

江西省优秀科技期刊 万方数据——数字化期刊群全文入网期刊
中国期刊全文数据库收录期刊 中国煤炭数字图书馆全文收录核心期刊
中国学术期刊(光盘版)全文收录期刊 中国煤炭技术与设备网入网期刊
中国核心期刊(遴选)数据库收录期刊 煤炭科技论文数据库收录期刊
中国学术期刊综合评价数据库统计源期刊 中文科技期刊数据库收录期刊

ISSN 1006-2572
CN 36-1121/TD

江西煤炭科技

JIANGXI COAL SCIENCE & TECHNOLOGY

全省煤矿安全工作会暨事故警示教育会

热烈祝贺江西省煤矿安全工作会暨事故警示教育会2月24日在南昌召开!

ISSN 1006-2572



江西省煤炭学会
江西省能源集团公司
江西省煤炭经济研究会
江西省煤炭工业研究所

主办

1

2017

万方数据

江西煤炭科技 第一期 二〇一七年二月

JIANGXI COAL SCIENCE & TECHNOLOGY NO.1 2017.02

目次

煤矿安全

- 悬移液压支架大倾角大转向开采工艺应用研究 金江涛,龙继红,刘海清(1)
- 基于BP人工神经网络的煤矿支护可靠性研究 高宏(4)
- 基于伯努利方程的探放水钻孔涌水量计算 丁亮斌(7)
- 大采高工作面煤壁片帮影响因素研究与实践 郭川洲(10)
- 泰和玉华黄岗石灰石矿东部的水患及防治 周国强,赵佳睿(13)
- 高瓦斯强冲击无煤柱综放开采防火技术研究 王焕成,李广彬,李晓雨(17)
- 中厚煤层综采工作面矿压规律实测研究 刘谋珍(21)

专题论述

- 带式输送机 PLC 自控系统及变频器的选型设计 彭万艺(24)
- LabView 在采煤机故障监测与处理中的应用研究 白秀峰(27)
- 复杂条件下巷道贯通方法与应用 阴雷彪(30)
- 短壁连采技术在边角煤回收中的应用及优化 王永健(33)
- 瞬变电磁技术在煤层顶板防治水中的应用分析 冯波,刘林(36)
- 螺纹编程与加工信息化教学设计探索 郭检平(39)
- 高突矿井底抽巷穿层钻孔抽采瓦斯试验研究 左杨(43)
- 仰采工作面安全管理难题及对策措施 薛志尚(46)
- 故障模式和影响分析法在通风系统中的应用 许殿辉(49)

技术经验

- 对螺杆泵在 JK 型乳化炸药生产线中的维护与应用 李蕾,朱春林(52)
- 大采高工作面综采设备运行及分析 王二强(54)
- 掘进巷道自动旋转防尘水幕设计与应用 高潇男(57)
- 掘进巷道临时水仓自动循环排水装置设计与应用 张康平(59)
- 司马矿瓦斯抽放方法及安全措施浅析 李渊(61)
- 阳煤三矿竖井 15# 煤扩二区通风系统优化实践 刘宏光(63)
- 集中配风巷支护设计 潘智虎(66)
- 综采工作面过陷落柱采煤实践 郗立功(69)
- 司马矿瓦斯抽采存在问题及对策措施 郭伟(71)
- 8824 运输巷掘进穿层揭煤施工措施浅析 冯星(73)
- 回采工作面进风巷冒顶原因分析及预防措施 王卫恒(75)
- 降压站 6 kV 开关柜改造 武建平(77)
- 普瑞特封堵防灭火技术在 8308 工作面的应用 杜明(79)
- 浅析选煤厂机械液压系统故障及对策 赵国强(81)

问题探讨

- 坚硬顶煤弱化对放顶开采的影响性分析 卢伟冬(83)
- 司马矿 1211 综采面回撤通道支护设计与应用 王锴波(85)

选煤厂供配电技术改造方案研究	王 威(88)
松软破碎顶板上山掘进支护工艺优化设计	李 进(90)
电厂燃料区域防尘优化改造	刘宇梅(92)
综采工作面顶板控制与管理探讨	郭新宇(95)
工作面顺槽垮冒区支护技术探讨	凌海祥(97)
综掘过构造区施工工艺的改进	刘利军(100)
双泵联合抽采工作面瓦斯技术应用	孙 健(102)
液压钻车作业线在岩巷掘进中的应用	刘志强(104)
采煤新技术应用浅析	白晓文(107)
兴峪煤矿 15 号煤采区通风设计浅析	张靖昊(109)
电能质量及节约用电分析	沈小芳(111)
阳煤一矿南翼回风系统改造技术分析	左石军(114)
采区准备巷及通风系统优化设计	常杉杉(117)
丁集煤矿煤层瓦斯基本参数测定分析	常彦昆(119)
浅析煤矿机电运输安全管理措施	李先峰(122)
长距离相向工作面贯通通风系统调整方法初探	李海兵(124)

