



IUPAC Advancing Worldwide Chemistry

Analytical Chemistry Division Priorities and core business

The goal of the Analytical Chemistry Division is the promotion of the principal branches of analytical chemistry.

This includes the critical and comparative evaluation of established and emerging analytical methods, to enable analytical chemists to choose those best suited for specific applications. Priority activities include the harmonisation of associated terminology,

- proficiency testing and other inter-laboratory comparisons,
- recommendations for sample collection, preparation, storage and handling,
- the compilation of data used in analytical chemistry and their critical evaluation,
- the definition of recommended methods and proper application of QC and QA procedures.

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The Division encourages interactions between the basic and applied disciplines. Its work is focussed on five method-oriented branches (1-5) and two problem-oriented applications (6-7) of analytical chemistry, as follows:

Analytical methods

1. General aspects of analytical chemistry. This includes all matters relating to terminology in analytical chemistry, chemometrics, figures of merit, quality assurance, and fundamental data including those for solubility and chemical equilibria.

2. Separation methods. This includes the development of critical guidelines, definition of terms, and recommendations for the operation of analytical separation methods.

3. Spectrochemical methods. This includes the critical assessment of spectrochemical methods of analysis involving electromagnetic radiation or mass, and their application in industry, the environment, materials and human health. Compilation of fundamental data, surface analysis and diffraction methods are considered.

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4. Electrochemical methods. This includes the critical assessment of electroanalytical methods for solution of problems significant to industry, the environment, materials and human health. Recommendations for standardisation and measurement procedures, development of critical guidelines, compilation of essential data and assessment of terminology are considered.

5. Nuclear chemistry methods. This includes the application of analytical methods based on the measurement of isotopes and isotope ratios, mass spectrometric methods for elemental and molecular analysis, and radiochemical methods and their application in biology, medicine, and industry.

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Applications

6. Environmental analytical chemistry. This includes the assessment of analytical methods for the characterisation of the environment, with particular reference to trace analysis, and speciation based on analytical and numerical modelling methods. This work is effected in collaboration with Division VI.

7. Bioanalytical methods. This includes the assessment of analytical methods pertinent to the analysis of foods and the monitoring of human health. This work is effected in collaboration with other Divisions.

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Priorities and core business

Harmonization of Quality Assurance is the responsibility of a designated working party (WPHQA).

A designated subcommittee is responsible for solubility data and equilibrium data (SSED)

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Task Groups

Communication
Powell (leader), Murray, Chai, Kocaoba, Torto, De Bièvre, Dominguez

Critical evaluations of data
Gamsjaeger (leader) Bonardi, Balarew, Hibbert, Mikkinen, Watarai

Electronic Resources/ Terminology
Smith (leader), Kutner, Jönsson, Powell, Gamsjäger, Murray

Emerging analytical communities
Jönsson (leader), Lund, Torto, Smith, Zagatto, De Bièvre

Emerging analytical issues
Lobinski (leader), Chai, Karst, Labuda, Mester

Quality assurance
Fajgelj (leader) Hibbert, Mester, Labuda, Minkinen, Spivakov

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Interest Groups for the current biennium

Communication?
Critical evaluations of data
Knox (leader)

Electronic Resources for IUPAC terminology work
Hibbert (leader), Smith, Moore, Shaw

Emerging analytical issues
Lobinski (leader), Chai, Karst, Labuda, Mester

Nano-analysis
Bio-

Metrology
De Bièvre (leader), Fajgelj, Hibbert

Nuclear and related techniques
Chai (leader), Bode, Fajgelj

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Analytical Chemistry Division

Role and responsibilities of Division Members

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Analytical Chemistry Division

Division Key Products

- SC-database
- Orange book
- Division brochure
- CI articles
- Web page
- Teamwork
- Conferences and workshops
- Any other initiative

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ACD Links with other Divisions and external to IUPAC

- Interdivisional Committee on Terminology, Nomenclature and Symbols (ICTNS) Prof. Maciej Jarosz
- Committee on Chemical Education (CCE) Prof Roger M Smith
- Committee on Chemical Industry (COCI) Dr Zoltán Mester
- Pure and Applied Chemistry* Editorial Advisory Board Prof Walter Lund
- International Committee on Weights and Measures/Consultative committee on the Amount of Substance (BIMP/CCQM) Dr Ales Fajgelj
- ISO-Committee on Reference Materials (ISO/REMCO) Dr Ales Fajgelj
- International Committee on Weights and Measures/Joint Committee for Guides in Metrology (BIPM/JCGM)
- Working Group 1 Prof Brynn Hibbert
- Working Group 2 Prof Paul de Bièvre
- Inter-Agency Meeting (IAM) Prof Ryszard Lobinski
- Joint Committee on Traceability in Laboratory Medicine (JCTLM) Prof Paul de Bièvre

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Analytical Chemistry Division
at the IUPAC GA 2009 in Glasgow

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Analytical Chemistry Division
Membership 2010-2011

Process has been initiated by the Secretariat

ACD proposed election committee members are R. Lobinski and W. Lund + 3 members external to IUPAC

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Analytical Chemistry Division
Next meetings

ACD Committee meeting at the occasion of IUPAC GA, Glasgow, Scotland July 2009

Officers Meeting, November 2008, Beijing, China

ACD Meeting, February/March 2008, Rome, Italy