



FOR 5215 BioOxCat
Bioinspired Oxidation Catalysis with Iron Complexes

Second Annual Onsite-Meeting

at the University of Göttingen (Emmy Noether-Saal der Alten Mensa)

Program

Monday, 12th February 2024

- 13:00 - 13:15 Check-in and Welcome (coffee, tea, water, snacks and sandwiches)
- 13:15 - 14:45 Methodological course "*Introduction to Resonant Inelastic X-ray Scattering*" (Serena DeBeer)
- 14:45 - 15:05 Short Coffee Break
- 15:05 - 15:40 Presentation of TP5 "*The bispidine- μ -oxido-diiron(III)-mediated selective halogenation of alkanes*" (Gunasekaran Velmurugan)
- 15:40 - 16:15 Presentation of TP2 "*Faithful Structural and Functional Models for the Cysteine/Cysteamine dioxygenases*" (Kilian Weißer)
- 16:15 - 17:15 Coffee Break & Posters
- 17:15 - 17:50 Presentation of TP3 "*Merging Bioinorganics and Organometallics: Macrocyclic NHC-Ligated High-Valent Iron Complexes*" (Isabelle Rüter, Jan C. Kruse)
- 17:50 - 18:25 Presentation of TP6 "*Activation of oxygen through cooperation between quinol ligand and Fe(III) and Zn(II)*" (Andrea Squarcina)
- 19:00 - Dinner and Discussions

Tuesday, 13th February 2023

- 9:00 - 9:35 Presentation of TP7 "*Insights into High-Valent Iron-Oxo Species via Advanced X-ray spectroscopy*" (Bufan Zhang)
- 9:35 - 10:10 Presentation of TP8 "*Theoretical aspects of magnetic Raman spectroscopy*" (Haowei Chen)
- 10:10 - 11:10 Coffee Break & Posters
- 11:10 - 11:45 Presentation of TP1 "*Generation of μ -peroxido bridged Fe^{III}Fe^{III} and high-valent Fe^{IV}Fe^{IV} complexes with dinucleating ligands*" (Marwin Käthner)
- 11:45 - 12:20 Presentation of TP4 "*Ironing Out the Issues: Updates on our Fe-Chemistry*" (Lena Daumann)
- 12:20 - 12:30 Concluding Remarks

Posters

"Bio-Inspired Diiron Model Complexes for the Activation of C-H Bonds"
(TP1, Sören Jansen, Fridolin Röhs, Stephan Walleck, Thorsten Glaser)

"Understanding and advancing the reactivity of biomimetic models for the ACCO"
(TP2, Charikleia Tzatzas, Christian Limberg)

"Axial Ligand Effects on H-Atom Abstraction by Oxo-Iron(IV) Complexes Featuring Triplet-Only Reactivity"
(TP3, Isabelle Rüter, Massimiliano Morganti, Pilar Bologna, Serhiy Demeshko, Sebastian Dechert, Franc Meyer)

"Redox series and oxygen reactivity of a new non-innocent organometallic heme analogue"
(TP3, Jan C. Kruse, Massimiliano Morganti, Serhiy Demeshko, Sebastian Dechert, Franc Meyer)

"Two plus four equals three – iron(II)/iron(IV) comproportionation reactions and iron(IV)-oxido reactivity studies"
(TP4, Lena Daumann)

"Exploring the mechanism of nonheme bispidine-iron-oxido catalyzed C1 and C2 compound formation from various organic substrates"
(TP5, Gunasekaran Velmurugan, Rejith Radhamani, Jonas Hädeler, Rebekka Lauer, Frank Keppler, Peter Comba)

"High-pressure studies of Fe(V)-oxo reactivity towards C-H activation"
(TP6, Julian Oppelt)

"Insights into High-Valent Iron-Oxo Species via Advanced X-ray spectroscopy"
(TP7, Bufan Zhang)

"Magnetic Raman Spectroscopy at the Joint Workspace of the Mülheim Chemistry Campus"
(TP8, Maurice van Gastel)