



# Association of Applied Geochemists

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## BENEDETTO DE VIVO AWARDED 2019 AAG GOLD MEDAL

The Association of Applied Geochemists (AAG) is pleased to announce that the 2019 Gold Medal for outstanding contributions to exploration geochemistry is awarded to Professor (retired) Benedetto De Vivo of the University of Napoli Federico II (Italy).

Professor De Vivo has had a distinguished career in applied geochemical research in Europe and around the world, beginning in the 1970s and culminating in his long association with the University of Napoli Federico II in Naples, first as associate professor in applied geochemistry (1987–2000) and then as full professor (2000–2017). He graduated in the field of geological sciences from the University of Napoli Federico II in 1971, then worked for several years for private mineral exploration companies in Italy, Africa and Central America before joining the National Research Council (CNR) in Rome (Italy) as a researcher during 1976–1987. He has also served as a research fellow at the Colorado School of Mines (1978) (USA), at the US Geological Survey (1982 and 1992), and as a visiting scientist at the Geological Survey of Japan (1990). His current appointments include adjunct professorships at Virginia Tech (USA), Nanjing University (China), and Hubei Polytechnic University (China). Presently, he is full professor of exploration and environmental geochemistry at Pegaso On-Line University in Naples.

Benedetto's principal fields of research have been environmental geochemistry, fluid and melt inclusions in minerals, and geochemical prospecting applied to mineral exploration. His many contributions to geochemical research and teaching can only be briefly summarized here. Benedetto has been chairman of the Inclusions in Minerals Working Group of the International Mineralogical Association. He was editor-in-chief of the *Journal of Geochemical Exploration* for a decade (2007–2016), and was co-chief editor of *Geochemistry: Exploration, Environment, Analysis* (2016–2017), where he has been a member of the editorial board since 2004. He has also served on the editorial boards of other respected journals, including *Mineralogy and Petrology* and *American Mineralogist*. One of Benedetto's most significant achievements was his prominent role in the execution of large European-scale geochemical mapping projects, particularly the FOREGS and GEMAS projects, and the Geochemical Atlas of Europe. Benedetto's impressive publication record includes more than 140 journal publications, as well as dozens of monographs and educational publications. His enthusiasm for teaching and the dissemination of knowledge has led to the supervision of some 30 PhD theses in Italy, the United States and China over the course of his career. He has been aptly described by his peers as an exceptional communicator and gifted teacher.

Professor De Vivo is presently the AAG's Regional Councillor for Southern Europe and is a most worthy recipient of the association's Gold Medal. With the postponement of this year's International Applied Geochemistry Symposium in Chile, the presentation of the Gold Medal will instead take place at the rescheduled symposium in 2021.

**Stephen Cook**



## RECENT ARTICLES PUBLISHED IN EXPLORE

The following abstract is for an article that appeared in issue 185 (December 2019) of the *Explore* newsletter.

### “Why Minus 80 Mesh?”

Robert G. Garrett<sup>1</sup>

Minus 80 mesh (<200 µm) fraction of soils and stream sediments has been used for analysis in geochemical mineral exploration since the introduction of this method to the rest of the world from Russia and Scandinavia in the 1930s and 1940s. Various ‘stories’ have circulated for many years in the geochemical exploration community as to the reason for the selection of this size fraction. This article investigates these, identifies the first published account of its use in 1946–1947, and provides an explanation for its rapid uptake in mineral exploration.

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The following abstract is for an article that appeared in issue 186 (March 2020) of the *Explore* newsletter.

### “Testing a Rapid Sampling and Analysis Workflow in the Remote Nullarbor Plain, Australia”

Ryan Noble<sup>1</sup>, Nathan Reid<sup>1</sup>, Jens Klump<sup>1</sup>, Jess Robertson<sup>2</sup>, Dave Cole<sup>1</sup>, David Fox<sup>1</sup>, Tenten Pinchand<sup>1</sup>, Ignacio González-Álvarez<sup>1</sup>, Carmen Krapf<sup>3</sup>, Ian Lau<sup>1</sup>

To generate new targets using standard regional surface geochemistry, three key activities commonly take place. First, uniform sampling (using grids or cells) is conducted over a broad area; second, analyses of samples are conducted to establish geochemical backgrounds; and third, areas of interest are identified for further investigation. This widely practiced process commonly takes months. However, huge efficiencies can be delivered using straightforward modern technologies: tablets and apps used for rapid data gathering and transfer coupled with a portable preparation and analysis laboratory (pXRF and ASD) to produce nearly real-time geochemical and mineralogical maps. We demonstrate these efficiencies at the remote Nullarbor Plain (South Australia) where we were able to collect, analyse and conduct targeted infill sampling to generate regional geochemical and proxy-mineralogical maps of soil and rock over an area of nearly 4,000 km<sup>2</sup>. This all occurred in 7 days. The project tested grid sampling at 4 km intervals, with 1 km interval infill as a demonstration of rapid characterisation akin to greenfield regional exploration. The study showed that quick and efficient sampling and field analyses could be successfully achieved with minimal environmental impact.

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