

December 2, 2013 (Monday)

Room A

Opening Ceremony (9:00~9:20)

02AL01 (9:20~10:10)
“New Data Resources and Applications for AES, XPS, and EPMA”
C. J. Powell (*National Institute of Standards and Technology*)

02PL01 (10:10~11:00)
“Atomically Resolved Force Microscopy”
S. Morita (*Osaka University*)

—Break—

02AM01 *Withdrawn*

02AM02 (11:50~12:20) —Invited—
“Distinction of Nuclear Spin States with the Scanning Tunneling Microscope”
F.D. Natterer, F. Patthey and H. Brune (*Ecole Polytechnique Fédérale de Lausanne*)

02AM03 (12:20~12:50) —Invited—
“Chiral Magnetic Domain Wall Structure in Epitaxial Multilayers”
G. Chen, J. Zhu, A.T. N'diaye, T. Ma, H.Y. Kwon, C. Won, A.K. Schmid and Y. Wu
(*Fudan University*)

Room B

02BM01 (11:20~11:50) —Invited—
“Electron Holography: Problems and Prospects”
H. Lichte (*Technische Universität Dresden*)

02BM02 (11:50~12:20) —Invited—
“Holographic Imaging and Optical Sectioning in the Aberration-Corrected STEM”
H. Rose (*University of Ulm*)

02BM03 (12:20~12:50) —Invited—
“Advanced Technologies for Material Science in Aberration Corrected Scanning Transmission Electron Microscopy”
A. Yasuhara (*JEOL Ltd.*)

Room A

- 02AA01 (14:20~14:50) – *Invited*–
“**Time-Resolved Laser Spectroscopy at Transition Metal Oxide Surfaces**”
W. Widdra (*Universität Halle-Wittenberg*)
- 02AA02 (14:50~15:20) – *Invited*–
“**Watching Atoms Freeze: Ultrafast Time Resolved Electron Diffraction at Surfaces**”
M. Horn von Hoegen (*Universität Duisburg-Essen*)
- 02AA03 (15:20~15:50) – *Invited*–
“**Movie Mode Dynamic Transmission Electron Microscopy (DTEM)**”
B. W. Reed, T.B. Lagrange, W.J. Dehope, G. Huete, J.T. Mckeown, M.K. Santala, R.M. Shuttlesworth and G.H. Campbell (*Lawrence Livermore National Laboratory*)

–*Break*–

- 02AA04 (16:10~16:40) – *Invited*–
“**Analyzing Chiral Recognition at Surfaces by STM Manipulation**”
K.-H. Ernst (*Empa*)
- 02AA05 (16:40~17:00)
“**Influence of Morphology and Oxygen Stoichiometry on Zr-Doping into Cerium Oxide Film on Rh(111)**”
L.-H. Chan and J. Yuhara (*Nagoya University*)
- 02AA06 (17:00~17:20)
“**Towards Realtime Atomic Force Microscopy with Chemical Contrast**”
D. Damiron, Y. Toriyama, D. Kobayashi, S. Takeda, N. Sasaki and H. Kawakatsu (*The University of Tokyo*)
- 02AA07 (17:20~17:40)
“**Bond Order and Electronic Structure of Poly-Acetylene Derivatives Formed through Radical Cyclizations at a Surface**”
A. Riss, S. Wickenburg, L.Z. Tan, H.-Z. Tsai, D.G. de Oteyza, Y.-C. Chen, S.G. Louie, F. Fischer and M.F. Crommie (*UC Berkeley*)

Room B

- 02BA01 (14:20~14:50) – *Invited*–
“**Interfacial Chemistry of Surfaces under Ambient Humidity Studied using Ambient Pressure XPS**”
H. Bluhm (*Lawrence Berkeley National Laboratory*)
- 02BA02 (14:50~15:20) – *Invited*–
“**Atomic-Level Analysis of Size-Selected Metal Clusters Deposited on Surfaces for Automotive Exhaust Catalysts**”
N. Isomura, A. Beniya, K. Dohmae, H. Hirata and Y. Watanabe (*Toyota Central R&D Labs., Inc.*)

02BA03 (15:20~15:40)
“Novel in situ Techniques for Studies of Model Catalysts”
E. Lundgren, J. Gustafson, M. Shipilin, C. Zhang, S. Blomberg and J. Zetterberg
(*Lund University*)

—Break—

02BA04 (16:10~16:40) — *Invited*—
“Quantitative Atomic Resolution Environmental Transmission Electron Microscopy for Materials Process Characterization”
S. Takeda (*Osaka University*)

02BA05 (16:40~17:10) — *Invited*—
“Synchrotron Radiation Shed Light to *in Situ* and Dynamic Observation of High-Temperature Processes”
M. Kimura (*Nippon Steel & Sumitomo Metal Corp./High Energy Accelerator Res. Org.*)

02BA06 (17:10~17:30)
“Ambient Analysis with Wet-SIMS”
T. Seki, M. Fujii, S. Nakagawa, T. Aoki and J. Matsuo (*Kyoto University*)

Room A

02AN01 (19:20~19:50) — *Invited*—
“Atomic-Level X-Ray Mapping in Aberration-Corrected STEM: Challenges and Limitations toward Quantification”
M. Watanabe (*Lehigh University*)

02AN02 (19:50~20:20) — *Invited*—
“SEM-Based Diffraction Microscopy”
O. Kamimura, T. Dobashi, Y. Maehara and K. Gohara (*Hitachi, Ltd.*)

02AN05 (20:20~20:40)
“High Resolution Imaging and X-Ray Microanalysis in the FE-SEM”
R. Gauvin, H. Demers and N. Brodusch (*McGill University*)

02AS01 (20:40~21:00) — Sponsored Session — «JEOL»
“An Introduction of the Latest Varieties of Scanning Electron Microscopes and Its Applications”
K. Takahashi and T. Shinzawa (*JEOL Ltd.*)

02AN04 (21:00~21:30) — *Invited*—
“Visualization of Pn-Junction in Si Devices with Cross-Sectional STEM-EBIC Technique”
H. Tanaka, T. Ishikawa, K. Hanada, A. Misato and M. Tomita (*Toshiba Corp.*)

Room B

- 02BN01 (19:20~19:50) – *Invited*–
“Newly Developed Drug-Eluting Stent System for Cardiovascular Diseases”
T. Hasebe, T. Kigtagawa, S. Nagashima, T. Matsumoto, N. Kitamura, A. Hotta and
T. Suzuki (*Tokai University Hachioji Hospital/Tokai University School of Medicine*)
- 02BN02 (19:50~20:20) – *Invited*–
“Application of Imaging Mass Spectrometry for Biological Samples”
T. Hayasaka (*Hamamatsu University School of Medicine*)
- 02BN03 (20:20~20:40)
“Nanostructured Conducting Polymers for Controlled Cell Adhesion”
E. Moyen, A. Hama, E. Ismailova, L. Assaud, G. Malliaras, R. Owens and
M. Hanbücken (*Aix Marseille University - CINaM*)
- 02BN04 (20:40~21:10) – *Invited*–
“Focused Massive Cluster Ion Beams for Mass Imaging of Biological Materials”
J. Matsuo (*Kyoto University*)
- 02BN05 (21:10~21:30)
“A Study of Peptide Fragmentation by Ar Cluster Ions of Varying Size and Energy”
S. Aoyagi, T. Kawashima, M. Passarelli, R. Havelund, I.S. Gilmore and M. Kudo
(*Shimane University*)
- 05AA06 (21:30~21:50)
“Surface as a Foundation to Realizing Designer Materials”
H. Kasai, W.A. Diño and Y. Kawahito (*Osaka University*)

