

## Referências Bibliográficas

AARNES, J. E.; GIMSE, T.; LIE, K. A. **An Introduction to the Numerics of Flow in Porous media Using MatLab.** SINTEF ICT, Dept. of Applied Mathematics, Oslo, 2007.

**Balanço Energético, 2015.** Disponível em: <<http://ben.epe.gov.br/>>. Acesso em 22 abr 2015.

BAKHITOV, G. G.; OGANDZHANYANTS, V. G.; POLISHCHUK, A. M. **Experimental Investigation Into the Influence of Polymer Additives in Water on the Relative Permeabilities f Porous Media.** Fluid Dyn, Vol. 15(4), p. 611-615, 1980.

BARNES, H. A. **A Handbook of Elementary Rheology.** Institute of Non-Newtonian Fluid Mechanics, University of Wales, 2000.

CARMAN, P. C. **Fluid Flow Through Granular Beds.** Trans Institution of Chemical Engineers, London, Vol. 15, p.150-167, 1937.

CARVALHO, M. S. **Enhanced Oil Recovery: Basic Concepts and Dispersion Injection.** Department of Mechanical Engineering, Pontifícia Universidade Católica do Rio de Janeiro, 2012.

CHEN, T. L.; TANG, J. X.; PENG, K. Z.; XIE, F. **HPAM Rheology in Subsurface Flow.** Gang QL (ed) Chemical Flooding Symposium-research Results During the Eighth five-year Period, Vol. 1, p. 112-119, 1998.

CHEN, L. S.; CAO, R. Y. **Constitutive Model of Viscous-elastic Polymer Solution in Porous Media.** Pet Sci Technol, Vol. 28, p. 1170-1177, 2010.

COSTA, S. S.; FONTOURA, S. A. B. D. **Aspectos Importantes de Limpeza de Poços de Petróleo.** 3º Congresso Brasileiro de P&D em Petróleo e Gás. Salvador, BA, 2005.

DEHGHANPOUR, H.; KURU, E. **A New Look at the Viscoelastic Fluid Flow in Porous Media: a possible mechanism of internal cake formation and formation-damage control.** SPE 121640 presented at SPE international symposium on oilfield chemistry, 2010.

DELSHAD, M.; KIM, D. H.; MAGBAGBEOLA, O. A. et al. **Mechanistic Interpretation and Utilization of Viscoelastic Behavior of Polymer Solutions for Improved Polymer-flood Efficiency.** SPE 113620 presented at SPE/DOE symposium on improved oil recovery, 2008.

DEMIN, W.; JIECHENG, C.; QINGYAN, Y.; WENCHAO, G.; QUN, L. **Viscous-Elastic Polymer Can Increase Microscale Displacement Efficiency in Cores.** Society of Petroleum Engineers 63227, 2000.

DOMINGUEZ, J. G.; WHILLHITE, G. P. **Retention and Flow Characteristics of Polymer Solution in Porous Media.** SPE J, Vol. 17, p. 112–121, 1977.

DU, Y.; GUAN, L. **Field-scale Polymer Flooding: Lessons Learnt and Experiences Gained During Past 40 Years.** SPE 91787 presented at SPE international petroleum conference, 2004.

DYES, A. B.; CAUDLE, B. H.; ERICKSON, R. A. **Oil Production After Breakthrough as Influenced by Mobility Ratio.** J Pet Technol, Vol. 6, p. 27–32, 1954.

**EIA - International Energy Outlook, 2013.** Disponível em: <[www.eia.gov/forecast/ieo/pdf/0484\(2013\).pdf](http://www.eia.gov/forecast/ieo/pdf/0484(2013).pdf)>. Acesso em 12 abr 2015.

GADALA-MARIA, F. A. **The rheology of concentrated suspensions.** Thesis, Stanford University, 1979.

GARROCUH, A. A.; GHARBI, R. B. **The rheology of concentrated suspensions.** Thesis, Stanford University, 1979.

GLEASURE, R. W. **A Novel Model for Viscoelastic Fluid Flow in Porous Media.** SPE 102015 presented at SPE annual technical conference and exhibition, Texas, p. 24-27, 2006.

