

— Time Table and Session Chairs —

(Version 2011/5/19)

	May 22 (Sun)	May 23 (Mon)	May 24 (Tue)
morning	<b>Registration</b> (4th floor)	<b>Opening</b> ( <i>Olympia</i> )	<b>Plenary Talk</b> ( <i>Olympia</i> ) Jondo Yun
		<b>Plenary Talks</b> ( <i>Olympia</i> ) Chan Gyung Park Takanori Koshikawa	<b>Oral Session</b> Ions ( <i>Athens</i> ) Ming-Chang Liu Shun-ichi Hayashi
afternoon	<b>Tutorial</b> ( <i>Athens</i> ) Chuhei Oshima Ryuichi Shimizu	<b>Special Session</b> Ion Probe ( <i>Athens</i> ) Hisayoshi Yurimoto Kevin D. McKeegan	<b>Special Session</b> Nanocarbon ( <i>Athens</i> ) Hiroki Hibino Matthew F. Chisholm
		<b>Joint Session</b> Aberr. Corrected TEM ( <i>Olympia</i> ) Takashi Ikuta Gyungho Kim	<b>Oral Session</b> Surface ( <i>Berlin</i> ) Dietrich Menzel Hee Jae Kang
evening	<b>Mixer</b> (lake side)		<b>Oral Session</b> Fundamental ( <i>Berlin</i> ) Charles S. Fadley Masanori Owari
			<b>Student Award I</b> Short Presentations ( <i>Athens</i> ) Yoshikazu Homma
			<b>Poster Session I</b> ( <i>Olympia</i> ) Hideshi Ishii
	May 25 (Wed)	May 26 (Thu)	May 27 (Fri)
morning	<b>Oral Session</b> Bio Materials ( <i>Athens</i> ) DaeWon Moon Toshio Ando	<b>Plenary Talk</b> ( <i>Olympia</i> ) Yahachi Saito	<b>Oral Session</b> SPM ( <i>Athens</i> ) Xi Chen Mineharu Suzuki
	<b>Oral Session</b> Oxides ( <i>Berlin</i> ) Andrew T.S. Wee Yuji Takakuwa	<b>Oral Session</b> SPM ( <i>Athens</i> ) Wolf-Dieter Schneider Tsuneo Yasue	<b>Oral Session</b> Electrons ( <i>Berlin</i> ) Han Woong Yeom Takashi Saka
afternoon	<b>Joint Session</b> Nano Matr., Nano Dev. ( <i>Seoul</i> ) Cheol-Woong Yang Yoshizo Takai	<b>Special Session</b> Surf. Microscopy ( <i>Athens</i> ) Ernst Bauer Takanori Koshikawa	<b>Oral Session</b> Nanostructures ( <i>Berlin</i> ) Friedrich Aumayr Masato Kiuchi
		<b>Student Award II</b> Short Presentations ( <i>Athens</i> ) Yoshikazu Homma	
evening	<b>Banquet</b> ( <i>Olympia</i> )	<b>Poster Session II</b> ( <i>Olympia</i> ) Hitoshi Nakahara	<b>Closing</b> ( <i>Olympia</i> )

— ALC'11 Scientific Program —

(version 2011/6/27, 10:48)

**May 22, 2011 (Sunday)**

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room 'Athens' (4F)

*Tutorial*

**22TU01** (13:30 – 14:30)

**“Is an Image Worth More than 1000 WORDS?”**

Peter Varga (*Vienna University of Technology*)

**22TU02** (14:30 – 15:30)

**“Progress in Low Energy Electron- and Ion-biprism Interferometry”**

Franz Hasselbach (*Universität Tübingen*)

— BREAK —

**22TU03** (15:50 – 16:50)

**“Catalytic Performance and Atomic Scale Structures of Supported Gold Nanoparticles”**

Masatake Haruta (*Tokyo Metropolitan University*)

**Welcome Reception (18:00 – 20:00)**

The welcome reception will be held at the Lakeside Stage in front of the Music Fountain (see a map in the abstract book).

In case of rain, it will be held at the Olympia Hall (1F of the Olympic Parktel).

**May 23, 2011 (Monday)**

room 'Olympia Hall' (1F)

**Opening Ceremony (9:00 – 9:30)**

**Plenary Talks**

- 23PL01** (9:30 – 10:20) — *IUMAS* —  
“**A Study on Monte Carlo Simulation Approaches as Applied to Microbeam Analysis**”  
Ryuichi Shimizu (*Osaka University*)
- 23PL02** (10:20 – 11:10) — *ALC* —  
“**Spin-polarized Electronic States on Magnetic Nano-islands**”  
Jürgen Kirschner (*Max-Planck-Institut für Mikrostrukturphysik*)

— *BREAK* —

**Joint Session with IUMAS; Aberration Corrected TEM**

- 23JS01** (11:30 – 12:00) — *Invited / ALC* —  
“**Prospects and First Results of Aberration-Corrected Low-Voltage Electron Microscopy — The SALVE Project**”  
Harald H. Rose (*University of Ulm*)
- 23JS02** (12:00 – 12:30) — *Invited / IUMAS* —  
“**Sub-angstrom Spatial Resolution in Secondary-electron Imaging Achieved with an Aberration Corrected Scanning (Transmission) Electron Microscope**”  
Yimei Zhu (*Brookhaven National Laboratory*)

— *LUNCH* —

- 23JS03** (13:30 – 14:00) — *Invited / ALC* —  
“**Development of C<sub>s</sub> and C<sub>c</sub> Correctors for 30kV-electron Microscope**”  
Hidetaka Sawada, F. Hosokawa, T. Sasaki, T. Kaneyama, Y. Kondo, K. Kimoto and K. Suenaga (*JEOL Ltd.*)
- 23JS04** (14:00 – 14:30) — *Invited / IUMAS* —  
“**Graphene Atomic Structure in Ordered (3D) and Disordered Layers by Aberration Corrected TEM**”  
Héctor Calderón, J. Jinscheck, E. Yucelen, B. Freitag and C.F. Kisielowski (*ESFM-IPN*)
- 23JS05** (14:30 – 14:50) — *ALC* —  
“**Visualization of Individual Antimony Dopant Clusters in the Highly Doped Silicon Crystal**”  
S. Kim, Yoshifumi Oshima, H. Sawada, T. Kaneyama, Y. Kondo, M. Takeguchi, Y. Nakayama, Y. Tanishiro and K. Takayanagi (*Tokyo Institute of Technology*)
- 23JS06** (14:50 – 15:10) — *IUMAS* —  
“**Interface Analysis of Epi-Si(111)/Y<sub>2</sub>O<sub>3</sub>/Pr<sub>2</sub>O<sub>3</sub>/Si(111) Heterostructures**”  
Jun-Mo Yang, Y.C. Park, J.W. Kim, A. Wilke, O. Seifarth and T. Schroeder (*National Nanofab Center*)

