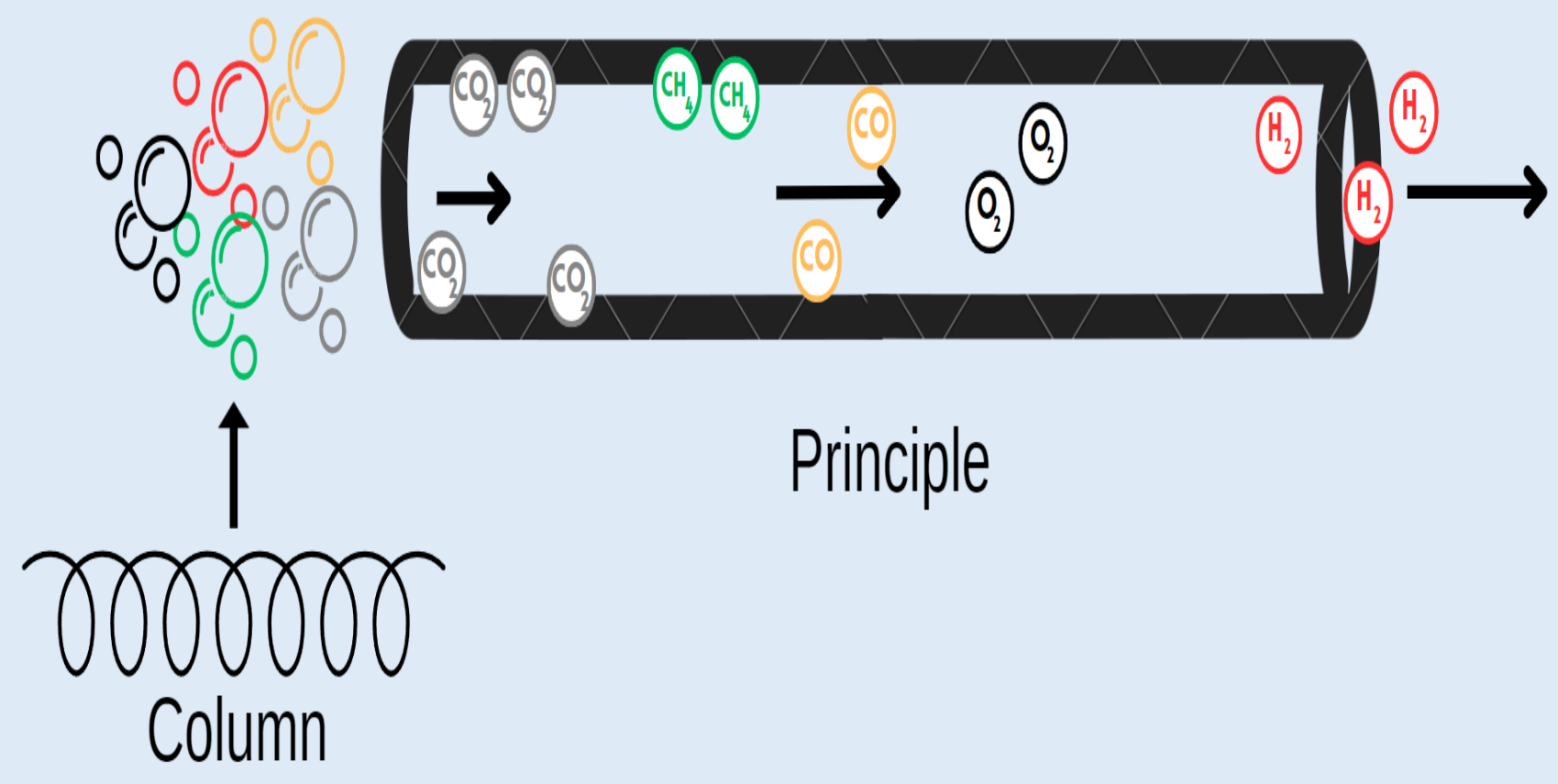


# GAS CHARACTERISATION

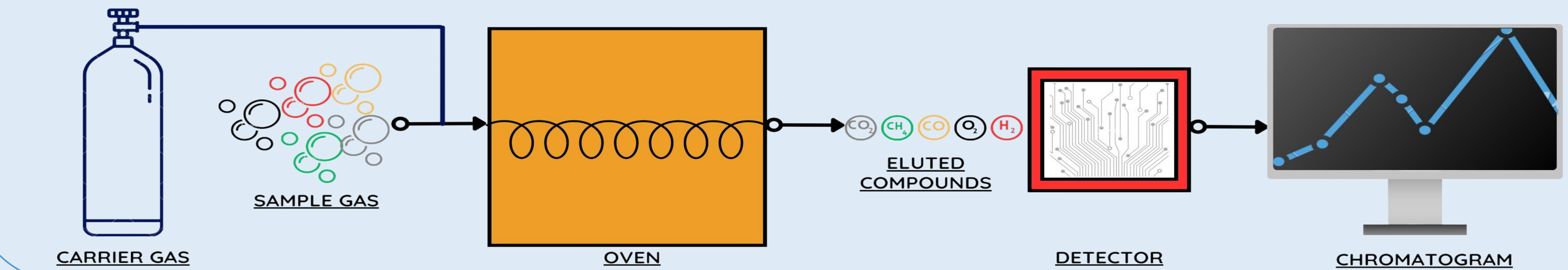


## Why Gas Chromatography



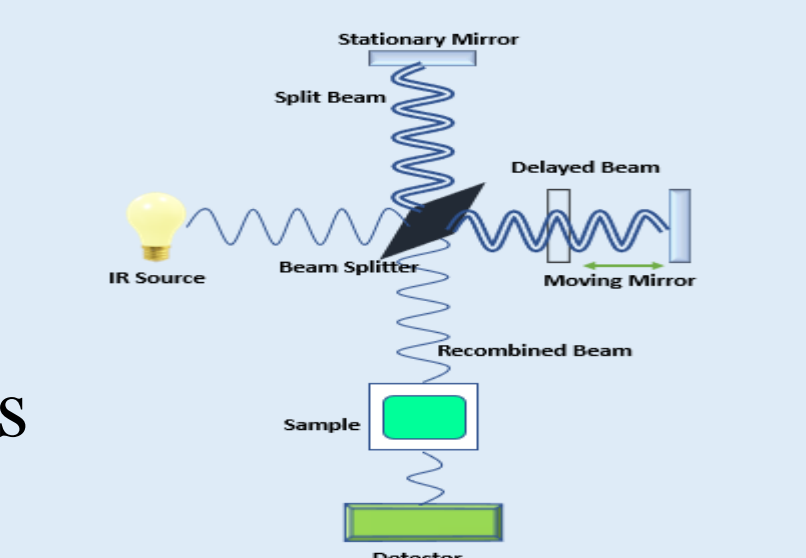
- High-Resolution
- Sensitivity
- Automation
- Versatility
- Cost-effectiveness

Gas chromatography (GC) is a method that separates and analyzes