

عنوان مقاله:

Synthesis of mesoporous SBA-15 nanoparticles using stem sweep ash silica for adsorption kinetics of the cationic dye, Azure B, from aqueous solution

محل انتشار:

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خلاصه مقاله:

In this study, the application of Synthesized mesoporous SBA-15 nanoparticles from stem sweep ash (SSA) silica for adsorption kinetics of the cationic dye from aqueous solution were investigated. silica was extracted from SSA with approximately 80% purity. The present study used stem sweep, which is an agricultural waste, as silica source for mesoporous SBA-15 nanoparticles. The synthesized SBA-15 nanoparticles are rod-like shapes with average diameter of 82 nm and length in the range of 50-250 nm. Finally in this work, adsorption kinetics of a cationic dye, Azure B, from aqueous solution were evaluated with respect to initial dye concentration, temperature, pH, mixing rate and sorbent dosage.

کلمات کلیدی:

SBA-15 nanoparticles, stem sweep, silica, cationic dye, Azure B

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