



Materials based on ash for environmental protection. II. Preliminary studies about dyes sorption onto materials based on ash

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Batch sorption experiments were carried out to remove reactive dye Brilliant Red HE-3B from its aqueous solutions using industrial waste ash and materials based on ash as a low cost sorbent. To establish the most suited type of materials to be used as sorbent for this dye, the effect of various experimental parameters such as solution pH, initial dye concentration, sorbent dose and type of sorbent were investigated. The results of this study show that all of the tested materials have a limited capacity for dye molecules uptake but we also observed that sorbent namely Ads 4 present the best values from the sorption capacity of sorption. The percent of reactive dye Brilliant Red HE-3B sorption has a maximum at pH 2.0 - 5.0 and increases with the increase of sorbent dose, temperature and decreases with increasing initial concentration of solution.