

ICMC-2013, the International Cryogenics Materials Conference



Report of Contributions

Contribution ID: 0

Type: **not specified**

Selection and Properties of Structural Materials for Cryogenic Applications

Wednesday 19 June 2013 08:15 (45 minutes)

Presenter: SGOBBA, Stefano (CERN)

Session Classification: ICMC Awards and Plenary

Contribution ID: 1

Type: **not specified**

ICMC Awards

Wednesday 19 June 2013 08:00 (15 minutes)

Session Classification: ICMC Awards and Plenary

Contribution ID: 2

Type: **not specified**

Review of specimen heating in mechanical tests at cryogenic temperatures {nc}

Tuesday 18 June 2013 09:00 (1h 30m)

Primary author: OGATA, T. (NIMS)

Presenter: OGATA, T. (NIMS)

Session Classification: Conductors, Structures and Properties I

Contribution ID: 4

Type: **not specified**

Cryogenic Properties of Alumina Strengthened Copper for High Field Magnets

Tuesday 18 June 2013 09:00 (1h 30m)

Primary author: TOPLOSKY, ET AL, V.J. (NHMFL)

Presenter: TOPLOSKY, ET AL, V.J. (NHMFL)

Session Classification: Conductors, Structures and Properties I

Contribution ID: 5

Type: **not specified**

Flux Pinning Engineering for Applications of High-Tc Superconductors

Friday 21 June 2013 11:30 (1 hour)

Presenter: MATSUMOTO, Kaname (Kyushu Institute of Technology, Japan)

Session Classification: Closing Plenary

Contribution ID: 10

Type: **not specified**

Strain and magnetic field responses of critical current in externally reinforced GdBCO coated conductor tapes at 77 K

Tuesday 18 June 2013 09:00 (1h 30m)

Primary author: SHIN, ET AL, H. (Andong National University)

Presenter: SHIN, ET AL., H. (Andong National University)

Session Classification: Conductors, Structures and Properties I

Contribution ID: 13

Type: **not specified**

Epoxy Impregnation as Mechanical Stabilization of Roebel-Assembled-Coated-Conductor Cables

Tuesday 18 June 2013 11:00 (15 minutes)

Primary author: BARTH, ET AL., C. (KIT)

Presenter: BARTH, ET AL., C. (KIT)

Session Classification: Insulating Materials at Cryogenic Temperature

Contribution ID: 14

Type: **not specified**

Fabrication and Observations of an ITER CS Module Cross-Section

Tuesday 18 June 2013 11:15 (15 minutes)

Primary author: REED, ET AL., D. (Cryogenic Materials, Inc.)

Presenter: REED, ET AL., D. (Cryogenic Materials, Inc.)

Session Classification: Insulating Materials at Cryogenic Temperature

Contribution ID: 15

Type: **not specified**

Large-scale shear tests of 3x1 arrays of insulated conduit for the ITER Central Solenoid

Tuesday 18 June 2013 11:30 (15 minutes)

Primary author: WALSH, ET AL., R.P. (NHMFL/FSU)

Presenter: WALSH, ET AL., R.P. (NHMFL/FSU)

Session Classification: Insulating Materials at Cryogenic Temperature

Contribution ID: 16

Type: **not specified**

Evaluation of Interlaminar Shear Strength of GFRP Composed of Bonded Glass/Polyimide Tapes and Cyanate-Ester/Epoxy Blended Resins for ITER TF Coils

Tuesday 18 June 2013 11:45 (15 minutes)

Primary author: HEMMI, ET AL., T. (JAEA)

Presenter: HEMMI, ET AL., T. (JAEA)

Session Classification: Insulating Materials at Cryogenic Temperature

Contribution ID: 19

Type: **not specified**

Fatigue and Fracture Properties of a Super-Austenitic Stainless Steel at 295 K and 4 K

Tuesday 18 June 2013 09:00 (1h 30m)

Primary author: MCRAE, ET AL., D.M. (NHMFL/FSU)

Presenter: MCRAE, ET AL., D.M. (NHMFL/FSU)

Session Classification: Conductors, Structures and Properties II

Contribution ID: 20

Type: **not specified**

Effect of microstructure on high-cycle fatigue properties of Ti-6Al-4V alloy forging at cryogenic temperature

