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Recent Advances in Bioluminescence

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Message from the Guest Editor

Dear Colleagues,

Bioluminescence is a widespread phenomenon in nature, especially in the depths of the ocean. Representatives of luminous organisms are found among bacteria, fungi, protozoa, coelenterates, worms, molluscs, insects, and fish. Bioluminescence is a special case of a chemiluminescent reaction in which the substrate, luciferin, is oxidized, catalyzed by a specific enzyme, luciferase. Luciferins and luciferases of different organisms are different compounds and their similarity is often only functional. The Special Issue "Recent Advances in Bioluminescence" will be devoted to the fundamental and applied problems of bioluminescence.

Potential topics include, but are not limited to:

Study of molecular mechanisms of functioning of bioluminescent systems;

Synthesis and application of luciferin analogues;

Creation of analytical tools based on bioluminescent and fluorescent proteins;

Search for new bioluminescent organisms;

Modification of known bioluminescent proteins and substrates;

Creation of artificial bioluminescent proteins with desired properties.



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Special Issue



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Message from the Editor-in-Chief

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