ELABORATION PAR SYNTHÈSE VERTE ET CARACTÉRISATION DES NANOPARTICULES D'OXYDES DE FER ET LEUR APPLICATION ÀL'ADSORPTION DU COLORANT BLEU DE MÉTHYLÈNE

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Abstract: Nanosciences and nanotechnology are the technological and scientific revolution of today, as was microtechnology in 1970-1980. The objective of green synthesis is to minimize, at best, the danger and considerably increase the efficiency of certain chemical practices, particularly at the nano-scale.This work consists first of all in synthesizing iron oxide nanoparticles by the "Green Synthesis" method based on plant extracts and metal salts; then to characterize the nanoparticles produced by different analysis techniques: Fourier Transform Infrared spectroscopy (FTIR), Scanning Electron Microscopy (SEM) associated to Energy Dispersive Spectroscopy (EDS), and X-ray Diffraction (XRD)); then to use the nanoparticles for the application to the adsorption of the dye (methylene blue).

Keywords : Nanosciences, Nanotechnology, Microtechnology, X-ray diffraction, Fourier Transform Infrared spectroscopy, Scanning Electron Microscopy (SEM), Energy Dispersive Spectroscopy