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THE 12 MICRON BAND OF ETHANE: A SPECTRAL CATALOG FROM 765 CM^{-1} TO 900 CM^{-1}

A. K. Atakan, W. E. Blass, J. W. Brault, S. J. Daunt, G. W. Halsey, D. E. Jennings, D. C. Reuter and J. Susskind

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Goddard Space Flight Center
Greenbelt, Maryland 20771

Abstract

This document is concerned with the high resolution laboratory absorption spectrum of the 12μm band of ethane gas. The data were obtained using the McMath Solar Telescope 1-metre Fourier Transform interferometer at Kitt Peak National Observatory and tunable diode laser spectrometers at the University of Tennessee and NASA/Goddard Space Flight Center. Over 2000 individual vibration-rotation transitions were analyzed taking into account many higher order effects including torsional splitting. Line positions were reproduced to better than 0.001 cm^{-1}. Both ground and upper state molecular constants were determined in the analysis.

Part I of this document contains a discussion of the experimental details, the analysis procedures and the results. A list of ethane transitions occurring near $^{14}CO_2$ laser lines needed for heterodyne searches for C_2H_6 in extraterrestrial sources is also included.

Part II contains a spectral catalogue of the ethane ν_9 fundamental from 765 cm^{-1} to 900 cm^{-1}. The contents include: (a) a high dispersion (1 cm^{-1}/12 in.) plot of both the Kitt Peak interferometric data and a simulated spectrum with Doppler-limited resolution using the model of Part I; (b) a table of over 8500 calculated transitions listing quantum number assignments, frequencies and intensities.

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PART I

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The 12μm Band of Ethane: High Resolution Laboratory Analysis with Candidate Lines for Infrared Heterodyne Searches*

S.J. Daunt[1]
Concordia University/University of Tennessee

A.K. Atakan, W.E. Blass and G.W. Halsey
University of Tennessee

D.E. Jennings[2], D.C. Reuter[3] and J. Susskind
NASA/Goddard Space Flight Center

and

J.W. Brault
Kitt Peak National Observatory

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[1]Natural Sciences and Engineering Research Council of Canada University Research Fellow 1980-85.

[2]Guest observer at Kitt Peak National Observatory, operated by the Association of Universities for Research in Astronomy, Inc., under contract with the National Science Foundation.

[3]National Research Council/Resident Research Associate (1981-82).

ABSTRACT

Several groups have reported emission from the ν_9 band of ethane at 12μm in the spectra of Jupiter, Saturn, Neptune and Titan. This paper reports the results of a laboratory study of ν_9 using both high resolution Fourier Transform and diode laser absorption spectroscopy. Approximately 2000 transitions in this band have been subjected to an analysis that includes the normal rovibrational terms as well as the higher-order effects of ℓ-doubling, ℓ-resonance, internal rotation and a Coriolis resonance with the $3\nu_4$ state. A model for this band capable of reproducing observed ν_9 features to better than 0.001 cm^{-1} is presented. High precision values of the primary ground state constants have also been determined: B_0 = 0.6630279(24) cm^{-1}, D_0^J = 1.0324(23) x 10^{-6} cm^{-1} and D_0^{JK} = 2.651(88) x 10^{-6} cm^{-1}. A list of ν_9 transitions occuring near $^{14}CO_2$ laser lines that are good candidates for laser heterodyne searches has been compiled. An atlas is available from the authors that includes: (1) plots of the observed and simulated ν_9 spectra between 750 and 900 cm^{-1} and (2) a list of over 8500 calculated transitions and intensities.

I. INTRODUCTION

The ν_9 fundamental band of ethane occurs in the 12μm wavelength region and has recently received a great deal of attention in molecular astrophysics. It is the strongest band of ethane in a terrestrial window and therefore has always provided the best opportunity for identification and characterization of ethane in planetary atmospheres and molecular clouds.

Spectra recorded from the outer solar system bodies of Jupiter, Saturn, Neptune and Titan show 12μm emission from ethane (Ridgway 1974; Gillett and Forrest, 1974; Combes et al., 1974; Tokunaga, Knacke and Owen, 1976; Encrenaz, Combes and Zéau, 1978; Tokunaga et al., 1979; Tokunaga, Knacke and Orton, 1975; Gillett, 1975; Gillett and Rieke, 1977; Macy and Sinton, 1977; Gillett, Forrest and Merrill, 1973; Hanel et al., 1981). The observed ν_9 emission has been used to determine ethane abundances and to map planetary ethane (Gillett and Orton, 1975; Tokunaga et al., 1978; Hanel et al., 1981). All of these studies provide information needed for the construction of planetary atmospheric models (Danielseon, et al, 1973; Hunten, 1974; Strobel, 1974; Caldwell, 1977). In low resolution spectra the emission is seen as a single ~70 cm^{-1} wide feature while its appearance in medium resolution spectra is as a series of unresolved Q-branches separated by ~2.7 cm^{-1}. Very recently, however, high resolution laser heterodyne spectroscopy has detected individual vibration-rotation lines of ν_9 in emission from Jupiter's stratosphere (Kostiuk et al., 1981 and 1983). This laser heterodyne astronomy program was a major reason for undertaking the present laboratory study.

Although C_2H_6 has not been detected in molecular sources outside the solar system, the 12μm band is again the best candidate for a search. Ethane cannot be detected in the radio region because it has no permanent dipole moment[1]. However, infrared laser heterodyne spectroscopy has recently provided the 10μm detection of the similarly nonpolar ethylene molecule (C_2H_4) in the circumstellar cloud of IRC + 10216 (Betz, 1981). Two other non-polar hydrocarbons, methane and acetylene, have already been identified in the infrared spectrum of this source (Hall and Ridgway, 1978; Ridgway et al., 1976). The overlap of the $^{14}C^{16}O_2$ laser with the R-side of ν_9 means that laser heterodyne searches can be made for ethane in IRC + 10216 and other infrared molecular sources.

The application of infrared laser heterodyne spectroscopy to observations of high-altitude ethane on Jupiter and the possibility that this technique will be used to search for ethane line emission in other planets and molecular clouds makes a new laboratory analysis of ν_9 important at this time. In the previous study (Daunt et al., 1981) the rotational structure in the Q-branches was not resolved. In particular, line-splittings due to torsional effects and frequency shifts and intensity anomalies due to higher order Coriolis effects were not observed. Absolute line frequencies measured in that work were only accurate to about 0.01 cm^{-1}. The narrow bandwidth, high resolution and frequency precision of laser heterodyne techniques requires individual line positions to be known to better than 0.001 cm^{-1}.

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[1]Pure rotational transitions are made weakly allowed through interactions between the torsional mode and dipole allowed vibrations as discussed by Rosenberg and Susskind (1979). They have predicted frequencies and intensities for $\Delta K = 0$, $\Delta J = \pm 1$ transitions which would occur in the millimeter wave region. There has been no experimental detections of these lines reported to date.

A new study of the ν_9 band of ethane was therefore undertaken using both high resolution Fourier transform and tunable diode laser spectra. The combination of these two types of spectroscopy yielded complete coverage of the band with high absolute frequency precision and complete resolution (to the Doppler linewidth and beyond) in dense spectral regions. The results of a full vibration-rotation analysis including higher order effects is reported here. This analysis allowed accurate line frequencies and intensities to be calculated. An independent study of ν_9 by Henry et al. (1983) has yielded results similar to those reported in the present paper.

II. EXPERIMENTAL DETAILS

The ethane spectra were recorded with the one-meter Fourier transform spectrometer (FTS) located at the McMath solar telescope at Kitt Peak National Observatory. This instrument is a dual, moving cat's-eye interferometer capable of 0.005 cm^{-1} unapodized resolution when operated in the asymmetric interferogram mode. The beamsplitters used for this work were made of KBr and the detector was a liquid helium cooled Arsenic-doped Silicon photoconductor. A 450 Watt glower was used as a continuum source. The reference signal for this instrument is provided by a stabilized HeNe laser. Thirty-two interferograms were averaged during a period of 103 minutes to produce a S/N ratio of approximately 400/1.

The ethane was a research-grade sample (99.99%) obtained from Matheson Gas Products and used without purification. The gas was contained in a 30 cm straight-path cell with BaF_2 windows. The sample pressure was 4.01 Torr, as measured with a capacitance manometer. The temperature of the sample cell was 22°C. Absolute frequency calibration was established by recording the C_2H_6 spectrum simultaneously with a spectrum of CO_2. Carbon dioxide at a pressure of 0.5 Torr was contained in a White-type multiple traversal cell set for a path length of 193m. The source radiation beam was passed simultaneously through both cells before entering the spectrometer. The 10μm $^{12}C^{16}O_2$ laser frequencies of Petersen et al. (1974) were used as standards, and errors introduced by extrapolating the calibration to 12μm are estimated to be less than 2×10^{-4} cm^{-1}.

The line splittings due to torsional and torsional-Coriolis effects were studied using tunable diode laser spectra. The experimental details of that portion of the work have been described in a separate paper (Susskind et al., 1982). The diode laser results were used in the present work to measure absolute line intensities and to model the splittings and line shifts which were not sufficiently resolved in the FTS spectra.

III. ANALYSIS

(a) Assignment of Spectra

The FTS spectra were assigned by taking the molecular parameters determined for ν_9 from the previous study of Daunt *et al*. (1981) and generating a simulated spectrum with programs described in that work. A list of quantum number assignments, wavenumbers and relative intensities was generated along with a computer plot of the spectrum. This calculated spectrum with assignments was then used to identify the features in the observed spectrum. The earlier work had clearly resolved only the ^PP and ^RR lines of ν_9. The new FTS data resolved the ^RQ and ^PQ branches as well as the ^RP and ^PR lines in addition to the ^PP and ^RR structure. Despite the limited selection of lines in the previous study the parameters determined there gave an excellent prediction of the FTS spectrum. The upper trace of Figure 1 shows the $^RQ_4$ region of ν_9 as recorded by the Kitt Peak FTS instrument. The lower trace is a simulation at 0.005 cm^{-1} resolution using the constants from Daunt *et al*. (1981). The structure of this Q-branch had not been resolved in the earlier work (see Fig. 2 of Daunt *et al*., 1981), yet the prediction was excellent, enabling assignments to be made in a straightforward manner. Any questionable assignments were checked by the traditional method of combination differences.

(b) Theoretical Model

The vibration-rotation Hamiltonian for the ethane molecule can be written to first order as

$$H = H_{VIB} + H_{ROT} + H_{VR} \quad (1)$$

where H_{VIB} and H_{ROT} are the vibration and rotation Hamiltonians for a symmetric rotor (Herzberg, 1945; Allen and Cross, 1963). The term H_{VR} represents vibration-rotation coupling contributions including the usual Coriolis interactions described by Mills (1972). The rovibrational Hamiltonian, Eq. (1), used in this work contained all terms through $h_3^{\dagger}$ plus the β terms of $h_4^{\dagger}$ as described by Blass and Nielsen (1974) and Daunt et al. (1981):

$$\begin{aligned}\langle J,K,\ell_9|H|J,K,\ell_9\rangle &= \nu_0 + (A_0-B_0)K^2 - 2A_e\zeta_9^z K\ell_9 \\ &+ B_0J(J+1) - (\alpha_9^A-\alpha_9^B)K^2 - \alpha_9^B\,J(J+1) - D_0^J\,J^2(J+1)^2 \\ &- D_0^{JK}\,K^2\,J(J+1) - D_0^K\,K^4 + \eta_9^J\,J(J+1)K\ell_9 \\ &+ \eta_9^K\,K^3\ell_9 + \beta^J J^2(J+1)^2 + \beta^{JK}\,K^2\,J(J+1) + \beta^K K^4 \quad (2)\end{aligned}$$

The previous study of Daunt et al. (1981) showed that ℓ-doubling and ℓ-resonance interactions were necessary for understanding the observed features of ν_9. The necessary matrix elements have been given by Amat, Nielsen and Tarrago (1971) as:

$$\begin{aligned}&\langle J,K+1,\ell_9 = +1\,|H|\,J,K-1,\ell_9 = -1\rangle = \\ &-\tfrac{1}{2}\,[q_9^{(+)} + \delta q_9^J\,J(J+1) + \delta q_9^K\,(2K)^2] \\ &[\{J(J+1) - K(K+1)\}\,\{J(J+1) - K(K-1)\}]^{\frac{1}{2}} \quad (3)\end{aligned}$$

where the following definitions relative to Amat, Nielsen and Tarrago (1971, Table XXXVI) have been used in the present work:

$$q_t^{(+)} = -4F_+^t$$

$$\delta q_t^J = -4F_{22+}^{t,J+} \qquad (4)$$

$$\delta q_t^K = -8F_{22+}^{t,K+}$$

The sign convention used for the ℓ-doubling constant $q_t^{(+)}$ is the generally accepted one of Cartwright and Mills (1970).

The earlier lower resolution study (Daunt et al., 1981) required only those terms described by Eqs. (2)-(4). Torsional splittings and higher order effects were not needed to account for the observed data and were therefore not included in the model.

The characteristics of torsional spectral features in ethane were first referred to by Wilson (1938) and later were discussed in more detail by Susskind (1974) and Hougen (1980). Observed ethane torsional splittings were first reported by Flicker et al. (1977) in the ν_9 band but went unanalyzed at that time. Pine and Lafferty (1982) observed torsional splittings in the 3μm bands but the strong interactions among the many vibration-rotation states prevented a quantitative upper state analysis. Patterson et al. (1981) correctly interpreted the observed intensity anomalies in the diode laser spectrum of the $^RQ_0$ branch of ν_9 as due to the effects of torsional splittings. Diode laser spectra recorded by the present authors across a wide range of the ν_9 band and described in more detail elsewhere (Susskind et al., 1982) clearly showed torsional splittings plus the effects of a Coriolis interaction with the $3\nu_4$ torsional state.

These newest observations indicated that the high resolution FTS data needed to be analyzed with a model that included torsional effects. This changed the Hamiltonian of Eq. (1) to

$$H = H_{VIB} + H_{ROT} + H_{VR} + H_{TOR} + H_{TV} \tag{5}$$

where the details of the new terms H_{TOR} and H_{TV} are described elsewhere (Susskind et al., 1982; Susskind, 1974; Hougen, 1980). Only the most important effects of these terms on the appearance of the spectra will be discussed here.

The torsional term H_{TOR} causes each $|J,K,\ell\rangle$ vibration-rotation state to be split into four torsional substates denoted by the torsional symmetry number σ = 0, 1, 2 or 3. As shown in Fig. 2 the allowed levels in the ground vibrational state have the following value relationship: even σ for K even and odd σ for K odd. In the v_9 = 1 state the reverse is true. The overall selection rules for ν_9 transitions are $\Delta K = \pm 1$, $\Delta\ell = \pm 1$, $\Delta J = 0, \pm 1$ and $\Delta\sigma = 0$. The H_{TV} term allows each vibrational state to have a different value for the barrier to internal rotation. To the extent that this barrier changes, the spacings of the σ torsional levels will differ for each vibrational state.

Fig. 2 also shows the splitting (Δ_9) between the allowed torsional levels in ν_9 to be less than that in the ground state (Δ_G). If such a difference between the torsional level splittings in lower and upper states exists, then each normally allowed transition, denoted by the spectroscopic symbol $^{\Delta K}[\Delta J]_K(J)$, will be split into a torsional doublet. The first order torsional model given by Susskind (1974) predicts that all ν_9 doublets should have essentially the same splitting of $S_{0,9} \equiv |\Delta_9 - \Delta_G|$. One torsional component is shifted ΔS $(= \frac{S_{0,9}}{3})$ from the unsplit position while the other component is shifted $2\Delta S$ in the opposite direction. The sense of the shifts depend on the appropria[illegible]ound state K values as given in Table I. The diode laser spectra (Susskind et al. 1982) showed that the torsional doublets at low J and K values were indeed split by a constant value of ~2.2×10^{-3} cm^{-1} but that lines with higher J and K values sometimes had splittings of more than 0.05 cm^{-1}. This observation could not be accounted for using only the terms H_{TOR} and H_{TV}. An accidental Coriolis resonance with the nearby torsionally excited state $3\nu_4$ was shown to account for the observed J,K-dependent splitting in excess of the intrinsic torsional splitting, $S_{0,9}$. This had the effect of perturbing each component of a doublet by a different amount, thereby altering the apparent splitting. A final model Hamiltonian including all the important effects is then given by

$$H = H_{VIB} + H_{ROT} + H_{VR} + H_{TOR} + H_{TV} + H_{COR} \qquad (6)$$

where H_{COR} is described in detail in Susskind et al. (1982). The energy levels involved in this resonance are schematically shown in Fig. 3. The $3\nu_4$ state has four torsional σ substates with the vibrational origin energies shown in the figure. The energy separations from the origin of the ν_9 state are given by $\Delta_\sigma = \nu_9 - (3\nu_4)_\sigma = \Delta_0, \Delta_1, \Delta_2$ and Δ_3. It should be noted from this figure that the $|\nu_9,J,K-1,-1\rangle$ levels ($-\ell$ states, see Herzberg, 1945) are closer to the $3\nu_4$ levels than the $|\nu_9,J,K+1,+1\rangle$ levels ($+\ell$ states). Since the selection rule for the Coriolis interaction is $K_{\nu_9} - K_{3\nu_4} = \ell_{\nu_9}$ the perturbations are expected to be greater for the $-\ell$ levels than for the $+\ell$ levels. The observed diode laser spectra of the ${}^PQ_K(J)$ branch ($\Delta K=\Delta\ell=-1,\Delta J=0$) lines showed splittings that were much more perturbed than those for the ${}^RQ_K(J)$ branches ($\Delta K=\Delta\ell=+1,\Delta J=0$) in agreement with this model. A diagram of how the individual vibration-rotation-torsion states are coupled through the Coriolis resonance is given in Fig. 4 for the case of K"=6. The magnitude of the perturbation to any $|\nu_9, J, K+\ell, \ell, \sigma>$ level through H_{COR} is given by second-order perturbation theory as

$$\Delta E = \frac{C^2[J(J+1)-K(K+\ell)]}{\Delta_\sigma + E^{\nu_9}_{J,K+\ell,\ell} - E^{3\nu_4}_{J,K}} \qquad (7)$$

where C is a coupling constant described in Susskind et al. (1982) and found to have the value 0.032 cm^{-1}. The perturbation is different for each σ torsional state. Therefore the total splitting for a transition to an upper state $|J,K+\ell,\ell>$ is given by

$$S_{J,K+\ell,\ell} = S_{0,9} + C^2\,[J(J+1) - K(K+\ell)]F(J,K,\ell) \qquad (8)$$

where

$$F(J,K,\ell) = \frac{1}{\Delta_\sigma + E^{\nu_9}_{J,K+\ell,\ell} - E^{3\nu_4}_{J,K}} - \frac{1}{\Delta_{\sigma+2} + E^{\nu_9}_{J,K+\ell,\ell} - E^{3\nu_4}_{J,K}} . \qquad (9)$$

The rotational contribution to each denominator in Eq. (9) is given to first order by

$$E^{\nu_9}_{J,K+\ell,\ell} - E^{3\nu_4}_{J,K} = 2[A(1-\zeta^z_9)-B]K\ell + [A(1-2\zeta^z_9)-B]$$

$$= 2.617K\Delta K + 0.619\ cm^{-1} \qquad (10)$$

The primary source of any observed splitting is given by the first term on the r.h.s. of Eq. (8) i.e., the intrinsic splitting: $S_{0,9}$. The second factor affecting the observed splittings comes from the difference in the Coriolis perturbations to each component as given by the second term on the r.h.s. of Eq. (8). The intrinsic splitting $S_{0,9}$ ($\simeq 2.2 \times 10^{-3}$ cm^{-1}) dominates far from resonance, i.e., for lines having large $K''\Delta K$ values or those near the subband origins ($J \simeq K$). For lines with either larger (J-K) or more negative $K''\Delta K$ values the Coriolis effects become progressively greater. This results in frequency shifts which enlarge the torsional component splittings to values sometimes exceeding 0.050 cm^{-1}. The Coriolis perturbation is positive and always greater for the σ (=0 for K even and =1 for K odd) levels than for the $\sigma + 2$ levels provided the interacting ν_9 and $3\nu_4$ states do not cross. This is in the same sense as the first order torsional splitting, $S_{0,9}$, assuming a barrier in ν_9 greater than that in the ground state. Since all the lines treated in this paper were not near the level crossing ($K''\Delta K=-17$) the Coriolis perturbation always increased the splittings.

(c) Correction of the Data Set

The original FTS data set consisted of over 2000 assigned lines having quantum number values of $-13 \leq K''\Delta K \leq +18$ and $J'' \leq 40$. These lines covered the spectral region between 765 cm^{-1} and 900 cm^{-1} and at first inspection did not show torsional splittings. This is understandable since in the previous section it was seen that the first order splitting, $S_{0,9}$, was 0.0022 cm^{-1} and the unapodized resolution of the FTS data was 0.005 cm^{-1}. Lines with high J and K quantum numbers have observable splittings greater than the resolution only when the Coriolis contribution of Eq. (8) is sufficiently large. These enhanced splittings are visible on careful inspection of the data. However, the resolution and S/N ratio of the data set used for the present study was such that most of the torsional doublets were either unresolved or the weaker component was not reliably measured.

The very high frequency precision of the FTS data meant that some correction for the combined instrumental and torsional effects (splittings and shifts) had to be carried out before a complete analysis would yield reliable molecular constants free of systematic model errors. All the terms of Eq. (6) can be treated simultaneously using a global model Hamiltonian but this was deemed unnecessary since the torisonal terms are essentially independent of the rest of the terms in Eq. (6). Therefore an alternative method to full diagonalization was used. The effects of torsional splitting and the Coriolis resonance with $3\nu_4$ were calculated using Table I and Eq. (7), respectively. These calculations were then used, together with the instrumental response, to deperturb the observed data yielding "corrected" frequencies which could be fitted with Eqs. (2) and (3). The clearest way to describe this procedure is to refer the reader to Fig. 5. The torsional splitting from the unperturbed and unsplit position (ν_0) was calculated according to Table I using the results from Susskind _et al_. (1982) (Fig. 5a). The effects of the Coriolis resonance with $3\nu_4$ on each torsional component was then calculated using Eq. (7) and added to the first order torsional result (Fig. 5b). This was followed by giving each component transition a Doppler width profile ($\Delta\nu_D$ = 1.8×10^{-3} cm^{-1} FWHM) in the proper intensity ratio (Table I) and adding the result in the case of overlap (Fig. 5c). The next step was a convolution with the appropriate instrument profile. This was followed by a peak finding routine that located maxima in the final profile and calculated the shift(s) from the origin ν_0 (Fig. 5d). These shifts were then subtracted from the observed transition frequencies to yield a corrected data set. The modified data set then corresponds to the spectrum of ν_9 which would be observed if torsion and the $3\nu_4$ resonance did not exist. This corrected data set does not represent any physically observable spectrum but it allows the fitting of the band to a standard model that simplifies both the analysis and subsequent simulation of the spectrum for astrophysical modeling. Simulated spectra for comparison with observed data are easily obtained by adding the calculated torsional and Coriolis effects to the unsplit line positions to predict the final spectrum.

(d) Fitting Procedure

The data analysis procedure followed the iterative scheme listed below:

(1) each 2x2 Hamiltonian (Cartwright and Mills, 1970) was evaluated for a molecular parameter set of l parameters $[\gamma_1, \gamma_2, \ldots, \gamma_l]_n = \tilde{\gamma}_n$ (n = 0 for the initial set) to obtain the upper state energies;

(2) the residuals (obs.-calc.) were computed as

$$\Delta_{o-c}(J+\Delta J, K+\Delta K, \ell+\Delta\ell) = [\nu_{OBS}(J+\Delta J, K+\Delta K, \ell+\Delta\ell)$$

$$+ E_{gs}(J,K,\ell=0)] - E^n_{calc}(J+\Delta J, K+\Delta K, \ell+\Delta\ell) \qquad (11)$$

where E_{gs} is the ground state energy and E^n_{calc} came from step (1);

(3) the derivatives $\delta E/\delta\gamma_m$, where γ_m is a particular molecular parameter such as α_9^B, were calculated using the Hellman-Feynman theorem (Rowe and Wilson, 1975);

(4) the residuals, Δ_{o-c}, were fitted to a Taylor series expansion of the energy retaining only the terms linear in $\delta\gamma$, i.e.

$$\Delta_{o-c} = \sum_m \left.\frac{\delta E}{\delta\gamma_m}\right|_{\tilde{\gamma}_n} \delta\gamma_m \quad ; \qquad (12)$$

(5) the molecular parameter set $\tilde{\gamma}_n$ was corrected according to

$$(\gamma_m)_{n+1} = (\gamma_m)_n + \delta\gamma_m \qquad (13)$$

The series of steps from 1 through 5 continued until the stepwise regression (Efrymonson, 1960) produced no significant reduction in the sum square error of the remaining Δ_{o-c} of step 2. At that point, the data, which had been originally weighted uniformly (wt.=1), was reweighted according to the method of bi-weights (Beaton and Tukey, 1974) as in the previous ν_9 study (Daunt et al., 1981). The procedure was terminated using a modified χ^2 test (Lin et al., 1980).

(e) Results

Several parameter sets, corresponding to model Hamiltonians limited to lower order terms than those presented in Eqs. (2) and (3), were also tried in the analysis procedure described above. In all, four parameter sets were determined involving inclusion and exclusion of $\{\beta^J,\beta^{JK},\beta^K\}$ and $\{\delta q_9^J,\delta q_9^K\}$ in various combinations. Each parameter set was used to synthesize plots of selected 2 cm^{-1} segments of the spectrum on a 1 cm^{-1}/meter scale. These were then compared with the observed spectrum plotted on the same scale. Based on these visual comparisons, the best parameter set was judged to be the full set described by Eqs. (2) and (3) and listed in Table II. The analysis of 1609 corrected transitions yielded a standard deviation of 0.7×10^{-3} cm^{-1}. The overall agreement between the ν_9 molecular constants of the present study and those reported by Daunt et al. (1981) and Henry et al. (1983) is very good. The only notable discrepancy occurs in the band origin ν_0 which appears to be ~0.001 cm^{-1} too low in Henry et al. (1983). The fact that their interferometer has to be operated in air at present is probably responsible for this small but significant wavelength offset.

A ground state constant determination was also carried out as in Lin et al. (1980) using 893 ground state combination differences. Results of this analysis and comparison with previous work are shown in Table III. The excellent agreement with the analyses of laser difference frequency data by Pine and Lafferty (1982) and recent FTS data by Henry et al. (1983) indicates that the ground state constants for ethane are now very precisely determined.

The quality of the analysis is best demonstrated by examination of Figures 6-9 which show the $^{R}Q_{K}(J)$, K = 1, 2, 3 and 4 branch regions of ν_9. Panel A of each figure shows the FTS data and panel B a corresponding diode laser scan of the same region.

. The Doppler limited diode laser data was computer deconvoluted using the techniques described by Blass and Halsey (1981) in order to clearly resolve the torsional splittings at low J and K values. These results are shown in panel C of each figure. The intrinsic torsional splitting of $S_{0,9}$ = 2.2 x 10^{-3} cm^{-1} is now readily visible. The parameters of Tables II and III for the deperturbed ν_9 plus the torsional/Coriolis parameters of Susskind et al. (1982) were then used to simulate the deconvoluted spectra. The results for a calculated line width of 0.001 cm^{-1} are shown in panel D of each figure. The agreement is most pleasing in each case. Features not reproduced are attributed to the hot band $\nu_9 + \nu_4 - \nu_4$ which has not been included in the simulation. It is evident from Figs. 6-9 that the present model can reproduce essentially all the observed ν_9 features in the present data with good frequency accuracy (better than 0.001 cm^{-1}). The relative intensities of the torsional doublets in Figs. 6-9 appear to deviate from the calculated because the scans available for deconvolution were not recorded under conditions necessary for accurate absolute intensity measurements. Additional diode laser spectra recorded for the purpose of intensity measurements gave excellent agreement with the theoretical predictions of Table I.

IV. DISCUSSION

One of the most important features of the ν_9 band is the $^RQ_0(J)$ branch. This band head has been used to evaluate the ethane abundance in the Jovian atmosphere (Tokunaga, Knacke and Owen, 1976; Tokunaga _et al_., 1979) because it stood out clearly from the remainder of the band. It was noted, however, by Tokunaga and Varanasi (1976) that it was impossible to simultaneously fit $^RQ_0$ and the rest of the ν_9 band to a standard model. These workers obtained effective molecular parameters for $^RQ_0$ and made laboratory intensity measurements which were then used to extract mixing ratios and abundances from the astrophysical spectra.

The anomalous behavior of $^RQ_0$ is due to ℓ-doubling effects (Daunt _et al_., 1981) induced by the Coriolis interaction of ν_9 with ν_4, ν_5 and ν_6 (Susskind _et al_., 1982). This explains the difference between $^RQ_0$ and the other $^{P,R}Q_K$ branches reported by Tokunaga and co-workers (1976, 1979). The detailed line pattern of $^RQ_0$ was partially resolved in the diode laser spectra of Flicker _et al_. (1977) and interpreted correctly later by Patterson _et al_. (1981). Only when taking the torsional effects into account could the unexpected intensity pattern of the lines be understood. The effect of the Coriolis interaction on the component splitting is a factor of two larger for $^RQ_0$ than for most other branches (the exceptions being $^RR_0$ and $^RP_0$ where there is no torsional-Coriolis interaction). The combination of this enlarged torsional splitting and the narrowing of J-line spacings caused by the ℓ-doubling are responsible for the anomalous appearance of $^RQ_0$. This feature is the final test for the present model. Figure 10A shows the FTS spectrum where the line spacings are so close that very little is resolved. A Doppler limited diode laser scan of

${}^{R}Q_0$ is shown in Fig. 10B where more structure is visible but still not enough for a detailed line-by-line analysis. If the spectrum in Fig. 10B is deconvoluted, then complete resolution of all the torsional features is obtained as seen in Fig. 10C. The peculiar pattern is due to the lower frequency torsional component of each J falling into close coincidence with the high frequency component of the next higher J. The complete model for ν_9 predicts the pattern plotted in Fig. 10D and is in good agreement with the deconvoluted laser data. The extra lines appearing in Fig. 10C are assumed to be transitions of the hot band $\nu_9 + \nu_4 - \nu_4$.

An accurate model of the line positions and relative intensities of ${}^{R}Q_0$ is now available. The uncertainty of earlier astrophysical studies caused by a lack of understanding of the structure of this feature has been removed.

There have been several attempts to obtain absolute intensity values for the entire ν_9 band (Varanasi, Cess and Bangaru, 1974) and for the ${}^{R}Q_0$ branch alone (Tokunaga and co-workers, 1976; 1979). A combination of our calculated relative line strengths and diode laser absolute line strength determinations has allowed us to derive a value of 0.53 (±0.05) $cm^{-2}\ atm^{-1}$ at 296°K for the ${}^{R}Q_0$ branch. The integrated strength from the FTS data for the ${}^{R}Q_0$ region gave S = 0.56 (±0.03)$cm^{-2}\ atm^{-1}$. These values are much lower than the S = 0.74 (±0.09) $cm^{-2}\ atm^{-1}$ obtained by Tokunaga and Varanasi (1976) from unresolved medium resolution data. The value of 0.70 $cm^{-2}\ atm^{-1}$ derived from diode laser data reported in Henry _et al_. (1983) is more problematic. They used a rigid rotor model and measured only ${}^{R}Q$ type transitions with low K and high J quantum numbers. These are the lines, however, whose intensities are the most perturbed by the $\ell(2,2)$ resonance. The extent of this perturbation is quite pronounced as shown in Table IV and Figure 11. The ${}^{R}Q_1(25)$ and ${}^{R}Q_1(30)$ lines are 22% and

31% stronger than normal (rigid rotor model) and will appear to be 44% and 62% stronger than the respective $^{P}Q_1(25)$ and $^{P}Q_1(30)$ lines (see Fig. 11).

The K and J dependence of this effect accounts for the problems reported in Henry et al. (1983) in trying to derive a consistent transition dipole moment as K and J changed. These types of intensity effects have been described in more detail in Mills (1969), Cartwright and Mills (1970) and Masri and Blass (1971). In short, the overall intensity effect of the resonance (for the case of ν_9 of C_2H_6) is to enhance ^{R}Q, ^{P}P and ^{P}R type transitions while depleting the ^{P}Q, ^{R}R and ^{R}P type transitions. Unless one samples all sets of transitions for wide values of K and J the derivation of a band strength will be in error. It would be possible to derive strengths from a few selected lines but only if the resonances have been rigorously taken into account. The particular case of ν_9 of C_2H_6 strongly illustrates the inadequacy of using rigid rotor models for the study of perturbed bands.

In comparing the two diode laser line intensities studies where measurements overlap the present study obtained experimental strength values about 40% lower than those reported in Henry et al. (1983). This disagreement is independent of the model problem discussed above. Since large discrepancies still exist, further work on the absolute intensity problem is required before $^{R}Q_0$ or any other features of ν_9 can be used as precise probes for ethane abundances. It should also be remembered that a large proportion of the observed intensity in the 12μm region is attributable to the as yet unanalyzed hot bands ($\nu_9 + n\nu_4 - n\nu_4$), the $3\nu_4$ band, and isotopic bands. Work on these problems is presently underway.

Recently Bjoraker et al. reported a detection of ethane on Saturn in the 3μm region through a band strikingly similar in appearance to ν_9 (Q-branch spacings ~2.7 cm^{-1} apart). There is also the possibility of using the ν_9 + ν_{12} band (Lin, Blass and Gailar, 1980) as a probe for ethane as suggested by Treffers et al. (1978). However, ν_9 would still appear to be the strongest feature of C_2H_6 in the usual atmospheric windows and therefore the best candidate for extraterrestrial searches.

The suitability of the ν_9 band for laser heterodyne searches in molecular sources was a primary motivation of the present study. The R side of the ν_9 band overlaps the I-band P-branch of the $^{14}CO_2$ laser lines and provides the best opportunities for heterodyne studies. Assuming a Doppler shift for a source of ±3GHz (as for Jupiter) and a filter bank width of ±3GHz, candidate coincidences within ±6GHz (±.2 cm^{-1}) between the stronger transitions of ν_9 and the $^{14}CO_2$ laser lines are listed in Table V. The quality of the reported offsets have been checked recently by laboratory heterodyne measurements by Weaver et al. (1983). Comparisons with the predictions in Table V for the eight lines studied show an average difference of only 6MHz. Several of these predicted coincident ethane transitions have recently been observed in the Jovian stratosphere by Kostiuk et al. (1983). The relative intensities listed in Table IV can be converted to absolute intensities by applying the multiplicative conversion factor 7.1(0.7) x 10^{-3} cm^{-2} atm^{-1} This factor was derived from diode laser intensity measurements of ν_9 transitions and corresponds to a sample temperature of 296°K.

The lines listed in Table V have been taken from an atlas of calculated ν_9 transitions compiled from the present study and covering the region from 750 to 900 cm^{-1}. This atlas consists of two sections: Part I - plots of the observed FTS spectrum and a simulated spectrum calculated at Doppler width for 300°K (1.8 x 10^{-4} cm^{-1}); and Part II - a list of over 8500 calculated transition frequencies, quantum number assignments and relative intensities. A page from Part I of this atlas for the 837.5 to 840.0 cm^{-1} region is shown in Fig. 12. The corresponding page list of Part II for the plots in Fig. 12 is given in Table VI. The intensity conversion factor discussed above applies to the entire ν_9 atlas. Copies of this atlas may be obtained by writing to the authors (S.J.D., D.E.J. or W.E.B.).

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ADDRESSES OF THE AUTHORS

S.J. Daunt: Department of Chemistry, H-1139, Concordia University, 1455 de Maisonneuve Boulevard West, Montréal, Québec, Canada H3G 1M8; and Department of Physics and Astronomy, The University of Tennessee, Knoxville, TN 37996-1200.

A.K. Atakan, W.E. Blass and G.W. Halsey: Molecular Spectroscopy Laboratory, Department of Physics and Astronomy, The University of Tennessee, Knoxville, TN 37996-1200.

D.E. Jennings: Infrared and Radio Astronomy Branch, Laboratory for Extraterrestrial Physics, Code 693, NASA/Goddard Space Flight Center, Greenbelt, MD 20771

D.C. Reuter and J. Susskind: Goddard Laboratory for Atmospheric Sciences, Code 911, NASA/Goddard Space Flight Center, Greenbelt, MD 20771

J.W. Brault: Kitt Peak National Observatory, Tucson, AZ 85726

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FIGURE CAPTIONS

Figure 1. Upper panel: part of the FTS spectrum of the ν_9 band of C_2H_6 near $^RQ_4$ recorded with $\Delta\nu = 0.005$ cm^{-1}. Lower panel: simulated spectrum of the same region using the parameters from Daunt et al. (1981). No torsional effects were included in this calculation.

Figure 2. Selection rules, first order torsional splittings, predicted splitting patterns and intensities for an internal rotation barrier in ν_9 greater than that in the ground vibrational state. The allowed and forbidden levels are shown by horizontal solid and dashed lines, respectively.

Figure 3. Energy origins of the $3\nu_4$ state (including torsional effects) relative to ν_9. Note that the $(-\ell)$ states of ν_9 are closer to the $3\nu_4$ levels than the $(+\ell)$ states. Since transitions with $\Delta K = -1$ (^PP, ^PQ, ^PR) terminate in the $(-\ell)$ levels, they will be the most perturbed by $3\nu_4$.

Figure 4. Energy levels involved in transitions from the ground state (K" = 6, J") to ν_9. Torsional level splittings are shown for the lower ($+2S_0$, $+S_0$, $-S_0$, $-2S_0$ where $S_0 = \Delta_G/3$) and upper states ($+2S_1$, $+S_1$, $-S_1$, $-2S_1$ where $S_1 = \Delta_9/3$). The allowed torsional levels are shown by solid lines and the forbidden levels by dashed lines. The $3\nu_4$ levels perturb the ν_9 levels through the Coriolis interaction matrix shown in the upper left corner (the interacting levels are connected by the lines ●—●). Allowed ν_9 transitions are shown by the slanting vertical arrows.

Figure 5. Method used for obtaining corrective shifts for the FTS data.

(a) Calculate the first order torsional splittings for each ν_9 transition (unperturbed frequency = ν_0). The pattern is given by Table I where $S_{0,9} = |3\Delta S| = |3(S_1 - S_0)| = |\Delta_9 - \Delta_G| = 2.282 \times 10^{-3}$ cm^{-1}. (b) The $3\nu_4$ Coriolis resonance contributions are calculated with Eq. (7) and these additional shifts are added to each torsional component.

(c) Each line is given a Doppler line shape ($\Delta\nu_D = 1.8 \times 10^{-3}$ cm^{-1} FWHM) and intensities are summed. (d) The results from part (c) are convoluted with an instrument function to yield a final contour. This profile is then searched for maxima and shifts relative to ν_0 are calculated. These shift values are then merged with the observed measurements to create an "unsplit and unshifted" set of frequencies that can be fitted with the standard model of Eqs. (2)-(3).

Figure 6. The $^RQ_1$ region of ν_9. (A) FTS spectrum; (B) diode laser scan; (C) deconvoluted diode laser data; (D) simulated spectra including torsion and Coriolis effects (full model).

Figure 7. The $^RQ_2$ region of ν_9. (A) FTS spectrum; (B) diode laser scan; (C) deconvoluted diode data showing full resolution of the complex feature near 827.610 cm^{-1}; (D) simulated spectrum using full model.

Figure 8. The $^RQ_3$ region of ν_9. (A) FTS spectrum; (B) diode laser scan where the torsional splitting is only evident as shoulders; (C) deconvoluted diode laser data with torsional splitting now completely resolved even at J = 4; (D) simulated spectrum using full model.

Figure 9. The $^RQ_4$ region of ν_9. (A) FTS spectrum; (B) diode laser spectrum;

(C) deconvoluted diode data showing complete resolution of the torsional splittings even at J = 6; (D) simulated spectra using full model.

Figure 10. The $^{R}Q_{0}$ branch of ν_9. (A) FTS spectrum; (B) diode laser scan showing that even at Doppler limited resolution the fine structure is still unresolved; (C) deconvoluted diode data illustrating complete resolution of the unusual structure of $^{R}Q_{0}$. This is a result of a two-fold torsional effect for $^{R}Q_{0}$ caused by the $3\nu_4$ resonance and the strong ℓ-doubling that is quite common in the $^{R}Q_{0}$ branch of perpendicular bands of symmetric top molecules; (D) simulated spectra using the full model. Unassigned peaks are assumed to belong to the hot band $\nu_9 + \nu_4 - \nu_4$.

Figure 11. Effects of ℓ-resonance on the (A) $^{R}Q_{1}(J)$ branch and (B) $^{P}Q_{1}(J)$ branch of ν_9. The J values are numbered and both plots are on the same frequency and absolute intensity scales. Note the enhanced intensity of the $^{R}Q_{1}(J)$ lines relative to the $^{P}Q_{1}(J)$ with the same J value. The effect increases with J. A rigid rotor model would have the intensities approximately equal.

Figure 12. A page from Part I of the ν_9 Band Atlas that covers 837.5 to 840.0 cm^{-1}. The upper trace in each row is the FTS data (the $^{R}Q_{6}$ region in this case). The lower trace is the simulated spectrum using the full model. The torsional splittings are clearly seen for all transitions. The calculated resolution is 1.8×10^{-1} cm^{-1} at T = 300°K (i.e., Doppler limited).

TABLE I. TORSIONAL SPLITTINGS IN ν_9 OF C_2H_6

K"	Int.[a]	$Int._{RATIO}$	σ	Tor. Shift[b]
K" = 3p levels, all J				
K even	S	2:1	0	$(2/3)S_{0,9}$
	W		2	$-(1/3)S_{0,9}$
K odd	S	2:1	3	$-(2/3)S_{0,9}$
	W		1	$(1/3)S_{0,9}$
K" ≠ 3p levels, all J				
K even	S	4:1	2	$-(1/3)S_{0,9}$
	W		0	$(2/3)S_{0,9}$
K odd	S	4:1	1	$(1/3)S_{0,9}$
	W		3	$-(2/3)S_{0,9}$
K" = 0 level				
J even	S	6:2	0	$(2/3)S_{0,9}$
	W		2	$-(1/3)S_{0,9}$
J odd	S	10:6	0	$(2/3)S_{0,9}$
	W		2	$-(1/3)S_{0,9}$

(a) S = stronger and W = weaker component

(b) $S_{0,9} \equiv |\Delta_9 - \Delta_G|$ is the difference in torsional level splittings between the ground and ν_9 vibrational states.

TABLE II. WHOLE BAND ANALYSIS OF ν_9 OF C_2H_6†

	Present Study	Daunt, et al.[a]
ν_0	821.7234	821.727(6)
α_9^A	$-7.90722(59)\times10^{-3}$	$-7.837(30)\times10^{-3}$
α_9^B	$1.27454(13)\times10^{-3}$	$1.259(15)\times10^{-3}$
$A\zeta_9^z$	0.694742(13)	0.6950(5)
η_9^J	$-2.410(28)\times10^{-6}$	$-2.42(1.30)\times10^{-6}$
η_9^K	$3.0758(49)\times10^{-5}$	$3.448(1.300)\times10^{-5}$
β_9^J	$-1.66(13)\times10^{-9}$	ND[c]
β_9^{JK}	$-5.58(12)\times10^{-8}$	ND
β_9^K	$-1.810(38)\times10^{-7}$	ND
q_9^+	$-1.8169(14)\times10^{-3}$	$-1.832(30)\times10^{-3}$
δq_9^J	$1.98(16)\times10^{-8}$	ND
δq_9^K	$-8.80(33)\times10^{-7}$	ND
σ(S.D.)	0.7×10^{-3}	6.7×10^{-3}
N/N_0[b]	1342/1609	549/569

†All quantities in units of cm^{-1}; error limits are 95% confidence limits.

(a) Daunt, S.J., Blass, W.E., Halsey, G.W., Fox K. and Lovell, R.J., 1981, J. Mol. Spectrosc. 86, 327.

(b) N/N_0 is the ratio of lines included without zero weight (N) to the total number of assigned lines(N_0).

(c) Not determined.

TABLE III. COMPARISON OF RECENT DETERMINATIONS OF THE GROUND STATE CONSTANTS FOR ETHANE†

	PRESENT WORK	PINE AND LAFFERTY[a]	LIN, ET AL.[b]	COLE, ET AL.[c]
B_0	0.6630279(24)	0.6630271(14)	0.6630353(152)	0.663089(24)
$D_0^J(x10^{-6})$	1.0324(23)	1.0312(26)	1.0406(16)	1.084(35)
$D_0^{JK}(x10^{-6})$	2.651(88)	2.660(29)	2.575(274)	5.00(66)
$\sigma(x10^{-3})$	0.87	0.55	2.2	-
N/N_0[d]	760/893	766[e]	230/285	184[e]

†All quantities are in units of cm^{-1}.

(a) Pine, A.S. and Lafferty, W.J., 1982, J. Res. Natl. Bur. Stand., 87 237; uncertainties are one standard deviation.

(b) Lin, K.F., Blass, W.E. and Gailar, N.M., 1980, J. Mol. Spectrosc. 79, 151.

(c) Cole, A.R.H., Cross, K.J., Cugley, J.A. and Heise, H.M., 1980, J. Mol. Spectrosc. 233; uncertainties are two standard deviations.

(d) See N/N_0 comment in Table II.

(e) These calculations performed with standard fixed weighting methods.

TABLE IV. INTENSITY EFFECTS OF ℓ-RESONANCE

K"	J"	Relative[a] Increase in R-type (ΔK=+1) Transitions	Relative[b] Decrease in P-type (ΔK=-1) Transitions	Percent Intensity Over(under) estimation for R(P) Transitions
1	10	1.048	0.962	4
1	15	1.084	0.917	8
1	20	1.145	0.855	15
1	25	1.221	0.779	22
1	30	1.309	0.691	31
1	35	1.403	0.597	40
1	40	1.497	0.503	50
2	10	1.018	0.982	2
2	15	1.072	0.928	7
2	20	1.112	0.888	11
2	25	1.160	0.840	16
2	30	1.215	0.785	21
3	10	1.012	0.988	1
3	20	1.048	0.952	5
3	30	1.107	0.893	10
4	10	1.008	0.992	1
4	20	1.035	0.965	3
4	30	1.080	0.920	8
5	10	1.006	0.994	0
5	20	1.028	0.972	3
5	30	1.063	0.937	6

[a] Intensity ratio of R(perturbed)/R(unperturbed)

[b] Intensity ratio of P(perturbed)/P(unperturbed)

TABLE V. LIST OF $^{14}CO_2$ LASER LINES AND NEARBY COINCIDENCES WITH ν_9 of C_2H_6 TRANSITIONS

CO_2 Laser line	ν_{CO_2} / $\nu_{C_2H_6}$ (cm^{-1})	$\Delta\nu$(MHz)†	Assignment $\Delta K\Delta J(K''J''\sigma'')$	Relative Intensity
P(48)	824.16974			
	824.01469	-4648	RQ(1,29,1)	0.70824
	.07408	-2868	RQ(1,28,1)	0.81464
	.13232	-1122	RQ(1,27,1)	0.92992
	.18289	394	RQ(1,26,3)	0.26334
	.18919	583	RQ(1,26,1)	1.05336
	.23882	2071	RQ(1,25,3)	0.29600
	.24480	2250	RQ(1,25,1)	1.18400
	.29327	3703	RQ(1,24,3)	0.33008
	.29897	3874	RQ(1,24,1)	1.32032
	.34615	5289	RQ(1,23,3)	0.36520
	.35156	5451	RQ(1,23,1)	1.46080
P(46)	826.10540			
	826.25690	4542	RQ(2,34,2)	0.26504
	.30437	5965	RR(0,2,0)	0.39225
P(44)	828.02458			
P(42)	829.92733			
	829.73042	-5903	RQ(3,22,1)	0.65607
	.78052	-4401	RQ(3,21,3)	1.43633
	.78497	-4268	RQ(3,21,1)	0.71817
	.83281	-2834	RQ(3,20,3)	1.55853
	.83705	-2706	RQ(3,20,1)	0.77927
	.88293	-1331	RQ(3,19,3)	1.67573
	.88696	-1210	RQ(3,19,1)	0.83787
	.93057	97	RQ(3,18,3)	1.78487
	.93442	213	RQ(3,18,1)	0.89243
	.97594	1457	RQ(3,17,3)	1.88240
	.97961	1567	RQ(3,17,1)	0.94120
	830.01883	2743	RQ(3,16,3)	1.96473
	.02233	2848	RQ(3,16,1)	0.98237
	.05935	3958	RQ(3,15,3)	2.02827
	.06268	4058	RQ(3,15,1)	1.01413
	.09749	5101	RQ(3,14,3)	2.06913

CO_2 Laser line	ν_{CO_2} / $\nu_{C_2H_6}$ (cm^{-1})	$\Delta\nu$(MHz)	Assignment $\Delta K\Delta J(K''J''\sigma'')$	Relative Intensity
P(40)	831.81368			
	831.63944	-5224	RR(2,2,2)	1.50784
	.64171	-5156	RR(2,2,0)	0.37696
	.66598	-4428	RQ(4,33,2)	0.25736
	.74632	-2019	RQ(4,32,2)	0.30736
	.82449	324	RQ(4,31,2)	0.36432
	.90048	2602	RQ(4,30,2)	0.42872
	.97430	4815	RQ(4,29,2)	0.50064
P(38)	833.68367			
P(36)	835.53734			
	835.35570	-5445	PR(3,15,3)	0.79653
	.35764	-5387	RQ(5,18,3)	0.35484
	.36005	-5315	PR(3,15,1)	0.39827
	.36119	-5281	RQ(5,18,1)	1.41936
	.36626	-5129	RR(0,9,2)	0.65653
	.36848	-5062	RR(0,9,0)	1.96958
	.38511	-4564	PR(2,13,2)	0.99256
	.40403	-3996	RQ(5,17,3)	0.37214
	.40743	-3895	RQ(5,17,1)	1.48856
	.41944	-3535	PR(1,11,3)	0.30130
	.42271	-3436	PR(1,11,1)	1.20520
	.44794	-2680	RQ(5,16,3)	0.38564
	.45119	-2583	RQ(5,16,1)	1.54256
	.48939	-1438	RQ(5,15,3)	0.39448
	.49250	-1344	RQ(5,15,1)	1.57792
	.51901	-550	RR(1,7,3)	0.36416
	.52163	-471	RR(1,7,1)	1.45664
	.52825	-272	RQ(5,14,3)	0.39772
	.53123	-183	RQ(5,14,1)	1.59088
	.56453	815	RQ(5,13,3)	0.39442
	.56740	901	RQ(5,13,1)	1.57768
	.57835	1229	RR(2,5,2)	1.66824
	.58087	1305	RR(2,5,0)	0.41706
	.59834	1829	RQ(5,12,3)	0.38366
	.60109	1911	RQ(5,12,1)	1.53464
	.62957	2765	RQ(5,11,3)	0.36448

(TABLE V. CONT'D.)

	.63222	2844	RQ(5,11,1)	1.45792
	.64452	3213	RR(3,3,3)	1.97080
	.64677	3281	RR(3,3,1)	0.98540
	.65822	3624	RQ(5,10,3)	0.33594
	.66077	3700	RQ(5,10,1)	1.34376
	.68439	4408	RQ(5,9,3)	0.29692
	.68687	4483	RQ(5,9,1)	1.18768
	.71019	5182	RQ(5,8,1)	0.98464
	.73104	5807	RQ(5,7,1)	0.72768
P(34)	837.37471			
	837.27466	-2999	RQ(6,31,0)	0.28507
	.35270	-660	RQ(6,30,0)	0.33533
	.42847	1612	RQ(6,29,0)	0.39147
	.50189	3813	RQ(6,28,0)	0.45340
	.56619	5740	RQ(6,27,2)	0.26047
	.57294	5943	RQ(6,27,0)	0.52093
P(32)	839.19581			
	839.11044	-2559	PR(6,24,0)	0.25713
	.12348	-2168	PR(5,22,1)	0.37960
	.14821	-1427	PR(4,20,2)	0.53712
	.18206	-412	RR(0,12,2)	0.50554
	.18428	-346	RR(0,12,0)	0.84256
	.18439	-342	PR(3,18,3)	0.72953
	.18962	-186	PR(3,18,1)	0.36477
	.23042	1038	PR(2,16,2)	0.95512
	.27988	2520	PR(1,14,3)	0.30616
	.28372	2635	PR(1,14,1)	1.22464
P(30)	841.00067			
	840.81110	-5683	RQ(7,19,1)	0.97072
	.85757	-4290	RQ(7,18,3)	0.25500
	.86086	-4191	RQ(7,18,1)	1.02000
	.87974	-3625	RR(3,7,3)	2.00620
	.88225	-3550	RR(3,7,1)	1.00310
	.90479	-2874	RQ(7,17,3)	0.26444
	.90794	-2780	RQ(7,17,1)	1.05776
	.94952	-1533	RQ(7,16,3)	0.27018
	.95255	-1443	RQ(7,16,1)	1.08072
	.97644	-726	RR(4,5,2)	2.27096
	.97881	-655	RR(4,5,0)	0.56774
	.99158	-272	RQ(7,15,3)	0.27146
	.99448	-186	RQ(7,15,1)	1.08584
	841.03116	914	RQ(7,14,3)	0.26738
	.03395	998	RQ(7,14,1)	1.06952
	.06806	2020	RQ(7,13,3)	0.25704
	.07075	2101	RQ(7,13,1)	1.02816
	.10507	3130	RQ(7,12,1)	0.95792
	.13663	4076	RQ(7,11,1)	0.85480
	.16571	4948	RQ(7,10,1)	0.71400
	.19212	5740	RQ(7,9,1)	0.53000
P(28)	842.78930			
	842.89010	3022	PR(5,25,1)	0.28760
	.93118	4253	PR(4,23,2)	0.42568
	.94345	4621	RQ(8,29,2)	0.28312
	.95586	4993	RR(0,15,2)	0.62275
	.95808	5060	RR(0,15,0)	1.86825
	.98434	5847	PR(3,21,3)	0.60527
P(26)	844.56172			
	844.38000	-5448	PR(1,18,3)	0.26798
	.38479	-5304	PR(1,18,1)	1.07192
	.58335	648	RR(1,14,3)	0.33640
	.58693	756	RR(1,14,1)	1.34560
	.67534	3406	RR(2,12,2)	1.66984
	.67908	3518	RR(2,12,0)	0.41746
P(24)	846.31794			
	846.14949	-5050	RQ(9,23,3)	0.48053
	.18900	-3866	RR(4,9,2)	2.13296
	.19187	-3780	RR(4,9,0)	0.53324
	.21043	-3223	RQ(9,22,3)	0.52380
	.21402	-3115	RQ(9,22,1)	0.26190
	.26888	-1471	RQ(9,21,3)	0.56447
	.27232	-1368	RQ(9,21,1)	0.28223
	.31310	-145	RR(5,7,3)	0.59220
	.31549	-73	RR(5,7,1)	2.36880
	.32475	204	RQ(9,20,3)	0.60093
	.32806	303	RQ(9,20,1)	0.30047
	.37794	1799	RQ(9,19,3)	0.63120
	.38112	1894	RQ(9,19,1)	0.31560
	.42857	3317	RQ(9,18,3)	0.65313
	.43161	3408	RQ(9,18,1)	0.32657
	.47660	4756	RQ(9,17,3)	0.66433
	.47952	4844	RQ(9,17,1)	0.33217

(TABLE V., CONT'D.)

P(22)	848.05797			
	847.92096	-4107	RR(0,19,2)	0.48790
	.92318	-4041	RR(0,19,0)	1.46370
	.92795	-3898	PR(4,27,2)	0.27408
	848.00364	-1629	PR(3,25,3)	0.41340
	.08787	896	PR(2,23,2)	0.60376
	.17249	3433	PR(1,21,1)	0.87912
P(20)	849.78182			
	849.70794	-2215	RR(1,18,3)	0.25402
	.71233	-2083	RR(1,18,1)	1.01608
	.81382	959	RR(2,16,2)	1.35968
	.81866	1104	RR(2,16,0)	0.33992
	.93555	4609	RR(3,14,3)	1.65467
	.93889	4709	RR(3,14,1)	0.82733
P(18)	851.48950			
	851.35696	-3973	RR(4,13,2)	1.82808
	.36057	-3865	RR(4,13,0)	0.45702
	.50234	385	RR(5,11,3)	0.51668
	.50509	467	RR(5,11,1)	2.06672
	.59406	3135	RR(0,22,2)	0.27765
	.59628	3201	RR(0,22,0)	0.46275
	.65717	5027	RR(6,9,2)	1.13707
	.65981	5106	RR(6,9,0)	2.27413
P(16)	853.18100			
	853.07035	-3317	PR(2,27,2)	0.38280
	.11888	-1862	RR(7,8,3)	0.58980
	.12122	-1792	RR(7,8,1)	2.35920
	.16677	-427	PR(1,25,1)	0.59968
P(14)	854.85631			
	854.80056	-1671	RR(1,22,1)	0.66000
	.81380	-1274	RQ(12,20,0)	0.25733
	.86813	354	RQ(12,19,0)	0.26107
	.90904	1581	RR(2,20,2)	0.96312
	.91979	1903	RQ(12,18,0)	0.25820
	855.04873	5769	RR(3,18,3)	1.24067
	.05276	5889	RR(3,18,1)	0.62033
P(12)	856.51545			
	.32425	-5732	RR(3,19,1)	0.56583
	.42528	-2703	RR(0,26,0)	0.28556
	.47923	-1086	RR(4,17,2)	1.39280
	.48383	-948	RR(4,17,0)	0.34820
	.64585	3909	RR(5,15,3)	0.40944
	.64910	4007	RR(5,15,1)	1.63776
P(10)	858.15839			
	858.09157	-2003	PR(1,29,1)	0.36008
	.10651	-1555	RR(6,14,2)	0.86760
	.10996	-1452	RR(6,14,0)	1.73520
	.29436	4076	RR(7,12,3)	0.47878
	.29704	4157	RR(7,12,1)	1.91512
P(8)	859.78513			
	859.78340	-52	RR(8,11,2)	1.93760
	.78606	28	RR(8,11,0)	0.48440
	.85442	2077	RR(1,26,1)	0.37184
	.96172	5294	RR(2,24,2)	0.59776
P(6)	861.39566			
	861.21833	-5316	RR(2,25,2)	0.52000
	.28594	-3289	RR(9,10,3)	1.92180
	.28830	-3219	RR(9,10,1)	0.96090
	.37669	-569	RR(3,23,3)	0.72447
	.38184	-414	RR(3,23,1)	0.36223
	.55543	4790	RR(4,21,2)	0.94064
P(4)	862.98995			
	862.81721	-5179	RR(4,22,2)	0.83688
	863.00960	589	RR(5,20,3)	0.26128
	.01367	711	RR(5,20,1)	1.04512

† The conversion from wavenumber to frequency was calcul
with a value of $c = 2.99792458 \times 10^{10}$ cm/sec.

TABLE VI. SAMPLE PAGE FROM PART II OF THE ν_9 ETHANE BAND ATLAS

	K	J	S	WAVE NO	INT
PR	2	14	2	836.66998	0.99224
PR	2	14	0	836.67529	0.24806
PR	13	36	3	836.69362	0.00178
PR	1	12	3	836.70940	0.30674
PR	1	12	1	836.71284	1.22696
RP	21	33	3	836.71494	0.00020
RP	21	33	1	836.71819	0.00010
PR	13	36	1	836.73199	0.00712
RP	13	16	3	836.73425	0.00114
RP	13	16	1	836.73662	0.00456
PR	14	38	2	836.74386	0.00344
RQ	6	37	2	836.74741	0.04593
PR	12	34	0	836.74851	0.01387
RQ	6	37	0	836.75852	0.09187
PR	15	40	3	836.78472	0.00160
RR	1	8	3	836.82164	0.37344
RR	1	8	1	836.82436	1.49376
RQ	6	36	2	836.83951	0.05650
RQ	6	36	0	836.85011	0.11300
PR	16	42	2	836.85030	0.00072
PR	15	40	1	836.85259	0.00080
RP	14	18	2	836.88427	0.00496
RR	2	6	2	836.88603	1.71592
RP	14	18	0	836.88683	0.00124
RR	2	6	0	836.88869	0.42898
PR	17	44	3	836.89779	0.00008
RP	22	35	2	836.91415	0.00008
RP	22	35	0	836.91797	0.00002
RQ	6	35	2	836.92942	0.06900
RQ	6	35	0	836.93953	0.13800
RR	3	4	3	836.95744	1.97407
RR	3	4	1	836.95974	0.98703
PR	14	38	0	836.97433	0.00086
PR	18	46	2	836.98042	0.00007
RQ	6	34	2	837.01707	0.08367
RQ	6	34	0	837.02670	0.16733
PR	17	44	1	837.03326	0.00032
RP	15	20	3	837.03973	0.00427
RP	15	20	1	837.04227	0.00213
RQ	6	33	2	837.10243	0.10067
RQ	6	33	0	837.11161	0.20133
RQ	6	32	2	837.18553	0.12023
RQ	6	32	0	837.19427	0.24047
RP	16	22	2	837.20358	0.00320
RP	16	22	0	837.20640	0.00080
RQ	6	31	2	837.26635	0.14253
RQ	6	31	0	837.27466	0.28507
RQ	6	30	2	837.34480	0.16767
RQ	6	30	0	837.35270	0.33533
RP	17	24	3	837.37256	0.00054
RP	17	24	1	837.37529	0.00216
PR	16	40	0	837.38905	0.00028
RQ	6	29	2	837.42097	0.19573

	K	J	S	WAVE NO	INT
RQ	6	29	0	837.42847	0.39147
RQ	6	28	2	837.49477	0.22670
RQ	6	28	0	837.50189	0.45340
RP	18	26	2	837.54991	0.00070
RP	18	26	0	837.55301	0.00140
RQ	6	27	2	837.56619	0.26047
RQ	6	27	0	837.57294	0.52093
PR	18	47	0	837.63099	0.00007
RQ	6	26	2	837.63524	0.29683
RQ	6	26	0	837.64165	0.59367
RQ	6	25	2	837.70191	0.33547
RQ	6	25	0	837.70798	0.67093
RP	19	28	3	837.73200	0.00020
RP	19	28	1	837.73494	0.00080
RQ	6	24	2	837.76611	0.37587
RQ	6	24	0	837.77186	0.75173
PR	8	27	2	837.82613	0.11640
PR	7	25	3	837.82661	0.04620
PR	9	29	3	837.82717	0.07013
RQ	6	23	2	837.82784	0.41743
RQ	6	23	0	837.83327	0.83487
PR	7	25	1	837.83693	0.18480
PR	6	23	2	837.83884	0.14037
PR	10	31	2	837.84157	0.04040
PR	9	29	1	837.84286	0.03507
PR	8	27	0	837.85107	0.02910
PR	6	23	0	837.85346	0.28073
PR	5	21	3	837.85438	0.10204
PR	11	33	3	837.85508	0.00556
PR	5	21	1	837.86138	0.40816
PR	11	33	1	837.87982	0.02224
PR	4	19	2	837.88069	0.56856
PR	12	35	2	837.88415	0.00587
PR	10	31	0	837.88689	0.01010
RQ	6	22	2	837.88718	0.45940
PR	4	19	0	837.88965	0.14214
RQ	6	22	0	837.89233	0.91880
PR	13	37	3	837.90862	0.00148
PR	3	17	3	837.91132	0.76020
RR	0	11	2	837.91476	0.67675
PR	3	17	1	837.91625	0.38010
RR	0	11	0	837.91698	2.03025
RP	20	30	2	837.92246	0.00040
RP	20	30	0	837.92583	0.00010
RQ	6	21	2	837.94406	0.50080
RQ	6	21	0	837.94891	1.00160
PR	13	37	1	837.94943	0.00592
PR	2	15	2	837.95178	0.97928
PR	14	39	2	837.95251	0.00288
PR	2	15	0	837.95751	0.24482
PR	12	35	0	837.97659	0.01173
PR	15	41	3	837.98588	0.00133
PR	1	13	3	837.99628	0.30828

	K	J	S	WAVE NO	INT
RQ	6	20	2	837.99835	0.54053
PR	1	13	1	837.99991	1.23312
RQ	6	20	0	838.00294	1.08107
PR	16	43	2	838.04508	0.00056
RQ	6	19	2	838.05028	0.57737
RQ	6	19	0	838.05461	1.15473
PR	15	41	1	838.05801	0.00067
PR	17	45	3	838.08465	0.00006
RP	13	15	3	838.09788	0.00046
RQ	6	18	2	838.09962	0.60987
RP	13	15	1	838.10017	0.00184
RQ	6	18	0	838.10372	1.21973
RP	21	32	3	838.11745	0.00020
RP	21	32	1	838.12059	0.00010
RR	1	9	3	838.12170	0.37794
RR	1	9	1	838.12453	1.51176
RQ	6	17	2	838.14639	0.63647
RQ	6	17	0	838.15026	1.27293
PR	18	47	2	838.16076	0.00003
RQ	6	16	2	838.19069	0.65560
RR	2	7	2	838.19095	1.74960
RR	2	7	0	838.19374	0.43740
RQ	6	16	0	838.19434	1.31120
RQ	7	49	3	838.19705	0.00096
PR	14	39	0	838.20107	0.00072
RQ	7	49	1	838.20884	0.00384
PR	17	45	1	838.22880	0.00024
RQ	6	15	2	838.23251	0.66550
RQ	6	15	0	838.23596	1.33100
RP	14	17	2	838.25275	0.00296
RP	14	17	0	838.25519	0.00074
RR	3	5	3	838.26758	1.98907
RR	3	5	1	838.26994	0.99453
RQ	6	14	2	838.27165	0.66440
RQ	6	14	0	838.27492	1.32880
RQ	6	13	2	838.30832	0.65040
RQ	6	13	0	838.31141	1.30080
RQ	7	48	3	838.31635	0.00128
RP	22	34	2	838.32071	0.00008
RP	22	34	0	838.32436	0.00002
RQ	7	48	1	838.32771	0.00512
RQ	6	12	2	838.34231	0.62163
RQ	6	12	0	838.34524	1.24327
RQ	6	11	2	838.37383	0.57610
RQ	6	11	0	838.37660	1.15220
RQ	6	10	2	838.40266	0.51160
RQ	6	10	0	838.40530	1.02320
RP	15	19	3	838.41290	0.00307
RP	15	19	1	838.41536	0.00153
RQ	6	9	2	838.42893	0.42570
RQ	6	9	0	838.43144	0.85140
RQ	7	47	3	838.43346	0.00170
RQ	7	47	1	838.44442	0.00680

	K	J	S	WAVE NO	INT
RQ	6	8	2	838.45261	0.31517
RQ	6	8	0	838.45502	0.63033
RQ	6	7	2	838.47363	0.17560
RQ	6	7	0	838.47593	0.35120
RQ	7	46	3	838.54861	0.00224
RQ	7	46	1	838.55917	0.00896
RP	16	21	2	838.58150	0.00264
RP	16	21	0	838.58418	0.00066
RQ	7	45	3	838.66167	0.00292
RQ	7	45	1	838.67184	0.01168
RP	17	23	3	838.75518	0.00048
RP	17	23	1	838.75781	0.00192
RQ	7	44	3	838.77267	0.00382
RQ	7	44	1	838.78246	0.01528
PR	18	48	0	838.79215	0.00007
RQ	7	43	3	838.88148	0.00492
RQ	7	43	1	838.89091	0.01968
RP	18	25	2	838.93708	0.00063
RP	18	25	0	838.94003	0.00127
RQ	7	42	3	838.98823	0.00632
RQ	7	42	1	838.99730	0.02528
PR	9	30	3	839.06455	0.06140
PR	8	28	2	839.06985	0.10344
PR	10	32	2	839.07281	0.03488
PR	7	26	3	839.07625	0.04168
PR	11	34	3	839.07966	0.00472
PR	9	30	1	839.08128	0.03070
PR	7	26	1	839.08726	0.16672
RQ	7	41	3	839.09280	0.00806
PR	6	24	2	839.09468	0.12857
PR	8	28	0	839.09663	0.02586
RQ	7	41	1	839.10152	0.03224
PR	12	36	2	839.10252	0.00490
PR	11	34	1	839.10598	0.01888
PR	6	24	0	839.11044	0.25713
PR	5	22	3	839.11601	0.09490
PR	13	38	3	839.11987	0.00122
PR	10	32	0	839.12140	0.00872
PR	5	22	1	839.12348	0.37960
RP	19	27	3	839.12377	0.00020
RP	19	27	1	839.12660	0.00080
PR	4	20	2	839.14821	0.53712
PR	14	40	2	839.15743	0.00232
PR	4	20	0	839.15788	0.13428
PR	13	38	1	839.16322	0.00488
RR	0	12	2	839.18206	0.50554
PR	15	42	3	839.18330	0.00107
RR	0	12	0	839.18428	0.84256
PR	3	18	3	839.18439	0.72953
PR	3	18	1	839.18962	0.36477
RQ	7	40	3	839.19518	0.01020
PR	12	36	0	839.20152	0.00980
RQ	7	40	1	839.20358	0.04080

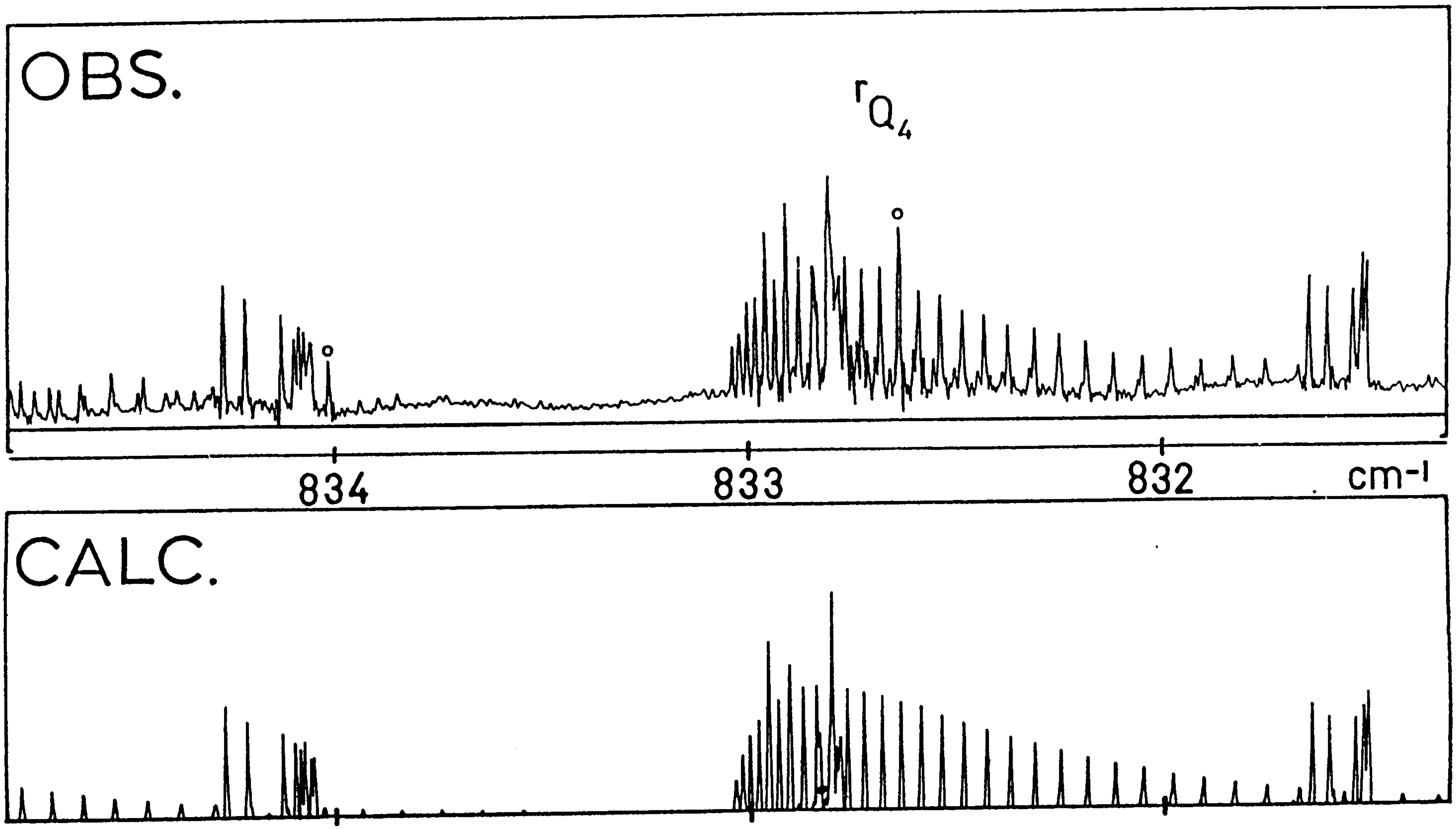


Fig. 1 Daunt et al

FOR BARRIER IN ν_9 >
BARRIER IN GROUND
STATE

K_{GROUND}	STRONG COMPONENT	REL. INT. OF COMPS.
0,6,12,...	HIGHER ν	2:1
1,5,7,11,13,...	HIGHER ν	4:1
2,4,8,10,14,...	LOWER ν	4:1
3,9,15,...	LOWER ν	2:1

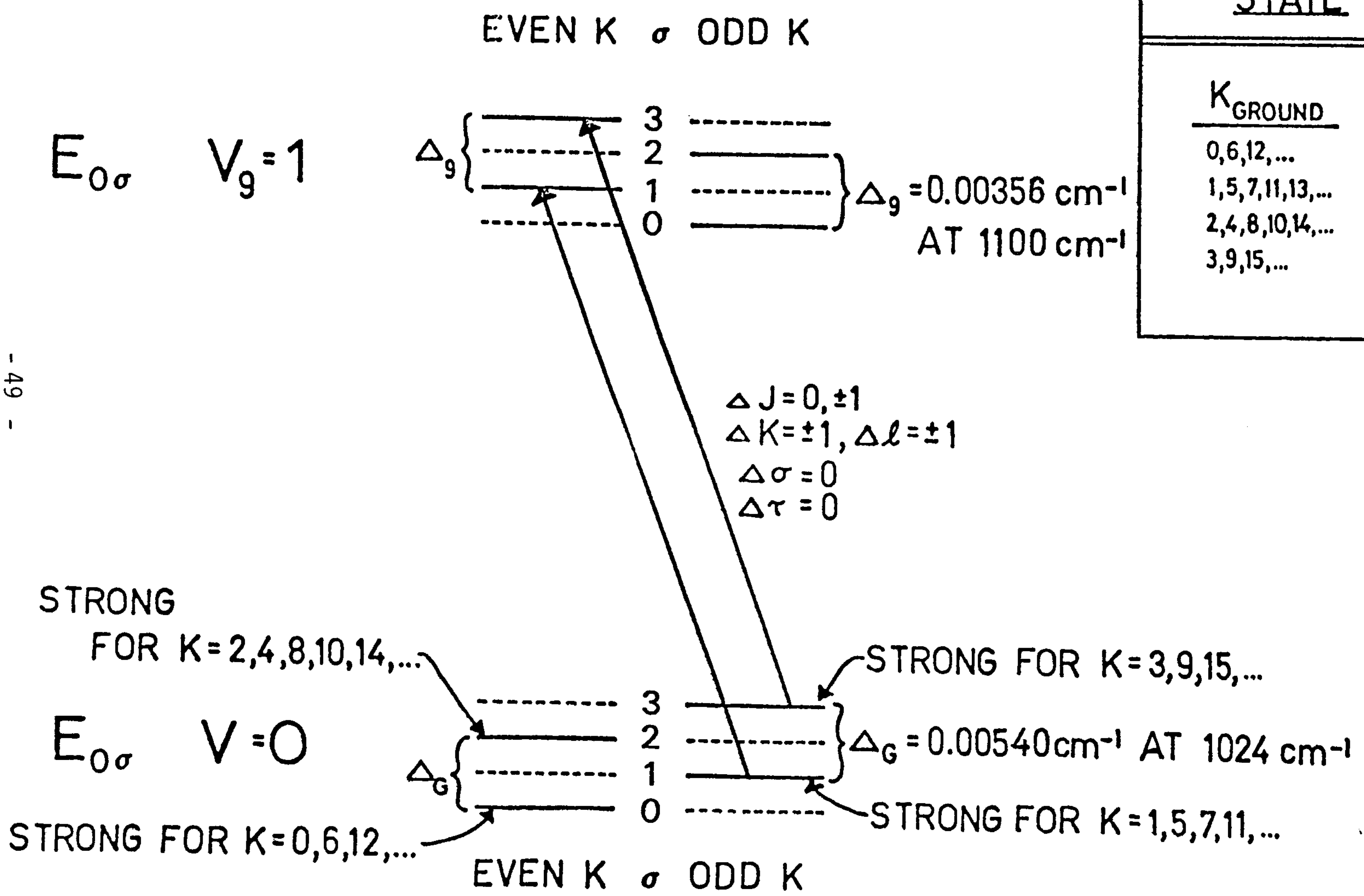


Fig. 2 Daunt et al.

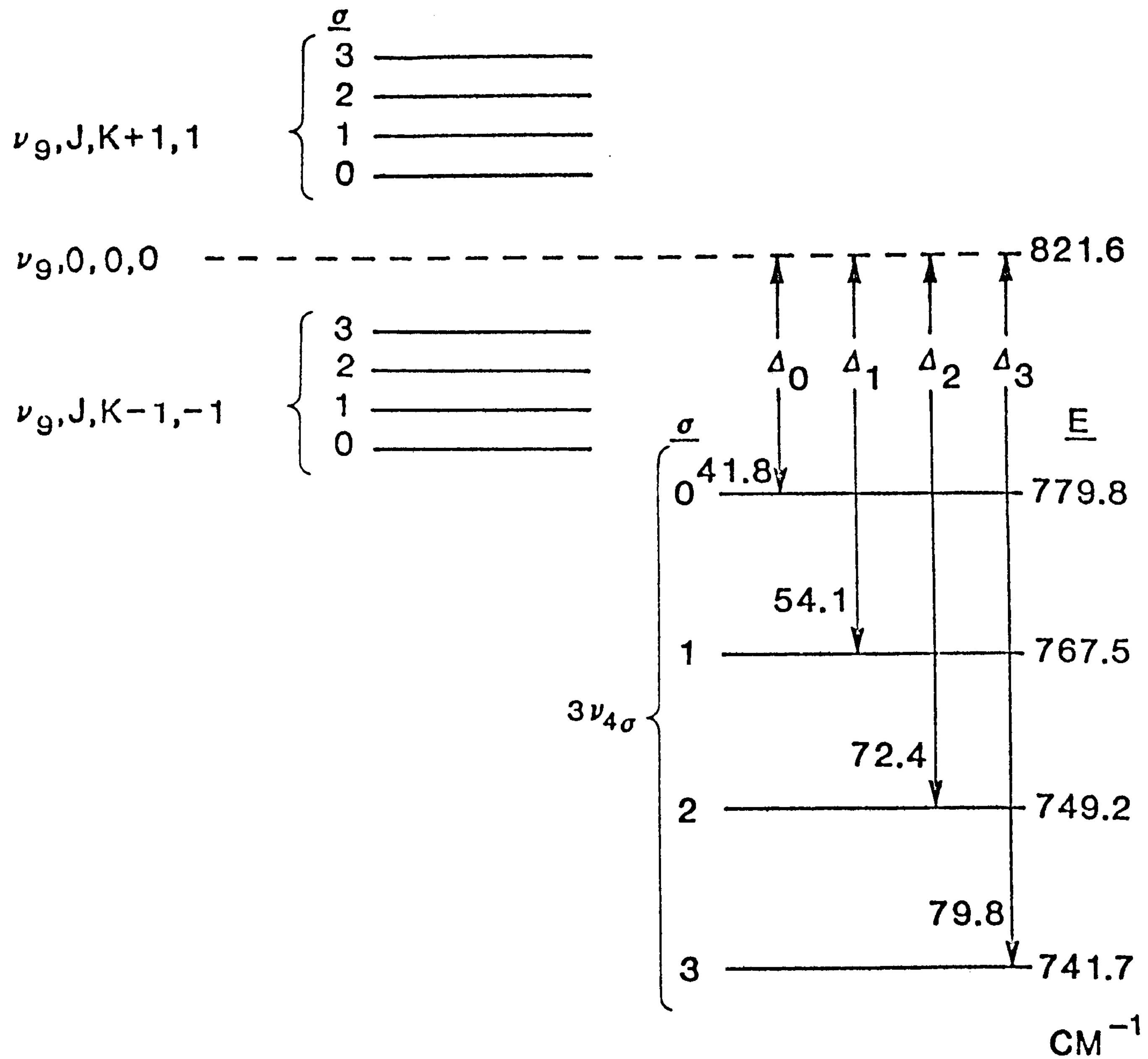


Fig. 3 Daunt *et al.*

H_{COR}

$\lvert \nu_9, J, K+1, +1 \rangle$	$\lvert 3\nu_4, J, K \rangle$	$\lvert \nu_9, J, K-1, -1 \rangle$
$\nu_{9\sigma} + E^{\nu_9}_{J,K+1,1}$	$C_\sigma\sqrt{J\cdot(J+1)-K\cdot(K+1)}$	0
$C_\sigma\sqrt{J\cdot(J+1)-K\cdot(K+1)}$	$3\nu_{4\sigma} + E^{3\nu_4}_{J,K}$	$C_\sigma\sqrt{J\cdot(J+1)-K\cdot(K-1)}$
0	$C_\sigma\sqrt{J\cdot(J+1)-K\cdot(K-1)}$	$\nu_{9\sigma} + E^{\nu_9}_{J,K-1,-1}$

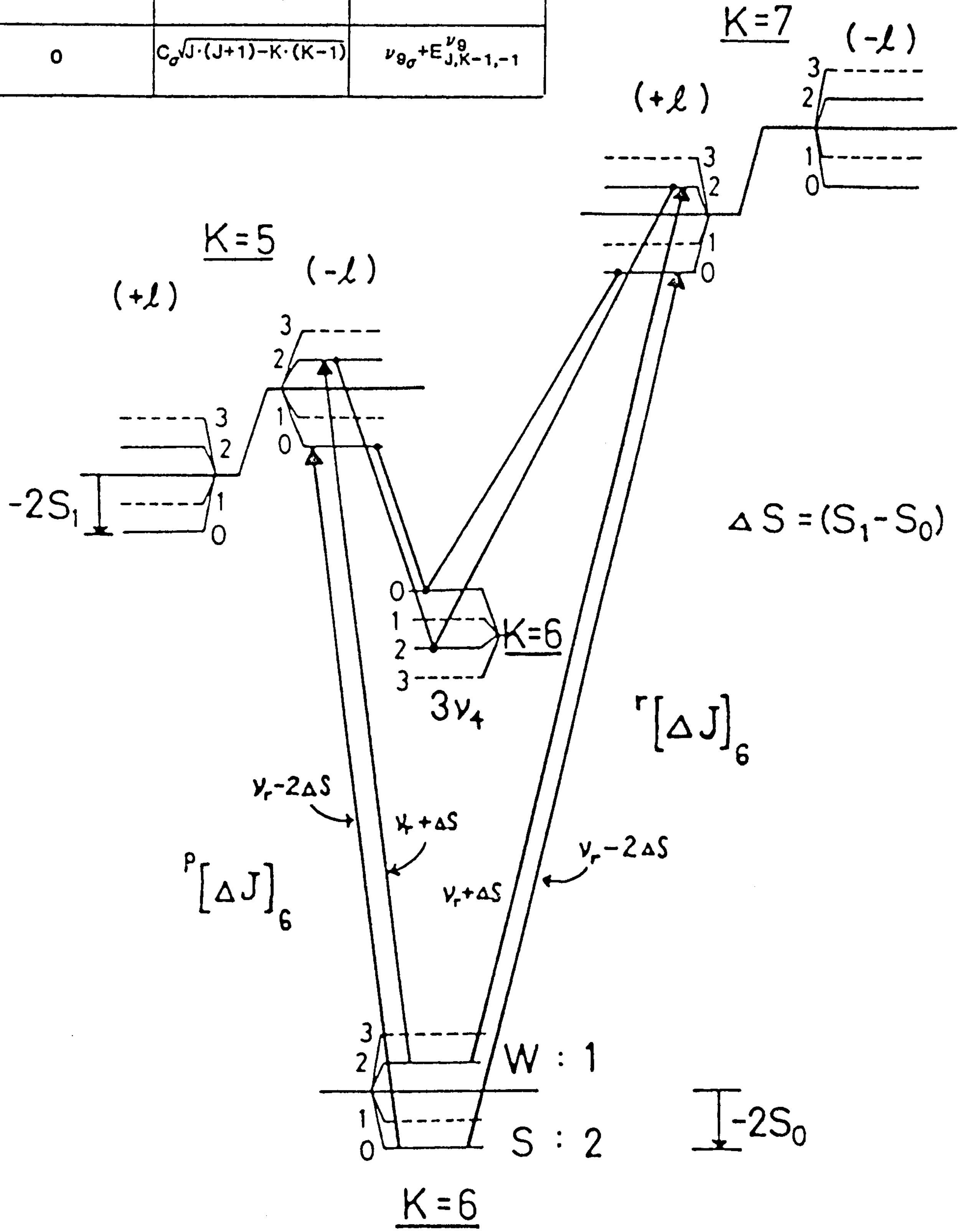
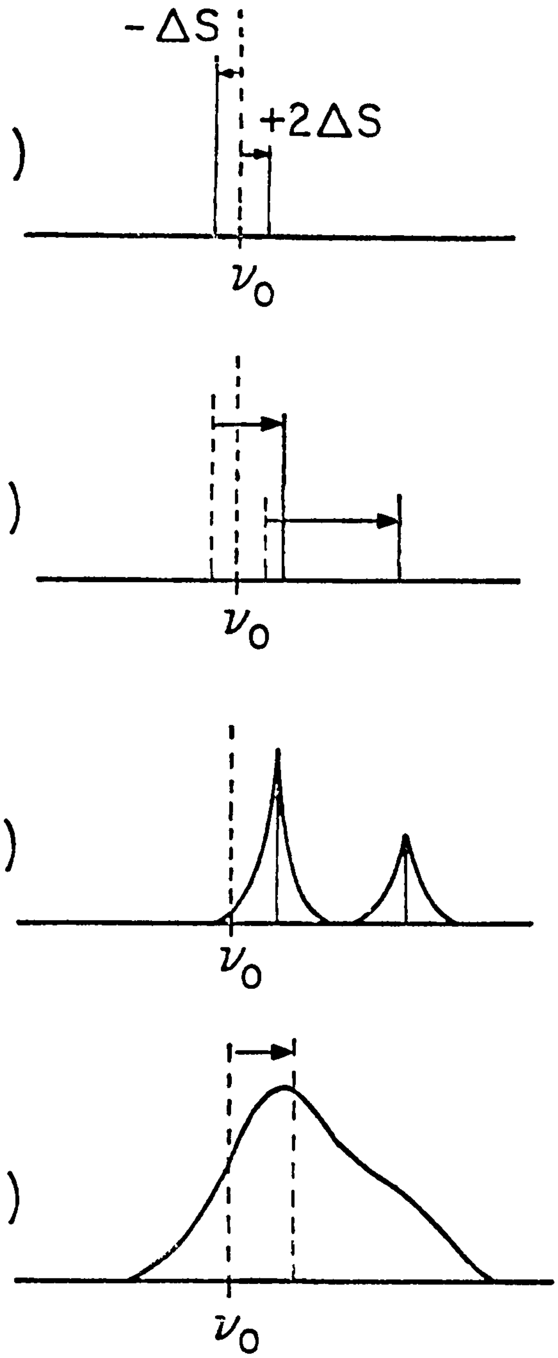


Fig. 4 Daunt et al.



(a) Torsion only

[Total splitting $= 3\Delta S = S_{0,9}$
$= 2.2 \times 10^{-3}$ cm^{-1}]

(b) + Resonance with $3\nu_4$

(c) (1) Doppler line shape

(2) Add

(d) (1) Convolute with instrument function

(2) Find maximum (a)

(3) Calculate shift (s) from ν_0

(e) Merge measurements with shifts

(f) Use standard model + ℓ - resonance

Fig. 5 Daunt *et al.*

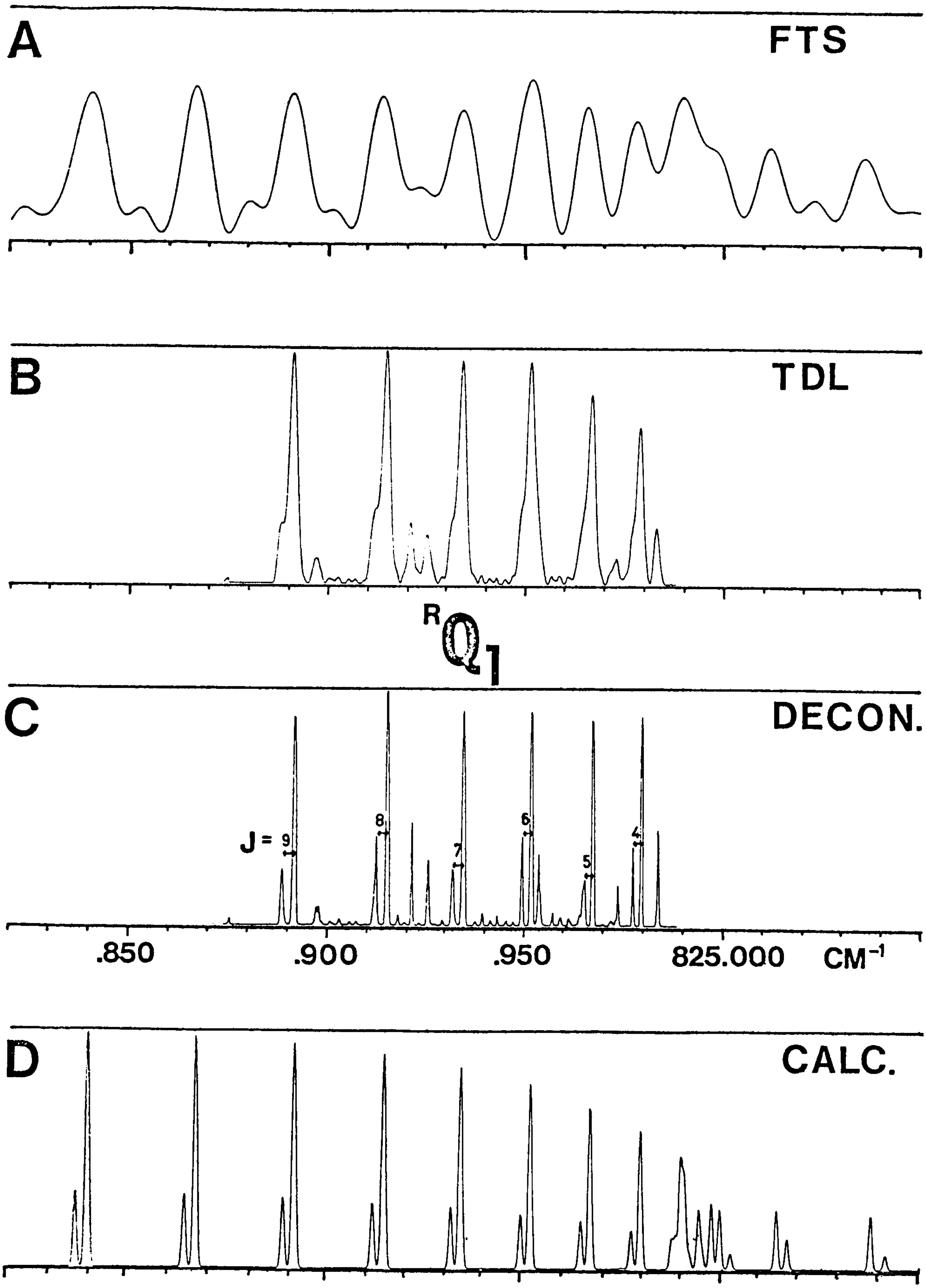


Fig. 6 Daunt et al.

