

1. Record Nr.	UNINA9910590061203321
Autore	Sudalyandi Kaliappan
Titolo	Biofuel Production Using Anaerobic Digestion / / by Kaliappan Sudalyandi, Rajeshbanu Jeyakumar
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2022
ISBN	981-19-3743-5
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (245 pages)
Collana	Green Energy and Technology, , 1865-3537
Disciplina	662.88
Soggetti	Energy policy Biochemical engineering Cogeneration of electric power and heat Fossil fuels Energy Policy, Economics and Management Bioprocess Engineering Fossil Fuel
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Biomass for biofuel generation -- Enhancement of Hydrolysis -- Trends in Hydrolysis and assessment -- Kinetics and modeling of Hydrolysis -- Fermentation -- Biofuel generation process -- Single stage anaerobic digestion -- Two stage anaerobic digest -- Biofuel production.
Sommario/riassunto	This book provides lucid and instructive information about waste biomass, its potential, and the methods employed in energy generation. Topics covered include the basic principles, applications, recent advances, and the technical and economic considerations of waste-to-energy (WTE) technology. It highlights and elucidates essential concepts, mechanisms, applications, and useful outcomes of WTE technologies. In addition, it also provides a few example problems with design data for energy generation from waste biomass which will help the readers to understand the basics of WTE technologies. The book is structured with an overview at the start of each chapter presenting an outline of its content and a list of relevant discussions targeted toward readers. To illustrate the types of waste biomass,

principles, and process of various thermal and biochemical process technologies, over 90 illustrations including graphs, diagrams, and photographs are provided. To help the readers improve their knowledge of the subject and to increase the utility of this book, the characteristics of waste biomass, operation conditions of different processes, and global status of WTE technologies are provided in tabular format. For that purpose, over 50 tables are provided. Selected references are also provided for this book. This book is primarily intended for researchers and professionals working in the area of bioenergy. It can also be used as a primary or secondary text for graduate courses and professional training programs.
