



Austrian Mineralogical Society



www.univie.ac.at/OeMG

HISTORY

The Austrian Mineralogical Society is one of the oldest mineralogical societies in the world. Initially founded as the Wiener Mineralogische Gesellschaft in 1901, this society was renamed the Österreichische Mineralogische Gesellschaft (ÖMG) in 1947.

The current membership of the ÖMG is spread throughout Austria, although an increasing number of members come from other countries, partly through scientific collaboration and partly due to the mobility of the Austrian members. Society members work in all disciplines of the mineralogical sciences. One of the ÖMG's major aims is to distribute knowledge of the mineralogical sciences to all interested persons; this is partly done by collaborating with mineralogical museums. Bringing together academic and professional mineralogists with mineral collectors and with the interested public is a special focus of the ÖMG. Mineral collectors' knowledge of mineral localities and finds of unique samples are highly welcome and too-often neglected by the scientific community. Lectures on mineralogical topics at different levels are regularly organized by university-based mineralogical institutes and museums, and the ÖMG sponsors joint meetings and field excursions.

Initially, news from ÖMG were printed in journals such as the *Zeitschrift für Kristallographie Mineralogische und Petrographische Mitteilungen* (later renamed *Tschermaks Mineralogische und Petrographische Mitteilungen* but now known simply as *Mineralogy and Petrology*). Since 1969, the *Mitteilungen der Österreichischen Mineralogischen Gesellschaft* has been published yearly as a separate journal. This journal includes society news, abstracts of scientific contributions to meetings, and original contributions. (see www.uibk.ac.at/mineralogie/oemg/).

AWARDS

The ÖMG presents four awards to persons with special merits in the mineralogical sciences and in the society. Individuals of outstanding international reputation, who publish important contributions to the mineralogical sciences, as well as those who render outstanding services to the society, may be elected by the General Assembly as an **Honorary Member (Ehrenmitglied)**. Among the first in the long list of such members were Viktor Mordechai Goldschmidt, Rudolf Koechlin and Isidor Weinberger. Current Honorary Members of the ÖMG include Walter Postl, Anton Preisinger, Richard Tessadri, Ekkehart Tillmanns and Josef Zemann.

In 1955, the ÖMG introduced the **Friedrich Becke Medal** for internationally renowned scientists with strong links to the mineralogical sciences in Austria. The medal is awarded in memory of Friedrich

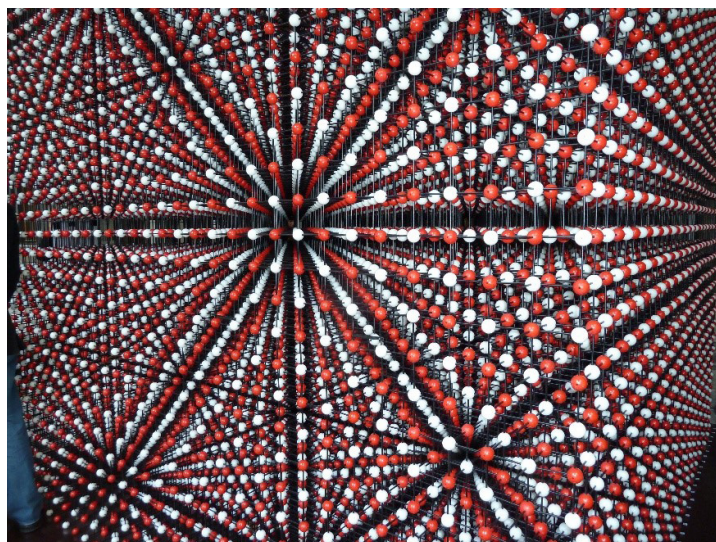


The Friedrich Becke Medal designed by Arnold Hartig (1878–1972; member of the Vienna Künstlerhaus)

Johann Karl Becke (1855–1931), who held a number of professorial appointments across the Austro-Hungarian Empire. Amongst other positions, he was Rector at the University of Vienna, and editor of the *Mineralogische und Petrographische Mitteilungen*. Becke's research focused on magmatic and metamorphic rocks and their classification. He improved the determination of rock-forming minerals by means of their light-refractive properties the Becke line technique for determining the relative refractive indices of two minerals. Those who have been awarded the Friedrich-Becke-Medal include Thomas Armbruster (Switzerland), Petr Černý (Canada), Dmitry Grigoriev (Russia), Wilhelm Heinrich (Germany), Klaus Langer (Germany), Emil Makovicky (Denmark), Dmitry Pushcharovsky (Russia), George R. Rossman (USA) and Friedrich Seifert (Germany).

