

## Program and Contents

### 9th Dec. 2021 (Thu.)

Opening Remarks (10:00-10:10)

Oral Session AM

O1-1. (10:10-11:00) *-Plenary talk-* ..... X  
**Electrospray Droplet Impact (EDI)/SIMS: Fundamentals and Applications**  
 Kenzo Hiraoka (*University of Yamanashi*)

break (11:00-11:10)

O1-2. (11:10-11:40) *-Invited-* ..... X  
**Biological cell analysis by secondary ion mass spectrometry with a high mass resolution spectrometer**  
 Satoka Aoyagi (*Seikei University*)

O1-3. (11:40-12:10) *-Invited-* ..... X  
**EASE-TOF for multiplexed detection of biomolecules in sensors and tissues**  
 Tae Geol Lee (*Korea Research Institute of Standards and Science KRISS*)

Lunch (12:10-13:40)

Short Presentation (13:40-14:10)

Poster Session (14:10-15:40)

P-1. .... X  
**Evaluation of TOF-SIMS data of organic electro luminescence samples using information entropy**

Keisuke Mizomichi (*Seikei University*)

P-2. .... X  
**Development of prediction system on TOF-SIMS spectra of organic and polymer materials by machine learning**

Keisuke Kamochi (*Seikei University*)

P-3. .... X  
**Quantitative Analysis of Resin Additive using Deep Learning**

- Hidetaka Kawamura (*Canon Inc.*)
- P-4. .... X  
**Fragmentation of nitrobenzylpyridinium depending on energy per atom in Ar-cluster SIMS**
- Ken Mizuhata (*University of Hyogo*)
- P-5. .... X  
**Effect of Carboxylic Acid Matrix on Sensitivity of Phospholipid in Bi-Cluster SIMS Measurements**
- Rie Shishido (*Tohoku University*)
- P-6. .... X  
**The Effect of Capillary Inner Diameter on Polystyrene Sputtering Produced by Vacuum Electro spray Droplet Ion Beams**
- Mikihiro Kawase (*University of Yamanashi*)
- P-7. .... X  
**Cluster analysis of aerosol in urban city air**
- Kentaro Sakai (*Kogakuin University*)
- P-8. .... X  
**Study on the Pretreatment of water-containing biological samples and cross-sectional imaging of spheroids by FIB-TOF-SIMS**
- Mizuki Shu (*Kogakuin University*)
- P-9. .... X  
**Validation of R-SNMS for fuel debris analysis**
- Takumi Umedate (*Kogakuin University*)

Oral Session PM

- O1-4. (15:40-16:00) .... X  
**TBD**
- TBD (*CAMECA*)
- O1-5. (16:00-16:20) .... X  
**TBD**
- TBD (*ION-TOF GmbH*)
- break (16:20-16:30)
- O1-6. (16:30-17:00) *-Invited-* .... X  
**New possibilities in organic SIMS: mass resolution and other performance relevant attributes of two MS/MS techniques**
- Alexander Pirkl (*ION-TOF GmbH*)
- O1-7. (17:00-17:30) *-Invited-* .... X

**Highest resolution chemical imaging performed on Focused Ion Beam - based platforms**

Jean-Nicolas Audinot (*Luxembourg Institute of Science and Technology LIST*)

O1-8. (17:30-18:00) -Invited- ..... x

**ToF-SIMS and SPM 3D analysis for advanced semiconductor devices**

Alexis Franquet (*Interuniversity Microelectronics Centre IMEC*)



**10th Dec. 2021 (Fri.)**

## Oral Session AM

O2-1. (10:30-11:00) *-Invited-* ..... XX**The nanoTOF 3 Parallel Imaging MS/MS: (Sub-)Monolayer Characterization and High-Resolution MS/MS Imaging**

(11:00-11:10) SIMS23 promotion

Greg Fisher (*Physical Electronics*)

break (11:10-11:20)

O2-2. (11:20-11:50) *-Invited-* ..... XX**Nanoscale Tomographic Mapping of Hydrated Materials with Cryo-APT**Daniel Perea (*Pacific Northwest National Laboratory PNNL*)O2-3. (11:50-12:20) *-Invited-* ..... XX**Applying Atom Probe Tomography to Nanowire-LEDs**Kaori Jogo (*Toshiba Nanoanalysis Corporation*)

Lunch (12:20-13:50)

Poster award ceremony (13:50-14:05)

## Oral Session PM

O2-4. (14:05-14:35) *-Invited-* ..... XX**Application of Correlated FIB-ToF-SIMS and SEM-EDS to the Search for Enriched Uranium Particles**William Rickard (*Curtin University*)O2-5. (14:35-15:05) *-Invited-* ..... XX**Application of TOF-SIMS in Analysis of Components of Traditional Chinese Medicine**Zhanping Li (*Tsinghua University*)

O2-6. (15:05-15:25) ..... X

**TBD**TBD (*ULVAC-PHI*)

break (15:25-15:40)

O2-7. (15:40-16:10) *-Invited-* ..... XX

**A practical guide to choosing the best Argon gas cluster ion beam for ToF SIMS measurements**

Naoko Sano (*Ionoptika Ltd.*)

O2-8. (16:10-16:30) ..... X

**Direct analysis of ion-induced peptide fragmentation in secondary-ion mass spectrometry**

Michael Dürr (*Justus Liebig University Giessen*)

O2-9. (16:30-17:00) *-Invited-* ..... XX

**Single Ion Implantation for Quantum Technologies**

Roger Webb (*University of Surrey*)

break (17:00-17:10)

Memorial Lecture to Dr. Martin Seah

O2-10. (17:10-17:50) *-Special-* ..... XX

**Pharmaceutical discovery grand challenge: Can we measure drug localisation, engagement with biological target and functional pharmacology in one pixel?**

Ian Gilmore (*National Physical Laboratory NPL*)

Closing Remarks (17:50-18:00)