



2010 Tokyo Tech – Asia Materials Week

Date: November 10-13, 2010

Place: Tokyo Tech Ookayama Campus (Tokyo)
Fujicalm Center, Fuji-Yoshida (Yamanashi)

Program

Wednesday, November 10

NPG Asia Materials Joint Meeting

(Venue: Tokyo Tech Ookayama Campus)

10:00~12:00	Optional visits to Tokyo Tech laboratories
13:30 ~ 14:00	Registration: Main Building, 3 rd floor
14:00 ~ 17:00	Joint Editorial and Advisory Board Meeting of NPG Asia Materials <i>includes 15:30 ~ 15:45 coffee break</i>
17:15 ~ 18:45	NPG Asia Materials Dinner Party <i>(at “Tsunobue Dining”)</i> <i>hosted by Nature Asia-Pacific</i>
19:00 ~	Transfer by chartered bus to Fuji-Yoshida (for Materials Symposium participants)

Thursday, November 11

Tokyo Tech – Tsinghua University Joint Symposium

(Venue: Fujicalm Center, Fuji-Yoshida)



8:30 ~ 9:00 Opening Addresses

Prof. Hideo Takezoe
(G-COE Leader, Tokyo Tech)

Prof. Wei Pan
(Tsinghua University)

Invited Session I.

Chairperson: Prof. Akira Nakajima (Tokyo Tech)

9:00 ~ 9:30 **1-I-1** “Bio-Inspired, Smart, Multiscale Interfacial Materials”

Prof. Lei Jiang
(Institute of Chemistry, Chinese Academy of Science, China)

9:30 ~ 10:00 **1-I-2** “Development of High-strength Polyester Fibers through Control of Molecular Entanglement”

Prof. Takeshi Kikutani
(Tokyo Tech, Japan)

10:00 ~ 10:30

Coffee Break

General Session I.

10:30 ~ 10:42 **1-S-1** “Liquid crystalline blue phase III with a wide temperature range”

Khoa Van Le (Tokyo Tech)

10:42 ~ 10:54 **1-S-2** “A Chemically Amplified, Negative-type Photosensitive Poly (phenylene ether ketone) (PEK) Resist Based on Ketal-protected PEK and Photoacid Generator”

Yuta Saito (Tokyo Tech)

10:54 ~ 11:06 **1-S-3** “Optically uniaxial smectic A phase with antiferroelectric behavior”

Lingfeng Guo (Tokyo Tech)

11:06 ~ 11:18 **1-S-4** “Synthesis and research of ODBP derivatives as candidates
for low-temperature biaxial nematics”

Hyeoncheol Jeong (Tokyo Tech)

11:18 ~ 11:30 **1-S-5** “Development of new microscopic methods using absorption anisotropy for
the study of the properties of antenna complexes of photosynthetic bacteria”

Shu Furumaki (Tokyo Tech)

11:30 ~ 11:42 **1-S-6** “Effect of Plasticizer on the Crystallization Behavior of
Low-molecular-weight Poly (L-lactide)”

Chiaki Oshima (Tokyo Tech-Tsinghua University)

11:42 ~ 11:54 **1-S-7** “Synthesis of dendrimers for diagnostic agents”

Yumiko Ito (Tokyo Tech)

11:54 ~ 12:06 **1-S-8** “Topology-Directed Elevation and Tuning of Thermal Resistance:
Stability Endowed by Nanostructure Formed from Cyclized Polymer”

Satoshi Honda (Tokyo Tech)

12:06 ~ 12:18 **1-S-9** “Anchoring transition of bent-rod liquid crystal dimers on different surfaces”

Guksik Lee (Tokyo Tech)

12:18 ~ 12:30 **1-S-10** “Creation of intramolecular charge transfer interactions in TCNQ polymer”

Yusuke Washino (Tokyo Tech)

12:30 ~ 13:30

Lunch

Invited Session II.

