

DAFTAR RUJUKAN

- Abalkhail, N., Liyanage, P.J., Upamali, K.A.N., Pope, G.A., Mohanty, K.K., 2020. Alkaline-surfactant-polymer formulation development for a HTHS carbonate reservoir. *J. Petrol. Sci. Eng.* 191, 107236. <http://dx.doi.org/10.1016/j.petrol.2020.107236>.
- Al-Hajri, S., Mahmood, S. M., Abdulelah, H., & Akbari, S. (2018). An overview on polymer retention in porous media. *Energies*, 11(10), 2751.
- Allcock HR, Lampe FW, Mark JE (2003) Contemporary polymer chemistry, Third edn, Pearson Education, New York.
- Alrifaiy, A., Lindahl, O., & Ramser, K. (2012). Polymer-Based Microfluidic Devices for Pharmacy, Biology and Tissue Engineering. *Polymers*, 4, 1349-1398.
- Álvarez, M.S., Longo, M.A., Deive, F.J., Rodríguez, A., 2019. Non-ionic surfactants and ionic liquids are a suitable combination for aqueous two-phase systems. *Fluid Phase Equilib.* 502, 112302. <http://dx.doi.org/10.1016/j.fluid.2019.112302>.
- Alyafei, Nayef. (2019). Fundamentals of Reservoir Rock Properties.
- Bales, B.L., Benrraou, M., Zana, R., 2002. Krafft temperature and micelle ionization of aqueous solutions of cesium dodecyl sulfate. *J. Phys. Chem. B* 106, 9033–9035. <http://dx.doi.org/10.1021/jp021297l>.
- Barati N (2011) Study of polymer flooding performance in the presence of nanoparticles. Master Thesis, Petroleum University of Technology.
- Bera, A., Ojha, K., Mandal, A., Kumar, T., 2011. Interfacial tension and phase behavior of surfactant-brine-oil system. *Colloids Surf. A* 383, 114–119. <http://dx.doi.org/10.1016/j.colsurfa.2011.03.035>.
- Bhosle, M. R., Joshi, S. A., & Bondle, G. M. (2020). An efficient contemporary multicomponent synthesis for the facile access to coumarin-fused new thiazolyl chromeno [4, 3-b] quinolones in aqueous micellar medium. *Journal of Heterocyclic Chemistry*, 57(1), 456–468.
- Bryan, J., & Kantzas, A. (2009). Potential for alkali-surfactant flooding in heavy oil reservoirs through oil-in-water emulsification. *Journal of Canadian Petroleum Technology*, 48(02), 37–46.
- Buchgraber M (2008) An enhanced oil recovery micromodel study with associative and conventional polymers. Diploma Thesis, University of Leoben, Austria.
- Chang HL (1978) Polymer flooding technology yesterday, today, and tomorrow. *J Petrol Technol* 30: Issue 08.

