

Saturday PM

CSC2000

Glen 1-4

Opening Plenary

Organizer - CIC/CSC
Chair - C. H. Langford

19:30 Introductory Remarks

19:40 0001 *The Age of Chemical Nanosystems* Stoddart J.F.

20:40 End of Session

Sunday AM

Award Lectures

MacLeod D

Montreal Medal

Organizer - CIC/CSC
Chair - C. H. Langford

11:00 Introductory Remarks

11:10 0002 *Chemistry, Prospect and Retrospect: Musings of a Coordination Chemist* McAuley A.

12:00 End of Session

Analytical Chemistry

AN1 Glen 2

Separation Science

Organizer - C. A. Lucy
Chair - C. Lucy

08:25 Introductory Remarks

08:30 0003 *High Temperature Ultra Fast Liquid Chromatography and Thermally Tuned Tandem Column (T3C) Chromatography: Novel Applications for Stable Stationary Phases.* Carr P.W., Mao Y., Yan B.

09:10 0004 *Eluent Strength versus Solvent Strength in Liquid Chromatography on a C₁₈ Bonded Phase.* Cantwell F.F., Feltsyn N.

09:40 Coffee Break

10:00 0005 *Liquid Chromatography with Hydride Generation Atomic Fluorescence for Speciation Analysis* Le X.C., Ma M., Lu X., Gong Z., Murphy P.

10:30 0006 *LC-NMR Studies on the Glutathione Adduct of Verlukast (MK-0679)* Nicoll-Griffith D., Trimble L.

10:50 End of Session

AN2 Glen 3

Electrochemical Solutions to Fundamental and Applied Problems (joint with PH1)

Organizer - V. I. Birss
Chair - J. Lipkowski & D. Irish

Bioelectrochemistry

08:30 Introductory Remarks

08:40 0007 *Comparative study of DOPC lipid adsorption onto Hg: monolayer and liposome adsorption* Stauffer V., Bizzotto D., Stoodley R.

09:00 0008 *Proteins on Surfaces: Solving Foul Play* Roscoe S.G.

09:30 0009 *Controlling Protein Adsorption at Carbon Surfaces via Electrochemical Modification.* Kariuki J.K., McDermott M.T.

09:50 Coffee Break

10:10 0010 *Factor-Based and Neural Network Analysis of Voltammetric Scans for the Quantitation of Glucose, Ethanol and Pyruvate in Untreated Beer Samples* Schreyer S.K., Mikkelsen S.R.

10:30 0011 *Immobilization of Glucose Oxidase in Ir-based Films* Abu Irhayem E.M., Elzanowska H., Birss V.I.

10:50 End of Session

Biological/Medicinal Chemistry

BM1 MacLeod A4

Recent Advances in Drug Discovery

Organizer - P. Anderson, R. J. Zamboni
Chair - P. Anderson

09:00 Introductory Remarks

Design and Synthesis of Antiepileptogenic Drugs,
D. F. Weaver, A. Campbell, J. Carran, Z. Khan, A. Lyon, P. Milne, C. Tan

09:45 Coffee Break

Lemieux Award Lecture

D. Bundle "The Design, Synthesis and Mode of Action of Tailored Multivalent Carbohydrate Ligands that Neutralize Shiga-like Toxins" Introduced by M. Pinto

11:00 End of Session

Environment

EN1 MacLeod A2

Pesticide Registration: Chemistry and Hydrology (joint with AN11)

Organizer - D. S. Gamble
Chair - G. R. B. Webster

08:00 Introductory Remarks

08:05 0012 *Field Scale Investigations of Pesticide Behaviour: persistence and transport of isoproturon [3-(4-isopropylphenyl)-1,1-dimethylurea] in a swelling clay soil sown with winter barley.* Beck A.J., Jones K.C., Johnston A.E., Harris G.L.

08:35 0013 *The Role of Field Dissipation Studies in Support of Pesticide Registration* Gaynor J.D., Lenz M.F., Damon A., Ward S.

08:55 0014 *Ecological Risk Assessment of DDT Contamination at Kittigazuit, NWT.* Nirwal A.S., Zeeb B.A., Reimer K.J.

09:15 0015 *The adsorptive behaviour of the triazine herbicide, metribuzin, on soils and soil materials.* Balakrishnan V.K., Oketunde O.F., Sha'ato R., Gamble D.G., Buncel E., vanLoon G.W.

09:35 Coffee Break

09:50 0016 *Application of On-Line Micro-Extraction with Subsequent Mass Spectrometry to the Study of Pesticide Sorption in Soil and Sediment Slurries* Luis Sojo LS., Lourdes Ramos

10:20 0017 *2, 4, 6 - Trichloro - 4 - Hydroxyisophthalonitrile In Sandy Soils: Sorption Stoichiometry In Support Of Mechanism Studies.* Gamble D.S., Bruccoleri A.G., Langford C.H.

10:40 0018 *The Determination of Four Pesticides and Their Significant Metabolites in Soil by Liquid Chromatography/Mass Spectrometry/Mass Spectrometry (LC/MS/MS)* Hoshowski J.T., Purdy J.R., Bruns G.W.

11:00 End of Session

Inorganic Chemistry

IN1 MacLeod C

Aspects of Nitrogen Fixation

Organizer - M. Fryzuk
Chair - Mike Fryzuk

08:15 Introductory Remarks

08:20 0019 *Reductive Cleavage of Dinitrogen at a Vanadium Centre* Bates V.M.E., Clentsmith G.K.B., Cloke F.G.N., Hitchcock P.B.

08:40 0020 *Bimetallic Binding, Activation, and Splitting of Dinitrogen* Cummins C.C.

09:20 0021 *Spectroscopic and Theoretical Investigations on the Bonding and Protonation of N₂* Felix Tuczek

10:00 Coffee Break

10:20 0022 *How Important is M-M and Mo-S Bonding in the Structure and Function of the Nitrogenase Cofactor?* Coucouvanis D., Han J., Demadis K.

11:00 End of Session

IN2 MacLeod B

Medicinal Coordination Chemistry (joint with BM2)

Organizer - B. Kraatz
Chair - Bernie Kraatz

08:15 Introductory Remarks

08:20 0023 *Medicinal Inorganic Chemistry* Orvig C.

09:00 0024 *Understanding the Chemistry of Bioactive Bismuth Chelates* Aumeerally N., Briand G.G., Burford N., Cameron T.S., Chen L.Y.C., LeBlanc D.J., Mahony D.E., Veldhuyzen van Zanten S.J.O.

09:20 0025 *A Metaloenzyme Model for Biotransformation of Nitroglycerin to Nitric Oxide* Thatcher G.R.J., Murray J.I., Macartney D.H.

09:40 Coffee Break

10:20 0026 *Pharmacokinetics of Vanadyl Sulfate in Humans with Diabetes Mellitus (NIDDM)* Willsky G., Goldfine A., Crans D., McNeill J., Kostyniak P.

11:00 End of Session

IN3

McIntyre

General Session-Inorganic

Organizer - W. E. Piers
Chair - F. D. Rochon

New Ligands and Coordination Chemistry

08:20 0027 *The Novel Ligand Dipyrazinylpyridine, Synthesis and Coordination Chemistry* Liegghio R., Potvin P.G., Lever A.B.P.

08:40 0028 *Pt(II) Complexes with Pyrimidine and Sulfoxides. Synthesis and Characterization of cis- and trans-Pt(R₂SO)(pm)Cl₂ (X = Cl and I) and Pyrimidine-Bridged Dimeric Species.* Rochon F.D., Nédélec N.

09:00 0029 *Preparation of upper rim diphosphine chelating calix[4]arene ligand and their rhodium complexes, for hydroformylation catalysis* Gagnon J., Vézina M., Drouin M., Harvey P.D.

09:20 0030 *Synthesis and Structure of Novel Tris(phosphine) Tripods* Friesen D.M., Rosenberg L.

09:40 0031 *Phosphorus Monoxide Chemistry. Phosphido and Phosphinidene Complexes of Molybdenum and Tungsten as Precursors for PO Complexes.* Sterenberg B.T., Carty A.J.

10:00 Coffee Break

Chair: G. Hanan

10:20 0032 *Synthesis of Dimetallic Receptors; Is Catenation a Problem?* Hanan G.S., Koivisto B., Cote A.P., Davidson G.J.E.

10:40 0033 *Synthesis and electronic properties of ruthenium(II) complexes bearing conjugated oligothiophene ligands* Clot O., Wolf M.O.

11:00 End of Session

Macromolecular Science and Engineering

MA1

Glen 4

Natural Macromolecules

Organizer - R. Cook, C. Preston
Chair - R. Cook

09:00 Introductory Remarks

09:05 0034 *Advances in Green Polymer Chemistry* Guillet J.

09:45 0035 *Understanding Lignin Oxidation and Condensation Reactions Using NMR* Argyropoulos D.S.

10:05 Coffee Break

10:20 0036 *Volumetric and ¹H NMR Studies of Cyclodextrin Based Pseudorotaxanes in Aqueous Solution* Wilson L.D., Verrall R.E.

10:40 0037 *A Molecular Logic Gate Using Cytochrome C* Deonarine A.S., Clark S., Konermann L.

11:00 End of Session

Organic Chemistry

OR1

MacLeod D

Larry Weiler Memorial Symposium

Organizer - E. Piers
Chair - E. Piers

08:00 Introductory Remarks

08:20 0038 *Formation of Lovastatin, a Cholesterol-Lowering Agent, by a Polyketide Synthase/Diels Alderase* Vederas J.C.

09:00 0039 *Developing Green Chemistry: Organometallic Reactions in Aqueous Media* Chan T.H.

09:40 0040 *Design, synthesis and analysis of high affinity enzyme inhibitors* Withers S.G.

10:20 0041 *Metal Catalyzed Ring Forming and Ring Cleaving Reactions* Lautens M., Piguel S., Fagnou K., Renaud J.-L., Hiebert S., Hughes G.

11:00 End of Session

Sunday PM

Analytical Chemistry

AN1

Glen 2

Separation Science

Organizer - C. A. Lucy
Chair - K. Thurber

13:10 0042 *Ion Mobility Spectrometry as a Chromatographic Separation Device* Hill H.H.

13:50 0043 *ESI-FAIMS-MS analysis of polar organic compounds in drinking water: haloacetic acids and microcystins.* Froese K.L., Eils B., Barnett D., Purves R., Hruddy S.E., Guevremont R.

14:10 0044 *Application of SPME-GC-MS to the characterization of volatiles emitted by living leaves of Eucalyptus genre trees* Augusto F., Zini C.A., Pawliszyn J.

14:30 0045 *In-Column Pyrolysis for the Characterization of Humic Organic Matter* Gorecki T., Poerschmann J.

14:50 Coffee Break

15:10 0046 *Enhanced High-Speed Multi-Dimensional Gas Chromatography with Chemometrics* Synovec R.E.

15:50 0047 *Fast Field Air Sampling using Porous Polymer-based SPME Fibers* Augusto F., Koziel J., Pawliszyn J.

16:10 0048 *Using Polypyrrole Films for Solid Phase Microextraction* Wu J., Pawliszyn J.

16:30 End of Session

AN2

Glen 3

Electrochemical Solutions to Fundamental and Applied Problems (joint with PH1)

Organizer - V. I. Birss
Chair - D. Bizzotto & S. Roscoe

Organic Monolayers

13:10 0049 *Scanning Probe Microscopic, Electrochemical, and Surface Spectroscopic Characterizations of Mixed Monolayers Formed from Spontaneously Adsorbed Alkanethiolate Assemblies at Gold* Porter M.D., Wong S.-S., Zhong C.-J.

13:40 0050 *Structural and Electrochemical Properties of n-Alkyl Monolayers Formed on Si (111)* Boukherroub R., Yu H.-Z., Morin S., Allongue P., Henry de Villeneuve C., Wayner D.D.M.

14:00 0051 *Surface-enhanced Raman Scattering (SERS) from 2,2' Bipyridine(22Bpy) Adsorbed on a Gold(111) Electrode* Irish D.E., Jiang Z., Brolo A.G.

14:20 0052 *Electrochemically Directed Self-assembly on Gold* Freund M.S., Ferguson G.S., Hsueh C.-C., Lee M.-T.

14:40 Coffee Break

Nano- and Micro-scale Morphology

Chair - A. Baranski

15:00 0053 *Electrochemical pathways to Nanotechnology* Moskovits M., AIMawlawi D., Osika A., Davydov D., Shelimov K.

15:30 0054 *Implications of Finite-Size and Surface Effects on Nano-Size Intercalation Materials* Obrovac M.N., Dahn J.R.

15:50 0055 *Application of Atomic Force Microscopy and Digital Image Analysis to Study Morphology of Electrodeposited Ni and Cu at Conditions Mimicking Industrial Ni and Cu Electrowinning* Szymanski G., Zhao T., Lipkowski J.

16:20 End of Session

AN3

Glen 1

Bioanalytical Chemistry

Organizer - X. C. Le
Chair - U. Krull & J. Breman

Biosensors

13:10 0056 *Label-Free Detection of DNA Probe Micro Arrays by Scanning Kelvin Microprobe* Cavic B., Cheran L.-E., McGovern M., Thompson M.

13:50 0057 *A Fluorescence Based Investigation of Protein-Protein Interactions in Sol-Gel Derived Glasses.* **Keeling-Tucker T., Brennan J.D.**

14:10 0058 *Developing Bioanalytical Devices using Proteins Immobilized in Sol-Gel Derived Glass.* **Brennan J.D., Bendiak G.N., Benjamin D., Flora K., Goring G.L.G., Keeling-Tucker T., Rakic M.**

14:40 Coffee Break

15:00 0059 *Effects of Oligonucleotide Immobilization Density of Selectivity of Quantitative Transduction of Hybridization of Immobilized DNA* **Kruil U.J., Watterson J.H., Piuino P.A.E., Wust C.C.**

15:40 0060 *Recent Advances in the Development of Polymer-based, Non-enzymatic Glucose Sensors* **Koehler J.A., Michaels A.S., Arnold F.H., Freund M.S.**

16:10 0061 *Effect of Matrix Aging on the Thermodynamic Stability of a Biomolecule Entrapped in a Sol-Gel Derived Glass* **Flora K., Brennan J.D.**

16:30 End of Session

AN10 Exhib'n Hall

Posters-Analytical

Organizer - S. Hinman
Chair - A. S. Hinman

From **16:30** until **18:00**

Separation Science

0062 *Separation of Tetramethylrhodamine labeled Oligosaccharides by open-tubular CEC* **Osthoff H., Ahmadzadeh H., Sujino K., Palcic M., Dovichi N.**

0063 *Electrostatic Capillary Electrophoresis Alters Selectivity of Inorganic Anionic Separations* **Woodland M.A., Lucy C.A.**

0064 *Ion Chromatographic Analysis of Swimming Pool Water Disinfected by Ozone and Sodium Hypochlorite* **Mok W.F., Prasad R., Li P.C.H.**

0065 *Analysis of Phospholipids in HT29 Human Colon Adenocarcinoma Cell Membranes by Micellar Electrokinetic Capillary Chromatography with Laser-Induced Fluorescence Detection* **Zhang L., Hu S., Cook L., Dovichi N.J.**

0066 *Rapid Derivatization and Separation of Amino Acids by Capillary Electrophoresis with Laser Induced Fluorescence* **McLaren D.G., Arriaga E.A., Chen D.D.Y., Boulout O.**

0067 *High-Sensitivity Detection of Chemical Warfare Agent Degradation Products by Capillary Electrophoresis-Laser Induced Fluorescence* **Melanson J.E., Lucy C.A., Boulet C.A.**

0068 *LC/LC and LC/LC/GC Methods for the Characterization of mono- and di-aromatic Compounds in Light Gas Oils* **Quach T., Guy R.D., Potvin M.A., Ramaley L.**

0069 *Extraction of Mn From Thermomechanical Wood Pulp Using Supercritical CO₂* **Thurbide K.B., Kowalchuk M., Al Jabari M.**

0070 *The Effect of Sodium Chloride Concentration on Bile Salt Aggregation* **Ovans R., Rinco O., Bohne C.**

Bioanalytical

0071 *Analysis of haloacetic acids in tap water and human urine: drinking water disinfection by-product biomonitoring pilot study.* **Froese K.L., Hruddy S.E.**

0072 *Further Studies on Single Molecules of E. coli Alkaline Phosphatase* **Polakowski R., Dovichi N.J.**

0073 *Affinity Microdialysis for Preconcentration of Drugs and Its Application to Evaluation of Drug-Protein Interaction* **Wang H.L., Zou H.F., Le X.C.**

0074 *Probing the Origins of Spectroscopic Responses to Analyte-Induced Conformational Changes in a Fluorescently-Labeled Regulatory Protein.* **Bendiak G.N., Flora K., Baker G.A., Kane M., Pandey S., Bright F.V., Brennan J.D.**

0075 *Profiling Amplification Efficiency of Competitive Polymerase Chain Reaction Using Capillary Electrophoresis with Laser-induced Fluorescence Detection* **Li N., Tan W.G., Tyrrell D.L.J., Dovichi N.J.**

0076 *Electric voltage study of mammalian cells trapped at the weir structure in a microfabricated biochip* **Li C.W., de Camprieu L., Li P.C.H.**

0077 *Identification of Nuclear Proteins from Irradiated Human Lung Cancer Cells by Peptide Mapping* **Richards D.P., Skelley A., Cook L., Keller B.O., Li L., Lee J., Weinfeld M., Dovichi N.J.**

0078 *Probing Adsorbed Protein State with Modified Scanning Force Microscopy Tips* **Ssenyange S., McDermott M.T.**

0079 *Tetramethylrhodamine Labeling of Staphylococcal Enterotoxin B for Capillary Electrophoresis / Competitive Immunoassay* **Lam M.T., Boulet C.A., Le X.C.**

0080 *Reagentless pH-Based Biosensing Using a Fluorescently-Labeled Dextran Co-Entrapped with a Hydrolytic Enzyme in a Sol-Gel Derived Composite Thin Film.* **Goring G.L.G., Rakic M., Brennan J.D.**

0081 *Fluorescence and Physical Characterization of Sol-Gel Derived Biofilms.* **Goring G.L.G., Rakic M., Brennan J.D.**

0082 *Synthesis and characterization of a fluorescent standard for use in DNA damage analysis* **Carnelley T.J., Weinfeld M., Le X.C.**

0083 *On-Capillary Labeling and Isotachophoretic Preconcentration of Proteins in Sub-micellar Separation of Human Cancer Cell Extract* **Zhang Z., Krylov S., Liu C., Ahmadzadeh H., Carpenter E., Cook L., Dovichi N.J.**

0084 *Effects of PEG and PVA Doping on the Material Properties and Biomolecule Activity of Sol-Gel Derived Bioglasses.* **Keeling-Tucker T., Rakic M., Brennan J.D.**

0085 *Detection of Microcystin-LR by a Fluorescent Flow Displacement Immunoassay* **Cain H., Ahmadzadeh H., Dovichi N.J., Le X.C.**

0086 *Characterization of a Major Impurity in Synthetic Human Parathyroid Hormone (1-84).* **Girard M., Dupuis M., Mousseau N., Pichette A., Cyr T.**

0087 *Characterization of Chromophore-Labeled and Natural Oligosaccharides by Microelectrospray Mass Spectrometry and Capillary Electrophoresis/Mass Spectrometry* **Liu C.S., Pinto D., Tan W.G., Palcic M., Dovichi* N.J.**

0088 *Determination of volatile organic and inorganic trace compounds in environmental gases* **Mallefer S., Cullen W.R.**

0089 *Biomonitoring of Urinary Tamoxifen and its Metabolites from Breast Cancer Patients using Nonaqueous Capillary Electrophoresis with Electropray Mass Spectrometry* **Carter S.J., Li X., Mackey J., Modi S., Hanson J., Dovichi N.J.**

0090 *Stability of Arsenic Metabolites in Human Urine* **Gong Z., Lu X., Ma M., Le X.C.**

0091 *Speciation of Inorganic Arsenic in Water Samples using a Solid Phase Extraction Cartridge with Hydride Generation and Atomic Absorption Spectrometry.* **Murphy P.**

0092 *Arsenic Speciation in Marine Gastropods and Bivalves* **Lai V.W.-M., Nørum U., Beach A.S., Cullen W.R., Ray S., Reimer K.J.**

0093 *Speciation of Human Urinary Arsenic Including Two Key Methylation Intermediates of Arsenic Metabolism.* **Lu X., Ma M., Le X.C., Cullen W.R., Aposhian H.V., Zheng B.**

0094 *Arsenic Transformation by Marine Macroalgae* **Granchinho S.C.R., Cullen W.R., Polishchuk E., Reimer K.J.**

0095 *Sensitive Characterization of Bacteria Proteins by HPLC-fractionation and Subsequent Nanoliter Chemistry Combined with Microspot MALDI-TOF Mass Spectrometry* **Keller B.O., Wang Z., Li L.**

Spectroscopy

0096 *Analysis of Xanthate Derivatives by Vacuum Ultraviolet Laser/Time of Flight Mass Spectrometry* **Shi Y.J., Hu X.K., Mao D.M., Dimov S.S., Lipson R.H.**

0097 *Resonance-Enhanced Multiphoton Ionization (REMPI) / Time-of-Flight Mass Spectra of Metal Atoms Produced in the Laser Photodissociation of Transition Metal Complexes Formed by the Reactions of PF₃ with Stainless Steel* **Shi Y.J., Lacey D., Lipson R.H.**

0098 *Analytical solution chemiluminescence for boron-subphthalocyanine* **Akahori Y., Ishii M., Leznoff D.**

0099 *Rapid Sample Preparation using Spark Ablation in Aqueous Solutions* **Goltz D.M., Craig D.B., Kostic G., Coombs J., Jagdeo A., Reinfelds G.**

Atomic Force Microscopy

0100 *Probing protein film structures with tapping-mode atomic force microscopy* **Kanda V.K., McDermott M.T.**

0101 *Application of Mac Mode Atomic Force Microscopy for in situ Studies of the Repair Mechanism of Radiation Damaged DNA. Preliminary Results.* **Leonenko Z.V.**, Cramb D.T., Merkle D., Dhaliwal H., Weinfeld M., Lees-Miller S.P.

0102 *Detecting Relative Differences in Adsorbed Protein Conformation by Scanning Force Microscopy and Infrared Spectroscopy* **Ta T.C.**, McDermott M.T.

0103 *Characterization of Protein Monolayers: An AFM Investigation* **Sattin B.D.**, Goh M.C.

0104 *Scanning Probe Microscopy (SPM) Investigations of the Evolution of Polyphosphate Antiwear Films Formed from Zincdialkylthiophosphate (ZDDP)* **Aktary M.**, McDermott M.T., Torkelson J.

0105 *Scanning Force Microscopic Investigation of the Formation of Alzheimer's Disease β -Amyloid Peptide Plaque* **Skelhorne A.W.**, McDermott M.T., Leveugle B., Cao M.

0106 *Scanning Force Microscopic and Electrochemical Characterization of Carbon Electrodes Activated in Basic Solutions.* **Kiema G.K.**, McDermott M.T.

Electrochemistry

0107 *Study of Pseudomonas aeruginosa biofilms on metal surfaces* **Dang K.B.K.**, Cramb D.T., Birss V.I.

0108 *Effect of electrolyte concentration on the adsorption/desorption of octadecanol onto Au(111)* **Yang Y.**, Bizzotto D.

0109 *Electrochemical Studies of the Interfacial Behaviour of Alcohol Dehydrogenase* **Phillips R.K.**, Omanovic S., Roscoe S.G.

0110 *Proton Conductivity of Solid Polymer Electrolyte Membranes by A.C. Impedance Spectroscopy* **Schmeisser J.S.**, Beattie P.D., Basura V.I., Holdcroft S.

0111 *Application of AC-impedance Techniques for the Detection of Amino Acids in Flowing Solutions* **Yang H.**, Baranski A.S.

0112 *Electrochemical Characterization of Ethylenetetrafluoroethylene-g-Polystyrenesulfonic Acid Solid Polymer Electrolytes* **Chuy C.**, Basura V.I., Simon E., Holdcroft S.

0113 *Properties of dip-coated polymer films on electrode surfaces* **Xia S.J.**, Birss V.I.

0114 *Study of the Interfacial Region between New Proton Exchange Polymers (PEM) and Pt Catalyst in a Gas Diffusion Electrode.* **Navessin T.**, Holdcroft S.

0115 *Electrochemistry of Co oxide films formed by the sol-gel technique* **Co A.**, Serebrennikova I., Birss V.

0116 *Segmented Thin-layer Electrodes for Improved Potential Distribution* **Beydokhti N.**, Hinman A.S.

0117 *The Role of Oxide in the Reduction of N-nitrosodimethylamine: An Electrochemical and Raman Micro-Spectroscopy Study* **Irish D.E.**, Gui L., Gillham R.W., Odziemkowski M.S.

16:30 End of Session

Biological/Medicinal Chemistry

BM1 MacLeod A4

Recent Advances in Drug Discovery

Organizer - P. Anderson, R. J. Zamboni
Chair - R. J. Zamboni

13:00 0118 *A Piperazine Class of M2 Muscarinic Receptor Antagonists* **Vice S.**, Asberom T., Tagat J., Billard W., Binch III H., Cox K., Crosby G., Duffy R., Miller M., Kozlowski J., Lachowicz J., McCombie S., Nazareno D., Ruperto V., Coffin V.

