Special Issue

Research on Novel Sustainable Binders, Concretes and Composites

Message from the Guest Editors

In recent years, sustainability and sustainable building materials have become a priority of the construction industry. Ordinary Portland cement (OPC) is a main component of building concrete. The production of Portland cement emits about 0.8 tons of carbon dioxide per ton. Possible replacement of the OPC with alternative binders is on the agenda around the world; therefore, new cementitious materials are created aimed at decreasing the levels of industrial pollution, CO2 emissions from the binder production, as well as use of the unrenewable natural resources.

Binders with high levels of supplementary cementing materials (SCM) have been an object of studies for many years. Therefore, it is possible to lower the amount of Portland cement in binder composition, in this way decreasing the negative impact of cement production on natural environment. In order to avoid environmental problems and waste, it is important to scale down the consumption of Portland cement along with recycling of byproduct materials at the same time.

More attention is given to alkali-activated materials (AAM) as an ecological alternative to ordinary Portland cement (OPC) in the concrete industry.

Guest Editors

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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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