

NIMS Conference



NIMS
AWARD
2015

2015 Materials Innovation Driven by Advanced Characterization

July 14

NIMS Award Ceremony & Lecture

Prof. Harald Rose, Ulm University, Germany

Prof. Knut Wolf Urban, Jülich Research Centre, Germany

Prof. Maximilian Haider, Karlsruhe Institute of
Technology and CEOS, Germany

Plenary Lectures

Prof. Ernst Bauer, Arizona State University, USA

Prof. Yoshiaki Kiyonagi, Nagoya University, Japan

Prof. Shik Shin, The University of Tokyo, Japan

Prof. Michelle Simmons, University of New South Wales, Australia

July 15, 16

Technical Sessions

TS-1: 3D/In-Situ Electron Microscopy

TS-2: High Resolution Electron Microscopy

TS-3: Advanced Probe Microscopy

TS-4: Microscopic Imaging of Spin and Magnetism

TS-5: Advanced Synchrotron Radiation Analysis

TS-6: Advanced Neutron Beam Analysis

TS-7: Advanced Solid-state NMR

TS-8: Materials Informatics by Advanced Characterization

TS-9: GREEN Innovation by Operando Characterization

Poster Session & Poster Award Ceremony

July 15, 17:30-19:30, Multi Purpose Hall

Satellite Symposium

July 15 and 16, Epochal Tsukuba, Room 303

Tsukuba nano MA 2015: Nanomaterials and Nanoarchitectures

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2015 7/14-16

[Tue] [Thu]

Tsukuba International Congress Center

EPOCHAL TSUKUBA

Abstract Submission Deadline: June 1st, 2015

Registration fee: Free

Online Registration Deadline: June 26th, 2015

<http://www.nims.go.jp/nimsconf/2015>

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NIMS Conference 2015

Materials Innovation Driven by Advanced Characterization

2015 7/14 -16

Tsukuba International
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Aim and scope:

NIMS Conference 2015 focuses on the "advanced characterization technologies" contributing to innovations in novel and high-performance materials. Novel functional materials for energy, environment, IT, life science, and other fields are in high demand to realize a sustainable society. It is the materials characteristics (structures, compositions, states, etc.) that generate the useful functionalities of "advanced materials" in response to social needs. In this regard, various demands are assigned to advanced characterization: firstly, the further pursuit of high resolution and high sensitivity, and secondly, the development of operando characterization connected with applications owing to its possibility of accelerating materials innovation.

To clarify the fundamental mechanisms of materials functionalities, elucidation based on characterization, theory, and computational science is demanded. In particular, because of the rapid increase in the amount of data and information, the new concept of "materials informatics" has become indispensable. Advanced characterization technologies have attracted worldwide attention as being critical to innovation, and global research projects are underway. Since characterization instrumentation and methodologies are connected with global industrial applications, international standardization is also needed. Therefore, collaboration of academia and industry beyond geographical borders is essential for projects from basic sciences to industrial applications.

Recognizing the importance of advanced characterization to drive materials innovation in the 21st century, NIMS has pursued research projects in the field of advanced characterization and taken the lead in international standardization efforts in cooperation with researchers from different fields.

In order to discuss these key issues, NIMS will organize the "NIMS Conference 2015" entitled "Materials Innovation Driven by Advanced Characterizations" from July 14th to 16th, 2015, in Tsukuba. This conference covers the state-of-the-art characterization techniques for advanced materials research, such as high-resolution electron microscopy, 3D/in situ electron microscopy, advanced probe microscopy, microscopic imaging of spin and magnetism, advanced synchrotron beam analysis, advanced neutron beam analysis, advanced solid-state NMR, materials informatics by advanced characterization, and operando characterization for green innovation.

We hope this conference will provide new insights and ideas in innovative materials research based on advanced characterization and analysis technologies.

Program at a glance

July 14

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Poster Session & Poster Award Ceremony

NIMS Award 2015

NIMS will present the NIMS Award to a person who has made distinguished achievements in research and development in the field of advanced characterization for materials innovation in recent years and as well as valuable contribution to NIMS previously or in the near future.

Call for Contributed Papers

(Abstract Submission Deadline: June 1st, 2015)

We welcome contributed papers for poster presentation. Excellent papers will be selected for poster awards.
(<http://www.nims.go.jp/nimsconf/2015>)

Registration (Deadline: June 26th, 2015)

The registration fee for the NIMS Conference is free. For all participants, the online registration (<http://www.nims.go.jp/nimsconf/2015>) is highly recommended. The registered participants can receive admission to all scientific sessions, an abstract book and a ticket for the conference banquet (July 14th).

Venue

Tsukuba International Congress Center (EPOCHAL TSUKUBA)
2-20-3 Takezono, Tsukuba, Ibaraki 305-0032, Japan
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In cooperation with:

The Physical Society of Japan (JPS) / The Chemical Society of Japan / The Japan Institute of Metals and Materials / The Surface Science Society of Japan / The Institute of Electronics, Information and Communication Engineers / Catalysis Society of Japan / The Japanese Society for Neutron Science / Japanese Association for Crystal Growth / The Society of Materials Science, Japan / The Spectroscopical Society of Japan / The Laser Society of Japan / Advanced Characterization Nanotechnology Platform / The Magnetics Society of Japan / The Japan Society for Analytical Chemistry / The Materials Research Society of Japan / The Surface Finishing Society of Japan / Atomic Energy Society of Japan