

1st NUS–IMCE Workshop in Kyushu

June 17th to June 19th 2012

INAMORI center, ITO campus, Kyushu University

This first joint workshop between Faculty of Science, National University of Singapore (NUS) and Institute for Materials Chemistry and Engineering (IMCE), Kyushu University, is held in Fukuoka in order to facilitate the exchange of new scientific ideas between young scientists at each institute in the field of nanoscience and nanotechnology. Establishing long-term collaborative ties between the two institutes is the primary aim of this workshop.

Schedule

2012/6/17 Sun		NUS member arrive at Fukuoka 18:00 Welcome reception in Hakata
2012/6/18 Mon	Workshop ITO campus	9:30 Opening
		Introduction of Institutes
		12:00 Lunch
		13:30 Oral session 1
		18:00 Banquets in Big Orange (ITO campus)
2012/6/19 Tues	Workshop ITO campus	10:00 Lab tour and poster session
		12:00 Lunch
		13:30 Oral session 2
		19:00 Dinner in Hakata
2012/6/20 Wed		NUS member depart from Fukuoka

The Organizing Committee

Chair: Kaoru TAMADA

Members: Koichi OKAMOTO
Hiroki AGO
Katsuhiko FUJITA
Hideyuki OTSUKA



June 18, 2012

AM OPENING SESSION

- 9:30–9:40 Opening
9:40–10:10 Introduction of IMCE, Kyushu University
(Prof. Hideo Nagashima, Director, IMCE)

10:10–10:20 Break

- 10:20–11:20 Special Lecture: Nanoscience and nanotechnology in NUS
(Prof. Andrew T.S. Wee, Dean, Faculty of Science, NUS)
11:20–12:00 Research collaboration report in 2011(IMCE)
(Prof. Okamoto, Ago, Fujita and Otsuka, IMCE)

PM ORAL SESSION 1

- 13:30–14:00 Exploring the physicochemical properties of structurally complex semiconductor nanostructures
(Prof. Yin Thai Chan, NUS)
14:00–14:30 Two-dimensional nano-materials: Solution-based routes to electronic devices
(Prof. Goki Eda, NUS)
14:30–14:50 Superfocusing of surface plasmons using nano-structured waveguide
(Prof. Kazuhiro Yamamoto, IMCE)
14:50–15:10 High density poly(α -methylene- γ -butyrolactone) brush films: resurgent fragile plastics as nanostructured thin films
(Prof. Yuji Higaki, IMCE)
15:10–15:30 Noncovalent assembly of carbon nanotube/polyelectrolyte/platinum for fuel cell electrocatalyst
(Prof. Tsuyohiko Fujigaya, Fac. Eng.)

15:30–15:50 Coffee Break

- 15:50–16:10 Recent progress in graphene research at ONDL: bandlike transport and new NLO limiting benchmark in sub-GOx films
(Prof. Lay Lay Chua, NUS)
16:10–16:30 Control of helical structure in chiral lyotropic liquid crystal by electrochemical reaction
(Prof. Hiroki Higuchi, IMCE)
16:30–16:50 Preparation of submicron-sized spherical particles of gold using laser irradiation in liquids
(Prof. Takeshi Tsuji, IMCE)
16:50–17:10 Applications of ultrananocrystalline diamond/hydrogenated amorphous carbon composite films to photodetectors
(Prof. Tsuyoshi Yoshitake, Eng. Sci.)
18:00–20:00 Banquet at Big Orange

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AM LAB TOUR

PM ORAL SESSION 2

- 13:30–14:00 Ionization potential dependent air exposure effect on the MoO₃/organic interface energy level alignment
(Prof. Chen Wei, NUS)
- 14:00–14:30 Special Lecture: Electro-optic (EO) chromophores and polymers over $r_{33}=100\text{pm/V}$ for telecommunications application
(Prof. Shiyoshi Yokoyama, IMCE)
- 14:30–14:50 Supramolecular structures and photoelectronic properties of inclusion complexes of self-assembling cyclic porphyrin dimers and fullerenes
(Prof. Fumito Tani, IMCE)
- 14:50–15:10 Tubular assemblies and inclusion phenomena of pyromellitic diimide based macrocycle
(Prof. Kenta Goto, IMCE)
- 15:10–15:30 Transformation of alcohols into valuable chemicals catalyzed by supported gold nanoparticles
(Prof. Tamao Ishida, Fac. Sci.)

15:30–16:00 Coffee Break

- 16:00–16:30 Turning around a diode at the molecular level
(Prof. Christian Nijhuis, NUS)
- 16:30–16:50 Enantioselective synthesis of chiral silanol: Asymmetric nucleophilic substitution reaction of achiral dialkoxysilane
(Prof. Kazunobu Igawa, IMCE)
- 16:50–17:10 Effects of magnetic processing on nanostructures of polythiophene and gold nanorods
(Prof. Hiroaoki Yonemura, Fac. Eng.)
- 17:10–17:20 Closing