



toxins



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Insecticidal Toxins: Application and Assessment

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Message from the Guest Editors

Dear Colleagues,

Secondary metabolites generated by animals, plants, and microbes may be used in pest management, such as plant-produced azadirachtin and celangulin, avermectin generated from *Streptomyces avermitili*, spinosad from *Saccharopolyspora spinosa*, and Bt toxins synthesized by *Bacillus thuringiensis* and their derivatives. Some venoms, venomous protein or peptides of insectivore animals also have the potentiality to develop pesticides. Unlike conventional chemical pesticides, biopesticides are environmentally friendly and are used as a component of integrated pest management (IPM) programs. Research in this field is becoming increasingly more popular today.

This Special Issue aims to shed light on the biosynthesis, regulation, and effects of these natural products on molecular, biochemical, and physiological levels, as well as the biology of populations and resistance mechanisms of pests to natural products. Original research articles, reviews, and reports on products of an insecticidal nature are welcomed. Your contribution will help this paper collection to summarize the progress of biopesticide research and offer guiding directions for future exploration.



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Special Issue



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Editor-in-Chief

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Message from the Editor-in-Chief

Toxinology is an incredibly diverse area of study, ranging from field surveys of environmental toxins to the study of toxin action at the molecular level. The editorial board and staff of *Toxins* are dedicated to providing a timely, peer-reviewed outlet for exciting, innovative primary research articles and concise, informative reviews from investigators in the myriad of disciplines contributing to our knowledge on toxins. We are committed to meeting the needs of the toxin research community by offering useful and timely reviews of all manuscripts submitted. Please consider *Toxins* when submitting your work for publication.

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