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IN SITU SOIL FLUSHING – STUDIES ON REMEDIATION EFFICIENCY OF POLLUTED SANDY SOILS WITH ORGANIC ACIDS

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Abstract

Techniques for the treatment of polluted soils have as main objective the destruction, elimination or immobilization of pollutants. *In situ* soil flushing, which is based on the extraction of contaminants from the soil with water or other proper aqueous solutions is carried out by the permeation of the extraction fluid through soil layers. In this paper, an experimental setup was exploited for soil remediation based on the principle of *in situ* soil flushing for ensuring a high efficiency of treatment. Correlations were identified among soil properties that influence the treatment process, structural characteristics of the installation of remediation and operating parameters. The theoretical and experimental research of the soil depollution process presented in this paper constitutes an attempt to offer, by means of detailed analysis, constructive and functional dependences, which can set the basis for the design of new depollution technologies or modernization of the older systems.

Key words: apparent density, efficiency, mechanical resistance, organic acid, remediation, soil flushing

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