

NOAA Humidified-Dual Single Particle

Soot Photometer Team

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Observables:

Single Particle:

- Refractory BC mass
- Total particle Optical Size
- Mixing state

Bulk for rBC-Containing aerosol:

- MMR
- Size distribution of rBC
- Size distribution of total particle (limited)
- $f(\text{RH})$ (scattering) for rBC
- containing population

Science Foci:

BC Loads, emission factors, microphysical state, association with water-active materials, radiative impacts. Performance evaluation of BC models. Special focus on: removal processes and impacts, BC aging, constraining removal rates, closure in airborne and precipitate measures of removal.

