



Degradation regime on interaction of hydrocarbons by a co-culture of *Pseudomonas fluorescens* (MTCC:8127) and *Pseudomonas putida*(MTCC:1192)

Vishwanathan K.S and Amala Reddy*

¹Bioprocess Engineering lab, ¹Department of Biotechnology, School of Bioengineering, SRM University, Kattankulathur, India.

Abstract : Co-cultures of *Pseudomonas putida*(MTCC:8127) and *Pseudomonas fluorescens* (MTCC:1192) cultivated as a co-culture were analysed for their abilities to degrade benzene, toluene, ethylbenzene, and xylene (together known as BTEX) under suitable growth medium. The co-culture effectively degraded of BTEX as individual hydrocarbons, present as two hydrocarbons, three hydrocarbons and as sole carbon source (BTEX). However, when glucose is present as a carbon source, the growth regime was a diauxic growth, after the deprivation of the primary source, hydrocarbons were utilized effectively. There was a maximum utilization of Benzene about 93.87% when present as a sole carbon source. It is also found that benzene in any combination with toluene showed the maximum degradation but slowed down under the influence of xylene.

Key words : BTEX, Co-culture, diauxic, *Pseudomonas putida*, *Pseudomonas fluorescens*.

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