

1. Record Nr.	UNINA9910254038203321
Titolo	Encyclopedia of Nanotechnology [[electronic resource] /] / edited by Bharat Bhushan
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2016
ISBN	94-017-9780-3
Edizione	[2nd ed. 2016.]
Descrizione fisica	1 online resource (2761 illus., 1886 illus. in color. eReference.)
Disciplina	620.503
Soggetti	Nanotechnology Nanoscale science Nanoscience Nanostructures Nanotechnology Nanoscale Science and Technology Nanotechnology and Microengineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Nanomaterials and biomaterials -- New micro + nano systems and technologies -- More about devices -- Application security and safety -- Bio-nanotechnology.
Sommario/riassunto	The second edition of this exhaustive work provides a genuinely international, comprehensive and multi-disciplinary reference encompassing the many diverse topics surrounding the field of nanotechnology. Each entry in the 6-volume set offers a short, self-contained review of the subject matter, written at a level suitable for graduate students, researchers, and practitioners. The first edition of the Encyclopedia introduced a large number of terms, devices and processes related to the multi-disciplinary field of nanotechnology. For the revised 2nd edition, existing entries have been updated to reflect developments in the field, and more than 110 completely new entries have been added to cover emerging materials, technologies and areas of application. Major developments for the 2nd edition include the following: Expanded section on nanostructures including new chapters on structures, characteristics and applications of graphene and

graphene oxides; new entries on formation of nanoceramics and diamond by spark plasma sintering; new chapters on the synthesis and use of nanoparticles and functional nanomaterials in biomedical applications; significantly expanded section on molecular modeling and simulation; several new entries on MEMS and NEMS technologies including graphene and CNT NEMS; expanded coverage of microfluidics and nanofluidics, and applications of nanotechnology to biomedicine and biomedical imaging; further material on environmental, health and safety issues concerning nanomaterials; expanded section on nanomanufacturing, now including multiple entries on self-assembly. The diverse international authorship of the work is a reflection of the global research effort in this field, with contributions from leading academic researchers and industrial experts alike.

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