HEFIB 2016 - Conference Programme

Nanofabrication	Nx
Analysis	Ax
Instrumentation	Ix
Sec. Electron Imaging	Ex

Wednesday 8 June

Time	Session	Title
09:00–12:00	Industry exhibition during conference hours	
12:00	**Registration & Coffee**	
13:00	**Opening Remarks**	
13:20	Keynote N1 **Olga OVCHINNOKOVA**	Building with Ions: Development of In-Situ Liquid Cell Microscopy for the Helium Ion Microscope
14:00	Oral N2 **Frances ALLEN**	Fabrication of plasmonic nanostructures using a Helium Ion Microscope
14:20	Oral N3 **Sven BAUERDICK**	Advanced FIB Nanofabrication with New Ion Species and Large Area Capabilities
14:40	Oral N4 **Katja HÖFLICH**	Ion Beam Based Fabrication of Tunable Hyperbolic Cavities for Efficient Emitter Coupling
15:00	Oral N5 **Shinichi OGAWA**	Characterization of Damages during Imaging by HIM and SEM
15:20	**Coffee break**	
15:50	Invited I1 **Sybren SIJBRANDIJ**	Recent Developments in Helium and Neon Ion Microscopy Instrumentation
16:20	Oral I2 **Jason PITTERS**	Hyrogen Ion Beams from Nanotip Gas Field Ion Sources.
16:40	Oral I3 **Shinichi MATSUBARA**	Stable H3+ emission from hydrogen gas field ion source by single-atom terminated emitter tip
17:00	Oral I4 **Bernd VOLBERT**	Micromanipulators in Scanning Beam Microscopy - Give your Microscope a Hand
17:20	**Poster Session**	
19:00		

Thursday 9 June

Time	Session	Title
09:00	Keynote A1 **Kaoru OHYA**	Modelling secondary electron emission from nanostructured materials in scanning ion microscopes: some interesting similarities and differences from scanning electron microscopes
09:40	Oral A2 **Cyril LANGLOIS**	Crystal Orientation Mapping using ion image series: iCHORD
10:00	Oral A3 **Charlotte ROTHFUCHS**	Photoluminesence study of ion-implanted InAs/GaAs QDs and GaN/AlN QDs
10:20	Oral A4 **Catalina MANSILLA SANCHEZ**	Measurement of residual stress by slit milling method at the local microscale.
10:40	**Coffee break**	
11:10	Invited N6 **Marek SCHMIDT**	Recent progress in helium-ion-based nanofabrication for advanced graphene device applications
11:40	Oral N7 **Alex BELIANINOV**	Nanoforging of Single Layer MoSe2 Through Defect Engineering Using Focused Helium Ion Beams
12:00	Oral N8 **Danny FOX**	Nanopatterning and Electrical Tuning of MoS2 with a Helium Ion Beam
12:20	Oral N9 **Daniel EMMRICH**	Nanopore Fabrication and Characterization by Helium Ion Microscopy
12:40	**Lunch**	
14:00	Keynote I5 **Ferdinand SCHMIDT-KALER**	Nanoscopic single particle microscopy with a deterministic single ion source
14:40	Oral I6 **Matthieu VITEAU**	Laser Cooled Atoms as a Focused Ion Beam Source
15:00	Oral I7 **Hans MULDERS**	An in-situ Low Energy Ion Source for Local Surface Modification
15:20	**Coffee break**	
15:50	Invited A5 **Yuri PETROV**	Ion Reflection and Ion-Electron Interaction in the Helium Ion Microscope
16:20	Oral A6 **David DOWSETT**	High Resolution Chemical Imaging on the Helium Ion Microscope
16:40	Oral A7 **Mathias SCHMIDT**	Correlative Microscopy at ProVIS - Centre for Chemical Microscopy
17:00	Oral A8 **Anders BARLOW**	Studying Ion Beam Sputter Yields and Surface Topography in the Helium Ion Microscope
17:20	**Excursion - Guided Walk through Luxembourg City**	
	Workshop Dinner	
	Poster Prize Ceremony	

Friday 10 June

Time	Session	Title
09:00	Keynote E1 **James FITZPATRICK**	Biological Applications of Ion Microscopy
09:40	Oral E2 **Viacheslav MANICHEV**	Helium Ion Microscopy characterization and analysis of biological structures
10:00	Oral E3 **Andreas SCHERTEL**	Volume Imaging of Cellular Ultrastructure in Vitrified Biological Samples using Cryo FIB/SEM
10:20	Oral E4 **Eva CAMPO**	Helium Ion Microscopy of Electrospun Nano-Composites
10:40	**Coffee break**	
11:10	Invited A9 **Stuart BODEN**	Dopant profiling in the helium ion microscope
11:40	Oral A10 **Felix KOLLMER**	FIB TOF-SIMS Crater Wall Imaging and Tomography
12:00	Oral A11 **Nico KLINGNER**	Time of Flight Spectrometry in the HIM
12:20	Invited A12 **Silvio RIZZOLI**	Genetically-encoded isotopic labels
12:50	**Closing Remarks**	
13:00	**Lunch**	
14:00	**Visit of LIST facilities (Shuttle provided)**	**Time for meetings etc (e.g. COST action)**
17:00		

