MONDAY, SEPTEMBER 5th

7:00-9:00  BREAKFAST

9:00-10:30  INVITED LECTURES

A
Chairman: J. HOUGEN

B. P. Winnewisser

A2  Various Aspects of Spectroscopy and Dynamics in the Ozone Molecule. Atmospheric Applications
J.-M. Flaud

10:30-11:00  COFFEE BREAK

11:00-12:30  ORAL SESSION

B
Chairman: T. A. MILLER

B1  Towards Spectroscopic Accuracy in Variational Ab-initio Calculations. Two-Electron Molecules
J. Rychlewski

B2  The Potential Energy Surface for the Electronic Ground State of H₂¹⁶O Determined with a New Level of Accuracy
O. L. Polyansky

B3  Complexity Classification of Effective Hamiltonians
B. Zhilinskii

B4  Fourfold Clusters of Rovibrational Energies in H₂Te Studied with an Ab Initio Potential Energy Function
P. Jensen

12:30-14:30  LUNCH
14:30-16:00  INVITED LECTURES
C
Chairman: H. MÄDER

C1  Recent Research on Isotope Effects in High Resolution NMR Spectroscopy
    W. T. Raynes

C2  Recent Applications of Millimeter-Wave and Submillimeter-Wave
    Spectroscopy
    J. Demaison

16:00-16:30  COFFEE BREAK

16:30-18:00  POSTER SESSION
D

D1  SVAP – A Powerful Tool for Visual Spectrum Analysis
    T. Lukka, O. Vaittinen

D2  GROUP-MASTER Program for Computation of Group Character Tables
    P. Soldán

D3  Computer-Based Assignment of Vibration-Rotation Spectra
    Š. Urban, J. Behrend

D4  Extended Dunham Approach to Analytic Calculation of the Rovibrational
    Energy of Diatomic Molecules
    M. Molski

D5  Soft Body Model of a Triatomic Molecules
    J. Konarski

D6  Reduced Effective Hamiltonian for Global Treatment of Rovibrational
    Energy Levels and Intensities of Nitrous Oxide
    J.-L. Teffo, V. I. Perevalov

D7  An Effective Hamiltonian for the Methanol Molecule:
    Application to the Ground State
    V. I. Starikov
D8  Local-Mode Rotational Models  
    T. Lukka

D9  Rotational Structure of Vibrational Polyads in $\text{AB}_2$ Nonlinear Molecules. Qualitative Aspects  
    H. Delbarre, B. Zhilinskii

D10  Quasibound Levels of the HD$^+$ Ion  
    T. Orlikowski

D11  An Ab Initio Calculation of the Renner Effect In $\text{CH}_2^+$  
    W. P. Kraemer, P. Jensen, M. Brumm, P. R. Bunker

D12  Prediction of Critical Phenomena and Calculation of Rotational Spectra  
    S. V. Petrov

D13  A New Semirigid Bender Analysis of the Rotation-Vibration Energy Spectrum of the HCNO Molecule  
    T. Flöck, P. Jensen

D14  A Refined Potential Energy Surface for the Electronic Ground State of the Water Molecule  
    P. Jensen, S. A. Tashkun, Vl. G. Tyuterev

D15  Using of Pade-Forms With RKR-Method for Adjusting Anharmonic Coefficients of Diatomic Molecules  
    V. F. Golovko, S. N. Mikhailenko, Vl. G. Tyuterev

D16  Ground State Energy Levels of Propyne: Standard Approach and Pade Approximant  
    Š. Urban, P. Pracna, G. Graner

D17  Analysis of Rovibrational Energy Levels of Propyne between 930 and 1200 cm$^{-1}$  
    P. Pracna, G. Graner

D18  Analysis of Experimental and Theoretical High Resolution Infrared Atmospheric Spectra  
    B. A. Fomin, A. N. Trotsenko, S. V. Romanov, Y. V. Gershanov
D19  Configurational Degeneration in the Vibration-Rotational Spectrum of a Nonrigid Molecule
     A. V. Burenin

D20  Vibrational Spin and the Treatment of a Family of Coupled Quasi-Degenerate Vibrational States of a Rigid Molecules
     A. V. Burenin

D21  Global Fit of the Ground and First Excited Torsional Transitions for Methanol
     Li-Hong Xu

