

**Invited Lectures A, Tuesday, September 7, 9:00 – 10:30**

Chairperson: K.M.T. Yamada

9:00

**A1 K. HARADA**

*MILLIMETER WAVE SPECTROSCOPY OF WEAKLY BOUND MOLECULAR COMPLEXES.*

9:45

**A2 M. A. SUHM**

*RAMAN SPECTROSCOPY IN SUPERSONIC JETS: COLD MOLECULES AND CLUSTERS.*

**Poster Session B, Tuesday, September 7, 11:00 – 12:30**

**B1 J. N. OLIAEE, F. MIVEHVAR, M. DEGHANY, N. MOAZZEN-AHMADI, A.R.W. MCKELLAR**

*STRUCTURES OF TWO ISOMERS OF NITROUS OXIDE TETRAMER FROM THEIR INFRARED SPECTRA.*

**B2 J. N. OLIAEE, M. DEGHANY, F. MIVEHVAR, N. MOAZZEN-AHMADI, A.R.W. MCKELLAR**

*INFRARED SPECTRA OF  $(CO_2)_2$ -OCS COMPLEX: INFRARED OBSERVATION OF TWO DISTINCT BARREL-SHAPED ISOMERS.*

**B3 O. PIRALI, P. ROY, J.-B. BRUBACH, M. ROUZIERES, D. BALCON, L.MANCERON AND M. VERVLOET**

*"AILES": THE IR AND FIR BEAMLINE OF SOLEIL.*

**B4 A. MOUDENS, R. GEORGES, J. MAKAREWICZ, A.I., PAVLYUCHKO, A.A. VIGASIN, M. GOUBET, T. HUET, M. CIRTOG, P. ASSELIN, P. SOULARD, O. PIRALI, P. ROY**

*FTIR ABSORPTION SPECTROSCOPY OF  $(H_2O)_m$ - $(CO_2)_n$  MOLECULAR COMPLEXES.*

**B5 J. MAKAREWICZ**

*INTERMOLECULAR POTENTIAL ENERGY SURFACE AND DYNAMICS OF THE WATER-CARBON DIOXIDE COMPLEX.*

**B6 J. KOUCKÝ, L. KOLESNIKOVÁ, Z. MELTZEROVÁ, J. VARGA, P. KANIA, Š. URBAN, H. BECKERS, H. WILLNER**

*MICROWAVE ROTATIONAL-HYPERFINE SPECTRA OF THE  $^{13}\text{C}\text{O}_2$  RADICAL ISOTOPOLOGUES.*

**B7 P. JANKOWSKI**

*SPECTROSCOPY OF THE  $\text{H}_2\text{-CO}$  VAN DER WAALS COMPLEX BASED ON THE NEW AB INITIO INTERACTION ENERGY SURFACE.*

**B8 S. V. IVANOV, O. G. BUZYKIN,**

*PRECISION CONSIDERATIONS OF CLASSICAL, SEMICLASSICAL, AND QUANTUM METHODS IN COLLISION LINE BROADENING CALCULATIONS: LINEAR MOLECULES PERTURBED BY NOBLE ATOMS.*

**B9 P. KONGOLO TSHIKALA, J.-C. POPULAIRE, M. LEPÈRE**

*COLLISIONAL BROADENING COEFFICIENTS OF LINES IN THE  $\nu_3$  BAND OF  $\text{CS}_2$  DILUTED IN RARE GASES AT LOW TEMPERATURE.*

**B10 J. KOUBEK, J.-M. HARTMANN, C. BOULET, Š. URBAN**

*COLLISION BROADENING AND LINE MIXING IN  $\text{CH}_3\text{F}$  IN THE PRESENCE OF STARK EFFECT.*

**B11 R. R. GAMACHE, J. LAMOUREUX, A. L. LARAIA, Q. MA, R. H. TIPPING**

*THE EFFECTS OF THE TRAJECTORY MODEL ON CRB CALCULATIONS OF  $\text{H}_2\text{O}$  BROADENED BY  $\text{N}_2$ ,  $\text{O}_2$  AND AIR.*

**B12 M. DHYNE, J.-C. POPULAIRE, M. LEPÈRE, P. JOUBERT**

*COLLISIONAL SHIFT AND BROADENING COEFFICIENTS OF  $\text{C}_2\text{H}_2$  DILUTED IN  $\text{Xe}$  BY DIODE-LASER SPECTROSCOPY.*

- B13 B. A. COOMBS, J. D. COOK, J.L. HARDWICK, S. M. HURLEY, P. A. KOVAC, J. K. UTTERBACK**  
*BROADENING AND SHIFT COEFFICIENTS OF THE ACETYLENE  $\nu_1 + \nu_3$  BAND PRESSURIZED BY NITROGEN AT 373 K.*
- B14 N. SANZHAROV, L. FISSIAUX, M. LEPÈRE**  
*SPEED DEPENDENCE EFFECT ON THE BROADENING COEFFICIENTS OF ACETYLENE : APPLICATION TO HOMONUCLEAR DIATOMIC MOLECULES  $H_2$ ,  $N_2$ ,  $O_2$ .*
- B15 L. FISSIAUX, G. BLANQUET, M. LEPÈRE**  
*DIODE-LASER SPECTROSCOPY: DETERMINATION OF THE  $N_2$ - BROADENING COEFFICIENTS OF LINES IN THE  $\nu_{10}$  BAND OF  $C_3H_4$ .*
- B16 R. R. GAMACHE, J. LAMOUREUX, A. L. LARAIA**  
*THE COLLISION-BROADENED LINE SHAPE OF  $CO_2$  VIA THE COMPLEX ROBERT-BONAMY METHOD: THE COMPLEXITY OF SIMPLICITY.*
- B18 T. URBANCZYK, J. KOPERSKI, M. STROJECKI**  
*INVESTIGATION OF THE  $E^3\Sigma^+(6^3S_1)$  RYDBERG ELECTRONIC ENERGY STATE IN  $CdRg$  ( $Rg=Ar,Kr,Ne$ ) COMPLEXES USING THE OPTICAL-OPTICAL DOUBLE RESONANCE.*
- B19 M. D. DE VIZIA, L. MORETTI, A. CASTRILLO, L. GIANFRANI, F. ROHART**  
*THE LINESHAPE PROBLEM IN THE NEAR-IR SPECTRUM OF THE  $H_2^{18}O$  MOLECULE AND POSSIBLE IMPLICATION TO THE SPECTROSCOPIC DETERMINATION OF THE BOLTZMANN CONSTANT.*
- B20 N. N. LAVRENTIEVA, T. P. MISHINA, L. N. SINITSA, N.A. LAVRENTIEV, J. TENNYSON**  
*WATER VAPOR LINE SELF-BROADENING CALCULATIONS WITH USE OF ACCURATE VIBRATION-ROTATION WAVE FUNCTIONS .*

