

**Analisis Pengaruh Campuran Bahan Bakar Dexlite Dengan Biodiesel Dari Minyak Limbah Ikan Terhadap Konsumsi Bahan Bakar Dan Opasitas Gas Buang** (*Analysis Of The Effect Of Dexlite Fuel Mixed With Biodiesel From Fish Waste Oil On Fuel Consumption And Opacity Of Exhaust Gas*). Pembimbing  
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**ABSTRACT**

*Increasing the need for fuel oil is something that can't be avoided and will continue to occur due to the increasing population, while the supply of fossil fuels is increasingly depleting. Biodiesel is one of the right solutions to overcome this problem. With the vast ocean in Indonesia, fishing yields are also getting higher. That causes Indonesia to have the potential to develop biodiesel energy sources from raw materials of fish waste that are not used as a substitute for diesel fuel. The purpose of this research is to analyze the effect of dexlite fuel mixture with biodiesel of fish waste oil on fuel consumption and exhaust gas opacity in diesel engines. This type of research uses experimental research. The object of this study is the exhaust emissions. The results of the study obtained by the researchers are the results of mixing dexlite fuel with biodiesel of fish waste oil to be used in diesel engines. The highest flue gas opacity results in a mixture of 70% dexlite with 30% biodiesel (B30) of 2.6% at 1000 RPM ( $\pm 5$ ). The results of the fastest fuel consumption test occur in pure dexlite for 131 seconds in 10 ml of material fuel at 1000 RPM ( $\pm 5$ ). The results of testing the exhaust gas opacity level are increasing, as well as the results of testing fuel consumption which is increasingly efficient, occurs because the water content, carbon and ash in biodiesel is still high.*

*Keyword: biodiesel fish waste oil, opacity, fuel consumption*