Tuesday 18 June 2013 09:00 (1h 30m)

Primary author: YURI, ET AL., T. (National Institute for Materials Science)

Presenter: YURI, ET AL., T. (National Institute for Materials Science)

Session Classification: Conductors, Structures and Properties II

Contribution ID: 23

Type: **not specified**

Fundamental Study of Irradiation Effect on Organic Insulation Material for Superconducting Fusion Magnet

Tuesday 18 June 2013 09:00 (1h 30m)

Primary author: NAKATA, ET AL., Y. (Osaka University)

Presenter: NAKATA, ET AL., Y. (Osaka University)

Session Classification: Conductors, Structures and Properties II

Contribution ID: 26

Type: **not specified**

Analyses of heterogeneous deformation and subsurface fatigue crack generation in alpha titanium alloy at low temperature

Tuesday 18 June 2013 09:00 (1h 30m)

Primary author: UMEZAWA, ET AL., O. (Yokohama National University)

Presenter: UMEZAWA, ET AL., O. (Yokohama National University)

Session Classification: Conductors, Structures and Properties II

Contribution ID: **30**

Type: **not specified**

Physical properties of Al₂O₃/ZrO₂ at low temperature

Tuesday 18 June 2013 09:00 (1h 30m)

Primary author: HAN, ET AL., Y. (Technical Institute of Physics and Chemistry)

Presenter: HAN, ET AL., Y. (Technical Institute of Physics and Chemistry)

Session Classification: Conductors, Structures and Properties III

Contribution ID: 33

Type: **not specified**

Enhancement in thermoelectric power factor of Bi₈₅Sb₁₅-xPbx alloys at low-temperatures

Tuesday 18 June 2013 09:00 (1h 30m)

Primary author: SONG, C. (Zunyi Normal College)

Presenter: SONG, C. (Zunyi Normal College)

Session Classification: Conductors, Structures and Properties III

Contribution ID: 36

Type: **not specified**

Critical current anisotropy in clean superconducting pnictide thin films

Tuesday 18 June 2013 10:30 (15 minutes)

Primary author: HAENISCH, ET AL., J. (IFW Dresden)

Presenter: HAENISCH, ET AL., J. (IFW Dresden)

Session Classification: Pnictides and Bulk REBCO

Contribution ID: 37

Type: **not specified**

Pathways to improved grain connectivity and high transport critical current density in untextured K-doped ferropnictide BaFe₂As₂ bulks and wires

Tuesday 18 June 2013 10:45 (15 minutes)

Primary author: WEISS, ET AL., J.D. (Florida State University)

Presenter: WEISS, ET AL., J.D. (Florida State University)

Session Classification: Pnictides and Bulk REBCO

Contribution ID: 38

Type: **not specified**

Isotropic high critical current density in FeSeTe thin film on non oxide substrate.

Tuesday 18 June 2013 11:00 (15 minutes)

Primary author: FERDEGHINI, ET AL., C. (CNR-SPIN)

Presenter: FERDEGHINI, ET AL., C. (CNR-SPIN)

Session Classification: Pnictides and Bulk REBCO

Contribution ID: 40

Type: **not specified**

Remarkable influence of heat treatment in structural, electrical and magnetic properties in $(Y_{1-x}Nd_x)SrBaCu_3O_{6+z}$

Tuesday 18 June 2013 11:30 (15 minutes)

Primary author: NAFIDI, ET AL., A. (Laboratory of Condensed Matter Physics and Nanomaterials for Renewable Energy, University Ibn Zohr)

Presenter: NAFIDI, ET AL., A. (Laboratory of Condensed Matter Physics and Nanomaterials for Renewable Energy, University Ibn Zohr)

Session Classification: Pnictides and Bulk REBCO

Contribution ID: 41

Type: **not specified**

[Invited] Estimation of uncertainty for Fatigue crack growth rate at cryogenic temperatures

Tuesday 18 June 2013 13:30 (30 minutes)

Primary author: NYILAS, A. (CEME, Cryo. Eng. & Mat. Exp.)

Presenter: NYILAS, A. (CEME, Cryo. Eng. & Mat. Exp.)

