Study on topographic and climatic variations concerning long-term stability of geological environment

Ken-ichi Yasue[1]; Masayoshi Tajikara[1]; Hiromitsu Saegusa[1]; Masakazu Niwa[1]; Hideki Kurosawa[1]; Tomohiro Kusano[1]

[1] JAEA

The stability of geological environments is influenced by natural events such as uplift, denudation, and climate variation. It is important to assess the stability of geological environments for the geological disposal of nuclear wastes. The purpose of this study is to establish the comprehensive techniques and methods to evaluate the effects of topographic and climatic variations on groundwater flow condition. For this purpose, we developed the following techniques.

(1) Research techniques for paleo-topography and paleo-climate
(2) Modeling and simulation techniques for landform development
(3) Simulation techniques of groundwater flow in consideration of the time-variation of geological environment

In this presentation, we introduce briefly the some of research results.