

**PERFORMANCE OF ACTIVATED CARBON  
FROM CASSAVA PEEL FOR THE  
REMOVAL OF Pb (II) IN  
Pb SOLUTION**

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## **ABSTRACT**

### **PERFORMANCE OF ACTIVATED CARBON FROM CASSAVA PEEL FOR THE REMOVAL OF Pb (II) IN Pb SOLUTION**

Heavy metals are non-biodegradable and may be carcinogenic; hence, the presence of these metals in water in excessive concentrations may cause serious health problems in living creatures. There are several types of heavy metal in wastewater such as Pb (II) or lead. Adsorption has been proven to be economical and efficient for removing heavy metals, organic pollutants. Adsorption is one of the most suitable approaches for removing heavy metals. It is an environmentally friendly technique with flexibility in design and operation. This adsorbent's primary use is in the purification and separation of gaseous and liquid phase mixtures. The process of preparing activated carbon in the presence of chemicals is called as chemical activation. The problem are some heavy metals, such as cadmium and lead, are not biodegradable and can cause bioaccumulation in living creatures. The production of cassava starch generates a substantial quantity of solid (cassava peel). This material was used to make carbon adsorbents that have large surface areas and pore volumes. Cassava peels are rich in carbohydrate (cellulose and hemicellulose) and lignin, that works well to remove heavy metal. Cassava peel has been a high carbon and low ash percentage, indicating it may be used to make activated carbon. It is because it produced from environmental with high carbon content. This study aims to evaluate the performance of activated carbon from cassava peel The objectives of this research was to produce activated carbon from cassava peel through chemical activation and analyze cassava peel as activated carbon such as methylene blue number, moisture content (1%), ash content (1%), iodine number (850.431 mg/g), pH(6.98) and volatile matter (2.5974%).

## TABLE OF CONTENTS

<b>ABSTRACT</b>	<b>iii</b>
<b>ABSTRAK</b>	<b>iv</b>
<b>ACKNOWLEDGEMENTS</b>	<b>v</b>
<b>TABLE OF CONTENTS</b>	<b>vi</b>
<b>LIST OF TABLES</b>	<b>viii</b>
<b>LIST OF FIGURES</b>	<b>ix</b>
<b>LIST OF SYMBOLS</b>	<b>x</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xi</b>
<b>CHAPTER 1 INTRODUCTION</b>	
1.1 Introduction	1
1.2 Problem Statement	4
1.3 Objective and Aims	5
1.4 Significance of study	5
<b>CHAPTER 2 LITERATURE REVIEW</b>	
2.1 Cassava Peel	7
2.2 cassava Peel as Activated Carbon	9
2.3 Methylene Blue Dye	11
2.4 Lead Removal Treatment from Wastewater	13
2.5 Adsorption Method	15
2.6 Mechanism of Zinc Chloride Activation	16
2.7 Heavy Metal Analysis on Lead	18
<b>CHAPTER 3 METHODOLOGY</b>	
3.1 Materials and Methods	21

3.1.1 Raw Materials	21
3.1.2 Preparation of Carbon Samples	22
3.2 Performance of Activated Carbon	24
3.2.1 Methylene Blue Number	24
3.2.2 Ash Content Determination (AC%)	24
3.2.3 Volatile Matter Determination (VM%)	25
3.2.4 Determination of pH	26
3.2.5 Iodine Number	26
3.2.6 Moisture Content Determination (MC%)	27
3.3 Experimental design/flow chart	28
<b>CHAPTER 4 RESULTS AND DISCUSSION</b>	<b>29</b>
<b>CHAPTER 5 CONCLUSION AND RECOMMENDATIONS</b>	<b>49</b>
<b>CITED REFERENCES</b>	<b>51</b>
<i>CURRICULUM VITAE</i>	5