

2018 IEEE 2nd International Electrical and Energy Conference (CIEEC 2018)

**Beijing, China
4-6 November 2018**



**IEEE Catalog Number: CFP18L26-POD
ISBN: 978-1-5386-5393-7**

**Copyright © 2018 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP18L26-POD
ISBN (Print-On-Demand):	978-1-5386-5393-7
ISBN (Online):	978-1-5386-5392-0

Additional Copies of This Publication Are Available From:

Curran Associates, Inc
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: (845) 758-0400
Fax: (845) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

Table of Contents

11	Design and Application of Portable Distribution Automation Terminal Detector	1
	<i>Chong Ruan, Yongkang Zheng, Yong Liu, Yong Chang, Kunxian Zou</i>	
20	Research on Inconsistent Acquisition of Dual AD in Protection Current of Electronic Instrument Transformer	7
	<i>BAI Shi-jun, ZENG Lin-cui, Li Yi, WANG Xiao-hua, RONG Ming-zhe</i>	
22	Impact and Solution of PV Power Fluctuations on Operation of Hybrid AC/DC Microgrid	14
	<i>Shiyi Ma, Wei Ma, Jun Wu, Zhihui Liu, Tong Xu, Xuezhi Wu, Long Jing</i>	
23	A Fast Method for Fault Phase Selection Based on the Fitting Error of Transmission Line Differential Equation Algorithm	20
	<i>HE He, ZHANG Youqiang, ZHONG Jiayong, DAI Jian, GONG Qiujing</i>	
29	Architecture and Function Design of Integrated Energy Management System for Multiple Scenes	25
	<i>Hao Zheng, Hongwei Ma, Di Wu, Jianrong Mao, Meiping Fu</i>	
30	Key Technology Summary for Integrated Energy System Hybrid Simulation	30
	<i>Di Wu, HongWei Ma, Hao Zheng,</i>	
34	Microgrid Planning Considering the Uncertainty of Renewable Generation Profile	34
	<i>Zhao Wang, Xiong Wu, Ling Li, Ying Ying</i>	
36	The capacitor voltage balancing control strategy based on hierarchical theory in Cascaded H-bridge SSSC	40
	<i>Xuan Wang, Dan Wu, Menghang Wei, Jiafei Li, Hailong Wang, Qingguang Li</i>	
39	Loop Closing Control Based on PMU for Active Distribution Network	45
	<i>Jiaxin Ren, Yan Li, Wei Xie, Ping Ling, Biao Wang, Shaorong Wang</i>	
41	Research on Parallel Operation Control of Modules Based on Common DC Bus	51
	<i>Mingqing CHEN, Guangyao QIAO, Xuan WANG, Liang ZHANG, Ying ZHANG, Bin ZHU, Feng DAN</i>	
44	Analysis and Evaluation of Suppression Methods on Low-Frequency Oscillation in Electric Railways	56
	<i>Chengjie Bi, Xiaojun Wang, Chao Yao, Kexin Pang, Cheng Jin</i>	
47	Comparison of Prony and ARMA Methods for Oscillation Mode Identification in Distribution System based on μPMU	64
	<i>Ping Ling, Zhixiong Shi, Jing Zhang, Xiangyu Wu, Yin Xu, Jinghan He, Jinli Wang</i>	

