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## FIGHT AGAINST PERSISTENT ORGANOCHLORINATED POLLUTANTS: DISAPPEARANCE IN PRESENCE OF MICROORGANISMS

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## Abstract

The bioremediation represents an ongoing challenge, especially in the case of organochlorinated compounds, due to the difficulties in their degradation that causes persistence in the environment. Herein we report a study on the ability of a mixture of microorganisms (MOM) to interact with organochlorinated compounds belonging to different chemical classes, i.e. DDT, PCB, tetrachlorobenzene, and lindane. Experiments in vitro showed the disappearance, partially reversible of these compounds in mixtures containing microorganisms, with a trend dependent on the kind of used pollutant. Unexpected 'complexation' by some components of molasses used as growth nutrient for microorganisms was found. Experiments carried out in the presence of soil showed that also in this case the participation of MOM to hide pollutants cannot be excluded. The obtained results may be an interesting starting point for further investigations on the bioremediation of organic pollutants using biological and not expensive method.

Key words: bioremediation, microorganisms, organochlorinated, pollutants

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