

October 28, 2007 (Sunday)

Tutorial (Kanazawa Art Hall)

13:00~14:00

SuA-1 Atomic-Level Characterization of Materials with Core and Valence Photoemission (*Invited*)
C.S.Fadley

14:00~15:00

SuA-2 Spintronics and Interfaces (*Invited*)
T.Shinjo

--- **BREAK** ---

15:30~16:30

SuA-3 Electron Holography: Performance limits (*Invited*)
H.Lichite

16:30~17:30

SuA-4 Principles and State of the Art of Atomic Force Microscopy (*Invited*)
S.Morita

18:00~20:00

Welcome Reception (Ishikawa Ongakudo, Interchange (Koryu) Hall)

October 29, 2007 (Monday)

09:15~10:00

Opening Ceremony (Ishikawa Ongakudo Room A: Concert Hall)

Plenary (Ishikawa Ongakudo Room A: Concert Hall)

10:00~10:50

MoM-1 ToF-SIMS Characterization of Biological Materials: Recent Advances and Future Challenges

(Invited)

D.G.Castner

10:50~11:40

MoM-2 Semiconductor Profiling with Very High Depth Resolution: Challenges and Solutions *(Invited)*

W.Vandervorst

11:40~12:30

MoM-3 Past, Present and Future on LEEM/PEEM *(Invited)*

T.Koshikawa

--- LUNCH ---

Transmission Electron Microscopy (Kanazawa Art Hall)

14:00~14:30

MoA-1 Design of an Aberration-Corrected Low-Voltage Transmission Electron Microscope *(Invited)*

H.Rose

14:30~15:00

MoA-2 Phase Imaging Microscopy with Increased Depth of Focus by TEM and STEM *(Invited)*

T.Ikuta and M.Ichihashi

15:00~15:30

MoA-3 Wave Field Restoration Methods in Electron Microscopy based on Three-dimensional Optical Transfer Properties *(Invited)*

Y.Takai and Y.Kimura

--- BREAK ---

15:50~16:20

MoA-4 STEM and HVARM Characterization of Ceramic Interface *(Invited)*

Y.Ikuhara

16:20~16:50

MoA-5 Direction-Free Magnetic Field Application System *(Invited)*

K.Harada

16:50~18:00

Sponsored Session (10 min each, without discussion, Kanazawa Art Hall)

APCO Ltd.

Carl Zeiss SMT, Inc.

FEI Company

Hitachi High-Technologies Corp.

JEOL Ltd.

Nano Science Corp.

Shimadzu Corp.

October 30, 2007 (Tuesday)

Field Emission/Electron Microscopy (Kanazawa Art Hall)

09:00~09:30

TuM-1 Noble Metal/W(111) Single Atom Pyramidal Tips and Their Field Electron and Ion Emission Characteristics (*Invited*)
H.-S.Kuo and T.T.Tsong

09:30~10:00

TuM-2 Fluctuations of Field Emission Currents under Extreme High Vacuum (*Invited*)
B.Cho, T.Ishikawa and C.Oshima

10:00~10:30

TuM-3 Monte Carlo Simulation of SEM and AEM Images (*Invited*)
Z.J.Ding, Y.G.Li, S.M.Xiao, S.F.Mao, H.M.Li and Z.M.Zhang

--- BREAK ---

10:50~12:10

Student Award Ceremony & Short Presentation (5 min each, without discussion, Kanazawa Art Hall)

TuP-9 A Process for Exit Wave Reconstruction Using Through-focus Series
T.Nomaguchi (*Osaka University, Japan*)

TuP-14 First Observation of Dynamic Shape Change of a Gold Nano-particle Catalyst under Reaction Gas Environment by Transmission Electron Microscopy
K.Ueda (*Nagoya University, Japan*)

TuP-15 Newly Developed High Spatial Resolution X-ray Microscope Equipped with Carbon Nanotube Field Emission Cathode
R.Yabushita (*Mie University, Japan*)

TuP-23 Electron Emission from Highly Charged Ion Irradiated Alkali-halide Targets
W.Meissl (*Vienna University of Technology, Austria*)

TuP-31 Application of the Single-atom Electron Source to Scanning Electron Microscope
T.Urata (*Waseda University, Japan*)

TuP-38 Mapping of Chemical Bonding States of Ag/Si(111) with Synchrotron Radiation Photo Emission Electron Microscopy
M.Hashimoto (*Osaka Electro-Communication University, Japan*)

TuP-46 Analysis of X-ray Irradiation Effect in High- κ Gate Dielectrics by Time-dependent Photoemission Spectroscopy Using Synchrotron Radiation
T.Tanimura (*The University of Tokyo, Japan*)

TuP-50 Study on Dynamics of Surface Structure by Rapid and Time-resolved X-ray Photoelectron Diffraction
Y.Kisaka (*Tokyo University of Science, Japan*)

TuP-59 Surface Plasmon - Cobalt Phthalocyanine Sensor for NO₂ gas
A.B.El Basaty (*Ministry of Higher Education, Egypt*)

