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论文

结构性饱和黄土动力特性试验研究

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摘要：

基于室内不排水动三轴试验，研究了5种因素，即围压、超固结比、偏压固结比、动剪应力比、加载频率等对饱和黄土动力特性的影响。本文强调了结构性在饱和黄土动力特性研究中的重要性，结构性的破坏是影响土体动力力学特性的一个重要转折点。并阐明了用塑性残余变形来表征土体内部结构的变化并以此作为孔压增长函数自变量的合理性。

关键词： 饱和黄土 结构性 孔压 超固结比 偏压固结比 循环振次 应变

LABORATORY TESTING STUDY OF DYNAMIC PROPERTIES |OF SATURATED |LOESS FOR EFFECT OF ITS INTERNAL STRUCTURE

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Abstract:

On the base of un-drained dynamic tri-axial shearing tests. It examines the five influence factors on the dynamic properties of saturated loess, where the loess has its original internal structure. The five factors are the initial consolidated pressure, the over-consolidation ratio, the consolidated ratio, the dynamic shearing stress ratio and the frequency. The results are compared to other references and analyzed in detail. The structure of saturated loess is emphasized. The destroy of the loess's internal structure is a turning point for the dynamic properties. It is reasonable to use plastic strain to describe the change of structure and constitute the supper-pore pressure model. The relevant formulation is also given.

Keywords: Saturated loess, Internal soil structure, Pore water pressure, Over-consolidated ratio, Anisotropic consolidated ratio, Dynamic, Strain

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