

22. Colloquium Program (Oral session)

In the oral session, we will provide a projector and a computer installed with power point and PDF reader. In case your presentation is very heavy in size (e.g. more than 10 MB), please get in touch with the secretariat. The files should be sent to the secretariat not later than September 8 through the website <https://amarys-jtb.jp/CIGRE/>. Following the CIGRE policy, we suggest that the size of company logos should not be more than 5% of total area of each slide.

DAY 1 - Monday Sept. 12, 2011 Oral presentations

Opening

9:00 - 10:00 Opening colloquium / CIGRE Activities by A2 Chairman /D1 Chairman

PS2: Materials

Session Chair: Lars Lundgaard (Norway)

Session Co-Chair: Shirish (Sam) Mehta (USA)

10:00 - 10:10 PS2 introduction / Keynote (Lundgaard and Mehta)

10:10 - 10:45 PS2 paper presentations PS2-1 (3 presentations)

PS2-O-1: Development of New Hybrid Insulation System Using Natural Ester Fluids
Lisa Bates
DuPont, USA

PS2-O-5: Electrical Performance of Ester Insulating liquids for Power Transformers
Paul Jarman
National Grid, UK

PS2-O-3: Study on Insulation Characteristics of Transformer Oil at Low Temperatures
Ming Gao
China Electric Power Research Institute, China

10:45 - 11:05 Coffee break / 1F Cafeteria

11:05 - 11:55 PS2 paper presentations PS2-2 (4 presentations)

PS2-O-10: Fact or Fiction - Benefits of Inhibited Versus Uninhibited Hydrocarbon Oils for Transformers
Peter Smith
Shell Global Solutions, Germany

PS2-O-7: Consideration Concerning Hydrolysis in Soil of Silicone Liquid for Transformer Fluid
Hideyuki Miyahara
Japan AE Power Systems Corporation, Japan

PS2-O-2: Effect of Thermally Aged Oil on Space Charge Dynamics in Oil/Paper Insulation Systems
George Chen
University of Southampton, UK

PS2-O-14: Functional Properties of Insulating Liquids with Focus on Cellulose Wetting
Per Wiklund
Nynas AB, Sweden

11:55 - 12:05 Memorial Photo / 1F Center Garden

12:05 - 13:15 Lunch / 1F Cafeteria

- 13:15 - 14:35 PS2 paper presentations PS2-3 (6 presentations)
- PS2-O-4: Alcohols Based Ageing Chemical Markers for the Diagnosis of Transformer Cellulosic Insulation
Jocelyn Jalbert
Hydro-Quebec, Canada
- PS2-O-13: Improve Your Transformer Performance with M/DBT, Gas-Absorbing Additives for Transformer Oils
Jeremie Walker
ARKEMA, France
- PS2-O-6: Electrical Property of Semiconductive Nanoparticle Modified Mineral Oil
Yuzhen Lv
North China Electric Power University, China
- PS2-O-8: Dry-type Transformers for the Sub-transmission Voltage Level
Rafael Murillo
ABB, Spain
- PS2-O-11: Characteristics of Paper-Oil Insulation Dielectric under AC/DC Electric Field
Qian Sun
China Electric Power Research Institute, China
- PS2-O-12: Polymer Nanocomposites - Fundamentals and Possible Applications to Power Sectors
Toshikatsu Tanaka
Waseda University, Japan

14:35 - 14:40 Preparation

PS3: Transient phenomena and testing

Session Chair: Hitoshi Okubo (Japan)
Session Co-Chair: Michael Muhr (Austria)

14:40 - 14:50 PS3 Introduction / Keynote (Muhr)

- 14:50 - 16:05 Paper Presentation PS3-1 (6 presentations)
- PS3-O-1: VFT Performance of RIP Bushings with Resistive Field-Grading Layers
Jan Czyzewski
ABB Schweiz, AG, Switzerland
- PS3-O-5: Basic Information and Possible Counter Measures Concerning Very Fast Transients in Gas-Insulated UHV Substations as Basis for the Insulation Co-ordination
Uwe Riechert
ABB Switzerland Ltd. / PTHG-T, Switzerland
- PS3-O-2: Application of the Transfer Function Method to Power Transformer Impulse Test
Toshiji Kato
Doshisha University, Japan
- PS3-O-4: Experiences Concerning Dielectric Testing of Ultra High Voltage (UHV) Equipment
Ralf Pietsch
HIGHVOLT Prueftechnik Dresden GmbH, Germany
- PS3-O-8: Design of HVDC Converter Transformers with Due Consideration to Transient Phenomena
Stephan Lelaidier
ALSTOM GRID, France

