Textile Preparation And Dyeing

Discusses the preparation and bleaching of textile fabrics for the dyeing and printing of all commonly-used fibres in textile industry including cotton, viscose, linen, wool, silk, polyamide, polyester, elastane, acrylic and their blends in both woven and knitted forms. In each case, theory behind the process, functions of the chemicals and auxiliaries used in the process, guideline recipes, notes on precautions and care to be taken to achieve best results are given. Detailed explanation of all batch wise, semi-continuous and continuous process are provided in this book which will be very helpful for both students and textile processors. A separate chapter is also included on bio-preparation.

Beautiful pictures of wonderful, indigo-dyed fabrics in a variety of designs accompany detailed advice on materials, preparation, and methodology in this guide to indigo dyeing. Using Shibori techniques?folding, pleating, clamping, stitching, and pole wrapping?the different stages are illustrated using clear, step-by-step photographs, and easy-to-follow text. With a special section on the health and safety aspects of working with dyes, the manual also presents a stunning sequence of inspirational projects specially chosen to develop skills and build confidence, which include a tea cozy, a jacket, a silk scarf, and more.

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introduced by the scanning process. We believe this work is culturally important, and despite the imperfections, have elected to bring it back into print as part of our continuing commitment to the preservation of printed works worldwide. We appreciate your understanding of the imperfections in the preservation process, and hope you enjoy this valuable book.

Guidebook to reducing pollution at the industrial/ manufacturing source. Emphasizes techniques for: metals coating, metals degreasing, office equipment, chemical manufacturing, printing, textiles dye and dyeing, and pulp and paper industries. The objective of this monograph is to identify technical opportunities within a number of selected industries and/or manufacturing/finishing processes, to reduce pollution. These industries/processes were selected as representative of and applicable to the broad range of U.S. manufacturing businesses.

Handbook on Fabric Manufacture discusses the activities involved in the manufacturing of grey fabrics, inspection of both grey and finished fabrics, presentation of samples for market, marketing and customer service activities where technical people are involved.The activities of value addition to the fabric by way of wet finishes like bleaching and dyeing, finishing printing etc., are explained in a separate book. This book does not deal with any technology or design of the machine parts and mechanisms, but explain the methods of monitoring the activities in general.

Excerpt from The Chemical Technology of Textile Fibres: Their Origin, Structure, Preparation, Washing, Bleaching,

Dyeing, Printing and Dressing; And Dressing IN the present volume, dealing with the Chemical Technology of the Textile Fibres (except as concerns the dye-stuffs, Which Will be treated in a separate work), the author has been obliged to con dense the available matter as much as possible, in order to preserve the form of a text-book. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at www.forgottenbooks.com This book is a reproduction of an important historical work. Forgotten Books uses state-of-the-art technology to digitally reconstruct the work, preserving the original format whilst repairing imperfections present in the aged copy. In rare cases, an imperfection in the original, such as a blemish or missing page, may be replicated in our edition. We do, however, repair the vast majority of imperfections successfully; any imperfections that remain are intentionally left to preserve the state of such historical works.

The type and amount of textile products have greatly proliferated over the last decade. Concomitant textile processing to improve the properties and ultimate performance has also undergone dramatic changes. Ready availability of instrumentation, computers, lasers and integration of these advances with similar progress in polymer/material science have led to the need for a unified discussion on these topics. The current book concisely discusses all aspects of textile processing, modification and performance for four major topics: preparation (by fiber type), dyeing and printing (dye type, theory and synthesis; dye

classification by structure and application), improving functional and aesthetic textile properties (physical, chemical and physicochemical processes and concepts), and performance (chemical analysis, instrumental methods; physical, chemical, biological, multiple influences and standard tests). A detailed and logical progression from the initial purification of textiles to their performance and care is described. The book will be useful as a text for textile/polymer courses at undergraduate and graduate levels and as a comprehensive source of information for textile scientists, engineers, manufacturers, retailers and others with an interest in textile products.

