Special Issue

Development and Application of Low-Carbon Cementitious Material

Message from the Guest Editor

To enable the construction of urban developments and infrastructure, over 10 billion tons of natural resources are consumed annually in the production of building materials. This causes massive emissions of sulfur oxides, carbon oxides and dust—and these emissions are becoming an urgent problem. In order to facilitate resource recycling and improve environmental protection, it is thus a major strategic priority to convert huge quantities of solid waste with potential hydration ability—such as fly ash, blast furnace slag, steel slag or waste concrete—into low-carbon cementitious materials, which can then be used to produce building materials. Low-carbon cementitious materials have recently become a hotspot of global research, thanks to the outstanding advantages they offer in terms of low energy consumption and efficient resource recycling. However, some major problems still remain to be solved, including issues related to raw materials, curing, treatment technologies, equipment and performance. I would like to invite you to focus on problems such as these when investigating the potential applications of low-carbon cementitious materials.

Guest Editor

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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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