



Special Issue Reprint

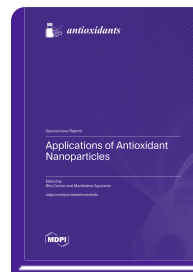
Applications of Antioxidant Nanoparticles

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Reactive oxygen species (ROS) are essential in regulating various physiological functions. However, the overproduction of ROS can be related to many diseases. Antioxidant administration represents an effective strategy to treat oxidative stress. In recent decades, nanotechnology and nanoparticles have received great interest and seen applications in many fields, from pharmaceuticals to cosmetics and food. For instance, lipid nanoparticles, due to their “green” characteristics related to their biodegradation and non-toxicity, have received significant attention as a carrier for antioxidant molecules. Over the past few decades, significant achievements have been made in the development of antioxidant nanotherapies, exhibiting multiple advantages.

This Special Issue collects recent advances in the design, production, characterization, use, and effect of antioxidant nanoparticles, including polymeric or lipid-based nanoparticles, ROS-scavenging inorganic nanoparticles, organic nanoparticles with intrinsic antioxidant activity, and drug-loaded antioxidant nanoparticles, to be administered by different routes. In other words, articles focus on the use of antioxidant nanoparticles in the biomedical, pharmaceutical, and cosmetic field, as well as in the food sector.

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