

## **HUANG Zhongwei**

### **Ph.D., Professor**

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### **Education**

Ph.D., Petroleum Engineering, China University of Petroleum, East China, 2006

M.S., Petroleum Engineering, China University of Petroleum, East China, 2001

B.S., Petroleum Engineering, China University of Petroleum, East China, 1994

### **Research Areas and Interests**

High pressure water jet theory and application in petroleum/geothermal engineering

Well completion

Hydra-jet drilling & fracturing with new fluid medium

### **Teaching**

Well completion; Fundamentals and application of high pressure water jet

### **Professional Experiences**

Jun. 2013- present Full Professor

College of Petroleum Engineering, China University of Petroleum,  
Changping, Beijing, China.

Jan. 2005- May. 2013 Associate Professor

College of Petroleum Engineering, China University of Petroleum,  
Changping, Beijing, China.

Jun. 2001- Dec. 2004 Lecturer

College of Petroleum Engineering, China University of Petroleum,  
Dongying, Shandong Province., China.

Jul. 1994- May. 2001 Teaching Assistant

College of Petroleum Engineering, China University of Petroleum,  
Dongying, Shandong Province., China.

Feb. 2012-Aug. 2012 Visiting Scholar

Colorado School of Mines, 1500 Illinois Street, Golden, CO 80401 USA

### **Other Appointments**

1. Director, Department of Well Drilling, College of Petroleum Engineering, China University of Petroleum, Beijing, China
2. Director, Nozzle Standard Branch Committee, China Splashing Equipment Standard Committee
3. General Secretary, Water Jet Technology Committee, China
4. Director, Geothermal Research Center, State Key Laboratory of Petroleum Resources and Prospecting, China University of Petroleum, Beijing

5. Principal Investigator, Introducing International Talents of Discipline to Chinese Universities “Fundamental Research on Deep Geothermal Resources Development”, issued by the Ministry of Education and Foreign Experts Bureau, China
6. Editorial boards for Journal of Fluid Machines and Development of Hydraulic Dynamics, China

### Other Professional Affiliations

1. State Key Laboratory of Petroleum Resources and Prospecting
2. Chinese Petroleum Society
3. Society of Petroleum Engineers, USA

### Honors and Awards

1. 2017, Outstanding Youth Fund from National Natural Science Fund, China
2. 2017, Ten Thousand Talents Plan from China Central Talent Work Leading Group
3. 2012: “Abrasive Water Jet Perforating and Multi-stage Fracturing Technology and Its Applications”, second prize for technological invention from the State Council of the People’s Republic of China
4. 2012, Supported by Program for New Century Excellent Talents in University, from the Education Ministry of China
5. 2007: “Theory of self-resonating cavitating jet and applications in petroleum engineering”, second prize for scientific and technological progress from the State Council of the People’s Republic of China

### Selected Publications

1. **Huang Zhongwei**, Li Gensheng, Tian Shouceng, Song Xianzhi, Sheng Mao, Subhash Shah. Abrasive water jet perforation and multi-stage fracturing, 2017, Press of ELSEVIER(Gulf Professional Publishing)
2. Ruiyue Yang, **Zhongwei Huang\***, Gensheng Li, Wei Yu, Kamy Sepehrnoori ,et al. A semi-analytical approach to model two-phase flowback of shale gas wells with complex fracture geometries, SPE Journal, 181766-PA, 2017
3. Ran Li, **Zhongwei Huang\***, Gensheng Li, Xiaoguang Wu, Pengsen Yan. A modified space marching method using future temperature measurements for transient nonlinear inverse heat conduction problem. International Journal of Heat and Mass Transfer, 2016
4. R. Yang, **Z. Huang\***, W. Yu, G. Li, W. Ren, L. Zuo, X. Tan, K. Sepehrnoori, S. Tian, and M. Sheng. A Comprehensive Model for Real Gas Transport in Shale Formations with Complex Non-planar Fracture Networks. Scientific Reports. 2016, 6, 36673.
5. R. Yang, **Z. Huang\***, G. Li, W. Yu, K. Sepehrnoori, S. Tian, X. Song, and M. Sheng. An Innovative Approach to Model Two-Phase Flowback of Shale Gas Wells with Complex Fracture Networks. SPE-181766-MS, presented at the SPE Annual Technical Conference and Exhibition, Dubai, UAE, 26–28 September 2016.
6. R. Yang, **Z. Huang\***, G. Li, W. Yu, H.R. Lashgari, K. Sepehrnoori, and Z. Shen. 2016. A Semianalytical Method for Modeling Two-phase Flow in Coalbed Methane Reservoirs with Complex Fracture Networks. SPE-2460741-MS, presented at the SPE Unconventional Resources Technology Conference, San Antonio, Texas, 1–3 August 2016.
7. Chengzheng Cai, **Zhongwei Huang\***, Gensheng Li, Feng Gao, Jiangwei Wei1, Ran Li. Feasibility

