1. Record Nr. UNINA9910411935303321 Autore Maroa Semakula Titolo Biodiesel, Combustion, Performance and Emissions Characteristics // by Semakula Maroa, Freddie Inambao Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2020 **ISBN** 3-030-51166-9 Edizione [1st ed. 2020.] Descrizione fisica 1 online resource (XVIII, 140 p. 43 illus., 23 illus. in color.) Collana Green Energy and Technology, , 1865-3529 Disciplina 665.37 Soggetti Renewable energy resources Pollution prevention Chemical engineering Renewable and Green Energy Industrial Pollution Prevention Industrial Chemistry/Chemical Engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Introduction and Background -- The NOx Formation Routes --Nota di contenuto Biodiesels Production Processes and Technologies -- Biodiesel Feedstocks -- Physiochemical Properties of Biodiesel -- Factors Influencing Formation of Emissions in Biodiesel -- The Factors Influencing Formation of NOx Emissions in Biodiesel -- Reduction and Control Techniques in Biodiesel -- Post Combustion NOx Reduction Techniques in Biodiesels. Sommario/riassunto This book focuses on biodiesel combustion, including biodiesel performance, emissions and control. It brings together a range of international research in combustion studies in order to offer a comprehensive resource for researchers, students and academics alike. The book begins with an introduction to biodiesel combustion. followed by a discussion of NOx formation routes. It then addresses biodiesel production processes and oil feedstocks in detail, discusses the physiochemical properties of biodiesel, and explores the benefits and drawbacks of these properties. Factors influencing the formation of

emissions, including NOx emissions, are also dealt with thoroughly.

Lastly, the book discusses the mechanisms of pollution and different approaches used to reduce pollutants in connection with biodiesel. Each approach is considered in detail, and diagrams are provided to illustrate the points in line with industry standard control mechanisms.