

Refereed Journal Publications (N=62)

The first 55 papers were published at Missouri S&T

1. Aldhaheeri, M., Wei, M., Zhang, N., Bai, B., 2020. Field design guidelines for gel strengths of profile-control gel treatments based on reservoir type, *Journal of Petroleum Science and Engineering*, 194, DOI: <https://doi.org/10.1016/j.petrol.2020.107482>.
2. Sun, X., Long, Y., Bai, B., Wei, M., Suresh, S., 2020. Evaluation and Plugging Performance of Carbon Dioxide-Resistant Particle Gels for Conformance Control, SPE 200493, *SPE Journal*, 25(4), DOI: <https://doi.org/10.2118/200493-PA>.
3. Zhang, N.**, Wei, M.*, Fan, J., Aldhaheeri, M., Zhang, Y., Bai, B., 2019. Development of a hybrid scoring system for EOR screening by combining conventional screening guidelines and random forest algorithm, *Fuel*, 256, DOI: <https://doi.org/10.1016/j.fuel.2019.115915>.
4. Ding, H., Zhang, N., Zhang, Y., Wei, M., Bai, B., 2019. Experimental data analysis of nanoparticles for enhanced oil recovery, *Industrial & Engineering Chemistry Research*, 58(27), 12438-12450. DOI: <https://doi.org/10.1021/acs.iecr.9b02132>.
5. Zhang, Y., Zhou, C., Qu, C., Wei, M., He, X., Bai, B., 2019. Fabrication and verification of a glass-silicon-glass micro-/nanofluidic model for investigating multi-phase flow in shale-like unconventional dual-porosity tight porous media, *Lab on a Chip*, 2019, 19, 4071-4082. DOI: [10.1039/C9LC00847K](https://doi.org/10.1039/C9LC00847K).
6. Aldhaheeri, M., Wei, M., Zhang, N., Bai, B., 2019. A review of field oil-production response of injection-well gel treatments, *SPE Reservoir Evaluation & Engineering*, 22(2). DOI: <https://doi.org/10.2118/190164-PA>.
7. Zhang, N.**, Yin, M., Wei, M.*, Bai, B., 2019. Identification of CO₂ sequestration opportunities: CO₂ miscible flooding guidelines, *Fuel*, 241, 459-467, DOI: <https://doi.org/10.1016/j.fuel.2018.12.072>.
8. Alfarge, D.**, Wei, M.*, Bai, B., 2019. Evaluating the performance of hydraulic-fractures in unconventional reservoirs using production data: Comprehensive review, *Journal of Natural Gas Science and Engineering*, 61, 133-141, DOI: <https://doi.org/10.1016/j.jngse.2018.11.002>.
9. Alfarge, D.**, Wei, M.*, Bai, B., Alsaba, M., 2018. Lessons learned from IOR pilots in Bakken formation by using numerical simulation, *Journal of Petroleum Science and Engineering*, 171, 1-15, DOI: <https://doi.org/10.1016/j.petrol.2018.07.025>.
10. Alhuraishawy, A.K.**, Bai, B., Wei, M., Almansour, A., 2018. Preformed partial gel injection chased by low-salinity waterflooding in fractured carbonate cores, *SPE Reservoir Evaluation & Engineering*, DOI: <https://doi.org/10.2118/191364-PA>.
11. Alfarge, D.**, Wei, M.*, Bai, B., 2018. Numerical simulation study on miscible EOR techniques for improving oil recovery in shale oil reservoirs, *Journal of Petroleum Exploration and Production Technology*, 8(3), 901-916.
12. Alfarge, D.**, Wei, M.*, Bai, B., 2018. CO₂-EOR mechanisms in huff-n-puff operations in shale oil reservoirs based on history matching results, *Fuel*, 226, 112-120. DOI: <https://doi.org/10.1016/j.fuel.2018.04.012>.
13. Sun, X., Alhuraishawy, A.K., Bai, B., Wei, M., 2018, Combining preformed particle gel and low salinity waterflooding to improve conformance control in fractured reservoirs, *Fuel*, 221, pp.501-512. DOI: <https://doi.org/10.1016/j.fuel.2018.02.084>.
14. Alhuraishawy, A.K.**, Sun, X., Bai, B., Wei, M., 2018, Areal sweep efficiency improvement by

integrating preformed particle gel and low salinity water flooding in fractured reservoirs, *Fuel*, 221, pp. 380-392. DOI: <https://doi.org/10.1016/j.fuel.2018.02.122>.