- B21 S. CIVIŠ, M. FERUS, M. ZUKALOVÁ, L. KAVAN**  
*SPONTANEOUS OXYGEN ISOTOPE EXCHANGE BETWEEN CARBON DIOXIDE AND SOLID  $Ti^{18}O_2$ .*
- B22 B. OSTOJIC, P. JENSEN, P. SCHWERDTFEGER, B. ASSADOLLAHZADEH, P. R. BUNKER**  
*THE PREDICTED INFRARED SPECTRUM OF THE HYPERBERYLLIUM MOLECULE  $BeOBe$  IN ITS  $X^1\Sigma_g^+$  and  $\tilde{a}^3\Sigma_u^+$  ELECTRONIC STATES.*
- B23 S. N. YURCHENKO, G. SEIFERT, A. MARTINEZ-MESA, S. PATCHKOVSKII, T. HEINE**  
*APPLICATION OF QLDFT FOR MODELING SPECTRAL PROPERTIES OF MATRIX-ISOLATED MOLECULES AT DIFFERENT FINITE TEMPERATURES.*
- B24 J. D. TANDY, J.-G. WANG, P. F. BERNATH**  
*INVESTIGATING THE EXCITED ELECTRONIC STATES OF  $BaOH$  VIA LASER SPECTROSCOPY AND AB INITIO CALCULATION: FURTHER EVIDENCE OF PERTURBATION FROM THE  $\tilde{A}'^2A$  STATE.*
- B25 J. M. MICHAUD, T. GERSDORF, F. MERKT**  
*PULSED-FIELD-IONIZATION ZERO-KINETIC-ENERGY (PFIZEKE) PHOTOELECTRON SPECTROSCOPIC STUDY OF THE  $X^2\Pi \rightarrow X^+^1\Sigma^+$  ( $v = 1$ ) TRANSITION OF  $NO$ .*
- B26 L. PITICCO, M. SCHÄFER, F. MERKT**  
*ROTATIONALLY RESOLVED HIGH-RESOLUTION PHOTOELECTRON SPECTRA OF THE LOWEST-LYING ELECTRONIC STATES OF  $ArXe^+$ .*
- B27 L. PITICCO, M. SCHÄFER, F. MERKT**  
*ROTATIONALLY RESOLVED SPECTROSCOPY AND POTENTIAL ENERGY CURVES OF THE  $X^0+$  GROUND STATE AND EXCITED  $C1$  AND  $D^0+$  STATES OF  $ArXe$ .*
- B28 R. RAGHUNANDAN, F. J. MAZZOTTI, J. P. MAIER**  
*DETECTION OF THE  $^3\Pi - ^3\Pi$  TRANSITION OF  $C_6H^+$  IN THE GAS PHASE BY CAVITY RING DOWN SPECTROSCOPY.*

- B29** A. M. ESMAIL, R. RAGHUNANDAN, F. J. MAZZOTTI, M. TULEJ, J. P. MAIER  
 LOWEST VIBRONIC ENERGY LEVEL CHARACTERIZATION OF  $C_4H$  IN THE CLOSE-  
 LYING  $X^2 \Sigma^+$  AND  $A^2 \Pi$  STATES BY DOUBLE RESONANCE FOUR-WAVE MIXING.
- B30** V. GUPTA, R. NAGARAJAN, J. P. MAIER  
 GAS PHASE SPECTRUM OF A NEW ELECTRONIC BAND SYSTEM OF  $SiC_2$ .
- B31** A. YACHMENEV, W. THIEL, S. N. YURCHENKO, P. JENSEN  
 ACCURATE POTENTIAL ENERGY SURFACES OF  $H_2CO$  AND  $H_2CS$  IN THEIR GROUND  
 ELECTRONIC STATES
- B32** J. KOPUT, J. MAKAREWICZ  
 AB INITIO CHARACTERIZATION OF THE  $Ca-HCl$  VAN DER WAALS COMPLEX.

**Contributed Lectures C, Tuesday, September 7, 14:00-15:30**

Chairperson: P.R. Bunker

- 14:00
- C1** N. MOAZZEN-AHMADI, J. NOROOZ OLIAEE, F. MIVEHVAR, M. DEGHANY,  
 A.R.W. McKELLAR  
 HIGH RESOLUTION INFRARED SPECTRA OF CARBON DIOXIDE CLUSTERS  $(CO_2)_n$   
 IN THE RANGE  $n = 6 - 13$ .
- 14:22
- C3** P. CACCIANI, J. COSLEOU, M. KHELKHAL  
 COLLISIONAL BROADENING STUDY OF  $CH_4$  AROUND 1.47 $\mu$ m USING O-AXIS CAVITY  
 ENHANCED ABSORPTION SPECTROSCOPY.
- 14:44
- C4** S. KASSI, O. LESHCHISHINA, A. CAMPARGUE, I. E. GORDON  
 VERY HIGH SENSITIVITY CW-CRDS OF THE  $a^1 \Delta_g - X^3 \Sigma_g^- (0 - 0)$  AND  $(0 - 1)$  BANDS  
 OF OXYGEN NEAR 1.27 AND 1.58  $\mu$ m: FIRST OBSERVATION OF ELECTRIC  
 QUADRUPOLE TRANSITIONS AND OF THE HYPERFINE STRUCTURE OF THE  $^{17}O$ -  
 CONTAINING ISOTOPOLOGUES.

