Record Nr. UNINA9910781626603321 Graphene: synthesis and applications // edited by Wonbong Choi, Jo-**Titolo** won Lee Pubbl/distr/stampa Boca Raton:,: CRC Press,, 2012 **ISBN** 0-429-10546-0 1-283-27962-2 9786613279620 1-4398-6188-9 Descrizione fisica 1 online resource (374 p.) Collana Nanomaterials and their applications;; 3 SCI013000SCI077000TEC021000 Classificazione Altri autori (Persone) ChoiWonbong <1963-> LeeJo-won <1952-> Disciplina 620/.5 Soggetti Graphene Graphene - Industrial applications 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. Nota di contenuto Front Cover; Contents; Preface; Introduction; Contributors; Chapter 1: Tailoring the Physical Properties of Graphene; Chapter 2: Graphene Synthesis; Chapter 3: Quantum Transport in Graphene-Based Materials and Devices: From Pseudospin Effects to a New Switching Principle; Chapter 4: Electronic and Photonic Applications for Ultrahigh-Frequency Graphene-Based Devices; Chapter 5: Graphene Thin Films for Unusual Format Electronics; Chapter 6: Nanosized Graphene: Chemical Synthesis and Applications in Materials Science; Chapter 7: Graphene-Reinforced Ceramic and Metal Matrix Composites Chapter 8: Graphene-Based Biosensors and Gas SensorsChapter 9: Field Emission and Graphene: An Overview of Current Status; Chapter 10: Graphene and Graphene-Based Materials in Solar Cell Applications; Chapter 11: Graphene: Thermal and Thermoelectric Properties; Back Cover Sommario/riassunto Because of its exceptional electronic and optoelectronic properties, graphene has the potential to become an important material in nextgeneration electronic and energy applications. This authoritative

volume discusses the synthesis, properties, and potential applications

of graphene, including in electronic, sensor, energy, and display technologies. Suitable for researchers and graduate students, it provides a cohesive, critical review of graphene nanoscience and technology, offering valuable insight into how this material is made and used--