

## Einladung zum AVT-Kolloquium im Wintersemester 2022

Wir laden Sie ganz herzlich ein

am **Mittwoch, den 25.01.2023**  
um: **17:30 Uhr**  
in den **HS-A005**  
Erdgeschoß, Forckenbeckstraße 51, Aachen

Bioverfahrenstechnik  
Prof. Dr.-Ing. Jochen Büchs

Chemische Verfahrenstechnik  
Prof. Dr.-Ing. Matthias Wessling

Computational Systems  
Biotechnology  
Prof. Dr. rer. nat. Wolfgang Wiechert

Elektrochemische Reaktionstechnik  
Prof. Dr. rer. nat. Anna Mechler

Fluidverfahrenstechnik  
Prof. Dr.-Ing. Andreas Jupke

Soft Matter Process Engineering  
Prof. Dr. rer. nat. Ronald Gebhardt

Systemverfahrenstechnik  
Prof. Alexander Mitsos, Ph.D.

### **Dr. Robert Buchfink und Christian Melches**

GEA Messo GmbH

### **Electric Vehicles as drivers for Industrial Crystallization**

The EV (electric vehicle) revolution has begun as governments and the automotive industry worldwide decided to step away from combustion engines. With that a huge demand in batteries as well as its raw materials like lithium, graphite, nickel as well as cobalt set in which was reflected in exploding raw material prices recently.

Satisfying such demand for high purity battery-related compounds is one of the challenges ahead and the crystallization is key to fulfill the expectations and needs.

The raw materials for the lithium industry, mainly ores and salt brines but also geothermal brines, contain lithium only in low concentrations next to different impurities and by-products being present in large quantities.

During the concentration and purification of such raw materials crystallization play a major role to produce ultra-pure compounds (only ppm level of impurities) at maximum process yields.

The main process routes and it's challenges will be presented for  $\text{LiOH}\cdot\text{H}_2\text{O}$  and  $\text{Li}_2\text{CO}_3$  as the two lithium bearing compounds used in the industry today.

**Im Anschluss an den Vortrag besteht die Möglichkeit mit Snacks und Getränken miteinander ins Gespräch zu kommen.**

**Wir freuen uns auf Ihre Teilnahme!**