Special Issue

Advances in Binders for Construction Materials (Second Volume)

Message from the Guest Editor

The global binder production for construction materials is approximately 7.5 billion tons per year, contributing ~6% to the global anthropogenic atmospheric CO2 emissions. Reducing this carbon footprint is a key aim of the construction industry, and current research focuses on developing new innovative ways to attain more sustainable binders and concrete/mortars as a real alternative to the current global demand for Portland cement.

With this aim, several potential alternative binders are currently being investigated by scientists worldwide, based on calcium aluminate cement, calcium sulfoaluminate cement, alkali-activated binders, calcined clay limestone cements, nanomaterials, or supersulfated cements. This Special Issue welcomes contributions that address research and practical advances in i) alternative binder manufacturing processes; ii) chemical, microstructural, and structural characterization of unhydrated binders and of hydrated systems; iii) the properties and modelling of concrete and mortars; iv) applications and durability of concrete and mortars; and v) the conservation and repair of historic concrete/mortar structures using alternative binders.

Guest Editor

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Deadline for manuscript submissions

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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.

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