

FROM THE PRESIDENT



Dear members of the DMG,

Time is running and we are rapidly approaching the end of 2018. Thus, it is time to have a look back on the past year. The annual meeting of the German Mineralogical Society (Deutsche Mineralogische Gesellschaft, DMG), the DGGV (Deutsche Geologische Gesellschaft-Geologische Vereinigung), and the PalGes (Paläontologische Gesellschaft), under the auspices of the DVGeo (Dachverband der Geowissenschaften) was held 2–6 September 2018. This joint conference was organized by the Steinmann Institute of the University of Bonn (Germany). Under the theme “The Living Earth and its Materials”, the meeting provided a multidisciplinary stage on which to discuss a variety of sub-themes relating to the Earth and material sciences.

This excellently organized conference was a real success, with more than 700 participants, many of whom came from all over the world. A notable success was the participation of many young researchers who could appreciate both the diversity and the interconnectedness of the different mineralogical, geological and paleontological sub-disciplines. Sincere thanks go to the organizing committee, especially to Ambre Luguët, Robin Strack, and Nikolaus Froitzheim (all University of Bonn), who did a fantastic job.

One of the highlights of the meeting were the DMG awards. The committee of the **Paul Ramdohr Award** for the best oral student presentation honoured Jessica Starke (University of Tübingen, Germany) for her excellent presentation at GeoBremen 2017. Congratulations also go to Ulrich Bismayer (University of Hamburg, Germany) for the **Abraham Gottlob Werner Medal** in silver, which is the highest award given by the DMG for outstanding original research. Oliver Plümper (Utrecht University, The Netherlands) received the **Victor Moritz Goldschmidt Prize** for outstanding young scientists. And the **Beate Mocek Prize**, which recognises young female scientists specializing in petrology and geochemistry, was given to Jaayke L. Fiege (University of Hannover, Germany). Congratulations also go to new DMG honorary members Klaus Heide (University of Jena, Germany) and Walter Maresch (Ruhr University Bochum, Germany).

As President of the DMG, I would like to announce that the next DMG meeting (GeoMünster 2019) will be held 22–25 September 2019 in Münster in conjunction with the DGGV. The title of GeoMünster 2019 will be, “Earth! – Past, Present, Future”.

After two years as President of the DMG, it is already time for me to pass my responsibilities on to Reinhard X. Fischer, who has my best wishes for the next two years. Since 1995, Reinhard has been Professor of Crystallography at the University of Bremen (Germany). His expertise in crystallography covers a wide range from ocean sediment research, to the theoretical systematics of crystal structures, to special aspects of the development of high-performance materials. This latter quality of his will undoubtedly help continue to promote the field of “applied material sciences” as one of the DMG’s cornerstones of mineralogical research in Germany.

My work as president relied on your support, and I want to thank all of you who generously supported me during the last two years; in particular, the council and commission members; François Holtz; and, especially, Klaus-Dieter Grevel for all help, effort and support.

Lastly, I would like to raise a – for me – important point regarding our society. I want to encourage the foreign industrial and academic scientists who work in Germany in the various fields of mineralogy to

participate in our national society. *You are welcome!* A strong national science society, such as the DMG, is essential to adequately represent our total community at national and international levels.

I hope to see you September 2019 in Münster, and I wish all DMG members a Merry Christmas and a Happy New Year!

All the best and Glückauf,
Reiner Klemd (DMG President)

DMG AWARDS FOR 2018



The **Beate Mocek Prize** is dedicated to supporting the mineralogical research of young female scientists, in particular in the fields of petrology and geochemistry. This year, the prize is awarded to **Jaayke Fiege** (Leibnitz University Hannover, Germany; and the American Museum of Natural History, New York, USA). In her PhD thesis, she investigated the formation of Kiruna-type [i.e. magnetite–apatite–actinolite deposits

associated with epizonal intermediate plutons] iron oxide–apatite (IOA) deposits, which represent one of the most important sources for iron worldwide. In her model, she proposes the buoyant ascent of magnetite crystals attached to ascending exsolved gas bubbles during magma decompression. In her work, she combines investigations on natural samples from the Los Colorados IOA deposit (Chile) with experiments, where decompression of such melts was simulated. With the money from the Beate Mocek Prize, she will attend an international conference to present her research.



