

# 地质科学

DIZHI KEXUE

第60卷 第5期 2025年9月

## 目次

- 塔里木盆地巴楚隆起色力布亚断裂带新生代活动特征及其成因演化 .....  
张永,何登发,林会喜,彭威龙,武重阳(1227)
- 克拉通盆地内部走滑断裂差异变形模拟及油气地质意义:以塔里木盆地F<sub>1</sub>19走滑断裂带为例 .....  
邵龙飞,能源,阮哇哇,刘根骥,张佳楠,田志文(1242)
- 南天山西段乌恰构造带堆垛构造变形及应力数值模拟分析 .....  
罗强,赵振伟,刘畅,吴育林,陈九洲,黄天,王锦洲,张昭坤,陈友智(1259)
- 油源断裂与砂体构成至下、中、上部泥岩盖层“双面牙刷状”输导体系分布预测方法 .....  
付广,孙建业,郭贺尧,麻泽宇(1271)
- 青藏高原东南缘怒江上游流域地貌特征及其构造意义 .....  
胡俊宏,赵晓彦,龙睿馨,崔玉龙,尹陆海(1281)
- 三峡库区仙女山断裂中段构造特征及其活动性研究 .....  
杨钢,郭纪盛,雷东宁,吴建超,余松,胡庆(1298)
- 海拉尔盆地上侏罗统塔木兰沟组地质特征与有利勘探区带 ..... 云建兵(1312)
- 正宁地区楔形前积模式下长7<sub>1-2</sub>亚段原油地球化学特征及油源分析 .....  
李宗亮,王延山,杨庆宁,黄双泉,徐建斌,侯拓,邱雯(1329)
- 鄂尔多斯盆地陇东地区长7<sub>3</sub>亚段岩相特征及测井表征方法 .....  
王艳梅,苗全胜,迟瑞强,葛新民,卫弘媛(1342)
- 川中广安须四段致密砂岩储层特征及物性控制因素 .....  
许瑞,任影,唐松,高崇龙,李顺,车国琼,许楚昊,董志武,李易伦(1354)
- 四川盆地天宫堂地区龙马溪组天然裂缝特征及有效性研究 .....  
郭仪,范存辉,赵圣贤,刘永旻,刘绍军,李虎,李林豪,余亚伟(1373)
- 四川盆地新场地区雷口坡组碳酸盐岩储层裂缝发育特征及主控因素 .....  
李严,赵向原,史海涛,金武军,高恒逸(1386)
- 氦气随钻检测研究与应用:以杭锦旗地区为例 .....  
田伟志,宋明会,王宇,孙海钢,代翔,朱地,陆超,贺怀宇(1396)
- 胶东半岛牟平邓格庄金矿带构造控矿特征及成矿机理研究 .....  
周进伟,田忠华,刘浪涛,王伟,李同宇,贾督,李晓东,陈国明(1407)
- 皖南姚家塔萤石矿床成矿流体特征及矿床成因:来自稀土元素和流体包裹体的制约 .....  
帅秋燕,李加好,魏国辉,贾国庆,许振宇,杜玉雕,马良,唐敏惠(1426)
- 大湖塘晋宁期岩体与大规模钨成矿关系初探 ..... 孙琳,刘磊,许国锋,黄明,汪双双,杨晓勇,张德贤(1440)
- 湖南省新元古代庙冲铁矿地质地球化学特征与成矿规律分析 .....  
黄宽心,胡天杨,张创业,刘磊,闫忠军(1465)
- 银额盆地本巴图地区沉积-改造作用特征及铀矿化成因分析 .....  
李海啸,张成勇,刘波,刘旭,傅钰坤,石贝贝,石超(1476)
- 松嫩平原北安地区第四纪次生黄土及其古环境意义 .....  
宋吴南,梁中恺,段明新,柳立业,张海成,韩守德,陈卓(1496)
- 机器学习在花岗岩成因类型判别中的应用 ..... 李佳龙,孟元库(1509)

封面照片: 阜康断裂带, 博格达山。博格达山位于新疆维吾尔自治区中部, 准噶尔盆地和吐鲁番盆地之间, 是天山山脉的一条重要支脉。阜康断裂带是控制博格达山与准噶尔盆地南缘边界的一条长度超过200 km的活动断裂带。

照片提供者: 何春波(东北石油大学)

(责任编辑: 李晓杰 助理编辑: 赵睿)

# CHINESE JOURNAL OF GEOLOGY

(SCIENTIA GEOLOGICA SINICA)

(DIZHI KEXUE)

