LIST OF FIGURES

FIGURES

A. Calibration graphs for Dyes 54
B. Calibration graphs for Phenols 55
1. Determination of pHZPC of the adsorbent 63
2. Pore size distribution 63
3.1 SEM Micrograph of Carbon 64
3.2 SEM Micrograph of carbon after adsorption with Congo Red 64
3.3 SEM Micrograph of carbon after adsorption with Methylene Blue 65
3.4 SEM Micrograph of carbon after adsorption with Acid Brilliant Blue 65
3.5 SEM Micrograph of carbon after adsorption with Procion Orange 66
3.6 SEM Micrograph of carbon after adsorption with 2-Chlorophenol 66
3.7 SEM Micrograph of carbon after adsorption with 2,4-Dichlorophenol 67
3.8 SEM Micrograph of carbon after adsorption with 2,4,6-Trichlorophenol 67
3.9 SEM Micrograph of carbon after adsorption with Pentachlorophenol 68
3.10 SEM Micrograph of carbon after adsorption with Phenol 68
4.1 X-ray powder diffraction pattern of carbon before adsorption 69
4.2 X-ray powder diffraction pattern of carbon after adsorption with Congo Red 69
4.3 X-ray powder diffraction pattern of carbon after adsorption with Methylene Blue 70
4.4 X-ray powder diffraction pattern of carbon after adsorption with Acid Brilliant Blue 70
4.5 X-ray powder diffraction pattern of carbon after adsorption with Procion Orange 71
4.6 X-ray powder diffraction pattern of carbon after adsorption with Phenol 71
4.7 X-ray powder diffraction pattern of carbon after adsorption with 2-Chlorophenol 72
4.8 X-ray powder diffraction pattern of carbon after adsorption with 2,4-Dichlorophenol 72
4.9 X-ray powder diffraction pattern of carbon after adsorption with 2,4,6-Trichlorophenol 73
4.10 X-ray powder diffraction pattern of carbon after adsorption with Pentachlorophenol 73
5.1 FT-IR Spectra of Coir pith carbon 74
5.2 FT-IR Spectra of Coir pith carbon after adsorption with Congo Red
5.3 FT-IR Spectra of Coir pith carbon after adsorption with Methylene Blue
5.4 FT-IR Spectra of Coir pith carbon after adsorption with Acid Brilliant Blue
5.5 FT-IR Spectra of Coir pith carbon after adsorption with Procion Orange
5.6 FT-IR Spectra of Coir pith carbon after adsorption with Phenol
5.7 FT-IR Spectra of Coir pith carbon after adsorption with 2-Chlorophenol
5.8 FT-IR Spectra of Coir pith carbon after adsorption with 2,4-Dichlorophenol
5.9 FT-IR Spectra of Coir pith carbon after adsorption with 2,4,6-Trichlorophenol
5.10 FT-IR Spectra of Coir pith carbon after adsorption with Pentachlorophenol
6 Effect of agitation time and initial dye concentration on adsorption of Dyes
7 Effect of agitation time and initial phenol concentration on adsorption of Phenols
8 Lagergren first order plots for adsorption of Dyes
9 Lagergren first order plots for the adsorption of Phenols
10 Second order kinetics for adsorption of Dyes
11 Second order kinetics for adsorption of Phenols
12 Effect of adsorbent dose and initial dye concentration on adsorption
13 Effect of adsorbent dose and initial phenol concentration on adsorption
14 Effect of adsorbent dose on final pH for adsorption of Dyes
15 Effect of adsorbent dose on final pH for adsorption of Phenols
16 Langmuir plots for adsorption of Dyes
17 Langmuir plots for adsorption of Phenols
18 Freundlich plots for Dyes adsorption
19 Freundlich plots for adsorption of phenols
20 Effect of agitation time and temperature on removal of Dyes
21 Effect of agitation time and temperature on removal of Phenols
22 Effect of temperature on Lagergren first order plots for adsorption of Dyes
23 Effect of temperature on Lagergren first order plots for adsorption of Phenols
24 Second order kinetic plots for adsorption of Dyes at different temperatures
25 Second order kinetics plots for adsorption of Phenols at different temperatures
26 van't Hoff plots for adsorption of Dyes
van't Hoff plots for adsorption of Phenols
Effect of pH on the adsorption of Dyes
Effect of Initial pH on Final pH for Dyes
Effect of pH on the adsorption of Phenols
Effect of Initial pH on Final pH for Phenols
Effect of Final pH on Ionization of Phenols
Effect of pH on desorption of Dyes
Effect of pH on desorption of Phenols
Effect of adsorbent dose on removal of Dyes from synthetic wastewater
Effect of adsorbent dose on removal of Phenols from synthetic wastewater
Freundlich plots for adsorption of Dyes from synthetic wastewater
Freundlich plots for adsorption of Phenols from synthetic wastewater
Effect of pH on the adsorption of Dyes from synthetic wastewater
Effect of pH on the adsorption of Phenols from synthetic wastewater