

ICPP-2 Program

Sunday, June 30

13:00-18:00 Registration at Kyoto Terrsa in Kyoto (Shinmachi-dori Kujo-Sagaru, Minamiku, Kyoto)

18:30-20:00 Get-together Party, Terrsa Hall (1F) in Kyoto Terrsa (open to all participants, family and accompanying persons)

Monday, July 1

8:40-9:00 Opening Ceremonies (Room 1): Hisanobu Ogoshi

9:00-10:00 Plenary Lecture (Room 1) PLEN-1: Roger Guilard (Université de Bourgogne, France): New Developments in Corrole Chemistry. A Special Emphasis on Face-to-Face Bismacrocycles (*Chaired by Karl M. Kadish*)

10:00-10:30 Coffee Break

10:30-13:00 Symposium Lectures

Photodynamic Therapy 1 (Room 1)

Organizers: Ravindra K. Pandey (Roswell Park Cancer Institute, USA)

Ichiro Okura (Tokyo Institute of Technology, Japan)

Speakers: 10:30-11:00 S-1 David Kessel (Wayne State University, USA) Sub-Cellular Localization of Photosensitizing Agents as a Factor in PDT Efficacy

11:00-11:30 S-2 Johan E. van Lier (Université de Sherbrooke, Canada) Positron Emission Tomography to Screen Porphyrins and Phthalocyanines *in Vivo* for PDT Efficacy in Real Time

11:30-12:00 S-3 William R. Potter (Roswell Park Cancer Institute, USA) Optical Properties of Tissue and the *in Vivo* Absorption Spectra of Photosensitizers

12:00-12:30 S-4 Hubert van den Bergh (EPFL, Germany) Endogenous Protoporphyrin IX in the Detection and Treatment of Cancer

12:30-13:00 S-5 Chi K. Chang (Hong Kong University of Science and Technology, China) Photodynamic Activities of Modified Porphycene and Benzochlorin on Nasopharyngeal Carcinoma Cells

Oxidation Catalysis (Room 2)

Organizers: Bernard Meunier (Laboratoire de Chimie de Coordination du CNRS, France)

Tsunehiko Higuchi (Nagoya City University, Japan)

Speakers: 10:30-11:30 S-6 (Keynote) Daniel Mansuy (Université de Paris V, France) Selective Hydroxylations by Biomimetic Systems : Comparison between Iron Porphyrins and Non-Heme Iron Catalysts

11:30-12:00 S-7 John T. Groves (Princeton University, USA) Mechanisms of Metalloporphyrin-Catalyzed Oxygenations

12:00-12:30 S-8 Zeev Gross (Technion-Israel Institute of Technology, Israel) Superior Catalysis by Corrole Metal Complexes

12:30-13:00 S-9 Yoshihito Watanabe (Nagoya University, Japan) Molecular Design of Peroxide-Dependent Monooxygenase

Recent Advances in Electrochemistry 1 (Room 3)

Organizers: Francis D'Souza (Wichita State University, USA)

Oliver Yuhlong Su (National Taiwan University, Taiwan)

Speakers: 10:30-11:30 S-10 (Keynote) Karl M. Kadish (University of Houston, USA) 50 Years of Porphyrin Electrochemistry

11:30-12:00 S-11 Maurice L'Her (Université de Bretagne Occidentale, France) Catalysis of O₂ Electroreduction by Enzyme Model Compounds

12:00-12:30 S-12 Masao Kaneko (Ibaraki University, Japan) Charge Transport and Electrocatalysis by Metal Porphyrins and Phthalocyanines Incorporated into Polymer Matrixes

12:30-13:00 S-13 Yuhlong Oliver Su (National Taiwan University, Taiwan) Electrochemistry and Electrocatalysis of Water-Soluble Metalloporphyrins

Synthetic Advances in Phthalocyanine Chemistry 1 (Room 4)

- Organizer: Tomás Torres (Universidad Autónoma de Madrid, Spain)
Speakers: 10:30-10:45 Tomás Torres (Universidad Autónoma de Madrid, Spain) Introduction: The Importance of the Synthesis of Phthalocyanines
10:45-11:30 S-14 (Keynote) Clifford C. Leznoff (York University, Canada) Phthalocyanines as Soluble Supports in Organic Synthesis
11:30-12:00 S-15 Dennis K. P. Ng (The Chinese University of Hong Kong, China) Disstacking Phthalocyanines in Water with Surfactants and Poly(ethylene oxide)
12:00-12:30 S-16 Nagao Kobayashi (Tohoku University, Japan) Synthesis and Characterization of Phthalocyanines with Direct Si-Si Linkages
12:30-13:00 S-17 Evgeny A. Lukyanets (Organic Intermediates and Dyes Institute, Russia) Some Highly Symmetric Functional Phthalocyanine Derivatives

Theoretical and Electronic-Structural Aspects of Porphyrins (Room 5)

- Organizer: Abhik Ghosh (University of Tromsø, Norway)
Speakers: 10:30-11:00 S-18 Hiroshi Nakatsuji (Kyoto University, Japan) Quantum Chemistry of Photosynthetic Bacteria
11:00-11:30 S-19 Pawel M. Kozlowski (University of Louisville, USA) Quantum Chemical Modeling of Co-C Bond Activation in B₁₂-Dependent Enzymes
11:30-12:00 S-20 Michael T. Green (California Institute of Technology, USA) Electronic Structure of Perferryl Intermediates: The Effects of Axial Ligands and Protein Environment
12:00-12:30 S-21 Christian Brückner (University of Connecticut, USA) Electronic Structure of Free-Base Metallated *meso*-Tetraarylhomoporphyrins
12:30-13:00 S-22 Abhik Ghosh (University of Tromsø, Norway) From the Question of Whether Nonplanar Distortions Bring About Red-Shifted Optical Spectra to the First High-Level Correlated *Ab Initio* Calculations on Transition Metal Porphyrins: the Right Answer for the Right Reason

13:00-14:30 Lunch

14:30-17:00 Symposium Lectures

Photodynamic Therapy 2 (Room 1)

- Organizers: Ravindra K. Pandey (Roswell Park Cancer Institute, USA)
Ichiro Okura (Tokyo Institute of Technology)
This session will be chaired by Dr. Kessel and Dr. Van Den Bergh
Speakers: 14:30-15:00 S-23 M. Wainwright (University of Leeds, UK) Photodynamic Properties of a Series of Aminoacid Substituted Zinc Phthalocyanines
15:00-15:30 S-24 Nancy L. Oleinick (Case Western Reserve University, USA) Molecular Targets of Photodynamic Therapy
15:30-16:00 S-25 Tayyaba Hasan (Harvard Medical School, USA) Targeted Photodynamic Inactivation of Molecular Targets Relevant to Cancer
16:00-16:30 S-26 James Chen (Light Sciences Corporation, USA) New Directions in Photodynamic Therapy
16:30-16:45 S-27 Tetsuya Okunaka (Tokyo Medical University, Japan) Photodynamic Therapy for Lung Cancer: State of the Art and Expanded Indications
16:45-17:00 S-28 Takaaki Tsuchida (Tokyo Medical University, Japan) Detection and Treatment of Neoplasms by X-Ray with Mono-L-Aspartyl Aurochlorin E6

Novel Porphyrin Synthesis (Room 2)

- Organizer: Kevin M. Smith (Louisiana State University, USA)
Speakers: 14:30-15:30 S-29 (Keynote) Noboru Ono (Ehime University, Japan) New Strategy for the Preparation of Conjugated Porphyrins
15:30-16:00 S-30 Franz-Peter Montforts (Universität Bremen, Germany) Total and Partial Synthesis of Novel Chlorins and Higher Reduced Porphyrinoids
16:00-16:30 S-31 Kevin M. Smith (Louisiana State University, USA) Syntheses, Structure and Chemistry of Porphyrins with β,β' -Fused Appendages
16:30-17:00 S-32 Mathias O. Senge (Freie Universität Berlin, Germany) Nucleophilic Substitution of Porphyrins with Organolithium Reagents – A general Method for Porphyrin Synthesis and Functionalization

Recent Advances in Electrochemistry 2 (Room 3)

- Organizers: Francis D'Souza (Wichita State University, USA)
Oliver Yuhlong Su (National Taiwan University, Taiwan)
- Speakers: 14:30-15:00 S-33 Tadeusz Malinski (Ohio University, USA) Porphyrinic Nanosensors for the Detection of Cellular and Neuronal Signaling
15:00-15:30 S-34 Tebello Nyokong (Rhodes University, South Africa) Phthalocyanines as Electrochemical Sensors in Analysis
15:30-16:00 S-35 Koiti Araki (Universidade de São Paulo, Brazil) Polymetallic Porphyrins as Redox Catalysts
16:00-16:30 S-36 Jianzhuang Jiang (Shandong University, China) Synthesis, Structure, and Electrochemistry of Rare Earth Sandwich Compounds with Mixed 2,3-Naphthalocyaninato and Octaethylporphyrinato Ligands
16:30-17:00 S-37 Francis D'Souza (Wichita State University, USA) Probing the Sequence of the Site of Electron Transfer in Molecular Systems Bearing Multiredox Entities, by Molecular Orbital Density Functional Methods

Properties and Applications of Phthalocyanines (Room 4)

- Organizer: Yasuhiko Shirota (Osaka University, Japan)
- Speakers: 14:30-15:00 S-38 Tomás Torres (Universidad Autónoma de Madrid, Spain) Phthalocyanines and Subphthalocyanines Based Electro- and Photoactive Ensembles
15:00-15:30 S-39 Tamotsu Inabe (Hokkaido University, Japan) Phthalocyanines and π -Extended Phthalocyanines for Molecular Conductors with Various π - π Stacking Dimensionality
15:30-16:00 S-40 Kyuya Yakushi (Institute for Molecular Science, Japan) Phthalocyanine-Based Organic Alloy, $\text{Co}_x\text{Ni}_{1-x}\text{Pc}(\text{AsF}_6)_{0.5}$ ($0 \leq x \leq 1$): Electronic Structure of Quasi-One-Dimensional π -d System
16:00-16:30 S-41 Seiji Isoda (Kyoto University, Japan) Fast Electron Energy-Loss Spectroscopy on Metal-Phthalocyanines
16:30-17:00 S-42 Ludovico Valli (Università degli Studi di Lecce, Italy) Piezoelectric Chemical Sensors in Gas and Liquid Phase Using Macrocycles as Active Layers

Corroles and Porphyrin Isomers (Room 5)

- Organizers: Karl M. Kadish (University of Houston, USA)
Takashi Hayashi (Kyushu University, Japan)
- Speakers: 14:30-15:00 S-43 Zeev Gross (Technion-Israel Institute of Technology, Israel) Amphiphilic Corroles: Preparation via Selective Modification of the Corrole Skeleton and Interactions with Proteins
15:00-15:30 S-44 David P. Goldberg (Johns Hopkins University, USA) Corrolazines: A New Class of Porphyrinoid Macrocycles
15:30-16:00 S-45 Yoshio Hisaeda (Kyushu University, Japan) Vitamin B₁₂ Derivatives as Catalysts for Various Organic Transformations
16:00-16:30 S-46 Abhik Ghosh (University of Tromsø, Norway) Self-Assembly of Corroles and Expanded Porphyrins: Electronic Structure of High-Valent Transition Metal Corroles
16:30-17:00 S-47 Karl M. Kadish (University of Houston, USA) The Electrochemistry of Metallocorroles and Relationships to Metalloporphyrins

17:00-17:30 Coffee Break

17:30-18:30 **Plenary Lecture (Room 1) PLEN-2: Hirofusa Shirai (Shinshu University, Japan):** Synthesis and Application of Functional Metallophthalocyanines and Their Polymer Modelled Oxidation Enzyme Functions (*Chaired by Nagao Kobayashi*)

Tuesday, July 2

9:00-10:00 Plenary Lecture (Room 1) PLEN-3: Jürgen-Hinrich Fuhrhop (Freie Universität Berlin, Germany): Non-Covalent Porphyrin Assemblies in Aqueous Media (*Chaired by Itamar Willner*)

10:00-10:30 Coffee Break

10:30-13:00 Symposium Lectures

Sensor Application (Room 1)