GREEN, D. W.; WILLHITE, G. P. **Enhanced Oil Recovery.** SPE J, Dallas, 1998.

GUO, X. H.; LI, D. W.; TIAN, J.; LIU, Y. Z. **Pilot Test of Xanthan Gum Flooding in Shengli Oilfield.** SPE 57294 presented at SPE Asia Pacific improved oil recovery conference, 1999.

HATZIGNATIOU, D. G.; NORRIS, U. L.; STAVLAND, A. **Core Escale Simulation of Polymer Flow Through Porous Media.** Journal of Petroleum Science and Engineering, Vol. 108, p. 137-150, 2013.

HIRASAKI, G. J.; POPE, G. A. **Analysis of Factors Influencing Mobility and Adsorption in the Flow of Polymer Solution Through Porous Media.** SPE Journal, Vol. 14(4), p. 337-346, 1974.

KIM, D. H.; LEE, S. J.; AHN, C. H. ET AL. **Development of a Viscoelastic Property Database for EOR Polymer.** SPE 129971 Presented at SPE improved oil recovery symposium, Oklahoma, p. 24-28, 2010.

KLINS, M. A. **Carbon dioxide flooding. Basic mechanisms and project design.** Ed: D. Reidel Publishing Company, Dordrecht, Holanda, 1984.

KOTLAR, H. K.; SELLE, O.; TORSAETER, O. **Enhanced oil recovery by comb flow: polymer floods revitalized.** SPE 106421 presented at international symposium on oilfield chemistry, 2007.

KRIEGER, I. M. **Rheology of Monodispersed Latices.** Advances in Colloid and Interface Science. Vol. 3, No. 2, p. 111-136, 1972.

LAKE, L. W. **Enhanced oil recovery.** Prentice-Hall, USA, 1989.

LALLI, F.; MASCIO, A. D. **A Numerical Model for Fluid-Particle Flows.** International Journal of Offshore and Polar Engineering. Vol. 7, No. 2, 1997.

LEIGHTON, D.; ACRIVOS, A. **Viscous Resuspension.** Chemical Engineering Science. Vol. 41, No. 6, p. 1377-1384, 1986.

LEIGHTON, D.; ACRIVOS, A. **Measurements of the shear induced coefficient of self-diffusion.** Journal of Fluid Mech. Vol. 177, p. 109-131, 1987a.

LEIGHTON, D.; ACRIVOS, A. **The Shear-Induced Migration of Particles in Concentrated Suspensions.** Journal of Fluid Mech. Vol. 181, p. 415-439, 1987b.

LI, Y. et al. **Numerical Modelling of Cuttings Transport in Horizontal Wells Using Conventional Drilling Fluids.** Journal of Canadian Petroleum Technology. Vol. 46, No. 7, 2007.

LUO, J. H.; LIU, Y. Z.; ZHU, P. **Polymer solution properties and displacement mechanisms.** Shen PP, Liu YZ, Liu HR (eds) Enhanced oil recovery–polymer flooding. Petroleum Industry Press, Beijing, p. 1–72, 2006.

MASUDA, Y.; TANG, K.; MIYAZAWA, M.; TANAKA, S. **1D Simulation of Polymer Flooding Including the Viscoelastic Effect of Polymer Solution.** SPE Reservoir Eng., Vol. 7(2), p. 247-252, 1992.

MISKIN, I. et al. **The Viscous Resuspension of Particles in an Inclined Rectangular Fracture.** International Journal of Multiphase Flow. Vol. 22, No. 2, p. 403-415, 1996a.

MISKIN, I. et al. **Steady Suspension Flows into Two-Dimensional Horizontal and Inclined Channels.** International Journal of Multiphase Flow. Vol. 22, No. 6, p. 1223-1246, 1996b.

MONKEBERG, F. **Finite Volume Methods for Fluid Flow in Porous Media.** Bachelor Thesis, ETH, Zurich, 2012.

NORRIS, U. L. **Core-scale simulation of polymer flow through porous media.** MS thesis. University of Stavanger, Stavanger, 2011.

NÚÑEZ, V. R. G. **Deslocamento de óleo em um Meio Poroso Através de Injeção de Emulsões Óleo-em-Água: Análise de Fluxo Linear.** MS thesis. Pontifícia Universidade Católica do Rio de Janeiro, Rio de Janeiro, 2007.