TuP-62 Hysteresis of Magnetization Induced Second Harmonic Generation from the Co Doped Rutile TiO₂(110) Surface
R.Watanabe (Japan Advanced Institute of Science and Technology, Japan)

TuP-89 Structural Analysis of Crystal Surfaces by Reflection High-Energy Electron Diffraction Patterns: The Si(111)7×7 Surface
T.Minami (Japan Women's University, Japan)

12:10~12:30

Group Photo

--- LUNCH ---

LEEM/PEEM Workshop (Kanazawa Art Hall)

14:00~14:30

TuA-1 Epitaxial MnAs on GaAs(100): A X-ray Magnetic Dichroism PEEM and LEEM Study (*Invited*)
E.Bauer, R.Belkhou, F.Maccherozzi, S.El Moussaoui, N.Rougemaille, M.Jalochowski, H.Akinaga and F.Takana

14:30~15:00

TuA-2 The Dance of the Domains: Excitations in Magnetic Microstructures (*Invited*)
C.Quitmann, J.Raabe, M.Buess, C.Back, K.Perzelmaier, K.Kuepper and J.Fassbender

15:00~15:30

TuA-3 Detecting Surface Diffusion Inhomogeneities through LEEM Observations of Non-Equilibrium Concentration Profile Evolution (*Invited*)
C.M.Yim, K.L.Man and M.S.Altman

15:30~15:50

TuA-4 Surface Modification of Oxides by Electron-Stimulated Desorption for Growth Mode Control of Metal Films: Experiment and DFT Calculations
T.O.Mentes, A.Locatelli, L.Aballe, A.Pavlovska, E.Bauer, T.Pabisiak and A.Kiejna

--- BREAK ---

16:10~16:40

TuA-5 Low Energy Electron Microscopy (*Invited*)
R.M.Tromp

16:40~17:10

TuA-6 SMART – an Aberration Corrected Spectromicroscope for Surface Characterization with High Resolution (*Invited*)
Th.Schmidt, F.Maier, U.Groh, P.Lévesque, H.Marchetto, W.Engel, P.Hartel, R.Spehr, G.Lilienkamp, D.Preikszas, G.Benner, R.Fink, H.-J.Freund, E.Bauer, H.Rose and E.Umbach

17:10~17:30

TuA-7 Thickness Determination of Graphene Layers Formed on SiC using Low-energy Electron Microscopy
H.Hibino, H.Kageshima, F.Maeda, M.Nagase, Y.Kobayashi and H.Yamaguchi

17:30~17:50

Sponsored Session (10 min each, without discussion, Kanazawa Art Hall)

ASTECH Corp.

Omicron NanoTechnology GmbH

--- BREAK ---

18:30~21:00

Poster Session (Ishikawa Ongakudo, Interchange (Koryu) Hall)

- TuP-1 Adjustment of the 3rd and 5th Order Spherical Aberrations Required for High Resolution Imaging in Spherical Aberration Corrected TEM
M.Hibino, S.Hattori, R.Iiyoshi and T.Kitamura
- TuP-2 Interpretation of Cs-corrector System with Twin Hexapoles and Transfer Doublet based on Geometrical Optics Theory
T.Kawasaki, M.Ichihashi, T.Nakamura, T.Kawasaki, T.Matsutani, Y.Kimura and T.Ikuta
- TuP-3 Numerical Study of Space Charge Effects in a Point Cathode Electron Gun: Distribution of Space Charge Density
R.Iiyoshi
- TuP-4 Metrological Evaluation of Signal Formation in CD-SEM -a Quantitative Computer Simulation-
T.Iyasu, Y.Kimura, N.Anazawa and R.Shimizu
- TuP-5 Optimum Condition for X-ray Projection Microscopic Observation of Phase-contrast Images
Y.Yamaguchi, R.Shimizu, K.Minami, K.Yada and H.Kai
- TuP-6 Monte Carlo Simulation of X-ray Photoemission Electron Microscopy Image
Z.M.Zhang, Y.J.Kuang, H.P.Mei and Z.J.Ding
- TuP-7 Development of an Aberration-free Phase Imaging System using a Detector Array and an Annular Pupil in Scanning Transmission Electron Microscopy
M.Taya, T.Ikuta, T.Matsutani, T.Tanaka, K.Ogai, Y.Harada, H.Saito and Y.Takai
- TuP-8 Restoration of Phase and Amplitude Components using Dynamic Hollow-cone Illumination in Transmission Electron Microscopy
H.Yoshimori, M.Taya, T.Ikuta and Y.Takai
- TuP-9 A Process for Exit Wave Reconstruction Using Through-focus Series (*Student Award*)
T.Nomaguchi, Y.Kimura and Y.Takai
- TuP-10 Development of Stage-scanning System for Confocal Scanning Transmission Electron Microscopy
A.Hashimoto, M.Takeguchi, M.Shimojo, K.Mitsuishi, M.Tanaka and K.Furuya
- TuP-11 Magnification-correcting Algorithm within 1% Error for Scanning Transmission Electron Microscope
R.Tsuneta, M.Koguch, S.Nagashima and T.Aoki
- TuP-12 Measurement of Precision for Developing Automatic Transmission Electron Microscope
M.Hayashida, Y.Kimura and Y.Takai
- TuP-13 Development of Annular Pupil for Electron Optics
T.Matsutani, M.Taya, T.Ikuta, M.Fujiwara, T.Tanaka, Y.Kimura, Y.Takai, T.Kawasaki and M.Ichihashi
- TuP-14 First Observation of Dynamic Shape Change of a Gold Nano-particle Catalyst under Reaction Gas Environment by Transmission Electron Microscopy (*Student Award*)
K.Ueda, T.Kawasaki, H.Hasegawa, T.Tanji and M.Ichihashi