The **Paul Ramdohr Award** is given for the best student contribution at the previous year’s annual meeting of the DMG. The 2017 awardee is **Jessica Starke** (University of Tübingen, Germany). The DMG honours her excellent presentation, which was entitled “Latitudinal Variation (15°S23°S) in Denudation along the Western Andean Margin (Peru and Chile): Insights from Cosmogenic ¹⁰Be” and which was presented at the GeoBremen meeting in September 2017.



The **Victor Moritz Goldschmidt Prize** goes to **Oliver Plümper** (Utrecht University, The Netherlands) for his outstanding scientific work and fundamental contributions in the field of mineralogy.

In his recent work, Oliver Plümper provides a substantial contribution to the mechanistic understanding of fluid flow in crystalline rocks. He takes an interdisciplinary approach to investigating fluid flow at different size scales. His work is based on field observations and high-resolution methods, such as transmission electron microscopy, nano-tomography and Raman spectroscopy. He uses data from these techniques to develop evidence-based models that incorporate thermodynamic and molecular dynamics methods. Taking this approach, he was able to show the mechanisms of large-scale fluid-induced alteration, using the example of the continental crust. Dr. Plümper considers that fluid-induced alteration of the crust can be explained by the sum of smallest scale processes. He has also studied the dehydration behaviour of subducted oceanic crust and showed that channelized structures form instantly as a result of dehydration-induced porosity. This indicates that channelized porosity is a common dehydration mechanism in rocks.



The **Abraham Gottlob Werner Medal** in silver is the highest award of the German Mineralogical Society and honours outstanding contributions to research in mineralogy and closely related fields. The 2018 medal is granted to **Ulrich Bismayer**, professor at the University of Hamburg (Germany) for his excellent and influential research record in pure and applied mineralogy and for his superb record of mentorship and teaching.

Ulrich Bismayer has done groundbreaking work to advance hard-mode Raman spectroscopy, an inelastic optical scattering method that can be used to investigate local reorganization phenomena at the atomic scale. This is highly relevant for understanding ferroelectric microchips, recrystallization phenomena in radiation damaged minerals, and the analytics of nanoparticles in biominerals.

Professor Bismayer's research has also substantially increased our understanding of the coupling mechanisms of order parameters in ferroic phase transitions, which allows the quantification of the thermodynamic stability behaviour of minerals. In addition, he has done very important and influential work on diffuse scattering experiments to investigate disordering phenomena, thermally induced phase transitions, and the structure of radiation damaged minerals as analogs for a possible matrix material for long-term actinide disposal.

Ulrich Bismayer has also done significant research in applied mineralogy. In fact, he holds a patent for a material based on nano-hydroxyapatite which is suitable as a denture and bone replacement material.

GEOLOGY OF ORE DEPOSITS (GOOD) MEETING

Continuing the success of the three previous Geology of Ore Deposits (GOOD) meetings in Freiberg, Hannover, and Erlangen (all Germany), we would like to invite all young researchers in the field of ore deposit geology to the GOOD Meeting 2019 at Jacobs University Bremen (<https://www.jacobs-university.de/>).

The now-annual GOOD conference aims to connect young professionals – BSc, MSc and PhD students, plus early career PostDocs – from all disciplines in ore deposit geology. All participants will have the opportunity to present and discuss their ongoing research, or previous work, with an audience on a level playing field. Plenary speakers will be announced soon.