- Chang, L.-C., Z.H.-H. Chen, and H.-Y. Shan. 2009a. Effect of connectivity and wettability on the relative permeability of NAPLs. *Environ. Geol.* 56:1437–1447. doi:10.1007/s00254-008-1238-8.
- Chatenever, A., and J.C. Calhoun, Jr. 1952. Visual examinations of fluid behavior in porous media: Part1. *J. Pet. Technol.* 4:149–156. doi:10.2118/135-G.
- Chen, D., L.J. Pyrak-Nolte, J. Griffi n, and N.J. Giordano. 2007. Measurement of interfacial area per volume for drainage and imbibitions. *Water Resour. Res.* 43: W12504. doi:10.1029/2007WR006021.
- Cheng, J.-T. 2002. Fluid flow in ultra-small capillaries. Ph.D. diss. Purdue Univ., West Lafayette, IN.
- Cheng, J.-T., L.J. Pyrak-Nolte, D.D. Nolte, and N.J. Giordano. 2004. Linking pressure and saturation through interfacial areas in porous media. *Geophys. Res. Lett.* 31: L08502. doi:10.1029/2003GL019282.
- Cong, Y., Zhang, W., Liu, C., Huang, F., 2020. Composition and oil-water interfacial tension studies in different vegetable oils. *Food Biophys.* 15, 229–239. <http://dx.doi.org/10.1007/s11483-019-09617-8>.
- Conrad, S.H., J.L. Wilson, W.R. Mason, and W.J. Peplinski. 1992. Visualization of residual organic liquids trapped in aquifers. *Water Resour. Res.* 28:467–478. doi:10.1029/91WR02054.
- Corapcioglu, M.Y., S. Chowdhury, and S.E. Roosevelt. 1997. Micromodel visualization and quantification of solute transport in porous media. *Water Resour. Res.* 33:2547–2558. doi:10.1029/97WR02115.
- Cottin, C., H. Bodiguel, and A. Colin. 2010. Drainage in two-dimensional porous media: From capillary to viscous flow. *Phys. Rev. E* 82:046315. doi:10.1103/PhysRevE.82.046315.
- Danesh A, Peden JM, Krinis D, Henderson GD (1987) Pore level visual investigation of oil recovery by solution gas drive and gas injection. SPE annual technical conference and exhibition, 27–30 September, Dallas, Texas.
- Das, A., Nguyen, N., Nguyen, Q.P., 2020. Low tension gas flooding for secondary oil recovery in low-permeability, high-salinity reservoirs. *Fuel* 264, 116601. <http://dx.doi.org/10.1016/j.fuel.2019.116601>.
- Deng, X., Tariq, Z., Murtaza, M., Patil, S., Mahmoud, M., & Kamal, M. S. (2021). Relative contribution of wettability Alteration and interfacial tension reduction in EOR: A critical review. *Journal of Molecular Liquids*, 325, 115175.
- Dong, M., Q. Liu, and A. Li. 2007. Micromodel Study of the displacement mechanisms of enhanced oil recovery by alkaline flooding. Paper presented at: International Symposium of the Society of Core Analysts, Calgary, AB, Canada. 10–12 Sept. 2007. Paper SCA 2007-47.
- Dong, M., and I. Chatzis. 2010. Eff ect of capillary pressure on wetting film imbibition ahead of main liquid–gas displacement front in porous media. *Pet.Sci. Technol.* 28:955–968. doi:10.1080/10916460902937067.

- Gogarty, W.B. Mobility control with polymer solutions. Soc. Pet. Eng. J. 1967, 7, 161–173.
- Green, D.W., Willhite, G.P.: “Enhanced Oil Recovery”. Henry L. Doherty Memorial Fund of AIME. SPE of AIME, New York. 1998.
- Guo, Y., Zhang, L., Zhu, G., Yao, J., Sun, H., Song, W., ... & Zhao, J. (2019). A pore-scale investigation of residual oil distributions and enhanced oil recovery methods. *Energies*, 12(19), 3732.
- Hamidi, H., Mohammadian, E., Rafati, R., Azdarpour, A., Ing, J., 2015. The effect of ultrasonic waves on the phase behavior of a surfactant–brine–oil system. *Colloids Surf. A* 482, 27–33. <http://dx.doi.org/10.1016/j.colsurfa.2015.04.009>.
- Hematpour H, Mardi M, Edalatkhah S, Arabjamaloe R (2011) Experimental study of polymer flooding in low-viscosity oil using one-quarter five-spot glass micromodel. *Pet Sci Technol* 29:1163–1175.
- Holmberg, K., Jönsson, B., Kronberg, B., & Lindman, B. (2002). *Surfactants and Polymers in Aqueous Solution*. Wiley. <https://books.google.co.id/books?id=1OaK77U34IYC>.
- Hosseini-nooshi, P., Lashgari, H.R., Sepehrnoori, K., 2016. A novel method to model and characterize in-situ bio-surfactant production in microbial enhanced oil recovery. *Fuel* 183, 501–511. <http://dx.doi.org/10.1016/j.fuel.2016.06.035>.
- Hosseini SJ, Foroozesh J (2019) Experimental Study of Polymer Injection Enhanced Oil Recovery in Homogeneous and Heterogeneous Porous Media Using Glass-Type Micromodels. *Journal of Petroleum Exploration and Production Technology*. <https://doi.org/10.1007/s13202-018-0492-x>.
- Illous, E., Ontiveros, J.F., Lemahieu, G., Lebeuf, R., Aubry, J.-M., 2020. Amphiphilicity and salt-tolerance of ethoxylated and propoxylated anionic surfactants. *Colloids Surf. A* 601, 124786. <http://dx.doi.org/10.1016/j.colsurfa.2020.124786>.
- Jing, W., Huiqing, L., Genbao, Q., Yongcan, P., Yang, G., 2019. Investigations on spontaneous imbibition and the influencing factors in tight oil reservoirs. *Fuel* 236, 755–768. <http://dx.doi.org/10.1016/j.fuel.2018.09.053>.
- Kachangoon, R., Vichapong, J., Santaladchaiyakit, Y., Srijaranai, S., 2020. Cloudpoint extraction coupled to in-situ metathesis reaction of deep eutectic solvents for preconcentration and liquid chromatographic analysis of neonicotinoid insecticide residues in water, soil and urine samples. *Microchem. J.* 152, 104377. <http://dx.doi.org/10.1016/j.microc.2019.104377>.
- Kalantari Meybodi, M., Shokrollahi, A., Safari, H., Lee, M., Bahadori, A., 2015. A computational intelligence scheme for prediction of interfacial tension between pure hydrocarbons and water. *Chem. Eng. Res. Des.* 95, 79–92. <http://dx.doi.org/10.1016/j.cherd.2015.01.004>.

