

CONTENTS

目 次

智能电站技术

- 01 火电机组实用智能优化控制技术 //高海东,高 林,樊皓亮,王 林,侯玉婷
- 06 基于非对称神经网络结构的电站锅炉智能燃烧控制模型
//吴恒运,高 林,田建勇,周俊波,高海东,王 林,王明坤
- 11 燃煤电站锅炉受热面灰污监测与智能吹灰控制技术
//周俊波,陈晓文,高海东,高 林,王 林,郭亦文,侯玉婷
- 18 基于视频处理的汽轮机调节阀 LVDT 故障自动监控技术 //张江丰,尹 峰,苏 烨,汪自翔,魏路平
- 24 火电机组智能水岛控制系统设计与实现//田 爽,宋美艳,李亚都
- 29 两化融合管理体系在数字化电厂规划中的应用 //何 新,刘振宇
- 33 综合能源服务系统结构描述及设计优化//孙 可,段 光,李晓春,郑朝明,郑伟民,应雨龙,李 菁,郁家麟
- 40 智能电站工作票移动办理的设计与实现//薛晗光,刘聪睿,赵 轩,赵晋松,杜金刚

热能科学研究

- 44 超超临界 1 000 MW 机组 EC-BEST 技术经济性分析//裴东升,包伟伟,刘石磊
- 49 基于煤干燥技术与乏汽 GGH 的燃煤电站清洁高效协同系统//韩 宇,徐 钢,郑清清,雷 兢,杨勇平
- 56 给水加氧处理对氧化皮脱落的影响研究//曹杰玉,贾建民,刘 锋,唐丽英
- 61 新型低煤份生物质混合燃料燃烧特性实验 //高佳佳,覃建果,魏小林,吴桂福
- 68 基于深度主元分析的电站锅炉 NO_x 质量浓度预测模型研究
//王 林,王小成,郭亦文,姜守义,高 林,侯玉婷,周俊波,姜肇雨,刘 涛,王 芸
- 75 乌拉盖褐煤半焦气化特性试验 //方顺利,姚 伟,刘家利,姚 斌,杨忠灿,王桂芳

