Special Issue

State-of-the-Art Ultra-Low Field Techniques and Magnetic Nanoprobe for the Application on Biochemistry

Message from the Guest Editors

Magnetic nanoprobes have great potential in biochemical applications, because of their biocompatibility, magnetism responsiveness, and favorable biomolecule-comparable sizes. The development of ultra-low field (ULF) techniques allows for the direct detection of in situ magnetic nanoprobes because of the low magnetic background of biological samples, which enables highly sensitive sensing and imaging. Recent developments of ULF techniques include giant magnetoresistance sensors, superconducting quantum interference devices, atomic magnetometers and magnetic particle imaging, among others. The precise determination of the position and quantity of the magnetic nanoprobes is critical for their chemical and biological applications. This Special Issue aims to provide a broad overview of the most recent developments in ULF techniques and magnetic nanoprobes for their application in biochemistry. Contributions (including full papers, communications and reviews) concerning reports or overviews on new methodologies, techniques, or materials in the biochemical applications of ULF techniques or magnetic nanoprobes are welcome.

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Deadline for manuscript submissions

closed (31 March 2023)

Molecules

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Impact Factor 4.6
CiteScore 8.6
Indexed in PubMed

mdpi.com/si/85003

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As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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