




Master Thesis in Chemistry and Chemical Technology

Chemical Recycling of Silicones

We are seeking skilled and motivated young scientists willing to work on future proof topics dealing with sustainability and circular economy. You will be a part of a multi-disciplinary team and acquire first-hand information on your selected topic and beyond. We are offering positions for students with finished BSc degree in the field of Chemistry, Polymer or Process Engineering for pursuing their diploma/master's thesis on a part-time basis (10 to 20h/week), limited to 12 months. The expected monthly salary is EUR 2.407,00 (on a basis of 40h/week).

This master thesis focuses on the chemical recycling of silicon-based polymers, aiming to develop fundamental knowledge about depolymerization routes for industrial waste. The goal is to recover reusable building blocks that can serve as feedstock for new materials. Through a combination of experimental studies, analytical techniques, and computational modeling, this project seeks to identify and optimize process conditions for silicone depolymerization, contributing to a circular economy.

For further details see next pages 



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CHASE your future

You will contribute to the following tasks:

- Conduct a comprehensive literature review on chemical recycling methods for Si-based polymers.
- Explore computational modeling techniques to predict and optimize depolymerization processes.
- Design and carry out experiments to determine process conditions for the depolymerization of silicones.
- Analyze data to establish correlations between depolymerization parameters and product properties.
- Collaborate with experts to investigate the chemical and physical mechanisms underlying silicone recycling.

Your expertise:

- Experience with chemical analytical methods and chemical engineering.
- Proficiency in data analysis and computational modeling techniques.
- Strong problem-solving skills and the ability to work independently.
- Excellent communication skills in English and German, both written and verbal.



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CHASE your career

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

- Conduct research in collaboration with academic and industrial leaders.
- Develop expertise in a high-impact area of chemical recycling and sustainability.
- Contribute to industrial projects aligned with circular economy principles.
- Earn a competitive salary and the chance to apply research in an industry-relevant context.



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