Special Issue

Chemistry of Nucleosides and Nucleotides and Their Analogues

Message from the Guest Editors

The importance of nucleosides and nucleotides in medicinal chemistry is widely recognized. In recent years, there has been a growing interest in the synthesis of modified compounds and analogues, particularly considering the COVID-19 pandemic. Besides their role as antimetabolites, these compounds serve as essential building blocks for constructing oligonucleotides (ODNs), which have applications as bio-probes and in the development of new materials. Precise modifications of heterocyclic bases and/or sugarphosphate backbones can yield cutting-edge scaffolds that offer insights into unknown molecular mechanisms and enhance our understanding of the properties of ODNs. The aim of this Special Issue is to explore the key aspects related to the design and synthesis of novel nucleosides, nucleotides, and analogues, along with their potential applications in relevant fields. We welcome original research and reviews focusing on these topics.

Guest Editors

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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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