

# List of posters

(by topic and last name)

## 1 - Computational modeling, simulation and design of new materials and processes

2052

Micromechanically motivated damage modelling of ceramic matrix composites

**FINDEISEN Claudio**

*Fraunhofer IWM*

2317

Empirically Derived Model for Alloyed Silicon Carbide Microstructural Evolution

**MARTINEZ Marco**

*Department of Materials Science and Engineering, Texas A&M University*

2266

Research Framework for Microstructure Evolution of Silicon Carbide

**MUÑOZ Elias J.**

*Texas A&M University*

2776

Ceramic Matrix Composites (CMCs): Manufacturing and Microstructural Effects on the Mechanical Properties using the Parametric HFGMC

**YANNAY Omri**

*Tel-Aviv University & RAFAEL*

## 2 - Fibers and preforms

1951

Fabrication of SiC fiber textiles via silicidation treatment of carbon fabrics with SiO gas

**ISTOMINA Elena**

*Institute of Chemistry, Komi Science Centre of the Ural Branch of the Russian Academy of Sciences*

2100

Evaluation of mechanical behavior of fiber fabrics with soft matrix by bending recovery test

**KINUGASA Takahiko**

*Osaka Prefecture University*

1940

The effects of weave bending angles on the integrity of Alumina fibres.

**VALENZUELA Erin**

*University of Birmingham*

## 3 - Interfaces and interphases

2111

Preparation of SiC/SiC minicomposite with ZrO<sub>2</sub> interface and evaluation of interfacial mechanical properties

**IKEDA Kenyu**

*Tokyo University of Science*

2453

Formation of BN interphase for SiCf/SiC composites using flaked BN suspension by electrophoretic deposition method

**KASAKURA Mayuko**

*Tokyo Institute of Technology*

2603

Strengthening and toughening of dense ceramic matrix composites

**LIU Chidong**

*Science and Technology on Thermostructural Composite Materials Laboratory , Northwestern Polytechnical University, Xi'an*

#### **4 - Innovative Design, Advanced Processing, and Manufacturing Technologies processing in composites : Oxid**

1989

Fibre-reinforced oxide ceramics with integrated CNT network produced by ceramic injection moulding

**BÖTTCHER Maïke**

*Department of Lightweight Structures / Polymer Technology, Chemnitz University of Technology*

2073

Formulation of oxide suspensions for liquid processing of ceramic matrix composites

**BOUTENEL Florian**

*Institut Clément Ader, Université de Toulouse, CNRS, IMT Mines Albi, INSA, UPS, ISAE-SUPAERO*

2190

Evolution of the rheological behaviour of an aqueous suspension of geopolymeric precursors during maturation

**DUSSERRE Gilles**

*Université de Toulouse, CNRS, Mines Albi, UPS, INSA, ISAE-SUPAERO*

1864

Development of Ox/Ox composites for LPT components – mechanical properties

**FUKUSHIMA Akira**

*Mitsubishi Heavy Industries Aero Engine, Ltd.*

2374

Reaction assisted flash sintering of Al<sub>2</sub>O<sub>3</sub>-YAG ceramic composites with eutectic composition

**LIU Jinling**

*Southwest Jiaotong University*

2807

Solutions for CMC

**MARRA Livia**

*R&D BAIKOWSKI, France*

2035

Development of Ox/Ox composites for LPT components – Processing and Properties

**NISHIKAWA Kosuke**

*Mitsubishi Heavy Industries, Ltd.*

2102

Evaluation of mechanical properties of Al<sub>2</sub>O<sub>3</sub>/Al<sub>2</sub>O<sub>3</sub> using fiber bundle composites

**YAMAMOTO Shohei**

*Tokyo University of Science*

## 5 - Innovative Design, Advanced Processing, and Manufacturing Technologies processing in non-oxide compo

2133

Effect of material composition and additives on the properties of C/C-SiC composites produced via the transfer/injection moulding and liquid silicon infiltration route

