EXTRACTION OF XANTHONE FROM MANGOSTEEN PEEL USING SOLVENT EXTRACTION METHOD

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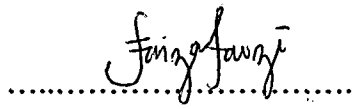
DECLARATION

"I hereby declare that this report is the result of my own work except for quotations and summaries which have been duly acknowledged."



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ABSTRACT

The purpose of this study is to extract xanthones from mangosteen peel using different type of solvents which are ethanol, methanol and acetone and different concentration of solvents used (50%, 70% and 90%) with different time of extraction process and the peak obtained from analytical method which is reversed phase high performance liquid chromatography (RP-HPLC) of these sample was compared. The results will show which solvent is the best solvent and at what concentration should the solvent be used and for how long it will take to extract xanthone from mangosteen peel. The relative retention time (RRT) obtained from high performance liquid chromatograms shows that α-mangostin was satisfactorily separated from other xanthones and the retention time for all the samples run were in the range of 5 to 7.5 minutes. The objectives of this study has been achieved and results of quantitative high performance liquid chromatographic analysis had proved that ethanol recovered highest amounts of α-mangostin and extraction of xanthone using high concentration of solvent will yield higher content of antioxidant from the fruits peel. Besides that, the result also shows that increasing the concentration of the solvent and longer extraction time will increase the yield of the α-mangostin from the sample.