With the public enhanced awareness towards eco-preservation, eco-safety and health concerns, environmentally benign, nontoxic and sustainable bioresource materials produced mainly from non-food crops have revolutionized all industrial sectors particularly textile industry. In recent years, textile industries in developed countries are getting increasing interest in global interest due to the varied and changing world market conditions in terms of price, durability and fiber mixtures as well as design, colors, weight, ease of handling and product safety. The increasing environmental and health concerns owing to the use of large quantities of water and hazardous chemicals in conventional textile finishing processes lead to the design and development of new dyeing strategies and technologies. Effluents

produced from these textiles wet processing industries are very diverse in chemical composition, ranging from inorganic finishing agents, surfactants, chlorine compounds, salts, total phosphate to polymers and organic products. This aspect forced western countries to exploit their high technical skills in the advancements of textile materials for high quality technical performances, and development of cleaner production technologies for cost effective and value-added textile materials. Therefore, vast and effective research investigations have been undertaken all over the world to minimize the negative environmental impact of synthetic chemical agents through the sustainable harvest of eco-friendly bioresource materials. The book will discuss following research developments in academic and industry: Improvement in dye extraction and its applications Impact of textile dyeing on environment Textile finishing by natural and ecofriendly means Natural dyes as environmental-friendly bioresource products Textile effluent remediation via physical, chemical and biological processes.

Textile industry is one of the few basic industries, which is characterised as a necessary component of human life. One may classify it as a more glamorous industry, but whatever it is, it provides with the basic requirement called clothes. Spinning is the process of converting cotton or manmade fibre into yarn to be used for weaving and knitting. Weaving is a method

of textile production in which two distinct sets of yarns or threads are interlaced at right angles to form a fabric or cloth. Finishing refers to the processes that convert the woven or knitted cloth into a usable material. Printing is the process of applying colour to fabric in definite patterns or designs. The textile industry occupies an important position in the total volume of merchandise trade across countries. Developing countries account for little over two-third of world exports in textiles and clothing. It is the second largest employer after agriculture, providing employment to over 45 million people directly and 60 million people indirectly. The future for the textile industry looks promising, buoyed by both strong domestic consumption as well as export demand. This book is based on the latest technology involved in textile industry, which describes the processes available at the spinning and fabric forming stages coupled with the complexities of the finishing and colouration processes to the production of wide ranges of products. The major contents of the book are dyeing of textile materials, principles of spinning, process preparatory to spinning, principles of weaving, textile chemicals, yarn preparation, weaving and woven fabrics, knitting and knit fabrics, nonconventional fabrics, cellulosics, mixed fibers, printing compositions, printing processes, transfer dyes, transfer inks etc. It describes the manufacturing

processes and photographs of plant & machinery with supplier's contact details. It will be a standard reference book for professionals, entrepreneurs, textile mill owners, those studying and researching in this important area and others interested in the field of textile industry.

Since color makes textiles attractive, coloration or dyeing has been practised from ancient times. In earlier times dyes were obtained from nature but from the beginning of twentieth century synthetic dyes slowly began to replace the natural ones. The materials prepared from different textile fibres require dyes of different characteristics. Thousands of dyes have been developed which have varied properties and hues. A full coverage of all such advances would require several volumes. However such an extensive coverage would be superfluous for students and technicians for whom this book is intended. This book has been written to present all the relevant information in a comprehensive yet concise manner.

Excerpt from d104ile Soaps and Oils: A Handbook on the Preparation, Properties, and Analysis, of the Soaps and Oils Used in d104ile Manufacturing, Dyeing, and Printing Soaps and oils are very largely used in the manufacture of textile fabrics from cotton, wool, silk, and other fibrous materials, and in the arts of dyeing and printing those fabrics. It has been thought, therefore, that a small handbook

which would describe the preparation, properties, uses, and analyses i of these useful substances would be of use to every person i concerned in their preparation and use; hence the appearance of this little book. In writing it, the author has kept in view the practical side of the subject, and tried to gather together that information which would be of most value in the practical Xapplication of the soaps and oils. Those readers who may desire further information regarding the materials and methods of manufacture are referred to the authors large book on Soaps. As regards oil, there is one use of these bodies in the textile trades which is not referred to here, and that is in the lubrication of the machinery. This 1 subject will be found dealt with in the authors book on Lubricating Oils, Fats, and Greases. About the Publisher Forgotten Books publishes hundreds of thousands of rare and classic books. Find more at www.forgottenbooks.com This book is a reproduction of an important historical work. Forgotten Books uses state-of-the-art technology to digitally reconstruct the work, preserving the original format whilst repairing imperfections present in the aged copy. In rare cases, an imperfection in the original, such as a blemish or missing page, may be replicated in our edition. We do, however, repair the vast majority of imperfections successfully; any imperfections that remain are intentionally left to preserve the state of such historical works.

