



an Open Access Journal by MDPI

# Transportation Decarbonization: Advanced Vehicle Technologies and Their Social, Economic, and Environmental Impacts

Guest Editors:

#### Dr. Shiqi(Shawn) Ou

Buildings and Transportation Science Division, Oak Ridge National Laboratory, Oak Ridge, TN 37830, USA

#### Dr. Xin He

Aramco Research Center— Detroit, Aramco Services Company, Novi, MI 48377, USA

#### Dr. Xu Hao

School of Mechanical Engineering, University of Science and Technology Beijing, Beijing 10083, China

Deadline for manuscript submissions: closed (15 April 2023)



mdpi.com/si/93500

### **Message from the Guest Editors**

Dear Colleagues,

In this Special Issue, we are looking for leading research on advanced technologies, industrial strategies and policies for deep decarbonization, and their social and environmental impacts from the vehicle industry. These studies should be quantitative and focus on transportation decarbonization. Relevant topics include:

- Challenges and opportunities in advanced battery materials, electric vehicles, hydrogen fuel-cell vehicles, internal combustion engine using zero-carbon fuels, and other decarbonized technologies in vehicle use;
- Intelligent application and optimization of low- and zero-carbon powertrain technologies combining with electricity (V2X), hydrogen, or other renewable power sources;
- Impacts of autonomous driving and shared mobility on transportation mode choices and decarbonization;
- Lifecycle analysis for improving the measurement of transportation decarbonization;
- Social and environmental impacts and practices of the industrial strategies and government policies on vehicle decarbonization.

**Special**sue

Dr. Shiqi(Shawn) Ou Dr. Xin He

Dr. Xu Hao *Guest Editors* 





an Open Access Journal by MDPI

## **Editor-in-Chief**

#### Prof. Dr. Marc A. Rosen

Faculty of Engineering and Applied Science, University of Ontario Institute of Technology, Oshawa, ON L1G 0C5, Canada

## Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in Sustainability, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. Sustainability publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

## **Author Benefits**

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (Environmental Studies) / CiteScore - Q1 (Geography, Planning and Development)

## **Contact Us**

*Sustainability* Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/sustainability sustainability@mdpi.com X@Sus\_MDPI