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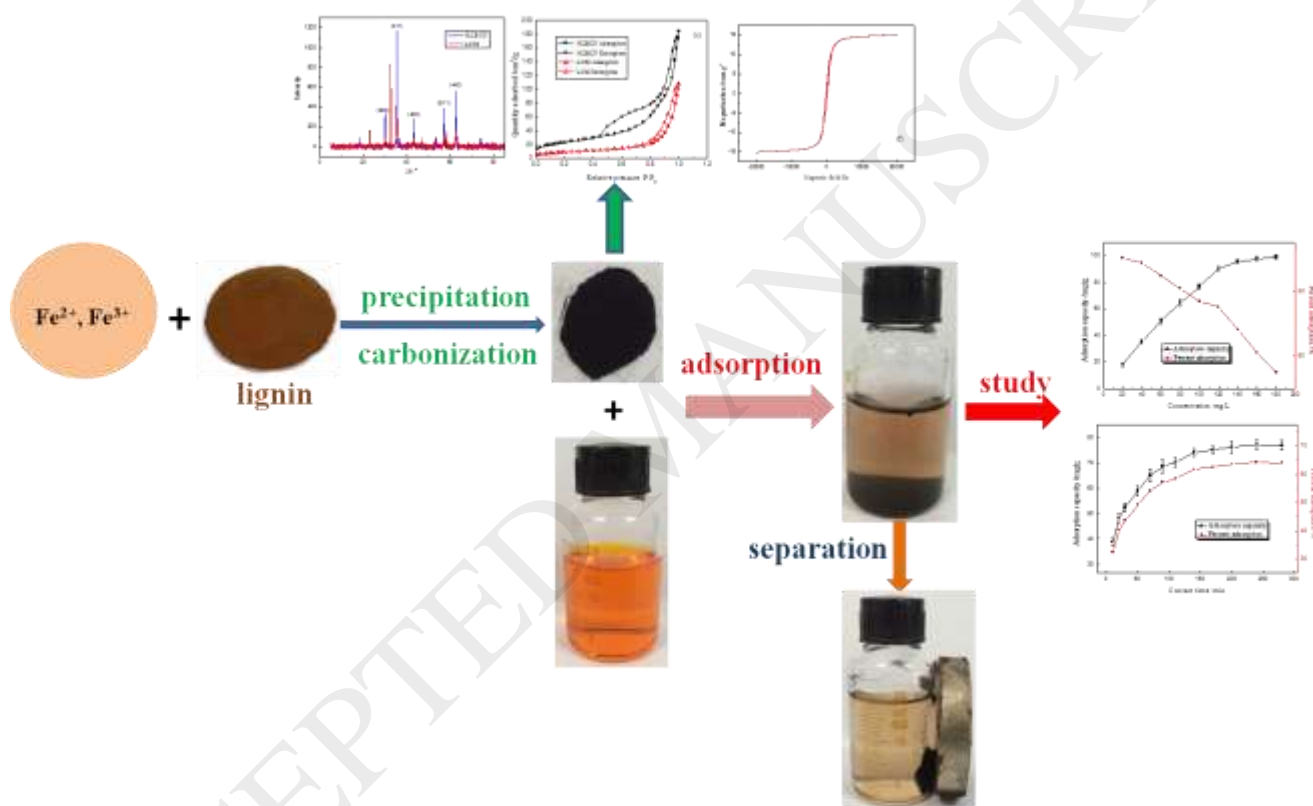
Magnetic lignin-based carbon nanoparticles and the adsorption for removal of methyl orange

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GRAPHICAL ABSTRACT



ABSTRACT

In order to expand the application of lignin, magnetic lignin-based carbon nanoparticles (MLBCN) were synthesized using a precipitation-carbonization process and the structure was confirmed by FTIR, XRD, Raman, BET, SEM, DLS and VSM. The adsorption of MLBCN for methyl orange was consistent with the Langmuir model and pseudo-second-order model, showing monolayer

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