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The role of exometabolites isolated from aquatic macrophytes in the activity of oil-oxidizing microorganisms (*Pseudomonas melochlora*)

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Abstract

Oil hydrocarbons are known to be biodegradable, but the process of oil biodegradation depends on many factors. This article is intended to reveal the role exometabolites isolated from aquatic macrophytes in the activity of oil-oxidizing microorganism *Pseudomonas melochlora*. Amino acids, carbohydrates and organic acids influence differently the oil-oxidizing activity of *P. melochlora*. Addition of amino acids to growth medium resulted in increasing growth rates of bacterium and harvest. Exogenous carbohydrates also stimulated both the growth of *P. melochlora* and oil bio-degradation. Organic acids did not show any consistent patterns with regard to growth rate of the bacterium used, its respiration activity, and the ability to degrade the oil. © by PSP.

Keywords

Biodegradation, Exometabolites, Macrophytes, Oil