Record Nr. UNINA9910483320303321 Methanol: a sustainable transport fuel for CI engines / / Avinash **Titolo** Kumar Agarwal [and three others], editors Pubbl/distr/stampa Singapore:,: Springer,, [2021] ©2021 **ISBN** 981-16-1280-3 Edizione [1st ed. 2021.] 1 online resource (XIV, 319 p. 131 illus., 110 illus. in color.) Descrizione fisica Energy, environment, and sustainability Collana Disciplina 662.6692 Soggetti Methanol as fuel Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references. Nota di contenuto Introduction of Methanol: A Sustainable Transport Fuel for CI Engines -- Technology Options for Methanol Utilization in Railroad Sector --Application of Methanol as Clean and Effecient Alternative Fuel to Engines with Compression Ignition -- Methanol - A Gateway to Bio-fuel Revolution in Global Heavy Duty ICE based Transportation -- Safety Aspects of Methanol as Fuel -- Combustion and Emission Analyses of a Diesel-Engine Running on Blends with Methanol -- Combustion Characteristics of Methanol Fuelled Compression Ignition Engines --Heavy Duty Diesel Engines Operating on 100% Methanol for Lower Cost and Cleaner Emissions -- Combustion, Performance and Emission Analysis of Diesel-Methanol Fuel Blend in CI Engine -- Impact of Methanol on Engine Performance and Emissions -- Potential Assessment of Methanol to Reduce the Emission in LTC Mode Diesel Engine -- Methodology to Predict Emissions and Performance Parameter of a Methanol Fueled Diesel Engine. Sommario/riassunto This monograph is based on methanol as a fuel for transportation sector, specifically for compression ignition (CI) engines. The contents present examples of utilization of methanol as a fuel for CI engines in different modes of transportation such as railroad, personal vehicles or heavy duty road transportation. The book also focuses on effect of methanol on combustion and performance characteristics of the engine. The effect of methanol on exhaust emission production,

prediction and control is also discussed. It also discusses current

methanol utilization and its potential, its effect on the engine in terms of efficiency, combustion, performance, pollutants formation and prediction. Part of the chapters are based on review of state-of-the-art while other chapters are dedicated to an original research. This volume will be a useful guide to professionals and academics involved in alternative fuels, compression ignition engines, and environmental research.