

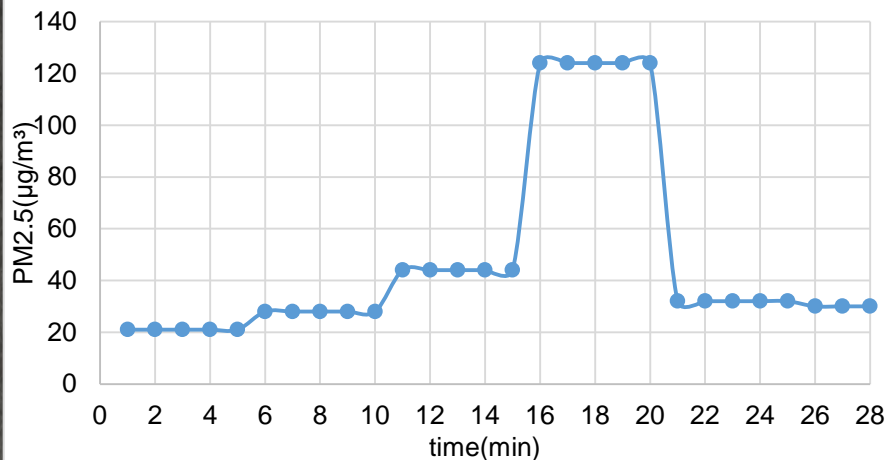
An Analysis of the Various Aspects of the Rueifong Night Market and Liuhe Night Market in Kaohsiung, Taiwan, and air pollution

1. Abstract

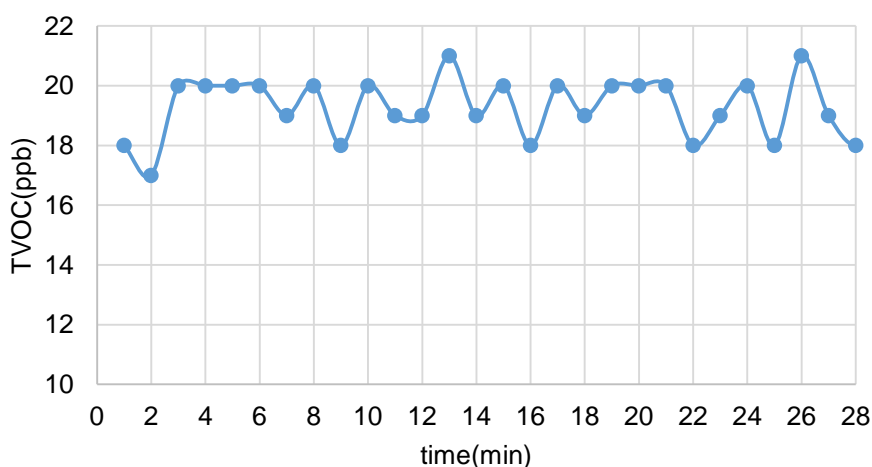
This research aims to find out different factors that might affect the TVOC, Carbon Dioxide, Particulate Matter in the night markets in Taiwan. We found them mostly affected by the types of the stands and traffic flow near the markets. And the huge number of people would prevent our device from detecting air pollution caused by those stands.

4. Result

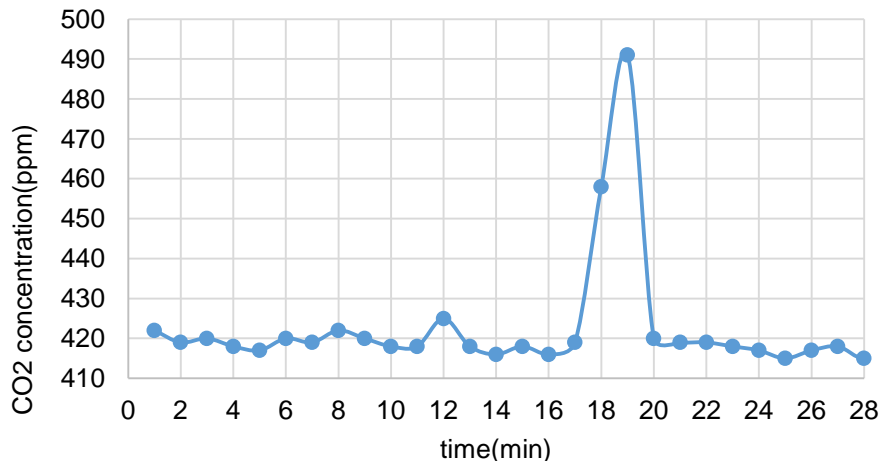
Particulate Matter 2.5 line chart



TVOC line chart



Carbon Dioxide Concentration line chart



2. Methods and Materials

Materials: Mobile Nose 、smartphone(app: ADDWII)

Methods: We connected the Mobile Nose to our smartphone, imitating visitors' walking speed along their path and collecting data through the app.

3. Structure

Setting Theme

Drafting Scheme

Data Analysis

Measurement

Conclusion

5. Conclusion

- 1) The variations TVOC and CO₂ are mainly caused by the types of stands and traffic flow, being higher especially when passing through the stands that sold fried food.
- 2) People may be a barrier for our Mobile Nose to detect the pollution.
- 3) Rueifong Night Market's aisles are much more narrow than the Liuhe Night market, so it was easier to detect the smoke, also the effect of people flow obviously showed up at Rueifong.
- 4) People may be a barrier for our Mobile Nose to detect the pollution.
- 5) Liuhe Night Market was not affected much by wind direction.

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