



## Workshop

on

### **Mercury speciation analysis – The basis for sound risk assessment, and optimized remediation strategies for contaminated soils, sediments and sludge**

Under the auspices of  
**EVISA – the European Virtual Institute for Speciation Analysis**  
([www.speciation.net](http://www.speciation.net))

EVISA is kindly inviting you to this two-day workshop focused on mercury speciation. Well renowned experts as well as experienced practitioners will report on the solutions provided by mercury speciation analysis to characterize and solve mercury issues.

**Date:** 27.03.2006 - 28.03.2006

**National/International:** International

**Language:** English

**Type:** Workshop

**Location:** Scandic Plaza Hotel, Umeå, Sweden

**Contact:** **Organizing Committee:**  
Thomas Liljedahl, Umeå University, Sweden (Coordinator)  
[thomas.liljedahl@chem.umu.se]

Douglas Baxter, Analytica AB, Sweden  
Kevin Bishop, Swedish University of Agricultural Sciences (SLU),  
Sweden  
Erik Björn, Umeå University, Sweden  
Wolfgang Buscher, University of Münster, Germany  
Wolfgang Frech, Umeå University, Sweden  
Michael Sperling, EVISA, University of Münster, Germany

#### **Background:**

Until recently, risk assessment of mercury pollution has mainly been based on total element concentrations. Unfortunately, the determination of such a virtual sum parameter provides limited information only, since chemical and physical characteristics, biological activity or toxicity, mobility and bioavailability do not depend on the presence and concentrations of elements but rather on chemical species. Today, advances in analytical methodology make it possible to perform speciation analysis, and improved understanding of geochemical and

metabolic processes makes it advisable to utilize the enhanced information provided by speciation analysis for adequate risk assessment, optimization of remediation strategies and for solving other mercury related problems.

**Objective:**

It is the major objective of the workshop to highlight the value of the enhanced information provided by speciation analysis and to demonstrate how this information can be used to tackle mercury related problems such as, but not limited to, selecting an efficacious remediation strategy for soil, sediments and sludges and to improve its efficiency. Primary target groups are industries, laboratories, consultants, decision makers and other stakeholders interested in speciation analysis and the biogeochemistry of mercury.

**Workshop Schedule:**

**Day 1: Start of Workshop: 10:30 h**

*Introductory Lecture*

10:30 – 10:50 Chemical forms, occurrence, and speciation analysis of mercury,  
Petra Krystek, RIVM, The Netherlands

*The importance of mercury speciation for society*

10:50 – 11:20 Global mercury pollution,  
John Munthe, Swedish Environmental Institute, Gothenburg, Sweden

11:20 – 11:50 Forestry and mercury pollution,  
Kevin Bishop, SLU, Uppsala, Sweden

11:50 – 12:10 Mercury in crude oil and natural gas. A concern for the oil industry regarding, health and environment, as well as product quality assurance and for producing installations.  
Audun Gangstad, Statoil Research Center Trondheim, Trondheim, Norway

Lunch Break: 12:10 – 13:20

*How do speciation data improve risk assessment?*

13:20 – 14:00 Human toxicity and mercury speciation,  
Ulrike Bernauer. Bundesinstitut für Riskobewertung (BfR), Berlin, Germany

14:00 – 14:20 Mercury in the work environment and human health,  
Owen Butler, Health and Safety Executive, Sheffield, U.K.

14:20 – 14:40 Combining speciation and isotope labelling to assess net mercury methylation in sediment and soil samples,  
Mats Nilsson, SLU, Umeå, Sweden

14:40 – 15:00 The importance of mercury-sulphur speciation for solubility, methylation and demethylation rates in sediments contaminated by the paper and pulp

industry - implications for risk assessment,  
Ulf Skyllberg, SLU, Umeå, Sweden

Coffee break 15:00 – 15:30

***State-of-the-art mercury speciation analysis***

- 15:30 – 16:30 The art of mercury speciation analysis,  
Wolfgang Frech, Umeå University, Umeå, Sweden
- 16:30 – 17:00 Round Table Discussion with all lecturers of the day,  
Chair person: Wolfgang Frech

**Social event**

In the evening of the 27th the organisers are planning a social event. Let us surprise you!

**Day 2**

***Ongoing routine mercury speciation analysis in service laboratories: 08:30 – 10:00***

Speakers from high level European laboratories involved in routine speciation analysis will report about modern techniques and methods that are applied in daily speciation work.

- 8:30 – 8:50 Sample preparation and analytical methodology solving matrix dependent problems in mercury speciation analysis, S. McSheehy, LCABIE, UMR CNRS 5034 - Université de Pau et des Pays de l'Adour, France
- 8:50 – 9:10 Mercury speciation in routine analysis – current status and future prospects, Jürgen Kuballa GALAB, Hamburg, Germany
- 9:10 – 9:30 More samples, fewer methods. Douglas Baxter, Analytica, Luleå, Sweden
- 9:30 – 9:50 To be announced, IVL, Gothenburg, Sweden