- PS3-O-6: Energization of EHV Transformers: Description of a Detailed Modelling of the Upstream Network and the Transformer; Influence of the Capacitive Currents Generated and Their Impact on the Equipment
Michel Rioual
EDF, France
- 16:05 - 16:25 Coffee break / 1F Cafeteria
- 16:25 -17:25 Paper Presentation PS3-2 (5 presentations)
- PS3-O-12: Study on Volt-Time Characteristics of large Transformer under Lightning Impulse Test
Zhi Zhao
China Electric Power Research Institute, China
- PS3-O-3: Electrical Insulation and Discharge Characteristics at HVDC Polarity Reversal in Oil / Pressboard Composite Insulation System
Hiroki Kojima
Nagoya University, Japan
- PS3-O-7: Investigation of Disconnecter Switching on Two Generator EHV Step-up Transformer failures
Angelica Rocha
CEMIG, Brazil
- PS3-O-10: In-service Experience of Hot-spot Behaviour of a GSU Power Transformer Compared to Temperature-rise Test Results
Alain Tanguy
EDF R&D, France
- PS3-O-11: Saturation Effect during Switching Impulse Tests on Symmetrical Phase Shifting Transformers with Two Active Parts and Its Mitigation
Jos Veens
Smit Transformatoren B.V., Netherlands
- 17:25 -17:40 Discussion Day 1
- 17:40 Day 1 Closing

DAY 2 - Tuesday Sept. 13, 2011 Oral presentations

PS1: Transformer Maintenance, monitoring, diagnostics and related testing

Session Chair: Patrick Picher (Canada)

Session Co-Chair: Yoshihito Ebisawa (Japan)

8:30 - 8:35 PS1 Introduction - 1 (Picher)

8:35 - 8:45 Keynote:WG B3.12 “Obtaining Value from On-Line Substation Condition Monitoring”

Nicolaie L. Fantana

ABB, Germany

8:45 - 10:15 PS1 paper presentations PS1-1 - 1 (7 presentations)

PS1-1 Subtitle “Diagnostics/monitoring based on electrical and other methods (FDS, PDC, FRA, PD, on-line thermal models, site testing, etc.)”

PS1-O-1: Sensitivity of FRA in Detecting Transformer Faults: Results of a Measurement Campaign

Nilanga Abeywickrama

ABB Corporate Research, Sweden

PS1-O-9: Field Experience with Tap-changer and Bushing Monitoring

Michel Gauvin

IREQ, Canada

PS1-O-14: Modern De-noising Strategies for PD Measurements on Transformers under Challenging On-site Conditions

Alexander Kraetge

Omicron, Austria

PS1-O-17: Frequency Response Measurement for Moisture Analysis of Oil-paper Insulation System in Power Transformer

Yicen Liu

Southwest Jiaotong University, China

PS1-O-19: Using DGA and FRA to Develop New Technology for the Diagnosis of Areas Subject to Abnormal Overheating on Actual Transformers

Takahiro Sano

Japan AE Power Systems Corporation, Japan

PS1-O-23: Experience and Benefits with On-Site Testing of Power Transformers Using Mobile High Voltage Impulse and AC Test Systems

Janusz Szczechowski

ABB AG, Germany

PS1-O-25: Development of the New Partial Discharge Measuring Method and Device

Hideaki Yasukawa

Nissin Electric Co.,Ltd, Japan

10:15 - 10:35 Coffee break / 1F Cafeteria

- 10:35 - 12:00 PS1 paper presentations PS1-1-2 & PS1-2 (3+3 presentations)
- PS1-O-26: Dielectric Response Characteristics and Insulation Condition Evaluation of Power Transformer Oil-Paper Insulation
Guan-Jun Zhang
Xi'an Jiaotong University, China
- PS1-O-27: Partial Discharge Location on a 220kV Power Transformer by Using UWB-RF Method
ShuSheng Zheng
North China Electric Power University, China
- PS1-O-28: Assessment of Overload Capabilities of Power Transformers by Thermal Modelling
Stefan Tenbohlen
University of Stuttgart, Germany