**AHMAD Husam**

*Chemnitz University of Technology, Chair of Composites and Material Compounds, Germany*

2140

High temperature dielectric characterization of SiC-based Ceramic Matrix Composites

**CINTIO Andrea**

*Istituto per i Processi Chimico-Fisici, Consiglio Nazionale delle Ricerche*

2866

Preparation of Core-Shell powders by a fluidized-bed CVD process for ceramic matrix manufacturing

**EL MANSOURI A.**

*LCTS*

2616

LIGHTWEIGHT CERAMIC MATRIX COMPOSITES OF B4C INFILTRATED BY AL-ALLOY

**FARIA Mónica**

*Dept. Materials Eng. & Ceramic, CICECO*

1856

Influence of the pyrolysis process parameters in the production of short fibre-reinforced C/C-SiC composites

**NIER Natalia**

*Chemnitz University of Technology, Germany*

1967

Factorial Design of Experiments for Electrophoretically Deposited Multi-Layered Fibre-Matrix Interphase Coatings

**ROBERTSON Taylor**

*National Research Council of Canada*

1949

Characterization of SiC slurry impregnated SiC/SiC composite fabricated by LSI process

**SEONG Young-Hoon**

*Korea Institute of Energy Research*

1987

Thermosetting injection moulding for shaping of C/C-SiC-ceramics: Influence of flow direction and weld lines

**STILLER Jonas**

*Chemnitz University of Technology - Institute of Lightweight Structures*

2225

Damage accumulative behavior of short carbon fiber reinforced silicon carbide under compression

**TOBATA Yuta**

*Graduated University for Advanced Studies*

1916

Fabrication of C/C-SiC composites by using high-char-yield resin

**YANG Jinhua**

*AECC BIAM*

## 6 - Additive manufacturing of CMCs : 3D printing, laser sintering, etc.

2055

Additive Manufacturing of Silicon Carbide parts

**ARBORE Romain**

*CTTC*

1906

Laser assisted direct consolidation of CMC

**KUNZ Willy**

*Fraunhofer Institute for Ceramic Technologies and Systems IKTS*

1726

The influence of sintering temperature on microstructure and properties of Al<sub>2</sub>O<sub>3</sub> ceramic via 3D stereolithography printing technology

**LI He**

*Northwestern Polytechnical University*

2203

Directed Energy Deposition of eutectic oxide ceramics: from powder to near net shape parts

**ODINOT Julie**

*DMAS, ONERA, Université Paris Saclay, F-92322, Châtillon, France*

## 7 - Materials for Extreme Environments: Ultrahigh Temperature Ceramics (UHTCs) and Nano-laminated Ternary

2051

Chemical modification of refractory carbides in a gas atmosphere of SiO<sub>2</sub>

**BELYAEV Ilya**

*Institute of Chemistry of Komi SC UB RAS*

2089

The sand-wind erosion behavior of C/SiC and its effect on ablation resistance

**CHENG Su**

*Northwestern Polytechnical University*

2439

Fracture behaviour improvement of ceramic based matrix composites via microstructure architecture (FMs method)

**GHASSEMI KAKROUDI Mahdi**

*University of Tabriz-Iran*

2040

SHS/RMI process for the synthesis of Ti<sub>3</sub>SiC<sub>2</sub>/SiC ceramic matrix composites from macrosized non-powder forms of titanium metal

**ISTOMIN Pavel**

*Institute of Chemistry, Komi Science Centre of the Ural Branch of the Russian Academy of Sciences*

2125

Synthesis of High Purity Yttrium Diborocarbides Powder by High-Energy Ball-Milling and Reactive Spark Plasma

**NGUYEN Van-Quy**

*Powder & Ceramics Division, Engineering Ceramics Department, Korea Institute of Materials Science*

2440

Recent developments in ZrB<sub>2</sub>-based composites research in Iran

**SHAHEDI ASL Mahdi**

*University of Mohaghegh Ardabili*

## **8 - Advanced Thermal and Environmental Barrier Coatings: Processing, Properties, and Applications**

2130

Development of Environmental Barrier Coatings on Ceramic Matrix Composites assisted by LASAT