**Contributed Lectures D, Tuesday, September 7, 16:00-17:30**

Chairperson: L. Coudert

16:00

**D1 J. M. MICHAUD, G. GRASSI, F. MERKT**

*ROTATIONALLY RESOLVED PULSED-FIELD-IONIZATION ZERO-KINETIC-ENERGY PHOTOELECTRON SPECTRUM OF CYCLOPROPENE.*

16:22

**D2 V. I. SERDYUKOV, L. N. SINITSYA, YU. A. POPLAVSKI**

*DYNAMIC REGISTRATION OF THE ABSORPTION SPECTRA OF WATER CLUSTERS IN THE 10200 – 11000 cm<sup>-1</sup> RANGE.*

16:44

**D3 M. Yu. TRETYAKOV, A.F. KRUPNOV, D.S. MAKAROV**

*SOME CONSEQUENCES OF SUPERCRITICAL WATER SPECTROSCOPY: WATER DIMER AT EQUILIBRIUM.*

17:06

**D4 M.A. KOSHELEV, M.Yu. TRETYAKOV, E.A. SEROV, V.V. PARSHIN**

*MILLIMETERWAVE CONTINUUM ABSORPTION.*

**Invited and Contributed Lectures E, Wednesday, September 8, 9:00-10:30**

Chairperson: L.-H. Xiu

9:00

**E1 W. CAMINATI**

*ROTATIONAL SPECTROSCOPY OF HYDROGEN-BONDED MOLECULAR CLUSTERS.*

9:45

**E2 G. YANG, Y. LIU, M. LOSADA, Z. SU, H. TRAN, P. NGUYEN, Y. XU**

*SPECTROSCOPY OF CHIRAL SOLUTE-WATER INTERACTIONS: FROM THE GAS PHASE TO SOLUTION.*

10:00

**E3 C. STOEFFLER, A. AMY-KLEIN, B. DARQUIE, A. SHELKOVNIKOV, O. LOPEZ, C. DAUSSY, C. CHARDONNET, S. ZRIG, J. CRASSOUS, L. GUY, P. SOULARD, P.**

**ASSELIN, T. HUET, P. SCHWERDTFEGER, R. BAST, T. SAUE**

*PROGRESS TOWARD A FIRST OBSERVATION OF PARITY VIOLATION IN CHIRAL MOLECULES BY HIGH-RESOLUTION LASER SPECTROSCOPY.*

10:15

**E4 D. FORTHOMME, C. LINTON, D. W. TOKARYK, A. G. ADAM, A. D. GRANGER, L. E. DOWNIE, W. S. HOPKINS**

*HIGH RESOLUTION LASER SPECTROSCOPY OF SrOCH<sub>3</sub>*

**Poster Session F, Wednesday, September 8, 11:00 – 12:30**

**F1 L. S. ROTHMAN, I. E. GORDON, R. J. BARBER, J. TENNYSON, V. I. PEREVALOV, S. A. TASHKUN, A. GOLDMAN, R. G. GAMACHE, H. DOTHE**  
*HITEMP, THE HIGH-TEMPERATURE MOLECULAR SPECTROSCOPIC DATABASE.*

**F2 R. R. GAMACHE, L. S. ROTHMAN, I. E. GORDON**  
*ESTIMATING LINE SHAPE PARAMETERS FOR H<sub>2</sub>O TRANSITIONS ON THE HITEMP DATABASE.*

**F3 O. ASEEV, M. GRECHKO, T. R. RIZZO, O. V. BOYARKIN**  
*QUANTUM BEAT SPECTROSCOPY OF HIGHLY-EXCITED STATES OF WATER.*

**F4 P. CACCIANI, M. KHELKHAL, J. COSLÉOU, L. ABOUAF-MARGUIN, J.H. FILLION, X. MICHAUT, C. PARDANAUD**  
*NUCLEAR SPIN CONVERSION IN WATER: THEORETICAL CALCULATION AND FIRST EXPERIMENTAL ATTEMPT TO MEASURE ORTHO/PARA RATIO.*

**F5 K. TANAKA, M. HAYASHI, M. OHTSUKI, K. HARADA, T. TANAKA**  
*ORTHO-PARA MIXING INTERACTION AND FAST ORTHO-PARA CONVERSION RATE IN THE VINYL RADICAL.*

**F6 M.Yu. TRETYAKOV, A.F. KRUPNOV, M.A. KOSHELEV, D.S. MAKAROV, E.A. SEROV AND V.V. PARSHIN**  
*RESONATOR SPECTROMETER FOR PRECISE STUDY OF ATMOSPHERIC LINES AND*

*CONTINUUM.*

- F7 Y.G. BORKOV, S.A. TASHKUN, V.I. PEREVALOV, J.P. HOFMANN, G.CH. MELLAU**  
*HIGH TEMPERATURE EMISSION SPECTRUM OF CO<sub>2</sub> IN THE 2700-3786 cm<sup>-1</sup> RANGE.*
- F8 H. CROGMAN, B. CHOI, V. BOUDON, D. SADOVSKII**  
*ANALYSIS OF HIGHLY EXCITED VIBRATIONAL-ROTATIONAL STATES OF CO<sub>2</sub> IN TERMS OF CLASSICAL RELATIVE EQUILIBRIA.*
- F9 R. R. GAMACHE, J. LAMOUREUX, A. L. LARAIA, H. TRAN, J.-M. HARTMANN, L. S. ROTHMAN, I. E. GORDON**  
*THE 2010 VERSION OF THE CO<sub>2</sub> LINE-MIXING DATABASE AND SOFTWARE: UPDATE AND EXTENSION.*
- F10 S. ROBERT, R. DRUMMOND, A. MAHIEUX, V. WILQUET, A.C. VANDAELE, J. VANDER AUWERA, YU. BORKOV, V.I. PEREVALOV, S.A. TASHKUN, J.-L. BERTAUX**  
*NEW ABSORPTION BANDS OF CARBON DIOXIDE ISOTOPOLOGUES IN VENUS SPECTRA.*
- F11 R. KEPA, M. OSTROWSKA – KOPEĆ, I. PIOTROWSKA**  
*NEW OBSERVATIONS AND SPECTROSCOPIC STUDIES OF THE (A <sup>1</sup>Π → X <sup>1</sup>Σ<sup>+</sup>) SYSTEM BANDS IN <sup>12</sup>C<sup>16</sup>O MOLECULE.*
- F12 R. KEPA, M. OSTROWSKA – KOPEĆ, R. HAKALLA**  
*NEW RECORDINGS AND ANALYSES OF THE (A <sup>1</sup>Π → X <sup>1</sup>Σ<sup>+</sup>) SYSTEM IN <sup>13</sup>C<sup>16</sup>O ISOTOPIC MOLECULE.*
- F13 I. MORINO, Y. MIYAMOTO, T. TANAKA, M. INOUE, Y. YOSHIDA, T. YOKOTA, O. UCHINO**  
*OBSERVATIONS OF GREENHOUSE GASES WITH A FOURIER TRANSFORM SPECTROMETER ONBOARD GOSAT AND VALIDATION OF GOSAT DATA.*