48	Critical Load Restoration Method for Unbalanced Distribution Systems Based on Linear Approximation	70
	<i>Jiaxu Li, Yin Xu, Ying Wang</i>	
49	Transient Stability Analysis of AC-DC Hybrid Power Systems Using Direct Method	76
	<i>Xing Chen, Yin Xu, Jinghan He</i>	
50	Service Restoration Using Different Types of DGs Considering Dynamic Characteristics	82
	<i>Mingyu Su, Yin Xu, Ying Wang, Jinghan He, Jinli Wang</i>	
58	Coordinated Emergency Control Strategy for Transient Stability Enhancement of AC/DC Hybrid Power Systems Based on EEAC Theory	88
	<i>Zheng Shi, Yin Xu, Xiangyu Wu, Jinghan He, Hongming Shen</i>	
60	Algorithm of DFT Phasor Measurement Based on Frequency Tracking	94
	<i>Guo Hehong, Yan Xiaohong, Zhao Qingsheng, Zhang Jie, Wang Xuping, Guo Zun</i>	
61	A spectral line curve fitting based algorithm for inter-harmonics measurement	100
	<i>Jiaxian Li, Hao Liu, Tianshu Bi, Shicong Ma</i>	
64	Augmented State Estimation Method for Fault Location Based on On-line Parameter Identification of PMU Measurement Data	105
	<i>Junjuan Li, Xiaojun Wang, Xinyu Ren, Yongjie Zhang, Fang Zhang</i>	
65	An Approach to Suppress Low-frequency Oscillation in Electrification Railway Based on TCSC Impedance Control	110
	<i>Chao Yao, Xiaojun Wang, Chengjie Bi, Yizhi Zhang, Cheng Jin</i>	
70	On-line Identification of Liquid Metal Battery Model Using Bias Compensation Recursive Least Squares Method with Forgetting Factor	114
	<i>Xian Wang, Zhengxiang Song, Yingsan Geng, Jianhua Wang</i>	
71	An Evaluation Method of Diversified Load Absorptive Ability in Distribution Network Based on Hierarchical Component Theory	120
	<i>Xianing Jin, Jian Zhang, Yankun Qu, Yi Song, Weihong Yang, Jing Xu</i>	
72	Method of Line Parameter Estimation in Distribution Network Based on Geographic Information	125
	<i>Wanbing Liu, Yan Li, Wei Xie, Ping Ling, Chenguang Yang, Shaorong Wang</i>	
77	Performance Evaluation of Coherency Identification Methods in Frequency Stability Analysis Based on A Novel Assessment Index	132
	<i>Jiixin Wen, Siqi Bu</i>	
78	A Communication Method for a Full-view Synchronized Measurement System	138
	<i>Jiannan Tian, Tianshu Bi, Liu Han, Hao Liu, Songlin Gu</i>	
84	Low-Voltage Distribution Network Dispatching Strategy for High Proportion of Distributed Photovoltaic-Energy Storage System	143
	<i>Jinghan He, Kun Zhao, Pinghao Ni, Liufang Wang, Wei Li, Hongbo Chen</i>	

88	Space Charge Behavior in AC Electrically Aged Low-Density Polyethylene Films	151
	<i>Zixia Cheng, Jinxing Shi, Ling Zhang, Yuanxiang Zhou, Zekai Lu, Shaowei Guo</i>	
91	Province-differentiated economic evaluation of wind power projects considering the impacts of price bidding and grid parity:case study in China	155
	<i>Yiyi Wang, Wei Ding, Xuguang Zhao</i>	
92	Compatibility Assessment of Transnational Grid Interconnections	160
	<i>Pei ZHANG, Xiaoling JIN, Xiaoxi LV, Yao LU, Jiateng LI</i>	
93	Design and Application of Wiring-free Transformation of Secondary Equipment in Switchgear Based on Plug and Play Technology	167
	<i>Yi Shi, Hongyan Shen, Yanli Feng, Lu Cui</i>	
96	Effect of Vinyl Content on Mechanical Property and Electrical Tree Initiation in Silicone Rubber	173
	<i>SUI Jiangyuan, ZHANG Ling, ZHOU Yuanxiang, ZHANG Xinyan, CHENG Zixia, GUO Shaowei</i>	
98	Comparison and Data Conversion of PSD-BPA and PSS/NETOMAC Steady and Dynamic Models For Power Flow and Transient Stability Analysis	177
	<i>Hua Xie, Zhuang Li, Pei Zhang, Yinggang Peng, Fei Wang, Lin Yang, Zhenyu Gai</i>	
99	Compatibility Assessment of Transnational Grid interconnections between the United States and Canada	183
	<i>Xiaoxi LV, Yan ZHANG, Pei ZHANG, Yao LU, Jiateng LI</i>	
104	Analysis of μPMU Noise Characteristics and Its Influence on Distribution Network Fault Location	190
	<i>Ren Xinyu, He Jinhan, Wang Xiaojun, Wang Zhenji</i>	
109	Active power dispatch method based on 1-norm for small-signal stability	196
	<i>SUN zhiyuan, LIU guangshi, LIU mosi</i>	
112	Comparison of Decision Tree Attribute Selection Methods for Static Voltage Stability Margin Assessment	201
	<i>Weijie Li, Pei Zhang, Su Su, Xiangfei Meng, Changxin Ding, Yuwei Wang</i>	
115	Improved Continuation Power Flow Calculation Method Based on Coordinated Combination of Parameterization	207
	<i>Chong Ruan, Xiao Wang, Xi Wang, Fang Gao, Yepeng Li</i>	
116	Dynamic Simulation Test for Traveling Wave Fault Positioning System in Distribution Network	212
	<i>Chao Zhuo, Yanru Ni, Xiangjun Zeng, Yang Leng, Yunjun Xiang</i>	
117	A New Simulation Method for Complicated Successive Power System Faults in Extreme Weather	217
	<i>Kang Zhao, Changhui Ma, Jian Sun, Bing Zhang, Linlin Ma, Liang Wang</i>	

