

## Organisational matters

### Venue

The workshop will be held in the main building of the **German Federal Institute of Hydrology, Koblenz, Am Mainzer Tor 1**. The main entrance is in **Julius-Wegeler-Straße** near the “Rhein-Mosel-Halle”.

The BfG is in 10-minute walking distance from the main station “Koblenz-Hauptbahnhof”.

Please note that there are very limited parking facilities nearby.

### Registration

We ask you to make sure that your registration is received **by 8 October 2010**. Please use the Registration Form (attached hereto) that you may return by telefax, mail or E-mail. We will confirm the receipt of your registration by E-mail.

**Registration fees** for participation will be **100 €for Norman members** and **150 €for non-Norman members**. The fee covers the costs of all refreshments offered during the coffee breaks and lunch and a boat cruise along the River Rhine including the dinner on board. Payment should be made in EUR by bank transfer **until 8 October 2010**.

**Bank:** BBK Saarbrücken

**Recipient:** Bundeskasse Trier

**Bank sorting code (BLZ):** 590 000 00

**Account number:** 590 010 20

**Reference number / Purpose of transfer:**  
1150 3149 1435 + NORMAN + *your name*

**IBAN:** DE81590000000059001020

**SWIFT / BIC-code:** MARKDEF1590

**Have a pleasant journey to Koblenz!**

### Accommodation

We have reserved a contingent of rooms for participants in the **Hotel IBIS**

[H1831@accor.com](mailto:H1831@accor.com); telephone: +49 (0)261 / 20240

There you can book accommodation by using the **keyword “NORMAN” until 8 October 2010**.

Further possibilities you find on the third page of this flyer.

### Poster presentation

You are invited to submit a poster describing results of your current work closely related to the workshop topics. Out of these submissions, 20 posters will be selected to be presented on clipboards and during a special poster session.

The **deadline for abstract submission** is the **8 October 2010**. The abstract should not exceed one page of text (Times New Roman, 11 pt, single spaced).

### Working language

The official language of the workshop is English.

### Contact

If you have further questions, please contact

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## Workshop

### Engineered Nanoparticles in the Environment *Analysis, Occurrence and Impacts*

19 - 20 October 2010

German Federal Institute of Hydrology (BfG)  
Koblenz, Germany

### Final Programme



Organised by

*Norman – Network of Reference Laboratories for Monitoring of Emerging Environmental Pollutants*  
[www.norman-network.net](http://www.norman-network.net)

Hosted by

*German Federal Institute of Hydrology - Bundesanstalt für Gewässerkunde (BfG)*  
*Am Mainzer Tor 1, D-56068 Koblenz*  
<http://www.bafg.de>

Today's emerging substances will probably be part of tomorrow's regulated substances. The Network of reference laboratories, research centres and related organisations for monitoring of emerging environmental substances (NORMAN) is an independent and competent platform in the field of emerging substances. NORMAN facilitates an exchange of information, debate and research collaborations at a global level with official recognition from institutional agencies of the EU.

The workshop on "Engineered Nanoparticles in the Environment" will discuss the future approaches in the emerging field of nanoparticles. The workshop addresses, amongst others, issues related to analytical techniques for nanoparticles in environmental matrices, the fate of engineered nanoparticles in the aquatic environment and during wastewater treatment, their interactions with inorganic and organic pollutants as well as their potential ecotoxicological impacts on biota.

The main objective of the workshop will be to discuss and evaluate the future requirements with regard to a profound environmental assessment of engineered nanoparticles.

## Programme

### Tuesday, 19 October 2010

#### **12:30 Welcome and introduction**

*Peter Heininger and Thomas Ternes,*  
Federal Institute of Hydrology (BfG),  
Germany

### **Session 1: Relevance of nanoparticles (NPs)**

#### **12:45 Synthesis, characterisation and environmental impacts of manufactured nano-particles**

*Jamie Lead,* University of Birmingham, UK

#### **13:30 Modeled environmental concentrations of engineered nanomaterials for different regions and at different resolutions**

*Fadri Gottschalk,* EMPA, Switzerland

#### **14:00 Colloids and nanoparticles**

*Frank von der Kammer,* University of Vienna,  
Austria

14:30 *Coffee break with snacks*

#### **Poster session**

### **Session 2: Analysis of NPs**

#### **15:15 Detection of engineered nanoparticles in the aquatic environment: analytical challenges**

*Ralf Kaegi,* Eawag, Zürich, Switzerland

#### **15:45 Nanomaterial residues in aquatic ecosystems**

*Damia Barcelo,* IDAEA-CSIC, Barcelona,  
Spain

#### **16:15 Analysis of engineered inorganic nanoparticles in environmental systems**

*Gabi Schaumann,* University of Koblenz-Landau, Landau, Germany

#### **16:45 Discussion**

17:00 *Adjourn*

18:30 *Boat cruise on the Rhine with dinner on board*

### Wednesday, 20 October 2010

### **Session 3: Stability of NPs in water**

#### **8:30 Grinding and dispersing of nanoparticles in aqueous suspensions**

*Sandra Breitung-Faes,* TU Braunschweig,  
Germany

#### **9:00 Stability of silver nanoparticles in aqueous suspensions**

*Markus Delay,* Karlsruhe Institute of Technology (KIT), Germany

#### **9:30 Role of organic matter, calcium, phosphate, pH and ionic strength on the stability of nanoparticles**

*Rute F. Domingos,* University of Lisbon, Portugal

10:00 *Coffee break*

### **Session 4: Fate of NPs in the aqueous environment**

#### **10:30 Quantifying fullerene C60 including transformation products in water with LC LTQ Orbitrap MS and application to environmental samples**

