



Q K 2 1 1 7 5 1 3 DEN MTHPDA ISSN 0253-9993
CN 11-2190/TD

煤炭学报

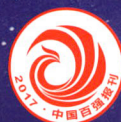
啓功題

JOURNAL OF CHINA COAL SOCIETY



“煤加工与洁净化工技术”专题

客座主编：李文英 教授



4

2021

第46卷 第4期

2021年4月出版

ISSN 0253-9993



04>

9 770253 999215

中国科学技术协会 主管

中国煤炭学会 主办

万方数据

“煤加工与洁净化工技术”专题

- 低阶煤催化加氢转化研究进展 赵云鹏,吴法鹏,司兴刚,赵 薇,高寒冰,康国俊,曹景沛,魏贤勇(1067)
- 褐煤加氢反应中氧的分布、迁移与转化规律 李 旺,冯 杰,冯敏敏,王兴宝,李文英(1080)
- SiO₂ 包覆对 Ni₂P/Al₂O₃ 催化剂结构和蒽加氢性能的影响
..... 荆洁颖,李 泽,杨志奋,王九占,刘道诚,李文英(1088)
- 新疆淖毛湖煤直接液化富产芳烃的催化加氢过程 赵 鹏,刘 敏,李文博(1099)
- Ni,Pd,Pt 负载 α -MoC 催化水煤气变换反应理论 史 肖,邹雪燕,黄 伟,左志军(1107)
- 含氮/硫芳香族化合物的溶剂萃取 贝鹏志,李文英(1113)
- 基于可分离-选择性破坏分析方法的煤沥青有机结构研究
..... 王玉高,王志磊,申 峻,牛泽世,牛艳霞,魏贤勇(1121)
- 茚两步法合成 9-茚甲醇在蒽渣提取分离菲中的应用 郭美鑫,叶翠平,师田田,梁美生(1130)
- 基于化学族组成的煤化学研究体系构建及其应用 田原宇,谢克昌,乔英云,田 斌(1137)
- 生物质与重油共热解特性及气体逸出规律
..... 向欣宇,张 乾,袁 泉,郝泽光,栾春晖,涂椿滢,梁丽彤,黄 伟(1146)
- 铁助剂对长焰煤“热解-燃烧”过程中的减氮脱硝作用
..... 阎志中,张凯霞,刘月华,刘守军,杨 颂,杜文广(1155)
- 气化渣水介重选及其分离炭制备脱硫脱硝活性焦试验研究
..... 任振场,井云环,樊盼盼,高艳春,王建成,董连平,鲍卫仁,樊民强,常丽萍(1164)
- 煤基石墨烯/Fe₂O₃ 自支撑电极的制备及其储锂性能 ... 张亚婷,李可可,任绍昭,张永玲,刘国阳,周安宁(1173)
- 煤基碳纳米片宏观体的结构调控及电化学性能
..... 曾会会,邢宝林,徐 冰,谌伦建,张传祥,刘 晓,张宝庆,孙 琦,张玉龙(1182)
- 粉煤灰合成地聚物及工艺参数的神经网络优化 梁鼎成,杨国明,张香兰,刘德钱,刘金昌,解 强(1194)

采矿理论与工程

加卸载条件下煤样应变与渗透性的演化特征
..... 祝捷,王琪,唐俊,陈霁月,姜耀东,唐迪,兰天翔(1203)

工作面顺序接续下综放沿空掘巷窄煤柱稳定性控制
..... 张洪伟,万志军,张源,滕腾,陈宇龙,魏泽捷(1211)

窄柔模墙体沿空留巷围岩偏应力演化与控制
..... 王俊峰,王恩,陈冬冬,张晴,陈平,董智宇,闫志强,肖海滨(1220)

深部厚硬顶板下充填面留巷大变形分析及控制 苗凯军,屠世浩,刘迅,纪欣卓(1232)

软岩反底拱优化加固技术及应用——以上海庙矿区为例 李磊,文志杰(1242)

裂隙砂岩变形破裂过程中应变场灰度及纹理特征分析 张科,张凯(1253)

安全科学与工程

基于煤岩动力系统能量的冲击地压矿井临界深度判别
..... 荣海,于世棋,张宏伟,梁冰,韩军,兰天伟,杨振华(1263)

超高压水射流“横切纵断”防治复合煤岩动力灾害技术 易恩兵,张永将(1271)

