

Adsorption of methylene blue onto treated activated carbon

Abstract

The potential feasibility of treated and untreated activated carbon for removal of methylene blue from aqueous solution was investigated. The effects of various experimental parameters such as contact time, solution pH and adsorbent dosage were investigated. The extent of methylene blue removal increased with the increased in contact time, solution pH and amount of adsorbent used. Adsorption data was better fitted to the Langmuir isotherm. The results in this study indicated that the treated activated carbon was an attractive candidate for removing organic dye of methylene blue which shows great reduction of colour while reducing the time contact to achieve equilibrium.

Keyword: Adsorption; Treated activated carbon; Colour removal; Adsorption isotherm