The mission of the Leibniz Centre for Agricultural Landscape Research (ZALF) as a nationally and internationally active research institute is to deliver solutions for an ecologically, economically and socially sustainable agriculture – together with society. ZALF is a member of the Leibniz Association and is located in Müncheberg (approx. 35 minutes by regional train from Berlin-Lichtenberg). It also maintains a research station with further locations in Dedelow and Paulinenaue.

The DFG funded project '**How silicon affects phosphate availability and carbon turnover in soils**' is a cooperation of the Silicon Biogeochemistry Group (ZALF, Dr. J. Schaller), the group of Experimental Biogeochemistry (University Bayreuth, Prof. M. Obst) and the Institute of Soil Science and Site Ecology (TU Dresden, Prof. K. Kalbitz). The aim of the project is analyze how silicon is interfering with phosphate and organic matter binding to soil minerals and how this is altering soil respiration rates.

We are offering a 65% position temporarly limited for 2 years with envisioned extension to 3 years

Research Associate (PhD student) (f/m/d)

Your workplace will be in Müncheberg. At times, you will also work at the TU Dresden and the University of Bayreuth.

Your tasks:

- Analyze the effect of silicon availability on phosphorus mobilization from different soil minerals
- Realisation of batch experiments to analyze the phosphorus binding to different soil minerals by XAS (Canadian Light Source) and XPS in collaboration with experienced partners
- Determine the effect of silicon availability on soil respiration along soil gradients
- Determine the mobilization of phosphorus and dissolved organic carbon from soil minerals by increasing silicon availability
- measure the changes in greenhouse gas production of soils along a soil phosphorus gradient after changing silicon availability

Your qualifications:

- Highly motivated
- Master university degree (or equivalent) in earth or natural sciences (e.g., Soil Sciences, Earth Sciences, Environmental Sciences
- Strong knowledge in biogeochemistry, ideally knowledge about silicon biogeochemistry, soil science as well as phosphorus and iron biogeochemistry
- Strong experiences in lab work
- Excellent knowledge of spoken and written English
- Excellent communication skills
- Driving license

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Contact of Human resource management: personal@zalf.de

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We offer:

- An inspiring international team
- The opportunity for an internship abroad
- State-of-the-art analytical tools in the laboratories of ZALF, TU Dresden and the University of Bayreuth
- An interdisciplinary working environment that encourages independence and self-reliance
- Classification according to the collective agreement of the federal states (TV-L) 13 (65%) (including special annual payment)
- A collegial and open-minded working atmosphere in a dynamic research institution

Women are particularly encouraged to apply. Applications from severely disabled persons with equal qualifications are favored. Please send your application preferably by e-mail (one PDF file, max. 5 MB; packed PDF documents, archive files like zip, rar etc. Word documents cannot be processed and therefore cannot be considered!) with the usual documents, in particular CV, proof of qualification and certificates, stating the reference number **57-2021** until **August 31, 2021** to: Bewerbungen@zalf.de.

If you have any questions, please do not hesitate to contact us: Dr. Jörg Schaller, Tel. +49 (0) 33432/82-137. Joerg.Schaller@zalf.de

For cost reasons, application documents or extensive publications can only be returned if an adequately stamped envelope is attached.

If you apply, we collect and process your personal data in accordance with Articles 5 and 6 of the EU GDPR only for the processing of your application and for purposes that result from possible future employment with the ZALF. Your data will be deleted after six months.

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