DAFTAR PUSTAKA

Ahmadi, M.; Habibi, A.; Pourafshari, P.; Ayatollahi, P. Zeta Potential Investigation and Mathematical Modeling of Nanoparticles Deposited on the Rock Surface to Reduce Fine Migration. In Proceedings of the SPE Middle East Oil and Gas Show and Conference, Manama, Bahrain, 25–28 September 2011.

Ahmadi, M., Habibi, A., Pourafshary, P., and Ayatollahi, S. (2013). "Zeta-potential investigation and experimental study of nanoparticles deposited on rock surface to reduce fines migration." SPE Journal, 18 (03), 534-544.

Ahmadi, Y.; Eshraghi, S.E.; Bahrami, P.; Hasanbeygi, M.; Kazemzadeh, Y.; Vahedian, A. Comprehensive Water–Alternating-Gas (WAG) injection study to evaluate the most effective method based on heavy oil recovery and asphaltene precipitation tests. J. Petrol. Sci. Eng. 2015, 133, 123–129.

Ahmed, Tarek 2006. Reservoir Engineering Handbook. Third Edition. Burlington. Gulf Professional Publishing.

Adkins, Stephanie S., Gohil, D., Dickson, Jasper L., Webber, Stephen E., and Johnston, Keith P. 2007. "Water-in-carbon dioxide emulsions stabilized with hydrophobic silica particles," Phys. Chem. Chem. Phys., 2007, 9, 6333–6343.

Akin, S.; Kovscek, A.R. Heavy-Oil Solution Gas drive: A Laboratory Study. J. Pet. Sci. Eng. 2002, 35, 33-48.

Al Otaibi, F. M., Kokal, S. L., Chang, Y., Al Qahtani, J. F., & Al Abdulwahab, A.M. (2013). Gelled Emulsion of CO₂-Water-Nanoparticles. SPE Annual Technical Conference and Exhibition.

Alomair, O.A.; Matar, K.M.; Alsaeed, Y.H. Nanofluids application for heavy oil recovery. In Proceedings of the SPE Asia Pacific Oil & Gas Conference and Exhibition, Adelaide, Australia, 14–16 October 2014.

Alvarado, V.; Manrique, E. Enhanced oil recovery: An update review. Energies 2010, 3, 1529–1575.

Amanullah, M. D., and Al-Tahini, A. M. (2009). "Nanotechnology - its significance in smart fluid development for oil and gas field application, SPE Saudi Arabia Section Technical Symposium, Al-Khobar, Saudi Arabia, 9-11 May.

Anderson, W. G. (1986). "Wettability literature survey - part 1: rock/oil/brine interactions and the effects of core handling on wettability." Journal of Petroleum Techology, 38 (10), 1125–1144.

Anderson, W. G. (1986). "Wettability literature survey part 2: wettability measurement." Journal of Petroleum Techology, 1246-1262.

Aronofsky, J. S. (1952). "Mobility Ratio - Its Influence on Flood Patterns During Water Encroachment."

Avendano, C., Lee, S. S., Escalera, G. and Colvin, V. (2012). "Magnetic characterization of nanoparticles designed for use as contrast agents for downhole measurements." Society of Petroleum Engineering International Oilfield Nanotechnology Conference and Exhibition, Noordwijk, The Netherlands. 12-14 June.

Aveyard, R., Binks, Bernard P., Clint, John H. 2002. "Emulsions stabilized solely by colloidal particles," *Elseiver*, Advances in Colloid and Interface Science, 503-546.

Ayatollahi, S.; Zerafat, M.M. Nanotechnology-assisted EOR techniques: New solutions to old challenges. In Proceedings of the SPE International Oilfield Nanotechnology Conference and Exhibition, Noordwijk, The Netherlands, 12–14 June 2012.

Bayat, A. E., Junin, R., Shamshirband, S. and Chong, W.T. (2015). "Transport and retention of engineered Al2O3, TiO2, and SiO2 nanoparticles through various sedimentary rocks." Scientific reports, 5, 14264.

