



Functional Nanoparticles for Environmental Contaminants Removal and Agricultural Application

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Message from the Guest Editor

The application of nanotechnology could also better enable plants to respond to a changing environment. Nanotechnology can also play an important role in crop productivity through the control of nutrient availability and utilization, as well as through mediating nutritional status in the presence of biotic and abiotic stress. Nanoscale platforms can also be used to monitor water quality parameters, including for pesticide residue presence, in efforts to promote the sustainable development of agriculture. Nanomaterials have tremendously diverse functionality and as such, it is difficult to deliver a general assessment of crop health and environmental risks.

To explore this important topic, we are assembling a special issue of *Coatings* to encourage researchers and to provide them with a platform to publish their novel studies on the topic “Functional Nanoparticles for Environmental Contaminants Removal and Agricultural Application.”

The theme of this special issue broadly includes (but is not limited to):

- **Nano-fertilizers,**
- **Nano-pesticides**
- **Nano-biosensors for soil-plant systems**
- **Nanomaterials for environmental remediation**





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Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

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