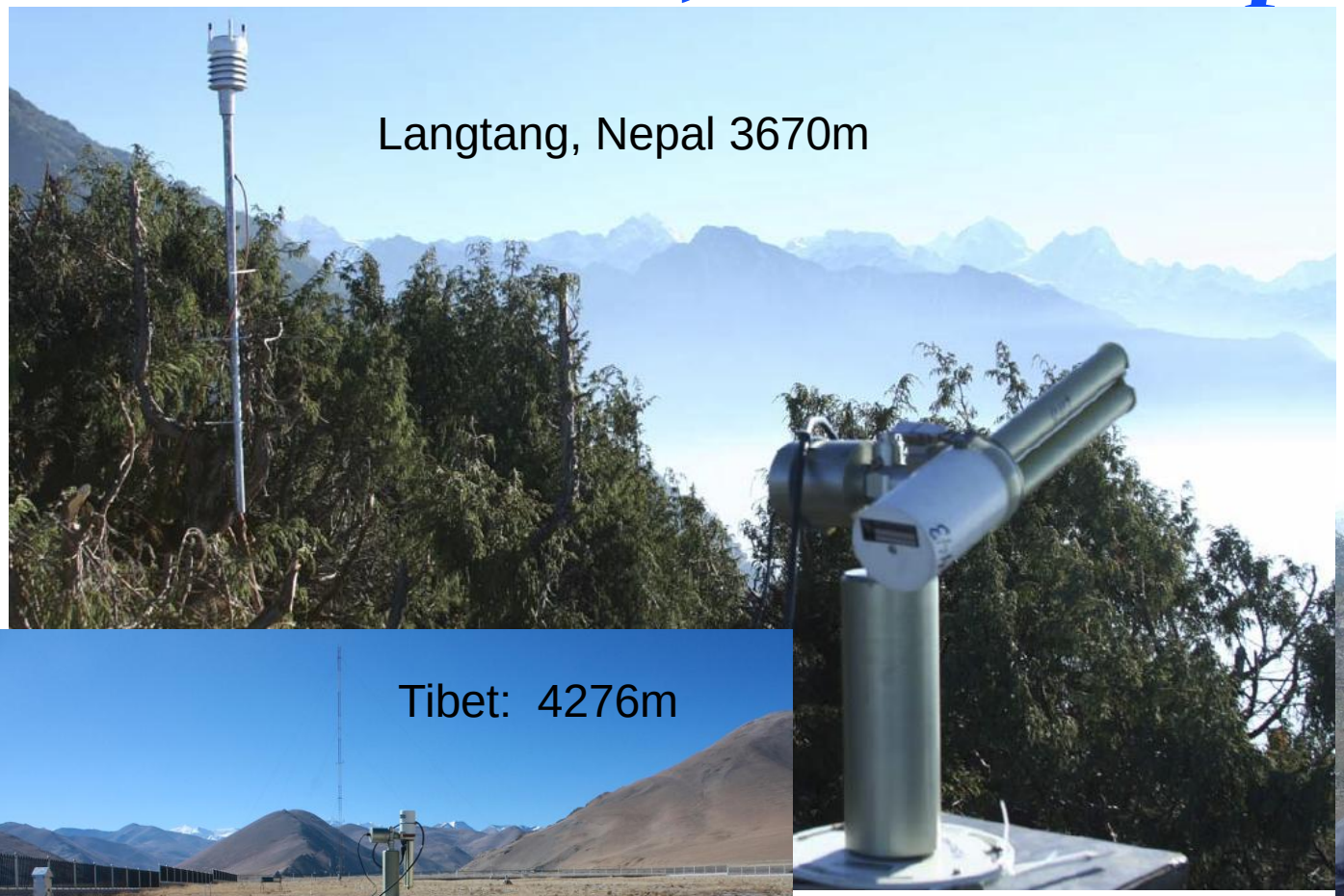
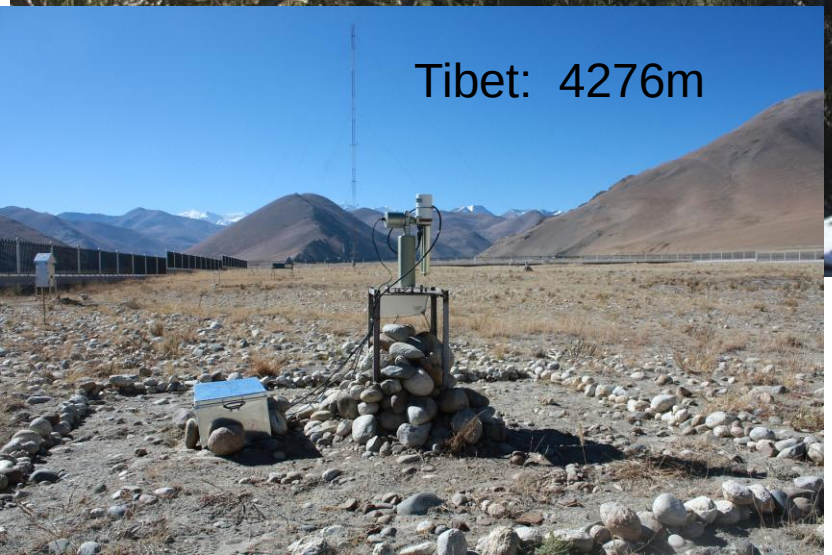
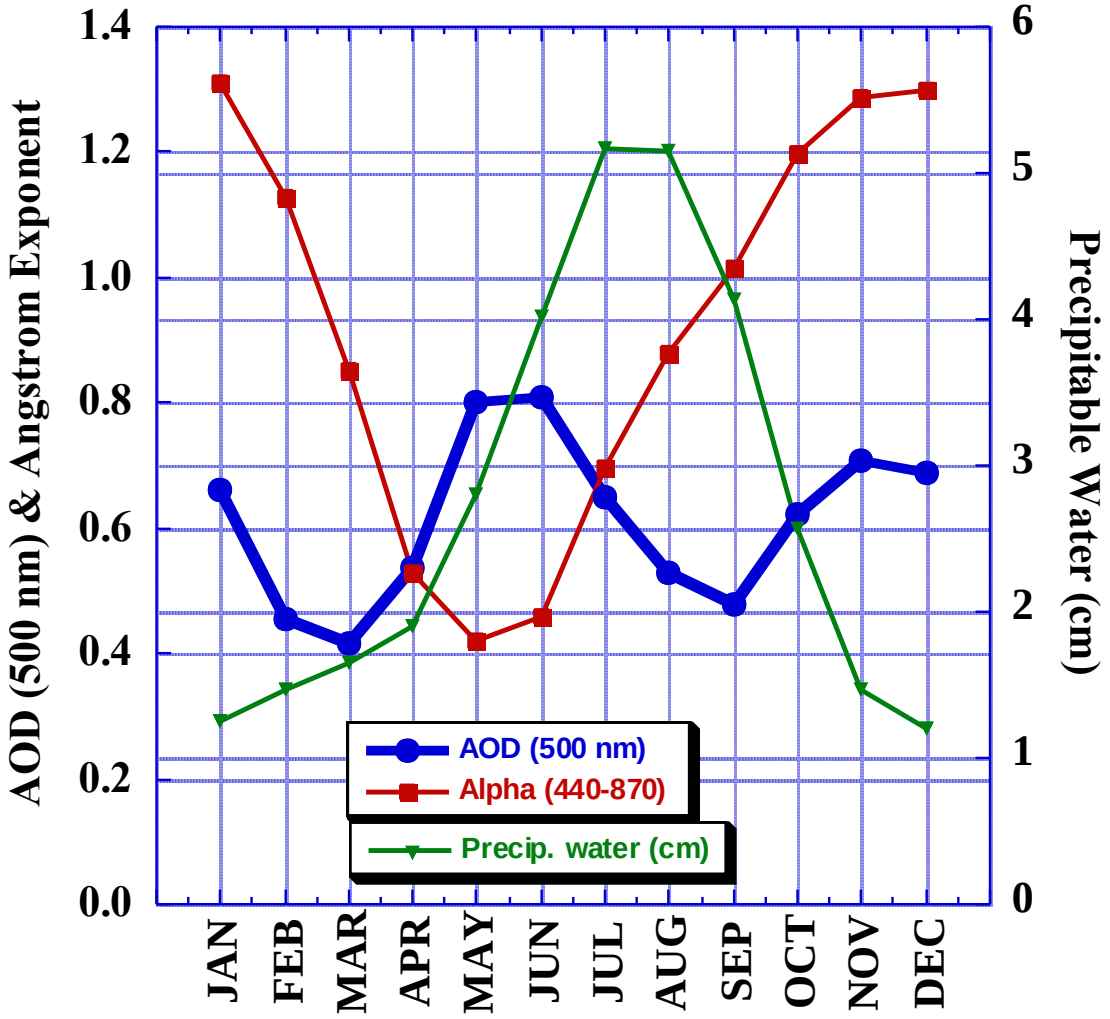
Himalayan Aerosol Measurements: Tibet, Central Nepal





