



Physical Anti-Bacterial Nanostructured Biomaterials

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Deadline for manuscript
submissions:

closed (31 March 2018)

Message from the Guest Editors

Dear Colleagues,

Antimicrobial surfaces are receiving a significant amount of interest, particularly over the last five years. Surfaces, such as those are being developed, are one method to stem the increasing prevalence of microbial contamination of medical and industrial surfaces. In recent years, certain nanostructured surfaces have been shown to exhibit high levels of biocidal action, with this behaviour arising from physical, rather than chemical, action. Such surfaces include those containing particular nanotopologies, including those that are found on some insect wing surfaces, such as those of cicadae, damselflies and dragonflies. The activity of these surfaces has been shown to arise from interactions of a physical nature, where the nanostructures on the substrates disrupt the cell wall structure of the attaching pathogenic cells.

This Special Issue of Materials will report on recent advances being made in the identification and development of the nanostructured biomaterials that exhibit anti-bacterial behaviour, where the origin of this action arises from physical interactions at the cell-substrate interface.





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Message from the Editor-in-Chief

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