Special Issue

Microporous and Mesoporous Materials and Their Derived Hybrids as Systems for Controlled Release

Message from the Guest Editors

In recent decades, a diversity of materials such as polymers, ceramics, and semiconductors have been used as controlled release systems. Among the most versatile materials, microporous and mesoporous materials stand out due to their high surface areas and tailorable surface chemistry. Depending on the size and surface functionalization of the pores, increased or sustained controlled release of a loaded molecule can be obtained. Moreover, if these micro- and mesoporous materials are inorganic, hybrids can be synthetized through a combination with organic compounds such as biopolymers. Engineered hybrid materials exhibit new advantageous chemical and physical characteristics, which are not exhibited by the individual constituents. Particularly, improved control over drug release kinetics, enhanced stability in different media, and selective release can be achieved by gating the pores with responsive molecules. Microporous- and mesoporous-based materials and their derived hybrids work for several molecules such as drugs, proteins, genes, fertilizers, nutrients, salts, and other biologically active agents.

Guest Editors

Dr. Jacobo Hernández Montelongo

Departamento de Ciencias Matemáticas y Físicas, Facultad de Ingeniería, Universidad Católica de Temuco, Temuco, La Araucanía, Chile

Dr. Miguel Manso Silván

Departamento de Física Aplicada, Facultad de Ciencias, Universidad Autónoma de Madrid, Cantoblanco, Madrid, Spain

Deadline for manuscript submissions

closed (10 February 2022)

Pharmaceutics

an Open Access Journal by MDPI

Impact Factor 5.5
CiteScore 10.0
Indexed in PubMed

mdpi.com/si/65920

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

mdpi.com/journal/pharmaceutics

Pharmaceutics

an Open Access Journal by MDPI

Impact Factor 5.5
CiteScore 10.0
Indexed in PubMed

mdpi.com/journal/pharmaceutics

MDPI

About the Journal

Message from the Editor-in-Chief

Pharmaceutics (ISSN 1999-4923) is an online open access journal on the science and technology of pharmaceutics and biopharmaceutics. The scientific community, the wider community and the general public have unlimited and free access to the content as soon as a paper is published; this open access to your research ensures your findings are shared with the widest possible audience. Please consider publishing your impressive work in this high quality journal. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

Prof. Dr. Patrick J. Sinko
Department of Pharmaceutics, Ernest Mario School of Pharmacy, Rutgers University, Piscataway, NJ 08854, USA

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Pharmacology and Pharmacy) / CiteScore - Q1 (Pharmaceutical Science)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 14.9 days after submission; acceptance to publication is undertaken in 3.3 days (median values for papers published in this journal in the first half of 2025).