

# 洁净煤技术

第 29 卷 第 12 期 卷终(总第 160 期) 2023 年 12 月

## 目 次

### 2060 碳中和

生物质热解焦油 CO<sub>2</sub>重整技术研究进展 ..... 马晓茜,廖艳芬,陈新飞(1)

### “青年科学家”专栏

煤气化细渣炭灰分离研究进展 ..... 张宁宁,赵富强,韩 瑞,李 振,周安宁,庞 甜(11)

生物质基碳气凝胶光催化剂的制备与性能研究进展 ..... 焦 月,丁嘉宣,梅长彤,肖惠宁,李 坚(19)

Ce 对 CoMnO<sub>x</sub> 催化剂协同 CO/NH<sub>3</sub> 脱硝性能  
..... 张兴宇,刘倩倩,糜淑琪,韩运斌,玄承博,耿文广,孙荣峰,王鲁元(34)

### 研究论文

富油煤原位热解地下加热技术及其高效工艺 ..... 唐 颖,吴晓丹,李乐忠,苏 展,王若仪(42)

CaO 对糠醛渣/煤共气化过程中产品的影响规律 ..... 陈玉卓,宋云彩,冯 杰(51)

低阶煤热解及催化解聚动力学 ..... 吕 婧,王俊丽,张 进,李淑英,李金萍,赵 强,郝晓刚,赵建国(59)

预热处理改善炼焦煤性质的研究进展 ..... 薛庆国,乔子琴,张林杨,王静松,王 广,余雪峰(65)

石墨烯炭材料的结构表征方法 ..... 姜晓琳,李 君,刘 臻,尉琳琳,韦 慧(75)

燃煤发电行业低碳化发展路径分析 ..... 徐顺智,赵瑞彤,王孝全,杨凤玲,张培华(83)

西岔沟脱灰煤超临界水氧化过程中元素转化规律  
..... 张 荣,赵学超,刘植昌,顾素敏,曲 旋,陈皓侃,毕继诚(95)

60 t/h 预热燃烧锅炉纯燃热解半焦试验 ..... 朱书骏,田继林,朱建国,吕清刚(103)

燃煤烟气碳捕集系统压缩、干燥与液化设备选型 ..... 李 偲,龚海艇,杨 阳,郑旭帆(110)

柱式流化床去除喷吹煤中煤系黄铁矿过程模拟 ..... 于艳辉,史长亮(119)

未建模动态补偿驱动的重介质选煤自适应控制 ..... 李伟涛,苟晓东(128)

高剪切调浆强化低阶煤泥浮选及其作用机理 ..... 乔二乐,闵凡飞,沈 亮,刘令云(136)

煤泥水絮凝沉降效果导向的旋流-扰流流场优化 ..... 胡金良,林 喆(145)

《洁净煤技术》2023 年第 29 卷总目次 ..... ( I )

期刊基本参数:CN 11-3676/TD \* 1995 \* m \* A4 \* 150 \* zh \* P \* ¥35.00 \* 1000 \* 17 \* 2023-12

本期执行编辑:白娅娜

# Clean Coal Technology

Vol.29 No.12 (Series No.160) Dec. 2023

## CONTENTS

### Column for Carbon Neutrality

Research progress on CO<sub>2</sub> reforming of biomass pyrolysis tar ..... MA Xiaoqian, LIAO Yanfen, CHEN Xinfei (1)

### Column for Young Scientist

Research progress of the separation of carbon and ash in coal gasification fine slag  
..... ZHANG Ningning, ZHAO Fuqiang, HAN Rui, LI Zhen, ZHOU Anning, PANG Tian (11)

Advances in preparation and properties of biomass-based carbon aerogel photocatalysts  
..... JIAO Yue, DING Jiakuan, MEI Changtong, XIAO Huining, LI Jian (19)

Effect of Ce on the NO<sub>x</sub> removal performance of CoMnO<sub>x</sub> catalysts synergistic CO/NH<sub>3</sub>  
..... ZHANG Xingyu, LIU Qianqian, MI Shuqi, HAN Yunbin, XUAN Chengbo,  
GENG Wenguang, SUN Rongfeng, WANG Luyuan (34)

### Research Articles

Heating technology of in-situ pyrolysis for tar-rich coal and its high efficiency process  
..... TANG Ying, WU Xiaodan, LI Lezhong, SU Zhan, WANG Ruoyi (42)

Influence of CaO on furfural residue/coal co-gasification products  
..... CHEN Yuzhuo, SONG Yuncai, FENG Jie (51)

Kinetics of pyrolysis and catalytic depolymerization of low rank coal  
... LYU Jing, WANG Junli, ZHANG Jin, LI Shuying, LI Jinping, ZHAO Qiang, HAO Xiaogang, ZHAO Jianguo (59)

Research progress on the effect of preheating on coking coal properties  
..... XUE Qingguo, QIAO Zishen, ZHANG Linyang, WANG Jingsong, WANG Guang, SHE Xuefeng (65)

Research on the characterization methods of graphene carbon materials  
..... JIANG Xiaolin, LI Jun, LIU Zhen, WEI Linlin, WEI Hui (75)

Analysis on low-carbon development path of coal-fired power generation industry  
..... XU Shunzhi, ZHAO Ruitong, WANG Xiaoquan, YANG Fengling, ZHANG Peihua (83)

Element transformation rule of Xichagou ashless coal during the supercritical water oxidation process  
..... ZHANG Rong, ZHAO Xuechao, LIU Zhichang, GU Sumin, QU Xuan, CHEN Haokan, BI Jicheng (95)

Experimental study on pyrolysis of semi-coke pure combustion in 60 t/h preheating combustion boiler  
..... ZHU Shujun, TIAN Jilin, ZHU Jianguo, LYU Qinggang (103)

Research on compression, drying and liquefaction equipment selection in CO<sub>2</sub> capture system of the coal-fired  
power plant ..... LI Cai, GONG Haiting, YANG Yang, ZHENG Xufan (110)

Removal process simulation on coal-pyrite of injection coal based on column fluidized bed  
..... YU Yanhui, SHI Changliang (119)

Adaptive control of heavy medium coal preparation without modeling dynamic compensation drive  
..... LI Weitao, GOU Xiaodong (128)

High-shear condition for enhancing flotation of low rank coal and the associated mechanisms  
..... QIAO Erle, MIN Fanfei, SHEN Liang, LIU Lingyun (136)

Optimization of swirling-disturbed flow field for flocculation and settlement of coal slime water  
..... HU Jinliang, LIN Zhe (145)