SCIENTIFIC AND METHOD MODULES

Module name	**Smart and Active Assemblies: Cutting-Edge Homogeneous Catalysis**
Number	2022-A1.1
Aims	Learn about recent developments, achievements and prospects in the field of homogeneous catalysis
Basics	***Recommended knowledge:*** basic knowledge of catalysis, specifically homogeneous catalysis ***Required knowledge:*** basic knowledge of chemistry, specifically coordination chemistry, organometallic chemistry and organic chemistry
Contents	Various lectures on the recent development of homogeneous catalysis presented in ten distinguished keynote lectures
Methods	Various (experimental, spectroscopic, theoretical) methods related to catalysis
Type	Three-day block course/ yearly recurrence with modification
Date (month/year)	29 – 31 March 2022
Time	4 keynote lectures on 29 March, 3 keynote lectures on 30 and 3 keynote lectures on 31 March; schedule see here: https://cehc-2.sciencesconf.org/resource/page/id/6
Work load	15 hours presence/ 45 hours self-study
Examination	Written: written 2-page summary/essay on a keynote lecture of the module
Credit points	2
Responsible scientists	E. Hey-Hawkins, R. Gläser, T. Gulder, B. Kersting, K. Mackenzie, A. Schulze, R. Tonner, K. Zeitler
International guest lecturers	Lutz Ackermann, University of Göttingen; Eric M. Carreira, ETH Zurich; Syuzanna Harutyunyan, University of Groningen; Walter Leitner, MPI CEC Mühlheim; Rebecca Melen, Cardiff University; Barbara Milani, University of Trieste; Mónica H. Pérez-Temprano, ICIQ Catalonia; Evgeny Pidko, TU Delft; Joost N. H. Reek, University of Amsterdam; Ruth Webster, University of Bath
Industrial partners	-
Recommendations for literature, e-learning	see *Book of Abstracts*

Graduate School BuildMoNa
Universität Leipzig
Lineéstr. 5
04103 Leipzig
Germany

Phone: +49 341 97-36015
Fax: +49 341 97-31136015

buildmona@uni-leipzig.de
www.buildmona.de

SCHEDULE for Module 2022-A1.1

Time	Lecturer	Programme	Location
Day 1 - 3			
	Lutz Ackermann	Electrocatalysed C-H Activation	Arthur Hantzsch Lecture Hall
	Eric M. Carreira	tba	Arthur Hantzsch Lecture Hall
	Syuzanna Harutyunyan	New developments in Mn-catalysed transformations: methodology and mechanistic studies	Arthur Hantzsch Lecture Hall
	Walter Leitner	Catalytic conversion of CO_2 and CO: Is manganese the better ruthenium?	Arthur Hantzsch Lecture Hall
	Rebecca Melen	tba	Arthur Hantzsch Lecture Hall
	Barbara Milani	The importance of secondary interactions in palladium catalysed polymerisation reactions	Arthur Hantzsch Lecture Hall
	Mónica H. Pérez-Temprano	Synergistic cooperation between mechanistic investigation and catalysis: Finding the opportunity in the middle of the difficulty	Arthur Hantzsch Lecture Hall
	Evgeny Pidko	Death and life of homogeneous carbonyl reduction catalysts: navigating condition space towards superior catalytic performance	Arthur Hantzsch Lecture Hall
	Joost N. H. Reek	Self-assembled nanospheres as objects to control catalytic events	Arthur Hantzsch Lecture Hall
	Ruth Webster	Iron catalysed deuteration reactions	Arthur Hantzsch Lecture Hall

Location: Arthur Hantzsch Lecture Hall, Johannisallee 29, 04103 Leipzig

Didactic elements:
Lecture, discussions, etc.

Expected performance:
Active participation in discussions after lectures and during breaks with lecturers and other participants.