15. Alhuraishawy, A.K.** , Bai, B., Wei, M., Geng, J., Pu, J., 2018, Mineral dissolution and fine migration effect on oil recovery factor by low-salinity water flooding in low-permeability sandstone reservoir, *Fuel*, 220, pp.898-907. DOI: <https://doi.org/10.1016/j.fuel.2018.02.016>.
16. [Zhang, N.** , Wei, M.* , Bai, B., 2018](#), Statistical and analytical review of worldwide CO₂ immiscible field applications, *Fuel*, 220, pp. 89-100. DOI: <https://doi.org/10.1016/j.fuel.2018.01.140>.
17. Alhuraishawy, A.K.** , Bai, B., Wei, M., 2018, Combined ionically modified seawater and microgels to improve oil recovery in fractured carbonate reservoirs, *Journal of Petroleum Science and Engineering*, 162, pp. 434-445. DOI: <https://doi.org/10.1016/j.petrol.2017.12.052>.
18. Alhuraishawy, A.K.** , Bai, B., Imaqam, A., Wei, M., 2018, Experimental study of combining low salinity water flooding and preformed particle gel to enhance oil recovery for fractured carbonate reservoirs, *Fuel*, vol. 214, February 2018, pp. 342-350. DOI: <https://doi.org/10.1016/j.fuel.2017.10.060>.
19. Guo C., Li, Q., Wei, M., 2018, Pore structure characteristics of marine Silurian shales in the Sichuan Basin, China: Insights to reserve assessment and production design, *Journal of Petroleum Science and Engineering*, 164, pp. 437-449. DOI: <https://doi.org/10.1016/j.petrol.2018.02.008>.
20. Alhuraishawy, A.K.** , Bai, B., Wei, M., 2018, Combined ionically modified seawater and microgels to improve oil recovery in fractured carbonate reservoirs, *Journal of Petroleum Science and Engineering*, vol. 162, march 2018, pp. 434-445. DOI: <https://doi.org/10.1016/j.petrol.2017.12.052>.
21. Guo, C., Wei, M., Liu, H., 2018, Study of gas production from shale reservoirs with multi-stage hydraulic fracturing horizontal well considering multiple transport mechanisms, *PLoS One*, 13 (1), DOI: <https://doi.org/10.1371/journal.pone.0188480>.
22. Qiu, Y.** , Wei, M.* , Bai, B., Mao, C., 2017, Data analysis and application guidelines for the microgel field applications, *Fuel*, vol. 210, pp. 557-568. DOI: <https://doi.org/10.1016/j.fuel.2017.08.094>.
23. Alfarge, D.** , Wei, M., Bai, B., 2017, Data analysis for CO₂-EOR in shale-oil reservoirs based on a laboratory database, *Journal of Petroleum Science and Engineering*, 2017. DOI: <https://doi.org/10.1016/j.petrol.2017.10.087>.
24. Alfarge, D.** , **Wei, M.*** , Bai, B., 2017, Numerical simulation study of factors affecting relative permeability modification for water-shutoff treatments, *Fuel*, vol. 207, November 2017, 226-239. DOI: <https://doi.org/10.1016/j.fuel.2017.06.041>.
25. Alfarge, D. ** , Wei, M., Bai, B., 2017, Factors Affecting CO₂-EOR in Shale-Oil Reservoirs: Numerical Simulation Study and Pilot Tests, *Energy & Fuels*, 31 (8), 8462-8480. DOI: 10.1021/acs.energyfuels.7b01623.
26. Qiu, Y.** , **Wei, M.*** , Bai, B., 2017. Descriptive statistical analysis for the PPG field applications in China: Screening guidelines, design considerations, and performances, *Journal of Petroleum Science and Engineering*, vol. 153, 1-11. DOI: <https://doi.org/10.1016/j.petrol.2017.03.030>.
27. Aldhaheri, M.** , **Wei, M.*** , Bai, B., 2017. Development of machine learning methodology for polymer gels screening for injection wells, *Journal of Petroleum Science and Engineering*, vol. 151, 77-93. DOI: <https://doi.org/10.1016/j.petrol.2016.12.038>.
28. Jin, J., Wang, Y., Nguyen, T., Nguyen, A., **Wei, M.** , Bai, B., 2017. The effect of gas-wetting nano-

