



ICEMPE 2023

IEEE International Conference on Electrical Materials and Power Equipment
May 7th-10th, 2023
Shanghai, China

ORAL SESSIONS

Sunday, May 7, 2023		
8:00-18:00	Registration Buckingham Grand Hotel, Shanghai	
18:00-20:00	Welcome Reception (NO.301,3 rd F)	
Monday, May 8, 2023		
Opening Ceremony		
Chair: Feihu Zheng (Tongji University, China)		
Venue: NO.301+302, 3 rd F		
08:30-08:35	Chairman of ICEMPE 2023	
08:35-08:40	China Electrotechnical Society	
08:40-08:45	Vice President of SJTU	
Chen Jidan Award & Memorial Lecture		
Chair: Yi Yin (Shanghai Jiao Tong University, China)		
Venue: NO.301+302, 3 rd F		
08:45-08:50	Brief Introduction to Prof. Chen Jidan Shengtao Li (Xi'an Jiaotong University, China)	
08:50-09:30	Chen Jidan Memorial Lecture Space Charge Measurement Techniques for Practical Insulation Systems Naohiro Hozumi (Toyohashi University of Technology, Japan)	
09:30-10:00	Group Photo and Coffee Break	
Lifetime Achievement Award		
Jiaying Li (Xi'an Jiaotong University, China)		
Venue: NO.301+302, 3 rd F		
10:00-10:05	Brief Introduction to Lifetime Achievement Award Kai Wu (Xi'an Jiaotong University, China)	
10:05-10:15	Lifetime Achievement Award Qingquan Lei (Harbin University of Science and Technology, China) Demin Tu (Xi'an Jiaotong University, China)	
Oral Session 1: New Issues & New Theories		
Session Chairs:		
Xingyi Huang (Shanghai Jiao Tong University, China)		
Wenfeng Liu (Xi'an Jiaotong University, China)		
Venue: NO.301+302, 3 rd F		
10:15-10:40	Flexible Low-frequency AC Transmission Invited Weijiang Chen (State Grid Corporation of China, China)	S1-1
10:40-11:05	Offshore Wind Power Friendly Integration Solution and Key Electrical Equipment Invited Innovation	S1-2



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	Jian Ban (China Electrical Equipment Group Science and Technology Research Institute Co., LTD., China)	
11:05-11:30 Invited	Radiation Effects on Degradation of Polymeric Cable Insulation from Various Viewpoints Yoshimichi Ohki (Waseda University, Japan)	S1-3
11:30-11:55 Invited	Organic Molecular Grafting Modification based Crosslinked Polyethylene for HVDC Cable Insulation Hong Zhao (Harbin University of Science and Technology, China)	S1-4
11:55-12:20 Invited	High Performance Lithium-ion Capacitors: Fabrication and Applications Yanwei Ma (Institute of Electrical Engineering, Chinese Academy of Sciences, China)	S1-5
Oral Session 2: Performance of Insulating Materials		
Session Chairs:		
Xiangrong Chen (Zhejiang University, China),		
Guoqiang Gao (Southwest Jiaotong University, China)		
Venue: NO.301+302, 3 rd F		
14:00-14:25 Invited	Insulation Problems of HVDC Cable and GIL/GIS in Electricity Transmission Boxue Du (Tianjin University, China)	S2-1
14:25-14:50 Invited	Health Management Technology of High Speed Train Traction Power Supply Equipment Guangning Wu (Southwest Jiaotong University, China)	S2-2
14:50-15:15 Invited	Understanding the Abnormal Ageing Performance of ZnO Ceramics: Phenomena and Insights Jiaying Li (Xi'an Jiaotong University, China)	S2-3
15:15-15:40 Invited	Charge Trapping and Transport in Nanodielectrics George Chen (University of Southampton, UK)	S2-4
15:40-16:05 Invited	Novel Electrochemical Energy Storage Materials & Technologies Kai Jiang (Huazhong University of Science and Technology, China)	S2-5
16:05-16:15 Coffee Break		
16:15-16:40 Invited	Correlations between Morphology and Insulating Properties of Bi-axial Oriented Polypropylene Film Wenfeng Liu (Xi'an Jiaotong University, China)	S2-6
16:40-17:05 Invited	Sustainable Application of Dynamic Polyimide Dielectrics Junwei Zha (University of Science and Technology Beijing, China)	S2-7
17:05-17:30 Invited	Plasma Modification Technology for Optimizing the Performance of Electrical Materials Cheng Zhang (Institute of Electrical Engineering, Chinese Academy of Sciences, China)	S2-8
17:30-17:55 Invited	A Soft Fault Location Method for Power Cable based on AR Model Kai Zhou (Sichuan University, China)	S2-9
17:55-18:20 Invited	Construction of a Charge Barrier to Improving the High-temperature Energy Storage Performance of Polymer Composites Qingguo Chi (Harbin University of Science and Technology, China)	S2-10



