

INVESTIGATION OF EFFECT OF TEMPERATURE ON THE AMOUNT OF D-LIMONENE ABSORPTION INTO CAN'S LACQURE FROM ORANGE SOFT DRINK

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ABSTRACT

Foods are packaged after processing for several reasons such as stability of the product's initial quality, the ease of handling and distribution. One of the most important factors effecting soft drinks quality are their flavors. Soft drinks flavors may be lost during storage by either degradation or absorption into packaging material. Absorption of flavor compounds by can lacquer (Bisphenol A) were studied in a model system containing Orange soft drink's flavors. Samples were exposed to three different temperatures (4, 25 and 40° C) during 50 days of storage. Major flavor compound in orange soft drink is D-Limonene. Measurement of D-Limonene in these 50 days was done by gas chromatography (GC) with FID detector. The results show that flavor absorption increased from time 0-30 days in samples which were held in 4 and 25 °C and after 30 days desorption accord, but in samples which were kept in 40 °C no desorption was observed. The influence of flavor absorption on the taste perception was also studied. There was no significant effect on the taste, but the best sample was the one, which was kept in 4 °C.