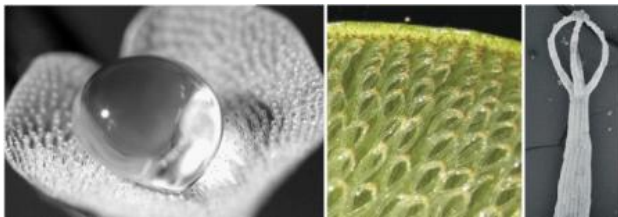


Biomimetics I: functional biosurfaces **Biomimetics II: fabrication and applications**

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Volume I and Volume 2 published April 2009

Special offer price per issue £47.50 (usual price per issue £58)



The word biomimetics is relatively new; however, our ancestors looked to nature for inspiration and development of various materials and devices many centuries ago. For example, the Chinese tried to make artificial silk some 3000 years ago and Leonardo da Vinci, a genius of his time,

studied how birds fly and proposed designs of flying machines. In the twentieth century, various products, including the design of aircraft, has been inspired by nature. Various features found in nature objects are on the nanoscale. The major emphasis on nanoscience and nanotechnology since the early 1990s has provided a significant impetus in mimicking nature using nanofabrication techniques for commercial applications. Biomimetics has spurred interest across many disciplines.

The two-part issues: Functional Biosurfaces and Fabrication and Applications present an overview of the field of biomimetics. These should serve as a reference for a novice in the field and are also intended for use by researchers who are active or intend to become active in the field, as well as for entrepreneurs. The appeal of these theme issues is expected to be broad. The papers generally have an overview along with new research data and efforts are made to have sections on the future outlook in most papers to identify where the field is going. The editor has written an overview which connects various papers into a common theme.

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