

## 🖁 German Mineralogical Society

### www.dmg-home.org

#### **DMG YOUNG SCIENTIST AWARDS**

#### Call for Applications 2022

The Paul Ramdohr Award is given for the best oral and poster presentations by a student at the annual meeting of the German Mineralogical Society (DMG). Student DMG members may apply when submitting an abstract for GeoMinKöln 2022, the 100<sup>th</sup> annual DMG meeting. The application form can be downloaded from https://www.dmg-home. org/fileadmin/user\_upload/Form-Paul-Ramdohr-Preisallg\_v2022.pdf.

The Beate Mocek Prize of the DMG is dedicated to supporting mineralogical research of young female scientists, in particular in the fields of petrology and geochemistry. Female undergraduate or PhD students who are also members of the DMG are eligible to apply for this prize, which was created in memory of the late petrologist and geochemist Beate Mocek by her family to encourage young women to study mineralogical sciences. Please submit your application by 31 January 2022 to DMG President Friedhelm von Blanckenburg (fvb@gfz-potsdam.de).

#### Awardees 2021

In 2021 the Beate Mocek Prize was awarded to Leanne Schmitt (University of Applied Sciences Georg Agricola, Bochum) and to Lisa Kaatz (Freie Universität Berlin).

The aim of Leanne Schmitt's project

"Geochemistry and Mineralogy of Volcano-Sedimentary Iron Ore Systems - from Sedimentation to Metamorphism" is to develop

a genetic model and paleoenvironmental tracers

of Lahn-Dill-type iron ores, as well as to estab-

lish classifiable signatures for comparison with

the greater class of submarine volcano-sedimen-

tary ore systems. Her modern sub-micron scale

analyses financed with the prize money will help

to answer key questions on mobilization, trans-

port, and depositional processes of metal

Lisa Kaatz is working on the topic "Coupling

Deformation with Fluid Flow and Mineral

Reactions based on Natural Shear Zones - from

Field Observations to Numerical Simulations".

In the first part of her thesis, she described the

distribution of the H<sub>2</sub>O content in nominally anhydrous minerals (NAMs) and its effect on shear zone formation and widening on the island of Holsnøy (Norway). The OH contents of NAMs



Leanne Schmitt



Lisa Kaatz

were determined using Fourier transform infrared (FTIR) spectroscopy, in cooperation with J. Hermann's group at the university of Bern (Switzerland). Lisa Kaatz will use the stipend to finalize her dissertation. She is going to develop a model of water-rock interactions in shear zone networks by numerical simulations, together with colleagues from Lausanne (Switzerland).

compounds in general.



Dominik Mock



**Iohannes** Pohlner

The 2021 Paul **Ramdohr** Awardees are Dominik Mock (University of Hannover, Germany) and Johannes Pohlner (University of Fribourg, Switzerland). The prize committee honoured Dominik

Mock's excellent talk entitled "Sill Intrusions in lower Oceanic Crust: Implications from Drill Core GT1 of the Oman Drilling Project", which was presented at the virtual emc<sup>2020</sup> organized by the colleagues from Cracow (Poland) this year. Johannes Pohlner impressed the committee with his poster "Inter-Mineral Fe Isotope Fractionation in Eclogites of the Münchberg Massif (Germany) as a Function of Oxidation State". The awards will be presented at the 100<sup>th</sup> annual DMG meeting, 11–15 September 2022, Cologne.

#### **ANNUAL DMG MEETING 2022**



GeoMinKöln 2022 11-15 September 2022 University of Cologne SUBMIT YOUR SESSION NOW



geominkoeln2022.de

- 1. Mineralogy in the 21<sup>st</sup> Century: From Geological Processes to Crystallography and New Materials
- 2. Early Evolution of the Earth and the Solar System: **Building Habitable Worlds**
- 3. Dynamics of the Deep Earth: From the Core and Mantle to Continents
- Plate Tectonics and Orogenic Processes 4.
- 5. The Earth System and Global Change
- 6. Earth Surface Processes and Sedimentology
- Keys to Biosphere Dynamics: Geobiology and Paleontology
- 8. The Human Footprint: Applied and Environmental **Geosciences & Archeometry**
- 9. Energy, Materials, Resources
- 10. Outreach, Education, and Geosciences in Society
- 11. Open Sessions