PS1-2 Subtitle “Post-mortem, post-failure investigations, return of experience”

- PS1-O-2: New Diagnostics and Maintenance Method on Static Electrification in Oil-immersed Power Transformers in Japan
Tsuyoshi Amimoto
Mitsubishi Electric Corp., Japan
- PS1-O-5: Post Mortem Investigation of Aged-failed Power Transformers - Theory of Cold Aging
Luiz Cheim
ABB, USA
- PS1-O-11: Corrosive Sulphur in Transformer Oil - A Refiner’s Perspective
Edward Casserly
Ergon Refining, Inc., USA

12:00 - 13:30 Lunch / 1F Cafeteria

PS1: Transformer Maintenance, monitoring, diagnostics and related testing

- Session Chair: Ernst Gockenbach (Germany)
Session Co-Chair: Takehisa Sakai (Japan)

13:30 - 13:35 PS1 Introduction - 2 (Gockenbach)

13:35 - 14:40 PS1 paper presentations PS1-3 (5 presentations)

PS1-3 Subtitle “Diagnostics/monitoring based on oil analysis (DGA, oil tests, ageing makers, etc.)”

- PS1-O-12: Influence of Oxidation Stability of Insulating Fluids on the Diagnostic Interpretation of Transformer Condition
Ivanka Hoehlein
Siemens TR, Germany
- PS1-O-15: New Dissolved Gas Analysis (DGA) Diagnostic Methods for Load Tap Changers (LTC)
Permsak Kuansatit
Electricity Generating Authority of Thailand, Thailand

- PS1-O-16: Furanic Compounds as a Diagnosis Tool for Solid Insulation of Power Transformers: Knowledge, Possibilities and Limits
Marie-Claude Lessard
Hydro-Quebec Research Institute (IREQ), Canada
- PS1-O-20: Applicability of Methanol as Early Stage Paper Degradation Marker
Annelore Schaut
Laborelec, Belgium
- PS1-O-21: Chemical Indicators for Identification of Overheated Places in Power Transformer
Anatoly Shkolnik
Israel Electrical Corporation, Israel
- 14:40 - 15:00 Coffee break / 1F Cafeteria
- 15:00 - 16:00 PS1 paper presentations PS1-4 (5 presentations)
- PS1-4 Subtitle “Transformer fleet condition assessment, health index, risk assessment criteria, statistical analysis, maintenance optimization, etc.”
- PS1-O-3: Significance of On-Line Monitoring Data in the Determination of Transformer Health Index
Jacques Aubin
GE Energy, Canada
- PS1-O-6: Risk Assessment Criteria of Partial Discharge Defects on Oil-Impregnated Paper Insulation on Transformer
Yangchun Cheng
North China Electric Power University, China
- PS1-O-7: Transformers Fleet Management - A Condition Based Ranking Approach
Carlos Dupont
CEPEL, Brazil
- PS1-O-13: The Development and Use of an Asset Health Index for the Replacement Planning of Large Power Transformers
Paul Jarman
National Grid UK, UK
- PS1-O-24: Life Estimation and Maintenance Sequence of Aged Power Facilities
Junichi Toyoda
Tohoku University, Japan
- 16:00 - 16:10 Discussion – Day 2
- 16:10 – 16:40 Special lecture: The damage of T&D facilities due to “The Great East Japan Earthquake” on 11th March 2011 and present restoration situation
TEPCO
- 16:40 – 17:10 Closing of Colloquium by A2 Chairman / D1 Chairman
- 17:10 Day 2 closing

