



Po Leung Kuk Laws Foundation College, China

Impact of plant on
Environment in Hong Kong

Group 3



Background of research

- Raise the awareness on protecting Green area in Hong Kong
- Effect of growing plant in the city

Hypothesis

- Plant can absorb and clean some type of pollutants in air but not only carbon dioxide

Place for the experiment

Po Hong Road



Po Tsui Park



Source of pollutants

- Nitrogen dioxide mainly come from burning fossil fuel
- Carbon monoxide is produced by the incomplete burning
- Ozone is formed from dioxygen by the action of UV light and electrical discharge
- Sulfur dioxide is produced as a by-product of copper extraction and the burning of fossil fuels

Methodology

- Sampling by our team every two weeks
- Use the air pollutants detector

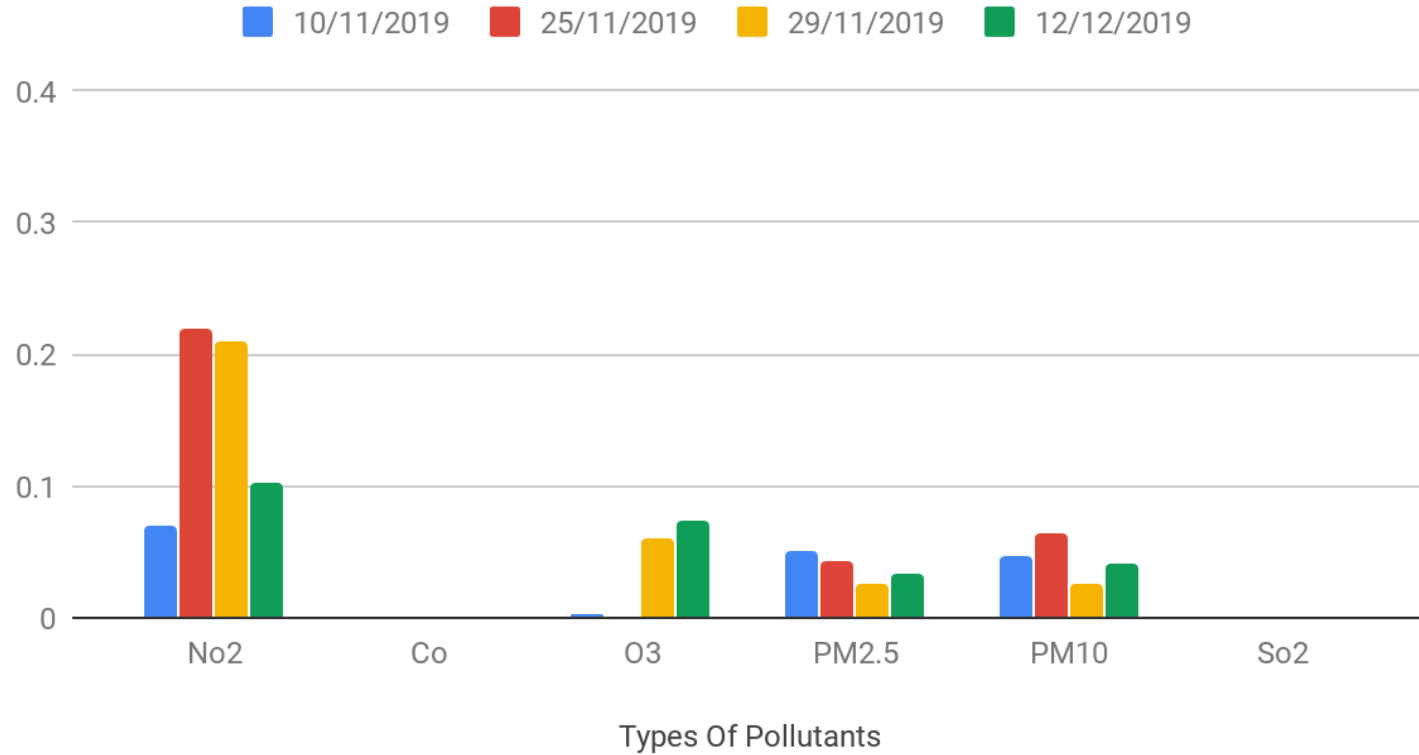
Po Hong Road Data

| Date of sampling | No2 | Co | O3 | PM2.5 | PM10 | So2 |
|------------------|-------|------|-------|-------|-------|------|
| 10/11/2019 | 0.069 | 0.00 | 0.002 | 0.051 | 0.047 | 0.00 |
| 25/11/2019 | 0.22 | 0.00 | 0.00 | 0.043 | 0.064 | 0.00 |
| 29/11/2019 | 0.209 | 0.00 | 0.061 | 0.025 | 0.025 | 0.00 |
| 12/12/2019 | 0.103 | 0.00 | 0.074 | 0.033 | 0.042 | 0.00 |

