



Montanuniversität  
Leoben



**Department of Applied Geosciences and Geophysics,  
Technical University of Leoben**

# **MinPet 2025**

**Mineralogy and Petrology**

From Fundamental Research to Applications in Industry

*Second Circular*

**September 21-23, 2025**

**Leoben, Austria**

<https://www.unileoben.ac.at/minpet-leoben/>



***Biennial Meeting of The Austrian Mineralogical Society***

## Meeting

The biennial MinPet meetings provide a platform for presenting new scientific ideas, networking between academia and industry, and promoting interdisciplinary activities. The 19<sup>th</sup> MinPet meeting is to be held from 21 to 23 September 2025 in Leoben under the patronage of the Austrian Mineralogical Society (ÖMG).

It will offer an interesting scientific program on mineralogy, petrology and related disciplines covering the wide spectrum of fundamental to applied research. The conference will furthermore emphasize all aspects of mineralogy related to the raw materials cycle as well as the materials and environmental sciences.

Topics will be presented as oral or poster presentations. Contributions by Early Career Scientists are especially welcome. The conference languages are German and English. The scientific program will be complemented by excursions and a social program.

The conference is organized by the Chairs of Resource Mineralogy and Geology and Economic Geology of Technical University of Leoben (Montanuniversität Leoben).

More detailed information is available on the conference webpage:

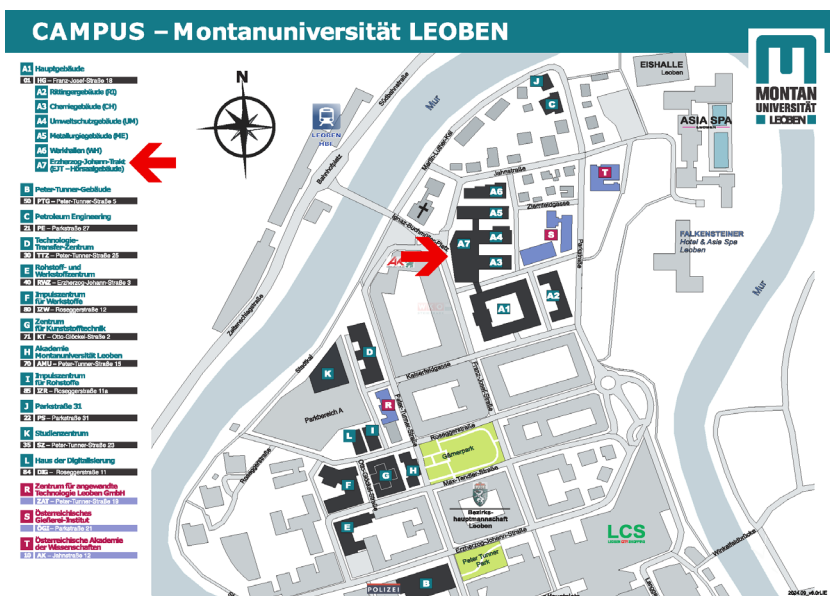
<https://www.unileoben.ac.at/minpet-leoben/>

## Important Dates and Deadlines

Abstract submission	30 June 2025
Early rate registration and payment	30 June 2025
Field trip registration	30 June 2025
Final program and third circular	15 August 2025

## Conference Venue

The conference will be held at Montanuniversität Leoben, Erzherzog-Johann Trakt, Franz-Josef-Straße 18, 1<sup>st</sup> floor – Entrance and registration: Ignaz Buchmüllerplatz, 8700 Leoben.



Conference location at Erzherzog-Johann Trakt, Main University building (A7)

## Scientific Program

### Session 1: Mineralogy and Crystallography - a Modern Perspective

Conveners: Tamara Đorđević, University of Vienna; tamara.djordjevic@univie.ac.at; Ronald Bakker, Technical University of Leoben; ronald.bakker@unileoben.ac.at

This session will focus on the transformative role of modern analytical techniques in advancing the frontiers of mineralogy and crystallography. Methods such as electron diffraction, synchrotron studies, transmission electron microscopy (TEM) have revolutionized our ability to study minerals at unprecedented scales and resolutions. These techniques provide critical insights into complex phenomena such as defect structures, phase transitions, and the nanoscale behavior of minerals, offering new perspectives on long-standing scientific questions.