13:20 0119 *Visudyne (Benzoporphyrin Derivative): Its Past History and Its Future Potential* **Dolphin D.**

14:00 0120 *Progress Toward the Development of an Orally Bioavailable Thrombin Inhibitor - Exploration of the Pyrazinone Series* **Lyle T.A.**

14:40 Coffee Break

15:00 0121 *A Small Molecule Antagonist of LFA-1 Mediated Cell Adhesion* **Kelly T.**, Jeanfavre J., McNeil D., Woska J., Frye L., Zindell R., Emeigh J., Wu J-P., Rothlein R.

Merck Frosst Award

Introduction by R.S. Brown

15:45 0122 *From Nitroglycerin to Novel Organic Nitrates: NO Cure May be the Best Cure in Stroke & Dementia* **Thatcher G.R.J.**, Nicolescu A., Reynolds R.N., Bennett B.M., Dumitrascu A., Zavorin S.I., Artz J.A., Scutaru D., Boegman R., Smith S.V., Jhamandhas K., Dringenberg H.C.

16:30 End of Session

Catalysis

CA1 Stephen

Molecularly Modified Surfaces

Organizer - S. Scott
Chair - R. A. Kydd

13:00 0123 *Vacuous Solids for Smart Chemistry: Organic Chemistry and Catalysis on Mesoporous Molecular Sieves* **Crudden C.M.**

13:40 0124 *Surface organometallic chemistry: The Tantalum version of the Sharpless catalyst* **Basset J.M.**

14:20 0125 *Modification of Platinum-Ruthenium Surfaces Using Molecular Precursors: Catalytic and Surface Mechanistic Studies.* **Xing Y.**, Cao D., Lee C.E., **Bergens S.H.**

15:00 Coffee Break

15:20 0126 *Coordination Chemistry of Tris(allyl)Iridium: Towards a Composite Membrane Microreactor for Alkane Dehydrogenation* **Baker R.T.**

15:40 0127 *Processing of Nanostructured Catalysts* **Ying J.Y.**

16:20 0128 *Silica-supported metal amides: Precursors to metal imine and imido catalysts* **Beaudoin M.C.**, **Scott S.L.**, Bouh A.O., Ye Y., Zhang J.

16:40 End of Session

Environment

EN2 Exhib'n Hall

Posters - Environment

Organizer - D. S. Gamble
Chair - D. S. Gamble

From 16:30 until 18:00

0129 *Sorption and Distribution of Field-Aged Polycyclic Aromatic Hydrocarbons (PAH) Between Different Soil Organic Matter Fractions: Development of Analytical Techniques* **Beck A. J.**, Cooke C., Ropkins K., Sabbah I.

0130 *Surfactant enhanced remediation of the organophosphorus pesticide, fenitrothion.* **Balakrishnan V.K.**, Buncel* E., vanLoon* G.W.

0131 *Aqueous Hydrolysis of the Organophosphorus Pesticide, Diazinon.* **Pieda D.C.**, Buncel E., vanLoon G.W.

0132 *Polymer-Stabilized Palladium Sols and Sol-Gel Heterogenized Palladium Colloids as Catalysts for Hydrodechlorination of p-Chloroacetophenone* **Kathó Á.**, Rajkó G., Joó F., Nádásdi L.

0133 *Risk Communication: Lessons Learned - Saglek, Labrador* **Kuzyk Z.**, Reimer K.J., **Stow J.**

0134 *Purification and Characterization of Molybdenum species from Alfalfa (Medicago Sativa) grown on Mine Tailings* **Surridge B.D.**, Sorensen T.S., Majak W.

16:30 End of Session

Inorganic Chemistry

IN1 MacLeod C

Aspects of Nitrogen Fixation

Organizer - M. Fryzuk
Chair - Robert Morris, Guy Clentsmith

13:20 0135 *Binding and Reduction of Dinitrogen by Diamido/donor and Triamido/donor Complexes of Molybdenum and Tungsten* **Schrock R.R.**, Greco G.E., Cochran F.V.

14:00 0136 *Synthesis and Reactivity of a Side-On End-On Bound Dinitrogen Complex of Tantalum.* **Johnson S.A.**, Fryzuk M.D.

14:20 0137 *Cooperative Reduction of Dinitrogen by Lanthanides and Actinides.* **Gambarotta S.**

15:00 Coffee Break

15:20 0138 *New insights into a mystery of nitrogenase: The N₂ dependent D₂H⁺ exchange and HD formation*
Sellmann D., Fürsattel A.

16:00 0139 *AN INVESTIGATION OF DINITROGEN CLEAVAGE AND NITRIDE COUPLING IN MIXED-METAL SYSTEMS*
Seymore S.B., **Brown S.N.**

16:20 0140 *Chemical Nitrogen Fixation by Molybdenum and Tungsten Complexes*
Hidai M.

17:00 End of Session

IN2 MacLeod B**Medicinal Coordination Chemistry (joint with BM2)**

Organizer - B. Kraatz
Chair - Stephen Reid, Doug Grotjahn

13:20 0141 *Synthesis of Novel Halogenated Phthalocyanines via the Kobayashi Ring Expansion Reaction of Boron Subphthalocyanines*
Sharman W.M., van Lier J.E.

13:40 0142 *Vanadium(V) Complexes: Aqueous Chemistry and Function in Enzyme Systems*
Tracey A.S., Bhattacharyya S.

14:20 0143 *In Vivo and In Vitro Spectroscopic Studies of a Potent Insulin Mimetic Agent: Probing the Biodistribution of Vanadium(IV) Complexes.*
Liboiron B.D., Thompson K.H., Dikanov S.A., Yuen V.G., Vera E., McNeill J.H., Orvig C.

14:40 0144 *Platinum Carboxylate-Pendant Arm Macrocycles: Structure, Redox Properties and Anti-Cancer Potential.*
Haines R.I., Hutchings D.R., McCormack T.

15:00 Coffee Break

15:20 0145 *Cross-linking nucleobase by trans-diamineplatinum(II): From models to applications and molecular architecture*
Lippert B.

16:00 0146 *Re(III) Models of HYNIC Bioconjugation with the Hydroxyphenyldiphenylphosphine Family of Ligands*
Kovacs M.S., Orvig C.

16:20 0147 *Biomimetic Studies of Anti-Arthritic Gold Complexes: Oxidation-Reduction of Auranofin and Cyanide Metabolites*
Shaw C.F.III., Phillips M.D., Al-Zamil N., Canumalla A.J., Zuengler D.

17:00 End of Session

IN3 McIntyre**General Session-Inorganic**

Organizer - W. E. Piers
Chair - D. Berg

Organometallic/Catalysis

13:00 0148 *Synthesis and Reactivity of Paramagnetic Organometallic Complexes of Niobium.*
Kozak C., Fryzuk M.F.

13:20 0149 *Titanacyclobutenes as Organic Building Blocks: a One-Pot Synthesis of Tetra-Substituted Pyridines*
Tiege P.B., Chen J.-X., Stryker J.M.

13:40 0150 *Zirconium and Yttrium Complexes of Fluorinated Ligands*
Berg D.J., Gendron R.A.L., O'Connor P., Shao P.

14:00 0151 *Heterocycle-containing Macrocycles via Zirconocene Coupling*
Whiteford J.A., Tilley T.D.

14:20 0152 *Formation of Tantalocene Zwitterions: Reactivity of Alkylidene Complexes with Electrophilic Aryl Boranes*
Cook K.S., Piers W.E., Rettig S.J., Patrick B.O., McDonald R.

14:40 0153 *Synthesis, Electronic Structure, and Novel Reactivity of Strained, Boron-Bridged [1]Ferrocenophanes*
Berenbaum A., Jäkle F., Lough A.J., Manners I., Green J.C., Braunschweig H., Dirk R., Englert U.

15:00 Coffee Break

Chair: C. Carter

15:20 0154 *Stereomutation Behavior of BIS(Phosphinoalkyl)Silyl ('biPSi') Complexes of Ruthenium(II)*
Bushnell G.W., Casado M.A., **Stobart S.R.**, Zhou X.

15:40 0155 *RuH₂(phosphine)₂(diamine) and RuHCl(phosphine)₂(diamine): Catalyst and Catalyst Precursor for the Hydrogenation of Ketones and Imines*
Abdur-Rashid K., Lough A.J., Morris R.H.

16:00 0156 *Synthesis and Characterization of Bis(phosphine) Mono-oxide Complexes of Ruthenium(II) With Ancillary N-Donor Ligands*
Cyr P.W., James B.R.

16:20 0157 *An X-ray Crystallographic Study of Alkynyl Derivatives of Cyclohexanol: Co₂(CO)₈ as a Conformational Switch*
Deschamps N.M., **Kaldis J.H.**, Britten J.F., Lock P.E., McGlinchey M.J.

16:40 0158 *Enhanced Regioselectivity of Rhodium-Catalyzed Alkene Hydroboration in Supercritical Carbon Dioxide*
Carter C.A.G., Baker R.T., Tumas W., Nolan S.P.

17:00 0159 *Controlled Self-Assembly of Cyclic Gold (I) Complexes: The First Family of Organometallic Catenanes*
McArdle C.P., Irwin M.J., Jennings M.C., Puddephatt R.J.

17:20 End of Session

Macromolecular Science and Engineering**MA1 Glen 4****Natural Macromolecules**

Organizer - R. Cook, C. Preston
Chair - Robert Cook

13:00 Introductory Remarks

13:05 0160 *N-15 NMR Studies on the Bioremediation of TNT Contaminated Soils*
Thorn K.A.

13:45 0161 *Carbon-13 CPMAS NMR of soil organic matter - using the technique effectively*
Preston C.M.

14:25 0162 *Is Quantitative CP-MAS ¹³C NMR of Biopolymers Possible?: the Dirty Laundry of CP-MAS*
Cook R.L.

14:45 0163 *Discovery of Crystalline and Amorphous Aliphatic Components in Soil Organic Matter Using Solid-State NMR*
Xing B., Mao J., Schmidt-Rohr K., Hu W.

15:05 Coffee Break

15:20 0164 *HPLC Studies of NOM Properties: What can we learn about behavior?*
Cabaniss S.E., Shen D., Zhou Q., Maurice P.A.

15:40 0165 *Characterization of Landfill Leachate Humic and Fulvic Acids*
Nanny M.A., Ratasuk N.

16:00 0166 *Modeling Humic Substance Structures: A View from the Edge of the Cliff*
Bruccoleri A., Langford C.H.

16:20 End of Session

MA2 Exhib'n Hall**Posters-Macromolecular**

Organizer - E. Kumacheva
Chair - Eugenia Kumacheva

From **16:30** until **18:00**

Functional Polymers

0167 *Design, Synthesis and Characterization of Thiophene-Based Luminescent Polymers: Poly(2,5-di(alkylthienyl)benzenes)*
Vamvounis G., Yang C., Abley M., Bachelor R.J., Einstein F.W.B., Holdcroft S.

0168 *Syntheses and Solid State Reactions of Thienyl-based Conjugated Polymers for Chemically Amplified Photolithography*
Yu J., Holdcroft S.

0169 *Synthesis and Optical Properties of Polymethacrylates with Benzothiazole Azo Groups*
Cojocariu C., Natansohn A., Rochon P.

0170 *Interaction of Chitosan with Vitamins*
Gallagher A.M., Creber K.A.M.

0171 *Design, synthesis and characterization of a novel polyester derived from oligofluorenes as active layer for blue-light-emitting diodes*
Beaupré S., Leclerc M.

0172 *Characterization of a Series of Azobenzene-Containing Side-Chain Liquid Crystalline Polymers*
Freiberg S., Lagugé Labarthe F., Natansohn A., Rochon P.

Nano-Structural Materials

0173 *Synthesis of 3-(Decyl trialkoxysilyl)thiophenes as Building Blocks for Functionalized Polythiophenes*
Landl M., Silerova R.

0174 *Poly(solketal methacrylate)-block-Poly(N,N-dimethylaminoethyl methacrylate) - Synthesis and Application in the Preparation of Nanospheres with Crosslinked Shells* Zhang Z., Liu G., Bell S.

0175 *CdS Nanocluster Polymeric Composites: Synthesis and Characterization* Farah A.A., Pietro W.J.

0176 *Poly(solketal methacrylate)-block-Poly(2-cinnamoyl ethyl methacrylate)-block-Poly(allyl methacrylate): Synthesis, Nanosphere Preparation and Palladium Nanoparticle Synthesis* Liu F., Liu G.

0177 *Plastic-Insulated Palladium Nanowires or Nanocables* Yan X., Liu F., Liu G.

General Macromolecular

0178 *A Competition for Helical Sense Control Between Different Non-Racemic Chiral Molecules* Cheon K.S., Swansburg S.E., Green M.M.

0179 *Synthesis and characterization of well-defined conjugated poly(1-pyrenyl)acetylenes.* Rivera-Garcia E., Zhu X.X., Giasson R.

0180 *The Design of a New Class of Substituted Norbornene Monomers* Abd-El-Aziz A.S., Budakowski W.R., May L.J.

0181 *New Initiators For Photochemical Controlled Living Free Radical Polymerization* Skene W.G., Scaiano J.C.

0182 *Chiral Nematic Colloidal Suspensions and Films* Edgar C.D., Gray D.G.

0183 *Synthesis and Characterization of Soluble Organoiron Polymers* Abd-El-Aziz A.S., Todd E.K., Ma G.Z.

0184 *A New Route to Design Chiral, Functionalized Bisphospholane Ligands : Application in Copolymerization of Aliphatic α -Olefins with Carbon Monoxide* Bayer A., Rieger B.

0185 *Effect of Head Group Variation on the Interaction of Hydrophobically Modified Quatrisoft^(R) 200 Polymer with Cationic Surfactants* Palepu R., Burke S.

0186 *Tracking lignin and condensed tannins through forest ecosystems by C-13 CPMAS NMR* Preston C.M., Lorenz K.

16:30 End of Session

Materials Science

MS4 **Exhib'n Hall**

Posters-Material Science

Organizer - R. Hill
Chair - R. Hill

From 16:30 until 18:00

0187 *Towards polypeptides bearing luminescent side-chains as materials for organic light-emitting devices.* Pierre-Louis Brunner, M.O. Wolf

0188 *Piezo-/Ferroelectric Pb[(Zn1/3Nb2/3)1-xTix]O3 Single Crystal Growth and Characterization* Zhang L., Dong M., Ye Z.-G.

0189 *Charge-influenced Switching Dynamics in Ferroelectric Liquid Crystals* Hore D.K., Natansohn A., Rochon P.

16:30 End of Session

Organic Chemistry

OR1 **MacLeod D**

Larry Weiler Memorial Symposium

Organizer - E. Piers
Chair - B. Ayer

13:00 0190 *BER, The Weiler Dianion, and NCE's from Ottawa* FALLIS A.G.

13:40 0191 *A Triple Diels-Alder Strategy for the Construction of the Quassinoid Framework* Spino C., Gingras S., Hill B., Thibault C., Tu N., Liu G.

14:20 0192 *Discovery of a New Class of Anti-inflammatory and Anti-pyretic Drugs: Inhibitors of Cyclooxygenase Type 2* Young R.N.

15:00 Coffee Break

E. W. R. Steacie Award

15:20 Introduction by Mark Lautens

15:25 0193 *Enzymes in Organic Synthesis Whither Next?* Jones J.B.

16:20 End of Session

Physical/Theoretical Chemistry

PH2 **MacLeod A1**

Structure and Dynamics in the Condensed Phase

Organizer - D. T. Cramb
Chair - D. Cramb

13:15 Introductory Remarks

Polanyi Award Lecture

13:17 Introduced by ...

13:20 0194 *Mother Nature and the Molecular Big Bang* Miller R.J.D.

14:00 0195 *The Dynamic Bending Rigidity of DNA: FPA and Transient Polarization Grating Studies* Schurr J.M.

14:40 0196 *Dynamics of Coulomb explosions of charged clusters* Consta S.

15:00 Coffee Break

15:20 0197 *Image Cross Correlation Spectroscopy for Measurement of Co-localization and Intermolecular Interactions* Petersen N.O., Srivastava M., Rocheleau J., Brown C.M., Keating E., McIntyre N.S.

16:00 0198 *Modeling the Effect of Laser Intensity on Two-photon Fluorescence Correlation Spectroscopy* Goyan R.L., Cramb D.T., Paul R.

16:20 End of Session

PH3 **Exhib'n Hall**

Posters-Phys/Theor

Organizer - D. T. Cramb
Chair - D. Cramb

From 16:30 until 18:00

Theory, Structure, & Modelling

0199 *Optimization of Transition State Structures Using Genetic Algorithms* Bungay S.D., Poirier R.A., Charron R.J.

0200 *A Modular Fortran 90 Molecular Mechanics Package for Hydrocarbons* Poirier R.A., Lagowski J., Shaw D.M.

0201 *Structures and Relative Energies of Copper (I) and Silver (I) Containing Glycine (G), Glycylglycine (GG) and Glycylglycylglycine (GGG).* Shoeib T., Rodriguez C.F., Siu K.W.M., Hopkinson A.C.

0202 *A Theoretical Study of Halomethylithium Carbenoids* Xidos J.D., Pratt L.M., Ramachandran B., Cramer C.J., Truhlar D.G.

0203 *How Long Can You Make a Nitrogen Chain?* McKay D., Wright J.

0204 *Electronic Structure and Properties of Diazopropyne and Its Diazirine Isomer.* McAlduff A., Klapstein D.

Dynamics: Expt and Theory

0205 *Toward an Understanding of the Kinetics of the Reversible Ring-Opening of Thiamine and Related Thiazolium Ions: A Conformational Study* Valenta Darvesh K., Bourgeois T., McDonald R.S.

0206 *The study of chemical kinetics in sub- and supercritical water by using the positive muon as a probe* Ghandi K., Addison-Jones B., Brodovitch J.C., McKenzie I.D., Percival P.W., Schüth J.

0207 *Asphaltene Microenvironments in Organic Solvents* Pietraru G.M., Cramb D.T.

0208 *Theoretical and spectroscopic investigation of Raman scattering intensities in saturated hydrocarbons* Dawes R., Gough K.M.

0209 *Trends in the product distribution of Nb Cluster reactions with hydrocarbons: New insights into cluster chemistry.* Parnis J.M., Pedersen D.B., Lafleur R.D., Escobar-Cabrera E.

0210 *Nmr Relaxation Times in Micellar and Mixed Micellar Systems* Marangoni G.

0211 *Structural and Related Thermodynamic Properties of Water/CPC/1-Alkanol (C₄ and C₅)/1-Hexane w/o Microemulsions* Palepu R., Moulik S.P.

0212 *Silver (I) Ion Adducts Of Organonitriles. Free Energy Relationships, Theoretical and Experimental Binding Energies.* **Shoeb T.**, Elaribi H., Siu K.W.M., Hopkinson A.C.

0213 *Formation of Pyrolytic Carbon During the Pyrolysis of Ethane and Mixtures of Ethane with Other Gases* **Glazier G.F.**, Pacey P.D.

0214 *A Static and Dynamic Density Functional Theory Study of Methanol Carbonylation* **Cheong M.**, Schmid R., **Ziegler T.**

0215 *Structure and Dynamics of Ultra-thin Organic Films* **Kiktyeva T.**, Star D., Leach G.W.

0216 *Dynamics and spectroscopy of the second excited singlet state of thiophosgene* **Warsylewicz A.M.**, Falk K.J., Steer R.P.

Surfaces

0217 *Effect of NIR Dye Molecules on the Redox Activity of Metal Ions* **Maley J.M.**, Silerova R.

0218 *Impedance Spectroscopy of Self-Assembled Monolayers - Phase Transitions as a Function of Temperature* **Gyepi-Garbrah S.H.**, Silerova R.

0219 *The Quasi-Liquid Layer (QLL) on the Surface of Ice and its Role in Gas Hydrate Formation: a ¹H NMR study.* **Sanchez A.**, Moudrakovski I., Ratcliffe C., Ripmeester J.

0220 *Exploring Photo-Catalytic Reactions in Thin Films with Attenuated Total Reflection Fourier Transform Infrared Spectroscopy* **Heyd D.V.**

0221 *Dithiothreitol Self-Assembled Monolayers on Au(111): The Formation of "Mobile" Pits.* **Banks J.T.**, Cappello M.L., Keeler W.J., MacDairmid A.R., Gallagher M.C.

0222 *Theoretical Studies of Surface-induced (N₂)_n Cluster Fragmentation* **Koch D.**, Peshherbe G.H., Vach H.

Biophysical Chemistry

0223 *Vibrational microspectroscopy of corpora amylacea in human brain tissue* **Ogg M.T.J.**, Gough K.M., Holliday A.E., Del Bigio M.R.

0224 *Application of the Solvatochromism of Protoporphyrin IX (PPIX)* **Goyan R.L.**, Cramb D.T.

0225 *Octanol/Water Partition Coefficients and Henry's Law Constants of Selected Disinfection By-Products* **Bodo K.A.M.**, Hruddy S.E., Froese K.L.

0226 *Electronic Structure of Met121Glu Azurin from Resonance Raman Spectroscopy* **Webb M.A.**, Kiser C.N., Richards J.H., Di Bilio A.J., Gray H.B., Winkler J.R., Lopponow G.R.

0227 *Benzo(a)pyrene Interactions with Phospholipid Vesicles* **Kha T.T.**, Cramb D.T.

0228 *Ripple Phase Induction in Bilayers Composed of Bis-Phospholipids and Dipalmitoylphosphatidylcholine* **Cuccia L.A.**, Klotz P., Just G., Lennox R.B.

Spectroscopy

0229 *Photodissociation of HI above the first ionization potential: A photofragment imaging study using resonant multiphoton excitation at 277 and 238 nm* **Loock H-P.**, Bakker B.L.G., Parker D.H.

0230 *FTMW Spectrum of the Ne-HCCH Complex in the First Excited van der Waals Bending State* **Liu Y.**, Jaeger W.

0231 *The Absolute Absorbance Intensities of Neopentane-do from Dvch = 4-7 via Intracavity Laser Photoacoustic Spectroscopy (ICL-PAS)* **Petryk M.W.P.**, Henry B.R.

16:30 End of Session

Monday AM

Award Lectures

MacLeod D

CIC Medal

Organizer - CIC/CSC
Chair - C. H. Langford

11:00 Introductory Remarks

11:05 0232 *The Rich Chemistry of Those Expensive Platinum Metal Complexes* **James B.R.**

11:55 End of Session

Analytical Chemistry

AN7 Glen 2

Analytical Awards Symposium

Organizer - C. A. Lucy
Chair - V. Birss

W.A.E. McBryde Award

08:30 Introduction by V. Birss

08:35 0233 *Tissue Spectroscopy: A Systems Viewpoint for Quantitative Measurement of Metabolism* **Burns D.H.**

Ryan-Harris Student Award

09:25 Introduced by K. Waldron

09:30 0234 *Investigation of Selective Binding Interactions for the Rapid Determination of Various Pharmaceutical Compounds by Molecularly Imprinted Solid Phase Extraction - Differential Pulsed Elution* **Mullett W.M.**, Lai E.P.C.

09:50 Coffee Break

Maxxam Award

10:05 Introduced by V. Birss

10:10 0235 *Unified Theory of Extraction* **Pawliszyn J.**

11:00 End of Session

Chemical Education

CE1 Stephen

Chemistry Teaching & the Internet

Organizer - TBA
Chair - I. R. Hunt

08:20 Introduction by E .A. Dixon

08:30 0236 *Internet Use in Introductory University Chemistry* **Plambeck J.A.**

09:00 0237 *Experiences Using the WWW for Teaching Organic Chemistry* **Hunt I.R.**

09:30 Coffee Break

09:50 0238 *" Practical Aspects of Environmental Chemistry: Solventless Undergraduate Organic Laboratory Experiments"* **Abhyankar S.**, Dust J., Strickland D.

10:20 0239 *Automation of Undergraduate Analytical Experiments Using Digital Control Signals from a Laboratory Electronics Interface.* **Whitla A.**
PAPER WITHDRAWN

10:50 End of Session

Inorganic Chemistry

IN2 MacLeod A4

Medicinal Coordination Chemistry (joint with BM2)

Organizer - B. Kraatz
Chair - Chris Orvig

08:20 0240 *UV and NMR studies of Interactions in the Copper (II)-Thiomolybdate and Copper (II)-Thiomolybdate-Bovine Serum Albumin systems* **Quagrain E.K.**, Reid R.S.

08:40 0241 *Novel Tc and Re Complexes with the Amino Acids Histidine and Methionine* **Tessier C.**, Beauchamp A.L., Rochon F.D.

09:00 0242 *Metals and Amides, Amino Acids, Peptides and Proteins* **Grotjahn D.B.**

09:40 0243 *Solid Phase Synthesis in Radiopharmaceutical Chemistry* **Riddoch R.W.**, Stephenson K., Peplow M., Valliant J.F.

10:00 Coffee Break

10:20 0244 *Towards new therapeutic agents based on complexes of cobalt, rhenium and copper* **Dilworth J.R.**, Mullen G.E.D, Zheng Y, Blower P.J.

