

个人简介

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研究方向	岩石力学、TBM 高效破岩、水工混凝土材料性能					
主要学习、 科研和工 作经历	<p>一、教育背景</p> <p>2017.09-2021.06 重庆大学 资安学院 安全工程 博士</p> <p>2014.09-2017.06 重庆大学 资安学院 矿业工程 硕士</p> <p>2010.09-2014.06 河南理工大学 能源学院 采矿工程 学士</p> <p>二、科研与工作经历</p> <p>2024.11-至今 郑州大学 副研究员</p> <p>2021.07-2024.06 深圳大学 博士后</p>					
代表科研 成果	<p>一、主持科研项目</p> <p>[1] 国家自然科学基金-青年项目，2024 年 1 月至 2026 年 1 月，主持</p> <p>[2] 中国博士后科学基金-面上项目，2025 年 7 月至 2027 年 6 月，主持</p> <p>二、代表性学术论文</p> <p>[1] Peng Zhang, Baozhi Shi, Xiaobing Dai, Cancan Chen*, Canhua Lai. Review on the Freeze-Thaw Resistance of Sustainable Geopolymer Gel Composites: Mechanisms, Determinants, and Models[J]. Gels, 2025, 11(7): 537.</p> <p>[2] Yiqiang Lu, Cancan Chen*, Fei He, Qingzeng Yu, Mingyao Wang, Liang Si. Experimental and numerical simulation investigation on rock breaking for granite with laser irradiation[J]. Rock Mechanics and Rock Engineering. 2025, 58: 1861-1877.</p> <p>[3] Cancan Chen, Heping Xie, Jiang Xu, Seisuke Okubo, Shoujian Peng, Cunbao Li, Minghui Li. 3D digital-image correlation insight into generalized relaxation behavior of sandstone under stress and pore pressure coupling[J]. Journal of Rock Mechanics and Geotechnical Engineering, 2024, 16: 2516-2536.</p> <p>[4] Cancan Chen, Heping Xie, Jiang Xu, Shoujian Peng, Cunbao Li, Minghui Li. Creep behavior of sandstone under the coupling action of stress and pore water pressure using</p>					

three-dimensional digital image correlation. International Journal of Damage Mechanics, 2024, 33(2): 147-173.

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[6] Huarui Hu, Binwei Xia, **Cancan Chen***, Jiajun Peng, Shirong Cao, Yangyang Li. Uniaxial compression testing of sandstone under microscope: damage characteristics and failure mechanisms[J]. KSCE Journal of Civil Engineering, 2024, 28(7): 3009-3015.

[7] Jingwei Zheng, Huarui Hu, **Cancan Chen***, Xiang Zhang, Chengtian Li. Effects of physical modification on permeability evolution of coal under CO₂-water[J]. Physics of Fluids, 2024, 36: 096622

[8] **Cancan Chen**, Peng Chu, Heping Xie, Minghui Li, Cunbao Li, Delei Shang. Fracture behavior of high-temperature granite subjected to liquid nitrogen cooling: semi-circular bending test and crack evolution analysis[J]. Theoretical and Applied Fracture Mechanics, 2023, 128: 104100.

[9] **陈灿灿**, 彭守建, 许江, 汤杨, 尚德磊. 水压-应力耦合作用下砂岩应力松弛特性试验研究[J]. 岩石力学与工程学报, 2022, 41(6): 1193-1207.

[10] **Cancan Chen**, Jiang Xu, Seisuke Okubo, Shoujian Peng. Damage evolution of tuff under cyclic tension-compression loading based on 3D digital image correlation[J]. Engineering Geology, 2020, 275: 105736.

[11] **Cancan Chen**, Shoujian Peng, Shankang Wu, Jiang Xu. The effect of chemical erosion on mechanical properties and fracture of sandstone under shear loading: an experimental study[J]. Scientific Reported, 2019, 9: 19886.

三、科研奖励

[1] 2024 年中国产学研合作促进会科技创新成果二等奖

四、出版专著

[1] 彭守建, 许江, 刘义鑫, **陈灿灿**, 贾立. 煤岩剪切破坏-渗流耦合力学特性, 2022.

五、发明专利

[1] 谢和平, 李铭辉, 鲁俊, **陈灿灿**, 高明忠, 李存宝, 原鸿鹄, 尚德磊. 深部岩石原位环境重构与三维力热声震流多场测试系统. ZL202310192053.7