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Tuesday, May 9, 2023		
Oral Session 3: Performance of Insulating Material		
Session Chairs:		
Jinghui Gao (Xi'an Jiaotong University, China)		
Yalin Wang (Shanghai Jiao Tong University, China)		
Venue: NO.301, 3 rd F		
08:30-08:50 Invited	Effect of Gamma-Ray Irradiation on Dielectric Properties of Polypropylene as Cable Insulation Yu Gao (Tianjin University, China)	S3-1
08:50-09:10 Invited	Dielectric Response Characteristics of Fluorinated Liquid-Impregnated Paper Insulation Weiwang Wang (Xi'an Jiaotong University, China)	S3-2
09:10-09:30 Invited	Influence of Cross-linking Characteristics of DC Cable Insulation on DC Performance Wenpeng Li (State Grid Smart Grid Research Institute CO., LTD, China)	S3-3
09:30-09:50 Invited	A Method for Tuning the Dielectric Properties of Filled Composites Zikui Shen (South China University of Technology, China)	S3-4
09:50-10:05	Improvement of the Electrical Properties of Silicone Rubber Doped with Nano-zirconia Grafted by Voltage Stabilizer Xiaoqian Zhu (Tsinghua University, China)	S3-5
10:05-10:20	Improved Surface Electrical Strength of EPDM Samples by Surface-grafted Voltage Stabilizer Chunyang Li (Harbin University of Science and Technology, China)	S3-6
10:20-10:35	The Dielectric Properties of Polypropylene Grafting with Methyl Methacrylate Shangshi Huang (Tsinghua University, China)	S3-7
10:35-10:45	Coffee Break	
10:45-11:00	The Vibration Analysis of HVDC Converter Module Based on Experiment under Working Conditions Qinwei He (Global energy interconnection research institute europe gmbh, Germany)	S3-8
11:00-11:15	Breakdown Characteristics of Flowing Transformer Oil Contaminated with Cellulose Particles Under Slightly Non-uniform DC Field Suyi Xia (Wuhan University, China)	S3-9
11:15-11:30	Thermally Conductive Radiative Cooling Polymer Nanocomposite for Outdoor Thermal Management Pengli Li (Shanghai Jiao Tong University, China)	S3-10
11:30-11:45	Effect of Antioxidants on Crystalline Structure of Crosslinked Polyethylene for Power Cables Yifan Wu (Xi'an Jiaotong University, China)	S3-11
11:45-12:00	Study on Charge Characteristics of Silicone Rubber After Swelling Different Silicone Grease Xiaodong Li (Tsinghua University, China)	S3-12



