

THE CHEMISTRY OF DYEING

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The Chemistry of Dyeing by John K. Wood

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OF DYEING**

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BY

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PREFACE

IN writing this little book my principal aim has been to give a concise and connected account of the work which has been carried out, particularly during the last thirty years, with the object of throwing light on the nature of the dyeing process. As will appear from a perusal of the book itself, many of the common practices of dyeing and the phenomena connected with the process are found, on examination, to be in agreement with and easily explained by the general principles of Physical Chemistry, with which the reader is supposed to be familiar. The book may have, therefore, the effect of widening the student's outlook, by showing him that the principles which govern many of the operations of the laboratory apply with equal force to a large industry. Such information respecting the textile fibres and the dyestuffs as is necessary for a complete understanding of the principles of dyeing has been included in the book.

I hope that the work may also appeal to some of those actively engaged in the Dyeing Industry as well as to the student, and that it may have the effect of arousing in them a greater interest in the theoretical side of their work.

J. K. W.

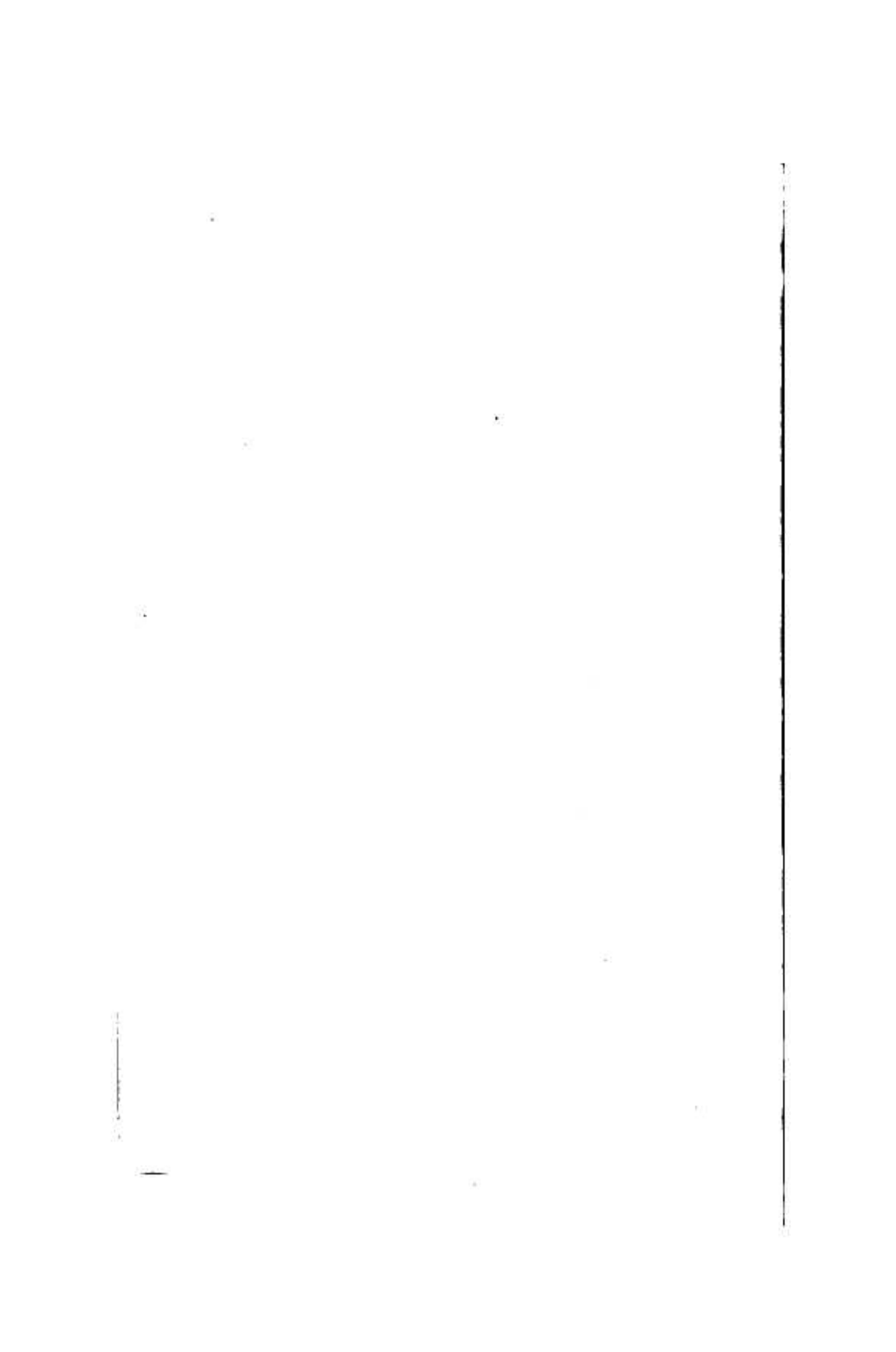
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The Chemistry of Dyeing

INTRODUCTION

By the term "Dyeing" we mean the colouring of various materials, especially textile fabrics, in such a manner that the colour is not readily removed by washing or rubbing the article; moreover, the colour must be distributed right through the whole material, and not lie simply on the surface as with a painted article.

The art of dyeing dates from prehistoric times and is of Eastern origin. Pliny gives a short account of the methods employed in Egypt in the first century, but in even earlier times dyeing operations were carried on in India, China, and Persia. From Egypt knowledge of the art travelled in a westward direction, but it was not until towards the end of the fifteenth century that the Dyers' Company was incorporated in London.

Previous to the middle of the last century, all the materials used as colouring agents were of natural origin, being chiefly obtained from various portions of trees and plants. Probably in the early stages of the development of dyeing, the colours produced were of a fugitive character and little better than stains,