Li Xiangfang

Ph.D., Professor

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Education

Ph.D., Petroleum Engineering, China University of Petroleum (China), 1992

M.S., Petroleum Engineering, China University of Petroleum at East China, 1988

B.S., Petroleum Engineering, Huadong University of Petroleum, 1982

Research Areas and Interests

Conventional Gas Reservoir Engineering

Unconventional Gas Reservoirs Development Engineering (Coal-Bed Methane, Tight Gas, Tight Oil, and Shale Gas Reservoirs)

Reservoir Engineering

Well Control and Safety

Well Testing

Teaching

Gas Reservoir Engineering,

Gas-Liquid Two Phase Flow Theory,

Multi-phase Flow Theory

Professional Experiences

1982.01-1989.09, Lecturer, Department of Petroleum Engineering, China University of Petroleum at Southeast.

1992.11-now, Professor, Department of Petroleum Engineering, China University of Petroleum (Beijing)

1999.5-1999.10, Visiting Scholar, the Agricultural and Mechanical College of Texas.

Other Appointments

Head person of the gas reservoir engineering teaching team

Vice chairman of natural gas committee of Chinese Petroleum Society

Director of Beijing petroleum society and chairman of petroleum engineering committee

Multi-phase flow committee member of Chinese Thermophysics Engineering Society

Advisory specialist in the State Administration of Work Safety (SAWS)

Members, editorial boards for more than 10 journals, such as Petroleum Exploration and Development, Acta Petrolei Sinica, Petroleum Knowledge, Journal of China University of Petroleum, Petroleum Science, Journal of Hydrodynamics, Natural Gas Industry, Oil Drilling & Production Technology, Petroleum Drilling Techniques, Well Testing and so on.

Other Professional Affiliations

Society of Petroleum Engineers

Chinese Petroleum Society

Beijing petroleum society

Chinese Thermophysics Engineering Society

The State Administration of Work Safety (SAWS)

Honors and Awards

1. National award for energy science and technology progress, 2013
2. Award for energy science and technology progress of the Ministry of Education, 2007
3. Award for energy science and technology progress of Beijing, 2007

Selected Publications

1. Li Xiangfang, Shi Juntai, Du Xiyao, et al., Transport mechanism of desorbed gas in coalbed methane reservoirs. Petroleum Exploration and Development. 2012, 39(2):203-213.
2. Li Xiangfang, Pu Yunchao, Sun Changyu et al., Recognition of absorption/desorption theory in coalbed methane reservoir and shale gas reservoir [J]. 2014, 35(6), 1113-1129.
3. Wu, Keliu, Chen, Zhangxin. Li, Xiangfang, et al., Wettability effect on nanoconfined water flow: A simple model. PNAS. 2017, 114 (13), 3358-3363.
4. Keliu Wu, Zhangxin Chen, Xiangfang Li, Jinze Xu, Jing Li, Kun Wang, Heng Wang, Shuhua Wang, Xiaohu Dong, Flow behavior of gas confined in nanoporous shale at high pressure: Real gas effect, Fuel, Volume 205, 2017, 173-183,
5. Jing Li, Xiangfang Li, Keliu Wu, Dong Feng, Tao Zhang, Yifan Zhang, Thickness and stability of water film confined inside nanoslits and nanocapillaries of shale and clay, International Journal of Coal Geology, Volume 179, 2017, Pages 253-268.
6. Tianyi Zhao, Xiangfang Li, Zhengfu Ning, Huawei Zhao, Meifen Li, Molecular simulation of methane adsorption on type II kerogen with the impact of water content, Journal of Petroleum Science and Engineering, 2018,161:302-310,
7. Feng,Dong. Li, Xianfang. Wang, Xiangzeng, et al. Capillary filling under nanoconfinement: The relationship between effective viscosity and water-wall interactions, International Journal of Heat and Mass Transfer, 2018.118: 900 ‒910.
8. Yanan Miao, Xiangfang Li, John Lee, Yunjian Zhou, Keliu Wu, Zheng Sun, Songxia Liu, A new rate-decline analysis of shale gas reservoirs: Coupling the self-diffusion and surface diffusion characteristics, Journal of Petroleum Science and Engineering, 2018, 163, 166-176.
9. Zheng Sun, Xiangfang Li, Juntai Shi, Tao Zhang, Dong Feng, Fengrui Sun, Yu Chen, Jiucheng Deng, Liujie Li. A semi-analytical model for the relationship between pressure and saturation in the CBM reservoirs, ournal of Natural Gas Science and Engineering,2018,365-375.
10. Sun Zheng, Li Xiangfang, Shi Juntai, et al. Apparent permeability model for real gas transport through shale gas reservoirs considering water distribution characteristic[J]. International Journal of Heat & Mass Transfer, 2017, 115:1008-1019.
11. Tao Zhang, Xiangfang Li, Zheng Sun, Dong Feng, Yanan Miao, Peihuan Li, Zenghua Zhang, An analytical model for relative permeability in water-wet nanoporous media, Chemical Engineering Science, Volume 174, 2017, 1-12
12. Tianyi Zhao, Xiangfang Li, Huawei Zhao, Meifen Li. Molecular simulation of adsorption and thermodynamic properties on type II kerogen: Influence of maturity and moisture content [J]. Fuel, 2017, 190: 198 ‒207.

13. Bingxiang Xu, Xiangfang Li, Weina Ren, Dong Chen, Ling Chen, Yuhu Bai. Dewatering rate optimization for coal-bed methane well based on the characteristics of pressure propagation [J]. Fuel, 2017, 188:11-18.
14. Li Jing, Li Xiangfang, Wang Xiangzeng, Li Yingying, Wu Keliu, Shi Juntai, Yang Liu, Feng Dong, Zhang Tao and Yu Pengliang. Water distribution characteristic and effect on methane adsorption capacity in shale clay [J]. International Journal of Coal Geology, 2016, 159(4):135-154.
15. Jing Li, Xiangfang Li, Keliu Wu, Xiangzeng Wang, Juntai Shi, Liu Yang, Hong Zhang, Zheng Sun, Rui Wang, and Dong Feng. Water Sorption and Distribution Characteristics in Clay and Shale: Effect of Surface Force [J].energy&fuel 2016, 30(11).
16. Jian Yang, Xiangfang Li, Zhangxin Chen, Ji Tian, Xinguang Liu, and Keliu Wu. Combined Steam ïAir Flooding Studies: Experiments, Numerical Simulation, and Field Test in the Qi-40 Block [J]. Energy & Fuels, 2016, 30(3).
17. Keliu Wu, Zhangxin Chen, Xiangfang Li, Chaohua Guo, Mingzhen Wei. A model for multiple transport