1. Record Nr. UNINA9911006728303321 Autore Woodings C **Titolo** Regenerated Cellulose Fibres Pubbl/distr/stampa Burlington,: Elsevier Science, 2001 **ISBN** 1-280-37224-9 9786610372249 1-59124-759-4 Descrizione fisica 1 online resource (349 p.) Collana Woodhead Publishing Series in Textiles Disciplina 677/.02832 Soggetti Cellulose fibers Mechanical Engineering **Engineering & Applied Sciences Industrial & Management Engineering** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di contenuto Front Cover; Regenerated Cellulose Fibres; Copyright Page; Table of Contents; Preface; Contributors; Chapter 1. A brief history of regenerated cellulosic fibres; 1.1 Introduction; 1.2 Cellulose nitrate; 1.3 Direct dissolution in cuprammonium hydroxide: cupro: 1.4 Dissolution via cellulose xanthate: viscose; 1.5 Direct dissolution in amine oxide: lyocell; 1.6 Other routes; References; Chapter 2. Industrial cellulose; 2.1 Wood fibre sources; 2.2 Pulping methods; 2.3 Dissolving pulp processes; 2.4 Environmental assessment; 2.5 Dissolving pulp production 2.6 Future of dissolving pulp processes and pulpsReferences: Chapter 3. The viscose process; 3.1 Introduction; 3.2 Viscose making; 3.3 Spinning; 3.4 Chemical recovery and environmental control; Chapter 4. Lyocell: the production process and market development; 4.1 Overview; 4.2 Amine oxide technology - timeline; 4.3 Process description; 4.4 Lyocell conversion; 4.5 Dyeing and finishing of lyocell; 4.6 Lyocell marketing; Chapter 5. Cuprammonium processes; 5.1 Short history; 5.2 Science and technology of manufacturing processes; 5.3 Morphology

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## Sommario/riassunto

This is a comprehensive work by industrial and academic specialists proving up-to-date information on the chemistry, physics, process technology, applications and markets for man-made cellulosic fibres. It covers the properties and applications of viscose rayon, cupprammonium rayon and the new solvent-spun fibres as well as considering their relationships with the natural cellulosics such as cotton and the synthetic polymer fibres such as polyester. This overview of the only truly, naturally recyclable fibres and the latest manufacturing techniques that are being developed to produce th