

Location/Venue

The workshop will be held at

BAM Headquarters

Unter den Eichen 87; 12205 Berlin-Lichterfelde, Germany

	Wednesday 21.	Thursday 22.	Friday 23.
Visit of BAM	15:00 - 17:00		
Registration	17:00 - 19:00	8:00 - 9:00	
Reception	18:00 - 20:00		
Workshop		9:00 - 18:00	9:00 - 14:00
Workshop dinner		20:00	
Exhibition	17:00 - 20:00	8:30 - 18:00	8:30 - 12:00

The workshop will follow the Annual ISO/REMCO meeting which will be held from 19. to 21. April 1999 in Berlin. For this reason, despite the invited lecturers, a number of experts from the reference materials field is expected to participate.

Registration/Registration Fee

The workshop will be limited to **150** participants.

Registration fee is **650 DM** (and **550 DM** for members of the co-organising organisations) and includes: Book of lectures - Proceedings, lunch, coffee/tea during the breaks and workshop dinner.

Registration fee for accompanying persons: **80 DM**

Accommodation

A number of rooms was reserved for the workshop participants at reduced price **150 DM -single room rate, 190 DM -double room rate** (incl. breakfast buffet) in the

Best Western Hotel Steglitz International

Albrechtstrasse 2; 12165 Berlin-Steglitz

Phone: +49 30 79 00 55 21; Fax: +49 30 79 00 55 30

Reservations must be made directly by the participants, using the **reservation code Reference Materials**.

Those who will attend also the ISO/REMCO '99 Annual Meeting should use the **reservation code ISO/REMCO and Reference Materials**.

Pre-booking terminates at **2. April 1999**.

Additional hotel information and room reservation is provided by **Berlin Tourismus Marketing GmbH**

Phone: +49 30 25 00 25; Fax: +49 30 25 00 24

Location/Venue

Accompanying Persons

The conference location is ideal for accompanying persons who wish to see Berlin or Potsdam. There is a direct underground service from the station outside Hotel Steglitz international to the centre of Berlin (travel time 10-12 mins). In addition it is very easy to get to Potsdam by public transport.

Correspondence Addresses - Registration and Further Information

Workshop Secretariat

EUROLAB-D

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Scientific Committee:

A. Fajgelj (IAEA, IUPAC) - Chairman

H. Klich (BAM, ISO/REMCO)

T. Gills (NIST)

J. Pauwels (IRMM)

T. Tamberg (BAM)

Organising Committee:

M. Golze (BAM, EUROLAB-D) - Chairman

H. Klich (BAM, ISO/REMCO)

G. Neumann (EUROLAB-D) - Secretary

R. Nuesser (BAM)



ISO Committee
on Reference Materials



International Union
of Pure and Applied Chemistry

PROPER USE OF ENVIRONMENTAL MATRIX REFERENCE MATERIALS

AN

ISO/REMCO - IUPAC - BAM - EUROLAB-D WORKSHOP



22 AND 23 APRIL 1999

FEDERAL INSTITUTE
FOR MATERIALS RESEARCH
AND TESTING (BAM)

BERLIN, GERMANY

ORGANIZED BY



IN CO-OPERATION WITH

eurolab-Deutschland
Verein deutscher Prüflaboratorien e.V.

Basic Information

The characterisation and certification of environmental matrix reference materials is fraught with many complex problems related to traceability and uncertainty of the assigned values. These are the same materials which are, due to variety of reasons, often misused in the analytical process. Although the analysts are normally instructed on the intended use of the material in the accompanying certificate, the role of matrix reference materials in the analytical process is not always clear. One of the reasons for misuse is the confusion in the nomenclature where similar or the same terms are often used for different types of calibration standards, RM or CRM and internal control samples. The idea for this workshop originated from informal discussion at the BERM-7 conference, held in Antwerp, Belgium in April 1997, where many of these problems were highlighted.

The workshop is oriented toward the users of reference materials and is aimed at building up their awareness about how various types of RM should be utilised. For this purpose the representatives of reference materials producers will present how the CRM (SRM) producers expect analysts to employ their reference materials. The materials of interest are natural matrix RM certified for trace elements and/or radionuclides, organic microconstituents (residues), etc.

