

C S C D 来源期刊

北大中文核心期刊

中国科技核心期刊

ISSN 2096-8523

CN 42-1904/P

CODEN: DKTICM

地质科技情报

Bulletin of Geological Science and Technology

原《地质科技情报》 中国地质大学(武汉)

9月
2023

第42卷 第5期
Vol.42 No.5



地质科技通报

原《地质科技情报》

2023年 第42卷 第5期(总第212期) 2023年9月出版 双月刊 国内外公开发行

目 次

· 工程地质与地质灾害 ·

- 基于因素空间的露天采坑边坡稳定性评价 易富, 孟兴涛, 赵文华, 杜常博(1)
基于 Abaqus 的软硬交错地层钻进过程仿真及动态特性分析 文国军, 张冯豆, 贺鑫, 刘浩杰, 王玉丹, 赵权(10)
深埋层状围岩引水隧洞直眼掏槽爆破技术优化 姜守国, 罗帅兵, 蒋楠, 孙建斌, 周海波(20)
考虑温度效应下冻土层对桥梁结构地震响应的影响 殷鹏程, 孙义贤, 庞于涛, 王晓伟, 朱维元(27)
干湿循环作用下云母石英片岩抗压性能劣化规律及机理 李志刚, 叶宏林, 刘伟, 徐光黎, 马郎, 朱佳(36)
建设区顺层岩质滑坡地质力学演化模型:以万州铁峰乡麦地坪滑坡为例 王禹, 冯霄, 杜娟, 刘洋, 李东, 柴波(43)
基于 MatDEM 的黄泥扁滑坡支护效果分析 王飞, 徐楚, 黎伟(52)
清淤对软土地基古石桥地基变形的影响及机制研究 李逸鹏, 马淑芝, 贾洪彪, 李轩(61)

· 资源地质与工程 ·

- 川东红星地区吴家坪组富有机质页岩特征与发育控制因素 王必金, 包汉勇, 刘皓天, 张莉, 赵帅(70)
准噶尔盆地吉木萨尔凹陷芦草沟组细粒湖底扇沉积及其页岩油储层意义 康积伦, 王家豪, 马强, 李纯泉, 陈鑫鑫(82)
鄂尔多斯盆地杭锦旗地区下石盒子组致密砂岩储层孔隙结构及可动流体特征 何云, 王瑞飞, 张占杨, 王濡岳, 尹帅, 何维领, 陈瑞娜, 肖雪(94)
转换斜坡型辫状河三角洲沉积特征:以珠江口盆地惠州凹陷始新统为例 陶文芳, 葛家旺, 雷永昌, 李旭彪, 朱筱敏(103)
贵州铜仁坝黄牛蹄塘组黑色岩系有机质富集机理 白洋, 谢宏, 王孟斋, 卢正浩(115)
岩层滑动镜面反射研究现状及其在页岩气保存中的应用 王宇帆, 徐尚, 温雅茹, 苟启洋, 张志垚, 王政凯(128)
华北板块南缘早二叠世煤中微量元素赋存特征及主控机制 袁锋恩, 边家辉, 刘紫璇, 张利伟, 潘思东(138)
鄂西北杀熊洞铌—稀土矿床烧绿石矿物学及地球化学特征及其形成机理 秦志军, 周豹, 芦笙任, 苏建辉, 邵辉(150)

- 内蒙古科尔沁右翼前旗复兴屯银铅锌多金属矿床中闪锌矿的主微量元素组成特征及其地质意义 张青, 张成, 段海龙, 徐宏国, 张欣(161)
- 松辽盆地南部海力锦地区上白垩统姚家组砂岩物源示踪及其构造背景综合研究: 来自岩石地球化学及
锆石 U-Pb 年代学的制约 瞿亚辉, 李继木, 宁君, 王海涛(175)
- 松辽盆地现今地温场特征及控制因素 张翘然, 肖红平, 饶松, 施亦做, 李文靖, 黄顺德, 胡光明(191)
- 基于岩相和地球化学特征的沉积古地貌恢复新方法: 以川中栖霞组为例 饶诗怡, 伏美燕, 邓虎成, 吴冬, 胥旺, 陈培, 郭恒玮(205)
- 湖北宜昌下白垩统五龙组风成砂的发现及其物源分析 王倩, 肖国桥, 高慧, 秦世玉, 黄咸雨(214)

• 环境地质与水文地质 •

古堆—南梁泉域岩溶水环境问题现状与泉源区保护

- 王志恒, 梁永平, 史浙明, 申豪勇, 张松涛, 赵一, 谢浩, 赵春红, 唐春雷(228)
- 基于结合水膜厚度变化的红黏土收缩机理研究 张亚彬, 左双英, 吴道勇, 杨国生(241)
- 基于随机森林的电容式土壤水分传感器校准研究 汪正, 胡顺, 马瑞, 孙自永, 葛孟琰, 王俊友, 乔树锋(249)
- 不同测试条件下砂样电阻率特性试验研究 袁淑卿, 孙蓉琳, 邢锦兵, 肖巍(257)