118	A Test Method for Transient Signal Transfer Characteristics of Electronic Current Transformer	223
	<i>Chi ZHANG, Chenchen LIU, Yiyu WANG, Peng LI, Changyou FENG, Xiaoxu WANG</i>	
119	Energy optimization Characteristic Analysis of More Electric Aircraft Flight Control System	227
	<i>Zheng Cao, Yuanjun Zhou, Haigang Liu, Chen Zhang</i>	
120	The modular design and thermal analysis of modularized APF	232
	<i>Yifan Wang, Qing Yang, Jinlong Gong</i>	
121	Reliability Assessment of Microgrid Island Operation Considering Probability Distribution of Wind Farm Output	237
	<i>Haifeng Liang, Dawei Cao, Yue Dong</i>	
122	Efficient Bidirectional Charger Design For Power Grid V2G	243
	<i>Mingqing CHEN, Zhe ZHOU, Xuan WANG, Dan WU, Jie LIU, Bin ZHU</i>	
128	Simulation and Testing of a Slew-energy-saving System for Mini Excavators	249
	<i>Jun Gong, Daqing Zhang, Shaowei Sun, Renhong Liu, Chi Tang, Cheng Zhang</i>	
131	Investigations of Business Models under Energy Internet Era	255
	<i>Fei CHEN, Jiateng LI, Pei ZHANG, Xin LI</i>	
132	An Optimization of Maintenance Time Decision for Distribution Feeders Based on Equipment Health Index	260
	<i>GUO Huacheng, ZHOU Limei, GOU Jun, SONG Junguang</i>	
140	Thermal Characteristics of 10kA Class HTS DC Power Cable Under Over-current Conditions	266
	<i>Qiujun Li, Dong Zhang, Yuping Teng, Benkang Yang, Jichun Li, Liyong Zhang</i>	
141	Elemental Mapping of Silicone Rubber Composites by Laser-induced Breakdown Spectroscopy (LIBS)	272
	<i>Q.S.Lv, X.Li, J.W.Ai, W.Wei, N.X.Wang, X.Hong, X.L.Wang, Z.D.Jia</i>	
143	ANALYSIS AND DESIGN OF A MODULAR 100kW STAND ALONE POWER SYSTEM	276
	<i>Wahab Ali Shah, Ali Shan, Hengxin He, Habib ur Rahman habib, Junjia He</i>	
149	Improved Modular Multilevel Converter Equivalent Method based on Thecenin's equivalent	284
	<i>JIN enshu, YANG xiaofan, XIA guowu, ZHANG yagu</i>	
151	Stability Analysis and Active Damping Control Method of DC Microgrid Based on Solid-State Transformer	292
	<i>Zengbin Qu, Yubin Wang, Tengting Pan, Wendong Tao</i>	

