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Autore	Hagen Jens
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Heterogeneous Catalysis; 5.2 Kinetics and Mechanisms of Heterogeneously Catalyzed Reactions; 5.3 Catalyst Concepts in Heterogeneous Catalysis; 5.4 Catalyst Performance; 5.5 Catalyst Deactivation  
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Exercises; References; Chapter 8: Heterogeneously Catalyzed Processes in Industry; 8.1 Overview; 8.2 Examples of Industrial Processes - Bulk Chemicals; 8.3 Fine Chemicals Manufacture; Exercises; References; Chapter 9: Refinery Processes and Petrochemistry; 9.1 Hydrotreating; 9.2 Catalytic Cracking; 9.3 Hydrocracking; 9.4 Catalytic Reforming; 9.5 Alkylation; 9.6 Hydroisomerization; 9.7 Synthesis Gas and Hydrogen by Steam Reforming; 9.8 Natural Gas Conversion to Fuels and Chemicals; 9.9 Fischer-Tropsch Synthesis; 9.10 Etherification Reactions; Exercises; References  
Chapter 10: Electrocatalytic Processes  
10.1 Comparison Between Electrocatalysis and Heterogeneous Catalysis; 10.2 Electroorganic Syntheses; 10.3 Electrocatalysis in Fuel Cells; Exercises; References; Chapter 11: Environmental Catalysis and Green Chemistry; 11.1 Automotive Exhaust Catalysis; 11.2 NO<sub>x</sub> Removal Systems; 11.3 Catalytic Afterburning; 11.4 Green Chemistry and Catalysis; Exercises; References; Chapter 12: Phase-Transfer Catalysis; 12.1 Definition; 12.2 Catalysts for PTC; 12.3 Mechanism and Benefits of PTC; 12.4 PTC Reactions; 12.5 Selected Industrial Processes with PTC; Exercises  
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