*Special Session; Ion Probe Analysis & its Applications*

- 23SS01** (13:30 – 14:00) — *Invited* —  
**“Development of Laser Ionization Mass Nanoscope (LIMAS)”**  
Hisayoshi Yurimoto, M. Ishihara, K. Uchino, S. Ebata, S. Itose, M. Matsuya and M. Kudo (*Hokkaido University*)
- 23SS02** (14:00 – 14:30) — *Invited* —  
**“The MegaSIMS: a Million-volt Secondary Ion Mass Spectrometer with Ion Imaging Capability”**  
Kevin D. McKeegan (*University of California, Los Angeles*)
- 23SS03** (14:30 – 15:00) — *Invited* —  
**“Precise Micro-irradiation of MeV Ion Beams in Liquid: from Cell Surgery to Surface Modification”**  
Yasunori Yamazaki (*RIKEN*)
- 23SS04** (15:00 – 15:30) — *Invited* —  
**“Bio-imaging Technique with Novel Primary Ions”**  
Jiro Matsuo (*Kyoto University*)
- *BREAK* —
- 23SS05** (15:50 – 16:20) — *Invited* —  
**“High Precision Mg Isotopic Analysis by Ion Microprobe: Application to Dating Early Accretion Processes in the Solar System”**  
M. Chaussidon, J. Villeneuve, C. Rollion-Bard and Ming-Chang Liu (*CRPG-CNRS*)
- 23SS06** (16:20 – 16:50) — *Invited* —  
**“Oxygen Isotopic Measurements of Silicates using the NanoSIMS 50 and the SHRIMP IIe at Korea Basic Science Institute”**  
Byeon-Gak Choi, K. Yi and T.-E. Hong (*Seoul National University*)
- 23SS07** (16:50 – 17:20) — *Invited* —  
**“Matrix Effect-free Shallow Depth Profiling of Implanted Mg in  $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$  Multi-layers by Resonance Enhanced Multi-photon Laser Post-ionization Sputtered Neutral Mass Spectrometry”**  
Shun-ichi Hayashi, S. Nishinomiya and N. Kubota (*Nippon Steel Corporation*)
- 23SS08** (17:20 – 17:40)  
**“Surface Molecule Analysis with Reactive Ion Scattering of Low Energy  $\text{Cs}^+$ ”**  
Heon Kang (*Seoul National University*)
- 23SS09** (17:40 – 18:00)  
**“Probing Ionic Molecules using Low Energy Sputtering and Its Application in Astrochemistry”**  
Eui-Seong Moon and H. Kang (*Seoul National University*)
- 23SS10** (18:00 – 18:20) — *sponsor's talk* —  
**“Present Status and Important New Trends in Atom Probe Tomography”**  
Thomas F. Kelly (*AMETEK, Inc.*)

*Session; Fundamental Phenomena*

- 23BA01** (15:50 – 16:20) — *Invited* —  
**“Ultrafast Surface Processes Studied by Core Electron Spectroscopies”**  
Dietrich Menzel (*Fritz-Haber-Institut der MPG / Techn. Univ. München*)
- 23BA02** (16:20 – 16:40)  
**“Decoherence of Electron Waves and Ion Interferences Measured by Low Voltage Biprism Interferometry, and Experimental Verification of ‘antibunching’ of Free Electrons”**  
Franz Hasselbach (*Universität Tübingen*)
- 23BA03** (16:40 – 17:00)  
**“Observations of Rotation of Spin-polarization with the Verwey Transition at a Surface of a  $\langle 110 \rangle$ -oriented Magnetite Whisker with Field-emitted Electrons Polarimetry”**  
Shigekazu Nagai, K. Hata, M. Okada and H. Mimura (*Mie University*)
- 23BA04** *Withdrawn*
- 23BA05** (17:00 – 17:20)  
**“A Study of Grain Boundary Embrittlement in Fe-Ni-S Alloys”**  
Tomohito Tanaka and H. Sawada (*Nippon Steel Corporation*)

## May 24, 2011 (Tuesday)

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room 'Olympia Hall' (1F)

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### Plenary Talk

- 24PL01** (9:00 – 9:50) — *IUMAS* —  
**“Phase Transition of Grain Boundary Precipitates during Isothermal Aging of Fe-Mn-Ni and Fe-Ni-Ti Alloys”**  
Y.-U. Heo and Hu-Chul Lee (*Seoul National University / POSTECH*)

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room 'Athens' (4F)

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### Session; Characterization by Ions

- 24AM01** (10:10 – 10:40) — *Invited* —  
**“Imaging in Seconds cm of Surfaces with Atomic Resolution: Grazing Incidence Fast Atom Diffraction (GIFAD)”**  
B. Lalmi, P. Soullisse, A. Momeni, H. Khemliche and Philippe Roncin (*CNRS/Université Paris Sud*)
- 24AM02** (10:40 – 11:10) — *Invited* —  
**“Nanosize Surface Modifications by Impact of Individual Ions”**  
R. Ritter, G. Kowarik and Friedrich Aumayr (*Vienna University of Technology*)
- 24AM03** (11:10 – 11:30)  
**“Hydrogen Storage and Emission Characteristics of Pt/Li<sub>4</sub>SiO<sub>4</sub>/Pt Composite Materials Exposed to Air Vapor at Room Temperature”**  
Kenji Morita, B. Tsuchiya and S. Nagata (*Nagoya Industrial Science Research Institute*)
- 24AM04** (11:30 – 11:50)  
**“Atomic Level Analysis of Biomolecules by the Scanning Atom Probe”**  
Osamu Nishikawa, M. Taniguchi and A. Ikai (*Kanazawa Institute of Technology*)
- 24AM05** (11:50 – 12:10)  
**“Atomic Analysis on Bainitic Reaction in High Carbon Steel 100Cr6”**  
Wenwen Song, U. Prahl and W. Bleck (*RWTH Aachen University*)

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room 'Berlin' (4F)

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### Session; Imaging Techniques

- 24BM01** (10:10 – 10:40) — *Invited* —  
**“Imaging Ultrafast Coherent Surface Phenomena by Time-Resolved Photoemission Microscopy”**  
Hrvoje Petek (*University of Pittsburgh*)
- 24BM02** (10:40 – 11:10) — *Invited* —  
**“Sub-10nm Structuring With Highly Focused Inert Gas Ion Beams”**  
Larry Scipioni, L. Stern and D. Ferranti (*Carl Zeiss NTS*)
- 24BM03** (11:10 – 11:30)  
**“Field Ion Microscope Study of 1×2 Reconstruction on Pt Surfaces”**  
Rung-Jiun Lin and T.-Y. Fu (*University of Taiwan*)
- 24BM05** (11:30 – 11:50) — *post-deadline paper* —  
**“Influence of Tip Temperature on Field Evaporation in Atom Probe”**  
Norihito Mayama, T. Terakawa, M. Morita and M. Owari (*The University of Tokyo*)

*Special Session; Nanocarbon*

- 24SS01** (13:30 – 14:00) — *Invited* —  
**“Ultra Thin Films of Graphene, h-BN and BC<sub>3</sub> on Solid Surfaces”**  
Chuhei Oshima (*Waseda University*)
- 24SS02** (14:00 – 14:30) — *Invited* —  
**“Towards Industrial Applications of Graphene Electrodes”**  
Byung Hee Hong (*Sungkyunkwan University*)
- 24SS03** (14:30 – 15:00) — *Invited* —  
**“Aberration-corrected STEM Imaging and Spectroscopy of Single-layered Materials”**  
Matthew F. Chisholm, V.G. Krishnan, G. Duscher and W. Windl (*Oak Ridge National Laboratory*)
- 24SS04** (15:00 – 15:30) — *Invited* —  
**“Atomic Scale Observation of Iron Catalyzed Carbon Nanotube Growth by Environmental TEM”**  
Hideto Yoshida, Y. Homma and S. Takeda (*Osaka University*)

— BREAK —

- 24SS05** *Withdrawn*
- 24SS06** (16:20 – 16:50) — *Invited* —  
**“Recent Advances in Epitaxial Graphene on SiC(0001)”**  
Thomas Seyller (*University of Erlangen-Nuernberg*)
- 24SS07** (16:50 – 17:20) — *Invited* —  
**“Growth, Structure, and Transport Properties of Epitaxial Graphene Grown on SiC”**  
Hiroki Hibino, S. Tanabe and H. Kageshima (*NTT Basic Research Laboratories*)