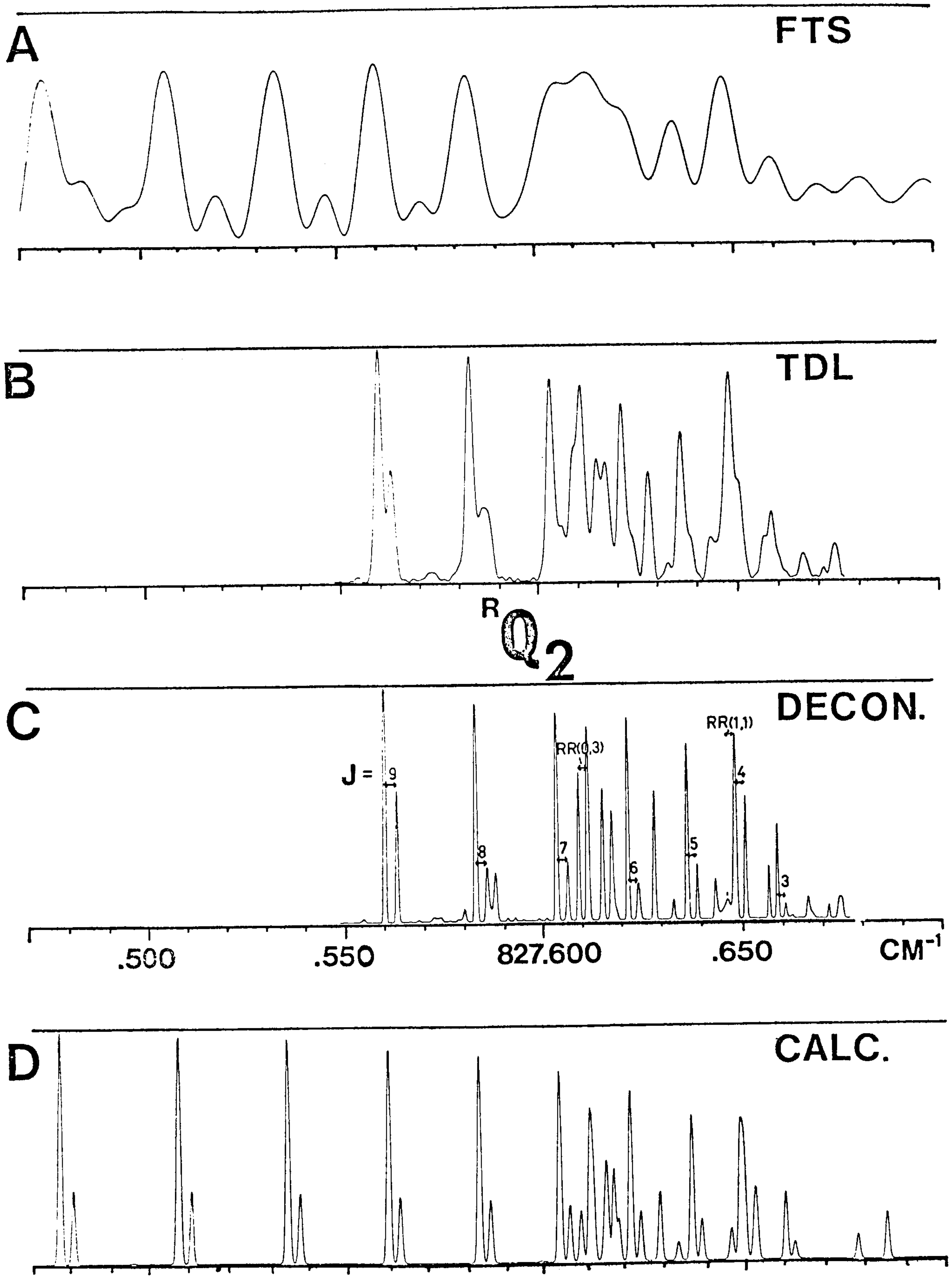


Fig. 1 Daunt et al.

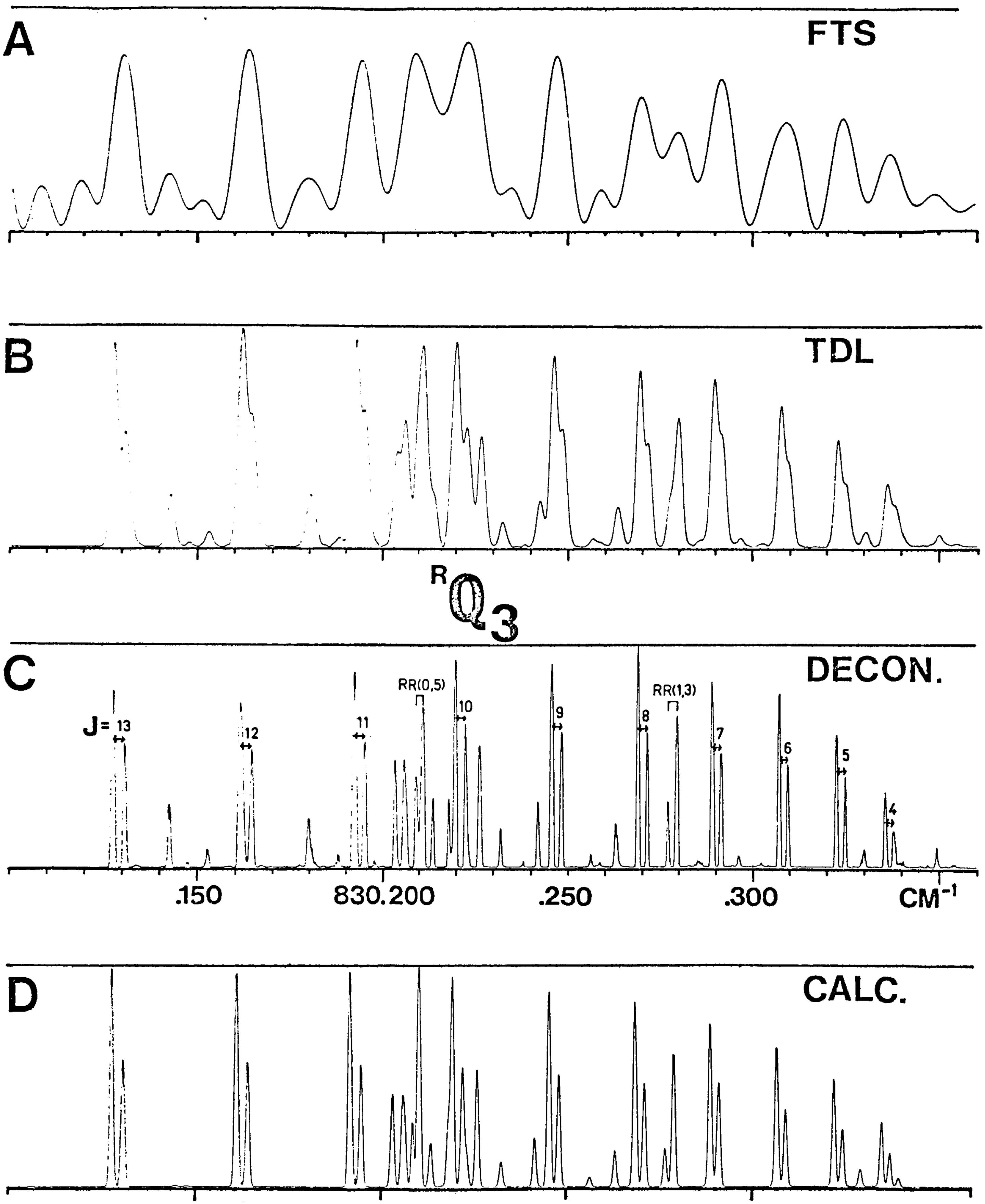


Fig. 8 Daunt et al.

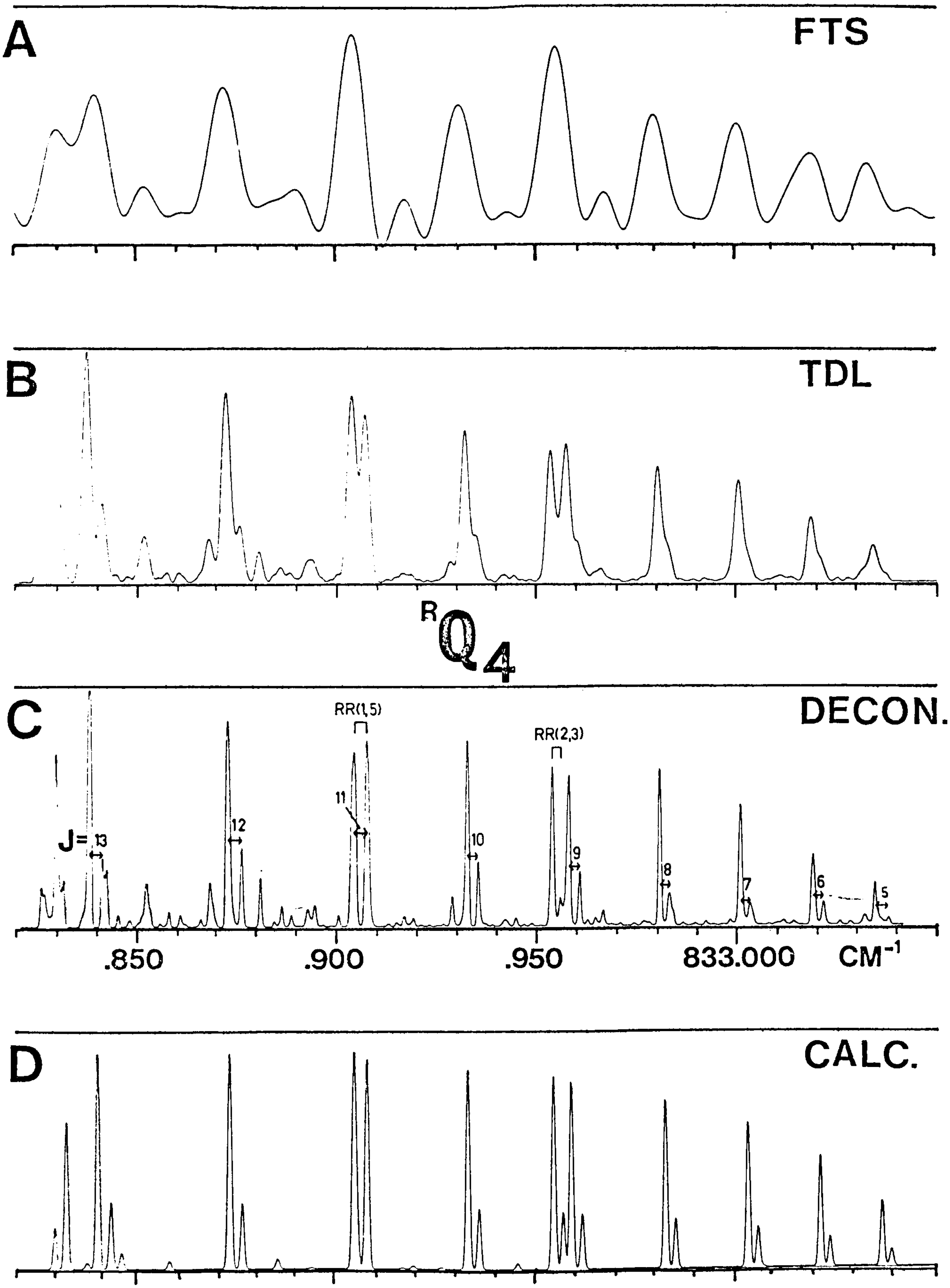


Fig. 9 Daunt *et al.*

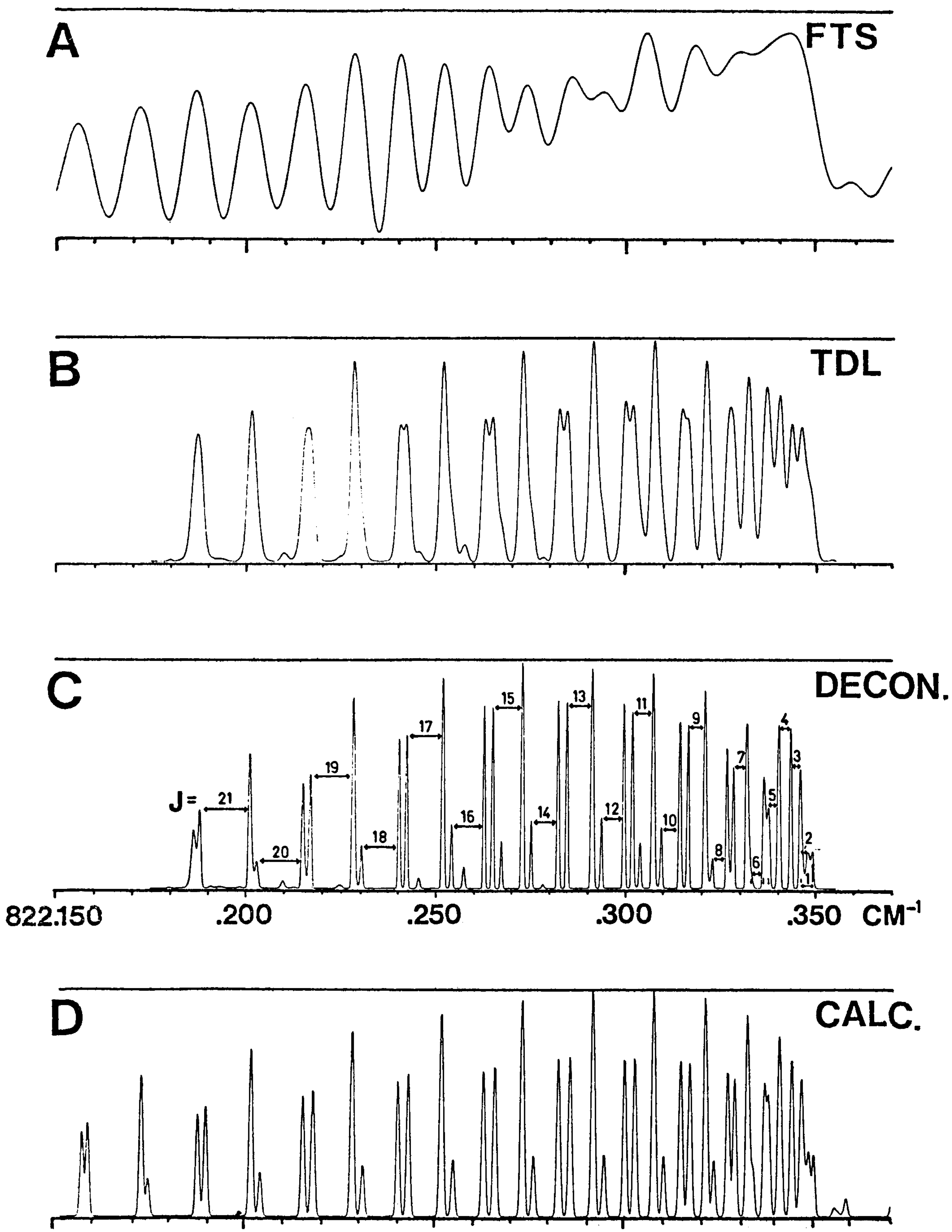
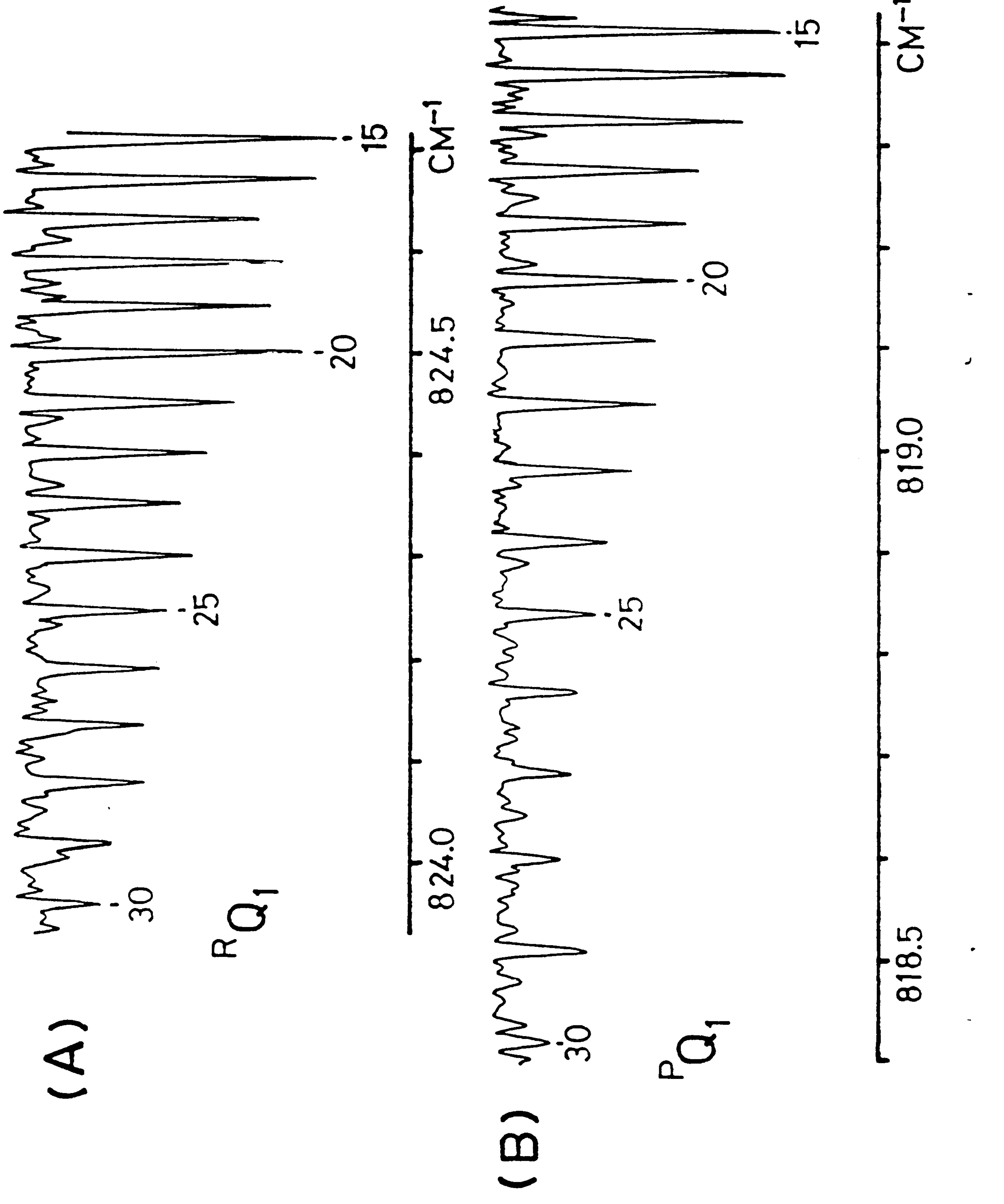


Fig. 10 Daunt et al.


(A)
$^RQ_1$
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25
20
15
824.0
824.5
CM-1
(B)
$^PQ_1$
30
25
20
15
818.5
819.0
CM-1

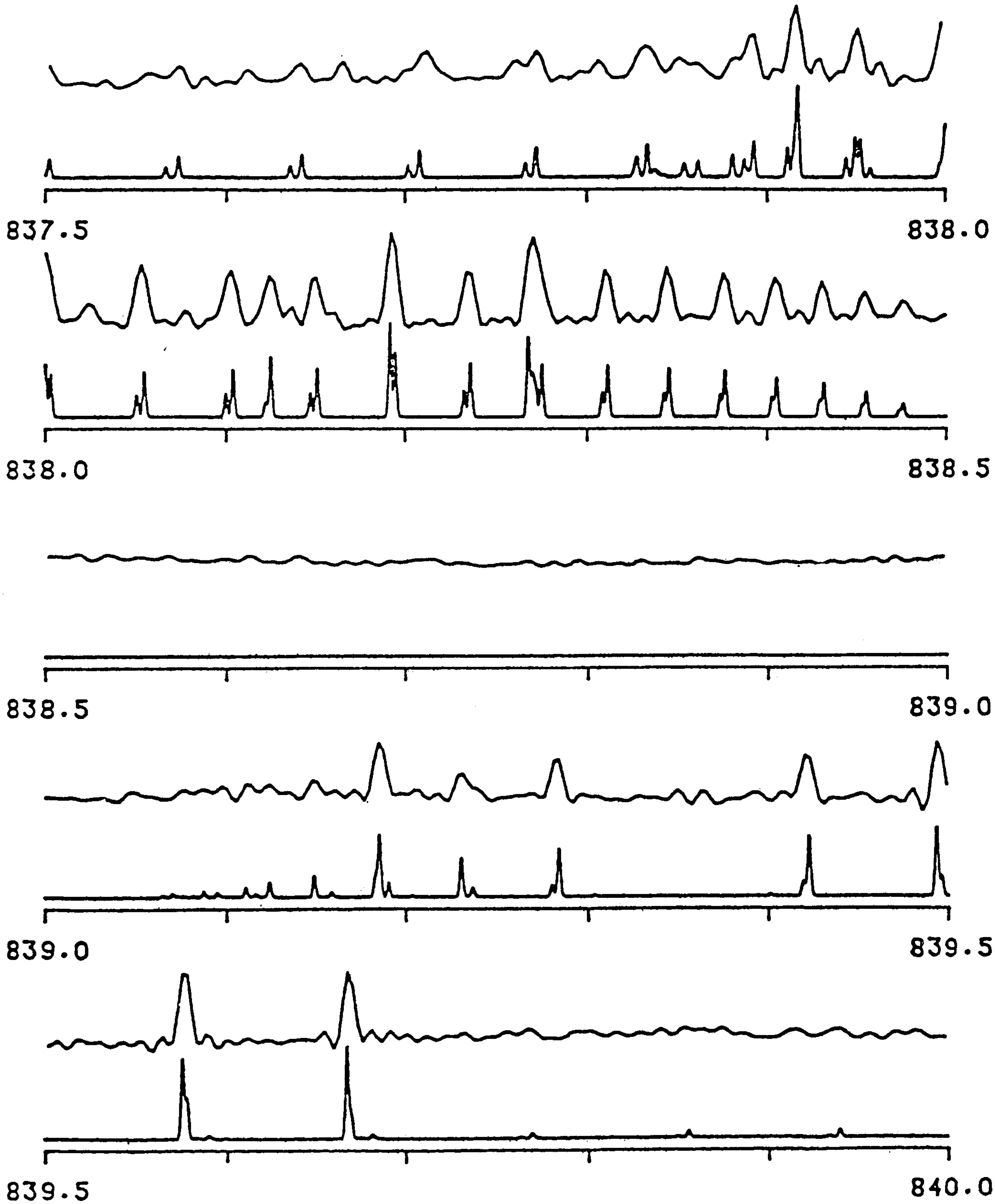


Fig. 12 Daunt et al.

PART II

The 12μm Band of Ethane

A Spectral Catalog from 765 cm^{-1} to 900 cm^{-1}

A.K. Atakan, W.E. Blass, S.J. Daunt and G.W. Halsey
The University of Tennessee
Molecular Spectroscopy Laboratory

D.E. Jennings, D.C. Reuter and J. Susskind
NASA/Goddard Space Flight Center

and

J.W. Brault
Kitt Peak National Observatory

Prepared : Under NASA Contract #NAS5-26896 to The University of Tennessee

By : A.K. Atakan and W.E. Blass

Principal Investigators : W.E. Blass and S.J. Daunt

December 1982

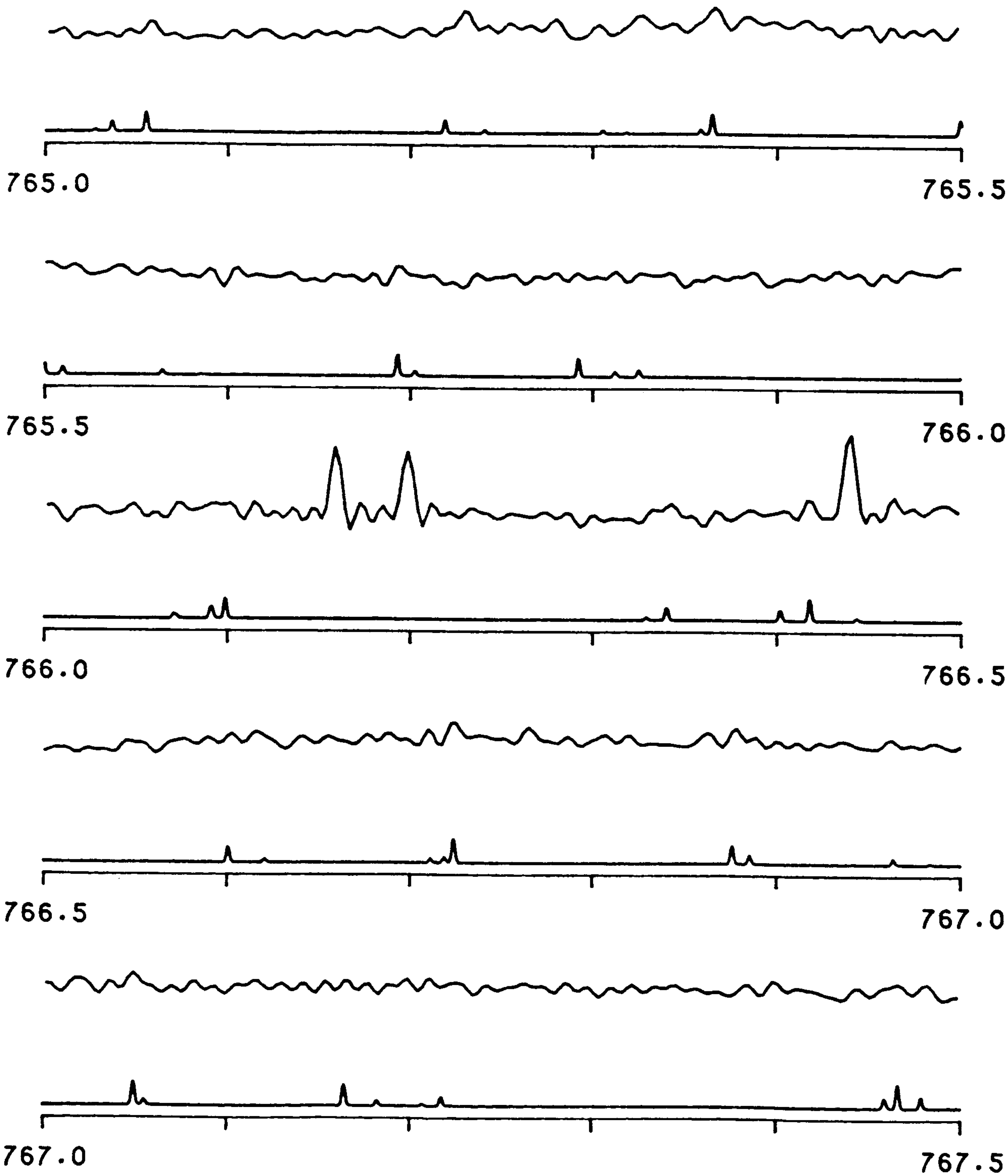
Figure 1

The observed 0.005 cm^{-1} resolution spectrum taken at KPNO on the McMath Interferometer is presented in the upper trace of each panel, the calculated spectrum[†] (at an effective resolution of 0.0018 cm^{-1}) is presented in the lower trace of each panel. The relative intensities correspond to 300°K ethane and the apparent line width corresponds to an infinitely high resolution spectrum of Doppler limited 300°K ethane.

[†]The calculated spectrum is based upon the results of:

(1) "Diode laser spectra of the torsional splittings in the ν_9 band of ethane: Torsion-vibration-rotation interactions and the barrier to internal rotation", J. Susskind, D.C. Reuter, D.E. Jennings, S.J. Daunt, W.E. Blass and G.W. Halsey, J. Chem. Phys., 77, 2728 (1982).