- particle on the fluid flowing behavior in porous media, *Fuel*, vol. 196, 431-441. DOI: <https://doi.org/10.1016/j.fuel.2017.01.083>.
29. Saleh, L.***, **Wei, M.***, Zhang, Y., Bai, B., 2016. Data analysis for polymer flooding that is based on a comprehensive database, SPE 169093, *SPE Reservoir Evaluation & Engineering*. DOI: <https://doi.org/10.2118/169093-PA>. (Google citation = 1)
 30. Hou, J., Qiu, M., He, X., Guo, C., **Wei, M.**, Bai, B., 2016. A dual-porosity-stokes model and finite element method for coupling dual-porosity flow and free flow, *SIAM Journal on Scientific Computing*, 38(5), B710-B739. DOI: <https://doi.org/10.1137/15M1044072>. (Google citation = 1)
 31. Imqam, A., Bai, B., **Wei, M.**, Elue, H., Muhammed, F., 2016. Use of hydrochloric acid to remove filter-cake damage from preformed particle gel during conformance-control treatments, SPE 172352, *Journal of SPE Production and Operations*, 247-257. DOI: <https://doi.org/10.2118/172352-PA>. (Google citation = 11)
 32. Wu, K., Chen, Zh., Li, X., Guo, C., **Wei, M.**, 2016. A model for multiple transport mechanisms through nanopores of shale gas reservoirs with real gas effect-adsorption-mechanic coupling, *International Journal of Heat and Mass Transfer*, Vol. 93, 408-426, February 2016. DOI: <https://doi.org/10.1016/j.ijheatmasstransfer.2015.10.003>. (Google citation = 22)
 33. Xu, J., Guo, C.***, Jiang, R., **Wei, M.***, 2016. Study on relative permeability characteristics affected by displacement pressure gradient: experimental study and numerical simulation, *Fuel*, vol. 163, pp. 314-323. DOI: <https://doi.org/10.1016/j.fuel.2015.09.049>. (Google citation = 6)
 34. Guo, C.***, Xu, J., **Wei, M.***, Jiang, R., 2015. Pressure transient and rate decline analysis for hydraulic fractured vertical wells with finite conductivity in shale gas reservoirs, *Journal of Petroleum Exploration and Production Technology*, vol. 5(4), 435-443. DOI: <https://doi.org/10.1007/s13202-014-0149-3>. (Google citation = 7)
 35. Guo, C.***, Xu, J., **Wei, M.***, Jiang, R., 2015. Experimental study and numerical simulation of hydraulic fracturing tight sandstone reservoirs, *Fuel*, vol. 159, 334-344. DOI: <https://doi.org/10.1016/j.fuel.2015.06.057>. (Google citation = 9)
 36. Jin, J., wang, Y., **Wei, M.**, Ma, H., Wang, K., 2015. Coreflooding and pore-scale visualization of foamed gel flowed in porous network media, *Journal of Dispersion Science and Technology*, 1436-1443. DOI: <http://dx.doi.org/10.1080/01932691.2015.1111146>. (Google citation = 1)
 37. Sun, Y., Bai, B., **Wei, M.**, 2015. Microfracture and surfactant impact on linear concurrent brine imbibition in gas-saturated shale, *Energy Fuels*, 29(3), 1438-1446. DOI: <http://pubs.acs.org/doi/full/10.1021/ef5025559>. (Google citation = 17)
 38. Lam D., Wei M., Wunsch D., 2015. Clustering Data of mixed categorical and numerical type with unsupervised feature learning, *IEEE Access*, vol.3, pp.1605-1613. DOI: 10.1109/ACCESS.2015.2477216. (Google citation = 6)
 39. Guo, C.***, Wei, M.* , Liu, H., 2015. Modeling of gas production from shale reservoirs considering multiple transport mechanisms, *PloS One*, vol.10 (12):e0143649. DOI: <https://doi.org/10.1371/journal.pone.0143649>. (Google citation = 1)
 40. Xu, J., Guo, C. **, **Wei, M. ***, Jiang, R., 2015. Production performance analysis for composite shale gas reservoir considering multiple transport mechanisms, *Journal of Natural Gas Science and Engineering*, 26, 382-395. DOI: <https://doi.org/10.1016/j.jngse.2015.05.033>. (Google citation = 17)
 41. Xu, J., Guo, C. **, Teng, W., **Wei, M. ***, Jiang, R., 2015. Production performance analysis of tight oil/gas reservoirs considering stimulated reservoir volume using elliptical flow, *Journal of Natural Gas Science and Engineering*, vol. 26, 827-839. DOI: <https://doi.org/10.1016/j.jngse.2015.06.057>.

