1. Record Nr. UNINA9910972913103321

Titolo	Carbon nanotubes : new research / / Avery P. Ottenhouse, editor
Pubbl/distr/stampa	New York, : Nova Science Publishers, c2009
ISBN	1-60876-700-0
Edizione	[1st ed.]
Descrizione fisica	1 online resource (508 p.)
Altri autori (Persone)	OttenhouseAvery P
Disciplina	620.1/93
Soggetti	Carbon Nanostructured materials Nanotubes
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	""Carbon Nanotubes: New Research""; ""Contents""; ""Preface""; ""On the Drude Model to Explain Quantum Transport in Carbon Nanotubes""; ""Abstract""; ""1. Introduction""; ""2. Theory""; ""Conclusion""; ""References""; ""Asymptotic Analysis of Coagulation- Fragmentation Equations""; ""Abstract""; ""Introduction""; ""Computational Method""; ""Description of the Asymptotic Coagulation- Fragmentation Equations""; ""Calculation Results and Discussion""; ""Perspectives""; ""References""; ""Gas-Carbon Nanotubes Interactions: A Review of ultra-high vacuum Surface Science Studies on CNTs"" ""Abstract""""Abbreviations""; ""1. Introduction""; ""2. Sample Preparation for Surface Science Studies""; ""3. Brief Literature Survey of HOPG - Highly Ordered Pyrolytic Graphite""; ""4. Brief Literature Overview - UHV Surface Science Studies on Clean Nanotubes""; ""5. Detailed Examples of Specific Systems""; ""6. Future Directions""; ""Summary""; ""Acknowledgments""; ""References""; ""On Residual Metallic Catalyst Impurities in Carbon Nanotubes""; ""Abstract""; ""Main Text""; ""References"" ""Insight of the Kinetics Carbon Nanotubes Growth and Funcinalization with Freestanding Silicon Nanocrystals""""Abstract""; ""1. Introduction""; ""2. Experimental""; ""3. Kinetcis of the Carbon Nanotubes Growth""; ""4. Filling Carbon Nanotube Cavity by Silicon Nanocrystals""; ""Conclusion""; ""Acknowledgments""; ""References""; ""Carbon Nanotube Array Thermal Interfaces""; ""Abstract""; ""X.1. Introduction"";

""X.2 Thermal Transport Through Carbon Nanotube Array Interfaces""; ""X.3. Photoacoustic Characterization of Thermal Properties""; ""X.4 Types of Carbon Nanotube Array Interfaces""
""X.5. Thermal Resistances of Carbon Nanotube Array Interfaces""""""X.6. Conclusion""; ""References""; ""Computational Analysis of the Interfacial Bonding Characteristics of Carbon Nanotube/Polymer Composites""; ""Abstract""; ""1. Introduction and Background""; ""2. Experimental""; ""3. Investigation of Molecular Interactions between SWNT and Polythylene/Polypropylene/Polystyrene/Polyaniline Molecules""; ""4. Influence of Chirality on the Interfacial Bonding Characteristics of Carbon Nanotube Polymer Composites""
""5. Effect of Chemisorption on the Interfacial Bonding Characteristics of Carbon Nanotube Polymer Composites""""""Conclusions""; ""Acknowledgment""; ""References""; ""Mechanical Properties of Carbon Nanotubes""; ""Abstract""; ""Introduction""; ""Mechanical Properties of SWCNTs""; ""Mechanical Properties of DWCNTs""; ""Conclusion""; ""Acknowledgments""; ""References""; ""Electrical Properties of a Carbon Nanotube/Polymer Nanocomposite and its Application as Highly Sensitive Strain Sensors""; ""Abstract""; ""1. Introduction""
""2. A Statistical Percolation Model for Prediction of Percolation Threshold of Nanocomposites""

Sommario/riassunto

This new and important book presents significant research on carbon nanotubes (CNTs) which are allotropes of carbon with a nanostructure that can have a length-to-diameter ratio greater than 1,000,000. These cylindrical carbon molecules have novel properties that make them potentially useful in many applications in nanotechnology, electronics, optics and other fields of materials science, as well as extensive use in arcology and other architectural fields. They exhibit extraordinary strength and unique electrical properties, and are efficient conductors of heat.Inorganic nanotubes have also been synthesised. Nanotubes are members of the fullerene structural family, which also includes the spherical buckyballs. The cylindrical nanotube usually has at least one end capped with a hemisphere of the buckyball structure. Their name is derived from their size, since the diameter of a nanotube is in the order of a few manometres (approximately 1/50,000th of the width of a human hair), while they can be up to several millimetres in length (as of 2008). Nanotubes are categorized as single-walled nanotubes (SWNTs) and multi-walled nanotubes (MWNTs).

2. Record Nr. UNINA9910961162303321

Autore	Russell Conrad
Titolo	Academic freedom / / Conrad Russell
Pubbl/distr/stampa	London ; ; New York, : Routledge, 1993
ISBN	1-136-78306-7 1-136-78299-0 1-138-16484-4 1-280-53907-0 9786610539079 0-203-00363-2
Descrizione fisica	1 online resource (132 p.)
Disciplina	378.1/21
Soggetti	Academic freedom - Great Britain Higher education and state - Great Britain University autonomy - Great Britain
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	First published 1993 by Routledge.
Nota di bibliografia	Includes bibliographical references (p. 113-115) and index.
Nota di contenuto	Cover; Half Title; Title; Copyright; Contents; Preface; INTRODUCTION; 1 THE IDEAL OF ACADEMIC FREEDOM; 2 THE LIMITS OF ACADEMIC FREEDOM; 3 MAPPING THE BORDERS; 4 UNIT COSTS; CONCLUSION; EPILOGUE (April 1992); Notes; Index
Sommario/riassunto	First published in 2002. Routledge is an imprint of Taylor & Francis, an informa company.