

Thursday 24.05.2018

CHAIR: AGNIESZKA KUC
Defects on the molecular level I

9:30 – 10:00 **Functionalization of 2D materials**
Andreas Hirsch

10:00 – 10:30 **Degradation and defect passivation
in liquid-exfoliated inorganic 2D materials**
Claudia Backes

10:30 – 11:00 **Understanding properties of low-dimensional materials
at the atomic scale by low-voltage TEM**
Ute Kaiser

11:00 – 11:30 COFFEE BREAK

CHAIR: THOMAS HIGGINS
Defects on the molecular level II

11:30 – 11:50 **Electronic structure of defective transition
metal dichalcogenides: theoretical investigations**
Agnieszka Kuc

11:50 – 12:20 **CVD-grown monolayer tungsten disulfide: properties,
defects and degradation**
Camilla Coletti

12:20 – 12:50 **Disorder and defects in molecular frameworks:
Boon or bane?**
Bettina Lotsch

12:50 – 13:00 **CONCLUDING REMARKS**

*Dr. Claudia Backes & Dr. Thomas Higgins received this award in 2017.
Three Klaus-Georg and Sigrid Hengstberger Prizes are bestowed annually
to young scientists and researchers at Heidelberg University. The awards
are intended to enable the young recipients to present an interdisciplinary
scientific symposium at the International Academic Forum Heidelberg (IAFH).
The next deadline for applications is April 1st.*

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HENGSTBERGER SYMPOSIUM

The role of defects in low-dimensional nanostructures

May 22 – 24, 2018

ORGANISATION : Institute of Applied Physical Chemistry

Tuesday, 22.5.2018

12:30 – 13:20	WELCOME RECEPTION
	CHAIR: CLAUDIA BACKES Role of defects across the process chain
13:20 – 13:30	WELCOME <i>Peter Comba</i>
13:30 – 14:00	Colloidal nanocrystals of APbX₃ perovskites: highly defected, yet highly luminescent materials <i>Maksym Kovalenko</i>
14:00 – 14:30	What can you do with disordered arrays of nanosheets? <i>Jonathan Coleman</i>
14:30 – 15:00	Characterisation of defective TMD films <i>Georg Duesberg</i>
15:00 – 15:30	COFFEE BREAK
	CHAIR: JONATHAN COLEMAN Applications
15:30 – 16:00	Defect engineering in nanomaterials <i>Horst Hahn</i>
16:00 – 16:30	Assembly of 2D materials at liquid-liquid interfaces <i>Alan Dalton</i>
16:30 – 17:00	Towards wafer-scale processing of 2D materials <i>Daniel Neumaier</i>
17:00 – 17:20	Exploring charge transport in semiconducting nanosheet networks <i>Thomas Higgins</i>
17:20 – 17:50	How nature indexing helps you find nanotechnology literature and data efficiently <i>Simone Bartel</i>
18:30	DINNER AT IWH

Wednesday, 23.05.2018

	CHAIR: HORST HAHN Electronic properties
9:30 – 10:00	Separation of double walled carbon nanotubes <i>Benjamin Flavel</i>

10:00 – 10:30	Avoiding and/or creating defects in carbon nanotube networks for device applications <i>Jana Zaumseil</i>
10:30 – 11:00	Electronic Dirac systems: from Platonic artificial lattices made in an STM to real honeycomb semiconductors <i>Daniel Vanmaekelbergh</i>
11:00 – 11:30	COFFEE BREAK
	CHAIR: JANA ZAUMSEIL Optical properties
11:30 – 12:00	Optical properties of 2D materials <i>Janina Maultzsch</i>
12:00 – 12:30	Dielectric disorder in 2D materials <i>Alexey Chernikov</i>
12:30 – 12:50	The influence of crystallographic defects on the optical properties of few-layered MoS₂ nanosheets <i>Filippo Fabbri</i>
12:50 – 13:10	Impact of sp³ defects on charge transport and emission properties in SWNT networks <i>Felix Berger</i>
13:10 – 14:30	LUNCH
	CHAIR: GEORG DUESBERG Fundamental properties
14:30 – 15:00	2D CrTe₃ and quasi-2D CuCrS₂ – long-range and short-range structures and properties <i>Wolfgang Bensch</i>
15:00 – 15:30	Defects, what are you then? Part of the power that would // always wish evil, and always works the good <i>Thomas Heine</i>
15:30 – 15:50	Defect engineering for doping of metal halide perovskites <i>Robert Lovrincic</i>
15:50 – 16:10	Colloidal CsPbX₃ Nanocrystals 2.0: zwitterionic capping ligands for improved durability and stability <i>Franziska Krieg</i>
16:10 – 16:40	SPONSOR SESSION
16:40 – 19:00	GROUP DISCUSSIONS AND MINIWORKSHOPS
19:00	INVITED SPEAKERS' DINNER <i>at Kulturbrauerei</i>