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Nota di contenuto	The Coloration of Wool and other Keratin Fibres; Contents; List of Contributors; Society of Dyers and Colourists; Preface; 1 The Structure of Wool; 1.1 Introduction; 1.2 Composition of Wool; 1.3 Chemical Structure of Wool; 1.3.1 General Chemical Structure of Proteins; 1.3.2 Amino Acid Composition of Wool; 1.3.3 Arrangement of Amino Acids in Wool; 1.3.4 The Structure of Wool Proteins; 1.3.5 Wool Lipids; 1.4 Morphological Structure of Wool; 1.4.1 The Cuticle and the Fibre Surface; 1.4.2 The Cortex; 1.4.3 The Cell Membrane Complex; 1.5 Chemical Reactivity of Wool; 1.6 Damage in Wool Dyeing 1.6.1 Nonkeratinous Proteins and Damage in Dyeing1.6.2 Influence of Dyebath pH on Fibre Damage; 1.7 Conclusion; References; 2 The Chemical and Physical Basis forWool Dyeing; 2.1 Introduction; 2.2 The Chemical Basis for Wool Dyeing; 2.2.1 The Wool-Water System; 2.2.2 The Amphoteric Nature of Wool and Dyeing Behaviour; 2.2.3 Classical Theories of Wool Dyeing; 2.2.4 Modern Theories of Wool Dyeing; 2.3 Standard Affinity and Heat of Dyeing; 2.4 Classification of Dyes Used for Wool; 2.5 Dye Aggregation; 2.6 The Physical Basis for Wool Dyeing: The Role of Fibre Structure; 2.6.1 Diffusion of Dyes 2.6.2 Pathways of Dye Diffusion into Wool2.7 Effect of Chemical Modifications on Dyeing; 2.7.1 Chlorination; 2.7.2 Plasma Treatment;

2.7.3 Differential Dyeing; 2.8 Conclusion; References; 3 The Role of Auxiliaries in the Dyeing of Wool and other Keratin Fibres; 3.1 Introduction; 3.2 Surface Activity of Wool-Dyeing Auxiliaries; 3.2.1 Anionic Auxiliaries; 3.2.2 Cationic Auxiliaries; 3.2.3 Ethoxylated Nonionic and Cationic Auxiliaries; 3.2.4 Amphoteric Auxiliaries; 3.2.5 Other Auxiliaries; 3.3 Brightening Agents; 3.4 Levelling Agents; 3.4.1 Material Faults; 3.4.2 Dyeing and Processing Faults
3.4.3 Testing the Action of Levelling Agents3.4.4 Product Selection; 3.4.5 Coverage of Skittery or Tippy-Dyeing Wool; 3.5 Restraining and Reserving Agents in Wool Blend Dyeing; 3.6 Antiprecipitants; 3.7 Wool Protective Agents; 3.8 Low-Temperature Dyeing; 3.9 Correction of Faulty Dyeings; 3.10 Aftertreatments to Improve Wet Fastness; 3.11 Effluent Control in Chrome Dyeing; 3.12 Antifrosting Agents; 3.13 Antisetting Agents; 3.14 Sequestering Agents; 3.15 Conclusions; References; 4 Ancillary Processes inWool Dyeing; 4.1 Introduction; 4.2 Wool Scouring; 4.3 Wool Carbonising
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5 Bleaching and Whitening ofWool: Photostability of Whites

Sommario/riassunto

Keratin fibres, particularly wool fibres, constitute an important natural raw material in textiles due to their comfort and thermal proprieties. Wool coloration demands an understanding of the complex nature of the interplay between wool fibre chemistry, morphology and the coloration processes. The Coloration of Wool and other Keratin Fibres is a comprehensive treatment, written by leading international experts, of the chemistry and chemical processes involved in wool dyeing, printing, preparation and finishing. The book covers: the chemical and physical struc