



Association of Applied Geochemists

www.appliedgeochemists.org

CHANGES AT THE TOP

The AAG is pleased to announce that Ryan Noble was appointed incoming president at its AGM held in Tucson in 2015. Ryan replaces Matt Leybourne who is sincerely thanked for his two years of service in the position. Stephen Cook replaces Ryan as vice-president.

FROM THE PRESIDENT



Ryan Noble

Without fact checking and asking my colleagues personal questions about their age, I believe I start my two-year tenure as the AAG President as the youngest to hold this position (I just squeak in below 40). I am honoured to be in this position and, whilst this may appear to be bragging, my motivation is to highlight the inclusive nature of the AAG.

I am, or have been, a member of about a dozen scientific societies over the past two decades. During my PhD studies, my research shifted from environmental to exploration geochemistry.

In pursuing the literature and attending a couple of events at which prominent geochemists gave talks, including the International Applied Geochemistry Symposium (IAGS) in Perth (Australia) in 2005, I was able to meet some high-profile authors and was encouraged to join the AAG. These senior geochemists took the time to talk with me and to really engage in "our" research field. The AAG was small enough for a "newbie" not to get lost or feel overwhelmed and the association was relatively student focused (not that others aren't!); the AAG contained numerous informal mentors, and this, in my view, made the AAG stand out.

I'm not that far removed from those years, and I still recall being nervous going up to speak to these top researchers. Time moves on and I now feel very comfortable talking to all our members and call many of those initial contacts friends, something that was enabled through the association and its membership. I would encourage all student and junior members to be brave and just go and introduce yourself to those people who you have been recently citing in your thesis. Most will be glad to open a new dialogue. The few who are not interested would probably be people with whom you would not wish to collaborate with anyway, regardless of their expertise. I myself once had this experience, though not in the AAG. Another early learning lesson I gleaned is that there is always another expert out there, even in some of the smaller esoteric research fields.

It's really only been a bit more than 10 years from my initial contact with the AAG and I hope that I can now repay that generosity of time and knowledge given to me to the next generation of geochemists. I encourage any student of applied geochemistry, whether environment or exploration focused, to join the AAG. Student membership is only \$10 and includes our journal, *Geochemistry: Exploration, Environment, Analysis*; our newsletter, *Explore*; and a number of student-focused awards and programs, including one for analytical support. At only US\$10, joining the AAG is excellent value.

This coming year should be an exciting one for the AAG, one where we look to revise our vision for the future. Times change, people change and, importantly our society changes to reflect this. I hope many of our members will embrace new technology, such as digital-only membership options, LinkedIn and Facebook. While technology assists in the way we interact and, in some cases, improves the efficiency of those interactions, I cannot put a high enough value on face-to-face contact, including in collaborations and for mentoring. Our IAGS is a great event both technically and socially, and an excellent way to establish

a research network for yourself that should serve well into the future. The next IAGS is going to be in Vancouver (Canada) in 2018 and to any student that is working in environmental, exploration or analytical geochemistry I would recommend grabbing a bargain membership and putting that event on your "Must Go To" list.

Finally, as a member of any society (preferably the AAG, of course), *get involved*. It's much easier than you think, and it is a great mechanism by which to build a solid network in a relatively short period, to enhance career opportunities and to assist in the greater scientific community. Start immediately by contacting an AAG member or simply write a post on our social media. Getting involved certainly benefited me, and I'd like to say a big Thank You to those AAG Fellows who supported my early ventures in geochemistry.

Ryan Noble

Incoming President of AAG

2015–2016 AAG DISTINGUISHED LECTURER



The AAG's Distinguished Lecturer for 2015–2016 is Dr. Dan Layton-Matthews of Queen's University (Kingston, Canada). The distinguished lectures are one of AAG's efforts to educate not only established geochemists but also the young and upcoming geochemists who will be tomorrow's leaders in applied geochemistry. Geology/geochemistry professors and student

groups are encouraged to contact Dan (dlayton@queensu.ca) to arrange talks at their universities and institutions worldwide.

