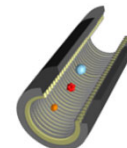




## 2021 Virtual HBCU-UP/CREST PI-PD Meeting



- Kanu Research Lab



# Environmental Quality Assurance Using Ion Mobility Spectrometry

A. Bakarr Kanu, Winston-Salem State University

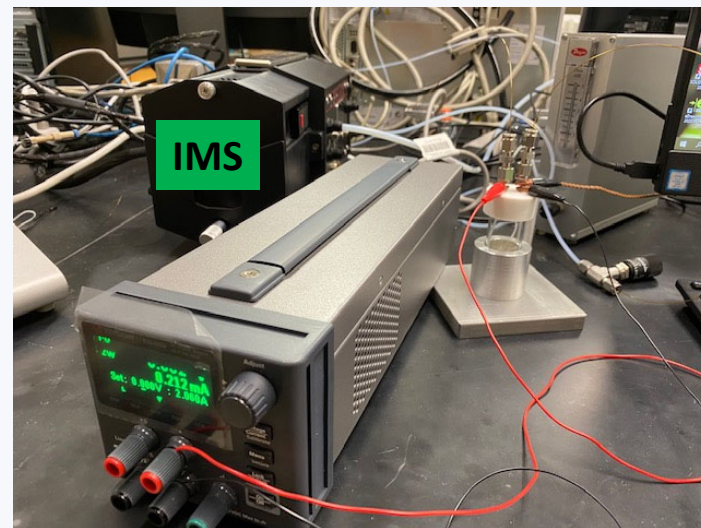
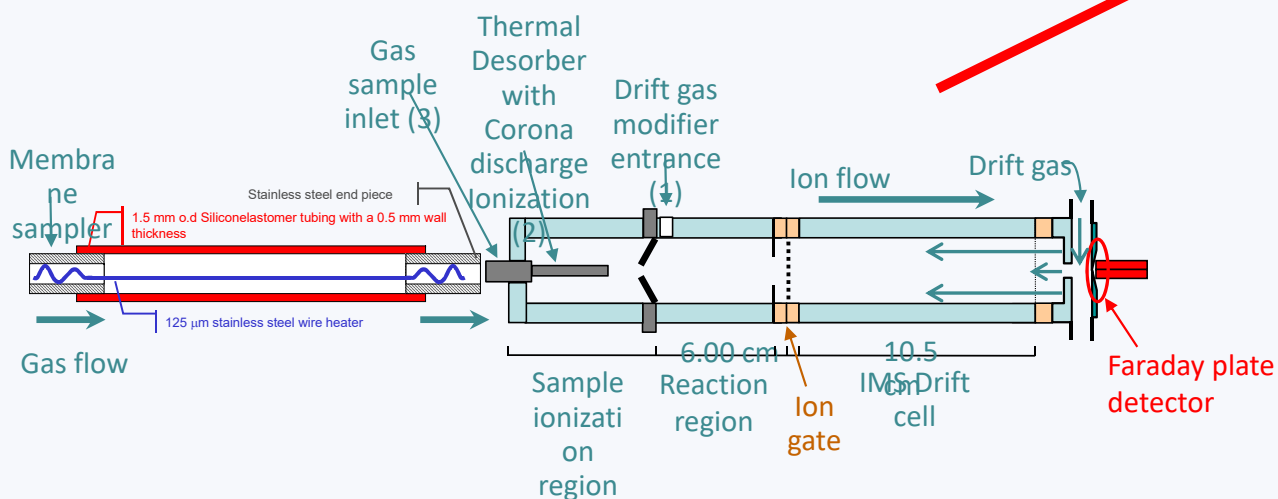
This project is supported by the National Science Foundation grant # 1900124  
All findings and opinions are those of the authors, not necessarily of the funding agency or AAAS.

# Best Practices/Successes

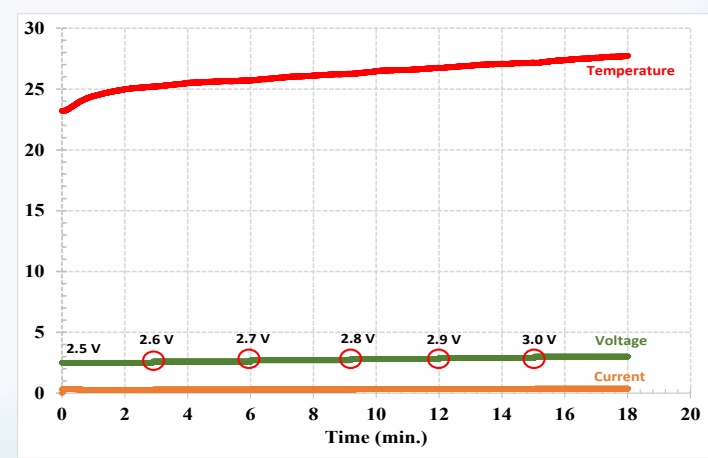
- **Best practice 1:** The construction of an sample introduction sampler (SIS) controlled from an electronic interface board will serve as a powerful device capable of sampling, isolating, enriching, pre-concentrating, and desorbing key environmental pollutants to a suitable instrument.
- **Successes:** (i). Developed a LabView code; (ii). construction of the SIS interface; (iii). interface the unit to an ion mobility spectrometry (IMS).

