Special Issue

Cerium-based Materials for Energy Conversion

Message from the Guest Editors

Ceria (CeO2) plays a key role in many catalytic processes. Due to its excellent oxygen storage capacity (OSC), ceria-based mixed oxides are widely used for industrially-relevant applications, like three-way catalysis, catalytic oxidation in exhaust converters, SOFC fuel cells, SOEC electrolysis, water–gas shift reactions, or thermochemical- and photocatalytic water splitting. There is no doubt that ceria is able to reduce the energetic requirements of catalytic process, particularly relevant are the direct application in energy sector. This is the case of ceria-based materials used as electrolytes in SOFS, as co-catalyst in anodes of SOFC or in DAFC, as active components in the formulation of reforming catalysts for hydrogen production. Applications in photo- or photoelectrochemical processes for solar fuel production are also exponentially growing. This Special Issue aims to bring together the actual status of research on the use of ceria-based materials for energy-related applications. Therefore, we invite you to contribute with a paper in the above-mentioned areas.

Guest Editors

Prof. Dr. Ulrich F. Vogt

1. Empa, Swiss Federal Laboratories for Materials Science and Technology, Überlandstrasse 129, 8600 Dübendorf, Switzerland
2. Albert-Ludwigs-University Freiburg, Crystallography, Institute of Earth and Environmental Sciences, Hermann-Herder-Str. 5, D-79104 Freiburg i.Br., Germany

Prof. Dr. Paolo Fornasiero

Department of Chemical and Pharmaceutical Sciences, Universita'degli Studi di Trieste, 34127 Trieste, Italy

Deadline for manuscript submissions

closed (30 September 2017)

Inorganics

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 4.1

mdpi.com/si/8615

Inorganics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
inorganics@mdpi.com

mdpi.com/journal/inorganics

Inorganics

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 4.1

mdpi.com/journal/inorganics

About the Journal

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.

Editor-in-Chief

Prof. Dr. Duncan H. Gregory
School of Chemistry, University of Glasgow, University Avenue, Glasgow G12 8QQ, UK

Author Benefits

High Visibility:

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

Journal Rank:

JCR - Q2 (Chemistry, Inorganic and Nuclear) / CiteScore - Q2 (Inorganic Chemistry)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 16.6 days after submission; acceptance to publication is undertaken in 2.5 days (median values for papers published in this journal in the first half of 2025).