		
1070.692	93397.52		
1070.665	93399.92		
1070.646	93401.53		
1070.632	93402.80	P(04) >0 (0+?)	'
1070.621	93403.70	P(04) >0 (0+?)	
1070.580	93407.35		
1070.557	93409.34		
1070.537	93411.10		
1070.515	93412.96		
1070.496	93414.65		
1070.454	93418.32		
1070.439	93419.63		
1070.427	93420.64		
1070.415	93421.72		
1070.389	93423.98		
1070.366	93425.99		
1070.360	93426.52		
1070.342	93428.07		
1070.313	93430.57		
1070.301	93431.68		
1070.274	93433.98		
1070.247	93436.39		
1070.211	93439.52		
1070.194	93441.00		
1070.166	93443.41		
1070.134	93446.23	P(03) >0 (0+?)	'
1070.115	93447.94	P(03) >0 (0+?)	
1070.065	93452.27		
1070.058	93452.88		
1070.040	93454.47		
1070.026	93455.65		
1069.987	93459.06		
1069.936	93463.53		
1069.903	93466.40		
1069.866	93469.66		
1069.828	93472.93		
1069.816	93474.04		
1069.786	93476.62		
1069.763	93478.65		
1069.739	93480.74		
1069.717	93482.71		
1069.683	93485.62		
1069.654	93488.14		
1069.619	93491.20		
1069.600	93492.91		

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1069.578	93494.80	P(02)	>0 (0+?)	'
1069.568	93495.70	P(02)	>0 (0+?)	
1069.537	93498.38			
1069.489	93502.56			
1069.470	93504.26			
1069.449	93506.11			
1069.434	93507.38			
1069.384	93511.75			
1069.375	93512.53			
1069.342	93515.48			
1069.312	93518.06			
1069.280	93520.87			
1069.250	93523.53			
1069.233	93524.96			
1069.214	93526.64			
1069.199	93528.00			
1069.177	93529.92			
1069.150	93532.27			
1069.139	93533.20	R(06)	>0 (0+?)	'
1069.099	93536.70			
1069.079	93538.46	R(05)	>0 (0+?)	'
1069.041	93541.80	R(04)	>0 (0+?)	'
1069.015	93544.05			
1069.004	93545.03	R(03)	>0 (0+?)	'
1068.961	93548.78	R(02)	>0 (0+?)	'
1068.943	93550.32	R(01)	>0 (0+?)	'
1068.919	93552.48	R(01)	>0 (0+?)	
1068.892	93554.85			
1068.866	93557.09	R(00)	>0 (0+?)	'
1068.849	93558.60	R(00)	>0 (0+?)	
1068.803	93562.59			
1068.751	93567.19			
1068.716	93570.22			
1068.699	93571.70			
1068.668	93574.42			
1068.654	93575.65			
1068.646	93576.35			
1068.605	93579.92			
1068.577	93582.39			
1068.569	93583.11			
1068.536	93585.97			
1068.524	93587.03			
1068.494	93589.65			
1068.476	93591.22			
1068.454	93593.16			
1068.446	93593.88			

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1068.419	93596.21		
1068.397	93598.17		
1068.383	93599.37		
1068.356	93601.77		
1068.322	93604.70		
1068.306	93606.13		
1068.272	93609.13		
1068.230	93612.81		
1068.180	93617.22		
1068.171	93617.94		
1068.159	93619.01		
1068.121	93622.38		
1068.094	93624.73		
1068.071	93626.71		
1068.028	93630.50		
1068.002	93632.75		
1067.993	93633.55		
1067.957	93636.77		
1067.945	93637.78		
1067.937	93638.48		
1067.925	93639.54		
1067.900	93641.72		
1067.870	93644.37		
1067.852	93645.96		
1067.819	93648.85		
1067.796	93650.81		
1067.764	93653.62		
1067.736	93656.10		
1067.712	93658.20		
1067.678	93661.21		
1067.660	93662.75		
1064.600	93931.98		
1064.411	93948.70		
1064.357	93953.40		
1064.343	93954.68		
1064.278	93960.43		
1064.258	93962.21		
1064.234	93964.30		
1064.166	93970.28		
1064.136	93972.91		
1064.112	93975.09		
1064.072	93978.59		
1063.996	93985.35		
1063.957	93988.77		
1063.838	93999.28		
1063.804	94002.27		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1063.733	94008.55		
1063.695	94011.91		
1063.675	94013.64		
1063.643	94016.50		
1063.612	94019.27		
1063.575	94022.55		
1063.540	94025.65		
1063.493	94029.77		
1063.459	94032.78		
1063.422	94036.03		
1063.364	94041.16		
1063.326	94044.56		
1063.300	94046.83		
1063.255	94050.78		
1063.242	94051.97		
1063.198	94055.87		
1063.182	94057.29		
1063.147	94060.39		
1063.137	94061.25		
1063.109	94063.73		
1063.100	94064.50		
1063.048	94069.14		
1062.982	94074.93		
1062.932	94079.37		
1062.881	94083.94		
1062.832	94088.21		
1062.788	94092.16		
1062.736	94096.76		
1062.724	94097.84		
1062.692	94100.64		
1062.624	94106.70		
1062.583	94110.27		
1062.521	94115.75		
1062.456	94121.57		
1062.303	94135.12		
1062.259	94138.98	P(09) >0 W(0)	
1062.234	94141.20		
1062.212	94143.14		
1062.161	94147.68		
1062.137	94149.81		
1062.102	94152.94		
1062.008	94161.27		
1061.999	94162.01		
1061.966	94164.93		
1061.934	94167.80		
1061.870	94173.48		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1061.803	94179.44		
1061.761	94183.16		
1061.718	94186.99		
1061.671	94191.13		
1061.636	94194.26	P(08) >0 W(0)	
1061.607	94196.83		
1061.516	94204.88		
1061.495	94206.77		
1061.476	94208.43	P(07) >0 W(0)	b
1061.462	94209.71	P(07) >0 W(0)	a
1061.385	94216.55		
1061.333	94221.14		
1061.311	94223.13		
1061.270	94226.72		
1061.245	94228.96		
1061.226	94230.61		
1061.174	94235.25		
1061.155	94236.97		
1061.132	94239.02		
1061.119	94240.16		
1061.081	94243.55		
1061.042	94246.99		
1061.021	94248.84	P(06) >0 W(0)	b
1061.016	94249.24	P(06) >0 W(0)	a
1060.971	94253.30		
1060.937	94256.33		
1060.910	94258.73		
1060.871	94262.19		
1060.827	94266.09		
1060.772	94270.93		
1060.740	94273.78		
1060.677	94279.41		
1060.661	94280.85		
1060.624	94284.08	P(05) >0 W(0)	b
1060.618	94284.63	P(05) >0 W(0)	a
1060.573	94288.67		
1060.548	94290.84		
1060.475	94297.33		
1060.400	94304.06		
1060.376	94306.20		
1060.357	94307.86		
1060.331	94310.17		
1060.261	94316.36	P(04) >0 W(0)	b
1060.256	94316.88		
1060.250	94317.40	P(04) >0 W(0)	a
1060.232	94319.02		

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1060.181	94323.52			
1060.146	94326.63			
1060.121	94328.83			
1060.096	94331.10			
1060.054	94334.85			
1060.044	94335.71			
1059.959	94343.29			
1059.919	94346.86	P(03)	>0 W(0)	b
1059.906	94347.97	P(03)	>0 W(0)	a
1059.900	94348.54			
1059.870	94351.22			
1059.827	94355.05			
1059.818	94355.80			
1059.785	94358.72			
1059.757	94361.29			
1059.744	94362.44			
1059.705	94365.84			
1059.679	94368.16			
1059.608	94374.51	P(02)	>0 W(0)	b
1059.586	94376.45	P(02)	>0 W(0)	a
1059.531	94381.36			
1059.498	94384.29			
1059.480	94385.95			
1059.464	94387.33			
1059.450	94388.60			
1059.416	94391.60			
1059.386	94394.30			
1059.357	94396.91			
1059.331	94399.19	P(01)	>0 W(0)	b
1058.294	94491.72	P(01)	>0 W(0)	a
1059.277	94403.97			
1059.243	94407.01			
1059.220	94409.09			
1059.199	94411.00			
1059.103	94419.51			
1059.068	94422.61			
1059.042	94425.00			
1059.004	94428.39			
1058.978	94430.71			
1058.908	94436.89	R(00)	>0 W(0)	b
1058.883	94439.12	R(00)	>0 W(0)	a
1058.807	94445.90			
1058.755	94450.58	R(01)	>0 W(0)	b
1058.736	94452.27	R(01)	>0 W(0)	a
1058.648	94460.14			
1058.626	94462.04	R(02)	>0 W(0)	b

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1058.613	94463.26	R(02)	>0 W(0)	a
1058.583	94465.93			
1058.526	94471.03	R(03)	>0 W(0)	b
1058.513	94472.14	R(03)	>0 W(0)	a
1058.483	94474.81			
1058.457	94477.14	R(04)	>0 W(0)	b
1058.444	94478.35	R(05)	>0 W(0)	b
1058.444	94478.35	R(04)	>0 W(0)	a
1058.431	94479.47	R(05)	>0 W(0)	a
1058.393	94482.85			
1058.366	94485.30			
1058.351	94486.61			
1058.317	94489.68			
1058.303	94490.92			
1058.269	94493.89			
1058.252	94495.41			
1058.202	94499.90			
1058.178	94502.02			
1058.139	94505.57	R(06)	>0 W(0)	?
1058.121	94507.11			
1058.090	94509.92			
1058.058	94512.79			
1057.964	94521.13			
1057.938	94523.53			
1057.844	94531.92			
1057.816	94534.43			
1057.755	94539.81			
1057.728	94542.23			
1057.675	94547.00			
1057.610	94552.84			
1057.569	94556.45			
1057.518	94561.06			
1057.444	94567.66			
1057.418	94569.96			
1057.377	94573.63			
1057.332	94577.64			
1057.182	94591.13			
1057.102	94598.26			
1057.048	94603.05			
1057.021	94605.53			
1057.000	94607.38			
1056.941	94612.67			
1056.907	94615.68			
1056.895	94616.82			
1056.798	94625.44			
1056.757	94629.09			

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1056.721	94632.35		
1056.673	94636.62		
1056.632	94640.33		
1056.602	94643.00		
1056.579	94645.05		
1056.548	94647.86		
1056.513	94650.96		
1056.474	94654.52		
1056.432	94658.20		
1056.395	94661.58		
1056.372	94663.65		
1056.305	94669.65		
1056.275	94672.35		
1056.257	94673.97		
1056.209	94678.19		
1056.186	94680.33		
1056.151	94683.46		
1056.133	94685.04		
1056.093	94688.63		
1056.066	94691.09		
1056.025	94694.75		
1056.004	94696.62		
1055.977	94699.04		
1055.960	94700.57		
1055.938	94702.49		
1055.923	94703.91		
1055.881	94707.65		
1055.857	94709.78		
1055.840	94711.31		
1055.822	94712.93		
1055.783	94716.45		
1055.748	94719.57		
1055.732	94721.00		
1055.711	94722.90		
1055.656	94727.83		
1055.641	94729.18		
1055.616	94731.44		
1055.554	94736.97		
1055.520	94740.03		
1055.494	94742.39		
1055.456	94745.77		
1055.421	94748.90		
1055.398	94750.96		
1055.299	94759.89		
1055.261	94763.25		
1055.229	94766.12		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1055.205	94768.35		
1055.178	94770.74		
1055.144	94773.83		
1055.100	94777.71		
1055.063	94781.03		
1055.042	94783.00		
1054.931	94792.95		
1054.907	94795.12		
1054.872	94798.21		
1054.853	94799.94		
1054.826	94802.35		
1054.804	94804.37		
1054.778	94806.72		
1054.758	94808.46		
1054.728	94811.18		
1054.695	94814.16		
1054.675	94815.94		
1054.659	94817.35		
1054.622	94820.68		
1054.568	94825.56		
1054.544	94827.71		
1054.526	94829.37		
1054.487	94832.83		
1054.458	94835.41		
1054.422	94838.67		
1054.400	94840.70		
1054.358	94844.43		
1054.331	94846.87		
1054.310	94848.77		
1054.284	94851.14		
1054.259	94853.35		
1054.223	94856.62		
1054.202	94858.51		
1054.158	94862.43		
1054.119	94865.91		
1054.105	94867.24		
1054.058	94871.45		
1054.025	94874.44		
1053.983	94878.23		
1053.945	94881.57		
1053.925	94883.45		
1053.898	94885.84		
1053.861	94889.21		
1053.834	94891.64		
1053.807	94894.02		
1053.735	94900.51		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1053.710	94902.80		
1053.656	94907.59		
1053.630	94909.95		
1053.597	94912.94		
1053.569	94915.43		
1053.545	94917.60		
1053.536	94918.44		
1053.477	94923.73		
1053.432	94927.86		
1053.404	94930.36		
1053.376	94932.87		
1053.347	94935.48		
1053.324	94937.57		
1053.293	94940.32		
1053.259	94943.37		
1053.192	94949.48		
1053.157	94952.64		
1053.129	94955.16		
1053.102	94957.56		
1053.042	94962.94		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1052.994	94967.29		
1052.958	94970.57		
1052.927	94973.38		
1052.856	94979.75		
1052.802	94984.64		
1052.776	94986.94		
1052.746	94989.67		
1052.722	94991.81		
1052.692	94994.59		
1052.660	94997.40		
1052.632	94999.98		
1052.572	95005.41		
1052.552	95007.15		
1052.520	95010.06		
1052.509	95011.06		
1052.466	95014.97		
1052.449	95016.52		
1052.412	95019.80		
1052.383	95022.46		
1052.353	95025.15		

APPENDIX F

High Resolution Spectrum of HBr in the 1512 to 1090 Å Region

The data table in this appendix contains the wavelengths (Å, vacuum), wavenumbers (cm^{-1}, vacuum) and lines assignments of the high resolution absorption spectrum of HCℓ. All of the transitions originate from the v"=0 level of the $X^1\Sigma^+$ ground state so that only the branch labels [Q(08) means J´-J"=0 and J=8, etc.] and upper state labels [0 b(2) means v´=0 for the Ω=2 component of the b state, etc.] are necessary to completely specify a transition. Labelings Q(HD), R(HD), etc. represent the positions of Q-type, R-type etc. band heads. Question marks indicate the line assignment is questionable, asterisks indicate a blended line, pt indicates a perturbed line, and a prime or x indicates a related series.

The upper state assignments [letter and Ω value] are the same as in the state listing on page 2 of the main text. The relative vibrational numbering in the V(0) state is indicated by successive letters of the alphabet. State assignments for transitions occurring to wavelengths shorter than approximately 1190 Å are not known with certainty. The state labels in this region merely group the lines of a transition and except for r(2) and R(1) bear no relation to labels for transitions to longer wavelengths.