Dr. Dan Layton-Matthews' research has traditionally been involved in genetic models of volcanic massive sulfide (VMS), sedimentary exhalative (SEDEX) and magmatic Ni-Cu deposits. However, since his appointment to Queen's University in 2007, he and his research group within the Queen's Facility for Isotope Research (QFIR) have been involved in three lines of research. First, defining chemical indicators of mineralization in sedimentary and magmatic rocks from ore systems. Second, examining post-depositional chemical modification of sulfide, silicate and oxide minerals, and the chemical dispersion and physical dispersal of these minerals as indicators of mineralization in ore systems. Third, developing tools and concepts to aid in the discovery and understanding of the formation and redistribution of ore deposits.

Dan's current research goals, and that of his research group, are to document the background and anomalous trace-element compositions and isotopic ratios of all minerals within sedimentary and magmatic rocks related to ore systems, including the mineral, elemental and isotopic transfer to surficial media. Dan is a young and dynamic researcher and has been awarded both the William Harvey Gross and Julian Boldy Certificate awards by the Mineral Deposits Division of the Geological Association of Canada. He has active research projects on five continents, all relating to geochemical exploration and the detection of buried mineralization. Dan gave his first distinguished lecture entitled "An Applied Geochemist Convert" at the 27th International Applied Geochemistry Symposium in Tucson, Arizona (USA). His lecture tour will be an excellent opportunity for the applied geochemistry community to hear his presentations.

BEST STUDENT PAPER AND POSTER AT THE 27th IAGS

The AAG awarded four prizes for student presentations given at the 2015 International Applied Geochemistry Symposium (the 27th IAGS) held in Tucson, Arizona, last April. The overall quality of student oral and poster presentations was excellent. The following students were awarded prizes by a panel of eminent judges.

Oral Presentation Winner

(\$500 plus 1 year membership of AAG)

Antonio Celis, University of British Columbia (Canada)

Paper: "Titanite as a Porphyry Indicator Mineral for Alkalic Cu–Au Porphyry Deposits in South-Central British Columbia."

Coauthors: F Bouzari, CJR Hart, T Bissig, and T Ferbey



From left to right: Steve Kramar; AAG Student Awards Committee Chair, David Cohen; Antonio Celis

Oral Presentation Runner-up

(1 year membership of AAG)

Steven Kramar, Acadia University (Canada)

Paper: "Rocks under Western Hanson Lake – Building a Chemostratigraphic Model to aid Base Metal Exploration: Hanson Lake Assemblage, Flin Flon Domain, Saskatchewan, Canada."

Coauthor: CR Stanley

Poster paper winner

(\$500 plus 1 year membership of AAG)



Stacie Jones at Kiyuk Lake in 2012

Stacie Jones, Queen's University (Canada)

Paper: "Geochemical Characterization and Exploration Implications of the Kiyuk Lake Gold Project, Kivalliq Region, Nunavut."

Coauthors: K Kyser and R Makie

Poster Paper Runner-up

(1 year membership of AAG)



Yadi Wang is congratulated by David Cohen

Yadi Wang, University of Arizona (USA)

Paper: "Assessment of a DTPA Single Extraction Method for Prediction of Plant Availability of Metal(loid)s in Acid Mine Tailings."

Coauthors: RA Root, MK Amistadi, RM Maier, and J Chorover

David Cohen

AAG Student Awards Committee Chair

RECENT ARTICLE PUBLISHED IN EXPLORE

N W. BRAND (2015) Gold homogeneity in certified reference materials: A comparison of five manufacturers. *EXPLORE* 169 (December 2015)

Evaluation of the homogeneity of twenty commercial gold ore certified reference materials (CRMs) produced by AMIS (South Africa), CDN (Canada), Geostats (Australia), OREAS (Australia) and Rocklabs (New Zealand) has been undertaken using instrumental neutron activation analysis (INAA) on a reduced analytical subsample mass. The CRMs that were evaluated ranged in grade from 0.45 to 9.81 ppm gold, which is typical of the grades encountered in mining and exploration projects. However, there were remarkable differences in the analyzed levels of homogeneity between the CRMs of the five manufacturers. The contrasting degrees of homogeneity will, and do, seriously affect sampling errors. All CRM manufacturers need to publish the results of homogeneity tests on gold in CRMs and so provide end users with irrefutable data on the magnitude of CRM sampling errors and their impact on quality control protocols.

To view the complete article please visit the AAG web site: www.applied-geochemists.org/index.php/publications/explore-newsletter