- Organizers: Ichiro Okura (Tokyo Institute of Technology, Japan)
James Bell (NASA Ames Research Center, USA)
- Speakers: 10:30-11:00 S-48 Gamal Khalil (The University of Washington, USA) Porphyrins and Chemical Sensors
11:00-11:30 S-49 James Bell (NASA Ames Research Center, USA) Engineering Considerations for Aerodynamic Pressure Measurements using Porphyrins
11:30-12:00 S-50 Keisuke Asai (National Aerospace Laboratory, Japan) Fast-Responding Pressure-Sensitive Coatings Based on Porphyrin-Adsorbed Anodic Porous Alumina
12:00-12:30 S-51 Hiroyuki Nishide (Waseda University, Japan) Metalloporphyrin Polymer Coatings for Oxygen Pressure Measurement
12:30-13:00 S-52 Xiao-Yuan Li (The Hong Kong University of Science and Technology, China) Electrocatalytic and Bifunctional Sensors for Nitric Oxide and Oxygen: Fabrication and Characterization

Expanded Porphyrins (Room 2)

- Organizers: Jun-ichiro Setsune (Kobe University, Japan)
Jonathan L. Sessler (University of Texas, USA)
- Speakers: 10:30-11:30 S-53 (Keynote) Emanuel Vogel (Universität zu Köln, Germany) From Porphyrin Isomers to "Figure Eight" Cyclooctapyrroles
11:30-12:00 S-54 T. K. Chandrashekar (Indian Institute of Technology, India) *Aromatic* Expanded Porphyrins with 30π and 34π Electron Systems
12:00-12:30 S-55 Chang-Hee Lee (Kangwon National University, Korea) Utilization of Oligopyrromethanes to the Synthesis of Various Porphyrinoids Macrocycles
12:30-13:00 S-56 Jun-ichiro Setsune (Kobe University, Japan) New Expanded Porphyrins Derived from Bis(azafulvene) Precursors

Theoretical Aspects of Spectroscopy 1 (Room 3)

- Organizers: Martin J. Stillman (University of Western Ontario, Canada)
Nagao Kobayashi (Tohoku University, Japan)
Chaired by Nagao Kobayashi
- Speakers: 10:30-11:00 S-57 Roman S. Czernuszewicz (University of Houston, USA) A-, B-, and C-Term Raman Scattering by Metalloporphyrins
11:00-11:30 S-58 John A. Shelnett (The University of New Mexico, USA) Normal-Coordinate Structural Decomposition and Molecular Simulation in the Analysis of the Spectra of Porphyrins
11:30-12:00 S-59 Martin J. Stillman (University of Western Ontario, Canada) Analysis of the Absorption and Magnetic Circular Dichroism Spectroscopy of Neutral, and the Radical Cation and Anion Metallophthalocyanines
12:00-12:30 S-60 John H. Dawson (University of South Carolina, USA) Magnetic Circular Dichroism as a Probe of Heme Iron Coordination Structure: His93Gly Myoglobin as a Versatile Template for Modeling Heme States
12:30-13:00 S-61 Nina Berova (Columbia University, USA) Chiral Recognition by CD Sensitive Dimeric Metalloporphyrin Hosts: Chiroptical Studies

Synthetic Advances in Phthalocyanine Chemistry 2 (Room 4)

- Organizer: Tomás Torres (Universidad Autónoma de Madrid, Spain)
- Speakers: 10:30-11:00 S-62 Roeland J. M. Nolte (University of Nijmegen, Netherlands) Supramolecular Architectures from Phthalocyanine Building Blocks
11:00-11:30 S-63 Michael J. Cook (University of East Anglia, UK) Phthalocyanines Derived from 2,3-Dicyanohydroquinone
11:30-12:00 S-64 Dieter Wöhrle (University of Bremen, Germany) Phthalocyanines on or Interior of Inorganic Carriers
12:00-12:30 S-65 Kuninobu Kasuga (Shimane University, Japan) Preparation of Some Phthalocyanine Derivatives Having Photocatalytic Activities
12:30-13:00 S-66 Neil B. McKeown (University of Manchester, UK) The Synthesis of Novel Phthalocyanines with Fused-Ring Substituents

Main Group Porphyrins (Room 5)

- Organizers: Penny J. Brothers (University of Auckland, New Zealand)

- Yosuke Yamamoto (Hiroshima University, Japan)
- Speakers: 10:30-11:00 S-67 Yosuke Yamamoto (Hiroshima University, Japan) Chemistry of Group 15 Element Porphyrins Bearing Element-Carbon Bonds
11:00-11:30 S-68 Frederick R. Lemke (Ohio University, USA) Syntheses and Properties of Hydridoporphyrinosilicon(IV) Compounds
11:30-12:00 S-69 L. Keith Woo (Iowa State University, USA) Syntheses and Reactivities of Tin Porphyrin Complexes
12:00-12:30 S-70 Johann W. Buchler (Darmstadt University of Technology, Germany) Recent Research on Lipophilic and Hydrophilic Porphyrin Complexes with Cations of Groups 13, 14, and 15
12:00-13:00 S-71 Penelope J. Brothers (The University of Auckland, New Zealand) Reduction of Diboryl Porphyrins to Form Complexes Containing Coordinated B-B Groups

13:00-14:10 Lunch

14:10-16:40 Symposium Lectures

Nanoscaled Photonic Materials (Room 1)

- Organizer: Charles M. Drain (Hunter College of CUNY, USA)
- Speakers: 14:10-14:40 S-72 Joseph T. Hupp (Northwestern University, USA) Functional Mesoporous Porphyrin Assemblies
14:40-15:10 S-73 Charles M. Drain (Hunter College of CUNY, USA) Self-Assembly & Self-Organization of Nanoscaled Porphyrinic Materials
15:10-15:40 S-74 Kenneth S. Suslick (University of Illinois, USA) Smellseeing: A Colorimetric Electronic Nose
15:40-16:10 S-75 Michael R. Wasielewski (Northwestern University, USA) Porphyrin-Based Logic Gates Using Two Photon, Two Color Femtosecond Laser Excitation
16:10-16:40 S-76 James S. Shirk (US Naval Research Laboratory, USA) NonLinear Nanostructured Phthalocyanine Polymer Materials

Modified Porphyrins (Room 2)

- Organizers: Hiroyuki Furuta (Kyoto University, Japan)
Chang-Hee Lee (Kangwon National University, Korea)
- Speakers: 14:10-15:10 S-77 (Keynote) Jonathan L. Sessler (The University of Texas at Austin, USA) Novel Polypyrrolic Macrocycles
15:10-15:40 S-78 Timothy D. Lash (Illinois State University, USA) The Quest for Hydrocarbon Analogues of the Porphyrins
15:40-16:10 S-79 Hiroyuki Furuta (Kyoto University, Japan) Creation from Confusion - A New Approach to Novel Porphyrinoids
16:10-16:40 S-80 Lechoslaw Latos-Grazynski (University of Wroclaw, Poland) Carbaporphyrinoids- A Suitable Macrocyclic Platform for Organometallic Chemistry

Chiral Metalloporphyrins and Enantiocontrol (Room 3)

- Organizers: Jean-Claude Marchon (CEA-Grenoble, France)
Takuzo Aida (Tokyo University, Japan)
- Speakers: 14:10-14:40 S-81 Victor Borovkov (The Inoue Photochirogenesis Project, Japan) Supramolecular Chirogenesis in Bis-Porphyrins
14:40-15:10 S-82 Chi-Ming Che (University of Hong Kong, China) Chiral Ruthenium-Oxo, Imido and Carbene Complexes with Porphyrin Ligands for Enantioselective Carbon-Oxygen, Carbon-Nitrogen and Carbon-Carbon Bond Formations
15:10-15:40 S-83 Jean-Claude Marchon (CEA-Grenoble, France) The Hidden Face of the Chiral Porphyrin: Enantiomeric Excess Determination with Chiroporphyrins
15:40-16:10 S-84 Takuzo Aida (The University of Tokyo, Japan) Double-Helical Porphyrin Channels by Spontaneous Optical Resolution
16:10-16:40 S-85 John A. Shelnutt (The University of New Mexico, USA) Chiral Nonplanar Porphyrins: Molecular Simulations and Spectra

Theoretical Aspects of Spectroscopy 2 (Room 4)

- Organizers: Martin J. Stillman (University of Western Ontario, Canada)
Nagao Kobayashi (Tohoku University, Japan)
Chaired by Martin Stillman

- Speakers: 14:10-14:40 S-86 Angela Rosa (Universita' della Basilicata, Italy) A DFT/TDDFT Interpretation of the Ground and Excited States of Metallotetrapyrroles
 14:40-15:10 S-87 John Mack (University of Western Ontario, Canada) Theoretical Interpretation of the Optical Spectra of Phthalocyanines by ZINDO DFT Techniques
 15:10-15:40 S-88 Danni Harris (Molecular Research Institute, USA) Computational Studies of Nitric Oxides Synthase: Enzymatic Mechanism and Spectroscopy
 15:40-16:10 S-89 Hiroaki Isago (National Institute for Materials Science, Japan) Unusual Red Shift and Solvatochromism of Q-bands of Antimony(V)-Phthalocyanines
 16:10-16:40 S-90 Kazuyuki Ishii (Tohoku University, Japan) Electronic Structures of Low-Symmetrical Tetraazaporphyrin Derivatives

Special Session on New Trends 1 (Room 5)

Organizers: Program Committee

- Speakers: 14:10-14:25 O-1 Sergei Vinogradov (University of Pennsylvania, USA) Basicity of Porphyrin Macrocycle: Planar Porphyrins vs Distorted Porphyrins vs π -Extended Porphyrins
 14:25-14:40 O-2 Jennifer A. Wytko (Université Louis Pasteur, France) Self-Assembling of Photochemical Dyads Based on Selective Imidazole Recognition by a Phenanthroline-Strapped Porphyrin
 14:40-14:55 O-3 Osamu Ito (Tohoku University, Japan) Photoexcitation and Relaxation Processes of Phthalocyanine Oligomers
 14:55-15:10 O-4 Dennis K. P. Ng (The Chinese University of Hong Kong, China) Studies of Ferrocene-Containing Tetrapyrrole Systems
 15:10-15:25 O-5 Maurice L'Her (Université de Bretagne Occidentale, France) Unsymmetrical Lutetium Bisphthalocyanines; Electron Delocalization and Physicochemical Properties
 15:25-15:40 O-6 Haruo Inoue (Tokyo Metropolitan University, Japan) High Density Adsorption of Cationic Porphyrins on Clay Layer Surfaces without Aggregation: the Size-Matching Effect
 15:40-15:55 O-7 Yassuko Iamamoto (Universidade de São Paulo, Brazil) Ironporphyrin Sulfonamide Covalent Bonding in a Silica Matrix as an Efficient Oxidation Catalyst
 15:55-16:10 O-8 Dennis P. Arnold (Queensland University of Technology, Australia) IR to UV Spectroelectrochemical Studies of Novel Conjugated Butadiyne-Linked Bis(Porphyrins)
 16:10-16:25 O-9 Oscar I. Koifman (Ivanovo State University of Chemical Technology, Russia) Metalloporphyrins: From Axial Complexes with Small Molecules to Supramolecular Systems
 16:25-16:40 O-10 Alan E. Rowan (University of Nijmegen, Netherlands) Catalytic Porphyrin Capsules

16:40-17:00 Coffee Break

17:00-19:00 SPP Award Lectures (Room 1)

17:00-17:35 AWRD-5 Hiroshi Imahori (Kyoto University, Japan): Photoinduced Energy and Electron Transfer in Artificial Photosynthetic Systems (*Chaired by Devens Gust*)

17:35-18:10 AWRD-6 Michael Therien (University of Pennsylvania, USA): Strongly Coupled (Porphinato)Metal Assemblies (*Chaired by Devens Gust*)

18:10-18:45 AWRD-7 Naoto Ishikawa (Tokyo Institute of Technology, Japan): Towards Understanding Electronic Structure of Multi-Layer and Multinuclear Phthalocyanine Lanthanide Complexes (*Chaired by Nagao Kobayashi*)

18:45-19:00 SPP Meeting (Room 1): *Chaired by Karl M. Kadish*

19:10-21:10 Poster Session P-1 – P-149 (Room 6)

P-1 Takashi Nakanishi (Nagasaki University, Japan) Electrochemistry of Double-Decker Lutetium(III) Phthalocyanines in a Cationic Matrix Film

P-2 Cancelled

P-3 Mohamed Tahiri (Université Hassan II, Morocco) Hydrosoluble Materials of Triple Decker Lanthanide Complexes with Phthalocyanine and Tetrapyrrolylporphyrin

P-4 Toshio Nakamura (Shinshu University, Japan) A Potentiometric Response Mechanism of F⁻ and CN⁻ Sensors Consisting of a Poly(acrylamide)-Metallophthalocyanine Film and

