عنوان مقاله:

new model for predicting saturated hydraulic conductivity and diffusion coefficient of granular soils using fractals

محل انتشار:

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خلاصه مقاله:

There is a general interest in quantifying soil structure to obtain physically based parameters relevant to transport processes. Fractals offer new opportunities to address the relation between structure and a range of physical processes occurring in the soil. In this paper, a random model matrix satisfying the particle size distribution and porosity of a heterogeneous soil structure is constructed. This model is used to predict the saturated hydraulic conductivity and the diffusion coefficient of granular soil. A comprehensive study is conducted to evaluate the usefulness of the proposed model using fractals by comparing the results with the available experimental data.

کلمات کلیدی:

fractal, hydraulic conductivity, diffusion