1. Record Nr. UNINA9910791847903321

Titolo	Metal cutting [[electronic resource]] : research advances / / J. Paulo Davim, editor
Pubbl/distr/stampa	New York, : Nova Science Publishers, c2010
ISBN	1-61122-573-6
Descrizione fisica	1 online resource (257 p.)
Collana	Material and manufacturing technology
Altri autori (Persone)	DavimJ. Paulo
Disciplina	671.5/3
Soggetti	Machining Metal-cutting
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.

2. Record Nr. UNINA9910767585103321

Titolo	Sustainable Agriculture Reviews 53 : Nanoparticles: A New Tool to Enhance Stress Tolerance / / edited by Mohammad Faizan, Shamsul Hayat, Fangyuan Yu
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2021
ISBN	3-030-86876-1
Edizione	[1st ed. 2021.]
Descrizione fisica	1 online resource (426 pages)
Collana	Sustainable Agriculture Reviews, , 2210-4429 ; ; 53
Disciplina	338.16
Soggetti	Agriculture Plant physiology Photosynthesis Plant Physiology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Preface -- 1. Role of Quantum Dots, Polymeric NPs and Dendrimers in Emphasizing Crops Tolerate Biotic and Abiotic Stresses (Khaled F.M. Salem, Maysoun M. Saleh, Farrag F.B. Abu-Ellail, Heba S. Abbas and Amira S. Mahmoud) -- 2. Climate Change Mitigation and Nanotechnology: An Overview (Asha Kumari, Mahendar Sing Bhinda, Binny Sharma, and Manoj Parihar) -- 3. Nanoparticles: As a New Promising Tool to Increase Plant Immunity (Radwan Khalil, Nesma ElSayed, and Hanan A. Hashem) -- 4. Exploring Nanotechnology to Reduce Stress: Mechanism of Nanomaterial-Mediated Alleviation (Sidra tul Muntha, Mohammad Faizan, Saba Mehreen, and Shareen) -- 5. Alleviation Mechanism of Drought Stress in plants by Metal Nanoparticles - A Perspective Analysis (Iqra Naseer, Sumera Javad, Ajit Singh, Saba Maqsood, Sumera Iqbal, and Khajista Jabeen) -- 6. Role of Various Nanoparticles in Countering Heavy Metal, Salt, and Drought Stress in Plants (Suliman Mohammed Alghanem, Haifa AbdulazizS. Alhaithloul, Magdi T. Abdelhamid, and Mona H. Soliman) -- 7. Mode of Action and Signaling of Nanoparticles to Alleviate Stress in Crop Plants (Nazish and Babli) -- 8. Impact of Nanoparticles and Nanoparticle-Coated Biomolecules to Ameliorate Salinity Stress in Plants with Special

Reference to Physiological, Biochemical and Molecular Mechanism of Action (Akankhya Guru, Soumya Kumar Sahoo, Payel Saha, and Padmanabh Dwivedi) -- 9. Effect of Carbon Nanotubes on Stress Response in Plants: An Overview (Mohammad Faizan, Anjuman Hussain, Anayat Rasool Mir, Vishnu D. Rajput, Tatiana Minkina, and Shamsul Hayat) -- 10. Responses of Crop Plants under Nanoparticles Supply in Alleviating Biotic and Abiotic Stresses (Sameer H. Qari, Awatif M. Abdulmajeed, Taghreed S. Alnusaire, and Mona H. Soliman) -- 11. Nanotechnological Approaches for Efficient Delivery of Plant Ingredients (Maysoun M. Saleh, Amira S. Mahmoud, Heba S. Abbas, Farrag F.B. Abu-Ellail, Muddukrishnaiah Kotakonda, and Khaled F.M. Salem) -- 12. Enhancement of Stress Tolerance of Crop Plants by Zinc Oxide Nanoparticles (Martin Sebesta, Sindy Kurtinova, Marek Kolencik, and Ramakanth Illa) -- 13. Effects of Nanoparticles on Alleviating Phytotoxicity of Soil Heavy Metals: Potential for Enhancing Phytoremediation (Aurang Zeb, Weitao Liu, and Yinlong Zhang) -- 14. Bio-fabricated Silver Nanoparticles: A Sustainable Approach for Augmentation of Plant Growth and Pathogen Control (Amna, Baber Ali, Muhammad Atif Azeem, Ayesha Qayyum, Ghazala Mustafa, Ansar, Muhammad Tariq Javed, and Hassan Javed Chaudhary) -- 15. Nano-Proteomics of Stress Tolerance in Crop Plants (Ghazala Mustafa, Atikah Farooq, Murtaza Hasan, and Amna) -- 16. Role of chitosan nanoparticles in regulation of plant physiology under abiotic stress (Yamshi Arif, Husna Siddiqui and Shamsul Hayat) -- Index.

Sommario/riassunto

Nanoscience and nanotechnology imply the study of nanoparticles with at least one dimension below 100 nm with potential for application in a variety of sectors, including in agriculture, therapeutics, diagnostics, engineering, food industry and safety, environmental remediation, and energy infrastructure. This book presents recent developments involving the role of nanoparticles on stress tolerance. In particular, nanoparticles have the potential to provide effective solutions to the multiple agriculture-related problems. Nanoparticles present enhanced reactivity and thus better effectiveness when compared to their bulkier counterparts due to their higher surface-to-volume ratio. In addition, nanoparticles offer the potential to leverage unique surface chemistry as compared to traditional approaches, such that they can be functionalized or grafted with functional groups that can target specific molecules of interest for efficient remediation. Recent findings on the increased use ofnanoparticles in agriculture by densely populated countries such as China and India, indicate that this technology may impart a substantial impact on tolerance against stresses, malnutrition, and crop loss. Stresses represent the main constraint for agriculture, affecting plant growth and productivity worldwide. Yield losses in agriculture will be potentiated in the future by global warming, increasing contamination, and reduced availability of fertile land. The challenge of the present and future agriculture is to increase the food supply for a continuously growing human population under environmental conditions that are deteriorating in many areas of the world. This book addresses these issues and many more. Chapters incorporate both theoretical and practical aspects of nanoparticle impacts on plant tolerance against stresses and may serve as baseline information for future research through which significant development is possible. This book will be useful to researchers, instructors and students both in universities and research institutes, especially in relation to biological and agricultural sciences.