

**POLITEKNIK KESEHATAN KEMENKES TANJUNG
KARANG JURUSAN KESEHATAN LINGKUNGAN**

Laporan Tugas Akhir, Mei 2025

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Gambaran Kadar Debu Dibeberapa Ruas Jalan Arteri Kota Bandar
Lampung

ABSTRAK

Penelitian ini bertujuan untuk menganalisis kualitas kadar debu di beberapa ruas jalan arteri Kota Bandar Lampung pada tahun 2025. Dengan meningkatnya jumlah kendaraan dan aktivitas industri, pencemaran udara, khususnya debu partikulat, menjadi isu yang semakin mendesak. Penelitian ini dilakukan di tiga lokasi strategis, yaitu Jalan Diponegoro, Jalan Kartini, dan Jalan Raden Intan, yang merupakan jalur utama dengan kepadatan lalu lintas tinggi.

Metode yang digunakan dalam penelitian ini adalah deskriptif dengan pengambilan sampel debu ambien selama empat hari pada waktu yang berbeda. Hasil pengukuran menunjukkan bahwa kadar debu PM_{10} di empat dari enam titik pengamatan melebihi ambang batas yang ditetapkan oleh Permenkes No. 2 Tahun 2023, dengan titik tertinggi mencapai $82,8125 \mu g/m^3$. Sementara itu, kadar $PM_{2,5}$ masih berada di bawah ambang batas, namun mendekati nilai kritis.

Analisis menunjukkan adanya korelasi positif antara jumlah kendaraan dan kadar debu, di mana titik dengan jumlah kendaraan tertinggi menunjukkan konsentrasi debu yang lebih tinggi. Selain itu, faktor lingkungan seperti suhu, kelembaban, dan kecepatan angin juga berpengaruh terhadap konsentrasi debu di udara.

Kata kunci: kondisi fisik, lingkungan, Debu

Daftar Bacaan : 21 (2010-2023)

TANJUNG KARANG HEALTH POLYTECHNIC
ENVIRONMENTAL HEALTH DEPARTMENT

Final Project Report, Mei 2025

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Description of dust levels on several arterial roads in the city of Bandar Lampung in 2025

ABSTRACT

This study aims to analyze the quality of dust levels on several arterial roads in Bandar Lampung City in 2025. With the increasing number of vehicles and industrial activities, air pollution, particularly particulate matter, has become an increasingly urgent issue. This study was conducted at three strategic locations: Jalan Diponegoro, Jalan Kartini, and Jalan Raden Intan, which are major routes with high traffic density.

The method used in this study is descriptive, involving the collection of ambient dust samples over four days at different times. The measurement results indicate that PM₁₀ dust levels at four out of six monitoring points exceed the threshold set by Ministry of Health Regulation No. 2 of 2023, with the highest point reaching 82.8125 µg/m³. Meanwhile, PM_{2.5} levels remained below the threshold but were approaching critical levels.

Analysis revealed a positive correlation between the number of vehicles and dust levels, with points having the highest number of vehicles showing higher dust concentrations. Additionally, environmental factors such as temperature, humidity, and wind speed also influenced dust concentrations in the air.

Based on the results of this study, it is recommended that the local government increase monitoring of vehicle emissions and implement air pollution mitigation efforts, including planting vegetation along roads to improve air quality. This study is expected to provide useful information for decision-making in environmental health policies in Bandar Lampung City.

Keywords: physical conditions, environment, dust
Reading List: 21 (2010-2023)