Record Nr. UNINA9910140766903321 Nanoparticles [[electronic resource]]: from theory to application // **Titolo** edited by Gunter Schmid Pubbl/distr/stampa Weinheim,: Wiley-VCH, 2010 **ISBN** 3-527-63236-0 1-282-78389-0 9786612783890 3-527-63154-2 3-527-63155-0 Edizione [2nd ed.] Descrizione fisica 1 online resource (538 p.) Classificazione 620540 Altri autori (Persone) SchmidGunter <1937-> Disciplina 620.5 Nanoparticles Soggetti Nanostructured materials 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 Nanoparticles: From Theory to Application; Contents; List of Contributors; 1 General Introduction; 2 Quantum Dots; 3 Syntheses and Characterizations; 4 Organization of Nanoparticles; 5 Properties; 6 Semiconductor Quantum Dots for Analytical and Bioanalytical Applications; 7 Conclusions and Perspectives; Index Sommario/riassunto Very small particles are able to show astonishing properties. For example, gold atoms can be combined like strings of pearls, while nanoparticles can form one-, two- and three-dimensional layers. These assemblies can be used, for instance, as semiconductors, but other electronic as well as optical properties are possible. An introduction to the booming field of ""nanoworld"" or ""nanoscience"", from fundamental principles to their use in novel applications. With its clear structure and comprehensive coverage, backed by numerous examples

from recent literature, this is a prime reference