



Biodiversity, Adaptation Strategies, and Opportunities in Extreme Marine Environments

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Message from the Guest Editors

Dear Colleagues,

Extreme marine environments represent unique ecosystems on earth, characterized by extremely variable and hostile physicochemical parameters that are stressful for most organisms (e.g., very low/high temperatures, extreme photoperiods, and variations in salinity, pH, and pressure). There is a huge biological and genetic diversity in extreme environments, regarding both macro- and microorganisms, which have been less studied compared to organisms living in more accessible sites. In order to cope in such challenging habitats, extremophile marine organisms have evolved unique protective mechanisms, including both molecular/structural adaptations and metabolic pathways producing an array of compounds—derived from primary and secondary metabolism—which can have multiple roles and exert several bioactivities with possible biotechnological applications.

The aim of this Special Issue is to collect papers directly related to various aspects of marine extreme environments, their biodiversity, and perspectives and challenges for novel products with possible industrial applications.

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Message from the Editor-in-Chief

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