Special Issue

Microbial Metabolism and Application in Biodegradation

Message from the Guest Editor

Microbial metabolism is fundamental to biodegradation, the process by which microorganisms break down complex organic compounds into simpler forms. This metabolic activity holds immense importance across various domains, particularly in environmental remediation. By harnessing microbial metabolic capabilities, biodegradation offers a sustainable and cost-effective solution for mitigating pollution and restoring ecosystems. Microbes play a crucial role in cleaning up pollutants, such as oil spills, industrial waste, and agricultural runoff, transforming them into less harmful substances. This process aids in environmental cleanup efforts, safeguarding ecosystems and human health. Microbial metabolism is integral to biodegradation processes with diverse applications spanning environmental remediation, waste management, bioenergy production, pharmaceuticals, biotechnology, and agriculture. Understanding and harnessing microbial metabolic pathways offer innovative solutions for addressing environmental challenges and advancing sustainable development goals.

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"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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