Record Nr. UNINA9910464083803321 Autore Wertz Jean-Luc **Titolo** Cellulose science and technology / / Jean-Luc Wertz, Olivier Bedue and Jean P. Mercier Pubbl/distr/stampa Lausanne, Switzerland:,: EPFL Press Boca Raton, FL:,: Taylor and Francis,, [2010] ©2010 **ISBN** 0-429-13120-8 1-4200-6688-9 Descrizione fisica 1 online resource (364 p.) Collana Fundamental Sciences. Chemistry 547.78 Disciplina Soggetti Cellulose - Chemistry Cellulose Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters. Nota di contenuto Front Cover: First Foreword: Second Foreword: Table of contents: Preface: Chapter 1: Introduction: Chapter 2: Biosynthesis of Cellulose: Chapter 3: Structure and Properties: of Cellulose; Chapter 4: Swelling and Dissolution of Cellulose: Chapter 5: Enzymatic Hydrolysis of Cellulose; Chapter 6: Non-Biological Degradation of Cellulose; Chapter 7: Cellulose Derivatives; Chapter 8: Fuels and Chemicals from Biomass; Chapter 9: Perspectives; Glossary; Back Cover Sommario/riassunto Cellulose is a major constituent of papers made from plant fibers and combustible component of non-food energy crops. An ideal reference for scientists in natural and synthetic polymer research, this book applies basic biology as well as polymer and sugar chemistry to the study of cellulose. It provides key requirements for understanding the complex structure and biosynthesis of cellulose and its dissolution into new solvents. Cellulose Science and Technology also clarifies the enzymatic hydrolysis of cellulose leading to simple sugars that can be

fermented into bioethanol. It examines the bac