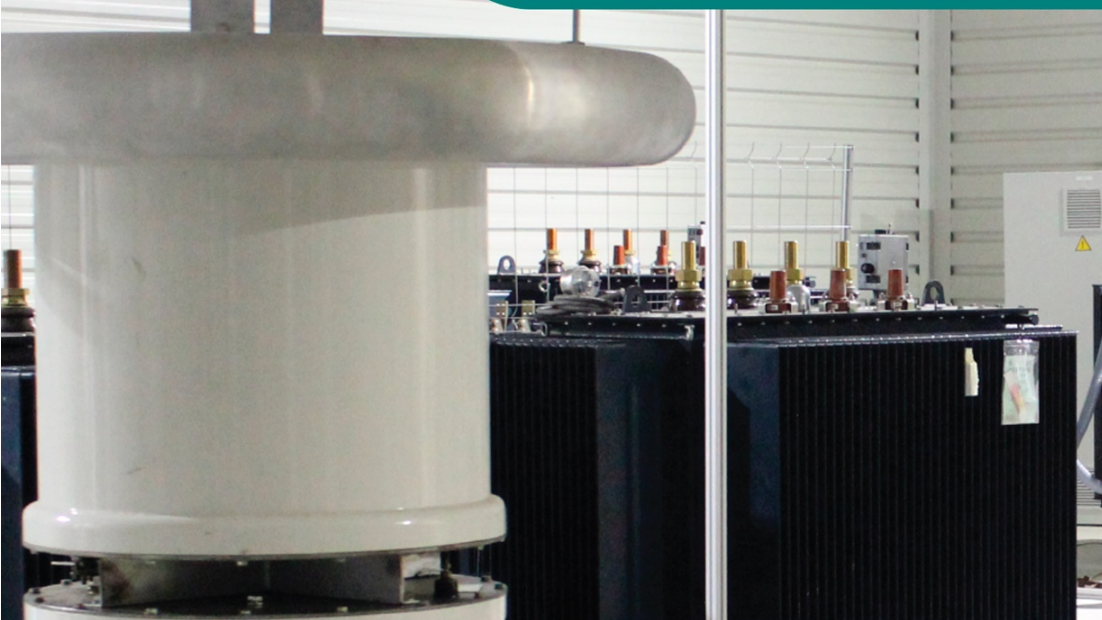


3RD IEEE INTERNATIONAL CONFERENCE ON DIELECTRICS

VALENCIA, SPAIN

5-9 JULY, 2020



PROGRAMME

2020 IEEE

INTERNATIONAL CONFERENCE ON DIELECTRICS

6th -31st July 2020

INSTITUTO TECNOLÓGICO DE LA ENERGÍA - SPAIN

ICD 2020

Sponsored by:
IEEE Dielectrics and Electrical Insulation Society (DEIS)
Organized and Co-sponsored by:
Instituto de Tecnología Eléctrica (ITE)
Spain



SESSION 1A

AGING, DEGRADATION AND BREAKDOWN

SESSION CHAIRS:

Kai Wu

Phung Toan

Effects of Radical Scavenger on Breakdown Strength and Space Charge Behavior of PP based Composites for HVDC Cable Insulation

Du, Boxue; Zhang, Ying; Hou, Zhaohao; Xu, Ranran; Han, Chenlei; Liu, Chang

Degradation Evaluation of kV XLPE Cable Based on Magnetic Field Distribution Characteristics

Dong, Xuejia; Liu, Yong; Gao, Sheng; Liu, Hongjing; Ren, Zhigang

Effect of sPP Content on Electrical Tree Growth Characteristics in iPP/sPP Blend Cable Insulation

Zhou, Shuofan; Li, Zhonglei; Du, Boxue; Fan, Mingsheng; Zhang, Ying; Yang, Wei; Yu, Fan; Xing, Zhaoliang

Investigation of Photovoltaic DC Cable Insulation Integrity under Thermal Stress

Mustafa, Ehtasham; Afia, Ramy S. A.; Tamus, Ádám Zoltán

A High-Resolution Study of Chemical Aging Prior to Electrical Tree Growth

McDonald, Harry; Morsch, Suzanne; Rowland, Simon

Electrical Tree Initiation in LDPE under Positive DC Stresses Superimposed with AC Ripples

Liu, Fang; Rowland, Simon M; Peesapati, Vidyadhar; Zheng, Hualong

Characterization of Electrical Treeing in XLPE versus Temperature Gradients

Zhao, Xin; Zhang, Siyi; Lin, Chengyong; Yang, Zhiduan; Li, Zhonglei; Han, Tao

Accelerated Aging of MV Cables as a Function of Grid Utilization

Müller, A.-C.; Blenk, T.; Weindl, Ch.; Gerlach, A.-K.; Geiger, D.

Damage Mechanisms in Medium-Voltage Insulating Polymers under Hemispherical-Plane Electrodes

Fernandez, Julien; Long, Didier; Allais, Arnaud; Dalbe, Bernard; Larche, Jean-François; Charrier, Dimitri; Guffond, Raphaël; Fulchiron, René; Tauban, Mathieu; Sotta, Paul

Preliminary Development and Application of a Stress-Strength Model for Reliability Estimation of Aged LV Cables for Nuclear Power Plants

Fabiani, Davide; Mazzanti, Giovanni; Suraci, Simone Vincenzo; Diban, Bassel

Assessment of Nuclear Power Plant Power Cables Under Thermal and Mechanical Stresses

Afia, Ramy S. A.; Mustafa, Ehtasham; Tamus, Zoltán Ádám

Changes in Chemical Structure and Mechanical Properties Induced in Cross-linked Polyethylene by Thermal and Radiation Aging

Miyazaki, Yu; Hirai, Naoshi; Ohki, Yoshimichi

Preliminary Experimental Investigation of the Effect of Long Temporary Overvoltages on the Reliability of HVDC Extruded Cables

Mazzanti, Giovanni; Seri, Paolo; Diban, Bassel; Stagni, Stefano

Identifying Electrical Ageing in Polymeric Insulation

Fothergill, John Charles; Mazzanti, Giovanni; Diban, Bassel

Chemical and electrical characterization of XLPE cables exposed to radio-thermal aging

Suraci, Simone Vincenzo; Fabiani, Davide; Colin, Xavier; Roland, Sébastien

Life modeling analysis of Silane crosslinked polyethylene cables for nuclear applications

Suraci, Simone Vincenzo; Fabiani, Davide

Enhancement of AC Breakdown Strength of Epoxy TiO Nanocomposite by Removing Agglomerates

Kurimoto, Muneaki; Yoshida, Shigeyoshi; Umemoto, Takahiro; Mabuchi, Takahiro; Muto, Hirotaka

Surface analyses of insulation materials eroded by partial discharges

Houachtia, Afef; Rain, Pascal; Abadie, Cedric; Fond, Emilie; Fetouhi, Louiza

Dielectric Properties and Relaxation in Cross-linked Polyethylene: Effect of Thermal Aging

Kemari, Youcef; Teyssedre, Gilbert; Mekhaldi, Abdelouahab; Teguvar, Madjid

Assessment of Cable Aging for Nuclear Power Plants I&C Cable via Time-Frequency Domain Reflectometry

