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## German Mineralogical Society

### APPLICATION OF SOLID STATE NMR SPECTROSCOPY IN MINERALOGY AND GEOSCIENCE

#### Report on the 2007 Short Course of the Deutsche Mineralogische Gesellschaft

The working group on NMR spectroscopy at the Ruhr University Bochum, headed by Dr. Michael Fechtelkord, extended an invitation to researchers to attend the short course "Application of Solid State NMR Spectroscopy in Mineralogy and Geoscience" between May 29 and June 1, 2007. Participants from many areas, from Bochum, Copenhagen, and Innsbruck, took part in the course. For the first time this year, students who successfully participated in a final examination could earn 3 ECTS credit points.



With eleven participants and a PhD student from the NMR working group who supported the participants during the course, the group was complete by the morning of May 29. Even if there were still some tired faces, due in part to long journeys, the morning started with an introduction to the topic of solid state NMR spectroscopy. The course was adjusted to suit each participant because some of the attendees were new to the field while others were already active in solid state NMR spectroscopy. After lunch, and an opportunity for foreign participants to view the Ruhr Valley from the department vantage point, the first measurements of the  $1\text{H}$  spin lattice relaxation and dynamics of tetramethylammonium iodide were accomplished. Following detailed evaluation of the data, the group proceeded to a more convenient

subject. Regional differences and the meaning of the Eurovision song contest were discussed in a nice pub at the end of the day.

The second day included the study of different interactions, like the magnetic dipolar interaction and chemical shift anisotropy, and how these can be averaged out by the MAS (magic angle spinning) technique. The theory was then practiced using a phlogopite sample. Different experimental spectra were fitted with the WinFit program package.

On the third day, the cross polarization technique and its application to a kaolinite sample were the main topics. Later, the participants enjoyed a bowling evening accompanied by a lively exchange of ideas. The last day was dedicated to the quadrupolar interaction and the application of SATRAS (satellite transition spectroscopy). In the late afternoon the participants left Bochum to travel home. We would like to thank Michael Fechtelkord and his PhD student Ramona Langner for their valuable support during the course, for providing hot coffee, and for answering all questions before and during the course.

**Anna Lena Gritzuhn**  
Kiel

### DMG SHORT COURSES FOR GRADUATE STUDENTS IN 2008

#### 18–22 February 2008

HIGH-PRESSURE EXPERIMENTAL TECHNIQUES AND APPLICATIONS TO THE EARTH'S INTERIOR

– Bayerisches Geoinstitut, Universität Bayreuth, Universitätsstraße 30, D-95447 Bayreuth, Germany

CONTACT: Stefan Keyssner  
stefan.keyssner@uni-bayreuth.de  
www.bgi.uni-bayreuth.de

#### 3–7 March 2008

EMISSION (LUMINESCENCE) AND ABSORPTION SPECTROSCOPY: BASIC PRINCIPLES AND APPLICATIONS IN GEOSCIENCES

– Institute of Mineralogy and Crystallography, University of Vienna, Althanstr. 14, A-1090 Vienna, Austria

CONTACT: Lutz Nasdala  
lutz.nasdala@univie.ac.at

#### 13–16 May 2008

APPLICATIONS OF SOLID STATE NMR SPECTROSCOPY IN MINERAL AND GEOLOGICAL SCIENCES

– Institute of Geology, Mineralogy and Geophysics, Ruhr-Universität Bochum, Universitätsstr. 150, 44780 Bochum, Germany

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www.ruhr-uni-bochum.de/dgk-ak12/indexdmgshort.htm

#### 9–12 September 2008

ELECTRON BEAM MICROANALYTICAL TECHNIQUES

– FU Berlin, Malteserstr. 74-100, 12249 Berlin and the GFZ Potsdam, Telegrafenberg, D-14473 Potsdam, Germany

CONTACT: Rainer Abart  
abart@zedat.fu-berlin.de

#### 6–10 October 2008

IN SITU ISOTOPE AND TRACE ELEMENT ANALYSIS IN GEOSCIENCES USING LASER ABLATION MASS SPECTROSCOPY

– Johann-Wolfgang von Goethe Universität Frankfurt, Institute of Geosciences, Senckenberganlage 28, 60054 Frankfurt, Germany

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**GEOCHEMISTRY OF THE EARTH'S SURFACE 8**

Natural History Museum  
London UK  
18–22 August 2008

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European Association for Geochemistry (EAG)  
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CONFERENCE TOPICS:  
Mineral weathering  
Synchrotrons in environmental science  
Global geochemical cycles and climate change  
Contaminated environments and toxicology  
Biomineralisation  
Environment and Human Health

THE EARLY REGISTRATION AND ABSTRACT DEADLINE WILL BE 15 MARCH 2008.

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