

# Geomicrobiological and Geochemical Colloquium

seminar series

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## Environmental Biotechnology at UFZ Leipzig: From chemicals' fate in the environment towards greenhouse gas reduction research

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### Abstract

The UFZ Leipzig hosts many different working groups in the environmental microbial field. The department for Environmental Biotechnology has strong roots in the predictive assessment of microbial transformation of persistent chemicals such as halogenated aromatics, antibiotics, pesticides, plastics, plastic monomers and complex soil organic matter. When possible we target metabolic processes that allow sustained application. A few examples for microbial metabolic processes and their applicability will be shown. With the changing global situation we now use our capacity to shift towards biotechnology research contributions on climate change and energy scarcity. This includes the development of an electric microbial synthesis platform, research towards mainstream anammox in wastewater treatments plants, the propagation of microbial activity to stimulate carbon fixation in soil and plastic monomer reusability. The talk will give an overview of current activities to connect to research interests at GFZ.



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