

农业资源与环境科学

PAM对潮土水稳性团聚体的影响

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摘要:

通过室内土柱培养, 研究四种不同浓度PAM对潮土水稳性团聚体的改良效果。结果表明, 加入不同浓度PAM均可促使>0.25mm水稳性团聚体的形成, 并有效降低团聚体分形维数, 改善土壤结构。随着PAM浓度的增加, 改良效果逐渐增强。在加入浓度为1g/kg时达到最好的效果, 较对照, >0.25mm水稳性团聚体增加了42.69%, 分形维数降低了10.11%。关键词: 聚丙烯酰胺(PAM); 水稳性团聚体; 分形维数

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Effect of PAM on Soil Water Stable Aggregates in Alluvial Soil

Abstract:

PAM was applied in soil column to study the effects of PAM on water stable aggregates of the alluvial soil. The results showed that PAM improved the structure of the studied soils by promoting the formation and reducing the fractal dimension of the >0.25mm water stable aggregates effectively, and the effects were enhanced as the concentration of PAM increased. The best effect was found at the 1g/kg concentration, compared with the blank control, the >0.25mm water stable aggregates increased 42.69%, while its fractal dimension decreased 10.11%.

Keywords: fractal dimension

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