CONTENTS

	Page
Preface	ix
Origin of Strong Acidity in Dealuminated Zeolite-Y	1
2. Influence of Superacid Sites in Ultrastable Y Zeolites on Gas Oil Cracking	12
3. Characterization of Zeolite-Cracking Catalysts	27
4. Increasing Motor Octanes by using ZSM-5 in Catalytic Cracking: Riser Pilot Plant Ga Composition Analyses	45
5. Modification of Fluid Catalytic Cracking Catalysis by the Addition of ZSM-5: Gasolin	
Over-Cracking Studies	56
6. Hydrothermal Stability and Cracking Behavior of Silicoaluminophosphate Molecular	
Sieve-37 with Different Silicon Contents	79
7. Octane Enhancement in Catalytic Cracking by Using High-Silica Zeolites	96
8. Monitoring Fluid Cracking Catalyst Deactivation Profile by Equilibrium Catalyst Sepa	ration
109	
 9. Translation of Laboratory Fluid Cracking Catalyst Characterization Tests to Riser Read 10. Analysis of the Riser Reactor of a Fluid Cracking Unit: Model Based on Kinetics of 	ctors 144
Cracking and Deactivation from Laboratory Tests	165
11. Fluid Cracking Catalyst Metals Passivation : Development and Application	183
12. Selectivity of Silica-alumina Matrices	198
13. Solid – Solid Reaction Between Y-Zeolite and Vanadium Pentoxide	212
14. Luminescence as a Probe of Metal Effects in Fluidized Cracking Catalysts	224
15. Vanadium-Contaminated Aluminas and Aluminosilicate Gels: ⁵¹ V NMR Spectroscopio	c
Characterization	242
16. Laser Raman and X-ray Photoelectron Characterization of V-Contaminated Componer	nts of
Fluidized Cracking Catalysts	252
17. Petroleum Cracking Catalyst Characterization : Secondary Ion Mass Spectrometry Ima	ging
Processing Methods	269
18. Aluminum-Exchanged Sepiolite as a Component of Fluid Cracking Catalysts	293
19. Long-Residue Processing in a Riser Pilot Plant	308
20. Concept for Future Residuum Catalyst Development	318
21. Metal-Resistant Fluid Cracking Catalysts: Thirty Years of Research	343
INDEXES	
Author Index	364
Affiliation Index	364
Subject Index	365