152	Research on the Influence of Consistent Arc on performance of Composite Insulators in Areas of high temperature and high humidity	298
	<i>Ting YANG, Changjian YANG, Haikun WEI, Yunfeng XIA, Zhonghao ZHANG, Xinyu WEI, Chi XU, Zhidong JIA</i>	
153	Research on Insulation Coordination of 500kV Unified Power Flow Controller	303
	<i>Yang XU, Fengbo TAO, Tianxi XIE, Zhaohui ZHANG, Shu CHEN, Jiangtao XU</i>	
155	Service restoration of active distribution network considering the islanded operation of distributed generation and micro-grid	309
	<i>Yi Wu, Wei Hu, Zijun Yang, Jiangping Jing, Jiajia Wu</i>	
157	Study on the Short Circuit Current Delay Over Zero Factor of Generator Source Based on RTDS	314
	<i>Zaiqiang Li, Xu Zhuansun, Weiqiang Fan, Yifei Wang, Fuming Li, Fei Xu, Anming Zhu</i>	
159	Study on the Optimal Operation of Regional Energy System	320
	<i>Chunjie Zhu, Chao Chen, Lin Xia, Chen Chen, Xiaobo Li, Yinzhe Xie</i>	
160	A Method for Reducing Commutation Failure Risk in Multi-Infeed HVDC Systems	325
	<i>Luhua Xing, Panpan Jing, Pengfei Zhang</i>	
162	Multi-objective economic optimization operation of electric vehicle-contained microgrid based on cogeneration	331
	<i>Shan Huang, Wu Zhensheng, Ren Zhigang, Liu Hongjing, Gui Yuan, Wu Linlin, Zhou Feng, Miao Wang</i>	
163	Using Improved Matter - Element Extension Model to Study Comprehensive Benefit Evaluation of the Transnational Power Grid Interconnection project	338
	<i>Yunqi Zhao, Xin Tan, Jinying Li, Jing Xiang, Ning Zhang</i>	
164	A Generalized N Terminal Current Order Control Scheme for LCC MTDC	344
	<i>Bilawal Rehman, Chongru Liu</i>	
165	Anti-Noise Electromagnetic Positioning Algorithm Based on Magnetic Dipole Model	350
	<i>Q.Q.Xu, J.Y.Xie, L.L.Pang, G.Yu, H.Q.Yu</i>	
167	Research on Characteristics of Superconducting Magnetic Shield Repair Technology	354
	<i>Wanying Zhang, Tingting Luo, Wanneng Zhu, Hongzhe Shen, Shoudao Huang</i>	
168	The Simulation Research of Power Distributor Based on RTDS	360
	<i>Xu Zhuansun, Weiqiang Fan, Yifei Wang, Fuming Li, Fei Xu, Anming Zhu, Zaiqiang Li</i>	
170	Research on Magnetic Shielding Effectiveness of Different Materials Hollow Cylinder with Slits	365
	<i>Wanying Zhang, Wanneng Zhu, Tingting Luo, Hongzhe Shen, Shoudao Huang</i>	
173	Influence of H₂O on the decomposition products and discharge mechanism of ac point-plane corona discharge	371
	<i>Qingqing Gao, Xiaohua Wang, Mingzhe Rong, Aijun Yang, LuLu Jiao</i>	

