Table of Contents

IN PRESS
RAE 2014
RAE 2013
RAE 2012
RAE 2011
RAE 2010
RAE 2009
RAE 2008
RAE 2007
RAE 2006
RAE 2005
RAE 2004
RAE 2003
RAE Home

Editorial

Res. Agr. Eng.

Z. Hlaváčová

Low frequency electric properties utilization ir

agriculture and food treatment

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Determination of electrical properties is utilized in a wide range of disciplines and industries. A brief compendiu of agricultural materials and food electrical properties exploitation is presented in this paper. The measurement electrical conductivity or resistivity can be utilized at investigation of cell membrane properties on microscopic level. Moreover the electrical conductivity have utilization at the salinity of soils and irrigation water determination. Biological material properties are determined from their leachates too. The conductivity measurement are applied for determination of various characteristics of agricultural materials and food, for exam for determination of the frost sensitiveness, of chilling and freezing tolerance, of moisture content, of seeds germination, of mechanical stress, of pasteurization, of other properties of grains, seeds, meat, sugar, milk, woo soil, fruit and vegetable, infected food, … The utilization of dielectric properties are also described; for example agricultural materials and food quality sensing (moisture content, maturity of fruit, freshness of eggs, potential insect control in seeds, radio frequency heating, …). The classification of permittivity measurement techniques the low frequencies is mentioned.