

Tokyo Tech - EPFL Joint Workshop

January 17-23, 2010

Hakone, Tokyo & Tsukuba, JAPAN



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Tokyo Tech - EPFL Joint Workshop

Jan. 17-20, Hakone

Joint Workshop in Hakone – Gora Seiunso, Hakone-machi, Kanagawa

Host: Hideo Takezoe	Speakers: Tokyo Tech	EPFL
Yoshiharu Nakajima	Tomokazu Iyoda	Nava Setter
	Takaaki Tsurumi	Helena Van Swygenhoven
	18 talks of Ph.D students	Holger Frauenrath
		10 talks of Ph.D students

Jan. 21, Tokyo

Tokyo Tech Lab. Tour – Ookayama & Suzukakedai Campus, Tokyo Tech

Host: Yoshinao Mishima	Host Lab.: Kato-Onaka-Fujii Lab.
	Odawara Lab.
	Funakubo Lab.
	Hosono-Kamiya Lab.
	Takezoe-Ishikawa Lab.
	Kakimoto-Hayakawa Lab.
	Watanabe-Tokita Lab.

Jan. 22, Tsukuba

Tour of Tsukuba Science City

Host: Wataru Mizutani	National Institute of Advanced Industrial Science and
Jinhua Ye	Technology (AIST)
	National Institute for Materials Science (NIMS)

Joint Workshop in Hakone – Gora Seiunso, Hakone-machi, Kanagawa

January 17

- 8:50 Arrive at the Narita International Airport (EPFL)
- 9:30 Meet at the arrival lobby (Dr. Yamada from Tokyo picks up EPFL participants)
- Move to Yokohama City Air Terminal (YCAT) (EPFL)
- 11:30 – 12:30 Lunch (EPFL)
- Move to PACIFICO YOKOHAMA (EPFL)
- 12:30 Meet at PACIFICO YOKOHAMA – 1F front entrance of the Exhibition Hall A (Tokyo Tech)
- Move to Gora Seiunso in Hakone (Tokyo Tech, EPFL)
- 14:00 – 18:00 Free time
- 18:00 – 19:00 Dinner
- 19:00 – 19:15 Opening Address (Prof. Takezoe)
- 19:15 – 19:30 Introduction to EPFL (Prof. from EPFL)
- 19:30 – 21:30 Poster Session
- 19:30 – 20:30 odd number
- 20:30 – 21:30 even number

January 18

- 8:30 – 9:10 **Lecture 1:** “In-situ mechanical testing during X-ray and neutron diffraction”
Prof. Helena Van Swygenhoven, EPFL
- 9:10 – 9:35 **talk 1:** “Ultrawide band dielectric spectroscopy in perovskite ferroelectrics”
Takashi Teranishi, Tokyo Tech
- 9:35 – 10:00 **talk 2:** “Charged domain walls in ferroelectrics” *Maxim Gureev, EPFL*

