1. Record Nr. UNINA9910140490103321

Titolo	Biosurfaces : a materials science and engineering perspective / / edited by Kantesh Balani [and three others] ; contributors, Arvind Agarwal [and seventeen others]
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2015 ©2015
ISBN	1-118-95064-X 1-118-95062-3 1-118-95063-1
Descrizione fisica	1 online resource (397 p.)
Classificazione	TEC021000SCI013050TEC009010
Disciplina	620/.44
Soggetti	Surfaces (Technology) Biomedical materials
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Cover; Contents; Foreword; Preface; Contributors; Chapter 1 INTRODUCTION TO BIOMATERIALS; 1.1 Introduction; 1.2 Classification of Biomaterials; 1.2.1 Polymers; 1.2.2 Silicone Biomaterials; 1.2.3 Metals; 1.2.4 Ceramics; 1.2.5 Mechanical Properties of Ceramics; 1.3 Summary; Questions; References; Chapter 2 TISSUE INTERACTION WITH BIOMATERIALS; 2.1 Introduction; 2.2 Protein Adsorption and Cell Adhesion; 2.2.1 Cell Adhesion; 2.3 Cell Migration; 2.4 Controlled Cell Deposition; 2.4.1 Hydrophobicity; 2.4.2 Material Chemistry and Surface Charge; 2.4.3 Surface Topography and Roughness 2.5 Extracellular Matrix2.6 Biomineralization; 2.6.1 Inorganic Structure of Life; 2.6.2 The Major Groups of Biominerals; 2.6.3 Types of Biomineralization; 2.6.4 Biomineral Types and Functions; Questions; References; Chapter 3 HOST RESPONSE OF IMPLANTED BIOMATERIALS; 3.1 Immune Response to Implanted Biomaterials; 3.1.1 Introduction; 3.1.2 Activation of the Immune System; 3.1.3 Cells of the Immune System; 3.1.4 Antibodies; 3.1.5 Antigens; 3.1.6 Antigen Processing and Presentation; 3.2 Transplant Immunology; 3.3 Biocompatibility; 3.3.1 Definition; 3.3.2 In vitro and in vivo Tests; Exercises

ReferencesChapter 4 FUNDAMENTALS OF SURFACE MODIFICATION; 4.1 Preamble; 4.2 Introduction; 4.3 Surface Properties of Biomaterials; 4.3.1 Protein Adsorption; 4.3.2 Cell Adhesion Ability; 4.3.3 Biocompatibility; 4.3.4 Biomimetics; 4.3.5 Biodegradation; 4.3.6 Hydrophobic and Hydrophilic Surfaces; 4.4 Surface Modifications; 4.4.1 Objectives of Surface Modification of Biomaterials; 4.4.2 Methods of Surface Modifications; 4.5 Applications; Questions; References; Chapter 5 MULTI-LENGTH SCALE HIERARCHY IN NATURAL MATERIALS; 5.1 Introduction; 5.2 Multi-Length-Scale Hierarchy; 5.3 Human Bone
5.4 Turtle Shell5.5 Wood; 5.6 Silk; 5.7 Nacre; 5.8 Gecko-Feet; 5.8.1 Synthesis of Gecko-Foot-Like Adhesives; 5.9 Lotus Leaf; 5.9.1 Mimicking Lotus Leaf Structure; Questions; References; Chapter 6 SUPERHYDROPHOBIC SURFACES; 6.1 Introduction; 6.2 Surfaces and Superhydrophobicity in Nature; 6.3 Classification of Surfaces; 6.3.1 Learning from Nature; 6.3.2 Role of Chemical Composition and Two-Level Roughness; 6.3.3 Mechanical Aspects of Surfaces; 6.4 Mechanics and Nature of Wetting; 6.5 Fabrication of Artificial Superhydrophobic Surfaces; 6.5.1 Soft Lithographic Imprinting; 6.5.2 Plasma Treatment
6.5.3 Sol-Gel Technique6.5.4 Combination Based on Chemical Vapor Deposition; 6.5.5 Electrospinning; 6.6 Preparation of Metallic Superhydrophobic Surfaces; 6.7 Controlled Wettability Surfaces (CWS); 6.8 Conclusions; Questions; References; Chapter 7 SURFACE ENGINEERING AND MODIFICATION FOR BIOMEDICAL APPLICATIONS; 7.1 Corrosion of Biomaterials and Need for Surface Coating for Biomedical Applications; 7.2 Surface Reactivity and Body Cell Response; 7.3 Key Requirements of Surface Coating; 7.3.1 Surface Roughness; 7.3.2 Porosity; 7.3.3 Cell Adhesion and Growth; 7.3.4 Contamination/Leaching
7.3.5 Coating Thickness and Microstructure

