

特邀主编 杨志明 孙 祥 陈华勇

地 球 科 学

2025 年 11 月 第 50 卷 第 11 期

目 次

西部地区铜金多金属成矿作用及找矿模型专栏

新疆古生代斑岩铜矿叠加成矿模式	陈华勇,吴 超,肖 兵,王云峰(4177)
青藏高原东部巴塘地区亚日贡花岗闪长岩成因及其对斑岩 Cu 矿成矿潜力的约束	杨宗永,朱经经,潘力川,黄明亮,汪殿钟(4195)
藏东玉龙斑岩铜矿剥蚀历史与保存程度-热年代学约束	甘圣添,孙茂好,董磊磊(4208)
地壳性质对滇西南锡矿床分布的约束:基于 Hf 同位素填图	裴 桐,孙 祥,郑明俊,苗 珂,梁晓雅(4229)
基于广域-编码源电磁测深的白银厂小铁山 VHMS 型矿床深部找矿模型构建	郭小刚,戴 霜,罗维斌,郭伟亮,廖永锋,韩 峰,周小红,王 泰,韩 盼(4243)

中国海陆过渡相页岩气形成、潜力与挑战	邹才能,董大忠,张 琴,孔维亮,刘 雯,赵振宇,杨 智,赵 群,丁 蓉,蔡光银,曲天泉,高万里,刘翰林,于荣泽,高金亮,邱 振 (4261)
深部找矿:金属矿地震技术的机遇与挑战	王 赞,陈晓非,底青云,霍守东,刘国峰,李颖达,彭 森,胡祥云,钱忠平,李建国(4284)
湘西龙王江金锑矿田变形序列、成矿时代背景与控矿构造	赵央连,李 彬,柏道远,邓 新,陈剑锋,曾广乾,黄建中,许德如(4300)
三江造山带普朗斑岩型铜金矿床硒碲富集规律及其资源前景评估	王 雷,韦金花,欧阳荷根,吴练荣,赵晓瑜,杨 帆,沃拥军,谢桂青(4323)
西藏工布江达县隆桑斑岩型铜钼矿床成岩-成矿时代及成矿潜力	吴昌益,郎兴海,邓煜霖,詹宏宇,王旭辉,李 宸,郑洪山,高焕丽,何 青,冯德新,郭柏卿(4337)
基于 TPE-SVM 模型和 SHAP 解释的闪锌矿微量元素特征识别铅锌矿床类型	陈忠元,任 涛,赵 冻(4355)
江南造山带西段北侧边界厘定:来自黔东大坪捕虏花岗岩的证据	王 坤,张嘉玮,向 璐,石 磊,叶太平,李海波,陈建书,代雅然,张婷婷,朱昱桦(4370)
腾冲地区新生代高钾钙碱性火山岩结构组成及形成过程	江 涛,郑建平,苏玉平,杨志国,李 鑫(4387)
粤北下庄铀矿田辉绿岩岩石地球化学、磷灰石 U-Pb 年龄及其与铀成矿关系	李海东,钟福军,刘文泉,潘家永,田世洪,曹 栩,郑国栋(4405)
丽江盆地早三叠世砂岩物源特征及其对扬子西南构造的约束	朱 民,孟立丰,李 也,陈新伟,吴鸿翔(4424)
江西宜黄棠阴花岗伟晶岩电气石地球化学、硼同位素特征及地质意义	袁 晶,曹 毅,唐春花,晏俊灵,周 渝,钱正江,刘小龙,汪明有,孙 超(4442)
镍同位素在海洋沉积物中的地球化学行为	马静雅,吕逸文,王水炯(4459)
气体地球化学勘查研究进展与展望	李高鑫,陈 鑫,郑有业,高顺宝,林成贵,薛兆龙,姜晓佳(4473)
基于 3D-CA-GAN 的岩石体纹理合成技术	段 炼,冯 云,花卫华,陈启浩,刘修国,张 坤,付 伟(4499)
火山岩风化区农田重金属污染及健康风险评价:以海口江东新区为例	左文萍,黎清华,张彦鹏,陈 帅(4514)
考虑井储效应的双重介质单孔抽水非稳定流解析模型	魏世毅,万军伟,孙 伟,黄 琨,郭绪磊,刘志明(4531)
苏锡常地下空间开发对地下水流场的影响	宋 昀,许 洁,许书刚,姜 雪,龚绪龙,吴月权,孙自永(4540)
全球变暖背景下海洋浮游生物群落长期变化	张武昌,赵 苑,刘红斌,孙 军(4551)
孕灾环境对泥石流危险性影响	李永威,徐林荣,谷丰宇,苏 娜,张亮亮(4571)
• 其他 •	
《地球科学》2025 年 12 月第 50 卷第 12 期要目预告	(4423)

