Microheterogeneous, Heterogeneous, Highly Absorbing and Complex Systems

Documents 1 to 4 belong to Section I, as they deal mainly with steady-state measurements, document 6 to Section II, and document 5 pertains to both sections, as it involves both steady-state and time-resolved measurements. The remaining documents to be issued correspond to Sections III and IIV.

For more information and comments, contact Task Group Chairs Albert M. Brouwer <fred@science.uva.nl> or Enrique San Román <esr@qi.fcen.uba.ar>.

👆 www.iupac.org/web/ins/2004-021-1-300

Experimental Requirements for Single-Laboratory Validation

The objective of this recently initiated project is to provide expert guidance on the scope and scale of experiments required for single-laboratory method validation, enabling regulatory agencies to harmonize validation requirements.

This new project will develop guidance on experimental designs suitable for determining method performance characteristics during single laboratory validation experiments. Where possible, the resulting report will include guidance on numerical values for such performance characteristics.

The output is intended to support implementation of the existing IUPAC Harmonized Protocol on Single-Laboratory Validation (*PAC* 2002, Vol. 74, No. 5, pp. 835–855), which specifies the performance characteristics to be assessed, but currently includes no quantitative guidance on the scale of experimentation required.

It is currently envisaged that the guidance will be informed by statistical power considerations; that is, experimental requirements will be set so as to achieve a particular probability of correctly identifying significant adverse effects (such as a specified upper limit for bias). The guidance will indicate the power appropriate for different situations. For example, verification of performance of an established method, validation of a new method, or validation of a new method intended for critical uses would attract increasingly stringent requirements. It is envisaged that the report will include example simple-experiment designs and associated tables of replicate numbers for each such situation so that regulators can easily specify the level of stringency required and analysts can easily identify the scale of experimentation necessary to meet the requirement.

The requirements will be chosen so that they broadly reflect and harmonize current best practice. The advantage of specifying requirements in terms of test power as well as listing specific experiments and experiment sizes is that it then becomes possible to permit any experiment design that is designed to achieve the necessary confidence. This provides for flexibility in specifying single-laboratory validation requirements, and allows analysts to design improved experiments which have greater efficiency while being able to demonstrate that the stringency is sufficient.

For more information and comments, contact Task Group Chair Steven L.R. Ellison <s.ellison@lgc.co.uk>.

👆 www.iupac.org/web/ins/2009-006-1-500

Provisional Recommendations

Name and Symbol of the Element with Atomic Number 112

A joint IUPAC/IUPAP Working Party (JWP) has confirmed the discovery of the element with atomic number 112 by the collaboration of Hofmann et al. from the Gesellschaft für Schwerionenforschung mbH in Darmstadt, Germany. In accordance with IUPAC procedures, the discoverers proposed a name, copernicium, and symbol, Cn, for the element. The Inorganic Chemistry Division now recommends these proposals for acceptance.

This proposal lies within the long tradition of naming elements to honor famous scientists. Nicolaus Copernicus was born on 19 February 1473 in Torún, Poland, and died on 24 May 1543 in Frombork/Frauenburg. His work has been of exceptional influence on the philosophical and political thinking of humankind and on the rise of modern science based on experimental results.

Comments by 31 January 2010
Prof. John Corish <jcorish@tcd.ie>
University of Dublin
Chemistry Department, Trinity College
Dublin 2, Ireland

👆 www.iupac.org/reports/provisional/abstract09/corish_310110.html