*Thomas L. ter Laak,* KWR Watercycle Research Institute; Nieuwegein, Netherlands

#### **11:00 Emissions of nanosilver and its behavior in wastewater treatment plants**

*Michael Burkhardt,* HSR Hochschule für Technik, Rapperswil, Switzerland

### **Session 5: Sorption of NPs in the environment**

#### **11:30 Sorption of non-ionic organic compounds onto carbon-based nanomaterials**

*Thorsten Hüffer,* University of Duisburg-Essen, Duisburg, Germany

#### **12:00 Analysis of the adsorption of environmentally relevant macromolecules on TiO<sub>2</sub> NP and the effects on dispersion stability, agglomeration and sedimentation rates**

*Julian Gallego-Urrea,* University of Gothenburg, Sweden

12:30 *Lunch*

#### **13:30 Poster session**

### **Session 5: Ecotoxicity of NPs**

#### **14:30 Toxicity of inorganic NPs to *Daphnia magna* – Does size really matter?**

*Ralf Schulz,* University of Koblenz-Landau, Landau, Germany

### **Platform discussion**

#### **15:00 Addressing the relevance and impact of NPs – Where are we going in the future?**

#### **16:30 Lab-tour**

17:30 *End of the meeting*



**Federal Institute of Hydrology**  
**Bundesanstalt für Gewässerkunde**  
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[www.bafg.de](http://www.bafg.de)



**recommended hotels (for guests of the BfG, September 2010)**

No	hotel	single room incl. breakfast	address	e-mail	telephone	fax
1	Hotel Brenner	€ 63,-	Rizzastr. 20-22	<a href="mailto:go@hotel-brenner.de">go@hotel-brenner.de</a>	(+49)261/91578-0	(+49)261/36278
2	Hotel Hamm	€ 51,50	St. Josef-Str. 32	<a href="mailto:info@hotel-hamm.de">info@hotel-hamm.de</a>	(+49)261/30321-0	(+49)261/30321-60
3	Hotel Hohenstaufen	€ 67,-	Emil-Schüller-Str. 41-43	<a href="mailto:info@hohenstaufen.de">info@hohenstaufen.de</a>	(+49)261/3014-0	(+49)261/3014-444
4	GHOTEL Koblenz	€ 65,-	Neversstraße 15	<a href="mailto:koblenz@ghotel.de">koblenz@ghotel.de</a>	(+49)261/200245-0	(+49)261/200245-555
5	Hotel Ibis	€ 67,-	Rizzastr. 42	<a href="mailto:H1831@accor.com">H1831@accor.com</a>	(+49)261/3024-0	(+49)261/3024-240
6	Hotel Kleiner Riesen	€ 55,-	Kaiserin-Augusta-Anlagen 18	<a href="mailto:info@hotel-kleinerriesen.de">info@hotel-kleinerriesen.de</a>	(+49)261/30346-0	(+49)261/160725
7	Hotel Haus Morjan	€ 57,-	Konrad-Adenauer-Ufer	<a href="mailto:info@hotel-haus-morjan.de">info@hotel-haus-morjan.de</a>	(+49)261/304290	(+49)261/3042956
8	Mercure Hotel Koblenz	€ 88,-	Julius-Wegeler-Str. 6	<a href="mailto:H2004@accor.com">H2004@accor.com</a>	(+49)261/136-0	(+49)261/136-1199

## How to find the Federal Institute of Hydrology (BfG)

### By car:

Either Motorway A3, exit “**Dernbacher Dreieck**” or Motorway A61, exit “**Kreuz Koblenz**”, continue A48 in the direction of Koblenz, exit “**Koblenz-Nord**”. Follow B9 towards Koblenz for approx. 8 km. Follow signs for “**Koblenz/Rhein-Mosel-Halle**”. Go straight on and turn right after the 4<sup>th</sup> traffic light towards “**Rhein-Mosel-Halle/Weindorf**”. Follow the road to the left and go straight on at the lights. The BfG main building is on the right.

(Parking facilities: Rhein-Mosel-Halle or in streets nearby).

### By aeroplane:

From Cologne Airport by train to Koblenz via Cologne (Köln).

Travel time: approx. 1½ hours. Train connection approx. every half an hour.

From Frankfurt/Rhein-Main Airport by train via station „Fernbahnhof“.

Travel time: approx. 1¼ hours. Trains to Koblenz go every hour.

For further information: <http://reiseauskunft.bahn.de/bin/query.exe/en>

From Frankfurt/Hahn Airport by bus to Koblenz railway station (Hauptbahnhof).

Travel time: approx. 1¼ hours. Bus connections five times a day.

For details: [http://www.hahn-airport.de/default.aspx?menu=passengers\\_visitors&cc=en](http://www.hahn-airport.de/default.aspx?menu=passengers_visitors&cc=en).