11:00 End of Session

IN4 MacLeod B

Functional Extended Solids - Natural and Unnatural Approaches (joint with MS1)

Organizer - G. Shimizu
Chair - George Shimizu

08:15 Introductory Remarks

08:20 0245 *Direct synthesis of functional mesoporous materials by various surfactant assembly routes: a comparison of their structure, morphology and inclusion properties* **Mercier L.**, Richer R., Bell V., Waern B.

08:40 0246 *A SOLID STATE CHEMISTRY "PHONON-GLASS/ELECTRON-CRYSTAL" APPROACH TO HIGH PERFORMANCE THERMOELECTRIC MATERIALS*
Kanatzidis M.G.

09:20 0247 *A Microporous Enolase Mimic* **Aoyama Y.**

10:00 Coffee Break

10:20 0248 *Magnetic and Electrical Properties of Low-Dimensional Ternary Antimonides* **Mar A.**

11:00 End of Session

IN5 MacLeod C

C-X Bond Activation (denitrogenation, desulfuration, dehalogenation)

Organizer - S. Gambarotto
Chair - G. Rabe

08:35 Introductory Remarks

08:40 0249 *Alkane metathesis, Ziegler-Natta depolymerisation: two examples of catalytic C-C bond cleavage and or formation.* **Basset J.-M.**

09:20 0250 *Metal- and Ligand-Activation of Carbon-Hydrogen Bonds in Organic Molecules.* Fox D.J., Fulton J.R., Golden J.T., Klei S.R., Tellers D.M., Bergman R.G.

10:00 Coffee Break

10:20 0251 *THE ROLE OF C-H BOND ACTIVATION IN TRANSCYCLOMETALATION REACTIONS.*
Van Koten G.

11:00 End of Session

Macromolecular Science and Engineering

MA3 Glen 4

Functional Polymers

Organizer - W. Wang
Chair - W. Wang

08:35 Introductory Remarks

08:40 0252 *Smart Materials Based on Functionalized Conjugated Polymers*
Leclerc M.

09:20 0253 *Cathodically Coloring Electrochromic Polyimides* **Wang Z.Y.**, Zheng H.B., MacKinnon S., Meng X.S., Dinescu L., Desjardins P.

09:40 0254 *The Use of Poly(Thionylphosphazene)-b-Poly(Tetrahydrofuran) Block Copolymers as Matrices for Industrial Pressure Sensors*
Evans C.E.B., Ruffolo R., McWilliams A.R., Lu X., Winnik M.A., Manners I.

10:00 Coffee Break

10:20 0255 *Poly(thionylphosphazenes) as Matrices for Pressure-Sensing Application* **Wang Z.**, Ruffolo R., Evans C.E.B., McWilliams A.R., Lu X., Winnik M.A., Manners I.

10:40 End of Session

Organic Chemistry

OR2 Glencoe

NMR in the Next Millenium (joint with PH6)

Organizer - T. S. Sorensen
Chair - T. Sorensen

08:30 Introductory Remarks

08:40 0256 *NMR Chemical Shifts and Spin-Spin Coupling Constants: New Information from Solid-State NMR and Computational Chemistry* **Wasylishen R.E.**, Bernard G., Bryce D., Eichele K., Forgeron M., Gee M., Lumsden M., Kroeker S., McDonald C., Schurko R.

09:20 0257 *Calculation of Relative Proton Chemical Shifts in Rigid and Non-Rigid Molecules* **Pulay P.**, Hinton J.F., Wang B., Fleischer U., Odoherly K.B.

10:00 0258 *Density functional calculations of NMR spin-spin coupling constants for heavy atom systems*
Autschbach J., Ziegler T.

10:20 0259 *MO Analysis of NMR Shielding* **Wiberg K.B.**

11:00 End of Session

OR3 Glenview

Stereoselective Synthesis

Organizer - D. Ward, M. Majewski
Chair - D. Ward

08:15 Introductory Remarks

08:20 Opening Remarks by Steve Hanessian

08:40 0260 *Design and Synthesis of Enzyme Inhibitors - Lessons Learned from Modeling and X-ray Crystallography*
Hanessian S.

09:20 0261 *Design, Synthesis and Applications of New Asymmetric Substrates for Enantioselective Transformations* **Keay B.A.**, Andersen N.G., Burke M.J., Lau S.Y.W., Muller K.M., Ramsden P.D.

10:00 Coffee Break

10:20 0262 *Studies in Enantioselective Acyl Transfer* **Vedejs E.**, Aleman P., Daugulis O., MacKay J., Rozners E.

11:00 End of Session

OR4 Glenmore

Combinatorial Chemistry (joint with BM3)

Organizer - D. Hall
Chair - D. Hall

08:30 Introductory Remarks

08:40 0263 *Functional Molecules: A Lesson from Nature* **Schultz P.G.**

09:40 0264 *A Submonomer Approach to Diversifying PNA Backbone Structure*
Hudson R.H.E., Viirre R.

10:00 Coffee Break

10:20 0265 *Expediting Parallel synthesis: Doing the most Chemistry With the Least Effort* **Organ M.G.**

11:00 End of Session

OR5 Glengarry

General Session-Organic

Organizer - B. A. Keay
Chair - G. Dake

Macrocycles, host-guest complexes

08:40 0266 *Characterization of Xanthone Derivatives as Probes for Dynamics in Cyclodextrin Host-Guest Complexes* **MacRae A.I.**, Skelley A., Monahan S., Murphy R.S., Bohne C.

09:00 0267 *Characterization and Dynamics of Pyrene/g-Cyclodextrin Supramolecular Complexes with Multiple Stoichiometry* **Dyck A.**, Bohne C.

09:20 0268 *More Progress Towards a Pyrenoid Aromatic Belt* **Bodwell G.J.**, Houghton T.J., Mannion M.R., Vermeij R.J.

09:40 0269 *Indole-Containing Cyclophanes* **Bodwell G.J.**, Li J.

10:00 Coffee Break

10:20 0270 *Structural, Vibrational, and Electronic Characteristics of Enyne Macrocycles as a Function of Ring Strain.*
Eisler S., Tykwinski R.R., McDonald R., Lopponow G.

10:40 0271 *Sterically Crowded C₆₀ Molecular Propellers: Probing for Restricted and Correlated Rotations* **Brydges S.**, McGlinchey M.J.

11:00 End of Session

Physical/Theoretical Chemistry

PH2 MacLeod A1

Structure and Dynamics in the Condensed Phase

Organizer - D. T. Cramb
Chair - R. Steer

08:40 0272 *The Application of Steady-State and Time-Resolved Fluorescence Spectroscopy to the Study of Supramolecular Host-Guest Complexes in Solution and in the Solid State* **Wagner B.D.**, Burber J.Y., Fitzpatrick S.J., Stojanovic N.

09:20 0273 *Novel DNA-Damage Assessment applying Fluorescence Time-Resolved Measurements on Dye-DNA Complexes* **Scaiano J.C.**, Cosa G., Focsaneanu K.S., McLean J.R.N.

10:00 Coffee Break

10:20 0274 *Nonlinear Optical Studies of Coherent Motion at Interfaces* **Leach G.W.**, Kikteva T., Star D.

10:40 0275 *Diffraction Optics Based Nonlinear Optical Studies: Four-Wave, Six-Wave...New Wave Spectroscopy* **Miller R.J.D.**

11:00 End of Session

PH4 MacLeod A3

**Biological Radical
Mechanisms: Experiment and
Theory (joint with BM5)**Organizer - A. Rauk, D. A. Armstrong
Chair - A. Rauk**08:30 Introductory Remarks****08:40 0276** *Pyruvate Formate-lyase:
Mechanism and Structure of a Glycyl/Thiyl
Radical Enzyme* **Kozarich J.W.**, Wong
K.K., Reddy S., Zhang W., Leppanen V.-
M., Merkel M.C., Ollis D.L., Goldman
A.**09:20 0277** *Catalytic Reactions of
Radical Enzymes* **Eriksson L.A.****10:00 Coffee Break**

Chair - K.-D. Asmus

10:20 0278 *Kinetics and
Thermodynamics in the Design of Drugs and
Diagnostic Probes Involving Free Radicals in
Biology.* **Wardman P.****11:00** End of Session**PH5 Glenbow T.****New Directions in Chemical
Modelling**Organizer - T. Ziegler
Chair - Tom Ziegler**08:00 0279** *Rational design of high
efficiency thermoelectric materials - A case
study* **Tse J.S.****08:40 0280** *Modeling nanoclusters with
DFT, model hamiltonians, and empirical
potentials* **Fournier R.****09:20 0281** *The Total Molecular Dipole
Moment of Liquid Water* **Kusalik P.G.**,
Gubskaya A.**10:00 Coffee Break****10:15 0282** *Dynamical Nucleation
Theory: A New Molecular Approach to
Modeling Vapor-to-Liquid Nucleation*
Garrett B.C., Kathmann S.M., Schenter
G.K.**10:55** End of Session**Monday PM****Analytical Chemistry****AN1 Glen 2****Separation Science**Organizer - C. A. Lucy
Chair - K. Waldron**13:10 0283** *A Comprehensive Study of
Enhanced Chromatographic Efficiency
arising from Electroosmotic Perfusion*
Vallano P.T., **Remcho V.T.****13:50 0284** *Important experimental
considerations in the preparation of packed
capillaries for capillary
electrochromatography* **Chen Y.**, Cassidy
R.M.**14:10 0285** *Velocity-Difference
Induced Focusing (V-DIF) in Capillary
Electrophoresis* Britz-Mckibbin P., **Chen
DDY.****14:40 Coffee Break****15:00 0286** *Determination of Aromatic
Carboxylic Acids in Kraft Black and Bayer
Liquors by Capillary Electrophoresis*
Doucet F., **Waldron K.C.**, Hubert
J.**15:30 0287** *Semi-Permanent Wall
Coatings in Capillary Electrophoresis formed
using Double Chained Cationic Surfactants*
Melanson J.E., Baryla N.E., Lucy
C.A.**15:50 0288** *Use of Zwitterionic
Surfactants for the Simultaneous Separation
of Cationic and Anionic Proteins* **Baryla
N.E.**, Lucy C.A.**16:10 0289** *Integrated and fast protein
digestion and separation in a microchip
using mass spectrometry detection* **Wang
C.**, Oleschuk R., Harrison D.J., Li J.J.,
Thibault P.**16:30** End of Session**AN2 Glen 3****Electrochemical Solutions to
Fundamental and Applied
Problems (joint with PH1)**Organizer - V. I. Birss
Chair - G. Brisard & P. Vanysek

Corrosion/Metal Oxide and Sulfide Films

13:10 0290 *An Electrochemically-
based Model for Nuclear Fuel Corrosion
under Waste Disposal Conditions* King F.,
Kolar M., **Shoesmith D.W.****13:40 0291** *Electrochemistry of Fe and
Carbon Steel in nitrite solutions*
Khalafpour P., Paulson S., Cramb D.T.,
Birss V.I.**14:00 0292** *Surface Image and
Electrochemical Studies of Carbon Steel
Surfaces in Passive vs. Aggressive Solutions.*
Paulson S., Khalafpour P., Cramb D.T.,
Birss V.I.**14:20 0293** *Electrochemistry in the
Oilpatch: Mission Possible?* **Warrender
N.****14:40 0294** *Adsorption Behavior of
Quaternary Pyridinium Compounds* **Wong
J.E.**, Ward S., Cramb D.T., Birss
V.I.**15:00 Coffee Break****15:20 0295** *Colored Passive Films on
Titanium: Morphology, Chemical
Composition, and Electrochemical
Characteristics* **Jerkiewicz G.**, Hrapovic
S., Luan B.L., Vatankhah G.**15:50 0296** *Cyclic Voltammetry as a
Tool for Screening Anodizing Electrolytes*
Potucek R., Birss V.I., Rateick R.**16:10 0297** *Characterization of CoS
Deposited as a Thin Film on an ITO
Conducting Glass Electrode to Enhance the
Energy Conversion Efficiency of an
Electrochemical Photovoltaic Cell*
Bourguignon B., **Marsan B.****16:30** End of Session**AN3 Glen 1****Bioanalytical Chemistry**Organizer - X. C. Le
Chair - D. Burns**13:30 0298** *Volatile Group 15 Species
in the Environment and Sudden Infant Death
Syndrome (SIDS)* **Cullen W.R.**, Andrewes
P., Lehr C., Polishchuk E.**14:00 0299** *Toxic Phosphine in Soft
Drink Cans* , **Glindemann D.**Cullen
W.R.**14:30 0300** *Reductive Dechlorinations
of Polychlorinated Biphenyl Compounds in
Supercritical Carbon Dioxide* Wu Q., Majid
A., **Marshall W.D.****15:00 Coffee Break****15:20 0301** *The Use of Simulated
Gastric Fluid to Estimate Bioavailable
Fractions of Arsenic in Biota* **Koch I.**,
Reimer K.J.**15:40 0302** *Developments In Fiber
Optic Probe Raman Spectroscopy for
Bioanalytical Applications* **Blades M.**,
Barbosa C., Turner R., Haynes C.,
Schulze G.**16:10 0303** *mRNA Isolation for cDNA
Library Construction on Microfluidic Chip
Device* **Jiang G.F.**, Harrison D.J.**16:30** End of Session**AN4 MacLeod A4****Atomic Spectroscopy: What's
Next?**Organizer - G. Horlick
Chair - G. Horlick**13:00 0304** *Plasma Spectrochemical
Instrumentation for 2000 and Beyond.*
Hieftje G.**13:40 0305** *Analytical Atomic
Spectroscopy: Are there any stones left
unturned?* **Blades M.****14:00 0306** *Prognostication: A
Complex Game that Anyone Can Play.*
Holcombe J.A., Venable J., Langer D.,
Valadez L.**14:20 0307** *Analytical Atomic
Spectroscopy - Stepping into the New
Century.* **Huang B.****14:40 0308** *Miniaturization in
Analytical Atomic Spectroscopy*
Karanassios V.**15:00 Coffee Break****15:20 0309** *Further astray along the
road of chemical speciation* **Agnes
G.R.****15:40 0310** *Gaining a Fundamental
Understanding of the Inductively Coupled
Plasma Mass Spectrometer Vacuum
Interface: Will It Change the Way We Do
Things?* **Farnsworth P.B.**, Macedone J.,
Gammon D.J.**16:00 0311** *New Approaches to ICP-
MS with Quadrupole Mass filters* **Douglas
D.J.**, Chen W., Al Moussalami S.,
Konerkov N.**16:20 0312** *Is Atomic Small Enough?*
Horlick G.**16:40** End of Session

Chemical Education

CE2

Stephen

Innovations in Chemistry Teaching

Organizer - E. A. Dixon
Chair - G. Rayner-Canham13:30 0313 *How Much Rope?* **Berry D.E.**, Fawkes K.L.14:00 0314 *Thermochemistry without internal energy* **Brown R.J.C.**14:30 0315 *Friendly Mathematics for Chemists. MapleV-Assisted Design of Molecular Modeling Courseware for Undergraduate Students* **Chacko A.-M.**, McCourt N., Scarlete M.

15:00 Coffee Break

15:20 0316 *Computer Modelling of Chemical Reactions in Undergraduate Organic Chemistry* **Chandrasekhar S.**15:50 0317 *Number-Friendly Interface for Server-Supported Physical Chemistry Courses. Let's Chat about Statistical Thermodynamics!* **Chacko A.-M.**, McCourt N., Scarlete M.16:20 0318 *Suggested Strategies for Group Projects in Chemistry* **Dixon E.A.**

16:50 End of Session

Environment

EN3

MacLeod A2

Risk and Risk Communication

Organizer - S. Hrudehy
Chair - G. R. B. Webster

13:30 Introductory Remarks

13:40 0319 *What Can Be Known By Means of Environmental Health Risk Assessments* **Hrudehy S.E.**14:00 0320 *Risk Communication and Public Participation in Establishing Health Risk Advisories* **Jardine C.**14:40 0321 *"Can't Complain": A Case Study of the Role of Audience in Risk Communication* **Baxter J.**

15:00 Coffee Break

15:20 0322 *Communicating Environmental Indicators* **Gibson G.**, Chess C., Johnson B.16:00 0323 *Zebra Mussels and Suspended Sediments as Source Tracers of Water-borne Contaminants* **McCarry B.E.**, Allan L.M., Marvin C.H.16:20 0324 *Accumulation of Polychlorinated Biphenyls (PCBs) from Sediments in a Subarctic Marine Ecosystem* **Kuzyk Z.**, Reimer K.J., **Stow J.**

16:40 End of Session

Inorganic Chemistry

IN3

McIntyre

General Session-Inorganic

Organizer - W. E. Piers
Chair - J. Brask

Main Group Chemistry

13:20 0325 *Curious Reactions of the Group 13 Primary Amides $\{E[N(H)Bu\}_n$ ($E = B, n = 1; E = Al, n = 2$) with Organolithium Reagents* **Brask J.K.**, Chivers T., Schatte G., Yap G.P.A.13:40 0326 *Chemistry of Novel Alkyl Aluminum Bis(iminophosphorano)-methanide and -methandiide Complexes* **Aparna K.**, Cavell R.G.14:00 0327 *Oxidation, Hydrogenation and Hydrolysis of Stable Diamino Carbenes* **Denk M.K.**, Rodezno J.M., Brownie J., Gupta S., Studnicki L., Lough A.J.14:20 0328 *NEW BONDING ENVIRONMENTS FROM THE COORDINATION CHEMISTRY OF PHOSPHORUS AS AN ACCEPTOR* **Burford N.**, Cameron T.S., Concolino T.E., Lam K.-C., LeBlanc D.J., Macdonald C.L.B., Phillips A.D., Rheingold A.L., Walsh D.14:40 0329 *Synthesis and Structure of Phosphorus Based Verdazyl Radicals.* **Patenaude G.W.**, Hicks R.G., Barclay T.

15:00 Coffee Break

Chair: R. Boere

15:20 0330 *The Synthesis and Reactivity of Oligophosphines* **Hoskin A.J.**, Stephan D.W.15:40 0331 *What can solution electrochemistry tell us about Group 15/16 heterocycles?* **Boeré R.T.**16:00 0332 *Exploration of the Novel Ambient Temperature Ring-Opening Polymerization (ROP) of the Cyclic Thionylphosphazene $NSOCl[NPCl_2]_2$* **McWilliams A.R.**, Gates D.P., Edwards M., Liable-Sands L.M., Guzei I., Rheingold A., Manners I.16:20 0333 *Preparation and Structural Characterization of Novel Imidoselenium(II) Compounds* **Chivers T.**, Maaninen T., **Laitinen R.S.**16:40 0334 *The preparation, characterization and chemistry of SbF_6^- salt of cyclo- $PhCSSS^+$ cation* **Fang M.**, **Passmore J.**

17:00 End of Session

IN4

MacLeod B

Functional Extended Solids - Natural and Unnatural Approaches (joint with MS1)

Organizer - G. Shimizu
Chair - A. Mar13:20 0335 *Tools, Rules, and Principles for the Design of Solids from Molecular Building Blocks* **Yaghi O.M.**, Eddaoudi M., Li H., O'Keeffe M.

14:00 0336

Polytetrakis(imidazole)(2,2'-bipyridine)-diiron(II) and -dicobalt(II). Structurally Characterized 2-D Materials Exhibiting Low Temperature Ferromagnetic Ordering **Sánchez V.**, Storr A., Thompson R.C.14:20 0337 *Constructing Porous Ordered Materials by the Strategy of Molecular Tectonics* **Brunet P.**, Desharnais J., Gonzalez G., Le Fur E., Malek N., Saied O., Trollet C., **Wuest J.D.**

15:00 Coffee Break

Chair - L. Mercier

15:20 0338 *Hybrid Organic-Inorganic Gels Based on Dendrimeric Building Blocks: High Surface Area Xerogels as Catalyst Supports* **Tilley T.D.**, Kriesel J.W.16:00 0339 *Metal Bischelates for Constructing Supramolecular Solids* **Soldatov D.V.**, Ripmeester J.A.16:20 0340 *Coexisting Covalent and Noncovalent Nets* **Zaworotko M.J.**, Moulton B., Mondal A.

17:00 End of Session

IN5

MacLeod C

C-X Bond Activation (denitrogenation, desulfuration, dehalogenation)

Organizer - S. Gambarotto
Chair - B. Hessen13:20 0341 *C-H Bond Activation by Titanium-Phosphinimide Complexes and Trimethylaluminum* **Stephan D.W.**, Kickham J.E., Guerin F., Ong C., Stewart J.C., Urbanska E.13:40 0342 *Aspects of Early Transition Metal C-X Bond Activation: σ -X-Elimination Studies and Deoxygenations of $(silox)_3WNO$ by $(silox)_3M$ ($M = V, Nb, Ta$)* **Wolczanski P.T.**, Strazisar S.A., Veige A.S., Slaughter L.M., Douthwaite R.E., Mayol A.-R., Cundari T.R., Matsunaga N.14:20 0343 *TERPHENYL LIGAND SYSTEMS IN LANTHANIDE CHEMISTRY* **Rabe G.**

15:00 Coffee Break

Chair: D. Stephan

15:20 0344 *An Evaluation of Factors Influencing the Reductive Cleavage of C-X Multiple Bonds ($X = O$ and N) at Dimolybdenum and Ditungsten Centers* **Chisholm M.**16:00 0345 *Facile C-N Bond Cleavage of Tungsten(VI) Alkylimido-calix[4]arene Complexes* **Brown M.**, **Jablonski C.**16:20 0346 *Development of Group 6 Transition Metal Chalcogenide Chemistry based on the Cleavage and Formation of C-S(Se) Bonds* **Tatsumi K.**

17:00 End of Session

IN6

Exhib'n Hall

Posters-Inorganic

Organizer - W. E. Piers
Chair - Warren Piers

From 17:00 until 19:00

Aspects of Nitrogen Fixation

0347 *Reactivity of a Zirconium Dinitrogen Complex with Terminal Alkynes* **Morello L.**, Fryzuk M.D., Love J.B., Rettig S.

0348 *Dinitrogen Chemistry of Hafnium* **Corkin J.R.**, Fryzuk M.D.

0349 *Synthesis and Reactivity of Vanadium(III) Diamidophosphine Complexes* **Shaver M.P.**, Fryzuk M.D.

0350 *Design and Synthesis of Monomeric Zirconocene Dihydride Complexes for the Activation of Dinitrogen* **Chirik P.J.**, Bercaw J.E.

0351 *Diruthenium Aryldiazonium Chemistry* **Sutton D.**, **Wilkinson J.N.**

0352 *Synthesis, Characterization and Reactivity of the Bisdihydrogen complex, $RuH_2(H_2)_2(PPr_3)_2$, and the Bisdinitrogen Complexes, $RuH_2(N_2)_2(PPr_3)_2$ and $[RuH_2(N_2)(PPr_3)_2]_2(m-N_2)$* **Abdur-Rashid K.**, Lough A.J., Morris R.H.

0353 *Designing Multimetallic Architectures for the Transformation of Small Molecules* **Love J.B.**, Mokuolu Q.F., Watanabe Y.

0354 *Sonochemical Fixation of Nitrogen* **Supeno**, Kruus P.

Medicinal Coordination Chemistry

0355 *Synthesis And Coordination Chemistry of Phosphino And Phosphinito Amino Acids* **Galka P.V.**, Pletsch A., Kraatz H.-B.

0356 *Ferrocenyl oligopeptide disulfides: Synthesis and Electrochemistry studies.* **Galka M.M.**, Kraatz H.-B.

0357 *Peptides mimicking the N-Terminal Copper(II)-Binding Site of Bovine Serum Albumin: Synthesis, Characterization and Coordination with Copper (II) ions* **Quagrainé E.K.**, Kraatz H.-B., Reid R.S.

0358 *Transition metal pendant arm macrocycles.* **Chandrasekhar S.**, Sasaki R., Spidel M.

Functional Extended Solids

0359 *Novel antimonides and their thermoelectric properties.* **Kleinke H.**

0360 *Multidimensional Metal-Sulfonate Networks with Carboxylic Acid Pendants* **Kulynych A.D.**, Parvez M., Shimizu G.K.H.

0361 *Microporous Solids Based on Trigonal Symmetric Organic Ligands (Undergraduate Thesis Project)* **Melcer N.J.**, **Yu J.O.**, Shimizu G.K.H., Enright G.D.

0362 *Development of Functional Coordination Networks Using Hetero- and Homo-topic Phosphinic Acid and Phosphine Based Ligands* **Côté A.P.**, Shimizu G.K.H.

0363 *Electrical and Magnetic Properties of Ternary Rare-Earth Tin Antimonide Ferrromagnets and Antiferromagnets $RESn_3Sb_2$* **Deakin L.**, Sprague M.J., Ferguson M.J., Mar* A.

0364 *Di- and Trimetallic Receptors for Polyfunctionalized Substrate.* **Hanan G.S.**, Davidson G.J.E., Welch J., Mone M.

0365 *Gold Cyanides and Paramagnetic Transition Metals: Novel Building Blocks* **Xue B.Y.**, Leznoff D.B., Patrick B.O., Batchelor R.J., Einstein F.W.B.

0366 *Rotaxanes as Ligands. Molecular and Polymeric Complexes* **Davidson G.J.E.**, Loeb S.J., Wisner J.A.