Kwon, Gu-Young; Lee, Yeong Ho; Bang, Su Sik; Ji, Gyeong Hwan; Lee, Geon Seok; Tamus, Zoltán Ádám; Shin, Yong-June

Surface damage of polymer dielectric under repetitive frequency bipolar square-wave voltage

Wang, Shihang; Gao, Jian; Xiang, Jiao; Zhang, Chuang; Fu, Hang; Yan, Zhimin; Li, Jianying; Li, Shengtao

Polarization and Depolarization Current Measurement of Aged HVDC XLPE Model Cable

Lee, Seung-Won; Park, Byung-Bae; Kim, Hae-Jong; Ryu, Hee-Suk; Cho, Jeon-Wook; Oh, Sang-Soo; Nam, Jin-Ho

Effect of Waiting Time on Concentration of Chemical Markers measured on Laboratory Ageing Samples

Matharage, Shanika Yasantha; Liu, Qiang; Wang, Zhongdong; Wilson, Gordon; Kim, Yonghoon; Martin, Russell



SESSION 1B

AGING, DEGRADATION AND BREAKDOWN

SESSION CHAIRS:

Thomas Andritch

Florin Ciuprina

DC breakdown tests with pressurized liquid nitrogen

Fink, Stefan; Zwecker, Volker

Effects of Magnetic Field on Surface Flashover of Polyimide Film for Superconducting Magnet Insulation

Du, Boxue; Li, Yimeng; Wang, Mingyang; Liu, Zhixiang; Han, Xuetao; Zhang, Ying; Li, Jin; Li, Zhonglei; Sun, Hanlei

Effect of Humidity on Lifetime and Dielectric Properties of PET Film

Küchler, Florian; Färber, Raphael; Franck, Christian Michael

Effect of High Switching Frequencies on Enamel Insulation Degradation of Motors Fed by SiC-based Inverters

Bolgova, Veronika; Kolesnikov, Stanislav; Leonov, Andrey; Lefebvre, Stéphane; Hlioui, Sami

Enhancement of Surface flashover performance of epoxy by doping POSS nanofillers

Aslam, Farooq; Guanghao, Qu; Zhen, Li; Haoming, Xu; WeiWang, Wang; Shengtao, Li

Elucidation of the Degradation Behavior of Silicone Rubber under Adverse Environments

Ohki, Yoshimichi; Ito, Seitaro; Hirai, Naoshi

Exciton Killer Functions of Dielectric Quantum Dots Embedded in Polymer Matrices

Tanaka, Toshikatsu

Polarity Effect on Electrical Treeing in Silicone Gel under Repetitive Voltage Impulses

Nakamura, Shin; Sato, Masahiro; Kumada, Akiko; Hidaka, Kunihiro; Takano, Sho; Yamashiro, Keisuke; Takano, Tetsumi

Effects of Thermal Aging on Structure and Dielectric Properties of Polypropylene/Calcium Carbonate Nanocomposites

Azmi, Aizat; Lau, Kwan Yiew; Ahmad, Noor Azlinda; Abdul-Malek, Zulkurnain; Tan, Chee Wei; Ching, Kuan Yong; Vaughan, Alun S.

V-t Characteristics of Twisted-pair with Polyvinyl Formal Wires Undergoing Thermal Stress in Mineral Oil

Hikita, Masayuki; Nishigaki, Yasutaka; Takenouchi, Sho; Matsuzoe, Takakazu; Kozako, Masahiro; Shimomura, Kosuke; Kawakami, Seigo; Tanaka, Takeshi

AC Breakdown and Trap Distribution Characteristics of Polypropylene Laminated Paper after Electrical Ageing

Ouyang, Benhong; Yan, Zhimin; Liu, Zongxi; Yang, Kai; Wang, Shihang; Li, Jianying

Ageing Behaviours of Superhydrophobic and Icephobic Coatings on Overhead Line Systems

Lian, Chengxing; Zhang, Xu; Emersic, Christopher; Cotton, Ian

Electrical Tree Characteristics of Epoxy Resin under Bipolar Square Wave Voltage

Fu, Hang; Zhang, Chuang; Xiang, Jiao; Cheng, Zhuolin; Wang, Shihang; Li, Jianying

Effect of Pressing Mode and Pressure on Arc Ablation Performance of PTFE/BN Composites

Zhang, Zhaozi; Song, Bingchen; Min, Daomin; Nie, Yongjie; Li, Shengtao; Wang, Chuanchuan; Zhao, Tao

2020

Simultaneous Improvement of Surface Properties of the Liquid Silicone Rubber by Direct Fluorination

Shen, Zihan; An, Zhenlian; Chen, Tiaotiao; Wang, Xin; Zheng, Feihu; Zhang, Yewen

The Role of Filler Interface in Suppressing the Erosion of Silicone Rubber Under DC Voltage

Alqudsi, Alhaytham Yousef J; Ghunem, Refat Atef; David, Eric; Hadjadj, Yazid

Calculation of initial discharge voltage on insulator surface based on the simulation analysis of distorted electric field

Zhou, Gangjie; Jiang, Tao; Chen, Fuchun; Man, Xiaokun; Jin, Lijun

Dielectric Breakdown Characteristics of Epoxy Resin Induced by High Frequency Electric Stress Used in Solid State Transformer

Wang, Weiwang; Wang, Xin; He, Jiefeng; Liu, Ying; Li, Shengtao

Influence of Demetallization Processes on Capacitor Grade Polymer Films Breakdown Strength

Belko, Victor; Emelyanov, Oleg; Ivanov, Ivan; Fedotov, Nikita

Research on DC Breakdown Performance of Nanofluid-impregnated Pressboard Based on TiO Nanoparticles

Shan, Bingliang; Wu, Yanyu; Song, Hanlin; Huang, Meng; Liu, Baixin; Lv, Yuzhen

Capacitance Loss Analysis of Metallized Film Capacitors under AC Condition

Li, Zheng; Li, Hua; Lin, Fuchang; Wang, Zhehao; Zhang, Guohao; Qi, Liang

Mechanism of thin metal films destruction by electric explosion

Plotnikov, Andrey Pavlovich; Feklistov, Efrem Gennadevich



SESSION 2A

NANODIELECTRICS

SESSION CHAIRS:

Sombel Diahm

Zhang Siyu

Improved Temperature Dependence of Electrical Properties of XLPE/GO Nanocomposites for HVDC Cable Insulation

Han, Chenlei; Du, Boxue; Li, Zhonglei; Li, Jin; Hou, Zhaohao; Liu, Chang; Wang, Mingyang

Bilayer PI/BaTiO-P(VDF-TrFE-CFE) composites with high discharge energy density

Du, Boxue; Xing, Jiwen; Li, Jin; Xiao, Meng; Xu, Ranran; Ran, Zhaoyu; Liu, Haoliang; Sun, Hanlei

Influence of Monoalkoxy Silane on the Dielectric Response of Polypropylene Aluminium Nitride Nanocomposites

Wang, Xinyu; Qiang, Dayuan; Andritsch, Thomas; Chen, George; Vaughan, Alun

Effects of Water on the Dielectric Response of Calcined Silica-based Polyethylene Nanocomposites

Rahim, Nor Hidayah; Lau, Kwan Yiew; Tan, Chee Wei; Ching, Kuan Yong; Rahim, Norin Hafizah; Vaughan, Alun S.

