

CHAPTER 4

CONCLUSIONS

Generally, qualitative data on the relative distribution of individual sterols in palm oil and palm kernel oil were comparable with other published results.

Based upon the results obtained in this study, two sterols which were not reported in any previous studies of palm oil, sitostanol and ergosterol, were detected in crude palm fibre oil by using SIM mode in GC-MS.

Although MS is a powerful analytical method, some limitations with the technique, such as the impossibility of differentiating C24 alkyl isomers or the C20 isomers, do exist. Definite identification cannot be achieved by the use of a single method. Further research is needed to physically isolate sitostanol from crude palm fibre oil, follow by direct probe mass spectrometry and NMR to validate the present results.