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Nota di contenuto	Systematic Literature Review -- Life Cycle Inventory Analysis of Wastewater Treatment Processes -- Refined Assessment Methodology for Wastewater Treatment Alternatives -- A Specific focus on Weighing Element of Indicators -- Diverse Scenario Analysis -- Sustainability Solutions for Energy and Carbon Issues in Wastewater Treatment -- Prospects for the Future. .
Sommario/riassunto	This thesis focuses on the energy, chemical and carbon implications of diverse wastewater treatment alternatives, and offers effective solutions for wastewater treatment plants (WWTPs) to achieve sustainability goals. The author first uses the life cycle philosophy to explore the environmental performance of several representative wastewater

treatment systems, and then proposes a refined assessment framework, accompanying analytical toolkit and case study for further quantifying the environmental sustainability of various wastewater management scenarios. Allowing readers to gain a better understanding of the existing wastewater treatment technologies from a sustainability perspective, this book helps decision makers identify promising approaches to the environmentally friendly operation of WWTPs and make infrastructure investments that are appropriate for future changing conditions.