PANTON, R. L. **Incompressible Flow.** 3<sup>a</sup>. ed. Hoboken, New Jersey: John Wiley & Sons, 2005, 821 p.

PEGORAR, R. T. **Escoamento Trifásico em Meios Porosos: Permeabilidade Relativa Óleo-Gás-Água.** MsC Tese, Universidade Federal do Rio de Janeiro. Rio de Janeiro, RJ, Brasil, 2012.

PHILLIPS, R. J. et al. **A constitutive equation for concentrated suspensions that accounts for shearinduced particle migration.** Physics of Fluids A. Vol. 4, No. 1, p. 30-40, 1992.

PITTS, M. J.; CAMPBELL, T. A.; SURKALO, H. et al **Polymer flood of the Rapdan pool.** SPE Reserv Eng, Vol. 10, p. 183–186, 1995.

PUSCH, G.; LOTSCH, T.; MULLER, T. **Investigation of the oil displacing efficiency of suitable polymer products in porous media, aspects of recovery mechanisms during polymer flooding.** Society for petroleum science coal chemistry, DGMKreport, p. 295–296, 1987.

RAI, M. M.; MOIN, P. **Direct Simulations of Turbulent Flow Using Finite-Difference Schemes.** J Comp Physics, 1991.

ROMERO, O. J. **Limite da Vazão Mínima do Processo de Revestimento por Extrusão de Soluções Poliméricas.** PhD thesis, Pontifícia Universidade Católica do Rio de Janeiro, Rio de Janeiro, RJ, Brasil, 2003.

ROBERT, H.; CHRISTOPHER AND STANLEY MIDDLEMAN **Power Law Flow Through a Packed Tube.** Ind. Eng. Chem. Fundamen., 1965.

SANDIFORD, B. B. **Laboratory and field studies of water floods using polymer solutions to increase oil recoveries.** J Pet Technol, Vol. 16, p. 917–922, 1964.

SANI, R. L. E. A. **The cause and cure (?) of the spurious pressures generated by certain FEM solutions of the incompressible Navier Stokes equations: Part 1, 2.** International Journal for Numerical Methods in Fluid. Vol. 1, No. 1, p. 17-43; No. 2, pp. 171-204, 1981.

SCHAFLINGER, U. et al. **Viscous Resuspension of a Sediment within a Laminar and Stratified Flow.** International Journal of Multiphase Flow. Vol. 16, No. 4, p. 567-578, 1990.

SCHNEIDER, F. N.; OWENS, W. W. **Steady state measurements of relative permeability for polymer/oil systems.** SPE J., Vol. 22, p. 79–86, 1982.

SEDAGHA, M. H.; GHAZANFARI, M. H.; PARVAZDAVANI, M.; MOSHEDI, S. **Experimental investigation of micro/macrosopic efficiency of polymer flooding in fractured heavy oil five spot systems.** ASME J Energy Resour Technol, Vol. 135, p. 1–9, 2013.

SERIGHT, R. S.; FAN, T. G.; WAVRIK, K. **New insights into polymer rheology in porous media.** SPE 129200 presented at SPE improved oil recovery symposium, 2010.

SHARMA, A.; DELSHAD, M.; HUH, C. ET AL. **A Practical Method to Calculate Polymer Viscosity Accurately in Numerical Reservoir Simulators.** SPE 147239 presented at SPE annual technical conference and exhibition, Colorado, 2011.

SHENG, J. J. **Modern chemical enhanced oil recovery: theory and practice.** Gulf Professional Publishing, Elsevier, 2011.

SILVA, L. D. V. **Analysis of Slot Coating Process of Particle Suspensions.** MsC thesis, Pontifícia Universidade Católica do Rio de Janeiro. Rio de Janeiro, RJ, Brasil, 2013.

STAVLAND, A.; JONSBRATEN, H. C. et al **Polymer flooding—flow properties in porous media versus rheological parameters.** SPE 131103 presented at SPE EUROPEC/EAGE annual conference and exhibition, Spain, 2010.

