Special Issue

Nanotechnology in Plant Growth

Message from the Guest Editor

In modern agriculture, nanotechnology is thought to be a major field of research and source of innovation in order to meet the rising global demand for food and agricultural sustainability. The broad range of applications of nanotechnology has revolutionized agriculture in order to ensure food security in the face of climate change. Nanomaterials offer a wider specific surface area that bridges the gap between bulk materials and atomic or molecular structures. Therefore, the application of nanomaterials in the precise management and control of agricultural inputs, such as fertilizers, pesticides, herbicides, and nanotechnological tools like nanobiosensors, can support the growth of high-tech agricultural farming. Moreover, nanomaterials can effectively enhance plant growth, help to identify environmental problems, and improve the tolerance of crops to multiple stresses. Considering the enormous progress of nanotechnology in crop science, this Special Issue welcomes high-quality research articles on innovative uses of nanotechnology in crop growth and stress tolerance towards sustainable agricultural development.

Guest Editor

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As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

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