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Autore	Rabaev Moshe
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Nota di contenuto	An Introduction to Aviation Fuels and Specifications -- The Impact of Crude Sources and Processing on Jet Fuel Properties and Performance -- The Properties and Performance of Jet Fuel from Alternative Sources -- Additives in Aviation Fuels -- Risk Assessment in Supply Chain and Logistics -- Filtration Systems -- Pipelines, Temporary and Permanent Storage Facilities -- Common Practice in Aviation Fuel Handling Equipment -- Representative Sampling -- Monitoring, Prevention, and Treatment of Microbiological Growth -- Aviation Gasoline -- Aviation Fuel Army Considerations -- Aviation Fuel Navy Considerations -- Fuel Stability -- Advanced Research Test Methods for Dissolved Contaminants in Aviation Fuels -- Advanced Research Test Methods for Heterogeneous Contaminants in Aviation Fuels -- Corrosivity and

Corrosion -- Aerospace Fuel Systems Failure Analysis -- The Effects of the Fuel Composition on Non Metal Materials in Aircraft Systems -- The Influence of Fuel Complexity on Propulsion Processes -- Switching Between Fuel Types.

Sommario/riassunto

This book is a modern, comprehensive manual for fuel handling, quality control, problem-solving, and remediation methods. An international collaborative effort of experts from many fields, it provides operational insight and a wealth of technical and practical knowledge. Aviation Fuel Problems and Solutions includes chapters on numerous issues fuel engineers face using the "well-to-wheel" approach, including; the effect of crude oil on fuel quality; refinery/distribution additives; issues that can arise during storage and transportation, pumping and filtration; typical challenges in military applications; laboratory methods for investigations; contamination and compatibility research; and aerospace fuel systems failure analysis. In addition, a specific section is dedicated to modern sustainable aviation fuel approval and processes as the industry transitions to a low carbon world. This handbook will provide a thorough reference book for engineers, researchers, and decision makers alike.