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12:00-12:15	Surface Repairing of Damaged EPDM Insulation by Ar/Styrene Plasma Treatment Xi Zhu (Nanjing Tech University, China)	S3-13
12:15-12:30	Effect of Plasma on Hydrophobicity Migration of Contaminated HTV Silicone Rubber Meng Zhou (Tsinghua University, China)	S3-14
Tuesday, May 9, 2023		
Oral Session 4: Detection and Assessment		
Session Chairs:		
Xueqin Zhang (Southwest Jiaotong University, China)		
Xilin Wang (Tsinghua University, China)		
Venue: NO.302, 3 rd F		
08:30-08:50 Invited	Space Charge Characteristics of XLPE at Different Temperatures for Long-time Vulcanization Process Xiangrong Chen (Zhejiang University, China)	S4-1
08:50-09:10 Invited	Corona Resistance Characteristics of Polyimide Films modified by Nano-Al ₂ O ₃ in LN Daosheng Liu (Jiangxi University of Science and Technology, China)	S4-2
09:10-09:30 Invited	Aging Mechanism and Characterization of EPR Cable under Nonlinear Torsion Effect Shuaibing Li (Lanzhou Jiaotong University, China)	S4-3
09:30-09:45	Experimental Research on Visual UHF Positioning Technology of Space Discharge Sources Based on Electrical Transformer Tingyu Gao (China Electric Power Research Institute, China)	S4-4
09:45-10:00	Research on Ultrasonic Detection Method for Partial Discharge of Dry Type Transformer Yixin Li (Xi'an Jiaotong University, China)	S4-5
10:00-10:15	Acoustic Monitoring Method for Operating Condition of Contaminated Insulator Based on Fuzzy Reasoning Feng Zhang (Changsha University of Science & Technology, China)	S4-6
10:15-10:30	Aging Evaluation of Silicone Rubber Composite Insulators with Long-term Operation in the Outdoor Lv Li (Institute of Electrical Engineering, Chinese Academy of Sciences, China)	S4-7
10:30-10:40	Coffee Break	
10:40-10:55	Study on the Post-Curing Reaction of Epoxy Resin during Aging Jianguo Lang (Xi'an Jiaotong University, China)	S4-8
10:55-11:10	Analysis on Vibration and Noise Characteristics of Epoxy Resin Dry-Type Transformer and Noise Reduction Measures Fangchi Qiu (Shenzhen Power Supply Co., Ltd., China)	S4-9
11:10-11:25	Study on the Diffusion Behavior of Moisture in New and Aged Oil-paper Insulation by Terahertz Imaging Technology Yuxin He (Chongqing University, China)	S4-10



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11:25-11:40	The Measurement of the Interface Thermal Resistance of Micron-Thin Film by Dielectric Transient Current Method Shijie Chen (Tongji University, China)	S4-11
11:40-11:55	Arc Jet Flow Characterized by High-speed Shadow Imaging Technique Sude Liu (Nanjing University of Aeronautics and Astronautics, China)	S4-12
11:55-12:10	A Low Background Noise Distributed Detection Method for Cable Partial Discharge Based on Ultraweak Fiber Bragg Grating Array Tengjun Guo (North China Electric Power University, China)	S4-13
12:10-12:25	A Novel PD Detection Method for Inverter-fed Motor using Shell as Slot Antenna Shijin Ma (Sichuan University, China)	S4-14
14:00-17:00	Technical Visit (Assembly Point: Hotel Lobby at 14:00)	
Wednesday, May 10, 2023		
Oral Session 5: Discharge and Aging		
Session Chairs:		
Yu Gao (Tianjin University, China)		
Su Zhao (Shanghai Jiao Tong University, China)		
Venue: NO.301, 3 rd F		
08:30-08:50 Invited	Breakdown in Insulation Layer of 10 kV Overhead Insulated Conductor Yuesheng Zheng (Fuzhou University, China)	S5-1
08:50-09:10 Invited	Effect of the Rise Edge of the Pulse Voltage on Initiation and Growth Characteristics of the Electrical Tree of the Silicone Rubber Dongxin He (Shandong University, China)	S5-2
09:10-09:30 Invited	Aromatic Compounds Affecting Electrical Treeing and Partial Discharge Properties of XLPE Insulation under Cyclic Thermal Loading for HVAC Cables Zhonglei Li (Tianjin University, China)	S5-3
09:30-09:45	Discharges in Wind Turbine Xiangdong Xu (Chalmers university of technology, Sweden)	S5-4
09:45-10:00	Deep Understanding of Hydrogen Abstraction Reaction in Liquid Silicone Rubber Under Ultraviolet Radiation Ying Lin (Hefei University of Technology, China)	S5-5
10:00-10:15	Breakdown Analysis of HVDC Cable Accessories during R&D Tests Yi Luo (Global Energy Interconnection Research Institute Europe GmbH, Germany)	S5-6
10:15-10:30	Analysis of Thermal Aging Characteristics of Silicone Gel used for IGBT Packaging Rirong Chen (Wuhan University, China)	S5-7
10:30-10:40	Coffee Break	
10:40-10:55	The Influence of the Dielectric Effect on the Pulse Sequence Development of Negative Corona Lu Fan (Shanghai Jiao Tong University, China)	S5-8
10:55-11:10	Study on Icing Distribution Characteristics of Transmission Lines at Heavy Ice Area and its Influence on Jump Height Guizao Huang (Southwest Jiaotong University, China)	S5-9



