

German Mineralogical Society

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FROM THE PRESIDENT



Dear members and friends of the DMG,

After two years as the president of DMG, I am writing the society news one last time. Here, I wish to reflect on these two years.

Being a DMG president is a rewarding task. The DMG is not just an "association." The DMG comprises of many enthusiastic members that do science to high standards, a board that is highly committed to their tasks and for which

it has never been difficult to recruit new members. A motivated group of undergraduates and doctorate students is making us aware of justified concerns. A lot has been going on.

The nasty virus never managed to silence us. Our board has spent many evenings looking at "tiles," and even these meetings have been lively.

What were the highlights? The introduction of a medal bearing the name of Germany's first female mineralogy professor. The workshop "Future of Mineralogy" in April 2022, where 60 members, including many young participants, passionately debated the contents, opportunities, wishes, and potential risks to the society in any future set-up. Our $100^{\rm th}$ annual conference in Cologne in September 2022 was a highlight, with a festive symposium and "four generations talk" over how science has been done now and then.

At the same time, I was a vice president of the DVGeo, the umbrella organisation of the German geo-societies. With a vision for the future and an eye for the big picture, we completed an intensive program. Public symposia, panel discussions, the re-establishment of the "Conference of Geoscience Departments," and a group to support large collaborative projects in the geosciences have been initiated by DVGeo over the past two years.

In this group, we embarked on a big issue: how do we align the many geoscientific societies that exist in Germany into a form that they can meet today's challenges? Most of the challenges facing humanity today require analyses and solutions from the geosciences. Yet, with the field being spread over numerous small geoscience societies, our ability to provide this service to society is strongly impaired. We will need to develop means to make the public aware of our contributions: here we are, we are those who can help shape the future of a planet under stress, and of humans whose livelihoods are under threat in many parts of the world.

The DMG can play a decisive role in this development. A true asset is our diversity of subjects, from the regulation of the Earth system to the new materials we will need for a zero–greenhouse gas future. Regardless of whether the organizational structure of the geo-societies will change, and how, I would like to appeal to all members to get actively involved in the scientific public discourse. Sessions at our conferences, DVGeo symposia, the GMit, and most importantly, *Elements Magazine*, in which we are the fourth largest sponsoring society, are established outlets with substantial reach. They are all waiting for our contributions!

As of 1 January, Horst Marschall from Frankfurt will take over as DMG president. With Horst, we have an excellent new chairman who, I am sure, will move the DMG forward into new frontiers. I wish him all the best. I will continue to support the DMG Board as vice president for another year.

Yours,

Friedhelm von BlanckenburgPresident of the DMG

DORIS SCHACHNER MEDAL TO KERSTIN LEHNERT

Kerstin Lehnert is the preeminent figure getting the geochemical community engaged in making our data "FAIR" (Findable, Accessible, Interoperable, Reusable). Her efforts began 25 years ago with the collection



DMG president Friedhelm von Blanckenburg honors Kerstin Lehnert. PHOTO: L. MÜLLER-RUHE.

of MORB compositional data in the PetDB database, in parallel with the GEOROC database, which focused on ocean island basalts. Based on this early start, she founded the EarthChem data platform, which today links several curated databases (GEOROC, PetDB, NAVDAT, GANSEKI, USGS) on an international basis. These initiatives formed the basis for "digital geochemistry," paying the way for new scientific questions and insights.

Kerstin Lehnert also designed and established the International Geosample Number IGSN (recently renamed the International Generic Sample Number). This turned out to be an extremely important initiative that now extends far beyond geochemistry and is in the process of becoming a reliable, international system for registering physical samples and materials in all sciences. Her efforts included the tireless promotion of these initiatives (and a lot of air miles) to present her vision at national and international conferences, to scientific societies, funding agencies, and publishers. To support her group at the Lamont-Doherty Earth Observatory (USA), she secured funding from NSF and NASA over many years. More recently, she has developed the Astromaterials Data System for cosmochemical data, funded by NASA, and has been a leader in the creation of the "One Geochemistry" initiative, an international group that aims to unite and network various initiatives worldwide to provide an ever-growing number of curated and interoperable geochemical databases of consistent and optimal quality. She is one of the driving forces behind COPDESS, a platform that connects the requirements for FAIR geochemical data with international publishing bodies and editors in our science. Since the beginning of her work with geochemical data, collaboration with geoscience data systems and initiatives in Germany has played an important role, especially with GEOROC, DIGIS, GFZ data services, MetBase, and NFDI4Earth.

In addition to her earlier research in igneous geochemistry, she has now also published extensively on the topic of FAIR data in geochemistry and cosmochemistry.

Dr. Lehnert received her PhD in mineralogy from the University of Freiburg (Germany) in 1989 under Prof. Dr. J. Keller, and worked for 11 years at the MPI for Chemistry in Mainz (Germany) in the group of Al Hofman in the field of geochemistry. She moved to Lamont (USA) in 1996, where she began developing the PetDB database and building the EarthChem platform. She was honored with the Geochemical Society's Distinguished Service Award in 2013, by the Geological Society of America in 2017 for her Outstanding Contribution to Geoinformatics, and received EGU's Ian McHarg Medal in 2018 for her outstanding contributions to geoinformatics and pioneering efforts for open, transparent, and reproducible science.

The German Mineralogical Society (DMG) recognizes her enormous contribution and service to our science for FAIR geochemical data with the award of the Doris Schachner Medal. Doris Schachner was the first female professor in Germany in the field of mineralogy (at RWTH Aachen from 1949 to 1972) and the medal named after Doris Schachner is awarded by the DMG for "services to the advancement of mineralogical sciences." Kerstin Lehnert is recognized for her determined work and vision and appropriately honored as the first recipient of the Doris Schachner Medal of the German Mineralogical Society in 2022.

