



## Qiang Chen (Associate Professor)

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## Research Areas

Reactive transport in oil/gas reservoir

## Work Experience

- Associate Professor, Chongqing University (China), Sep. 2023 — Present
- Postdoctoral Researcher, Chongqing University (China), Nov. 2019 — Aug. 2023
- Research Engineer, Shale Gas Research Institute (PetroChina), Jan. 2019 — Jul. 2019

## Educational Qualifications

- Visiting student, Petroleum Engineering, Texas Tech University, Sep. 2017 — Sep. 2018
- Ph.D., Petroleum Engineering, Southwest Petroleum University (China), 2014 — 2018
- M.S., Petroleum Engineering, Southwest Petroleum University (China), 2011 — 2014
- B.S., Petroleum Engineering, Southwest Petroleum University (China), 2007 — 2011

## Selected publications (\*corresponding author)

### ***Fluids flow in unconventional oil/gas reservoir***

- [1] Zhang, Y., **Chen, Q.\***, Chen, H., (2026). Oxygen-rock interactions and oxygen consumption during compressed air energy storage in depleted shale gas reservoirs. ENERGY & FUELS, Under Review.
- [2] **Chen, Q.\***, Xiang, L., Wang, Q. et al, (2026). Turning underground coal gasification post-burn cavities into carbon sinks via enhanced sorptive CO<sub>2</sub> storage: A case study from the Santanghu Basin, China. FUELS, Under Review.
- [3] Wang, Q., **Chen, Q.\***, Liang, Y., (2024). Mineralization reaction between CO<sub>2</sub> and coal ash produced from underground coal gasification: implication for in situ carbon sequestration. JOURNAL OF CLEANER PRODUCTION, 479: 144083
- [4] Liu, J., Kang, Y., **Chen, Q.\***, et al, (2023). Understanding the interactions of NaClO oxidant with coal for intensified hydraulic fracturing effectiveness. GAS SCIENCE AND ENGINEERING, 117: 205082
- [5] Tian, J., **Chen, Q.\***, Qin, C., et al, (2023). Pore-scale systematic study on the disconnection of bulk gas phase during water imbibition using visualized micromodels. PHYSICS OF

- [6] **Chen, Q.\***, Hu, H., et al., (2022). Mitigating water blockage in shale matrix by acidizing or oxidizing treatment: Evidence from transport pathway change and diffusivity enhancement. *JOURNAL OF PETROLEUM SCIENCE AND ENGINEERING*, 219: 111132
- [7] **Chen, Q.\***, Wang, Q., Liang, Y., (2021). Permeability enhancement via acetic acid acidizing in coals containing fracture-filling calcite. *ENERGY & FUELS*, 35, 17396–17409.
- [8] Liang, Y., **Chen, Q.\***, Liao, Z., (2021). Dissolution effect of carbonate minerals on shale pores and its significance: a case study on the Lower Silurian Longmaxi Formation shale in the eastern Sichuan Basin. *NATURAL GAS INDUSTRY (CHINESE JOURNAL)*, 41(1), 93-101.
- [9] **Chen, Q.\***, You, L., Kang, Y., Dou, L., Sheng, J. J., (2018). Gypsum-crystallization-induced fracturing during shale–fluid reactions and application for shale stimulation. *ENERGY & FUELS*, 32, 10367-10381.
- [10] **Chen, Q.\***, Kang, Y., You, L., Yang, P., Zhang, X., & Cheng, Q., (2017). Change in composition and pore structure of Longmaxi black shale during oxidative dissolution. *INTERNATIONAL JOURNAL OF COAL GEOLOGY*, 172, 95-111.