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Carbon Materials for Physical and Chemical Hydrogen Storage

Guest Editor:

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Deadline for manuscript submissions:
closed (31 March 2022)

Message from the Guest Editor

Carbon materials are going to play a key role in hydrogen storage technologies. In the case of physical storage, materials from slightly modified activated carbon to metal organic frameworks, also considering graphene derivatives, carbon nanofibers, nanotubes, etc., have been proposed as hydrogen adsorbents both for separation and storage purposes.

Most chemical storage strategies are mainly based on catalytic hydrogenation–dehydrogenation cycles. Carbon materials are promising supports for the catalysts used in these steps because of their inert character and their ability to tune the catalytic properties of the involved active phases.

Considering these facts, the aim of this Special Issue is to gather submissions (either experimental, computational, or from the point of view of process simulation) about the potential of carbon-based materials for hydrogen storage.

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Special Issue