

## Special Issue

# Chiral Catalyst Design and Asymmetric Synthesis

### Message from the Guest Editor

The design of chiral catalysts is a key element in modern organic synthesis, enabling efficient and stereoselective creation of complex molecules. Asymmetric catalysis is vital for producing pharmaceuticals, agrochemicals, fine chemicals, and functional materials, where precise stereochemical control directly affects biological activity and performance. Recent advances in metal-based catalysts, organocatalysts, and hybrid systems, supported by improved mechanistic understanding, have led to greener, more sustainable enantioselective processes. This Special Issue invites high-quality contributions on chiral catalyst design, asymmetric methodologies, and applications in complex molecule synthesis. Topics include novel ligands, enantioselective transformations, total synthesis, catalytic processes with reactive intermediates, and environmentally friendly strategies. Mechanistic studies and scalable approaches are highly encouraged. This Special Issue aims to address current challenges and highlight emerging trends in chiral catalyst development and asymmetric synthesis.

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### Guest Editor

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### Deadline for manuscript submissions

31 December 2026



## Molecules

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CiteScore 8.6  
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## About the Journal

### 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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### Editor-in-Chief

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