

APLIKASI METODA *OHMIC HEATING* UNTUK MENENTUKAN SIFAT-SIFAT LISTRIK PADA LIMBAH LEMON

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ABSTRACT

Lemon waste have potential to produce lemon oil. Those have 85,7% water content and chemical element C, H, O, N, S. Base on chemical element, those waste have electrical conductivities and this research can developed ohmic heating method.

Objectives research are : Design and make the ohmic heating apparatus, finding kind's resistance, electrical conductivity, current, voltage, energy, electrical field and change electrical apparatus characteristic.

This experiment used sample lemon fresh with mince treatment long 1.5 cm x width 0.5 cm, electrical treatment are variable voltage and current constant. The apparatus in research are ohmic heating, thermal recorder, voltmeter, ampere meter and etc.

The produce this research are sources 79 – 11 V variable, 4,4 A constant, kind resistance 909 Ohm/mm – 158,7 Ohm/mm, electrical conductivity 0.0011 S/mm – 0.0066S/mm,