

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 Pure and Applied Chemistry. Full text is available online.

Definition of the Transfer Coefficient

The transfer coefficient α is a quantity that is commonly employed in the kinetic investigation of electrode processes. An unambiguous definition of the transfer coefficient, independent of any mechanistic consideration and exclusively based on experimental data, is proposed. The cathodic transfer coefficient α_c is defined as $-(RT/F)(\text{dln } j_c/\text{d}E)$, where j_c is the cathodic current density corrected for any changes in the reactant concentration on the electrode surface with respect to its bulk value, E is the applied potential and R , T and F have their usual significance. The anodic transfer coefficient α_a is defined similarly, by simply replacing j_c with the anodic current density and the minus sign with the plus sign. This recommendation aims at clarifying and improving the definition of the transfer coefficient reported in the 3rd edition of the IUPAC "Green Book."

Comments by 31 March 2013

Professor Rolando Guidelli
University of Florence
Department of Chemistry "Ugo Schiff"
Via della Lastruccia 3
I-50014 Sesto Fiorentino (Firenze), Italy
E-mail: guidelli@unifi.it

 www.iupac.org/project/2011-038-1-100

Vocabulary for Nominal Properties and Nominal Examinations

Comments by 28 February 2013

Dr. Françoise Pontet
E-mail: francoise.pontet@orange.fr

 www.iupac.org/project/2004-023-1-700

Glossary of Terms Used in Medicinal Chemistry Part II

The evolution that has taken place in medicinal chemistry as a result of major advances in genomics and molecular biology has carried with it an extensive additional working vocabulary that has become both

integrated and essential terminology for the medicinal chemist. Some of this augmented terminology has been adopted from the many related and interlocked scientific disciplines with which the modern medicinal chemist must be conversant, but many other terms have been introduced to define new concepts and ideas as they have arisen. In this supplementary glossary we have attempted to collate and define many of the additional terms that are now considered to be essential components of the medicinal chemist's expanded repertoire.

Comments by 30 April 2013

Professor Derek Buckle
18 Hillfield Road, Redhill, Surrey, UK
E-mail: drb@drbassoc.co.uk

 www.iupac.org/project/2008-010-1-700

Terminology of Metal-Organic Frameworks and Coordination Polymers

A set of terms, definitions and recommendations is provided for use in the classification of coordination polymers, networks and metal-organic frameworks. A hierarchical terminology is recommended where the most general term is coordination polymer. Coordination networks are a subset of coordination polymers and metal-organic frameworks (MOFs) a further subset of coordination networks. One of the criteria a MOF needs to fulfill is that it contains potential voids but no physical measurements of porosity or other properties are demanded per se. The use of topology and topology descriptors to enhance the description of crystal structures of MOFs and 3D-coordination polymers is furthermore strongly recommended.

Comments by 30 April 2013

Professor Lars Öhrström
Chalmers University of Technology
Dept. of Chemical & Biological Engineering
Physical Chemistry, Room 5023,
S-412 96 Göteborg, Sweden
E-mail: ohrstrom@chalmers.se

 www.iupac.org/project/2009-012-2-200