

全国中文核心期刊 · 中国科技核心期刊 · 全国中文核心期刊 · 中国科技核心期刊

**THERMAL
POWER
GENERATION**

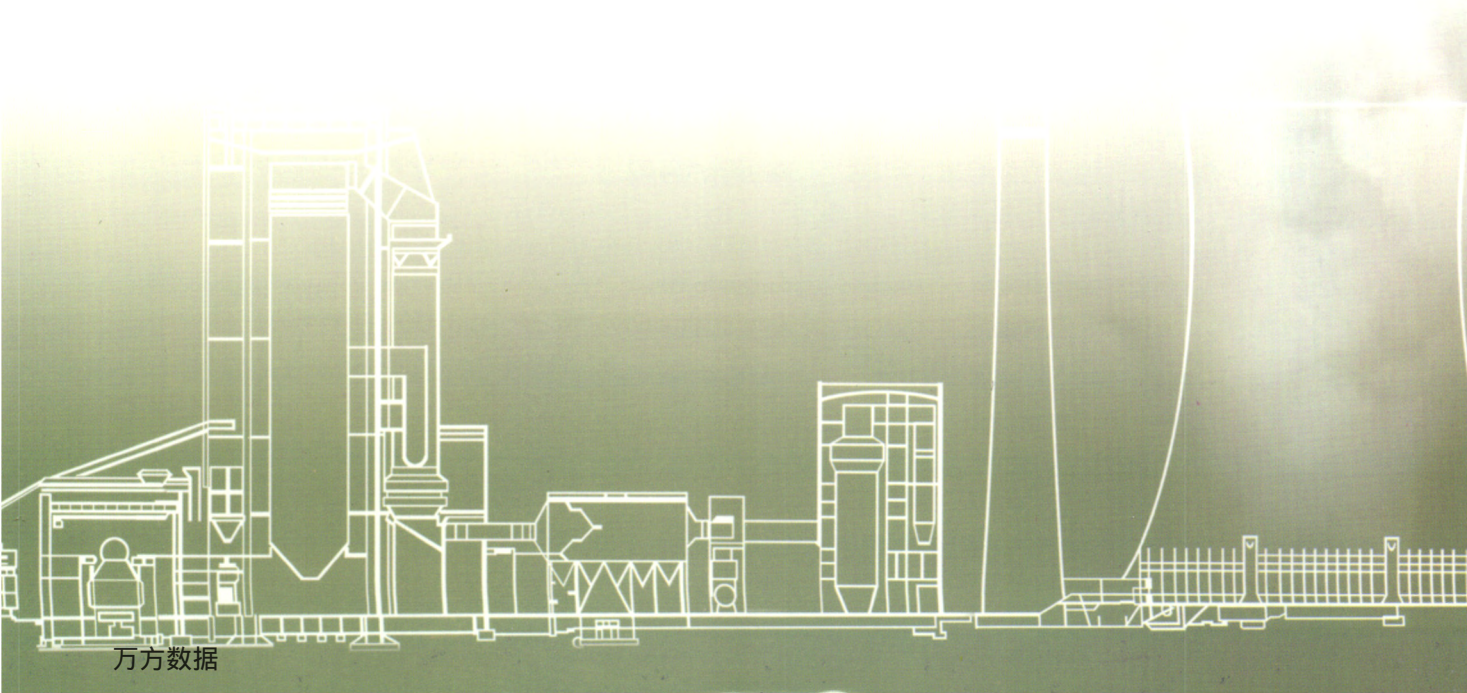
ISSN1002-3364
CN61-1111/ TM

热力发电

2013.11

总323期
1972年创刊
第42卷

■ 主办：西安热工研究院有限公司



万方数据

CONTENTS

目次

技术经济综述

- 01 采用 O_2/CO_2 燃烧方式与空气燃烧方式下煤粉锅炉的 Ex 效率分析 //肖卓楠
- 06 燃气-蒸汽联合循环机组热电成本分摊方法探讨 //于彦显,梁 辉
- 12 基于快速决策算法的汽动引风机经济性分析 //马晓茜,彭晓为,徐齐胜,吴 婕,余岳溪
- 16 配置双进双出磨煤机的超临界机组控制策略优化 //赵志丹,韩吉亮,练领先,王家兴,张宇辉,孔德伟

