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Titolo	Polymeric micelles : principles, perspectives and practices / / Sachin Kumar Singh [and four others], editors
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Nota di contenuto	1. Synthesis, self-assembly and functional chemistry of Amphiphilic block copolymers -- 2. Advances in polymer optimisation for enhanced drug delivery -- 3. Dynamics of Micelle Formation -- 4. Types of Polymeric Micelles for Controlled Drug Release -- 5. Drug Solubilization and Drug Release from Polymeric Micelles -- 6. Physical and Analytical Techniques used for the Characterization of Polymeric Micelles -- 7.Stimuli-sensitive polymeric micelles for biomedical applications -- 8.Nucleic acid-based micellar therapy for the treatment of different diseases -- 9. Polymeric micelles in the delivery of therapeutic phytoconstituents -- 10. Diagnostic applications of surface-engineered polymeric micelles -- 11. Ligand conjugated polymeric micelles for targeted delivery of drug payloads in cancer therapy -- 12. Polymeric Micelles in the Delivery of Proteins -- 13. Regulatory aspects for polymeric micelles -- 14. Toxicological and regulatory challenges in design and development of polymeric micelles -- 15. Stability of polymeric micelles and their regulatory status.
Sommario/riassunto	This book thoroughly reviews the advancements in design and applications of Polymeric Micelles (PMs) in drug delivery. It provides information on the synthesis of amphiphilic block copolymers and their types, functional chemistry for targeting and sensing, and biomedical applications. The book further provides the possibilities for designing PMs in a range of drug delivery approaches. The book addresses the

molecular parameters of amphiphilic block copolymers that are required for functionalizing PMs for drug delivery applications. Additionally, the book presents recent advances in applications of PMs such as co-delivery, sensing, theranostics, delivery of nucleic acids, and proteins. Towards the end, it discusses different physico-chemical strategies to enhance the stability and drug retention of polymeric micelles and reviews the preclinical and clinical toxicity and immunogenicity-related aspects of polymeric micelles. This book is an invaluable source for academics, research, and industry professionals working in the field of polymeric micelles and drug delivery.