*Short Presentations of Student Award Winners I (17:20 – 17:35)*

(5 min each, without discussion)

- 24PS35** **“Hydrogen Desorption from a Flat Si(111)1×1 Surface Studied by Sum Frequency Microscopy”**  
Khuat Thi Thu Hien (*JAIST*)
- 24PS53** **“Tip Characterizer of Atomic Force Microscopy using Singly-Suspended Carbon Nanotube”**  
Takumi Inaba (*Tokyo University of Science*)
- 24PS54** **“Oxygen Isotopic Variation of a Type A Ca-Al-rich Inclusion and Its Implication to the Early Solar System”**  
Changkun Park (*Hokkaido University*)

*Session; Surface*

- 24BA01** (13:30 – 14:00) — *Invited* —  
**“Probing Buried Magnetic and Oxide Layers and Interfaces with Standing-wave and Hard X-ray Photoemission”**  
Charles S. Fadley (*University of California, Davis*)
- 24BA02** (14:00 – 14:20)  
**“Ultra Soft X-ray Absorption Spectroscopy and Photoelectron Spectroscopy Studies on Related Materials and Cathodes of Lithium Ion Batteries”**  
Hideshi Ishii, K. Nakanishi, K. Kojima, I. Watanabe and T. Ohta (*Ritsumeikan University*)
- 24BA03** (14:20 – 14:40)  
**“A New Type of Detector for Dynamic XPS Measurements”**  
P. Baumann, B. Krömker, G. Prümper, Konrad Winkler, R. Oiwa, J. Lenz, M. Maier and A. Feltz (*Omicron NanoTechnology GmbH*)
- 24BA04** (14:40 – 15:00)  
**“Concentration Depth Profiling of Boron Extremely near a Si(100) Surface by Soft X-ray Excited Photoelectron Spectroscopy”**  
Takeo Hattori, K. Tsutsui, B. Mizuno and H. Iwai (*Tokyo Institute of Technology*)
- 24BA05** (15:00 – 15:20) — *sponsor’s talk* —  
**“Technologies for Next Generation Electron Guns: Quest for High-brightness Sources with High-beam-current Capability”**  
Shin Fujita (*SHIMADZU CORPORATION*)
- BREAK —
- 24BA06** (15:50 – 16:20) — *Invited* —  
**“Sum-frequency Spectroscopy for Characterization of Interfaces”**  
Yuen-Ron Shen (*University of California at Berkeley*)
- 24BA07** (16:20 – 16:40)  
**“PN Junction Formation in  $\text{CuIn}_x\text{Ga}_{(1-x)}\text{Se}_2$ -based Thin Film Solar Cell”**  
S.M. Park, Y. Yi, Y.D. Chung, J. Kim, D.-H. Cho, K.J. Kim and Jeong Won Kim (*KRISS*)
- 24BA08** (16:40 – 17:00)  
**“Growth and Magnetism of Quasi-one Dimensional Array of Co Nanoclusters on Carburized W(110).”**  
Ji-Hyun Kim, J.-S. Kim, S.-U. Yang, V. Sessi, J. Honolka, P. Lukashev, R.F. Sabirianov, X. Chen and A. Enders (*Sookmyung Women’s University*)
- 24BA09** (17:00 – 17:20)  
**“Effect of Plasma Enhancement on BN Film Synthesis From Boric Acid”**  
Soemsak Yooyen, T. Kawamura, S. Kotake and Y. Suzuki (*Mie University*)
- 24BA10** (17:20 – 17:30) — *sponsor’s talk* —  
**“The Newest Information about PES & PEEM from Omicron NanoTechnology GmbH”**  
Konrad Winkler (*Omicron NanoTechnology GmbH*)

- 24PS01 “Characterization of the Soil-Derived Fungi Based on Mass Spectrometric Analysis of Their Microbial Volatile Organic Compounds”**  
Takae Takeuchi, H. Tanaka, T. Kimura, S. Ichii, M. Iwamatsu, S. Kaneko, M. Kiuchi and T. Suzuki (*Nara Women's University*)
- 24PS02 “Differences in Fragmentation Mechanisms of Protonated Molecules and Molecular Radical Cations from Organometallic Compounds with Si-Si, Ge-Ge and Si-Ge Bonds”**  
Takae Takeuchi, Y. Shirai, A. Naka and J. Ohshita (*Nara Women's University*)
- 24PS04 “Preparation and Luminescence of Layered Perovskite-type Oxide  $M\text{LaTiO}_4$  ( $M = \text{Li, Na}$ )”**  
G. Uemura, N. Sawaguchi, T. Sato, K. Kawauchi, R. Yano and Makoto Sasaki (*Muroran Institute of Technology*)
- 24PS05 “Synthesis and Opto-electrical Properties of Ca- or Mg- Added  $\text{LiAlO}_2$ ”**  
Y. Kubota, N. Sawaguchi, K. Kawauchi and Makoto Sasaki (*Muroran Institute of Technology*)
- 24PS06 “Influence of Mo Addition on Luminescence Property of  $\text{CaWO}_4$ ”**  
T. Takeda, N. Sawaguchi, T. Sato, K. Kawauchi, R. Yano and Makoto Sasaki (*Muroran Institute of Technology*)
- 24PS07 “Study on Sputtering Mechanism of Shave-off Profiling”**  
Makiko Fujii, M. Nojima and M. Owari (*The University of Tokyo*)
- 24PS08 “Molecules Controlling Phase Shift of CDW along In Atomic Wires on Si(111)”**  
Duk Man Oh and H.W. Yeom (*POSTECH*)
- 24PS09 “High-resolution Energy Measurement of Field-emitted Electrons from a Single Crystalline Magnetite Whisker”**  
H. Sakakibara, S. Nagai, Koichi Hata, T. Iwata, M. Okada and H. Mimura (*Mie University*)
- 24PS10** *Withdrawn*
- 24PS11** *Withdrawn*
- 24PS12 “Characterization of  $\text{Cu}(\text{InGa})\text{Se}_2$  (CIGS) Thin Films in Solar Cell Devices by Secondary Ion Mass Spectrometry”**  
Weon Cheol Lim, J. Lee and Y. Lee (*Korea Institute of Science & Technology*)
- 24PS13 “Characterization of Dyed Textiles using TOF-SIMS with PCA”**  
Jihye Lee, A. Ceglia, K.-J. Kim and Y. Lee (*Korea University*)
- 24PS14 “Diffusion Behavior of Dopants in Silicon Nano-structure Confined in  $\text{SiO}_2$  Matrix”**  
Seung Hui Hong, J.H. Park, J.S. Jang, K.J. Kim and S.-H. Choi (*KRISS*)
- 24PS15 “Depth Scale Calibration of SIMS Depth Profiling of Multilayer Films by 50 Atomic % Definition”**  
Jong Shik Jang, H.H. Hwang, H.J. Kang and K.J. Kim (*KRISS*)
- 24PS16 “Quantitative Depth Profiling of CIGS Solar Cell by SIMS”**  
Kyung Joong Kim, H.H. Hwang, J.S. Jang and H.J. Kang (*KRISS*)
- 24PS17 “Development of Cascade-amplification Assisted Ionization Chamber for High Sensitive Ion Mobility Spectrometer”**  
Takaomi Matsutani, N. Hana, H. Tsutsui and Y. Hosokawa (*Kinki University*)
- 24PS18 “Depth Profiling Analysis with Size-controlled Cluster Ion Beam”**  
Jiro Matsuo, K. Ichiki, Y. Yamamoto, T. Seki and T. Aoki (*Kyoto University*)