Effects of Surface Treatment of Fillers on the Dielectric Properties of Polyimide Nanocomposites

Nagase, Emiri; Hirai, Naoshi; Ohki, Yoshimichi

Dielectric Response and Dynamic Mechanical Analysis of PHBV-TiO Nanocomposites

Ciuprina, Florin; Andrei, Laura; Stoian, Sergiu; Gabor, Raluca; Panaiteanu, Denis

Rational Engineering of the Dielectric Properties of Thin Silica Layers with a Single Plane of AgNPs

Rigoudy, Charles; Makasheva, Kremena; Belhaj, Mohamed; Dadouch, Sarah; Teyssedre, Gilbert; Boudou, Laurent

Feasibility of Mini-Scale Injection Molding for Resource-Efficient Screening of PP-Based Cable Insulation Nanocomposites

Rytöluoto, Ilkka; Saarimäki, Eetta; Pelto, Jani; Paajanen, Mika; He, Xiaozhen; Anyszka, Rafal; Amirhossein, Mahtabani; Wilma, Dierkes; Seri, Paolo; Naderiallaf, Hadi; Lahti, Kari; Niittymäki, Minna

Silica surface modification with liquid rubbers & functional groups for new polyolefin-based dielectric nano-composites

Anyszka, Rafal; He, Xiaozhen; Mahtabani, Amirhossein; Lahti, Kari; Rytöluoto, Ilkka; Saarimäki, Eetta; Paajanen, Mika; Dierkes, Wilma; Blume, Anke

Assessment of the chemical and electrical properties of nano structured polyethylene with antioxidant-grafted nanosilica

Suraci, Simone Vincenzo; He, Xiaozhen; Chaudhary, Sunny; Wang, Xinyu; Anyszka, Rafal; Mahtabani, Amirhossein; Fabiani, Davide; Andritsch, Thomas; Vaughan, Alun

A Multiscale Characterization of Nanodielectrics: the Case of PI/SiN Nanocomposite

Houssat, Mohammed; Villeneuve-Faure, Christina; Lahoud Dignat, Nadine; Cambronne, Jean-Pascal

Determination of Interphase Thickness in Silicone Nanocomposites from Dielectric Properties

Rempe, Annika-Sophie; Kindersberger, Josef; Willner, Elena-Marie; Dietz, Hendrik

Influence of polar and unpolar silica functionalization on the dielectric properties of PP/POE nanocomposites

He, Xiaozhen; Seri, Paolo; Rytöluoto, Ilkka; Anyszka, Rafal; Niittymäki, Minna; Mahtabani, Amirhossein; Naderiallaf, Hadi; Saarimäki, Eetta; Lahti, Kari; Paajanen, Mika; Dierkes, Wilma; Blume, Anke

The confinement effect of BNNT nanofillers on the thermal conductivity of PE from molecular simulation

Ren, Yuanyang; Zhou, Ziling; Zhou, Jun; Wu, Kai

SESSION 2B

NANODIELECTRICS

SESSION CHAIRS:

Yasuhiro Tanaka

Anyszka Rafal

Deep Trap Sites Suppressing Space Charge Injection into Epoxy Resin/Graphene Nanocomposite

Yao, Hang; Du, Boxue; Ran, Zhaoyu; Li, Jin; Kong, Xiaoxiao; Liang, Hucheng; Sun, Hanlei

Electrical Insulation Properties of Nanocomposite Epoxy Resin and Application to Mica Insulation

Mabuchi, Takahiro; Xiaohong, Yin

Investigation of Dielectric Properties of Composite Films of Bacterial Cellulose with Carbon Nanotubes

Kiesewetter, Dmitry; Khripunov, Albert; Reznik, Alexandr; Zhuravleva, Natalia; Migunova, Alexandra

Influence of Surface Modification of Montmorillonite on Dielectric Properties of Epoxy-based Composites

Kadlec, Petr; Polanský, Radek

Critical agglomerate sizes to improve the insulation characteristics of epoxy/TiO nanocomposites

Muto, Hirotaka; Umamoto, Takahiro; Yoshida, Shigeyoshi; Mabuchi, Takahiro; kurimoto, Muneaki

Effect of Micron-scale and Nanoscale Boron Nitride Fillers on Arc Ablation Resistance of Polytetrafluoroethylene

Song, Bingchen; Zhang, Zhaozi; Nie, Yongjie; Li, Shengtao; Min, Daomin; Wang, Chuanchuan; Zhao, Tao

Effect of the Dispersion State on the Dielectric Properties in High Energy Density Polymer-Based Nanocomposites

Uguen, Nicolas; Trouillet-Fonti, Lise; Al Orabi, Rabih; Sotta, Paul

Dielectric and electromechanical properties of EAP/oxygen functionalized graphene nanocomposites

Zhang, Yan; Seveyrat, Laurence; Lebrun, Laurent

Effect of Nanoparticle Volume and Surface Characteristics on the Bulk Properties of Epoxy Nanocomposite

Chaudhary, Sunny; Andritsch, Thomas; Vaughan, Alun

Dielectric Properties of Epoxy-based Nanocomposite Filled with Fullerene C

Kong, Xiaoxiao; Du, Boxue; Sun, hanlei; Yang, Wei; Yao, Hang; Li, Jin; Mu, Jing

Effect of Corrosion on Trap Characteristics of Epoxy/AlO Nanocomposite Irradiated with Gamma-Ray

Gao, Yu; Xu, Xuri; Xu, Bangbang

Silica Functionalization: How Does it Affect Space Charge Accumulation in Nanodielectrics Under DC?

Mahtabani, Amirhossein; Rytöluoto, Ilkka; Anyszka, Rafal; He, Xiaozhen; Saarimäki, Eetta; Lahti, Kari; Paajanen, Mika; Dierkes, Wilma; Blume, Anke

Current and Voltage Response Measurements on Nanodielectrics

Hornak, Jaroslav; Michal, Ondřej; Trnka, Pavel; Mentlik, Václav; Vuity, Gábor; Nouini, Oumaima; Tamus, Zoltán Ádám

SESSION 3

FUNCTIONAL MATERIALS

SESSION CHAIRS:

Christina Villeneuve Faure

June-Ho Lee

Field Grading Material electrodeposition - challenges

Belijar, Guillaume; Fetouhi, Louiza ; Kozako, Masahiro; Hikita, Masayuki

Research on Mechanism and Suppression of Sediment Deposition on Grading Electrodes in Cooling Water Dielectric of HV Converter Valve

Wang, Xingfei; Liu, Xuezhong; Wang, Chenxing

Interfacial E-field Regulating Insulator for DC Gas-solid Insulating System

Liang, Hucheng; Du, Boxue; Li, Jin; Zhao, Renyong; Wang, Zehua; Zhang, Miaomiao; Li, Ang; Du, Qiang

Feasibility Analysis of ϵ -Graded Spacer for HVAC Superconducting GHe Insulated Pipelines

Du, Boxue; Dong, Jia'nan; Liang, Hucheng; Li, Jin; Wang, Mingyang; Ran, Zhaoyu; Wang, Zehua; Zhang, Miaomiao; Li, Ang; Du, Qiang

Benefit of Nonlinear Resistive Field Grading Materials on Medium Voltage Bushing by Finite Element Modeling (Flux D) vs Experimental Partial Discharge Measurements

Metz, Renaud; Hassanzadeh, Mehrdad

Flashover Improvement and Field Control of Insulator with Surface σ -FGM for DC GIL

Ran, Z.Y.; Du, B.X.; Li, Jin; Yao, H.; Xing, J.W.; Dong, J.N.