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11:10-11:25	Thermal Characteristics of the Polluted Silicone Rubber During the Formation Process of Dry Band and Arc Discharge Jikai Bi (South China University of Technology, China)	S5-10
11:25-11:40	Effects of Mold on the Flashover Characteristics of Silicone Rubber Insulators Shifang Yang (North China Electric Power University, China)	S5-11
11:40-11:55	Effect of Rise Time on Partial Discharge and Aging Characteristics of Polyimide under Square Wave Voltage Xinyang Zhu (Shanghai Jiao Tong University, China)	S5-12
11:55-12:10	Analyzing the Arcs Development of 10 kV XLPE Power Cable Guangya Zhu (Sichuan University, China)	S5-13
12:10-12:25	Investigation of Non-Local Thermodynamic Equilibrium Effects of Medium Voltage AC Air Arc Tong Zhou (Chongqing University, China)	S5-14
Wednesday, May 10, 2023		
Oral Session 6: Modeling and Simulations		
Session Chairs:		
Peng Wang (North China Electric Power University, China)		
Guangya Zhu (Sichuan University, China)		
Venue: NO.302, 3 rd F		
08:30-08:50 Invited	External Insulation Design for EMUs' Insulators at High Altitude with Non-uniform Distributed Pollution Jixing Sun (Beijing Jiaotong University, China)	S6-1
08:50-09:10 Invited	Forming Process of Cellulose Impurity Bridges in Oil-Paper Insulation under DC Voltage Yuan Li (Sichuan University, China)	S6-2
09:10-09:30 Invited	Electrical Stress Simulation of DC Cable in ± 100 kV VSC-HVDC System Haitian Wang (Global Energy Interconnection Research Institute Europe GmbH, Germany)	S6-3
09:30-09:45	A CNN-based Image Reconstruction Scheme for Complex-valued Multi-frequency Electrical Capacitance Tomography Yifei Xiong (Shanghai University of Electric Power, China)	S6-4
09:45-10:00	Electrothermal Coupling Field Calculation of 200 kV Adaptive Bushing Zhiwen Huang (Tsinghua University, China)	S6-5
10:00-10:15	Analysis of Interaction between Decomposition Products of C4F7N/CO2 Mixture and Epoxy Resin Geng Chen (North China Electric Power University, China)	S6-6
10:15-10:30	Simulation Characteristics of Liquid Metal flow Limiters with Different Number of Pores Aozheng Wang (Southwest Jiaotong University, China)	S6-7
10:30-10:40	Coffee Break	
10:40-10:55	Simulation Study on the Impact of Fog Density on Effectiveness of Infrared Thermography	S6-8



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	Zhuojun Jiang (Tsinghua University, SIGS, China)	
10:55-11:10	Study of AC Resistance Calculation in Equivalent Networks of Transformer Windings and Frequency Response Considering Proximity Effect Longfei Ma (Shandong University, China)	S6-9
11:10-11:25	Study on the Influence of Lightning Current Waveform on the Impulse Characteristics of Grounding Grid Qiheng Ma (Southwest Jiaotong University, China)	S6-10
11:25-11:40	Practical Research on a New Type of Electric Field Sensor Kun Ke (Chongqing University, China)	S6-11
11:40-11:55	The Adsorption and Preliminary Degradation Performance of SF6 on Mixed Terminal Ti2CTx: A DFT Study Xinnuo Guo (Wuhan University, China)	S6-12
11:55-12:10	Modeling and Testing of Thermoelectric Generator Based Energy Harvester for Powering Sensor Node Used in Condition Monitoring System for HVDC Converter Tian Lan (Global Energy Interconnection Research Institute Europe GmbH, Germany)	S6-13
12:10-12:25	Stress Simulation Research of Basin-type Insulator for Gas Insulated Switchgear under Hydrostatic Test Wenhao Gao (Shandong University, China)	S6-14
Oral Session 7: Energy Storage and New Materials		
Session Chairs:		
Dongxin He (Shandong University, China)		
Kangning Wu (Xi'an Jiaotong University, China)		
Venue: NO.301, 302, 3 rd F		
14:00-14:20 Invited	Progress in the Development of a Fully Environmentally Friendly DC Thermoplastic Extruded Insulation Cable System in China Mingyu Zhou (Global Energy Interconnection Research Institute Europe GmbH, Germany)	S7-1
14:20-14:40 Invited	Significant Improvement in Dielectric Properties and Energy Density of Polypropylene Films Based on Surface Modification Meng Xiao (Tianjin University, China)	S7-2
14:40-15:00 Invited	Transition from Non-Arrhenius to Arrhenius Aging of ZnO ceramics Kangning Wu (Xi'an Jiaotong University, China)	S7-3
15:00-15:20 Invited	High-Temperature Dielectric Energy Storage Performance of MgO/PEI nanocomposites Tiandong Zhang (Harbin University of Science and Technology, China)	S7-4
15:20-15:35	Poly (arylene sulfide sulfone) with Excellent Dielectric and Energy Storage Properties for High-temperature Capacitor Applications Mingsheng Zheng (University of Science and Technology Beijing, China)	S7-5
15:35-15:45	Coffee Break	
15:45-16:00	A Superhydrophobic and Electrical Insulating Film by 3D Printing Peng Wang (North China Electric Power University, China)	S7-6

