Laboratory Generated Aerosols for STXM Validation

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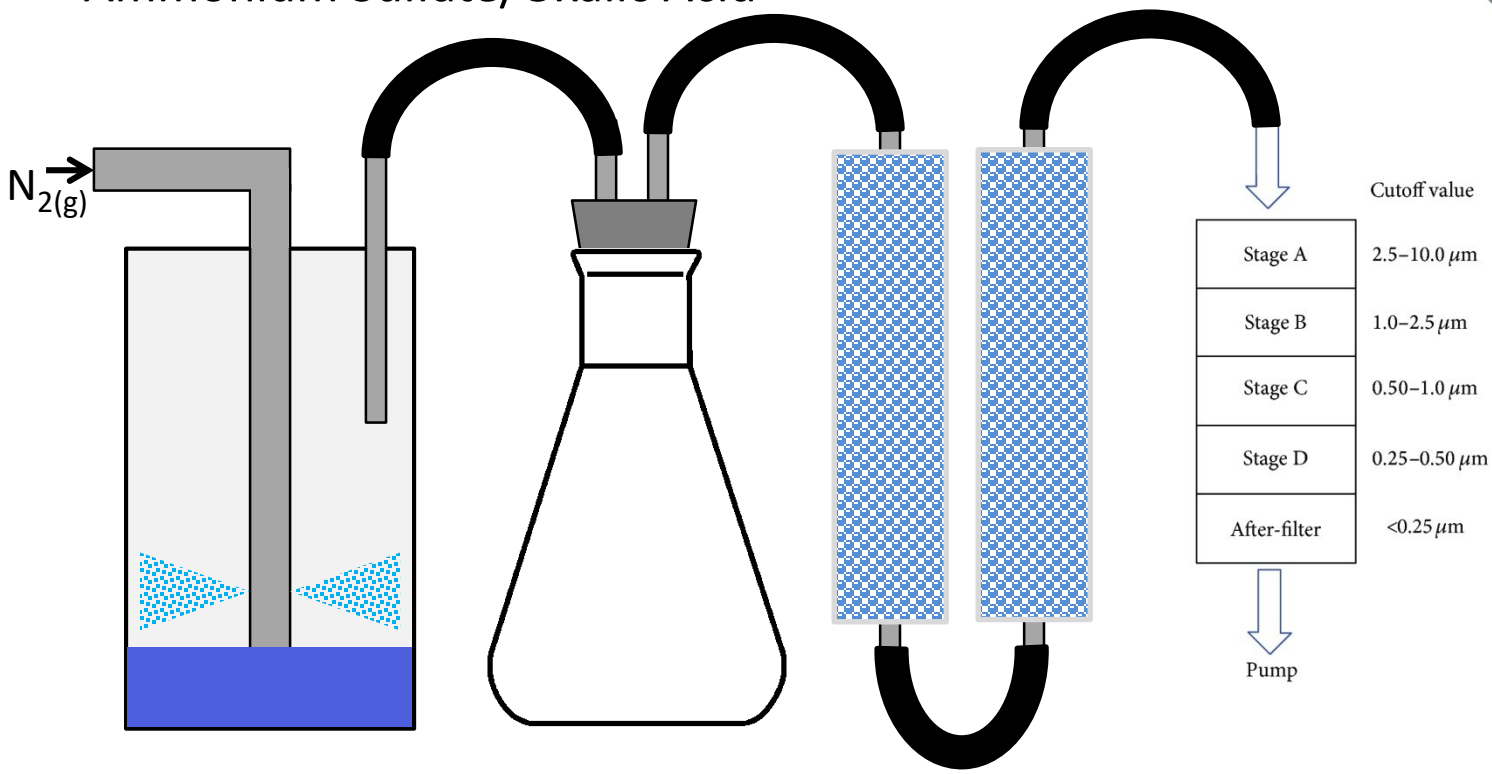
Aerosol Generation

- 3 Solutions in 10:1, 1:1 & 1:10 mass ratios:
  - Sodium Chloride/Sucrose
  - Ammonium Sulfate/Sucrose
  - Ammonium Sulfate/Oxalic Acid

