



UNIVERSITI
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Cawangan Melaka

i-JAMCSIIX 2022

International Jasin Multimedia & Computer Science Invention and Innovation Exhibition

ABSTRACT BOOK

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In Partnership:



Tadulak● University

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i-JaMCSIIX **2022**

International Jasin Multimedia & Computer Science Invention and Innovation Exhibition

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i-JaMCSIIX

Universiti Teknologi MARA Cawangan Melaka Kampus Jasin

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Melastomaceae sp : A New Potential of Antioxidant Agent

Ropisah Me
Wan Nur Aqilah Wan Mohd Samsudin
Nur Syakilla Asyiqin Hasan
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JM048 – Innovation – Local – Category B: Professional (Other Institutions) -

Abstract—Melastomaceae species such as *Melastoma Malabathricum* and *Dissochaeta Gracilis* are belongs to Melastomataceae family which are found mostly in the tropics and contains bioactive compounds to treat various illness. The purpose of this study was carried out to investigate the presence of phytochemical groups and antioxidant activity of the leaves of *M. malabathricum* and *D. gracilis*. For this study, the plant sample undergoes extraction processes using three difference polarity of solvents which are hexane, ethyl acetate and methanol by cool extraction method. The highest yield percentage is methanol leaves extract for both samples. The phytochemical analysis study also revealed that many secondary metabolites presence inside *M. malabathricum* and *D. gracilis* such as steroids, flavonoids and terpenoids but absence of alkaloids compounds. Meanwhile, both samples have shown the presence of tannins, saponins and phenols compound for ethyl acetate and methanol crude extracts but not in hexane crude extract. The present of flavonoids and phenolic compound showed their potent antioxidant property so they could be the rich source of natural antioxidants. The methanol extract of *D. gracilis* (54.24 µg/mL) significantly lower of DPPH radical scavenging activity IC50 which indicate better antioxidant properties as compared to the methanol extract of *M. malabathricum* (111.90). As conclusion, this study discovered that *M. malabathricum* and *D. gracilis* leaves could be assigned as natural antioxidant and its open door for the bioactive compound identification in the field of pharmaceutical research.

Keywords—*Melastomaceae*, *M. Malabathricum*, *D. Gracilis*, *Phytochemical analysis*, *Antioxidant*