- F14 A. CAMPARGUE, L. WANG, S. KASSI**  
*THE ABSORPTION SPECTRUM OF METHANE BETWEEN 1.27 AND 1.71  $\mu\text{m}$  BY HIGH SENSITIVITY CRDS AT 80 K AND 300 K: TEMPERATURE DEPENDENCE AND IMPORTANCE OF THE  $\text{CH}_3\text{D}$  CONTRIBUTION IN THE 1.58  $\mu\text{m}$  TRANSPARENCY WINDOW.*
- F15 O. M. LYULIN, S. KASSI, A. CAMPARGUE, K.SUNG, L.R. BROWN**  
*EMPIRICAL LOWER STATE ENERGIES OF  $^{13}\text{CH}_4$  TRANSITIONS AT 1.66  $\mu\text{m}$  FROM 296 AND 81 K SPECTRA.*
- F16 A.V. NIKITIN, O.M. LYULIN, S.N. MIKHAILENKO, V.I. PEREVALOV, N.N. FILIPPOV, I.M. GRIGORIEV, I. MORINO, T. YOKOTA, R. KUMAZAWA, T. WATANABE**  
*GOSAT-2009 METHANE SPECTRAL LINE LIST IN THE 5550-6236  $\text{cm}^{-1}$  RANGE.*
- F17 M. FERUS, P. KUBELÍK, S. CIVIŠ, K. KAWAGUCHI**  
*FORMATION AND DECAY OF HNC/HCN IN THE POSITIVE COLUMN DISCHARGE.*
- F18 J. SCHOSTAG, I. SOHRABNEDJAD-ESKAN, G.CH. MELLAU**  
*EFFECTIVE HERMANN-WALLIS FACTORS OF THE  $\nu_1$  HOT BANDS OF HNC AND HCN.*
- F19 P. KANIA, G. WLODARCZAK, S. BAILLEUX**  
*THE MILLIMETER-WAVE SPECTROSCOPY OF  $\text{H}^{15}\text{NC}$ ,  $\text{H}^{15}\text{N}^{13}\text{C}$ ,  $\text{D}^{15}\text{NC}$ ,  $\text{D}^{15}\text{N}^{13}\text{C}$  IN THEIR GROUND VIBRONIC STATES.*
- F20 R. BOCQUET, F. HINDLE, G. MOURET, A. CUISSET, C. YANG, S. ELIET**  
*A THZ PHOTOMIXING SYNTHESIZER BASED ON A FIBER FREQUENCY COMB DEDICATED TO HIGH RESOLUTION SPECTROSCOPY OF ATMOSPHERIC COMPOUNDS*

- F21 M. H. BERG, D. BING, A. PETRIGNANI, A. WOLF**  
*HIGH-SENSITIVITY VIBRATIONAL SPECTROSCOPY OF  $H_3^+$  IN THE VISIBLE SPECTRAL REGION.*
- F22 J. VARJU, M. HEJDUK, P. DOHNAL, T. KOTRIK, M. JILEK, R. PLASIL, J. GLOSIK**  
*APPLICATION OF NIR CW-CRDS FOR STUDY OF PARA - $H_3^+$  AND ORTHO - $H_3^+$  KINETICS IN HYDROGEN PLASM.*
- F23 M. SCHÄFER, D. SPRECHER, J. LIU, M. RAUNHARDT, F. MERKT**  
*HIGH-RESOLUTION SPECTROSCOPY OF  $np$  RYDBERG STATES OF  $He_2$ : ROTATIONAL AUTOIONISATION DYNAMICS AND ACCURATE DETERMINATION OF THE IONISATION ENERGY OF THE METASTABLE  $He_2^*$ .*
- F24 W. SZAJNA, M. ZACHWIEJA, R. HAKALLA, R. KĘPA**  
*CHARACTERISTICS OF THE  $C^1\Sigma^+$ ,  $A^1\Pi$  AND  $X^1\Sigma^+$  STATES OF  $AlH$ .*
- F25 W. SZAJNA, M. ZACHWIEJA, R. HAKALLA, R. KĘPA**  
*EMISSION SPECTROSCOPY OF THE  $A^2\Pi - X^2\Sigma^+$  SYSTEM OF  $AlH^+$ .*
- F26 O. LESHCHISHINA, S. KASSI, A. CAMPARGUE, I. E. GORDON, L. S. ROTHMAN**  
*THE  $a^1\Delta_g - X^3\Sigma_g^-$  BAND OF SIX ISOTOPOLOGUES OF OXYGEN NEAR  $1.27\ \mu m$ .*
- F27 S. N. YURCHENKO, B. OSTOJIC, P. JENSEN, P. R. BUNKER**  
*THE PREDISSOCIATION OF THE  $d^1A^2$  - STATE OF METHYLENE: A COMBINED AB INITIO (MRCI) AND VARIATIONAL (TROVE) STUDY.*
- F28 M. ARAKI, M. MIZUMURA, H. YAMABE, K. TSUKIYAMA**  
*DEVELOPMENT OF A DISCHARGE-EMISSION SPECTROMETER SYSTEM HAVING A HOLLOW-CATHODE DISCHARGE EQUIPMENT.*
- F29 D. FORTHOMME, C. LINTON, D. W. TOKARYK, A .G. ADAM, A. D. GRANGER**

*HIGH RESOLUTION LASER SPECTROSCOPY OF Mg<sup>12</sup>C<sup>12</sup>CD, Mg<sup>13</sup>C<sup>13</sup>CH and Mg<sup>12</sup>C<sub>4</sub>H.*

**F30 N. SANZHAROV, G. BLANQUET, M. LEPÈRE**

*ABSOLUTE LINE INTENSITIES IN THE  $\nu_7$  BAND OF PROPYNE.*

**F32 N. TASINATO, P. STOPPA, A. PIETROPOLLI CHARMET, S. GIORGIANNI, G. BUFFA, A. GAMBI**

*THE VINYL FLUORIDE INFRARED SPECTRUM IN THE ATMOSPHERIC WINDOW REGION AROUND 8.7  $\mu\text{m}$ .*

**F34 S. KASSI, A. BARBE, M.-R. DE BECKER-BARILLY, V.G. TUYTEREV, A. CAMPARGUE**

*DETECTION AND ANALYSIS OF THE FIVE MOST EXCITED BANDS OF OZONE IN ITS ELECTRONIC GROUND STATE.*

**Invited and Contributed Lectures G, Wednesday, September 8, 14:00-15:30**

Chairperson: C. Puzzarini

14:00

**G1 P. H. VACCARO**

*NONLINEAR OPTICAL SPECTROSCOPY OF "POTENTIALLY FRUSTRATED" PROTON-TRANSFER DYNAMICS.*

14:45

**G2 O. VOTAVA, M. MAŠÁT, P. PRACNA, A. CAMPARGUE, S. KASSI**

*EMPIRICAL LOWER STATE ASSIGNMENTS FROM TEMPERATURE DEPENDENT SPECTRA: ROTATIONAL ASSIGNMENTS OF METHANE TRANSITIONS NEAR 1.38  $\mu\text{m}$ .*