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PREFACE: IN the present volume, dealing with the Chemical Technology of the Textile Fibres except as concerns the dye-stuffs, which will be treated in a separate work, the author has been obliged to condense the available matter as much as possible, in order to preserve the form of a text-book. Nevertheless, it seemed necessary, in certain cases, in the interests of the book, to give definite data and an exact description of individual processes. In such instances the details have been gathered exclusively either from the authors personal experience or from reliable sources. The most important part of the book is the chapter treating of dyeing, whilst, on the other hand, the subject of printing had to be dealt with in a more general fashion, the materials being less suitable for treatment in text-book style. The author thinks it desirable to point out that in the present

work an attempt has been made to completely separate the chemical and mechanical technology of the subject, a standpoint he considers justified by the extensive area occupied by each of these branches. Hence only a few sketches of apparatus have been given and the methods of dressing the finished goods have been described very briefly, since they almost entirely belong to the domain of mechanical technology. ...GEOEG VON GEOEGIEVICS. Artificial Fibres . Mineral, . Vegetable Cellulose..... Cotton . . . . Bombax Cotton .... Vegetable Silk .... Flax .- . . .. Hemp Jute Ramie, Rhea, China Grass, Nettle Fibre . Contents include: CHAPTER L THE TEXTILE FIBRES Distinguishing Tests for the Various Fibres Animal Fibres .... Silk . . Animal Hairs . Sheeps Wool . Goat Wool and Camel Wool Artificial Wool Wool Substitutes Conditioning CHAPTER II. WASHING, BLEACHING, CARBONISING Washing and ..... Bleaching Definition Bleaching Agents ... Cotton-Bleaching . . .. PAGE iii 1 2 2 3 8 12 12 12 16 17 19 20 2-2 23 34 35 45 46 19 50 53 viii CONTENTS Linen-Bleaching . . . Ramie-Bleaching... Hemp-Bleaching... Jute-Bleaching . 76 Scouring and Bleaching Silk 77 Washing and Bleaching Wool ... 80 Blueing or White 86 Dyeing... Carbonising .... 87 CHAPTER III. MORDANTS AND MORDANTING Mordants..... 95 Mordanting Wool . ... 96 Mordanting Silk . . . . . .98 Mordanting Cotton ..... 99 Alumina Mordants . . . . .

. .102 Mordants..... Iron Mordants . . . . . .,106 ..... Chrome 108 Tin Mordants 112 Copper and other Mordants . . . . .114 The Fixing Agents Acid Mordants 115 Tannic Acids ... . Oleic Acids . . . PAGE . . . . .116 - . . . . .122 CHAPTER IV. DYEING 1. Theory of Colour Combination of Colours Dyeing to Pattern . . 125 2. Theory of Dyeing . . . . . 130 3. Classification of Dye-Stuffs Methods of Dyeing . . . ., 138 Application of Acid Dye-Stuffs . . . . Application of Basic v . Dye-Stuffs ., . . .- 143 Application of Direct or Substantive Cotton Dyes..... . Dyes . . 146 Application of the Mordant 154 Dyeing with Cochineal . . . . . .160 Dyeing with Catechu..... 178 Black and Blue Dyeings with Logwood on Wool . . . 163 Turkey-Red Dyeing . .. . -. . .172 Black-Dyeing Cotton with Logwood..... 180 ...

Human genetics is the medical field with the most rapid progress. This book aims to provide an overview on some of the latest developments in several genetic diseases. It contains 14 chapters focused on various genetic disorders addressing epidemiology, etiology, molecular basis and novel treatment options for these diseases. The chapters were written by 41 collaborators, from 8 different countries in Europe, Asia, and America, with great expertise in their field. Chapters are heterogeneous, offering a welcomed personalized view on each particular subject. The book does not offer a systematic overview of human genetic disorders.

However, they are a valuable resource for medical practitioners, researchers, biologists and students in various medical sciences.