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16:00-16:15	Preparation of Graphene Loaded Cobalt Catalyst and its Oxygen Evolution Performance Wenkai He (Chongqing University, China)	S7-7
16:15-16:30	Trapezoidal Polyphenylsilsesquioxane Modified Insulating Paper Cellulose with High Mechanical Performance and Thermal Stability Zhenglin Zeng (Southwest University, China)	S7-8
16:30-17:00	Excellent Student Paper Awards and Closing Ceremony Yi Yin (Shanghai Jiao Tong University, China)	



POST SESSIONS

Tuesday, May 9, 2023 10:00-12:30	
Poster Session 1: Equipment Aging and Assessment: Transformer and Cable Session Chairs: Yushun Zhao (Hefei University of Technology, China) Danhua Mei (Nanjing Tech University, China) Venue: Gallery hall, 3 rd F	
Effects of Oil Filtration Film Types and Superhydrophobic Modification on the Moisture Removal Characteristics of Transformer Oil Zenghui Zhang (Fujian Agriculture and Forestry University, China), Yunxiao Zhang, Tianfeng Zhang, Zhengnan Chi, Wenxin Lin (Fuzhou University, China), Tao Lin (Super High Voltage Branch of State Grid Fujian Electric Power Co., Ltd., China)	P1-01-A
Study on the Effect of Amino-modified SiO ₂ Nanoparticles on the Diffusion of Water Molecules in Natural Ester Oil-paper Insulation Yingrui Wu, Zhenglin Zeng, Chao Tang (Southwest University, China)	P1-02-A
Identification of Aging Status of Insulating Paper Based on BP Neural Network Boxue Du, Yongping Hou, Xiaoxiao Kong, Chong Zhang, Fan Li (Tianjin University, China), Jing Mu (State Grid Jibei Electric Power Company Limited Management Training Center, China)	P1-03-A
Analysis of Electromagnetic Transient Process Under Lightning Impulse Voltage for Silicone Rubber Cast Dry-type Transformer Xiaohui Chen, Xiaoxiao Kong (Tianjin University, China), Qiang Fu (Electric Power Research Institute of Guangdong Power Grid Co., Ltd., China), Yongping Hou, Chong Zhang, Boxue Du (Tianjin University, China)	P1-04-A
Aging State Evaluation of Transformer Oil-paper Insulation Based on PDC Asymmetric Current Mingze Zhang, Shengjie Lei, Yilin Liang (Harbin University of Science and Technology, China), Heqian Liu (Electric Power Research Institute State Grid Heilongjiang Electric Power Company Limited, China), Yunbo Shi, Ji Liu (Harbin University of Science and Technology, China)	P1-05-A
Study on the Photoacoustic Spectrum Characteristics of CO in Transformer Oil Qingming Lin, Xiaocun Wang, Tengfei Li (State Grid Shanghai Electric Power Company, China), Zhou Liping (Shanghai Pashope Electrical Science & Technology Co., Ltd., China) and Wenhui Zhang (Shanghai Hengnengtai Enterprise Management Co., Ltd., China)	P1-06-A
An External Fiber Grating Sensor used for Measurement of Interface Pressure between Cable and Accessory at High Temperature Yanding Wang, Di Zheng, Xia Wang (Xi'an Jiaotong University, China)	P1-07-A
Comparison of Calculation Methods for the Power Cable Distributed Resistance over a Wide Frequency Range	P1-08-A



