

“HYDROGEN AS FUEL. FROM ELECTROLYSIS TO FUEL CELLS”

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ABSTRACT

STEM approach is a well-known pedagogical and teaching method, especially for Natural Sciences teachers. This is because Scientific is based on the major steps of STEM approach. Primarily, a scientific question is being applied, or a science theory had to be tested. Then we were asked to test the theory or attempt to provide some answers to our scientific questions. We have then to perform an experiment using technology and engineering. Finally, in order to process our findings, we must use mathematical approaches. We followed these major steps to compose an educational scenario about water electrolysis and how Hydrogen as an electrolysis product can be used as fuel. We mainly focused on experimentation (electrolysis apparatus) and manufacturing of a compact fuel cell that consumes hydrogen and product's energy. We integrated this STEM approach under a historical frame regarding water as a power source since hundred years ago.

KEYWORDS: *STEM, Water, Hydrogen, Fuel Cell, Electrolysis, Water Distillation, Renewable Energy Sources*

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