

Special Issue

Multicatalytic Ferroelectrics

Message from the Guest Editor

Catalysts, which may quicken chemical reactions, have the potential to reduce pollution and the world's energy dilemma. Their low efficiency and poor selectivity, caused by the recombination of photogenerated electron-hole pairs and the back-reaction of interactants, severely restrict their general utilization. Ferroelectrics, which have the advantages of promoted light adsorption, increased catalytic efficiency due to their inherent polarization, suppressed electron-hole pair recombination, and superior selectivity via the ferroelectric switch, have consequently emerged as promising catalysts to address these issues. Different catalytic processes, including photocatalysis, piezocatalysis, pyrocatalysis, and piezo-photocatalysis, have been demonstrated in ferroelectric materials. This Special Issue is a timely approach to survey recent progress in the area of various catalytic processes in ferroelectric materials. The articles presented in this Special Issue will cover various topics, ranging from materials science and engineering to its applications in the field of catalysis.

Guest Editor

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Deadline for manuscript submissions

closed (20 June 2023)



Materials

an Open Access Journal
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Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



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About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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