| June 9th 2023 | | | |
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| **Time** | **Speaker** | **Affiliation** | **Topic** |
| **09:00** | **Greeting** | | |
| **09:10** | **Keynote Presentation** | | |
| | Jessica Schneider | CSO & Co-Founder of MiViA – AI powered material analysis; Institute of Metal Forming, TUBAF | Starting a buisiness focusing on AI-based metallographic analyses for automated evaluation |
| **09:40 – 10:20** | **Oral Presentations: Session 1 – Battery Development and Recycling** | | |
| 09:40 | Oliver Schmidt | Institute of Experimental Physics, TUBAF | Novel Current Collectors for Post-Lithium Energy Storage Systems using Thin-Film Coating and Flash Lamp Annealing |
| 10:00 | Mareike Fritze | Institute of Biosciences, Work Group Biohydrometallurgy/ Microbiology, TUBAF | ReLiFe: Recycling Lithium Ferrophosphate – biotechnological possibilities |
| **10:20 – 11:05** | **Poster Session 1** | | |
| | Katarzyna Kwiecien | Institute of Bioscineces, Workgroup Environmental Microbiology, TUBAF | Characterization of *Alicyclobacillus* sp. S09 in relation to the importance of different cultivation substrates and yeast extract components |
| | Szymon Kwiecien | Institute of Metal Forming, TUBAF | Analysis of the effects of increased copper and tin content in cold forging steels |
| | Yen-Ming Li | Institute of Experimental Physics, TUBAF | Challenge of assembling reproducible pouch cells |
| | Shuvrodev Biswas | Institute of Experimental Physics, TUBAF | Composite Cathode Materials for Improved Iono-Polymer Aluminium Batteries |

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| | Dina Friebel | Institute of Analytical Chemistry, TUBAF | Direct process accompanying analysis of biomass for critical elements in combusting processes with ETV-ICP-OES |
| | Duncan Maina | Geotechnical Institute, TUBAF | The effect of the intermediate principal stress on pillar strength |
| | Catinca Roth | Frankfurt University of Applied Sciences | The Significance of Role Models for Future Executives: Does Gender Matter? |
| | Julien Göthel | Institute of Iron and Steel Technology, TUBAF | The use of iron ores to implement a closed oxidation and reduction cycle as an energy storage concept |
| | Ghazal Kooti | Chair of Eingineering Geology and Environmental Geotechnics, TUBAF; Department of Petroleum Engineering, Amirkabir University of Technology, Tehran, Iran | Developing a Population Balance Mathematical Model to Study Water-in-Oil Emulsion Behavior in Electrostatic Crude Oil Coalescers |
| | Muntasir Shehab | Institute of Geotechnics, TUBAF | Predicting swelling pressure of bentonite and bentonite mixtures using various machine learning approaches |
| **11:05 – 11:20** | **Break** | | |
| **11:20** | **Keynote Presentation** | | |
| | Pascal Koch | Founder of IMENSUS – Space Resource Exploration; Christian-Albrechts-Universität zu Kiel | Starting a business focusing on the exploration of extra-terrestrial resources for space mining companies |
| **11:50 – 12:30** | **Oral Presentations: Session 2 – Analytical and Inorganic Chemistry** | | |
| 11:50 | Lara Dütsch | Institute of Analytical Chemistry, TUBAF | Structural characterization of the extracellular matrix of the diatom *Didymosphenia geminata* with multiple spectroscopic methods |

| 12:10 | Felix Sieg | Institute of Inorganic Chemistry, TUBAF | High-pressure synthesis and property determination of spinels in the elemental system Ge-Ga-Cr-O-N |
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| **12:30 – 13:30** | **Break** | | |
| **13:30 – 14:30** | **Oral Presentations: Session 3 – Mine Waters and Artificial Systems** | | |
| 13:30 | Anita Sanchez | Institute of Mineralogy, TUBAF | DOM Characterization and Metal Analysis for Water Passage through a Historic Mine Drainage |
| 13:50 | Timm Wunderlich | Chair of Technical Thermodynamics, TUBAF | A Green District Concept by Using Geothermal Mine Water Energy |
| 14:10 | Volker Göhler | Chair of Artificial Intelligence and Databases, TUBAF | A Model for Empathic Response in Artificial Systems |
| **14:30 – 15:15** | **Poster Session 2** | | |
| | Faith Chebet Tumwet | Chair of Hydrogeology and Hydrochemistry, TUBAF; Zittau Institute of Process Development, Recycling Management, Surface Technology, and Natural Substance Research, University of Applied Sciences Zittau/Görlitz | Morphology-dependent fragmentation of PVC microplastic particles influence their transport in saturated quartz sand columns |
| | Mulatu Sigiso Defacho | Institute of Geotechnics, TUBAF; Faculty of Civil and Environmental Engineering, Jimma Instituteof Technology, Jimma University | Development of low-cost pollutant removal adsorptive technics for industrial effluents |

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| | Clemens Hartmann | Institute of Geology, TUBAF | Concentration and chemical bonding conditions of metal(loid)s in mining contaminated subaquatic sediments of the Hüttenteich near Berthelsdorf, Saxony, Germany |
| | Bastian Wiggershaus | Institute of Analytical Chemistry, TUBAF | Micro-Discharge Optical Emission Spectroscopy – Main component and trace analysis of saline solutions by generating micro plasmas directly in solution |
| | Karsten Meiner | Institute of Nonferrous Metallurgy and Purest Materials, TUBAF | Investigation about arsenic separation from alkaline sulfide leaching solutions obtained by copper concentrates |
| | Konrad Burkmann | Institute of Physical Chemistry, TUBAF | Thermodynamic Study of Zirconium and Hafnium Boranate - $Zr(BH_4)_4$ and $Hf(BH_4)_4$ |
| | Lúcia Pedrosa | Chair of Hydrogeology and Hydrochemistry, TUBAF | Analysis of flow patterns and conditioning factors under single-track railways |
| | Korbinian Heimler | Institute of Analytical Chemistry, TUBAF | Confocal Micro X-Ray Luorescence Spectrometer for Nondestructive and Depth-Resolved Element Analysis |
| | Cristian Jorquera Román | Institute of Biosciences, Work Group Environmental Microbiology, TUBAF | Characterization of a novel acidophile chemolithotrophic As(III) oxidizer strain: *Acidiphilium acidophilum* CJR1 |
| | Mohammed Shakeer Khan | Foundry Institute, TUBAF | Amine Detection on a Simplified Curing Setup of PU Cold Box System |
| **15:15 – 15:45** | **Break** | | |
| **15:45 – 16:45** | **Oral Presentations: Session 4 – From Semiconductors to Architecture** | | |
| 15:45 | Marieke Zickner | Institute of Electronic and Sensor materials, TUBAF | Ternary Semiconductor Quantum Dots for Photocatalysis |

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| 16:05 | Hannah Keese | Geotechnical Institute, TUBAF | The goal of using Open Source Software |
| 16:25 | Maren Weissig | Faculty of Architecture, TU Dresden | Zwischen Welpenbonus und Beuteschema - Between study and professional place of activity, path dependencies of the architectural profession |
| **16:45 -17:00** | **Closing Remarks** | | |