Bennetzen, M. V., & Mogensen, K. (2014). Novel Applications of Nanoparticles for Future Enhanced Oil Recovery. Paper presented at the International Petroleum Technology Conference, Kuala Lumpur, Malaysia. Bjørnar Engeset. 2012. The Potential of Hydrophilic Silica Nanoparticles for EOR Purposes [Tesis]. Trondheim: Department of Petroleum Engineering and Applied Geophysics, Norwegian University of Science and Technology.

Bian, Y., Penny, G. S. and Sheppard, N. C. 2012. Surfactant Formulation Evaluation for Carbon Dioxide Foam Flooding in Heterogeneous Sandstone Reservoir. Presented at the SPE Improved Oil Recovery Symposium, Tulsa, Oklahoma, 14-18 April. SPE 154018.

Birdi, K. S. 2010. Surface and Colloid Chemistry: Principles and Applications. New York. CRC Press.

Brailovsky, I.; Babchin, A.; Frankel, M.; Sivashinsky, G. Fingering Instability in Water-Oil Displacement. Transp. Porous Media 2006, 63, 363-380.

Brailovsky, I.; Babchin, A.; Frankel, M.; Sivashinsky, G.A. Reduced Model for Fingering Instability in Miscible Displacement. Phys. Lett. A 2007, 369, 212-217.

Buckley, J. S., Liu, Y., and Monsterleet, S. (1998). "Mechanisms of wetting alteration by crude oils." Society of Petroleum Engineering Journal, 3 (1), 54-61.

Caldelas, F.M.; Murphy, M.; Huh, C.; Bryant, S.L. Factors governing distance of nanoparticle propagation in porous media. In Proceedings of the SPE Production and Operations Symposium, Oklahoma City, OK, USA, 27–29 March 2011; Society of Petroleum Engineers: Richardson, TX, USA, 2011.

Chang, H.L.; Zhang, Z.Q.; Wang, Q.M.; Xu, Q.M.; Guo, Z.D.; Sun, H.Q.; Cao, X.L.; Qiao, Q. Advances in polymer flooding and alkaline/surfactant/polymer processes as developed and applied in the People's Republic of China. J. Petrol. Technol. 2006, 58, 84–89.

Chen, Y., Elhag, A. S., Poon, B. M., 2012. Ethoxylated Cationic Surfactants for CO2 EOR in High Temperature, High Salinity Reservoirs. Presented at the SPE Improved Oil Recovery Symposium, Tulsa, Oklahoma, 14-18 April. SPE 154222.

Chengara, A.; Nikolov, A.D.; Wasan, D.T.; Trokhymchuk, A.; Henderson, D. Spreading of nanofluids driven by the structural disjoining pressure gradient. J. Colloid Interface Sci. 2004, 280, 192–201. Derjaguin, B.V. and Landau, L. (1941) Acta Physiochim. URSS, 14, 633.

Dickson, Jasper L., Binks, Bernard P., Johnston, Keith P. 2004. "Stabilization of Carbon Dioxide-in-Water Emulsions with Silica Nanoparticles," *Langmuir*, Vol. 20, No. 19, 7976-7983.

Eide, Øyvind, Føyen, Tore, Skjelsvik, Eldri, Rognmo, Arthur, and Fernø, 2018. Nanoparticle Stabilized Foam in Harsh Conditions for CO₂ EOR, Society of Petroleum Engineers.

El-Diasty, Abdelrahman Ibrahim, and Aly, Ahmed M., 2015. Understanding the Mechanism of Nanoparticles Application in Enhanced Oil Recovery, Society of Petroleum Engineers.

Fedele, L., Colla, L., Bobbo, S., Barison, S. and Agresti, F. (2011). "Experimental stability analysis of different water-based nanofluids." Nanoscale Research Letters, 6 (1), 300.