The experts from different reference materials producing organisation are expected to select some of their already available reference materials and focus on the following topics:

- a) how was the material characterised;
- b) how was the material certified (absolute method, laboratory intercomparison, selected laboratories, etc.), certification criteria;
- c) information about the assigned property values (for the selected determinants):
 - traceability
 - uncertainty (confidence intervals, etc.)
- d) how should the material be properly utilised by analysts (if possible supported by examples) in view of points b, c and d. Examples can be as appropriate, i.e. calibration, quality control, assessment of newly developed analytical procedures, achieving traceability, quantification of measurement uncertainty, etc.
- e) information about the new strategies and plans in respect to the recent quality requirements for reference materials set out by ISO/REMCO, ILAC, etc.

Basic Information

There will be also presentations related to the international standards, accreditation requirements and availability of certified reference materials that should provide additional information and help to properly focus the workshop discussions.

The workshop will consist of the invited lectures followed by discussion and around table discussion at the end. Eventual recommendations and conclusions resulting from these workshop will be submitted to the appropriate international bodies for further consideration and/or dissemination.

Preliminary programme

China GBW Reference Materials

Pan Xiu Rong and Zhao Min; *National Research Centre for Certified Reference Materials, Beijing, China*

How to use Matrix Certified Reference Materials?

Examples of Materials Produced by IRMM's Reference Materials Unit

J. Pauwels; *European Commission, Joint Research Centre, Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

Proper Use of Reference Materials for Elemental Speciation Studies

K. Okamoto; *National Institute of Materials and Chemical Research (NIMC), Tsukuba, Japan* and J. Yoshinaga; *National Institute for Environmental Studies (NIES), Tsukuba, Japan*

NIST Standard Reference Materials for Measurement Assurance: Issues and Perspectives

T. Gills; *National Institute of Standards and Technology, Gaithersburg, USA*

Intended Use of the IAEA Reference Materials, Part I: Examples of RM Certified for Radionuclides or Trace Elements

A. Fajgelj et al.; *International Atomic Energy Agency, Agency's Laboratories at Seibersdorf and Vienna (IAEA), Austria*

Intended Use of the IAEA Reference Materials, Part II: Examples of RM Certified for Stable Isotope Composition

M. Groening et al.; *IAEA, Austria*

Preliminary programme

Case Study: Certification of Biological Reference Materials in Czech Republik

M. Suchanek; *Institute of Chemical Technology, Prague, Czech Republik* and P. Mader; *Czech University of Agriculture, Suchdol, Prague, Czech Republik*

The Certification of Coal Reference Materials as an Example of Method-dependent Certification of Reference Materials for Quality Control

A. van der Veen; *Nederlands Meetinstituut (NMI), Delft, The Netherlands*

Gaseous Reference Materials - a Challenge in Preparation and Stability

M. Hedrich, H.-J. Heine; *Federal Institute for Materials Research and Testing (BAM), Berlin, Germany*

Matrix Reference Materials for the Organic Environmental Analysis

I. Nehls, T. Win; *BAM, Berlin, Germany*

Uses of Matrix Reference Materials

H. Steger; *Canada Centre for Mineral and Energy Technology, Ottawa, Canada*

Uses of Certified Reference Materials (Based on ISO Guide 33)

E. Deak; *National Office of Measurements (OMH), Budapest, Hungary*

Metrological and Accreditation Conditions with Regard to Reference Materials and its Producers

R. Kaarls; *Nederlands Meetinstituut (NMI), Delft, The Netherlands*

Overview on the Activities at ISO/REMCO; COMAR - The International Database on Certified Reference Materials

H. Klich; *BAM, Berlin, Germany*

Are We Clear on the Function of Matrix Reference Materials?

P. De Bievre; *European Commission, Joint Research Centre, Institute for Reference Materials and Measurements (IRMM), Geel, Belgium*

Practical Aspects on the Use of Reference Materials in a Chemical Research Laboratory

V. Komppa; *VTT Chemical Technology/EURACHEM, Espoo, Finland*