December 3, 2013 (Tuesday)

Room A

- 03PL01 (9:00~9:50)
“A New Spin to Information Technology”
C. M. Schneider (*Research Center Juelich*)
- 03AM01 (9:50~10:20) – *Invited*–
“New PEEM for 3D Atomic Arrangement around Specific Atoms”
S. Kitagawa, M. Morita, H. Matsuda, L. Toth, T. Matsushita, K. Goto, F. Matsui
and H. Daimon (*Nara Institute of Science and Technology*)
- 03AM02 (10:20~10:40)
“Allotropism in Ultrathin Bi-Films Governed by Quantum Size Effects”
B. Poelsema, T.R.J. Bollmann, R. van Gastel and H.J.W. Zandvliet (*University of Twente*)
- Break*–
- 03AM03 (11:00~11:30) – *Invited*–
“Microcrystal Characterization using Surface Electron Microscopy with Slow Electrons”
E. Bauer, L. Man, A. Pavlovska, A. Locatelli, T.O. Mendes, M.A. Niño and
M.S. Altman (*Arizona State University*)
- 03AM04 (11:30~11:50)
“Polarization Sensitive Surface Band Structure of Doped BaTiO₃(001)”
J. Rault, J. Dionot, C. Mathieu, V. Feyer, C. Schneider, G. Geneste and N. Barrett
(*CEA-Saclay*)
- 03AM05 (11:50~12:10)
“Energy Filtered Magnetic Circular Dichroism PEEM and Its Adaption to Magnetic Domain Deformation Due to Hydrogen Adsorption”
T. Nakagawa and T. Yokoyama (*Kyushu University*)
- 03AM06 (12:10~12:30)
“Exploring Interlayer Dirac Cone Coupling in Commensurately Rotated Few-Layer Graphene on SiC(0001)”
C. Mathieu, E.H. Conrad, N. Barrett, J. Rault, B. Zhang, W.A. de Heer, C. Berger
and O. Renault (*CEA*)
- 03AS01 (12:30~12:50) – Sponsored Session – **«SPECS»**
“New Developments and Future Trends in High-resolution LEEM and PEEM”
P. Stojanov (*SPECS Surface Nano Analysis Inc.*)

Room B

- 03BM01 (9:50~10:20) – *Invited*–
“**Transport Properties and Electronic Structure of Individual Metallic Quantum Dots on Dielectric Supports: A Local View**”
W.-D. Schneider (*Ecole Polytechnique Fédérale de Lausanne*)
- 03BM02 (10:20~10:40)
“**Complex Surface Chemistry of an Otherwise Inert Solvent Molecule: Tetrahydrofuran on Si(001)**”
M. Dürr, G. Mette, M. Reutzel, R. Bartholomäus, U. Koert and U. Höfer (*Justus Liebig University Giessen*)
- Break*–
- 03BM03 (11:00~11:30) – *Invited*–
“**Support-Morphology Induced Modification of Adsorbate Bonding to Nanoparticles**”
G. Thornton (*UCL*)
- 03BM04 (11:30~11:50)
“**Improvement of XANAM with a QPlus Sensor for Enhancing Chemical Sensitivity on Surface Analysis**”
S. Suzuki, S. Mukai, Y. Koike, K. Kinoshita, K. Fujikawa, C. Wang-Jae, M. Nomura and K. Asakura (*Nagoya University*)
- 03BS01 (11:50~12:10) – Sponsored Session – «**OMICRON**»
“**Advanced SPM Developments from Omicron NanoScience, the Division of Oxford Instruments**”
M. Maier (*Oxford Instruments Omicron NanoScience*) and R. Oiwa (*Omicron NanoTechnology Japan*)
- 03BM05 (12:10~12:30)
“**Structures and Growth Behavior of Multilayer Silicene**”
C.-L. Lin, R. Arafune, R. Nagao, K. Kawahara, N. Kawakamai, N. Tsukahara, M. Kawai and N. Takagi (*The University of Tokyo*)

Room A

- 03AA01 (14:20~14:50) – *Invited*–
“**Dynamic Magnetic Excitations in Atoms and Clusters -- from Femto Seconds to Minutes**”
W. Wulfhekel (*Karlsruhe Institute of Technology*)
- 03AA02 (14:50~15:20) – *Invited*–
“**Normal Incidence Two Photon Electron Microscopy for Imaging of Surface Plasmon Polaritons**”
F.-J. Meyer zu Heringdorf (*University of Duisburg-Essen*)

03AA03 (15:20~15:40)
“Surface Morphology and Magnetism of (100) Magnetite above and below the Verwey Transition”
J. de La Figuera, Z. Novotny, M. Setvin, Z. Mao, G. Chen, A.T. N'diaye, M. Schmid, U. Diebold, A. K. Schmid and G.S. Parkinson (*Lawrence Berkeley National Laboratory*)

05BA02 (15:40~16:00)
“Spin Resolution on NiO(100) and Possible Detection of Superexchange by Force Microscopy Utilizing Bulk Ferromagnetic Tips”
F. Pielmeier and F. J. Giessibl (*University of Regensburg*)

—Break—

03AA05 (16:20~16:50) —Invited—
“Spin-Polarized LEEM Characterization of Thin Film Magnetic Interfacial Effects”
M.S. Altman (*Hong Kong University of Science and Technology*)

03AA06 (16:50~17:10)
“HAXPEEM: Bulk Sensitive Photoemission Electron Microscopy”
M. Merkel, M. Escher, N.B. Weber, C. Wiemann, M. Patt and C.M. Schneider (*FOCUS GmbH*)

03AA09 (17:10~17:30)
“Zero-Field Stabilization and Frustration in Dysprosium Based Endofullerene Single-Molecule Magnets on Surfaces”
R. Westerström, J. Dreiser, C. Piamonteze, M. Muntwiler, R. Stania, M. Fumihiko, S. Weyeneth, K. Krämer, S.-X. Liu, S. Decurtins, S. Rusponi, H. Brune, A. Popov, S. Yang, L. Dunsch and T. Greber (*University of Zurich*)

03AA08 (17:30~17:50)
“Direct Visualization of Subcritical Nuclei in Molecular Film Growth”
R. van Gastel, D. Schwarz, H. Zandvliet and B. Poelsema (*University of Twente*)