The **Felix Machatschki Prize**, established in 1995, is awarded to young scientists who have demonstrated scientific potential early in their carrier. Recipients include Ronald Miletich (1998), Rainer Abart (1999), Peter Tropper (2004), Günther J. Redhammer (2004), Robert Krickl (2010) and Hannes Krüger (2012). The prize is named after the distinguished Austrian mineralogist **Karl Ludwig Felix Machatschki** (1895–1970). Machatschki studied at the University of Graz and joined the groups of Victor Moritz Goldschmidt in Oslo (Norway) and W. L. Bragg in Manchester (UK). He became professor at the Universities of Tübingen and Munich (both Germany) before he was appointed Professor of Mineralogy in Vienna (1944). He made great contributions to the study of feldspars and developed a concept of the atomic arrangement in silicates.

A special honour bestowed by the ÖMG is the title of **Honorary President (Ehrenpräsident)**. Although it was only formally included into the society's statutes in 1934, it had been previously awarded. Recipients of this honour have been Gustav Tschermak (1911), Friedrich Becke (1931), Josef Emanuel Hibschi (1932), Hermann Julius Tertsch (1969) and Hans Wieseneder (1971). On 24 May 2013, the title of Honorary President of the ÖMG was awarded to Josef Zemann, on the occasion of his 90th birthday.



This model of the structure of halite was built by Robert Krickl and exhibited in Vienna's Town Hall in 2015. At 3 m tall, it is recognized in the *Guinness Book of Records* as the largest 3D-model of an atomic structure.

ÖMG'S MINPET MEETINGS

Since 1987, members of the ÖMG meet every second year at what is termed the MinPet (for mineralogy and petrology) meeting. This meeting is organized in turn by the mineralogical institutes in Graz, Innsbruck, Leoben, Salzburg, and Vienna. In addition, joint meetings have been co-organized with the other European societies and several international conferences have been sponsored by the ÖMG. These include the EMC meetings, the 5th European Conference on Mineralogy and Spectroscopy (2004), the EMU School on Spectroscopic Methods in Mineralogy (2004), and the 2005 International Eclogite Conference.

A special event was the 100th anniversary of ÖMG's foundation in 2001, which was, appropriately, held in Vienna.

Herta Effenberger (herta.silvia.effenberger@univie.ac.at) and **Rainer Abart** (rainer.abart@univie.ac.at)



www.ima-mineralogy.org

HOW TO DEFINE, REDEFINE OR DISCREDIT A MINERAL SPECIES?

The Commission on New Minerals, Nomenclature and Classification (CNMNC) was created by the International Mineralogical Association (IMA) in 2006 by merging the Commission on New Minerals and Mineral Names (established in 1959) with the Commission on Classification of Minerals (established in the 1980s). The CNMNC is one of the most active commissions within the IMA because it is in charge of all aspects of mineral species definition, naming, nomenclature, and classification. It is constituted by four officers and 34 members, representing the countries affiliated to the IMA. The national representatives are designated by the national mineralogical societies; their nominations are independent of the CNMNC itself. However, when a member is not active, or does not follow the CNMNC rules, the IMA officers may contact the corresponding national society to ask for a replacement of the member.

To define a new species, it is necessary, prior to publication, to pass a new mineral proposal through the CNMNC. A new mineral checklist is available on the CNMNC website (<http://nrmima.nrm.se/>), comprising a template in which all key data on the potential new species have to be reported: occurrence, appearance, physical and optical properties, chemical data, X-ray powder diffraction data, unit-cell parameters and space group, crystal structure and relationship to other species. Proposals are handled by the chairman, who carefully checks the data before assigning an official IMA number to the proposal. It is then forwarded to the CNMNC members for direct voting, with a two-month deadline. The members have to vote separately on the validity of the mineral, and on its name. A two-thirds voting majority is required for the acceptance of both.

Nomenclature proposals have to be submitted to the 1st Vice-Chairman, in a free publication-type format. These proposals mainly concern name modifications, species discreditations, revalidations or redefinitions, as well as type/neotype sample (re)definitions. To change a mineral name, good scientific arguments are necessary: a name cannot be modified for personal conflicts of interest. The CNMNC guidelines require authors to preserve historical and well-established mineral names (Hatert et al. 2013). For species revalidations or discreditations, it is recommended that the original type specimens, if available, be investigated in detail. If the type samples are missing, historical samples from the type locality, and/or investigations by the original authors of the mineral, may also be used. The redefinition of chemical formulae must pass through the CNMNC when some significant modifications occur, as for example when a new chemical element is added to or subtracted from the formula. However, if new data just show slight modifications of atomic ratios in the formula, as for example when the number of water molecules is revised, it is generally not necessary to submit a nomenclature proposal. In such cases, the data may be published without CNMNC approval, though we encourage authors to send a copy of the paper to the CNMNC 2nd Vice-Chairman in order to update the CNMNC official mineral list (<http://ima-cnmc.nrm.se/imalist.htm>). Such modifications are then noted in the *CNMNC Newsletter* (Mills, 2010).