- TuP-15 Newly Developed High Spatial Resolution X-ray Microscope Equipped with Carbon Nanotube Field Emission Cathode (*Student Award*)
R.Yabushita and K.Hata
- TuP-16 Cross-Sectional TEM Specimen Preparation by Merging Wedge-Polishing with FIB Milling for the Nano-wires Grown on Various Substrates
X.Guo, Y.Nakayama, M.Song and K.Furuya
- TuP-17 TEM and HAADF-STEM Study on the Structure of Au Particles on TiO₂
T.Akita, K.Tanaka, M.Kohyama and M.Haruta
- TuP-18 Forbidden Reflection Based Dark Field Transmission Electron Microscopy for the Evaluation of Local Lattice Distortion in Epitaxial Thin Films
S.Takeno, M.Koike, H.Tanaka, T.Kinno, M.Tomita and F.Uesugi
- TuP-19 HAADF-STEM Observations of Group III Nitride Materials
H.Okuno, M.Takeguchi, K.Mitsuishi, and K.Furuya
- TuP-20 Electron Holography Observation of AlGa_N/Ga_N and AlInGa_N/Ga_N Heterointerfaces
M.Takeguchi, H.Okuno, Y.Irokawa, Y.Sakuma and K.Furuya
- TuP-21 Bicrystal Study on Grain Boundary Structures and Diffusion Properties of Al₂O₃
T.Nakagawa, I.Sakaguchi, N.Shibata, K.Matsunaga, T.Yamamoto, N.Ohashi, H.Haneda and Y.Ikuhara
- TuP-22 Spin Polarization of Field Emitted Electrons from Ferromagnetic Half-metallic Heusler Alloy Co₂MnSi
S.Nagai, Y.Fujiwara and K.Hata
- TuP-23 Electron Emission from Highly Charged Ion Irradiated Alkali-halide Targets (*Student Award*)
W.Meissl, M.C.Simon, J.R.Crespo, J.Ullrich and F.Aumayr
- TuP-24 Field Emission Image of Aluminum Clusters Deposited on Carbon Nanotubes
Y.Saito, T.Matsukawa, T.Yamashita, K.Asaka and H.Nakahara
- TuP-25 Behaviors of a Single CO₂ Molecule on a Pentagon at Carbon Nanotube Tip Observed by Field Emission Microscopy
Y.Kishimoto and K.Hata
- TuP-26 Dynamic FEM Observations of Layer by Layer Burning Process of Multi-walled Carbon Nanotube in O₂ Atmosphere
K.Hata, S.Waki and Y.Kishimoto
- TuP-27 A New Candidate of Gas Field Ion Source: Field Ionization Behaviors of Single-Atom Tips
H.Kuo, I.Hwang, Y.Lu, T.Fu and T.Tsong
- TuP-28 Study on Field Emission Properties from Au-covered Nanotip
K.Nomura, E.Rokuta, T.Itagaki, H.Kuo, T.T.Tsong and C.Oshima
- TuP-29 Characterization of Faceting Structures on Noble Metal Electroplated W(111) Surface
K.Tagawa, T.Ishikawa, E.Rokuta, H.S.Kuo, T.T.Tsong and C.Oshima
- TuP-30 Atomic Configuration at Apex of STM/STS Tips
T.Irisawa, T.Yamada and T.Mizoguchi

