

**A REVIEW ON THE POTENTIAL OF BANANA PEELS AS AN ACTIVATED CARBON
FOR REMOVAL OF HEAVY METALS IN WASTEWATER**

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ABSTRACT

BANANA PEELS AS AN ACTIVATED CARBON

Banana peels, abundant agricultural byproducts, are rich in cellulose, hemicellulose, and lignin, offering a promising raw material for activated carbon production. This study review different type of techniques on wastewater treatment, including the advantages and disadvantages of treatment removing the heavy metals from wastewater. The type of biomass wastes also being discussed in this study. Subsequently, different of activation of activated carbon are reviewed and type of chemical activating agent also being discussed in term of morphology, performance and environmental perspectives . Several modifications also being analyzed in order to improve the adsorption process. Adsorption is a the best wastewater treatment compared to other techniques. Herbaceous waste are the most use of biomass wastes compared to other wastes. Chemical activation been used more than physical activation. Phosphoric acid are the most using chemical activating agent compared to zinc chloride and potassium hydroxide. Acidic chemical activating agent provide better morphology and adsorption rate compared to basic and salt chemical activating agent. Banana peels has ability to adsorb heavy metals compared to others biomass waste and modifications increasing the performance of adsorption process.

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