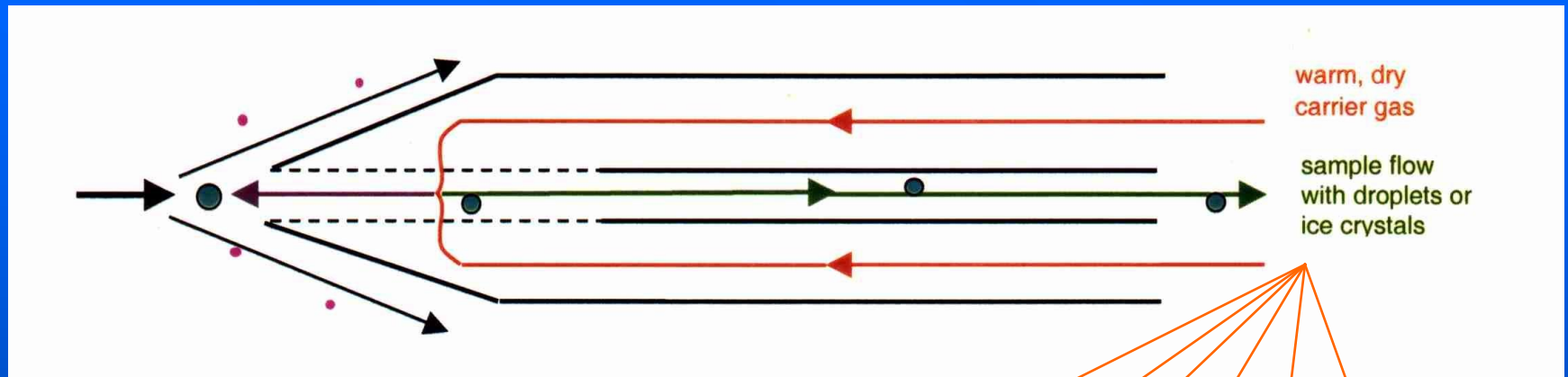


Counterflow Virtual Impactor (CVI)



- Cloud droplets (8-50 μm) are impacted into dry nitrogen gas and evaporated. Interstitial particles and gases excluded.
- Volatile gases and non-volatile residual particles are measured.

Lyman- α
hygrometer

CN
Counter

Optical
Particle
Counter

Impactor &
Filters for
Elec. Mic.

CCN
Counter

H₂O₂
sensor

RICO Objectives

- Do drops in marine cu form preferentially on larger, low S_c nuclei as predicted by simple theory? Do largest drops form on lowest S_c nuclei? (Hudson, DRI)
- What are roles of sea-salt, soil-dust, sulfate, organics in forming these clouds? (Anderson, Crozier: ASU)
- How does hydrogen peroxide partition between droplets and interstitial air? (Heikes, O'Sullivan: URI)
- Focus on developing clouds to minimize confounding effects of scavenging, coalescence, etc. on results