Record Nr. UNINA9910795901103321 Autore Colket Meredith Titolo Fuel Effects on Operability of Aircraft Gas Turbine Combustors Pubbl/distr/stampa Reston, VA:,: American Institute of Aeronautics & Astronautics,, 2021 ©2021 **ISBN** 1-5231-4092-5 Edizione [1st ed.] Descrizione fisica 1 online resource (650 pages) Progress in Astronautics and Aeronautics;; v.262 Collana Altri autori (Persone) HeyneJoshua Disciplina 662.66 Soggetti Fuel switching Jet engines - Combustion chambers Jet planes - Fuel Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index. Sommario/riassunto Alternative jet fuel has been an active area of research and development since the 1973 oil embargo. Research goals have included establishing energy security, lowering fuel costs, and reducing emissions with a focus on developing cost-effective methodologies for processing and sustaining jet fuel production from shale, tar sands, coal, biomass, end use waste, and CO2. Physical and chemical properties, such as the viscosity, vapor pressure, boiling range, freeze point and hydrogen content, have been measured for many potential alternative jet fuels. Combustion characteristics, such as lean blow-out and ignition, have also been investigated in gas turbine engines and fundamental combustion devices. The compilation of this research has resulted in a large technical base for understanding the combustion of

alternative jet fuels that have a wide range of physical and chemical

properties and operating in different combustion devices.