



Meteoritical Society

<http://meteoriticalsociety.org>

2016 ANNUAL MEETING REPORT



The 79th Annual Meeting of the Meteoritical Society was held Sunday 7th– Friday 12th August 2016 in Berlin (Germany). The meeting took place in the Henry-Ford-Bau of the Freie Universität Berlin. With 539 registered participants, this annual meeting was amongst the largest ever. And it was the tops in terms of student participation: 136 students. In total, 544 abstracts were accepted for 289 oral and 255 poster presentations. Oral presentations were scheduled in three parallel sessions from Monday to Friday, and all posters were on display for the duration of the conference week.

Of the 539 registered participants, 244 were members, 117 non-members, 87 student members, 49 non-member students, 37 accompanying persons, and 5 guests. A total of 60 travel awards were allocated to student members, early career scientists, and scientists from low-income countries through generous sponsorship to the combined amount of \$76,000, which had been donated by the Barringer Crater Company, the NASA Cosmochemistry Program, the International Meteorite Collectors Association (IMCA), the Planetary Studies Foundation (PSF), Elsevier, and the Meteoritical Society Endowment Fund. A grant from the Deutsche Forschungsgemeinschaft (DFG) allowed several student assistants to be employed, who then could also participate in the scientific sessions.



The conference kicked off with registration in the Thaersaal of the Humboldt University of Berlin, followed by the Welcome Function, which was sponsored by the Museum für Naturkunde and that was held amidst the museum's exhibitions. The welcome party also provided an opportunity for a preview of the museum's special exhibition: "Comets – The Rosetta Mission, A Journey to the Origins of the Solar System."

The scientific program covered 21 topics. These included the processes and evolution of Solar System materials (interplanetary dust particles, chondrites, achondrites, asteroids, and Mars); the chronology, mineralogy, and chemical compositions of extraterrestrial materials; aspects of impact cratering; planetary sciences, including evolution and dynamics of the planets, the Moon, and small planetary bodies. There were five special sessions: "Presolar Grains - A Session in Honor of Ernst Zinner";

"From Meteorites to Planets – A Session in Honor of Heinrich Wänke"; "Small Meteorite Impacts – From Atmospheric Entry to Environmental Effects"; "Surface and Interior Dynamics of Meteorite Parent Bodies"; and, "Planetary Evolution: Advances in Meteoritical and Lunar Isotopic Analysis." Within the "Presolar Grains" session there was a special invited lecture, sponsored by the Meteoritical Society's Endowment Fund, that was given by Maria Lugaro (Budapest, Hungary) with the title, "Stellar Grains in the Laboratory: Messengers from the Sky!"

The main conference program was preceded by a two-day workshop entitled Shock Metamorphism and High Pressure Phases in Meteorites and Terrestrial Impactites that was convened by O. Tschauer, T. Sharp, and D. Stöfler and that included the special session "Microstructure and Geochronology of Shocked Accessory Minerals" (convened by A. Cavosie and N. Timms). The workshop was attended by 58 participants. The Annual Barringer Invitational Lecture was presented by Professor Mark McCaughrean of the European Space Agency (Nordwijk, The Netherlands) on Monday evening in the Henry-Ford-Bau auditorium. His fabulously illustrated lecture, "Rosetta: To Catch a Comet!", was very well received by an audience of some 400. Mark's presence on Tuesday morning (9th August) also enhanced the public opening of the Rosetta exhibition.

The Meteoritical Society's Award Ceremony, plus talks by recent medalists Hiroko Nagahara (Leonard Medal) and Keith Holsapple (Barringer Award) took place on Wednesday morning (10th August). This event also included a special appreciation of the late Gerald (Jerry) Wasserburg (1921–2016), which was given by Gary Huss.



Following the award ceremony, most conference attendees embarked on the two bus tours: the City of Contrasts tour, and the Excursion to Potsdam tour. Later that evening, the annual conference banquet was held at the former Berlin sewage works, the *Wasserwerk* venue, which provided a novel ambience. Following the four-course dinner, late-night revelers enjoyed dancing until 1:00 am. To conclude on the topic of festivities, both poster sessions on Tuesday and Thursday evenings were well catered for, and the conference concluded on Friday afternoon with an impromptu farewell function.

Four excursions took place around the conference. Preconference trips went to the old mining-town of Freiberg and to the Ore Mountains in Saxonia (to the southeast of Berlin), and there was a 5-day tour that

explored the Nördlinger Ries and Steinheim Basin impact craters and that sampled the cultural and culinary delights of southern Germany. Following the conference, a small group of participants investigated the Morasko impact-crater field near the Polish city of Poznan, while others travelled to Norway to partake in an expedition to the Rietland impact structure in the mountains west of Oslo. The excellent excursion guides deserve our compliments.

The conference program and abstract volume can be accessed on the website of the Lunar and Planetary Institute (<http://www.hou.usra.edu/meetings/metsoc2016/>) and on the dedicated conference website (<http://www.metsoc-berlin.de/>). A sizable and impressive image gallery put together by Hans Knöfler is accessible at <https://metsoc.naturkundemuseum.berlin/>.

