

# 地球科学

2024年1月 第49卷 第1期

## 目次

### · 评述 ·

大陆碰撞带深熔变质与花岗岩成因 ..... 郑永飞, 陈仁旭, 高 彭(1)

### · 构造地质学与石油地质学 ·

贝加尔裂谷构造发育的主控因素: 基于地球动力学数值模拟 ..... 王盟楠, 李江海(29)

库车坳陷三叠系塔里奇克组沉积与储层特征及油气勘探意义 ..... 张荣虎, 王正和, 余朝丰, 杨 钊, 智凤琴(40)

山前冲断带砂砾岩储层发育机制及控制因素: 以柴达木盆地昆北油田切12区为例  
..... 宫清顺, 刘占国, 王 波, 朱 超, 宋光永, 伍 劲(55)

珠江口盆地白云凹陷中新统珠江组潮流改造的砂质海底扇沉积 ..... 王家豪, 庞 雄, 王 华, 柳保军, 陈鑫鑫(71)

川西南二叠纪火山岩喷发古地理环境及演化  
..... 熊绍云, 史志伟, 周 刚, 苏 旺, 张 豪, 李 亚, 姚倩颖, 江青春(84)

淮南侏罗-白垩纪原型盆地边界变迁及其沉积物源响应  
..... 高崇龙, 王 剑, 刘 明, 罗正江, 王 柯, 刘 可, 任 影, 邓 毅(103)

鄂尔多斯盆地基底结构特征及演化过程新认识 ..... 田 刚, 杨明慧, 宋立军, 邢 舟, 白东来, 陈 杰, 李竞赢(123)

东濮凹陷北部文留地区沙河街组地层水演化与油气成藏模式  
..... 吴宇辰, 刘一锋, 金爱民, 周勇水, 丘 旆, 徐田武, 楼章华(140)

断陷盆地火山地层构成要素特征及地质意义: 以吉林省九台全取心井下白垩统营城组为例  
..... 卢景松, 唐华风, 余雪英, 黄玉龙, 王璞璐, 高有峰(155)

基于耦合沉积动力学模拟与多点地质统计学方法的河口湾储层三维建模  
..... 唐佳凡, 唐明明, 卢双舫, 刘雪萍, 张克鑫, 何涛华, 韩 迪(174)

### · 地球生物学 ·

六盘山白垩纪狼鳍鱼化石的埋藏学及其古气候、古环境意义  
..... 梁积伟, 常小斌, 陶文星, 冯振伟, 李汉林, 宗 浩, 郑 萌, Tsogochir Tungalag(189)

甘肃北山早白垩世似银杏化石的发现: 兼论甘肃侏罗-白垩纪古大气CO<sub>2</sub>变化  
..... 任文秀, 韩 磊, 吴光涛, 唐德亮, 孙柏年, 吴靖宇(209)

东太平洋海隆海底热液蠕虫管道矿化特征及其成因 ..... 罗礼涛, 王叶剑, 蔡翌昉, 董传奇, 韩喜球(224)

### · 水文地质学与环境科学 ·

地面沉降对地下水可采资源的影响 ..... 骆祖江, 王 鑫, 代 敬, 李子义, 李 硕(238)

天山北麓中段绿洲带高砷地下水中砷的迁移转化规律  
..... 雷 米, 周金龙, 周殷竹, 孙 英, 韩双宝, 刘江涛, 鲁 涵, 白 凡, 闫志云(253)

中低温地热系统低盐度地热水高含量钠的地球化学成因: 以广东惠州黄沙洞地热田为例  
..... 史自德, 毛绪美, 叶建桥, 董亚群(271)

非完整井对单井注抽试验测算地下水流速影响机理 ..... 苏世林, 李 旭, 郭 强, 张海涛, 许光泉, 朱 棋(288)

### · 地球物理学 ·

四川盆地含裂缝海相页岩储层正交各向异性岩石物理建模 ..... 程绩伟, 张 峰, 李向阳(299)