Sommario/riassunto

"Ideal as a graduate textbook, this book is aimed at helping design effective biomaterials, taking into account the complex interactions that occur at the interface when a synthetic material is inserted into a living system. Surface reactivity, biochemistry, substrates, cleaning, preparation, and coatings are presented, with numerous case studies and applications throughout. Highlights include: Starts with concepts and works up to real-life applciations such as implantable devices, medical devices, prosthetics, and drug delivery technology Addresses surface reactivity, requirements for surface coating, cleaning and preparation techniques, and characterization Discusses the biological response to coatings Addresses biomaterial-tissue interaction Incorporates nanomechanical properties and processing strategies"--
"This book is aimed at helping design effective biomaterials, taking into account the complex interactions that occur at the interface when a synthetic material is inserted into a living system. Surface reactivity, biochemistry, substrates, cleaning, preparation, and coatings are presented, with numerous case studies and applications throughout"--

2. Record Nr. UNINA9910261114903321

Autore	Storrer Angelika
Titolo	Chancen und Perspektiven computergestützter Lexikographie : Hypertext, Internet und SGML/XML für die Produktion und Publikation digitaler Wörterbücher / / Ingrid Lemberg, Bernhard Schröder, Angelika Storrer
Pubbl/distr/stampa	De Gruyter, 2001 Tübingen : , : Max Niemeyer Verlag, , [2016] ©2001
ISBN	9783110915006 3110915006
Edizione	[Reprint 2016]
Descrizione fisica	1 online resource (vi, 270 p.) : ill. ;
Collana	Lexicographica. Series Maior ; ; 107
Classificazione	ES 965
Disciplina	413/.0285
Soggetti	Lexicography - Data processing
Lingua di pubblicazione	Tedesco
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	Frontmatter -- Inhaltsverzeichnis -- Einführung -- I. Grundlagen -- Verfahren und Techniken in der computergestützten Lexikographie / Büchel, Gregor / Schröder, Bernhard -- Entwicklung eines lexikographischen Modells: Ein neuer Ansatz / Schmidt, Ingrid / Müller, Carolin -- Digitale Wörterbücher als Hypertexte: Zur Nutzung des Hypertextkonzepts in der Lexikographie / Storrer, Angelika -- Aspekte der Online-Lexikographie für wissenschaftliche Wörterbücher / Lemberg, Ingrid -- Qualitätskriterien der CD-ROM-Publikation von Wörterbüchern / Klosa, Annette -- II. Anwendungen -- Zur Mikrostruktur im Hypertext-Wörterbuch / Haß-Zumkehr, Ulrike -- Wortschatzarchitektur und elektronische Wörterbücher: Goethes Wortschatz und das Goethe-Wörterbuch / Gloning, Thomas / Welter, Rüdiger -- Zur Anwendung der TEI-Richtlinien bei der Retrodigitalisierung mittelhochdeutscher Wörterbücher / Burch, Thomas / Fournier, Johannes -- Elektronische Materialgrundlage und computergestützte Ausarbeitung eines historischen Belegwörterbuchs. Erfahrungen und Perspektiven am Beispiel des neuen Mittelhochdeutschen Wörterbuchs / Plate, Ralf / Recker, Ute -- Das

elektronische Flurnamenbuch - Innovationen in der Flurnamenforschung durch den Einsatz neuer Medien / Richter, Gerd -- Das Informationsdesign auf der Speicherungsebene eines zweisprachigen Online-Wörterbuchs Polnisch-Deutsch / Petelenz, Krzysztof -- Anwendungsperspektiven des GermaNet, eines lexikalisch-semantischen Netzes für das Deutsche / Kunze, Claudia / Wagner, Andreas -- Das Internet als Medium für die Wörterbuchbenutzungsforschung / Lemnitzer, Lothar -- Abstracts -- Résumés -- Register

Sommario/riassunto

In der Reihe erscheinen Monographien und Sammelbände zur Lexikographie und Metalexikographie. Außerdem werden Arbeiten aus dem weiteren Bereich der Lexikologie aufgenommen, wenn sie zum Ausbau der theoretischen, methodischen und empirischen Grundlagen von Lexikographie und Metalexikographie beitragen. Zentrale Themen sind Mikro- und Makrostruktur, typologische und wissenschaftsgeschichtliche Aspekte und angewandte lexikographische Dokumentation.