Record Nr. UNINA9910830086603321 Autore **Delhaes Pierre Titolo** Carbon-based solids and materials [[electronic resource] /] / Pierre **Delhaes** Pubbl/distr/stampa London, : ISTE Hoboken, N.J., : Wiley, 2011 **ISBN** 1-118-55761-1 1-118-60088-6 1-118-60089-4 1-299-18749-8 Descrizione fisica 1 online resource (658 p.) Collana **ISTE** Disciplina 620.1/93 620.193 Soggetti Carbon composites Carbon compounds Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto pt. 1. Carbon phases, precursors and parent compounds -- pt. 2. Physical properties of solid carbons -- pt. 3. Carbon materials and uses. It is well known that solid carbons can be found in various guises with Sommario/riassunto different forms of bulk phases (graphites, diamonds and carbynes) as well as more molecular forms (fullerenes,nanotubes and graphenes) resulting from recent discoveries. The cause of this rich polymorphism is analyzed in the first part of this book (chapters 1-5) with the propensity of carbon atoms for forming different types of homopolar chemical bonds associated with variable coordination numbers. Precursor organic molecules and parent compounds are also described to establish specific links with this rich polymo