

**STUDY OF ANTIOXIDANT ACTIVITY POTENTIAL
IN COFFEE PARCHMENT EXTRACT**

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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Coffee Parchment is a coffee by-product that might have antioxidant potential. The purpose of this research was to study the antioxidant potential in coffee parchment extract. In this research, extraction of coffee parchment was conducted under three different extraction method: water bath shaker, 24 hours agitation and Ultrasound-Assisted Extraction (UAE). Various solvent extraction was also applied in this research : water, ethanol, methanol, ethanol-water (1:1), and methanol-water (1:1). In this research, UAE method was found to be the best method in deliver the highest antioxidant and total phenolic content of the coffee parchment extract. The optimum time and temperature for total phenolic content for UAE is 90 minutes at 60°C with the result of 59% antioxidant activity and total phenolic content 6.076 mg GAE/gr sample.

Keywords: Coffee Parchment, Ultrasound-assisted extraction, Conventional extraction, Total phenolic content, Antioxidant Activity, Coffee by-products



DEDICATION

I dedicate this work to my family and for the next bigger step in my life.



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