HEFIB 2016

HEFIB 2016 - Poster session

Wednesday 8th June - 17:20

Talk No	Topic	Name	First name	Poster title
P01	1 - Nanotechnology	BELIANINOV	Alex	Polarization control via He-ion beam induced nanofabrication in layered ferroelectric semiconductors
P02	1 - Nanotechnology	BELIANINOV	Alex	Graphene Engineering by Neon Ion Beams
P03	1 - Nanotechnology	BISCHOFF	Lothar	Focused Ion Beam Applications using Liquid Metal Alloy Ion Sources
P04	1 - Nanotechnology	CÓRDOBA	Rosa	Patterning Ultra Narrow Tungsten- Based Nanowires by Focused He+ Ion Beam
P05	1 - Nanotechnology	GREENZWEIG	Yuval	Circuit Edit Requirements for Ion Beam Technology
P06	1 - Nanotechnology	HLAWACEK	Gregor	Tailoring magnetic nanostructures with neon in the ion microscope
P07	1 - Nanotechnology	KHALID	Abbas	Modification of ZnO microwire waveguides using a focused helium ion beam
P08	1 - Nanotechnology	LEIßNER	Till	Challenges of fabricating plasmonic and photonic structures with Neon ion beam milling
P09	1 - Nanotechnology	MANSILLA SANCHEZ	Catalina	In-situ EBID purification process with a novel concentric nozzle for simultaneous introduction of organic-metallic precursor and oxygen
P10	1 - Nanotechnology	NANDA	Gaurav	Study of Ion-Induced Defect Migration in Boron-Nitride Encapsulated Graphene
P11	1 - Nanotechnology	XU	Zongwei	Diamond Cutting Tool's Nanofabrication with Focused Ion Beam
P12	1 - Nanotechnology	FLEGER	Yafit	“Out of the Box” Way of Writing Matrices Using HEFIB
P13	2 - Analysis	CADEL	Emmanuel	Where does the FIB sputtered matter accumulate in the SEM chamber ?
P14	2 - Analysis	KLING	Lasse	Time-of-flight (TOF) mass spectrometry (MS) of focused ion beam (FIB) sputtered bio - medical tissue – a novel approach in the correlative study of bone diseases
P15	2 - Analysis	MANSILLA SANCHEZ	Catalina	How to turn an SEM into an AFM: 3D surface reconstruction using SEM images
P16	2 - Analysis	MANSILLA SANCHEZ	Catalina	Roughening and ripple formation on silicon (100) surface during low energy ion bombardment
P17	2 - Analysis	MANSILLA SANCHEZ	Catalina	Storing Matter: a new analytical technique developed to improve the sensitivity and the quantification during SIMS analyses
P18	2 - Analysis	MOOS	Evgeny	SURFACE PARTICLE INTERACTION AND ENERGY UNCERTAINTY
P19	2 - Analysis	MOOS	Evgeny	INTENSITY OF CHARGE AT THE INTERACTION OF IONS
P20	2 - Analysis	OHYA	Kaoru	Simulation of Ion Backscattering and Secondary Electron Emission from Crystal Surfaces Irradiated with Focused Ion Beams
P21	2 - Analysis	PHILIPP	Patrick	Irradiation of polymers in the HIM instrument with light rare gas ions
P22	2 - Analysis	RZEZNIK	Lukasz	Surface topography of polymers irradiated with rare gas ions in the helium ion microscope
P23	2 - Analysis	YEDRA CARDONA	Lluis	TEM-SIMS correlative instrumentation: Isotopic imaging in the TEM
P24	2 - Analysis	AUDINOT	Jean-Nicolas	SIMS imaging on the Helium Ion Microscope
P25	3 - Sec. Electron Imaging	ARSTILA	Kai	Sample Preparation for HIM by Broad Ion Beam Cross Sectioning
P26	3 - Sec. Electron Imaging	BEYER	André	Helium Ion Microscopy Visualizes Lipid Nanodomains in Mammalian Cells
P27	3 - Sec. Electron Imaging	CHIRIAEV	Serguei	He Ion Microscopy of Polymer-Electrolyte-Membrane Fuel Cell Electrodes
P28	3 - Sec. Electron Imaging	KLEIN	Julian	Optical properties of 2D materials exposed to helium ions
P29	3 - Sec. Electron Imaging	SAVENKO	Aleksei	High quality large volume material investigation by Xe plasma FIB
P30	3 - Sec. Electron Imaging	ZLATOUSTOVA	Olga	Properties of calcium-containing microparticles formed in the process of biomineralization of the human aortic wall
P31	4 - Instrumentation	BISCHOFF	Lothar	Liquid Metal Ion Source driven High Current Ion Beam Injector
P32	4 - Instrumentation	DE CASTRO	Olivier	Development Process of a High Brightness Electron Impact Ion Source
P33	4 - Instrumentation	TEN HAAF	Gijs	Ultracold Atoms and their Prospects for High Resolution FIB Nanomachining