0367 *Platinum(II) Nicotinamide Complexes as Anion Receptors* **Bondy C.R.**, Loeb S.J., Gale P.A.

0368 *A Mixed-Valence Copper-Containing Polymer with a Thiophenophane Ligand* **Lucas C.R.**, Liu S., Penney L.C.

0369 *Homoatomic Gallium and Antimony Bonding Networks in Low-Dimensional Rare-Earth Gallium Antimonides* **Mills A.M.**, Mar A.

0370 *1-, 2-, and 3-dimensional polymeric oxalate-bridged U(IV) compounds* **Moertl K.P.**, Sutter J.P., Guionneau P., Kahn O., Ouahab L., Golhen S.

0371 *Rational Design of Polar Solids* **Moulton B.**, Zaworotko M.J.

0372 *Extended Silver Networks Incorporating Polyether Units: Dependence of Structure on Alkali Ion* **Dalrymple S.A.**, Shimizu G.K.H.

0373 *Heavy Metal Binding from Aqueous Solutions with Layered Pyridinesulfonates* **Mäkinen S.K.**, Yu J.O., Shimizu G.H.K., Parvez M.

0374 *Three-Dimensional Frameworks from Heterobifunctional Pyridinesulfonate Ligands* **Mäkinen S.K.**, Shimizu G.K.H., Parvez M.

0375 *Assembly of 3-Dimensional Metal-Organic Arrays Based Upon Heteropolydentate Sulfonated Bipyridine N-oxides (Undergraduate Thesis Project)* **Yu J.O.**, Mäkinen S.K., Shimizu G.K.H., Parvez M.

0376 *Optimized Growth and Properties of Relaxor-Based Piezo-Ferroelectric $Pb(Zn_{1/3}Nb_{2/3})(1-x)Ti_xO_3$ Single Crystals* **Zhang L.**, Dong M., Ye Z.-G.

C-X Bond Activation

0377 *Carbon-Carbon Bond formation using Yttrium (III) and the Lanthanide Elements* **Kerton F.M.**, Fryzuk M.D., Love J.B., Jafarpour L.

0378 *Carbon-Carbon Bond Formation via a Methylene-Bridged Complex of Ir/Ru* **Trepanier S.**, Dell'Anna M.M., McDonald R., Cowie M.

0379 *Carbon-Carbon Bond Formation in Various Rh/Ru Complexes* **Rowell B.D.**, Sterenberg B.T., McDonald R., Cowie M.

Advances in Olefin Polymerization

0380 *Modeling of the active site in $TiCl_4/MgCl_2$ based Ziegler-Natta heterogeneous catalyst* **Petit Jean L.**, Ziegler T.

0381 *Modeling MAO (Methylalumoxane)* **Zurek E.D.**, Woo T., Ziegler T.

0382 *A Density Functional Study of Neutral Salicylaldiminato Ni(II) Complexes as Olefin Polymerization Catalysts* **Chan M.S.W.**, Deng L., **Ziegler T.**

0383 *Theoretical studies on Polymerization and Co-polymerization Processes Catalyzed by late Transition Metal Complexes* **Michalak A.**, Ziegler T.

0384 *Cr(IV) and Mn(IV). A Combined Density Functional Theory and Valence Bond Study* **Firman T.K.**, Ziegler T.

0385 *$M(XCHX)_2R(+)$ and $M(XCHCHCHX)_2R(+)$ ($M=Ti, Zr$; $X=NH, O, S$) as Olefin Polymerization Catalysts and the Role of Ligand Conjugation: A Combined Density Functional Theory and Valence Bond Study* **Firman T.K.**, Ziegler T.

0386 *Benzyl Group Abstraction from $Ti(CH_2Ph)_4$ by $B(C_6F_5)_3$ and $[Ph_3C][B(C_6F_5)_4]$ to form Ziegler-Natta and Carbocationic Alkene Polymerization Initiators* **Lin M.**, **Baird M.C.**

0387 *Cyclopentadienyl ligand systems containing pendant fluorinated alkoxides, and their lanthanoid and Group 4 complexes* **Gendron R.A.L.**, Berg D.J., Shao P.

0388 *Ansa-Phospholyl-Cyclopentadienyl Group 4 Metal Catalysts for Olefin Polymerisation* **Koch L.**, Gao S., Spence R.E.v.H.

0389 *Borole based Perfluoroaryl Lewis acids: A New Generation of Activators for Metallocene Catalyzed Olefin Polymerization* **Chase P.A.**, Piers W.E., Patrick B.O.

Catalysis of the M-H Bond

0390 *The Influence of Steric Factors on the Geometry of Nickel(II) Indenyl Alkyl Complexes and Their Reactivities With Silanes* **Fontaine F.**, Zargarian D.

0391 *Catalytic Dehydrogenative Dimerization of Secondary Silanes* **Davis C.**, Rosenberg L.

0392 *The Preparation and Derivatization of Silane Dimers Using Wilkinson's Catalyst* **Yao J.**, Rosenberg L **PAPER WITHDRAWN**

Organometallic/Catalysis

0393 *Amidinate Ligands Incorporating Pendant Donor Groups* **Giesbrecht G.R.**, Kincaid K., Arnold J.

0394 *The Coordination Chemistry of a New Tridentate Ligand with Group 3 Metals* **Yu P.**, Fryzuk M.D., Love J.B.

0395 *Novel Low-Valent Vanadium Nitrosyl Alkyl Complexes.* **Hayton T.W.**, Daff P.J., Legzdins P.

- 0396 *Synthesis, Characterization, and Reactivity of Scandium Dialkyl b-Diketiminato Compounds with Chalcogens and "NR" Synthons* **Knight L.K.**, Piers W.E., Parvez M., McDonald B.
- 0397 *Zirconium Complexes with Fluorinated Amido Ligands* **O'Connor P.E.**, Berg D.J., Morrison D., Steeves S.
- 0398 *Synthesis of a Diamidophosphine Ligand with Potentially Pendant Thioether Donors, and its Group 4 Metal Complexes* **MacKay B.A.**, Fryzuk M.D.
- 0399 *Synthesis of Sulfido-Bridged Early-Late Trinuclear Heteropolymetallic Complexes.* **Hernandez-Gruel M.A.F.**, Perez-Torrente J.J., Ciriano M.A., Lahoz F.J., Oro L.A.
- 0400 *The Reaction of Chromium-, Molybdenum-, and Tungsten hexacarbonyl with Antimonypentafluoride* Bröcher R., Sham I.H.T., Freidank D., Bodenbinder M., **Schmitz V.**, Rettig S.J., Trotter J., Willner H., Aubke F.
- 0401 *Carbon to Carbon Bond Formation Involving Four-Electron Donor Alkyne Complexes of Iron and Allenes* **Major Q.**, McDonald R., Takats J.
- 0402 *Electronic Modification of Borylferrocene Systems* **Henderson L.H.**, Piers W.E., Carpenter B.E.
- 0403 *Synthesis, Characterization, and Properties of Paramagnetic Organometallic Complexes Containing Chelating Amido Ligands* **Mund G.**, Turley R.J., Patrick B.O., Leznoff* D.B.
- 0404 *Sila-, Stanna- or Bora[1]ferrocenophanes: What's the Difference?* **Berenbaum A.**, **Jäkle F.**, Lough A.J., Manners I.
- 0405 *Synthesis, Resolution and Catalytic Activity of a Novel Chiral Ferrocenyl Phosphine* **Allen D.**, Crudden C.M., Manners I., Resendes R., Kadota J.
- 0406 *Transition Metal-Mediated Routes to Boron Containing Polymers: Facile B-P and B-N Bond Formation Via Catalytic Dehydrocoupling* **Jaska C.A.**, Dom H., Singh R.A., Temple K., Massey J.A., Lough A.J., Manners* I.
- 0407 *Synthetic Routes to Phosphorus Monoxide (PO) Clusters of Ruthenium* **Scoles L.**, Udachin K.A., Carty A.J.
- 0408 *P-H Activation by Ruthenium Complexes* **Mitra D.**, Hooper T.H., Rosenberg L.
- 0409 *Chiral Ruthenium Complexes with Aminophosphine Derivatives of Prolinol.* **Kuznetsov V.F.**, Yap G.P.A., Alper H.
- 0410 *Synthesis, Characterization and Reactivity of Ruthenium Amide Complexes.* **Petrella M.J.**, Fryzuk M.D., Patrick B.
- 0411 *A Static and Dynamic Density Functional Theory Study of Methanol Carbonylation* Cheong M., Schmid R., **Ziegler T.**
- 0412 *A Density Functional Study Of Catalytic Boration Processes Involving Ethylene By Rh(I) Complexes* **Widauer C.**, Schmid R., Grützmaier H., **Ziegler T.**
- 0413 *Desulfurization of H₂S and COS by Dipalladium (I) Complexes: Kinetic and Mechanistic Studies.* **Pamplin C.B.**, James B.R.
- 0414 *Synthesis of new metallocenyl platinum complexes and their application to the generation of bimetallic thin films by CVD* **Mast K.**, Chi Y., Carty A.
- 0415 *Water-soluble Platinum Metal Complexes Bearing Novel Anilinyll Diteriaryphosphine Ligands, Reactivity with Small Molecules and Some Hydration Catalysis* **Jones ND.**, James BR.
- 0416 *Density Functional Theory Examination of the C-H Activation Step of the Catalytic Methane Activation Reaction: Pyrimidine Ligand Protonation, Chloride vs. Bisulfate ligands, and Metathesis vs. Oxidative Addition* **Gilbert T.M.**, **Ziegler T.**
- 0417 *Metal Catalyzed Hydroboration and Dimerization of Thiocarbonyl Compounds* **Harrison D.J.**, Carter C.A.G., Gagnon M.K.J., Vogels C.M., Langler R.F., Baker R.T., Westcott S.A.
- 0418 *Synthesis and Characterisation of Novel "Pincer" Complexes of Zn²⁺* **Gossage R.A.**, del Rio I., Lutz M., Spek A.L., Hannu M., van Koten G.
- Main Group Chemistry
- 0419 *Mysteries of Room Temperature Ionic Liquids* **Herrington D.G.**, Johnson K.E.
- 0420 *Physicochemical Characterization of Trialkyl Sulfonium Bromide - Aluminum Chloride Ionic Liquids* **Xiao L.**, Johnson K.E.
- 0421 *Utilization of the Dilithium Imide Li₂(Nnaph) for Syntheses of Main Group Polyimido Anions: Preparation and Derivatization of (Et₂O-Li)₄[Si(Nnaph)₄]* **Brask J.K.**, Chivers T.
- 0422 *The Reactivity of Aluminum Phosphinimine and Ti-Phosphinimide Complexes* **Ong C.M.**, Stephan D.W.
- 0423 *Lithium and Copper Thioamides: Steric and Solvation Effects on Aggregation Pathways* Chivers T., **Downard A.**, Parvez M., Yap G.P.A.
- 0424 *Catalytic and Stoichiometric Reactivity of the Diborane(4) Compound B₂Cl₂(NMe₂)₂* **Lesley G.**, Anderson K.M., Norman N.C., Orpen A.G., Starbuck J.
- 0425 *HYDROBORATION OF ALKENYLAMINE AND ALKENYLPYRIDINE DERIVATIVES* **Vogels C.M.**, Shaver M.P., O'Connor P.E., Phillips T.E., Watson K.J., Westcott S.A.
- 0426 *Oxidation of Stable Diaminosilylenes* **Denk M.K.**, Hatano K., Gupta S. Lough A.J.
- 0427 *Synthesis and Coordination Chemistry of Substituted Verdazyl Radicals: Towards Molecular Magnetic Materials* **Lemaire M.T.**, Hicks R.G., Thompson L.K., Barclay T., Richardson J.F.
- 0428 *General routes to the 1-1³-2,4,6-thiatriazine ring system* **Boéré R.T.**, **Roemmele T.L.**
- 0429 *Alkali and Transition-Metal Coordination Complexes of the Novel Dianionic Ligands [BuN(E)P(m-N'Bu)₂P(E)N'Bu]²⁻ (E=S, Se)* **Chivers T.**, **Krahn M.**, Parvez M., Schatte G.
- 0430 *Synthesis and Characterization of Diazaaluminosulfate Complexes of Alkali Metals* **Blais P.**, Brask J., Chivers T., Schatte G.
- 0431 *Synthesis, Structure, and Polymerization Behaviour of Borane Adducts of the Phosphorus-Bridged [1]-Ferrocenophane [Fe(η⁵-C₅H₄)₂P(Ph)]* **Evans C.E.B.**, Lough A.J., Grondley H., Manners I.
- 0432 *Speciation of Labile Organotin Anions in Solution. A Comparison of Results from both ESI- and FAB-MS Techniques.* **Wharf I.**, Wei J., Gurgi M., Miller J.M.
- 0433 *Superamidines containing phosphorus(III)* **Boéré R.T.**, **Masuda J.**
- 0434 *Transition Metal Complexes of Low Coordinate Antimony Ligands* **Burford N.**, Cameron T.S., Jenkins H.A., LeBlanc D.J., Moore S.H.D., Robertson K.N., **Roesler R.**
- 0435 *Structural and Bonding Characteristics in (Ph₃PO)₂SeCl₂* **Suontamo R.**, Maaninen A., Laitinen R.S., Chivers T.
- 0436 *Combinatorial Chemistry Approach to the Synthesis of Thin Films: Semiconductor Silicon Carbide Thin Layers with Oscillating Properties via Polymer-Assisted Vapor Deposition* **Scarlete M.**, McCourt N., Chacko A.M.
- 0437 *Reactions of a Tellurium Diimide Dimer with Heteroallenes.* Chivers T., **Schatte G.**
- 0438 *Synthesis and X-Ray Crystal Structure of [(BuNSb(m-N'Bu)₂TeN'Bu)](m-SbCl)₂Cl* Chivers T., **Schatte G.**
PAPER WITHDRAWN
- 0439 *Synthetic Strategies in the Isolation of Monomeric Tellurium(IV) Irides* **Briand G.G.**, Chivers T. **PAPER WITHDRAWN**
- 0440 *Using the Molecular Quadrupolar Moment to Prepare Hybrid Organic/Organometallic Compounds* **Clyburne J.A.**, Hamilton T., Jenkins H.A.
- General Inorganic
- 0441 *Magnetic Studies on "Naked" Metal Cations and on Extended Systems Obtained from Their Reactions with Bridging Ligands.* **Aubke F.**, **Sham I.**, Thompson R.C.

0442 *Syntheses, Structures, and Electroluminescence of New Blue/Green Luminescent Chelate Compounds: Zn(2-pyridyl)(THF), BPh₂(2-py-in), Be(2-py-in)₂, and BPh₂(2-py-aza), 2-py-in = 2-(2-pyridyl)indole, 2-py-aza = 2-(2-pyridyl)-7-azaindole* **Wu Q.G.**, Liu S.F., Schmider H.L., Wang S., Aziz H., Hu N.X., Popovic Z.

0443 *2,3-Pyridinedicarboxylates of Cobalt(II), Nickel(II) and Copper(II); Structural and Magnetic Studies.* Patrick B., **Stevens C.L.**, Storr A., Thompson R.C.

0444 *Heteropolynuclear Ruthenium Complexes of Tetrapyridylpyrazine* **Smaglini C.D.**, Lever A.B.P.

0445 *The Synthesis of Chromium Phthalocyanine and its Derivatives* **Alexiou C.N.K.**, Chen J., Lever A.B.P.

0446 *Ruthenium (II) bipyridyl complexes containing hemilabile mixed-donor ligands: in search of luminescent sensors for small molecules.* **Rogers C.W.**, Wolf M.O.

0447 *Oxidation of a carboxylato-pendant-arm macrocyclic nickel(II) complex: An example of equilibrium redox.* **Haines R.I.**, **Hutchings D.R.**

0448 *Binuclear and Trinuclear Ruthenium Complexes: A Synthon-Based Approach Towards Molecular Devices* **Freda A.L.**, Mirza H.A., Lever A.B.P.

0449 *Synthesis of Cyclodextrin Rotaxanes with Dinuclear Platinum(II) Stoppers* **Jin V.**, Buncel E., Macartney D.H.

0450 *Synthesis And Investigation Of Electronic Communication In Tetraaminobiphenyl Bridged Binuclear Ruthenium Complexes* **Metcalf R.A.**, **Mirza H.A.**, Lever A.B.P., Vasconcelos L.C.G., Franco D.W.

0451 *Syntheses, Crystal Structures and Spectro-Electrochemical Studies of a Series of Ruthenium (II) Complexes With The o-Benzoquinonediimine (BQDI) Chromophore. A Step Towards Construction of Molecular Devices.* **Venegas-Yazigi D.**, **Mirza H.A.**, **Freda A.L.**, Lever A.B.P.

0452 *Synthesis of Tin-Bridged Dimers By Oxidative Addition to Platinum(II)* **Janzen M.C.**, Jennings M.C., Puddephatt R.J.

0453 *Redox kinetics as a probe for supramolecular interactions of α - and β -cyclodextrins with amphiphilic nickel(II) macrocycles.* **Haines R.I.**, **Rowley J.E.**

0454 *Aminophosphineiminophosphorane Ligands with the P^(III)-NR⁻-P^(V)=NR Structure.* **Balakrishna* M.S.**, Cavell R.G., Pinkerton A.A., Teipel S., Hiltmann F.

0455 *Preparing Superfine TiO₂ by Hydrolysis (6). The effect of anions on size and shape of TiO₂ particles* **Ling Z.**, Zhong J., Qi-rong L.

17:00 End of Session

Macromolecular Science and Engineering

MA3 Glen 4

Functional Polymers

Organizer - W. Wang
Chair - W. Wang

13:30 0456 *Polyaniline on the Metallic Side of the Insulator-to-Metal Transition due to Dispersion: the Basis for successful Nano-Technology and Industrial Applications of Organic Metals* **Wessling B.**

14:10 0457 *Base-Doped Polyfluorene: Towards the Development of Polymer Electrolytes* **Ranger M.**, Leclerc M.

14:50 0458 *Conductive Polymer Electrolytes* **Hooper R.**, West R., Moline D.A., Lyons L.J.

15:10 Coffee Break

15:30 0459 *Ring-Opened Poly(ferrocene)s As Protective Charge Dissipation Coatings For Dielectrics* **Berenbaum A.**, Resendes R., Stojcic G., Jäkle F., Bartole A., Zamanian F., Manners I., Dubois G., Balmain K., Hersom C.

15:50 0460 *The Design of Aromatic Ethers as Building Blocks for Engineering Thermoplastics* **Abd-El-Aziz A.S.**, **Todd E.K.**, de Denu C.R.

16:10 0461 *Vapor phase deposition of Copper phthalocyanine (CuPc) thin films* **Yan D.H.**

16:30 0462 *Novel polypyridyl Ru(II) containing polymers: Synthesis and Characterization* **Farah A.A.**, Pietro W.J.

16:50 End of Session

Organic Chemistry

OR2 Glencoe

NMR in the Next Millenium (joint with PH6)

Organizer - T. S. Sorensen
Chair - T. Sorensen

13:00 0463 *Flow NMR: Direct-Injection NMR (DI-NMR) Analysis Tools for Drug Discovery* **Flow NMR: Direct-Injection NMR (DI-NMR) Analysis Tools for Drug Discovery** **Keifer P.A.**

14:00 0464 *NMR Magnet Technology at Ultra-High Fields* **Teodorescu R.**, Roth G.

14:40 Coffee Break

15:00 0465 *A Combined NMR and Molecular Orbital Study of Solid t-Butyllithium* **Penner G.**, Chang P.

15:20 0466 *A GIAO-NMR Investigation of Stable Carbenes and poly-Carbenes* **Denk M.K.**, Soong R., Veinot J., Gupta S.

15:40 0467 *NMR Of Weakly Aligned Macromolecules* **Bax A.**, Kontaxis G., Delaglio F., Comilescu G., Ramirez B., Koenig B., Chou J.

16:20 End of Session

OR3 Glenview

Stereoselective Synthesis

Organizer - D. Ward, M. Majewski
Chair - D. Ward

Astra Pharma Award

13:00 Introduced by Steve Hanessian

13:05 0468 *Recent Advances in Stereoselective Synthesis* **Charette A.B.**

14:00 0469 *Asymmetric Total Synthesis of the Oxindole Alkaloids Paraherquamide A and Spirotryprostatin B* **Williams R.M.**

14:40 0470 *Highly Diastereoselective Synthesis of Trans-Syn-Cis Tricycles via the Tandem Oxy-Cope/Ene Reaction* **Barriault L.**, Warrington J.M., Deon D.H.

15:00 Coffee Break

15:20 0471 *A Second-Generation Synthetic Approach Towards Clerodane Diterpenoids* **Liu H.J.**

16:00 0472 *Cycloadditions in the Service of Indole Alkaloid Synthesis* **Kerr M.A.**, Brown M., Kinsman A.C., Barrett I.C., Banfield S.C., Kuss T.D.O.

16:40 End of Session

OR4 Glenmore

Combinatorial Chemistry (joint with BM3)

Organizer - D. Hall
Chair - V. Snieckus

13:00 NOTE: Paul keifer's talk|Flow NMR: Direct Injection NMR (DI-NMR)|is in the|GLENCOE ROOM

14:00 0473 *Encoded Split and Pool Oligoamine Libraries. Applications Towards Synthetic Receptors for Biologically Active Molecules.* **Manku S.**, Hall D.G.

14:20 0474 *Use of the Chemistry Toolbox' in the Parallel Synthesis of Compound Libraries* **Shuttleworth S.**

15:00 Coffee Break

15:20 0475 *Synthesis and Screening of Carbohydrate-Based Libraries* **Hindsgaul O.**

16:00 0476 *Gold-thiolate surfaces as a support for synthesis: release of alcohols via intramolecular thiolysis.* **Fyles T.M.**, **Mischki T.**, Sutherland T.

16:20 0477 *Application of FTIR and LC/MS/ELSD in the Optimization of Solid-Phase Combinatorial Synthesis* **Yang B.**

17:00 End of Session

OR5 Glengarry

General Session-Organic

Organizer - B. A. Keay
Chair - M. Chong

Photochemistry

14:00 0478 *Photohydration of Hydroxy-Substituted Biphenyl Alkenes: Evidence for Long Range Excited State Proton Transfer (ESIPT).* **Brousriche D.W.**, Wan P.

14:20 0479 *The photochemical nucleophile-olefin combination, aromatic substitution (photo-NOCAS) reaction. Extending the scope to include aliphatic allenes and alkynes.* **Mangion D.**, Arnold D.R., Cameron T.S.

14:40 0480 *Synthesis and Photophysical Characterization of Dimethyldihydropyrene and its Derivatives as Potential Photoswitches* **Sheepwash M.A.**, Mitchell R.H., Bohne C.

15:00 Coffee Break

15:20 0481 *Molecular Rearrangements Of Photochemically generated Carbocations In Neutral Solutions* **Madenova G.**, Lee-Ruff E., Johnston L.

15:40 0482 *Stereospecific (Conrotatory) Photoelectrocyclic Ring Opening of Alkylcyclobutenes.* **Leigh W.J.**, Cook B.H.O., Litovitz A.E., Walsh R.

16:00 0483 *Psoralen Photochemistry: The Role of Electron Transfer* **Johnston L.J.**, Chen L., Mnyusiwalla A., Wood P.D.

16:20 0484 *Combining the Photochemical and Electrochemical Electron Transfer Kinetic Data of the Dissociative Reduction of Endoperoxides: The Effect of the Coulomb Term* **Magri D.C.**, Workentin M.S.

16:40 End of Session

Physical/Theoretical Chemistry

PH2 MacLeod A1

Structure and Dynamics in the Condensed Phase

Organizer - D. T. Cramb
Chair - G. Leach

13:00 0485 *New Tools to Peek into and Poke at Cells and Proteins* **So P.T.C.**, Huang H., Sutin J., Dong C.Y., Cragg G.

13:40 0486 *Probing Biological Samples with Near-Field Optics* **Dunn R.C.**

14:20 0487 *AFM and NSOM Studies of Lipid Rafts in Model Membranes* **Johnston L.J.**, Yuan C., Lu Z.

14:40 0488 *The Interaction of Proteins with Supported Lipid Bilayers - Model Systems* **Cuccia L.A.**, Lu Z., Johnston L.J.

15:00 Coffee Break

15:20 0489 *A Systematic Study of the Spectroscopy and Photophysics of Tropolone in Clusters and in Condensed Media* **Steer R.P.**, Shoute L.C.T., MacKenzie V.J., Falk K.J., Sinha H.K., Warsylewicz A.

16:00 0490 *A fluorescence resonance energy transfer study of an ion-channel-drug interaction: the gramicidin-dibucaine model system* **Carnini A.**, Duchscherer T.M., Ha A.C., Wallace S.C., Cramb D.T.

16:20 0491 *Bond Dissociation Energies of N-Alkoxyamines Used in Living Free Radical Polymerization* **Skene W.G.**, Scaiano J.C.

16:40 End of Session

PH4 MacLeod A3

Biological Radical Mechanisms: Experiment and Theory (joint with BM5)

Organizer - A. Rauk, D. A. Armstrong
Chair - D. A. Armstrong

13:30 0492 *Biological Radicals: Challenges and Opportunities for Computational Quantum Chemistry* **Boyd R.J.**

14:10 0493 *Mechanisms of Oxidative Damage related to Alzheimer's Disease* **Rauk A.**, Armstrong D.A., Fairlie D.P.

