1. Record Nr. UNINA9910416106603321

Titolo	Biointerface Engineering: Prospects in Medical Diagnostics and Drug Delivery / / edited by Pranjal Chandra, Lalit M. Pandey
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020
ISBN	981-15-4790-4
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (VIII, 254 p. 78 illus., 54 illus. in color.)
Disciplina	612.01583
Soggetti	Biomedical engineering Nanoscience Nanostructures Nanochemistry Engineering—Materials Biomedical Engineering/Biotechnology Nanoscale Science and Technology Materials Engineering Enginyeria biomèdica Materials biomèdics Interfícies biològiques Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Chapter 1. Engineered Drug Delivery Systems: Insights of Biointerface -- Chapter 2. Tissue Engineering Strategies for Tooth and Dento-alveolar Region with Engineered Biomaterial and Stem Cells -- Chapter 3. Antifouling Peptoid Biointerfaces -- Chapter 4.Structure and Rheology of Hydrogels: Applications in Drug Delivery -- Chapter 5. Surface Engineering in Wearable Sensors for Medical Diagnostic Applications -- Chapter 6. Modulation of Physicochemical properties of Polymers for Effective Insulin Delivery Systems -- Chapter 7. Organization of Bio-molecules in Bulk and over the Nano-substrate: Perspective to the Molecular Dynamics Simulations -- Chapter 8. Medical Diagnostics Based on Electrochemical Biosensor -- Chapter 9.

Nanomaterial functionalization Strategies in Bio-interface Development for Modern Diagnostic Devices -- Chapter 10. Bio-nano-Interface Engineering Strategies of AuNPs Passivation for Next-generation Biomedical Applications -- Chapter 11. Electrooptical Analysis as Sensing System for Detection and Diagnostic Bacterial Cells.

Sommario/riassunto

This book provides detailed information on the surface and surface chemistry of various biointerfaces for the understanding and development of biosensors, biocompatible devices, and drug delivery systems. It highlights the role of interfacial phenomena towards the behaviour of biomolecules on different surfaces and their significance in recent applications. The book also addresses various surface engineering techniques for the modification of biomaterials that are implemented for improving biocompatibility. It provides an updated scientific concept of various interactions of biological systems with surfaces/modified surfaces at the molecular and cellular level. The chapters include various in-vitro, in-vivo, ex-vivo models to illustrate various aspects of Biointerface Engineering. Finally, the book elucidates troubleshooting strategies and future prospects of Biointerface Engineering in Medical Diagnostics and Drug Delivery.

2. Record Nr. UNINA9910412155303321

Titolo	Atmospheric rivers / / F. Martin Ralph, Michael D. Dettinger, Jonathan J. Rutz, Duane E. Waliser, editors
Pubbl/distr/stampa	Cham : , : Springer, , 2020
ISBN	3-030-28906-0
Descrizione fisica	1 online resource (xlii, 252 pages) : illustrations
Disciplina	551.517
Soggetti	Atmospheric circulation Atmospheric waves Hydrology Dynamic meteorology Water vapor, Atmospheric Geophysics and Environmental Physics Atmospheric Sciences Hydrology/Water Resources Climate Change/Climate Change Impacts Climate Change Meteorology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter1: Introduction -- Chapter2: Structure, Process and Mechanism -- Chapter3: Observing and Detecting ARs -- Chapter4: Global and Regional Perspectives -- Chapter5: Effects of Atmospheric Rivers -- Chapter6: AR Modeling: Forecasts, Climate Simulations, and Climate Projections -- Chapter7: Applications -- Chapter8: The Future of AR Research and Applications.
Sommario/riassunto	This book is the standard reference based on roughly 20 years of research on atmospheric rivers, emphasizing progress made on key research and applications questions and remaining knowledge gaps. The book presents the history of atmospheric-rivers research, the current state of scientific knowledge, tools, and policy-relevant (science-informed) problems that lend themselves to real-world

application of the research—and how the topic fits into larger national and global contexts. This book is written by a global team of authors who have conducted and published the majority of critical research on atmospheric rivers over the past years. The book is intended to benefit practitioners in the fields of meteorology, hydrology and related disciplines, including students as well as senior researchers.