

WANG Haizhu

Ph.D., Professor

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Education

Ph.D., Oil and Gas Well Drilling Engineering, China University of Petroleum (Beijing), 2011

B.S., Petroleum Engineering, Xi'an Shiyou University, 2005

Research Areas and Interests

Fluid mechanics in petroleum engineering

High pressure water jet

Well drilling and completion with Supercritical CO₂

Teaching

Well completion engineering, Water Jet Dynamics, Water Jet Foundation and Application

Professional Experiences

2011.07- 2013.06, Post-doctoral, Department of Mechanical Engineering, China University of Petroleum (Beijing), China

2013.06- 2014.06, Lecturer, Department of Petroleum Engineering, China University of Petroleum (Beijing), China

2014.07- 2019.12, Associate Professor, Department of Petroleum Engineering, China University of Petroleum (Beijing), China

2020.01- Present, Professor, Department of Petroleum Engineering, China University of Petroleum (Beijing), China

2017.12- 2018.11, Visiting Scholar, Department of Petroleum and Geosystems Engineering, University of Texas at Austin, America

Honors and Awards

Aug. 2012, The first prize of innovative teaching and Practice (Well completion engineering) for the "excellent teaching achievement award"

Apr. 2013, Outstanding doctoral dissertation of China University of Petroleum (Beijing)

Apr. 2014, National Excellent Doctoral Dissertation Award nomination

Nov. 2014, Award for Scientific Progress from China Petroleum and Chemical Industry Association

Jun. 2015, Outstanding young scholars of China University of Petroleum (Beijing)

Sep. 2019, National Outstanding Youth Fund of China

Selected Publications

1. Haizhu Wang, Gensheng Li, Zhonghou Shen. et al. "Experiment on rock breaking with supercritical carbon dioxide jet", Journal of Petroleum Science and Engineering, Vol. 127(2015), pp. 305-310.

2. Haizhu Wang, Gensheng Li, Shouceng Tian et al, "Flow Field Simulation of Supercritical Carbon Dioxide Jet: Comparison and Sensitivity Analysis", *Journal of Hydrodynamics*, Ser. B, Vol. 27(2015), pp. 210-215.
3. Haizhu Wang, Zhonghou Shen, Gensheng Li et al, "Shale Gas Exploitation With Supercritical CO2 Technology", *Engineering Sciences*, Vol.10(2012), pp. 13-17
4. Wang H, Shen Z, Li G. "Development and Prospect of Supercritical Carbon Dioxide Drilling" , *Petroleum Science & Technology*, Vol.30(2012), pp. 1670 - 1676.
5. Wang H, Li G, Shen Z. "A Feasibility Analysis on Shale Gas Exploitation With Supercritical Carbon Dioxide", *Energy Sources: Part A*, Vol. 34(2012), pp.1426 – 1435.
6. Wang H, Shen Z, Li G. "Wellbore Flow Model of Coiled Tubing Drilling With Supercritical Carbon dioxide", *Energy Sources: Part A*, Vol.34(2012),1347 –1362.
7. Haizhu Wang, Zhonghou Shen, Gensheng Li, "Influences of Formation Water Invasion on The Well Bore Temperature And Pressure in Supercritical CO2 Drilling", *Petroleum Exploration and Development*, Vol.38(2011), pp.362-368
8. Haizhu Wang, Zhonghou Shen, Gensheng Li, et al., "Research on The Precise Calculation Method of Physical Parameters for CO2", *Oil drilling and production technology*, Vol.33(2011), pp.65-67
9. Haizhu Wang, Gensheng Li, Zhonghou Shen, et al., "Supercritical Carbon Dioxide Drilling and The Development of Future Drilling Technology", *Special oil and gas reservoir*, Vol.19(2012), pp.1-5
10. Haizhu Wang, Gensheng Li, Zhonghou Shen, et al., "The Application of Supercritical CO2 Jet in Petroleum Engineering", 14th National Conference on Water Jet Technology, Dec. 16-18, 2011, Xuzhou China.
11. Haizhu Wang, Zhonghou Shen, Gensheng Li, et al., "Feasibility Analysis on Shale Gas Exploration with Supercritical CO2", 2012 International petroleum Summit, Mar. 19-21, 2012. pp.326-332. Beijing
12. Wang Haizhu, Li Gensheng, He Zhenguo, et al., Experimental investigation on supercritical CO2 abrasive jet perforation[J]. *Journal of CO₂ Utilization* 28 (2018) 59–65
13. Haizhu Wang, Xiaojiang Li, Kamy Sepehrnoori, et al. Calculation of the wellbore temperature and pressure distribution during supercritical CO2 fracturing flowback process[J]. *International Journal of Heat and Mass Transfer*, 139 (2019) 10–16.