- Kamal, M. S., Hussein, I. A., & Sultan, A. S. (2017). Review on surfactant flooding: phase behavior, retention, IFT, and field applications. *Energy & fuels*, 31(8), 7701-7720.
- Karadimitriou, N., & Hassanizadeh, S. (2012). A Review of Micromodels and Their Use in Two-Phase Flow Studies. *Vadose Zone Journal*, 11.
- Khaleel, O., Teklu, T.W., Alameri, W., Abass, H., Kazemi, H., 2019. Wettability alteration of carbonate reservoir cores—laboratory evaluation using complementary techniques. *SPE Reserv. Eval. Eng.* 22, 911–922. <http://dx.doi.org/10.2118/194483-PA>.
- Lenormand, R., Zarcone, C., & Sarr, A. (1983). Mechanisms of the displacement of one fluid by another in a network of capillary ducts. *Journal of Fluid Mechanics*, 135, 337–353.
- Levorsen, A. I. (2001). *Geology of petroleum*. American Association of Petroleum Geologists.
- Li, P., Yang, C., Cui, Z., Song, B., Jiang, J., & Wang, Z. (2016). A new type of sulfobetaine surfactant with double alkyl polyoxyethylene ether chains for enhanced oil recovery. *Journal of Surfactants and Detergents*, 19(5), 967–977.
- Li, Z., Xu, D., Yuan, Y., Wu, H., Hou, J., Kang, W., & Bai, B. (2020). Advances of spontaneous emulsification and its important applications in enhanced oil recovery process. *Advances in Colloid and Interface Science*, 277, 102119.
- Lovoll, G., M. Jankov, K.J. Maloy, R. Toussaint, J. Schmittbuhl, G. Schafer, and Y. Meheust. 2010. Influence of viscous fingering on dynamic saturation–pressure curves in porous media. *Transp. Porous Media* 86:335–354.
- Luo, J.-H., Liu, Y.-Z., Zhu, P., 2006. Polymer solution properties and displacement mechanisms. In: Shen, P.-P., Liu, Y.-Z., Liu, H.-R. (Eds.), *Enhanced Oil Recovery–Polymer Flooding*. Petroleum Industry Press, pp. 1–72.
- Miyake, M., Oyama, N., 2009. Effect of amidoalkyl group as spacer on aggregation properties of guanidine-type surfactants. *J. Colloid Interface Sci.* 330, 180–185. <http://dx.doi.org/10.1016/j.jcis.2008.10.047>.
- Morvan, M., Koetitz, R., Moreau, P., Pavageau, B., Rivoal, P., & Roux, B. (2008). A combinatorial approach for identification of performance EOR surfactants. *SPE Symposium on Improved Oil Recovery*.
- Naseri, N., Ajorlou, E., Asghari, F., & Pilehvar-Soltanahmadi, Y. (2018). An update on nanoparticle-based contrast agents in medical imaging. *Artificial Cells, Nanomedicine, and Biotechnology*, 46(6), 1111–1121.
- Needham RB, Doe PH (1987) Polymer flooding review. *J Pet Technol*.
- Niu, J.-G., Chen, P., Shao, Z.-B., Wang, D.-M., Sun, G., Li, Y., 2006. Research and development of polymer enhanced oil recovery. In: Cao, H.-Q. (Ed.), *Research and Development of Enhanced Oil Recovery in Daqing*. Petroleum Industry Press, pp. 227–325.
- Nourani, M., H. Panahi, D. Biria, R. Roosta Azad, M. Haghghi, and A. Mohebbi. 2007. Laboratory Studies of MEOR in Micromodel as a Fractured System.

Paper presented at: Eastern Regional Meeting, Lexington, KY. 17–19 Oct. 2007. Paper 110988-MS. doi:10.2118/110988-MS.