23. Colloquium Program (Poster session)

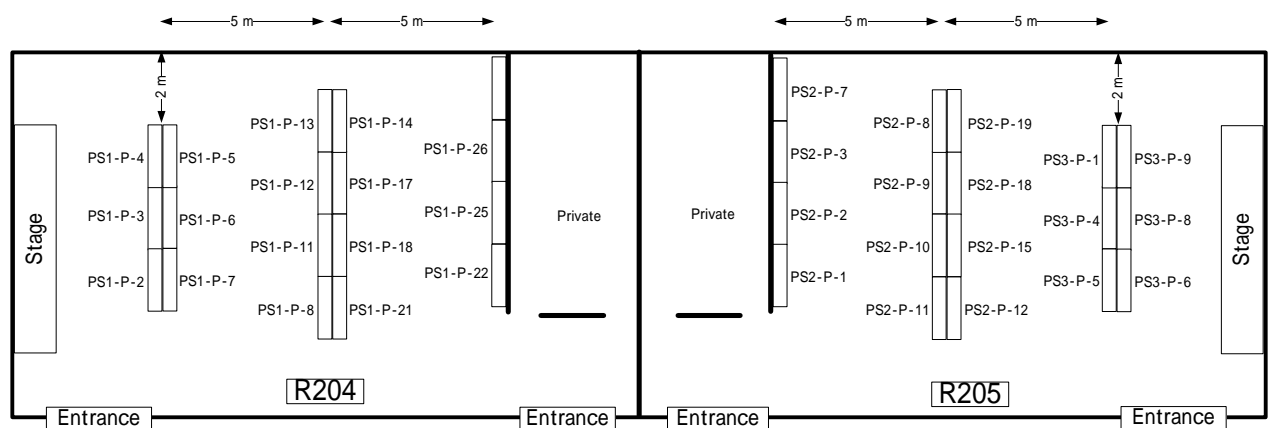
DAY3- Wed. Sept. 14, 2011

11:40 - 14:20 Poster session and Lunch

NOTE:

- Posters should be pasted between 09:00 and 11:00
- Posters should be kept on the panel from 11 h 00 to 14 h 30.
- Presenters should be at own poster from 11 h 30 to 14 h 30.

The presentation number (abstract number) will be pasted on the top side of the panel. Size of each poster should not exceed 1.1 m in height and 1.8 m in width. Following the CIGRE policy, we suggest that the total size of company logos should not be more than 5% of total area of the poster. Posters should be pasted between 09 h 00 and 11 h 00 on Sep. 14 (Wed), and not later than 11:00.



Floor Plan

PS1: Transformer Maintenance, monitoring, diagnostics and related testing

- PS1-P-2: Fault Diagnosis on Power Transformers Using Non-electric Method
Weiping Ma
Jilin Electric Power Research Institute, China
- PS1-P-3: Optimized Model for the Estimation of Safe Overloading Conditions in Power Transformers. Part I. Bubble Generation
Enrique Betancourt
Prolec GE, Mexico
- PS1-P-4: Analysis of the HV Power Transformer Failures by the Statistical Tool Application, Practical Aspects of Statistical Analysis
Lukasz Chmura
Delft University of Technology, Netherlands
- PS1-P-5: Experience Carrying Out In-Service Condition Assessment of Large Power Transformers
Alfonso De Pablo
GE Energy, Spain
- PS1-P-6: Condition Assessment of Power Transformers in the Case of an Alarm or Spontaneous Outage
Jitka Fuhr
BKW FMB Energie AG, Switzerland

- PS1-P-7: Application of New Type 550 KV Gas Insulated Bus - Study of Particle Trap Structure and Particle-motion Monitoring -
Daisuke Fujita
Mitsubishi Electric Corp, Japan
- PS1-P-8: Maintenance Optimization of Power Apparatus by Intelligent Grid Management System (IGMS) and Upgrading by Component Diagnosis
Masahiro Hanai
Nagoya University, Japan
- PS1-P-11: Moisture Content Assessment in Oil-Paper Based on Dielectric Frequency Response
Jun Liu
Southwest Jiaotong University, China
- PS1-P-12: Post-mortem Analysis and in Service Diagnostics of Three Different Case Studies of Transformers with Extreme Hydrogen Gassing
Jelena Lukic
Electrical Engineering Institute Nikola Tesla, Serbia
- PS1-P-13: Selection Strategy on the Combined Transformer for Wind Farm Generator
Weiping Ma
Jilin Electric Power Research Institute, China
- PS1-P-14: Reason Analysis on the Fault of 220 kV Power Transformer
Weiping Ma
Jilin Electric Power Research Institute, China
- PS1-P-17: A Laboratory Investigation on DGA Using the Different Existing Degassing and Analytical Techniques
Gernoth Dobianer
Energy Support, Austria
- PS1-P-18: Effects of Irgamet30 in Transformer Oils
Annelore Schaut
Lafarge, Belgium
- PS1-P-21: Correlation Analysis of Transformer Oil Sample Results
Christof Sumereder
Graz University of Technology, Austria
- PS1-P-22: 500 kV GSU Failure Due to Air Bubble Formation
Craig Swinderman
Mitsubishi Electric Power Products, Inc., USA
- PS1-P-25: Research and Realization of Smart Power Transformer
Guan-Jun Zhang
Xi'an Jiaotong University, China
- PS1-P-26: A Method to Improve the Neutral Insulation Ordination Reliability of 110kV Transformer based on Small Grounding Reactance
Lan Guan
China Electric Power Research Institute, China