- its Application for the Study of the Ion-Solvent Complexing in Aprotic Solvents
- P-5 Valentina M. Derkacheva (Organic Intermediates and Dyes Institute, Russia) New Representatives of Superphthalocyanine Complexes
- P-6 NaiShen Chen (Fuzhou University, China) Photophysical Properties of Metal Naphthalocyanine Derivatives
- P-7 Shunichi Hoshino (Tohoku University, Japan) Electrochemical and Photochemical Properties of Phthalocyaninatosilicon Linked to Axial Ligands Containing Donor or Acceptor
- P-8 Steven P. Keizer (University of Western Ontario, Canada) Peripherally Substituted Phthalocyanines, Spectroscopy and Analysis of the Orbital Structure
- P-9 Chi-Hang Lee (The Chinese University of Hong Kong, China) Formation and Crystal Structure of an Unexpected Inclusion Complex of a Metal-Free Phthalocyanine and Oxalic Acid
- P-10 J. Spadavecchia (Università degli Studi di Lecce, Italy) Synthesis and Characterization of Novel Phthalocyanines and Their Application as Active Layer in Optochemical Vapor Detection
- P-11 Jannie C. Swarts (University of the Free State, South Africa) Synthesis, Electrochemistry and Thin Film Properties of Liquid Crystalline Ferrocene-Containing Phthalocyanines
- P-12 Akitaka Hoshino (Kyoto University, Japan) New Polymorph of Copper Phthalocyanine Crystal Grown on KCL (001) Surface
- P-13 Alexey V. Ivanov (Institute of Physiologically Active Compounds, Russia) Synthesis of Phthalocyanine Complexes Containing Benzodioxole Fragments
- P-14 NaiShen Chen (Fuzhou University, China) Steady-State and Time-Resolved Spectroscopic Studies on Albumin Combined with ZnPcS₂P₂
- P-15 Eduard Sharoyan (Institute for Physical Research, Armenia) New Method of Preparation of α -Polymorph of Copper Phthalocyanine Pigments
- P-16 Evgeniya G. Kogan (Lomonosov Moscow State University, Russia) Synthesis of Mono- and Bisphthalocyanine Complexes Using Microwave Irradiation
- P-17 Hiroyuki Ueki (Shinshu University, Japan) Aggregation Behavior of Amphiphilic Phthalocyanine Block Copolymers
- P-18 Hirotohi Narikawa (Shinshu University, Japan) Synthesis of Structurally Rigid Star-shaped Phthalocyanines
- P-19 Meenakshi Nair (Kobe University, Japan) Syntheses of Hexakis(alkyl/arylalkylthio)-substituted Subphthalocyanines
- P-20 N. Usol'tseva (Ivanovo State University, Russia) Phthalocyanine Derivatives as Mesomorphic and Glassy Materials
- P-21 Hiromi Sakai (Waseda University, Japan) Photoreduction of Methemoglobin and Restoration of Oxygen Binding Ability of Hemoglobin-vesicles
- P-22 N. Kuznetsova (Organic Intermediates and Dyes Institute, Russia) Influence of Intermolecular Interactions of Photosensitizers on the Singlet Oxygen Generation Quantum Yields in Aqueous Solutions of Phthalocyanines
- P-23 Yoshiaki Kobuke (Nara Institute of Science and Technology, Japan) Photocurrent Generation by Electrodes Modified by Special Pair-Acceptor Combinations
- P-24 Pall Thordarson (University of Nijmegen, Netherlands) Catalytically Active Polymer-Porphyrin-Rotaxanes as Exo- and Endo-nuclease Mimics
- P-25 Masumi Asakawa (National Institute of Advanced Industrial Science and Technology, Japan) Non-covalently Linked Porphyrin Polymers by Hydrogen-Bonding and Coordination
- P-26 Yulia N. Blikova (Lomonosov Moscow State University, Russia) Synthesis and Properties of New Binuclear Clamshell Phthalocyanines
- P-27 Seiji Isoda (Kyoto University, Japan) Organization of Copper-Phthalocyanine Molecules on a Mono-Molecular Organic Layer
- P-28 Julene Christophersen (Light Science Corporation, USA) Light Infusion Technology-Drug, Light, and a Novel Device
- P-29 Alexander S. Dudnik (Lomonosov Moscow State University, Russia) Synthesis and Properties of Ruthenium Tetra-*tert*-butylphthalocyanine
- P-30 Takane Imaoka (Keio University, Japan) Catalytic Reduction of CO₂ with Porphyrin-Phenylazomethine Dendrimer Complex

- P-31 Yoshiaki Kobuke (Nara Institute of Science and Technology, Japan) Photocurrent Properties of Electrodes Modified by Antenna-Charge Relay Systems
- P-32 Shinji Takeoka (Waseda University, Japan) Hb-Encapsulation Prevents The Side Effects of Products From Reaction of Hb with H₂O₂
- P-33 Margaret E. Kosal (University of Illinois, USA) PIZA-1: A Functional Zeolite Analogue Assembled From Metalloporphyrins
- P-34 Victor V. Borovkov (Kuroda Chiromorphology Project, Japan) Supramolecular Chirogenesis of Bis-Porphyrins in Solution and Solid State: Contrasts and Similarities
- P-35 Ryoichi Hattori (Nara Institute of Science and Technology, Japan) Macroring Interlocking Gable Porphyrins as a Model of LH2-B850
- P-36 Alan E. Rowan (University Nijmegen, Netherlands) Macromolecular Porphyrin Nanostructures
- P-37 Christian Brückner (University of Connecticut, USA) Chiral Separation of Ni(II)-Induced Homoporphyrin Conformers
- P-38 Yuji Kubo (Saitama University, Japan) Chirality-Transfer control Using A Heterotopic Zinc(II) Porphyrin Dimer
- P-39 Osvaldo A. Serra (FFCLRP Universidade de São Paulo, Brazil) Synthesis of *meso*-Monopyridyl-Tri(Pentafluorophenyl)Chlorin. Reaction with Azomethine Ylide
- P-40 Hisatomo Yonehara (Kawamura Institute of Chemical Research, Japan) Electrical Conductive Properties of Sandwich Cells Based on Highly Oriented Vapor-Deposited Films of Oxotitanium(IV) Phthalocyanine with Different Molecular Alignments
- P-41 L. Valli (Università degli Studi di Lecce, Italy) Langmuir-Schäfer Films of A Mixed Phthalocyaninato and Porphyrinato Lanthanum Complex
- P-42 Michael D. Ryan (Marquette University, USA) Electrocatalytic Reduction of Bisulfite at A Surfactant Film Containing Myoglobin
- P-43 Xiao-Yuan Li (The Hong Kong University of Science and Technology, China) Metalloporphyrins Encapsulated in, Planted on and Assembled Layer-by-Layer with Zeolites: Preparation, Characterization and Applications in Catalysis and Biosensing
- P-44 Takamitsu Fukuda (Tohoku University, Japan) Synthesis, Structure, and Properties of Benzene- or Naphthalene-Fused Tetraaza-Chlorins, -Bacteriochlorins, and -Isobacteriochlorins
- P-45 Takashi Sagawa (Kyoto University, Japan) Microfibrous Self-Aggregation of Porphyrin and Pyrene Substituted by Dialkyl-Glutamine in Organic Media
- P-46 Tatsuya Yamaguchi (The University of Tokyo, Japan) Design and Imaging of Hydrogen-bonded Multi-porphyrin Arrays
- P-47 Tetsuaki Fujihara (Hokkaido University, Japan) Unusual Oxidation of Oxo-peroxomolybdenum(VI) Tetramesitylporphyrin Giving Molybdenum(V) Porphyrin and Dioxygen
- P-48 Toru Arai (Kyushu University, Japan) Self-assembling of Porphyrins Induced the Formation of the Amphiphilic β -sheet Structure of Acyclic Peptides
- P-49 Toshihiko Matsuura (Hokkaido University, Japan) Fabrication of Langmuir-blodgett Films of Metallo Phthalocyanines by Flow-orientation and Dilution Techniques
- P-50 Toshihiro Kondo (Hokkaido University, Japan) Photo- and Electrochemical Properties of Au Nanoclusters Protected by Alkylthiol Self-assembled Monolayers Containing Porphyrin and/or Ferrocene groups
- P-51 Toshiyuki Urano (Chiba University, Japan) Sensitizer Dyes and Sensitization Mechanisms in Photopolymer Coating Layer
- P-52 Tsuyoshi Akiyama (Kyushu University, Japan) Dual-way Photocurrent Generation by a Mixed Molecular Assembly of a Ruthenium Complex-viologen Linked Compound and a Phthalocyanine
- P-53 Takashi Mukawa (Kobe University, Japan) Molecularly Imprinted Polymers Having Metalloporphyrins in the Binding Sites
- P-54 Wenbo E (University of Houston, USA) Electrochemistry of Quinoxalino-porphyrins Containing Metal(II) Ions
- P-55 Wing-Yiu Yu (The University of Hong Kong, China) Ruthenium(II) Porphyrin-catalyzed Formation of (Z)-4-Alkyloxycarbonylmethylidene-1,3-dioxolanes from γ -Alkoxy- α -diazo- β -ketoesters
- P-56 Yusuke Inaba (Nara Institute of Science and Technology, Japan) Reversible Oxygen Binding of Imidazolyl-substituted "Picket Fence" Fe(II) and Co(II) Porphyrin Dimer

- P-57 Makoto Kamo (Kyoto University, Japan) Control of Intramolecular Photoinduced Charge Shift Reaction in Photosynthetic Models by Photoisomerization of Diarylethenes
- P-58 Makoto Uyemura (The University of Tokyo, Japan) Reaction Control of Organocobalt Porphyrins within Dendritic Cage as a Nobel Coenzyme B₁₂ Mimics
- P-59 Michael T. M. Choi (The Chinese University of Hong Kong, China) Self-assembly of Tetrapyrrole Derivatives through Axial Coordination
- P-60 Mohamed El-Khouly (Tohoku University, Japan) Self-assembled Supramolecular Approach for Generating Charge Separated States in Zinc Porphyrin/Zinc Phthalocyanine-fulleropyrrolidine Dyads and Triads
- P-61 Noriyuki Asakura (Tokyo Institute of Technology, Japan) Photoinduced Hydrogen Evolution with Lysine-Linked Viologen and Hydrogenase
- P-62 Noriyuki Suzuki (The University of Tokyo, Japan) Multiple Active Intermediates in Oxidation Reaction Catalyzed by Synthetic Heme-Thiolate Complex Relevant to Cytochrome P450
- P-63 Peter R. Brotherhood (The University of Sydney, Australia) Chiral Recognition in Bis-Porphyrin Molecular Clefts
- P-64 Hideyuki Shinmori (Kyoto University, Japan) Dimerization of Crown Ether Appended *N*-Confused Porphyrins
- P-65 Hiromitsu Maeda (Kyoto University, Japan) Stability of *N*-Confused Porphyrins
- P-66 Hisashi Shimakoshi (Kyushu University, Japan) Dehalogenation of Chlorinated Organic Molecules Catalyzed by Vitamin B₁₂ Model Complex
- P-67 Jianzhuang Jiang (Shandong University, China) Templated Tetramerization of Dicyanobenzenes to Form Mixed Porphyrinato and Phthalocyaninato Rare Earth(III) Triple-Decker Complexes
- P-68 Jung-Deog Lee (Seoul National University, Korea) Carbohydrate Recognition by Urea-Appended Porphyrins
- P-69 Katsuyuki Youfu (Kyoto University, Japan) Coordination Chemistry of *N*-Confused Porphyrin with Palladium(II) and Platinum(II) Metals
- P-70 Kenji Wada (Kyoto University, Japan) Porphyrin Receptors for Phenol Derivatives; Synthesis and Molecular Recognition of Artificial Receptors having Multi Polar Interaction Sites Composed of Metalloporphyrin and Lewis Bases
- P-71 Igor V. Zhukov (Institute of Physiologically Active Compounds, Russia) Electrochemical and Spectroelectrochemical Properties of Hexadecapropoxy-substituted Lanthanide Diphthalocyanines
- P-72 Natalia E. Sedyakina (Institute of Physiologically Active Compounds, Russia) Metallophthalocyanine-Catalysed Oxygenation of Alkenes
- P-73 Alexander Yu. Tolbin (Lomonosov Moscow State University, Russia) Preparation of 1,2-Bis-(3,4-dicyanophenoxymethyl)benzene and Binuclear Phthalocyanine on its Basis
- P-74 Kei Ohkubo (Osaka University, Japan) Electron Transfer Oxidation and Base Promoted Cleavage of Cobalt(IV)-Carbon Bond of Organocobaloxime
- P-75 Tebello Nyokong (Rhodes University, South Africa) Synthesis, Photochemical and Photophysical Properties of Ti(IV), Ge(IV), Sn(IV) Phthalocyanines
- P-76 Tebello Nyokong (Rhodes University, South Africa) Spectroscopic Studies of the Interaction of Metallophthalocyanines with Some Pollutants and Amino Acids
- P-77 Xiao-Yuan Li (The Hong Kong University of Science and Technology, China) Vibrational Characteristics of Tetraazaporphyrin and Its Metallocomplexes: Isotope Shifts and Normal Mode Analysis
- P-78 Pavel A. Stuzhin (Ivanovo State University of Chemical Technology, Russia) Theoretical and Experimental Study of Acid-Base Properties of Porphyrins, Azaporphyrins and Porphyrazines
- P-79 Saeid Amani (Chemistry Department of Arak University, Iran) Synthesis of Binuclear Copper(II) Complexes and ESR Studies of Copper(II)-Copper(II) Interaction through π System
- P-80 Xiao-Yuan Li (The Hong Kong University of Science and Technology, China) Acquiring Resonance Raman Spectra of Highly Fluorescent and Water-Insoluble Porphyrins From Aqueous Phase: Serris of Free Base Porphine and its Zn(II) and Mg(II) Complexes
- P-81 Xiao-Yuan Li (The Hong Kong University of Science and Technology, China) Surface Enhanced Hyper Raman Scattering from Tetra-(4-Pyridyl)Porphyrin Adsorbed on a