The application of these state-of-the-art methods extends beyond pure mineralogical research. They are increasingly being used in environmental studies, where understanding the interactions between minerals and their environment is crucial to addressing issues such as pollution remediation, carbon sequestration and resource recovery. Spectroscopic techniques, including Raman and X-ray absorption spectroscopy, complement these tools by providing powerful means to probe chemical compositions, electronic states and bonding environments in minerals.

We warmly encourage master's and PhD students to attend this session. Whether you are just beginning your research journey or seeking inspiration for advanced studies, this session will provide valuable insights, foster meaningful connections, and serve as an excellent platform for exchanging ideas with leading experts in the field. Your participation and fresh perspectives are not only encouraged but highly valued.

### Session 2: Mineral Raw Materials

Conveners: Phillip Gopon, Technical University of Leoben; phillip.gopon@unileoben.ac.at; Clifford Patten, University of Innsbruck; clifford.patten@uibk.ac.at

With the rapid de-carbonization of our infrastructure, the world is facing a raw materials shortage to achieve energy transition. This session will focus on raw materials, with a particular focus on those raw materials necessary for the energy transition, i.e. critical raw materials. Any contributions dealing with raw materials and/or the processes that form ore deposits are welcome. These might include the economics of raw materials or hydrothermal, orogenic, magmatic, and/or sedimentary processes. Those abstracts dealing with critical metals, and particularly critical metal deposits in Europe are especially welcome.

### Session 3: Applied and Environmental Mineralogy

Conveners: Martin Dietzel, Technical University Graz; martin.dietzel@tugraz.at, Ferdinand Hampl, Technical University of Leoben; ferdinand.hampl@unileoben.ac.at

This session invites contributions on the broad and dynamic field of Applied and Environmental Mineralogy, encompassing both classical and cutting-edge topics. We encourage submissions addressing industrial and (geo)chemical applications of mineralogy, such as contributions on glass/refractory/processing materials, tailored mineral nucleation/growth, clay mineralogy, natural and artificial building stones, (low-carbon) cements, mineral carbonation / carbon sequestration, mineral-based solutions for environmental pollution and remediation, waste disposal and treatment, archaeometry etc. Additional focus areas include isotope and geochemical forensics, and innovative analytical, multi-proxy and experimental approaches. By fostering interdisciplinary dialogue, this session will highlight the role of mineralogy in addressing the understanding of mineral (trans)formation kinetics and mechanisms considering industrial challenges and environmental sustainability.

### Session 4: Metamorphic and Igneous Petrology

Conveners: Bastian Joachim-Mrosko, University of Innsbruck; bastian.joachim@uibk.ac.at; Johann Raith, Technical University of Leoben; johann.raith@unileoben.ac.at

This session focuses on recent advances in metamorphic and igneous petrology providing a comprehensive view of the processes that shape the Earth's crust and mantle. Presentations in this session may highlight innovative experimental, analytical or modelling approaches, including high P-T experiments, geochemical and isotopic studies, phase equilibrium modelling and field-based investigations. Emphasis will also be placed on the role of petrology in unravelling tectonic processes, crust-mantle interactions, and the shallow and deep cycling of trace elements. This session aims to encourage interdisciplinary collaboration and discussion. Researchers, students and professionals interested in the mineralogical, structural and geodynamic aspects of petrology are therefore encouraged to attend.

### **Session 5: Chronology of Geological Processes**

Conveners: Daniela Gallhofer, University of Graz; [daniela.gallhofer@uni-graz.at](mailto:daniela.gallhofer@uni-graz.at); Etienne Skrzypek, University of Graz; [etienne.skrzypek@uni-graz.at](mailto:etienne.skrzypek@uni-graz.at)

Constraining the age or rate of a geological process involves two important steps. First, a precise and accurate analysis of the geological material has to be performed. Second, the interpretation of analytical data must consider the physico-chemical conditions at which the material formed or evolved. This is a crucial approach to turn a date into the age of a geological event. This session wishes to bring together researchers dealing with one or both aspects. The session welcomes contributions that aim at constraining the absolute age, time span or rates of various processes like magmatic activity, metamorphic reaction, pressure-temperature evolution, mineralization, mass transfer or exhumation. We particularly look forward to receiving studies about the petrogenesis of both classical and less common geochronometers. Studies dealing with analytical aspects will also be welcome.

