



# Mineralogical Association of Canada

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## 2018 AWARDS

The Mineralogical Association of Canada (MAC) is pleased to announce its award winners for 2018.

### Peacock Medal to Dr. Stearns A. Morse



The Peacock Medal, the highest award bestowed by the Mineralogical Association of Canada, is awarded to a scientist who has made outstanding contributions to the mineral sciences in Canada. This year's awardee is **Dr. Stearns A. Morse**, professor emeritus at the University of Massachusetts (USA).

Dr. Morse was born in Hanover (New Hampshire, USA) where his father was a professor of English at Dartmouth College. He attended Dartmouth, majoring in geology, and later published a book and a paper with two of his professors. In 1949, he was field assistant in archaeology on the oceanographic 100 ft schooner *Blue Dolphin* in Newfoundland and Labrador (both Canada), and pursued fjord oceanography on the Labrador coast on that ship during the years of 1951 and 1952. After serving in the US Army in Germany, he returned to Labrador in fall 1954 where, using small boats, he determined the maximum thermal regime in Hebron Fjord and Nain Bay. He enrolled at McGill University (Québec, Canada) and received an MS degree for a mineralogical study on the Standing Pond Amphibolite in Vermont (USA) and New Hampshire. He was hired by British Newfoundland Exploration Ltd to study what turned out to be the Kiglapait Layered Intrusion in Labrador. He also studied ice at the US Army Cold Regions Research and Engineering Laboratory in Hanover.

He joined the geology faculty at Franklin and Marshall College (Pennsylvania, USA) and, after nine years, moved to the University of Massachusetts, where he remains as Research Professor of Geosciences. For ten years (1971–1981), Dr. Morse, along with colleagues from Cornell and Syracuse Universities (both in New York, USA), ran the Nain Anorthosite Project (supported by the National Science Foundation) from a newly built research vessel, the *Pitsuilak*. He conducted experimental studies at the Carnegie Institution of Washington (USA) and, later, worked with Professor John Brady at Smith College (Massachusetts, USA).

In 1957, at the Grenfell Mission Hospital in North West River (Labrador) he met a young lady named Dorothy from Massachusetts: he eventually caught up with her and married her. Stearns and Dorothy had three daughters together, all of whom served as field assistants in Labrador for many years, both in the field and onboard ship.

### Hawley Medal Winners

The Hawley Medal is awarded to the best paper published in the *Canadian Mineralogist* for a given year. In 2017, the medal was awarded to **Gil F. Tansman**, **Paul S. Kindstedt**, and **John M. Hughes** for their paper, "Minerals in Food: Crystal Structures of Ikaite and Struvite from Bacterial Smears on Washed-Rind Cheese" (*The Canadian Mineralogist* v55, pp. 89-100, January 2017). Each deserving awardee is profiled below.



**Gil F. Tansman** is a recently minted food science PhD from the University of Vermont (USA). Prior to beginning his graduate studies under Dr. Paul Kindstedt, Dr. Tansman received an undergraduate degree from McGill University's Faculty of Agricultural and Environmental Sciences.

Dr. Tansman has authored over a dozen publications, including five journal articles, an encyclopedia entry in the *Oxford Companion to Cheese*, and several conference abstracts. Dr. Tansman has presented original research throughout the United States and, in 2016, he accepted an invitation to present findings on cheese crystals

to an international audience of manufacturers at the 2016 "Science of Artisan Cheese" conference in Somerset (England). All of his dissertation research was conducted in collaboration with a diverse range of researchers, including the accomplished mineralogist Dr. John M. Hughes (University of Vermont), as well as commercial partners. This outreach, and the generosity of his collaborators, has allowed Dr. Tansman to deliver industry-relevant research findings that straddle the interdisciplinary junction between food science and mineralogy. Concurrent with his dissertation work, Dr. Tansman managed the laboratory staff at the world-renowned Cabot Creamery in Cabot (Vermont), where he learned to apply his academic training in a commercial setting. He now resides in Sacramento (California, USA) where he is rapidly gaining business development proficiency in his role with the Netherlands-based culture house, CSK Food Enrichment.