热能科学研究

- 21 跟踪式 CPC 热管真空管太阳能集热器性能研究 //孙 伟,王银峰,陈海军,马婷婷,查俊杰,杨谋存,朱跃钊
- 26 Performance investigation on a sun-tracking CPC heat pipe evacuated tube solar collector
//SUN Wei, WANG Yinfeng, CHEN Haijun, MA Tingting, ZHA Junjie, YANG Moucun, ZHU Yuezhao
- 31 富氧燃烧烟气中石灰石微粒团聚结构稀薄气体效应分析 //尚建宇,刘中良,王松岭,王春波
- 37 基于钙基载氧体燃烧分离 CO_2 还原反应动力学研究 //郑文广,梁秀进
- 43 小麦秸秆与铁法煤混燃灰渣特性研究 //孙 洋,杨天华,贺业光,开兴平,李桂荣,李润东
- 49 大型汽轮机组 2 次再热回热系统关键技术研究 //王卫良,李永生
- 54 W 型火焰锅炉一次风粉参数测量及调平试验研究 //靳 菲,阎维平,苏宏亮,夏 阳
- 60 流场速度分布均匀性评价指标比较与应用研究 //李 坦,靳世平,黄素逸,刘 伟
- 64 基于蚁群算法-BP 神经网络的主蒸汽温度控制系统仿真研究 //王秋平,马春林,肖玲玲,张振宇
- 69 富氧气氛下煤粉锅炉等离子冷风直接点火特性的数值模拟 //王志浩,赵星海,辛国华,孙 文,王宇楠
- 76 新型纳米吸附剂制备及脱除单质汞实验研究 //孔凡海,赵俊武
- 81 基于响应曲面法的流化床富氧气化制取煤气的工艺优化研究 //杨学强,韦忠祥,王立群
- 86 褐煤半焦燃烧特性的热重试验研究 //刘建忠,刘明强,赵卫东,张 斌,周俊虎,岑可法
- 93 $NaClO_2/NaClO$ 复合吸收剂同时脱硫脱硝机理研究
//张 朋,杨一理,许红樵,李娟娟,江 斌,姜艳艳,潘理黎
- 97 光轴蜂窝汽封泄漏特性研究 //杨荣祖,宁 哲,宋文希
- 101 基于小波包变换和奇异值分解的风机故障诊断研究 //王松岭,刘锦廉,许小刚
- 107 锅炉烟气余热利用方案研究 //张润盛,董丽娟,辛建华,赵荣中,田 宇
- 110 2 070 t/h 对冲燃烧锅炉传热计算及煤种适应性分析 //江焯辉,鄢晓忠,纪 括,刘定军,陈绍龙
- 116 基于 PI-DMC 算法的循环流化床床温控制系统研究 //刘长良,李菲菲

发电技术论坛

- 121 基于最小均方误差准则的 ICA 过程监控方法 //王靖程,任志文,舒进,周昭亮
- 127 CSK40 阳树脂与 CPA12 阴树脂在空冷机组凝结水精处理系统中的应用 //李焕芳,得丸出
- 130 600 MW 机组汽轮机低压第 5 级动叶片断裂故障分析
//张永海,肖俊峰,谷伟伟,余小兵,朱宝田,崔雄华
- 134 超超临界 1 000 MW 空冷机组汽轮机安装要点与消振措施 //张宗录
- 138 超临界 630 MW 机组汽轮机通流结垢诊断及处理 //丁旭春,王毅,殷志龙,施延洲
- 142 天然气点火系统在循环流化床锅炉启动中的应用 //张世鑫,郑祖翰,罗英强,李万胜
- 145 发电机组性能计算组态平台软件的设计与开发 //吴智群,柴胜凯,刘超飞,马晓中
- 149 213 丙烯酸系与 201×7 苯乙烯系阴离子交换树脂性能比较
//安雪松,徐京君,田佳,彭章华,田利,崔焕芳,朱蕊,何醇
- 152 串级控制系统积分饱和分析及处理方法 //王峥,黄俊谐,王文俊,李伟,李小林
- 156 空冷凝汽器翅片管束变形的影响分析及对策 //郭民臣,陈文飞,李美宝
- 159 高功率床上重油燃烧器流化床锅炉启动方法 //党小建,吴寿贵,刘爱军,李峰,张少勇
- 164 超超临界 660 MW 机组取消脱硫旁路的控制系统优化 //陈咏城

