



Biom mineralization and Biominerals: Lessons from Mineral-Producing Organisms

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Message from the Guest Editors

Dear Colleagues,

Living organisms have gone through an evolution, over 3.8 Gyr, to use inorganic matrices to fashion a diverse range of highly organized biological minerals that are ideal for biological functions. For instance, the skeletons of deep-sea glass sponges are built of silica-based minerals which, in turn, make exceptional fibre-optic properties. Mollusc shells are made of calcareous, aragonite or calcite, then achieve stiffness and toughness higher than that of their pure inorganic counterparts. The properties of biominerals are far superior compared to human-made materials, and the current understanding of their formation is far from complete. It is indeed necessary to learn from nature. The structural lessons gained from the study of these biocomposites could thus provide important design insights into the fabrication of tough layered inorganic–organic hybrid materials/morphologies that could always have fresh surfaces to do specific jobs. Therefore, you are invited to submit manuscripts that focus on biomineralization and biomineral characterization, and biomimetic design that will be highly beneficial to society.





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Message from the Editor-in-Chief

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