

SYMPOSIUM C

Material Innovations for High-Performance Building Systems

November 29, 2005

Chairs

John E. Fernandez Massachusetts Institute of Technology
Stephen Selkowitz Lawrence Berkeley National Laboratory
Oral Buyukozturk Massachusetts Institute of Technology
Tom Schwartz Simpson Gumpertz & Heger Inc.

* Invited paper

SESSION C1:

Chair: David S. Ginley
Tuesday Morning, November 29, 2005
Beacon A (Sheraton)

8:30 AM C1.1

A Water-Free, High-Performance Cement Based on Polymer Intercalation and Exfoliation Technologies. Jigar K. Deliwala, Xinguo Kong and Yu Qiao; Department of Civil Engineering, University of Akron, Akron, Ohio.

9:00 AM C1.2

Geometry and Performance of Phononic Noise Abatement Materials. Meredith Alexandra Aronson¹, Dale Clifford² and Pierre Deymier¹; ¹Materials Science and Engineering, University of Arizona, Tucson, Arizona; ²Architecture, University of Arizona, Tucson, Arizona.

9:30 AM C1.3

The UP!house: A new Concept for the Prefabrication of The Single Family Home. Craig Konyk, ¹GSAPP, Columbia University, New York, New York; ²Parsons School of Design, New York, New York.

10:00 AM BREAK

10:30 AM C1.4

Transparent Ormosil Aerogels for Highly Energy Efficient Windows. Duan Li Ou, Wendell E. Rhine, Redoua Begag and Jong Ho Song; R&D, Aspen Aerogel Inc, Northborough, Massachusetts.

11:00 AM C1.5

Formation of TiO₂/TiN/ZrO₂ stacked-films with application to a photocatalytic heat-mirror. Masahisa Okada, Masato Tazawa, Yasusei Yamada, Ping Jin and Kazuki Yoshimura; National Institute of Advanced Industrial Science and Technology, Nagoya, Japan.

SESSION C2:

Chair: David S. Ginley
Tuesday Afternoon, November 29, 2005
Beacon A (Sheraton)

1:30 PM C2.1

Comparison of Traditional and Innovative Condensation Control Strategies in North American Commercial Steel Stud Wall Assemblies Stanley Dmitri Gatland, Building Science, CertainTeed Corporation, Valley Forge, Pennsylvania.

2:00 PM C2.2

Dynamic Architectures: Beginning With Shape Memory Polymers. Billie Faircloth¹ and Ben Dietsch²; ¹School of Architecture, University of Texas at Austin, Austin, Texas; ²Cornerstone Research Group, Dayton, Ohio.