



International Association of Geoanalysts

<http://geoanalyst.org>

SAMPLE CERTIFICATION WORKSHOP

The International Association of Geoanalysts (IAG) sponsored its second sample certification workshop, which was held 24–26 October 2016 at Horwood House, a rural estate near Milton Keynes (UK). This two-and-a-half-day meeting followed on from the first such workshop held in 2014 (see IAG society news item in June 2014 issue of *Elements*). The 2016 workshop agenda was packed full of presentations by top leaders in the field of analytical geochemistry, including representatives from major national metrology institutes. The rural setting of Horwood House provided a highly productive setting for discussions devoted to emerging topics in analytical metrology. One of the key themes addressed during the workshop was whether it is appropriate to integrate results from a proficiency testing scheme for the subsequent certification of a material. Previous work by Potts et al. (2015), which followed on from the IAG's first sample certification workshop, have shown that the results from the GeoPT whole-rock proficiency testing programme are in very good to excellent agreement with the concentration values produced during ISO [International Organization for Standardization]-compliant certification rounds independently conducted by the IAG's sample certification committee. Although such work is highly technical in nature, it is essential that current practices be subjected to ongoing review to ensure that such work remains compliant with soon-to-be-released revisions to ISO guidelines on the production of certified reference materials.



Participants of IAG's second Sample Certification Workshop held in October 2016. (RIGHT) Horwood House near Milton Keynes (UK), where the sample certification workshop was held. PHOTOS: T. MEISEL.



Another topic of rapidly growing interest is the production of certified reference materials for microanalytical methods, such as electron probe microanalysis, laser ablation, and secondary ion mass spectrometry (SIMS). Currently, no ISO-compliant certified reference material exists for the calibration of major element abundance, trace element abundance or isotope ratio values when operating at the nanogram or smaller sampling size. In order to help overcome this situation, the IAG has now established a working group which will focus on strategies for identifying and characterizing materials suitable for calibrating or validating in situ analytical methods.

IAG AUTUMN COUNCIL MEETING

Following the October 2016 sample certification workshop, the IAG Council held its autumn meeting, which was attended by eleven council members. As has become the norm over recent years, the agenda for this council meeting was long, requiring many topics to be addressed in rapid succession. Reports to the council confirm that IAG continues to thrive both in terms of a growing membership and a high level of interest in IAG programmes from the broader geochemical community. The demand for reference materials continues to be strong, as documented by sales through IAGeo Limited, the trading arm of the International



IAG Council members at work during the autumn 2016 council meeting held at Horwood House (UK). PHOTO: T. MEISEL.

Association of Geoanalysts. Particularly heartening has been the rapid uptake of the SdAR ('Sediment Animus River') suite of blended stream sediments, which has proven very popular for the calibration of portable X-ray fluorescence devices. Manuscript submissions to *Geostandards and Geoanalytical Research*, the official journal of our association, continue at a high level. Council has now begun to address how best to expand its support for this key activity, including discussions about expanded page allocations and the production of single themed issues. Planning for the Geoanalysis 2018 meeting in Sydney (Australia) also continues on schedule, including ongoing updates to the conference's official web site, 2018. geoanalysis.info/.

GEOANALYSIS 2018
8-13 July
SYDNEY

SIMS SHORT COURSE

In 2016, the IAG provided support for the short course "Introduction to Secondary Ion Mass Spectrometry in the Earth Sciences". This annual course, targeting graduate students and early career researchers, has been held at the Helmholtz Zentrum Potsdam (Germany) since 2002. In 2016, the course attracted 26 participants from across Europe and beyond, each of whom were provided with a basic training in microanalytical geochemistry, as well as a broad foundation in the use of SIMS as a tool for isotope ratio and trace element determinations. As always, the course strongly emphasized both the calibration of SIMS quantitative results and the necessary sample preparation requirements needed to ensure optimal data quality. New in 2016 was a post-course visit to the accelerator-SIMS facility at the Helmholtz Zentrum in Dresden and the NanoSIMS and ToF [Time of Flight]-SIMS facility at the Helmholtz Centre for Environmental Research in Leipzig. This optional addition to the course provided those participating with a glimpse of the new technologies now being used for the quantification of ultra-trace level abundances on nanogram sample masses (i.e. the accelerator-SIMS in Dresden) and what is required to prepare biological specimens and the new classes of peripheral instrumentation needed for visualizing structures at the nanometer scale (Nano-SIMS and ToF-SIMS in Leipzig).



(LEFT) Participants of the SIMS short course during a visit to the Super SIMS instrument in Dresden. (RIGHT) Short course participants learn about the Helium Ion Microscope in Leipzig; this instrument is capable of visualizing biological structures at the sub-nanometer scale.

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CITATION

Potts PJ, Thompson M, Webb PC (2015) The reliability of assigned values from the GeoPT proficiency testing programme from an evaluation of data for six test materials that have been characterised as certified reference materials. *Geostandards and Geoanalytical Research* 39: 407-417