SIMS Europe 2018 Program Overview Oral Contributions

Sunday, Sept. 16th		
Time	HS1	HS2
Short Courses		
9:10 – 9:15		**Welcome** A. Schnieders, CNM Technologies
9:15 – 10:30		**Fundamentals** A. Schnieders, CNM Technologies
10:30 – 11:00	Coffee Break	
11:00 – 12:30		**Depth Profiling by Dynamic SIMS** P. Philipp. LIST
12:30 – 14:00	Lunch Break	
14:00 – 14:30		**Laser-SNMS** A. Pelster, IONTOF
14:30 – 15:30		**Applications** D. Breitenstein, Tascon
15:30 – 16:00	Coffee Break	
16:00 – 17:30		**Multivariate Analysis** B. Tyler, U Münster
17:30 – 19:00	Get Together	

Monday, Sept. 17th		
Time	**HS1**	**HS2**
8:00 – 8:10	**Welcome** U. Karst, U Münster	
8:10 – 8:30	**Obituary** B. Hagenhoff, Tascon	**(Chair: U Karst)**
8:30 – 9:10	**Novel ion imaging applications in geosciences using large-geometry SIMS (INVITED)** M. Whitehouse, Swedish Museum of National History	**(Chair: E. Schweikert)**
9:10 – 10:30	Fundamentals **(Chair: E. Schweikert)**	Imaging **(Chair: U. Karst)**
9:10 – 9:30	**Nanoripple formation during cluster projectile bombardment of Au surface – an insight from the Molecular Dynamics Computer Simulations** D. Maciążek, U Krakow	**A Time-of-Flight Backscatter and Secondary Ion Mass Spectrometer Add-on for thery in a Helium Ion Microscope** N. Klingner, HZ Dresden-Rossendorf
9:30 – 9:50	**Cluster-induced desorption/ionization investigated by means of molecular dynamics simulations – effect of polar cluster constituents on the desorption probability** P. Schneider, U Giessen	**TOF-SIMS Analysis with High Lateral and High Mass Resolution in Parallel** F. Kollmer, IONTOF
9:50 – 10:10	**40keV Water Cluster Primary Ion Beam and Orbital Ion Trapping** J. C. Hood, U Newcastle	**Backscattered Ar_n^+ ions: A method to image surface mechanical properties?** E. Pospisilova, U Louvain
10:10 – 10:30	**Molecular Dynamics of thin organic layer deposited on free-standing graphene bombarded with keV C_{60} projectiles** M. Gołuński, U Krakow	**Chemical imaging of buried interfaces in hybrid organic-inorganic devices using FIB-TOF-SIMS** M. Tiddia, U Cagliari
10:30 – 11:00	Coffee Break	

11:00 – 11:40	**Challenges in OLED Characterization (INVITED)** N. Koenen, Merck	**(Chair: P. Sjövall)**
11:40 – 13:00	Thin Organic Layers **(Chair: P. Sjövall)**	Microelectronics (Chair:T. Wirtz, contacted)
11:40 – 12:00	**High mass-resolving power depth profiling of organic electronic devices using the 3D OrbiSIMS** L. Matjacic, NPL	**ToF-SIMS as a powerful tool in the journey of resolving challenges in HighTech industry** V. Dmitrovic, NXP
12:00 – 12:20	**Stabilization of dry protein coatings with compatible solutes** M. S. Kilian, U Erlangen	**Determination of energy level alignment within organic photovoltaic devices using UV photoemission spectroscopy combined with Ar gas cluster ion beam sputtering** M. M. Marzec, AGH University Poland
12:20 – 12:40	**Analyzing Highlighter Inks Using Hybrid-SIMS and Multivariate Analysis** K. Lamann, Tascon	**In-situ measurement of ion redistribution and chemical equilibria shifts in operating thin-film electronic devices** M. Kawecki, EMPA
12:40 – 13:00	**Ionization probabilities of organic material under C_{60} and GCIB bombardment** L Breuer, U Duisburg-Essen	**Advanced semiconducting structure analysis with Self-Focusing SIMS and improved mass resolution in a Hybrid SIMS instrument** A. Franquet, IMEC
13:00 – 14:00	Lunch Break (Mensa am Ring)	
14:00 – 14:40	**Spatial Metabolomics in Tissues and Single (INVITED)** Theodore Alexandrov, EMBL	**(Chair: R. Havelund)**
14:40 – 17:00	Life Science I **(Chair: R. Havelund)**	Depth Profiling **(Chair: P Philpip)**
14:40 – 15:00	**Elucidation of Cellular Organelles and Biosynthetic Intermediates by TOF-SIMS Tandem MS Imaging** Gregory L Fisher, Physical Electronics	**Soft depth-profiling of mixed peptide/lipid samples by means of cluster induced desorption/ionization mass spectrometry – High depth resolution and low matrix effect** Andre Portz, U Giessen
15:00 – 15:20	**Quantitative 3D imaging of dopamine at suborganelle level by NanoSIMS: across the large dense core vesicle structure in PC12 cells** Florent Penen, Chalmers University	**Molecular interaction characterisation of buried organic-inorganic interfaces by ToF-SIMS using argon cluster ions for depth profiling combined with in-situ AFM** Kristof Marcoen, U Brussels

