**DESCRIPTION**

*Analytica Chimica Acta* provides a forum for the rapid publication of original research, and critical, comprehensive reviews dealing with all aspects of fundamental and applied modern *analytical chemistry*. The journal welcomes the submission of research papers which report studies concerning the development of new and significant analytical methodologies. In determining the suitability of submitted articles for publication, particular scrutiny will be placed on the degree of novelty and impact of the research and the extent to which it adds to the existing body of knowledge in analytical chemistry.

Manuscripts detailing fundamental research on all aspects of analytical chemistry theory and methodology (including chemometric techniques), such as innovative instrumental, chemical and biological approaches, detectors and sensors, sample treatment methods and data treatment that truly demonstrate new principles and/or important applications are especially encouraged. *Analytica Chimica Acta* focuses on fundamental new developments in analytical chemistry in general and discourages specialized application oriented submissions that are of interest to a limited number of readers. Papers describing the direct use of routine *analytical methodologies* or their straightforward/incremental extension of these methods to new sample matrices will normally be rejected unless new and important developments are described which can be demonstrated to give obvious and quantifiable advantages over existing approaches. In all submissions to the journal, authors must address the question of how their proposed methodology compares with those previously reported for the analytes in question even if they employed different techniques. The journal does not focus on application papers, especially those that are straightforward utilizations of commercial instrumentation or other existing techniques, regardless of how complex and expensive they may be. If submitted, application papers must clearly demonstrate a high level of general importance and interest to the analytical chemistry community at large.

It will normally be expected that where new analytical methodologies and developments are described these will be applied to a sample matrix of suitable analytical complexity. In such cases appropriate validation of the method must be provided, together with proper statistical treatment of data. Analytical performance characteristics of new methodologies must be given, including calibration, sensitivity, detection limits, accuracy, precision, and interferences. They must also clearly demonstrate substantial superiority in some important respect over existing alternatives.

Reviews are normally written by prior agreement of the reviews editors. Potential authors are encouraged to discuss the subject matter of a proposed review with the review editor, and will be
asked to provide a brief outline of the subject matter of the proposed review. Review articles should be sufficiently broad in scope to appeal to a wide cross-section of the journal's readership, but should be specific enough to permit discussion to be made at an appropriate depth. Basic methodology and principles should not be included in reviews, but suitable reference should be made to sources of this information. Above all, reviews should be critical rather than enumerative and should provide the reader with expert opinion regarding the relative merits of the various published approaches to the topic under review. Figures and Tables are encouraged in review articles. Tutorials describing the fundamental principles and practical operational details of a given analytical technique, sample processing approach or chemometric method are also welcome. Perspectives are short articles (max 5,000 words), usually from a single author, that provide a particular viewpoint pertaining to analytical chemistry. At least initially, this will not be an open submission process but, instead, these will be solicited (by invite only) from individuals of high scientific merit and/or influence by the perspective editor. While they should strive for objectivity, their main focus is on the individual viewpoint, and as such may advocate the importance of a particular avenue of scientific investigation, analytical method, or field of application. Perspective manuscripts are typically reviewed by editors or members of the editorial board.

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INTRODUCTION

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Manuscripts detailing fundamental research on all aspects of analytical chemistry theory and methodology (including chemometric techniques), such as innovative instrumental, chemical and biological approaches, detectors and sensors, sample treatment methods and data treatment that truly demonstrate new principles and/or important applications are especially encouraged. Analytica Chimica Acta focuses on fundamental new developments in analytical chemistry in general and discourages specialized application-oriented submissions that are of interest to a limited number of readers. Papers describing the direct use of routine analytical methodologies or their straightforward/incremental extension of these methods to new sample matrices will normally be rejected unless new and important developments are described which can be demonstrated to give obvious and quantifiable advantages over existing approaches. In all submissions to the journal, authors must address the question of how their proposed methodology compares with those previously reported for the analytes in question even if they employed different techniques. The journal does not focus on application papers, especially those that are straightforward utilizations of commercial instrumentation or other existing techniques, regardless of how complex and expensive they may be. If submitted, application papers must clearly demonstrate a high level of general importance and interest to the analytical chemistry community at large.

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Types of paper

Analytica Chimica Acta publishes original papers, and reviews dealing with every aspect of contemporary analytical chemistry. Short papers will also be considered for publication but they must be a brief account (two to four journal pages) of either innovative instrumentation or a new technique. It is incumbent upon the authors to effectively describe the significant advancement that the proposed novel approach brings to analytical chemistry in comparison to those currently in use.

Reviews are normally written with the prior agreement of the review editor. Potential authors are required to discuss the proposed topic with the review editor and will be asked to provide a concise outline of the subject matter to be covered. Review articles must be sufficiently broad in scope to appeal to a wide cross-section of the journal’s readership, but should be specific enough to permit discussion to be made at an appropriate depth. Basic methodology and principles should not be included in reviews, but suitable references should be made to sources of this information. Above
all, reviews must be critical and comprehensive rather than an exhaustive list of published works on
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