

Framework

The FFF workshop is set in the framework of the “EU COST Action ES1205” and the “WG4” of the “NORMAN network - engineered nanomaterials”.



<http://www.es1205.eu>

Previous 3rd FFF-MS Workshop:

<http://www.es1205.eu/archive-1/3rd-fff-ms-workshop-vienna/>



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

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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Center of Earth Sciences
University of Vienna
Althanstrasse 14, UZA II
A-1090 Vienna, Austria

by train:

International trains ride to Vienna west-train station

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

by plain:

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

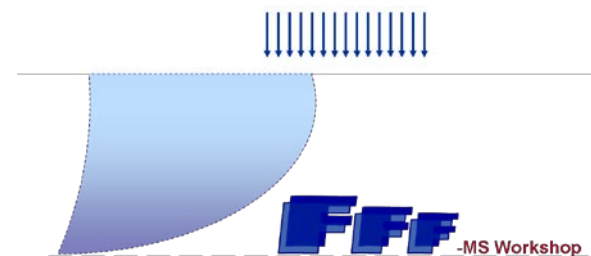
<http://www.viennaairport.com/>



4th Workshop on Field-Flow Fractionation – Mass Spectrometry (FFF-MS)

Engineered nanoparticles
in
complex matrices

September 29th & 30th 2016
Vienna, Austria



ENPs in complex matrices

Due to their beneficial properties the application of engineered nanoparticles (ENPs) in everyday commodities increased during the last couple of years.

However, the analysis of ENPs in consumer products, food and the environment is still a challenging task. Studies on ENPs' fate, transport, and (eco-) toxicological effects are hampered due to lacking of adequate techniques for detection and (especially) quantification at relevant concentrations. Furthermore, sample preparation is a crucial point in ENPs analysis; especially in (realistic) complex matrices/samples – though appropriate strategies are urgently needed.

During the last years FFF/ICP-MS evolved as a powerful indispensable tool in the field of ENPs analysis. Fractionation down to several nanometers, sizing as well as sensitive elemental detection of metal-based ENPs is enabled.

However, with regard to the EC-definition on nanomaterials number-based quantification is needed; present strategies, especially with regard to the combined approach of single particle-ICP-MS and FFF/ICP-MS are promising.

Research in the field of ENPs is still an ongoing, challenging issue and, hence, the 4th **Workshop** on Field Flow Fractionation (FFF) and Mass Spectrometric techniques (MS) will focus on the **analysis of ENPs in complex matrices**.

The Workshop is financially supported by the “NORMAN Network - Engineered Nanomaterials” and the “EU COST Action ES1205.

Scope of the Workshop

The 4th FFF-MS workshop in 2016 will focus on the analysis of engineered nanoparticles (ENPs) in complex matrices.

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 4th 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. Volker Nischwitz (Forschungszentrum Jülich, Germany)**, and **Prof. Gaëtane Lespes (Technopôle Hélio Parc Pau Pyrénées, France)** Scientific presentations will complete the morning session – **attendees giving a presentation will be completely reimbursed**. During the afternoon session attendees will solve problems regarding data processing and analytical method development.

Part II of the workshop (second day – 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., MALS, DLS, ICP-MS) available where users can collect practical experience and further discuss existing problems (restricted to: **10 participants, registration 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.



<https://www.wien.gv.at/english/>