- 24PS19 “High-resolution Depth Profiling of Boron in Silicon: Comparison between High-resolution RBS/ERDA and Atom Probe”**  
S. Fujita, K. Nakajima, K. Sasakawa, Motofumi Suzuki, W. Vandervorst and K. Kimura (*Kyoto University*)
- 24PS20 “Time of Flight Elastic Recoil Detection Analysis with Toroidal Electrostatic Analyzer for Ultra Shallow Dopant Profiling”**  
Satoshi Abo, H. Horiuchi, P. Ri, F. Wakaya and M. Takai (*Osaka University*)
- 24PS21 “The Investigation of Shape and Size Distribution of AuNP QD by Comparing the TOF-MEIS Experimental Data and Simulation Results.”**  
Young Joon Cho, K.W. Jung, K.S. Park, W.S. Kim and D.W. Moon (*KRISS*)
- 24PS22 “Development of ToF-MEIS Imaging System”**  
WanSup Kim, K.S. Yu, K.W. Jung, K.S. Park, K.H. Jung, W.J. Min, H.Y. Jung and D.W. Moon (*K-MAC*)
- 24PS23 “Investigation of the Damage on the Outermost Hair Surface using TOF-SIMS and XPS”**  
Masayuki Okamoto, K. Ishikawa, N. Tanji and S. Aoyagi (*Kao Corporation*)
- 24PS24** *Withdrawn*
- 24PS25 “Mixed Polymer Sample Evaluation using G-SIMS and Multivariate Curve Resolution (MCR)”**  
Satoka Aoyagi, I. Mihara and M. Kudo (*Shimane University*)
- 24PS26 “Fabrication of Gas Field Ion Emitter by Field Induced Oxygen Etching Method”**  
Yasushi Sugiura, H. Liu, T. Iwata, Y. Sugiyama, S. Nagai, K. Kajiwara, K. Hata, K. Asaka and Y. Saito (*Mie University*)
- 24PS27 “Stability Measurement of Ion Beam Current From Argon Field Ion Source”**  
Ryuta Okawa, Y. Morikawa, Y. Sugiyama, S. Nagai, T. Iwata, K. Kajiwara and K. Hata (*Mie University*)
- 24PS28 “Cross-section Analysis of Blend Polymer by Dual FIB ToF-SIMS”**  
Atsuko Yamazaki, Y. Morita, Y. Kim and M. Owari (*The University of Tokyo*)
- 24PS29 “Chitin Nanocrystallites and Its Nanocomposites”**  
Surayyo Fazilova, S. Yugai, R. Milusheva and S. Rashidova (*Institute of Polymer Chemistry and Physics*)
- 24PS30 “Z-contrast Imaging by Aberration-Corrected ADF-STEM”**  
Mayuka Wada, Y. Tanishiro and K. Takayanagi (*Tokyo Institute of Technology*)
- 24PS31 “Characteristics of an Optical Fiber Array Detector for Phase Shift Measurement in the STEM”**  
Takafumi Ishida, T. Kodama, K. Ogai and T. Ikuta (*Meijo University*)
- 24PS32 “Focal Depth Extension with Annular Pupil for 200kV-STEM Tomography”**  
Tadahiro Kawasaki, T. Matsutani, T. Kodama, K. Ogai, T. Ikuta, M. Ichihashi and T. Takayoshi (*Nagoya University*)
- 24PS33** *Withdrawn*
- 24PS34 “Magnetic Domain Structure of Fe-3% Si(110) by External Magnetic Field by XMCD-PEEM”**  
Michihiro Hashimoto, K. Iwata, M. Suzuki, M. Kotsugi, T. Ohkochi, T. Kinoshita, K. Tanaka, T. Yasue and T. Koshikawa (*Osaka Electro-Communication University*)
- †24PS35 “Hydrogen Desorption from a Flat Si(111)1×1 Surface Studied by Sum Frequency Microscopy”**  
Khuat Thi Thu Hien, M. Kikuchi, Y. Miyauchi and G. Mizutani (*JAIST*)
- 24PS36 “Application of Nanoparticles for Imaging Mass Spectrometry”**  
Takahiro Hayasaka, N. Goto-Inoue, N. Zaima, K. Shrivasa, Y. Kashiwagi, M. Yamamoto, M. Nakamoto and M. Setou (*Hamamatsu University School of Medicine*)

- 24PS37 **“Imaging Mass Spectrometry for Glycomics”**  
Naoko Goto-Inoue, T. Hayasaka, N. Zaima and M. Setou (*Hamamatsu University School of Medicine*)
- 24PS38 *Withdrawn*
- 24PS39 **“High Precision Local Electrical Probing: Potential and Limitations for the Analysis of Nanocontacts and Nanointerconnects”**  
Konrad Winkler, J. Köble, B. Günther, A. Bettac, D. Jie, N. Chandarsekhar, C. Joachim, J. Lenz, R. Oiwa, M. Maier and A. Feltz (*Omicron NanoTechnology GmbH*)
- 24PS40 **“Local Electronic States Induced at Thiolate-Metal Interfaces”**  
Masaru Aoki, H. Sato, S. Masuda and Y. Morikawa (*The University of Tokyo*)
- 24PS41 *Withdrawn*
- 24PS42 **“Atomic Structure Analysis of Carbonaceous Material by Laser-assisted 3DAP”**  
Masato Morita, Y. Hanaoka, N. Mayama, K. Suzuki and M. Owari (*The University of Tokyo*)
- 24PS43 **“Graphitization of Silicon Carbide Nanowires by Joule Heating”**  
Hideo Kohno and Y. Mori (*Osaka University*)
- 24PS44 **“Growth of Large-scale Domains of Epitaxial Graphene on C-face SiC”**  
Hailong Hu, A. Ruammaitree, H. Nakahara, K. Asaka and Y. Saito (*Nagoya University*)
- 24PS45 **“Determination of Epitaxial Graphene Thickness by X-ray Diffraction and Raman Spectroscopy”**  
Akkawat Ruammaitree, H. Hu, H. Nakahara, K. Akimoto, S. Harada, K. Soda and Y. Saito (*Nagoya University*)
- 24PS46 **“Self-Standing Graphene Characterized by Low-energy SEM and Raman Spectroscopy”**  
Tomoyuki Shimbata, N. Nakayama, K. Honda, G. Odahara and C. Oshima (*Waseda University*)
- 24PS47 **“In-situ Observations of Graphene Growth on Ni(111)”**  
Genki Odahara, S. Otani, C. Oshima, M. Suzuki, T. Yasue and T. Koshikawa (*Waseda University*)
- 24PS48 **“Doping of Epitaxial Graphene by Organic Molecules and Its Surface Property Change”**  
Ki-Jeong Kim, S. Yang, S. Park, J. Choi, H. Lee, S. Kim and B. Kim (*Pohang Accelerator Lab., POSTECH*)
- 24PS49 **“Raman Spectroscopy, Hard X-ray Photoemission Spectroscopy, and Infrared Spectroscopy Studies of Networked Nanographite Grown by Photoemission-assisted Plasma-enhanced CVD”**  
Shuichi Ogawa, Y. Ojira, M. Inukai, T. Kaga, M. Sato, E. Ikenaga, T. Muro, M. Nihei and Y. Takakuwa (*Tohoku University*)
- 24PS50 **“Microscopic Correlation between Chemical and Electronic States in Epitaxial Graphene Grown On SiC(000 $\bar{1}$ )”**  
C. Mathieu, J. Rault, Y. Mi, E. Conrad, O. Renault and Nicholas Barrett (*CEA Saclay*)
- 24PS51 **“Carbon Nanotube Electron Source for Field Emission Scanning Electron Microscopy”**  
Hitoshi Nakahara, S. Ichikawa, T. Ochiai, Y. Kusano and Y. Saito (*Nagoya University*)
- 24PS52 **“Simultaneous Measurement of Photoluminescence and Raman Scattering Spectra from Suspended Single-walled Carbon Nanotubes”**  
Kaname Kono, D. Matsumoto, S. Chiashi and Y. Homma (*Tokyo University of Science*)
- †24PS53 **“Tip Characterizer of Atomic Force Microscopy using Singly-Suspended Carbon Nanotube”**  
Takumi Inaba, J. Xie, R. Sugiyama and Y. Homma (*Tokyo University of Science*)
- †24PS54 **“Oxygen Isotopic Variation of a Type A Ca-Al-rich Inclusion and Its Implication to the Early Solar System”**  
Changkun Park, S. Wakaki and H. Yurimoto (*Hokkaido University*)