• 新技术新方法 •

- 溶孔—裂隙复合网络的随机生成及其数值网格化 鲁海峰, 宁明诚, 张元, 梁修雨(264)
- 矿体三维可视化建模技术在成矿模式分析中的应用 唐骥, 蒋潇, 姜雪莲, 包金坤, 姚丽香, 席万鑫(273)
- 基于无监督学习的多参数储层评价: 以蒲包山地区下三叠统飞仙关组礁滩储层为例 李阳, 代宗仰, 张洁伟, 肖朵艳, 李丹, 赵晓阳, 李甜, 黄澜, 黄圆霖(285)
- 基于轮廓线层间形态插值的三维地质隐式曲面重构 王权, 邹艳红(293)

主 编: 王华 副 主 编: 朱鸿鹄 甘义群 李长冬 姜涛 孙自永 刘江霞
编辑部主任: 刘江霞 责任编辑: 禹华珍

期刊基本参数: CN42-1904/P * 1982 * b * A4 * 300 * zh * P * ¥25.00 * 1000 * 29 * 2023-09

BULLETIN OF GEOLOGICAL SCIENCE AND TECHNOLOGY

(Bimonthly)

Vol. 42 No. 5 Sep. 2023

CONTENTS

- Evaluation of slope stability of open pit based on factor space *Yi Fu, Meng Xingtao, Zhao Wenhua, Du Changbo*(1)
- Drilling process simulation and dynamic characteristic analysis of soft-hard-staggered strata based on Abaqus *Wen Guojun, Zhang Fengdou, He Xin, Liu Haojie, Wang Yudan, Zhao Quan*(10)
- Optimization of direct-hole cutting blasting technology for deep-buried layered surrounding rock diversion tunnels *Jiang Shouguo, Luo Shuaibing, Jiang Nan, Sun Jianbin, Zhou Haibo*(20)
- Influence of frozen soil on the seismic responses of bridge structures considering the effect of temperature *Yin Pengcheng, Sun Yixian, Pang Yutao, Wang Xiaowei, Zhu Weiyuan*(27)
- Degradation law and mechanism of the compressive strength of mica quartz schist under dry-wet cycles *Li Zhigang, Ye Honglin, Liu Wei, Xu Guangli, Ma Yun, Zhu Jia*(36)
- Geomechanical evolution model of bedding rock landslides in construction areas: A case study of the Maidiping landslide in Tiefeng Town, Wanzhou *Wang Yu, Feng Xiao, Du Juan, Liu Yang, Li Dong, Chai Bo*(43)
- Supporting effect analysis of the Huangnibian landslide based on MatDEM *Wang Fei, Xu Chu, Li Wei*(52)
- Influence of dredging on the foundation deformation of antique stone bridge built on soft ground and its mechanistic analysis *Li Yipeng, Ma Shuzhi, Jia Hongbiao, Li Xuan*(61)
- Characteristics and controlling factors of the organic-rich shale in the Wujiaping Formation of the Hongxing area, eastern Sichuan Basin *Wang Bijin, Bao Hanyong, Liu Haotian, Zhang Li, Zhao Shuai*(70)
- Fine-grained sublacustrine fan deposits and their significance in shale oil reservoirs in the Lucaogou Formation in the Jimsar Sag, Junggar Basin *Kang Jilun, Wang Jiahao, Ma Qiang, Li Chunquan, Chen Xingxing*(82)
- Pore structure and movable fluid characteristics of tight sandstone reservoirs in the Lower Shihezi Formation in the Hangjinqi area, Ordos Basin *He Yun, Wang Ruifei, Zhang Zhanyang, Wang Ruyue, Yin Shuai, He Weiling, Chen Ruina, Xiao Xue*(94)
- Depositional characteristics of a relay ramp controlled braided deltaic system: A case study in the Eocene Huizhou Sag, Pearl River Mouth Basin, China *Tao Wenfang, Ge Jiawang, Lei Yongchang, Li Xubiao, Zhu Xiaomin*(103)
- Enrichment mechanism of organic matter in black rock series of the Niutitang Formation in Bahuang, Tongren, Guizhou *Bai Yang, Xie Hong, Wang Mengzhai, Lu Zhenghao*(115)
- Research status of rock sliding specular reflection and its application in shale gas preservation *Wang Yufan, Xu Shang, Wen Yaru, Gou Qiyang, Zhang Zhiyao, Wang Zhengkai*(128)