mixtures of compounds. The compounds are separated in the column with the help of a carrier gas and detected using a detector.

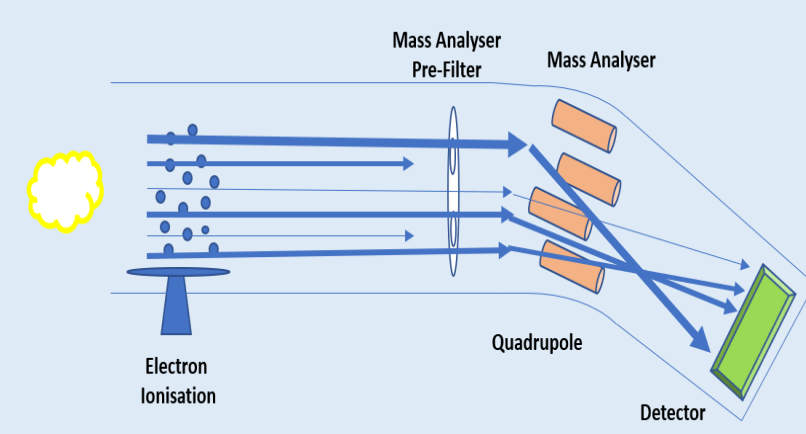


## Gas Analysing Facility

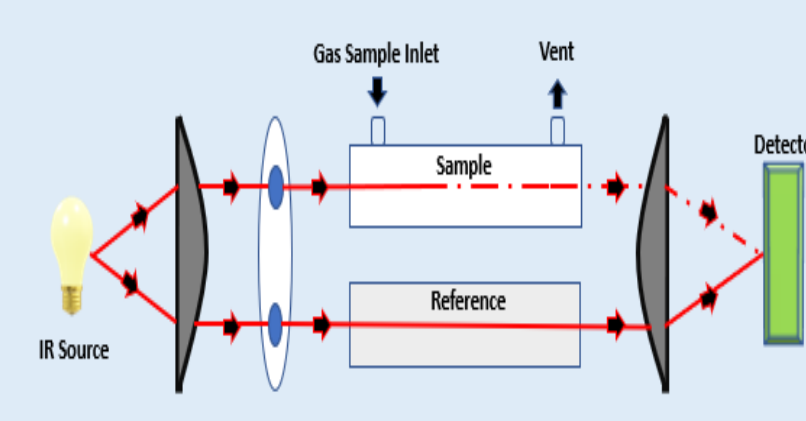
**FTIR**  
Compounds Detected:  
Organic Compounds  
LDL-Specific to compounds



