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Green Energy and Technology

Energy : Renewable and Green Energy

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Application of Liquid Biofuels to Internal Combustion Engines

- Contains an extensive bibliography at the end of each chapter to help the reader to get more information
- Covers SVO, HVO, BTL diesel, bio-oil, pyrolytic oil and higher alcohols as well as methanol, ethanol, butanol, and other drop-in fuels not found in any other book
- Includes three chapters on the application of methanol, ethanol and butanol in advanced CI engines such as HCCI, PPC, RCCI and DF combustion

This book provides a comprehensive overview of the application of liquid biofuels to internal combustion (IC) engines. Biofuels are one of the most promising renewable and sustainable energy sources. Particularly, liquid biofuels obtained from biomass could become a valid alternative to the use of fossil fuels in the light of increasingly stringent environmental constraints. In this book, the discussion is limited to liquid biofuels obtained from triglycerides and lignocellulose among the many different kinds of biomass. Several liquid biofuels from triglycerides, straight vegetable oil, biodiesel produced from inedible vegetable oil, hydrotreated vegetable oil, and pyrolytic oil have been selected for discussion, as well as biofuels from lignocellulose bio-oil, alcohols such as methanol, ethanol and butanol, and biomass-to-liquids diesel. This book includes three chapters on the application of methanol, ethanol and butanol to advanced compression ignition (CI) engines such as LTC, HCCI, RCCI and DF modes. Further, the application of other higher alcohols and other drop-in fuels such as DMF, MF, MTHF, and GVL are also discussed.

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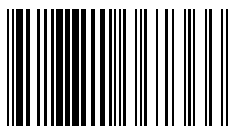
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