

BIPOLAR PLATE STRUCTURE

Abstract

A fuel cell is an electrochemical device used for generating electricity and typically
5 comprises several unit cells connected in series in the form of a stack, in which each
unit cell comprises a pair of electrodes, namely a cathode and an anode, and an
electrolyte disposed between a pair of bipolar plates. Presently, there exists a
deficiency in bipolar plates that causes a reduction in the overall efficiency of the fuel
cell. Therefore, there is a need to address the aforementioned problem. An
10 embodiment of the present invention is disclosed for providing a bipolar plate
structure for facilitating continuous flow of fluids through channels formed thereby to
improve the efficiency of fuel cells. The bipolar plate structure comprises a body and
a plurality of pillars extending from the body. The bipolar plate structure can be
implemented in fuel cells for improving the efficiency of electricity generation.

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Figure 1