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Titolo	Insights into the World of Diatoms : from Essentials to Applications // Prateek Srivastava [and three others], editors
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ISBN	981-19-5920-X
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Descrizione fisica	1 online resource (XX, 282 p. 1 illus.)
Collana	Plant Life and Environment Dynamics Series
Disciplina	579.17
Soggetti	Microbial ecology Microbial genetics Microbial populations
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1. Photosynthetic Pigments in Diatoms -- 2. Impact assessment: Diatom flora of free flowing and fragmented stretches of serially impounded Bhagirathi River (Indian Himalayan Region) -- 3. Use of Multivariate Techniques for Quick Assessment of Hydropower Impacts on the Producer Community in Himalayan Rivers With a note on required sample size -- 4. Alpine lake environments and Psychrophile Diatoms around the World with a particular emphasis on Turkish glacial lakes -- 5. Ocean Acidification Conditions and Marine Diatoms -- 6. Diatom Algae for Carbon Sequestration in Oceans -- 7. Diatoms: A Potential for Assessing River Health -- 8. Terrestrial Diatoms and their Potential for Ecological Monitoring -- 9. Role of Diatoms in Forensics: A Molecular approach -- 10. Diatoms in Forensics: Adding new dimension to the growing relevance of diatoms in improving lives -- 11. Diatom silica a potential tool as biosensors and for biomedical field -- 12. Diatoms in biomedicines and nanomedicines -- 13. Recent Advances in Biomedicine: Diatomaceous Applications -- 14. Perspectives on the ecosystem services and need for conservation of diatomite and diatomaceous earth landscapes for India -- 15. Biofuels from Diatoms: Potential and Challenges -- 16. Potential Industrial Application of Diatoms for a Greener Future -- 17. The mechanism of ecosystem restoration and resilience of present-day coastal lagoons by

coastal diatoms and their implications for management of successional diatomite landscapes.

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Sommario/riassunto

This edited book provides a comprehensive and a reliable source of information on all major areas of diatom research. It addresses research advances in the key areas of diatom biology, morphology, systematics, phylogeny and ecology along with their interdisciplinary applications. Diatoms are the world's most diverse group of algae populating the freshwater and marine ecosystems of the world. They are unicellular, photosynthetic, eukaryotes having ornate silicified cell walls. Diatoms contribute around 25% of annual global carbon fixation, which is more than all of the terrestrial rainforests combined. Diatoms underpin major aquatic food webs and drive global biogeochemical cycles and have several ecological and interdisciplinary applications. This book targets a wide range of audience including researchers, academicians, teachers and students of varied disciplines such as biology, environmental sciences, ecology, evolution, nanotechnology and other related disciplines. It is useful read for beginners as well as advanced researchers.

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