- TuP-31 Application of the Single-atom Electron Source to Scanning Electron Microscope (*Student Award*)
T.Urata, T.Ishikawa, B.Cho, E.Rokuta, R.Nonogaki, H.Saito, A.Yonezawa and C.Oshima
- TuP-32 Image Blur by Micro Channel Plate in LEEM/PEEM
H.Shimizu, T.Yasue and T.Koshikawa
- TuP-33 Effects of Coulomb Interaction between Photoelectrons on XPEEM
T.Yasue, A.Nakaguchi, M.Hashimoto, T.O.Mentes, A.Locatelli, E.Bauer and T.Koshikawa
- TuP-34 Effects of Metal Overlayers on Magnetization of Co/W(110) Studied by Spin-polarized LEEM (SPLEEM)
M.Suzuki, M.Hashimoto, M.Ueda, T.Yasue, T.Koshikawa and E.Bauer
- TuP-35 Ga Droplet Mediated Surface Ordering of GaP(111)B - Structure and Dynamics
E.Hilner, A.Zakharov, L.Klanner, E.Lundgren, J.Andersen and A.Mikkelsen
- TuP-36 Ag on In/Si(111) Processes by Means of LEEM
Y.Matsuoka, F.-Z.Guo, M.Hashimoto, M.Suzuki, M.Ueda, T.Yasue, T.Kinoshita, K.Kobayashi, S.Shin, M.Oura, T.Takeuchi, Y.Saito and T.Koshikawa
- TuP-37 Observation of the Growth Process of Sb on In/Si (111) by the Synchrotron Radiation XPEEM and LEEM
M.Ueda, A.Nakaguchi, F.-Z.Guo, M.Hashimoto, T.Yasue, T.Kinoshita, K.Kobayashi, S.Shin, M.Oura, T.Takeuchi, Y.Saito and T.Koshikawa
- TuP-38 Mapping of Chemical Bonding States of Ag/Si(111) with Synchrotron Radiation Photo Emission Electron Microscopy (*Student Award*)
M.Hashimoto, F.-Z.Guo, M.Suzuki, M.Ueda, Y.Matsuoka, T.Kinoshita, K.Kobayashi, S.Shin, M.Oura, T.Takeuchi, Y.Saito, T.Matsushita, T.Yasue and T.Koshikawa
- TuP-39 Oxide-mediated Formation of α -FeSi₂ on Si(001) Studied by X-ray Adsorption Spectroscopy Using SPELEEM
F.Maeda, H.Hibino, S.Suzuki and F.-Z.Guo
- TuP-40 Synchrotron Radiation Induced X-ray Photoelectron Emission Microscopy (SR-XPEEM) with Aberration Corrected Energy Filtering
N.Barrett, L.-F.Zagonel, O.Renault, A.Bailly, J.Leroy, J.C.Cezar, N.Brookes, S.Shao-Ju and D.Cockayne
- TuP-41 Energy and Time Resolved Microscopy with PEEM: Recent Developments and State of the Art
M.Merkel, N.Weber, M.Escher, A.Oelsner and G.Schönhense
- TuP-42 Energy Dependence of Electron Stopping Powers in Elemental Solids over the 50 - 30,000 eV Energy Range
S.Tanuma, K.Kumagai and C.J.Powell
- TuP-43 Inelastic Mean Free Path and Surface Excitation Parameter in Ni for Medium-Energy Electrons Determined by Absolute Reflection Electron-Energy Loss Spectrum Analysis
T.Nagatomi and K.Goto
- TuP-44 DATA Base of Absolute Auger Electron Spectra in AIST
K.Goto and A.Kurokawa

- TuP-45 Chemical-state-resolved in-depth Profiles in Gate Stack Films Studied by Angle-resolved Photoemission Spectroscopy Using Synchrotron Radiation
S.Toyoda, J.Okabayashi, M.Oshima, G.L.Liu, Z.Liu, K.Ikeda and K.Usuda
- TuP-46 Analysis of X-ray Irradiation Effect in High- κ Gate Dielectrics by Time-dependent Photoemission Spectroscopy Using Synchrotron Radiation (*Student Award*)
T.Tanimura, S.Toyoda, H.Kumigashira, M.Oshima, G.L.Liu, Z.Liu, K.Ikeda and K.Usuda
- TuP-47 X-ray Photoelectron Spectroscopic Analysis of HfSiON Thin Films
L.Zhang, S.Terauchi, Y.Azuma and T.Fujimoto
- TuP-48 Analysis of ITO/p-GaN Interfaces by Synchrotron Radiation Hard X-ray Photoemission Spectroscopy and their Electrical Characteristics
Y.Toyoshima, K.Horiba, J.Ohta, H.Fujioka, M.Oshima, H.Miki, Y.Takeda, Y.Saito, H.Yoshikawa and K.Kobayashi
- TuP-49 First result of New Display-type Analyzer at Ritsumeikan SR center
N.Takahashi, F.Matsui, H.Matsuda, Y.Hamada, K.Nakanishi, H.Namba and H.Daimon
- TuP-50 Study on Dynamics of Surface Structure by Rapid and Time-resolved X-ray Photoelectron Diffraction (*Student Award*)
Y.Kisaka, A.Hashimoto, A.Suzuki, S.Miyasaka, M.Nojima, M.Owari and Y.Nihe
- TuP-51 Surface Structural Analysis of VO_x/TiO₂(110) by X-ray Photoelectron Diffraction
S.Miyasaka, K.Amano, M.Nojima, M.Owari and Y.Nihe
- TuP-52 Differential Photoelectron Holography of Cu(100) Surface by Using of Laboratory Level X-ray Sources
A.Hashimoto, A.Suzuki, Y.Kisaka, S.Miyasaka, M.Nojima, M.Owari and Y.Nihe
- TuP-53 Holographic Imaging of TiO₂(110) Structure by Differential Photoelectron Holography
A.Suzuki, A.Hashimoto, M.Nojima, Y.Nihe and M.Owari
- TuP-54 Comparison among Black-Body, Synchrotron Radiation, and Electron Bremsstrahlung Spectra
J.Kawai and T.Tanigaki
- TuP-55 X-ray Refractive Lens Made from a Gramophone Record for Total Reflection X-ray Fluorescence Analysis
S.Kunimura and J.Kawai
- TuP-56 Materials Analysis in a Scanning Electron Microscope by a Wavelength Dispersive X-ray Spectrometer combined with a Multi-Capillary Lens
M.Tanaka, M.Takeguchi, K.Furuya, T.Kitamura, H.Soejima, T.Marui, M.Kawai and K.Miyazaki
- TuP-57 Simple Method of Surface Characterization by X-ray Scattering
Y.Fujii and T.Nakayama
- TuP-58 Optically Monitored Wet Chemical Preparation of SEIRA Active Metallic Nanostructures
D.Enders, T.Nagao and T.Nakayama
- TuP-59 Surface Plasmon - Cobalt Phthalocyanine Sensor for NO₂ gas (*Student Award*)
A.B.El Basaty, R.A.Abdella, T.A.El Brolossy, S.Abdalla, S.Negm, and H.Talaat
- TuP-60 Optical Sum Frequency Generation Study of Water Structure on a Quartz Surface with Polymer Adsorption

