

# Deliverable D7: Biomass burning mixing state analysis during GVAX with WRF-Chem

**Objective:** Conduct optical and CCN constrained analysis of aged biomass burning aerosol mixing and radiative effects

**Lead personnel:** Yan Feng, Rao Kotamarthi

**Collaborators:** Ann Jefferson (?)

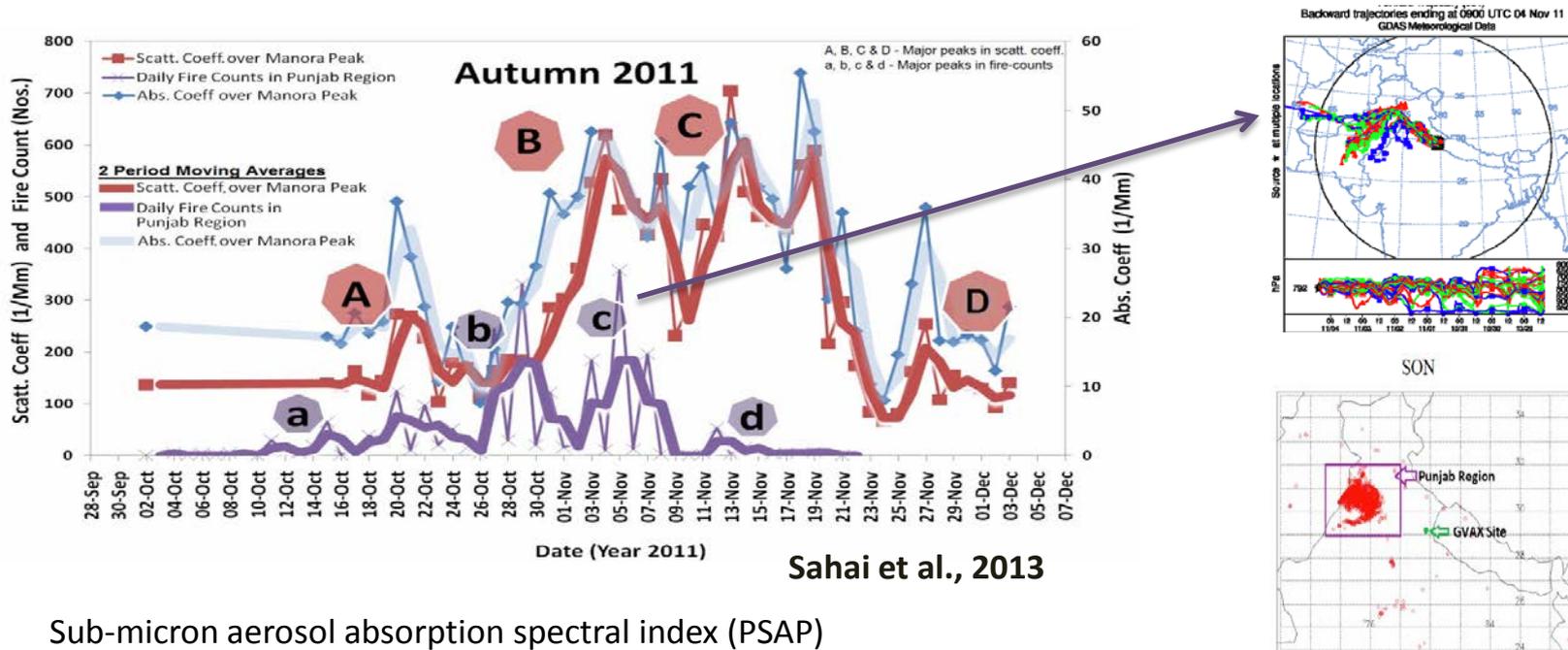
**Funding status:** funded

**Challenges or needed resources/collaborators:** chemical characteristics of aerosols, absorption profiling

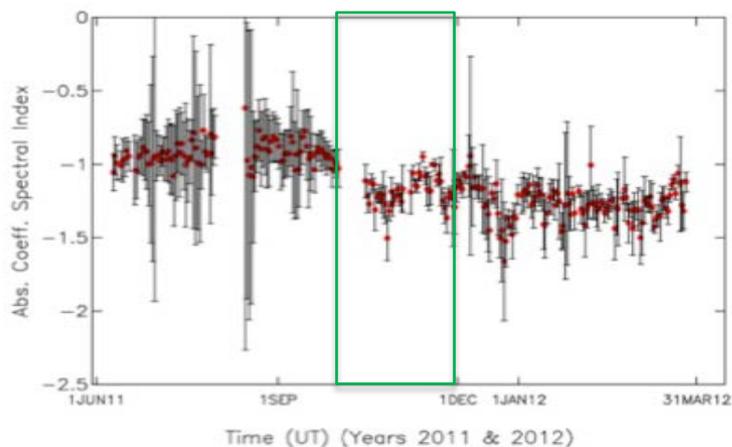
## **Summary of progress:**

- (1) Identify biomass burning events;
- (2) Sub-micron absorption speciation;
- (3) Next step: super-micron speciation; ccn/cn analysis – hygroscopicity? Wrf-chem sensitivity study

# Characterization of biomass burning aerosols during GVAX



Sub-micron aerosol absorption spectral index (PSAP)



Monthly mean BC and BrC fractions (<1 $\mu$ m)

Absorption (%)	Blue (470nm)	Green (530nm)	Red (660nm)	n
BC	89	91.5	96.5	360
BrC	11	8.5	3.5	360