发电技术论坛

80 基于多传感器的热网补偿器泄漏预警监测系统//牟春华,寇水潮,兀鹏越,乔磊,居文平

87 迷宫汽封泄漏特性数值模拟//宁哲,杨荣祖

93 褐煤机组烟气冷凝取水污染物减排特性//王一坤,吴利平,解冰,王志超,成沛坤,刘廷兴

99 基于粒子群优化算法分析约束条件对配煤最优价格的影响//赵越,蒙毅,李仁义

105 高参数超超临界二次再热机组锅炉垂直管圈水冷壁水动力特性分析
//茅义军,何利军,张一帆,杨玉,白文刚

111 烟气成分及SCR脱硝系统运行特性对烟羽形成的影响//张劲松,孙捷,张发捷,王乐乐

117 基于模糊控制及神经网络的开关磁阻电机转子位置估计//聂鹏,金文博,蒋世希,陈渝楠,张磊

123 超临界2×350 MW机组四塔合一工程技术经济分析与数值模拟//张金良

129 某电厂600 MW机组轴流引风机叶片断裂原因分析//谷伟伟,张永海,李园,余小兵,史志刚

133 莱芜超超临界1000 MW二次再热机组在线运行性能指标分析及优化
//吴涛,褚墨,马朋波,王涛,王智微,马立然,刘志成

[期刊基本参数]CN61-1111/TM*1972*m*A4*136*zh*P*¥16.00*4500*24*2017-12

CONTENTS

Intelligent power station technology

Discussions on practical intelligent optimization control technologies for thermal power units	GAO Haidong,GAO Lin,FAN Haoliang,WANG Lin,HOU Yuting(1)
Intelligent combustion control model for utility boilers based on asymmetric artificial neural networks	WU Hengyun,GAO Lin,TIAN Jianyong,ZHOU Junbo,GAO Haidong,WANG Lin,WANG Mingkun(6)
Fouling monitoring and intelligent sootblowing control technologies for coal-fired boilers	ZHOU Junbo,CHEN Xiaowen,GAO Haidong,GAO Lin,WANG Lin,GUO Yiwen,HOU Yuting(11)
LVDT faults auto-monitoring technology for turbine governing valve based on video processing	ZHANG Jiangfeng,YIN Feng,SU Ye,WANG Zixiang,WEI Luping(18)
Design and implementation of intelligent water island control system for thermal power units	TIAN Shuang,SONG Meiyang,LI Yadu(24)
Application of integration of informatization and industrialization management system in digital power plants planning	HE Xin,LIU Zhenyu(29)
Structural description and design optimization for integrated energy service system	SUN Ke,DUAN Guang,LI Xiaochun,ZHENG Chaoming,ZHENG Weimin,YING Yulong,LI Jing,YU Jialin(33)
Design and implementation of work order mobile management : practice of intelligent power plant	XUE Hanguang,LIU Congrui,ZHAO Xuan,ZHAO Jinsong,DU Jingang(40)

Thermal energy science research

Economy analysis for an ultra supercritical 1 000 MW unit with EC-BEST thermal dynamic system	PEI Dongsheng,BAO Weiwei,LIU Shilei(44)
A clean and efficient system for coal-fired power stations based on coal pre-drying and exhaust steam gas-gas heater	HAN Yu,XU Gang,ZHENG Qingqing,LEI Jing,YANG Yongping(49)
Effect of oxygenated treatment on oxide scale exfoliation	CAO Jieyu,JIA Jianmin,LIU Feng,TANG Liying(56)
Experimental study on combustion characteristics of a new biomass fuel blended with small proportion of pulverized coal	GAO Jiajia,QIN Jianguo,WEI Xiaolin,WU Guifu(61)
Research and application of prediction model for NO _x concentration in utility boilers based on deep component analysis	WANG Lin,WANG Xiaocheng,GUO Yiwen,JIANG Shouyi,GAO Lin,HOU Yuting,ZHOU Junbo,JIANG Zhaoxu,LIU Tao,WANG Yun(68)
Experimental study on gasification characteristics of Wulagai lignite semi-coke	FANG Shunli,YAO Wei,LIU Jiali,YAO Bin,YANG Zhongcan,WANG Guifang(75)

Power generation technology forum

Early warning and monitoring system for heating supply network compensator leakage based on multiple sensors	MU Chunhua,KOU Shuichao,WU Pengyue,QIAO Lei,JU Wenping(80)
Numerical investigation on leakage characteristics of labyrinth seal	NING Zhe,YANG Rongzu(87)
Pollutants reduction characteristics of brown coal-fired units during water recovery from flue gas	WANG Yikun,WU Liping,XIE Bing,WANG Zhichao,CHENG Ruishen,LIU Tingxing(93)
Influence of constraints on optimal price of blending coal by particle swarm optimization algorithm	ZHAO Yue,MENG Yi,LI Renyi(99)
Thermal hydrodynamic performance of vertically-upward water wall in an ultra-supercritical double-reheat boiler with high working parameters	MAO Yijun,HE Lijun,ZHANG Yifan,YANG Yu,BAI Wengang(105)
Effects of flue gas components and operation performance of SCR system on formation of smoke plumes	ZHANG Jinsong,SUN Jie,ZHANG Fajie,WANG Lele(111)
Rotor position estimation for switched reluctance motor based on fuzzy control and neural network	NIE Peng,JIN Wenbo,JIANG Shixi,CHEN Yunan,ZHANG Lei(117)
Techno-economic analysis and numerical simulation for four incorporate towers engineering in supercritical 2×350 MW units	ZHANG Jinliang(123)
Reason analysis for fracture occurred in axial induced draft fan blade of a 600 MW unit	GU Weiwei,ZHANG Yonghai,LI Yuan,YU Xiaobing,SHI Zhigang(129)
Analysis and optimization for online operation performance indexes of the ultra supercritical 1 000 MW double-reheat unit in Laiwu Power Plant	WU Tao,CHU Mo,MA Pengbo,WANG Tao,WANG Zhiwei,MA Liran,LIU Zhicheng(133)