World Academy of Science, Engineering and Technology
International Journal of Energy and Environmental Engineering
Vol:9, No:07, 2015

Study of the Removal of a Red Dye Acid and Sodium Bentonite Raw

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Abstract : Wastewater from manufacturing industries are responsible for many organic micropollutants such as some detergents and dyes. It is estimated that 10-15 % of these chemical compounds in the effluents are discharged. In the method of dyeing the dyes are often used in excess to improve the dye and thereby the waste water are highly concentrated dye. The treatment of effluents containing dye has become a necessity given its negative repercussions on ecosystems mainly due to the pollutant nature of synthetic dyes and particularly soluble dyes such as acid dyes. Technology adsorptive separation is now a separation technologies of the most important treatments. The choice led to the use of bentonite occurs in order to use an equally effective and less costly than replacing charcoal. This choice is also justified by the importance of the material developed by, the possibility of cation exchange and high availability in our country surface. During this study, therefore, we test the clay, the main constituent is montmorillonite, whose most remarkable properties are its swelling resulting from the presence of water in the space between the sheets and the fiber structure to the adsorption of acid dye "red Bemacid. "The study of various parameters i.e. time, temperature, and pH showed that the adsorption is more favorable to the temperature of 19 °C for 240 minutes at a Ph equal to 2.More styles and Langmuir adsorption Freundlich were applied to describe the isotherms. The results show that sodium bentonite seems to affect the ability and effectiveness to adsorb colorant.Les ultimate quantities are respectively 0.629 mg/g and 0.589 mg/g for sodium bentonite and bentonite gross.

Keywords : Bentonite, treatment of polluted water, acid dyes, adsorption
Conference Title : ICEEWM 2015 : International Conference on Environment, Energy and Waste Management
Conference Location : Paris, France
Conference Dates : July 20-21, 2015