



电工技术学根

TRANSACTIONS OF CHINA ELECTROTECHNICAL SOCIETY



中国电工技术学会主办

2020年 第20期

第 35 卷 Vol. 35 No. 20

ISSN 1000-6753



电工技术学报

2020年 第35卷 第20期

目 次

电工理论 4217 磁耦合谐振式无线电能传输特性研究动态 三层 自晓强 动态无线供电系统收发端耦合角度对功率影响机理分析 …… 薛 明 杨庆新 王嘉浩 章鹏程 4232 4241 姬俊安 张 鹏 任雪娇 电机与电器 4258 爪极混合励磁皮带驱动起动/发电一体机的磁场设计 王晓远 李 娜 赵晓晓 炜 基于深度确信策略梯度的电动汽车异步电机参数标定方法 …………………漆 星 郑常宝 4266 磁通反向直线旋转永磁电机三维非线性等效磁路模型分析 ……………………………………郭凯凯 42.78 郭有光 4287 张嘉皓 4296 基于相电感非饱和区定位的开关磁阻电机无位置传感器控制方法 孙铭阳 4317 基于复杂网络理论的气体绝缘金属封闭开关设备电场网络特征分析………吴 其 刘晓明 杨 电力电子 栋 孙宏博 4336 基于耦合电感的多相交错并联双向 DC-DC 变换器及其均流控制 ···· 苏 冰 王玉斌 王 璠 郭 政 董羽翔 基于多模态切换的宽电压增益 LLC 谐振变换器控制策略 ………… 冯兴田 邵 康 4350 崔 晓 马文忠 王玉彬 准 Z 源三电平并网逆变器的无源控制策略 …… 程启明 江 畅 沈磊 程尹曼 4361 苗轶如 游逍遥 桥式限流与动态电压恢复器融合设计及控制方法…………涂春鸣 李 庆 郭 高家元 电工材料 征 程显 李文博 4405 碳化硅晶须/环氧树脂复合介质非线性电导特性研究 迟庆国 崔 爽 张天栋 杨 陈庆国 王德意

TRANSACTIONS OF CHINA ELECTROTECHNICAL SOCIETY

2020 Vol.35 No.20

Contents

4217	Research Tends of Magnetic Coupling Resonant Wireless Power Transfer CharacteristicsJia Jinliang Yan Xiaoqiang
4232	Effect Mechanism Analysis of Coupling Angle Between Transmitter and Receiver on Power in
	Dynamic Wireless Power Supply System
4241	Dynamic Energetic Modeling and Verification of Core under Harmonic Excitation
	Zhao Zhigang Ma Xiwen Ji Jun'an Zhang Peng
4251	The Motor Bearing Discharge Breakdown Based on the Multi-Physics Field Analysis ····· Wang Qinqin Liu Ruifang Ren Xuejiao
4258	Magnetic Field Design of Claw-Pole Hybrid Excitation Belt-Driven Starter Generator
4266	An Electric Vehicle Induction Motor Parameters Calibration Method Based on Deep Deterministic Policy Gradient
	Qi Xing Zheng Changbao Zhang Qian
4278	3D Nonlinear Equivalent Magnetic Circuit Model Analysis of a Flux Reversal Linear Rotary Permanent Magnet Machine
	Guo Kaikai Guo Youguang
4287	Variable Frequency Maximum-Torque-Per-Ampere Control for Five-Phase Permanent-Magnet Motor Based on
	Space Voltage Vector Injection Liu Guohai Zhang Jiahao Chen Qian
4296	Sensorless Control Method for Switched Reluctance Motors Based on Locations of Phase Inductance Characteristic Points
	Kuang Sijian Zhang Xiaoping Liu Ping Zhang Guanghui Zhang Zhu
4306	Hierarchical Assessment Method of Transformer Condition Based on Weight-Varying Grey Cloud Model
	Du Jiang Sun Mingyang
4317	The Characteristics of Gas Insulated Metal-Enclosed Switchgear Electric Field Network Based on
	Complex Network Theory Wu Qi Liu Xiaoming Yang Tian Zhou Lu
4325	A Four-Phase Four-Leg Power Electronics Converter for Active Magnetic Bearing Drive····· Hu Zaidong Jiang Dong Sun Hongbo
4336	Multi-Phase Interleaved Bidirectional DC-DC Converter with Coupled Inductors and Current Sharing Control Strategy
	Su Bing Wang Yubin Wang Fan Guo Zheng Dong Yuxiang
4350	Control Strategy of Wide Voltage Gain LLC Resonant Converter Based on Multi-Mode Switching
	Feng Xingtian Shao Kang Cui Xiao Ma Wenzhong Wang Yubin
4361	Passivity-Based Control Strategy of Quasi Z-Source Three-Level Grid-Connected Inverter
	Cheng Qiming Jiang Chang Shen Lei Cheng Yinman
4373	Variable Switching Frequency Pulse Width Modulation for Induction Motors Based on
	Current Ripple Peak Value
4384	Fusion Design and Control Method of Bridge Current Limiter and Dynamic Voltage Restorer
	Tu Chunming Li Qing Guo Qi Jiang Fei Gao Jiayuan
4397	Study on Thermo-Oxygen Aging Characteristics of Epoxy Resin Material
	Xie Wei Yang Zheng Cheng Xian Li Wenbo Chen Shuo
4405	Study on Nonlinear Characteristics on Conductivity of Silicon Carbide Whisker/Epoxy Resin Composites
	Chi Qingguo Cui Shuang Zhang Tiandong Yang Meng Chen Qingguo
4415	Growth Characteristics of Electric Tree for Nano-SiO ₂ /Epoxy Resin Modified by Hyperbranched Polyester
	Yang Guoging Liu Geng Wang Devi Wang Chuang Li Jiaxin