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Biodegradation of 4T engine oil by *Enterobacter Sp.* isolated from coastal area Mumbai

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Environmental pollution implies any alterations in the surroundings, but it is restricted in use especially to mean any deterioration in the physical, chemical and biological quality of the environment. The contamination of the environment with crude oil results in environmental pollution. Most of the physicochemical and thermal methods are expensive, as they require expensive equipment and machineries and expend good amount of energy. Among these procedures, bioremediation is currently associated to physicochemical procedures. Soil sample was collected from coastal area (Mumbai). *Enterobacter Sp.* was isolated from petroleum contaminated soil using selective enrichment technique. Hydrocarbon substrate (4T engine oil) was used as a carbon source (1% v/v). The GC/MS analysis was performed using a MS 5973 spectrometer coupled to 9 Hewlett Packard model 6890. Among the isolated microorganisms this strain was identified by 16s rRNA sequencing and it was able to degrade, 81% of 4T engine oil. At the end of the experiments, GC analysis showed significant differences in the composition of hydrocarbons in engine oil.

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