of reservoir fracturing stimulation with liquid nitrogen jet, *Journal of Petroleum Science and Engineering*, 2016, 144:59-65

8. **Huang Zhongwei**, Li Gensheng, Shi Huaizhong, Niu Jilei, Song Xianzhi, Shao Shangqi. Abrasive Water Jet Perforating Experiments under Ambient Pressures, *Atomization and Sprays*, 2015, 25 (7) : 617-627
9. **Huang Zhongwei**, Li Gensheng, Huang Zhao. Experiments on pressure loss along casing-tubing annulus, *Journal of China University of Petroleum*, 2015, 39(1): 79-82
10. **Huang Zhongwei**, Li Gensheng, Cai Chengzheng, Wei Jiangwei. Experiment of Liquid Nitrogen Cryogenic Cracking on Rock and Its Application Prospect in Oil & Gas Exploration and Production. *Journal of Dongbei University*, 2015, 36(S1)
11. Ruiyue Yang, **Zhongwei Huang\***, Gensheng Li, Zhonghou Shen, Kui Li, Huanpeng Chi, Bin Wang. Slotted liner sheathing coiled tubing-a new concept for multilateral jetting in coalbed methane wells and laboratory tests of tubular friction performance. *Journal of Natural Gas Science and Engineering*, 26 (2015) 1332-1343
12. **Huang Zhongwei**, Li Gensheng, Shi Huaizhong, Wang Kailong, Shen Ruichen, Jin Lei. A new device to bypass lower pressure formations in well cementing job. *Journal of Natural Gas Science and Engineering*, 2014, 21: 332-337
13. **Huang Zhongwei**, Li Gensheng, Tian Shouceng, Song xianzhi, Sheng Mao, Wu Chunfang. Wear investigation of downhole tools applied in hydra-jet multistage fracturing, *Journal of Chongqing University*, 2014, 37(5): 78-83
14. **Huang Zhongwei**, Li Gensheng, Tang Zhijun, Niu Jilei, Wu Zhonghua, Chi Huanpeng. Field Test of Hydra-jet sidetracking Horizontal Micro-radial Laterals, *Petroleum Drilling Techniques*, 2013, 41(4): 37-41
15. **Huang Zhongwei**, Li Gensheng, Yan Xiangzhen, Wang Kailong, Shen Ruichen, Jin Lei. Comparison experiment on steel and non-steel slotted screen pipes used in coalbed methane wells, *Petroleum Exploration and Development*, 2012, 39(4): 722-726
16. **Huang Zhongwei**, Li Gensheng<sup>1</sup>, Wang Kailong, Shen Ruichen, Yan Xiangzhen, Jin Lei, Di Fei. Analysis of coal particles passing slotted screen based on discrete element method, *Journal of China Coal Society*, 2012, 37(12): 2083-2086
17. **Huang Zhongwei**, Li Gensheng, Wang Yongzhang, Wang Anpei. Hydra-jet fracturing applied in a well with three-layer casings, *Oil Drilling & Production Technology*, 2012, 34(5):122-124