

***Effect of Natural Consortium on Volatile Solid Levels in Biohydrogen
Production from Banana Peel Waste***

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ABSTRACT

Utilization of clean, renewable energy resources is needed to replace the use of increasingly scarce fossil fuels and overcome the environmental problems that arise, so it is necessary to develop alternative energy that can replace the role of fuel. Hydrogen fuel is a promising alternative compared to conventional fossil fuels. Biohydrogen is expected to become an energy source in the future, because it is non-polluting, flexible in its use as a fuel and renewable. Hydrogen was chosen as clean energy or zero emission fuel because the waste resulting from burning hydrogen is water. This biohydrogen production process uses banana peel waste as a substrate. The author uses tofu waste and cow dung as a starter because tofu waste and cow dung contain high levels of cellulose. And the use of this material is considered very efficient because it is easy to find and the costs used tend to be cheaper. This research uses the natural consortium technique of microorganisms. Natural consortium is a consortium obtained through an enrichment procedure using certain compounds directly from the source. The aim of this research is to minimize the presence of waste in the surrounding area and it is hoped that it can contribute to the bioenergy sector, as well as being able to support the government program, namely "Net Zero Emission", where this program aims to reduce environmental pollution which has the potential to cause global warming and can be a solution to reduce dependency. humans use fossil fuels.

Keywords: *Biohydrogen, Natural Consortium, Banana Peel Waste, Volatile Solid*