

THE INFLUENCE OF ORGANIC WASTE SUBTRATE
AGAINST THE ACTIVITY OF ENZYME PROTEASE FROM
WONOREJO MOLDS ISOLATE

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Abstract.

Increasing the accumulation of organic wastewater containing proteins in the neighborhood need to overcome. This research is to know the activity of an enzyme protease from *Penicillium* sp. 3 T3F2, *Verticillium* sp. T3.3 and *Trichoderma* sp. 1 T3I2 single and a consortium on substrate organic wastewater.

The parameters tested in this research is : activity of an enzyme protease and degradation of protein by isolates on substrate fish processing wastewater, septic tank wastewater and tofu wastewater. The influence data of substrate against the activity of an enzyme protease analyzed using Annova One-Way and continued with Duncan test.

The result showed that substrate and isolates affect the activity of enzymes protease. A consortium of isolates *Penicillium* sp. 3 T3F2 + *Verticillium* sp.T3.3 having value activity of an enzymes protease and degradation of the protein highest in the three types of substrate. In substrate fish processing wastewater 0.219 U/mL; 48.394 %. In Septic tank wastewater 0.149 U/mL; 31.268 %. In tofu wastewater 0.222 U/mL; 44.627%.

Keywords: Organic Wastewater, Protease, Protein Degradation.