14:50 Coffee Break

Chair - G. Thatcher

15:10 0494 *Mechanism of Release of Nitric Oxide From S-NO Hemoglobin in Circulation. Electron Transfer Sources and Radical Anions* **Kluger R.**, Pezacki J.P.

15:30 0495 *Mechanisms of NO Release, Inhibition of Lipid Peroxidation and Guanylate Cyclase Activation by Novel Organic Nitrates* **Thatcher G.R.J.**, **Nicolescu A.**, Reynolds R.N., Bennett B.M., Dumitrascu A., Zavorin S.I., Artz J.A., Smith S.V.

15:50 0496 *Kinetics and Mechanism of Bioconjugation of Nitric Oxide to Hemoglobins.* **Pezacki J.P.**, Brookes S., Kluger R.

16:10 End of Session

PH5 Glenbow T.

New Directions in Chemical Modelling

Organizer - T. Ziegler
Chair - T. Woo

13:30 0497 *Delay-differential equations in chemical modeling* **Roussel M.R.**

14:10 0498 *Conformational Analysis of Flexible Molecules: Uniform Random Search and Importance Sampling* **Weinberg N.**

14:50 0499 *Theoretical Study of Scanning Tunneling Microscope Induced Desorption of Benzene from a Si(100) Surface.* **Alavi S.**, Rousseau R., Seideman T.

15:10 Coffee Break

15:30 0500 *Molecular shape fluctuations for protein folding-unfolding transitions in vacuo.* **Arteca G.A.**

16:10 0501 *Recent Advances in Protein Structure Prediction* **Gunn JR.**

16:50 0502 *Fast, Efficient Generation of High-Quality Atomic Charges for Organic Molecules: the AM1BCC Model* **Jakalian A.**, Bush B.L., Jack D.B., Bayly C.I.

17:10 End of Session

Tuesday AM

Analytical Chemistry

AN2 Glen 3

Electrochemical Solutions to Fundamental and Applied Problems (joint with PH1)

Organizer - V. I. Birss
Chair - J. Lessard & J. Gulens

Electrochemical-Analytical Techniques

08:30 0503 *Detection of surface-active compounds at Au and Pt μ m-electrodes in flowing solutions* **Baranski A.S.**

09:00 0504 *Interpreting the results of impedance spectroscopy: When the instrument artifact may come in the way.* **Vanysek P.**, Dinh H.N., Birss V.I.

09:30 Coffee Break

Fuels Cells/Electrocatalysis

09:40 0505 *Direct Methanol Fuel Cells - Past Progress and Future Challenges* **Thomas S.C.**

10:10 0506 *Towards a Direct Methanol Fuel Cell Using Organometallic Chemistry* **Lee C.E.**, Xing Y., Cao D., **Bergens S.H.**

10:40 0507 *Bigger Isn't Necessarily Better: The Formation and Characterisation of Pt Nanoparticles Formed by the Sol-Gel Method* **Andreas H.A.**, Birss V.I.

11:00 0508 *Catalyst and Membrane Development for Direct Methanol Fuel Cells* **Pickup P.G.**, Easton E.B., Halfyard J.E., Jia N., Lefebvre M.C., Martin R.B., Qi Z., Shan J.

11:30 0509 *Fuel Cell Electrochemistry in Solid Polymer Electrolytes* **Holdcroft S.**

12:00 End of Session

AN3 Glen 1

Bioanalytical Chemistry

Organizer - X. C. Le
Chair - K. Waldron & D. Chen

Bio-Separations

08:30 0510 *Determination of γ -Carboxyglutamic Acid Content of Protein, Urine and Plasma by Capillary Electrophoresis and Laser Induced Fluorescence* **Britz-McKibbin P.**, Vo H.C., MacGillivray R.T.A., **Chen DDY.**

09:00 0511 *In Vivo Monitoring of Amine Neurotransmitters using Online Microdialysis-Capillary Electrophoresis-Laser Induced Fluorescence* **Bowser M.T.**, Kennedy R.T.

09:30 0512 *DNA Sequence-Specific Detection Using Cycling Probe Technology and Capillary Gel Electrophoresis with Laser-Induced Fluorescence.* Dickinson-Laing T., Bader D.E., Bekkaoui F., Lee W.E., Mah D.C.

10:00 Coffee Break

10:20 0513 *Analysis of Protein Samples Using Capillary Isoelectric Focusing with the Whole-Column Imaging Detection* Pawliszyn J., Wu J., Tragas C.

10:50 0514 *Fast Analysis of Testosterone and Its Metabolites and Application to Drug Screening* Ching A., Ma M.S., Mao P., Tam Y.K., Li X.F.

11:20 0515 *Determination of Neuropeptide Y and its Endogenous N-Truncated Fragments by Capillary Electrophoresis* Fürtös-Matei A., Waldron K.C., St-Pierre S.A.

11:50 End of Session

AN6 Glen 2

Instrumental Analysis of Synthetic Polymers (joint with MA5)

Organizer - F. Cantwell, R. Saetre
Chair - R. Saetre

08:30 0516 *Structural Analysis of Thiophene-Based Conducting Polymers by Pyrolysis-Gas Chromatography-Mass Spectrometry* Tang S., Helleur R., Pickup P.

09:00 0517 *Mass Spectrometry for Polymer Characterization* Li L.

09:40 0518 *Carbon-13 NMR Analysis of Polyolefins* Yamashita G.T.

10:20 0519 *An NMR analysis of aqueous solutions of dinitrobenzoyl end-capped poly(ethylene glycol)* Cojocariu G., Natansohn A.

10:40 Coffee Break

11:00 0520 *Orientation and Relaxation Studies in Polymer Blends by Polarization-Modulation Infrared Linear Dichroism* Pellerin C., Pelletier I., Prud'homme R.E., Pézolet M.

11:30 0521 *Quantitative Infrared Spectroscopy Study of the Complexation Between Acid Polymer and Basic Small Molecules* Tremblay H., Bazuin C.G., Pézolet M.

12:00 End of Session

Biological/Medicinal Chemistry

BM4 MacLeod A4

Structural Biological and Medicinal Chemistry

Organizer - Y. Tsantrizos
Chair - Y. Tsantrizos

08:35 Introductory Remarks

08:40 0522 *Probing Substrate Recognition of HIV-1 Protease* Scott W.R.P., Schiffer C.

09:00 0523 *News From the Front: Recent Developments in Structure Determination by NMR* Gehring K.

09:40 0524 *An NMR Conformational Analysis of Cyclic Bradykinin Mimics. Evidence for a β -Turn.* Miskolzie M., Yamamoto H., York E.J., Stewart J.M., Kotovych G.

10:00 0525 *NMR Structural Studies on HIV or AIDS Related Proteins* Gronenborn A.M.

10:40 Coffee Break

11:00 0526 *Viral and Cellular Structure Based Drug Design Targets for Hepatitis C Virus Antiviral Therapy* Kwong A.D.

11:40 0527 *Solid State and Solution Conformations of Eleutherobin and Structure-Activity Studies of Six New Antimitotic Analogues Isolated from a Caribbean Octocoral.* Cinel B., Roberge M., Patrick B.O., Andersen R.J.

12:00 End of Session

Chemical Education

CE3 Stephen

Teaching Environmental Chemistry: Where are We Now? (joint with EN5)

Organizer - E. A. Dixon
Chair - E. A. Dixon

08:30 0528 *Teaching Environmental Chemistry Collaboratively* Dixon E.A.

09:00 0529 *Teaching Atmospheric Chemistry: Is It Only Gas-Phase Kinetics?* Rayner-Canham G.W.

09:30 0530 *Laboratory Experiments Illustrating Fundamental Processes in Nature* Cantwell F.F., Armour M.A.

10:30 Coffee Break

10:50 0531 *The Declining Quality of Chemistry Graduate Education in Environmental and Applied Sciences* Preston C.M., Salloum M.J.

Round Table Discussion|THE FUTURE OF ENVIRONMENTAL TEACHING|IN CANADA

12:00 End of Session

Environment

EN4 MacLeod A2

"Green" Chemistry

Organizer - D. S. Gamble
Chair - W. Brown

Environment Improvement Award

Introduction by W. Brown

08:40 0532 *The Realities of Taking Environmental Science and Engineering to the Field* Reimer K.J.

09:40 Coffee Break

10:00 0533 *Enhanced removal of trichloroethylene from soil and groundwater by substituted cyclodextrins* Shirin S., Bunce E., vanLoon G.W.

10:20 0534 *Selectivity as the Fundamental Principle of Green Chemistry. The Ru-catalyzed Hydrogenation of Unsaturated Aldehydes.* Papp G., Joó F., Kovács J., Elek J.

10:40 0535 *Characterization and Potential Applications of Pyrolytic Char from Ablative Pyrolysis of Used Tires* Popovic N., Helleur R., Ikura M., Liu D., Stanculescu

11:00 End of Session

Inorganic Chemistry

IN5 MacLeod C

C-X Bond Activation (denitrogenation, desulfuration, dehalogenation)

Organizer - S. Gambarotto
Chair - C. Jablonski

08:20 0536 *Rare Earth and Group 4 Metal Complexes Supported by Linked Amido-Cyclopentadienyl Ligands* Okuda J., Arndt S., Beckerle K., Voth P., Hultsch K.C., Sinnema P.J., Spaniol T.P.

09:00 0537 *Olefin Coordination and Oxidative Addition to $[\text{Ir}_2(\text{CH}_3)(\text{CO})_2(\text{dppm})_2][\text{CF}_3\text{SO}_3]$ (dppm = $\text{Ph}_2\text{PCH}_2\text{PPh}_2$)* Ristic-Petrovic D., Hiltz R., McDonald R., Torkelson J., Cowie M.

09:20 0538 *New Perspectives on Sigma-Bond Metathesis Reactions: C-H, C-Si, Si-H, and Sn-H Bond Activations* Tilley T.D., Castillo I., Neale N.R., Sadow A.D.

10:00 Coffee Break

10:20 0539 *Activation of C-X and Related Bonds by d-Block Metal Aryloxide Compounds* Rothwell I.P.

11:00 End of Session

IN7 MacLeod B

Advanced Catalysis in Polyolefins and Related Alpha-Olefins (joint with MA4)

Organizer - X. Gao, Q. Wang
Chair - A. Arduini

08:50 Introductory Remarks

09:00 0540 *Investigations of the Mechanisms of α -Olefin Polymerization with Metallocene Catalysts* Bercaw J.E.

09:40 0541 *Modeling Propylene Polymerization with Two-State ansa-Metallocene Catalyst(s)* Mohammed M., Nele de Souza M., Xin S., Collins S.

10:00 Coffee Break

10:20 0542 *Asymmetric "Dual-Side" Zirconocene Catalysts: New Tools for the Design of Thermoplastic Elastic Polypropenes* Kukral J., Troll C., Rieger B.

Pure & Applied Inorganic Award

11:00 Introduction by Tris Chivers

11:10 0543 *Probing Single-site Olefin Polymerization Catalysts by Computational Methods. Understanding Old Catalysts and Designing New.* Chan M.S.W., Deng L., Firman T., Michalak A., Schmid R., Woo T.K., Vanka K., Ziegler T.

12:00 End of Session

Macromolecular Science and Engineering

MA3 Glen 4

Functional Polymers

Organizer - W. Wang
Chair - W. Wang

08:20 0544 *New polymeric resins used for separation and adsorption* Zhu X.X.

08:40 0545 *Properties and performance of polyethyleneimine pore filled membranes* Kim M.Y., Childs R.F.

09:00 0546 *Approaches to Functional Ferrocene Polymers* Jäkle F., Power-Billard K.N., Lough A.J., Manners I.

09:20 0547 *Isotactic Polymerization of Methyl Methacrylate Using a Prochiral, Zirconium Enolate Initiator* Nguyen H., Jarvis A.P., Lesley M.J.G., Kelly W.M., Reddy S.S., Taylor N.J., Collins S.

09:40 0548 *Novel Synthesis of Substituted Norbornenes and their Subsequent Polymerization* Abd-El-Aziz A.S., May L.J., Budakowski W.R.

10:00 Coffee Break

10:20 0549 *Insights Into Nitroxide Mediated Living Free Radical Polymerization of Acrylates* Skene W.G., Scaiano J.C., Piletic I.

10:40 0550 *Light Harvesting and Energy Transfer Within Multichromophoric Dendrimers - Towards Photosynthetic Mimics* Adronov A., Gilat S.L., Malenfant P.R.L., Chrisstoffels L.A.J., Fréchet J.M.J.

MSFD Award Lecture

11:00 Introduced by R. S. Brown

11:05 0551 *The versatility of azobenzene polymers* Natansohn A.

12:00 End of Session

Materials Science

MS2 MacLeod A1

Recent Advances and New Directions in Materials Science

Organizer - R. Hill
Chair - G.W. Leach

08:30 Introductory Remarks

08:40 0552 *New Luminescent/Electroluminescent Chelate Compounds* Liu S.F., Wu Q., Yang W.Y., Wang S., Aziz H., Hu N.X., Popovic Z.

09:00 0553 *Synthesis and Characterization of Chiral Dithienylethene Dopants Designed to Photomodulate the Spontaneous Polarization of a Ferroelectric Liquid Crystal* Maly K.E., Lemieux R.P.

09:20 0554 *Interfacial Organic Photochemistry of Self-Assembled Monolayers on Metal and Colloidal Surfaces.* Workentin M.S., Kell A.J., Jocys G.J., Pitters J.L.

09:40 0555 *Transmission electron microscopy study of nanocrystalline Ti-Ru-Fe-O materials* Tremblay M.L., Serventi A.M., Saint-Jacques R., Roue L., Guay D., Schulz R.

10:00 Coffee Break

10:20 0556 *Solid State Reactions of Functionalized Polythiophene Films* Holdcroft S., Yu J.

11:00 0557 *Gold-Gold Interactions: Towards Magneto-Optical Coupling in Molecular Magnetism Research* Leznoff D.B.

11:20 0558 *Initial oxidation of H-terminated Si(111) surfaces studied by optical second-harmonic generation* Anderson S., Mitchell S.A., Boukherroub R.

11:40 End of Session

Organic Chemistry

OR3 Glenview

Stereoselective Synthesis

Organizer - D. Ward, M. Majewski
Chair - M. Majewski

08:20 0559 *Catalytic Asymmetric Reactions of Lithium Enolates* Koga K.

09:00 0560 *Stereoselective Addition and Cross-Coupling Reactions of Organoboron Compounds* Batey R.A., Thadani A.N., Smil D.V., Quach T.

09:40 0561 *A New Generation of Versatile Asymmetric Catalysts Derived from Polyfluorobiphenyl Ligands* Yudin* A.K., Martyn L.J.P., Pandiaraju S.

10:00 Coffee Break

10:20 0562 *Geminal Acylation as a Key Step in Synthesis* Burnell D.J., Morrison C.F., Elliott C.E., Melanson R.L., Blanchard A.N.

Alfred Bader Award

11:00 Introduced by Tito Scaiano

11:05 0563 *In the Footsteps of Pasteur: Asymmetric Induction in the Photochemistry of Crystalline Ammonium Carboxylate Salts* Scheffer J.R.

12:00 End of Session

OR5 Glengarry

General Session-Organic

Organizer - B. A. Keay
Chair - G. Bodwell

Physical Organic

08:40 0564 *Will They Gave Me a PhD for THIS :-)? NMR of Orientationally Ordered Solutes.* Syvitski R.T., Bumell E.E. **PAPER WITHDRAWN**

09:00 0565 *An ELF (Electron Localization Function) Study of the 2-Bicyclo[2.2.1]heptyl (Norbornyl) and 2-Bicyclo[1.1.1]hexyl Cations.* Werstiuk N.H., Noury S.

09:20 0566 *Unusual Weak Bonding Interactions in Sulfinyl Amines.* Muchall H.M.

09:40 Coffee Break

10:00 0567 *Parallel Dipole Alignment In The Absence of External Electric Fields: The Azine Functional Group As A "Conjugation Stopper."* Lewis M., Glaser R.

10:20 0568 *Excited State Intramolecular Proton Transfer (ESIPT) Across Meta Positions of Hydroxystyrenes and Related Compounds* Cole J., Wan P.

10:40 End of Session

OR6 Glenmore

Solids and Separation Science in Synthesis

Organizer - C. Crudden
Chair - C. Crudden

08:30 Introductory Remarks

08:40 0569 *Nanoporous Catalysts for Fine Chemical Synthesis* Ying J.Y.

09:20 0570 *Heterogeneous Catalysis Using Anchored or Intercalated Metal Complexes* Alper H.

10:00 Coffee Break

10:20 0571 *Aqueous Barbier Reactions Promoted by Metal and Fluoride Salts* Li L.H., Chan T.H.

10:40 0572 *Diversity of Ionic Liquids in Synthesis* Singer R.D.

11:00 0573 *Engineering Solid State [2+2] Photoreactivity via Hydrogen Bond Encoded Molecular Recognition* Reid J.L., Ripmeester J.A., Macgillivray L.R.

11:20 0574 *Chiral Lithium Amides on Soluble Polymer Support: Synthesis and Applications.* Ulaczyk A., Wang F., Majewski M.

11:40 End of Session

OR8 Glencoe

Physical Organic Chemistry at Surfaces and Interfaces

Organizer - D. Wayner
Chair - M. Workentin

08:30 Introductory Remarks

D. Wayner

08:40 0575 *Reactivity of Hydrogen-Terminated Silicon Surfaces: Surface Etching, Functionalization and Passivation* **Chidsey C.E.D.**

09:20 0576 *Understanding and Controlling Adsorption of Organic Molecules on Silicon Surfaces* **Lopinski G.P.**

10:00 Coffee Break

10:20 0577 *Mechanism of Reaction of Grignard Reagents with Si(111)H* Boukherroub R., Yu Y.Z., **Wayner D.D.M.**

10:40 0578 *Controlled release of thiols from gold.* Fyles T.M., Mischki T., **Sutherland T.**

11:00 0579 *Surface Modifications of Porous Silicon: Facile Linkage of Biomolecules via Activated Esters* **Wojtyk J., Wayner D.D.M.**

11:20 0580 *Binding Organic Films to Carbon Surfaces* **McDermott M.T., Kariuki J.K.**

12:00 End of Session

Physical/Theoretical Chemistry

PH4 MacLeod A3

Biological Radical Mechanisms: Experiment and Theory (joint with BM5)

Organizer - A. Rauk, D. A. Armstrong
Chair - R. J. Boyd

09:00 0581 *Consequences of Free Radical Damage.* **Stadtman E.R.**

09:40 0582 *Radiation and OH Radical Induced Damages to DNA, Studied by Density Functional Theory* **Eriksson L.A., Wetmore S.D., Ban F., Llano J., Lundqvist M.J., Boyd R.J.**

10:00 Coffee Break

Chair - P. Wardman

10:20 0583 *One Electron Oxidation of Amino Acid Anions. Primary Sites, Transients, Yields and Rate Constants.* **Asmus K.-D., Bonifacic M., Carmichael I., Hug G.L., Stefanic I., Armstrong D.A.**

11:00 0584 *Immuno-affinity Probe Capillary Electrophoresis Bio-assay for Detection of Damage and Repair in Cellular DNA* **Xing J.Z., Le X.C., Camelley T., Weinfeld M., Lee J.**

Free Radicals from Heme Peroxidases,
H. B. Dunford

12:00 End of Session

PH5 Glenbow T.

New Directions in Chemical Modelling

Organizer - T. Ziegler
Chair - R. Kapral

08:00 0585 *Approximate Functionals in Time-Dependent Density Functional Theory Calculations of Molecular Excitation Spectra: Artifacts and Possible Corrections* **Casida M.E.**

08:40 0586 *Towards Accurate Linear Scaling Electronic Structure Calculations with the DeFT Density Functional Software Package* **St-Amant A.G.**

09:20 0587 *The Combined QMMM and ab initio Molecular Dynamics Methods as Practical Tools for the Molecular Modeling of Large Transition Metal Complexes* **Woo T.K.**

10:00 0588 *Extracting quantitative structural information from EPR g-tensors with density functional theory: applications to nitrosoiron(II) porphyrins.* **Patchkovskii S., Ziegler T.**

10:20 Coffee Break

10:40 0589 *What's New in Rate Constant Calculations for Barrierless Reactions* **Wardlaw D.M., Wagner A.F., Robertson S.H.**

11:20 0590 *Alignments and Distribution Functions of Drifting Gas-Phase Ions* **Thachuk M., Baranowski I.**

12:00 0591 *The SM5.42 Universal Quantum Mechanical Solvation Model* **Xidos J.D., Li J., Zhu T., Hawkins G.D., Winget P., Liotard D.A., Cramer C.J., Truhlar D.G.**

12:20 End of Session

Tuesday PM

Analytical Chemistry

AN2 Glen 3

Electrochemical Solutions to Fundamental and Applied Problems (joint with PH1)

Organizer - V. I. Birss
Chair - P. Pickup

Electrocatalysis

13:30 0592 *Recent progress in the electrocatalysis of oxygen reduction on non-noble surfaces* **Brisard G.M., Bertrand N., Trépanier V.**

14:00 0593 *Evidence from Pressure Effects for the Incursion of Solvent Dynamics into Electrode Reaction Kinetics* **Swaddle T.W.**

14:20 0594 *Surface Electrochemistry and Electrocatalytic Activity of Positively-Charged Porphyrazines and their Ion-Pairs with Negatively-Charged Phthalocyanine* **Chen J., Lever A.B.P., Hoffman B.M., Anderson M.**

14:40 0595 *Surface Oxide Growth at the Pt Electrode in Aqueous H₂SO₄. A New Insight into an Old Problem* **Jerkiewicz G., Vatankeh G., Lessard J., Soriaga M.P.**

15:00 Coffee Break

15:20 0596 *Mechanism of Electrohydrogenation of Nitro Groups at Large Surface Area (Porous) Electrodes in Basic Hydroethanolic Solutions: Electronation-Protonation or Electrocatalytic Hydrogenation?* **Lessard J., Chan-Shing E.S., Chapuzet J.M., Boucher D.**

15:50 0597 *Smart Electrodes Materials for Electrocatalytic Hydrogenation* **Ménard H., Laplante F., Dubé P., Brossard L.**

16:20 0598 *Physical and electrochemical surface characterizations of SnO₂-RuO₂ solid solutions prepared by high-energy ball milling* **Gaudet J., Germain P., Roue L., Guay D., Tavares A., Trasatti S.**

16:40 0599 *Electrode characteristics of sub-stoichiometric titanium oxide phases prepared by high energy ball milling* **Chollier M.J., Salver-Disma F., Roue L., Guay D.**

17:00 End of Session

AN3 Glen 1

Bioanalytical Chemistry

Organizer - X. C. Le
Chair - S. Mikkelsen & E. Lai

13:30 0600 *Time-of-flight Mass Spectrometric Analysis of Drugs, Phospholipids, Toxins and Allergens after Capillary Electrochromatographic Separation or Surface Plasmon Resonance Immunoassay* **Lai E.P.C., Owega S., Mullett W.M., Dabek-Zlotorzynska E.**

14:00 0601 *Structural Studies of African Swine Fever Virus* **Galka J.J., Booth T., Perreault H.**

14:20 0602 *Applications of Polypyrrole Coated Capillary In-tube SPME Coupled with HPLC-ESI-MS* **Wu J., Pawliszyn J.**

14:40 0603 *High Throughput Protein Identification of 2D Gel separated Proteins by MALDI-TOF Mass Spectrometry* **Krolic S.**

15:00 Coffee Break

15:20 0604 *Airborne Cell Biology* **Nilsson S., Santesson S., Degerman E., Johansson T., Laurell T., Nilsson J.**

16:00 0605 *Studies of Charge Transfer across Liquid/liquid Interfaces by Nanotechnology and Scanning Electrochemical Microscopy* **Shao Y., Tong Y., Zhang Z., Sun P., Yuan Y., Ye J.**

16:30 0606 *Reduction of Ferricyanide by Viable E. coli: Application to Fermentation Monitoring and Control* **Ertl P., Mikkelsen S.R.**

17:00 0607 *Voltammetric and High Resolution Microscopic Characterization of Gold Electrodes with Self-Assembled, DNA-Containing Monolayers* **Mak A., Mikkelsen S.R.**

