

Special Issue

Applications of Metallic Nanoparticles in Surface-Enhanced Raman Scattering Sensing

Message from the Guest Editor

Surface-enhanced Raman scattering is a powerful technique that can amplify the Raman signal of molecules by several orders of magnitude, enabling the detection of trace amounts of analytes in various fields. Metallic nanoparticles, especially those made of noble metals such as gold and silver, are widely used as SERS substrates due to their tunable optical properties, facile synthesis, and versatile surface functionalization. We invite you to contribute to this Special Issue and share your valuable insights and findings with the scientific community:

- Novel synthesis methods and characterization techniques of metallic nanoparticles for SERS
- Theoretical modeling and simulation of plasmonic effects and SERS enhancement mechanisms;
- Surface modification and functionalization of metallic nanoparticles for selective and sensitive SERS detection
- Integration of metallic nanoparticles with other materials (such as carbon dots, 2D materials, metal oxides, etc.) to form nanocomposites or hybrid structures for SERS
- Development of SERS devices and platforms based on metallic nanoparticles for practical applications in various fields

Guest Editor

Dr. Jing Yu

Shandong Provincial Engineering and Technical Center of Light Manipulation, School of Physics and Electronics, Shandong Normal University, Jinan 250014, China

Deadline for manuscript submissions

closed (20 September 2024)



Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/197021

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

[mdpi.com/journal/
nanomaterials](https://mdpi.com/journal/nanomaterials)





Nanomaterials

an Open Access Journal
by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



[mdpi.com/journal/
nanomaterials](https://mdpi.com/journal/nanomaterials)



About the Journal

Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano–alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

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), PubMed, PMC, CAPIus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)