- Occurrence characteristics and main control mechanism of trace elements in Early Permian coal in the southern margin of North China Plate *Yuan Duoen, Bian Jiahui, Liu Zixuan, Zhang Liwei, Pan Sidong* (138)
- Mineralogy and geochemistry of pyrochlore from the Shaxiongdong Nb-REE deposit, northwestern Hubei Province: Implications for the niobium enrichment mechanism in carbonatites *Qin Zhijun, Zhou Bao, Chang Sengren, Su Jianhui, Shao Hui* (150)
- Major and trace elemental compositions and geological significance of sphalerite in the Fuxingtun Ag-Pb-Zn polymetallic deposit, Horqin Right Wing Front, Inner Mongolia *Zhang Qing, Zhang Cheng, Duan Hailong, Xu Hongguo, Zhang Xin* (161)
- Provenance and tectonic setting of the Upper Cretaceous Yaojia Formation sandstones in the Haili Jin area, southern Songliao Basin: Constraints from petrogeochemistry and zircon U-Pb chronology *Zang Yahui, Li Jimu, Ning Jun, Wang Haitao* (175)
- Characteristics and controlling factors of the present geothermal field in the Songliao Basin *Zhang Qiaoran, Xiao Hongping, Rao Song, Shi Yizuo, Li Wenjing, Huang Shunde, Hu Guangming* (191)
- A new method for restoration of sedimentary paleogeomorphology based on lithofacies and geochemistry: A case study of the Qixia Formation in central Sichuan *Rao Shiyi, Fu Meiyuan, Deng Hucheng, Wu Dong, Xu Wang, Chen Pei, Guo Hengwei* (205)
- Discovery of the Lower Cretaceous aeolian sandstones in the Wulong Formation in Yichang, Hubei Province, and its provenance *Wang Qian, Xiao Guoqiao, Gao Hui, Qin Shiyu, Huang Xianyu* (214)
- Current situation of karst groundwater environmental problems and spring source protection in the Gudui-Nanliang spring basin *Wang Zhiheng, Liang Yongping, Shi Zheming, Shen Haoyong, Zhang Songtao, Zhao Yi, Xie Hao, Zhao Chunhong, Tang Chunlei* (228)
- Shrinkage mechanism of red clay based on changes in the thickness of bound water film *Zhang Yabin, Zuo Shuangying, Wu Daoyong, Yang Guosheng* (241)
- Calibration of capacitive soil moisture sensor based on random forest *Wang Zheng, Hu Shun, Ma Rui, Sun Ziyong, Ge Mengyan, Wang Junyou, Qiao Shufeng* (249)
- Experimental study on the electrical resistivity characteristics of sand under different testing conditions *Yuan Shuqing, Sun Ronglin, Xing Jinbing, Xiao Wei* (257)
- Stochastic generation and numerical gridding of dissolved pore-fracture composite networks *Lu Haifeng, Ning Mingcheng, Zhang Yuan, Liang Xiuyu* (264)
- Application of three-dimensional visualization modeling technology of ore bodies in metallogenic mode analysis *Tang Ji, Jiang Xiao, Jiang Xuelian, Bao Jinkun, Yao Lixiang, Xi Wanxin* (273)
- Multiparameter reservoir evaluation method based on unsupervised learning: A case study of the reef beach reservoir of the Lower Triassic Feixianguan Formation in the Pubaoshan area *Li Yang, Dai Zongyang, Zhang Jiewei, Xiao Duoyan, Li Dan, Zhao Xiaoyang, Li Tian, Huang Lan, Huang Youlin* (285)
- Three-dimensional geological implicit surface reconstruction based on intermediate contour morphological interpolation *Wang Quan, Zou Yanhong* (293)

2022—2026 年湖北省科技期刊楚天卓越行动计划项目资助期刊
2021 年“科技创新源泉工程”优秀科技期刊
2020 年度中国高校优秀科技期刊
2020 年获第十一届湖北省优秀期刊奖
2018 年度中国高校优秀科技期刊
2017 年获第十届湖北省优秀期刊奖
2016 年度中国高校优秀科技期刊
2015 年获第九届湖北省优秀期刊奖
2014 年获第五届中国高校优秀科技期刊奖

地 质 科 技 通 报
DIZHI KEJI TONGBAO

(双月刊)1982 年创刊

第 42 卷 第 5 期 (总第 212 期) 2023 年 9 月

BULLETIN OF GEOLOGICAL
SCIENCE AND TECHNOLOGY

(Bimonthly) Established in 1982

Vol. 42 No. 5 (Tot. No. 212) Sep. 2023

主管单位：中华人民共和国教育部

主办单位：中国地质大学(武汉)

主 编：王 华

编辑出版：中国地质大学(武汉)《地质科技通报》编辑部

地 址：湖北省武汉市洪山区鲁磨路 388 号

电 话：+86-27-67885048

电子信箱：kjqb @ cug.edu.cn

印 刷：武汉市籍缘印刷厂

国内发行：湖北省邮政局

邮发代号：38—130

海外总发行：中国国际图书贸易集团有限公司

国外发行代号：BM7999

广告经营许可证：4201003002914

Edited by Editorial Department of

*Bulletin of Geological Science and
Technology of China University
of Geosciences (Wuhan)*

Chief Editor: Wang Hua

Postal Address: 430074, Wuhan, Hubei, China

Tel: +86-27-67885048

E-mail: kjqb @ cug.edu.cn

Overseas Distributed by China National
Publishing Industry Trading Corpo-
ration (Address: P. O. Box 782, Beijing)

公开发行 刊号：ISSN 2096—8523 (国际标准刊号)
CN 42—1904/P (国内统一刊号)

定价：25.00 元/本

ISSN 2096-8523



9 772096 852238