Poster Session 1 (19:00~22 : 00)

- 03P01 **“HREELS Study of Oxygen Adsorption on Transition-Metal Carbides (100) Surfaces”**
N. Yanase and C. Oshima (*Waseda University*)
- 03P02 **“Field Electron Emission from Single Molecule; A Cu-Ph/W Tip”**
M. Nakajima, N. Koizumi, M. Yokota, C. Oshima (*Waseda University*)
- 03P03 **“Influence of Water Molecules on Field Emission Current from Pd/Mo(111) Nano-Tips”**
H. Yoshizawa, K. Fujiwara and C. Oshima (*Waseda University*)
- 03P04 **“Characterization of Nanometers Layers by EPMA: Limits and Accuracy”**
C. Merlet (*Université de Montpellier II*)
- 03P05 **“Simulation of Charging Process of PMMA Film on Si Substrate under Electron Beam Irradiation”**
S. Hosoi, K. Kumagai and M. Kotera (*Osaka Institute of Technology*)
- 03P06 **“Measurement of Surface Potential Distribution at Resist Film on Conductive Substrate Irradiated by Electron Beam”**
K. Kumagai, S. Hosoi and M. Kotera (*Osaka Institute of Technology*)
- 03P07 **“Auger Intensity Anomalies from Si(001)2×1 Surface Excited by Wave-Field of RHEED”**
Y. Horio, Y. Takakuwa and S. Ogawa (*Daido University*)
- 03P08 **“Multivariate Analysis and g-Ogram Application to ToF-SIMS Data of PEG Mixed Sample”**
Y. Kajiwara, H. Iwai, N. Kodani and S. Aoyagi (*Tottori University*)
- 03P09 **“Quantitative Analysis of Lipids with Ar Cluster Ion Beam”**
M. Fujii, S. Nakagawa, T. Seki, T. Aoki and J. Matsuo (*Kyoto University*)
- 03P10 **“TOF-SIMS Analysis of Lithium Reaction Products on Electrodes of Lithium Air Batteries”**
A. Karen and K. Ito (*National Institute for Materials Science*)
- 03P11 **“Mass Analysis by Ar-GCIB-Dynamic SIMS for Organic Materials”**
M. Suzuki, M. Nojima, M. Fujii, T. Seki and J. Matsuo (*Tokyo University of Science*)
- 03P12 **“Analysis Technique for Ultra Shallow Junction using Medium-Energy-Ion-Scattering Time-of-Flight Elastic-Recoil-Detection-Analysis”**
S. Abo, P. Ri, X.Y. Yao, F. Wakaya and M. Takai (*Osaka University*)
- 03P13 **“Kinetics Study of Orientation-Dependent Surface Blistering and Exfoliation Process in Hydrogen-Implanted Germanium”**
C.-C Chien, D.-S. Chao, J.H. Liang and C.-M. Lin (*National Tsing Hua University*)
- 03P14 **“Development of a Combined SPME-IMS System and the Software for Detecting and Identifying Fungal Species”**
T. Takeuchi, S. Ichii, Y. Nakamura, T. Sugai, M. Kiuchi and T. Akashi (*Nara Women's University*)

- 03P15 **“The Influence of the Preparing Method of a Ag/Ga₂O₃ Catalyst on Its Activity for Photocatalytic Reduction of CO₂ with Water”**
N. Yamamoto, T. Yoshida, Z. Like, T. Mizutani, H. Nameki, S. Yagi and H. Yoshida (*Nagoya University*)
- 03P16 **“Development of an Isotope Nanoscope to Examine Solar Wind Helium Distribution in Extraterrestrial Materials”**
K. Bajo, S. Itose, M. Matsuya, M. Ishihara, K. Uchino, M. Kudo, I. Sakaguchi and H. Yurimoto (*Hokkaido University*)
- 03P17 *Withdrawn*
- 03P18 **“Modeling Positive and Negative Charging of an Insulating Layer under KeV Electron Irradiation”**
K. Ohya and T. Nagai (*The University of Tokushima*)
- 03P19 **“Measurements of Absolute M-Shell x-Ray Production Cross Sections of Heavy Elements by Electron Impact”**
C. Merlet, A. Moy, X. Llovet and O. Dugne (*Université de Montpellier II*)
- 03P20 **“Numerical Study of Tip Evolution of Tungsten Emitter under Strong Electric Field Force”**
R. Iiyoshi (*Aichi Institute of Technology*)
- 03P21 **“Computational Study of Electron Scattering from Atom/Molecule in Near Field Region in 3D Real Space by Bohmian Quantum Trajectory Method”**
M. Zhang, R. Zeng, Y. Ming and Z. Ding (*University of Science and Technology of China*)
- 03P22 **“Wolframite ZnWO₄:Eu Nanorods: Synthesis, Characterizations, and Their Temperature- and Pressure-Dependent Structure and Optical Properties”**
R. Dai, Z. Wang, Z. Zhang and Z. Ding (*University of Science and Technology of China*)
- 03P23 *Withdrawn*
- 03P24 **“Working Group Report of Database Construction of Secondary Electron Yield”**
J. Yoshii, Y. Yamaguchi, M. Inoue, K. Goto, R. Shimizu and T. Nagatomi (*Asahi Kasei Corporation*)
- 03P25 **“BSE Detector Incorporated in STEM Sample Holder and Its Application”**
H. Tsuruta, S. Tanaka, T. Tanji and C. Morita (*Nagoya University*)
- 03P26 **“LEEM and AES Study of Negative Electron Affinity GaAs Photocathode in Degradation Process”**
X. Jin, A. Cotta, G. Chen, A. N`diaye, A. Schmid and Y. Takeda (*Nagoya University*)
- 03P27 **“Development of C/SiN Hybrid E-Cell Membranes and Application to in-situ Observations of Nano-Particulate Gold Catalyst”**
T. Kawasaki, N. Imaeda, A. Itou and T. Tanji (*Nagoya University*)
- 03P28 **“Strong Perpendicular Magnetic Anisotropy in Co/Ni Multilayers with High Brightness and Highly Spin-Polarized LEEM”**
M. Suzuki, K. Kudo, K. Kojima, T. Yasue, N. Akutsu, W.A. Diño, H. Kasai, E. Bauer and T. Koshikawa (*Osaka Electro-Communication University*)

