Scientific Program DGKK-Workshop 2018

Thursday, 06.12.2018

From 9:00		Company registration opens			
10:30 – 11:30	Lab tour through MBE facilities of Univ. of Paderborn				
11:30		Regular registration opens			
12:00		Light lunch available for all (sponsored by **Dock/Chemicals** and **Nextnano**)			
12:45	*Opening of the workshop and company exhibition*				
	Room: O2 (O1.267)				
Time	Name	Title		Name	Title
13:00	Waag A. et al.	Invited Talk: 3D GaN architectures: a potential platform for "perfect" GaN ?			
	Room: O2 (O1.267)			Room: O1.224	
	Session I (III-Nitrides)			**Session II (GaAs and In(Ga)As QDs)**	
13:35	Pohl D. et al.	Photoluminescence properties of MBE-grown carbon-doped GaN		Scholz S., Wieck A. et al.	Suppression of the wetting layer photoluminescence emission for spectrally clean InGaAs quantum dot signals
13:50	Deppe et al.	Optical and Electrical Properties of Germanium in Cubic $Al_xGa_{1-x}N$ Layers Grown by Molecular Beam Epitaxy		Kahle H. et al.	Semiconductor membrane external-cavity surface-emitting lasers (MECSELs) for new wavelengths (~ 770 to 810 nm)
14:05	Dominec F. et al.	Influence of GaN buffer layer under InGaN/GaN MQWs on luminescent properties		Kaganskiy A. et al.	Micropillar Lasers with Site-controlled Quantum Dots Fabricated via the Buried Stressor Approach
14:20	Ipsen A. et al.	Cathodoluminescence characterization of stacking faults in GaN		Große et al.	Optimization of InGaAs Quantum Dots for Deterministically Fabricated Single-Photon Sources Emitting at 1.3 µm
14:35	Metzner et al.	Spatial Distribution and Temporal Evolution of Cathodoluminescence from GaN QDs		Trapp et al.	Formation of self-assembled GaAs quantum dots via droplet epitaxy on misoriented GaAs(111)B substrate
14:50	Hörich F. et al.	Growth of AlN on Si (111) by pulsed reactive magnetron sputtering		Riedl et al.	Relaxation of misfit in nanoscale InAs gowths atop GaAs (111) A nanopillars
15:05 – 16:25	Coffee break and company Exhibition (sponsored by **Chempur** and **Clean Solutions**)				
	Room: O2 (O1.267)				
16:25	M. Eickhoff	Invited Talk: Group III-nitride nanowires as nanophotonic probes for chemical and biochemical surface processes			
	Room: O2 (O1.267)			Room: O1.224	
	Session III (Nitride and GaAs Nanowires)			**Session IV (Simulation and new Technology)**	
17:00	Duo Li et al.	Lattice-symmetry-driven Selective Thermal Annealing Effect of Group III-Nitrides and Application		Birner S. et al.	Simulation of epitaxially grown heterostructures with the nextnano software (Software demonstration)
17:15	Wefers F. et al.	Polarity- and Site-controlled GaN-nanowire growth on Si (111)		Sana P. et al.	Development of High Brightness (In,Ga,Al) N Laser Devices: Theory and Experiment
17:30	Nägelein A. et al.	Multi-probe electrical characterization of nanowires for solar energy conversion		Golla C. et al.	Semiconductor-based dielectric nanoantennas for nonlinear applications
17:45	Nägelein A, Kleinschmidt P. et al.	Doping profiling in axial GaAs Nanowires by a 4-point nano-prober and Luminescence Measurements		Maßmeyer et al.	Real-time mass spectrometric MOVPE gas phase investigations on di-*tert*-butyl-phosphan-amine (DTBPA)
18:00	Bus transfer to Schützenhof				
19:00	Dinner "Schützenhof" sponsored by **AIXTRON**				

Friday 07.12.2018

	Room: 02			Room:	
Time	Name	Title		Name	Title
09:00	M. Kneissl et al.	Invited Talk: Advances in AlGaN materials for deep UV light emitting diodes			
	Room: O2 (O1.267)			Room: O1.224	
	Session V (Nitride devices)			**Session VI (Arsenides and Phosphides)**	
09:35	Scholz J.-P. et al.	Towards Vertical HEMTs: AlGaN HEMTs on p-GaN		Lang R. et al.	MOVPE Growth of GaAs with Growth Rates above 100 µm/h
09:50	Debald et al.	Growth and Characterization of Vertical and Lateral p-n Junctions Formed by Selective-Area p-GaN MOVPE		Hepp T. et al.	MOVPE Growth and Characterization of Quaternary (Ga_yIn_{1-y})($As_{1-x}Bi_x$) Structures on GaAs Substrates
10:05	Fahle D. et al.	Buffer developments for GaN Power Transistors		Großmann M. et al.	Metamorphic buffer for orange-emitting AlGaInP active regions on GaAs
10:20	Schmult S.	Magneto-Photoluminescence Properties of a GaN/AlGaN 2DEG grown on Bulk GaN		Supplie O. et al.	In-situ quantification of the As/P content in GaAsP graded buffers
10:35-11:30	Coffee break and company Exhibition (sponsored by **Chempur** and **Clean Solutions**)				
11:30	End of company Exhibition				
	Session VII (UV-LEDs)			**Session VIII (Epitaxy on Si)**	
11:30	Kuhn C. et al.	MOVPE grown AlGaN-based tunnel junction enabling fully transparent UVC LEDs with high efficiency		Glowatzki et al.	Nitrogen incorporation in GaP on Si using novel metal organic N-P precursor on di-*tert*-butyl-phosphan-amine (DTBPA)
11:45	Neugebauer S. et al.	MOVPE and processing of blue micro-sized LEDs on Si(111) for optogenetic applications		Feifel et al.	Advances in III-V on Silicon Epitaxy for GaInP/GaAs/Si Multi-Junction Solar Cells
12:00	Sheng B. et al.	Nanoscale structural and optical properties of deep UV-emitting GaN/AlN MQW-stack		Paszuk A. et al.	Atomic structure of As-modified Si(100) surfaces prepared in MOCVD ambient
12:15	Schmidt G. et al.	High reflective AlN/AlGaN deep-UV Bragg reflectors: composition, segregation and interface luminescence		Nandy M.	Defects in GaP buffers grown on As-modified Si (100) surfaces
12:30	Schürmann H.	Self-assembled GaN quantum dots grown on a wavelength-matched deep UV AlN/AlGaN distributed Bragg reflector		Kunnathully V. et al.	InAs heteroepitaxy on nano-pillar patterned GaAs (111) A
12:45	Wieben J. et al.	Development of a III-nitride electro-optic modulator for UV-VIS		Trippel et al.	Laser-assisted local metal-organic vapor phase epitaxy
13:00	Closing Remarks of the Workshop				
	Lunch (sponsored by **Dock/Chemicals** and **Nextnano**)				
14:00 – 15:00	Lab tour through MBE facilities of Univ. of Paderborn				