

H₂O as a Method of Sustainable Fuel for a Bus

Lopez-Aviles , Genesis (School: Centro Residencial de Oportunidades Educativas de Ceiba)

Tirado-Laboy, Yadiel (School: Centro Residencial de Oportunidades Educativas de Ceiba)

One of the most pressing issues we're currently facing is the burn of fossil fuels. There are many types of fuels: natural gas, acetylene, etc, but the most used fuel of all is gasoline and diesel, a non-renewable energy. This research was done to solve this problem, by using hydrogen as an alternate energy source. The objective was to build a prototype that would implement hydrogen as an alternative fuel for transportation. This process was carried out through; two electrodes (positive and negative) connected to a battery and a solar plate, two containers filled with water, two bells, with small holes at the top, and a fuel cell. The electrodes are known as anode and cathode, the positive is anode while the negative is cathode. When the electrodes were connected to the battery, they were also connected to the water containers, inside the bells; each electrode attracted opposing ions. When the positive pole attracted negative ions, oxygen entered, while the negative pole attracted positive ions, hydrogen entered. Later they were connected to the fuel cell with which the energy created could be transmitted to the bus engine. In addition, this model is good for the environment, since it does not pollute the atmosphere and helps the prevent against global warming. Ultimately, this research achieved its goal by proving that hydrogen can serve as a fuel for a bus that uses a fuel cell.