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ISBN	9783031361357 3031361350
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (280 pages)
Collana	AAPS Introductions in the Pharmaceutical Sciences, , 2522-8358 ; ; 7
Disciplina	610.28
Soggetti	Pharmaceutical chemistry Biomaterials Pharmacology Drug delivery systems Vaccines - Biotechnology Pharmaceutics Drug Delivery Biomaterials-Vaccines
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction to Biomaterials -- Biodegradable Polymers -- Natural and semi-natural polymers -- Fundamentals and Biomedical Applications of Smart Hydrogels -- Engineering biomaterials for nucleic acid-based therapies -- Mechanics of Biomaterials for Regenerative Medicine -- Biomaterials for controlled drug delivery applications -- BIOMATERIALS APPLICATION: IMPLANTS -- Living Biomaterials -- Therapeutic Polymer Conjugates and their Characterization -- Biocompatibility of Polymers -- Sterilization techniques of biomaterials (implants and medical devices).
Sommario/riassunto	This book intends to serve as textbook for faculty and students and thus contains a broad introduction and basic terms of biomaterials and biopolymers followed by major developments over the years with some emphasis on recent developments and future prospects. The book provides a comprehensive overview in biomaterials and biopolymers.

All relevant aspects of modern biomaterials, including: synthesis and characterization, biocompatibility and host response, the implementation of novel manufacturing processes, and advanced medical and biotechnological applications. Each chapter provides an overview of a specific field, its importance, the chemistry of biomaterials and the relations between chemical structure and the applications. Each chapter ends with a future perspective/concepts and a friendly quiz/multiple answer questions with answers that serves as a resource to provide guided additional practice.

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