17:20 End of Session

AN7 Glen 2

**The NEWs in Analytical
Chemistry**Organizer - G. Agnes
Chair - G. Agnes**13:25 Introductory Remarks****13:30** 0608 *Scanning Force
Microscopy Studies of Nonspecifically
Adsorbed Protein Films* **McDermott M.T.**,
Ta T.C.**13:50** 0609 *Electrochemical studies of
water insoluble surfactant adsorption: the
influence of fluorescent dye additives on the
interfacial organization.* **Bizzotto D.**,
Stoodley R., Stauffer V., Yang Y.**14:10** 0610 *From acoustic wave sensor,
capillary electrophoresis, microfluidic
biochip to their happy marriage* **Li
P.C.H.****14:30** 0611 *Adsorption of Carboxyl-
Terminated Dendrimers on Zirconia
Chromatographic Supports.* **He M.**, **Sun
L.****14:50 Coffee Break****15:10** 0612 *Chemical Cytometry -
Where Analytical Chemistry Meets Cell
Biology* **Krylov S.N.**, Zheru Z., Hu C.,
Chan N.W.C., Palcic M.M., Dovichi
N.J.**15:30** 0613 *Reactive Flow Detector For
Chromatography* **Thurbide K.B.**, Aue
W.A.**15:50** 0614 *Bead - Based Reagents in
Microfluidic Systems (On chip SPE, EC and
Immunoassay)* **Oleschuk R.D.**, Jemere
A.B., Shultz-Lockyear L.L., Fajuyigbe F.,
Harrison D.J.**16:10** 0615 *Rapid Calibration and
Immunoassay on Multichannel Microchip
System* **Cheng S.B.**, Skinner C.D., Taylor
J., Lee W.E., Harrison D.J.**16:30** End of Session**Biological/Medicinal Chemistry****BM6 MacLeod A4****Chemistry and Agriculture**Organizer - T. G. Back
Chair - Tom Back**13:15 Introductory Remarks****13:20** 0616 *Mechanisms of Defense and
Resistance in Plants and their Pathogens:
Phytotoxin and Phytoalexin Detoxification*
Pedras M.S.C.**14:00** 0617 *Probing Host-Selective
Phytotoxicity: Synthesis of Phomalide,
Destruxin B, and Analogues.* **Ward
D.E.****14:40 Coffee Break****15:00** 0618 *Highlights of Miticide
Chemistry* **Dekeyser M.A.****15:40** 0619 *Structure of Phoma
pomorum Toxins active against *Cynoglossum
officinale* L.* **Smith K.C.**, Rodriguez-
Juarez R.C., Conner R.L.**16:00** End of Session**BM7 MacLeod A2****General Session-Bio/Med**Organizer - T. G. Back
Chair - S. Taylor**13:20** 0620 *Measuring mouse
lymphoma nucleotide pool perturbations
induced by treatment with ribavirin by
capillary electrophoresis* **Vo H.C.**, Sacks
S.L., **O'Brien K.B.**, Chen D.D.Y.**13:40** 0621 *Phase-grating Studies of
Heme Protein Dynamics* **Ogilvie J.P.**,
Marvet U., Dadusc G., Miller R.J.D.**14:00** 0622 *The Synthesis of Unique
Carborane Based Neutron Capture Therapy
and Synovectomy Agents* **Valliant J.F.**,
Schaffer P., Riddoch R.W., Peplow M.,
Sogbein O.O., Morel P., Stephenson
K.**14:20** 0623 *¹⁸F-Labeled Estrogens for
Receptor Imaging of Breast Cancer*
Seimille Y., Ali H., Bénard F., van Lier
J.E.**14:40 Coffee Break****15:00** 0624 *Photo-control of
Biomolecular Structure and Function*
Woolley G.A., Kumita J.A., Burns DC.,
Borisenko V., **Smart OS.****15:20** 0625 *Improved Radiosynthesis
and Characterization of ¹⁸F-Labelled 2- and
3-fluoro-L-a-methyltyrosine for Positron
Emission Tomography* **Vasdev N.**,
Chirakal R., Schrobilgen G.J., Nahmias
C.**15:40** 0626 *Kinetic Studies of Rat
Kidney g-Glutamyl Transpeptidase by using
Substrate Analogues* **Castonguay R.**,
Ménard A., Keillor J.W.**16:00** 0627 *Structure-based design of
COX-2 selectivity into flurbiprofen* **Bayly
C.I.**, Black W.C., Léger S., Ouimet N.,
Ouellet M., Percival M.D.**16:20** 0628 *Mutagenic Nitroarenes:
Relative Rates of Metabolism and Theoretical
Calculations* **McCarthy B.E.**, Andrew
L.C.**16:40** End of Session**BM8 Exhib'n Hall****Posters-Bio/Med**Organizer - T. G. Back
Chair - Tom BackFrom **16:30** until **18:00****0629** *5-HT_{2C} Selective Ligands with
Potential Therapeutic Applications for
Epilepsy, Obesity and Anxiety* **O'Brien A.**,
Isaac M., Slassi M., Edwards L.,
MacLean N., Bueschens D., Lee D.K.H.,
McCallum K., De Lannoy I., Demchyshyn
L., Kamboj R.**0630** *Designer Fluorescent Ligands for
Targeting Specific DNA Sequence Subsets*
Sasmal S., Chatterjee M., Singh
M.P.**0631** *Benzimidazole-Tagged Polyamides
and Extended Covalently Linked Dimers as
Design Paradigms for High
Affinity/Selectivity in DNA Sequence
Recognition* **Chatterjee M.**, Singh
M.P.**0632** *Heterocyclic Aromatic Amines in
Cooked Hamburgers and Chicken Obtained
from Local Fast Food Outlets in the Ottawa
Region* **Klassen R.D.**, Lewis D., Lau B.P.-
Y., **Sen N.P.****0633** *Formation of N-Nitroso-N-
methylurea (NMU), a Direct-Acting
Carcinogen, in Various Fish, Seafoods, and
Pickled/Fermented Vegetable Products After
Incubation with Nitrite at Gastric pH* **Sen
N.P.**, Seaman S.W., Baddoo P.A.,
Burgess C., Weber D.**0634** *Phytoalexin Elicitation and
Biosynthesis of the Cruciferous Phytoalexin
Brassicalexin in Oriental Mustard (*Brassica
juncea*).* **Pedras M.S.C.**, **Nycholat
C.M.****0635** *Sinalbin A, a New Cruciferous
Phytoalexin from *Sinapis alba** **Pedras
M.S.C.**, Zaharia I.L.**0636** *Alternaria Blackspot Phytotoxins:
Towards an Understanding of Specific
Disease Resistance Traits* **Pedras M.S.C.**,
Zaharia I.L.**0637** *HPLC Analyses of Extracts of Phoma
Species: Differentiation of Groups and
Species* **Pedras MSC.**, Biesenthal
C.J.**0638** *Production of toxins and
biotransformation of cruciferous phytoalexins
by the phytopathogenic fungus *Sclerotinia
sclerotiorum** **Pedras M.S.C.**, **Ahiahonu
P.W.K.****0639** *The Interactions of AmB with
Cholesterol- or Ergosterol-containing DPPC
Bilayers as seen by ²H-NMR Spectroscopy
and DSC* **Paquet M.-J.**, Fournier I.,
Tancrède P., Auger M.**0640** *A 1D and 2D FT-IR Study of
Cytochrome C Aggregation in the Presence
of Dimyristoylphosphatidylglycerol* **Paquet
M.-J.**, Lavolette M., Pézolet M., Auger
M.**0641** *DNA and RNA Aptamers with
Peroxidase Activity: Reaction Mechanism
and Structural Characterization.*
Travascio P., Sen D., Bennet A.**0642** *Study of the Interaction between
DMPG and b-Purothionin by FTIR and Solid-
state NMR Spectroscopies* **Richard J.-A.**,
Kelly I., Marion D., Pézolet M., Auger
M.**0643** *SYNTHESIS OF PHENOTHIAZINE
ANALOGUES AS POTENTIAL DRUGS FOR
TREATMENT OF ALZHEIMER'S DISEASE.*
McDonald R., Penwell A., Caines A.,
Martin E., Darvesh S.**0644** *Enzyme Kinetic Studies of
Phenothiazine Analogues as Potential Drugs
for Treatment of Alzheimer's Disease*
Darvesh S., Caines A., McDonald R.,
Penwell A., Martin E.**0645** *Study of the interaction between
cationic liposomes and DNA by solid-state
NMR and FTIR spectroscopies* **Couture M.**,
Beaulieu L., Auger M.**0646** *The Synthesis and Antibacterial
Activity of a New Class of Tetracycline
Derivatives* **Sum P.**

0647 *Syntheses and Activities of Novel Tricyclic Benzapine Arginine Vasopressin Antagonists* **Sum F.W.**, Albright J.D., Chan P.S., Coupet J., Ru X., Hossein M., Saunders T.

0648 *Intercalation of daunomycin into d(CGTGCGCG) and d(CGCGTGCG) duplexes containing GT mismatch base pairs as revealed by vibrational circular dichroism spectroscopy.* **Pandya A.**, Tsankov D., van de Sande J.H., Wieser H.

0649 *d(CCTG*G*TCC).d(GGACCAGG) intrastrand cis-platin cross-linked duplex studied by vibrational circular dichroism spectroscopy.* **Tsankov D.**, Kalish B., van de Sande J.H., Wieser H.

0650 *Poly(rA).poly(rU) triple-stranded structures studied by vibrational circular dichroism spectroscopy.* **Andrushchenko V.**, Blagoi Yu., van de Sande J.H., Wieser H.

0651 *DNA interaction with Cr³⁺ ions studied by vibrational circular dichroism spectroscopy and atomic force microscopy.* **Andrushchenko V.**, Blagoi Yu., **Leonenko Z.**, Cramb D.T., van de Sande J.H., Wieser H.

0652 *Vibrational Circular Dichroism Spectroscopy of parallel-stranded DNA duplex.* **Krasteva M.**, van de Sande J.H., Wieser H.

0653 *Guanine-rich DNA Aptamers for Hemin with Binding Affinity for Cytochrome c* **Chinnapen D.**, Sen D.

0654 *Design and Syntheses of Methyl 2-Methyl-2-[2-(4-benzoyl-5-phenyl-7-halo-2-azabicyclo[4.1.0]hept-3-ene)]acetates: Novel Inhibitors of Cyclooxygenase-2 (COX-2) With Analgesic-Anti-inflammatory Activity* **Knaus E.E.**, Agudoawu S., Li H., Habeeb A.G., Rao P.N.P.

0655 *Synthesis and Anti-inflammatory Activity of Novel 4,5-Diaryloxazoles as Selective Cyclooxygenase-2 (COX-2) Inhibitors* **Habeeb A.G.**, Knaus E.E.

0656 *Structural Studies of the Membrane Protein Vpu from HIV-1* **Straus S.K.**, Ma C., Marassi F.M., Jones D.H., Strebel K., Oblatt-Montal M., Opella S.J.

0657 *Bogorols, Novel Cationic Dodecapeptide Antimicrobial Metabolites Produced in Culture by a Marine Bacillus sp.* **Barsby T.A.**, Kelly M.T., Andersen R.J.

0658 *A Unique Thiamin Diphosphate-Dependent Enzymatic Reaction.* **Palmer D.R.J.**

0659 *Nicotinyl Aspartyl Ketones are Selective Inhibitors of Caspase-3* **Isabel E.**, Black C., Bayly C., Grimm E., Janes M., McKay D., Nicholson D., Rasper D., Renaud J., Roy S., Tam J., Vaillancourt J., Xanthoudakis S., Zamboni R., Becker J.

0660 *Pheromone Olfaction in the Gypsy Moth: Enantiomer Discrimination by Pheromone Binding Proteins* **Plettner E.**, Prestwich G.D., Oliver J.E.

0661 *The preparation and use of anthranilic acid hydroxamates as MMP inhibitors* **Levin J.I.**, Du M.T., DiJoseph J.F., Killar L.M., Sung A., Walter T., Sharr M.A., Roth C.E., Skotnicki J.S.

0662 *Application of multicapillary gel electrophoresis with laser-induced fluorescence (CGE-LIF) detection to transcriptome analysis: global gene expression profiling in Saccharomyces cerevisiae by cDNA indexing.* **Dambrowitz C.J.**, Dambrowitz K.A., Dovichi N.J.

0663 *SAR Studies on Prostanoid Receptors by use of Solid Support Chemistry* **Juteau H.**, Gareau Y., Labelle M., Lamontagne S., Tremblay N., Carrière M.-C., Sawyer N., Metters K.M.

0664 *Microbial Methylation of Arsenic* **Lehr C.R.**, Cullen W.R., Polishchuk E.

0665 *PTP1B Inhibitors and the Second Phosphate Binding Site* **Taylor S.D.**, Dinaut A.N., Goldring A., Jia Z.

0666 *Remote Activation of a Model Prodrug by a Catalytic Antibody* **Taylor S.**, Dinaut A.N.

0667 *Regulation of Soluble Guanylate Cyclase* **Artz J.D.**, Brandish P.E., Marletta M.A.

0668 *The Reactivity of some Cisplatin Analogs with DNA* **Hudson R.H.E.**, Kaminski A., Westcott S.A., King A., Koropatnick J., Ferguson P.

0669 *Preparative Enantiomeric Separation of Pheromones* **Keeling C.I.**, Ngo H.T., Benusic K.D., Slessor K.N.

0670 *The Use of Novel Bioassays in the Discovery of Novel Anticancer Leads* **Linington R.**, Roberge M., Ong C., Mui A., Andersen R.J. **PAPER WITHDRAWN**

0671 *Thioselenomolybdates: synthesis, characterization and possible biological relevance* **Reid R.S.**, Boorman P.M.

0672 *Nylonic Amide Linkers in the Design of Palindromic DNA Sequence-Directed Ligands* **Zulyniak H.**, Chatterjee M., Sasmal S., Singh M.P.

0673 *Synthesis and Activity of Stem-Loop Based Ricin A-chain Inhibitors* **Tanaka K.S.E.**, Schramm V.L.

0674 *New Carborane Derivatives for Boron Neutron Capture Therapy and Synovectomy* **Schaffer P.**, Riddoch R.W., Sogbein O.O., Morel P., Jones A.G., Davison A., Yanch J.C., Valliant J.F.

0675 *Single Molecule Assays of β -galactosidase Show a Heterogeneity with Respect to a Requirement for Exogenous Magnesium to Maintain Activity* **Craig D.**, Hall T., Goltz D.

0676 *Stereoselective Synthesis of α -Substituted Glutamic Acid Derivatives!* **Rose N.G.W.**, Rife J., Lajoie* G.A.

0677 *Catabolism of Glutamate, Histidine and Lysine by Two Fusobacterium Species* **Lee F.S.**, White R.L.

0678 *Analysis of Diamino Acids in Peptidoglycans from Anaerobic Bacteria* **Satyanarayana S.**, White R.L., Grossert J.S., Lee S.F.

0679 *Peroxidases from Marine Microalgae* **White R.L.**, Murphy C.D., Moore R.M.

0680 *³¹P and ²³Na Magnetic Resonance Studies of Salt-induced Stress in Plant cells using a Bioreactor* **Rauw V.L.**, Gruwel M.L.H., Abrams S.

16:30 End of Session

Chemical Education

CE4 **Stephen**

Union Carbide Award

Organizer - E. A. Dixon
Chair - G. Rayner-Canham

14:00 Introductory Remarks

14:10 0681 *Must we teach how (what) we were taught?* **Brooker M.H.**

16:00 End of Session

Environment

EN1 **Glen 4**

Pesticide Registration: Chemistry and Hydrology (joint with AN11)

Organizer - D. S. Gamble
Chair - L. S. Sojo

13:00 0682 *Method Development for Pesticide Determinations by SPME Techniques* **Pawliszyn J.**, Lord H., Tragas C.

13:40 0683 *Matrix Effects and Solid Phase Micro-Extraction of Pesticides in Aqueous Samples: What Are We Measuring?* **Sojo L.**, Ding I.

14:00 0684 *Challenges In Modeling Pesticide Fate and Transport in Soil* **Prasher S.O.**, Gamble D.S.

14:40 Coffee Break

15:00 0685 *Pesticide Residue Speciation and Environmental Toxicology* **Webster G.R.B.**

15:40 End of Session

Inorganic Chemistry

IN3 **McIntyre**

General Session-Inorganic

Organizer - W. E. Piers
Chair - M. Weir

Inorganic and Cluster Chemistry

13:20 0686 *Sepiolite Clay Membranes for Ultrafiltration Applications* **Weir M.R.**, Rutinduka E., Detellier C., Feng C.Y., Wang Q., Matsuura T., Le Van Mao R.

13:40 0687 *Multinuclear NMR Studies of ME_2^+ ($M=Mo, W$ and $E=S, Se$) and their Alkylation Reactions* **Kruhlik N.L.**, Boorman P.M.

14:00 0688 *Structural origin of two paramagnetic species in six-coordinated nitrosoiron(II) porphyrins revealed by density functional theory analysis of the g-tensors.* **Patchkovskii S.**, Ziegler T.

14:20 0689 *Catalyzed Photo-oxidation of Saturated Hydrocarbons by Uranyl Ion* **Bergfeldt T.M.**, Waltz W.L., Xu X.

14:40 0690 *Non-aqueous Chemistry of High-valent Uranium Oxo Complexes* **Duval P.B.**, Clark D.L., Burns C.J., Scott B.L.

15:00 Coffee Break

Chair: J. Corrigan

15:20 0691 *Silylated Chalcogen Reagents: Powerful Synthons for Polynuclear Complexes* **Corrigan J.F.**, DeGroot M.W., Kowalchuk C.M., Tran D.T.T., Wallbank A.I.

15:40 0692 *Chain Complexes of Formula $(X)[Os(CO)_4(CNBut')]_nMn(CO)_5$ ($X = Cl, Br, I$; $n = 1, 2, 3$)* **Jiang F.**, Pomeroy R.K., Jenkins H.A., Yapp G.P.A.

16:00 0693 *Synthesis and Properties of Mixed-Valent Diruthenium (II, III) Tetrametalloenecarboxylates* **Cooke M.W.**, Murphy C.A., Aquino M.A.S., Cameron T.S., Swarts J.C.

16:20 0694 *Synthetic and Chemical Aspects of New Oxo-Bridged Metal Complexes of Ruthenium Porphyrins and Iron Phthalocyanines.* **Zobi F.**, Styne D.V.

16:40 0695 *Kinetics of Tetranuclear Palladium(II) and Platinum(II) Square Complex Formation and Dissociation Reactions* **Heath-Engel H.M.**, Stresman J.A., **Wylie R.S.**

17:00 End of Session

IN5

MacLeod C

C-X Bond Activation (denitrogenation, desulfuration, dehalogenation)

Organizer - S. Gambarotto
Chair - J. Okuda

13:20 0696 *Controlled, Reversible Conversion of a Ketene Ligand to Carbene and CO Ligands on a Single Metal Center* **Grotjahn D.B.**, Bikzhanova G.A., Collins L.S.B., Concolino T., Lam K-C., Rheingold A.

13:40 0697 *Denitrogenation and deoxygenation, C-C, C-N and C-H activation reactions promoted by low-valent early transition and f-block metal complexes.* **Gambarotta S.**

14:20 0698 *Asymmetric Metathesis Reactions Catalyzed by Enantiomerically Pure Molybdenum Imido Alkylidene Complexes* **Schrock R.R.**, Jamieson J.Y., Tsang P., Hultsch K.C.

15:00 Coffee Break

Chair: S. Gambarotta

15:20 0699 *Recent Developments in C-H and H-H Activation.* **Crabtree R.H.**

16:00 0700 *Electronic Effects in Ancillary Ligands on Titanacyclobutane Formation and Functionalization* **Greidanus G.**, Stryker J.M.

16:20 0701 *Combining C-H Activation and C-C Coupling Reactions with Group 3 Metal and Lanthanide Metallocenes.*

Hessen B., Ringelberg S.N., Meetsma A.

17:00 End of Session

IN7

MacLeod B

Advanced Catalysis in Polyolefins and Related Alpha-Olefins (joint with MA4)

Organizer - X. Gao, Q. Wang
Chair - X. Gao

13:20 0702 *Silica-Grafted Cocatalysts for Olefin Polymerization Modeled by Silsesquioxane Complexes* **Duchateau R.**, Ptasinski M., van Santen R.A., Yap G.P.A., Meetsma A.

13:40 0703 *NOVA Chemical's approach to single site catalysis for the commercial production of polyolefins.* **Brown S.J.**, Spence R., Gao X., Wang Q., Swabey J., Dobbin C.

14:20 0704 *Synthesis, Structure and Reactivity of Dialkyl Scandium Complexes Supported by b-Diketiminato Ligands* **Hayes P.G.**, Lee L.W.M., Piers W.E., Parvez M., Clegg W.

14:40 0705 *Ethylene polymerization and oligomerization catalyzed by indenyl nickel complexes.* **Dubois M.-A.**, Fontaine F.-G., Groux L., Wang R., Tian J., Vollmerhaus R., Li Z., Collins S., **Zargarian D.**

15:00 Coffee Break

Chair - Q. Wang

15:20 0706 *Phosphinimides Ligand Complexes in Olefin Polymerization Catalysis* **Stephan D.W.**

16:00 0707 *Novel Polyolefins via Tandem Catalysis: Effecting Ring-Opening Metathesis Polymerization and Hydrogenation with a Single Catalyst Precursor.* **Fogg D.E.**, Drouin S.D.

16:20 0708 *Reactions of the Novel bis(iminophosphorano)methanediide "Pincer" Metal Derivatives.* **Cavell R.G.**, Apama K., Kamallesh Babu R.P.

17:00 End of Session

Materials Science

MS2

MacLeod A1

Recent Advances and New Directions in Materials Science

Organizer - R. Hill
Chair - W.O. Wolf

13:30 0709 *Optical Second Harmonic Generation as a Probe of Interface Magnetism* **Leach G.W.**, Greenhalgh B., Star D.

13:50 0710 *Synthon Based Approach Towards The Construction of Molecular Devices* **Mirza H.A.**, Freda A.L., Lever A.B.P.

14:10 0711 *Luminescent Organic and Organometallic Compounds Based on 7-Azaindole and Derivatives* **Wu Q.G.**, Lavigne J., Hook A., Wang S.

14:30 0712 *Thioether - Capped Oligothiophenes: Model Compounds for Molecular Electronics, and More!* **Hicks R.G.**, Nodwell M.B.

14:50 Coffee Break

15:10 0713 *Impact Properties of Cellular Wood-Fibre/Polystyrene Composites* **Doroudiani S.**, Kortschot M.T.

15:30 0714 *Ferroelectric Liquid Crystals Induced by Atropisomeric Dopants: Searching for the Cause of Polarization Amplification in Phenylpyrimidine SmC Hosts* **Lazar C.**, Gillies B., Wand M.D., Yang K., **Lemieux R.P.**

15:50 0715 *Ideal Passivation of Porous Silicon by the Non-catalytic Thermal Reaction of Alkenes and Aldehydes* **Boukherroub R.**, Morin S., Lockwood D.J., **Wayner D.D.M.**

16:10 End of Session

Organic Chemistry

OR5

Glengarry

General Session-Organic

Organizer - B. A. Keay
Chair - J. McIntosh

Organometallic, Carbenes, Radicals

13:00 0716 *Diastereoselective formation of 5-vinyl cyclopropanes from 1,6-enynes: Cobalt mediated C-H allylic activation and 5-endo-dig cyclization.* **Dolaine R.**, Gleason J.L.

13:20 0717 *Formation of Homoallyl Stannanes via Palladium Catalyzed Stannylytic Cyclization of 1,6-Enynes.* **Mancuso J.**, Lautens M.

13:40 0718 *Kinetics and Mechanism of Dimerization of 1,1-Diphenylsilene and 1,1-Diphenylgermene* **Morkin T.L.**, Leigh W.J., Tolt N.P., Stradiotto M.

14:00 0719 *Tandem 4+3 Cycloaddition/Nucleophilic Trapping Reactions of Alkyne 1,4-Diether Dicobalt Complexes* **Lu Y.**, **Green J.R.**

14:20 0720 *Carbenes and Radicals from Benzyl-oxo- and Di(benzyl-oxo)oxadiazolines* **Merkley N.**, Warkentin J.

14:40 Coffee Break

15:00 0721 *Rationalizing the Fate of 1,4-Hydroxybiradicals through Solid State Structure - Reactivity Correlations* **Netherton M.R.**, Scheffer J.R., Cheung E., Trotter J.

15:20 0722 *Electron Transfer to 3,3,6,6-tetraaryl-1,2-Dioxanes* **Stringle D.L.B.**, Workentin M.S.

15:40 0723 *A Computational Study of Methoxysilyloxy-carbene Rearrangement*
Gadosy T.A., Loncke P.G.

16:00 End of Session

OR6 Glenmore

Solids and Separation Science in Synthesis

Organizer - C. Crudden
Chair - S. Westcott

13:00 0724 *Soluble and Solid Phase Polymers in Combinatorial Synthesis* **Janda K.D.**

13:40 0725 *Selective Organic Synthesis by Grafted Catalysts on Mesoporous Support*
Brunel D.

14:20 0726 *Phase-Separable Catalysis Approaches Using Dense Phase Carbon Dioxide* **Tumas W.**

15:00 Coffee Break

15:20 0727 *Separation and Recovery of Catalysts for Organic Synthesis Using Soluble Polymers* **Bergbreiter D.E.**

16:00 End of Session

OR7 Glenview

Aiming for Practical Chemical Synthesis

Organizer - P. Beaulieu, V. Snieckus
Chair - P. Beaulieu

13:00 Introductory Remarks

13:20 0728 *Transition Metal Complex Catalyzed Carbonylation and Cyclization Reactions* **Alper H.**

14:20 0729 *Practical Synthesis of Cell-adhesion Inhibitors* **Farina V.**

15:00 Coffee Break

15:20 0730 *The Synthetic Development of the Anti-Influenza Neuraminidase Inhibitor Oseltamivir Phosphate (TAMIFLU™): A Challenge for Process Research* **Abrecht S., Karpf M., Trussardi R., Wirz* B., Zutter U.**

16:20 0731 *Organic Reactions in Aqueous Media. Cyclopentadienylindium(I) as the First Example of Organoinidium(I) Reagent for Carbon-Carbon Bond Formation and the Demonstration of One-Pot Tandem Addition/Intramolecular Diels-Alder Reaction in Aqueous Media.* **Yang Y., Chan T.H.**

16:40 End of Session

OR8 Glencoe

Physical Organic Chemistry at Surfaces and Interfaces

Organizer - D. Wayner
Chair - W. Leigh

13:00 0732 *Working with Single Molecules: Measurements and Applications*
Lee GU.