174	Power System Frequency Regulation using Hybrid Electrical Energy Storage System	377
	<i>Hasan Saeed Qazi, Nian Liu, Arman Ali</i>	
175	Energy Demand Estimation of a Multi-Party Consumer using Fuzzy Logic Method	382
	<i>Arman Ali, Nian Liu, Hasen Saeed Qazi, Bowen Ou</i>	
176	Comparison of the Influence of Different Types of Faults on Four-Circuit Transmission Lines on the Same Tower	386
	<i>Yujiao Sun, Junhui Huang, Qun Zhang, Yichao Huang, Yuanming Huang, Liang Cheng</i>	
177	An Improved WSN Localization Algorithm	392
	<i>S.Y.LU,J.Y.Xie,L.L.Pang</i>	
178	Voltage Sensor utilizing Inverse piezoelectric effect and Fiber grating	397
	<i>Xiangjun Zeng, Tingting Wang, Qing Yang, Yanxiao He</i>	
179	Research on Wind Power Probabilistic Characteristics Based on VBEM Weighted Gaussian Mixture Distribution Model	401
	<i>Tianzhen Gao, Xiaoying Zhang, Wei Chen, Kun Wang</i>	
180	Effects of Silicone Grease on Silicone Rubber in Physical Characteristics	407
	<i>ZHU Bin, LU Guo-jun, WANG Yong, FAN Wei-nan, LEI Chao-Ping, HU Hao, JIA Zhi-dong</i>	
185	A Wind Speed Simulation Approach Based on Markov Sequences Model and Archimedean Copula	411
	<i>Yudun Li, Binchao Zhao, Hao Bai</i>	
186	A Calculation Model of Maximum Power Receiving Capacity Considering Multi-DC Power Regulation and Security Constraints	417
	<i>Yichi Zhang, Qian Gao, Quanquan Wang, Lei Yun, Wanchun Qi</i>	
187	Field Circuit Coupling Analysis for Dynamic Wireless Charging of Electric Vehicle	423
	<i>Chaoqun Liu, Xian Zhang, Bin Wei, Songcen Wang, Xiaokang Wu, Qingxin Yang</i>	
189	Integrated Energy Technology and Service Trend in China: Investigation and Analysis on over 1800 Development Zones in Different Regions	428
	<i>Fang Tang, Hongcai Dai, Xin Chen, Yunqi Zhao</i>	
190	Study on the transmission line vulnerability index and its application based on the transient power angle stability mechanism	434
	<i>Yujiao Sun, Zhenjian Xie, Qian Gao, Wenjia Zhang, Qinyong Zhou, Boliang Liu</i>	
191	Minimum reflux power control of bidirectional DC-DC converter based on dual phase shifting	440
	<i>Shengwei Gao, Xin Lu, Xiaoming Liu</i>	
193	A Rapid Risk-Based Prevention Control Method of Power System	446
	<i>Qiangming Zhou, Jin Liu, Ming Lei, Yanbo Chen, Binjun Yan, Xin Liu</i>	

194	Risk-Based Coordination Research on Prevention Control and Emergency Control of Quasi-Steady State AC-DC System	451
	<i>Jin Liu, Qiangming Zhou, Yanbo Chen, Ming Lei, Binjun Yan, Xin Liu</i>	
195	Research on Real-time Condition Monitoring and Dynamic Capacity-increase of Transmission Lines	457
	<i>Xi Chen, Yongkang Zheng, Zaibin Jiao, Jingshu Qin, Daqian Shen, Qinsen Mo</i>	
196	Research on smart grid evaluation index system based on the analytic hierarchy process	463
	<i>Ji Zhang, Yulan Shen, Zixia Sang, Yanbo Chen, Yong Cai, Yajie Wang</i>	
197	Discussion of Relay Protection Testing Technology for Intelligent Substation	469
	<i>Kunlin Jiao, Yongkang Zheng, Yuqin Xu, Yi Zhang, Hua Jiang, Xiaotao Wang</i>	
198	Research on Distribution Network Planning Method Considering Active Load Reliability Cost	475
	<i>Li Yingxue, Zhu Wenguang, Yang Weiqun, Liu Xiaochun, Xiong Ning, Zhou Cheng, Wang Li</i>	
201	A New Routine for Generating Wide-band Overhead Line Conductor Data	481
	<i>Xin Nie, Ming Li</i>	
202	Analysis on Distribution Grid Operation Efficiency and Influence Factors	487
	<i>Xiaoling Jin</i>	
203	Research on Secondary State Monitoring System of Intelligent Substation Based on Big Data	492
	<i>Yi Zhang, Yongkang Zheng, Kunlin Jiao, Dazhong Li, Yi Zhang, Hua Jiang, Xiaotao Wang</i>	
204	Study on Effect of Metal Object Intervention in Wireless Power Transfer for EV	498
	<i>Wei Bin, Wu Xiaokang, Xu Jinxing, Fu Zhiyuan</i>	
205	Research on Effective Coupling Range of Medium Distance Wireless Power Transfer via Coupled Magnetic Resonances	503
	<i>Xu Chong, Wang Chenyu, Wu Xiaochong, Wei bin</i>	
206	Research on Influence of the Electric Vehicle on Life Safety During the Wireless Charging Process	507
	<i>Liu Chaoqun, Wu Xiaokang, Wei Bin, Gao Yan</i>	
207	Research on Electromagnetic Exposure Measurement Method for Electric Vehicle Wireless Charging System	513
	<i>Wang Songcen, Huang Xiaohua, Li Zishou, Xu Jinxing, Wang Fengxian, Wang Lei</i>	
208	Experimental Study on Performance of Submodule Capacitor in Unified Power Flow Controller	518
	<i>Yang XU, Fengbo TAO, Chengbo HU, Chengbo HU, Jun JIA, Ziquan Liu, Fei Yan</i>	
210	Study on Aging Mechanism of Bisphenol A Epoxy Resin Based on Molecular Simulation	523
	<i>Song Zhang, Yushun Zhao, Kerong Yang, Xuepei Wang</i>	