D22  Towards Spectroscopic Accuracy in Variational Ab-initio Calculations. Helium Molecular Ion He$_2^+$
     W. Cencek

D23  Towards Spectroscopic Accuracy in Variational Ab-initio Calculations. Four-Electron Systems
     J. Komasa

D24  Rotational Spectrum of Hydrazine in the Submilimeter Range
     M. Kreglewski, J. Cosleou, G. Wlodarczak

D25  Numerical Solutions of the Ro-vibrational Problem for Molecular Large-Amplitude Motions
     J. Makarewicz

18:00-19:00  DINNER
TUESDAY, SEPTEMBER 6th

7:00-9:00  BREAKFAST

9:00-10:30  INVITED LECTURES

E  Chairman: M. WINNEWISSE

E1  Rotational Energy Surface of Molecules Exhibiting Internal Rotation
    J. T. Hougen

E2  The Microwave Spectrum of the Aniline-Water Van Der Waals Complex
    W. Stahl

10:30-11:00  COFFEE BREAK

11:00-12:00  ORAL SESSION

F  Chairman: J. BUFFA

F1  Precision Broadband Spectroscopy in the Terahertz Region
    M. Liddtke

F2  Broadening and Shift of H2O Spectral Lines in Visible Spectral Range
    Induced by H2, H2O, CH3-CO-CH3, and Air
    Yu. N. Ponomarev

F3  Optical-Optical Double Resonance Polarization Spectroscopy of Highly
    Excited States of 23Na39K Molecule
    S. Kasahara

12:00-13:00  LUNCH

13:00  EXCURSION TO BISKUPIN

BANQUET
WEDNESDAY, SEPTEMBER 7th

7:00-9:00  BREAKFAST

9:00-10:30  INVITED LECTURES
G
Chairman: Z. KISIEL

G1  Wavepackets and Periodic Orbits for Anharmonically Resonant Systems
M. S. Child

G2  Experimental Evidence of the Transition to Vibrational Chaos
in Polyatomic Molecules
J. P. Pique

10:30-11:00  COFFEE BREAK

11:00-12:30  ORAL SESSION
H
Chairman: A. BAUDER

H1  Millimeter-Wave Spectroscopy of Reactive Molecules in Electrical
Discharge-Study of H$_2$SiO
M. Bogey

H2  Detection and Structure of Carbon-Chain Molecules, C$_n$O $(n = 2, 4 - 9)$,
by PDN-FTMW
T. Ogata

H3  Free Jets Millimeter-Wave Spectroscopy in Bologna
W. Caminati

H4  Infrared Laser Spectroscopy of Jet-Cooled Carbon Clusters:
The Spectra of C$_{13}$ and SiC$_3$Si
T. Giesen
LUNCH

INVITED LECTURES

Chairman: A. MAKI

I1 Adiabatic Approximation and Non-Adiabatic Corrections of Very High-Orders
V. Špirko

I2 Highly Excited Vibrational States in the Spherical Top Molecules
G. Pierre

COFFEE BREAK

POSTER SESSION

J1 Absolute Intensity Measurements in the $v_7$ Band of Ethane
J. V. Auwera

J2 Infrared Spectra of CH$_3$SiF$_3$, CCl$_3$SiF$_3$ and CF$_3$SF$_5$ in Liquid Noble Gas Solutions
Sh. Sh. Nabiev

J3 The Water Vapour Lineshift Investigations in 5000-6000 cm$^{-1}$ Region
A. Bykov, N. Lavrent'eva, V. Savel'ev, L. Sinitza, A. Solodov, W. Lafferty, W. Olson

J4 H$_2$S Spectrum from 0.9 to 5 mkm
A. Bykov, O. Naumenko, M. Smirnov, L. Sinitza, L. Brown, J. Crisp, D. Crisp

J5 Relation between the Spectral Line Shift and the Line Wing
L. I. Nesmelova, O. B. Rodimova, S. D. Tvorogov

J6 FTIR-Investigation of the IR-Inactive Fundamental $v_{14}$ of 1,3,5-Triazine via Analysis of the Hot Band ($v_{12}+v_{14}$)$-v_{14}$ and the Difference Band $v_9-v_{14}$
W. Bodenmüller, A. Ruoff, G. Graner
J7  Intensity Analysis of the \( v_{11} \) Fundamental of 1,3,5-Triazine
   W. Bodenmüller, A. Ruoff, R. Anttila

