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Nota di contenuto	Nanotoxicity; Contents; Preface; List of Contributors; Acknowledgments; 1 Characterization of Nanomaterials for Toxicological Evaluation; 2 Criteria and Implementation of Physical and Chemical Characteristics of Nanomaterials for Human Health Effects and Ecological Toxicity Studies; 3 Considerations for the Design of Toxicity Studies of Inhaled Nanomedicines; 4 High Aspect Ratio Nanoparticles and the Fibre Pathogenicity Paradigm; 5 Application of Zinc Oxide Quantum Dots in Food Safety 6 Evaluation of Nanotoxicity of Foods and Drugs: Biological Properties of Red Elemental Selenium at Nano Size (Nano-Se) In Vitro and In Vivo 7 Evaluation of Toxicity of Nanostructures in Biological Systems; 8 Developing Bioassay Methods for Evaluating Pulmonary Hazards from Nanoscale or Fine Quartz/Titanium Dioxide Particulate Materials; 9 Nanoparticles: Is Neurotoxicity a Concern?; 10 Hepatotoxic Potential of Nanomaterials; 11 Nanotoxicity in Blood: Effects of Engineered Nanomaterials on Platelets; 12 Sources, Fate and Effects of Engineered

Nanomaterials in the Aquatic Environment

13 Nanotoxicity of Metal Oxide Nanoparticles in Vivo
14 In Vivo Hypersensitive Pulmonary Disease Models for Nanotoxicity; 15 In Vivo and In Vitro Models for Nanotoxicology Testing; 16 In Vitro and In Vivo Toxicity Study of Nanoparticles; 17 In Vitro and In Vivo Models for Nanotoxicity Testing; 18 In Vitro Models for Nanotoxicity Testing; 19 In Vitro Human Lung Cell Culture Models to Study the Toxic Potential of Nanoparticles; 20 Iron Oxide Magnetic Nanoparticle Nanotoxicity: Incidence and Mechanisms; 21 Toxicity Testing and Evaluation of Nanoparticles: Challenges in Risk Assessment
22 Evaluating Strategies For Risk Assessment of Nanomaterials
23 Strategies for Risk Assessment of Nanomaterials; 24 Metal Nanoparticle Health Risk Assessment; 25 Application of Toxicology Studies in Assessing the Health Risks of Nanomaterials in Consumer Products; 26 Safety Assessment of Engineered Nanomaterials in Direct Food Additives and Food Contact Materials; Index; Color Plate

Sommario/riassunto

Nanomaterials - substances smaller than 100 nanometers in size - have been added in recent years to an increasing numbers of consumer products used in day-to-day life; in food packaging, medical devices, pharmaceuticals, cosmetics, odor-resistant textiles and household appliances. The extensive application of nanomaterials in a wide range of products for human use poses a potential for toxicity risk to human health and the environment. Such adverse effects of nanomaterials on human health have triggered the development of a new scientific discipline known as "nanotoxicity" - the study of the t
