

The Circular of the 1st FIT-ME

The 1st FIT-ME Symposium

-- Chemistry and Applications of Inorganic Layered Materials --

Date: May 16, 2016 Venue: Fukuoka Institute of Technology, Japan

Scope: This international symposium is organized by FIT-ME, the Research Center for **M**aterials and **E**nergy Devices of **F**ukuoka **I**nstitute of **T**echnology. This research center aims at developing novel energy devices such as power generators and actuators by mounting newly synthesized inorganic/polymer nanocomposite materials, as achieved by fusion of the research fields of materials chemistry, robotics, and information processing technology. Inorganic layered materials are expected as important counter part for development of the composite materials for such devices as well as for other many applications. Thus, the 1st FIT-ME symposium mainly focuses on chemistry and applications of inorganic layered materials such as clays, graphene, transition metal oxides. The main scope of the symposium includes: synthesis and properties of nanosheet/polymer composite plastics and gels; photochemical, electric, magnetic, catalytic properties of layered materials; intercalation chemistry of layered materials for fabrication of nanostructured functional materials; exfoliation of layered materials and reconstruction into functional materials; the functional colloids of nanosheets as inorganic liquid crystals and their hierarchical structure. Other related themes on materials chemistry, analytical techniques, robotics, and power-generation systems will also be discussed.



photos from: <http://showcase.city.fukuoka.lg.jp/photo> and <http://sozaizanmai.com>

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Organized by:

Research Center for Materials and Energy Devices of Fukuoka Institute of Technology (FIT-ME)
(Strategic Research Foundation Grant-Aided Project for Private University from MEXT, JAPAN)

Co-organized by:

- Forum on Low-dimensional Photo-functional Materials of Chemical Society of Japan
- Research Group for Clay Minerals-Based Nanostructured Functional Materials in Clay Society of Japan
- Comprehensive Research Organization of Fukuoka Institute of Technology
- West-Japan Nanosheet Society

Sponsored by:



Presentations:

Plenary Lecture (55 min), Keynote (30 min), Invited (20min), Short (10 min + poster), Poster (A0 or similar size)

Plenary and Keynote lectures by:

- Josef BREU (Bayreuth University, Germany)
- Kazutoshi HARAGUCHI (Nihon University, Japan)
- Makoto OGAWA (Vidyasirimedhi Institute of Science and Technology (VISTEC), Thailand)
- Tsong-Yen TSAI (Chung Yuan Christian University (CYCU), Taiwan)

Web page:

<http://www.fit.ac.jp/~miyamoto/1stFITMEsympo/>

Award:

Poster Awards will be presented to some excellent poster presentations of students.

Registration Fee:

Free for students; **1000 YEN** for general participants

Mixer:

3000 YEN for all the participants

Registration and Abstract:

- For registration, please send an e-mail to miyamoto@fit.ac.jp with (1) your name, (2) affiliation, (3) academic year (student only), and (4) poster title (if you will present a Poster). On-site registration is also acceptable.
- All the presenters are required to submit A4-size-one-page abstract using the template. (Deadline: April 30). The template file (a DOCX file) is available for download from the above web page.
- The abstract book will be distributed at the symposium site.

Contact:

