



Dielectric Nanoantennas and Metasurfaces

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Message from the Guest Editor

Dear Colleagues,

Dielectric nanoantennas have recently gained a lot of attention in many research areas, including sensing, solar cells, spectroscopy, and microscopy. The capability to excite either electric and magnetic multipolar resonances gives the possibility to shape the scattered light from such high-refractive-index structures in a desired manner. Moreover, they constitute the building blocks of the so-called metasurfaces.

Optical metasurfaces are 2D arrays of subwavelength scatterers designed to control properties of light ranging from its wavefront to polarization and intensity distribution or spectrum. The subwavelength resonators capture and re-emit the incident light. An appropriate geometrical choice of the dielectric nanoantennas that form the metasurface and of their mutual distance leads to the modification of the characteristics of light scattered from the 2D array. Thus, metasurfaces are attractive solutions in the miniaturization of bulk devices such as gratings, lenses, mirrors, holograms, waveplates, polarizers, and spectral filters.





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Message from the Editor-in-Chief

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