Record Nr. UNINA9910789581503321 Bionanotechnology: biological self-assembly and its applications // **Titolo** edited by Bernd H.A. Rehm Pubbl/distr/stampa Norfolk, England:,: Caister Academic Press,, [2013] ©2014 **ISBN** 1-908230-81-9 Descrizione fisica 1 online resource (321 p.) Disciplina 660.6 Soggetti Biotechnology Nanotechnology Ultrastructure (Biology) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Contents; Contributors; Preface; Ch 01: Polyhydroxyalkanoate Nota di contenuto Inclusions: Polymer Synthesis, Self-assembly and Display Technology: Ch 02: Self-assembly and Application of Cellulosomal Components; Ch 03: Protein-aided Mineralization of Inorganic Nanostructures; Ch 04: Amyloid Fibrils as Bionanomaterials; Ch 05: Bacteriophages: Selfassembly and Applications; Ch 06: Bio-inspired Biomolecular Supramolecular Self-assemblies and their Applications; Ch 07: Viruslike Particles; Ch 08: Plant Oil Bodies and Oleosins: Structure, Function and Biotechnological Applications Ch 09: Visual Restoration using Microbial RhodopsinsCh 10: Magnetosomes: Ch 11: Liposome-Nanoparticle Assemblies: Index Sommario/riassunto The emerging science of bionanotechnology refers to the harnessing of the vast diversity of self-assembling building blocks and processes for the assembly of nano-scaled structures for the manufacture of highly functional nanomaterials. Bionanotechnology is an interdisciplinary field. It combines biological principles with physical and chemical procedures to generate nano-sized building blocks and materials with specific functions and new properties. It involves the development of biologically-based procedures, the use of biological components and systems, the design of biocompatible objects a