1. Record Nr. UNINA9910157475603321 Autore Kaur Gurbinder Titolo Bioactive Glasses: Potential Biomaterials for Future Therapy / / by Gurbinder Kaur Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2017 **ISBN** 3-319-45716-0 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (XX, 332 p. 160 illus., 59 illus. in color.) Collana Series in BioEngineering, , 2196-8861 610.28 Disciplina Soggetti Biomedical engineering Ceramics Glass Composites (Materials) Composite materials Tribology Corrosion and anti-corrosives Coatings Biomedical Engineering and Bioengineering Ceramics, Glass, Composites, Natural Materials Tribology, Corrosion and Coatings Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references at the end of each chapters and index. Nota di contenuto Understanding Bioactive Materials -- Bioactivity in terms of hydroxyapatite -- Cytocompatibilty and pH balance -- Categories of bioactive materials -- Silicate, borate and borosilicate glasses --Metallic glasses and coatings -- Mesoporous glasses -- Targeted Drug delivery -- Future and fate of bioactive materials. Sommario/riassunto This book describes the history, origin and basic characteristics of bioactive materials. It includes a chapter dedicated to hydroxyapatite mineral, its formation and its bioactive properties. The authors address how cytotoxicity is a determining step for bioactivity. Applications of bioactive materials in the contexts of tissue regeneration, bone

regeneration and cancer therapy are also covered. Silicate, metallic and

mesoporous glasses are described, as well as the challenges and future
prospects of research in this field.