煤与煤系气地质与勘查

鄂尔多斯盆地东缘石西区块含氦天然气的发现及成因初探
..... 刘超,孙蓓蕾,曾凡桂,畅向东,郭盛强,王宇红,刘彦峰,张绍韡,陈建伟,李健(1280)

煤粉运移与沉积对支撑裂缝渗透率动态影响规律 ... 胡胜勇,郝勇鑫,陈云波,冯国瑞,李国富,张惜图(1288)

矿山环境保护

浅埋煤层沟道采动裂缝发育特征及治理方法
..... 侯恩科,冯栋,谢晓深,从通,李民峰,冯冲,刘凡凡,杜超杰(1297)

煤矿区重构土壤剖面水气变化及其对温度梯度的响应
..... 陈敏,陈孝杨,王校刚,张凌霄,张迪,朱建明(1309)

西露天矿周边建筑物损害区位特征分析 高安琪,王金安,李飞,谢江(1320)

煤矿机电与智能化

数字孪生驱动的掘进工作面出风口风流智能调控系统
..... 龚晓燕,雷可凡,吴群英,崔小强,吴悦,朱斌,杨富强,张红兵,刘辉(1331)

基于超像素粒化与同质图像粒聚类的矿井人员图像分割方法
..... 李晓宇,杨维,刘斌,范伟强,张向阳(1341)

CONTENTS

Advances in catalytic hydroconversion of low-rank coals
..... ZHAO Yunpeng, WU Fapeng, SI Xinggang, et al (1067)

Distribution, migration and transformation of oxygen during the hydrogenation reaction of lignite
..... LI Wang, FENG Jie, FENG Minmin, et al (1080)

Effect of SiO₂ coating on the structure and naphthalene hydrogenation performance of Ni₂P/Al₂O₃ catalyst
..... JING Jieying, LI Ze, YANG Zhifen, et al (1088)

Process of catalytic hydrogenation of Naomaohu coal liquefaction to aromatics
..... ZHAO Peng, LIU Min, LI Wenbo (1099)

Theoretical study for water-gas shift reaction over Ni, Pd and Pt supported on α-MoC surface
..... SHI Xiao, ZOU Xueyan, HUANG Wei, et al (1107)

Solvents extraction of nitrogen/sulfur-containing aromatic separation BEI Pengzhi, LI Wenyong (1113)

Investigation of organic structures in coal pitch based on separable-selective destruction analysis method
..... WANG Yugao, WANG Zhilei, SHEN Jun, et al (1121)

Application of fluorene two-step synthesis of 9-fluorenylmethanol in extraction and separation
of phenanthrene from anthracene residue GUO Meixin, YE Cuiping, SHI Tiantian, et al (1130)

Construction and application of coal chemistry research system based on chemical group composition
..... TIAN Yuanyu, XIE Kechang, QIAO Yingyun, et al (1137)

Characteristics of co-pyrolysis of biomass and heavy oil and the evolution behavior of produced gases
..... XIANG Xinning, ZHANG Qian, YUAN Quan, et al (1146)

Effect of iron additives on nitrogen reduction and denitrification of long-flame coal during pyrolysis and
combustion YAN Zhizhong, ZHANG Kaixia, LIU Yuehua, et al (1155)

Experimental study on the water-medium gravity separation of gasification slag and the preparation of
desulfurization and denitrification activated coke using separated carbon
..... REN Zhenyang, JING Yunhuan, FAN Panpan, et al (1164)

Coal-based graphene/Fe₂O₃ nanostructures grow on nickel foams as an enhanced free-standing anode
for lithium-ion batteries ZHANG Yating, LI Keke, REN Shaozhao, et al (1173)

Microstructural regulation of coal-based carbon nanosheets and their electrochemical performance
..... ZENG Huihui, XING Baolin, XU Bing, et al (1182)