211	Cost-benefits analysis of battery storage system for industry consumers based on different operation modes	527
	<i>Ning Zhang, Rong Li, Yizhe Jiang</i>	
213	A novel bi-level source-grid-load coordinated power system planning model based on operation simulation	532
	<i>Ning Zhang, Tuo Liu, Jing Lu, Rong Li</i>	
214	Research on Energy Acquisition Method Based on Ceramic Capacitor Insulator	538
	<i>Luo Junyuan, Yin Lu, Liu Hongwen, Yang Qing, Ran Jiaquan</i>	
215	Effect of Silane Coupling Agent Modified Alumina Filler on Breakdown Characteristics of Epoxy Composites	544
	<i>Xuepei Wang, Yushun Zhao, Kerong Yang, Song Zhang, Yuanhan He</i>	
216	Research on the Influence of Structural Parameters on Electromagnetic Force of Wireless Power Transfer	548
	<i>Xian Zhang, Xuejing Ni, Qingxin Yang, Bin Wei, Songcen Wang, Xiaokang Wu</i>	
217	Influence of Misalignment of Electric Vehicle Wireless Charging System Coupling Structure on Magnetic Field Distribution	553
	<i>Xian Zhang, Xuening Bai, Qingxin Yang, Bin Wei, Songcen Wang</i>	
218	Analysis on Field Monitoring Data of Surface Leakage Current and Corrosion Charge of HVDC Insulators	557
	<i>Daiming Yang, Liming Wang, Bin Cao</i>	
219	Aggregated Electric Vehicle-to-Grid for Primary Frequency Control in a Microgrid- A Review	563
	<i>Sheeraz Iqbal, Ai Xin, Mishkat Ullah Jan, Haseeb ur Rehman, Arsalan Masood, Syed Asad Abbas Rizvi, Salman Salman</i>	
221	Prediction method of leakage current of insulators on the transmission line based on BP neural network	569
	<i>Song Gao, Bin Cao, Yongyong Jia, Daiming Yang, Xiaotian Bi, Liming Wang</i>	
222	The PD Characteristics Study of Oil/Paper Insulation Typical Defects Based on Ultrasonic Method	573
	<i>Xin ZHANG, Liuyong QIU, Yanwei DONG, Liqing LIU, Junji FENG, Tiankai YANG</i>	
225	Characteristics of Impulsive Force on Coupler of Wireless Power Transfer	578
	<i>Zhaoyang Yuan, Qingxin Yang, Xian Zhang</i>	
227	Optimal Operation Method of Hybrid AC/DC Microgrid Considering Source-load Coordination Based on Uncertain Bi-level Programming	583
	<i>Xue Zhang, Yuwei Li, Miaomiao Zheng, Peng Li</i>	
229	Research on the relationship between leakage current of on-site insulators and environmental factors	589
	<i>Chao Gao, Yang Liu, Song Gao, Bin Cao, Daiming Yang, Liming Wang</i>	