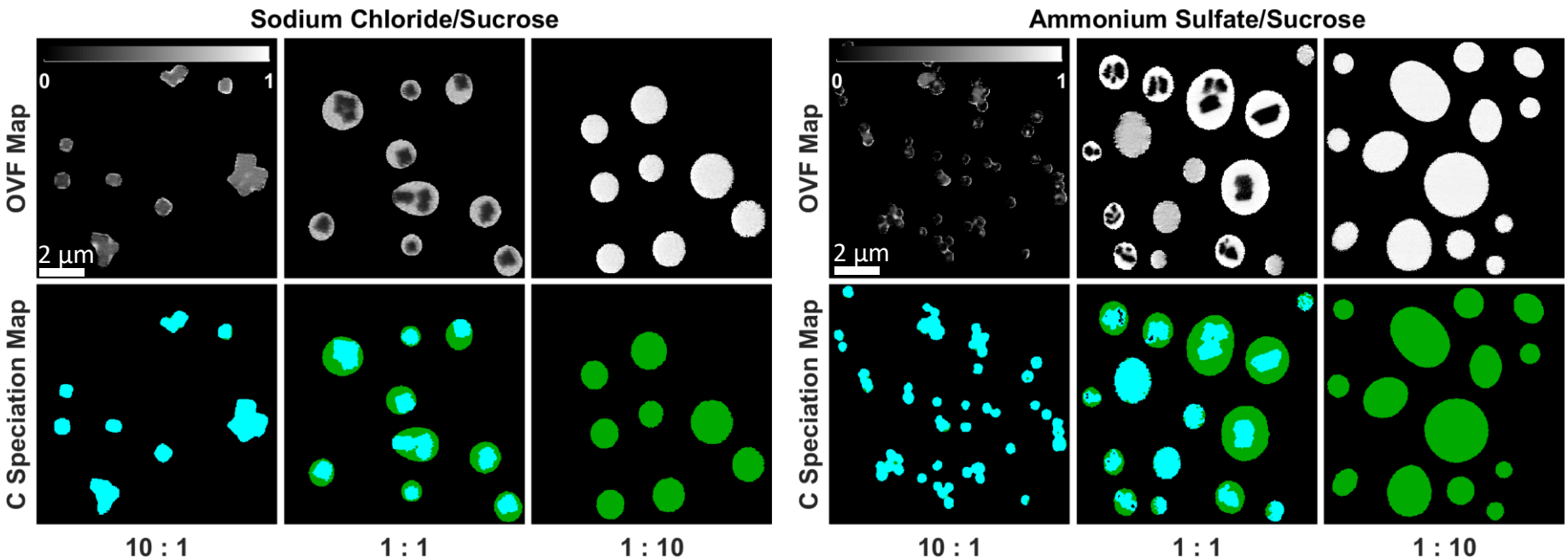


Nebulizer Droplet Trap Drying Tubes Impactor

STXM Results:

