Record Nr. UNINA9910462811303321 Advances in polymer nanocomposites [[electronic resource]]: types **Titolo** and applications / / edited by Fengge Gao Pubbl/distr/stampa Cambridge,: Woodhead Pub., 2012 **ISBN** 1-62870-367-9 0-85709-624-9 Edizione [1st edition] Descrizione fisica 1 online resource (670 p.) Woodhead Publishing Series in Composites Science and Engineering Collana Altri autori (Persone) GaoFengge Disciplina 612.384 Soggetti Polymeric composites Nanostructured materials Polymeric composite industry Nanotechnology Electronic books. Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references and index. Nota di contenuto pt. 1. Types of polymer nanocomposites according to fillers -- pt. 2. Types of polymer nanocomposites according -- pt. 3. Applications of polymer nanocomposites. Sommario/riassunto The addition of nanoparticles to polymer composites has led to a new generation of composite materials with enhanced and novel properties. Advances in polymer nanocomposites reviews the main types of polymer nanocomposites and their applications. Part one reviews types of polymer nanocomposites according to fillers. Processing of carbon nanotube-based nanocomposites, layered double hydroxides (LDHs) and cellulose nanoparticles as functional fillers and reinforcement are discussed, alongside calcium carbonate and metal-polymer

nanocomposites. Part two focuses on types of polymer nanocomp