

Special Issue on
Bionic Structure and Smart Coatings

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After long-term evolution, a creature can develop an optimized surface with special functions, such as being non-wettable, self-cleaning, low-friction, and drag-reducing, which provide the best protective functions towards the environment. Learning from nature and using advanced surface technologies, smart coatings with special biomimetic functions have been developed. One successful example is superhydrophobic coatings which copy the bionic structure of lotus leaves. Additionally, different methods including etching, plasma spraying, additive manufacturing, and electrochemical deposition have been applied to reproduce the special bionic micro/nano-structured surface.

This Special Issue aims to focus on the recent research achievement of bionic structure and biomimetic coatings, including new fabrication methods, modified bionic structure, improved surface functional properties, and new design for smart coatings which can respond the environmental changes. It will address the latest progress on biomimetic materials and related research on surface protection. Submissions on the typical application of bionic structures or smart coatings for surface protection are warmly encouraged. We also welcome research articles on the bionic mechanisms, as well as review articles discussing the current state of the art.

Potential topics include but are not limited to the following:

- ▶ New fabrication methods of biomimetic coatings
- ▶ Newly developed bionic structure
- ▶ New design for smart coatings
- ▶ Improved surface properties with bionic structure
- ▶ Typical application of smart biomimetic coatings in industry
- ▶ Case studies of surface protection using biomimetic surface
- ▶ Mechanisms research on biomimetic construction and related property regulation

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/jchem/materials.chemistry/bssc/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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