**Paul S. Kindstedt** received his BS in dairy technology and MS in animal science from the University of Vermont, and a PhD in food science from Cornell University (New York, USA). For the past 32 years, Kindstedt has been a faculty member and cheese scientist at the University of Vermont, starting as an assistant professor in 1986 and ascending to the rank of full professor in 1996. He served as Associate Director of the Northeast Dairy Foods Research Center (Cornell University, USA) from 1999 to 2004 and as Co-Director of the Vermont Institute for Artisan Cheese from 2004 to 2013. Kindstedt's research has focused mainly on structure–function relationships in cheese, and, most recently, on crystals in cheese and their impact on cheese structure and texture. He has authored and co-authored 88 peer-reviewed journal articles, 30 invited conference proceedings, 16 book chapters, and over 150 abstracts presented at scientific meetings. He has also authored 2 books: *American Farmstead Cheese: The Complete Guide to Making and Selling Artisan Cheeses* (Chelsea Green Publishing, 2005), and *Cheese and Culture: A History of Cheese and its Place in Western Civilization* (Chelsea Green Publishing, 2012). Kindstedt has served on the Editorial Review Board of the *Journal of Dairy Science*, the Board of Directors of the American Dairy Science Association, and the Board of Directors of the Vermont Dairy Industry Association. He received the American Dairy Science Association Pfizer Award for Cheese and Cultured Products Research in 1993, the Kraft Foods Teaching Award in Dairy Manufacturing in 2008, and the International Dairy Foods Association Research Award in Dairy Foods Processing in 2018. Kindstedt was named First Honorary Lifetime Member by the Vermont Cheese Council in 2004. He has worked extensively with cheesemakers ranging in size from small artisanal to large industrial operations.



**John M. Hughes** is a mineralogist/crystallographer at the University of Vermont (USA). Prior to moving to the University of Vermont as Provost and Senior Vice-President in 2006, Professor Hughes spent 25 years as a professor and administrator at Miami University (Ohio, USA). After serving a term as Provost, he returned to the faculty in the Department

of Geology at the University of Vermont. Professor Hughes has conducted funded research in mineralogy/crystallography throughout his academic career with support from the National Science Foundation, private corporations, and the Ohio Board of Regents. He has published three books and authored or co-authored hundreds of papers and conference proceedings in publications such as *American Mineralogist*, *Canadian Mineralogist*, and the *European Journal of Mineralogy*; much of that research has detailed the crystal chemistry of apatite minerals. He has served as Treasurer, Vice-President and President of the Mineralogical Society of America; he is a Fellow of the Mineralogical Society of America; and he has been a member of the Mineralogical Association



## International Mineralogical Association

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of Canada for 30 years. Hughes earned his bachelor's degree from Franklin and Marshall College (Pennsylvania, USA) in 1975, and his MA and PhD degrees from Dartmouth College (New Hampshire, USA) in 1978 and 1981, respectively. In 1980, he was a pre-doctoral Fellow at the Geophysical Laboratory of the Carnegie Institution of Washington.

### Young Scientist Award to Matthew Steele-MacInnis

The MAC Young Scientist Award is given to a young scientist who has made a significant international research contribution, which is taken to be a promising start to a scientific career. This year's awardee is Matthew Steele-MacInnis, an assistant professor at the University of Alberta (Canada).



**Matthew Steele-MacInnis** is an assistant professor in the Department of Earth and Atmospheric Sciences at the University of Alberta (Canada). He received his BS in Earth sciences from Memorial University in his native Newfoundland in 2008, and his PhD in geosciences from Virginia Tech (USA) in 2013. He was a Marie Curie postdoctoral fellow at ETH (Eidgenössische Technische Hochschule) Zurich (Switzerland) from 2013 to 2015, and then an assistant professor at the University of Arizona (USA) from 2015 to 2017 before moving to the University of Alberta.

Matt's research focuses on hydrothermal fluids and how they interact with rocks, particularly in the context of ore formation. He combines field and analytical studies with thermodynamic modeling to investigate fluid-driven processes in settings ranging from subduction zones to magmatic-hydrothermal systems to sedimentary basins. Much of his research has focused on developing quantitative tools and approaches to evaluate the physical and chemical properties of fluids, and the application of these tools in deciphering geologic processes.

