

Special Issue

Recent Progress on Silver Nanoparticles: Synthesis, Characterization and Applications

Message from the Guest Editors

This Special Issue aims to showcase cutting-edge developments in silver nanoparticle science, from fundamental synthesis strategies to advanced characterization techniques and innovative applications in medicine, electronics, sensing, and environmental applications. Silver nanoparticles (AgNPs) have emerged as one of the most widely investigated nanomaterials due to their unique physicochemical properties and versatile applications across multiple scientific domains. Recent advances include sustainable biosynthesis methods employing microorganisms and plant extracts, development of sophisticated characterization protocols combining spectroscopic and microscopic techniques, and expanded applications in antimicrobial systems, photovoltaics, catalysis, and biomedical devices. We welcome original research articles, comprehensive reviews, and short communications addressing novel synthesis methodologies (chemical, physical, and biological), advanced characterization approaches, mechanistic studies, and emerging applications demonstrating significant scientific or technological impact.

Guest Editors

Prof. Dr. Emilio de Castro Miguel
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Dr. Montcharles da Silva Pontes

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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