RESOLV
RUHR EXPLORES SOLVATION
CLUSTER OF EXCELLENCE - EXC 1069

RUHR UNIVERSITÄT BOCHUM
RUB

Program GSS Summer School 2018

Tuesday, May 22nd

ZEMOS research building at the Ruhr-University Bochum

08:15 – 08:45	Registration
08:45 – 09:00	Welcome by Christian Merten, RUB, GER

Thermodynamic and Transport Property Measurements in Solvation Science

Chair: Christian Merten

09:00 – 10:00	Markus Richter, RUB, GER *Linking Technical Thermodynamics and Solvation Science*
10:00 – 10:30	**Coffee Break**

Chair: Markus Richter

10:30 – 11:30	Martin Trusler, Imperial College London, UK *Thermophysical Properties of Aqueous Solutions of Carbon Dioxide*
11:30 – 12:30	Eric May, The University of Western Australia, AUS *Managing Solids Solubility in the Production of Natural Gas and LNG*
12:30 – 14:00	**Lunch (Mensa)**

Solvation Science at Large Scale Facilities I

Chair: Irena Kiesel

14:00 – 15:00	Jean Daillant, Synchrotron Soleil, FR *Solvation and Large Scale Facilities*
15:00 – 15:30	**Coffee Break**
15:30 – 16:30	Olaf Magnussen, Kiel University, GER *X-ray Scattering Studies of Liquid Interfaces*
16:30 – 17:30	Felix Lehmkühler, DESY, GER *Structure and Dynamics of Complex Liquids by Coherent X-ray Scattering Methods at Storage Ring and FEL Sources*
17:30-17:45	**Group picture, in front of ZEMOS**
From 17:45	**BBQ and Get-Together, in front of ZEMOS**

Wednesday, May 23rd

ZEMOS research building at the Ruhr-University Bochum

Solvation Science at Large Scale Facilities II

Chair: Christian Merten

09:00 – 10:00	Laurent Nahon, Synchrotron Soleil, FR *Photoelectron Circular Dichroism (PECD) on Isolated Small and Complex Chiral Systems*
10:00 – 10:30	**Coffee Break**
10:30 – 11:30	Frank Gabel, Université Grenoble Alpes, FR *Small Angle X-ray and Neutron Scattering for the Study of Biomacromolecular Hydration*
11:30 – 12:30	~~Per Uvdal, Lund University, SWE~~ **Cancelled**
12:30 – 14:00	**Lunch (Mensa)**
14:00 – 15:00	Anouk Rijs, Radboud University, NL *IR Photons as Structural Probe in Mass Spectrometry: Hydrogen Bonds Exposed*
15:00 – 16:00	Judith Peters, Université Grenoble Alpes, FRA *Neutron Scattering Methods to Investigate Biological Samples in Solution or in Hydrated Powder Form*
16:00 – 16:30	**Coffee Break**
16:30 – 17:30	Jan-Dierk Grunwaldt, KIT, GER *X-ray Absorption Spectroscopy and X-ray Photon-in/out Techniques as Ideal Tools to Identify the Structure of Single Sites, Clusters and Particles in Catalysts Under Reaction Conditions*
17:30 – 17:45	Instructions for the workshops and advanced modules by Christian Merten, RUB, GER + **Short Break**

Special Lecture

Chair: Emiliano Feresin

17:45 – 18:45	Jacopo Pasotti, Journalist and Science Communicator, CH *Science, Journalists and Curiosity*
18:45 - 20:00	**Networking with Beer and Pretzel**

Thursday, May 24th

ZEMOS research building and NC at the Ruhr-University Bochum

Workshops

Each workshop has a duration of 4 h, each Summer School participant should attend two workshops (one in the morning and one in the afternoon).

in parallel

09:00 – 13:00	*Business Modelling*, Room: ZEMOS 0.19 – Roland Kriedel,
	Project Management, Room: NC 02/126 – Peter Odenwälder
	Proposal Writing, Room: NC 7/75 – Rebekka Steinmann
	Public Outreach, Room: ZEMOS 0.05 – Jacopo Pasotti
9:30 – 13:30	*Body Language*, Room: ZEMOS 0.17 – Kathrin Keune
13:00 – 14:30	**Lunch (Fingerfood at ZEMOS)**

in parallel

14:30 – 18:30	*Body Language*, Room: ZEMOS 0.17 – Kathrin Keune
	Business Modelling, Room: ZEMOS 0.19 – Roland Kriedel
	Project Management¸ Room: NC 02/126 – Peter Odenwälder
	Proposal Writing, Room: NC 7/75 – Rebekka Steinmann

Friday, May 25th

RESOLV's participating institutes

Advanced Laboratory Modules (whole day practical courses)

M1 - *Measuring conformational dynamics and water accessibility of a spin-labeled protein by EPR* (Bordignon)

M2 - *Measurements of femtosecond electron life times in metallic quantum-well states* (Bovensiepen)

M3 - *Parallel Reaction Screening and Automated Analysis of Solvent Effects on Homogeneously Catalyzed Reactions* (Gooßen)

M4 - *FTIR Spectroscopy* (Havenith)

M5 - *Isothermal Titration Calorimetry in Supramolecular* (Huber)

M6 - *Modeling Solvation Effects on Protonation Equilibria* (Kast)

M7 - *Determining Absolute Configurations with Vibrational CD Spectroscopy* (Merten)

M8 - *Electroanalytical Methods for Monitoring Solvent Induced Changes in Diffusion and Reaction Kinetics - The Case Study of Hydrogenases in Redox Hydrogels* (Plumeré)

M9 - *Matrix Isolation and EPR spectroscopy of Solvent Complexes* (Sander)

M10 - *Molecular Dynamics: Structure and Dynamics of Water* (Schäfer)

M11 - *Analysis of Materials for Energy-Conversion Devices by Means of Scanning Photoelectrochemical Microscopy* (Schuhmann)

M12 - *X-ray Reflectometry* (Tolan)

M13 - *X-ray Scattering Methods for Studying Lipid Bilayers* (Winter)