Special Issue

Current State of Coal Fly Ash Utilization: Characterization and Application

Message from the Guest Editors

Coal fly ash (CFA) is the main solid waste from coal-fired power plants. The world's annual growth of this type of waste is about 700–800 million tons. CFA contains oxides of non-ferrous metals (SiO2, Al2O3, Fe2O3, CaO), as well as unburned carbon and rare earth elements. So, CFA can be used as feedstock in metallurgy, chemical and construction industries. The novel science direction is the use of CFA to reduce CO2 emissions by reacting a part of the carbon dioxide with calcium oxide and obtaining construction materials. An important direction is the zeolite production. This type of materials can be used for the purification of wastewater from heavy metals. It is promising to use CFA for the production of ceramics with high physical properties based on silicon carbide (SiC). We invite you to contribute a paper to this Special Issue. Reviews, communications, or research articles would be very appreciated.

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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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