Keywords: Actinomycetes; Crude oil; Anthracene; Coronene; Napthacene; Acenapthene

Introduction

e extensive use of petroleum products lead to severe uncontrolled release of hydrocarbon compounds that are carcinog into soil and ground water poses a serious threat to human and animal health. Due to their extensive use, they cause serious environmental pollution which has drawn attention towards the research. In the present study total 134 indigenous actinomycetes isolates were obtained from different Petrol contaminated sites (N=40). Fifty one actinomycetes strains were able to grow on 5% crude oil containingineral salt Medium showingaximum growth at WHPSHUDWXUH ƒ & DQG S+ 7KH\ ZHUH LGHQWL¿HG RQ EDVLV RI FXOWXUDO P as Streptomyces sp.1, Streptomyces sp.3, Streptomyces sp.2, Rhodococcus sp., Nocardia sp.2 and Nocardia sp.1. Isolates were tested for their growth potential on Mineral Salt Broth/Agar supplemented with hydrocarbons viz. Crude oil, Anthracene, Coronene, Napthacene, Acenapthene at concentrations 5%, 10% and 15% incubated for 5 days, 10 days and 15 days. All the isolates utilized the hydrocarbons as sole carbon and energy sources in an unequal rate thus suggesting genetic disimilarities in respect of oil degradation capabilities. The study clearly demonstrates that

Citation:

Anthracene (3.69 log cfu/ml), Crude oil (3.60 log cfu/ml) and least was

ml), Napthacene (7.29 log cfu/ml) and least was shown by Acenapthene (7.17 log cfu/ml) at 10% and 10 days incubation respectively (Table 10 and Figure 11).

Summary 9CKnd C oncl9CKu son.