

IUPAC Provisional Recommendations

Provisional Recommendations are drafts of IUPAC recommendations on terminology, nomenclature, and symbols, made widely available to allow interested parties to comment before the recommendations are finally revised and published in IUPAC's journal *Pure and Applied Chemistry*. Full text is available online.

Terminology of Bioanalytical Methods

Recommendations are given concerning the terminology for methods of bioanalytical chemistry. With respect to dynamic development, particularly in the analysis and investigation of biomacromolecules, terms related to bioanalytical samples, enzymatic methods, immunoanalytical methods, methods used in genomics and nucleic acid analysis, proteomics, metabolomics, glycomics, lipidomics, and biomolecules interaction studies are introduced.

Comments by 30 April 2017

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<https://iupac.org/project/2011-047-1-500>

Nomenclature and Terminology for Dendrimers with Regular Dendrons and for Hyperbranched Polymers

This document provides recommendations for (i) definitions of terms related to dendrimers with regular dendrons and to hyperbranched polymers and (ii) nomenclature for naming these compounds on the basis of structure-based nomenclature for regular and irregular organic polymers, including adjustments for specifying dendritic and hyperbranched macromolecular structures. These recommendations and the examples given deal with organic chemical structures only, but the general principles described in this document can be applied to inorganic and to hybrid organic-inorganic dendrimers and hyperbranched macromolecules as well.

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Definition of the Mole

In 2011, the General Conference on Weights and Measures (CGPM) noted the intention of the International Committee of Weights and Measures (CIPM) to revise the entire International System of Units (SI) by linking all seven base units to seven fundamental physical constants. Of particular interest to chemists, new definitions for the kilogram and the mole have been pro-

posed. A recent IUPAC Technical Report [1] discussed these new definitions in relation to the immediate consequences for the chemical community. This IUPAC Recommendation on the preferred definition of the mole follows from this Technical Report. It supports a definition of the mole based on a specified number of elementary entities in contrast to the present 1971 definition.

1. Marquardt, R., J. Meija, Z. Mester, M. Towns, R. Weir, R. Davis, and J. Stohner (2017): "A critical review of the proposed definitions of fundamental chemical quantities and their impact on chemical communities (IUPAC Technical Report)," *Pure Appl. Chem.* (in press); <http://dx.doi.org/10.1515/pac-2016-0808>

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Terminology of Separation Methods

Recommendations are given concerning the terminology of methods of separation in analytical chemistry, including chromatography, electromigration techniques, and field-flow fractionation and related techniques. Most of the terms have been drawn from papers published in *Pure and Applied Chemistry*. A number of new sections and terms have been included, using terms proposed as definitions in the literature. To complete these areas a number of new terms have been proposed for acceptance.

The capitalization of previously accepted terms has been corrected to bring them up to date with current practice and terms have also been amended in certain cases to link the definitions specifically to chromatography "(in chromatography)". In a few cases, minor changes have been made to include both LC and GC in a term, or to reflect significant changes in practice, such as the universal change from chart recorders to electronic integration.

This Recommendation will be the basis for a chapter in the forthcoming fourth edition of the Orange Book (<https://iupac.org/project/2012-005-1-500>).

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