

Second Call for Papers

19th International Conference on **Ternary and Multinary Compounds**

The ICTMC-19 continues the long tradition of previous meetings and covers the physics, chemistry, materials science, device engineering, and also growth and theory of various ternary and multinary compounds: chalcopyrite-type (I-III-VI₂, II-IV-V₂), kesterite-type (I_2 -II-IV-VI₄), sphalerite-type and wurtzite-type (III-V, II-VI, etc.), perovskite-type, skutterudite-type, complex-oxides, complex-nitrides, and so on. We would like to exchange information and experience between relevant material fields in the interdisciplinary forum.

September 1 - 5, 2014 TOKI MESSE·Niigata Convention Center·Niigata·Japan

Sponsored by the Japan Society of Applied Physics http://annex.isap.or.jp/tmc/ictmc19/index.html

Abstract submission:

A one-page abstract should be submitted via the Internet. The abstract must contain a summary of the results to be presented, the name of the presenting author, affiliation, contact information and e-mail address. Presented papers will be published in a peer reviewed journal (phys. stat. sol. (a) and (c)). Detailed instruction can be found in the web site.

Key Dates:

Start of abstracts submission: March 25, 2014

Deadline of Abstracts Submission: May 7, 2014

Notification of acceptance: early June, 2014

• Full paper submission: September 20, 2014.

Contributions are invited in the following topics:

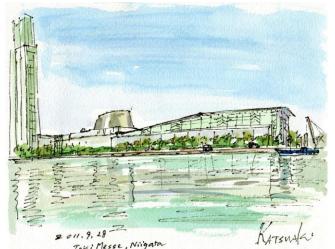
- 1. Growth and preparation techniques; bulk materials, thin films, nanostructured materials, nanoscale structures
- 2. Characterization techniques, including large scale facilities
- 3. Computational material design and modeling
- 4. Photovoltaic materials and applications (CIGSSe, CZTS, CTS, etc.)
- 5. New high-efficiency solar-cell design based on multi-junction, nano-dots, mid-gap-state, and others
- 6. Light emitting materials and devices
- 7. Spintronic, thermoelectric, multiferroic and superconductive materials and applications
- 8. Miscellaneous

Symposium I: Any new photovoltaic materials superior to CIGS?

Symposium II: Advanced characterization of solar cells Symposium III: Multinary materials in the next generation

Invited Speakers (tentative):

- [Plenary] Masafumi Yamaguchi (Japan): Fundamentals and R&D Status of III-V Compound Solar Cells and Materials
- [Plenary] Katsumi Kushiya (Japan): High efficiency and large volume production of CIS-based modules
 - Clemens Heske (the United States): Using soft x-rays and electrons to determine the electronic structure of multinary semiconductors for solar energy conversion
 - Susan Schorr (Germany): Point defect characteristics of quaternary compound semiconductors
 - · S.-H. Wei (the United States): First-principles design of multinary compounds for energy applications
 - · Oki Gunawan (the United States): Development of high performance CZTSSe solar cells
 - Dirk Poelman (Belgium): Persistent luminescence: materials and applications
 - Masashi Ishii (Japan): Selective atomic-scale-evaluation of luminescent rare-earth dopants: Site-selective x-ray absorption fine structure using x-ray excited optical luminescence (XEOL-XAFS)
 - Joachim Paier (Germany): Redox properties and reactivity of Au/ceria and VOx/ceria interfaces: Insights, pitfalls, and caveats born out of DFT
 - Hideo Hosono (Japan): Hydrogen-bearing iron-based superconductors
 - Jun Akimitsu (Japan): The new superconductor recently discovered by our group
 - Koki Takanashi (Japan): Advanced spintronic materials based on ordered alloys
 - Sadamichi Maekawa (Japan): Spin Current and Spin Seebeck Effect
 - Takahisa Arima (Japan): Toward the electric-field control of magnetization in matter
 - · Yuji Sutou (Japan): Phase change characteristics of Cu-Ge-Te ternary film and its application to PCRAM
 - Ion Tiginyanu (Moldova): Nanostructuring of Semiconductor Compounds by Design
 - · Nazim Mamedov (Azerbaijan): TlMeX₂: Band Structure, Optical Properties and Application



Conference organization:

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Program Chair: Kazuki Wakita, Chiba Institute of Technology, 2-17-1 Tsudanuma, Narashino, Chiba 275-0016, Japan.

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Registration: Registration can be made electronically through our web site after May 24, 2014.

Regular registration: 60,000 Japanese Yen (JPY) per person.

Early registration: 50,000 JPY before August 5, 2014 at the same conditions as the Regular registration.

Regular student rate: 35,000 JPY per person. Early student rate: 30,000 JPY before August 5, 2014 at the same

conditions as the Regular student rate. A student ID is necessary to apply this fee. **Banquet:** 6,000 JPY per person. (September 4 18:00-20:00 • Hotel Nikko Niigata)

Conference excursion: 2,500 JPY per person. (September 4 14:30-17:30 · North Culture Museum (a wealthy landowner's

house of the olden days))

Accommodation:

For details on accommodation and hotel reservation, please visit the conference web site.

Access information:

TOKI MESSE (Niigata Convention Center), 6-1 Bandaijima, Chuo-ku, Niigata City, Niigata 950-0078, Japan.

(15 min. by buss, 5 min.by taxi, or 20 min. by walk from Niigata Station to TOKI MESSE)

http://www.tokimesse.com/english/access/index.html

City Niigata is the main island's first ordinance-designated city on the west coast of Japan. Niigata City's transportation infrastructure is equipped with an international airport and harbor, bullet train, and a network of highways. It takes 2 hours from Tokyo Station by bullet train (Joetsu Shinkansen) or an hour from Narita Airport by airplane. Niigata City also has a rich natural environment with many bodies of water, including two large rivers, lagoons and wetlands. The fertile fields of the vast Echigo Plain produce a multitude of rice-based products and agricultural produce. You can enjoy good food and sake in the urban port city of Niigata.

Joetsu Shinkansen from Tokyo to Niigata

http://www.jreast.co.jp/e/routemaps/joetsushinkansen.html

Flight information of Niigata Airport

http://www.niigata-airport.gr.jp/flight/?lang=en

