

Contents

<i>Subject</i>	<i>Page no.</i>
List of Figures	5
List of Tables	7
<i>Chapter 1. Introduction.</i>	
1.1. Types and Uses of Disperse Dyes	13
1.2. Production of activated carbon	16
1.3. Literature Survey on the Adsorption of Dyes on Activated Carbon	19
<i>Aim of the work</i>	44
<i>Chapter 2. Experimental</i>	
2.1. materials	45

2.1.1. Acrylic dyes solutions	45
2.1.2. Activated carbon	45
2.2. Methods	47
2.2.1. Characterization of the activated carbon by point of zero charge (pHpzc)	47
2.2.2. preparation of dye solutions	47
2.3. Adsorption studies	47
<i>Chapter 3. Results and discussion</i>	
3.1. Determination of pHpzc of the activated carbon samples	51
3.2. Effect of contact time	53
3.3. Effect of pH on efficiency of dye removal	55
3.4. Effect of ionic strength on efficiency of dye removal	57
3.5. Effect of stirring rate on efficiency of dye removal	61
3.6. Effect of adsorbent dose on efficiency of dye removal	63
3.7. Effect of initial dye concentration on efficiency of dye removal	66

3.8. Isotherm data analysis	68
3.8.1. Langmuir isotherm	72
3.8.2. Freundlich isotherm	76
3.8.3. Tempkin isotherm	80
3.9. Effect of temperature	83
3.10. Thermodynamic Parameters	86
<i>Conclusion</i>	93
<i>References</i>	94
<i>Arabic Summary</i>	