(Google citation = 9)

42. Xu, J., Guo, C.** , **Wei, M.***, Jiang, R., 2015. Impact of parameters' time variation on waterflooding reservoir performance, *Journal of Petroleum Science and Technology*, vol. 126, 181-189. DOI: <https://doi.org/10.1016/j.petrol.2014.11.032>. (Google citation = 2)
43. Sun, Y., Bai, B., **Wei, M.**, 2015. Microfracture and surfactant impact on linear concurrent brine imbibition in gas-saturated shale, *Energy Fuels*, 29(3): 1438-1446. DOI: 10.1021/ef5025559. (Google citation = 19)
44. Wang, Y., Jin, J., Bai, B., **Wei, M.**, 2015. Study of displacement efficiency and flow behavior of foamed gel in non-homogeneous porous media, *Plos One*, 10(6): e0128414. DOI: <https://doi.org/10.1371/journal.pone.0128414>. (Google citation = 3)
45. Song Z.** , Liu L., **Wei M.**, Bai B., Hou J., Li Z., Hu Y., 2015. Effect of polymer on disproportionate permeability reduction to gas and water for fractured shales, *Fuel*, vol. 143, 28-37. DOI: <https://doi.org/10.1016/j.fuel.2014.11.037>. (Google citation = 12)
46. Imaqam, A., Bai, B., Ramadan, M., **Wei, M.**, Delshad, M., Sepehrnoori, K., 2015. Preformed-particle-gel extrusion through open conduits during conformance-control treatments, *SPE Journal*, 20(5), 1083-1093. DOI: <https://doi.org/10.2118/169107-PA>. (Google citation = 35)
47. Guo, C.** , Wu, K., **Wei, M.***, 2015. Study on gas flow through nano pores of shale gas reservoirs, *Fuel*, vol. 143, 107-117, was selected by Target Selection Team at Renewable Energy Global Innovations as a Key Scientific Article due to its excellence in energy research in 2015. DOI: <https://doi.org/10.1016/j.fuel.2014.11.032>. (Google citation = 55)
48. Song, Z.** , Li, Z., Yu, C., Hou, J., **Wei, M.**, Bai, B., Hu, Y., 2014. D-optimal design for rapid assessment model of CO₂ flooding in high water cut oil reservoirs, *Journal of Natural Gas Science and Engineering*, vol. 21, 764-771. DOI: <https://doi.org/10.1016/j.jngse.2014.10.005>. (Google citation = 7)
49. Sun, Y., Wu, Q., **Wei, M.**, Bai, B., Ma, Y., 2014. Experimental study of friction reducer flows in microfracture, *Fuel*, vol. 131, 28-35. DOI: <https://doi.org/10.1016/j.fuel.2014.04.050>. (Google citation = 12)
50. Song, Z.** , Li, Z., **Wei, M.***, Lai, F., Bai, B., 2014. Sensitivity analysis of water-alternating-CO₂ flooding for enhanced oil recovery in high water cut reservoirs, *Computers and Fluids*, vol. 99, 93-103. DOI: 10.1016/j.compfluid.2014.03.022. (Google citation = 17)
51. Saleh, L. D.** , Bai, B., **Wei, M.***, 2014. Data analysis and updated screening criteria for polymer flooding based on oil field data, SPE-168220-PA, *SPE Reservoir Evaluation & Engineering-Reservoir Engineering*, vol. 17(1), 15-25. DOI: <https://doi.org/10.2118/168220-PA>. (Google citation =24)
52. Cao, Y., Chu, Y., He, X., **Wei, M.**, 2013. Decoupling the stationary Navier-Stokes-Darcy system with the Beavers-Joseph-Saffman interface condition, *Abstract and Applied Analysis*, vol. 2013, article ID 136483, 10 pages. DOI: <http://dx.doi.org/10.1155/2013/136483>. (Google citation = 8)
53. Liu, Q., Cooper, P.A., Chen, L., Cho, H., Chen, Z., Qiao, M., Su, Y., **Wei, M.**, Sung, A., 2013. Detection of JPEG double compression and identification of smartphone image source and post-capture manipulation, *Applied Intelligence*, vol. 39 (4), pp 705-726. DOI: 10.1007/s10489-013-0430-z. (Google citation = 10)
54. Bai, B., Elgmati, M., Zhang, H., **Wei, M.**, 2013. Rock characterization of Fayetteville shale gas plays, *Fuel*, vol. 105, 645-652. DOI: <https://doi.org/10.1016/j.fuel.2012.09.043>. (Google citation = 96)