The procedure to handle nomenclature proposals depends on the complexity of the proposal. When the proposal is quite simple and straightforward, a direct voting procedure is applied, with a maximum deadline of two months. However, if the proposal is more complex, a two-step procedure is applied, with a first round of comments, and a second round for voting. The comments of the CNMNC members are sent to the authors after the first round, and the new proposal, which takes these comments into account, is sent to the members for voting. This long procedure may take approximately four months.

Group nomenclature and classification proposals are handled by the Secretary. The guidelines for the classification of mineral groups were published by the CNMNC in 2009 (Mills et al. 2009). The establishment of an official CNMNC list of mineral (super)groups is in progress.

The commission's website is handled by the Chairman, and contains the new mineral checklist, all CNMNC published nomenclature and groups proposals, a list of unnamed mineral species, an official mineral list, and the *CNMNC Newsletter*. This newsletter presents recently accepted new minerals and changes to nomenclature, and it is published on a bimonthly basis in the *Mineralogical Magazine* and *European Journal of Mineralogy*. Its editor is the 2nd Vice-Chairman, who also updates the official IMA-CNMNC mineral list at the same time. We encourage all members of the mineralogical community to visit our website (<http://nrmima.nrm.se/>), where all documents are freely available.

Finally, we would like to underline the involvement of the CNMNC members, who work on a volunteer basis for the commission: thank you so much! This represents a huge task: nowadays, no less than 120 new mineral, ten nomenclature and two group proposals are handled each year. The work of the CNMNC can be compared to a classical review process in scientific journals. The main difference is that the proposals are evaluated by up to 34 reviewers, thus ensuring a good reliability of the CNMNC evaluation process. All authors are encouraged to submit their proposals to the CNMNC. They will be forwarded to the members if they are scientifically grounded and follow our guidelines. However, as in all scientific publications, it may appear that some mineralogists do not agree with our decisions; this is particularly sensitive when mineral species are discredited or renamed. In that case, the authors are free to submit a proposal to revalidate or rename the species; if it is scientifically grounded, the CNMNC may modify its decision. Neither the IMA, the CNMNC, nor its individual members and officers may be considered as legally responsible for any decision. We all act as volunteers to ensure a consistent mineral nomenclature, in order to facilitate the progress of mineral science.

Frédéric Hatert (1st Vice-Chairman, CNMNC)¹

Marco Pasero (2nd Vice-Chairman, CNMNC)²

Stuart J. Mills (Secretary, CNMNC)³

Ulf Hålenius (Chairman, CNMNC)⁴

REFERENCES

- Hatert F, Mills SJ, Pasero M, Williams PA (2013) CNMNC guidelines for the use of suffixes and prefixes in mineral nomenclature, and for the preservation of historical names. *European Journal of Mineralogy* 25: 113-115
- Mills SJ (2010) The early publication of new mineral names: new procedures for the release of new mineral names and publication. *CNMNC Newsletter* 1. *Mineralogical Magazine* 74: 179-182
- Mills SJ, Hatert F, Nickel EH, Ferraris G (2009) The standardization of mineral group hierarchies: application to recent nomenclature proposals. *European Journal of Mineralogy* 21: 1073-1080

1 Laboratoire de Minéralogie, Université de Liège, B-4000 Liège, Belgium – fhatert@ulg.ac.be

2 Dipartimento di Scienzedella Terra, Università di Pisa, Via Santa Maria 53, I-56126 Pisa, Italy – marco.pasero@unipi.it

3 Geosciences, Museum Victoria, PO Box 666, Melbourne, Victoria 3001, Australia – smills@museum.vic.gov.au

4 Department of Geosciences, NaturhistoriskaRiksmuseet, Box 50007, SE-104 05 Stockholm, Sweden – ulf.halenius@nrm.se



European Mineralogical Union

www.eurominunion.org

MARC BLANCHARD AWARDED 2017 EMU RESEARCH EXCELLENCE MEDAL



The European Mineralogical Union's Research Excellence Medal Committee evaluated the productivity, the innovativeness, and interdisciplinarity of the publication record of four candidates who were proposed for the 2017 Research Excellence Medal. Unanimously, the committee ranked Marc Blanchard as the strongest candidate and arranged the substantiation that is quoted below.

