

# CADMIUM AND COOPER REMOVAL FROM AQUEOUS SOLUTION BY ADSORPTION ONTO TREATED FLY ASH COLLECTED FROM CET-BRAȘOV

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**Abstract:** *The adsorption can perform many separations that are impossible or impractical by conventional techniques such as distillation, absorption and even membrane based systems. The use of fly ash (FA) in wastewater treatment received a lot of attention for the immobilization of heavy metal cations, mainly  $Cd^{2+}$ ,  $Pb^{2+}$ ,  $Ni^{2+}$ ,  $Zn^{2+}$ ,  $Cu^{2+}$  and in dye finishing industry. Modifying the fly ash surface can be a solution for reaching both goals. The paper presents the results obtained in adsorption of cadmium and cooper ions on FA powders washed with methylene blue and NaOH 2N solutions. The AFM images proved that the initial surface morphology plays an important role in these processes.*

**Key words:** *fly ash, heavy metals, wastewater, adsorption.*

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