

1. Record Nr.	UNINA9911007120903321
Autore	Jelinek Raz
Titolo	Nanoparticles / / Raz Jelinek
Pubbl/distr/stampa	Berlin ; ; Boston : , : De Gruyter, , [2015] ©2015
ISBN	9781523104635 1523104635 9783110330021 3110330024
Edizione	[1st ed.]
Descrizione fisica	1 online resource (283 p.)
Collana	De Gruyter Textbook
Disciplina	620.1/15 620.115
Soggetti	Nanostructured materials Nanotechnology Semiconductors
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Frontmatter -- Preface -- Contents -- 1. Introduction -- 2. Semiconductor nanoparticles -- 3. Metal nanoparticles -- 4. Metal oxide nanoparticles -- 5. Organic and biological nanoparticles -- 6. Hybrid and composite nanoparticles -- 7. Nanoparticle interactions with biomolecules and cells -- 8. Nanoparticle assemblies -- Further reading -- Index
Sommario/riassunto	Nanoparticles presents the remarkable variety of nanoparticle families, compositions, structures, and functions. The book discusses nanoparticles made of semiconductors, metals, metal-oxides, organics, biological and hybrid constituents. Through a wealth of examples and case studies, supplemented by numerous figures, readers that are not necessarily active or experts in this area acquire abroad overview of this exciting field at the interface between scientific research and practical technologies. The contents summarize the contributions to this field of diverse scientific and technological disciplines - chemistry, physics, biology, electronics and others providing a comprehensive

knowledge - the types of nanoparticles, their compositions and how the relationships between the atomic constituents affect their properties, as well as potential applications of nanoparticles.- Covers diverse uses of nanoparticles in scientific research and industrial applications, underscoring their extraordinary diversity and potential utilization.- Experimental and conceptual approaches applied to the study of nanoparticles are discussed extensively. Additional references provide the reader with a basis for further study.- Also available by Professor Jelinek: Biomimetics - A Molecular Perspective (2013), ISBN: 978-3-11-028117-0

---