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Nota di contenuto	Role of silver nanoparticles on wastewater treatment, environmental implications, and challenges -- Role of nanoparticles in air quality monitoring with respect to toxicity, virus detection and gas sensing -- Past, Present and Possible Future Application of Nanoparticle in Contaminated Soil Remediation -- Development Strategies and Prospects of Carbon Nanotube as Heavy Metal Adsorbent -- Recent development and importance of nanoparticle in disinfection and pathogen control -- Recent advances in nanoparticles for environmental monitoring and sensing: An overview -- Current trends and future applications of silica nanomaterials in adsorption and catalysis -- Effect of nanofertilisers on plant physiology, metabolism and associated safety issues -- Benefits, future prospective and problem associated with use of nanopesticides -- Current applications and future perspectives of nanotechnology for the preservation and enhancement of grain and seed traits -- Interaction between metal oxide nanoparticles and PGPR on plant growth and development -- Recent application and future prospects of nanoparticles-based colorimetric sensors for residual pesticides detection -- Applications, Opportunities and Challenges of Nanotechnology in the Food Industry.

Sommario/riassunto

This book gives a complete overview of current developments in nanotechnology-based environmental remediation and sustainable agriculture practices/sectors. It will provide the use of nanotechnology in the agricultural sector such as crop production and improvement, soil fertility management along with benefits and risks of nanotechnology on ecological farming. Additionally, the book also discovers how nanotechnology is used in water, air remediation techniques and major challenges in using nanomaterials for improving water and air quality. The book can be a reference source for academicians, scientists, policymakers, students, and research scientists working in minimizing the environmental pollution and increasing agricultural production using nanoparticles.
