

عنوان مقاله:

Investigation on the effect of hysteresis on the behavior of a compacted expansive soil during drying and wetting cycles

محل انتشار:

سومین کنفرانس ملی مهندسی ژئوتکنیک ایران (سال: 1397)

تعداد صفحات اصل مقاله: 8

نویسندگان:

Mohadeseh Amini Kelahroudi - *PhD Student of Hydraulic Structures, Department of Irrigation and Reclamation, Tehran University*

Ali Raeesi Estabragh - *Associate Professor, Tehran University*

Jamal Abdolahi Baik - *Lecturer, Tehran University*

خلاصه مقاله:

This paper presents the experimental study of the hysteresis phenomenon on the behavior of an expansive soil during cyclic drying-wetting. The soil samples were prepared with different pore fluid quality by static compaction method. The drying-wetting tests were carried out on samples in modified oedometers at constant temperature and constant surcharge pressure. During each test the vertical deformation of the samples were measured. Furthermore, conventional oedometers tests were conducted on the identical samples for determination the void ratio and water content of the samples. The soil characteristic curve of soil for different pore fluid was established by paper filter method. The results showed that at the initial cycles there was a considerable distance between the curves of void ratio-suction during each cycle but by increasing the number of cycles this distance was decreased. These results revealed that by increasing the cycles of drying and wetting the effect of hysteresis was vanished in soil sample

کلمات کلیدی:

.hysteresis, drying and wetting, constant temperature, modified oedometer

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/907696>

