1. Record Nr. UNINA9910886064703321

Autore	Khan Anish
Titolo	Waste to Biofuel Technology : Future Energy / / edited by Anish Khan, Abdullah Asiri, Showkat Bhawani
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	981-9745-61-6
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (133 pages)
Collana	Sustainable Materials and Technology, , 2731-0434
Altri autori (Persone)	AsiriAbdullah BhawaniShowkat
Disciplina	620.1
Soggetti	Materials Catalysis Force and energy Refuse and refuse disposal Chemical engineering Materials for Energy and Catalysis Waste Management/Waste Technology Chemical Process Engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Multi-stage smart sustainable biofuel production system by waste -- Effective pyrolysis of waste cooking oils into hydrocarbon rich biofuel -- Synthesis, characterization and catalytic performances of activated carbon-doped transition metals during biofuel production from waste -- Valorization of palm biomass wastes for biodiesel production -- Waste adsorbents for biofuel -- Fast microwave-assisted pyrolysis of wastes for biofuels production -- Restaurants' behaviour, awareness, and willingness to submit waste for biofuel production -- Waste-to-biofuel and carbon footprints -- Innovative developments in biofuels production from organic waste- Biofuel parameter dependence on waste fats’ fatty acids -- Integrated thermochemical process for production of low-molecular weight biofuels from municipal solid waste -- Biofuel preparation from waste chicken fat -- Integral energy valorization of municipal solid waste to biofuels -- Enhanced polyunsaturated fatty acid for production of biofuels -- Application of

anaerobic bacterial ammonification pretreatment to microalgal food waste leachate cultivation and biofuel production -- Comparison study of thermochemical waste-heat recuperation by steam reforming of liquid biofuels -- Innovative integrated approach of biofuel production from agricultural wastes by anaerobic digestion and black soldier fly larvae -- Catalytic pyrolysis of waste clay oil to produce high quality biofuel -- Homogeneous catalyst for biofuel production -- 20. Hydrothermal conversion of microalgae and its waste residue into biofuel -- Heterogeneous catalyst for biofuel production -- Co-Hydrothermal gasification of Chlorella vulgaris and hydrochar: The effects of waste-to-solid biofuel production -- Thermodynamic and kinetic studies on OH-involved photo-decarboxylation mechanism for waste to biofuels -- Integrated catalytic conversion of waste triglycerides to liquid hydrocarbons for aviation biofuels.

Sommario/riassunto

This book gives an overview of the latest technologies in the conversion of wastes products to biofuel or chemicals which are more eco-friendly and sustainable as compared to the ordinary petroleum derivatives. It describes a variety of technology such as combustion, gasification, paralysis, anaerobic digestion, and fermentation, which are used in the processing of solid/liquid waste produced by the different residential and industrial sectors into more economically useful by-products. The content of this book resonates with researchers, industrial practitioners, and government policymakers who are looking into developing more sustainable practices in dealing with waste products and looking into waste to energy technologies.