

Transport program and simulation of transport column experiments

Vratislav Žabka

Výzkumné centrum: Pokročilé sanační technologie a procesy,
TU v Liberci

The contribution presents the program Transport, which serves to simulation of column transport experiments. Its main function is not to predict results of experiments but to compare influence of individual physical and chemical processes to the experiment results. The one-dimensional advection-diffusion model is based on Finite Volume Method; it includes the triple porosity concept, sorption, retardation, and chemical reactions simulated using connected program React from The Geochemist's Workbench package or PhreeqC. Due to these geochemical programs, the user has extensive possibilities of chemistry simulation during transport. The program Transport simulates not only the processes inside the column but also preparation of entering solutions and measurement methods of outgoing solution parameters.