1. Record Nr. UNINA9910150526303321 Autore Fan Wei Titolo Graphene-Carbon Nanotube Hybrids for Energy and Environmental Applications [[electronic resource] /] / by Wei Fan, Longsheng Zhang, Tianxi Liu Singapore:,: Springer Singapore:,: Imprint: Springer,, 2017 Pubbl/distr/stampa **ISBN** 981-10-2803-6 Edizione [1st ed. 2017.] Descrizione fisica 1 online resource (X, 104 p. 43 illus., 38 illus. in color.) Collana SpringerBriefs in Green Chemistry for Sustainability, , 2212-9898 Disciplina 620.115 Soggetti Nanotechnology Energy storage Electrochemistry Water pollution **Energy Storage** Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution Inglese Lingua di pubblicazione **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Structures and properties of carbon nanomaterials --Nota di contenuto Strategies for the hybridization of carbon nanotubes with graphene --Application of graphene-carbon nanotube hybrids for energy storage -- Application of graphene-carbon nanotube hybrids for environmental remediation -- Summary. Sommario/riassunto This book describes various carbon nanomaterials and their unique properties, and offers a detailed introduction to graphene-carbon nanotube (CNT) hybrids. It demonstrates strategies for the hybridization of CNTs with graphene, which fully utilize the synergistic effect between graphene and CNTs. It also presents a wide range of applications of graphene–CNT hybrids as novel materials for energy storage and environmental remediation. Further, it discusses the preparation, structures and properties of graphene-CNT hybrids. providing interesting examples of three types of graphene-CNT hybrids with different nanostructures. This book is of interest to a wide

readership in various fields of materials science and engineering.