## **Special Issue**

# Carbon Materials for Physical and Chemical Hydrogen Storage

### 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.

#### Guest Editor

Prof. Dr. Salvador Ordóñez García

Department of Chemical and Environmental Engineering, University of Oviedo, 33006 Oviedo, Spain

#### Deadline for manuscript submissions

closed (31 March 2022)



C

an Open Access Journal by MDPI

Impact Factor 3.9 CiteScore 1.6



mdpi.com/si/88370

MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 c@mdpi.com

mdpi.com/journal/carbon





C

an Open Access Journal by MDPI

Impact Factor 3.9 CiteScore 1.6



## **About the Journal**

## Message from the Editor-in-Chief

#### Editor-in-Chief

Prof. Dr. Craig E. Banks

Faculty of Science and Engineering, Manchester Metropolitan University, Chester Street, Manchester M1 5GD, UK

#### **Author Benefits**

### **High Visibility:**

indexed within ESCI (Web of Science), Scopus, CAPlus / SciFinder, and other databases.

### **Journal Rank:**

JCR - Q2 (Materials Science, Multidisciplinary)

## **Rapid Publication:**

manuscripts are peer-reviewed and a first decision is provided to authors approximately 19.8 days after submission; acceptance to publication is undertaken in 3.6 days (median values for papers published in this journal in the first half of 2024).

