

Study Group: Quality Assurance

Study Group / Task Force Members and Affiliations:

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Objectives:

Report on activities in metrology, quality assurance, accreditation and all areas related to quality issues of analytical chemistry. Liaison to other Divisions, working groups, working parties and governmental bodies. Accreditation of laboratories is common practice in industry and accreditation is introduced in order to sustain quality and reliability. Practices and procedures of quality assurance are considered also in science and the influence on quality of scientific results is evaluated and discussed. The aim of the Study Group 'Quality Assurance' is to follow the development of quality assurance and metrology in analytical chemistry and produce guidelines for assessing the quality of results, which ultimately can create a new basis for decision-making that may have an impact on the way research is carried out. Both statistics and metrology are currently considered for further developments and improvements as to meet contemporary demands for quality in analytical chemistry.

Activities and Outputs in 2013-2014 (e.g. reports, publications, seminars, meetings):

Meetings:

- ILAC Accreditation Committee (AIC) Working Group on the Future Revision of ISO/IEC 17025, April 2014.
- Eurachem, Workshop on Quality in Analytical Measurements, May 19 – 21, 2014, Lisbon, Portugal.
- Meeting of the Eurachem Education and Training Working Group, May 21 – 22, 2014, Lisbon, Portugal.
- ISO/REMCO Meeting 2013 with significant progress for guidance documents on reference materials (see *Accred. Qual. Assur.* (2013) 18:449–451)
- TDRM Symposium on dispute resolution at the Annual AOAC Meeting 2013 in Chicago, USA (see *Accred. Qual. Assur.* (2014) 19:47–49)
- Eurachem Method Validation Working Group, 23. and 24. January in Rome and 17. and 18. June in Copenhagen

Teleconference:

- Meeting of Task Group for the revision of 'Guide to Quality in Analytical Chemistry', 9 July 2014.

Surveys:

- JCGM, WGs 1&2: GUM & VIM3 questionnaires and collated responses, 2014.

Publications:

1. D. Thorburn Burns and E.H. Korte, The Background and Implications of the "New SI" for Analytical Chemists, *Journal of the Association of Public Analysts (Online)* 41 (2013) 28-44.
2. J. E. T. Andersen, Wolfgang Buchberger and Paul Worsfold, *European Analytical Column No. 41, Anal. Bioanal. Chem.* 405 (2013) 5361–5364.
3. H. Emons, Letter to the Editor regarding the "European Analytical Column No. 41", *Anal. Bioanal. Chem.* 405 (2013) 7175–7176.
4. J.E.T. Andersen, Response to Letter to the Editor regarding the "European Analytical Column No. 41", *Anal. Bioanal. Chem.* 405 (2013) 7177–7179.
5. J. E.T. Andersen and Haedar S.H. Alfaloje, Pooled calibrations and retainment of outliers improved chemical analysis, *Rev. Roum. Chim.*, 58(7-8) (2013) 691-703.
6. J.E.T. Andersen, On the development of quality assurance, *Tr. Anal. Chem.* 60 (2014) 16–24.
7. H. Emons, Method validation, *Accred. Qual. Assur.* 18 (2013) 457–458.
8. H. Emons, Exploiting interlaboratory comparisons, *Accred. Qual. Assur.* 18 (2013) 267–268.
9. Eurachem Guide "The Fitness for Purpose of Analytical Methods. A Laboratory Guide to Method Validation and Related Topics", 2nd ed., voting draft.

Activities planned for 2014-2015:

1. Follow activities of Eurachem and contribute to meetings and publications
2. Publish results of quality assurance
3. Contribute to conferences, e.g. 2nd Conference on Analytical Chemistry, Targoviste, Romania, September 17 – 21, 2014
4. International Symposium on Reference Materials BERM-14, National Harbor (MA), USA, 11-15 October 2015 (www.sigmaaldrich.com/berm)

Report submitted by: Jens Andersen

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