

31ST INTERNATIONAL CONFERENCE ON COORDINATION CHEMISTRY

The University of British Columbia, Vancouver, Canada
August 18-23, 1996

ORGANIZING COMMITTEE

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Chris Orvig, University of British Columbia
Derek Sutton, Simon Fraser University

SCIENTIFIC PROGRAMME

Plenary Lecturers

Prof. **C. David Garner**, University of Manchester, UK; "X-ray Absorption Spectroscopic Studies of Metal Centres in Biology and Developments of Relevant Synthetic Analogues"

Prof. **Brian R. James**, University of British Columbia, Canada; "Coordination Chemistry, and Catalytic Conversions, of Hydrogen Sulfide"

Prof. **Eiichi Kimura**, Hiroshima University School of Medicine, Japan; "Macrocyclic Metal Complexes for Selective Recognition of Nucleic Acid Bases and Manipulation of Gene Expression"

Prof. **Walter G. Klemperer**, University of Illinois, USA; "Self-Assembled Inorganic Monolayers: Coordination Chemistry in Two Dimensions"

Prof. **Leonard F. Lindoy**, James Cook University, Australia; "Tailoring Macrocycles and Molecular Assemblies for Metal Ion Binding"

Prof. **Richard R. Schrock**, Massachusetts Institute of Technology, USA; "High Oxidation State Coordination Chemistry with Triamidoamine Tungsten and Molybdenum Complexes"

Session Lecturers

There will be nine sessions covering all aspects of coordination chemistry; session lecturers are as follows (as of the time of printing):

1. Metal Centres in Biology and Medicine

Dr. **Michael Abrams**, Johnson-Matthey, Inc., USA; "Ruthenium Complex Scavenging of Nitric Oxide in Biological Systems"

Prof. **Peter J. Sadler**, Birkbeck College, University of London, UK; "Metallo drugs: Design and Mechanism of Action"

Prof. Dr. **Dieter Sellman**, Universität Erlangen-Nürnberg, Germany; "Biological Challenges to Coordination Chemistry: Modelling the Reactivity of Nitrogenase and Other Metal Sulfur Enzymes"

Prof. **Edward I. Solomon**, Stanford University, USA; "Electronic Structure of the Blue Copper Active Site: Contributions to Electron Transfer Reactivity"

2. Mechanistic Insights

Prof. **James H. Espenson**, Iowa State University, USA; "Mechanisms of Reactions Catalyzed by Methylrhodium Trioxide"

Prof. **Hitoshi Ohtaki**, Ritsumeikan University, Japan; "Structure of Intermediates in the Metal Substitution Reactions of the Mercury(II)-Porphyrin Complex with Divalent Transition Metals Determined by the Stopped-Flow-EXAFS Method"

Dr. **Joop A. Peters**, Delft University of Technology, The Netherlands; "Solution Structures of Lanthanide Chelates"

Prof. **Alexander D. Ryabov**, M. V. Lomonosov Moscow State University, Russia; "Mechanisms of Enzymatic Reactions of Ferrocene Derivatives"

Prof. Thomas W. Swaddle, University of Calgary, Canada; "Understanding Pressure Effects in the Solution Chemistry of Coordination Compounds"

3. Activation of Small Molecules

Prof. **Pierre Braunstein**, Université Louis Pasteur, France; "Bimetallic Synthesis and Reactivity"

Prof. **Ernesto Carmona**, Universidad de Sevilla - CSIC, Spain; "Rhodium and Iridium Mediated C-C Bond Forming Reactions Involving Small, Unsaturated Organic Molecules"

Prof. **Juan Costamagna**, University of Santiago, Chile; "Complexes with Aza-macrocyclic Ligands Active for the Reduction of Carbon Dioxide"

Prof. **William B. Tolman**, University of Minnesota, USA; "Binding and Activation of Dioxygen and Nitrogen Oxides by Copper Complexes: Relevance to Biological Catalysis"

Prof. **Joan S. Valentine**, University of California at Los Angeles, USA; "Defining Possible Mechanisms for Enzymatic Dioxygen Activation by Studying Reactions of Transition Metal Complexes"