(2) "The 12μm Band of Ethane: High Resolution Laboratory Analysis with Candidate Lines for Infrared Heterodyne Searches", S.J. Daunt, A.K. Atakan, W.E. Blass, G.W. Halsey, D.E. Jennings, D.C. Reuter, J. Susskind and J.W. Brault, submitted to Ap. J.; Part I of this memorandum.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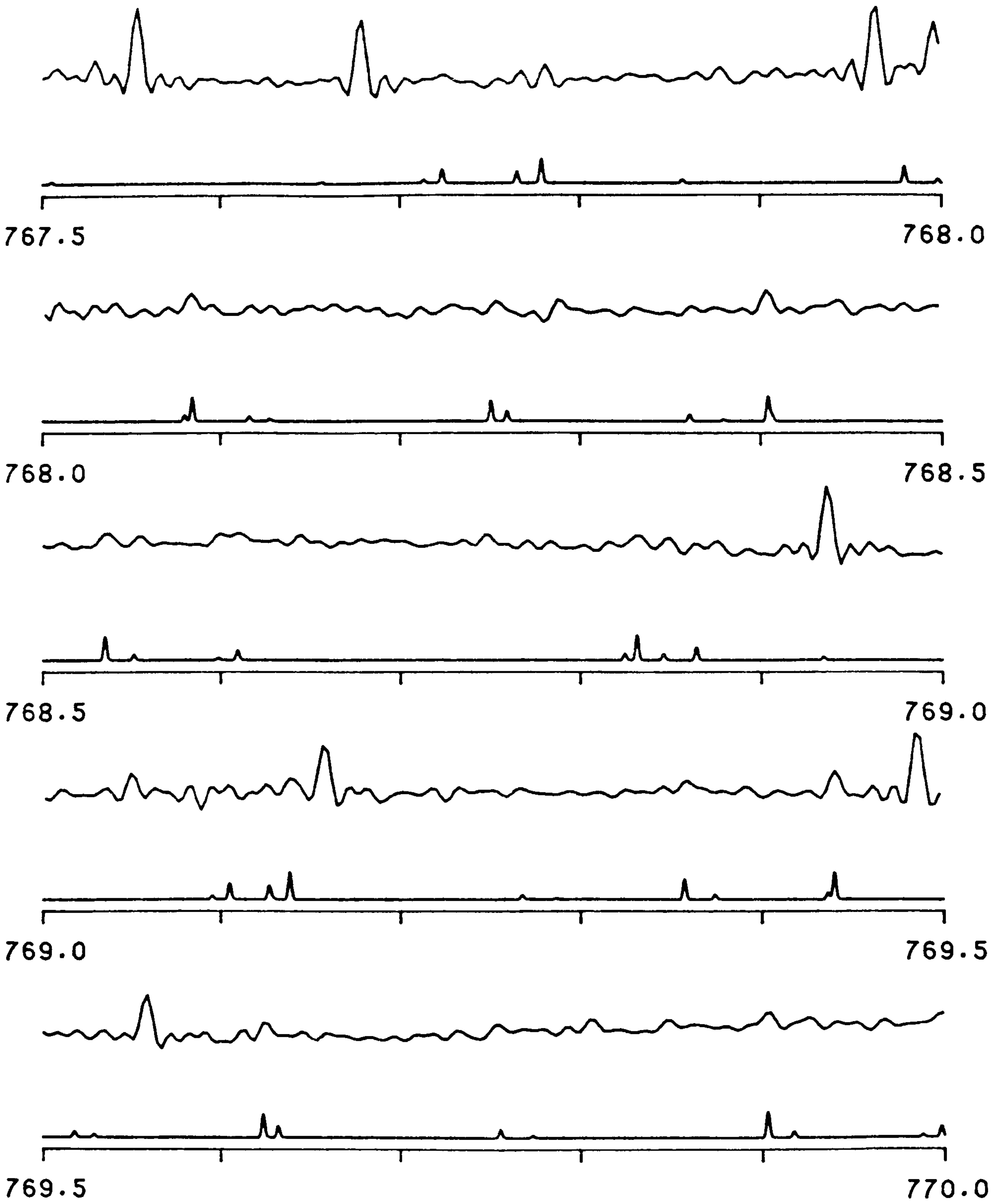
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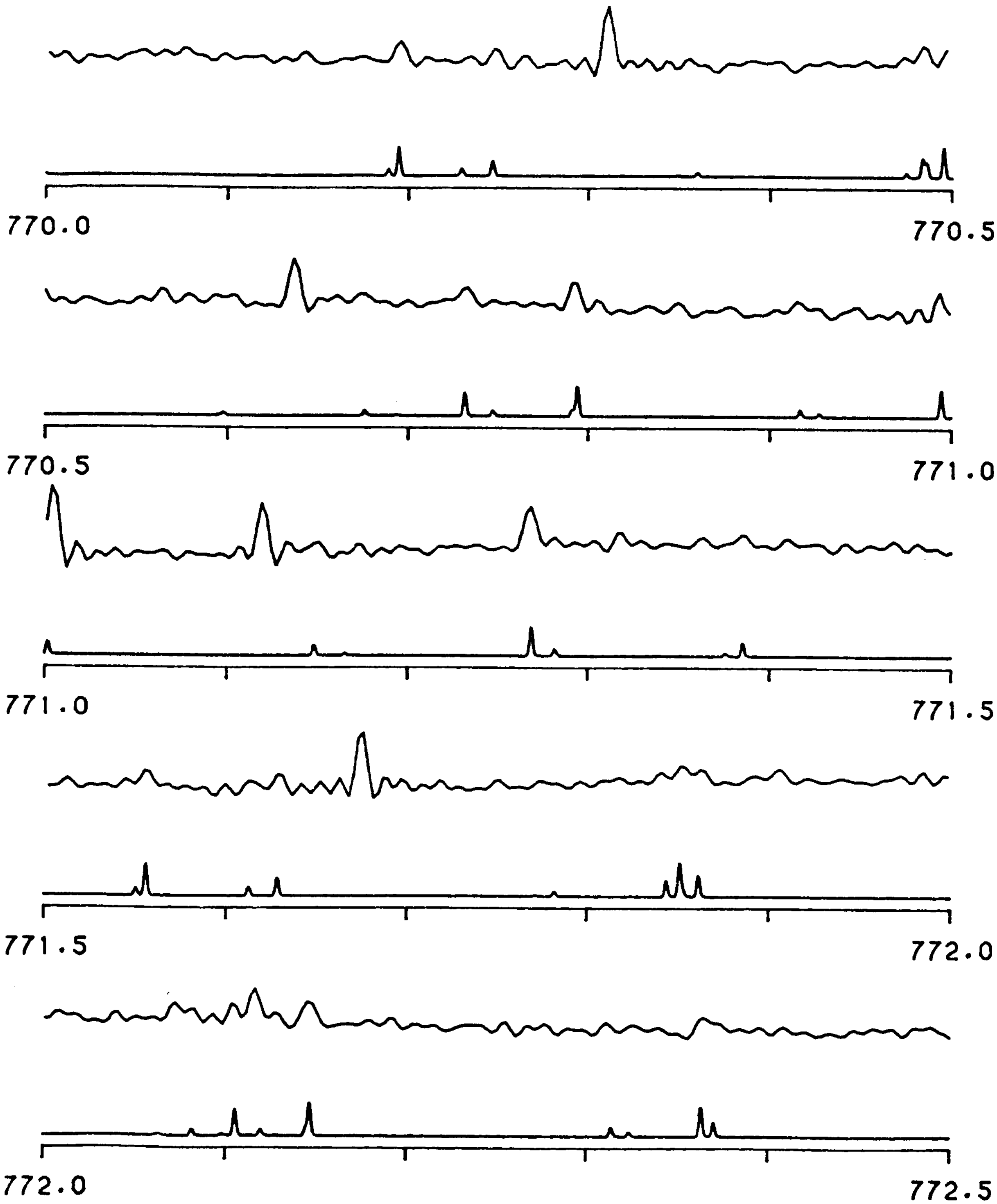
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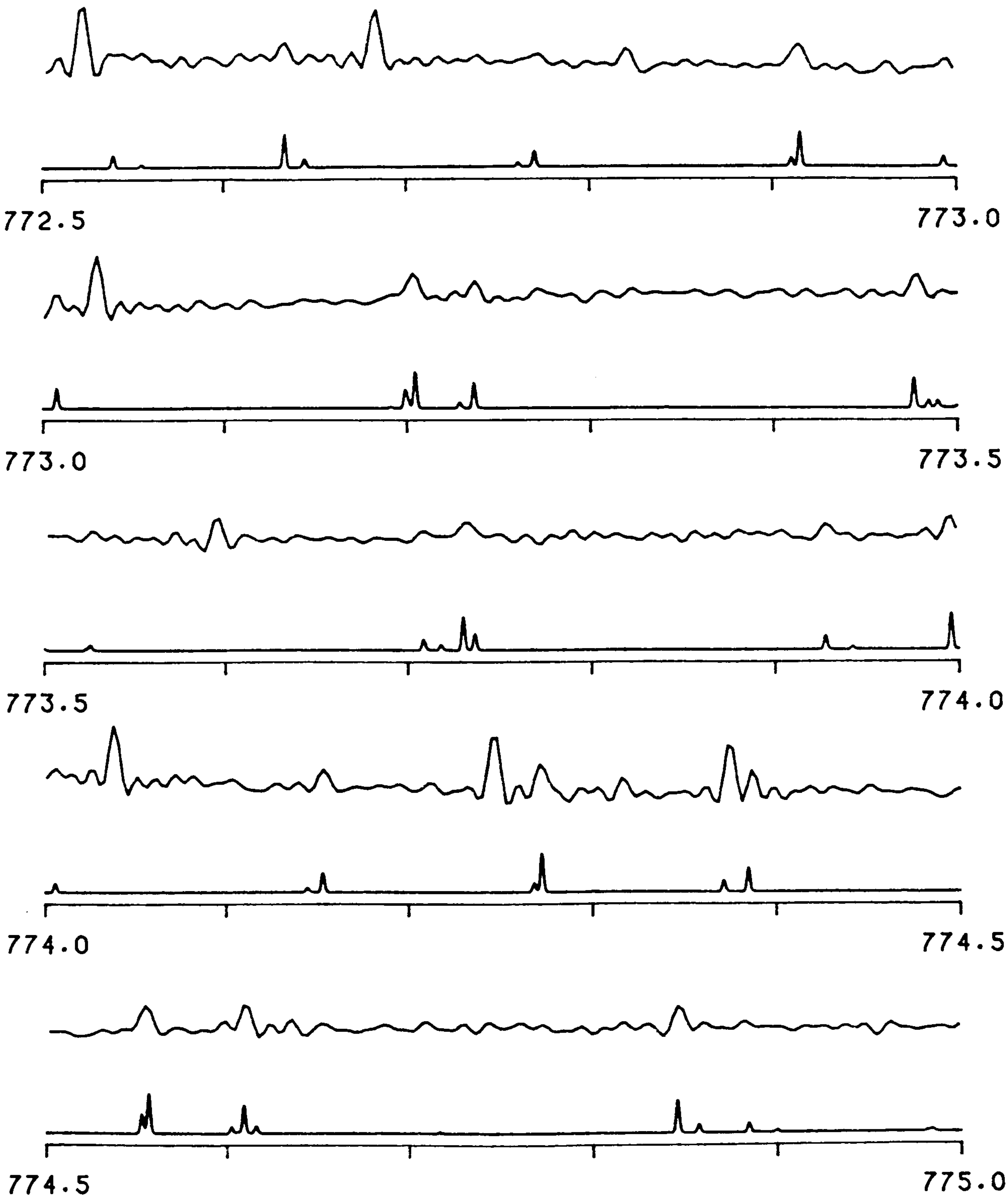
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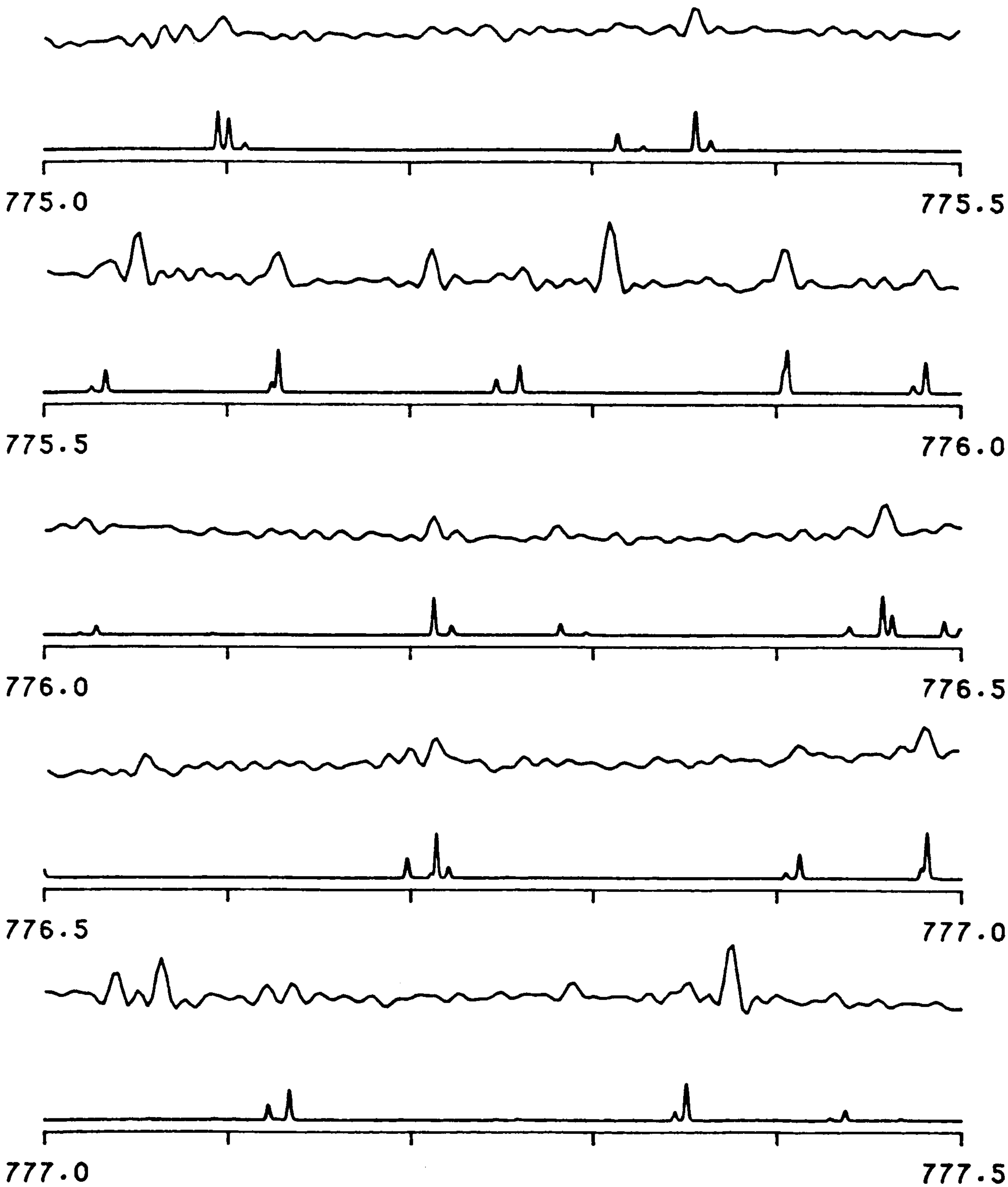
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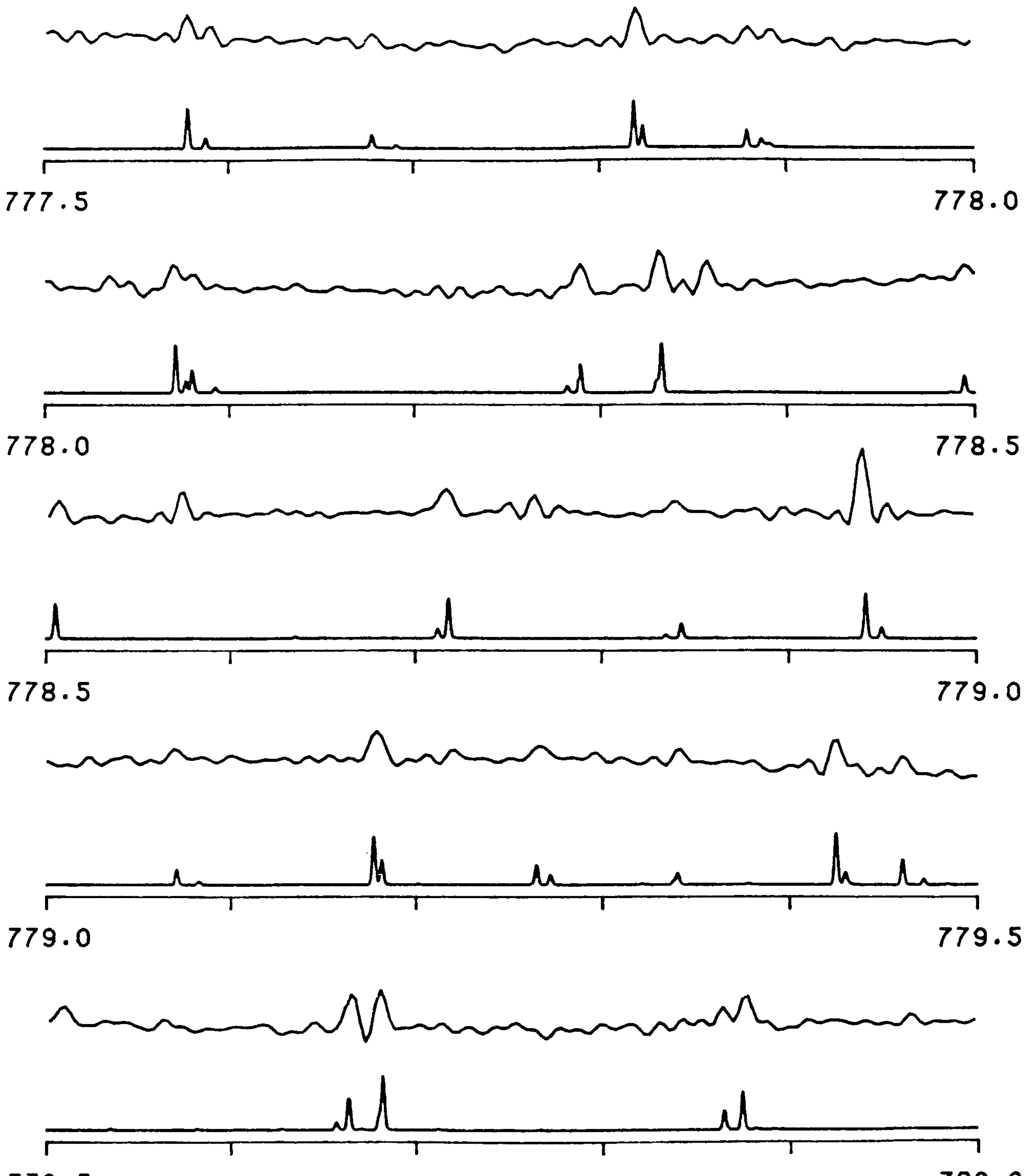
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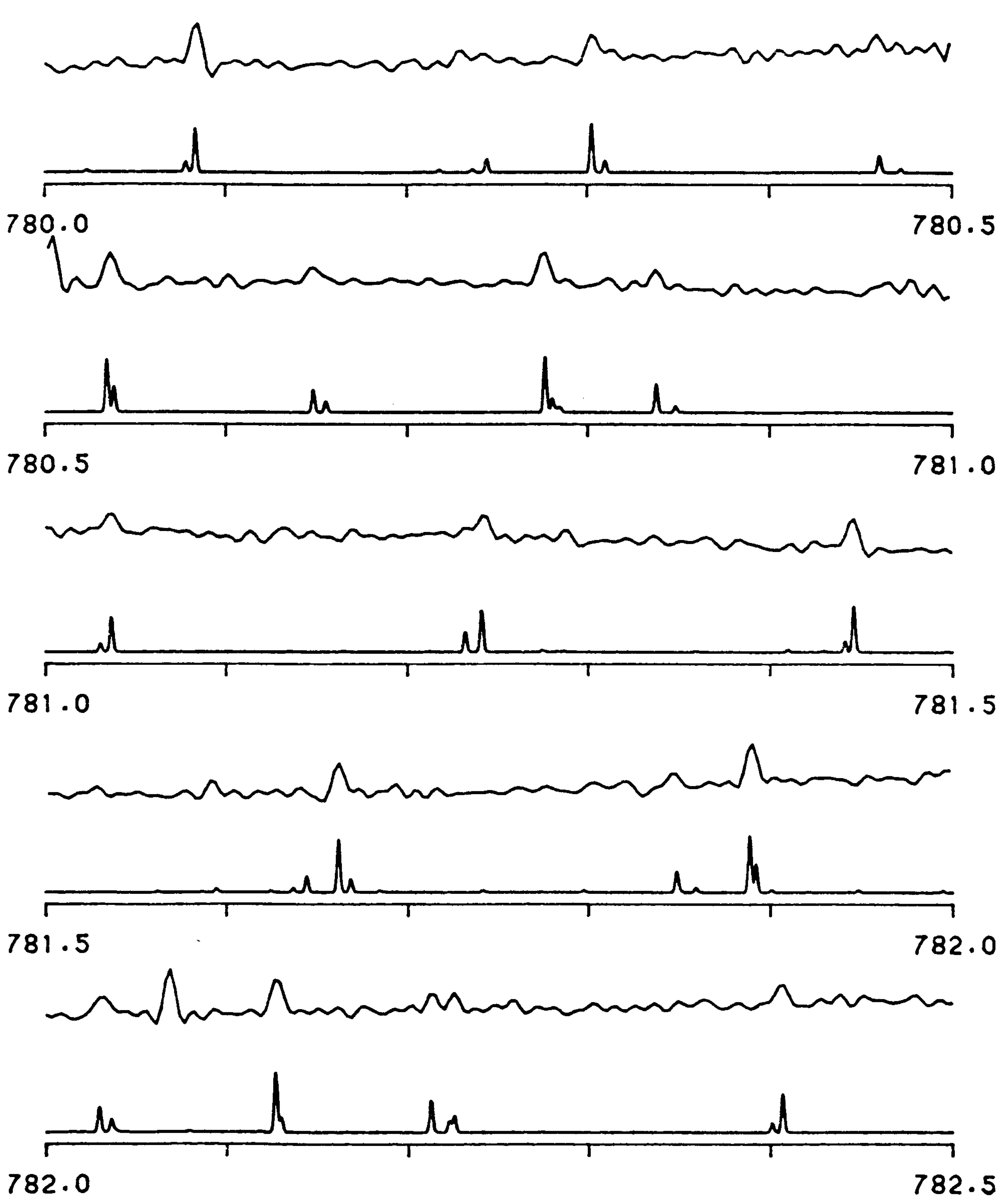
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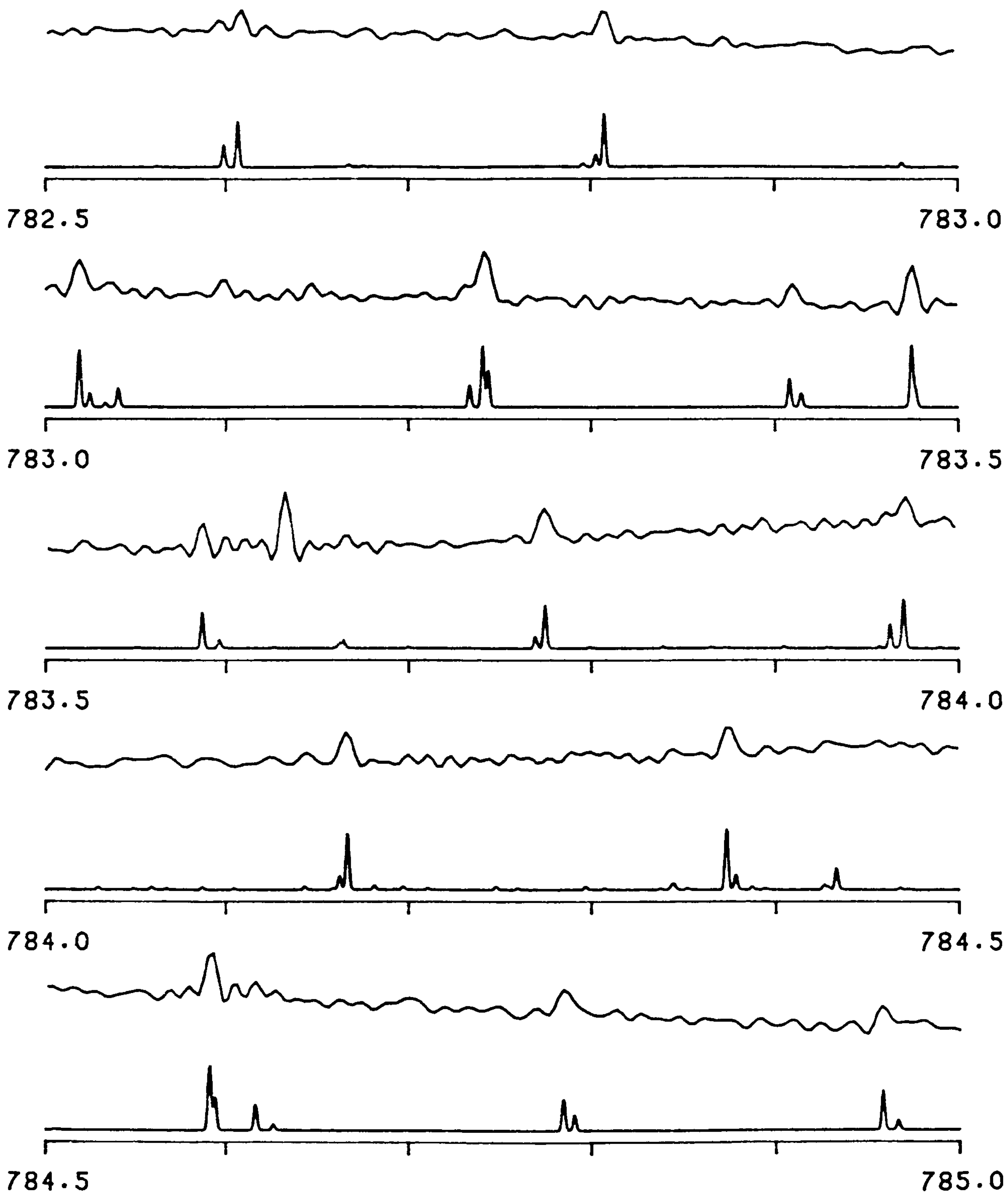
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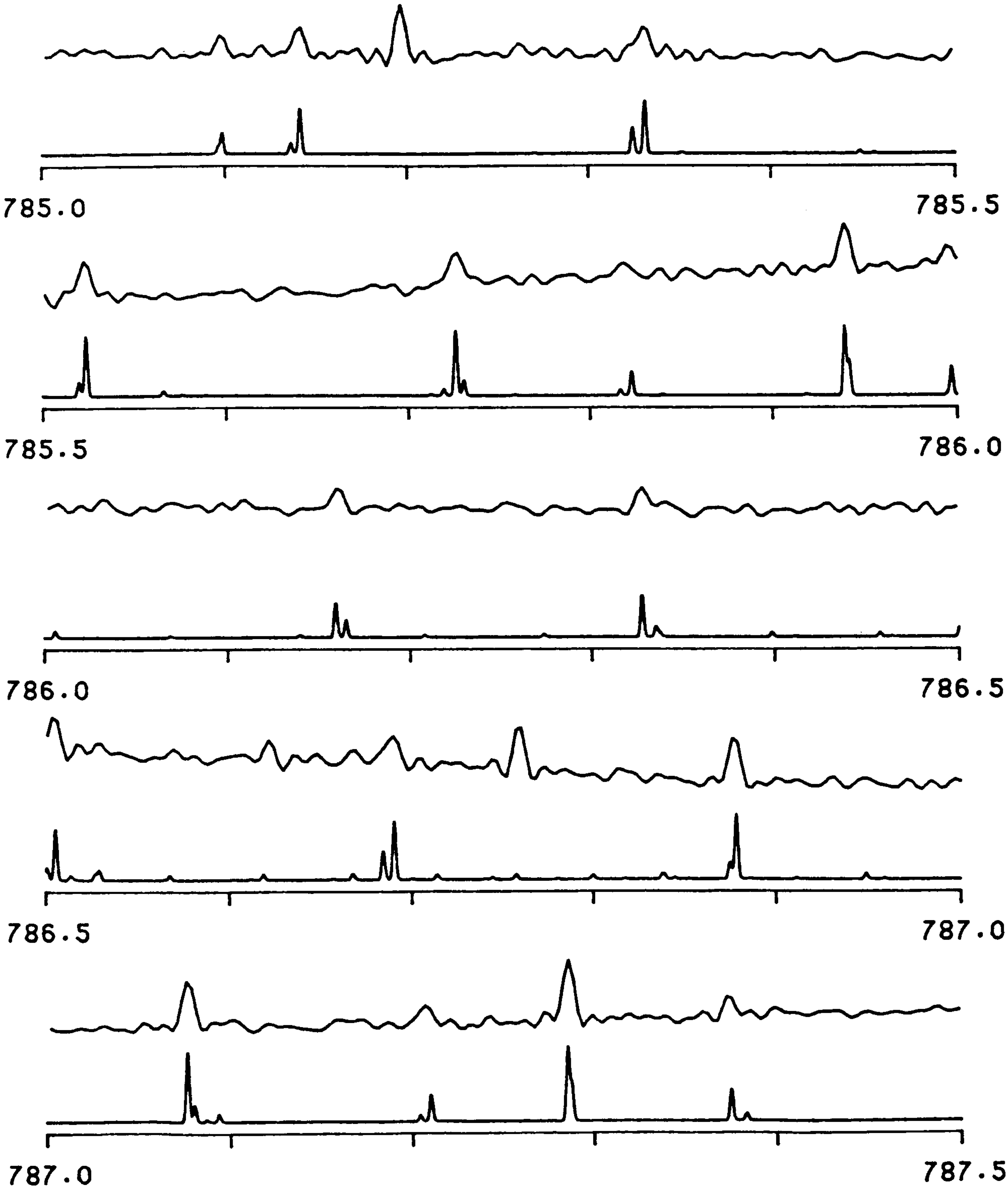
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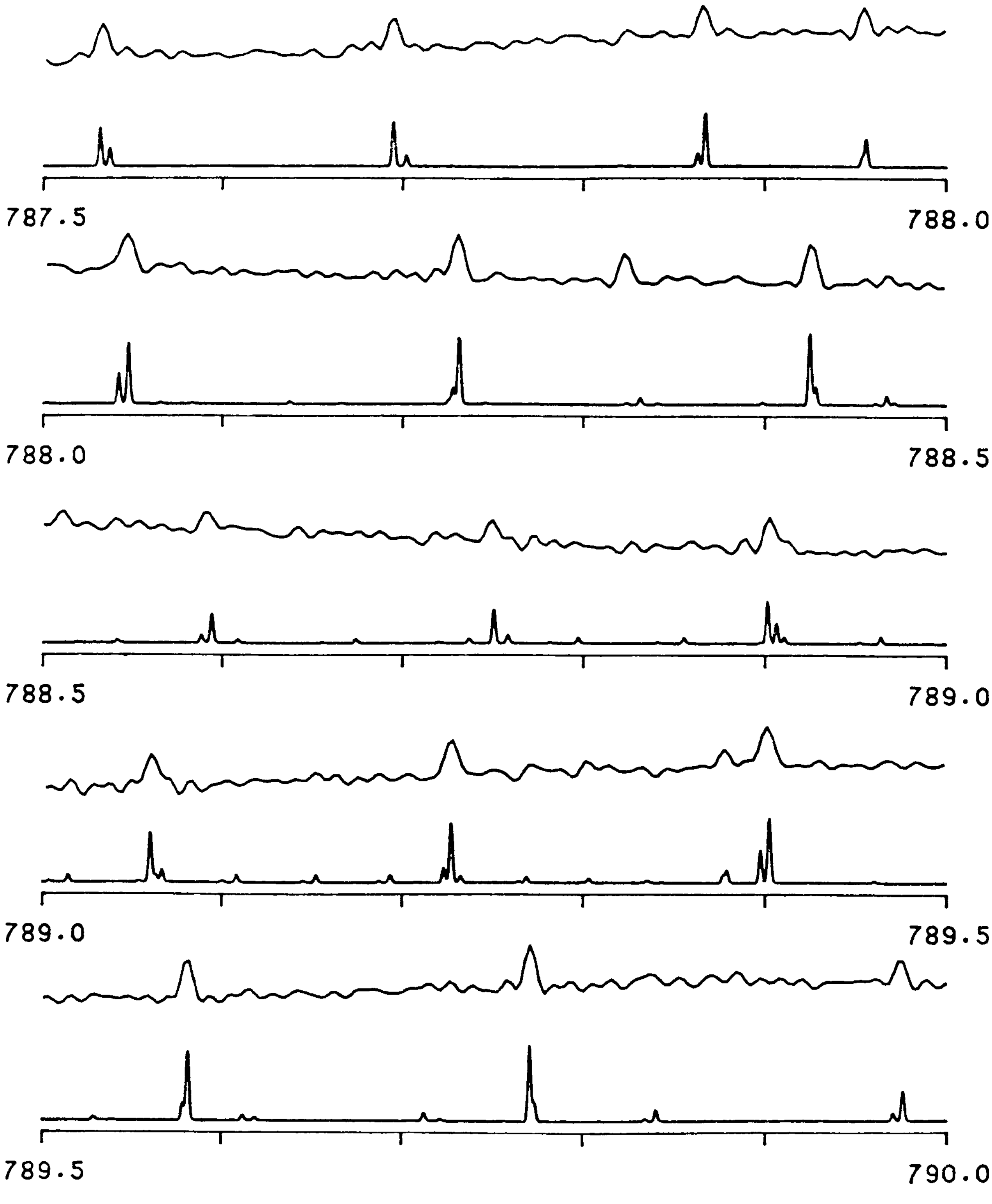
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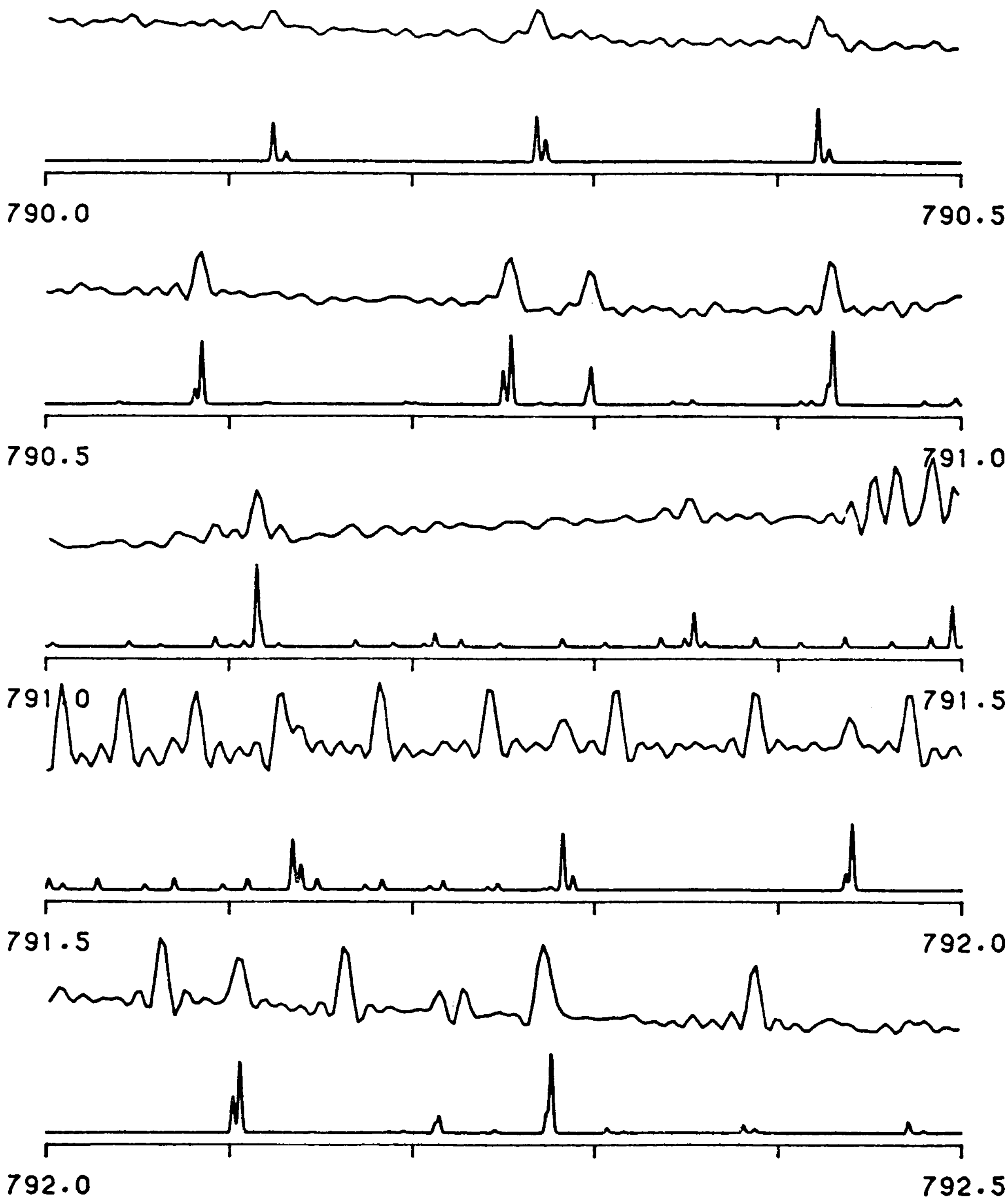
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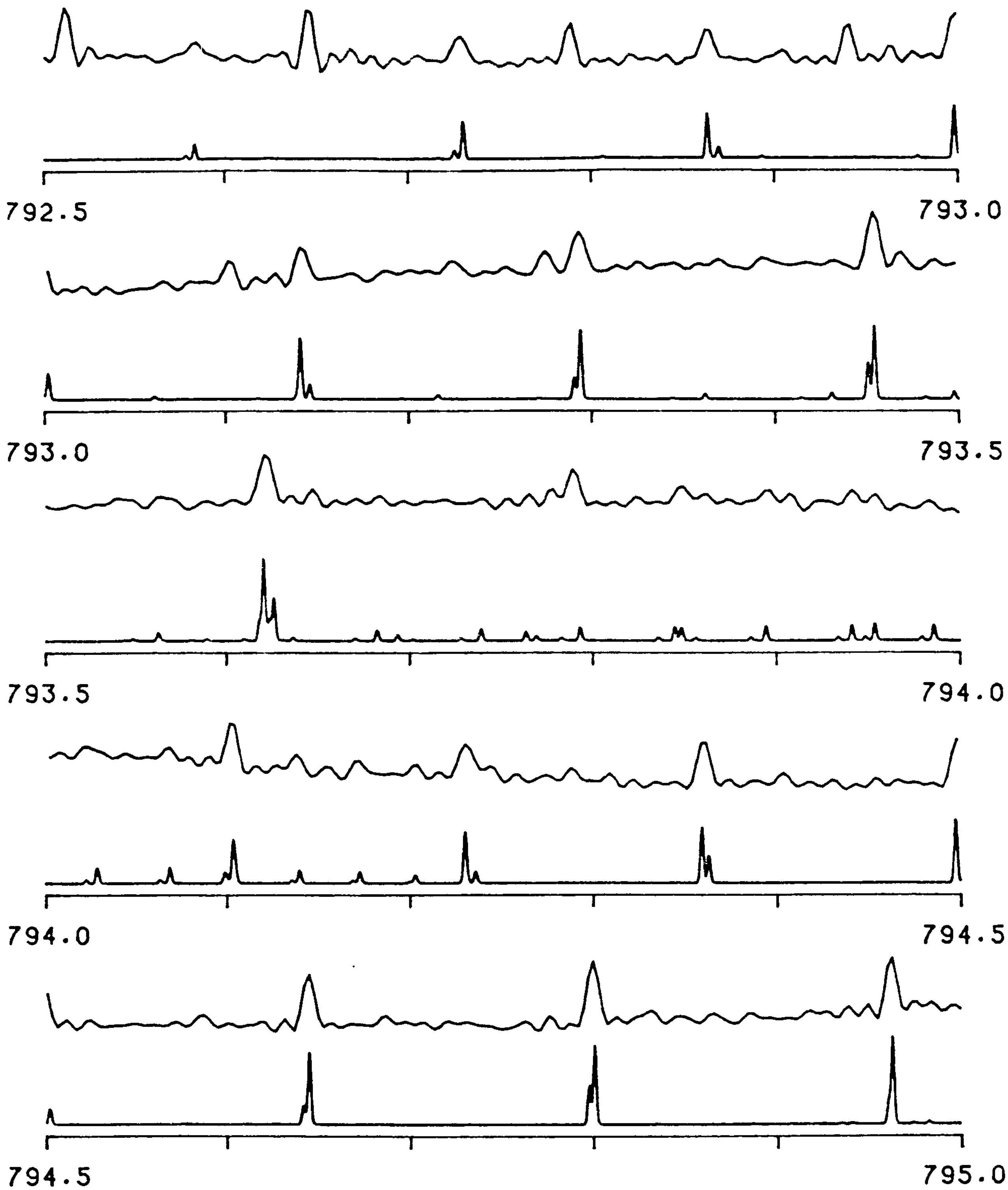
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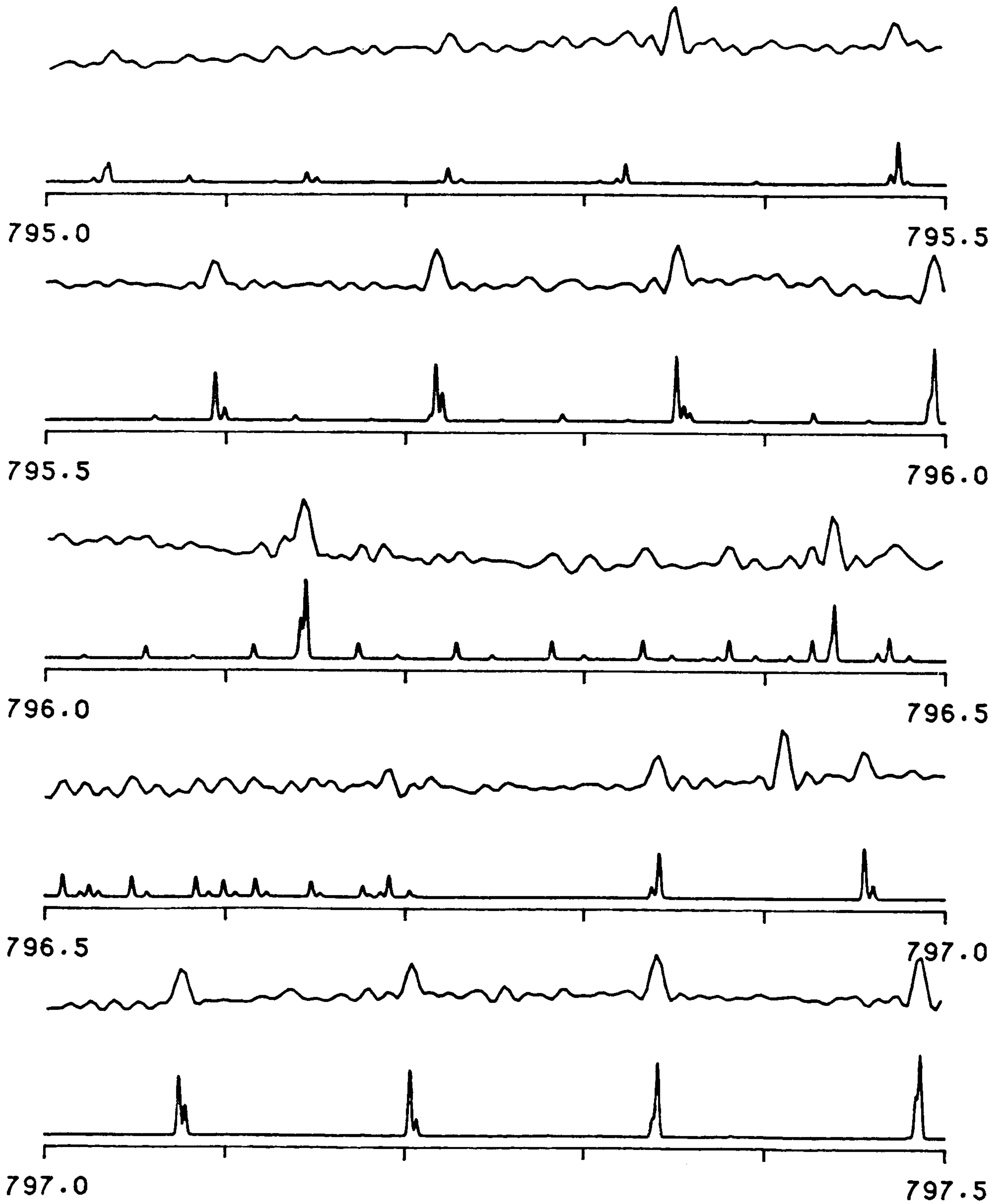
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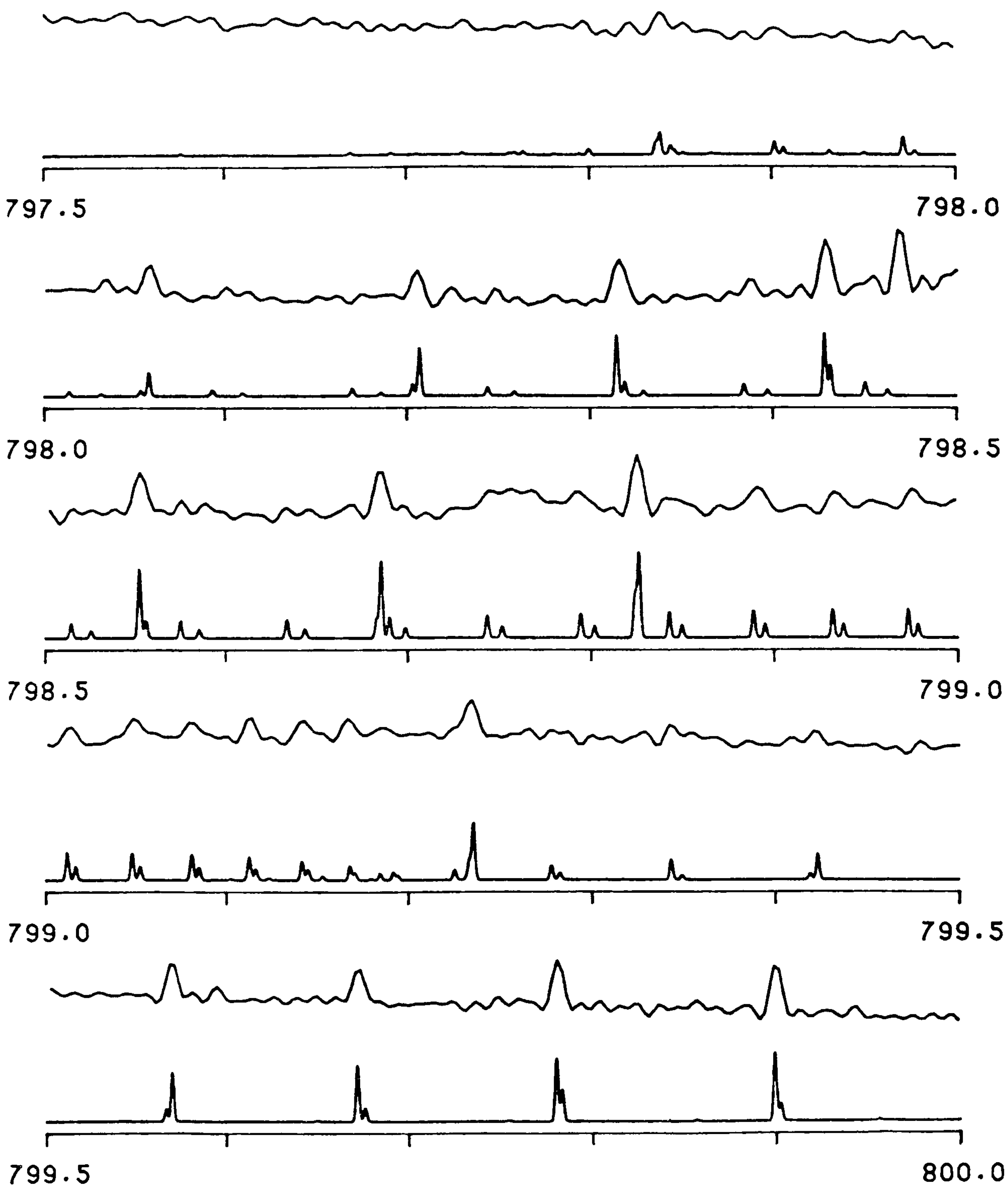
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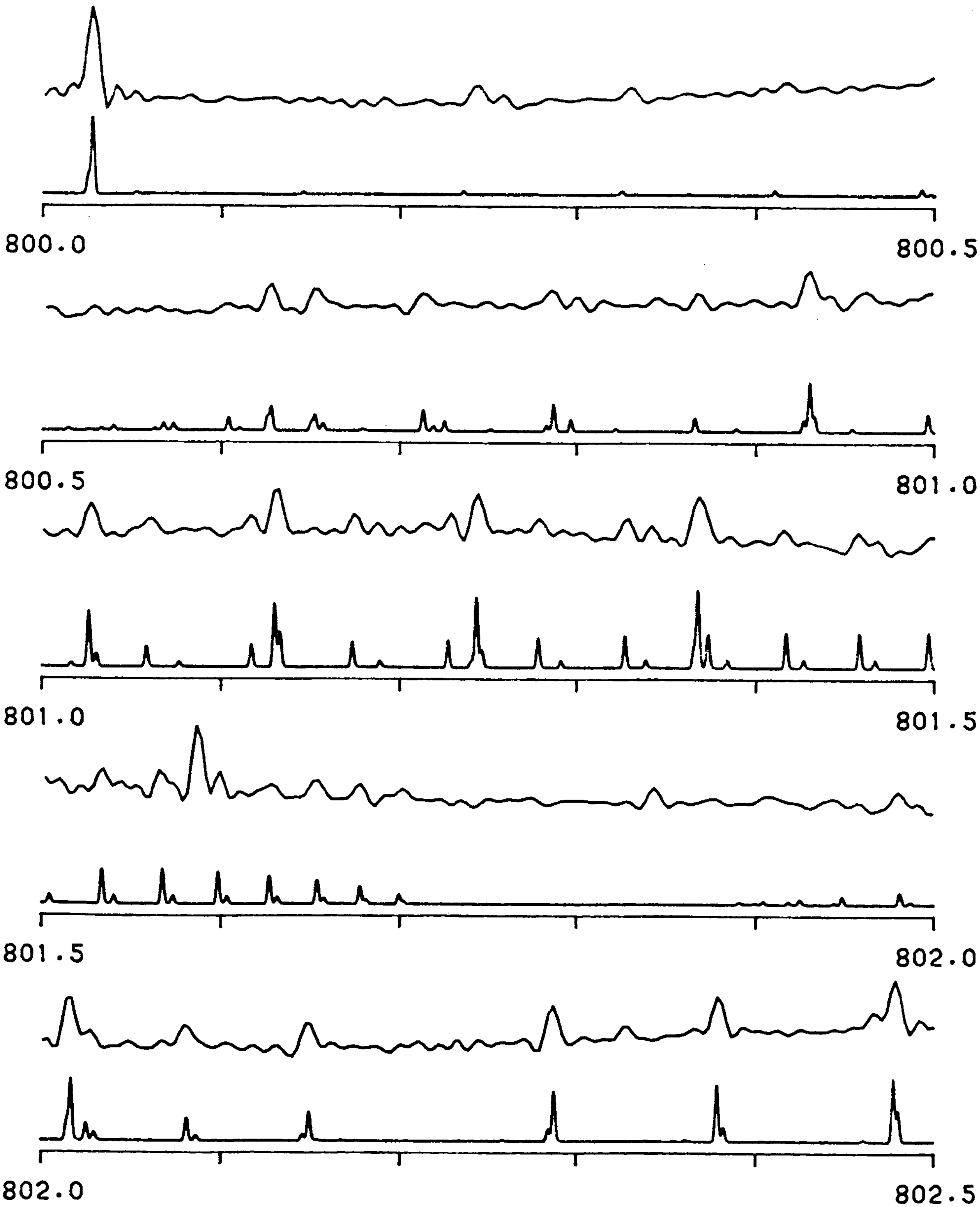
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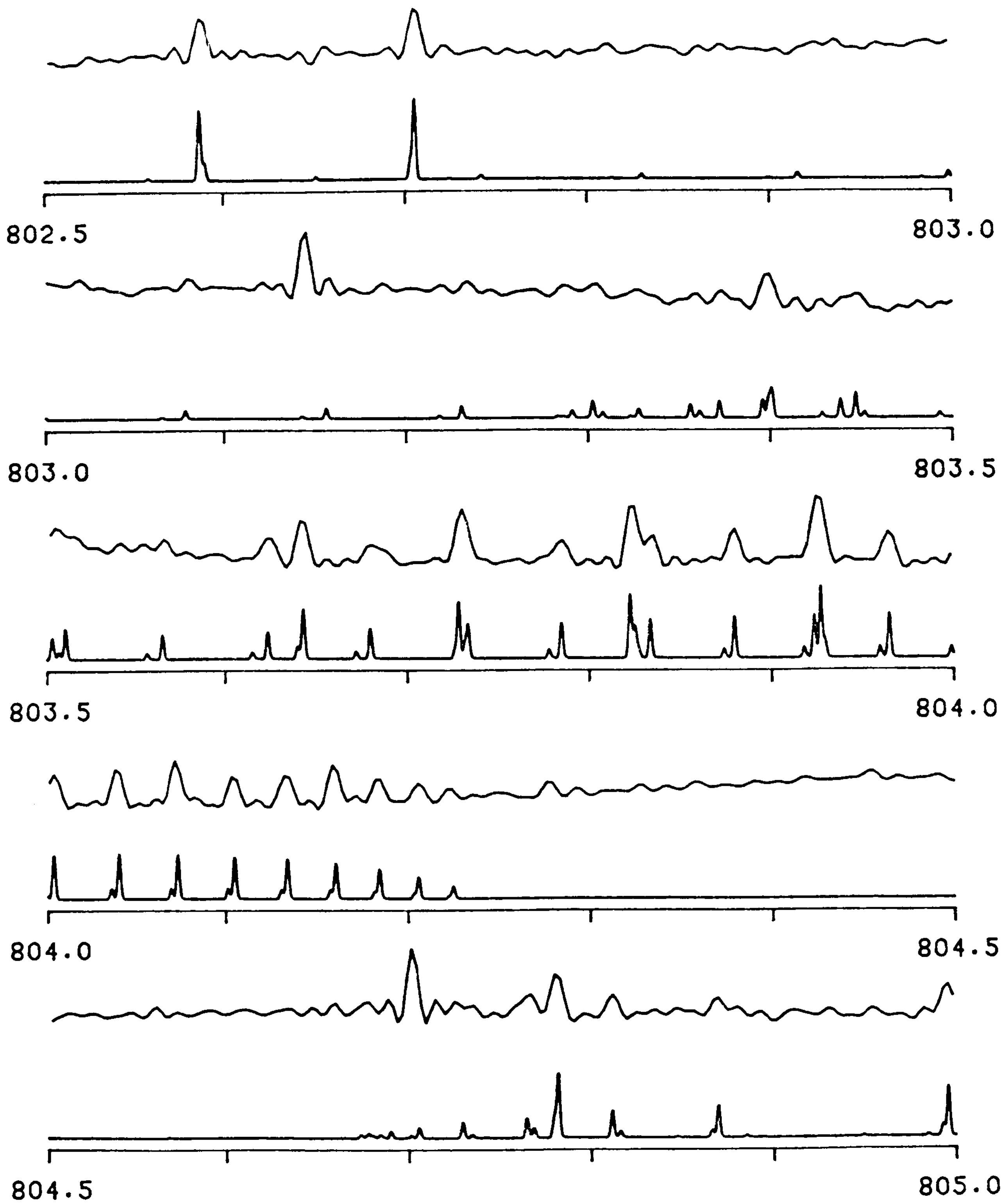
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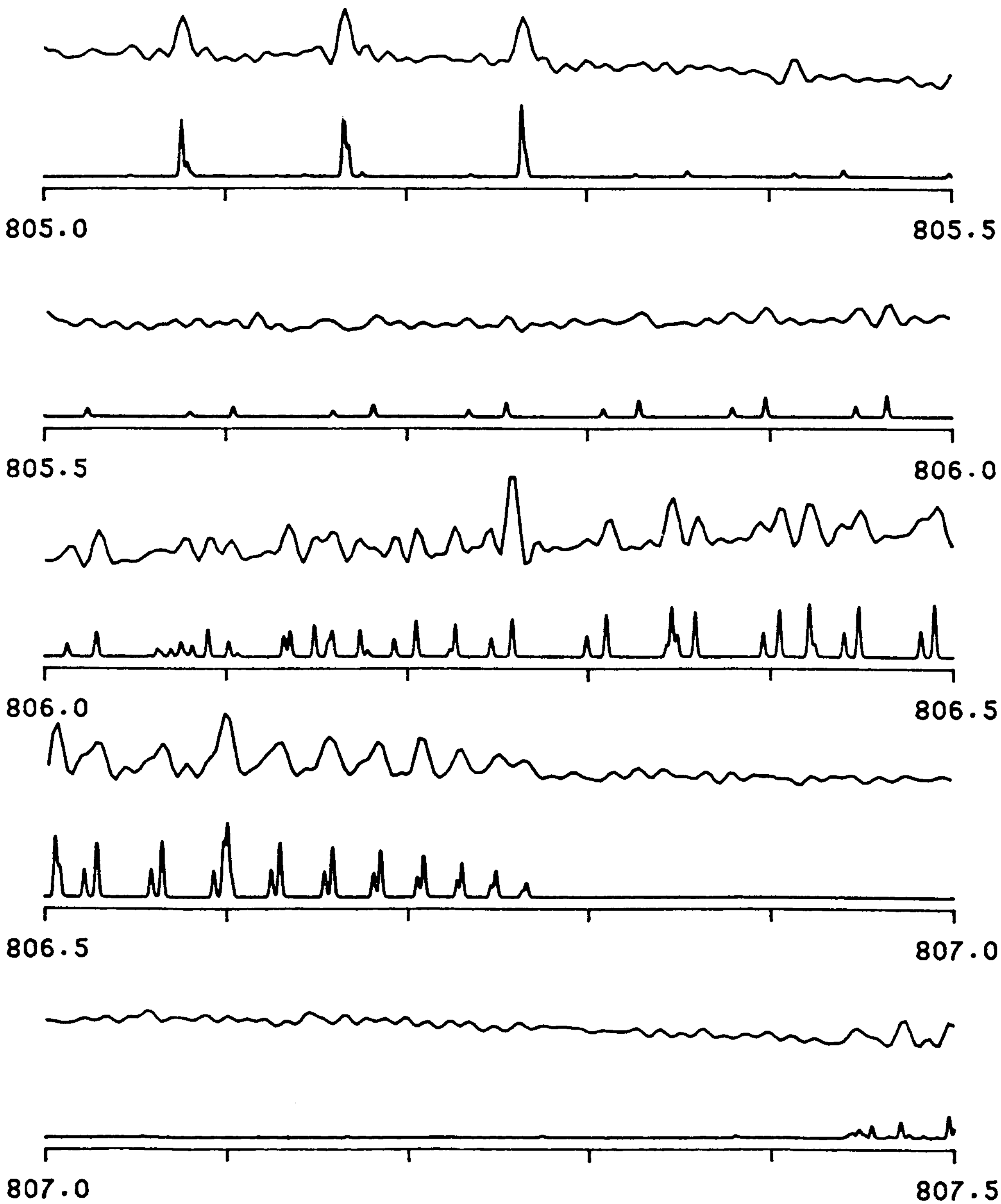
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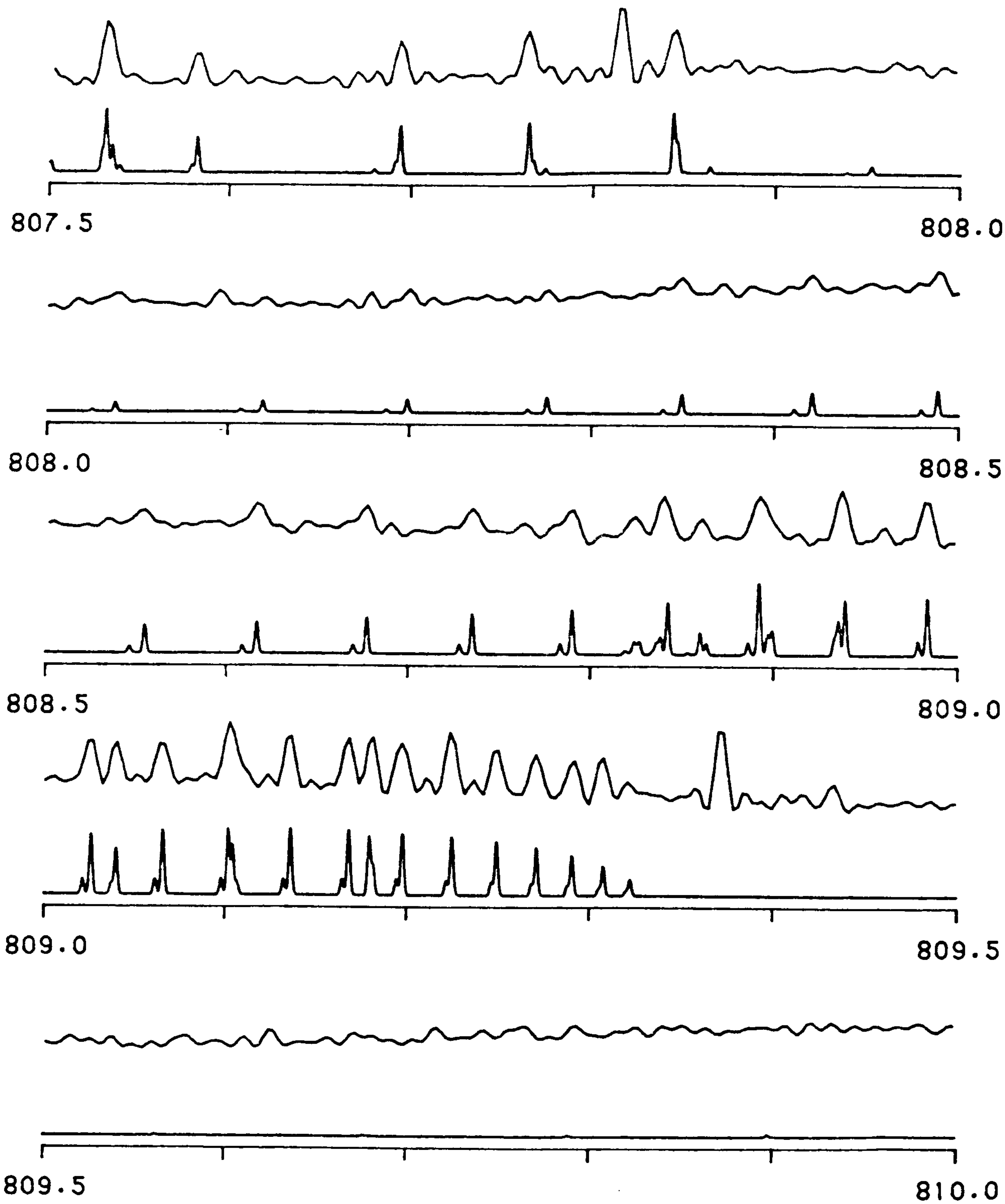
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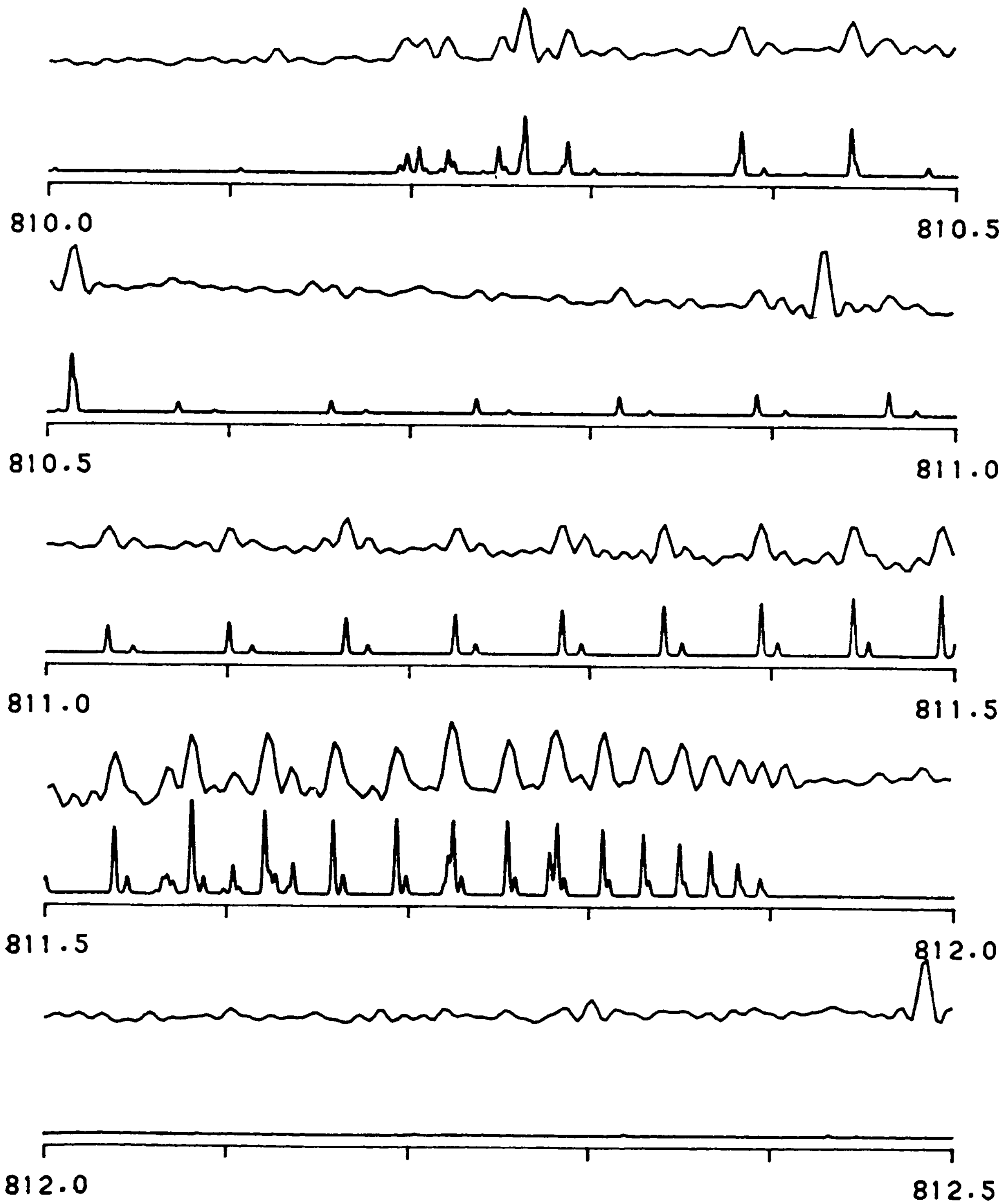
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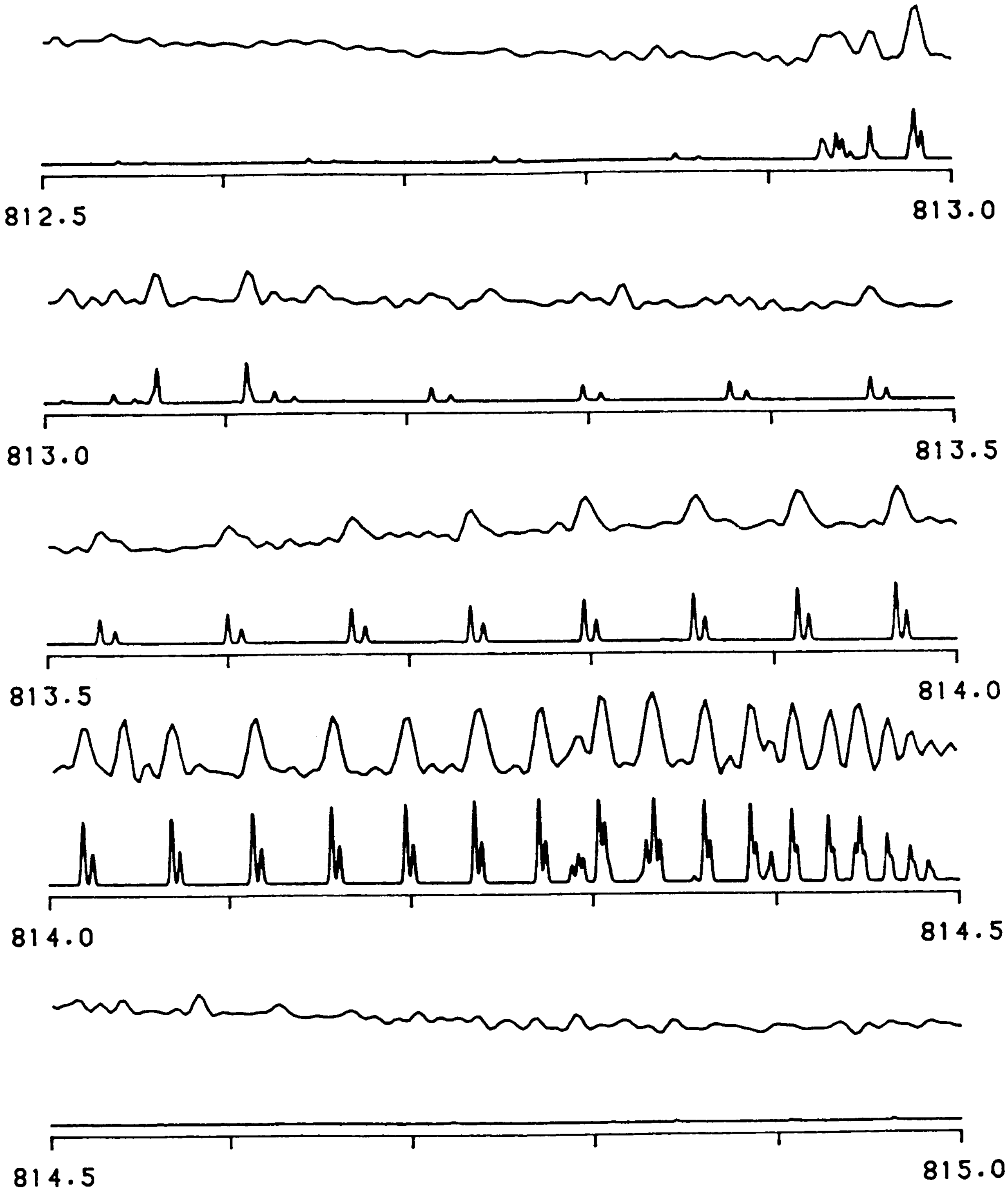
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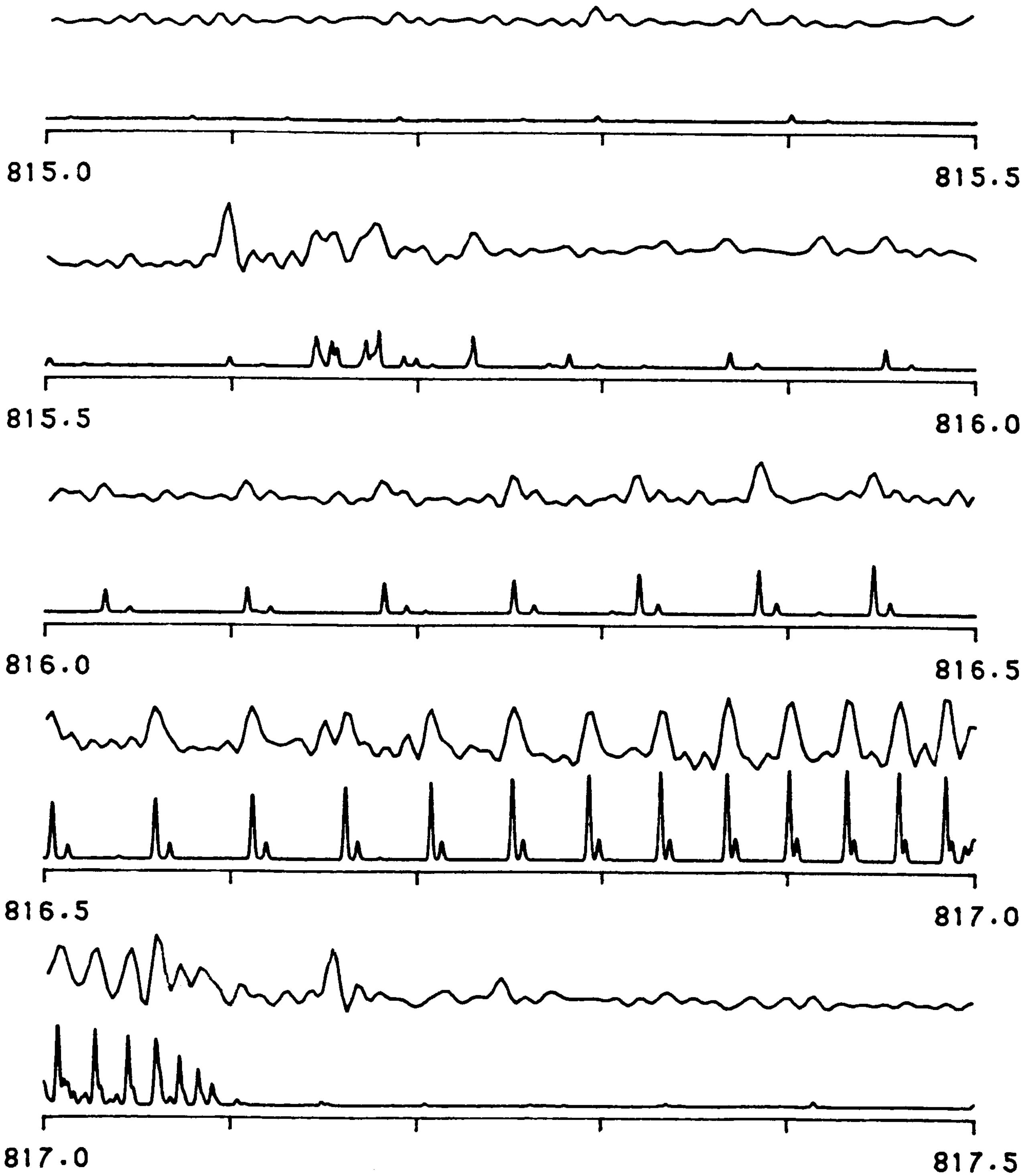
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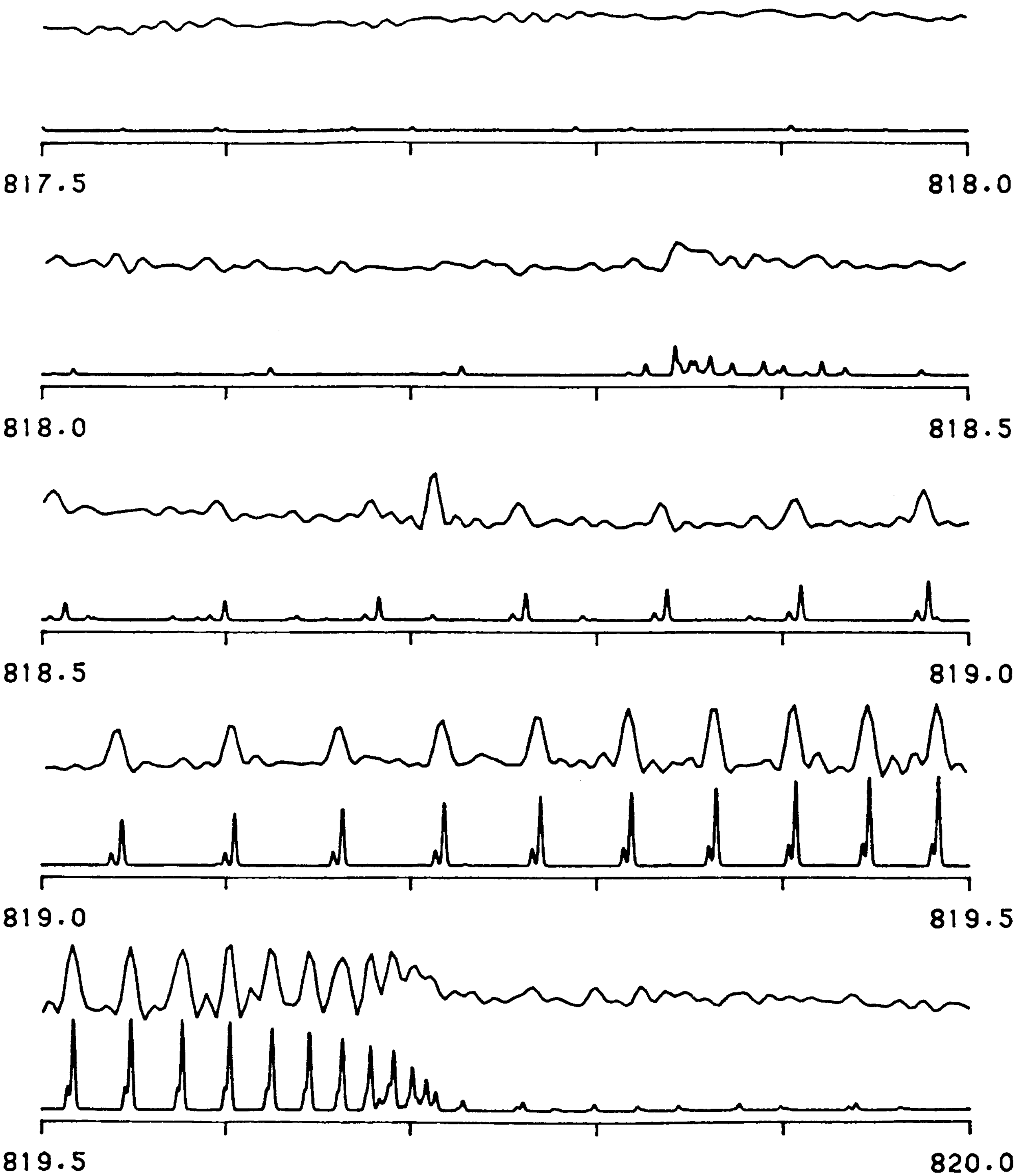
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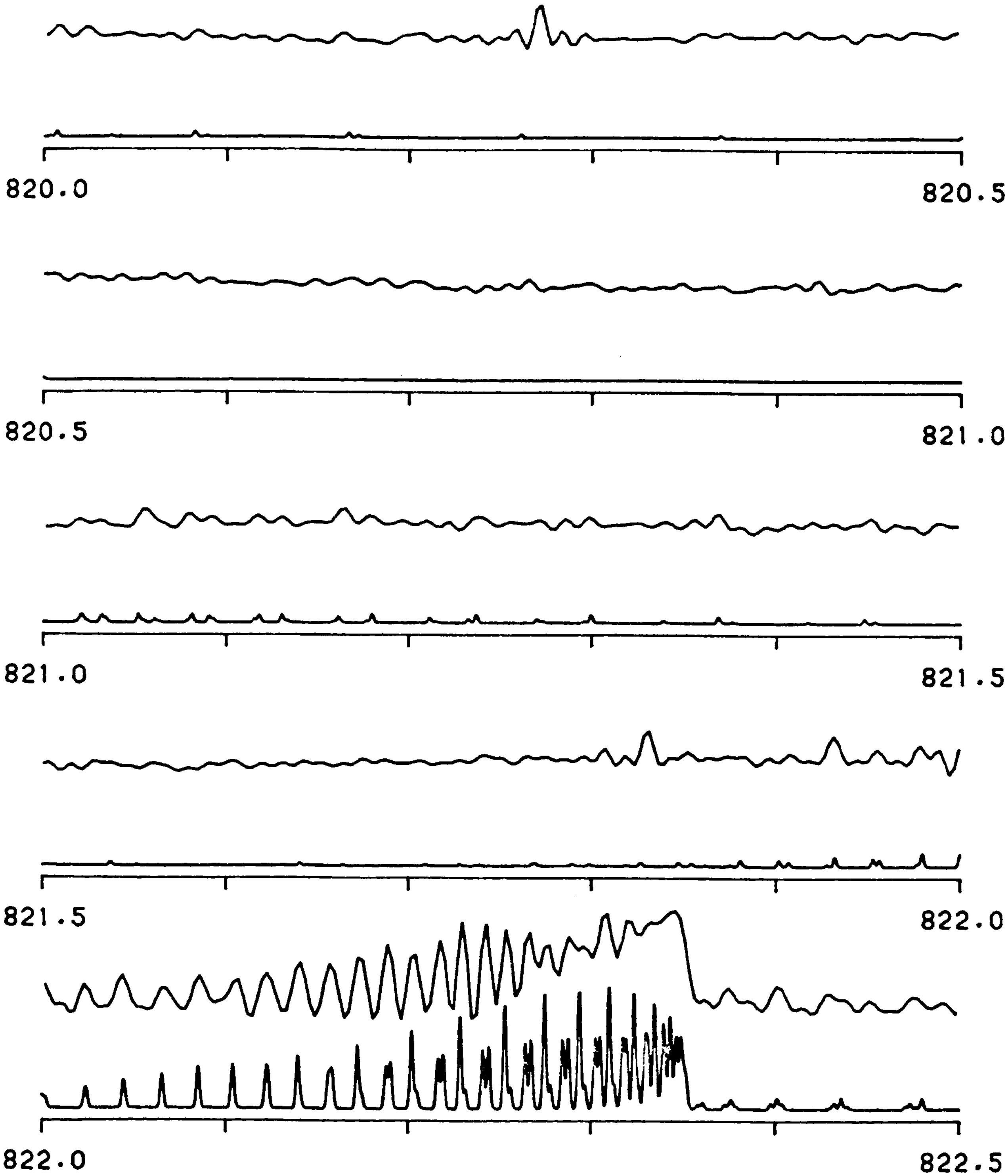
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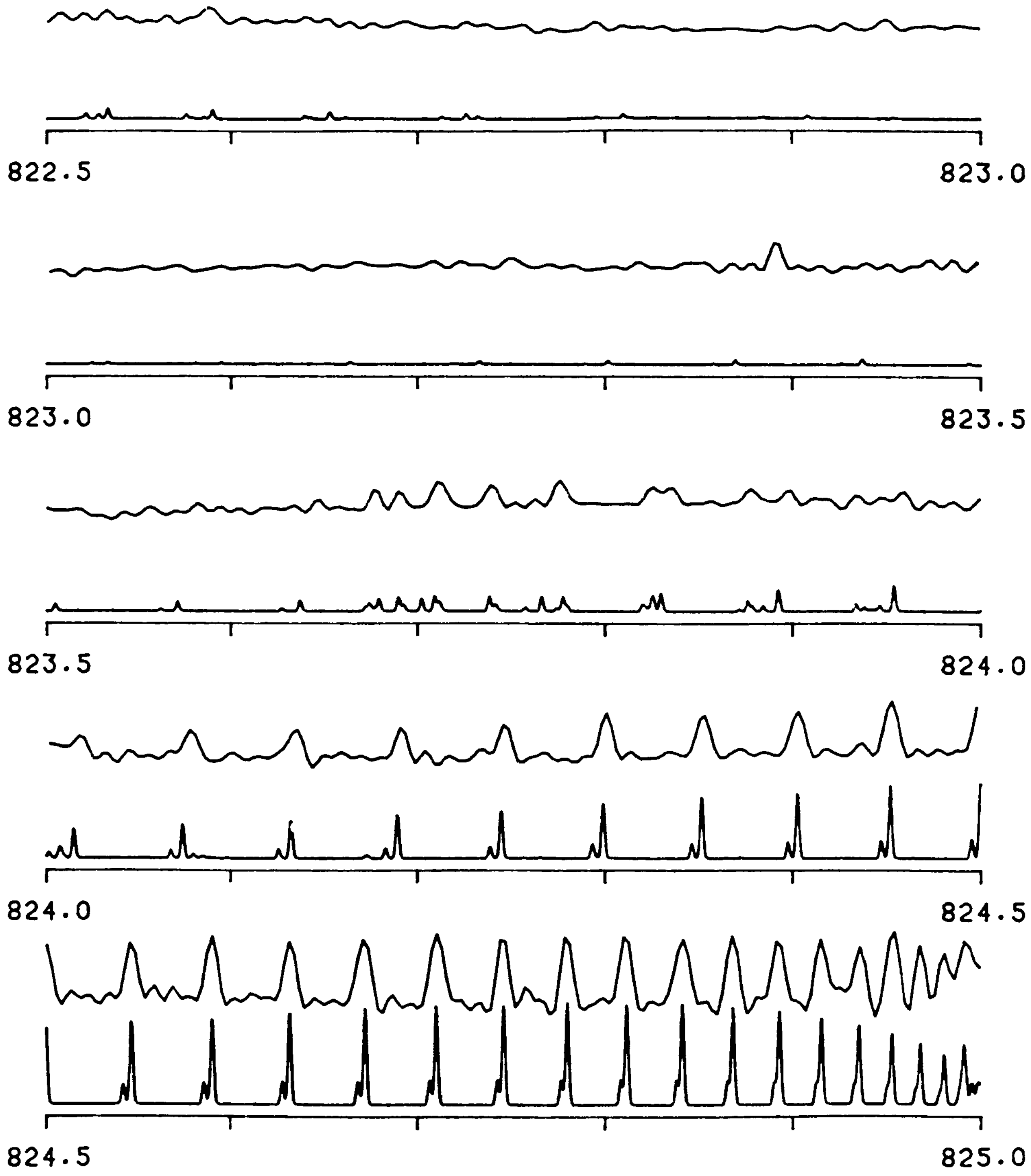
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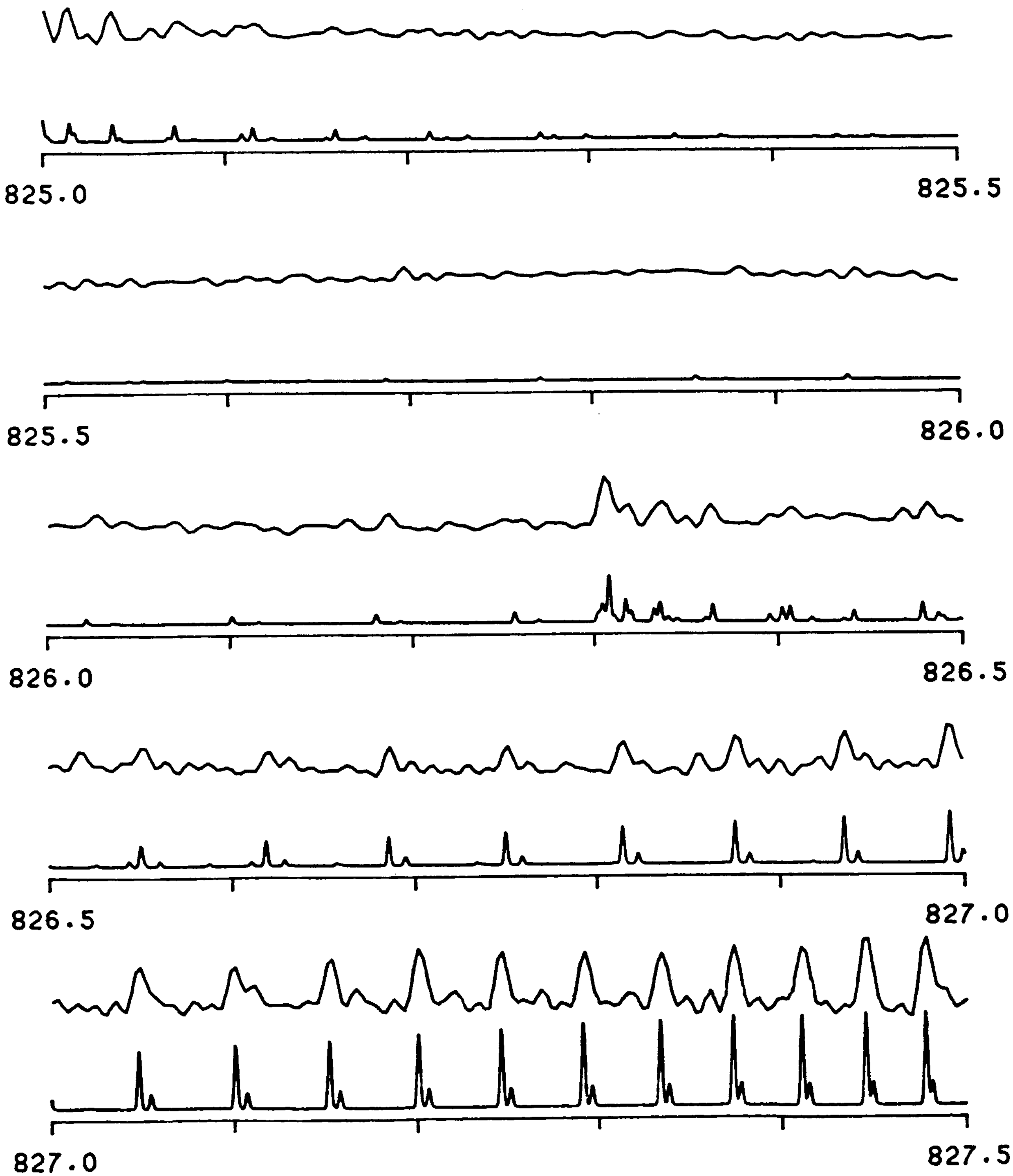
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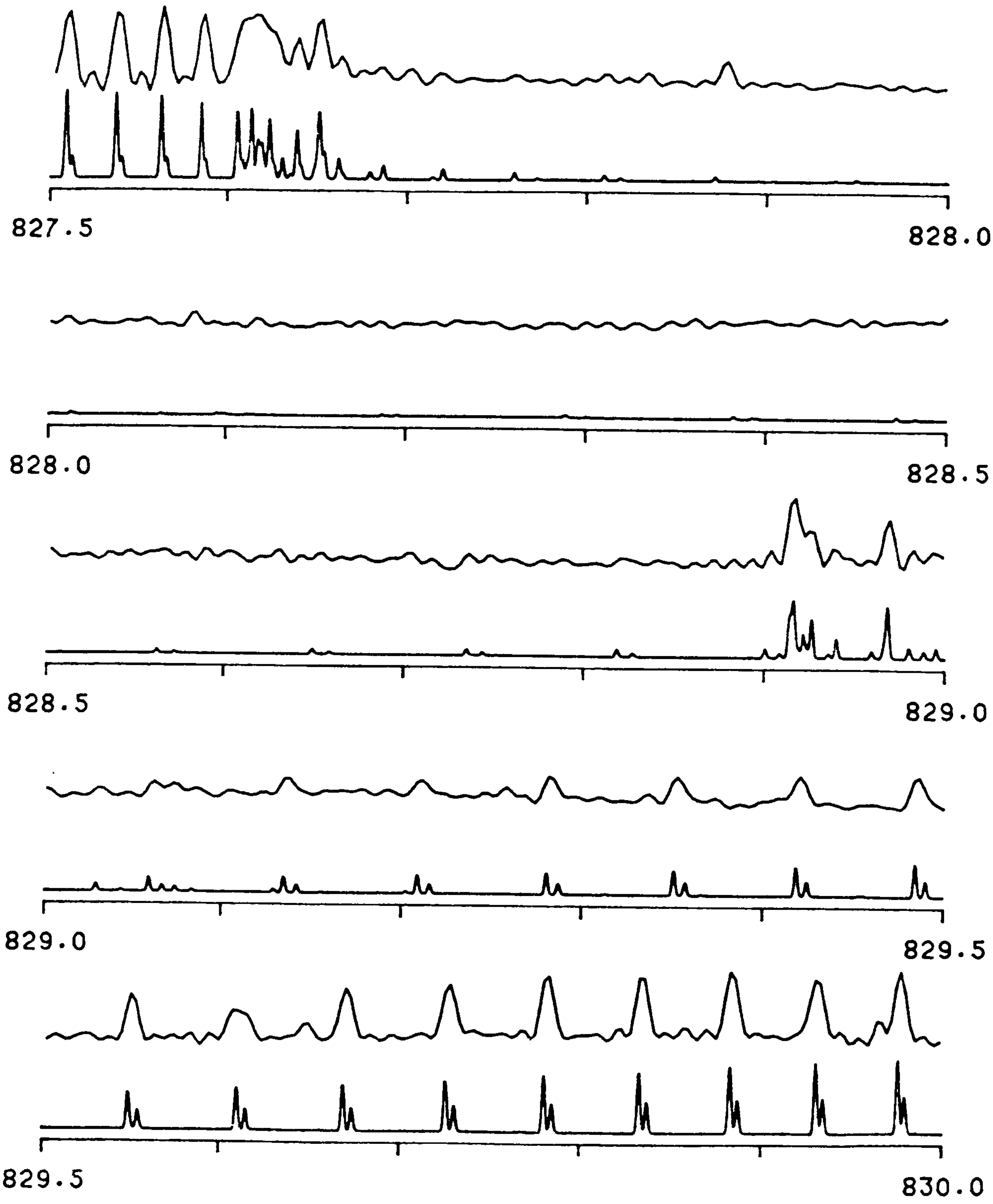
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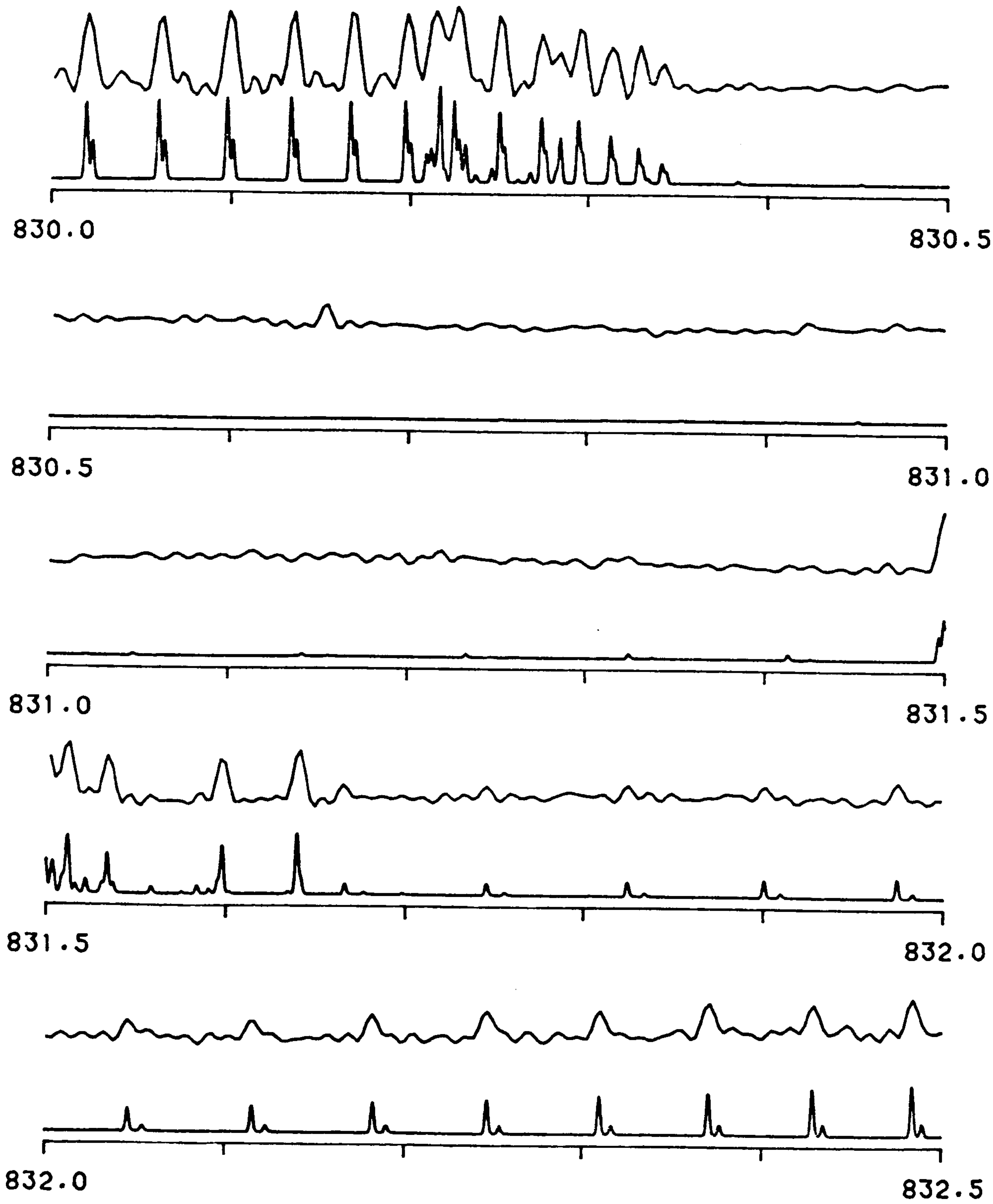
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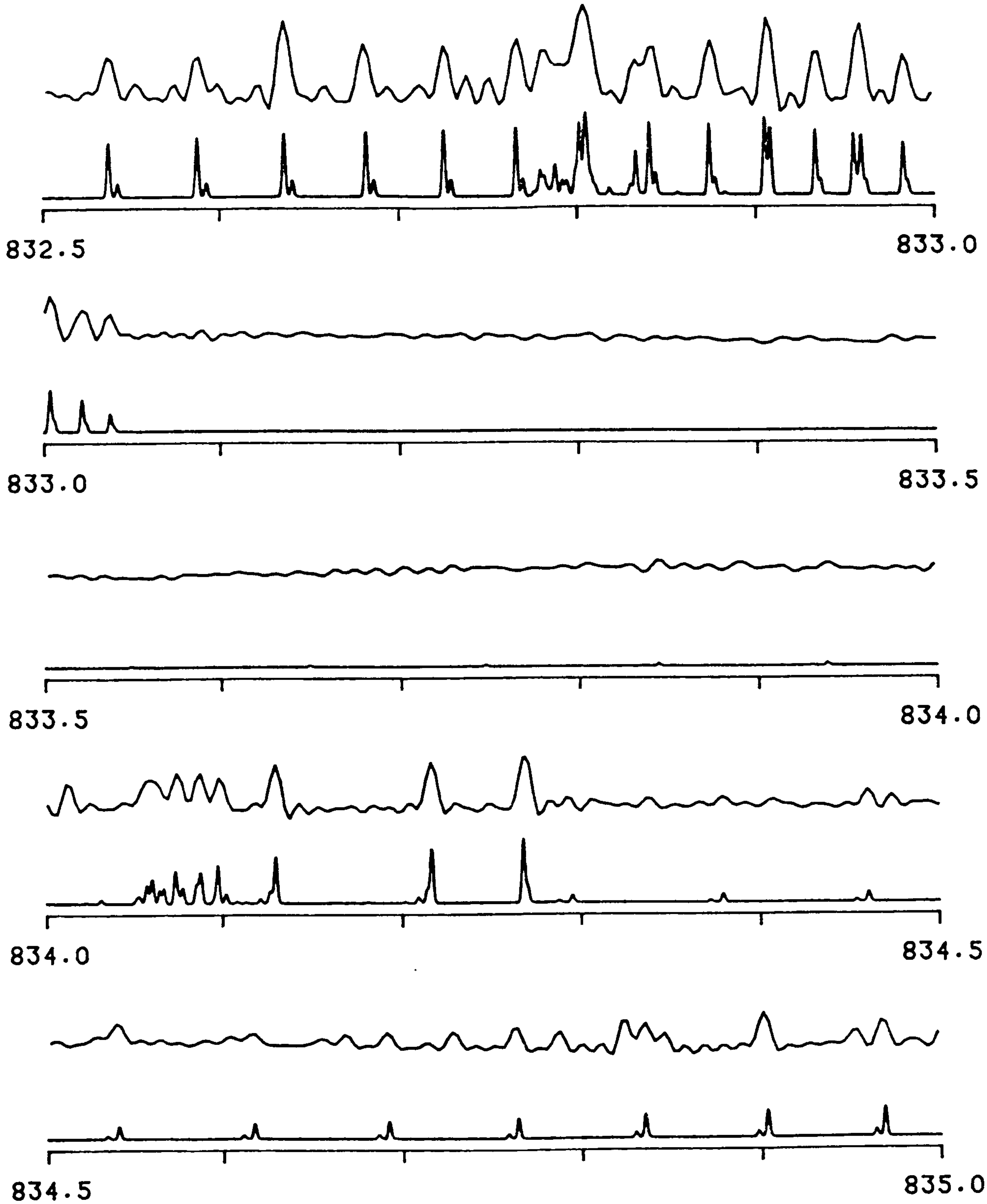
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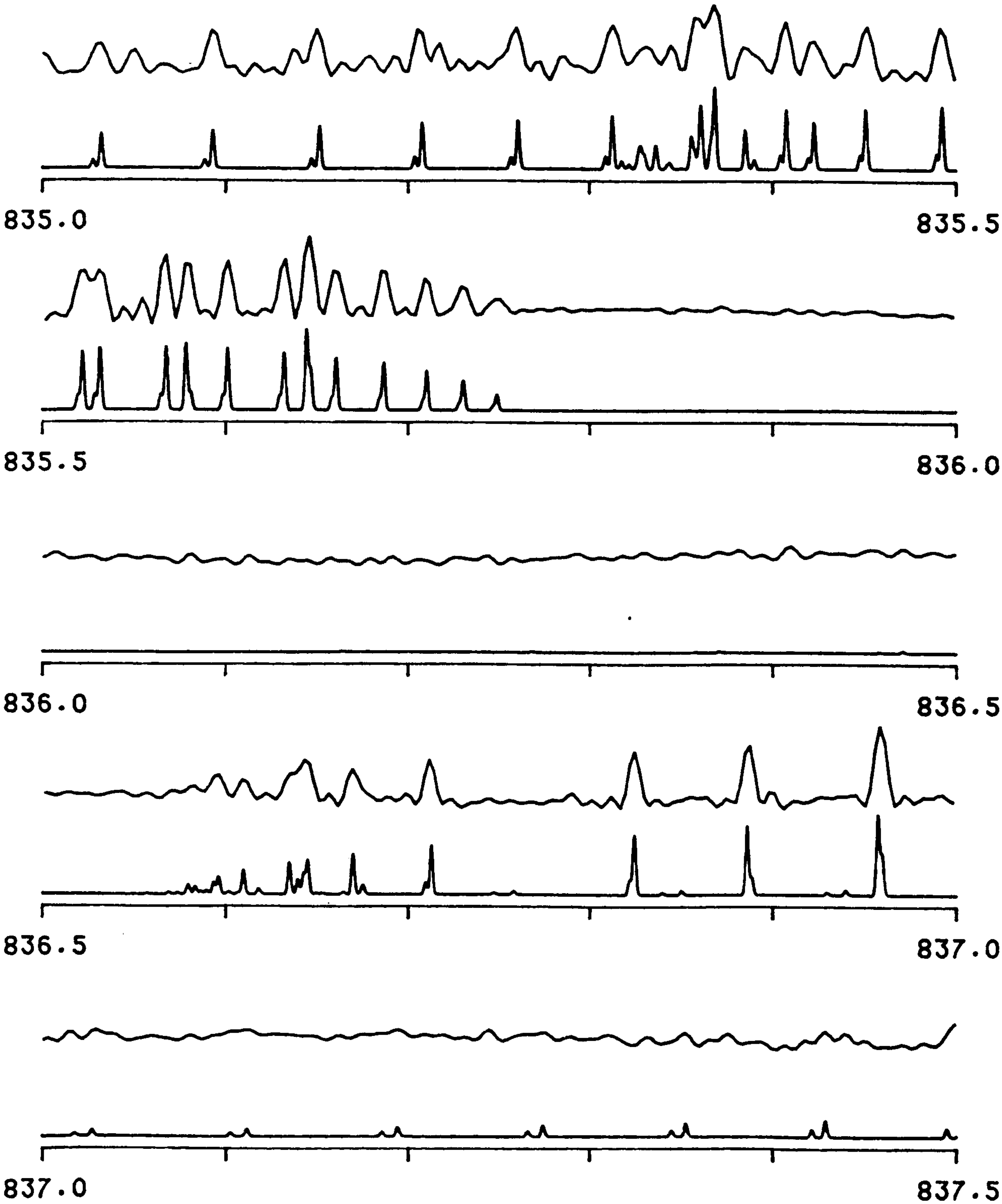
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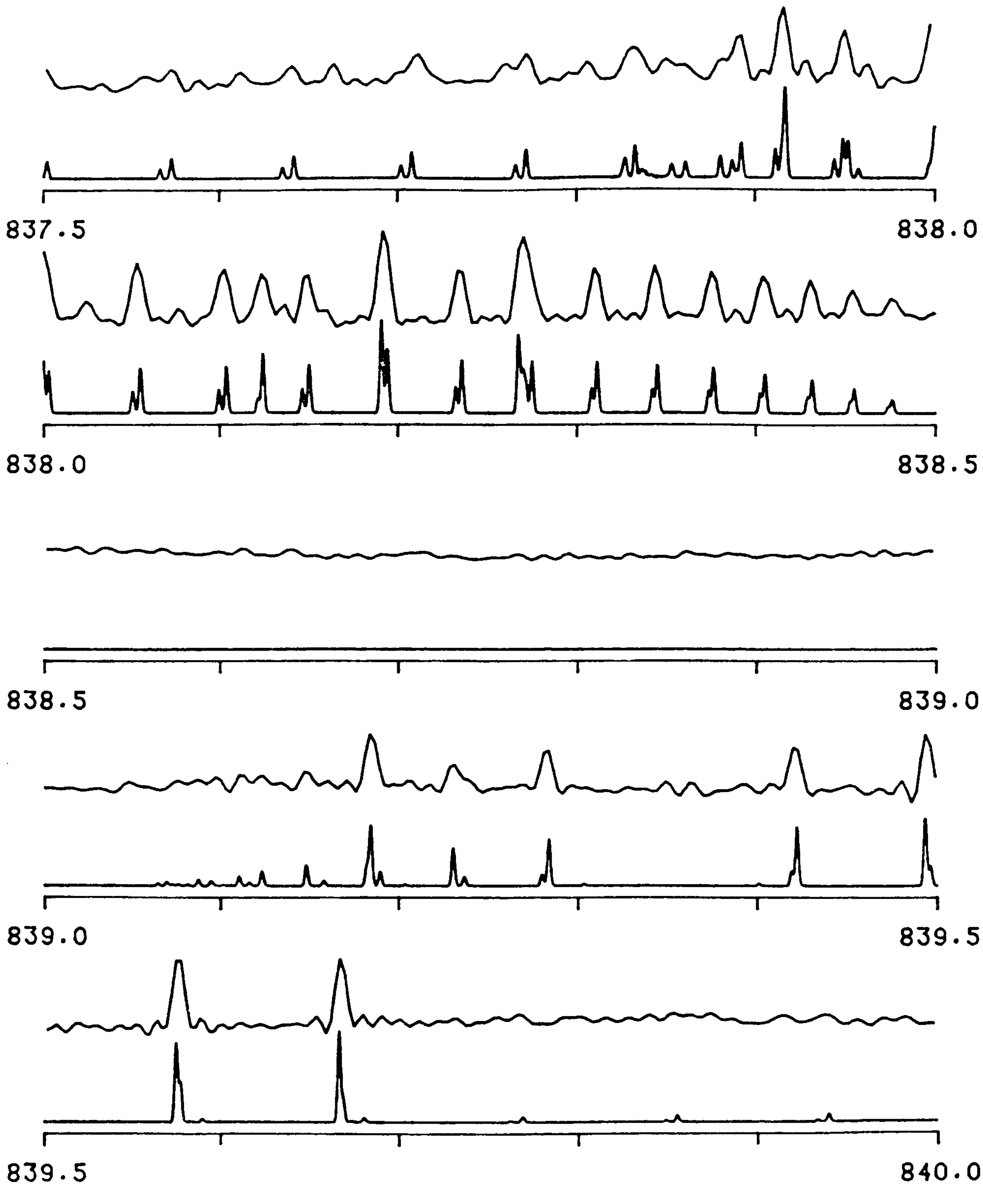
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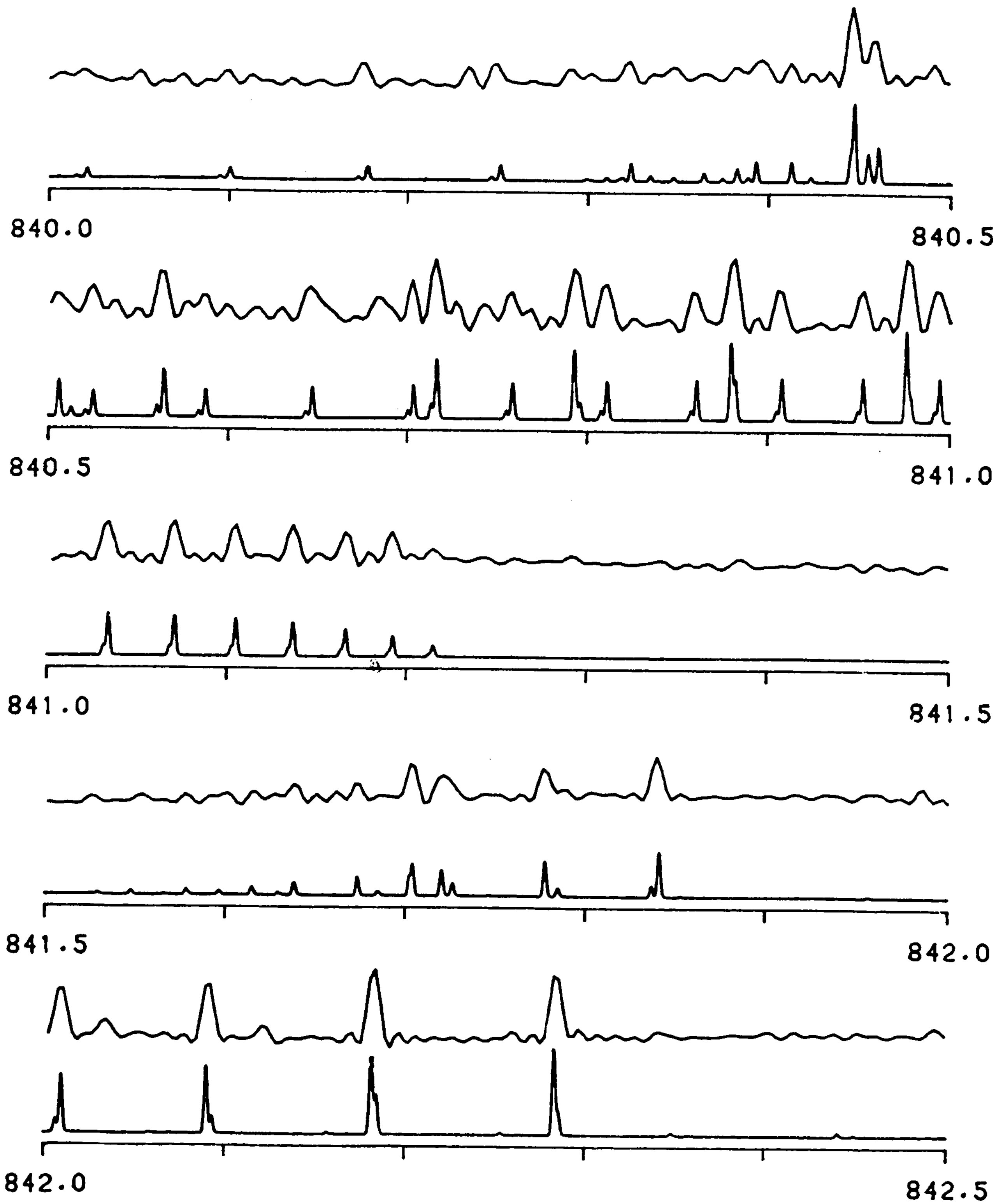
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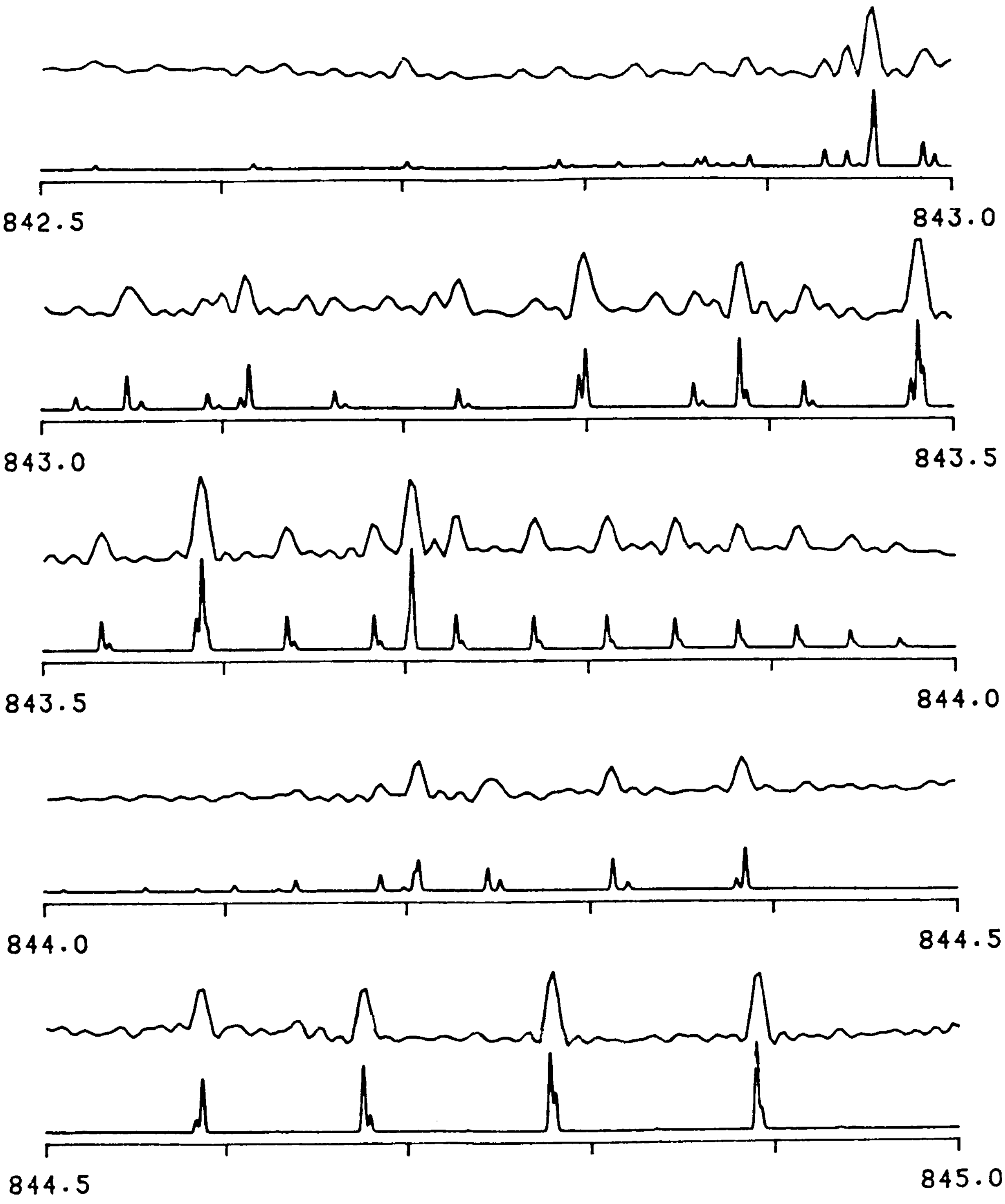
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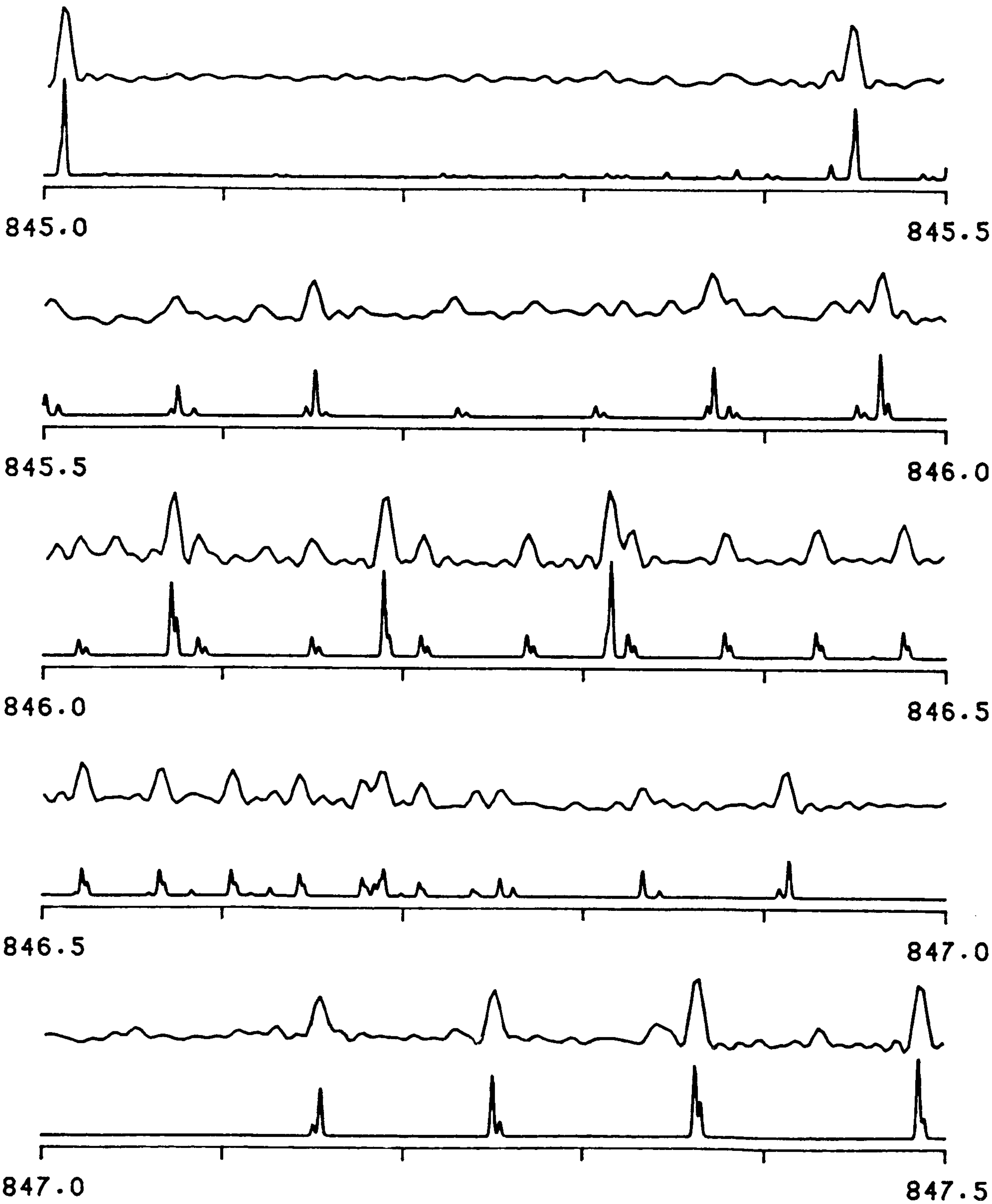
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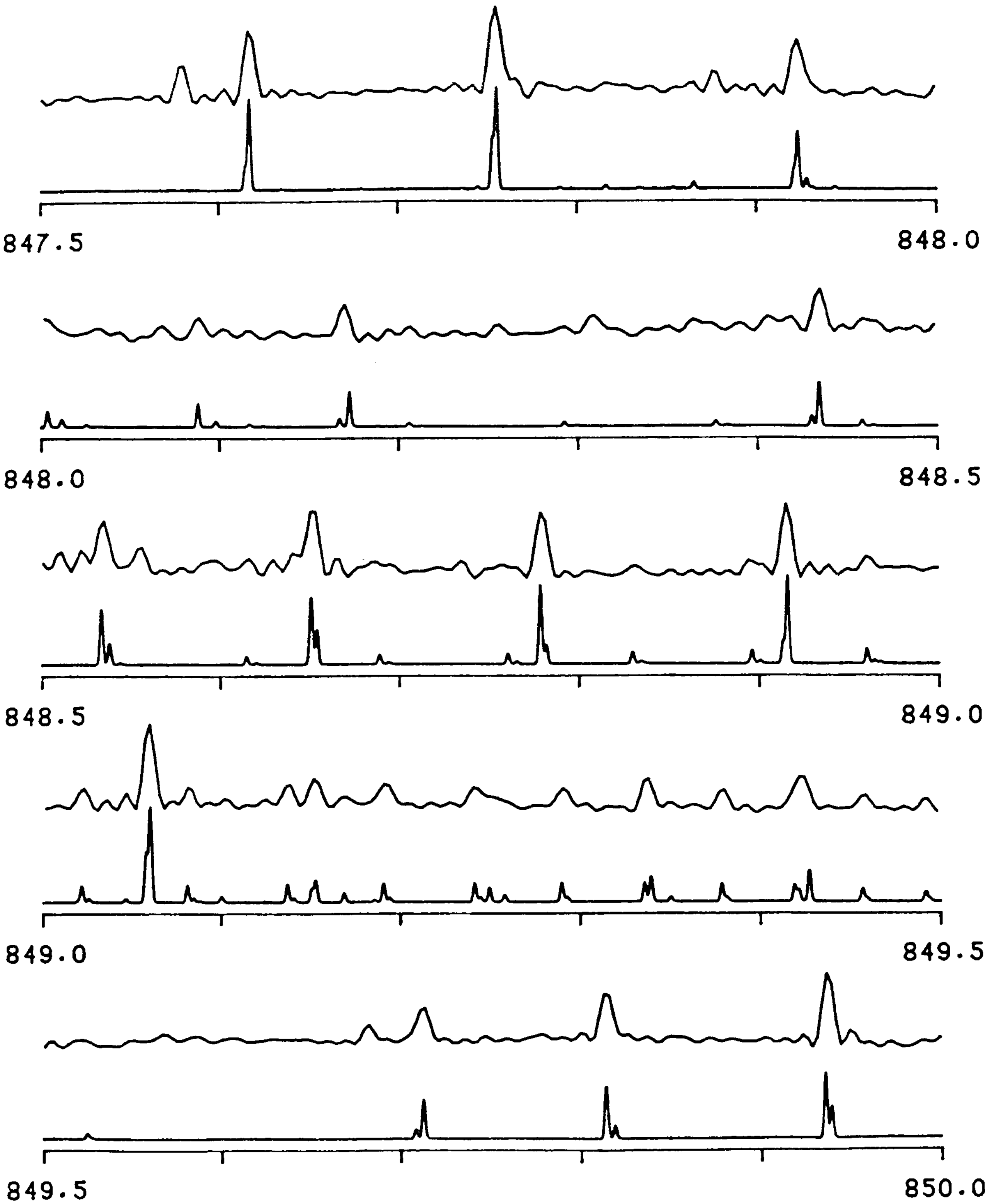
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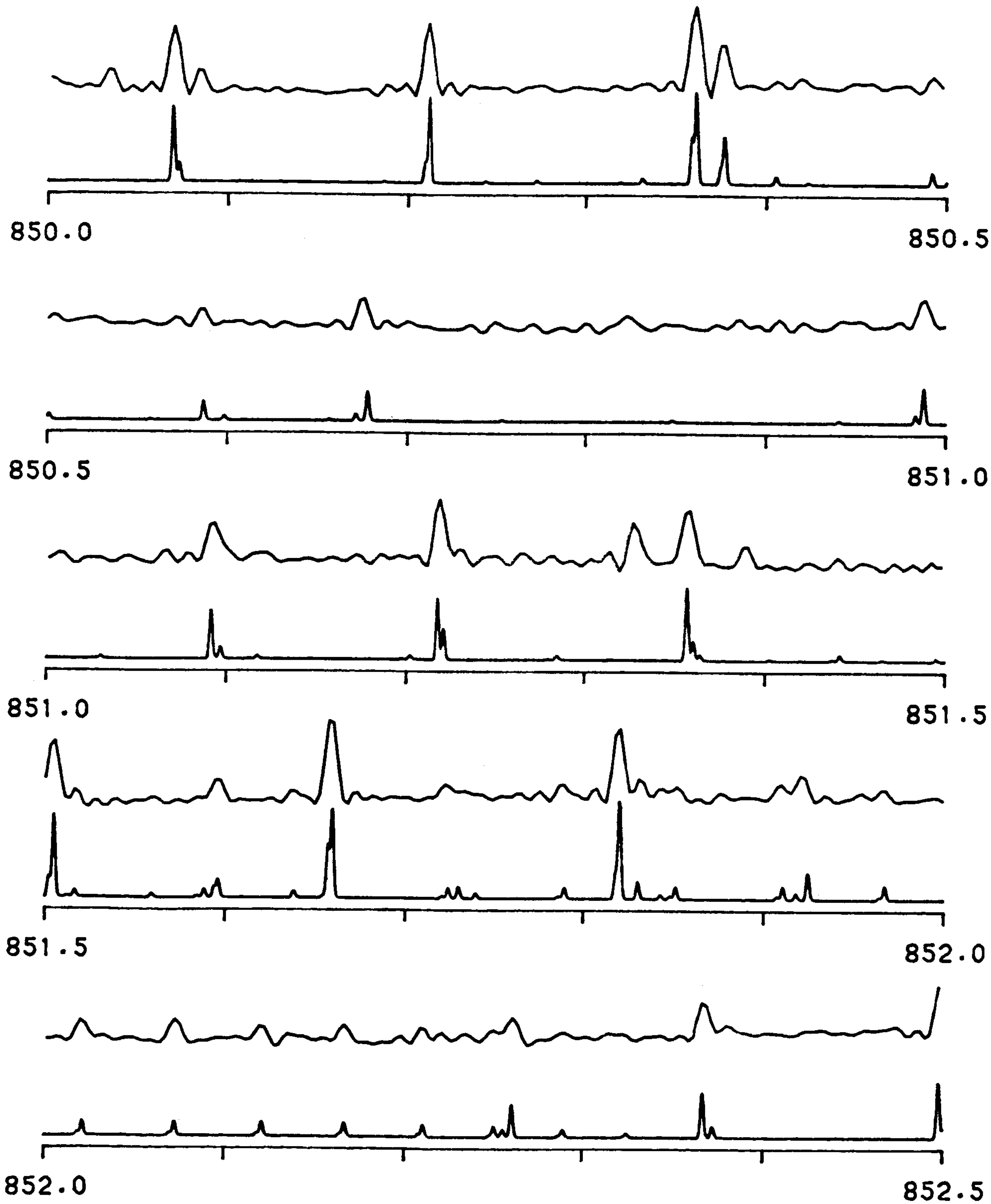
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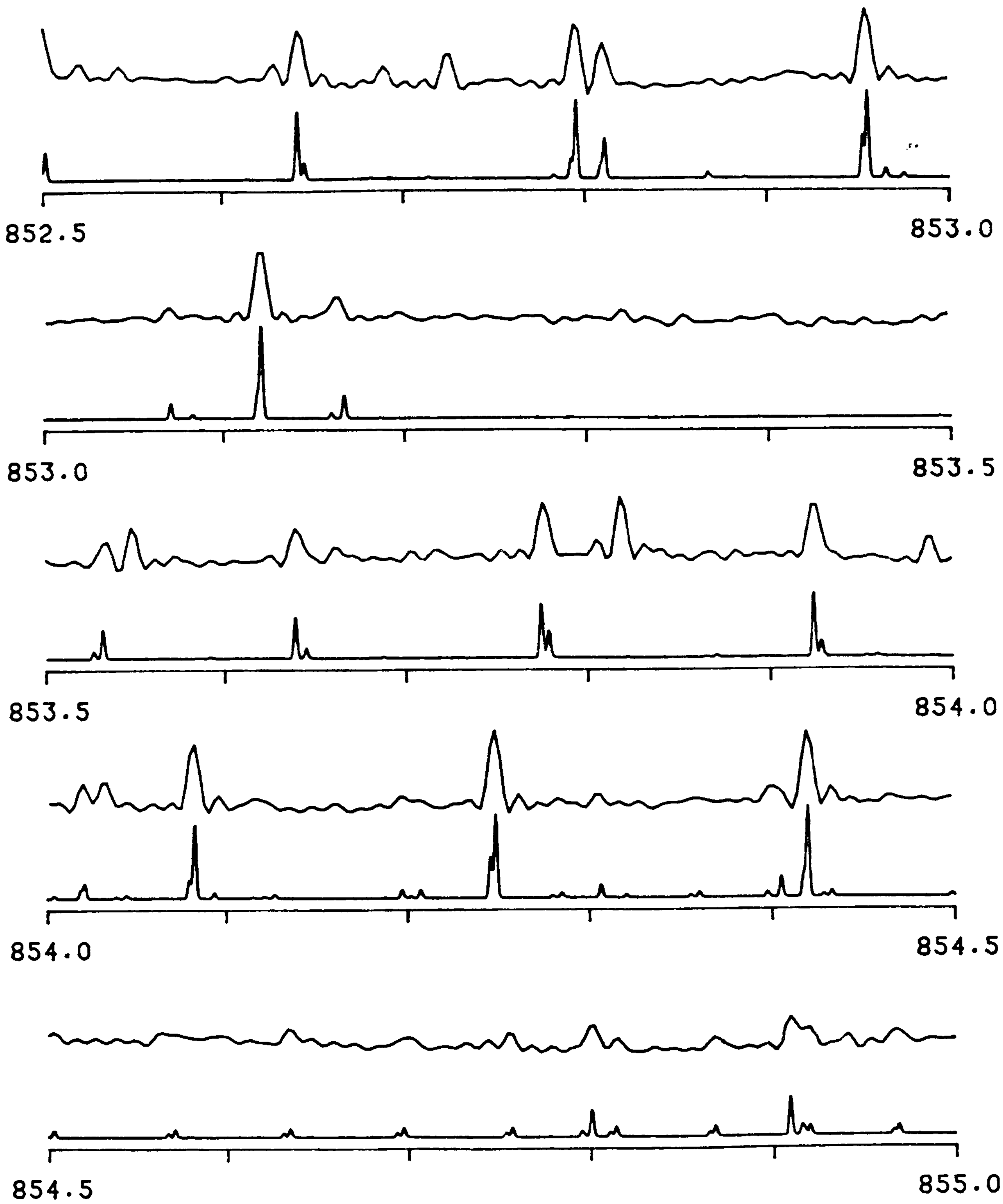
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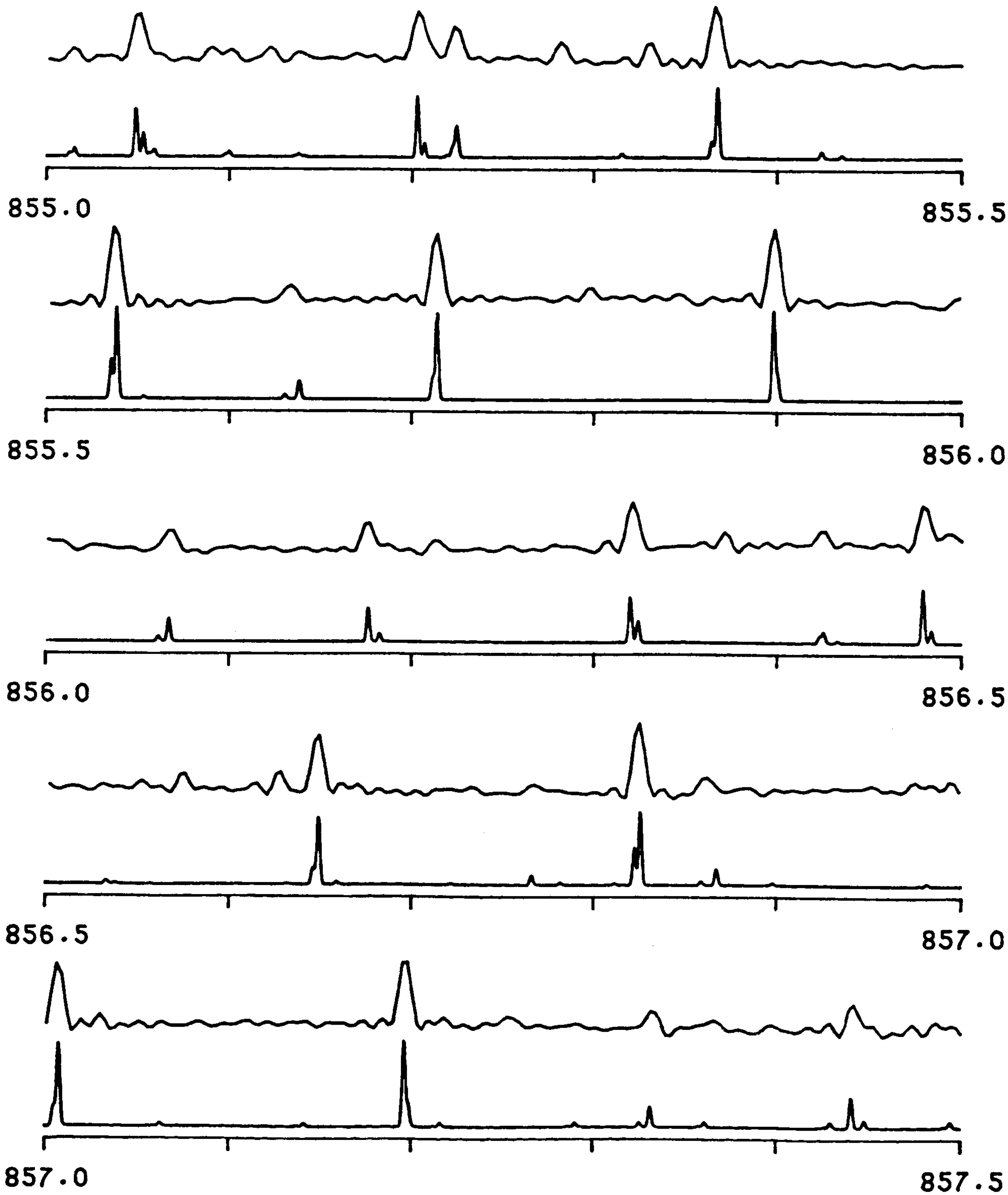
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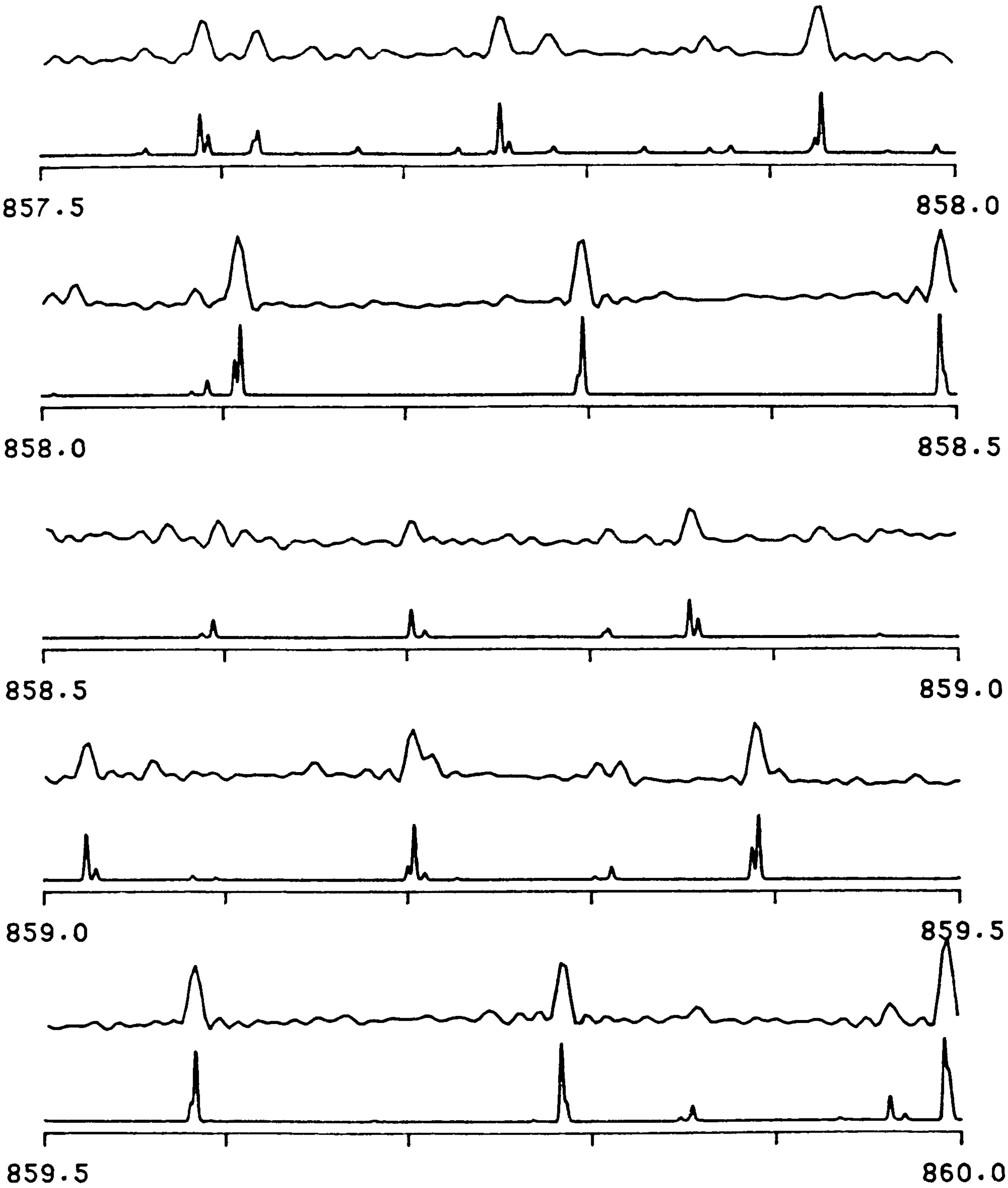
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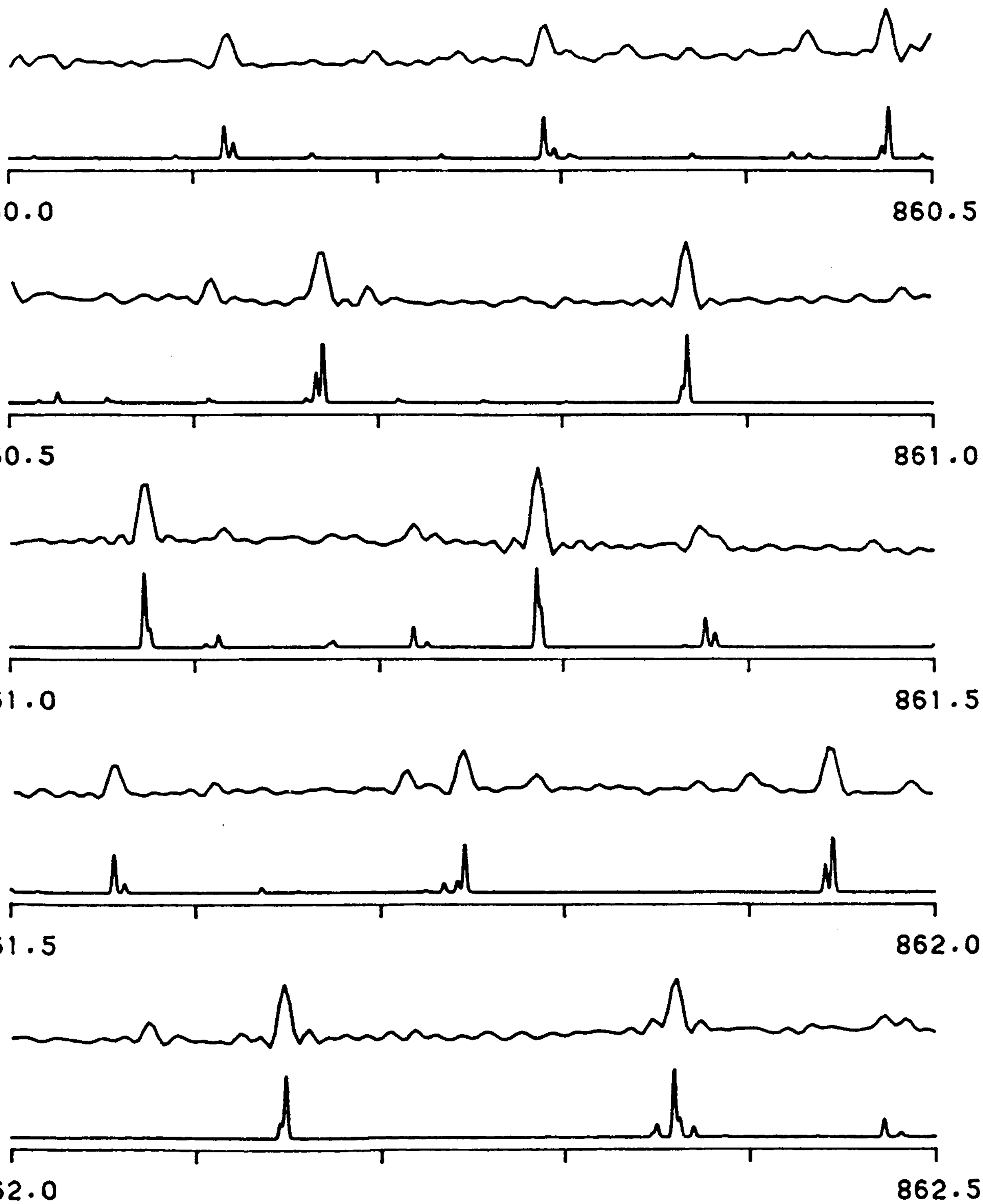
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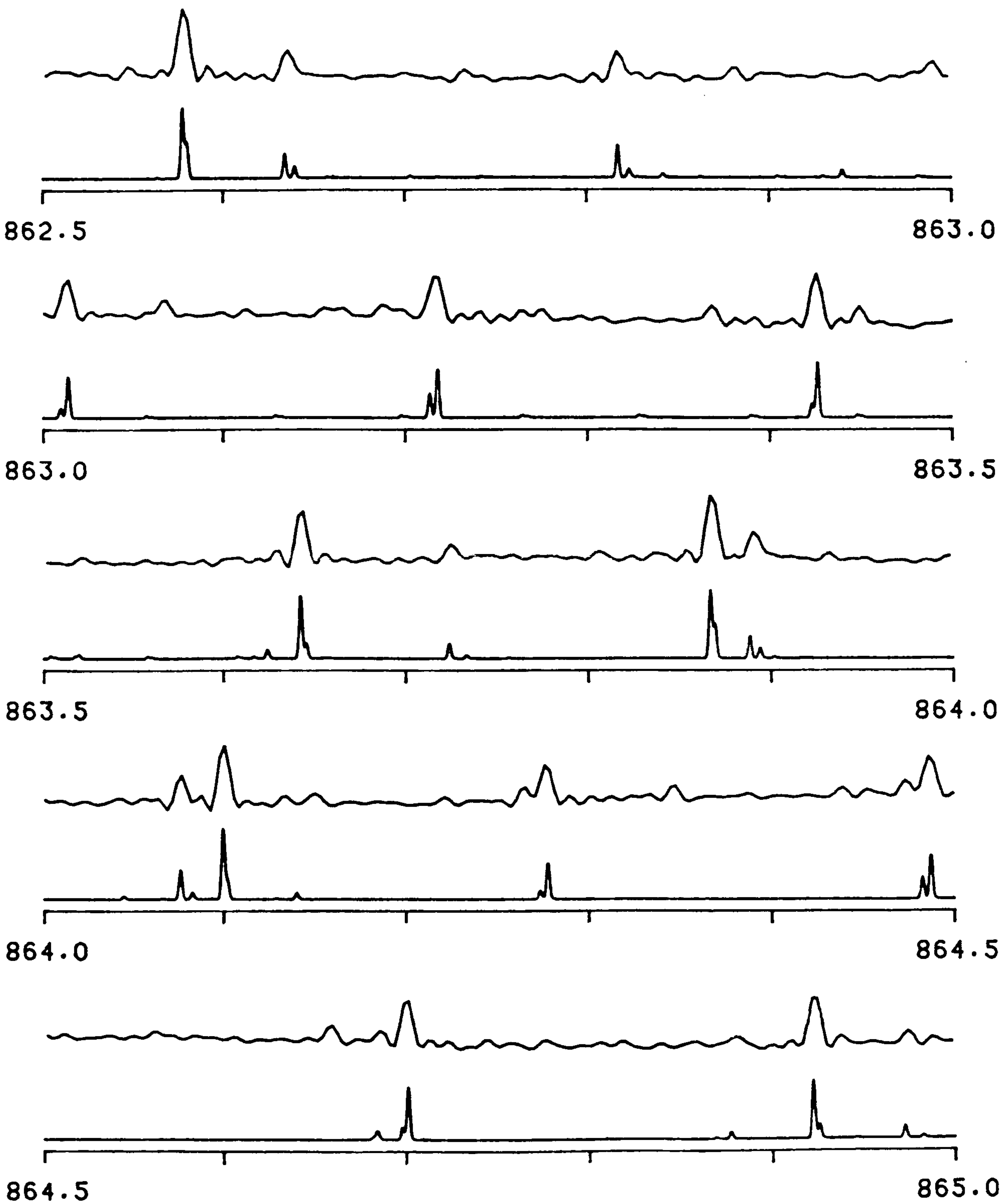
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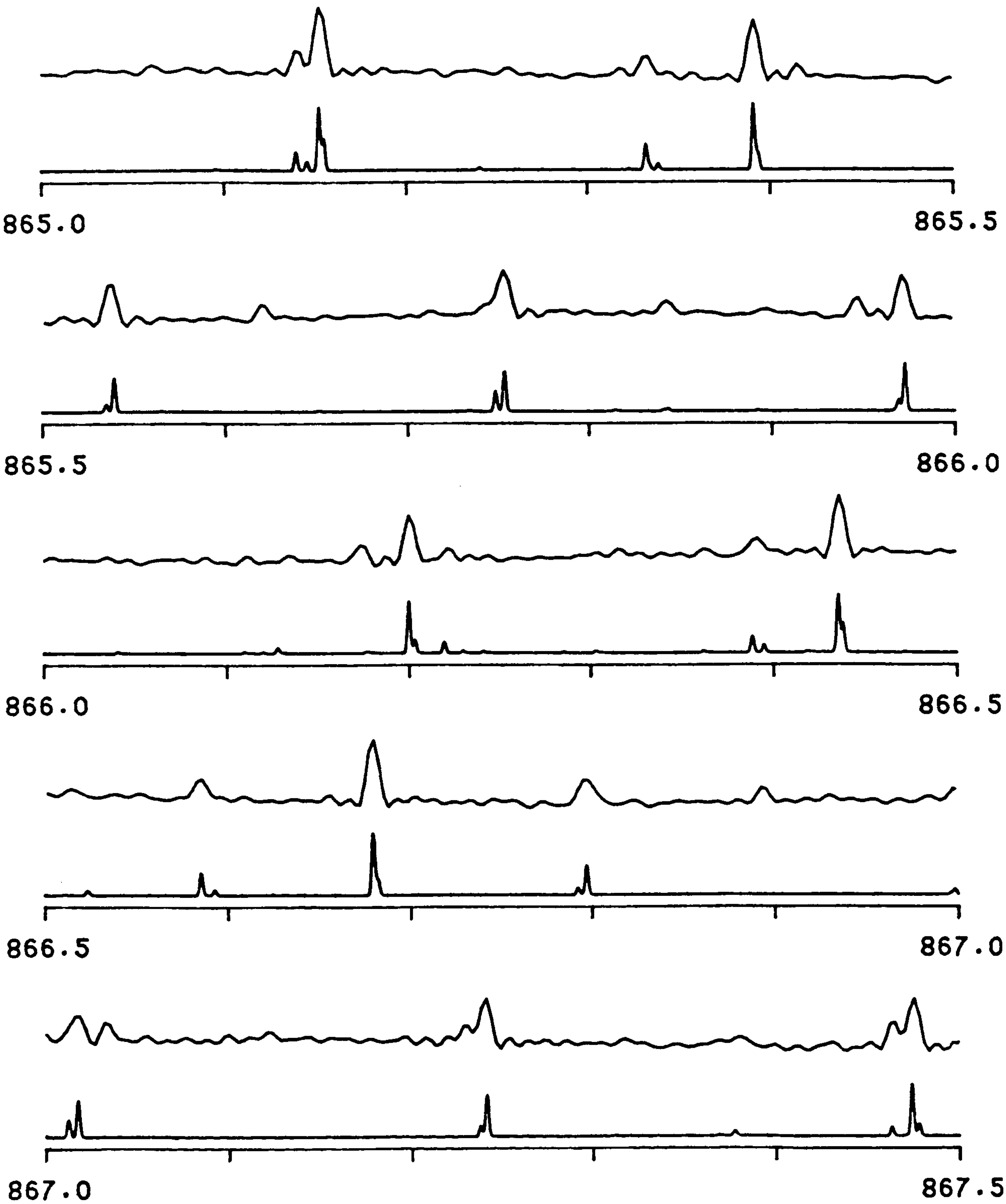
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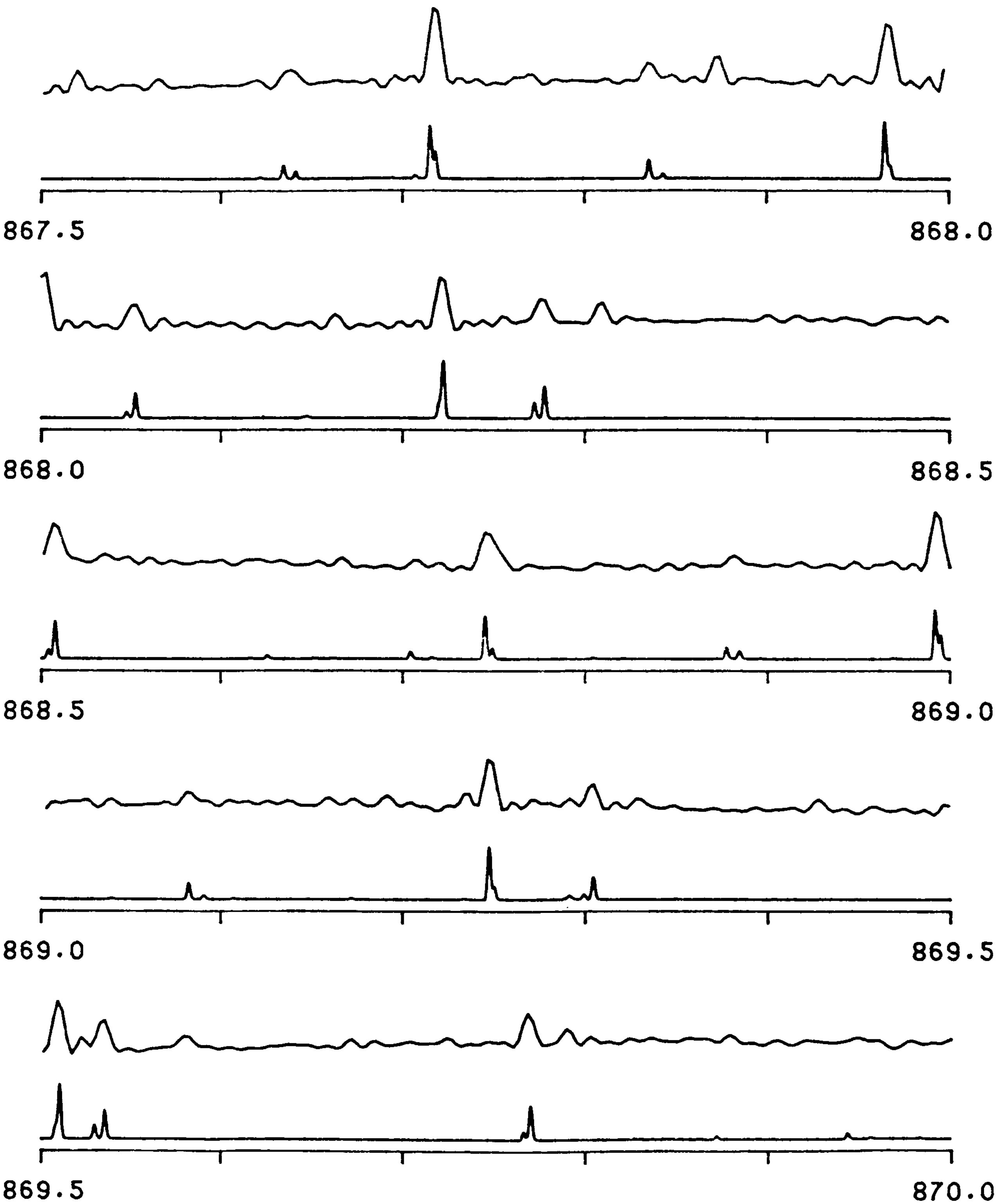
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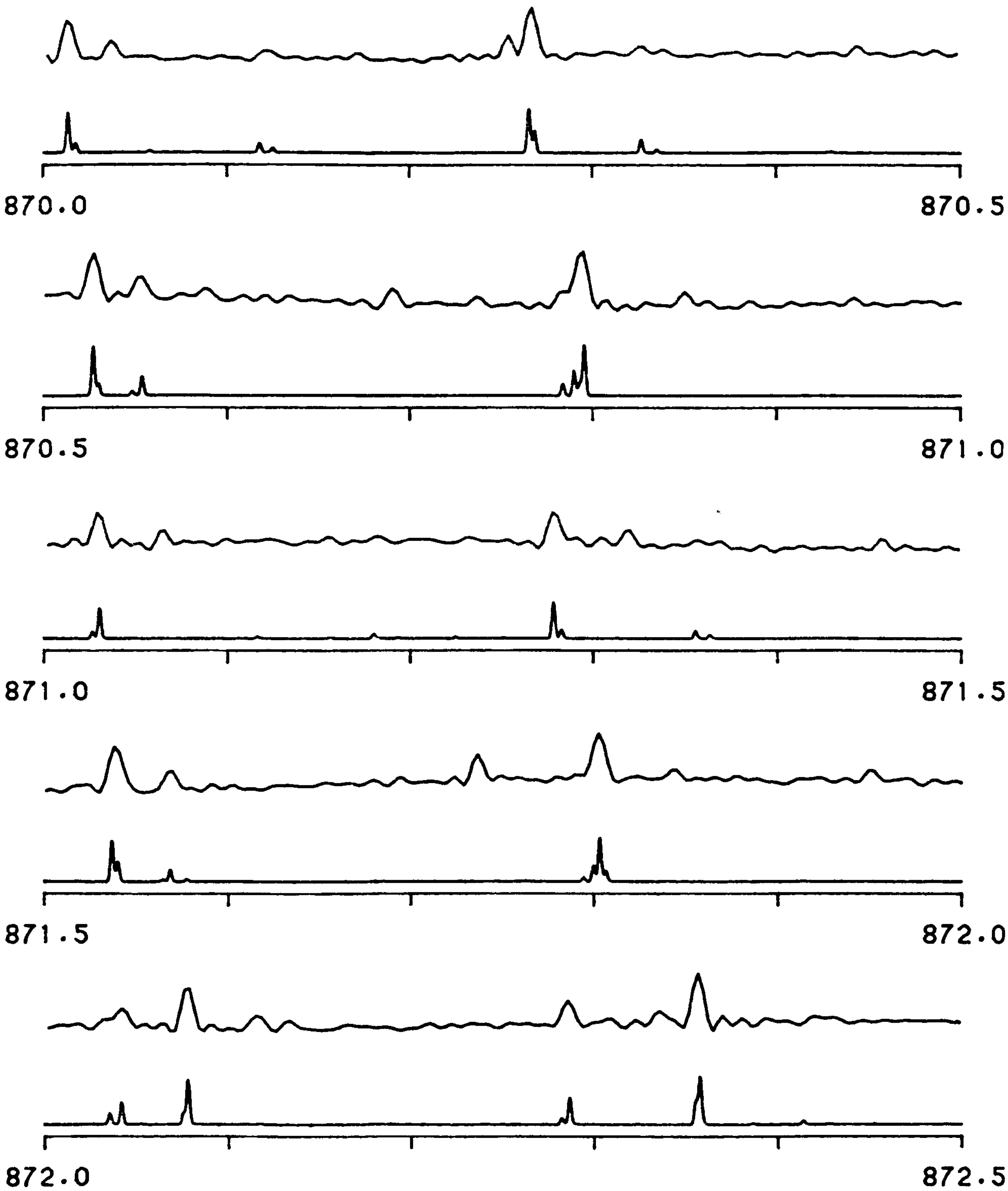
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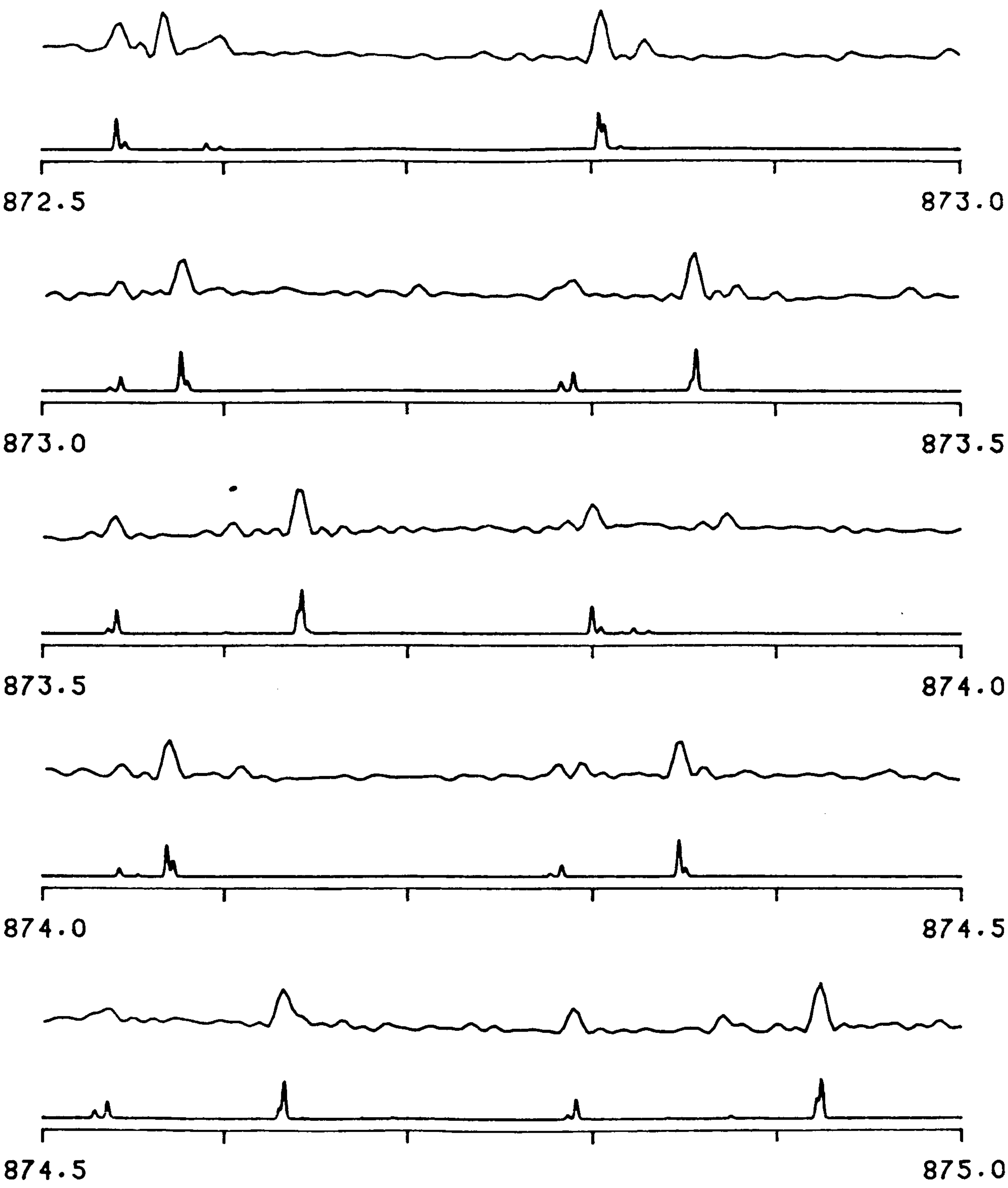
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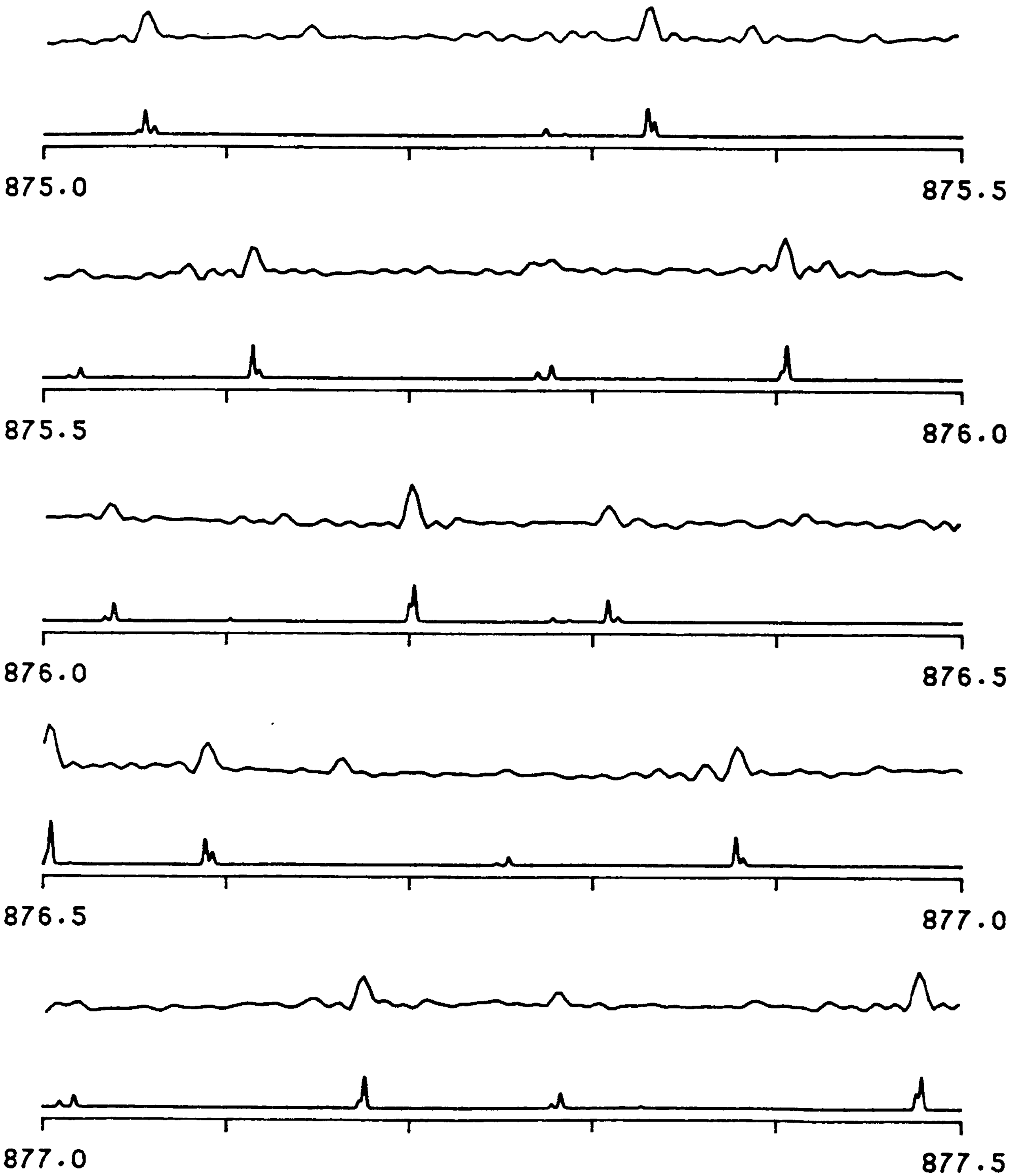
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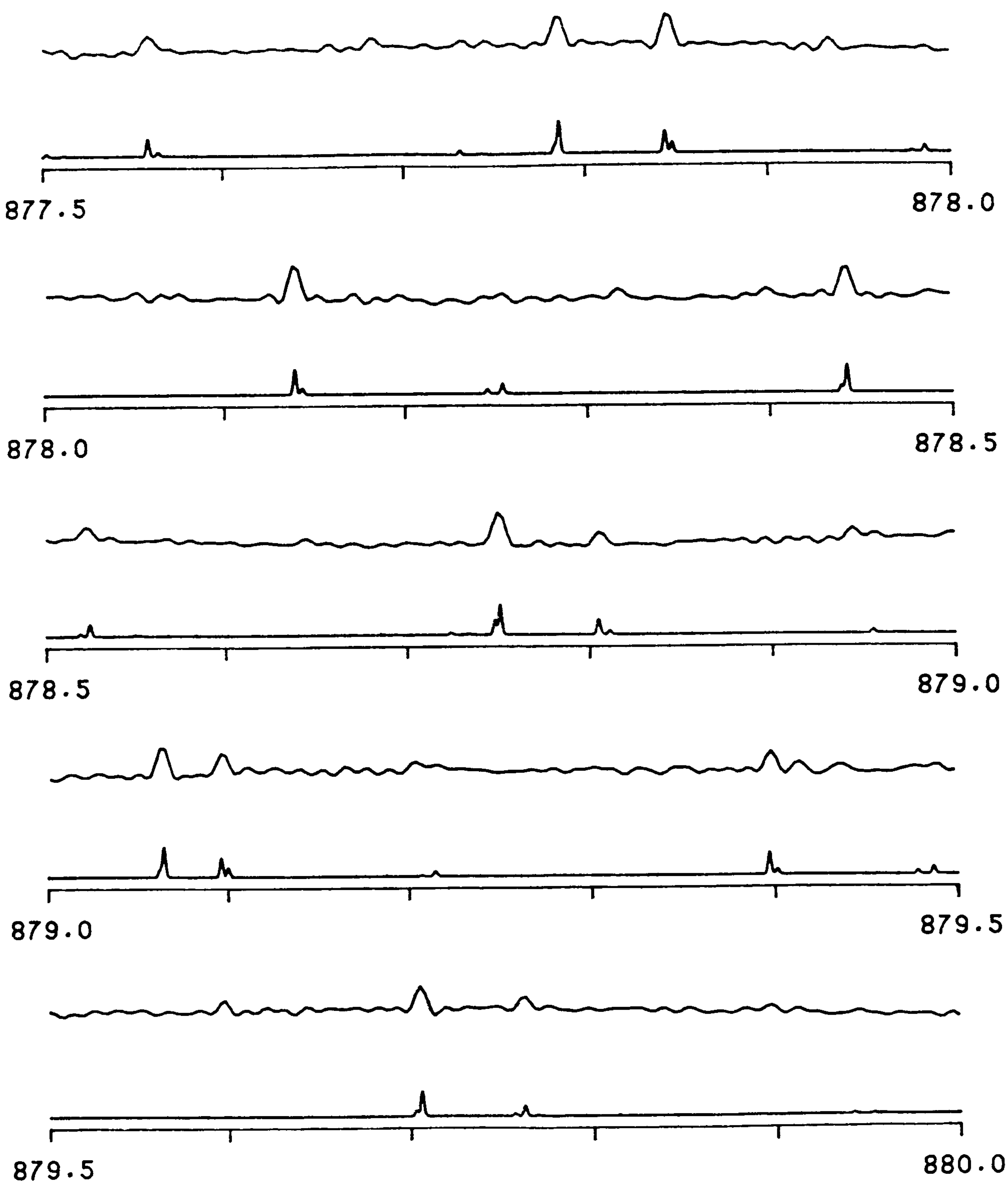
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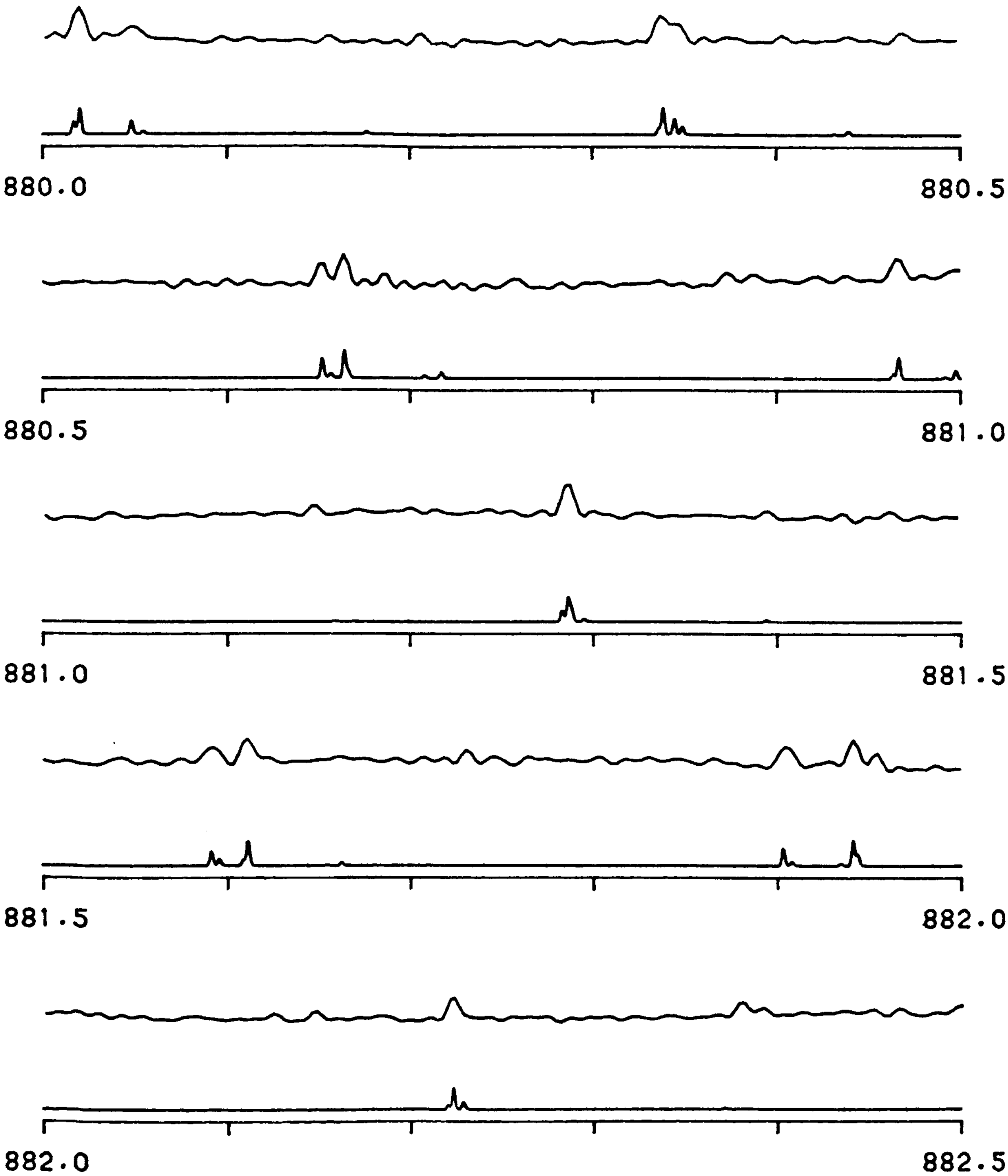
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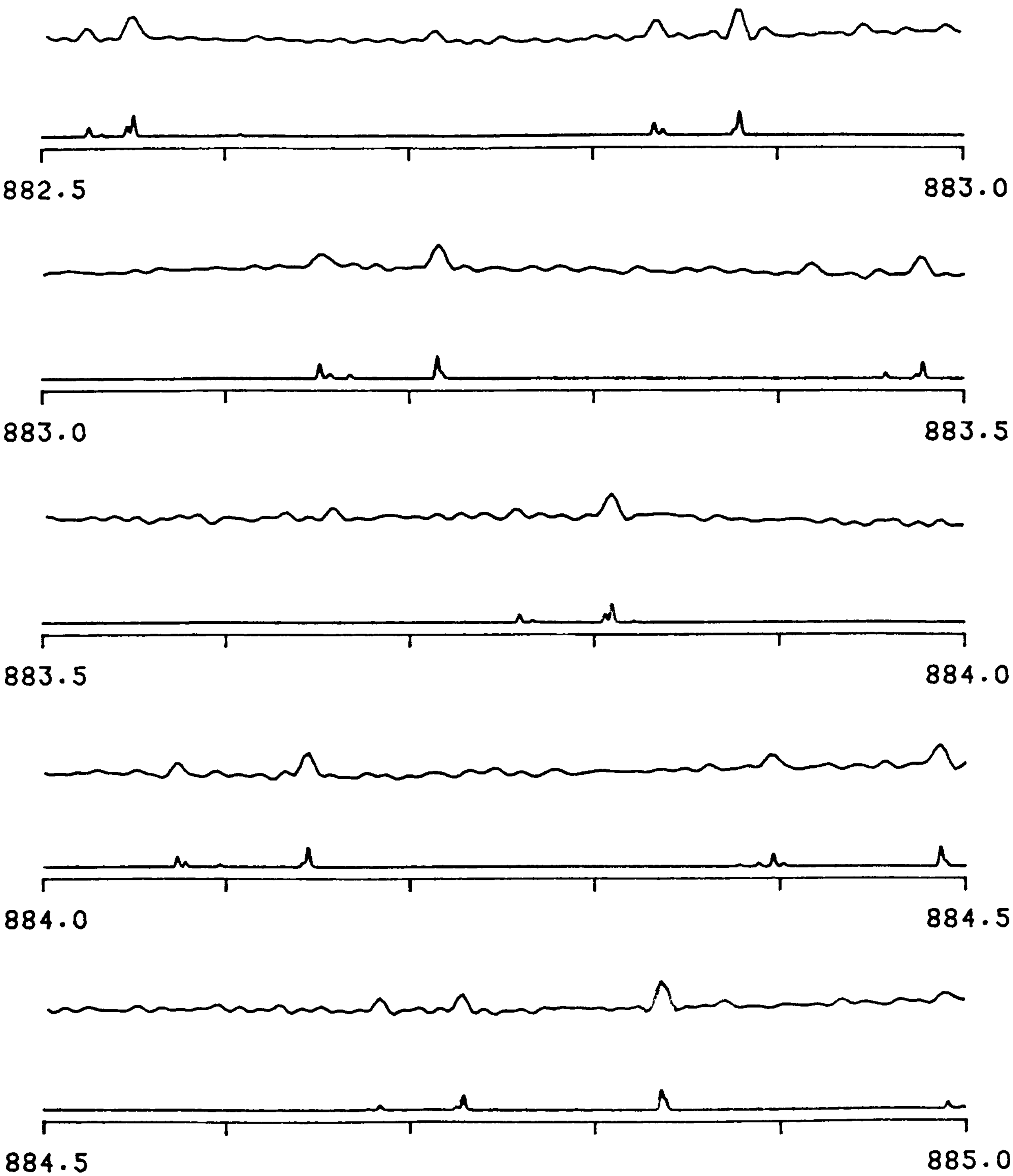
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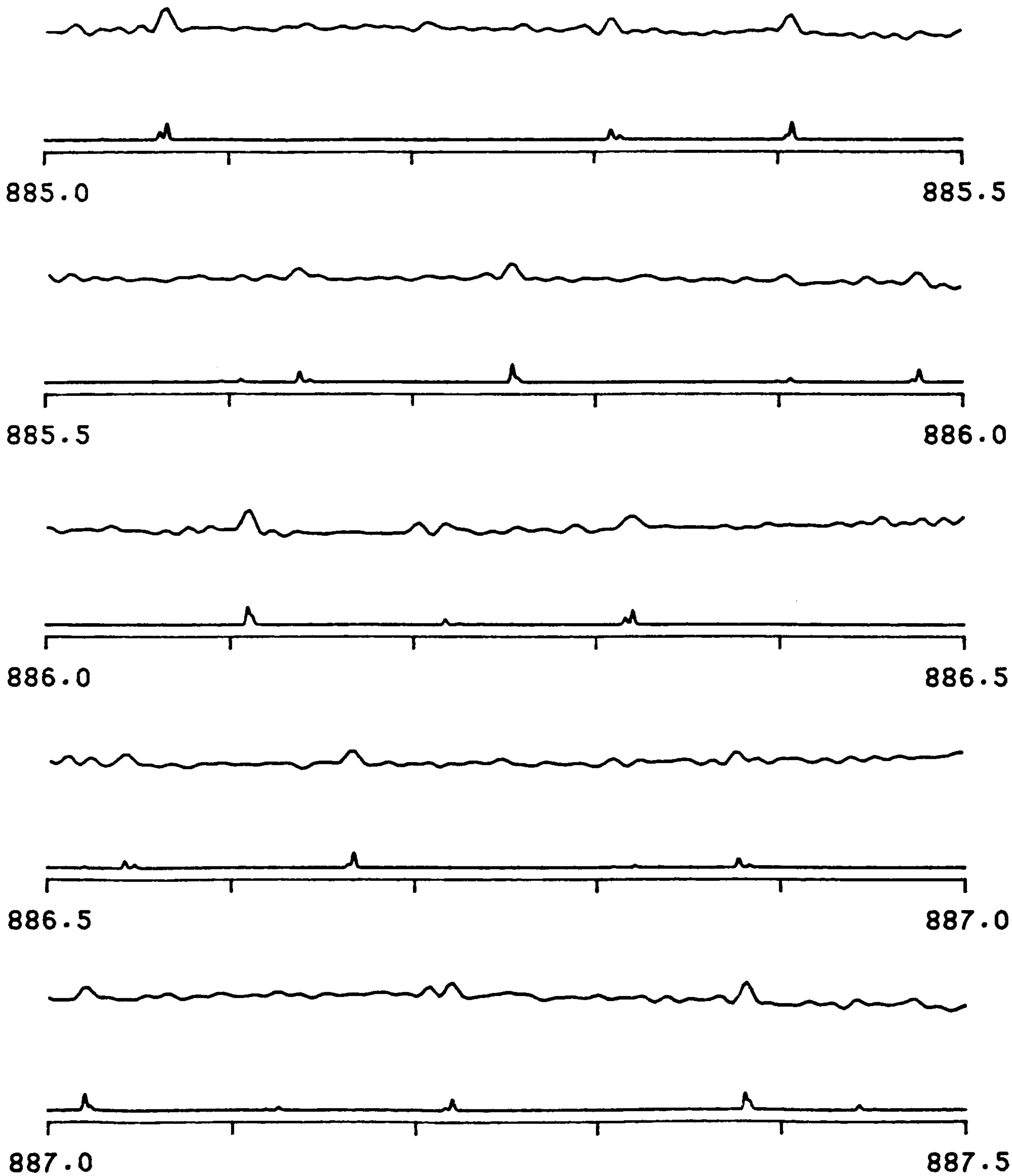
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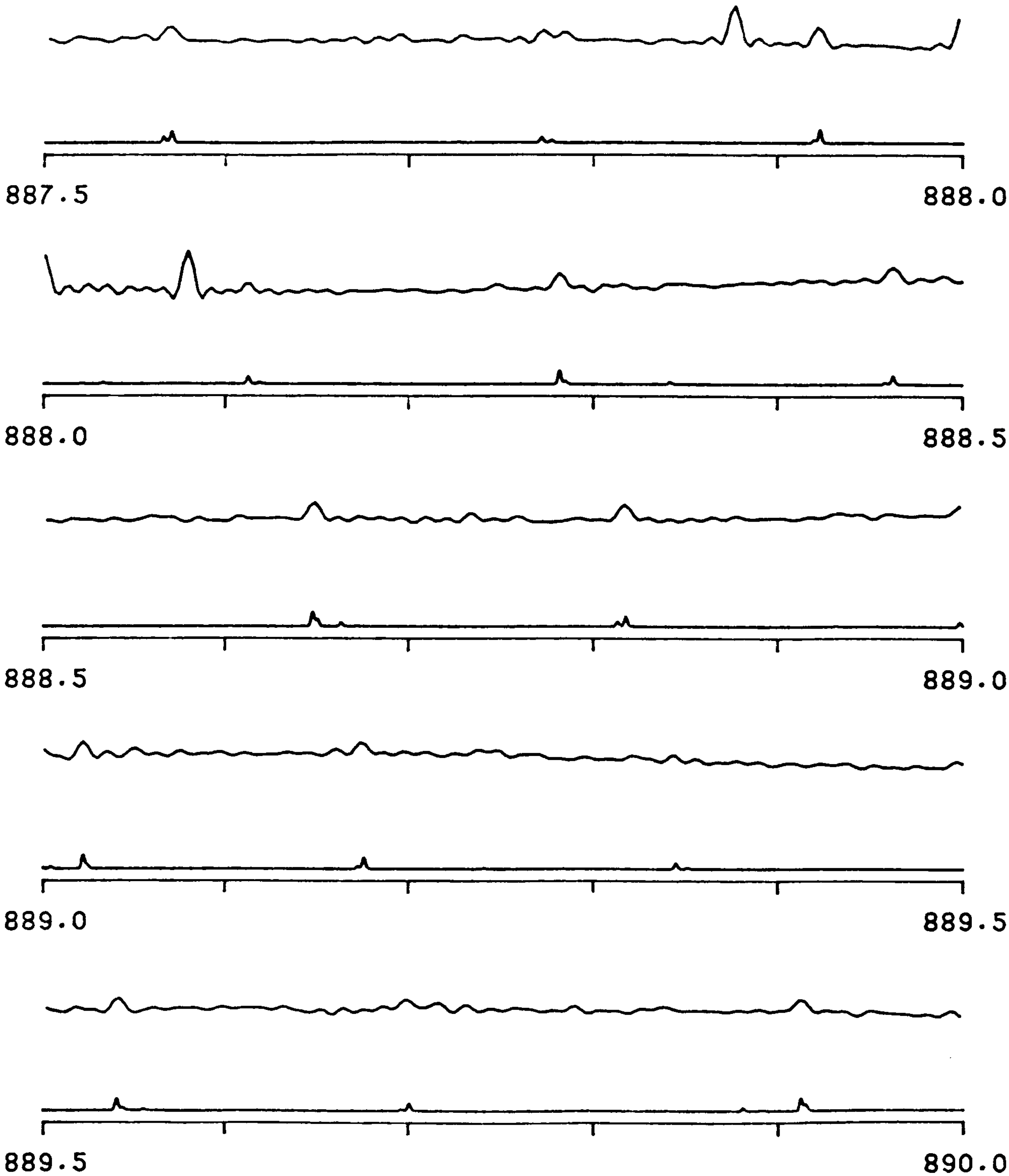
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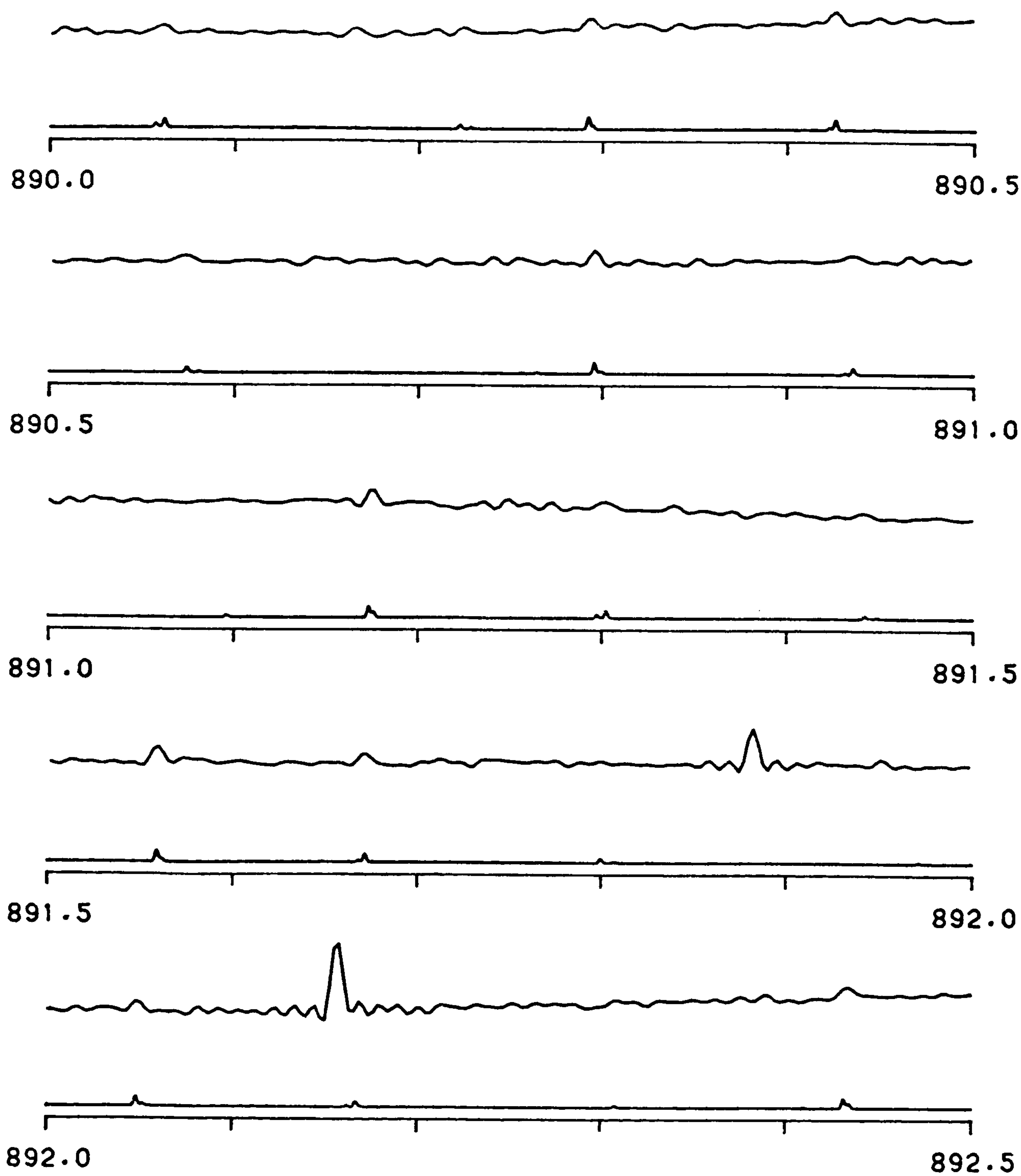
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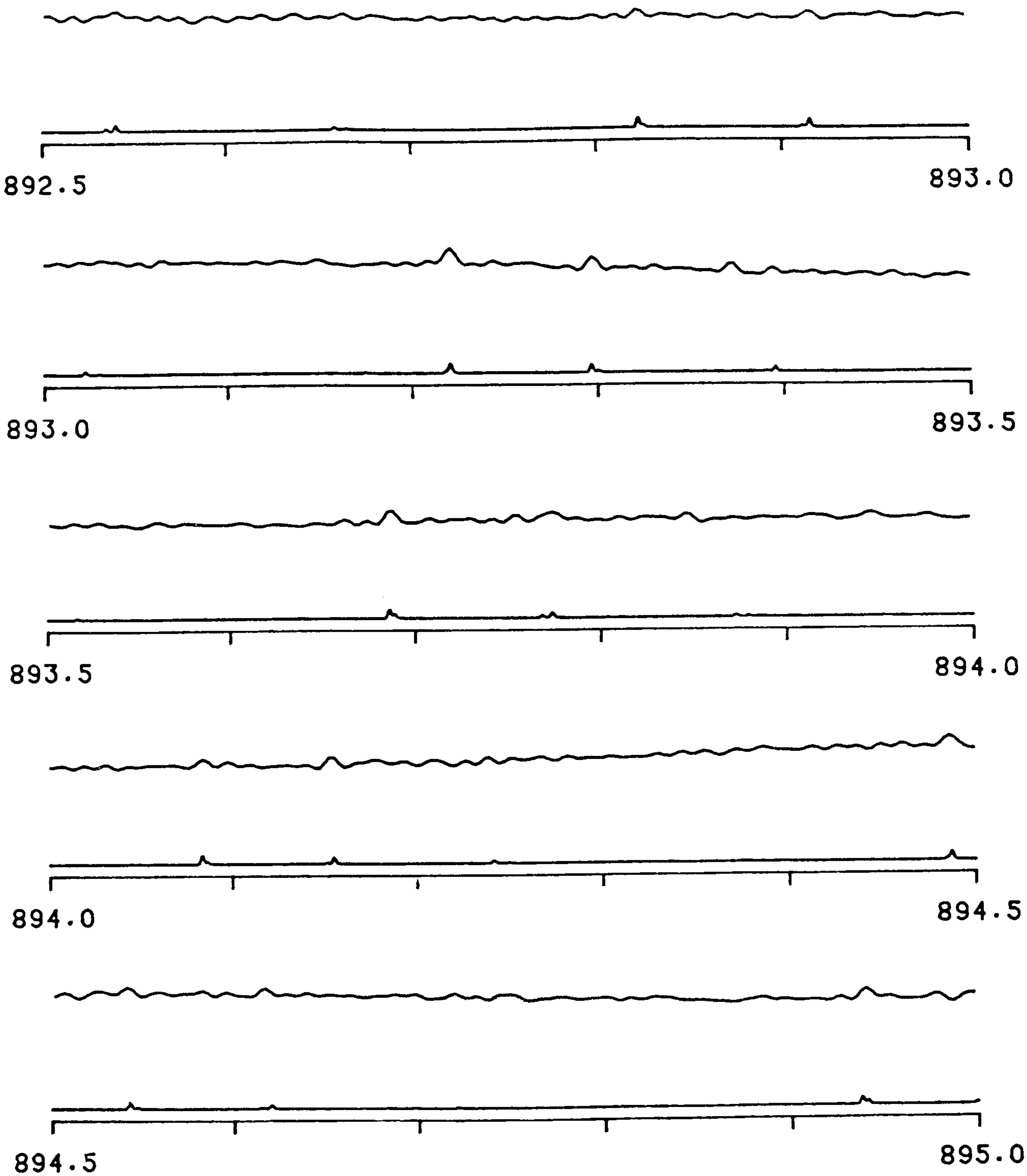
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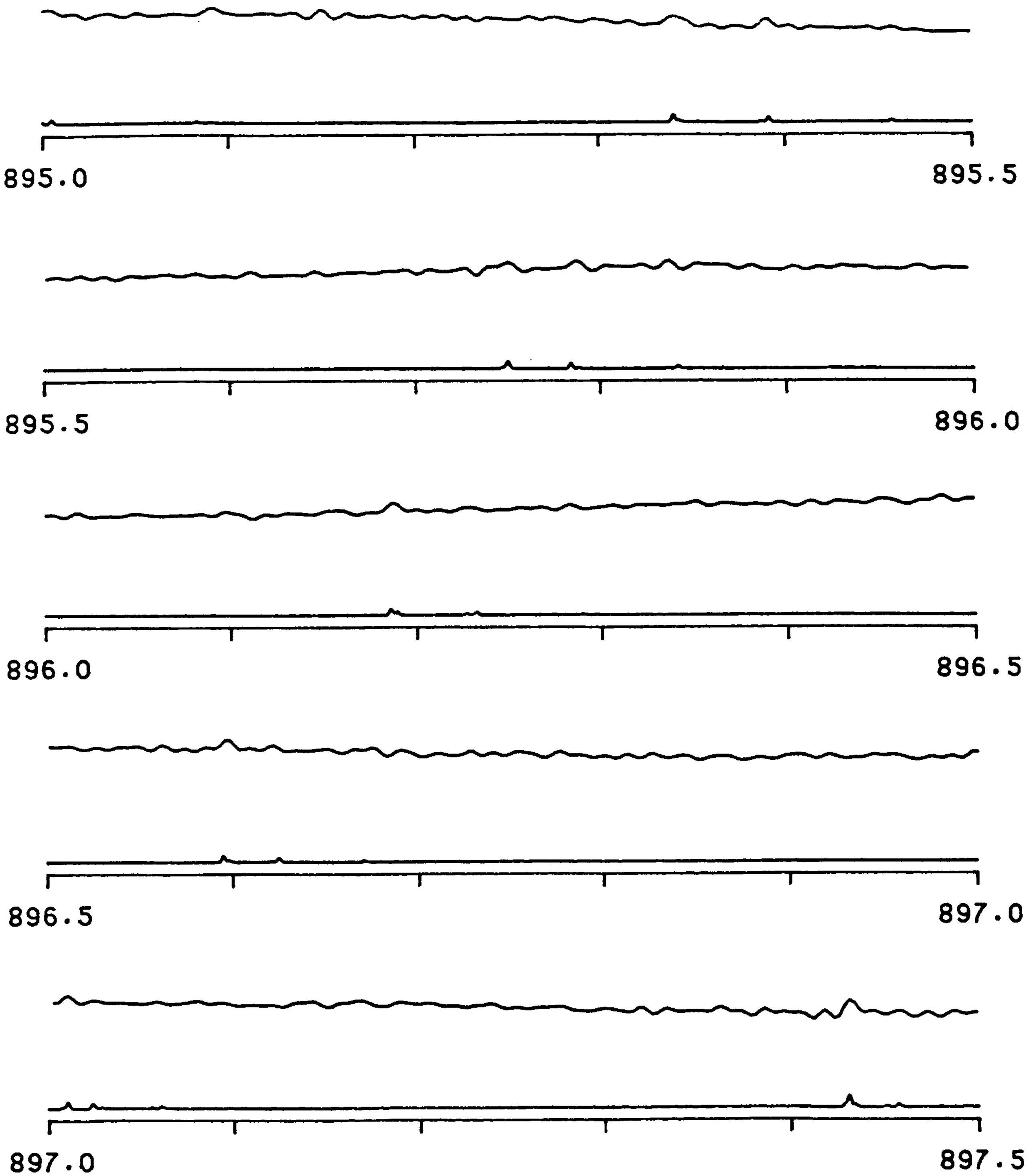
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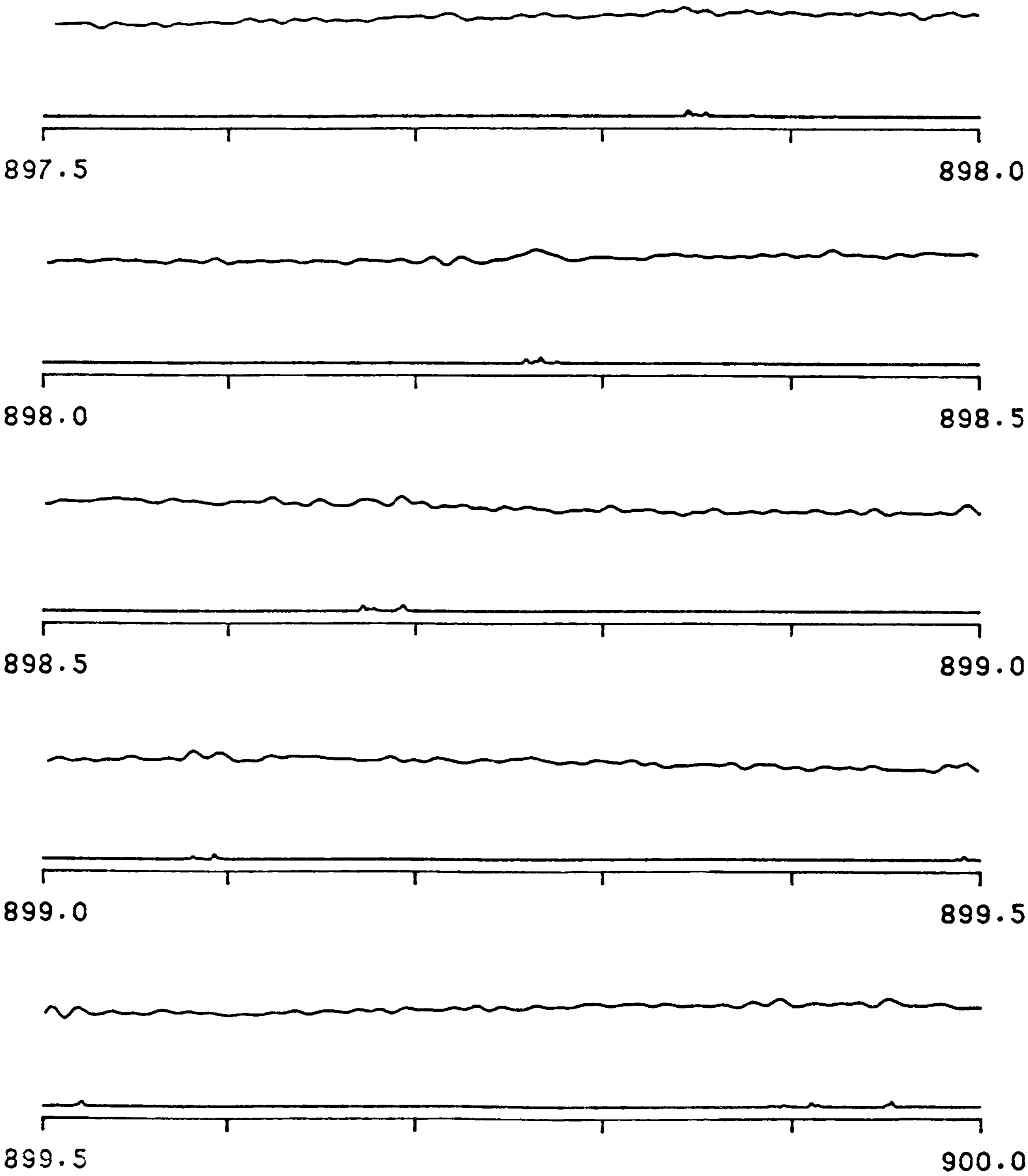
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Table 1

