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Sommario/riassunto

This book explores the utilization of algal systems for resource recovery from waste and wastewater, providing comprehensive insights into existing technologies and advancements in the field. Topics covered include process fundamentals of algae-based wastewater treatment, metabolic modeling, and algae-bacteria interactions. The book also addresses the challenges and engineering solutions for wastewater treatment, and presents case studies on coculturing microalgae with methanotrophs for enhanced nutrient recovery. It discusses the valorization of algae-based processes through integration with technologies like anaerobic digestion and biogas upgrading. Intended for undergraduate and graduate students in environmental sciences, the book is also valuable for researchers, engineers, and policy makers interested in algal systems for waste management.

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