230	Operating Characteristics Analysis and Parameter Optimization of Three-Level Boost Converter	593
	<i>Huiqing Du, Daomeng Cai, Sen Yang, Zongju Cai</i>	
231	Research on Quantitative Model of Energy Transition Path Based on Scenario Analysis	599
	<i>Lin Liu, Xue Wang, Wenting Xiong, Xiufan Ma</i>	
232	Thermal Conductivity of Epoxy Composites Filled with Polydopamine and Goupling Agent Functionalized Boron Nitride	604
	<i>Xingming Bian, Rui Tuo, Zhuo Zhang, Shaoxiong Zhai, Wei Yang, Zhaoliang Xing, Shaojian He, Jun Lin</i>	
233	Calculations of dielectrophoretic forces on non-homogenous dielectric particles with different shapes	608
	<i>Haibing Li, Jie Zhu, Zhuo Zhang, Wei Yang, Zhaoliang Xing, Xingming Bian</i>	
234	Improvement of Control Method For Parallel Connected Inverter Systems Based On Improved Droop Control	612
	<i>Shouhong Feng, Jingru Yang, Zixiao Xu, Ziyu Chen, Qing Li, Weiling Li</i>	
235	Properties of Epoxy Resin Composites Filled with KH560 Modified Halloysite Nanotubes	617
	<i>Jun Lin, Chumeng Luo, Zhuo Zhang, Wei Yang, Zhaoliang Xing, Shaojian He, Xingming Bian</i>	
236	Performance of silicone rubber composites by partially replacing aluminum hydroxide with mica	621
	<i>Jiaqi Wang, Zhuo Zhang, Zhaoliang Xing, Xiangnan Hu, Shaojian He, Jun Lin, Xingming Bian</i>	
237	Preparation and Electrical Properties of Organic montmorillonite/Epoxy Composites	625
	<i>Jun Lin, Yan Zhou, Zhuo Zhang, Zhaoliang Xing, Wei Yang, Shaojian He, Xingming Bian</i>	
238	Path Optimization of Adaptive Dynamic Wireless Charging	629
	<i>Yuhong Li, Zhengyao Liang, Xian Zhang, Pingjuan Niu, Wenting Ma, Lili Han</i>	
239	The Vibration Characteristics of Rain Droplet on the Surface of the Overhead Line Conductors	633
	<i>Qi Li, Simon Rowland</i>	
241	Challenges on Generation Right Trading for Supporting Renewable Integration	637
	<i>Tianxiang GENG, Yao LU, Feng LI, Xiaoxi LV, Pei ZHANG, Taiyou YONG</i>	
243	Fault diagnosis method based on improved genetic algorithm and neural network	643
	<i>Dawei Zhang, Weilin Li, Xiaohua Wu, Xiaofeng Lv</i>	
244	Research on Active Noise Control Method Compensating for Acoustic Metamaterial Noise Barrier in Transformer Noise Reduction	648
	<i>Tianzheng Wang, Chao Zhang, Tao Jin, Guoqiang Liu, Zhu-mao Lu, Xinzhe Zhao, Cailian Li</i>	

ADDITIONAL PAPERS

Comparative Evaluation of the Short circuit Capability of SiC Planar and Trench Power MOSFET	653
<i>Lei Cao ; Qing Guo ; Kuang Sheng</i>	
Risk Assessment Method of Distribution Network with considering Multiple Photovoltaic Generations	
Uncertainties	657
<i>Hua Xie ; Hao Chen ; Ning Wang ; Pei Zhang</i>	
Fault Location Strategy for Wide Area Protection Based on Logical Information Fusion	665
<i>Chunlei Zhao ; Yingli Wei ; Liqiang Sun ; Jing Liu ; Binbin Zhang ; Haibin Chen ; Chang Tan</i>	
New Mode of Smart Substation Protection	669
<i>Yong Liu ; Xinming Jin ; Chang Tan ; Jing Liu ; Zaiyang Zhou ; Zhilei Li ; Haibin Chen</i>	
Research on Constitution Scheme of Station Domain Protection System	673
<i>Liqiang Sun ; Xinming Jin ; Haibin Chen ; Jing Liu ; Chang Tan ; Haiyun Yang ; Binbin Zhang</i>	
Design and Implement of 10 kV SiC JBS Based on Exponential Varying Field Limiting Rings	678
<i>Hu Long ; Qing Guo ; Kuang Sheng</i>	
A Phase Shift Control of Minimal Circulating Current and ZVS Turn-On for DAB Converter	682
<i>Weiwen Ye ; Shuai Shao ; Qing Guo ; Junming Zhang ; Kuang Sheng</i>	
The Status Analysis and Development Outlook of the Regional Multi-Energy System (RMES).....	687
<i>Zheng Lu ; Lou Shumei</i>	
Press-Pack and Soldered Packaging IGBT Modules for Pulsed Power Applications	693
<i>Lubin Han ; Lin Liang ; Rui Wang ; Cai Chen ; Zihao Zhao ; Guoqiang Tan</i>	
Author Index	