



中国电机工程学报

ZHONGGUO DIANJI GONGCHENG XUEBAO

第 38 卷

第 24 期 卷终 (总第 611 期)

2018 年 12 月 20 日

目 次

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

· 高电压技术 ·

- 耦合型机械式高压直流断路器研究.....潘垣, 袁召, 陈立学, 徐敏, 刘黎明 (7113)
- 不同温度下高压直流电缆绝缘击穿场强的厚度效应.....钱恺羽, 苏鹏飞, 吴建东, 尹毅 (7121)
- 考虑铁心深度饱和的单相双绕组变压器改进建模.....司马文霞, 刘永来, 杨鸣, 周原, 彭代晓 (7131)
- 塔-线耦联因素对于覆冰载荷下高压输电塔-线结构体力学性能影响及分析.....赵明曦, 贺博, 等 (7141)
- 风力发电机叶片加热循环控制除冰数值仿真研究.....舒立春, 杨晨, 胡琴, 蒋兴良, 李瀚涛, 等 (7149)
- DBDS 和十六硫醇对变压器绝缘纸协同劣化作用的微观机制研究.....张敏昊, 丛浩熹, 舒想, 李庆民 (7156)
- 大规模复杂模型电场计算的快速精细化有限元数值建模.....杜志叶, 田雨, 金硕, 朱琳, 等 (7166)
- 环保型绝缘介质 C_3F_7CN/CO_2 的分解机理.....张晓星, 陈琪, 李祎, 肖淞, 张季, 刘畅 (7174)
- 基于 RFID 传感标签及 QPSO-RVM 的变压器绕组故障在线诊断技术.....邓芳明, 温开云, 何怡刚, 等 (7183)

· 大电网规划与运行 ·

- 综合需求响应研究综述与展望.....徐箴, 孙宏斌, 郭庆来 (7194)
- 张北柔性直流电网工程新能源与抽蓄电站配置方案运行经济性评估.....李湃, 王伟胜, 刘纯, 等 (7206)
- 光伏并入弱交流电网次同步振荡机理与特性分析.....赵书强, 李忍, 高本锋, 汪洋 (7215)
- 虚拟同步发电机控制下多端交直流混联电力系统间的强动态交互过程及其传播.....付强, 杜文娟, 等 (7226)
- 考虑风电不确定性的电热综合系统分布鲁棒协调优化调度模型研究.....税月, 刘俊勇, 高红均, 等 (7235)
- 含多状态机组风电场的输电系统可靠性评估加速方法.....徐青山, 蔡霖霖, 李淋, 郑爱霞 (7248)
- 异步电机机电时间尺度有效惯量评估及其对可再生能源并网系统频率动态的影响.....王玎, 袁小明 (7258)
- 基于灵敏度分析的直流受端系统紧急切负荷控制优化方法.....孙大雁, 周海强, 熊浩清, 杨阳, 等 (7267)

· 发电 ·

- 超临界二氧化碳布雷顿循环系统及透平机械研究进展.....谢永慧, 王雨琦, 张获, 施东波 (7276)
- 高温过程对气化炉内颗粒物形态结构演变的影响.....张志清, 郭庆华, 黄宇宸, 卫俊涛, 龚岩, 等 (7287)
- 新型漂浮式风力机半潜平台抑制摇荡运动设计研究.....黄致谦, 丁勤卫, 李春, 韩志伟 (7295)
- SCR 脱硝系统流道均流装置数值模拟与优化.....于玉真, 李伟亮, 王绍龙, 王璐, 赵凯, 刘超 (7304)

· 电力电子与电力传动 ·

- 载波移相调制模块化多电平换流器双均压系数电压平衡方法.....魏新伟, 何志兴, 徐千鸣, 等 (7314)
- 一种具有漏电流抑制能力的 ANPC 型五电平调制策略及其载波实现方法.....王付胜, 郑德佑, 等 (7326)
- 微网中分布式电源锁相环建模及其稳定性分析.....王睿, 孙秋野, 马大中, 王冰玉 (7338)
- MMC-HVDC 系统在整流和逆变工作模式下的小干扰稳定性对比研究.....郭春义, 殷子寒, 赵成勇 (7349)
- 一种单级全桥高频谐振 AC/AC 变换器.....何青青, 罗全明, 黄健, 俎阿倩, 周维维 (7359)

· 电机与电器 ·

- 基于复合线圈结构的新型无刷双馈电机的起动机性能研究.....阚超豪, 储成龙, 赵威, 鲍习昌, 胡兆稳 (7370)
- 一种可抑制逆变器非线性影响的永磁同步电机无位置传感器控制策略.....邓国发, 王辉, 吴轩, 等 (7381)
- 自由活塞膨胀机-直线发电机试验与仿真研究.....许永红, 童亮, 张红光, 侯孝臣, 杨富斌, 刘荣 (7391)

· 行业信息 ·

- 《中国电机工程学报》2018 年度全年总目录..... (7400)

· 英文概述见论文电子版

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

Vol.38 No.24 EOJ (Ser. 611)

Dec. 20, 2018

CONTENTS

(Electronic Journals <http://www.pcsee.org/EN/volumn/current.shtml>)