H.Sano, H.Yoshida, T.Oosugi, T.Murakami, Y.Takagawa, G.Mizutani, T.Ooya and N.Yui

- TuP-61 Images of Hydrogen Deficiency on H-Si(111) Observed by Sum Frequency Microscopy
Y.Miyauchi, H.Sano, H.Yamashita, J.Okada and G.Mizutani
- TuP-62 Hysteresis of Magnetization Induced Second Harmonic Generation from the Co Doped Rutile TiO₂(110) Surface (*Student Award*)
R.Watanabe, M.Yuasa, Y.Yahata, G.Mizutani, T.Suzuki, Y.Segawa, Y.Matsumoto, Y.Yamamoto and H.Koinuma
- TuP-63 Cross-Section Dependence of the Field Enhancement in Arrays of Copper Nanowires
K.Locharoenrat, H.Sano and G.Mizutani
- TuP-64 An AFM Study of the Topography of Si (100) Samples in Low Oxygen Pressures Ambient Bombarded by a Projectile of 9keV Ar⁺ Beam
C.Lee, C.Chen, C.Hsu, G.Hwang, R.Hsu, C.Liao and S.Lee
- TuP-65 XPS Depth Analysis Using C₆₀ Ion Sputtering of Buried Interface
Y.Yamamoto, S.Higashi and K.Yamamoto
- TuP-66 HCI Analysis of Self Assembled Monolayer of Alkanethiol over Gold:
M.Flores, B.O'Rourke, V.Esaurov and Y.Yamazaki
- TuP-67 Molecular-Level Ion Etching by Water Droplet Impact Method
Y.Sakai, Y.Iijima, K.Mori and K.Hiraoka
- TuP-68 Spin-polarized Ion Scattering Spectroscopy as a New Analytical Tool of Surface and Interface Magnetism
T.Suzuki
- TuP-69 Dynamics of Spin Exchange in Alkali Atom-Surface Scattering
E.Hirose and E.Torikai
- TuP-70 SAXS and XAFS Characterization of Nano-scale Precipitates in Copper-base Alloys
Y.Takahashi, T.Sanada, S.Sato, T.Okajima, K.Shinoda and S.Suzuki
- TuP-71 Enrichment of Alloying Elements on the Surface of Iron Based Alloys
T.Yamamoto, K.Shinoda and S.Suzuki
- TuP-72 Structural Characterization of Stress Induced Martensitic Transformation in Iron Based Shape Memory Alloys
S.Suzuki, S.Senoo, K.Shinoda, T.Maruyama and M.Sato
- TuP-73 Oxide Thickness Measurement by Scanning Electron Microscopy with Controlling Ultra-low Accelerating Voltage
M.Nagoshi, T.Kawano and K.Sato
- TuP-74 Influence of Anion Coexistence on Crystal Structure of Iron Oxides Deposited from Steel Surfaces
K.Shinoda, S.-K.Kwon, S.Suzuki and Y.Waseda
- TuP-75 Measurement of Surface Potential of MgO Film under Ion Irradiation by Ion Scattering Spectroscopy
T.Kuwayama, T.Nagatomi, Y.Takai, K.Yoshino, Y.Morita, M.Nishitani and M.Kitagawa

