

1. Record Nr.	UNINA9910911288603321
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Titolo	Microalgae as a Sustainable Source of Green Energy Generation and Bioeconomy / / by Javid A Parray, Niraj Singh, A. K. Haghi
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2024
ISBN	9783031777035 3031777034
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (95 pages)
Collana	Synthesis Lectures on Green Energy and Technology, , 2948-2739
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Disciplina	621.042
Soggetti	Renewable energy sources Biochemical engineering Bioremediation Renewable Energy Bioprocess Engineering Environmental Biotechnology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Introduction to Waste Algal Biomass-based Energy Production -- Algal Biology and Biomass Characteristics -- Harvesting and Preprocessing Algal Biomass -- Conversion Technologies: Overview and Principles -- Challenges and Future.
Sommario/riassunto	The primary focus of the topic is on the production of energy. Here, energy production typically refers to the conversion of waste algal biomass into various forms of usable energy. This could include electricity, biofuels (e.g., biodiesel, bioethanol), biogas, or other forms of renewable energy. Conversion of algal biomass to fuels via extraction of lipids (and potentially other components), through 'algal lipid upgrading' or ALU pathway, combined algal process (CAP) and parallel algal process (PAP). ALU approach based on a biochemical processing strategy to selectively recover and convert select algal biomass components to fuels, namely carbohydrates to ethanol and lipids to a renewable diesel blendstock (RDB) product. The scope of the topic encompasses the various methods and technologies used to

convert waste algal biomass into energy. This could involve processes like anaerobic digestion, fermentation, pyrolysis, hydrothermal liquefaction, or other innovative techniques. The topic may touch upon ongoing research, technological advancements, and potential areas of improvement related to waste algal biomass-based energy production. In particular, this book shows the following features: Describes cutting-edge research Focus on energy generation and sustainability Written by experienced experts.