琼东南盆地超深水浅部气藏地球物理识别技术 ..... 黄时卓, 李 芳, 宋 鹏, 胡 斌, 孙万元(313)

地面-钻孔直流电法超前探测技术 ..... 王 鹏(324)

\*\*\*\*\*

### · 其他 ·

基于树木年代学的迫龙沟泥石流灾害历史重建 ..... 吕立群, 王兆印, 孟 哲(335)

证据理论融合多视角遥感信息的地热异常探测 ..... 郝 明, 高彦彦, 王 青, 何 鹏, 张 华(347)

火星峡谷网研究的现状、问题与展望 ..... 史语桐, 杨 勇, 赵健楠, 黄 俊, 肖 龙(359)

含水层非均质性与污染修复 ..... 袁松虎, 张 鹏, 康学远, 施小清, 张宝刚, 洪 梅, 田海龙, 文 章(375)

《地球科学》2024年2月第49卷第2期要目预告 ..... (188)

主编 王焰新

责任编辑 胡 悦

期刊基本参数: CN 42-1874/P \* 1957 \* m \* A4 \* 378 \* zh \* P \* ¥50.00 \* 1200 \* 25 \* 2024-01

封面照片: 大别造山带深熔变质岩(郑永飞院士提供)

**EARTH SCIENCE**  
**Vol.49 No.1 Jan. 2024**

---

**CONTENTS**

•Review•

Anatectic Metamorphism and Granite Petrogenesis in Continental Collision Zones ..... *Zheng Yongfei, Chen Renxu, Gao Peng* (1)

•Structural Geology and Petroleum Geology•

Main Controlling Factors of Structure of Baikal Rift: Based on Geodynamic Numerical Simulation

..... *Wang Mengnan, Li Jianghai* (29)

Sedimentary and Reservoir Characteristics and Hydrocarbon Exploration Significance of Triassic Taliqike Formation in

Kuqa Depression ..... *Zhang Ronghu, Wang Zhenghe, Yu Chaofeng, Yang Zhao, Zhi Fengqin* (40)

Mechanism and Controlling Factors of Sandy Conglomerate Reservoir in Piedmont Thrust Belt: A Case of Kunbei Oilfield,

Qaidam Basin, NW China ..... *Gong Qingshun, Liu Zhanguo, Wang Bo, Zhu Chao, Song Guangyong, Wu Jin* (55)

Tide Current-Reworked Sandy Submarine Fan Deposits in Miocene Zhujiang Formation, Baiyun Sag of Pearl River

Mouth Basin ..... *Wang Jiahao, Pang Xiong, Wang Hua, Liu Baojun, Chen Xinxin* (71)

Paleogeographic Environment and Evolution of Permian Volcanic Eruption in Southwest Sichuan

..... *Xiong Shaoyun, Shi Zhwei, Zhou Gang, Su Wang, Zhang Hao, Li Ya, Yao Qianying, Jiang Qingchun* (84)

Boundary Changes of Jurassic-Cretaceous Prototype Basin of Southern Junggar and Responses of Sedimentary

Provenance and Depositional Systems ..... *Gao Chonglong, Wang Jian, Liu Ming, Luo Zhengjiang,*

*Wang Ke, Liu Ke, Ren Ying, Deng Yi* (103)

New Understanding of Basement Structural Characteristics and Its Evolution Process in Ordos Basin

..... *Tian Gang, Yang Minghui, Song Lijun, Xing Zhou, Bai Donglai, Chen Jie, Li Jingying* (123)

Formation Water Evolution and Hydrocarbon Accumulation Model of Shahejie Formation in Wenliu Area, Northern

Dongpu Depression ..... *Wu Yuchen, Liu Yifeng, Jin Aimin, Zhou Yongshui, Qiu Ye, Xu Tianwu, Lou Zhanghua* (140)

Characteristics of Volcano Stratigraphic Elements in Faulted Depression Basin and Its Geologic Significance: A Case

Analysis of Full Coring Well of Lower Cretaceous Yingcheng Formation in Jiutai, Jilin Province

