

煤田地质与勘探

MEITIAN DIZHI YU KANTAN

2023 年第 2 期

(月刊 1973 年创刊)

第 51 卷 总 302 期

目 次

·院士专栏·

- “双碳”目标下煤田区地热资源开发利用与储能技术 汪集暘, 孔彦龙, 段忠丰, 张吉雄, 罗昔联, 黄永辉, 罗娜宁, 程远志, 周楠, 张伟尊, 庞忠和(1)
- 煤矿回采工作面智能地质保障技术进展与思考 王国法, 张建中, 薛国华, 刘再斌, 刘清, 李梅, 刘军锋, 程健, 张学亮(12)

·煤炭地质 矿井地质·

- 论中国煤炭地质勘查工作在新条件下的定位与重大研究问题 王佟, 韩效忠, 邓军, 孙亚军, 李增学, 唐书恒, 毛善君, 林中月, 李聪聪, 赵欣, 孙杰, 宋洪柱, 张彪, 孟凡彬, 吴兆剑, 邓小利, 江涛(27)
- 宣威地区燃煤排放颗粒物毒理学及肺癌地质起因研究 邵龙义, 张梦媛, 冯晓蕾, 焦杰伟, 王文华, 周义平(45)
- 我国煤与瓦斯突出机理 70 年发展历程与展望 张超林, 王培仲, 王恩元, 许江, 李忠辉, 刘晓斐, 彭守建(59)
- 准东煤田构造特征及控煤作用研究 王猛, 马如英, 单雅迪, 闫一超(95)
- 矿井地质动力环境评价方法与冲击地压矿井类型划分研究 兰天伟, 张志佳, 袁永年, 韩军, 刘洪泉, 张俊杰, 张宏伟, 罗波远, 刘铭玮(104)
- 后混合磨料空气射流喷嘴结构优化及破煤效果研究 杨恒, 魏建平, 蔡玉波, 张路路, 刘勇(114)

·煤系气 煤伴生矿产·

- 低阶煤吸附孔结构特征及其对甲烷吸附性能影响 李树刚, 周雨璇, 胡彪, 秦雪燕, 孔祥国, 白杨, 张静非(127)
- CO₂ 相变致裂煤的显微构造特征与成因机制 曹运兴, 张新生, 张军胜, 郭帅房, 孟兵兵(137)
- 煤层 CO₂ 地质封存的微观机理研究 姚艳斌, 孙晓晓, 万磊(146)
- CO₂ 地质封存与利用示范工程进展及典型案例剖析 刘世奇, 皇凡生, 杜瑞斌, 陈世恒, 管奕婷, 刘英海, 汪涛(158)

·水文地质 工程地质 环境地质·

- 近松散层采掘抗渗透破坏评价方法 I: 临界水力坡度 隋旺华(175)
- 叶面涂抹 DSE 菌液对蛋白桑生长发育影响及其生态修复前景 毕银丽, 王苗优, 柯增鸣(187)
- 黄土梁峁地貌矿井水水质时空变异评估与关键控制因子水源识别 施龙青, 曲兴玥, 韩进(195)
- 华北型煤田水文地球化学勘探关键技术研究进展 陈陆望, 胡永胜, 张杰, 张苗, 郑剑, 郑忻, 张媛媛, 蔡欣悦, 武明辉(207)
- 不同级配陷落柱充填体力学特征实验研究 刘伟韬, 杜衍辉, 庞立夫, 孟祥喜, 申建军, 胡莹莹(220)
- 利用煤炭开发地下空间储能的技术路径与地质保障 孙强, 张卫强, 耿济世, 胡建军, 张玉良, 吕超, 葛振龙, 李鹏飞, 贾海梁, 刘亚斌, 李宇翔(229)
- 采空区大掺量粉煤灰无机固化泡沫制备及特性研究 马砾, 杜素, 张照允, 王慧, 赵亮, 张波(243)
- 蒙陕接壤区煤矿采空区水-岩系统中氟来源及释放规律 王甜甜, 靳德武, 薛建坤, 姬红英, 尚宏波, 周振方, 杨建, 曹煜(252)

·煤田物探 矿井物探·

- 煤层长波长地震各向异性的多尺度效应初探 王赞, 郑永芹, 杨春, 张壹, 李颖达, 张慧民(263)
- 煤田高密度三维地震勘探技术的发展现状及趋势 董守华, 黄亚平, 金学良, 杨光明, 聂爱兰, 祁雪梅, 程彦, 吴海波(273)
- 综采工作面煤厚变化电磁波透视探测响应 吴荣新, 李响, 肖玉林(283)
- 煤矿反射槽波探测技术研究评述 王季, 叶红星, 张广忠, 李刚, 吴国庆, 牛欢, 杨焱钧, 关奇(292)
- 电磁法在煤矿水害隐患探测方面的综述 张继锋, 孙乃泉, 刘最亮, 戚志鹏(301)

