

## Program and Contents

**June 19, 2014 (Thu)**

**Opening remark (10:30-10:35)**

**Plenary (10:35-11:55)**

O1-1. (10:35-11:15) - *Tutorial talk* - .....

**Computer Insight into Processes Stimulated by Cluster Projectile Impacts**

Z. Postawa (*Jagiellonian Univ.*)

O1-2. (11:15-11:55) - *Review talk* - .....

**Light at the End of the Tunnel: Novel Approaches to Achieving Significantly Improved Understanding of Secondary Ion Formation**

K. Wittmaack (*Helmholtz Zentrum Munchen*)

**Lunch (11:55-13:00)**

**Organic 1 (13:00-14:10)**

O1-3. (13:00-13:30) - *Invited* - .....

**The evaluation of peptide structures using ToF-SIMS and data analysis**

S. Aoyagi (*Seikei Univ.*)

O1-4. (13:30-13:50) .....

**Mass scale calibration with quaternary ammonium ions for TOF-SIMS spectra measured by different TOF-SIMS instruments**

S. Otomo (*Furukawa Electric*)

O1-5. (13:50-14:10) .....

**ToF-SIMS and PCA analysis of Oligomer distribution within Glass Fiber Reinforced Plastic**

Y. Kajiwara (*Mitsubishi Gas Chemical*)

**Break (14:10-14:30)**

**Organic 2 (14:30-15:40)**

O1-6. (14:30-15:00) - *Invited* - .....

**ToF SIMS as a navigation aid through the complex world of high throughput materials discovery**

M. Alexander (*The Univ. of Nottingham*)

O1-7. (15:00-15:20) .....

**Measurements of secondary ions emitted from amino acid thin film with noble gases and molecular cluster ion**

K. Moritani (*University of Hyogo*)

O1-8. (15:20-15:40) .....

**Possibilities and Limitations of Biological Analysis with novel Ar-GCIB SIMS Apparatus**

M. Fujii (*Kyoto Univ.*)

**Break (15:40-16:00)**

**Sponsored (16:00-17:20)**

S1-1. (16:00-16:20) .....

**Towards New Applications with CAMECA SIMS Instruments**

M. Schuhmacher (*CAMECA bu, AMETEK*)

S1-2. (16:20-16:40) .....

**Twenty-Five Years of Advances in TOF-SIMS Instrumentation and its Application**

M. Terhost (*ION-TOF*)

S1-3. (16:40-17:00) .....

**TOF-SIMS apparatus having function of Laser-SNMS for nano-scale mass imaging**

T. Kashiwagi (*TOYAMA*)

S1-4. (17:00-17:20) .....

**Recent progress of ion beam technologies in ULVAC-PHI**

T. Miyayama (*ULVAC-PHI*)

**Poster short presentation (17:20-18:00)**

**Poster session (18:00-19:00)**

P-1. .....

**Comparison of Measurement Repeatability among Beam position alignment, Z-direction motion, and Auto-beam centering using a Cameca IMS 7f instrument**

S. Miwa (*CAMECA bu, AMETEC*)

P-2. .....

**Reduction of phosphorus ion yield by electron beam irradiation under O<sub>2</sub> primary ion bombardment**

Y. Hori (*Toshiba Nanoanalysis*)

P-3. .....

**Deconvolution of Depth Profiles of GaN-Based Light Emitting Diodes with Tunnel Junctions**

Y. Nakata (*Toray Research Center*)

P-4. .....