Original design of field grading materials for high voltage power module applications

Le, Trong Trung; Valdez Nava, Zarel; Belijar, Guillaume; Diaham, Sombel; Laudebat, Lionel; Fetouhi, Louiza; Khazaka, Rabih

Development of New Types of Insulators for Electric Power Apparatuses Using Nanocomposites and Functionally Graded Materials

Adachi, Kazuo; Muto, Hirotaka; Okamoto, Kenji; Hoshina, Yoshikazu ; Fujimoto, Nobutaka

Preparation and Electromechanical Performance Analysis of Self-healing Electrostrictive Polymer

Zhang, Zhanxi; Wang, Youyuan; Zhu, Xiaosong; Li, Yudong; Gu, Hongrui; Li, Bonan

Core-shell piezoelectric nanofibers for multifunctional composite materials

Selleri, Giacomo; Grolli, Filippo; Speranza, Marco; Fabiani, Davide; Brugo, Tommaso; Zucchelli, Andrea

Effect of conductive-zone sizes and positions on the characteristics of discharge activity on a solid insulation surface

Poluektova, Karina; Vasilkov, Sergei; Samusenko, Andrei

SESSION 4A

SPACE CHARGE, CONDUCTION AND POLARIZATION

SESSION CHAIRS:

Pietro Romano

Lei Zhipeng

Charge Accumulation at High DC Voltage and Superimposed Medium Frequency AC Voltage

Seifert, Florian; Porizka, Irina; Leu, Carsten

Trap Distribution and Space Charge Behavior of PP/ULDPE/ Radical Scavenger Composites for HVDC Cable Insulation

Hou, Zhaohao; Du, Boxue; Li, Zhonglei; Li, Jin; Han, Chenlei; Xu, Ranran; Wang, Mingyang; Liu, Chang

Development of a pulsed electro-acoustic space charge measurement system for extruded cables

Fechner, Tobias; Fröbing, Georg; Han, Zhengyi; Zheng, Hualong; Zhou, Mingyu; Li, Xingeng

Dual-domain Deconvolution Process Applied to Time-resolved Quantitative Dielectric Measurement

Hozumi, Naohiro; Prastika, Edo Bagus; Zahra, Shafira; Kawashima, Tomohiro; Murakami, Yoshinobu

Space Charge Measurement by PEA Method on an Aeronautical Cable

Benyoucef, Amin; Berquez, Laurent; Teyssedre, Gilbert; Aubert, Eddy

(F)LIMM deconvolution procedure for on-line measurements of space charge in thin polymeric insulations

Velazquez-Salazar, Amanda; Berquez, Laurent; Marty-Dessus, Didier

Small-size Space Charge Measurement Device for Power Cables by Using Electrically Insulated Acoustic Coupler

Zahra, Shafira; Kawashima, Tomohiro; Murakami, Yoshinobu; Hozumi, Naohiro

Investigation on charge transportation in EPDM at different pressures

He, Yifei; Wu, Yang; Su, Rui; Zhang, Chunyang; Lv, Zepeng; Wu, Kai

Analysis of the Charge Transport in LDPE with Combined Measurement of Space Charge and Current

Lv, Zepeng; Ma, Yongtong; Zhang, Chen; Wu, Kai; Cheng, Yonghong

Combined-PSD and LIMM Measurements for Traps Characterization in BoPP Thin Films

Boudou, Laurent; Berquez, Laurent; Teyssedre, Gilbert

Radiation induced conduction and space charge dynamics in polyimide revealed by off-line and on-line PEA method

Wang, Weiwang; Guo, Zhiqiang; Miyake, Hiroaki; Tanaka, Yasuhiro; Li, Shengtao

Effect of Copolymerization on the Conductivity and Breakdown Properties of Polypropylene for Recyclable Cable Insulation

Yang, Kai; Liu, Yun; Yan, Zhimin; Jing, Zhenghong; Li, Jianying

PSpice modelling of the Pulsed Electro Acoustic device: A new approach to account attenuation, dispersion and reflection phenomena

Pujol, Aurelien; Berquez, Laurent; Baudoin, Fulbert; Payan, Denis

Space Charge Distribution Analysis in Polyethylene under High Static Pressure

Xu, Jingxian; Zhang, Yewen; Sun, Yabo; Wang, Xuan

Lock-in Calibration for Space Charge Measurement

Li, Xiaoxin; Zahra, Shafira; Kawashima, Tomohiro; Murakami, Yoshinobu; Hozumi, Naohiro

Interface charge effect measurement in μm thick Polypropylene sample under voltage with thermal method

Corbrion, Céline; Holé, Stéphane

An algorithm with low sensitivity to SNR in thermal-pulse data analysis

Wu, Jiabin; Zheng, Feihu; An, Zhenlian; Zhang, Yewen

Research of internal charging characteristics of Polyetherimide irradiated by energetic electrons

Shang, Penghui; Wu, Jiang; Zheng, Xiaoquan

Temperature Measurements for Space Charge Measurements in Dielectrics using a Thermal Step applied by a Coolant Liquid

Abdellah, Oukms; Petru, Notingher; Serge, Agnel; Giani, Alain; Combette, Philippe; Rodiet, Christophe; Hegde, Sneha

Dynamic of a Space Charge in Gamma-Irradiated Cross-Linked Polyethylene (XLPE)

Mouchache, Cherif; Saidi-Amroun, Nadia; Griseri, Virginie; Mouaci, Sarah; Teyssedre, Gilbert; Saidi, Mohamed



SESSION 4B

SPACE CHARGE, CONDUCTION AND POLARIZATION

SESSION CHAIRS:

*Lv Zepeng
Serdyuk Yuriy*

Roughness Enhanced Charge Injection and Field Dependent Conduction Mechanisms for Bipolar Charge Transport Models

Doedens, Espen; Jarvid, Markus; Serdyuk, Yuriy

Apparent DC conductivity of silicone rubber compounds

Häring, Dominik; Jenau, Frank

High-Resistivity Measurement System for Spacecraft Dielectrics

Andersen, Allen; Chave, Robert; Chen, Nataly; Nuss, Andrew; Low, Nora; Kim, Wousik

Impact of Moisture on Space Charge Characteristics in Natural Ester Oil-Impregnated Paper

Yoon, Hyungjin; Chen, George

Effect of sPP Content on Dielectric Relaxation and Trap Level Characteristics of PP blend insulation

