



# Program Highlights

## Special Guest Speakers



### Elizabeth Turner

Elizabeth Turner (MPA, Harvard University, John F. Kennedy School of Government) is Executive Director of SUSTAIN, a non-profit organization that works with industry, government and the international science

community to enhance the nutritive quality of foods consumed by developing country populations. She previously worked as an analyst in the Office of Technology Assessment, U.S. Congress; as a government relations advisor for Schramm & Associates; as professional staff for the House Agriculture Committee, U.S. Congress; as a legislative assistant to Congressman Leon E. Panetta; as an analyst for the Environment and Natural Resources Division of the Congressional Research Service; and as the field coordinator for the Vermont Dairy Herd Improvement Association. Her areas of expertise include public-private partnering, strategic policy design, agriculture and nutrition policy, project development, business development & administration, and government relations.

### Role of Iron Powder in Human Nutrition

- Bioavailability of Elemental Iron Powder Fortificants
- Screening Methods to Predict Iron Powder Efficacy
- Analytical Tests for Grading and Characterizing Iron Powder Bioavailability
- Collaborative Efforts with Iron Manufacturers

### Processing and Properties of Nanograin Ceramic and Metal Materials

- Nanoparticulate Processing Issues
- Chemical Synthesis and Chemically Aided Milling
- Colloidal Processing Approaches
- Organic Removal and Sintering
- Microstructural Characterization



### James Adair

James Adair is Director of the Particulate Materials Center and a Co-Director of the National Science Foundation Center for Ceramics, Composite. He is a Professor in Materials Science and Engineering at The

Pennsylvania State University. His research and teaching interests include nanoscale materials and phenomena, colloid and interfacial chemistry, material synthesis and chemistry, powder characterization, and powder processing.

Dr. Adair received his B.S. in Chemistry and M.S. and Ph.D. in Materials Science and Engineering from the University of Florida. From 1981-1982, he was a Fulbright Post-doctoral Fellow at the University of Western Australia in the Dept. of Soil Science and Plant Nutrition and the Royal Perth Hospital.

Dr. Adair is the author or co-author of over 150 publications, seven patents, and several copyrights on computer software. He is also the co-editor of eight books including the *Handbook of Characterization Techniques for the Solid-Solution Interface*.

## Featured Industry Presentations

- Pathways to Increase Penetration to the Automotive Field—*William Jandeska, GM*
- New Markets for Metal Powder in Rapid Tooling—*Howard Kuhn, Extrude Hone*
- Elemental Irons for Food Fortifications—*Bo Hu, N. A. Höganäs*
- Center for Advanced Vehicular Systems—*Mark Horstemeyer, Mississippi State*
- Forward trends—*Paulo Rosa, DaimlerChrysler*



# CISP Industry Member Meeting

## 20-21 April 2005

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### 20 April 2005

- 9:30 Pre-conference option – Sintering furnace roundtable
- 11:30 Break
- 12:00 Light lunch and registration
- 1:30 Welcome and introductions – Sharon Elder
- 1:45 Polymer/powder interaction during active polymer burnout – Ryan Koseski
- 2:05 Shape loss phenomena during polymer burnout – Kumar Enneti
- 2:25 P/M processing of advanced thermal management components– John Johnson
- 2:45 Microstructural evolution of liquid phase sintering alloys – Jianfeng Guo
- 3:00 Break
- 3:30 Ausforming update – Suren Rao
- 3:40 New markets for metal powder in rapid tooling – Howard Kuhn, ExtrudeHone
- 4:00 Pathways to increase penetration to the automotive field – William Jandeska, GM
- 4:20 The influence of pack pressure on process capability for PIM components – Don Heaney
- 4:40 CISP – status report – Sharon Elder
- 4:50 Projects for next year – Rand German
- 5:00 Financial update – Judy King
- 5:10 Social/poster session
- 6:30 Dinner
- 7:30 Role of iron powder in human nutrition – Elizabeth Turner
- 8:15 Closing – plan for tomorrow

### 21 April 2005

- 7:30 Continental breakfast
- 8:00 Welcome – Rand German
- 8:15 Industrial applications of the master sintering curve to multi-phase material system – Debby Blaine
- 8:35 A model for the press and sinter of fine molybdenum powders – Pranav Garg
- 8:55 Crack detection in green and sintered parts – Eric Hauck
- 9:15 Pressing to full density through dynamic compaction – Guneet Sethi
- 9:35 Supersolidus liquid phase sintering – Ravi Bollina
- 9:55 Break and poster session
- 10:20 Elemental irons for food fortifications – Bo Hu, N.A. Höganäs
- 10:40 Center for Advanced Vehicular Systems – Mark Horstemeyer, MS State
- 11:00 Forward trends – Paulo Rosa, DaimlerChrysler
- 11:20 Processing & properties of nanograin ceramic and metal materials – Jim Adair
- 12:00 Realities of nanoscale particles – Rand German
- 12:40 Lunch
- 1:45 Industry Council meeting
- 3:00 Meeting adjourned

# Registration Form

Register me for the CISP Industry Member Meeting, 20-21 April 2005, Atherton Hotel, 125 South Atherton Street, State College, PA

Name

Company

Address

City

State/Province

Country

Telephone

Fax

E-mail

## 20-21 April 2005

I will attend:      Both Days      20 April 2005      21 April 2005

Register on the web at: <http://www.cisp.psu.edu/events/IMMreg.html>

Fax or mail completed registration form by 6 April 2005 to:

Sharon L. Elder  
Executive Director

Center for Innovative Sintered Products  
Penn State University, 147 Research West  
University Park, PA 16802

Fax: 814-863-8211  
Phone: 814-865-1914 (inquires)  
E-mail: [CISP@psu.edu](mailto:CISP@psu.edu)



**ACCOMMODATIONS:** There are a limited number of overnight rooms available for this meeting on a first-come, first-served basis for Wednesday, 20 April 2005. These rates are based on single/double occupancy and are subject to a room tax. Please make individual reservations at the hotel of your choice before 10 March 2005. Reservations received after that date will be accepted only if space is available.

### Atherton Hotel

125 S. Atherton St.  
Phone: 800-832-0132  
E-mail: [atherton@statecollege.com](mailto:atherton@statecollege.com)  
\$75.00 single or \$85.00 double

### Nittany Lion Inn

200 West Park Ave.  
Phone: 800-233-7505  
E-mail: [pshs@pshs.psu.edu](mailto:pshs@pshs.psu.edu)  
\$95.00 single or \$105.00 double

For additional information on the meeting, hotel accommodations and detailed maps visit our web site : [www.cisp.psu.edu](http://www.cisp.psu.edu)

## Map & Directions



**Center for Innovative Sintered Products**  
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