ABSTRACT

APPLICATION OF THE SENSOR TGS 2620 AS A DETECTOR ALCOHOL CONTENT IN FOOD PRODUCTS BASED MICROCONTROLLER ATMEGA 8535

Oleh

ROHMANTO

It has been designed and fabricated a gauge levels of alcohol (C_2H_5OH) on microcontroller ATMega 8535 based food products using gas sensor TGS 2620. Alcohol content measuring instrument has calibrated using Alkoholmeter. The Data from the sensors has processed by microcontroller which results displayed by the LCD 16 x 2. The process of collecting, processing, and communication of data is set by the microcontroller ATMega 8535 program with BASCOM programming language. Measurements were made on samples in the form of a liquid mixture of alcohol and distilled water with 100 ml evaporated. Measurements were performed in 5 repetitions. Calibration of the instrument that by taking the data from the sensor voltage fluids that have been in dilute alcohol. This tool has a measurement range of 0% to 97% with a 4.9% error. As a food product samples that will be used in the application of this tool is Bintang Bir Pilsanier Zero, Vodka Mixmax, Anker Beer, Pepsi Twist, Kratindaeng Energy Drink, Yogurt, Kecap, Permen Mints, Saos, Calpico Soda, Maya Sarden, Dan Tapai.