1. Record Nr. UNINA9910337592303321 Autore Christoforou Elias Titolo Advances in Solid Biofuels / / by Elias Christoforou, Paris A Fokaides Cham:,: Springer International Publishing:,: Imprint: Springer,, Pubbl/distr/stampa 2019 3-030-00862-2 **ISBN** Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (135 pages) Collana Green Energy and Technology, , 1865-3529 Disciplina 662.88 Soggetti Renewable energy resources Biochemical engineering Energy systems Renewable and Green Energy **Biochemical Engineering Energy Systems** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction -- Raw material -- Biomass Pre-treatment Processing --Nota di contenuto Solid biofuels -- Solid biofuels conversion -Combustion for power and heat -- Environmental assessment of solid biofuels.-Sustainability considerations -- Feasibility assessment of solid biofuels. Appendices. Solid biofuels, in different trading forms, constitute an integral Sommario/riassunto component of the energy mix of almost all developed and developing countries. Either in the form of pellets, briquettes, chips, firewood, or even as raw feedstock, solid biofuels are used mainly in the heating and power sector. Numerous sustainability concerns, focusing on the environmental, economic and technical aspects of solid biofuels exploitation, led to considerable advances in the recent years in this field. These developments mainly focus on the pre-treatment processes of the solid biomass to biofuels chain, the minimum requirements of the produced solid biofuels, as well as the efficiency and the environmental performance of their thermochemical conversion routes. This work aspires to provide the state of the art in the field of the exploitation of solid biofuels to present the main advances as well as

the major challenges of this scientific fields. The topics presented in

this book were examined and dealt with by the authors in the past few years, in numerous research projects and scientific publications. This book compiles all the assembled experience of the past few years, and aims to provide an overview of the solid biofuels exploitation field. Presents the latest standards and considerations on solid biofuels technical requirements; Contains numerous examples on applications in the field of solid biofuels thermochemical conversion, as well as the state of the art in this field; Includes sustainability aspects, including life cycle assessment aspects and financial concerns for the exploitation of solid biofuels.