Session Classification: Mechanical Properties of Structural Materials

Contribution ID: 43

Type: **not specified**

Welded tie plate feasibility study for ITER Central Solenoid structure

Tuesday 18 June 2013 14:15 (15 minutes)

Primary author: WALSH, ET AL., R.P. (NHMFL/FSU)

Presenter: WALSH, ET AL., R.P. (NHMFL/FSU)

Session Classification: Mechanical Properties of Structural Materials

Contribution ID: 44

Type: **not specified**

Effect of stress ratio on high-cycle fatigue properties of Ti-6Al-4V ELI alloy forging at low temperature

Tuesday 18 June 2013 14:30 (15 minutes)

Primary author: ONO, ET AL., Y. (National Institute for Materials Science)

Presenter: ONO, ET AL., Y. (National Institute for Materials Science)

Session Classification: Mechanical Properties of Structural Materials

Contribution ID: 45

Type: **not specified**

Stress-induced martensitic transformation during tensile test of full-size TF conductor jacket tube at 4.2 K

Tuesday 18 June 2013 14:45 (15 minutes)

Primary author: YANG, ET AL., H.H. (Technical Institute of Physics and Chemistry, Chinese Academy of Sciences)

Presenter: YANG, ET AL., H.H. (Technical Institute of Physics and Chemistry, Chinese Academy of Sciences)

Session Classification: Mechanical Properties of Structural Materials

Contribution ID: 46

Type: **not specified**

Cryogenic Mechanical Properties of Fusion-Welded Nitronic 50 Austenitic Stainless Steel

Tuesday 18 June 2013 15:00 (15 minutes)

Primary author: DALDER, ET AL., E.N. (Dalder Materials Consulting, inc.)

Presenter: DALDER, ET AL., E.N. (Dalder Materials Consulting, inc.)

Session Classification: Mechanical Properties of Structural Materials

Contribution ID: 48

Type: **not specified**

[Invited] Analysis of temperature and current margin of four ITER Central Solenoid conductor designs during a 15 MA plasma scenario with comparison to DC qualification tests

Tuesday 18 June 2013 13:30 (30 minutes)

Primary author: NIJHUIS, ET AL., A. (University of Twente)

Presenter: NIJHUIS, ET AL., A. (University of Twente)

Session Classification: Superconductor Stability and AC Loss

Contribution ID: 49

Type: **not specified**

3-D Homogeneization: a new technique for fast calculation of AC losses in non-circular HTS pancake coils

Tuesday 18 June 2013 14:00 (15 minutes)

Primary author: ZERMENO, ET AL., V. (Karlsruhe Institute of Technology)

Presenter: ZERMENO, ET AL., V. (Karlsruhe Institute of Technology)

Session Classification: Superconductor Stability and AC Loss

Contribution ID: 51

Type: **not specified**

AC losses in CORC cables measured at 77 K in liquid nitrogen bath

Tuesday 18 June 2013 14:30 (15 minutes)

Primary author: MAJOROS, ET AL., M. (The Ohio State University)

Presenter: MAJOROS, ET AL., M. (The Ohio State University)

Session Classification: Superconductor Stability and AC Loss

Contribution ID: 52

Type: **not specified**

Magnetic Shielding Measurements on 2G HTS Rings

Tuesday 18 June 2013 14:45 (15 minutes)

Primary author: KVITKOVIC, ET AL., J. (Florida State University)

Presenter: KVITKOVIC, ET AL., J. (Florida State University)

Session Classification: Superconductor Stability and AC Loss

Contribution ID: 53

Type: **not specified**

Minimum Quench Energy of High Temperature Superconducting Composites and Magnets

Tuesday 18 June 2013 15:00 (15 minutes)

Primary author: YANG, Y. (University of Southampton)

Presenter: YANG, Y. (University of Southampton)

Session Classification: Superconductor Stability and AC Loss

Contribution ID: 55

Type: **not specified**

Thermal conductivity measurements of some HTS tapes for current lead

Wednesday 19 June 2013 09:00 (1h 30m)

Primary author: LIU, ET AL., H. (Key Laboratory of Cryogenics, Technical Institute of Physics and Chemistry, CAS; Graduate Univ. of CAS)

Presenter: LIU, ET AL., H. (Key Laboratory of Cryogenics, Technical Institute of Physics and Chemistry, CAS; Graduate Univ. of CAS)

Session Classification: LTS, HTS, and Novel Superconductors - AC Loss, Stability and Properties I

