

<http://meteoriticalsociety.org>**PROPOSAL FOR A SPECIAL ISSUE OF *GEOCHIMICA ET COSMOCHIMICA ACTA* DEDICATED TO IAN HUTCHEON**

A special issue of *Geochimica et Cosmochimica Acta* is being planned as a tribute to cosmochemist Ian D. Hutcheon (1947–2015) with the theme of “Chondritic Meteorites: Isotopic Records of Protoplanetary Disk and Asteroidal Processes.” *GCA* associate editors Alexander Krot (University of Hawai‘i, USA), Sara Russell (Natural History Museum, London, UK), Yuri Amelin (Australian National University), and Qing-zhu Yin (University of California, Davis, USA) will organize this issue, which will be dedicated to Dr. Hutcheon in recognition of his outstanding contribution to understanding the origin and early evolution of the Solar System using isotopic records in meteorites. Ian Hutcheon was one of the pioneers in developing  $^{26}\text{Al}$ – $^{26}\text{Mg}$  systematics for dating chondrules and refractory inclusions using secondary ion mass spectrometry (SIMS), a technique that is the basis for establishing the chronology of the early Solar System. Ian’s work on  $^{53}\text{Mn}$ – $^{53}\text{Cr}$  systematics of carbonates in carbonaceous chondrites of subtypes Mighei (CM) and Renazzo (CR), and of fayalite in carbonaceous chondrites of subtypes Ornans (CO) and Vigarano (CV), as well as ordinary chondrites, as the basis for understanding the chronology of aqueous alteration on the chondrite parent bodies. Using NanoSIMS, Ian Hutcheon and his colleagues demonstrated the coexistence in the protoplanetary disk of  $^{16}\text{O}$ -rich and  $^{16}\text{O}$ -poor reservoirs, which are responsible for mass-independent fractionation of oxygen isotopes in the Solar System. Potential manuscripts for the proposed special issue should reflect recent developments in the  $^{26}\text{Al}$ – $^{26}\text{Mg}$ ,  $^{53}\text{Mn}$ – $^{53}\text{Cr}$ , U-corrected  $^{207}\text{Pb}$ – $^{206}\text{Pb}$ , and O isotope records in meteorites as tracers of disk and asteroidal processes. Professor A. Davis (University of Chicago) and former *GCA* associate editor Prof. T. Ireland (Australian National University) have agreed to serve as guest editors for the issue.

**Proposed deadline for initial submissions: February 29, 2016**  
**Deadline for final acceptance of manuscripts and closure of the issue: August 31, 2016**

**Sasha Krot**Associate Editor of *Geochimica et Cosmochimica Acta***IN MEMORIAM****IAN DOUGLAS HUTCHEON, 1947–2015**

Distinguished cosmochemist Ian Hutcheon passed away 26 March 2015. Ian received his BA in Physics from Occidental College in Los Angeles, California (USA) in 1969 and earned a PhD in Physics from the University of California, Berkeley in 1975. In 1983, he went to the California

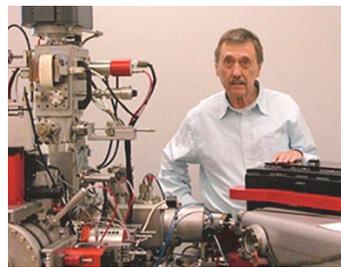
Institute of Technology as a Senior Research Associate to work with Jerry Wasserburg, applying secondary ion mass spectrometry (SIMS) to the study of meteorites and their inclusions. In 1993, Ian went to Lawrence Livermore National Laboratory (LLNL) in California where he was Deputy Director of the Glenn Seaborg Institute and Group Leader of the Chemical and Isotopic Signatures Group in the Nuclear and Chemical Sciences Division in the Physical and Life Sciences (PLS) Directorate. His work at LLNL was in nuclear forensics but he continued to maintain a vigorous meteorite research program.

Ian made many contributions to isotopic studies of meteorites and dating extraterrestrial materials using SIMS. He was a key developer

of nuclear forensics as a field of scientific investigation and a scientific discipline with important applications to national security. He conducted the first NanoSIMS-enabled studies of biological materials. He authored and coauthored more than 200 papers and book chapters, and coauthored the book *Nuclear Forensic Analysis* (2005, CRC Press) with colleagues Patrick Grant and Kenton Moody.

