



MALCOLM G. McLAREN CENTER FOR CERAMIC RESEARCH

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AGENDA

Semiannual Review Meeting Ceramic & Composite Materials Center An NSF Multi-University I/UCRC The University of New Mexico and Rutgers University

TUESDAY, OCTOBER 8, 2002

8:00 Registration - Continental Breakfast - Fiber Optics Lobby

8:20 Welcome and Overview, *D. E. Niesz*

8:30 POWDER PROCESSING

- The Effect of Process Shear on the Microstructure and Properties of Ceramics, R. Haber
- Anisotropic Shrinkage of Tape Cast Alumina, W. R. Cannon, M. J. Matthewson, J. Patwardhan
- Binder Removal from Multilayer Ceramics, S. Danforth, W. R. Cannon, D. Niesz
- Building the Virtual Center: Keys to Effective Collaboration and Communication, H. Crawford

9:50 Coffee Break

- Mixedness Engineering for New Materials Processing, R. Riman
- Measurement and Control of Water in Chemically Derived Ceramics, R. Riman

10:50 VAPOR PHASE PROCESSING

- Mesostructured Oxide Materials, A. Datye
- Aerosol Synthesis of Complex Oxides, T. Ward, A. Dayte
- Plasma Torch Generation of Nano-Oxide Particles, J. Phillips

11:40 Comments from A. Schwarzkopf concerning the PSU Particulate Materials Center joining CCMC

11:50 Recognition of Prof. S. George Walters for his outstanding contributions to the Center and to the NSF I/UCRC Program

12:15 Lunch – Busch Dining Hall (Rooms A & B)

1:15

ELECTRONIC CERAMICS AND COMPOSITES

- Integration of Ordered Nanoporous Anodic Aluminum Oxide into Micro-fabrication Processes, P. Atanassov
- High Solids Loading of AlN in Polymers, W. R. Cannon, D. Shanefield (Professor Emeritus), E. Lee
- Nanostructured Amorphous Manganese- and Iron-Based Intercalation Compounds, J. Xu
- Solid State NMR Studies of Battery Electrode Materials, S. Greenbaum
- Non-Platinum Electrocatalysts for Fuel Cell Applications, P. Atanassov
- Experimental and FE Modeling Study of Co-sintering Multilayer, Multifunctional Ceramic Structures, J. Matthewson, W. R. Cannon

3:15

SOL GEL SCIENCE AND TECHNOLOGY

- Porous and Composite Nanostructures, J. Brinker, D. Doshi,

3:35

STRUCTURAL CERAMICS

- Effect of Gas Phase Composition in Pores During Densification, J. Matthewson, D. Niesz

4:05 **POSTER SESSION, CCR Lobby**

6:00 **Reception, Four-Points, Sheraton**

7:00 **Buffet Dinner, Four-Points, Sheraton**

WEDNESDAY, OCTOBER 9, 2002

8:30 Continental Breakfast, Four Points Sheraton

9:00 CCMC Industrial Advisory Board Meeting, Four Points Sheraton

- Overview of the Particulate Materials Center (IUCRC) at Pennsylvania State University, J. Adair
- Discussion of Current Projects and Future Direction

12:00 Adjourn