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Adsorption of Toluidine blue dye from industrial waste water on the remnants of tea leaf

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Abstract:The use of remnants of tea leaf as an inexpensive, profusely and ecofriendly adsorbent has been studied as an alternate substitution of carbon for the removal of dye from industrial effluent. This material was with success accustomed take away the Toluidine blue dye from solution during a batch equilibrium sorption technique. The adsorbent was made up of tea leaf procured from Asian country and was investigated beneath varied factors like contact time, adsorbent dose, initial concentration, pH, and particle size of adsorbent. The favor Freundlich and Irving Langmuir isotherm paradigm were enforced for the equilibrium sorption information and therefore the varied isotherm were valuation. an quantity of (0.2) g of (BT) may take away (96%) take advantage of (50) ppm from (BT) dye with (pH=7).

Keywords: Tea leaf, adsorption capacity , isotherm models , Toluidine blue.

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