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""3.3.1 Properties of enzymes used in textiles"""""3.4 Enzyme applications in textile preparatoryprocess""; ""3.4.1 Enzymatic desizing""; ""3.4.2 Enzymatic scouring (bioscouring)""; ""3.4.3 Enzymatic bleaching""; ""3.4.4 Biopolishing""; ""3.4.5 Degumming of silk""; ""3.4.6 Enzymes effect on colour""; ""3.4.7 Biocatalysis""; ""3.4.8 New fibre""; ""3.4.9 Enzymatic treatment to denim""; ""3.5 Silent features of enzymes application intextile processing""; ""3.5.1 Advantages of enzymes used in textiles""; ""4 Enzymatic treatment of wastewatercontaining dyestuffs""; ""4.1 Introduction""
""4.2 Need for dye removal from effluents"""""4.2.1 Causes of recalcitrance of pollutants""; ""4.3 Conventional processes for removal of dyesfrom effluent streams""; ""4.4 Enzymes in wastewater treatment""; ""4.5 Delivery systems for enzymes in effluenttreatment""; ""4.5.1 Enzyme delivery by direct use of biological source""; ""4.5.2 Use of microbial cells""; ""4.5.3 Use of plant tissues or entire plants""; ""4.5.4 Enzyme delivery as cell-free enzyme extracts""; ""4.5.5 Enzyme delivery in immobilised form""; ""4.5.6 Enzyme delivery in the form of differentnanoparticles""

Sommario/riassunto

"Textile processing industry is characterised not only by the large volume of water required for various unit operations, but also by the variety of chemicals used for various processes. There is a long sequence of wet processing stages requiring input of water, chemical and energy and generating wastes at each stage. Any industrial activity causes pollution in one form or the other and so is the textile industry. The textile industry is a significant contributor to many national economies, encompassing both small and large-scale operations worldwide. Textile processing generates many waste streams, including liquid, gaseous and solid wastes, some of which may be hazardous. Several measures for pollution control in textile industry are discussed in detail including 'End-of-pipe' technologies for wastewater treatment. This book on pollution control in textile industry summarises various aspects of pollution control and is divided into 19 chapters. This edition discusses: enzymatic treatment of wastewater containing dyestuffs, degradation of toxic dyes, biological methods of removal of dyes from textile effluents, water conservation in textile industry, recovery of dyes and chromium from textile industry, zero liquid discharge in textile industry, pollution prevention in jute industry and wastes minimisation in textile industry. A unique feature of the book are the chapters on carbon foot print and energy conservation in textile industry. Finally the role of nanotechnology for the removal of dyes and effluents in also discussed."--Provided by publisher.