13:40 0733 *Reactive Intermediates on Metal Surfaces. Generation of Ketene and Carbene Intermediates as Monolayers on Single Crystal Platinum by Photolysis of Pyridyl- α -Diazocarbonyl Compounds.*
Workentin M.S., Pitters J.L., Adkinson D., Norton P.R.

14:00 0734 *Generation and Reactivity of Carbocations in Zeolites.* **Cozens F.**, O'Neill M., Shea S., Ortiz W., Schepp N.

14:40 0735 *Transition state stabilization in ester thiolysis catalyzed by CTAB micelles* **Tee O.S.**, Yazbeck O.J.

15:00 Coffee Break

15:20 0736 *Magnetic Field Effects on the Reaction Dynamics of Radicals in Organized Systems.* **Bohne C.**, Rinco O., Anema J., Kleinman M.H.

15:40 0737 *Dynamic Studies of Triplet Naphthalenes to Probe the True Structure of Bile Salt Aggregates in Solution Form*
Rinco O., Nolet M-C., Ovans R., Bohne C.

16:00 0738 *Dissociative Electron Transfer at Electrode Surfaces* **Maran F.**

16:40 End of Session

OR9 Exhib'n Hall

Posters-Organic

Organizer - B. A. Keay
Chair - B. Keay

From **16:30** until **18:00**

Biochemical/Medicinal

0739 *Metal Ions As Allosteric Inhibitors In Hydrogen-Bonding Receptors* **Al-Sayah M.H.**, Branda N.R.

0740 *Synthesis of Fluorescein Monophosphates used as Fluorogenic Substrates for Protein Tyrosine Phosphatases* **Scheiget J.**, Wang Q., Gilbert M., Snider J., Ramachandran C.

0741 *Porphyritic Phenoxynaphthacenequinones as Potential Gated PET Systems* **Myles A.J.**, Branda N.R.

0742 *Reactions of Protected Aminoacyl Ethyl Phosphates With AMP* **Spencer P.C.**, Kluger R.

0743 *A Water-Soluble Phosphate-Footed Cavitand: Synthesis and Binding Properties with Small Neutral Organic Molecules* **Gui X.**, Sherman J.C.

0744 *Synthesis and membrane transport activity of linear bola-amphiphiles.* Fyles T.M., **Hu C.**, Knoy R.

0745 *Membrane transport activity of isophthalate amphiphiles.* Fyles T.M., **Knoy R.**, Mullen K., Sieffert M.

0746 *C5-modified Uracil Peptide Nucleic Acid Monomers* **Hudson R.H.E.**, Li G.

0747 *Towards a Cyclic Peptide Nucleic Acid Ligand* **Hudson R.H.E.**, Tse J.

0748 *Design, Synthesis and Cytotoxicity Evaluation of 1-Chloromethyl-5-hydroxy-1,2-dihydro-3H-benz[e]indole (seco-CBI) Dimers* **Jia G.**, Lown J.W.

0749 *Tris(imidazolyl)phosphine:Zn²⁺ complex in a neutral micelle media as a mimic for Carbonic Anhydrase.* **Koerner T.B.**, Brown R.S.

0750 *An Approach Toward The First Synthesis Of Astaxanthin-b-D-glucoside*
Soleymanzadeh F.A., Organ M.G.

0751 *Bis-urea Iron(II) Terpyridines as Porphyrin Clamps* **Norsten T.B.**, Chichak K., Branda N.R.

0752 *Synthesis and Biological Activities of Carbohydrate Clusters with a Benzene Ring Core* **Trono C.**, Roy R.

0753 *Diaminopimelate Analogues as Inhibitors of Enzymes for Bacterial Lysine Biosynthesis* **Caplan J.F.**, Vederas J.C.

0754 *Biosynthesis of Lovastatin: Elucidation of Polyketide Synthase Activity*
Sorensen J.L., Auclair K., Vederas J.C.

0755 *A Chemotaxonomic study of the afro-alpine giant senecios: chemotaxonomy of the genus Dendrosenecio* **Lynds S.**, Williams P., **Benn M.H.**, Knox E.B.

0756 *NMR Studies of peptides in neutral aqueous medium: degassing enhancement of the NH signals* **Aman A.M.**, Wu X., Saurid F., Szarek W.A.

Synthesis/Synthetic Methods

0757 *Synthesis of Indolines, Indoles and Carbazoles by the Palladium-Catalyzed Coupling of Dienyl Sulfones with o-Iodoanilines* **Taylor J.A.**, Back T.G., Bethell R.J.

0758 *Synthetic Approaches to Viramycin* **Wulff J.E.**, Back T.G., Wehrli D.

0759 *Versatile Synthesis of Disubstituted 2,3-Dihydro-1H-Pyrrolizines* **Therien M.**, Li C.S., Hemming C.J., Gingras S.

0760 *Recent developments towards the synthesis of Momilactone A.* **Germain J.**, Deslongchamps P.

0761 *Synthesis of Deep Molecular Baskets: Convergent Syntheses of Calixnaphthalenes via Directed Ortho Metallation and Suzuki-Miyaura Coupling Reactions.* **Chowdhury S.**, Georghiou P.E.

0762 *Studies Towards the Total Synthesis of Dehydrorabelomycin* **Dexter C.S.**, Kendall C., Snieckus V.

0763 *The Thiopyran Route to Polypropionates: Effect of the Protecting Group in 4-Alkoxytetrahydrothiopyran-3-carboxaldehydes on Aldol Diastereoselectivity.* **Ward D.E.**, **Sales M.**

0764 *The Thiopyran Route to Polypropionates: Aldol Diastereoselectivity of Linear and Two-Directional Iterative Homologations.* **Ward D.E.**, **Sasmal P.K.**, Guo C.

- 0765 *The Synthesis of Alkynyl Aromatics* **Gottardo C.**, Aguirre A., Iannone R., Leach D.
- 0766 *Synthesis of Rhamnogalacturonan II Oligosaccharides: Synthesis of a Key Disaccharide Synthase* **Reimer K.B.**, Rich J.R., McGavin R.S.
- 0767 *An Expedient Route to the AB-Ring System of Taxol via an Intramolecular Diels-Alder Reaction* **Forgione P.**, Wilson P.D., Laurent A., Fallis A.G.
- 0768 *A double Diels-Alder strategy towards Taxoids* **Parra S.M.**, Lee M.L., Fallis A.G.
- 0769 *A Concise Synthesis of 3-Hydroxyindole-2-carboxylates by a Baeyer-Villiger Oxidation* **Lachance N.**, Hickman Z.L., Sturino C.F.
- 0770 *Camphorseleno Compounds as Chiral Auxiliaries in Asymmetric Selenium Chemistry* **Moussa Z.**, Back T.G., Nan S.
- 0771 *Investigations into Chiral Cuprate Reactions in Allylic Systems* **Belelie J.L.**, Chong J.M.
- 0772 *Synthesis of Chiral alcohols and Amines by RuH₂(diphosphine)(diamine) Catalysed Hydrogenation of Ketones and Imines* **Abdur-Rashid K.**, Morris R.H.
- 0773 *2,2'-Bis(diphenylphosphino)-3,3'-binaphtho[b]furan, a New Atropisomeric Bidentate Phosphine Ligand for Asymmetric Catalysis* **Andersen N.G.**, Keay B.A.
- 0774 *Design, Synthesis and Evaluation of New Chiral Auxiliaries and Ligands for Asymmetric Synthesis* **Narine A.A.**, Wilson P.D.
- 0775 *The Synthesis and Investigation of a Novel, Recoverable, Chiral Auxiliary for Asymmetric Diels-Alder Reactions* **Burke M.J.**, Allan M.M., Ramsen P.D., Keay B.A.
- 0776 *Synthesis and Catalytic Activity of Chiral Organometallic Complexes* **Etkin N.**, Affleck K.M., Adams T.
- 0777 *Application of Sparteine-Mediated Lithiation of Pyrrolidine to Synthesis of Indolizidine Alkaloids* **Nelson K.**, Majewski M.
- 0778 *Synthesis of New Axially Chiral 3,3'-Diaryl BINOL and BINAP Ligands* **Quinn R.M.**, Milburn R., Snieckus V.
- 0779 *Highly Enantioselective Thiocarbonylation of 1,3-Conjugated Dienes Catalyzed by Palladium Complexes* **Xiao W.J.**, Alper H.
- 0780 *Synthesis of Benzylic Acids under Rhodium Catalyzed Carbonylation Conditions* **Giroux A.**, Nadeau C., Han Y.
- 0781 *Synthesis of Biaryls by Intramolecular Radical Transfer: Use of Phosphinates* **Clive D.**, **Kang S.**
- 0782 *Mechanistic Studies of B(C₆F₅)₃ Catalysed Organic Reactions* **Blackwell J.M.**, Piers W.E., Parvez M., McDonald B.
- 0783 *Synthetic Application of Arylchlorocarbenes to the Preparation of Nitrogen-Containing Heterocycles* **Romashin Yu.N.**, Liu M.T.H., Attanasi O.A.
- 0784 *Functionalized Benzocoumarins from a Domino Reaction Initiated by an Inverse Electron Demand Diels-Alder Reaction* **Bodwell G.J.**, **Lines W.L.**, Pottie I.R.
- 0785 *A Tandem [4+2]/Allylboration Strategy for the Sterecontrolled Synthesis of α -Hydroxyalkyl Piperidine Derivatives* **Taylor J.**, Hall D.G.
- 0786 *New Routes to Highly Substituted Allylboronates and Their Subsequent Reactions With Aldehydes* **Kennedy J.W.J.**, Hall D.G.
- 0787 *Pd(0)-Catalyzed Cycloaddition Reaction of N-alkyl-2-vinylazetidines with Heterocumulenes* **Inman G.A.**, Alper H., Butler D.
- 0788 *Novel Bromoethanol Assisted NaBH₄/Phthalocyanatoiron Catalyst System for the Chemoselective Reduction of Functionalized Nitroarenes to their Corresponding Anilines* **Wilkinson H.S.**, Tanoury G.J., Senanayake C.H., Wald S.A.
- 0789 *Synthesis of N-Aryl Anthranilamides via an Anionic N-ortho Fries Rearrangement* **Wilson B.**, MacNeil S., Snieckus V.
- 0790 *Synthetic Efforts Toward a Derivatized Porphyrin Oxidation Catalyst with Sterically Induced Regioselectivity* **Pollard M.**, Vederas J.C.
- 0791 *Atropisomerism: Lignan Synthesis* **Yvon B.**, **Yau C.**, Hiebert S., Charlton J.L.
- 0792 *Phenylpropanoid Glucoside from Flaxseed* **Hall T.W.**, Westcott N.D., Muir A.D.
- 0793 *Perhydro-1,3-benzoxazines: Investigation as Chiral Auxilliary for Asymmetric 2-isoxazolines Synthesis* **Breau L.**, Poisson C.
- Guest-Host Complexes
and Solid Phase Appl.
- 0794 *Naphthalene Complexation by Beta-Cyclodextrin: Influence of Added Short-Chain Linear Alcohols* **Evans C.H.**, Partyka M., van Stam J.
- 0795 *α -Cyclodextrin [2]Semirotaxanes with Asymmetric Threads* **Baer A.J.**, Macartney D.H.
- 0796 *Site-Selective N-Methylation of Amino Acids on Solid Support Using the 1,2-Carbon-to-Nitrogen Migration of Boron in Aminomethylboronic Esters* **Laplante C.**, Hall D.G.
- 0797 *A Novel Approach to the Solid-Phase Synthesis of Neuroactive Polyamine Toxins from Venomous Insects* **Wang F.**, Manku S., Hall D.G.
- 0798 *Synthesis and Resin-to-Resin Suzuki Coupling of Arylboronic Acids Immobilized on N,N-Diethanolaminomethyl Polystyrene* **Gravel M.**, Berube C.D., Taylor J., Hall D.G.
- 0799 *Synthesis and Characterization of Conjugated Macrocycles for use in Supramolecular Assemblies* **Campbell K.**, Tykwinski R.R.
- 0800 *Synthesis and Characterization of Cross-conjugated arylenyne oligomers* **Cho J.**, Zhao Y., Tykwinski R.R.
- Physical Organic
- 0801 *Kinetic Studies on the Decomposition and cis-trans Isomerization of Aromatic Triazenes in Solution* **Chen N.**, Barra M.
- 0802 *"Pseudo-Chirality" and the "Meta-Steering" Effect in the Crystal Packing of Enamide Derivatives* **Cheer C.J.**, **Cheung E.**, Scheffer J.R., Trotter J.
- 0803 *The Synthesis and Electronic Behavior of Donor/Acceptor iso-PDA Oligomers* **Ciulei S.C.**, Tykwinski R.R.
- 0804 *Study of Cross-conjugated Oligoenynes* **Zhao Y.**, Tykwinski R.R.
- 0805 *A Theoretical Comparison of Radical Additions and Abstractions to/from Various Organic Functional Groups* **Boyd S.L.**, Boyd R.J.
- 0806 *Axially Coordinated Porphyrins as New Rotaxane Stoppers* **Walsh C.**, **Chichak K.**, Branda* N.R.
- 0807 *Self-Assembly of Helical Structures* **Murguly E.**, Branda N.R.
- 0808 *The Design and Synthesis of C₃-Symmetric Self-Complementary Molecules for the Non-Covalent Assembly of Regular Polyhedra* **Hu H.**, Wilson P.D.
- 0809 *"Flipping" [2]Rotaxanes. A New Type of Mechanical Switch* **Loeb S.J.**, **Vella S.J.**, Wisner J.A.
- 0810 *Catalysis of the Methanolysis of Acetyl Imidazole by Lanthanum Triflate* **Neverov A.**, Brown R.S.
- 0811 *Synthesis, Chemistry and Molecular Recognition of Centro-Substituted Triquinacene Derivatives* **Cadieux J.A.**, Wilson P.D.
- Photochemistry
- 0812 *Photoprotonation of Hydroxyarenes: Evidence for Excited State Intramolecular Proton Transfer (ESIPT)* **Lukeman M.**, Wan P.
- 0813 *Photogeneration of Terphenyl Quinone Methides* **Xu M.**, Chen C., Brousmiche D., Wan P.
- 0814 *Photodecarboxylation of Benzoyl and Acetyl-Substituted Phenylacetic Acids* **Xu M.**, Wan P.
- 0815 *Photochemistry Induced by the Nitro Group in Biphenyls* **Morrison J.**, Osthoff H., Wan P.
- 0816 *An Efficient Ionic Chiral Auxiliary-Induced Norrish/Yang Photocyclization Reaction in the Crystalline State* **Kang T.**, Cheung E., Raymond J.R., Scheffer J.R., Trotter J.

0817 *Asymmetric Induction in the Solid State Photochemistry of 2-Benzoyladamantane-2-carboxylic Acid Derivatives.* **Zenova A.Y.**, Cheung E., Scheffer J.R., Trotter J.

0818 *Solid State Asymmetric Induction in the Photoisomerization of trans,trans-2,3-Diphenylcyclopropane-1-carboxylic Acid Derivatives* **Chong C.W.**, Scheffer J.R.

0819 *Solid-phase synthesis of functionalized isochromans* **Aman A.M.**, Atiq-ur-Rehman, Szarek W.A.

0820 *Anionic Polycyclisation: New developments towards the total synthesis of cardenolides.* **Chapdelaine D.**, Deslongchamps P.

0821 *Hemi-thioindigo photochemistry: is half a photoswitch better than none?* Eggers K.A., **Fyles T.M.**

0822 *Asymmetric Induction and Reactivity in the Solid State Photochemistry of anti-7-Benzoylbenzobicyclo[2.2.1]heptane Derivatives* Cheung E., Scheffer J.R., **Scott C.J.**, Trotter J.

0823 *Multi-Addressable Photochromic Molecular Switches* **Peters A.**, Branda N.R.

0824 *'Fine Tuning' Crystal Environment for Photodimerization* **Reid J.L.**, Ripmeester J.A., Macgillivray L.R.

0825 *Studies of intramolecular [2 + 2] photocycloaddition of an oxygen tethered butenyl cyclohexenone* **Yang Y.**, Weedon A.C. **PAPER WITHDRAWN**

0826 *Multiple State Photoswitches* **Bandyopadhyay S.**, Mitchell R.H.

16:30 End of Session

Physical/Theoretical Chemistry

PH5 **Glenbow T.**

New Directions in Chemical Modelling

Organizer - T. Ziegler
Chair - M. Roussel

13:10 0827 *Mixed Quantum-Classical Surface Hopping Dynamics* **Kapral R.**, Nielsen S., Ciccotti G.

13:50 0828 *A new iterative method for calculating energy levels and wavefunctions* **Carrington T.**, Huang S-W.

14:30 0829 *Quantum molecular dynamics simulations: Quantum statistics and path integrals* **Roy P.-N.**

15:10 Coffee Break

15:30 0830 *Direct Dynamics Simulations of Chemical Reactions and Nonadiabatic Processes* **Peslherbe G.H.**

16:10 0831 *Microscopic dissipation in media with memory* **Wilkie J.**

16:50 0832 *AB INITIO MOLECULAR DYNAMICS ALONG THE INTRINSIC REACTION PATH* **Michalak A.**, Ziegler T.

17:10 End of Session

PH7 **MacLeod A3**

Physical Chemical Solutions to Petroleum Chemistry Problems

Organizer - L. Schramm & B. McGarvey
Chair - L. Schramm & B. McGarvey

13:00 Introductory Remarks

13:00 0833 *The Role of Interfacial Reaction in the Alkaline Flooding of Acidic Oils* **Hornof V.**

13:35 0834 *An Absolute Differential Maximum Droplet Pressure Interfacial Tensiometer and its Application to Bituminous Systems of Vanishing Density Contrast* **Stasiuk E.N.**, Schramm L.L.

13:55 0835 *Imaging the Morphology of Mobile Foam and Gelled Foam Lamellae in Porous Media* **Kutay S.M.**, Schramm L.L., Mikula R.J., Munoz V.

14:15 0836 *Research on Interfacial Phenomena as Applied to the Canadian Oil Sands Processing* **Masliyah J.**

14:50 0837 *The Hydrophile-Lipophile Balance as a Means to Characterize Bituminous Froth, Natural Surfactants, Asphaltenes and Demulsifiers* **Vander Kloet J.**, Schramm L.L., Shelfantook B.

15:10 0838 *What Causes the Formation of Water-in-Oil Emulsions?* **Fingas M.**, Fieldhouse B.

15:45 0839 *A New Membrane Construct for Water Treatment Applications* **Childs R.F.**, Mika A.M., McCrory C., Pandey A.K.

16:20 0840 *Evidence for the Involvement of Hydrogen in the Near-neutral pH Stress Corrosion Cracking of Pipeline Steel* **King F.**

16:40 0841 *Quantitative Measurement of Mass and Aromaticity For Heavy Petroleum Fractions* **Robbins W.K.**

17:15 0842 *Molecular Growth, Condensation and Surface Deposition During the Pyrolysis of Ethane at High Conversions* **Glazier G.F.**, Pacey P.D.

17:35 End of Session

Wednesday AM

Analytical Chemistry

AN3 **Glen 1**

Bioanalytical Chemistry

Organizer - X. C. Le
Chair - L. Taylor & D. Douglas

Mass Spectrometry

08:30 0843 *The Strange New World of Gas Phase Proteins* **Douglas D.J.**, Collings B.A., Chen Y-L., Nesati V., Mauk A.G., Campbell J.M.

09:10 0844 *Stopped-Flow ESI Mass Spectrometry: A New Method for Studying Chemical Reaction Kinetics in Solution* **Konermann L.**, Kolakowski B.M., Simmons D.A.

09:40 0845 *Electrospray Ionization - High field Asymmetric Waveform Ion Mobility Spectrometry - Mass Spectrometry* **Purves R.W.**, Barnett D.A., Guevremont R., Ellis B., Ding L.

10:10 Coffee Break

10:30 0846 *Mass Spectrometry and Proteomics* **Li L.**

11:00 0847 *MALDI-Orthogonal-TOF Mass Spectrometry, Proteomics and a new Canadian Industry.* **Taylor L.E.B.**

11:30 0848 *New LC/MS and CE/MS Approaches for the Analysis of Protein and Glycoprotein Components* **McComb M.E.**, Lee C.L., Saba J.S., Williams T.T., Perreault H.

12:00 End of Session

AN8 **Glen 2**

Analytical Chemistry Related to the Petroleum Industry

Organizer - T. Bulmer, D. Stanners
Chair - M. deJong

08:30 0849 *Coupled LC/GC and SFC/GC Methods for Characterizing Aromatic Compounds in Light Gas Oils* **Guy R.D.**, Quach T., Potvin M.A., Mercier G., Ramaley L.

08:50 0850 *The Use of a Laser-Induced Fluorescence Detector for Characterizing the Aromatic Components of Petroleum and Environmental Samples* **Ramaley L.**, Potvin M., Guy R.D.

09:10 0851 *Determination of Crude Oil and Bitumen Properties Both in Bulk State and In-Situ Using Low Field NMR Technology* **Kantzas A.**, Mirotchnik K., Allsopp K.

09:30 0852 *Exhaustive Determination of Hydrocarbon Compound Types in Heavy Petroleum Fractions by High Resolution Mass Spectrometry* **Roussis S.G.**

09:50 0853 *XPS studies of NiMo/g-alumina catalysts used in hydroprocessing of oil sands bitumen-derived streams* **Brouwer E.B.**, Adjaye J., Chung K.H., Pleizier G.P., Deslandes Y.

10:10 Coffee Break

Chair - T. Bulmer

10:30 0854 *Raman and infrared spectroscopy of Syncrude hydrocarbons* **Michaelian K.H.**, Hall R.H., Bulmer J.T.

10:50 0855 *Raman Spectroscopy under the Microscope in an Industrial Research Laboratory* **Hall R.H.**

11:10 0856 *Raman Spectroscopy of Oil Sands with Ultraviolet Excitation: Simplifying Complex Systems* **Lopnow G.R.**, Arboleda P., Schmidt K.J., Abel P., Hall R.H., Bulmer J.T.

11:30 0857 "Application of an Ignition Quality Tester for Cetane Number Prediction" **Cooley J.M.**, Rip W.

11:50 0858 Stabilization of Asphaltic Cuban Crude Oil Using FCC Distillates. **Fuhr B.J.**, Cavado A., Alonso A.B., Iraola D., Mora N.E., Om N., Navarro A.

12:10 End of Session

AN9**Glen 3**

Advances in Scanning Probe Microscopy (joint with PH9)

Organizer - M. McDermott
Chair - M. McDermott

08:25 Introductory Remarks

08:30 0859 AFM - Frontiers in Single Molecule Microscopy and Spectroscopy. **Sibbald G.**

08:50 0860 SPM in the characterization of amorphous, soft matter - how do we identify which is which? **Goh MC.**

09:30 0861 Combinatorial Force Microscopy **Green J.-B.D.**

10:00 Coffee Break

10:20 0862 Electric Force Microscopy: A Novel Tool to Probe Buried Reactive Groups **Takano H.**, **Porter M.D.**, **McCarley R.L.**

11:00 0863 Probing Molecular Conduction with the atomic force microscope **Lindsay S.M.**

11:40 0864 AFM Characterization of Pulp Fibre Surfaces **Gray D.G.**

12:00 End of Session

Biological/Medicinal Chemistry

BM6**MacLeod A4**

Chemistry and Agriculture

Organizer - T. G. Back
Chair - M. S. C. Pedras

09:00 0865 Abscisic acid chemistry - persistent analogues and enzyme inhibitors **Abrams S.R.**, **Cutler A.J.**, **Rose P.A.**, **Krochko J.**

09:40 Coffee Break

10:00 0866 The Chemistry and Biology of Novel Brassinosteroids **Back T.G.**, **Andersen D.L.**, **Janzen L.**, **Luo W.**, **Minksztyl K.**, **Nakajima S.K.**, **Pharis R.P.**, **Sung G.**

10:40 0867 In Search of New Targets for Design of Antifungal Agents: Specific Inhibitors of Fungal Lysine Biosynthesis **Fletcher R.S.**, **Chan N.**, **Brown M.D.R.**, **Marrone L.**, **Dmitrienko G.I.**

11:20 End of Session

Environment

EN6**MacLeod A2**

General Session-Environment

Organizer - C. H. Langford
Chair - C. H. Langford

08:30 Introductory Remarks

Clara Benson Award Lecture

08:40 Introduced by ...

