

BIODEGRADATION OF DIESEL OIL BY YEAST ISOLATED FROM MANGROVE RHIZOSPHERE

Title	BIODEGRADATION OF DIESEL OIL BY YEAST ISOLATED FROM MANGROVE RHIZOSPHERE
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Abstract	<p>Diesel oil-degrading yeast strains isolated from mangrove rhizosphere at Tritih Kulon, Cilacap had been screened with SMSS medium. Four culturable yeast were isolated. Qualitative test was conducted by culturing and incubating the yeasts for one month in a medium added with 1mL diesel oil. By measuring the reduction of diesel oil, two best yeasts were selected. The quantitative test, GC-MS analysis, was conducted to determine the detailed degradation process of diesel oil. <i>Candida lusitaniae</i> and <i>Cryptococcus laurentii</i> performed the degradative ability. Three highest percent area of hydrocarbon compounds were compared for assessment. The results showed that <i>C. lusitaniae</i> had better degradative capability than <i>C. laurentii</i>, in which hexadecane and methyl hexadecanoate decreased by 90%–95%, and 9-octadecenoic acid, methyl ester declined by 30%–40%. The increasing pH medium during incubation suggested that fermentation process occurred.</p>
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