

ABSTRACT

At this time the development of the automotive is very developed and has used a lot of motorized vehicles or cars. So that it can cause a high enough fuel consumption in the long term the fuel will be used up. For that hydrogen reactor is an alternative for technology that can reduce the problem of excessive fuel consumption or can save fuel consumption in motor vehicles or cars by producing hydrogen from bacterial water that has been extracted. Parameters observed only fuel consumption. In the research conducted, namely by adding fuel additives with different volume variations. The additives used are essential oils and VCO oil which function as a fuel saver. Then see the differences that occur in changes in fuel consumption in variations in engine rotational speed of 2000, 3000, and 4000 rpm. The fuels used in this study are RON 90, RON 92, and RON 98. So you can see the difference between the three fuels. The best savings on essential oil additives with a percentage range of 0.09 – 0.11% savings reached 17 ml on RON 92 fuel with an efficiency of 78.7%. Then the higher the engine rotation speed, the greater the fuel consumption and the lower efficiency of savings.

Kata Kunci: *Additives, Fuel, Combustion engine*