



Optical Nanoantennas

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Message from the Guest Editor

Dear Colleagues,

Antennas are important elements of wireless information communication technologies, along with sources of electromagnetic radiation and their detectors. They are at the heart of modern radio and microwave frequency communications technologies and refer to devices converting electromagnetic currents into propagating waves and vice versa. Recently, the concept of antennas has been extended to the optical domain resulting in development of optical nanoantennas, which transmit and receive optical signals based on nanoscale objects. The ultimate goal is to achieve high efficiency in detection and directivity of the transmitting signals for all-optical.

The functionality of a nanoantenna is two-fold: i) to transform the near-field of a quantum emitter into freely propagating optical radiation, and ii) convert the incident radiation into a strongly confined near-field.

This Special Issue focuses on the latest research and development of optical nanoantennas and their applications, including linear, nonlinear, chiral, plasmonic, all-dielectric, and strong-coupled structures.

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Message from the Editor-in-Chief

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