Special Issue

Nonlinear Optics of Nanomaterials

Message from the Guest Editor

This Special Issue will concentrate on the discussion of nonlinear optical effects that are specific for nanomaterials of different design. Modern techniques capable of the fabrication of both ordered and random nanostructured media allow for the appearance of new functional properties, including resonance effects in nanoparticles, unusual dispersion of metal–dielectric or magnetooptical composites, crucial interface effects that govern the properties of a composite, etc. Given their observation in linear optical and magnetooptical spectroscopy, these properties are much more pronounced in their nonlinear optical response, which is highly sensitive to local field and interface effects. Understanding of the main mechanisms of the nonlinear optical response of nanomaterials in relation to their properties requires the development of both experimental and theoretical studies, which will be described in this issue. **Keywords**

- nanomaterials
- nanocomposites
- nonlinear optics
- magnetic nonlinear optics

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