Fan, Mingsheng; Li, Zhonglei; Du, Boxue; Zhou, Shuofan; Su, Jingang

Comparison of Different Methods for Characterization of DC Conductivity of Insulating Polymers

Kumara, Sarath; Xiangdong, Xu; Hammarström, Thomas; Pourrahimi, Amir; Müller, Christian; Serdyuk, Yuriy

The character of electric charge in oil–paper insulation system—charge generation, recombination, trap formation dominated breakdown

Li, Shengtao; Cui, Huize; Zhu, Yuanwei

Effect of Insulating Oil on Space Charge Characteristics of Oil-impregnated Paper Under DC Voltage

Mao, Ganlin; Li, Shengtao; Li, Shijun; Ge, Zhao; Yang, Liuqing; Jiang, Liuhao

Effect of Surface Fluorination of Electrode for Charge Injection in Polyethylene

Pan, Jiaping; Zhang, Yewen; Lv, Mingshu; An, Zhenlian; Zheng, Feihu

D Charge Density Probing at Aluminum / SiNx Interface: a Sub-micrometric Investigation by Kelvin Probe Force Microscopy

Djaou, Cédric; Villeneuve-Faure, Christina; Boudou, Laurent; Makasheva, Kremena; Teyssedre, Gilbert

Charge Accumulation/Decumulation on DC-GIS Spacer under 10,000-hour DC Field Application

Shimakawa, Hajime; Kumada, Akiko; Hidaka, Kunihiko; Yasuoka, Takanori; Hoshina, Yoshikazu; Shiiki, Motoharu

Current Integrated Charge Measurement Evaluation of Insulation Layer for Power Module using DC Current Integrated Charge Measurement

Tanaka, Yasuhiro; Hanazawa, Daiki; Hijikata, Kimio; Miyake, Hiroaki; Takada, Tatsuo

Measurement of Space Charge Distribution in Epoxy Resins Cured Using Novel Imide Type Hardeners at High Temperature under High DC Stress

Sato, Kosuke; Miyake, Hiroaki; Tanaka, Yasuhiro; Yanaka, Ayumi

Influence of Bouncing Metal Particle on Surface Charge Accumulation of A Real Size Epoxy Insulator under DC Voltage

Wang, Huan; Gao, Yu; Li, Zhijian; Chen, Rong; Yuan, Xiaochen; Han, Tao

Surface Charge Accumulation on Epoxy Insulator with Complex Surface Profile under DC Voltage in SF/N Mixture

Zhao, Huicun; Gao, Yu; Song, Xiaobo; Zhang, Chi; Yuan, Xiaochen; Wang, Huan

Variation in Charge Transport Behavior of Polypropylene/Elastomer Blends Exposed to Thermal Cycling

Song, Zheng; Gao, Yu; Li, Jing; Peng, Jinjing; Du, Boxue

Effect of Vibration on Surface Charge Accumulation of Epoxy Insulator with the Presence of Metal Particles

Yuan, Xiaochen; Gao, Yu; He, Jin; Li, Lin; Wang, Huan; Han, Tao

Study of low-background measurement schemes for the elctro-acoustic-reflectometry (EAR) method.

Maréchal, Étienne; Halidouche, Louiza; Géron, Emmanuel; Holé, Stéphane



SESSION 5

THEORY, SIMULATIONS AND MODELS

SESSION CHAIRS:

Doedens Espen

Sato Masahiro

Modelling the electric field transients in DC insulation systems upon energization and voltage polarity inversion

Seri, Paolo; Montanari, Gian Carlo

Localization and modeling of partial discharges in axisymmetric geometries

Barbareschi Villa, Andrea; Barbieri, Luca; Buccella, Giacomo; Malgesini, Roberto

Research Progress of Quantum Chemical Calculation for Mechanisms in Charge Transportation and Insulation Failure

Li, Jin; Wang, Mingyang; Guo, Yaguang; Ma, Zongle; Han, Xuetao; Jiang, Jinpeng; Du, Boxue; Takada, Tatsuo

Electric Field Distribution of $\pm$ kV Valve Side Bushing Capacitor Core Influenced by Temperature Gradient

Du, Boxue; Sun, Hanlei; Kong, Xiaoxiao; Zhu, Wenbo; Yi, J; Li, Jin; Pan, Ximao; Yao, Hang; Xing, Jiwen; Li, Yimeng

Simulations of Electric Field Dynamics for DC Partial Discharge Sequences

Callender, George; Seri, Paolo; Ghosh, Riddhi

Electric Field and Current Conduction Modelling in Bi-layers Insulations HVDC Aeronautic Cables

Diaw, El Hadji Ndongo; Le Roy, Severine; Teyssedre, Gilbert; Aubert, Eddy

Introduction of Ionic Contributions to a Charge Transport Model for Dielectrics

Le Roy, Severine; Baudoin, Fulbert; Laurent, Christian; Teyssedre, Gilbert

Modeling the Electro-Quasistatic Field of Ground Electrodes Under the Influence of Electro-Osmosis

Joergens, Christoph; Clemens, Markus

The Numerical Simulation of the Effect of Non-equilibrium Charged Layers on the Electrodeformation of Conductive Droplet Suspended in a Liquid Dielectric

Dobrovolskii, Ioann; Chirkov, Vladimir; Vasilkov, Sergey

Effect of the density and the position of the microvoids on the electrical constraints in the insulation of medium-voltage cables

Medoukali, Hemza; Zegnini, Boubekeur

A New Empirical Formula of Negative Corona Discharge Current in Point-Plane Electrode System

Ouatah, El Hanafi; Megherfi, Soufiane; Zebboudj, Youcef

The Experimental Verification of Electrodeformation and Electrocoalescence Numerical Simulation Based on the Arbitrary Lagrangian–Eulerian Method

Utiugov, Grigorii; Chirkov, Vladimir; Dobrovolskii, Ioann

Electrical Field Modeling and Tracking Performance of RTV Silicone Rubber Composite Insulation

Nazir, Tariq; Butt, Faizan Tahir; Phung, Toan; Yeoh, Guan H.; Akram, Shakeel

A Modified nd Order Kinetic Model by Including Temperature Effect and LODP of Oil-impregnated Paper under thermal degradation

Faiz, Nouman; Yang, Lijun; Han, Chen; Bhutta, Muhammad Shoaib; Hassan, Muhammad Arshad Shehzad; Farooq, Umer; Shaikh, Jamshed Ali

SESSION 6A

MATERIALS AND INSULATION SYSTEMS

SESSION CHAIRS:

Simon Rowland

Kochetov Roman

Polyphenylsulfone-hBN Composite Insulation

Williams, Tiffany; Nguyen, Baochau; Fuchs, Witold

Effects of the Environmental Factors on Electrical Properties of High Voltage Cable Buffer Layer

Li, Zhijian; Li, Xu; Fang, Shengchen; Xi, Xiaoguang; Fang, Jing; Zhu, Mingzheng; Meng, Zhengzheng; Yu, Yang; Song, Pengxian; Wei, Z. P.; Du, Boxue; Du, Xiaoyu; Kong, Xiaoxiao; Li, Jin

Mechanism and Suppressing Method of Interface Charge Accumulation in HVDC Cable Accessory

Zhang, Z. H.; Wu, Z. G.; Qi, Y. F.; Lin, K.; Han, C. L.; Li, J.; Du, B. X.