HIGH RESOLUTION SPECTRUM OF HBR
IN THE 1512.033 TO 1090.408 A WAVELENGTH REGION

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1512.034	66136.10	P(10)	0	b(2)	
1511.355	66165.80	P(09)	0	b(2)	
1510.834	66188.60	P(08)	0	b(2)	
1510.293	66212.30	P(07)	0	b(2)	
1509.815	66233.30	P(06)	0	b(2)	
1509.318	66255.10	P(05)	0	b(2)	
1508.796	66278.00	P(04)	0	b(2)	
1508.482	66291.80	Q(10)	0	b(2)	
1508.264	66301.40	Q(09)	0	b(2)	
1508.050	66310.80	Q(08)	0	b(2)	
1507.845	66319.80	Q(07)	0	b(2)	
1507.677	66327.20	Q(06)	0	b(2)	
1507.534	66333.49	Q(05)	0	b(2)	
1507.416	66338.70	Q(04)	0	b(2)	
1507.227	66347.00	Q(HD)	0	b(2)	
1506.491	66379.40	R(01)	0	b(2)	
1506.153	66394.30	R(02)	0	b(2)	
1505.886	66406.10	R(03)	0	b(2)	
1505.634	66417.20	R(04)	0	b(2)	
1505.405	66427.30	R(05)	0	b(2)	
1505.203	66436.20	R(06)	0	b(2)	
1505.015	66444.50	R(07)	0	b(2)	
1504.857	66451.50	R(08)	0	b(2)	
1504.728	66457.20	R(09)	0	b(2)	
1504.621	66461.90	R(10)	0	b(2)	
1497.120	66794.91	P(14)	0	b(1)	
1496.567	66819.60	P(13)	0	b(1)	
1496.016	66844.20	P(12)	0	b(1)	
1495.484	66868.00	P(11)	0	b(1)	
1494.963	66891.30	P(10)	0	b(1)	
1494.464	66913.60	P(09)	0	b(1)	
1493.967	66935.90	P(08)	0	b(1)	
1493.485	66957.50	P(07)	0	b(1)	
1493.023	66978.20	P(06)	0	b(1)	
1492.583	66997.97	P(05)	0	b(1)	
1492.150	67017.40	P(04)	0	b(1)	
1491.729	67036.30	P(03)	0	b(1)	
1491.309	67055.20	P(02)	0	b(1)	
1491.296	67055.78	Q(09)	0	b(1)	
1491.178	67061.06	Q(08)	0	b(1)	
1491.020	67068.17	Q(07)	0	b(1)	
1490.580	67088.00	Q(HD)	0	b(1)	
1490.220	67104.20	R(00)	0	b(1)	
1489.876	67119.70	R(01)	0	b(1)	
1489.552	67134.30	R(02)	0	b(1)	
1489.248	67148.00	R(03)	0	b(1)	
1488.953	67161.30	R(04)	0	b(1)	
1488.684	67173.40	R(05)	0	b(1)	
1488.421	67185.30	R(06)	0	b(1)	
1488.175	67196.40	R(07)	0	b(1)	
1487.934	67207.30	R(08)	0	b(1)	
1487.737	67216.20	R(09)	0	b(1)	
1487.551	67224.60	R(10)	0	b(1)	
1487.383	67232.20	R(11)	0	b(1)	
1487.011	67249.00	Q(HD)	0	b(0)	
1456.826	68642.40	P(13)	0	b(0)	
1456.280	68668.10	P(12)	0	b(0)	
1455.797	68690.90	P(11)	0	b(0)	
1455.301	68714.30	P(10)	0	b(0)	
1454.825	68736.80	P(09)	0	b(0)	
1454.364	68758.60	P(08)	0	b(0)	
1453.909	68780.10	P(07)	0	b(0)	
1453.471	68800.80	P(06)	0	b(0)	
1453.049	68820.80	P(05)	0	b(0)	
1452.637	68840.30	P(04)	0	b(0)	
1452.241	68859.10	P(03)	0	b(0)	
1451.855	68877.40	P(02)	0	b(0)	
1451.295	68904.00	Q(HD)	0	b(0)	
1450.814	68926.80	R(00)	0	b(0)	
1450.486	68942.40	R(01)	0	b(0)	
1449.895	68970.50	R(03)	0	b(0)	
1449.611	68984.04	R(04)	0	b(0)	
1449.351	68996.41	R(05)	0	b(0)	
1449.126	69007.10	R(06)	0	b(0)	
1448.876	69019.00	R(07)	0	b(0)	
1448.650	69029.80	R(08)	0	b(0)	
1448.469	69038.40	R(09)	0	b(0)	
1442.281	69334.60	P(09)	1	b(1)	
1441.693	69362.90	P(08)	1	b(1)	
1441.163	69388.40	P(07)	1	b(1)	
1440.652	69413.00	P(06)	1	b(1)	
1440.154	69437.00	P(05)	1	b(1)	
1439.727	69457.60	P(04)	1	b(1)	
1438.125	69535.00	Q(HD)	1	b(1)	
1436.307	69623.00	R(HD)	1	b(1)	
1423.443	70252.20	P(12)	0	C(1)	
1422.876	70280.20	P(11)	0	C(1)	
1422.305	70308.40	P(10)	0	C(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1422.305	70308.40	P(10)	0	C(1)	
1421.745	70336.10	P(09)	0	C(1)	
1421.250	70360.60	P(08)	0	C(1)	
1421.216	70362.29				
1420.727	70386.50	P(07)	0	C(1)	
1420.303	70407.49				
1420.273	70409.00	P(06)	0	C(1)	
1419.809	70432.00	P(05)	0	C(1)	
1419.374	70453.60	P(04)	0	C(1)	
1418.957	70474.30	P(03)	0	C(1)	
1417.856	70529.00	Q(HD)	0	C(1)	
1378.227	72557.00	P(15)	1	C(1)	
1377.528	72593.80	P(14)	1	C(1)	
1376.811	72631.60	P(13)	1	C(1)	
1376.364	72655.20	P(12)	1	C(1)	
1375.495	72701.10	P(11)	1	C(1)	
1374.873	72734.00	P(10)	1	C(1)	
1374.293	72764.70	P(09)	1	C(1)	
1373.689	72796.70	P(08)	1	C(1)	
1373.155	72825.00	P(07)	1	C(1)	
1372.648	72851.90	P(06)	1	C(1)	
1372.171	72877.20	P(05)	1	C(1)	
1371.708	72901.80	P(04)	1	C(1)	
1371.362	72920.19	P(03)	1	C(1)	
1370.238	72980.00	Q(HD)	1	C(1)	
1368.794	73057.00	R(HD)	1	C(1)	
1353.562	73879.14	P(09)	0	f(3)	
1353.032	73908.10	P(08)	0	f(3)	
1352.521	73935.99	P(07)	0	f(3)	
1352.201	73953.48	Q(13)	0	f(3)	
1352.031	73962.82	P(06)	0	f(3)	
1351.895	73970.22	Q(12)	0	f(3)	
1351.608	73985.96	Q(11)	0	f(3)	
1351.560	73988.60	P(05)	0	f(3)	
1351.334	74000.94	Q(10)	0	f(3)	
1351.075	74015.15	Q(09)	0	f(3)	
1350.831	74028.52	Q(08)	0	f(3)	
1350.815	74029.39				
1350.602	74041.07	Q(07)	0	f(3)	
1350.586	74041.96	P(12)	0	f(2)	
1350.394	74052.47	Q(06)	0	f(3)	
1350.303	74057.43	P(11)	0	f(2)	
1350.205	74062.82	Q(05)	0	f(3)	
1350.034	74072.21	P(10)	0	f(2)	
1350.034	74072.21	Q(04)	0	f(3)	
1349.901	74079.49	Q(03)	0	f(3)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1349.767	74086.87	P(09)	0	f(2)	
1349.507	74101.11	P(08)	0	f(2)	
1349.252	74115.12	P(07)	0	f(2)	
1349.000	74128.99	P(06)	0	f(2)	
1349.000	74128.99	R(02)	0	f(3)	
1348.826	74138.57	R(03)	0	f(3)	
1348.748	74142.82	P(05)	0	f(2)	
1348.688	74146.11	R(04)	0	f(3)	
1348.576	74152.29	R(05)	0	f(3)	
1348.489	74157.10	P(04)	0	f(2)	
1348.489	74157.10	R(06)	0	f(3)	
1348.412	74161.29	R(07)	0	f(3)	
1348.359	74164.21	R(08)	0	f(3)	
1348.315	74166.64	R(09)	0	f(3)	
1348.304	74167.24	R(10)	0	f(3)	
1348.229	74171.40	P(03)	0	f(2)	
1348.111	74177.86				
1348.019	74182.92				
1347.885	74190.30				
1347.823	74193.70				
1347.751	74197.68				
1347.683	74201.42				
1347.611	74205.41				
1347.559	74208.26				
1347.463	74213.54				
1347.420	74215.90				
1347.379	74218.14				
1347.320	74221.40	Q(02)	0	f(2)	
1347.279	74223.65	Q(03)	0	f(2)	
1347.233	74226.21	Q(04)	0	f(2)	
1347.183	74228.97	Q(05)	0	f(2)	
1347.133	74231.70	Q(06)	0	f(2)	
1347.086	74234.31	Q(07)	0	f(2)	
1347.043	74236.69	Q(08)	0	f(2)	
1347.005	74238.77	Q(09)	0	f(2)	
1346.965	74241.00	Q(HD)	0	f(2)	
1346.713	74254.85	R(01)	0	f(2)	
1346.633	74259.29				
1346.515	74265.77				
1346.409	74271.62				
1346.371	74273.72	R(02)	0	f(2)	
1346.234	74281.28				
1346.157	74285.54				
1346.023	74292.91	R(03)	0	f(2)	
1345.878	74300.93				
1345.817	74304.30				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1345.766	74307.11				
1345.674	74312.19	R(04)	0	f(2)	
1345.532	74320.03				
1345.463	74323.87				
1345.325	74331.46	R(05)	0	f(2)	
1345.184	74339.29				
1345.117	74342.99				
1344.981	74350.48	R(06)	0	f(2)	
1344.842	74358.15				
1344.771	74362.12				
1344.644	74369.15	R(07)	0	f(2)	
1344.504	74376.85				
1344.483	74378.04				
1344.465	74379.05				
1344.315	74387.33	R(08)	0	f(2)	
1344.167	74395.49				
1343.996	74404.97	R(09)	0	f(2)	
1343.840	74413.64				
1343.691	74421.89	R(10)	0	f(2)	
1343.529	74430.83				
1343.396	74438.21	R(11)	0	f(2)	
1343.253	74446.15				
1343.185	74449.90				
1343.116	74453.74	R(12)	0	f(2)	
1342.977	74461.46				
1342.922	74464.47				
1342.850	74468.50	R(13)	0	f(2)	
1342.609	74481.86				
1342.297	74499.16				
1339.945	74629.93				
1339.688	74644.22				
1339.619	74648.11				
1339.585	74650.00				
1339.304	74665.63				
1338.976	74683.91				
1338.827	74692.26				
1338.619	74703.84				
1338.459	74712.77				
1338.024	74737.08				
1337.912	74743.33				
1337.467	74768.22				
1337.438	74769.81				
1336.975	74795.70				
1336.774	74806.95				
1334.903	74911.81				
1334.428	74938.49				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1333.735	74977.40	P(12)	2	C(1)	
1333.237	75005.43				
1333.019	75017.70	P(11)	2	C(1)	
1332.333	75056.30	P(10)	2	C(1)	
1331.763	75088.45				
1331.686	75092.80	P(09)	2	C(1)	
1331.565	75099.60	P(12)	a	V(0)	
1331.148	75123.10				
1331.085	75126.70	P(08)	2	C(1)	
1330.690	75148.97	P(10)	0	E(0)	
1330.509	75159.20	P(07)	2	C(1)	
1330.481	75160.78	P(11)	a	V(0)	
1330.172	75178.26	P(09)	0	E(0)	
1330.024	75186.60	P(06)	2	C(1)	
1329.690	75205.48	P(08)	0	E(0)	
1329.547	75213.59				
1329.478	75217.50	P(05)	2	C(1)	
1329.232	75231.41	P(07)	0	E(0)	
1329.145	75236.31				
1329.045	75242.00	P(04)	2	C(1)	
1328.798	75255.96	P(06)	0	E(0)	
1328.390	75279.12	P(05)	0	E(0)	
1328.060	75297.80	P(10)	a	V(0)	
1327.997	75301.37	P(04)	0	E(0)	
1327.686	75319.00	Q(HD)	2	C(1)	
1327.623	75322.60	P(03)	0	E(0)	
1327.265	75342.91	P(02)	0	E(0)	
1326.927	75362.10	P(01)	0	E(0)	
1326.577	75382.00	R(HD)	2	C(1)	
1326.492	75386.82				
1326.385	75392.91	R(00)	0	E(0)	
1326.155	75405.95	R(01)	0	E(0)	
1326.104	75408.88	P(09)	a	V(0)	
1325.943	75418.05	R(02)	0	E(0)	
1325.749	75429.06	R(03)	0	E(0)	
1325.576	75438.91	R(04)	0	E(0)	
1325.425	75447.49	R(05)	0	E(0)	
1325.298	75454.72	R(06)	0	E(0)	
1325.202	75460.19	R(07)	0	E(0)	
1325.146	75463.36	R(08)	0	E(0)	
1324.864	75479.47	R(10)	a	V(0)	
1324.362	75508.03	P(08)	a	V(0)	
1324.015	75527.85	R(09)	a	V(0)	
1322.805	75596.93	P(07)	a	V(0)	
1322.529	75612.69	R(08)	a	V(0)	
1321.686	75660.93				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1321.449	75674.50	P(06)	a	V(0)	
1321.172	75690.39	R(07)	a	V(0)	
1320.889	75706.57				
1320.318	75739.30				
1320.296	75740.60	P(05)	a	V(0)	
1320.000	75757.56	R(06)	a	V(0)	
1319.675	75776.26				
1319.356	75794.58	P(04)	a	V(0)	
1319.029	75813.34	R(05)	a	V(0)	
1319.000	75815.00				
1318.582	75839.04	P(03)	a	V(0)	
1318.259	75857.61	R(04)	a	V(0)	
1318.259	75857.61	P(10)	0	d(0)	
1317.833	75882.13	P(15)	0	D(1)	
1317.728	75888.20	P(09)	0	d(0)	
1317.700	75889.79				
1317.689	75890.45	R(03)	a	V(0)	
1317.508	75900.86	P(14)	0	D(1)	
1317.275	75914.32				
1317.251	75915.66	P(08)	0	d(0)	
1317.192	75919.05	Q(14)	0	d(0)	
1316.977	75931.47	P(13)	0	D(1)	
1316.832	75939.81	Q(13)	0	d(0)	
1316.796	75941.89	P(07)	0	d(0)	
1316.537	75956.85	P(12)	0	D(1)	
1316.493	75959.38	Q(12)	0	d(0)	
1316.359	75967.13	P(06)	0	d(0)	
1316.171	75977.97	Q(11)	0	d(0)	
1316.119	75980.98	P(11)	0	D(1)	
1315.945	75991.02	P(05)	0	d(0)	
1315.872	75995.25	Q(10)	0	d(0)	
1315.715	76004.30	P(10)	0	D(1)	
1315.590	76011.53	Q(09)	0	d(0)	
1315.563	76013.11	P(04)	0	d(0)	
1315.341	76025.91	Q(08)	0	d(0)	
1315.324	76026.90	P(09)	0	D(1)	
1315.188	76034.73	P(03)	0	d(0)	
1315.105	76039.56	Q(07)	0	d(0)	
1314.964	76047.73	P(08)	0	D(1)	
1314.904	76051.20	Q(06)	0	d(0)	
1314.848	76054.39	P(02)	0	d(0)	
1314.708	76062.50	Q(05)	0	d(0)	
1314.593	76069.19	P(07)	0	D(1)	
1314.593	76069.19	Q(04)	0	d(0)	
1314.516	76073.60	P(01)	0	d(0)	
1314.464	76076.65	Q(03)	0	d(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1314.360	76082.65	Q(02)	0	d(0)	
1314.238	76089.74	P(06)	0	D(1)	
1313.980	76104.63	R(00)	0	d(0)	
1313.894	76109.65	P(05)	0	D(1)	
1313.749	76118.06	R(01)	0	d(0)	
1313.735	76118.83				
1313.560	76129.00	P(04)	0	D(1)	
1313.560	76129.00	R(02)	0	d(0)	
1367.414	73130.75				
1313.353	76141.00	R(03)	0	d(0)	
1313.238	76147.67	P(03)	0	D(1)	
1313.191	76150.36	R(04)	0	d(0)	
1313.055	76158.26	R(05)	0	d(0)	
1312.949	76164.42	R(06)	0	d(0)	
1312.936	76165.16	P(02)	0	D(1)	
1312.930	76165.50				
1312.854	76169.94	R(07)	0	d(0)	
1312.811	76172.44	R(08)	0	d(0)	
1312.703	76178.68				
1312.660	76181.17	Q(08)	0	D(1)	
1312.622	76183.39				
1312.562	76186.88	Q(07)	0	D(1)	
1312.513	76189.74				
1312.507	76190.09	P(07)	b	V(0)	
1312.503	76190.31	Q(06)	0	D(1)	
1312.456	76193.02	Q(05)	0	D(1)	
1312.418	76195.23	Q(04)	0	D(1)	
1312.386	76197.11	Q(03)	0	D(1)	
1312.367	76198.18	Q(02)	0	D(1)	
1312.356	76198.85	Q(01)	0	D(1)	
1312.353	76199.00	Q(HD)	0	D(1)	
1312.068	76215.55	R(00)	0	D(1)	
1311.931	76223.50				
1311.803	76230.95	R(01)	0	D(1)	
1311.677	76238.28				
1311.550	76245.68	R(02)	0	D(1)	
1311.309	76259.68	R(03)	0	D(1)	
1311.186	76266.84	P(06)	b	V(0)	
1311.080	76272.97	R(04)	0	D(1)	
1310.942	76281.04				
1310.866	76285.45	R(05)	0	D(1)	
1310.668	76297.00	R(06)	0	D(1)	
1310.534	76304.78				
1310.485	76307.61				
1310.463	76308.92	P(11)	c	V(0)	
1310.449	76309.70	R(07)	0	D(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1310.286	76319.21	R(08)	0	D(1)	
1310.275	76319.85				
1310.126	76328.52	R(09)	0	D(1)	
1310.100	76330.06				
1310.057	76332.58	P(05)	b	V(0)	
1309.988	76336.57	R(10)	0	D(1)	
1309.867	76343.65	R(11)	0	D(1)	
1309.846	76344.83	R(12)	0	D(1)	
1309.671	76355.03	R(06)	b	V(0)	
1309.654	76356.05				
1309.629	76357.50	R(13)	0	D(1)	
1309.563	76361.38				
1309.523	76363.70				
1309.353	76373.59				
1309.343	76374.17				
1309.422	76369.59	P(13)	0	f(1)	
1309.096	76388.61	P(04)	b	V(0)	
1308.967	76396.13	P(12)	0	f(1)	
1308.777	76407.22	R(05)	b	V(0)	
1308.606	76417.18	P(10)	c	V(0)	
1308.527	76421.83	P(11)	0	f(1)	
1308.483	76424.39	P(06)		(1)	'
1308.439	76426.95				
1308.305	76434.75	P(03)	b	V(0)	
1308.201	76440.83	P(05)		(1)	'
1308.132	76444.87				
1308.092	76447.24	P(10)	0	f(1)	
1308.046	76449.89	R(04)	b	V(0)	
1307.933	76456.50	P(04)		(1)	'
1307.690	76470.74	P(09)	0	f(1)	
1307.670	76471.89				
1307.618	76474.93				
1307.690	76470.74	P(02)	b	V(0)	
1307.488	76482.52	R(03)	b	V(0)	
1307.293	76493.96	P(08)	0	f(1)	
1307.275	76494.98				
1307.232	76497.54	P(01)	b	V(0)	
1307.099	76505.31	R(02)	b	V(0)	
1306.941	76514.52	P(09)	c	V(0)	
1306.907	76516.51	P(07)	0	f(1)	
1306.890	76517.52				
1306.876	76518.38	R(01)	b	V(0)	
1306.832	76520.92	R(00)	b	V(0)	
1306.783	76523.79	Q(HD)	0	(1)	'
1306.720	76527.50				
1306.539	76538.10	P(06)	0	f(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1306.406	76545.88				
1306.224	76556.55	R(01)		(1)	'
1306.184	76558.91	P(05)	0	f(1)	
1306.031	76567.86	R(11)	c	V(0)	
1305.976	76571.07	Q(13)	0	f(1)	
1305.938	76573.29	R(02)		(1)	'
1305.841	76578.98	P(04)	0	f(1)	
1305.826	76579.88				
1305.788	76582.10	Q(12)	0	f(1)	
1305.639	76590.82	R(03)		(1)	'
1305.611	76592.52	Q(11)	0	f(1)	
1305.510	76598.42	P(03)	0	f(1)	
1305.480	76600.16	P(08)	c	V(0)	
1305.466	76601.00				
1305.451	76601.88	Q(10)	0	f(1)	
1305.355	76607.50	R(04)		(1)	'
1305.297	76610.89	Q(09)	0	f(1)	
1305.200	76616.62	P(02)	0	f(1)	
1305.190	76617.20				
1305.164	76618.73	Q(08)	0	f(1)	
1305.074	76624.02	R(05)		(1)	'
1305.043	76625.83	Q(07)	0	f(1)	
1304.937	76632.03	Q(06)	0	f(1)	
1304.843	76637.60	Q(05)	0	f(1)	
1304.831	76638.30				
1304.817	76639.11	R(06)		(1)	'
1304.770	76641.85	Q(04)	0	f(1)	
1304.708	76645.50	Q(03)	0	f(1)	
1304.662	76648.19	Q(02)	0	f(1)	
1304.634	76649.82	Q(01)	0	f(1)	
1304.560	76654.22				
1304.521	76656.48	R(09)	c	V(0)	
1304.510	76657.12				
1304.346	76666.77	R(00)	0	f(1)	
1304.188	76676.05	P(07)	c	V(0)	
1304.093	76681.67	R(01)	0	f(1)	
1304.081	76682.34				
1303.907	76692.56				
1303.853	76695.78	R(02)	0	f(1)	
1303.830	76697.13				
1303.736	76702.64				
1303.628	76709.02	R(03)	0	f(1)	
1303.612	76709.92				
1303.549	76713.62				
1303.494	76716.86				
1303.418	76721.36	R(04)	0	f(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1303.230	76732.45	R(05)	0	f(1)	
1303.230	76732.45	R(08)	c	V(0)	
1303.230	76732.45	P(12)	d	V(0)	
1303.220	76733.00				
1303.063	76742.25	P(06)	c	V(0)	
1303.063	76742.25	R(06)	0	f(1)	
1302.949	76748.95				
1302.886	76752.68	R(07)	0	f(1)	
1302.729	76761.92	R(08)	0	f(1)	
1302.712	76762.93				
1302.604	76769.31	R(09)	0	f(1)	
1302.491	76775.95	R(10)	0	f(1)	
1302.392	76781.79	R(11)	0	f(1)	
1302.313	76786.48	R(12)	0	f(1)	
1302.234	76791.12	P(12)	0	F(1)	
1302.137	76796.81	R(07)	c	V(0)	
1302.096	76799.27	P(05)	c	V(0)	
1302.096	76799.27	P(11)	d	V(0)	
1301.890	76811.39	P(11)	0	F(1)	
1301.845	76814.08				
1301.804	76816.46				
1301.745	76819.97				
1301.492	76834.91	P(10)	0	F(1)	
1301.266	76848.23	P(04)	c	V(0)	
1301.253	76848.98	P(09)	0	F(1)	
1301.253	76848.98	R(06)	c	V(0)	
1300.933	76867.92	P(08)	0	F(1)	
1300.586	76888.41	P(07)	0	F(1)	
1300.586	76888.41	P(03)	c	V(0)	
1300.520	76892.29	R(05)	c	V(0)	
1300.336	76903.22				
1300.305	76905.02	P(06)	0	F(1)	
1300.036	76920.94	P(02)	c	V(0)	
1300.036	76920.94	P(05)	0	F(1)	
1299.960	76925.47	R(04)	c	V(0)	
1299.723	76939.48				
1299.706	76940.50	P(04)	0	F(1)	
1299.621	76945.50	P(01)	c	V(0)	
1299.621	76945.50	P(09)	d	V(0)	
1299.554	76949.48	R(03)	c	V(0)	
1299.405	76958.28	P(03)	0	F(2)	
1299.298	76964.63	R(02)	c	V(0)	
1299.291	76965.06				
1299.182	76971.53	R(01)	c	V(0)	
1299.182	76971.53	R(00)	c	V(0)	
1298.920	76987.02	P(13)	e	V(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1298.852	76991.08				
1298.837	76991.95	Q(10)	0	F(2)	
1298.774	76995.68	Q(09)	0	F(2)	
1298.722	76998.79	Q(08)	0	F(2)	
1298.679	77001.34	Q(07)	0	F(2)	
1298.644	77003.39	Q(06)	0	F(2)	
1298.616	77005.04	Q(05)	0	F(2)	
1298.592	77006.45	Q(04)	0	F(2)	
1298.573	77007.58	Q(03)	0	F(2)	
1298.541	77009.53	Q(02)	0	F(2)	
1298.421	77016.64				
1298.541	77009.53	P(08)	d	V(0)	
1298.108	77035.20				
1298.060	77038.02				
1297.853	77050.30				
1297.999	77041.65	R(01)	0	F(2)	
1297.732	77057.52	R(02)	0	F(2)	
1297.597	77065.50				
1297.469	77073.11	R(03)	0	F(2)	
1297.469	77073.11	P(07)	d	V(0)	
1297.371	77078.97	P(12)	e	V(0)	
1297.348	77080.32	R(10)	d	V(0)	
1297.333	77081.23				
1297.234	77087.08				
1297.216	77088.17	R(04)	0	F(2)	
1297.177	77090.47				
1297.138	77092.82				
1297.089	77095.73				
1297.044	77098.39				
1297.003	77100.83				
1296.967	77102.98	R(05)	0	F(2)	
1296.777	77114.24				
1296.727	77117.26	R(06)	0	F(2)	
1296.668	77120.73				
1296.620	77123.59				
1296.588	77125.48				
1296.550	77127.79				
1296.532	77128.81				
1296.490	77131.33				
1296.475	77132.21	R(07)	0	F(2)	
1296.475	77132.21	P(06)	d	V(0)	
1296.393	77137.10				
1296.346	77139.89				
1296.306	77142.27				
1296.277	77144.03				
1296.208	77148.13	R(09)	d	V(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1296.208	77148.13	R(08)	0	F(2)	
1296.193	77149.02				
1296.182	77149.63				
1296.163	77150.79				
1296.116	77153.58				
1296.097	77154.70				
1296.053	77157.33				
1296.030	77158.71	R(09)	0	F(2)	
1295.956	77163.11				
1295.916	77165.52				
1295.869	77168.31				
1295.828	77170.76	R(10)	0	F(2)	
1295.760	77174.80				
1295.711	77177.69				
1295.689	77179.04				
1295.642	77181.80	P(11)	e	V(0)	
1295.585	77185.18	P(05)	d	V(0)	
1295.445	77193.57				
1295.297	77202.35				
1295.205	77207.88				
1294.891	77226.55				
1294.880	77227.23	R(07)	d	V(0)	
1294.809	77231.46	P(04)	d	V(0)	
1294.392	77256.37				
1294.349	77258.92	R(06)	d	V(0)	
1294.338	77259.57				
1294.150	77270.77	P(03)	d	V(0)	
1294.005	77279.44	P(10)	e	V(0)	
1293.856	77288.37				
1293.835	77289.61	R(05)	d	V(0)	
1293.815	77290.78				
1293.782	77292.75				
1293.617	77302.62	P(02)	d	V(0)	
1293.604	77303.43				
1293.505	77309.32				
1293.417	77314.56				
1293.402	77315.51	R(04)	d	V(0)	
1293.386	77316.42				
1293.209	77327.02	P(01)	d	V(0)	
1293.071	77335.27	R(03)	d	V(0)	
1292.965	77341.59				
1292.853	77348.34	R(02)	d	V(0)	
1292.776	77352.93	R(00)	d	V(0)	
1292.760	77353.90	R(01)	d	V(0)	
1292.676	77358.90				
1292.665	77359.57				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1292.651	77360.39				
1292.548	77366.54				
1292.499	77369.48				
1292.479	77370.68	P(09)	e	V(0)	
1292.239	77385.09	R(11)	e	V(0)	
1292.180	77388.59				
1292.168	77389.31				
1292.143	77390.83				
1292.089	77394.07				
1292.037	77397.19	P(05)	0	n(1)	
1292.013	77398.58				
1291.951	77402.32				
1291.906	77405.03				
1291.879	77406.65				
1291.870	77407.17				
1291.825	77409.88				
1291.762	77413.67				
1291.723	77415.95				
1291.629	77421.61				
1291.616	77422.41				
1291.602	77423.24				
1291.503	77429.18				
1291.488	77430.04				
1291.461	77431.67				
1291.367	77437.32				
1291.337	77439.10				
1291.321	77440.08	Q(08)	0	n(1)	
1291.308	77440.84				
1291.272	77443.04				
1291.144	77450.68				
1291.119	77452.19				
1291.096	77453.60	Q(07)	0	n(1)	
1291.090	77453.94	P(02)	0	n(1)	
1291.072	77455.02	P(08)	e	V(0)	
1291.008	77458.85	R(10)	e	V(0)	
1290.927	77463.72	Q(06)	0	n(1)	
1290.783	77472.36	Q(05)	0	n(1)	
1290.682	77478.44	Q(04)	0	n(1)	
1290.664	77479.51				
1290.607	77482.90	Q(03)	0	n(1)	
1290.537	77487.14				
1290.463	77491.58				
1290.356	77498.00				
1290.257	77503.94	R(00)	0	n(1)	
1289.988	77520.12	R(01)	0	n(1)	
1289.977	77520.74				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1289.836	77529.26	R(09)	e	V(0)	
1289.746	77534.65	R(02)	0	n(1)	
1289.585	77544.31				
1289.560	77545.84				
1289.534	77547.39	R(03)	0	n(1)	
1289.392	77555.93	Q(HD)	3	C(0)	
1289.377	77556.82	R(04)	0	n(1)	
1289.261	77563.82*	R(05)	0	n(1)	
1288.757	77594.15	R(08)	e	V(0)	
1288.670	77599.37	R(HD)	3	C(0)	
1288.081	77634.86				
1288.023	77638.39				
1287.950	77642.75				
1287.828	77650.13				
1287.782	77652.91	R(07)	e	V(0)	
1287.713	77657.03				
1287.661	77660.21	P(05)	e	V(0)	
1287.627	77662.22				
1287.594	77664.22				
1287.559	77666.34				
1287.502	77669.79				
1287.464	77672.08				
1287.434	77673.90				
1287.346	77679.17				
1287.281	77683.10				
1287.246	77685.21				
1287.205	77687.70				
1287.163	77690.24				
1287.134	77691.96				
1286.929	77704.35	R(06)	e	V(0)	
1286.845	77709.45				
1286.803	77711.95	P(04)	e	V(0)	
1286.765	77714.27				
1286.716	77717.25	P(10)	0	E(0)	
1286.651	77721.17				
1286.626	77722.68				
1286.554	77727.03				
1286.496	77730.54				
1286.422	77735.01				
1286.364	77738.52				
1286.322	77741.06				
1286.276	77743.82				
1286.233	77746.43	P(09)	0	E(0)	
1286.223	77747.01				
1286.205	77748.10	R(05)	e	V(0)	
1286.192	77748.90				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1286.157	77751.00				
1286.098	77754.58				
1286.080	77755.64				
1286.036	77758.32				
1285.961	77762.86				
1285.932	77764.60				
1285.861	77768.89				
1285.803	77772.39	P(08)	0	E(0)	
1285.740	77776.22				
1285.675	77780.17				
1285.621	77783.43	R(04)	e	V(0)	
1285.586	77785.55				
1285.552	77787.57				
1285.515	77789.85				
1285.471	77792.52				
1285.442	77794.23				
1285.397	77797.00	P(07)	0	E(0)	
1285.326	77801.26				
1285.284	77803.80				
1285.262	77805.14				
1285.177	77810.31	R(03)	e	V(0)	
1285.153	77811.72				
1285.131	77813.08				
1285.079	77816.23				
1285.007	77820.59	P(06)	0	E(0)	
1284.919	77825.91				
1284.872	77828.79	R(02)	e	V(0)	
1284.818	77832.03				
1284.745	77836.46				
1284.701	77839.11				
1284.634	77843.21	P(05)	0	E(0)	
1284.601	77845.19				
1284.547	77848.44				
1284.489	77851.96				
1284.411	77856.68				
1284.376	77858.79				
1284.275	77864.92	P(04)	0	E(0)	
1284.230	77867.66				
1284.196	77869.76				
1284.162	77871.80				
1284.107	77875.14				
1284.079	77876.84				
1284.000	77881.59				
1283.933	77885.69	P(03)	0	E(0)	
1283.882	77888.79				
1283.816	77892.81				