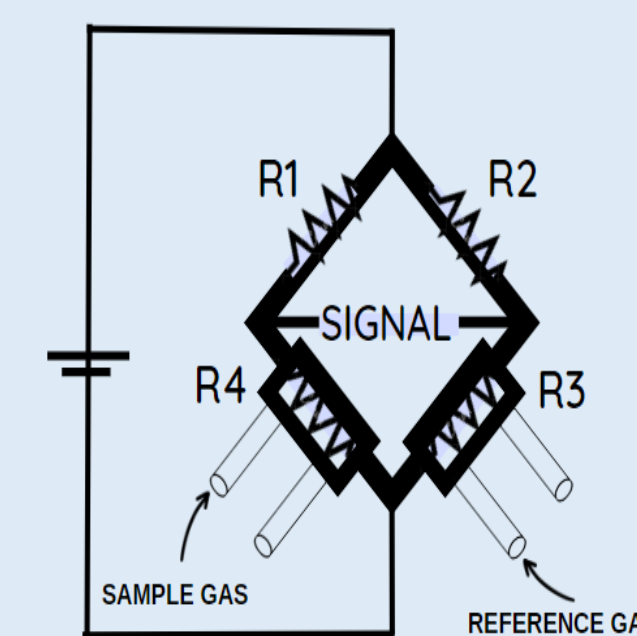
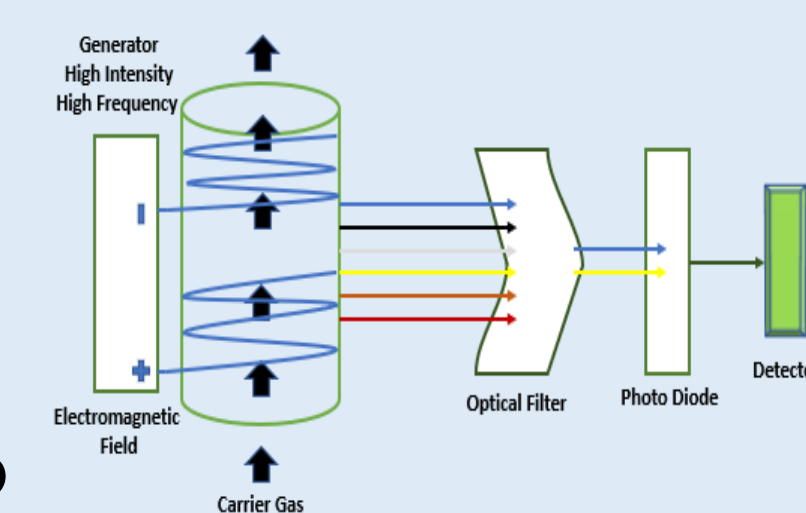
**Mass Spectrometer**  
Compounds Detected:  
Permanent gases and hydrocarbons



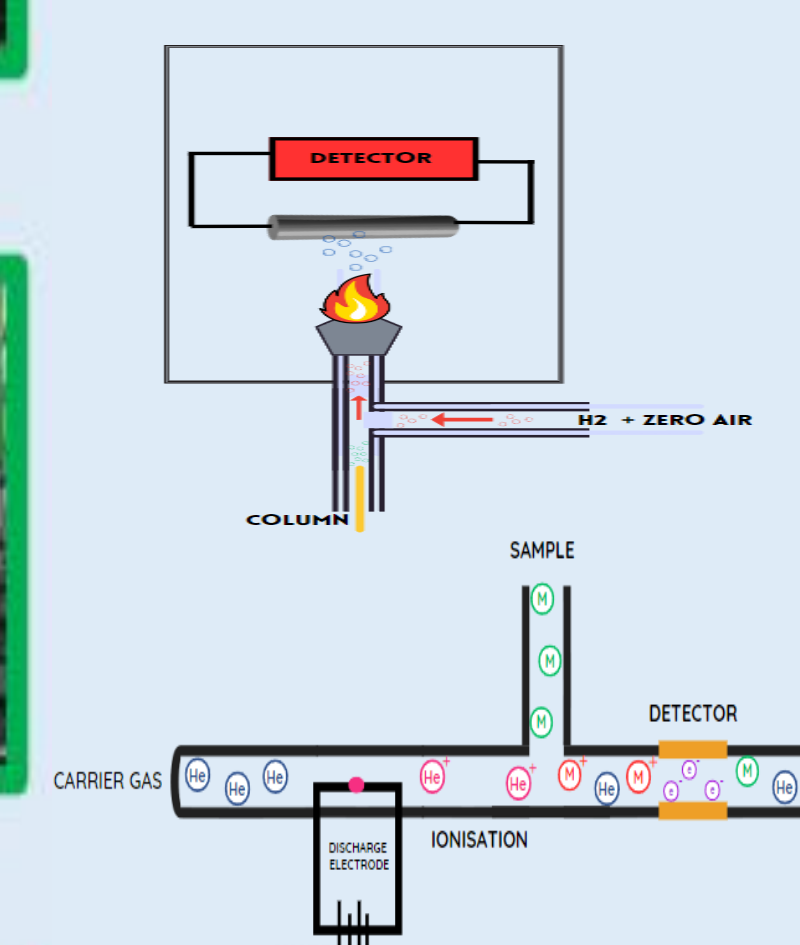
**NDIR**  
Compounds Detected:  
H<sub>2</sub>, CO, CO<sub>2</sub>, CH<sub>4</sub>  
LDL- CO<sub>2</sub> ≤ 20 ppm, CO<sub>2</sub> ≤ 10 ppm, CH<sub>4</sub> ≤ 100ppm,



