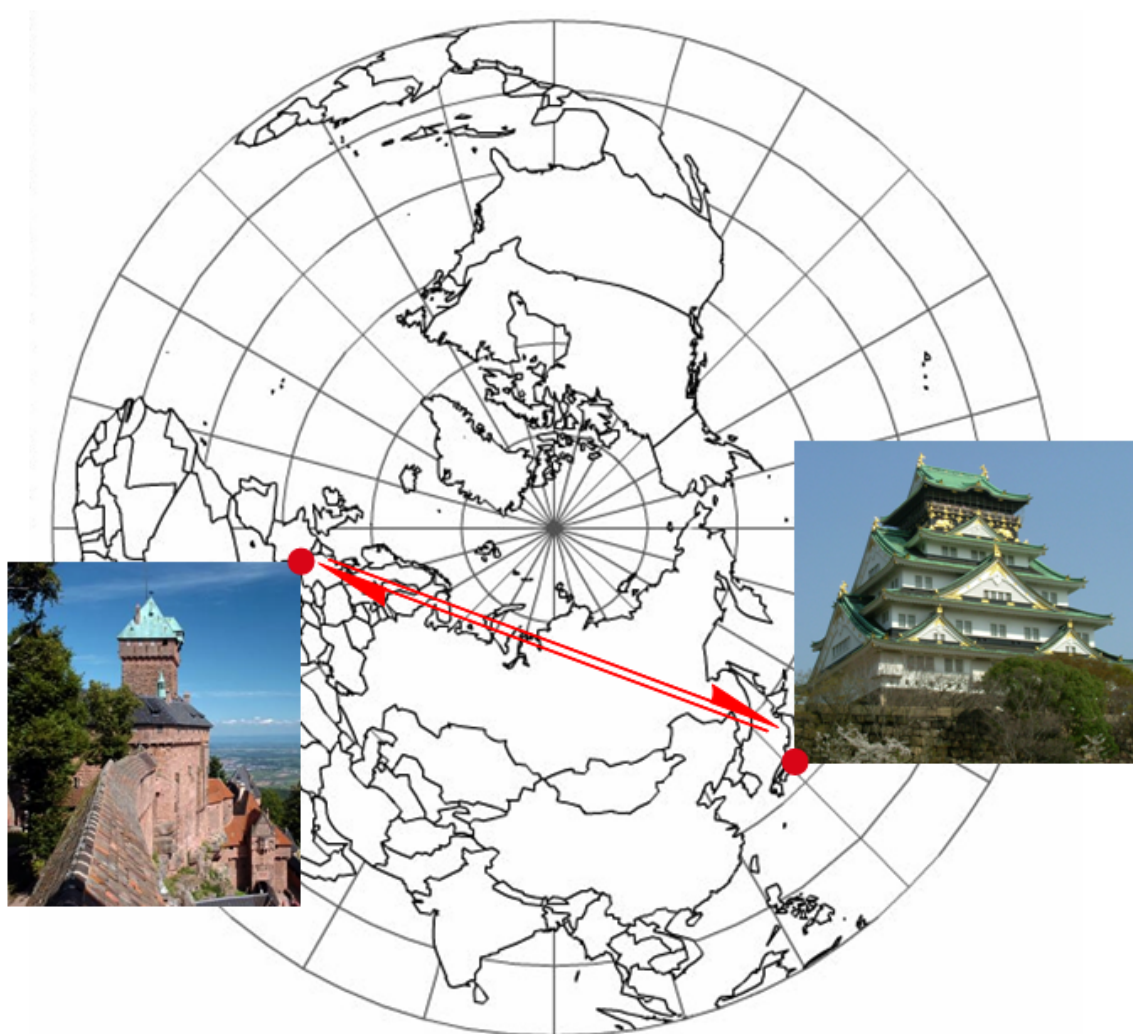


# La chimie aux frontières de la biologie et de la physique

---

## Chemistry at the Frontiers of Biology and Physics



**1-2 July 2010**

*ISIS, 8 rue Gaspard Monge  
Université de Strasbourg, France*

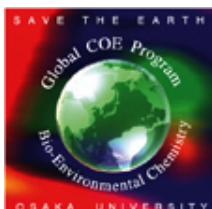
# La chimie aux frontières de la biologie et de la physique

## Chemistry at the Frontiers of Biology and Physics

**1-2 July 2010**

*ISIS, Campus Esplanade, Université de Strasbourg*

Supported and sponsored by



Université de Strasbourg

Direction de la Recherche and Direction des Relations Internationales de l'UdS

Centre National de la Recherche Scientifique

*Japan Society for the Promotion of Science :*

*Global Education and Research Centre of Excellence for Bio-Environmental Chemistry*

International Center for Frontier Research in Chemistry

Institut de Chimie de Strasbourg (UMR 7177 CNRS)

Institut des Sciences et Ingénierie Supramoléculaires (UMR 7006 CNRS)

Institut de Physique et Chimie des Matériaux de Strasbourg (UMR 7504 CNRS)

Laboratoire de Chimie de Coordination Organique (UMR 7140 CNRS)

Faculté de Chimie de l'Université de Strasbourg

Ecole Doctorale des Sciences Chimiques (ED222)

La Société Chimique de France

Le Pôle Chimie Alsace, Rhenovia Pharma, TCI Europe N.V.

