

Special Issue

Direct Alcohol Fuel Cells 2018

Message from the Guest Editors

Direct alcohol fuel cells (DAFCs) are emerging technologies for the electrochemical conversion of chemical energy of an alcohol fuel into electrical energy, with low environmental impact and high efficiency. However, before DAFCs can reach large-scale diffusion, specific issues due to unsatisfactory performance, high cost of cell components and limited fuel cell durability must be solved. In a DAFC system, high capital costs coming from the usage of noble metal catalysts, perfluorosulfonate polymer electrolyte membranes (PEM) and expensive bipolar plates. Therefore, the development of cost-effective and highly performing PEMs, enhanced electro-catalysts and cheap bipolar plates, satisfying target requirements of high performance and durability, represent important challenges. Nowadays, the research is oriented to development of cost-effective materials, such as novel hydrocarbon membranes, low precious metal loading electrodes, non-platinum catalysts for DAFC applications. These can find application in portable, distributed and remote power generation. Papers addressing the development of cell components, full systems, performance and durability of DAFCs, are warmly invited.

Guest Editors

Dr. Francesco Lufrano
Dr. Antonino S. Aricò
Dr. Vincenzo Baglio

Deadline for manuscript submissions

closed (15 February 2018)



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Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

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Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, Italy

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