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Sommario/riassunto

This book presents readers with a comprehensive discussion on carbon-based nanocomposites and their critical role in addressing global sustainability challenges. By bridging the gap between materials science and real-world applications, this book serves as an invaluable resource for academic researchers, engineers, industry professionals, and advanced students in fields such as materials science, engineering, and environmental studies dealing with the unique properties of carbon-based nanomaterials. It provides a detailed view of carbon-based nanocomposites, offering both foundational knowledge and insights into cutting-edge applications that have the potential to drive sustainable progress in the coming years. This Volume Two, the second of three, covers the environmental and renewable energy applications of carbon-based nanocomposites. It focuses on their role in enhancing the efficiency and durability of renewable energy technologies, such as solar cells, batteries, and supercapacitors. Additionally, it addresses their use in water purification, environmental monitoring, and solar steam evaporation. This volume highlights the potential for carbon-based materials to contribute to cleaner, more efficient energy and environmental solutions.