La Région Alsace - Le Conseil Général du Bas-Rhin

La Ville et la Communauté Urbaine de Strasbourg

Le Centre Européen d'Etudes Japonaises d'Alsace



## **Scientific Program**

**Thursday July 1, 2010**

**9h00 – 9h30** Welcome and Opening Remarks

Chair: Pierre BRAUNSTEIN

**9h30 – 10h10** **Prof. Shunichi FUKUZUMI**  
Bioinspired artificial photosynthetic systems

**10h10 – 10h40** **Prof. Michel BAUDRY**  
Computational neuroscience: from synaptic modelling to drug discovery

### **Coffee / Posters**

Chair: Prof. Kazushi MASHIMA

**11h10 – 11h50** **Prof. Yasuhiro NAKAZAWA**  
Thermodynamics of molecular assembled systems  
- Superconductivity, magnetism and a spin liquid –

**11h50 – 12h20** **Prof. Bernard DOUDIN**  
Spin electronics at the molecular scale

### **Lunch / Posters**

Chair: Prof. Françoise COLOBERT

**14h00 – 14h30** **Prof. Nicolas WINSSINGER**  
Translating instructions into function by self-assembly

**14h30 – 15h10** **Prof. Kazuya KIKUCHI**  
Design, synthesis and biological application of *in vivo* imaging probes with tunable chemical switches

Chair: Prof. Takashi HAYASHI

**15h10 – 15h40**      **Dr. André MANN**  
Hydroformylation: a tool for the construction of heterocycles

**15h40 – 16h00**      **Dr. Yuichi UMEGAWA**  
Ion channel assembly of antibiotic as viewed by solid-state NMR

### Coffee / Posters

Chair: Prof. Denis HEISSLER

**16h30 – 17h00**      **Dr. Jean-Pierre DJUKIC**  
Juggling with electrons : an eulogy to (organometallic) chemistry, at the borders and beyond.

**17h00 – 17h20**      **Mr. Wilman SEPTINA**  
Electrochemical deposition of Cu<sub>2</sub>O thin films for Cu<sub>2</sub>O/AZO heterojunction solar cells

### Return to Hotel

---

## Friday July 2, 2010

Chair: Prof. Maurice GOELDNER

**9h00 – 9h40**      **Prof. Takashi HAYASHI**  
Supramolecular hemoprotein polymer formed by interprotein heme–heme pocket interaction

**9h40 – 10h10**      **Dr. Jean WEISS**  
Phenanthroline strapped porphyrins as heme protein models :  
A new generic approach

**10h10 – 10h30**      **Dr. Akira ONODA**  
Characteristics of diiron site nearby substrate tunnel in hemerythrin-like domain of DcrH: stable mixed-valent state and dioxygen binding kinetics

### Coffee / Posters

Chair: Prof. Naoto CHATANI

- 11h00 – 11h20**      **Dr. Kazukuni TAHARA**  
2D Crystal engineering: a four-component architecture at a liquid/solid interface
- 11h20 – 11h50**      **Prof. Marc HENRY**  
Supramolecular helices and rings using Ti-O bonds
- 11h50 – 12h30**      **Prof. Nobuaki KAMBE**  
Transition metal catalyzed alkylation reactions

### **Lunch / Posters**

Chair: Dr. Jean WEISS

- 14h00 - 14h30**      **Prof. Laurent DOUCE**  
Electrodeposition of silver particles and gold nanoparticles from ionic liquid-crystal precursors
- 14h30 - 14h50**      **Mr. Masafumi NISHINA**  
Design and self-assembling properties of imidovanadium complexes
- 14h50 - 15h30**      **Prof. Naoto CHATANI**  
Catalytic reactions involving C-H and C-C bonds activation

### **Short Break**

Chair: Prof. Shunichi FUKUZUMI

- 15h45 - 16h15**      **Dr. Dominique MATT**  
Combining molecular cavities with transition metals
- 16h15 - 16h35**      **Dr. Gaku FUKUHARA**  
Chirality-sensing polythiophenes modified with optically active binding sites
- 16h35 – 17h15**      **Prof. Kazushi MASHIMA**  
Linear tetrametal clusters: unique bonding nature and reactions
- 17h15**                      Concluding remarks