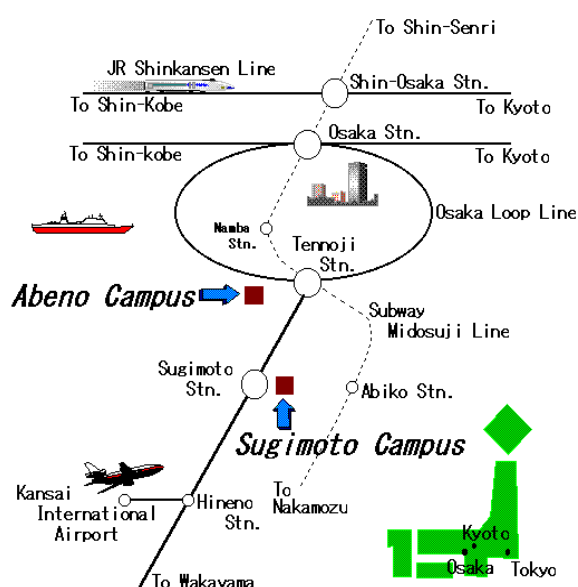


# The Third Osaka City University International Symposium on Molecular Science

## Molecule-based Functional Chemistry and Exotic Molecular Materials Science: Spin Science & Molecular Magnetism, Supramolecular/Molecular Recognition Chemistry, Femtosecond Photophysics, Green Chemistry and New Enzyme Chemistry

Venue: OCU Media Center, Osaka City University, Sugimoto Campus, Osaka, Japan.

Dates: January 23 (Fri.), 2004



Location of OCU Media Center, **Sugimoto Campus**, Osaka City Univ.: 40 minutes by train from Kansai International Airport.

**Invited lectures;** 3-4 overseas scientists.

### Scope of the Conference;

- Molecule-based functional chemistry: Control in molecular & polymer functions
- Molecular spin science & Molecule-based magnetism: Syntheses, characterizations and new theory
- Exotic molecular materials such as molecular zeolites and molecular catalysts
- Supramolecule-based chemistry and molecular recognition chemistry
- Femtosecond photo-dynamics of molecules and molecular systems
- New enzyme chemistry; structures of new enzyme and synthetic model chemistry
- Ab initio* quantum chemical computations: Quantum chemistry of excited states and reaction dynamics
- Green chemistry and environmental chemistry

### **Organizing Committee**

Kazunobu Sato	(Department of Chemistry, Graduate School of Science, OCU)
Tomoyuki Yatsunami	(Department of Chemistry, Graduate School of Science, OCU)
Masatoshi Kozaki	(Department of Chemistry, Graduate School of Science, OCU)
Hideki Sugimoto	(Department of Chemistry, Graduate School of Science, OCU)
Daisuke Shiomi	(Department of Materials Science, Graduate School of Science, OCU)
Isamu Kinoshita	(Department of Materials Science, Graduate School of Science, OCU)
Shinobu Itoh	(Department of Chemistry, Graduate School of Science, OCU)
Keiji Okada	(Department of Chemistry, Graduate School of Science, OCU)
Takeji Takui	(Department of Chemistry, Graduate School of Science, OCU)

### **Organizers and Correspondence;**

Takeji Takui, Keiji Okada and Isamu Kinoshita

Division of Molecular materials Science  
Departments of Chemistry and Materials Science  
Graduate School of Science,  
Osaka City University,  
Sugimoto 3-3-138, Sumiyoshi-ku, Osaka 558-8585, Japan  
takui@sci.osaka-cu.ac.jp, okadak@sci.osaka-cu.ac.jp, isamu@sci.osaka-cu.ac.jp  
Fax: +81-6-6605-2552

