

## Adsorption Equilibrium and Kinetics of Nanostructured Activated Carbon Fibers

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The adsorption properties for activated carbon nano fibers (ACNF) which was fabricated by using electrospinning route at different temperatures were investigated for assessment of its possibility as a novel alternative adsorbent. Nitrogen adsorption/desorption isotherms and gravimetric techniques were used to understand the porous structure, adsorption equilibrium, kinetics, and the energetic heterogeneity of the prepared adsorbent. The equilibrium data for dyes (Congo red and Methylene blue) correlated successfully with Toth isotherm equation. Also, adsorption kinetics was evaluated based on the comparison between experimental and simulated results.