Textile auxiliaries are defined as chemicals of formulated chemical products which enables a processing operation in preparation, dyeing, printing of finishing to be carried out more effectively or which is essential if a given effect is to be obtained. Certain Textile Auxiliaries are also required in order to produce special finishing effects such as wash & wear, water repellence, flame retardancy, aroma finish, anti odour, colour deepening etc. The prime consideration in the choice of Textile materials is the purpose for which they are intended, but colour has been termed the best salesman in the present scenario. The modern tendency is towards an insistence on colour which is fast to light, washing, rubbing, and bleaching; this movement makes a great demand on the science of dyeing. Auxiliaries, dyes and dye intermediates play a vital role in textile processing industries. The manufacture and use of dyes is an important part of modern technology. Because of the variety of materials that must be dyed in a complete spectrum of hues, manufacturer now offer many hundreds of distinctly different dyes. The major uses of dyes are in coloration of textile fibers and paper. The substrates can be grouped into two major classes-hydrophobic and hydrophilic. Hydrophilic substances such as cotton, wool, silk,

and paper are readily swollen by water making access of the day to substrate relatively easy. On other hand hydrophobic fibers, synthetic polyesters, acrylics, polyamides and polyolefin fibers are not readily swollen by water hence, higher application temperatures and smaller molecules are generally required. Dye, are classified according to the application method. Some of the examples of dyes are acid dyes, basic or cationic dyes, direct dyes, sulfur dyes, vat dyes, reactive dyes, mordant dyes etc. Colorants and auxiliaries will remain the biggest product segment, while faster gains will be seen in finishing chemicals. World demand for dyes and organic pigments is forecast to increase 3.9 percent per year through 2013, in line with real gains in manufacturing activity. Volume demand will grow 3.5 percent annually. While the textile industry will remain the largest consumer of dyes and organic pigments, faster growth is expected in other markets such as printing inks, paint and coatings, and plastics. Market value will benefit from consumer preferences for environmentally friendly products, which will support consumption of high performance dyes and organic pigments. Some of the fundamentals of the book are antimony and other inorganic compounds, halogenated flame retardants, phosphorous compounds, dyes and dye intermediates, textile fibers, pigment dyeing and printing, dry cleaning agents, dry cleaning

detergents, acrylic ester resins, alginic acid, polyvinyl chloride, sodium carboxy methyl cellulose, guar gum, industries using guar gum, gum tragacanth, hydroxyethyl cellulose, polyethylene glycol, industries using polyethylene glycols, etc. The book covers details of antimony and other inorganic compounds, halogenated flame retardants, silicone oils, solvents, dyes and dye intermediates, dry cleaning agents, different types of gums used in textile industries, starch, flame retardants for textile and many more. This is very resourceful book for new entrepreneurs, technologists, research scholars and technical institutions related to textile. Hyperfiltration (HF) is a membrane separation technique that has been used successfully in desalination of natural water. Because energy, process chemicals and water are discharged from industrial processes in large quantities, the application of various types of membranes to recover through recycle has been studied in a series of government sponsored research projects. The results of the research led to the current project of joining a full scale dynamic membrane HF system with an operating dye range into an integrated production unit. The dye range is a multi-purpose unit having a variety of effluents from preparation and dyeing of textile fabric. This report describes the design and construction of the hyperfiltration equipment; presents and evaluates data from one

year of operation; gives costs for equipment, installation and operation, and credits for savings due to recycle; and describes the primary objectives of an 18 month project continuation.

First published in1906, this book contains a classic guide to textiles, dealing specifically with various different fabrics and how they should be prepared and dyed. Written in simple, clear language and full of helpful illustrations and diagrams, “Textile Fabrics and Their Preparation for Dyeing” is perfect for textile novices and DIY enthusiasts, and it would make for a wonderful addition to collections of related literature. Paul Nooncree Hasluck (1854 – 1916) was an Australian engineer and editor. He was a master of technical writing and father of the 'do-it-yourself' book, producing many books on subjects including engineering, handicrafts, woodwork, and more. Other notable works by this author include: “Treatise on the Tools Employed in the Art of Turning” (1881), “The Wrath-Jobber's Handy Book” (1887), and “Screw-Threads and Methods of Producing Them” (1887). Many vintage books such as this are increasingly scarce and expensive. It is with this in mind that we are republishing this volume now in an affordable, modern, high-quality edition complete with a specially-commissioned new biography of the author.

This deluxe reprint Legacy Edition of Paul N.