PS2: Materials

- PS2-P-1: Aging Characteristics of Original and Corona-Resistant Polyimide Film Based on Dielectric Spectrum
Kaijiang Cao
Southwest Jiaotong University, China
- PS2-P-2: BC Hydro's Experience and Understanding of Ageing Cable Insulation Systems
Sudhakar Cherukupalli
British Columbia Hydro, Canada
- PS2-P-3: Multifactor Ageing Models of Polyimide Film under Combined Thermal and Electrical Stresses Used in Inverter-fed Traction Motors
Yi Cui
Southwest Jiaotong University, China
- PS2-P-7: Interpretation of Dissolved Gases in High Oleic, High Fire point Ester Dielectric Fluids
George Frimpong
ABB Inc., USA
- PS2-P-8: Electric Breakdown Strength of Interfaces between Solids
Erling Ildstad
NTNU, Norway
- PS2-P-9: Dielectric Performance of Gas Insulated Systems with Liquefied SF₆ due to Low Temperatures
Karsten Juhre
Siemens AG, Energy Sector, Germany
- PS2-P-10: Diagnostic Tests for Ester Filled Transformers
Maik Koch
Omicron, Austria
- PS2-P-11: Wavelet Digital Filter for Partial Discharge Pulse Extraction under Repetitive Square Impulse Voltage
Mingxiang Li
Southwest Jiaotong University, China
- PS2-P-12: Effect of Temperature on Partial Discharge Properties about Polyimide Film Used in Traction Motor
Yang Luo
Southwest Jiaotong University, China
- PS2-P-15: Recent Research on Cable Environmental Qualification Test Method for Nuclear Power Plants
Takefumi Minakawa
Japan Nuclear Energy Organization, Japan
- PS2-P-18: Water Saturation Limits and Moisture Equilibrium Curves of Alternative Insulation Systems
Stefan Tenbohlen
University of Stuttgart, Germany
- PS2-P-19: The Effect of PD on Inverter-fed Motor Insulation under Square-wave Pulse Voltage
Yiqiang Zhang
Southwest Jiaotong University, China

PS3: Transient phenomena and testing

- PS3-P-1: Over-voltage Analyzing for Ground Automatic Phase-separation Switch
Guoqiang Gao
Southwest Jiaotong University, China
- PS3-P-4: Identifying Interaction between Electric Power System and Autotransformers by Analyzing Transient Voltages Measured Using Bushing Capacitive Taps
Helvio Martins
CEPEL, Brazil
- PS3-P-5: HV Power Transformers: Voltage Transient Analysis - Application of SoFT Frequency Domain Characterization
Jose Mendes
ABB Asea Brown Boveri, Brazil
- PS3-P-6: Mitigating VCB-induced Very Fast Transients in Industrial Installations. Case Study: Arc Furnace Transformer
Wojciech Piasecki
ABB Corporate Research, Poland
- PS3-P-8: High Frequency Overvoltages by Shunt Reactor Current Interruption and Protection Scheme in GIS Substations
Shin Yamada
Toshiba Corp., Japan
- PS3-P-9: Investigation on Aging Evaluation of Turbo Motor Bar with Isothermal Relaxation Current Method
Yi Yin
Shanghai Jiao Tong University, China

- End -