

# International Workshop on Aquatic Chemistry of Actinides

November 13, 2007



Organized by

**NQe** Department of Nuclear and Quantum Engineering

**KAIST** Korea Advanced Institute of Science and Technology

The International Workshop on Aquatic Chemistry of Actinides will be held in November 13, 2007 at the Department of Nuclear and Quantum Engineering of Korea Advanced Institute of Science and Technology in Daejeon, Korea, a city centered on Science and Technology. The workshop provides a forum for the exchange of information on chemical processes of the actinides and long-lived fission products controlling their migration behavior in natural aquatic systems. The fundamental understanding of the migration behavior of long-lived radionuclides is essential for the long-term performance assessment of nuclear waste disposal. Furthermore, the workshop should offer an excellent learning opportunity for students and scientists of interdisciplinary research fields, who are interested in actinide chemistry and environmental aspects of nuclear waste disposal. The workshop covers solubility, complex formation, sorption process of the actinides, and applications of laser spectroscopic methods, as well as nuclear waste disposal safety.

## Invited Speakers

- Marcus Altmaier:** Institut für Nukleare Entsorgung, Forschungszentrum Karlsruhe GmbH, Germany
- Min Hoon Baik:** HLW Disposal Research Center, Korea Atomic Energy Research Institute, Korea
- Gunnar Buckau:** Institut für Nukleare Entsorgung, Forschungszentrum Karlsruhe GmbH, Germany
- Euo Chang Jung:** Nuclear Chemistry Research Center, Korea Atomic Energy Research Institute, Korea
- Chang-Lak Kim:** Disposal Safety Assessment Team, Nuclear Engineering and Technology Institute, Korea Hydro and Nuclear Power Co., Ltd., Korea
- Thomas Rabung:** Institut für Nukleare Entsorgung, Forschungszentrum Karlsruhe GmbH, Germany

## Workshop Program

Date: November 13, 2007

Place: Doosan Lecture Hall, Room 4401, Building N7-1,  
Department of Nuclear and Quantum Engineering  
Korea Advanced Institute of Science and Technology

- 13:00 - 13:05 **Welcome Address**
- 13:05 - 13:15 **Current Status of Nuclear Power Generation and R&D Program on Nuclear Fuel Cycle in Korea** (Jong-Il Yun)
- 13:15 - 13:45 **Solubility and Complex Formation of Actinides: Recent Studies at FZK-INE** (Marcus Altmaier)
- 13:45 - 14:15 **A Spectroscopic Study on the Detection Sensitivity of Actinides** (Euo Chang Jung)
- 14:15 - 14:45 **Metal Ion Speciation onto Mineral Surfaces by Using Time-Resolved Laser Fluorescence Spectroscopy (TRLFS)** (Thomas Rabung)
- 14:45 - 15:00 **Coffee Break**
- 15:00 - 15:30 **Uranium Sorption onto Granite** (Min Hoon Baik)
- 15:30 - 16:00 **Overview of the Korean LILW Repository** (Chang-Lak Kim)
- 16:00 - 16:30 **Metal Ion Complexation with Humic Acid** (Gunnar Buckau)  
**EUROATOM Program on Disposal** (Gunnar Buckau)
- 16:30 - 17:00 **Round Table Discussion**

## For additional information:

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