Special Issue

2D-Materials Photonics

Message from the Guest Editor

Over the last two decades, two-dimensional layered materials have received tremendous research attention due to their novel properties and physical phenomena, as well as their emerging applications in nanophotonics and optoelectronics. Optical spectroscopy, has proven a unique tool to gain insight into many of the fundamental aspects of different families of 2D materials. Moreover, in thicker 2D materials, optical spectroscopy has made a significant contribution providing a playground for the observation of fascinating quantum phenomena. The aim of this Special Issue is to review recent experimental and theoretical advances in the field of optical spectroscopy of 2D materials.

Keywords

- Optical spectroscop
- Resonant Raman scattering
- Luminescence
- Substrate effects
- Mechanical strain and high-pressure
- Temperature effects
- Interlayer coupling
- Twisted and folded structures
- Heterostructures
- Thermal conductivity
- Chemical functionalization and doping
- Structural disorder and edges
- Electron-phonon coupling

Guest Editor

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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