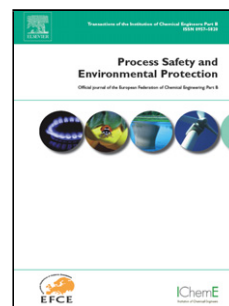


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Biodegradation of phenanthrene by a bacterial consortium enriched from Sercina oilfield

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ABSTRACT

The phenanthrene (PHE) degradation by a halotolerant bacterial consortium enriched from production water of Sercina oilfield in Tunisia was investigated. The consortium PHMM utilized PHE (200 mg/L), as a sole carbon source, in the presence of a wide range of NaCl concentrations, from 1 to 5% (w/v). The maximum growth rate was obtained at 500 mg/L of PHE. A PHE metabolism was assayed by using FTIR, UV and GC-MS analyses. Results revealed that the consortium PHMM metabolized PHE *via* protochatechuate pathway since intermediates such as naphthalenol and phthalic acid were detected. Phylogenetic analysis

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