15:00

**G3 G.CH. MELLAU**

*COMPLETE EXPERIMENTAL ROVIBRATIONAL EIGENENERGIES OF THE [H,C,N] MOLECULAR SYSTEM UP TO 9000  $\text{cm}^{-1}$  ABOVE THE GROUND STATE.*

15:15

**G4 A. MAKI, A. WEBER, J. W. NIBLER, T. MASIELLO, T. A. BLAKE, R. KIRKPATRICK**

*HIGH RESOLUTION INFRARED SPECTROSCOPY OF [1.1.1]PROPELLANE: THE REGION OF THE  $\nu_9$  ( $e'$ ) BAND*

**Invited and Contributed Lectures H, Wednesday, September 8, 16:00-17:30**

Chairperson: J.-U. Grabow

16:00

**H1 J. GAUSS**

*INTERPLAY OF THEORY AND EXPERIMENT IN ROTATIONAL SPECTROSCOPY*

16:45

**H2 C. PUZZARINI, G. CAZZOLI, S. STOPKOWICZ, J. GAUSS**

*INVESTIGATION OF ROTATIONAL SPECTRA OF ISOTOPIC SPECIES OF TRANS-FORMIC ACID: A TEST CASE FOR THE INTERPLAY BETWEEN EXPERIMENT AND THEORY.*

17:00

**H3 M. BORKOWSKI, R. CIURYLO, P. S. JULIENNE, S. TOJO, K. ENOMOTO, Y. TAKAHASHI**

*ISOTOPIC EFFECTS IN PHOTOASSOCIATIVE FORMATION OF ULTRACOLD YTTERBIUM MOLECULES IN EXCITED TRIPLET STATE*

17:15

**H4 A. MOUDENS, R. GEORGES, B. AMYAY, M. HERMAN, A. FAYT, B. PLEZ**

*RADIATIVE MODEL FOR EMISSION SPECTROSCOPY FROM OPTICALLY THICK LABORATORY ACETYLENE SAMPLES AT HIGH TEMPERATURE.*

**Invited and Contributed Lectures I, Thursday, September 9, 9:00-10:30**

Chairperson: Z. Kisiel

9:00

**I1 B. H. PATE**

*THE DEVELOPMENT OF BROADBAND FOURIER TRANSFORM MICROWAVE SPECTROSCOPY TO OBSERVE MOTIONAL EFFECTS IN ROTATIONAL SPECTROSCOPY*

9:45

- I2** **A. FOLTYNOWICZ, P. MASŁOWSKI, F. ADLER, K. C. COSSEL, T. C. BRILES, J. YE.**  
*APPLICATIONS OF CAVITY-ENHANCED DIRECT FREQUENCY COMB SPECTROSCOPY*  
10:00
- I3** **P. MASŁOWSKI, A. FOLTYNOWICZ, F. ADLER, K. C. COSSEL, T. C. BRILES, J. YE**  
*BROADBAND DIRECT FREQUENCY COMB SPECTROSCOPY OF MOLECULES IN THE MID-IR*  
10:15
- I4** **L. GIANFRANI, E. FASCI, A. CASTRILLO, G. CASA, A. GAMBETTA, M. MARANGONI, G. GALZERANO, P. LAPORTA**  
*FREQUENCY-COMB ASSISTED SPECTROSCOPIC INVESTIGATION OF H<sub>2</sub><sup>18</sup>O AND H<sub>2</sub><sup>17</sup>O MOLECULES BETWEEN 1.38 AND 1.42 μm*

**Poster Session J, Thursday, September 9, 11:00 – 12:30**

- J1** **R. A. MOTIYENKO, L. MARGULÈS, E. A. ALEKSEEV**  
*RECENT DEVELOPMENTS OF SUB-MM WAVE SPECTROMETER IN LILLE.*
- J2** **M.Yu. TRETYAKOV, A.P. SHKAEV, A.M. KISELYEV, S.B. BODROV, A.V. ANDRIANOV, D.S. MAKAROV**  
*SUBTERAHERTZ SOURCE WITH SUPER CLEAN SPECTRUM: NEW POSSIBILITY FOR SUB-DOPPLER SPECTROSCOPY.*
- J3** **A. CYGAN, D. LISAK, P. MASŁOWSKI, K. BIELSKA, S. WÓJTEWICZ, J. DOMYŚLAWSKA, R. S. TRAWIŃSKI, R. CIURYŁO, J. T. HODGES**  
*POUND-DREVER-HALL-LOCKED FREQUENCY STABILIZED CAVITY RING-DOWN SPECTROMETER.*
- J4** **D. LISAK, P. MASŁOWSKI, A. CYGAN, K. BIELSKA, S. WÓJTEWICZ, M. PIWIŃSKI, R. S. TRAWIŃSKI, R. CIURYŁO, J. T. HODGES**  
*HIGH-RESOLUTION FREQUENCY-STABILIZED CAVITY RINGDOWN SPECTROSCOPY OF THE OXYGEN B-BAND TRANSITIONS AT LOW PRESSURES.*

