

PEM FUEL CELL – ALTERNATIVE SOURCE OF ENERGY

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Abstract

The technology of fuel cell is heating up .A world that 10-15 years ago, was unaware of the concept can now witness fuel cell units operating in different countries. Energy is the basic requirement for economic and industrial development of the country. The limited life of fossil fuels, their cost and problems of environmental pollution have necessitated increased use of alternate source of energy. Also as we head into new millennium it is time to put renewable energy & planet friendly technology at the top of our priorities. Proton exchange membrane fuel cell will be proved to be an important energy device due to its high efficiency, low emission and high power density. The main objective of this paper is to study and evaluate the performance of PEM fuel cell. The test rig consist of self breathing PEM fuel cell along with hydrogen cylinder, flow meter and electronic loading devices etc. The PEM fuel cell will be tested with different loads in terms of electrical resistance and accordingly the fuel supply will be measured and other parameters will be checked

Keywords : Proton exchange membrane electronic loading device