### **List of Invited Speakers outside OCU, Graduate School of Science (International)**

#### **Invited Speakers:**

1. Distinguished Professor Joel Miller  
University of Utah, Department of Chemistry  
SaltLake City, Utah, USA
2. Professor Tetsuya Ogura  
Universudad Autonoma de Guadlajara, Department de Quimica, ICET  
Guadalajara, Mexico
3. Dr. Masashi Tsuji (**cancelled**)  
21COE, Research Fellow  
Nara Institute Science and Technology  
Nara, Japan
4. Professor Akikazu Matsumoto  
Osaka City University, Department of Applied and Bioapplied Chemistry  
Graduate School of Engineering  
Osaka, Japan
5. Dr. Dharam Paul  
Osaka City University, Department of Chemistry  
Graduate School of Science  
Osaka, Japan
6. Ms. Naoko Araki  
Nara Women's University, Division of Natural Science and Ecological Awareness  
Graduate School of Humanities and Sciences  
Nara, Japan
7. Ms. Merii Kato  
Nara Women's University, Department of Chemistry  
Faculty of Science  
Nara, Japan

**List of Invited Speakers from Division of Molecular Materials Science,  
Graduate School of Science, OCU**

Hiroshi Nakazawa	(Professor, Department of Chemistry)
Keiji Okada	(Professor, Department of Chemistry)
Isomu Kinoshita	(Professor, Department of Materials Science)
Junji Teraoka	(Associate Professor, Department of Materials Science)
Yoshio Teki	(Associate Professor, Department of Materials Science)
Kazunobu Sato	(Associate Professor, Department of Chemistry)
Hiroyuki Miyake	(Lecturer, Department of Chemistry)
Rie Omi	(Graduate Student (DC3), Department of Chemistry)
Nobuyuki Mori	(Graduate Student (DC2), Department of Chemistry) ( <b>cancelled</b> )

**Schedule and Place**

January 23(Fri.), International Conference Hall & Hall A/B, 10<sup>th</sup> Floor, OCU Media Center

**9:00 -**                    ***Poster Session: Poster Reviewing (Conference Hall A/B)***  
Putting up posters from Departments of Chemistry & Materials Science,  
Graduate School of Science, OCU

Cf. Poster presentation (invited) outside OCU:  
"New Chemistry of Anthracenes: Synthesis, Structure, and Application"  
Dr. Chitoshi Kitamura, Department of Materials Science and Chemistry  
Graduate School of Engineering, Himeji Institute of Technology

10:00 am                Registration  
10:10 am                Opening Ceremony, Conference Hall

**10:15 - 12:05 am**    ***Scientific Program; Morning Session (Conference Hall)***  
Chairperson: Professor Hiroshi Tsukube

10:15 - 11:15 am    **Plenary lecture**  
Distinguished Professor Joel Miller  
Department of Chemistry, University of Utah  
"Molecule-Based Magnets --- New Materials for the New Millennium"

11:15 - 11:40 am    Dr. Dharam Paul  
Dharam Paul,\* Atsuko Suzumura, Satoshi Shinoda, Junji Teraoka, and Hiroshi Tsukube  
Departments of Chemistry and Materials Science, Graduate School of Science, OCU  
"Crown Ether Technology toward Chemical Activation of Heme-Proteins: In vitro Functional  
Conversion of Cytochrome c Proteins to Cold-Active Synzymes"

11:40 - 12:05 am    Ms. Naoko Araki  
Naoko Araki<sup>1</sup>, Akio Ichimura<sup>2</sup>, Kazunori Mitsuo<sup>3</sup>, Chikara Otsuki<sup>4</sup>, Keisuke Asai<sup>5</sup>, Makoto Obata<sup>1</sup>,  
Shigenobu Yano<sup>1</sup>  
<sup>1</sup>Nara Women's University, <sup>2</sup>Osaka City University, <sup>3</sup>Japan Aerospace Exploration Agency,  
<sup>4</sup>Nara Institute of Science and Technology, <sup>5</sup>Tohoku University  
"Development of Porphyrin Monolayers for Pressure Sensitive Paints"