- 03P29 **“High-Sensitive Field Emission Microscope”**
M. Yokota, M. Nakajima, N. Koizumi and C. Oshima (*Waseda University*)
- 03P30 **“Analysis of a Magnetic-Field-Superposed-Objective Cathode Lens using Boundary Charge Method and Boundary Magnetic Charge Method”**
K. Ichiki, M. Ishigami, R. Inagaki, H. Murata and H. Shimoyama (*Meijo University*)
- 03P31 **“SEM Images of Takeoff Angle and Energy Filtered Electrons”**
T. Otsuka, K. Honda, M. Nakamura, K.-I. Yamashita, M. Kudo and S.-I. Kitamura (*JEOL Ltd.*)
- 03P32 **“Development of Novel Three-Dimensional Spin Manipulator”**
T. Yasue, M. Suzuki, K. Tsuno, S. Goto and T. Koshikawa (*Osaka Electro-Communication University*)
- 03P33 **“An Inverse Néel to Bloch Transition of Domain Wall Type in Magnetic Ultrathin Films with in-Plane Anisotropy”**
G. Chen, H. Kwon, C. Won, Y. Wu and A.K. Schmid (*Lawrence Berkeley National Laboratory*)
- 03P34 **“Emission Characteristics of Schottky Emitters with BaO Based Diffusion Sources”**
T. Fujieda, T. Ohshima, Y. Sakai, H. Murakoshi, Y. Ose, M. Tanaka and T. Shimizu (*Hitachi, Ltd.*)
- 03P35 **“Phase Reconstruction by an Optical Fiber Array Detector in STEM”**
T. Ishida, T. Kawasaki, T. Kodama, T. Ikuta and T. Tanji (*Nagoya University*)
- 03P36 **“Atomistic Surface Growth of the Spinel $\text{Li}_4\text{Ti}_5\text{O}_{12}$ Single Crystal Induced by Li Vapor”**
M. Kitta, C. Fukada, T. Akita and M. Kohyama (*National Institute of Advanced Industrial Science and Technology*)
- 03P37 **“Visualization of the Distribution of Anatase and Rutile TiO_2 Crystalline in Au/ TiO_2 Powder Catalyst by STEM-EELS Spectrum Imaging”**
T. Akita and M. Kohyama (*National Institute of Advanced Industrial Science and Technology*)
- 03P38 **“Development of LaBe Schottky Emission Electron Gun with High Brightness and High Beam Current”**
K. Watanabe, Y. Emura, H. Murata, E. Rokuta, H. Shimoyama, H. Yasuda and T. Haraguchi (*Meijo University*)
- 03P39 *Withdrawn*
- 03P40 **“Influence of Accelerating Voltage and Acceptance Angle of Scanning Electron Microscopy on Backscattered Electron Contrast of Iron Oxide”**
T. Aoyama, M. Nagoshi and K. Sato (*JFE Steel Corporation*)
- 03P41 **“Scanning Electron Microscope with Transmission-Electron-Diffraction Optics”**
T. Nagata, Y. Ito, Y. Homma and C. Oshima (*Waseda University*)
- 03P42 **“Simulation Study of Atomic Resolution Secondary Electron Image”**
Z. Ruan, M. Zhang, R. Zeng, B. Da, Y. Ming, S. Mao and Z. Ding (*University of Science and Technology of China*)

- 03P43 **“Monte Carlo Simulation of Realistic Beam-Sample Interaction in SEM for Evaluation of Sharpness Measurement Methods”**
Z. Ruan, P. Zhang, S. Mao, H. Li and Z. Ding (*University of Science and Technology of China*)
- 03P44 **“Growth of 2D Molecular Crystals: The Role of the Substrate Topology”**
D. Schwarz, C. Henneke, R. van Gastel, H. Zandvliet, B. Poelsema and C. Kumpf (*Research Center Jülich*)
- 03P45 **“High Resolution Electron Microscopy and Crystallographic Analysis of the Ceramic/Metal Interface in Al₂O₃/Al-7.5 Wt% Fe Composite Produced by Reactive Metal Penetration”**
C. V. Solomon, M. Moro, M. Zeller and T.R. Wagner (*Youngstown State University*)
- 03P46 *Withdrawn*
- 03P47 **“Atomic Structure and Spin Polarization at the Apex of Tips Used in Spin-Polarized Scanning Tunneling Microscopy”**
S. Nagai, K. Hata, H. Oka, D. Sander and J. Kirschner (*Mie University*)
- 03P48 *Withdrawn*
- 03P49 **“Enhancement of Inelastic Electron Conductance Changes Driven by Reduced Molecule-Substrate Interaction in Iron Phthalocyanine Bilayer on Ag(111)”**
N. Ohta, R. Arafune, N. Tsukahara, N. Takagi and M. Kawai (*The University of Tokyo*)
- 03P50 **“Thermal Strain Imaging of Thermal Flying-Height-Controlled Magnetic Head”**
K. Takata and M. Okuda (*Kansai University*)
- 03P51 **“Electron Transport Character of Single C₆₀ Molecular Junction”**
R. Hiraoka, R. Arafune, N. Tsukahara, N. Takagi and M. Kawai (*The University of Tokyo*)
- 03P52 **“Layer-by-Layer Transport Analysis on Bi Thin Film Phase”**
Y. Fujikawa and E. Saitoh (*Tohoku University*)
- 03P53 **“Strain Imaging of Electrochemical Reactions of a Solid Electrolyte Cu₂S”**
Y. Nakano, R. Tamura and K. Takata (*Kansai University*)
- 03P54 **“In-situ Imaging of Lithium Intercalation in a Li-Ion Battery”**
K. Mizo, M. Okuda, T. Kawahara, K. Nakagawa and K. Takata (*Kansai University*)
- 03P55 **“Domain Structures of a Main Pole Tip in a Hard Disk Drive Observed by Magnetic Strain Imaging”**
D. Suzuki and K. Takata (*Kansai University*)
- 03P56 **“Molecular Magnetism at Surfaces Explored by Single Molecule Spectroscopy”**
N. Takagi, N. Tsukahara, N. Ohta, K. Yukizaki and M. Kawai (*The University of Tokyo*)
- 03P57 *Withdrawn*
- 03P58 *Withdrawn*

- 03P59 **“Electronically Non-Alloyed State of a Statistical Single Atomic Layer Semiconductor Alloy”**
P. Ebert, S. Landrock, Y. Jiang, K. Wu, E. Wang and R.E. Dunin-Borkowski (*Forschungszentrum Jülich GmbH*)
- 03P60 **“New Experiments and Applications Made Possible by a Low Temperature 4-Tip STM with UHV-SEM Navigation”**
A. Bettac, B. Guenther, J. Chrost, B. Uder, J. Koeble and A. Feltz (*Omicron NanoScience*)
- 03P61 **“Surface and Interface Structures of Lithium Titanate with Lithium-Ion Insertion by Theoretical and Experimental Methods”**
S. Tanaka, M. Kitta, T. Tamura, T. Akita and M. Kohyama (*National Institute of Advanced Industrial Science and Technology*)
- 03P62 **“First Principles Study of Electronic and Magnetic Property in Co/Ni Ultra-Thin Multi-Layers”**
K. Kojima, W.A. Diño, M. Suzuki, T. Yasue, K. Kudo, N. Akutsu, Y. Kawahito, E. Bauer, T. Koshikawa and H. Kasai (*Osaka University*)
- 03P63 **“Structure and Electrical Properties of Wide-Gap Boron Nitride Films”**
K. Teii, S. Kawamoto, H. Ito and S. Matsumoto (*Kyushu University*)
- 03P64 **“Characterization of InAs/GaAsSb Quantum Dots Grown by Radio-Frequency Metal-Organic Molecular Beam Epitaxy”**
Y. Suzuki, K. Miyazawa, M. Sato, T. Shirai and K. Uesugi (*Muroran Institute of Technology*)
- 03P65 **“Molecular Simulation of Structural Changes of Organic Polymer Materials under Electron Irradiation”**
K. Michishita, Y. Furukawa, M. Yasuda, H. Kawata and Y. Hirai (*Osaka Prefecture University*)
- 03P66 **“Influence of Post-Annealing Ambient Gas on Photoluminescence Characteristics for Ion Beam Synthesized Ge Nanoparticles in SiO₂ and Si₃N₄ Films”**
C.-F. Yu, D.-S. Chao and J.-H. Liang (*National Tsing Hua University*)
- 03P67 **“Characteristics of Phase Transition in Boron-Implanted Ge₂Sb₂Te₅ Thin Films for Phase Change Memory Applications”**
D.-S. Chao, P.-H. Lee, J.-H. Liang, P.-C. Chang and T.-S. Chin (*National Tsing Hua University*)

