

Mechanistic investigation of diffusion and diffusive isotope fractionation of organic contaminants in aqueous solution



The aim of this project is to gain a mechanistic understanding of diffusion and diffusive isotope fractionation in aqueous systems. The findings will contribute to advance the basic science of solute diffusion in aqueous systems and transport of contaminants in aquatic systems. They will also have important practical relevance since compound specific isotope analysis is a technique that is increasingly used in practical applications in a wide variety of scientific fields. Project can be approached as laboratory investigation or as multi-scale numerical modeling.

Project type

Topic is suitable for MSc project

Pre-requisite

No compulsory courses but courses of interest are:

Theory: 26231 Fysisk Kemi; 28831 Transportprocesser; 12102 Environmental Processes

Computation and Modeling: 26245 Computerbaserede metoder i kemi og biologi; 26255

Computermodellering i kemi; 28831 Computational Fluid Dynamics in Chemical Engineering;

12104 Modelling of environmental processes and technologies; 12335 Groundwater resources

Group size

2-3 students

Department of supervisors

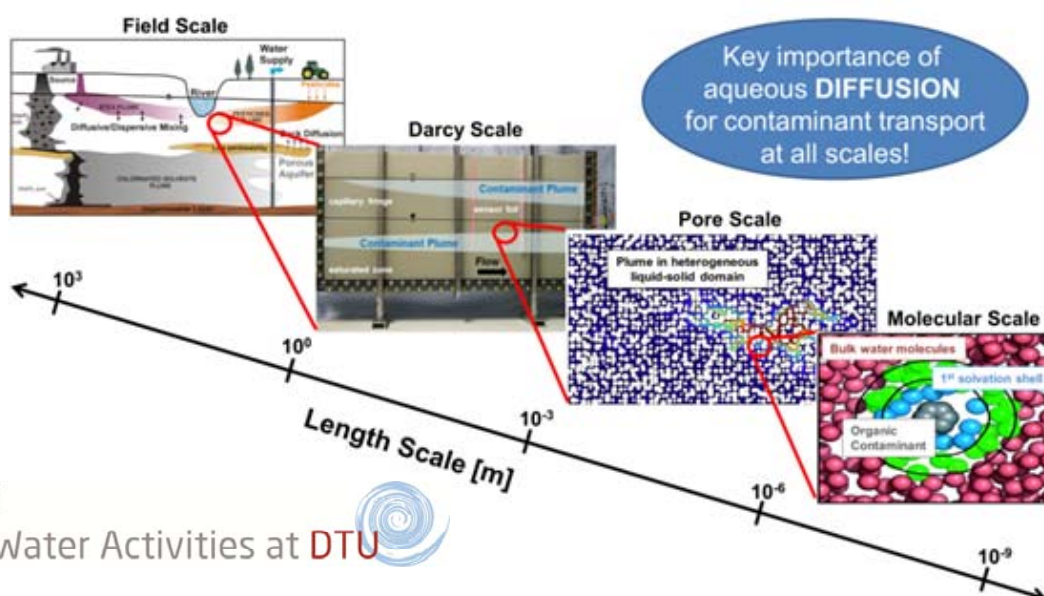
Main supervisor: DTU Environment (Experimental), DTU Chemistry (Modeling)

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Water DTU

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