

Preface

Nowadays, dyes and pigments are of great interest in terms of scientific research and practical applications. This book has been written to create the concise practical overview of colorant substances by offering a comprehensive introduction devoted to the historical development of dyes and pigments.

In this context, Chap. 1 is devoted to the historical development of dyes and pigments. Chapter 2 predominantly examines the structures of dyes and pigments with the formation mechanisms of color and the chemistry of dyes. Hence, this chapter starts with the brief information about the chemical structures of typical colorants and ends with a comprehensive analysis of the color phenomenon.

The extensive information about different colorants and their structural characteristics has a critical importance in the creation of novel dye types and their application fields and also in the preparation of new dye formulations which cover nanotechnological applications. Therefore, Chap. 3 highlights the differences between dyes and pigments by considering the main classifications of the dyes and pigments.

Chapter 4 is devoted predominantly to the dyeing methods including several modern and traditional techniques.

Finally, in Chap. 5, a wide range of dyes and pigments are discussed in the context of green chemistry with environmental and health aspects by considering their negative results related with their use.

To sum up, this book is a detailed review particularly about dyes, pigments, and color, and even paints.

We believe that this book containing many figures, schemas, and numerous relevant references in each chapter would be an essential reference source for the readers working on the researches and applications related to dyes, pigment, and dyeing.

Erzurum
2016

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Dyes and Pigments

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2016, VIII, 83 p. 23 illus., 4 illus. in color., Softcover

ISBN: 978-3-319-33890-3