Passive Breath Profiling for Ultrasensitive Detection of Endogenously Produced VOCs using Electrochemical Methods

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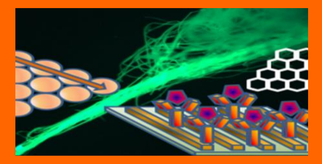
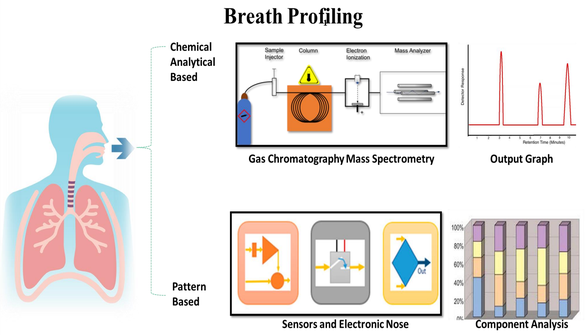


Introduction

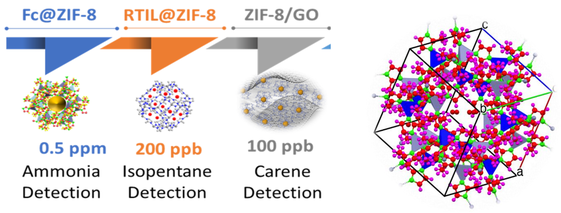


PITFALLS OF CURRENT METHODS

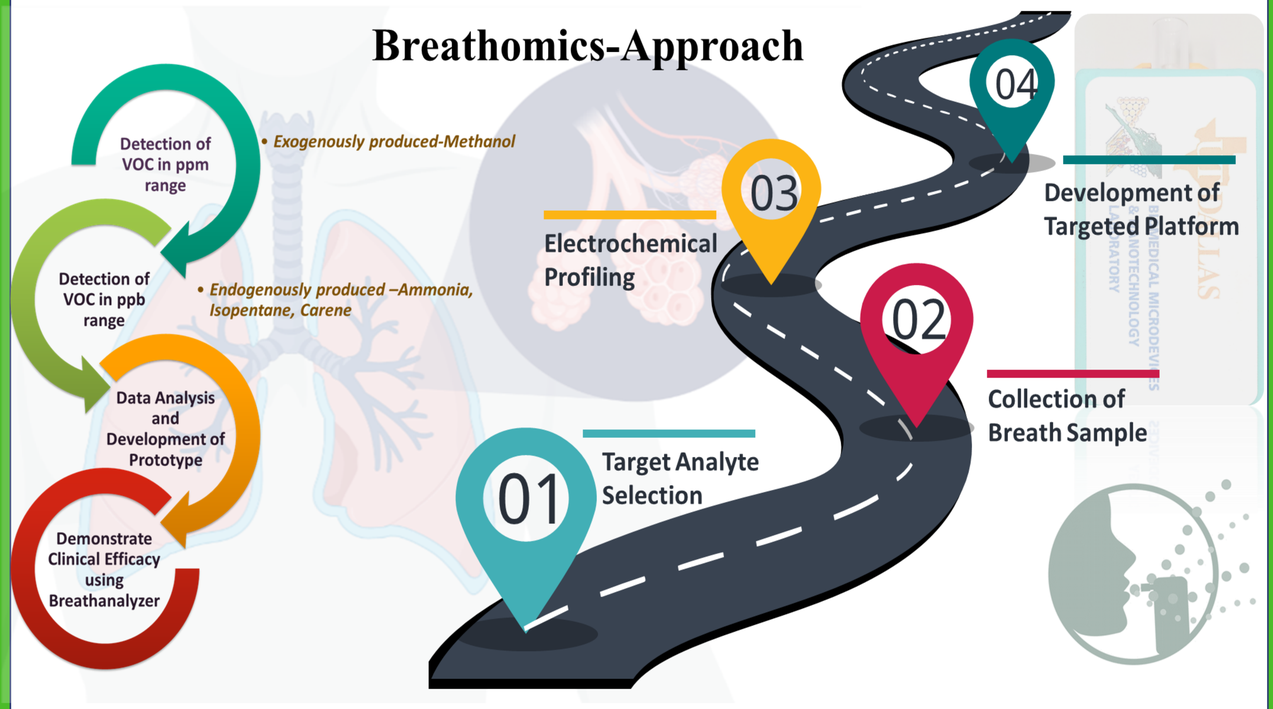
- -Response time
- -Detection limit
- -Needs trained personnel
- -High cost of equipment
- -No on-site applicability

