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REMOVAL OF CHLOROPHENOL FROM AQUEOUS SOLUTION USING FLUTED PUMPKIN AND COMMERCIAL ACTIVATED CARBON

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ABSTRACT

This work aimed at exploring the potential use of fluted pumpkin stem waste as a biosorbent for the removal of chlorophenol from aqueous solutions. Batch kinetics and isotherm studies were performed to evaluate the effects of process parameters such as pH, temperature, initial chlorophenol concentration and adsorbent dosage. The adsorption of chlorophenol increased with increasing initial chlorophenol concentration, and solution pH. The adsorption equilibrium was well represented by Langmuir than Freundlich adsorption isotherm models.

Keywords: Chlorophenol, adsorption, fluted pumpkin, aqueous systems, activated carbon