



## 2D-Materials Photonics

Guest Editor:

**Prof. Dr. Konstantinos  
Papagelis**

Department of Solid State  
Physics, School of Physics,  
Aristotle University of  
Thessaloniki, GR-54124  
Thessaloniki, Greece

Deadline for manuscript  
submissions:  
**closed (30 November 2021)**

### Message from the Guest Editor

Dear Colleagues,

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 spectroscopy
- 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





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**  
Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](#)