Assignment, calculated transition (cm^{-1}) and calculated relative intensity from 765 cm^{-1} to 900 cm^{-1} for all transitions such that $K < 30$ and $J < 50$. The analysis used transitions $-14 < K\Delta K < +19$ and $J < 41$. Extrapolation beyond the experimental transitions are included since some added verifications have been obtained $-14 < K\Delta K$ and since the calculated transition frequencies are probably better than any other current "guesses".

	K	J	S	WAVE NO	INT
PP	2	38	2	765.02698	0.06184
PP	12	20	2	765.03645	0.24557
PQ	23	32	1	765.04504	0.00096
PP	2	38	0	765.04860	0.01546
PP	12	20	0	765.05508	0.49113
RP	1	44	3	765.08599	0.00116
RP	1	44	1	765.09975	0.00464
PQ	23	35	3	765.10123	0.00016
PQ	23	31	1	765.14233	0.00104
PQ	23	34	3	765.17997	0.00018
PP	8	27	2	765.21955	0.32656
PQ	23	30	1	765.23777	0.00120
PP	8	27	0	765.24100	0.08164
PQ	23	33	3	765.25621	0.00020
PP	3	36	3	765.30531	0.08907
PP	3	36	1	765.31808	0.04453
PQ	23	32	3	765.32997	0.00024
PQ	23	29	1	765.33137	0.00128
PP	13	18	3	765.35846	0.12870
PP	13	18	1	765.36465	0.51480
PQ	23	31	3	765.40134	0.00026
PQ	23	28	1	765.42332	0.00136
PQ	23	30	3	765.47021	0.00030
PP	9	25	3	765.49923	0.39460
PP	9	25	1	765.50958	0.19730
PQ	23	27	1	765.51350	0.00136
PQ	23	29	3	765.53660	0.00032
PP	4	34	2	765.56417	0.12712
PP	4	34	0	765.58553	0.03178
PQ	23	28	3	765.60069	0.00034
PQ	23	26	1	765.60191	0.00136
PQ	23	27	3	765.66238	0.00034
PQ	23	25	1	765.68851	0.00120
PP	14	16	2	765.69279	0.52120
PP	14	16	0	765.70219	0.13030
PQ	23	26	3	765.72166	0.00034
RP	4	49	2	765.73982	0.00152
RP	4	49	0	765.76067	0.00038
PQ	23	24	1	765.77346	0.00096
PQ	23	25	3	765.77856	0.00030
PP	10	23	2	765.79221	0.45848
PP	10	23	0	765.81200	0.11462
PP	5	32	3	765.81317	0.04414
PP	5	32	1	765.82519	0.17656
PQ	23	24	3	765.83324	0.00024
PQ	23	23	1	765.85652	0.00056
PQ	23	23	3	765.88554	0.00014
RP	3	47	3	765.90955	0.00287
RP	3	47	1	765.92311	0.00143
PP	1	39	3	766.05978	0.01420
PQ	22	46	0	766.06165	0.00002
PP	6	30	2	766.07075	0.11843
PP	1	39	1	766.07251	0.05680

	K	J	S	WAVE NO	INT
PP	11	21	3	766.09050	0.12812
PP	6	30	0	766.09158	0.23687
PP	11	21	1	766.09885	0.51248
RP	2	45	2	766.12740	0.00488
RP	2	45	0	766.14823	0.00122
RP	0	40	2	766.17896	0.01140
PQ	22	45	0	766.18075	0.00002
RP	0	40	0	766.18118	0.01900
PQ	22	46	2	766.29639	0.00008
PQ	22	44	0	766.29681	0.00004
PP	7	28	3	766.32945	0.07652
PP	7	28	1	766.34045	0.30608
PP	12	19	2	766.40180	0.27587
PQ	22	45	2	766.40302	0.00008
PQ	22	43	0	766.41002	0.00004
PP	12	19	0	766.41784	0.55173
PP	2	37	2	766.44327	0.07656
RP	1	43	3	766.45864	0.00156
PP	2	37	0	766.46379	0.01914
RP	1	43	1	766.47183	0.00624
PQ	22	44	2	766.50686	0.00016
PQ	22	42	0	766.52027	0.00006
PP	8	26	2	766.60067	0.38040
PQ	22	43	2	766.60809	0.00016
PP	8	26	0	766.62051	0.09510
PQ	22	41	0	766.62767	0.00008
PQ	22	42	2	766.70662	0.00024
PP	3	35	3	766.71165	0.10907
PP	13	17	3	766.71960	0.14326
PP	3	35	1	766.72379	0.05453
PP	13	17	1	766.72488	0.57304
PQ	22	40	0	766.73221	0.00010
PQ	22	41	2	766.80254	0.00032
PQ	22	39	0	766.83398	0.00012
PP	9	24	3	766.87593	0.45453
PP	9	24	1	766.88552	0.22727
PQ	22	40	2	766.89585	0.00040
PQ	22	38	0	766.93299	0.00014
PP	4	33	2	766.96341	0.15400
PP	4	33	0	766.98356	0.03850
PQ	22	39	2	766.98663	0.00048
PQ	22	37	0	767.02912	0.00018
PP	14	15	2	767.04945	0.57576
PP	14	15	0	767.05511	0.14394
PQ	22	38	2	767.07490	0.00056
PQ	22	36	0	767.12247	0.00022
RP	4	48	2	767.14532	0.00200
PQ	22	37	2	767.16054	0.00072
PP	10	22	2	767.16441	0.52232
RP	4	48	0	767.16534	0.00050
PP	10	22	0	767.18227	0.13058
PP	5	31	3	767.20687	0.05286
PQ	22	35	0	767.21314	0.00026

	K	J	S	WAVE NO	INT
PP	5	31	1	767.21823	0.21144
PQ	22	36	2	767.24364	0.00088
PQ	22	34	0	767.30102	0.00030
RP	3	46	3	767.30899	0.00380
RP	3	46	1	767.32202	0.00190
PQ	22	35	2	767.32431	0.00104
PQ	22	33	0	767.38621	0.00034
PQ	22	34	2	767.40244	0.00120
PP	11	20	3	767.45848	0.14446
PP	6	29	2	767.45924	0.14023
PP	11	20	1	767.46603	0.57784
PQ	22	32	0	767.46880	0.00040
PQ	22	33	2	767.47812	0.00136
PP	6	29	0	767.47873	0.28047
PP	1	38	3	767.49300	0.01760
PP	1	38	1	767.50516	0.07040
RP	2	44	2	767.51804	0.00648
RP	2	44	0	767.53796	0.00162
PQ	22	31	0	767.54859	0.00046
PQ	22	32	2	767.55146	0.00160
PQ	22	31	2	767.62225	0.00184
PQ	22	30	0	767.62578	0.00050
RP	0	39	2	767.65446	0.01918
RP	0	39	0	767.65668	0.05753
PQ	22	30	2	767.69068	0.00200
PQ	22	29	0	767.70036	0.00056
PP	7	27	3	767.71332	0.08956
PP	7	27	1	767.72363	0.35824
PQ	22	29	2	767.75676	0.00224
PP	12	18	2	767.76530	0.30807
PQ	22	28	0	767.77222	0.00060
PP	12	18	0	767.77892	0.61613
PQ	22	28	2	767.82037	0.00240
RP	1	42	3	767.83202	0.00210
PQ	22	27	0	767.84156	0.00062
RP	1	42	1	767.84466	0.00840
PP	2	36	2	767.85679	0.09400
PP	2	36	0	767.87626	0.02350
PQ	22	27	2	767.88174	0.00248
PQ	22	26	0	767.90828	0.00064
PQ	22	26	2	767.94073	0.00256
PQ	22	25	0	767.97237	0.00062
PP	8	25	2	767.97974	0.44016
PQ	22	25	2	767.99736	0.00248
PP	8	25	0	767.99802	0.11004
PQ	22	24	0	768.03394	0.00054
PQ	22	24	2	768.05172	0.00216
PP	13	16	3	768.07889	0.15864
PP	13	16	1	768.08332	0.63456
PQ	22	23	0	768.09296	0.00044
PQ	22	23	2	768.10381	0.00176
PP	3	34	3	768.11563	0.13267
PP	3	34	1	768.12717	0.06633

	K	J	S	WAVE NO	INT
PQ	22	22	0	768.14944	0.00026
PQ	22	22	2	768.15362	0.00104
PP	9	23	3	768.25067	0.52007
PQ	21	48	3	768.25669	0.00007
PQ	16	48	0	768.25821	0.00012
PP	9	23	1	768.25953	0.26003
PP	4	32	2	768.36049	0.18528
PQ	21	47	3	768.37159	0.00013
PP	4	32	0	768.37948	0.04632
PP	14	14	2	768.40416	0.63320
PP	14	14	0	768.40638	0.15830
RP	5	49	3	768.40755	0.00034
RP	5	49	1	768.42040	0.00136
PQ	21	46	3	768.48370	0.00013
PP	10	21	2	768.53466	0.59136
RP	4	47	2	768.55025	0.00272
PP	10	21	0	768.55070	0.14784
RP	4	47	0	768.56946	0.00068
PQ	21	45	3	768.59303	0.00020
PP	5	30	3	768.59850	0.06288
PP	5	30	1	768.60924	0.25152
PQ	21	44	3	768.69956	0.00020
RP	3	45	3	768.70815	0.00507
RP	3	45	1	768.72068	0.00253
PQ	21	43	3	768.80341	0.00027
PP	11	19	3	768.82441	0.16190
PP	11	19	1	768.83119	0.64760
PP	6	28	2	768.84569	0.16490
PP	6	28	0	768.86387	0.32980
PQ	21	42	3	768.90447	0.00040
RP	2	43	2	768.90862	0.00864
PP	1	37	3	768.92265	0.02166
RP	2	43	0	768.92767	0.00216
PP	1	37	1	768.93426	0.08664
PQ	21	41	3	769.00284	0.00047
PP	7	26	3	769.09512	0.10410
PQ	21	40	3	769.09860	0.00060
PP	7	26	1	769.10477	0.41640
RP	0	38	2	769.12666	0.01804
PP	12	17	2	769.12675	0.34210
RP	0	38	0	769.12888	0.03006
PP	12	17	0	769.13809	0.68420
PQ	21	39	3	769.19157	0.00073
RP	1	41	3	769.20592	0.00278
RP	1	41	1	769.21804	0.01112
PP	2	35	2	769.26765	0.11472
PQ	21	38	3	769.28204	0.00093
PP	2	35	0	769.28609	0.02868
PP	8	24	2	769.35695	0.50592
PQ	21	37	3	769.36982	0.00113
PP	8	24	0	769.37376	0.12648
PP	13	15	3	769.43612	0.17480
PP	13	15	1	769.43976	0.69920

	K	J	S	WAVE NO	INT
PQ	21	36	3	769.45509	0.00133
PP	3	33	3	769.51733	0.16020
PP	3	33	1	769.52830	0.08010
PQ	21	35	3	769.53775	0.00160
PQ	21	34	3	769.61781	0.00193
PP	9	22	3	769.62354	0.59127
PP	9	22	1	769.63172	0.29563
PQ	21	33	3	769.69536	0.00227
PP	4	31	2	769.75551	0.22136
PQ	21	32	3	769.77050	0.00260
PP	4	31	0	769.77337	0.05534
RP	5	48	3	769.81670	0.00046
RP	5	48	1	769.82909	0.00184
PQ	21	31	3	769.84313	0.00300
PQ	21	40	1	769.86521	0.00030
PQ	21	39	1	769.86816	0.00037
PQ	21	41	1	769.87312	0.00023
PQ	21	38	1	769.87987	0.00047
PQ	21	42	1	769.89529	0.00020
PQ	21	37	1	769.89823	0.00057
PP	10	20	2	769.90285	0.66528
PQ	21	30	3	769.91325	0.00340
PP	10	20	0	769.91718	0.16632
PQ	21	36	1	769.92197	0.00067
PQ	21	43	1	769.93583	0.00013
PQ	21	35	1	769.94980	0.00080
RP	4	46	2	769.95472	0.00368
RP	4	46	0	769.97313	0.00092
PQ	21	34	1	769.98075	0.00097
PQ	21	29	3	769.98087	0.00373
PP	5	29	3	769.98817	0.07428
PP	5	29	1	769.99831	0.29712
PQ	21	44	1	770.00045	0.00010
PQ	21	33	1	770.01414	0.00113
PQ	21	28	3	770.04616	0.00407
PQ	21	32	1	770.04942	0.00130
PQ	20	49	0	770.07245	0.00002
PQ	21	31	1	770.08596	0.00150
PQ	21	45	1	770.09734	0.00010
RP	3	44	3	770.10694	0.00673
PQ	21	27	3	770.10894	0.00433
RP	3	44	1	770.11897	0.00337
PQ	21	30	1	770.12329	0.00170
PQ	21	29	1	770.16104	0.00187
PQ	21	26	3	770.16941	0.00453
PP	11	18	3	770.18848	0.18038
PP	11	18	1	770.19455	0.72152
PQ	21	28	1	770.19909	0.00203
PQ	20	48	0	770.20311	0.00002
PQ	21	25	3	770.22746	0.00453
PP	6	27	2	770.23016	0.19257
PQ	21	27	1	770.23695	0.00217
PQ	21	46	1	770.23814	0.00007

	K	J	S	WAVE NO	INT
PP	6	27	0	770.24711	0.38513
PQ	21	26	1	770.27457	0.00227
PQ	21	24	3	770.28319	0.00433
RP	2	42	2	770.29901	0.01128
PQ	21	25	1	770.31168	0.00227
RP	2	42	0	770.31722	0.00282
PQ	20	47	0	770.33100	0.00004
PQ	21	23	3	770.33660	0.00393
PQ	21	24	1	770.34816	0.00217
PP	1	36	3	770.34883	0.02646
PP	1	36	1	770.35991	0.10584
PQ	21	23	1	770.38388	0.00197
PQ	21	22	3	770.38760	0.00307
PQ	20	49	2	770.40406	0.00008
PQ	21	22	1	770.41859	0.00153
PQ	21	21	3	770.43627	0.00180
PQ	21	47	1	770.44049	0.00007
PQ	21	21	1	770.45229	0.00090
PQ	20	46	0	770.45580	0.00006
PP	7	25	3	770.47495	0.12020
PP	7	25	1	770.48398	0.48080
PP	12	16	2	770.48624	0.37787
PP	12	16	0	770.49548	0.75573
PQ	20	48	2	770.52098	0.00008
PQ	20	45	0	770.57780	0.00006
RP	1	40	3	770.58045	0.00366
RP	1	40	1	770.59206	0.01464
RP	0	37	2	770.59556	0.02990
RP	0	37	0	770.59778	0.08970
PQ	20	47	2	770.63527	0.00016
PP	2	34	2	770.67584	0.13896
PP	2	34	0	770.69331	0.03474
PQ	20	44	0	770.69692	0.00008
PP	8	23	2	770.73211	0.57760
PQ	21	48	1	770.73214	0.00003
PQ	20	46	2	770.74661	0.00024
PP	8	23	0	770.74751	0.14440
PP	13	14	3	770.79130	0.19170
PP	13	14	1	770.79420	0.76680
PQ	20	43	0	770.81323	0.00012
PQ	20	45	2	770.85531	0.00024
PP	3	32	3	770.91667	0.19220
PQ	20	42	0	770.92663	0.00014
PP	3	32	1	770.92708	0.09610
PQ	20	44	2	770.96126	0.00032
PP	9	21	3	770.99436	0.66780
PP	9	21	1	771.00188	0.33390
PQ	20	41	0	771.03722	0.00018
PQ	20	43	2	771.06455	0.00048
RP	6	49	2	771.11293	0.00060
RP	6	49	0	771.13075	0.00120
PQ	20	40	0	771.14508	0.00022
PP	4	30	2	771.14836	0.26264

	K	J	S	WAVE NO	INT
PQ	20	42	2	771.16510	0.00056
PP	4	30	0	771.16515	0.06566
RP	5	47	3	771.22518	0.00062
RP	5	47	1	771.23710	0.00248
PQ	20	39	0	771.25011	0.00028
PQ	20	41	2	771.26298	0.00072
PP	10	19	2	771.26920	0.74376
PP	10	19	0	771.28189	0.18594
PQ	20	38	0	771.35230	0.00036
PQ	20	40	2	771.35830	0.00088
RP	4	45	2	771.35851	0.00480
PP	5	28	3	771.37567	0.08716
RP	4	45	0	771.37615	0.00120
PP	5	28	1	771.38522	0.34864
PQ	20	39	2	771.45096	0.00112
PQ	20	37	0	771.45185	0.00044
RP	3	43	3	771.50526	0.00880
RP	3	43	1	771.51682	0.00440
PQ	20	38	2	771.54095	0.00144
PQ	20	36	0	771.54865	0.00052
PP	11	17	3	771.55049	0.19980
PP	11	17	1	771.55589	0.79920
PP	6	26	2	771.61269	0.22337
PP	6	26	0	771.62844	0.44673
PQ	20	37	2	771.62846	0.00176
PQ	20	35	0	771.64268	0.00064
RP	2	41	2	771.68925	0.01464
RP	2	41	0	771.70663	0.00366
PQ	20	36	2	771.71341	0.00208
PQ	20	34	0	771.73394	0.00076
PP	1	35	3	771.77155	0.03210
PP	1	35	1	771.78210	0.12840
PQ	20	35	2	771.79578	0.00256
PQ	20	33	0	771.82262	0.00088
PP	12	15	2	771.84370	0.41523
PP	12	15	0	771.85097	0.83047
PP	7	24	3	771.85292	0.13784
PP	7	24	1	771.86134	0.55136
PQ	20	34	2	771.87556	0.00304
PQ	20	32	0	771.90862	0.00104
PQ	16	49	0	771.90899	0.00010
PQ	20	33	2	771.95298	0.00352
RP	1	39	3	771.95531	0.00478
RP	1	39	1	771.96642	0.01912
PQ	20	31	0	771.99181	0.00120
PQ	20	32	2	772.02791	0.00416
RP	0	36	2	772.06106	0.02771
RP	0	36	0	772.06328	0.04619
PQ	20	30	0	772.07240	0.00136
PP	2	33	2	772.08138	0.16712
PP	2	33	0	772.09789	0.04178
PQ	20	31	2	772.10025	0.00480
PP	8	22	2	772.10540	0.65512

	K	J	S	WAVE NO	INT
PP	8	22	0	772.11948	0.16378
PP	13	13	3	772.14452	0.20938
PP	13	13	1	772.14674	0.83752
PQ	20	29	0	772.15037	0.00152
PQ	20	30	2	772.17020	0.00544
PQ	20	28	0	772.22571	0.00168
PQ	20	29	2	772.23778	0.00608
PQ	20	27	0	772.29832	0.00182
PQ	20	28	2	772.30296	0.00672
PP	3	31	3	772.31374	0.22893
PP	3	31	1	772.32362	0.11447
PP	9	20	3	772.36322	0.74947
PQ	20	27	2	772.36565	0.00728
PQ	20	26	0	772.36838	0.00192
PP	9	20	1	772.37012	0.37473
PQ	20	26	2	772.42604	0.00768
PQ	20	25	0	772.43568	0.00200
PQ	20	25	2	772.48394	0.00800
PQ	20	24	0	772.50053	0.00198
RP	6	48	2	772.52462	0.00080
PP	4	29	2	772.53895	0.30944
PQ	20	24	2	772.53964	0.00792
RP	6	48	0	772.54173	0.00160
PP	4	29	0	772.55471	0.07736
PQ	20	23	0	772.56268	0.00190
PQ	20	23	2	772.59294	0.00760
PQ	20	22	0	772.62216	0.00168
RP	5	46	3	772.63299	0.00082
PP	10	18	2	772.63349	0.82656
PQ	19	49	3	772.63350	0.00004
PQ	20	22	2	772.64385	0.00672
RP	5	46	1	772.64445	0.00328
PP	10	18	0	772.64465	0.20664
PQ	20	21	0	772.67915	0.00132
PQ	20	21	2	772.69256	0.00528
PQ	20	20	0	772.73342	0.00078
PQ	20	20	2	772.73886	0.00312
PQ	19	48	3	772.75272	0.00004
PP	5	27	3	772.76111	0.10154
RP	4	44	2	772.76163	0.00632
PP	5	27	1	772.77010	0.40616
RP	4	44	0	772.77853	0.00158
PQ	19	47	3	772.86903	0.00006
RP	3	42	3	772.90301	0.01147
PP	11	16	3	772.91045	0.22008
RP	3	42	1	772.91410	0.00573
PP	11	16	1	772.91520	0.88032
PQ	19	46	3	772.98254	0.00008
PQ	19	49	1	772.99236	0.00016
PP	6	25	2	772.99304	0.25727
PP	6	25	0	773.00767	0.51453
RP	2	40	2	773.07922	0.01896
PQ	19	48	1	773.08678	0.00016

	K	J	S	WAVE NO	INT
PQ	19	45	3	773.09324	0.00010
RP	2	40	0	773.09580	0.00474
PQ	19	47	1	773.17989	0.00024
PP	1	34	3	773.19079	0.03864
PP	12	14	2	773.19920	0.45407
PP	1	34	1	773.20085	0.15456
PQ	19	44	3	773.20114	0.00014
PP	12	14	0	773.20464	0.90813
PP	7	23	3	773.22873	0.15700
PP	7	23	1	773.23658	0.62800
PQ	19	46	1	773.27167	0.00032
PQ	19	43	3	773.30633	0.00016
RP	1	38	3	773.33061	0.00620
RP	1	38	1	773.34124	0.02480
PQ	19	45	1	773.36198	0.00040
PQ	19	42	3	773.40871	0.00022
PQ	19	44	1	773.45075	0.00056
PP	8	21	2	773.47654	0.73808
PP	2	32	2	773.48434	0.19968
PP	8	21	0	773.48936	0.18452
PP	2	32	0	773.49994	0.04992
PQ	19	41	3	773.50837	0.00028
RP	0	35	2	773.52326	0.04535
RP	0	35	0	773.52547	0.13605
PQ	19	43	1	773.53796	0.00064
PQ	19	40	3	773.60542	0.00034
PQ	19	42	1	773.62343	0.00088
PQ	19	39	3	773.69975	0.00044
PQ	19	41	1	773.70718	0.00112
PP	3	30	3	773.70855	0.27073
PP	3	30	1	773.71790	0.13537
PP	9	19	3	773.73011	0.83580
PP	9	19	1	773.73642	0.41790
PQ	19	40	1	773.78924	0.00136
PQ	19	38	3	773.79147	0.00054
RP	7	49	3	773.83814	0.00026
RP	7	49	1	773.84951	0.00104
PQ	19	39	1	773.86944	0.00176
PQ	19	37	3	773.88058	0.00066
PP	4	28	2	773.92747	0.36200
RP	6	47	2	773.93553	0.00110
PP	4	28	0	773.94225	0.09050
PQ	19	38	1	773.94783	0.00216
RP	6	47	0	773.95197	0.00220
PQ	19	36	3	773.96706	0.00080
PP	10	17	2	773.99583	0.91304
PP	10	17	0	774.00555	0.22826
PQ	19	37	1	774.02435	0.00264
RP	5	45	3	774.04012	0.00108
PQ	19	35	3	774.05093	0.00096
RP	5	45	1	774.05116	0.00432
PQ	19	36	1	774.09897	0.00320
PQ	19	34	3	774.13228	0.00116

	K	J	S	WAVE NO	INT
PP	5	26	3	774.14448	0.11746
PP	5	26	1	774.15294	0.46984
RP	4	43	2	774.16409	0.00824
PQ	19	35	1	774.17162	0.00384
RP	4	43	0	774.18026	0.00206
PQ	19	33	3	774.21110	0.00136
PQ	19	34	1	774.24236	0.00464
PP	11	15	3	774.26844	0.24112
PP	11	15	1	774.27261	0.96448
PQ	19	32	3	774.28740	0.00160
RP	3	41	3	774.30019	0.01480
RP	3	41	1	774.31082	0.00740
PQ	19	33	1	774.31117	0.00544
PQ	19	31	3	774.36108	0.00186
PP	6	24	2	774.37144	0.29430
PQ	19	32	1	774.37801	0.00640
PP	6	24	0	774.38498	0.58860
PQ	18	49	0	774.38535	0.00020
PQ	19	30	3	774.43243	0.00212
PQ	19	31	1	774.44274	0.00744
RP	2	39	2	774.46891	0.02424
RP	2	39	0	774.48473	0.00606
PQ	19	29	3	774.50115	0.00240
PQ	19	30	1	774.50564	0.00848
PQ	18	48	0	774.51949	0.00027
PP	12	13	2	774.55266	0.49437
PP	12	13	0	774.55642	0.98873
PQ	19	29	1	774.56638	0.00960
PQ	19	28	3	774.56755	0.00268
PP	7	22	3	774.60258	0.17762
PP	1	33	3	774.60667	0.04620
PP	7	22	1	774.60988	0.71048
PP	1	33	1	774.61624	0.18480
PQ	19	28	1	774.62523	0.01072
PQ	19	27	3	774.63142	0.00294
PQ	18	47	0	774.65089	0.00033
PQ	19	27	1	774.68197	0.01176
PQ	19	26	3	774.69286	0.00316
RP	1	37	3	774.70623	0.00798
RP	1	37	1	774.71639	0.03192
PQ	19	26	1	774.73667	0.01264
PQ	19	25	3	774.75198	0.00332
PQ	18	46	0	774.77968	0.00047
PQ	19	25	1	774.78943	0.01328
PQ	19	24	3	774.80857	0.00342
PQ	19	24	1	774.84002	0.01368
PP	8	20	2	774.84583	0.82616
PP	8	20	0	774.85744	0.20654
PQ	19	23	3	774.86292	0.00340
PP	2	31	2	774.88474	0.23680
PQ	19	23	1	774.88873	0.01360
PP	2	31	0	774.89946	0.05920
PQ	18	45	0	774.90594	0.00060

	K	J	S	WAVE NO	INT
PQ	19	22	3	774.91485	0.00322
PQ	18	49	2	774.93044	0.00010
PQ	19	22	1	774.93533	0.01288
PQ	19	21	3	774.96444	0.00284
PQ	19	21	1	774.97991	0.01136
RP	0	34	2	774.98206	0.04144
RP	0	34	0	774.98428	0.06906
PQ	19	20	3	775.01160	0.00222
PQ	19	20	1	775.02236	0.00888
PQ	18	44	0	775.02949	0.00080
PQ	18	48	2	775.04926	0.00013
PQ	19	19	3	775.05653	0.00130
PQ	19	19	1	775.06288	0.00520
PP	9	18	3	775.09494	0.92620
PP	9	18	1	775.10070	0.46310
PP	3	29	3	775.10098	0.31793
PP	3	29	1	775.10984	0.15897
PQ	18	43	0	775.15052	0.00100
PQ	18	47	2	775.16521	0.00017
RP	7	48	3	775.25196	0.00034
RP	7	48	1	775.26292	0.00136
PQ	18	42	0	775.26904	0.00127
PQ	18	46	2	775.27838	0.00023
PP	4	27	2	775.31384	0.42056
PP	4	27	0	775.32766	0.10514
RP	6	46	2	775.34567	0.00143
PP	10	16	2	775.35621	1.00272
RP	6	46	0	775.36144	0.00287
PP	10	16	0	775.36460	0.25068
PQ	18	41	0	775.38503	0.00160
PQ	18	45	2	775.38888	0.00030
RP	5	44	3	775.44638	0.00142
RP	5	44	1	775.45699	0.00568
PQ	18	44	2	775.49649	0.00040
PQ	18	40	0	775.49850	0.00207
PP	5	25	3	775.52578	0.13494
PP	5	25	1	775.53373	0.53976
RP	4	42	2	775.56587	0.01072
RP	4	42	0	775.58134	0.00268
PQ	18	43	2	775.60142	0.00050
PQ	18	39	0	775.60956	0.00253
PP	11	14	3	775.62447	0.26286
PP	11	14	1	775.62809	1.05144
RP	3	40	3	775.69669	0.01893
PQ	18	42	2	775.70365	0.00063
RP	3	40	1	775.70689	0.00947
PQ	18	38	0	775.71809	0.00320
PP	6	23	2	775.74788	0.33433
PP	6	23	0	775.76039	0.66867
PQ	18	41	2	775.80321	0.00080
PQ	18	37	0	775.82418	0.00393
RP	2	38	2	775.85814	0.03080
RP	2	38	0	775.87321	0.00770

	K	J	S	WAVE NO	INT
PQ	18	40	2	775.90006	0.00103
PP	12	12	2	775.90416	0.53620
PP	12	12	0	775.90638	1.07240
PQ	18	36	0	775.92783	0.00480
PP	7	21	3	775.97446	0.19960
PP	7	21	1	775.98124	0.79840
PQ	18	39	2	775.99433	0.00127
PP	1	32	3	776.01917	0.05480
PP	1	32	1	776.02828	0.21920
PQ	18	35	0	776.02914	0.00580
RP	1	36	3	776.08208	0.01016
PQ	18	38	2	776.08590	0.00160
RP	1	36	1	776.09179	0.04064
PQ	18	34	0	776.12800	0.00693
PQ	18	37	2	776.17487	0.00197
PP	8	19	2	776.21305	0.91872
PP	8	19	0	776.22354	0.22968
PQ	18	33	0	776.22448	0.00820
PQ	18	36	2	776.26125	0.00240
PP	2	30	2	776.28248	0.27888
PP	2	30	0	776.29635	0.06972
PQ	18	32	0	776.31857	0.00967
PQ	18	35	2	776.34512	0.00290
PQ	18	31	0	776.41026	0.01127
PQ	18	34	2	776.42640	0.00347
RP	0	33	2	776.43746	0.06677
RP	0	33	0	776.43967	0.20032
PP	9	17	3	776.45781	1.02007
PP	9	17	1	776.46305	0.51003
PP	3	28	3	776.49114	0.37073
PP	3	28	1	776.49953	0.18537
PQ	18	30	0	776.49954	0.01293
PQ	18	33	2	776.50517	0.00410
PQ	18	32	2	776.58143	0.00483
PQ	18	29	0	776.58647	0.01473
RP	8	49	2	776.59189	0.00088
RP	8	49	0	776.60728	0.00022
PQ	18	31	2	776.65519	0.00563
RP	7	47	3	776.66500	0.00046
PQ	18	28	0	776.67094	0.01653
RP	7	47	1	776.67556	0.00184
PP	4	26	2	776.69814	0.48512
PP	4	26	0	776.71105	0.12128
PP	10	15	2	776.71444	1.09520
PP	10	15	0	776.72158	0.27380
PQ	18	30	2	776.72644	0.00647
PQ	18	27	0	776.75301	0.01827
RP	6	45	2	776.75494	0.00190
RP	6	45	0	776.77007	0.00380
PQ	18	29	2	776.79528	0.00737
PQ	18	26	0	776.83266	0.01993
RP	5	43	3	776.85166	0.00186
PQ	18	28	2	776.86161	0.00827

	K	J	S	WAVE NO	INT
RP	5	43	1	776.86186	0.00744
PP	5	24	3	776.90491	0.15392
PQ	18	25	0	776.90984	0.02133
PP	5	24	1	776.91238	0.61568
PQ	18	27	2	776.92553	0.00913
RP	4	41	2	776.96668	0.01376
PP	11	13	3	776.97835	0.28520
PP	11	13	1	776.98146	1.14080
RP	4	41	0	776.98147	0.00344
PQ	18	24	0	776.98465	0.02240
PQ	18	26	2	776.98704	0.00997
PQ	18	25	2	777.04613	0.01067
PQ	18	23	0	777.05682	0.02287
RP	3	39	3	777.09251	0.02407
RP	3	39	1	777.10229	0.01203
PQ	18	24	2	777.10291	0.01120
PP	6	22	2	777.12215	0.37717
PQ	18	22	0	777.12662	0.02253
PP	6	22	0	777.13369	0.75433
PQ	18	23	2	777.15717	0.01143
PQ	18	21	0	777.19380	0.02127
PQ	17	49	3	777.20552	0.00006
PQ	18	22	2	777.20921	0.01127
RP	2	37	2	777.24699	0.03880
PQ	18	20	0	777.25832	0.01873
PQ	18	21	2	777.25884	0.01063
RP	2	37	0	777.26135	0.00970
PQ	18	20	2	777.30605	0.00937
PQ	18	19	0	777.32032	0.01453
PQ	17	48	3	777.32611	0.00010
PP	7	20	3	777.34427	0.22276
PP	7	20	1	777.35056	0.89104
PQ	18	19	2	777.35104	0.00727
PQ	17	49	1	777.37833	0.00024
PQ	18	18	0	777.37966	0.00847
PQ	18	18	2	777.39371	0.00423
PP	1	31	3	777.42831	0.06454
PP	1	31	1	777.43697	0.25816
PQ	17	47	3	777.44370	0.00012
RP	1	35	3	777.45816	0.01284
RP	1	35	1	777.46744	0.05136
PQ	17	48	1	777.48891	0.00040
PQ	17	46	3	777.55855	0.00016
PP	8	18	2	777.57822	1.01504
PP	8	18	0	777.58765	0.25376
PQ	17	47	1	777.59694	0.00048
PQ	17	45	3	777.67059	0.00022
PP	2	29	2	777.67775	0.32600
PP	2	29	0	777.69081	0.08150
PQ	17	46	1	777.70270	0.00064
PQ	17	44	3	777.77981	0.00028
PQ	17	45	1	777.80605	0.00088
PP	9	16	3	777.81852	1.11673

	K	J	S	WAVE NO	INT
PP	9	16	1	777.82327	0.55837
PP	3	27	3	777.87904	0.42927
PQ	17	43	3	777.88630	0.00036
PP	3	27	1	777.88697	0.21463
RP	0	32	2	777.88936	0.06011
RP	0	32	0	777.89158	0.10019
PQ	17	44	1	777.90699	0.00112
PQ	17	42	3	777.98997	0.00046
PQ	17	43	1	778.00558	0.00144
RP	8	48	2	778.00735	0.00112
RP	8	48	0	778.02214	0.00028
PP	10	14	2	778.07071	1.18976
PP	10	14	0	778.07669	0.29744
RP	7	46	3	778.07707	0.00062
PP	4	25	2	778.08018	0.55560
RP	7	46	1	778.08724	0.00248
PQ	17	41	3	778.09091	0.00058
PP	4	25	0	778.09222	0.13890
PQ	17	42	1	778.10172	0.00184
RP	6	44	2	778.16325	0.00247
RP	6	44	0	778.17774	0.00493
PQ	17	40	3	778.18923	0.00074
PQ	17	41	1	778.19546	0.00232
RP	5	42	3	778.25617	0.00240
RP	5	42	1	778.26598	0.00960
PP	5	23	3	778.28208	0.17436
PQ	17	39	3	778.28492	0.00092
PQ	17	40	1	778.28690	0.00296
PP	5	23	1	778.28909	0.69744
PP	11	12	3	778.33016	0.30820
PP	11	12	1	778.33281	1.23280
RP	4	40	2	778.36672	0.01752
PQ	17	39	1	778.37603	0.00368
PQ	17	38	3	778.37778	0.00114
RP	4	40	0	778.38085	0.00438
PQ	17	38	1	778.46263	0.00456
PQ	17	37	3	778.46812	0.00142
RP	3	38	3	778.48757	0.03040
PP	6	21	2	778.49448	0.42257
RP	3	38	1	778.49694	0.01520
PP	6	21	0	778.50507	0.84513
PQ	17	37	1	778.54698	0.00568
PQ	17	36	3	778.55582	0.00174
PQ	17	36	1	778.62897	0.00696
RP	2	36	2	778.63519	0.04856
PQ	17	35	3	778.64089	0.00210
RP	2	36	0	778.64885	0.01214
PQ	17	35	1	778.70860	0.00840
PP	7	19	3	778.71202	0.24696
PP	7	19	1	778.71785	0.98784
PQ	17	34	3	778.72334	0.00252
PQ	17	34	1	778.78584	0.01008
PQ	17	33	3	778.80334	0.00302

	K	J	S	WAVE NO	INT
RP	1	34	3	778.83417	0.01608
PP	1	30	3	778.83427	0.07544
PP	1	30	1	778.84251	0.30176
RP	1	34	1	778.84302	0.06432
PQ	17	33	1	778.86089	0.01208
PQ	17	32	3	778.88071	0.00356
PQ	17	32	1	778.93353	0.01424
PP	8	17	2	778.94133	1.11432
PP	8	17	0	778.94976	0.27858
PQ	17	31	3	778.95556	0.00416
PQ	17	31	1	779.00385	0.01664
PQ	17	30	3	779.02786	0.00480
PP	2	28	2	779.07045	0.37840
PQ	17	30	1	779.07185	0.01920
PP	2	28	0	779.08273	0.09460
PQ	17	29	3	779.09773	0.00550
PQ	17	29	1	779.13761	0.02200
PQ	17	28	3	779.16506	0.00620
PP	9	15	3	779.17726	1.21547
PP	9	15	1	779.18156	0.60773
PQ	17	28	1	779.20104	0.02480
PQ	17	27	3	779.22996	0.00692
PQ	17	27	1	779.26222	0.02768
PP	3	26	3	779.26467	0.49340
PP	3	26	1	779.27216	0.24670
PQ	17	26	3	779.29232	0.00762
PQ	17	26	1	779.32104	0.03048
RP	0	31	2	779.33786	0.09545
RP	0	31	0	779.34008	0.28635
PQ	17	25	3	779.35234	0.00826
RP	9	49	3	779.36133	0.00067
RP	9	49	1	779.37144	0.00033
PQ	17	25	1	779.37771	0.03304
PQ	17	24	3	779.40992	0.00878
RP	8	47	2	779.42184	0.00152
PP	10	13	2	779.42483	1.28616
PP	10	13	0	779.42974	0.32154
PQ	17	24	1	779.43210	0.03512
RP	8	47	0	779.43604	0.00038
PP	4	24	2	779.46015	0.63184
PQ	17	23	3	779.46507	0.00916
PP	4	24	0	779.47137	0.15796
PQ	17	23	1	779.48422	0.03664
RP	7	45	3	779.48817	0.00080
RP	7	45	1	779.49796	0.00320
PQ	17	22	3	779.51787	0.00928
PQ	17	22	1	779.53416	0.03712
PQ	16	49	2	779.53607	0.00040
PQ	17	21	3	779.56823	0.00912
RP	6	43	2	779.57057	0.00323
PQ	17	21	1	779.58181	0.03648
RP	6	43	0	779.58446	0.00647
PQ	17	20	3	779.61625	0.00854

	K	J	S	WAVE NO	INT
PQ	17	20	1	779.62727	0.03416
PQ	16	48	2	779.65649	0.00048
PP	5	22	3	779.65708	0.19608
RP	5	41	3	779.65961	0.00306
PQ	17	19	3	779.66183	0.00748
PP	5	22	1	779.66364	0.78432
RP	5	41	1	779.66902	0.01224
PQ	17	19	1	779.67044	0.02992
PP	11	11	3	779.67992	0.33190
PP	11	11	1	779.68214	1.32760
PQ	17	18	3	779.70517	0.00578
PQ	17	18	1	779.71151	0.02312
PQ	17	17	3	779.74607	0.00334
PQ	17	17	1	779.75028	0.01336
RP	4	39	2	779.76579	0.02224
PQ	16	47	2	779.77412	0.00072
RP	4	39	0	779.77928	0.00556
PP	6	20	2	779.86463	0.47017
PP	6	20	0	779.87435	0.94033
RP	3	37	3	779.88165	0.03800
PQ	16	46	2	779.88895	0.00088
RP	3	37	1	779.89062	0.01900
PQ	16	45	2	780.00087	0.00120
RP	2	35	2	780.02280	0.06024
RP	2	35	0	780.03580	0.01506
PP	7	18	3	780.07771	0.27196
PP	7	18	1	780.08309	1.08784
PQ	16	44	2	780.11008	0.00152
RP	1	33	3	780.21030	0.01998
PQ	16	43	2	780.21660	0.00200
RP	1	33	1	780.21875	0.07992
PP	1	29	3	780.23696	0.08754
PP	1	29	1	780.24478	0.35016
PP	8	16	2	780.30247	1.21568
PP	8	16	0	780.30997	0.30392
PQ	16	42	2	780.32030	0.00256
PQ	16	41	2	780.42139	0.00328
PP	2	27	2	780.46069	0.43608
PP	2	27	0	780.47222	0.10902
PQ	16	40	2	780.51968	0.00416
PP	9	14	3	780.53395	1.31553
PP	9	14	1	780.53782	0.65777
PQ	16	39	2	780.61535	0.00520
PP	3	25	3	780.64813	0.56300
PP	3	25	1	780.65520	0.28150
PQ	16	38	2	780.70841	0.00648
PP	10	12	2	780.77689	1.38424
RP	9	48	3	780.77821	0.00093
PP	10	12	0	780.78082	0.34606
RP	0	30	2	780.78276	0.08464
RP	0	30	0	780.78498	0.14106
RP	9	48	1	780.78797	0.00047
PQ	16	37	2	780.79875	0.00808

	K	J	S	WAVE NO	INT
RP	8	46	2	780.83535	0.00200
PP	4	23	2	780.83796	0.71328
PP	4	23	0	780.84839	0.17832
RP	8	46	0	780.84899	0.00050
PQ	16	36	2	780.88658	0.00984
RP	7	44	3	780.89828	0.00106
RP	7	44	1	780.90771	0.00424
PQ	16	35	2	780.97169	0.01200
RP	6	42	2	780.97693	0.00413
RP	6	42	0	780.99022	0.00827
PP	5	21	3	781.03001	0.21896
PP	5	21	1	781.03616	0.87584
PQ	16	34	2	781.05428	0.01448
RP	5	40	3	781.06217	0.00390
RP	5	40	1	781.07121	0.01560
PQ	16	33	2	781.13435	0.01728
RP	4	38	2	781.16389	0.02792
RP	4	38	0	781.17677	0.00698
PQ	16	32	2	781.21181	0.02040
PP	6	19	2	781.23282	0.51947
PP	6	19	0	781.24171	1.03893
RP	3	36	3	781.27496	0.04720
RP	3	36	1	781.28355	0.02360
PQ	16	31	2	781.28683	0.02392
PQ	16	30	2	781.35925	0.02784
RP	2	34	2	781.40975	0.07416
RP	2	34	0	781.42210	0.01854
PQ	16	29	2	781.42923	0.03192
PP	7	17	3	781.44132	0.29750
PP	7	17	1	781.44630	1.19000
PQ	16	28	2	781.49669	0.03632
PQ	16	27	2	781.56162	0.04080
RP	1	32	3	781.58617	0.02462
RP	1	32	1	781.59422	0.09848
PQ	16	26	2	781.62423	0.04520
PP	1	28	3	781.63648	0.10082
PP	1	28	1	781.64391	0.40328
PP	8	15	2	781.66147	1.31816
PP	8	15	0	781.66810	0.32954
PQ	16	25	2	781.68430	0.04944
PQ	16	24	2	781.74206	0.05328
PQ	16	23	2	781.79728	0.05632
PQ	16	30	0	781.84835	0.00696
PP	2	26	2	781.84846	0.49880
PQ	16	31	0	781.84863	0.00598
PQ	16	22	2	781.85017	0.05832
PQ	15	49	3	781.85355	0.00053
PQ	16	29	0	781.85473	0.00798
PQ	16	32	0	781.85727	0.00510
PP	2	26	0	781.85928	0.12470
PQ	16	28	0	781.86617	0.00908
PQ	16	33	0	781.87697	0.00432
PQ	16	27	0	781.88148	0.01020

