Special Issue

Nanomaterials for the Development of Chemical and Biological Sensors for Hormones and Environmental Pollutants

Message from the Guest Editor

Hormones play essential roles in the human body in regulating metabolism, in responding to stress and external stimuli, and as signaling molecules in numerous pathways. When hormone levels become imbalanced, diseases such as cancer and osteoporosis, as well as several other negative effects. Hormones have a wide variety of structures and can be classified into the categories of steroid hormones, peptide hormones, and amino acid-derived hormones. Determining the levels of these hormones involves assaying a range of bodily fluids, including blood, sweat, urine, and saliva. Recent decades have seen rapid growth in the development of chemical or biological sensors for hormones using electrochemical, optical, magnetic, and gravimetric methods. The modification of the surfaces of these sensors with nanomaterials to provide a greater surface area and encourage activity for improvement in the detection of hormones has become an active research area.

This Special Issue will focus on the application of nanomaterials to improve the chemical and biological sensing of hormones in the full range of bodily fluids and in natural water samples.

Guest Editor

Prof. Dr. Keith J. Stine

Department of Chemistry and Biochemistry, University of Missouri—Saint Louis, Saint Louis, MO 63121, USA

Deadline for manuscript submissions

12 December 2025

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/si/237786

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

mdpi.com/journal/nanomaterials

MDPI

Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed

mdpi.com/journal/nanomaterials

MDPI

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.

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, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

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