Environmental Risk Assessment of Nanomaterials



- learn all about the current state of knowledge and major recent developments!

Venue

Technical University of Denmark, Anker Engelunds Vej 1, Building 101A, Room S12, DK-2800 Kgs Lyngby

Duration

3 days

When

November 11th - November 13th 2015

Price

3.000 EUR including lunch all 3 days and dinner Wednesday and Thursday.

Sign up

http://www.env.dtu.dk/english/Teaching/Continuing-Education

Involved

DTU Environment: Steffen Foss Hansen, Anders Baun, Nanna B. Hartmann, Hans-Christian Holten Lützhøft. EMPA: Fadri Gottschalk



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Materials Science & Technology

A 3-day Ph.D. - and Continued Education course

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Background

Nanomaterials are revolutionary materials in every sense of the word and nanomaterials are being increasingly used in our society. Environmental exposure to nanomaterials seems inevitable and there is an urgent need for environmental risk assessment. Today, several pieces of European legislation entail nanospecific information- and risk assessment requirements. However, environmental risk assessment of nanomaterials present unique challenges compared to 'conventional' chemicals. Awareness and understanding of these challenges is needed to ensure appropriate risk assessment during all steps in the process such as evaluation of data adequacy, interpretation of test results etc.

Target audience

The course targets regulators, risk assessors and scientists as well as Ph.D. students with a relevant background in for example environmental chemistry or engineering.

Purpose

The purpose of this course is to bring course participants up-to-date on the current nanomaterials regulation and scientific and technical state-of-knowledge of scientific and technical knowledge for evaluation of the hazards, exposure and risks of different types of nanomaterials.





Course content

The emphasis of the course is on the application of these aspects to the regulatory assessment of nanomaterials, specifically under REACH, BPR (Biocides Product Regulation) and CLP (Classification, Labelling and Packaging). As such, the course addresses not just the scientific aspects of nanomaterial risk assessment, but also aims to strengthen the participants' understanding of the legal obligations under REACH, biocides and CLP regarding nanomaterials.

Key elements of the course include

- Current uses and regulation of nanomaterials
 REACH, BPR, CLP
- Environmentally relevant physical-chemical characterization of nanomaterials
- Environmental hazards and hazard identification
- Fate and behavior of nanomaterials in the environment
- Methodologies for environmental exposure assessment
- Dose-exposure assessment and risk characterization
- Current risk assessment methodologies and alternatives methods

The course will make the link between current regulation and the state of scientific understanding. In particular, the course will identify current limitations in available data and methodologies, and in the light of these challenges provide a realistic picture of the feasibility of nanospecific information- and risk assessment requirements in the different legislations.

Course materials

Course participants will receive a folder as well as a USB-stick with all the course materials and PowerPoint presentations, exercises and course notes.





