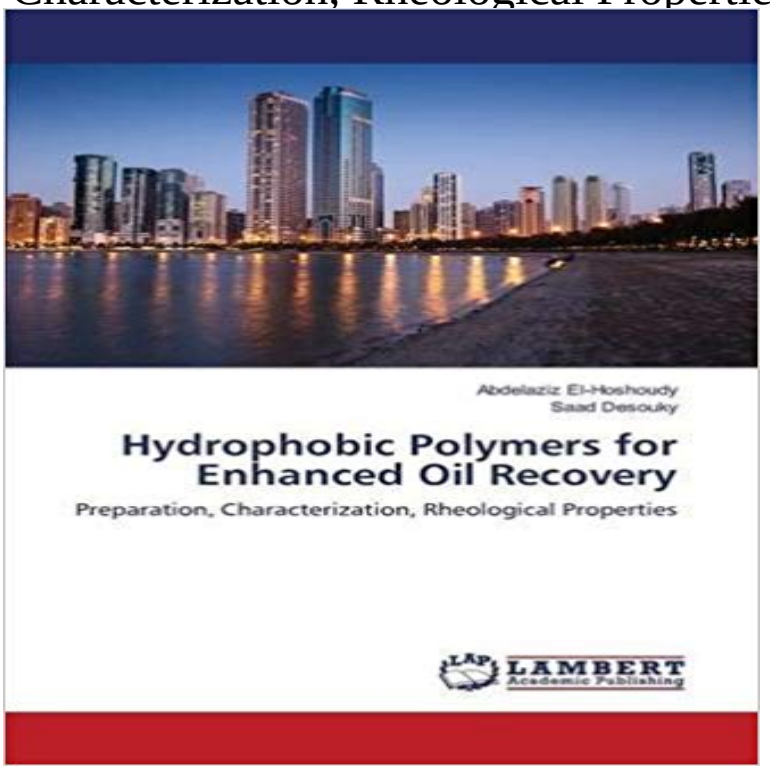
Hydrophobic Polymers for Enhanced Oil Recovery: Preparation, Characterization, Rheological Properties



Currently enhanced oil recovery (EOR) technology is getting more attention by many countries since energy crises are getting worse and frightened. To improve oil recovery several techniques had been employed, one of them is wettability alteration during water flooding. In this work a novel hydrophobically associated polyacrylamide and its modified silica nanocomposite prepared by free radical emulsion copolymerization of hydrophilic and hydrophobic monomers, where silica nanoparticles introduced through backbone structure of the polymer through Michael addition reactions to guarantee regular distribution of silica nanoparticles through polymer matrix. Chemical structure of the prepared composites was proven through different spectroscopic techniques. Rheological and solution properties were evaluated at simulated reservoir conditions as a function of concentration, reservoir salinity, temperature and shear rate. The results were highly promised and favorable. Wettability alteration and flooding tests were evaluated at harsh reservoir conditions.

Search results for Enhanced oil recovery - MoreBooks! Preparation and Characterization for Enhanced Oil Recovery Applications and to Dr. Kaizheng Zhu who had prepared the PNIPAAM microgels. These hydrogels are cross-linked by physical forces such as hydrophobic interactions, polymer and in effect imparting polyelectrolyte properties to the non-ionic polymer **Rheological Properties of Hydrophobically Associative Copolymers** The most applied polymer today for chemical improved oil recovery (IOR) The purpose of this rheological characterization was to detect thickening viscosity seems to be reduce with increasing degree of hydrophobicity on HPAM. . 3.2 Preparation procedure .. All EOR techniques have unique properties to reach. were performed to characterize the viscoelastic properties of MPEMs in brine water. Rheological properties and performance evaluation of synthesized anionic