Contribution ID: 62

Type: **not specified**

ARPES-parameterized Hubbard approach to d-wave cuprate superconductors

Wednesday 19 June 2013 09:00 (1h 30m)

Primary author: PEREZ, ET AL., L.A. (UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO)

Presenter: PEREZ, ET AL., L.A. (UNIVERSIDAD NACIONAL AUTONOMA DE MEXICO)

Session Classification: LTS, HTS, and Novel Superconductors - AC Loss, Stability and Properties I

Contribution ID: 63

Type: **not specified**

An Investigation into the Doped Paratacamite Group of Minerals as Potential Supercon-ducting Materials {nc}

Primary author: BULLARD, ET AL., T. (UES Inc.)

Presenter: BULLARD, ET AL., T. (UES Inc.)

Contribution ID: 73

Type: **not specified**

Tests of by-pass diodes at cryogenic temperatures for the KATRIN magnets

Wednesday 19 June 2013 09:00 (1h 30m)

Primary author: GIL, ET AL., W. (Karlsruhe Institute of Technology)

Presenter: GIL, ET AL., W. (Karlsruhe Institute of Technology)

Session Classification: LTS, HTS, and Novel Superconductors - AC Loss, Stability and Properties III

Contribution ID: 74

Type: **not specified**

Recent Progress and Tests of Radiation Resistant Impregnation Materials for Nb₃Sn Coils

Wednesday 19 June 2013 09:00 (1h 30m)

Primary author: BOSSERT, ET AL., R. (Fermi National Accelerator Laboratory)

Presenter: BOSSERT, ET AL., R. (Fermi National Accelerator Laboratory)

Session Classification: LTS, HTS, and Novel Superconductors - AC Loss, Stability and Properties III

Contribution ID: 78

Type: **not specified**

New processing methods for niobium SRF resonators for maximization of quality factor for CW applications.

Wednesday 19 June 2013 10:30 (15 minutes)

Primary author: GRASELLINO, ET AL., A. (Fermilab)

Presenter: GRASELLINO, ET AL., A. (Fermilab)

Session Classification: SRF Materials

Contribution ID: 79

Type: **not specified**

Mechanical properties of niobium tube with tube bulge test for superconducting RF cavities

Wednesday 19 June 2013 10:45 (15 minutes)

Primary author: KIM, ET AL., H.S. (The Ohio State University)

Presenter: KIM, ET AL., H.S. (The Ohio State University)

Session Classification: SRF Materials

Contribution ID: **80**

Type: **not specified**

"Fabrication of fine-grain seamless Nb tube for SRF cavities"

Wednesday 19 June 2013 11:00 (15 minutes)

Primary author: BALACHANDRAN, ET AL., S. (Texas A&M University)

Presenter: BALACHANDRAN, ET AL., S. (Texas A&M University)

Session Classification: SRF Materials

Contribution ID: 81

Type: **not specified**

Surface morphologies and topographies of welded areas and HAZ of untreated and treated niobium electropolished samples studied by optical microscopy and profilometry for SRF applications

Wednesday 19 June 2013 11:15 (15 minutes)

Primary author: SUMPTION, ET AL., M. (The Ohio State University)

Presenter: SUMPTION, ET AL., M. (The Ohio State University)

Session Classification: SRF Materials

Contribution ID: 82

Type: **not specified**

"Single-pass" superconducting radio-frequency cavities

Wednesday 19 June 2013 11:30 (15 minutes)

Primary author: COOLEY, L.D. (Fermilab)

Presenter: COOLEY, L.D. (Fermilab)

Session Classification: SRF Materials

Contribution ID: 83

Type: **not specified**

Improved understanding of the role of strained structure in degradation of surface superconductivity of superconducting RF (radio frequency) quality niobium

Wednesday 19 June 2013 11:45 (15 minutes)

Primary author: SUNG, ET AL., Z. (National High Magnetic Field Laboratory)

Presenter: SUNG, ET AL., Z. (National High Magnetic Field Laboratory)

Session Classification: SRF Materials

Contribution ID: 84

Type: **not specified**

Increasing critical current density in Bi-2212 round wires by overpressure processing

Wednesday 19 June 2013 10:30 (15 minutes)

Primary author: HELLSTROM, ET AL., E. (ASC - NHMFL/FSU)

