

Special Issue

Perovskite Materials: Preparations, Characterizations and Applications

Message from the Guest Editor

Perovskite materials, represented by a formula of ABX_3 , have attracted considerable attention because of their adjustable structure–composition–property relationships. Therefore, some special advantages can facilitate their scalable use as active components for a variety of applications, such as alleviating the energy crisis and environmental problems.

As the , I would like to invite you to submit your original research articles, reviews or perspective to this Coatings Special Issue entitled “Perovskite Materials: Preparations, Characterizations and Applications”.

Topics of interest include but are not limited to:

Solid oxide fuel/electrolysis cells, e.g., electrodes, electrolytes and interconnectors;
Gas sensors, e.g., sensing electrodes;
Hydrogen/oxygen permeation membranes;
Deposition method, e.g., plasma spraying, pulsed laser deposition;
Thermocatalysis/Electrocatalysis/Photocatalysis, e.g., alkane dehydrogenation, water splitting, CO₂ reduction, N₂ reduction;
Piezoelectric/ferroelectric ceramics;
Perovskite solar cells;
Additive manufacturing;
Experimental testing;
Numerical modeling;
Any other aspects of perovskite materials.

Guest Editor

Dr. Yihang Li

Academy of Advanced Interdisciplinary Research, Xidian University,
Xi'an 710126, China

Deadline for manuscript submissions

closed (31 December 2023)



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

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About the Journal

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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Prof. Dr. Wei Pan

State Key Laboratory of New Ceramics and Fine Processing, School of Materials Science & Engineering, Tsinghua University, Beijing 100084, China

Dr. Emerson Coy

NanoBioMedical Centre, Adam Mickiewicz University in Poznań, ul. Wszechnicy Piastowskiej 3, 61-614 Poznań, Poland

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