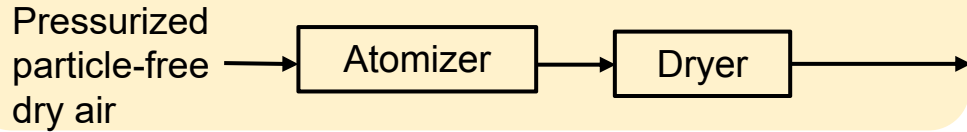
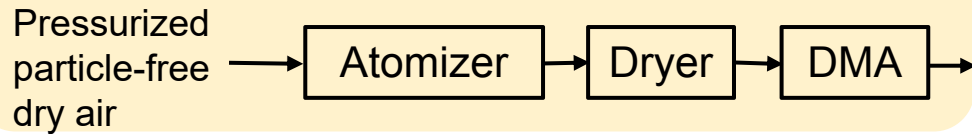


# Aerosol generation and size selection systems

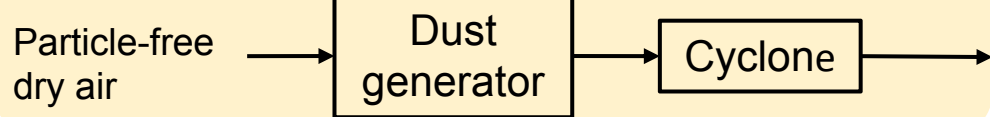
**Monodisperse polystyrene latex (PSL) spheres**  
(nominal diameter = 0.1 - 1.8  $\mu\text{m}$ )



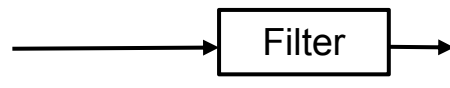
**Monodisperse ammonium sulfate (AS)**  
(nominal diameter = 0.2 - 0.85  $\mu\text{m}$ )



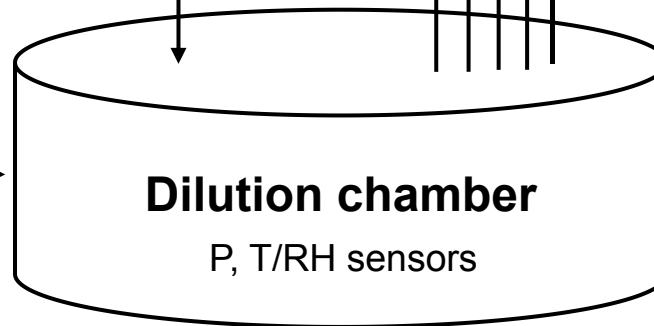
**Polydisperse powder**  
(mineral dust, silica dust, and volcanic ash)



Particle-free dry air



Aerosol inlet



# Aerosol measurements

CPC 3772 (TSI)

UHSAS (DMT)

OPS 3330 (TSI)

Particle number concentration and size distribution

CAPS PMext (Aerodyne)

Particle extinction coefficient ( $\lambda=530$  nm)

TAP (Brechtel)

Particle absorption coefficient ( $\lambda=467, 528, 652$  nm)

AURORA 4000 polar nephelometer (Ecotech)

Particle scattering coefficient ( $\lambda=450, 525, 635$  nm)

Horvath's polar nephelometer

Particle phase function ( $\lambda=532$  nm)

Filter

Excess air outlet