- 24PS55 “TiO<sub>2</sub>/Ni Inverse-catalysts Prepared by Atomic Layer Deposition (ALD)”**  
Dong-Wun Kim, K.-D. Kim, H.O. Seo, N.K. Dey, J.W. Nam, C.W. Sim, M.G. Jeong, Y.D. Kim,  
D.C. Lim and K.H. Lee (*Sungkyunkwan University*)
- 24PS56 “Photocatalytic Decomposition of Toluene by TiO<sub>2</sub> on Nano-diamond Powder Prepared using Atomic Layer Deposition”**  
Kwang-Dae Kim, N.K. Dey, H.O. Seo, D.W. Kim, J.W. Nam, C.W. Sim, M.G. Jeong and Y.D. Kim  
(*Sungkyunkwan University*)
- 24PS57 “Growth of Au on Ni(111) Surface Studied with Low Energy Electron Microscopy”**  
— *post-deadline paper* —  
M. Hashimoto, K. Umezawa, Tsuneo Yasue and T. Koshikawa (*Osaka Electro-Communication University*)
- 24PS58 “Specimen Preparation in Atom Probe by FIB-Based Method”** — *post-deadline paper* —  
Yuya Hanaoka, T. Yamamoto, T. Kaito, N. Mayama and M. Owari (*The University of Tokyo*)

## May 25, 2011 (Wednesday)

room 'Athens' (4F)

### Session; Bio Materials

- 25AM01** (9:00 – 9:30) — *Invited* —  
**“Development of TOF-nano MEIS and Applications”**  
DaeWon Moon (*KRISS*)
- 25AM02** (9:30 – 10:00) — *Invited* —  
**“Improved Adhesion of Fluorine-doped Amorphous Carbon on Metallic Stent for Cardiovascular Disease by Introducing Interlayers with Controlled Surface Free Energies”**  
Terumitsu Hasebe, K. Murakami, S. Nagashima, Y. Yoshimoto, A. Ihara, A. Kamijo, H. Terada, A. Hotta, K. Takahashi and T. Suzuki (*Toho University Sakura Medical Center / Toho University Faculty of Medicine*)
- 25AM03** (10:00 – 10:20)  
**“Evaluation of Reagent Effect on Skin using Time-of-flight Secondary Ion Mass Spectrometry (TOF-SIMS) and Multivariate Curve Resolution (MCR)”**  
Satoka Aoyagi, T. Matsuzaki, M. Takahashi, Y. Sakurai and M. Kudo (*Shimane University*)
- 25AM04** (10:20 – 10:40)  
**“Achieving Chiral Resolution in Self-Assembled Supramolecular Structures through Kinetic Pathways”**  
Jong Keon Yoon, W.-J. Son, H. Kim, K.-H. Chung, S. Han and S.-J. Kahng (*Korea University*)
- 25AM05** (10:40 – 11:00)  
**“Anodic Aluminium Oxide Replication for Soft-UVNIL Substrate Nanopatterning : Application in Biophysics”**  
Houda Sahaf, F. Hamoudab, S. Held, G. Barbillon, P. Gogol, E. Moyen, A. Aassime, M.-P. Planté, J. Moreau, M. Canva, J.-M. Lourtioz, M. Hanbücken and B. Bartenlian (*CINAM-CNRS*)
- 25AM06** *Withdrawn*

### Student Award Ceremony (11:00 – 11:10)

room 'Berlin' (4F)

### Session; Oxides

- 25BM01** (9:00 – 9:30) — *Invited* —  
**“Oxygen Vacancy Origin of the Surface Band-gap State of TiO<sub>2</sub>”**  
Geoff Thornton (*University College London*)
- 25BM02** (9:30 – 10:00) — *Invited* —  
**“Ultra-thin Film Oxides: Materials with Tailored Properties”**  
Hans-Joachim Freund (*Fritz-Haber-Institut der MPG*)
- 25BM03** (10:00 – 10:20)  
**“Electronic and Optical Properties of Amorphous Hafnium Indium Zinc Oxide Thin Film on Glass Substrate”**  
D. Tahir, H.C. Shin, S.L. Seul, S.K. Oh, H.J. Kang, Sounjoo Seo, J.G. Chung, J.C. Lee and S. Tougaard (*University of Hasanuddin*)
- 25BM04** (10:20 – 10:40)  
**“Magnetism of the Ultrathin Fe Films on BaTiO<sub>3</sub>”**  
Seolun Yang, J.-H. Kim, X. Chen, J. Honolka, V. Sessi, T. Santos, M. Bode, A. Enders and J.-S. Kim (*Sookmyung Women's University*)

— Afternoon: FREE —

### Banquet at the Olympia Hall (19:00 – 21:00)

## May 26, 2011 (Thursday)

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### room 'Olympia Hall' (1F)

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#### Plenary Talk

- 26PL01** (9:00 – 9:50) — ALC —  
“**Dynamic Imaging of Protein Molecules in Action by High-speed Atomic Force Microscopy**”  
Toshio Ando, N. Kodera and T. Uchihashi (*Kanazawa University*)

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### room 'Seoul' (2F)

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#### Joint Session with IUMAS; Nanomaterials and Nanodevices

- 26JS01** (10:10 – 10:40) — Invited / ALC —  
“**Single-atom Imaging and Spectroscopy in Nano-structured Materials**”  
Kazutomo Suenaga (*AIST*)
- 26JS02** (10:40 – 11:00) — ALC —  
“**Observation of Long Gold Atom Strand Incorporated by Carbon Atoms**”  
Yoshifumi Oshima, Y. Kurui, N.H. Duy, T. Ono and K. Takayanagi (*Osaka University*)
- 26JS03** (11:00 – 11:20) — IUMAS —  
“**Electron-irradiation-induced Phase Change in Nanometer-sized Al<sub>2</sub>Au Particles**”  
Jung-Goo Lee and H. Mori (*Korea Institute of Materials Science*)
- 26JS04** (11:20 – 11:50) — Invited / IUMAS —  
“**High Resolution Characterization of Graphene and Graphene-based Devices**”  
Moon J. Kim, H.C. Floresca and S.Y. Park (*The University of Texas at Dallas*)
- 26JS05** (11:50 – 12:10) — ALC —  
“**Detection of the Number of Lithium Atoms in Individual Diffusion Channel of LiV<sub>2</sub>O<sub>4</sub> Crystal**”  
Soyeon Lee, Y. Oshima, H. Sawada, F. Hosokawa, E. Okunishi, T. Kaneyama, Y. Kondo, Y. Tanishiro and K. Takayanagi (*Tokyo Institute of Technology*)
- 26JS06** (12:10 – 12:30) — IUMAS —  
“**Analysis of Defects Formation in Coaxial GaN/ZnO Heterostructural Nanotubes**”  
Aram Yoon, J.M. Jeon, J.H. Kwon, Y.J. Hong, G.C. Yi and M. Kim (*Seoul National University*)

