



Science Talk UFZ

## Challenges and Perspectives of Chemical and Bio-Technologies for the Environment



### Prof. Dr. Friedrich Widdel

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Friday, 28 June 2019, 10:00

Leipziger KUBUS, Lecture Hall 1CD

Permoserstr. 15, 04318 Leipzig

## The environmental fate of chlorophyll – a role for bacteria?

Chlorophylls are the most abundant natural pigments. Their biosynthesis and partial degradation in plants during senescence of leaves have been investigated in much detail. On the other hand, very little is known about the fate of chlorophylls during decay of biomass derived from photosynthetic organisms. To better understand the possible role of bacteria in the postulated degradation of such 'free' chlorophylls, a classical approach via selective enrichment from a marine source and isolation was chosen. Specialized aerobic bacteria are apparently able to mineralize chlorophyll, thus extending significantly the degradative capability observed in living plants.

Together with Prof. Dr. Bo Barker Jørgensen, Friedrich Widdel founded the Bremen Max-Planck-Institute in 1992. Since then it has grown strongly to now more than 200 employees from 30 nations. In addition to his directorate at the Max-Planck-Institute in Bremen, Friedrich Widdel was also Professor of Microbiology in the Biology & Chemistry Faculty at the University of Bremen. His research focuses on the growth, metabolic capabilities and chemical impacts of microorganisms from naturally oxygen-free habitats, for example in the seabed. A special emphasis of his work lies on the anaerobic degradation of long-lived substances such as hydrocarbons and the physiology of sulfate-reducing bacteria.

**All interested colleagues are kindly invited.**