NIMS CONFEREN

Structural Materials Science and Strategy for Sustainability - Back to the Basics -

June 4

NIMS Award Ceremony & Lecture

[To be Announced]

Plenary Lectures

Dr. Jeff Hawk (The National Energy Technology Laboratory, DOE, USA) **Prof. Dierk Raabe** (Max-Planck-Institut fuer Eisenforschung, GERMANY)

Prof. Nack Joon Kim (POSTECH, KOREA)

Prof. Yoshinao Mishima (Tokyo Institute of Technology, JAPAN)

Dr. Manabu Takahashi (Nippon Steel Corporation, JAPAN)

June 5, 6

Technical Sessions

TS-1: Safe and Secure in Infrastructures

TS-2: Surface Science for Harsh Environment

TS-3: The New Strategy for Microstructures and **Mechanical Properties**

TS-4: Advanced Microstructural Characterization and Modeling -Present Situation and Future Perspectives-

TS-5: Materials Reliability and Database

Poster Session

Call for Papers for Poster Session Submission Deadline: March 30, 2012

2012/JUNE

Mon

Tsukuba International Congress Center

EPOCHAL TSUKUBA

Registration fee: Free

Online Registration Deadline: May 25 (http://www.nims.go.jp/nimsconf/2012)



NIMS Conference 2012

Structural Materials Science and Strategy for Sustainability

– Back to the Basics –

June 4-6, 2012

Tsukuba International Congress Center (Epochal Tsukuba)

http://www.nims.go.jp/nimsconf/2012

Aim and scope:

Structural materials (e.g. metals, ceramics and polymers), which support the basis of our society such as infrastructure or transportation facilities, is essential for our secure, safe and affluent living. Also the structural materials should take full responsibility for the future and contribute to overcome the issues of the environment, energy and resources now emerging on a global scale. Their consumption and economic scale are far more predominant than those of other materials, and therefore, the social ripple effect can be significant. In addition, major disaster caused by the Great East Japan Earthquake on the March 11th, 2011, Tohoku and Kanto regions have suffered an unprecedented damage. Because of this disaster, subjects such as "verification and ensuring of structure reliability", "securing of the safety of facility relevant to nuclear power" and "construction of a secure and safe society" became more serious concerns than they ever had been before. The structural materials should be evolved further more to fulfill these responsibilities.

On the other hand, the research and development of structural materials have a long history and the accumulated enormous knowledge is a heritage for mankind. However, it is also true that the performance of structural materials has reached a plateau due to their long history. In order to break through this situation, we should free ourselves from the traditional and conventional concept, and revolutionary guiding principle should be needed by getting back to basics. Research of the structural materials is now facing at a huge turning point and we, the next generation, have to find out what should be accumulated on the achievements of predecessors.

National Institute for Materials Science (NIMS) is pleased to announce "NIMS Conference 2012" to be held from June 4 to 6, and young scientists for structural materials play a key role as a host. Under the theme of "Structural Materials Science and Strategy for Sustainability - Back to the Basics -", we expect to have an extensive discussion on the issues of reconstruction from the disaster of the earthquake, verification of structure reliability, energy-saving materials and fundamental problems accompanying the development of materials for high safety.

During NIMS Conference, there will be a NIMS Award ceremony to praise the researchers who had made distinguished achievements in research and development in the field of structural materials, award-winning lectures, and plenary lectures by leading international scientists from all over the world, followed by 5 technical sessions.

Program at a glance

[June 4, Monday]

NIMS Award Ceremony & Lecture

To Be Announced

Plenary Lectures

Dr. Jeff Hawk (The National Energy Technology Laboratory, DOE, USA) **Prof. Dierk Raabe** (Max-Planck-Institut fuer Eisenforschung, GERMANY) **Prof. Nack Joon Kim** (POSTECH, KOREA)

Prof. Yoshinao Mishima (Tokyo Institute of Technology, JAPAN) **Dr. Manabu Takahashi** (Nippon Steel Corporation, JAPAN)

[June 5, Tuesday – 6, Wednesday]

Technical Sessions

- TS-1: Safe and Secure in Infrastructures
- TS-2: Surface Science for Harsh Environment
- TS-3: The New Strategy for Microstructures and Mechanical Properties
- TS-4: Advanced Microstructural Characterization and Modeling
 -Present Situation and Future Perspectives-
- TS-5: Materials Reliability and Database

Poster Session (June 5)

NIMS Award 2012

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

Registration (Deadline: May 25, 2012)

The registration fee for the NIMS Conference is free. For general participants and students, the online registration (http://www.nims.go.jp/nimsconf/2012) is highly recommended. The registered participants can receive admission to all scientific sessions, an abstract book and a ticket for the conference banquet (June 4).

Venue

Tsukuba International Congress Center (EPOCHAL TSUKUBA) 2-20-3 Takezono, Tsukuba, Ibaraki 305-0032, Japan tel: +81-29-861-0001 fax: +81-29-861-1209 (http://www.epochal.or.jp/eng/index.html)

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