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### room 'Athens' (4F)

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#### Session; Scanning Probe Microscopy

- 26AM01** (10:10 – 10:40) — Invited —  
“**STM Studies of Topological Insulators Grown by MBE**”  
Xi Chen and Q.-K. Xue (*Tsinghua University*)
- 26AM02** (10:40 – 11:00)  
“**Thermally Activated Flip-Flop Motion in Oxygen-Induced Triad Structure on Si(111)-7×7**”  
Jinwoo Lee, J. Park, W. Jung and I.-W. Lyo (*Yonsei University*)
- 26AM03** (11:00 – 11:20)  
“**Atomically Resolved Imaging of Nitrogen-Ordering in Dilute Ga(NAs)**”  
Vivien Voßebürger, J. Barthel, L. Ivanova, A. Lenz, K. Jandieri, F. Gebhard, S. Baranovski, M. Dähne, H. Eisele, W. Stolz and K. Volz (*Philipps University Marburg*)
- 26AM04** (11:20 – 11:40)  
“**Molecular-scale Structure of Pentacene at Functionalized Electronic Interfaces**”  
Soonjoo Seo, G. Peng, M. Mavrikakis, R. Ruther, R.J. Hamers, P.G. Evans and H.J. Kang (*Chungbuk National University*)
- 26AM05** (11:40 – 12:00) — sponsor's talk —  
“**A New Low Temperature 4-Tip STM with Gemini UHV-SEM Navigation**”  
Michael Treber (*Omicron NanoTechnology GmbH*)
- 26AM06** (12:00 – 12:15) — sponsor's talk —  
“**ARPES and STM — Complementary Techniques for Complete Information on Nanomaterials**”  
Robert Moberg (*VG Scienta AB*)

*Special Session; Surface Microscopy*

- 26SS01** (13:30 – 14:00) — *Invited* —  
**“Spin-polarized Low Energy Electron Microscopy of Metallic Multilayers”**  
Ernst Bauer, M. Suzuki, T. Yasue and T. Koshikawa (*Arizona State University*)
- 26SS02** (14:00 – 14:30) — *Invited* —  
**“Electronic Properties and Domain Structure at Ferroelectric and Antiferromagnetic Oxide Surfaces: A Combined STM/STS, 2PPE and PEEM Study”**  
A. Höfer, S. Großer, M. Kiel, S. Förster, K. Duncker, M. Christl and Wolf Widdra (*University of Halle-Wittenberg*)
- 26SS03** (14:30 – 14:50)  
**“Collective Super-Diffusive Motion of the Pb Wetting Layer on Si(111)”**  
K.L. Man, M.C. Tringides, M.M.T. Loy and Michael S. Altman (*Hong Kong University of Science and Technology*)
- 26SS04** (14:50 – 15:10)  
**“Microscopic Observations of Pentacene Growth on Silicon Oxide”**  
Yasunori Fujikawa, Y. Tsuruma, A. Al-Mahboob, T. Sakurai and K. Saiki (*Tohoku University*)
- 26SS05** (15:10 – 15:30)  
**“A New Nanospectroscopy Tool with Synchrotron Radiation: NanoESCA@Elettra”**  
Claus M. Schneider, C. Wiemann, M. Patt, I.P. Krug, N. Weber, M. Escher and M. Merkel (*Research Centre Jülich*)
- BREAK —
- 26SS06** (15:50 – 16:20) — *Invited* —  
**“Corrugation in Suspended and Supported Exfoliated Graphene”**  
Andrea Locatelli, K.R. Knox, D. Cvetko, T.O. Menteş, M.Á. Niño, S. Wang, M.B. Yilmaz, P. Kim, R.M. Osgood Jr. and A. Morgante (*Elettra - Sincrotrone Trieste S.C.p.A.*)
- 26SS07** (16:20 – 16:50) — *Invited* —  
**“Dynamics of Reconstructed Zones Formed Around Islands on Si During Desorption: Diffusion Made Visible”**  
D. Wall, S. Sindermann, K.R. Roos, I. Lohmar, J. Krug, M. Horn-von Hoegen and Frank -J. Meyer zu Heringdorf (*University of Duisburg-Essen*)
- 26SS08** (16:50 – 17:10)  
**“Full Field Electron Spectromicroscopy of Surface Screening in Ferroelectric Domains”**  
Nicholas Barrett, J. Rault, Y. Mi, A. Pancotti, J. Wang, D. Martinotti, I.P. Krug, B. Vilquin, G. Niu, B. Gautier, D. Albertini, O. Renault, A. Petraru, A. Locatelli, T.O. Menteş, M.A. Niño, K. Rahmanizadeh, G. Bihlmayer and C.M. Schneider (*CEA Saclay*)
- 26SS09** (17:10 – 17:30)  
**“Magnetic Property of L1<sub>0</sub>-type FeNi Ordered Alloy Studied by PEEM and MCD”**  
Masato Kotsugi, M. Mizuguchi, S. Sekiya, T. Kojima, T. Ohkochi, K. Takanashi and Y. Watanabe (*SPring-8, JASRI*)

*Short Presentations of Student Award Winners II (17:30 – 17:50)*

(5 min each, without discussion)

- 26PS07** “Surface Morphology of Al, Si, and Cu Substrates Flattened by a 2”-size Photoemission-assisted Ion Beam Source”  
Yudai Ohtomo (*Tohoku University*)
- 26PS22** “Modeling of Surface Excitation Effect for Rough Surfaces”  
Bo Da (*University of Science and Technology of China*)
- 26PS45** “*In-situ* TEM Study on the Improvement of Contact Resistance between a Carbon Nanotube and Metal Electrodes by Local Melting”  
Motoyuki Karita (*Nagoya University*)
- 26PS48** “Tuning Capillary Guiding”  
Gregor Kowarik (*Vienna University of Technology*)

*Session; Nanostructures*

- 26BA01** (13:30 – 14:00) — *Invited* —  
“More Control over Surface Atomic Wires”  
Han Woong Yeom (*POSTECH*)
- 26BA02** (14:00 – 14:30) — *Invited* —  
“Quantum Size Effects in Electronic and Magnetic Behaviour in Epitaxial Nanostructures”  
Bhupendra N. Dev, R. Batabyal, A. Roy, J.C. Mahato, T. Yasue and T. Koshikawa (*Indian Association for the Cultivation of Science*)
- 26BA03** *Withdrawn*
- 26BA04** (14:30 – 14:50)  
“Quasi-periodic Pattern Formation on Columnar Thin Films by Ion Beam Erosion at Oblique Incidence”  
Motofumi Suzuki, H. Moriwaka, K. Nakajima and K. Kimura (*Kyoto University*)
- 26BA05** (14:50 – 15:10)  
“Analysis of Optical Second Harmonic Generation from Pt Nanowires with Boomerang-shaped Cross-sections”  
Yoichi Ogata, N.A. Tuan and G. Mizutani (*JAIST*)
- 27AM07** (15:10 – 15:30) — *post-deadline paper* —  
“Tip-voltage Induced Modifications and Real-time Growth Observation of Adlayer on Ultrathin Ag Nanoislands on Si (111)-7×7 Surfaces”  
Rajib Batabyal, J.C. Mahato, D. Das, A. Roy, A.S. Bhattacharyya and B.N. Dev (*Indian Association for the Cultivation of Science*)

— BREAK —

- 26BA06** (15:50 – 16:20) — *Invited* —  
**“Low Dimensional Organic Nanostructures on Surfaces”**  
Y. Huang, H. Huang, L. Chen, H. Li, W. Chen and Andrew T.S. Wee (*National University of Singapore*)
- 26BA07** *Withdrawn*
- 26BA08** (16:20 – 16:40)  
**“Evaluation of Intrinsic Exciton Diffusion Length of Single-Walled Carbon Nanotubes using Micro-Photoluminescence Spectroscopy”**  
Jianping Xie, T. Inaba and Y. Homma (*Tokyo University of Science*)
- 26BA09** (16:40 – 17:00)  
**“Effect of Geometry of Vertically Aligned Carbon Nanotube Pillar Array on Its Field Emission Property”**  
Hideki Sato, K. Haruki, M. Watanabe, K. Hata and Y. Saito (*Mie University*)
- 26BA10** (17:00 – 17:20)  
**“Structure of Heat-treated Fullerene Nanowhiskers and Their Field Emission Properties”**  
Koji Asaka, T. Nakayama, K. Miyazawa and Y. Saito (*Nagoya University*)

Poster Session II (18:40 – 20:40)

Posters must be set up between 13:30 to 15:30 of the session day.

