

Editorial

# Welcome to Bioinorganics and Biocatalysis

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## 1. Introduction

I am honored to introduce *Bioinorganics* and *Biocatalysis*, a new journal aiming at covering all aspects related to the role of metal ions in biological systems and all possible applications arising from the interaction of metals with biological or biomimetic matrices. The prominent role that metallo-biomolecules play in so many aspects of the biological world and their practical applications, e.g. in catalysis, medicine, and bioremediation, is steadily increasing recognition and the few journals that currently deal with the topic are insufficient to cover the huge volume of papers that are spread in the more general literature. Some examples of recently expanding areas of research dealing with metallo-biomolecules are the new applications of metal complexes in biosensing, bioimaging, and as bioluminescent probes, those of metal-organic frameworks in disease treatments, the emergence of metallo-neurochemistry as a better-defined research topic, and the developments in the biocatalytic production of hydrogen, carbon dioxide reduction, nitrogen fixation, and environmental bioremediation.

## 2. Aim and Scope

*Bioinorganics* and *Biocatalysis* is an interdisciplinary journal dedicated to all aspects of the role of metal ions in biological systems and the applications of metallo-biomolecules in a broad variety of areas spanning from medicine to sensing, catalysis, and bioremediation. The Journal invites contributions of high-quality research carried out primarily at the molecular level and involving experimental or theoretical studies, typically based on the chemistry, biochemistry, and structure-function relationships of metallo-biomolecules and their biomimetics, and promoting a better understanding of their biocatalytic reactions. The Journal aims at creating interdisciplinary connections and stimulate new ideas and inspiration from research areas at the cross front.

The scope of *Bioinorganics* and *Biocatalysis* is to publish original research articles, review papers, short communications, and commentaries on a broad range of topics dealing with experimental, theoretical, and computational work in the subject areas including, but not limited to:

- Metal-biomolecule interactions, including proteins, peptides and nucleic acids
- Metal homeostasis, transport, and metabolism
- Metal enzymes
- Metal ions in gene regulation and signaling
- Metals in medicine
- Metals in sensing
- Metals in neuroscience
- Metal ion toxicity in organisms and environment
- Artificial metalloenzymes
- Chemical biomimetics
- Redox catalysis and biocatalysis in synthesis and bioremediation
- Bioorganometallic chemistry
- Asymmetric synthesis by enzymes and synthetic analogues
- Metal promoted biomimetic reactions and processes
- Biophysical, spectroscopic and computational studies on metals in biological systems

## 3. Outlook

The future of the chemistry and biological applications of metallo-biomolecules is brilliant and will see a further expansion of their role in life sciences. *Bioinorganics* and *Biocatalysis* can contribute to this expansion depending on how good will be the research that the Journal publishes. This obviously depends on the team of dedicated Editors and the contributions that scientists and scholars will submit to the Journal for publication. On



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