- TuP-76 Density Analysis of Ozone-Formed SiO₂ Thin Film
A.Kurokawa, K.Odaka, T.Fujimoto and Y.Azuma
- TuP-77 Ellipsometry Investigation of Water Film Formation on a Clean SiO₂ Thin Film
A.Kurokawa and K.Odaka
- TuP-78 Study on Imidazolium-based Ionic Liquids with Scanning Atom Probe and Knudsen Effusion Mass Spectrometry
A.Tolstoguzov, U.Bardi, O.Nishikawa and M.Taniguchi
- TuP-79 Study of Graphite Nanofibers by the Scanning Atom Probe
M.Taniguchi, Y.Hasegawa, O.Nishikawa and M.Ushirozawa
- TuP-80 Evaluation of the Instrument for Three-dimensional Atom Probe (3DAP)
T.Kaneko, S.Ito, C.Yamashita, N.Mayama, M.Nojima, M.Taniguchi and M.Owari
- TuP-81 The Stress of the Needle Specimen on the Three-dimensional Atom Probe (3DAP)
N.Mayama, C.Yamashita, T.Kaito, M.Nojima and M.Owari
- TuP-82 Development of Preset-type Sample Stage in Three-dimensional Atom Probe
S.Ito, T.Kaneko, C.Yamashita, T.Kaito, T.Adachi, N.Mayama, M.Nojima, M.Taniguchi and M.Owari
- TuP-83 Improvement of Porous-Structure of Sintered Highly Porous Aluminum Materials by Surface Modification of Al Particles with Tin
T.Sonoda and K.Katou
- TuP-84 Atomic-scale Structure and Morphology of γ -FeOOH Particles Formed by Corrosion of Fe-base Alloys in Aqueous Solution
K.Inoue, K.Shinoda, S.Suzuki and Y.Waseda
- TuP-85 Formation of Ag Nano Protuberance by Electron Beam Irradiation to Ag₂S Surface
J.Tajima, S.Ueno, Y.Mashita, T.Ishikawa and C.Oshima
- TuP-86 New Nonvolatile Memory Effect of Metal Nano Gap Junction
Y.Naitoh, M.Horikawa and T.Shimizu
- TuP-87 Viscoelastic Measurements of Living Cells by AFM: Stress Relaxation and Force Hysteresis Analyses
T.Okajima, M.Tanaka, S.Tsukiyama, S.Yamamoto, M.Shimomura and H.Tokumoto
- TuP-88 A Point Spectroscopy and 2D Spectroscopic Imaging by Means of XANAM
S.Suzuki, Y.Koike, M.Nakamura, K.Kinoshita, K.Fujikawa, W.J.Chun, M.Nomura and K.Asakura
- TuP-89 Structural Analysis of Crystal Surfaces by Reflection High-Energy Electron Diffraction Patterns: The Si(111)7×7 Surface (*Student Award*)
T.Minami, Y.Yamagata and A.Ichimiya
- TuP-90 Structural Analysis of the Si(111) $\sqrt{21} \times \sqrt{21}$ -(Au,;Ag) Surface by Reflection High-Energy Electron Diffraction Patterns
N.Kido and A.Ichimiya
- TuP-91 Thermal Evolution of Co Islands on Ag/Si(111)- $\sqrt{3} \times \sqrt{3}$ and Ag/Ge(111)- $\sqrt{3} \times \sqrt{3}$ Surfaces
S.-L.Tsay, C.-Y.Kuo, C.-L.Lin, W.-C.Chen and T.-Y.Fu

- TuP-92 Gd Growth on Si(111) Sstudied by STM
K.Shigeta, T.Igarashi, T.Yasue and T.Koshikawa
- TuP-93 Al-induced One Dimensional Nano-facet Formation on Si(113) Surface
M.Mino, H.Suzuki, H.Nakahara and Y.Saito
- TuP-94 Indium Induced Surface Reconstruction on Si(113) Surface
H.Nakahara, A.Tanaka, A.Ichimiya and Y.Saito
- TuP-95 Wavelength Dependence of the SH Intensity from the Stepped Au(443) Surface
Y.Maeda, S.Miyatake, K.Fujii, Y.Satake, T.Iwai and G.Mizutani
- TuP-96 Geometry of Absorbed Hydrogen on Ni(111) Surface
S.Komagata, K.Hirota, S.Arii, I.Kanazawa, K.Fukutani, K.Nozawa and F.Komori
- TuP-97 Magnetism of One-Dimensional Monatomic Fe wires on Au(788)
S.Shiraki, H.Fujisawa, M.Hirose, B.Usman, M.Furukawa, T.Nakamura, T.Muro, M.Nantoh and M.Kawai
- TuP-98 Surface Chemical State Analysis of Sc-O/W(100) System during Phase Transition at High Temperature
Y.Nakanishi, T.Nagatomi and Y.Takai
- TuP-99 TEM and Raman Spectroscopy Study of Graphene Sheets
K.Ukita, M.Katsumata, H.Tokumoto, H.Kunioku, H.Tokui, K.Shimamura and S.Akita
- TuP-100 STM and STS Study of SWCNT on Insulating Layers
H.-J.Shin, S.Clair, Y.Kim and M.Kawai
- TuP-101 Structural Characterization of Rutile Titania Surfaces by SPM and DFT
T.Kubo, H.Orita and H.Nozye
- TuP-102 STM Study of Electronic Structure of Au Nanoparticles on TiO₂ Surfaces
Y.Maeda, M.Okumura, S.Tsubota, M.Haruta and M.Kohyama
- TuP-103 STM Study of the Growth Mode of CoO(100) and NiO(100) on Ag(100)
S.Großer, R.Shantyr, Ch.Hagendorf, H.Neddermeyer and W.Widdra
- TuP-104 Ultra-thin Aluminum Oxide Layers Studied by Medium Energy Ion Scattering Combined with Photoelectron Spectroscopy
T.Nishimura, T.Sato, T.Kokita and Y.Kido
- TuP-105 Structure of the Surface Oxide on Ni₃Al(111)
M.Schmid, G.Kresse, E.Napetschnig, A.Buchsbaum and P.Varga
- TuP-106 The Oxidation of Pd(110)
R.Westerström, C.J.Weststrate, A.Resta, A.Mikkelsen, J.N.Andersen, E.Lundgren, N.Seriani, F.Mittendorfer, G.Kresse, A.Stierle, X.Torrelles and M.Schmid
- TuP-107 Influence of Rapid O₂ Pressure Increase on the Oxide Growth Kinetics at SiO₂/Si(001) Interface Studied by Real-Time X-ray Photoelectron Spectroscopy
S.Ogawa, A.Yoshigoe, S.Ishidzuka, Y.Teraoka and Y.Takakuwa