Dielectric Properties of a Semicrystalline Supramolecular Polymer

Preda, Ioana; Hohl, Diana Kay; Weder, Christoph

Enhanced Energy Storage Property of Polypropylene/ N-Benzene Based Maleimide Acid Grafted Polypropylene/Nano-ZrO

Zeng, Chonglin; Liu, Hongbo; Liu, Wenfeng; Cheng, Lu

Improved Moisture Barrier Properties of High Temperature Vulcanized Silicone Rubber by Direct Fluorination

Chen, Kang; An, Zhenlian; Huang, Wenbo; Wang, Xin; Zheng, Feihu; Zhang, Yewen

Investigating the Electronic Properties of a Composite Dielectric under an Applied Electric Field by Muon Spectroscopy

Orton, Ben; Cottrell, Stephen; Dodd, Stephen; Chalashkanov, Nik; Pratt, Francis

Improving Polyimide Isolation Performance by Tailoring Interfaces with Nitride Layers for Digital Isolator Application

Diaham, Sombel; O'Sullivan, Larry; Ceccarelli, Edoardo; Lambkin, Paul; O'Malley, John; Fitzgibbon, John; Stenson, Bernard; Murphy, Patrick J.; Zhao, Yuanyuan; Cornett, Jane; Sow, Arnaud; Chen, Baoxing; Geary, Shane

Comparison of the Dissipation Factor of Insulating Resins With and Without Anhydride Curing Agents.

Linde, Thomas; Backhaus, Karsten; Stahl, Jürgen; Kaffenberger, Theo

Impact of Aged Pressboard on Space Charge Dynamics in HVDC Transformer Insulation

Pu, Lu; Hao, Miao; Chen, George; Zhao, Xuefeng; Zhao, Xiaoyan; Duan, Wei; Sun, Haofei

Research on External Insulation State Detection Method Based on Information Fusion

Chen, Fuchun; Cao, Pei; Liu, Qi; Jin, Haifeng; Zhou, Gangjie; Jin, Lijun

Influence of Thermal Aging on the Crystallinity of EPDM Used in Power Cables Insulation

Bouguedat, Djaffar; Mekhaldi, Abdelouahab; Jbara, Omar; Sebastien, Rondot; Hadjadj, Aomar; Dony, Philippe

Epoxy composite with hBN fillers compatible with industrial application in electrical equipment

Haller, Servane; Bachellerie, Damien; Pruvost, Sébastien ; Desmars, Loriane ; Iglesias, Sophie; Galy, Jocelyne; Robert, Guillaume; Lao, Christian; Girodet, Alain; Jaquier, Frank; Henriksen, Martin

Octa-functional POSS: An Epoxy Filler or Co monomer?

Riarh, S.; Vryonis, O.; Vaughan, A. S.

2020

Influence of hydration on the dielectric properties of the high permittivity material RbTiO

De Sousa Coutinho, Sofia; Berardan, David; Dragoe, Nita; Hole, Stéphane; Leridon, Brigitte

High Accuracy Measuring Method for Thermal diffusivity in Thickness Direction in Thin Film Less Than Micrometers

Huang, Chenyu; Zheng, Feihu; An, Zhenlian; Zhang, Yewen

Dielectric Parameters of Unimpregnated Mica Tape under Humid Condition

Esmaeil Moghadam, Davoud; Herold, Christoph; Zbinden, Rolf

An Improved Weibull Model with Consideration of Thermal Stress for Analysis of Cable Joint Failures

Yi, Huajie; Hancock, Ian; Chen, Dong; Zhou, Chengke; Mcdiarmid, Andrew; Eyre-Walker, Ralph

Fourier Transform Infrared Spectroscopic Analysis of Field Failed kV Polymeric Insulators

Banerjee, Srijib; Dakappa, Shakthi Prasad

Performance Tests of Polyethylene Insulated High Voltage Low Attenuation Coaxial Cables for Pulsed Applications

Stadlbauer, Tobias; Ducimetière, Laurent Sylvain; Kontelis, Dimitrios; Kramer, Thomas; Pfeiler, Christian; Rethmeier, Kay; Sermeus, Luc



SESSION 6B

MATERIALS AND INSULATION SYSTEMS

SESSION CHAIRS:

Rongsheng Liu

Vicente Fuster

Dielectric and Electrical Insulation Properties of PTFE/PP for HTS Power Apparatus Application

Wang, Mingyang; Du, Boxue; Han, Xuetao; Liu, Zhixiang; Li, Yimeng; Zhang, Ying; Li, Jin; Li, Zhonglei; Han, Chenlei; Hou, Zhaohao

Simulation Analysis of Moisture Dynamics in Oil/Pressboard System under Variable Temperature

Jiang, Jinpeng; Du, Boxue; Li, Jin; Tao, Wuye; Zhu, WenBo

Non-intrusive Measurement of Transient Electric Field Distribution in HVAC GIL

Li, Jin; Zhao, Renyong; Tian, Tao; Chen, Yun (.); Chen, Rong; He, Jin; Liang, Hucheng; Yao, Hang; Du, Boxue

Analysis of Suppressing Methods and Influencing Factors of High Voltage Cable Circulating Current Based on ATP-EMTP

Zong, Hongbao; Liu, Yong; Gao, Sheng; Zhao, Cheng

Research Progress on Modification of Epoxy Resin Materials for High-Voltage Electrical Equipment

Wang, Yufan; Li, Ang; Li, Jin; Zhang, Weilong; Du, Qiang; Zhang, Miaomiao; Wang, Zehua; Liang, Hucheng; Du, Boxue

Diffusion Behavior of Waterproof Glue into Silicone Rubber Insulation of Submarine Cable Joints Based on Molecular Dynamics Simulation

Wang, Heyu; Li, Zhonglei; Du, Boxue; Fan, Mingsheng; Zhou, Shuofan; Yang, Zhuoran

Comparative Study on the Effect of Inorganic Filler Content and Surface Contaminants on Hydrophobicity Transfer of HTV Polymeric Insulators

Herrero Ponce, Cristina; Gil Agustí, Mayte; Zubizarreta, Leire; Llovera Segovia, Pedro; Fuster Roig, Vicente; González, Juan Carlos; Cercos, Dolores

Monitored Migration of Additives from Thermally Upgraded Paper into Various Insulation Liquids

Meissner, Maximilian; Matić, Eleonora; Schober, Sigurd; Darmann, Martin; Mittelbach, Martin

Characterization of Dielectric Walls of Capacitors

Gnonhoue, Olatoundji Georges; Velazquez-Salazar, Amanda; Millard, Léo; Joncas, Simon; David, Éric; Cormier, Laurent; Poudret, Romain; Preda, Ioana

Permittivity Increase of TiO/Silicone Elastomer Composite by External Electric Field Induced Filler Orientation

Fujihara, Ryosuke; Kurimoto, Muneaki; Imanaka, Masaki; Kato, Takeyoshi; Sugimoto, Shigeyuki; Suzuoki, Yasuo

