

Graduiertenkolleg 1782
“Functionalization of Semiconductors”
Kloster Höchst, Höchst im Odenwald



Seminar Program 21. – 23.09.2020

Monday, 21.09.2020

until 10:30 Arrival

10:30 – 11:00 Coffee Break

Short Session I

Chair: *Luise Rost*

11:00 – 11:30 **Tobias Dunaj:** Synthesis of Interpnictogen Compounds from Diaryl Halido Bismuthanes

11:30 – 12:00 **Alexa Adamkiewicz:** Tip-Induced Surface Reactions Starting from Weakly Bound Intermediates as well as from Covalently Bound Organic Adsorbates on Si(001)

12:00 – 13:00 Lunch

Session II

Chair: *Thilo Hepp*

13:00 – 13:30 **Marcel Kröner:** Growth of Ga(N,As,P)/(B,Ga)(As,P) heterostructures on Si (001) substrate grown with UDMHy and the N-As precursor DTBAA

13:30 – 14:00 **Oliver Maßmeyer:** Decomposition Analysis of TBAs and TBP during GaAs and GaP Growth by MOVPE

14:00 – 14:30 **Johannes Glowatzki:** MOCVD growth studies of GaS monolayers

14:30 – 15:00 Break

15:00 – 17:00	Postersession (including coffee break)	
	Florian Kreuter:	Theoretical investigation of Azulene and Naphtalene on Si(001)-Surface
	Fabian Pieck:	Automated exploration of reaction networks in chemical vapor deposition by density functional theory
	Bertram Peters:	Ionothermal Design of Exfoliable Tellurido-mercurate Materials
	Christian Ritter:	Building Interpnictogen Chains
	Maximilian Widemann:	<i>In-situ</i> TEM Growth Investigations of III/V Semiconductor Materials
	Mikko Wilhelm:	Optoelectronic coupling of colloidal quantum dots and semiconductor substrates
17:00 – 18:00	Move into the rooms	
18:00 – 19:00	Dinner	

Tuesday, 22.09.2020

08:00 – 09:00	Breakfast	
	Session III	Chair: <i>Alexa Adamkiewicz</i>
09:00 – 09:30	Sven Christian Liebscher:	Extension of the LDA-1/2 method to dilute bismides
09:30 – 10:00	Badal Mondal:	Substrate, temperature and pressure effect (strain) on electronic properties of III-V semiconductor from ab-initio approach
10:00 – 10:30	Fabian Pieck:	Automated exploration of reaction networks in chemical vapor deposition by density functional theory
10:30 – 11:00	Coffee Break	
	Short Session IV	Chair: <i>Sven Christian Liebscher</i>
11:00 – 11:30	Luise Rost:	The influence of growth interruption on the luminescence properties of Ga(As,Sb)-based type II heterostructures
11:30 – 12:00	Mikko Wilhelm:	Optoelectronic coupling of colloidal quantum dots and semiconductor substrates
12:00 – 13:00	Lunch	
13:30 – 17:30	Discussions	Networking - Joint nature hike to castle Breuberg
18:00	Dinner	

Wednesday, 23.09.2020

08:00 – 09:00 Breakfast

09:00 – 09:30 Tidy up and leave rooms

Session V

Chair: *Oliver Maßmeyer*

09:30 – 10:00 **Johannes Haust:** Analyzing the influence of different growth parameters on the decomposition of MOVPE precursors with mass spectrometry

10:00 – 10:30 **Thilo Hepp:** Bismuth-containing W type laser structures for long wavelength emission on GaAs substrates

10:30 – 11:00 Coffee Break

11:00 – 11:30 **Robin Güntel:** In-situ analysis of Ga(N,As)/Ga(As,Bi) interfaces during growth by MOVPE

11:30 – 12:00 Break

12:00 – 13:00 Lunch

afterwards Departure