George, D.S.; Hayat, O.; Kovscek, A.R. A Microvisual Study of Solution Gas Drive Mechanisms in Viscous Oils. J. Pet. Sci. Eng. 2004, 46, 101-119.

Green DW, Willhite GP (1998) Enhanced oil recovery. Henry L. Doherty memorial fund of AIME. Society of Petroleum Engineers, Richardson.

Habermann, B. (1960). The Efficiency of Miscible Displacement as a Function of Mobility Ratio, Society of Petroleum Engineers.

Hendraningrat, L.; Li, S.; Torsæter, O. A coreflood investigation of nanofluid enhanced oil recovery. J. Petrol. Sci. Eng. 2013, 111, 128–138.

Hendraningrat, Luky, Shidong Li, and Torsæter, Ole, 2013. Effect of Some Parameters Influencing Enhanced Oil Recovery Process using Silica Nanoparticles: An Experimental Investigation, Society of Petroleum Engineers.

Hendraningrat, L. Unlocking the Potential of Hydrophilic Nanoparticles as Novel Enhanced Oil Recovery Method: An Experimental Investigation. Ph.D. Thesis, Norwegian University of Science and Technology, Trondheim, Norway, 2015. Hendraningrat, L. and Torseater, O. (2015). "Metal oxide-based nanoparticles: revealing their potential to enhance oil recovery in different wettability systems." Applied Nanoscience, 5 (2), 181-99.

Hirasaki, G. J. (1989). Supplement to SPE 19505, The Steam-Foam Process-Review of Steam-Foam Process Mechanisms, Society of Petroleum Engineers.

Hong, K. C., Injection Profile Effects Caused by Gravity Segregation in the Wellbore, R. S. Millhone, SPE-AIME, Chevron Oil Field Research Co. 1977.

Hyne, J. B., Greidanus, J. W., Tyrer, J. D., Verona, D., Rizek, C., Clark, P. D., Clarke, R. A. and Koo, J. (1982). "Aqua-thermolysis of heavy oils." The Second International Conference on Heavy Crude and Tar Sands", in Caracas, Venezuela, Feb 7-17.

Iglauer, S., Wu, Y., Shuler, P., Tang, Y., and Goddard, W.A. (2010). "New surfactant classes for enhanced oil recovery and their tertiary oil recovery potential." Journal of Petroleum Science and Engineering, 71 (1), 23-29.

Iglauer, S., Wülling, W., Pentland, C. H., Al-Mansoori, S., and Blunt, M. J. (2011). "Capillary trapping capacity of sandstones and sandpacks." Society Petroleum Engineering Journal, 16 (4), 778–783.

Jauhari, S., Parekh, K. and Upadhyay, R. V. (2011). "Corrosion inhibition of mild steel in acidic media using a nanomagnetic fluid as a novel corrosion inhibitor." NACE International Corrosion Conference Series. Houston, Texas, 13-17 March.

Jun, Y. W., Choi, J. S. and Cheon, J. (2007). "Heterostructured magnetic nanoparticles: their versatility and high-performance capabilities." Chemical Communications, 12, 1203-1214.

Jaber Esmaeeli Azadgoleh, Riyaz Kharrat, Nasim Barati, and Ameneh Sobhani, Stability of Silica Nanoparticle Dispersion in Brine Solution: an Experimental Study. Iranian Journal of Oil & Gas Science and Technology, Vol. 3 (2014), No. 4, pp. 26-40.

Kanj, M.Y.; Funk, J.J.; Al-Yousif, Z. Nanofluid coreflood experiments in the ARAB-D. In Proceedings of the SPE Saudi Arabia Section Technical Symposium,

Al-Khobar, Saudi Arabia, 9–11 May 2009; Society of Petroleum Engineers: Richardson, TX, USA, 2009.

Kissa E (1999) Dispersions: characterizations testing, and measurement. Marcel Dekker, New York.

