



## New Functional Polyoxometalates: from Fundamental Aspects to Application

Guest Editor:

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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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## Message from the Editor-in-Chief

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