PSA-13 Program

November 11 (Mon), 2013

Registration 9:30-19:00

Registration desk is basically opened only before opening and during coffee break and lunch.

Opening Remark 10:00-10:20

S. Hashimoto (JFE Techno-Research)

Plenary Lecture-1 (Chair: S. Tanuma and H. J. Kang) 10:20-11:10

O-1 10:20-11:10

(Invited) C. J. Powell* (*National Institute of Standards and Technology)

New Data Resources and Applications for AES and XPS

Standardization and pre-standardization (Chair: S. Tanuma and H. J. Kang) 11:10-12:30

O-2 11:10-11:40

(Invited) S. Otomo* (*Furukawa Electric Co. Ltd.)

Activity Report on Mass Scale Calibration of TOF-SIMS among Surface Analysis Society of Japan

O-3 11:40-12:10

(Invited) A. G. Shard* (*National Physical Laboratory)

Understanding Organic Depth Profiling with Reference Materials

O-4 12:10-12:30

A. Kurokawa,* S. Terauchi and M. Itoh (*National Institute of Advanced Industrial Science and Technology)

Repeatability of an Electron Detector Installed in a Cylindrical Mirror Analyzer

Lunch 12:30-14:00

Oral Presentation of Poster (odd-1) (Chair: S. Hashimoto and K. J. Kim) 14:00-15:30

10 minutes including 3 minutes discussion for one poster

Break 15:30-15:50

Oral Presentation of Poster (odd-2) (Chair: K. J. Kim and S. Hashimoto) 15:50-17:20

10 minutes including 3 minutes discussion for one poster

Poster Presentation (odd) 17:20-19:00

Odd poster number

Powell Prize Voting 18:45-19:00

November 12 (Tue), 2013

Registration 9:00-19:00

Registration desk is basically opened only before morning session and during coffee break and lunch.

Data analysis and treatment (Chair: A. G. Shard and S. Otomo) 9:30-11:10

O-5 9:30-10:00

(Invited) D. J. Graham* (*University of Washington)
Dealing With the Dilemma of ToF-SIMS Data Deluge

O-6 10:00-10:30

(Invited) T. Kono* (*Asahi Kasei Corporation)
Investigations on Multivariate Analyses for TOF-SIMS Image

O-7 10:30-10:50

Y. Kajiwara,* H. Iwai, K. Nakagawa, N. Kodani and S. Aoyagi (*Mitsubishi Gas Chemical Company)
G-SIMS and g-ogram Analysis of Hydroxyapatite Nanostructure Change Depending on Sodium Dodecylphosphate Concentration

O-8 10:50-11:10

A. Cacucci,* O. Heintz, V. Potin, L. Imhoff and N. Martin (*Universite de Bourgogne)
XPS profiles at low energy to improve depth resolution for ultra thin nanostructured films

Break 11:10-11:30

Theory and simulation (Chair: D. J. Graham and T. Kono) 11:30-12:20

O-9 11:30-12:00

(Invited) A. Delcorte,* O. A. Restrepo, K. Hamraoui and B. Czerwinski (*Universite catholique de Louvain)
Massive clusters for surface analysis: A microscopic view

O-10 12:00-12:20

A. Suzuki,* R. Miura, N. Hatakeyama and A. Miyamoto (*Tohoku University)
Enhancement of Oxygen Migration in CeO_2 surface caused by strong metal-support interaction with Rh

Novel techniques and instrumentations (Chair: D. J. Graham and T. Kono) 12:20-12:40

O-11 12:20-12:40

M. Ohnishi,* O. Matsuoka, H. Nogi and T. Sakamoto (*Kogakuin University)
Investigation of the surface degradation of $LiCoO_2$ particles in the cathode materials of Li-ion batteries using FIB-TOF-SIMS

Lunch 12:40-14:00

Oral Presentation of Poster (even-1) (Chair: K. Yanagiuchi and T. Nagatomi) 14:00-15:30

10 minutes including 3 minutes discussion for one poster

Break 15:30-15:50

Oral Presentation of Poster (even-2) (Chair: T. Nagatomi and K. Yanagiuchi) 15:50-17:20

10 minutes including 3 minutes discussion for one poster

Poster Presentation even 17:20-19:00

Even poster number

Powell Prize Voting 18:45-19:00

November 13 (Wed), 2013

Registration 9:00-12:30

Registration desk is basically opened only before morning session and during coffee break.

