



## EDITORIAL

## Green hydrogen and fuel cell systems

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This special issue consists of original, peer-reviewed articles, most of which were presented at the Sixth International Green Energy Conference (IGEC-6), held in Eskisehir, Turkey, on 5–9 June 2011.

The issue includes articles describing advanced energy systems based on hydrogen and fuel cell. In particular, the possible role of hydrogen as an energy carrier is a subject of careful assessment, looking at fuel cell conversion hydrogen production, hydrogen storage in connection with renewable sources and industrial applications. Green energy-based hydrogen system can be one of the best solutions for ensuring clean energy and sustainability. Fuel cells are also considered to be the green power sources for the 21st century. The main driving force for fuel cell research, development, and commercialization is the increasing concern about global pollution caused by energy emissions. Therefore, the production of hydrogen

from non-fossil fuel sources and the development and application of green energy-based hydrogen energy technologies become crucial in this century. Hydrogen energy system is expected in the future to replace the fossil fuel-based energy systems and to become the preferred portable energy carrier. We hope that this special issue of IJER will increase the awareness on hydrogen and fuel cells, and attract more attention to this important topic.

The preparation of this special issue was indeed collectively done in an international manner. We would like to express sincere thanks to all the reviewers of this issue who have generously contributed their time and efforts to ensure the highest possible quality of this special issue. We would also like to thank Prof. Ibrahim Dincer and Prof. Xianguo Li, for their exemplary guidance during the selection and preparation of this special issue.