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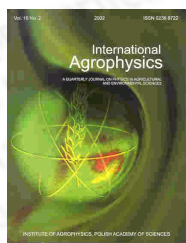
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Influence of vibration amplitude on the ultrasonic dispersion of soils

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abstract Ultrasonic dispersion is a powerful method of dispersing soil aggregates. Several procedures are described in the literature, which use absorbed ultrasonic energy as the main parameter for correlation with the process of soil dispersion. In the present work it is shown, that the dynamic of soil dispersion additionally depends on the magnitude of ultrasonic vibration. The vibration amplitude of the ultrasonic probe is an appropriate parameter in characterising the magnitude of loading, and a procedure to measure this value is described. Soil particle distribution in dispersion experiments is correlated to both, the absorbed ultrasonic energy per unit volume suspension and the amplitude of ultrasonic vibration.

keywords ultrasonic dispersion, soil aggregates, ultrasonic energy, vibration amplitude, particle size distribution