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Titolo	Antibacterial Surfaces / / edited by Elena Ivanova, Russell Crawford
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
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Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (175 p.)
Disciplina	610
Soggetti	Medicine - Research Biology - Research Cytology Proteins Biophysics Biomedical Research Cell Biology Protein Biochemistry
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.
Nota di contenuto	1 Introduction to antibacterial surfaces, Hayden K. Webb, Russell J. Crawford and Elena P. Ivanova -- 2 Natural antibacterial surfaces, Song Ha Nguyen, Hayden K. Webb, Russell J. Crawford and Elena P. Ivanova -- 3 Simple to fabricate artificial antibacterial surfaces, A. Balcytis, Gediminas Seniutinas, F. Lapierre, Saulius Juodkazis -- 4 Electroactive antimicrobial surfaces, Paul J. Molino, B. Zhang, Michael J. Higgins -- 5 Manufacture of chemically modified antibacterial surfaces, Hitesh Pingle, Peng-Yuan Wang, Peter Kingshott -- 6 Design and fabrication of antibacterial metallic implant surfaces, Vy T. H. Pham, Chris M. Bhadra, Vi Khanh Truong, Russell J. Crawford, Elena P. Ivanova -- 7 Cytotoxic effects and biocompatibility of antimicrobial materials, Olha Bazaka and Kateryna Bazaka -- 8 Development of Fimbrolides and Halogenated Furanones as Antimicrobial Agents, Kitty K. K. Ho, Samuel K. Kutty, Daniel Chan, Renxun Chen, Mark D. P. Willcox, Naresh Kumara -- Index.
Sommario/riassunto	'Antibacterial Surfaces' covers the advances being made in the design

of antibacterial surfaces, which have the ability to either prevent the initial attachment of bacterial cells, or kill any cells that come into contact with these surfaces. This book discusses the mechanisms associated with the attachment of bacteria to surfaces and the main strategies currently being employed to control the initial attachment processes. These strategies are expanded upon in the subsequent chapters, where the definition and description of antibacterial surfaces are clarified, as are the mechanisms that come into play when determining the effectiveness of an antibacterial surface. Subsequent chapters discuss a number of naturally occurring antibacterial surfaces, the methods currently being used for producing synthetic antibacterial surfaces, and the current and potential applications of such materials. This book will be of great interest to people who work with materials that need to remain free of bacterial films, from designing safer biomedical implants to the production of self-cleaning materials where the prevention of biofilm formation has significant economic advantages.

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2. Record Nr. UNINA9910842088603321

**Titolo** Magnesium Alloys

**Pubbl/distr/stampa** IntechOpen

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**Lingua di pubblicazione** Inglese

**Formato** Materiale a stampa

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**Livello bibliografico** Monografia