1. Record Nr. UNINA9911031627903321 Autore Jain Harshita **Titolo** Emerging Contaminants in the Aquatic Environment : Global Overview / / edited by Harshita Jain, Prangya Rath, Laxmi Kant Bhardwaj, Maulin P. Shah Singapore:,: Springer Nature Singapore:,: Imprint: Springer,, 2025 Pubbl/distr/stampa **ISBN** 981-9685-48-6 Edizione [1st ed. 2025.] Descrizione fisica 1 online resource (389 pages) Collana Advances in Wastewater Research, , 3004-9733 Altri autori (Persone) RathPrangya BhardwajLaxmi Kant ShahMaulin P Disciplina 363.73 Soggetti **Pollution** Water Hydrology Refuse and refuse disposal Sustainability Waste Management/Waste Technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Understanding of Emerging Contaminants -- Sources of Emerging Contaminants -- Transport and Fate of Emerging Contaminants in Aguatic Systems -- Health and Environmental Hazards -- Emerging Contaminants from Agricultural Waste and Their Impact on Aquatic Ecosystems -- Microplastics Are Contaminants of Emerging Concern in Aguatic Environments: An Overview -- Advanced Monitoring and Detection Techniques for Emerging Contaminants in Aquatic Environments -- Applications of Graphene Nanocomposites in Advanced Detection and Removal of Emerging Water Contaminants --Emerging Trends in Challenges in Technological Innovation for Sustainable Water Management -- Trends of Emerging Contaminants in the Aquatic Environment - Risk Assessment and Management Strategies -- Regulatory Framework and Policy Responses -- Emerging Contaminants in Mumbai's Untreated Sewage to Rhine's Industrial

Runoff - A Comparative Case Study in India and Europe.

Sommario/riassunto

The spread of emerging pollutants in aquatic habitats is being facilitated by industrialization and urbanization, which poses serious risks to ecosystem health and public health. These pollutants, which can affect aquatic life and make their way into the human food chain, pose a threat because they are persistent in water bodies and include industrial chemicals, medicines, and microplastics. This book carefully reviews the sources, causes and effects of these emerging contaminants and clarifies how they enter water systems, including urban wastewater, agricultural runoff, and industrial discharges. The volume also highlights the intricate relationships between pollutants and ecosystems, showing their hazardous and bioaccumulative characteristics through in-depth studies and case studies. In addition, the book addresses the pressing need for efficient management techniques and covers cutting-edge methods for monitoring, assessment, and correction. The volume provides insights into reducing the negative consequences of emerging pollutants through sophisticated analytical techniques and environmentally acceptable remedial procedures. Furthermore, the book stresses the significance of legislative interventions and interdisciplinary teamwork in tackling this environmental concern. The book is a valuable resource for scholars, decision-makers, and individuals who are committed to environmentally friendly water management.