

Osaka University – NIMS Young Scientist Symposium on Advanced Structural and Functional Materials Design

10 November 2008
HOTEL HANKYU EXPO PARK, Osaka, Japan

Organized by

Global COE Program "Center of Excellence for Advanced Structural and Functional Materials Design"
National Institute for Materials Science

PROGRAM

Session A (GEKKO 1)

- 13:00 **Chunping Hu** (University of Tokyo, National Institute for Materials Science)
"Recent Advances in Time-Dependent Density Functional Theory within Linear Response:
Towards the Computational Design of Photochemical Reactions"
- 13:20 **Takashi Kamegawa** (Osaka University)
"Preparation and Characterization of Single-site Photocatalysts and their Applications in
Selective Catalytic Reactions"
- 13:40 **Break**
- 13:50 **Koji Hagihara** (Osaka University)
"Cyclic Deformation Behavior in Beta-type Ti-Nb-Ta-Zr Alloys Single Crystals with Different
Nb Content"
- 14:10 **Antonio Torralba** (National Institute for Materials Science)
(tentative: Artificial endonucleases based on oligonucleotide-ruthenium complexes)

- 14:30 **Sayaka Miyabe** (Osaka University)
“Change in Preferential Alignment of Biological Apatite in Osteoporotic Vertebral Bone”
- 14:50 **Coffee Break**
- 15:10 **Aya Suzuki** (University of Cambridge, National Institute for Materials Science)
“Secondary Reaction Zone Formations in coated Ni-base Single Crystal Superalloys”
- 15:30 **Keisuke Yamaoka** (Osaka University)
"Photoluminescent properties of Er-doped ZnO thin films grown by metalorganic chemical vapor deposition "
- 15:50 **Xiaosheng Fang** (National Institute for Materials Science)
“One-dimensional (1D) ZnS Nanostructures: From Synthesis to Application”
- 16:10 **Break**
- 16:20 **Ryusuke Nakamura** (Osaka University)
“Hollow Oxide Formation via Oxidation of Metal Nanoparticles”
- 16:40 **Lionel Vayssieres** (National Institute for Materials Science)
"Design and Electronic Structure of Metal Oxide Quantum dots and rods"

Session B (GEKKO 2)

- 13:00 **Cesar Pay Gómez** (National Institute for Materials Science)
“Structure Analysis of Complex Metallic Alloys in the Eu-Ag-In System by X-ray Diffraction”
- 13:20 **Sahar Farjami** (Osaka University)
“Control of microstructure during disorder-order transformation in L1₀-type ferromagnetic intermetallics under magnetic field”
- 13:40 **Alexei A. Belik** (National Institute for Materials Science)
“Effects of doping on structural, physical, and chemical properties of multiferroic BiMnO₃ and BiCrO₃”

14:00 **Break**

14:10 **Atsushi Fukuda** (Osaka University)

“Measurement of solid-liquid interfacial energies in alloy by observation of solid-liquid gas interface shape”

14:30 **Koushi Ohta** (Osaka University)

“Study on Movement of Solder Fillers in Resin in Self-Organized on Assembly Method”

14:50 **Coffee Break**

15:10 **Byung Joo Park** (National Institute for Materials Science)

“Nano-structured materials design with phase separation”

15:30 **Masanori Suzuki** (Osaka University)

“Prediction of Phase Separation in Multi-component Silicate Glass for Fabricating Porous Glass Materials from Waste Slag”

15:50 **Mingsheng Xu** (National Institute for Materials Science)

“Graphoepitaxial Growth of Organic Crystalline Films and its Application in Organic Field-Effect Transistors”

16:10 **Break**

16:20 **Yu Shiratsuchi** (Osaka University)

“Improvement of magnetic thermal stability of ultrathin film using antiferromagnetic underlayer”

16:40 **Ammanabrolu Rajanikanth** (National Institute for Materials Science)

“Development of Heusler alloys for the magneto resistive devices”