



Microbial Metabolism and Enzymology: Insights into the Degradation of Organic Substrates by Environmental Bacteria

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Message from the Guest Editor

Dear Colleagues,

Some organic compounds (alkanes, aromatics, steroids, etc.) that are currently considered pollutants have been in the biosphere for a long time. However, the Anthropocene is characterized by the massive release of these compounds, as well as the spread of compounds that are not found in nature (xenobiotic compounds, such as halogenated compounds or other modified aromatic compounds, modified steroid derivatives, and petrochemical plastics). This proliferation of organic compounds has reached all habitats of the biosphere, triggering different deleterious ecotoxicological effects. However, based on the metabolic and genetic plasticity of bacteria, these organisms have developed, through the recombination and adaptation of pre-existing metabolic functions, horizontal gene transfer and adjustment of metabolic pathways and enzymes, and other mechanisms, the ability to degrade and, most of the time, to use these pollutants as nutrients, thus alleviating the environmental problem.

Therefore, this Special Issue will focus on the genomic, metabolic, regulatory, and enzymatic repertoire that bacteria exhibit for the degradation of organic compounds.





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Message from the Editor-in-Chief

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