ICMR and NHSC Summer School on Materials and Structures for Hypersonic Flight
Lab Group and Poster Sessions

GROUP 1(Last names A-K): Poster will be presented Wednesday, August 17

Appleby, Matt *University of Akron*
Environmental Durability of Thermo-mechanical Gradients on EBC coated CMCs

Ben Ramdane, Camelia *Polytech Marseille, French Engineering School*
Regarding the current environmental context; decreasing the greenhouse effect gases exhausted by turbo engines is an absolute necessity.

Berger, Jonathan *University of California, Santa Barbara*
The Stiffness and Strength of a Tailorable Thermal Expansion Lattice

Bocchini, Peter *University of Delaware*
Aging Study of Precipitate Strengthened Al-Zr-Sc-Er and Al-Zr-Sc-Er-Si Alloys

Bodiford, Nelli *University of Texas, Arlington*
Microstructure and properties through crystalline approximants of SiCO composites for Ultra-High Temperature Applications using AIRSS structure search algorithm

Brundidge, Clinique *University of Michigan, Ann Arbor*
In-situ Fatigue Damage Techniques for Defense Critical Advanced Materials

Flynn, Katherine *Stony Brook University*
Thermally Sprayed Gadolinium Zirconate for High Temperature Thermal Protection

Gaballa, Osama *Iowa State University*
Processing and consolidation of ultra-refractory 4TaC-HfC at relatively low temperatures

Gillen, Andrew *Australian Nuclear Science and Technology Organization*
Ultra High Temperature Materials for Hypersonic and Extreme Environment Applications

Goswami, Arindom *University of Texas, Arlington*
A diffusionless transformation path of the spinel structure: opportunities to synthesize metastable ceramic materials at high pressures

Goverapet Srinivasan, Sriram *Pennsylvania State University*
Investigation of the hyperthermal collisions of atomic oxygen with graphene using the ReaxFF reactive force field

Guimarães, Nara *Universidade Estadual Paulista*
Characterizarion and Thermodynamic of TBC made of ZrO2-Y2O3-Nb2O5

Hu, Liangfa *Tsinghua University*

Effect of Porosity and Pore Size on Room Temperature Thermal Conductivity and Mechanical Properties of Porous Ti2AlC

Hussein, Ahmed *Cairo University*
Influence of surface slip-step on dislocation-surface interaction in FCC metals

Hwang, Junyeon *University of North Texas*
Microstructural evolution in in situ TiC / nickel matrix composite by laser process

Kazemzadeh Dehdashti, Maryam *Missouri University of Science and Technology*
Effect of Transition Metal Additives on the Oxidation Behavior of ZrB2

Kitazawa, Rumi *University of Tokyo*
Stress distribution in thermally grown oxide of thermo-mechanical fatigue tested thermal barrier coating system

Knappschneider, Arno *Technische Universitaet Darmstadt*
TBA

Kothalkar, Ankush Dilip *Texas A&M University, College Station*
Processing and Characterization of MAX Phase-Shape Memory Alloy(NiTi) Composites for Multifunctional Hybrid Structures

Kouchmeshky, Babak *University of Texas, Arlington*
Quantifying thermal transport for ultra-high-temperature ceramics

GROUP 2 (Last names L-Z): Poster will be presented Tuesday, August 23

Ma, Xiao *Purdue University*
Microstructural control during in-situ synthesis of (AlN+Mg2Si)/Mg matrix composites

Maglasang, Jonathan *Mindanao State University, Iligan Institute of Technology*
TBA

Mwania, Munuve *University of Texas, Arlington*
Thermal Decomposition Behavior: Pre-ceramic Polymers to SiCO Coatings and Powders

Nag, Soumya *University of North Texas*
Next Generation High Strength Titanium: Atomic Scale Investigations

Poerschke, David *University of California, Santa Barbara*
Self-healing Matrices for SiC Matrix Ceramic Matrix Composites

Rajan, Varun *University of California, Santa Barbara*
Matrix Processing Routes for SiC/SiC Composites

Rossol, Michael *University of California, Santa Barbara*
Notch Sensitivity of C/SiC and SiC/SiC Composites

Rudianto, Haris *Pukyong National University*
Influenced of Al-9Si-20SiC(12μm) on Sintering Behavior of a Hypereutectic of Aluminum-Silicon Composite Powder

Sagapuram, Dinakar *Purdue University*
Potential application of large-strain extrusion machining in superplastic titanium sheet production

Shang, Shen *University of Akron*
Inverse Identification of a micromechanics and fracture mechanics based damage law

Shang, Xu *Iowa State University*
Composite Panel Bond Line Integrity

Shaw, John *University of California, Santa Barbara*
Notch Sensitivity of C/SiC and SiC/SiC Composites

Smith, Craig *Ohio Aerospace Institute*
Correlating Damage in SiC/SiC Ceramic Matrix Composites to Changes in Electrical Resistance

Strong, Kevin *University of Washington*
Controlled Volume Fraction Si3N4/SiC Nanocomposites from Polymer-Derived Ceramics

Tan, Winnie *Purdue University*
Design of Thermal Protection Coatings using Suspension Plasma Spray

Tiwary, Chandra Sekhar *Indian Institute of Science, Bangalore*
Development of metal–intermetallic based eutectic alloys for next generation high temperature applications

Tracy, Jared *University of Michigan*
Full-field Strain Mapping of Ceramic Matrix Composites through In-Situ Micro-Digital Image Correlation

Ushakov, Sergey *University of California, Davis*
Instrumentation developments for calorimetry at ultra-high temperature

Wiesner, Valerie *Purdue University*
Fabricating Complex-Shaped Ceramic Components by Injection Molding Ceramic Suspension Gels at Room Temperature

Xu, Wenbo *University of California, Santa Barbara*
TBA

Zargar. Hamidreza *University of British Columbia*
Carbide-Carbide composites: Process engineering and characterization