Special Issue

Advances in Limestone Calcined Clay Cement (LC3) Concrete

Message from the Guest Editor

Cement-industry-related carbon dioxide emissions account for 5–8 percent of total greenhouse gas emissions globally. As a result, to reduce carbon emissions, many studies on reducing cement use have been conducted as a result of this. Supplemental cementitious materials (SCMs) are materials that are used in concrete to replace some of the cement. SCMs are currently found in nearly every type of cement. However, the quality and quantity of SCMs available for a global cement replacement strategy remain limited. Despite the fact that limestone is plentiful, adding more than 10% of it to cement increases porosity and degrades characteristics. Clay, on the other hand, is widely available, and calcined clay has been proved to be a good cement alternative. Making limestone calcined clay cement (LC3) is a practical choice because clays and limestone are abundantly available all over the world. This Special Issue will cover the rapidly growing body of knowledge about LC3, the background to the development of LC3, detailed reviews of the chemistry of LC3 hydration and synthesis, raw material qualities and manufacturing processes, and environmental aspects of LC3.

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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