

## Framework

The FFF-MS workshop is financially supported by the NORMAN network and set in the framework of the “WG4” of the “NORMAN network - engineered nanomaterials” - Task Group II “The Analytical Toolbox”



<http://www.norman-network.net>

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## Contact & travel information

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Further information will be available soon on:

<http://umweltgeologie.univie.ac.at/hofmann-group/workshops/>



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### by train:

International trains ride to Vienna west-train station

<http://www.oebb.at/en/>

### by plain:

Vienna international airport - about 20 km from city center of Vienna - connection via airport-busses/trains

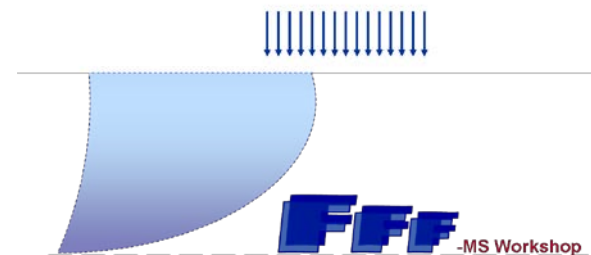
<http://www.viennaairport.com/>



# 5<sup>th</sup> Workshop on Field-Flow Fractionation – Mass Spectrometry (FFF-MS)

Nanoparticle analysis in  
environmental- & life-sciences  
as well as  
consumer products

September 28<sup>th</sup> & 29<sup>th</sup> 2017  
Vienna, Austria



## ENPs in various applications

Up to now a wide set of powerful analytical techniques is available allowing for nanomaterial analysis as well as characterization. Especially FFF/ICP-MS, sp-ICP-MS and microscopy-based techniques came to the fore. Furthermore, techniques, such as sp-ICP-MS in conjunction with a fractionation/separation system open up new and beneficial possibilities.

The next challenging step is advancing the set of available techniques to real matrix applications as well as developing broadly applicable sample preparation protocols suitable for nanoparticle analysis - in particular in the fields of environmental-, life-sciences as well as consumer products under real-life conditions

Thus, research in the field of ENPs is still an ongoing, challenging issue.

The **5<sup>th</sup> Workshop** on Field Flow Fractionation and Mass Spectrometric techniques (FFF-MS) will focus on the **analysis of nanoparticle in environmental- & life-sciences as well as consumer products.**

The Workshop is **financially supported** by the “**NORMAN Network - Engineered Nanomaterials**”, **POSTNOVA Analytics** and **WYATT Technology**.



<http://www.postnova.com/>



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## Scope of the Workshop

As cooperation between the *University of Vienna (Department of Environmental Geosciences)*, *Helmholtz-Centre for Environmental Research (UFZ Leipzig)* and the *Federal Institute of Hydrology (BfG, Department G2 - Aquatic Chemistry, Koblenz, Germany)* the **5<sup>th</sup> FFF-MS Workshop** will take place in **Vienna, Austria.**

**Part I** (first day – free of charge) will start with two survey lectures given by experts in the field: **Dr. Ralf Kaegi (EAWAG aquatic research, Zurich, Switzerland)** and **Dr. Julien Gigault (University of Rennes, Department of Geoscience, Rennes, France)**. Scientific presentations and posters will complete the morning session – **attendees giving an oral presentation will receive a financial travel subsidy.** During the afternoon session attendees will solve problems regarding data processing and analytical method development.

**Part II** of the workshop (optional second day, fee: 280 €) is optional and will contain practical lab work. The University of Vienna (Environmental Geosciences) has several FFF systems (flow and centrifugal) and on-line coupled detectors (e.g., SLS, DLS, ICP-MS) available where users can collect practical experience and further discuss existing problems (restricted to: **10 participants, application required**). Further **information** on registration and the program will be available soon on:

<http://umweltgeologie.univie.ac.at/hofmann-group/workshops/>

## Vienna at a glance

Vienna is the **federal capital** of Austria and with 1.8 mio. inhabitants the largest city in Austria. Vienna is located on the north-eastern foothills of the Alps at the banks of the river Danube.

Due to its political importance (head offices of several international agencies, e.g., OPEC, IAEA, UNO) Vienna is one of the world's cosmopolitan cities.

Vienna has a **long history** firstly mentioned in the year 881 AD. The city center of Vienna is part of the **UNESCO** world cultural heritage with many famous sights, e.g., big wheel, castle “Schönbrunn”, “Stephan’s” cathedral.



<http://www.wien.gv.at/tourismus/index.html>