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Sommario/riassunto

CARBON ALLOTROPES and COMPOSITES The book discusses the most recent developments and trends in the use of carbon allotropes and their composites for environmental restoration and protection including synthesis, characterization and applications. Due to their huge surface area and numerous other distinguishing characteristics, nanostructure materials are widely used in a variety of applications. The production of substrates for better environmental protection and cleanup has been prompted by these qualities. They offer a superior surface for the adsorption of impurities and pollutants that contaminate industrial eff luents, wastewater, air, and soil. These all include a variety of harmful environmental substances such as toxic metals, phenolic compounds, dyes, and other substances that must be treated appropriately before being released into the environment. Composites made of highly efficient and relatively noble carbon allotropes are attracting significant attention for environmental protection and restoration. The use of carbon allotropes offers many benefits, including low cost, low toxicity, simple manufacture, and high efficiency. Therefore, they are ideal replacements for previously established materials. Carbon Allotropes and Composites is one of the first books on carbon allotropes and their composites in environmental protection and remediation, and features a description of CO2 capturing capability. Audience The book is designed for a broad audience working in the fields of materials science and engineering, nanotechnology, energy, environmental chemistry, environmental science, etc.