Special Issue

Sustainable Eco-Friendly Advanced Geopolymers: Leveraging Recycled, Bio-Based, and Industrial Waste Constituents

Message from the Guest Editors

This Special Issue aims to bring together recent advances in the design, characterization, processing, and application of sustainable composite materials for use in construction and infrastructure. Particular attention is given to composites made from recycled, bio-based, or waste-derived industrial constituents, as well as innovations in material technologies that contribute to carbon footprint reduction, a circular economy, and long-term durability. We welcome original research articles on the following topics:

- Bio-based and natural fiber-reinforced composites for structural and non-structural applications;
- Geopolymer and alkali-activated composite systems as green alternatives to traditional concrete;
- Waste-derived reinforcements and fillers in construction composites;
- Life Cycle Assessment (LCA) and sustainability metrics of composite materials;
- Recycling strategies and end-of-life management for composite construction products;
- Innovative manufacturing techniques for low-emission composite production;
- Long-term performance, durability, and environmental resistance of sustainable composites;
- Case studies of sustainable composite implementation in real-world infrastructure projects.

Guest Editors

Dr. Katarzyna Łoś

Department of Material Science, Faculty of Mechanical Engineering, Technical University of Liberec, Studentská 2, 461 17 Liberec, Czech Republic

Dr. Barbara Kozub

Faculty of Material Engineering and Physics, Cracow University of Technology, Jana Pawła II 37, 31-864 Cracow, Poland

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

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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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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