

POLarization Lidar, sun PHOtometer Networking

HSR/Raman/Fluorescence lidar

Model-based aerosol source identification

Dust:

β_d

$$\sigma_d = S_d \beta_d$$

$n_{100,d}$ $n_{250,d}$

S_d V_d

$n_{CCN,ss,d}$

$n_{INP,d}$

$PM_{10,d}$

Marine:

β_m

$$\sigma_m = S_m \beta_m$$

$n_{50,m}$ $n_{250,m}$

S_m V_m

$n_{CCN,m}$

$n_{INP,m}$

$PM_{10,m}$

Continental:

β_c

$$\sigma_c = S_c \beta_c$$

$n_{50,c}$ $n_{250,c}$

S_c V_c

$n_{CCN,c}$

$n_{INP,c}$

$PM_{1,c}$

Smoke:

β_{bb}

$$\sigma_{bb} = S_{bb} \beta_{bb}$$

$n_{50,bb}$ $n_{250,bb}$

S_{bb} V_{bb}

$n_{CCN,bb}$

$n_{INP,bb}$

$PM_{1,bb}$

Volc. sulfate:

β_{vs}

$$\sigma_{vs} = S_{vs} \beta_{vs}$$

$n_{50,vs}$ $n_{250,vs}$

S_{vs} V_{vs}

$n_{CCN,vs}$

$n_{INP,vs}$

$PM_{1,vs}$