	K	J	S	WAVE NO	INT
PP	9	13	3	781.88857	1.41633
PP	9	13	1	781.89204	0.70817
PQ	16	26	0	781.89993	0.01130
PQ	16	21	2	781.90074	0.05888
PQ	16	34	0	781.91084	0.00362
PQ	16	25	0	781.92056	0.01236
PQ	16	24	0	781.94291	0.01332
PQ	16	20	2	781.94878	0.05744
PQ	15	49	1	781.96083	0.00027
PQ	16	35	0	781.96349	0.00300
PQ	16	23	0	781.96629	0.01408
PQ	15	48	3	781.97552	0.00073
PQ	16	22	0	781.99046	0.01458
PQ	16	19	2	781.99458	0.05360
PQ	16	21	0	782.01506	0.01472
PP	3	24	3	782.02932	0.63773
PP	3	24	1	782.03599	0.31887
PQ	16	18	2	782.03795	0.04664
PQ	16	20	0	782.03959	0.01436
PQ	16	36	0	782.04119	0.00246
PQ	16	19	0	782.06408	0.01340
PQ	15	48	1	782.07715	0.00037
PQ	16	17	2	782.07909	0.03584
PQ	16	18	0	782.08810	0.01166
PQ	15	47	3	782.09456	0.00093
PQ	16	17	0	782.11169	0.00896
PQ	16	16	2	782.11779	0.02064
PP	10	11	2	782.12691	1.48416
PP	10	11	0	782.12994	0.37104
PQ	16	16	0	782.13446	0.00516
PQ	16	37	0	782.15273	0.00202
RP	10	49	2	782.15598	0.00056
RP	10	49	0	782.16938	0.00014
PQ	15	47	1	782.19076	0.00047
RP	9	47	3	782.19411	0.00127
RP	9	47	1	782.20352	0.00063
PQ	15	46	3	782.21077	0.00127
PP	4	22	2	782.21361	0.79936
PP	4	22	0	782.22328	0.19984
RP	0	29	2	782.22416	0.13238
RP	0	29	0	782.22638	0.39712
RP	8	45	2	782.24780	0.00264
RP	8	45	0	782.26089	0.00066
PQ	15	46	1	782.30175	0.00063
RP	7	43	3	782.30733	0.00136
PQ	16	38	0	782.31171	0.00162
RP	7	43	1	782.31640	0.00544
PQ	15	45	3	782.32414	0.00160
RP	6	41	2	782.38221	0.00530
RP	6	41	0	782.39493	0.01060
PP	5	20	3	782.40088	0.24276
PP	5	20	1	782.40662	0.97104
PQ	15	45	1	782.41013	0.00080

	K	J	S	WAVE NO	INT
PQ	15	44	3	782.43479	0.00213
RP	5	39	3	782.46355	0.00492
RP	5	39	1	782.47223	0.01968
PQ	15	44	1	782.51596	0.00107
PQ	16	39	0	782.53876	0.00130
PQ	15	43	3	782.54260	0.00273
RP	4	37	2	782.56092	0.03480
RP	4	37	0	782.57319	0.00870
PP	6	18	2	782.59885	0.56997
PP	6	18	0	782.60696	1.13993
PQ	15	43	1	782.61916	0.00137
PQ	15	42	3	782.64758	0.00353
RP	3	35	3	782.66730	0.05820
RP	3	35	1	782.67551	0.02910
PQ	15	42	1	782.71970	0.00177
PQ	15	41	3	782.74992	0.00453
RP	2	33	2	782.79584	0.09056
PP	7	16	3	782.80288	0.32332
PP	7	16	1	782.80746	1.29328
RP	2	33	0	782.80755	0.02264
PQ	15	41	1	782.81779	0.00227
PQ	15	40	3	782.84943	0.00573
PQ	16	40	0	782.86829	0.00104
PQ	15	40	1	782.91322	0.00287
PQ	15	39	3	782.94640	0.00720
RP	1	31	3	782.96195	0.03008
RP	1	31	1	782.96963	0.12032
PQ	15	39	1	783.00626	0.00360
PP	8	14	2	783.01840	1.42088
PP	8	14	0	783.02422	0.35522
PP	1	27	3	783.03294	0.11524
PP	1	27	1	783.03998	0.46096
PQ	15	38	3	783.04053	0.00900
PQ	15	38	1	783.09663	0.00450
PQ	15	37	3	783.13202	0.01113
PQ	15	37	1	783.18452	0.00557
PQ	15	36	3	783.22098	0.01373
PP	2	25	2	783.23376	0.56640
PP	9	12	3	783.24093	1.51760
PP	2	25	0	783.24390	0.14160
PP	9	12	1	783.24404	0.75880
PQ	15	36	1	783.27001	0.00687
PQ	15	35	3	783.30719	0.01673
PQ	15	35	1	783.35291	0.00837
PQ	16	41	0	783.36105	0.00082
PQ	15	34	3	783.39086	0.02020
PP	3	23	3	783.40814	0.71707
PP	3	23	1	783.41442	0.35853
PQ	15	34	1	783.43340	0.01010
PQ	15	33	3	783.47189	0.02413
PP	10	10	2	783.47476	1.58664
PP	10	10	0	783.47697	0.39666
PQ	15	33	1	783.51138	0.01207

	K	J	S	WAVE NO	INT
PQ	15	32	3	783.55029	0.02867
RP	10	48	2	783.57400	0.00072
PQ	15	32	1	783.58685	0.01433
RP	10	48	0	783.58689	0.00018
PP	4	21	2	783.58719	0.88928
PP	4	21	0	783.59615	0.22232
RP	9	46	3	783.60903	0.00167
RP	9	46	1	783.61811	0.00083
PQ	15	31	3	783.62624	0.03373
RP	8	44	2	783.65926	0.00344
PQ	15	31	1	783.66000	0.01687
RP	0	28	2	783.66196	0.11557
RP	0	28	0	783.66418	0.19262
RP	8	44	0	783.67181	0.00086
PQ	15	30	3	783.69965	0.03927
RP	7	42	3	783.71529	0.00174
RP	7	42	1	783.72401	0.00696
PQ	15	30	1	783.73072	0.01963
PP	5	19	3	783.76958	0.26724
PQ	15	29	3	783.77051	0.04533
PP	5	19	1	783.77494	1.06896
RP	6	40	2	783.78632	0.00673
RP	6	40	0	783.79848	0.01347
PQ	15	29	1	783.79903	0.02267
PQ	15	28	3	783.83882	0.05173
RP	5	38	3	783.86377	0.00616
PQ	15	28	1	783.86489	0.02587
RP	5	38	1	783.87209	0.02464
PQ	15	27	3	783.90460	0.05847
PQ	15	27	1	783.92833	0.02923
RP	4	36	2	783.95688	0.04304
PP	6	17	2	783.96282	0.62110
PQ	15	26	3	783.96803	0.06527
RP	4	36	0	783.96857	0.01076
PP	6	17	0	783.97019	1.24220
PQ	15	26	1	783.98953	0.03263
PQ	15	25	3	784.02892	0.07193
PQ	15	25	1	784.04829	0.03597
RP	3	34	3	784.05856	0.07113
RP	3	34	1	784.06641	0.03557
PQ	15	24	3	784.08735	0.07813
PQ	15	24	1	784.10471	0.03907
PQ	16	42	0	784.13552	0.00064
PQ	15	23	3	784.14334	0.08367
PQ	15	23	1	784.15877	0.04183
PP	7	15	3	784.16237	0.34914
PP	7	15	1	784.16660	1.39656
RP	2	32	2	784.18114	0.10976
RP	2	32	0	784.19225	0.02744
PQ	15	22	3	784.19688	0.08793
PQ	15	22	1	784.21049	0.04397
PQ	14	49	2	784.21844	0.00072
PQ	15	21	3	784.24799	0.09053

	K	J	S	WAVE NO	INT
PQ	15	21	1	784.25985	0.04527
PQ	15	20	3	784.29674	0.09080
PQ	15	20	1	784.30696	0.04540
RP	1	30	3	784.33737	0.03640
PQ	14	48	2	784.34058	0.00096
PQ	15	19	3	784.34314	0.08813
RP	1	30	1	784.34468	0.14560
PQ	15	19	1	784.35181	0.04407
PP	8	13	2	784.37318	1.52296
PP	8	13	0	784.37824	0.38074
PQ	15	18	3	784.38709	0.08173
PQ	15	18	1	784.39431	0.04087
PP	1	26	3	784.42641	0.13074
PQ	15	17	3	784.42870	0.07073
PP	1	26	1	784.43309	0.52296
PQ	15	17	1	784.43454	0.03537
PQ	14	47	2	784.45980	0.00128
PQ	15	16	3	784.46796	0.05413
PQ	15	16	1	784.47250	0.02707
PQ	15	15	3	784.50476	0.03100
PQ	15	15	1	784.50810	0.01550
PQ	14	46	2	784.57620	0.00168
PP	9	11	3	784.59132	1.61927
PP	9	11	1	784.59411	0.80963
PP	2	24	2	784.61660	0.63824
PP	2	24	0	784.62608	0.15956
PQ	14	45	2	784.68979	0.00216
PQ	14	49	0	784.69833	0.00018
PP	3	22	3	784.78479	0.80020
PQ	14	48	0	784.78685	0.00024
PP	3	22	1	784.79071	0.40010
PQ	14	44	2	784.80056	0.00288
PQ	14	47	0	784.87489	0.00032
PQ	14	43	2	784.90861	0.00376
PP	4	20	2	784.95850	0.98208
PQ	14	46	0	784.96230	0.00042
RP	11	49	3	784.96489	0.00010
PP	4	20	0	784.96679	0.24552
RP	11	49	1	784.97396	0.00040
RP	10	47	2	784.99105	0.00096
RP	10	47	0	785.00345	0.00024
PQ	14	42	2	785.01383	0.00480
RP	9	45	3	785.02288	0.00213
RP	9	45	1	785.03163	0.00107
PQ	14	45	0	785.04889	0.00054
RP	8	43	2	785.06955	0.00448
RP	8	43	0	785.08159	0.00112
RP	0	27	2	785.09616	0.17798
RP	0	27	0	785.09838	0.53392
PQ	14	41	2	785.11633	0.00616
RP	7	41	3	785.12209	0.00222
RP	7	41	1	785.13047	0.00888
PQ	14	44	0	785.13448	0.00072

	K	J	S	WAVE NO	INT
PP	5	18	3	785.13622	0.29204
PP	5	18	1	785.14122	1.16816
RP	6	39	2	785.18935	0.00847
RP	6	39	0	785.20098	0.01693
PQ	14	40	2	785.21611	0.00776
PQ	14	43	0	785.21902	0.00094
RP	5	37	3	785.26291	0.00766
RP	5	37	1	785.27088	0.03064
PQ	14	42	0	785.30225	0.00120
PQ	14	39	2	785.31326	0.00976
PP	6	16	2	785.32463	0.67217
PP	6	16	0	785.33131	1.34433
RP	4	35	2	785.35166	0.05280
RP	4	35	0	785.36279	0.01320
PQ	14	41	0	785.38418	0.00154
PQ	14	38	2	785.40759	0.01224
RP	3	33	3	785.44875	0.08633
RP	3	33	1	785.45625	0.04317
PQ	16	43	0	785.45936	0.00050
PQ	14	40	0	785.46467	0.00194
PQ	14	37	2	785.49938	0.01512
PP	7	14	3	785.51969	0.37464
PP	7	14	1	785.52358	1.49856
PQ	14	39	0	785.54373	0.00244
RP	2	31	2	785.56548	0.13184
RP	2	31	0	785.57601	0.03296
PQ	14	36	2	785.58845	0.01864
PQ	14	38	0	785.62107	0.00306
PQ	14	35	2	785.67488	0.02272
PQ	14	37	0	785.69691	0.00378
RP	1	29	3	785.71242	0.04370
RP	1	29	1	785.71938	0.17480
PP	8	12	2	785.72589	1.62384
PP	8	12	0	785.73027	0.40596
PQ	14	34	2	785.75879	0.02752
PQ	14	36	0	785.77097	0.00466
PP	1	25	3	785.81673	0.14718
PP	1	25	1	785.82304	0.58872
PQ	14	33	2	785.84007	0.03304
PQ	14	35	0	785.84330	0.00568
PQ	14	34	0	785.91392	0.00688
PQ	14	32	2	785.91872	0.03928
PP	9	10	3	785.93955	1.72187
PP	9	10	1	785.94204	0.86093
PQ	14	33	0	785.98267	0.00826
PQ	14	31	2	785.99483	0.04632
PP	2	23	2	785.99707	0.71392
PP	2	23	0	786.00593	0.17848
PQ	14	32	0	786.04953	0.00982
PQ	14	30	2	786.06841	0.05416
PQ	14	31	0	786.11453	0.01158
PQ	14	29	2	786.13944	0.06272
PP	3	21	3	786.15927	0.88633

	K	J	S	WAVE NO	INT
PP	3	21	1	786.16484	0.44317
PQ	14	30	0	786.17764	0.01354
PQ	14	28	2	786.20805	0.07192
PQ	14	29	0	786.23882	0.01568
PQ	14	27	2	786.27402	0.08160
PQ	14	28	0	786.29812	0.01798
PP	4	19	2	786.32775	1.07648
PP	4	19	0	786.33540	0.26912
PQ	14	26	2	786.33756	0.09152
PQ	14	27	0	786.35532	0.02040
RP	11	48	3	786.38412	0.00014
RP	11	48	1	786.39288	0.00056
PQ	14	25	2	786.39866	0.10160
RP	10	46	2	786.40704	0.00128
PQ	14	26	0	786.41061	0.02288
RP	10	46	0	786.41894	0.00032
RP	9	44	3	786.43555	0.00280
RP	9	44	1	786.44398	0.00140
PQ	14	24	2	786.45732	0.11128
PQ	14	25	0	786.46392	0.02540
RP	8	42	2	786.47877	0.00576
RP	8	42	0	786.49030	0.00144
PP	5	17	3	786.50068	0.31686
PP	5	17	1	786.50535	1.26744
PQ	14	23	2	786.51344	0.12016
PQ	14	24	0	786.51526	0.02782
RP	0	26	2	786.52676	0.15296
RP	7	40	3	786.52780	0.00282
RP	0	26	0	786.52898	0.25494
RP	7	40	1	786.53586	0.01128
PQ	14	23	0	786.56449	0.03004
PQ	14	22	2	786.56722	0.12784
PQ	13	49	3	786.57632	0.00024
RP	6	38	2	786.59112	0.01057
RP	6	38	0	786.60222	0.02113
PQ	14	22	0	786.61180	0.03196
PQ	14	21	2	786.61857	0.13360
PQ	13	49	1	786.65102	0.00096
PQ	14	21	0	786.65707	0.03340
RP	5	36	3	786.66087	0.00944
PQ	14	20	2	786.66747	0.13672
RP	5	36	1	786.66851	0.03776
PP	6	15	2	786.68437	0.72253
PP	6	15	0	786.69041	1.44507
PQ	13	48	3	786.69979	0.00030
PQ	14	20	0	786.70026	0.03418
PQ	14	19	2	786.71394	0.13632
PQ	14	19	0	786.74139	0.03408
RP	4	34	2	786.74528	0.06432
RP	4	34	0	786.75587	0.01608
PQ	14	18	2	786.75806	0.13160
PQ	13	48	1	786.77081	0.00120
PQ	14	18	0	786.78052	0.03290

	K	J	S	WAVE NO	INT
PQ	14	17	2	786.79974	0.12136
PQ	14	17	0	786.81754	0.03034
PQ	13	47	3	786.82042	0.00042
RP	3	32	3	786.83776	0.10380
PQ	14	16	2	786.83919	0.10448
RP	3	32	1	786.84493	0.05190
PQ	14	16	0	786.85263	0.02612
PP	7	13	3	786.87486	0.39960
PQ	14	15	2	786.87619	0.07960
PP	7	13	1	786.87843	1.59840
PQ	14	15	0	786.88559	0.01990
PQ	13	47	1	786.88789	0.00168
PQ	14	14	2	786.91084	0.04536
PQ	14	14	0	786.91651	0.01134
PQ	13	46	3	786.93821	0.00054
RP	2	30	2	786.94885	0.15704
RP	2	30	0	786.95882	0.03926
PQ	13	46	1	787.00226	0.00216
PQ	13	45	3	787.05305	0.00072
PP	8	11	2	787.07645	1.72336
PP	8	11	0	787.08020	0.43084
RP	1	28	3	787.08689	0.05196
RP	1	28	1	787.09351	0.20784
PQ	13	45	1	787.11381	0.00288
PQ	13	44	3	787.16516	0.00094
PP	1	24	3	787.20416	0.16442
PP	1	24	1	787.21015	0.65768
PQ	13	44	1	787.22274	0.00376
PQ	13	43	3	787.27433	0.00122
PP	9	9	3	787.28552	1.82687
PP	9	9	1	787.28774	0.91343
PQ	13	43	1	787.32884	0.00488
PP	2	22	2	787.37518	0.79232
PQ	13	42	3	787.38085	0.00158
PP	2	22	0	787.38344	0.19808
PQ	13	42	1	787.43242	0.00632
PQ	13	41	3	787.48454	0.00202
PP	3	20	3	787.53149	0.97427
PQ	13	41	1	787.53326	0.00808
PP	3	20	1	787.53673	0.48713
PQ	13	40	3	787.58537	0.00258
PQ	13	40	1	787.63136	0.01032
PQ	13	39	3	787.68367	0.00324
PP	4	18	2	787.69474	1.17112
PP	4	18	0	787.70179	0.29278
PQ	13	39	1	787.72702	0.01296
PQ	13	38	3	787.77911	0.00406
RP	12	49	2	787.79736	0.00017
RP	11	47	3	787.80228	0.00018
RP	12	49	0	787.80913	0.00033
RP	11	47	1	787.81073	0.00072
PQ	13	38	1	787.81993	0.01624
RP	10	45	2	787.82184	0.00168

	K	J	S	WAVE NO	INT
RP	10	45	0	787.83327	0.00042
RP	9	43	3	787.84715	0.00360
RP	9	43	1	787.85526	0.00180
PP	5	16	3	787.86297	0.34132
PP	5	16	1	787.86732	1.36528
PQ	13	37	3	787.87192	0.00504
RP	8	41	2	787.88671	0.00728
RP	8	41	0	787.89776	0.00182
PQ	13	37	1	787.91029	0.02016
RP	7	39	3	787.93214	0.00354
RP	7	39	1	787.93988	0.01416
RP	0	25	2	787.95366	0.23182
RP	0	25	0	787.95588	0.69547
PQ	13	36	3	787.96198	0.00620
RP	6	37	2	787.99171	0.01307
PQ	13	36	1	787.99800	0.02480
RP	6	37	0	788.00230	0.02613
PP	6	14	2	788.04196	0.77147
PP	6	14	0	788.04739	1.54293
PQ	13	35	3	788.04948	0.00758
RP	5	35	3	788.05746	0.01154
RP	5	35	1	788.06478	0.04616
PQ	13	35	1	788.08325	0.03032
PQ	16	44	0	788.08786	0.00038
PQ	13	34	3	788.13435	0.00918
RP	4	33	2	788.13762	0.07760
RP	4	33	0	788.14768	0.01940
PQ	13	34	1	788.16595	0.03672
PQ	13	33	3	788.21646	0.01104
RP	3	31	3	788.22560	0.12387
PP	7	12	3	788.22794	0.42376
PP	7	12	1	788.23123	1.69504
RP	3	31	1	788.23245	0.06193
PQ	13	33	1	788.24598	0.04416
PQ	13	32	3	788.29613	0.01316
PQ	13	32	1	788.32365	0.05264
RP	2	29	2	788.33125	0.18552
RP	2	29	0	788.34068	0.04638
PQ	13	31	3	788.37305	0.01556
PQ	13	31	1	788.39864	0.06224
PP	8	10	2	788.42484	1.82160
PP	8	10	0	788.42802	0.45540
PQ	13	30	3	788.44752	0.01824
RP	1	27	3	788.46089	0.06124
RP	1	27	1	788.46719	0.24496
PQ	13	30	1	788.47127	0.07296
PQ	13	29	3	788.51934	0.02118
PQ	13	29	1	788.54133	0.08472
PQ	13	28	3	788.58871	0.02436
PP	1	23	3	788.58873	0.18226
PP	1	23	1	788.59439	0.72904
PQ	13	28	1	788.60900	0.09744
PQ	13	27	3	788.65553	0.02776

	K	J	S	WAVE NO	INT
PQ	13	27	1	788.67421	0.11104
PQ	13	26	3	788.71980	0.03128
PQ	13	26	1	788.73693	0.12512
PP	2	21	2	788.75081	0.87264
PP	2	21	0	788.75851	0.21816
PQ	13	25	3	788.78151	0.03490
PQ	13	25	1	788.79716	0.13960
PQ	13	24	3	788.84087	0.03846
PQ	13	24	1	788.85513	0.15384
PQ	13	23	3	788.89769	0.04188
PP	3	19	3	788.90143	1.06260
PP	3	19	1	788.90636	0.53130
PQ	13	23	1	788.91060	0.16752
PQ	13	22	3	788.95205	0.04496
PQ	13	22	1	788.96368	0.17984
PQ	12	49	2	788.97559	0.00060
PQ	13	21	3	789.00396	0.04754
PQ	13	21	1	789.01438	0.19016
PQ	13	20	3	789.05341	0.04938
PP	4	17	2	789.05966	1.26440
PQ	13	20	1	789.06268	0.19752
PP	4	17	0	789.06614	0.31610
PQ	12	48	2	789.09952	0.00080
PQ	13	19	3	789.10042	0.05022
PQ	13	19	1	789.10860	0.20088
PQ	13	18	3	789.14507	0.04982
PQ	13	18	1	789.15222	0.19928
PQ	12	49	0	789.18363	0.00120
PQ	13	17	3	789.18726	0.04780
PQ	13	17	1	789.19345	0.19120
RP	12	48	2	789.21745	0.00023
RP	11	46	3	789.21936	0.00024
PQ	12	47	2	789.22063	0.00107
PP	5	15	3	789.22310	0.36502
PQ	13	16	3	789.22710	0.04384
PP	5	15	1	789.22716	1.46008
RP	11	46	1	789.22751	0.00096
RP	12	48	0	789.22878	0.00047
PQ	13	16	1	789.23238	0.17536
RP	10	44	2	789.23557	0.00216
RP	10	44	0	789.24654	0.00054
RP	9	42	3	789.25757	0.00460
PQ	13	15	3	789.26449	0.03756
RP	9	42	1	789.26538	0.00230
PQ	13	15	1	789.26892	0.15024
RP	8	40	2	789.29349	0.00920
PQ	12	48	0	789.29586	0.00160
PQ	13	14	3	789.29952	0.02848
PQ	13	14	1	789.30315	0.11392
RP	8	40	0	789.30405	0.00230
PQ	13	13	3	789.33220	0.01616
PQ	13	13	1	789.33510	0.06464
RP	7	38	3	789.33530	0.00440

	K	J	S	WAVE NO	INT
PQ	12	46	2	789.33870	0.00140
RP	7	38	1	789.34274	0.01760
RP	0	24	2	789.37676	0.19601
RP	0	24	0	789.37897	0.32669
RP	6	36	2	789.39092	0.01607
PP	6	13	2	789.39748	0.81833
RP	6	36	0	789.40103	0.03213
PP	6	13	0	789.40236	1.63667
PQ	12	47	0	789.40582	0.00213
RP	5	34	3	789.45277	0.01400
PQ	12	45	2	789.45405	0.00187
RP	5	34	1	789.45979	0.05600
PQ	12	46	0	789.51329	0.00280
RP	4	32	2	789.52869	0.09296
RP	4	32	0	789.53825	0.02324
PQ	12	44	2	789.56646	0.00243
PP	7	11	3	789.57877	0.44704
PP	7	11	1	789.58179	1.78816
RP	3	30	3	789.61217	0.14660
PQ	12	45	0	789.61854	0.00373
RP	3	30	1	789.61871	0.07330
PQ	12	43	2	789.67615	0.00317
RP	2	28	2	789.71238	0.21728
RP	2	28	0	789.72129	0.05432
PQ	12	44	0	789.72134	0.00487
PP	8	9	2	789.77108	1.91992
PP	8	9	0	789.77375	0.47998
PQ	12	42	2	789.78299	0.00410
PQ	12	43	0	789.82185	0.00633
RP	1	26	3	789.83412	0.07152
RP	1	26	1	789.84010	0.28608
PQ	12	41	2	789.88701	0.00523
PQ	12	42	0	789.91996	0.00820
PP	1	22	3	789.97042	0.20044
PP	1	22	1	789.97578	0.80176
PQ	12	40	2	789.98829	0.00667
PQ	12	41	0	790.01565	0.01047
PQ	12	39	2	790.08694	0.00840
PQ	12	40	0	790.10899	0.01333
PP	2	20	2	790.12408	0.95344
PP	2	20	0	790.13124	0.23836
PQ	12	38	2	790.18274	0.01053
PQ	12	39	0	790.20006	0.01680
PP	3	18	3	790.26920	1.14993
PP	3	18	1	790.27383	0.57497
PQ	12	37	2	790.27591	0.01307
PQ	12	38	0	790.28864	0.02107
PQ	12	36	2	790.36635	0.01613
PQ	12	37	0	790.37492	0.02613
PP	4	16	2	790.42232	1.35480
PP	4	16	0	790.42827	0.33870
PQ	12	35	2	790.45414	0.01973
PQ	12	36	0	790.45879	0.03227

	K	J	S	WAVE NO	INT
PQ	12	34	2	790.53929	0.02397
PQ	12	35	0	790.54031	0.03947
PP	5	14	3	790.53116	0.38758
PP	5	14	1	790.58495	1.55032
PQ	12	34	0	790.61949	0.04793
PQ	12	33	2	790.62180	0.02887
RP	11	45	3	790.63526	0.00032
RP	12	47	2	790.63657	0.00030
RP	11	45	1	790.64312	0.00128
RP	13	49	3	790.64363	0.00006
RP	12	47	0	790.64745	0.00060
RP	10	43	2	790.64812	0.00280
RP	13	49	1	790.65179	0.00024
RP	10	43	0	790.65864	0.00070
RP	9	41	3	790.66671	0.00580
RP	9	41	1	790.67422	0.00290
PQ	12	33	0	790.69631	0.05773
RP	8	39	2	790.69898	0.01152
PQ	12	32	2	790.70168	0.03450
RP	8	39	0	790.70909	0.00288
RP	7	37	3	790.73709	0.00544
RP	7	37	1	790.74423	0.02176
PP	6	12	2	790.75073	0.86260
PP	6	12	0	790.75510	1.72520
PQ	12	32	0	790.77076	0.06900
PQ	12	31	2	790.77901	0.04087
RP	6	35	2	790.78876	0.01957
RP	0	23	2	790.79626	0.29220
RP	6	35	0	790.79840	0.03913
RP	0	23	0	790.79848	0.87660
PQ	12	31	0	790.84292	0.08173
RP	5	33	3	790.84670	0.01684
RP	5	33	1	790.85342	0.06736
PQ	12	30	2	790.85370	0.04797
PQ	12	30	0	790.91267	0.09593
RP	4	31	2	790.91838	0.11040
PQ	12	29	2	790.92585	0.05587
PP	7	10	3	790.92744	0.46938
RP	4	31	0	790.92746	0.02760
PP	7	10	1	790.93022	1.87752
PQ	12	29	0	790.98013	0.11173
PQ	12	28	2	790.99545	0.06447
RP	3	29	3	790.99736	0.17200
RP	3	29	1	791.00360	0.08600
PQ	12	28	0	791.04527	0.12893
PQ	12	27	2	791.06251	0.07367
RP	2	27	2	791.09233	0.25224
RP	2	27	0	791.10075	0.06306
PQ	12	27	0	791.10809	0.14733
PP	8	8	2	791.11506	2.02080
PP	8	8	0	791.11728	0.50520
PQ	12	26	2	791.12702	0.08340
PQ	12	26	0	791.16856	0.16680

	K	J	S	WAVE NO	INT
PQ	12	25	2	791.18909	0.09343
RP	1	25	3	791.20647	0.08276
RP	1	25	1	791.21217	0.33104
PQ	12	25	0	791.22680	0.18687
PQ	12	24	2	791.24862	0.10353
PQ	12	24	0	791.28269	0.20707
PQ	12	23	2	791.30560	0.11340
PQ	12	23	0	791.33623	0.22680
PP	1	21	3	791.34924	0.21866
PP	1	21	1	791.35432	0.87464
PQ	12	22	2	791.36024	0.12270
PQ	11	49	3	791.37199	0.00038
PQ	12	22	0	791.38760	0.24540
PQ	12	21	2	791.41232	0.13093
PQ	11	49	1	791.42760	0.00152
PQ	12	21	0	791.43660	0.26187
PQ	12	20	2	791.46196	0.13757
PQ	12	20	0	791.48332	0.27513
PP	2	19	2	791.49498	1.03344
PQ	11	48	3	791.49730	0.00050
PP	2	19	0	791.50164	0.25836
PQ	12	19	2	791.50925	0.14207
PQ	12	19	0	791.52787	0.28413
PQ	11	48	1	791.55031	0.00200
PQ	12	18	2	791.55400	0.14367
PQ	12	18	0	791.57004	0.28733
PQ	12	17	2	791.59640	0.14167
PQ	12	17	0	791.61002	0.28333
PQ	11	47	3	791.61976	0.00068
PP	3	17	3	791.63460	1.23453
PQ	12	16	2	791.63644	0.13520
PP	3	17	1	791.63895	0.61727
PQ	12	16	0	791.64780	0.27040
PQ	11	47	1	791.67026	0.00272
PQ	12	15	2	791.67395	0.12337
PQ	12	15	0	791.68318	0.24673
PQ	12	14	2	791.70920	0.10513
PQ	12	14	0	791.71646	0.21027
PQ	11	46	3	791.73928	0.00090
PQ	12	13	2	791.74200	0.07937
PQ	12	13	0	791.74744	0.15873
PQ	12	12	2	791.77245	0.04483
PQ	12	12	0	791.77621	0.08967
PP	4	15	2	791.78281	1.44056
PQ	11	46	1	791.78735	0.00360
PP	4	15	0	791.78826	0.36014
PQ	11	45	3	791.85585	0.00118
PQ	11	45	1	791.90157	0.00472
PP	5	13	3	791.93695	0.40860
PP	5	13	1	791.94048	1.63440
PQ	11	44	3	791.96957	0.00154
PQ	11	44	1	792.01303	0.00616
RP	11	44	3	792.04998	0.00042

	K	J	S	WAVE NO	INT
RP	12	46	2	792.05450	0.00037
RP	11	44	1	792.05756	0.00168
RP	10	42	2	792.05939	0.00360
RP	13	48	3	792.06472	0.00008
RP	12	46	0	792.06497	0.00073
RP	10	42	0	792.06948	0.00090
RP	13	48	1	792.07260	0.00032
RP	9	40	3	792.07448	0.00733
PQ	11	43	3	792.08045	0.00200
RP	9	40	1	792.08171	0.00367
PP	6	11	2	792.10183	0.90387
RP	8	38	2	792.10310	0.01432
PP	6	11	0	792.10573	1.80773
RP	8	38	0	792.11276	0.00358
PQ	11	43	1	792.12172	0.00800
RP	7	36	3	792.13760	0.00666
RP	7	36	1	792.14445	0.02664
RP	6	34	2	792.18533	0.02367
PQ	11	42	3	792.18848	0.00258
RP	6	34	0	792.19451	0.04733
RP	0	22	2	792.21196	0.24292
RP	0	22	0	792.21418	0.40487
PQ	11	42	1	792.22764	0.01032
RP	5	32	3	792.23927	0.02008
RP	5	32	1	792.24569	0.08032
PP	7	9	3	792.27403	0.49102
PP	7	9	1	792.27660	1.96408
PQ	11	41	3	792.29375	0.00332
RP	4	30	2	792.30660	0.13000
RP	4	30	0	792.31522	0.03250
PQ	11	41	1	792.33088	0.01328
RP	3	28	3	792.38118	0.20007
RP	3	28	1	792.38712	0.10003
PQ	11	40	3	792.39619	0.00422
PQ	11	40	1	792.43134	0.01688
RP	2	26	2	792.47112	0.29032
RP	2	26	0	792.47906	0.07258
PQ	11	39	3	792.49586	0.00532
PQ	11	39	1	792.52911	0.02128
RP	1	24	3	792.57806	0.09484
RP	1	24	1	792.58346	0.37936
PQ	11	38	3	792.59279	0.00668
PQ	11	38	1	792.62421	0.02672
PQ	11	37	3	792.68697	0.00832
PQ	11	37	1	792.71662	0.03328
PP	1	20	3	792.72540	0.23662
PP	1	20	1	792.73019	0.94648
PQ	11	36	3	792.77839	0.01026
PQ	11	36	1	792.80635	0.04104
PP	2	18	2	792.86362	1.11096
PQ	11	35	3	792.86716	0.01258
PP	2	18	0	792.86980	0.27774
PQ	11	35	1	792.89348	0.05032

	K	J	S	WAVE NO	INT
PQ	11	34	3	792.95328	0.01528
PQ	11	34	1	792.97802	0.06112
PP	3	16	3	792.99793	1.31473
PP	3	16	1	793.00203	0.65737
PQ	11	33	3	793.03664	0.01844
PQ	11	33	1	793.05987	0.07376
PQ	11	32	3	793.11745	0.02208
PQ	11	32	1	793.13922	0.08832
PP	4	14	2	793.14114	1.51992
PP	4	14	0	793.14613	0.37998
PQ	11	31	3	793.19562	0.02620
PQ	11	31	1	793.21598	0.10480
PQ	11	30	3	793.27112	0.03084
PQ	11	30	1	793.29014	0.12336
PP	5	12	3	793.29057	0.42778
PP	5	12	1	793.29388	1.71112
PQ	11	29	3	793.34407	0.03598
PQ	11	29	1	793.36179	0.14392
PQ	11	28	3	793.41437	0.04162
PQ	11	28	1	793.43085	0.16648
PP	6	10	2	793.45076	0.94190
PP	6	10	0	793.45424	1.88380
RP	11	43	3	793.46352	0.00054
RP	10	41	2	793.46939	0.00456
RP	11	43	1	793.47083	0.00216
RP	12	45	2	793.47126	0.00050
RP	10	41	0	793.47906	0.00114
RP	9	39	3	793.48106	0.00913
RP	12	45	0	793.48132	0.00100
PQ	11	27	3	793.48220	0.04772
RP	13	47	3	793.48472	0.00010
RP	9	39	1	793.48801	0.00457
RP	13	47	1	793.49233	0.00040
PQ	11	27	1	793.49750	0.19088
RP	8	37	2	793.50584	0.01760
RP	14	49	2	793.51216	0.00016
RP	8	37	0	793.51508	0.00440
RP	14	49	0	793.52255	0.00004
RP	7	35	3	793.53664	0.00808
RP	7	35	1	793.54321	0.03232
PQ	11	26	3	793.54739	0.05418
PQ	11	26	1	793.56155	0.21672
RP	6	33	2	793.58043	0.02837
RP	6	33	0	793.58916	0.05673
PQ	11	25	3	793.61012	0.06094
PP	7	8	3	793.61826	0.51246
PP	7	8	1	793.62064	2.04984
PQ	11	25	1	793.62318	0.24376
RP	0	21	2	793.62396	0.35593
RP	0	21	0	793.62617	1.06777
RP	5	31	3	793.63046	0.02376
RP	5	31	1	793.63660	0.09504
PQ	11	24	3	793.67029	0.06784

	K	J	S	WAVE NO	INT
PQ	11	24	1	793.68232	0.27136
RP	4	29	2	793.69346	0.15176
RP	4	29	0	793.70161	0.03794
PQ	11	23	3	793.72790	0.07470
PQ	11	23	1	793.73894	0.29880
RP	3	27	3	793.76363	0.23067
RP	3	27	1	793.76929	0.11533
PQ	11	22	3	793.78306	0.08132
PQ	11	22	1	793.79315	0.32528
PQ	10	49	2	793.80511	0.00184
PQ	11	21	3	793.83575	0.08742
PQ	11	21	1	793.84496	0.34968
RP	2	25	2	793.84843	0.33104
RP	2	25	0	793.85591	0.08276
PQ	11	20	3	793.88600	0.09272
PQ	11	20	1	793.89435	0.37088
PQ	10	49	0	793.92950	0.00046
PQ	10	48	2	793.93116	0.00248
PQ	11	19	3	793.93369	0.09684
PQ	11	19	1	793.94123	0.38736
RP	1	23	3	793.94856	0.10766
RP	1	23	1	793.95370	0.43064
PQ	11	18	3	793.97901	0.09938
PQ	11	18	1	793.98579	0.39752
PQ	11	17	3	794.02178	0.09994
PQ	11	17	1	794.02785	0.39976
PQ	10	48	0	794.04920	0.00062
PQ	10	47	2	794.05437	0.00328
PQ	11	16	3	794.06219	0.09798
PQ	11	16	1	794.06758	0.39192
PP	1	19	3	794.09878	0.25390
PQ	11	15	3	794.10014	0.09300
PP	1	19	1	794.10331	1.01560
PQ	11	15	1	794.10490	0.37200
PQ	11	14	3	794.13573	0.08442
PQ	11	14	1	794.13991	0.33768
PQ	10	47	0	794.16633	0.00082
PQ	11	13	3	794.16887	0.07160
PQ	11	13	1	794.17249	0.28640
PQ	10	46	2	794.17444	0.00440
PQ	11	12	3	794.19965	0.05384
PQ	11	12	1	794.20276	0.21536
PQ	11	11	3	794.22797	0.03030
PP	2	17	2	794.22988	1.18440
PQ	11	11	1	794.23061	0.12120
PP	2	17	0	794.23561	0.29610
PQ	10	46	0	794.28056	0.00110
PQ	10	45	2	794.29177	0.00584
PP	3	15	3	794.35889	1.38867
PP	3	15	1	794.36275	0.69433
PQ	10	45	0	794.39228	0.00146
PQ	10	44	2	794.40606	0.00760
PP	4	13	2	794.49719	1.59128

	K	J	S	WAVE NO	INT
PQ	10	44	0	794.50120	0.00190
PP	4	13	0	794.50175	0.39782
PQ	10	43	2	794.51761	0.00992
PQ	10	43	0	794.60758	0.00248
PQ	10	42	2	794.62622	0.01280
PP	5	11	3	794.64193	0.44482
PP	5	11	1	794.64502	1.77928
PQ	10	42	0	794.71124	0.00320
PQ	10	41	2	794.73209	0.01640
PP	6	9	2	794.79743	0.97697
PP	6	9	0	794.80053	1.95393
PQ	10	41	0	794.81235	0.00410
PQ	10	40	2	794.83501	0.02088
RP	11	42	3	794.87579	0.00068
RP	10	40	2	794.87811	0.00568
RP	11	42	1	794.88283	0.00272
RP	9	38	3	794.88617	0.01133
RP	12	44	2	794.88675	0.00063
RP	10	40	0	794.88737	0.00142
RP	9	38	1	794.89286	0.00567
RP	12	44	0	794.89640	0.00127
RP	13	46	3	794.90355	0.00014
RP	8	36	2	794.90721	0.02152
PQ	10	40	0	794.91071	0.00522
RP	13	46	1	794.91090	0.00056
RP	8	36	0	794.91603	0.00538
RP	14	48	2	794.93401	0.00024
RP	7	34	3	794.93419	0.00974
PQ	10	39	2	794.93519	0.02640
RP	7	34	1	794.94049	0.03896
RP	14	48	0	794.94401	0.00006
PP	7	7	3	794.96032	0.53470
PP	7	7	1	794.96254	2.13880
RP	6	32	2	794.97395	0.03373
RP	6	32	0	794.98226	0.06747
PQ	10	39	0	795.00652	0.00660
RP	5	30	3	795.01997	0.02786
RP	5	30	1	795.02584	0.11144
RP	0	20	2	795.03206	0.29070
PQ	10	38	2	795.03272	0.03320
RP	0	20	0	795.03428	0.48450
RP	4	28	2	795.07883	0.17560
RP	4	28	0	795.08656	0.04390
PQ	10	38	0	795.09985	0.00830
PQ	10	37	2	795.12731	0.04128
RP	3	26	3	795.14459	0.26360
RP	3	26	1	795.14999	0.13180
PQ	10	37	0	795.19041	0.01032
PQ	10	36	2	795.21925	0.05112
RP	2	24	2	795.22437	0.37408
RP	2	24	0	795.23142	0.09352
PQ	10	36	0	795.27850	0.01278
PQ	10	35	2	795.30856	0.06264

	K	J	S	WAVE NO	INT
PQ	16	45	0	795.31180	0.00030
RP	1	22	3	795.31809	0.12098
RP	1	22	1	795.32297	0.48392
PQ	10	35	0	795.36409	0.01566
PQ	10	34	2	795.39500	0.07632
PQ	10	34	0	795.44699	0.01908
PP	1	18	3	795.46958	0.27014
PP	1	18	1	795.47387	1.08056
PQ	10	33	2	795.47891	0.09216
PQ	10	33	0	795.52750	0.02304
PQ	10	32	2	795.56007	0.11048
PP	2	16	2	795.59378	1.25184
PP	2	16	0	795.59908	0.31296
PQ	10	32	0	795.60539	0.02762
PQ	10	31	2	795.63867	0.13136
PQ	10	31	0	795.68089	0.03284
PQ	10	30	2	795.71453	0.15488
PP	3	14	3	795.71768	1.45447
PP	3	14	1	795.72131	0.72723
PQ	10	30	0	795.75377	0.03872
PQ	10	29	2	795.78784	0.18112
PQ	10	29	0	795.82423	0.04528
PP	4	12	2	795.85109	1.65304
PP	4	12	0	795.85526	0.41326
PQ	10	28	2	795.85851	0.21000
PQ	10	28	0	795.89217	0.05250
PQ	10	27	2	795.92672	0.24136
PQ	10	27	0	795.95777	0.06034
PP	5	10	3	795.99112	0.45960
PQ	10	26	2	795.99228	0.27488
PP	5	10	1	795.99401	1.83840
PQ	10	26	0	796.02085	0.06872
PQ	10	25	2	796.05528	0.31016
PQ	10	25	0	796.08150	0.07754
PQ	10	24	2	796.11565	0.34656
PQ	10	24	0	796.13960	0.08664
PP	6	8	2	796.14194	1.00977
PP	6	8	0	796.14470	2.01953
PQ	10	23	2	796.17365	0.38328
PQ	10	23	0	796.19547	0.09582
PQ	10	22	2	796.22910	0.41936
PQ	9	49	3	796.23788	0.00220
PQ	10	22	0	796.24889	0.10484
PQ	9	49	1	796.28114	0.00110
PQ	10	21	2	796.28201	0.45360
RP	10	39	2	796.28546	0.00712
RP	11	41	3	796.28678	0.00086
RP	9	37	3	796.28990	0.01393
RP	11	41	1	796.29356	0.00344
RP	10	39	0	796.29433	0.00178
RP	9	37	1	796.29633	0.00697
PQ	10	21	0	796.29987	0.11340
RP	12	43	2	796.30105	0.00080

	K	J	S	WAVE NO	INT
RP	8	35	2	796.30711	0.02608
RP	12	43	0	796.31032	0.00160
RP	8	35	0	796.31552	0.00652
RP	13	45	3	796.32120	0.00018
RP	13	45	1	796.32829	0.00072
RP	7	33	3	796.33027	0.01164
PQ	10	20	2	796.33246	0.48464
RP	7	33	1	796.33631	0.04656
PQ	10	20	0	796.34850	0.12116
RP	14	47	2	796.35467	0.00032
RP	14	47	0	796.36430	0.00008
PQ	9	48	3	796.36559	0.00300
RP	6	31	2	796.36600	0.03973
RP	6	31	0	796.37389	0.07947
PQ	10	19	2	796.38036	0.51080
RP	15	49	3	796.39414	0.00013
PQ	10	19	0	796.39467	0.12770
RP	15	49	1	796.40153	0.00007
PQ	9	48	1	796.40692	0.00150
RP	5	29	3	796.40800	0.03238
RP	5	29	1	796.41361	0.12952
PQ	10	18	2	796.42590	0.53024
RP	0	19	2	796.43626	0.41820
RP	0	19	0	796.43848	1.25460
PQ	10	18	0	796.43859	0.13256
RP	4	27	2	796.46254	0.20144
PQ	10	17	2	796.46889	0.54096
RP	4	27	0	796.46985	0.05036
PQ	10	17	0	796.48006	0.13524
PQ	9	47	3	796.49026	0.00400
PQ	10	16	2	796.50952	0.54072
PQ	10	16	0	796.51926	0.13518
RP	3	25	3	796.52399	0.29840
RP	3	25	1	796.52914	0.14920
PQ	9	47	1	796.52971	0.00200
PQ	10	15	2	796.54771	0.52720
PQ	10	15	0	796.55610	0.13180
PQ	10	14	2	796.58344	0.49776
PQ	10	14	0	796.59058	0.12444
RP	2	23	2	796.59885	0.41864
RP	2	23	0	796.60548	0.10466
PQ	9	46	3	796.61186	0.00533
PQ	10	13	2	796.61671	0.44952
PQ	10	13	0	796.62270	0.11238
PQ	10	12	2	796.64763	0.37952
PQ	9	46	1	796.64951	0.00267
PQ	10	12	0	796.65254	0.09488
PQ	10	11	2	796.67609	0.28424
PQ	10	11	0	796.68002	0.07106
RP	1	21	3	796.68636	0.13460
RP	1	21	1	796.69099	0.53840
PQ	10	10	2	796.70221	0.15944
PQ	10	10	0	796.70524	0.03986

	K	J	S	WAVE NO	INT
PQ	9	45	3	796.73062	0.00700
PQ	9	45	1	796.76650	0.00350
PP	1	17	3	796.83762	0.28488
PP	1	17	1	796.84167	1.13952
PQ	9	44	3	796.84632	0.00920
PQ	9	44	1	796.88051	0.00460
PP	2	15	2	796.95531	1.31144
PQ	9	43	3	796.95918	0.01200
PP	2	15	0	796.96022	0.32786
PQ	9	43	1	796.99172	0.00600
PQ	9	42	3	797.06917	0.01547
PP	3	13	3	797.07420	1.51040
PP	3	13	1	797.07762	0.75520
PQ	9	42	1	797.10013	0.00773
PQ	9	41	3	797.17621	0.01987
PP	4	11	2	797.20271	1.70392
PQ	9	41	1	797.20564	0.00993
PP	4	11	0	797.20652	0.42598
PQ	9	40	3	797.28040	0.02533
PQ	9	40	1	797.30834	0.01267
PP	5	9	3	797.33813	0.47206
PP	5	9	1	797.34085	1.88824
PQ	9	39	3	797.38173	0.03207
PQ	9	39	1	797.40824	0.01603
PQ	9	38	3	797.48031	0.04027
PP	6	7	2	797.48409	1.04190
PP	6	7	0	797.48655	2.08380
PQ	9	38	1	797.50543	0.02013
PQ	9	37	3	797.57613	0.05020
PQ	9	37	1	797.59992	0.02510
PQ	9	36	3	797.66909	0.06213
RP	10	38	2	797.69133	0.00880
PQ	9	36	1	797.69160	0.03107
RP	9	36	3	797.69215	0.01700
RP	11	40	3	797.69629	0.00108
RP	9	36	1	797.69833	0.00850
RP	10	38	0	797.69981	0.00220
RP	11	40	1	797.70281	0.00432
RP	8	34	2	797.70553	0.03128
RP	8	34	0	797.71355	0.00782
RP	12	42	2	797.71408	0.00103
RP	12	42	0	797.72297	0.00207
RP	7	32	3	797.72488	0.01380
RP	7	32	1	797.73067	0.05520
RP	13	44	3	797.73766	0.00024
RP	13	44	1	797.74451	0.00096
RP	6	30	2	797.75657	0.04643
PQ	9	35	3	797.75940	0.07633
RP	6	30	0	797.76408	0.09287
RP	14	46	2	797.77425	0.00040
PQ	9	35	1	797.78066	0.03817
RP	14	46	0	797.78352	0.00010
RP	5	28	3	797.79446	0.03730

	K	J	S	WAVE NO	INT
RP	5	28	1	797.79982	0.14920
RP	15	48	3	797.81677	0.00013
RP	15	48	1	797.82391	0.00007
RP	0	18	2	797.83666	0.33518
RP	0	18	0	797.83887	0.55862
RP	4	26	2	797.84467	0.22888
PQ	9	34	3	797.84685	0.09307
RP	4	26	0	797.85159	0.05722
PQ	9	34	1	797.86691	0.04653
RP	3	24	3	797.90170	0.33467
RP	3	24	1	797.90661	0.16733
PQ	9	33	3	797.93164	0.11260
PQ	9	33	1	797.95055	0.05630
RP	2	22	2	797.97184	0.46400
RP	2	22	0	797.97808	0.11600
PQ	9	32	3	798.01378	0.13513
PQ	9	32	1	798.03157	0.06757
RP	1	20	3	798.05334	0.14820
RP	1	20	1	798.05774	0.59280
PQ	9	31	3	798.09315	0.16087
PQ	9	31	1	798.10988	0.08043
PQ	9	30	3	798.16987	0.19000
PQ	9	30	1	798.18557	0.09500
PP	1	16	3	798.20319	0.29772
PP	1	16	1	798.20702	1.19088
PQ	9	29	3	798.24403	0.22260
PQ	9	29	1	798.25874	0.11130
PP	2	14	2	798.31457	1.36144
PQ	9	28	3	798.31543	0.25867
PP	2	14	0	798.31911	0.34036
PQ	9	28	1	798.32919	0.12933
PQ	9	27	3	798.38427	0.29793
PQ	9	27	1	798.39712	0.14897
PP	3	12	3	798.42845	1.55493
PP	3	12	1	798.43168	0.77747
PQ	9	26	3	798.45055	0.34013
PQ	9	26	1	798.46253	0.17007
PQ	9	25	3	798.51427	0.38493
PQ	9	25	1	798.52541	0.19247
PP	4	10	2	798.55218	1.74312
PP	4	10	0	798.55566	0.43578
PQ	9	24	3	798.57533	0.43147
PQ	9	24	1	798.58568	0.21573
PQ	9	23	3	798.63383	0.47900
PQ	9	23	1	798.64342	0.23950
PP	5	8	3	798.68279	0.48246
PP	5	8	1	798.68535	1.92984
PQ	9	22	3	798.68987	0.52640
PQ	9	22	1	798.69873	0.26320
PQ	8	49	2	798.70321	0.00256
PQ	9	21	3	798.74335	0.57227
PQ	9	21	1	798.75152	0.28613
PQ	8	49	0	798.78802	0.00064

	K	J	S	WAVE NO	INT
PQ	9	20	3	798.79426	0.61507
PQ	9	20	1	798.80178	0.30753
PP	6	6	2	798.82406	1.07650
PP	6	6	0	798.82628	2.15300
PQ	8	48	2	798.83201	0.00352
PQ	9	19	3	798.84272	0.65293
PQ	9	19	1	798.84962	0.32647
PQ	9	18	3	798.88871	0.68387
PQ	9	18	1	798.89502	0.34193
PQ	8	48	0	798.91276	0.00088
PQ	9	17	3	798.93214	0.70553
PQ	9	17	1	798.93790	0.35277
PQ	8	47	2	798.95766	0.00472
PQ	9	16	3	798.97311	0.71547
PQ	9	16	1	798.97835	0.35773
PQ	9	15	3	799.01172	0.71107
PQ	9	15	1	799.01647	0.35553
PQ	8	47	0	799.03450	0.00118
PQ	9	14	3	799.04777	0.68933
PQ	9	14	1	799.05206	0.34467
PQ	8	46	2	799.08037	0.00624
PQ	9	13	3	799.08134	0.64740
PQ	9	13	1	799.08522	0.32370
RP	9	35	3	799.09293	0.02053
RP	10	37	2	799.09583	0.01080
RP	9	35	1	799.09886	0.01027
RP	8	33	2	799.10237	0.03728
RP	10	37	0	799.10394	0.00270
RP	11	39	3	799.10452	0.00136
RP	8	33	0	799.11002	0.00932
RP	11	39	1	799.11079	0.00544
PQ	9	12	3	799.11257	0.58187
PQ	9	12	1	799.11604	0.29093
RP	7	31	3	799.11781	0.01618
RP	7	31	1	799.12334	0.06472
RP	12	41	2	799.12583	0.00130
RP	12	41	0	799.13435	0.00260
PQ	9	11	3	799.14133	0.48907
PQ	9	11	1	799.14444	0.24453
RP	6	29	2	799.14547	0.05373
RP	6	29	0	799.15259	0.10747
RP	13	43	3	799.15275	0.00030
PQ	8	46	0	799.15344	0.00156
RP	13	43	1	799.15935	0.00120
PQ	9	10	3	799.16772	0.36493
PQ	9	10	1	799.17051	0.18247
RP	5	27	3	799.17924	0.04256
RP	5	27	1	799.18436	0.17024
PQ	9	9	3	799.19165	0.20420
RP	14	45	2	799.19267	0.00048
PQ	9	9	1	799.19414	0.10210
PQ	8	45	2	799.20013	0.00824
RP	14	45	0	799.20156	0.00012

	K	J	S	WAVE NO	INT
RP	4	25	2	799.22513	0.25760
RP	4	25	0	799.23166	0.06440
RP	0	17	2	799.23316	0.47287
RP	0	17	0	799.23537	1.41862
RP	15	47	3	799.23842	0.00020
RP	15	47	1	799.24532	0.00010
PQ	8	45	0	799.26957	0.00206
RP	3	23	3	799.27785	0.37167
RP	3	23	1	799.28252	0.18583
RP	16	49	2	799.29743	0.00008
RP	16	49	0	799.30667	0.00002
PQ	8	44	2	799.31684	0.01088
RP	2	21	2	799.34317	0.50904
RP	2	21	0	799.34903	0.12726
PQ	8	44	0	799.38279	0.00272
RP	1	19	3	799.41895	0.16140
RP	1	19	1	799.42313	0.64560
PQ	8	43	2	799.43061	0.01416
PQ	8	43	0	799.49318	0.00354
PQ	8	42	2	799.54143	0.01832
PP	1	15	3	799.56608	0.30820
PP	1	15	1	799.56970	1.23280
PQ	8	42	0	799.60075	0.00458
PQ	8	41	2	799.64930	0.02352
PP	2	13	2	799.67156	1.40008
PP	2	13	0	799.67577	0.35002
PQ	8	41	0	799.70550	0.00588
PQ	8	40	2	799.75432	0.03000
PP	3	11	3	799.78033	1.58667
PP	3	11	1	799.78338	0.79333
PQ	8	40	0	799.80750	0.00750
PQ	8	39	2	799.85649	0.03800
PP	4	9	2	799.89927	1.77024
PP	4	9	0	799.90246	0.44256
PQ	8	39	0	799.90678	0.00950
PQ	8	38	2	799.95581	0.04784
PQ	8	38	0	800.00331	0.01196
PP	5	7	3	800.02527	0.49136
PP	5	7	1	800.02769	1.96544
PQ	8	37	2	800.05228	0.05968
PQ	8	37	0	800.09709	0.01492
PQ	8	36	2	800.14590	0.07392
PQ	8	36	0	800.18813	0.01848
PQ	8	35	2	800.23686	0.09096
PQ	8	35	0	800.27661	0.02274
PQ	8	34	2	800.32497	0.11096
PQ	8	34	0	800.36234	0.02774
PQ	8	33	2	800.41034	0.13440
PR	20	20	0	800.44354	0.00002
PQ	8	33	0	800.44541	0.03360
PR	20	20	2	800.45695	0.00008
RP	9	34	3	800.49223	0.02453
PQ	8	32	2	800.49294	0.16152

	K	J	S	WAVE NO	INT
RP	8	32	2	800.49774	0.04400
RP	9	34	1	800.49792	0.01227
RP	10	36	2	800.49885	0.01304
RP	8	32	0	800.50502	0.01100
RP	10	36	0	800.50659	0.00326
RP	7	30	3	800.50925	0.01884
RP	11	38	3	800.51127	0.00166
RP	7	30	1	800.51456	0.07536
RP	11	38	1	800.51731	0.00664
PQ	8	32	0	800.52582	0.04038
RP	6	28	2	800.53269	0.06160
RP	12	40	2	800.53610	0.00163
RP	6	28	0	800.53944	0.12320
RP	12	40	0	800.54427	0.00327
RP	5	26	3	800.56234	0.04812
RP	13	42	3	800.56656	0.00038
RP	5	26	1	800.56724	0.19248
PQ	8	31	2	800.57290	0.19256
RP	13	42	1	800.57292	0.00152
PQ	8	31	0	800.60366	0.04814
RP	4	24	2	800.60391	0.28712
RP	14	44	2	800.60979	0.00064
RP	4	24	0	800.61008	0.07178
RP	14	44	0	800.61835	0.00016
RP	0	16	2	800.62576	0.37136
RP	0	16	0	800.62798	0.61894
PQ	8	30	2	800.65020	0.22784
RP	3	22	3	800.65232	0.40853
RP	3	22	1	800.65677	0.20427
RP	15	46	3	800.65879	0.00027
RP	15	46	1	800.66545	0.00013
PQ	8	30	0	800.67893	0.05696
RP	2	20	2	800.71282	0.55272
RP	2	20	0	800.71832	0.13818
RP	16	48	2	800.72083	0.00008
PQ	8	29	2	800.72475	0.26728
RP	16	48	0	800.72972	0.00002
PR	21	22	3	800.73180	0.00013
PQ	8	29	0	800.75153	0.06682
PR	21	22	1	800.77908	0.00007
RP	1	18	3	800.78310	0.17386
RP	1	18	1	800.78706	0.69544
PQ	8	28	2	800.79673	0.31112
PQ	8	28	0	800.82167	0.07778
PQ	8	27	2	800.86597	0.35912
PQ	8	27	0	800.88912	0.08978
PP	1	14	3	800.92649	0.31592
PP	1	14	1	800.92993	1.26368
PQ	8	26	2	800.93265	0.41088
PQ	8	26	0	800.95411	0.10272
PR	22	24	0	800.99517	0.00002
PQ	8	25	2	800.99667	0.46608
PQ	8	25	0	801.01651	0.11652

	K	J	S	WAVE NO	INT
PR	22	24	2	801.02016	0.00008
PP	2	12	2	801.02608	1.42576
PP	2	12	0	801.02998	0.35644
PQ	8	24	2	801.05814	0.52392
PQ	8	24	0	801.07642	0.13098
PQ	8	23	2	801.11705	0.58352
PP	3	10	3	801.13004	1.60440
PP	3	10	1	801.13293	0.80220
PQ	8	23	0	801.13387	0.14588
PQ	7	49	3	801.16888	0.00074
PQ	8	22	2	801.17341	0.64352
PQ	8	22	0	801.18882	0.16088
PQ	7	49	1	801.20362	0.00296
PQ	8	21	2	801.22720	0.70256
PQ	8	21	0	801.24128	0.17564
PP	4	8	2	801.24410	1.78552
PP	4	8	0	801.24703	0.44638
PQ	8	20	2	801.27844	0.75880
PQ	8	20	0	801.29126	0.18970
PQ	7	48	3	801.29967	0.00100
PQ	8	19	2	801.32713	0.81032
PQ	7	48	1	801.33291	0.00400
PQ	8	19	0	801.33875	0.20258
PP	5	6	3	801.36538	0.49990
PP	5	6	1	801.36769	1.99960
PQ	8	18	2	801.37335	0.85472
PQ	8	18	0	801.38384	0.21368
PQ	8	17	2	801.41702	0.88960
PQ	8	17	0	801.42645	0.22240
PQ	7	47	3	801.42730	0.00136
PQ	8	16	2	801.45823	0.91208
PQ	7	47	1	801.45908	0.00544
PR	19	19	3	801.46140	0.00004
PQ	8	16	0	801.46666	0.22802
PR	19	19	1	801.47216	0.00016
PQ	8	15	2	801.49698	0.91936
PQ	8	15	0	801.50448	0.22984
PQ	8	14	2	801.53327	0.90824
PQ	8	14	0	801.53989	0.22706
PQ	7	46	3	801.55186	0.00180
PQ	8	13	2	801.56710	0.87560
PQ	8	13	0	801.57292	0.21890
PQ	7	46	1	801.58225	0.00720
PQ	8	12	2	801.59837	0.81800
PQ	8	12	0	801.60345	0.20450
PQ	8	11	2	801.62729	0.73168
PQ	8	11	0	801.63168	0.18292
PQ	8	10	2	801.65385	0.61248
PQ	8	10	0	801.65760	0.15312
PQ	7	45	3	801.67338	0.00238
PQ	8	9	2	801.67785	0.45560
PQ	8	9	0	801.68103	0.11390
PQ	8	8	2	801.69949	0.25448

	K	J	S	WAVE NO	INT
PQ	8	8	0	801.70216	0.06362
PQ	7	45	1	801.70240	0.00952
PR	20	21	0	801.70477	0.00006
PR	20	21	2	801.72645	0.00024
PQ	7	44	3	801.79173	0.00312
PQ	7	44	1	801.81944	0.01248
RP	9	33	3	801.88985	0.02913
RP	8	31	2	801.89143	0.05144
RP	9	33	1	801.89531	0.01457
RP	8	31	0	801.89836	0.01286
RP	7	29	3	801.89893	0.02170
RP	10	35	2	801.90029	0.01576
RP	7	29	1	801.90401	0.08680
PQ	7	43	3	801.90714	0.00408
RP	10	35	0	801.90768	0.00394
RP	11	37	3	801.91654	0.00204
RP	6	27	2	801.91824	0.06993
RP	11	37	1	801.92236	0.00816
RP	6	27	0	801.92464	0.13987
PQ	7	43	1	801.93356	0.01632
RP	5	25	3	801.94377	0.05384
RP	12	39	2	801.94500	0.00200
RP	5	25	1	801.94845	0.21536
RP	12	39	0	801.95282	0.00400
RP	13	41	3	801.97909	0.00048
RP	4	23	2	801.98103	0.31672
RP	13	41	1	801.98522	0.00192
RP	4	23	0	801.98685	0.07918
PR	21	23	3	801.99539	0.00020
RP	0	15	2	802.01436	0.51285
RP	0	15	0	802.01658	1.53855
PQ	7	42	3	802.01958	0.00530
RP	3	21	3	802.02491	0.44447
RP	14	43	2	802.02565	0.00088
RP	3	21	1	802.02915	0.22223
RP	14	43	0	802.03386	0.00022
PQ	7	42	1	802.04477	0.02120
PR	21	23	1	802.06036	0.00010
RP	15	45	3	802.07798	0.00033
RP	2	19	2	802.08081	0.59352
RP	15	45	1	802.08441	0.00017
RP	2	19	0	802.08597	0.14838
PQ	7	41	3	802.12895	0.00680
RP	16	47	2	802.14304	0.00016
RP	1	17	3	802.14566	0.18508
RP	1	17	1	802.14942	0.74032
RP	16	47	0	802.15160	0.00004
PQ	7	41	1	802.15295	0.02720
PQ	7	40	3	802.23547	0.00868
PR	22	25	0	802.24648	0.00004
PQ	7	40	1	802.25832	0.03472
PR	22	25	2	802.27893	0.00016
PP	1	13	3	802.28434	0.32048

	K	J	S	WAVE NO	INT
PP	1	13	1	802.28761	1.28192
PQ	7	39	3	802.33904	0.01102
PQ	7	39	1	802.36076	0.04408
PP	2	11	2	802.37844	1.43704
PP	2	11	0	802.38206	0.35926
PR	23	27	1	802.38372	0.00008
PQ	7	38	3	802.43964	0.01386
PR	18	18	0	802.45442	0.00027
PQ	7	38	1	802.46029	0.05544
PP	3	9	3	802.47748	1.60767
PP	3	9	1	802.48022	0.80383
PR	18	18	2	802.48515	0.00013
PQ	7	37	3	802.53738	0.01732
PQ	7	37	1	802.55698	0.06928
PR	23	27	3	802.56108	0.00002
PP	4	7	2	802.58667	1.79048
PP	4	7	0	802.58937	0.44762
PQ	7	36	3	802.63227	0.02148
PQ	7	36	1	802.65086	0.08592
PP	5	5	3	802.70313	0.51036
PP	5	5	1	802.70534	2.04144
PQ	7	35	3	802.72440	0.02644
PR	19	20	3	802.73314	0.00008
PQ	7	35	1	802.74201	0.10576
PR	19	20	1	802.74861	0.00032
PQ	7	34	3	802.81355	0.03232
PQ	7	34	1	802.83023	0.12928
PQ	7	33	3	802.90005	0.03918
PQ	7	33	1	802.91582	0.15672
PR	20	22	0	802.96288	0.00008
PQ	7	32	3	802.98370	0.04714
PR	20	22	2	802.99314	0.00032
PQ	7	32	1	802.99859	0.18856
PQ	7	31	3	803.06457	0.05630
PQ	7	31	1	803.07863	0.22520
PQ	7	30	3	803.14278	0.06668
PQ	7	30	1	803.15603	0.26672
PQ	7	29	3	803.21824	0.07838
PQ	7	29	1	803.23071	0.31352
PR	21	24	3	803.25596	0.00027
RP	8	30	2	803.28345	0.05960
RP	9	32	3	803.28599	0.03420
RP	7	28	3	803.28692	0.02476
RP	8	30	0	803.29004	0.01490
PQ	7	28	3	803.29102	0.09136
RP	9	32	1	803.29124	0.01710
RP	7	28	1	803.29179	0.09904
RP	10	34	2	803.30025	0.01880
RP	6	26	2	803.30202	0.07863
PQ	7	28	1	803.30274	0.36544
RP	10	34	0	803.30731	0.00470
RP	6	26	0	803.30808	0.15727
RP	11	36	3	803.32034	0.00246

	K	J	S	WAVE NO	INT
RP	5	24	3	803.32343	0.05964
RP	11	36	1	803.32592	0.00984
RP	5	24	1	803.32789	0.23856
PR	21	24	1	803.34017	0.00013
RP	12	38	2	803.35242	0.00247
RP	4	22	2	803.35626	0.34568
RP	12	38	0	803.35990	0.00493
PQ	7	27	3	803.36105	0.10564
RP	4	22	0	803.36175	0.08642
PQ	7	27	1	803.37206	0.42256
RP	13	40	3	803.39014	0.00058
RP	3	20	3	803.39583	0.47820
RP	13	40	1	803.39605	0.00232
RP	0	14	2	803.39896	0.39379
RP	3	20	1	803.39986	0.23910
RP	0	14	0	803.40118	0.65631
PQ	7	26	3	803.42851	0.12112
PQ	7	26	1	803.43883	0.48448
RP	14	42	2	803.44012	0.00104
RP	2	18	2	803.44701	0.63008
RP	14	42	0	803.44801	0.00026
RP	2	18	0	803.45186	0.15752
PQ	7	25	3	803.49322	0.13768
PR	22	26	0	803.49456	0.00004
RP	15	44	3	803.49589	0.00047
RP	15	44	1	803.50210	0.00023
PQ	7	25	1	803.50287	0.55072
RP	1	16	3	803.50665	0.19464
RP	1	16	1	803.51023	0.77856
PR	17	17	3	803.52247	0.00010
PR	17	17	1	803.52881	0.00040
PR	22	26	2	803.53474	0.00016
PQ	7	24	3	803.55535	0.15514
RP	16	46	2	803.56408	0.00016
PQ	7	24	1	803.56438	0.62056
RP	16	46	0	803.57231	0.00004
PR	23	28	1	803.60497	0.00008
PQ	7	23	3	803.61492	0.17324
PQ	7	23	1	803.62334	0.69296
PP	1	12	3	803.63971	0.32154
PP	1	12	1	803.64281	1.28616
PQ	6	49	2	803.66195	0.00167
PQ	7	22	3	803.67183	0.19166
PQ	7	22	1	803.67968	0.76664
PR	18	19	0	803.71212	0.00060
PQ	6	49	0	803.72417	0.00333
PQ	7	21	3	803.72617	0.20998
PP	2	10	2	803.72833	1.43296
PP	2	10	0	803.73168	0.35824
PQ	7	21	1	803.73348	0.83992
PR	18	19	2	803.75985	0.00030
PQ	7	20	3	803.77795	0.22772
PQ	7	20	1	803.78474	0.91088

	K	J	S	WAVE NO	INT
PQ	6	48	2	803.79456	0.00227
PR	23	28	3	803.81020	0.00002
PP	3	8	3	803.82255	1.59627
PP	3	8	1	803.82516	0.79813
PQ	7	19	3	803.82717	0.24436
PQ	7	19	1	803.83347	0.97744
PQ	6	48	0	803.85394	0.00453
PQ	7	18	3	803.87382	0.25922
PQ	7	18	1	803.87965	1.03688
PQ	7	17	3	803.91801	0.27166
PQ	7	17	1	803.92339	1.08664
PQ	6	47	2	803.92391	0.00303
PP	4	6	2	803.92696	1.78816
PP	4	6	0	803.92947	0.44704
PQ	7	16	3	803.95963	0.28090
PQ	7	16	1	803.96460	1.12360
PQ	6	47	0	803.98055	0.00607
PQ	7	15	3	803.99868	0.28618
PR	19	21	3	804.00195	0.00014
PQ	7	15	1	804.00327	1.14472
PR	19	21	1	804.02242	0.00056
PQ	7	14	3	804.03537	0.28668
PQ	7	14	1	804.03960	1.14672
PQ	6	46	2	804.05012	0.00403
PQ	7	13	3	804.06950	0.28154
PQ	7	13	1	804.07338	1.12616
PQ	7	12	3	804.10115	0.26990
PQ	6	46	0	804.10410	0.00807
PQ	7	12	1	804.10473	1.07960
PQ	7	11	3	804.13035	0.25082
PQ	7	11	1	804.13364	1.00328
PQ	7	10	3	804.15707	0.22330
PQ	7	10	1	804.16010	0.89320
PQ	6	45	2	804.17317	0.00537
PQ	7	9	3	804.18134	0.18622
PQ	7	9	1	804.18412	0.74488
PQ	7	8	3	804.20313	0.13816
PQ	7	8	1	804.20570	0.55264
PR	20	23	0	804.21783	0.00012
PQ	7	7	3	804.22256	0.07712
PQ	6	45	0	804.22459	0.01073
PQ	7	7	1	804.22495	0.30848
PR	20	23	2	804.25694	0.00048
PQ	6	44	2	804.29317	0.00703
PQ	6	44	0	804.34212	0.01407
PQ	6	43	2	804.41002	0.00920
PQ	6	43	0	804.45657	0.01840
PR	21	25	3	804.51350	0.00033
PQ	6	42	2	804.52381	0.01193
PQ	6	42	0	804.56806	0.02387
PR	16	16	2	804.57858	0.00064
PR	16	16	0	804.61119	0.00016
PR	21	25	1	804.61868	0.00017

	K	J	S	WAVE NO	INT
PQ	6	41	2	804.63455	0.01537
RP	7	27	3	804.67313	0.02796
RP	8	29	2	804.67369	0.06832
PQ	6	41	0	804.67657	0.03073
RP	7	27	1	804.67780	0.11184
RP	8	29	0	804.67995	0.01708
RP	9	31	3	804.68035	0.03987
RP	6	25	2	804.68401	0.08750
RP	9	31	1	804.68539	0.01993
RP	6	25	0	804.68976	0.17500
RP	10	33	2	804.69854	0.02216
RP	5	23	3	804.70120	0.06536
RP	10	33	0	804.70528	0.00554
RP	5	23	1	804.70547	0.26144
RP	11	35	3	804.72255	0.00294
RP	11	35	1	804.72792	0.01176
RP	4	21	2	804.72963	0.37304
RP	4	21	0	804.73480	0.09326
PR	22	27	0	804.73932	0.00004
PQ	6	40	2	804.74233	0.01963
RP	12	37	2	804.75835	0.00300
RP	3	19	3	804.76477	0.50853
RP	12	37	0	804.76552	0.00600
RP	3	19	1	804.76862	0.25427
RP	0	13	2	804.77956	0.53090
RP	0	13	0	804.78178	1.59270
PQ	6	40	0	804.78221	0.03927
PR	22	27	2	804.78748	0.00016
PR	17	18	3	804.79953	0.00026
RP	13	39	3	804.79980	0.00072
RP	13	39	1	804.80550	0.00288
PR	17	18	1	804.80814	0.00104
RP	2	17	2	804.81136	0.66080
RP	2	17	0	804.81590	0.16520
PR	23	29	1	804.82377	0.00008
PQ	6	39	2	804.84706	0.02490
RP	14	41	2	804.85332	0.00136
RP	14	41	0	804.86088	0.00034
RP	1	15	3	804.86587	0.20206
RP	1	15	1	804.86928	0.80824
PQ	6	39	0	804.88486	0.04980
RP	15	43	3	804.91241	0.00060
RP	15	43	1	804.91841	0.00030
PQ	6	38	2	804.94884	0.03140
PR	18	20	0	804.96660	0.00100
RP	16	45	2	804.98393	0.00024
PQ	6	38	0	804.98464	0.06280
RP	16	45	0	804.99185	0.00006
PP	1	11	3	804.99271	0.31882
PP	1	11	1	804.99567	1.27528
PR	18	20	2	805.03164	0.00050
PQ	6	37	2	805.04766	0.03927
PR	23	29	3	805.05621	0.00002

	K	J	S	WAVE NO	INT
RP	17	47	3	805.06117	0.00002
RP	17	47	1	805.06744	0.00008
PP	2	9	2	805.07595	1.41264
PP	2	9	0	805.07907	0.35316
PQ	6	37	0	805.08154	0.07853
PQ	6	36	2	805.14362	0.04873
PP	3	7	3	805.16534	1.57093
PP	3	7	1	805.16785	0.78547
PQ	6	36	0	805.17564	0.09747
PQ	6	35	2	805.23663	0.06007
PP	4	5	2	805.26489	1.78472
PQ	6	35	0	805.26685	0.12013
PP	4	5	0	805.26724	0.44618
PR	19	22	3	805.26792	0.00020
PR	19	22	1	805.29372	0.00080
PQ	6	34	2	805.32677	0.07350
PQ	6	34	0	805.35528	0.14700
PQ	6	33	2	805.41406	0.08920
PQ	6	33	0	805.44091	0.17840
PR	20	24	0	805.46958	0.00014
PQ	6	32	2	805.49850	0.10747
PR	20	24	2	805.51784	0.00056
PQ	6	32	0	805.52375	0.21493
PQ	6	31	2	805.58017	0.12850
PQ	6	31	0	805.60390	0.25700
PR	15	15	3	805.64886	0.00100
PR	15	15	1	805.65340	0.00050
PQ	6	30	2	805.65909	0.15243
PQ	6	30	0	805.68134	0.30487
PQ	6	29	2	805.73524	0.17943
PQ	6	29	0	805.75608	0.35887
PR	21	26	3	805.76804	0.00033
PQ	6	28	2	805.80865	0.20950
PQ	6	28	0	805.82812	0.41900
PR	16	17	2	805.85844	0.00168
PQ	6	27	2	805.87929	0.24263
PR	21	26	1	805.89604	0.00017
PQ	6	27	0	805.89747	0.48527
PR	16	17	0	805.90861	0.00042
PQ	6	26	2	805.94727	0.27867
PQ	6	26	0	805.96421	0.55733
PR	22	28	0	805.98086	0.00006
PQ	6	25	2	806.01258	0.31740
PQ	6	25	0	806.02834	0.63480
PR	22	28	2	806.03725	0.00024
PR	23	30	1	806.04002	0.00008
RP	7	26	3	806.05767	0.03126
RP	7	26	1	806.06213	0.12504
RP	8	28	2	806.06236	0.07752
RP	6	24	2	806.06424	0.09630
RP	8	28	0	806.06830	0.01938
RP	6	24	0	806.06967	0.19260
RP	9	30	3	806.07304	0.04593

	K	J	S	WAVE NO	INT
PR	17	19	3	806.07365	0.00042
PQ	6	24	2	806.07514	0.35843
RP	5	22	3	806.07710	0.07080
RP	9	30	1	806.07787	0.02297
RP	5	22	1	806.08118	0.28320
PR	17	19	1	806.08467	0.00168
PQ	6	24	0	806.08977	0.71687
RP	10	32	2	806.09515	0.02600
RP	4	20	2	806.10122	0.39792
RP	10	32	0	806.10157	0.00650
RP	4	20	0	806.10609	0.09948
RP	11	34	3	806.12318	0.00350
RP	11	34	1	806.12835	0.01400
RP	3	18	3	806.13184	0.53413
PQ	6	23	2	806.13514	0.40120
RP	3	18	1	806.13551	0.26707
PQ	6	23	0	806.14868	0.80240
PQ	5	49	3	806.15253	0.00090
RP	0	12	2	806.15616	0.39720
RP	0	12	0	806.15838	0.66200
RP	12	36	2	806.16271	0.00360
RP	12	36	0	806.16957	0.00720
RP	2	16	2	806.17372	0.68408
RP	2	16	0	806.17798	0.17102
PQ	5	49	1	806.18108	0.00360
PQ	6	22	2	806.19248	0.44503
PQ	6	22	0	806.20499	0.89007
RP	13	38	3	806.20799	0.00088
RP	13	38	1	806.21348	0.00352
PR	18	21	0	806.21802	0.00140
RP	1	14	3	806.22341	0.20684
RP	1	14	1	806.22665	0.82736
PQ	6	21	2	806.24726	0.48903
PQ	6	21	0	806.25879	0.97807
RP	14	40	2	806.26504	0.00168
RP	14	40	0	806.27229	0.00042
PQ	5	48	3	806.28805	0.00122
PR	23	30	3	806.29904	0.00002
PQ	6	20	2	806.29938	0.53217
PR	18	21	2	806.30061	0.00070
PQ	6	20	0	806.30997	1.06433
PQ	5	48	1	806.31541	0.00488
RP	15	42	3	806.32766	0.00073
RP	15	42	1	806.33345	0.00037
PP	1	10	3	806.34314	0.31206
PP	1	10	1	806.34596	1.24824
PQ	6	19	2	806.34893	0.57327
PQ	6	19	0	806.35865	1.14653
PQ	6	18	2	806.39592	0.61097
RP	16	44	2	806.40251	0.00032
PQ	6	18	0	806.40481	1.22193
RP	16	44	0	806.41013	0.00008
PQ	5	47	3	806.42032	0.00164

	K	J	S	WAVE NO	INT
PP	2	8	2	806.42130	1.37592
PP	2	8	0	806.42421	0.34398
PQ	6	17	2	806.44035	0.64380
PQ	5	47	1	806.44653	0.00656
PQ	6	17	0	806.44846	1.28760
PQ	6	16	2	806.48222	0.67020
RP	17	46	3	806.48298	0.00004
RP	17	46	1	806.48904	0.00016
PQ	6	16	0	806.48959	1.34040
PP	3	6	3	806.50577	1.53353
PP	3	6	1	806.50818	0.76677
PQ	6	15	2	806.52163	0.68847
PQ	6	15	0	806.52831	1.37693
PR	19	23	3	806.53097	0.00026
PQ	5	46	3	806.54922	0.00220
PQ	6	14	2	806.55847	0.69687
PR	19	23	1	806.56242	0.00104
PQ	6	14	0	806.56451	1.39373
PQ	5	46	1	806.57433	0.00880
PQ	6	13	2	806.59276	0.69363
PQ	6	13	0	806.59819	1.38727
PP	4	4	2	806.60046	1.79256
PP	4	4	0	806.60268	0.44814
PQ	6	12	2	806.62458	0.67707
PQ	6	12	0	806.62946	1.35413
PQ	6	11	2	806.65394	0.64527
PQ	6	11	0	806.65830	1.29053
PQ	5	45	3	806.67497	0.00292
PQ	6	10	2	806.68083	0.59647
PQ	6	10	0	806.68473	1.19293
PQ	5	45	1	806.69899	0.01168
PQ	6	9	2	806.70526	0.52860
PQ	6	9	0	806.70874	1.05720
PR	20	25	0	806.71808	0.00016
PQ	6	8	2	806.72723	0.43930
PQ	6	8	0	806.73033	0.87860
PR	14	14	2	806.73749	0.00160
PQ	6	7	2	806.74673	0.32533
PR	14	14	0	806.74689	0.00040
PQ	6	7	0	806.74950	0.65067
PQ	6	6	2	806.76378	0.18173
PQ	6	6	0	806.76625	0.36347
PR	20	25	2	806.77573	0.00064
PQ	5	44	3	806.79736	0.00384
PQ	5	44	1	806.82032	0.01536
PQ	5	43	3	806.91659	0.00504
PR	15	16	3	806.93110	0.00260
PR	15	16	1	806.93694	0.00130
PQ	5	43	1	806.93853	0.02016
PR	21	27	3	807.01956	0.00040
PQ	5	42	3	807.03265	0.00654
PQ	5	42	1	807.05360	0.02616
PR	16	18	2	807.13548	0.00280

	K	J	S	WAVE NO	INT
PQ	5	41	3	807.14555	0.00842
PQ	5	41	1	807.16555	0.03368
PR	21	27	1	807.17249	0.00020
PR	16	18	0	807.20498	0.00070
PR	22	29	0	807.21898	0.00006
PR	23	31	1	807.25384	0.00008
PQ	5	40	3	807.25539	0.01078
PQ	5	40	1	807.27446	0.04312
PR	22	29	2	807.28388	0.00024
PR	17	20	3	807.34493	0.00060
PR	17	20	1	807.35851	0.00240
PQ	5	39	3	807.36207	0.01372
PQ	5	39	1	807.38024	0.05488
RP	7	25	3	807.44034	0.03456
RP	6	23	2	807.44258	0.10477
RP	7	25	1	807.44460	0.13824
RP	6	23	0	807.44772	0.20953
RP	8	27	2	807.44914	0.08712
RP	5	21	3	807.45113	0.07580
RP	8	27	0	807.45479	0.02178
RP	5	21	1	807.45502	0.30320
RP	9	29	3	807.46404	0.05240
PQ	5	38	3	807.46568	0.01730
PR	18	22	0	807.46642	0.00173
RP	9	29	1	807.46867	0.02620
RP	4	19	2	807.47073	0.41920
RP	4	19	0	807.47532	0.10480
PQ	5	38	1	807.48299	0.06920
RP	10	31	2	807.49018	0.03008
RP	10	31	0	807.49630	0.00752
RP	3	17	3	807.49703	0.55367
RP	3	17	1	807.50053	0.27683
RP	11	33	3	807.52214	0.00412
RP	11	33	1	807.52710	0.01648
RP	0	11	2	807.52866	0.52058
RP	0	11	0	807.53088	1.56173
RP	2	15	2	807.53422	0.69824
RP	2	15	0	807.53821	0.17456
PR	23	31	3	807.53877	0.00002
RP	12	35	2	807.56550	0.00430
PQ	5	37	3	807.56622	0.02166
PR	18	22	2	807.56677	0.00087
RP	12	35	0	807.57205	0.00860
RP	1	13	3	807.57898	0.20858
RP	1	13	1	807.58208	0.83432
PQ	5	37	1	807.58270	0.08664
RP	13	37	3	807.61460	0.00108
RP	13	37	1	807.61989	0.00432
PQ	5	36	3	807.66381	0.02694
RP	14	39	2	807.67528	0.00208
PQ	5	36	1	807.67947	0.10776
RP	14	39	0	807.68222	0.00052
PP	1	9	3	807.69120	0.30116

	K	J	S	WAVE NO	INT
PP	1	9	1	807.69389	1.20464
RP	15	41	3	807.74153	0.00093
RP	15	41	1	807.74711	0.00047
PQ	5	35	3	807.75843	0.03324
PP	2	7	2	807.76418	1.32296
PP	2	7	0	807.76691	0.33074
PQ	5	35	1	807.77332	0.13296
PR	19	24	3	807.79099	0.00030
RP	16	43	2	807.81971	0.00040
RP	16	43	0	807.82702	0.00010
PR	19	24	1	807.82843	0.00120
PR	13	13	3	807.84042	0.00062
PP	3	5	3	807.84383	1.48760
PR	13	13	1	807.84406	0.00248
PP	3	5	1	807.84615	0.74380
PQ	5	34	3	807.84999	0.04072
PQ	5	34	1	807.86411	0.16288
RP	17	45	3	807.90351	0.00004
RP	17	45	1	807.90937	0.00016
PQ	5	33	3	807.93868	0.04950
PQ	5	33	1	807.95208	0.19800
PR	20	26	0	807.96332	0.00018
RP	18	47	2	807.99959	0.00003
RP	18	47	0	808.00723	0.00007
PR	14	15	2	808.02249	0.00408
PQ	5	32	3	808.02451	0.05972
PR	20	26	2	808.03064	0.00072
PR	14	15	0	808.03593	0.00102
PQ	5	32	1	808.03720	0.23888
PQ	5	31	3	808.10748	0.07150
PQ	5	31	1	808.11949	0.28600
PQ	5	30	3	808.18747	0.08494
PQ	5	30	1	808.19884	0.33976
PR	15	17	3	808.21049	0.00447
PR	15	17	1	808.21770	0.00223
PQ	5	29	3	808.26470	0.10012
PR	21	28	3	808.26797	0.00040
PQ	5	29	1	808.27544	0.40048
PQ	5	28	3	808.33917	0.11710
PQ	5	28	1	808.34930	0.46840
PR	16	19	2	808.40977	0.00392
PQ	5	27	3	808.41087	0.13584
PQ	5	27	1	808.42043	0.54336
PR	21	28	1	808.44814	0.00020
PR	22	30	0	808.45380	0.00006
PR	23	32	1	808.46490	0.00008
PQ	5	26	3	808.47971	0.15630
PQ	5	26	1	808.48870	0.62520
PR	16	19	0	808.50059	0.00098
PR	22	30	2	808.52744	0.00024
PQ	5	25	3	808.54588	0.17834
PQ	5	25	1	808.55434	0.71336
PQ	5	24	3	808.60928	0.20180

	K	J	S	WAVE NO	INT
PR	17	21	3	808.61337	0.00074
PQ	5	24	1	808.61723	0.80720
PR	17	21	1	808.62965	0.00296
PQ	4	49	2	808.65929	0.00376
PQ	5	23	3	808.67001	0.22636
PQ	5	23	1	808.67747	0.90544
PQ	4	49	0	808.70715	0.00094
PR	18	23	0	808.71165	0.00200
PQ	5	22	3	808.72808	0.25166
PQ	5	22	1	808.73508	1.00664
PR	23	32	3	808.77512	0.00002
PQ	5	21	3	808.78348	0.27726
PQ	5	21	1	808.79004	1.10904
PQ	4	48	2	808.79847	0.00512
RP	6	22	2	808.81895	0.11263
RP	7	24	3	808.82112	0.03778
RP	5	20	3	808.82327	0.08014
RP	6	22	0	808.82381	0.22527
RP	7	24	1	808.82520	0.15112
RP	5	20	1	808.82699	0.32056
PR	18	23	2	808.82991	0.00100
RP	8	26	2	808.83405	0.09680
PQ	5	20	3	808.83621	0.30260
RP	4	18	2	808.83838	0.43568
RP	8	26	0	808.83941	0.02420
PQ	5	20	1	808.84235	1.21040
RP	4	18	0	808.84270	0.10892
PQ	4	48	0	808.84422	0.00128
RP	9	28	3	808.85327	0.05920
RP	9	28	1	808.85770	0.02960
RP	3	16	3	808.86015	0.56580
RP	3	16	1	808.86349	0.28290
RP	10	30	2	808.88344	0.03456
PQ	5	19	3	808.88628	0.32706
RP	10	30	0	808.88927	0.00864
PQ	5	19	1	808.89202	1.30824
RP	2	14	2	808.89274	0.70192
RP	2	14	0	808.89648	0.17548
RP	0	10	2	808.89716	0.37748
RP	0	10	0	808.89938	0.62912
RP	11	32	3	808.91952	0.00480
RP	11	32	1	808.92429	0.01920
RP	1	12	3	808.93257	0.20684
PQ	5	18	3	808.93378	0.34990
PQ	4	47	2	808.93410	0.00696
RP	1	12	1	808.93553	0.82736
PQ	5	18	1	808.93914	1.39960
PR	12	12	2	808.96170	0.00183
RP	12	34	2	808.96671	0.00510
PR	12	12	0	808.96714	0.00367
RP	12	34	0	808.97296	0.01020
PQ	4	47	0	808.97781	0.00174
PQ	5	17	3	808.97871	0.37036

	K	J	S	WAVE NO	INT
PQ	5	17	1	808.98372	1.48144
RP	13	36	3	809.01973	0.00130
PQ	5	16	3	809.02107	0.38758
RP	13	36	1	809.02482	0.00520
PQ	5	16	1	809.02575	1.55032
PP	1	8	3	809.03678	0.28604
PP	1	8	1	809.03938	1.14416
PR	19	25	3	809.04797	0.00032
PQ	5	15	3	809.06077	0.40068
PQ	5	15	1	809.06512	1.60272
PQ	4	46	2	809.06627	0.00928
RP	14	38	2	809.08404	0.00248
RP	14	38	0	809.09069	0.00062
PR	19	25	1	809.09177	0.00128
PQ	5	14	3	809.09800	0.40878
PQ	5	14	1	809.10206	1.63512
PP	2	6	2	809.10470	1.25472
PP	2	6	0	809.10727	0.31368
PQ	4	46	0	809.10801	0.00232
PR	13	14	3	809.12799	0.00158
PR	13	14	1	809.13242	0.00632
PQ	5	13	3	809.13276	0.41098
PQ	5	13	1	809.13654	1.64392
RP	15	40	3	809.15401	0.00113
RP	15	40	1	809.15939	0.00057
PQ	5	12	3	809.16485	0.40638
PQ	5	12	1	809.16839	1.62552
PP	3	4	3	809.17951	1.44047
PP	3	4	1	809.18177	0.72023
PQ	5	11	3	809.19447	0.39410
PQ	4	45	2	809.19508	0.01232
PQ	5	11	1	809.19778	1.57640
PR	20	27	0	809.20521	0.00018
PQ	5	10	3	809.22163	0.37334
PQ	5	10	1	809.22472	1.49336
PQ	4	45	0	809.23492	0.00308
RP	16	42	2	809.23553	0.00048
RP	16	42	0	809.24255	0.00012
PQ	5	9	3	809.24632	0.34318
PQ	5	9	1	809.24921	1.37272
PQ	5	8	3	809.26843	0.30272
PQ	5	8	1	809.27116	1.21088
PR	20	27	2	809.28246	0.00072
PQ	5	7	3	809.28809	0.25076
PQ	5	7	1	809.29065	1.00304
PR	14	16	2	809.30475	0.00696
PQ	5	6	3	809.30527	0.18552
PQ	5	6	1	809.30769	0.74208
PQ	5	5	3	809.31998	0.10396
PQ	4	44	2	809.32044	0.01624
PQ	5	5	1	809.32229	0.41584
PR	14	16	0	809.32253	0.00174
RP	17	44	3	809.32275	0.00006

