

# THERMAL POWER GENERATION

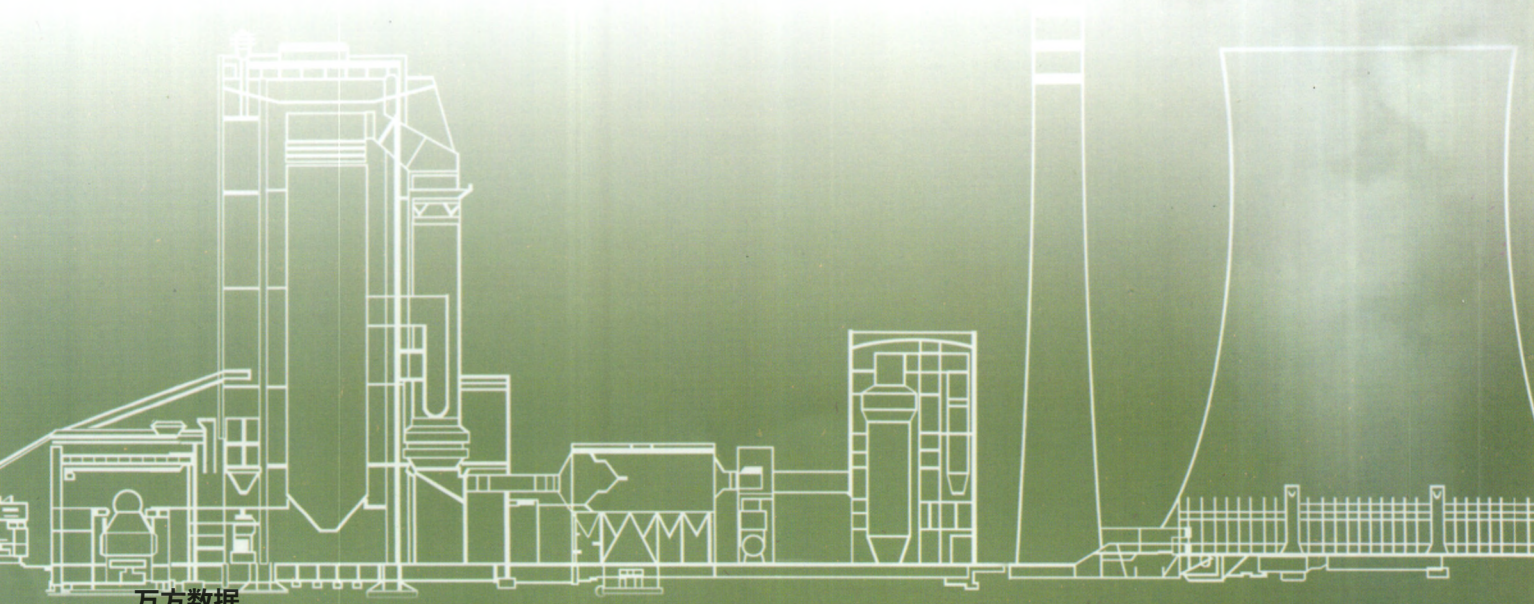
ISSN1002-3364  
CN61-1111/ TM

# 热力发电

2013.4

总316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 采用双压再生塔的醇胺法脱碳系统模拟与分析 //徐 欣,梁海文
- 06 CC50 双抽汽轮机调节阀控制方式的经济性分析 //李红华
- 09 提高 HP983 中速磨煤机出口温度对锅炉运行的影响 //沈跃良,陈谋万,刘亚明,李德波,余金生
- 14 超临界 660 MW 机组废热利用经济性分析 //叶学民,童家麟,吴 杰,赵振宁,王忠平
- 17 大型核电机组负荷跟踪控制技术 //伍宇忠,赵福宇

#### 热能科学研究

- 20 基于模糊物元模型的中速磨煤机运行状态评价 //李少华,王 雷,张 旺
- 24 Fuzzy matter element model based running state evaluation for medium-speed coal pulverizers  
//LI Shaohua, WANG Lei, ZHANG Wang
- 28 排汽压力对汽轮机运行优化试验结果的影响研究 //陈胜利,荆 涛,李高潮,吕 凯,章治国,穆 琳
- 31 亚临界 600 MW 机组协调控制系统仿真研究 //张鹤飞,余岳峰
- 38 LNCFS 燃烧器低  $\text{NO}_x$  燃烧特性试验研究 //宋洪鹏,周 斌,周红梅
- 43 600 MW 机组锅炉低氮燃烧器改造试验研究 //高 鹏,高 明,张建文,谢建文
- 47 汽轮发电机组油膜失稳故障研究 //陈松平,浦燕明
- 53 间接能量平衡协调控制系统前馈控制策略的优化 //王 立

- 57 基于核主元分析的凝汽器系统故障诊断 //闫 哲,王明春
- 61 双钩波形板分离器的三维数值模拟研究 //丁 凯,王进卿,池作和,张光学,孙公钢,林贞宇,胡琳璘,赵剑云
- 65 采用燃烧系统模型预测锅炉效率和 NO<sub>x</sub> 排放浓度 //何勇超

