

**“Molecular Functionality at Surfaces:
Self-Assembly, Manipulation,
Reactivity and the Role of Decoupling”**

747. WE-Heraeus-Seminar

30 October - 04 November 2022

hybrid

at the Physikzentrum Bad Honnef, Germany

**WILHELM UND ELSE
HERAEUS-STIFTUNG**



Program

Sunday, 30 October 2022

17:00 – 21:00 Registration

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

Monday, 31 October 2022

08:00 *BREAKFAST*

08:50 Scientific organizers **Welcome**

09:00 – 09:45 William Dichtel **Two dimensional polymers and polymerizations**

09:45 – 10:30 Steven De Feyter **Formation and functionalization of 2D materials: a molecular approach**

10:30 – 11:00 *COFFEE BREAK*

11:00 – 11:45 Steven Tait **Supramolecular self-assembly and metal-ligand redox assembly at surfaces**

11:45 – 12:30 Angelika Kühnle **Structural transitions of molecules on surfaces**

12:30 – 12:50 **Conference Photo** (in the front of the lecture hall)

12:50 – 14:00 *LUNCH*

Program

Monday, 31 October 2022

14:00 – 14:45	Junfa Zhu	Chiral nanostructures constructed via on-surface chemistry
14:45 – 15:30	Giovanni Costantini	Primary and secondary structure of conjugated polymers uncovered by ESD-STM
15:30 – 16:00	<i>COFFEE BREAK</i>	
16:00 – 16:45	Christian Wäckerlin	In-situ ToF-SIMS as a tool to study on-surface synthesis: Unraveling the fates of atomic hydrogen
16:45 – 17:30	Milica Todorovic	Bayesian inference of surface adsorbates
17:30 – 17:45	Stefan Jorda	About the Wilhelm and Else Heraeus Foundation
18:30	<i>DINNER</i>	

Program

Tuesday, 01 November 2022

08:00	<i>BREAKFAST</i>	
09:00 – 09:45	Jascha Repp	Accessing non-equilibrium states at atomic scales
09:45 – 10:30	Pavel Jelinek	On-surface synthesis and SPM characterization of polyradical PAHs with strong multireference character
10:30 – 11:00	<i>COFFEE BREAK</i>	
11:00 – 11:45	Nacho Pascual	Magnetism in engineered graphene nanostructures
11:45 – 12:30	David Ecija Fernandez	On-surface synthesis of π-conjugated Polymers
12:30 – 14:00	<i>LUNCH</i>	
14:00 – 14:45	Reinhard Maurer	Dynamic charge-transfer at functional metal-organic interfaces: What is it and how can we control it?
14:45 – 15:30	Poster Flash I	
15:30 – 16:00	<i>COFFEE BREAK</i>	
16:00	Poster Session I	
18:30	<i>DINNER</i>	

Program

Wednesday, 02 November 2022

08:00	<i>BREAKFAST</i>	
09:00 – 09:45	Wilhelm Auwärter	Ring-closing reactions of porphyrins on noble metal surfaces
09:45 – 10:30	Ernst Meyer	Polymeric wires, nanoribbons and 2d-molecular networks studied by scanning probe microscopy
10:30 – 11:00	<i>COFFEE BREAK</i>	
11:00 – 11:45	Martin Sterrer	Control of charge transfer into organic molecules on surfaces
11:45 – 12:30	Christian Lotze	Molybdenum Disulfide on Au(111) – growth, electronic structure and versatile playground for single molecule spectroscopy
12:30 – 14:00	<i>LUNCH</i>	
14:00	Excursion	
18:30	<i>HERAEUS DINNER</i> at the Physikzentrum (social event with cold & warm buffet, with complimentary drinks)	

Program

Thursday, 03 November 2022

08:00	<i>BREAKFAST</i>	
09:00 – 09:45	Leonhard Grill	Molecular motion at surfaces
09:45 – 10:30	Francesca Moresco	Dual functionality of single molecule machines: Rotors and nanocars
10:30 – 11:00	<i>COFFEE BREAK</i>	
11:00 – 11:45	Daniel Ebeling	Towards understanding and controlling on-surface coupling reactions and self-assembly mechanisms
11:45 – 12:30	Jonas Björk	Studying surface-confined reactions and decoupling of molecular structures from theoretical modeling
12:30 – 14:00	<i>LUNCH</i>	
14:00 – 14:45	Magali Lingenfelder	Hands up! Spin up! Chiral molecular layers controlling achiral electrocatalysis
14:45 – 15:30	Poster Flash II	
15:30 – 16:00	<i>COFFEE BREAK</i>	
16:00	Poster Session II	
18:30	<i>DINNER</i>	

Program

Friday, 04 November 2022

08:00	<i>BREAKFAST</i>	
09:00 – 09:45	Peter Beton	Light emission from molecular/2D hybrid van der Waals heterostructures
09:45 – 10:30	Shelley Claridge	Precision patterning of soft surfaces
10:30 – 11:00	<i>COFFEE BREAK</i>	
11:00 – 11:45	Guillaume Schull	Hyper-resolved fluorescence microscopy of molecular and extend systems
11:45 – 12:30	Organizers	Concluding remarks
12:30	<i>LUNCH</i>	

End of the seminar and departure