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Sommario/riassunto

Nanocarbon-Inorganic Hybrids is dedicated exclusively to the new family of functional materials, covering a multidisciplinary research field that combines materials science, chemistry and physics with nanotechnology and applied energy science. It provides a concise introduction into fundamental principles of nanocarbons, defines hybrids and composites, explains the physics behind sustainability, and illustrates requirements for successful implementation in energy applications. It further reviews the current research on developing concepts for designing nanocarbon hybrids, unravels mechanistic details of interfacial electron transfer processes and highlights future challenges and perspectives associated with exploiting these exciting new materials in commercial energy applications and beyond. This comprehensively written book is indispensable for Master and PhD students seeking to become familiar with a modern field of knowledge-driven material science as well as for senior researchers and industrial staff scientists who explore the frontiers of knowledge.