Novel techniques and instrumentations (Chair: A. Delcorte and H. Iwai) 9:30-11:10

O-12 9:30-10:00

(Invited) D. W. Moon* (*DGIST)

3 Dimensional Quantitative Composition Profiling of Nano-Structured Materials with TOF-MEIS

O-13 10:00-10:30

(Invited) S. Ninomiya,* Y. Sakai, L. C. Chen and K. Hiraoka (*University of Yamanashi)

Characteristics of charged droplet beams produced from vacuum electrospray

O-14 10:30-10:50

A. Thissen,* S. Bahr, T. Kampen, S. Maehl and O. Schaff (*SPECS Surface Nano Analysis GmbH)

Novel Developments in Near Ambient Pressure XPS - the route towards standard analysis tools in laboratory environments

O-15 10:50-11:10

T. Ishikawa,* S. Nagashima, T. Kashiwagi, J. Nakagawa, K. Endo, T. Sakamoto, K. Misawa, M. Miyazaki and M. Fujii (*Toyama Co., Ltd)

Laser-SNMS Analysis of Organic Compounds at Multifunctional FIB-TOF-SIMS

Break 11:10-11:30

Activities of SASJ Working Group (Chair: D.W. Moon and S. Ninomiya) 11:30-12:30

O-16 11:30-11:50

D. Kobayashi,* S. Otomo, S. Aoyagi, T. Ishikawa and H. Itoh (*ASAHI GLASS Co., Ltd)

Analysis of TOF-SIMS spectra using quaternary ammonium ions for mass scale calibration

O-17 11:50-12:10

K. Omura,* M. Takano, H. Hayamizu and XPS-WG (*Tohoku University)

Evaluation of the damage of the TiO_2 film induced by low angle incident sputtering

O-18 12:10-12:30

Y. Yamauchi,* and DP-WG (*Yazaki Corporation)

Investigation of Ion Gun Alignment Procedures for High-Depth Resolution and High-Sensitivity Sputter Depth Profiling -Progress report on development of a recipe for ion beam alignment-

Excursion 13:00-18:30

November 14 (Thu), 2013

Registration 9:00-17:10

Registration desk is basically opened only before morning session and during coffee break and lunch.

Applications I (semiconductor, ceramic, metal, etc.) (Chair: H. Yoshikawa and Y. Park) 9:30-11:00

O-19 9:30-10:00

(Invited) J. Kim,* S. Lee, H. Kwun, K. Shin and C. Kang (*Pukyong National University)

Identifying of boron in FSW steel samples through SIMS technology

O-20 10:00-10:20

C. Jeon,* H. Na Hwang, W. G. Lee, K. S. Kim, C. Y. Park and C. C. Hwang (*Korea Basic Science Institute)

Band Structure of Chemical Vapor Deposition-grown Monolayer Graphene on Cu(111): Angle-Resolved Photoemission Study

O-21 10:20-10:40

S. Park,* J. Oh, B. Kim, J. Ko, Y. Park, H. Kim and S. Hong (*SK hynix)

Characterization on activation of dopant in P doped poly-Si thin film using clustering analysis by Atom Probe Tomography

O-22 10:40-11:00

N. Ishikawa,* M. Takeguchi and T. Inami (*National Institute for Materials Science)

Decomposition of Silicon doped Iron Oxides by Electron Irradiation

Break 11:00-11:20

Applications I (semiconductor, ceramic, metal, etc.) (Chair: J. N. Kim and H. Itoh) 11:20-12:30

O-23 11:20-11:50

(Invited) H. Yoshikawa* (*National Institute for Materials Science)

Bulk Sensitive Analysis of Internal Electronic Structures of Semiconductors by Hard X-ray Photoelectron Spectroscopy at SPring-8

O-24 11:50-12:10

I. Matolinova, H. Yoshikawa and V. Matolin* (*Charles University)

Interaction of sputter deposited CeOx thin films with silicon oxide substrate

O-25 12:10-12:30

P. Lejcek* and L. Zheng (*Academy of Sciences of the Czech Republic)

Excess Volume in Grain Boundary Segregation

Lunch 12:30-14:00

Applications III (electronic devices, green technology, etc.) (Chair: J. H. Lee and N. Sanada) 14:00-14:30

O-26 14:00-14:30

(Invited) K. J. Kim,* J. S. Jang, H. H. Hwang, H. -J. Baek, T. W. Kim and H. J. Kang (*Korea Research Institute of Standards and Science)

Applications of Surface Analysis for the Development of Next-Generation Solar Cell