《江西煤炭科技》编辑部声明

《江西煤炭科技》杂志为中国学术期刊(光盘版)万方数据资源系统、中文科技期刊数据库、中国期刊全文数据库、中国学术期刊综合评价数据库、中国煤炭数字图书馆收录期刊。本刊对发表的文章同时拥有出版电子版、网络版版权,并拥有与其它网站交换信息的权力。作者向本刊提交文章发表的行为即视为同意本刊上述声明。

本刊编辑工作委员会

总 顾 问 赵苏启 徐开云

顾 问 林绍华 李 松 胡立俭 刘建高 黄登龙 谢志勇 胡圣辉 刘伏生 罗庆贺 邹爱国
邱少斌 王国琴

主 任 林国尧

副 主 任 郭正义

委 员 余子兵 兰祖良 蒋 荣 文国华 李春发 吴庭龙 金江涛 吴安德 刘振春 刘效贤
邱子群 李 健 朱 琰 袁安辉 项元海 胡中祺 王一峰

协 办 单 位 江西省煤田地质局 中鼎国际工程有限责任公司 江西工业工程职业技术学院 丰城矿务局
萍乡矿业集团有限责任公司 江西新余矿业有限责任公司 乐平矿务局 江西中煤科技有限责任公司
江西翼隆矿业有限公司 江西煤矿安全监察局安全技术中心

江西煤炭科技 季 刊 (1979 年创刊) JIANGXI COAL SCIENCE & TECHNOLOGY Quarterly (Started in 1979)
2017 年第 1 期(总第 153 期)2017 年 2 月出版 No.1 2017 (SeriesNo. 153) February 2017

主 管 江西煤矿安全监察局

主 办 江西省煤炭学会

江西省能源集团公司

江西省煤炭经济研究会

江西省煤炭工业科学研究所

编辑出版 《江西煤炭科技》编辑部

主 编 谭武忠

责任编辑 岑代全 彭呈喜

地 址 南昌市北京东路 23 号(330029)

电话/传真 (0791) 88326754 / 87151362

电子信箱 jxmtkj@163.com

印 刷 江西晨光彩印包装有限责任公司

发行范围 公开发行

订 购 处 《江西煤炭科技》编辑部

Responsible Institution Jiangxi Bureau of Colliery Safety Supervision

Sponsor Jiangxi Coal Society

Jiangxi Energy Group Corp

Jiangxi Research Institute of Coal Industry

Jiangxi Research Institute of Coal Industry

Editorial and Publishing Dept. Editorial Office of Jiangxi Coal Science & Technology

Chief Editor Tan Wuzhong

Responsible Editor Cen Daiquan Peng Chengxi

Address 23 Beijing East Street, Nanchang, China (Postcode 330029)

Tel/Fax (0791) 88326754/87151362

E-mail jxmtkj@163.com

Printed by Jiangxi Morning Light Color Printing & Pre-pressing Co., Ltd.

Issuing Scope Public Distribution

Order Office Editorial Office of Jiangxi Coal Science & Technology

Contents

Colliery Safety

- Application Research of Mining Technology of Movable Hydraulic Support under the Condition
of Large Dip Angle and Turns Jin Jiangtao, Long Jihong, Liu Haiqing(1)
- Research on Reliability of Coal Mine Support Based on BP Artificial Neural Network Gao Hong(4)
- Calculation of Water Discharge of Water Detection and Water Release Drilling Based on
Bernoulli Equation Ding Liangbin(7)
- Research and Practice on Influencing Factors of Coal Wall Rip Spalling at Large Mining Height Face
..... Guo Chuanzhou(10)
- Floods in East of Huanggang Limestone Colliery, Yuhua, Taihe and Its Prevention
..... Zhou Guoqiang, Zhao Jiarui(13)
- Study on Fire Prevention Technology of High-gas, Strong-impact, and No Pillar on Fully Mechanized Caving
Mining Wang Huancheng, Li Guangbin, Li Xiaoyu(17)
- Measured Study on Strata Behavior Regularity of the Fully Mechanized Coal Mining Face
in Medium Thick Coal Seam Liu Mouzhen(21)

