

Study of Antioxidant Activity and Phytochemical Screening of *Acalypha indica*

Abbithraa Jeganathan¹, Norliza Shah Jehan Muttiah¹ and Kokila Thiagarajah²

¹Department of Biological Science, Faculty of Science, Universiti Tunku Abdul Rahman, Bandar Barat, 31900 Kampar, Perak, Malaysia.

²Department of Biomedical Science, Faculty of Science, Universiti Tunku Abdul Rahman, Bandar Barat, 31900 Kampar, Perak, Malaysia.

Corresponding author email: norliza@utar.edu.my

INTERNATIONAL CONFERENCE ON RECENT TRENDS IN HUMANITIES AND SCIENCE 2018, 'ICRTHS-2018'.

UNIVERSITI TUNKU ABDUL RAHMAN, BANDAR BARAT, 31900 KAMPAR, PERAK, MALAYSIA.

26TH OCTOBER 2018.

American J of Bio-pharm Biochem and Life Sci 2014 December, Vol. 6: OP34

ABSTRACT

Acalypha indica (Euphorbiaceae) is generally known as Indian Nettle and Indian Copperleaf. It is an erect, annual herbaceous plant, which grows in temper region. The purpose of this investigation was to determine the complete phenolic content (TPC) by employing Folin- Ciocalteu method, total flavonoids content (TFC) using aluminium chloride method and 2, 2-diphenyl-2-picrylhydrazyl (DPPH) assay was used to evaluate the antioxidant activity of ethanol, ethyl acetate and hexane of *Acalypha indica* crude extracts. Based on the data collected, ethanol extracts showed the highest TPC as compared to ethyl acetate and hexane extracts. Besides, the highest flavonoids contents exhibited by ethanol extract then followed by ethyl acetate and hexane. Thus, bioactive compounds mostly appear in ethanol extracts as compared to ethyl acetate and hexane extracts. The DPPH antioxidant EC₅₀ values revealed that bioactive compounds are mostly present in polar ethanol followed ethyl acetate and hexane crude extracts. In addition, the three solvent extracts were screened for phytochemical tests. Presence of alkaloids, tannins and flavonoids in all the solvent extracts, proposed that *Acalypha indica* can be used as the natural sources of antioxidant and there is favorable interrelationship among the phenolic, flavonoid contents and antioxidant activity in polar crude extracts.