

2-D model approaches on the spreading of lubricant oils in the railroad soil

권태순*, 이재영, 권성태, 정우성
한국철도기술연구원
(klez@nate.com*)

The leakage of lubricant oils from railway vehicles occur frequently. As a result, the soil around railroad, especially the turnout, is heavily contaminated by lubricant oils and contains high amount of TPH (Total Petroleum Hydrocarbon). However, the researches on the remediation of railway soil contaminated with lubricant oils have been rarely conducted. In this study, two dimensional experiments and modeling on spreading of lubricant oils were conducted as the initial stage of railway remediation. Two dimensional spreading started from one point source and the soil conditions followed the conditions for railway track. The spreading model, consisted of surface spreading and infiltration, was simplified by the similarity solutions.