J8  High-Resolution IR Study of FCl\(^{18}\)O\(_3\): Rovibrational Analysis
   of the Perpendicular \( v_5 \) Band and Hot Bands
   F. Meguellati, G. Graner

J9  High Resolution FT-IR Spectra of CH\(_2\)\(^{35}\)Cl in the Region between
   335 and 450 cm\(^{-1}\)
   I. Merke, G. Graner, S. Klee, G. Mellau

J10 CI(NO\(_2\)) (Nitryl Chloride): Analysis of the Strong Infrared Bands from
    High-Resolution Fourier-Transform Spectra
    J. Orphal, M. Morillon-Chapey, G. Guelachvilli

J11 High-Resolution Fourier-Transform Spectroscopy of Bromine Nitrate
    (BrONO\(_2\)) from 500 to 2500 cm\(^{-1}\)
    J. Orphal, M. Morillon-Chapey

J12 Laser Monitoring of Multicomponent Gas Mixtures:
    Experimental Procedure and Data Processing Algorithm
    T. B. Razumikhina

J13 Sub-Doppler Heterodyne Frequency Measurements of Calibration Gases
    with the Bonn CO Laser Sideband Spectrometer
    S. Saupe, A. G. Maki

J14 High Resolution FTIR-Spectra of the Perpendicular Bands \( v_9 \) and \( v_{10} \) of
    Trideutero-Triazine \((C_3D_3N_3)\)
    R. Ruber, H. Essig, A. Ruoff

J15 High Resolution FTIR Investigation of \( v_4 \) of Monoisotopic
    1,3,5-Trideuterobenzene
    B. Klausnitzer, J. Nürnberg, A. Ruoff

J16 OCS Sub-Doppler Heterodyne Frequency Measurements to 2900 cm\(^{-1}\)
    A. G. Maki
Program of Sessions

Wednesday, September 7th

J17 H$_2^{16}$O and H$_2^{18}$O Spectra Between 11250 and 136000 cm$^{-1}$
Second Decade of Interacting Vibration States
A. Bykov, T. Petrova, L. Sinitsa, P. Scherbakov, J. M. Flaud,
C. Camy-Peyret, J.-Y. Mandin

J18 NO$_2$ Zeeman Anticrossing Spectroscopy in High Magnetic Field
F. Bylicki, R. Jost, A. Pasinski

J19 The Rotational Spectrum of HC$^{15}$NO
M. Winnewisser, B. P. Winnewisser, W. Jabs

J20 Extended Analysis of the Infrared Spectrum of HC$^{15}$NO in the Range 170-1300 cm$^{-1}$
K. Islami, G. Wagner, M. Winnewisser, B. P. Winnewisser

J21 Elucidation of the Complete Substitution Structure of Cyanogen, NCCN,
From High-Resolution Fourier-Transform Infrared Spectra
J. Grecu, B. P. Winnewisser, M. Winnewisser

J22 A Variable Temperature 3m-Absorption Cell for Intensity Measurements

J23 The High Resolution Infrared Spectrum of BrCN in the Region 2100-2300 cm$^{-1}$
M. Winnewisser, S. Teichert

J24 Highly Excited States of Deuterated Water Vapour
A. Bykov, O. Naumenko, T. Petrova, L. N. Sinitsa, V. Serdukov,
E. Tsyganova, A. Scherbakov, M. Winnewisser, B. P. Winnewisser,
P. S. Ormsby, K. NarahariRao

J25 High Resolution FTIR-Spectrum of cis- and trans- Formic Acid in the Range of 20 to 100 cm$^{-1}$
M. Winnewisser, B. P. Winnewisser, M. Stein, M. Birk, G. Wagner

J26 Structure of cis-H$_2$S$_3$ and trans-H$_2$S$_3$
M. Liedtke
J27 Measurements of Rare SO$_2$ Isotopomers up to 1 THz the Cologne Terahertz Spectrometer
   M. Liedtke

J28 The Rotational Spectrum of HNCO in the Far Infrared
   M. Niedenhofer, G. Winnewisser, K. M. T. Yamada

