

1. Record Nr.	UNINA9910404083503321
Autore	Vismara Elena
Titolo	Nanocelluloses: Synthesis, Modification and Applications
Pubbl/distr/stampa	MDPI - Multidisciplinary Digital Publishing Institute, 2020
ISBN	3-03928-785-0
Descrizione fisica	1 electronic resource (142 p.)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>Nanocelluloses: Synthesis, Modification and Applications is a book that provides some recent enhancements of various types of nanocellulose, mainly bacterial nanocellulose, cellulose nanocrystals and nanofibrils, and their nanocomposites. Bioactive bacterial nanocellulose finds applications in biomedical applications, https://doi.org/10.3390/nano9101352. Grafting and cross-linking bacterial nanocellulose modification emerges as a good choice for improving the potential of bacterial nanocellulose in such biomedical applications as topical wound dressings and tissue-engineering scaffolds, https://doi.org/10.3390/nano9121668. On the other hand, bacterial nanocellulose can be used as paper additive for fluorescent paper, https://doi.org/10.3390/nano9091322, and for the reinforcement of paper made from recycled fibers, https://doi.org/10.3390/nano9010058. Nanocellulose membranes are used for up-to-date carbon capture applications, https://doi.org/10.3390/nano9060877. Nanocellulose has been applied as a novel component of membranes designed to address a large spectrum of filtration problems, https://doi.org/10.3390/nano9060867. Poly (vinyl alcohol) (PVA) and cellulose nanocrystals (CNC) in random composite mats prepared using the electrospinning method are widely characterized in a large range of physical chemical aspects, https://doi.org/10.3390/nano9050805. Similarly, physical chemical aspects are emphasized for carboxylated cellulose nanofibrils produced by ammonium persulfate oxidation combined with ultrasonic and</p>

mechanical treatment, <https://doi.org/10.3390/nano8090640>. It is extraordinary how nanocellulose can find application in such different fields. Along the same lines, the contributions in this book come from numerous different countries, confirming the great interest of the scientific community for nanocellulose.
