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Potential of two dielectric spectroscopy techniques and chemometric analyses

for detection of adulteration in grape syrup

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Abstract

Food adulteration is a widespread illegitimate procedure involving contamination of food with chemical and physical substances. The adulterated food products are not only of decreased quality but also may cause pathogenic effects that jeopardize the human health. Adulteration of liquid foods is majorly performed for economic gains by utilizing cheap adulterants which do not necessarily change the color, taste and appearance of the food to be easily detectable by human senses. In the present study, two different dielectric spectroscopy sensors (parallel plate capacitor (PPC) and cylindrical stub resonator (CSR)) were examined and compared for detection of adulteration in grape syrup. The aim was to address which sensor could be a more precise

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