

Program

Workshop on Physics and Chemistry of Bentonite for Radioactive Waste Disposal

Date : 18th September, 2010

Venue: Lecture Room, B21 in Department of Engineering, Hokkaido University (HU)

<http://www.eng.hokudai.ac.jp/graduate/location/#access>

8:00 - 8:30 Registration of Participants

8:30-8:35 Opening Remarks, Prof. Tsutomu Sato, HU

Stability Session

Facilitator: Prof. Tsutomu Sato, HU

8:35-9:05 Keynote speaker: Long term stability of bentonite in radioactive waste disposal, Prof. Tsutomu Sato, HU

9:05-9:45 Invited speaker: Alteration of bentonite in the Aspo HRL experiments, Dr. Ola Karnland, Clay Technology AB, Sweden

9:45-10:15 Young researcher speaker, Modeling of multi-ionic transport and alteration in concrete/bentonite materials, Dr. Yogarajah Elakneswaran , HU

10:15-10:35 Discussing and listing the issues on long term stability of bentonites

10:35-10:50 Coffee break

Geotechnical Session

Facilitator: Prof. Hideo Komine, Ibaraki University

10:50-11:10 Keynote speaker: Bridge between physics and chemistry of bentonite from the viewpoint of geotechnical engineering, Prof. Hideo Komine, Ibaraki University

11:10-11:40 Invited speaker: Theoretical framework of geomechanics, initial boundary value problems and predictions, Prof. Atsushi Iizuka, Kobe University

11:40-11:55 Young researcher speaker: Brand-new experimental data of water diffusion coefficient of bentonite and research plan in Ibaraki University: Sachie Endo and Takuro Oyamada, Ibaraki University

11:55-12:10 Practical engineer speaker: Hydro-mechanical characteristics and their modeling for coupled THM processes of bentonite buffer: Dr. Shuichi Yamamoto, Obayashi Corporation

12:10-12:50 Discussing and listing the issues on geotechnical issues of key nuclides in bentonite

12:50-13:50 Lunches at Cafeteria of University

Diffusion Session

Facilitator: Prof. Tamotsu Kozaki, HU

13:50-14:10 Keynote speaker: Current studies on diffusion behaviors of nuclides in bentonite, Prof. Tamotsu Kozaki, HU

14:10-14:30 Invited speaker: Modeling Diffusion at the Clay Basal Surface - An Atomistic Approach, Mr. Aric Newton, UCB, USA

14:30-15:00 Invited speaker: Diffusion model for ions from the viewpoint of EDL theory, Mr. Jarmo Lehtikoinen, VTT, Finland

15:00-15:30 Invited speaker: Ion equilibrium between montmorillonite interlayer space and an external solution-Consequences for diffusional transport, Dr. Martin Birgersson, Clay Technology AB, Sweden

15:30-15:50 Discussing and listing the issues on diffusion behaviors of nuclides in bentonite

15:50-16:30 Wrap-up