Special Issue

Advances in Resonant Nanostructures and Their Applications in Molecular Spectroscopy and Sensing

Message from the Guest Editors

Metallic nanoparticles or nanostructures support localized surface plasmon resonances (LSPRs), which can significantly enhance light–matter interactions. A wide variety of nanoparticles or nanostructures can be fabricated by top-down, bottom-up, or other lithographic tools, enabling different functions for a broad range of applications, including molecular spectroscopy and sensing. This Special Issue is organized to invite original research and review articles covering but not limited to the following topics:

- Physical mechanism and rational design of resonant nanostructures;
- Emerging materials for resonant nanostructures including noble metals, dielectrics, graphene, metal oxides, etc.;
- Surface-enhanced Raman scattering and surface-enhanced infrared absorption spectroscopy;
- Strong coupling between plasmon resonances and molecular vibrations, lattice phonons, Fano resonance etc.;
- Coupled plasmonic systems in biosensing, biomedical applications, as well as in modification of chemical reactions.

Guest Editors

Prof. Dr. Kai Chen

Dr. Arif Engin Çetin

Dr. Thu Hac Huong Le

Prof. Dr. Vladimir V. Kitaev

Deadline for manuscript submissions

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About the Journal

Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 29th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

Editor-in-Chief

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