



Oil Biodegradation and Bioremediation in Cold Marine Environment 2.0

Guest Editor:

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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.

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Guest Editor





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Message from the Editor-in-Chief

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