

Workshop 4-5 July, 2022





Geochemistry and Mineralogy of Calcium Carbonate Polymorphs





Organizer:

Péter Németh (Institute for Geological and Geochemical Research, Hungary)





Calcium carbonates are ubiquitous on the Earth's surface. In addition to being the dominant constituents of marine and freshwater sediments and sedimentary rocks, they form the shells of unicellular organisms, mollusks, as well as many other organisms. Although calcite is the thermodynamically stable calcium carbonate form at ambient conditions, both anhydrous (aragonite and vaterite) and hydrous (monohydrocalcite, ikaite, amorphous calcium carbonate) varieties occur in nature and can be prepared in the laboratory. Despite decades of research, major questions remain regarding their structure, stability, property, crystallization process and growth (and the roles biological activity and chemical variability play in these processes), and their geochemical significance. The linkage between the occurrence of a specific carbonate polymorph and its geochemical environment is incompletely understood. A major issue includes the relevance of carbonate syntheses for understanding the formation conditions of natural samples.

The workshop will provide a platform for (geo)chemists, carbonate sedimentologists, (bio)mineralogists and crystallographers to exchange data and ideas about calcium carbonate polymorphs and their geochemical importance.





Regional Centre of the Hungarian Academy of Sciences Headquarters in Veszprém (Hungary), 04.07.2022 (Monday) - 05.07.2022 (Tuesday).



8200 Veszprém, Vár utca 37







20 minute talks on July 4 and 5.



Dinner and wine sampling in Balatonfüred on 05.07.2022.





Optional excursion to Csodabogyós cave (Balatonederics) on 06.07.2022.



List of participants

In person

Christoph Spötl (University of Innsbruck, Austria) Yuri Dublyansky (University of Innsbruck, Austria) Gabriella Koltai (University of Innsbruck, Austria) Martin Dietzel (Graz University of Technology, Austria) Katja Götschl (Graz University of Technology, Austria) Michael Wedenig (Graz University of Technology, Austria) Stefanie Eichinger (Graz University of Technology, Austria) Jean-Michel Brazier (Graz University of Technology, Austria) Adrian Immenhauser (Ruhr University Bochum, Germany) Pavel Gavryushkin (Novosibirsk State University, Russia) Silvia Frisia (University of Newcastle, Australia) Enrico Mugnaioli (University of Pisa, Italy) Georgina Lukoczki (University of Kentucky, USA) Attila Demény (Institute for Geological and Geochemical Research, Hungary) Mihály Pósfai (University of Pannonia, Hungary) István Dódony (University of Pannonia, Hungary) Zsombor Molnár (University of Pannonia, Hungary) Péter Pekker (University of Pannonia, Hungary) Kornél Rácz (University of Pannonia, Hungary) János Haás (Eötvös Loránd University, Hungary) Kinga Hips (Eötvös Loránd University, Hungary) Anett Lázár (Institute for Geological and Geochemical Research, Hungary) Nóra Lange-Enyedi (Institute for Geological and Geochemical Research, Hungary) György Czuppon (Institute for Geological and Geochemical Research, Hungary) Kende Béres (Eötvös Loránd University, Hungary)

Online

Marco Bruno (University of Torino, Italy) Giovanna Della Porta (University of Milan, Italy) Aleksander Rečnik (Jožef Stefan Institute, Slovenia) Laurence A. J. Garvie (Arizona State University, USA







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