CONTENT

OVERVIEW	
The Role of Polymers in Enhanced Oil Recovery	1
A Review of Synthetic, Characterization, and Properties of Complex Polymer for Use in the	
Recovery of Petroleum and Other Natural Resources	19
Propagation of Polymer Slugs Through Adsorbent Porous Media	53
The Simulation of Polymer Flow in Heterogeneous Porous Media	69
Correlation of the Flow of Flocon 4800 Biopolymer with Polymer Concentration and Rock	
Properties In Berea Sandstone	101
POLYMER CHEMISTRY / PREPARATION	
High Temperature and Hardness Stable Copolymers of Vinylpyrrolidone and Acrylamide	121
Vinyl Sulfonate/ Vinyl Amide Copolymers as Temperature and Salt-Stable Thickners for EOR	
Flooding Processes	131
Thermally Stable Acrylic Polymer for Profile Modification Applications	139
Hydrophobically Associating Polymers	147
Structurally Tailored Macromolecules for Mobility Control in Enhanced Oil Recovery	161
Behavior of Polyampholytes in Aqueous Salt Solution	181
The Aqueous Conformation and Solubility of Polyvinylpyrrolidone in Relation to the Use of	
Polymers in Oil Recovery	195
POLYMER CHARACTERIZATION	
Size Characterization of EOR Polymers in Solution	201
Absolute MWD's of Polyacrylamides by Sedimentation and Light Scattering	215
A Comparative Study of Xanthans by Light Scattering	231
Conformational Analysis of Xanthan and Welan Using Electron Microcopy	243
Dynamic Uniaxial Extensional Viscosities and Their Importance in the Mechanical Stability of	
Water-Soluble Carbohydrate Polymer Solutions	253
Thermally Promoted Hydrolysis of Polyacrylamide	261
Role of Imidization in Thermal Hydrolysis of Polyacrylamides	271
Evaluation of Polymers for oilfield Use : Viscosity Development, Filterability and Degradation	279
CROSSLINKED POLYMERS	
The Application of Gels in Enhanced Oil Recovery: Theory, Polymers and Crosslinker systems	299
Laboratory Evaluation of Crosslinked Polymer Gels for Water Diversion	313
Study of Intra-Molecular Crosslinking of Polycrylamide in Cr(III)-Polyacrylamide Gelation by	
Size-Exclusion Chromatography, Low-Angle Laser Light scattering, and Viscometry	329
Detection of Microgels in EOR Polymers Using Microcapillary Flow	343
Index	353