December 4, 2013 (Wednesday)

Room A

04SL01 (9:00~10:00)

“Electron Microscopy of Nano-Materials”

S. Iijima (*Meijo University*)

— Break —

04TU01 (10:20~11:20)

“Progress of Spin-Polarized Low Energy Electron Microscopy”

T. Koshikawa (*Osaka Electro-Communication University*)

04TU02 (11:20~12:20)

“Scattering of Fast Atoms and Ions from Surfaces under Channeling Conditions”

H. Winter (*Institut für Physik der Humboldt-Universität zu Berlin*)

Student Award Short Presentations (12:20~12:50)

Group Photo (12:50~13:30)

December 5, 2013 (Thursday)

Room A

- 05PL01 (9:00~9:50)
“Origin of the Solar System Shed Light on by Secondary Ion Mass Spectrometry”
H. Yurimoto (*Hokkaido University*)
- 05AM01 (9:50~10:20) – *Invited*–
“Hard X-Ray Photoemission with Angular Resolution and Standing-Wave Excitation”
C. S. Fadley (*University of California Davis*)
- 05AM02 (10:20~10:50) – *Invited*–
“Atomic Layer Superconductivity”
J. Kirschner, A.L. Vanegas, A. Stepniak, M. Caminale, H. Oka and D. Sander (*Max Planck Institute of Microstructure Physics*)
- *Break* –
- 05AM03 (11:10~11:40) – *Invited*–
“Surface Chemical Reactions: Detailed Insights from Isothermal Studies”
H.-P. Steinrück (*Friedrich-Alexander-Universität Erlangen Nürnberg*)
- 05AM04 (11:40~12:10) – *Invited*–
“Model Studies on Heterogeneous Catalysts at the Atomic Scale: From Supported Metal Particles to Two-Dimensional Zeolites”
H.-J. Freund (*Fritz Haber Institute of the MPG*)
- 05AM05 (12:10~12:40) – *Invited*–
“Atomic and Molecular Self-Assembly on Nano-Scale Templates”
W. Auwärter, J. Sushobhan, F. Bischoff, D. Ćićija, S. Vijayaraghavan, K. Seufert and J.V. Barth (*Technische Universität München*)
- 05AS01 (12:40~12:50) – Sponsored Session – «OMICRON»
“The Latest Development Status of the Electron Spectroscopy in Omicron NanoScience, the Division of Oxford Instruments”
R. Oiwa (*Omicron NanoTechnology Japan*) and M. Maier (*Oxford Instruments Omicron NanoScience*)

Room B

- 05BM01 (9:50~10:20) – *Invited*–
“**Quantitative Analysis of Ultra Thin Layers by Ion Scattering**”
D. Goebel, D. Roth, W. Roessler and P. Bauer (*Institute of Experimental Physics, Johannes Kepler University*)
- 05BM02 “**Atomic Level Analysis of Carbon Fibers by the Scanning Atom Probe**”
O. Nishikawa and M. Taniguchi (*Kanazawa Institute of Technology*)
- *Break* –
- 05BM03 (11:00~11:30) – *Invited*–
“**Helium Ion Microscopy (HIM) Technology for Imaging, Characterization, and Fabrication for Nano-Device Materials and Structures**”
S. Ogawa (*Advanced Industrial Science and Technology*)
- 05BM04 (11:30~11:50)
“**Single Atom Tip for Gas Field Ion Source of Helium Ion Microscope**”
H. Moritani, S. Matsubara and T. Hashizume (*Hitachi High-Technologies Corporation*)
- 05BM05 (11:50~12:10)
“**In-situ ERD Measurements of Li Depth Profiles in a Li Ion Battery System under Charging Condition**”
K. Morita, B. Tsuchiya, S. Nagata, Y. Iriyama, H. Tsuchida and T. Majima (*Nagoya Industrial Science Research Institute*)
- 05BM06 (12:10~12:30)
“**Selective Functionalization of Silicon Surface Controlled by Metastable Helium Atom Beam for Chemisorbed Monolayer Patterned Coplanar Molecular Assemblies**”
Z. Wang, J. Zhang, Z. Zhang, Z. Ding and Yasushi. Yamauchi (*University of Science and Technology of China*)

Room A

- 05AA01 (14:20~14:50) – *Invited*–
“**Nanotents -- and Controlled 2 nm Hole Formation in Single Layers of Graphene and Hexagonal Boron Nitride**”
T. Greber (*University of Zurich*)
- 05AA02 (14:50~15:20) – *Invited*–
“**Fabrication and Characterization of BN/Graphene Heterostructures**”
H. Hibino, C.M. Orofeo and S. Suzuki (*NTT Basic Research Laboratories*)
- 05AA03 (15:20~15:50) – *Invited*–
“**Suspended Single-Walled Carbon Nanotubes as the Probe for Nano-Surface Science**”
Y. Homma and S. Chiashi (*Tokyo University of Science*)

05AA04 (15:50~16:10)
“Catalyst-Free Growth of High Quality Graphene on Amorphous Oxide and Semiconductor Substrates”
H. C. Choi (*Pohang University of Science and Technology*)

—Break—

05AA05 (16:30~17:00) —Invited—
“Discontinuous Surface Tension”
N. Akutsu (*Osaka Electro-Communication University*)

02BN06 (17:00~17:20)
“Near-Field Terahertz Microcopy: Characterization of Semiconductors, Graphene, and Polymers”
Y. Kawano (*Tokyo Institute of Technology*)

05AA07 (17:20~17:50) —Invited—
“Atomic Scale Observation of Edge Electronic States of 1D and 2D Topological Insulators”
H. W. Yeom (*Institute for Basic Science*)

