

**Data on parametric influence of microwave-assisted extraction on the recovery yield, total phenolic content and antioxidant activity of *Phaleria macrocarpa* fruit peel extract**

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**ABSTRACT**

*Phaleria macrocarpa*, commonly known as Mahkota dewa is a well-known medicinal plant native to Malaysia and Indonesia. *P. macrocarpa* has been used as traditional medicine for the treatment of many diseases for a long time. In this study, *P. macrocarpa* peels' bioactive compounds were extracted using microwave-assisted extraction method. The effects of different process parameters such as irradiation time (0.5, 1, 3, 5, and 10 min), microwave temperatures (60, 70, 80, 90, and 100 °C) and microwave power (200, 300, 400, 500, and 600 W) on the extraction yield were investigated. Moreover, the antioxidant activity and total phenolic (TPC) content of the extract were estimated. The results reflected that the extraction yields, antioxidant activity and total phenolic content increased with increasing levels of process parameters to certain conditions where highest yields were attained. However, the best conditions of processing parameters that resulted to the highest amount of yield (61.25%) were 1 min, 80 °C and 300 W. The highest amount of antioxidant activity and TPC yield were 61.15±0.93% and 102.60±1.17 mg GAE/g d.w, respectively. These illustrated that *P. macrocarpa* peels can serve as a good source of antioxidant.

**KEYWORDS**

Microwave-assisted extraction; *Phaleria macrocarpa*; Antioxidant; Total phenolic content; Yield

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