

1. Record Nr.	UNINA9910787845803321
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
Disciplina	547.78
Soggetti	Cellulose - Chemistry Cellulose
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