Presenter: HELLSTROM, ET AL., E. (ASC - NHMFL/FSU)

Session Classification: HTS Conductors

Contribution ID: 85

Type: **not specified**

The fabrication of Bi,Pb-2223 thin films from multi-layered precursor films

Wednesday 19 June 2013 10:45 (15 minutes)

Primary author: MATSUMOTO, ET AL., A. (National Institute for Materials Science)

Presenter: MATSUMOTO, ET AL., A. (National Institute for Materials Science)

Session Classification: HTS Conductors

Contribution ID: 86

Type: **not specified**

Distributed torsional strain measurement using embedded Fiber Bragg Gratings array in a 2 nd generation high temperature superconductor tapes.

Wednesday 19 June 2013 11:00 (30 minutes)

Primary author: RAMALINGAM, ET AL., R. (Karlsruhe Institute for Technology)

Presenter: RAMALINGAM, ET AL., R. (Karlsruhe Institute for Technology)

Session Classification: HTS Conductors

Contribution ID: 87

Type: **not specified**

Spatial homogeneity of critical currents in long RE-123 coated conductors

Wednesday 19 June 2013 11:30 (15 minutes)

Primary author: KISS, ET AL., T. (Kyushu University)

Presenter: KISS, ET AL., T. (Kyushu University)

Session Classification: HTS Conductors

Contribution ID: **88**

Type: **not specified**

Mechanical Properties of IBAD-MOCVD-based 2G HTS wire Fabricated on Hastelloy® Substrate

Wednesday 19 June 2013 11:45 (15 minutes)

Primary author: ZHANG, ET AL., Y. (SuperPower Inc.)

Presenter: ZHANG, ET AL., Y. (SuperPower Inc.)

Session Classification: HTS Conductors

Contribution ID: 89

Type: **not specified**

Irradiation imposed degradation of the mechanical and electrical properties of electrical insulation for future accelerator magnets

Wednesday 19 June 2013 13:30 (15 minutes)

Primary author: POLINSKI, ET AL., J. (Wroclaw University of Technology)

Presenter: POLINSKI, ET AL., J. (Wroclaw University of Technology)

Session Classification: Materials Evaluation and Testing Methods

Contribution ID: 90

Type: **not specified**

Some test results of new test facilities installed in radiation control area for investigation on neutron irradiation effect on superconducting properties

Wednesday 19 June 2013 13:45 (15 minutes)

Primary author: NISHIMURA, ET AL., A. (ITER Organization)

Presenter: NISHIMURA, ET AL., A. (ITER Organization)

Session Classification: Materials Evaluation and Testing Methods

Contribution ID: 91

Type: **not specified**

Measurement of the Mechanical Properties of Thin Film Polymers at Cryogenic Temperatures

Wednesday 19 June 2013 14:00 (15 minutes)

Primary author: JOHNSON, ET AL., W. (NASA Kennedy Space Center)

Presenter: JOHNSON, ET AL., W. (NASA Kennedy Space Center)

Session Classification: Materials Evaluation and Testing Methods

Contribution ID: 92

Type: **not specified**

Characterization of Insulating Coatings for Wind-and-React Coil Fabrication

Wednesday 19 June 2013 14:15 (45 minutes)

Primary author: CHENG, ET AL., D.W. (Lawrence Berkeley National Laboratory)

Presenter: CHENG, ET AL., D.W. (Lawrence Berkeley National Laboratory)

Session Classification: Materials Evaluation and Testing Methods

Contribution ID: 94

Type: **not specified**

[Invited] Comparisons of the grain boundary chemistry of Ta and Ti doped high Jc Nb₃Sn strand by atomic resolution microscopy

Wednesday 19 June 2013 13:30 (30 minutes)

Primary author: SUNG, ET AL., Z. (National High Magnetic Field Laboratory)

Presenter: SUNG, ET AL., Z. (National High Magnetic Field Laboratory)

Session Classification: LTS Conductors

Contribution ID: 96

Type: **not specified**

Development of Tube Type Nb₃Sn Conductor and its Application

Wednesday 19 June 2013 14:15 (15 minutes)

Primary author: PENG, ET AL., X. (Hyper Tech Research Inc.)

Presenter: PENG, ET AL., X. (Hyper Tech Research Inc.)

