

特邀主编 徐长贵 杨海风 王清斌 朱红涛
地 球 科 学

2025年2月 第50卷 第2期

目 次

中国近海潜山油气藏勘探理论与实践专栏

- 火山岩油气藏勘探进展 徐长贵,杨海风,王清斌,单玄龙,朱红涛,唐华风,侯明才,刘晓健(363)
渤海湾油型盆地深层大型气藏成藏过程与相态控制因素 薛永安,胡安文,万琳,张鑫(377)
渤海湾盆地渤中凹陷BZ8-3S大型构造规模型火山岩储层形成条件 周家雄,徐春强,黄志,单玄龙,张江涛,衣健(388)
南海北部白云凹陷继承性陆缘背景古潜山成因及类型 刘军,彭光荣,张丽丽,李洪博,汪旭东,吴哲,官伟,梁超,黄雷(405)
珠江口盆地惠州凹陷复合岩浆岩潜山储层发育机制 彭光荣,陈淑慧,李洪博,吴哲,杨雪,高翔,王菲(419)
琼东南盆地深水区基岩潜山超压成因及油气成藏特征 胡林,胡潜伟,王思雨,江汝锋,汪紫菱,赵晨,田澜希,张超梦,卞恺歌(433)
渤海海域太古界变质岩潜山裂缝型储层发育主控因素分析 王清斌,刘晓健,叶涛,金小燕,冯冲,卢欢,李德郁,郝轶伟(453)
北吕宋岛弧火山活动和台湾造山带造山事件约束下的台湾弧前盆地演化 许淑梅,王琳华,李三忠,刘永江,訾可,权日,舒鹏程,周越,郭芮洁,张宝珠,王曼茜,刘政东(466)
渤海湾盆地渤中26-6潜山油田油气异源混合成藏特征及充注过程 官大勇,石文龙,赵弟江,张兴强,安俊睿(478)
渤海西部下古生界碳酸盐岩潜山储层成因机理及模式 华晓莉,李慧勇,许鹏,孙哲,夏宇(494)
渤中A凝析气田潜山储层特征及其地球物理判识方法 赵鹏飞,刘朋,明君,崔云江,张婕茹,来又春(504)
基于力学层划分的火成岩潜山裂缝分形维变识别方法 张冲,叶青,周伟,陈建,李华(521)
南海多波束测量中水深数据异常的精细处理与成因分析 陈星铨,朱俊江,朱庆龙,焦钰涵,丁小笑,刘政渊,丁咚,贾永刚,李三忠,刘永江(535)
渤海湾盆地渤中19-6气田变质岩潜山储层三维岩石力学参数求取及意义 张冠杰,程奇,张雷,刘文超,赵雨佳,吴昊,沈传波(551)
- *****
- 矿物学·岩石学·矿床学 ·
- 玄武岩二氧化碳矿化封存(II):广东省雷州半岛的封存条件、选址和挑战 周蒂,夏菖佑,李鹏春,梁希(569)
东天山二塘沟黏土型锂矿锂的赋存状态初探 张征峰,李诺,范香莲,王涛,李玉坤,蒋果(585)
赣西北城门山铜多金属矿床矽卡岩的形成时代、物理化学条件及演化过程 钟浩,徐耀明,肖炬炜,孔凡斌(596)
- 地球化学 ·
- 湘中白马山复式岩体年代学、Hf同位素、地球化学及岩石成因 刘贤红,刘德亮,娄元林,潘思远,肖涛,刘小坚,张珍力(609)
西藏唐格矽卡岩型铜铅锌矿床成矿时代:来自石榴子石U-Pb年龄的约束 黄倩,吴松,刘晓峰,申亚辉,阿旺旦增,次琼,陈烈,魏守才(621)
- 构造地质学 ·
- 中亚造山带南缘中段的北山杂岩:历史、现状与问题 王振义,张进,吴春娇,张北航,赵衡(639)
新太古代—古元古代熊耳山地区的岩浆作用与大地构造意义 刘恒,刘磊,张德贤,康诗胜,胡天杨(667)
- 环境科学 ·
- 典型高寒流域冲洪积扇地下水与地表水交互机制 杨泽森,常启昕,贺笙哲,廖习锐(687)
全新世长江中下游地区降水变化及其驱动机制 徐家豪,张志平,陈钧伟,孙炜毅,申忠伟,贾鑫(699)
高能溃决洪水侵蚀机理与地貌效应研究进展 杨泽文,吴兵兵,刘维明,杨安娜,李雪梅,王昊,阮合春,周燕莲(718)
- 吐鲁番盆地地下水动态变化及其与地面沉降关系研究 丁启振,周金龙,张红忠,黄静,孙英,白凡,涂治,李军(737)
- 其他 ·
- 基于 W_n 指数的冰川型泥石流的年轮定灾方法 阜子琪,吕立群,周冠宇,黄锋,马超,陶正想,梁锦杭,王兆印(752)
基于地质年代与热流关系的中国陆区热流分布 王亚茹,蔺文静,朱传庆,刘峰,习宇飞(763)
丹霞地貌发育程度的定量指示及影响因素:以广东丹霞山为例 傅强,章桂芳,张珂,王同皓,叶雨朦(782)
2025年1月7日西藏定日 $M_s 6.8$ 地震珠峰地震台加速度时程快速模拟 李宗超,孙吉泽,纪志伟,高孟潭,谢俊举,赵延娜(798)
《地球科学》2025年3月第50卷第3期要目预告 (797)

