

A promising nondestructive method for characterizing soil macropores

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Abstract An undisturbed-soil core with many macropores and a disturbed-soil core with only one macropore (diameter is 10 mm) were probed by X-ray computed tomography (CT). The size, number, shape and continuity of macropores in the transverse and vertical sections of soil were characterized using CT scanning images. The probability densities of macropores in the transverse section of soil core exhibited a logarithmic Γ distribution. Results indicated that CT scanning was a promising nondestructive method for characterizing macropores in soils.

Key words CT scanning; distribution; image; macropores