Matt serves as an associate editor for the *Canadian Mineralogist*. He was the recipient of a CAREER grant from the US National Science Foundation and received the Hisashi Kuno Award from the American Geophysical Union in 2017.

### UPCOMING GAC-MAC-IAH 2019 JOINT MEETING

#### Where Geosciences Converge

Québec, QC, Canada  
12–15 May 2019

The Geological Association of Canada (GAC®), the Mineralogical Association of Canada (MAC) and the Canadian National Chapter of the International Association of Hydrogeologists (IAH-CNC) are currently preparing the GAC-MAC-IAH/CNC 2019 conference. **We invite you to mark 12–15 May 2019 on your calendar so you won't miss this event.** The conference will be held in historic Québec City, a UNESCO World Heritage site. Participants will have the opportunity to visit and discover the warmth and charms of this beautiful city and to explore its many attractive nearby natural sites. Under the theme "Where Geosciences Converge", the organizing committee wishes to promote collaboration and stimulating discussion among geologists, mineralogists, petrologists, hydrogeologists, geophysicists and geochemists. The conference will highlight the following themes:

- Geosystems and hydro-geosystems
- Resources, energy and environment
- Data science for geosciences
- Geosciences and society

Check [gacmac-quebec2019.ca](http://gacmac-quebec2019.ca) for more info and watch for our call for abstracts scheduled to open 1 November 2018.

HOPE TO SEE YOU IN QUEBEC CITY!

### PETR ČERNÝ (1934–2018)

Petr Černý was born in Czechoslovakia and was a graduate of Masaryk University in Brno. But it was at the Czech Academy of Sciences in Prague in the 1960s, while working on his PhD in western Moravia, that nurtured a lifelong fascination with granitic pegmatites. After the Warsaw Pact invasion of his home country in August 1968, he came to the University of Manitoba (Winnipeg, Canada) as a post-doctoral fellow and went on to have a stellar career in the field of pegmatite research. Petr's erudite approach to these unusual rocks led to a qualitatively new level of understanding, to refined petrogenetic and mineral deposit models, and to improved classification schemes. He worked on pegmatites from the Czech Republic, Argentina, southern Africa, Scandinavia and many other regions, but the Tanco Pegmatite vein in eastern Manitoba remained his primary source of inspiration and a testing ground for new ideas. Petr retired in 1999 but continued his important work for another 18 years as professor emeritus, in spite of a rapidly progressing Parkinson's disease. His research produced over 320 publications in refereed journals, two monographs, plus numerous reports, field guidebooks and conference presentations.

Petr's outstanding contributions to Earth sciences were recognized by many professional organizations the world over. Among these recognitions, Petr was the dedicatee of three thematic issues of the *Canadian Mineralogist* (in 1998 and twice in 2012); a Corresponding Member of the Asociación Geológica Argentina (2001), awarded the Friedrich Becke Medal from the Österreichische Mineralogische Gesellschaft (1994); awarded the Logan Medal from the Geological Association of Canada (1993), the Pošepný Gold Plaque from the Czech Academy of Science (1993), the Bořický Medal from Charles University in Prague (1991), the Gold Medal and Honoris Causa Doctorate from Masaryk University (1991), the Past President's Medal from the Mineralogical Association of Canada (1984), and the Médaille A.H. Dumont from the Geological Society of Belgium (1981). Petr had the new mineral Černýite named in his honour (Kissin et al. 1978, *Canadian Mineralogist*, 16, 139-146) and, last but not least, he had his own personal hardhat at the Tanco Ta-Cs pegmatite mine in Manitoba.

In his life and work, Petr Černý was supported by his wife, Iva, and the International Mineralogical Association sends to her our condolences on this irreplaceable loss. Fellow pegmatite researchers will remember Petr as an extremely knowledgeable, friendly and helpful person who gave enthusiastic conference talks and insightful tours of the Tanco pegmatite. Both Petr and Iva were instrumental in the preservation and growth of the R. B. Ferguson Mineral Museum at the University of Manitoba, which remains an important facility for teaching and outreach.

