

Special Issue

Micro-nano Optical Structure Materials and Their Applications

Message from the Guest Editor

Micro-nano optical structures—which rely on local resonance, electromagnetic field enhancement, the slow-light effect, and so on—could effectively manipulate the interaction characteristics between light and matter. This concept finds extensive applications in photon integration, sensitive signal detection and recognition, biochemical sensing, super-resolution microscopic imaging, efficient solar cell and light-emitting device development, advancements in disease diagnosis and treatment, environmental monitoring practices, and many other crucial domains. As an underlying component in solar cells or other optoelectronic devices, micro-nano structural materials give these devices unique optical, electrical, and mechanical properties, and provide a way to develop new and functional flexible photonic and electronic devices. This way of optimizing the structure of photoelectric devices can result in a change in the refractive index gradient at their window layer, which can effectively inhibit reflection and generate surface plasmon resonance near the metal structure.

Guest Editor

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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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