



中国电机工程学报

ZHONGGUO DIANJI GONGCHENG XUEBAO

第 39 卷

第 15 期 (总第 626 期)

2019 年 8 月 5 日

目 次

(论文电子版 <http://www.pcsee.org/CN/volumn/home.shtml>)

· 大电网规划与运行 ·

- 一种抑制后续换相失败的自适应电流偏差控制方法.....夏海涛, 周小平, 洪乐荣, 刘一锋, 等 (4345)
- 分层接入特高压直流输电系统协调控制策略研究.....杨硕, 郭春义, 王庆, 赵成勇, 杨鹏程, 等 (4356)
- 虚拟同步机功角稳定的参数空间分析.....齐琛, 汪可友, 吴盼, 李国杰 (4363)
- 城市输电网最大供电能力改进 Benders 算法荆朝霞, 陈达鹏, 谭慧娟, 王宏益 (4373)
- 多机系统全局相轨线的暂态稳定性分析.....马美玲, 王杰, 王子强, 李鹏瀚, 熊林云 (4385)
- 随机激励下基于微分包含理论的电力系统低频振荡分析.....陈红坤, 胡畔, 朱晓航, 陈磊 (4395)

· 智能电网 ·

- 数据-知识融合的机器学习(1): 模型分析.....尚宇炜, 郭剑波, 吴文传, 盛万兴, 马钊 (4406)
- 基于人工神经网络的架空柔性直流电网故障检测方法.....杨赛昭, 向往, 张峻樾, 饶宏, 许树楷, 等 (4416)
- 基于最大熵原理的电-气综合能源系统概率能量流分析.....张儒峰, 姜涛, 李国庆, 李雪, 陈厚合 (4430)
- 考虑不匹配线阻的分布式储能单元荷电状态均衡研究....米阳, 蔡杭谊, 宋根新, 喻思, 李振坤, 符杨 (4441)
- 分层土壤接地格林函数的多精度多分辨率计算.....潘卓洪, 李嘉思, 刘曳君, 李昭扬, 张露, 文习山 (4451)
- 基于 SWLSTM 算法的超短期风向预测.....唐振浩, 赵赓楠, 曹生现, 赵波 (4459)
- 基于 WCVaR 模型的分布式发电系统供需互动能量管理研究.....张虹, 葛得初, 侯宁, 张思雨, 等 (4468)

· 发电 ·

- 深冷液化空气储能系统的优化与方案设计.....何青, 王立健, 郝银萍, 等 (4478)
- 超临界二氧化碳在垂直光管内的传热特性.....张良, 朱兵国, 吴新明, 徐进良 (4487)
- 氧化剂-Fe₂O₃ 复合吸附剂强化脱除气相砷的研究王鹏, 张凯华, 王传风, 张锴 (4497)
- 载锰飞灰吸附剂脱除 SO₂ 的实验研究赵杰, 郑仙荣, 樊保国, 宋凯, 蒋海燕 (4504)
- 黏结剂对生物质成型燃料燃烧过程中颗粒物排放特性的影响.....杨伟, 朱有健, 成伟, 樊纪原, 等 (4515)
- 微波放电对脱硫活性焦循环再生的影响.....刘海玉, 樊向黎, 乔晓磊, 徐樑, 金燕, 樊保国 (4522)

· 电机与电器 ·

- 基于二次型价值函数的双电机转矩同步系统有限集模型预测控制.....史婷娜, 杨雨要, 周湛清, 等 (4531)
- 重复脉冲过电压对变频电机绝缘局部放电起始电压及熄灭电压的影响研究....李金泉, 王鹏, 吴琦, 等 (4541)
- 基于双绕组永磁容错电机驱动系统的强鲁棒性开路故障诊断策略研究.....蒋雪峰, 李强, 王绍帅, 等 (4550)
- 一种用于轴承故障诊断的二维卷积神经网络优化方法.....肖雄, 王健翔, 张勇军, 郭强, 宗胜悦 (4558)
- 智能电磁接触器吸合过程 RBR 控制策略.....王阳, 许志红 (4568)
- 基于增广 Huber 正则化稀疏低秩矩阵的旋转机械微弱故障诊断.....李庆, 胡炜, 彭二飞, 等 (4579)