4. New Materials

Prof. **Mark P. Andrews**, McGill University, Canada; "Coordinating Molecules and Mesoscopic Structures for Optical Devices"

Prof. **Michael J. Sailor**, University of California at San Diego, USA; "Chemistry at the Surface of Luminescent Porous Silicon"

Dr. **Lynn Schneemeyer**, AT & T Bell Laboratories, USA "Chemistry of Solids"

Prof. **Samuel I. Stupp**, University of Illinois, USA; "Self-Assembly of Molecular and Composite Materials"

5. Multidentate Ligands and Supramolecular Assemblies

Dr. **Paul Beer**, University of Oxford, UK; "Cation and Anion Coordination Chemistry of Redox- and Photoactive Ligand Systems"

Prof. **Makoto Fujita**, Chiba University, Japan; "SelfAssembling Supramolecular Complexes: From Macrocycles to Catenanes"

Prof. **Stephen Lincoln**, University of Adelaide, Australia; "Pendant Arm Macrocyclic Ligand Complexes"

Prof. **Vincent L. Pecoraro**, University of Michigan, USA; "Metallacrowns: New Inorganic Molecular Recognition Agents"

6. Electronic Properties: Theory and Practice

Prof. **Odile Eisenstein**, Université de Paris-Sud, France; "An Ab Initio Calculation of the NMR ^1H Quantum Exchange in the Case of Osmium Hydride Complexes"

Prof. **Olivier Khan**, Institut Universitaire de France; "Molecular Magnetism: a New Challenge for Coordination Chemists"

Prof. **A. B. P. Lever**, York University, Canada; "Electrochemical Parameterization: Theory, and Application to Organometallic Species"

Prof. **Per E. M. Siegbahn**, University of Stockholm, Sweden; "Theoretical Transition Metal Chemistry: Methods, Models and Results"

7. Environmental Chemistry: Initiatives and Applications

Dr. **O. F. X. Donnard**, Université de Bordeaux 1, France; "Environmental Aspects of the Biogeochemistry of Sn, Se and As in Marine Ecosystems"

Dr. **Donald S. Gamble**, Agriculture Canada; "Discrete Site Complexes On Humic Polyelectrolytes: The Frontier of Coordination Chemistry"

Prof. **Stalfan Sjöberg**, University of Umea, Sweden; "Surface Complexation Models for Sorption at the Mineral - Water Interface"

Prof. Dr. **Rudy van Eldik**, Universität ErlangenNurnberg, Germany; "Metal-catalyzed Oxidation of S(IV) - A Challenge to Coordination Chemists"

8. Main Group Chemistry

Prof. **Andrew R. Barron**, Rice University, USA; "Aluminum, Gallium and Indium Complexes of Group 16 Donor Ligands"

Prof. **Phillip P. Power**, University of California at Davis, USA; "Multiple Bonding and Steric Effects in the Main Group 3 Elements"

Prof. Dr. **Hubert Schmidbaur**, Technische Universität Munchen, Germany; "Metalloids in Multinuclear Metallo Complexes"

Prof. **James D. Wuest**, Université de Montréal, Canada; "Coordination Chemistry of Multidentate Lewis Acids"

9. Advances in Molecular Structure and Design

Prof. **C. C. (Kit) Cummins**, Massachusetts Institute of Technology, USA; "Reactions of Three-Coordinate Transition Metal Complexes with Small Molecules and Related Substrates"

Prof. **Kim R. Dunbar**, Michigan State University, USA; "Ordered Arrays of Metals With Polynitrile or Cyanide Ligands"

Prof. Dr. F. **Ekkehardt Hahn**, Freie Universitat Berlin, Germany; "Ligands with Subvalent Group 14 Donor Atoms: Multidentate Isocyanides, Carbenes, and Stannylenes"

Dr. **Maurizio Peruzzini**, ISSECC CNR, Italy; "Synthesis of Aminophosphine Ligands and Their Organometallic Chemistry in Combination with Transition Metals"

Poster Sessions and Short Lectures

Poster sessions and 20-minute lectures will be culled from the submitted abstracts. These will also be divided into the nine session topics listed above.

More information can be obtained from the Conference Secretariat

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