	K	J	S	WAVE NO	INT
RP	17	44	1	809.32841	0.00024
PQ	4	44	0	809.35843	0.00406
RP	18	46	2	809.42197	0.00003
RP	18	46	0	809.42932	0.00007
PQ	4	43	2	809.44234	0.02136
PQ	4	43	0	809.47854	0.00534
PR	15	18	3	809.48724	0.00627
PR	15	18	1	809.49591	0.00313
PR	21	29	3	809.51325	0.00040
PQ	4	42	2	809.56108	0.02776
PQ	4	42	0	809.59556	0.00694
PR	23	33	1	809.67342	0.00008
PQ	4	41	2	809.67646	0.03584
PR	16	20	2	809.68114	0.00488
PR	22	31	0	809.68510	0.00006
PQ	4	41	0	809.70927	0.00896
PR	21	29	1	809.72330	0.00020
PR	22	31	2	809.76775	0.00024
PQ	4	40	2	809.78859	0.04600
PR	16	20	0	809.79546	0.00122
PQ	4	40	0	809.81978	0.01150
PR	17	22	3	809.87886	0.00086
PQ	4	39	2	809.89745	0.05856
PR	17	22	1	809.89802	0.00344
PQ	4	39	0	809.92709	0.01464
PR	18	24	0	809.95374	0.00220
PQ	4	38	2	810.00316	0.07400
PR	23	33	3	810.00827	0.00002
PQ	4	38	0	810.03128	0.01850
PR	18	24	2	810.09003	0.00110
PR	11	11	3	810.09745	0.00134
PR	11	11	1	810.10056	0.00536
PQ	4	37	2	810.10570	0.09280
PQ	4	37	0	810.13238	0.02320
RP	5	19	3	810.19344	0.08356
RP	6	21	2	810.19346	0.11950
RP	5	19	1	810.19699	0.33424
RP	6	21	0	810.19804	0.23900
RP	7	23	3	810.19992	0.04080
RP	7	23	1	810.20383	0.16320
RP	4	17	2	810.20405	0.44624
PQ	4	36	2	810.20509	0.11560
RP	4	17	0	810.20811	0.11156
RP	8	25	2	810.21719	0.10632
RP	3	15	3	810.22129	0.56913
RP	8	25	0	810.22227	0.02658
RP	3	15	1	810.22448	0.28457
PQ	4	36	0	810.23035	0.02890
RP	9	27	3	810.24062	0.06607
RP	9	27	1	810.24487	0.03303
RP	2	13	2	810.24918	0.69376
PR	12	13	2	810.25190	0.00470
RP	2	13	0	810.25271	0.17344

	K	J	S	WAVE NO	INT
PR	12	13	0	810.25916	0.00940
RP	0	9	2	810.26146	0.47747
RP	0	9	0	810.26368	1.43243
RP	10	29	2	810.27492	0.03920
RP	10	29	0	810.28046	0.00980
RP	1	11	3	810.28429	0.20134
RP	1	11	1	810.28712	0.80536
PQ	4	35	2	810.30141	0.14288
PR	19	26	3	810.30193	0.00034
RP	11	31	3	810.31511	0.00554
RP	11	31	1	810.31969	0.02216
PQ	4	35	0	810.32533	0.03572
PR	19	26	1	810.35246	0.00136
RP	12	33	2	810.36633	0.00597
RP	12	33	0	810.37230	0.01193
PP	1	7	3	810.37999	0.26678
PP	1	7	1	810.38249	1.06712
PQ	4	34	2	810.39467	0.17536
PR	13	15	3	810.41270	0.00268
PQ	4	34	0	810.41728	0.04384
PR	13	15	1	810.41798	0.01072
RP	13	35	3	810.42318	0.00154
RP	13	35	1	810.42807	0.00616
PP	2	5	2	810.44294	1.17304
PR	20	28	0	810.44376	0.00018
PP	2	5	0	810.44539	0.29326
PQ	4	33	2	810.48487	0.21352
RP	14	37	2	810.49132	0.00304
RP	14	37	0	810.49769	0.00076
PQ	4	33	0	810.50623	0.05338
PP	3	3	3	810.51283	1.40807
PP	3	3	1	810.51504	0.70403
PR	20	28	2	810.53117	0.00072
RP	15	39	3	810.56492	0.00140
RP	15	39	1	810.57011	0.00070
PQ	4	32	2	810.57201	0.25808
PR	14	17	2	810.58427	0.00984
PQ	4	32	0	810.59216	0.06452
PR	14	17	0	810.60671	0.00246
RP	16	41	2	810.65006	0.00064
PQ	4	31	2	810.65629	0.30952
RP	16	41	0	810.65680	0.00016
PQ	4	31	0	810.67528	0.07738
PQ	4	30	2	810.73760	0.36832
RP	17	43	3	810.74072	0.00006
RP	17	43	1	810.74619	0.00024
PR	21	30	3	810.75533	0.00040
PQ	4	30	0	810.75547	0.09208
PR	15	19	3	810.76103	0.00793
PR	15	19	1	810.77126	0.00397
PQ	4	29	2	810.81596	0.43488
PQ	4	29	0	810.83275	0.10872
RP	18	45	2	810.84306	0.00007

	K	J	S	WAVE NO	INT
RP	18	45	0	810.85014	0.00013
PR	23	34	1	810.87917	0.00008
PQ	4	28	2	810.89145	0.50952
PQ	4	28	0	810.90720	0.12738
PR	22	32	0	810.91301	0.00004
PR	16	21	2	810.94958	0.00576
PQ	4	27	2	810.96397	0.59208
PQ	4	27	0	810.97874	0.14802
PR	21	30	1	810.99816	0.00020
PR	22	32	2	811.00492	0.00016
PQ	4	26	2	811.03384	0.68248
PQ	4	26	0	811.04766	0.17062
PR	16	21	0	811.08987	0.00144
PQ	4	25	2	811.10074	0.78032
PQ	4	25	0	811.11366	0.19508
PR	17	23	3	811.14142	0.00096
PQ	3	49	3	811.14573	0.00373
PR	17	23	1	811.16360	0.00384
PQ	4	24	2	811.16498	0.88464
PQ	3	49	1	811.16963	0.00187
PQ	4	24	0	811.17702	0.22116
PR	18	25	0	811.19286	0.00233
PQ	4	23	2	811.22636	0.99440
PQ	4	23	0	811.23757	0.24860
PR	23	34	3	811.23804	0.00002
PR	10	10	2	811.25140	0.00776
PR	10	10	0	811.25533	0.00194
PQ	4	22	2	811.28506	1.10800
PQ	3	48	3	811.29088	0.00513
PQ	4	22	0	811.29549	0.27700
PQ	3	48	1	811.31383	0.00257
PQ	4	21	2	811.34100	1.22368
PR	18	25	2	811.34724	0.00117
PQ	4	21	0	811.35069	0.30592
PR	11	12	3	811.39017	0.00346
PR	11	12	1	811.39379	0.01384
PQ	4	20	2	811.39429	1.33896
PQ	4	20	0	811.40325	0.33474
PQ	3	47	3	811.43227	0.00693
PQ	4	19	2	811.44490	1.45136
PQ	4	19	0	811.45319	0.36284
PQ	3	47	1	811.45428	0.00347
PQ	4	18	2	811.49285	1.55776
PQ	4	18	0	811.50050	0.38944
PQ	4	17	2	811.53814	1.65488
PR	12	14	2	811.53945	0.00803
PQ	4	17	0	811.54519	0.41372
PR	12	14	0	811.54868	0.01607
PR	19	27	3	811.55285	0.00034
RP	5	18	3	811.56153	0.08582
RP	5	18	1	811.56493	0.34328
RP	6	20	2	811.56598	0.12507
RP	4	16	2	811.56754	0.44968

	K	J	S	WAVE NO	INT
PQ	3	46	3	811.56990	0.00927
RP	6	20	0	811.57031	0.25013
RP	4	16	0	811.57137	0.11242
RP	7	22	3	811.57695	0.04348
RP	3	14	3	811.58035	0.56253
RP	7	22	1	811.58070	0.17392
PQ	4	16	2	811.58086	1.73920
RP	3	14	1	811.58340	0.28127
PQ	4	16	0	811.58734	0.43480
PQ	3	46	1	811.59100	0.00463
RP	8	24	2	811.59844	0.11528
RP	8	24	0	811.60326	0.02882
RP	2	12	2	811.60356	0.67256
RP	2	12	0	811.60687	0.16814
PR	19	27	1	811.61053	0.00136
PQ	4	15	2	811.62092	1.80704
RP	0	8	2	811.62156	0.33225
RP	0	8	0	811.62378	0.55375
RP	9	26	3	811.62619	0.07293
PQ	4	15	0	811.62686	0.45176
RP	9	26	1	811.63026	0.03647
RP	1	10	3	811.63384	0.19184
RP	1	10	1	811.63656	0.76736
PQ	4	14	2	811.65841	1.85480
PQ	4	14	0	811.66386	0.46370
RP	10	28	2	811.66461	0.04400
RP	10	28	0	811.66989	0.01100
PR	20	29	0	811.67899	0.00018
PQ	4	13	2	811.69344	1.87864
PR	13	16	3	811.69466	0.00380
PQ	4	13	0	811.69843	0.46966
PR	13	16	1	811.70085	0.01520
PQ	3	45	3	811.70377	0.01240
RP	11	30	3	811.70893	0.00632
RP	11	30	1	811.71333	0.02528
PP	1	6	3	811.72073	0.24348
PP	1	6	1	811.72314	0.97392
PQ	3	45	1	811.72398	0.00620
PQ	4	12	2	811.72579	1.87512
PQ	4	12	0	811.73035	0.46878
PQ	4	11	2	811.75558	1.84088
PQ	4	11	0	811.75976	0.46022
RP	12	32	2	811.76418	0.00693
RP	12	32	0	811.76987	0.01387
PR	20	29	2	811.77681	0.00072
PP	2	4	2	811.77872	1.08128
PP	2	4	0	811.78106	0.27032
PQ	4	10	2	811.78291	1.77296
PQ	4	10	0	811.78672	0.44324
PQ	4	9	2	811.80768	1.66840
PQ	4	9	0	811.81116	0.41710
RP	13	34	3	811.82505	0.00182
RP	13	34	1	811.82976	0.00728

	K	J	S	WAVE NO	INT
PQ	4	8	2	811.82997	1.52440
PQ	4	8	0	811.83316	0.38110
PQ	3	44	3	811.83406	0.01640
PQ	4	7	2	811.84980	1.33784
PQ	4	7	0	811.85273	0.33446
PQ	3	44	1	811.85342	0.00820
PR	14	18	2	811.86094	0.01248
PQ	4	6	2	811.86707	1.10456
PQ	4	6	0	811.86977	0.27614
PQ	4	5	2	811.88187	0.81728
PQ	4	5	0	811.88437	0.20432
PR	14	18	0	811.88839	0.00312
PQ	4	4	2	811.89420	0.46096
PQ	4	4	0	811.89654	0.11524
RP	14	36	2	811.89692	0.00360
RP	14	36	0	811.90302	0.00090
PQ	3	43	3	811.96080	0.02153
RP	15	38	3	811.97445	0.00173
PQ	3	43	1	811.97933	0.01077
RP	15	38	1	811.97945	0.00087
PR	21	31	3	811.99410	0.00040
PR	15	20	3	812.03188	0.00933
PR	15	20	1	812.04375	0.00467
RP	16	40	2	812.06302	0.00080
RP	16	40	0	812.06949	0.00020
PR	23	35	1	812.08204	0.00008
PQ	3	42	3	812.08387	0.02813
PQ	3	42	1	812.10159	0.01407
PR	22	33	0	812.13742	0.00004
RP	17	42	3	812.15720	0.00008
RP	17	42	1	812.16248	0.00032
PQ	3	41	3	812.20347	0.03647
PR	16	22	2	812.21518	0.00632
PQ	3	41	1	812.22042	0.01823
PR	22	33	2	812.23884	0.00016
RP	18	44	2	812.26288	0.00007
RP	18	44	0	812.26969	0.00013
PR	21	31	1	812.27303	0.00020
PQ	3	40	3	812.31951	0.04693
PQ	3	40	1	812.33570	0.02347
PR	16	22	0	812.38419	0.00158
PR	17	24	3	812.40094	0.00100
PR	9	9	3	812.41982	0.01093
PR	9	9	1	812.42261	0.00547
PR	17	24	1	812.42631	0.00400
PR	18	26	0	812.42891	0.00240
PQ	3	39	3	812.43208	0.05993
PQ	3	39	1	812.44755	0.02997
PR	23	35	3	812.46432	0.00002
PQ	3	38	3	812.54139	0.07593
PR	10	11	2	812.54673	0.01984
PR	10	11	0	812.55164	0.00496
PQ	3	38	1	812.55614	0.03797

	K	J	S	WAVE NO	INT
PR	18	26	2	812.60143	0.00120
PQ	3	37	3	812.64723	0.09553
PQ	3	37	1	812.66130	0.04777
PR	11	13	3	812.68024	0.00590
PR	11	13	1	812.68440	0.02360
PQ	3	36	3	812.74971	0.11933
PQ	3	36	1	812.76311	0.05967
PR	19	28	3	812.80055	0.00034
PR	12	15	2	812.82415	0.01143
PR	12	15	0	812.83549	0.02287
PQ	3	35	3	812.84892	0.14793
PQ	3	35	1	812.86168	0.07397
PR	19	28	1	812.86578	0.00136
PR	20	30	0	812.91081	0.00018
RP	5	17	3	812.92755	0.08672
RP	4	15	2	812.92906	0.44512
RP	5	17	1	812.93080	0.34688
RP	4	15	0	812.93267	0.11128
RP	6	19	2	812.93652	0.12893
RP	3	13	3	812.93724	0.54500
RP	3	13	1	812.94016	0.27250
RP	6	19	0	812.94062	0.25787
PQ	3	34	3	812.94485	0.18193
RP	7	21	3	812.95190	0.04568
RP	7	21	1	812.95548	0.18272
RP	2	11	2	812.95576	0.63752
PQ	3	34	1	812.95699	0.09097
RP	2	11	0	812.95889	0.15938
PR	13	17	3	812.97387	0.00482
RP	0	7	2	812.97756	0.40000
RP	8	23	2	812.97772	0.12344
RP	0	7	0	812.97977	1.20000
PR	13	17	1	812.98102	0.01928
RP	1	9	3	812.98121	0.17818
RP	8	23	0	812.98229	0.03086
RP	1	9	1	812.98383	0.71272
RP	9	25	3	813.00978	0.07947
RP	9	25	1	813.01369	0.03973
PR	20	30	2	813.01925	0.00072
PQ	3	33	3	813.03763	0.22213
PQ	3	33	1	813.04917	0.11107
RP	10	27	2	813.05244	0.04880
RP	10	27	0	813.05745	0.01220
PP	1	5	3	813.05909	0.21642
PP	1	5	1	813.06144	0.86568
RP	11	29	3	813.10097	0.00714
RP	11	29	1	813.10519	0.02856
PP	2	3	2	813.11212	0.98616
PP	2	3	0	813.11439	0.24654
PQ	3	32	3	813.12724	0.26913
PR	14	19	2	813.13477	0.01472
PQ	3	32	1	813.13820	0.13457
RP	12	31	2	813.16025	0.00797

	K	J	S	WAVE NO	INT
RP	12	31	0	813.16568	0.01593
PR	14	19	0	813.16756	0.00368
PQ	3	31	3	813.21368	0.32360
PQ	3	31	1	813.22408	0.16180
RP	13	33	3	813.22523	0.00212
PR	21	32	3	813.22966	0.00033
RP	13	33	1	813.22977	0.00848
PQ	3	30	3	813.29694	0.38607
PR	15	21	3	813.29989	0.01033
RP	14	35	2	813.30094	0.00432
RP	14	35	0	813.30677	0.00108
PQ	3	30	1	813.30682	0.19303
PR	15	21	1	813.31349	0.00517
PR	22	34	0	813.35824	0.00004
PQ	3	29	3	813.37724	0.45693
RP	15	37	3	813.38229	0.00207
PQ	3	29	1	813.38660	0.22847
RP	15	37	1	813.38711	0.00103
PQ	3	28	3	813.45448	0.53653
PQ	3	28	1	813.46334	0.26827
PR	22	34	2	813.46941	0.00016
RP	16	39	2	813.47460	0.00096
PR	16	23	2	813.47776	0.00680
RP	16	39	0	813.48080	0.00024
PQ	3	27	3	813.52875	0.62500
PQ	3	27	1	813.53712	0.31250
PR	21	32	1	813.54844	0.00017
RP	17	41	3	813.57240	0.00010
RP	17	41	1	813.57750	0.00040
PQ	2	49	2	813.59553	0.00336
PQ	3	26	3	813.59995	0.72213
PR	8	8	2	813.60635	0.01520
PQ	3	26	1	813.60786	0.36107
PR	8	8	0	813.60953	0.00380
PQ	2	49	0	813.63358	0.00084
PR	17	25	3	813.65742	0.00104
PR	18	27	0	813.66174	0.00240
PQ	3	25	3	813.66837	0.82747
PQ	3	25	1	813.67586	0.41373
PR	16	23	0	813.67861	0.00170
RP	18	43	2	813.68142	0.00010
PR	17	25	1	813.68614	0.00416
RP	18	43	0	813.68796	0.00020
PR	9	10	3	813.71773	0.02800
PR	9	10	1	813.72084	0.01400
PQ	3	24	3	813.73383	0.94033
PQ	3	24	1	813.74090	0.47017
PQ	2	48	2	813.75076	0.00456
PQ	2	48	0	813.78719	0.00114
PQ	3	23	3	813.79632	1.05953
PQ	3	23	1	813.80299	0.52977
PR	10	12	2	813.83941	0.03392
PR	10	12	0	813.84539	0.00848

	K	J	S	WAVE NO	INT
PR	18	27	2	813.85241	0.00120
PQ	3	22	3	813.85614	1.18347
PQ	3	22	1	813.86242	0.59173
PQ	2	47	2	813.90173	0.00624
PQ	3	21	3	813.91309	1.31027
PQ	3	21	1	813.91901	0.65513
PQ	2	47	0	813.93658	0.00156
PQ	3	20	3	813.96717	1.43753
PR	11	14	3	813.96745	0.00840
PR	11	14	1	813.97220	0.03360
PQ	3	20	1	813.97274	0.71877
PQ	3	19	3	814.01859	1.56253
PQ	3	19	1	814.02383	0.78127
PR	19	29	3	814.04513	0.00032
PQ	2	46	2	814.04855	0.00840
PQ	3	18	3	814.06722	1.68207
PQ	3	18	1	814.07215	0.84103
PQ	2	46	0	814.08187	0.00210
PR	12	16	2	814.10609	0.01457
PQ	3	17	3	814.11320	1.79273
PQ	3	17	1	814.11783	0.89637
PR	19	29	1	814.11834	0.00128
PR	12	16	0	814.11971	0.02913
PR	20	31	0	814.13921	0.00016
PQ	3	16	3	814.15650	1.89093
PQ	3	16	1	814.16086	0.94547
PQ	2	45	2	814.19119	0.01128
PQ	3	15	3	814.19713	1.97280
PQ	3	15	1	814.20123	0.98640
PQ	2	45	0	814.22305	0.00282
PQ	3	14	3	814.23509	2.03447
PQ	3	14	1	814.23895	1.01723
PR	13	18	3	814.25011	0.00570
PR	13	18	1	814.25830	0.02280
PR	20	31	2	814.25851	0.00064
PQ	3	13	3	814.27048	2.07233
PQ	3	13	1	814.27411	1.03617
RP	4	14	2	814.28841	0.43160
RP	5	16	3	814.29149	0.08604
RP	4	14	0	814.29181	0.10790
RP	3	12	3	814.29195	0.51587
RP	5	16	1	814.29460	0.34416
RP	3	12	1	814.29476	0.25793
PQ	3	12	3	814.30321	2.08273
RP	6	18	2	814.30499	0.13070
RP	2	10	2	814.30579	0.58840
PQ	3	12	1	814.30663	1.04137
RP	2	10	0	814.30874	0.14710
RP	6	18	0	814.30886	0.26140
RP	7	20	3	814.32487	0.04726
RP	1	8	3	814.32651	0.16042
RP	7	20	1	814.32830	0.18904
RP	1	8	1	814.32903	0.64168

	K	J	S	WAVE NO	INT
RP	0	6	2	814.32936	0.26168
PQ	2	44	2	814.32979	0.01504
RP	0	6	0	814.33158	0.43612
PQ	3	11	3	814.33335	2.06253
PQ	3	11	1	814.33658	1.03127
RP	8	22	2	814.35513	0.13024
RP	8	22	0	814.35945	0.03256
PQ	2	44	0	814.36021	0.00376
PQ	3	10	3	814.36093	2.00893
PQ	3	10	1	814.36398	1.00447
PQ	3	9	3	814.38604	1.91947
PQ	3	9	1	814.38893	0.95973
RP	9	24	3	814.39149	0.08547
PP	1	4	3	814.39498	0.18594
RP	9	24	1	814.39524	0.04273
PP	1	4	1	814.39728	0.74376
PR	14	20	2	814.40567	0.01648
PQ	3	8	3	814.40858	1.79227
PQ	3	8	1	814.41132	0.89613
PQ	3	7	3	814.42855	1.62573
PQ	3	7	1	814.43116	0.81287
RP	10	26	2	814.43839	0.05344
PP	2	2	2	814.44306	0.90504
RP	10	26	0	814.44315	0.01336
PR	14	20	0	814.44417	0.00412
PP	2	2	0	814.44527	0.22626
PQ	3	6	3	814.44595	1.41800
PQ	3	6	1	814.44845	0.70900
PQ	3	5	3	814.46087	1.16613
PR	21	33	3	814.46191	0.00033
PQ	3	5	1	814.46328	0.58307
PQ	2	43	2	814.46442	0.01992
PQ	3	4	3	814.47333	0.86347
PQ	3	4	1	814.47565	0.43173
PQ	3	3	3	814.48331	0.49280
PQ	3	3	1	814.48557	0.24640
RP	11	28	3	814.49122	0.00796
PQ	2	43	0	814.49345	0.00498
RP	11	28	1	814.49528	0.03184
RP	12	30	2	814.55453	0.00903
RP	12	30	0	814.55972	0.01807
PR	15	22	3	814.56494	0.01107
PR	22	35	0	814.57547	0.00004
PR	15	22	1	814.58037	0.00553
PQ	2	42	2	814.59498	0.02624
PQ	2	42	0	814.62268	0.00656
RP	13	32	3	814.62364	0.00244
RP	13	32	1	814.62800	0.00976
PR	22	35	2	814.69664	0.00016
RP	14	34	2	814.70338	0.00504
RP	14	34	0	814.70895	0.00126
PQ	2	41	2	814.72159	0.03416
PR	16	24	2	814.73730	0.00696

	K	J	S	WAVE NO	INT
PQ	2	41	0	814.74799	0.00854
RP	15	36	3	814.78855	0.00247
RP	15	36	1	814.79319	0.00123
PR	7	7	3	814.80743	0.00520
PR	7	7	1	814.81001	0.02080
PR	21	33	1	814.82485	0.00017
PQ	2	40	2	814.84433	0.04424
PQ	2	40	0	814.86947	0.01106
RP	16	38	2	814.88460	0.00120
RP	16	38	0	814.89053	0.00030
PR	18	28	0	814.89157	0.00233
PR	8	9	2	814.90685	0.03872
PR	8	9	0	814.91060	0.00968
PR	17	26	3	814.91076	0.00102
PR	17	26	1	814.94302	0.00408
PQ	2	39	2	814.96320	0.05688
PR	16	24	0	814.97356	0.00174
RP	17	40	3	814.98602	0.00012
PQ	2	39	0	814.98714	0.01422
RP	17	40	1	814.99094	0.00048
PR	9	11	3	815.01297	0.04780
PR	9	11	1	815.01644	0.02390
PQ	2	38	2	815.07832	0.07248
RP	18	42	2	815.09857	0.00010
PR	18	28	2	815.10038	0.00117
PQ	2	38	0	815.10107	0.01812
RP	18	42	0	815.10486	0.00020
PR	10	13	2	815.12944	0.04840
PR	10	13	0	815.13658	0.01210
PQ	2	37	2	815.18967	0.09176
PQ	2	37	0	815.21130	0.02294
RP	19	44	3	815.21656	0.00002
RP	19	44	1	815.22174	0.00008
PR	11	15	3	815.25189	0.01074
PR	11	15	1	815.25728	0.04296
PR	19	30	3	815.28648	0.00030
PQ	2	36	2	815.29736	0.11520
PQ	2	36	0	815.31789	0.02880
PR	20	32	0	815.36402	0.00016
PR	19	30	1	815.36814	0.00120
PR	12	17	2	815.38520	0.01727
PR	12	17	0	815.40124	0.03453
PQ	2	35	2	815.40139	0.14360
PQ	2	35	0	815.42085	0.03590
PR	20	32	2	815.49438	0.00064
PQ	2	34	2	815.50185	0.17752
PQ	2	34	0	815.52029	0.04438
PR	13	19	3	815.52351	0.00640
PR	13	19	1	815.53278	0.02560
PQ	2	33	2	815.59875	0.21784
PQ	2	33	0	815.61620	0.05446
RP	3	11	3	815.64449	0.47480
RP	4	13	2	815.64558	0.40856

	K	J	S	WAVE NO	INT
RP	3	11	1	815.64719	0.23740
RP	4	13	0	815.64879	0.10214
RP	5	15	3	815.65335	0.08356
RP	2	9	2	815.65355	0.52536
RP	5	15	1	815.65633	0.33424
RP	2	9	0	815.65634	0.13134
RP	1	7	3	815.66953	0.13874
RP	6	17	2	815.67129	0.13000
RP	1	7	1	815.67197	0.55496
PR	14	21	2	815.67362	0.01768
RP	6	17	0	815.67494	0.26000
RP	0	5	2	815.67686	0.29022
RP	0	5	0	815.67908	0.87067
PR	21	34	3	815.69075	0.00027
PQ	2	32	2	815.69218	0.26528
RP	7	19	3	815.69577	0.04808
RP	7	19	1	815.69905	0.19232
PQ	2	32	0	815.70869	0.06632
PR	14	21	0	815.71820	0.00442
PP	1	3	3	815.72840	0.15246
RP	8	21	2	815.73045	0.13528
PP	1	3	1	815.73066	0.60984
RP	8	21	0	815.73455	0.03382
RP	9	23	3	815.77132	0.09060
RP	9	23	1	815.77492	0.04530
PQ	2	31	2	815.78214	0.32040
PR	22	36	0	815.78902	0.00004
PQ	2	31	0	815.79774	0.08010
RP	10	25	2	815.82245	0.05768
PR	15	23	3	815.82695	0.01147
RP	10	25	0	815.82697	0.01442
PQ	1	49	3	815.84185	0.00050
PR	15	23	1	815.84431	0.00573
PQ	1	49	1	815.86217	0.00200
PQ	2	30	2	815.86874	0.38392
RP	11	27	3	815.87960	0.00876
PQ	2	30	0	815.88346	0.09598
RP	11	27	1	815.88349	0.03504
PR	22	36	2	815.92043	0.00016
RP	12	29	2	815.94715	0.01010
PQ	2	29	2	815.95208	0.45648
RP	12	29	0	815.95209	0.02020
PQ	2	29	0	815.96595	0.11412
PR	16	25	2	815.99383	0.00696
PQ	1	48	3	816.01922	0.00070
RP	13	31	3	816.02037	0.00278
RP	13	31	1	816.02456	0.01112
PR	6	6	2	816.02634	0.01413
PR	6	6	0	816.02910	0.02827
PQ	2	28	2	816.03205	0.53824
PQ	1	48	1	816.03874	0.00280
PQ	2	28	0	816.04510	0.13456
PR	21	34	1	816.10280	0.00013

	K	J	S	WAVE NO	INT
RP	14	33	2	816.10394	0.00584
PQ	2	27	2	816.10875	0.62960
RP	14	33	0	816.10927	0.00146
PR	7	8	3	816.11044	0.01320
PR	7	8	1	816.11322	0.05280
PR	18	29	0	816.11824	0.00220
PQ	2	27	0	816.12103	0.15740
PR	17	27	3	816.16106	0.00100
PQ	2	26	2	816.18239	0.73040
PQ	1	47	3	816.19181	0.00098
RP	15	35	3	816.19323	0.00293
PQ	2	26	0	816.19392	0.18260
PR	17	27	1	816.19704	0.00400
RP	15	35	1	816.19770	0.00147
PR	8	10	2	816.20469	0.06616
PR	8	10	0	816.20908	0.01654
PQ	1	47	1	816.21056	0.00392
PQ	2	25	2	816.25276	0.84024
PQ	2	25	0	816.26358	0.21006
PR	16	25	0	816.26953	0.00174
RP	16	37	2	816.29301	0.00136
RP	16	37	0	816.29871	0.00034
PR	9	12	3	816.30545	0.06820
PR	9	12	1	816.30932	0.03410
PQ	2	24	2	816.32007	0.95840
PQ	2	24	0	816.33020	0.23960
PR	18	29	2	816.34514	0.00110
PQ	1	46	3	816.35954	0.00136
PQ	1	46	1	816.37755	0.00544
PQ	2	23	2	816.38440	1.08392
PQ	2	23	0	816.39388	0.27098
RP	17	39	3	816.39816	0.00016
RP	17	39	1	816.40291	0.00064
PR	10	14	2	816.41661	0.06192
PR	10	14	0	816.42500	0.01548
PQ	2	22	2	816.44567	1.21512
PQ	2	22	0	816.45453	0.30378
PQ	2	21	2	816.50397	1.35008
PQ	2	21	0	816.51224	0.33752
RP	18	41	2	816.51425	0.00013
RP	18	41	0	816.52029	0.00027
PQ	1	45	3	816.52251	0.00186
PR	19	31	3	816.52460	0.00028
PR	11	16	3	816.53358	0.01278
PR	11	16	1	816.53964	0.05112
PQ	1	45	1	816.53978	0.00744
PQ	2	20	2	816.55931	1.48648
PQ	2	20	0	816.56701	0.37162
PR	20	33	0	816.58544	0.00014
PQ	2	19	2	816.61178	1.62136
PR	19	31	1	816.61521	0.00112
PQ	2	19	0	816.61894	0.40534
RP	19	43	3	816.63566	0.00002

	K	J	S	WAVE NO	INT
RP	19	43	1	816.64066	0.00008
PQ	2	18	2	816.66138	1.75160
PR	12	18	2	816.66145	0.01947
PQ	2	18	0	816.66804	0.43790
PR	12	18	0	816.68008	0.03893
PQ	1	44	3	816.68071	0.00252
PQ	1	44	1	816.69727	0.01008
PQ	2	17	2	816.70811	1.87368
PQ	2	17	0	816.71429	0.46842
PR	20	33	2	816.72707	0.00056
PQ	2	16	2	816.75218	1.98368
PQ	2	16	0	816.75791	0.49592
PQ	2	15	2	816.79338	2.07776
PR	13	20	3	816.79406	0.00690
PQ	2	15	0	816.79868	0.51944
PR	13	20	1	816.80448	0.02760
PQ	2	14	2	816.83191	2.15192
PQ	1	43	3	816.83414	0.00342
PQ	2	14	0	816.83682	0.53798
PQ	1	43	1	816.85001	0.01368
PQ	2	13	2	816.86777	2.20232
PQ	2	13	0	816.87231	0.55058
PQ	2	12	2	816.90086	2.22536
PQ	2	12	0	816.90507	0.55634
PR	21	35	3	816.91618	0.00027
PQ	2	11	2	816.93139	2.21784
PQ	2	11	0	816.93528	0.55446
PR	14	22	2	816.93864	0.01840
PQ	2	10	2	816.95934	2.17696
PQ	2	10	0	816.96295	0.54424
PQ	1	42	3	816.98280	0.00458
PQ	2	9	2	816.98463	2.10088
PQ	2	9	0	816.98798	0.52522
PR	14	22	0	816.98969	0.00460
RP	3	10	3	816.99475	0.42207
RP	3	10	1	816.99735	0.21103
PQ	1	42	1	816.99801	0.01832
PR	22	37	0	816.99889	0.00002
RP	2	8	2	816.99903	0.44920
RP	4	12	2	817.00057	0.37568
RP	2	8	0	817.00169	0.11230
RP	4	12	0	817.00361	0.09392
PQ	2	8	2	817.00725	1.98808
RP	1	6	3	817.01018	0.11350
PQ	2	8	0	817.01037	0.49702
RP	1	6	1	817.01255	0.45400
RP	5	14	3	817.01303	0.07918
RP	5	14	1	817.01589	0.31672
RP	0	4	2	817.02016	0.16864
RP	0	4	0	817.02238	0.28106
PQ	2	7	2	817.02740	1.83800
PQ	2	7	0	817.03031	0.45950
RP	6	16	2	817.03551	0.12657

	K	J	S	WAVE NO	INT
RP	6	16	0	817.03896	0.25313
PQ	2	6	2	817.04498	1.65064
PQ	2	6	0	817.04771	0.41266
PP	1	2	3	817.05945	0.11652
PQ	2	5	2	817.06000	1.42624
PP	1	2	1	817.06168	0.46608
PQ	2	5	0	817.06258	0.35656
RP	7	18	3	817.06458	0.04798
RP	7	18	1	817.06773	0.19192
PQ	2	4	2	817.07254	1.16448
PQ	2	4	0	817.07499	0.29112
PQ	2	3	2	817.08262	0.86200
PQ	2	3	0	817.08496	0.21550
PR	15	24	3	817.08591	0.01153
PR	16	46	0	817.08771	0.00006
PQ	2	2	2	817.09013	0.50280
PQ	2	2	0	817.09239	0.12570
RP	8	20	2	817.10371	0.13816
PR	15	24	1	817.10529	0.00577
RP	8	20	0	817.10758	0.03454
PQ	1	41	3	817.12680	0.00608
PR	22	37	2	817.14080	0.00008
PQ	1	41	1	817.14136	0.02432
RP	9	22	3	817.14908	0.09453
RP	9	22	1	817.15252	0.04727
RP	10	24	2	817.20464	0.06144
RP	10	24	0	817.20893	0.01536
PR	16	26	2	817.24722	0.00680
PR	5	5	3	817.25996	0.00954
PR	5	5	1	817.26240	0.03816
PQ	1	40	3	817.26602	0.00802
RP	11	26	3	817.26610	0.00950
RP	11	26	1	817.26984	0.03800
PQ	1	40	1	817.27995	0.03208
PR	6	7	2	817.33203	0.03550
PR	6	7	0	817.33513	0.07100
RP	12	28	2	817.33778	0.01120
PR	18	30	0	817.34177	0.00207
RP	12	28	0	817.34248	0.02240
PR	21	35	1	817.38307	0.00013
PQ	1	39	3	817.40068	0.01050
PR	17	28	3	817.40813	0.00096
PR	7	9	3	817.41087	0.02246
PR	7	9	1	817.41389	0.08984
PQ	1	39	1	817.41401	0.04200
RP	13	30	3	817.41521	0.00314
RP	13	30	1	817.41924	0.01256
PR	17	28	1	817.44801	0.00384
PR	8	11	2	817.49988	0.09424
RP	14	32	2	817.50292	0.00672
PR	8	11	0	817.50494	0.02356
RP	14	32	0	817.50801	0.00168
PQ	1	38	3	817.53078	0.01362

	K	J	S	WAVE NO	INT
PQ	1	38	1	817.54351	0.05448
PR	16	26	0	817.56709	0.00170
PR	18	30	2	817.58669	0.00103
PR	9	13	3	817.59516	0.08747
RP	15	34	3	817.59613	0.00340
PR	9	13	1	817.59946	0.04373
RP	15	34	1	817.60043	0.00170
PQ	1	37	3	817.65630	0.01754
PQ	1	37	1	817.66846	0.07016
RP	16	36	2	817.69985	0.00168
PR	10	15	2	817.70103	0.07392
RP	16	36	0	817.70530	0.00042
PR	10	15	0	817.71075	0.01848
PR	19	32	3	817.75940	0.00026
PQ	1	36	3	817.77735	0.02242
PQ	1	36	1	817.78896	0.08968
PR	20	34	0	817.80328	0.00012
RP	17	38	3	817.80882	0.00020
PR	11	17	3	817.81231	0.01444
RP	17	38	1	817.81339	0.00080
PR	11	17	1	817.81909	0.05776
PR	19	32	1	817.85947	0.00104
PQ	1	35	3	817.89404	0.02842
PQ	1	35	1	817.90511	0.11368
RP	18	40	2	817.92844	0.00017
RP	18	40	0	817.93423	0.00033
PR	12	19	2	817.93486	0.02103
PR	12	19	0	817.95622	0.04207
PR	20	34	2	817.95638	0.00048
PQ	1	34	3	818.00625	0.03570
PQ	1	34	1	818.01681	0.14280
RP	19	42	3	818.05348	0.00004
RP	19	42	1	818.05831	0.00016
PR	13	21	3	818.06155	0.00720
PR	13	21	1	818.07318	0.02880
PQ	1	33	3	818.11419	0.04452
PQ	1	33	1	818.12425	0.17808
PR	21	36	3	818.13821	0.00020
PR	14	23	2	818.20062	0.01856
PR	22	38	0	818.20518	0.00002
PQ	1	32	3	818.21786	0.05502
PQ	1	32	1	818.22745	0.22008
PR	14	23	0	818.25856	0.00464
PQ	1	31	3	818.31747	0.06746
PQ	1	31	1	818.32658	0.26984
PR	15	25	3	818.34183	0.01133
RP	2	7	2	818.34225	0.36168
RP	3	9	3	818.34274	0.35853
RP	2	7	0	818.34477	0.09042
RP	3	9	1	818.34525	0.17927
RP	1	5	3	818.34855	0.08532
RP	1	5	1	818.35087	0.34128
RP	4	11	2	818.35329	0.33328

	K	J	S	WAVE NO	INT
RP	4	11	0	818.35617	0.08332
PR	22	38	2	818.35783	0.00008
RP	0	3	2	818.35926	0.15388
RP	0	3	0	818.36148	0.46162
PR	15	25	1	818.36333	0.00567
RP	5	13	3	818.37044	0.07284
RP	5	13	1	818.37319	0.29136
PP	1	1	3	818.38802	0.07870
PP	1	1	1	818.39024	0.31480
RP	6	15	2	818.39765	0.12017
RP	6	15	0	818.40092	0.24033
PQ	1	30	3	818.41290	0.08200
PQ	1	30	1	818.42157	0.32800
RP	7	17	3	818.43122	0.04686
RP	7	17	1	818.43424	0.18744
RP	8	19	2	818.47488	0.13840
RP	8	19	0	818.47855	0.03460
PR	16	27	2	818.49759	0.00656
PQ	1	29	3	818.50426	0.09882
PR	4	4	2	818.51126	0.05160
PQ	1	29	1	818.51250	0.39528
PR	4	4	0	818.51377	0.01290
RP	9	21	3	818.52475	0.09693
RP	9	21	1	818.52806	0.04847
PR	18	31	0	818.56207	0.00187
PR	5	6	3	818.56808	0.02364
PR	5	6	1	818.57065	0.09456
RP	10	23	2	818.58475	0.06440
RP	10	23	0	818.58882	0.01610
PQ	1	28	3	818.59166	0.11806
PQ	1	28	1	818.59948	0.47224
PR	6	8	2	818.63506	0.06003
PR	6	8	0	818.63854	0.12007
RP	11	25	3	818.65061	0.01018
PR	17	29	3	818.65206	0.00090
RP	11	25	1	818.65421	0.04072
PR	21	36	1	818.66663	0.00010
PQ	1	27	3	818.67529	0.13984
PQ	1	27	1	818.68271	0.55936
PR	17	29	1	818.69604	0.00360
PR	7	10	3	818.70854	0.03194
PR	7	10	1	818.71183	0.12776
RP	12	27	2	818.72654	0.01220
RP	12	27	0	818.73101	0.02440
PQ	1	26	3	818.75504	0.16420
PQ	1	26	1	818.76208	0.65680
PR	8	12	2	818.79230	0.12088
PR	8	12	0	818.79812	0.03022
RP	13	29	3	818.80828	0.00348
RP	13	29	1	818.81216	0.01392
PR	18	31	2	818.82493	0.00093
PQ	1	25	3	818.83112	0.19108
PQ	1	25	1	818.83779	0.76432

	K	J	S	WAVE NO	INT
PR	16	27	0	818.86707	0.00164
PR	9	14	3	818.88212	0.10453
PR	9	14	1	818.88687	0.05227
RP	14	31	2	818.90013	0.00760
PQ	1	24	3	818.90353	0.22036
RP	14	31	0	818.90498	0.00190
PQ	1	24	1	818.90984	0.88144
PQ	1	23	3	818.97226	0.25182
PQ	1	23	1	818.97825	1.00728
PR	10	16	2	818.98259	0.08376
PR	19	33	3	818.99078	0.00024
PR	10	16	0	818.99375	0.02094
RP	15	33	3	818.99745	0.00393
RP	15	33	1	819.00159	0.00197
PR	20	35	0	819.01765	0.00010
PQ	1	22	3	819.03763	0.28514
PQ	1	22	1	819.04330	1.14056
PR	11	18	3	819.08829	0.01568
PR	11	18	1	819.09583	0.06272
PQ	1	21	3	819.09953	0.31982
PR	19	33	1	819.10087	0.00096
PQ	1	21	1	819.10488	1.27928
RP	16	35	2	819.10500	0.00192
RP	16	35	0	819.11022	0.00048
PQ	1	20	3	819.15815	0.35532
PQ	1	20	1	819.16322	1.42128
PR	20	35	2	819.18240	0.00040
PR	12	20	2	819.20522	0.02207
PQ	1	19	3	819.21339	0.39090
RP	17	37	3	819.21790	0.00022
PQ	1	19	1	819.21819	1.56360
RP	17	37	1	819.22231	0.00088
PR	12	20	0	819.22950	0.04413
PQ	1	18	3	819.26548	0.42576
PQ	1	18	1	819.27001	1.70304
PQ	1	17	3	819.31438	0.45898
PQ	1	17	1	819.31867	1.83592
PR	13	22	3	819.32609	0.00732
PR	13	22	1	819.33900	0.02928
RP	18	39	2	819.34126	0.00020
RP	18	39	0	819.34682	0.00040
PR	21	37	3	819.35675	0.00020
PQ	1	16	3	819.36022	0.48954
PQ	1	16	1	819.36427	1.95816
PQ	1	15	3	819.40308	0.51642
PQ	1	15	1	819.40692	2.06568
PR	22	39	0	819.40751	0.00002
PQ	1	14	3	819.44287	0.53856
PQ	1	14	1	819.44650	2.15424
PR	14	24	2	819.45956	0.01840
RP	19	41	3	819.46981	0.00004
RP	19	41	1	819.47448	0.00016
PQ	1	13	3	819.47990	0.55488

	K	J	S	WAVE NO	INT
PQ	1	13	1	819.48334	2.21952
PQ	1	12	3	819.51394	0.56442
PQ	1	12	1	819.51720	2.25768
PR	14	24	0	819.52483	0.00460
PQ	1	11	3	819.54521	0.56632
PQ	1	11	1	819.54832	2.26528
PR	22	39	2	819.57114	0.00008
PQ	1	10	3	819.57372	0.55984
PQ	1	10	1	819.57667	2.23936
PR	15	26	3	819.59470	0.01093
PQ	1	9	3	819.59954	0.54444
PQ	1	9	1	819.60236	2.17776
PR	15	26	1	819.61843	0.00547
PQ	1	8	3	819.62260	0.51982
PQ	1	8	1	819.62530	2.07928
PQ	1	7	3	819.64308	0.48590
PQ	1	7	1	819.64568	1.94360
PQ	1	6	3	819.66089	0.44292
PQ	1	6	1	819.66339	1.77168
PQ	1	5	3	819.67613	0.39134
PQ	1	5	1	819.67854	1.56536
RP	2	6	2	819.68308	0.26568
RP	1	4	3	819.68455	0.05528
RP	2	6	0	819.68551	0.06642
RP	1	4	1	819.68682	0.22112
RP	3	8	3	819.68845	0.28587
PQ	1	4	3	819.68879	0.33192
RP	3	8	1	819.69088	0.14293
PQ	1	4	1	819.69115	1.32768
RP	0	2	2	819.69396	0.05884
RP	0	2	0	819.69617	0.09806
PQ	1	3	3	819.69888	0.26572
PQ	1	3	1	819.70118	1.06288
RP	4	10	2	819.70374	0.28200
RP	4	10	0	819.70647	0.07050
PQ	1	2	3	819.70650	0.19394
PQ	1	2	1	819.70876	0.77576
PQ	1	1	3	819.71155	0.11806
PQ	1	1	1	819.71378	0.47224
RP	5	12	3	819.72567	0.06458
RP	5	12	1	819.72832	0.25832
PR	16	28	2	819.74473	0.00616
RP	6	14	2	819.75752	0.11067
RP	6	14	0	819.76060	0.22133
PR	3	3	3	819.77712	0.07087
PR	18	32	0	819.77927	0.00167
PR	3	3	1	819.77946	0.03543
RP	7	16	3	819.79578	0.04460
RP	7	16	1	819.79868	0.17840
PR	4	5	2	819.82197	0.12512
PR	4	5	0	819.82467	0.03128
RP	8	18	2	819.84398	0.13560
RP	8	18	0	819.84745	0.03390

	K	J	S	WAVE NO	INT
PR	5	7	3	819.87373	0.03960
PR	5	7	1	819.87645	0.15840
PR	17	30	3	819.89275	0.00082
RP	9	20	3	819.89845	0.09747
RP	9	20	1	819.90162	0.04873
PR	6	9	2	819.93533	0.08510
PR	6	9	0	819.93923	0.17020
PR	17	30	1	819.94105	0.00328
PR	21	37	1	819.95457	0.00010
RP	10	22	2	819.96278	0.06632
RP	10	22	0	819.96664	0.01658
PR	7	11	3	820.00356	0.04098
PR	7	11	1	820.00713	0.16392
RP	11	24	3	820.03315	0.01072
RP	11	24	1	820.03660	0.04288
PR	18	32	2	820.05997	0.00083
PR	8	13	2	820.08197	0.14472
PR	8	13	0	820.08860	0.03618
RP	12	26	2	820.11341	0.01313
RP	12	26	0	820.11767	0.02627
PR	9	15	3	820.16621	0.11880
PR	16	28	0	820.17023	0.00154
PR	9	15	1	820.17145	0.05940
RP	13	28	3	820.19947	0.00382
RP	13	28	1	820.20319	0.01528
PR	19	34	3	820.21893	0.00020
PR	20	36	0	820.22826	0.00010
PR	10	17	2	820.26120	0.09128
PR	10	17	0	820.27389	0.02282
RP	14	30	2	820.29545	0.00848
RP	14	30	0	820.30008	0.00212
PR	19	34	1	820.33961	0.00080
PR	11	19	3	820.36120	0.01648
PR	11	19	1	820.36955	0.06592
RP	15	32	3	820.39688	0.00447
RP	15	32	1	820.40088	0.00223
PR	20	36	2	820.40486	0.00040
PR	12	21	2	820.47263	0.02250
PR	12	21	0	820.49999	0.04500
RP	16	34	2	820.50848	0.00224
RP	16	34	0	820.51347	0.00056
PR	21	38	3	820.57168	0.00020
PR	13	23	3	820.58758	0.00726
PR	13	23	1	820.60182	0.02904
RP	17	36	3	820.62529	0.00026
RP	17	36	1	820.62954	0.00104
PR	14	25	2	820.71546	0.01776
RP	18	38	2	820.75239	0.00023
RP	18	38	0	820.75772	0.00047
PR	14	25	0	820.78851	0.00444
PR	15	27	3	820.84432	0.01033
PR	15	27	1	820.87039	0.00517
RP	19	40	3	820.88467	0.00006

	K	J	S	WAVE NO	INT
RP	19	40	1	820.88917	0.00024
PR	16	29	2	820.98875	0.00568
PR	18	33	0	820.99319	0.00153
RP	1	3	3	821.01797	0.02528
RP	1	3	1	821.02021	0.10112
RP	2	5	2	821.02155	0.16616
RP	2	5	0	821.02389	0.04154
RP	20	42	2	821.02747	0.00008
RP	3	7	3	821.03178	0.20700
RP	20	42	0	821.03312	0.00002
RP	3	7	1	821.03414	0.10350
RP	4	9	2	821.05192	0.22344
RP	4	9	0	821.05451	0.05586
PR	2	2	2	821.06052	0.10112
PR	2	2	0	821.06286	0.02528
RP	5	11	3	821.07862	0.05452
RP	5	11	1	821.08118	0.21808
PR	3	4	3	821.09047	0.16600
PR	3	4	1	821.09288	0.08300
RP	6	13	2	821.11511	0.09817
RP	6	13	0	821.11803	0.19633
PR	17	31	3	821.13012	0.00076
PR	4	6	2	821.13020	0.20672
PR	4	6	0	821.13313	0.05168
RP	7	15	3	821.15816	0.04116
RP	7	15	1	821.16095	0.16464
PR	5	8	3	821.17651	0.05580
PR	5	8	1	821.17941	0.22320
PR	17	31	1	821.18292	0.00304
RP	8	17	2	821.21099	0.12944
RP	8	17	0	821.21429	0.03236
PR	6	10	2	821.23303	0.10897
PR	6	10	0	821.23740	0.21793
PR	21	38	1	821.24827	0.00010
RP	9	19	3	821.27007	0.09580
RP	9	19	1	821.27311	0.04790
PR	18	33	2	821.29160	0.00077
PR	7	12	3	821.29579	0.04908
PR	7	12	1	821.29968	0.19632
RP	10	21	2	821.33884	0.06704
RP	10	21	0	821.34250	0.01676
PR	8	14	2	821.36877	0.16480
PR	8	14	0	821.37627	0.04120
RP	11	23	3	821.41370	0.01108
RP	11	23	1	821.41702	0.04432
PR	20	37	0	821.43530	0.00008
PR	19	35	3	821.44347	0.00018
RQ	0	49	2	821.44562	0.00420
PR	9	16	3	821.44754	0.12980
PR	9	16	1	821.45330	0.06490
PR	16	29	0	821.47785	0.00142
RQ	0	48	2	821.48434	0.00188
RP	12	25	2	821.49831	0.01390
RP	12	25	0	821.50235	0.02780
RQ	0	49	0	821.50541	0.00700
RQ	0	47	2	821.52203	0.00754
PR	10	18	2	821.53706	0.09632
RQ	0	48	0	821.54156	0.00562
PR	10	18	0	821.55137	0.02408
RQ	0	46	2	821.55880	0.00335
PR	19	35	1	821.57536	0.00072
RQ	0	47	0	821.57675	0.01256
RP	13	27	3	821.58867	0.00414
RP	13	27	1	821.59225	0.01656
RQ	0	45	2	821.59454	0.01320
RQ	0	46	0	821.61109	0.01005
PR	20	37	2	821.62395	0.00032
RQ	0	44	2	821.62945	0.00575
PR	11	20	3	821.63126	0.01690
PR	11	20	1	821.64046	0.06760
RQ	0	45	0	821.64449	0.02200
RQ	0	43	2	821.66332	0.02246
RQ	0	44	0	821.67712	0.01725
RP	14	29	2	821.68890	0.00936
RP	14	29	0	821.69331	0.00234
RQ	0	42	2	821.69617	0.00967
RQ	0	43	0	821.70879	0.03744
RQ	0	41	2	821.72820	0.03716
PR	12	22	2	821.73710	0.02243
RQ	0	42	0	821.73949	0.02903
RQ	0	40	2	821.75938	0.01575
PR	12	22	0	821.76772	0.04487
RQ	0	41	0	821.76944	0.06194
PR	21	39	3	821.78300	0.00013
RQ	0	39	2	821.78954	0.05977
RP	15	31	3	821.79454	0.00500
RP	15	31	1	821.79839	0.00250
RQ	0	40	0	821.79862	0.04725
RQ	0	38	2	821.81887	0.02500
RQ	0	39	0	821.82684	0.09962
PR	13	24	3	821.84601	0.00708
RQ	0	37	2	821.84726	0.09345
RQ	0	38	0	821.85428	0.07500
PR	13	24	1	821.86167	0.02832
RQ	0	36	2	821.87492	0.03855
RQ	0	37	0	821.88085	0.15575
RQ	0	35	2	821.90154	0.14201
RQ	0	36	0	821.90675	0.11565
RP	16	33	2	821.91018	0.00256
RP	16	33	0	821.91494	0.00064
RQ	0	34	2	821.92744	0.05773
RQ	0	35	0	821.93168	0.23669
RQ	0	33	2	821.95249	0.20970
RQ	0	34	0	821.95593	0.17317
PR	14	26	2	821.96822	0.01696
RQ	0	32	2	821.97662	0.08400
RQ	0	33	0	821.97940	0.34950
RQ	0	31	2	822.00000	0.30064
RQ	0	32	0	822.00200	0.25200
RQ	0	30	2	822.02254	0.11868
RQ	0	31	0	822.02391	0.50106
RP	17	35	3	822.03100	0.00032
RP	17	35	1	822.03510	0.00128
RQ	0	29	2	822.04426	0.41839
RQ	0	30	0	822.04504	0.35602
PR	14	26	0	822.04952	0.00424
RQ	0	28	2	822.06513	0.16265
RQ	0	29	0	822.06539	0.69731
RQ	0	28	0	822.08496	0.48795
RQ	0	27	2	822.08527	0.56475
PR	15	28	3	822.09081	0.00960
RQ	0	27	0	822.10384	0.94125
RQ	0	26	2	822.10468	0.21620
PR	15	28	1	822.11932	0.00480
RQ	0	26	0	822.12203	0.64860
RQ	0	25	2	822.12324	0.73898
RQ	0	25	0	822.13944	1.23163
RQ	0	24	2	822.14106	0.27840
RQ	0	24	0	822.15616	0.83520
RQ	0	23	2	822.15805	0.93641
RP	18	37	2	822.16194	0.00030
RP	18	37	0	822.16705	0.00060
RQ	0	23	0	822.17209	1.56069
RQ	0	22	2	822.17440	0.34705
RQ	0	22	0	822.18742	1.04115
RQ	0	21	2	822.18990	1.14784
RQ	0	21	0	822.20197	1.91306
PR	18	34	0	822.20395	0.00133
RQ	0	20	2	822.20467	0.41820
RQ	0	20	0	822.21583	1.25460
RQ	0	19	2	822.21870	1.35915
RQ	0	19	0	822.22899	2.26525
PR	16	30	2	822.22944	0.00520
RQ	0	18	2	822.23199	0.48635
RQ	0	18	0	822.24146	1.45905
RQ	0	17	2	822.24464	1.55164
RQ	0	17	0	822.25333	2.58606
RQ	0	16	2	822.25645	0.54468
RQ	0	16	0	822.26441	1.63402
RQ	0	15	2	822.26762	1.70344
RQ	0	15	0	822.27490	2.83906
RQ	0	14	2	822.27805	0.58565
RQ	0	14	0	822.28468	1.75695
RQ	0	13	2	822.28773	1.79179
RQ	0	13	0	822.29378	2.98631
RQ	0	12	2	822.29678	0.60185
RP	19	39	3	822.29803	0.00006
RQ	0	12	0	822.30227	1.80555
RP	19	39	1	822.30238	0.00024
RQ	0	11	2	822.30498	1.79602
RQ	0	11	0	822.30997	2.99338
RQ	0	10	2	822.31264	0.58717
RQ	0	10	0	822.31717	1.76153
RQ	0	9	2	822.31947	1.70096
RQ	0	9	0	822.32356	2.83494
RQ	0	8	2	822.32574	0.53792
RQ	0	8	0	822.32947	1.61377
RQ	0	7	2	822.33118	1.50004
RQ	0	7	0	822.33456	2.50006
RQ	0	6	2	822.33598	0.45355
RQ	0	6	0	822.33907	1.36065
RQ	0	5	2	822.34013	1.19719
RQ	0	5	0	822.34297	1.99531
RQ	0	4	2	822.34354	0.33730
RQ	0	4	0	822.34618	1.01190
RQ	0	3	2	822.34631	0.80782
RQ	0	2	2	822.34834	0.19613
RQ	0	3	0	822.34878	1.34638
RQ	0	1	2	822.34972	0.35768
RQ	0	2	0	822.35068	0.58838
RQ	0	1	0	822.35197	0.59612
RP	2	4	2	822.35754	0.07168
PR	1	1	3	822.35851	0.03952
RP	2	4	0	822.35981	0.01792
PR	1	1	1	822.36076	0.15808
PR	17	32	3	822.36414	0.00068
RP	3	6	3	822.37273	0.12667
RP	3	6	1	822.37504	0.06333
PR	2	3	2	822.37644	0.22352
PR	2	3	0	822.37889	0.05588
RP	4	8	2	822.39771	0.16024
RP	4	8	0	822.40019	0.04006
PR	3	5	3	822.40115	0.26840
PR	3	5	1	822.40365	0.13420
PR	17	32	1	822.42168	0.00272
RP	5	10	3	822.42930	0.04304
RP	5	10	1	822.43177	0.17216
PR	4	7	2	822.43567	0.28864
PR	4	7	0	822.43886	0.07216
RP	20	41	2	822.44437	0.00008
RP	20	41	0	822.44981	0.00002
RP	6	12	2	822.47053	0.08283
RP	6	12	0	822.47330	0.16567
PR	5	9	3	822.47673	0.07118
PR	5	9	1	822.47981	0.28472
RP	7	14	3	822.51826	0.03654
PR	18	34	2	822.51993	0.00067
RP	7	14	1	822.52094	0.14616
PR	6	11	2	822.52788	0.13047
PR	6	11	0	822.53275	0.26093
PR	21	39	1	822.54961	0.00007
RP	8	16	2	822.57574	0.11976

	K	J	S	WAVE NO	INT
RP	8	16	0	822.57885	0.02994
PR	7	13	3	822.58517	0.05596
PR	7	13	1	822.58939	0.22384
PR	20	38	0	822.63861	0.00006
RP	9	18	3	822.63940	0.09180
RP	9	18	1	822.64233	0.04590
RQ	1	49	3	822.65216	0.00228
PR	8	15	2	822.65282	0.18056
PR	8	15	0	822.66126	0.04514
PR	19	36	3	822.66468	0.00016
RQ	1	49	1	822.66965	0.00912
RP	10	20	2	822.71281	0.06616
RP	10	20	0	822.71629	0.01654
RQ	1	48	3	822.72432	0.00302
PR	9	17	3	822.72591	0.13753
PR	9	17	1	822.73222	0.06877
RQ	1	48	1	822.74114	0.01208
PR	16	30	0	822.79123	0.00130
RP	11	22	3	822.79218	0.01124
RP	11	22	1	822.79536	0.04496
RQ	1	47	3	822.79621	0.00400
PR	19	36	1	822.80846	0.00064
PR	10	19	2	822.80986	0.09912
RQ	1	47	1	822.81239	0.01600
PR	10	19	0	822.82590	0.02478
PR	20	38	2	822.83945	0.00024
RQ	1	46	3	822.86784	0.00526
RP	12	24	2	822.88123	0.01447
RQ	1	46	1	822.88338	0.02104
RP	12	24	0	822.88507	0.02893
PR	11	21	3	822.89825	0.01692
PR	11	21	1	822.90836	0.06768
RQ	1	45	3	822.93900	0.00686
RQ	1	45	1	822.95392	0.02744
RP	13	26	3	822.97599	0.00440
RP	13	26	1	822.97943	0.01760
PR	21	40	3	822.99064	0.00013
PR	12	23	2	822.99852	0.02193
RQ	1	44	3	823.00988	0.00888
RQ	1	44	1	823.02421	0.03552
PR	12	23	0	823.03259	0.04387
RQ	1	43	3	823.08039	0.01140
RP	14	28	2	823.08046	0.01016
RP	14	28	0	823.08466	0.00254
RQ	1	43	1	823.09415	0.04560
PR	13	25	3	823.10130	0.00676
PR	13	25	1	823.11843	0.02704
RQ	1	42	3	823.15054	0.01456
RQ	1	42	1	823.16373	0.05824
RP	15	30	3	823.19041	0.00560
RP	15	30	1	823.19411	0.00280
PR	14	27	2	823.21785	0.01584
RQ	1	41	3	823.22021	0.01844

	K	J	S	WAVE NO	INT
RQ	1	41	1	823.23286	0.07376
RQ	1	40	3	823.28942	0.02318
RQ	1	40	1	823.30154	0.09272
PR	14	27	0	823.30792	0.00396
RP	16	32	2	823.31009	0.00288
RP	16	32	0	823.31464	0.00072
PR	15	29	3	823.33405	0.00887
RQ	1	39	3	823.35815	0.02894
PR	15	29	1	823.36512	0.00443
RQ	1	39	1	823.36976	0.11576
PR	18	35	0	823.41144	0.00113
RQ	1	38	3	823.42632	0.03586
RP	17	34	3	823.43513	0.00036
RQ	1	38	1	823.43742	0.14344
RP	17	34	1	823.43908	0.00144
PR	16	31	2	823.46690	0.00472
RQ	1	37	3	823.49391	0.04410
RQ	1	37	1	823.50454	0.17640
RQ	1	36	3	823.56093	0.05386
RP	18	36	2	823.56991	0.00033
RQ	1	36	1	823.57109	0.21544
RP	18	36	0	823.57480	0.00067
PR	17	33	3	823.59483	0.00060
RQ	1	35	3	823.62728	0.06528
RQ	1	35	1	823.63699	0.26112
PR	17	33	1	823.65734	0.00240
RR	0	0	2	823.67206	0.12000
RR	0	0	0	823.67428	0.20000
PR	1	2	3	823.67699	0.07822
PR	1	2	1	823.67928	0.31288
PR	2	4	2	823.68970	0.34920
PR	2	4	0	823.69228	0.08730
RQ	1	34	3	823.69286	0.07854
RQ	1	34	1	823.70213	0.31416
PR	3	6	3	823.70914	0.36953
RP	19	38	3	823.70982	0.00008
RP	3	5	3	823.71122	0.05280
PR	3	6	1	823.71176	0.18477
RP	3	5	1	823.71347	0.02640
RP	19	38	1	823.71402	0.00032
PR	4	8	2	823.73848	0.36616
RP	4	7	2	823.74113	0.09664
PR	4	8	0	823.74196	0.09154
RP	4	7	0	823.74352	0.02416
PR	18	35	2	823.74485	0.00057
RQ	1	33	3	823.75757	0.09380
RQ	1	33	1	823.76642	0.37520
PR	5	10	3	823.77418	0.08508
PR	5	10	1	823.77747	0.34032
RP	5	9	3	823.77750	0.03070
RP	5	9	1	823.77989	0.12280
PR	6	12	2	823.81996	0.14887
RQ	1	32	3	823.82150	0.11118

	K	J	S	WAVE NO	INT
RP	6	11	2	823.82367	0.06527
PR	6	12	0	823.82539	0.29773
RP	6	11	0	823.82630	0.13053
RQ	1	32	1	823.82995	0.44472
PR	20	39	0	823.83818	0.00006
RP	20	40	2	823.85980	0.00016
PR	21	40	1	823.86092	0.00007
RP	20	40	0	823.86501	0.00004
PR	7	14	3	823.87168	0.06144
RP	7	13	3	823.87618	0.03086
PR	7	14	1	823.87627	0.24576
RP	7	13	1	823.87877	0.12344
PR	19	37	3	823.88228	0.00014
RQ	1	31	3	823.88447	0.13082
RQ	1	31	1	823.89252	0.52328
PR	8	16	2	823.93392	0.19192
RP	8	15	2	823.93830	0.10656
RP	8	15	0	823.94125	0.02664
PR	8	16	0	823.94335	0.04798
RQ	1	30	3	823.94646	0.15276
RQ	1	30	1	823.95413	0.61104
PR	9	18	3	824.00132	0.14200
RP	9	17	3	824.00665	0.08520
RQ	1	29	3	824.00737	0.17706
PR	9	18	1	824.00822	0.07100
RP	9	17	1	824.00947	0.04260
RQ	1	29	1	824.01469	0.70824
PR	19	37	1	824.03863	0.00056
PR	20	39	2	824.05140	0.00024
RQ	1	28	3	824.06712	0.20366
RQ	1	28	1	824.07408	0.81464
PR	10	20	2	824.07981	0.09968
RP	10	19	2	824.08461	0.06360
RP	10	19	0	824.08791	0.01590
PR	10	20	0	824.09767	0.02492
PR	16	31	0	824.11237	0.00118
RQ	1	27	3	824.12569	0.23248
RQ	1	27	1	824.13232	0.92992
PR	11	22	3	824.16220	0.01662
RP	11	21	3	824.16858	0.01114
RP	11	21	1	824.17164	0.04456
PR	11	22	1	824.17324	0.06648
RQ	1	26	3	824.18289	0.26334
RQ	1	26	1	824.18919	1.05336
PR	21	41	3	824.19467	0.00007
RQ	1	25	3	824.23882	0.29600
RQ	1	25	1	824.24480	1.18400
PR	12	24	2	824.25690	0.02110
RP	12	23	2	824.26216	0.01473
RP	12	23	0	824.26582	0.02947
RQ	1	24	3	824.29327	0.33008
PR	12	24	0	824.29460	0.04220
RQ	1	24	1	824.29897	1.32032

	K	J	S	WAVE NO	INT
RQ	1	23	3	824.34615	0.36520
RQ	1	23	1	824.35156	1.46080
PR	13	26	3	824.35352	0.00636
RP	13	25	3	824.36134	0.00460
RP	13	25	1	824.36465	0.01840
PR	13	26	1	824.37221	0.02544
RQ	1	22	3	824.39756	0.40080
RQ	1	22	1	824.40269	1.60320
RQ	1	21	3	824.44720	0.43626
RQ	1	21	1	824.45207	1.74504
PR	14	28	2	824.46424	0.01464
RP	14	27	2	824.47014	0.01088
RP	14	27	0	824.47414	0.00272
RQ	1	20	3	824.49516	0.47090
RQ	1	20	1	824.49979	1.88360
RQ	1	19	3	824.54124	0.50396
RQ	1	19	1	824.54564	2.01584
PR	14	28	0	824.56361	0.00366
PR	15	30	3	824.57394	0.00800
RP	15	29	3	824.58440	0.00607
RQ	1	18	3	824.58556	0.53460
RP	15	29	1	824.58797	0.00303
RQ	1	18	1	824.58973	2.13840
PR	15	30	1	824.60770	0.00400
PR	18	36	0	824.61558	0.00100
RQ	1	17	3	824.62789	0.56196
RQ	1	17	1	824.63186	2.24784
RQ	1	16	3	824.66826	0.58518
RQ	1	16	1	824.67203	2.34072
PR	16	32	2	824.70096	0.00416
RQ	1	15	3	824.70655	0.60338
RP	16	31	2	824.70822	0.00328
RQ	1	15	1	824.71013	2.41352
RP	16	31	0	824.71257	0.00082
RQ	1	14	3	824.74277	0.61572
RQ	1	14	1	824.74618	2.46288
RQ	1	13	3	824.77671	0.62142
RQ	1	13	1	824.77995	2.48568
RQ	1	12	3	824.80858	0.61980
RQ	1	12	1	824.81168	2.47920
PR	17	34	3	824.82220	0.00052
RP	17	33	3	824.83737	0.00040
RQ	1	11	3	824.83807	0.61028
RQ	1	11	1	824.84103	2.44112
RP	17	33	1	824.84118	0.00160
RQ	1	10	3	824.86530	0.59244
RQ	1	10	1	824.86813	2.36976
PR	17	34	1	824.88990	0.00208
RQ	1	9	3	824.89024	0.56594
RQ	1	9	1	824.89296	2.26376
RQ	1	8	3	824.91271	0.53066
RQ	1	8	1	824.91533	2.12264
RQ	1	7	3	824.93281	0.48662

	K	J	S	WAVE NO	INT
RQ	1	7	1	824.93533	1.94648
RQ	1	6	3	824.95043	0.43390
RQ	1	6	1	824.95287	1.73560
RQ	2	49	2	824.96171	0.00744
RQ	1	5	3	824.96558	0.37260
PR	18	36	2	824.96628	0.00050
RQ	1	5	1	824.96796	1.49040
RP	18	35	2	824.97610	0.00040
RQ	1	4	3	824.97825	0.30266
RQ	1	4	1	824.98057	1.21064
RP	18	35	0	824.98078	0.00080
RQ	2	49	0	824.98746	0.00186
RQ	1	3	3	824.98845	0.22310
RR	0	1	2	824.98936	0.23845
RQ	1	3	1	824.99072	0.89240
RR	0	1	0	824.99158	0.71535
PR	1	3	3	824.99269	0.11546
PR	1	3	1	824.99504	0.46184
RQ	1	2	3	824.99607	0.12974
RQ	1	2	1	824.99831	0.51896
PR	2	5	2	825.00028	0.47080
PR	2	5	0	825.00301	0.11770
PR	3	7	3	825.01448	0.46460
PR	3	7	1	825.01723	0.23230
PR	20	40	0	825.03402	0.00004
PR	4	9	2	825.03851	0.43616
PR	4	9	0	825.04232	0.10904
RQ	2	48	2	825.05578	0.00992
PR	5	11	3	825.06886	0.09704
PR	5	11	1	825.07239	0.38816
RQ	2	48	0	825.08049	0.00248
RP	4	6	2	825.08208	0.03944
RP	4	6	0	825.08437	0.00986
PR	19	38	3	825.09636	0.00012
PR	6	13	2	825.10928	0.16370
PR	6	13	0	825.11531	0.32740
RP	19	37	3	825.12002	0.00008
RP	5	8	3	825.12351	0.01834
RP	19	37	1	825.12408	0.00032
RP	5	8	1	825.12584	0.07336
RQ	2	47	2	825.14899	0.01312
PR	7	15	3	825.15543	0.06546
PR	7	15	1	825.16040	0.26184
RQ	2	47	0	825.17268	0.00328
RP	6	10	2	825.17443	0.04637
RP	6	10	0	825.17694	0.09273
PR	21	41	1	825.18549	0.00003
PR	8	17	2	825.21215	0.19880
PR	8	17	0	825.22264	0.04970
RP	7	12	3	825.23173	0.02430
RP	7	12	1	825.23423	0.09720
RQ	2	46	2	825.24123	0.01720
PR	20	40	2	825.25978	0.00016

	K	J	S	WAVE NO	INT
RQ	2	46	0	825.26394	0.00430
PR	19	38	1	825.26604	0.00048
RP	20	39	2	825.27365	0.00016
PR	9	19	3	825.27376	0.14340
RP	20	39	0	825.27865	0.00004
PR	9	19	1	825.28128	0.07170
RP	8	14	2	825.29859	0.09008
RP	8	14	0	825.30139	0.02252
RQ	2	45	2	825.33250	0.02248
PR	10	21	2	825.34670	0.09840
RQ	2	45	0	825.35425	0.00562
PR	10	21	0	825.36649	0.02460
RP	9	16	3	825.37173	0.07600
RP	9	16	1	825.37444	0.03800
PR	21	42	3	825.39491	0.00007
RQ	2	44	2	825.42271	0.02912
PR	11	23	3	825.42309	0.01604
PR	11	23	1	825.43512	0.06416
RQ	2	44	0	825.44353	0.00728
PR	16	32	0	825.44357	0.00104
RP	10	18	2	825.45433	0.05920
RP	10	18	0	825.45746	0.01480
RQ	2	43	2	825.51174	0.03752
PR	12	25	2	825.51202	0.01993
RQ	2	43	0	825.53167	0.00938
RP	11	20	3	825.54289	0.01076
RP	11	20	1	825.54584	0.04304
PR	12	25	0	825.55357	0.03987
RQ	2	42	2	825.59971	0.04792
PR	13	27	3	825.60251	0.00590
RQ	2	42	0	825.61877	0.01198
PR	13	27	1	825.62280	0.02360
RP	12	22	2	825.64092	0.01467
RP	12	22	0	825.64439	0.02933
RQ	2	41	2	825.68652	0.06080
RQ	2	41	0	825.70472	0.01520
PR	14	29	2	825.70741	0.01328
RP	13	24	3	825.74470	0.00470
RP	13	24	1	825.74788	0.01880
RQ	2	40	2	825.77205	0.07664
RQ	2	40	0	825.78944	0.01916
PR	15	31	3	825.81059	0.00713
PR	18	37	0	825.81628	0.00087
PR	14	29	0	825.81664	0.00332
PR	15	31	1	825.84715	0.00357
RQ	2	39	2	825.85632	0.09592
RP	14	26	2	825.85784	0.01144
RP	14	26	0	825.86166	0.00286
RQ	2	39	0	825.87290	0.02398
PR	16	33	2	825.93179	0.00368
RQ	2	38	2	825.93931	0.11928
RQ	2	38	0	825.95513	0.02982
RP	15	28	3	825.97641	0.00653

	K	J	S	WAVE NO	INT
RP	15	28	1	825.97984	0.00327
RQ	2	37	2	826.02094	0.14720
RQ	2	37	0	826.03602	0.03680
PR	17	35	3	826.04602	0.00044
RQ	2	36	2	826.10110	0.18032
RP	16	30	2	826.10458	0.00352
RP	16	30	0	826.10873	0.00088
RQ	2	36	0	826.11546	0.04508
PR	17	35	1	826.11918	0.00176
RQ	2	35	2	826.17979	0.21936
PR	18	37	2	826.18410	0.00043
RQ	2	35	0	826.19345	0.05484
PR	20	41	0	826.22593	0.00004
RP	17	32	3	826.23783	0.00046
RP	17	32	1	826.24151	0.00184
RQ	2	34	2	826.25690	0.26504
RQ	2	34	0	826.26990	0.06626
RR	0	2	2	826.30216	0.23535
RR	0	2	0	826.30437	0.39225
PR	1	4	3	826.30583	0.15060
PR	19	39	3	826.30682	0.00010
PR	1	4	1	826.30824	0.60240
PR	2	6	2	826.30830	0.58392
PR	2	6	0	826.31121	0.14598
PR	3	8	3	826.31704	0.55033
PR	3	8	1	826.31993	0.27517
RQ	2	33	2	826.33256	0.31784
PR	4	10	2	826.33578	0.49664
PR	4	10	0	826.33996	0.12416
RQ	2	33	0	826.34489	0.07946
PR	5	12	3	826.36066	0.10678
PR	5	12	1	826.36445	0.42712
RP	18	34	2	826.38061	0.00043
RP	18	34	0	826.38509	0.00087
PR	6	14	2	826.39563	0.17477
PR	6	14	0	826.40231	0.34953
RQ	2	32	2	826.40663	0.37840
RQ	2	32	0	826.41835	0.09460
PR	7	16	3	826.43620	0.06804
PR	7	16	1	826.44159	0.27216
PR	20	41	2	826.46439	0.00016
RP	5	7	3	826.46706	0.00738
RP	5	7	1	826.46932	0.02952
RQ	2	31	2	826.47894	0.44728
PR	8	18	2	826.48743	0.20160
RQ	2	31	0	826.49005	0.11182
PR	19	39	1	826.49063	0.00040
PR	8	18	0	826.49905	0.05040
RP	6	9	2	826.52282	0.02753
RP	6	9	0	826.52522	0.05507
PR	21	42	1	826.52734	0.00003
RP	19	36	3	826.52854	0.00010
RP	19	36	1	826.53246	0.00040

	K	J	S	WAVE NO	INT
PR	9	20	3	826.54324	0.14213
RQ	2	30	2	826.54958	0.52480
PR	9	20	1	826.55142	0.07107
RQ	2	30	0	826.56011	0.13120
RP	7	11	3	826.58500	0.01724
RP	7	11	1	826.58741	0.06896
PR	10	22	2	826.61045	0.09536
RQ	2	29	2	826.61845	0.61120
RQ	2	29	0	826.62842	0.15280
PR	10	22	0	826.63227	0.02384
RP	8	13	2	826.65670	0.07096
RP	8	13	0	826.65936	0.01774
PR	11	24	3	826.68092	0.01526
RQ	2	28	2	826.68545	0.70656
RP	20	38	2	826.68601	0.00016
RP	20	38	0	826.69081	0.00004
PR	11	24	1	826.69398	0.06104
RQ	2	28	0	826.69488	0.17664
RP	9	15	3	826.73453	0.06440
RP	9	15	1	826.73714	0.03220
RQ	2	27	2	826.75068	0.81056
RQ	2	27	0	826.75959	0.20264
PR	12	26	2	826.76411	0.01860
PR	16	33	0	826.78835	0.00092
PR	12	26	0	826.80968	0.03720
RQ	2	26	2	826.81403	0.92288
RP	10	17	2	826.82177	0.05296
RQ	2	26	0	826.82245	0.23072
RP	10	17	0	826.82474	0.01324
PR	13	28	3	826.84824	0.00540
RP	21	40	3	826.84843	0.00007
RP	21	40	1	826.85258	0.00003
PR	13	28	1	826.87022	0.02160
RQ	2	25	2	826.87542	1.04256
RQ	2	25	0	826.88335	0.26064
RP	11	19	3	826.91503	0.01006
RP	11	19	1	826.91786	0.04024
RQ	2	24	2	826.93483	1.16856
RQ	2	24	0	826.94231	0.29214
PR	14	30	2	826.94733	0.01200
RQ	2	23	2	826.99217	1.29928
RQ	2	23	0	826.99922	0.32482
PR	18	38	0	827.01376	0.00073
RP	12	21	2	827.01760	0.01420
RP	12	21	0	827.02090	0.02840
PR	15	32	3	827.04390	0.00633
RQ	2	22	2	827.04745	1.43288
RQ	2	22	0	827.05408	0.35822
PR	14	30	0	827.06703	0.00300
PR	15	32	1	827.08337	0.00317
RQ	2	21	2	827.10064	1.56704
RQ	2	21	0	827.10688	0.39176
RP	13	23	3	827.12588	0.00470

	K	J	S	WAVE NO	INT
RP	13	23	1	827.12894	0.01880
RQ	2	20	2	827.15167	1.69920
RQ	2	20	0	827.15752	0.42480
PR	16	34	2	827.15909	0.00320
RQ	2	19	2	827.20052	1.82632
RQ	2	19	0	827.20602	0.45658
RP	14	25	2	827.24357	0.01176
RQ	2	18	2	827.24711	1.94512
RP	14	25	0	827.24719	0.00294
RQ	2	18	0	827.25227	0.48628
PR	17	36	3	827.26632	0.00038
RQ	2	17	2	827.29152	2.05208
RQ	2	17	0	827.29636	0.51302
RQ	2	16	2	827.33366	2.14376
RQ	2	16	0	827.33820	0.53594
PR	17	36	1	827.34518	0.00152
RP	15	27	3	827.36654	0.00693
RP	15	27	1	827.36984	0.00347
RQ	2	15	2	827.37342	2.21632
RQ	2	15	0	827.37768	0.55408
PR	18	38	2	827.39853	0.00037
RQ	2	14	2	827.41081	2.26624
PR	20	42	0	827.41413	0.00004
RQ	2	14	0	827.41481	0.56656
RQ	2	13	2	827.44594	2.29000
RQ	2	13	0	827.44968	0.57250
RQ	2	12	2	827.47858	2.28448
RQ	2	12	0	827.48211	0.57112
RQ	3	49	3	827.49373	0.00647
RP	16	29	2	827.49895	0.00384
RP	16	29	0	827.50291	0.00096
RQ	2	11	2	827.50886	2.24680
RQ	3	49	1	827.50893	0.00323
RQ	2	11	0	827.51217	0.56170
PR	19	40	3	827.51357	0.00008
RQ	2	10	2	827.53666	2.17464
RQ	2	10	0	827.53978	0.54366
RQ	2	9	2	827.56200	2.06592
RQ	2	9	0	827.56494	0.51648
RQ	2	8	2	827.58485	1.91904
RQ	2	8	0	827.58764	0.47976
RQ	3	48	3	827.59827	0.00867
RQ	2	7	2	827.60523	1.73272
RQ	2	7	0	827.60789	0.43318
RR	0	3	2	827.61066	0.38467
RR	0	3	0	827.61288	1.15403
RQ	3	48	1	827.61292	0.00433
PR	2	7	2	827.61345	0.68576
PR	1	5	3	827.61629	0.18308
PR	2	7	0	827.61657	0.17144
PR	3	9	3	827.61694	0.62473
PR	1	5	1	827.61879	0.73232
PR	3	9	1	827.61998	0.31237

	K	J	S	WAVE NO	INT
RQ	2	6	2	827.62305	1.50520
RQ	2	6	0	827.62557	0.37630
PR	4	11	2	827.63029	0.54640
PR	4	11	0	827.63486	0.13660
RP	17	31	3	827.63651	0.00050
RQ	2	5	2	827.63838	1.23352
RP	17	31	1	827.64005	0.00200
RQ	2	5	0	827.64081	0.30838
RR	1	1	3	827.64817	0.23594
PR	5	13	3	827.64960	0.11420
RR	1	1	1	827.65041	0.94376
RQ	2	4	2	827.65115	0.91080
RQ	2	4	0	827.65349	0.22770
PR	5	13	1	827.65366	0.45680
RQ	2	3	2	827.66145	0.51864
RQ	2	3	0	827.66371	0.12966
PR	20	42	2	827.66546	0.00016
PR	6	15	2	827.67912	0.18213
PR	6	15	0	827.68649	0.36427
RQ	3	47	3	827.70135	0.01147
PR	19	40	1	827.71237	0.00032
PR	7	17	3	827.71402	0.06922
RQ	3	47	1	827.71544	0.00573
PR	7	17	1	827.71985	0.27688
PR	8	19	2	827.75964	0.20056
PR	8	19	0	827.77246	0.05014
RP	18	33	2	827.78343	0.00050
RP	18	33	0	827.78771	0.00100
RQ	3	46	3	827.80315	0.01507
PR	9	21	3	827.80967	0.13847
RQ	3	46	1	827.81671	0.00753
PR	9	21	1	827.81853	0.06923
RP	6	8	2	827.86883	0.01097
RP	6	8	0	827.87113	0.02193
PR	10	23	2	827.87125	0.09112
PR	10	23	0	827.89520	0.02278
RQ	3	45	3	827.90349	0.01973
RQ	3	45	1	827.91652	0.00987
RP	19	35	3	827.93528	0.00012
PR	11	25	3	827.93559	0.01428
RP	7	10	3	827.93588	0.01020
RP	7	10	1	827.93822	0.04080
RP	19	35	1	827.93906	0.00048
PR	11	25	1	827.94975	0.05712
RQ	3	44	3	828.00225	0.02560
RP	8	12	2	828.01243	0.05032
PR	12	27	2	828.01295	0.01710
RQ	3	44	1	828.01478	0.01280
RP	8	12	0	828.01497	0.01258
PR	12	27	0	828.06277	0.03420
PR	13	29	3	828.09082	0.00488
RP	9	14	3	828.09505	0.05080
RP	20	37	2	828.09669	0.00024

	K	J	S	WAVE NO	INT
RP	9	14	1	828.09756	0.02540
RQ	3	43	3	828.09954	0.03300
RP	20	37	0	828.10130	0.00006
RQ	3	43	1	828.11157	0.01650
PR	13	29	1	828.11457	0.01952
PR	16	34	0	828.15089	0.00080
PR	14	31	2	828.18391	0.01064
RP	10	16	2	828.18703	0.04504
RP	10	16	0	828.18985	0.01126
RQ	3	42	3	828.19526	0.04227
RQ	3	42	1	828.20682	0.02113
PR	18	39	0	828.20770	0.00060
RP	21	39	3	828.26292	0.00007
RP	21	39	1	828.26693	0.00003
PR	15	33	3	828.27386	0.00553
RP	11	18	3	828.28499	0.00902
RP	11	18	1	828.28771	0.03608
RQ	3	41	3	828.28941	0.05373
RQ	3	41	1	828.30050	0.02687
PR	14	31	0	828.31474	0.00266
PR	15	33	1	828.31639	0.00277
RQ	3	40	3	828.38188	0.06787
PR	16	35	2	828.38298	0.00272
RP	12	20	2	828.39220	0.01333
RQ	3	40	1	828.39252	0.03393
RP	12	20	0	828.39533	0.02667
RQ	3	39	3	828.47279	0.08513
RQ	3	39	1	828.48299	0.04257
PR	17	37	3	828.48309	0.00032
RP	13	22	3	828.50507	0.00458
RP	13	22	1	828.50802	0.01832
RQ	3	38	3	828.56181	0.10600
PR	17	37	1	828.56793	0.00128
RQ	3	38	1	828.57159	0.05300
PR	20	43	0	828.59832	0.00002
PR	18	39	2	828.60926	0.00030
RP	14	24	2	828.62720	0.01184
RP	14	24	0	828.63066	0.00296
RQ	3	37	3	828.64927	0.13107
RQ	3	37	1	828.65864	0.06553
PR	19	41	3	828.71671	0.00006
RQ	3	36	3	828.73486	0.16093
RQ	3	36	1	828.74382	0.08047
RP	15	26	3	828.75468	0.00713
RP	15	26	1	828.75787	0.00357
RQ	3	35	3	828.81857	0.19627
RQ	3	35	1	828.82715	0.09813
PR	20	43	2	828.86266	0.00008
RP	16	28	2	828.89144	0.00408
RP	16	28	0	828.89522	0.00102
RQ	3	34	3	828.90050	0.23760
RQ	3	34	1	828.90871	0.11880
PR	3	10	3	828.91396	0.68633

	K	J	S	WAVE NO	INT
RR	0	4	2	828.91456	0.33731
PR	2	8	2	828.91593	0.77440
RR	0	4	0	828.91678	0.56219
PR	3	10	1	828.91718	0.34317
PR	2	8	0	828.91928	0.19360
PR	4	12	2	828.92194	0.58488
PR	1	6	3	828.92398	0.21242
PR	1	6	1	828.92657	0.84968
PR	4	12	0	828.92693	0.14622
PR	19	41	1	828.93143	0.00024
PR	5	14	3	828.93577	0.11926
PR	5	14	1	828.94012	0.47704
PR	6	16	2	828.95975	0.18587
RR	1	2	3	828.96645	0.25840
PR	6	16	0	828.96786	0.37173
RR	1	2	1	828.96872	1.03360
RQ	3	33	3	828.98046	0.28553
RQ	3	33	1	828.98831	0.14277
PR	7	18	3	828.98897	0.06912
PR	7	18	1	828.99526	0.27648
PR	8	20	2	829.02890	0.19616
RP	17	30	3	829.03331	0.00056
RP	17	30	1	829.03672	0.00224
PR	8	20	0	829.04298	0.04904
RQ	3	32	3	829.05855	0.34067
RQ	3	32	1	829.06606	0.17033
PR	9	22	3	829.07303	0.13280
PR	9	22	1	829.08262	0.06640
PR	10	24	2	829.12888	0.08576
RQ	3	31	3	829.13467	0.40347
RQ	3	31	1	829.14183	0.20173
PR	10	24	0	829.15510	0.02144
RP	18	32	2	829.18437	0.00057
PR	11	26	3	829.18710	0.01320
RP	18	32	0	829.18847	0.00113
PR	11	26	1	829.20240	0.05280
RQ	3	30	3	829.20880	0.47440
RQ	3	30	1	829.21565	0.23720
PR	12	28	2	829.25864	0.01553
RQ	3	29	3	829.28087	0.55360
RP	7	9	3	829.28449	0.00404
RP	7	9	1	829.28677	0.01616
RQ	3	29	1	829.28741	0.27680
PR	12	28	0	829.31293	0.03107
PR	13	30	3	829.33005	0.00436
RP	19	34	3	829.34043	0.00014
RP	19	34	1	829.34407	0.00056
RQ	3	28	3	829.35086	0.64113
PR	13	30	1	829.35564	0.01744
RQ	3	28	1	829.35709	0.32057
RP	8	11	2	829.36578	0.02976
RP	8	11	0	829.36820	0.00744
PR	18	40	0	829.39822	0.00047