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1283.749	77896.84		
1283.731	77897.96		
1283.688	77900.55		
1283.611	77905.25	P(02) 0 E(0)	
1283.599	77905.97		
1283.534	77909.89		
1283.500	77911.97		
1283.459	77914.45		
1283.450	77914.97		
1283.432	77916.08		
1283.399	77918.07		
1283.310	77923.51	P(01) 0 E(0)	
1283.296	77924.37		
1283.226	77928.57		
1283.158	77932.75		
1283.119	77935.10		
1283.070	77938.09		
1283.031	77940.45		
1283.004	77942.07		
1282.937	77946.16		
1282.898	77948.53		
1282.853	77951.24		
1282.786	77955.35	R(00) 0 E(0)	
1282.765	77956.63		
1282.710	77959.92		
1282.643	77964.00		
1282.558	77969.17	R(01) 0 E(0)	
1282.408	77978.32		
1282.352	77981.73	R(02) 0 E(0)	
1282.162	77993.29	R(03) 0 E(0)	
1282.063	77999.31		
1281.988	78003.83	R(04) 0 E(0)	
1281.980	78004.34		
1281.909	78008.66		
1281.866	78011.27		
1281.831	78013.41	R(05) 0 E(0)	
1281.694	78021.74	R(06) 0 E(0)	
1281.583	78028.52	R(07) 0 E(0)	
1281.572	78029.20		
1281.524	78032.10	R(08) 0 E(0)	
1281.432	78037.67		
1281.366	78041.72		
1281.324	78044.30		
1281.290	78046.37		
1281.243	78049.18		
1281.198	78051.97		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1281.158	78054.36		
1281.074	78059.48		
1281.028	78062.29		
1280.999	78064.05		
1280.949	78067.12		
1280.912	78069.35		
1280.827	78074.56		
1280.790	78076.81		
1280.762	78078.52		
1280.741	78079.79		
1280.689	78082.97		
1280.654	78085.08	P(07) f V(0)	
1280.543	78091.89		
1280.490	78095.10		
1280.463	78096.74		
1280.419	78099.44		
1280.403	78100.40		
1280.220	78111.59		
1279.872	78132.81		
1279.841	78134.70		
1279.771	78139.00		
1279.730	78141.48		
1279.698	78143.41		
1279.667	78145.31		
1279.622	78148.05		
1279.579	78150.68		
1279.552	78152.36		
1279.537	78153.27		
1279.524	78154.09	P(06) f V(0)	
1279.476	78156.99		
1279.418	78160.52		
1279.208	78173.38		
1279.147	78177.08		
1279.086	78180.83		
1279.042	78183.53		
1279.019	78184.91		
1278.980	78187.32		
1278.925	78190.65		
1278.867	78194.20		
1278.828	78196.58		
1278.799	78198.38		
1278.741	78201.89		
1278.683	78205.47		
1278.586	78211.39		
1278.548	78213.75		
1278.534	78214.59		