Hasluck's All About Traditional Textile Fabrics For DIY Spinning, Weaving, And Dyeing (previously published as "Textile Fabrics And Their Preparation For Dyeing" in 1906) is full of old-time tips and methods for learning the traditional approaches to textiles, fabric making, spinning fibers, and preparing cloth for fabric coloring in the traditional way. Originally published in 1906, this handy little guide touches on every aspect of traditionally used textiles, including information on plants and their growth, animal sources of fiber (e.g., wool and silk), structural information on fibers, and how to prepare fibers for turning them into cloth and dyeing.

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"This book is the final integration of a series of 24 papers [...] which were published in Textile Chemist and Colorist between October 1991 and November 1993"--Preface.
This is a clear, easy-to-follow guide for students, accomplished artists and designers who want to

expand their knowledge of techniques for dyeing and screenprinting on textiles. The book covers many of the key processes used in creating dyed and screen-printed fabrics using a range of synthetic dyes. Included are recipes for cloth preparation, instructions for dyeing, printing, and fixing dyes, designing repeats, and preparing imagery and screens for exposure. The step-by-step instructions are accompanied by inspirational illustrations from practitioners around the world. Advice is also given on equipment needed for setting up a studio and safe working practice. This new edition of Dyeing and Screenprinting on Textiles has been fully updated and contains many new photographs.
Textile dyeing currently produces significant levels of waste which is harmful to the environment and dangerous to health if not properly treated. This volume reviews some of the key legislation driving improvements in dyeing processes and the hazards dyes can pose to health.
This historic book may have numerous typos and missing text. Purchasers can usually download a free scanned copy of the original book (without typos) from the publisher. Not indexed. Not illustrated. 1902 edition. Excerpt: ... III. Classification of Dye-Stuffs; Methods of Dyeing.1 Since in this chapter we are solely concerned with the application of the dye-stuffs in the processes of dyeing and printing, the sole principle of classification we can

adopt is based on the method of dyeing necessary to bring them on the fibre. The different classes of dyes, therefore, may be set down as follows: -- 1. Acid dye-stuffs. 2. Basic or tannin dyes. 3. Dye-salts or substantive cotton dyes. 4. Mordant dyes. 5. Vat dyes. 6. Developing dyes. 7. Albumin dyes. 1. Application of Acid Dye-Stuffs. The acid dyes are mostly sodium salts of sulpho-acids, and this class comprises the different marks of tropeoline, ponceau, Bordeaux, scarlet, fast red, chromotrope, black azo dyes (such as naphthol black), acid violet, acid green, several aniline blues, patent blue, several fast blues or indulines, tartrazine, quinoline yellow, azocarmine, indigo-carmine, etc., as well as such dyes as owe their acid character to the presence of nitro and hydroxyl groups--the nitro dyes and eosines. Dyes of this class are more frequently used than any others for dyeing wool and silk, but are not well adapted for dyeing cottons. Application to Wool.--The dyeing is effected in presence of acids or acid salts, viz. sulphuric acid, sodium bisulphate--mostly known as tartar preparation--Glauber salt (sodium sulphate), alum, acetic acid, ammonium acetate, or ammonium oxalate. The object of these acid adjuncts is to neutralise the calcium bicarbonate in the dye water, liberate the dye acid, and finally to diminish the solubility of this latter in water, thus facilitating its absorption by the fibre and helping the bath to

"draw." The stronger the acid the better and more quickly is the dye absorbed by the...

This book provides an overview of the types of textiles used within the interior textile sector and key technological developments and safety issues affecting the industry. An understanding of these topics enables the designer or manufacturer to select the most appropriate fabrics for interior applications. The first group of chapters reviews types and selection of materials for interior textiles, including natural and synthetic fibres as well as knitted, woven and nonwoven fabrics. Further chapters review surface design of interior textiles and the use of textiles in carpets and floor coverings. The second part of the book discuses developments in such areas as joining furniture fabrics, the use of sustainable and recycled textiles in interior applications, using interior textiles to minimise indoor environmental pollution, flame retardant materials and innovative textiles for seating. Interior textiles: design and developments is an important text for manufacturers, designers and buyers of interior textiles as well as being a valuable resource for students and academics studying interior design and materials. Provides a comprehensive review of the type of textiles used within the interior textile sector Considers environmental issues in interior textiles assessing different types of sustainable and recycled textiles Explores the important issues of surface

design and flammability testing
Dealing with the classical processes for textile dyeing, as well as with the preparation of the material before dyeing, this book also includes recent technological developments. Both theoretical and the practical aspects are covered in order to enable the students and the technicians to understand the processes clearly.