

The Symposium on Hybrid Nano Materials Toward Future Industries
(HNM 2015)



International Symposium on Hybrid Nano Materials Toward Future Industries
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SYMPOSIUM PERIOD

February 9(Mon) - 11(Wed), 2015

Nagaoka University of Technology

SCOPE OF SYMPOSIUM

The International Symposium on Hybrid Nano Materials Toward Future Industries 2015 (HNM 2015) is the third conference after the first symposium held in 2006 as HNM 2006. The purpose of this joint symposium is to bring together state-of-the-art developments on all aspects related to processing, structures and properties of advanced nano materials including ceramics, metals, polymers, hybrids and composites. The key issue is not only for research topics on materials science but also development of young engineers with global competency. This symposium will be focused on the industrialization of above mentioned new materials that is essential for the sustainable future society.

ORGANIZING COMMITTEE

Chair:

K. Niihara, Nagaoka University of Technology, Japan

Co-chairs:

K. -H. Kim, Pusan National University, Korea

K.-B. Shim, Hanyang University, Korea

P. K. Song, Pusan National University, Korea

Members:

Y. K. Jeong, Pusan National University, Korea

M. C. Kang, Pusan National University, Korea

Y. Miyashita, Nagaoka University of Technology, Japan

T. Nakayama, Nagaoka University of Technology, Japan

M. Nanko, Nagaoka University of Technology, Japan

H. Suematsu, Nagaoka University of Technology, Japan

M. Takeda, Nagaoka University of Technology, Japan

Secretariat:

H. Suematsu, Nagaoka University of Technology, Japan

TOPICS of HNM 2015

The scientific program will consist of plenary and invited lectures, submitted oral contributions and poster presentations on science and technology of nano hybrid materials and their industrialization. Furthermore, methodologies of global engineering education are also included in HNM 2015. Topics of interest include but not limited to:

Ceramics, Metals, Polymers, Composite materials, Hybrid Materials, Glass and Glass Ceramics, Processing Technology, Materials Machining, and Nano-Technology

LANGUAGE

English will be the official language during the Conference.

Program

- 9:00-9:30 Opening Remarks
(K. Niihara, Nagaoka University of Technology, Japan)
- 9:30-10:00 Hybrid Interface Materials
(K. H. Kim, Pusan National University, Korea)
- 10:00-10:20 Break
- 10:20-10:40 Research Activities on Pulsed Electric Current Sintering for Future Materials Industries
(M. Nanko, Nagaoka University of Technology, Japan)
- 10:40-11:00 Effect of Synthesize Condition on Thermoelectric Properties of Divalent Hexaboride
(M. Takeda, Nagaoka University of Technology, Japan)
- 11:00-11:20 Conductive Polyaniline Grafted From the Surface-Modified Carbon Nanotubes
(J. M. Yun, Pusan National University, Korea)
- 11:20-11:40 Fabrication of Composite Material at Welded Region in Friction stir Spot Welding of PVC
(Y. Miyashita and Y. Kurabe, Nagaoka University of Technology, Japan)
- 11:40-13:30 Lunch
- 13:30-14:00 Museum and Campus Tour
- 14:00-14:20 A Study on the Feasibility of Fusion Process using Microwave and High Temperature Heating Element for the Purification of Oil-contaminated Soil
(M. Y. You, Pusan National University, Korea)
- 14:20-14:40 Insulating Thermal Diffusion Routes by Boron Nitride Ceramics in Polymer-nanocomposites
(H. B. Cho, Nagaoka University of Technology, Japan)
- 14:40-15:00 Water Containing High T_c Superconductors
(H. Suematsu, Nagaoka University of Technology, Japan)
- 15:00-15:20 Break
- 15:20-15:30 Sintering of Y-Ti-O Powders
(N. S. Thanh, The University of Da Nang, Vietnam)
- 15:30-15:40 Development of a Testing Apparatus for Wether-Resistance (M. G. del Rocio Herrera Salazar, The University of Guanajuato, Mexico)
- 15:40-15:50 Study of the Catalytic Behavior of the Amorphous Materials due to Ionization Tendency
(J. H. Kim, Pusan National University, Korea)
- 15:50-16:00 Fabrication of Ceramic Sintered Body with Artificial Micrometer Sized Pores and its Observation by a X-ray CT Scanner

(H. Murayama, Nagaoka University of Technology, Japan)

- 16:00-16:10 Fabrication of Organic-Inorganic Composites Using a 3D-Printer
(H. Akiyama, Nagaoka University of Technology, Japan)
- 16:10-16:20 Vanadium Effect on Mechanical Properties of Cr-C-V-N Hard Coatings
(C. W. Song, Pusan National University, Korea)
- 16:20-16:30 Evaluation of CdTe Thick Films for Direct Conversion X-ray Detector
(M. J. Kim, Pusan National University, Korea)
- 16:30-16:40 Pattern Formation of Ultra-fine Self-assembled Nanostructures using Binary Solvents.
(Y. J. Choi, Pusan National University, Korea)
- 16:40-16:50 Atomic Layer Deposition of ZnO Thin Films using Et₂Zn:NEtMe₂ Precursor
(D. K. Lee, Pusan National University, Korea)
- 16:50 Closing Remarks