

***Design of a Wet Type HHO (Hydrogen Hydrogen Oxygen) Generator With Magnets And H<sub>2</sub>SO<sub>4</sub> Catalysts In Hydrogen Production***  
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**ABSTRACT**

*The development of hydrogen as a sustainable alternative fuel to reduce dependence on fossil fuels continues. This research designed and made an HHO generator system with the addition of magnets and an H<sub>2</sub>SO<sub>4</sub> catalyst. This research on wet type HHO generators with the addition of magnets and H<sub>2</sub>SO<sub>4</sub> catalysts aims to make HHO generators that produce hydrogen gas and can support practicum activities and determine the effect of adding magnets on the electrolysis process. The materials used are 304 stainless steel electrodes, aquades, 0,3 - 0,5 Tesla magnets, 0.1 M and 0.2 M H<sub>2</sub>SO<sub>4</sub> catalysts and DC power supply power sources with an output of 12V/80A. The results of the HHO generator system performance test in each variation were obtained at 27 seconds, the highest results were in the variation of the 0.2 M H<sub>2</sub>SO<sub>4</sub> catalyst with a 0,3 - 0,5 Tesla magnet with a gas volume of 250 mL. The average power consumption required to break down molecules in the electrolysis process was 295.45 W, with a gas production rate of 8.88 mL/sec, and a generator efficiency of 19.56 %. The addition of magnets raised the gas production rate by 11.13 % and the efficiency of the HHO generator by 11.64%. So, the addition of magnets can affect the reaction in the ongoing electrolysis process.*

**Keyword :** *Electrolysis, Hydrogen, H<sub>2</sub>SO<sub>4</sub>, Magnet, Wet Type HHO Generator,*