## CONTENTS

Preface		xi
1.	Recent Trends in Fluid Catalytic Cracking Technology	1
2.	Tetrahedral and Octahedral Extraframework Aluminum in Ultrastable Y Zeolites :	
	Implications in the Cracking of Gas Oil	17
3.	Hydrocarbon Cracking Selectivities with Dual-Function Zeolite Catalysts	34
4.	Zeolite Beta : Structure, Activity, and Selectivity for Catalytic Cracking	49
5.	Zeolite ZSM-5 in Fluid Catalytic Cracking : Performance, Benefits, and Applications	64
6.	Mechanisms of Product Yield and Selectivity Control with Octane Catalysts	87
7.	Strategies for Catalytic Octane Enhancement in a Fluid Catalytic Cracking Unit	101
8.	Catalytic Control of SO <sub>x</sub> Emissions from Fluid Catalytic Cracking Units	114
9.	Use of Catalysts to Reduce SO <sub>x</sub> Emissions from Fluid Catalytic Cracking units	146
10.	Cracking Metal-Contaminated Oils with Catalysts containing Metal Scavengers : Effects of	2
	Sepiolite Addition on Vanadium Passivation	162
11.	Effects of Ni and V in Catalysts on Contaminant Coke and Hydrogen Yields	182
12.	Characterization of Dual-Function Cracking Catalyst Mixtures: Effects of Sepiolite	
	Addition on Metal Passivation	195
13.	X-ray Absorption Study of Vanadium in Fluid Cracking Catalysts	215
14.	Processes for Demetalization of Fluid Cracking Catalysts	229
15.	Influence of Preparation Conditions on the Catalytic Properties of Al-Pillared	
	Montmorillonites	237
16.	Effect of Aging of Pillaring Reagent on the Microstructure and Cracking Activity of Pillared	
	Clay	253
17.	Catalytic Cracking of Heavy Oils	266
18.	Catalytic Cracking of a Wilmington Vacuum Gas Oil and Selected Hydrotreated Products	279
19.	Development of a Reduced Crude Cracking Catalyst	308
Autho	Author Index	
Affiliation Index		343
Subject Index		344