

Deliverable D6: Soot Aerosol Aging Study (SAAS)

Objective: Characterize single-particle morphology and mixing state evolution of diesel soot due to SOA condensation and coagulation; Characterize optical, CCN, and IN activity; evaluate data using PartMC-MOSAIC and MOSAIC-mix models.

Lead personnel: John Shilling, Rahul Zaveri, Alla Zelenyuk, Art Sedlacek, Manvendra Dubey, A. Aiken, R. Subramanian, Claudio, Mazzoleni, and Tim Onasch

Collaborators: Nicole Riemer and Matt West

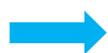
Funding status: funded

Summary of progress: Study periods are Nov 11-22, 2013 and Jan 6-17, 2014.

The study will facilitate various optical measurement instrument intercomparison, and help improve representations of BC mixing state and morphology in particle-resolved and sectional aerosol models.

Experimental Setup at PNNL Chamber Lab

Soot generation & dilution



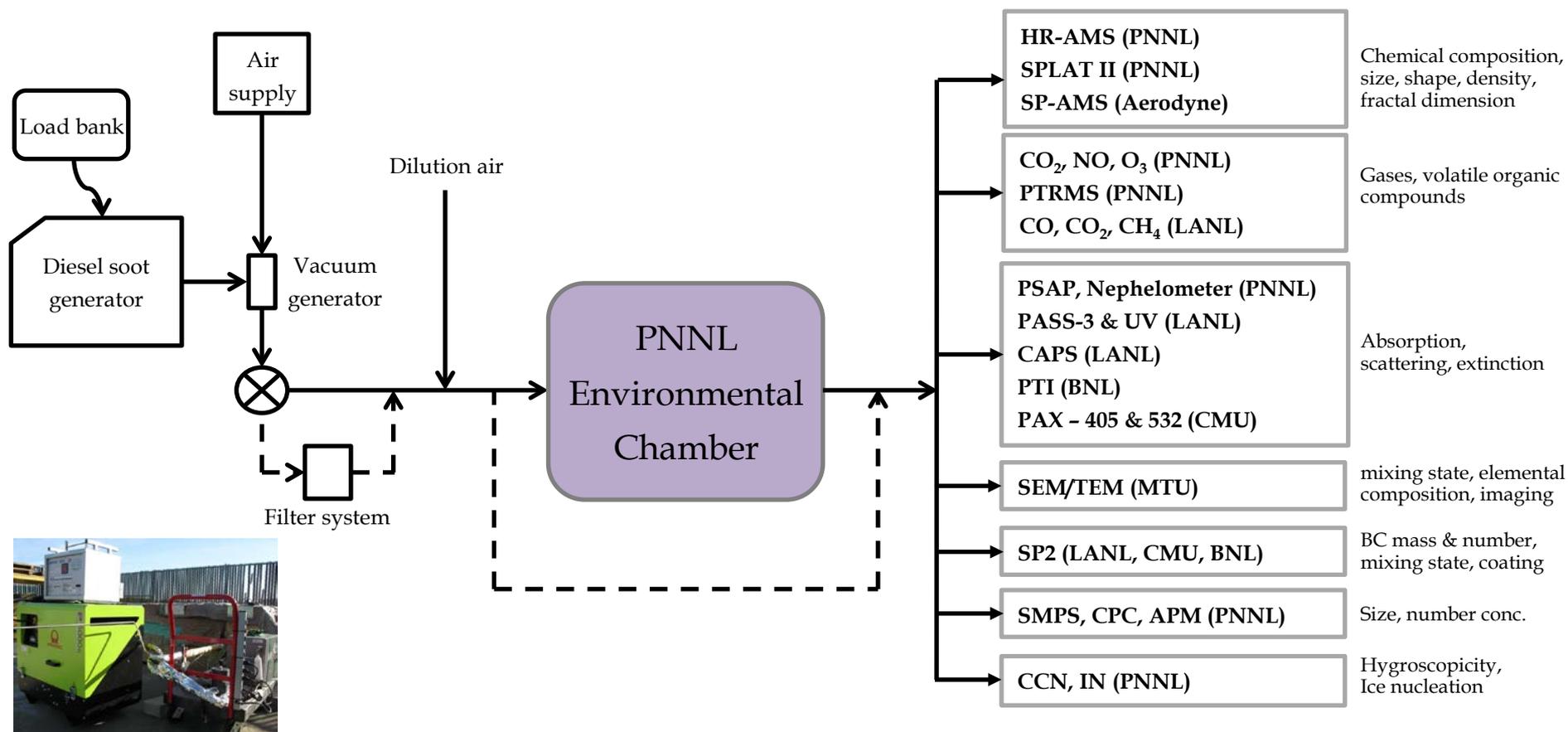
Soot aging due to condensation & coagulation



Soot measurement instrumentation



Soot properties



Future Work

- Contact John or Rahul if you are interested in participating in the future.

