

1. Record Nr.	UNINA9910831804103321
Titolo	Nanobiohybrids for Advanced Wastewater Treatment and Energy Recovery / Piet N.L. Lens, Priyanka Uddandarao
Pubbl/distr/stampa	United Kingdom : , : IWA Publishing, , 2023
Descrizione fisica	1 online resource (244 p.)
Collana	Integrated Environmental Technology Series
Soggetti	Technology & Engineering / Mining Science / Applied Sciences Science / Environmental Science Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>In the quest for sustainable solutions, a groundbreaking innovation emerges: "Nanobiohybrids for Advanced Wastewater Treatment and Energy Recovery". This compelling title delves into the forefront of integrated environmental technology, exploring the synergistic potential of nanotechnology and biotechnology in revolutionizing the way we manage wastewater and harness energy. Inside these pages, you'll:</p> <ul style="list-style-type: none">- Find insightful explorations of process fundamentals of nanobiohybrids for water purification, microbial synthesis of nanocatalysts and energy storage devices. Grasp the mechanics of nanoparticle biosynthesis, biomolecule integration, and the dynamic interplay between nanotechnology and biology.- Embark on fundamental components investigating environmental remediation for both wastewater treatment and energy recovery. Focusing on both components of nanobiohybrids: on the one hand organic, inorganic and magnetic nanoparticles, and on the other hand electroactive bacteria.- Understand the implications of nanobiohybrids for environmental remediation, water and wastewater treatment to conserve resources and protect the environment. Explore how these solutions contribute to pollution control, resource recovery, sensing and photoelectrocatalysis.

This book is an indispensable resource for researchers, students, policymakers, and anyone intrigued by the intersection of nanoscience, nanotechnology and sustainability. As we stand at the brink of a new era in environmental engineering, this book empowers you to be at the forefront of change. Join the movement towards cleaner waters, abundant energy, and a brighter future with nanobiohybrids.