From Laboratory to Industrial Scale: Comparison of Short- and Long-Term Dielectric Performance of Silica-Polypropylene Capacitor Films

Lahti, Kari; Rytöluoto, Ilkka (.); Niittymäki, Minna; Saarimäki, Eetta; Paaanen, Mika

Electro-Thermal Stress of Dielectric Coated Electrodes in Gas-Insulated Systems under DC Voltage Stress

Götz, Thomas; Markl, Antonia; Backhaus, Karsten; Riechert, Uwe

High-Temperature Metallized Polymer Film Capacitors Based on Blends of Polypropylene and Cyclic Olefin Copolymers

Alba Adame, Carlos; Cabo Merayo, Lucía; Peláez Millas, David

Electrical characterization of low-density solid insulating fillers for hollow-core composite insulators

Machetti, Diego; Moal, Eric; Seifert, Jens M.; Puffer, Ralf

Detection, Features Extraction and Classification of Radio-Frequency Pulses in a High-Voltage Power Substation: Results from a Measurement Campaign

Palo, Mauro; Schubert, Benjamin; Ogliari, Emanuele; Wei, Jianguo; Gu, Kai; Liu, Weilin

New Composite Paper: Determination of Degree of Polymerization (DP) and End-of-Life Criteria

Helena Wilhelm, Paulo Fernandes, Kethlyn Moscon, Camila Steffens, Sergio Peres, Melissa Ziliotto, Richard Marek

New chemistry for impregnation of HV machines: influence of compatibility between resin and mica tapes

Ferraris, Mattia; Viola, Marco; Murray, Thomas J.

Modeling of metallized film capacitors segmented electrodes electrodynamic destruction

Ivanov, Ivan; Voloshin, Kirill; Kulbako, Kirill

Moisture Location of Oil-Paper Insulated Bushing Based on Polarization and Depolarization Current Analysis

Long, Guanwei; Zhang, Daning; Li, Yang; Mu, Haibao; Zhang, Guanjun

Dielectric and Mechanical Assessment of Kraft and Diamond Dotted Paper Aged with Commercial Vegetable Oil

Franquet, Jordà; Fernández, Inmaculada; Ortiz, Alfredo

Numerical Investigation on the Influence of Clack-bands on Lifetime of Disc-type Windings

Khandan Siar, Saeed; Tenbohlen, Stefan



SESSION 7A

DIELECTRIC LIQUIDS AND GASES

SESSION CHAIRS:

Paolo Seri

Alisson V Shaw

Techniques to Monitor the Aging of Silicone Oils

Shaw, Allison V.; Thakur, Soumya; Callender, George M.; Brown, Richard C. D.; Langley, G. John; Andritsch, Thomas; Lewin, Paul L.; Cwikowski, O.

A Novel Insulation System in Gelatinizing Hydrocarbon Oil with Styrenic Block Copolymers

Liu, Rongsheng

Optimization of Filler Loading of Multi-Particle Mineral Oil Nanofluid for Transformer Insulation

S, Sarov Mohan; P, Preetha

Investigation of the Breakdown Voltage of Insulation Oils at Medium Frequency after Thermal Ageing

Vocke, Jan; Möller, Robert; Soppe, Bastian; Puffer, Ralf

Volatile Acid and Polymer Formation in Various Insulation Liquids Upon Accelerated Thermal Ageing

Matić, Eleonora; Meissner, Maximilian ; Schober, Sigurd; Mittelbach, Martin

Study on Gas Diffusion Distribution Law of Inverted Oil Immersed Current Transformer

Li, Bonan; Wang, Youyuan; Gu, Hongrui; Wei, Chao; Li, Jiansheng

Effect of liquid condition on moisture saturation coefficients in synthetic and natural esters

Livesey, Penelope May; Gyore, Attila; Reid, James

Comparison of the Effect of Thermal Aging on Dielectric Properties of Vegetable Oils and Impregnated Kraft Paper

Méndez Gutiérrez, Cristina; Araki, Hikaru; Yamada, Taichi; Tsuchie, Motoo; Kozako, Masahiro; Hikita, Masayuki; Ortiz Fernández, Alfredo

Partial Discharge Inception Voltage in Insulating Liquids Dependence from the Definition Used

Calcara, Luigi; Sangiovanni, Silvia; Pompili, Massimo

Identification of elemental sulfur in mineral insulating oil - Standard corrosive test (DIN) vs. Analytical approach

García, Sergio Barata; Brown, Richard C. D.; Langley, G. John; Birkin, Peter; Pilgrim, James; Lewin, Paul; Wilson, Gordon

Measure of a flow electrification potential profile with the Capacitive Traveling Method

Rincon Mozo, Gad Alejandro; Leblanc, Paul; Paillat, Thierry

Updated experiences of DGA with natural esters and current state of international guides

Meira, Matias; Álvarez, Raúl; Verucchi, Carlos; Catalano, Leonardo; Mayora, Hernán

Stressed Oil Volume Theory – Application in Transformers

Gabrić, Petar; Orešković, Ana; Podobnik, Vladimir; Mikulecky, Antun

Influence of Spinning Voltage and Solution Concentration on Insulating Oil Regeneration by PVDF Nanofibers

Huang, Jingliang; Wang, Feipeng; Yang, Li; Wan, Chunxiang; Zhang, Zheng

Direct observation of charge effects at liquid-solid interface with the pressure-wave-propagation method.

Ndour, Assane; Leblanc, Paul; Paillat, Thierry; Holé, Stéphane

A comparative analysis of different dielectric fluids for cable sealing ends

Thakur, S.; Shaw, A. V.; Callender, G. M.; Andritsch, T.; Lewin, P. L.; Cwikowski, O.

Coupled CFD and electromagnetic analysis of an ONAN distribution transformer cooled with mineral oil and biodegradable esters

Ríos Rodríguez, Gustavo Adolfo; Garelli, Luciano; Stebel, Michal; Melka, Bartłomiej; Bodys, Jakub; Kubiczek, Krzysztof; Stepien, Mariusz; Haida, Michal; Palacz, Michal; Pessolani, Francisco ; Amadei, Mauro ; Storti, Mario; Smolka, Jacek

Performance analysis of natural, synthetic and mineral oil in a MVA power transformer

Altay, Ramazan; Santisteban, Agustín; Olmo, Cristian; Delgado, Fernando; Renedo, Carlos J.; Köseoğlu, Ahmet K.; Ortiz, Alfredo



SESSION 7B

DIELECTRIC LIQUIDS AND GASES

SESSION CHAIRS:

Huseyin Hiziroglu

Jean-Charles Laurentie

Quantum Chemical Simulation of Fluorination on Surface Charge Regulation

Liu, Haoliang; Du, Boxue; Ran, Zhaoyu; Li, Jin; Liang, Hucheng; Yao, Hang

Decomposition characteristics of CFCN under the presence of HO and O based on molecular dynamics