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1278.516	78215.69	P(05)	f	V(0)	
1278.425	78221.22				
1278.391	78223.34				
1278.313	78228.08				
1278.278	78230.22				
1278.243	78232.37				
1278.200	78235.01				
1278.153	78237.90				
1278.140	78238.72				
1278.107	78240.74				
1278.073	78242.80				
1278.025	78245.70				
1277.996	78247.51				
1277.959	78249.80				
1277.939	78251.01	P(10)	1	d(0)	
1277.885	78254.33				
1277.847	78256.62				
1277.806	78259.12				
1277.653	78268.53	P(04)	f	V(0)	
1277.390	78284.64	P(09)	1	d(0)	
1277.216	78295.27				
1277.167	78298.30				
1277.121	78301.09	R(05)	f	V(0)	
1277.092	78302.88				
1277.045	78305.75				
1277.002	78308.43				
1276.937	78312.42	P(03)	f	V(0)	
1276.869	78316.59	P(08)	1	d(0)	
1276.860	78317.14				
1276.790	78321.42				
1276.735	78324.80				
1276.674	78328.55				
1276.639	78330.70				
1276.605	78332.77				
1276.558	78335.66				
1276.527	78337.53	R(04)	f	V(0)	
1276.373	78347.03	P(02)	f	V(0)	
1276.373	78347.03	P(07)	1	d(0)	
1276.066	78365.85	R(03)	f	V(0)	
1276.056	78366.48				
1276.007	78369.46				
1275.956	78372.61	P(10)	1	D(1)	
1275.956	78372.61	P(01)	f	V(0)	
1275.910	78375.43	P(06)	1	d(0)	
1275.868	78378.00				
1275.814	78381.31				
1275.748	78385.39	R(02)	f	V(0)	
1275.730	78386.47				
1275.595	78394.81				
1275.578	78395.82	R(01)	f	V(0)	
1275.563	78396.74	R(00)	f	V(0)	
1275.472	78402.34	P(05)	1	d(0)	
1275.445	78404.01				
1275.413	78405.95	Q(09)	1	d(0)	
1275.413	78405.95	P(09)	1	D(1)	
1275.348	78409.94				
1275.289	78413.59				
1275.194	78419.45				
1275.120	78424.02	Q(08)	1	d(0)	
1275.066	78427.34	P(04)	1	d(0)	
1274.923	78436.11	P(08)	1	D(1)	
1274.843	78441.05	Q(07)	1	d(0)	
1274.708	78449.32				
1274.687	78450.64	P(03)	1	d(0)	
1274.632	78454.02				
1274.589	78456.66	Q(06)	1	d(0)	
1274.506	78461.75	P(07)	1	D(1)	
1274.506	78461.75	P(09)	g	V(0)	
1274.458	78464.72				
1274.360	78470.78	Q(05)	1	d(0)	
1274.335	78472.29	P(02)	1	d(0)	
1274.209	78480.03				
1274.180	78481.82	Q(04)	1	d(0)	
1274.099	78486.84	P(06)	1	D(1)	
1274.029	78491.14	Q(03)	1	d(0)	
1274.029	78491.14	P(01)	1	d(0)	
1273.956	78495.66				
1273.909	78498.53	Q(02)	1	d(0)	
1273.845	78502.46				
1273.802	78505.15	Q(01)	1	d(0)	
1273.729	78509.66	P(05)	1	D(1)	
1273.527	78522.10	R(00)	1	d(0)	
1273.480	78524.98				
1273.429	78528.11				
1273.380	78531.15	P(04)	1	D(1)	
1273.333	78534.06	R(01)	1	d(0)	
1273.316	78535.08				
1273.264	78538.28				
1273.169	78544.16	R(02)	1	d(0)	
1273.106	78548.04	P(08)	g	V(0)	
1273.053	78551.32	P(03)	1	D(1)	
1273.053	78551.32	R(03)	1	d(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1272.927	78559.07	R(04)	1	d(0)	
1272.894	78561.11	Q(09)	1	D(1)	
1272.894	78561.11	R(05)	1	d(0)	
1272.814	78566.10	R(06)	1	d(0)	
1272.814	78566.10	R(08)	1	d(0)	
1272.814	78566.10	R(07)	1	d(0)	
1272.814	78566.10	R(09)	1	d(0)	
1272.742	78570.51	P(02)	1	D(1)	
1272.742	78570.51	Q(08)	1	D(1)	
1272.733	78571.06				
1272.607	78578.88	Q(07)	1	D(1)	
1272.493	78585.87	Q(06)	1	D(1)	
1272.479	78586.76				
1272.398	78591.78	Q(05)	1	D(1)	
1272.376	78593.13				
1272.324	78596.32	Q(04)	1	D(1)	
1272.266	78599.92	Q(03)	1	D(1)	
1272.223	78602.55	Q(02)	1	D(1)	
1272.201	78603.90	Q(01)	1	D(1)	
1272.214	78603.12				
1272.103	78609.98				
1271.984	78617.36	P(07)	g	V(0)	
1271.933	78620.51	R(00)	1	D(1)	
1271.874	78624.16				
1271.825	78627.18				
1271.790	78629.34	P(07)	g	V(0)	
1271.701	78634.86	R(01)	1	D(1)	
1271.548	78644.32				
1271.489	78647.95	R(02)	1	D(1)	
1271.293	78660.05	R(03)	1	D(1)	
1271.278	78660.98				
1271.132	78670.06	R(04)	1	D(1)	
1270.989	78678.87	R(05)	1	D(1)	
1270.880	78685.65	R(06)	1	D(1)	
1270.860	78686.85				
1270.843	78687.94	R(07)	1	D(1)	
1270.631	78701.03	P(06)	g	V(0)	
1270.613	78702.15				
1270.527	78707.51	R(08)	g	V(0)	
1270.496	78709.39				
1270.399	78715.45				
1270.223	78726.36	P(10)	1	f(1)	
1270.080	78735.19				
1270.065	78736.11				
1269.940	78743.87	R(07)	g	V(0)	
1269.784	78753.55	P(09)	1	f(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1269.612	78764.22	P(05)	g	V(0)	
1269.490	78771.81				
1269.329	78781.77	P(08)	1	f(1)	
1269.206	78789.42				
1269.077	78797.42	R(06)	g	V(0)	
1268.920	78807.20	P(07)	1	f(1)	
1268.742	78818.22	P(04)	g	V(0)	
1268.638	78824.67				
1268.527	78831.59	P(06)	1	f(1)	
1268.496	78833.51				
1268.300	78845.71	R(05)	g	V(0)	
1268.160	78854.43	P(05)	1	f(1)	
1268.023	78862.93	P(03)	g	V(0)	
1267.809	78876.26	P(04)	1	f(1)	
1267.680	78884.28	R(04)	g	V(0)	
1267.568	78891.25	Q(09)	1	f(1)	
1267.479	78896.80	P(03)	1	f(1)	
1267.453	78898.40	P(02)	g	V(0)	
1267.381	78902.86	Q(08)	1	f(1)	
1267.199	78914.19	Q(07)	1	f(1)	
1267.199	78914.19	R(03)	g	V(0)	
1267.199	78914.19	P(02)	1	f(1)	
1267.189	78914.84				
1267.061	78922.79	Q(06)	1	f(1)	
1267.033	78924.52	P(01)	g	V(0)	
1267.023	78925.14				
1266.935	78930.66	Q(05)	1	f(1)	
1266.865	78934.98	R(02)	g	V(0)	
1266.833	78937.01	Q(04)	1	f(1)	
1266.744	78942.53	Q(03)	1	f(1)	
1266.682	78946.44	Q(02)	1	f(1)	
1266.682	78946.44	R(01)	g	V(0)	
1266.650	78948.42	R(00)	g	V(0)	
1266.650	78948.42	Q(01)	1	f(1)	
1266.529	78955.94				
1266.369	78965.91	R(00)	1	f(1)	
1266.142	78980.09	R(01)	1	f(1)	
1265.934	78993.04	R(02)	1	f(1)	
1265.892	78995.71				
1265.750	79004.52	R(03)	1	f(1)	
1265.587	79014.72	R(04)	1	f(1)	
1265.445	79023.57	R(05)	1	f(1)	
1265.325	79031.10	R(06)	1	f(1)	
1265.227	79037.22	R(07)	1	f(1)	
1265.146	79042.27	R(08)	1	f(1)	
1265.101	79045.07	R(09)	1	f(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1264.932	79055.63				
1264.491	79083.23				
1263.639	79136.50	P(16)	1	V(0)	?
1263.372	79153.26				
1263.266	79159.88				
1263.167	79166.07				
1263.102	79170.17				
1263.020	79175.32				
1262.976	79178.08				
1262.915	79181.87				
1262.694	79195.78				
1262.636	79199.38				
1262.562	79204.05				
1262.439	79211.76				
1262.409	79213.66	P(15)	i	V(0)	
1262.141	79230.43				
1262.059	79235.61				
1262.010	79238.70				
1261.822	79250.49				
1261.696	79258.37	P(14)	i	V(0)	
1261.005	79301.82	P(13)	i	V(0)	
1261.005	79301.82	P(06)	h	V(0)	
1260.796	79315.00	P(05)	h	V(0)	
1260.257	79348.88	P(12)	i	V(0)	
1260.108	79358.30				
1260.005	79364.78	P(04)	h	V(0)	
1259.997	79365.29				
1259.893	79371.85	P(10)	0	H(0)	pt
1259.706	79383.59				
1259.571	79392.12				
1259.350	79406.02	P(03)	h	V(0)	
1259.281	79410.37	P(11)	i	V(0)	
1259.242	79412.87	P(09)	0	H(0)	pt
1258.828	79438.99	P(02)	h	V(0)	
1258.683	79448.15	P(08)	0	H(0)	pt
1258.458	79462.35				
1258.434	79463.81	P(01)	h	V(0)	
1258.434	79463.81	R(03)	h	V(0)	
1258.172	79480.36	P(07)	0	H(0)	
1258.032	79489.26	R(02)	h	V(0)	
1258.032	79489.26	R(01)	h	V(0)	
1258.032	79489.26	R(00)	h	V(0)	
1257.975	79492.82	P(10)	i	V(0)	
1257.702	79510.08	P(06)	0	H(0)	
1257.510	79522.23				
1257.259	79538.10	P(05)	0	H(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1256.846	79564.25	P(04)	0	H(0)	
1256.567	79581.90	P(09)	i	V(0)	
1256.464	79588.41	P(03)	0	H(0)	
1256.118	79610.36	P(02)	0	H(0)	
1255.813	79629.70	P(01)	0	H(0)	
1255.330	79660.34	R(00)	0	H(0)	
1255.312	79661.45				
1255.233	79666.50	P(08)	i	V(0)	
1255.148	79671.88	R(01)	0	H(0)	
1255.002	79681.13	R(02)	0	H(0)	
1254.912	79686.86	R(08)	0	H(0)	?
1254.893	79688.07	R(03)	0	H(0)	
1254.893	79688.07	R(13)	i	V(0)	
1254.811	79693.25	R(04)	0	H(0)	
1254.792	79694.48				
1254.778	79695.36	R(05)	0	H(0)	pt
1254.778	79695.36	R(07)	0	H(0)	pt
1254.760	79696.54	R(06)	0	H(0)	pt
1254.768	79696.00	R(HD)	0	H(0)	
1254.664	79702.59	R(12)	i	V(0)	
1254.631	79704.69				
1254.485	79714.01	R(11)	i	V(0)	
1254.253	79728.75	R(10)	i	V(0)	
1254.027	79743.13	P(07)	i	V(0)	
1253.797	79757.75	R(09)	i	V(0)	
1253.641	79767.64				
1253.341	79786.73				
1253.009	79807.86	R(08)	i	V(0)	
1252.988	79809.25	?			
1252.971	79810.29	P(06)	i	V(0)	
1252.823	79819.73	P(10)	0	k(0)	
1252.560	79836.50				
1252.406	79846.34	P(09)	0	k(0)	
1252.125	79864.25	R(07)	i	V(0)	
1252.063	79868.19	P(05)	i	V(0)	
1252.063	79868.19	P(08)	0	k(0)	
1251.623	79896.23	P(07)	0	k(0)	
1251.406	79910.14				
1251.392	79911.03	P(09)	1	E(0)	
1251.312	79916.14	P(04)	i	V(0)	
1251.312	79916.14	R(06)	i	V(0)	
1251.260	79919.47	P(06)	0	k(0)	
1251.061	79932.18				
1250.911	79941.73	P(05)	0	k(0)	
1250.821	79947.46	P(08)	1	E(0)	
1250.695	79955.57	P(03)	i	V(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1250.685	79956.16				
1250.636	79959.30	R(05)	i	V(0)	
1250.584	79962.66	P(04)	0	k(0)	
1250.447	79971.38	Q(10)	0	k(0)	
1250.308	79980.29	P(07)	1	E(0)	
1250.262	79983.25	P(03)	0	k(0)	
1250.212	79986.42	P(02)	i	V(0)	
1250.096	79993.86	R(04)	i	V(0)	
1249.960	80002.58	P(02)	0	k(0)	
1249.841	80010.17	P(01)	i	V(0)	
1249.757	80015.56	P(06)	1	E(0)	
1249.714	80018.28	R(03)	i	V(0)	
1249.628	80023.84	Q(04)	0	k(0)	
1249.547	80028.98	Q(03)	0	k(0)	
1249.481	80033.24	Q(02)	0	k(0)	
1249.481	80033.24	R(02)	i	V(0)	
1249.428	80036.64	Q(01)	0	k(0)	
1249.428	80036.64	R(00)	i	V(0)	
1249.395	80038.77	R(01)	i	V(0)	
1249.265	80047.06	P(05)	1	E(0)	
1249.181	80052.46	R(00)	0	k(0)	
1248.958	80066.77	R(01)	0	k(0)	
1248.797	80077.07	P(04)	1	E(0)	
1248.788	80077.63				
1248.759	80079.48	R(02)	0	k(0)	
1248.568	80091.77	R(03)	0	k(0)	
1248.397	80102.70	R(04)	0	k(0)	
1248.361	80105.03	P(14)	0	k(1)	
1248.361	80105.03	P(03)	1	E(0)	
1248.249	80112.24	R(05)	0	k(0)	
1248.115	80120.83	R(06)	0	k(0)	
1247.993	80128.66	R(07)	0	k(0)	
1247.975	80129.84	P(13)	0	k(1)	
1247.975	80129.84	P(02)	1	E(0)	
1247.910	80134.00	R(08)	0	k(0)	
1247.841	80138.42	R(09)	0	k(0)	
1247.642	80151.21	P(01)	1	E(0)	
1247.613	80153.09	P(12)	0	k(1)	
1247.361	80169.28				
1247.251	80176.32	P(11)	0	k(1)	
1247.188	80180.40	R(00)	1	E(0)	
1247.060	80188.60	R(01)	1	E(0)	
1247.001	80192.41				
1246.981	80193.69	R(02)	1	E(0)	
1246.934	80196.71	R(03)	1	E(0)	
1246.912	80198.15	R(HD)	1	E(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1246.912	80198.15	P(10)	0	k(1)	
1246.578	80219.60	P(09)	0	k(1)	
1246.541	80221.97				
1246.533	80222.51				
1246.396	80231.35				
1246.266	80239.71	P(08)	0	k(1)	pt
1246.208	80243.45	P(08)	0	k(1)	' pt
1246.071	80252.24				
1246.058	80253.09				
1245.949	80260.09	P(07)	0	k(1)	
1245.873	80265.02				
1245.754	80272.64				
1245.741	80273.52				
1245.648	80279.50	P(06)	0	k(1)	
1245.513	80288.22				
1245.499	80289.09				
1245.396	80295.76	P(05)	0	k(1)	'
1245.387	80296.35				
1245.355	80298.36	P(05)	0	k(1)	
1245.234	80306.17				
1245.149	80311.66				
1245.072	80316.64	Q(15)	0	k(1)	
1245.072	80316.64	P(04)	0	k(1)	
1244.968	80323.38				
1244.918	80326.59	Q(14)	0	k(1)	?
1244.795	80334.50	P(03)	0	k(1)	
1244.657	80343.45	Q(12)	0	k(1)	
1244.561	80349.64	Q(11)	0	k(1)	
1244.524	80352.03	P(02)	0	k(1)	
1244.524	80352.03	Q(11)	0	k(1)	
1244.429	80358.14	Q(10)	0	k(1)	
1244.361	80362.56				
1244.352	80363.13	Q(09)	0	k(1)	
1244.333	80364.35				
1244.273	80368.24	Q(08)	0	k(1)	
1244.207	80372.47	Q(07)	0	k(1)	
1244.155	80375.86	Q(06)	0	k(1)	
1244.108	80378.89	Q(05)	0	k(1)	
1244.063	80381.80	Q(04)	0	k(1)	
1244.046	80382.89	Q(03)	0	k(1)	
1244.039	80383.35	Q(02)	0	k(1)	
1244.026	80384.19	Q(01)	0	k(1)	
1243.949	80389.12				
1243.749	80402.10	R(00)	0	k(1)	
1243.610	80411.09	P(12)	0	m(2)	
1243.504	80417.89	R(01)	0	k(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1243.267	80433.26	R(02)	0	k(1)	
1243.267	80433.26	P(11)	0	m(2)	
1243.154	80440.53				
1243.077	80445.55	R(03)	0	k(1)	'
1243.033	80448.36	R(03)	0	k(1)	
1242.930	80455.06	P(10)	0	m(2)	
1242.815	80462.49	R(04)	0	k(1)	
1242.602	80476.30	R(05)	0	i(0)	
1242.602	80476.30	P(09)	0	m(2)	
1242.411	80488.66	R(06)	0	k(1)	
1242.349	80492.65	R(06)	0	k(1)	'
1242.273	80497.61	P(08)	0	m(2)	
1242.225	80500.71	?			
1242.210	80501.67	R(07)	0	k(1)	
1242.034	80513.07	R(08)	0	k(1)	
1242.019	80514.06				
1241.954	80518.25	P(07)	0	m(2)	
1241.872	80523.60	R(09)	0	k(1)	
1241.726	80533.06	R(10)	0	k(1)	
1241.644	80538.38	P(06)	0	m(2)	
1241.595	80541.54	R(11)	0	k(1)	
1241.470	80549.64	R(12)	0	k(1)	
1241.449	80551.02				
1241.375	80555.83	R(13)	0	k(1)	
1241.344	80557.85	P(05)	0	m(2)	
1241.123	80572.20	Q(16)	0	m(2)	
1241.049	80577.02	P(04)	0	m(2)	
1241.008	80579.66				
1240.999	80580.24	Q(15)	0	m(2)	
1240.964	80582.51				
1240.883	80587.80	Q(14)	0	m(2)	
1240.764	80595.48	P(03)	0	m(2)	
1240.764	80595.48	Q(13)	0	m(2)	
1240.726	80597.97				
1240.693	80600.11				
1240.658	80602.36	Q(12)	0	m(2)	
1240.595	80606.49				
1240.562	80608.62	Q(11)	0	m(2)	
1240.464	80615.02	Q(10)	0	m(2)	
1240.378	80620.57	Q(09)	0	m(2)	
1240.297	80625.86	Q(08)	0	m(2)	
1240.225	80630.55	Q(07)	0	m(2)	
1240.160	80634.75	Q(06)	0	m(2)	
1240.109	80638.09	Q(05)	0	m(2)	
1240.062	80641.14	Q(04)	0	m(2)	
1240.024	80643.62	Q(03)	0	m(2)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1239.994	80645.55	Q(02)	0	m(2)	
1239.960	80647.75				
1239.884	80652.69				
1239.734	80662.48				
1239.729	80662.79				
1239.651	80667.87				
1239.483	80678.79	R(01)	0	m(2)	
1239.381	80685.46				
1239.255	80693.64	R(02)	0	m(2)	
1239.214	80696.29				
1239.159	80699.88				
1239.086	80704.67				
1239.061	80706.25				
1239.037	80707.83	R(03)	0	m(2)	
1239.001	80710.20				
1238.938	80714.28				
1238.870	80718.75				
1238.827	80721.54	R(04)	0	m(2)	
1238.158	80765.13				
1238.629	80734.44	R(05)	0	m(2)	
1238.529	80740.93				
1238.468	80744.95				
1238.435	80747.06	R(06)	0	m(2)	
1238.254	80758.89	R(07)	0	m(2)	
1238.158	80765.13				
1238.081	80770.14	R(08)	0	m(2)	
1238.036	80773.08				
1237.991	80776.03	P(09)	2	D(1)	?
1237.919	80780.70	R(09)	0	m(2)	
1237.857	80784.77				
1237.761	80791.02	R(10)	0	m(2)	
1237.709	80794.42				
1237.614	80800.61	R(11)	0	m(2)	
1237.605	80801.22				
1237.593	80802.00	P(08)	2	D(1)	
1237.551	80804.73	P(18)	0	m(1)	
1237.480	80809.38	R(12)	0	m(2)	
1237.428	80812.78				
1237.350	80817.86	R(13)	0	m(2)	
1237.306	80820.72				
1237.234	80825.44	R(14)	0	m(2)	
1237.234	80825.44	P(07)	2	D(1)	
1237.148	80831.09	P(17)	0	m(1)	
1237.131	80832.19				
1237.039	80838.19				
1236.858	80850.02	P(06)	2	d(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1236.802	80853.71				
1236.771	80855.73	P(16)	0	m(1)	
1236.746	80857.33				
1236.628	80865.06				
1236.585	80867.86	Q(12)	2	D(1)	
1236.502	80873.31	P(05)	2	D(1)	
1236.409	80879.41	P(15)	0	m(1)	
1236.441	80877.27				
1236.409	80879.41	P(15)	0	m(1)	
1236.357	80882.76	Q(11)	2	D(1)	
1236.297	80886.69				
1236.170	80895.02	P(04)	2	D(1)	
1236.138	80897.14	Q(10)	2	D(1)	
1236.088	80900.37				
1236.044	80903.28	P(14)	0	m(1)	
1236.002	80906.01				
1235.937	80910.30	Q(09)	2	D(1)	
1235.846	80916.22	P(03)	2	D(1)	
1235.756	80922.12	Q(08)	2	D(1)	
1235.693	80926.28	P(13)	0	m(1)	
1235.596	80932.63	Q(07)	2	D(1)	
1235.548	80935.75	P(02)	2	D(1)	
1235.526	80937.18				
1235.453	80941.98	Q(06)	2	D(1)	
1235.347	80948.94	P(12)	0	m(1)	
1235.327	80950.21	Q(05)	2	D(1)	
1235.225	80956.89	Q(04)	2	D(1)	
1235.207	80958.07				
1235.174	80960.27				
1235.148	80961.96	Q(03)	2	D(1)	
1235.086	80966.05	Q(02)	2	D(1)	
1235.036	80969.28	Q(01)	2	D(1)	
1235.014	80970.71	P(11)	0	m(1)	
1234.788	80985.54	R(00)	2	D(1)	
1234.687	80992.19	P(10)	0	m(1)	
1234.575	80999.51	R(01)	2	D(1)	
1234.367	81013.20	R(02)	2	D(1)	
1234.367	81013.20	P(09)	0	m(1)	
1234.212	81023.33	R(03)	2	D(1)	
1234.055	81033.68	P(08)	0	m(1)	
1234.055	81033.68	R(04)	2	D(1)	
1233.931	81041.82	R(05)	2	D(1)	
1233.785	81051.41	R(06)	2	D(1)	
1233.749	81053.75	P(07)	0	m(1)	
1233.749	81053.75	P(12)	0	N(1)	
1233.662	81059.50	R(07)	2	D(1)	
1233.613	81062.69				
1233.580	81064.88				
1233.536	81067.78	R(08)	2	D(1)	
1233.452	81073.25	P(06)	0	m(1)	
1233.331	81081.20	P(11)	0	N(1)	
1233.162	81092.37	P(05)	0	m(1)	
1232.949	81106.35	Q(13)	0	m(1)	
1232.949	81106.35	P(10)	0	N(1)	
1232.880	81110.89	P(04)	0	m(1)	
1232.780	81117.46	Q(12)	0	m(1)	
1232.769	81118.17				
1232.633	81127.12	Q(11)	0	m(1)	
1232.610	81128.65	P(03)	0	m(1)	
1232.489	81136.63	Q(10)	0	m(1)	
1232.367	81144.68	Q(09)	0	m(1)	
1232.354	81145.50				
1232.339	81146.51	P(02)	0	m(1)	
1232.251	81152.27	Q(08)	0	m(1)	
1232.153	81158.76	Q(07)	0	m(1)	
1232.072	81164.10	Q(06)	0	m(1)	
1232.002	81168.72	Q(05)	0	m(1)	
1231.942	81172.64	Q(04)	0	m(1)	
1231.894	81175.84	Q(03)	0	m(1)	
1231.858	81178.20	Q(02)	0	m(1)	
1231.839	81179.44	Q(01)	0	m(1)	
1231.623	81193.68				
1231.575	81196.81	R(00)	0	m(1)	
1231.538	81199.30	P(06)	0	N(1)	
1231.401	81208.34				
1231.337	81212.51	R(01)	0	m(1)	
1231.254	81218.01	Q(14)	0	N(1)	
1231.216	81220.50	P(05)	0	N(1)	
1231.107	81227.68	R(02)	0	m(1)	
1230.885	81242.36	R(03)	0	m(1)	
1230.709	81253.96	Q(11)	0	N(1)	
1230.671	81256.49	R(04)	0	m(1)	
1230.564	81263.54	Q(10)	0	N(1)	
1230.465	81270.08	R(05)	0	m(1)	
1230.433	81272.22	Q(09)	0	N(1)	
1230.306	81280.62	Q(08)	0	N(1)	
1230.270	81282.98	R(06)	0	m(1)	
1230.198	81287.73	Q(07)	0	N(1)	
1230.102	81294.09	Q(06)	0	N(1)	
1230.083	81295.33	R(07)	0	m(1)	
1230.024	81299.21	Q(05)	0	N(1)	
1229.955	81303.80	Q(04)	0	N(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1229.903	81307.20	R(08)	0	m(1)	
1229.903	81307.20	Q(03)	0	N(1)	
1229.865	81309.73	Q(02)	0	N(1)	
1229.736	81318.26	R(09)	0	m(1)	
1229.579	81328.67	R(10)	0	m(1)	
1229.431	81338.44	R(11)	0	m(1)	
1229.356	81343.38	R(01)	0	N(1)	
1229.297	81347.32	R(12)	0	m(1)	
1229.172	81355.55	R(13)	0	m(1)	
1229.147	81357.25	R(02)	0	N(1)	
1229.059	81363.08	R(14)	0	m(1)	
1228.951	81370.19	R(15)	0	m(1)	
1228.951	81370.19	R(03)	0	N(1)	
1228.884	81374.63	R(16)	0	m(1)	
1228.815	81379.22	R(07)	0	m(1)	
1228.766	81382.49	R(04)	0	N(1)	
1228.596	81393.74	R(05)	0	N(1)	
1228.441	81403.97	R(06)	0	N(1)	
1228.302	81413.20	R(07)	0	N(1)	
1228.179	81421.33	R(08)	0	N(1)	
1228.064	81428.97	R(09)	0	N(1)	
1227.963	81435.71	R(10)	0	N(1)	
1227.890	81440.54	R(11)	0	N(1)	
1227.830	81444.52	R(12)	0	N(1)	
1227.449	81469.80	P(11)	1	H(0)	
1227.235	81484.00	P(06)	1	V(0)	
1226.903	81506.03				
1226.529	81530.90	P(10)	1	H(0)	
1226.444	81536.51	P(05)	1	V(0)	
1225.847	81576.24	P(04)	1	V(0)	
1225.691	81586.62	P(09)	1	H(0)	
1225.560	81595.34				
1225.292	81613.23	P(03)	1	V(0)	
1224.943	81636.48	P(08)	1	H(0)	
1224.838	81643.43	P(02)	1	V(0)	
1224.488	81666.80	P(01)	1	V(0)	
1224.488	81666.80	R(04)	1	V(0)	
1224.259	81682.06	P(07)	1	H(0)	
1224.194	81686.43	R(03)	1	V(0)	
1224.089	81693.40	R(02)	1	V(0)	
1224.089	81693.40	R(00)	1	V(0)	
1224.047	81696.24	R(01)	1	V(0)	
1223.809	81712.07				
1223.620	81724.73	P(06)	1	H(0)	
1223.565	81728.42				
1223.486	81733.67				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1223.029	81764.24	P(05)	1	H(0)	
1222.491	81800.20	P(04)	1	H(0)	
1222.238	81817.14	R(09)	1	H(0)	
1222.014	81832.11	P(03)	1	H(0)	
1221.788	81847.27	R(08)	1	H(0)	
1221.608	81859.35	P(02)	1	H(0)	
1221.458	81869.34	R(07)	1	H(0)	
1221.279	81881.37	P(01)	1	H(0)	
1221.212	81885.83	R(06)	1	H(0)	
1221.023	81898.54	R(05)	1	H(0)	
1220.880	81908.15	R(04)	1	H(0)	
1220.861	81909.40	R(00)	1	H(0)	
1220.784	81914.54	R(03)	1	H(0)	
1220.784	81914.54	R(01)	1	H(0)	
1220.754	81916.60	R(02)	1	H(0)	
1220.608	81926.41	P(08)	0	j(0)	pt
1220.579	81928.32	P(11)	2	E(0)	
1087.419	91960.86	P(12)	2	E(0)	
1220.028	81965.36	P(10)	2	E(0)	
1219.989	81967.98				
1219.713	81986.50	P(07)	0	j(0)	
1219.496	82001.11	P(11)	m	V(0)	
1219.418	82006.33	P(09)	2	E(0)	
1219.190	82021.69				
1219.016	82033.37	P(06)	0	j(0)	
1218.908	82040.62	P(10)	m	V(0)	
1218.834	82045.65	P(08)	2	E(0)	
1218.473	82069.96	p(05)	0	j(0)	
1218.314	82080.67	P(09)	m	V(0)	
1218.244	82085.33	P(07)	2	E(0)	
1218.024	82100.16	P(04)	0	j(0)	
1217.679	82123.44	P(06)	2	E(0)	
1217.679	82123.44	P(08)	m	V(0)	
1217.646	82125.68	P(03)	0	j(0)	
1217.313	82148.16	P(02)	0	j(0)	
1217.166	82158.03	P(05)	2	E(0)	
1217.066	82164.81	P(07)	m	V(0)	
1217.026	82167.49	P(01)	0	j(0)	
1216.911	82175.27	R(06)	0	j(0)	
1216.716	82188.44	P(04)	2	E(0)	
1216.571	82198.26	R(00)	0	j(0)	
1216.500	82203.02	R(05)	0	j(0)	
1216.408	82209.26	R(01)	0	j(0)	
1216.321	82215.16	P(03)	2	E(0)	
1216.297	82216.74	R(02)	0	j(0)	
1216.297	82216.74	R(04)	0	j(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1216.251	82219.84	R(03)	0	j(0)	
1215.985	82237.88	P(02)	2	E(0)	
1215.677	82258.69	P(01)	2	E(0)	
1215.400	82277.45				
1215.242	82288.16	R(00)	2	E(0)	
1215.242	82288.16	R(02)	2	E(0)	
1215.141	82294.98	R(06)	2	E(0)	
1215.091	82298.35	R(01)	2	E(0)	
1215.043	82301.63	R(05)	2	E(0)	
1214.979	82305.92	R(02)	2	E(0)	
1214.959	82307.29	R(04)	2	E(0)	
1214.949	82307.95	R(03)	2	E(0)	
1214.630	82329.60	R(11)	m	V(0)	
1214.467	82340.65	R(10)	m	V(0)	
1214.352	82348.47	R(09)	m	V(0)	
1214.248	82355.52	R(08)	m	V(0)	
1214.140	82362.84	R(07)	m	V(0)	
1214.015	82371.30	R(06)	m	V(0)	
1213.869	82381.18	R(05)	m	V(0)	
1213.831	82383.78	R(04)	m	V(0)	
1213.658	82395.53				
1213.579	82400.87*	Q(02)	1	k(0)	
1213.454	82409.40				
1213.284	82420.91				
1213.196	82426.91				
1213.103	82433.20	P(12)	0	k(2)	
1213.093	82433.89	R(01)	1	k(0)	
1213.021	82438.81	P(14)	1	k(1)	
1212.889	82447.75	R(02)	1	k(0)	
1212.723	82459.07	R(03)	1	k(0)	
1212.723	82459.07	P(11)	0	k(2)	
1212.637	82464.93	P(13)	1	k(1)	
1212.571	82469.41	R(04)	1	k(0)	
1212.447	82477.86	R(05)	1	k(0)	
1212.367	82483.24	P(10)	0	k(2)	
1212.347	82484.65	R(06)	1	k(0)	
1212.282	82489.03	P(12)	1	k(1)	
1212.267	82490.11	R(07)	1	k(0)	
1212.202	82494.51	R(08)	1	k(0)	
1212.180	82496.02				
1212.151	82498.00	R(HD)			
1212.037	82505.75	P(09)	0	k(2)	
1211.922	82513.57	P(11)	1	k(1)	
1211.757	82524.82	X(14)			
1211.715	82527.68	P(08)	0	k(2)	
1211.649	82532.18	X(13)			

