Record Nr. UNINA9910366634703321 Sensors in Water Pollutants Monitoring: Role of Material / / edited by D. **Titolo** Pooja, Praveen Kumar, Pardeep Singh, Sandip Patil Pubbl/distr/stampa Singapore:,: Springer Singapore:,: Imprint: Springer,, 2020 **ISBN** 981-15-0671-X Edizione [1st ed. 2020.] 1 online resource (320 pages) Descrizione fisica Advanced Functional Materials and Sensors, , 2662-558X Collana Disciplina 628.161 Soggetti Water pollution Waste management Electronic circuits Waste Water Technology / Water Pollution Control / Water Management / Aquatic Pollution Waste Management/Waste Technology Circuits and Systems Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Chapter 1: Materials in electrochemical detection of water pollutants --Nota di contenuto Chapter 2: Materials in bio-sensing of water pollutants -- Chapter 3: Computational design of Nucleic acid-based Bioreceptor for Contaminants of Emerging Concern -- Chapter 4: Immunochromatographic Strip Based Sensor for the Detection of Water Pollutants -- Chapter 5: Emerging techniques and materials for water pollutants detection -- Chapter 6: Nanofiber based sensors for Water Pollution Monitoring -- Chapter 7: Introduction: Role of Materials in Sensors for Water Pollutants Monitoring -- Chapter 8: Water Pollutants: Origin and status. Sommario/riassunto This book discusses the sensitivity, selectivity, and response times of different sensor materials and their potential application in the design of portable sensor systems for monitoring water pollutants and remediation systems. Beginning with an overview on water pollutants and analytical methods for their detection, the book then moves on to describing the advances in sensor materials research, and the scope for

their use in different types of sensors. The book lays emphasis on

techniques such as colorimetric, fluorescence, electrochemical, and biological sensing of conventional and emerging pollutants. This book will serve as a handy guide for students, researchers, and professional engineers working in the field of sensor systems for monitoring water pollutants to address various challenges.