05AA08 (17:50~18:10)
“Electron Microscope using a Nanowire Electron Point Source”
H. Zhang, J. Tang, L.-C. Qin and Y. Yamauchi (*National Institute for Materials Science*)

Room B

05BA01 (14:20~14:50) —Invited—
“Surface, Interface and Standing Spin Waves of 3d Transition Metal Films”
H. Ibach and J. Rajeswari (*Research Center Juelich*)

03AA04 (14:50~15:10)
“Simulations of Magnetic Domain Patterns on the Surface of Co/Ni Multilayers”
K. Kudo, M. Suzuki, K. Kojima, T. Yasue, N. Akutsu, H. Kasai, W.A. Diño, E. Bauer and T. Koshikawa (*Ochanomizu University*)

05BA03 (15:10~15:30)
“Dynamics of the Wetting-Induced Nanowire Reconstruction of Au/Ge(001)”
A. Safaei, A. van Houselt, B. Poelsema, H. J. W. Zandvliet and R. van Gastel (*University of Twente*)

Poster Session 2 (19:00~22 : 00)

- 05P01 **“Nanohillock Formation on Graphite Surface Due to Low-Energy Highly Charged Ions (HCI) Implantation”**
S. T. Nakagawa, K. Tani, H. Kanda and H.J. Whitlow (*Okayama Univ. of Science*)
- 05P02 **“Atomic Structure of Si(110)-16×2 Studied by Auger Photoelectron Coincidence Spectroscopy (APECS)”**
T. Kakiuchi, Y. Yoshizaki, H. Kubota, Y. Sato, K. Mase and S. Nagaoka (*Ehime University*)
- 05P03 **“Electronic Spin Anti-Relaxation Effect for Alkali Vapors on Paraffin-Coated Substrates”**
Y. Ogata, K. Kushida, T. Moriya, T. Shimizu and A. Hatakeyama (*Tokyo University of Agriculture and Technology*)
- 05P04 **“In-situ FT-IR Study on the Mechanism of CO₂ Reduction with Water over Metal (Ag or Au) Loaded Ga₂O₃ Photocatalysts”**
M. Yamamoto, T. Yoshida, N. Yamamoto, H. Yoshida and S. Yagi (*Nagoya University*)
- 05P05 **“Determinations of ¹³⁴Cs and ¹³⁷Cs in River Water in Tamagawa River of Western Tokyo after the Fukushima Daiichi Nuclear Power Plant Accident”**
R. Aobayashi, Y. Kurihara, Y. Iwahana, N. Nogawa, Y. Koike and T. Nakamura (*Meiji University*)
- 05P06 **“Local Structure Control of Manganese Oxide Nanoparticles Encapsulated by Amorphous SiO₂”**
T. Miyasaka, T. Kondo, K. Miike, K. Onuma, M. Hachisu, K. Mori and Y. Ichiyanagi (*Yokohama National University*)
- 05P07 **“Study of ITO/Organic Interfaces by Optical Second Harmonic Generation (SHG) Phase Measurement”**
S.Z.N. Demon, Y. Miyauchi, G. Mizutani, T. Matsushima and H. Murata (*Japan Advanced Institute of Science and Technology*)
- 05P08 **“Residual Nitrogen Evaluation on NO Adsorbed Ni(111) and Rh(111) Surfaces using Ultraviolet Photoelectron Spectroscopy”**
S. Ogawa, D. Watanabe, J. Tang, S. Matsumoto, H. Hirata and Y. Takakuwa (*Tohoku University*)
- 05P09 *Withdrawn*
- 05P10 **“Structural Characteristics and Ionization Ability of Manganese Oxide Nanoparticles”**
K. Onuma, T. Hiroki, T. Kondo, K. Miike, T. Miyasaka, M. Hachisu, K. Mori and Y. Ichiyanagi (*Yokohama National University*)
- 05P11 **“Reaction Intermediates of Acetaldehyde and Acetone on TiO₂(110) Probed by x-Ray Photoelectron Spectroscopy”**
Y. K. Kim, B. Kim, Z. Dohnalek and B.D. Kay (*Ajou University*)
- 05P12 **“Identification of Edge- and Inner-Carbon Atoms in Hexagonal Carbon Layers by X-Ray Absorption near-Edge Structure (XANES) and First Principle Calculations”**
Y. Muramatsu, T. Ooe, T. Okada and E. M. Gullikson (*University of Hyogo*)

- 05P13 **“XAFS Analysis of Electroluminescent Tb Doped Alumina”**
K. Bando, E. Kobayashi, T. Okajima, T. Kodaira, Y. Hakuta, H. Takashima, N. Nagai and F. Mizukami (*National Institute of Advanced Industrial Science and Technology*)
- 05P14 **“Effective Depth Distribution of Nitrogen in Visible Light Responsive Nitrogen Doped TiO₂ Photocatalysts”**
T. Yoshida, E. Kuda, S. Niimi, S. Muto and S. Yagi (*Nagoya University*)
- 05P15 **“Interface between the Atmospheric Pressure Plasma Nano Coating Layer and the Cu Surface Studied by of Si K-Edge XAFS using Helium Path”**
K. Kurachi, S. Ogawa, C. Tsukada, T. Mizutani, G. Kutluk, H. Namatame, M. Taniguchi, T. Yoshida and S. Yagi (*Nagoya University*)
- 05P16 **“XAFS and XPS Study of Hydro-/Dehydrogenation Reaction of Mg-Pd Nanoparticles”**
S. Ogawa, T. Fujimoto, T. Mizutani, M. Ogawa, C. Yogi, K. Kato, T. Ohta, T. Yoshida and S. Yagi (*Nagoya University*)
- 05P17 **“Investigation of the Annealed Magnesium Oxide Powder using near-Edge X-Ray Absorption Fine Structure and X-Ray Photoelectron Spectroscopies”**
E. Kobayashi and T. Okajima (*Kyushu Synchrotron Light Research Center*)
- 05P18 **“Improved Formalism of X-Ray Reflectivity on Multilayered Surface”**
Y. Fujii (*Kobe University*)
- 05P19 **“Determination of Yttrium in an Acid Aqueous Solution by Wavelength-Dispersive X-Ray Fluorescence Spectrometry after Concentration onto an Iminodiacetate Extraction Disk”**
W. Matsuda, Y. Kurihara, T. Inui, Y. Iwahana, A. Ohbuchi, N. Nogawa, Y. Koike and T. Nakamura (*Meiji University*)
- 05P20 **“Valence-Band Atomic-Orbital Analysis of Transition-Metal Diboride by Two-Dimensional Photoelectron Spectroscopy”**
R. Horie, F. Matsui, M. Takizawa, S. Otani, T. Aizawa, H. Namba and H. Daimon (*Nara Institute of Science and Technology*)
- 05P21 **“Methane Oxidation over Pd”**
N. M. Martin, C. Hakanoglu, J.F. Weaver, J. Gustafson, S. Blomberg, M. van den Bossche, H. Grönbeck and E. Lundgren (*Lund University*)
- 05P22 *Withdrawn*
- 05P23 *Withdrawn*
- 05P24 **“Undercover Heterogeneous Catalysis -- Absorption and Reactions under Graphene on Ir(111)”**
E. Grånäs, U.A. Schröder, M.A. Arman, M. Andersen, T. Gerber, C. Busse, K. Schulte, B. Hammer, T. Michely, J. Knudsen and J.N. Andersen (*Lund University*)
- 05P25 *Withdrawn*
- 05P26 *Withdrawn*
- 05P27 **“Atomic Level Structural Characterization of Topological Insulator Films with Surface x-Ray Diffraction”**
T. Shirasawa, M. Sugiki and T. Takahashi (*The University of Tokyo*)

