



## EDITORIAL

### **Nanoparticle Antioxidants**

In the sphere of material science, nanotechnology has made most important advances within the reduction of free radical damage. At the material science level, considerable work has been devoted to the reduction of oxidative stress within the area of engineering. Nanotechnology has generated numerous constructs that efficiently minimise oxidative damage in engineering applications.

Nanoparticle antioxidants have been observed due to cross-disciplinary interactions and the application of this generation to biological systems. Reactive oxygen species (ROS) are essential regulators of a variety of physiological features in residing organisms. The intrinsic biochemical houses of ROS, which underlie the mechanisms important for the growth, fitness, or getting old of living organisms, have promoted researchers to take complete benefit of those active chemical species to make contributions to medical advances. With exceptional improvements in nanotechnology, a huge variety of nanomaterials with particular ROS-regulating properties had been investigated to unravel the temporal-spatial dynamic behaviours of ROS in biological background, paving the manner for the introduction of a new technology of therapeutic methodologies.

Reactive oxygen species (ROS) are critical not only in regulating regular molecular physiological functions, however while produced in excess cause the augmented pathogenesis of numerous diseases. Among those ischemia reperfusion injury, Alzheimer's disease, and rheumatoid arthritis, are particularly critical. Furthermore, when you consider that ROS may be counteracted via way of means of an extensive variety of antioxidants, each herbal and artificial antioxidant was developed.

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