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Titolo	Biomimetic Sensor Technologies : Innovations in Dopamine and Nitric Oxide Neurotransmitter Biosensing // by Deepa Suhag
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Nota di contenuto	Introduction -- Fundamentals of Biomimetic Materials -- Role of Biosensors in Medicine -- Electrochemical Biosensors Principles and Mechanisms -- Development of Biomimetic Platforms for Neurotransmitter Sensing -- Biomimetic Materials for Dopamine Sensing -- Biomimetic Platforms for Nitric Oxide Detection -- Nitrogen Doped Carbon Nanomaterials in Biosensing -- Antibacterial Properties of Nitrogen Doped Carbon Nanosheets -- Characterization Techniques for Biomimetic Materials -- Challenges and Future Directions in Biomimetic Sensor Development -- Future Perspectives.
Sommario/riassunto	This book dives into the forefront of biosensing technology, focusing on the groundbreaking innovations in dopamine and nitric oxide neurotransmitter detection. From fundamental principles to advanced applications, this book explores how biomimetic sensor technologies are revolutionizing biomedical research and clinical diagnostics. Methods, results, and topics of interest explore the intricate world of biomimetic materials, from their principles and design to cutting-edge synthesis techniques, unlocking the secrets behind their exceptional

performance in sensing applications. Through multiple case studies and real-world examples, this book witnesses the transformative impact of biomimetic strategies in enhancing sensitivity and selectivity for dopamine and nitric oxide detection. Additionally, this book explores the antibacterial properties of nitrogen-doped carbon nanosheets and their relevance to biosensing environments, providing a holistic understanding of biomimetic sensor technologies. Illustrations, tables, and concise-yet-comprehensive explanations contribute to a visually engaging journey for the reader, making complex concepts easily understandable. The book's didactic approach ensures a seamless learning experience, guiding readers through the intricacies of biomimetic sensor development and characterization techniques. Whether you're a researcher, practitioner, or student, this book unlocks practical insights and strategies to overcome current challenges and explore emerging trends in neurotransmitter biosensing. This book gains a deeper understanding of biomimetic sensor development and characterization techniques, equipping the reader to make meaningful contributions to biomedical research and clinical diagnostics.