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1211.560	82538.20	X(12)			
1211.560	82538.20	P(10)	1	k(1)	
1211.459	82545.11	X(11)			
1211.409	82548.48	P(07)	0	k(2)	
1211.371	82551.12	X(10)			
1211.289	82556.70	X(09)			
1211.238	82560.17	X(08)			
1211.205	82562.43	X(07)			
1211.205	82562.43	P(09)	1	k(1)	
1211.135	82567.16	X(06)			
1211.113	82568.66	P(06)	0	k(2)	
1211.080	82570.95	X(05)			
1211.028	82574.47	X(04)			
1210.983	82577.52	X(03)			
1210.949	82579.83	X(02)			
1210.923	82581.66	X(01)			
1210.857	82586.16	P(08)	1	k(1)	
1210.828	82588.12	P(05)	0	k(2)	
1210.697	82597.05	P(07)	n	V(0)	
1210.549	82607.12	P(04)	0	k(2)	
1210.541	82607.72	Q(13)	0	k(2)	
1210.512	82609.69	P(07)	1	k(1)	
1210.421	82615.89				
1210.349	82620.77	Q(12)	0	k(2)	
1210.280	82625.49	P(03)	0	k(2)	
1210.206	82630.58	Q(11)	0	k(2)	
1210.206	82630.58	P(06)	1	k(1)	
1210.054	82640.95	Q(10)	0	k(2)	
1209.941	82648.65	Q(09)	0	k(2)	
1209.894	82651.85	P(05)	1	k(1)	
1209.847	82655.10	Q(08)	0	k(2)	
1209.768	82660.49	Q(07)	0	k(2)	
1209.703	82664.93	Q(06)	0	k(2)	
1209.650	82668.57	Q(05)	0	k(2)	
1209.600	82671.94	Q(04)	0	k(2)	
1209.600	82671.94	P(04)	1	k(1)	
1209.588	82672.80	P(06)	n	V(0)	
1209.572	82673.86	Q(03)	0	k(2)	
1209.550	82675.40	Q(02)	0	k(2)	
1209.500	82678.81	Q(12)	1	k(1)	
1209.371	82687.64	Q(11)	!	k(1)	
1209.311	82691.70	P(03)	1	k(1)	
1209.246	82696.17	Q(10)	1	k(1)	
1209.191	82699.95				
1209.127	82704.31	Q(09)	1	k(1)	
1209.058	82709.04	R(01)	0	k(2)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1209.041	82710.18	P(02)	1	k(1)	
1209.013	82712.09	Q(08)	1	k(1)	
1208.908	82719.26	Q(07)	1	k(1)	
1208.838	82724.05	R(02)	0	k(2)	
1208.815	82725.65	Q(06)	1	k(1)	
1208.741	82730.72	Q(05)	1	k(1)	
1208.672	82735.46	Q(04)	1	k(1)	
1208.644	82737.35	P(05)	n	V(0)	
1208.628	82738.47	Q(03)	1	k(1)	
1208.628	82738.47	R(03)	0	k(2)	
1208.578	82741.86	Q(02)	1	k(1)	
1208.553	82743.60	Q(01)	1	k(1)	
1208.431	82751.94	R(04)	0	k(2)	
1208.305	82760.53	R(06)	n	V(0)	
1208.244	82764.75	R(05)	0	k(2)	
1208.065	82777.00	R(06)	0	k(2)	
1207.905	82787.97	R(07)	0	k(2)	
1207.854	82791.44	P(04)	n	V(0)	
1207.761	82797.84	R(08)	0	k(2)	
1207.637	82806.31	R(09)	0	k(2)	
1207.537	82813.21	R(10)	0	k(2)	
1207.537	82813.21	R(05)	n	V(0)	
1207.469	82817.85	R(11)	0	k(2)	
1207.414	82821.64	R(12)	0	k(2)	
1207.176	82837.94	P(03)	n	V(0)	
1207.076	82844.85	R(07)	1	k(1)	
1207.041	82847.23				
1206.950	82853.48	R(08)	1	k(1)	
1206.927	82855.04	R(04)	n	V(0)	
1206.837	82861.20	R(09)	1	k(1)	
1206.731	82868.48	R(10)	1	k(1)	
1206.675	82872.33	P(02)	n	V(0)	
1206.605	82877.18	R(11)	1	k(1)	
1206.519	82883.10	R(12)	1	k(1)	
1206.469	82886.52	R(03)	n	V(0)	
1206.279	82899.58	P(01)	n	V(0)	
1206.161	82907.69				
1206.136	82909.38	R(02)	n	V(0)	
1206.072	82913.78	P(15)	0	(0)	x
1205.959	82921.57	R(01)	n	V(0)	
1205.927	82923.75	R(00)	n	V(0)	
1205.855	82928.69	P(14)	0	(0)	x
1205.811	82931.72				
1205.764	82934.99				
1205.721	82937.90				
1205.673	82941.26				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1205.609	82945.61	P(13)	0	(0)	x
1204.953	82990.79	Q(10)	1	m(2)	
1204.813	83000.42				
1204.780	83002.68	Q(09)	1	m(2)	
1204.670	83010.29	P(13)	0	r(2)	
1204.623	83013.49	Q(08)	1	m(2)	
1204.623	83013.49	P(09)	0	m(0)	?
1204.483	83023.14	Q(07)	1	m(2)	
1204.462	83024.60	P(13)	0	r(1)	
1204.359	83031.75	Q(06)	1	m(2)	
1204.310	83035.13	P(12)	0	r(2)	
1204.236	83040.18	Q(05)	1	m(2)	
1204.192	83043.25	P(08)	0	m(0)	
1204.134	83047.24	Q(04)	1	m(2)	
1204.083	83050.78	P(12)	0	r(1)	
1204.050	83053.00	Q(03)	1	m(2)	
1203.962	83059.13	P(11)	0	r(2)	
1203.760	83073.03	P(07)	0	m(0)	
1203.723	83075.57	P(11)	0	r(1)	
1203.626	83082.29	P(10)	0	r(2)	
1203.376	83099.53	P(10)	0	r(1)	
1203.340	83102.04	P(06)	0	m(0)	
1203.304	83104.50	P(09)	0	r(2)	
1203.044	83122.49	P(09)	0	r(1)	
1202.994	83125.93	P(08)	0	r(2)	
1202.941	83129.60	P(05)	0	m(0)	
1202.725	83144.55	P(08)	0	r(1)	
1202.704	83146.01	P(07)	0	r(2)	
1202.637	83150.63	P(14)	0	K(1)	
1202.618	83151.94	R(08)	1	m(2)	
1202.564	83155.64	P(04)	0	m(0)	
1202.514	83159.10	Q(08)	0	m(0)	
1202.421	83165.54	P(07)	0	r(1)	
1202.362	83169.60	R(12)	1	m(2)	
1202.421	83165.54	P(06)	0	r(2)	
1202.286	83174.85	Q(07)	0	m(0)	
1202.257	83176.88	P(13)	0	K(1)	
1202.214	83179.84	P(03)	0	m(0)	
1202.145	83184.67	P(05)	0	r(2)	
1202.136	83185.25	P(06)	0	r(1)	
1202.085	83188.79	Q(06)	0	m(0)	
1201.890	83202.32	P(04)	0	r(2)	
1201.890	83202.32	P(02)	0	m(0)	
1201.890	83202.32	Q(05)	0	m(0)	
1201.890	83202.32	P(12)	0	K(1)	
1201.853	83204.88	P(05)	0	r(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1201.739	83212.71	Q(04)	0	m(0)	
1201.638	83219.71	P(03)	0	r(2)	
1201.599	83222.45	P(01)	0	m(0)	
1201.599	83222.45	Q(03)	0	m(0)	
1201.513	83228.40	P(04)	0	r(1)	
1201.530	83227.23	P(11)	0	K(1)	
1201.492	83229.82	Q(02)	0	m(0)	
1201.415	83235.16	Q(01)	0	m(0)	
1201.321	83241.67	P(03)	0	r(1)	
1201.307	83242.69	Q(10)	0	r(2)	
1201.273	83245.01	Q(11)	0	r(1)	
1201.213	83249.21	Q(09)	0	r(2)	
1201.174	83251.89	R(00)	0	m(0)	
1201.174	83251.89	P(10)	0	K(1)	
1201.135	83254.58	Q(08)	0	r(2)	
1201.135	83254.58	Q(10)	0	r(1)	
1201.068	83259.25	Q(07)	0	r(2)	
1201.068	83259.25	P(02)	0	r(1)	
1201.016	83262.86	Q(06)	0	r(2)	
1201.016	83262.86	Q(09)	0	r(1)	
1159.247	86262.86	R(01)	0	m(0)	
1200.972	83265.88	Q(05)	0	r(2)	
1200.939	83268.19	Q(04)	0	r(2)	
1200.924	83269.22	Q(08)	0	r(1)	
1200.879	83272.35	R(02)	0	m(0)	
1200.832	83275.57	Q(07)	0	r(1)	
1200.832	83275.57	P(09)	0	K(1)	
1200.762	83280.47	Q(06)	0	r(1)	
1200.700	83284.77	Q(05)	0	r(1)	
1200.659	83287.56	Q(04)	0	r(1)	
1200.621	83290.23	Q(03)	0	r(1)	
1200.600	83291.68	Q(02)	0	r(1)	
1200.590	83292.35	Q(01)	0	r(1)	
1200.516	83297.50	P(08)	0	K(1)	
1200.434	83303.18	R(01)	0	r(2)	
1200.363	83308.14	R(07)	0	(0)	x
1200.343	83309.53	R(00)	0	r(1)	
1200.206	83319.00*	R(02)	0	r(2)	
1200.196	83319.74	R(08)	0	(0)	x
1200.196	83319.74	P(07)	0	K(1)	
1200.123	83324.77	R(01)	0	r(1)	
1200.061	83329.08	R(09)	0	(0)	x
1199.983	83334.52	R(03)	0	r(2)	
1199.900	83340.25	R(02)	0	r(1)	
1199.900	83340.25	P(06)	0	K(1)	
1199.851	83343.71	R(10)	0	(0)	x