- J5 J. S. GUSS, H. VERBRAAK, H. LINNARTZ**  
*MID INFRARED CW CAVITY RING DOWN SPECTROSCOPY OF MOLECULAR IONS USING AN OPTICAL PARAMETRIC OSCILLATOR.*
- J6 M. SILTANEN, M. VAINIO, L. HALONEN**  
*CONTINUOUS-WAVE MID-INFRARED OPTICAL PARAMETRIC OSCILLATOR WITH EXTENSIVE PUMP TUNING.*
- J7 C. STOEFFLER, B. DARQUIÉ, A. SHELKOVNIKOV, C. DAUSSY, O. LOPEZ, C. CHARDONNET, A. AMY-KLEIN,**  
*ULTRA HIGH RESOLUTION SPECTROSCOPY OF METHYLTRIOXORHENIUM TOWARDS THE OBSERVATION OF PARITY NON CONSERVATION IN CHIRAL MOLECULES.*
- J8 J. THOMAS, F. X. SUNAHORI, N. BORHO, Y. XU**  
*FTMW STUDY OF THE CHIRALITY RECOGNITION BETWEEN TWO DIFFERENT CHIRAL MOLECULES: THE GLYCIDOLPROPYLENE OXIDE COMPLEX.*
- J9 F. X. SUNAHORI, E. N. KITOVA, J. S. KLASSEN, Y. XU, G. YANG**  
*STUDY OF CHIRAL RECOGNITION IN THE PROTONATED SERINE DIMER AND OCTAMER USING INFRARED MULTIPHOTON DISSOCIATION SPECTROSCOPY AND AB INITIO METHODS.*
- J10 Z. KISIEL, E. BIAŁKOWSKA-JAWORSKA, L. PSZCZÓŁKOWSKI, J.-C. GUILLEMIN**  
*ROTATIONAL SPECTRUM OF GLYCINE AMIDE.*
- J11 A. KRAŚNICKI, Z. KISIEL, B. J. DROUIN, J. C. PEARSON**  
*TERAHERTZ SPECTROSCOPY OF ISOTOPIC SPECIES OF ACRYLONITRILE.*
- J12 M. SALDYKA**  
*ISOMERICAL AND STRUCTURAL DETERMINATION OF N-HYDROXYUREA. MATRIX*

*ISOLATION AND THEORETICAL STUDY.*

- J13 G. BALLANO, A. I. JIMÉNEZ, C. CATIVIELA, C. CABEZAS, S. MATA, M. VARELA, M. ÁNGELES LOZOYA, J. C. LÓPEZ, J. L. ALONSO**  
*IDENTIFICATION OF THE C7 AND C5 PEPTIDE CONFORMATIONS IN ALANINE AND PROLINE DERIVATIVES.*
- J14 O. PIRALI, D. BALCON, M. VERVLOET, V. BOUDON, J. OOMENS**  
*INFRARED SPECTROSCOPY OF SMALL DIAMONDOIDS. ANALYSIS OF THE HIGH RESOLUTION SPECTRUM OF ADAMANTANE C<sub>10</sub>H<sub>16</sub>.*
- J15 J. T. HOUGEN**  
*APPROXIMATE THEORETICAL MODEL FOR THE FIVE ELECTRONIC STATES ARISING FROM THE 3d<sup>9</sup> CONFIGURATION IN NICKEL HALIDES AND FOR ROTATIONAL LEVELS OF THE  $\Omega = 1/2$  STATES.*
- J16 W. JASTRZEBSKI, A. GROCHOLA, P. KOWALCZYK**  
*HIGHLY EXCITED <sup>1</sup> $\Pi_u$  ELECTRONIC STATES IN <sup>7</sup>Li<sub>2</sub>.*
- J17 A. GROCHOLA, P. KOWALCZYK, W. JASTRZEBSKI**  
*THE b <sup>3</sup> $\Pi$  ( $\Omega = 1$ ) STATE OF NaCs STUDIED BY POLARISATION LABELLING SPECTROSCOPY.*
- J18 H. KNÖCKEL, S. RÜHMANN, E. TIEMANN,**  
*UV FOURIER TRANSFORM ABSORPTION SPECTROSCOPY OF THE A <sup>1</sup> $\Sigma_u^+$  – X <sup>1</sup> $\Sigma_g^+$  SYSTEM OF Mg<sub>2</sub>.*
- J19 M. ZACHWIEJA, R. KĘPA, R. HAKALLA, W. SZAJNA**  
*THE EMISSION SPECTRUM OF THE A <sup>2</sup> $\Delta$  – X <sup>2</sup> $\Pi$  AND SYSTEM OF CD RADICAL.*
- J20 D. A. DEWALD, J.-U. GRABOW**

*NUCLEAR QUADRUPOLE COUPLING IN HAFNIUM CHALCOGENIDES.*

- J21 S. CIVIŠ, I. MATULKOVÁ, J. CIHELKA, P. KUBELIK, V. E. CHERNOV**  
*TIME-RESOLVED FTIR EMISSION SPECTROSCOPY OF Cu, Ag AND Au IN THE 1300 - 4000 cm<sup>-1</sup> REGION: TRANSITIONS INVOLVING f AND g STATES AND OSCILLATOR STRENGTHS.*
- J23 B. L. BRINICH, J. D. HACKLEY, J. L. HARDWICK, M. K. HUMPHREY, Z. R. JONES, J. LARA, N. R. LINDQUIST, D. P. MEYERS, M. J. MILLER, B. V. SILVER, M. R. WETHERELL**  
*DIODE LASER SPECTROSCOPY OF THE SECOND OVERTONE BAND OF HYDROGEN IODIDE.*
- J24 C. PUZZARINI, J. GAUSS**  
*BENCHMARKING QUANTUM CHEMISTRY WITH ROTATIONAL SPECTROSCOPY OR BENCHMARKING ROTATIONAL SPECTROSCOPY WITH QUANTUM CHEMISTRY?*
- J25 S. N. YURCHENKO, V. G. SOLOMONIK, A. N. SMIRNOV, O. A. VASILIEV, A. YACHMENEV**  
*A LOW TEMPERATURE ABSORPTION SPECTRUM OF LaF<sub>3</sub> FROM FIRST PRINCIPLES.*
- J26 V. G. SOLOMONIK, A. A. MUKHANOV**  
*INFRARED AND RAMAN SPECTRA OF MnF<sub>3</sub>: AN AB INITIO STUDY.*
- J27 O. ÁLVAREZ-BAJO, M. CARVAJAL, F. PÉREZ-BERNAL, R. LEMUS**  
*GLOBAL RO-VIBRATIONAL ANALYSIS OF HYDROGEN SELENIDE (H<sub>2</sub><sup>80</sup>S<sub>e</sub>) BASED ON ANHARMONIC OPERATORS.*
- J28 J. STANEK**  
*ROVIBRATIONAL STATES OF THE KRATZER OSCILLATOR IN THE QUANTUM PHASE SPACE REPRESENTATION.*

**J29 M. SELG**

*NONADIABATIC POTENTIAL FOR THE HYDROGEN MOLECULE IN GROUND ELECTRONIC STATE.*

**J30 D.S. MAKAROV, M.Yu. TRETAKOV, P.W. ROSENKRANZ**

*60-GHz OXYGEN BAND: TO THE EXTENSION OF THE MIXING MODEL.*

**J31 R. SOKHOYAN, A. ISHKHANYAN, C. LEROY, H.-R. JAUSLIN**

*FROM ATOMIC TO MOLECULAR BOSE-EINSTEIN CONDENSATES: A PHYSICALLY REALIZABLE TERM-CROSSING MODEL FOR COLD ATOM ASSOCIATION.*