- Nordiyana, M.S.W., Khalil, M., Jan, B.M., Ali, B.S., Tong, C.W., 2016. Formation and phase behavior of Winsor type III *Jatropha curcas*-based microemulsion systems. *J. Surfactants Deterg.* 19, 701–712. <http://dx.doi.org/10.1007/s11743-016-1814-y>.
- Puerto, M., Hirasaki, G. J., Miller, C. A., & Barnes, J. R. (2012). Surfactant systems for EOR in high-temperature, high-salinity environments. *SPE Journal*, 17(01), 11–19.
- Ryles, R.G., 1983. Elevated temperature testing of motility-control reagents. Paper SPE 12008 presented at the SPE Annual Technical Conference and Exhibition, San Francisco, 5–8 October.
- Rapoport, L.A., and W.J. Leas. 1951. Relative permeability to liquid in liquid–gas systems. *J. Pet. Technol.* 3:83–98.
- Salleh, I.K., Misra, S., Ibrahim, J.M.B.M., Panuganti, S.R., 2019. Micro-emulsion-based dissolver for removal of mixed scale deposition. *J. Pet. Explor. Prod. Technol.* 9, 2635–2641. <http://dx.doi.org/10.1007/s13202-019-0643-8>.
- Sandnes, B., H.A. Knudsen, K.J. Måløy, and E.G. Flekkøy. 2007. Labyrinth patterns in confined granular–fluid systems. *Phys. Rev. Lett.* 99(3):038001. doi:10.1103/PhysRevLett.99.038001.
- Sarmah, S., Gogoi, S.B., Xianfeng, F., Baruah, A.A., 2020. Characterization and identification of the most appropriate nonionic surfactant for enhanced oil recovery. *J. Pet. Explor. Prod. Technol.* 10, 115–123. <http://dx.doi.org/10.1007/s13202-019-0682-1>.
- Seers, T. D., & Alyafei, N. (2018, June). Open source toolkit for micro-model generation using 3D printing. In SPE Europec featured at EAGE Conference and Exhibition (p. D041S012R002). SPE.
- Seright, R.S., Adamski, R.P., Roffall, J.C., Liauh, W.W., 1983. Rheology and mechanical degradation of EOR polymers. Paper presented at the SPE/British Society of Rheology Conference on Rheology in Crude Oil Production, Imperial College, 13–15 April.
- Sheng, J. (2010). *Modern chemical enhanced oil recovery: theory and practice*. Gulf Professional Publishing.
- Sheng JJ (2011) *Modern chemical enhanced oil recovery: theory and practice*. ISBN 978-1-85617-745-0.
- Sheng JJ (2013) Chapter 3—polymer flooding—fundamentals and field cases. *Enhance Oil Recov Field Case Stud* 2013:63–82.
- Sheng JJ, Leonhardt B, Azri N (2015) Status of polymer-flooding technology. *J Can Pet Technol* 54: Issue 02.
- Shiri, MSZ., Henderson, W., Mucalo, MR., 2019. A review of the lesser-studied microemulsion-based synthesis methodologies used for preparing

- nanoparticle systems of the noble metals, Os, Re, Ir and Rh. In: *Mater* 2019, Vol. 12. p. 1896. <http://dx.doi.org/10.3390/MA12121896>, 12, 1896.
- Soll, W.E., M.A. Celia, and J.L. Wilson. 1993. Micromodel studies of three-fluid porous media systems: Pore-scale processes relating to capillary pressure–saturation relationships. *Water Resour. Res.* 29:2963–2974. doi:10.1029/93WR00524.
- Sorbie KS (1991) *Polymer-improved oil recovery*, 1st ed. CRC Press, Inc, Boca Raton.
- Sorbie, K.S. *Polymer-Improved Oil Recovery*; Springer Science & Business Media: Berlin/Heidelberg, Germany, 2013.
- Sun, Y., Saleh, L., & Bai, B. (2012). Measurement and impact factors of polymer rheology in porous media. *Rheology, InTech*, 187-202.
- Tsakiroglou, C.D., and D.G. Avraam. 2002. Fabrication of a new class of porous media models for visualization studies of multiphase flow processes. *J. Mater. Sci.* 37:353. doi:10.1023/A:1013660514487.
- Winsor, P. A. (1948). Hydrotrophy, solubilisation and related emulsification processes. *Transactions of the Faraday Society*, 44, 376–398.
- Yang, S.H., Treiber, L.E., 1985. Chemical stability of polyacrylamide under simulated field conditions. Paper SPE 14232 presented at the SPE Annual Technical Conference and Exhibition, Las Vegas, 22–26 September.
- Zhao, F.-L., 1991. *Chemistry in Oil Production*. University of Petroleum, China.