Vol.60, No.5, September, 2025

## CONTENTS

- The Cenozoic active characteristics and genetic evolution of Selibuya fault zone in Bachu uplift, Tarim Basin  
..... Zhang Yong, He Dengfa, Lin Huixi, Peng Weilong, Wu Chongyang (1227)
- Simulation of differential deformation of internal strike-slip faults in the cratonic basin and its significance for  
oil and gas geology: An example of the F<sub>1</sub> 19 strike-slip fault zone in the Tarim Basin .....  
Shao Longfei, Neng Yuan, Ruan Qiqi, Liu Genji, Zhang Jia`nan, Tian Zhiwen (1242)
- Numerical simulation analysis of stacking structure deformation and stress in the Wuqia structural belt of the  
western South Tianshan Mountains ..... Luo Qiang, Zhao Zhenwei, Liu Chang,  
Wu Yulin, Chen Jiuzhou, Huang Tian, Wang Jinzhou, Zhang Zhaokun, Chen Youzhi (1259)
- Prediction method for the distribution of a “double-sided toothbrushes” conducting system from oil source  
fracture and sand body formation to the lower, middle and upper mudstone cover layers .....  
Fu Guang, Sun Jianye, Guo Heyao, Ma Zeyu (1271)
- Geomorphic features of the upper Nujiang River basin and their tectonic significance in the southeastern margin  
of the Qinghai-Tibet Plateau .....  
Hu Junhong, Zhao Xiaoyan, Long Ruixin, Cui Yulong, Yin Luhai (1281)
- Research on tectonic characteristics and activity of middle segment of Xiannüshan fault in Three Gorges  
reservoir area .....  
Yang Gang, Guo Jisheng, Lei Dongning, Wu Jianchao, Yu Song, Hu Qing (1298)
- Geological characteristics and favorable exploration area of the Upper Jurassic Tamulangou Formation in  
Hailar Basin ..... Yun Jianbing (1312)
- Geochemical characteristics and oil source analysis of crude oil of Chang 7<sub>1-2</sub> under the wedge-shaped  
progradation model in the Zhengning area .....  
Li Zongliang, Wang Yanshan, Yang Qingning, Huang Shuangquan, Xu Jianbin, Hou Tuo, Qiu Wen (1329)
- Lithofacies characteristics and logging characterization methods in Chang 7<sub>3</sub> submember of Longdong area in  
Ordos Basin .....  
Wang Yanmei, Miao Quansheng, Chi Ruiqiang, Ge Xinmin, Wei Hongyuan (1342)
- Tight sandstone reservoir characteristics and controlling factors of the 4th member of Xujiahe Formation in  
Guang’an area, central Sichuan Basin .....  
Xu Rui, Ren Ying, Tang Song, Gao Chonglong, Li Shun, Che Guoqiong, Xu Chuhao, Dong Zhiwu, Li Yilun (1354)

- Evaluation of fracture validity of Longmaxi Formation in Tiangongtang area, Sichuan Basin .....  
*Guo Yi, Fan Cunhui, Zhao Shengxian, Liu Yongyang, Liu Shaojun, Li Hu, Li Linhao, Yu Yawei* ( 1373)
- Characteristics and major control factors of natural fractures in carbonate reservoirs of Leikoupo Formation in  
Xinchang area, Sichuan Basin, China .....  
*Li Yan, Zhao Xiangyuan, Shi Haitao, Jin Wujun, Gao Hengyi* ( 1386)
- Research progress and prospects of helium detection while drilling: A case study of Hanggin Banner area ...  
*Tian Weizhi, Song Minghui, Wang Yu, Sun Haigang, Dai Xiang, Zhu Di, Lu Chao, He Huaiyu* ( 1396)
- Structural ore-controlling characteristics and metallogenic mechanism of quartz-vein-type gold deposits in the  
Jiaodong Peninsula: A case study of the Denggezhuang gold belt .....  
*Zhou Jinwei, Tian Zhonghua, Liu Langtao, Wang Wei, Li Tongyu, Jia Du, Li Xiaodong, Chen Guoming* ( 1407)
- Characteristics of ore-forming fluids and ore genesis of the Yaojiata fluorite deposit in southern Anhui: Constraints  
from rare earth elements and fluid inclusions .....  
*Shuai Qiuyan, Li Jiahao, Wei Guohui, Jia Guoqing, Xu Zhenyu, Du Yudian, Ma Liang, Tang Minhui* ( 1426)
- Study on the relationship between Jinningian pluton and large-scale tungsten mineralization in the Dahutang area  
.....  
*Sun Lin, Liu Lei, Xu Guofeng, Huang Ming, Wang Shuangshuang, Yang Xiaoyong, Zhang Dexia* ( 1440)
- Geological features and metallogenic regularities of the Miaochong iron deposit in Neoproterozoic, Hunan Province  
.....  
*Huang Kuanxin, Hu Tianyang, Zhang Chuangye, Liu Lei, Yan Zhongjun* ( 1465)
- Sedimentary-modification characteristics and genetic analysis of uranium mineralization in the Benbatu  
area, Yin'e Basin .....  
*Li Haixiao, Zhang Chengyong, Liu Bo, Liu Xu, Fu Yukun, Shi Beibei, Shi Chao* ( 1476)
- Quaternary redeposited loess and its paleoenvironmental significance in the Bei'an area of Songnen Plain ...  
.....  
*Song Haonan, Liang Zhongkai, Duan Mingxin, Liu Liye, Zhang Haicheng, Han Shoude, Chen Zhuo* ( 1496)
- Machine learning applications in distinguishing granite genesis types .....  
.....  
*Li Jialong, Meng Yuanku* ( 1509)

**Cover Photo:** Fukang Fault Zone, Bogda Mountains. The Bogda Mountains are located in the central part of the Xinjiang Uygur Autonomous Region, between the Junggar Basin and the Turpan Basin, and are an important branch of the Tianshan Mountains. The Fukang Fault Zone is an active fault zone stretching over 200 kilometers that controls the boundary between the Bogda Mountains and the southern margin of the Junggar Basin.

Photo by courtesy of Dr. He Chunbo from Northeast Petroleum University

( **Executive Editor:** Li Xiaojie   **Assistant Editor:** Zhao Rui )