J29 Measurements of Dicke Narrowing and Shift of the S$_0$(3)-Transition of H$_2$
   by a Stabilized IR-Diode Laser Spectrometer
   N. Anselm, Ch. Trojan, F. Schmülling, R. Scheider, G. Winnewisser

J30 Measurements of Lineshifts of H$_2$O with Foreign Gases O$_2$, N$_2$ and Air
   N. Schmücker

18:00-19:00  DINNER

19:00  ROUND TABLE DISCUSSION/ISORAC
THURSDAY, SEPTEMBER 8th

7:00-9:00  Breakfast

9:00-10:30  Invited Lectures

K  Chairman: W. Caminati

K1  Ionisation Spectroscopy of Molecular Clusters
    H. Jones

K2  High Sensitive Spectroscopy of Highly Excited States
    L. N. Sinitsa

10:30-11:00  Coffee Break

11:00-12:30  Poster Session

L  

L1  Influence of Line-Mixing Effect on the N2 Collision-Induced Absorption
    Bandshape
    A. A. Vigasin

L2  Study of the H2O Absorption Lines Shifts Induced by Noble Gases
    Pressure
    V. V. Lazarev

L3  Temperature Dependence of Pressure Broadened Linewidth of J = 1 – 0
    Transition of CH3CN Molecule by Foreign Gases
    S. Gierszal, J. Galica, E. Miś-Kuźmińska

L4  Collisional Broadening of the J = 1 – 0 Transition of CH3CN by
    Oxygen and Carbonyl Sulphide
    S. Gierszal, J. Galica, E. Miś-Kuźmińska

L5  Collisional Coupling Between Hyperfine Components in the Rotational
    Spectra of Dipolar Molecules
    O. Tarrini, G. Buffa
L6 Evidence For Velocity Dependence of Pressure Broadening in CH₃I

L7 Self-, Nitrogen- and Air-Broadening Coefficients of Benzene
J. Berger, Y. Heiner, H.-D. Kronfeldt, V. V. Pustogov, B. Sumpf, J. Waschull

L8 Noble-Gas-Broadening Coefficients of Absorption Lines in the ν₁ and ν₃ Band of SO₂
B. Sumpf, O. Fleischmann, J. Waschull, H.-D. Kronfeldt

L9 Self- and Air-Broadening Coefficients of Absorption Lines in the ν₁ Band of SO₂
O. Fleischmann, B. Sumpf, J. Waschull, H.-D. Kronfeldt

L10 Line-Broadening Studies of Propane and Water Rotational Lines in the K-Band
N. Nissen, Th. Köhler, H. Mäder

L11 High Resolution Infrared Collisional Cooling Spectroscopy
D. Newnham, J. Ballard

L12 Alignment Effects in Collision-Induced Fine Structure Transitions
E. Paul-Kwiek, T. Orlikowski

L13 Rotational Spectrum of Ethylidynearsine: CH₃CAs
P. Dréan, G. Wlodarczak, J. Demaison, J. C. Guillemin, L. Lasalle

L14 Experiences with a New Fourier-Transform Spectrometer in the Millimeter-Wavelength Range
J. Doose, N. Nissen, H. Mäder

L15 R-Type Bands in High-J Rotational Spectra of Asymmetric Top Molecules
Z. Kisiel, L. Pszczółkowski

L16 The Microwave Spectrum of Dimethylidifluorosilane
H. Hartwig, W. Stahl
L17 Microwave Spectrum and Structural Analysis of the Pyrrole Dimer
G. Columberg, A. Bauder

L18 Intracavity Orotron Spectroscopy in the Millimeter-Wave Region
L. A. Surin

L19 The Microwave Spectrum and Structure of CF$_3$-O-CH$_3$
D. Christen

L20 Microwave and Millimeter-Wave Spectra of Chlorofluoromethane
and Chlorodifluoromethane
J. L. Alonso, J. C. López

L21 The Rotational Spectrum and Inversion of Azetidine
J. C. López, J. L. Alonso

L22 Millimeterwave Spectra of Ozone
J. M. Colmont, J. Costéou, G. Wlodarczak, J. Demaison

L23 Tunneling Splittings in C$_2$H$_3^+$ from its Rotational Spectrum
M. Bogey

L24 Intramolecular Energy Flow and Reaction Dynamics of Vibrationally
Highly Excited NO$_2$ as Studied by LiF and PHOPEX Spectroscopy
J. Miyawaki