15:20 – 15:40	**Imaging of lipids in native human bone sections using ToF-SIMS, AP-SMALDI Orbitrap MS and Orbitrap-SIMS** Kaija Schaepe, U Giessen/BAM	**Depth profiling intrinsically hybrid layers and organic/inorganic stacks by variable-size argon clusters: a ToF-SIMS and XPS study** Yan Busby, U Namur
15:40 – 16:00	**TOF-SIMS technique as a tool to analyse changes in lipid profiles of muscle tissue from broilers** Magdalena Elżbieta Marzec, Polythechnical U Krakow	**Small area depth profiling with the NanoSIMS 50L** François Horréard, **CAMECA**
16:00 – 16:20	**ToF-SIMS Imaging for Clinical Applications** Tae G Lee, KRISS	**Depth profiling of multilayered stacks by lowenergy monatomic beams: achievements and challenges for the analysis of modern devices** Laurent Houssiau, U Namur
16:20 – 16:40	**Imaging lipid and protein organization in neuronal membranes with secondary ion mass spectrometry** Nhu Thi Ngoc Phan, U Göttingen	**3D imagining of boron nitride films with atomic depth resolution** Paweł Piotr Michałowski, ITME
16:40 – 17:00	**ToF-SIMS imaging of cosmetic and pharmaceutical compounds following ex vivo skin permeation** Jatin Mistry, U Nottingham	**Quantifying oxygen diffusion across zirconium carbide/zirconium oxide intermediate layer using an 18O tracer technique** Claudia Gasparrini, Imperial College
17:00 – 19:00	Poster Session (Poster Area)	
19:00 – 22:00	Barbecue (Balcony Area)	

Tuesday, Sept. 18th		
Time	**HS1**	**HS2**
8:30 – 9:10	**When EM meets SIMS: High-Resolution SIMS Imaging and Correlative Microscopy on the Helium Ion Microscope (INVITED)** Tom Wirtz, LIST	**(Chair: A. Ievlev)**
9:10 – 10:30	Related or Combined Techniques I **(Chair: A. Ievlev)**	Polymers **(Chair: A. Licciardello)**
9:10 – 9:30	**Analysis of radionuclide containing particles from Chernobyl by resonant Laser-SNMS** Manuel Raiwa, U Hannover	**Engineering a Poly (3,4-ethylenedioxythiophene):(Polystyrene Sulfonate) Surface Using Self-Assembling Molecules** Paweł Dąbczyński1, U Krakow
9:30 – 9:50	**Actual 3D analysis of hybrid arrays with in-situ SPM in a combined TOF-SIMS/SPM tool** Valentina Spampinato, IMEC	**Chemical Bonds between Laser Welded Aluminum and Polyamide?** Pierre Hirchenhahn, U Namur
9:50 – 10:10	**SIMS and MALDI for bioanalysis - complimentary, complementary or competition.** John Stephen Fletcher, U Gothenburg	**Digging into the details of ToF-SIMS analysis of porous scaffolds** Michael Taylor, U Washington (NESAC/BIO)
10:10 – 10:30	**Combining the Benefits of GCIB-ToF-SIMS, MALDI-FTICR-MS and LC-MS/MS for Location specific Lipid Identification in Planarian Flatworm Tissue Sections** Tina B. Angerer, U Washington	**The Study of the Degradation of an Aircraft Coating Using ToF-SIMS and Multivariate Analysis** Marie-Laure Odile Claude Abel, U Surrey
10:30 – 11:00	Coffee Break	
11:00 – 11:40	**Multimodal chemical and functional imaging of functional materials via combined AFM/ToF-SIMS Platform (INVITED)** Anton Ievlev, Oak Ridge NL	**(Chair: M Rohnke)**
11:40 – 13:00	Related or Combined Techniques II **(Chair: M. Rohnke)**	Materials **(Chair: M. Abel)**
11:40 – 12:00	**Characterization of the conductive structures in the periplasm of cable bacteria using combined TOF-SIMS/AFM** Raghavendran Thiruvallur Eachambadi, U Hasselt	**Gazing at Titian's Ecce Homo with Imaging Mass Spectrometry** Sebastiaan Van **Nuffel**, CNRS

