

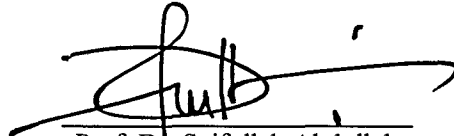
**PREPARATION AND CHARACTERIZATION OF CNTs FROM PALM
OIL BY FLOATED CATALYST METHOD**

FAIZUDIN BIN ZUBERI

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

MAY 2010

The Final Year Project Report entitled “**Preparation and Characterization of CNTs from Palm Oil by Floated Catalyst Method**” was submitted by Faizudin Zuberi, in partial fulfillment of the requirements for the Degree of Bachelor of Applied Sciences (Hons.) Physics in the Faculty of Applied Sciences, and was approved by



Prof. Dr. Saifollah Abdullah

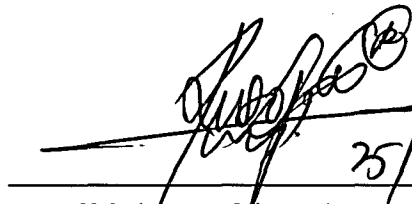
Supervisor

Faculty of Applied Sciences

Universiti Teknologi MARA

40450 Shah Alam

Selangor


25/5/2010

Prof Madya Dr Mohamad Rusop Mahmood

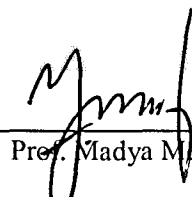
Co-Supervisor

NANO-SciTech Center, *Institute of Science*

Universiti Teknologi MARA

40450 Shah Alam

Selangor



Prof. Madya Md Yusoff Theeran

Project Coordinator

Faculty of Applied Sciences

Universiti Teknologi MARA

40450 Shah Alam

Selangor



Dr. Ab. Malik Marwan Ali

Head of Programme Physics

Faculty of Applied Sciences

Universiti Teknologi MARA

40450 Shah Alam

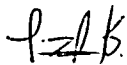
Selangor

26 MAY 2010

Date: _____

Declaration

This report hereby declared that all material in this project report are result of my own work and all the materials, which are not the result of my own work, have been clearly acknowledge in this report.



Faizudin Bin Zuberi

20072801218

Faculty of Applied Sciences

Universiti Teknologi MARA

Date: 26/5/10

TABLE OF CONTENTS

	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	1
1.2 problem statement	3
1.3 Significant of study	3
1.4 Objectives of study	4

CHAPTER 2 LITRITURE REVIEW

2.1 Introduction	5
2.2 Chemical Vapor Deposition (CVD)	6
2.3 Carbon Nanotubes (CNTs)	7
2.4 Raman Spectroscopy	8
2.5 Thermogravimetric Analysis (TGA)	9
2.6 Palm Oil	11

ABSTRACT

Carbon nanotubes exist as a macro-molecule of carbon, analagous to a sheet of graphite rolled into a cylinder. Multi Walled Nanotubes (MWNTs) can be considered as a collection of concentric SWNTs with different diameters. Carbon Nanotubes (CNTs) are produced by using Floated Catalyst Thermal Chemical Vapor Deposition by using palm oil as precursor and ZnO catalyst. The CNTs were prepared at 5 different deposition temperature. The raman spectroscopy reveal that existence of MWNTs in samples. Thermogravimetric analysis (TGA) results showed that 90% purity was achieved at the expense of 2% weight catalyst material.