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土壤气相抽提过程非水相液体与气相的传质动力学研究

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收稿日期 修回日期 网络版发布日期 接受日期

摘要 The mass transfer between non-aqueous phase liquid(NAPL) phase and soil gas phase in soil vapor extraction(SVE) process has been investigated by one-dimensional venting experiments.

During quasi-steady volatilization of three single-component NAPLs in a sandy soil, constant initial lumped mass transfer coefficient ($\lambda_{gN,0}$) can be obtained if the relative saturation (ξ) between NAPL phase and gas phase is higher than a critical value (ξ_c), and the lumped mass transfer coefficient decreases with ξ when $\xi < \xi_c$. It is also shown that the lumped mass transfer coefficient can be increased by blending porous micro-particles into the sandy soil because of the increasing of the interfacial area.

关键词 [kinetic mass transfer](#) [soil vapor extraction](#) [non-aqueous phase liquid](#) [soil remediation](#)

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Kinetic Mass Transfer Between Non-aqueous Phase Liquid and Gas During Soil Vapor Extraction

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Received Revised Online Accepted

Abstract The mass transfer between non-aqueous phase liquid(NAPL) phase and soil gas phase in soil vapor extraction(SVE) process has been investigated by one-dimensional venting experiments.

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Key words [kinetic mass transfer](#); [soil vapor extraction](#); [non-aqueous phase liquid](#); [soil remediation](#)

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