Noble-Metal-Nanoparticles-on-Smooth-Electrode-Setting

- P-82 Takashi Sagawa (Kyoto University, Japan) Spectroscopic Characterization of Alpha-Helical Polypeptide and Porphyrin Complex
- P-83 V. G. Anand (Indian Institute of Technology, India) Heptaphyrin Isomers: Aromatic 30π Expanded Porphyrins
- P-84 Yoshiki Ohgo (Toho University School of Medicine, Japan) Molecular Structures of Five-Coordinated Halide Ligated Iron(III) Porphyrin, Porphycene, and Corrophycene Complexes
- P-85 Yuhei Shimoyama (Hokkaido University of Education, Japan) Structure and Spin-Chain Organization Langmuir-Blodgett Films of Copper Tetra-*t*-Butyl Phthalocyanine
- P-86 Yujiang Song (Sandia National Laboratories, USA) Photocatalytic Growth of Platinized-Micelle Nanostructures
- P-87 Mark D. Lim (University of California Santa Barbara, USA) Kinetic Characterization of NO and NO₂ Dissociation Equilibria from Fe(TPP)(NO)(NO₂) in Toluene by Flash Photolysis and Rapid Dilution Stopped Flow Techniques: Fe(TPP)(NO₂) as an Unstable Intermediate
- P-88 Masahiko Inamo (Aichi University of Education, Japan) Photochemistry of Chromium(III) Porphyrin Complexes in Toluene Solution
- P-89 Masayuki Ezoe (Osaka Prefecture University, Japan) Photoinduced Electron Transfer in the Porphyrin Dimer-Viologen System Facilitated by Formation of Supramolecular Complex
- P-90 Junji Teraoka (Osaka City University, Japan) Resonance Raman Characterization of Highly Reduced Iron Porphycenes
- P-91 Seiji Akimoto (Hokkaido University, Japan) Excitation Relaxation Dynamics and Molecular Dispersion of Maltohexaose-Linked Tetraphenylporphyrins in Aqueous Solution.
- P-92 Yasuhiko Shirota (Osaka University, Japan) Synthesis and Properties of a Novel Class of Amorphous Molecular Materials Containing Phthalocyanine Cores
- P-93 Francis D'Souza (Wichita State University, USA) Formation of Long-Lived Charge Separated States in Self-assembled Supramolecular triads Comprised of Ferrocene, Zinc Porphyrin and C₆₀
- P-94 Frans Hulsbergen (Leiden University, Netherlands) On the Coordination Behaviour of Chlorophyll
- P-95 H. H. Girault (Laboratoire d'Electrochimie, Switzerland) Self Assembled of Zinc Porphyrin at Polarized Liquid|Liquid Interfaces : A Spectro-Electrochemical Study
- P-96 Isao Aritome (Kyushu University, Japan) Synthesis and Characterization of Bromo-Substituted Cobalt(II) Porphycenes
- P-97 Xuan Sun (Queensland University, Australia) Infra-Red Spectra of Phthalocyanine and Naphthalocyanine in Sandwich-Type (NA)Phthalocyaninato and Porphyrinato Rare Earth Complexes Part 2. The Effects of Rare Earth Ionic Size to the IR Characteristics of naphthalocyanine in Bis(Naphthalocyaninato)Rare Earth Complexes
- P-98 Joanne Marquez (San Francisco State University, USA) Investigations of the Electronic Structure of Model Heme Complexes
- P-99 Karel Volka (Institute of Chemical Technology, Czech Republic) Spectroscopic Localisation of Water-Soluble Porphyrin Derivative in Mouse Tissues
- P-100 Karel Volka (Institute of Chemical Technology, Czech Republic) Formation of Porphyrin and Sapphyrin Containing Monolayers on Electrochemically Prepared Gold Substrates: A FT Raman Spectroscopic Study
- P-101 Katsunori Tagami (Osaka University, Japan) Theoretical Study of Electronic Transport Through Tape-Porphyrins
- P-102 Kazuya Ogawa (Nara Institute of Science and Technology, Japan) Nonlinear Optical Property of Self-Assembled Porphyrin
- P-103 Keiichi Tsukahara (Nara Women's University, Japan) Photophysical Properties of Quinolinium-Linked Porphyrins and *N*-Alkylporphyrins
- P-104 Kiyoshi Tanaka (Seikei University, Japan) Quinone-Recognition Control of *N*-Substituted Ureidophenyl Metalloporphyrin
- P-105 Lawrence W. Johnson (The City University of New York, USA) High Resolution Electronic Spectra of Free Base Octaethylporphyrin and Diprotonated Free Base Octaethylporphyrin in *n*-Octane at 7 K

- P-106 Akira Ikezaki (Toho University, Japan) Formation and Spin States of Mono-Imidazole Ligated (*meso*-Tetramesitylporphyrinato)Iron(III) Complexes: Model for Cytochrome *c*'
- P-107 Christian Brückner (University of Connecticut, USA) Synthesis and Physical Properties of Free Base *meso*-Tetraarylhomoporphyrins
- P-108 M. Ravikanth (Indian Institute of Technology, India) Design & Synthesis of Novel Core-Modified Porphyrins
- P-109 Tomoya Ishizuka (Kyoto University, Japan) *Non*-Conjugated *N*-Confused Porphyrinoids
- P-110 M. Tahiri (Faculté des Sciences Ain Chock, Morocco) Covalently Linked Face to Face Porphyrins Synthesis and Characterization
- P-111 Bo Zhang (Illinois State University) Total Synthesis of the Porphyrin Mineral Abelsonite and Related Sedimentary Porphyrins
- P-112 Timothy D. Lash (Illinois State University, USA) New Synthesis of Highly Conjugated Porphyrins with Fused Aromatic Rings
- P-113 Takae Yamauchi (Kyoto University, Japan) Synthesis of Metallomesogen of Linear Tetrapyrroles and Study of Its Helical Conformation
- P-114 Won-Seob Cho (University of Texas, USA) Synthesis and Properties of New Hybrid Heterocalixpyrroles
- P-115 Yoshihiro Ishimaru (Saitama University, Japan) Reactivity of *N*-Alkylphlorins; Synthesis and Properties of Dialkylporphodimethen Derivatives
- P-116 Ziwei Xiao (University of British Columbia, Canada) Diels-Alder Reactions of Nickel(II) *N*-confused Porphyrins as Dienophiles
- P-117 Michio Kunieda (Ritsumeikan University, Japan) Synthesis and Physical Properties of Stable Bacteriochlorins for Bacteriochlorophyll-*b* Model
- P-118 Murugaeson Ravi Kumar (Osaka University, Japan) Chiral Core Modified Porphyrins; Synthesis and Characterization
- P-119 NaiSheng Chen (Fuzhou University, China) Synthesis and Characterization of the Unsymmetrical Substituted 18,26-Diphthalimidomethyl-2,10-disulfonic Acid Phthalocyanine Zinc Dipotassium Salt by Template Method
- P-120 NaiSheng Chen (Fujian University, China) Synthesis and Characterization of Unsymmetrical (10,11),(26,27)-Diimide-2,19-Disulfonic Acid Phthalocyanine Zinc Dipotassium Salt
- P-121 Tomoko Yamazaki (Tokyo University, Japan) Ultrafast Energy Transfer in S1 and S2 States in a Large Dendritic Multiporphyrin
- P-122 Ryuichiro Taniguchi (Kyoto University, Japan) Synthesis and Structures of Bismetal Complexes of Hexaphyrin
- P-123 Shozo Taniguchi (Ibaraki National College of Technology, Japan) Syntheses and Crystal Structures of Low Symmetrical β -Substituted Porphyrins
- P-124 Soji Shimizu (Kyoto University, Japan) Synthesis and Properties of Perfluorinated Expanded Porphyrins
- P-125 Svetlana Ivanova (Ivanovo State University of Chemistry and Technology, Russia) Synthesis of In(III) Complexes with Monoaza-, Diaza- and Tetraaza-Porphyrins and Study of Their Behaviour in Acid Media. Unusual Catalytic Effect of Halide Anions in the Protolytic Dissociation
- P-126 S. Venkatraman (Indian Institute of Technology, India) Modified Oxybenzporphyrins: Potential Ligands for Metal-Carbon Bond Generation
- P-127 Gellii V. Ponomarev (Institute of Biomedical Chemistry RAMS, Russia) Opening of Porphyrin Macrocycle in Mild Conditions Using Example of Oximes of *meso*-Formylporphyrin Metallocomplexes Transformation. Synthesis and Molecular Structure of the "Tripyrrolylisoxazole" Nickel Complex
- P-128 Gellii V. Ponomarev (Institute of Biomedical Chemistry RAMS, Russia) Intramolecular Cyclization of Oximes of *meso*-Formylporphyrins and *meso*-Formylchlorins Metallocomplexes
- P-129 Hiromitsu Maeda (Kyoto University, Japan) Quinoxaline-Bridged Porphyrinoids
- P-130 Katsuyuki Kozake (Kyoto University, Japan) Syntheses and Molecular Recognition Properties of PEG(Poly(Ethylene Glycol))-Appended Metalloporphyrins
- P-131 Kristin N. Maher (The University of Sydney, Australia) Strategies for the Synthesis of Surface-Functionalized Porphyrin-Appended Dendrimers

- P-132 L. J. Wright (The University of Auckland, New Zealand) Synthesis of Metalloporphyrins with Oganometallic *meso*-Substituents
- P-133 Herbert Winnischofer (Universidade de São Paulo, Brazil) Syntheses and Properties of Polynuclear Tetra(3-Pyridyl)Porphyrins
- P-134 Akiharu Satake (Nara Institute of science and Technology, Japan) Synthesis of Bipyridylene-Bridged Bisporphyrin by Nickel-Mediated Coupling Reaction
- P-135 Alagar Srinivasan (Kyoto University, Japan) *N*-Confused *meso*-Aryl Hexaphyrins and Its Metal Complexes
- P-136 Chen-Hsiung Hung (National Changhua University, Taiwan) Iron and Manganese Complexes of *N*-Confused Porphyrin
- P-137 Daniel T. Gryko (Institute of Organic Chemistry of the Polish Academy of Sciences, Poland) Straightforward Route to *trans*-A₂B-Corroles Bearing Substituents with Basic Nitrogen Atoms
- P-138 Arno Wiehe (Biolitec AG, Germany) Synthesis of Porphyrins with Graded Degree of Polarity as Tools for Assessing the Membrane Affinity of Photosensitizers
- P-139 Takaaki Tsuchida (Tokyo Medical University, Japan) Detection and Treatment of Neoplasms by X-ray with Mono-L-Aspartyl Aurochlorin e6
- P-140 Ulrike Oster (University München, Germany) Redox Reactions of the Last Steps of Chlorophyll Biosynthesis
- P-141 Nobuyoshi Kasugai (Tokyo Metropolitan University, Japan) Anticancer Effect of Sod Mimic Fe-Porphyrin
- P-142 Saburo Neya (Chiba University, Japan) Iron Hemiporphycene as the Prosthetic Group of Myoglobin
- P-143 Sandile P. Songca (University of Transkei, South Africa) *In Vitro* Activity and Tissue Distribution of New Fluorinated *meso*-Tetrahydroxyphenylporphyrin Photosensitizers
- P-144 Shun-ichiro Ogura (Tokyo Institute of Technology, Japan) Photodynamic Effect of Chlorin e6-Immunoconjugate
- P-145 Hitomi Sawai (Himeji Institute of Technology, Japan) The Heme Environmental Structure of Recombinant Human Stellate Cell Activation-Associated Protein(STAP)
- P-146 João P. C. Tomé (University of Aveiro, Portugal) “In Vitro” Photoinactivation Studies of Gram-Positive and Gram-Negative Bacteria with Poly-L-Lysine-Porphyrin Conjugates
- P-147 Kentaro Tashiro (The University of Tokyo, Japan) Design and Applications of Supramolecular Porphyrin/Fullerene Nano Hybrids
- P-148 Koiti Araki (Universidade de Sao Paulo, Brazil) Synthesis, Electrochemistry, Spectroscopy and Photophysical Properties of a Series of *meso*-Phenylpyridylporphyrins with One to Four Pyridyl Rings Coordinated to [Ru(bipy)₂Cl]⁺ Groups
- P-149 Koiti Araki (Universidade de Sao Paulo, Brazil) Sol-Gel Material Based in Vanadium Oxide Doped with Porphyrin