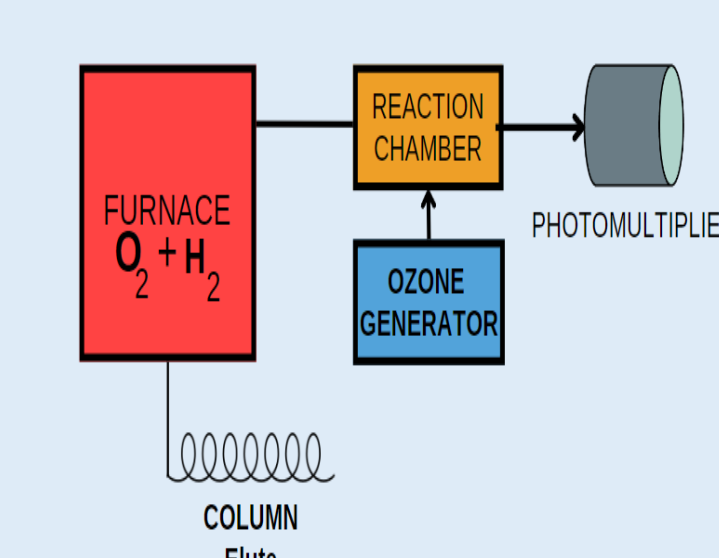
**PED**  
Compounds Detected:  
CH<sub>4</sub>S, COS, CS<sub>2</sub>, DMDS,  
DMS, H<sub>2</sub>S, NH<sub>4</sub>, H<sub>2</sub>O  
LDL- S 0.5ppb, NH<sub>4</sub>- 5 ppb



**TCD**  
Compounds Detected:  
H<sub>2</sub>, He  
LDL- 0.1%



**DID + FID**  
Compounds Detected:  
**DID-** Ar, O<sub>2</sub>, N<sub>2</sub>  
**FID-** CO, CO<sub>2</sub>, CH<sub>4</sub>, THC  
LDL- N<sub>2</sub>: ≤ 50 ppb, O<sub>2</sub>: ≤ 50 ppb,  
Argon: ≤ 50 ppb, CO: ≤ 50 ppb  
THC: ≤ 50 ppb, CO<sub>2</sub>: ≤ 0.1 ppm