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Xuefeng Zhao (Electric Power Research Institute of State Grid Shaanxi Electric Power Company Limited, China), Chong Wang, Tao Lin (State Grid Shaanxi Electric Power Company Limited, China), Haofei Sun, Wei Duan, Lu Pu (Electric Power Research Institute of State Grid Shaanxi Electric Power Company Limited, China), Jianfeng Liang, Gangduo Feng, Yu Tian (Xi'an University of Technology, China)	
Study on the Transfer Impedance of Power Cable Straight Joints Jian Gao, Chong Wang, Yong Sheng (State Grid Shaanxi Electric Power Company Limited, China), Xuefeng Zhao, Haofei Sun, Lu Pu (Electric Power Research Institute of State Grid Shaanxi Electric Power Company Limited, China), Jianfeng Liang, Hanmeng Wang, Gangduo Feng (Xi'an University of Technology, China)	P1-09-A
Performance Tests on Temperature-Press Composite MEMS Sensor for Transformer Oil Yajun Jia, Chang Shen, Zhijian Jin, Junjie Jiang (Shanghai Jiao Tong University, China)	P1-10-A
Electric Field Strength Influence on Frequency Domain Spectroscopy Characteristics of Transformer Oil-Paper Insulation Zhengqing Zhou, Chuanxian Luo, Shengnan Hu, Lin Cheng (Nanjing NARI Group Corp., China), Zhaoliang Gu (State Grid Shandong Electric Power Research Institute, China), Zhang Jing (Nanjing NARI Group Corp., China)	P1-11-A
Evaluation Method of Oil-paper Insulation Damp State Based on Response Current Value Change Gang Lv, Wei Wang, Zongyuan Luo, Ke Li, Yujin Li (UHV Transmission Company China Southern Power Grid, China), Yuan Xia, Jiajun Li, Hao Yang (Chongqing University, China)	P1-12-A
Trace C ₂ H ₂ Detection Based on Cantilever Enhanced Photoacoustic Spectroscopy Long Li (Electric Power Research Institute of State Grid Chongqing Electric Power Company, China), Xianzong Chao, Zujian Huang (Wuhan University, China), Chang Liu (Chengdu Power Supply Company State Grid Sichuan Electric Power Company, China), Fuping Zeng, Ju Tang (Wuhan University, China)	P1-13-A
Study On Harmonic Response Analysis and Vibration Reduction of Amorphous Metal Alloy Transformer Romaric Kammeugue Noubissi, Daosheng Liu (Jiangxi University of Science and Technology, China), Boxue Du (Tianjin University, China)	P1-14-A
Cross-scene Power Equipment Monitoring Technology Based on DANN Suqin Xiong, Tianyu Gao (China Electric Power Research Institute, China), Zhengyuan Fei, Xushan Zhao (Xi'an Jiaotong University, China)	P1-15-A



Tuesday, May 9, 2023	
10:00-12:30	
Poster Session 1: Equipment Aging and Assessment: Transformer and Cable Session Chairs: Yushun Zhao (Hefei University of Technology, China) Danhua Mei (Nanjing Tech University, China) Venue: Gallery hall, 3 rd F	
Multi-Fault Integrated Classification and Identification Method Based on LSTM Suqin Xiong, Tianyu Gao (China Electric Power Research Institute, China), Xushan Zhao, Zhengyuan Fei (Xi'an Jiaotong University, China)	P1-16-A
Space Charge Distribution in Submarine Cable Factory Joint Insulation Xiaoning Shi, Wenpeng Li (State Key Laboratory of Advanced Power Transmission Technology State Grid Smart Grid Research Institute, China), Meng Zhang, Yang Liu (Xi'an Jiaotong University, China), Xin Chen, Chong Zhang (State Key Laboratory of Advanced Power Transmission Technology State Grid Smart Grid Research Institute, China), Wei Zhao, Lisheng Zhong, Jinghui Gao (Xi'an Jiaotong University, China)	P1-17-A
Characteristics of Temperature Distribution and Current Carrying Capacity of XLPE Cable Joint Yuming Dong, Zhonglei Li, Heyu Wang, Boxue Du (Tianjin University, China), Qinghua Tang, Zhengzheng Meng (Electric Power Research Institute State Grid Tianjin Electric Power Company, China)	P1-18-A
Analysis and Application of Sheath Circulation of HV Cable Cross Transposition System Based on EMTP Yang He, Zhenxing Wang, Hai Li, Tianyang Shi (State Grid Shanghai Cable Company, China)	P1-19-A
Analysis of Fire Detection Methods in Cable Tunnels of Shanghai Shuhan Wang, Lei He, Yongkang Zhang, Ling Wang, Yanling Chen, Chenbin Wu, Minji Tang, Cheng Wang (State Grid Shanghai Cable Company, China)	P1-20-A
Construction and Application of Cable 'Smart Five Ring' Operation and Maintenance Management Mode Yunjie Zhou, Tianyu Yang, Qiang Xu, Zhouhong (State Grid Shanghai Cable Company, China)	P1-21-A
Influence of Cable Length on Characteristic Parameters of PDC Test Xiaoyan Cao, Kai Zhou, Siyan Lin, Fan Yang (Sichuan University, China)	P1-22-A
Ultra-Low Frequency Dielectric Loss Measurement of High Voltage Submarine Cable at Low Electric Field Wenhao Li, Qiang Li, Chunlin Hao (Tianjin university, China), Youcong Huang, Zhongnan Zheng (Electric Power Research Institute of Fujian Power Co., Ltd., China), Tao Han (Tianjin university, China)	P1-23-A