Chairperson: Assoc. Prof. Ji Shi (Tokyo Tech)

13:30 ~ 14:00 **1-I-3** “Functional Nanomaterials, Nano-electronics/spintronics, and Nano-optics”

Prof. Kwang Soo Kim

(Pohang University of Science and Technology, Korea)

14:00 ~ 14:30 **1-I-4** “Ag nanorods for PCB detection by GLAD”

Prof. Zheng Jun Zhang
(Tsinghua University, China)

14:30 ~ 15:00 **1-I-5** “Environmentally benign chemical production by heterogeneous acid catalysts”

Prof. Michikazu Hara
(Tokyo Tech, Japan)

15:00 ~ 15:30

Coffee Break

General Session II.

15:30 ~ 15:42 **1-S-11** “Synthesis of Donor-Acceptor Conjugated Polymers
for Optoelectronic Applications”

Hiroyuki Fujita (Tokyo Tech)

15:42 ~ 15:54 **1-S-12** “Development of Lens materials
with High Refractive Index and High Abbe Number^{1,2}”

Yasuo Suzuki (Tokyo Tech)

15:54 ~ 16:06 **1-S-13** “Controlling the magnetic anisotropy of CoPt-AlN granular multilayer”

Youxing Yu (Tokyo Tech)

16:06 ~ 16:18 **1-S-14** “Interface Related Magnetic Properties in Ferromagnetic-Semiconductor-
Ferroelectric Hybrid Structures”

Yasuhiro Shirahata (Tokyo Tech)

16:18 ~ 16:30 **1-S-15** “Study of Carrier Behavior in a Au/Pentacene/Ferroelectric Poly (vinylidene
fluoride-trifluoroethylene)/Indium Tin Oxide Structure”

Jun Li (Tokyo Tech-Tsinghua University)

16:30 ~ 16:42 **1-S-16** “Electrochemical Characterization of Pentacene Thin Film Electrode in Vacuum with Ionic Liquid as an Electrolyte”
Shingo Maruyama (Tokyo Tech)

16:42 ~ 16:54 **1-S-17** “Fabrication and Analysis of Organic Field Effect Transistor with P(VDF-TrFE) LB films”
Xiangyu Chen (Tokyo Tech-Tsinghua University)

16:54 ~ 17:06 **1-S-18** “Low cycle fatigue of Ultrafine-grained Aluminum at low temperature”
Yukito Nakanishi (Tokyo Tech)

17:06 ~ 17:18 **1-S-19** “The magnetism behavior of HNO₃-nanographite network with graphene edges and nanopores”
Si-Jia Hao (Tokyo Tech-Tsinghua University)

17:18 ~ 17:30 **1-S-20** “Preparation of c-axis textured AlN films using an ultra-thin Pt layer”
Takashi Harumoto (Tokyo Tech-Tsinghua University)

17:30 ~ 18:00 **Coffee Break**

General Session III.

18:00 ~ 18:12 **1-S-21** “Liquid-flux mediated vapor deposition of pentacene single-crystals in vacuum”
Yoko Takeyama (Tokyo Tech)

18:12 ~ 18:24 **1-S-22** “Mechanical Properties of Solution Treated and Aged Ti₉₁Cr₆Sn₃ Biomedical Alloy”
Abdul Wadood (Tokyo Tech)

18:24 ~ 18:36 **1-S-23** “SO₃H-bearing microporous carbons as highly active acid catalysts in Friedel-Crafts alkylation”
Kiichi Fukuhara (Tokyo Tech)

18:36 ~ 18:48 **1-S-24** “Morphologies and magnetic properties of cobalt oxides prepared by CVD”
Akimasa Koji (Tokyo Tech-Tsinghua University)

18:48 ~ 19:00 **1-S-25** “In-situ electrochemical analyses of TiO₂ single crystals and thin film”
Shintaro Takata (Tokyo Tech)

19:00 ~ 19:12 **1-S-26** “Phase Constitution and Mechanical Properties
of Ti-(Cr, Mn)-Sn Biomedical Alloys”
Yasuhiro Kusano (Tokyo Tech)

19:12 ~ 20:30 **Dinner & Free Time**

20:30 ~ 22:00 **Poster Session and Free Discussion**

Friday, November 12

Invited Session III.