期刊基本参数: CN 61-1155/P*1973*m*A4*316*zh*P* ¥ 40.00*1500*25*2023-02 本期执行编辑: 聂爱兰

2023 年 2 月 25 日出版

公开发行人

邮发代号: 52-14

国内定价: 40.00 元

CONTENTS

Geothermal energy exploitation and storage in coal field under the dual carbon goal	WANG Jiyang, KONG Yanlong, DUAN Zhongfeng, ZHANG Jixiong, LUO Xilian, HUANG Yonghui, LUO Naning, CHENG Yuanzhi, ZHOU Nan, ZHANG Weizun, PANG Zhonghe(1)
Progress and reflection of intelligent geological guarantee technology in coal mining face	WANG Guofa, ZHANG Jianzhong, XUE Guohua, LIU Zaibin, LIU Qing, LI Mei, LIU Junfeng, CHENG Jian, ZHANG Xueliang(12)
Orientation and major research problems of coal geological exploration in China under new conditions	WANG Tong, HAN Xiaozhong, DENG Jun, SUN Yajun, LI Zengxue, TANG Shuheng, MAO Shanjun, LIN Zhongyue, LI Congcong, ZHAO Xin, SUN Jie, SONG Hongzhu, ZHANG Biao, MENG Fanbin, WU Zhaojian, DENG Xiaoli, JIANG Tao(27)
The toxicology of particulate matter emitted from coal combustion and the geological origin of lung cancer epidemic in Xuanwei City, Yunan Province, China	SHAO Longyi, ZHANG Mengyuan, FENG Xiaolei, JIAO Jiwei, WANG Wenhua, ZHOU Yiping(45)
Coal and gas outburst mechanism: Research progress and prospect in China over the past 70 years	ZHANG Chaolin, WANG Peizhong, WANG Enyuan, XU Jiang, LI Zhonghui, LIU Xiaofei, PENG Shoujian(59)
Characteristics and coal-controlling effects of structures in the Zhundong coalfield	WANG Meng, MA Ruying, SHAN Yadi, YAN Yichao(95)
An evaluation method for geological dynamic environments of mines and the classification of mines subjected to rock bursts	LAN Tianwei, ZHANG Zhijia, YUAN Yongnian, HAN Jun, LIU Hongquan, ZHANG Junjie, ZHANG Hongwei, LUO Boyuan, LIU Mingwei(104)
Structure optimization and coal breaking effect of air jet nozzle for post-mixed abrasive	YANG Heng, WEI Jianping, CAI Yubo, ZHANG Lulu, LIU Yong(114)
Structural characteristics of adsorption pores in low-rank coals and their effects on methane adsorption performance	LI Shugang, ZHOU Yuxuan, HU Biao, QIN Xueyan, KONG Xiangguo, BAI Yang, ZHANG Jingfei(127)
Characteristics and formation mechanisms of microstructures in coal treated with CO ₂ phase transition fracturing	CAO Yunxing, ZHANG Xinsheng, ZHANG Junsheng, GUO Shuaifang, MENG Bingbing(137)
Micro-mechanism of geological sequestration of CO ₂ in coal seam	YAO Yanbin, SUN Xiaoxiao, WAN Lei(146)
Progress and typical case analysis of demonstration projects of the geological sequestration and utilization of CO ₂	LIU Shiqi, HUANG Fansheng, DU Ruibin, CHEN Shiheng, GUAN Yiting, LIU Yinghai, WANG Tao(158)
Evaluation method of resistance to seepage failure due to mining near unconsolidated aquifers I: critical hydraulic gradient	SUI Wanghua(175)
Effect of foliar application of DSE fungal solution on growth of Morus alba and its prospects of ecological restoration application	BI Yinli, WANG Zhuoyou, KE Zengming(187)
Evaluation on spatiaotemporal variations of mine water quality and water source identification based on key dominant factors in loess hilly and gully region	SHI Longqing, QU Xingyue, HAN Jin(195)
Progress of research on key technologies for hydrogeochemical prospecting in North China type coalfield	CHEN Luwang, HU Yongsheng, ZHANG Jie, ZHANG Miao, ZHENG Jian, ZHENG Xin, ZHANG Yuanyuan, CAI Xinyue, WU Minghui(207)
Experimen on mechanical properties of various graded collapse column fills	LIU Weitao, DU Yanhui, PANG Lifu, MENG Xiangxi, SHEN Jianjun, HU Yingying(220)
Technological path and geological guarantee for energy storage in underground space formed by coal mining	SUN Qiang, ZHANG Weiqiang, GENG Jishi, HU Jianjun, ZHANG Yuliang, LYU Chao, GE Zhenlong, LI Pengfei, JIA Hailiang, LIU Yabin, LI Yuxiang(229)
Preparation and characteristics of inorganic curing foam with large-volume fly ash in goaf	MA Li, DU Su, ZHANG Zhaoyun, WANG Hui, ZHAO Liang, ZHANG Bo(243)
Source and release law of fluorine in water-rock system of coal mine goaf in contiguous area of Shaanxi and Inner Mongolia	WANG Tiantian, JIN Dewu, XUE Jiankun, JI Hongying, SHANG Hongbo, ZHOU Zhenfang, YANG Jian, CAO Yu(252)
A preliminary study on the multiscale effect of seismic anisotropy of coal seams at long wavelengths	WANG Yun, ZHENG Yongqin, YANG Chun, ZHANG Yi, LI Yingda, ZHANG Huimin(263)
Development status and trend of high-density 3D seismic exploration technology for coal fields	DONG Shouhua, HUANG Yaping, JIN Xueliang, YANG Guangming, NIE Ailan, QI Xuemei, CHENG Yan, WU Haibo(273)
Detection of change in the coal thickness of a fully mechanized mining face based on electromagnetic wave penetration	WU Rongxin, LI Xiang, XIAO Yulin(283)
A review on research of reflected in-seam wave detection technology in coal mine	WANG Ji, YE Hongxing, ZHANG Guangzhong, LI Gang, WU Guoqing, NIU Huan, YANG Yanjun, GUAN Qi(292)
Electromagnetic methods and in the detection of water hazards in coal mines: A review	ZHANG Jifeng, SUN Naiquan, LIU Zuiliang, QI Zhipeng(301)