10:00 – 10:30	Break
10:30 – 10:55	talk 3: “Electrical and magnetic properties of layered oxypnictides $LnMnPnO$ (Ln : La, Ce and Sm, Pn : As, Sb)” <i>Gi-Hun Ryu, Tokyo Tech</i>
10:55 – 11:20	talk 4: “N-type amorphous IGZO/p-Si heterojunction solar cell” <i>Kyeongmi Lee, Tokyo Tech</i>
11:20 – 11:45	talk 5: “Transition between two orthogonal polar phases in symmetric bent-core liquid crystals” <i>Lingfeng Guo, Tokyo Tech</i>
11:45 – 12:10	talk 6: “Blue phases made of bent-core nematic liquid crystals” <i>Khoa Van Le, Tokyo Tech</i>
12:10 – 13:40	Lunch
13:40 – 14:20	Lecture 2: “Devise applications using lead-free piezoelectric ceramics” <i>Prof. Takaaki Tsurumi, Tokyo Tech</i>
14:20 – 14:45	talk 7: “MOCVD growth and characterization of lead-free piezoelectric $BiFeO_3$ - $BiCoO_3$ thin films” <i>Shintaro Yasui, Tokyo Tech</i>
14:45 – 15:10	talk 8: “GaAs nanowires MBE grown for photovoltaic applications” <i>Carlo Colombo, EPFL</i>
15:10 – 15:35	talk 9: “Effects of magnetic field on solid solubility of iron and cobalt in a copper matrix” <i>Chiharu Kanno, Tokyo Tech</i>
15:35 – 16:05	Break
16:05 – 16:30	talk 10: “Thin film fabrication and characterization of half-metallic oxide, Sr_2FeMoO_6 , using combinatorial methods” <i>Shogo Kadota, Tokyo Tech</i>
16:30 – 16:55	talk 11: “Graphene based nanoelectronic devices – beyond monolayers” <i>Adarsh Sagar, EPFL</i>
16:55 – 17:20	talk 12: “Organic thin-film transistors: the crucial role of the dielectric/semiconductor interface” <i>Franziska D. Fleischli, EPFL</i>
17:20– 17:45	talk 13: “Enhancement of helical twisting power using a chiral cyclic dimer dopant restricted rotational freedom around chiral carbon” <i>Manabu Ito, Tokyo Tech</i>
17:45 – 18:30	Free time
18:30 – 20:30	Party (Host: Prof. Nakajima)

January 19

- 8:30 – 9:10 **Lecture 3:** “Block copolymer templating processes for highly ordered nanostructured materials” *Prof. Tomokazu Iyoda, Tokyo Tech*
- 9:10 – 9:35 **talk 14:** “Nano-scale pattern control of surfaces on glass plates and functional oxide thin films” *Yasuyuki Akita, Tokyo Tech*
- 9:35 – 10:00 **talk 15:** “A molecular dynamics study of dislocation propagation in nanocrystalline aluminum containing oxygen” *Andreas Elsener, EPFL*
- 10:00 – 10:30 Break
- 10:30 – 10:55 **talk 16:** “Shapes of Ag precipitates in Cu-Ag single crystals” *Tomotaka Miyazawa, Tokyo Tech*
- 10:55 – 11:20 **talk 17:** “Crystallization behaviour and physical properties of PLLA/nHA nanocomposites” *Claire Delabarde, EPFL*
- 11:20 – 11:45 **talk 18:** “CW-IR laser deposition of ionic liquids in vacuum” *Shingo Maruyama, Tokyo Tech*
- 11:45 – 12:10 **talk 19:** “Vacuum deposition of organic thin films liquid flux” *Yoko Takeyama, Tokyo Tech*
- 12:10 – 13:40 Lunch
- 13:40 – 14:20 **Lecture 4:** “Ferroelectrics on the edge: Interface and domain-wall driven phenomena in ferroelectrics” *Prof. Nava Setter, EPFL*
- 14:20 – 14:45 **talk 20:** “Microstructural evolution of copper single crystals caused by accumulative roll-bonding” *Akari Yoshida, Tokyo Tech*
- 14:45 – 15:10 **talk 21:** “Deformation mechanism in nanostructured copper processed by severe plastic defoemation” *Takahiro Kunimine, Tokyo Tech*
- 15:10 – 15:35 **talk 22:** “Identification of bridging tractions in quasistatic and fatigue mode I delamination” *Samuel Stutz, EPFL*
- 15:35 – 16:05 Break
- 16:05 – 16:45 **Lecture 5:** “Supramolecular approaches toward hierarchically structured polymers, organic electronic materials, and carbon nanostructures” *Prof. Holger Frauenrath, EPFL*
- 16:45 – 17:10 **talk 23:** “Carbon-rich nanostructures from molecular precursors” *Tobias Hoheisel, EPFL*

17:10 – 20:00 Free time & Dinner
Dinner: 18:00 – 19:30

20:00 – 22:00 Discussion

January 20

8:30 – 8:55 **talk 24:** “Material design of sulfuric acid resistance material” *Tomoaki Sugiyama, Tokyo Tech*