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1199.778	83348.73	R(04)	0	r(2)	
1199.703	83353.95				
1199.690	83354.87	R(03)	0	r(1)	
1199.652	83357.51	R(11)	0	(0)	x
1199.583	83362.32	R(05)	0	r(2)	
1199.583	83362.32	P(05)	0	K(1)	
1199.491	83368.72	R(04)	0	r(1)	
1199.438	83372.35	R(12)	0	(0)	x
1199.396	83375.28	R(06)	0	r(2)	
1199.304	83381.72	R(05)	0	r(1)	
1199.304	83381.72	P(04)	0	K(1)	
1199.232	83386.69	R(07)	0	r(2)	
1199.187	83389.84	R(13)	0	(0)	x
1199.131	83393.73	R(06)	0	r(1)	
1199.081	83397.21	R(08)	0	r(2)	
1199.056	83398.91	P(03)	0	K(1)	
1198.974	83404.66	R(07)	0	r(1)	
1198.939	83407.11	P(08)	1	m(1)	
1198.939	83407.11	R(09)	0	r(2)	
1198.830	83414.66	R(08)	0	r(1)	
1198.775	83418.50	P(02)	0	K(1)	
1198.715	83422.69	R(09)	0	r(1)	
1198.624	83428.98	Q(07)	0	K(1)	
1198.596	83430.97	R(10)	0	r(1)	
1198.589	83431.43	P(07)	1	m(1)	
1198.539	83434.92	Q(06)	0	K(1)	
1198.515	83436.61	R(11)	0	r(1)	
1198.465	83440.06	Q(05)	0	K(1)	
1198.402	83444.45	Q(04)	0	K(1)	
1198.348	83448.24	Q(03)	0	K(1)	
1198.305	83451.20	Q(02)	0	K(1)	
1198.269	83453.70				
1198.305	83451.20	Q(01)	0	K(1)	
1198.259	83454.44	P(06)	1	m(1)	
1198.059	83468.35	R(00)	0	K(1)	
1197.948	83476.09	P(05)	1	m(1)	
1197.839	83483.65	R(01)	0	K(1)	
1197.650	83496.83	P(04)	1	m(1)	
1197.636	83497.83	R(02)	0	K(1)	
1197.593	83500.79	Q(10)	1	m(1)	
1197.491	83507.92				
1197.440	83511.48	R(03)	0	K(1)	
1197.407	83513.78	Q(09)	1	m(1)	
1197.369	83516.44	P(03)	1	m(1)	
1197.260	83524.08	R(04)	0	K(1)	
1197.235	83525.81	Q(08)	1	m(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1197.099	83535.31	P(02)	1	m(1)	
1197.099	83535.31	Q(07)	1	m(1)	
1197.099	83535.31	R(05)	0	K(1)	
1196.980	83543.59	Q(06)	1	m(1)	
1196.934	83546.80	R(06)	0	K(1)	
1196.872	83551.10	Q(05)	1	m(1)	
1196.785	83557.22	Q(04)	1	m(1)	
1196.785	83557.22	R(07)	0	K(1)	
1196.713	83562.19	Q(03)	1	m(1)	
1196.660	83565.93	Q(02)	1	m(1)	
1196.660	83565.93	R(08)	0	K(1)	
1196.627	83568.26	Q(01)	1	m(1)	
1196.532	83574.84	R(09)	0	K(1)	
1196.424	83582.39	R(10)	0	K(1)	
1196.383	83585.30	R(00)	1	m(1)	
1196.330	83588.96	R(11)	0	K(1)	
1196.251	83594.53	R(12)	0	K(1)	
1196.175	83599.82	R(01)	1	m(1)	
1196.175	83599.82	R(13)	0	K(1)	
1196.133	83602.74	R(14)	0	K(1)	
1195.978	83613.57	R(02)	1	m(1)	
1195.899	83619.07				
1195.798	83626.16	R(03)	1	m(1)	
1195.777	83627.64				
1195.635	83637.53	R(04)	1	m(1)	
1195.611	83639.24				
1195.525	83645.25				
1195.487	83647.89	R(05)	1	m(1)	
1195.363	83656.57	R(06)	1	m(1)	
1195.189	83668.75	P(10)	p	V(0)	
1195.135	83672.55				
1195.072	83676.99				
1194.844	83692.93	P(09)	p	V(0)	
1194.815	83694.97	P(08)	0	M(1)	
1194.639	83707.30				
1194.440	83721.25	P(07)	0	M(1)	
1194.377	83725.63	P(03)			
1194.341	83728.21	P(08)	p	V(0)	
1194.148	83741.72				
1194.145	83741.92	P(06)	0	M(1)	
1194.033	83749.81	P(02)			
1193.875	83760.88	P(05)	0	M(1)	
1193.730	83771.02	P(01)			
1193.610	83779.46	P(04)	0	M(1)	
1193.576	83781.87	P(07)	p	V(0)	
1193.408	83793.63	P(11)	3	g(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1193.360	83797.02	P(03)	0	M(1)	
1193.320	83799.84	R(00)			
1193.309	83800.61				
1193.265	83803.69	Q(13)	0	M(1)	
1193.206	83807.79	R(01)			
1193.171	83810.27	Q(12)	0	M(1)	
1193.114	83814.27	P(02)	0	M(1)	
1193.083	83816.47	Q(11)	0	M(1)	
1193.005	83821.97	Q(10)	0	M(1)	
1192.936	83826.76	Q(09)	0	M(1)	
1192.873	83831.20	Q(08)	0	M(1)	
1192.814	83835.39	Q(07)	0	M(1)	
1192.801	83836.30	P(06)	p	V(0)	
1192.778	83837.92	Q(06)	0	M(1)	
1192.733	83841.07	Q(05)	0	M(1)	
1192.699	83843.45	Q(04)	0	M(1)	
1192.670	83845.48	Q(03)	0	M(1)	
1192.653	83846.65	Q(02)	0	M(1)	
1192.645	83847.24	Q(01)	0	M(1)	
1192.401	83864.42	R(00)	0	M(1)	
1192.357	83867.50	P(10)	3	g(0)	?
1192.173	83880.45	R(01)	0	M(1)	
1192.086	83886.55				
1192.075	83887.32	P(05)	p	V(0)	
1191.952	83896.00	R(02)	0	M(1)	
1191.740	83910.92	R(03)	0	M(1)	
1191.539	83925.05	R(04)	0	M(1)	
1191.477	83929.44	P(09)	3	g(0)	
1191.438	83932.21	P(04)	p	V(0)	
1191.417	83933.66				
1191.361	83937.58	R(05)	0	M(1)	
1191.265	83944.35	R(06)	0	M(1)	
1190.898	83970.28	P(03)	p	V(0)	
1190.830	83975.06	R(07)	p	V(0)	
1190.801	83977.06	R(06)	p	V(0)	
1190.723	83982.60	P(08)	3	g(0)	
1190.641	83988.38				
1190.580	83992.66				
1190.490	83999.02	R(05)	p	V(0)	
1190.459	84001.19	P(02)	p	V(0)	
1190.202	84019.38	R(04)	p	V(0)	
1190.121	84025.06	P(01)	p	V(0)	
1190.038	84030.95	P(07)	3	g(0)	
1190.024	84031.94				
1189.949	84037.22	R(03)	p	V(0)	
1189.922	84039.14				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1189.783	84048.93	R(02)	p	V(0)	
1189.752	84051.15				
1189.716	84053.65	R(01)	p	V(0)	
1189.402	84075.85	P(06)	3	g(0)	
1189.244	84087.04	R(10)	3	g(0)	
1189.155	84093.36				
1188.833	84116.12	P(05)	3	g(0)	
1188.571	84134.65				
1188.480	84141.09	R(09)	3	g(0)	
1188.322	84152.31	P(04)	3	g(0)	
1187.888	84182.99	R(08)	3	g(0)	
1187.870	84184.27	P(03)	3	g(0)	
1187.486	84211.50	P(02)	3	g(0)	
1187.486	84211.50	R(07)	3	g(0)	
1187.347	84221.35	P(08)	1	h(0)	?
1187.340	84221.89				
1187.192	84232.38	P(01)	3	g(0)	
1187.192	84232.38	R(06)	3	g(0)	
1186.970	84248.10	R(05)	3	g(0)	
1186.811	84259.44	R(04)	3	g(0)	
1186.794	84260.60	R(00)	3	g(0)	
1186.712	84266.47	R(03)	3	g(0)	
1186.690	84267.99	R(01)	3	g(0)	
1186.665	84269.77	R(02)	3	g(0)	
1186.494	84281.90				
1186.665	84269.77	P(07)	1	h(0)	
1186.665	84269.77	P(10)		Z(0)	
1186.340	84292.85	P(09)		Z(0)	
1186.107	84309.45	P(06)	1	h(0)	
1186.068	84312.20	P(08)		Z(0)	
1185.933	84321.82				
1185.924	84322.41				
1185.858	84327.14				
1185.775	84333.05	P(07)		Z(0)	
1185.662	84341.10	P(05)	1	h(0)	
1185.544	84349.44				
1185.530	84350.49	P(06)		Z(0)	
1185.481	84353.96				
1185.267	84369.17	P(04)	1	h(0)	
1185.245	84370.76	P(05)		Z(0)	
1184.996	84388.49	P(04)		Z(0)	
1184.914	84394.32	P(03)	1	h(0)	
1184.742	84406.59	P(03)		Z(0)	
1184.593	84417.20	P(02)	1	h(0)	
1184.497	84424.03	P(02)		Z(0)	
1184.376	84432.61				

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1184.284	84439.20	P(01)		Z(0)	
1184.111	84451.52				
1184.034	84457.00				
1183.981	84460.78	R(06)	1	h(0)	
1183.958	84462.44				
1183.890	84467.31	R(00)	1	h(0)	
1183.868	84468.89				
1183.795	84474.07	R(00)		Z(0)	
1183.746	84477.60	R(01)	1	h(0)	
1183.622	84486.45	R(02)	1	h(0)	
1183.622	84486.45	R(05)	1	h(0)	
1183.559	84490.94	R(03)	1	h(0)	
1183.559	84490.94	R(01)		Z(0)	
1183.532	84492.84	R(04)	1	h(0)	
1183.502	84494.99				
1183.443	84499.21				
1183.367	84504.65	R(02)		Z(0)	
1183.285	84510.49				
1183.226	84514.74				
1183.155	84519.77	R(03)		Z(0)	
1183.094	84524.13	P(13)	0	1(0)	
1183.065	84526.22				
1182.992	84531.39				
1182.958	84533.83	R(04)		Z(0)	
1182.903	84537.75				
1182.888	84538.87				
1182.788	84546.01				
1182.740	84549.41	R(05)		Z(0)	
1182.715	84551.22	P(12)	0	1(0)	
1182.662	84555.01				
1182.566	84561.88	R(06)		Z(0)	
1182.432	84571.49				
1182.381	84575.08	R(07)		Z(0)	
1182.363	84576.41	P(11)	0	1(0)	
1182.248	84584.59	P(10)	0	L(0)	'
1182.209	84587.44	R(08)		Z(0)	
1182.049	84598.86	R(09)		Z(0)	
1182.013	84601.44	P(10)	0	1(0)	
1181.940	84606.68	P(05)		Y(0)	
1181.871	84611.61				
1181.695	84624.24				
1181.652	84627.31	P(09)	0	1(0)	
1181.591	84631.67	P(04)		Y(0)	
1181.492	84638.73				
1181.379	84646.85	P(08)	0	1(0)	
1181.273	84654.46	P(03)		Y(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1181.127	84664.90				
1181.052	84670.31	P(07)	0	1(0)	
1180.990	84674.69	P(02)		Y(0)	
1180.767	84690.74				
1180.745	84692.30	P(06)	0	1(0)	
1180.612	84701.81				
1180.451	84713.39	P(05)	0	1(0)	
1180.278	84725.82	R(00)		Y(0)	
1180.169	84733.64	P(04)	0	1(0)	
1180.115	84737.48	R(01)		Y(0)	
1179.961	84748.57	R(02)		Y(0)	
1179.899	84753.05	P(03)	0	1(0)	
1179.844	84756.94	R(03)		Y(0)	
1179.759	84763.07	R(04)		Y(0)	
1179.689	84768.12	R(05)		Y(0)	
1179.664	84769.93	R(06)		Y(0)	
1179.664	84769.93	R(HD)		Y(0)	
1179.642	84771.49	P(02)	0	1(0)	
1179.397	84789.10	P(01)	0	1(0)	
1178.945	84821.59	R(00)	0	1(0)	
1178.739	84836.45	R(01)	0	1(0)	
1178.545	84850.42	R(02)	0	1(0)	
1178.364	84863.44	R(03)	0	1(0)	
1178.197	84875.45	R(04)	0	1(0)	
1178.044	84886.47	R(05)	0	1(0)	
1177.909	84896.19	R(06)	0	1(0)	
1177.725	84909.49	R(07)	0	1(0)	
1177.630	84916.35	R(08)	0	1(0)	
1177.524	84923.98	R(09)	0	1(0)	
1177.427	84930.97	R(10)	0	1(0)	
1177.352	84936.33	R(11)	0	1(0)	
1177.212	84946.49	R(12)	0	1(0)	
1177.153	84950.72	R(13)	0	1(0)	
1177.142	84951.51	R(14)	0	1(0)	
1176.404	85004.79				
1176.310	85011.57				
1175.824	85046.74				
1175.739	85052.87				
1175.603	85062.75	P(12)		X(0)	
1174.959	85109.33	P(11)		X(0)	
1174.339	85154.30	P(10)		X(0)	
1173.765	85195.93	P(09)		X(0)	
1173.172	85238.97	P(08)		X(0)	
1172.928	85256.72	P(11)		W(0)	
1172.831	85263.79	P(07)		X(0)	
1172.549	85284.31	P(07)		X(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1172.418	85293.79	P(10)		W(0)	
1172.222	85308.09	P(06)		X(0)	
1171.953	85327.68	P(09)		W(0)	
1171.741	85343.10	P(05)		X(0)	
1171.625	85351.53				
1171.522	85359.04	P(08)		W(0)	
1171.307	85374.71	P(04)		X(0)	
1171.127	85387.87	P(07)		W(0)	
1170.919	85403.02	P(03)		X(0)	
1170.766	85414.17	P(06)		W(0)	
1170.578	85427.91	P(02)		X(0)	
1170.438	85438.11	P(05)		W(0)	
1170.337	85445.47				
1170.379	85442.38				
1170.291	85448.86	P(01)		X(0)	
1170.179	85457.01	R(09)		X(0)	
1170.150	85459.12	P(04)		W(0)	
1170.009	85469.40	R(08)		X(0)	
1169.978	85471.71				
1169.888	85478.28	P(03)		W(0)	
1169.888	85478.28	R(00)		X(0)	
1169.888	85478.28	R(07)		X(0)	
1169.864	85480.00	R(05)		X(0)	
1169.773	85486.68	R(01)		X(0)	
1169.761	85487.54	R(06)		X(0)	
1169.707	85491.48	R(04)		X(0)	
1169.707	85491.48	R(02)		X(0)	
1169.699	85492.10				
1169.685	85493.07	R(03)		X(0)	
1169.685	85493.07	P(02)		W(0)	
1169.583	85500.59	R(05)		X(0)	
1169.446	85510.56	P(01)		W(0)	
1169.381	85515.33				
1169.361	85516.80				
1169.299	85521.32				
1169.254	85524.59				
1169.120	85534.39				
1168.995	85543.59	R(00)		W(0)	
1168.891	85551.15				
1168.762	85560.60	R(01)		W(0)	
1168.739	85562.31				
1168.552	85575.97	R(02)		W(0)	
1168.518	85578.48				
1168.474	85581.72				
1168.385	85588.23	R(03)		W(0)	
1168.318	85593.16	P(13)	0	k(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1168.255	85597.76	R(04)		W(0)
1168.218	85600.46			
1168.170	85603.99	R(05)		W(0)
1168.170	85603.99	R(09)		W(0)
1168.108	85608.54	R(06)		W(0)
1168.108	85608.54	R(08)		W(0)
1168.089	85609.93	R(07)		W(0)
1168.053	85612.52			
1167.948	85620.22			
1167.888	85624.67	P(12)	0	r(0)
1167.873	85625.77			
1167.723	85636.74			
1167.691	85639.09			
1167.648	85642.23			
1167.479	85654.66	P(11)	0	r(0)
1167.413	85659.45			
1167.288	85668.66			
1167.201	85675.05			
1167.136	85679.79			
1167.087	85683.40	P(10)	0	r(0)
1166.982	85691.09			
1166.910	85696.44			
1166.795	85704.83			
1166.714	85710.81	P(09)	0	r(0)
1166.696	85712.12			
1166.638	85716.41			
1166.548	85723.01			
1166.363	85736.61	P(08)	0	r(0)
1166.251	85744.85			
1166.202	85748.41			
1166.149	85752.31			
1166.030	85761.06	P(07)	0	r(0)
1165.813	85777.04			
1165.713	85784.44	P(06)	0	r(0)
1165.652	85788.91	P(08)	0	R(1)
1165.616	85791.57			
1165.526	85798.18			
1165.415	85806.38	P(05)	0	r(0)
1165.353	85810.94	P(07)	0	R(1)
1165.306	85814.34			
1165.277	85816.50			
1165.157	85825.35			
1165.154	85825.58	P(04)	0	r(0)
1165.076	85831.31	P(06)	0	R(1)
1165.023	85835.19	Q(05)		
1164.963	85839.61			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1164.909	85843.63	Q(04)		
1164.866	85846.80	P(03)	0	r(0)
1164.804	85851.38	Q(03)		
1164.804	85851.38	P(05)	0	R(1)
1164.734	85856.54	Q(02)		
1164.672	85861.10	Q(01)		
1164.634	85863.91	Q(00)		
1164.612	85865.53	P(02)	0	r(0)
1164.534	85871.28	P(04)	0	R(1)
1164.508	85873.15			
1164.479	85875.31			
1164.400	85881.12			
1164.377	85882.83	P(01)	0	r(0)
1164.300	85888.51			
1164.287	85889.48	P(03)	0	R(1)
1164.221	85894.38			
1164.159	85898.91	Q(12)	0	R(1)
1164.125	85901.43			
1164.105	85902.90			
1164.094	85903.70			
1164.063	85906.01	Q(11)	0	R(1)
1164.049	85907.06	P(02)	0	R(1)
1163.980	85912.12	Q(10)	0	R(1)
1165.282	85816.11	R(00)	0	r(0)
1163.904	85917.76	Q(09)	0	R(1)
1163.859	85921.08			
1042.504	95922.88	Q(08)	0	R(1)
1163.778	85927.05	Q(07)	0	R(1)
1163.730	85930.60	Q(06)	0	R(1)
1163.711	85932.01			
1163.730	85930.60	R(01)	0	r(0)
1163.686	85933.85	Q(05)	0	R(1)
1163.650	85936.47	Q(04)	0	R(1)
1163.625	85938.34	Q(03)	0	R(1)
1163.602	85940.02	Q(02)	0	R(1)
1163.585	85941.30	Q(01)	0	R(1)
1163.565	85942.79	R(02)	0	r(0)
1163.455	85950.87			
1163.359	85957.97	R(03)	0	r(0)
1163.359	85957.97	R(00)	0	R(1)
1163.224	85968.00	R(04)	0	r(0)
1163.149	85973.48	R(01)	0	R(1)
1163.096	85977.43	R(05)	0	r(0)
1162.976	85986.28	R(06)	0	r(0)
1162.954	85987.90	R(02)	0	R(1)
1162.887	85992.89	R(07)	0	r(0)