55. Bai B., **Wei M.**, Liu Y., 2012. Injecting large volumes of preformed particle gel for water conformance control, *Oil & Gas Science and Technology*, vol. 67, 941-952. DOI: <https://doi.org/10.2516/ogst/2012058>. (Google citation = 11)
56. Zhao, T., Zhang, C., **Wei, M.**, Peng, Z., 2008. Ontology-Based Geospatial Data Query and Integration, *Geographic Information Science*, LNCS5266, 370-392. DOI: [10.1007/978-3-540-87473-7_24](https://doi.org/10.1007/978-3-540-87473-7_24). (Google citation = 64)
57. Liu, Q., Sung, A., Ribeiro, B., **Wei, M.**, Chen, M., Xu, J., 2007. Image complexity and feature mining for steganalysis of least significant bit matching steganography, *Information Sciences*, Vol. 178, 21-36. DOI: <https://doi.org/10.1016/j.ins.2007.08.007>. (Google citation = 89)
58. **Wei, M.***, Bai, B., Sung, A., Liu, Q., Wang, J., 2007. Predicting injection profiles using ANFIS, *Information Sciences*, vol. 177(20), 4445-4461. DOI: <https://doi.org/10.1016/j.ins.2007.03.021>. (Google citation = 63)
59. **Wei, M.***, Sung, A., Cather, M., 2007. FROut: a novel approach to linking large databases, *Information Technology Journal*, vol. 6(1), 37-47. (Google citation = 2)
60. **Wei, M.***, Sung, A., Cather, M., 2006. Improving database quality through eliminating duplicate records, *CODATA Data Science Journal*, vol. 5, 127-142. (Google citation =6)
61. Zhang, S., **Wei, M.***, Li, Z., Xiang, R., Zhang, Y., 1999. Optimization of parameters for horizontal hydraulic fractures in dense-well-pattern reservoirs in the Daqing Oilfield, *Journal of the University of Petroleum: Natural Sciences*, vol. 23(6), 34-40.
62. **Wei, M.***, Wang, H., Zhang, S., 1999. Research on Parameters Optimization of Horizontal Fracture, *Fault-Block Oil & Gas Field*, vol. 6(3), 78-83.