

1. Record Nr.	UNINA9910337905403321
Titolo	Environmental Nanotechnology [[electronic resource]] : Volume 2 // edited by Nandita Dasgupta, Shivendu Ranjan, Eric Lichtfouse
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-319-98708-9
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (297 pages) : illustrations
Collana	Environmental Chemistry for a Sustainable World, , 2213-7114 ; ; 21
Disciplina	620.1150286
Soggetti	Environmental chemistry Agriculture Nanotechnology Food—Biotechnology Environmental Chemistry Food Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	1. Biomolecules assisted synthesis of metal nanoparticles -- 2. Resistive and Capacitive Measurement of Nano-Structured Gas Sensors -- 3. Nanotechnology based delivery of nutraceutical -- 4. Health benefits and potential risks of nanostructured materials -- 5. Molecularly imprinted polymeric nanomaterials for environmental analysis -- 6. Nano-biosensors and Nano-aptasensors for Stimulant Detection -- 7. Nanotechnology for water remediation -- 8. Polymers-Metal Nanoparticles -- 9. Nanomaterials and plant abiotic stress in agroecosystems -- 10. Nanosensors for environmental analysis based on plasmonic nanoparticles.
Sommario/riassunto	This is the second volume on Environmental Nanotechnology. The first chapter discusses the synthesis of nanomaterial and mainly the green synthesis of inorganic nanomaterials. Furthermore, a comparative discussion about resistive and capacitive measurement of nano-based biosensor is reviewed and the efficient delivery of nutraceutical with the help of nano-vehicles are explained. Moreover, the book also includes reviews on such topics as nanopharmaceuticals, health benefits and the

toxic impact of heavy metal nanomaterials and the impact of several nanomaterials on plant abiotic stress and have focussed on the long term impacts of nanomaterials on agroecosystems. The reader will also find presentations on molecularly imprinted polymeric nanocomposites, critical and comparative comments on Nano-biosensors and Nano-aptasensors and on applications of nanotechnology for the remediation and purification of water with a main focus on drinking water. The last chapter presents a comprehensive review on plasmonic nanoparticle based sensors whereby the authors have hypothesized the future applications in the environment which can be plausible in the near future.