Kondiparty, K.; Nikolov, A.; Wu, S.; Wasan, D. Wetting and spreading of nanofluids on solid surfaces driven by the structural disjoining pressure: Statics analysis and experiments. Langmuir 2011, 27, 3324–3335.

Kong, X.; Ohadi, M. Applications of micro and nano technologies in the oil and gas industry—Overview of the recent progress. In Proceedings of the Abu Dhabi International Petroleum Exhibition & Conference, Abu Dhabi, UAE, 1–4 November 2010.

Kovscek, A. R., and Radke, C. J. (1996). "Gas bubble snap-off under pressuredriven flow in constricted noncircular capillaries." Colloids and Surfaces A: Physicochemical and Engineering Aspects, 117 (1), 55-76.

Kovscek, A. R., and Radke, C. J. (2003). "Pressure-driven capillary snap-off of gas bubbles at low wetting-liquid content." Colloids and Surfaces A: Physicochemical and Engineering Aspects, 212 (2), 99-108.

Krishnamoorti, R. Extracting the benefits of nanotechnology for the oil industry. J. Petrol. Technol. 2006, 58, 24–26.

Lake, L. W. (1989). "Enhanced Oil Recovery." (Prentice Hall Incorporate. Englewood Cliffs, New Jersey).

Law, Kock-Yee, Definitions for Hydrophilicity, Hydrophobicity, and Superhydrophobicity: Getting the Basics Right, New York, J. Phys. Chem. Lett. 2014, 5, 686–688.

Li, Shidong, Kaasa, A. T., Hendraningrat, and Torsæter, Effect of Silica Nanoparticles Adsorption on the Wettability Index of Berea Sandstone, International Symposium of the Society of Core Analysts held in Napa Valley, California, USA, 16-19 September, 2013. Mao, H., Qiu, Z., Shen, Z., and Huang, W. (2015). "Hydrophobic associated polymer based silica nanoparticles composite with core-shell structure as a filtrate reducer for drilling fluid at utra-high temperature." Journal of Petroleum Science and Engineering, 129, 1-14.

Mcelfresh, P.; Holcomb, D.; Ector, D. Application of nanofluid technology to improve recovery in oil and gas. In Proceedings of the SPE International Oilfield Nanotechnology Conference and Exhibition, Noordwijk, The Netherlands, 12–14 June 2012; Society of Petroleum Engineers: Richardson, TX, USA, 2012.

Metin, C. O., Miranda, C. R., Lake, L.W., and Nguyen, Q. P., Stability of Aqueous Silica Nanoparticle Dispersions, Springer, Journal of Nanoparticle Research, Vol. 13, p. 839–850, 2010.

Metin, C. O., Lake, L. W., Miranda, C. R., Nguyen, Q. P, "Stability of aqueous silica nanoparticle dispersions", *Journal of Nanoparticle Research*, 2011. 13: p.839-850.

Metin, C. O., Baran, J. R. and Nguyen, Q. P. (2012). "Adsorption of surface functionalized silica nanoparticles onto mineral surfaces and decane/water interface." Journal of Nanoparticle Research, 14 (11), 1246.

Molnes, S.N.; Torrijos, I.P.; Strand, S.; Paso, K.G.; Syverud, K. Sandstone injectivity and salt stability of cellulose nanocrystals (CNC) dispersions—Premises for use of CNC in enhanced oil recovery. Ind. Crops Prod. 2016, 93, 152–160.

Morrow, L., Potter, D. K., and Barron, A. R. (2015). "Detection of magnetic nanoparticles against proppant and shale reservoir rocks." Journal of Experimental Nanoscience, 10 (13), 1028-1041.

Murugesan, S., Monteiro, O. R. and Khabashesku, V. N. (2016). "Extending the lifetime of oil and gas equipment with corrosion and erosion-resistant Ni-B-nanodiamond metal-matrix-nanocomposite coatings." In Offshore Technology Conference. Houston, Texas, USA, 2-5 May.