主编 王焰新

责任编辑 散飞雪

期刊基本参数: CN 42-1874/P * 1957 * m * A4 * 406 * zh * P * ¥ 50.00 * 1200 * 24 * 2025-11

封面照片: 西藏阿里地区的扎达土地地貌, 札达盆地水平岩层经地壳抬升、风雨侵蚀及差异风化形成形似城堡、碉楼、尖峰的地貌景观(袁晶提供).

EARTH SCIENCE
Vol.50 No.11 Nov. 2025

CONTENTS

*Special Column on Copper-Gold Polymetallic Mineralization and
Prospecting Models in Western Regions*

Superimposed Mineralization Model of Paleozoic Porphyry Copper Deposits in Xinjiang	Chen Huayong, Wu Chao, Xiao Bing, Wang Yunfeng (4177)
Petrogenesis of Yarigong Granodiorite in Batang Area and Constraints on Porphyry Cu Fertility, Eastern Tibetan Plateau	Yang Zongyong, Zhu Jingjing, Pan Lichuan, Huang Mingliang, Wang Dianzhong (4195)
Exhumation History and Preservation Degree of Yulong Porphyry Copper Deposit in East Tibet: Constrained by Thermochronology	Gan Shengtian, Sun Maoyu, Dong Leilei (4208)
Nature of Crust Constraints on Tin Deposit Distribution in Southwest Yunnan: Based on Hf Isotope Mapping	Pei Tong, Sun Xiang, Zheng Mingjun, Miao Ke, Liang Xiaoya (4229)
Construction of a Deep Prospecting Model for Baiyinchang Xiaotieshan VHMS-Type Deposit Based on Wide-Field Coded-Source Electromagnetic Sounding Method	Guo Xiaogang, Dai Shuang, Luo Weibin, Guo Weiliang, Liao Yongfeng, Han Feng, Zhou Xiaohong, Wang Qin, Han Pan (4243)