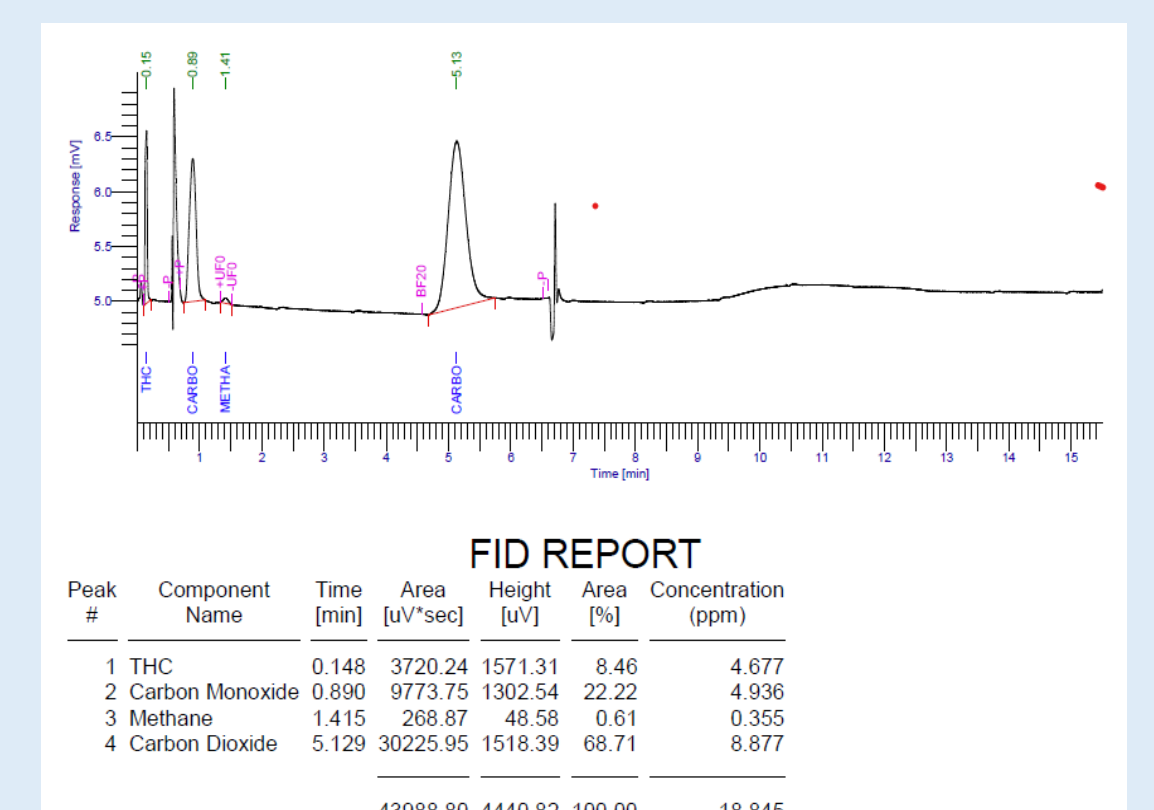
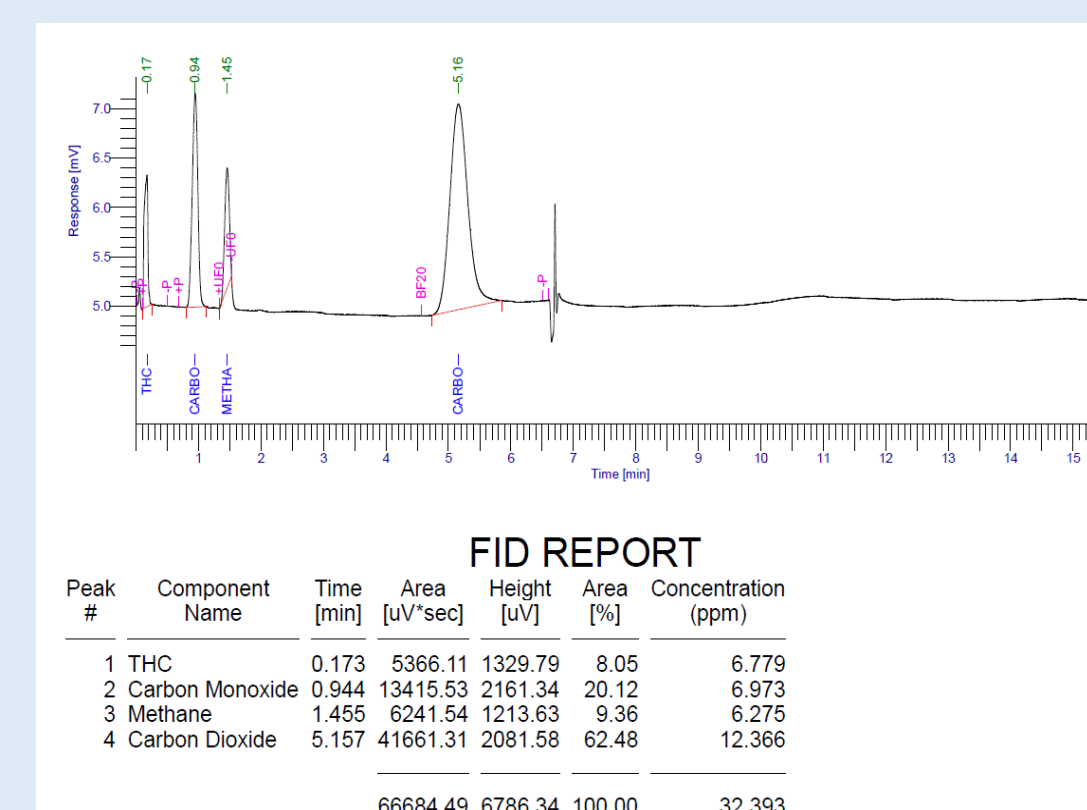
