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Plasmonic and Photonic Nanostructures for Sensing and Solar Energy Conversion Applications

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Message from the Guest Editors

Dear Colleagues,

Photonic and plasmonic nanostructures have emerged as one of the most potent means to confine and manipulate light–matter interactions at the nanoscale towards transformative research and technological developments in different fields. Controlling the size, shape and dispersion of plasmonic nanomaterials, along with the periodicity and interfaces of photonic nanostructures, has paved the way for the rational design and engineering of nanomaterials and devices for target applications.

This Special Issue aims to present recent advances in functional photonic and plasmonic nanostructures and plasmonic–photonic hybrids with tailored properties for photo-induced applications. Particular emphasis will be given to nanomaterial growth and processing techniques, heterostructuring, interface engineering, and theoretical modeling in order to promote photon capture, electromagnetic field enhancement, hot electron generation, and charge separation/transfer that are key factors in biosensor and solar energy conversion applications.

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Special Issue



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Message from the Editor-in-Chief

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