† Student Award Winners

- 26PS01** “Study of Methoxy Chemisorbed on NiAl(110) by Scanning Tunneling Microscopy”  
Eunyeoung Choi, Y. Lee and I.-W. Lyo (*Yonsei University*)
- 26PS02** “Scanning Tunneling Microscopy Study of Alcohol Adsorption on Al<sub>2</sub>O<sub>3</sub>/NiAl(110) Deposited by Pulsed Injection”  
Youn-Joo Lee, E. Choi and I.-W. Lyo (*Yonsei University*)
- 26PS03** *Withdrawn*
- 26PS04** *Withdrawn*
- 26PS05** *Withdrawn*
- 26PS06** *Withdrawn*
- † **26PS07** “Surface Morphology of Al, Si, and Cu Substrates Flattened by a 2”-size Photoemission-assisted Ion Beam Source”  
Yudai Ohtomo, S. Ogawa and Y. Takakuwa (*Tohoku University*)
- 26PS08** *Withdrawn*
- 26PS09** *Withdrawn*
- 26PS10** *Withdrawn*
- 26PS11** “Indium-induced Triple-period Atomic Wires on a Si(557) Surface.”  
Inkyung Song, D.-H. Oh, J. Nam, M. Kim, C. Jeon, C.-Y. Park and J. Ahn (*Sungkyunkwan University*)
- 26PS12** “Post-annealing Effects of P3HT : PCBM Active Layer for Efficient Improvement in Organic Photovoltaic Cells”  
Dongyoung Kim, S. Seo, K. Bae, S. Sohn and H.-M. Kim (*Catholic University of Daegu*)
- 26PS13** “Silicon Functionalized Ag(110) for the Growth of One-dimensional Nanostructures”  
Houda Sahaf, E. Moyen, F. Dettoni, L. Masson and M. Hanbücken (*CINaM-CNRS*)
- 26PS14** “Magnetic Structure of Co/Ni Thin Film on W(110) Studied by High Brightness and Highly Spin-polarized LEEM”  
Masahiko Suzuki, M. Hashimoto, T. Yasue, T. Koshikawa and E. Bauer (*Osaka Electro-Communication University*)
- 26PS15** “Spot Profiles of Transmission Electron Diffraction Patterns Measured with Low-energy Scanning Electron Microscopy”  
Yukiko Miyakoshi, K. Fukase, N. Chiyoda, G. Odahara and C. Oshima (*Waseda University*)
- 26PS16** *Withdrawn*
- 26PS17** *Withdrawn*
- 26PS18** “Field Electron Emission from Molybdenum Platinum (Mo-Pt) Alloy Tips”  
Megumi Nakajima, W. Ito and C. Oshima (*Waseda University*)
- 26PS19** *Withdrawn*
- 26PS20** *Withdrawn*
- 26PS21** “An Example Application of Quantum Monte Carlo Method: Simulation of EMDDF for a Single Crystal”  
Rongguang Zeng and Z. Ding (*University of Science and Technology of China*)

- †26PS22 **“Modeling of Surface Excitation Effect for Rough Surfaces”**  
Bo Da and Z. Ding (*University of Science and Technology of China*)
- 26PS23 *Withdrawn*
- 26PS24 **“Molecular Orientation of Pentacene Influenced by Substrate Type”**  
S. Park, S.M. Park, Y.-J. Lee, H. Lee, S.-M. Jeong, J.-W. Park and Jeong Won Kim (*KRISS*)
- 26PS25 **“Energy Level Alignment at the Interface of P3HT and PCBM Bilayer Films Deposited in UHV by Electropray Vacuum Deposition”**  
J.-H. Kim, J.-A. Hong, J. Seo, J.W. Kim and Yongsup Park (*Kyung Hee University*)
- 26PS26 *Withdrawn*
- 26PS27 **“Electronic Structure Characterization of Chemically Modified TiO<sub>2</sub> Surfaces”**  
Yu Kwon Kim, J. Kong and S. Park (*Ajou University*)
- 26PS28 **“Evaluation of Nano-scale Precipitates in Cu-Ti Alloys by Small Angle X-ray Scattering”**  
Yohei Takahashi, S. Sato, S. Semboshi and S. Suzuki (*NISSAN ARC, LTD.*)
- 26PS29 **“New Proposal for X-ray Reflectivity Calculations on Surfaces and Interfaces”**  
Yoshikazu Fujii (*Kobe University*)
- 26PS30 *Withdrawn*
- 26PS31 **“Reduction of Energies for Charge Fluctuations in Ultrathin NiO Films on Ag(001)”**  
Seolun Yang, H.-K. Park, N.-B. Ha, H.-N. Hwang, C.-C. Hwang, H.-D. Kim and J.-S. Kim (*Sookmyung Women’s University*)
- 26PS32 **“The Spectroscopic Study on the Chemical State at Pd/Mg Interface”**  
Shunsuke Murakami, S. Ogawa, K. Shirai, K. Nakanishi, C. Tsukada, T. Ohta and S. Yagi (*Nagoya University*)
- 26PS33 **“Size Dependence of Air Oxidation for Mg Nanoparticle”**  
Satoshi Ogawa, S. Murakami, K. Shirai, K. Nakanishi, C. Tsukada, T. Ohta and S. Yagi (*Nagoya University*)
- 26PS34 **“Hard Disk Chemical Analysis by Total Reflection X-ray Photoelectron Spectroscopy (TRXPS)”**  
Abbas Alshehabi, N. Sasaki and J. Kawai (*Kyoto University*)
- 26PS35 **“A Sensitive Method to Detect Strain in Silicon Crystals using X-ray Dynamical Diffraction”**  
Takashi Saka (*Daido University*)
- 26PS36 **“Temperature Dependence of Molecular Orientation of Polytetrafluoroethylene Thin Film”**  
Eiichi Kobayashi, K. K. Okudaira and T. Okajima (*Kyushu Synchrotron Light Research Center*)
- 26PS37 **“High Open-circuit Voltage of Graphene-Based Photovoltaic Cells Modulated by Layer-by-Layer Transfer”**  
Kyuwook Ihm and K.J. Lee (*Pohang Accelerator Lab., POSTECH*)
- 26PS38 **“Pentacene and C60 as Protection Layers of Graphene on SiC Surfaces”**  
Han-Na Hwang, H.-G. Jee, J.-H. Han, B. Kim, H.-S. Kim, Y.D. Kim and C.-C. Hwang (*POSTECH*)
- 26PS39 **“Optical Second Harmonic Spectroscopy of the H<sub>2</sub>O Adsorbed Au(887)”**  
Michizane Ono, T. Yamamoto, K. Uemura, H.H. Chi and G. Mizutani (*JAIST*)
- 26PS40 **“Molecular Orientation in Cellulose Fibers: Sum Frequency Confocal Microscope Study”**  
Hoang Chi Hieu, N.A. Tuan, H. Li, Y. Miyauchi and G. Mizutani (*JAIST*)
- 26PS41 *Withdrawn*
- 26PS42 *Withdrawn*
- 26PS43 *Withdrawn*