### **Session 6: Environmental / Low-temperature Geochemistry**

Conveners: Andre Baldermann, Technical University Graz; [baldermann@tugraz.at](mailto:baldermann@tugraz.at); Franziska Stamm, Technical University Graz; [fstamm@tugraz.at](mailto:fstamm@tugraz.at)

The terrestrial and marine biogeochemical cycles of elements in Earth surface environments are closely coupled with the evolution of life and driven by energy and material fluxes between the atmosphere, biosphere, hydrosphere, pedosphere and lithosphere. Understanding the direction and magnitude of the complex processes that control fluxes in low-temperature settings of Earth's (re)active surface is key to decipher mineral/rock-fluid interactions in general and to assess various dissolution-precipitation phenomena occurring at solid-liquid interfaces from the nanoscale to the global scale. This session brings together research focused on the geochemistry and mineralogy of surface-near (sedimentary and raw mineral) deposits using field studies and laboratory-based experimental studies at various spatiotemporal resolution, as well as their integration with reaction transport and hydrochemical modeling. Themes that are covered by this session include, but are not limited to: 1) processes (e.g., weathering phenomena, global element cycles, fluid mixing, kinetics vs thermodynamics), 2) controls (e.g., climate change, ecosystems, fluid chemistry, crystal structures), 3) reactions (e.g., anthropogenic influences, pollution, element mobilization vs complexation, mineral (trans)formation in aqueous systems) and 4) approaches (e.g., isotopes and tracers, in-situ analysis, modelling, novel methods). We also attempt to find synergies with other proposed sessions.

### **Session 7: Analytical and Experimental Methods**

Conveners: Róbert Arató, Technical University of Leoben, [robert.arato@unileoben.ac.at](mailto:robert.arato@unileoben.ac.at); Thomas Meisel, Technical University of Leoben, [thomas.meisel@unileoben.ac.at](mailto:thomas.meisel@unileoben.ac.at)

This session invites submissions from the broad field of experimental methods and geoanalytics. We welcome studies related to mineralogical and/or geochemical experiments, which aim at a better understanding of geological systems. We also invite contributions about the detailed analysis of mineralogical-geochemical systems via various analytical tools, which can include (but should not be restricted to) Raman- and IR spectroscopy, (LA)-ICP-MS, LIBS as well as electron-beam and X-Ray-based techniques and any combination of these. We welcome submissions

focusing on fundamental geochemical questions but also on applied approaches dealing with raw material-related and society-related challenges. Studies at all stages from experiment planning to data analysis, and methodological development at any stage, are invited encompassing a broad spatial range from micro to global scale.

### Session 8: Open Session

Convener: Viktor Bertrandsson Erlandsson, Technical University of Leoben,  
viktor.erlandsson@unileoben.ac.at

This Open Session invites researchers from various fields related to mineralogy and/or petrology to present and discuss their latest work and exchange ideas across disciplines. Whether you are exploring new theoretical frameworks, applying novel methodologies, or addressing pressing challenges, this session provides a platform for diverse perspectives and groundbreaking research.

We encourage contributions from all areas of mineralogy and petrology, as well as from interdisciplinary projects that bridge gaps between fields, which do not fit to the other, typical, established sessions.

### Invited and Public Lectures

Invited lectures will be integral part of the program. Speakers and titles will be announced in the third circular.

The public lecture on "*Katzengold & Silberfisch*" will be given by Dr. Robert Krickl (Brunn am Gebirge).

The Society for Geology Applied to Mineral Deposits (SGA) sponsors an invited keynote talk given by Dr. Manuel Keith, GeoZentrum Nordbayern, "*Unravelling magmatic-hydrothermal processes by mineral micro-analysis*".