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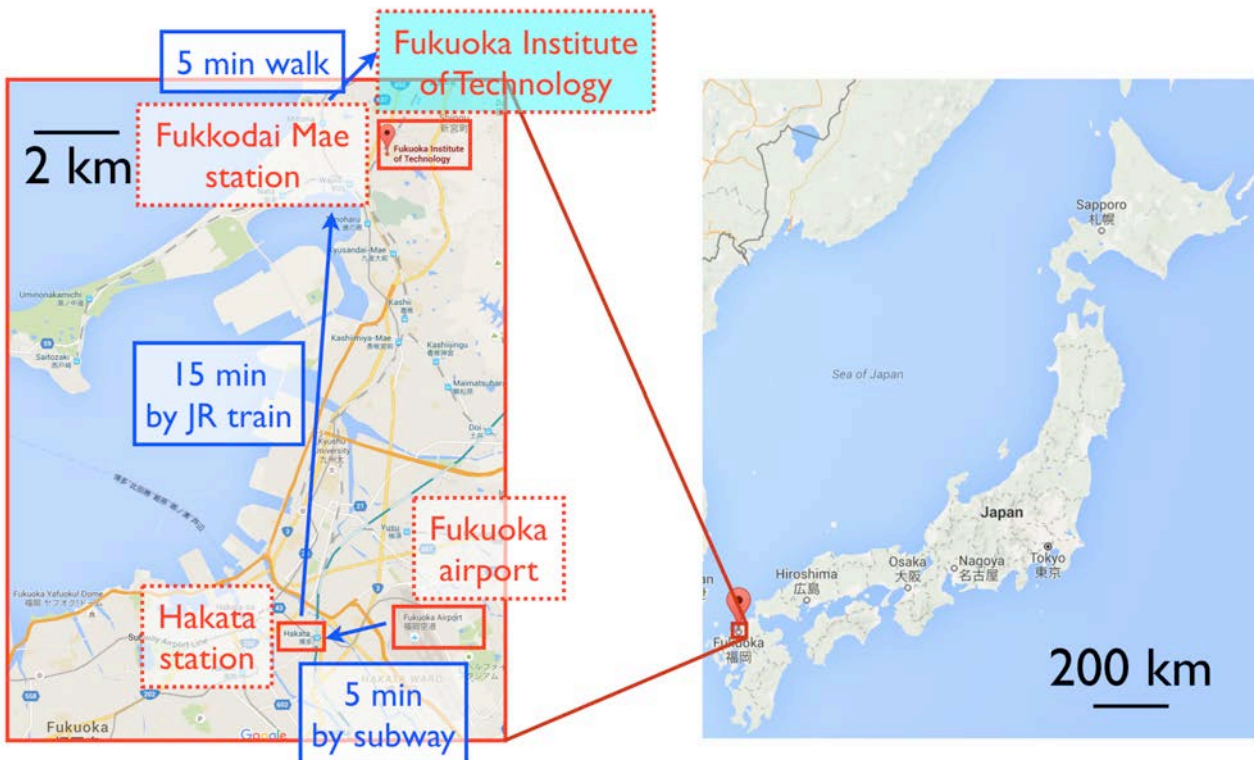
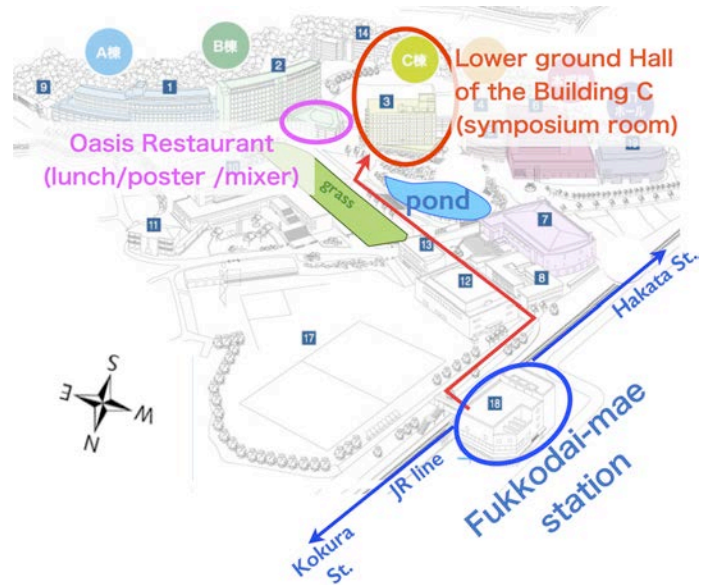
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Venue:

Fukuoka Institute of Technology (FIT)