Musuuza, J.L.; Attinger, S.; Radu, F.A. An Extended Stability Criterion for Density Driven Flows in Homogeneous Porous Media. Adv. Water Res. 2009, 32, 796-808. Negin, C., Ali, S., Xie, Quan, "Application of nanotechnology for enhancing oil recovery – A review", Petroleum 2, 2016, 324-333.

Pastrana-Martínez, L. M., Pereira, N., Lima, R., Faria, J. L., Gomes, H. T. and Silva, A. M. T. (2015). "Degradation of diphenhydramine by photo-fenton using magnetically recoverable iron oxide nanoparticles as catalyst." Chemical Engineering Journal, 261, 45–52.

Picha, M. S. (2007). Enhanced Oil Recovery By Hot CO₂ Flooding. SPE Middle East Oil and Gas Show and Conference.

Ragab, A.M.; Hannora, A.E. A Comparative investigation of nano particle effects for improved oil recovery–experimental work. In Proceedings of the SPE Kuwait Oil and Gas Show and Conference, Mishref, Kuwait, 11–14 October 2015.

Rahmani, A. R, Bryant, S. L., Huh, C., Almadian, M., Zhang, W. and Liu, Q. H. (2015). "Characterizing reservoir heterogeneities using magnetic nanoparticles." In SPE 173195-MS presented at the SPE reservoir stimulation symposium, Houston, TX, USA. 23-25 February.

Rogers, J.D.; Grigg, R.B. A literature Analysis of the WAG Injectivity Abnormalities in the CO₂ Process. Presented at the SPE/DOE Improved Oil Recovery Symposium, Tulsa, OK, USA, April 2000; SPE 59329.

Roustaei, A., and Bagherzadeh, H. (2015). "Experimental investigation of SiO2 nanoparticles on enhanced oil recovery of carbonate reservoirs." Journal of Petroleum Exploration and Production Technology, 5 (1), 27-33.

Salem, R. A. M. and Hannora, A. E. A. (2015). "Comparative investigation of nanoparticle effects for improved oil recovery-experimental work." In Proceedings of the SPE Kuwait Oil and Gas Show and Conference, Mishref, Kuwait, 11-14 October.

Schramm, L. L. (1992). Petroleum Emulsions: Basic Principles. In L. L. Schramm (Ed.), Emulsions: Fundamentals and Applications in the Petroleum Industry. Washington: American Chemical Society.

Schramm, L. L. (1994). Foams: Fundamentals and Applications in the Petroleum Industry, Petroleum Recovery Institute, American Chemical Society, Washington, DC.

Schumacher, M.M. 1980. Enhanced Recovery of Residual and Heavy Oils. Noyes Data Corp., Park Ridge, NJ.

Shah, R.D. Application of nanoparticle saturated injectant gases for eor of heavy oils. In Proceedings of the SPE Annual Technical Conference and Exhibition, New Orleans, LA, USA, 4–7 October 2009.

Shalliker, R.A.; Guiochon, G. Understanding the Importance of the Viscosity Contrast between Sample Solvent Plug and the Mobile Phase and its Potential Consequence in Two-dimensional High-Performance Liquid Chromatography. J. Chromatogr. A 2009, 1216, 787-793.

Shalliker, R.A.; Catchpoole, H.J.; Dennis, G.R.; Guiochon, G. Visualizing Viscous Fingering in Chromatography Columns: High Viscosity Solute Plug. J. Chromatogr. A 2007, 1142, 48-55.

Silva, I.G.; de Melo, M.A.; Luvizotto, J.M.; Lucas, E.F. Polymer flooding: A sustainable enhanced oil recovery in the current scenario. In Proceedings of the Latin American & Caribbean Petroleum Engineering Conference, Buenos Aires, Argentina, 15–18 April 2007.

Somasundaran, P.; Agar, G. The zero point of charge of calcite. J. Colloid Interface Sci. 1967, 24, 433–440.

