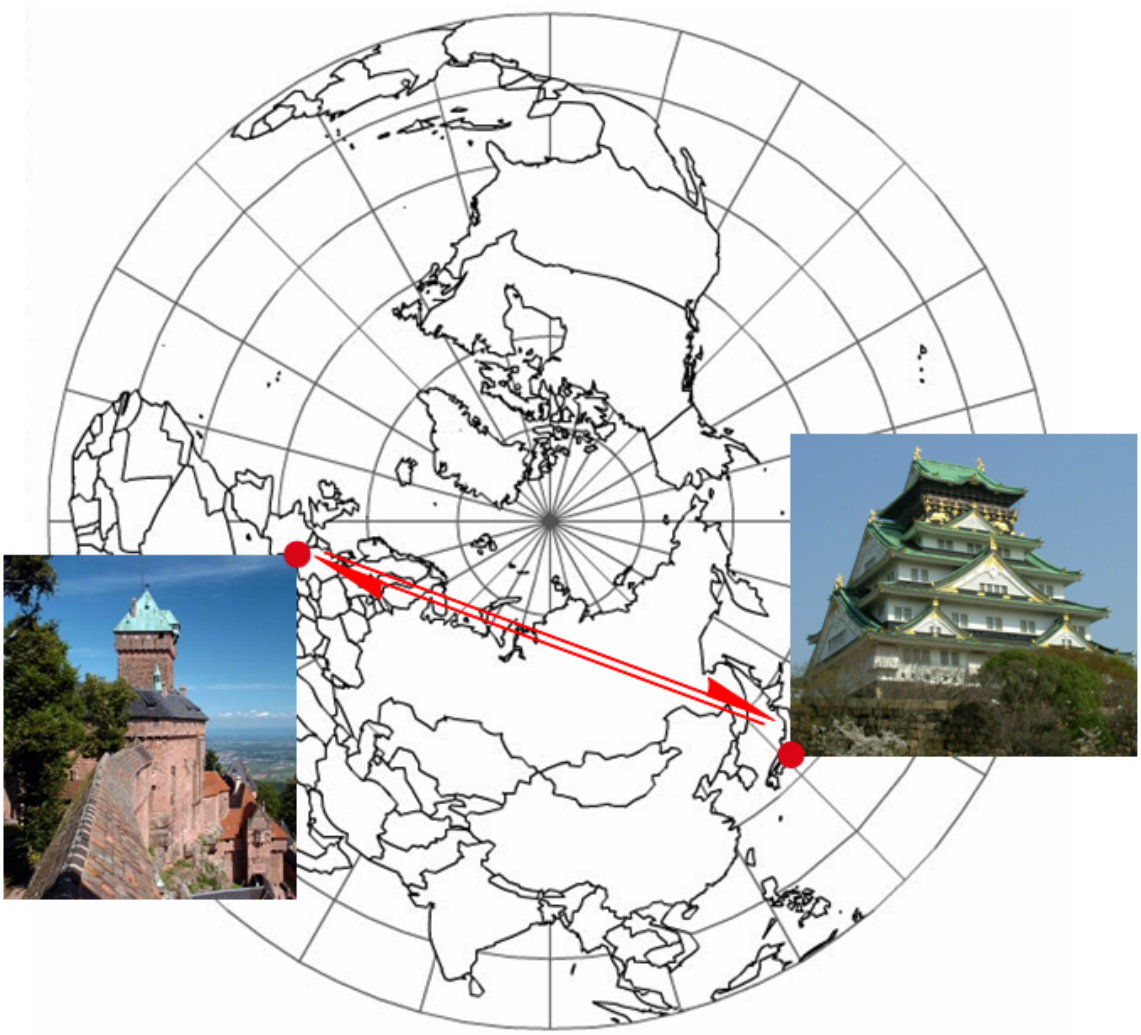
La chimie aux frontières de la biologie et de la physique

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

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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_2O thin films for Cu_2O/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