..... *Hu Jingsong, Tang Huafeng, Yu Xueying, Huang Yulong, Wang Pujun, Gao Youfeng* (155)

Three-Dimensional Modeling of Estuary Reservoir Based on Coupling Sedimentary Dynamics Simulation and

Multipoint Geostatistics Method ..... *Tang Jiafan, Tang Mingming, Lu Shuangfang, Liu Xueping,*

*Zhang Kexin, He Taohua, Han Di* (174)

•Geobiology•

Taphonomy of *Lycoptera* Fossils and Its Paleoclimate and Paleoenvironment Significance from Cretaceous Liwaxia

Formation in Liupanshan Area ..... *Liang Jiwei, Chang Xiaobin, Tao Wenxing, Feng Zhenwei,*

*Li Hanlin, Zong Hao, Zheng Meng, Tsogochir Tungalag* (189)

Discovery of Early Cretaceous *Ginkgoites* in Beishan, Gansu Province: Also on Changes of Paleatmospheric CO<sub>2</sub> in Jurassic

to Cretaceous in Gansu Province ..... *Ren Wenxiu, Han Lei, Wu Guangtao, Tang Deliang, Sun Bainian, Wu Jingyu* (209)

Mineralization Characteristics and Genesis of Worm-Tubes from Seafloor Hydrothermal Fields at East Pacific Rise

..... *Luo Litao, Wang Yejian, Cai Yiyang, Dong Chuanqi, Han Xiqiu* (224)

•Hydrogeology and Environmental Science•

Influence of Land Subsidence on Movable Groundwater Resources ..... *Luo Zujiang, Wang Xin, Dai Jing, Li Ziyi, Li Shuo* (238)

Migration and Transformation Mechanism of High Arsenic Groundwater in Oasis Belt in Middle Part of Northern

Piedmont of Tianshan Mountain ..... *Lei Mi, Zhou Jinlong, Zhou Yinzhu, Sun Ying, Han Shuangbao,*

*Liu Jiangtao, Lu Han, Bai Fan, Yan Zhiyun* (253)

Source Analysis of Sodium of Low-Salinity High-Sodium Geothermal Water in Huangshadong Geothermal

Field from East Guangdong ..... *Shi Zide, Mao Xumei, Ye Jianqiao, Dong Yaqu* (271)

Effect Mechanistic of Partially Penetrating Well on Single-Well Push-Pull Tests for Groundwater Velocity Estimation

..... *Su Shilin, Li Xu, Guo Qiang, Zhang Haitao, Xu Guangquan, Zhu Qi* (288)

•Geophysics•

Orthorhombic Anisotropic Rock Physics Modeling for Fractured Marine Shale Reservoir in Sichuan Basin

..... *Cheng Jiwei, Zhang Feng, Li Xiangyang* (299)

Geophysical Identification Technology of Ultra Deep Water and Shallow Gas Reservoirs in Qiongdongnan Basin

..... *Huang Shizhuo, Li Fang, Song Peng, Hu Bin, Sun Wanyuan* (313)

Advanced Detection Technology of Ground-Borehole DC Resistivity Method ..... *Wang Peng* (324)

\*\*\*\*\*

Reconstruction of Debris Flow Disasters in Polong Gully Based on Dendrochronology

..... *Lü Liquan, Wang Zhaoyin, Meng Zhe* (335)

Geothermal Anomaly Detection Based on Evidence Theory Integrating Multi-View Remote Sensing Information

..... *Hao Ming, Gao Yanyan, Wang Qing, He Peng, Zhang Hua* (347)

Achievements, Issues and Prospects in the Study of Martian Valley Networks

..... *Shi Yutong, Yang Yong, Zhao Jiannan, Huang Jun, Xiao Long* (359)

Aquifer Heterogeneity and Contamination Remediation

..... *Yuan Songhu, Zhang Peng, Kang Xueyuan, Shi Xiaoqing, Zhang Baogang, Hong Mei, Tian Hailong, Wen Zhang* (375)

**Editor in Chief** Wang Yanxin

**Executive Editor** Hu Yue