April 25, 2013 (Thu)

Opening remark (10:00)

Session 1 (10:05-12:55) **Chair: Masashi Nojima, Hubert Gnaser**

O1-1. (10:05-10:30) *- Invited -*

Atom probe tomography of Si nanocrystals embedded in silicon oxide

Hubert Gnaser (University of Kaiserslautern)

O1-2. (10:30-10.55) *- Invited -*

Dopant analysis of semiconductor devices with atom probe tomography

Yasuo Shimizu (Tohoku University)

O1-3. (10:55-11:20) *- Invited -*

Reconstruction and quantification issues for APT in microelectronics

Sebastien Duguay (University of Rouen)

Break (11:20-11:35)

O1-4. (11:35-12:00) *- Invited -*

Mechanism of laser assisted field evaporation from insulating oxides

Masaru Tsukada (Tohoku University)

O1-5. (12:00-12:25) *- Invited -*

Progress in planar-feature spatial reconstruction for atom probe tomography

David J. Larson (CAMECA)

O1-6. (12:25-12:40)

Application of continuous Ar cluster ion beams to peptide analysis

Satoka Aoyagi (Shimane University)

O1-7. (12:40-12:55)

Soft-sputtering of insulin molecule using Ar, Kr and methane gas cluster ion beams

Kousuke Moritani (University of Hyogo)

Lunch (12:55-13:55)

Session 2 (13:55-16:30) **Chair: Jiro Matsuo, Alex Shard**

O1-8. (13:55-14:20) *- Invited -*

Plasma ion sources for high resolution primary ion beams

Noel Smith (Oregon Physics)

O1-9. (14:20-14:45) *- Invited -*

Helium ion microscopy (HIM) technology for imaging and characterization for nano-device materials and structures

Shinichi Ogawa (AIST)

O1-10. (14:45-15:10) *- Invited -*

Resonant enhanced multiphoton ionization and its application to Laser-SNMS

Masaaki Fujii (Tokyo Institute of Technology)

Break (15:10-15:25)

O1-11. (15:25-15:50) *- Invited -*

Surface roughening of silicon by low-energy oxygen bombardment: Influence on SIMS depth profiling

Yuji Kataoka (Fujitsu)

O1-12. (15:50-16:15) *- Invited -*

In-situ combination of secondary ion mass spectrometry (SIMS) and scanning probe microscopy (SPM) for high-sensitivity and high-resolution elemental 3D analysis

Tom Wirtz (Centre de Recherche Public - Gabriel Lippmann)

O1-13. (16:15-16:30)

Direct access to true 3D chemical information by combined in-situ TOF-SIMS and SFM measurements

Derk Rading (ION-TOF)

Sponsored session 1 (16:30-17:10) Chair: Akio Takano, Yeonhee Lee

S1-1. (16:30-16:50) *- Invited -*

Applications of dynamic SIMS in the areas of semiconductor, LED and photovoltaic

Larry Wang (Evans Analytical Group/Nano Science)

S1-2. (16:50-17:10)

New CAMECA IMS 7f-Auto: high throughput & automation

Paula Peres (Cameca/Ametek)

Poster short presentation (17:10-17:30) Chair: Akio Takano, Yeonhee Lee

Poster session (17:30-18:30)

P-1. **Atom probe analysis of electroconductive polymers**

Masahiro Taniguchi (Kanazawa Institute of Technology)

P-2. **Effect of emitter shape on vacuum electrospray**

Satoshi Ninomiya (University of Yamanashi)

P-3. **TOF-SIMS study using gas cluster ion beam for analysis of Li reaction products on electrodes of lithium air batteries**

Akiya Karen (NIMS)

P-4. **Characterization of distribution of boron in martensitic steels by secondary ion mass spectrometry**

Shigeru Suzuki (Tohoku University)

P-5. **Relation between secondary ion species and mass accuracy in TOF-SIMS**

Daisuke Kobayashi (Asahi Glass)

P-6. **Imaging of carbon incorporation during plant cell wall formation using NanoSIMS 50L**

Miyuki Takeuchi (The University of Tokyo)

P-7. **Study on the sputtering mechanism of amino acid with Ar cluster ion beam irradiation**

Makiko Fujii (Kyoto University)

P-8. **Effects of cluster ion beam irradiation with a mixture of noble and reactive gases on inorganic solids**

Shunichiro Nakagawa (Kyoto University)

