

Isolation and molecular identification of polyethylene degrading bacteria from soil and degradation detection by ftir analysis

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Abstract

Today, the increase in plastic waste accumulation is an inescapable consequence of environmental pollution, the disposal of these wastes has caused a significant problem. variable methods have been utilized, however, biodegradation is the most environmentally friendly and low-cost method. Accordingly, the present study aimed to isolate the bacteria capable of biodegradation of plastics. In doing so, we applied the liquid carbon-free basal medium (LCFBM) prepared with deionized water for the isolation of bacterial species obtained from soil samples taken from the Izmir Menemen region. Isolates forming biofilms on plastic were selected and named (PLB3, PLF1, PLB1B) and subjected to a degradation test. FTIR analysis, 16s rDNA amplification, sequencing, identification of isolates were performed.

Biography

Morteza Haghi has completed his PhD at the age of 28 years from Ege University and joined a research program at Wroclaw Technical University. He is the director of EDGE R and D centre. He has published more than 15 papers in reputed.



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