

1. Record Nr.	UNINA9910807795503321
Autore	Srivastava S. P (Som Prakash), <1940->
Titolo	Fuels and fuel-additives // S. P. Srivastava, Jenó Hancsok
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , 2014 ©2014
ISBN	1-118-79621-7 1-118-79641-1 1-118-79639-X
Descrizione fisica	1 online resource (376 p.)
Altri autori (Persone)	HancsokJeno <1947->
Disciplina	665.5/3827
Soggetti	Motor fuels - Additives
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Fuels and Fuel-Additives; Copyright; Contents; Preface; Chapter 1 Petroleum-Based Fuels- An Outlook; 1.1 Introduction; 1.2 Environmental Issues; 1.3 Classification of Fuels; References; Chapter 2 Emission Regulation of Automotive Vehicles and Quality of Automotive Fuels; 2.1 Direct Regulation of Emissions; 2.1.1 Emission Standards in Europe; 2.1.2 US (EPA) Emission Standards [20,21]; 2.1.3 Emission Regulation in Japan [7,21]; 2.1.4 Emission Standards in India [22,23]; 2.1.5 Emission Standards in China [24]; 2.2 Indirect Emission Regulations (International Standards); References Chapter 3 Fuels from Crude Oil (Petroleum)3.1 Crude Oil; 3.2 Crude Oil Refining; 3.2.1 Separation and Extraction Processes; 3.2.2 Change of Quality and Yield of Hydrocarbon Fractions; References; Chapter 4 Alternative Fuels; 4.1 Light (Gaseous) Hydrocarbons; 4.2 Propane-Butane Gas; 4.3 Mixtures of Synthetic Liquid Hydrocarbons; 4.3.1 Liquid Synthetic Hydrocarbon Mixtures from Synthesis Gas; 4.3.2 Biogas Oils from Triglycerides; 4.3.3 Production of Bioparaffins from Lignocellulose and Carbohydrates; 4.4 Oxygen-Containing Engine Fuels and Blending Components; 4.4.1 Alcohols; 4.4.2 Ethers 4.4.3 Vegetable Oils and Their Oxygen-Containing Derivatives4.5 Hydrogen; 4.5.1 Production of Hydrogen; 4.5.2 Main Characteristics of Hydrogen; 4.5.3 Hydrogen Storage on Vehicle and Reloading;

References; Chapter 5 Fuel Additives; 5.1 Consumption of Additives (Demands); 5.2 Engine Deposits and Their Control; 5.2.1 Deposits in Gasoline Engines; 5.2.2 Deposit Control Additives (Detergent Dispersants); 5.2.3 Deposits and Their Control in Diesel Engines; 5.2.4 Detergent Additives and Exhaust Emissions; 5.2.5 Tests for DD Additives in Engines; 5.2.6 Advantages of Using DD Additives in Fuels 5.3 Antiknock Additives (Octane Number Improvers)5.3.1 "knocking"; 5.3.2 Octane number; 5.3.3 Octane Number Improver Additives; 5.4 Cetane Number Improver; 5.4.1 Cetane Number Improver additives; 5.4.2 Cetane Number Measurement; 5.4.3 Cetane Index; 5.5 Fuel Antioxidants (Stabilizers); 5.5.1 Increasing Storage Stability; 5.5.2 Oxidation of Fuels; 5.5.3 Chemical Mechanism of Antioxidants; 5.5.4 Types of Antioxidants; 5.6 Metal Deactivators/Passivators; 5.7 Corrosion Inhibitors; 5.7.1 Mechanism of Rusting/Corrosion; 5.7.2 Anticorrosion Compounds; 5.8 Antistatic Agents; 5.9 Lubricity Improvers 5.10 Friction Modifiers5.11 Dehazer and Demulsifiers; 5.12 Combustion Improvers; 5.12.1 Conventional Approaches; 5.12.2 Unconventional Approaches; 5.13 Flow Improvers and Paraffin Dispersants of Fuels; 5.13.1 Characteristics of Middle Distillate Fuel at Low Temperatures; 5.13.2 Pour Point Depressants; 5.13.3 Flow Improver Additives; 5.13.4 Paraffin Dispersants; 5.13.5 Distillate Operability Test (DOT Test); 5.14 Drag Reducers; 5.15 Anti-icing Additives; 5.16 Antifoam Additives; 5.17 Biocides; 5.18 Coloring Matters and Markers; 5.19 Additive Compositions; References Chapter 6 Blending of Fuels

---

## Sommario/riassunto

Covering the chemical structures and properties of fuels and fuel additives, Fuels and Fuels-Additives provides the science and technology involved in the production of energy efficient and environmentally friendly fuels and the role that fuel additives have in this process. This single source guide on fuels and fuel additives contains the most up-to-date coverage and requirements of the fuels including US and EU standards in automotive emissions, fuel quality and specifications, alternate fuels, biofuels, antioxidants, stabilizers and corrosion inhibitors, and polymeric fuel additives.

---