

Program Summer School Solvation Science 2023

Tuesday, May 30th – @ ZEMOS 0.17/0.19

- 09:00 – 09:30 **Registration**
- 09:30 – 09:40 **Welcome: Dr. Mario Wiesenfeldt**
ECR Board, Ruhr-Universität Bochum
- 09:40 – 13:00 **Welcome event**
Botanic/Chinese Garden Tour / Moonshot (innovation game)
- 13:00 – 14:15 **Lunch Break**

Biomolecular Systems

Chair: Sanjana Nalige

- 14:15 – 15:15 **Prof. Dr. Tomohiro Hayashi,**
Tokyo Institute of Technology, Japan
“Hydration of biomaterials: mechanism underlying protein and cell resistance”
- 15:15 – 16:15 **Prof. Dr. David Konrad,**
Ludwig-Maximilians-Universität München, Germany
“Unlocking the Potential of Late-Stage Functionalization for Medicinal Chemistry by Integrating High-Throughput Experimentation with Geometric Deep Learning”
- 16:15 – 16:45 **Coffee Break**
- 16:45 – 17:45 **Dr. David Zwicker,**
Max-Planck-Institut für Dynamik und Selbstorganisation, Germany
“Physical mechanisms for controlling phase separation inside biological cells”
- 18:00 – 21:00 **Welcome dinner at ZEMOS Foyer**

Wednesday, May 31st – @ ZEMOS 0.17/0.19

09:00 – 09:15 **Welcome: Dr. Martin Rabe**
ECR Board, Max-Planck-Institut für Eisenforschung

Lasers, Spectroscopy, and instruments to explore Solvation

Chair: Philipp Meyer

09:15 – 10:15 **Dr. Fabio Novelli,**
Ruhr-Universität Bochum, Germany
“Terahertz and water”

10:15 – 11:15 **Prof. Dr. Sylvie Roke,**
École Polytechnique Fédérale de Lausanne, Switzerland
“Aqueous Nanoscale Systems”

11:15 – 11:30 **Coffee Break**

11:30 – 12:30 **Prof. Dr. David Leitner,**
University of Nevada, Reno, United States of America
“Dynamics of water around intrinsically disordered proteins elucidated by simulation and spectroscopy”

12:30 – 14:00 **Lunch Break**

Nanomaterials

Chair: Phillip Galonska

14:00 – 15:00 **Prof. Dr. Alexander Bittner,**
CIC nanoGUNE, Spain
“Thin Water layers on Biosurfaces”

15:00 – 16:00 **Dr. Constanze Neumann,**
Max-Planck-Institut für Kohlenforschung, Germany
“Atomic Layer Deposition for Catalyst Synthesis”

16:00 – 16:30 **Coffee Break**

16:30 – 17:30 **Prof. Dr. Jan Rossmeisl,**
University of Copenhagen, Denmark
“Catalysis on High Entropy Alloys”

17:30 – 17:45 Award Ceremony “Solvation Science Student Challenge”

18:00 – 21:00 Get-together at ZEMOS Foyer

Thursday, June 1st – @ ZEMOS 0.17/0.19

09:10 – 09:15 *Welcome: Dr. Celiá Millon*
ECR Board, Ruhr-Universität Bochum

Solvation structure and dynamics (macroscopic to nanoscale)

Chair: Prakash Duari

09:15 – 10:15 **Dr. Ellen Adams,**
Technische Universität Dresden, Germany
“Probing Protein Hydration with Terahertz Spectroscopy”

10:15 – 11:15 **Prof. Dr. Wolfgang Schuhmann,**
Ruhr-Universität Bochum, Germany
“What do we learn for energy conversion reactions from single-particle electrocatalysis?”

11:15 – 11:30 **Coffee Break**

11:30 – 12:30 **Dr. Vanessa Bukas,**
Fritz-Haber-Institut Berlin, Germany
*“First step of the oxygen reduction reaction on Au(111):
A computational study of O₂ adsorption at the electrified metal/water interface.”*

12:30 – 14:00 **Lunch Break**

Career Part

Moderator: Sanjana Nalige

14:00 – 14:05 Welcome

14:05 – 14:30 **Dr. Lisa Candish** – Lab Head, Synthesis Modalities at Bayer AG Research & Development, Pharmaceuticals

14:30 – 14:55 **Dr. Lisa Pecher** – Senior Associate Editor at Angewandte Chemie, Wiley-VCH

- 14:55 – 15:20 **Dr. Thomas Engels** – Scientific Fellow at Henkel AG Adhesives Technologies,
Advanced Characterization
- 15:20 – 16:00 **Coffee Break**
- 16:00 – 16:25 **Dr.-Ing. Marie Jaroni** – Head of Decarbonization SE-DCB at thyssenkrupp
Steel Europe AG
- 16:25 – 18:00 Panel discussion with **Dr. Lisa Candish, Dr. Lisa Pecher, Dr. Thomas Engels,**
Dr.-Ing. Marie Jaroni

Closing: Dr. Hatem Amin

ECR Board, Ruhr-Universität Bochum

- 18:00 – 21:00 **Get-together BBQ at Beckmanns Hof**

Friday, June 2nd

RESOLV's participating institutes

[Advanced Laboratory Modules >](#)