#### 6<sup>th</sup> GOOD MEETING, CLAUSTHAL-ZELLERFELD. 6-8 OCTOBER 2021

After a long period without opportunities to meet in person, the 6<sup>th</sup> GOOD (Geology of Ore Deposits) Meeting took place at Cutec and TU Clausthal in Clausthal-Zellerfeld 6-8 October 2021 under application of a strict 3G (COVID 19 vaccinated, cured, or tested) and hygienic concept. The meeting was organized by ore-deposit researchers from Clausthal and the "Rohstoffforschung" working group of the DMG. Following a break of almost two years, the meeting continued the successful previous GOOD meetings in Freiberg (2016), Hannover (2017), Erlangen (2018) and Bremen (2019). Students (BSc, MSc, PhD) and young researchers from nine different institutions enthusiastically took the opportunity to present their research results or student degree theses and to expand their networks.

ELEMENTS

### SOCIETY NEWS



Participants of the 6<sup>th</sup> GOOD meeting in Clausthal-Zellerfeld (Germany).

The introductory keynote lecture given by Prof. Max Wilke (Potsdam) on the application of synchrotron radiation in ore petrology was followed by a high-quality and diverse program of presentations and an entertaining poster session. Manuel Scharrer and Nicolas Meyer (both Tübingen) were awarded for the best talk and the best poster, respectively, voted by the audience. On the last day, the practical parts of the meeting were carried out; in the morning a three-hour seminar by Dr. Wilfried Ließmann (TU Clausthal) on ore microscopy took place. This was followed in the afternoon by a tour to the historic mines at Beerberg in St. Andreasberg, led by Dr. Wilfried Ließmann and Dr. Stephanie Lohmeier (TU Clausthal). The next GOOD meeting will take place in Potsdam in 2022!

Jonas Alles, Wilfried Ließmann (Clausthal) & Torsten Graupner (Hannover)

#### **SHORT COURSE REPORT**

# High-Pressure Experimental Techniques and Applications to the Earth's Interior

The Bavarian Geoinstitute (BGI) in Bayreuth managed to organize their 23<sup>rd</sup> annual short course entitled High-Pressure Experimental Techniques and Applications to the Earth's Interior despite the pandemic. Deviating from the usual five-day short course in February, this year's hybrid course featured several online lectures that provided the theoretical framework for the students. These were combined with a three-day practical, for which the participants were divided into two groups of six. While the second group still awaits their chance at the end of September, six students already had the opportunity to work in the BGI labs from July 19<sup>th</sup> to 21<sup>st</sup>.

The short course showed the wide variety of cutting-edge high-pressurehigh-temperature techniques employed at the BGI. Covering the whole range of pressures from Earth's crust to its core, the students helped prepare experiments in the piston cylinder, multi-anvil press, and the diamond anvil cell. In contrast to the HP–HT experiments stood a cold deformation experiment using BGI's independently acting anvil press. Although the pressure of 10 GPa was similar to the previous multianvil experiment, the temperature of around -100 °C, was more than 1,000 °C lower. Combined with the online lectures, all these practicals



Participants of the high-pressure short course during the practicals in the deformation (LEFT) and multianvil (RIGHT) laboratories at BGI.

demonstrated the difficult steps needed to prepare the experiments and offered a comprehensive overview of each method. In addition, students learned how to prepare and analyze samples recovered from the experiments. Using the online lectures as a theoretical framework once more, the short course illustrated spectroscopic methos such as Fourier-transform infrared, Raman, and Mössbauer spectroscopy. These were followed by very sensitive chemical measurements using the LA-ICP-MS, as well as microscopic techniques such as SEM and TEM.

Complementing the intense scientific lessons was an after-work meeting for beer and pretzels on Tuesday evening. A casual atmosphere allowed for very interesting talks with the experienced scientists, including on non-scientific topics.

Overall, this course gave a broad understanding of experimental and analytical methods for the study of Earth's interior. Now that the young scientists know the advantages and disadvantages of each technique, they can judge which methods to use in their own future work. For students who also wanted to obtain 2 European credit transfer system credits for the short course, an optional exam was prepared at the end.

The students were very thankful for the opportunity to come to the Geoinstitute despite the pandemic: it allowed them to meet passionate scientists and discover the impressive equipment at BGI. The course is recommended to all students interested in experimental techniques or the study of Earth's interior.

#### Laurine Rey (Zürich), Martin Keseberg (Freiberg)