主编 王焰新 责任编辑 程鹏

期刊基本参数: CN 42-1874/P * 1957 * m * A4 * 442 * zh * P * ¥ 50.00 * 1200 * 29 * 2025-02

封面照片: 山东青岛小珠山花岗岩风化壳及裂隙带(王清斌提供)

Guest Editors Xu Changgui Yang Haifeng Wang Qingbin Zhu Hongtao

EARTH SCIENCE

Vol.50 No.2 Feb. 2025

CONTENTS

Special Column on Exploration Theories and Practices of Buried-Hill Reservoirs in China's Offshore Areas

Progress in Exploration of Volcanic Oil and Gas Reservoirs

... Xu Changgui, Yang Haifeng, Wang Qingbin, Shan Xuanlong, Zhu Hongtao, Tang Huafeng, Hou Mingcai, Liu Xiaojian (363)

Accumulation Process and Phase Control Factors of Large Natural Gas Reservoirs in the Oil-Prone Bohai Bay Basin, East China

..... Xue Yong'an, Hu Anwen, Wan Lin, Zhang Xin (377)

Enhanced Formation Conditions of the Large-Scale Volcanic Reservoir in the BZ8-3S Large Volcanic Structure in Bozhong Sag, Bohai Bay Basin Zhou Jiaxiong, Xu Chuqiang, Huang Zhi, Shan Xuanlong, Zhang Jiangtao, Yi Jian (388)

Genesis and Types of Buried Hills in the Tectonic Setting of the Inheriting Continental Margin in Baiyun Sag, Northern South China Sea

..... Liu Jun, Peng Guangrong, Zhang Lili, Li Hongbo, Wang Xudong, Wu Zhe, Guan Wei, Liang Chao, Huang Lei (405)

Development Mechanism of Composite Igneous Rock Buried-Hill Reservoir in Huizhou Sag, the Pearl River Mouth Basin

..... Peng Guangrong, Chen Shuhui, Li Hongbo, Wu Zhe, Yang Xue, Gao Xiang, Wang Fei (419)

Origin of the Overpressure and Hydrocarbon Accumulation Characteristics of Bedrock Buried Hills in the Deepwater Area, Qiongdongnan Basin

..... Hu Lin, Hu Qianwei, Wang Siyu, Jiang Rufeng, Wang Ziling, Zhao Chen, Tian Lanxi, Zhang Chaomeng, Bian Kaige (433)

Analysis of the Main Controlling Factors of the Fractured Reservoirs Development in the Buried Hills of the Archean Metamorphic Rocks in the Bohai Sea Area

..... Wang Qingbin, Liu Xiaojian, Ye Tao, Jin Xiaoyan, Feng Chong, Lu Huan, Li Deyu, Hao Yiwei (453)

The Evolution of the Taiwan Forearc Basin Constrained by the Volcanic Activities of the North Luzon Island Arc and the Orogenic Events of the Taiwan Orogen Belt

... Xu Shumei, Wang Linhua, Li Sanzhong, Liu Yongjiang, Zi Ke, Quan Ri, Shu Pengcheng, Zhou Yue, Guo Ruijie, Zhang Baozhu, Wang Manzi, Liu Zhengdong (466)

Accumulation Characteristics and Charging Process of Heterogeneous Mixed Reservoir in Bozhong 26-6 Buried Hill Oilfield, Bohai Bay Basin Guan Dayong, Shi Wenlong, Zhao Dijiang, Zhang Xingqiang, An Junrui (478)

The Differential Genetic Mechanism and Model of the Lower Paleozoic Carbonate Buried Hill Reservoirs in the Western Bohai Sea

..... Hua Xiaoli, Li Huiyong, Xu Peng, Sun Zhe, Xia Yu (494)

Buried Hill Reservoir Characteristics and Its Geophysical Identification Methods for Condensate Gas Field of Bozhong A

..... Zhao Pengfei, Liu Peng, Ming Jun, Cui Yunjiang, Zang Jieru, Lai Youchun (504)

Fractal Dimension Identification Method of Fractures in Igneous Buried Hill Based on Mechanical Layer Division

..... Zhang Chong, Ye Qing, Zhou Wei, Chen Jian, Li Hua (521)

