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Assess Nanomaterial Fate and  
Speciation  
in the Environment

# **NanoFASE Workshop on airborne Nanomaterials**

## **“Airborne Engineered Nanomaterials: Measurements, Implications and Modelling”**

**When? 28<sup>th</sup> and 29<sup>th</sup> November, 2017**

**Where? CENIDE, Duisburg, Germany**

**For registration and further  
information  
please refer to**

**[www.nanofase.eu](http://www.nanofase.eu)**

**or contact**

**Carmen Nickel, [nickel@iuta.de](mailto:nickel@iuta.de)**

Involved Partners:





## NanoFASE Workshop Programme

**Tuesday, November 28<sup>th</sup> , 2017**

11:30-12:00 Registration

### **Release, Environmental Concentration / Exposure, Modelling**

12:00-12:30 Introduction and NanoFASE (C. Nickel)

12:30-13:30 Release of ENM into the atmosphere (Chair: B. Debray)

Presentations:

- Bruno Debray – NanoFASE:
- Hanns Paur – Nanoparticle release during incineration of Waste and Nano Composites
- Michael Stintz: Airborne particle release quantification from nanostructured materials for exposure estimation by propagation modelling

*13:30-13:50 Coffee break and snacks*

13:50-14:50 Environmental Concentration / Exposure (Chair: I. Koponen)

Presentations:

- Ismo K. Koponen - Examples of workplace nanoparticle concentrations: Powder handling, mechanical reduction, and jet emissions
- Roy Harrison - Measurement and modelling of nano-particulate cerium oxide additive emissions in the atmosphere from use in motor fuels
- Aurelie Niaudet: French mandatory reporting scheme on nanomaterials

14:50-15:50 Modelling (Chair: A. Manders)

Presentations:

- Astrid Manders – NanoFASE:
- Ken Carslaw – tbd.
- Matthias Karl - tbd.

15:50-17:20 Break-out sessions + *Coffee*

Environmental Concentration / Exposure

Important parameters for modelling – what should be measured in future?

17:20-18:00 Presentation of the results of the break-out sessions/Discussion

18:00-18:15 Closing remarks of Day 1 (C. Nickel)

*19:30 Joint Dinner*

Involved Partners:





## NanoFASE Workshop Programme

**Wednesday, November 29<sup>th</sup>, 2017**

08:00 -08:45 Registration

### **Transformation in the Atmosphere and Effect on the Atmosphere**

08:45-09:00 Introduction (C. Nickel)

09:00-10:00 Transformation of ENM/UFP in the atmosphere (Chair: C. Asbach)

#### **Presentations:**

- Joakim Pagels - Lessons learned from atmospheric processing studies of black carbon in the atmosphere
- Christof Asbach – tbd.
- Astrid Kiendler-Scharr – Atmospheric Ageing of Particles: on the relative importance of primary and secondary components in PM1

*10:00-10:20 Coffee break and snacks*

10:20-11:20 Can ENM affect atmospheric pollutants? (Chair: T. Kuhlbusch)

#### **Presentations:**

- Thomas Kuhlbusch – tbd.
- Carmen Nickel – NanoFASE: Effect of TiO<sub>2</sub> ENM on NO<sub>x</sub> – results of laboratory experiments
- Tbd.

11:20-12:50 Break-out sessions

Can UFP be used as surrogate for ENM?

Measurements

*12:50-13:50 Lunch*

13:50-14:30 Presentation of the results of the break-out sessions/Discussion

14:30 Closing remarks (C. Nickel)

## NanoFASE Workshop

### Main topics

- Fate and behaviour of ENM in the atmosphere
- Effect of ENM on atmospheric chemistry and climate

### Target

- Merging of information for release, environmental concentration /exposure and behaviour in the atmosphere of ENM / UFP
- Information for modelling – state of the art, knowledge gaps, important parameters

### How to get there



### Center for Nanointegration Duisburg-Essen

University Duisburg-Essen  
NanoEnergieTechnikZentrum (NETZ)  
Carl-Benz-Straße 199  
47057 Duisburg  
Germany