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Titolo	Polymer and Photonic Materials Towards Biomedical Breakthroughs // edited by Jasper Van Hoorick, Heidi Ottevaere, Hugo Thienpont, Peter Dubruel, Sandra Van Vlierberghe
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ISBN	3-319-75801-2
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Descrizione fisica	1 online resource (183 pages)
Collana	Micro- and Opto-Electronic Materials, Structures, and Systems, , 2626-2371
Disciplina	610.28
Soggetti	Optical materials Electronics - Materials Biomedical engineering Lasers Photonics Regenerative medicine Tissue engineering Optical and Electronic Materials Biomedical Engineering and Bioengineering Optics, Lasers, Photonics, Optical Devices Regenerative Medicine/Tissue Engineering
Lingua di pubblicazione	Inglese
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Nota di contenuto	Part I. Material Development & Processing -- Chapter 1. Development and characterization of photoresponsive polymers -- Chapter 2. Polymer processing through multiphoton absorption -- Chapter 3. Two-photon polymerization in tissue engineering -- Part II. Applications -- Chapter 4. Photoactivatable materials for cell biomechanics and mechanobiology -- Chapter 5. Photonics in drug delivery -- Chapter 6. Gene therapy approaches towards biomedical breakthroughs.
Sommario/riassunto	This book offers a complete overview of photonic-enhanced materials from material development to a final photonic biomedical application. It

includes fundamental, applied, and industrial photonics. The authors cover synthesis, the modification and the processing of a variety of (bio)polymers including thermoplasts (e.g. polyesters) and hydrogels (e.g. proteins and polysaccharides) for a plethora of applications in the field of optics and regenerative medicine. .
