1. Record Nr. UNINA9910298609403321

Titolo	Exotic Properties of Carbon Nanomatter : Advances in Physics and Chemistry / / edited by Mihai V. Putz, Ottorino Ori
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2015
ISBN	94-017-9567-3
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (400 p.)
Collana	Carbon Materials: Chemistry and Physics, , 1875-0745 ; ; 8
Disciplina	547
Soggetti	Chemistry, Physical and theoretical Mathematical physics Nanotechnology Theoretical and Computational Chemistry Theoretical, Mathematical and Computational Physics
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	Ode to the Chemical Element Carbon -- Origami: Self Organizing Polyhexagonal Carbon Structures for Formation of Fullerenes, Nanotubes and Other Carbon Structures -- Collective Excitations in Monolayer Graphene on Metals: Phonons and Plasmons -- Understanding the Exohedral Functionalization of Endohedral Metallofullerenes -- Cubic Silicon Carbide Nanowires -- Geometry and Topology of Nanotubes and Nanotori -- The First and Second Zagreb Indices of Several Interesting Classes of Chemical Graphs and Nanostructures -- Exotic Allotropes of Carbon -- Web-Based Computational Tools Used in Protein Surface Analysis and Characterization. Applications for Protein-Protein and Protein-Ligand Interactions -- Bondonic Chemistry: Physical Origins and Entanglement Prospects -- Bondonic Chemistry: Non-Classical Implications on Classical Carbon Systems -- Bondonic Chemistry: Consecrating Silanes As Metallic Precursors for Silicenes Materials -- Bondonic Chemistry: Predicting Ionic Liquids (II) Bondons by Raman-Ir Spectra -- Electric Field Effects on Graphene Materials.
Sommario/riassunto	This title reports the state-of-the-art advancements in modeling and characterization of fundamental and the recently designed carbon

based nanocomposites (graphenes, fullerenes, polymers, crystals and allotropic forms). Written by leading experts in the field, the book explores the quantification, indexing, and interpretation of physical and chemical exotic properties related with space-time structure-evolution, phase transitions, chemical reactivity, and topology. Exotic Properties of Carbon Nanomatter is aimed at researchers in academia and industry.