WAVELENGTH	WAVENUMBER	ASSIGNMENT			COMMENTS
1162.812	85998.39	R(08)	0	r(0)	
1162.766	86001.82	R(03)	0	R(1)	
1162.766	86001.82	R(09)	0	r(0)	
1162.726	86004.80	R(10)	0	r(0)	
1162.731	86004.43	R(11)	0	r(0)	
1162.684	86007.89				
1162.590	86014.88	R(04)	0	R(1)	
1162.426	86027.01	R(05)	0	R(1)	
1162.400	86028.88				
1162.278	86037.91	R(06)	0	R(1)	
1162.191	86044.38				
1162.183	86045.00				
1161.934	86063.42				
1161.775	86075.15	P(08)	GREEN		
1161.482	86096.92	P(07)		GN(1)	
1161.368	86105.36				
1161.241	86114.77	P(06)		GN(1)	
1161.181	86119.21	P(06)		GN(1)	
1161.121	86123.64	P(12)		OR(0)	
1161.020	86131.13	P(10)		BR(1)	
1160.958	86135.76	P(05)		GN(1)	
1160.940	86137.11				
1160.828	86145.38				
1160.860	86143.03	Q(13)		GN(1)	
1160.712	86154.01				
1160.741	86151.85	P(05)		PK(0)	?
1160.678	86156.53	P(04)		GN(1)	
1160.678	86156.53	P(09)		BR(1)	
1160.654	86158.32				
1160.539	86166.85	Q(11)		GN(1)	
1160.539	86166.85	P(11)		OR(0)	
1160.421	86175.62	P(03)		GN(1)	
1160.405	86176.80	Q(10)		GN(1)	
1160.336	86181.94	P(08)		BR(1)	
1160.279	86186.14	Q(09)		GN(1)	
1160.179	86193.60	P(02)		GN(1)	
1160.164	86194.71	Q(08)		GN(1)	
1160.112	86198.55	P(04)		PK(0)	?
1160.067	86201.91	Q(07)		GN(1)	
1160.010	86206.13	P(07)		BR(1)	
1159.977	86208.61	Q(06)		GN(1)	
1159.961	86209.81	P(10)		OR(0)	
1159.908	86213.77	Q(05)		GN(1)	
1159.843	86218.54	Q(04)		GN(1)	
1159.794	86222.23	Q(03)		GN(1)	
1159.754	86225.19	Q(02)		GN(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1159.193	86266.92	Q(01)	GN(1)	
1159.702	86229.06	P(06)	BR(1)	
1159.540	86241.09	P(03)	PK(0)	?
1159.511	86243.28	R(00)	GN(1)	
1159.400	86251.52	P(05)	BR(1)	
1159.400	86251.52	P(09)	OR(0)	
1159.299	86259.05	R(01)	GN(1)	
1159.247	86262.86			
1159.107	86273.34	R(02)	GN(1)	
1159.086	86274.91	P(02)	PK(0)	?
1159.049	86277.60	Q(11)	BR(1)	
1159.003	86281.08			
1158.939	86285.81	R(03)	GN(1)	
1158.901	86288.64	Q(10)	BR(1)	
1158.901	86288.64	P(08)	OR(0)	
1158.844	86292.89	P(03)	BR(1)	
1158.772	86298.23	R(04)	GN(1)	
1158.772	86298.23	Q(09)	BR(1)	
1158.652	86307.19	P(01)	PK(0)	?
1158.718	86302.28	R(03)	PK(0)	?
1158.718	86302.28	R(04)	GN(1)	
1158.653	86307.09	Q(08)	BR(1)	
1158.564	86313.72	R(05)	GN(1)	
1158.540	86315.54	Q(07)	BR(1)	
1158.540	86315.54	R(02)	PK(0)	?
1158.442	86322.87	Q(06)	BR(1)	
1158.177	86342.57	R(06)	GN(1)	
1158.419	86324.57	R(01)	PK(0)	?
1158.401	86325.86	R(00)	PK(0)	?
1158.401	86325.86	P(07)	OR(0)	
1158.359	86328.99	Q(05)	BR(1)	
1158.153	86344.37	Q(04)	BR(1)	
1157.561	86388.55	Q(03)	BR(1)	
1158.185	86341.99	Q(02)	BR(1)	
1158.160	86343.87	Q(01)	BR(1)	
1157.933	86360.80	R(00)	BR(1)	
1157.933	86360.80	P(06)	OR(0)	
1157.913	86362.29			
1157.729	86375.98	R(01)	BR(1)	
1157.692	86378.77			
1157.646	86382.18			
1157.552	86389.17	R(02)	BR(1)	
1157.509	86392.45	P(05)	OR(0)	
1157.390	86401.30	R(03)	BR(1)	
1157.262	86410.86			
1157.242	86412.36	R(04)	BR(1)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1157.201	86415.44			
1157.111	86422.13	R(05)	BR(1)	
1157.111	86422.13	P(04)	OR(0)	
1157.041	86427.35			
1156.989	86431.22	R(06)	BR(1)	
1156.935	86435.28			
1156.919	86436.50			
1156.886	86438.95	R(07)	BR(1)	
1156.827	86443.33			
1156.790	86446.12	R(08)	BR(1)	
1156.760	86448.32	P(03)	OR(0)	
1156.747	86449.35			
1156.730	86450.62			
1156.705	86452.48			
1156.542	86464.62	P(07)	GY(1)	?
1156.444	86472.01	P(02)	OR(0)	
1156.418	86473.93			
1156.379	86476.87			
1156.289	86483.54	P(06)	GY(1)	?
1156.173	86492.26	P(01)	OR(0)	
1156.157	86493.47			
1156.102	86497.59			
1156.050	86501.48	P(05)	GY(1)	?
1156.018	86503.85			
1155.961	86508.13			
1155.923	86510.93			
1155.877	86514.37	R(09)	OR(0)	
1155.825	86518.26			
1155.774	86522.08	R(00)	OR(0)	
1155.739	86524.69	R(08)	OR(0)	
1155.700	86527.61			
1155.643	86531.89	R(01)	OR(0)	
1155.634	86532.57			
1155.618	86533.80	R(07)	OR(0)	
1155.557	86538.37	R(06)	OR(0)	
1155.557	86538.37	R(02)	OR(0)	
1155.501	86542.55	R(03)	OR(0)	
1155.501	86542.55	R(05)	OR(0)	
1155.482	86543.96	R(04)	OR(0)	
1155.438	86547.29			
1155.391	86550.76			
1155.264	86560.29			
1155.231	86562.76			
1155.186	86566.12			
1155.062	86575.43	Q(07)		
1154.993	86580.63	Q(06)		

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1154.962	86582.92	Q(02)		
1154.918	86586.23	Q(01)		
1154.827	86593.04			
1154.730	86600.35	R(00)	GY(1)	?
1154.684	86603.80			
1154.659	86605.68			
1154.581	86611.49			
1154.514	86616.50			
1154.494	86618.04	R(01)	GY(1)	?
1154.446	86621.64			
1154.413	86624.09			
1154.399	86625.17			
1154.295	86632.99			
1154.269	86634.89	R(02)	GY(1)	?
1154.242	86636.98			
1154.212	86639.20			
1154.178	86641.78			
1154.163	86642.84	P(09)	GY(1)	?
1154.085	86648.75			
1154.050	86651.36	R(03)	GY(1)	?
1153.918	86661.27			
1153.845	86666.72	R(04)	GY(1)	?
1153.778	86671.80	P(08)	B1(0)	
1153.703	86677.39			
1153.658	86680.77	R(05)	GY(1)	?
1153.620	86683.66			
1153.577	86686.87			
1153.547	86689.17			
1153.503	86692.44	R(06)	GY(1)	?
1153.483	86693.92			
1153.425	86698.29	P(07)	B1(0)	
1153.391	86700.87			
1153.282	86709.07			
1153.241	86712.13			
1153.111	86721.93			
1153.057	86725.98	P(06)	B1(0)	
1153.003	86730.01			
1152.891	86738.46			
1152.863	86740.58			
1152.825	86743.41			
1152.784	86746.51			
1152.739	86749.87	P(03)	GY(1)	?
1152.701	86752.80			
1152.687	86753.83	P(05)	B1(0)	
1152.624	86758.53			
1152.571	86762.53			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1152.548	86764.26			
1152.504	86767.56			
1152.464	86770.60			
1152.429	86773.24			
1152.375	86777.31			
1152.346	86779.50	P(04)	B1(0)	
1152.296	86783.25			
1152.206	86790.01			
1152.175	86792.36			
1152.158	86793.67			
1152.094	86798.48			
1152.048	86801.91			
1152.026	86803.63	P(03)	B1(0)	
1151.978	86807.18			
1151.921	86811.54			
1151.852	86816.70			
1151.816	86819.41			
1151.806	86820.17			
1151.736	86825.42	P(02)	B1(0)	
1151.650	86831.90			
1151.634	86833.15			
1151.572	86837.80			
1151.524	86841.43			
1151.480	86844.79	P(01)	B1(0)	
1151.424	86848.96			
1151.338	86855.50			
1151.321	86856.72			
1151.271	86860.54			
1151.248	86862.27	P(04)		'
1151.199	86865.97			
1151.190	86866.64			
1151.164	86868.61			
1151.122	86871.78			
1151.077	86875.15	R(00)	B1(0)	
1151.024	86879.15			
1150.982	86882.33			
1150.934	86885.96			
1150.922	86886.88	R(01)	B1(0)	
1150.874	86890.48			
1150.798	86896.24	R(02)	B1(0)	
1150.787	86897.09	P(03)		'
1150.742	86900.45			
1150.697	86903.85	R(03)	B1(0)	
1150.626	86909.23	R(04)	B1(0)	
1150.556	86914.50	R(05)	B1(0)	
1150.480	86920.26	R(06)	B1(0)	

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1150.385	86927.39	P(02)	'
1150.342	86930.69		
1150.267	86936.33		
1150.225	86939.49		
1150.170	86943.70		
1150.101	86948.89	P(01)	'
1150.041	86953.43		
1150.024	86954.74		
1149.989	86957.35		
1149.942	86960.87		
1149.928	86961.95		
1149.862	86966.96		
1149.803	86971.42		
1149.760	86974.70		
1149.732	86976.76		
1149.726	86977.24	R(00)	'
1149.698	86979.37	R(01)	'
1149.698	86979.37	R(02)	'
1149.656	86982.52		
1150.695	86904.00		
1149.594	86987.23		
1149.508	86993.73		
1149.482	86995.72		
1149.459	86997.46		
1149.430	86999.61		
1149.344	87006.18		
1149.297	87009.68		
1149.277	87011.23		
1149.249	87013.36		
1149.205	87016.64		
1149.156	87020.42		
1149.093	87025.14		
1149.059	87027.72		
1149.035	87029.54		
1148.956	87035.57		
1148.903	87039.53		
1148.862	87042.65		
1148.797	87047.58		
1148.759	87050.43		
1148.697	87055.18		
1148.671	87057.10		
1148.631	87060.18		
1148.582	87063.90		
1148.540	87067.09		
1148.499	87070.18		
1148.484	87071.27		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1148.455	87073.51		
1148.415	87076.53		
1148.396	87078.00		
1148.344	87081.94		
1148.294	87085.69		
1148.207	87092.29		
1148.176	87094.67		
1148.118	87099.07		
1148.087	87101.45		
1147.991	87108.72		
1147.952	87111.66		
1147.909	87114.95		
1147.843	87119.91		
1147.800	87123.22		
1147.753	87126.74		
1147.745	87127.37		
1147.710	87130.04		
1147.660	87133.79		
1147.624	87136.56		
1147.574	87140.37	P(08)	RD(0)
1147.514	87144.92		
1147.467	87148.49		
1147.437	87150.77		
1147.355	87157.01		
1147.325	87159.27		
1147.278	87162.80		
1147.214	87167.72		
1147.184	87169.95	P(07)	RD(0)
1147.118	87174.97		
1147.034	87181.34		
1146.905	87191.21		
1146.864	87194.27	P(06)	RD(0)
1146.781	87200.58		
1146.756	87202.53		
1146.722	87205.13		
1146.686	87207.82		
1146.586	87215.40	P(05)	RD(0)
1146.473	87224.05		
1146.433	87227.06		
1146.387	87230.56		
1146.317	87235.89	P(04)	RD(0)
1146.313	87236.22		
1146.269	87239.52		
1146.231	87242.44		
1146.184	87246.02		
1146.122	87250.71		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1146.060	87255.43	P(03)	RD(0)
1146.054	87255.95		
1145.994	87260.52		
1145.948	87264.01		
1145.917	87266.33		
1145.832	87272.84		
1145.812	87274.36	P(02)	RD(0)
1145.691	87283.56		
1145.580	87292.01	P(01)	RD(0)
1145.499	87298.21		
1145.451	87301.86		
1145.432	87303.27		
1145.352	87309.39		
1145.327	87311.29		
1145.290	87314.14		
1145.158	87324.23	R(00)	RD(0)
1145.066	87331.22		
1145.066	87331.22		
1144.965	87338.94	R(01)	RD(0)
1144.806	87351.06		
1144.786	87352.56	R(02)	RD(0)
1144.745	87355.68		
1144.651	87362.85		
1144.619	87365.35	R(03)	RD(0)
1144.513	87373.41		
1144.458	87377.58	R(04)	RD(0)
1144.343	87386.36	R(05)	RD(0)
1144.298	87389.84	R(06)	RD(0)
1144.200	87397.30		
1144.052	87408.60		
1143.886	87421.31		
1143.727	87433.43	R(09)	
1143.675	87437.39		
1143.626	87441.21		
1143.611	87442.30		
1143.498	87450.98		
1143.417	87457.12	R(08)	
1143.337	87463.28	R(07)	
1143.187	87474.78	R(06)	
1143.001	87488.95		
1142.801	87504.32	R(04)	
1142.683	87513.35		
1142.596	87520.00		
1142.047	87562.04		
1141.753	87584.58		
1141.720	87587.14		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1141.613	87595.39	P(14)	
1141.504	87603.76		
1141.301	87619.29	P(13)	
1141.226	87625.08		
1141.131	87632.34		
1141.002	87642.26	P(12)	
1140.973	87644.51	P(06)	B2(0)
1140.929	87647.84		
1140.777	87659.56	P(09)	O2(0)
1140.728	87663.28	P(11)	
1140.674	87667.49		
1140.637	87670.34		
1140.538	87677.90		
1140.426	87686.56	P(05)	B2(0)
1140.272	87698.38	P(08)	O2(0)
1140.243	87700.57		
1140.115	87710.44		
1139.962	87722.22	P(02)	B2(0)
1139.817	87733.38		
1139.750	87738.50	P(07)	O2(0)
1139.638	87747.19		
1139.572	87752.25	P(03)	B2(0)
1139.454	87761.30		
1139.244	87777.51	P(02)	B2(0)
1139.187	87781.92	P(06)	O2(0)
1139.095	87788.96		
1139.027	87794.24		
1138.994	87796.78		
1138.974	87798.31	P(01)	B2(0)
1138.824	87809.85		
1138.773	87813.81		
1138.733	87816.87		
1138.635	87824.49	P(05)	O2(0)
1138.595	87827.51	R(00)	B2(0)
1138.595	87827.51	R(04)	B2(0)
1138.487	87835.86	R(01)	B2(0)
1138.448	87838.86	R(02)	B2(0)
1138.320	87848.75		
1138.253	87853.90		
1138.210	87857.25		
1138.112	87864.84		
1138.034	87870.86		
1137.955	87876.96	P(04)	O2(0)
1137.943	87877.90		
1137.851	87884.99		
1137.837	87886.06		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1137.817	87887.63		
1137.775	87890.84		
1137.724	87894.78		
1137.715	87895.51		
1137.697	87896.87		
1137.665	87899.31		
1137.604	87904.02		
1137.589	87905.24		
1137.563	87907.23		
1137.515	87910.91		
1137.506	87911.63	P(03)	O2(0)
1137.497	87912.29		
1137.453	87915.71		
1137.425	87917.90		
1137.408	87919.23		
1137.368	87922.32		
1137.329	87925.31		
1137.299	87927.65		
1137.287	87928.54		
1137.220	87933.72		
1137.123	87941.20		
1137.114	87941.91	R(07)	O2(0)
1137.110	87942.23	P(02)	O2(0)
1137.063	87945.85		
1137.041	87947.61	R(06)	O2(0)
1136.948	87954.78	R(05)	O2(0)
1136.859	87961.62		
1136.814	87965.15	R(04)	O2(0)
1136.805	87965.84		
1136.788	87967.17		
1136.692	87974.61	R(03)	O2(0)
1136.503	87989.19		
1136.445	87993.72	R(02)	O2(0)
1136.429	87994.94	R(01)	O2(0)
1136.425	87995.27		
1136.379	87998.81		
1136.231	88010.28		
1136.112	88019.51		
1136.085	88021.60		
1136.053	88024.05		
1135.956	88031.61		
1135.941	88032.77		
1135.862	88038.90		
1135.814	88042.62		
1135.804	88043.35		
1135.793	88044.19		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1135.701	88051.32		
1135.615	88058.05		
1135.569	88061.56		
1135.569	88061.56		
1135.372	88076.85		
1135.328	88080.27		
1135.038	88102.80		
1134.795	88121.67		
1134.740	88125.91		
1134.733	88126.42		
1134.720	88127.44		
1134.647	88133.17		
1134.614	88135.72		
1134.556	88140.17		
1134.511	88143.73		
1134.476	88146.42		
1134.336	88157.32		
1134.324	88158.23		
1134.314	88159.04		
1134.202	88167.74		
1134.149	88171.84		
1134.050	88179.55		
1134.010	88182.65		
1133.980	88184.99		
1133.971	88185.67		
1133.951	88187.27		
1133.805	88198.55		
1133.778	88200.65		
1133.742	88203.49		
1133.735	88204.06		
1133.722	88205.01		
1133.665	88209.46		
1133.609	88213.81		
1133.542	88219.03		
1133.500	88222.31		
1133.438	88227.18	P(08)	B3(0)
1133.391	88230.77		
1133.374	88232.09		
1133.362	88233.10		
1133.296	88238.20		
1133.256	88241.32		
1133.206	88245.23		
1133.131	88251.03		
1133.110	88252.69		
1133.080	88255.01		
1133.020	88259.70	P(07)	B3(0)
1132.976	88263.15		
1132.934	88266.42		
1132.920	88267.49		
1132.876	88270.94		
1132.837	88273.96		
1132.811	88275.94		
1132.798	88276.96		
1132.696	88284.93	P(06)	B3(0)
1132.620	88290.86		
1132.602	88292.24		
1132.574	88294.46		
1132.547	88296.56		
1132.529	88297.97		
1132.502	88300.06		
1132.452	88304.00		
1132.387	88309.01	P(05)	B3(0)
1132.362	88310.95		
1132.343	88312.49		
1132.316	88314.53		
1132.268	88318.33		
1132.204	88323.29		
1132.193	88324.13		
1132.182	88325.04		
1132.134	88328.73		
1132.097	88331.63	P(04)	B3(0)
1132.037	88336.36		
1132.000	88339.24		
1131.938	88344.04		
1131.916	88345.76		
1131.862	88350.00		
1131.825	88352.87	P(03)	B3(0)
1131.767	88357.37		
1131.710	88361.84		
1131.676	88364.52		
1131.578	88372.15	P(02)	B3(0)
1131.548	88374.48		
1131.490	88379.01		
1131.483	88379.56		
1131.454	88381.87		
1131.440	88382.95		
1131.398	88386.26		
1131.366	88388.75		
1131.359	88389.29		
1131.341	88390.69	P(01)	B3(0)
1131.311	88393.01		
1131.284	88395.14		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1131.260	88396.99		
1131.221	88400.04		
1131.183	88403.03		
1131.127	88407.43		
1131.093	88410.08		
1131.074	88411.51		
1131.012	88416.39		
1130.988	88418.30		
1130.914	88424.06		
1130.874	88427.20		
1130.856	88428.58		
1130.827	88430.83		
1130.759	88436.15	R(01) B3(0)	
1130.665	88443.52		
1015.793	98445.28		
1130.601	88448.52	R(02) B3(0)	
1130.584	88449.83		
1130.540	88453.32		
1130.468	88458.96	R(03) B3(0)	
1130.421	88462.58		
1130.407	88463.74		
1130.351	88468.12	R(04) B3(0)	
1130.337	88469.18		
1130.296	88472.40		
1130.250	88476.03	R(05) B3(0)	
1130.214	88478.80		
1130.199	88480.03		
1130.060	88490.85		
1130.019	88494.05		
1129.997	88495.77		
1129.992	88496.21		
1129.930	88501.05		
1129.895	88503.79		
1129.836	88508.39		
1129.773	88513.33		
1129.760	88514.36		
1129.582	88528.29		
1129.501	88534.65		
1129.490	88535.54		
1129.454	88538.35		
1129.412	88541.67		
1129.361	88545.62		
1129.341	88547.21		
1129.260	88553.53		
1129.242	88554.96		
1129.138	88563.14		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1129.122	88564.36		
1129.087	88567.16		
1128.949	88577.96		
1128.887	88582.83		
1128.838	88586.68		
1128.728	88595.31		
1128.691	88598.22		
1128.477	88615.04		
1128.346	88625.28		
1128.253	88632.57		
1127.944	88656.87		
1127.796	88668.49		
1127.759	88671.44		
1127.685	88677.24		
1127.658	88679.40		
1127.588	88684.85		
1127.564	88686.78		
1127.485	88692.98	P(08)	PU(0)
1127.433	88697.10		
1127.312	88706.55		
1127.138	88720.27	P(07)	PU(0)
1127.127	88721.14		
1127.082	88724.66		
1126.798	88747.08	P(06)	PU(0)
1126.533	88767.93		
1126.463	88773.43		
1126.427	88776.31	P(05)	PU(0)
1126.350	88782.33		
1126.288	88787.20		
1126.224	88792.29		
1126.142	88798.73		
1126.087	88803.12		
1126.040	88806.79	P(04)	PU(0)
1126.015	88808.75		
1125.971	88812.27		
1125.902	88817.66		
1125.862	88820.83		
1125.794	88826.18		
1125.760	88828.84		
1125.735	88830.87		
1125.702	88833.47		
1125.669	88836.06	P(03)	PU(0)
1125.576	88843.41		
1125.541	88846.15		
1125.492	88850.07		
1125.332	88862.67	P(02)	PU(0)

