CHAPTER IV

CONCLUSION

This work was emphasized on the study of aroma components that play a role in scent of vetiver root. SPME-GC-MS was used to investigate the aroma volatile compounds in scented vetiver root. It was found that increasing the extraction time and temperature of extraction increased numbers and amounts of the extracted volatile compounds. There was one identified component at room temperature condition which was named khusimene. At higher temperature conditions, five identified compounds were presented which were named khusimene, calarene, α-muulorene, α-chamigrene and β-nootkatone. Among these, there were also 28 unidentified volatiles found. Separation and isolation of the aroma active components in scented vetiver root was performed using chromatographic and spectroscopic techniques. The isolation procedure was started from first separation by CC followed by further separation by TLC and in the final step preparative gas chromatography was utilized, then the aroma-active component was collected. The result showed that a single aroma active component was isolated. Comparison of the odor of component isolated and odor of the raw vetiver root resulted odor of isolated component was not an odor of scented vetiver root. Its volatility was confirmed by SPME-GC-MS results at higher temperature. Analysis of this component by GC-MS according to its mass spectrum revealed that its structure was identified as an alcohol.