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Sommario/riassunto

This book provides a modern overview of functional carbon quantum dots and their biomedical applications. It begins with detailed descriptions of the synthesis, characterization, and functionalization of carbon quantum dots. It then delves into their important biomedical applications in diagnosis and treatment, including bioimaging, sensing, cancer therapy, and drug delivery applications. With insightful discussions on targeted drug delivery, monitoring treatment responses, and the integration of emerging technologies like nanotechnology and AI, readers are provided with an insight into the future possibilities of quantum dots in the biomedical sector. The book navigates readers through ethical considerations, regulatory frameworks, and patient-centric perspectives, ensuring a holistic understanding of the challenges and opportunities associated with the Theranostic applications of quantum dots. This book includes case studies, covers recent advances in the field, and draws on the knowledge of its expert authors, making it ideal for all those who study, develop, or use quantum dots in their work. .
