



INVITED SESSION SUMMARY

Title of Session:
Advanced materials integration for energy efficient and sustainable building envelopes

Name, Title and Affiliation of Chair:
Dr. Stefano Fantucci: Politecnico di Torino – Department of Energy
Dr. kos Lakatos: University of Debrecen - Faculty of Engineering
Dr. Miroslav ekon: Slovak University of Technology - Faculty of Civil Engineering

Details of Session (including aim and scope):

The increasing demand for energy efficient and sustainable buildings has determined a growing interest in the development of novel envelope solution based on the smart integration of highly energy efficient materials and components, including super-insulating elements, advanced coatings, solar energy harvesting and active technologies.

The purpose of this session is to provide a framework on the emerging building envelope technologies that are currently under investigations for the next generation buildings and for the deep energy retrofit of the existing buildings.

Topics of primary interest include but are not limited to:

- Super insulating materials
- Advanced Integrated Facades
- Adaptive faades
- Smart glazings
- Phase change materials
- Advanced coatings
- Thermal and moisture buffering materials
- Ventilated Faades
- Low environmental impact materials
- Nanomaterials

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

Website URL of Call for Papers (if any):

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