### ICMC-2013, the International Cryogenics Materials Conference



# **Report of Contributions**

Selection and Properties of Struct  $\cdots$ 

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

ICMC-2013, the  $\cdots ~/$  Report of Contributions

ICMC Awards

Contribution ID: 1

Type: not specified

### **ICMC** Awards

Wednesday 19 June 2013 08:00 (15 minutes)

Session Classification: ICMC Awards and Plenary

Review of specimen heating in m ...

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

Cryogenic Properties of Alumina ···

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

Flux Pinning Engineering for Ap  $\cdots$ 

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 ICMC-2013, the · · · / Report of Contributions

Strain and magnetic field respons ...

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

Epoxy Impregnation as Mechanic ····

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

Fabrication and Observations of a  $\,\cdots\,$ 

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

Large-scale shear tests of 3x1 arr …

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

ICMC-2013, the · · · / Report of Contributions

Evaluation of Interlaminar Shear ···

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

Fatigue and Fracture Properties of …

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

ICMC-2013, the  $\cdots ~$  / Report of Contributions

Effect of microstructure on high-...

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

ICMC-2013, the  $\cdots ~/$  Report of Contributions

Fundamental Study of Irradiation ···

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

ICMC-2013, the · · · / Report of Contributions

Analyses of heterogeneous defor ...

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

Physical properties of Al2O3/ZrO  $\, \cdots \,$ 

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. (Techincal Institute of Physics and Chemistry)Presenter: HAN, ET AL., Y. (Techincal Institute of Physics and Chemistry)Session Classification: Conductors, Structures and Properties III

Enhancement in thermoelectric p …

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

Critical current anisotropy in cle  $\cdots$ 

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

Pathways to improved grain con ...

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

Isotropic high critical current den …

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

ICMC-2013, the ··· / Report of Contributions

Remarkable influence of heat tre ...

Contribution ID: 40

Type: not specified

### Remarkable influence of heat treatment in structural, electrical and magnetic properties in (Y1-xNdx)SrBaCu3O6+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

[Invited] Estimation of uncertain ...

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

Welded tie plate feasibility study …

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

Effect of stress ratio on high-cycle …

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

ICMC-2013, the · · · / Report of Contributions

Stress-induced martensitic transf ...

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

Cryogenic Mechanical Properties ····

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

ICMC-2013, the · · · / Report of Contributions

[Invited] Analysis of temperature ···

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

ICMC-2013, the  $\cdots ~/$  Report of Contributions

3-D Homogeneization: a new tec ···

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

AC losses in CORC cables measu ...

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

Magnetic Shielding Measuremen ····

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

Minimum Quench Energy of High …

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

Thermal conductivity measurem ...

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

ARPES-parameterized Hubbard a ...

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

An Investigation into the Doped P  $\,\cdots\,$ 

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.)

Tests of by-pass diodes at cryoge ...

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

Recent Progress and Tests of Rad ...

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
ICMC-2013, the  $\cdots ~$  / Report of Contributions

New processing methods for niob ...

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: GRASSELLINO, ET AL., A. (Fermilab)Presenter: GRASSELLINO, ET AL., A. (Fermilab)Session Classification: SRF Materials

Mechanical properties of niobium ···

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

"Fabrication of fine-grain seamless …

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

Surface morphologies and topogr ...

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

"Single-pass" superconducting ...

Contribution ID: 82

Type: not specified

## "Single-pass" superconducting radio-frequnecy cavities

Wednesday 19 June 2013 11:30 (15 minutes)

Primary author: COOLEY, L.D. (Fermilab)Presenter: COOLEY, L.D. (Fermilab)Session Classification: SRF Materials

Improved understanding of the r ...

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

Increasing critical current density ···

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

The fabrication of Bi,Pb-2223 thin …

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

Distributed torsional strain meas ...

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

Spatial homogeneity of critical cu

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

Mechanical Properties of IBAD-...

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

Irradiation imposed degradation ···

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

Some test results of new test facil ...

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

Measurement of the Mechanical P ....

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

Characterization of Insulating Co $\,\cdots\,$ 

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

[Invited] Comparisons of the gra ...

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

Development of Tube Type Nb3Sn ···

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

Correlation of A15 microstructure ···

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

Nb3Sn cables behavior during he ...

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

"Fabrication of Fine Grain Ta Diff  $\,\cdots\,$ 

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

The ITER Pre-Compression Rings ···

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)

Multi-scale analysis and characte ...

Contribution ID: 101

Type: not specified

#### Multi-scale analysis and characterisation of the ITER PRE-COMPRESSION RINGS

Thursday 20 June 2013 10:45 (15 minutes)

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

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

Low-Temperature Mechanical Pr ···

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.)

Essential Design, Construction a …

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)

Mechanical behaviors of hyberbr ...

Contribution ID: 105

Type: not specified

## Mechanical behaviors of hyberbranched 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)

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)

[Invited] High-temperature supe ...

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

Design, Fabrication and Testing of  $\cdots$ 

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

Design of high current supercond ...

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

Design of high current density, o ...

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

Critical current density in REBCO ····

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

Extraction of local Jc(B, $\theta$ ) depend  $\cdots$ 

Contribution ID: 113

Type: not specified

#### Extraction of local Jc(B, $\theta$ ) dependence from measured Ic(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

Effect of thermo-mechanical proc ...

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

[Invited] Critical Current Density …

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

Improvement of critical current p  $\,\cdots\,$ 

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

Enhancement of Critical Currents ····

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
Enhanced superconducting prope ...

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

Development of MgB2 supercond ...

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

Nature of pinning mechanism in …

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

Pinning centers in bulk MgB2 wi ···

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

ZrB2, TiB2, B4C and C Doping in …

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)

Magnetic properties measuremen ...

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) ICMC-2013, the ··· / Report of Contributions

Manifestation of an acceptor reso ...

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

Announcement for ICMC Presen ····

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)

ICMC-2013, the · · · / Report of Contributions

Rheological behavior and cryoge ...

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