

**OIL ABSORPTION PERFORMANCE OF COCONUT COIR FIBER
BASED ON HYDROTHERMAL EFFECT**

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ABSTRACT

OIL ABSORPTION PERFORMANCE OF COCONUT COIR FIBER BASED ON HYDROTHERMAL EFFECT

The oil absorption performance of coconut coir fiber is a topic of significant interest due to the potential environmental and economic benefits it offers. The purpose of this research was to investigate the effect of hydrothermal treatment on the oil absorption capacity of coconut coir fibre. Experiments were carried out to evaluate the oil absorption capabilities of untreated coconut coir fibre compared to those of hydrothermally treated coconut coir fibre. The research also investigated the structural and chemical changes in coconut coir fibre caused by the hydrothermal effect through the characterization of coconut coir fiber using FTIR (Fourier Transform Infrared Spectroscopy). The findings of this study assist to comprehend how hydrothermal treatment might increase the oil absorption performance of coconut coir fibre, offering insights for potential applications in environmental remediation and industrial settings.

TABLE OF CONTENT

ABSTRACT	iii
ABSTRAK	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF ABBREVIATIONS	x

1.0 INTRODUCTION

1.1 Background of study	1
1.2 Problem Statement	4
1.3 Significance of study	5
1.4 Objectives of Study	6

2.0 LITERATURE REVIEW

2.1 Coconut Coir Fiber	7
2.2 Composition of Coconut Coir Fiber	8
2.2.1 Lignin	10
2.2.2 Hemicellulose	12
2.2.3 Cellulose	12
2.3 Sunflower Oil	14
2.3.1 Properties of Sunflower Oil	15
2.4 Water Washing Method	17
2.4.1 Soaking	18
2.4.2 Washing	18
2.4.3 Rinsing	18
2.4.4 Drying	18
2.5 Treatment Method for Coconut Coir Fiber	19
2.5.1 Chemical Alteration	19
2.5.2 Biological Alteration	19
2.5.3 Physical Alteration	20
2.6 Hydrothermal Method	21
2.7 Functional Group Analysis	22

3.0 METHODOLOGY

3.1 Materials	24
3.2 Chemicals	24
3.3 Apparatus and Equipment	25
3.4 Methods of Sample Preparations and Analysis	27
3.4.1 Water Washing Method	27

3.4.2 Hydrothermal Method	28
3.5 Weight Loss Measurement	28
3.6 Characterization of Coconut Coir Fiber	29
3.6.1 FTIR Analysis	29
3.6.2 Oil Adsorption Test	29
3.6.3 Kinetic and Isotherm Studies	29
3.7 Flowchart of Research Methodology	31
4.0 RESULTS AND DISCUSSION	
4.1 Water Washing Method	32
4.2 Hydrothermal Treatment on Coconut Coir Fibre	33
4.2.1 Color changes	33
4.2.2 Weight Loss	34
4.3 Characterization of Coconut Coir Fibre	37
4.3.1 Analysis of Coconut Coir Fibre via FT-IR Spectroscopy	37
4.4 Determination of Oil Sorption Capacity	41
4.5 Kinetic Adsorption Model	46
5.0 CONCLUSION AND RECOMMENDATIONS	49
6.0 CITED REFERENCES	52