**Invited and Contributed Lectures K, Friday, September 10, 9:00-10:30**

Chairperson: A.R. McKellar

9:00

**K1 L.-H. XU**

*HIGH-RESOLUTION SPECTROSCOPY OF MOLECULES WITH LARGE AMPLITUDE VIBRATIONS - PROGRESS AND CHALLENGES.*

9:45

**K2 L. H. COUDERT, A. EL HILALI, L. MARGULÈS, R. MOTIYENKO, S. KLEE**

*TORSION AND OVERALL ROTATION INTERACTION IN CH<sub>2</sub>DOH.*

10:00

**K3 S.N. YURCHENKO, R.J. BARBER, J. TENNYSON, P. JENSEN, A. YACHMENEV**

*A VARIATIONALLY COMPUTED HOT (UP TO T=1500 K) LINE LIST FOR NH<sub>3</sub>.*

10:15

**K4 M. TRIKI, C. LEMARCHAND, B. DARQUIE, A. AMY-KLEIN, C. CHARDONNET, C.J. BORDE C. DAUSSY, S. BRIAUDEAU**

*HIGH RESOLUTION SPECTROSCOPY OF <sup>14</sup>NH<sub>3</sub> AROUND 1000 cm<sup>-1</sup> DEDICATED TO THE DETERMINATION OF THE BOLTZMANN CONSTANT*

**Poster Session L, Friday, September 10, 11:00 – 12:30**

- L1** T. HIRANO, U. NAGASHIMA, V. DERPMANN, P. JENSEN  
*LINEAR OR QUASI-LINEAR - THAT IS THE QUESTION.*
- L2** W. ŁODYGA, M. KRĘGLEWSKI, P. PRACNA, Š. URBAN  
*LWW (LOOMIS-WOOD FOR WINDOWS) PROGRAM PACKAGE FOR INTERACTIVE ASSIGNING OF VIBRATION-ROTATION SPECTRA.*
- L3** I. GULACZYK, M. KRĘGLEWSKI, W. ŁODYGA, V.-M. HORNEMAN  
*THE C-N STRETCHING BAND OF METHYLAMINE.*
- L4** F. X. SUNAHORI, N. BORHO, Y. XU  
*THE HIGH RESOLUTION SPECTRUM OF JET-COOLED METHYL ACETATE IN THE C=O STRETCH REGION.*
- L5** M. TUDORIE, I. KLEINER, J. T. HOUGEN, S. MELANDRI, W. STAHL, L. SUTIKDJA  
*NEW MICROWAVE SPECTRUM AND GLOBAL FIT OF METHYL ACETATE GROUND STATE.*
- L6** L. MARGULÈS, R. MOTIYENKO, T.R. HUET, J. DEMAISON, I. KLEINER, H. MØLLENDAL, J.-C. GUILLEMIN, M. CARVAJAL  
*RECENT ADVANCES IN THE SUBMILLIMETER-WAVE SPECTRUM OF METHYL FORMATE ISOTOPOLOGUES.*
- L7** M. TUDORIE, I. KLEINER, M. JAHN, J.-U. GRABOW, M. GOUBET  
*ROTATIONAL SPECTRUM AND LARGE AMPLITUDE MOTIONS OF 3,4-DIMETHYLBENZALDEHYDE.*
- L8** Z. MELTZEROVÁ, P. KANIA, Š. URBAN, P. PRACNA, J. URBAN, V.-M. HORNEMAN,  
*ANHARMONIC RESONANCES AMONG LOW-LYING VIBRATIONAL LEVELS OF METHYL ISOCYANIDE (H<sub>3</sub>CNC).*

- L9** A. CUISSET, I. SMIRNOVA, R. BOCQUET, F. HINDLE, G. MOURET, D. A. SADOVSKII, O. PIRALI, P. ROY  
*FAR INFRARED HIGH RESOLUTION ROVIBRATIONAL SPECTROSCOPY OF DIMETHYLSULFOXYDE.*
- L10** C. CABEZAS, S. MATA, J. C. LÓPEZ, J. L. ALONSO  
*TWO CONFORMERS OF ACETYL SALICYLIC ACID IN THE GAS PHASE.*
- L11** N. KUZE, E. SATO, T. SAKAIZUMI  
*ROTATIONAL SPECTRUM, POTENTIAL FUNCTION OF RING PUCKERING, MOLECULAR STRUCTURE, AND QUANTUM CHEMICAL CALCULATION OF CYCLOBUTANONE OXIME AND ITS PYROLYSIS MECHANISM.*
- L12** L. PSZCZÓŁKOWSKI, E. BIAŁKOWSKA-JAWORSKA, Z. KISIEL  
*DETAILED ANALYSIS OF THE ROTATIONAL SPECTRUM OF 2,2-DICHLOROPROPANE.*
- L13** K.S. EXNER, G.CH. MELLAU  
*VISUALIZATION OF THE ASYMMETRIC INFINITE SQUARE DOUBLE WELL ENERGY EIGENSTATES.*
- L14** L. NOVÁ - STRÍTESKÁ, P. JENSEN  
*CALCULATIONS OF ROVIBRONIC ENERGY LEVELS FOR NO<sub>2</sub>.*
- L15** S. N. YURCHENKO, R. J. BARBER, J. TENNYSON, P. JENSEN, A. YACHMENEV, W. THIEL  
*A NEW 'SPECTROSCOPIC' POTENTIAL ENERGY SURFACE OF NH<sub>3</sub>.*
- L16** O. PIRALI, M.-A. MARTIN, M. VERVLOET, D. BALCON, S. YU, J. PEARSON, B. DROUIN, K. SUNG, C. P. ENDRES, T. SHIRAISHI, K. KOBAYASHI, F. MATSUSHIMA

*SUBMILLIMETER WAVE AND FAR-INFRARED SPECTROSCOPY OF HIGH-J TRANSITIONS OF THE GROUND AND  $v_2=1$  STATES OF  $\text{NH}_3$ .*

