

# 电工电能新技术

DIANGONG DIANNENG XINJISHU

第 39 卷第 1 期(总第 199 期) 2020 年 1 月

## 目 次

### 专家论坛

高比例可再生能源接入条件下的输电骨干网架结构探索 ..... 肖立业,刘 怡,夏孝天,韦统振,等(1)

### 论文报告

开放售电环境下用户短期负荷预测方法 ..... 杨本臣,张 军,于坤鹏(5)  
计及多类型需求响应的风-火-荷两阶段协同调度 ..... 朱飞宇,徐志宇,许维胜,章佳辉,等(12)  
LCC-MTDC 系统换流器直流改进三脉动谐波模型研究 ..... 张 陵,刘河林,文 俊,蔡永军,等(22)  
基于数据清洗和知识迁移的变压器故障诊断模型 ..... 白 浩,王昱力(28)  
轴向脉冲电流对铜射流的箍缩不稳定性作用分析 ..... 齐文达,孔庆奕,向红军,容 烨(36)  
交流电晕放电下微水对  $(CF_3)_2CFCN/N_2$  混合气体分解特性的影响 .....  
..... 荣文奇,韩 冬,赵明月,张国强,等(43)  
基于统计特征与 EMD 算法的有载分接开关振动信号去噪 ..... 赵寿生,汪卫国,王丰华,郑一鸣,等(51)

### 综述与述评

基于活化能的绝缘老化评估方法研究进展 ..... 李庆民,任 鹏,彭 鹏,张 蔚(59)

### 新技术应用

软磁复合材料一维磁特性测量中的波形补偿问题研究 ..... 王 朝,陈 龙,汪友华,武仕朴,等(69)  
介质阻挡放电等离子体降解制药企业废水污染物的研究 ..... 李 星,王兴权,杨洪宇,徐苏琼,等(75)

# **ADVANCED TECHNOLOGY OF ELECTRICAL ENGINEERING AND ENERGY**

Vol.39 No.1 Jan. 2020

## **CONTENTS**

### **Specialist's Forum**

- Investigation on architecture of backbone transmission system for renewable-energy-dominant power grid ..... XIAO Li-ye, LIU Yi, XIA Xiao-tian, et al. ( 1 )

### **Treatise and Report**

- User short-term load forecasting method under open sales environment ..... YANG Ben-chen, ZHANG Jun, YU Kun-peng ( 5 )
- A two-stage coordinated dispatch of wind power, thermal power and system load with multi-type demand response ..... ZHU Fei-yu, XU Zhi-yu, XU Wei-sheng, et al. ( 12 )
- Advanced three-pulse harmonic models of converters of LCC-MTDC systems ..... ZHANG Ling, LIU He-lin, WEN Jun, et al. ( 22 )
- Transformer fault diagnosis model based on data cleaning and transfer learning ..... BAI Hao, WANG Yu-li ( 28 )
- Analysis of effect of axial pulse current on pinch instability of copper jets ..... QI Wen-da, KONG Qing-yi, XIANG Hong-jun, et al. ( 36 )
- Influence of moisture on  $(\text{CF}_3)_2\text{CFCN}/\text{N}_2$  decomposition characteristics under AC corona discharge ..... RONG Wen-qi, HAN Dong, ZHAO Ming-yue, et al. ( 43 )
- Denoising method of vibration signal of on-load tap changer based on statistical feature and EMD algorithm ..... ZHAO Shou-sheng, WANG Wei-guo, WANG Feng-hua, et al. ( 51 )

### **Summary and Review**

- Research advances of activation energy-based insulation aging assessment ..... LI Qing-min, REN Peng, PENG Peng, et al. ( 59 )

### **New Technology Application**

- Research on waveform compensation in measurement of one-dimensional magnetic properties of soft magnetic composites ..... WANG Zhao, CHEN Long, WANG You-hua, et al. ( 69 )
- Research of degradation on wastewater pollutants discharged from pharmaceutical company by dielectric barrier discharge plasma ..... LI Xing, WANG Xing-quan, YANG Hong-yu, et al. ( 75 )