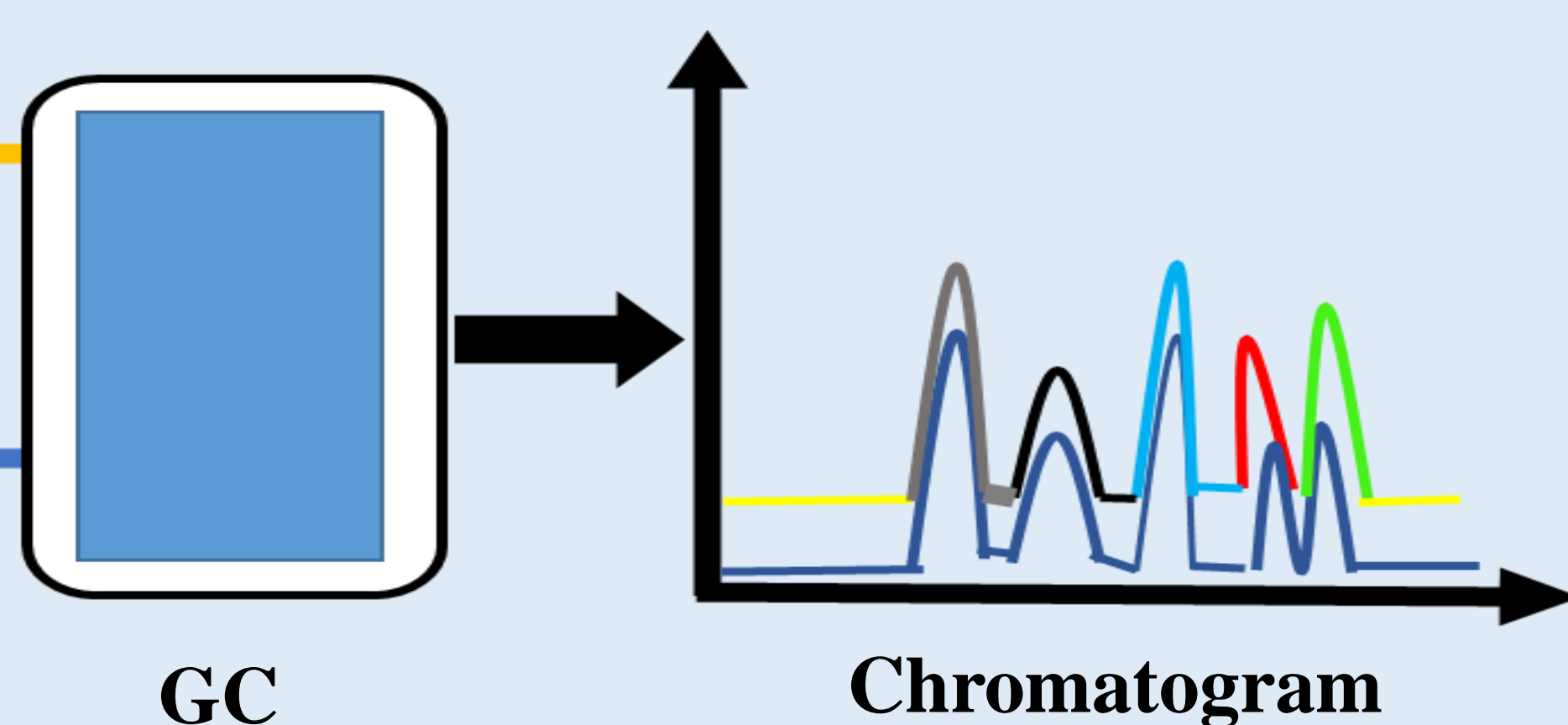
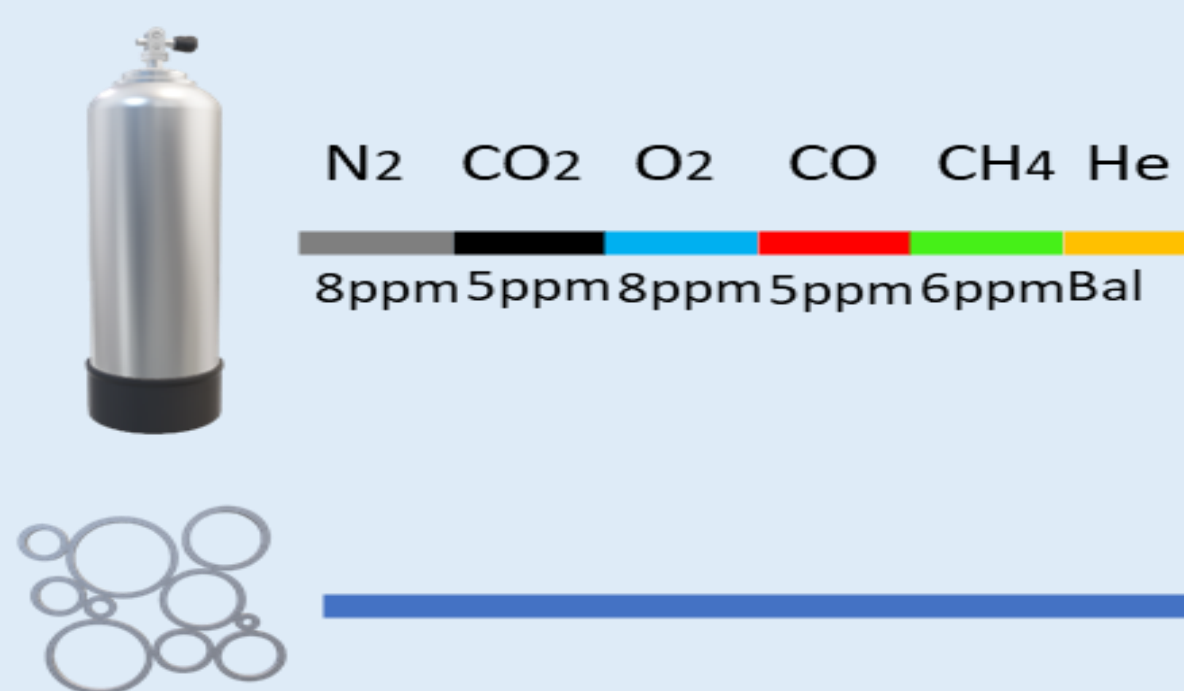