# Best Practices/Successes

- **Best practice 1:**

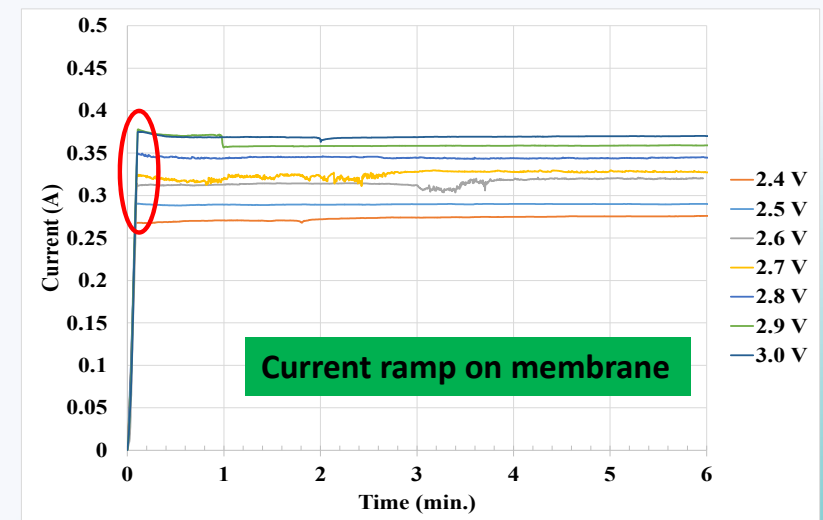
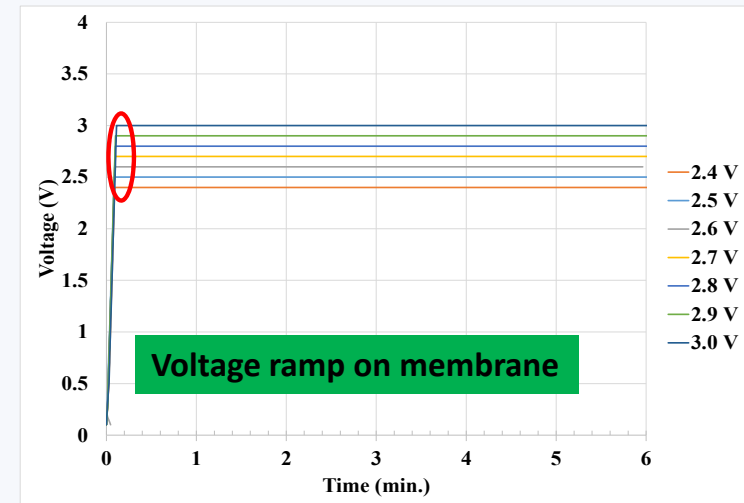
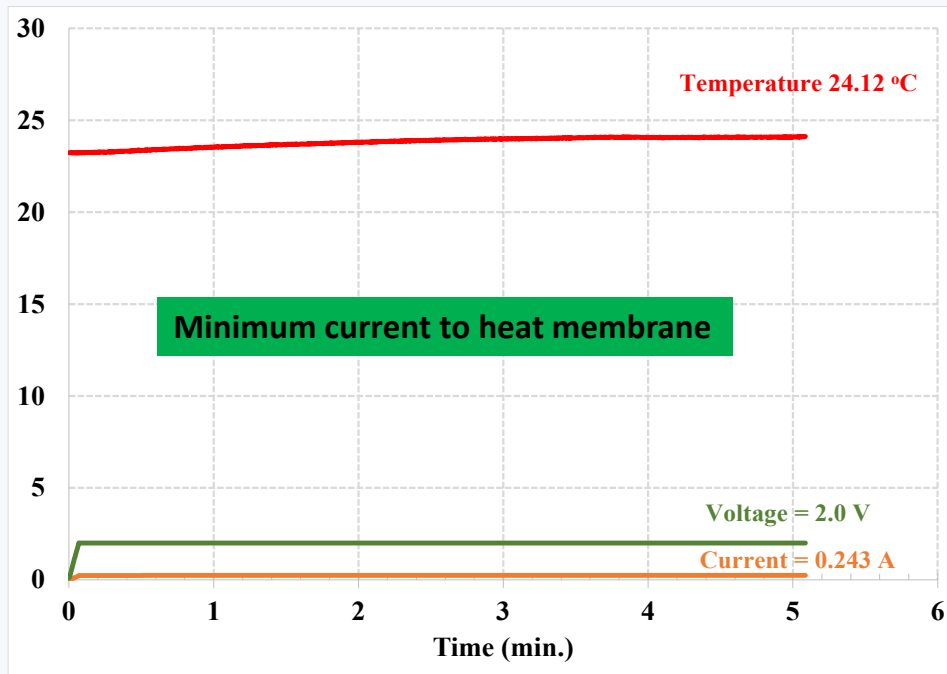


## Full Desorption Mode



# Best Practices/Successes

- **Best practice 1:** Temperature Programming



# Implications

- Project implications:
  - Long-term monitoring of indoor air for VOCs.
  - Breathe analysis to identify VOCs markers between healthy and non-healthy individuals.