**12:05 - 1:00 pm Lunch Break & Poster Reviewing (Hall A/B)**

**1:00 - 3:05 pm *Scientific Program; Afternoon Session I (Conference Hall)***

Chairperson: Professor Isamu Kinoshita

1:00 - 1:30 pm Professor Junji Teraoka

Department of Materials Science, Graduate School of Science, OCU

“Revisit to Oxidation State Marker Band in Resonance Raman Spectra of Porphyrins”

1:30 - 1:55 pm Dr. Hiroyuki Miyake

Department of Chemistry, Graduate School of Science, OCU

"Dynamic Helicity Inversion by Achiral Anion Stimulus in Synthetic Labile Cobalt(II) Complex"

1:55 - 2:35 pm Professor Hiroshi Nakazawa

Department of Chemistry, Graduate School of Science, OCU

“C-C Bond Cleavage of Acetonitrile by an Iron Silyl Complex”

2:35 - 3:05 pm Professor Yoshio Teki

Department of Materials Science, Graduate School of Science, OCU

“High-Spin Photo-Excited States and Unique Triplet State Arising from Four Unpaired Electrons”

**3:05 - 3:15 pm Intermission; Coffee/Tea break**

**3:15 - 6:45 pm *Scientific Program; Afternoon Session II (Conference Hall)***

Chairperson: Professor Shinobu Itoh

3:15 - 3:45 pm Professor Akikazu Matsumoto

Department of Applied and Bioapplied Chemistry, Graduate School of Engineering, OCU

“Supramolecular Control of Stereochemistry of Polymers in the Solid-State Polymerization”

3:45 - 4:05 pm Ms. Rie Omi

Department of Chemistry, Graduate School of Science, OCU

“Structure of Threonine Synthase: Induced Fit, Substrate Recognition, and Mechanism”

4:05 - 4:35 pm Professor Isamu Kinoshita

Department of Materials Science, Graduate School of Science, OCU

"Copper Complexes with Pyridinethiolate Based Ligands"

4:35 - 5:00 pm Ms. Merii Kato,

Merii Kato, Tomoaki Tanase, Faculty of Science, Nara Women's Univ.

“Synthesis, Characterization, and Reactivity of Tetranuclear Cu(II) Complexes Derived from Glucose-phosphate”

5:05 - 5:35 pm Professor Tetsuya Ogura

Universidad Autonoma de Guadlajara, Department de Quimica, ICET

5:35 - 6:05 pm Professor Kazunobu Sato

Department of Chemistry, Graduate School of Science, OCU

“Spin Structure of Delocalized High-Spin Organic Molecule as Studied by Reduced Density Matrix Method”

6:05 - 6:35 pm Professor Keiji Okada  
Department of Chemistry, Graduate School of Science, OCU  
"Radical Ion Chemistry in Some  $8\pi$  Electronic Systems"

6:35 - 6:45 pm Closing remarks  
Distinguished Professor Joel Miller  
Department of Chemistry, University of Utah  
Professor Shinobu Itoh  
Chairman, Chemistry Department and Vice-Chairman, Division of Molecular  
Materials Science, Graduate School of Science

### **Internet Broadcasting; Real Time (Live BC) and Video on Demand**

The OCU Conference will be broadcast via internet. The corresponding URL will be open prior to the Symposium on the website of OCU; see below for the corresponding URL.

Live BC URL: <rtsp://160.193.4.19/encoder/live.rm>

### **Oral Presentations and Poster Session**

All the oral presentations for the Third OCU International Symposium on Molecular Science are categorized as invited ones. The poster presentations during the symposium are mainly for reviewing the latest research activities and achievements of the Division of Molecular Materials Science, Graduate School of Science, OCU. The titles of the posters will be on the website with the detailed program of the conference. Poster presentations also from other institutions are invited.

### **Registration**

All participants are requested to register for the Symposium on site. Registration fees are free for all the participants.

### **Social Events**

The conference dinner will be announced on site.

### **Proceedings and Conference Series of Molecular Science (Video on Demand)**

The conference proceedings will be available in multi-media after the symposium. Details will be on the website.