1. Record Nr. UNINA9910372781503321 Autore Carrasco-Marín Francisco Titolo **Element-Doped Functional Carbon-based Materials** MDPI - Multidisciplinary Digital Publishing Institute, 2020 Pubbl/distr/stampa **ISBN** 3-03928-225-5 Descrizione fisica 1 electronic resource (188 p.) Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Sommario/riassunto Carbon materials are one of the most fascinating materials because of their unique properties and potential use in several applications. They can be obtained from residues or by using advanced synthesis technologies like chemical vapor deposition. The carbon family is very broad, ranging from classical activated carbons to more advanced species such as carbon nanotubes and graphene. The surface chemistry is one of the most interesting aspects of this broad family of materials, which allows the incorporation of different types of chemical functionalities or heteroatoms on the carbon surface, such as O, N, B, S, or P, which can modify the acid-base character, hydrophobicity/hydrophilicity, or the electronic properties of these materials and, thus, determine the final application. This book represents a collection of original research articles and communications focused on the synthesis, properties, and applications of heteroatomdoped functional carbon materials.