Tuesday, May 9, 2023 10:00-12:30	
Poster Session 1: Equipment Aging and Assessment: Transformer and Cable Session Chairs: Yushun Zhao (Hefei University of Technology, China) Danhua Mei (Nanjing Tech University, China) Venue: Gallery hall, 3 rd F	
Thermal Aging State Evaluation of 10kV Polypropylene Cable Juncai Li (Tsinghua University, China; Shenzhen International Graduate School, China), Nianping Yan, Deng Zhixiang (State Grid Corporation of China, China), Xilin Wang, Zhidong Jia (Tsinghua University, China; Shenzhen International Graduate School, China)	P1-24-A
Water Tightness Testing and Evaluation of Composite Interface Structures in Cable Joints Hao Hu, Xiaodong Li, Zhidong Jia, Xilin Wang (Tsinghua University; Shenzhen International Graduate School, China), Simin Luo, Weinan Fan (China Southern Power Grid Company Ltd., China)	P1-25-A
Analysis of Discharge Defect in Buffer Layer for High-Voltage Cable and Rejuvenation Method Jiasheng Huang, Meng Li, Zhuozhan Han (Guangzhou Power Supply Bureau of Guangdong Power Grid Co., Ltd., China), Zhiheng Wu (South China University of Technology, China), Baojun Hui (Electric Power Research Institute of China Southern Power Grid Co., Ltd, China), Gang Liu (South China University of Technology, China)	P1-26-A
Study on the Behavior of 220kV Three Core Submarine Cable with a Suspension Span of 1.6m Scoured by Current Yining Zhang (CSG EHV Power Transmission Company, China), Haotian Tan (South China University of Technology, China), Zhidi Huang (CSG EHV Power Transmission Company, China), Peng Zhang, Yanpeng Hao (South China University of Technology, China)	P1-27-A
Detrended Fluctuation Analysis of Grounding Current for Thermal Aging Evaluation of Submarine Power Cable Minxin Wang, Yong Liu, Zhihui Wang, Hongbao Zong, Youcong Huang, Boxue Du (Tianjin University)	P1-28-A
Effect of Icing Gap on Insulated Layer Electric Field During Conductor Galloping Zhihui Wang, Xingwang Huang, Xuejia Dong, Qiran Li, Boxue Du (Tianjin University)	P1-29-A
Dynamic Motion and Discharge Behaviour of Water Droplets on Superhydrophobic Overhead Line Conductor Xu Zhang (University of Warwick, UK), Chorphaka Plaengpraphan, Wenyuan Li (The University of Manchester, UK), Chengxing Lian (Imperial College London, UK), Ian	P1-30-A



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10:00-12:30	
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Cotton (The University of Manchester, UK), Kangning Wu, Jianying Li (Xi'an Jiaotong University, China)	
Anchor Damage Evaluation of 110 kV Submarine Power Cable Based on Electric and Magnetic Field Distribution Minxin Wang, Yong Liu (Tianjin University, China), Ruimin Pan (Tianjin University of Technology and Education, China), Zhihui Wang (Chengde Power Supply Company State Grid Jibei Electric Power Company Limited, China), Youcong Huang (Electric Power Research Institute State Grid Fujian Electric Power Company Limited, China), Boxue Du (Tianjin University, China)	P1-31-A
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