Session Classification: LTS Conductors

Contribution ID: 97

Type: **not specified**

Correlation of A15 microstructure and transport in Nb₃Sn tube type and Rod-in-Tube (RIT) strands: the influence of heat treatments, Cu/Sn ratio, and filament size

Wednesday 19 June 2013 14:30 (15 minutes)

Primary author: SUMPTION, M. (The Ohio State University)

Presenter: SUMPTION, M. (The Ohio State University)

Session Classification: LTS Conductors

Contribution ID: **98**

Type: **not specified**

Nb₃Sn cables behavior during heat treatment

Wednesday 19 June 2013 09:00 (1h 30m)

Primary author: DURANTE, ET AL., M. (CEA Saclay)

Presenter: DURANTE, ET AL., M. (CEA Saclay)

Session Classification: LTS, HTS, and Novel Superconductors - AC Loss, Stability and Properties II

Contribution ID: 99

Type: **not specified**

"Fabrication of Fine Grain Ta Diffusion Barrier Tube for Nb₃Sn Conductors"

Wednesday 19 June 2013 14:45 (15 minutes)

Primary author: HARTWIG, ET AL., K.T. (Texas A&M University)

Presenter: HARTWIG, ET AL., K.T. (Texas A&M University)

Session Classification: LTS Conductors

Contribution ID: **100**

Type: **not specified**

The ITER Pre-Compression Rings - A First in Cryogenic Composite Technology

Thursday 20 June 2013 10:30 (15 minutes)

Primary author: RAJAINMAKI, ET AL., H. (Fusion for Energy)

Presenter: RAJAINMAKI, ET AL., H. (Fusion for Energy)

Session Classification: Polymers, Resins, and Composite Materials at Cryogenic Temperatures

Contribution ID: **101**

Type: **not specified**

Multi-scale analysis and characterisation of the ITER PRE-COMPRESSSION RINGS

Thursday 20 June 2013 10:45 (15 minutes)

Primary author: FOUSSAT, ET AL., A. (ITER Organisation)

Presenter: FOUSSAT, ET AL., A. (ITER Organisation)

Session Classification: Polymers, Resins, and Composite Materialsat Cryogenic Temperatures

Contribution ID: **102**

Type: **not specified**

Low-Temperature Mechanical Properties of Glass/Epoxy Laminates

Thursday 20 June 2013 11:00 (15 minutes)

Primary author: REED, ET AL., D. (Cryogenic Materials, Inc.)

Presenter: REED, ET AL., D. (Cryogenic Materials, Inc.)

Session Classification: Polymers, Resins, and Composite Materials at Cryogenic Temperatures

Contribution ID: **103**

Type: **not specified**

Essential Design, Construction and Test Elements of ITER Axial Insulating Breaks

Thursday 20 June 2013 11:15 (15 minutes)

Primary author: RODRIGUEZ MATEOS, ET AL., F. (Advanced Cryogenic Materials)

Presenter: RODRIGUEZ MATEOS, ET AL., F. (Advanced Cryogenic Materials)

Session Classification: Polymers, Resins, and Composite Materials at Cryogenic Temperatures

Contribution ID: 105

Type: **not specified**

Mechanical behaviors of hyperbranched epoxy resin toughened bisphenol F epoxy resin for cryogenic applications

Thursday 20 June 2013 11:45 (15 minutes)

Primary author: LI, ET AL., J. (Key Laboratory of Cryogenics, Technical Institute of Physics and Chemistry, Chinese Academy of Sciences)

Presenter: LI, ET AL., J. (Key Laboratory of Cryogenics, Technical Institute of Physics and Chemistry, Chinese Academy of Sciences)

Session Classification: Polymers, Resins, and Composite Materials at Cryogenic Temperatures

Contribution ID: **107**

Type: **not specified**

PERFORMANCE AND DESIGN OF A ROTATING CRYOGENIC POLYMER SEAL FOR A VARIABLE AREA NOZZLE

Primary author: NARANJO, ET AL., U. (Washington State University)

Presenter: NARANJO, ET AL., U. (Washington State University)

Contribution ID: **108**

Type: **not specified**

[Invited] High-temperature superconducting Conductor on Round Core magnet cables operated at high current ramp rates in background fields of up to 19 T