Chairperson: Prof. Wei Pan (Tsinghua University)

8:30 ~ 9:00 **3-I-4** “Fabrications and Applications of Carbon Nanotube Nanocomposites”
*Prof. Soon Hyung Hong
(Korea Advanced Institute of Science and Technology, Korea)*

9:00 ~ 9:30 **2-I-2** “Chemical doping and strain engineering for materials design and formation”
*Prof. Shi-Xue Dou
(University of Wollongong, Australia)*

9:30 ~ 10:00 **2-I-3** “Functional Nanomaterials based on Hard and Soft Nanoporous Templates”
*Prof. Jin Kon Kim
(Pohang University of Science and Technology, Korea)*

10:00 ~ 10:30 **Coffee Break**

Invited Session IV.

Chairperson: Prof. Yoshio Nakamura (Tokyo Tech)

10:30 ~ 11:00 **3-I-6** “Silicon-Nanowire-Array Surfaces
for High Effectively Capture Circulating Tumor Cells”

Prof. Shutao Wang
(Institute of Chemistry, Chinese Academy of Science, China)

11:00 ~ 11:30 **2-I-5** “NANOGRAIN CERAMICS AND ITS APPLICATIONS”

Prof. Xiaohui Wang
(Tsinghua University, China)

11:30 ~ 12:00 **2-I-6** “Organic Transistors and Organic Solar Cells using Semiconductor Nanowires”

Prof. Kilwon Cho
(Pohang University of Science and Technology, Korea)

12:00 ~ 13:00

Lunch

13:00 ~ 18:00

Free Discussion (Excursion)

18:30 ~ 21:00

Symposium Party (at Fujiyama Brewery)

Saturday, November 13

Invited Session V.

Chairperson: Assoc. Prof. Hong Lin (Tsinghua University)

8:30 ~ 9:00 **3-I-1** “Visualization of Carrier Motion in Organic Films
by Optical Second Harmonic Generation”

Prof. Mitsumasa Iwamoto
(Tokyo Tech, Japan)

9:00 ~ 9:30 **3-I-2** “Molecular Design on Conjugated Polymers
for Deep Blue Electroluminescence with high efficiency”

Prof. Show-An Chen
(National Tsing Hua University, Taiwan)

9:30 ~ 10:00 **3-I-3** “Conversion of One-Dimensional Nanostructured CuInSe₂
and Related Materials via Simple Chemistry”

Prof. Chun-Sing Lee
(City University of Hong Kong, China)

10:00 ~ 10:30 **Coffee Break**

Invited Session VI.

Chairperson: Prof. Hiroyuki Hirayama (Tokyo Tech)

10:30 ~ 11:00 **2-I-1** “Nano Photocatalytic Materials: Possibilities and Challenges”

Prof. Jinhua Ye
(National Institute for Materials Science, Japan)

11:00 ~ 11:30 **3-I-5** “THz Spectroscopic Studies
of Indium Tin Oxide Thin Films and Nanostructures”

Prof. Ci-Ling Pan
(National Tsing Hua University, Taiwan)

11:30 ~ 12:00 **2-I-4** “Recent Advances in Two-Photon Stereolithography”

Prof. Kwang-Sup Lee
(Hannam University, Korea)

12:00 ~ 12:30 Closing Addresses

Prof. Hideo Takezoe
(G-COE Leader, Tokyo Tech)
Prof. Mitumasa Iwamoto
(Tokyo Tech)

12:30 ~ 13:30

Lunch

13:30 ~

Transfer by chartered bus to Tokyo