

Study of the Characteristics of PEM Fuel Cells, and its Dynamic Operation¹

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Abstract

Producing of electricity from fuel cells is particularly promising, they have high efficiency (about 40-60%) and high reliability without having any environmental pollution. In this paper, we present proton exchange membrane (PEM) fuel cells and mathematical equations that explain their activity, then we will combine these equations to get a final model that explore their performance in order to simulate it by MATLAB program, that explains, the operational limitations of PEM fuel cells performance.

¹ For the paper in Arabic see pages (243-266).

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