

POLITEKNIK KESEHATAN TANJUNG KARANG
JURUSAN KESEHATAN LINGKUNGAN

Laporan Tugas Akhir, Mei 2025

Berti Mariza Musba

“Pengukuran Karbon Monoksida (CO) Di Ruas Jalan Teuku Umar Kota Bandar Lampung Tahun 2025”

CII+ 102 Halaman + 4 Tabel + 14 Gambar+ 5 Lampiran

RINGKASAN

Penelitian ini bertujuan untuk mengukur konsentrasi Karbon Monoksida (CO) di Jalan Teuku Umar, Kota Bandar Lampung tahun 2025. Latar belakang penelitian adalah meningkatnya jumlah kendaraan bermotor yang menjadi salah satu sumber utama pencemaran udara di kawasan perkotaan. Metode yang digunakan adalah deskriptif dengan pengukuran langsung konsentrasi CO menggunakan alat CO Air Quality Detector 9 in 1 pada lima titik lokasi, yaitu depan Mall Boemi Kedaton, samping RS Advent, depan Taman Makam Pahlawan, persimpangan RSUD Abdul Moeloek, dan depan Tugu Juang. Pengukuran dilakukan selama tiga hari (Senin, Rabu, dan Minggu) pada interval waktu (pagi, sore, dan malam).

Data jumlah kendaraan, temperature udara, kelembaban udara, dan kecepatan angin juga dicatat. Hasil pengamatan menunjukkan bahwa konsentrasi CO mengalami variasi tergantung pada volume kendaraan dan kondisi lingkungan. Tren peningkatan konsentrasi CO, menunjukkan bahwa konsentrasi CO ini dipengaruhi oleh jumlah kendaraan. Tren tertinggi konsentrasi CO pada pagi, hari Senin di titik I yaitu depan Mall Boemi Kedaton sebesar $11.223 \mu\text{g}/\text{Nm}^3$, sedangkan tren konsentrasi CO terendah pada malam, hari Minggu di titik V yaitu depan Tugu Juang sebesar $1.145 \mu\text{g}/\text{Nm}^3$. Meskipun sebagian besar hasil masih di bawah Peraturan Pemerintah Nomor 22 Tahun 2021, tentang Baku Mutu Udara Ambien Nasional sebesar $10.000 \mu\text{g}/\text{Nm}^3$.

Kata Kunci : Carbon Monoksida, Emisi, Lalu Lintas

Daftar Bacaan : 5 (2019-2024)

**TANJUNGKARANG MINISTER OF HEALTH POLYTECHNIC
DEPARTMENT OF ENVIRONMENTAL HEALTH**

Final Assignment Report, Mei 2025

Berti Mariza Musba

“Measurement Of Carbon Monoxide Along Teuku Umar Street, Bandar Lampung City, In 2025”

CII+ 102 Pages + 4 Tables + 14 Pictures+ 5 Attachments

ABSTRACT

This research aims to measure the concentration of Carbon Monoxide (CO) along Teuku Umar Street, Bandar Lampung City in 2025. The background of this study is the increasing number of motor vehicles, which are one of the main sources of air pollution in urban areas. The research method used was descriptive, with direct measurement of CO concentration using the CO Air Quality Detector 9 in 1 at five locations: in front of Mall Boemi Kedaton, beside RS Advent, in front of the Heroes Cemetery, at the intersection of RSUD Abdul Moeloek, and in front of Tugu Juang. Measurements were conducted over three days (Monday, Wednesday, and Sunday) and at different time intervals (morning, afternoon, and night).

Data on vehicle volume, air temperature, humidity, and wind speed were also recorded. Observations showed that CO concentrations varied depending on vehicle volume and environmental conditions. The trend of increasing CO concentration indicates that CO levels are influenced by the number of vehicles. The highest CO concentration was recorded on Monday morning at Location I (in front of Mall Boemi Kedaton) at $11.223 \mu\text{g}/\text{Nm}^3$, while the lowest CO concentration was found on Sunday night at Location V (in front of Tugu Juang) at $1.145 \mu\text{g}/\text{Nm}^3$. Despite these fluctuations, most of the measured concentrations remained below the national ambient air quality standard set by Government Regulation Number 22 of 2021, which is $10.000 \mu\text{g}/\text{Nm}^3$.

Keywords : Carbon Monoxide, Emissions, Traffic

Daftar Bacaan : 5 (2019-2024)