**SCD**  
Compounds Detected:  
CH<sub>4</sub>S, COS, CS<sub>2</sub>, DMDS, DMS,  
H<sub>2</sub>S  
LDL- ≤ 10 ppb

LDL- Lower Detection Limit

## Calibration

### Calibration Mix



Sample Gas

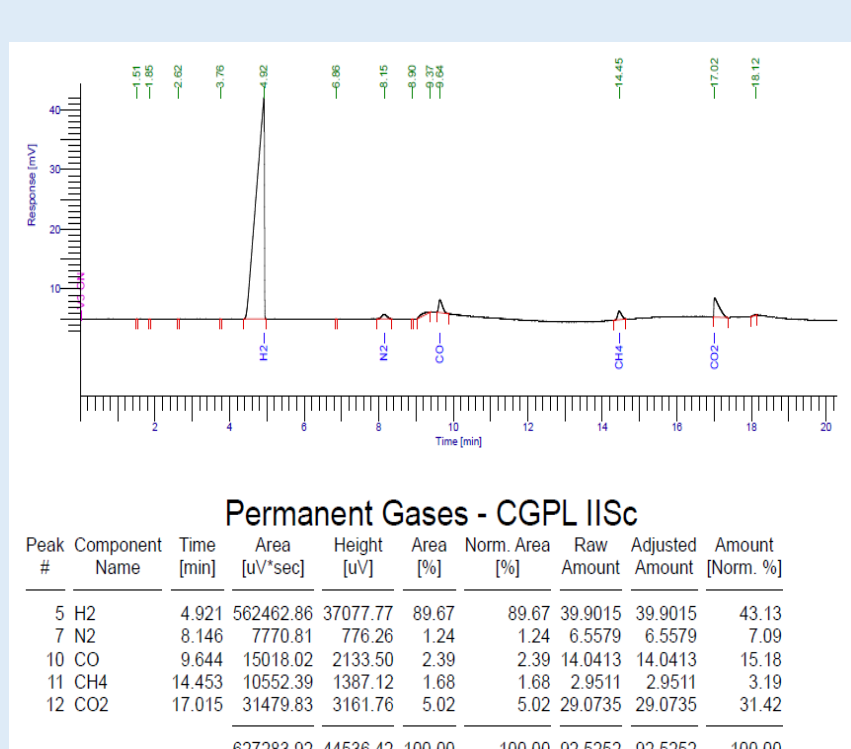
GC

Chromatogram

