

15 January 2008

Memorial Hall for Materials Science, Graduate School of Engineering, Osaka University

Opening Session

9:00–9:45

Chair person: Prof. Shinji FUJIMOTO

Prof. Yukichi UMAKOSHI

Prof. Tomoyuki KAKESHITA

Prof. Tae-Yoen SEONG

9:45–10:00 Break

Session I

Chairperson: Prof. Toshihiro TANAKA

10:00–10:25 Prof. Sahn NAHM

“Structural and Electrical Properties of the $\text{Bi}_5\text{Nb}_3\text{O}_{15}$ Thin Films for the Metal–Insulator–Metal Capacitor with Low Processing Temperature”

10:25–10:50 Prof. Ryoichi NAKATANI

“High-density magnetic memory cells”

10:50–11:15 Prof. Young Keun KIM

“Barcode Nanowires: Synthesis, characterization, and properties”

11:15–11:40 Prof. Tomoyuki TERAI

“Charge Ordering Transition and Magnetic Transition in Perovskite Manganites and Layered Perovskite Manganites”

12:00–13:30 Lunch Break (Restaurant, La Scena)

Session II

Chairperson: Prof. Hideyuki YASUDA

13:40–14:05 Prof. Ho Jang

“Compositional effects of the brake friction materials on the brake performance and analysis of sliding interfaces”

14:05–14:30 Prof. Soshu KIRIHARA
“Terahertz Wave Control of 3D Metal and Ceramic Structures Fabricated by Using Micro–stereolithography”

14:30–14:55 Prof. Jong–Heun LEE
“Grain–Boundary Engineering in Stabilized Zirconia and Gadolinia–Doped Ceria”

14:55–15:20 Prof. Yasufumi FUJIWARA
“Injection–type light–emitting devices fabricated by atomically controlled doping of Er to GaAs”

15:20–15:40 Break

Session III

Chairperson: Prof. Yasufumi FUJIWARA

15:40–16:05 Prof. Jae–Chul Lee
“Enhancement of the Plasticity of a Bulk Amorphous Alloy Using Shear Deformation Processes”

16:05–16:30 Prof. Akio HIROSE
“A Novel Bonding Process Using Ag Metallo–Organic Nanoparticles”

16:30–16:55 Prof. Joonho LEE
“Application of Microwave Processing”

16:55–17:20 Prof. Hideyuki YASUDA
“Time–resolved X–ray imaging for observing solidification of metallic alloys and its application”

17:20–17:30 Prof. Akio HIROSE
“Closing Remarks”

18:00–20:00 Banquet (Restaurant, La Scena)

16 January 2008

Young Scientists Symposium

GSE Common Satellite (BOT), Graduate School of Engineering, Osaka University

Presentations A (BOT US1-203)

Chairpersons: Masanori SUZUKI (Osaka Univ.), Hwi Yeol PARK (Korea Univ.)

- 8:50-9:05 Masanori SUZUKI
"Prediction of Phase Separation in Multi-component Oxide Glass for the Creation of Porous Glass from Waste Slag"
- 9:05-9:20 Yuji GOTO
"Synthesis and sintering of Y-doped ZrO₂ nanocrystals through nonhydrolytic sol-gel method"
- 9:20-9:35 Hwi Yeol PARK
"Effect of CuO on the Sintering Temperature and Piezoelectric Properties of (Na_{0.5}K_{0.5})NbO₃ Lead-Free Piezoelectric Ceramics"
- 9:35-9:50 Katsuhiko NOSE
"Synthesis of ZnS/CuInS₂ core/shell colloidal nanocrystals"
- 9:50-10:05 In-Sung HWANG
"Synthesis of metal oxide nanowires and their optical and chemical sensing characteristics"
- 10:05-10:20 Chang Hak CHOI
"Structural and Electrical Properties of the Bi₆Ti₅TeO₂₂ Thin Films Grown on the Pt/SiO₂/Si Substrate"
- 10:20-10:30 Break

Chairpersons: Mizue MIZOSHIRI (Osaka Univ.), Kyung-Kook HONG (Korea Univ.)

- 10:30-10:45 Sung Bin PARK
"Electrochemical properties of the metal doped LiFePO₄"
- 10:45-11:00 Keisuke YAMAOKA
"Growth of Transition-Metal-Doped ZnO Thin Films by Plasma-Enhanced Chemical Vapor Deposition Combined with RF Sputtering"
- 11:00-11:15 Heung-Taek BAE
"Effect of Tribological Properties Variation of Surface Modification to Carbon from SiC"

- 11:15–11:30 Sayoko SHIRONITA
“Synthesis of nano-sized metal on single-site photocatalyst using a photo-assisted deposition”
- 11:30–11:45 Kyoung-Kook HONG
“Chemical reactions for the Ag crystallite formation in Ag thick-film contacts of crystalline Si solar cells”
- 11:45–12:00 Mizue MIZOSHIRI
“Silica-based diffractive-refractive hybrid lenses fabricated by femtosecond laser lithography-assisted micromachining”

Presentations B (BOT US1-204)

Chairpersons: Takanobu SATO (Osaka Univ.) , Keunhyung CHO (Korea Univ.)

- 8:50–9:05 Takanobu SATO
“Magnetic behavior and structure of Mn-AlN films with various Mn concentrations”
- 9:05–9:20 Sahar FARJAMI
“Magnetic field-control of microstructure in CoPt alloy”
- 9:20–9:35 Ji Hyun MIN
“Effect of Cu and Au doping on the magnetic properties of CoPt nanowires”
- 9:35–9:50 Jae-hwa LEE
“Effect of magnetic field on $\gamma \rightarrow \varepsilon' \rightarrow \alpha'$ martensitic transformation in SUS304L stainless steel”
- 9:50–10:05 Kyoung-Won PARK
“Atomic packing density effect on the properties of Cu-Zr amorphous alloys”
- 10:05–10:20 Keunhyung CHO
“Corrosion resistance of chromized 316L stainless steel for PEMFC bipolar plates”
- 10:20–10:30 Break

Chairpersons: Sayaka MIYABE (Osaka Univ.) , Ki Eun KIM (Korea Univ.)

- 10:30–10:45 Hiroaki KUSHIDA
“Stress-temperature phase diagram of stoichiometric Ni₂MnGa”

- 10:45–11:00** Motoyoshi YASUI
“Exchange and quadrupole interactions in DyCu”
- 11:00–11:15** Chang-Myeon LEE
“Work Hardening Behavior in a Bulk Amorphous Matrix Composite”
- 11:15–11:30** Sang-Hoon LEE
“Effect of Biomaterials Implantation on Bone Microstructure”
- 11:30–11:45** Ki Eun KIM
“Detection of glucose by using ZnO nanoparticles”
- 11:45–12:00** Sayaka MIYABE
“2D Quantitative Analysis of Preferential Alignment of BAp c-axis for Human Trabecular Bone using Microbeam X-ray Diffractometer System”