

## Special Issue

# Innovations in Metal–Organic Frameworks: Their Synthesis, Properties and Multifaceted Applications

### Message from the Guest Editors

Metal–organic frameworks (MOFs) have attracted significant attention due to their high surface area, tunable pore sizes, and versatile functionalities. MOFs exhibit exceptional adsorption capacities, stability, and selectivity, making them ideal for gas storage, separation, and catalysis. Their luminescent properties enable use in sensing and imaging technologies. Recent research has also explored MOFs for drug delivery, showing their potential in biomedical applications. The broad applications of MOFs highlight their versatility and adaptability. This Special Issue of *Molecules* aims to provide an updated view on the synthesis, properties, and applications of MOFs. Submissions include, but are not limited to, original research articles, reviews, and communications in fields such as CO<sub>2</sub> capture, CO<sub>2</sub> reduction, oxygen evolution/reduction, H<sub>2</sub> storage, H<sub>2</sub> evolution, CH<sub>4</sub> storage, O<sub>2</sub>/N<sub>2</sub> separation, immobilization of N<sub>2</sub>, water treatment, drug delivery, biomedical applications, catalysis, photocatalysis, fluorescent sensors, and electronic devices based on MOFs.

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### Deadline for manuscript submissions

closed (31 December 2025)



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### Message from the Editor-in-Chief

As the premier open access journal dedicated to molecular chemistry, now in its 30th 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 all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

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