

First Retreat of the graduate school *GradChemBio*

3. - 4. November, 2022, Trifels

Thursday

- 12:30 Small lunch
- 13:45 [Reinhard Fischer \(Inst. for Applied Biosciences, Microbiology\)](#)
Welcome and Introduction
- 14:00 [Lisa Rieger \(RG Wagenknecht, Organic Chemistry\)](#)
Metabolic Labelling of DNA by using the Photoclick-Reaction triggered with Visible Light
[Maren Schrödter \(RG Wagenknecht, Organic Chemistry\)](#)
DNA damages via „natural“ and synthetic photosensitizers
[Agnieszka Pancholi \(RG Erhardt, Zoology\)](#)
Transcriptional regulation of centromeric chromatin
[Dr. Xiaodi Hu \(RG Fischer, Microbiology\)](#)
Convergent evolution of „smelling receptors“ in a fungus which catches nematodes
- 15:30 Coffee break
- 16:00 [Claude Coppex \(RG Studt, Theoretical Catalysis\)](#)
Theoretical Investigations of surface dynamics of Cu/ZnO catalysts: New concepts for CO₂-hydrogenation
[Daria Gashnikova \(RG Grundwaldt, Chemical Catalysis\)](#)
Challenges in in situ/operando characterization of Pd/CeO₂ catalysts used for emission control applications
[Mustaq Ali \(RG Bräse, IBCS\)](#)
Solubility prediction of compounds based on data driven approaches with the help of Machine learning and Deep Learning
- 17:00 [Prof. Jan-Dierk Grunwaldt](#): Shining synchrotron X-ray light on ChemBio
- 17:30 [Dr. Maria Stroe \(RG Fischer, Microbiology\)](#): Secondary metabolites as chemical mediators in inter-kingdom interactions
- 18:30 Dinner
- 20:00 [Prof. Manfred Wilhelm](#): Wine, health and NMR spectroscopy

Friday

- 8:30 [Christian Metzger \(RG Nick, Botany\)](#)
 Programmed Cell Death of grapevine hijacked by *Roesleria subterranea*
- [David Figueira \(RG Requena, Botany\)](#)
 Role of fungal effectors in the arbuscular mycorrhizal symbiosis
- [Vanikrishna Ajithkumar Njayappallil \(RG Powell, Inorganic Chemistry\)](#)
 Synthesis of Polyoxometalate Hybrids via Click Chemistry
- [Aravind Raveendranathan \(RG Powell, Inorganic Chemistry\)](#)
 Introduction to Polyoxometalate- based Metal Organic Frameworks (POMOFs)
- 10:00 Coffee break
- 10:30 [Max Schußmann \(RG Wilhelm, Polymeric Chemistry\)](#)
 Synthesis and rheological properties of well-defined polystyrene pom-pom model systems
- [Tamara Meyer \(RG Wilhelm, Polymeric Chemistry\)](#)
 Novel Superplasticizers and their Influence on the Rheology of Cement Paste in Early Hydration States
- 11:10 coffee break
- 11:30 [Justice Nwade \(Inst. Nuclear Energ.\)](#)
 Corrosion, radiation and the nuclear waste question
- [Eliana Fuentes Mendoza \(RG Ehrenberg, Inorganic Chemistry\)](#)
 Self standing electrode for aluminium batteries
- [Mahla Talari \(RG Ehrenberg, Inorganic Chemistry\)](#)
 Energy storing systems: Post lithium batteries
- 12:30 Lunch
- 14:00 Summary and Discussion

Depending on weather conditions: small hiking tour

Further participants: Prof. Natalia Requena (Botany), Prof. Achim Wagenknecht (Organic Chemistry), Dr. Sotiris Amillis (Athens, Greece, Microbiology).