现场经验交流

- 167 采用管式空气预热器机组锅炉的脱硝改造方案研究 //段玉燕
- 169 凝结水精处理混床周期制水量偏低原因分析及处理
//周仲康,郑敏聪,杨浩,金浩,李建华,孙玉忠,韩永霞
- 172 机组微油点火启动初期蒸汽温度的控制 //黄卫军,潘瑞强,於晓博,石宝全
- 174 某锅炉补给水处理系统保安过滤器滤芯频繁污堵原因分析及处理
//徐京君,戴鑫,仝晓明,田佳,安雪松

[期刊基本参数]CN61-1111/TM*1972*b*A4*84*zh*P*¥10.00*4500*39*2013-11

THERMAL POWER GENERATION

CONTENTS

Exergy efficiency of the pulverized coal boiler with O_2/CO_2 combustion and O_2/N_2 combustion	XIAO Zhuonan(1)
Discussion on thermoelectric cost calculation methods of gas-steam combined cycle units	YU Yanxian, LIANG Hui(6)
Fast decision-making algorithm based economic analysis for a steam-driven induced draft fan	MA Xiaoqian, PENG Xiaowei, XU Qisheng, WU Jie, YU Yuexi(12)
Control strategy optimization for supercritical unit equipped with double-inlet and double-outlet ball mill	ZHAO Zhidan, HAN Jiliang, LIAN Lingxian, WANG Jiaxing(16)
Performance investigation on a sun-tracking CPC heat pipe evacuated tube solar collector	SUN Wei, WANG Yin-feng, CHEN Haijun, MA Tingting, ZHA Junjie, YANG Moucun, ZHU Yuezhao(21)
Rarefied gas effect inside limestone grain aggregate frame in oxy-fuel fired flue atmosphere	SHANG Jianyu, LIU Zhongliang, WANG Songling, WANG Chunbo(31)
Reduction reaction dynamic research on sequestration of CO_2 with calcium-based oxygen carrier	ZHENG Wenguang, LIANG Xiu-jin(37)
Characteristics of ash from wheat straw and Tiefs coal co-combustion	SUN Yang, YANG Tianhua, HE Yeguang, KAI Xingping, LI Guirong, LI Rundong(43)
Key technologies of double reheat & heat regeneration systems for large scale steam turbines	WANG Weiliang, LI Yongsheng(49)
Parameter measurement and balancing experiment of primary air and powder in a W-flame boiler	JIN Fei, YAN Weiping, SU Hongliang, XIA Yang(54)
Evaluation indices of flow velocity distribution uniformity, comparison and application	LI Tan, JIN Shiping, HUANG Suyi, LIU Wei(60)
Main steam temperature control based on ant colony optimization algorithm and BP neural network	WANG Qiuping, MA Chunlin, XIAO Lingling, CUI Rui(64)
Numerical simulation on direct ignition characteristics with plasma and cold air in pulverized coal boilers in oxygen-enriched atmosphere	WANG Zhihao, ZHAO Xinghai, XIN Guohua, SUN Wen, WANG Yu'nan(69)
Experimental study on elemental mercury adsorption by novel nano-sorbents	KONG Fanhai, ZHAO Junwu(76)
Response surface methodology based process optimization on coal gas preparation by oxygen enriched gasification in a fluidized bed	YANG Xueqiang, WEI Zhongxiang, WANG Liqun(81)
Thermogravimetric study on combustion characteristics of lignite semicoke	LIU Jianzhong, LIU Mingqiang, ZHAO Weidong, ZHANG Bin, ZHOU Junhu, CEN Ke-fa(86)
Mechanism of simultaneous removal of SO_2 and NO_x by $NaClO_2/NaClO$ compound absorbent	ZHANG Peng, YANG Yili, XU Honglei, LI Juanjuan, JIANG Bin, JIANG Yanyan, PAN Lili(93)
Numerical investigation on leakage characteristics of smooth honeycomb seal	YANG Rongzu, NING Zhe, SONG Wenxi(97)
