



CALL FOR PAPERS

Materials: Genetics to Structures

2015 ASME International Mechanical Engineering Congress and Exposition
Houston, Texas, November 13-19, 2015

Architected Multifunctional Materials and Composites

Organized by

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PURPOSE AND SCOPE

Design of new sustainable materials that are durable, lightweight, and multifunctional are commonly inspired by natural composites. However, as engineers we are no longer limited to the natural patterns. We can design our own *architected* materials and composites in the same way that architectural and structural engineers design buildings and various structural systems. These architected materials and composites may perform even better than the ones that already exist in nature. It is envisioned that such new materials and composites will transform the way materials are designed to achieve several engineered properties. These materials may shift the material creation paradigm from structure→processing→property to property→architecture→fabrication. Therefore, this symposium focuses on presentations that are related to those architected materials and composites and include, but not limited, to the following topics:

- Macro/micro/nano lattices, trusses, foams, porous, cellular materials, etc
- Novel architectures for creating new macro, micro, and nano materials and composites
- Macro, micro, and/or nano-architected interpenetrating phase composites
- Novel techniques for manufacturing architected materials and composites
- 3D printing for fabricating architected materials and composites
- 3D micro/nano fabrication of architected materials and composites
- 3D periodic engineered micro/nano-structures
- Theoretical and computational modeling of architected materials and composites
- Mechanical, thermal, electrical, and transport properties of architecture materials

Interested authors should submit an abstract between 400 and 650 words via the web tool at the Congress 2015 website. <http://www.asmeconferences.org/Congress2015/>
Final papers will be available on CD-ROM at the meeting.

SUBMISSION DEADLINE: March 2, 2015

See Conference website for detailed Publication Schedule
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