

Low-cost activated carbon derived from *Cassia alata* seeds for the removal of xlenol orange from aqueous solution: Kinetic, equilibrium, thermodynamic studies

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An inexpensive and porous activated carbon (AC) was prepared from *Cassia alata* (CA) matured seeds using sulphuric acid as an activating agent. The prepared activated carbon was employed for the adsorption of Xlenol Orange (XO) in an aqueous solution. The experiments were conducted in a batch method to optimize various experimental parameters. The resulting materials were characterized by two different techniques such as SEM and FT-IR analyses.

Keywords: Activated carbon, dye removal, isotherm, thermodynamic parameters.