Aim

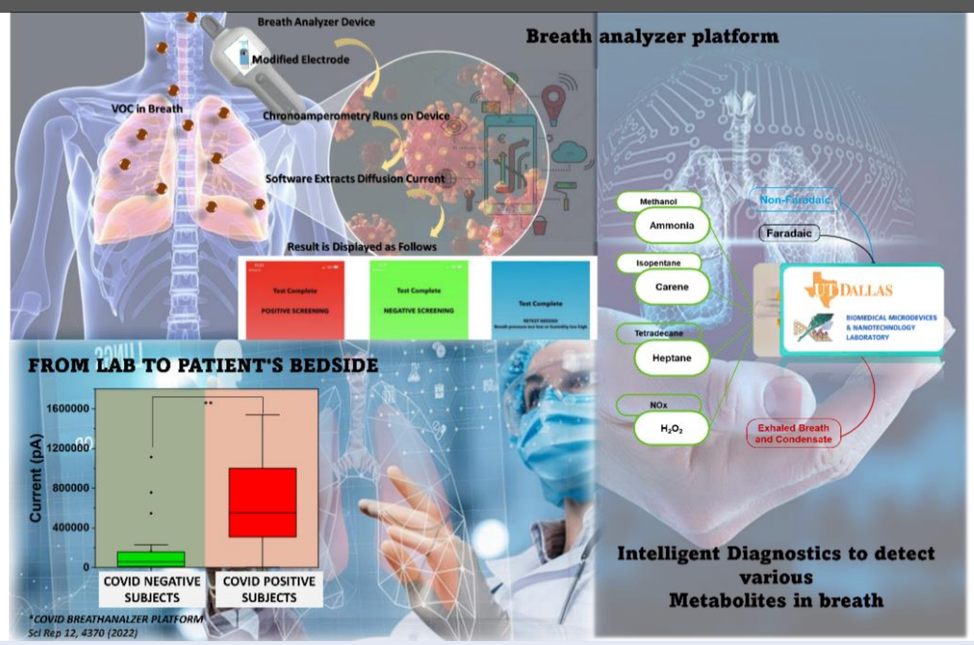
Aim I	• Material Synthesis • Sensor design optimization • Baseline characterization
Aim II	• Sensing response for target analyte VOC • Tuning system towards breathomics
Aim III	• Testing clinical efficacy of sensor using human subjects • Validation and prototype integration



Materials and Methods

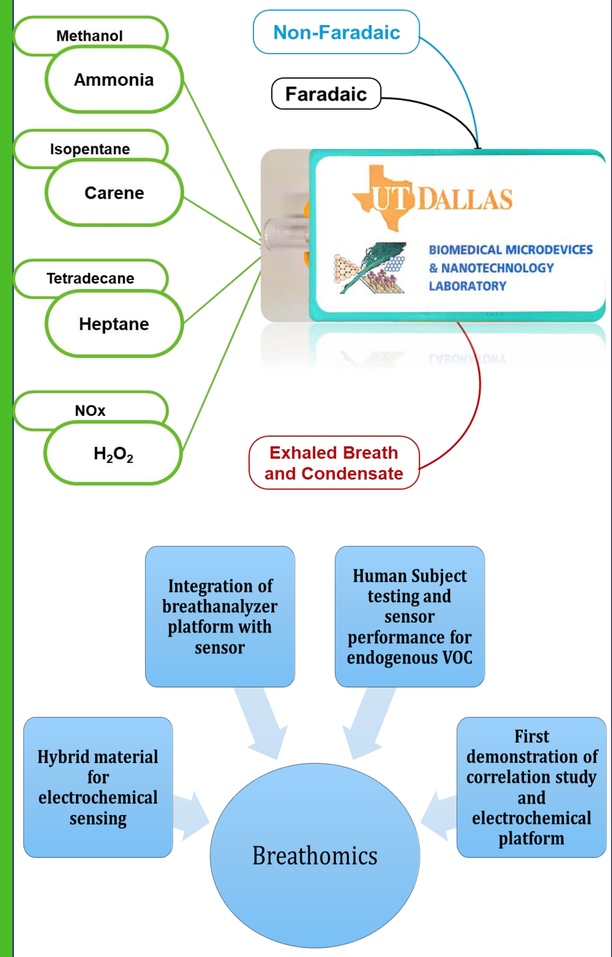


Results



We demonstrate the technological proof of a sensor platform for monitoring of VOCs in low concentration with a final goal to develop a handheld sensing platform

Conclusion



References

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