

1. Record Nr.	UNINA9910136779203321
Titolo	Biomedical applications and toxicology of carbon nanomaterials // edited by Chunying Chen and Haifang Wang
Pubbl/distr/stampa	Weinheim, Germany : , : Wiley-VCH Verlag GmbH & Company KGaA, , [2016] ©2016
ISBN	3-527-69287-8 3-527-69285-1
Descrizione fisica	1 online resource (671 p.)
Soggetti	Nanostructured materials Biomedical materials
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	Related Titles; Title Page; Copyright; Table of Contents; List of Contributors; Preface; Chapter 1: Synthesis, Functionalization, and Characterization; 1.1 Introduction; 1.2 Fullerenes and Metallofullerenes; 1.3 Carbon Nanotubes; 1.4 Graphene; 1.5 Summary and Outlook; References; Chapter 2: Identification and Detection of Carbon Nanomaterials in Biological Systems; 2.1 Introduction; 2.2 Available Techniques for Qualitative and Quantitative Determination; 2.3 Summary and Outlook; Acknowledgments; References; Chapter 3: Biodistribution and Pharmacokinetics of Carbon Nanomaterials In Vivo 3.1 Introduction3.2 Amorphous Carbon Nanoparticles; 3.3 sp ² Carbon Nanomaterials; 3.4 Nanodiamonds; 3.5 Summary and Outlook; Acknowledgments; References; Chapter 4: Interaction of Carbon Nanomaterials and Components in Biological Systems; 4.1 Introduction; 4.2 Factors Affecting Interaction; 4.3 Interaction of Carbon Nanomaterials with Various Components in Biological Systems; 4.4 Conclusion and Perspectives; References; Chapter 5: Biomedical Applications of Carbon Nanomaterials; 5.1 Introduction; 5.2 Biomedical Applications of Fullerenes; 5.3 Biomedical Applications of Carbon Nanotubes 5.4 Biomedical Applications of Graphene5.5 Conclusion and

Perspectives; Acknowledgments; References; Chapter 6: Pulmonary Effects of Carbon Nanomaterials; 6.1 Introduction; 6.2 Physicochemical Properties of Carbon Nanomaterials; 6.3 Fate of Pulmonary Exposed Carbon Nanoparticles (Deposition, Distribution, Translocation, and Clearance); 6.4 Carbon Nanomaterial-Induced Lung Responses; 6.5 Summary; Disclaimer; References; Chapter 7: Cardiovascular and Hemostatic Effects of Carbon Nanomaterials; 7.1 Background; 7.2 Carbon Nanotubes; 7.3 Fullerenes; 7.4 Graphene-Related Nanomaterials
7.5 Conclusions and Outlook Acknowledgments; References; Chapter 8: Modulation of the Immune System by Fullerene and Graphene Derivatives; 8.1 Introduction; 8.2 The Immunological Effects of Fullerene and Its Derivatives; 8.3 Immunological Effects of Graphene and Its Derivatives; 8.4 Perspectives and Outlook; References; Chapter 9: Neuro-, Hepato-, and Nephrotoxicity of Carbon-based Nanomaterials; 9.1 Carbon-based Nanomaterials: Introduction; 9.2 Neurotoxicity of Carbon-based Nanomaterials; 9.3 Hepato and Nephrotoxicity of Carbon-based Nanomaterials
9.4 Points of Consideration for Toxicity Evaluation of Carbon-based Nanomaterials 9.5 Summary; Acknowledgments; References; Chapter 10: Genotoxicity and Carcinogenic Potential of Carbon Nanomaterials; 10.1 Introduction; 10.2 Carbon Nanomaterials: Genotoxicity and Carcinogenic Potential; 10.3 Future Challenges in Carbon Nanomaterial Carcinogenesis Risk Assessment; 10.4 Assessment of ECNM-Induced Genotoxicity and Carcinogenesis; 10.5 Concluding Remarks; Acknowledgments; Disclaimer; References; Chapter 11: Effect on Reproductive System of Carbon Nanomaterials; 11.1 Introduction
11.2 Effects of Carbon Nanomaterials on the Reproductive System
