Doctor Moran Wang

Professor
Department of Engineering Mechanics, Tsinghua University
Beijing, 100084 China
Tel.: +86-10-62787498
Fax: ++86-10-62787498
Email: mrwang@tsinghua.edu.cn

Education and Professional Career

1995-1999 Bachelor's study at Tsinghua University, Beijing, China
1999-2004 PhD studies in Fluid Mechanics at Tsinghua University, Beijing China
2004-2006 Postdoctoral Fellow at Johns Hopkins University, USA
2006-2008 Postdoctoral Research Associate at University of California, USA
2008-2011 Oppenheimer Fellow, Los Alamos National Laboratory, USA
2007-2012 Visiting Scientist, Johns Hopkins University, USA
2018-2019 Visiting Professor, Princeton University, USA
2019 Visiting Professor, RWTH Aachen University, Germany
2011- Professor, Tsinghua University, China

Commitment, Appointments and Scientific Volunteer Jobs

2020- Associate Editor, International Journal of Mechanical Sciences
2014-2021 Associate Editor, Journal of Geophysical Research-Solid Earth
2014-2021 Associate Editor, Journal of Fluids Engineering
2012-2017 Associate Editor, Energy
2010- Associate Editor, **Journal of Porous Media**
2012- Editorial Board Member, **Transport in Porous Media**
2015- Editorial Board Member, Journal of Colloid and Interface Science
2019- Interpore Honor and Award Committee; Interpore Chapter Committee
2008-2011 J.R. Oppenheimer Fellowship
2012- Lifetime memberships in InterPore
2003- memberships in ASME(2003), AGU(2009), APS(2005)

Professional Awards, Offers and Recognitions

2019 InterPore P&G Award for Porous Media Research, Interpore
2019 Leading Talent of National Special Supporting Program of China
2016 Best Keynote Award in 3RD Int. Symposium on Unconventional Geomechanics
2015 Best Paper Award in Annual Conference of China Geoscience
2010 LAAP Publication Award of LANL, USA
2008 J. Robert Oppenheimer Distinguished Postdoctoral Fellowship, LANL, USA
2004 Dissertation with distinction

Most important Publications (maximum 10)
(200+ articles on international journals, 11000+ citations based on Google Scholar)

[1] F.L. Liu and M. Wang*. Phase Diagram for Preferential Flow in Dual Permeable Media. *Journal Fluid Mechanics* 948: A19, 2022.
[2] W. Lei, X.K. Lu, F.L. Liu, and M. Wang*. Non-monotonic wettability effects on displacement in heterogeneous porous media. *Journal Fluid Mechanics –Rapids* 942: R5, 2022.
[3] F.L. Liu and M. Wang*. Trapping Patterns during Capillary Displacements in Disordered Media. J*ournal Fluid Mechanics* 933: A52, 2022.
[4] F.L. Liu and M. Wang*. Electrokinetic Mechanisms and Synergistic Effect on Ion-tuned Wettability in Oil-brine-rock System. *Transport in Porous Media* (35th Anniversary special issue in honour of Jacob Bear), 140(1): 7-26, 2021.
[5] C.Y. Xie, W. Lei, M. Balhoff, M. Wang* and S. Chen. Self-adaptive preferential flow control using displacing fluid with dispersed polymers in heterogeneous porous media. *Journal Fluid Mechanics* 906: A10, 2021 (cover page).
[6] Y.K. Yang and M. Wang*. Electrodiffusion of cations in compacted clay: a pore-scale view. *Environmental Science & Technology* 53(4): 1976-1984, 2019.

[7] Z.Y. Wang, M. Wang* S. Chen. Coupling of high-Knudsen and non-ideal gas effects in microporous media. *Journal of Fluid Mechanics* 840: 56-73, 2018
[8] H. Tian, M. Wang*. Electrokinetic mechanisms of wettability alternation at oil-water-rock interface. *Surface Science Reports* 72: 369-391, 2017.
[9] C.Y. Xie, A.Q. Raeini, Y. Wang, M. Blunt, M. Wang. An improved pore-network model with viscous coupling effect via direct simulation by lattice Boltzmann method. *Advances in Water Resources*. 100: 26-34, 2017.
[10] M. Wang, N. Pan. Predictions of Effective Physical Properties of Complex Multiphase Materials. *Material Science and Engineering-R: Reports*. 63(1): 1-30, 2008