"The 2017 EMU Research Excellence Medal has been awarded to Marc Blanchard, Centre National de la Recherche Scientifique (CNRS) at Université Paul Sabatier, Toulouse (France), in recognition of his outstanding contributions to the geochemistry of volatile elements in the Earth, to the modeling of stable-isotope fractionation processes involving minerals and aqueous solutions, and to the preservation of biomaterials. Marc elegantly and successfully combined experimental and theoretical quantum chemical approaches to unravel the atomic-scale parameters that control the contribution of minerals to Earth geochemical dynamics. He demonstrated the ability of mastering ab initio calculations and at the same time of speaking the language of isotope geochemists. He is at the forefront of Mineral Physics research, and at the same time nearby to more applied and societally relevant problems, such as those related to the transport and sequestration of arsenic in contaminated environments.

Marc Blanchard has several active collaborations with leading scholars both in Europe and overseas. Such collaborations have attracted important financial supports by regional funding agencies, by the French National Research Agency, as well as by European funding tools. The broad field encompassed by the research activities of Marc Blanchard thus strongly strengthens the links between Mineralogy and many other scientific fields, from Environmental Science to theoretical Physics."

And here is what Marc Blanchard says about the award and his research:

"I am truly honoured to receive the 2017 EMU medal for research excellence. It means a lot to me, especially when I look at the names of the previous laureates.

From the beginning, during my mineralogy studies, I was fascinated by the way the chemical elements arrange, interact at the molecular scale. This interest conducted me to use theoretical tools of molecular modeling based on quantum physics despite my background of geoscientist. These models allow me to unify the observations derived from mineralogy techniques (especially spectroscopies) and isotopic geochemistry. Because the fundamental processes occurring at the mineral level prevail in many physical chemical conditions, I had the opportunity to work on topics going from deep Earth to environmental issues.

This kind of experience, which is mine, would be impossible without an excellent working environment (both human and scientific), and, of course in my case, without the CNRS, which trusts me. That is why I am deeply grateful to all my colleagues who helped me taking on the various theoretical and experimental techniques, and the various scientific domains. I cannot list here all of them but they will recognize themselves, in particular at the DFRL and UCL (London) where I was post-doc, at the IMPMC (University Paris 6) where I started my CNRS career and at the GET (University Toulouse 3) where I did my PhD thesis and where I am back now.

I also thank my colleagues from the French society of mineralogy and crystallography (SFMC). It is a pleasure for me to be involved in a group of motivated people working for the community."



International Mineralogical Association

www.ima-mineralogy.org

2017 MEDAL OF EXCELLENCE IN MINERALOGICAL SCIENCES TO PROFESSOR EMIL MAKOVICKY



Emil Makovicky

Emil Makovicky has his early (1960s) academic roots in the Department of Mineralogy and Crystallography, Comenius University of Bratislava (Czechoslovakia), which is a noted Slovak school of sulfosalts research. However, for the past 45 years, he has been based at the University of Copenhagen (Denmark), where he is presently Professor Emeritus. Since the 1970s, Professor Makovicky has built an unparalleled international reputation in the mineralogy of sulfides, sulfosalts and related phases. He has developed and pioneered innovative and powerful approaches to the study of the crystal structure and crystal

chemistry of these minerals, including unit cell-scale twinning, crystallographic shear, non-commensurate and homologous structures, and order-disorder phenomena. In the process, he has perfected the classification of sulfosalts, which are known as "difficult structures" because of their lack of compliance to the structural concepts developed for silicates and other oxysalts. In addition to these fundamental theoretical contributions, Emil Makovicky's innovative approach has enabled his research group and collaborators to solve dozens of crystal structures. He is also internationally known for his work on phase relations in platinoid and nickel-sulfide systems and, on a crystallographically artistic front, on the symmetry in ornamental Islamic art (notably, tile patterns). He has authored some 270 peer-reviewed journal publications and two monographs. For more information on the medalist, his research, and his "tile adventures", please read *Symmetry: Through the Eyes of Old Masters* (Makovicky 2016, De Gruyter Inc.) and "Sulfosalts and much more... a tribute to Emil Makovicky" (Moëlo et al. 2012, *Canadian Mineralogist*, 50, 177-180).

Throughout his career, Emil Makovicky has received many honors: a knighthood of the Order of Dannebrog (2010), the Štur Medal of the Slovak Geological Survey (2000), the Božický Medal of Charles University in Prague (1997), the Andrusov Medal of Comenius University (2006), the Hermann Medal of the German Crystallographic Society (2013), and the Becke Medal of the Austrian Mineralogical Society (2014).

Professor Makovicky will give a plenary lecture and be presented with his IMA Medal of Excellence at the 22nd meeting of the International Mineralogical Association, which will be held 13-17 August 2018 in Melbourne (Australia).

XXII MEETING OF THE INTERNATIONAL
MINERALOGICAL ASSOCIATION
13-17 AUGUST 2018 | MELBOURNE

