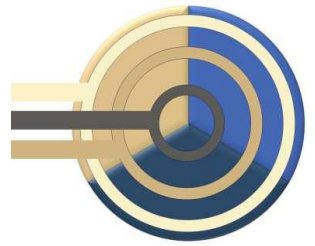


Graduiertenkolleg 1782
„Functionalization of Semiconductors“
Seminarhotel Kunze-Hof, Stadland



Seminar Program 02. – 06.10.2017

Monday, 02.10.2017

till 15:30	Arrival	
15:30 – 16:00	Welcome Snack/ Coffee Break	
16:00 – 17:30	Simulation Workshop I	<i>Jan Oliver Oelerich</i>
18:00	Dinner	

Tuesday, 03.10.2017

08:00 – 09:00	Breakfast	
09:00 – 10:30	Simulation Workshop II	<i>Jan Oliver Oelerich</i>
10:30 – 11:00	Coffee Break	
11:00 – 12:30	Simulation Workshop III	<i>Jan Oliver Oelerich</i>
13:00 – 14:00	Lunch Break	

Session I Chair: *Jan Oliver Oelerich*

- 14:00 – 14:30 *Lukas Nattermann*: MOVPE in-situ gas phase analysis with real-time 3D quadrupole ion trap mass spectrometer
- 14:30 – 15:00 *Lars Ostheim*: Electronic transport properties of dilute N- and B-containing III-V semiconductors under hydrostatic pressure
- 15:00 – 15:30 *Lars Bannow*: A first principle based approach to optical properties of semiconductor materials
- 15:30 – 16:00 Coffee Break

Session II Chair: *Katharina Hanau*

- 16:00 – 16:30 *Johannes Völkner*: Monolayer Functionalization of GaAs Surfaces
- 16:30 – 17:00 *Mikko Wilhelm*: Optoelectronic Coupling between Quantum Dots and Burrowed Quantum Wells
- 17:00 – 17:30 *Jürgen Belz*: Atomic-Scale 3D Reconstruction of Antiphase Boundaries of GaP on Silicon (001) by STEM
- 18:00 Dinner

Wednesday, 04.10.2017

- 08:00 – 09:00 Breakfast

Session III Chair: *Jonas Hühn*

- 09:00 – 09:30 *Thilo Hepp*: MOVPE growth of quaternary $\text{Ga}_y\text{In}_{1-y}\text{As}_{1-x}\text{Bi}_x$ structures on InP and on GaAs
- 09:30 – 10:00 *Vitalii Valkovskii*: Peculiarities of the photoluminescence line shape in $\text{Ga}(\text{N},\text{As},\text{P})/\text{GaP}$. Experiment and Monte Carlo simulations
- 10:00 – 10:30 *Shalini Gupta*: STEM investigation of $\text{Ga}(\text{NAs})$ multi quantum well structures grown on (001) Si substrates
- 10:30 – 11:00 Coffee Break

Session IV Chair: *Lars Bannow*

- 11:00 – 11:30 *Katharina Hanau*: Organo-functionalized Tetrel Chalcogenide Clusters
- 11:30 – 12:00 *Florian Dobener*: Photoluminescence Pumping Characteristics in $\text{Ga}(\text{N},\text{As},\text{P}) / (\text{B},\text{Ga})(\text{As},\text{P})$ Heterostructures
- 12:00 – 12:30 *Marcel Köster*: Synthesis of novel bicyclic Trisiloxanes
- 12:30 – 13:00 *Tamam Bohamud*: Adsorption Dynamics of Methanol on Si(001) Studied by Means of Molecular Beam Techniques
- 13:00 – 14:00 Lunch Break
- 14:00 – 17:30 Teambuilding Seminar
- 18:00 Dinner

