

## ADSORPTION OF BENALAXYL AND ATRAZINE IN FLY ASH THE COAL OF POWER PLANT (KOSOVO A) FROM AQUEOUS SOLUTIONS

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### ABSTRACT

The development of low-cost adsorbent coal FA (Kosovo A) for pesticide removal is an important area of scientific research. With this study, we show the potential of adsorption of coal FA (Kosovo A) for removal of Benalaxyl and Atrazine from water. We have found that the amount of adsorbed Benalaxyl and Atrazine increases with an increasing amount of Coal FA (Kosovo A) in solution. The maximum capacity coal FA (Kosovo A) to adsorb Benalaxyl and Atrazine was found to be 0.46 and 0.45 mg / g according to the Freundlich equation and 3.48 and 3.33 mg / g according to the Langmuir equation. The Freundlich adsorption equation better explains the adsorption results of pesticides (Benalaxyl and Atrazine) in Coal FA (Kosovo A), as the values of the recovery coefficient ( $R^2$ ) were higher in of Freundlich equation than in the of Langmuir equation. The adsorption isotherms were of type L and show that the adsorption efficiency of the Coal FA (Kosovo A) depends on the initial concentration of Benalaxyl and Atrazine in solution and the maximum removal of Benalaxyl and Atrazine was achieved at concentrations less than 10  $\mu\text{g} / \text{ml}$ . This study's results are expected to have implications for the use of Coal FA (Kosovo A) for the removal of pesticides from water.

**Keywords:** Benalaxyl, Atrazine, Coal FA (Kosovo A), Adsorption.