• **High Voltage Engineering** •

- Research on the Coupling Mechanical High Voltage DC Circuit Breaker
..... PAN Yuan, YUAN Zhao, CHEN Lixue, XU Min, LIU Liming (7113)
- The Effect of Thickness on Breakdown Strength in High Voltage Direct Current Cable Insulation at Different Temperatures
..... QIAN Kaiyu, SU Pengfei, WU Jiandong, YIN Yi (7121)
- An Improved π Model for Single-Phase Two Winding Transformers Considering Deep Saturation of the Iron Core
..... SIMA Wenxia, LIU Yonglai, YANG Ming, ZHOU Yuan, PENG Daixiao (7131)
- Influence of Coupling Factors on Mechanical Property of High Voltage Transmission Tower-line Structure Under Ice Loading
..... ZHAO Mingxi, HE Bo, et al (7141)
- The Numerical Study of Electrothermal De-icing Cycle Controlled Method for Wind Turbine Blades
..... SHU Lichun, YANG Chen, HU Qin, JIANG Xingliang, LI Hantao, et al (7149)
- Study on Microscopic Mechanism of the Transformer Insulating Paper's Degradation Under Synergistic
Effect of DBDS and Hexadecanethiol ZHANG Minhao, CONG Haoxi, SHU Xiang, LI Qingmin (7156)
- A Fast Finite Element Numerical Modeling Method for the Calculation of Electric Field in Large Scale Complex Model
..... DU Zhiye, TIAN Yu, JIN Shuo, ZHU Lin, et al (7166)
- Decomposition Mechanism of Environmental-friendly Insulating Medium C_3F_7CN/CO_2
..... ZHANG Xiaoxing, CHEN Qi, LI Yi, XIAO Song, ZHANG Ji, LIU Chang (7174)
- On-line Fault Diagnosis for Transformer Windings Based on RFID Sensor Tags and QPSO-RVM
..... DENG Fangming, WEN Kaiyun, HE Yigang, et al (7183)

• **Large Power Grid Planning and Operation** •

- Review and Prospect of Integrated Demand Response XU Zheng, SUN Hongbin, GUO Qinglai (7194)
- Economic Assessment of Zhangbei VSC-based DC Grid Planning Scheme With Integration of Renewable Energy and
Pumped-hydro Storage Power Station LI Pai, WANG Weisheng, LIU Chun, et al (7206)
- Analysis of Mechanism and Characteristics in Sub Synchronous Oscillation Between PV and Weak AC Networks
..... ZHAO Shuqiang, LI Ren, GAO Benfeng, WANG Yang (7215)
- Strong Dynamic Interaction and Propagation of Multi-terminal AC/DC Hybrid Power System with Virtual Synchronous
Generator Control FU Qiang, DU Wenjuan, et al (7226)
- A Distributionally Robust Coordinated Dispatch Model for Integrated Electricity and Heating Systems Considering Uncertainty
of Wind Power SHUI Yue, LIU Junyong, GAO Hongjun, et al (7235)
- Acceleration Method for Evaluating the Reliability of Composite Power System Considering Wind Farms With Multi-state
Wind Turbines XU Qingshan, CAI Jilin, LI Lin, ZHENG Aixia (7248)
- Available Inertia Estimation of Induction Machine in Electromechanical Timescale and Its Effects on Frequency Dynamics
of Power Systems With Renewable Energy WANG Ding, YUAN Xiaoming (7258)
- A Sensitivities Analysis Based Emergency Load Shedding Optimization Method for the HVDC Receiving End System
..... SUN Dayan, ZHOU Haiqiang, XIONG Haoqing, YANG Yang, et al (7267)

• **Generation** •

- Review on Research of Supercritical Carbon Dioxide Brayton Cycle and Turbomachinery
..... XIE Yonghui, WANG Yuqi, ZHANG Di, SHI Dongbo (7276)
- Effect of High Temperature Process on the Morphology Structure Evolution of Particles Inside a Gasifier
..... ZHANG Zhiqing, GUO Qinghua, HUANG Yuchen, WEI Juntao, GONG Yan, et al (7287)
- Design and Research on Suppression Swaying Motion of the New Semi-submersible Platform of Floating Wind Turbine
..... HUANG Zhiqian, DING Qinwei, LI Chun, HAN Zhiwei (7295)
- Numerical Simulation and Optimization of SCR DeNO_x System Flow Channel Flow-equalizing Equipment
..... YU Yuzhen, LI Weiliang, WANG Shaolong, WANG Lu, ZHAO Kai, LIU Chao (7304)

• **Power Electronics and Drives** •

- Dual Voltage-sharing Coefficients Voltage Balance Method for Modular Multilevel Converter With
Carrier Phase Shifted Modulation WEI Xinwei, HE Zhixing, XU Qianming, et al (7314)
- An ANPC Five-level Modulation Strategy With Leakage Current Suppression and Its Carrier Implementation Method
..... WANG Fusheng, ZHENG Deyou, et al (7326)
- Modeling and Stability Analysis of Distributed Generation Phase Locked Loop in Microgrid
..... WANG Rui, SUN Qiuye, MA Dazhong, WANG Bingyu (7338)
- Comparative Study on Small-signal Stability of MMC-HVDC System Under Rectification and Inversion Modes
..... GUO Chunyi, YIN Zihan, ZHAO Chengyong (7349)
- A Single-stage Full-bridge High Frequency Resonant AC/AC Converter
..... HE Qingqing, LUO Quanming, HUANG Jian, ZU Aqian, ZHOU Luowei (7359)

• **Electric Machines and Apparatus** •

- Study on Starting Performance of a Novel Brushless Doubly-fed Machine Based on Composite Coil Structure
..... KAN Chaohao, CHU Chenglong, ZHAO Wei, BAO Xichang, HU Zhaowen (7370)
- A Sensorless Control Strategy of Permanent Magnet Synchronous Motor for Suppressing Nonlinear Effects of Inverter
..... DENG Guofa, WANG Hui, WU Xuan, et al (7381)
- Experimental and Simulation Study of a Free Piston Expander-linear Generator
..... XU Yonghong, TONG Liang, ZHANG Hongguang, HOU Xiaochen, YANG Fubin, LIU Rong (7391)

• **For Extended Summaries, Please See the Electronic Journals.**