Record Nr. UNISA996418438703316 Autore Reza Rezaie Hamid **Titolo** Bone Cement [[electronic resource]]: From Simple Cement Concepts to Complex Biomimetic Design / / by Hamid Reza Rezaie, Mohammad Hossein Esnaashary, Masoud Karfarma, Andreas Öchsner Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2020 3-030-39716-5 **ISBN** Edizione [1st ed. 2020.] 1 online resource (VIII, 88 p. 52 illus., 39 illus. in color.) Descrizione fisica Collana SpringerBriefs in Applied Sciences and Technology, , 2191-530X Disciplina 617.471 Soggetti Medical physics Radiation **Biomaterials** Biomedical engineering Medical and Radiation Physics Biomedical Engineering and Bioengineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Cement Concept -- Conductivity: Material Design -- Productivity: Cells Nota di contenuto Inductivity: Bioactive Agents. This book provides an overview of the composition of polymeric and Sommario/riassunto ceramic bone cements. It also discusses complex, biomimetic structures based on biomaterials, such as cells and bioactive molecules. which more closely resemble natural bone The first chapter describes the main concepts of the cementation process and the parameters affecting it, while the second chapter focuses on the composition and structure of candidate biomaterials. Lastly, the third and fourth chapters present recent research aimed at improving the ability of naked biomaterials to enhance bone healing by adding cells and

bioactive agents.