



an Open Access Journal by MDPI

Nano-Design of Transition Metal Oxides for Energy Storage and Catalytic Application

Guest Editor:

Prof. Dr. Zhenzhong Yang

School of Physics and Electronic Science, East China Normal University, Shanghai 200241, China

Deadline for manuscript submissions: **31 July 2024**



Dear Colleagues,

Transition metal oxides play a critical role in the fields of energy storage and catalysis, owing to their exceptional properties and versatility. The significance of nanodesigning for these materials cannot be overstated regarding achieving efficient energy storage and enhancing catalytic activity. By precisely manipulating factors such as size, morphology, doping, composition, and surface characteristics at the nanoscale, nanoengineered transition metal oxides exhibit an enlarged surface area, improved charge transfer kinetics, and tailored electronic properties, thereby enabling higher energy storage capacity, accelerated reaction rates, and superior selectivity in catalytic processes. Furthermore, the integration of multi-components at the nanoscale (HEOs, etc.) and the deliberate introduction of controlled defects lead to synergistic effects and optimized redox reactions, further augmenting their performance.

In this Special Issue, we aim to comprehensively cover the latest advancements in all these aspects of nanodesign/engineering by hosting a mix of original research articles and critical reviews.









an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Duncan H. Gregory

School of Chemistry, University of Glasgow, University Avenue, Glasgow G12 8QQ, UK

Message from the Editor-in-Chief

Inorganic chemistry remains a lynchpin of modern chemistry, not only embracing the function and reactivity of combinations of most elements of the periodic table, but also providing a footing for studies of materials, catalysts, drugs, fuels and industrial chemicals. Arguably, the role and reach of inorganics in society have never been as great as today. Adventurous research at the heart and at the extremes of inorganic chemistry is vital to further advances and Inorganics offers authors the opportunity to publish exciting new research in an open access format.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Chemistry, Inorganic & Nuclear*) / CiteScore - Q2 (*Inorganic Chemistry*)

Contact Us

Inorganics Editorial Office MDPI, St. Alban-Anlage 66 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/inorganics inorganics@mdpi.com X@inorganics_MDPI