8:55 – 9:20 **talk 25:** “Design of new generation spacesuits” *Kengo Ikema, Tokyo Tech*

9:20 – 9:45 **talk 26:** “Hyperbranched poly-L-lysine as efficient non viral gene delivery agent” *Zuzana Kadlecova, EPFL*

9:45 – 10:10 **talk 27:** “Selective aerobic oxidation of benzylic alcohols by solvent-free TEMPO/NACOS oxidation system” *Yongbo Kuang, Tokyo Tech*

10:10 – 10:35 **talk 28:** “pH-sensitivity of the E3/K3 heterodimeric coiled coil” *Bojana Apostolovic, EPFL*

10:35 – 11:00 Presentation Awards

11:00 – 11:15 Closing remarks (Prof. from EPFL)

11:15 – Free time, Lunch, and Excursion

18:00 Arrive at Hotel Seiyoken in Musashi-Kosugi, Tokyo (EPFL)

18:30 Arrive at Tokyo Tech Ookayama campus (Tokyo Tech)

Tokyo Tech Lab. Tour – Ookayama & Suzukakedai Campus, Tokyo Tech

January 21

- 8:30 Meet at Hotel Seiyoken (EPFL)
- Move to Tokyo Tech Suzukakedai campus (EPFL)
- 9:30 – 9:35 Brief announcement
- 9:35 – 9:50 Introduction to Tokyo Tech (Prof. Mishima)
- 9:50 – 10:00 Introduction to Ookayama campus (Tokyo Tech students)
- 10:00 – 10:10 Introduction to Suzukakedai campus (Tokyo Tech students)
- 10:00 – 11:00 Introduction to laboratories by Tokyo Tech students
Takezoe-Ishikawa Lab. / Kakimoto-Hayakawa Lab. / Watanabe-Tokita Lab. /
Tsurumi-Takeda Lab. / Sakai Lab. / Hosono-Kamiya Lab. / Kato-Onaka-Fujii
Lab. / Yoshimoto Lab. / Odawara Lab. / Funakubo Lab. / Matsumoto Lab. /
Sasagawa Lab.
- 11:00 – 12:00 Lab tour
11:00 – 11:30 Kato-Onaka-Fujii Lab., Odawara Lab.
11:30 – 12:00 Funakubo Lab., Hosono-Kamiya Lab.
- 12:00 – 13:00 Lunch at Suzukakedai campus
- 13:00 – Free time
- For people who wish to visit the laboratories in Ookayama campus:
- 13:00 Move to Ookayama campus
- 14:00 – 15:30 Lab tour
14:00 – 14:30 Takezoe-Ishikawa Lab., Susa Lab.
14:30 – 15:00 Kakimoto-Hayakawa Lab.
15:00 – 15:30 Watanabe-Tokita Lab.
- 15:30 – Free time

Tour of Tsukuba Science City

January 22

- 8:00 Meet at Hotel Seiyoken (EPFL)
- 8:30 Meet at Tokyo Tech Ookayama campus (Tokyo Tech)
- Move to National Institute for Materials Science (NIMS) in Tsukuba
- 10:15 – 12:00 Tour the NIMS: Introduction and Lab tour of NIMS
- Move to National Institute of Advanced Industrial Science and Technology (AIST)
- 12:00 – 13:15 Lunch
- 13:15 – 16:50 Tour the AIST
- 13:15 – 16:00 Introduction to AIST and Lab tour of Nanotechnology Institute
- 16:00 – 16:50 Visit the Science Square Tsukuba in AIST
- Move to Sakura-kan in AIST
- 16:50 – 18:00 Free time
- 18:00 – 20:00 Farewell party (Host: Dr. Mizutani, Dr. Jinhua Ye)
Friendship Awards

January 23

- 5:30 Move to Tsukuba Center (EPFL)
- 6:00 Move to Narita International Airport (EPFL)