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Optical Spectroscopy of Low-Dimensional Quantum Materials

Guest Editor:

Dr. Felice Gesuele

Dipartimento di Fisica “Ettore
Pancini”, Università degli Studi di
Napoli “Federico II”, Napoli, Italy

Deadline for manuscript
submissions:

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Message from the Guest Editor

Dear Colleagues,

In recent years, since quantum emitters were found in various 2D materials, there has been an increasing interest in their quantum optical properties, and 2D materials have become a key platform for applications in photonic quantum technologies.

Optical spectroscopies such as Raman, absorbance, and photoluminescence represent a powerful tool to investigate the structure, the electronic, and the optical properties of low-dimensional materials and their heterostructures. Time-resolved spectroscopy allows researchers to investigate fundamental issues defining the electronic states’ dynamics, such as radiative and nonradiative decay channels. The coupling of optical spectroscopy to high-resolution microscopy offers unprecedented opportunities to resolve spatial inhomogeneities and new nanoscale phenomena, such as polariton propagation.

This Special Issue is envisioned as a forum for the discussion of the latest findings in the optical characterization of low-dimensional materials and of their future applications in optoelectronics and photonic quantum technologies.



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Special Issue



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Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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