

Short practical course

Monday: February, 15th

16-20h H. Höfer: Basics of the SEM/EDS systems

Tuesday: February, 16th

10-16h H. Höfer: Coating by gold and carbon of different materials

Wednesday: February, 17th

10-16h H. Höfer: Chemical analyses of different materials

Thursday: February, 18th

15-19h H. Höfer: Chemical analyses of different materials

Friday: February, 19th

15-19h H. Höfer, A. Gerdes: Cathodoluminescence

Number of participants is limited (max 7).

Lecturers

Dr Heidi Höfer, Dr Axel Gerdes,

Dr Marina Lazarov

Goethe University, Frankfurt, Germany

Dr David Alderton

Department of Earth Sciences
Royal Holloway, University of London
United Kingdom

Dr Stefan Weyer

University of Cologne, Germany

Dr Dirk Frei

Geological Survey of Denmark and Greenland, Ministry
of Climate and Energy, Denmark

Dr Mihály Posfai

Department of Earth and Environmental Sciences,
University of Pannonia, Hungary

Dr Trajče Staffilov

Cyril and Methodius University, Faculty of Science,
Macedonia

Dr Biljana Škrbić

Faculty of Technology, University of Novi Sad, Serbia

Dr Robert Šajn

Geological Survey of Slovenia, Slovenia

Dr Milica Kašanin-Grubin

Educons University, Sremska Kamenica, Serbia

Dr Aleksandar Pačevski

Faculty of Mining and Geology,
University of Belgrade, Serbia

MSc Božidar Đokić

Geological Institute of Serbia, Serbia

MSc Dušan Kojić

University of Belgrade,
Faculty of Mechanical Engineering, Serbia



Microanalytical techniques in applied Earth sciences



Date:

February 15th-26th 2010

Seminar Venue:

Serbian Academy of Sciences and Arts (18th-26th 2010)

SEM-EDS laboratory (Short practical course 15th-19th 2010)

www.rgf.bg.ac.rs/restca

The RESTCA project team members (FP7 project - REinforcing S&T CAPacities of Two Emerging Research Centers for Natural and Industrial Pollutant Materials in Serbia and Slovenia) invite you to the seminar:

Microanalytical techniques in applied Earth science

Objective of the seminar

Participants of the seminar will be introduced with the analytical procedures and theoretical limits of different microanalytical techniques which are applied in geology and other scientific disciplines.

Target group

Researchers and PhD students who are interested in microanalytical techniques of investigating solid samples. Number of participants is limited (max 40).

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Time table - Conference Hall (Serbian Academy of Sciences and Arts)

Thursday: February, 18th
9-14h

A. Gerdes: Sector field ICP-MS coupled to laser ablation: basics and applications with particular emphasis on trace element and isotope analysis of microparticles
M. Posfai: TEM studies of individual atmospheric aerosol particles

Friday: February, 19th
9-14h

A. Gerdes: Isotope analyses using Multi-collector ICP-MS: basic and applications with emphasis on long-lived radio nuclides (e.g., U, Pu and Th isotopes) in the environment from Iraq and Elbmarsch, Northern Germany
A. Pačevski: SEM-EDS laboratory of the UB-FMG: first applications

Saturday: February, 20th
9-14h

A. Pačevski: SEM-EDS study of waste material from the Lipa copper deposit, East Serbia
A. Pačevski: Microprobe study of sulfide minerals from the Čoka Marin polymetallic deposits
A. Pačevski: Coupled use of reflected-light, X-ray diffraction and electron microprobe techniques for mineral identification and ore textures study: some examples

Monday: February, 22nd
9-15h

S. Weyer: Analyses of solid materials by X-ray fluorescence
M. Lazarov: Measurements by μ XRF: advantages and disadvantages
D. Alderton: Mining-related pollution
D. Alderton: Characterisation and Remediation of waste materials

Tuesday: February, 23rd
9-15h

S. Weyer: Analyses of „non-traditional“ stable isotope systems with MC-ICP-MS and application in geo- and environmental sciences
D. Frei: In-situ stable isotope analysis of geomaterials – techniques and applications
B. Škrbić: FP7 REGPOT projects as a way to bridge R&D transnational gaps: the CEFSEER project
B. Škrbić: Heavy elements in the environmental and food matrices: empirical and chemometrical approach - overview of research activities of the group from Faculty of Technology

Wednesday: February, 24th
9-15h

T. Stafilov: Determination of trace elements in minerals by atomic absorption spectrometry and instrumental neutron activation analysis
T. Stafilov, R. Šajn, Z. Pančevski, B. Boev, M.V. Frontasyeva, L.P. Strelkova: Distribution of heavy metals and surface soil due to industrial pollution
T. Stafilov, L. Peeva, B. Nikov, A. de Koning: Industrial hazardous waste in the Republic of Macedonia

Thursday: February, 25th
9-15h

R. Šajn: Environmental geochemical investigation in Slovenia - an overview
R. Šajn, J. Aljagić: EU 7th Framework Program Presentation (RESTCA-TERCE-NIMPSS) Slovenian activities and cooperation of GeoZS in geochemical investigation in former Yugoslavia
M. Lazarov: Analytical techniques for mine-waste characterization (tracing distribution and mobility of metals in environment)
D. Kojić, L. Matija, Đ. Koruga: NanoLab: 20 years of Experience in Nanotechnology at Faculty of Mechanical Engineering, University of Belgrade

Friday: February, 26th
9-15h

B. Đokić: Flotacijsko jalovište Zlokućanski potok
M. Lazarov: Stable isotopes in mine-waste tailings: Implications on source and mobility of elements during transport and deposition
M. Kašanin-Grubin: Application of microanalytical techniques in the research of hillslope processes