Special Issue

Oil Biodegradation and Bioremediation in Cold Marine Environment 2.0

Message from the Guest Editor

Marine oil spills are important threats to sea ecosystems. Oil spill mitigation in Arctic regions also presents a challenge due to poorly accessible locations and extreme weather, which can complicate or totally impede the usage of traditional oil spills clean-up methods. Therefore, microbial-based biotechnologies, such as those harnessing the potential of oil compound degradation by indigenous microbes, have been suggested to be more suitable for such regions due to their relatively easy implementation, cost-effectiveness, and smaller impact on the environment. This Special Issue will publish papers that address: 1. Microbial communities and metabolic pathways responsible for the degradation of different oil fractions in different marine compartments of the cold marine environment. 2. The microbial ecology of oil biodegradation in the case of co-contamination, particularly microplastics. 3. The impact of marine oil pollution on animal microbiomes. 4. The development and application of bioremediation approaches for marine oil spill response in cold climates and ice-infested areas, including bioelectrochemical systems.

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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