Theme: “Science and Technology for an All Round and Sustainable Development of the Telangana State”

ABSTRACT

on

Isolation and Characterization of Hydrocarbon Degrading Bacteria

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One of the major environmental problems today is hydrocarbon contamination resulting from the activities related to the excess usage of petrochemical and related products. Oil seepage by oil carriers both in land and sea is of particular concern in the environment. Hydrocarbon is known to belong to the family of carcinogens and neurotoxin organic pollutants.

Currently accepted disposal methods include incineration or burial insecure landfills, these methods are expensive when amounts of contaminants are large. Mechanical and chemical methods are also used to remove hydrocarbons from contaminated sites but have limited effectiveness and are also expensive. Bioremediation refers to complete mineralization of organic contaminants into carbon dioxide, water, inorganic compounds, and cell protein or transformation of complex organic contaminants to other simpler organic compounds by biological agents like microorganisms.

Many indigenous microorganisms in water and soil are capable of degrading hydrocarbon contaminants. The present project aims to isolate and identify microorganism responsible for degrading petroleum.