· 高电压技术 ·

- 密闭空间中温度对 SF₆/N₂ 混合气体工频击穿电压的影响规律郑宇, 周文俊, 陈维江, 颜湘莲, 等 (4589)
- 基于错位散斑干涉的复合绝缘子缺陷检测方法.....刘立帅, 王黎明, 梅红伟, 郭晨望 (4599)
- 多次磁暴下特高压电网 GIC 统计规律研究.....刘春明, 王红梅, 王璇 (4606)
- 高压直流电缆绝缘二维模型下空间电荷动力学仿真算法研究....张昱, 刘德远, 周桂月, 吴建东, 尹毅 (4615)
- 含苯硫醚基团的低介损聚酰亚胺薄膜合成及其性能调控机制.....黄旭炜, 舒想, 王健, 李庆民, 等 (4623)
- 等离子体射流处理对聚全氟乙丙烯薄膜沿面绝缘特性的影响研究....胡多, 任成燕, 章程, 邱锦涛, 等 (4633)

· 英文概述见论文电子版

期刊基本参数: CN11-2107/TM * 1964 * S * A4 * 296 * zh * P * ¥84.00 * 4000 * 31 * 2019-08 版权所有 未经许可不得转载及上网

PROCEEDINGS OF THE CHINESE SOCIETY FOR
ELECTRICAL ENGINEERING
(PROCEEDINGS OF THE CSEE)

Vol.39 No.15 (Ser. 626)

