

Yue Xiang'an

Professor

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Education

Ph.D., Fluid Mechanics, University of Science and Technology of China, 1993

M.S. Petroleum Engineering, Northeast Petroleum University (Daqing Petroleum Institute), China, 1984

B.S., Mechanical Engineering, Northeast Petroleum University (Daqing Petroleum Institute), China, 1982

Research Areas and Interests

Enhanced Oil Recovery in Unconventional Reservoir.

Microscale Fluid Science (Microscale Fluid Dynamic and Transport Phenomenon, Microscale Physicochemistry, Microscale Interaction of Fluid and Physical Fields, Microscale Transport Mechanism in Porous Media).

Transport in porous media.

Petroleum Courses Taught

Fundamentals of Enhanced Oil Recovery.

Industrial Rheology.

Fluid Mechanics.

Professional Experiences

Professor, College of Petroleum Engineering, China University of Petroleum (Beijing), China, 2000.11-present.

Visiting Scholar, Dalhousie University, Canada, 2000.02-2000.08.

Professor, College of Petroleum Engineering, Northeast Petroleum University (Daqing Petroleum Institute), 1998.12-2000.11.

Associate Professor, College of Petroleum Engineering, Northeast Petroleum University (Daqing Petroleum Institute), 1994.09-1998.12

Assistant Professor, College of Petroleum Engineering, Northeast Petroleum University (Daqing Petroleum Institute), 1984.12-1994.09

Key Appointments

Member, State Key Laboratory of Offshore Oil Exploitation Academic Committee, 2011.5- present

Member, Sinopec Group Key Laboratory of Chemical EOR Technical Committee, 2013.9- present

Member, Sinopec Group Key Laboratory of Microbial EOR Technical Committee, 2013.9- present

Member, Expert Committee of China Energy Society, 2014.10- present

Member, Editorial Board of Petroleum Science, 2003.9- present

Member , Editorial Board of Petroleum Geology and Recovery Efficiency, 2006- present

Member , Editorial Board of China Offshore Oil and Gas, 2006- present

Professional Affiliations

Society of Petroleum Engineers

Chinese Petroleum Society

China Energy Society

Awards and Honors

Special government of the State Council Allowance Award, 2016

Outstanding teacher award of Heilongjiang Province, 1995.9

Selected Publications

1. Wei-qingAn Xiang-anYue Xue-gangFeng JosephYuchun Fu XingFang Ji-ruiZou WeiFang. Non-Klinkenberg slippage phenomenon at high pressure for tight core floods using a novel high pressure gas permeability measurement system. *Journal of Petroleum Science and Engineering*. 2017, 156:62-66.
2. Weiqinq An, Xiang'an Yue, Xuegang Feng, Xin Fang. The deviation of gas permeability and classical theory in tight reservoir cores with high pressure. *Journal of Natural Gas Science and Engineering*. 2016, 30: 331-337.
3. Jie He, Xiang'an Yue, Yu Sun, Xuegang Feng, Xin Tan. Preparation of Uniform Poly (Acrylamide-DVB) Microspheres in a Low Toxicity Solvent by Dispersion Polymerization. *Australia journal of chemistry*, 2015, 3: 1276-1281.
4. Qingmin Zhao, Xiang'an Yue, Fei Wang, Kan Sun, Yu Zhang. Flow characteristics of high pressure real gas in microtubes. *Journal of China University of Petroleum (Edition of Natural Science)*. 2012, 36(4):129-133.
5. Xiang'an Yue, Fei Wang, Ming Tang, Yu Zhang, Wenliang Wang. Experimental study of HPAM dilute solution flow characteristics in micro circular tube. *Journal of Theoretical and Applied Mechanics*.2011,43(1):90~96.
6. Haoguang Wei, Xiang'an Yue, Yongpan Zhao, Jianhua He. An experimental investigation of the nature gas immiscible displacement in ultra-low permeability reservoirs. *Acta Petrolei Sinica*. 2011,32(2):307~310.
7. Jiang Jian-Lin, Yue Xiang-An, Chen Qiu-Fen. Estimation of rate constants for radical degradation of aromatic pollutants by density functional theory. *Proceedings-International Conference on Computer Distributed Control and Intelligent Environmental Monitoring, CDCIEM 2011*. 1492~1495.
8. Xiang-an Yue, Haoguang Wei. Low pressure gas percolation characteristic in ultra-low permeability porous media". *Transport in Porous Media*. 2010, 85(1): 333-345
9. Fei Wang, Xiang-an Yue, Wenliang Wang, Huaizhu Liu, Ruisi Tang, Yu Zhang, Baoxiang Wang. Influence of wettability on micro-scale flow and seepage characteristics of simulated crude oil. *Acta Petrolei Sinica*. 2010, 31(2):302~305.
10. JianLin Jiang, Xiang'an Yue, Qiufen Chen, Zhen Gao. Determination of ozonization reaction rate constants of aromatic pollutants and QSAR study. *Bulletin of Environmental Contamination and Toxicology*.2010, 85: 568~572.
11. Yuan You, Xiang'an Yue, Shubai Han, Renbao Zhao, Bing Feng. Evaluation and application of foam