- TuP-108 Real-Time Observation of the Oxidation Reaction Kinetics of a $\text{Si}_{1-x}\text{C}_x$ Alloy Layer Grown on Si(001) with C_2H_4 by UPS and RHEED Combined with AES
Y.Takakuwa, S.Ogawa and T.Kawamura
- TuP-109 Water Effect on Infrared spectra of DNA: First-Principles Study
H.Taniguchi, M.Saito, Y.Aoyama, T. Yamamoto, and H. Nagao
- TuP-110 *Ab initio* Study on Reactions of Tungsten Cluster with Organosilicon Molecules
T.Takeuchi, M.Kiuchi, S.Yoshimura and S.Hamaguchi
- TuP-111 A Simulation of Electron Irradiation Damages in Double-Walled Carbon Nanotube
T.Majima, M.Yasuda, Y.Kimoto, K.Tada, S.Akita, Y.Nakayama and Y.Hirai
- TuP-112 Aggregation of Graphene Adatoms: First-Principles Study
T.Hashi, M.Saito and K.Yamashita
- TuP-113 Bistability of Ultrathin Bi Films
M.Saito, Y.Takemori, T.Hashi and T.Nagao
- TuP-114 Two-component Density Functional Calculation on Positron Annihilation in a Variety of Crystals
A.Nakamoto, M.Saito, T.Yamasaki and M.Okamoto
- TuP-115 Wavefunctional Analysis of Electron Transfers in 2D Nanostructures under External Fields
M.Tomiya, S.Sakamoto and H.Kusumoto
- TuP-116 3D Structural Characterization of a Single InAs Quantum Dot (*Post deadline paper*)
M. Konno, T. Yaguchi, T. Kamino, K. Nakamura, J. Azuma, T. Kita, and T. Inoue
- TuP-117 Spectromicroscopy with the NanoESCA on Nanostructured Heterogeneous Materials (*Post deadline paper*)
N. Barrett, O. Renault, L. F. Zagonel, A. Bailly, B. Kroemker, D. Funnemann, K. Winkler, and J. Schuler
- TuP-118 Atomic Resolution AFM with a Purely Electrical QPlus Sensor (*Post deadline paper*)
M. Maier, B. Uder, A. Bettac, M. Wittmann, and A. Feltz

October 31, 2007 (Wednesday)

SPM on Biological Systems/AFM Characterization (Kanazawa Art Hall)

09:00~09:30

WeM-1 Dynamic Biomolecular Processes Dissected by High-speed Atomic Force Microscopy (*Invited*)
T.Ando, T.Uchihashi, N.Kodera, D.Yamamoto, A.Miyagi and H.Yamashita

09:30~10:00

WeM-2 Single Molecule Recognition Force Spectroscopy and Recognition Imaging (*Invited*)
P.Hinterdorfer

10:00~10:30

WeM-3 Imaging of Biological Soft Samples by Atomic Force Microscopy in Liquid (*Invited*)
T.Ushiki

--- **BREAK** ---

10:50~11:20

WeM-4 Nanoscale Characterization of Protein Aggregates and Nanofibers (*Invited*)
S.Jarvis, A.Mostaert and T.Fukuma

11:20~11:50

WeM-5 Characterizing precise morphology by Atomic Force Microscopy (*Invited*)
H.Itoh, C.Wang, J.Hu, A.Takano, S.Kurosawa and S.Ichimura

12:00~17:00

Excursion

18:30~21:00

Banquet (ANA Hotel)

November 1, 2007 (Thursday)

STM (New Phenomena and New Techniques) (Kazawa Art Hall)

09:00~09:30

ThM-1 Imaging and Creating Metal Oxide Surfaces with Modified Electronic Structure (*Invited*)
G.Thornton

