Special Issue

Luminescent Nanomaterials for Imaging and Sensing

Message from the Guest Editor

Traditionally, luminescent materials have mainly been developed for lighting applications, first for (compact) fluorescent lamps and more recently for LED lighting. However, there is a wealth of other current and potential future applications of luminescent compounds, mainly for imaging and sensing applications. For these applications, nanophosphors are most often required, for example, as nanothermometers or biocompatible near-infrared emitters for bio-imaging. Given the possibility to tune emission spectra, luminescent intensities, trap properties and dopant oxidation states as a function of external parameters like temperature, pressure, irradiation or illumination, phosphors are ideally suited for sensing on the nanoscale or for high-resolution imaging. Persistent phosphors that emit visible or near-infrared light can also substantially contribute to sensing, safety applications, and self-powered lighting solutions. We invite submissions for this Special Issue both in the form of fundamental and application-driven original research papers, as well as comprehensive review articles.

Guest Editor

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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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