

# 发电设备

FADIAN SHEBEI

第38卷第2期(总第290期)

双月刊 国内外公开发行

1987年1月创刊 2024年3月15日出版

主任委员:严宏强

副主任委员:李政 俞谷颖

委员:丁士发 亓安芳 史进渊 匡江红

孙庆 陈坚红 肖军 杨建刚

杨宇 张瑞 余岳峰 郑开云

翁一武 程智海 窦一康 潘卫国

全国发电设备专业期刊

中国学术期刊综合评价数据库统计源期刊

《中国核心期刊(遴选)数据库》收录期刊

中国期刊全文数据库全文收录期刊

中文科技期刊数据库(全文版)收录期刊

《中国期刊网》全文收录来源期刊

主管:上海发电设备成套设计研究院有限责任公司

主办:上海上发院发电成套设备工程有限公司

编辑出版:《发电设备》编辑部

主编:陈秀彬

副主编:俞谷颖

地址:上海闵行剑川路1115号

邮政编码:200240

电话:021-64358710-9356

E-mail:fadi@speri.com.cn

http://fadsb.speri.com.cn

印刷:上海康城印务有限公司

国内总发行:上海市报刊发行局

国内订阅处:全国各地邮局

邮发代号:4-622

中国标准连续出版物号:ISSN 1671-086X  
CN 31-1391/TN

定价:8.00元

## 目次

### 研究与分析

高温熔盐储能提升燃煤机组动态响应的分析

梁惠勋,庞力平,段立强,杜小泽(67)

空冷机组汽轮机主轴直接驱动给水泵的变工况运行仿真试验

李氏,王建梅,刘朝晖,胡念芬(76)

汽轮机当量配汽级组变工况计算方法

吴宏亮,孙涛,黄达,万忠海,陈显辉,周帆(82)

燃气轮机刷式密封泄漏特性试验研究 夏雪毛(86)

### 设计与制造

立式余热锅炉底部护板布置方式对流场影响的对比分析

赵静,王军,尤建华(90)

山地光伏组件固定支架的选型及应用 侯伟(94)

### 材料技术

某超临界锅炉水冷壁管屏鼓包变形分析

梁慧超,李宪爽,高成龙,王硕(99)

### 核电技术

核安全3级高密度聚乙烯管道热熔对接工艺实践

郑东宏,李保标,张旭,尹保红,龚圣捷(104)

压水反应堆蒸汽发生器传热管焊接堵管工艺实践 冀斌(109)

### 自动控制

660 MW 二次再热供热机组 AGC 调节精度考核分析及处理

周阳(115)

### 运行与改造

燃煤耦合污泥发电机组电除尘器腐蚀诊断 李海荣,王先虎(119)

超超临界600 MW 机组凝结水泵系统优化与应用

余波,何浩民,徐铭洲,辛云富(125)

某燃气轮机发电机组蒸汽设备水击分析及处理 吴伟(129)

# POWER EQUIPMENT

Founded in 1987 (Bimonthly)

Vol. 38, No. 2 (Ser. No. 290) Mar. 15, 2024

## CONTENTS

### Research & Analysis

- Analysis on the Improvement for Dynamic Response of a Coal-fired Unit with High-temperature Molten Salt Energy Storage  
..... Liang Huixun, Pang Liping, Duan Liqiang, Du Xiaoze ( 67 )
- Simulation Test on Air Cooling Unit Under Off-design Conditions with Feed Water Pump Directly Driven by Steam Turbine  
Main Shaft ..... Li Min, Wang Jianmei, Liu Zhaohui, Hu Niansu ( 76 )
- Calculation Method for Equivalent Steam Distribution Stage in a Steam Turbine Under Off-design Condition  
..... Wu Hongliang, Sun Tao, Huang Da, Wan Zhonghai, Chen Xianhui, Zhou Fan ( 82 )
- Experimental Study on Leakage Characteristics of Gas Turbine Brush Seal ..... Xia Xuemao ( 86 )

### Design & Manufacture

- Comparison and Analysis of the Influence of Bottom Plate Arrangement Type on Flow Field in a Vertical Waste Heat  
Boiler ..... Zhao Jing, Wang Jun, You Jianhua ( 90 )
- Selection and Application of Fixed Support for Mountain Photovoltaic Module ..... Hou Wei ( 94 )

### Material Technology

- Analysis on Bulge Deformation of Water Wall Tube Panel in a Supercritical Boiler  
..... Liang Huichao, Li Xianshuang, Gao Chenglong, Wang Shuo ( 99 )

### Nuclear Technology

- Practice on Fusion-jointing Procedure of High Density Polyethylene Piping System with Nuclear Safety Class 3  
..... Zheng Donghong, Li Baobiao, Zhang Xu, Yin Baohong, Gong Shengjie ( 104 )
- Practical Application on the Welding and Plugging Procedure of Steam Generator Heat Transfer Tube in Pressurized Water  
Reactor ..... Ji Bin ( 109 )

### Automatic Control

- Analysis and Treatment on AGC Regulation Accuracy Assessment for a 660 MW Double Reheat Unit with Heat-supply  
..... Zhou Yang ( 115 )

### Operation & Retrofit

- Diagnosis on Electrostatic Precipitator Corrosion of Coal-fired Coupled Sludge Generator Set  
..... Li Hairong, Wang Xianhu ( 119 )
- Optimization and Application of Condensate Pump System in an Ultra-supercritical 600 MW Unit  
..... Yu Bo, He Haomin, Xu Mingzhou, Xin Yunfu ( 125 )
- Analysis and Treatment of Water Hammer in Steam Equipment of a Gas Turbine-Generator Set ..... Wu Wei ( 129 )

<b>Responsible Institution:</b> Shanghai Power Equipment Research Institute Co., Ltd.	<b>Postcode:</b> 200240
<b>Sponsor:</b> SPERI Power Equipment & Engineering Co., Ltd.	<b>Tel:</b> 021-64358710-9356
<b>Editor and Publisher:</b> Editorial Department of Power Equipment	<b>E-mail:</b> fadi@speri.com.cn
<b>Editor-in-Chief:</b> Chen Xiubin	<b>http://</b> fdsb.speri.com.cn
<b>Vice-Editor-in-Chief:</b> Yu Guying	<b>Printer:</b> Shanghai Kangcheng Printing Co., Ltd.
<b>Address:</b> No. 1115 Jianchuan Road, Minhang, Shanghai, China	<b>Subscription Agency:</b> Post-offices in Every Parts of China
	<b>Code:</b> 4-622