Special Issue

Metalloenzyme Structure and Function

Message from the Guest Editors

Metalloenzymes are vital players in a wide range of biochemical reactions, coordinating metal ions to drive numerous essential biological processes. Understanding the intricate ways in which these enzymes function and how metal ions are precisely managed within their active sites is the key to unlocking their full potential in both natural and engineered systems. This Special Issue aims to highlight the recent advancements in metalloenzyme research, focusing on catalytic mechanisms, structure–function relationships and enzymatic applications. We welcome submissions of original research articles, reviews and perspectives that explore the structural biology, spectroscopy, molecular biology and enzyme kinetics of metalloenzymes. We are also interested in contributions that present innovative approaches to studying these enzymes, including discoveries of novel structures and functions, the engineering of metalloenzymes as biocatalysts, and explorations of their industrial and biomedical applications.

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