Special Issue

Advances in Oxy-Fuel Combustion for Carbon Capture and Storage (CCS)

Message from the Guest Editors

Reducing greenhouse gas (GHG) emissions has become the top priority of the energy industry for the mitigation of global warming. For large-scale combustion plants burning fossil fuels, oxyfuel combustion can provide a major breakthrough to achieve major GHG emission reduction as well as more effective pollution control. Through many years of fundamental studies and large-scale experiments, the combustion behaviors and process characteristics integrating different technologies have been revealed for oxy-fuel combustion, which brought this technology close to commercial applications. This Special Issue of *Energies* is dedicated to recent advances in oxyfuel combustion covering topics of combustion fundamentals, pollutants behaviors, new process and equipment development, field demonstrations, and techno-economic analysis. It welcomes studies for various fuels such as coal, natural gas, biomass, and their blends, using entrained, fluidized bed, and other reactors at ambient or elevated pressures. Theoretical and experimental studies on flue gas treatment and process development for efficient carbon capture are equally welcomed.

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Deadline for manuscript submissions

closed (10 December 2020)

Energies

an Open Access Journal by MDPI

Impact Factor 3.2
CiteScore 7.3

mdpi.com/si/45012

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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