Ian received many honors throughout his career and became a Fellow of the Meteoritical Society in 1986. Ian has the garnet group mineral hutcheonite [ $\text{Ca}_3\text{Ti}_2(\text{SiAl}_2)\text{O}_{12}$ ] named after him. Most appropriately, hutcheonite is found in a calcium–aluminum inclusion (CAI) from the Allende meteorite (Mexico). In honor of Ian, the Department of Homeland Security recently established the Dr. Ian Hutcheon Post-Doctoral Fellowship at the LLNL to support research in nuclear forensics as part of the Domestic Nuclear Detection Office’s National Nuclear Forensics Expertise Development Program.

Ian leaves behind his wife of 41 years, Nancy Hutcheon, a former Education Coordinator for summer internships in the Physical and Life Sciences Directorate of the LLNL, and his children, Douglas Hutcheon and Dana Gordon.

**ERNST ZINNER, 1937–2015**

Ernst Zinner, Professor of Physics and Earth and Planetary Sciences at the Laboratory for Space Physics at the Washington University in St Louis (Missouri, USA) (WUSTL), passed away 30 July 2015. Ernst received his Diplom-Ingenieur (equivalent to an MS engineering degree) from the Technische Hochschule in Vienna (Austria) in 1960 and earned a PhD at WUSTL

in 1972 in high-energy particle physics. Bob Walker invited Ernst to work at the newly established Laboratory for Space Physics (later a part of the McDonnell Center for the Space Sciences) as a research associate, where, in 1989, he became a full professor, holding that position until assuming emeritus status early in 2015.

Ernst’s research covered a variety of topics including solar wind and the lunar space environment, ion microprobe instrumentation and techniques, interplanetary dust and cometary dust particles, NASA’s Long Duration Exposure Facility, rare earth element analysis, isotope anomalies in calcium–aluminum-rich inclusions and hibonites, short-lived radionuclides, meteorite isotope studies, and stardust and nucleosynthesis. He was a pioneer in the application of secondary ion mass spectrometry to extraterrestrial materials and a key figure in the discovery of pre-solar material in meteorites.

He received many honors during his career and became a Fellow of the Meteoritical Society in 1988. In 1997, he received the Leonard Medal as well as the J. Lawrence Smith Medal of the U.S. National Academy of Sciences. Ernst was elected a Corresponding Member of the Austrian Academy of Sciences in 2002 and was a Fellow of the American Physical Society (1991), a Fellow of the Geochemical Society and the European Association for Geochemistry (both in 1998) and a Fellow of the American Association for the Advancement of Science (2011). For his work collecting meteorites in Antarctica, he received the Antarctic Service Medal of the National Science Foundation in 1987.

Ernst loved classical music, was an accomplished pianist, played the harpsichord in a baroque music ensemble, and played the cello. He is survived by his wife Brigitte Wopenka and his son Max.



## 4<sup>th</sup> International Highly Siderophile Element Geochemistry Workshop

July 11-15<sup>th</sup> 2016  
Durham University, UK

### WORKSHOP ON HIGHLY SIDEROPHILE ELEMENT GEOCHEMISTRY

The 4<sup>th</sup> International Workshop on Highly Siderophile Element Geochemistry will take place in Durham (UK) during the week commencing 11 July 2016. This event is hosted by the Durham Geochemistry Group of the Department of Earth Sciences. This specialist workshop is expected to be of 3.5 to 5 days duration and is open to all interested parties at an international level. A number of travel bursaries will be offered to support attendance of this meeting – details are available from our website: [community.dur.ac.uk/hse.ws/](http://community.dur.ac.uk/hse.ws/).

