

PEM fuel cells for automotive applications: prospects and challenges

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Abstract

One of the main obstacles impacting fuel cell development progress is the fact that many of the fundamental processes still are only partially understood. Therefore, an overview over some of the fundamental processes that determine the functionality of the main components of a PEM fuel cell will be provided together with illustrative examples on how advanced diagnostic measurement tools can help advance understanding. Also, some of the key challenges and issues that need to be overcome in order to achieve commercially-viable PEM fuel cell technology will be discussed.