

The Chemistry of f-Elements

Spring School



February 27th until March 1st 2024

Organizer: Prof. Dr. Jan J. Weigand, Dr. Marco Wenzel / Prof. Dr. Berthold Kersting
TU Dresden, Inorganic Molecular Chemistry / University of Leipzig

Location: Hotel Michaelis, Leipzig, Paul-Gruner Str. 44, 04107 Leipzig

<https://www.michaelis-leipzig.de/de/wir-betreiben/hotel-michaelis/>

Program

Tuesday, February 27th, 2024

Arrival

Wednesday, February 28th, 2024

9:00 Opening (Prof. Jan J. Weigand; TU Dresden, D)

9:05 **The Yin & Yang of radioactivity – from risks & chances to captivating chemistry** (Prof. Karsten Meyer; Friedrich-Alexander-Universität Erlangen Nürnberg, D)

10:05 **Chemistry at the bottom of the periodic table** (Prof. Robert J. Baker, Trinity College Dublin, IRL)

11:00 Coffee break

11:30 **Actinide and Lanthanide Luminescence Spectroscopy** (Dr. Moritz Schmidt, Helmholtz-Zentrum Dresden-Rossendorf, D)

12:10 **Solvent extraction – principles as analytical method** (Dr. Marco Wenzel, TU Dresden, D)

12:50 Lunch

14:00 **Actinide separations by solvent extraction - nitrogen donor ligands do it better** (Dr. Andreas Geist, Karlsruher Institut für Technologie, D)

14:45 **Actinide separation processes in Europe and abroad – overview of current developments** (Dr. Andreas Wilden, Forschungszentrum Jülich GmbH, D)

- 15:30 Coffee break
- 16:00 **Uranium chemistry** (Prof. Florian Kraus, Philipps-Universität Marburg, D)
- 17:00 **Actinide chemistry at HZDR** (Prof. Thorsten Stumpf, Helmholtz-Zentrum Dresden-Rossendorf, D)
- 18:00 **Get together** (Brezel & Bier + Fingerfood)

Thursday, February 29th, 2024

- 9:00 **Activation of small molecules on uranium**, Prof. Lisa Vondung, Universität Hamburg, D)
- 9:45 **Chelation studies of f-elements by siderophores and abiotic analogs: from solution equilibrium studies to the development of environmental monitoring tools** (Dr. Michel Meyer, l'Université de Bourgogne, F)
- 10:30 Coffee break
- 11:00 **f-elements and their interaction with living organisms and their biomolecules** (Prof. Lena Daumann, Heinrich Heine Universität Düsseldorf, D)
- 11:50 **Biological chemistry of f-elements II** (Prof. Robert J. Baker, Trinity College Dublin, IRL)
- 12:40 Lunch
- 14:00 **Chemosensors on the basis of luminescent lanthanide complexes** (Prof. Berthold Kersting, Universität Leipzig, D)

Friday, March 1st, 2024

- 9:00 **Food proteins and their interaction with metals** (Prof. Thomas Henle, TU Dresden, D)
- 9:45 **Analytical tools to study metal ion - biomaterial interactions** (Prof. E. Brunner, TU Dresden, D)
- 10:30 Coffee break
- 11:00 **How biology deals with f-elements** (Dr. Johannes Raff, Helmholtz-Zentrum Dresden-Rossendorf, D)
- 12:00 Round table discussion "f-Element Chemistry: Current trends and future perspectives"
- 12:30 Lunch
- 14:00 Closing of the school