Aries Prasetyo, 2016, Rancang Bangun Sistem Monitoring Kadar Gas Amonia (NH3) Berbasis Arduino. Skripsi ini dibuat dibawah bimbingan Dr. Khusnul Ain, M. Si. dan Akif Rahmatillah, S.T., M.T., Departemen Fisika, Fakultas Sains dan Teknologi, Universitas Airlangga, Surabaya.

ABSTRAK

Penelitian ini dilakukan untuk mengantisipasi adanya pencemaran udara di dekat pabrik yang mempunyai bahan ammonia (NH3). Penelitian alat ini mengunakan sensor gas MQ-135 berbasis Arduino Uno dan hasilnya ditampilkan oleh LCD. Pengujian menggunakan variasi campuran akudes dan ammonia cair dengan jumlah 100ml. Pengukuruan dilakukan dengan selang waktu 30 detik tiap pengambilan data per sampel. Variasi sampel yang digunakan dengan perbandingan 1%, 2%, 3%, 4%, 5%, 6%, 7%, 8%, 9%, dan 10%. Hasil pengujian dari penelitian alat ini adalah bisa digunakan dalam rentang 1% sampai 6% atau dibawah 7% karena adanya perubahan signifikan.

Kata Kunci : ammonia, MQ-135, Arduino, LCD

Aries Prasetyo, 2016, Design Monitoring System Quality of Ammonia Gas (NH3) have as a base Arduino. This research has supervised by Dr. Khusnul Ain, M.Si. and Akif Rahmatillah, S.T., M.T., Department of Physics, Faculty of Science and Technology, Airlangga University, Surabaya.

ABSTRACT

This study have been did it for anticipated from pollution near factory that has ammonia (NH3). This instrument study use gas sensor MQ-135 have as a base Arduino Uno and th result has display with LCD. The trial of study use mix variation of aquades and ammonia liquid with amount 100ml. The measuring have been did it with delay 30 seconds every withdrawl data per sample. Variation of sample has been used with ratio 1%, 2%, 3%, 4%, 5%, 6%, 7%, 8%, 9%, dan 10%. The result of this instrument study is it can be used with scale under 7% because it has change of significant data.

Keyword : ammonia, MQ-135, Arduino, LCD