



International Symposium on Ceramics Nanotune Technology for Young Researchers

Institute of Ceramics Research and Education, NITech

—March 7 (Wed.) ~ 9 (Fri.), 2012—

Place: Auditorium of Nagoya Institute of Technology (March 7*)

Gokiso-cho, Showa-ku, Nagoya 466-8555

Nagoya Trade & Industry Center (March 8 – 9)

2-6-3 Fukiage, Chikusa-ku, Nagoya 464-0856

*Co-organized by Center for Fostering Young and Innovative Researchers.

In this international symposium, world-leading young researchers will be invited to discuss on the present and future of ceramics nanotune technology for next-generation materials. ITP exchange students will also report on their international collaborations. The registration is free.

Invited speakers

Materials Design for Energy Applications

1. **Martyn A. McLachlan (Imperial College London, UK)**

"The role of metal oxides in plastic electronics"

2. **Yiping Guo (Shanghai Jiao Tong University, China)**

"Photovoltaic and diode effect in BiFeO₃ thin films deposited on glass substrates with sol-gel method"

3. **Kim Sung-Soo (Chungnam National University, Korea)**

"Effect of conductive additives on the structural and electrochemical properties"

4. **Kisuk Kang (Seoul National University, Korea)**

"Design of electrode materials for lithium rechargeable batteries by integrating *ab initio* calculations with experiments"

Materials Design for Biomedical Applications

5. **Julian R Jones (Imperial College London, UK)**

"Tough bioactive hybrids for bone regeneration and the role of calcium"

6. **Gavin Jell (University College London, UK)**

"O₂ regulating bioactive glasses: breathing new life into tissue engineering"

7. **Ulrich Lohbauer (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)**

"Mechanical aspects in dental restorative treatment with highly filled methacrylic polymer filling materials"

Control of Defects and Microstructure

8. **Tobias Fey (Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany)**

"Cellular ceramics"

9. **J.R. Duclere (Université de Limoges, France)**

"Photoluminescence properties of Eu³⁺ doped ZrO₂ nanomaterials"

10. **Yukari Ishikawa (Japan Fine Ceramics Center)**

"Defects induced by mechanical treatment in 4H-SiC substrate"

11. **Hiroshi Fudouzi (National Institute for Materials Science)**

"Microstructure controlled advanced materials using templates of elastic silicone elastomer molds and colloidal crystals"

Smart Chemical Processing

12. **Emanuel Ionescu (Technische Universität Darmstadt, Germany)**

"Polymer-derived ceramic nanocomposites (PDC-NCs): synthesis approaches and high-temperature behavior"

13. **Gabriela Mera (Technische Universität Darmstadt, Germany)**

"Nanostructure, properties and applications of Si(B)CN polymer-derived ceramics: recent developments"

14. **Yusuke Daiko (University of Hyogo)**

"Advanced functional eco-glasses prepared via spinodal-type phase separation"

15. **Manabu Fukushima (National Institute of Advanced Industrial Science and Technology)**

"Fabrication and microstructural control of macroporous ceramics"