Wavelet packet transform and singular value decomposition based fault diagnosis of fans	WANG Songling, LIU Jinlian, XU Xiaogang(101)
Flue gas waste heat utilization schemes for boilers	ZHANG Runpan, DONG Lijuan, XIN Jianhua, ZHAO Rongzhong, TIAN Yu(107)
Heat transfer calculation and coal adaptability analysis for a supercritical 2 070 t/h opposed-firing boiler	JIANG Zhuoye, YAN Xiaozhong, JI Kuo, LIU Dingjun, CHEN Shaolong(110)
The PI-DMC algorithm based CFB temperature control system	LIU Changliang, LI Feifei(116)
A minimum mean square error based novel process monitoring method with independent component analysis	WANG Jingcheng, REN Zhiwen, SHU Jin, ZHOU Zhaoliang(121)
Application of high crosslinked gel type cation exchange resin and porous type anion exchange resin for condensate polishing in a 1 060 MW air-cooled unit	LI Huanfang, Izuru Tokumaru(127)
Reason analysis for the fifth stage blade fracture in low pressure cylinder of a 600 MW unit steam turbine	ZHANG Yonghai, XIAO Junfeng, GU Weiwei, YU Xiaobing, ZHU Baotian, CUI Xionghua(130)
Installation characteristics and anti vibration measures of a 1 000 MW ultra-supercritical air-cooled steam turbine	ZHANG Zonglu(134)
Flow passage fouling in a 630 MW supercritical unit steam turbine, diagnosis and treatment	DING Xuchun, WANG Yi, YIN Zhilong, SHI Yanzhou(138)
Application of gas ignition system in start-up of circulating fluidized bed boilers	ZHANG Shixin, ZHENG Zuhan, LUO Yingqiang, LI Wansheng(142)
Design and development of performance calculation configuration platform for power generating unit	WU Zhiqun, CHAI Shengkai, LIU Chao-fei, MA Xiaozhong(145)
Performance comparison of acrylic acid type 213 and styrene type 201×7 anion exchange resins	AN Xuesong, XU Jingjun, TIAN Jia, PENG Zhanghua, TIAN Li, CUI Huanfang, ZHU Rui, HE Chun(149)
Integral saturation in cascade control systems; analysis and treatment	WANG Zheng, HUANG Junjie, WANG Whenjun, LI Wei, LI Xiaolin(152)
Effect of finned tube bundle deformation on air-cooled condensers and the countermeasures	GUO Minchen, CHEN Wenfei, LI Meibao(156)
Startup method for fluidized bed boiler with high-power up-bed heavy oil burner	DANG Xiaojian, WU Shougui, LIU Aijun, LI Feng, ZHANG Shaoyong(159)
Optimization of protection and control system of a 660 MW ultra supercritical unit without desulfurization bypass	CHEN Yongcheng(164)
Reconstruction scheme for denitrification of boilers equipped with tube type air preheater	DUAN Yuyan(167)
Low periodic water production of condensate polishing mixed beds in a power plant; reason analysis and treatment	ZHOU Zhongkang, ZHENG Mincong, YANG Hao, JIN Hao, LI Jianhua, SUN Yuzhong, HAN Yongxia(169)
Steam temperature control during the unit startup with tiny-oil ignition	HUANG Weijun, PAN Ruiqiang, YU Xiaobo, SHI Baoquan(172)
Frequent fouling and blocking of security filter cartridge in a boiler feed-water treatment system; reason analysis and treatment	XU Jingjun, DAI Xin, TONG Xiaoming, TIAN Jia, AN Xuesong(174)