



UNIVERSITÄT
LEIPZIG

Research Academy Leipzig

14th Annual Conference of the
Leipzig School of Natural Sciences –
Building with Molecules and Nano-objects
Graduate School BuildMoNa
Monday, 14 March and Tuesday, 15 March 2022

Venue:

Arthur Hantzsch Lecture Hall, Faculty of Chemistry and Mineralogy,
Johannisallee 29, 04103 Leipzig, Germany

Agenda

Monday, 14 March 2022

- 09:00 Prof. Dr. K. R. Asmis
Leipzig University
Welcome address
- 09:05 Prof. Dr. Mareike Zink (Chair: Astrid Kupferer)
Leipzig University
From neuroelectrodes to the premature lung: How physics can help to improve medical therapy
- 10:05 *Coffee break, refreshments (Room 014)*
- 10:30 Dr. Adriana Szeghalmi (Chair: Max Grellmann)
Friedrich Schiller University Jena and Fraunhofer Institute for Applied Optics and Precision Engineering Jena
Control of the composition and properties of heterostructures with atomic precision
- 11:30 Group photo shooting
- 11:45 *Lunch (Room 014)*
- 13:00 Talks of Doctoral Candidates (Chair: Zeno Fickenschner)
1. Kretzschmer, Kevin
Incorporation of photoactivatable amino acids by cell-free expression to elucidate the CMKLR1 ligand binding site by crosslinking MS





2. Stockmann, Philipp
Occupy ABCG2 – Reversion of drug resistance

3. Stralka, Tillmann
Conduction channels in polycrystalline copper iodide thin films

4. Niavarani, Zahra
Estradiol removal by adsorptive microfiltration membrane

5. Krüger, Evgeny
Dynamics of exciton-polariton emission in CuI

14:15 Coffee break, refreshments (Room 014)

14:45 Talks of Doctoral Candidates (Chair: Alice Abend)

6. Lahr, Oliver
A sustainable approach to flexible electronics with amorphous oxide semiconductors

7. Dirks, Jan Sebastian
Multifunctional peptide-linker for investigation of enzyme activity

8. Ye, Zhuolin
Maximum efficiency of low-dissipation refrigerators at arbitrary cooling power

9. Predarska, Ivana
Cisplatin–cyclooxygenase inhibitor conjugates, free and immobilised in mesoporous silica SBA-15, prove highly potent against different breast cancer cell lines

10. Riedl, Veronika
Hydrogel microparticle-based biosensor platform for the detection of sulfonamide antibiotics in the environment

16:00 Ceremony for BuildMoNa Awards 2022

16:30 Poster session

17:30 Dinner buffet (and continuation of poster session)

19:00 Prospective end



Tuesday, 15 March 2022

8:15 - 9:15 PI Meeting

9:30 Prof. Dr. Ralf Tonner-Zech (Chair: Max Milewski)
Leipzig University
Zero, (one), two and three dimensions of chemical bonding

10:30 *Coffee break, refreshments (Room 014)*

11:00 Prof. Dr. Roberto Cerbino (Chair: Fabian Schöppach)
University of Vienna
Cellular jamming and unjamming: A physics perspective

12:00 *Lunch (Room 014)*

13:00 Talks of Doctoral Candidates (Chair: Patrick Irmisch)

11. Jawkinski, Tanja
*Highly crystalline In_2S_3 thin films epitaxially grown on sapphire substrates:
A potential candidate for intermediate band solar cells*

12. Kazimir, Aleksandr
*Tamoxifen-based complexes in the treatment of oestrogen
receptor-positive breast cancer*

13. Bar, Sebastian Michael
Fabrication and physical properties of copper halide thin films

14. Issayeva, Dilara
Modification of commercial silicas for enhanced CO_2 chemisorption

15. Ramazanova, Kyzgaldak
*P-chiral phosphine ligands for application in asymmetric
homogeneous catalysis*

16. Abel, Ken Luca
*Monolithic hierarchically meso-/macroporous Al_2O_3 xerogels tuned by
post-gelation processes*

14:30 *Coffee break, refreshments (Room 014)*



- 15:00 Talks of Doctoral Candidates (Chair: Nils König)
17. Abend, Alice
Adhesion dynamics and organisation of neurons and glial cells on nanocolumnar TiN substrates
18. Baweja, Saral
Two heads are better than one: Cooperativity and sequential catalysis with Co/Pd complexes
19. Czerniak, Anne-Sophie
Targeting of cancer cells using peptide-drug-conjugates based on the CMKLR1 receptor and chemerin 9
20. Söker, Nicola
Pairwise interactions of Janus particles
21. Braun, Sebastian
Addressing the principle of polypharmacology in cancer therapy – p-Carborane-containing drugs as dual enzyme inhibitors
- 16:15 Jury meeting
- 16:15 *Coffee break, refreshments (Room 014)*
- 16:45 Awards Ceremony for Doctoral Candidates' talks
- 17:00 End of conference