



Association of Applied Geochemists

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AAG AWARDS PRESENTED AT THE 30th INTERNATIONAL APPLIED GEOCHEMISTRY SYMPOSIUM, OCTOBER, 2024

GOLD Medal 2023



AAG President Yulia Uvarova (LEFT) and Professor Renguang Zuo (RIGHT) receiving the AAG Gold Medal at the 30th IAGS in Adelaide, Australia, October, 2024.

The Association of Applied Geochemists awarded its Gold Medal for 2023 to Professor Renguang Zuo in recognition of his exceptional contributions to the scientific fields of exploration, mineral, and environmental geochemistry, and his exemplary service in promoting the exchange of ideas and the dissemination of information in these fields through a distinguished career in university

teaching and research. He obtained his PhD degree in mineral resources prediction and assessment from the China University of Geosciences in Wuhan (CUG Wuhan) in 2009, and since then, he has had a long association with the State Key Laboratory of Geological Processes and Mineral Resources, CUG Wuhan, first as an instructor (2009–2010), then associate professor (2010–2012), and finally as full professor (2012–present). In 2021, he founded the Research Center for Solid Earth Big Data in CUG Wuhan, and since then, he continues to be its Founding Director. He has established a substantial research group and has supervised over 40 higher-degree students, thereby significantly influencing the research directions of the next generations of mathematically inclined geochemists.

Professor Zuo has made significant contributions to: (i) developing big data analytics and deep learning algorithms for processing geochemical survey data and identifying geochemical anomalies associated with mineralization, (ii) promoting the application of geoinformatics in the field of applied geochemistry, (iii) evaluating the uncertainty in the processing of geochemical survey data, and (iv) developing software for processing geochemical survey data. These methods and related software are increasingly recognized as popular approaches for processing geochemical survey data and identifying mineralization-related geochemical anomalies. Due to his exceptional contributions, Professor Zuo was the first recipient of the Kharaka Award by the International Association of GeoChemistry.

Professor Zuo has published at least 160 journal papers and 6 books and book chapters, generally as the lead or corresponding author. According to Google Scholar, he has an H-index of 47 from over 7000 citations. He has served on the editorial boards of many SCI-indexed journals, including *Geochemistry: Exploration, Environment, Analysis*, *Journal of Geochemical Exploration*, *Computers & Geosciences*, *Natural Resources Research*, *Ore Geology Reviews*, and *Journal of Earth Sciences*. He has also been guest editor of eight special issues in high-quality international journals.

SILVER Medal 2023



AAG President Yulia Uvarova (LEFT) and Ryan Noble (RIGHT) receiving the AAG Silver Medal at the 30th IAGS in Adelaide, Australia, October, 2024.

The Association of Applied Geochemists awarded its Silver Medal for 2023 to Dr. Ryan Noble in recognition of his dedicated service to the AAG and for his extraordinary time and energy devoted to advancing the affairs of the Association. Ryan dedicated a long-standing and continuing service (>10 years) to the Association, as President, Vice

President, Councillor, and member of several Association committees, and through many other activities of the Association over the course of his long and distinguished career. He has also been the Association's representative to the Australian Geoscience Council and the Executive Committee for the journal *Elements*. He has been on the Editorial Board of the Association's journal – *Geochemistry: Exploration, Environment, Analysis (GEEA)* – for the past 12 years. Ryan supports the Association in his contributions to its scientific publications and training of Association members, including his contributions to the Association's Writing Geochemical Reports, the EXPLORE newsletter, *GEEA*, and short courses at various International Applied Geochemistry Symposia. His committed service has been marked by a record of thoughtful evaluation and improvements.

COPPER Medal 2023



AAG President Yulia Uvarova (LEFT) and co-author Matt Leybourne (RIGHT) receiving the AAG Copper Medal at the 30th IAGS in Adelaide, Australia, October, 2024.

The Association of Applied Geochemists awarded its Cameron-Hall Copper Medal to McLean Trott as the lead author of the most outstanding scientific publication in volume 23 of our journal *Geochemistry: Exploration, Environment, Analysis* in 2023 for the paper entitled: "Alteration assemblage characterization using machine learning applied to high-resolution drill-core images, hyperspectral data and geochemistry" by McLean Trott, Cole Mooney, Shervin Azad, Sam Sattarzadeh, Britt Bluemel, Matthew Leybourne, and Daniel Layton-Matthews. This important paper demonstrates a machine learning workflow to comprehensively structure and integrate composition, alteration mineralogy and texture of a rock mass derived from structured (i.e., geochemical) and unstructured (i.e., photographic) datatypes to holistically represent rock character and predict alteration.