# Evaluating the representativeness of suction lysimeter for sampling PFAS porewater concentration in soils Min Ma, Jicai Zeng, Bo Guo

## Background

- contaminated sites.
- rate  $(q_w)$ .  $q_c = q_w * C_{\text{porewater}}$ .
- porewater.
- PFAS remains poorly understood.





Department of Hydrology and Atmospheric Sciences, University of Arizona, Tucson, AZ, USA

### **Results and Analysis**

• We aim to develop a suction lysimeter-based field sampling protocol to enhance the sample representativeness and improve data reliability for environmental



- Compared to sandy clay soil, sandy loam soil exhibits greater variations in changes in air-water interfacial area
- Lower water saturation  $(S_w)$  increases the air-water interfacial area  $(A_{aw})$ , which facilitates the movement of PFAS interfaces, thereby reducing porewater

The sampling error peaks initially due to rapid water extraction and gradually decreases as the system stabilizes. A higher vacuum pressure leads to greater