L25 Application of High Resolution FTIR Spectroscopy in Gas Phase Kinetics:
the Exchange Reaction Between Oxygen Atoms and Carbon Dioxide
J. Blomqvist, N. W. Larsen, F. M. Nicolaisen

L26 Line Positions and Intensities of the 2v$_1$+v$_2$+v$_3$ Band of $^{16}$O$_3$
S. Bouazza, J. J. Plateaux, A. Hamdouni, L. Regalia, A. Barbe

L27 Improvements in Heterodyne Spectrometry or Atmospheric Gases
Analysis
B. Parvitte, M. R. De Backer, S. Kalité, D. Courtois, C. Thébeaux,
A. Delahaigue
L28 New Investigations of the $A^2\Delta - X^2\Pi$ Band System in the CH Radical and New Reduction of the Vibration-Rotation Spectrum of CH from the Atmos Spectra
Z. Bembenek, J. Kędzierski, R. Kępa, A. Para, M. Rytel, M. Zachwieja

L29 Emission of CO$_2$ in Flames Temperature of the Medium
D. Bailly

L30 Measurements of the OH Radical in the Spectral Region of 80-200 cm$^{-1}$ with FTS
A. von Bargen

L31 FTS-Measurements of the HO$_2$ Radical in the Spectral Region of 30-200 cm$^{-1}$
A. von Bargen

L32 Determination of (0,6) Interaction Parameters of Symmetric Top Molecules by 2D-(RF)MWFT Spectroscopy
C. Gerke, H. Harder, H. Mäder

L33 Microwave-Studies of the Benzene-OCS van der Waals Complex
U. Dahmen, W. Stahl

12:30-14:30 LUNCH

14:30-15:15 INVITED LECTURES
M
Chairman: M. BOGEY

M1 Vibration-Rotation Spectroscopy of $^{13}$C Containing Acetylene
L. Fusina

15:15 - 16:00 ORAL SESSION
M

M2 Rotational and Vibrational Relaxation of the $v_1/2v_2$ Fermi dyad in CO$_2$ Gas From Raman-Infrared Double Resonance Experiments
G. Millot
M3 Ground State Rotational Constants and the Lowest Fundamental Bands of
Propyne-D4
R. Anttila

16:00-16:30 COFFEE BREAK

16:30-18:00 POSTER SESSION

N1 Induced Rotational Raman High-Frequency Scattering by Gaseous CF$_4$
T. Bancewicz

N2 High Resolution Stretching Overtone Spectrum of SbH$_3$
J. Lummila

N3 Fourier Transform Spectra of Overtone Bands of HCN from 4800 to
9600 cm$^{-1}$ – Some New Transitions of Bending Combination Modes
W. Quapp, A. Maki, S. Klee, G. Ch. Mellau, S. Albert

N4 High Resolution FTIR and Photoacoustic Spectra of HCCBr
O. Vaittinen, T. Lukka

N5 High Precision Ozone Parameters Deduced from High Resolution
Spectrometry in the 10 μm Region
M. R. De Backer, B. Parvitte, D. Courtios, C. Thiébeaux

N6 The Rotational Spectrum of Trifluoromethyl Isocyanate
J. Koput, W. Stahl, N. Heineking, G. Pawelke, B. Steger, D. Christen

N7 Vibration-Rotation Spectra of $^{13}$C Containing Acetylene in the
3800-6700 cm$^{-1}$ Range
G. Di Lonardo, L. Fusina, E. Venuti

N8 High Resolution Infrared Spectrum of $v_1$- and $v_2$- Bands of Methyl
Cyanide
J. Schroderus

N9 Analysis of $v_3$ and 2$ν_4$ Interacting Bands and 2$ν_3$ Band of $^{12}$CF$_4$
G. Pierre
N10  Coherent Anti-Stokes Raman Spectroscopy of Isotopic Species of Ammonia: $^{14}\text{NH}_3$, $^{15}\text{NH}_3$, and $^{14}\text{ND}_3$

N11  Rotationally Resolved UV Spectroscopy on Benzotriazole in a Molecular Beam: Evidence for 2H-Tautomer
E. Jalviste

N12  High Resolution Study of Near-Infrared Electronic Transitions of BiN
W. Żytnicki

