EXPERIMENTAL STUDY OF COOLING WATER DEBIT VARIATION ON VOLUME OF LIQUID SMOKE DISTILATION RESULTS

Name	: Muhammad Zikri
Reg.number	: 2204151048
Advisior	: Erwin Martianis, ST., MT

ABSTRACK

Increased misuse of hazardous chemicals for preserving various foodstuffs and processed products such as formaldehyde, food preservatives can be done with the fogging process, because smoke contains compounds that are antibacterial, antioxidant, and antifungal. One way food preservatives that can be used is to use preservatives from the fumigation process into liquid smoke. In previous studies, research has been carried out on the processing of grade 1, grade 2 and grade 3 liquid smoke using advanced liquid smoke distillation equipment, with the results of research that the cooling process is too fast by using a 23 liter / minute discharge, so that it experiences differences the temperature and volume of distillation from liquid smoke is too far. Therefore, in this study testing the variation of cooling water discharge to the volume of liquid smoke distillation results using the same liquid smoke distillation tool. This test is useful to prove the best cooling water flow to the volume of liquid smoke distillation results. This test results show that in the testing process using a variation of 1 liter / minute cooling water discharge, getting the distillation volume of 1,225 ml of liquid smoke in the distillator tube 1, 260 ml in the distillator tube 2, and 57 ml in the condenser tube which produces gas and can ignite if burned.

Keywords: Distillation, Liquid Smoke, Cooling Water Discharge (l / min), Volume (ml)