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Chemical Amelioration of Expansive Soils

Authors : B. R. Phanikumar, Sana Suri

Abstract : Expansive soils swell when they absorb water and shrink when water evaporates from them. Hence, lightly loaded civil engineering structures found in these soils are subjected to severe distress. Therefore, there is a need to ameliorate or improve these swelling soils through some innovative methods. This paper discusses chemical stabilisation of expansive soils, a technique in which chemical reagents such as lime and calcium chloride are added to expansive soils to reduce the volumetric changes occurring in expansive soils and also to improve their engineering behaviour.

Keywords : expansive soils, swelling, shrinkage, amelioration, lime, calcium chloride
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