**GUIPONT Vincent**

*MINES ParisTech - PSL / Centre des Matériaux*

1742

Thermodynamic calculation of CVD Yttrium Silicate from Y<sub>2</sub>O<sub>3</sub>-CH<sub>3</sub>SiCl<sub>3</sub>-CO<sub>2</sub>-H<sub>2</sub>-Ar System

**HE Fang**

*Northwestern Polytechnical University*

2070

Self-healing behavior of Mullite-based ceramics for environmental barrier coatings

**LEE Kee Sung**

*Kookmin University*

2310

Processing of dense rare-earth silicates used as environmental barrier coating

**MOURET Thibault**

*Laboratoire des Composites ThermoStructuraux*

2027

Fabrication of Yb<sub>2</sub>Si<sub>2</sub>O<sub>7</sub>/SiC Composites for Self Healing EBC material

**NAKAYAMA Tadachika**

*Nagaoka Univ of Tech*

2265

Interplay between phase stability, segregation and local stresses in nanocrystalline entropy stabilized transition metal oxides

**NALLATHAMBI Varatharaja**

*Research Scholar*

2606

Investigation and Process Development of Electroplated NiCo-Al<sub>2</sub>O<sub>3</sub> Alloy Composites

**SANPO Noppakun**

*SCG Chemicals Co., Ltd*

2030

Development of hafnia-based materials as potential environmental and thermal barrier for thruster application

**SÉVIN Louise**

*ONERA/DMAS – University of Paris-Saclay, F-92322 Châtillon, France.*

## **9 - Polymer Derived Ceramics and Composites (incl. Reinforced foams)**

2227

Dielectric property and interfacial polarization of polymer-derived amorphous silicon carbonitride

**CAO YEJIE**

*Northwestern Polytechnical University*

## **10 - Carbon/carbon composites**

2255

Tensile strength and creep behavior of carbon-carbon composites at elevated temperature

**GOTO Ken**

*Institute of Space and Astronautical Science, Japan Aerospace Exploration Agency*

2132

Microstructural evolution of high texture and medium texture pyrolytic carbon at different temperatures

**WANG Tiyuan**

*Northwestern Polytechnical University*

2449

Effect of the deposition conditions on the microstructure of pyrolytic carbon and densification of C/C composites fabricated by ICVI

**WANG Yalei**

*State Key Laboratory of Powder Metallurgy, Central South University, Changsha 410083, China*

2446

Ablation behavior of carbon/carbon composite modified by novel solid solution boride-carbide

**ZENG Yi**

*State Key Laboratory of Powder Metallurgy, Central South University, Changsha 410083, PR China*

## **11 - Thermomechanical behavior and performance of Composites**

2016

Thermomechanical characterization of 3D needle Carbon/Carbon composites at very high temperature for space application.

**BILLARD Capucine**

*LCTS*

1832

Fatigue behavior and damage analysis of a LSI based 2.5D C/C-SiC composites

**LI Yang**

*Powder Metallurgy Research Institute, Central South University, China*

2632

Curved Beam Strength of Silicon Melt Infiltrated SiC/SiC Composites

**TOMA Liviu**

*Fraunhofer ISC*

2695

Building the silicon carbide nanowire network on the surface of carbon fibers: enhanced interfacial adhesion and high-performance wear resistance

**YEWEI FU**

*Northwestern Polytechnical University, xi'an 710072, China*

## **12 - Nondestructive Testing and Health Monitoring of Ceramic Composites**

1947

Tensile testing Ceramic Matrix Composites with in-situ Computed Tomography and Acoustic Emissions for real time crack detection and imaging

**BADRAN Aly**

*University of Colorado Boulder*

1715

Modeling nonlinear shear behaviors of 2D C/SiC z-pinned joint

**CHEN Chao**

*Northwestern Polytechnical University*

2093

Determination of the stiffness matrix of ceramic matrix composites by ultrasonic time-of-flight measurements

