

Japan-France Workshop on Nanoscience and Nanotechnologies

February 23-24, 2005, Tokyo, Japan

The Japan-France Workshop on Nanoscience and Nanotechnologies will be held in Tokyo on Wednesday, February 23rd and Thursday, February 24th, 2005, as part of the International Nanotechnology Exhibition and Conferences (http://www.ics-inc.co.jp/nanotech/index_e.html) Nanotech 2005. The aim of this workshop is to bring together France and Japanese experts to foster information exchange and promote new collaborations in the field of Nanoscience and Nanotechnologies purposely divided into three sections:

- “Materials and Critical Properties”,
- “Physics, Optics and Electronics” and
- “Chemistry and Life Sciences”

therefore, enhancing a special emphasis on potential industrial applications and daily life implications.

Registration is free of charge and can be processed through the web (click “nanoweek at http://www.ics-inc.co.jp/nanotech/index_e.html). Attendance is limited to the capacity of the auditorium and request will be granted on a *first come first served* basis. Each presentation, by invitation only, will be limited to 30', including questions. A panel discussion (30') will follow each one of the three sessions

This workshop is organized with the support of the Embassy of France in Japan and the National Institute for Materials Science (NIMS) in Tsukuba.

Scientific Committee Prof. Jean ETOURNEAU, Université de Bordeaux
 Dr. Marc DRILLON, Université de Strasbourg
 Prof. Teruo KISHI, NIMS
 Prof. Tomoji KAWAI, Osaka University

Scientific Program

Wednesday, February 23rd

13:00-13:15 Welcome addresses – Coordinators from the French side (Prof. Jean ETOURNEAU) and the Japanese side (Prof. Teruo KISHI)

13:15-13:45 Introductory lectures
Recent development in nanoscience and nanotechnologies (15' each)
in France: Dr. Marc DRILLON, Université de Strasbourg
in Japan: Prof. Tomoji KAWAI, Osaka University

13:45-14:00 Presentation of the International Center for Young Scientists

Prof. Yoshio BANDO, NIMS

14:00-17:15 Session 1: Materials and critical properties (including 15' pause)

- *Application of structured photopolymers to linear and non-linear optics* – Dr. Loïc MAGER, IPCMS, Strasbourg
- *Applications of ceramic nanocoatings and gold nanorods* – Dr. Akio NISHIYAMA, Mitsubishi Materials Corporation
- *Nano-oxides by hypercritical media process* – Dr. Guy BARET, DGTec SAS, Moirans
- *Nanostructured electrode materials for energy conversion & storage devices* – Assoc. Prof. Isamu MORIGUCHI, Nagasaki University
- *Spin-filtering tunnel barriers and spin-polarized electrodes with magnetic oxides* – Dr. Agnes BARTHELEMY, CNRS/THALES, Orsay
- *Nanofabrication in transparent materials with a femtosecond pulse laser* – Prof. Kazuyuki Hirao, Kyoto University

17:15 -17:45 Panel discussion on session 1

18:30 - 20:00 Cocktail Party

Held at the Residency of his Excellency the Ambassador of France in Japan

Thursday, February 24th

09.00-12:15 Session 2: Physics, optics and electronics (including 15' pause)

- *Nonlinear and ultra-fast two-dimensional photonic crystals* – Dr. Alejandro YACOMOTTI, LPN-CNRS, Marcoussis
- *Microassembly of three-dimensional photonic crystals* – Dr. Hideki T. MIYAZAKI, National Institute for Materials Science
- *Self-assembly and molecular electronics* - Dr Jean Philippe Bourgoin, CEA - Saclay
- *Hitachi's Challenge: Inspire the Next Society with Nanotechnology* – Dr. Takao MIWA, Hitachi, Ltd.
- *Electronic properties of molecular nanostructures and devices* – Dr. Dominique VUILLAUME, IEMN-CNRS, Villeneuve d'Ascq

- *Advances in quantum dots and photonic crystal for future information devices* – Prof. Yasuhiko ARAKAWA, Tokyo University

12:15-12:45 Panel discussion on Session 2

12:45-13:45 Lunch

13:45-17:00 Session 3: Chemistry and life sciences

- *Biopolymer-controlled growth of nanoparticles: from biomimetic to bioinspired materials* – Dr. Thibaud CORADIN, Université Paris VI
- *Preparation of jingle-bell-shaped Cadmium sulfide core-silica shell nanoparticles by size-selective photoetching and their photocatalytic activities* – Assoc. Prof. Tsukasa TORIMOTO, Hokkaido University
- *Dedicated biochips: a relevant solution for research, genetic diagnostic and traceability* – Dr. Luc TALINI, GeneScore-ESPCI, Paris
- *Cell Sheet engineering for regenerative medicine* – Dr. Tatsuya SHIMIZU, Tokyo Women's Medical University
- *Micro and nanotechnologies in biology inspired physics: from molecules to cells and tissues* – Dr. Pascal SILBERZAN, Institut Curie, Paris
- *Development of a bioactive material of an inorganic nanoparticle-organic composite for soft tissue* – Dr. Tsutomu FURUZONO, National Cardiovascular Center Research Institute

17:00-17:30 Panel discussion on Session 3

17:30-17:45 Closing Remarks – Coordinators of French side (Prof. Jean Etourneau) and Japanese side (Prof. Tomoji KAWAI)

Venue

Tokyo Big Sight (Tokyo International Exhibition Center) Tower Building, room 608

Secretariat

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