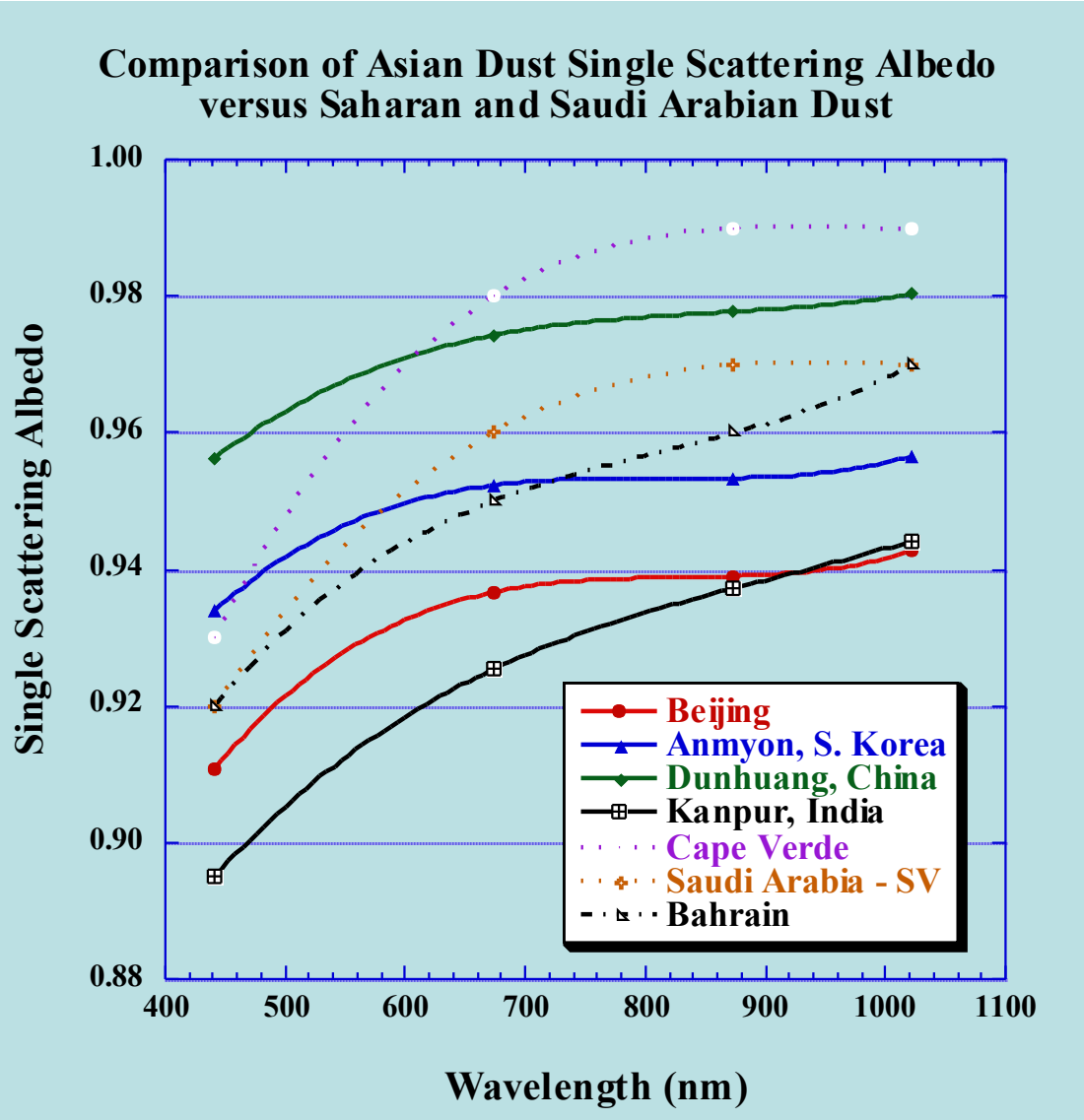
Mt. Everest: 5050m

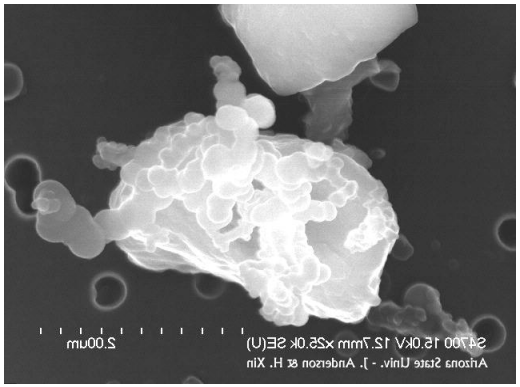
Indo-Gangetic Plain:
Aerosol loading (blue line) is extremely high
Increases rapidly from March to May

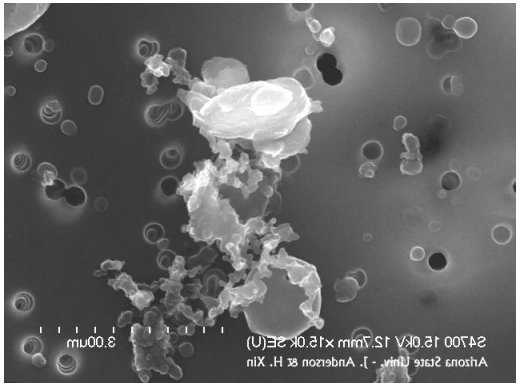


How absorbing are dust aerosols in The Indo-Gangetic Plain?