**FINDEISEN Claudio**

*Fraunhofer Institute for the Mechanics of Materials Freiburg*

1751

Load distribution of 2D C/SiC z-pinned joints prepared by chemical vapour infiltration

**LIU XIAOYING**

*Northwestern Polytechnical University*

2301

Electrical resistance methodologies for damage identification in CMCs

**MORSCHER Gregory**

*University of Akron*

2390

Modeling shear failure mechanisms of 2D C/SiC composite under off-axis loading

**YI Zhang**

*Science and Technology on Thermostructural Composite Materials Lab., Northwestern Polytechnical University*

1645

Mechanical properties and failure mechanisms of 2D SiC/SiC composite with in-situ grown

**ZHAO DONGLIN**

*Northwestern Polytechnical University*

### **13 - Joining & integration**

2307

"RM-Wrap" joining technology for CMC

**FERRARIS MONICA**

*POLITECNICO di Torino -Italy*

2308

Joining of SiC/SiC for nuclear energy production

**FERRARIS MONICA**

*POLITECNICO di Torino -Italy*

2773

Experimental study on the feasibility of using liquid Si-Ti alloys for joining CMC via reactive infiltration process

**GIURANNO Donatella**

*CNR-ICMATE, Genoa - Italy*

2858

Wetting behavior and reactivity of liquid Si-10Zr alloy in contact with glassy carbon and SiC

**GIURANNO Donatella**

*CNR-ICMATE, Genoa - Italy*

2517

Functionally Graded energy recyclable ceramic-metal composites and its Applications

**KWON Hansang**

*Pukyong National University*

2250

INTERFACIAL REACTION KINETICS AND MICROSTRUCTURAL EVOLUTION OF C/SiC COMPOSITES TO TITANIUM ALLOY JOINTS

**TÜLBEZ Simgé**

*Department of Metallurgical and Materials Engineering, Middle East Technical University, Roketsan Industries*

#### **14 - CMC Applications in Space Transportation**

2049

Development of C/C-SiC regenerative combustor wall for scramjet engine with cooling channel

**KIM Seyoung**

*Korea Institute of Energy Research*

2077

Structural Analysis and Pressure Test for C/SiC Regenerative Cooled Hypersonic Combustor Panel

**KIM Soo-Hyun**

*Korea Institute of Energy Research*

#### **15 - CMC Applications in Terrestrial Transportation and Industrial Systems**

1834

Effect of powdered h-BN as addition on the microstructure and properties of C/C composites fabricated by chemical vapor infiltration

**LI Yang**

*Powder Metallurgy Research Institute, Central South University*

#### **16 - CMC Application in aeronautic engines**

1320

Micro-Mechanical Testing of the BN Interlayer in SiCf/SiC Composites for Aero-Propulsion

**DE MEYERE Robin**

*University of Oxford*

#### **17 - Advanced materials for sustainable energy (incl. nuclear fission and fusion, industrial gas turbines)**

1835

Thermal conductivity estimation of fully ceramic microencapsulated pellets with ZrO<sub>2</sub> as simulated particles

**DEWI Ariyani Kusuma**

*University of Fukui*

1830

Direct Decomposition of Nitrous Oxide to Nitrogen and Oxygen Using C-type Ytterbium Oxide-Cobalt Oxide Catalysts

**NUNOTANI Naoyoshi**

*Department of Applied Chemistry, Faculty of Engineering, Osaka University*

2631

A new silicon carbide matrix for fully ceramic microencapsulated fuels

**ROHIT Malik**

*Functional Ceramics Laboratory, Department of Materials Science and Engineering, The University of Seoul, Seoul 02504, Republic of Korea*

2245

Fracture behavior of uncoated SiC woven fabric composites with SiC matrix incorporating BN particles

**SHIMODA Kazuya**

*National Institute for Materials Science*