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## Bibliometric Analysis of Research on Secondary Organic Aerosols: A Science Citation Index Expanded-Based Analysis (IUPAC Technical Report)

Jinfeng Li, et al.

*Pure and Applied Chemistry*, 2013  
Vol. 85, No. 6, pp. 1241–1255

This study was conceived to evaluate the global scientific output of secondary organic aerosol research over the past 20 years and to assess the characteristics of the research patterns, tendencies, and methods in the papers. Data were based on the online version of Science Citation Index Expanded from 1992 to 2011. Publications referring to secondary organic aerosols were assessed by distribution of the number of publications and times cited, source categories, source journals, author keywords, KeyWords Plus, and the most cited publications in these years. By synthetic analysis of author keywords, KeyWords Plus, titles, and abstracts, it was concluded that modeling is currently—and will at least over the next decade continue to be—the predominant research method to validate state-of-the-art knowledge of secondary organic aerosols, and that the foci of such research will be the key precursors terpenes and isoprene, the mechanisms of oxidation and gas-phase reactions, and emission inventories.

 <http://dx.doi.org/10.1351/PAC-REP-12-08-09>

## Definitions of Terms Relating to Mass Spectrometry (IUPAC Recommendations 2013)

Kermit K. Murray, et al.

*Pure and Applied Chemistry*, 2013  
Vol. 85, No. 7, pp. 1515–1609

This document contains recommendations for terminology in mass spectrometry. Development of standard terms dates back to 1974 when the IUPAC Commission on Analytical Nomenclature issued recommendations on mass spectrometry terms and definitions. In 1978,

the IUPAC Commission on Molecular Structure and Spectroscopy updated and extended the recommendations and made further recommendations regarding symbols, acronyms, and abbreviations. The IUPAC Physical Chemistry Division Commission on Molecular Structure and Spectroscopy's Subcommittee on Mass Spectroscopy revised the recommended terms in 1991 and appended terms relating to vacuum technology. Some additional terms related to tandem mass spectrometry were added in 1993 and accelerator mass spectrometry in 1994. Owing to the rapid expansion of the field in the intervening years, particularly in mass spectrometry of biomolecules, a further revision of the recommendations has become necessary. This document contains a comprehensive revision of mass spectrometry terminology that represents the current consensus of the mass spectrometry community.

 <http://dx.doi.org/10.1351/PAC-REC-06-04-06>

## Definition of the Halogen Bond (IUPAC Recommendations 2013)

Gautam R. Desiraju, et al.

*Pure and Applied Chemistry*, 2013  
Vol. 85, No. 8, pp. 1711–1713

This recommendation proposes a definition for the term “halogen bond”, which designates a specific subset of the inter- and intramolecular interactions involving a halogen atom in a molecular entity.

A halogen bond occurs when there is evidence of a net attractive interaction between an electrophilic region associated with a halogen atom in a molecular entity and a nucleophilic region in another, or the same, molecular entity. A typical halogen bond is denoted by the three dots in R-X•••Y.

 <http://dx.doi.org/10.1351/PAC-REC-12-05-10>