- 26PS44** “Physical and Chemical Characteristics of the Optical and Adsorptive Properties of Nanostructures Based on Metal Chalcogenides”  
A.E. Zemtsov, Ekaterina G. Shubenkova and O.P. Azarova (*Omsk State Technical University*)
- †**26PS45** “*In-situ* TEM Study on the Improvement of Contact Resistance between a Carbon Nanotube and Metal Electrodes by Local Melting”  
Motoyuki Karita, K. Asaka, H. Nakahara and Y. Saito (*Nagoya University*)
- 26PS46** “Effects of Nano-sized Core-shell Rubber (CSR) Particles on High T<sub>g</sub> Epoxy Systems for Electronic Packaging”  
Youngran Jo, H. Chae, J. Hwang, J. Lee and Y. Choe (*Pusan National University*)
- 26PS47** “Electrical Characteristics of Ionic Transition Metal Based Light-emitting Electrochemical Cells using PEDOT:PSS/Ruthenium(II) Complex Inverted-bilayer Structure”  
Yongsu Kang and Y. Choe (*Pusan National University*)
- †**26PS48** “Tuning Capillary Guiding”  
Gregor Kowarik, R.J. Berezcky, F. Ladinig, K. Tökési and F. Aumayr (*Vienna University of Technology*)
- 26PS49** “Changes of Field Emission Currents from Single-atom Electron Sources by Water Adsorption”  
K. Fujiwara, Y. Akamine, Chuhei Oshima, A. Yonezawa and B. Cho (*Waseda University*)
- 26PS50** *Withdrawn*
- 26PS51** “Structure Analysis of Molybdenum Oxide Encapsulated inside Carbon Nanotubes using Low Electron Dose TEM System”  
Ryusuke Sagawa, W. Togashi, T. Akita and Y. Takai (*Osaka University*)
- 26PS52** “Au Core-Ring Nanostructures for Use in SERS Analysis”  
Jung-Sub Wi and T. Nagao (*NIMS*)
- 26PS53** “Investigation on Anti-pollution (AP) Coating using Plasma Polymerized Hexamethyldisiloxane (PPHMDSO) for Next Generation Touch Screen”  
Sunyoung Sohn, K. Bae, D. Kim, S. Seo and H.-M. Kim (*Catholic University of Daegu*)
- 26PS54** “Effects of Metal Buffer Layers for Growth Control of ZnO Nano-particle”  
Sungbo Seo, D. Kim, K. Bae, J. Jang and S. Sohn (*Catholic University of Daegu*)
- 26PS55** *Withdrawn*
- 26PS56** *Withdrawn*
- 26PS57** *Withdrawn*
- 26PS58** “Modeling and Simulation of Mechatronic System to Integrated Design of Supervision : using a Bond Graph Approach”  
Mohamed Arezki Mellal, S. Adjerid and D. Benazzouz (*M’Hamed Bougara University*)
- 26PS59** “Spin Polarization Vectors of Field Emitted Electrons from Apexes of Fe-coated W Tips”  
Toyokazu K. Yamada, T. Irisawa and T. Mizoguchi (*Chiba University*)
- 26PS60** “Improvement of the Detection System in the Soft X-ray Absorption Spectroscopy”  
— *post-deadline paper* —  
Koji Nakanishi and T. Ohta (*SR Center, Ritsumeikan University*)

**May 27, 2011 (Friday)**

room 'Athens' (4F)

*Session; Scanning Probe Microscopy*

- 27AM01** (9:00 – 9:30) — *Invited* —  
**“Quantum Oscillations, Superconductivity, Zero-Bias Anomalies, and Coulomb Blockade in Supported Nanoscale Lead Islands”**  
Wolf-Dieter Schneider (*EPFL*)
- 27AM02** (9:30 – 9:50)  
**“Superconductivity in Confined Molecular Chains”**  
Abdou Hassanien (*AIST*)
- 27AM03** (9:50 – 10:10)  
**“Magnetoelectric Coupling at Metallic Surfaces: Electrical Control of Spin States in Cubic Iron”**  
Toyokazu K. Yamada, L. Gerhard, T. Balashov, A. Takacs, R.J.H. Wesselink, M. Daene, M. Fechner, S. Ostanin, A. Ernst, I. Mertig and W. Wulfhekel (*Chiba University*)
- 27AM04** (10:10 – 10:30)  
**“Electronic Structures of One-dimensional Metal-Organic Hybrid Chains”**  
Kyung-Hoon Chung, J.K. Yoon, H. Kim and S.-J. Kahng (*Korea University*)

— *BREAK* —

- 27AM05** (10:50 – 11:10)  
**“Electrical Transport Properties of Graphene Layer under Strain Probed by Atomic Force Microscopy”**  
S. Kwon, S. Choi, H.J. Chung, S. Seo and Jeong Y. Park (*KAIST*)
- 27AM06** (11:10 – 11:30)  
**“Two-dimensional Solid Solution Alloy of Immiscible Metals: Single and Binary Monolayer Films of Bi and Pb on Rh(111)”**  
Junji Yuhara, M. Yokoyama and T. Matsui (*Nagoya University*)

The talk 27AM07 has been moved to 15:10 of 26 May at room Berlin.

*Session; Characterization by Electrons*

- 27BM01** (9:00 – 9:30) — *Invited* —  
**“An Extreme High Vacuum Cold Field Emission Electron Gun Generating Electron Beam of High Angular Current Density”**  
Boklae Cho and S. Kokubo (*Hitachi High-Technologies Corporation*)
- 27BM02** (9:30 – 9:50)  
**“FERRUM: A New Highly Efficient Spin Detector for Electron Spectroscopy”**  
M. Escher, N. Weber, Michael Merkel, C.M. Schneider and L. Pluczynski (*FOCUS GmbH*)
- 27BM03** (9:50 – 10:10)  
**“Recent Development of Monte Carlo Methods for Study of Electron-Solid Interactions”**  
Zejun Ding, P. Zhang and R.G. Zeng (*University of Science and Technology of China*)
- 27BM04** (10:10 – 10:30)  
**“A Monte Carlo Study of Spin-Polarization of Secondary Electrons”**  
Shifeng Mao and Z. Ding (*University of Science and Technology of China*)

— BREAK —

- 27BM05** (10:50 – 11:20) — *Invited* —  
**“Reflection Electron Energy Loss Spectroscopy for Ultrathin Gate Oxide Materials”**  
Hee Jae Kang (*Chungbuk National University*)
- 27BM06** (11:20 – 11:40)  
**“Characterization of Ar Ion Sputter Induced Damage for GaN”**  
Keita Kataoka, Y. Kimoto, K. Horibuchi, T. Nonaka, N. Takahashi, T. Narita, M. Kanechika and K. Domae (*Toyota Central Research and Development Laboratories, Inc.*)
- 27BM07** (11:40 – 12:00)  
**“Practical Usefulness of SEM-EDX Spectrum Subtraction for Material Identification of Submicrometer-sized Particle on Glass Substrate”**  
Masato Tomita, S. Isobe and H. Yamamoto (*Corning Holding Japan G.K.*)

*Closing Ceremony (12:20 – 12:40)*