

Cleaning up of contaminated soils by using microbial remediation: a review and challenges to the weaknesses

ABSTRACT

The use of microbial bioremediation in recovering polluted soils is not a new technology based on many review reports and studies on its efficiencies and on how to increase the effectiveness. In this short paper, we reviewed the advantages and weaknesses of microbial remediation in cleaning up the polluted ecosystems. Based on the identified weaknesses/disadvantages or incompleteness of the microbial remediation by Sharma and Reddy (2004), future studies should focus on how to increase the effectiveness of the bioremediation technology that should further reduce environmental stress on the terrestrial and aquatic ecosystems. Overall, strategies in the future studies for improving the microbial remediation are discussed.

Keyword: Microorganisms; Remediation; Microbes