Karlsruhe Institute of Technology

CRC 1573 4f for Future

1st CRC 1573 Spring Seminar Days Karlsruhe 20.03.–21.03.2023
Venue: AOC lecture hall 101, building 30.45, KIT Campus South

Monday, 20.03.2023 (15 min talk, for A5&A6 10 min talk, 5 min discussion per project)

Time	Project	Title
13:30 – 13:45	Welcome	
13:45 – 14:30	Talk	Lecture given by Prof. Peter W. Roesky
14:30 – 14:40	G	General Information about Integrated Research Teaching Group
14:40 – 15:00	A1	Activation and Stabilization of Small Molecules by Rare-Earth Compounds
15:00 – 15:20	A2	Gas Phase and Solution Studies of Bioinspired Lanthanide-based Alcohol Dehydrogenation Catalysts
15:20 – 15:40	A3	Lanthanide-Based Multimetallic Clusters: Impact of f-Elements on Formation, Structures, Electronic Properties and Reactivity
15:40 – 16:10	**Coffee break and discussion**	
16:10 – 16:30	A4	Rare-Earth-Metal-Containing Reactive Nano-Objects
16:30 – 16:45	A5	Sterically Shielded Single Metal Lanthanide Complexes
16:45 – 17:00	A6	Heterometallic Rare-Earth/Transition Metal Complexes for Catalytic Applications
17:00 – 17:20	B1	Exploring Magnetic Relaxation in Dinuclear 4f Compounds Using Theory and Experiment
17:20 – 17:40	B2	Engineering the Spin-Cascade in Radical-functionalized Lanthanide(III) bis- and tris-(phthalocyaninato) Complexes
17:40	**Dinner at Aposto** (Waldstrasse 57, 76133 Karlsruhe)	

Tuesday, 21.03.2023 (15 min talk, 5 min discussion per project)

Time	Project	Title
9:00 – 9:45	Talk	Lecture given by Prof. Florian Weigend
9:45 – 10:05	B3	Nuclear Spin Control in Lanthanide Qudits
10:05 – 10:25	B4	Exploration of the Magnetic Properties and Exotic Behavior of 3d/4f Coordination Clusters
10:25 – 11:00	**Coffee break and discussion**	
11:00 – 11:20	C1	Single Molecule Luminescence of Lanthanide Double and Multi-Decker Complexes
11:20 – 11:40	C2	Optically Addressable Spins of Molecular Rare-Earth Ions for Quantum Information Processing
11:40 – 13:00	**Lunch break**	
13:00 – 13:45	Guest talk	Unconscious (gender) bias
13:45 – 15:15	Guest talk	Soft skill couse organized by KHYS
15:15 – 15:45	**Coffee break and discussion**	
15:45 – 16:05	C3	Fundamentals of Photoluminescent Lanthanide-Antenna Complexes
16:05 – 16:25	C4	Lanthanide-based Fluorescence Phenomena in Inorganic-Organic Hybrid Nanoparticles
16:25 – 16:45	Q	Quantum-Chemical Computations on Rare-Earth Compounds
16:45	**Closing remarks**	