Address: 3-30-1, Wajirohigashi, Higashiku, Fukuoka 811-0295, Japan

Web: <http://www.fit.ac.jp/en/>



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SCHEDULE of the 16th May

Time	#	Presenter	Title
Chairman : Nobuyoshi MIYAMOTO (Fukuoka Institute of Technology)			
9:00			
9:10	PL1	Josef BREU (Bayreuth Univ.)	Can we have both, Intercalation and Structural Order in Clays?
10:05	IL2	Shintaro IDA (Kyushu Univ.)	Design of photocatalyst for water splitting using nanosheet pn-junction
10:25	Coffee Break		
Chairman : Yoshiyuki KURODA (Waseda University)			
10:40	KL3	Makoto OGAWA (Vidyasirimedhi Institute of Science and Technology (VISTEC))	Application of Bentonites
11:10	IL4	Minoru OSADA (National Institute of Materials Science)	Two-Dimensional Oxide Nanosheets: New Solution to Nanoelectronics
11:30	IL5	Tomohiko OKADA (Shinshu Univ.)	In situ crystallization of layered silicates on amorphous silica substrates
11:50	Lunch		
Chairman : Yutaka OHSEDO (Kyushu University)			
12:50	PL6	Kazutoshi HARAGUCHI (Nihon Univ.)	Creation of New Functional Soft Materials by Exfoliated Clay Minerals
13:45	IL7	Yoshiro KANEKO (Kagoshima Univ.)	Preparation of Single-structured Cyclic Tetrasiloxanes Capable of Forming Two-dimensional Layered Aggregates and Application to Hybrid Hydrogels
14:05	IL8	Nobuyoshi MIYAMOTO (Fukuoka Institute of Technology)	Liquid crystalline nanosheets and anisotropic composite gels
14:25	Coffee Break		
Chairman : Tomohiko OKADA (Shinshu University)			
14:45	IL9	Shinya HAYAMI (Kumamoto Univ.)	Graphene Oxide and Reduced Graphene Oxide Hybrids
15:05	IL10	Sebastian BOSCH (VISTEC)	Selective Chemistry and Characterization of Single-Walled Carbon Nanotubes and Their Potential Hybrid Formation with Inorganic Layered Materials
15:25	IL11	Teruyuki NAKATO (Kyushu Institute of Technology)	Hierarchical structures of liquid crystalline colloidal inorganic nanosheets
15:45	SL12	Yoshiyuki KURODA (Waseda Univ.)	One-Pot Synthesis of Magnesium Hydroxide Nanosheets Modified with Tripodal Ligands
15:55	IL13	Yasutaka SUZUKI (Yamaguchi Univ.)	Optical properties of organic molecules in specific environments
16:15	Coffee Break		

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Time	#	Presenter	Title
Chairman : Yoshiro KANEKO (Kagoshima University)			
16:35	KL14	Tsung-Yen TSAI (Chung Yuan Christian University)	An advanced preparation and characterization of the PET nanocomposites with various LDH as catalysts
17:05	IL15	Yutaka OHSEDO (Kyushu Univ.)	Mixing Enhancement Effect of Low-Molecular-Weight Hydrogelator with Laponite
17:25	SL16	Aranee TEEPAKAKORN (VISTEC)	Interactions of smectites with poly(vinyl pyrrolidone); effect of molecular weight of PVP
17:35	SL17	Junko KUWAHARA (Fukuoka Institute of Technology)	Effect on Twin Alkyl Chains of Surfactants Derived from Amino Acids
17:45	IL18	Dai MOCHIZUKI (Shinshu Univ.)	Alternate Layered Nanostructures via Thiol-ene Click Reaction
18:05	Break		
18:15	Poster & Mixer		
20:15	Closing remark: Nobuyoshi MIYAMOTO (Fukuoka Institute of Technology)		