	K	J	S	WAVE NO	INT
PR	14	32	2	829.41717	0.00936
RQ	3	27	3	829.41878	0.73693
RQ	3	27	1	829.42473	0.36847
RP	9	13	3	829.45329	0.03600
RP	9	13	1	829.45572	0.01800
RQ	3	26	3	829.48463	0.84040
RQ	3	26	1	829.49030	0.42020
PR	15	34	3	829.50029	0.00480
RP	20	36	2	829.50570	0.00024
RP	20	36	0	829.51010	0.00006
PR	16	35	0	829.53760	0.00068
PR	15	34	1	829.54601	0.00240
RQ	3	25	3	829.54819	0.95093
RP	10	15	2	829.55001	0.03560
RP	10	15	0	829.55270	0.00890
RQ	3	25	1	829.55360	0.47547
PR	14	32	0	829.55978	0.00234
PR	16	36	2	829.60345	0.00232
RQ	3	24	3	829.60959	1.06740
RQ	3	24	1	829.61473	0.53370
RP	11	17	3	829.65276	0.00770
RP	11	17	1	829.65538	0.03080
RQ	3	23	3	829.66881	1.18840
RQ	3	23	1	829.67371	0.59420
RP	21	38	3	829.67583	0.00013
RP	21	38	1	829.67971	0.00007
PR	17	38	3	829.69632	0.00028
RQ	3	22	3	829.72575	1.31213
RQ	3	22	1	829.73042	0.65607
RP	12	19	2	829.76462	0.01203
RP	12	19	0	829.76759	0.02407
PR	20	44	0	829.77861	0.00002
RQ	3	21	3	829.78052	1.43633
RQ	3	21	1	829.78497	0.71817
PR	17	38	1	829.78743	0.00112
PR	18	40	2	829.81641	0.00023
RQ	3	20	3	829.83281	1.55853
RQ	3	20	1	829.83705	0.77927
RP	13	21	3	829.88209	0.00432
RQ	3	19	3	829.88293	1.67573
RP	13	21	1	829.88493	0.01728
RQ	3	19	1	829.88696	0.83787
PR	19	42	3	829.91602	0.00006
RQ	3	18	3	829.93057	1.78487
RQ	3	18	1	829.93442	0.89243
RQ	3	17	3	829.97594	1.88240
RQ	3	17	1	829.97961	0.94120
RP	14	23	2	830.00877	0.01152
RP	14	23	0	830.01205	0.00288
RQ	3	16	3	830.01883	1.96473
RQ	3	16	1	830.02233	0.98237
PR	20	44	2	830.05611	0.00008
RQ	3	15	3	830.05935	2.02827
RQ	3	15	1	830.06268	1.01413
RQ	3	14	3	830.09749	2.06913
RQ	3	14	1	830.10068	1.03457
RQ	4	49	2	830.11635	0.00576
RQ	3	13	3	830.13305	2.08387
RQ	3	13	1	830.13610	1.04193
RQ	4	49	0	830.13807	0.00144
RP	15	25	3	830.14085	0.00720
RP	15	25	1	830.14391	0.00360
PR	19	42	1	830.14766	0.00024
RQ	3	12	3	830.16624	2.06900
RQ	3	12	1	830.16917	1.03450
RQ	3	11	3	830.19695	2.02140
RQ	3	11	1	830.19976	1.01070
PR	3	11	3	830.20821	0.73460
PR	4	13	2	830.21071	0.61184
PR	3	11	1	830.21162	0.36730
RR	0	5	2	830.21396	0.50790
PR	2	9	2	830.21555	0.84856
PR	4	13	0	830.21616	0.15296
RR	0	5	0	830.21618	1.52370
PR	5	15	3	830.21888	0.12206
PR	2	9	0	830.21915	0.21214
PR	5	15	1	830.22355	0.48824
RQ	3	10	3	830.22509	1.93807
RQ	4	48	2	830.22662	0.00768
RQ	3	10	1	830.22779	0.96903
PR	1	7	3	830.22890	0.23822
PR	1	7	1	830.23160	0.95288
PR	6	17	2	830.23742	0.18627
PR	6	17	0	830.24631	0.37253
RQ	4	48	0	830.24747	0.00192
RQ	3	9	3	830.25076	1.81627
RQ	3	9	1	830.25335	0.90813
PR	7	19	3	830.26086	0.06790
PR	7	19	1	830.26764	0.27160
RQ	3	8	3	830.27383	1.65347
RQ	3	8	1	830.27634	0.82673
RP	16	27	2	830.28194	0.00424
RR	1	3	3	830.28225	0.28450
RR	1	3	1	830.28457	1.13800
RP	16	27	0	830.28555	0.00106
RQ	3	7	3	830.29435	1.44640
PR	8	21	2	830.29520	0.18904
RQ	3	7	1	830.29678	0.72320
PR	8	21	0	830.31062	0.04726
RQ	3	6	3	830.31248	1.19080
RQ	3	6	1	830.31484	0.59540
RQ	3	5	3	830.32793	0.87887
RQ	3	5	1	830.33024	0.43943
PR	9	23	3	830.33323	0.12560
RQ	4	47	2	830.33522	0.01016
RQ	3	4	3	830.34082	0.49467
RQ	3	4	1	830.34307	0.24733
PR	9	23	1	830.34358	0.06280
RQ	4	47	0	830.35524	0.00254
PR	10	25	2	830.38328	0.07968
PR	10	25	0	830.41185	0.01992
RP	17	29	3	830.42812	0.00058
RP	17	29	1	830.43141	0.00232
PR	11	27	3	830.43536	0.01206
RQ	4	46	2	830.44215	0.01336
PR	11	27	1	830.45184	0.04824
RQ	4	46	0	830.46136	0.00334
PR	12	29	2	830.50100	0.01393
RQ	4	45	2	830.54742	0.01752
PR	12	29	0	830.55997	0.02787
RQ	4	45	0	830.56583	0.00438
PR	13	31	3	830.56583	0.00384
RP	18	31	2	830.58344	0.00060
PR	18	41	0	830.58533	0.00040
RP	18	31	0	830.58735	0.00120
PR	13	31	1	830.59335	0.01536
PR	14	33	2	830.64700	0.00808
RQ	4	44	2	830.65091	0.02280
RQ	4	44	0	830.66855	0.00570
RP	8	10	2	830.71676	0.01176
RP	8	10	0	830.71907	0.00294
PR	15	35	3	830.72337	0.00407
RP	19	33	3	830.74371	0.00016
RP	19	33	1	830.74722	0.00064
RQ	4	43	2	830.75263	0.02944
RQ	4	43	0	830.76953	0.00736
PR	15	35	1	830.77241	0.00203
PR	14	33	0	830.80212	0.00202
RP	9	12	3	830.80924	0.02127
RP	9	12	1	830.81160	0.01063
PR	16	37	2	830.82031	0.00200
RQ	4	42	2	830.85258	0.03768
RQ	4	42	0	830.86876	0.00942
PR	17	39	3	830.90593	0.00022
RP	10	14	2	830.91072	0.02528
RP	20	35	2	830.91302	0.00032
RP	10	14	0	830.91327	0.00632
RP	20	35	0	830.91724	0.00008
RQ	4	41	2	830.95067	0.04800
PR	16	36	0	830.95744	0.00058
RQ	4	41	0	830.96614	0.01200
PR	17	39	1	831.00360	0.00088
RP	11	16	3	831.01826	0.00610
PR	18	41	2	831.01995	0.00020
RP	11	16	1	831.02078	0.02440
RQ	4	40	2	831.04688	0.06072
RQ	4	40	0	831.06167	0.01518
RP	21	37	3	831.08707	0.00013
RP	21	37	1	831.09081	0.00007
PR	19	43	3	831.11154	0.00004
RP	12	18	2	831.13476	0.01027
RP	12	18	0	831.13759	0.02053
RQ	4	39	2	831.14122	0.07624
RQ	4	39	0	831.15535	0.01906
RQ	4	38	2	831.23370	0.09504
RQ	4	38	0	831.24718	0.02376
RP	13	20	3	831.25703	0.00390
RP	13	20	1	831.25976	0.01560
RQ	4	37	2	831.32420	0.11768
RQ	4	37	0	831.33706	0.02942
PR	19	43	1	831.36115	0.00016
PR	16	47	0	831.38702	0.00006
RP	14	22	2	831.38825	0.01096
RP	14	22	0	831.39138	0.00274
RQ	4	36	2	831.41262	0.14464
RQ	4	36	0	831.42489	0.03616
PR	4	14	2	831.49652	0.62760
PR	5	16	3	831.49911	0.12272
RQ	4	35	2	831.49918	0.17656
PR	3	12	3	831.49948	0.76933
PR	4	14	0	831.50246	0.15690
PR	3	12	1	831.50311	0.38467
PR	5	16	1	831.50412	0.49088
RR	0	6	2	831.50886	0.41865
RQ	4	35	0	831.51087	0.04414
RR	0	6	0	831.51108	0.69775
PR	6	18	2	831.51203	0.18367
PR	2	10	2	831.51229	0.90752
PR	2	10	0	831.51618	0.22688
PR	6	18	0	831.52175	0.36733
RP	15	24	3	831.52483	0.00707
RP	15	24	1	831.52778	0.00353
PR	7	20	3	831.52968	0.06570
PR	1	8	3	831.53094	0.26016
PR	1	8	1	831.53376	1.04064
PR	7	20	1	831.53698	0.26280
PR	8	22	2	831.55825	0.17960
PR	8	22	0	831.57507	0.04490
RQ	4	34	2	831.58356	0.21392
PR	9	24	3	831.59037	0.11727
RQ	4	34	0	831.59470	0.05348
RR	1	4	3	831.59538	0.30958
RR	1	4	1	831.59776	1.23832
PR	9	24	1	831.60152	0.05863
PR	10	26	2	831.63461	0.07312
RR	2	2	2	831.63944	1.50784
RR	2	2	0	831.64171	0.37696
PR	10	26	0	831.66567	0.01828
RQ	4	33	2	831.66598	0.25736
RP	16	26	2	831.67037	0.00432
RP	16	26	0	831.67381	0.00108
RQ	4	33	0	831.67657	0.06434

	K	J	S	WAVE NO	INT
PR	11	28	3	831.68037	0.01088
PR	11	28	1	831.69809	0.04352
PR	12	30	2	831.74001	0.01237
RQ	4	32	2	831.74632	0.30736
RQ	4	32	0	831.75639	0.07684
PR	18	42	0	831.76872	0.00033
PR	13	32	3	831.79836	0.00336
PR	12	30	0	831.80392	0.02473
RP	17	28	3	831.82106	0.00062
RP	17	28	1	831.82423	0.00248
RQ	4	31	2	831.82449	0.36432
PR	13	32	1	831.82788	0.01344
RQ	4	31	0	831.83405	0.09108
PR	14	34	2	831.87348	0.00696
RQ	4	30	2	831.90048	0.42872
RQ	4	30	0	831.90956	0.10718
PR	15	36	3	831.94282	0.00347
RQ	4	29	2	831.97430	0.50064
RP	18	30	2	831.98071	0.00067
RQ	4	29	0	831.98291	0.12516
RP	18	30	0	831.98445	0.00133
PR	15	36	1	831.99532	0.00173
PR	16	38	2	832.03365	0.00160
PR	14	34	0	832.04189	0.00174
RQ	4	28	2	832.04596	0.58016
RQ	4	28	0	832.05412	0.14504
PR	17	40	3	832.11182	0.00018
RQ	4	27	2	832.11533	0.66712
RQ	4	27	0	832.12306	0.16678
RP	19	32	3	832.14519	0.00016
RP	19	32	1	832.14857	0.00064
RP	9	11	3	832.16272	0.00840
RP	9	11	1	832.16501	0.00420
RQ	4	26	2	832.18244	0.76120
RQ	4	26	0	832.18975	0.19030
PR	17	40	1	832.21635	0.00072
PR	18	42	2	832.21961	0.00017
RQ	4	25	2	832.24737	0.86152
RQ	4	25	0	832.25428	0.21538
RP	10	13	2	832.26914	0.01496
RP	10	13	0	832.27158	0.00374
PR	19	44	3	832.30325	0.00004
RQ	4	24	2	832.30993	0.96712
RQ	4	24	0	832.31646	0.24178
RP	20	34	2	832.31855	0.00032
RP	20	34	0	832.32259	0.00008
RQ	4	23	2	832.37022	1.07672
RQ	4	23	0	832.37638	0.26918
RP	11	15	3	832.38147	0.00434
RP	11	15	1	832.38391	0.01736
PR	16	37	0	832.42361	0.00050
RQ	4	22	2	832.42812	1.18848
RQ	4	22	0	832.43394	0.29712

	K	J	S	WAVE NO	INT
RQ	4	21	2	832.48367	1.30024
RQ	4	21	0	832.48915	0.32506
RP	21	36	3	832.49671	0.00013
RP	21	36	1	832.50032	0.00007
RP	12	17	2	832.50272	0.00817
RP	12	17	0	832.50541	0.01633
RQ	4	20	2	832.53683	1.40976
RQ	4	20	0	832.54200	0.35244
PR	19	44	1	832.57198	0.00016
RQ	4	19	2	832.58752	1.51400
RQ	4	19	0	832.59239	0.37850
RP	13	19	3	832.62968	0.00336
RP	13	19	1	832.63231	0.01344
RQ	4	18	2	832.63593	1.61008
RQ	4	18	0	832.64053	0.40252
RQ	4	17	2	832.68178	1.69448
RQ	4	17	0	832.68610	0.42362
RQ	4	16	2	832.72524	1.76368
RQ	4	16	0	832.72931	0.44092
RP	14	21	2	832.76555	0.00992
RQ	4	15	2	832.76624	1.81408
RP	14	21	0	832.76852	0.00248
RQ	4	15	0	832.77007	0.45352
PR	5	17	3	832.77638	0.12146
RQ	5	49	3	832.77773	0.00126
PR	4	15	2	832.77946	0.63288
PR	5	17	1	832.78175	0.48584
PR	6	19	2	832.78368	0.17850
PR	4	15	0	832.78594	0.15822
PR	3	13	3	832.78790	0.79073
RQ	5	49	1	832.79107	0.00504
PR	3	13	1	832.79175	0.39537
PR	6	19	0	832.79427	0.35700
PR	7	21	3	832.79533	0.06272
RR	0	7	2	832.79926	0.60000
RR	0	7	0	832.80148	1.80000
PR	7	21	1	832.80318	0.25088
RQ	4	14	2	832.80466	1.84192
PR	2	11	2	832.80616	0.95096
RQ	4	14	0	832.80827	0.46048
PR	2	11	0	832.81037	0.23774
PR	8	23	2	832.81824	0.16848
PR	1	9	3	832.83012	0.27804
PR	1	9	1	832.83307	1.11216
PR	8	23	0	832.83652	0.04212
RQ	4	13	2	832.84061	1.84352
RQ	4	13	0	832.84401	0.46088
PR	9	25	3	832.84425	0.10813
PR	9	25	1	832.85623	0.05407
RQ	4	12	2	832.87408	1.81536
RQ	4	12	0	832.87729	0.45384
PR	10	27	2	832.88261	0.06632
RQ	5	48	3	832.89195	0.00170

	K	J	S	WAVE NO	INT
RQ	5	48	1	832.90481	0.00680
RQ	4	11	2	832.90508	1.75384
RR	1	5	3	832.90583	0.33180
RP	15	23	3	832.90683	0.00673
RQ	4	11	0	832.90811	0.43846
RR	1	5	1	832.90827	1.32720
RP	15	23	1	832.90967	0.00337
PR	10	27	0	832.91626	0.01658
PR	11	29	3	832.92202	0.00970
RQ	4	10	2	832.93349	1.65552
RQ	4	10	0	832.93637	0.41388
PR	11	29	1	832.94103	0.03880
PR	18	43	0	832.94859	0.00027
RR	2	3	2	832.95505	1.55152
RR	2	3	0	832.95739	0.38788
RQ	4	9	2	832.95934	1.51696
RQ	4	9	0	832.96207	0.37924
PR	12	31	2	832.97568	0.01087
RQ	4	8	2	832.98261	1.33432
RQ	4	8	0	832.98521	0.33358
RQ	4	7	2	833.00331	1.10240
RQ	5	47	3	833.00430	0.00224
RQ	4	7	0	833.00579	0.27560
RQ	5	47	1	833.01669	0.00896
RQ	4	6	2	833.02144	0.81376
RQ	4	6	0	833.02381	0.20344
PR	13	33	3	833.02745	0.00290
RQ	4	5	2	833.03709	0.45512
RQ	4	5	0	833.03938	0.11378
PR	12	31	0	833.04475	0.02173
RP	16	25	2	833.05682	0.00424
PR	13	33	1	833.05905	0.01160
RP	16	25	0	833.06009	0.00106
PR	14	35	2	833.09634	0.00592
RQ	5	46	3	833.11488	0.00296
RQ	5	46	1	833.12680	0.01184
PR	15	37	3	833.15873	0.00287
RP	17	27	3	833.21201	0.00062
PR	15	37	1	833.21484	0.00143
RP	17	27	1	833.21506	0.00248
RQ	5	45	3	833.22359	0.00388
RQ	5	45	1	833.23506	0.01552
PR	16	39	2	833.24338	0.00136
PR	14	35	0	833.27888	0.00148
PR	17	41	3	833.31397	0.00016
RQ	5	44	3	833.33032	0.00504
RQ	5	44	1	833.34135	0.02016
RP	18	29	2	833.37601	0.00070
RP	18	29	0	833.37958	0.00140
PR	18	43	2	833.41559	0.00013
PR	17	41	1	833.42571	0.00064
RQ	5	43	3	833.43518	0.00652
RQ	5	43	1	833.44579	0.02608

	K	J	S	WAVE NO	INT
PR	19	45	3	833.49104	0.00002
RQ	5	42	3	833.53806	0.00836
RP	19	31	3	833.54479	0.00018
RP	19	31	1	833.54807	0.00072
RQ	5	42	1	833.54826	0.03344
RP	10	12	2	833.62519	0.00584
RP	10	12	0	833.62751	0.00146
RQ	5	41	3	833.63897	0.01066
RQ	5	41	1	833.64877	0.04264
RP	20	33	2	833.72230	0.00032
RP	20	33	0	833.72617	0.00008
RQ	5	40	3	833.73791	0.01348
RP	11	14	3	833.74230	0.00256
RP	11	14	1	833.74466	0.01024
RQ	5	40	1	833.74732	0.05392
PR	19	45	1	833.78017	0.00008
RQ	5	39	3	833.83477	0.01694
RQ	5	39	1	833.84380	0.06776
RP	12	16	2	833.86840	0.00583
RP	12	16	0	833.87096	0.01167
RP	21	35	3	833.90457	0.00013
RP	21	35	1	833.90806	0.00007
RQ	5	38	3	833.92956	0.02114
RQ	5	38	1	833.93823	0.08456
PR	16	38	0	833.95705	0.00040
RP	13	18	3	834.00015	0.00268
RP	13	18	1	834.00269	0.01072
RQ	5	37	3	834.02227	0.02618
RQ	5	37	1	834.03059	0.10472
PR	5	18	3	834.05048	0.11848
PR	6	20	2	834.05215	0.17113
PR	5	18	1	834.05622	0.47392
PR	7	22	3	834.05792	0.05912
PR	4	16	2	834.05934	0.62848
PR	6	20	0	834.06369	0.34227
PR	7	22	1	834.06635	0.23648
PR	4	16	0	834.06638	0.15712
PR	3	14	3	834.07333	0.79947
PR	8	24	2	834.07507	0.15616
PR	3	14	1	834.07743	0.39973
RR	0	8	2	834.08506	0.47464
RR	0	8	0	834.08728	0.79106
PR	8	24	0	834.09491	0.03904
PR	9	26	3	834.09497	0.09860
PR	2	12	2	834.09717	0.97912
PR	2	12	0	834.10172	0.24478
PR	9	26	1	834.10782	0.04930
RQ	5	36	3	834.11291	0.03220
RQ	5	36	1	834.12088	0.12880
PR	18	44	0	834.12484	0.00020
PR	1	10	3	834.12631	0.29176
PR	10	28	2	834.12734	0.05952
PR	1	10	1	834.12942	1.16704

	K	J	S	WAVE NO	INT
RP	14	20	2	834.14067	0.00856
RP	14	20	0	834.14350	0.00214
PR	11	30	3	834.16042	0.00858
PR	10	28	0	834.16373	0.01488
PR	11	30	1	834.18078	0.03432
RQ	5	35	3	834.20137	0.03932
PR	12	32	2	834.20801	0.00943
RQ	5	35	1	834.20901	0.15728
RR	1	6	3	834.21371	0.35018
RR	1	6	1	834.21623	1.40072
PR	13	34	3	834.25298	0.00248
RR	2	4	2	834.26798	1.61072
RR	2	4	0	834.27041	0.40268
PR	12	32	0	834.28252	0.01887
RP	15	22	3	834.28665	0.00613
PR	13	34	1	834.28676	0.00992
RQ	5	34	3	834.28776	0.04766
RP	15	22	1	834.28938	0.00307
RQ	5	34	1	834.29508	0.19064
PR	14	36	2	834.31578	0.00504
PR	15	38	3	834.37099	0.00240
RQ	5	33	3	834.37187	0.05736
RQ	5	33	1	834.37888	0.22944
PR	15	38	1	834.43086	0.00120
RP	16	24	2	834.44118	0.00408
RP	16	24	0	834.44430	0.00102
PR	16	40	2	834.44939	0.00112
RQ	5	32	3	834.45380	0.06852
RQ	5	32	1	834.46052	0.27408
PR	17	42	3	834.51240	0.00012
PR	14	36	0	834.51331	0.00126
RQ	5	31	3	834.53357	0.08126
RQ	5	31	1	834.53999	0.32504
RP	17	26	3	834.60098	0.00062
RP	17	26	1	834.60391	0.00248
PR	18	44	2	834.60778	0.00010
RQ	5	30	3	834.61095	0.09562
RQ	5	30	1	834.61710	0.38248
PR	17	42	1	834.63168	0.00048
PR	19	46	3	834.67493	0.00002
RQ	5	29	3	834.68616	0.11166
RQ	5	29	1	834.69204	0.44664
RQ	5	28	3	834.75909	0.12940
RQ	5	28	1	834.76471	0.51760
RP	18	28	2	834.76933	0.00070
RP	18	28	0	834.77273	0.00140
RQ	5	27	3	834.82965	0.14878
RQ	5	27	1	834.83502	0.59512
RQ	5	26	3	834.89793	0.16968
RQ	5	26	1	834.90306	0.67872
RP	19	30	3	834.94251	0.00020
RP	19	30	1	834.94566	0.00080
RQ	5	25	3	834.96384	0.19196

	K	J	S	WAVE NO	INT
RQ	5	25	1	834.96874	0.76784
PR	19	46	1	834.98579	0.00008
RQ	5	24	3	835.02728	0.21536
RQ	5	24	1	835.03195	0.86144
RQ	5	23	3	835.08842	0.23954
RQ	5	23	1	835.09289	0.95816
RP	11	13	3	835.10085	0.00102
RP	11	13	1	835.10313	0.00408
RP	20	32	2	835.12427	0.00040
RP	20	32	0	835.12797	0.00010
RQ	5	22	3	835.14720	0.26410
RQ	5	22	1	835.15147	1.05640
RQ	5	21	3	835.20350	0.28854
RQ	5	21	1	835.20757	1.15416
RP	12	15	2	835.23180	0.00347
RP	12	15	0	835.23424	0.00693
RQ	5	20	3	835.25732	0.31226
RQ	5	20	1	835.26122	1.24904
PR	18	45	0	835.29728	0.00013
RQ	5	19	3	835.30867	0.33460
RP	21	34	3	835.31065	0.00020
RQ	5	19	1	835.31239	1.33840
RP	21	34	1	835.31402	0.00010
PR	7	23	3	835.31735	0.05506
PR	6	21	2	835.31758	0.16203
PR	5	19	3	835.32162	0.11408
PR	7	23	1	835.32638	0.22024
PR	5	19	1	835.32775	0.45632
PR	8	25	2	835.32865	0.14312
PR	6	21	0	835.33009	0.32407
PR	4	17	2	835.33626	0.61552
PR	9	27	3	835.34233	0.08893
PR	4	17	0	835.34390	0.15388
PR	8	25	0	835.35011	0.03578
PR	3	15	3	835.35570	0.79653
PR	9	27	1	835.35609	0.04447
RQ	5	18	3	835.35764	0.35484
PR	3	15	1	835.36005	0.39827
RQ	5	18	1	835.36119	1.41936
RR	0	9	2	835.36626	0.65653
RP	13	17	3	835.36834	0.00192
RR	0	9	0	835.36848	1.96958
PR	10	29	2	835.36884	0.05280
RP	13	17	1	835.37079	0.00768
PR	2	13	2	835.38511	0.99256
PR	2	13	0	835.39002	0.24814
PR	11	31	3	835.39536	0.00750
RQ	5	17	3	835.40403	0.37214
RQ	5	17	1	835.40743	1.48856
PR	10	29	0	835.40807	0.01320
PR	11	31	1	835.41712	0.03000
PR	1	11	3	835.41944	0.30130
PR	1	11	1	835.42271	1.20520

	K	J	S	WAVE NO	INT
PR	12	33	2	835.43689	0.00813
RQ	5	16	3	835.44794	0.38564
RQ	5	16	1	835.45119	1.54256
PR	13	35	3	835.47507	0.00210
RQ	6	49	2	835.47758	0.00220
RQ	5	15	3	835.48939	0.39448
RQ	5	15	1	835.49250	1.57792
RQ	6	49	0	835.49612	0.00440
RP	22	36	2	835.50571	0.00008
RP	22	36	0	835.50969	0.00002
PR	13	35	1	835.51110	0.00840
RP	14	19	2	835.51361	0.00688
RP	14	19	0	835.51630	0.00172
PR	12	33	0	835.51710	0.01627
RR	1	7	3	835.51901	0.36416
RR	1	7	1	835.52163	1.45664
RQ	5	14	3	835.52825	0.39772
RQ	5	14	1	835.53123	1.59088
PR	14	37	2	835.53168	0.00416
RQ	5	13	3	835.56453	0.39442
RQ	5	13	1	835.56740	1.57768
RR	2	5	2	835.57835	1.66824
PR	15	39	3	835.57973	0.00200
RR	2	5	0	835.58087	0.41706
PR	16	39	0	835.59199	0.00034
RQ	6	48	2	835.59443	0.00297
RQ	5	12	3	835.59834	0.38366
RQ	5	12	1	835.60109	1.53464
RQ	6	48	0	835.61225	0.00593
RQ	5	11	3	835.62957	0.36448
RQ	5	11	1	835.63222	1.45792
PR	15	39	1	835.64352	0.00100
RR	3	3	3	835.64452	1.97080
RR	3	3	1	835.64677	0.98540
PR	16	41	2	835.65170	0.00088
RQ	5	10	3	835.65822	0.33594
RQ	5	10	1	835.66077	1.34376
RP	15	21	3	835.66428	0.00533
RP	15	21	1	835.66692	0.00267
RQ	5	9	3	835.68439	0.29692
RQ	5	9	1	835.68687	1.18768
PR	17	43	3	835.70701	0.00010
RQ	5	8	3	835.70779	0.24616
RQ	6	47	2	835.70952	0.00393
RQ	5	8	1	835.71019	0.98464
RQ	6	47	0	835.72663	0.00787
RQ	5	7	3	835.72871	0.18192
RQ	5	7	1	835.73104	0.72768
PR	14	37	0	835.74517	0.00104
RQ	5	6	3	835.74706	0.10144
RQ	5	6	1	835.74932	0.40576
PR	18	45	2	835.79598	0.00007
RQ	6	46	2	835.82253	0.00520

	K	J	S	WAVE NO	INT
RP	16	23	2	835.82347	0.00376
RP	16	23	0	835.82644	0.00094
PR	17	43	1	835.83419	0.00040
RQ	6	46	0	835.83897	0.01040
RQ	6	45	2	835.93357	0.00680
RQ	6	45	0	835.94934	0.01360
RP	17	25	3	835.98776	0.00060
RP	17	25	1	835.99059	0.00240
RQ	6	44	2	836.04254	0.00883
RQ	6	44	0	836.05767	0.01767
RQ	6	43	2	836.14954	0.01143
RP	18	27	2	836.16056	0.00070
RP	18	27	0	836.16381	0.00140
RQ	6	43	0	836.16404	0.02287
RQ	6	42	2	836.25447	0.01467
RQ	6	42	0	836.26836	0.02933
PR	16	48	0	836.33339	0.00004
RP	19	29	3	836.33825	0.00020
RP	19	29	1	836.34129	0.00080
RQ	6	41	2	836.35732	0.01870
RQ	6	41	0	836.37062	0.03740
RQ	6	40	2	836.45801	0.02363
PR	18	46	0	836.46609	0.00013
RQ	6	40	0	836.47073	0.04727
RP	20	31	2	836.52435	0.00040
RP	20	31	0	836.52789	0.00010
RQ	6	39	2	836.55662	0.02973
RQ	6	39	0	836.56878	0.05947
PR	7	24	3	836.57362	0.05070
PR	8	26	2	836.57907	0.12976
PR	6	22	2	836.57984	0.15163
PR	7	24	1	836.58327	0.20280
PR	9	28	3	836.58643	0.07940
PR	5	20	3	836.58958	0.10852
RP	12	14	2	836.59282	0.00137
PR	6	22	0	836.59338	0.30327
RP	12	14	0	836.59514	0.00273
PR	5	20	1	836.59614	0.43408
PR	9	28	1	836.60114	0.03970
PR	8	26	0	836.60223	0.03244
PR	10	30	2	836.60687	0.04640
PR	4	18	2	836.61000	0.59512
PR	4	18	0	836.61829	0.14878
PR	11	32	3	836.62695	0.00648
PR	3	16	3	836.63509	0.78300
PR	3	16	1	836.63973	0.39150
RR	0	10	2	836.64286	0.50329
RR	0	10	0	836.64508	0.83881
PR	10	30	0	836.64909	0.01160
PR	11	32	1	836.65017	0.02592
RQ	6	38	2	836.65315	0.03707
PR	12	34	2	836.66234	0.00693
RQ	6	38	0	836.66478	0.07413

	K	J	S	WAVE NO	INT
PR	2	14	2	836.66998	0.99224
PR	2	14	0	836.67529	0.24806
PR	13	36	3	836.69362	0.00178
PR	1	12	3	836.70940	0.30674
PR	1	12	1	836.71284	1.22696
RP	21	33	3	836.71494	0.00020
RP	21	33	1	836.71819	0.00010
PR	13	36	1	836.73199	0.00712
RP	13	16	3	836.73425	0.00114
RP	13	16	1	836.73662	0.00456
PR	14	38	2	836.74386	0.00344
RQ	6	37	2	836.74741	0.04593
PR	12	34	0	836.74851	0.01387
RQ	6	37	0	836.75852	0.09187
PR	15	40	3	836.78472	0.00160
RR	1	8	3	836.82164	0.37344
RR	1	8	1	836.82436	1.49376
RQ	6	36	2	836.83951	0.05650
RQ	6	36	0	836.85011	0.11300
PR	16	42	2	836.85030	0.00072
PR	15	40	1	836.85259	0.00080
RP	14	18	2	836.88427	0.00496
RR	2	6	2	836.88603	1.71592
RP	14	18	0	836.88683	0.00124
RR	2	6	0	836.88869	0.42898
PR	17	44	3	836.89779	0.00008
RP	22	35	2	836.91415	0.00008
RP	22	35	0	836.91797	0.00002
RQ	6	35	2	836.92942	0.06900
RQ	6	35	0	836.93953	0.13800
RR	3	4	3	836.95744	1.97407
RR	3	4	1	836.95974	0.98703
PR	14	38	0	836.97433	0.00086
PR	18	46	2	836.98042	0.00007
RQ	6	34	2	837.01707	0.08367
RQ	6	34	0	837.02670	0.16733
PR	17	44	1	837.03326	0.00032
RP	15	20	3	837.03973	0.00427
RP	15	20	1	837.04227	0.00213
RQ	6	33	2	837.10243	0.10067
RQ	6	33	0	837.11161	0.20133
RQ	6	32	2	837.18553	0.12023
RQ	6	32	0	837.19427	0.24047
RP	16	22	2	837.20358	0.00320
RP	16	22	0	837.20640	0.00080
RQ	6	31	2	837.26635	0.14253
RQ	6	31	0	837.27466	0.28507
RQ	6	30	2	837.34480	0.16767
RQ	6	30	0	837.35270	0.33533
RP	17	24	3	837.37256	0.00054
RP	17	24	1	837.37529	0.00216
PR	16	40	0	837.38905	0.00028
RQ	6	29	2	837.42097	0.19573

	K	J	S	WAVE NO	INT
RQ	6	29	0	837.42847	0.39147
RQ	6	28	2	837.49477	0.22670
RQ	6	28	0	837.50189	0.45340
RP	18	26	2	837.54991	0.00070
RP	18	26	0	837.55301	0.00140
RQ	6	27	2	837.56619	0.26047
RQ	6	27	0	837.57294	0.52093
PR	18	47	0	837.63099	0.00007
RQ	6	26	2	837.63524	0.29683
RQ	6	26	0	837.64165	0.59367
RQ	6	25	2	837.70191	0.33547
RQ	6	25	0	837.70798	0.67093
RP	19	28	3	837.73200	0.00020
RP	19	28	1	837.73494	0.00080
RQ	6	24	2	837.76611	0.37587
RQ	6	24	0	837.77186	0.75173
PR	8	27	2	837.82613	0.11640
PR	7	25	3	837.82661	0.04620
PR	9	29	3	837.82717	0.07013
RQ	6	23	2	837.82784	0.41743
RQ	6	23	0	837.83327	0.83487
PR	7	25	1	837.83693	0.18480
PR	6	23	2	837.83884	0.14037
PR	10	31	2	837.84157	0.04040
PR	9	29	1	837.84286	0.03507
PR	8	27	0	837.85107	0.02910
PR	6	23	0	837.85346	0.28073
PR	5	21	3	837.85438	0.10204
PR	11	33	3	837.85508	0.00556
PR	5	21	1	837.86138	0.40816
PR	11	33	1	837.87982	0.02224
PR	4	19	2	837.88069	0.56856
PR	12	35	2	837.88415	0.00587
PR	10	31	0	837.88689	0.01010
RQ	6	22	2	837.88718	0.45940
PR	4	19	0	837.88965	0.14214
RQ	6	22	0	837.89233	0.91880
PR	13	37	3	837.90862	0.00148
PR	3	17	3	837.91132	0.76020
RR	0	11	2	837.91476	0.67675
PR	3	17	1	837.91625	0.38010
RR	0	11	0	837.91698	2.03025
RP	20	30	2	837.92246	0.00040
RP	20	30	0	837.92583	0.00010
RQ	6	21	2	837.94406	0.50080
RQ	6	21	0	837.94891	1.00160
PR	13	37	1	837.94943	0.00592
PR	2	15	2	837.95178	0.97928
PR	14	39	2	837.95251	0.00288
PR	2	15	0	837.95751	0.24482
PR	12	35	0	837.97659	0.01173
PR	15	41	3	837.98588	0.00133
PR	1	13	3	837.99628	0.30828

	K	J	S	WAVE NO	INT
RQ	6	20	2	837.99835	0.54053
PR	1	13	1	837.99991	1.23312
RQ	6	20	0	838.00294	1.08107
PR	16	43	2	838.04508	0.00056
RQ	6	19	2	838.05028	0.57737
RQ	6	19	0	838.05461	1.15473
PR	15	41	1	838.05801	0.00067
PR	17	45	3	838.08465	0.00006
RP	13	15	3	838.09788	0.00046
RQ	6	18	2	838.09962	0.60987
RP	13	15	1	838.10017	0.00184
RQ	6	18	0	838.10372	1.21973
RP	21	32	3	838.11745	0.00020
RP	21	32	1	838.12059	0.00010
RR	1	9	3	838.12170	0.37794
RR	1	9	1	838.12453	1.51176
RQ	6	17	2	838.14639	0.63647
RQ	6	17	0	838.15026	1.27293
PR	18	47	2	838.16076	0.00003
RQ	6	16	2	838.19069	0.65560
RR	2	7	2	838.19095	1.74960
RR	2	7	0	838.19374	0.43740
RQ	6	16	0	838.19434	1.31120
RQ	7	49	3	838.19705	0.00096
PR	14	39	0	838.20107	0.00072
RQ	7	49	1	838.20884	0.00384
PR	17	45	1	838.22880	0.00024
RQ	6	15	2	838.23251	0.66550
RQ	6	15	0	838.23596	1.33100
RP	14	17	2	838.25275	0.00296
RP	14	17	0	838.25519	0.00074
RR	3	5	3	838.26758	1.98907
RR	3	5	1	838.26994	0.99453
RQ	6	14	2	838.27165	0.66440
RQ	6	14	0	838.27492	1.32880
RQ	6	13	2	838.30832	0.65040
RQ	6	13	0	838.31141	1.30080
RQ	7	48	3	838.31635	0.00128
RP	22	34	2	838.32071	0.00008
RP	22	34	0	838.32436	0.00002
RQ	7	48	1	838.32771	0.00512
RQ	6	12	2	838.34231	0.62163
RQ	6	12	0	838.34524	1.24327
RQ	6	11	2	838.37383	0.57610
RQ	6	11	0	838.37660	1.15220
RQ	6	10	2	838.40266	0.51160
RQ	6	10	0	838.40530	1.02320
RP	15	19	3	838.41290	0.00307
RP	15	19	1	838.41536	0.00153
RQ	6	9	2	838.42893	0.42570
RQ	6	9	0	838.43144	0.85140
RQ	7	47	3	838.43346	0.00170
RQ	7	47	1	838.44442	0.00680

	K	J	S	WAVE NO	INT
RQ	6	8	2	838.45261	0.31517
RQ	6	8	0	838.45502	0.63033
RQ	6	7	2	838.47363	0.17560
RQ	6	7	0	838.47593	0.35120
RQ	7	46	3	838.54861	0.00224
RQ	7	46	1	838.55917	0.00896
RP	16	21	2	838.58150	0.00264
RP	16	21	0	838.58418	0.00066
RQ	7	45	3	838.66167	0.00292
RQ	7	45	1	838.67184	0.01168
RP	17	23	3	838.75518	0.00048
RP	17	23	1	838.75781	0.00192
RQ	7	44	3	838.77267	0.00382
RQ	7	44	1	838.78246	0.01528
PR	18	48	0	838.79215	0.00007
RQ	7	43	3	838.88148	0.00492
RQ	7	43	1	838.89091	0.01968
RP	18	25	2	838.93708	0.00063
RP	18	25	0	838.94003	0.00127
RQ	7	42	3	838.98823	0.00632
RQ	7	42	1	838.99730	0.02528
PR	9	30	3	839.06455	0.06140
PR	8	28	2	839.06985	0.10344
PR	10	32	2	839.07281	0.03488
PR	7	26	3	839.07625	0.04168
PR	11	34	3	839.07966	0.00472
PR	9	30	1	839.08128	0.03070
PR	7	26	1	839.08726	0.16672
RQ	7	41	3	839.09280	0.00806
PR	6	24	2	839.09468	0.12857
PR	8	28	0	839.09663	0.02586
RQ	7	41	1	839.10152	0.03224
PR	12	36	2	839.10252	0.00490
PR	11	34	1	839.10598	0.01888
PR	6	24	0	839.11044	0.25713
PR	5	22	3	839.11601	0.09490
PR	13	38	3	839.11987	0.00122
PR	10	32	0	839.12140	0.00872
PR	5	22	1	839.12348	0.37960
RP	19	27	3	839.12377	0.00020
RP	19	27	1	839.12660	0.00080
PR	4	20	2	839.14821	0.53712
PR	14	40	2	839.15743	0.00232
PR	4	20	0	839.15788	0.13428
PR	13	38	1	839.16322	0.00488
RR	0	12	2	839.18206	0.50554
PR	15	42	3	839.18330	0.00107
RR	0	12	0	839.18428	0.84256
PR	3	18	3	839.18439	0.72953
PR	3	18	1	839.18962	0.36477
RQ	7	40	3	839.19518	0.01020
PR	12	36	0	839.20152	0.00980
RQ	7	40	1	839.20358	0.04080

	K	J	S	WAVE NO	INT
PR	2	16	2	839.23042	0.95512
PR	16	44	2	839.23597	0.00048
PR	2	16	0	839.23660	0.23878
PR	15	42	1	839.25986	0.00053
PR	17	46	3	839.26759	0.00004
PR	1	14	3	839.27988	0.30616
PR	1	14	1	839.28372	1.22464
RQ	7	39	3	839.29530	0.01282
RQ	7	39	1	839.30336	0.05128
RP	20	29	2	839.31858	0.00040
RP	20	29	0	839.32181	0.00010
PR	18	48	2	839.33723	0.00003
RQ	7	38	3	839.39324	0.01598
RQ	7	38	1	839.40099	0.06392
RR	1	10	3	839.41917	0.37776
PR	17	46	1	839.42084	0.00016
RR	1	10	1	839.42213	1.51104
PR	14	40	0	839.42528	0.00058
PR	16	41	0	839.46692	0.00022
RQ	7	37	3	839.48901	0.01980
RR	2	8	2	839.49329	1.76720
RR	2	8	0	839.49624	0.44180
RQ	7	37	1	839.49644	0.07920
RP	21	31	3	839.51798	0.00020
RP	21	31	1	839.52101	0.00010
RR	3	6	3	839.57505	2.00207
RR	3	6	1	839.57748	1.00103
RQ	7	36	3	839.58239	0.02436
RQ	7	36	1	839.58953	0.09744
RP	14	16	2	839.61874	0.00120
RP	14	16	0	839.62107	0.00030
RR	4	4	2	839.66639	2.30424
RR	4	4	0	839.66868	0.57606
RQ	7	35	3	839.67360	0.02974
RQ	7	35	1	839.68045	0.11896
RP	22	33	2	839.72549	0.00008
RP	22	33	0	839.72899	0.00002
RQ	7	34	3	839.76244	0.03604
RQ	7	34	1	839.76900	0.14416
RP	15	18	3	839.78390	0.00187
RP	15	18	1	839.78626	0.00093
RQ	7	33	3	839.84899	0.04336
RQ	7	33	1	839.85529	0.17344
RQ	7	32	3	839.93317	0.05176
RQ	7	32	1	839.93922	0.20704
RP	16	20	2	839.95724	0.00192
RP	16	20	0	839.95979	0.00048
RQ	7	31	3	840.01498	0.06134
RQ	7	31	1	840.02077	0.24536
RQ	7	30	3	840.09451	0.07210
RQ	7	30	1	840.10004	0.28840
RP	17	22	3	840.13561	0.00038
RP	17	22	1	840.13815	0.00152

	K	J	S	WAVE NO	INT
RQ	7	29	3	840.17165	0.08410
RQ	7	29	1	840.17696	0.33640
RQ	7	28	3	840.24632	0.09732
RQ	7	28	1	840.25141	0.38928
PR	9	31	3	840.29848	0.05327
PR	10	33	2	840.30061	0.02976
PR	11	35	3	840.30069	0.00398
PR	8	29	2	840.31020	0.09104
PR	9	31	1	840.31627	0.02663
PR	12	37	2	840.31725	0.00407
RQ	7	27	3	840.31852	0.11170
RP	18	24	2	840.32217	0.00057
PR	7	27	3	840.32262	0.03722
RQ	7	27	1	840.32339	0.44680
RP	18	24	0	840.32498	0.00113
PR	13	39	3	840.32758	0.00100
PR	11	35	1	840.32864	0.01592
PR	7	27	1	840.33434	0.14888
PR	8	29	0	840.33893	0.02276
PR	6	25	2	840.34717	0.11657
PR	10	33	0	840.35259	0.00744
PR	14	41	2	840.35853	0.00184
PR	6	25	0	840.36411	0.23313
PR	13	39	1	840.37356	0.00400
PR	5	23	3	840.37437	0.08736
PR	15	43	3	840.37699	0.00087
PR	5	23	1	840.38233	0.34944
RQ	7	26	3	840.38834	0.12712
RQ	7	26	1	840.39299	0.50848
PR	4	21	2	840.41246	0.50208
PR	4	21	0	840.42289	0.12552
PR	16	45	2	840.42304	0.00032
PR	12	37	0	840.42314	0.00813
RR	0	13	2	840.44466	0.66363
PR	17	47	3	840.44651	0.00004
RR	0	13	0	840.44688	1.99088
PR	3	19	3	840.45437	0.69253
RQ	7	25	3	840.45577	0.14344
PR	15	43	1	840.45816	0.00043
PR	3	19	1	840.45995	0.34627
RQ	7	25	1	840.46024	0.57376
PR	2	17	2	840.50588	0.92120
PR	2	17	0	840.51254	0.23030
RP	19	26	3	840.51346	0.00018
RP	19	26	1	840.51619	0.00072
RQ	7	24	3	840.52064	0.16044
RQ	7	24	1	840.52490	0.64176
PR	1	15	3	840.56012	0.30068
PR	1	15	1	840.56417	1.20272
RQ	7	23	3	840.58312	0.17782
RQ	7	23	1	840.58720	0.71128
PR	17	47	1	840.60931	0.00016
RQ	7	22	3	840.64302	0.19520

	K	J	S	WAVE NO	INT
RQ	7	22	1	840.64693	0.78080
PR	14	41	0	840.64696	0.00046
RQ	7	21	3	840.70045	0.21216
RQ	7	21	1	840.70419	0.84864
RP	20	28	2	840.71282	0.00040
RR	1	11	3	840.71398	0.37312
RP	20	28	0	840.71590	0.00010
RR	1	11	1	840.71708	1.49248
RQ	7	20	3	840.75530	0.22818
RQ	7	20	1	840.75888	0.91272
RR	2	9	2	840.79286	1.76776
RR	2	9	0	840.79598	0.44194
RQ	7	19	3	840.80767	0.24268
RQ	7	19	1	840.81110	0.97072
RQ	7	18	3	840.85757	0.25500
RQ	7	18	1	840.86086	1.02000
RR	3	7	3	840.87974	2.00620
RR	3	7	1	840.88225	1.00310
RQ	7	17	3	840.90479	0.26444
RQ	7	17	1	840.90794	1.05776
RP	21	30	3	840.91663	0.00020
RP	21	30	1	840.91955	0.00010
RQ	8	49	2	840.94525	0.00320
RQ	7	16	3	840.94952	0.27018
RQ	7	16	1	840.95255	1.08072
RQ	8	49	0	840.96126	0.00080
RR	4	5	2	840.97644	2.27096
RR	4	5	0	840.97881	0.56774
RQ	7	15	3	840.99158	0.27146
RQ	7	15	1	840.99448	1.08584
RQ	7	14	3	841.03116	0.26738
RQ	7	14	1	841.03395	1.06952
RQ	8	48	2	841.06618	0.00432
RQ	7	13	3	841.06806	0.25704
RQ	7	13	1	841.07075	1.02816
RQ	8	48	0	841.08157	0.00108
RQ	7	12	3	841.10249	0.23948
RQ	7	12	1	841.10507	0.95792
RP	22	32	2	841.12848	0.00008
RP	22	32	0	841.13183	0.00002
RQ	7	11	3	841.13413	0.21370
RQ	7	11	1	841.13663	0.85480
RP	15	17	3	841.15250	0.00073
RP	15	17	1	841.15479	0.00037
RQ	7	10	3	841.16329	0.17850
RQ	7	10	1	841.16571	0.71400
RQ	8	47	2	841.18505	0.00576
RQ	7	9	3	841.18978	0.13250
RQ	7	9	1	841.19212	0.53000
RQ	8	47	0	841.19984	0.00144
RQ	7	8	3	841.21359	0.07386
RQ	7	8	1	841.21587	0.29544
RQ	8	46	2	841.30173	0.00760

	K	J	S	WAVE NO	INT
RQ	8	46	0	841.31595	0.00190
RP	16	19	2	841.33059	0.00112
RP	16	19	0	841.33303	0.00028
RQ	8	45	2	841.41635	0.00992
RQ	8	45	0	841.42999	0.00248
RP	17	21	3	841.51386	0.00028
RP	17	21	1	841.51632	0.00112
PR	11	36	3	841.51807	0.00332
PR	10	34	2	841.52486	0.02520
PR	12	38	2	841.52834	0.00337
RQ	8	44	2	841.52879	0.01288
PR	9	32	3	841.52894	0.04573
PR	13	40	3	841.53143	0.00080
RQ	8	44	0	841.54189	0.00322
PR	8	30	2	841.54710	0.07936
PR	11	36	1	841.54772	0.01328
PR	9	32	1	841.54785	0.02287
PR	14	42	2	841.55601	0.00152
PR	7	28	3	841.56564	0.03294
PR	15	44	3	841.56675	0.00067
PR	8	30	0	841.57786	0.01984
PR	7	28	1	841.57810	0.13176
PR	13	40	1	841.58015	0.00320
PR	10	34	0	841.58039	0.00630
PR	6	26	2	841.59638	0.10467
PR	16	46	2	841.60622	0.00024
PR	6	26	0	841.61457	0.20933
PR	17	48	3	841.62132	0.00002
PR	5	24	3	841.62937	0.07964
PR	5	24	1	841.63784	0.31856
RQ	8	43	2	841.63896	0.01672
PR	12	38	0	841.64146	0.00673
RQ	8	43	0	841.65152	0.00418
PR	15	44	1	841.65273	0.00033
PR	4	22	2	841.67345	0.46456
PR	4	22	0	841.68467	0.11614
RR	0	14	2	841.70266	0.48465
RR	0	14	0	841.70488	0.80775
RP	18	23	2	841.70507	0.00047
RP	18	23	0	841.70776	0.00093
PR	3	20	3	841.72099	0.65067
PR	3	20	1	841.72691	0.32533
RQ	8	42	2	841.74706	0.02144
RQ	8	42	0	841.75909	0.00536
PR	2	18	2	841.77808	0.87928
PR	2	18	0	841.78524	0.21982
PR	17	48	1	841.79413	0.00008
PR	1	16	3	841.83698	0.29222
PR	1	16	1	841.84127	1.16888
RQ	8	41	2	841.85287	0.02728
RQ	8	41	0	841.86440	0.00682
PR	14	42	0	841.86642	0.00038
RP	19	25	3	841.90106	0.00016

	K	J	S	WAVE NO	INT
RP	19	25	1	841.90370	0.00064
RQ	8	40	2	841.95651	0.03456
RQ	8	40	0	841.96756	0.00864
RR	1	12	3	842.00631	0.36436
RR	1	12	1	842.00956	1.45744
RQ	8	39	2	842.05788	0.04344
RQ	8	39	0	842.06846	0.01086
RR	2	10	2	842.08976	1.75120
PR	16	42	0	842.09306	0.00018
RR	2	10	0	842.09307	0.43780
RP	20	27	2	842.10497	0.00040
RP	20	27	0	842.10792	0.00010
RQ	8	38	2	842.15688	0.05416
RQ	8	38	0	842.16699	0.01354
RR	3	8	3	842.18176	1.99773
RR	3	8	1	842.18435	0.99887
RQ	8	37	2	842.25370	0.06704
RQ	8	37	0	842.26337	0.01676
RR	4	6	2	842.28371	2.24520
RR	4	6	0	842.28619	0.56130
RP	21	29	3	842.31328	0.00020
RP	21	29	1	842.31610	0.00010
RQ	8	36	2	842.34814	0.08240
RQ	8	36	0	842.35738	0.02060
RQ	8	35	2	842.44032	0.10056
RQ	8	35	0	842.44913	0.02514
RP	22	31	2	842.52950	0.00008
RQ	8	34	2	842.53011	0.12184
RP	22	31	0	842.53269	0.00002
RQ	8	34	0	842.53852	0.03046
RQ	8	33	2	842.61763	0.14648
RQ	8	33	0	842.62565	0.03662
RP	16	18	2	842.70177	0.00048
RQ	8	32	2	842.70267	0.17480
RP	16	18	0	842.70409	0.00012
RQ	8	32	0	842.71032	0.04370
PR	13	41	3	842.73155	0.00066
PR	11	37	3	842.73189	0.00276
PR	12	39	2	842.73569	0.00273
PR	10	35	2	842.74555	0.02120
PR	14	43	2	842.74956	0.00120
PR	15	45	3	842.75257	0.00053
PR	9	33	3	842.75585	0.03900
PR	11	37	1	842.76331	0.01104
PR	9	33	1	842.77591	0.01950
PR	8	31	2	842.78055	0.06856
PR	13	41	1	842.78312	0.00264
PR	16	47	2	842.78529	0.00024
RQ	8	31	2	842.78534	0.20688
RQ	8	31	0	842.79262	0.05172
PR	10	35	0	842.80479	0.00530
PR	7	29	3	842.80518	0.02888
PR	8	31	0	842.81342	0.01714

	K	J	S	WAVE NO	INT
PR	7	29	1	842.81843	0.11552
PR	6	27	2	842.84215	0.09313
PR	15	45	1	842.84355	0.00027
PR	12	39	0	842.85638	0.00547
PR	6	27	0	842.86163	0.18627
RQ	8	30	2	842.86563	0.24296
RQ	8	30	0	842.87256	0.06074
PR	5	25	3	842.88110	0.07190
RP	17	20	3	842.88983	0.00018
PR	5	25	1	842.89010	0.28760
RP	17	20	1	842.89220	0.00072
PR	4	23	2	842.93118	0.42568
PR	4	23	0	842.94322	0.10642
RQ	8	29	2	842.94345	0.28312
RQ	8	29	0	842.95004	0.07078
RR	0	15	2	842.95586	0.62275
RR	0	15	0	842.95808	1.86825
PR	3	21	3	842.98434	0.60527
PR	3	21	1	842.99062	0.30263
RQ	8	28	2	843.01879	0.32720
RQ	8	28	0	843.02505	0.08180
PR	2	19	2	843.04691	0.83088
PR	2	19	0	843.05461	0.20772
PR	14	43	0	843.08348	0.00030
RP	18	22	2	843.08579	0.00033
RP	18	22	0	843.08835	0.00067
RQ	8	27	2	843.09175	0.37496
RQ	8	27	0	843.09770	0.09374
PR	1	17	3	843.11028	0.28118
PR	1	17	1	843.11481	1.12472
RQ	8	26	2	843.16214	0.42608
RQ	8	26	0	843.16779	0.10652
RQ	8	25	2	843.23015	0.47984
RQ	8	25	0	843.23551	0.11996
RP	19	24	3	843.28648	0.00012
RP	19	24	1	843.28902	0.00048
RQ	8	24	2	843.29559	0.53544
RR	1	13	3	843.29607	0.35196
RR	1	13	1	843.29948	1.40784
RQ	8	24	0	843.30067	0.13386
RQ	8	23	2	843.35854	0.59184
RQ	8	23	0	843.36336	0.14796
RR	2	11	2	843.38388	1.71816
RR	2	11	0	843.38741	0.42954
RQ	8	22	2	843.41902	0.64760
RQ	8	22	0	843.42359	0.16190
RQ	8	21	2	843.47693	0.70120
RR	3	9	3	843.48099	1.97500
RQ	8	21	0	843.48125	0.17530
RR	3	9	1	843.48369	0.98750
RP	20	26	2	843.49505	0.00032
RP	20	26	0	843.49786	0.00008
RQ	8	20	2	843.53226	0.75080

	K	J	S	WAVE NO	INT
RQ	8	20	0	843.53635	0.18770
RQ	8	19	2	843.58501	0.79408
RR	4	7	2	843.58822	2.21672
RQ	8	19	0	843.58888	0.19852
RR	4	7	0	843.59081	0.55418
RQ	8	18	2	843.63518	0.82880
RQ	8	18	0	843.63885	0.20720
RQ	8	17	2	843.68288	0.85224
RQ	8	17	0	843.68635	0.21306
RR	5	5	3	843.70166	0.62370
RR	5	5	1	843.70393	2.49480
RP	21	28	3	843.70795	0.00020
RQ	9	49	3	843.70857	0.00267
RP	21	28	1	843.71068	0.00010
RQ	9	49	1	843.71906	0.00133
RQ	8	16	2	843.72790	0.86160
RQ	8	16	0	843.73119	0.21540
RQ	8	15	2	843.77034	0.85376
RQ	8	15	0	843.77345	0.21344
RQ	8	14	2	843.81010	0.82544
RQ	8	14	0	843.81306	0.20636
RQ	9	48	3	843.83112	0.00360
RQ	9	48	1	843.84125	0.00180
RQ	8	13	2	843.84729	0.77320
RQ	8	13	0	843.85009	0.19330
RQ	8	12	2	843.88190	0.69328
RQ	8	12	0	843.88456	0.17332
RQ	8	11	2	843.91383	0.58144
RQ	8	11	0	843.91637	0.14536
PR	13	42	3	843.92793	0.00052
RP	22	30	2	843.92852	0.00008
RP	22	30	0	843.93158	0.00002
PR	15	46	3	843.93436	0.00040
PR	14	44	2	843.93929	0.00096
PR	12	40	2	843.93941	0.00220
PR	11	38	3	843.94206	0.00226
RQ	8	10	2	843.94318	0.43296
RQ	8	10	0	843.94560	0.10824
RQ	9	47	3	843.95161	0.00480
PR	16	48	2	843.96047	0.00016
RQ	9	47	1	843.96136	0.00240
PR	10	36	2	843.96261	0.01760
RQ	8	9	2	843.96986	0.24176
RQ	8	9	0	843.97218	0.06044
PR	11	38	1	843.97532	0.00904
PR	9	34	3	843.97920	0.03293
PR	13	42	1	843.98244	0.00208
PR	9	34	1	844.00046	0.01647
PR	8	32	2	844.01054	0.05880
PR	10	36	0	844.02571	0.00440
PR	15	46	1	844.03056	0.00020
PR	7	30	3	844.04127	0.02510
PR	8	32	0	844.04561	0.01470

	K	J	S	WAVE NO	INT
PR	7	30	1	844.05533	0.10040
PR	12	40	0	844.06805	0.00440
RQ	9	46	3	844.06981	0.00633
RQ	9	46	1	844.07922	0.00317
PR	6	28	2	844.08465	0.08210
PR	6	28	0	844.10548	0.16420
PR	5	26	3	844.12947	0.06432
PR	5	26	1	844.13902	0.25728
PR	4	24	2	844.18554	0.38648
RQ	9	45	3	844.18593	0.00827
RQ	9	45	1	844.19501	0.00413
PR	4	24	0	844.19846	0.09662
RR	0	16	2	844.20426	0.44565
RR	0	16	0	844.20647	0.74275
PR	3	22	3	844.24432	0.55773
PR	3	22	1	844.25098	0.27887
RP	17	19	3	844.26352	0.00006
RP	17	19	1	844.26581	0.00024
PR	14	44	0	844.29839	0.00024
RQ	9	44	3	844.29978	0.01073
RQ	9	44	1	844.30853	0.00537
PR	2	20	2	844.31238	0.77760
PR	2	20	0	844.32064	0.19440
PR	1	18	3	844.38000	0.26798
PR	1	18	1	844.38479	1.07192
RQ	9	43	3	844.41135	0.01387
RQ	9	43	1	844.41978	0.00693
RP	18	21	2	844.46433	0.00020
RP	18	21	0	844.46677	0.00040
RQ	9	42	3	844.52075	0.01780
RQ	9	42	1	844.52886	0.00890
RR	1	14	3	844.58335	0.33640
RR	1	14	1	844.58693	1.34560
RQ	9	41	3	844.62787	0.02267
RQ	9	41	1	844.63568	0.01133
RP	19	23	3	844.66982	0.00010
RP	19	23	1	844.67227	0.00040
RR	2	12	2	844.67534	1.66984
RR	2	12	0	844.67908	0.41746
RQ	9	40	3	844.73271	0.02873
RQ	9	40	1	844.74023	0.01437
RR	3	10	3	844.77745	1.93747
RR	3	10	1	844.78026	0.96873
RQ	9	39	3	844.83527	0.03607
RQ	9	39	1	844.84251	0.01803
RP	20	25	2	844.88293	0.00032
RP	20	25	0	844.88561	0.00008
RR	4	8	2	844.89005	2.18024
RR	4	8	0	844.89277	0.54506
RQ	9	38	3	844.93546	0.04493
RQ	9	38	1	844.94241	0.02247
RR	5	6	3	845.00881	0.60742
RR	5	6	1	845.01114	2.42968

	K	J	S	WAVE NO	INT
RQ	9	37	3	845.03337	0.05567
RQ	9	37	1	845.04005	0.02783
RP	21	27	3	845.10054	0.00020
RP	21	27	1	845.10317	0.00010
PR	15	47	3	845.11222	0.00033
PR	13	43	3	845.12036	0.00042
PR	14	45	2	845.12500	0.00072
RQ	9	36	3	845.12891	0.06833
RQ	9	36	1	845.13533	0.03417
PR	12	41	2	845.13929	0.00177
PR	11	39	3	845.14848	0.00184
PR	10	37	2	845.17602	0.01456
PR	13	43	1	845.17794	0.00168
PR	11	39	1	845.18364	0.00736
PR	9	35	3	845.19899	0.02753
PR	15	47	1	845.21384	0.00017
PR	9	35	1	845.22150	0.01377
RQ	9	35	3	845.22205	0.08340
RQ	9	35	1	845.22823	0.04170
PR	8	33	2	845.23698	0.04992
PR	10	37	0	845.24315	0.00364
PR	7	31	3	845.27390	0.02162
PR	8	33	0	845.27434	0.01248
PR	12	41	0	845.27626	0.00353
PR	7	31	1	845.28879	0.08648
RQ	9	34	3	845.31284	0.10093
RQ	9	34	1	845.31876	0.05047
PR	6	29	2	845.32359	0.07177
RP	22	29	2	845.32566	0.00008
RP	22	29	0	845.32859	0.00002
PR	6	29	0	845.34584	0.14353
PR	5	27	3	845.37437	0.05702
PR	5	27	1	845.38451	0.22808
RQ	9	33	3	845.40123	0.12120
RQ	9	33	1	845.40692	0.06060
PR	4	25	2	845.43644	0.34768
RR	0	17	2	845.44796	0.56155
RR	0	17	0	845.45018	1.68465
PR	4	25	0	845.45026	0.08692
RQ	9	32	3	845.48715	0.14447
RQ	9	32	1	845.49261	0.07223
PR	3	23	3	845.50093	0.50927
PR	3	23	1	845.50800	0.25463
PR	14	45	0	845.51109	0.00018
RQ	9	31	3	845.57069	0.17087
PR	2	21	2	845.57447	0.72104
RQ	9	31	1	845.57594	0.08543
PR	2	21	0	845.58333	0.18026
PR	1	19	3	845.64605	0.25308
PR	1	19	1	845.65112	1.01232
RQ	9	30	3	845.65176	0.20047
RQ	9	30	1	845.65678	0.10023
RQ	9	29	3	845.73034	0.23320

	K	J	S	WAVE NO	INT
RQ	9	29	1	845.73516	0.11660
RQ	9	28	3	845.80644	0.26907
RQ	9	28	1	845.81107	0.13453
RP	18	20	2	845.84058	0.00007
RP	18	20	0	845.84291	0.00013
RR	1	15	3	845.86816	0.31824
RR	1	15	1	845.87193	1.27296
RQ	9	27	3	845.88007	0.30780
RQ	9	27	1	845.88451	0.15390
RQ	9	26	3	845.95122	0.34900
RQ	9	26	1	845.95547	0.17450
RR	2	13	2	845.96401	1.60792
RR	2	13	0	845.96801	0.40198
RQ	9	25	3	846.01989	0.39207
PR	16	43	0	846.02286	0.00014
RQ	9	25	1	846.02396	0.19603
RP	19	22	3	846.05087	0.00006
RP	19	22	1	846.05325	0.00024
RR	3	11	3	846.07124	1.88553
RR	3	11	1	846.07417	0.94277
RQ	9	24	3	846.08598	0.43627
RQ	9	24	1	846.08989	0.21813
RQ	9	23	3	846.14949	0.48053
RQ	9	23	1	846.15324	0.24027
RR	4	9	2	846.18900	2.13296
RR	4	9	0	846.19187	0.53324
RQ	9	22	3	846.21043	0.52380
RQ	9	22	1	846.21402	0.26190
RP	20	24	2	846.26875	0.00024
RQ	9	21	3	846.26888	0.56447
RP	20	24	0	846.27129	0.00006
RQ	9	21	1	846.27232	0.28223
PR	15	48	3	846.28605	0.00027
PR	14	46	2	846.30690	0.00056
PR	13	44	3	846.30895	0.00032
RR	5	7	3	846.31310	0.59220
RR	5	7	1	846.31549	2.36880
RQ	9	20	3	846.32475	0.60093
RQ	9	20	1	846.32806	0.30047
PR	12	42	2	846.33534	0.00143
PR	11	40	3	846.35116	0.00148
PR	13	44	1	846.36971	0.00128
RQ	9	19	3	846.37794	0.63120
RQ	9	19	1	846.38112	0.31560
PR	10	38	2	846.38579	0.01192
PR	11	40	1	846.38828	0.00592
PR	15	48	1	846.39333	0.00013
PR	9	36	3	846.41513	0.02287
RQ	9	18	3	846.42857	0.65313
RQ	9	18	1	846.43161	0.32657
PR	9	36	1	846.43892	0.01143
PR	10	38	0	846.45712	0.00298
PR	8	34	2	846.45986	0.04208

	K	J	S	WAVE NO	INT
RQ	9	17	3	846.47660	0.66433
RQ	9	17	1	846.47952	0.33217
PR	12	42	0	846.48105	0.00287
RP	21	26	3	846.49095	0.00013
RP	21	26	1	846.49348	0.00007
RQ	10	49	2	846.49707	0.00216
PR	8	34	0	846.49961	0.01052
PR	7	32	3	846.50285	0.01848
RQ	10	49	0	846.51100	0.00054
PR	7	32	1	846.51862	0.07392
RQ	9	16	3	846.52206	0.66213
RQ	9	16	1	846.52487	0.33107
PR	6	30	2	846.55898	0.06217
RQ	9	15	3	846.56483	0.64380
RQ	9	15	1	846.56754	0.32190
PR	6	30	0	846.58270	0.12433
RQ	9	14	3	846.60503	0.60633
RQ	9	14	1	846.60764	0.30317
PR	5	28	3	846.61581	0.05012
RQ	10	48	2	846.62087	0.00296
PR	5	28	1	846.62654	0.20048
RQ	10	48	0	846.63428	0.00074
RQ	9	13	3	846.64255	0.54627
RQ	9	13	1	846.64507	0.27313
RQ	9	12	3	846.67738	0.46020
RQ	9	12	1	846.67982	0.23010
PR	4	26	2	846.68398	0.31000
RR	0	18	2	846.68686	0.39435
RR	0	18	0	846.68908	0.65725
PR	4	26	0	846.69875	0.07750
RQ	9	11	3	846.70954	0.34393
RQ	9	11	1	846.71190	0.17197
RP	22	28	2	846.72072	0.00008
PR	14	46	0	846.72198	0.00014
RP	22	28	0	846.72352	0.00002
RQ	9	10	3	846.73912	0.19253
RQ	9	10	1	846.74140	0.09627
RQ	10	47	2	846.74250	0.00392
PR	3	24	3	846.75397	0.46087
RQ	10	47	0	846.75539	0.00098
PR	3	24	1	846.76146	0.23043
PR	2	22	2	846.83290	0.66264
PR	2	22	0	846.84238	0.16566
RQ	10	46	2	846.86195	0.00512
RQ	10	46	0	846.87434	0.00128
PR	1	20	3	846.90833	0.23686
PR	1	20	1	846.91368	0.94744
RQ	10	45	2	846.97923	0.00672
RQ	10	45	0	846.99113	0.00168
RQ	10	44	2	847.09424	0.00880
RQ	10	44	0	847.10567	0.00220
RR	1	16	3	847.15050	0.29808
RR	1	16	1	847.15446	1.19232

	K	J	S	WAVE NO	INT
RQ	10	43	2	847.20696	0.01136
RQ	10	43	0	847.21793	0.00284
RR	2	14	2	847.25002	1.53416
RR	2	14	0	847.25428	0.38354
RQ	10	42	2	847.31741	0.01456
RQ	10	42	0	847.32794	0.00364
RR	3	12	3	847.36215	1.82000
RR	3	12	1	847.36520	0.91000
RQ	10	41	2	847.42549	0.01848
RP	19	21	3	847.42964	0.00002
RP	19	21	1	847.43193	0.00008
RQ	10	41	0	847.43559	0.00462
PR	14	47	2	847.48467	0.00040
RR	4	10	2	847.48528	2.07384
RR	4	10	0	847.48830	0.51846
PR	13	45	3	847.49361	0.00026
PR	12	43	2	847.52756	0.00113
RQ	10	40	2	847.53129	0.02336
RQ	10	40	0	847.54096	0.00584
PR	11	41	3	847.54998	0.00120
PR	13	45	1	847.55766	0.00104
PR	11	41	1	847.58913	0.00480
PR	10	39	2	847.59180	0.00968
RR	5	8	3	847.61459	0.57622
RR	5	8	1	847.61707	2.30488
PR	9	37	3	847.62751	0.01887
RQ	10	39	2	847.63481	0.02936
RQ	10	39	0	847.64407	0.00734
RP	20	23	2	847.65237	0.00016
PR	9	37	1	847.65263	0.00943
RP	20	23	0	847.65480	0.00004
PR	10	39	0	847.66751	0.00242
PR	8	35	2	847.67910	0.03512
PR	12	43	0	847.68243	0.00227
PR	8	35	0	847.72133	0.00878
PR	7	33	3	847.72836	0.01566
RQ	10	38	2	847.73596	0.03656
RQ	10	38	0	847.74483	0.00914
PR	7	33	1	847.74503	0.06264
RR	6	6	2	847.75323	1.27207
RR	6	6	0	847.75553	2.54413
PR	6	31	2	847.79090	0.05343
PR	6	31	0	847.81615	0.10687
RQ	10	37	2	847.83473	0.04528
RQ	10	37	0	847.84322	0.01132
PR	5	29	3	847.85368	0.04368
PR	5	29	1	847.86504	0.17472
RP	21	25	3	847.87937	0.00013
RP	21	25	1	847.88182	0.00007
RR	0	19	2	847.92096	0.48790
RR	0	19	0	847.92318	1.46370
PR	4	27	2	847.92795	0.27408
PR	14	47	0	847.93095	0.00010

	K	J	S	WAVE NO	INT
RQ	10	36	2	847.93113	0.05552
RQ	10	36	0	847.93924	0.01388
PR	4	27	0	847.94371	0.06852
PR	3	25	3	848.00364	0.41340
PR	3	25	1	848.01157	0.20670
RQ	10	35	2	848.02505	0.06768
RQ	10	35	0	848.03280	0.01692
PR	2	23	2	848.08787	0.60376
PR	2	23	0	848.09800	0.15094
RP	22	27	2	848.11370	0.00008
RP	22	27	0	848.11636	0.00002
RQ	10	34	2	848.11668	0.08184
RQ	10	34	0	848.12408	0.02046
PR	1	21	3	848.16683	0.21978
PR	1	21	1	848.17249	0.87912
RQ	10	33	2	848.20575	0.09824
RQ	10	33	0	848.21281	0.02456
RQ	10	32	2	848.29244	0.11696
RQ	10	32	0	848.29918	0.02924
RQ	10	31	2	848.37665	0.13808
RQ	10	31	0	848.38307	0.03452
RR	1	17	3	848.43035	0.27648
RR	1	17	1	848.43452	1.10592
RQ	10	30	2	848.45838	0.16176
RQ	10	30	0	848.46450	0.04044
RR	2	15	2	848.53326	1.45064
RQ	10	29	2	848.53764	0.18792
RR	2	15	0	848.53780	0.36266
RQ	10	29	0	848.54346	0.04698
RQ	10	28	2	848.61442	0.21640
RQ	10	28	0	848.61996	0.05410
RR	3	13	3	848.65028	1.74247
RR	3	13	1	848.65348	0.87123
PR	14	48	2	848.65843	0.00032
PR	13	46	3	848.67422	0.00020
RQ	10	27	2	848.68861	0.24696
RQ	10	27	0	848.69389	0.06174
PR	12	44	2	848.71584	0.00087
PR	13	46	1	848.74169	0.00080
PR	11	42	3	848.74495	0.00094
RQ	10	26	2	848.76034	0.27928
RQ	10	26	0	848.76535	0.06982
RR	4	11	2	848.77858	2.00272
RR	4	11	0	848.78178	0.50068
PR	11	42	1	848.78622	0.00376
PR	10	40	2	848.79398	0.00784
RQ	10	25	2	848.82948	0.31280
RQ	10	25	0	848.83424	0.07820
PR	9	38	3	848.83623	0.01540
PR	9	38	1	848.86274	0.00770
PR	10	40	0	848.87425	0.00196
PR	12	44	0	848.88034	0.00173
PR	8	36	2	848.89458	0.02912

	K	J	S	WAVE NO	INT
RQ	10	24	2	848.89605	0.34680
RQ	10	24	0	848.90057	0.08670
RR	5	9	3	848.91332	0.55856
RR	5	9	1	848.91588	2.23424
PR	8	36	0	848.93939	0.00728
PR	7	34	3	848.95020	0.01316
RQ	10	23	2	848.96014	0.38048
RQ	10	23	0	848.96443	0.09512
PR	7	34	1	848.96781	0.05264
PR	6	32	2	849.01917	0.04553
RQ	10	22	2	849.02155	0.41272
RQ	10	22	0	849.02563	0.10318
PR	6	32	0	849.04601	0.09107
RR	6	7	2	849.05742	1.22680
RR	6	7	0	849.05982	2.45360
RQ	10	21	2	849.08038	0.44216
RQ	10	21	0	849.08424	0.11054
PR	5	30	3	849.08807	0.03776
PR	5	30	1	849.10009	0.15104
RQ	10	20	2	849.13663	0.46736
PR	14	48	0	849.13833	0.00008
RQ	10	20	0	849.14030	0.11684
RR	0	20	2	849.15016	0.33660
RR	0	20	0	849.15237	0.56100
PR	4	28	2	849.16836	0.24024
PR	4	28	0	849.18515	0.06006
RQ	10	19	2	849.19032	0.48656
RQ	10	19	0	849.19379	0.12164
RQ	10	18	2	849.24131	0.49792
RQ	10	18	0	849.24461	0.12448
PR	3	26	3	849.24965	0.36780
PR	3	26	1	849.25803	0.18390
RP	21	24	3	849.26550	0.00007
RP	21	24	1	849.26788	0.00003
RQ	10	17	2	849.28973	0.49920
RQ	10	17	0	849.29286	0.12480
RQ	11	49	3	849.29918	0.00044
RQ	11	49	1	849.30857	0.00176
RQ	10	16	2	849.33547	0.48816
RQ	10	16	0	849.33844	0.12204
PR	2	24	2	849.33916	0.54536
PR	2	24	0	849.34998	0.13634
RQ	10	15	2	849.37853	0.46216
RQ	10	15	0	849.38136	0.11554
RQ	10	14	2	849.41901	0.41856
PR	1	22	3	849.42126	0.20222
RQ	10	14	0	849.42169	0.10464
RQ	11	48	3	849.42439	0.00058
PR	1	22	1	849.42725	0.80888
RQ	11	48	1	849.43346	0.00232
RQ	10	13	2	849.45682	0.35416
RQ	10	13	0	849.45937	0.08854
RQ	10	12	2	849.49184	0.26576

	K	J	S	WAVE NO	INT
RQ	10	12	0	849.49428	0.06644
RQ	10	11	2	849.52429	0.14928
RQ	10	11	0	849.52661	0.03732
RQ	11	47	3	849.54733	0.00078
RQ	11	47	1	849.55608	0.00312
RQ	11	46	3	849.66808	0.00102
RQ	11	46	1	849.67653	0.00408
RR	1	18	3	849.70794	0.25402
RR	1	18	1	849.71233	1.01608
RQ	11	45	3	849.78646	0.00134
RQ	11	45	1	849.79461	0.00536
RR	2	16	2	849.81382	1.35968
RR	2	16	0	849.81866	0.33992
PR	13	47	3	849.85079	0.00016
PR	12	45	2	849.90020	0.00070
RQ	11	44	3	849.90266	0.00176
RQ	11	44	1	849.91051	0.00704
PR	13	47	1	849.92181	0.00064
RR	3	14	3	849.93555	1.65467
PR	11	43	3	849.93607	0.00074
RR	3	14	1	849.93889	0.82733
PR	11	43	1	849.97953	0.00296
PR	10	41	2	849.99232	0.00624
RQ	11	43	3	850.01648	0.00226
RQ	11	43	1	850.02406	0.00904
PR	9	39	3	850.04120	0.01253
PR	9	39	1	850.06915	0.00627
RR	4	12	2	850.06921	1.92040
RR	4	12	0	850.07261	0.48010
PR	12	45	0	850.07479	0.00140
PR	10	41	0	850.07734	0.00156
PR	8	37	2	850.10641	0.02392
RQ	11	42	3	850.12803	0.00290
RQ	11	42	1	850.13533	0.01160
PR	8	37	0	850.15391	0.00598
PR	7	35	3	850.16827	0.01096
PR	7	35	1	850.18686	0.04384
RR	5	10	3	850.20927	0.53876
RR	5	10	1	850.21192	2.15504
RQ	11	41	3	850.23729	0.00370
PR	6	33	2	850.24387	0.03847
RQ	11	41	1	850.24432	0.01480
PR	6	33	0	850.27238	0.07693
PR	5	31	3	850.31871	0.03236
PR	5	31	1	850.33141	0.12944
RQ	11	40	3	850.34408	0.00466
RQ	11	40	1	850.35085	0.01864
RR	6	8	2	850.35873	1.18260
RR	6	8	0	850.36124	2.36520
RR	0	21	2	850.37456	0.40930
RR	0	21	0	850.37678	1.22790
PR	4	29	2	850.40520	0.20888
PR	4	29	0	850.42307	0.05222

	K	J	S	WAVE NO	INT
RQ	11	39	3	850.44859	0.00586
RQ	11	39	1	850.45511	0.02344
PR	3	27	3	850.49208	0.32447
PR	3	27	1	850.50094	0.16223
RQ	11	38	3	850.55072	0.00730
RQ	11	38	1	850.55700	0.02920
PR	2	25	2	850.58669	0.48864
PR	2	25	0	850.59822	0.12216
RQ	11	37	3	850.65047	0.00902
RQ	11	37	1	850.65651	0.03608
PR	1	23	3	850.67162	0.18450
PR	1	23	1	850.67795	0.73800
RQ	11	36	3	850.74774	0.01106
RQ	11	36	1	850.75356	0.04424
RQ	11	35	3	850.84264	0.01346
RQ	11	35	1	850.84822	0.05384
RQ	11	34	3	850.93505	0.01626
RQ	11	34	1	850.94042	0.06504
RR	1	19	3	850.98315	0.23120
RR	1	19	1	850.98779	0.92480
PR	13	48	3	851.02332	0.00012
RQ	11	33	3	851.02499	0.01948
RQ	11	33	1	851.03015	0.07792
PR	12	46	2	851.08063	0.00053
RR	2	17	2	851.09171	1.26336
RR	2	17	0	851.09687	0.31584
PR	13	48	1	851.09803	0.00048
RQ	11	32	3	851.11244	0.02316
RQ	11	32	1	851.11740	0.09264
PR	11	44	3	851.12325	0.00058
PR	11	44	1	851.16898	0.00232
PR	10	42	2	851.18691	0.00496
RQ	11	31	3	851.19741	0.02730
RQ	11	31	1	851.20218	0.10920
RR	3	15	3	851.21813	1.55847
RR	3	15	1	851.22163	0.77923
PR	9	40	3	851.24221	0.01007
PR	12	46	0	851.26582	0.00107
PR	9	40	1	851.27164	0.00503
PR	10	42	0	851.27689	0.00124
RQ	11	30	3	851.27991	0.03192
RQ	11	30	1	851.28449	0.12768
PR	8	38	2	851.31449	0.01952
RR	4	13	2	851.35696	1.82808
RQ	11	29	3	851.35983	0.03700
RR	4	13	0	851.36057	0.45702
RQ	11	29	1	851.36423	0.14800
PR	8	38	0	851.36478	0.00488
PR	7	36	3	851.38269	0.00906
PR	7	36	1	851.40229	0.03624
RQ	11	28	3	851.43726	0.04252
RQ	11	28	1	851.44149	0.17008
PR	6	34	2	851.46483	0.03227

	K	J	S	WAVE NO	INT
PR	6	34	0	851.49506	0.06453
RR	5	11	3	851.50234	0.51668
RR	5	11	1	851.50509	2.06672
RQ	11	27	3	851.51222	0.04840
RQ	11	27	1	851.51627	0.19360
PR	5	32	3	851.54578	0.02752
PR	5	32	1	851.55918	0.11008
RQ	11	26	3	851.58450	0.05456
RQ	11	26	1	851.58839	0.21824
RR	0	22	2	851.59406	0.27765
RR	0	22	0	851.59628	0.46275
PR	4	30	2	851.63839	0.18016
RQ	11	25	3	851.65430	0.06088
RR	6	9	2	851.65717	1.13707
PR	4	30	0	851.65737	0.04504
RQ	11	25	1	851.65804	0.24352
RR	6	9	0	851.65981	2.27413
RQ	11	24	3	851.72141	0.06722
RQ	11	24	1	851.72501	0.26888
PR	3	28	3	851.73074	0.28393
PR	3	28	1	851.74010	0.14197
RQ	11	23	3	851.78595	0.07338
RQ	11	23	1	851.78940	0.29352
RR	7	7	3	851.81789	0.61690
RR	7	7	1	851.82017	2.46760
PR	2	26	2	851.83045	0.43424
PR	2	26	0	851.84274	0.10856
RQ	11	22	3	851.84801	0.07910
RQ	11	22	1	851.85132	0.31640
RQ	11	21	3	851.90728	0.08414
RQ	11	21	1	851.91046	0.33656
PR	1	24	3	851.91782	0.16698
PR	1	24	1	851.92449	0.66792
RQ	11	20	3	851.96408	0.08814
RQ	11	20	1	851.96714	0.35256
RQ	11	19	3	852.01810	0.09074
RQ	11	19	1	852.02103	0.36296
RQ	11	18	3	852.06963	0.09150
RQ	11	18	1	852.07246	0.36600
RQ	11	17	3	852.11839	0.08998
RQ	11	17	1	852.12111	0.35992
RQ	12	49	2	852.12470	0.00070
RQ	12	49	0	852.13692	0.00140
RQ	11	16	3	852.16446	0.08566
RQ	11	16	1	852.16708	0.34264
RQ	11	15	3	852.20795	0.07798
RQ	11	15	1	852.21049	0.31192
RQ	11	14	3	852.24876	0.06630
RQ	12	48	2	852.25087	0.00093
RQ	11	14	1	852.25121	0.26520
RR	1	20	3	852.25600	0.20848
PR	12	47	2	852.25692	0.00040
RR	1	20	1	852.26087	0.83392

	K	J	S	WAVE NO	INT
RQ	12	48	0	852.26263	0.00187
RQ	11	13	3	852.28680	0.04996
RQ	11	13	1	852.28916	0.19984
PR	11	45	3	852.30638	0.00046
RQ	11	12	3	852.32225	0.02816
RQ	11	12	1	852.32454	0.11264
PR	11	45	1	852.35445	0.00184
RR	2	18	2	852.36682	1.16392
RR	2	18	0	852.37232	0.29098
RQ	12	47	2	852.37486	0.00123
PR	10	43	2	852.37746	0.00392
RQ	12	47	0	852.38618	0.00247
PR	9	41	3	852.43947	0.00800
PR	12	47	0	852.45325	0.00080
PR	9	41	1	852.47043	0.00400
PR	10	43	0	852.47260	0.00098
RQ	12	46	2	852.49657	0.00163
RR	3	16	3	852.49774	1.45607
RR	3	16	1	852.50140	0.72803
RQ	12	46	0	852.50745	0.00327
PR	8	39	2	852.51872	0.01584
PR	8	39	0	852.57191	0.00396
PR	7	37	3	852.59325	0.00744
PR	7	37	1	852.61389	0.02976
RQ	12	45	2	852.61600	0.00210
RQ	12	45	0	852.62646	0.00420
RR	4	14	2	852.64184	1.72728
RR	4	14	0	852.64567	0.43182
PR	6	35	2	852.68202	0.02683
PR	6	35	0	852.71404	0.05367
RQ	12	44	2	852.73306	0.00277
RQ	12	44	0	852.74312	0.00553
PR	5	33	3	852.76909	0.02322
PR	5	33	1	852.78322	0.09288
RR	5	12	3	852.79253	0.49242
RR	5	12	1	852.79539	1.96968
RR	0	23	2	852.80876	0.33205
RR	0	23	0	852.81097	0.99615
RQ	12	43	2	852.84785	0.00353
RQ	12	43	0	852.85750	0.00707
PR	4	31	2	852.86781	0.15416
PR	4	31	0	852.88796	0.03854
RR	6	10	2	852.95283	1.08897
RR	6	10	0	852.95560	2.17793
RQ	12	42	2	852.96035	0.00453
PR	3	29	3	852.96574	0.24647
RQ	12	42	0	852.96962	0.00907
PR	3	29	1	852.97562	0.12323
PR	2	27	2	853.07035	0.38280
RQ	12	41	2	853.07038	0.00580
RQ	12	41	0	853.07927	0.01160
PR	2	27	0	853.08341	0.09570
RR	7	8	3	853.11888	0.58980

	K	J	S	WAVE NO	INT
RR	7	8	1	853.12122	2.35920
PR	1	25	3	853.15974	0.14992
PR	1	25	1	853.16677	0.59968
RQ	12	40	2	853.17813	0.00730
RQ	12	40	0	853.18665	0.01460
RQ	12	39	2	853.28350	0.00917
RQ	12	39	0	853.29167	0.01833
RQ	12	38	2	853.38640	0.01140
RQ	12	38	0	853.39422	0.02280
PR	12	48	2	853.42908	0.00030
PR	11	46	3	853.48547	0.00036
RQ	12	37	2	853.48692	0.01407
RQ	12	37	0	853.49441	0.02813
RR	1	21	3	853.52666	0.18630
RR	1	21	1	853.53179	0.74520
PR	11	46	1	853.53596	0.00144
PR	10	44	2	853.56407	0.00304
RQ	12	36	2	853.58495	0.01723
RQ	12	36	0	853.59212	0.03447
PR	9	42	3	853.63277	0.00633
PR	12	48	0	853.63713	0.00060
RR	2	19	2	853.63927	1.06320
RR	2	19	0	853.64513	0.26580
PR	10	44	0	853.66458	0.00076
PR	9	42	1	853.66532	0.00317
RQ	12	35	2	853.68062	0.02097
RQ	12	35	0	853.68747	0.04193
PR	8	40	2	853.71910	0.01272
RQ	12	34	2	853.77370	0.02527
RR	3	17	3	853.77467	1.34947
PR	8	40	0	853.77530	0.00318
RR	3	17	1	853.77852	0.67473
RQ	12	34	0	853.78025	0.05053
PR	7	38	3	853.80004	0.00606
PR	7	38	1	853.82177	0.02424
RQ	12	33	2	853.86440	0.03023
RQ	12	33	0	853.87066	0.06047
PR	6	36	2	853.89545	0.02217
RR	4	15	2	853.92384	1.61992
RR	4	15	0	853.92791	0.40498
PR	6	36	0	853.92933	0.04433
RQ	12	32	2	853.95253	0.03590
RQ	12	32	0	853.95850	0.07180
PR	5	34	3	853.98863	0.01944
PR	5	34	1	854.00352	0.07776
RR	0	24	2	854.01846	0.22159
RR	0	24	0	854.02068	0.36931
RQ	12	31	2	854.03818	0.04223
RQ	12	31	0	854.04388	0.08447
RR	5	13	3	854.07985	0.46624
RR	5	13	1	854.08283	1.86496
PR	4	32	2	854.09348	0.13088
PR	4	32	0	854.11483	0.03272

	K	J	S	WAVE NO	INT
RQ	12	30	2	854.12125	0.04927
RQ	12	30	0	854.12668	0.09853
PR	3	30	3	854.19688	0.21233
RQ	12	29	2	854.20184	0.05700
RQ	12	29	0	854.20702	0.11400
PR	3	30	1	854.20728	0.10617
RR	6	11	2	854.24561	1.03780
RR	6	11	0	854.24854	2.07560
RQ	12	28	2	854.27985	0.06530
RQ	12	28	0	854.28478	0.13060
PR	2	28	2	854.30628	0.33480
PR	2	28	0	854.32015	0.08370
RQ	12	27	2	854.35529	0.07407
RQ	12	27	0	854.35998	0.14813
PR	1	26	3	854.39738	0.13352
PR	1	26	1	854.40481	0.53408
RR	7	9	3	854.41710	0.56302
RR	7	9	1	854.41951	2.25208
RQ	12	26	2	854.42814	0.08320
RQ	12	26	0	854.43261	0.16640
RQ	12	25	2	854.49841	0.09243
RQ	12	25	0	854.50266	0.18487
PR	16	44	0	854.54690	0.00012
RQ	12	24	2	854.56611	0.10153
RQ	12	24	0	854.57015	0.20307
RQ	12	23	2	854.63113	0.11017
RQ	12	23	0	854.63497	0.22033
PR	11	47	3	854.66050	0.00026
RQ	12	22	2	854.69357	0.11790
RQ	12	22	0	854.69721	0.23580
PR	11	47	1	854.71351	0.00104
PR	10	45	2	854.74674	0.00240
RQ	12	21	2	854.75342	0.12427
RQ	12	21	0	854.75689	0.24853
RR	1	22	3	854.79515	0.16500
RR	1	22	1	854.80056	0.66000
RQ	12	20	2	854.81050	0.12867
RQ	12	20	0	854.81380	0.25733
PR	9	43	3	854.82212	0.00500
PR	10	45	0	854.85286	0.00060
PR	9	43	1	854.85631	0.00250
RQ	12	19	2	854.86500	0.13053
RQ	12	19	0	854.86813	0.26107
RR	2	20	2	854.90904	0.96312
RR	2	20	0	854.91528	0.24078
PR	8	41	2	854.91553	0.01016
RQ	12	18	2	854.91682	0.12910
RQ	12	18	0	854.91979	0.25820
RQ	13	49	3	854.96327	0.00026
RQ	12	17	2	854.96596	0.12357
RQ	12	17	0	854.96879	0.24713
RQ	13	49	1	854.97172	0.00104
PR	8	41	0	854.97485	0.00254

	K	J	S	WAVE NO	INT
PR	7	39	3	855.00298	0.00490
RQ	12	16	2	855.01242	0.11307
RQ	12	16	0	855.01511	0.22613
PR	7	39	1	855.02583	0.01960
RR	3	18	3	855.04873	1.24067
RR	3	18	1	855.05276	0.62033
RQ	12	15	2	855.05620	0.09663
RQ	12	15	0	855.05875	0.19327
RQ	13	48	3	855.09064	0.00036
RQ	12	14	2	855.09730	0.07313
RQ	13	48	1	855.09879	0.00144
RQ	12	14	0	855.09974	0.14627
PR	6	37	2	855.10514	0.01817
RQ	12	13	2	855.13562	0.04140
RQ	12	13	0	855.13794	0.08280
PR	6	37	0	855.14095	0.03633
RR	4	16	2	855.20298	1.50776
PR	5	35	3	855.20441	0.01614
RR	4	16	0	855.20730	0.37694
RQ	13	47	3	855.21571	0.00048
PR	5	35	1	855.22008	0.06456
RR	0	25	2	855.22326	0.26080
RQ	13	47	1	855.22360	0.00192
RR	0	25	0	855.22548	0.78240
PR	4	33	2	855.31537	0.11024
PR	4	33	0	855.33798	0.02756
RQ	13	46	3	855.33842	0.00062
RQ	13	46	1	855.34604	0.00248
RR	5	14	3	855.36429	0.43844
RR	5	14	1	855.36740	1.75376
PR	3	31	3	855.42413	0.18147
PR	3	31	1	855.43510	0.09073
RQ	13	45	3	855.45895	0.00082
RQ	13	45	1	855.46630	0.00328
RR	6	12	2	855.53542	0.98360
PR	2	29	2	855.53835	0.29056
RR	6	12	0	855.53851	1.96720
PR	2	29	0	855.55306	0.07264
RQ	13	44	3	855.57710	0.00106
RQ	13	44	1	855.58419	0.00424
PR	1	27	3	855.63046	0.11800
PR	1	27	1	855.63828	0.47200
RQ	13	43	3	855.69286	0.00136
RQ	13	43	1	855.69971	0.00544
RR	7	10	3	855.71243	0.53578
RR	7	10	1	855.71493	2.14312
RQ	13	42	3	855.80635	0.00174
RQ	13	42	1	855.81295	0.00696
PR	11	48	3	855.83149	0.00020
PR	11	48	1	855.88710	0.00080
RR	8	8	2	855.89826	2.29000
RR	8	8	0	855.90057	0.57250
RQ	13	41	3	855.91736	0.00222

