

PhD Position on Polymer Biodegradation & Extracellular Enzymes in Aquatic Environments



Are you passionate about conducting fundamental research that creates impact to sustainability? Our [group](#) at the University of Vienna is offering an exciting opportunity. Join us to explore the role of extracellular enzymes in the biodegradation of water-soluble polymers!

Your PhD Project:

Water-soluble polymers (WSPs) are essential for numerous applications, and, after use, they enter wastewater and freshwater systems. To enable sustainable end-of-life solutions for WSPs, a fundamental understanding of the extracellular enzymes in these systems is needed. This project aims to link WSP biodegradation with the activity and identity of extracellular enzymes. Specifically, you will employ a multi-faceted approach based on enzyme inhibition, activity assays based on substrates relevant to WSPs, and enzyme isolation and identification to reveal key enzymes and provide a molecular-level understanding of WSP biodegradation in wastewater and freshwater systems.

We Are:

Our research group is part of the Centre for Microbiology and Environmental Systems Science ([CeMESS](#)) at the University of Vienna (Austria). We are dedicated to conducting cutting-edge research at the intersection of chemistry, microbiology, and environmental science and to informing solutions to current environmental challenges.

We Offer:

- A supportive and stimulating working environment and excellent laboratory facilities
- A fully funded position in accordance with the collective bargaining agreement – starting in July/August 2025 or as soon as possible thereafter
- Opportunities for scientific collaboration
- A chance to live and work in Vienna – renowned for its high quality of life.

Your Profile:

- A master's degree in biochemistry, chemistry, microbiology, or a related field.
- Laboratory experience in one or several of the above research fields is a strong asset.
- Fluent in spoken and written English.
- High motivation, independence, and reliability.

How to Apply:

Send one PDF file containing your CV (including contact details of at least two referees) and a letter of motivation (outlining your interest in the topic and how you fit to the position) to: michael.zumstein@univie.ac.at.

Applications will be considered until the position has been filled.