- 05P28 **“Self-Accelerating Oxidation on Si(111)7×7 Surfaces Studied by Real-Time Photoelectron Spectroscopy and Molecular Orbital Calculations”**
J. Tang, K. Nishimoto, S. Ogawa, A. Yoshigoe, S. Ishidzuka, D. Watanabe, Y. Teraoka and Y. Takakuwa (*Tohoku University*)
- 05P29 **“Atom Probe of ZnO Nanorod Synthesized by Hydrothermal Method”**
Y. Naganawa, T. Iwata, S. Nagai, K. Kajiwara, K. Hata, T. Sakai, N. Hiroshiba and Y. Ichikawa (*Mie University*)
- 05P30 **“Local Modification of Surfaces by Irradiation with a Focused He⁺ Ion Beam”**
T. Sato, H. Kasahara, A. Niwata, K.-I. Hasegawa and S.-I. Kitamura (*JEOL Ltd.*)
- 05P31 **“Metal-Assisted SIMS for Three-Dimensional Analysis using Shave-off Section Processing”**
A. Yamazaki, T. Tobe, S. Akiba and M. Owari (*The University of Tokyo*)
- 05P32 **“The Investigation of Mixing Effects under Shave-off Condition using Three-Dimensional Atom Probe”**
M. Karasawa, M. Fujii, M. Morita and M. Owari (*The University of Tokyo*)
- 05P33 **“The Analysis of Metal Catalyst Nanoparticle by Atom Probe Tomography”**
M. Morita, T. Asaka, M. Karasawa, M. Furushima and M. Owari (*The University of Tokyo*)
- 05P34 **“Effect of Crystal Face on Three-Dimensional Atom Probe Analysis”**
M. Furushima, M. Shimizu, M. Morita and M. Owari (*the University of Tokyo*)
- 05P35 **“Modeling Ion Induced Secondary Electron Emission in Scanning Ion Microscopes”**
K. Ohya (*The University of Tokushima*)
- 05P36 **“Tonoluminescence in Helium Ion Microscopy”**
V. Veligura, G. Hlawacek, R. van Gastel, H.J.W. Zandvliet and B. Poelsema (*University of Twente*)
- 05P37 *Withdrawn*
- 05P38 **“Sum Frequency Generation Confocal Microscopic Observation of Fish Collagen”**
W. Kouyama, A. Ogawa, L. Hongyan, H. Sano, Y. Miyauchi and G. Mizutani (*Japan Advanced Institute of Science and Technology*)
- 05P39 *Move to 03P66*
- 05P40 *Move to 03P67*
- 05P41 **“Hydrogen Storage Property of Ni Nanoparticles Fabricated by Gas Evaporation Method”**
T. Fujimoto, S. Ogawa, T. Yoshida and S. Yagi (*Nagoya University*)
- 05P42 **“Discontinuous Surface Tension Induced by (1×1)-(7×7) Transition on Si(111)”**
N. Akutsu, H. Hibino and T. Yamamoto (*Osaka Electro-Communication University*)
- 05P43 **“Low Temperature Preparation Method and Application to the Semiconductor Device of the ZnO Nanocrystal”**
K. Haga, Y. Takizawa, Y. Kaneko, K. Yubuta and T. Shishido (*Sendai National College of Technology*)

- 05P44 **“Application of Nanostructured Tungsten Fabricated by He Plasma Irradiation as a Photocatalyst”**
K. Komori, T. Yoshida, R. Etoh, S. Yagi, H. Yoshida, M. Yajima, D. Kitaoka, S. Kajita and N. Ohno (*Nagoya University*)
- 05P45 **“Fabrication of Gold Nanoparticles Supported on Anatase-Phase Titania by Solution Plasma Method”**
T. Mizutani, T. Murai, T. Nomoto, H. Nameki, T. Yoshida and S. Yagi (*Nagoya University*)
- 05P46 **“In-situ HRTEM Observation of Graphene Growth Catalyzed by Cobalt Nanoparticles”**
T. Tamura and Y. Takai (*Osaka University*)
- 05P47 **“Gold Deposition Effects on Photoluminescence and Raman Scattering Spectra of Suspended Single-Walled Carbon Nanotubes”**
A. Ozao, S. Chiashi, S. Watanabe, G. Yamaguchi and Y. Homma (*Tokyo University of science*)
- 05P48 **“Crystalline Pd Nanowires on the MgO(2 1 0) Faceted Template”**
K. Koshida, Y. Ogata, Y. Miyauchi and G. Mizutani (*Japan Advanced Institute of Science and Technology*)
- 05P49 **“Apex Angle Dependence of Optical Second Harmonic Response of V-Shaped Chromium Nanohole Arrays”**
N. K. Quang, Y. Miyauchi, G. Mizutani, M. D.charlton, R. Chen, S. Boden and H. Rutt (*Japan Advanced Institute of Science and Technology*)
- 05P50 **“In situ TEM Study on Electric Properties of a Junction between Carbon Nanotubes and a Gold Nanoparticle”**
M. Karita, K. Asaka, H. Nakahara and Y. Saito (*Nagoya University*)
- 05P51 **“Molecular Dynamics Study of Electron-Irradiation Effects in Graphene”**
Y. Asayama, M. Yasuda, H. Kawata and Y. Hirai (*Osaka Prefecture University*)
- 05P52 **“Generation of Complex Keys by using Many Kinds of Carbon-Nanotubes Contained in Carbon-Nanotube-Composite Papers for Artifact Metrics Authentication Systems”**
M. Akiba, K. Yamamoto and T. Oya (*Yokohama National University*)
- 05P53 **“Application of Carbon-Nanotube-Composite Paper to Electromagnetic Shielding Sheets”**
B. Li and T. Oya (*Yokohama National University*)
- 05P54 **“Development of “Paper Dye Sensitized Solar Cell” Using Carbon-Nanotube-Composite Paper with Mixed Dyes”**
K. Iguchi, S. Sugiyama and T. Oya (*Yokohama National University*)
- 05P55 *Withdrawn*
- 05P56 **“Huge Magnetic Anisotropy and Coercivity of Iron Nano Structures on W(110) Surfaces”**
T. Nakagawa, H. Nakano, T. Yokoyama and H.J. Elmers (*Kyushu University*)

