

Alice Orme

Position: PhD Student
Project: A02
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Research Interests

- How chemicals change in the environment
- Analytical chemistry
- Effect of climate change and human activity on biogeochemical processes

Current Project

PhD thesis, working title: “Decoding the molecular signals of dissolved organic matter”

The aim of my current project is to exploit the information we can gain from dissolved organic matter in sub-surface water. The content and composition of dissolved organic matter tells a story about biogeochemical processes and I intend to improve our understanding of how a soil ecosystem changes upon re-wetting, i.e. when there is significant rainfall after a drought. I hope to compare the stories told in both targeted and untargeted metabolic analyses using Orbitrap-mass spectrometry, as well as gain an insight into the difference in the response to re-wetting between woodland and grassland ecosystems. This project is performed in collaboration with the Pohnert group at the Friedrich Schiller Universität.

Curriculum Vitae

01/2020 – present	PhD student in the Gleixner group at the Max Planck Institute for Biogeochemistry
01/2019 – 04/2019	Visiting masters student under supervision of Dr. Ásta Pétursdóttir and Prof. Jörg Feldmann at Matís, Reykjavik
09/2014 – 06/2019	Master of Chemistry at the University of Aberdeen, Scotland

Publications

- Akhdhar, A., Schneider, M., **Orme, A.**, Schultes, L., Raab, A., Krupp, E.M., Benskin, J.P., Welz, B., Feldmann, J. (2019). The use of high resolution graphite furnace molecular absorption spectrometry (HR-MAS) for total fluorine determination in extractable organofluorines (EOF). *Talanta*, DOI: [<https://doi.org/10.1016/j.talanta.2019.120466>].