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1125.285	88866.36			
1125.249	88869.25			
1125.133	88878.37			
1125.045	88885.30	P(01)	PU(0)	
1124.875	88898.79			
1124.846	88901.09			
1124.782	88906.09			
1124.758	88908.01			
1124.744	88909.14			
1124.697	88912.80	R(00)	PU(0)	
1124.613	88919.45	R(01)	PU(0)	
1124.563	88923.43	R(02)	PU(0)	
1124.527	88926.30	R(03)	PU(0)	
1124.476	88930.32	R(04)	PU(0)	
1124.460	88931.60			
1124.423	88934.53			
1124.398	88936.51	R(05)	PU(0)	
1124.379	88937.96	R(05)	PU(0)	' ?
1124.327	88942.07	R(06)	PU(0)	
1124.283	88945.60			
1124.246	88948.54			
1124.155	88955.67			
1124.103	88959.79			
1124.071	88962.38			
1123.939	88972.76			
1123.913	88974.82			
1123.892	88976.49			
1123.767	88986.39			
1123.583	89000.98			
1123.458	89010.89			
1123.436	89012.67			
1123.358	89018.81			
1123.326	89021.37			
1123.310	89022.62			
1123.230	89028.98			
1123.185	89032.55			
1123.126	89037.18			
1122.913	89054.06			
1122.891	89055.85			
1122.839	89059.98			
1122.796	89063.34			
1122.752	89066.84			
1122.715	89069.78			
1122.672	89073.22			
1122.618	89077.50			
1122.586	89080.04			

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1122.531	89084.36		
1122.517	89085.54		
1122.388	89095.77		
1122.258	89106.08		
1122.244	89107.20		
1122.165	89113.48		
1122.133	89116.01		
1122.113	89117.59		
1122.073	89120.76		
1122.035	89123.80		
1121.929	89132.22		
1121.902	89134.36		
1121.822	89140.68		
1121.582	89159.75		
1121.492	89166.90		
1121.462	89169.31		
1121.425	89172.27		
1121.282	89183.64		
1121.141	89194.86		
1121.098	89198.27		
1120.949	89210.13		
1120.867	89216.66		
1120.786	89223.09		
1120.740	89226.74		
1120.721	89228.25		
1120.405	89253.47		
1120.375	89255.81		
1120.313	89260.73		
1120.286	89262.91		
1120.066	89280.46		
1119.849	89297.77		
1119.807	89301.08		
1119.785	89302.82		
1119.761	89304.74		
1119.689	89310.53		
1119.642	89314.28		
1119.568	89320.13		
1119.494	89326.07		
1119.454	89329.29		
1119.440	89330.41		
1119.371	89335.89		
1119.020	89363.88		
1118.945	89369.90		
1118.853	89377.24		
1118.757	89384.93		
1118.737	89386.55		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1118.658	89392.85		
1118.517	89404.13		
1118.486	89406.57		
1118.371	89415.73		
1118.340	89418.28		
1118.244	89425.89		
1118.038	89442.39		
1117.996	89445.79		
1117.767	89464.06		
1117.729	89467.12		
1117.697	89469.72		
1117.660	89472.67		
1117.598	89477.58		
1117.565	89480.24		
1117.539	89482.30		
1117.473	89487.63		
1117.414	89492.37		
1116.958	89528.87		
1116.890	89534.35		
1116.850	89537.50		
1116.811	89540.64		
1116.758	89544.94		
1116.739	89546.45		
1116.682	89551.00		
1116.612	89556.60		
1116.590	89558.41		
1116.540	89562.39		
1116.487	89566.67		
1116.462	89568.64		
1116.396	89573.97		
1116.376	89575.59		
1116.354	89577.34		
1116.308	89581.02		
1116.248	89585.84		
1116.205	89589.31		
1116.172	89591.89		
1116.156	89593.22		
1116.113	89596.68		
1116.083	89599.04		
1116.044	89602.17		
1116.015	89604.50		
1115.989	89606.61		
1115.952	89609.55		
1115.928	89611.54		
1115.757	89625.26		
1115.823	89619.96		
1115.770	89624.20		
1115.748	89626.01		
1115.645	89634.25		
1115.591	89638.59		
1115.546	89642.24		
1115.500	89645.86		
1115.444	89650.37		
1115.399	89653.98		
1115.377	89655.77		
1115.358	89657.34		
1115.322	89660.22		
1115.283	89663.37		
1115.260	89665.22		
1115.190	89670.83		
1115.139	89674.88		
1115.123	89676.20		
1115.056	89681.57		
1115.010	89685.26		
1114.941	89690.87		
1114.886	89695.26		
1114.876	89696.09	P(08)	B4(0)
1114.713	89709.19		
1114.673	89712.37		
1114.607	89717.75		
1114.534	89723.63		
1114.507	89725.76		
1114.466	89729.04		
1114.443	89730.90		
1114.428	89732.11		
1114.537	89723.33		
1114.350	89738.43		
1114.332	89739.87		
1114.265	89745.25		
1114.201	89750.43	P(07)	B4(0)
1114.141	89755.27		
1114.085	89759.74		
1114.051	89762.50		
1113.991	89767.33		
1113.968	89769.18		
1113.864	89777.59		
1113.792	89783.39	P(08)	G2(0)
1113.675	89792.77	P(06)	B4(0)
1113.615	89797.62		
1113.596	89799.14		
1113.494	89807.40		
1113.461	89810.03		

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1113.388	89815.91	P(07)	G2(0)	
1113.255	89826.69	P(05)	B4(0)	
1113.019	89845.71	P(06)	G2(0)	
1112.860	89858.56	P(04)	B4(0)	
1112.712	89870.51	P(05)	G2(0)	
1112.526	89885.55	P(03)	B4(0)	
1112.435	89892.86	P(04)	G2(0)	
1112.370	89898.12			
1112.225	89909.86	P(02)	B4(0)	
1112.165	89914.68	P(03)	G2(0)	
1111.983	89929.43	P(01)	B4(0)	
1111.914	89935.02	P(02)	G2(0)	
1111.785	89945.43	R(06)	B4(0)	
1111.670	89954.78	P(01)	G2(0)	
1111.605	89960.03	R(00)	B4(0)	
1111.586	89961.51			
1111.521	89966.82	R(05)	B4(0)	
1111.495	89968.95	R(01)	B4(0)	
1111.416	89975.33	R(02)	B4(0)	
1111.396	89976.89	R(03)	B4(0)	
1111.396	89976.89	R(04)	B4(0)	
1111.293	89985.24	R(00)	G2(0)	
1111.225	89990.81			
1111.145	89997.28			
1111.133	89998.22	R(01)	G2(0)	
1111.078	90002.69			
1110.996	90009.34	R(02)	G2(0)	
1110.855	90020.76	R(03)	G2(0)	
1110.805	90024.81			
1110.756	90028.77	R(04)	G2(0)	
1110.713	90032.29	R(05)	G2(0)	
1110.713	90032.29	R(06)	G2(0)	
1110.626	90039.35			
1110.587	90042.44			
1110.512	90048.52			
1110.419	90056.08			
1110.219	90072.29			
1110.137	90078.98			
1110.117	90080.58			
1122.558	89082.23			
1110.050	90086.03			
1110.007	90089.56			
1109.976	90092.06			
1109.903	90097.93			
1109.860	90101.49			
1109.819	90104.78			

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1109.788	90107.30			
1109.404	90138.45			
1105.956	90419.50			
1109.234	90152.34			
1109.227	90152.86			
1109.057	90166.70			
1108.916	90178.16			
1108.847	90183.78			
1108.737	90192.71			
1108.713	90194.68			
1108.669	90198.22			
1108.634	90201.12			
1108.244	90232.87			
1108.127	90242.37			
1107.989	90253.59			
1107.829	90266.64	P(07)	BN(0)	
1107.699	90277.24			
1107.653	90280.98			
1107.425	90299.54			
1107.389	90302.53	P(05)	BN(0)	
1107.312	90308.79			
1107.066	90328.84			
1107.031	90331.69	P(04)	BN(0)	
1106.933	90339.73			
1106.716	90357.43	P(03)	BN(0)	
1106.452	90378.98	P(02)	BN(0)	
1106.216	90398.28	P(01)	BN(0)	
1106.042	90412.51			
1105.922	90422.31			
1105.839	90429.05	R(00)	BN(0)	
1105.694	90440.91	R(01)	BN(0)	
1105.609	90447.87			
1105.598	90448.80	R(02)	BN(0)	
1105.566	90451.37	R(04)	BN(0)	
1105.556	90452.26	R(03)	BN(0)	
1105.460	90460.06			
1105.405	90464.57	R(04)	BN(0)	??
1105.281	90474.70			
1105.247	90477.50			
1105.219	90479.80			
1105.098	90489.74			
1105.058	90492.97			
1104.945	90502.26			
1104.811	90513.20			
1104.772	90516.44			
1104.755	90517.84			

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1104.665	90525.14		
1104.607	90529.95		
1104.542	90535.23		
1104.497	90538.99		
1116.759	89544.80		
1104.355	90550.60		
1104.279	90556.84		
1104.252	90559.00		
1104.180	90564.98		
1116.434	89570.87		
1104.060	90574.78		
1116.362	89576.68		
1103.479	90622.47		
1103.452	90624.70		
1103.384	90630.25		
1103.280	90638.86		
1103.169	90647.91		
1103.126	90651.45		
1103.071	90656.01		
1103.040	90658.56		
1102.923	90668.14		
1102.910	90669.26		
1102.821	90676.55		
1102.725	90684.45		
1102.706	90686.04		
1102.672	90688.78		
1102.630	90692.29		
1102.602	90694.55		
1102.511	90702.02		
1102.428	90708.91		
1102.372	90713.45		
1102.322	90717.58		
1102.224	90725.63		
1102.099	90735.97		
1102.041	90740.76		
1101.972	90746.41		
1101.911	90751.43		
1101.883	90753.76		
1101.858	90755.78		
1101.840	90757.27		
1101.816	90759.25		
1101.510	90784.47		
1101.483	90786.73		
1113.721	89789.07		
1101.431	90790.95		
1101.317	90800.40		
1101.253	90805.63		
1101.207	90809.48		
1101.165	90812.89		
1101.124	90816.33		
1101.091	90818.98		
1101.025	90824.49		
1100.998	90826.70		
1100.971	90828.94		
1100.790	90843.87		
1100.710	90850.47		
1100.665	90854.19		
1100.602	90859.37		
1100.566	90862.30		
1100.526	90865.62		
1100.456	90871.41		
1100.418	90874.56		
1100.408	90875.38		
1100.391	90876.81		
1100.312	90883.30		
1100.280	90885.99		
1100.248	90888.60		
1100.189	90893.48		
1100.156	90896.22		
1100.121	90899.13		
1100.102	90900.67		
1099.974	90911.24		
1099.913	90916.29		
1099.876	90919.38		
1099.685	90935.10		
1099.630	90939.69		
1099.548	90946.42		
1099.487	90951.50		
1099.455	90954.13		
1099.416	90957.37		
1099.379	90960.42		
1099.308	90966.35		
1099.216	90973.91		
1099.146	90979.75		
1099.060	90986.87		
1098.890	91000.95		
1098.862	91003.27		
1098.786	91009.55		
1098.713	91015.60		
1098.613	91023.85		
1098.573	91027.19		
1098.529	91030.82		

WAVELENGTH	WAVENUMBER	ASSIGNMENT		COMMENTS
1098.498	91033.38			
1098.381	91043.07			
1098.321	91048.03	P(05)	B5(0)	
1098.244	91054.41			
1098.200	91058.07			
1098.159	91061.46			
1098.110	91065.52	P(04)	B5(0)	
1098.067	91069.11			
1097.908	91082.32			
1097.856	91086.61	P(03)	B5(0)	
1097.668	91102.26			
1097.613	91106.83	P(02)	B5(0)	
1097.548	91112.20			
1097.443	91120.94			
1097.389	91125.39	P(01)	B5(0)	
1097.349	91128.68			
1097.261	91135.99			
1097.008	91157.03	R(00)	B5(0)	
1096.933	91163.27			
1096.852	91170.03	R(01)	B5(0)	
1096.700	91182.67	R(02)	B5(0)	
1096.580	91192.62			
1096.516	91197.90	R(03)	B5(0)	?
1096.452	91203.29			
1096.383	91209.00			
1096.354	91211.42			
1096.320	91214.23			
1096.293	91216.48			
1096.240	91220.93			
1096.176	91226.23			
1096.123	91230.64			
1096.093	91233.13			
1095.970	91243.41			
1095.931	91246.65			
1095.869	91251.77			
1095.855	91252.98			
1095.807	91256.91			
1095.787	91258.58			
1095.753	91261.42			
1095.701	91265.80			
1095.668	91268.52			
1095.548	91278.56			
1095.519	91280.91			
1095.494	91282.99			
1095.451	91286.61			
1095.376	91292.84			

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1095.285	91300.47		
1095.252	91303.20		
1095.213	91306.44		
1095.186	91308.68		
1095.151	91311.64		
1095.134	91313.03		
1095.090	91316.69		
1095.008	91323.51		
1094.973	91326.42		
1094.906	91332.06		
1094.658	91352.74		
1094.516	91364.60		
1094.495	91366.37		
1094.377	91376.16		
1094.179	91392.73		
1094.117	91397.91		
1094.057	91402.93		
1093.981	91409.30		
1093.896	91416.35		
1093.861	91419.32		
1093.811	91423.46		
1093.771	91426.85		
1093.698	91432.88		
1093.607	91440.55		
1093.509	91448.75		
1093.473	91451.73		
1093.383	91459.27		
1093.338	91462.99		
1093.260	91469.56		
1093.127	91480.66		
1093.051	91487.06		
1093.026	91489.17		
1092.929	91497.22		
1092.901	91499.59		
1092.812	91507.08		
1092.686	91517.59		
1092.593	91525.43		
1092.559	91528.26		
1092.169	91560.91		
1092.069	91569.30		
1091.924	91581.49		
1091.850	91587.63		
1091.840	91588.54		
1091.832	91589.18		
1091.779	91593.62		
1091.740	91596.90		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1091.704	91599.96		
1091.249	91638.08		
1091.109	91649.86		
1091.034	91656.19		

WAVELENGTH	WAVENUMBER	ASSIGNMENT	COMMENTS
1090.952	91663.04		
1090.612	91691.63		
1090.507	91700.47		
1090.409	91708.74		

APPENDIX G

LONG PATH DISCHARGE SYSTEM

The system's principal component is a 16 cm I.D.×300 cm long water-cooled discharge tube fitted with White cell mirror mountings. All interior parts and the intake gas handling system are fabricated from stainless steel or glass. The cell receives highly purified helium gas through both end plates to which is added the gas or gases to be sampled. The resulting mixture passes into the discharge and is exhausted from the center of the discharge region via tubes extending through each end plate. Each electrode is cooled by water carried in two, parallel stainless steel tubes which enter the cell through vacuum rotary seals. This "slip seal" arrangement also allows the path between the electrodes in the tube to be adjusted to any distance between 0.2 m and 2.5 m.

When used for absorption spectroscopy light from a continuum source is passed through a mechanical chopper on its way to the discharge tube. Usually the continuum light sources are either a 1000 watt high pressure xenon arc or a 1000 watt tungsten filament lamp, the combination providing high intensity coverage of the entire region between ~2000 Å and ~12,000 Å. The chopper wheel consists of a 38 cm diameter aluminum disk with four concentric circles of slots. The outer circle of slots contains 120 slots, with 60, 30 or 15 slots in successively smaller circles. The widths of the slots in the different circles have been constructed so that when the wheel rotates, the duty cycle is the same for light passing through the slots in any of the four circular patterns. By moving the chopper in the vertical direction one can select which pattern intersects the continuum beam, a procedure which allows variations in pulse repetition rate up to a factor of 8 without changing the

driving speed of the chopper. The chopper blade is driven by a 2 hp. electric motor with a pulley-vee belt coupling arrangement between the chopper and the motor. Typically, the chopper blade is driven at just under 6000 RPM, which produces pulses of continuum light of ~8 μsec duration spaced ~60 μsec apart when using the 120 slot circle. A small segment of the chopped light beam is sensed by a photodiode which activates a variable time delay which in turn will trigger a high current pulsed power supply. This arrangement establishes a constant phase relation between the electron pulse train in the discharge tube and the following sampling continuum pulse train, and the phasing of the two pulse trains can be varied to provide sampling at any time between electron pulses.

Two sets of White cell mirrors were employed, one set aluminized and overcoated with MgF to give ~90% reflectivity in the ~2000 - 12000 Å region and one set silvered and overcoated with quartz to give ~98% reflectivity in the ~4500 - 12000 Å region. The combination of these two coatings allows effective absorbing paths (i.e., actual distance through the region of discharge and/or afterglow) of 20 m, 70 m and 150 m for 2200 Å, 3000 Å and 4500 - 12000 Å, respectively, with ~2% of the original continuum intensity transmitted to the spectrograph.