1. Record Nr. UNINA9910585941303321

Autore	López-Ochoa Luis M
Titolo	Biomass for Sustainability : Resource, Technology Conversion and Energy Management
Pubbl/distr/stampa	Basel, : MDPI - Multidisciplinary Digital Publishing Institute, 2022
Descrizione fisica	1 online resource (152 p.)
Soggetti	History of engineering & technology Technology: general issues
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	The decarbonization of all sectors is essential in addressing the global challenge of climate change. Bioenergy can contribute to replacing our current dependence on fossil fuels and offers significant possibilities in many conventional and advanced applications, from power to heating and cooling installations. Energy systems in the building and industrial sectors can convert biomass to other usable forms of energy and improve energy performance. Moreover, bioenergy sustainability means energy can be managed for an extended period of time. Further research is needed to develop better green energy production methods and new procedures to evaluate and valorize biomass in a circular economy context. Some of the most critical bottlenecks to increase the use of bioenergy are energy conversion and management from resource to final energy. The countries where this source is strengthened can achieve security of energy supply and energy independence. In addition, biomass boilers and biomass district heating systems are interesting options to achieve nearly zero-energy buildings, contributing the needed biomass harvesting to rural development and to improve resource planning and distribution. The aim of this book is to present a comprehensive overview and in-depth technical research papers addressing recent progress in biomass-based systems and innovative applications.