Record Nr. UNINA9910366640803321 Environmental Nanotechnology Volume 3 / / edited by Nandita Titolo Dasgupta, Shivendu Ranjan, Eric Lichtfouse Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-26672-9 Edizione [1st ed. 2020.] 1 online resource (XV, 362 p. 60 illus., 44 illus. in color.) Descrizione fisica Collana Environmental Chemistry for a Sustainable World, , 2213-7122 ; ; 27 363.7394 Disciplina 363.73946 Soggetti **Pollution** Nanotechnology Agriculture Environmental chemistry **Environmental Chemistry** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Preface -- 1. Nanotechnology in wastewater and the capacity of nanotechnology for sustainability (Oluranti Agboola) -- 2. Therapeutic use of inorganic nanomaterials in malignant diseases (Andreea-Roxana Lupu) -- 3. Modification of Oligomers and Reinforced Polymeric Composites by Carbon Nanotubes and Ultrasonic (Aleksandr Evhenovych Kolosov) -- 4. Understanding interactions of nanomaterials with soil: Issues and Challenges ahead (Arun Kumar) -- 5. Nanotechnology for Water Treatment (Rashid Ahmad) -- 6. Overview of Nanomaterial-Assisted Technologies for Denitrification Processes (Samad Sabbaghi) -- 7. Nanoencapsulation of Food Carotenoids (Lohith Kumar DH) -- 8. Nanomaterials in Agricultural Research: An Overview (Devendra K Payasi) -- 9. Understanding effect of the interaction of nanoparticles with roots on the uptake in plants (Arun Kumar) -- 10. Semiconductor Nanomaterials for Gas Sensor Applications (Marwa Farouk Elkady). Sommario/riassunto This third volume on environmental nanotechnology includes chapters

dealing with topics such nanoremediation, waste water purification,

nanosensors, nanomedicine, and nanofiltration. It also highlights the safety aspects and risk assessment and management related to several toxins, as well as nanotechnology related solutions for these challenges. The book also discusses new nanomaterials from the nexus of environment, water, remediation and total environment.