Formation, Potential, and Challenges of Marine-Continental Transitional Shale Gas in China	Zou Caineng, Dong Dazhong, Zhang Qin, Kong Weiliang, Liu Wen, Zhao Zhenyu, Yang Zhi, Zhao Qun, Ding Rong, Cai Guangyin, Qu Tianquan, Gao Wanli, Liu Hanlin, Yu Rongze, Gao Jinliang, Qiu Zhen (4261)
Deep Mineral Exploration: Opportunities and Challenges in Reflection Seismics	Wang Yun, Chen Xiaofei, Di Qingyun, Huo Shoudong, Liu Guofeng, Li Yingda, Peng Miao, Hu Xiangyun, Qian Zhongping, Li Jianguo (4284)
Deformation Sequence, Metallogenic Age Setting and Ore-controlling Structures of Longwangjiang Gold-Antimony Ore-Field in West Hunan, South China	Zhao Yanglian, Li Bin, Bai Daoyuan, Deng Xin, Chen Jianfeng, Zeng Guangqian, Huang Jianzhong, Xu Deru (4300)
Enrichment Regularities of Se and Te and Their Potential Resources in Pulang Porphyry Cu-Au-Mo Deposit, Sanjiang Orogenic Belt	Wang Lei, Wei Jinhua, Ouyang Hegen, Wu Lianrong, Zhao Xiaoyu, Yang Fan, Wo Yongjun, Xie Guiqing (4323)
Diagenetic-Metallogenic Age and Mineralization Potential of Longsang Porphyry Cu-Mo Deposit, Gongbu Jiangda County, Tibet	Wu Changyi, Lang Xinghai, Deng Yulin, Zhan Hongyu, Wang Xuhui, Li Chen, Zheng Hongshan, Gao Huanli, He Qing, Feng Dexin, Guo Baiqing (4337)
TPE-SVM Model and SHAP Analysis to Identify Pb-Zn Deposit Types Based on Sphalerite Trace Elements	Chen Zhongyuan, Ren Tao, Zhao Dong (4355)
Demarcation of North Boundary for Western Jiangnan Orogen: Evidence from Granitic Xenolith in Daping Area, East Guizhou	Wang Kun, Zhang Jiawei, Xiang Lu, Shi Lei, Ye Taiping, Li Haibo, Chen Jianshu, Dai Yaran, Zhang Tingting, Zhu Yuhua (4370)
Structure Composition and Formation Process of Cenozoic High-K Calc-Alkaline Volcanic Rocks in Tengchong Area	Jiang Tao, Zheng Jianping, Su Yuping, Yang Zhiguo, Li Xin (4387)
Petrogeochemistry, Apatite U-Pb Geochronology of Diabase, and Its Relationship with Uranium Mineralization in Xiazhuang Uranium Ore Field, North Guangdong	Li Haidong, Zhong Fujun, Liu Wenquan, Pan Jiayong, Tian Shihong, Cao Xu, Zheng Guodong (4405)
Provenance of Early Triassic Clastic Rocks and Its Constraint on Tectonic Evolution of Lijiang Basin, Upper Yangtze Block	Zhu Min, Meng Lifeng, Li Ye, Chen Xinwei, Wu Hongxiang (4424)
Geochemical, Boron Isotope Characteristics and Geological Significance of Tourmaline from Tangyin Granitic Pegmatite in Yihuang, Jiangxi Province	Yuan Jing, Cao Yi, Tang Chunhua, Yan Junling, Zhou Yu, Qian Zhengjiang, Liu Xiaolong, Wang Mingyou, Sun Chao (4442)
Geochemical Behaviors of Nickel Isotope in Marine Sediments	Ma Jingya, Lü Yitwen, Wang Shuijiong (4459)
Research Progress and Prospects of Gas Geochemical Exploration	Li Gaoxin, Chen Xin, Zheng Youye, Gao Shunbao, Lin Chenggui, Xue Zhaolong, Jiang Xiaojia (4473)
Rock Solid Texture Synthesis Based on 3D-CA-GAN	Duan Lian, Feng Yun, Hua Weihua, Chen Qihao, Liu Xiuguo, Zhang Kun, Fu Wei (4499)
Assessment of Heavy Metal Pollution and Health Risk in Farmland in Volcanic Weathering Area: A Case Study in Jiangdong New District of Haikou	Zuo Wenping, Li Qinghua, Zhang Yanpeng, Chen Shuai (4514)
Identification of Hydrogeological Parameter in Double-Porosity Fractured Aquifer Based on Single-Well Pumping Test	Wei Shiyi, Wan Junwei, Sun Wei, Huang Kun, Guo Xulei, Liu Zhiming (4531)
Influence of Underground Space Development on Groundwater Flow Field in Su-Xi-Chang Area	Song Yun, Xu Jie, Xu Shugang, Jiang Xue, Gong Xulong, Wu Yuequan, Sun Ziyong (4540)
Long-Term Changes in Plankton Communities in Context of Global Warming	Zhang Wuchang, Zhao Yuan, Liu Hongbin, Sun Jun (4551)
Influence of Disaster-Pregnant Factors on Debris Flow Hazard	Li Yongwei, Xu Linrong, Gu Fengyu, Su Na, Zhang Liangliang (4571)