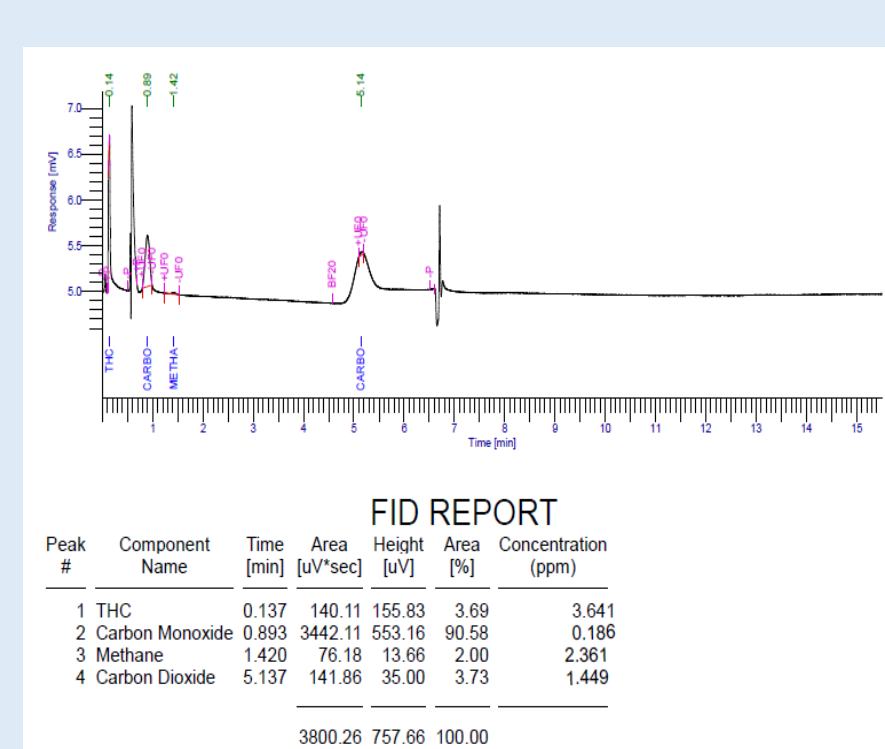
Calibration Mixture

Sample

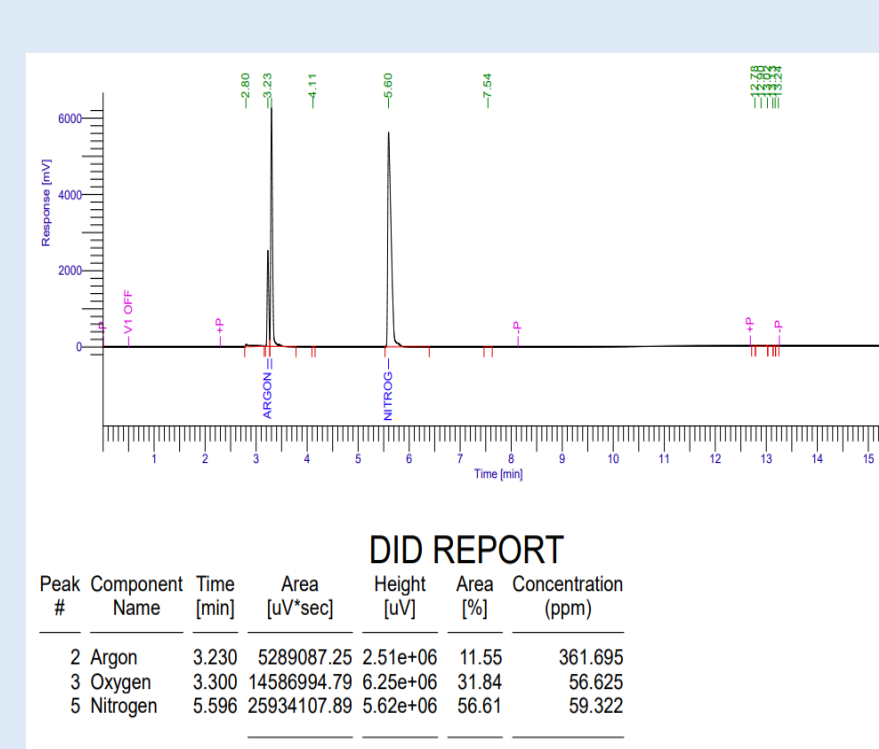
## Results



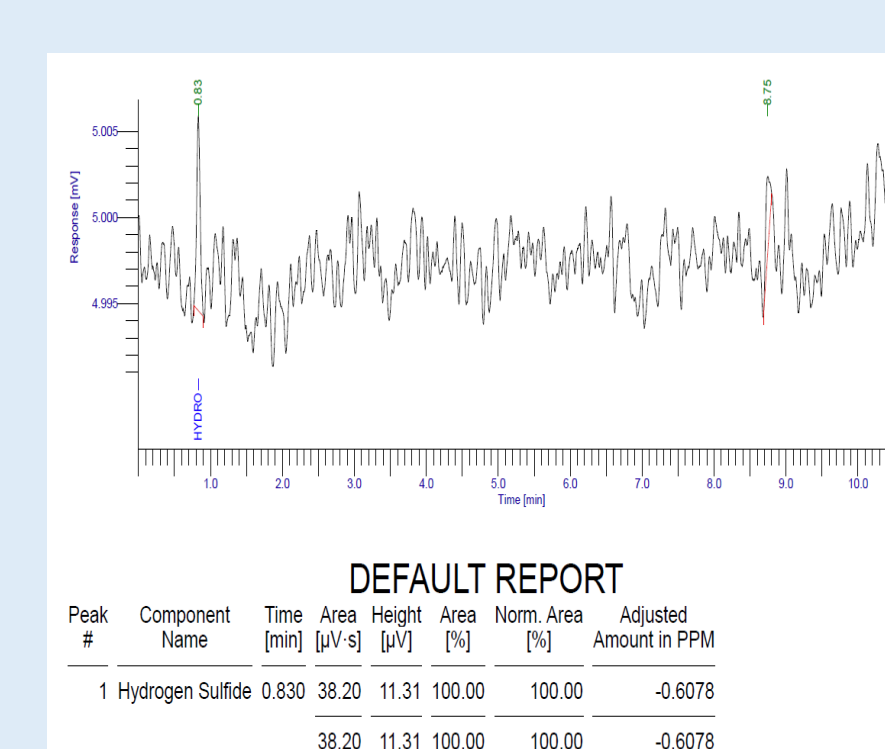
TCD



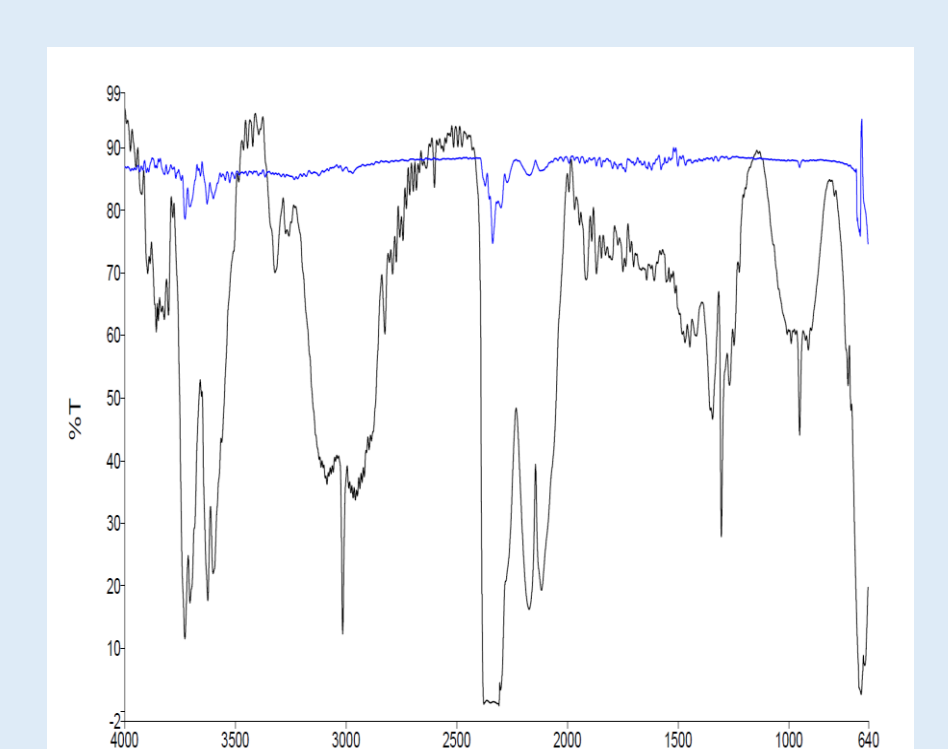
FID



DID



SCD



FTIR