P-9. **Surface morphology of sputtered SiC epitaxial layer**

Junichiro Sameshima (Toray Research Center)

Social meeting (18:30-19:30)

April 26, 2013 (Fri)

Session 3 (9:00-11:25) Chair: Atsushi Murase, Tom Wirtz

O2-1. (9:00-9:25) *- Invited -*

Standards for practical organic depth profiling

Alex Shard (NPL)

O2-2. (9:25-9:50) *- Invited -*

Electrode surface analyses for Li-ion and Na-ion batteries

Shinichi Komaba (Tokyo University of Science)

O2-3. (9:50-10:15) *- Invited -*

Surface analysis and depth profiling of polymers by TOF-SIMS

Yeonhee Lee (KIST)

O2-4. (10:15-10:30)

Development of MeV-SIMS imaging system with electrostatic quadrupole lens

Toshio Seki (Kyoto University)

O2-5. (10:30-10:45)

Evaluation of layered titanate nanosheets using TOF-SIMS and g-ogram

Ichiro Mihara (Kuraray)

Break (10:45-11:00)

O2-6. (11:00-11:25) *- Invited -*

Taking on fresh strategies in mass spec (TOF-SIMS) imaging: multivariate, multitechnique, multidimensional

Dan Graham (University of Washington)

Sponsored session 2 (11:25-12:25) Chair: Atsushi Murase, Tom Wirtz

S2-1. (11:25-11:45)

Recent news from ION-TOF

Markus Terhorst and Derk Rading (ION-TOF/Hitachi High-Tech Solutions)

S2-2. (11:45-12:05)

New application of functional hybrid FIB-TOF-SIMS

Takeharu Ishikawa (Toyama)

S2-3. (12:05-12:25)

TOF-SIMS for biological and real-world samples analysis

Noriaki Sanada (Ulvac-Phi)

Lunch (12:25-13:25)

Session 4 (13:25-15:45) Chair: Satoka Aoyagi, Peter Williams

O2-7. (13:25-13:50) *- Invited -*

Ambient organic SIMS analysis by impacting sample surface with primary ion species generated by both ESI and APCI

Jentaie Shiea (National Sun Yat-Sen University)

O2-8. (13:50-14:15) *- Invited -*

Visualization of transdermal drug delivery by two-dimensional desorption electrospray ionization (2D-DESI) mass spectrometry; a novel approach to generate pseudo cross-sectional penetration images

Akira Motoyama (Shiseido)

O2-9. (14:15-14:40) *- Invited -*

Desorption/ionization induced by neutral cluster impact as a soft and efficient ionization source for mass spectrometry of biomolecules

Michael Dürr (Esslingen University of Applied Sciences)

O2-10. (14:40-15:05) *- Invited -*

Platinum vapor deposition surface-assisted laser desorption/ionization for mass spectrometry imaging of small molecules

Tomoyuki Ozawa (Nissan Chemical Industries)

O2-11. (15:05-15:30) *- Invited -*

Applications of laser desorption/ionization spiral high-resolution time-of-flight mass spectrometry in material science

Yoji Nakajima (Asahi Glass)

O2-12. (15:30-15:45)

Chemical mapping of plant biomolecules by the cryo-TOF-SIMS/SEM system

Yuto Hanaya (Nagoya University)

Break (15:45-16:00)

Session 5 (16:00-18:10) Chair: Akiya Karen, Dan Graham

O2-13. (16:00-16:25) *- Invited -*

Quantitative studies of oxygen effects in SIMS

Peter Williams (Arizona State Univ.)

O2-14. (16:25-16:50) *- Invited -*

Shave-off analysis of nano-scale objects

Masanori Owari (The University of Tokyo)

O2-15. (16:50-17:15) *- Invited -*

Imaging mass spectroscopy analysis for micro cell samples: Understanding of a metabolic activity of Subseafloor life

Motoo Ito (JAMSTEC)

O2-16. (17:15-17:40) *- Invited -*

A new aspect of Laser-SNMS coupled with Ga FIB for polymer analysis

Tetsuo Sakamoto (Kogakuin University)

O2-17. (17:40-17:55)

Towards SIMS on the helium ion microscope

Tom Wirtz (Centre de Recherche Public - Gabriel Lippmann)

O2-18. (17:55-18:10)

Development of sputtered neutral mass spectrometer to analyze sub-micron noble gas distribution

Ken-ichi Bajo (Hokkaido University)

Closing remark (18:10)