

Scavenging

Goals:

- 1) Better define transport and chemical parameters for cloud resolving models.
 - a. microphysics, water and ice content
 - b. Is photochemistry during convective transport important?
- 2) Constrain microphysics
 - a. use radar analysis
 - b. microphysical parameterizations
- 3) Understand HOx sources

Ambiguities in inflow and outflow regions

-spatial variability

Additional Passive tracers

Alkanes

Dynamical methods

Lagrangian production/loss during convection and during anvil dissipation

- mbo vs isoprene
- aerosols
- water content
- lightning

Is Formaldehyde the best starting point for scavenging studies?

- CH_3OOH instead
- HCl

Investigate wide array of Henry's Law coefficients

model paper

observation based paper

Gas phase sampling artifacts in clouds

Photochemical clocks

- HNO_3 t_0 = outflow
- hydrocarbons

Degassing from ice and water

Eric Bruning look at cloud soundings

email list Al Fried @

Papers

Fried et al. Hanisco et al. What's going on with Formaldehyde?

Bela, Barth WRF-Chem Cloud resolving w/ photochemistry and microphysics. Case study.

Apel TOGA measurements

Heather Arkinson. Investigate wide array of solubilities and photochemistry.