

Meteoritical Society

http://meteoriticalsociety.org

REPORT OF THE METEORITE NOMENCLATURE COMMITTEE

The Nomenclature Committee (NomCom) continued its work throughout the second year of the global pandemic. During the past year, the discovery of new meteorites continued, although some meteorite-collecting efforts have been postponed or paused due to the pandemic (e.g., ANSMET).

The work of the NomCom would be impossible if not for the dedication of many individuals, including all of the NomCom members, meteorite finders and classifiers, and repository curators. I would like to thank them for their tireless effort to make the global inventory of meteorites available for scientific study. I also want to acknowledge the global community of meteorite collectors because they help drive the demand to find new meteorites, and the scientific community reaps benefits from those efforts. Special acknowledgement goes to outgoing NomCom chair Audrey Bouvier (Universität Bayreuth) who finished her three-year term at the end of 2021. We also welcomed a new member to NomCom in January: Katherine Joy (University of Manchester, UK). We are very happy to have her on board!

NomCom is currently composed of nine appointed members: Francis McCubbin (Chair; NASA JSC, USA), Massimo D'Orazio (Università di Pisa, Italy), Cyrena Goodrich (LPI-USRA, USA), Ansgar Greshake (Museum für Naturkunde Berlin, Germany), Juliane Gross (Rutgers University, USA), Katherine Joy (The University of Manchester, UK), Mutsumi Komatsu (Sokendai, Japan), Bingkui Miao (Guilin University of Technology, China), and Devin Schrader (Deputy Editor, Arizona State University, USA), and three ex-officio NomCom members: Jérôme Gattacceca (MetBull Editor; CEREGE, France), Jeff Grossman (Database Editor, NASA, USA), and Nancy Chabot (MetSoc Vice President; JHU APL, USA).

NomCom is a committee of The Meteoritical Society. The purpose of NomCom is to approve new meteorite names and classifications, and to establish guidelines and make decisions regarding the naming and classification of meteorites. New meteorites, dense collection areas (DCAs), type-specimen repository collections, and revisions are published through the Meteoritical Bulletin and the Meteoritical Bulletin Database (MBDB) (https://www.lpi.usra.edu/meteor/).

As of this writing, there are just under 70,000 approved meteorites in the Meteoritical Bulletin Database, including over 13,000 with a classification description, and notably over 520 lunar meteorites (totaling about 886 kg of material) and 330 Martian meteorites (totaling about 260 kg of material). That's right, humans have found and identified over a metric ton of Moon and Mars sitting on Earth's surface!

Meteorites, Dense Collection Areas, and Type-Specimen Repositories: The 2020 entries of the MBDB, totaling 2790 meteorites, have been published in the Meteorite Bulletin, No. 109, by Gattacceca et al. (2021). The full write ups of 1249 non-Antarctic meteorites and supplementary tables can be found online as Supporting Information and in the MBDB Archive. The MB 109 includes 17 approved falls, as well as 21 new DCAs and five new type specimen repositories. Meteoritical Bulletin No. 110, containing new meteorites, DCAs, and type-specimen repositories approved in 2021, is in preparation and will be submitted later this year to Meteoritics & Planetary Science.

Meteorite naming: Remember to send your write-ups for new and provisional names to NomCom at least three weeks before submitting your conference abstract or manuscript to journals to avoid potential issues with naming and classification and delays in publication. A list of instructions on how to attain a meteorite name can be found

at https://www.lpi.usra.edu/meteor/naming.php. The release of the write-up to the MBDB may be held on request if there is an embargo from publishers.

Finally, please do not hesitate to contact us with questions or concerns about the NomCom, especially with suggestions for improvement (metbulleditor@gmail.com).

Francis McCubbin

Chair of the Nomenclature Committee NASA Johnson Space Center

REFERENCE

Gattacceca J and 10 coauthors (2021) The Meteoritical Bulletin, No. 109. Meteoritics & Planetary Science 56: 1626-1630, doi: 10.1111/maps.13714

GIFTS AND GRANTS GUIDELINES

The stated mission of the Meteoritical Society is "to promote research and education in planetary science with emphasis on studies of meteorites and other extraterrestrial materials that further our understanding of the origin and history of the solar system." Besides the Society's publications, the annual scientific meetings, establishing official names for newly found meteorites, and the awards sponsored by the Society, there are other ways by which we work toward furthering our mission. This includes supporting student travel to conferences and workshops, supporting student research, assisting scientists from economically disadvantaged countries, supporting classes or field schools, especially those that bring meteoritics and planetary science to developing countries, compiling oral histories from prominent members of the Society, and supporting outreach to the broader public community on meteoritics and planetary science. To support these activities, the Society has created an Endowment Fund. The majority of the Endowment consists of the General Fund, which can support one-time activities that are not part of the normal Society business. The Endowment Fund also has named funds, the Nier Fund, the McKay Fund, and the TIM Fund, which were established for the specific purposes. Details about activities supported by all of these Funds can be found under: Activities Supported on the society website. For those who wish to assist in this mission, donations can be made to the General Fund or to any of the specific Funds (see Ways to Contribute on the society website, https://meteoritical.org/grants).

