

Program

Sunday, 13 March 2022

17:00 – 20:00 Registration

18:00 *BUFFET SUPPER and informal get-together*

Monday, 14 March 2022

08:00 *BREAKFAST*

08:50 – 09:00 Scientific organizers **Welcome words**

09:00 – 09:50 Thomas Frauenheim **Theory of 2D materials**

09:50 – 10:10 Dmitry Baranov **The good, the bad, and the ugly transformations of cesium lead bromide nanocrystals**

10:10 – 10:30 Saskia Fiedler **Cathodoluminescence spectroscopy of silicon nanoparticles**

10:30 – 11:00 *COFFEE BREAK*

11:00 – 11:50 Bettina Lotsch **Interface design across the scales in molecular and hybrid solids**

11:50 – 12:10 Henk Stoof **Topological Wannier excitons in Bismuth chalcogenides nanosheets**

12:10 – 12:30 Laurens Siebbeles **Observing quantum-confinement effects on the in-plane translational motion of excitons in CdSe nanoplatelets**

12:30 – 12:45 **Conference photo**

12:45 *LUNCH*

Program

Monday, 14 March 2022

14:10 – 15:00	Tobias Kipp	Colloidal quantum nanowires: Structural, optical, and electronic properties
15:00 – 15:20	Vincent Mauritz	Gaining insights into the ABX₃ chalcogenide material BaTiS₃ for NIR applications
15:20 – 15:40	Sushant Ghimire	High quantum yield, broadband, and delayed emission in two-dimensional tin iodide perovskite nanosheets
15:40 – 17:30	Poster session <u>on site</u> and <i>COFFEE BREAK</i>	
17:30 – 18:30	Hilmi Volkan Demir	Semiconductor nanocrystal optoelectronics: From advanced heterostructures to oriented self-assemblies of colloidal quantum wells <i>PLUS:</i> Discussion on the future of nanoelectronics in respect of the day's subjects
19:00	HERAEUS DINNER <i>(social event with cold & warm buffet with complimentary drinks)</i>	

Program

Tuesday, 15 March 2022

08:00	<i>BREAKFAST</i>	
09:00 – 09:50	Julia Stähler	Dynamic screening of quasiparticles in WS₂ monolayers
09:50 – 10:10	Paul Mulvaney	Spectroelectrochemistry of CdSe quantum dots
10:10 – 10:30	Tassilo Naujoks	Quantum efficiency enhancement of Lead-Halide Perovskite nanocrystal LEDs by organic Lithium salt treatment
10:30 – 11:00	<i>COFFEE BREAK</i>	
11:00 – 11:50	Emmanuel Lhuiller	By design light matter interaction in nanocrystal array, a step toward active nanophotonics
11:50 – 12:10	Yan B. Vogel	Charge percolation in QD–molecule assemblies
12:10 – 12:30	Lars Frederik Klepzig	Colloidal 2D PbSe nanoplatelets with efficient emission reaching the Telecom O-, E- and S-band
12:30	<i>LUNCH</i>	

Program

Tuesday, 15 March 2022

14:00 – 14:50	Jannika Lauth	A colloidal 2D semiconductors covering visible to telecom window wavelengths - combining chemistry and spectroscopy for innovative optoelectronics and photonic quantum technologies
14:50 – 15:10	Francisco M Gómez-Campos	Electronic structure of InAs quantum dot solids: Influence of dimensionality and stoichiometry
15:10 – 15:30	Jia Grace Lu	Optoelectronic processes in low dimensional systems
15:30 – 17:30	Poster session <u>on site</u> and <i>COFFEE BREAK</i>	
17:30 – 18:30	Andres Castellanos-Gomez	Controlling the metal/semiconductor interface in 2D-dimensional based devices <i>PLUS:</i> Discussion on the future of nanoelectronics in respect of the day's subjects
18:30 – 18:45	Stefan Jorda	About the Wilhelm and Else Heraeus-Foundation
19:00	<i>DINNER</i>	

Program

Wednesday, 16 March 2022

08:00	<i>BREAKFAST</i>	
09:00 – 09:50	Alexander Holleitner	Femtosecond electronics across nanostructured interfaces
09:50 – 10:10	Karen Schäfer	Modelling mechanical properties of Gold nanoparticle arrays with molecular dynamics
10:10 – 10:30	Rostyslav Lesyuk	Role of Mn–Mn coupling in photoluminescence kinetics of doped ZnS nanoplatelets
10:30 – 11:00	<i>COFFEE BREAK</i>	
11:00 – 11:50	Jana Zaumseil	Tailored Interfaces with and defects in single-walled carbon nanotubes
11:50 – 12:10	Sergio Puebla	In-plane anisotropic properties of two-dimensional MoO₃
12:10 – 12:30	Dipankar Bain	Aggregation induced emission: A novel strategy for lighting metal nanoclusters
12:30 – 12:45	Scientific organizers	Concluding keynote <i>PLUS:</i> Poster prizes
12:45	<i>LUNCH</i>	

End of the seminar and departure

NO DINNER for participants leaving on Thursday morning