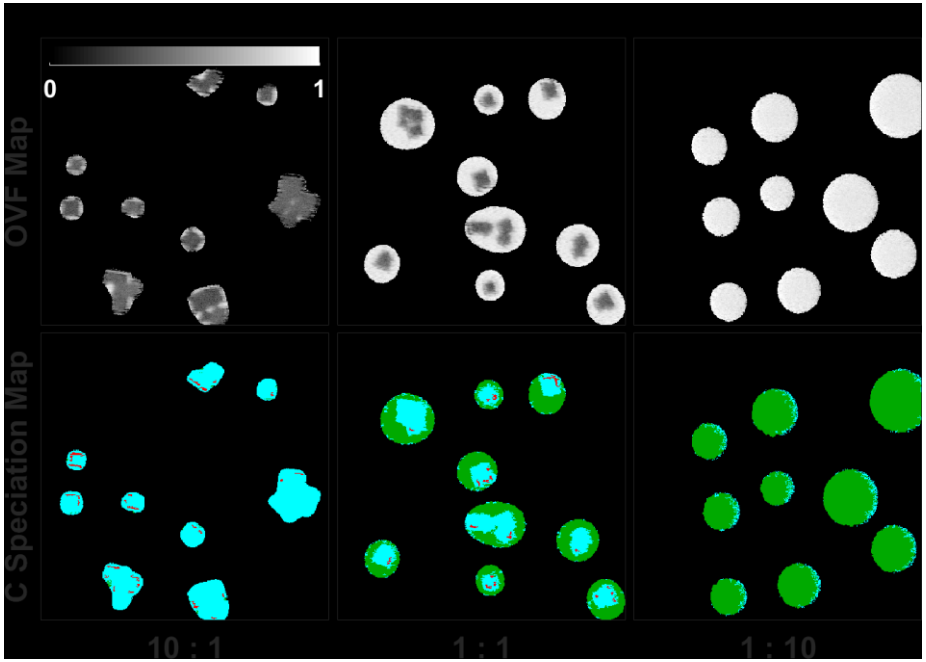
Organic Volume Fraction and Carbon Speciation

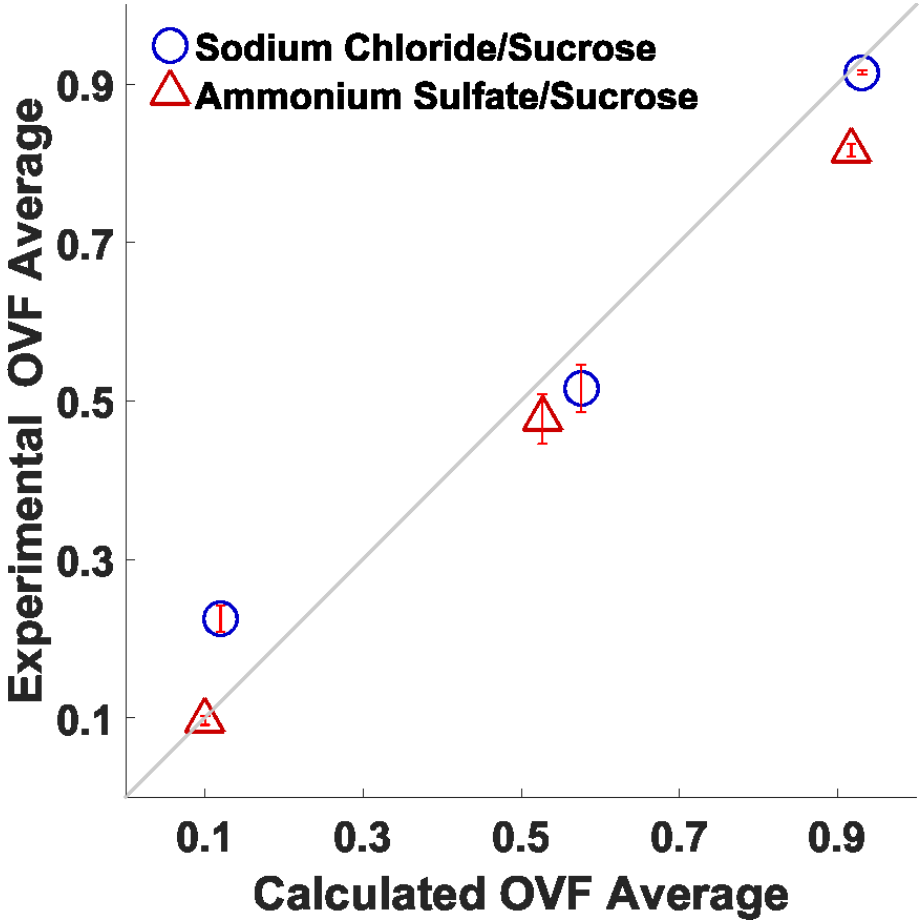
- Sodium Chloride/Sucrose is well behaved
- Ammonium Sulfate/Sucrose 1:1 system phase separation



