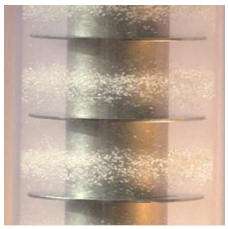
Graz University of Technology
Institute of Chemical Engineering and Environmental Technology
Chemical Reaction Engineering / Assoc.Prof. Dr. Susanne Lux

Within the Institute of Chemical Engineering and Environmental Technology, the Working Group **Chemical Reaction Engineering** explores key concepts underlying reactive sustainable processes.

To expand our scientific team in the research field of **hydrometallurgical recycling of lithium-ion batteries,** we are searching for a



University project assistant (opt. PhD position)

for **40 hours per week** starting in **March 2026**

The work focuses on the development of an energy-efficient, continuous recycling process for the **selective recovery of lithium** from thermally untreated black mass from lithium-ion batteries. Based on decentralized pre-treatment, a continuous **water-CO_2-based leaching process** is being researched that does not require strong acids and is designed according to the principles of green chemistry. Lithium recovery from the aqueous leaching solution is achieved by implementing a continuous **precipitation** step in a **Taylor-Couette Disc Contactor**, a column-type stirred apparatus that was developed at the institute. The overall goal is to develop a sustainable, scalable recycling technology for lithium with high efficiency and selectivity as a contribution to the goals of the circular economy and to strengthen regional value creation.

Your responsibilities are:

- **Scientific research** on hydrometallurgical recycling (black mass leaching and lithium recovery via precipitation) in lab and pilot plant scale
- **Development** of an overall sustainable process concept
- **Collaboration** with project partners (ProtectLiB, Virtual Vehicle Research GmbH, Sim Vantage)
- **Supervision** of master's and bachelor's theses
- **Publication** of research findings in high-quality peer-reviewed journals

Your profile:

- Master's degree in chemical engineering or technical chemistry (or equivalent)
- General interest in recycling technologies, sustainable processes and experimental work
- Commitment, flexibility and reliability
- Excellent knowledge of data evaluation software, MS-Office

We offer:

- **Exciting work** in an emerging field of research
- **Excellent working atmosphere** among young and motivated researchers and a pleasant working environment
- **Excellent lab infrastructure** and hands-on-experience in practical applications

Please send your comprehensive application documents and any queries to:

Assoc. Prof. Dr. Susanne Lux
Inffeldgasse 25C/II, 8010 Graz
susanne.lux@tugraz.at, +43 (316) 873 - 7476