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Screening of Polyethylene Degrading Fungi from Polyethylene Dump Site

Anchal Rani* and Padma Singh

Department of Microbiology, KanyaGurukul Campus, GurukulKangri University
Haridwar,India.

Abstract:Fungus associated with the polyethylene degradation present in Polyethylene polluted sites, was isolated and identified by serial dilution and staining technique. Various physicochemical parameters of soil sample were tested. The isolated fungus were screened on the minimal salt medium (MSM) supplemented by the polyethylene powder as a carbon source. The growth appearance of the fungi on the polyethylene supplemented minimal salt medium showing the use of polyethylene as a sole carbon source by the isolated fungus. Isolated fungal strains were identified as *Aspergillusniger*, *A. fumigatous*, *A. flavus*, *A. terrus* and *Fusarium*. After these antibiotic susceptibility and *in-situ* degradation was performed in which these fungus shows high degradabal potential. In all soil sample *Aspergillusniger* was in the most dominating fungal followed by *A. flavus*, *Fusarium*, *A. fumigatous*, *A. terrus* respectively.

Keywords: Polyethylene, Degradation, Fungus, MSM, Physico-chemical parameters, *in situ* degradation.

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