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Special Issue
NATURE-INSPIRED MATERIALS DESIGN

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AIM AND SCOPE

Nature provides a host of unique properties desirable for applications in emerging technologies. Examples of biological materials with intrinsically practical qualities include the superhydrophobic lotus leaf, the exceptionally high strength-to-weight ratio spider silk, and the silicon-mineralizing ability of the sea sponge. In many cases, the macroscopic characteristics of biomaterials are a result of a structured hierarchy that originates at the nanoscale. Natural systems such as bone, teeth, and shells exhibit complex structures with order on many length scales. The aim of this topic area is to showcase the technological discoveries and breakthroughs that occur as a result of observation of natural phenomena, with particular emphasis on the design of nanoscale materials. Contributions shall include, but are not limited to, research in the fields of design of materials from biological insights, nanoscale drug delivery, engineered nanomaterials and NEMS devices, theoretical modeling, and novel applications of natural products.

Keywords: *materials science, nanotechnology, biologically-inspired, novel materials, natural products*

SUBTOPICS

1	**Bio-inspired materials**	**4**	**Unique properties of natural materials**
2	**Hierarchical materials**	**5**	**Hybrid organic/inorganic materials**
3	**Novel applications of natural products**		

SCHEDULE

Manuscript submission deadline	**July 1, 2014**
Peer Review Due	**August 1, 2014**
Revision Due	**September 1, 2014**
Notification of acceptance by the Guest Editor	**September 30, 2014**
Final manuscripts due	**October 15, 2014**

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