- 05P57 **“Application of Self-Organized Nano-Structured Emitter on Field Emission Scanning Electron Microscope”**
H. Nakahara, S. Ito, S. Ichikawa and Y. Saito (*Nagoya University*)
- 05P58 **“Toward the Development of a Technique for Quantum Manipulation on the Surface of Metallic Nanowires”**
Y. Ogata, G. Mizutani and A. Hatakeyama (*Tokyo University of Agriculture and Technology*)
- 05P59 *Withdrawn*
- 05P60 **“Field Emission from Diameter-Defined Single-Walled Carbon Nanotubes”**
M. Irita and Y. Homma (*Tokyo University of Science*)
- 05P61 *Withdrawn*
- 05P62 *Withdrawn*
- 05P63 **“Computational Study of Electron Irradiation Effects on Carbon Nanotubes: Nanomechanical Properties”**
K. Tada and M. Yasuda (*Toyama National College of Technology*)
- 05P64 **“XRD and Raman-Spectroscopic Evaluation of Graphene on 3C-SiC(111)/Vicinal Si(111) Substrate”**
N. Haramoto, S. Inomata, S. Sambonsuge, H. Fukidome and M. Suemitsu (*Tohoku University*)
- 05P65 **“Studies on Carbon Alloy Catalyst Synthesized by Plasma Process”**
Y. Takahashi, K. Murakami, T. Hashizume and T. Watanabe (*Tokyo University of Agriculture and Technology*)
- 05P66 **“Growth of Triangular and Striped Graphene Islands on SiC (0001) by Thermal Decomposition in Inert Gas Atmosphere”**
A. Ruammaitree, H. Nakahara and Y. Saito (*Nagoya University*)

December 6, 2013 (Friday)

Room A

- 06AM01 (9:00~9:30) – *Invited*–
“Evolution of Nanomorphologies Induced by Low- and High-Temperature Glancing Angle Deposition”
M. Suzuki (*Kyoto University*)
- 06AM02 (9:30~9:50)
“Electronic Structure and Transport in Atomic Layer Thin Films in the 2-D to 3-D Crossover Regime”
R. Batabyal, J.C. Mahato, D. Das, A.H.M.A. Wasey, A. Roy, G.P. Das and B. N. Dev (*Indian Association for the Cultivation of Science*)
- 06AM03 (9:50~10:20) – *Invited*–
“Quantum Confinement Effect on Ultra-Thin Metallic Films”
W.-B. Su (*Academia Sinica*)
- 06AM04 (10:20~10:40)
“Novel Functions Induced by Charge Polarization at Subnano Interface between Uni-Size Bi-Element Metal Cluster Disk and Semiconductor Surface”
H. Yasumatsu and N. Fukui (*Toyota Technological Institute*)
- 06AM05 (10:40~11:00)
“Fabrication of All-Solid-State Battery using Epitaxial LiCoO₂ Thin Films”
S. Shiraki, Y. Takagi, H. Oki, A. Kumatani, R. Shimizu, T. Suzuki, M. Haruta, T. Ohsawa, Y. Sato, Y. Ikuhara and T. Hitosugi (*Tohoku University*)
- Break*–
- 06AM06 (11:20~11:50) – *Invited*–
“Electronic Dispersion in Two Overlapping Graphene Sheets: Impacts of Long-Range Atomic Ordering, Periodic Potentials, and Disorder”
T. Ohta (*Sandia National Laboratories*)
- 06AM07 (11:50~12:10)
“Radiation Damage of Graphene Sheets with a Few-KeV Electrons”
Y. Miyakoshi, G. Odahara, T. Nagata and C. Oshima (*Waseda University*)
- 06AM08 (12:10~12:30)
“Heterostructure Mediation in Decoupling Process of Zero Layer Graphene on 6H-SiC(0001) Substrate by Silicon Intercalation”
M.G. Silly, G. Li, M. Thomasset, A. Ouerghi and Y. J. Dappe (*CEA Saclay, IRAMIS*)
- 06AM09 (12:30~12:50)
“Morphology, Bonding and Electronic Structure of Graphene on Ir(100)”
A. Locatelli, C. Wang, C. Africh, N. Stojić, T.O. Montes, G. Comelli and N. Binggeli (*Elettra - Sincrotrone Trieste S.C.p.A.*)

Room B

- 06BM01 (9:00~9:30) – *Invited*–
“High Speed and Automated Phase Analysis by the Energy Dispersive X-Ray Spectroscopy”
S. Higuchi, S. Miyasaka, S. Seichi, K. Nishikata and K. Obori (*HORIBA, Ltd.*)
- 06BM02 (9:30~9:50)
“Development of Spin-Polarized Transmission Electron Microscope”
M. Kuwahara, S. Kusunoki, Y. Nambo, K. Sameshima, K. Saito, T. Ujihara, H. Asano, Y. Takeda, T. Nakanishi and N. Tanaka (*Nagoya University*)
- 06BS01 (9:50~10:00) – Sponsored Session – «**Hitachi High-Technologies Corporation**»
“The Latest Innovation on FE-SEM and Its Applications”
R&D Div. and Y. Ose (*Hitachi High-Technologies Corporation*)
- 06BM03 (10:00~10:20)
“Spatial Resolution and Minimum Detection Limit of Thin-Sample Field-Emission Electron Probe Microanalysis”
Y. Kubo, K. Hamada and K. Sasaki (*Analysis Technology Research Center, Sumitomo Electric Industries, Ltd.*)
- 06BM04 (10:20~10:40)
“Low-Voltage SEM with LaB₆ Nanowire Cold Field-Emission Electron Source”
J. Tang, H. Zhang, Y. Sakai, H. Murakoshi, Y. Ose and L.-C. Qin (*National Institute for Materials Science*)
- 06BM05 (10:40~11:00)
“Study of Interstitial Nb in SrTiO₃ by STEM and EELS”
J. S. Jeong, P. Ambwani, B. Jalan, C. Leighton and K.A. Mkhoyan (*University of Minnesota*)
- *Break* –
- 06BM06 (11:20~11:50) – *Invited*–
“Fabrication of Nanopores in 1 nm Thick Carbon Nanomembranes with Slow Highly Charged Ions”
F. Aumayr (*TU Wien - Vienna University of Technology*)
- 06BM07 (11:50~12:20) – *Invited*–
“Unique Applications of TOF-SIMS for Complicated Organic Devices and Materials”
S. Iida, T. Miyayama, G.L. Fisher, J.S. Hammond and N. Sanada (*ULVAC-PHI, Inc.*)
- 06BM08 (12:20~12:40)
“Structure and Composition of the 4H-SiC Surface and Dielectric Interface”
C. Xu, H.D. Lee, S. Shubeita, G. Liu, Y. Xu, Leszekwielunski, E. Garfunkel, L.C. Feldman and T. Gustafsson (*Rutgers University*)

Award (13:00~)

Closing