STEGEMEIER, G. L. **Mechanisms of entrapment and mobilization of oil in porous media.** Shah DO, Schechter RS (eds) Improved oil recovery by surfactant and polymer flooding. Academic Press, New York, p. 55–91, 1977.

SZABO, M. T. **Laboratory investigation of factors influencing polymer flood performance.** SPE J., Vol. 15, p. 338–346, 1975.

TEIXEIRA, R. A.; ROCHA, P. S. M. V. **Reologia de Soluções Poliméricas com Potencial de Uso em Campos Maduros da Bacia do Recôncavo Baiano.** 3º Congresso Brasileiro de P&D em Petróleo e Gás, Salvador, 2005.

URBISSINOVA, T. S.; TRIVEDI, J. J.; KURU, E. **Effect of Elasticity During Viscoelastic Polymer Flooding: A possible Mechanism of Increasing the Sweep Efficiency.** J. Can. Petroleum Technology, 49(12), p. 49-56, 2010.

WANG, D. M.; CHENG, J. C.; YANG, Q. Y. et al **Viscous-elastic polymer can increase microscale displacement efficiency in cores.** SPE 63227 presented at SPE annual technical conference and exhibition, 2000.

WANG, D. M.; XIA, H. F.; LIU, Z. C.; YANG, Q. Y. **Study of the mechanism of polymer solution with viscoelastic behavior increasing microscopic oil displacement efficiency and the forming of steady “oil thread” flow channels.** SPE 68723 presented at SPE Asia Pacific oil and gas conference and exhibition, 2001.

WANG, D. M.; WANG, G.; WU, W. et al **The influence of viscoelasticity on displacement efficiency—from micro to macro scale.** SPE 109016 presented at SPE annual technical conference and exhibition, 2007.

WANG, D. M.; WANG, G.; XIA, H. F. **Large scale high visco-elastic fluid flooding in the field achieves high recoveries.** SPE 144294 presented at SPE enhanced oil recovery conference, 2011.

WEI, B.; ROMERO-SERÓN, L.; RODRIGUE, D. **Oil Displacement Mechanisms of Viscoelastic Polymer in Enhanced Oil Recovery (EOR): A Review.** Journal Petroleum Exploration Production Technology, 2013.

WEVER, D. A. Z.; PICCHIONI, F.; BROEKHUIS, A. A. **Dynamic Viscous Resuspension.** International Journal of Multiphase Flow. Vol. 17, No. 4, p. 469-483, 1991.

XIA, H. F.; WANG, D. M.; WANG, G.; MA, W. G.; LIU, J. **Mechanism of the effect of micro-forces on residual oil in chemical flooding.** SPE 115315 presented at SPE/DOE improved oil recovery symposium, 2008.

XU, P.; YU, B. **Developing a New Form of Permeability and Kozeny-Carman Constant for Homogeneous Porous Media by Means of Fractal Geometry.** Advances in Water Resources, Vol. 31, p. 74-81, 2008.

YIN, H. J.; WANG, D. M.; ZHANG, H. **Study on flow behaviors of viscoelastic polymer solution in micropore with dead end.** SPE 101950 presented at SPE annual technical conference and exhibition, 2006.

ZAITOUN, A.; KOHLER, N. **The role of adsorption in polymer propagation through reservoir rocks.** SPE 16274 presented at SPE international symposium on oilfield chemistry, 1987.

ZHANG, K. et al. **Stability in a Two-Dimensional Hagen-Poiseuille Resuspension Flow.** International Journal of Multiphase Flow. Vol. 18, No. 1, p. 51-63, 1992.

ZHANG, K.; ACRIVOS, A. **Viscous Resuspension in Fully Developed Laminar Pipe Flows.** International Journal of Multiphase Flow, Vol. 20, No. 3, p. 579-591, 1994.

ZHANG, L. J.; YUE, X. A. **Displacement of polymer solution on residual oil trapped in dead ends.** J Cent South Univ Technol, Vol. 15, p. 84–87, 2008.

ZHANG, Z.; LI, J.; ZHOU, J. **Microscopic Roles of "Viscoelasticity" in HPAM Polymer Flooding for EOR.** Key Laboratory of Environmental Mechanics, Institute of Mechanics, Chinese Academy of Sciences, Beijing, China, 2010.