In the framework of the project "Substrate affects microbial driven distribution of energy and matter among organic carbon functional pools in soil (Driver pool), funded by the DFG, the University of Koblenz-Landau and the Helmholtz Centre for Environmental Research (UFZ) offer one PhD student position: Substrate affects microbial driven distribution of energy and matter among organic carbon functional pools in soil (f/m/d) with an intended earliest possible starting date of January 2022 for a duration of three years. The position is subject to the German law on fixed-term contracts in science. Salary will be according to the German public service salary scale (Entgeltgruppe) 13 TV-L. The position is splitted in two part time positions (35% each). The employee will obtain two working contracts: one at the University of Koblenz-Landau and one at the Helmholtz Centre for Environmental Research (UFZ).

Your tasks:
Your tasks in this project will be to unravel the interplay between energy fluxes and the turnover pathways of various organic material in soils. For this purpose different calorimetric (IMC, TGA-DSC), respirometric (CER) techniques located in UFZ Leipzig and in Campus Landau, University Koblenz-Landau, will be applied and developed for the analysis of energy fluxes in soil systems and combined with the chemical quantification of material fluxes (C and N balances, 13C, PLFA, metabolomics, biomarkers etc.) and selected enzyme quantifications (endo- and exoenzymes) as a measure of microbial adaptation and activity. The experiments will be performed at the University of Koblenz-Landau and the UFZ. Finally, based on all obtained data, equilibrium and non-equilibrium thermodynamic approaches will be used to model the complex soil processes and the influence of the substrates on these processes. This work will be carried out in close collaboration with other project partners who complement the research by modelling or by dealing with other influencing factors such as environmental conditions, soil types, trophic interactions, and microbial communities.

The suited candidate is expected to work on half of project duration at the University of Koblenz-Landau, Campus Landau and the other half at the UFZ and to closely collaborate with two further PhD at the Trier University within the project. As the project is part of the DFG priority program 2322 ‘SoilSystems’ (https://www.uni-trier.de/index.php?id=73710), close collaboration with the other projects of this priority program is essential.

Your profile:
- Master degree in soil science, physical chemistry, chemistry, biochemistry, biology, environmental sciences or equivalent field
- Interest in complex and interdisciplinary relationships in soil systems
- No reservations to consider modeling and ecological aspects in soil systems
- First experience in the areas of calorimetry, thermodynamics, soil science, environmental microbiology, as well as isotope tracer experiments are of advantage
- Willingness to work in an interdisciplinary and international team
- Very good skills in English

We offer:
- Top level interdisciplinary research at both research centre and university which enjoys an excellent reputation within Germany as well as internationally
- Excellent technical facilities
- Work in inter-disciplinary and multinational teams
- Excellent links to national and international research networks
• Support and optimal training courses by our graduate school (HIGRADE) at the UFZ and IPZ at the University Koblenz-Landau
• Remuneration in accordance with the TV-L public-sector pay grade 13

For further information, please contact Mr Maximilian Meyer (meyer-maximilian@uni-landau.de).

Women with equivalent suitability, competence and professional performance will have preference for employment as far as and for as long as an underrepresentation exists. This is not the case if there are such serious reasons of an applicant that are above the principle of equality of women. Applicants with disabilities who have the same qualifications will have preference (please attach a proof).

Applicants are requested to send a letter of motivation, a complete curriculum vitae and copies of relevant certificates. Please send your application before 31 October 2021 by e-mail in a single PDF file to bewerbung@uni-koblenz-landau.de. Please make sure to mention your name and the reference number 99/2021 in the subject line of the E-mail.

The Interviews for this position will most probably be in the 2nd and 3rd week of November.

We guarantee that the application documents will be destroyed after the procedure has been completed in accordance with data protection law. We do not send confirmation of receipt, only information about the result of the application.

www.uni-ko-ld.de/karriere