Special Issue

New Advances in Electrochemical Biosensors

Message from the Guest Editor

New advances in nanotechnology and biomolecular engineering have paved the way for the construction of novel and efficient biosensing systems in some domains. The most widely used detection platforms are based on electrochemical transducers, mainly due to their sensitivity, low cost, and easy miniaturization. However, challenges such as the lowering of detection limit and the direct analysis within the sample matrix or long-term in vivo use still need to be solved before feasible commercial products can be designed. Interdisciplinary efforts in the synthesis of new functional nanomaterials combined with new advances in protein engineering and nucleic acid aptamers selection can support the current demands. This Special Issue welcomes original research papers and reviews addressing the current progress in the development of electrochemical biosensors, from synthesis of new advanced nanomaterials for biosensing and engineering of their functional properties, to their integration with biological elements, designing of biosensing devices and evaluation of their performance.

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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