Special Issue

Synthesis, Properties, and Applications of Perovskite Nanocrystals and Their Composites

Message from the Guest Editors

Perovskite nanocrystals (PNCs) are revolutionary optoelectronic materials due to their high photoluminescence, tunable bandgaps, and solution processability. These properties make them ideal for LEDs, solar cells, photodetectors, and quantum technologies. However, challenges remain in synthesis control, surface chemistry, and stability. Integrating PNCs into composite materials can improve durability and unlock new functionalities. This **Special Issue** in *Molecules* focuses on overcoming these challenges, highlighting PNCs' role in sustainable energy and next-gen optoelectronics. We invite contributions on **PNC synthesis, properties, and applications**. Topics include:

- Novel PNC and composite synthesis
- Stability and structure-property relationships
- Advanced characterization (e.g., in situ spectroscopy, modeling)
- Applications in LEDs, photovoltaics, lasing, and sensing
- Eco-friendly synthesis and scalability

We welcome **original research and reviews** that bridge fundamental science with practical innovations, fostering interdisciplinary progress in PNC technology.

Guest Editors

Dr. Qinggang Zhang

School of Chemistry and Chemical Engineering, Shandong University of Technology, Zibo 255000, China

Dr. Weilin Zheng

1. Department of Materials Science and Engineering, City University of Hong Kong, 83 Tat Chee Avenue, Hong Kong SAR, China
2. School of Materials and Packaging Engineering, Fujian Polytechnic Normal University, Fuzhou 350300, China

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Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

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Message from the Editor-in-Chief

As the premier open access journal dedicated to experimental organic chemistry, and now in its 25th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts and novel materials. Pushing the boundaries of the discipline, we invite papers on multidisciplinary topics bridging biochemistry, biophysics and materials science, as well as timely reviews and topical issues on cutting edge fields in all these areas.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt
Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

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