Poster Sessions

Fault current limiter

Chairperson: Tomoo Mimura (TEPCO)

APP5-1 14:00–16:00

Study on Protection Coordination of Distance Relays for Application of a SFCL in a Power Transmission System

*Sung-Hun Lim[1], Jin-Seok Kim[2] and Jae-Chul Kim[1]

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APP5-2 14:00–16:00

Fault Current Limiting and Double Quench Characteristics of Transformer Type SFCL with Additionally Coupled Circuit

Seung-Taek Lim[1], Tae-Hee Han[2], *Sung-Hun Lim[1]

1. School of Electrical Engineering, Soongsil University, Republic of Korea; 2. Department of Energy Resources Engineering, Jungwon University, Republic of Korea

APP5-3 14:00–16:00

Magnetizing Characteristics of Transformer Type SFCL Due to Its Winding Direction of Additional Secondary Winding

*Tae-Hee Han[1], Shin-Won Lee[2], Seok-cheol Ko[3] Sung-Hun Lim[4]

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2. Department of Computer System Engineering, Jungwon University; 3. Chungnam TechnoPark, Policy Planning Agency, Republic of Korea; 4. Department of Electrical Engineering, Soongsil University, Republic of Korea

APP5-4 14:00–16:00

Transient Fault Current Limiting Characteristics of Transformer type SFCL with Two Non-Isolated Secondary Windings using Double Quench

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APP5-5 14:00–16:00

Application Validity Studies of Various Kinds of Superconducting Fault Current Limiters for HVDC Grids

*Ho-Yun Lee, Kyu-Hoon Park, Jong-Geon Lee, Bang-Wook Lee

Hanyang University

APP5-6 14:00–16:00

Optimal Location of Superconducting Fault Current Limiters (SFCLs) for Fault Current Reduction in the Korean AC Transmission Grid

*Jin Hur[1], Seung Ryul Lee[2]

1. Sangmyung University; 2. Korea Electrotechnology Research Institute

APP5-7 14:00–16:00

Stability Improvement of VSC HVDC system according to Superconductivity combined DC Circuit Breaker

*HYEWON CHOI, INSUNG JEONG, SANGYONG PARK, NOA PARK, SUNHO WHANG, JUNBEOM KIM, HYOSANG CHOI

CHOSUN University

HTS bulk

Chairperson: Kazuya Yokoyama (Ashikaga Institute of Technology)

APP6-1 14:00–16:00

Study on the Method of ON/OFF Field Switching using the HTS Bulks for Medical Applications

*Takuya Nakagawa, Ryoma Hirano, Yoshikazu Tomisaka, SeokBeom Kim, Hiroshi Ueda

Okayama University

APP6-2 14:00–16:00

Study on the Rotation Properties and the Design Issue of Non-Contact Rotating System Using HTS Bulks and Permanent Magnets

*Ryota Okamura, Yusuke Ozaki, SeokBeom Kim, Hiroshi Ueda

Okayama University

APP6-3 14:00–16:00

Development of the Turning System Using Permanent Magnets for the Direction Change from Floor Traveling to Wall Traveling in 3-D Superconducting Actuator

*Takao Yamasaki, Yusuke Hiratsuka, SeokBeom Kim, Hiroshi Ueda

Graduate School of Natural Science and Technology, Okayama University

APP6-4 14:00–16:00

Correlations between magnetic flux and levitation force of HTS bulks above a permanent magnet guideway

*Huan Huang, Jun Zheng, Botian Zheng, Nan Qian, Haitao Li, Jipeng Li, Zigang Deng

Applied Superconductivity Laboratory, State Key Laboratory of Traction Power, Southwest Jiaotong University, China

Power application 2

Chairpersons: Tomonori Watanabe (Chubu Electric Power Co.) and Taketsune Nakamura (Kyoto University)

APP7-1 14:00–16:00

Feasibility study on the brushless HTS exciter of a modularized large-scale HTS wind power generator

*Byeong-Soo Go, Hae-Jin Sung, Minwon Park, In-Keun Yu

Changwon National University

APP7-2 14:00–16:00

Electrical and structured analysis for 15MW REBCO designed wind turbine generators

*Kiwook Yun[1], Masataka Iwakuma[1], Katsuhito Tamura[1], Yoshiji Hase[2], Yuichiro Sasamori[2], Teruo Izumi[3]

1. Kyushu university; 2. Fuji Electric; 3. ISTEC

APP7-3 14:00–16:00

Design and Performance Analysis of a Novel Stator-HTS Squirrel Cage Induction Motor with High Power to Weight Ratio

*Bin Liu[1], Jin Fang[1], Rod Badcock[2], Wenjuan Song[1], Hang Shu[1]

1. School of Electrical Engineering, Beijing Jiaotong University; 2. Robinson Research Institute, Victoria University of Wellington

APP7-4 14:00–16:00

Development of A large AC Current Supply with A Single-phase Air-core Bi2223 High Temperature Superconducting Transformer

*Noriyuki Kishi, Nozomu Nanato, Yuhi Tanaka, Mikishi Kondo

Okayama University

APP7-5 14:00–16:00

Providing a Proper Vacuum Level in the Thermal Insulation Layer of the Long HTS Cable Line

*Yury V Ivanov[1,2], Hirofumi Watanabe[1,2], Noriko Chikumoto[1,2], Vladimir S. Vyatkin[1], Noriyuki Inoue[1,2], Satarou Yamaguchi[1,2]

1. Chubu University; 2. Ishikari Superconducting DC Power Transmission System Research Association

APP7-6 14:00–16:00

A Study on a 10 kVA Single-Phase HTS Transformer with a Cylindrical Central Iron Core

*Lilin Sun, Daoyu Hu, Zenglin Xie, Zhuyong Li, Zhiyong Hong, Zhijian Jin

Shanghai Jiao Tong University

APP7-7 14:00–16:00

Thermal Properties of HTS Coils with Conduction Cooling by Using Heat Pipes

*Jun Tokushige[1], Akifumi Kawagoe[1], Toshiyuki Mito[2], Nagato Yanagi[2], Shinji Hamaguchi[2], Suguru Takada[2], Naoki Hirano[3], Yoshiro Terazaki[4]

1. Kagoshima University; 2. National Insititute for Fusion Science; 3. Chubu Electric Power; 4. Graduate University for Advanced Studies

APP7-8 14:00–16:00

Characteristics of Superconducting WPT by multi-receive coils

*In-Sung Jeong, Hye-Won Choi, Sang-Yong Park, No-A Park, Sun-Ho Hwang, Jun-Beom Kim, Hyo-Sang Choi

Chosun University