



## New Functional Polyoxometalates: from Fundamental Aspects to Application

Guest Editor:

### Professor Tadaharu UEDA

Department of Marine Resource  
Science, Faculty of Agriculture  
and Marine Science, Kochi  
University, 200 Monobe-otsu,  
Nankoku 783-8502, Japan

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### Message from the Guest Editor

Dear Colleagues,

A huge number of polyoxometalates (POMs) have been prepared and characterized for ca. 200 years. POMs exhibit fascinating chemical properties and many of POMs have complicated structure to form beautiful molecule architecture. Therefore, POMs have been applied to versatile fields, such as catalysts, analytical chemistry and biochemistry and material chemistry. Although POMs are one family of inorganic clusters, organic molecule moiety attached POMs, ionic liquid-type POMs and other types inorganic-organic hybrid POMs have been prepared to exhibit unique chemical properties recently. The POMs chemistry is still promising research area and keeps spreading to wide range of scientific disciplines. This Special Issue focuses on the most recent advances in polyoxometalate-based material chemistry covering synthetic methods and application (perspectives) in catalysis, battery, fuel cell, magnetism, bio-medicine, sensor and other interesting areas. In addition, the detailed mechanistic and theoretical studies for chemical properties of POMs are included in this Special Issue.

Prof. Dr. Tadaharu UEDA

*Guest Editor*





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### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

## Message from the Editor-in-Chief

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Materials Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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