1. Record Nr. UNINA9910911294503321

Autore	Kumar Vijay
Titolo	Green Carbon Quantum Dots : Environmental Applications / / edited by Vijay Kumar, Pardeep Singh, Devendra Kumar Singh
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	9789819762033 9819762030
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (388 pages)
Collana	Engineering Materials, , 1868-1212
Altri autori (Persone)	SinghPardeep SinghDevendra Kumar
Disciplina	530.41 620.115
Soggetti	Nanoscience Quantum dots Quantum chemistry Pollution Physics Nanophysics Quantum Dots Quantum Chemistry Applied and Technical Physics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	An Introduction to Carbon Quantum Dots -- Green synthesis of carbon quantum dots through various strategies -- Various properties of green synthesized carbon quantum dots -- Optical and Biomedical Features of Green Carbon Quantum Dots -- Sensing activity of green synthesized Carbon Quantum Dots for detecting Heavy Metal Ions -- Peroxidase-like activity of Green Synthesized Carbon Quantum dots -- Sensing activity of Green Synthesized Carbon Quantum dots for the Detection of Heavy Metal ions -- Degradation of Organic Pollutants Present in Water Using Green Synthesized Carbon Quantum Dots -- Sensing Activity of Green Carbon Quantum Dots and Environmental Monitoring -- Application of carbon quantum dots in the food industry

	-- Green carbon quantum dots for efficient sensing of heavy metal ions -- Sensing activity of green synthesized carbon quantum dots for detecting heavy metal ions -- Carbon Quantum Dots for Smart Electronic Devices.
Sommario/riassunto	This book highlights the environmental applications of plant-mediated carbon quantum dots, i.e., detection of heavy metals, sensing of toxic organic compounds, degradation of dyes and other toxic compounds, antioxidant activity, antimicrobial activity, detection of drugs, etc. This book presents the chemistry and mechanism behind the synthesis and various environmental applications of QDs. This book is beneficial for researchers, professionals and students working in the fields of environmental sciences, material engineering, electronics, chemical engineering, biochemical and biomedical engineering, etc. It will be also useful in specialized courses in nanotechnology, green synthesis, Environmental Science & Engineering.