

PhD position on Biodegradable Plastics in Compost



Are you passionate about contributing to a sustainable solution for global plastic pollution? EDGE at the University of Vienna is offering an exciting and challenging opportunity to be part of a leading research group in the academic field of biodegradable plastics. Join our team and make a real impact in tackling one of today's most pressing environmental challenges.

Your PhD Project:

Biodegradable plastics have the potential to play a crucial role in combating plastic pollution. One promising avenue is developing materials that can completely biodegrade during biowaste composting processes. However, composting technologies vary across different countries, affecting the physicochemical conditions and time required for degradation (industrial composting, home composting, slow/fast composting). In this project, you will contribute to finding solutions to this pressing problem by establishing harmonized and widely accepted methods for plastic analysis in biodegradation studies. Your primary focus will be investigating how biodegradable plastics degrade in compost under various conditions. This project offers a unique opportunity to collaborate with industry partners and work alongside one of the major European producers of compostable plastics. We are seeking a highly enthusiastic Ph.D. student (m/f/x) with a keen interest in developing analytical methods and assessing the fate of microplastic particles during the (bio)degradation of plastics in compost.

Who We Are:

The Environmental Geosciences division (EDGE) is an integral part of the Centre for Microbiology and Environmental Systems Science (CMESS) at the prestigious University of Vienna (Austria). Our research group comprises a dynamic, motivated, and international team of researchers who are dedicated to addressing critical environmental challenges in a rapidly changing world. Our research spans a wide range of topics, from emerging contaminants to climate change. As a Ph.D. candidate in this project, you will have the opportunity to work at the intersection of environmental, polymer, and analytical chemistry, fostering collaborations with both academic and industrial partners.

We Offer:

As a Ph.D. student in our research group, you will enjoy the following benefits:

- Supervision, mentoring, and career development from internationally recognized senior researchers in the field.
- A dynamic, stimulating, and international working environment with English as the working language and access to excellent laboratory facilities.
- A fully-funded position in accordance with the collective bargaining agreement, including a competitive salary with full social security coverage (approx. € 32,000 gross).
- Opportunities for international collaboration and fieldwork, with potential secondments at our leading European industrial partners.
- A chance to live and work in the vibrant city of Vienna, renowned for its high quality of life, excellent public services, affordable living, and consistently ranked among the top cities in the world.

Your Profile:

To be considered for this Ph.D. position, we are looking for candidates with the following qualifications:

- A Master's degree in Analytical/Environmental Chemistry, Environmental Sciences, or closely related fields.
- Laboratory experience and a strong knowledge of analytical or environmental chemistry.
- Familiarity with instruments for particle analysis (e.g., μ FT-IR or Raman microscopy) would be advantageous.
- Fluent spoken and written English communication skills.
- High motivation, independence, and reliability.

How to Apply:

To apply for this position, please submit a single PDF file containing the following documents:

- A letter of motivation outlining your interest in the project and why you believe you are the right fit.
- A comprehensive, detailed CV.
- Contact details of two referees who can provide a reference for you.
- A research vision (one-page maximum) detailing your ideas and approach to the project.
- Copies of any relevant research papers or your Master's thesis (if available).

Applications will be considered until the position has been filled. For guidance on writing a strong application, please visit our webpage.

To apply or for any further inquiries, please send your application to: thilo.hofmann@univie.ac.at

Join our team and become a part of cutting-edge research to combat plastic pollution and promote sustainable environmental practices. We look forward to receiving your application and exploring the possibilities of working together to make a significant impact in the world of biodegradable plastics research.