

Finite Element Analysis for Oil Palm Fruit Using Open-Ended Coaxial Sensor

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ABSTRACT

This paper presents a new technique of predicting the reflection coefficient of a microwave sensor for oil palm fruits using finite element method (FEM). Comparison results between measured and calculated reflection coefficient were found to be in good agreement with magnitude and phase errors of less than 0.05 and 0.2 radian.

Keywords: Finite element method; Oil palm Fruit; Coaxial probe; Reflection coefficient