Aug. 5, 2019

CONTENTS

- **Power System Operation and Planning** •
 - An Adaptive Current Deviation Control Method for Suppressing Following Commutation FailuresXIA Haitao, ZHOU Xiaoping, HONG Lerong, LIU Yifeng, et al (4345)
 - Coordinated Control Approach for UHVDC System Under Hierarchical Connection Mode YANG Shuo, GUO Chunyi, WANG Qing, ZHAO Chengyong, YANG Pengcheng, et al (4356)
 - Parameter Space Analysis of the Rotor Angle Stability of Virtual Synchronous MachineQI Chen, WANG Keyou, WU Pan, LI Guojie (4363)
 - An Improved Benders Decomposition Applied to Total Supplying Capability Problem of City Transmission NetworkJING Zhaoxia, CHEN Dapeng, TAN Huijuan, WANG Hongyi (4373)
 - Transient Stability Analysis of the Global Phase Portraits in Multi-machine System MA Meiling, WANG Jie, WANG Ziqiang, LI Penghan, XIONG Linyun (4385)
 - Small-signal Stability Analysis of Power System Under Stochastic Excitation Through Differential Inclusion TheoryCHEN Hongkun, HU Pan, ZHU Xiaohang, CHEN Lei (4395)
- **Smart Grid** •
 - Machine Learning Methods Embedded With Domain Knowledge (Part I): Model Analysis SHANG Yuwei, GUO Jianbo, WU Wenchuan, SHENG Wanxing, MA Zhao (4406)
 - The Artificial Neural Network Based Fault Detection Method for the Overhead MMC Based DC Grid YANG Saizhao, XIANG Wang, ZHANG Junjie, RAO Hong, XU Shukai, et al (4416)
 - Maximum Entropy Based Probabilistic Energy Flow Calculation for Integrated Electricity and Natural Gas SystemsZHANG Rufeng, JIANG Tao, LI Guoqing, LI Xue, CHEN Houhe (4430)
 - State-of-charge Balancing Research of Distributed Energy Storage Units With Unmatched Line Impedance MI Yang, CAI Hangyi, SONG Genxin, YU Si, LI Zhenkun, FU Yang (4441)
 - Multi-precision-resolution Computation of the Green's Function for the Grounding Problems of Layered SoilsPAN Zhuohong, LI Jiasi, LIU Yejun, LI Zhaoyang, ZHANG Lu, WEN XiShan (4451)
 - Very Short-term Wind Direction Prediction Via Self-tuning Wavelet Long-short Term Memory Neural Network TANG Zhenhao, ZHAO Gengnan, CAO Shengxian, ZHAO Bo (4459)
 - Research on the Interactive Energy Management of Supply And Demand in a Distributed Generation System Based on the WCvAR ModelZHANG Hong, GE Dechu, HOU Ning, ZHANG Siyu, et al (4468)
- **Power Generation** •
 - Optimization and Design of the Liquefied Air Energy Storage System HE Qing, WANG Lijian, HAO Jinping, et al (4478)
 - Heat Transfer Characteristics of Supercritical Pressure CO₂ in a Vertical Smooth TubeZHANG Liang, ZHU Bingguo, WU Xinming, XU Jinliang (4487)
 - Studies on Oxidant - Fe₂O₃ Composite Adsorbent and its Enhanced Removal of Gas-phase ArsenicWANG Peng, ZHANG Kaihua, WANG Chuanfeng, ZHANG Kai (4497)
 - Experimental Study on SO₂ Removal by Manganese-loaded Fly Ash Adsorbents ZHAO Jie, ZHENG Xianrong, FAN Baoguo, SONG Kai, JIANG Haiyan (4504)
 - Effect of Binders on Particulate Matter Emission Characteristics From the Combustion of Biomass Pellets YANG Wei, ZHU Youjian, CHENG Wei, FAN Jiyuan, et al (4515)
 - Effect of Microwave Discharge on the Regeneration of Desulphurized Activated CokeLIU Haiyu, FAN Xiangli, QIAO Xiaolei, XU Liang, JIN Yan, FAN Baoguo (4522)
- **Electric Machines and Apparatus** •
 - FCS-MPC for Dual-motor Torque Synchronization System Based on Quadratic Form Cost Function SHI Tingna, YANG Yuyao, ZHOU Zhanqing, et al (4531)
 - The Influence of Overvoltage from Repetitive Impulsive Voltages on PDIV and PDEV of Inverter-fed Motor InsulationLI Jinquan, WANG Peng, WU Qi, et al (4541)
 - A Strong Robustness Open-circuit Fault Diagnosis Strategy Based on the Dual-winding Fault-tolerant Permanent Magnet Motor Drive System JIANG Xuefeng, LI Qiang, WANG Shaoshuai, et al (4550)
 - A Two-dimensional Convolutional Neural Network Optimization Method for Bearing Fault DiagnosisXIAO Xiong, WANG Jianxiang, ZHANG Yongjun, GUO Qiang, ZONG Shengyue (4558)
 - RBR Control Strategy for the Closing Process of Intelligent Electromagnetic Contactor WANG Yang, XU Zhihong (4568)
 - Weak Fault Diagnosis of Rotating Machinery Based on Augmented Huber Regularized Sparse Low-rank-matrix Approach LI Qing, HU Wei, PENG Erfei, et al (4579)
- **High Voltage Engineering** •
 - Influence Law of Temperature on Power Frequency Breakdown Voltages of SF₆/N₂ Mixture in Enclosed SpaceZHENG Yu, ZHOU Wenjun, CHEN Weijiang, YAN Xianglian, et al (4589)
 - Defects Detection Methods for Composite Insulators Based on Shearing Speckle InterferometryLIU Lishuai, WANG Liming, MEI Hongwei, GUO Chenjun (4599)
 - Statistical Analysis of Geomagnetically Induced Currents in UHV Power Grids Under Multiple Geomagnetic Storms LIU Chunming, WANG Hongmei, WANG Xuan (4606)
 - Research on Simulation Algorithms for Two Dimensional Models of Space Charge Dynamics in High Voltage DC Cable InsulationZHANG Yu, LIU Deyuan, ZHOU Guiyue, WU Jiandong, YIN Yi (4615)
 - Synthesis and Performance Modification Mechanism of Low Dielectric Loss Polyimide Films With Phenyl Thioether Group HUANG Xuwei, SHU Xiang, WANG Jian, LI Qingmin, et al (4623)
 - Effect of Deposited Film on the Surface Insulation Characteristics of FEP material by Atmospheric Pressure Plasma JetHU Duo, REN Chengyan, ZHANG Cheng, QIU Jintao, et al (4633)
- **For Extended Summaries, Please See the Electronic Journals.**