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EMERGING DISEASES AND PREVENTIVE MEDICINE

Application of microorganisms in bioremediation-Review

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ABSTRACT

Bioremediation is a biological mechanism of recycling wastes in to another form that can use and reused by other organisms. Nowadays, the world is facing the problem of different environmental pollution. Microorganisms are essential for a key alternative solution to overcome challenges. Microorganisms are surviving in all place on the biosphere because of their metabolic activity is astonishing; then come into existence in all over range of environmental conditions. The nutritional capacity of microorganisms is completely varied, so it is used as bioremediation of environmental pollutants. Bioremediation is highly involved in degradation, eradication, immobilization, or detoxification diverse chemical wastes and physical hazardous materials from the surrounding through the all-inclusive and action of microorganisms. The main principle is degrading and transforming pollutants such as hydrocarbons, oil, heavy metal, pesticides, dye's and so on. That is carried out in enzymatic way through metabolizing, so it has great contribution role to solve many environmental problems. There are two types of factors these are biotic and abiotic conditions are determining rate of degradation. Currently, different methods and strategies are applied in the area in different part of the world. For example, Biostimulation, Bioaugementation, bioventing, biopiles and bioattenuation are common one. All bioremediation techniques it has its own advantage and disadvantage because it has its own specific application.

Keywords: Microorganisms; Factors; Bioremediation; Pollutants; Biodegradation; Biostimulation; Bioaugementation; Bioventing; Biopiles; Bioattenuation.

BIOGRAPHY

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