Wednesday, July 3

9:00-10:00 Plenary Lecture: Harry B. Gray (Room 1) PLEN-4 (California Institute of Technology, USA): Electron Tunneling in Heme Proteins (*Chaired by Isao Morishima*)

10:00-10:30 Coffee Break

10:30-13:00 Symposium Lectures

Host-Guest Chemistry 1 (Room 1)

Organizer: Koji Kano (Doshisha University, Japan)

Speakers: 10:30-11:00 S-91 Robert F. Pasternack (Swarthmore College, USA) Porphyrin Arrays on Biopolymer Templates: Formation and Disassembly

11:00-11:30 S-92 Jean Weiss (Université Louis Pasteur, France) Induced Fit Processes in Supramolecular Assemblies of Porphyrin-Phenanthroline and Porphyrin-Calixarene Receptors

11:30-12:00 S-93 Tadashi Mizutani (Kyoto University, Japan) Functionalized Porphyrins as Synthetic Receptors

12:00-12:30 S-94 Koji Kano (Doshisha University, Japan) Supramolecules Composed of Water-Soluble Porphyrins and Permethylated β -Cyclodextrin

12:30-13:00 S-95 Roberto Purrello (Università di Catania, Italy) Calixarene-Porphyrin

Non-Covalent Complexes: pH-Tuning of the Complex Stoichiometry

Oxygen and Peroxide Activation by Heme Enzymes and Model Systems (Room 2)

- Organizers: Yoshihito Watanabe (Nagoya University, Japan),
John H. Dawson (University of South Carolina, USA)
- Speakers: 10:30-11:00 S-96 Michael T. Green (California Institute of Technology, USA) Chloroperoxidase Compound II Has a Protonated Ferryl Heme
11:00-11:30 S-97 Takashi Hayashi (Kyushu University, Japan) Functionalized Hemoproteins Reconstituted with Artificially Created Iron Porphyrin Derivatives
11:30-11:45 S-98 Eunsuk Kim (Johns Hopkins University, USA) Dioxygen Reactivity of Synthetic Models for Cytochrome c Oxidase
11:45-12:15 S-99 Hiroshi Fujii (Okazaki National Research Institutes, Japan) Catalytic Mechanism of Heme Oxygenase: Role of Highly Conserved Aspartate for Oxygen Activation
12:15-12:45 S-100 Yoshinori Naruta (Kyushu University, Japan) Oxygen Activation with Heme-Copper Dimetallic Systems Based on Cytochrome c Oxidase
12:45-13:15 S-101 Brian M. Hoffman (Northwestern University, USA) Catalytic Intermediates in Dioxygen Activation by Heme Enzymes through Cryoreduction EPR/ENDOR Spectroscopy

Synthesis and Properties of Laterally Extended Porphyrins and Oligoporphyrins (Room 3)

- Organizers: Maxwell J. Crossley (University of Sydney, Australia)
Atsuhiko Osuka (Kyoto University, Japan)
- Speakers: 10:30-11:00 S-102 Henry J. Callot (Université Louis Pasteur, France) Metal Connected Oligoporphyrins
11:00-11:20 S-103 Taira Imamura (Hokkaido University, Japan) Assembly of Porphyrin Oligomers Having a Core
11:20-11:40 S-104 Martin J. Smith (University of Oxford, UK) Quinoidal Porphyrins and Their Conjugated Oligomers
11:40-12:10 S-105 Paul A. Fleitz (Air Force Research Laboratory, USA) Photophysics of Porphyrins with Extended π -Conjugation
12:10-12:30 S-106 Ken-ichi Sugiura (Tokyo Metropolitan University, Japan) π -Extended Porphyrin Oligomers Connected by Acetylenes
12:30-13:00 S-107 Maxwell J. Crossley (University of Sydney, Australia) Synthetic Approaches to Laterally-Extended Porphyrin Systems

Resonance Raman Spectroscopy (Room 4)

- Organizer: Teizo Kitagawa (Institute for Molecular Science, Japan)
- Speakers: 10:30-11:00 S-108 Paul M. Champion (Northeastern University, USA) Femtosecond Coherence Spectroscopy of Heme Proteins
11:00-11:30 S-109 Teizo Kitagawa (Okazaki National Research Institute, Japan) Time-Resolved Resonance Raman Study on Vibrational Energy Relaxation of Metalloporphyrins in Solution
11:30-12:00 S-110 Dongho Kim (Yonsei University, Korea) Resonance Raman Spectroscopic Investigation of Various Zinc(II)Porphyrin Linear Arrays
12:00-12:30 S-111 Xiao-Yuan Li (The Hong Kong University of Science and Technology, China) Vibrational Characteristics of Tetraazaporphyrin and Its Metallocomplexes: Isotope Shifts and Normal Mode Analysis
12:30-13:00 S-112 Roman S. Czernuszewicz (University of Houston, USA) Resonance Raman Spectroscopy of Nitroporphyrins

Electron Transfer (Room 5)

- Organizers: Shunichi Fukuzumi (Osaka University, Japan)
Dirk M. Guldi (University of Notre Dame, USA)
- Speakers: 10:30-11:00 S-113 Anthony Harriman (University of Newcastle, UK) Utilising the Upper-Lying Excited States of Zinc Porphyrins
11:00-11:30 S-114 Bo Albinsson (Chalmers University of Technology, Sweden) Mediated Energy and Electron Transfer in Porphyrin Based Donor-Bridge-Acceptor Systems
11:30-12:00 S-115 Dirk M. Guldi (University of Notre Dame, USA) Modulating Charge

Transfer Interactions in Strongly Coupled Donor-Acceptor Systems

12:00-12:30 S-116 Nikolai V. Tkachenko (Tampere University of Technology, Finland)

Photodynamics of the Electron Transfer of Porphyrin-Fullerene Dyads

12:30-13:00 S-117 Shigetoshi Aono (Institute for Molecular Science, Japan) Signal Transduction and Gene Regulation by Hemeproteins that Sense Gas Molecules

13:00-14:30 Lunch

14:30-17:00 Symposium Lectures

Host-Guest Chemistry 2 (Room 1)

Organizer: Koji Kano (Doshisha University, Japan)

Speakers: 14:30-15:00 S-118 Josep M. Ribó (University of Barcelona, Spain) Assemblies of Amphiphilic Anionic *ms*-Tetra-arylporphyrins

15:00-15:30 S-119 Masayuki Takeuchi (Kyushu University, Japan) Artificial Allosteric Ion and Molecular Recognition Systems Based on Porphyrin Scaffold

15:30-16:00 S-120 Bhaskar G. Maiya (University of Hyderabad, India) Porphyrin-Calixarene and Porphyrin-Lectin Conjugates

16:00-16:30 S-121 Yoshiaki Kobuke (Nara Advanced Institute of Science and Technology, Japan) Significance of Special Pair Formation for Efficient Photo-induced Charge Separation

16:30-17:00 S-122 Luigi Monsú Scolaro (Università di Messina, Italy) Fractal Aggregation of Water Soluble Porphyrins

Self-Assembly Systems (Room 2)

Organizer: Hiroshi Imahori (Kyoto University, Japan)

Speakers: 14:30-15:30 S-123 (Keynote) Itamar Willner (The Hebrew University of Jerusalem, Israel) Functional Porphyrin-Based Nanoarchitectures on Surfaces for Electronic and Optoelectronic Applications

15:30-16:00 S-124 Kohei Uosaki (Hokkaido University, Japan) Very Efficient Up-Hill Photoinduced Electron Transfer at Au(111) Electrodes Modified with Self-Assembled Monolayers of Various Metalloporphyrin-Ferrocene-Thiol Linked Molecules

16:00-16:30 S-125 Atsushi Ikeda (Nara Institute of Science and Technology, Japan) Efficient Photocurrent Generation in Novel Self-Assembled Multilayers by Use of Electrostatic Alternate Adsorption

16:30-17:00 S-126 Hubert H. Girault (EPF Lausanne, Switzerland) Self Assembly of Zinc Porphyrin at Polarised Liquid/Liquid Interfaces: A Spectro-Electrochemical Study

Reactions and Functions of Natural and Biomimetic Hemes (Room 3)

Organizers: Yoshinori Naruta (Kyushu University, Japan)

John T. Groves (Princeton University, USA)

Speakers: 14:30-15:00 S-127 Bernard Meunier (Laboratoire de Chimie de Coordination du CNRS, France) Peroxidic Antimalarial Drugs and Porphyrins

15:00-15:30 S-128 John T. Groves (Princeton University, USA) Free Radical Reactions of Cytochrome P450 and Myoglobin

15:30-16:00 S-129 Paul R. Ortiz de Montellano (University of California, San Francisco, USA) Autocatalytic Covalent Binding of the Heme in Lactoperoxidase and the CYP4 Family of Cytochrome P450 Enzymes

16:00-16:30 S-130 Tsunehiko Higuchi (Nagoya City University, Japan) The Role of Thiolate Ligand in Cytochrome P450 and NO Synthase Chemistry: Remarkable Effect of Axial Ligand on Synthetic Heme Thiolate Catalysis

16:30-17:00 S-131 Fumito Tani (Kyushu University, Japan) "Twin Coronet" Porphyrins: Versatile Models for Heme Proteins

Chlorophyll Metabolism (Room 4)

Organizer: Franz-Peter Montforts (Universität Bremen, Germany)

Speakers: 14:30-15:00 S-132 Ayumi Tanaka (Hokkaido University, Japan) Regulation of Photosynthetic Antenna Size by Chlorophyllide *a* Oxygenase

15:00-15:30 S-133 Bernhard Kräutler (University of Innsbruck, Austria) On Chlorophyll Catabolism in Higher Plants

15:30-16:00 S-134 Ulrike Oster (University München, Germany) Redox Reactions of the Last Steps of Chlorophyll Biosynthesis

16:00-16:30 S-135 Yuzo Shioi (Shizuoka University, Japan) Breakdown Pathway of Chlorophylls: From Enzymatic Study *In Vitro* to Intact Plants
16:30-17:00 S-136 Henry J. Callot (Université Louis Pasteur, France) Chlorophyll Fossils in Sediments

Electronic Structures of Heme (Room 5)

Organizers: Ursula Simonis (San Francisco State University, USA)
Yasuhiko Yamamoto (University of Tsukuba, Japan)

Speakers: 14:30-15:00 S-137 Mario Rivera (Oklahoma State University, USA) NMR Spectroscopic Study of *Pseudomonas aeruginosa* Heme Oxygenase: Axial Ligand Plane Orientation and Regioselectivity of Oxidative Cleavage
15:00-15:30 S-138 Mikio Nakamura (Toho University, Japan), Regulation of the Spin States and Electron Configurations in Iron(III) Porphyrin Complexes
15:30-16:00 S-139 Ru-Jen Cheng (National Chung-Hsing University, Taiwan) Correlation between Calculated Fermi Contact Spin Densities and Experimental Contact Shifts of Paramagnetic Ironporphyrins. A Novel Approach to the Electronic Structure of Intermediate-Spin Iron(II) Porphyrin
16:00-16:30 S-140 Paola Turano (University of Florence, Italy) The Behavior of Heme Proteins in the Light of the Electronic Structure of the Heme Iron
16:30-17:00 S-141 Danni Harris (Molecular Research Institute, USA) Oxidation and Electronic State Dependence of Proton Transfer in the Enzymatic Cycle of Cytochrome P450eryF

18:30-21:00 Conference Banquet at Miyako Hotel

Thursday, July 4

Lectures by Lifetime Achievement Award Winners (Room 1):