The meeting was generously supported by the Barringer Crater Company, the Museum für Naturkunde Berlin - Leibniz Institute for Evolution and Biodiversity Science, the Humboldt-Universität zu Berlin, the Freie Universität Berlin, NASA's Cosmochemistry Program, the Lunar and Planetary Institute, the Geo.X Alliance for Geoscience in Berlin-Potsdam, the International Meteorite Collectors Association, the Deutsche Forschungsgemeinschaft (DFG), the Planetary Studies Foundation, *Meteorite Times Magazine*, Elsevier, AMETEK, Bruker Nano, JEOL, Thermo Fisher Scientific, DFG (the Collaborative Research Centre TRR170 Late Accretion onto Terrestrial Planets), and the Meteoritical Society.

This report would not be complete without us thanking the numerous colleagues and students whose tireless efforts made it all possible. We want to emphasize the dedicated support from the members of the Local Organizing Committee, the Scientific Program Committee, and the Travel Award Committee, and from all those who made themselves available as judges of student presentations, guides on conference tours, student assistants, and as general helpers. Staff of CPO Hanser provided expert event management support.

The MetSoc 2016 co-chairs:

Wolf Uwe Reimold, Harry Becker, and Kai Wünnemann

SOCIETY AWARD WINNERS

The Meteoritical Society gives four major awards each year. For more information on individual awards see the Call for Nominations and the society's webpage.



LEONARD MEDAL This is the society's highest and oldest award and is given to individuals who have made outstanding original contributions to the science of meteoritics or closely allied fields. It is named for Frederick C. Leonard, who was a founder and the first president of the society. The 2016 winner is **Hiroko Nagahara** (University of Tokyo, Japan), for her fundamental contributions to understanding the origin and evolution of primitive planetary materials, including chondrule

formation and the kinetics of gas-solid reactions. The citation was given by Shogo Tachibana.



BARRINGER MEDAL AND AWARD This is sponsored by the Barringer Crater Company and was created in memory of D. Moreau Barringer Sr. and his son, D. Moreau Barringer Jr. The award is given for outstanding work in the field of impact cratering. This year, the Barringer Award goes to **Keith Holsapple** (University of Washington, USA) for his significant contributions to crater scaling laws. His work was important in establishing scaling relationships relating the size of impactors to that of the resulting craters. The citation was given by Guy Consolmagno.



NIER PRIZE The 2016 Nier Prize for young scientists in the field of meteoritics goes to **Gregory Brennecka** of the University of Münster (Germany). Gregory receives this award for his significant contributions to our understanding of isotopic variations and the chronology of the early Solar System. The citation was given by Meenakshi Wadhwa.



SERVICE AWARD The 2016 Meteoritical Society Service Award goes to **Gisela Pösges** who works at the Ries Crater Museum (Germany). Gisela receives this award for her effort in establishing the Ries Crater Museum and in keeping it up to date, inspiring young students in the field, and communicating information about the Ries Crater to schools and their students. The citation was given by Alex Deutsch.



GORDON MCKAY AWARD This award is given for the best oral presentation by a student at the annual meeting. In 2016, the award goes to **Danielle Simkus** (University of Alberta, Canada) for her talk "Compound-specific Carbon Isotope Compositions of Aldehydes and Ketones in the Tagish Lake Meteorite", which she gave in Berlin (Germany) at the 79th Annual Meeting of the Meteoritical Society. The award comes with a prize of US \$1,000 and a certificate.

WILEY-BLACKWELL AWARDS Wiley-Blackwell, publishers of *Meteoritics and Planetary Science*, sponsored four awards of US\$500 each for outstanding presentations by students at the 79th Annual Meeting of the Society in Berlin. The winners were **Timo Hopp** (University of Münster, Germany) for "Ruthenium Isotope Fractionation During Crystallization of Planetary Cores"; **Gavin Kenny** (Trinity College, Dublin, Ireland) for "Impact Crater Environments as Potential Sources of Hadean Detrital Zircons"; **Kelly Miller** (University of Arizona, USA) for "Copper Sulfides in the R Chondrites: Evidence of Hydrothermal Alteration in Low Petrologic Types"; and **Sheryl Singerling** (University of New Mexico, USA) for "Synchrotron X-ray Fluorescence Analysis of Trace Elements in Focused Ion Beam Prepared Sections of Carbonaceous Chondrite Iron Sulfides (CM and CR) and Associated Metal (CR)".



Timo Hopp



Gavin Kenny



Kelly Miller



Sheryl Singerling

CALL FOR AWARD NOMINATIONS

Please consider nominating a colleague for one of the society's awards. Nominations should be sent to Secretary Michael Weisberg (metsocsec@gmail.com) by 15 January 2017 (31 January 2017 for the Pellas-Ryder Award and the Service Award). For more information and details on how to submit a nomination for any of these awards, please see the latest *Newsletter* at the Meteoritical Society's website, or email the secretary.

ANNUAL MEETING SCHEDULE

2017 – 24–28 July, Santa Fe (New Mexico, USA)
2018 – Dates to be decided (tbd), Moscow (Russia)
2019 – Dates tbd, Sapporo (Japan)
2020 – Dates tbd, Glasgow (Scotland)

RENEW YOUR MEMBERSHIP NOW!

Please renew by 31 March 2017; after that date, a \$15 late fee will be assessed. You can renew online at: <http://metsoc.meteoriticalsociety.net>