1. Record Nr. UNINA9911006932603321

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Titolo	Chemical Enhanced Oil Recovery : Advances in Polymer Flooding and Nanotechnology / / Pablo Druetta, Patrizio Raffa
Pubbl/distr/stampa	Berlin ; ; Boston : , : De Gruyter, , [2019] ©2019
ISBN	9781523154258 152315425X 9783110640434 3110640430 9783110640250 3110640252
Descrizione fisica	1 online resource (186 pages)
Collana	De Gruyter STEM
Disciplina	622/.33827
Soggetti	Enhanced oil recovery
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Frontmatter -- Contents -- List of Abbreviations -- List of Symbols -- 1. An introduction to chemical enhanced oil recovery -- 2. Polymer flooding -- 3. Numerical simulation of chemical EOR -- 4. Compositional simulation applied to EOR polymer flooding -- 5. Nanotechnology in enhanced oil recovery -- Index
Sommario/riassunto	This book aims at presenting, describing, and summarizing the latest advances in polymer flooding regarding the chemical synthesis of the EOR agents and the numerical simulation of compositional models in porous media, including a description of the possible applications of nanotechnology acting as a booster of traditional chemical EOR processes. A large part of the world economy depends nowadays on non-renewable energy sources, most of them of fossil origin. Though the search for and the development of newer, greener, and more sustainable sources have been going on for the last decades, humanity is still fossil-fuel dependent. Primary and secondary oil recovery techniques merely produce up to a half of the Original Oil In Place. Enhanced Oil Recovery (EOR) processes are aimed at further increasing

this value. Among these, chemical EOR techniques (including polymer flooding) present a great potential in low- and medium-viscosity oilfields. • Describes recent advances in chemical enhanced oil recovery. • Contains detailed description of polymer flooding and nanotechnology as promising boosting tools for EOR. • Includes both experimental and theoretical studies. About the Authors Patrizio Raffa is Assistant Professor at the University of Groningen. He focuses on design and synthesis of new polymeric materials optimized for industrial applications such as EOR, coatings and smart materials. He (co)authored about 40 articles in peer reviewed journals. Pablo Druetta works as lecturer at the University of Groningen (RUG) and as engineering consultant. He received his Ph.D. from RUG in 2018 and has been teaching at a graduate level for 15 years. His research focus lies on computational fluid dynamics (CFD).