

CONTENTS

<i>List of Contributors</i>	xi
<i>General Preface</i>	xiii
<i>Preface to Volume VIII</i>	xv
<i>Contents of Other Volumes</i>	xvii
<i>List of Abbreviations</i>	xxi

I. Reactive Dyes—Physicochemical Aspects of Dye Fixation and Dye-Fiber Bond Hydrolysis

I. D. Rattee

I. Introduction	1
II. Hydrolysis	2
III. Competitive Alcoholysis and Hydrolysis in Solution	10
IV. Competitive Reaction with Adsorption and Diffusion	12
V. Use of Reaction Catalysts	19
VI. Removal of Unfixed Dye from Reactive-Dyed Materials	22
VII. Stability of Dye-Fiber Bonds	24
VIII. Fixation of Reactive Dyes on Wool	31
IX. Novel Approaches to Reactive Dye Fixation	35

II. Leather Dyes

J. F. Feeman

I. Introduction	37
II. General Discussion	39
III. Anionic Dyes	42
IV. Cationic Dyes	73
V. Reactive Dyes	74
VI. Azoic Dyes	77
VII. Miscellaneous Dyes	78

III. Solvent Dyes

Chi-Kang Dien

I. General Discussion	81
II. Chemistry and Properties of Solvent Dyes	86
III. Application, Evaluation, and Analysis of Solvent Dyes	125

IV. New Developments in Textile Coloration

R. H. Peters and L. W. C. Miles

I. Use of Solvents in Dyeing	133
II. New Fibers	164

III. Disperse Dyes for Cellulose	179
IV. Microfoams for Dye Distribution	180
V. Jet Dyeing	182
VI. Continuous Exhaustion Dyeing	185
VII. Vacuum Impregnation	187
VIII. Space Dyeing	188

V. Transfer Printing

C. E. Vellins

I. General Introduction	191
II. History	193
III. Developments since 1970–1971	195
IV. Basic Work on Transfer Printing	200
V. Selection of Dyes for Transfer Printing	202
VI. Transfer-Printed Carpets	208
VII. Selection of the Paper or Other Materials for Transfer Printing	209
VIII. Transfer-Printing Inks	210
IX. Methods Used for Printing the Paper	211
X. Heat-Transfer Print Machines	212
XI. Japanese Patent Situation	214
XII. Advantages and Disadvantages of Transfer Printing	220

VI. Structural Factors Affecting the Lightfastness of Dyed Fibers

Neil A. Evans and Ian W. Stapleton

I. Introduction	221
II. Azo Dyes	226
III. Anthraquinonoid Dyes	247
IV. Nitrodiphenylamine Dyes	256
V. Triarylmethane Dyes	258
VI. Polymethine and Methine Dyes	265
VII. Heterocyclic Dyes	268
VIII. Reactive Dyes	276

VII. Relations between the Molecular Structures of Dyes and Their Technical Properties

Charles H. Giles, David G. Duff, and Roy S. Sinclair

I. Introduction	279
II. Application Properties of Dyes	280
III. Fastness Properties of Dyes	294
IV. Relations between Technical Properties and Molecular Structure—Specific Dye–Fiber Systems	300

VIII. The Dye Developer in the Polaroid Color Photographic Process

S. M. Bloom, M. Green, M. Idelson, and M. S. Simon

I. Introduction	331
II. Azo Dye Developers	338
III. Anthraquinone Dye Developers	358
IV. Metallized Dye Developers	371
V. Miscellaneous Chromophores	380
VI. Color-Shifted Dye Developers	384

IX. Synthetic Carotenoids as Colorants for Food and Feed

F. Kienzle and O. Isler

I. Introduction	389
II. Discussion of Synthetic Methods	392
III. Future Development	412
IV. Conclusion	414
<i>Author Index</i>	415
<i>Subject Index</i>	427
<i>Cumulative Dye Index (Volumes III-VIII)</i>	435