**Light element analysis in oxide and nitride materials**

I. Sakaguchi (*National Institute for Materials Science (NIMS)*)

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|-------|---|--|
| P-5.  | <b>Q-SIMS analysis of impurities in SnO<sub>2</sub> layer on glass substrate</b>  | T. Abe Sekine ( <i>ASAHI GLASS</i> )                     |
| P-6.  | <b>Hydrogen isotope fractionation of water by diffusion in silica glass</b>   | M. Kuroda ( <i>Hokkaido Univ.</i> )                      |
| P-7.  | <b>An investigation of depth resolution for dual-beam TOF-SIMS of Bi<sup>+</sup> and lower energy Cs<sup>+</sup> on depth profiling</b> | J. Sameshima ( <i>Toray Research Center</i> )            |
| P-8.  | <b>Helium depth profile of low energy <sup>4</sup>He implanted samples</b>  | K. Bajo ( <i>Hokkaido Univ.</i> )                        |
| P-9.  | <b>Organic Materials Analysis Using Different Primary Bi Ions in TOF-SIMS</b>   | R. Shishido ( <i>Tohoku Univ.</i> )                      |
| P-10. | <b>Highly Sensitive Lipid Analysis and Imaging Mass Spectrometry with Cluster SIMS Apparatus</b>  | M. Fujii ( <i>Kyoto Univ.</i> )                          |
| P-11. | <b>Mass accuracy dependence on energy and extractor voltage of analyzer in TOF-SIMS with single-stage reflection design</b>             | D. Kobayashi ( <i>Asahi Glass</i> )                      |
| P-12. | <b>Atomic Level Analysis of Etched Carbon Fibers by the Scanning Atom Probe</b>   | M. Taniguchi ( <i>Kanazawa Institute of Technology</i> ) |
| P-13. | <b>Evaluation of Sample Shape after Evaporation in Laser Assisted Atom probe</b>  | M. Morita ( <i>The Univ. of Tokyo</i> )                  |

**Social meeting (19:00-21:00)**

**June 20, 2014 (Fri)**

**Instrumentation / Complementary 1 (9:00-10:10)**

O2-1. (9:00-9:30) - *Invited* - .....

**Atom Probe Tomography: Successes and Challenges**

T. F. Kelly (CAMECA)

O2-2. (9:30-9:50) .....

**Dependence of Quantitativity on Dopant Distribution in Silicon Provided by Atom Probe Tomography**

T. Sasaki (Toshiba Nanoanalysis)

O2-3. (9:50-10:10) .....

**Oxygen effect of Cr/Ni multilayered samples by resonance enhanced multiphoton ionization sputtered neutral mass spectrometry**

S. Nishinomiya (Nippon Steel & Sumitomo)

**Break (10:10-10:25)**

**Instrumentation / Complementary 2 (10:25-11:55)**

O2-4. (10:25-10:55) - *Invited* - .....

**Laser desorption/ionization imaging mass spectrometry with ultra-high mass resolution mass spectrometer.**

T. Satoh (JEOL)

O2-5. (10:55-11:15) .....

**Time-of-Flight Secondary Ion Mass Spectrometry using an ionic-liquid primary ion beam generated by vacuum electrospray**

Y. Fujiwara (National Institute of Advanced Industrial Science and Technology (AIST))

O2-6. (11:15-11:35) .....

**In-situ GCIB Cross-section Imaging of Organic Materials**

**-Toward the Determination of Accurate Depth Distributions-**

S. Iida (ULVAC-PHI)

O2-7. (11:35-11:55) .....

**SIMS Depth Profiling by FIB Crater Wall Imaging of Organic and Inorganic Surfaces**

D. Rading (ION-TOF)

**Lunch (11:55-13:00)**

**Inorganic (13:00-14:40)**

O2-8. (13:00-13:30) - *Invited* - .....

**Light Elements and Related Materials Properties Revealed by TOF-SIMS**

L. Zhang (*Institute of Metal Research, Chinese Academy of Science (CAS)*)

O2-9. (13:30-14:00) - *Invited* - .....

**From crater to crater: application of high resolution SIMS to Geosciences**

K. Yi (*Korea Basic Science Institute*)

O2-10. (14:00-14:20) .....

**Development of high-precision analysis of multilayer structure**

T. Shiramizu (*Mitsubishi Electric*)

**Break (14:20-14:40)**

**Biomedical / Imaging (14:40-16:10)**

O2-11. (14:40-15:10) - *Invited* - .....

**Visualizing accumulation of photosynthetic products in plant using isotopic labeling and SIMS**

M. Takeuchi (*The Univ. of Tokyo*)

O2-12. (15:10-15:30) .....

**Localization of  $^{15}\text{N}$ -minodronate by Isotope Microscopy and Histochemical Assessment for the Biological Effects of Minodronate to Bone Cells in Mice**

N. Amizuka (*Hokkaido Univ.*)

O2-13. (15:30-15:50) .....

**Molecular Analysis of Biological Tissues using Time-of-Flight Secondary Ion Mass Spectrometry (TOF-SIMS) and Gas Cluster Ion Beam (GCIB) sputtering**

I. Ishizaki (*ULVAC-PHI*)

O2-14. (15:50-16:10) .....

**High Resolution Imaging Mass with Focused Ar Cluster Beam**

J. Matsuo (*Kyoto Univ.*)

**Closing remark (16:10)**