Official external seminar

AARHUS UNIVERSITY
DEPARTMENT OF ENVIRONMENTAL SCIENCE
Frederiksborgvej 399, 4000 Roskilde

Monday 22 June 2015, 14.00-15.00
Venue: The Pavilion

"Stable isotope concepts for characterizing sources and degradation pathways of chemicals in the environment"

Speaker:
Hans H. Richnow, Department of Isotope Biogeochemistry, Leipzig

Abstract:

The analysis and quantification of in situ degradation of contaminants in the environment is a challenge for many topics such as risk assessment, evaluation of remediation measures, management of contaminated aquifers as well as analyzing sinks of persistent organic chemical in the environment. During the last decade concepts making use of stable isotope techniques allowing analysis and quantification of organic chemicals directly in the environment were developed (see for a review Meckenstock et al., 2004; Thullner et al., . 2012). Today stable isotope concepts are under development for identifying sources of chemicals as well as degradation pathways for evaluating the fate of chemicals at a larger scale like a catchment or for long distance reactive transport processes.

We will discuss fundamentals of stable isotope concepts for analyzing in situ degradation for natural attenuation studies and how isotope fingerprinting may be integrate isotope concepts in environmental monitoring concepts for analyzing emerging contaminants. Trends employing compound specific isotope analysis (CSIA) are under development for characterizing sources and sinks of pollutants such as emerging contaminants, pesticides and pharmaceuticals will be discussed.

Host:
Kai Bester, Senior Researcher, ENVS.

External guests interested in attending the presentation should email
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