

Study of Polycyclic Aromatic Hydrocarbons Biodegradation by Bacterial Isolated from Contaminated Soils

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Abstract : The PAH (Polycyclic Aromatic Hydrocarbons) represent a persistent source of pollution for oil field soils. Their degradation, essentially dominated by the aerobic bacterial and fungal flora, exhibits certain aspects for remediation of these soils microbial oxygenases have, as their substrates, a large range of PAH. The variety and the performance of these enzymes allow the initiation of the biodegradation of any PAH through many different metabolic pathways. These pathways are very important for the recycling of the PAH in the biosphere, where substances supposed indigestible by living organisms are rapidly transformed into simples compounds, directly assimilated by the intermediate metabolism of other microorganisms.

Keywords : polycyclic aromatic hydrocarbons, microbial oxygenases, biodegradation, metabolic pathways

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