Record Nr. UNINA9910739429303321 Autore sultana naznin Titolo Biodegradable Polymer-Based Scaffolds for Bone Tissue Engineering [[electronic resource] /] / by naznin sultana Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2013 **ISBN** 1-283-94634-3 3-642-34802-5 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (70 p.) SpringerBriefs in Applied Sciences and Technology, , 2191-530X Collana Disciplina 616.027 616/.027 Soggetti Biomedical engineering Biomaterials Mechanics Mechanics, Applied Biomedical Engineering and Bioengineering Solid Mechanics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Introduction -- Requirements for scaffolds for bone tissue engineering Nota di contenuto -- Candidate biomaterials for tissue engineering scaffolds -- Scaffold fabrication techniques -- Biodegradable polymer based scaffolds for bone tissue engineering -- Conclusion. This book addresses the principles, methods and applications of Sommario/riassunto biodegradable polymer based scaffolds for bone tissue engineering. The general principle of bone tissue engineering is reviewed and the traditional and novel scaffolding materials, their properties and scaffold fabrication techniques are explored. By acting as temporary synthetic extracellular matrices for cell accommodation, proliferation, and differentiation, scaffolds play a pivotal role in tissue engineering. This book does not only provide the comprehensive summary of the current trends in scaffolding design but also presents the new trends and

directions for scaffold development for the ever expanding tissue

engineering applications.