Fu, Yuwei; Zheng, Borui

Oil-to-Gel insulation: A novel eco-efficient insulation concept

E. Logakis, T. Christen, S. Scheel, B. Adamczyk, L. Qi, and R. Liu

The Effect of Humidity on DC Breakdown Characteristic of CFCN and CO Gas Mixture

Han, Qinghua; Iddrissu, Ibrahim; Ranjan, Prem; Chen, Tony Lujia; Cotton, Ian

DC Leakage Current Measurement Comparison between SF and Fluoronitrile/CO Gas Mixture

Toigo, Caterina; Vu Cong, Thanh; Jacquier, Frank; Girodet, Alain

Inherent Correlation Between the Breakdown Strength and the Surface Flashover Performance of Epoxy Resin in N Atmosphere

Xu, Haoming; Liu, Wenfeng; Li, Zhen; Aslam, Farooq; Li, Shengtao

Dielectric Properties and Electric Conductivity of Liquefied Insulating Gas C-Fluoronitrile

Wang, Zi; Kindersberger, Josef

A method to characterize the insulating capacity of new insulating gases

Deschler, Johannes; Kindersberger, Josef

Feasibility study of flexible gas-insulated transmission line using CFI gas mixture

Kobayashi, Takuto; Hidaka, Kunihiko; Kumada, Akiko; Matsuoka, Shigeyasu; Shioiri, Tetsu

Impulse Flashover Characteristics in SF Gas for Insulating Spacer Model of GIS Fabricated Using Nano-micro Composites

Inoue, Yoshiyuki; Abe, Kazuma; Ohzuno, Kotaro; Kozako, Masahiro; Hikita, Masayuki; Masui, Hidetaka; Mitsudome, Hiroshi; Yanase, Hironori; Okamoto, Kenji

Experimental Study of Synergism in N and SF Gas Mixtures

Hiziroglu, Huseyin Recai; Bian, Xingming; Lu, Tiebing

Evaluation of UHF Partial Discharge Measurements for SF and % CFCN / % CO Gas Mixture

Loizou, Loizos; Fernandez Bautista, Roberto; Chen, Tony Lujia; Seltzer-Grant, Malcom; Liu, Qiang

SESSION 8

PARTIAL DISCHARGES AND ELECTRIC DISCHARGES

SESSION CHAIRS:

*Andrea Cavallini
John Forthergill*

Research on Defect Detection of Insulation Piercing Connector (IPC) Based on UHF Partial Discharge

Li, Haihong; Ke, Dingfang; Ma, Heng; Chen, Qingyin; Sun, Hanlei; Li, Jin; Kong, Xiaoxiao; Du, Boxue

Partial Discharge Behaviors in High Voltage Cable Buffer Layer

Du, Xiaoyu; Du, Boxue; Li, Xu; Li, Zhijian; Xi, Xiaoguang; Song, Pengxian; Fang, Jing; Kong, Xiaoxiao; Li, Jin

Partial discharge detection using acoustic camera

Pihera, Josef; Hornak, Jaroslav; Trnka, Pavel; Turecek, Oldrich; Zuzjak, Ladislav; Saksela, Kai; Nyberg, Jonas; Albrecht, Robert

Detection and de-noising of PD signal contaminated with stochastic pulse interference using maximal overlap discrete wavelet transform

Shams, Mohammed A.; El-Shahat, Mohammed; Anis, Hussein I.

Partial Discharge Characteristics in Liquid Nitrogen /Polypropylene-Laminated-Paper Insulation System under an DC Superimposed AC Voltage for HTS Cable

Zhang, Zhuoyuan; Li, Zhonglei; Du, Boxue; Han, Tao; Zhu, Wenbo

Automatic Evaluation of Partial Discharges Presence in Surge Arresters and Current Transformers Installed in Substations Without Equipment Shutdown

Rodrigues, Thiago Baptista; Amorim Júnior, Hélio de Paiva; Tanscheit, Ricardo; Vellasco, Marley

Prony Algorithm for Noise Filtration in Partial Discharge Signals Captured by High Frequency Current Transducer

Swarnasinghe, Bhagya; Dissanayake, Kavindya; Medagoda, Udathari; Wijayakulasooriya, Janaka; Kumara, Sarath; Fernando, Manjula

Electro-Optical Diagnostics of Single Partial Discharges

Gortschakow, Sergey; Pieterse, Petrus; Uhrlandt, Dirk; Hilbert, Michael; Kurrat, Michael

Research on Detection Method of PD Detection with Special-shaped Wave

Cao, Wen; Yang, Yan; Shen, Wei; Song, Qianwen; Wang, Yang; Wu, Kai

Separation of superimposed PRPD Patterns by Signal Clustering

Adam, Benjamin Florian; Tenbohlen, Stefan; Beltle, Michael

Gas Bubble Analysis of Partial Discharge in Oil-cellulose Insulation Systems of Power Transformers

Cheng, Yangchun; Zhang, Shuang; Hao, Zhen; Niu, Zheng; Guo, Shaowei; Mao, Ting

Towards Series Arc Fault Detection in More Electrical Aircrafts

Robles, Guillermo; Barroso, Gabriel; Gómez de la Calle, Manuel; Izquierdo, Daniel; Martínez-Tarifa, Juan M.; Martín, Rocío

PD-Activity in Generator Stator Bar insulation versus Voltage Frequency and Temperature

Ildstad, Erling; Aakre, Torstein

A New Measuring System for Partial Discharge Measurements on GIS Based on Magnetic Detection

Muñoz, Fabio; Rodrigo-Mor, Armando; Castro-Heredia, Luis

A Modern Approach to Differential Partial Discharge Diagnosis on Instrument Transformer

Hoek, Stefan M.; Batlle, Boris

Discharging Microcavities and Electric Field Enhancement inside Cavities in HVDC XLPE Cables

Daniel, Priscillia L. ; Rain, Pascal; Gallot-Lavallee, Olivier; Haller, Servane

Measurement of key dielectric properties for surface PD model under HVDC

Abdul Madhar, Saliha ; Brunner, Marc; Rodrigo Mor, Armando; Mraz, Petr

Partial Discharge Erosion of Polypropylene/Elastomer Blends Characterized with Multi-Sensors under AC Voltage

Peng, Jinjing; Gao, Yu; Li, Jing; Xu, Xuri; Song, Zheng; Du, Boxue

Analysis of Partial Discharge Behaviour under Staircase-based Sinusoidal Voltage Waveforms

Ganeshpure, Dhanashree Ashok; Castro Heredia, Luis Carlos; Niasar, Mohamad Ghaffarian; Vaessen, Peter ; Soeiro, Thiago Batista; Bauer, Pavol

Processing techniques applied to partial discharge measuring in rotating machines

Ortego, Javier; Álvarez, Fernando; Garnacho, Fernando; Arcones, Eduardo; Khamlichi, Abderrahim

Impact of WBG Converter Voltage Rise-Time and Switching Frequency on the PDIV of Twisted Pairs

Cavallini, Andrea; Rumi, Alberto; Lusuardi, Luca

Combined Effects of Temperature and Humidity on the PDIV of Twisted Pairs

Cavallini, Andrea; Rumi, Alberto; Lusuardi, Luca

Alternating Current Corona neutralization of charged filters media

Bendahmane, Boukhalfa; Messaoudène, Akila; Dascalescu, Lucien

