

Title Study on Electrical Permittivity of Fruits

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Citation Proceedings: Abstract Summary, International Conference on Agricultural, Food and Biological Engineering & Post Harvest/Production Technology, Sofitel Raja Orchid Hotel, Khon Kaen, Thailand, 21-24 January 2007. 204 p.

Keywords Fruit permittivity; Loss tangent; Thai Fruits; Network Analyzer

Abstract

Thailand is one of the agricultural country exporters of fruits such as pineapple, lemon and orange from an old day up to present. The products of fruits have gained popularity among foreign and earning a lot of income to the nation. Hence, the quality of a fruit is a very important matter. This paper presents an investigation on fruit permittivities specifically for lemon, pineapple and apple. From the tests and results, we have found that the complex permittivity of fruits depends on the operating frequency of electromagnetic wave and the aging of fruit. The best range of frequency is between 20 kHz and 100 MHz for the best discrimination.