Applications I (semiconductor, ceramic, metal, etc.) (Chair: J. H. Lee and N. Sanada) 14:30-15:10

O-27 14:30-14:50

T. G. Kim, M. Balaji and J. W. Kim* (*Korea Research Institute of Standards and Science)

Complete measurement of electronic structures on semiconductor surfaces

O-28 14:50-15:10

T. Ishihara,* S. Hashimoto, N. Makiishi, M. Shimauchi and S. Tanuma (*JFE Techno-Reserch Corp.)

Damage of ZrO_2 by Argon Ion Bombardment

Break 15:10-15:30

Applications II (bio, organic, composite, etc.) (Chair: K. J. Kim and K. Takahashi) 15:30-17:10

O-29 15:30-16:00
(Invited) N. Sanada,* S. Iida and T. Miyayama (*ULVAC-PHI)
Recent Applications of Cluster Ion Beams with XPS and TOF-SIMS

O-30 16:00-16:30
(Invited) J. Lee* (*Korea Basic Science Institute)
In situ surface analysis techniques for the latest electronic device materials: Graphene/Metal interfaces and Organic electronics

O-31 16:30-16:50
A. J. Roberts,* W. Boxford, K. Takahashi and C. Moffitt (*Kratos Analytical Ltd)
Novel Ion Sources for XPS Sputter Depth Profiling Advanced Materials

O-32 16:50-17:10
J. J. Pireaux, P. Louette, P. Mack,* R. G. White and T. S. Nunney (*Thermo Fisher Scientific)
XPS Profiling of Biosensor Materials with a Argon Cluster Ions

Banquet 19:00-

November 15 (Fri), 2013

Registration 9:00-12:20
Registration desk is basically opened only before plenary lecture and during coffee break.

Plenary Lecture-2 (Chair: C. J. Powell and M. Suzuki) 9:30-10:20

O-33 9:30-10:20
(Invited) S. Tanuma* (*National Institute for Materials Science)
Calculations and Measurements of Electron Inelastic Mean Free Paths in Solids

Standardization and pre-standardization (Chair: C. J. Powell and M. Suzuki) 10:20-11:00

O-34 10:20-10:40
A. Jablonski,* C. J. Powell and S. Tanuma (*Polish Academy of Sciences)
Comparisons of Predictive Formulae for Electron Inelastic Mean Free Paths in Elemental Solids for Energies between 50 eV and 30 keV

O-35 10:40-11:00
H. J. Kang* (*Chungbuk National University)
Optical properties for high-k oxide thin films on Si substrates

Break 11:00-11:20

Powell Prize Winner's Talk (Chair: T. Nagatomi and K. Yanagiuchi) 11:20-11:50

Closing Remark 11:50-12:20
K. Yanagiuchi (TDK Corporation)

Poster Presentation

Instruction

The poster exhibition will be held in the room "A2" of the Conference Building A.

The size of the poster panel is 90 cm in width and 210 cm in height. Presenters are requested to mount their posters on the panels assigned by the poster numbers in the morning of November 11, 2013. The poster presentation will be open during the whole period of the conference.

The presenters, corresponding to ODD poster numbers, shall attend their own posters and perform poster discussion during the Poster Presentation in the afternoon of November 11. The presenters, corresponding to EVEN poster numbers, shall attend their own posters and perform poster discussion during the Poster Presentation in the afternoon of November 12.

The presenters are assigned to give their oral presentation in the afternoon session of November 11 or 12 (ODD poster on November 11; EVEN poster on November 12). The presentation time is 10 minutes, including 3 minutes discussion and a time for moving to the next speaker. Each presentation is stopped by Chair when 10 minutes has passed. Only the projector is available for the oral presentation. The next speaker should wait for his/her turn in line near the present speaker in order to move to the next presentation soon.

The oral presentation for the poster session is carried out using only PDF file. Any other types of electronic file is not accepted. The PDF file should be copied to the PC (Windows) set at the presentation room before each oral presentation for the poster session starts during coffee break. Copying the PDF file is announced by the Committee members before starting coffee break and follow the announcement. The file name of the PDF file must be “P-XX_presenter-name.pdf”. XX is the presentation number from 01 to 37. The presenter-name should be abbreviated, for instance, as T-N for Takaharu Nagatomi. The example of the file name is “P-38_T-N.ppt”.

At the end of the poster presentation time, all scientific participants are requested to vote a poster number for the best poster presentation, the Powell Prize. The Powell Prize winner will be introduced and honored at the Banquet site.

