Special Issue

Primary Metallurgy of Iron and Steel: Towards Low Carbon Steel Production

Message from the Guest Editor

Dear colleagues, One of the important challenges of the global steel industry in the coming decades is to implement technologies which allow a climate neutral steel production. The Paris Agreement from 2015 is a landmark to combat climate change and to accelerate and intensify the actions and investments needed for a sustainable low carbon future. The steel sector was responsible for 8% of the world´s anthropogenic CO2 emission in 2018. This Special Issue focuses on research which contributes to reducing the intensity of fossil carbon usage in primary metallurgy for iron and steelmaking. We invite you to submit papers which deal with methods and technologies for the reduction of greenhouse gas emissions of the current production routes as well as for breakthrough technologies to avoid these emissions. Authors working in their research for technological approaches such as process integration (PI), carbon direct avoidance (CDA), as well as carbon capture storage and use (CCSU) are particularly invited to submit their works. Full papers, communications, and reviews are all welcome.

Guest Editor

Prof. Dr. Johannes Schenk

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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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