BIOSENSORS AND BIOELECTRONICS
The principal international journal devoted to research, design development and application of biosensors and bioelectronics

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DESCRIPTION

Biosensors & Bioelectronics has an open access mirror journal Biosensors & Bioelectronics: X, sharing the same aims and scope, editorial team, submission system and rigorous peer review.

Biosensors are defined as analytical devices incorporating a biological material, a biologically derived material or a biomimic intimately associated with or integrated within a physicochemical transducer or transducing microsystem, which may be optical, electrochemical, thermometric, piezoelectric, magnetic or micromechanical (Turner et al., 1987; Turner, 1989). Biosensors & Bioelectronics is the principal international journal devoted to research, design, development and application of biosensors and bioelectronics. It is an interdisciplinary journal serving professionals with an interest in the exploitation of biological materials and designs in novel diagnostic and electronic devices including sensors, DNA chips, electronic noses, lab-on-a-chip and μ-TAS. Biosensors usually yield a digital electronic signal which is proportional to the concentration of a specific analyte or group of analytes. While the signal may in principle be continuous, devices can be configured to yield single measurements to meet specific market requirements. Examples of Biosensors include immunosensors, enzyme-based biosensors, organism- and whole cell-based biosensors. They have been applied to a wide variety of analytical problems including uses in medicine, biomedical research, drug discovery, the environment, food, process industries, security and defence. The design and study of molecular and supramolecular structures with molecular biorecognition and biomimetic properties for use in analytical devices is also included within the scope of the journal. Here the focus is on the complementary intersection between molecular recognition, nanotechnology, molecular imprinting and supramolecular chemistry to improve the analytical performance and robustness of devices.

The emerging field of Bioelectronics seeks to exploit biology in conjunction with electronics in a wider context encompassing, for example, biological fuel cells, bionics and biomaterials for information processing, information storage, electronic components and actuators. A key aspect is the interface between biological materials and micro- and nano-electronics.

While endeavouring to maintain coherence in the scope of the journal, the editors will accept reviews and papers of obvious relevance to the community, which describe important new concepts, underpin understanding of the field or provide important insights into the practical application, manufacture and commercialisation of biosensors and bioelectronics.
AUDIENCE

Biotechnologists, biochemists, bioelectrochemists, analytical chemists, chemical engineers, electronic engineers.

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GUIDE FOR AUTHORS

Aims and Scope

*Biosensors & Bioelectronics* has an open access mirror journal, *Biosensors & Bioelectronics:X*.

*Biosensors & Bioelectronics* is the principal international journal devoted to research, design, development and application of biosensors and bioelectronics. It is an interdisciplinary journal serving professionals with an interest in the exploitation of biological materials and designs in novel diagnostic and electronic devices including sensors, DNA chips, electronic noses, lab-on-a-chip and μ-TAS.

Biosensors are defined as analytical devices incorporating a biological material (e.g. tissue, microorganisms, organelles, cell receptors, enzymes, antibodies, nucleic acids, natural products etc.), a biologically derived material (e.g. recombinant antibodies, engineered proteins, aptamers etc) or a biomimic (e.g. synthetic receptors, biomimetic catalysts, combinatorial ligands, imprinted polymers etc) intimately associated with or integrated within a physicochemical transducer or transducing microsystem, which may be optical, electrochemical, thermometric, piezoelectric, magnetic or micromechanical (Turner et al., 1987; Turner, 1989). Biosensors usually yield a digital electronic signal which is proportional to the concentration of a specific analyte or group of analytes. While the signal may in principle be continuous, devices can be configured to yield single measurements to meet specific market requirements. Examples of Biosensors include immunosensors, enzyme-based biosensors, organism- and whole cell-based biosensors. They have been applied to a wide variety of analytical problems including uses in medicine, biomedical research, drug discovery, the environment, food, process industries, security and defence. The design and study of molecular and supramolecular structures with molecular biorecognition and biomimetic properties for use in analytical devices is also included within the scope of the journal. Here the focus is on the complementary intersection between molecular recognition, nanotechnology, molecular imprinting and supramolecular chemistry to improve the analytical performance and robustness of devices.

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While endeavouring to maintain coherence in the scope of the journal, the editors will accept reviews and papers of obvious relevance to the community, which describe important new concepts, underpin understanding of the field or provide important insights into the practical application, manufacture and commercialisation of biosensors and bioelectronics.

Types of papers

Full papers should describe original research work not previously published, and should be complete descriptions of full investigations comprising around 5000 words and with up to 6 figures and/or tables.

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The abstract is the part of your paper which will be read by the largest number of scientists so it plays a crucial role. The abstract is a condensation of the information (facts) in the paper; it is not a description of the contents of the paper. The abstract should present as much as possible of the qualitative and quantitative information contained in the paper yet it should be brief (150 - 250 words), specific and self-contained.

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• Produce images near to the desired size of the printed version.
• Submit each figure as a separate file.
• The figures/schemes/tables should be inserted directly where the authors want them in the text.

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You are urged to visit this site; some excerpts from the detailed information are given here.

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Regardless of the application used, when your electronic artwork is finalised, please ‘save as’ or convert the images to one of the following formats (note the resolution requirements for line drawings, halftones, and line/halftone combinations given below):
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- TIFF: Color or grayscale photographs (halftones): always use a minimum of 300 dpi.
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TIFF: Combinations bitmapped line/half-tone (color or grayscale): a minimum of 500 dpi is required. If your electronic artwork is created in a Microsoft Office application (Word, PowerPoint, Excel) then please supply 'as is'.

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Please note that a full paper should contain no more than 6 single figures/ tables/schemes. A short communication should contain no more than 3 single figures/ tables/schemes.

Tables should be typed in double spacing on separate pages and provided with a suitable heading. Tables should be clearly referred to in the text using Arabic numerals. Considerable thought should be given to layout so that the significance of the results can be easily grasped. Each table should have a title which makes the general meaning understandable without reference to the text. Vertical lines should not be used to separate columns. Column headings should be sufficiently explanatory, and presented in a way consistent with the column width. Columns of figures multiplied by the same power of ten should not be presented as such. The power of ten should be indicated in the column heading, e.g.:

<table>
<thead>
<tr>
<th>104[NaCl]/mol l-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2</td>
</tr>
<tr>
<td>3.5</td>
</tr>
<tr>
<td>0.26</td>
</tr>
</tbody>
</table>

rather than

<table>
<thead>
<tr>
<th>[NaCl]/mol l-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.2 x 10^-4</td>
</tr>
<tr>
<td>3.5 x 10^-4</td>
</tr>
<tr>
<td>2.6 x 10^-5</td>
</tr>
</tbody>
</table>

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List: References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters "a", "b", "c", etc., placed after the year of publication.
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