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EFFECT OF PROBE MATERIAL ON THE MEASUREMENT OF THERMAL CONDUCTIVITY OF SOIL

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ABSTRACT

The transient-state method for determining the thermal conductivity of soil was employed in this study. Solutions of the heat flow equations applicable to the single probe transient heating method are discussed. A comparative study was carried out on a reddish brown, semi-pulverized clay soil using two types of probe materials. Values obtained using a glass probe were not significantly different from those obtained using a steel probe.

Keywords: Thermal conductivity, probe material, soil.