### Planned Schedule

Saturday	September 20	<ul style="list-style-type: none"> <li>• Pre-conference Excursion A: Arzberg Historic Pb-Zn mine</li> </ul>
Sunday	September 21	<ul style="list-style-type: none"> <li>• Pre-conference Excursion B: Mineral collection R. Pomberger; 1/2 day</li> <li>• Leoben Guided City Tour; afternoon</li> <li>• Ice breaker party, evening</li> </ul>
Monday	September 22	<ul style="list-style-type: none"> <li>• Official conference opening</li> <li>• Scientific sessions (oral, posters)</li> <li>• Public lecture, evening</li> <li>• Conference dinner, evening</li> </ul>
Tuesday	September 23	<ul style="list-style-type: none"> <li>• Scientific sessions (oral, posters)</li> <li>• Closing ceremony</li> </ul>
Wednesday-Thursday	September 24-25	<ul style="list-style-type: none"> <li>• Bruker workshop on XRD and XRF</li> </ul>

## Abstracts and Presentations

Participants are invited to submit a presentation (oral, poster) in the fields of the scientific program. **The deadline for abstract submission is 30 June 2025.** Instructions and a template can be downloaded from the conference webpage. Please strictly follow this format when preparing your abstract! [Abstract submission form.](#)

We accept a maximum of two (one oral + one poster) presentations per registered attendee. The organizers reserve the right to reassign oral to poster presentations.

Time slots for **oral presentations** are 15 minutes (12 minutes for presentation + 3 minutes for discussion).

**Poster** format is max. A0 in portrait format (A0 Hochformat; 84.1 x 118.9 cm, width x height). Posters will be displayed in the central display area on the 1<sup>st</sup> floor of Erzherzog Johann Trakt during the whole conference.

Abstracts will be published and printed in hard copy as a regular issue of the Mitteilungen der Österreichischen Mineralogischen Gesellschaft (ÖMG).

Abstracts can only be finally accepted for publication after registration of the first/presenting author and receipt of payments.

## Student Poster Award

The Austrian Mineralogical Society (ÖMG) will award prizes for the three best poster presentations by M.Sc. or Ph.D. students (as first author). The posters will be evaluated by a committee during the whole duration of the conference. Each prize amounts to 200 €.

Participants should register for the Poster Award at the time of on-site registration (confirmation of student status needed) and will receive a sticker to be displayed with their poster. They are expected to be present during poster sessions to explain their work.

## Excursions

### Excursion A: Arzberg Historic Pb-Zn Mine and Cheese Tasting

Saturday 20 September 2025, one day excursion

Guides: Frank Melcher, Annika Geringer

Costs: € 35.-; includes entrance fees, transport and cheese tasting (drinks are not included).

Maximum number of participants: 16; first come first serve!

### Excursion B: Mineral Collection R. Pomberger, Eisenerz

Sunday 21 September 2025, half-day excursion

Guide: Roland Pomberger

Costs: € 10.-; includes transport costs

Maximum number of participants: 7 (!); first come first serve!

### Leoben Guided City Tour

Sunday 21 September 2025, ca. 1.5-2 hours tour in the afternoon

Guide: Sophie Zeiler-Mahrous

Language: German/English

Costs: € 15.-; Minimum number of participants: 10 (!)

For details see <https://www.unileoben.ac.at/minpet-leoben/program/excursions/>

## Exhibition, Sponsors and Workshop

Companies are offered the opportunity to present their products and services in connection with the meeting activities. For further information please contact the organisers and check the conference webpage under [Partners](#) on the conference web page.

There will be a **free of charge post-conference workshop** on XRD and XRF held by Bruker AXS SE from 23-24 September at Montanuniversität Leoben. The workshop language will be German and there is a limit of max. 20 participants. For details and separate registration see [Workshop](#) on the conference web page.

## Registration Info

For registration please use the [Online registration form](#).

Reduced registration fees are offered until 30 June 2025. After that date the regular registration fees are valid. For members of the society (ÖMG) and students reduced registration fees are offered.

