

Certification and Proficiency Testing Workshop 24–26 October 2016

In line with one of its core aims to improve the assessment of measurement uncertainty and data quality through proficiency testing and the development of reference materials, the IAG occasionally organises workshops that enable Council members and external experts discuss latest developments.

The IAG's second certification workshop was held 24–26 October 2016 at Horwood House, a rural estate near Milton Keynes, UK. The agenda was packed full of presentations by leaders in the field of analytical geochemistry, including representatives from major national metrology institutes. The rural setting of Horwood House provided a highly productive environment 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 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-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.

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.



Participants of IAG's second Certification Workshop held in October 2016. Photos: T. Meisel.



Horwood House near Milton Keynes, UK, where the certification workshop was held.

Reference

Potts P.J., Thompson M. and Webb P.C. (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.