



Optical Characterization of Novel Composite and Optically Active Materials

Guest Editor:

Prof. Dr. Tatiana Perova

Department of Electronic and
Electrical Engineering, Trinity
College Dublin, College Green, 2
Dublin, Ireland

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Message from the Guest Editor

There has been increasing interest over the last decade in novel optical composite materials. These materials, which demonstrate unique properties, are based on semiconductor nanocrystals of different shapes, viz. quantum dots, wires, and platelets, or simple metal nanoparticles. These materials are used in a variety of photonic and plasmonic applications. Applications include advanced light sources, photovoltaics, biosensing, bioimaging, and photonic circuitry with novel architectures. The synthesis and fabrication of these innovative composite materials requires a knowledge and understanding of the relationship between the chemical structure and interactions in these systems, as well as their optical characteristics when targeting specific applications.

This Special Issue will be devoted to the optical characterization of new composite and optically active materials, including UV-VIS, CD, infrared, and raman spectroscopies. Original research papers and review articles related to these areas are cordially invited.

Keywords

- infrared and Raman spectroscopy of condensed matter
- semiconductor quantum dots
- silicon photonic crystals
- 2D materials
- metal nanoparticles





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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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Materials Editorial Office
MDPI, St. Alban-Anlage 66
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