Fine Processing and Analysis of Multibeam Bathymetric Data Outlier from Surveying and Mapping in the South China Sea

... Chen Xingquan, Zhu Junjiang, Zhu Qinglong, Jiao Yuhan, Ding Xiaoxiao, Liu Zhengyuan, Ding Dong, Jia Yonggang, Li Sanzhong, Liu Yongjiang (535)

Calculation of 3D Reservoir Rock Mechanical Parameters of Metamorphic Rock Reservoirs in the Bozhong 19-6 Gas Field of the Bohai Bay Basin and Their Significance Zhang Guanjie, Cheng Qi, Zhang Lei, Liu Wencho, Zhao Yujia, Wu Hao, Shen Chuanbo (551)

• Mineralogy•Petrology•Mineral Deposits •

CO₂ Mineralization Storage in Basalt (II): Storage Conditions, Site Selections and Challenges on Leizhou Peninsula, Guangdong Province, South China

..... Zhou Di, Xia Changyou, Li Pengchun, Liang Xi (569)

Preliminary Study of the Occurrence of Lithium in the Ertanggou Deposit, East Tianshan

..... Zhang Zhengfeng, Li Nuo, Fan Xianglian, Wang Tao, Li Yukun, Jiang Guo (585)

Geochronology and Physical-Chemical Conditions of Skarns in Chengmenshan Cu Deposit, Northwestern of Jiangxi Province, Eastern China

..... Zhong Hao, Xu Yaoming, Xiao Juwei, Kong Fanbin (596)

• Geochemistry •

Geochronology, Hf Isotope, Geochemistry and Petrogenesis of the Baimashan Granitic Complex in the Central Hunan Province

..... Liu Xianhong, Liu Deliang, Lou Yuanlin, Pan Siyuan, Xiao Tao, Liu Xiaojian, Zhang Zhenli (609)

The Metallogenic Age of Tangge Skarn-Type Copper-Lead-Zinc Deposit in Xizang: Constraints from Garnet U-Pb Geochronology

..... Huang Qian, Wu Song, Liu Xiaofeng, Shen Yahui, Danzeng Awang, Ci Qiong, Chen Lie, Wei Shoucui (621)

• Structural Geology •

Beishan Complex in the Middle Section of Southern Central Asian Orogenic Belt: History, Progress and Problems

..... Wang Zhenyi, Zhang Jin, Wu Chunjiao, Zhang Beihang, Zhao Heng (639)

Magmatic Activity and Tectonic Significance in the Xiong'ershan Area during the Neoproterozoic to Early Paleoproterozoic

..... Liu Heng, Liu Lei, Zhang Dexian, Kang Shisheng, Hu Tianyang (667)

• Environmental Sciences •

Groundwater-Surface Water Interaction and Its Mechanism in a Piedmont Fluvial-Alluvial Fan of an Alpine Watershed

..... Yang Zesen, Chang Qixin, He Shengzhe, Liao Xirui (687)

Holocene Precipitation Change in the Middle and Lower Reaches of the Yangtze River and Its Forcing Mechanisms

..... Xu Jiahao, Zhang Zhiping, Chen Junwei, Sun Weiyi, Shen Zhongwei, Jia Xin (699)

Progress in Erosion Mechanism and Geomorphological Effects of High-Energy Outburst Floods

..... Yang Zewen, Wu Bingbing, Liu Weiming, Yang Anna, Li Xuemei, Wang Hao, Ruan Hechun, Zhou Yanlian (718)

Study on Groundwater Dynamics and Its Relationship with Land Subsidence in Turpan Basin

..... Ding Qizhen, Zhou Jinlong, Zhang Hongzhong, Huang Jing, Sun Ying, Bai Fan, Tu Zhi, Li Jun (737)

New Reconstruction of Glacier Debris Flows Based on Tree Ring Response

..... Gao Ziqi, Lv Ligun, Zhou Guanyu, Huang Feng, Ma Chao, Tao Zhengxiang, Liang Jinhang, Wang Zhaoyin (752)

Heat Flow Distribution in the Continental Area of China Based on the Relationship between Geologic Age and Heat Flow

..... Wang Yaru, Lin Wenjing, Zhu Chuanqing, Liu Feng, Xi Yufei (763)

Quantitative Representation and Influencing Factors to Landscape Maturity of Danxia Landscape: A Case Study in Mount Danxiashan,

Guangdong Province Fu Qiang, Zhang Guifang, Zhang Ke, Wang Tonghao, Ye Yumeng (782)

Rapid Simulation of Acceleration Waveform at Everest Seismic Station of Xizang Tingri M_{6.8} Earthquake on January 7, 2025

..... Li Zongchao, Sun Jize, Ji Zhiwei, Gao Mengtan, Xie Junju, Zhao Yanna (798)

Editor in Chief Wang Yanxin

Executive Editors Cheng Peng