3rd Topic-Workshop RESOURCE AND ENERGY EFFICIENCY Karlsruhe 21.-22. February 2024

ACHAT Hotel Karlsruhe City, Mendelssohnplatz, Kurfürstensaal 1

Wednesday, 21 February 2024

13:00	Arrival, Lunch snack
13:50	Dieter Stapf, Welcome address, opening
	Subtopic 1 Anthropogenic Carbon Cycle (Chair Jens Gutzmer)
14:00	Frederico Fonseca, "Addressing fundamental challenges for bio-oil refining"
14:20	Ana Corrêa de Araujo, "Valorizing emerging residues – fast pyrolysis of lignin"
14:40	Tobias Jakobs, "Burner Development for High Pressure Entrained Flow Gasification"
15:00	Stella Walker, "Investigations on fuel conversion in entrained flow gasification – fuel characterization"
15:20	Coffee break
15:35	Niklas Netsch, "Evaluating the Technical Integration of Catalytic Pyrolysis for Polyolefin-Rich Waste Recycling into Light Olefins"
	Cross-cutting Systemic Analysis (Chair Dieter Stapf)
15:55	Axel Funke, "CO ₂ negative fuels via fast pyrolysis"
16:15	Frank Schultmann, "Circular Economy for Plastics"
16:35	Coffee break
16:50	Gerald van den Boogaart, "Energy Transition and its Implications for Materials Processing"
	Subtopic 2 Metals and Minerals Cycle (Chair Jörg Sauer)
17:10	Margret Fuchs o. Richard Gloaguen, "Imaging sensors: potential and limits for recycling"
17:30	Ajay Patil, "Advanced process metallurgy techniques for energy and construction relevant metals and minerals"
17:50	Max Frenzel, "Vanadium deportment of BOS steel slags"
18:10	End of day one
	Possibility for further exchange
19:30	Joint Dinner @Carls Wirtshaus

Thursday, 22 February 2024

	Subtopic 2 Metals and Minerals Cycle (Chair Uwe Hampel)
9:00	Axel Renno, "Analytical workflow for the determination of the mass balance of major and trace
	elements in the pyrolysis of mixed plastic waste from WEEE recycling"
	Subtopic 3 High Temperature Superconductivity (Chair Uwe Hampel)
09:20	T. Arndt, "Grid expansion and superconductivity"
09:40	M. Wehr, "Technology development of a hybrid energy pipeline"
10:00	E. Gaisina, C. Schulz, M. Maarouf, N. Bagrets, V. Tschan, S. Eckerle, A. Pundt, KP. Weiss, "Cryogenic
	Hydrogen and testing methods: microstructural and mechanical properties under cryogenic
	hydrogen environment"
10:20	Coffee break
	Subtopic 4 Technologies and Tools for Energy Intensive Processes (Chair Bernhard Holzapfel)
10:40	Till Zürner, "Turbulent jets in pneumatic flotation cells"
11:00	Thomas Wondrak, "Inductive measurement technologies"
11:20	Roland Rzehak, "Euler-Euler simulation of two-phase and three-phase flow at high gas fractions"
11:40	Ysabel Huaccallo Aguilar, "Efficient removal of persistent pollutants with hydrodynamic cavitation"
12:00	Dieter Stapf, Wrap Up and Closing
12:30	Lunch Snack