Thursday 20 June 2013 10:30 (30 minutes)

Primary author: VAN DER LAAN, ET AL., D. (Advanced Conductor Technologies and University of Colorado)

Presenter: VAN DER LAAN, ET AL., D. (Advanced Conductor Technologies and University of Colorado)

Session Classification: High Current HTS Cables and Conductor Composites

Contribution ID: **109**

Type: **not specified**

Design, Fabrication and Testing of Terminations for Helium Gas Cooled Superconducting DC Cable

Thursday 20 June 2013 11:00 (15 minutes)

Primary author: CROOK, ET AL., D. (The Florida State University)

Presenter: CROOK, ET AL., D. (The Florida State University)

Session Classification: High Current HTS Cables and Conductor Composites

Contribution ID: 110

Type: **not specified**

Design of high current superconducting DC power cable using the longitudinal magnetic field configuration

Thursday 20 June 2013 11:15 (15 minutes)

Primary author: MATSUSHITA, ET AL., T. (Kyushu Institute of Technology)

Presenter: MATSUSHITA, ET AL., T. (Kyushu Institute of Technology)

Session Classification: High Current HTS Cables and Conductor Composites

Contribution ID: 111

Type: **not specified**

Design of high current density, oxide - metal composite superconductors with superior stability, stress and strain tolerance for very high field applications

Thursday 20 June 2013 11:30 (15 minutes)

Primary author: OTTO, ET AL., A. (Solid Material Solutions)

Presenter: OTTO, ET AL., A. (Solid Material Solutions)

Session Classification: High Current HTS Cables and Conductor Composites

Contribution ID: 112

Type: **not specified**

Critical current density in REBCO coated conductors in longitudinal magnetic field

Thursday 20 June 2013 11:45 (15 minutes)

Primary author: MATSUSHITA, ET AL., T. (Kyushu Institute of Technology)

Presenter: MATSUSHITA, ET AL., T. (Kyushu Institute of Technology)

Session Classification: High Current HTS Cables and Conductor Composites

Contribution ID: 113

Type: **not specified**

Extraction of local $J_c(B,\theta)$ dependence from measured $I_c(H,\theta)$ characteristics and its use for evaluating self-field effects in REBCO coated conductor devices

Thursday 20 June 2013 12:00 (15 minutes)

Primary author: GRILLI, ET AL., F. (Karlsruhe Institute of Technology)

Presenter: GRILLI, ET AL., F. (Karlsruhe Institute of Technology)

Session Classification: High Current HTS Cables and Conductor Composites

Contribution ID: 114

Type: **not specified**

Effect of thermo-mechanical processing on the material properties at low temperature of a large size Al-Ni stabilized Nb-Ti/Cu superconducting cable

Thursday 20 June 2013 12:15 (15 minutes)

Primary author: LANGESLAG, ET AL., S. (CERN & University of Twente)

Presenter: LANGESLAG, ET AL., S. (CERN & University of Twente)

Session Classification: High Current HTS Cables and Conductor Composites

Contribution ID: 115

Type: **not specified**

[Invited] Critical Current Density of Multifilamentary High Performance MgB₂ Wires

Thursday 20 June 2013 13:30 (30 minutes)

Primary author: SUMPTION, ET AL., M. (The Ohio State University)

Presenter: SUMPTION, ET AL., M. (The Ohio State University)

Session Classification: MgB₂ Precursors, Bulk, Wires, Tapes, and Cables

Contribution ID: 116

Type: **not specified**

Improvement of critical current properties in internal Mg diffusion processed MgB₂ wires

Thursday 20 June 2013 14:00 (15 minutes)

Primary author: KUMAKURA, ET AL., H. (National Institute for Materials Science)

Presenter: KUMAKURA, ET AL., H. (National Institute for Materials Science)

Session Classification: MgB₂ Precursors, Bulk, Wires, Tapes, and Cables

Contribution ID: 117

Type: **not specified**

Enhancement of Critical Currents wires of MgB₂ using different sheath materials

Thursday 20 June 2013 14:15 (15 minutes)

Primary author: SOBRERO, ET AL., C. (ANPCyT - CNEA)

Presenter: SOBRERO, ET AL., C. (ANPCyT - CNEA)