12:00 – 12:20	**In-Situ Correlative Helium Ion Microscopy and Secondary Ion Mass Spectrometry for High- Resolution Nano-Analytics in Life Sciences** Jelena Lovric, LIST	**ToF-SIMS and XPS study of bromine-based plasma polymers for further designing organic coatings with high density of thiol moieties** Damien Thiry, U Mons
12:20 – 12:40	**Elucidating carbon transfer in a thiotrophic symbiosis with correlative NanoSIMS/TEM analysis, tissue autoradiography and fluorescence in situ hybdridization** Arno Schintlmeister, U Vienna	**Methane Flooding for Enhanced Nitrogen Detection** Lukas Volgger, TU Vienna
12:40 – 13:00	**Cryo-3D-OrbiSIMS – metrology of biological sample preparation methods for studies of frozen-hydrated bacterial biofilm** Junting Zhang, NPL	**Investigating internal diesel injector deposit formation: The role of iron** Emma N **Antonio**, Imperial College
13:00 – 14:00	Lunch Break (Mensa am Ring)	
14:00 – 14:40	**Mass Spectrometry Imaging of Biological Samples: How to Get The Most Out of Your Experiment (INVITED)** Andreas Römpp, U Bayreuth	**(Chair: A. Brunelle)**
14:40 – 16:00	Life Science II **(Chair: A. Brunelle)**	Data Treatment **(Chair: B Tyler)**
14:40 – 15:00	**ToF-SIMS analysis of Sr2+ dispersion in rat bone** Christine Kern, U Giessen	**Combined ToF-SIMS and AFM protocol for accurate 3D chemical analysis and data visualization** Maiglid Andreina Moreno Villavicencio1, CEA LETI
15:00 – 15:20	**Identifying Cellular Metabolic Heterogeneity in Primary Mammary Gland Tumours and Metastases using the 3D-OrbiSIMS** Yulia Panina1,2, Peter NPL	**Signal-to-Noise ratio enhancement of ToF-SIMS images in combinationwith AFM measurement** Olivier Scholder, EMPA
15:20 – 15:40	**Tracing the interrelation of lipids, amyloid, tau and glia in Alzheimer's disease transgenic mice using time-of-flight secondary ion mass spectrometry and immunofluorescence imaging** Jonas K Hannestad, RISE	**Correlating High-resolution Elemental and Morphological Imaging of Energy Materials using SIMS on the Helium Ion Microscope** Paul Gratia, LIST
15:40 – 16:00	**Elucidating the 3D chemical structure of the stratum corneum using Hybrid SIMS** Nichola Jayne Starr, U Nottingham	**User-independent protocols for the analysis of complex ToF-SIMSdatasets without mass binning, peak picking and peak integration** Nunzio Tuccitto, U Catania

16:00 – 16:20	Coffee Break	
16:20 – 18:00	Energy and Tribology **(Chair: B. Hagenhoff)**	Environmental and Geology **(Chair. H. Hutter)**
16:20 – 16:40	**ToF-SIMS for the chemical characterization of electrode/electrolyte interfacial phenomena during the cycling of Li-ion batteries** Cecile Courreges, IPREM	**Radial distribution of wood extractives in European larch Larix decidua by TOF-SIMS imaging** Alain Brunelle, CNRS
16:40 – 17:00	**Depth profiling with delayed extraction for analytical 3D tomography on battery materials** Felix Walther, U Giessen	**Using ToF-SIMS to Measure Mineral Dissolution and Secondary Mineral Precipitation During Gas-Liquid-Mineral Reactions in Carbon Sequestration Studies**. Bonnie J Tyler, U Münster
17:00 – 17:20	**Surfaces and Interfaces in Perovskite-Based Solar Cells** Jonathan Ngiam. Imperial College	**Biomolecular degradation in fossils studied by ToF-SIMS** Peter Sjövall, RISE
17:20 – 17:40	**Kinetics of hydrogenation of borosilicate glasses** Yuriy Kudriavtsev, **CINVESTAV**-IPN	**Chemical Characterisation and Classification of (Core-Shell) Nanoparticles using PCA assisted ToF-SIMS** Thomas Heinrich, BAM
17:40 – 18:00	**ToF-SIMS investigation of tribochemical surface reaction films built up by specially added cooling lubricants** Lukas Gustav Hermann Britt, U Münster	**Inorganic nanoparticles as a probe of complex organic host** Pietro Benettoni, Helmholtz Centre for Environmental Research-UFZ
18:00 – 18:10	**Closing Remarks** U. Karst/B.Hagenhoff	