N13  High Resolution Study of the $4\Sigma^+-X^2\Pi$ 0-0 Transition of GeCl
J. Borkowska-Burnecka, W. Żytnicki

N14  The $A^2\Sigma^+$ and $X^2\Pi$ States of the NO Molecule from the New Analysis of the $\gamma$-Band System of $^{14}\text{N}^{16}\text{O}$
J. Danielak, R. Kępka, M. Rytel, M. Zachwieja

N15  Analysis of The B-X System of The $^{12}\text{C}^1\text{H}$ and $^{13}\text{C}^1\text{H}$ Molecules
J. Kędzierski, R. Kępka, A. Para, M. Rytel, M. Zachwieja

N16  Ground State Constants $A_0$, $D_\text{K}^0$, and $H_\text{K}^0$ of $\text{H}_3\text{Si}^{79}\text{Br}$
G. Graner

N17  Synthesis and High-Resolution Infrared Spectrum of Isotopically Pure $^{35}\text{ClONO}_2$ (Chlorine Nitrate)
A. Diallo, M. Morillon-Chapey, J. Orphal

N18  Doppler-Limited Molecular Spectroscopy Using a Mid Infrared Difference Frequency Spectrometer
Gü. Basar, B. Sumpf, H.-D. Kronfeldt

N19  The Rotational Spectrum of Propynyl Isocyanide
J. Gripp, A. Guarnieri, W. Stahl

N20  High Resolution Infrared Study of The C=C=C Bending Vibration $v_{11}$ in $\text{CH}_2=^{13}\text{C}=\text{CH}_2$
F. Hegelund
N21 Tunable FIR Spectroscopy of Molecules of Atmospheric Interest: Application to H$_2$O$_2$ and HOCl
F. Cavazza, P. De Natale, L. Fusina

N22 Stark Measurement of Dipole Moments with a Tunable FIR Spectrometer
P. De Natale, G. Di Lonardo, L. Fusina

N23 The Near Infrared and Visible Absorption Spectra of CH$_4$, CHD$_3$ and CH$_3$D
A. Campargue

N24 Precise Determination of Line Parameters from FT and TDL Spectrometry. Applications to Nitrous Oxide in the 3.5 – 5 μm Region
A. Valentin, A. Henry, F. Rachet, M. Margottin-Maclou

N25 Line Mixing Studies in Q-Branches of Carbon Dioxide and Nitrous Oxide in the 3-5 μm Region
M. Margottin-Maclou, F. Rachet, C. Boulet, A. Henry, A. Valentin

N26 The 7.9 μm Band of Hydrogen Peroxide: Positions and Intensities
A. Perrin, J.-M. Flaud

N27 Vibrational and Rotational Dependence of Resonance Interactions in Nonrigid H$_2$X Molecules
V. I. Starikov, Vl. G. Tyuterev

N28 High Resolution Infrared Emission of MgNC Radical
M. Elhanine, G. Guelachvili

18:00-19:00 DINNER

20:00 POLISH DANCE THEATRE
FRIDAY, SEPTEMBER 9th

7:00-9:00  BREAKFAST

9:00-9:45  INVITED LECTURES

Chairman: R. Anttila

O1 High Sensitivity Intracavity Absorptions Spectroscopy of Jet Cooled Molecules: The Visible Spectrum of NO₂ and (O₂)₂
   R. Jost

9:45-10:30  ORAL SESSION

O2 Recent Results in the 3.2μm, 4.2μm and 6.2μm Bands of Nitrogen Dioxide
   A. Perrin

O3 Infrared High Resolution Spectra of Ozone in the 4.3 – 3.8 μm. Line Positions and Intensities of ν₁+2ν₂ and ν₃+2ν₂ 3ν₃-ν₂ and ν₁+2ν₃-ν₂ Bands
   A. Barbe

10:30-11:00  COFFEE BREAK

11:00 - 12:30  ORAL SESSION

Chairman:

P1 Determination of the Li-Ar XΣ Interaction Potential from Laserspectroscopic Data
   R. Brühl

P2 Torsional Splitting in the 2ν₉ Band of Nitric Acid
   L. H. Coudert

P3 The Stark Effect for the Water Molecule Calculated from First Principles
   M. Mengel

12:30-14:30  LUNCH