08:40 0868 On Carbon, Trees, Spectroscopy and Gender **Preston C.M.**

09:30 0869 Sudden Infant Death Syndrome (SIDS), Antimony, OBPA and Scopulariopsis brevicaulis **Andrewes P.**, **Cullen W.R.**, **Polishchuk E.**, **Wang C.**, **Lehr C.**, **Liao T.**

09:50 Coffee Break

10:10 0870 Arsenic in Yellowknife, NWT: A Multidisciplinary and Comprehensive Approach **Koch I.**, **Ollson C.A.**, **Reimer K.J.**

10:30 0871 Heavy metal transport in soils at a contaminated site. **Gogan N.J.**, **Giriprakash P.**

10:50 0872 Synchrotron Induced Micro X-ray Fluorescence in Dendroanalysis **Martin R.R.**, **Sham T.K.**, **Jones K.W.**, **Feng H.**

11:10 0873 Evidence for an Organic Film on Impervious Urban and Rural Surfaces: Characterization and Potential Teratogenic Effects **McCarty B.E.**, **Diamond M.L.**, **Gingrich S.E.**, **Stern G.A.**, **Yager T.D.**

11:30 0874 Chemistry of a regional smog episode in Southern Ontario **McLaren R.**, **Aiello M.**, **Liggio J.**

11:50 End of Session

Inorganic Chemistry

IN7**MacLeod B**

Advanced Catalysis in Polyolefins and Related Alpha-Olefins (joint with MA4)

Organizer - X. Gao, Q. Wang
Chair - L. Koch

08:40 0875 Development of NOVA's Single Site Catalyst Technology for use in the Gas Phase Process. **Jeremic D.**, **McKay I.D.**, **Coulter I.M.**, **Kazakov A.**

09:00 0876 Polymerization of 1-Hexene and Copolymerization of 1-Hexene with Ethylene Catalyzed by Cp*TiMe₃-B(C₆F₅)₃ **Baird M.C.**, **Murray M.C.**

09:40 0877 A Density Functional Study of the Effect of Counterions and Solvents on the Activation of the Olefin Polymerisation Catalyst (1,2Me₂Cp)₂ZrMe⁺ **Vanka K.**, **Chan M.**, **Pye C.C.**, **Ziegler T.**

10:00 Coffee Break

10:20 0878 New Weakly Coordinating Anions for Metallocene Polymerization Catalysts: The Assessment of Ligand and Anion Effects in High-Activity Catalysts **Bochmann M.**, **Lancaster S.J.**, **Zhou J.**, **Walker D.A.**

11:00 End of Session

IN8**MacLeod C**

Catalytic Chemistry of the M-H Bond (M=Si,Ge,Sn)

Organizer - J. Harrod
Chair - J. Harrod

08:15 Introductory Remarks

08:20 0879 Silylene Complexes in Metal-Mediated Transformations: The Role of Si-H Activation by 1,2-Hydrogen Shifts **Tilley T.D.**, **Mitchell G.P.**, **Mork B.V.**, **Feldman J.D.**, **Glaser P.B.**, **Peters J.C.**

09:00 0880 Rhodium-Catalyzed Routes to Functionalized Silane Dimers. **Rosenberg L.**, **Yao J.**, **Davis C.W.**

09:20 0881 Hydride-silyl Complexes of Platinum Group Metals: Hydrosilylation versus Hydrogenation of Phenylacetylene **Oro L.A.**, **Esteruelas M.A.**, **Sola E.**, **Martin M.**

10:00 Coffee Break

10:20 0882 High Valent Group 10 Metals with Silyl Ligands: Generation and Possible Roles in Catalysis Involving Hydrosilane **Tanaka M.**

Alcan Award Lecture

11:00 Chair - N. Burford|Introduction by ...

11:10 0883 From Metal Sandwich Complexes to Molecular Machinery: A Speculative Journey. **McGlinchey M.J.**

12:00 End of Session

IN9**McIntyre**

Inorganic Chemistry of Mineral Surfaces

Organizer - I. Butler, M. Bancroft
Chair - M. Bancroft

08:15 Introductory Remarks

08:20 0884 Structure and Chromate Redox Chemistry of Well-Defined Iron Oxide Surfaces **Chambers S.A.**, **Brown Jr. G.E.**, **Kendelewicz T.**, **Liu P.**, **Doyle C.S.**, **Kim Y.J.**, **Thevuthasan S.**, **Joyce S.A.**, **Morais J.**, **Denecke R.**, **Fadley C.S.**, **Stanka B.**, **Diebold U.**

09:00 0885 Speciation at Some Sulfide Mineral Surfaces: Chemical State Properties, Auto-redox Reactions and Polymerization in Response to Fracture **Nesbitt H.W.**, **Schaufuss A.G.**, **Bancroft G.M.**, **Szargan R.**

09:40 0886 Kinetics of Silicate Exchange on Aqueous Aluminosilicate Ions: Relevance to Mechanisms of Zeolite Formation **North M.R.**, **Swaddle T.W.**

10:00 Coffee Break

10:20 0887 Probing chemical states and charge transfer on modified sulfide surfaces: Information from X-ray and electron spectroscopies. **Szargan R.**, **Schaufuss A.G.**, **Mayer D.**, **Hallmeier K.H.**, **Ulig I.**, **Nesbitt H.W.**

11:00 End of Session

**Macromolecular Science and
Engineering****MA6 Glen 4****Nano-structural Synthetic
Materials (joint with MS3)**Organizer - G. Liu
Chair - Guojun Liu**08:30 0888** *Kinetics and Mechanisms of Morphological Transitions in Block Copolymer Aggregates in Solution* Shen H., Burke S., Chen L., **Eisenberg A.****09:00 0889** *Synthesis of Polyelectrolyte Encapsulated Metal Nanoparticles* **Dela Santa A.**, Goh M.C., Guillet J.E.**09:20 0890** *ABC Triblock Nanospheres as Templates for Inorganic Nanoparticle Synthesis* **Underhill R.S.**, Liu G.**09:40 0891** *Water Soluble Porous Polymer Nanospheres from Porogen Extraction* **Hoppenbrouwers E.G.M.**, Liu G.**10:00 Coffee Break****10:20 0892** *Conjugated polymers in macro- and mesoporous hosts* Pattantyus-Abraham A.G., Rademacher K., **Wolf M.O.****10:40 0893** *Helical Self-Organization and Self-Assembly of an Oligoheterocyclic Pyridine-Pyridazine Foldamer* **Cuccia L.A.**, Lehn J.-M., Homo J.-C., Schmutz M.**11:00 0894** *Photolithographic Deposition of Nanostructured Thin Films* **Bravo-Vasquez J.P.**, Hill R.H.**11:20 0895** *Poly (Acrylic Acid) Pore Filled Membranes* **McCroory C.T.C.**, Mika A., Childs R.F.**11:40 0896** *Poly(solketal methacrylate)-block-Poly(2-cinnamoyl ethyl methacrylate)-block-Poly(allyl methacrylate): Synthesis, Nanosphere Preparation and Palladium Nanoparticle Synthesis* **Liu F.**, Liu G.**12:00 End of Session****Materials Science****MS2 MacLeod A1****Recent Advances and New
Directions in Materials Science**Organizer - R. Hill
Chair - M. Workentin**08:30 0897** *Towards High Nuclearity Ruthenium Complexes: Creating New Binding Sites in Metal Complexes.* **Hanan G.S.**, Johansson K.O., Lotoski J.A.**08:50 0898** *Surface Functionalization of Cadmium Sulfide Quantum Confined Nanoclusters. Potential Nanophase Electronic Devices* Veinot J.G.C., Galloro J., Farah A.A., **Pietro W.J.****09:10 0899** *Advances in Supramolecular Calixarene Materials* **Brouwer E.B.**, Enright G.D., Udachin K.A., Ratcliffe C.I., Nossov A., Ripmeester J.A.**09:30 0900** *Surface Structure of (NH₄)₂S_x-treated GaAs(111)* **Brodersen P.M.**, Tyliczszak T., Lu Z.H., Hitchcock A.P.**09:50 0901** *New Clathrate Hydrate Structures* **Udachin K.A.**, Ripmeester J.A.**10:10 Coffee Break****10:30 0902** *Multidimensional inorganic coordination frameworks based upon metal-sulfonate interactions: supramolecular principles applied to the generation of functional solids* **Shimizu G.K.H.**, Côté A.P., Kulynych A.D., Mäkinen S.K., Yu J.O., Parvez M., Enright G.D.**10:50 0903** *NMR and Raman Spectroscopic Studies of Methane Hydrates - Structure, Cage Occupancy, and Hydration Number* **Wilson L.D.**, Tulk C.A., Ripmeester J.A.**11:10 0904** *Novel Molecular Wires: Metal-Containing Conjugated Oligomers and Polymers* **Wolf M.O.****11:30 End of Session****Organic Chemistry****OR5 Glengarry****General Session-Organic**Organizer - B. A. Keay
Chair - P. Wilson**Synthesis****08:40 0905** *Total Synthesis of Everminomicin 13,384-I* **Nicolaou K.C.**, **Mitchell H.J.**, Rodriguez R.M., Fylaktakidou K.C., Suzuki H.**09:00 0906** *Synthesis of chiral 4,4'-biacidriams and their application as photocatalysts in the asymmetric photoreduction of tertiary halides* **Rioux E.**, Valade I., Giasson R.**09:20 0907** *The Use of Chiral Organo-Magnesium Amide (COMA) in Enantioselective 1,2-Addition Reactions* **Yong K.H.**, Chong J.M.**09:40 0908** *Total Synthesis of Bakkenolide A* **Nava-Salgado V.O.**, Back T.G., Payne J.E.**10:00 Coffee Break****10:20 0909** *Asymmetric Hydrocarboxylation* **Ren L.**, Chen A.C., Crudden C.M.**10:40 0910** *Stability and Reactivity of Halomethylzinc Alkoxides: Studies Toward an Understanding of the Asymmetric Catalytic Cyclopropanation of Olefins* **Molinario C.**, Charette A.B.**11:00 0911** *Synthesis of Functionalized, Chiral Macrocycles via Zirconocene Coupling of Alkynes* **Clouston L.L.**, Tilley T.D.**11:20 0912** *Recent Developments in Palladium(0)-Catalyzed Polyene Cyclizations: Studies Towards Xestoquinone and Halenaquinone.* **Lau S.Y.W.**, Andersen N.G., Keay B.A.**11:40 0913** *A Route to Kempene Diterpenes* **Bao G.**, Bumell D.J.**12:00 End of Session****OR7 Glenview****Aiming for Practical Chemical
Synthesis**Organizer - P. Beaulieu, V. Snieckus
Chair - V. Snieckus**08:20 0914** *The Design and Development of Practical Processes for Anti-MRSA Carbapenems* **The Design and Development of Practical Processes for Anti-MRSA Carbapenems** **Grabowski E.J.J.****09:20 0915** *The Large Scale Synthesis of Unnatural Amino Acid Derivatives: Traditional Chemistry Meets Contemporary Bioscience* **Ager D.J.**, Allen D.R., Fotheringham I.G., Laneman S.A., Li T., Pantaleone D.P., Schaad D.R., Senkpeil R.F., Taylor P.P., Alexandre F.R., Turner N.J.**10:00 Coffee Break****10:20 0916** *Synthesis of the Fibrinogen Receptor Antagonist, RWJ-53308* **Maryanoff C.A.****11:20 0917** *Cross-Linked Enzyme Crystals as New Catalytic Materials* **Margolin A.****12:00 End of Session****Physical/Theoretical Chemistry****PH8 MacLeod A3****Radicals, Ions, Complexes,
Reactive Molecules:
Spectroscopy of Transient
species**Organizer - W. Jaeger
Chair - W. Jaeger**08:30 0918** *ZEKE-PFI Spectra of Metal-Ligand Complexes* **Yang D.S.****09:05 0919** *The Strangely Familiar World of Unfamiliar Ion-Pair Rydberg States: Exotic Atoms Made from Molecules* **Hepburn J.W.**, Martin J.D.D., Hu X., Hu Q., Shiell R.C.**09:40 0920** *The Dipole Bound Anion to Valence State Transition in HBr Dimer Anion: an ab initio Study* **Rauk A.**, **Armstrong D.A.****09:55 0921** *Fourier transform microwave spectroscopy of the Ar-Ar-NH₃ and Ne-Ne-NH₃ van der Waals trimers* **van Wijngaarden J.**, Jaeger W.**10:10 Coffee Break****10:35 0922** *Absorption and photoionisation methods for the investigation of unstable molecules in the gas phase.* **Westwood N.P.C.****11:10 0923** *Ortho-para Interactions in Spectroscopy and Chemistry* **Bunker P.R.**

11:45 0924 *Central Atom Is Photoabsorption Spectra of YX₃ (X = F, H and Y = N, P) Molecules* **Jürgensen A., Cavell R.G.**

12:00 End of Session

Wednesday PM

Analytical Chemistry

AN3

Glen 1

Bioanalytical Chemistry

Organizer - X. C. Le
Chair - M. Lam & W. Tan

Immunoassay

14:00 0925 *A MULTIDIMENSIONAL CHROMATOGRAPHY AND SIGNAL PEPTIDE APPROACH TO PROTEOMICS* **Regnier F., Amini A., Chakraborty A., Dormady S., Geng M., Ji J., Riggs L., Sioma C., Wang S., Zhang X.**

14:40 0926 *Membrane as Support for the Immobilized Enzyme Microreactor and Affinity Chromatography* **Zou H., Zhang Q., Wang H., Jiang H., Ni J.**

15:10 Coffee Break

15:30 0927 *Microfluidic Systems for Homogeneous and Heterogeneous Immunoassays* **Jemere A.B., Chiem N., Lee W.E., Oleschuk R.D., Harrison D.J., Paulson M.**

15:50 0928 *A Microfluidic Device for a Competitive Estradiol Immunoassay* **Taylor J., Harrison D.J., Picelli G.**

16:10 0929 *Capillary Electrophoresis / Laser-Induced Fluorescence Polarization Affinity Assays for Drug Interactions and DNA Damage* **Pavski V., Le X.C.**

16:30 0930 *Studies of Protein-DNA Interactions by Capillary Electrophoresis/Laser-Induced Fluorescence Polarization* **Wan Q.-H., Le X.C.**

16:50 End of Session

AN9

Glen 3

Advances in Scanning Probe Microscopy (joint with PH9)

Organizer - M. McDermott
Chair - J.-B. Green

Noranda Award Lecture

13:00 Introduction by ...

13:10 0931 *Controlled Molecular Adsorption on Si: Laying a Foundation for Molecular Devices* **Wolkow R.A.**

14:00 0932 *A Hybrid AFM-NSOM Scanning Probe Microscope for Photonic Applications* **Taylor R.**

14:40 Coffee Break

15:00 0933 *Putting Numbers on Images: Progress in Interfacial Force Microscopy* **Norton P.R., McCague C.M., DeJong K.L., Munoz-Paniagua D.J., Kovar M.**

15:40 0934 *Photomicrocontact Printing of Organic Monolayers on Si(111)H Surfaces* **Boukherroub R., Lopinski G.P., Tomietto M., Wayner D.D.M.**

16:00 0935 *Investigating Biomolecular Assembly: From Crystal Growth to Bilayer Formation and Protein Insertion* **Yip C.M.**

16:30 0936 *Supported Planar Bilayer Formation by Vesicle Fusion: The Interaction Phospholipid Vesicles with Surfaces and the Effect of Gramicidin on Bilayer Properties using Atomic Force Microscopy* **Leonenko Z.V., Carnini A., Cramb D.T.**

16:50 End of Session

Inorganic Chemistry

IN8

MacLeod C

Catalytic Chemistry of the M-H Bond (M=Si, Ge, Sn)

Organizer - J. Harrod
Chair - K. Pannell

13:20 0937 *Dimethyltitanocene catalyzed hydrosilation/hydrogenation of pyridines.* **Harrod J.F., Shu R., Selvakumar K., Woo H.G.**

13:40 0938 *Activation of Si-H bonds with nickel complexes* **Fontaine F.-G., Morissette M., Groux L., Zargarian D.**

14:20 0939 *Hydrosilylation by and of Silicon Acetylide Rings that Contain Silicon Hydride Functional Groups* **Hrabusa III J.M., Simons R.S., Youngs W.J., Tessier C.A.**

15:00 Coffee Break

Chair - D. Zargarian

15:20 0940 *Group 4 Amidinate-Based Catalysts for the Dehydropolymerization of Stannanes* **Sita L.R., Weinert C.S., Jayaratne K.C.**

16:00 0941 *Ruthenium, palladium, rhodium, and iridium catalyzed silane alcoholysis in a highly polar solvent - detailed reinvestigation of the Ru₂Cl₂(CO)₂(PMes)₂ catalyst system.* **Chung M.-K., Schlaf M., Ferguson G.**

16:20 0942 *Catalytic Isomerization and Chain Extension of Oligosilanes and Oligogermysilanes. The Role of Intermediate Metal Silylenes.* **Pannell K.H.**

16:40 End of Session

IN9

McIntyre

Inorganic Chemistry of Mineral Surfaces

Organizer - I. Butler, M. Bancroft
Chair - W. Nesbitt

13:20 0943 *The Canadian Light Source: Opportunities for Surface and Materials Studies* **Bancroft G.M.**

13:40 0944 *Use of XPS to Characterise Oxide Surface Chemistry.* **McIntyre S., Piao H., Kim G., Do T.**

14:20 0945 *Atomic Force Microscopy of Mineral Surfaces: Tip-Sample Force Interactions, Image Contrast Mechanisms and Image Interpretation* **Henderson G.S., Sokolov I.Y.**

15:00 Coffee Break

Chair - R. Szargan

15:20 0946 *Exchange of oxygens between the AlO₄Al₁₂(OH)₂₄(H₂O)₁₂⁷⁻(aq) complex and water: A model for mineral surfaces* **Casey W.H., Phillips B.L.**

16:00 0947 *Raman Microprobe Study of the Laser Induced Oxidation of Galena* **Shapter J.G., Brooker M.H., Skinner W.M.**

16:20 0948 *Generation of Space-Oscillating Properties in Silicon Carbide Thin Layers Deposited on Inorganic Substrates via Autocatalytic Polymeric Fragmentation* **Scarlete M., McCourt N., Chacko A.**

17:00 End of Session

Organic Chemistry

OR5

Glenqarry

General Session-Organic

Organizer - B. A. Keay
Chair - M. Kerr

Synthesis

13:00 0949 *Supramolecular Scaffolds for Asymmetric Catalysis* **MacLachlan M.J., Swager T.M.**

13:20 0950 *Use of a reactive intermediate, an aryne, on the gram scale to achieve flexible syntheses of dihydropyrenes.* **Mitchell R.H., Ward T.R., Wang Y.**

13:40 0951 *Diastereoselective Synthesis of New Bridged Ferrocenes with Planar Chirality* **Szillat H., Snieckus V.**

14:00 0952 *Synthesis of a 6-Azaspiro[4.5]decane Related to Halichlorine and the Pinnaic Acids* **Yeh Vince S.C., Clive D.L.J.**

14:20 0953 *Stereoelectronic Effect of Fluorine in the Baeyer-Villiger Oxidation of Conformationally Restricted Ketones* **Crudden C.M., Chen A.C.**

14:40 Coffee Break

15:00 0954 *Enantioselective Synthesis of the Pyrroloquinoline Core of the Martinellines* **Nieman J.A., Ennis M.D.**

15:20 0955 *Novel Cyclization Reactions of Acetylenic Sulfones as a Route to Dendrobatid Alkaloids* **Hamilton M., Back T.G., Nakajima K.**

15:40 0956 *Formation of 2-Substituted Iodobenzenes From Halobenzenes via Benzene and Iodine Ate Complex Intermediates. Formation of 2-Substituted Iodobenzenes From Halobenzenes via Benzene and Iodine Ate Complex Intermediates.* **Durst T., Tripathy S., Hussain H., LeBlanc R.**

16:00 0957 *Ruwenine and Ruzorine Revisited: Structure Revisions of Isoline and Bisline* **Susag L.**, Parvez M., Benn M.H.

16:20 End of Session

OR7 **Glenview**

Aiming for Practical Chemical Synthesis

Organizer - P. Beaulieu, V. Snieckus
Chair - P. Beaulieu

13:00 0958 *Synthesis of Anti-Infective Agent ABT-606 (MIV-606)* **Morton H.E.**

13:40 0959 *Organometallic Reactions in Aqueous Media. The Issue of Chelation-controlled Stereoselectivity in Indium-mediated Allylation of Sulfonylmines.* **Lu W.**, Chan T.H.

14:00 0960 *New Reactions of Organoboronic Acids* **Petasis N.A.**

15:00 **Coffee Break**

15:20 0961 *Biocatalysis in Enantioselective Organic Synthesis* **Chênevert R.**

16:00 0962 *On the Amphoteric Character of 2-Vinyloxiranes. A Synthetic Equivalent of β,γ -Unsaturated Aldehydes and Vinylogous Enolates.* **Ouellet S.G.**, Raeppele S., Lautens M.

16:20 0963 *General and Efficient Approaches to Fused [1,2-*a*]-Pyrroles and Indoles* **Katritzky A.R.**, **Fali C.N.** Li J.

16:40 End of Session

Physical/Theoretical Chemistry

PH8 **MacLeod A3**

Radicals, Ions, Complexes, Reactive Molecules: Spectroscopy of Transient species

Organizer - W. Jaeger
Chair - W. Jaeger

13:00 0964 *Probing the Excited State Interactions of Transition Metal Containing Radicals* **Qian C.X.W.**

13:35 0965 *Diatomic Transition Metal Halide Molecules at High Resolution* **Adam A.G.**

14:10 0966 *A gas-phase infrared and ab initio investigation of unstable BN compounds, and an ab initio investigation of related distonic radical cations.* **Tanner R.M.**, Westwood N.P.C.

14:25 **Coffee Break**

14:40 0967 *Emission Spectroscopy of Transition Metal Nitrides* **Bernath P.F.**

15:15 0968 *Noble gas-metal chemical bonding? Fourier transform microwave rotational spectroscopy of coinage metal monohalides and their complexes with noble gases* **Evans C.J.**, Lesarri A., Reynard L., Rubinoff D.S., **Gery M.C.L.**

15:50 0969 *Spectroscopic Investigation of Very Weakly Bound He_n-OCS (n=1,2) Clusters* **Xu Y.**, Jæger W.

16:05 End of Session

Late Submissions

LA1

Abstracts received after the submission deadline

Organizer - A. Rauk

Sunday AM BM1 MacLeod A4 | 09:00
0011a

0970 *Design and Synthesis of Antiepileptogenic Drugs* **Weaver D.F.**, Campbell A., Carran J., Khan Z., Lyon A., Milne P., Tan C.

Lemieux Lecture Award

Sunday AM BM1 MacLeod A4 | 10:00
0011b

17:00 0971 *The Design, Synthesis and Mode of Action of Tailored Multivalent Carbohydrate Ligands that Neutralize Shiga-like Toxins* **Bundle D.R.**

Sunday PM AN10 Exhib'n Hall | 16:30
0117b

0972 *Separation of Polycyclic Aromatic Hydrocarbons on a New Isomer Specific Capillary Column* **Naikwadi K.P.**, **Britten A.J.**, Wadgaonka P.P.

Sunday PM AN10 Exhib'n Hall | 16:30
0117c

0973 *Development of a Portable PAH Analyser* **Britten A.J.**

Sunday PM EN2 Exhib'n Hall | 16:30
0134c

0974 *Plastic Waste Recovery* **Hooper R.**

Sunday PM PH3 Exhib'n Hall | 16:30
0231b

0975 *The Kinetics of Vinyl Bromide Pyrolysis* **Laws P.A.**, Roscoe J.M.

Sunday PM PH3 Exhib'n Hall | 16:30
0231c

0976 *Isomeric and Vibronic Effects in the High-Resolution NEXAFS Spectra of Polymers* **Urquhart S.G.**, Ade H.

Monday PM IN6 Exhib'n Hall | 17:00
0455b

0977 *Self-Assembled Polypyridyl Metallareceptors* **Koivisto B.D.**, Hanan G.S.

Monday PM IN6 Exhib'n Hall | 17:00
0455c

0978 *Design of Molecular Switches Using Programmed Molecular Recognition* **Tong C.**, Hanan G.S.

Tuesday PM OR9 Exhib'n Hall | 14:30
0826b

0979 *Design, Synthesis and Gyrase Inhibition Action of Novel Thiazole Containing Cross-Linked Polyamides Related to the Antiviral Antibiotic Distamycin* **Sharma S.K.**, Tandon M., Lown J.W.

Tuesday PM OR9 Exhib'n Hall | 14:30
0826c

0980 *The Reactions of Nucleophilic Carbenes with Organic Reagents* **Hopkins J.M.**, Clyburne J.A.C., Jenkins H.

Tuesday PM OR9 Exhib'n Hall | 14:30
0826d

0981 *The Synthesis and Investigation of Novel 3,3'-Disubstituted-1,1'-bi-2-naphthol Derivatives for Use as Chiral Lewis Acid Catalysts* **Muller K.M.**, Keay B.A.

Tuesday AM PH4 MacLeod A3 | 11:40
0584b

17:00 0982 *Free Radicals from Heme Peroxidases* **Dunford H.B.**

Sunday PM AN10 Exhib'n Hall | 16:30
0117d

0983 *High Speed Separation of DNA-Adduct Complexes Using Capillary Electrophoresis* **Tan W.G.**, Camelley T.J., Murphy P., Xing J.Z., Lam M., Pavski V., Le X.C.

17:00 End of Session