PHYTOCHEMICAL SCREENING AND ANTIBACTERIAL ACTIVITY OF *Piper sarmentosum*

NUR LIYANA BINTI AYOB

Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Degree of Bachelor of Science (Hons.) Chemistry
in the Faculty of Applied Sciences
Universiti Teknologi MARA

JULY 2017

This Final Year Project Report entitled **"Phytochemical Screening and Antibacterial Activity of *Piper sarmentosum*"** was submitted by Nur Liyana Binti Ayob, in partial fulfilment of the requirements for the Degree of Bachelor of Science (Hons.) Chemistry, in the Faculty of Applied Sciences, and was approved by

Dr. Ropisah Binti Me
Supervisor
B. Sc. (Hons.) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
72000 Kuala Pilah
Negeri Sembilan

Nurul Huda Binti Abdul Halim
Project Coordinator
B. Sc. (Hons.) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
72000 Kuala Pilah
Negeri Sembilan

Mazni Binti Musa
Head of Pragramme
B. Sc. (Hons.) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
72000 Kuala Pilah
Negeri Sembilan

Date: 7/8/2017

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ABSTRACT

PHYTOCHEMICAL SCREENING AND ANTIBACTERIAL ACTIVITY OF *Piper sarmentosum*

The main objectives of this study are to extract the leaves of *Piper sarmentosum,* to analyze the TLC profile of the extracted sample, to determine the compounds that contain in the extracted sample through phytochemical screening and to screen the antibacterial activity of the crude extracts. The grinded leaves of *Piper sarmentosum* were extracted by using two different solvent which were chloroform and ethanol. The method used in the extraction process was Soxhlet apparatus method. The extracts then were concentrated and evaporated by using rotary evaporator to produce crudes. The percentage yield obtained for ethanol extract was higher with 10.50 % compared to the chloroform extract with percentage yield of 8.92 %. Each of the crudes also was analyzed by TLC profile in order to determine the suitable combination of solvent system that can separate the compounds. In phytochemical screening analysis, the ethanol extract has indicated the presence of flavonoid, tannin, terpenoid, alkaloid and phenolic compounds, but not for saponins. Meanwhile, chloroform extract showed only the presence of saponin compounds but the rest were negative. Each of the crudes was also tested for their biological activities towards four different bacteria by using the disc diffusion method. The Gram-negative bacteria used which were *Escherichia coli* and *Salmonella typhimurium* while the Gram-positive bacteria used which were *Bacillus subtilis* and *Staphylococcus aureus*. Inhibition zone from the reaction of the extracts towards the bacteria was observed and measured. The antibacterial activities of the extracts were shown on *S. typhimurium, B. subtilis and S. aureus,* except for *E. coli*.