The workshop will appeal to a cross-disciplinary audience and cover analytical advances, as well as low-temperature and high-temperature geo- and cosmochemistry topics pertaining to highly siderophile elements (HSE) and allied elements. The meeting and related activities will provide opportunities for exchange between scientists of all levels, thereby offering the potential for all to accelerate knowledge/technology sharing and explore new observations that advance understanding of key geo- and cosmochemistry questions. Additionally, we anticipate the workshop will facilitate opportunities for new international collaborations to continue HSE frontier science, support overall advances within the geochemistry community, help create pathways for present and future students, and potentially provide early stage discussions to commercialize scientific applications for industry.

### THE BARRINGER FAMILY FUND FOR METEORITE IMPACT RESEARCH

The Barringer Crater Company has established a special fund to support field work by eligible students interested in the study of impact cratering processes. The Barringer Family Fund for Meteorite Impact Research will provide a number of competitive grants ranging between \$2,500 and \$5,000 to support field research at known or suspected impact sites worldwide. Grant funds may be used to assist with travel and subsistence costs, as well as laboratory and computer analysis of research samples and findings. Masters, doctoral and post-doctoral students enrolled in formal university programs are eligible. Those interested should **apply by 3 April 2016**; notification of grant awards will be by 5 June 2016. Additional details about the fund and the application process can be found at: [www.lpi.usra.edu/science/kring/Awards/Barringer\\_Fund](http://www.lpi.usra.edu/science/kring/Awards/Barringer_Fund)

### RENEW YOUR MEMBERSHIP NOW!

Please renew by March 31, 2016; after that date, a \$15 late fee will be applied. You can renew online at: <http://metsoc.meteoriticalsociety.net>

### SEM SHORT COURSE REPORT

#### *Raman, Infrared and Laser-Induced Breakdown Spectroscopy Applied to Science and Technology of the Earth and the Environment*

The Sociedad Española Mineralogía (SEM) short course on three types of spectroscopy – Raman spectroscopy, infrared spectroscopy and laser-induced breakdown spectroscopy (LIBS) – was held 3–4 November 2015 at the University of Jaén (Spain). This short course was supported by the Science and Technology of the Earth PhD program and the Chemistry PhD program at the University of Jaén and included lectures and practical sessions.

Two lectures were given by Dr. Fernando Rull of the University of Valladolid (Spain). Dr Rull is a Senior Researcher at Centro de Astrobiología, a research center that is part of the Spanish National Research Council (CSIC) and that is associated to the NASA Astrobiology Institute. Dr Rull is the principle investigator behind the Raman instrument planned with the Exomars 2018 mission, and coprinciple investigator with the Supercam instrument of the Mars 2020 mission. The first of Rull's lectures introduced the fundamentals of both Raman and LIBS spectroscopies and the instruments used to make the analyses; his second lecture concentrated on the applications of these techniques to planetary exploration, industry, and heritage. Rull showed how Raman instruments provide powerful tools for identifying and characterising minerals and biomarkers because Raman spectra are sensitive to the composition and structure of any mineral or organic compound. This capability provides direct information of potential organic compounds that might be related to present or past signatures of life on Mars, as well as for general mineralogical information and geological processes, especially water-related processes.



Practical session at the Centro de Instrumentación Científica, University of Granada.

Practical sessions took place in two locations: first, at the Centro de Instrumentación Científico Técnica (CICT) at the University of Jaén, which were supervised by Dr M<sup>a</sup> José Ayora and Dr Ana Domínguez-Vidal; second, at the Centro de Instrumentación Científica (CIC) at the University of Granada, which was supervised by Dr Nicolás Velilla. At the end, the participants had the opportunity to ask questions about how these spectroscopic techniques could be applied to their own research: some of them even took spectra from their own samples.

The participants were mainly geoscientists and chemistry students and researchers from the Spanish universities of Zaragoza, León, Salamanca, Madrid, Málaga, Granada and Jaén. The short course was coordinated by Dr Juan Jiménez Millán (SEM President) and Dr Isabel Abad (SEM Secretary). The SEM awarded five grants to help students attend.

On behalf of the participants, the SEM would like to thank all the lecturers for sharing their knowledge with our young researchers. These two days were also a great opportunity for students and senior researchers to talk to one another and establish professional contacts. The SEM hopes that the students can now apply their new knowledge to their own individual research problems, and the SEM has every intention of organizing this type of course more regularly for young scientists.