09:30~10:00

ThM-2 Element Specific Imaging by Scanning Tunneling Microscopy combined with Synchrotron Radiation Light (*Invited*)
T.Eguchi, T.Okuda, T.Matsushima, A.Kataoka, A.Harasawa, K.Akiyama, T.Kinoshita and Y.Hasegawa

10:00~10:30

ThM-3 STM Goes 3D: Roughening at the Oxide-Metal Interface (*Invited*)
W.Widdra, S.Großer and Ch.Hagendorf

--- BREAK ---

Magnetism (Kanazawa Art Hall)

10:50~11:20

ThM-4 Ion-Beam Induced Magnetic Nanostructures (*Invited*)
P.Varga

11:20~11:50

ThM-5 Interface Magnetism in Spintronics Model Systems (*Invited*)
I.Krug, M.Müller, F.Matthes, F.U.Hillebrecht and C.M.Schneider

11:50~12:20

ThM-6 Probing the Kondo Effect of Individual Magnetic Adatoms with a Superconducting Tunneling Tip (*Invited*)
W.-D.Schneider, M.Ternes, F.Patthey, C.P.Lutz, C.F.Hirjibehedin and A.J.Heinrich

--- LUNCH ---

Surface Phenomena (Kanazawa Art Hall)

13:50~14:20

ThA-1 *In Situ* Scanning Electron Microscopy of Single-Walled Carbon Nanotube Growth (*Invited*)
Y.Homma, D.Takagi, I.Wako and T.Chokan

14:20~14:50

ThA-2 Structures of Ultrathin Fe Films Grown on Ge(111) at Various Temperatures Studied by X-ray Photoelectron Diffraction (*Invited*)
W.G.Chu, A.Tsuruta, M.Owari and Y.Nihei

14:50~15:20

ThA-3 Low-Energy Acoustic Plasmons at Metal Surfaces (*Invited*)
B.Diaconescu, K.Pohl, L.Vattuone, L.Savio, P.Hofmann, V.M.Silkin, J.M.Pitarke, E.V.Chulkov, P.M.Echenique, D.Farías and M.Rocca

15:20~15:40

ThA-4 Low-Energy EELS with High Momentum Resolution: A New Characterization Tool for Atomic-Level Plasmonics
T.Nagao, S.Yaginuma, C.Liu, T.Inaoka, T.Nakayama and M.Aono

--- BREAK ---

Ion Beam (Kanazawa Art Hall)

16:00~16:30

ThA-5 Qualitative and Quantitative Elemental Analysis with the Helium Ion Microscope (*Invited*)
B.Ward, N.Economou and J.Notte

16:30~17:00

ThA-6 Surface Nanostructures Created by Irradiation with Slow Highly Charged Ions (*Invited*)
F.Aumayr

17:00~17:30

ThA-7 Structure and Composition of Ultrathin Metal Oxide Dielectrics on Novel Electronic Materials
(*Invited*)
L.V.Goncharova, M.Dalponte, T.Feng, E.Garfunkel and T.Gustafsson

17:30~17:50

ThA-8 New Technological Developments in Low Energy Ion Scattering (LEIS); Growth of ALD Layers
and *In Situ* Analysis of Diffusion
H.Brongersma, R. ter Veen, W.-M.Li, S.Haukka, V.Lohmann and A.Yakshin

November 2, 2007 (Friday)

Characterization Method/Environmental Analysis (Kanazawa Art Hall)

09:00~09:30

FrM-1 Atomic-Level Characterization of Materials by Aberration-Corrected Scanning Transmission Electron Microscopes (*Invited*)
M.Watanabe

09:30~10:00

FrM-2 Development of a Ultra-high Performance Multi-Turn TOF-SIMS System with a Femtosecond Laser for Post-Ionization (*Invited*)
M.Ishihara, K.Kumondai, R.Mibuka, K.Uchino, and H.Yurimoto

10:00~10:30

FrM-3 Development of Laser-Assisted Three-Dimensional Atom Probe for Atomic Level Characterization of Real Electronic Devices (*Invited*)
M.Owari

--- BREAK ---

10:50~11:20

FrM-4 Development of the FIB-REMPI Apparatus for Environmental Micro- and Nano-Particle Analysis (*Invited*)
T.Sakamoto

11:20~11:50

FrM-5 *In Situ* XAFS Analysis of Automotive Exhaust Catalysts (*Invited*)
K.Dohmae, Y.Nagai, T.Tanabe, A.Suzuki, Y.Inada and M.Nomura

11:50~12:10

FrM-6 Structure and Reactivity of a Model Catalyst Alloy under Realistic Conditions
E.Lundgren, J.G.Wang, M.D.Ackermann, R.Westerström, J.Gustafson, A.Resta, A.Mikkelsen, J.N.Andersen, O.Balmes, X.Torrelles, J.W.M.Frenken and B.Hammer

12:10~12:30

FrM-7 Does NIST Database Provide Reliable Effective Attenuation Length for XPS Analysis?
K.Nakajima, K.Kimura, T.Conard and W.Vandervorst

12:30~12:40

Closing remarks (Kanazawa Art Hall)