CONTENTS

| | Page |
|---|----------|
| Chapter 1 Introductory | 1 |
| Colour | 1 |
| Absorption Spectra | 3 |
| The Absorption of Radiation by Molecules | 5 |
| Unsaturation and Benzenoid Character | 7 |
| Chapter 2 Classification of Dyes | 13 |
| Classification According to Constitution | 13 |
| Dye Application | 18 20 |
| Dyeing Fastness Tests | 25 25 |
| Classification of Dyes According to Application | 27 |
| Textile Printing | 31 |
| Chapter 3 Intermediates | 35 |
| Unit Processes | 35 |
| Nitration | 35 |
| Halogenation | 39 |
| Sulphonation | 43 |
| Desulphonation | 46 47 |
| Amination by reduction Sulphide by reduction | 48 |
| Benzidine rearrangement | 49 |
| Amination by ammonolysis | 50 |
| The introduction of hydroxy groups | 54 |
| Alkylation of amines | 57 |
| Arylation of amines | 58 |
| Oxidation | 61 |
| Miscellaneous reactions | 62 |
| Chapter 4 Azo Dyes –I | 72 |
| General Diazotization | 72 73 |
| Diazo Coupling | 79 |
| Chapter 5 Azo Dyes – II | 88 |
| Monoazo Dyes | 88 |
| Disazo Dyes | 99 |
| Trisazo Dyes | 105 |
| Polyazo Dyes | 107 |
| Chapter 6 Azo Dyes – III | 108 |
| Metal – Azo Dye Complexes | 108 |
| Azoic Dyes | 116 |
| Chapter 7 Anthraquinone Dyes – I | 121 |
| Anthraquinone Dyes and Related Colorants | 121 |
| Chapter 8 Anthraquinone Dyes – II | 129 |
| Vat Dyes | 129 |

| Chapter 9 | Indigoid, Thioindigoid and Sulphur Dyes | 142 |
|--------------------|--|------------|
| | Syntheses | 143 |
| | digoid Dyes | 145 |
| Sulphu | ır Dyes | 147 |
| Chapter 10 | Triarylmethane and Related Dyes | 151 |
| • | lmethane dyes | 151 |
| Relate | d Dyes | 160 |
| Chapter 11 | Miscellaneous Dyes | 166 |
| Azines | | 166 |
| Oxazir | | 168 |
| Thiazi | | 169 |
| Acridi | | 169 |
| | line Dyes | 170 |
| | ole Dyes | 171 172 |
| Nitro I Ingrair | | 172 |
| | ion Colours | 173 |
| | nes and Nigrosines | 175 |
| | ne and Polymethine Dyes | 175 |
| | ic Dyes | 175 |
| | nostyryl dyes | 177 |
| Chapter 12 | Stilbene Dyes and Fluorescent Brightening Agents | 178 |
| - | scent Brightening Agents | 179 |
| Chapter 13 | Reactive Dyes | 185 |
| Chapter 14 | Disperse Dyes | 193 |
| Introdu | • | 193 |
| Monoa | nzo dyes | 196 |
| Disazo | • | 200 |
| | equinone disperse dyes | 201 |
| | laneous disperse dyes | 204 |
| Dyeing | g by non-aqueous methods | 208 |
| Chapter 15 | Pigments | 210 |
| Introdu | • | 210 |
| | f Synthetic Organic Pigments | 210 |
| Fastne | | 211 |
| | of Pigments n High-grade Pigments | 213 218 |
| Wiodei | ii High-grade i ighichts | 210 |
| Chapter 16 | The Manufacture of Intermediates, Dyes, and Pigments | 229 |
| Genera | | 229 |
| | als of construction and Types of Plant | 229 |
| | echnique of manufacture | 231 |
| Dye To | esung Ikali Act, Effluent Treatment | 242 242 |
| | actories Act and other industrial legislation | 242 |
| Bibliography | | 245 |
| Commercial 1 | Name Index | 248 |
| C.I. Reference | | 251 |
| Name Index | | 258 |
| General Inde | X | 260 |