Special Issue

Advances and Perspectives in Nucleic Acid Memory

Message from the Guest Editor

Current data storage materials and techniques are approaching their economic and physical limits. At the same time, the demand for memory is increasing exponentially. Therefore, the memory industry has realized a critical need to explore alternative storage materials. DNA is a promising alternative to digital data storage materials when information density, durability, and operation energy become critical. The National Science Foundation states, "Currently, semiconductor-based information technologies are facing many challenges as Complementary Metal-Oxide-Semiconductor (CMOS)/Moore's Law approaches its physical limits, with no obvious replacement technologies in sight." The trend is evident from multi agencies' recent and continuous funding; the increasing number of publications; the establishment of the SemiSynBio Consortium and the produced roadmap; the establishment of the DNA Data Storage Alliance, which includes industry and academic institutions; and the increasing number of patents and inventions. The current Special Issue focuses on the topic of nucleic acids-based memory and aims to motivate more scientific activities on this emerging topic.

Guest Editor

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The International Journal of Molecular Sciences (*IJMS*, ISSN 1422-0067) is an open access journal, which was established in 2000. The journal aims to provide a forum for scholarly research on a range of topics, including biochemistry, molecular and cell biology, molecular biophysics, molecular medicine, and all aspects of molecular research in chemistry. *IJMS* publishes both original research and review articles, and regularly publishes special issues to highlight advances at the cutting edge of research. We invite you to read recent articles published in *IJMS* and consider publishing your next paper with us.

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