8:50-9:45 AWRD-1 Fischer Award: James P. Collman (Stanford University, USA): Functional Synthetic Analogs of the Active Site in Cytochrome c Oxidase (*Chaired by Jonathan L. Sessler*)

9:45-10:40 AWRD-2 Woodward Award: David Dolphin (University of British Columbia, Canada): Lord of the Rings (*Chaired by Hisanobu Ogoshi*)

10: 40-11:00 Coffee Break

11:00-11:55 AWRD-3 Linstead Award: A. Barry P. Lever (York University, Canada): The Phthalocyanines- Past, Present and Future (*Chaired by Clifford C. Leznoff*)

11:55-12:50 AWRD-4 Tabushi Award: Thomas J. Dougherty (Roswell Park Cancer Institute, USA): A Brief History of Photosensitizer Development at Roswell Park Cancer Institute (*Chaired by Shunichi Fukuzumi*)

Crystal Woodward (Room 1): Synthetic Steps, Art, and Visualization in R.B. Woodward

12:50-13:45 Lunch

13:45-18:15 Excursion to Temples in Kyoto

19:00-21:00 Poster Session P-150 – P-303 (Room 6)

P-150 Koji Mitamura (Nagoya University, Japan) Adsorption Films of a Diacid Protoporphyrin IX Zn(II) onto a Gold Surface

P-151 Herbert Winnischofer (Universidade de São Paulo, Brazil) Electrochemical Properties and Electrocatalytic Reduction of Dioxygen by Tetra-Rutheniumcluster Porphyrin Films

P-152 Herbert Winnischofer (Universidade de São Paulo, Brazil) Electrocatalytic Oxidation of Nitrite by Tetra-ruthenated Porphyrin Films

P-153 Akihiko Tsuda (Kyoto University, Japan) Directly Fused Porphyrin Arrays with Extremely Large π -Conjugated Systems

P-154 Andrea Romeo (University of Messina, Italy) Polycations Induced Tetrakis-(4-sulfonatophenyl)porphine J-Aggregates

P-155 Chiho Hamai (Osaka University, Japan) Supramolecular Chemistry of Self-Assembled Metallophthalocyanine on Solid Surface

P-156 Chusaku Ikeda (Nara Institute of Science and Technology, Japan) Construction of Long Rod-Like Assemblies by Bis(imidazolyl)porphyrin Cobalt(III) Complex

P-157 Dai Kataoka (Kyoto University, Japan) Preparation of Zinc Porphyrin-Acrylamide

Copolymer Gel as a Synthetic Receptor

P-158 Dong-Jin Qian (National Institute of Advanced Industrial Science and Technology, Japan) Palladium-Mediated Assembly of Three-Dimensional Organized Multiporphyrin Arrays

P-159 Ekaterina G. Guirenko (Organic Intermediates and Dyes Institute, Russia) Kinetics of Hydrogen Peroxide Formation in Course of Ascorbic Acid Oxidation in the Presence of Water-Soluble Cobalt Phthalocyanines as Catalysts

P-160 Ekaterina G. Guirenko (Organic Intermediates and Dyes Institute, Russia) New Highly Effective Oxidation Catalysts on the Base of Phthalocyanines Bearing Cationic Substituents and Their Associates with the Anionic Analogues

P-161 Akito Nakagawa (Waseda University, Japan) Coordination Structure and Geminate Recombination of Albumin-Heme with O₂ and CO

P-162 Devens Gust (Arizona State University, USA) Transmembrane Ca²⁺ Transport by an Artificial Photosynthetic Construct

P-163 Cancelled

P-164 Eiki Matsui (Kyushu University, Japan) Formation of an Aryloxyl Radical above an Iron(IV) Porphyrin: A Functional Model of Prostaglandin H Synthase

P-165 Fethi Bedioui (Ecole Nationale Supérieure de Chimie de Paris, France) Electropolymerized Cobalt Porphyrin and Phthalocyanine Based Films for the Electrochemical Activation of Thiols

P-166 Haruki Ohkawa (Waseda University, Japan) Multivalent Hydrogen-Bonded Calix[4]arene-Porphyrin Duplexes

P-167 Hideaki Sato (Kyushu University, Japan) Functionalization of Myoglobin by Both Heme Substitution and Amino Acid Mutation

P-168 Hirohisa Nagatani (Hyogo University of Teacher Education, Japan) Characterization of Water-Soluble Porphyrins at the Polarized Liquid|liquid Interface by Surface Second Harmonic Generation

P-169 Hiromi Sakai (Waseda University, Japan) *In Vivo* O₂ Tension Measurement Using Palladium Porphyrin After Infusion of Hemoglobin-Vesicles as O₂ Carriers

P-170 Miho Moritake (Waseda University, Japan) Self-Organized Lipid-Porphyrin Bilayer Membranes in Vesicular Form: Nano-Structure and O₂-Coordination

P-171 Mikiya Matsu-ura (Kyushu University, Japan) The Control of O₂/CO Binding by Electrostatic Effect in Twin Coronet Porphyrins

P-172 M. David Maree (Rhodes University, South Africa) Determination of Fluorescence Lifetimes of Various Silicon Octaphenoxypthalocyanines Using the Strickler-Berg Equation

P-173 M. David Maree (Rhodes University, South Africa) Photophysical and Photochemical Effects of Cyclodextrins on Phthalocyanine Sensitisers

P-174 Satoshi Shinoda (Osaka City University, Japan) Chirality Sensing of Polyionic Substrates with Lanthanide Porphyrinate Dimers

P-175 Shinsuke Okada (The University of Tokyo, Japan) *Water-Insoluble* Porphyrin J-Aggregates Systematic Control of Exciton Coupling

P-176 Hyundae Hah (Waseda University, Japan) Synthesis of Poly(ethynylplatinumporphyrin) and its Application as an Oxygen Sensor Membrane

P-177 Juha M. Lintuluoto (Kyoto University, Japan) Absolute Configuration Determination of Chiral Monoalcohols through Supramolecular Chirogenesis at Room Temperature with Bis(Magnesium Porphyrin)

P-178 Kenichi Oyaizu (Waseda University, Japan) Four-Electron Reduction of O₂ using μ -Oxo Dinuclear Porphyrins Adsorbed on an Electrode

P-179 Eunsuk Kim (Johns Hopkins University, USA) Modeling the Active Site Chemistry of Cytochrome c Oxidase

P-180 Kunihiko Toyofuku (Tokyo University, Japan) Chirality Transfer in Supramolecular System Consisting of Saddle-Shaped Porphyrin

P-181 L. Valli (Degli University, Italy) Pyrrole-Based Macrocycles Langmuir-Blodgett Films as Probes for Alcohol Vapors

P-182 Ludovico Valli (Degli University, Italy) Langmuir-Blodgett Films of Derivatized Porphyrins

P-183 Liliya Simkhovich (Technion-Israel Institute of Technology, Israel) Unique Properties of Metal Corroles in Catalysis

- P-184 Mariangela Castriciano (University of Messina, Italy) Structural Changes in H_2TPPS_4 J-Aggregates Under Strong Acidic Conditions
- P-185 Ludovico Valli (Degli University, Italy) Employment of Phthalocyanines in Piezoelectric Gas Sensors: Influence of the Active Layer Thickness and Central Metal Atom on Their Response to Different Gases
- P-186 Aritomo Yamaguchi (Tokyo University, Japan) Catalytic Properties and Structural Analyses of Cobalt(Tetraalkylamidophenylporphyrin)s for Electroreduction of Molecular Oxygen
- P-187 Hiroko Yamada (Osaka University, Japan) Chemically Modified Self-Assembled Monolayers of Porphyrin and Porphyrin-Fullerene Dyads on ITO Electrodes and the Efficient Photocurrent Generation
- P-188 Takashi Matsuo (Kyushu University, Japan) Reductive Activation of Dioxygen by a Reconstituted Myoglobin
- P-189 Takefumi Chishiro (Kyushu University, Japan) Synthesis and Properties of Peroxo-Bridged Heme-Copper Binuclear Complex
- P-190 Takayuki Arai (Waseda University, Japan) Oxygen-Binding and $-Permselectivity$ in the Membrane of Cobalt-Octaethylporphyrin
- P-191 Taku Hasobe (Osaka University, Japan) Photocurrent Generation by ITO Electrodes Modified with Self-Assembled Monolayers of *meso, meso*-Linked Porphyrins
- P-192 Tomoyuki Sakai (Waseda University, Japan) A High Sensitive Oxygen Sensor Based on the Combination of Cobaltporphyrin and Luminescent Molecules
- P-193 Toshiaki Kamachi (Tokyo Institute of Technology, Japan) Development of Oxygen Sensing System by T-T Absorption at Stationary State of Quenching
- P-194 Yubin Huang (Waseda University, Japan) Biocompatibility of Albumin Included Hemes as a Synthetic O_2 -Carrier
- P-195 Yuji Shinohara (SEIKO EPSON, Japan) Study of The Optimized Geometries and Excited States of Copper Phthalocyanine by Means of a Semiempirical Molecular Orbital Method
- P-196 Yukiyasu Kashiwagi (Osaka University, Japan) Chain Length Effect on The Structure and Photophysical Properties of Porphyrin-Alkanthiolate-Monolayer-Protected Gold Nanoclusters
- P-197 Lyudmila A. Lapkina (Institute of General and Inorganic Chemistry Russian Academy of Science, Russia) UV-Vis Study of Cation-Induced Supramolecular Organization of $[Lu_2(R_4Pc)_3]$ and $[Lu(R_4Pc)_2]H(R_4Pc^{2-}-Tetra-15-Crown-5-Phthalocyaninate Dianion)$ in Organic Solvents
- P-198 Alexander Yu. Maximov (Lomonosov Moscow State University, Russia) Synthesis and Properties of Planar Binuclear Nickel Phthalocyanine
- P-199 Riquiang Zhan (University of Houston, USA) Electrochemistry and Spectral Characterization of Nickel Chlorins
- P-200 Akira Tohara (Teikyo University, Japan) Equilibria of Binding of Substituted Pyridines to Zinc Complex of Tetraphenylporphyrin
- P-201 Atsuya Muranaka (Tohoku University, Japan) Magnetic Circular Dichroism Spectra of Fused Oligoporphyrins
- P-202 Ken Okamoto (Osaka University, Japan) Water Oxidation to Oxygen with a One-Electron Oxidant Catalyzed by Dimanganese Porphyrin
- P-203 Craig J. Medforth (Sandia National Laboratories, USA) Nonplanar Deformations Do Cause The Soret Red-Shifts Seen in Highly Ruffled Tetraalkylporphyrins
- P-204 Dunja Srzic (Ruder Boskovic Institute, Croatia) Gas-Phase Reaction of Iron Fe^+ Ions with Porphine and 9-Azaphenanthrene in a Laser Desorption/Ionization Fourier-Transform Mass Spectrometry Experiment
- P-205 Jun-ya Hasegawa (Kyoto University, Japan) SAC-CI Theoretical Study of The Excited States of Porphyrin Related Compounds: Porphin, Porphycenes, Corrphycene and Hemiporphycene
- P-206 Hiroyuki Nakashima (Kyoto University, Japan) Reversible Dioxygen Binding in The Active Site of Hemoglobin
- P-207 Tomoo Miyahara (Kyoto University, Japan) Ground and Excited States of Linked and Fused Zinc Porphyrin Dimers Calculated by SAC/SAC-CI Method
- P-208 Aiko Kato (Tokyo Metropolitan University, Japan) New Method for Estimating Electronegativity Using Arnold's Porphyrins Dimer

