

CHEMICAL STUDY ON *Piper betel* STEMS

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TABLE OF CONTENT

	Page
ACKNOWLEDGEMENT	iii
TABLE OF CONTENTS	iv
LIST OF TABLES	vi
LIST OF FIGURES	vii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
ABSTRAK	xi
CHAPTER 1 INTRODUCTION	
1.1 Background of study	1
1.2 Problem statement	3
1.3 Significance of study	4
1.4 Objective of study	5
CHAPTER 2 LITERATURE REVIEW	
2.1 Herbs medicine	6
2.2 <i>Piper</i> species	9
2.2.1 Traditional uses	10
2.2.2 Phytochemical studies	14
2.3 <i>Piper betel</i> Taxonomy	19
2.3.1 Uses of <i>Piper betel</i>	20
2.3.2 Phytochemical Component of <i>Piper betel</i>	22
CHAPTER 3 METHODOLOGY	
3.1 Materials	25
3.1.1 Raw materials	25
3.1.2 Chemicals	25
3.1.3 Apparatus	25
3.2 Extraction method and fractionation based on polarity	26
3.3 Isolation and purification of compound	27
3.3.1 Thin Layer Chromatography (TLC)	27
3.3.2 Column Chromatography (CC)	28
3.4 Characterization of chemical constituent	29
3.4.1 Ultraviolet visible (UV-Vis)	29
3.4.2 Fourier transform infrared spectrometer (FTIR)	30
3.4.3 Gas Chromatography Mass Spectrometer (GCMS)	31

CHAPTER 4 RESULTS AND DISCUSSION	
4.1 Extraction of the sample	32
4.2 Thin Layer Chromatography Profile	34
4.3 Column Chromatography (CC)	37
4.3.1 Thin Layer Chromatography (TLC) profile	38
4.4 Characterization Analysis	42
4.4.1 Ultraviolet Visible (UV-Vis)	42
4.4.2 Fourier Transform Infrared (FTIR)	44
4.4.3 Gas Chromatography Mass Spectroscopy (GC-MS)	47
CHAPTER 5 CONCLUSION AND RECOMMENDATION	
5.1 Conclusion	50
5.2 Recommendation	51
CITED REFERENCES	52
APPENDICES	55
<i>CURRICULUM VITAE</i>	59

ABSTRACT

CHEMICAL STUDY OF *Piper betel* STEMS

This study is aimed to identify the chemical constituent of *Piper betel* stems. This sample was collected from Bukit Gantang, Perak. The species of *Piper betel* is in Piperaceae family. The objective of this study is to extract the *Piper betel* stems and isolate it to identify the active chemical compound. *Piper betel* was extracted by using hexane, chloroform and ethanol solvent. This solvent was based on polarity, started with non-polar to polar solvent. The percentage yield for hexane, chloroform and ethanol crude extract are 3.60 %, 2.36 % and 1.27 % respectively. TLC for these extract showed ethanol extract give the best spot, solvent system hexane:ethyl acetate. Column chromatography was done to isolate the mixture compound from ethanol extract with mobile phase was hexane:ethyl acetate and ethyl acetate:methanol. The fractions collected was 53 vials. Fractions 17 (PB1) and 23 (PB2) was selected for further analysis based on their TLC profiling. For characterization of chemical compound, UV-Vis showed maximum wavelength $\lambda=210$ nm and 225. FTIR showed several absorption and GCMS showed molecular weight $m/z = 280$ and 282. Based on characterization analysis, the major compound found in *Piper betel* stems are was probably identified as oleic acid (PB1) and linoleic acid (PB2).