Coffee break 10:00 – 10:30

***The benefit of speciation analysis for soils, sediments and sludges***

- 10:30 – 10:50 Safe remediation of soil at an industrial site in Sundsvall, Sweden, Sven-Åke Heinemo, Sweco-Viak
- 10:50 – 11:10 A simple field method to quantify mercury volatilization from soils. Risk assessment of contaminated North Sea tidal flats, Anja Stubbe, UFZ, Halle, Germany
- 11:10 – 11:30 Development, Analysis and Assessment of Processes, S. Mangold, Institut für Synchrotronstrahlung, Forschungszentrum Karlsruhe

11:30 – 11:50 Inorganic Mercury Speciation – Application for Risk Assessment and Remediation Strategies of Contaminated Soils, Groundwater and Sediments, H. Biester. Institute of Environmental Geochemistry, Heidelberg, Germany

Lunch Break: 11:50 – 13:00

***How EVISA, the European Virtual Institute for Speciation Analysis, will assist users***

13:00 – 13:30 EVISA - the premium source of speciation related information, Michael Sperling, EVISA, University of Münster, Germany

13:30 ***General discussion***  
What benefits do we see using mercury speciation?  
Moderator: Michael Sperling, EVISA, University of Münster, Germany

The topics for the final round table discussion will be composed throughout the workshop in order to cater for the primary interests of the audience. Suggestions from the participants will be collected and complemented by additional topics from the Organizing Committee.

End of Workshop: 15:00 h.

**Participation fees**

Early registration (until 10.01.2006): 210,- €  
Late registration (until 26.02.2006): 260,- €

The registration includes workshop participation, all meals including the workshop dinner, and the workshop's social event.

The cost for accommodation at the conference hotel is 90,- €per night. (The organizer has pre-booked rooms at a special room rate)

Please use the enclosed form for registration.

[→ Registration Form](#)

**Timetable:**

Start of the Workshop: 27.03.2006, 10:30 h.

End of the Workshop: 28.03.2006, 15:00 h.

Proposal deadline for oral presentations: 15.01.2006

Final Workshop programme: 07.02.2006

Early registration deadline: 10.02.2006

Late registration deadline: 26.02.2006

**Travel planning**

Information about Umeå and the workshop venue may be found at the weblink

→ <http://www.scandic-hotels.com/plazaumea>.

Please note that you may need Swedish currency during your stay in Umeå.

Airport transfer: Umeå Airport, 5 km from the hotel, is connected via airport buses or taxi at 15,- €

Flights: Umeå Airport (ume) connects to Stockholm Arlanda International Airport (arn), serviced by SAS and FlyNordic. An alternative flight service to Umeå is provided by Malmö Aviation, with departures from Stockholm Bromma Airport and further connections to Gothenburg, Malmö, and Brussels.

More information at:

→ [www.malmoaviation.se](http://www.malmoaviation.se)

→ [www.sas.se](http://www.sas.se)

→ [www.flynordic.se](http://www.flynordic.se)

**Deadlines**

January 15, 2006	Submission of abstracts
January 20, 2006	Notice of acceptance
January 20, 2006	Announcement of final program
February 10, 2006	Early registration at reduced fee
February 26, 2006	Late registration

**Workshop: Mercury speciation analysis: The basis for sound risk assessment, and optimized remediation strategies for contaminated soils, sediments and sludge**

European Virtual Institute for  
Speciation Analysis (EVISA)  
Attn. Dr. Wolfgang Buscher  
Corrensstrasse 30  
D-48149 Münster, Germany

**Workshop Registration:**

Early Registration until February 10<sup>th</sup>  
210:- €

Late Registration until February 26<sup>th</sup>  
260:- €

Fee includes all meals, including workshop  
dinner.

I wish to participate in workshop dinner:  
March 27<sup>th</sup> at 19.00

Specific meal desires, vegetarian etc.  
\_\_\_\_\_

- I register herewith for the  
EVISA Workshop on Mercury speciation  
analysis: The basis for sound risk  
assessment, and optimized remediation  
strategies for contaminated soils,  
sediments and sludge, taking place in  
 Umeå, Sweden, March 27-28, 2006

**Hotel Reservation:**

Single room  
Scandic Plaza Hotel 90.- €/night

Arriving \_\_\_\_\_

Departing \_\_\_\_\_

Smokers  Non-smokers room

**Fees to be charged:**

Registration: \_\_\_\_\_

Accommodation: \_\_\_\_\_

Total: \_\_\_\_\_

Date \_\_\_\_\_

Signature \_\_\_\_\_

Title: \_\_\_\_\_ First Name \_\_\_\_\_

Family  
Name \_\_\_\_\_

Organisation \_\_\_\_\_

Department \_\_\_\_\_

Billing  
address \_\_\_\_\_

Zip  
code \_\_\_\_\_ City \_\_\_\_\_

Country \_\_\_\_\_

Tel. \_\_\_\_\_ Fax. \_\_\_\_\_

E-mail: \_\_\_\_\_

- I intend to present a poster

**Please Note!** Your registration should  
have reached us February 26<sup>th</sup> at the  
latest. However, since the number of  
participants is limited early registration is  
recommended. Your registration will  
become binding by the written  
confirmation of the workshop organiser.  
Payments are to be made after receipt of  
the invoice. For cancellations after March  
12<sup>th</sup> no refund is possible. For further  
inquiries and registration at short notice  
please call: ++49 251 83 366 59.