

PHYTOCHEMICAL ANALYSIS OF THE LEAVES OF
Chromolaena odorata (Asteraceae)

NUHA BINTI CHE MAN

BACHELOR OF SCIENCE (Hons.) CHEMISTRY
FACULTY OF APPLIED SCIENCES
UNIVERSITI TEKNOLOGI MARA

NOVEMBER 2010

PHYTOCHEMICAL ANALYSIS OF THE LEAVES OF

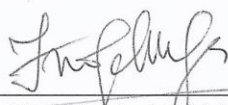
Chromolaena odorata (Asteraceae)

NUHA BINTI CHE MAN

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

OCTOBER 2010

This Final Year Project entitled “**Phytochemical Analysis of the Leaves of *Chromolaena odorata* (Asteraceae)**” was submitted by Nuha Binti Che Man, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Chemistry, in the Faculty of Applied Sciences, and was approved by



Pn. Faridahanim binti Mohd Jaafar

Supervisor

B. Sc. (Hons.) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA

Dr. Chan Chin Han
Project Coordinator
B.Sc. (Hons.) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor



Dr. Faizah binti Salleh
Head of Programme
B. Sc. (Hons.) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
40450 Shah Alam
Selangor

Date: 23 NOV 2010

ACKNOWLEDGEMENTS

In the name of Allah, I am very grateful to him, for allowing me to complete my final year project report, which carries a lot effort from many people that are incredibly meaningful to me.

I would like to express my sincere gratitude and appreciation to my supervisor, Puan Faridahanim Binti Mohd Jaafar for his guidance, encouragement, and patience throughout this thesis. All of her supportive and kindness are always be remembered.

I do greatly appreciate to the lab assistant, Mr Khairul, Mr Reduan and other laboratory members. To all of them, I really appreciate their cooperation and assistance during the lab preparation.

I would like to thank to my beloved parents for their support in final project. Thank you for your endless moral and financial support. I am deeply indebted to them for love and long term sacrifices.

Thank You

Nuha binti Che Man

ABSTRACT

PHYTOCHEMICAL ANALYSIS OF THE LEAVES OF *Chromolaena odorata*

Chromolaena odorata is a species from family of *Asteraceae*. Most of the phytochemical surveys carried out on in this family were concentrated on the testing on flavonoids since flavonoids were generally proven to be effective as therapeutically agents. Not only that, other compounds present in the plant also have been studies. Therefore a study on chemical constituents of the stem of *Chromolaena odorata* (500g) was conducted. The crude extracts were obtained by extraction by using hexane and methanol. The crude extract obtained from dichloromethane is 3.88g, isolation works were carried out using various chromatographic techniques. That result in a mixture of the compounds was founds. These mixtures known as 4', 5-dihydroxy-3, 7-dimethoxyflavone and another are types of flavonone. These structures are identified based on spectroscopic analysis using ^1H NMR, ^{13}C NMR, APT, HMQC Nuclear Magnetic Resonance (NMR).