

Special Issue

Gold Nanoparticles: Materials and Applications

Message from the Guest Editor

This Special Issue is dedicated to gold nanoparticles (Au NPs); advanced materials that represent a wealth of applications in (electro)catalysis, electronics, sensing, nanobiotechnology, diagnostics and therapeutics, among others. Au NPs can be easily synthesized with various sizes, shapes and surface functionalities in order to meet the requirements of specific applications. Owing to surface plasmon resonance (SPR) effects in the visible range, they possess unique size- and shape-dependent optical properties, e.g., light absorption in the near infrared (IR) spectrum of electromagnetic waves. These properties make them suitable for SPR-based biosensor devices, surface enhanced Raman scattering studies (SERS) and biomedical applications, such as photodynamic therapy, where light absorption results in local heat dissipation that can be applied to kill cancer cells, as an example. Full papers, communications, and reviews are all welcome.

Guest Editor

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Message from the Editorial Board

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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