

CONTENTS

	Page
 CHAPTER I : <i>Introduction</i>	
List of Figures.....	v
List of Tables.....	viii
List of Abbreviations.....	x
Aim of work.....	xi
1.1.General introduction.....	1
1.1.1. Commencement.....	1
1.1.2. Investigation of the studied drugs.....	3
1.1.2.1. Cimetidine.....	3
1.1.2.2. Ranitidine.....	4
1.1.2.3. Famotidine.....	6
1.2.Literal review.....	8
1.2.1. Spectrophotometric methods.....	8
1.2.2. Spectrofluorimetric methods.....	17
1.2.3. Ultra-violet spectrophotometric methods.....	18
1.2.4. Titrimetric methods.....	20
1.2.5. Physicochemical methods.....	22
1.2.6. Electroanalytical methods.....	24
1.2.7. Chromatographic methods.....	33
 CHAPTER II : <i>Experimental</i>	
2.1. Chemicals.....	38
2.1.1. Samples.....	38
2.1.2. Drug solutions.....	40
2.1.3. Acid solutions.....	40
2.1.4. Oxidants.....	41

2.1.5. Dyes.....	41
2.1.6. Potassium bromide solution.....	42
2.2. Apparatus.....	42
2.3. Working procedure.....	43
2.3.1. Using N-bromosuccinimide.....	43
2.3.1.1. Effect of acid concentration.....	43
2.3.1.2. Effect of time and temperature.....	43
2.3.1.3. Effect of sequence of additions.....	44
2.3.1.4. Effect of KBr concentration.....	44
2.3.1.5. Effect of dye concentration.....	44
2.3.1.6. Molar ratio method.....	45
2.3.2. Using cerium(IV) sulphate.....	45
2.3.2.1. Effect of acid concentration.....	45
2.3.2.2. Effect of temperature.....	46
2.3.2.3. Effect of time.....	46
2.3.2.4. Effect of sequence of additions.....	47
2.3.2.5. Effect of dye concentration.....	47
2.3.2.6. Molar ratio method.....	47
2.3.3. Accuracy and precision.....	47
2.3.4. Interferences.....	48
2.3.5. Analytical applications.....	48
2.4. Pharmacopoeial and official methods for analysis of studied drugs.....	49
2.4.1. Assay of cimetidine.....	49
2.4.2. Assay of ranitidine.....	49
2.4.3. Assay of famotidine.....	49

CHAPTER III : *Results and Discussion*

3.1. Absorption spectra of the studied drugs with N-bromo-succinimide and amaranth dye.....	50
3.1.1. Suggested mechanism.....	52
3.1.2. Effect of acid concentration.....	53
3.1.3. Effect of time and temperature.....	53
3.1.4. Effect of sequence of additions.....	56
3.1.5. Effect of KBr concentration.....	56
3.1.6. Effect of dye concentration.....	58
3.1.7. Molar ratio method.....	58
3.1.8. Statistical analysis.....	58
3.1.9. Validity of Beer's law.....	62
3.1.10. Accuracy and precision.....	62
3.1.11. Interferences.....	66
3.1.12. Analytical applications.....	66
3.2. Absorption spectra of the studied drugs with Cerium(IV) sulphate and chromotrope 2R or rhodamine 6G.....	69
3.2.1. Suggested mechanism.....	69
3.2.2. Effect of acid concentration.....	72
3.2.3. Effect of temperature.....	73
3.2.4. Effect of time.....	73
3.2.5. Effect of sequence of additions.....	80
3.2.6. Effect of dye concentration.....	80
3.2.7. Molar ratio method.....	80
3.2.8. Validity of Beer's law.....	83
3.2.9. Accuracy and precision.....	89
3.2.10. Interferences.....	89
3.2.11. Analytical applications.....	89

Conclusion.....	105
Summary.....	107
References.....	111
Arabic summary.....	1