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Titolo	Polysaccharide-based Fibers and Composites : Chemical and Engineering Fundamentals and Industrial Applications / / edited by Lucian Lucia, Ali Ayoub
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ISBN	3-319-56596-6
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (IX, 117 p. 42 illus.)
Disciplina	541.2254
Soggetti	Polymers
	Ceramics
	Glass
	Composites (Materials)
	Composite materials
	Food—Biotechnology
	Engineering design
	Polymer Sciences
	Ceramics, Glass, Composites, Natural Materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Principles of Fiber Formation from Polymeric Polysaccharides Recent Advances in Anionic and Cationic Polysaccharides Fibers Cyclo- polysaccharide Assisted Fiber Inclusion Complexes Chemistry of Polysaccharide-Proteins Fibers and Fabrics 3D Printing Polysaccharide Fiber Hydrogel Composites.
Sommario/riassunto	This book includes chapters based on the potential uses of polysaccharides such as fibers in food and non-food applications. The complexity of their synthesis in plants, the highly multidisciplinary character of polysaccharide research, and the wide variety of applications from food to clothing to energy are addressed in this

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volume. The authors describe in detail how these latter grand challenges are of great importance in research, especially in the midst of enormous overpopulation and economic issues. Therefore, the volume contributes additional information to the chemical, nutritional, medical, and energy roles of these bio-based products, finding applications in diverse fields of their raw and composite forms. This volume is a useful resource for graduate students and contains themes for instructors and senior research leaders. Written by internationally renowned experts, it is aimed at workers in polymer laboratories, classrooms, and policy makers.