



Joint IMEC – Uni Marburg – Dock Chemicals Workshop on *Novel Semiconductor Growth and Characterization*

Thursday, 15.02.2024, HS C (lecture building), Hans-Meerwein-Straße 8, 35043 Marburg

- 10:00 – 10:10 **Prof. Dr. Kerstin Volz**, Uni Marburg
Welcome
- 10:10 – 10:30 **Robin Günkel**, Uni Marburg
MOCVD growth and characterization of 2-dimensional InSe
- 10:30 – 11:00 **Dr. Oliver Maßmeyer**, Uni Marburg
MOCVD growth and characterization of -dimensional materials (GaS & WS₂)
- 11:00 – 11:20 **Max Bergmann**, Uni Marburg
Electron Energy Loss Spectroscopy and Density Functional Theory for quantification of excitonic properties
- 11:20 – 11:40 **Nils Langlotz**, Uni Marburg
MOCVD growth and characterization of 2-dimensional GaSe
- 11:40 – 12:00 **Dr. Mario Zscherp**, Uni Gießen
Molecular Beam Epitaxy of cubic III-Nitrides
- 12:00 – 13:30 Lunch break
- 13:30 – 14:00 **Vitalii Lider**, Uni Marburg
Measurement of electric fields and potential drops by 4D STEM
- 14:00 – 14:20 **Dr. Andreas Beyer**, Uni Marburg
Covalently-bonded GaSe on GaP/Si: a new approach for a direct bandgap material on Si?
- 14:20 – 14:50 **Dr. Bernardette Kunert**, IMEC
Nano-Ridge Engineering for III-V device fabrication in a 300 mm CMOS-fab
- 14:50 – 15:10 **Johannes Haust**, Uni Marburg
Electron pair distribution function analysis as tool for quantification of the structure in amorphous materials
- 15:10 – 15:50 Coffee break
- 15:50 – 16:10 **Dr. Stefan Kachel**, Uni Marburg
On-surface characterization of MOVPE precursors on sapphire by TPD and XPS
- 16:10 – 16:30 **Prof. Dr. Carsten von Hänsch**, Uni Marburg
Precursor synthesis, antimony hydrides and funny main group element chemistry
- 16:30 – 16:50 **Dr. Peter Ludewig**, Uni Marburg and Dockweiler Chemicals
MOVPE growth of cubic GaN and (Al,Sc)N
- 16:50 – 17:10 **Dr. Susanne Herritsch**, Dockweiler Chemicals
Synthesis of novel Ga and Sc-precursors for the MOVPE growth of GaN and (Al,Sc)N and the challenges when upscaling
- 17:10 – 17:40 **Dr. Robert Langer**, IMEC
Introduction to Imec and the epitaxy activites