Thursday, 05.10.2017

08:00 – 09:00 Breakfast

Session V Chair: Mikko Wilhelm

- 09:00 – 09:30 *Eike Dornsiepen*: Binary and Ternary Organotetrel Chalcogenide Clusters
09:30 – 10:00 *Jonas Hühn*: Synthesis, characterization and functionalization of inorganic, water soluble nanoparticles
10:00 – 10:30 *Eduard Sterzer*: MOVPE growth of Ga(NAsSb) 1 eV bulk material on GaAs
10:30 – 11:00 Coffee Break

Session VI Chair: Eduard Sterzer

- 11:00 – 11:30 *Benjamin Ringler*: Group 15 MOVPE Precursors and Stepwise Construction of Interpnictogens
11:30 – 12:00 *Fabian Pieck*: DFT study on molybdenum disulphide: Searching for the growth mechanism in the atomic layer deposition
12:00 – 12:30 *Oliver Maßmeyer*: Influence of TMBi on the GaAs (001) surface reconstruction before and during Ga(AsBi) growth in MOVPE
13:00 – 14:00 Lunch Break

14:00 – 17:30 Poster Session (15:30 – 16:00 coffee break included)

1. *Lars Bannow*: An ab initio based approach to optical properties of semiconductor heterostructures
2. *Jürgen Belz*: Atom Counting Reconstruction For Antiphase Boundaries of Gallium Phosphide on Silicon
3. *Tamam Bohamud*: Electronically Induced Manipulation of Diethyl Ether and Tetrahydrofuran on Si(001)
4. *Florian Dobener*: Band offsets in Ga(N,As,P)/GaP/(B,Ga)(As,P) heterostructures in the high-strain regime
5. *Eike Dornsiepen*: Binary and Ternary Organotetrelsulfide Clusters
6. *Dominic Duffy*: Composition Dependence of Quasi-Forbidden XRD Reflections in Mixed III/V Semiconductors
7. *Shalini Gupta*: Quantitative structural characterization of Ga(NAs) quantum well heterostructures on (001) Si substrates
8. *Katharina Hanau*: Functional Binary and Ternary Organotetrel Chalcogenide Clusters
9. *Julian Heep*: Reaction channels of acetylene and methanol on Si(001) studied by means of STM and XPS
10. *Thilo Hepp*: MOVPE growth of quaternary $(\text{Ga}_y\text{In}_{1-y})(\text{As}_{1-x}\text{Bi}_x)$ on InP and on GaAs
11. *Jonas Hühn*: Nanoparticles With Integrated Fluorophores in Their Surface and Their Characterization
12. *Sarah Karrenberg und Luise Rost*: Determining the band offset of Ga(NAsP)/Si heterostructures
13. *Oliver Maßmeyer*: RAS in MOVPE – Observation During Ga(NAs) Growth and Influence of UDMHy on GaAs Surface Reconstruction
14. *Lukas Nattermann*: MOVPE Growth and Characterization of Dilute Bi-III/V Semiconductors
15. *Lars Ostheim*: Transport properties of the interface of GaP/Si heterostructures
16. *Fabian Pieck*: Searching the growth mechanism of molybdenum disulfide: Atomic layer deposition under an electric field

17. *Benjamin Ringler*: Binary Group 15 Element Precursor Materials for MOVPE
18. *Eduard Sterzer*: MOVPE Growth of Dilute Nitride III/V Alloys Using Novel N-Containing Precursors
19. *Vitalii Valkovskii*: Peculiarities of the PL line shape in GaNAsP/GaP. Experiment and Monte-Carlo Simulation
20. *Johannes Völkner*: Self-Assembling Stilbenedithiol Monolayer: A Linker in Photoelectrochemical Sensors
21. *Maximilian Widemann*: *In Situ* TEM Investigations of III/V Semiconductor Materials under Group V Stabilized Conditions
22. *Mikko Wilhelm*: Optoelectronic coupling between colloidal quantum dots and burrowed quantum wells

18:00 Dinner

Friday, 06.10.2017

08:00 – 09:00 Breakfast

09:00 Departure