Souza, J.C.; Cursino, D.F.; Pádua, K.G. Twenty years of steam injection in heavyoil fields. In Proceedings of the SPE Latin American and Caribbean Petroleum Engineering Conference, Rio de Janeiro, Brazil, 20–23 June 2005.

Speight, James G. 2006. The Chemistry and Technology of Petroleum. Fourth Edition. New York. CRC Press.

Standnes, D. C., and Austad, T. (2000). "Wettability alteration in chalk: 1. Preparation of core material and oil properties." Journal of Petroleum Science and Engineering, 28 (3), 111-121.

Standnes, D. C., and Austad, T. (2000). "Wettability alteration in chalk: 2. Mechanism for wettability alteration from oil-wet to water-wet using surfactants." Journal of Petroleum Science and Engineering, 28 (3), 123-143.

Sun, X.; Dong, M.; Zhang, Y.; Maini, B.B. Enhanced heavy oil recovery in thin reservoirs using foamy oil-assisted methane huff-n-puff method. Fuel 2015, 159, 962–973.

Tarek, M.; El-Banbi, A.H. Comprehensive investigation of effects of nano-fluid mixtures to enhance oil recovery. In Proceedings of the SPE North Africa Technical Conference and Exhibition, Cairo, Egypt, 14–16 September 2015.

Tjong, S.C. (2007). "Novel nanoparticle-reinforced metal matrix composites with enhanced mechanical properties." Advanced Engineering Material, 9 (8) 639- 652.

Vargo, J.; Turner, J.; Vergnani, B.; Pitts, M.J.; Wyatt, K.; Surkalo, H.; Patterson, D. Alkaline-surfactant-polymer flooding of the cambridge minnelusa field. SPE Reserv. Eval. Eng. 2000, 3, 552–558.

Verway, E.J.W. and Overbeek, J. Th. G. (1948) Theory of the Stability of Lyophobic Colloids, Elsevier, Amsterdam.

Viebahn, P.; Vallentin, D.; Hoeller, S. Integrated assessment of Carbon Capture and Storage (CCS) in South Africa's power sector. Energies 2015, 8, 14380–14406.

Wasan, D. T., Nikolov, A., and Kondiparty, K. (2011). "The Wetting and spreading of nanofluids on solids: role of the structural disjoining pressure." Current Opinion in Colloid and Interface Science, 16 (4) 344-349.

White, R. J., Luque, R., Budarin, V. L., Clark, J. H. and Macquarrie, D. J. (2009). "Supported metal nanoparticles on porous materials, methods and applications." Chemical Society Reviews, 38 (2), 481-494.

Worthen, A.J.; Tran, V.; Cornell, K.A.; Truskett, T.M.; Johnston, K.P. Steric stabilization of nanoparticles with grafted low molecular weight ligands in highly concentrated brines including divalent ions. Soft Matter 2016, 12, 2025–2039.

Yang, Y., Lan, J., and Li, X. (2004). "Study on bulk aluminum matrix nanocomposite fabricated by ultrasonic dispersion of nano-sized SiC particles in molten aluminum alloy." Materials Science and Engineering: A, 380 (1), 378-383.

Yellig, W. F., & Metcalfe, R. S. (1980). Determination and Prediction of CO₂ Minimum Miscibility Pressures. Journal of Petroleum Technology, 32 (01), 160-168.

Yu, W., France, D. M., Routbort, J. L. and Choi, S. U. (2008). "Review and comparison of nanofluid thermal conductivity and heat transfer enhancements." Heat Transfer Engineering, 29 (5), 432-460.

Zhang, T.; Murphy, M.J.; Yu, H.; Bagaria, H.G.; Yoon, K.Y.; Nielson, B.M.; Bielawski, C.W.; Johnston, K.P.; Huh, C.; Bryant, S.L. Investigation of nanoparticle adsorption during transport in porous media. SPE J. 2014, 20, 667–677.

Zhang, L.D.; Liu, Y.Z. Preparation and application technology for ultrafine powder. J. North China Inst. Technol. 2001, 22, 32–43.