ANNUAL MEETING SCHEDULE

2022	85 th Annual Meeting	August 14–19, Glasgow, UK
2023	86 th Annual Meeting	August 13–18, Los Angeles, USA
2024	87 th Annual Meeting	July/August TBD, Brussels, Belgium (EU)
2025	88 th Annual Meeting	July TBD, Perth, Australia.
2026	89 th Annual Meeting	July/August TBD, Frankfurt, Germany (EU)

RENEW YOUR MEMBERSHIP NOW!

Please don't forget to renew your membership for 2022. Students, this is particularly important if you are interested in applying for one of our student presentation awards, as you must be a member to be eligible. You can renew online at: https://meteoritical.org/membership/join

SOCIETY NEWS

IN MEMORIAM: KLAUS KEIL

I am sad to report that our friend and colleague Klaus Keil passed away peacefully on Friday, February 25th, 2022, at home after a long battle with cancer. He was 87 years old. Klaus was Emeritus Professor, former Director of the Hawai'i Institute of Geophysics and Planetology, and former Interim Dean of the School of Ocean and Earth Science and Technology. Klaus was an outstanding scientist, spectacular mentor, educator, and leader, dedicated family man, and enthusiastic tennis player. His academic and science leadership skills glittered at the University of Hawai'i since 1990, and at the Institute of Meteoritics at the University of New Mexico from 1968 to 1990.



Klaus Keil (December 2008) at HIGP with the original energy dispersive spectrometer (EDS), built and published by R. Fitzgerald, K. Keil and, K.F.G. Heinrich in Science in 1968. Image: SOEST.

Klaus was a pioneer in the use of the electron microprobe in meteoritics and in petrology and mineralogy in general. In the early 1960s, he worked with colleagues at NASA Ames Research Center, Ray Fitzgerald and Kurt Heinrich, to make the first energy dispersive X-ray spectrometer for use in microanalysis. This device was the first to focus on terrestrial and extraterrestrial geological materials, and the first to use a solid-state lithium-drifted Si detector. Over his long and illustrious career, Klaus studied practically every type of meteorite and lunar sample, addressing big problems in planetary science, from chondrule formation to pyroclastic eruptions on the Moon and achondritic bodies, from asteroid disruption to the composition of the Martian surface.

His accomplishments were recognized through awards of the Leonard Medal from the Meteoritical Society, the J. Lawrence Smith Medal of the National Academy of Sciences, and election as a Legends Fellow of the Microanalysis Society, in addition to numerous other accolades including the main belt asteroid Keil and the extraterrestrial mineral keilite, (Fe,Mg)S, named in his honor.

A long time ago someone told me, with astonishment in his voice, "Everything Klaus touches turns to gold." Klaus was an alchemist. He made his own gold through his imagination, ability to synthesize diverse data, hard work, and the ability to motivate research in his group. The real gold, though, goes to all of us who benefitted from his research, leadership, and mentorship, especially those of us who have had the pleasure and honor to work with him and to be his friend.

Jeff Taylor

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or posters, on a wide variety of topics: eclogites and their geodynamic meaning; extreme metamorphism and mantle eclogites; P-T-Xconditions estimated from crystal chemistry, experimental petrology, and thermodynamics; rheology and deformation at high-pressure (HP) conditions; geochemistry and fluid–rock interactions; and geochronology and ancient eclogites.



Billiard ball, La

Kyanite eclogite

Compointrie (Saint-

Philbert-de-Grand-Lieu)

It is difficult and quite subjective to summarize the outcomes of such diverse contributions. Over the last 40 years, we have enjoyed a golden age of guantification that has led to

remarkable advances in the determination of the P-T-t evolution of HP rocks; we have also experienced a race to the depths, with the discoveries of deeper and deeper HP minerals, such as coesite and diamond. One could think that the characterization of P-T-t paths is now largely routine, but IEC-14 contributions on, e.g., elastic thermobarometry and high-resolution mineral dating attest to the contrary. New research seems to be moving towards issues that have remained quite marginal until now, such as partial melting under HP conditions, the disputed role of tectonic overpressure and stress, the significance of disequilibrium features in terms of kinetics, fluid flow, and its rheological consequences.

Contributions will be presented in a special issue of the *European Journal of Mineralogy*, now open for submissions.

The next IEC is set for 2025 in California.

IEC Merit Awards 2022: Best Talk and Best Poster

Two distinctions were awarded during the International Eclogite Conference.

- BEST TALK: T. A. Markmann presented a petrogeochemical model perspective on the interplay between rock transformation and aqueous fluid production in subduction zones. This study is in collaboration with P. Lanari.
- BEST POSTER: J. F. Vieira Duarte, on oxide-silicate petrology and geochemistry of subducted hydrous ultramafic rocks beyond antigorite dehydration (Central Alps, Switzerland). This project is in collaboration with T. Pettke, J. Hermann, and F. Piccoli.



FROM LEFT TO RIGHT: J. Gilotti and S. Cuthbert (committee members); S. Angiboust, T. A. Markmann, G. Godard, and C. Chopin (organizing committee).



LEFT: T. Pettke receiving the prize on behalf of J. F. Vieira Duarte from S. Angiboust (organizing committee)

Samuel Angiboust and Gaston Godard Website: https://iec14.sciencesconf.org/