Note that Powell prize winner is assigned to give his/her oral talk again in the last session of PSA-13 (Nov. 15).

Each poster shall be removed on November 15. Any poster will be discarded by the executive committee if it is posted after closing the symposium.

Poster presentation

P-1 H. Yoshikawa,* K. Yoshihara, D. Watanabe, H. Tanaka and S. Tanuma (*National Institute for Materials Science)
Proposal of a Structured Data Transfer Format for Simulation Softwares and Related Database of Surface Electron Spectroscopies

P-2 H. Itoh,* N. Kodani and S. Aoyagi (*Konica Minolta, Inc.)
Results of Inter-laboratory Tests among Surface Analysis Society of Japan: Mass calibration of TOF-SIMS

P-3 H. Yamato,* A. Nihei, Y. Kawamura, F. Kurayama, T. Furusawa, M. Sato and N. Suzuki (*Industrial Technology Center of Tochigi Prefecture)
Degradation of organic silane monolayers on silicon wafer during XPS measurement

P-4 A. Tanaka,* T. Kimura, S. Fukushima, T. Ogiwara, H. Iwai and S. Tanuma (*National Institute for Materials Science)
Electron Beam Damages on SiO_2 Thin Films (VAMAS-SCA Round Robin)

P-5 M. Morita,* M. Karasawa and M. Owari (*The University of Tokyo)
The evaluation of detection efficiency of atom probe tomography

P-6 K. Tsutsumi,* A. Tanaka, M. Shima and T. Tazawa (*JEOL Ltd.)
Advanced Quantitative Chemical State Analysis by Higher Energy-resolution Auger Spectra

P-7 H. Iwai,* A. Tanaka and Y. Kobayashi (*National Institute for Materials Science)
Surface Characterization of Organic Metal Single Crystal by XPS and ToF-SIMS

P-8 M. Jo* (*National Institute of Advanced Industrial Science and Technology)
Estimation of IMFP except for a constant factor using only XPS background-optimized peak intensities and cross sections

P-9 M. Takano,* K. Omura, H. Hayamizu and XPS-WG (*Panasonic Corporation)
Evaluation of the damage of the TiO_2 film induced by low angle incident sputtering

P-10 S. Y. Sung* and J. Kim (*Park Systems Corp)
The Most Accurate Atomic Force Microscope

P-11 S. Yagi,* K. Kurachi, C. Tsukada, Y. Menjo, T. Yoshida, T. Nomoto, G. Kutluk, H. Namatame and M. Taniguchi (*Nagoya University)
Si, P and S K-edges NEXAFS analysis with He-path system

P-12 M. Terhorst,* S. Kayser, D. Rading, R. Moellers and E. Niehuis (*ION-TOF GmbH)
Improvement of the Dynamic Range in TOF-SIMS - Dual-Beam Depth Profiling

P-13 D. Kobayashi,* Y. Yamamoto, K. Yamamoto, S. Funatsu, K. Harada and J. Nishii (*ASAHI GLASS Co. Ltd.)
Mechanism of hologram formation on glass surface by recording technique with corona discharge

P-14 Y. Higashi* and T. Sawada (*NTT Energy and Environment Systems Laboratories)
Comparative Study on Nondestructive and Destructive Methods of Evaluating Thicknesses of Hot-dip Galvanized Coatings

P-15 K. Yokota,* M. Tagawa, A. Yoshigoe and Y. Teraoka (*Kobe University)
A Synchrotron Radiation Photoelectron Spectroscopic Study on the Oxidation Reaction of Si by O-atom with Collision Energies between 2 to 9 eV

P-16 H. Hayamizu,* T. Adati, A. Ito and N. Usuki (*Nippon Steel & Sumikin Technology Co., Ltd.)
Analyzing depth in soft X-ray XAFS for iron and nickel oxides

P-17 withdrawn

P-18 N. Ishizu,* M. Souma and DP-WG (*Panasonic Corporation)
High-Sensitivity and High-Depth Resolution Auger Depth Profiling on Oxide Materials

P-19 B. Kim,* J. Kim, S. Park, C. Park, Y. R. Denny, S. Seo, H. C. Chae and H. J. Kang (*Chungbuk National University)
Surface Defect States on the Sputtered SiO_2/Si (001) Observed by REELS

P-20 Y. R. Denny,* K. Lee, S. Seo, H. J. Kang, D. -S. Yang, S. Heo, J. G. Chung, J. C. Lee and S. Tougaard (*Chungbuk National University)
Electronic and Optical Properties of Indium Zinc Tin Oxide thin films by Reflection Electron Energy Loss Spectroscopy