- system resistance characteristics in reservoir porous medium. *Journal of China University of Petroleum (Edition of Natural Science)*.2010, 34(5):94-99.
12. Wang Fei, Yue Xiang'an, Xu ShaoLiang, Zhang LiJuan, Zhao RenBao, Hou JiRui. Influence of wettability on flow characteristics of water through microtubes and cores. *Chinese Science Bulletin*. 2009,54(13): 2256~2262.
 15. WANG Rui, YUE Xiang'an, ZHANG Wei, TAN Xi-qun, ZHANG Yan. Effect of time lag and stress loading rate on low permeability reservoirs. *Mining Science and Technology*. 2009, 19(4):526~530.
 16. Wang Rui, Yue Xiang'an, Zhao Renbao, Yan Pingxiang, Dave Freeman. Effect of stress sensitivity on displacement efficiency in CO₂ flooding for fractured low permeability reservoirs. *Petroleum Science*. 2009, 6(3): 277~283.
 17. You Yuan, Yue Xiang'an, Li Mingyi, Zhao Chunpeng, Zhang Tao. Physical simulation of fluid flow and production performance in extra-low permeability porous media. *Petroleum Science*. 2009, 6(4):415~420.
 18. Renbao Zhao, Xiang'an Yue, Wenqi Ke, Yongli Hou. Study on influence factors for stability of nitrogen foam system. *Acta Petrolei Sinica*.2009, 30(1):84~87.
 19. Zhao Renbao, Yue Xiang'an, Wu Yahong, XU Shaoliang,Wang Fei, Hou Yongli. Flow characteristics and reaction properties of carbon dioxide in microtubules and porous media. *Chinese Science Bulletin*. 2008, 53(21): 3409-3415.
 20. Xu Shaoliang, Yue Xiang'an, Hou Jirui. Experimental investigation on flow characteristics of deionized water in microtubes. *Chinese Science Bulletin*. 2007, 52(6): 849-854.
 21. Shaoliang Xu, Xiang'an Yue. Expermiental research on nonlinear flow characteristics at low velocity. *Journal of China University of Petroleum*, 2007,31(5):60~63.
 22. Liu Dexin, Yue Xiang'an, Wang Longmei, Hou Jirui, Zhang Jihong. Model study on the irreducible water saturation by centrifuge experiments. *Journal of Petroleum Science & Engineering*,2006,53(2006):77~82.

Selected Patents

1. Yue Xiang'an, He Jie, Cao Lei, Luan Qiang. 2016. Preparation method of artificial core. China Patent No. ZL 2013 1 0252919.5.
2. Yue Xiang'an, Dong Lifei, Su Qun, Qin Wei, Song Weixin. 2017. Methods and device for assessing performance of the conformance control agent gel. China Patent No. ZL 2015 1 0103256.X.
3. Yue Xiang'an, An Weiqing, Zhang Lijuan, Fang Xin, Feng Xuegang. 2017. Micro differential pressure measurement device for high pressure experimental condition. China Patent No. ZL 2015 1 0178391.0.
4. Yue Xiang'an, Fang Xin, An Weiqing, Feng Xuegang, Zou Jirui, Li Dan. 2017. High pressure trace gas sampling analyzer. China Patent No. ZL 2015 1 0082430.7.
5. Yue Xiang'an, Zou Jirui, Feng Xuegang, An Weiqing, Fang Xin, Zhang Junbin, Zhao Zhishun, Tian Wenhao, Fang Wei. 2017. Pressure control device of high pressure micro-flow experimental system.. China Patent No. ZL 2016 1 1041181.8.
6. Yue Xiang 'an, An Weiqing, Feng Xuegang, Zhang Lijuan, Zou Jirui, Fang Xin, Fu Youjun, Fang Wei, Zhang Junbin, Tian Wenhao, Zhao Zhishun, Kong Bin, Zhao Shengxu. 2017. China Patent No. A tight core permeability test device. China Patent No. ZL 2017 2 0746442.X.
7. Yang Changchun, Yue Xiang 'an, Zhang Lijuan, Zhang Xuannan, Li Chaoyue. 2017. High temperature dynamic emulsification measurement device. China Patent No. ZL 2017 2 0419344.5.

8. An Weiqing, Yue Xiang 'an, Tian Wenhao, Fang Wei, Feng Xuegang, Fang Xin, Zou Jirui. 2017. High pressure dynamic micro differential pressure gauge. 2016. China Patent No. ZL 2016 2 1271428.5.

Monograph and Textbook

1. Xiang'an Yue, Youfu Wang, Keliang Wang. Fundamentals of Enhanced Oil Recovery. Petroleum Industry Press, 2007
2. Xiang'an Yue. Fundamentals of liquid-solid two-phase flow. Petroleum Industry Press, 2000
3. Xiang'an Yue. Principle and application of non-Newtonian fluid mechanic. Petroleum Industry Press, 1996