- P-209 Andre Zeug (Humboldt Universität Berlin, Germany) The Non-Intrinsic Nature of the Violet Emission of Octa- α -alkyloxy Substituted Phthalocyanines
- P-210 Andre Zeug (Humboldt Universität Berlin, Germany) Determination of the Orientation of Excited State Transition Dipoles in Tetrapyrroles
- P-211 Bhawani S. Joshi (Central Drug Research Institute, India) Dynamic Behavior and Strategy for Complete ^1H and ^{13}C Assignments for *meso*-Aryl Expanded Porphyrins
- P-212 Dae Hong Jeong (Yonsei University, Korea) Interporphyrin Charge Resonance Character of *meso-meso* Linked Porphyrin Dimers Studied by MO Calculation and Raman Spectroscopy
- P-213 Evguenii I. Kozliak (North Dakota University, USA) Binding and Kinetic Studies of the Reaction of Cobalt(II) Tetrasulfophthalocyanine with Alkyl Xanthogenates in Aqueous Solutions: Evidence for Hydrophobic Interactions Influencing the Rate of Merox Process
- P-214 Fethi Bedioui (Ecole Nationale Supérieure de Chimie de Paris, Laboratoire d'Electrochimie et Chimie Analytique, France) Theoretical Study of the Reactivity of Cobalt N_4 -Complexes Toward the Electro-Oxidation of 2-Mercaptoethanol : Solvent and Electrode Surface Effects
- P-215 Giampaolo Ricciardi (Università della Basilicata, Italy) Effects of Peripheral Heteroatoms on the Optical and Photophysical Properties of Metallo Porphyrins. The Newly Synthesized (Methylthioporphyrinate) Nickel(II) as a Case Study
- P-216 Giampaolo Ricciardi (Università della Basilicata, Italy) The Optical Properties of *meso*-Tetraphenylporphine Diacids. Role of the Counteranions and of the Molecular Distortions in the Series $\text{H}_4\text{TPP}^{2+}(\text{X})_2$ ($\text{X} = \text{Cl}, \text{Br}, \text{I}$)
- P-217 Hiroyasu Yamaguchi (Osaka University, Japan) Photoinduced Electron Transfer from a porphyrin to an Electron Acceptor in an Antibody Combining Site
- P-218 Masamichi Umemiya (Tokyo Metropolitan University, Japan) Properties of Oligomeric Platinum Porphyrins in Photo-and Electro-Excited States
- P-219 Min-Chul Yoon (Yonsei University, Korea) Femtosecond Coherent Vibrational Study of Zinc(II) Porphyrins by Chirping-Controlled Optical Pulses
- P-220 Osamu Yamane (Tokyo Metropolitan University, Japan) Pyrene-Linked Porphyrins
- P-221 Ping-Yu Chen (Institute of Chemistry, Academia Sinica, Nankang Taipei, Taiwan) Symmetry and Bonding in Metalloporphyrins. Reinvestigation of the NMR Data for Five- and Six-Coordinate High-Spin Iron(III) Porphyrin Complexes through Density Functional Approach
- P-222 Shijun Liu (Nagoya University, Japan) Kinetics of the Reaction Between 5,10,15,20-Tetrakis(Pentafluorophenyl) Porphyrin and Bis(1,1,1,5,5,5-Hexafluoropentane-2,4-Dionato) Nickel(II) Dihydrate in Supercritical Carbon Dioxide
- P-223 Sung Moon Jang (Yonsei University, Korea) Resonance Raman Spectroscopic Investigation of Triply Linked Fused Zinc(II) Porphyrin Arrays
- P-224 Hisao Yanagi (Kobe University, Japan) Single-Molecular Flip-Flop Switching of Subphthalocyanines Induced by Scanning Tunneling Microscopy
- P-225 Hyun Sun Cho (Yonsei University, Korea) Intramolecular Energy Transfer Reaction between Directly Linked Zn(II) Porphyrin Array and Diphenylethynyl-Substituted Zn(II)-Porphyrin
- P-226 Hyun Sun Cho (Yonsei University, Korea) Ultrafast Dynamics of Molecular Wires Based on Multiporphyrin Linear Arrays
- P-227 Jeong-Hyon Ha (Yonsei University, Korea) Photo-Induced Electron Transfer in Novel Zn(II) Porphyrin-Zn(II) Chlorin-Fullerene Molecular Triad
- P-228 Kazuma Okamura (Tokyo Institute of Technology, Japan) Long-Range Exchange Interaction in Porphyrin Dimers: Observation of HOMO and Spacer Dependence on Enhanced Intersystem Crossing
- P-229 Kenji Nagao (The University of Tokyo, Japan) Deactivation Process and Photoinduced Electron Transfer of Center-to-Edge P(V) Porphyrin Dimer through the Charge Transfer Excited State
- P-230 Naoki Aratani (Kyoto University, Japan) Synthesis of *meso-meso* Linked Giant Porphyrin Arrays
- P-231 Cancelled
- P-232 Olena Berger (Technical University of Dresden, Germany) Effect of Structure and Morphology of Metal Phthalocyanine Thin Films on Their General Performance as Ozone

and NO_x Gas Sensors

P-233 Priscilla P. S. Lee (The Chinese University, China) Preparation and Photophysical Properties of Silicon(IV) Phthalocyanines Conjugated with Biodegradable Polymers

P-234 Pui-Chi Lo (The Chinese University, China) Synthesis and Photophysical Properties of Silicon(IV) Phthalocyanines Substituted Axially with Poly(Ethylene Oxide)

P-235 Kazuhiro Takahashi (Kyusyu University, Japan) Preparation and Characterization of Heteroleptic Triple-Decker Sandwich Lu(III) Complexes with Octabutoxy-Substituted and Unsubstituted Phthalocyaninates

P-236 Makiko Sugibayashi (Shinsyu University, Japan) Discotic Liquid Crystals Based on Phthalocyaninato Copper Complexes Showing Homeotropic Alignment at Room Temperature

P-237 Makoto Handa (Shimane University, Japan) Tetranuclear Complexes of Ligands Having Phthalocyanine and Schiff-Base Coordination Sites

P-238 G. Vasapollo (University of Lecce, Italy) New Substituted Phthalocyanines as Conductive Gas Sensors

P-239 John Mack (University of Western Ontario, Canada) Magnetic Circular Dichroism Spectroscopy and INDO/s Calculations of Ruthenium Phthalocyanine

P-240 Tamotsu Sugimori (Shimane University, Japan) Syntheses and Spectroscopic Properties of Metallophthalocyanines Modified with Aromatic Substituents

P-241 Tomás Torres (Universidad Autónoma de Madrid, Spain) Multipolar Phthalocyanines for Nonlinear Optics

P-242 Tomás Torres (Universidad Autónoma de Madrid, Spain) Low Symmetry Phthalocyanine Analogues

P-243 Alexander B. Sorokin (Institut de Recherches sur la Catalyse, France) Phthalocyanine Supported Catalysts for the Preparation of Fine Chemicals

P-244 Yuliya G. Gorbunova (Institute of General and Inorganic Chemistry Russian Academy of Science, Russia) Template Synthesis of the Ruthenium(II) Complex with Tetra-15-crown-5-substituted Phthalocyanine

P-245 William S. Durfee (Buffalo State College, USA) Subphthalocyanine Dimers

P-246 Timothy D. Lash (Illinois State University, USA) Synthesis of Carbaporphyrins and Heteroanalogues by the "3+1" Methodology

P-247 Timothy D. Lash (Illinois State University, USA) Reinventing the Rothmund Reaction for Carbaporphyrin Synthesis: A One Pot Preparation of *meso*-Tetraarylazuliporphyrins

P-248 Elena A. Makarova (Organic Intermediates and Dyes Institute, Russia) Synthesis of Novel Fused Tetraazachlorins and Tetraazabacteriochlorins

P-249 Afaf Rateb Genady (University of Bremen, Germany) Synthesis of Novel Covalent and Non Covalent Porphyrin Oligomers

P-250 Akane Masumoto (Ehime University, Japan) Synthesis of Bisporphyrins Linked with Bicyclo[2.2.2]octadiene Skeleton

P-251 Atif Mahammed (Technion-Israel Institute of Technology, Israel) Highly Selective Chlorosulfonation of Corroles

P-252 Dennis P. Arnold (Queensland University of Technology, Australia) Peripherally Metallated Organometallic Porphyrins: Recent Advances in *meso*- η^1 -Palladio-and Platinioporphyrins

P-253 Frédéric Bolze (University of Texas, USA) Synthesis of New Bridged Bipyrrroles and Quaterpyrrroles

P-254 Mark A. Absalom (The University of Sydney, Australia) Multi-Metalloporphyrin Functionalized Dendrimers

P-255 Nobuo Kosaka (Ritsumeikan University, Japan) Synthesis of a Cyclic Chlorophyll Dyad

P-256 Olga Finikova (Moscow State University, Russia) Novel Versatile Synthesis of Substituted Tetrabenzoporphyrins

P-257 Oscar I. Koifman (Ivanova State University, Russia) Functional Derivatives of Manganese Porphyrins in Proton Donor Solvents

P-258 Oscar I. Koifman (Ivanova State University, Russia) Synthesis of Physiologically Active Polymers Containing Covalently Bounded Porphyrins and Their Metallocomplex

P-259 Oscar I. Koifman (Ivanova State University, Russia) Synthesis and Coordination Properties of Sterically Tensed Zinc Porphyrin in the Reaction with Nitrogen Containing

Ligands

- P-260 Regan D. Hartnell (Center for Instrumental and Development Chemistry, Australia) Synthesis and Reactions of *meso*- η^1 -Organometallic Porphyrins
- P-261 Christophe Jeandon (Université Louis Pasteur, France) Exploratory Friedel-Crafts Chemistry of *meso*-Tetraarylporphyrins. Formation of Additional Rings Leading to Extended Chromophores
- P-262 Sebastien Richeter (Université Louis Pasteur, France) Planar Dimeric and Oligomeric Porphyrins Build from Metal Ions and Porphyrins Bearing External N,O Coordination Sites
- P-263 Takashi Arimura (National Institute of Advanced Industrial Science and Technology, Japan) Syntheses and Properties of a Novel Metalloporphyrin Dimer Which Shows High Selectivity for C₇₀
- P-264 Kazuchika Ohta (Shinshu University, Japan) Synthesis and Liquid-Crystalline Properties of Doubledeckers and Tripledeckers Based on Cerium Complexes of Bis-And Tetrakis(3,4-Dialkoxyphenyl)Porphyrin
- P-265 Kentarou Inoue (Ehime University, Japan) Synthesis and Structural Analysis of *meso*-Unsubstituted Porphyrinogen and Hexaphyrinogen
- P-266 Magalie Claeys-Bruno (Laboratoire de Chimie Inorganique et Biologique, France) Chlorocobalt(III) Tetramethylchiroporphyrin: A Powerful Chiral NMR Shift Reagent for Amino Acid Methyl Esters
- P-267 Magalie Claeys-Bruno (Laboratoire de Chimie Inorganique et Biologique, France) Iodorhodium(III) Tetramethylchiroporphyrin: A New Chiral NMR Shift Reagent with Improved Performances for the Chiral Analysis of Amino Compounds
- P-268 Christian Brückner (University of Connecticut, USA) Synthesis and Properties of [*meso*-Triarylcorrolato] Ag(III)
- P-269 Takeshi Yamamura (Tokyo University of Science, Japan) Syntheses and Properties of the Oligoporphyrins Composed of Porphyrinic Amino Acids
- P-270 Takashi Murashima (Ehime University, Japan) Synthesis and Properties of Octakis (Alkoxy) Substituted Porphyrins
- P-271 Tony Khoury (The University of Sydney, Australia) Multiple Connector Building Blocks for Use in Porphyrin Lattice Construction
- P-272 Warren A. Hough (The University of Sydney, Australia) Synthesis and Properties of Oligomer Porphyrin Molecular Wires
- P-273 Yuichi Shimazaki (Kyushu University, Japan) Characterization and Reactivity of Manganese Porphyrin Dimer
- P-274 Yasuyo Suzuki (Shizuoka University, Japan) Formation of Pyropheophorbide *A*: The Presence of Two Reactions Catalyzed by Different Enzymes
- P-275 Yasuhiko Yamamoto (Tsukuba University, Japan) Characterization of Structure-Function Relationship in Thermophile *Hydrogenobacter Thermophilus* Cytochrome *c*₅₅₂ and Mesophile *Pseudomonas Aeruginosa* Cytochrome *c*₅₅₁
- P-276 Yayoi Iwashima (Shinshu University, Japan) Organic-Inorganic Composites Comprised of Ordered Stacks of Amphiphilic Molecular-Discs
- P-277 Yohei Kubo (Kyushu University, Japan) Porphyrin Tetramer Arranged Around a Rotational Axis
- P-278 Yoichi Matsuzaki (Nippon Steel Corporation, Japan) Electronic Structures and Nonlinear Optical Properties of Fused Porphyrin Arrays
- P-279 Yoshikazu Saito (Shinshu University, Japan) Self-Organization of Alkyl-substituted Rigid Dendritic Porphyrins
- P-280 Zeev Gross (Technion – Israel Institute of Technology, Israel) Nitrosyl Complexes of Iron and Ruthenium Corroles
- P-281 Takaaki Matsuda (Kyushu University, Japan) Peroxygenase Activity of Myoglobin is Enhanced by Chemical Modification of Heme-Propionate Side Chains
- P-282 S. Richeter (Université Louis Pasteur, France) Enamino-, Quinolino-, and bis-Quinolino porphyrins
- P-283 H. J. Callot (Université Louis Pasteur, France) Porphyrins Bearing Conjugated Enaminothioketone Groups as Building Block for Oligomeric Porphyrins
- P-284 Sergei Vinogradov (University of Pennsylvania, USA) Changing Degree of Encapsulation in Porphyrin-Dendrimers
- P-285 Amy L. Gryshuk (Roswell Park Cancer Institute, USA) Fluorinated Porphyrinimides:

