Record Nr. UNINA9910777319503321 Autore Enoki Toshiaki Titolo Graphite intercalation compounds and applications [[electronic resource] /] / Toshiaki Enoki, Masatsugu Suzuki, Morinobu Endo New York,: Oxford University Press, 2003 Pubbl/distr/stampa **ISBN** 0-19-756140-3 1-280-70390-3 9786610703906 0-19-535184-3 Descrizione fisica 1 online resource (453 p.) Collana Oxford scholarship online Altri autori (Persone) SuzukiMasatsugu EndoMorinobu Disciplina 541.2/2 Soggetti Graphite Clathrate 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 Contents; 1 Introduction; 2 Synthesis and Intercalation Chemistry; 3 Structures and Phase Transitions; 4 Lattice Dynamics; 5 Electronic Structures; 6 Electron Transport Properties; 7 Magnetic Properties; 8 Surface Properties and Gas Adsorption; 9 GICs and Batteries; 10 Highly Conductive Graphite Fibers; 11 Exfoliated Graphite Formed by Intercalation: 12 Intercalated Fullerenes and Carbon Nanotubes: Index Sommario/riassunto Graphite intercalation compounds are a new class of electronic materials that are classified as graphite-based host guest systems. They have specific structural features based on the alternating stacking of graphite and guest intercalate sheets. The electronic structures show two-dimensional metallic properties with a large variety of features including superconductivity. They are also interesting from the point of two-dimensional magnetic systems. This book presents the synthesis. crystal structures, phase transitions, lattice dynamics, electronic structures, electron transport properties, magnetic properties, surface

phenomena, and applications of graphite intercalation compounds.