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| Descrizione fisica | 1 online resource (XXVIII, 305 p. 105 illus., 71 illus. in color.) |
| Collana | Smart Nanomaterials Technology, , 3004-8281 |
| Disciplina | 530.41 620.115 |
| Soggetti | Nanoscience Green chemistry Biomaterials Nanotechnology Soft condensed matter Biopolymers Nanophysics Green Chemistry Nanoengineering Soft and Granular Matter |
| Lingua di pubblicazione | Inglese |
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| Nota di contenuto | 1. Chitosan Nanoparticles -- 2. Preparation and Functionalization of the chitosan derivatives -- 3. Green derivatization of chitosan nanoparticles -- 4. Modification of Chitosan Nanoparticles (CSNPs) -- 5. Regulatory Status and Clinical Trials of Chitosan and Derivatives. |
| Sommario/riassunto | This book highlights the latest advances and novel technologies for the preparation, functionalization and green derivitization of chitosan nanoparticles. The modification, biomedical applications, regulatory status and clinical trials of chitosan and its derivatives are also presented. Effective and innovative strategies enable increased influence on final characteristics, stability and sustainability of chitosan nanoparticles. The book begins by examining chitosan nanoparticles, preparation and functionalization of the chitosan derivatives. This is |

followed by in-depth coverage of green derivatization and modification of chitosan nanoparticles (CSNPs), regulatory status and clinical trials of chitosan and derivatives, characterization techniques for the chitosan nanoparticles and derivatives along with key applications of modified CSNPs in water, food and agriculture industries and biomedical applications including chemotherapy. The final chapters provide detailed discussions on chitosan as tools to combat COVID-19 and recent challenges and future prospectus of green derivatized chitosan nanoparticles.
