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Nota di contenuto	Intro -- BIOFUELS FROM FISCHER-TROPSCH SYNTHESIS -- BIOFUELS FROM FISCHER-TROPSCH SYNTHESIS -- CONTENTS -- PREFACE -- Chapter 1 FUNDAMENTALS OF SYNGAS PRODUCTION AND FISCHER-TROPSCH SYNTHESIS -- 1.1. INTRODUCTION -- 1.2. SYNGAS PRODUCTION, CLEANING, AND CONDITIONING -- 1.2.1. Syngas Production -- 1.2.2. Syngas Cleaning -- 1.2.3. Syngas Conditioning -- 1.3. ACTIVE CATALYSTS FOR FISCHER-TROPSCH SYNTHESIS -- 1.3.1. Fischer-Tropsch Synthesis with Co-Based Catalysts -- 1.3.2. Fischer-Tropsch Synthesis with Fe-Based Catalysts -- 1.3.3. Fischer-Tropsch Synthesis with Ru-Based Catalysts -- 1.4. MECHANISMS, PRODUCT DISTRIBUTION, AND THERMODYNAMICS -- 1.4.1. Mechanisms of Fischer-Tropsch Synthesis -- 1.4.2. Products Distribution -- 1.4.3. Thermodynamics -- 1.5. OPERATING CONDITIONS AND REACTORS -- 1.6. UPGRADE OF FISCHER-TROPSCH SYNTHESIS PRODUCTS -- Chapter 2 IRON CATALYSTS FOR FISCHER-TROPSCH SYNTHESIS -- 2.1. PREPARATION OF FE-BASED CATALYSTS -- 2.2. PROMOTERS FOR FE CATALYSTS -- 2.3. ACTIVATION OF FE-BASED CATALYSTS -- 2.4. DYNAMIC CHARACTER OF THE CATALYTICALLY ACTIVE FE PHASES -- 2.5. FISCHER-TROPSCH SYNTHESIS WITH CO ₂ -CONTAINING SYNGAS -- Chapter 3 ECONOMICS, FUTURE PROSPECTS AND CONCLUDING REMARKS -- REFERENCES -- INDEX -- Blank Page.

Sommario/riassunto

The world demand of light and middle distillate petroleum products (mainly gasoline and diesel) is increasing dramatically, especially within the transportation sector. Eventually, such requirement will surpass refineries capacity to supply fuels and hydrocarbon feedstock. This situation has encouraged the exploration of other sources of petroleum products rather than merely sticking to conventional oil sources. This new book describes the active sites and reaction intermediates with Fe-based catalysts in relation to the most relevant aspects of Fischer-Tropsch Synthesis with Co and Ru catalysts.