The registration fee includes the conference documents, abstract volume (printed volume of Mitteilungen ÖMG), non-alcoholic drinks during session breaks, free buffet and drinks at the icebreaker party.

Accompanying persons are welcome. Their fee includes participation at the icebreaker party.

Please note that the conference dinner and excursions are not included but must be booked separately, also for accompanying persons.

There is no extra charge for submission of abstracts. For submission use the form provided in the menu [Abstracts](#) on the conference home page.

	Early registration, until 30 June 2025	Regular registration, after 30 June 2025
Non-ÖMG member	180,00 EUR	210,00 EUR
ÖMG member	150,00 EUR	180,00 EUR
Student*	60,00 EUR	80,00 EUR
ÖMG student member*	40,00 EUR	60,00 EUR
Accompanying person	40,00 EUR	60,00 EUR
Conference dinner	50,00 EUR	50,00 EUR

\* Students must provide evidence that they are actively enrolled in a Bachelor /Master /PhD program. Confirmation ("Studienbestätigung") must be sent to [minpet@unileoben.ac.at](mailto:minpet@unileoben.ac.at) as part of the registration.

**Payment can only be made by bank transfer.** After receipt of your registration, you will receive an invoice for the contributions to be paid and banking details via email within the next days. With the invoice, your registration will be bindingly confirmed.

## Payment Conditions

After receipt of your registration, you will receive an invoice for the contributions to be paid and banking details via email within the next days. With the invoice, your registration will be bindingly confirmed.

Payment must be made by bank transfer payable to:

**Montanuniversität Leoben** – Chair Resource Mineralogy

Please specify the reason of payment: **MinPet 2025**

**IBAN AT18 2081 5000 4126 9432**  
**BIC STSPAT2GXXX**

## **Cancellation Policy**

Registration fees will only be refunded if the notice of cancellation is received until 31 July 2025. The cancellation fee is €50. Cancellations after 31 July 2025 and no-shows are not eligible for a refund.

A change of attendance is possible until 31 July 2025. The processing fee is €50. There is no reason (including but not limited to illness) for registration cancellation that makes the above-mentioned deadline for cancellations inapplicable.

## **Accommodation**

Participants can find general info on accommodation in Leoben (all categories) at <http://www.tourismus-leoben.at/essen-schlafen/gastronomie.html>.

Hotel Kongress ([www.hotelkongress.at](http://www.hotelkongress.at)) and Hotel Kindler ([www.hotelkindler.at](http://www.hotelkindler.at)) offer special rates for conference delegates (please refer to MinPet 2025 when booking).

If you need help please contact the organising committee for information and assistance.

## **Address for Correspondence and Information**

### **Daniela Tatschl**

MinPet 2025 c/o Chair of Resource Mineralogy, Montanuniversität Leoben, Peter-Tunner Straße 5, 8700 Leoben; phone: +43-3842 402 6201

Email: [minpet@unileoben.ac.at](mailto:minpet@unileoben.ac.at)

Homepage: <https://www.unileoben.ac.at/minpet-leoben/>



## **Organising Committee**

Johann G. Raith, Ronald Bakker, Frank Melcher, speakers of the committee

Daniela Tatschl, Brigitte Mang, secretaries

Ferdinand J. Hampf

Monika Feichter

Maik Zimmermann

Phillip Gopon

Róbert Arató

Viktor Erlandsson Bertrandsson

Heinrich Mali

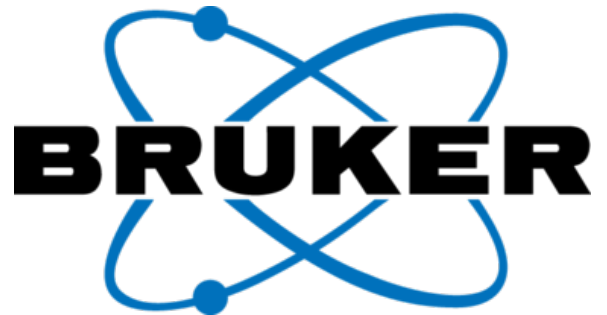
Robert Krickl, editor ÖMG Mitteilungen

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