PL: Plenary lecture

KL: Keynote Lecture

IL: Invited Lecture

SL: Short Lecture

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POSTER PRESENTATIONS

#	Presenter	Title
P1	Tomonori KATO (Fukuoka Institute of Technology)	A review of recent research on miniature soft actuator driven by gas liquid phase change of fluorocarbon
P2	Hiroyuki FUJIOKA (Fukuoka Institute of Technology)	A recent study on dynamic contour modeling of wet material objects using B-spline approach
P3	Sathin SRIYUTTAKRAI (Graduate School of Fukuoka Institute of Technology)	Limitation of Energy Harvesting by using Dielectric Elastomer
P4	Kosuke ONISHI (Graduate School of Fukuoka Institute of Technology)	Electro-mechanical Performance of Strengthened Elastomer Actuator
P5	Hitoshi KINO (Fukuoka Institute of Technology)	Soft actuators with nanosheet liquid crystals
P6	Junko KUWAHARA (Fukuoka Institute of Technology)	Effect on Twin Alkyl Chains of Surfactants Derived from Amino Acids
P7	Yoshiyuki KURODA (Waseda Univ.)	One-Pot Synthesis of Magnesium Hydroxide Nanosheets Modified with Tripodal Ligands
P8	Keisuke MURAMATSU (Waseda Univ.)	Effect of Organic Solvents on the Synthesis of Magnesium Hydroxide Modified with Tripodal Ligands
P9	Soontaree INTASA-ARD (Vidyasirimedhi Institute of Science and Technology)	Hydrothermal syntheses of layered double hydroxides
P10	Kamonnart IMWISSET (Vidyasirimedhi Institute of Science and Technology)	Interactions of aromatic compounds with organically modified montmorillonites
P11	Aranee TEEPAAKORN (Vidyasirimedhi Institute of Science and Technology)	Interactions of smectites with poly(vinyl pyrrolidone); effect of molecular weight of PVP
P12	Wasusate SOONTORNCHAIYAK UL (Shimane Univ.)	Photodegradation of Organic Dyes by Rh-doped Titanate Nanosheet under UV irradiation
P13	Yoonyoung KIM (Kyushu University)	Preparation of Pd-Doped Ca ₂ Nb ₃ O ₁₀ nanosheets and their photocatalytic properties
P14	Satoru IMANISHI (Graduate School of Science and Technology for Innovation, Yamaguchi University)	Spectroscopic properties of a diacetylene derivative intercalated in a clay mineral

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P15	Jie ZHANG (Graduate School of Kyushu Institute of Technology)	Effects of electrolytes on hierarchical organization of inorganic colloidal liquid crystals
P16	Shinya TERADA (Graduate School of Kyushu Institute of Technology)	Observation of the phase-separated structure of binary nanosheet colloids by using confocal laser scanning microscopy
P17	Morio SHINTATE (Fukuoka Institute of Technology)	Direct Observation of $K_4Nb_6O_{17}$ Nanosheet Liquid Crystals with Confocal Laser Scanning Microscopy
P18	Rajesh MADHU (Fukuoka Institute of Technology, JSPS)	Heteroatom-enriched Honeycomb-like Porous Carbons for High Performance Supercapacitor and Trace Level detection of Heavy Metals Sensors
P19	Shinya ANRAKU (Graduate School of Fukuoka Institute of Technology)	Synthesis of hexaniobate nanosheets modified with single-stranded DNA
P20	Masanari NISHI (Fukuoka Institute of Technology)	Synthesis of nanosheet/polymer composite microgels by using a microfluidic device
P21	Koki MIHASHI (Graduate School of Fukuoka Institute of Technology)	Study on Extraction of Fish Collagen and Fibril Formation
P22	Hongyao SHEN (Graduate School of Fukuoka Institute of Technology)	Characterization of Fluorescent Protein from Light Brown Scleronephthya sp.
P23	Takumi INADOMI (Fukuoka Institute of Technology)	Synthesis and anisotropic properties of pNIPA hydrogel hybridized with organic dye and inorganic nanosheet liquid crystal aligned by electric field
P24	Riki KATO (Graduate School of Fukuoka Institute of Technology)	Liquid crystal phases formed in the mixture of nanosheets and microtubules
P25	Shinya YAMAMOTO (Fukuoka Institute of Technology)	Liquid crystalline fluorohectorite nanosheet with structural colors
P26	Shinya YAMAMOTO (Fukuoka Institute of Technology)	Liquid crystal phase and structural colors of layered perovskite nanosheet colloids with controlled layer thickness