Synthesis of geopolymer from fly ash and optimization of process parameters by neural network	.....	LIANG Dingcheng, YANG Guoming, ZHANG Xianglan, et al	(1194)
Evolution characteristics of strain and permeability of coal samples under loading and unloading conditions	.....	ZHU Jie, WANG Qi, TANG Jun, et al	(1203)
Stability control of narrow coal pillars in the fully-mechanized gob-side entry during sequenced top coal caving mining	.....	ZHANG Hongwei, WAN Zhijun, ZHANG Yuan, et al	(1211)
Evolution of deviatoric stress and control of surrounding rock at gob-side entry retaining with narrow flexible-formwork wall	.....	WANG Junfeng, WANG En, CHEN Dongdong, et al	(1220)
Large deformation analysis and control of retaining entry along the backfilling working face with thick hard roof in deep mining	.....	MIAO Kaijun, TU Shihao, LIU Xun, et al	(1232)
Optimal floor heave control technology and its engineering application in soft rock roadway: A case study of Shanghaimiao mining area	.....	LI Lei, WEN Zhijie	(1242)
Gray and texture features of strain field for fractured sandstone during failure process	.....	ZHANG Ke, ZHANG Kai	(1253)
Determination of critical depth in rockburst mine based on the energy of coal-rock dynamic system	.....	RONG Hai, YU Shiqi, ZHANG Hongwei, et al	(1263)
Composite hazards prevention with breaking coal seam and roof by super high pressure water jet	.....	YI Enbing, ZHANG Yongjiang	(1271)
Discovery and origin of helium-rich gas on the Shixi area, eastern margin of the Ordos Basin	.....	LIU Chao, SUN Beilei, ZENG Fangui, et al	(1280)
Dynamic influence law of coal powder migration and deposition on propped fracture permeability	.....	HU Shengyong, HAO Yongxin, CHEN Yunbo, et al	(1288)
Development characteristics and treatment methods of mining surface cracks in shallow-buried coal seam gully	.....	HOU Enke, FENG Dong, XIE Xiaoshen, et al	(1297)
Variation of water and air in reconstruction soil profile and its response to temperature gradient in coal mine area	.....	CHEN Min, CHEN Xiaoyang, WANG Xiaogang, et al	(1309)
Locational characteristics of damage on buildings around the West Open-pit Mine	.....	GAO Anqi, WANG Jin'an, LI Fei, et al	(1320)
Digital twin driven airflow intelligent control system for the air outlet of heading face	.....	GONG Xiaoyan, LEI Kefan, WU Qunying, et al	(1331)
Segmentation method for mine personnel images based on superpixel granulation and homogenous image granules	.....	LI Xiaoyu, YANG Wei, LIU Bin, et al	(1341)



煤炭学报



煤传媒



中国煤炭行业
知识服务平台

中国“百强报刊”
百种中国杰出学术期刊
中国精品科技期刊
中国最具国际影响力学术期刊
中国科技期刊卓越行动计划入选期刊
Ei Compendex、Scopus、CSCD 收录期刊
中文核心期刊
中国科技核心期刊



煤炭学报

Journal of China Coal Society

MEITAN XUEBAO

月刊 (1964 年创刊)

第 46 卷第 4 期(总第 319 期) 2021 年 4 月

Monthly (Started in 1964)

Vol. 46 No. 4(Series No. 319) Apr. 2021

主管 中国科学技术协会
主办 中国煤炭学会
出版 《煤炭学报》编辑部
(北京和平里, 邮政编码: 100013)
主编 刘 峰
副主编 朱拴成
执行主编 朱拴成
副主任 常 琛
(主持工作)
副主任 常明然
责任编辑 韩晋平 常 琛 常明然
郭晓炜 钱小静 黄小雨
数字编辑 郭晓炜 官在芹
技术编辑 郑红瑞
印刷 北京联合互通彩色印刷有限公司
国内发行 《煤炭学报》编辑部
国外发行 中国国际图书贸易总公司
(北京 399 信箱)
国外代号 M 190

Responsible Institution China Association for Science and Technology
Sponsor China Coal Society
Publisher Editorial Office of Journal of China Coal Society
(Hepingli, Beijing, China, 100013)
Editor in Chief LIU Feng
Associate Chief Editor ZHU Shuancheng
Exec. Chief Editor ZHU Shuancheng
Associate Director(Chair) CHANG Chen
Associate Director CHANG Mingran
Responsible Editor HAN Jinping CHANG Chen
CHANG Mingran GUO Xiaowei
QIAN Xiaojing HUANG Xiaoyu
Digital Editor GUO Xiaowei GONG Zaiqin
Technical Editor ZHENG Hongrui
Domestic Distributor Editorial Office of Journal of China Coal Society
Overseas Distributor China International Book Trading Corporation
(P. O. Box 399, Beijing, China)
Code Number M 190

中国标准连续出版物号: ISSN 0253-9993
CN 11-2190/TD

国内定价: 78.00 元

万方数据

Tel: (010)87986411

E-mail: mtxb@vip.163.com

http: // www.mtxb.com.cn