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Nota di contenuto	Part I: Introduction to LCA and TEA -- Chapter 1: Introduction to Life Cycle Emissions and Techno-Economic Assessment for Sustainable Development -- Chapter 2: LCA: A significant contribution to sustainability assessment -- Part II: Sustainability of Fuel Production (Well-to-Pump) -- Chapter 3: Production of Bio-LPG from Waste Biomass: Evaluating Economic and Environmental Viability -- Chapter 4: Life Cycle Emissions and Techno-Economic Assessment of Dimethyl Ether (DME) Production from Different Renewable and Non-Renewable Feedstocks -- Chapter 5: Biodiesel Production: A Sustainability Assessment -- Chapter 6: Hydrogen production through the plasma-catalytic process: Challenges and Prospects of Techno-economic Analysis and Life cycle Assessment -- etc.
Sommario/riassunto	This book includes several special features related to Life Cycle and Techno-Economic Assessment (LCA and TEA) to enhance clarity, understanding, and engagement. It incorporates numerous diagrams, flowcharts, and infographics to visualize complex concepts and methodologies for assessing life cycle energy, emissions, resource depletion, and the techno-economic impact on society. Key data, comparisons, and results are summarized in tables and matrices for

easy reference. Additionally, the book presents real-world LCA case studies and scenarios to illustrate practical applications and lessons learned. Interactive elements, such as thought-provoking questions, exercises, and discussion points, encourage active learning. A clear, step-by-step presentation of LCA and TEA methodologies is provided, followed by in-depth analyses and discussions. These features make the book an accessible, user-friendly, and engaging resource for readers from diverse backgrounds and expertise levels. The primary benefit of this book is a comprehensive understanding of the environmental and economic implications of various technologies, processes, and products. Readers will gain in-depth knowledge of LCA and TEA methodologies and their applications, learning how to evaluate and compare the sustainability and feasibility of different options. They will also gain insights into potential environmental and economic impacts and receive guidance on integrating LCA and TEA into decision-making processes. With access to case studies and real-world examples illustrating best practices, this book equips readers to make informed decisions, develop more sustainable solutions, and contribute to an environmentally conscious and economically viable future.