Study of solute transport parameters through porous medium

Abstract:

The project proposal aims to estimate flow and transport parameters i.e. pore water velocity, dispersion coefficient, diffusion coefficient and sorption coefficient in different types of soil by conduction soil column experiment. It further deals with the study of the effect of layered soil on spatial concentration profiles. Chemical tracer as chloride, fluoride, arsenic, nitrate, lead bacteria, etc. will be used in the proposal study. An experiment will be conducted to investigate transport processes such as advection, dispersion, diffusion and sorption in fractured porous formation. At the end of this project, the project is expected to develop model for on-dimensional soil column experiment and two dimensional fractured porous formations.