- Synthesis and Photosensitizing Activity
- P-286 Detlef Gabel (University of Bremen, Germany) Tailor-Made Porphyrins for Boron Neutron Capture Therapy of Tumors
- P-287 Masaaki Tabata (Saga University, Japan) Synergetic Binding of Mercury(II) and Cationic Porphyrin to DNA, Leading to Enhanced N DNA Cleavage
- P-288 Masato Ushiyama (Tokyo University of Science, Japan) A Multiple-Porphyrin System: Coordination Property of Heme
- P-289 Rita Song (Korea Institute of Science and Technology, Korea) Synthesis, Antitumor Activity and Biodistribution of Porphyrin Platinum(II) Conjugates
- P-290 James A. McDonald (The University of Sydney, Australia) Recognition and Utilization of Porphyrin Derivatives by *Porphyromonas Gingivalis*
- P-291 Pavel A. Stuzhin (Ivanovo State University of Chemical Technology, Russia) Synthesis, Spectroscopic and Structural Characterization of Dichlorogermanium(IV) and Dichlorotin(IV) Octaamyloxylphthalocyaninates
- P-292 Tomomi Kawaguchi (Nihon University, Japan) Alkylbenzopyridoporphyrazines for PDT
- P-293 Pavel A. Stuzhin (Ivanovo State University of Chemical Technology) Metalloorganic Complexes of In(III)-Azaporphyrins: Synthesis, Structure and Reaction with CO₂
- P-294 Günther Knör (Universität Regensburg, Germany) Metalloporphyrin Photochemistry: An Attractive Route to Artificial Enzyme Catalysis
- P-295 Jae Yun Jaung (Hanyang University, Korea) Synthesis and Characterization of Novel Push-Pull Type Phthalocyanine
- P-296 Cancelled
- P-297 Cancelled
- P-298 Cancelled
- P-299 Andreas Völker (Humboldt-Universität zu Berlin, Germany) Ultrafast Energy Transfer Processes between Pheophorbide-*a* Molecules on Dendrimer Surfaces
- P-300 Ryuhei Nishiyabu (Doshisha University, Japan) A Cyclodextrin-bended Porphyrin as a building Block of Multi-porphyrin Array
- P-301 Koji Kano (Doshisha University, Japan) Formation of a Stable 1:1 Complex of Water-soluble Porphyrin and Per-*O*-methylated β -Cyclodextrin
- P-302 Tomohiko Sato (Kanagawa University, Japan) Gas Occlusion and Catalytic Activity of Rh(II) 4,4',4'',4'''-(21H,23H-Porphine-5,10,15,20-Tetrayl)tetrakis-benzoate
- P-303 Tetsushi Ohmura (Kanagawa University, Japan) Synthesis and Gas-Occlusion Properties of Ru(II,III) 4,4',4'',4'''-(21H,23H-Porphine-5,10,15,20-Tetrayl)tetrakis-benzoate

Friday, July 5

9:00-10:00 Plenary Lecture (Room 1) PLEN-5 Brian M. Hoffman (Northwestern University, USA): Porphyrazines (Tetraazaporphyrins): Claiming a Place with the Porphyrins and Phthalocyanines (*Chaired by Michael J. Cook*)

10:00-10:30 Coffee Break

10:30-13:00 Symposium Lectures

Artificial Photosynthesis (Room 1)

Organizers: Yoshiteru Sakata (Osaka University, Japan)

Devens Gust (Arizona State University, USA)

Speakers: 10:30-11:00 S-142 Michael R. Wasielewski (Northwestern University, USA) Charge Transport in Photofunctional Nanoparticles Self-Assembled from Zinc 5,10,15,20-Tetrakis(perylene-3,4,9,10-tetracarboxylate)porphyrin Building Blocks

11:00-11:30 S-143 Dirk M. Guldi (University of Notre Dame, USA) A Supramolecular Porphyrin-C₆₀ Assembly C₆₀ in the Box

11:30-12:00 S-144 Martin R. Johnston (Flinders University, Australia) Energy and Electron Transfer in Non-Covalent Assemblies Based on a V-Shaped Bisporphyrin Cavity

12:00-12:30 S-145 Peter D. W. Boyd (University of Auckland, New Zealand) Supramolecular Fullerene-Porphyrin Assemblies

12:30-13:00 S-146 Jerker Mårtensson (Chalmers University of Technology, Sweden)

Studies of Different Transfer Phenomena in Structurally Similar Donor-Acceptor Systems

New Aspects of Biological Functions of Heme Proteins (Room 2)

Organizers: Isao Morishima (Kyoto University, Japan)

George McLendon (Princeton University, USA)

Speakers: 10:30-11:30 S-147 (Keynote) George McLendon (Princeton University, USA) Cytochrome c and the Suicide Hotline

11:30-12:00 S-148 Yoshitsugu Shiro (RIKEN Harima Institute, Japan) Heme-based Oxygen Sensor Protein FixL

11:30-12:00 S-149 Stuart J. Ferguson (University of Oxford, UK) Modified Hemes in Cytochromes

12:30-13:00 S-150 Koichiro Ishimori (Kyoto University, Japan) Heme as a Regulatory Molecule in Biological Systems: Structural Characterization of Heme Binding in Heme-Regulated Proteins

Porphyrins and Phthalocyanines in Combination with Macromolecules (Room 3)

Organizers: Dieter Wöhrle (University Bremen, Germany)

Eishun Tsuchida (Waseda University, Japan)

Speakers: 10:30-11:00 S-151 Dieter Wöhrle (University of Bremen, Germany) Porphyrins and Phthalocyanines in Combination with Macromolecules-An Overview

11:00-11:20 S-152 Teruyuki Komatsu (Waseda University, Japan) Serum Albumin Included Iron-Porphyrins as a Novel Synthetic O₂-Carrying Hemoprotein

11:20-11:40 S-153 Makoto Yuasa (Tokyo University of Science, Japan) Electrode Systems Modified with Electropolymerized Metalloporphyrins as Superoxide Sensors

11:40-12:10 S-154 Fethi Bedioui (Ecole Nationale Supérieure de Chimie de Paris, France) Electropolymerized Metalloporphyrin Films. Applications to Biomimetic Electrocatalysis and Electroanalysis

12:10-12:40 S-155 Neil B. McKeown (University of Manchester, UK) The Synthesis of Phthalocyanine Network Polymers with Controlled Architecture: Novel Microporous Organic Materials

12:40-13:00 S-156 Mutsumi Kimura (Shinshu University, Japan) Dendritic Phthalocyanines and Porphyrins

Chemistry of B₁₂ and B₁₂-Proteins (Room 4)

Organizer: Yoshio Hisaeda (Kyushu University, Japan)

Speakers: 10:30-11:00 S-157 Tetsuo Toraya (Okayama University, Japan) How a Substrate Triggers the Co-C Bond Homolysis in Coenzyme B₁₂-Dependent Diol Dehydratase

11:00-11:30 S-158 Wolfgang Buckel (Philipps-Universität Marburg, Germany) Coenzyme B₁₂-Dependent and -Independent Pathways of Glutamate Fermentation by Anaerobic Bacteria

11:30-12:00 S-159 Daniel Darley (University of Newcastle upon Tyne, UK) The Mechanism of Action of 2-Methyleneglutarate Mutase

12:00-12:30 S-160 Huilan Chen (Nanjing University, China) Structure and Function Mimicry of Coenzyme B₁₂ for Cobalamin Analogues and Cobaloxime Models

12:30-13:00 S-161 Bernhard Kräutler (University of Innsbruck, Austria) B₁₂ as a Methyl Group Transfer Agent

Special Session on New Trends 2 (Room 5)

Organizers: Program Committee

Speakers: 10:30-10:45 O-11 Darren Magda (Pharmacocyclics, Inc., USA) Oligonucleotide Microarray Analysis of RNA Expression in A549 Human Lung Adenocarcinoma Cells Following Treatment with Motexafin Gadolinium Under Conditions of Potentially Lethal Damage Repair

10:45-11:00 O-12 Hitoshi Tamiaki (Ritsumeikan University, Japan) Self-Assembly of Synthetic Perfluoroalkylated Derivatives of Bacteriochlorophyll-*d* in Fluorous Phases

11:00-11:15 O-13 Melissa J. Latter (Flinders University, Australia) Molecular Capsule Formation through Metal Mediated Self-Assembly of Bis-Porphyrin Cavities

11:15-11:30 O-14 Norbert Jux (Institut für Organische Chemie der Universität Erlangen-Nürnberg, Germany) Highly Functionalized Tetraphenylporphyrin Derivatives

11:30-11:45 O-15 Ikuzo Nishiguchi (Nagaoka University of Technology, Japan) Synthesis and Function of Novel Phthalocyanines Possessing Intramolecular Bridges of Crown Ether Rings between Different Aromatic Rings

11:45-12:00 O-16 Maria Graça H. Vicente (Louisiana State University, USA) Porphyrin Syntheses from Carboranyl-Substituted Pyrroles and Benzaldehydes

12:00-12:15 O-17 Giuseppe Ciccarella (Uni-versità degli Studi di Lecce, Italy) Synthesis and Characterization of Phthalocyanines and Their Application as Active Layers in Optochemical Vapor Detection

12:15-12:30 O-18 Hiroshi Segawa (The University of Tokyo, Japan) Spin Alignment of Orthogonal π -Radicals of Highly Oxidized Porphyrin Arrays with Direct *meso-meso* Linkage

12:30-12:45 O-19 Andre Zeug (Humboldt Universität Berlin, Germany) The Polarization Sensitive Jablonski Diagram for Polarization and Anisotropy Effects in Time-Resolved Experiments

12:45-13:00 O-20 Teodor Silviu Balaban (Institute for Nanotechnology, Germany) Porphyrins as Self-Assembling Tectons

13:00 -14:15 Lunch

14:15-15:30 Symposium Lectures

Special Session on New Trends 3 (Room 4)

Organizers: Program Committee

Speakers: 14:15-14:30 O-21 Tarak D. Mody (Pharmacyclics, Inc., USA) Texaphyrins: Pharmaceutical Development of a Novel Class of Therapeutic Agents

14:30-14:45 O-22 Mamoru Nango (Nagoya Institute of Technology, Japan) Construction of Photosynthetic Antenna Complex in Lipid Bilayers

14:45-15:00 O-23 Gérard Simonneaux (Campus de Beaulieu Rennes 1 University, France) Stereochemistry of Carbene Transfer Catalysis by Metalloporphyrins

15:00-15:15 O-24 Larisa G. Tomilova (Lomonosov Moscow State University, Russia) Synthesis, Properties and Application of New Substituted Phthalocyanines

15:15-15:30 O-25 Mariangela Castriciano (University of Messina, Italy) Syntheses, Characterization and Supramolecular Assembling of Polynuclear Platinum(II) Porphyrin Complexes

Special Session on New Trends 4 (Room 5)

Organizers: Program Committee

Speakers: 14:15-14:30 O-26 Motoko Asano-Someda (Tokyo Institute of Technology, Japan) A Femtosecond Fluorescence Study of S₂ State Dynamics in Zinc(II) Porphyrins

14:30-14:45 O-27 William S. Durfee (Buffalo State College, USA) Cis and Trans Forms of a Binuclear Subphthalocyanine

14:45-15:00 O-28 J. Krzystek (Florida State University, USA) High-Frequency and -Field EPR: A New Tool to Investigate Electronic Structure Properties of Mn(III) Porphyrins, Phthalocyanines, Corroles and Related Molecules

15:00-15:15 O-29 Noriaki Ikeda (Osaka University, Japan) Photoexcited Charge-Separation of Crystalline Oxotitanium(IV) Phthalocyanine as Revealed by Femtosecond Time-Resolved Transient Absorption

15:15-15:30 O-30 Chen-Hsiung Hung (National Changhua University, Taiwan) Iron and Manganese Complexes of *N*-Confused Porphyrin

15:30-15:45 Coffee Break

15:45-16:45 Plenary Lecture (Room 1) PLEN-6 Jeremy K. M. Sanders (University of Cambridge, UK): Coordinating Arrays of Metalloporphyrins (*Chaired by Atsuhiko Osuka*)

16:45 Closing Ceremonies: Hisanobu Ogoshi