WANTED

Master Thesis in Chemistry and Chemical Technology

Electrochemical Depolymerization

CHASE is seeking a skilled and motivated young scientist willing to work on future proof topics dealing with sustainability and circular economy. You will be part of a multi-disciplinary team and acquire first-hand information on your selected topic and beyond.

We are offering positions for students with a finished BSc degree, in the field of Chemistry, Physics, Polymer- or Process Engineering, for pursuing their diploma/master thesis, on a part-time basis (10 to 20h/week), limited to 12 months, to strengthen our team at the headquarters in Linz with immediate entry.

CHASE is a European Research and Technology Organization for Chemical Systems Engineering with its headquarters in Austria. We enable companies in the chemical process industry to make their production more energy-efficient, more resource-saving and more sustainable.

This master thesis focuses on exploring novel depolymerization methods for selected bio polyester materials. The initial phase will involve designing and optimizing an electrochemical depolymerization setup based on thorough literature research. The electrochemical depolymerization will then be assessed and the progress monitored with appropriate analytical techniques. The final phase of the work will compare electro depolymerization and melt hydrolysis to investigate synergistic effects, aiming to enhance overall depolymerization efficiency and product selectivity.

We are looking forward to hearing from you: personal@chasecenter.at
Reference number: 030
Application: until 30 September, 2026

CHASE your future

You will contribute to the following tasks:

- Design, assemble and optimize an electro depolymerization apparatus
- Implement and develop new analytical methods for monitoring the reaction progress
- Benchmark electrochemical methods with melt hydrolysis of bio polyesters and investigate the nuances in reaction kinetics and modeling thereof
- Participation in project meetings & supporting publication of results in scientific journals

Your expertise:

- Curiosity to advance new technologies (no explicit electrochemical background required)
- Experience in chemical techniques and reaction mechanisms
- Benefit: Experience in model-supported data analysis
- Good analytical and problem-solving skills
- Independent and structured workflow
- Effective communication skills in both English and German

CHASE your career

We are committed to providing a framework for your professional growth:

- Work alongside academic professionals to enhance your expertise in electro-chemistry, polymer chemistry and reaction kinetics.
- Earn a competitive salary while making impactful contributions to innovative research. The expected monthly salary is EUR 2.407,00 (on a basis of 40h/week).
- Play a key role in advancing sustainable recycling by developing and optimizing cutting-edge depolymerization methods for biopolymers.

For further information, please contact:
Gunnar Spiegel, Area Manager - Circular Process Streams
gunnar.spiegel@chasecenter.at

We look forward to receiving your application (cover letter, CV, academic certificates, employment references), including the reference number of the job posting, to the following email address: personal@chasecenter.at

By submitting your application documents, you expressly consent to the transmission of your application documents to the partners involved in CHASE.

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www.chasecenter.at