Special Issue

Advanced Research and Applications of Coal-Derived Materials

Message from the Guest Editors

This Special Issue will highlight recent advances in the conversion of coal into value-added products and their innovative applications across various sectors—exploring the transformation of coal into solid, liquid, and gaseous products through pyrolysis, gasification, and hydrothermal processes, with an emphasis on sustainability and resource utilization. Coal-derived solid products such as char, carbon anodes, carbon fiber, and graphene oxide have, due to their unique properties, shown great promise in applications such as energy storage, catalysis, and environmental remediation. This Special Issue also seeks to highlight the roles played by coal-derived liquid products, which serve as potential feedstocks for chemicals, fuels, and industrial solvents, offering an alternative to petroleum-based resources. Moreover, coal-derived gas products like syngas and hydrogen can support clean energy initiatives and reduce carbon emissions when utilized efficiently. This collection of studies will promote circular economy approaches by unlocking the full potential of advanced technologies deploying coal resources while also addressing the related environmental and engineering challenges.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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