

工矿自动化

第 48 卷 第 7 期 2022 年 7 月

目 次

• “煤矿智能采掘装备技术与应用”专题 •

- 数字孪生——应对智能化综采工作面技术挑战.....
.....葛世荣 王世博 管增伦 王雪松 安文龙 吕渊博 陈书航(1)
- 基于激光靶向跟踪的悬臂式掘进机位姿测量系统研究..... 薛光辉 李圆 张云飞(13)
- 融合近红外光谱的煤岩界面分布感知研究..... 杨恩 王世博 宣统(22)
- 近红外光谱煤岩识别装置研制..... 吕渊博 王世博 葛世荣 周悦 王赛亚 柏永泰(32)
- 基于近红外双目立体视觉的悬臂式掘进机定位研究..... 王学 周红旭 张雷 王华英(43)
- 基于非完整性约束的采煤机定位方法..... 宋单阳 杨金衡 陶心雅 卢春贵 田慕琴 宋建成(52)
- 综采工作面煤层三维模型动态修正方法研究..... 梁要 王世博 葛世荣 柏永泰 谢洋(58)
- 综采工作面大流量智能供液系统研究..... 司明 邬伯藩 王子谦(66)
- 基于加速度计的顶煤运移时间测量系统..... 李增林 靳舒凯 刘安强 张权 员明涛 康俊瑄 杨克虎(73)
- 固体充填液压支架全位姿测量及虚拟仿真..... 王裕 史艳楠 王毅颖 齐朋磊 王翰秋(81)

• 分析研究 •

- 采煤工作面火灾风险阶段性多指标综合评价方法..... 陈小林(90)
- 煤矿微震监测台网监测能力分析与优化方法..... 陈法兵 吴红军 崔保阁 王元杰 李岩(96)
- 深部巷道围岩复合注浆加固技术..... 付玉凯 王涛 孙志勇 岳延朋(105)

• 实验研究 •

- 基于线扫描原理的煤矿巷道变形测量系统..... 杨洪涛 于印 许吉祥 沈梅 陆广慧(113)
- 基于改进完备集成经验模态分解的钢丝绳缺陷漏磁检测方法..... 钟小勇 陈科安 张小红(118)
- 矿用多频段微带天线设计..... 张志文 徐艳红 周梦丽 王安义(125)
- 基于分位数回归的煤炭发热量预测..... 赵先枝 陈军林(130)
- 预氧化煤低温氧化放热和动力学特性研究..... 闫国锋 黄兴利 闫振国(135)
- 多特征融合的煤矿网络加密恶意流量检测方法..... 霍跃华 赵法起 吴文昊(142)
- 煤矿企业数据中心网络安全服务链技术研究..... 孙磊 孙淑昕 王博文 任贺贺 彭辉(149)

• 广告索引 •

公益广告(后插一); 天地(常州)自动化股份有限公司(后插二、三); 2022 中国贵州国际能源产业博览交易会(后插四)

JOURNAL OF MINE AUTOMATION

Vol. 48 No. 7 July 2022

CONTENTS

• Special of Intelligent Mining and Excavation Equipment Technology and Application in Coal Mine •

- Digital twin: meeting the technical challenges of intelligent fully mechanized working face
..... *GE Shirong WANG Shibo GUAN Zenglun WANG Xuesong AN Wenlong LYU Yuanbo CHEN Shuhang* (2)
- Research on pose measurement system of cantilever roadheader based on laser target tracking
..... *XUE Guanghui LI Yuan ZHANG Yunfei* (13)
- Research on coal-rock interface distribution perception based on near-infrared spectra ... *YANG En WANG Shibo XUAN Tong* (22)
- Development of coal and rock identification device based on near-infrared spectroscopy
..... *LYU Yuanbo WANG Shibo GE Shirong ZHOU Yue WANG Saiya BAI Yongtai* (32)
- Research on the cantilever roadheader based on near-infrared binocular stereo vision
..... *WANG Xue ZHOU Hongxu ZHANG Lei WANG Huaying* (43)
- Shearer positioning method based on non-holonomic constraints
..... *SONG Danyang YANG Jinheng TAO Xinya LU Chungui TIAN Muqin SONG Jiancheng* (52)
- Study on dynamic modification method of 3D model of coal seam in fully mechanized working face
..... *LIANG Shua WANG Shibo GE Shirong BAI Yongtai XIE Yang* (58)
- Research on large flow intelligent liquid supply system in fully mechanized working face ... *SI Ming WU Bofan WANG Ziqian* (66)
- Top coal migration time measurement system based on accelerometer
..... *LI Zenglin JIN Shukai LIU Anqiang ZHANG Quan YUN Mingtao KANG Junxuan YANG Kehu* (73)
- Full pose measurement and virtual simulation of solid filling hydraulic support
..... *WANG Yu SHI Yannan WANG Yiyong QI Penglei WANG Hanqiu* (81)

• Analysis Research •

- Staged multi-index comprehensive evaluation method for fire risk of coal working face *CHEN Xiaolin* (90)
- Analysis and optimization method of monitoring capability of coal mine microseismic monitoring network
..... *CHEN Fabing WU Hongjun CUI Baoge WANG Yuanjie LI Yan* (96)
- Composite grouting reinforcement technology for deep roadway surrounding rock
..... *FU Yukai WANG Tao SUN Zhiyong YUE Yanpeng* (105)

• Experimental Research •

- Coal mine roadway deformation measurement system based on line scanning principle
..... *YANG Hongtao YU Yin XU Jichan SHEN Mei LU Guanghui* (113)
- Steel wire rope defect magnetic flux leakage detection method based on improved complementary ensemble empirical mode
decomposition *ZHONG Xiaoyong CHEN Ke'an ZHANG Xiaohong* (118)
- Design of mine multi-band microstrip antenna *ZHANG Zhiwen XU Yanhong ZHOU Mengli WANG Anyi* (125)
- Prediction method of coal calorific value based on quantile regression *ZHAO Xianzhi CHEN Junlin* (130)
- Research on exothermic and kinetic characteristics of low-temperature oxidation of preoxidized coal
..... *YAN Guofeng HUANG Xingli YAN Zhenguo* (135)
- Multi-feature fusion based encrypted malicious traffic detection method for coal mine network
..... *HUO Yuehua ZHAO Faqi WU Wenhao* (142)
- Research on network security service chain technology of data center in coal mine enterprise
..... *SUN Lei SUN Shuxin WANG Bowen REN Hehe PENG Hui* (149)