

ANALYSIS OF VOLATILE COMPOUNDS IN  
DIFFERENT VARIETIES OF MUSA PARADISIACAL,  
DURING RIPENING BY USING SOLID PHASE MICRO  
EXTRACTION (SPME) AND GAS  
CHROMATOGRAPHY-MASS SPECTROMETRY  
DETECTOR (GC-MSD)

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## ABSTRACT

### **ANALYSIS OF VOLATILE COMPOUNDS IN DIFFERENT VARIETIES OF *MUSA PARADISIACA* L. DURING RIPENING BY USING SOLID PHASE MICRO EXTRACTION (SPME) AND GAS CHROMATOGRAPHY- MASS SPECTROMETRY DETECTOR (GC-MSD)**

A method for the identification of volatile compounds in different varieties of *Musa paradisiaca* L. (banana) during ripening by using solid phase microextraction (SPME) and gas chromatography-mass spectrometry detector (GC-MSD) was developed. SPME fiber coated with polydimethylsiloxane (PDMS) was used in this study. The effect of important SPME parameter such as extraction time and temperature on the amount of compounds extracted was studied. Optimum conditions for SPME technique were 50 °C for extraction temperature and 30 minutes for extraction time. Using the optimized conditions, aromatic compounds in banana and its GC percentage area change during ripening were studied. Few volatile compounds have been found during the analysis and the percentage is higher in '*pisang lemak manis*' compared to '*pisang nangka*'.