P-21 O. Heintz,* H. Krawiec and V. Vignal (*Universite de Bourgogne)
Influence of microstructure on passivity and corrosion behavior of TiMo10Zr4 and Ti6Al4V alloys in Ringer s solution at 37℃

P-22 K. Kurachi,* S. Ogawa, C. Tsukada, T. Mizutani, G. Kutluk, H. Namatame, M. Taniguchi and S. Yagi (*Nagoya University)
Chemical state of the interface between electric isolation layer and aluminum substrate investigated by means of Si K-edge XAFS using helium path

P-23 M. Nakamura,* H. Kitada and S. Sakuyama (*Fujitsu Laboratories Ltd.)
Directly Depth Measurement Tool of High Aspect Ratio Via-hole for Three-Dimension (3D) Stacked Device

P-24 C. Tsukada,* T. Tsuji, K. Matsuo, H. Nameki, T. Yoshida and S. Yagi (*Nagoya University)
Study on interaction between phosphatidylcholine (PC) liposome and gold nanoparticles by microscopic observation

P-25 J. H. Kim, J. A. Hong, D. G. Kwon, J. Seo and Y. Park* (*Kyung Hee University)
Energy Level Alignment at the Donor-Acceptor Interface of Polymer: Fullerene Bulk Heterojunction Organic Solar Cells

P-26 O. Heintz,* J. Paris, J. Boudon and N. Millot (*Universite de Bourgogne)
Functionalized titanate nanotubes and iron oxide nanoparticles for the in vivo imaging: contribution of XPS

P-27 D. Rading,* M. Terhorst, R. Moellers and E. Niehuis (*ION-TOF GmbH)
TOF-SIMS Analysis of Organic Multilayers and 3D Structures Using Ar Cluster Ions

P-28 Y. Teraoka,* A. Yoshigoe, R. Okada and Y. Iwai (*Japan Atomic Energy Agency)
Synchrotron XPS Analysis of Cs in Vermiculite and Cs Compounds

P-29 M. Shima,* K. Tsutsumi, A. Tanaka, H. Onodera and T. Tazawa (*JEOL Ltd.)
Quantitative analysis of lithium ion battery cathode material with X-ray photoelectron spectroscopy

P-30 J. S. Bae,* E. H. Chung, T. E. Hong, J. S. Jin, E. D. Jeong, Y. D. Kim and W. Oh (*Korea Basic Science Institute)
The effect on the deposition temperature of pulsed laser ablated $Cu_2ZnSnSe_4$ thin films grown by pulsed laser deposition

P-31 T. Miyayama,* N. Sanada, H. Fujimoto and C. Adachi (*ULVAC-PHI. Inc.)
Quantitative Evaluation of Organic Dopant Distributions in OLED Materials by using TOF-SIMS with GCIB Sputtering

P-32 M. Kubota,* Y. Ishida, K. Yanagiuchi, H. Takamizawa, Y. Shimizu, Y. Nozawa, T. Toyama, K. Inoue and Y. Nagai (*TDK Corporation)
Depth Analysis of Multilayer Thin Films by Atom Probe Tomography and Auger Electron Spectroscopy

P-33 J. S. Jang, H. H. Hwang, H. C. Chae, H. J. Kang and K. J. Kim* (*Korea Research Institute of Standards and Science)
Compositional depth profile of CIGS films on SLG by SIMS and AES

P-34 J. S. Jang,* H. H. Hwang, H. J. Kang and K. J. Kim (*Korea Research Institute of Standards and Science)
Diffusion behaviors of boron and phosphorus at the interfaces of Si/SiO_2 multilayer system after high temperature annealing

P-35 S. Ogawa,* T. Yamada, S. Ishidzuka, A. Yoshigoe, M. Hasegawa, Y. Teraoka and Y. Takakuwa (*Tohoku University)
Evaluation of thickness and oxidation state of Graphene/Cu(111)/Al_2O_3 substrates using photoelectron spectroscopy

P-36 T. Luo, Y. Chen* and W. Huang (*University of Science and Technology of China)
Focused Ion Beam Fabrication and Scanning Probe Microscopy Characterization of Nanoscale Reference Roughness Artifacts

P-37 H. Okumura* and K. Mine (*Mitsubishi Materials Corporation)
Auger Electron Spectroscopy Analysis of W diffused from WC Grain into Co Region in Cutting Tools