

HITEC Theme Day

- Title:** Nuclear waste disposal and reactor safety
- Date:** 22 June, 2015
- Time:** 9:00 – 15:45 o'clock
afterwards *get together* with snacks and drinks
- Location:** Forschungszentrum ► **Jülich, Build. 15.1 X, room 249 (ICS-4)**

The worldwide operation of nuclear power plants means that the state of the art must be continuously updated with respect to the safety of reactor operation and final disposal of radioactive waste. In nuclear waste management, new disposal concepts are being developed on the basis of new materials which are intended to ensure safe disposal for up to one million years. In close interaction between experiments and simulation, accident scenarios are analysed in reactor safety research and the effectiveness of safety measures evaluated.

You will learn:

Acquiring basic knowledge of nuclear waste management and safety research in the field of reactor technology and fundamental principles of radioactivity and nuclear fission.

This information day will provide an overview of

- radioactivity and nuclear fission
- objectives of reactor safety
- current knowledge on the Fukushima reactor accident
- materials development for nuclear waste management
- characterization of materials for nuclear waste management
- strategies for nuclear waste management

Contents:

- 1) Introduction to reactor technology, A. Schulze, RWTH
- 2) Reactor safety research in Aachen and Jülich, Dr. E.-A. Reinecke, Dr. S. Kassmann, Jülich
- 4) The reactor accident in Fukushima, Stefanie Weiß GRS/Cologne
- 5) Research for the safe management of nuclear waste, Prof. D. Bosbach, Jülich
- 6) Deep geological disposal of nuclear wastes, Dr. G. Deissmann, Jülich
- 7) Ra retention by barite-APT and TEM characterization of the (Ba,Ra)SO₄ solid solution with nm-scale resolution, J. Weber, Jülich
- 8) Atomistic modelling of materials for nuclear waste management, Dr. P. Kowalski, Jülich

Who should attend:

HITEC Ph.D.-fellows;
Postgraduate-, Ph.D. and postdoctoral fellows from the fields of energy and climate research

HITEC Days

HITEC Days are an inherent part of the graduate school Helmholtz Interdisciplinary Doctoral Training in Energy and Climate Research (HITEC). They devote a whole day to a method or a scientific topic with lectures and discussions. The methodological days serve to encourage scientific interdisciplinarity and will enable the PhD students to extend their range of methods with respect to their own scientific work. HITEC Days always end with a 'Get together', some snacks and drinks. HITEC Days are open for HITEC Ph.D. students and other interested young scientists.