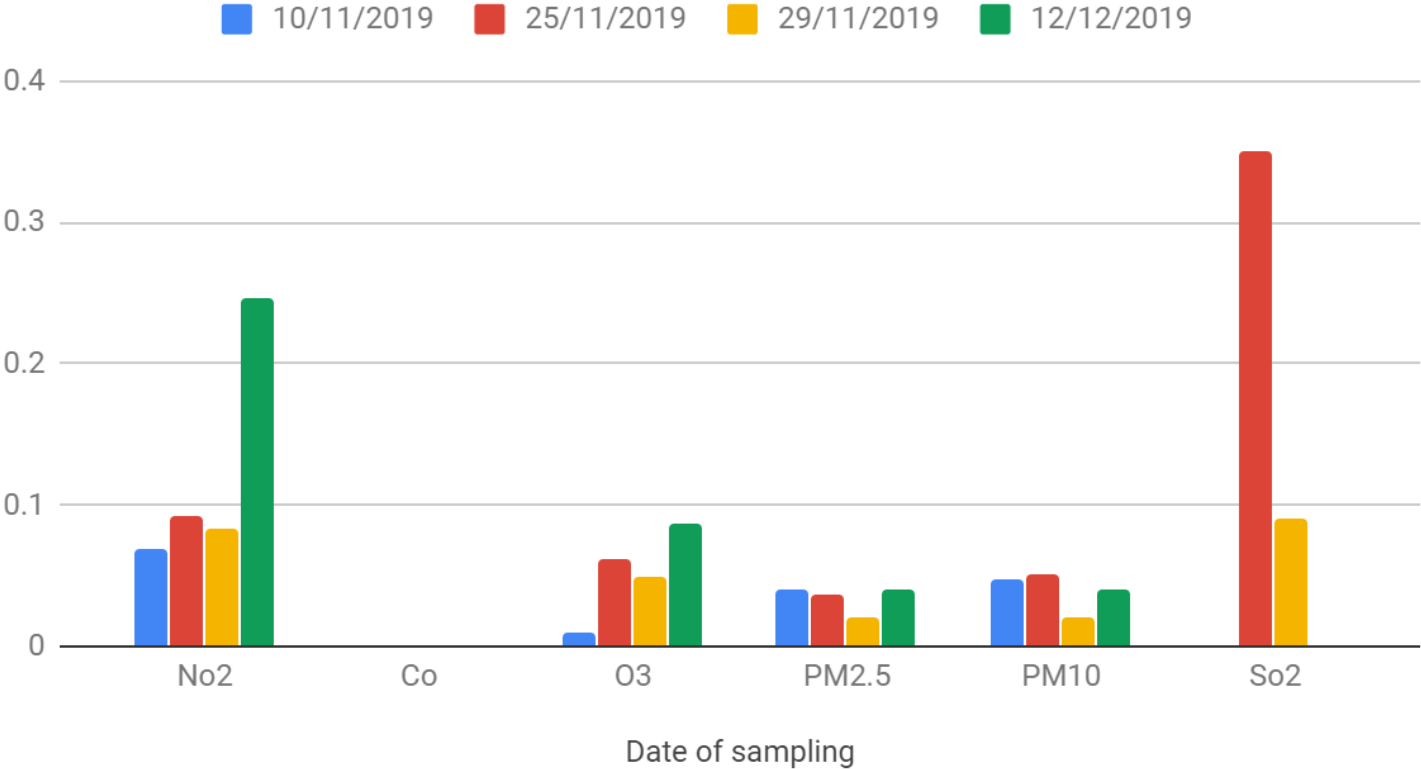
Po Tsui Park Data

| Date of sampling | No2 | Co | O3 | PM2.5 | PM10 | So2 |
|------------------|-------|------|-------|-------|-------|------|
| 10/11/2019 | 0.069 | 0.00 | 0.01 | 0.04 | 0.047 | 0.00 |
| 25/11/2019 | 0.092 | 0.00 | 0.062 | 0.036 | 0.051 | 0.35 |
| 29/11/2019 | 0.083 | 0.00 | 0.049 | 0.02 | 0.021 | 0.09 |
| 12/12/2019 | 0.247 | 0.00 | 0.086 | 0.04 | 0.04 | 0.00 |

Barchart On Pollutants Collected On Po Hong Road



Barchart On the Pollutants collected on Po Tsui Road



Average of all 4 data

| Average | No2 | Co | O3 | PM2.5 | PM10 | So2 |
|--------------|---------|------|---------|-------|---------|------|
| Po Hong Road | 0.15025 | 0.00 | 0.03425 | 0.038 | 0.0445 | 0.00 |
| Po Tsui Park | 0.12275 | 0.00 | 0.05175 | 0.034 | 0.03975 | 0.11 |

Comparison

- Less total amount of pollutants in Po Tsui Park than in Po Hong Park
- Some types of pollutants weren't found in the sampling

Discussion

- Not enough accuracy
- Insufficient Result

Suggestion

- Copy the data twice by two person to prevent mistype of the data
- More Sampling

Conclusion

- Plant may absorb or block some types of pollutants
- Car doesn't produce O₃ or So₂ in this sampling



Finish