发电技术论坛

- 70 锅炉受热面管内氧化皮剥落物蒸汽吹扫措施分析及优化 //吴生来,贾建民
- 77 300 MW 机组无备用蒸汽启动技术探讨 //李汝祥,刘定平
- 80 W 型火焰锅炉油枪炉内备用自动投运控制策略的应用 //廖树荣,刘 海,宋 庆,周 刚,余长开
- 84 35 t/h 锅炉改烧生物质后的燃烧系统改造 //陈 辉,黄启龙,刘心志,戴维葆,王 圣
- 89 440 t/h 循环流化床锅炉大比例掺烧煤泥试验研究 //邵 伟,袁隆基,郭晓勇,李 强
- 94 燃烧生物质锅炉一、二次风机及引风机的选型研究 //段玉燕
- 98 基于自适应 Smith 预估算法的再热蒸汽温度控制策略 //张 宁

现场经验交流

- 102 超临界 600 MW 机组锅炉改造后引风机选型分析 //梁新磊,耿 静,姚卫国
- 104 布袋除尘器滤袋使用寿命的影响因素分析 //李东梅,田娱嘉,郭 阳,李 伟,李 媛,吴文龙
- 107 发电机断路器失灵保护误动原因分析及建议 //兀鹏越

[期刊基本参数]CN61-1111/TM\*1972\*b\*A4\*84\*zh\*P\*¥10.00\*4500\*25\*2013-04

## THERMAL POWER GENERATION

### CONTENTS

|                                                                                                                  |                                                                                                           |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| MEA based carbon removal system improvement; simulation and analysis                                             | XU Xin, LIANG Haiwen (1)                                                                                  |
| Economic analysis on control mode of high-pressure valve in CC50 steam turbines with double extraction           | LI Honghua (6)                                                                                            |
| Effect of enhancing outlet temperature of HP983 pulverizer on boiler operation                                   | SHEN Yueliang, CHEN Mouwan, LIU Yaming, LI Debo, YU Jinsheng (9)                                          |
| Economic Analysis on Recycling Waste heat of Auxiliary Equipment Circulating Water in supercritical 660 MW Units | YE Xuemin, TONG Jialin, WU Jie, ZHAO Zhenning, WANG Zhongping (14)                                        |
| Load following control technology for large scale nuclear power plants                                           | WU Yuzhong, ZHAO Fuyu (17)                                                                                |
| Fuzzy matter element model based running state evaluation for medium-speed coal pulverizers                      | LI Shaohua, WANG Lei, ZHANG Wang (20)                                                                     |
| Influence of exhaust temperature on experimental results of operation optimization for steam turbines            | CHEN Shengli, JING Tao, LI Gaochao, LV Kai, ZHANG Zhiguo, MU Lin (28)                                     |
| Simulation study on coordinated control system of subcritical 600 MW unit                                        | ZHANG Hefei, YU Yuefeng (31)                                                                              |
| Experimental study on low NO <sub>x</sub> combustion characteristics of the LNCFS burner                         | SONG Hongpeng, ZHOU Bin, ZHOU Hongmei (38)                                                                |
| Experimental study on low NO <sub>x</sub> combustion transformation on a 600 MW unit boiler                      | GAO Peng, GAO Ming, ZHANG Jianwen, XIE Jianwen (43)                                                       |
| Oil-film instability in turbo generator set; fault analysis                                                      | CHEN Songping, PU Yanming (47)                                                                            |
| Optimization of feedforward control strategy for coordinated control system with indirect energy balance         | WANG Li (53)                                                                                              |
| Kernel principal component analysis based fault diagnosis for condenser systems                                  | YAN Zhe, WANG Mingchun (57)                                                                               |
| Three-dimensional numerical study on corrugated plates separator with double hook                                | DING Kai, WANG Jinqing, CHI Zuohe, ZHANG Guangxue, SUN Gonggang, LIN Zhenyu, HU Linlin, ZHAO Jianyun (61) |
| Combustion system model based prediction of boiler efficiency and NO <sub>x</sub> emission                       | HE Yongchao (65)                                                                                          |
| Steam blowing measures for boiler heating surface with peeling of oxide layer                                    | WU Shenglai, JIA Jianmin (70)                                                                             |
| Discussion on startup technology without alternate steam in a 300 MW thermal power unit                          | LI Ruxiang, LIU Dingping (77)                                                                             |
| Application of control strategy for backup oil gun automatic startup in down-fired boiler                        | LIAO Shurong, LIU Hai, SONG Qing, ZHOU Gang, YU Changkai (80)                                             |
| Combustion system transformation for a 35 t/h coal fired boiler after using biomass as the fuel                  | CHEN Hui, HUANG Qilong, LIU XINzhi, DAI WEIbao, WANG Sheng (84)                                           |
| Experimental study on large proportion coal slurry co-firing in a 440 t/h CFB boiler                             | SHAO Wei, YUAN Longji, GUO Xiaoyong, LI Qiang (89)                                                        |
| Type selection of primary, secondary air fans and induced draft fans for boiler in biomass power plants          | DUAN Yuyan (94)                                                                                           |
| Self-adaptive Smith prediction algorithm based control strategy for reheat steam temperature                     | ZHANG Ning (98)                                                                                           |
| Renovation and type selection of induced draft fans for a supercritical 600 MW unit                              | LIANG Xinlei, GENG Jing, YAO Weiguo (102)                                                                 |
| Factors affecting the service life of filter bag                                                                 | LI Dongmei, TIAN Yujia <sup>1</sup> , GUO Yang, LI Wei, LI Yuan, WU Wenlong (104)                         |
| Reason analysis on wrong action of circuit breaker failure protection in generators and suggestion thereof       | WU Pengyue, SUN Ganghu, XU Jin, XU Yinzhi (107)                                                           |