**L17 T. UHLÍKOVÁ, Š. URBAN**

*THEORETICAL INSIGHT INTO THE  $\text{FSO}_3$  RADICAL VIBRONIC LEVEL STRUCTURE.*

**L18 L. KOLESNIKOVÁ, J. VARGA, J. KOUCKÝ, Z. MELTZEROVÁ, Š. URBAN, H. BECKERS, H. WILLNER**

*$A_1$ -  $A_2$  SPLITTING IN THE ROTATIONAL SPECTRA OF THE  $\text{FSO}_3$  RADICAL.*

**L19 A. SKALOZUB**

*A NEW APPROACH TO THE HECHT HAMILTONIAN.*

**L20 O. N. ULENIKOV, E. S. BEKHTEREVA, C. LEROY, A. L. FOMCHENKO, N. I. RASPOPOVA**

*ON THE "EXPANDED" LOCAL MODE APPROACH AND ISOTOPIC EFFECT ( $\text{CH}_2\text{D}_2/\text{CH}_3\text{D}/\text{CHD}_3$ ) IN THE METHANE MOLECULE.*

**L21 O. N. ULENIKOV, O. V. GROMOVA, E. S. BEKHTEREVA, C. LEROY, I. B. BOLOTOVA, A. V. GORBACH, V.-M. HORNEMAN, S. ALANKO**

*HIGH RESOLUTION STUDY OF THE  $v_1+2v_2 - v_2$  and  $2v_2+ v_3 - v_2$  "HOT" BANDS AND RO-VIBRATIONAL RE-ANALYSIS OF THE  $v_1 + v_2/ v_2 + v_3/ 3v_2$  POLYAD OF THE  $\text{SO}_2$  MOLECULE.*

**L22 P. KANIA, J. ŠŤOVÍČEK, Š. URBAN, H. OZEKI, S. BAILLEUX**

*ROTATIONAL SPECTRUM AND NUCLEAR QUADRUPOLE COUPLING TENSOR OF  $\text{CH}_2\text{Cl}_2$ .*

**L23 J. VARGA, L. NOVÀ-STŘÍTESKÁ, J. KOUBEK, L. KOLESNIKOVÁ, P. KANIA, Š. URBAN,**

*PRECISE GROUND STATE MOLECULAR PARAMETERS OF METHYL BROMIDE.*

- L24 A. BALDACCI, R. VISINONI, R. WUGT LARSEN**  
*HIGH RESOLUTION INFRARED SPECTRUM OF CH<sub>2</sub>D<sup>79</sup>Br: THE  $\nu_6=1,2$ ,  $\nu_5= \nu_6=1$  AND  $\nu_6=\nu_9=1$  STATE CONSTANTS.*
- L25 A. CEAUSU-VELCESCU, P. PRACNA, A. PREDOI-CROSS**  
*RECENT DEVELOPMENTS IN THE HIGH-RESOLUTION STUDY OF THE ROVIBRATIONAL SPECTRUM OF DCF<sub>3</sub> IN THE 1000 cm<sup>-1</sup> REGION.*
- L26 N. R. WALKER, S. L. STEPHENS**  
*DETERMINATION OF NUCLEAR SPIN-ROTATION COUPLING CONSTANTS IN CF<sub>3</sub>I BY CHIRPED-PULSE FOURIERTRANSFORM MICROWAVE SPECTROSCOPY.*
- L27 P. STOPPA, A. PIETROPOLLI CHARMET, N. TASINATO, A. BALDACCI, A. BALDAN, S. GIORGIANNI, G. CAZZOLI, C. PUZZARINI, R. WUGT LARSEN, S. STOPKOWICZ, J. GAUSS**  
*MICROWAVE AND HIGH-RESOLUTION INFRARED STUDIES OF CHBrF<sub>2</sub>: THE GROUND AND  $\nu_4 = 1$  STATES.*
- L28 C. PUZZARINI, G. CAZZOLI, J. C. LÓPEZ, J. L. ALONSO, A. BALDACCI, A. BALDAN, S. STOPKOWICZ, J. GAUSS**  
*ROTATIONAL, HYPERFINE AND MOLECULAR PARAMETERS OF FLUOROIODOMETHANE: MICROWAVE FOURIER-TRANSFORM SPECTROSCOPY, LAMB-DIP MEASUREMENTS AND QUANTUMCHEMICAL CALCULATIONS.*
- L29 M.-A. MARTIN, O. PIRALI, D. BALCON, M. VERVLOET, L.H. COUDERT**  
*HIGH-RESOLUTION FAR-INFRARED EMISSION SPECTROSCOPY OF ROVIBRATIONALLY EXCITED GAS PHASE H<sub>2</sub>O MOLECULE AND NH<sub>2</sub> RADICAL.*
- L30 N. M. TONGE, N. BHALLA, L. VARRIALE, A. M. ELLIS**  
*NEAR INFRARED SPECTROSCOPY OF LiNH<sub>3</sub>.*
- L31 M. FUKUSHIMA, T. ISHIWATA**  
*HOT BANDS OF THE SiCN A<sup>2</sup>Δ - ~X<sup>2</sup>Π SYSTEM.*

**Invited and Contributed Lectures M, Saturday, September 11, 9:00-10:30**

Chairperson: P. Jensen

9:00

**M1 D. J. NESBITT**

*FROM COMBUSTION RADICALS TO STATE-RESOLVED DYNAMICS AT THE GAS-LIQUID INTERFACE: INSIGHTS FROM HIGH-RESOLUTION LASER SPECTROSCOPY.*

9:45

**M2 A.R.W. McKELLAR, A. MIZOGUCHI, H. KANAMORI**

*HIGH RESOLUTION QUANTUM CASCADE LASER STUDIES OF THE  $\nu_3$  BAND OF METHYL FLUORIDE IN SOLID PARAHYDROGEN.*

10:00

**M3 R. J. HINDE**

*DOPANT-INDUCED INFRARED ABSORPTION FEATURES IN Cl- DOPED SOLID HYDROGEN.*

10:15

**M4 N.M. TONGE, L. VARRIALE, N. BHALLA, A. M. ELLIS**

*ELECTRONIC SPECTROSCOPY OF  $Li(NH_3)_4$*

**Invited Lectures N, Saturday, September 11, 11:00-12:30**

Chairperson: J.T. Hougen

11:00

**N1 B. J. DROUIN**

*THz SPECTROSCOPY FOR SPACE APPLICATIONS.*

11:45

**N2 D. McNAUGHTON**

*HIGH RESOLUTION SPECTROSCOPY OF "INTERSTELLAR SPECIES" - FROM THE MICROWAVE TO THE FAR INFRARED.*