Validation of OVF Determination

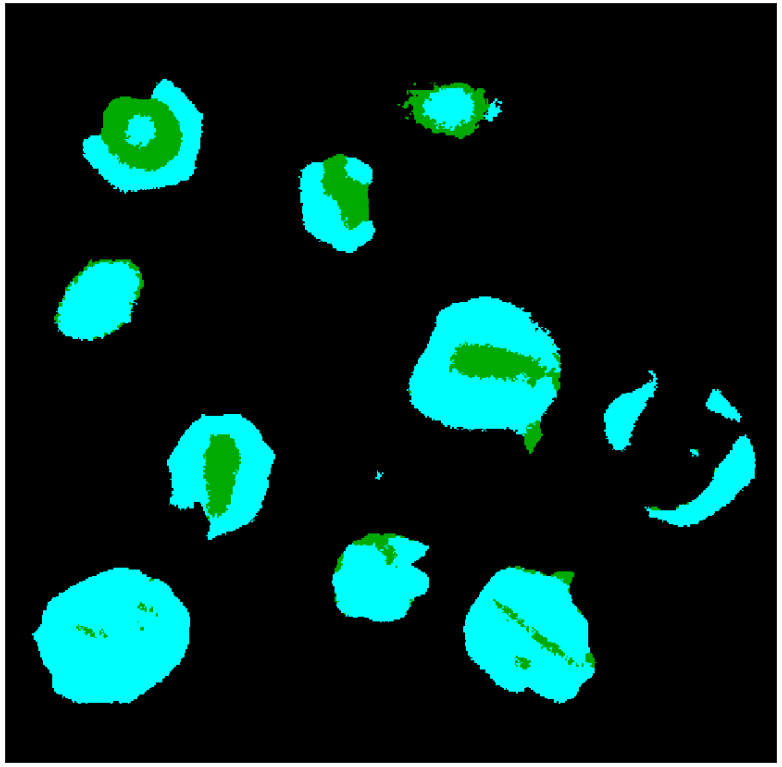
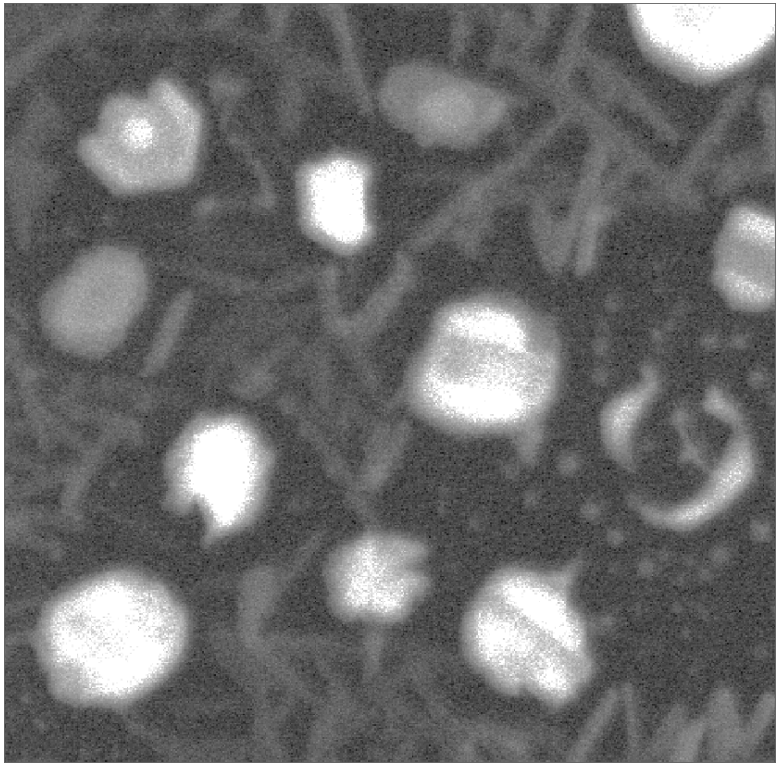
- Standards used to fine-tune and validate our analysis routines





Challenges

- Ammonium Sulfate/Oxalic Acid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