

## Material Advantage Contest Award Winners 2011

### Material Advantage Graduate Student Poster Competition (*Organized by the Ceramic Educational Council*)

#### 1<sup>st</sup> Place

Julie Drexler

The Ohio State University

"Mitigation Mechanisms for CMAS (Sand) Resistant Thermal Barrier Coating Materials"

#### 2<sup>nd</sup> Place

Jin Luo

University of Kentucky

"Integration of a microfluidic oxygen sensor into LTCC for in-vitro diagnostics"

#### 3rd Place

Haruhiko Atsumi

Osaka University

"The Characteristics of High Strength and Lead-Free Machinable  $\alpha$ - $\beta$  Duplex Phase Brass Cu-40Zn-Cr-Fe-Sn-Bi Alloy"

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#### 1<sup>st</sup> Place

Rafael A. Soler-Crespo

University of Puerto Rico - Mayagüez Campus

"Electrochemical dealloying of aluminum-zinc alloys: formation of macroporous structures"

#### 2<sup>nd</sup> Place

Nick Fries

Iowa State University

"Study of the Effect of Wheel Temperature on Microstructure of Nd<sub>2</sub>Fe<sub>14</sub>B Melt-Spun Ribbons"

#### 3rd Place

Laura Van Steenhuyse

Iowa State University

"Characterizing the Flow Behavior of Aqueous Nanopowder Suspensions"

#### Honorable Mention

Blake Whitley

University of Alabama

"Optimization of Advanced Polystyrene Nanosphere Lithography to form Nanorods for Improved Solar Absorbers and Graded Media Applications"

Honorable Mention

Blair Wendt

Colorado School of Mines

“Utilizing Alginates to Create Green Chemistries for Gel Casting”

**Material Advantage Undergraduate Student Speaking Contest (*Organized by the Ceramic Educational Council*)**

Winner

Parul Koul

University of Illinois, Urbana-Champaign

"Hex Mesh Degradation Investigation"

1<sup>st</sup> Runner-Up

John Solomon

Iowa State University

"A Biologically Active Ceramic - Ceramic Composite for Use in Orthopedic Applications"

2<sup>nd</sup> Runner-Up

1. Charles Forman  
Virginia Tech  
"Surface Characterization of a High-Performing Superconducting Radiofrequency Niobium Accelerator Cavity"
2. Ian Zeller  
Clemson University  
"Modification of PVDF Fibers with PNIPAM Containing Nanogels"

**Material Advantage Ceramic Mug Drop Contest (*Organized by Keramos*)**

Winner – passing @ 60 cm drop

Michelle Gervasio

Virginia Tech

Most Aesthetic Mug

Liz Reidmeyer

Missouri University of Science & Technology