Gerhard Wörner (Göttingen)

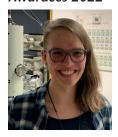
DMG YOUNG SCIENTIST AWARDS

Call for Applications 2023

At the annual meeting of the German Mineralogical Society (DMG), the **Paul Ramdohr Award** is given for the best oral and poster presentations by a student. Student DMG members may apply when submitting an abstract for the 101st annual DMG meeting in 2023 (https://minwien2023.univie.ac.at/). The application form can be downloaded from https://www.dmg-home.org/fileadmin/user_upload/Form-Paul-Ramdohr-Preis_v2023.pdf.

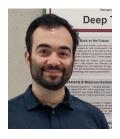
To support mineralogical research by young female scientists, in particular in the fields of petrology and geochemistry, the DMG awards the **Beate Mocek Prize**. Female undergraduate or PhD students who are also a member of the DMG are eligible to apply. This prize was created in memory of the geochemist and petrologist Beate Mocek by her family to encourage young women to study mineralogical sciences. Please submit your application no later than 31 January 2023 to Horst Marschall (marschall@em.uni-frankfurt.de).

Awardees 2022



In 2022, the **Beate Mocek Prize** was awarded to **Catharina Heckel** (Goethe University Frankfurt, Germany). As part of her PhD project, this prize should enable her to carry out highly spatially resolved Fe³⁺ analyses with EPMA using the "flank method" to determine the oxygen fugacity. This would provide a more accurate picture of the nature of deformation-related metasomatism in so-called "cold" sheared peridotites. In addition to her scientific work,

Catharina, as deputy equal opportunities councilor in her department, is committed to equal opportunities for women in science and thus gets to the heart of the Beate Mocek Prize.



Eric Alexander Runge (University of Tübingen, Germany) received the **Paul Ramdohr Award** for his presentation at GeoMinKöln 2022, which took place from September 11 to 15 in Cologne, Germany. In his lecture on "The taphonomic fate of biominerals in hydrothermal sulfide systems – implications for the reconstruction of microbial life in deep time," Eric reported how he used SEM-EDS, μXRD, Raman spectroscopy, and sequential Fe extraction to determine the

characteristics of synthetic and biogenic Fe minerals compared with minerals in modern and ancient hydrothermal sulfide deposits. This helps us to better understand the formation and even the preservation of microbial biosignatures in hydrothermal environments and thus makes an essential contribution to the reconstruction of (early) microbial life.



Furthermore, **Marie C. Gentzmann** (BAM, BGR, MfN, Berlin, Germany) won the **Paul Ramdohr Award** for her poster, which was also presented at GeoMinKöln 2022. In this poster about "The story of Sc in bauxite residues and its journey from ore to waste to value," Marie presents her results of combined experimental wet chemical, microtextural, and structural analyses. These detailed mineralogical investigations of bauxite residues of different geological

backgrounds and the behavior of Sc during the extraction process by

leaching give insights into the changes in Sc associations from ore to tailings depending on the primary bauxites and the chosen leaching conditions.

Andreas Wittke, Mannheim

Victor Moritz Goldschmidt Prize to Sarah Incel



Sarah Incel is a young experimental mineralogist with the potential for a great future in science. She has already impressively demonstrated in her early career that she knows how to establish herself on the international research stage. Sarah's research combines mineralogy with geophysics to understand the influences of mineral reactions and transformations on earthquakes and the interplay of fluid flow and rock failure in the Earth's crust. Sarah uses a combi-

nation of experiments, microanalyses, thermodynamic calculations, and geophysical measurement methods to do this. In this way, Sarah has already been able to show how the processes involved in the eclogitization of blueschists in subduction zones can lead to earthquakes. This is something that has been suspected based on natural observations for more than 30 years, but has never been shown experimentally. Sarah was also able to show how and under what conditions feldspar and serpentine transformations can lead to earthquakes, and based on these experimental observations, built state-of-the-art microphysical models that provide direct "input" for the interpretation of geophysical observations. Of course, Sarah's international mobility comes with multiple new beginnings in a new scientific and cultural environment: new labs and new research mindsets. Therefore, it is even more impressive that Sarah has understood that quality in her research trumps quantity in her "research output." Sarah Incel is a worthy recipient of the 2022 Victor Moritz Goldschmidt Prize of the German Mineralogical Society.

Oliver Plümper, Utrecht (The Netherlands)

DMG SHORT COURSES 2023

- (1) **High-Pressure Experimental Techniques and Applications to the Earth's Interior**, Bayerisches Geoinstitut/University Bayreuth, Florian Heidelbach, 20–24 February 2023 (florian.heidelbach@uni-bayreuth.de)
- (2) Application of Diffusion Studies to the Determination of Timescales in Geochemistry and Petrology, Institute for Geology, Mineralogy and Geophysics, Ruhr University Bochum, Prof. Dr. Sumit Chakraborty, Dr. Ralf Dohmen, 27–31 March 2023 (sumit.chakraborty@rub.de)
- (3) **Solid-state NMR Spectroscopy**, Institute for Geology, Mineralogy and Geophysics, Ruhr University Bochum, Dr. Michael Fechtelkord, 30 May–2 June 2023 (michael.fechtelkord@rub.de)
- (4) In situ Analysis of Isotopes and Trace Elements by Femtosecond Laser Ablation ICP-MS, Institute for Mineralogy, Leibniz University Hannover, Ingo Horn, Marina Lazarov, Martin Oeser, Stefan Weyer, 25–29 September 2023 (s.weyer@mineralogie.uni-hannover.de)

ELEMENTS OCTOBER 2022