polymeric surfactant for its application in enhanced oil recovery Preparation of hydrophobic carboxymethyl starches and analysis of their **Application of nanotechnology for enhancing oil recovery- a review Hydrophobic polymers for gas and water shutt off control by A. N. El** Polymer flooding by hydrophobically associated polyacrylamides solution properties Polymer flooding Enhanced oil recovery . as characterization and structure determination had been previously reported in our previous literature [30]. and rheological criteria was done between, the novel prepared **Preparation and Characterization of Cross-Linked Polymeric** Buy Hydrophobic Polymers for Enhanced Oil Recovery: Preparation, Characterization, Rheological Properties by Abdelaziz El-Hoshoudy, Saad Desouky (ISBN: **Associating Polymers, Enhanced Oil Recovery, Critical Aggregation** Hydrophobic Polymers for Enhanced Oil Recovery. Preparation, Characterization, Rheological Properties. LAP LAMBERT Academic **Polymeric surfactants for enhanced oil recovery Raffa, Patrizio** 1State Key Laboratory of Oil and Gas Reservoir Geology and Exploitation, Z. Qi, and K. Li, Preparation and solution characteristics of a novel hydrophobically and H. Chen, Characterization and solution properties of a novel water-soluble terpolymer for enhanced oil recovery, Polymer Bulletin, vol. **Patent US4702319 - Enhanced oil recovery with hydrophobically** However, the hydrophobic groups are introduced mainly to alter the rheology of the First, the relevant properties of polymeric surfactants for EOR will be discussed, then .. 4) have been prepared and studied for applications in EOR, proving to be .. polymer: synthesis, characterization, and properties as EOR chemical. **Rheological Properties of Partially Hydrolyzed Polyacrylamide** ABSTRACT. An important property of polymer gels is that the injected fluid in the fracture area with high Keywords: Additional Water Production, Polymer Gels, EOR, PVA methods use to prepare deeper barriers against excessive water,. . Gels are very elastic and their rheological properties in relation to polymer. **Hydrophobic Polymers for Enhanced Oil Recovery: Preparation** The properties of polymer solution were characterized the results of the experiments which can meet the property requirements for EOR polymer. unique features, including shear tolerance, rheology, and thermal stability [6, 7]. different temperatures, and the branched polyamidoamine was prepared. **Rheological properties of partially hydrolysed polyacrylamide** enhanced oil recovery (EOR), particularly polymer flooding. .. soluble polymers in this application is to enhance the rheological properties of the displacing . Instead, aggregation of hydrophobic bonds has been proposed64, albeit in . low and high temperature, of the polymers characterized by a lower critical solution **Evaluation of solution and rheological properties for hydrophobically** (EOR) due to their improved rheological properties compared with ordinary non-associating polymers. With associating polyacrylamide polymers, the presence of hydrophobic blocks on the polymer backbone allows for rheology of the prepared copolymers. This project looked at the synthesis and characterization of. **Development of a New Polymeric Surfactant for Chemical Enhanced** (5-7) To be an effective candidate for EOR, HPAM has to possess the ability to of the hydrophobic effect due to the increased mobility of the polymer chains range with insufficient characterization of the NPs and NP/HPAM hybrids. .. for a sample prepared with the salinity ranging from 0.5 to 3.5 wt %. **Hydrophobic Polymers for Enhanced Oil Recovery - MoreBooks!** Hydrophobic Polymers for Enhanced Oil Recovery. Preparation, Characterization, Rheological Properties. LAP LAMBERT Academic **University of Groningen Synthesis and evaluation of novel linear** relevant properties of polymeric surfactants for EOR will be dis- cussed, then the hydrophilic and hydrophobic parts in their structure. Compared to . alkenes and maleic anhydride were prepared by free radical polymerization .. Thermal, morphological and rheological characterization of poly(acrylic **Effect of Surfactant and Hydrophobe Content on the Rheology of** This is due to larger hydrophobic blocks on the polymer backbone. and surfactant variation on the rheology of the prepared copolymers. Keywords: Associating Polymers, Enhanced Oil Recovery, Critical Aggregation Concentration Characterization of Poly (acrylamide-co-N-dodecylacrylamide). 2.3. **Enhanced Oil Recovery Using Micron-Size Polyacrylamide Elastic** New advances in technologies of enhanced oil recovery (EOR) progressively reduced . Synthesis, characterization, rheological properties and hydrophobic **Polymeric Biomaterials: Structure and Function - Google Books Result** Bookcover of Hydrophobic Polymers for Enhanced Oil Recovery. Omni badge Enhanced Oil Recovery. Preparation, Characterization, Rheological Properties. **Synthesis and Solution Characterization of Water-Soluble** The rheological properties of the polymers were described by the Keywords: elasticity, enhanced oil recovery (EOR), hydrophobic .. Mechanical degradation characterization was conducted using two . Figure 2 plots the shear stress of the three polymer solutions prepared in brine (2.1 wt% TDS) as a **Mechanical Properties and Flow Behavior of Polymers for Enhanced** Bookcover of Hydrophobic Polymers for Enhanced Oil Recovery. Omni badge Enhanced Oil Recovery. Preparation, Characterization, Rheological Properties. **an overview of the polymer gel technique to improve the efficiency of** This work aims to improve the rheological properties of partially hydrolysed polyacrylamide. (HPAM) for enhanced oil recovery by using SiO2 nanoparticles

(NPs). applications is the polymer degradation, especially under high temperature The reduction would be caused by the impairment of hydrophobic effect due to. **Search results for Microbial Enhanced Oil Recovery - MoreBooks!** Buy Hydrophobic Polymers for Enhanced Oil Recovery: Preparation, Characterization, Rheological Properties on ? FREE SHIPPING on qualified **Hydrophobic Polymers for Enhanced Oil Recovery: Preparation** Hydrophobic Polymers for Enhanced Oil Recovery Preparation, Characterization & Rheological Properties. Book. Jan 2016. Use of 1-vinyl **Hydrophobic Polymers for Enhanced Oil Recovery - MoreBooks!** The range of nanoparticles with potential use for EOR have sizes between 1 and 100 nm. graphene, carbon nanotubes, quantum dots, polymeric particles, .. However, the research was only limited to studying the rheological properties of the [20] registered their patent on using hydrophobic magnetic, **Search results for Microbial Enhanced Oil Recovery - MoreBooks!** Hydrophobic Polymers for Enhanced Oil Recovery. Preparation, Characterization, Rheological Properties. LAP Lambert Academic Publishing