

Metallic Oxide Nanoparticle from Agricultural Waste: A Review on Composition and Application

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Abstract:

The rapid advancement in the extraction method of metallic oxide nanoparticles from agricultural waste has led to the significant use of agriculture waste in the nanotechnology industry because the use of chemical procedures in the production of metallic oxide nanoparticles produces hazardous toxic compounds that are dangerous to the ecosystem. In particular, this article examines the creation of silicon dioxide (silica) nanoparticles from agricultural waste. Environmental cleanup and wastewater purification are only two examples of the many areas where sand-sized silica particles (SNPs) have shown promising results. rural, agricultural, etc. The lack of toxicity of these particles has been demonstrated, making them an excellent tool for biomedical study. Additionally, because of the particles' ability to mobilize molecules onto their interior and external surfaces, they constitute good transporters for both biotic and non-biotic substances. In this regard, the current paper provides a thorough assessment of the sources of agricultural waste used in producing silica nanoparticles as well as the processes used to create it. The report also examines SNPs' most recent applications in a number of fields and discusses the technology's potential for the future. *Keywords: Fuel additives; ethanol; brake power; Internal combustion engine; fuel*