	K	J	S	WAVE NO	INT
RQ	13	41	1	855.92372	0.00888
PR	10	46	2	855.92527	0.00184
PR	9	44	3	856.00742	0.00393
RQ	13	40	3	856.02599	0.00280
RQ	13	40	1	856.03212	0.01120
PR	10	46	0	856.03722	0.00046
PR	9	44	1	856.04330	0.00197
RR	1	23	3	856.06137	0.14484
RR	1	23	1	856.06706	0.57936
PR	8	42	2	856.10801	0.00800
RQ	13	39	3	856.13223	0.00350
RQ	13	39	1	856.13815	0.01400
PR	8	42	0	856.17059	0.00200
RR	2	21	2	856.17625	0.86536
RR	2	21	0	856.18288	0.21634
PR	7	40	3	856.20196	0.00392
PR	7	40	1	856.22595	0.01568
RQ	13	38	3	856.23611	0.00436
RQ	13	38	1	856.24180	0.01744
PR	6	38	2	856.31087	0.01477
RR	3	19	3	856.32001	1.13167
RR	3	19	1	856.32425	0.56583
RQ	13	37	3	856.33749	0.00538
RQ	13	37	1	856.34298	0.02152
PR	6	38	0	856.34866	0.02953
PR	5	36	3	856.41623	0.01332
RR	0	26	2	856.42306	0.17134
RR	0	26	0	856.42528	0.28556
PR	5	36	1	856.43270	0.05328
RQ	13	36	3	856.43640	0.00658
RQ	13	36	1	856.44168	0.02632
RR	4	17	2	856.47923	1.39280
RR	4	17	0	856.48383	0.34820
RQ	13	35	3	856.53283	0.00798
PR	4	34	2	856.53331	0.09216
RQ	13	35	1	856.53792	0.03192
PR	4	34	0	856.55723	0.02304
RQ	13	34	3	856.62678	0.00962
RQ	13	34	1	856.63168	0.03848
RR	5	15	3	856.64585	0.40944
PR	3	32	3	856.64753	0.15393
RR	5	15	1	856.64910	1.63776
PR	3	32	1	856.65907	0.07697
RQ	13	33	3	856.71815	0.01148
RQ	13	33	1	856.72285	0.04592
PR	2	30	2	856.76624	0.25024
PR	2	30	0	856.78184	0.06256
RQ	13	32	3	856.80704	0.01360
RQ	13	32	1	856.81157	0.05440
RR	6	13	2	856.82245	0.92670
RR	6	13	0	856.82571	1.85340
PR	1	28	3	856.85896	0.10346
PR	1	28	1	856.86720	0.41384

	K	J	S	WAVE NO	INT
RQ	13	31	3	856.89345	0.01598
RQ	13	31	1	856.89780	0.06392
RQ	13	30	3	856.97727	0.01858
RQ	13	30	1	856.98146	0.07432
RR	7	11	3	857.00488	0.50772
RR	7	11	1	857.00747	2.03088
RQ	13	29	3	857.05852	0.02144
RQ	13	29	1	857.06255	0.08576
PR	10	47	2	857.09976	0.00136
RQ	13	28	3	857.13718	0.02448
RQ	13	28	1	857.14105	0.09792
PR	9	45	3	857.18876	0.00300
RR	8	9	2	857.19618	2.17200
RR	8	9	0	857.19860	0.54300
RQ	13	27	3	857.21326	0.02766
RQ	13	27	1	857.21699	0.11064
PR	10	47	0	857.21780	0.00034
PR	9	45	1	857.22640	0.00150
RQ	13	26	3	857.28667	0.03094
RQ	13	26	1	857.29025	0.12376
PR	8	43	2	857.29654	0.00632
RR	1	24	3	857.32552	0.12602
RR	1	24	1	857.33150	0.50408
RQ	13	25	3	857.35760	0.03418
RQ	13	25	1	857.36104	0.13672
PR	8	43	0	857.36249	0.00158
PR	7	41	3	857.39707	0.00312
PR	7	41	1	857.42227	0.01248
RQ	13	24	3	857.42583	0.03732
RQ	13	24	1	857.42915	0.14928
RR	2	22	2	857.44067	0.77112
RR	2	22	0	857.44772	0.19278
RQ	13	23	3	857.49139	0.04018
RQ	13	23	1	857.49458	0.16072
PR	6	39	2	857.51263	0.01193
PR	6	39	0	857.55251	0.02387
RQ	13	22	3	857.55437	0.04262
RQ	13	22	1	857.55743	0.17048
RR	3	20	3	857.58842	1.02420
RR	3	20	1	857.59286	0.51210
RQ	13	21	3	857.61457	0.04440
RQ	13	21	1	857.61752	0.17760
RR	0	27	2	857.61796	0.19853
RR	0	27	0	857.62018	0.59557
PR	5	37	3	857.62408	0.01090
PR	5	37	1	857.64139	0.04360
RQ	13	20	3	857.67219	0.04530
RQ	13	20	1	857.67503	0.18120
RQ	13	19	3	857.72713	0.04506
RQ	13	19	1	857.72985	0.18024
PR	4	35	2	857.74738	0.07648
RR	4	18	2	857.75262	1.27688
RR	4	18	0	857.75749	0.31922

	K	J	S	WAVE NO	INT
PR	4	35	0	857.77266	0.01912
RQ	13	18	3	857.77938	0.04338
RQ	13	18	1	857.78201	0.17352
RQ	14	49	2	857.82384	0.00080
RQ	13	17	3	857.82895	0.03990
RQ	13	17	1	857.83149	0.15960
RQ	14	49	0	857.83463	0.00020
PR	3	33	3	857.86685	0.12953
RQ	13	16	3	857.87574	0.03426
RQ	13	16	1	857.87819	0.13704
PR	3	33	1	857.87900	0.06477
RQ	13	15	3	857.91995	0.02606
RQ	13	15	1	857.92232	0.10424
RR	5	16	3	857.92443	0.37968
RR	5	16	1	857.92783	1.51872
RQ	14	48	2	857.95206	0.00104
RQ	13	14	3	857.96127	0.01482
RQ	14	48	0	857.96245	0.00026
RQ	13	14	1	857.96356	0.05928
PR	2	31	2	857.98997	0.21392
PR	2	31	0	858.00648	0.05348
RQ	14	47	2	858.07810	0.00144
PR	1	29	3	858.08290	0.09002
RQ	14	47	0	858.08810	0.00036
PR	1	29	1	858.09157	0.36008
RR	6	14	2	858.10651	0.86760
RR	6	14	0	858.10996	1.73520
RQ	14	46	2	858.20177	0.00184
RQ	14	46	0	858.21140	0.00046
PR	10	48	2	858.27001	0.00104
RR	7	12	3	858.29436	0.47878
RR	7	12	1	858.29704	1.91512
RQ	14	45	2	858.32306	0.00248
RQ	14	45	0	858.33231	0.00062
PR	9	46	3	858.36595	0.00233
PR	10	48	0	858.39440	0.00026
PR	9	46	1	858.40540	0.00117
RQ	14	44	2	858.44217	0.00320
RQ	14	44	0	858.45107	0.00080
PR	8	44	2	858.48103	0.00488
RR	8	10	2	858.49123	2.05512
RR	8	10	0	858.49377	0.51378
PR	8	44	0	858.55047	0.00122
RQ	14	43	2	858.55880	0.00408
RQ	14	43	0	858.56734	0.00102
RR	1	25	3	858.58769	0.10872
PR	7	42	3	858.58804	0.00248
RR	1	25	1	858.59399	0.43488
PR	7	42	1	858.61446	0.00992
RQ	14	42	2	858.67305	0.00528
RQ	14	42	0	858.68126	0.00132
RR	2	23	2	858.70253	0.68168
RR	2	23	0	858.71001	0.17042

	K	J	S	WAVE NO	INT
PR	6	40	2	858.71045	0.00957
PR	6	40	0	858.75247	0.01913
RQ	14	41	2	858.78493	0.00664
RQ	14	41	0	858.79281	0.00166
RR	0	28	2	858.80786	0.12840
RR	0	28	0	858.81007	0.21400
PR	5	38	3	858.82806	0.00884
PR	5	38	1	858.84624	0.03536
RR	3	21	3	858.85395	0.91967
RR	3	21	1	858.85862	0.45983
RQ	14	40	2	858.89433	0.00840
RQ	14	40	0	858.90188	0.00210
PR	4	36	2	858.95740	0.06304
PR	4	36	0	858.98408	0.01576
RQ	14	39	2	859.00144	0.01048
RQ	14	39	0	859.00869	0.00262
RR	4	19	2	859.02323	1.16192
RR	4	19	0	859.02840	0.29048
PR	3	34	3	859.08212	0.10827
PR	3	34	1	859.09488	0.05413
RQ	14	38	2	859.10598	0.01304
RQ	14	38	0	859.11292	0.00326
RR	5	17	3	859.20014	0.34956
RR	5	17	1	859.20369	1.39824
RQ	14	37	2	859.20804	0.01608
PR	2	32	2	859.20944	0.18144
RQ	14	37	0	859.21469	0.00402
PR	2	32	0	859.22691	0.04536
PR	1	30	3	859.30197	0.07774
RQ	14	36	2	859.30772	0.01960
PR	1	30	1	859.31108	0.31096
RQ	14	36	0	859.31409	0.00490
RR	6	15	2	859.38769	0.80700
RR	6	15	0	859.39134	1.61400
RQ	14	35	2	859.40482	0.02384
RQ	14	35	0	859.41091	0.00596
RQ	14	34	2	859.49954	0.02864
RQ	14	34	0	859.50537	0.00716
PR	9	47	3	859.53889	0.00180
PR	9	47	1	859.58022	0.00090
RR	7	13	3	859.58096	0.44904
RR	7	13	1	859.58375	1.79616
RQ	14	33	2	859.59158	0.03408
RQ	14	33	0	859.59715	0.00852
PR	8	45	2	859.66137	0.00376
RQ	14	32	2	859.68114	0.04032
RQ	14	32	0	859.68646	0.01008
PR	8	45	0	859.73444	0.00094
RQ	14	31	2	859.76813	0.04720
RQ	14	31	0	859.77321	0.01180
PR	7	43	3	859.77503	0.00194
RR	8	11	2	859.78340	1.93760
RR	8	11	0	859.78606	0.48440

	K	J	S	WAVE NO	INT
PR	7	43	1	859.80274	0.00776
RR	1	26	3	859.84779	0.09296
RQ	14	30	2	859.85253	0.05480
RR	1	26	1	859.85442	0.37184
RQ	14	30	0	859.85738	0.01370
PR	6	41	2	859.90421	0.00760
RQ	14	29	2	859.93445	0.06296
RQ	14	29	0	859.93908	0.01574
PR	6	41	0	859.94846	0.01520
RR	2	24	2	859.96172	0.59776
RR	2	24	0	859.96966	0.14944
RR	9	9	3	859.99123	2.04160
RR	0	29	2	859.99276	0.14655
RR	9	9	1	859.99351	1.02080
RR	0	29	0	859.99498	0.43965
RQ	14	28	2	860.01369	0.07160
RQ	14	28	0	860.01810	0.01790
PR	5	39	3	860.02799	0.00714
PR	5	39	1	860.04707	0.02856
RQ	14	27	2	860.09026	0.08056
RQ	14	27	0	860.09446	0.02014
RR	3	22	3	860.11681	0.81940
RR	3	22	1	860.12171	0.40970
PR	4	37	2	860.16345	0.05152
RQ	14	26	2	860.16434	0.08960
RQ	14	26	0	860.16834	0.02240
PR	4	37	0	860.19158	0.01288
RQ	14	25	2	860.23564	0.09848
RQ	14	25	0	860.23946	0.02462
RR	4	20	2	860.29076	1.04936
PR	3	35	3	860.29330	0.08980
RR	4	20	0	860.29625	0.26234
RQ	14	24	2	860.30447	0.10664
PR	3	35	1	860.30671	0.04490
RQ	14	24	0	860.30810	0.02666
RQ	14	23	2	860.37051	0.11376
RQ	14	23	0	860.37396	0.02844
PR	2	33	2	860.42465	0.15280
RQ	14	22	2	860.43387	0.11928
RQ	14	22	0	860.43716	0.02982
PR	2	33	0	860.44309	0.03820
RR	5	18	3	860.47287	0.31954
RR	5	18	1	860.47659	1.27816
RQ	14	21	2	860.49465	0.12240
RQ	14	21	0	860.49778	0.03060
PR	1	31	3	860.51617	0.06662
PR	1	31	1	860.52574	0.26648
RQ	14	20	2	860.55265	0.12248
RQ	14	20	0	860.55563	0.03062
RQ	14	19	2	860.60797	0.11856
RQ	14	19	0	860.61080	0.02964
RQ	14	18	2	860.66061	0.10960
RQ	14	18	0	860.66330	0.02740

	K	J	S	WAVE NO	INT
RR	6	16	2	860.66589	0.74567
RR	6	16	0	860.66976	1.49133
RQ	15	49	3	860.69724	0.00060
RQ	15	49	1	860.70487	0.00030
PR	9	48	3	860.70778	0.00133
RQ	14	17	2	860.71057	0.09464
RQ	14	17	0	860.71313	0.02366
PR	9	48	1	860.75105	0.00067
RQ	14	16	2	860.75775	0.07232
RQ	14	16	0	860.76019	0.01808
RQ	14	15	2	860.80215	0.04128
RQ	14	15	0	860.80447	0.01032
RQ	15	48	3	860.82655	0.00080
RQ	15	48	1	860.83392	0.00040
PR	8	46	2	860.83766	0.00288
RR	7	14	3	860.86468	0.41868
RR	7	14	1	860.86758	1.67472
PR	8	46	0	860.91451	0.00072
RQ	15	47	3	860.95358	0.00107
PR	7	44	3	860.95788	0.00152
RQ	15	47	1	860.96071	0.00053
PR	7	44	1	860.98690	0.00608
RR	8	12	2	861.07259	1.81872
RR	8	12	0	861.07539	0.45468
RQ	15	46	3	861.07822	0.00140
RQ	15	46	1	861.08511	0.00070
PR	6	42	2	861.09392	0.00600
RR	1	27	3	861.10592	0.07882
RR	1	27	1	861.11288	0.31528
PR	6	42	0	861.14047	0.01200
RR	0	30	2	861.17256	0.09338
RR	0	30	0	861.17477	0.15563
RQ	15	45	3	861.20049	0.00180
RQ	15	45	1	861.20715	0.00090
RR	2	25	2	861.21833	0.52000
PR	5	40	3	861.22385	0.00570
RR	2	25	0	861.22675	0.13000
PR	5	40	1	861.24385	0.02280
RR	9	10	3	861.28594	1.92180
RR	9	10	1	861.28830	0.96090
RQ	15	44	3	861.32048	0.00233
RQ	15	44	1	861.32691	0.00117
PR	4	38	2	861.36535	0.04184
RR	3	23	3	861.37669	0.72447
RR	3	23	1	861.38184	0.36223
PR	4	38	0	861.39498	0.01046
RQ	15	43	3	861.43799	0.00300
RQ	15	43	1	861.44420	0.00150
PR	3	36	3	861.50034	0.07393
PR	3	36	1	861.51440	0.03697
RQ	15	42	3	861.55322	0.00387
RR	4	21	2	861.55543	0.94064
RQ	15	42	1	861.55921	0.00193

	K	J	S	WAVE NO	INT
RR	4	21	0	861.56124	0.23516
PR	2	34	2	861.63549	0.12776
PR	2	34	0	861.65495	0.03194
RQ	15	41	3	861.66596	0.00493
RQ	15	41	1	861.67175	0.00247
PR	1	32	3	861.72549	0.05664
PR	1	32	1	861.73555	0.22656
RR	5	19	3	861.74272	0.28998
RR	5	19	1	861.74661	1.15992
RQ	15	40	3	861.77633	0.00620
RQ	15	40	1	861.78191	0.00310
RQ	15	39	3	861.88422	0.00773
RQ	15	39	1	861.88960	0.00387
RR	6	17	2	861.94112	0.68433
RR	6	17	0	861.94522	1.36867
RQ	15	38	3	861.98962	0.00953
RQ	15	38	1	861.99481	0.00477
PR	8	47	2	862.00970	0.00224
PR	8	47	0	862.09046	0.00056
RQ	15	37	3	862.09254	0.01173
RQ	15	37	1	862.09754	0.00587
PR	7	45	3	862.13647	0.00116
RR	7	15	3	862.14532	0.38802
RR	7	15	1	862.14835	1.55208
PR	7	45	1	862.16685	0.00464
RQ	15	36	3	862.19299	0.01433
RQ	15	36	1	862.19781	0.00717
PR	6	43	2	862.27947	0.00470
RQ	15	35	3	862.29095	0.01733
RQ	15	35	1	862.29559	0.00867
PR	6	43	0	862.32841	0.00940
RR	0	31	2	862.34736	0.10500
RR	0	31	0	862.34958	0.31500
RR	8	13	2	862.35880	1.69864
RR	8	13	0	862.36176	0.42466
RR	1	28	3	862.36208	0.06628
RR	1	28	1	862.36938	0.26512
RQ	15	34	3	862.38633	0.02080
RQ	15	34	1	862.39080	0.01040
PR	5	41	3	862.41545	0.00454
PR	5	41	1	862.43641	0.01816
RR	2	26	2	862.47237	0.44888
RQ	15	33	3	862.47923	0.02480
RR	2	26	0	862.48129	0.11222
RQ	15	33	1	862.48354	0.01240
PR	4	39	2	862.56309	0.03368
RQ	15	32	3	862.56945	0.02920
RQ	15	32	1	862.57359	0.01460
RR	9	11	3	862.57779	1.80347
RR	9	11	1	862.58022	0.90173
PR	4	39	0	862.59428	0.00842
RR	3	24	3	862.63390	0.63567
RR	3	24	1	862.63930	0.31783

	K	J	S	WAVE NO	INT
RQ	15	31	3	862.65718	0.03407
RQ	15	31	1	862.66118	0.01703
PR	3	37	3	862.70309	0.06040
PR	3	37	1	862.71784	0.03020
RQ	15	30	3	862.74234	0.03940
RQ	15	30	1	862.74619	0.01970
RR	4	22	2	862.81721	0.83688
RR	4	22	0	862.82338	0.20922
RQ	15	29	3	862.82481	0.04513
RQ	15	29	1	862.82851	0.02257
PR	2	35	2	862.84187	0.10600
PR	2	35	0	862.86239	0.02650
RQ	15	28	3	862.90470	0.05107
RQ	15	28	1	862.90826	0.02553
PR	1	33	3	862.92965	0.04782
PR	1	33	1	862.94021	0.19128
RQ	15	27	3	862.98201	0.05720
RQ	15	27	1	862.98544	0.02860
RR	5	20	3	863.00960	0.26128
RR	5	20	1	863.01367	1.04512
RQ	15	26	3	863.05654	0.06320
RQ	15	26	1	863.05984	0.03160
RQ	15	25	3	863.12859	0.06887
RQ	15	25	1	863.13176	0.03443
PR	8	48	2	863.17751	0.00168
RQ	15	24	3	863.19785	0.07393
RQ	15	24	1	863.20090	0.03697
RR	6	18	2	863.21338	0.62373
RR	6	18	0	863.21771	1.24747
PR	8	48	0	863.26232	0.00042
RQ	15	23	3	863.26443	0.07793
RQ	15	23	1	863.26738	0.03897
PR	7	46	3	863.31100	0.00090
RQ	15	22	3	863.32843	0.08047
RQ	15	22	1	863.33127	0.04023
PR	7	46	1	863.34278	0.00360
RQ	15	21	3	863.38965	0.08100
RQ	15	21	1	863.39238	0.04050
RR	7	16	3	863.42308	0.35732
RR	7	16	1	863.42623	1.42928
RQ	15	20	3	863.44818	0.07880
RQ	15	20	1	863.45082	0.03940
PR	6	44	2	863.46087	0.00367
RQ	15	19	3	863.50394	0.07333
RQ	15	19	1	863.50648	0.03667
PR	6	44	0	863.51229	0.00733
RR	0	32	2	863.51716	0.06593
RR	0	32	0	863.51938	0.10988
RQ	15	18	3	863.55701	0.06360
RQ	15	18	1	863.55946	0.03180
RQ	16	49	2	863.59166	0.00040
RQ	16	49	0	863.60125	0.00010
PR	5	42	3	863.60299	0.00358
RQ	15	17	3	863.60729	0.04887
RQ	15	17	1	863.60966	0.02443
RR	1	29	3	863.61646	0.05524
RR	1	29	1	863.62413	0.22096
PR	5	42	1	863.62493	0.01432
RR	8	14	2	863.64214	1.57792
RR	8	14	0	863.64526	0.39448
RQ	15	16	3	863.65490	0.02807
RQ	15	16	1	863.65719	0.01403
RQ	16	48	2	863.72183	0.00056
RR	2	27	2	863.72385	0.38440
RQ	16	48	0	863.73107	0.00014
RR	2	27	0	863.73328	0.09610
PR	4	40	2	863.75666	0.02696
PR	4	40	0	863.78947	0.00674
RQ	16	47	2	863.84963	0.00080
RQ	16	47	0	863.85852	0.00020
RR	9	12	3	863.86655	1.68580
RR	9	12	1	863.86906	0.84290
RR	3	25	3	863.88822	0.55353
RR	3	25	1	863.89389	0.27677
PR	3	38	3	863.90148	0.04900
PR	3	38	1	863.91695	0.02450
RQ	16	46	2	863.97514	0.00104
RQ	16	46	0	863.98370	0.00026
PR	2	36	2	864.04378	0.08736
PR	2	36	0	864.06540	0.02184
RR	4	23	2	864.07613	0.73904
RR	4	23	0	864.08266	0.18476
RQ	16	45	2	864.09828	0.00128
RR	10	10	2	864.09959	1.75352
RR	10	10	0	864.10191	0.43838
RQ	16	45	0	864.10651	0.00032
PR	1	34	3	864.12873	0.04006
PR	1	34	1	864.13981	0.16024
RQ	16	44	2	864.21903	0.00168
RQ	16	44	0	864.22695	0.00042
RR	5	21	3	864.27350	0.23372
RR	5	21	1	864.27776	0.93488
RQ	16	43	2	864.33741	0.00216
RQ	16	43	0	864.34502	0.00054
RQ	16	42	2	864.45341	0.00280
RQ	16	42	0	864.46072	0.00070
PR	7	47	3	864.48117	0.00068
RR	6	19	2	864.48266	0.56457
RR	6	19	0	864.48724	1.12913
PR	7	47	1	864.51440	0.00272
RQ	16	41	2	864.56693	0.00352
RQ	16	41	0	864.57394	0.00088
PR	6	45	2	864.63792	0.00283
RQ	16	40	2	864.67806	0.00448
RR	0	33	2	864.68176	0.07303
RR	0	33	0	864.68398	0.21907
RQ	16	40	0	864.68480	0.00112
PR	6	45	0	864.69190	0.00567
RR	7	17	3	864.69777	0.32694
RR	7	17	1	864.70105	1.30776
PR	5	43	3	864.78626	0.00280
RQ	16	39	2	864.78672	0.00552
RQ	16	39	0	864.79318	0.00138
PR	5	43	1	864.80922	0.01120
RR	1	30	3	864.86906	0.04568
RR	1	30	1	864.87712	0.18272
RQ	16	38	2	864.89290	0.00688
RQ	16	38	0	864.89909	0.00172
RR	8	15	2	864.92239	1.45728
RR	8	15	0	864.92568	0.36432
PR	4	41	2	864.94588	0.02136
RR	2	28	2	864.97276	0.32664
PR	4	41	0	864.98035	0.00534
RR	2	28	0	864.98272	0.08166
RQ	16	37	2	864.99650	0.00840
RQ	16	37	0	865.00243	0.00210
PR	3	39	3	865.09551	0.03947
RQ	16	36	2	865.09771	0.01024
RQ	16	36	0	865.10340	0.00256
PR	3	39	1	865.11170	0.01973
RR	3	26	3	865.13968	0.47840
RR	3	26	1	865.14563	0.23920
RR	9	13	3	865.15243	1.56847
RR	9	13	1	865.15504	0.78423
RQ	16	35	2	865.19625	0.01240
RQ	16	35	0	865.20170	0.00310
PR	2	37	2	865.24102	0.07144
PR	2	37	0	865.26378	0.01786
RQ	16	34	2	865.29240	0.01480
RQ	16	34	0	865.29762	0.00370
PR	1	35	3	865.32255	0.03330
RR	4	24	2	865.33207	0.64792
PR	1	35	1	865.33416	0.13320
RR	4	24	0	865.33898	0.16198
RQ	16	33	2	865.38588	0.01760
RQ	16	33	0	865.39087	0.00440
RR	10	11	2	865.39104	1.63864
RR	10	11	0	865.39348	0.40966
RQ	16	32	2	865.47678	0.02064
RQ	16	32	0	865.48154	0.00516
RR	5	22	3	865.53442	0.20756
RR	5	22	1	865.53889	0.83024
RQ	16	31	2	865.56519	0.02400
RQ	16	31	0	865.56975	0.00600
PR	7	48	3	865.64709	0.00052
RQ	16	30	2	865.65092	0.02768
RQ	16	30	0	865.65527	0.00692
PR	7	48	1	865.68182	0.00208
RQ	16	29	2	865.73398	0.03152
RQ	16	29	0	865.73813	0.00788
RR	6	20	2	865.74895	0.50750
RR	6	20	0	865.75381	1.01500
PR	6	46	2	865.81081	0.00217
RQ	16	28	2	865.81445	0.03552
RQ	16	28	0	865.81841	0.00888
RR	0	34	2	865.84126	0.04519
RR	0	34	0	865.84348	0.07531
PR	6	46	0	865.86745	0.00433
RQ	16	27	2	865.89234	0.03952
RQ	16	27	0	865.89612	0.00988
PR	5	44	3	865.96517	0.00218
RQ	16	26	2	865.96745	0.04336
RR	7	18	3	865.96947	0.29716
RQ	16	26	0	865.97105	0.01084
RR	7	18	1	865.97290	1.18864
PR	5	44	1	865.98919	0.00872
RQ	16	25	2	866.03998	0.04680
RQ	16	25	0	866.04340	0.01170
RQ	16	24	2	866.10983	0.04960
RQ	16	24	0	866.11309	0.01240
RR	1	31	3	866.11980	0.03744
RR	1	31	1	866.12825	0.14976
PR	4	42	2	866.13084	0.01688
PR	4	42	0	866.16705	0.00422
RQ	16	23	2	866.17689	0.05152
RQ	16	23	0	866.18000	0.01288
RR	8	16	2	866.19978	1.33784
RR	8	16	0	866.20325	0.33446
RR	2	29	2	866.21909	0.27544
RR	2	29	0	866.22961	0.06886
RQ	16	22	2	866.24127	0.05216
RQ	16	22	0	866.24424	0.01304
PR	3	40	3	866.28517	0.03160
PR	3	40	1	866.30212	0.01580
RQ	16	21	2	866.30297	0.05104
RQ	16	21	0	866.30579	0.01276
RQ	16	20	2	866.36189	0.04776
RQ	16	20	0	866.36459	0.01194
RR	3	27	3	866.38847	0.41033
RR	3	27	1	866.39470	0.20517
RQ	16	19	2	866.41814	0.04168
RQ	16	19	0	866.42069	0.01042
PR	2	38	2	866.43361	0.05800
RR	9	14	3	866.43533	1.45193
RR	9	14	1	866.43804	0.72597
PR	2	38	0	866.45753	0.01450
RQ	16	18	2	866.47159	0.03216
RQ	16	18	0	866.47403	0.00804
RQ	17	49	3	866.49876	0.00008
RQ	17	49	1	866.50569	0.00032
PR	1	36	3	866.51099	0.02748
RQ	16	17	2	866.52227	0.01856

	K	J	S	WAVE NO	INT
PR	1	36	1	866.52316	0.10992
RQ	16	17	0	866.52459	0.00464
RR	4	25	2	866.58514	0.56376
RR	4	25	0	866.59245	0.14094
RQ	17	48	3	866.62991	0.00010
RQ	17	48	1	866.63662	0.00040
RR	10	12	2	866.67952	1.52576
RR	10	12	0	866.68207	0.38144
RQ	17	47	3	866.75858	0.00014
RQ	17	47	1	866.76507	0.00056
RR	5	23	3	866.79237	0.18302
RR	5	23	1	866.79705	0.73208
RQ	17	46	3	866.88497	0.00018
RQ	17	46	1	866.89124	0.00072
PR	6	47	2	866.97935	0.00167
RR	0	35	2	866.99576	0.04935
RR	0	35	0	866.99798	0.14805
RQ	17	45	3	867.00908	0.00024
RR	6	21	2	867.01228	0.45300
RQ	17	45	1	867.01514	0.00096
RR	6	21	0	867.01743	0.90600
PR	6	47	0	867.03874	0.00333
RQ	17	44	3	867.13071	0.00030
RQ	17	44	1	867.13657	0.00120
PR	5	45	3	867.13982	0.00168
PR	5	45	1	867.16492	0.00672
RR	7	19	3	867.23820	0.26830
RR	7	19	1	867.24178	1.07320
RQ	17	43	3	867.25005	0.00038
RQ	17	43	1	867.25571	0.00152
PR	4	43	2	867.31134	0.01320
PR	4	43	0	867.34933	0.00330
RQ	17	42	3	867.36682	0.00050
RR	1	32	3	867.36887	0.03046
RQ	17	42	1	867.37228	0.00200
RR	1	32	1	867.37772	0.12184
RR	2	30	2	867.46294	0.23048
PR	3	41	3	867.47027	0.02507
RR	8	17	2	867.47398	1.22056
RR	2	30	0	867.47405	0.05762
RR	8	17	0	867.47765	0.30514
RQ	17	41	3	867.48131	0.00062
RQ	17	41	1	867.48658	0.00248
PR	3	41	1	867.48800	0.01253
RQ	17	40	3	867.59321	0.00078
RQ	17	40	1	867.59830	0.00312
PR	2	39	2	867.62143	0.04672
RR	3	28	3	867.63437	0.34933
RR	3	28	1	867.64091	0.17467
PR	2	39	0	867.64657	0.01168
PR	1	37	3	867.69408	0.02252
RQ	17	39	3	867.70273	0.00098
PR	1	37	1	867.70681	0.09008

	K	J	S	WAVE NO	INT
RQ	17	39	1	867.70764	0.00392
RR	9	15	3	867.71516	1.33667
RR	9	15	1	867.71797	0.66833
RQ	17	38	3	867.80966	0.00120
RQ	17	38	1	867.81441	0.00480
RR	4	26	2	867.83524	0.48696
RR	4	26	0	867.84296	0.12174
RQ	17	37	3	867.91412	0.00148
RQ	17	37	1	867.91869	0.00592
RR	10	13	2	867.96501	1.41464
RR	10	13	0	867.96770	0.35366
RQ	17	36	3	868.01610	0.00180
RQ	17	36	1	868.02051	0.00720
RR	5	24	3	868.04734	0.16022
RR	5	24	1	868.05224	0.64088
RQ	17	35	3	868.11549	0.00216
RQ	17	35	1	868.11974	0.00864
PR	6	48	2	868.14345	0.00127
RR	0	36	2	868.14506	0.03011
RR	0	36	0	868.14728	0.05019
PR	6	48	0	868.20567	0.00253
RQ	17	34	3	868.21230	0.00258
RQ	17	34	1	868.21640	0.01032
RR	11	11	3	868.22005	0.36348
RR	11	11	1	868.22234	1.45392
RR	6	22	2	868.27254	0.40153
RR	6	22	0	868.27797	0.80307
RQ	17	33	3	868.30653	0.00304
PR	5	46	3	868.30992	0.00130
RQ	17	33	1	868.31048	0.01216
PR	5	46	1	868.33613	0.00520
RQ	17	32	3	868.39827	0.00356
RQ	17	32	1	868.40208	0.01424
RQ	17	31	3	868.48724	0.00414
PR	4	44	2	868.48738	0.01024
RQ	17	31	1	868.49091	0.01656
RR	7	20	3	868.50395	0.24062
RR	7	20	1	868.50769	0.96248
PR	4	44	0	868.52722	0.00256
RQ	17	30	3	868.57372	0.00474
RQ	17	30	1	868.57726	0.01896
RR	1	33	3	868.61626	0.02456
RR	1	33	1	868.62553	0.09824
PR	3	42	3	868.65079	0.01980
RQ	17	29	3	868.65751	0.00538
RQ	17	29	1	868.66092	0.02152
PR	3	42	1	868.66933	0.00990
RR	2	31	2	868.70434	0.19136
RR	2	31	0	868.71605	0.04784
RQ	17	28	3	868.73862	0.00602
RQ	17	28	1	868.74191	0.02408
RR	8	18	2	868.74531	1.10648
RR	8	18	0	868.74918	0.27662

	K	J	S	WAVE NO	INT
PR	2	40	2	868.80438	0.03744
RQ	17	27	3	868.81705	0.00664
RQ	17	27	1	868.82022	0.02656
PR	2	40	0	868.83079	0.00936
PR	1	38	3	868.87168	0.01830
RR	3	29	3	868.87750	0.29520
RR	3	29	1	868.88435	0.14760
PR	1	38	1	868.88501	0.07320
RQ	17	26	3	868.89291	0.00720
RQ	17	26	1	868.89596	0.02880
RQ	17	25	3	868.96597	0.00768
RQ	17	25	1	868.96892	0.03072
RR	9	16	3	868.99200	1.22353
RR	9	16	1	868.99493	0.61177
RQ	17	24	3	869.03636	0.00804
RQ	17	24	1	869.03919	0.03216
RR	4	27	2	869.08246	0.41760
RR	4	27	0	869.09061	0.10440
RQ	17	23	3	869.10396	0.00818
RQ	17	23	1	869.10669	0.03272
RQ	17	22	3	869.16898	0.00804
RQ	17	22	1	869.17162	0.03216
RQ	17	21	3	869.23111	0.00756
RQ	17	21	1	869.23366	0.03024
RR	10	14	2	869.24753	1.30536
RR	10	14	0	869.25035	0.32634
RR	0	37	2	869.28916	0.03240
RQ	17	20	3	869.29057	0.00664
RR	0	37	0	869.29137	0.09720
RQ	17	20	1	869.29302	0.02656
RR	5	25	3	869.29934	0.13924
RR	5	25	1	869.30447	0.55696
RQ	17	19	3	869.34724	0.00516
RQ	17	19	1	869.34960	0.02064
RQ	17	18	3	869.40112	0.00298
RQ	17	18	1	869.40341	0.01192
RQ	18	49	2	869.42607	0.00010
RQ	18	49	0	869.43462	0.00020
PR	5	47	3	869.47565	0.00098
PR	5	47	1	869.50301	0.00392
RR	11	12	3	869.50810	0.33726
RR	11	12	1	869.51046	1.34904
RR	6	23	2	869.52982	0.35343
RR	6	23	0	869.53555	0.70687
RQ	18	48	2	869.55788	0.00013
RQ	18	48	0	869.56613	0.00027
PR	4	45	2	869.65897	0.00792
RQ	18	47	2	869.68742	0.00020
RQ	18	47	0	869.69537	0.00040
PR	4	45	0	869.70071	0.00198
RR	7	21	3	869.76653	0.21434
RR	7	21	1	869.77043	0.85736
RQ	18	46	2	869.81468	0.00023

	K	J	S	WAVE NO	INT
RQ	18	46	0	869.82233	0.00047
PR	3	43	3	869.82666	0.01547
PR	3	43	1	869.84602	0.00773
RR	1	34	3	869.86198	0.01964
RR	1	34	1	869.87169	0.07856
RQ	18	45	2	869.93947	0.00033
RR	2	32	2	869.94335	0.15768
RQ	18	45	0	869.94682	0.00067
RR	2	32	0	869.95570	0.03942
PR	2	41	2	869.98248	0.02976
PR	2	41	0	870.01018	0.00744
RR	8	19	2	870.01356	0.99664
RR	8	19	0	870.01765	0.24916
PR	1	39	3	870.04382	0.01478
PR	1	39	1	870.05775	0.05912
RQ	18	44	2	870.06197	0.00040
RQ	18	44	0	870.06905	0.00080
RR	3	30	3	870.11787	0.24760
RR	3	30	1	870.12503	0.12380
RQ	18	43	2	870.18198	0.00053
RQ	18	43	0	870.18879	0.00107
RR	9	17	3	870.26576	1.11333
RR	9	17	1	870.26881	0.55667
RQ	18	42	2	870.29962	0.00067
RQ	18	42	0	870.30616	0.00133
RR	4	28	2	870.32671	0.35552
RR	4	28	0	870.33531	0.08888
RQ	18	41	2	870.41477	0.00087
RQ	18	41	0	870.42106	0.00173
RR	0	38	2	870.42816	0.01946
RR	0	38	0	870.43037	0.03244
RR	10	15	2	870.52697	1.19824
RQ	18	40	2	870.52755	0.00107
RR	10	15	0	870.52994	0.29956
RQ	18	40	0	870.53358	0.00213
RR	5	26	3	870.54826	0.12016
RR	5	26	1	870.55362	0.48064
PR	5	48	3	870.63692	0.00074
RQ	18	39	2	870.63774	0.00133
RQ	18	39	0	870.64354	0.00267
PR	5	48	1	870.66547	0.00296
RQ	18	38	2	870.74546	0.00167
RQ	18	38	0	870.75101	0.00333
RR	6	24	2	870.78401	0.30890
RR	6	24	0	870.79008	0.61780
RR	11	13	3	870.79317	0.31168
RR	11	13	1	870.79561	1.24672
PR	4	46	2	870.82600	0.00608
RQ	18	37	2	870.85059	0.00203
RQ	18	37	0	870.85592	0.00407
PR	4	46	0	870.86971	0.00152
RQ	18	36	2	870.95324	0.00247
RQ	18	36	0	870.95834	0.00493

	K	J	S	WAVE NO	INT
PR	3	44	3	870.99786	0.01207
PR	3	44	1	871.01808	0.00603
RR	7	22	3	871.02612	0.18962
RR	7	22	1	871.03020	0.75848
RQ	18	35	2	871.05341	0.00293
RQ	18	35	0	871.05830	0.00587
RR	1	35	3	871.10613	0.01560
RR	1	35	1	871.11629	0.06240
RQ	18	34	2	871.15090	0.00350
PR	2	42	2	871.15551	0.02344
RQ	18	34	0	871.15558	0.00700
RR	2	33	2	871.17980	0.12896
PR	2	42	0	871.18456	0.00586
RR	2	33	0	871.19279	0.03224
PR	1	40	3	871.21020	0.01184
PR	1	40	1	871.22475	0.04736
RQ	18	33	2	871.24580	0.00413
RQ	18	33	0	871.25028	0.00827
RR	8	20	2	871.27863	0.89184
RR	8	20	0	871.28295	0.22296
RQ	18	32	2	871.33813	0.00480
RQ	18	32	0	871.34241	0.00960
RR	3	31	3	871.35555	0.20613
RR	3	31	1	871.36305	0.10307
RQ	18	31	2	871.42787	0.00557
RQ	18	31	0	871.43197	0.01113
RQ	18	30	2	871.51493	0.00633
RQ	18	30	0	871.51884	0.01267
RR	9	18	3	871.53654	1.00680
RR	9	18	1	871.53972	0.50340
RR	0	39	2	871.56196	0.02068
RR	0	39	0	871.56418	0.06202
RR	4	29	2	871.56808	0.30048
RR	4	29	0	871.57716	0.07512
RQ	18	29	2	871.59931	0.00713
RQ	18	29	0	871.60305	0.01427
RQ	18	28	2	871.68101	0.00790
RQ	18	28	0	871.68458	0.01580
RQ	18	27	2	871.76012	0.00863
RQ	18	27	0	871.76353	0.01727
RR	5	27	3	871.79430	0.10294
RR	5	27	1	871.79991	0.41176
RR	10	16	2	871.80333	1.09384
RR	10	16	0	871.80646	0.27346
RQ	18	26	2	871.83646	0.00927
RQ	18	26	0	871.83971	0.01853
RQ	18	25	2	871.91011	0.00977
RQ	18	25	0	871.91321	0.01953
RQ	18	24	2	871.98098	0.01000
RQ	18	24	0	871.98393	0.02000
PR	4	47	2	871.98837	0.00464
PR	4	47	0	872.03413	0.00116
RR	6	25	2	872.03514	0.26810

	K	J	S	WAVE NO	INT
RR	6	25	0	872.04154	0.53620
RQ	18	23	2	872.04916	0.00990
RQ	18	23	0	872.05198	0.01980
RR	11	14	3	872.07526	0.28674
RR	11	14	1	872.07778	1.14696
RQ	18	22	2	872.11457	0.00933
RQ	18	22	0	872.11726	0.01867
PR	3	45	3	872.16430	0.00933
RQ	18	21	2	872.17729	0.00823
RQ	18	21	0	872.17985	0.01647
PR	3	45	1	872.18540	0.00467
RQ	18	20	2	872.23713	0.00643
RQ	18	20	0	872.23957	0.01287
RR	7	23	3	872.28264	0.16660
RR	7	23	1	872.28690	0.66640
RQ	18	19	2	872.29429	0.00373
RQ	18	19	0	872.29661	0.00747
PR	2	43	2	872.32359	0.01840
RR	1	36	3	872.34861	0.01228
PR	2	43	0	872.35401	0.00460
RR	12	12	2	872.35532	0.58277
RR	12	12	0	872.35764	1.16553
RR	1	36	1	872.35924	0.04912
RQ	19	49	3	872.36575	0.00004
PR	1	41	3	872.37100	0.00942
RQ	19	49	1	872.37206	0.00016
PR	1	41	1	872.38621	0.03768
RR	2	34	2	872.41389	0.10464
RR	2	34	0	872.42755	0.02616
RQ	19	48	3	872.49854	0.00004
RQ	19	48	1	872.50465	0.00016
RR	8	21	2	872.54082	0.79280
RR	8	21	0	872.54539	0.19820
RR	3	32	3	872.59036	0.17040
RR	3	32	1	872.59821	0.08520
RQ	19	47	3	872.62894	0.00006
RQ	19	47	1	872.63486	0.00024
RR	0	40	2	872.69046	0.01226
RR	0	40	0	872.69268	0.02044
RQ	19	46	3	872.75707	0.00008
RQ	19	46	1	872.76280	0.00032
RR	9	19	3	872.80415	0.90480
RR	4	30	2	872.80649	0.25208
RR	9	19	1	872.80746	0.45240
RR	4	30	0	872.81605	0.06302
RQ	19	45	3	872.88282	0.00010
RQ	19	45	1	872.88836	0.00040
RQ	19	44	3	873.00608	0.00014
RQ	19	44	1	873.01144	0.00056
RR	5	28	3	873.03726	0.08758
RR	5	28	1	873.04314	0.35032
RR	10	17	2	873.07671	0.99280
RR	10	17	0	873.08001	0.24820

	K	J	S	WAVE NO	INT
RQ	19	43	3	873.12696	0.00018
RQ	19	43	1	873.13214	0.00072
PR	4	48	2	873.14609	0.00352
PR	4	48	0	873.19395	0.00088
RQ	19	42	3	873.24546	0.00024
RQ	19	42	1	873.25047	0.00096
RR	6	26	2	873.28329	0.23107
RR	6	26	0	873.29005	0.46213
PR	3	46	3	873.32587	0.00713
PR	3	46	1	873.34788	0.00357
RR	11	15	3	873.35416	0.26250
RR	11	15	1	873.35678	1.05000
RQ	19	41	3	873.36148	0.00030
RQ	19	41	1	873.36631	0.00120
RQ	19	40	3	873.47501	0.00036
RQ	19	40	1	873.47968	0.00144
PR	2	44	2	873.48650	0.01432
PR	2	44	0	873.51835	0.00358
PR	1	42	3	873.52594	0.00744
RR	7	24	3	873.53617	0.14538
RR	7	24	1	873.54063	0.58152
PR	1	42	1	873.54182	0.02976
RQ	19	39	3	873.58607	0.00046
RR	1	37	3	873.58961	0.00958
RQ	19	39	1	873.59057	0.00184
RR	1	37	1	873.60072	0.03832
RR	12	13	2	873.64000	0.53697
RR	12	13	0	873.64243	1.07393
RR	2	35	2	873.64570	0.08432
RR	2	35	0	873.66006	0.02108
RQ	19	38	3	873.69463	0.00056
RQ	19	38	1	873.69898	0.00224
RR	8	22	2	873.79984	0.70008
RQ	19	37	3	873.80062	0.00068
RR	8	22	0	873.80466	0.17502
RQ	19	37	1	873.80482	0.00272
RR	0	41	2	873.81386	0.01282
RR	0	41	0	873.81608	0.03847
RR	3	33	3	873.82240	0.13980
RR	3	33	1	873.83061	0.06990
RQ	19	36	3	873.90402	0.00082
RQ	19	36	1	873.90807	0.00328
RQ	19	35	3	874.00494	0.00098
RQ	19	35	1	874.00885	0.00392
RR	4	31	2	874.04202	0.21000
RR	4	31	0	874.05209	0.05250
RR	9	20	3	874.06878	0.80800
RR	9	20	1	874.07222	0.40400
RQ	19	34	3	874.10328	0.00116
RQ	19	34	1	874.10706	0.00464
RQ	19	33	3	874.19893	0.00136
RQ	19	33	1	874.20258	0.00544
RR	5	29	3	874.27715	0.07398

	K	J	S	WAVE NO	INT
RR	5	29	1	874.28329	0.29592
RQ	19	32	3	874.29200	0.00158
RQ	19	32	1	874.29552	0.00632
RR	10	18	2	874.34691	0.89576
RR	10	18	0	874.35039	0.22394
RQ	19	31	3	874.38239	0.00182
RQ	19	31	1	874.38578	0.00728
RQ	19	30	3	874.47009	0.00206
RQ	19	30	1	874.47337	0.00824
PR	3	47	3	874.48258	0.00540
PR	3	47	1	874.50552	0.00270
RR	6	27	2	874.52837	0.19773
RR	6	27	0	874.53549	0.39547
RQ	19	29	3	874.55521	0.00230
RQ	19	29	1	874.55836	0.00920
RR	11	16	3	874.63009	0.23902
RR	11	16	1	874.63281	0.95608
RQ	19	28	3	874.63765	0.00252
RQ	19	28	1	874.64069	0.01008
PR	2	45	2	874.64414	0.01104
PR	1	43	3	874.67511	0.00582
PR	2	45	0	874.67747	0.00276
PR	1	43	1	874.69167	0.02328
RQ	19	27	3	874.71731	0.00272
RQ	19	27	1	874.72024	0.01088
RR	7	25	3	874.78654	0.12600
RR	7	25	1	874.79119	0.50400
RQ	19	26	3	874.79427	0.00288
RQ	19	26	1	874.79710	0.01152
RR	1	38	3	874.82915	0.00742
RR	1	38	1	874.84076	0.02968
RQ	19	25	3	874.86856	0.00296
RQ	19	25	1	874.87129	0.01184
RR	2	36	2	874.87504	0.06744
RR	2	36	0	874.89011	0.01686
RR	12	14	2	874.92160	0.49263
RR	12	14	0	874.92416	0.98527
RR	0	42	2	874.93196	0.00750
RR	0	42	0	874.93418	0.01250
RQ	19	24	3	874.94006	0.00296
RQ	19	24	1	874.94270	0.01184
RQ	19	23	3	875.00878	0.00282
RQ	19	23	1	875.01133	0.01128
RR	3	34	3	875.05177	0.11387
RR	8	23	2	875.05569	0.61408
RR	3	34	1	875.06035	0.05693
RR	8	23	0	875.06077	0.15352
RQ	19	22	3	875.07482	0.00250
RQ	19	22	1	875.07727	0.01000
RQ	19	21	3	875.13797	0.00196
RQ	19	21	1	875.14034	0.00784
RQ	19	20	3	875.19844	0.00114
RQ	19	20	1	875.20073	0.00456

	K	J	S	WAVE NO	INT
RR	4	32	2	875.27467	0.17368
RR	4	32	0	875.28526	0.04342
RQ	20	49	2	875.32484	0.00008
RR	9	21	3	875.33022	0.71687
RQ	20	49	0	875.33252	0.00002
RR	9	21	1	875.33382	0.35843
RQ	20	48	2	875.45840	0.00016
RQ	20	48	0	875.46581	0.00004
RR	5	30	3	875.51417	0.06204
RR	5	30	1	875.52059	0.24816
RQ	20	47	2	875.58959	0.00016
RQ	20	47	0	875.59672	0.00004
RR	10	19	2	875.61414	0.80328
RR	10	19	0	875.61781	0.20082
PR	3	48	3	875.63422	0.00413
PR	3	48	1	875.65813	0.00207
RQ	20	46	2	875.71849	0.00024
RQ	20	46	0	875.72536	0.00006
RR	6	28	2	875.77037	0.16807
RR	6	28	0	875.77787	0.33613
PR	2	46	2	875.79663	0.00848
PR	1	44	3	875.81851	0.00454
PR	2	46	0	875.83149	0.00212
PR	1	44	1	875.83578	0.01816
RQ	20	45	2	875.84501	0.00032
RQ	20	45	0	875.85162	0.00008
RR	11	17	3	875.90293	0.21644
RR	11	17	1	875.90576	0.86576
RQ	20	44	2	875.96905	0.00040
RQ	20	44	0	875.97540	0.00010
RR	7	26	3	876.03371	0.10844
RR	7	26	1	876.03858	0.43376
RR	0	43	2	876.04476	0.00775
RR	0	43	0	876.04697	0.02325
RR	1	39	3	876.06712	0.00570
RR	1	39	1	876.07924	0.02280
RQ	20	43	2	876.09080	0.00048
RQ	20	43	0	876.09692	0.00012
RR	2	37	2	876.10201	0.05352
RR	2	37	0	876.11784	0.01338
RR	12	15	2	876.20022	0.44983
RR	12	15	0	876.20290	0.89967
RQ	20	42	2	876.20998	0.00064
RQ	20	42	0	876.21586	0.00016
RR	3	35	3	876.27845	0.09207
RR	3	35	1	876.28742	0.04603
RR	8	24	2	876.30855	0.53504
RR	8	24	0	876.31391	0.13376
RQ	20	41	2	876.32677	0.00080
RQ	20	41	0	876.33242	0.00020
RQ	20	40	2	876.44108	0.00096
RQ	20	40	0	876.44650	0.00024
RR	13	13	3	876.50217	0.22612

	K	J	S	WAVE NO	INT
RR	4	33	2	876.50426	0.14264
RR	13	13	1	876.50446	0.90448
RR	4	33	0	876.51540	0.03566
RQ	20	39	2	876.55290	0.00120
RQ	20	39	0	876.55811	0.00030
RR	9	22	3	876.58859	0.63187
RR	9	22	1	876.59234	0.31593
RQ	20	38	2	876.66215	0.00144
RQ	20	38	0	876.66715	0.00036
RR	5	31	3	876.74801	0.05166
RR	5	31	1	876.75472	0.20664
RQ	20	37	2	876.76891	0.00176
RQ	20	37	0	876.77371	0.00044
RQ	20	36	2	876.87310	0.00216
RQ	20	36	0	876.87769	0.00054
RR	10	20	2	876.87818	0.71592
RR	10	20	0	876.88205	0.17898
PR	2	47	2	876.94366	0.00648
PR	1	45	3	876.95595	0.00350
PR	1	45	1	876.97395	0.01400
RQ	20	35	2	876.97469	0.00256
RQ	20	35	0	876.97910	0.00064
PR	2	47	0	876.98009	0.00162
RR	6	29	2	877.00930	0.14183
RR	6	29	0	877.01720	0.28367
RQ	20	34	2	877.07362	0.00304
RQ	20	34	0	877.07784	0.00076
RR	0	44	2	877.15236	0.00446
RR	0	44	0	877.15458	0.00744
RQ	20	33	2	877.17005	0.00352
RR	11	18	3	877.17270	0.19486
RQ	20	33	0	877.17409	0.00088
RR	11	18	1	877.17564	0.77944
RQ	20	32	2	877.26380	0.00408
RQ	20	32	0	877.26767	0.00102
RR	7	27	3	877.27792	0.09270
RR	7	27	1	877.28300	0.37080
RR	1	40	3	877.30361	0.00436
RR	1	40	1	877.31626	0.01744
RR	2	38	2	877.32671	0.04216
RR	2	38	0	877.34331	0.01054
RQ	20	31	2	877.35487	0.00464
RQ	20	31	0	877.35857	0.00116
RQ	20	30	2	877.44326	0.00520
RQ	20	30	0	877.44679	0.00130
RR	12	16	2	877.47565	0.40863
RR	12	16	0	877.47849	0.81727
RR	3	36	3	877.50237	0.07393
RR	3	36	1	877.51173	0.03697
RQ	20	29	2	877.52896	0.00576
RQ	20	29	0	877.53234	0.00144
RR	8	25	2	877.55824	0.46296
RR	8	25	0	877.56389	0.11574

	K	J	S	WAVE NO	INT
RQ	20	28	2	877.61208	0.00624
RQ	20	28	0	877.61531	0.00156
RQ	20	27	2	877.69232	0.00664
RQ	20	27	0	877.69540	0.00166
RR	4	34	2	877.73108	0.11632
RR	4	34	0	877.74277	0.02908
RQ	20	26	2	877.76987	0.00688
RQ	20	26	0	877.77282	0.00172
RR	13	14	3	877.78335	0.20692
RR	13	14	1	877.78571	0.82768
RR	9	23	3	877.84388	0.55333
RQ	20	25	2	877.84475	0.00688
RQ	20	25	0	877.84756	0.00172
RR	9	23	1	877.84779	0.27667
RQ	20	24	2	877.91684	0.00656
RQ	20	24	0	877.91952	0.00164
RR	5	32	3	877.97897	0.04272
RR	5	32	1	877.98598	0.17088
RQ	20	23	2	877.98605	0.00592
RQ	20	23	0	877.98859	0.00148
RQ	20	22	2	878.05257	0.00464
RQ	20	22	0	878.05500	0.00116
PR	2	48	2	878.08543	0.00488
PR	1	46	3	878.08741	0.00268
PR	1	46	1	878.10616	0.01072
RQ	20	21	2	878.11630	0.00272
RQ	20	21	0	878.11863	0.00068
PR	2	48	0	878.12347	0.00122
RR	10	21	2	878.13915	0.63400
RR	10	21	0	878.14323	0.15850
RR	6	30	2	878.24516	0.11887
RR	6	30	0	878.25346	0.23773
RR	0	45	2	878.25466	0.00455
RR	0	45	0	878.25687	0.01365
RQ	21	48	3	878.43061	0.00007
RQ	21	48	1	878.43621	0.00003
RR	11	19	3	878.43928	0.17438
RR	11	19	1	878.44234	0.69752
RR	7	28	3	878.51895	0.07870
RR	7	28	1	878.52426	0.31480
RR	1	41	3	878.53864	0.00330
RR	2	39	2	878.54915	0.03296
RR	1	41	1	878.55183	0.01320
RQ	21	47	3	878.56275	0.00013
RR	2	39	0	878.56654	0.00824
RQ	21	47	1	878.56818	0.00007
RQ	21	46	3	878.69241	0.00013
RQ	21	46	1	878.69766	0.00007
RR	3	37	3	878.72361	0.05893
RR	3	37	1	878.73339	0.02947
RR	12	17	2	878.74802	0.36923
RR	12	17	0	878.75099	0.73847
RR	8	26	2	878.80475	0.39800

	K	J	S	WAVE NO	INT
RR	8	26	0	878.81070	0.09950
RQ	21	45	3	878.81979	0.00020
RQ	21	45	1	878.82487	0.00010
RQ	21	44	3	878.94479	0.00027
RQ	21	44	1	878.94971	0.00013
RR	4	35	2	878.95493	0.09416
RR	4	35	0	878.96719	0.02354
PQ	16	46	0	878.97712	0.00022
RR	13	15	3	879.06144	0.18848
RR	13	15	1	879.06389	0.75392
RQ	21	43	3	879.06731	0.00033
RQ	21	43	1	879.07206	0.00017
RR	9	24	3	879.09599	0.48133
RR	9	24	1	879.10007	0.24067
RQ	21	42	3	879.18744	0.00040
RQ	21	42	1	879.19203	0.00020
RR	5	33	3	879.20686	0.03508
PR	1	47	3	879.21301	0.00204
RR	5	33	1	879.21418	0.14032
PR	1	47	1	879.23254	0.00816
RQ	21	41	3	879.30508	0.00047
RQ	21	41	1	879.30952	0.00023
RR	0	46	2	879.35166	0.00259
RR	0	46	0	879.35387	0.00431
RR	10	22	2	879.39693	0.55784
RR	10	22	0	879.40123	0.13946
RQ	21	40	3	879.42014	0.00060
RQ	21	40	1	879.42444	0.00030
RR	6	31	2	879.47793	0.09893
RR	6	31	0	879.48666	0.19787
RQ	21	39	3	879.53283	0.00073
RQ	21	39	1	879.53697	0.00037
RQ	21	38	3	879.64292	0.00093
RQ	21	38	1	879.64693	0.00047
RR	11	20	3	879.70278	0.15512
RR	11	20	1	879.70596	0.62048
RQ	21	37	3	879.75043	0.00113
RQ	21	37	1	879.75431	0.00057
RR	7	29	3	879.75690	0.06634
RR	7	29	1	879.76245	0.26536
RR	2	40	2	879.76932	0.02560
RR	1	42	3	879.77219	0.00248
RR	1	42	1	879.78595	0.00992
RR	2	40	0	879.78752	0.00640
RQ	21	36	3	879.85547	0.00133
RQ	21	36	1	879.85921	0.00067
RR	3	38	3	879.94209	0.04660
RR	3	38	1	879.95229	0.02330
RQ	21	35	3	879.95781	0.00160
RQ	21	35	1	879.96142	0.00080
RR	12	18	2	880.01720	0.33173
RR	12	18	0	880.02033	0.66347
RR	8	27	2	880.04819	0.33976

	K	J	S	WAVE NO	INT
RR	8	27	0	880.05445	0.08494
RQ	21	34	3	880.05757	0.00193
RQ	21	34	1	880.06106	0.00097
RQ	21	33	3	880.15475	0.00220
RQ	21	33	1	880.15812	0.00110
RR	4	36	2	880.17590	0.07568
RR	4	36	0	880.18876	0.01892
RQ	21	32	3	880.24924	0.00253
RQ	21	32	1	880.25249	0.00127
PR	1	48	3	880.33255	0.00154
RR	13	16	3	880.33635	0.17086
RR	13	16	1	880.33889	0.68344
RQ	21	31	3	880.34106	0.00287
RQ	21	31	1	880.34419	0.00143
RR	9	25	3	880.34492	0.41593
RR	9	25	1	880.34917	0.20797
PR	1	48	1	880.35287	0.00616
RQ	21	30	3	880.43018	0.00320
RR	5	34	3	880.43167	0.02860
RQ	21	30	1	880.43321	0.00160
RR	5	34	1	880.43932	0.11440
RR	0	47	2	880.44336	0.00260
RR	0	47	0	880.44558	0.00780
RQ	21	29	3	880.51662	0.00347
RQ	21	29	1	880.51955	0.00173
RQ	21	28	3	880.60038	0.00373
RQ	21	28	1	880.60320	0.00187
RR	10	23	2	880.65165	0.48776
RR	10	23	0	880.65617	0.12194
RR	14	14	2	880.66344	0.68008
RR	14	14	0	880.66577	0.17002
RQ	21	27	3	880.68135	0.00387
RQ	21	27	1	880.68407	0.00193
RR	6	32	2	880.70753	0.08177
RR	6	32	0	880.71671	0.16353
RQ	21	26	3	880.75954	0.00393
RQ	21	26	1	880.76218	0.00197
RQ	21	25	3	880.83504	0.00373
RQ	21	25	1	880.83759	0.00187
RQ	21	24	3	880.90777	0.00340
RQ	21	24	1	880.91022	0.00170
RR	11	21	3	880.96310	0.13714
RR	11	21	1	880.96642	0.54856
RQ	21	23	3	880.97761	0.00267
RQ	21	23	1	880.97997	0.00133
RR	2	41	2	880.98721	0.01968
RR	7	30	3	880.99168	0.05556
RR	7	30	1	880.99747	0.22224
RR	1	43	3	881.00438	0.00184
RR	2	41	0	881.00626	0.00492
RR	1	43	1	881.01871	0.00736
RQ	21	22	3	881.04475	0.00160
RQ	21	22	1	881.04705	0.00080

	K	J	S	WAVE NO	INT
RR	3	39	3	881.15798	0.03660
RR	3	39	1	881.16862	0.01830
RR	12	19	2	881.28330	0.29633
RR	12	19	0	881.28660	0.59267
RR	8	28	2	881.28844	0.28808
RR	8	28	0	881.29504	0.07202
RR	4	37	2	881.39400	0.06040
RR	4	37	0	881.40748	0.01510
RR	0	48	2	881.52966	0.00146
RR	0	48	0	881.53188	0.00244
RR	9	26	3	881.59077	0.35707
RR	9	26	1	881.59521	0.17853
RR	13	17	3	881.60818	0.15406
RR	13	17	1	881.61081	0.61624
RR	5	35	3	881.65350	0.02316
RR	5	35	1	881.66148	0.09264
RQ	22	46	2	881.68484	0.00008
RQ	22	46	0	881.69103	0.00002
RQ	22	45	2	881.81290	0.00016
RQ	22	45	0	881.81886	0.00004
RR	10	24	2	881.90308	0.42368
RR	10	24	0	881.90784	0.10592
RR	6	33	2	881.93417	0.06710
RQ	22	44	2	881.93867	0.00016
RR	14	15	2	881.94105	0.61808
RR	14	15	0	881.94349	0.15452
RR	6	33	0	881.94380	0.13420
RQ	22	44	0	881.94441	0.00004
RQ	22	43	2	882.06197	0.00016
RQ	22	43	0	882.06748	0.00004
RQ	22	42	2	882.18287	0.00024
RQ	22	42	0	882.18818	0.00006
RR	2	42	2	882.20294	0.01504
RR	11	22	3	882.22025	0.12048
RR	2	42	0	882.22287	0.00376
RR	7	31	3	882.22337	0.04620
RR	11	22	1	882.22369	0.48192
RR	7	31	1	882.22942	0.18480
RR	1	44	3	882.23499	0.00136
RR	1	44	1	882.24992	0.00544
RQ	22	41	2	882.30130	0.00032
RQ	22	41	0	882.30640	0.00008
RR	3	40	3	882.37111	0.02860
RR	3	40	1	882.38219	0.01430
RQ	22	40	2	882.41724	0.00040
RQ	22	40	0	882.42214	0.00010
RR	8	29	2	882.52554	0.24264
RQ	22	39	2	882.53060	0.00048
RR	8	29	0	882.53246	0.06066
RQ	22	39	0	882.53530	0.00012
RR	12	20	2	882.54632	0.26313
RR	12	20	0	882.54979	0.52627
RR	4	38	2	882.60912	0.04784

	K	J	S	WAVE NO	INT
RR	4	38	0	882.62325	0.01196
RQ	22	38	2	882.64147	0.00056
RQ	22	38	0	882.64600	0.00014
RQ	22	37	2	882.74977	0.00072
RQ	22	37	0	882.75410	0.00018
RR	9	27	3	882.83334	0.30447
RR	9	27	1	882.83797	0.15223
RQ	22	36	2	882.85558	0.00088
RQ	22	36	0	882.85973	0.00022
RR	5	36	3	882.87227	0.01862
RR	13	18	3	882.87682	0.13814
RR	13	18	1	882.87955	0.55256
RR	5	36	1	882.88058	0.07448
RQ	22	35	2	882.95871	0.00104
RQ	22	35	0	882.96269	0.00026
RQ	22	34	2	883.05925	0.00120
RQ	22	34	0	883.06306	0.00030
RR	10	25	2	883.15144	0.36560
RR	10	25	0	883.15645	0.09140
RQ	22	33	2	883.15701	0.00136
RR	6	34	2	883.15762	0.05470
RQ	22	33	0	883.16067	0.00034
RR	6	34	0	883.16773	0.10940
RR	14	16	2	883.21547	0.55912
RR	14	16	0	883.21803	0.13978
RQ	22	32	2	883.25229	0.00152
RQ	22	32	0	883.25579	0.00038
RQ	22	31	2	883.34478	0.00176
RQ	22	31	0	883.34813	0.00044
RR	2	43	2	883.41640	0.01144
RQ	22	30	2	883.43459	0.00192
RR	2	43	0	883.43723	0.00286
RQ	22	30	0	883.43780	0.00048
RR	7	32	3	883.45179	0.03816
RR	7	32	1	883.45809	0.15264
RR	1	45	3	883.46414	0.00100
RR	11	23	3	883.47431	0.10518
RR	11	23	1	883.47791	0.42072
RR	1	45	1	883.47968	0.00400
RQ	22	29	2	883.52172	0.00200
RQ	22	29	0	883.52478	0.00050
RR	3	41	3	883.58167	0.02213
RR	3	41	1	883.59322	0.01107
RQ	22	28	2	883.60616	0.00216
RQ	22	28	0	883.60909	0.00054
RQ	22	27	2	883.68772	0.00216
RQ	22	27	0	883.69051	0.00054
RR	8	30	2	883.75954	0.20296
RQ	22	26	2	883.76659	0.00208
RR	8	30	0	883.76682	0.05074
RQ	22	26	0	883.76926	0.00052
RR	12	21	2	883.80606	0.23223
RR	12	21	0	883.80972	0.46447

	K	J	S	WAVE NO	INT
RR	4	39	2	883.82148	0.03768
RR	4	39	0	883.83627	0.00942
RQ	22	25	2	883.84269	0.00192
RQ	22	25	0	883.84524	0.00048
RQ	22	24	2	883.91600	0.00152
RQ	22	24	0	883.91843	0.00038
RQ	22	23	2	883.98642	0.00088
RQ	22	23	0	883.98875	0.00022
RR	9	28	3	884.07284	0.25787
RR	9	28	1	884.07766	0.12893
RR	5	37	3	884.08806	0.01486
RR	5	37	1	884.09673	0.05944
RR	13	19	3	884.14239	0.12318
RR	13	19	1	884.14523	0.49272
RR	6	35	2	884.37801	0.04427
RR	6	35	0	884.38860	0.08853
RR	10	26	2	884.39651	0.31344
RR	10	26	0	884.40179	0.07836
RR	14	17	2	884.48681	0.50320
RR	14	17	0	884.48950	0.12580
RR	2	44	2	884.62770	0.00864
RR	2	44	0	884.64945	0.00216
RR	7	33	3	884.67713	0.03130
RR	7	33	1	884.68371	0.12520
RR	1	46	3	884.69182	0.00074
RR	1	46	1	884.70798	0.00296
RR	11	24	3	884.72510	0.09122
RR	11	24	1	884.72884	0.36488
RR	3	42	3	884.78954	0.01700
RR	3	42	1	884.80157	0.00850
RR	15	15	3	884.83580	0.49580
RR	15	15	1	884.83809	0.24790
RQ	23	44	3	884.94504	0.00002
RQ	23	44	1	884.94956	0.00008
RR	8	31	2	884.99027	0.16864
RR	8	31	0	884.99792	0.04216
RR	4	40	2	885.03087	0.02944
RR	4	40	0	885.04634	0.00736
RR	12	22	2	885.06262	0.20370
RR	12	22	0	885.06647	0.40740
RQ	23	43	3	885.06928	0.00004
RQ	23	43	1	885.07365	0.00016
RQ	23	42	3	885.19104	0.00004
RQ	23	42	1	885.19527	0.00016
RR	5	38	3	885.30077	0.01178
RR	9	29	3	885.30905	0.21693
RR	5	38	1	885.30981	0.04712
RQ	23	41	3	885.31032	0.00004
RR	9	29	1	885.31409	0.10847
RQ	23	41	1	885.31441	0.00016
RR	13	20	3	885.40477	0.10920
RR	13	20	1	885.40771	0.43680
RQ	23	40	3	885.42711	0.00006

	K	J	S	WAVE NO	INT
RQ	23	40	1	885.43107	0.00024
RQ	23	39	3	885.54131	0.00008
RQ	23	39	1	885.54514	0.00032
RR	6	36	2	885.59521	0.03560
RR	6	36	0	885.60632	0.07120
RR	10	27	2	885.63851	0.26696
RR	10	27	0	885.64406	0.06674
RQ	23	38	3	885.65304	0.00008
RQ	23	38	1	885.65674	0.00032
RR	14	18	2	885.75497	0.45040
RR	14	18	0	885.75780	0.11260
RQ	23	37	3	885.76218	0.00010
RQ	23	37	1	885.76575	0.00040
RR	2	45	2	885.83693	0.00648
RR	2	45	0	885.85963	0.00162
RQ	23	36	3	885.86873	0.00012
RQ	23	36	1	885.87218	0.00048
RR	7	34	3	885.89940	0.02550
RR	7	34	1	885.90625	0.10200
RR	1	47	3	885.91802	0.00052
RR	1	47	1	885.93484	0.00208
RQ	23	35	3	885.97270	0.00016
RR	11	25	3	885.97270	0.07862
RQ	23	35	1	885.97604	0.00064
RR	11	25	1	885.97659	0.31448
RR	3	43	3	885.99485	0.01300
RR	3	43	1	886.00738	0.00650
RQ	23	34	3	886.07408	0.00018
RQ	23	34	1	886.07731	0.00072
RR	15	16	3	886.10970	0.44760
RR	15	16	1	886.11206	0.22380
RQ	23	33	3	886.17268	0.00020
RQ	23	33	1	886.17580	0.00080
RR	8	32	2	886.21783	0.13912
RR	8	32	0	886.22585	0.03478
RR	4	41	2	886.23739	0.02288
RR	4	41	0	886.25356	0.00572
RQ	23	32	3	886.26870	0.00022
RQ	23	32	1	886.27171	0.00088
RR	12	23	2	886.31601	0.17757
RR	12	23	0	886.32005	0.35513
RQ	23	31	3	886.36203	0.00026
RQ	23	31	1	886.36494	0.00104
RQ	23	30	3	886.45258	0.00028
RQ	23	30	1	886.45539	0.00112
RR	5	39	3	886.51051	0.00928
RR	5	39	1	886.51992	0.03712
RQ	23	29	3	886.54044	0.00028
RR	9	30	3	886.54209	0.18133
RQ	23	29	1	886.54315	0.00112
RR	9	30	1	886.54733	0.09067
RQ	23	28	3	886.62562	0.00030
RQ	23	28	1	886.62824	0.00120

	K	J	S	WAVE NO	INT
RR	13	21	3	886.66387	0.09622
RR	13	21	1	886.66694	0.38488
RQ	23	27	3	886.70791	0.00028
RQ	23	27	1	886.71044	0.00112
RQ	23	26	3	886.78741	0.00026
RQ	23	26	1	886.78986	0.00104
RR	6	37	2	886.80936	0.02840
RR	6	37	0	886.82098	0.05680
RQ	23	25	3	886.86423	0.00020
RQ	23	25	1	886.86661	0.00080
RR	10	28	2	886.87724	0.22584
RR	10	28	0	886.88306	0.05646
RQ	23	24	3	886.93817	0.00012
RQ	23	24	1	886.94046	0.00048
RR	14	19	2	887.01995	0.40096
RR	14	19	0	887.02293	0.10024
RR	2	46	2	887.04388	0.00480
RR	2	46	0	887.06758	0.00120
RR	7	35	3	887.11839	0.02062
RR	7	35	1	887.12553	0.08248
RR	1	48	3	887.14276	0.00038
RR	1	48	1	887.16025	0.00152
RR	3	44	3	887.19749	0.00987
RR	3	44	1	887.21052	0.00493
RR	11	26	3	887.21712	0.06732
RR	11	26	1	887.22118	0.26928
RR	15	17	3	887.38041	0.40207
RR	15	17	1	887.38286	0.20103
RR	4	42	2	887.44103	0.01760
RR	8	33	2	887.44221	0.11408
RR	8	33	0	887.45062	0.02852
RR	4	42	0	887.45792	0.00440
RR	12	24	2	887.56622	0.15380
RR	12	24	0	887.57047	0.30760
RR	5	40	3	887.71717	0.00726
RR	5	40	1	887.72697	0.02904
RR	9	31	3	887.77185	0.15047
RR	9	31	1	887.77731	0.07523
RR	13	22	3	887.91979	0.08428
RR	13	22	1	887.92297	0.33712
RR	6	38	2	888.02042	0.02253
RR	6	38	0	888.03259	0.04507
RQ	24	43	2	888.09407	0.00003
RQ	24	43	0	888.09907	0.00007
RR	10	29	2	888.11268	0.18984
RR	10	29	0	888.11880	0.04746
RQ	24	42	2	888.21661	0.00003
RQ	24	42	0	888.22141	0.00007
RR	2	47	2	888.24878	0.00352
RR	2	47	0	888.27349	0.00088
RR	14	20	2	888.28175	0.35488
RR	14	20	0	888.28487	0.08872
RR	7	36	3	888.33421	0.01658

	K	J	S	WAVE NO	INT
RQ	24	41	2	888.33666	0.00007
RQ	24	41	0	888.34129	0.00013
RR	7	36	1	888.34164	0.06632
RR	3	45	3	888.39756	0.00740
RR	3	45	1	888.41111	0.00370
RQ	24	40	2	888.45434	0.00007
RR	11	27	3	888.45827	0.05726
RQ	24	40	0	888.45878	0.00013
RR	11	27	1	888.46249	0.22904
RQ	24	39	2	888.56932	0.00010
RQ	24	39	0	888.57359	0.00020
RR	4	43	2	888.64181	0.01344
RR	15	18	3	888.64793	0.35933
RR	15	18	1	888.65047	0.17967
RR	4	43	0	888.65945	0.00336
RR	8	34	2	888.66341	0.09288
RR	8	34	0	888.67223	0.02322
RQ	24	38	2	888.68193	0.00010
RQ	24	38	0	888.68602	0.00020
RQ	24	37	2	888.79185	0.00013
RQ	24	37	0	888.79578	0.00027
RR	12	25	2	888.81324	0.13240
RR	12	25	0	888.81771	0.26480
RQ	24	36	2	888.89919	0.00017
RQ	24	36	0	888.90295	0.00033
RR	5	41	3	888.92086	0.00564
RR	5	41	1	888.93106	0.02256
RR	9	32	3	888.99843	0.12407
RQ	24	35	2	889.00394	0.00017
RR	9	32	1	889.00412	0.06203
RQ	24	35	0	889.00755	0.00033
RR	16	16	2	889.02187	0.35072
RR	16	16	0	889.02419	0.08768
RQ	24	34	2	889.10601	0.00020
RQ	24	34	0	889.10947	0.00040
RR	13	23	3	889.17254	0.07336
RR	13	23	1	889.17584	0.29344
RQ	24	33	2	889.20549	0.00023
RQ	24	33	0	889.20881	0.00047
RR	6	39	2	889.22831	0.01773
RR	6	39	0	889.24103	0.03547
RQ	24	32	2	889.30229	0.00027
RQ	24	32	0	889.30547	0.00053
RR	10	30	2	889.34495	0.15848
RR	10	30	0	889.35137	0.03962
RQ	24	31	2	889.39631	0.00027
RQ	24	31	0	889.39935	0.00053
RR	2	48	2	889.45151	0.00256
RR	2	48	0	889.47726	0.00064
RQ	24	30	2	889.48764	0.00030
RQ	24	30	0	889.49055	0.00060
RR	14	21	2	889.54027	0.31224
RR	14	21	0	889.54356	0.07806

	K	J	S	WAVE NO	INT
RR	7	37	3	889.54694	0.01322
RR	7	37	1	889.55469	0.05288
RQ	24	29	2	889.57619	0.00030
RQ	24	29	0	889.57897	0.00060
RR	3	46	3	889.59505	0.00553
RR	3	46	1	889.60914	0.00277
RQ	24	28	2	889.66195	0.00030
RQ	24	28	0	889.66461	0.00060
RR	11	28	3	889.69613	0.04840
RR	11	28	1	889.70052	0.19360
RQ	24	27	2	889.74503	0.00027
RQ	24	27	0	889.74757	0.00053
RQ	24	26	2	889.82523	0.00023
RQ	24	26	0	889.82765	0.00047
RR	4	44	2	889.83981	0.01024
RR	4	44	0	889.85822	0.00256
RR	8	35	2	889.88135	0.07504
RR	8	35	0	889.89058	0.01876
RQ	24	25	2	889.90263	0.00013
RQ	24	25	0	889.90495	0.00027
RR	15	19	3	889.91238	0.31933
RR	15	19	1	889.91502	0.15967
RR	12	26	2	890.05688	0.11323
RR	12	26	0	890.06158	0.22647
RR	5	42	3	890.12157	0.00434
RR	5	42	1	890.13219	0.01736
RR	9	33	3	890.22183	0.10160
RR	9	33	1	890.22776	0.05080
RR	16	17	2	890.29209	0.31448
RR	16	17	0	890.29453	0.07862
RR	13	24	3	890.42210	0.06348
RR	13	24	1	890.42554	0.25392
RR	6	40	2	890.43313	0.01387
RR	6	40	0	890.44642	0.02773
RR	10	31	2	890.57394	0.13144
RR	10	31	0	890.58067	0.03286
RR	7	38	3	890.75640	0.01048
RR	7	38	1	890.76446	0.04192
RR	3	47	3	890.78998	0.00413
RR	14	22	2	890.79561	0.27312
RR	14	22	0	890.79906	0.06828
RR	3	47	1	890.80461	0.00207
RR	11	29	3	890.93081	0.04064
RR	11	29	1	890.93539	0.16256
RR	4	45	2	891.03485	0.00776
RR	4	45	0	891.05405	0.00194
RR	8	36	2	891.09600	0.06032
RR	8	36	0	891.10567	0.01508
RR	15	20	3	891.17345	0.28220
RR	15	20	1	891.17618	0.14110
RR	12	27	2	891.29735	0.09620
RR	12	27	0	891.30228	0.19240
RR	5	43	3	891.31912	0.00332

	K	J	S	WAVE NO	INT
RR	5	43	1	891.33015	0.01328
RR	9	34	3	891.44196	0.08267
RR	9	34	1	891.44813	0.04133
RQ	25	40	3	891.49409	0.00002
RQ	25	40	1	891.49776	0.00008
RR	16	18	2	891.55904	0.28056
RR	16	18	0	891.56159	0.07014
RQ	25	39	3	891.61002	0.00002
RQ	25	39	1	891.61356	0.00008
RR	6	41	2	891.63487	0.01077
RR	6	41	0	891.64876	0.02153
RR	13	25	3	891.66827	0.05456
RR	13	25	1	891.67185	0.21824
RQ	25	38	3	891.72347	0.00004
RQ	25	38	1	891.72690	0.00016
RR	10	32	2	891.79975	0.10824
RR	10	32	0	891.80682	0.02706
RQ	25	37	3	891.83434	0.00004
RQ	25	37	1	891.83765	0.00016
RQ	25	36	3	891.94251	0.00004
RQ	25	36	1	891.94572	0.00016
RR	7	39	3	891.96268	0.00826
RR	7	39	1	891.97107	0.03304
RR	3	48	3	891.98223	0.00307
RR	3	48	1	891.99744	0.00153
RR	14	23	2	892.04777	0.23744
RQ	25	35	3	892.04810	0.00006
RQ	25	35	1	892.05120	0.00024
RR	14	23	0	892.05139	0.05936
RQ	25	34	3	892.15111	0.00006
RQ	25	34	1	892.15411	0.00024
RR	11	30	3	892.16222	0.03388
RR	11	30	1	892.16698	0.13552
RR	4	46	2	892.22712	0.00576
RR	4	46	0	892.24714	0.00144
RQ	25	33	3	892.25133	0.00006
RQ	25	33	1	892.25423	0.00024
RR	8	37	2	892.30758	0.04808
RR	8	37	0	892.31769	0.01202
RQ	25	32	3	892.34896	0.00008
RQ	25	32	1	892.35177	0.00032
RR	15	21	3	892.43143	0.24800
RR	15	21	1	892.43427	0.12400
RQ	25	31	3	892.44382	0.00008
RQ	25	31	1	892.44653	0.00032
RR	5	44	3	892.51379	0.00254
RR	5	44	1	892.52526	0.01016
RR	12	28	2	892.53464	0.08123
RQ	25	30	3	892.53598	0.00008
RQ	25	30	1	892.53860	0.00032
RR	12	28	0	892.53982	0.16247
RQ	25	29	3	892.62526	0.00008
RQ	25	29	1	892.62779	0.00032

	K	J	S	WAVE NO	INT
RR	9	35	3	892.65881	0.06680
RR	9	35	1	892.66523	0.03340
RQ	25	28	3	892.71185	0.00008
RQ	25	28	1	892.71430	0.00032
RQ	25	27	3	892.79566	0.00006
RQ	25	27	1	892.79803	0.00024
RR	16	19	2	892.82289	0.24904
RR	16	19	0	892.82558	0.06226
RR	6	42	2	892.83344	0.00830
RR	6	42	0	892.84794	0.01660
RQ	25	26	3	892.87659	0.00004
RQ	25	26	1	892.87888	0.00016
RR	13	26	3	892.91127	0.04660
RR	13	26	1	892.91499	0.18640
RR	10	33	2	893.02219	0.08856
RR	10	33	0	893.02959	0.02214
RR	7	40	3	893.16579	0.00646
RR	7	40	1	893.17451	0.02584
RR	17	17	3	893.21852	0.06020
RR	17	17	1	893.22081	0.24080
RR	14	24	2	893.29655	0.20512
RR	14	24	0	893.30035	0.05128
RR	11	31	3	893.39034	0.02808
RR	11	31	1	893.39530	0.11232
RR	4	47	2	893.41652	0.00432
RR	4	47	0	893.43738	0.00108
RR	8	38	2	893.51579	0.03808
RR	8	38	0	893.52636	0.00952
RR	15	22	3	893.68603	0.21660
RR	15	22	1	893.68898	0.10830
RR	5	45	3	893.70538	0.00192
RR	5	45	1	893.71730	0.00768
RR	12	29	2	893.76855	0.06813
RR	12	29	0	893.77398	0.13627
RR	9	36	3	893.87237	0.05360
RR	9	36	1	893.87906	0.02680
RR	6	43	2	894.02885	0.00637
RR	6	43	0	894.04397	0.01273
RR	16	20	2	894.08337	0.21976
RR	16	20	0	894.08620	0.05494
RR	13	27	3	894.15099	0.03956
RR	13	27	1	894.15485	0.15824
RR	10	34	2	894.24145	0.07200
RR	10	34	0	894.24920	0.01800
RR	7	41	3	894.36572	0.00502
RR	7	41	1	894.37479	0.02008
RR	17	18	3	894.48483	0.05364
RR	17	18	1	894.48721	0.21456
RR	14	25	2	894.54214	0.17616
RR	14	25	0	894.54614	0.04404
RR	4	48	2	894.60305	0.00320
RR	11	32	3	894.61518	0.02312
RR	11	32	1	894.62035	0.09248

	K	J	S	WAVE NO	INT
RR	4	48	0	894.62477	0.00080
RR	8	39	2	894.72092	0.03000
RR	8	39	0	894.73196	0.00750
RQ	26	37	2	894.89346	0.00008
RR	5	46	3	894.89400	0.00144
RQ	26	37	0	894.89703	0.00002
RR	5	46	1	894.90638	0.00576
RR	15	23	3	894.93745	0.18807
RR	15	23	1	894.94051	0.09403
RR	12	30	2	894.99918	0.05677
RQ	26	36	2	895.00252	0.00008
RR	12	30	0	895.00488	0.11353
RQ	26	36	0	895.00594	0.00002
RR	9	37	3	895.08266	0.04273
RR	9	37	1	895.08961	0.02137
RQ	26	35	2	895.10899	0.00008
RQ	26	35	0	895.11228	0.00002
RQ	26	34	2	895.21278	0.00016
RQ	26	34	0	895.21593	0.00004
RR	6	44	2	895.22118	0.00483
RR	6	44	0	895.23695	0.00967
RQ	26	33	2	895.31389	0.00016
RQ	26	33	0	895.31691	0.00004
RR	16	21	2	895.34067	0.19280
RR	16	21	0	895.34364	0.04820
RR	13	28	3	895.38742	0.03336
RR	13	28	1	895.39144	0.13344
RQ	26	32	2	895.41232	0.00016
RQ	26	32	0	895.41521	0.00004
RR	10	35	2	895.45733	0.05816
RR	10	35	0	895.46544	0.01454
RQ	26	31	2	895.50795	0.00016
RQ	26	31	0	895.51072	0.00004
RR	7	42	3	895.56239	0.00386
RR	7	42	1	895.57181	0.01544
RQ	26	30	2	895.60080	0.00016
RQ	26	30	0	895.60345	0.00004
RQ	26	29	2	895.69097	0.00016
RQ	26	29	0	895.69350	0.00004
RR	17	19	3	895.74796	0.04752
RR	17	19	1	895.75042	0.19008
RQ	26	28	2	895.77835	0.00008
RQ	26	28	0	895.78078	0.00002
RR	14	26	2	895.78445	0.15032
RR	14	26	0	895.78866	0.03758
RR	11	33	3	895.83675	0.01890
RR	11	33	1	895.84212	0.07560
RR	8	40	2	895.92267	0.02344
RR	8	40	0	895.93420	0.00586
RR	5	47	3	896.07955	0.00108
RR	5	47	1	896.09241	0.00432
RR	15	24	3	896.18559	0.16233
RR	15	24	1	896.18876	0.08117

	K	J	S	WAVE NO	INT
RR	12	31	2	896.22653	0.04700
RR	12	31	0	896.23251	0.09400
RR	9	38	3	896.28977	0.03387
RR	9	38	1	896.29700	0.01693
RR	6	45	2	896.41033	0.00367
RR	6	45	0	896.42677	0.00733
RR	16	22	2	896.59469	0.16824
RR	16	22	0	896.59780	0.04206
RR	13	29	3	896.62057	0.02796
RR	13	29	1	896.62476	0.11184
RR	10	36	2	896.67004	0.04664
RR	10	36	0	896.67851	0.01166
RR	7	43	3	896.75597	0.00296
RR	7	43	1	896.76576	0.01184
RR	17	20	3	897.00791	0.04188
RR	17	20	1	897.01046	0.16752
RR	14	27	2	897.02349	0.12744
RR	14	27	0	897.02791	0.03186
RR	11	34	3	897.05503	0.01536
RR	11	34	1	897.06062	0.06144
RR	8	41	2	897.12115	0.01824
RR	8	41	0	897.13319	0.00456
RR	5	48	3	897.26213	0.00080
RR	5	48	1	897.27547	0.00320
RR	18	18	2	897.42839	0.08030
RR	15	25	3	897.43044	0.13920
RR	18	18	0	897.43071	0.16060
RR	15	25	1	897.43374	0.06960
RR	12	32	2	897.45061	0.03863
RR	12	32	0	897.45686	0.07727
RR	9	39	3	897.49351	0.02660
RR	9	39	1	897.50103	0.01330
RR	6	46	2	897.59641	0.00277
RR	6	46	0	897.61353	0.00553
RR	16	23	2	897.84542	0.14592
RR	16	23	0	897.84869	0.03648
RR	13	30	3	897.85034	0.02328
RR	13	30	1	897.85470	0.09312
RR	10	37	2	897.87936	0.03720
RR	10	37	0	897.88823	0.00930
RR	7	44	3	897.94617	0.00226
RR	7	44	1	897.95634	0.00904
RR	14	28	2	898.25916	0.10736
RR	14	28	0	898.26378	0.02684
RR	17	21	3	898.26448	0.03670
RR	17	21	1	898.26711	0.14680
RR	11	35	3	898.26994	0.01238
RR	11	35	1	898.27576	0.04952
RQ	27	34	3	898.28725	0.00007
RQ	27	34	1	898.29004	0.00003
RR	8	42	2	898.31646	0.01400
RR	8	42	0	898.32902	0.00350
RQ	27	33	3	898.38928	0.00007

	K	J	S	WAVE NO	INT
RQ	27	33	1	898.39198	0.00003
RQ	27	32	3	898.48854	0.00007
RQ	27	32	1	898.49115	0.00003
RQ	27	31	3	898.58511	0.00007
RQ	27	31	1	898.58764	0.00003
RR	12	33	2	898.67140	0.03157
RR	15	26	3	898.67201	0.11867
RR	15	26	1	898.67544	0.05933
RR	12	33	0	898.67795	0.06313
RQ	27	30	3	898.67889	0.00007
RQ	27	30	1	898.68134	0.00003

	K	J	S	WAVE NO	INT
RR	18	19	2	898.69093	0.07107
RR	18	19	0	898.69337	0.14213
RR	9	40	3	898.69397	0.02080
RR	9	40	1	898.70178	0.01040
RR	6	47	2	898.77933	0.00207
RR	6	47	0	898.79715	0.00413
RR	13	31	3	899.07684	0.01926
RR	13	31	1	899.08137	0.07704
RR	10	38	2	899.08531	0.02944
RR	16	24	2	899.09287	0.12576
RR	10	38	0	899.09457	0.00736

	K	J	S	WAVE NO	INT
RR	16	24	0	899.09631	0.03144
RR	7	45	3	899.13330	0.00170
RR	7	45	1	899.14386	0.00680
RR	11	36	3	899.48157	0.00994
RR	11	36	1	899.48761	0.03976
RR	14	29	2	899.49153	0.08992
RR	14	29	0	899.49638	0.02248
RR	8	43	2	899.50849	0.01072
RR	17	22	3	899.51786	0.03198
RR	17	22	1	899.52059	0.12792
RR	8	43	0	899.52158	0.00268

	K	J	S	WAVE NO	INT
RR	12	34	2	899.88872	0.02563
RR	9	41	3	899.89115	0.01613
RR	12	34	0	899.89557	0.05127
RR	9	41	1	899.89927	0.00807
RR	15	27	3	899.91020	0.10053
RR	15	27	1	899.91376	0.05027
RR	18	20	2	899.95009	0.06253
RR	18	20	0	899.95265	0.12507
RR	6	48	2	899.95908	0.00153
RR	6	48	0	899.97762	0.00307

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1. Report No.	2. Government Accession No.	3. Recipient's Catalog No.
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The 12 Micron Band of Ethane: A Spectrum Catalog from 765 cm^{-1} to 900 cm^{-1}

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7. Author(s) A.K. Atakan, W.E. Blass, J.W. Brault, S.J. Daunt, G.W. Halsey, D.E. Jennings, D.C. Reuter and J. Susskind

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Department of Physics and Astronomy
The University of Tennessee
Knoxville, Tennessee 37996-1200

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16. Abstract

This document is concerned with the high resolution laboratory absorption spectrum of the 12μm band of ethane gas. The data were obtained using the McMath Solar Telescope 1-metre Fourier Transform interferometer at Kitt Peak National Observatory and tunable diode laser spectrometers at the University of Tennessee and NASA/Goddard Space Flight Center. Over 2000 individual vibration-rotation transitions were analyzed taking into account many higher order effects including torsional splitting. Line positions were reproduced to better than 0.001 cm^{-1}. Both ground and upper state molecular constants were determined in the analysis.

Part I of this document contains a discussion of the experimental details, the analysis procedures and the results. A list of ethane transitions occurring near $^{14}CO_2$ laser lines needed for heterodyne searches for C_2H_6 in extraterrestrial sources is also included.

Part II contains a spectral catalogue of the ethane ν_9 fundamental from 765 cm^{-1} to 900 cm^{-1}. The contents include: (a) a high dispersion (1 cm^{-1}/ 12 in.) plot of both the Kitt Peak interferometric data and a simulated spectrum with Doppler-limited resolution using the model of Part I; (b) a table of over 8500 calculated transitions listed quantum number assignments, frequencies and intensities.

17. Key Words (Selected by Author(s))
Infrared Spectrum, Ethane, Molecular Spectroscopy

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