Topie Exposition

- PLC Automatic Protection Control System of Belt Conveyor and the Selection Design of Frequency Converter
..... Peng Wanyi(24)
- Application Research on LabView in Shearer Fault Monitoring and Handling Bai Xiufeng(27)
- Methods and Application of Roadway Threaded Together under Complicated Conditions ... Yin Leibiao(30)
- Application and Optimization of Short Wall Mining Technology in Marginal Coal Recovery
..... Wang Yongjian(33)
- Application Analysis of Transient Electromagnetic Technology in Coal Seam Roof Water Prevention and
Control Feng Bo, Liu Lin(36)
- Probe into Information-based Instructional Design of Thread Programming and Processing ... Guo Jianping(39)
- Discussion on Reasonable End Hole Positioning in Crossing Hole
of Floor Drainage Roadway in High Outburst Mine Zuo Yang(43)
- Safety management problems and Countermeasures of coal mining face in coal mine Xue Zhishang(46)
- Application of Failure Mode and Impact Analysis in Ventilation System Xu Dianhui(49)

Technology & Experience

- Maintenance and Application of Screw Pump in Safety Production Line of JK Emulsion Explosives
..... Li Lei, Zhu Chunlin(52)
- Design and Application of Autorotation Dustproof Water Curtain in Roadway Gao Xiaonan(57)
- Design and Application of Automatic Circulating Drainage Device for Temporary Water Sump of
Tunneling Zhang Kangping(59)
- Analysis of Design and Safety Measures of Gas Drainage Borehole in Sima Colliery Liyuan(61)
- Operation and Analysis of Fully Mechanized Mining Equipment at Large Mining Height Working Face
万方数据

..... Wang Erqiang(54)

Optimization Practice on Ventilation System at Kuoer Area, No. 15 Coal Seam, No. 3 Colliery,
 Yangquan Coal Mining Industry Group Co. Liu Hongguang(63)

Supporting Design of Central Airway Pan Zhihu(66)

Mining Practice on Collapse Column at Fully Mechanized Working Face Xi Ligong(69)

Existing Problems and Countermeasures of Gas Drainage in Sima Colliery Guo wei(71)

Construction Technology Research on Excavation Cutting through Coal Seam Feng Xing(73)

Cause Analysis and Preventive Measures of Roof Fall in Air Entry of Working Face - - - Wang Weihuan(75)

Transformation of 6 KV Switch Cabinet in Receiving Substation Wu Jianping(77)

Application of New Comprehensive Fire Prevention and Control Technology in 8308 Face Du Ming(79)

Analysis of Failure and Countermeasures of Machinery and Hydraulic System in
 Coal Preparation PlantZhao Guoqiang(81)

Problem Probe

Influential Analysis of Hard Top Coal Weakening on Roof Carving Lu Weidong(83)

Design and Application of Retracement Gateway Support at 1211
 Fully -mechanized Mining Face in Sima CollieryWang Kaibo(85)

Research on Technical Transformation Scheme of Power Supply and Distribution for Coal Preparation Plant
 Wang Wei(88)

Optimization design of Support Technology for Soft and Broken Roadway in Raise Driving Li Jin(90)

Transformation on Dust Suppression System in Fuel Zone of Power Plant Liu Yumei(92)

Discussion on Roof Control and Management at Fully-mechanized Mining Face Guo Xinyu(95)

Discussion on Support Technology in Caving Zone of Crossheading at Working Face Ling Haixiang(97)

Construction Technique Improvement in Crossing Tectonic Area of Fully-mechanized Mining Face
 Liu Lijun(100)

Application of Combined Gas Suction Technology with Twin Pumps at Working Face Sun Jian(102)

Application of Production Line with Hydraulic Drilling Machine in Rock Drifting Liu Zhiqiang(104)

Application Research on New Coal Mining Technology Bai Xiaowen(107)

Ventilation Design of No. 15 Expansion Area in Xingyu Colliery Zhang Jinghao(109)

Analysis of Power Quality and Electricity Saving Shen Xiaofang(111)

Analysis of Southern Air-return System Transformation in No. 1 Colliery
 of Yangquan Coal Industry Group Co., Ltd. Zuo Shijun(114)

Optimization Design of Preparatory Roadway and Ventilation System in Mining Area
 Chang Shanshan(117)

Analysis of Basic Gas Parameter Determination in Coal Seams of Dingji Colliery Chang Yankun(119)

Analysis of Safety Management Measures of Mechanical and Electrical Transportation in Colliery
 Li Xianfeng(122)

Ventilation System Adjustment Method in Heading through Long-distance Opposite Working Faces
 Li Haibin(124)

翻 译:彭晓娟,应红雨

Translator: Peng Xiaojuan, Ying Hongyu