Special Issue

New Insights into Diversity and Biotechnological Applications of Extremophiles

Message from the Guest Editor

Extremophiles are the organisms that prosper in habitats where life is impossible for most other organisms. Life under unfavorable conditions launches the adaptive responses in extremophiles. It allows them to occupy certain ecological niches, providing high biological diversity.

Extremophiles have been widely studied in the past 30 years. Scientific approaches have focused on the use of extremophile microbes and their metabolic pathways to combat environmental pollution, as well as in the development of technologies for converting microbial biomass into valuable chemical compounds and the production of biofuels. However, we still have limited understanding of the complex dynamic processes that typically occur in microbial habitats and how they affect the physiology, biochemistry, cell biology, and evolutionary fate of extremophiles.

The main purpose of this Special Issue is to present a collection of scientific studies reflecting current research in the field of biology and ecology of extremophiles, including work on their biodiversity and biotechnological applications. Reviews, mini-reviews, original research papers, and brief communications are welcome.

Guest Editor

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Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

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