

Helium and emerging Focused Ion Beams

Monday			Tuesday			Wednesday			
Time	Title	Speaker	Time	Title	Speaker	Time	Title	Speaker	
	Break/refreshments		08:30	Thermal Effects from Light Ion Beams in Thin Films	Notte				
	Invited Speaker		09:00	FIB milling strategies for the mitigation of beam-induced artifacts in polymer thin films: He vs. Ga	Allen	08:50	A revolutionary quantum computer device fabricated from implanted ordered arrays of single donor atoms in silicon	Jamieson	
	Sponsor contribution		09:20	METALLOGRAPHY OF THIN FILMS WITH FOCUSED ION BEAMS	Chiriaev	09:20	Site-controlled Si Nanodot Formation for a RT-SET via Ion Beam Mixing and Phase Separation	Xu	
	Other		09:40	Compositional analysis and in situ experiments in the HIM	Klingner	09:40	Latest development for failure analysis – When ions meet chemistry	Delobbe	
			10:00	SIMS performed on the Helium Ion Microscope: a unique tool for highest spatial resolution imaging and correlative microscopy	Wirtz	10:00	Cs ion coldbeam suitability for circuit edit and other nanomachining applications	Greenzweig	
	Welcome		10:20	Coffee		10:20	Coffee		
2D Materials	10:40	Graphene nano-electro-mechanical (GNEM) devices functionalized by using helium ion beam	Mizuta	10:50	Transmission He Ion Microscopy	Kavanagh	10:50	Nanoscale defect engineering in ferroelectric thin films by focused ion beam microscopy	McGilly
	11:10	Anderson localization of graphene by sub-nm diameter helium ion beam irradiation	Ogawa	11:20	Towards observing diffraction in a HIM	Herrmann	11:20	Defect production in supported two-dimensional materials under ion irradiation from atomistic simulations: the substrate is crucial	Kretschmer
	11:30	In-situ measurement of electron conduction modulation in graphene by helium ion beam irradiation	Nakaharai	11:40	Multi-Modal Characterization with Secondary Ion Mass Spectrometry on ZEISS ORION NanoFab	Casares	11:40	Modification of MoS2 with Helium Ion Beam: Fabrication of Gate-Tunable Memristor	Keane
	11:50	He-Ion Microscopy Combined with Micromanipulators for Pick & Place, Electrical & Mechanical Characterization, and Other Tasks	Smith	12:00	Characterising Carbon-based materials in the HIM: probing the invisible with secondary electron spectroscopy	Abrams	12:00	Application of Gas Field Ion Source to Patterning Nanoscale Magnetic Structures	Bali
	12:10	Lunch		12:20	Lunch		12:20	Writing Magnetic Domains with a Helium Ion Microscope	Emmrich
Imaging and Biological applications	14:00	Helium and neon ion microscopy and milling for microbiological applications	Maasilta	14:00	Understanding Focused Ion Beam Sputtering and Gas-Assisted Etching via the EnvizION Monte Carlo Simulation	Mahady	12:40	Summary/Outlook	
	14:30	FIB/SEM Processing of Biological Samples	Wolff	14:30	Binary Collision Computer Simulation of FIB Induced Erosion and Atomic Mixing in Nanostructures	Möller	12:50	Lunch	
	14:50	Correlative Microscopy with Light, Electrons and Ions in Environmental Microbiology	Schmidt	14:50	Helium Ion Based Lithography of Advanced Resists	Feldman	14:30	Ion Beam Center @ HZDR tour	
	15:10	Comparison of image fusion techniques for ion beam based correlative microscopy	Vollnhals	15:10	Advanced FIB nanopatterning employing a high precision sample stage	Bauerdick	17:00		
	15:30	Multimodal Imaging for Physical and Chemical Surface Characterization using a Combined Helium Ion Microscope and Secondary Ion Mass Spectrometry Platform	Ovchinnikova	15:30	Fabrication of Plasmonic Nanostructures by He+ and Ga+ Milling	Westphal			
New Ion Beams	15:50	Coffee		Excursion and dinner					
	16:20	ColdFIB – a new FIB column with a laser cooled source	Viteau						
	16:50	New non-Gallium FIB Alternatives for Nanofabrication	Mazarov						
	17:10	Ion Sources for Focused Ion Beam Applications	Bischoff						
	17:30	Source Shot Noise Mitigation in Helium Ion and Focused Ion Beam Microscopy	Murray-Bruce						
17:50	The Xe plasma FIB - the other extreme	Mulders							
18:10	Revolutionary Field Emission Thruster Developments for Nano-satellites at TU Dresden and its correlative LMIS-applications at terrestrial Implants.	Laufer							
18:30	Posters								
20:00	End of day 1 program								