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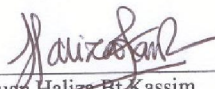
**HEADSPACE SOLID-PHASE MICROEXTRACTION APPLIED TO
THE SIMULTANEOUS DETERMINATION OF SORBIC AND
BENZOIC ACID IN BEVERAGES**

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ABSTRACT

An alternative method was applied using headspace solid-phase microextraction (HS-SPME) for simultaneous determination of sorbic and benzoic acid in beverages. The samples were pretreated with NaOH and filtered through 0.45 μ m membrane filter, placed in 12ml amber vial and heat with the addition with anhydrous sodium sulfate and sulfuric acid. The sorbic and benzoic acid were extracted in the headspace by using 85 μ m polyacrylate fiber and further examined by gas chromatography with flame ionization (FID) detector. The sensitivity of the fiber was enhanced through the optimization of extraction and desorption temperature. The linear range of analytes was found to be between 0.2 $\frac{g}{L}$ to 1.0 $\frac{g}{L}$ with regression coefficient 0.9943 for sorbic acid and 1.000 for benzoic acid. In this analysis, the three concentrated juices were found to be below the Malaysian permitted level of preservatives food act.