# **ISBB2019**

## 20<sup>th</sup> International Symposium on Boron, Borides and Related Materials



September 22<sup>th</sup> (Sun) - 27<sup>th</sup> (Fri), 2019 "Toki Messe" (Niigata Convention Center) Niigata City, Niigata, Japan

### FIRST ANNOUNCEMENT

International Symposium on Boron, Borides and Related Materials (ISBB) began at Asbury Park, New Jersey in 1959. More than half century passed from the first symposium ISBB will reach 20<sup>th</sup> Symposium which will be held in beautiful town Niigata, Japan in 2019. 20<sup>th</sup> Symposium will be devoted to recent progress on physical and chemical properties and practical applications of exotic boron and related materials. We hope to meet you in Niigata, the center of the coast of the Sea of Japan with gourmet and nature.

Further Information will be available at: ISBB2019 web site: http://www.sogalabo.jp/isbb2019/

#### **Scientific Program**

The Symposium will integrate both basic and applied interdisciplinary research that is centered on **Boron, Borides and Related Materials.** 

Oral and poster contributions are invited in the following areas:

- **Preparation of New Materials** (single crystals, thin films, nanomaterials, ceramics, coatings, glasses, composites, biopolymers etc.) *in normal and extreme conditions* (super-high pressure, ultracentrifuging, microgravity).
- *Crystal Structure and Chemical Bonding* (nonstoichiometry, defects, clusters, quantum-chemical calculations).
- Physical and Chemical Properties

   (band structure, phonon spectra, superconductivity, optical, electrical, magnetic, emissive, mechanical properties, phase diagrams, thermodynamics, catalytic activity etc.) in a wide range of temperature and pressure.
- Applications and Prospects

   (memory elements, thermoelectric converters, composites, ceramics, coatings, biomedicine etc.)

Plenary lectures and Special Session are planned. English will be the Symposium language.

#### Registration

Participants should register preliminary through the following ISBB2019 web site. ISBB2019 web site: http://www.sogalabo.jp/isbb2019/

#### Proceedings

Solid State Sciences (Special Issue)

#### Location

The Symposium will be held in Niigata City, Niigata (http://enjoyniigata.com), at the Niigata Convention Center "Toki Messe" (https://www.tokimesse.com/english/index.html), situated within 10 minutes by public transport or 20 minutes on foot from the downtown. In the end of September, hot and humid weather will almost finish in Japan, and we are certain that you and your family will enjoy many places of scenic, historical and cultural interests offered by Niigata City. Japan is facing two large units of ocean, the Pacific Ocean and the Sea of Japan. Located at the center of the coast of the Sea of Japan, Niigata has been one of the important places for marine transport from ancient time. Also, it has been a cultural contact point between the Eurasia and Japan. With famous quality rice, seafood and Sake (Japanese rice wine), Niigata is one of the most attracting places to visit in Japan.

#### **Organizing Committee**

K. Kimura, *Chairman* (The University of Tokyo)
M. Takeda, *Secretary* (Nagaoka University of Technology)
Takuya Fujima (Tokyo city University)
Kaoru Kozu (Kokushikan University)
Iwao Matsuda (The University of Tokyo)
Ai Momozawa (Tokyo City University)
Takao Mori (National Institute for Materials Science)
Junpei Okada (Tohoku University)
Koin Sura (Tohoku University)
Kunio Yubuta (Tohoku University)

#### Symposium Addresses

#### Symposium Chair

Kaoru KIMURA Department of Advanced Materials Science, The University of Tokyo 502, Kiban-toh, 5-1-5 Kashiwanoha, Kashiwashi Chiba 277-8561, Japan TEL : +81-4-7136-5456 FAX : +81-4-7136-3758 E-mail : kbkimura@mail.ecc.u-tokyo.ac.jp E-mail : bkimura@phys.mm.t.u-tokyo.ac.jp

#### **Symposium Secretary**

Masatoshi TAKEDA Department of Mechanical Engineering, Nagaoka University of Technology 1603-1 Kamitomioka, Nagaoka-shi Niigata 940-2188, Japan TEL : +81-258-47-9714 FAX : +81-258-47-9770 E-mail : takeda@mech.nagaokaut.ac.jp