4th GOOD Meeting 2019 – Bremen / Key dates:

- **Ice breaker:** 23 January 2019
- **Presentations:** 24–25 January 2019
- **Field trip:** 26 January 2019



For further details contact
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Franziska Klimpel, Nadine Weimar (Bremen)

CPKM AND AMITU WORKSHOP 2019

The next joint workshop of DMG's Chemistry, Physics and Crystallography of Minerals (CPKM) and Applied Mineralogy in Technique and Environment (AMiTU) sections will take place 27 February–1 March 2019 in Bad Windsheim (Germany, in the northern region of Bavaria). As always, the major aim of this workshop is to bring students in contact with experienced scientists in order to discuss the students' recent and future scientific work. For further information contact christoph.berthold@uni-tuebingen.de.

DMG SHORT COURSES 2019

In 2019, DMG will support eight short courses. All courses will be aimed primarily at advanced-level undergraduate and graduate students but, as always, are open to more senior researchers as well. Nonlocal student members of DMG will be eligible for travel support to the amount of €50. Further information can be found at <https://www.dmg-home.org/aktuelles/doktorandenkurse/>.

(1) **High-Pressure Experimental Techniques and Applications to the Earth's Interior.** Bayerisches Geoinstitut/University Bayreuth, 18–22 February 2019. Contact Dr. Florian Heidelbach, (florian.heidelbach@uni-bayreuth.de).

(2) **Crystal Structure Refinement with JANA2006.** Institute of Geosciences/General and Applied Mineralogy, Friedrich-Schiller-University Jena (Germany), 11–13 March 2019. Organised by Dr. Václav Petříček, Dr. Michal Dušek, and Dr. Jakub Plášil (all Institute of Physics, Academy of Sciences, Prague, Czech Republic), Prof. Juraj Majzlan. Contact Alexandra Plumhoff, (alexandra.plumhoff@uni-jena.de).

(3) **Exploration Geology: Ore-Deposit Geology, Alteration Geochemistry and Ore Interpretation.** Institut für Geo- und Umweltnaturwissenschaften, Albert-Ludwigs-Universität Freiburg (Germany), 18–21 March 2019. Organised by Prof. David Dolejš, Dr. Denis Schlatter, Katerina Schlöglová, Dr. Malte Junge, (david.dolejs@minpet.uni-freiburg.de).

(4) **Solid-State NMR Spectroscopy** (Anwendungen der Festkörper-NMR-Spektroskopie in der mineralogischen und geowissenschaftlichen Forschung). Institute for Geology, Mineralogy and Geophysics, Ruhr University Bochum, 11–14 June 2019. Contact Dr. Michael Fechtelkord (michael.fechteltkord@rub.de).

(5) **Basics and Applications of the Rietveld Method.** Max-Planck-Institut für Festkörperforschung Stuttgart, tba September 2019. Prof. Robert E. Dinnebier (Arbeitskreis Pulverdiffraktometrie der DGK) (www.fkf.mpg.de/xray).

(6) **Radiogenic and Non-Traditional Isotopes: Analytical Methods and Applications.** Institut für Geosciences, Geozentrum Goethe University Frankfurt, tba September/October 2019. Dr. Axel Gerdes (gerdes@em.uni-frankfurt.de).

(7) **In Situ Analysis of Isotopes and Trace Elements by Femtosecond Laser Ablation ICP-MS** (In situ-Analyse von Isotopen und Spurenelementen mit (MC-) ICP-MS gekoppelt mit Femtosekunden-Laserablation). Institute for Mineralogy, Leibniz University Hannover, 7–11 October 2019. Organised by Dr. Ingo Horn, Dr. Stephan Schuth, Dr. Marina Lazarov, Dr. Martin Oeser, Prof. Stefan Weyer and others (s.weyer@mineralogie.uni-hannover.de).

(8) **Introduction to Secondary Ion Mass Spectrometry in the Earth Sciences.** Helmholtz Centre Potsdam – GFZ German Research Centre for Geosciences, 18–22 November 2019. Dr. Michael Wiedenbeck (michael.wiedenbeck@gfz-potsdam.de).