

Special Issue

Mode of Action of Allelopathic Compounds

Message from the Guest Editors

Allelopathy is defined as a biological phenomenon in which one organism affects the growth, survival, and reproduction of other organisms by releasing chemicals into the environment. Nowadays, the concept of allelopathy has been expanded and includes the direct or indirect effects, both harmful or beneficial, of plants (or microbes) on other plants. In the 21st century, however, due to the development of omics techniques, it has become possible to describe allelopathic interactions at the genomic, transcriptomic, proteomic, and metabolomic levels. Thanks to this, it is also possible to determine more and more precisely the mechanisms of action of identified allelochemicals, as well as to identify the compounds responsible for the high allelopathic potential of different plant species. This Special Issue aims to highlight the most cutting-edge ideas on the role of allelopathic interactions, based on the mode of action of the identified allelopathic compounds. Studies focused on the role of phytohormones and other signalling molecules (ROS, RNS) can explain the disruptions in the metabolism of the acceptor's.

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