



Electronic and Optical Properties of Semiconductor Nanocrystals

Guest Editor:

Dr. Bruno Falcão

CICECO—Aveiro Institute of
Materials, Department of Physics,
University of Aveiro, 3810-193
Aveiro, Portugal

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Message from the Guest Editor

The global quest for developing sustainable and energy-efficient electronics and optoelectronics has motivated the scientific community and industry to look toward reducing the size and improving the properties and functionalities of semiconductor materials. In this regard, semiconductor nanocrystals encompass a material platform whose physical-chemical properties can be strategically tailored for target applications through, for example, control of size, shape, composition, and surface termination. Despite impressive advances in the demonstration of devices with good charge transport characteristics, tunable light emission, and efficient light absorption, such as field-effect transistors, solar cells, LEDs, and photodetectors, further progress needs to be reached towards improving their performance. This can only be achieved through deep characterization and a fundamental understanding of material's properties, including unveiling the phenomena ruling at the nanoscale.

This Special Issue welcomes papers focused on the latest advances in studies of electronic and optical properties of semiconductor nanocrystals as well as on their possible application in optoelectronic devices.





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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, Grosspeteranlage 5
4052 Basel, Switzerland

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