Session Classification: MgB₂ Precursors, Bulk, Wires, Tapes, and Cables

Contribution ID: 118

Type: **not specified**

Enhanced superconducting properties of MgB₂ multifilamentary wires and tapes

Thursday 20 June 2013 14:30 (15 minutes)

Primary author: MA, ET AL., Y. (Institute of Electrical Engineering, Chinese Academy of Sciences)

Presenter: MA, ET AL., Y. (Institute of Electrical Engineering, Chinese Academy of Sciences)

Session Classification: MgB₂ Precursors, Bulk, Wires, Tapes, and Cables

Contribution ID: 119

Type: **not specified**

Development of MgB₂ superconductor wire and coils for practical applications at Hyper Tech Research

Thursday 20 June 2013 14:45 (15 minutes)

Primary author: DOLL, ET AL., D. (Hyper Tech Research, Inc.)

Presenter: DOLL, ET AL., D. (Hyper Tech Research, Inc.)

Session Classification: MgB₂ Precursors, Bulk, Wires, Tapes, and Cables

Contribution ID: 122

Type: **not specified**

Nature of pinning mechanism in Al and C co-doped MgB₂ superconductors

Thursday 20 June 2013 13:30 (15 minutes)

Primary author: SHAHABUDDIN, ET AL., M. (King Saud University)

Presenter: SHAHABUDDIN, ET AL., M. (King Saud University)

Session Classification: Pinning and Critical Currents in Bulk and Thin Films

Contribution ID: 123

Type: **not specified**

Pinning centers in bulk MgB₂ with enhanced grain connectivity

Thursday 20 June 2013 13:45 (15 minutes)

Primary author: PRIKHNA, T. (Institute for Superhard Materials of the National Academy of Sciences of Ukraine)

Presenter: PRIKHNA, T. (Institute for Superhard Materials of the National Academy of Sciences of Ukraine)

Session Classification: Pinning and Critical Currents in Bulk and Thin Films

Contribution ID: 124

Type: **not specified**

ZrB₂, TiB₂, B₄C and C Doping in MgB₂ Thin Films

Thursday 20 June 2013 14:00 (15 minutes)

Primary author: SUSNER, ET AL., M.A. (The Ohio State University)

Presenter: SUSNER, ET AL., M.A. (The Ohio State University)

Session Classification: Pinning and Critical Currents in Bulk and Thin Films

Contribution ID: 128

Type: **not specified**

Effect of cryogenic treatment on the wear behavior of brass

Primary author: WANG, ET AL., S. (Technical Institute of Physics and Chemistry, Chinese Academy of Sciences)

Presenter: WANG, ET AL., S. (Technical Institute of Physics and Chemistry, Chinese Academy of Sciences)

Contribution ID: 130

Type: **not specified**

Magnetic properties measurement and discussion of an amorphous power transformer core at room and liquid nitrogen temperature

Primary author: PRONTO, ET AL., A.G. (CTS-Centro de Tecnologia e Sistemas)

Presenter: PRONTO, ET AL., A.G. (CTS-Centro de Tecnologia e Sistemas)

Contribution ID: 131

Type: **not specified**

Manifestation of an acceptor resonant state in transport and bands structure in a far-infrared detector HgTe/CdTe superlattice

Tuesday 18 June 2013 11:45 (30 minutes)

Primary author: NAFIDI, ET AL., A. (Laboratory of Condensed Matter Physics and Nanomaterials for Renewable Energy, University Ibn Zohr)

Presenter: NAFIDI, ET AL., A. (Laboratory of Condensed Matter Physics and Nanomaterials for Renewable Energy, University Ibn Zohr)

Session Classification: Pnictides and Bulk REBCO

Contribution ID: 132

Type: **not specified**

Announcement for ICMC Presenters for submission of Orals and Posters for ON-LINE presentation

Presenters: TEN KATE, Herman (CERN); WALSH, Robert (Florida State University)

Contribution ID: 133

Type: **not specified**

Rheological behavior and cryogenic properties of cyanate ester/epoxy insulation material for fusion superconducting magnet

Wednesday 19 June 2013 09:00 (1h 30m)

Presenter: Z.X. WU, ET AL. (Techn. Inst. of Physics and Chemistry, Chinese Academy of Sciences)

Session Classification: LTS, HTS, and Novel Superconductors - AC Loss, Stability and Properties III