



Journal of Nanomaterials

Special Issue on
Thermoplasmonic Effects and Applications in Noble Nanoparticles

CALL FOR PAPERS

Noble nanoparticles (NPs) such as gold and silver have the extraordinary capability to squeeze down the light at the nanometer scale by exploiting a phenomenon called localized plasmonic resonance (LPR). The LPR effect can be induced through the interaction between a visible/NIR electromagnetic radiation and the free electrons of the NP localized at the metallic/dielectric interface. As a consequence, due to the LPR effect, there is a strong temperature variation around the NPs resulting in nanosized sources of heat. Although challenging to study and measure the temperature increase at the surface of the NPs under a suitable (resonant) optical radiation, it is an important issue for applications ranging from photonics to nanomedicine. This special issue is devoted to overview both fundamental theories and advanced applications of NPs as efficient nanosource of heat remotely controllable by light.

We invite investigators to contribute with review and original papers reporting recent efforts in the field of thermoplasmonics based applications.

Potential topics include, but are not limited to:

- ▶ Photothermal modeling of plasmonic nanostructures
- ▶ Adaptive optics based on plasmonic heating
- ▶ Plasmonic photothermal based dynamic optical filtering
- ▶ Thermoplasmonics based optofluidic applications
- ▶ Photothermal effects of plasmonic nanoparticles combined with liquid crystalline materials
- ▶ Plasmonic photothermal therapy
- ▶ Thermoplasmonics assisted gene therapies

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jnm/anmt/>.

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Manuscript Due

Friday, 5 August 2016

First Round of Reviews

Friday, 28 October 2016

Publication Date

Friday, 23 December 2016