More absorbing



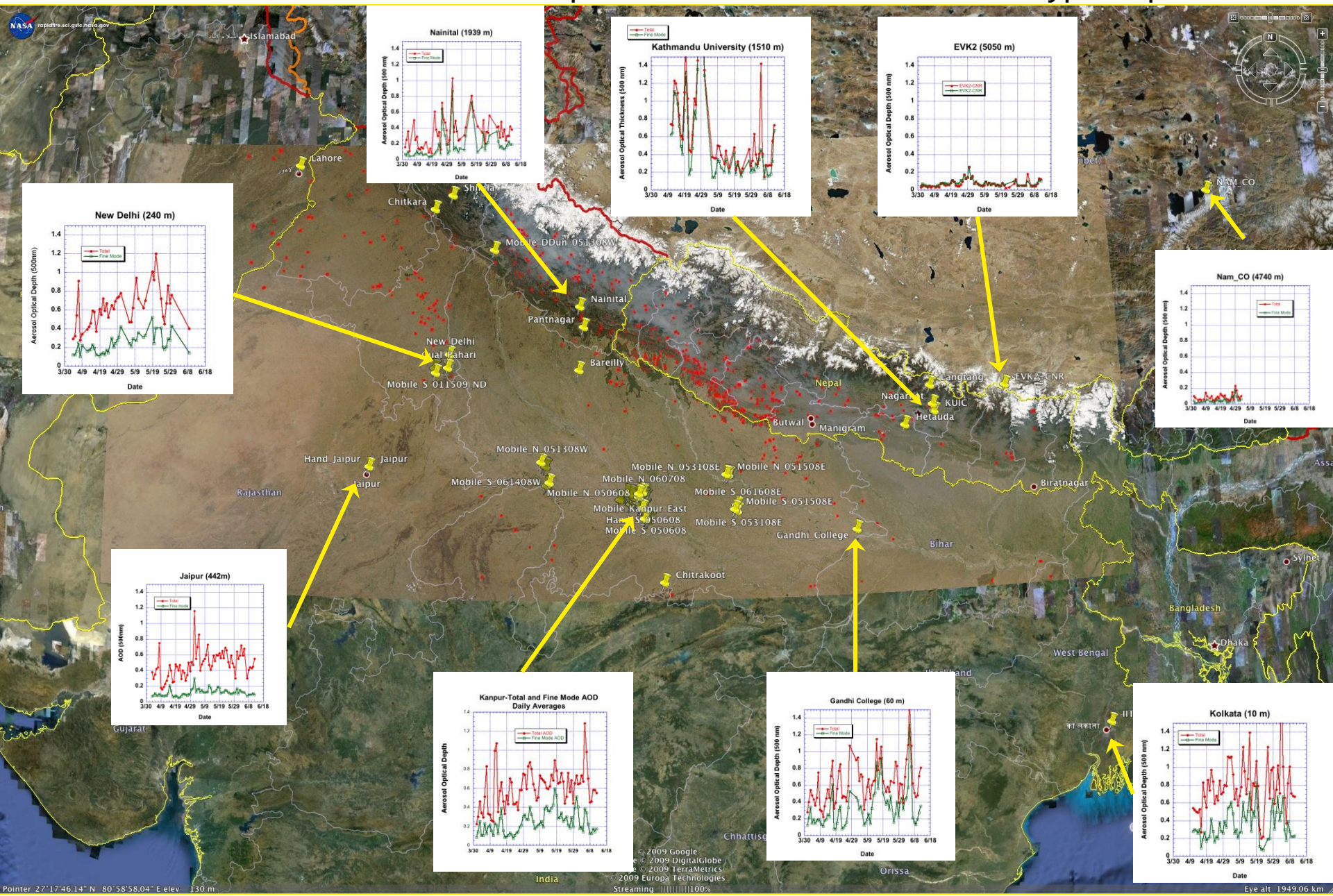




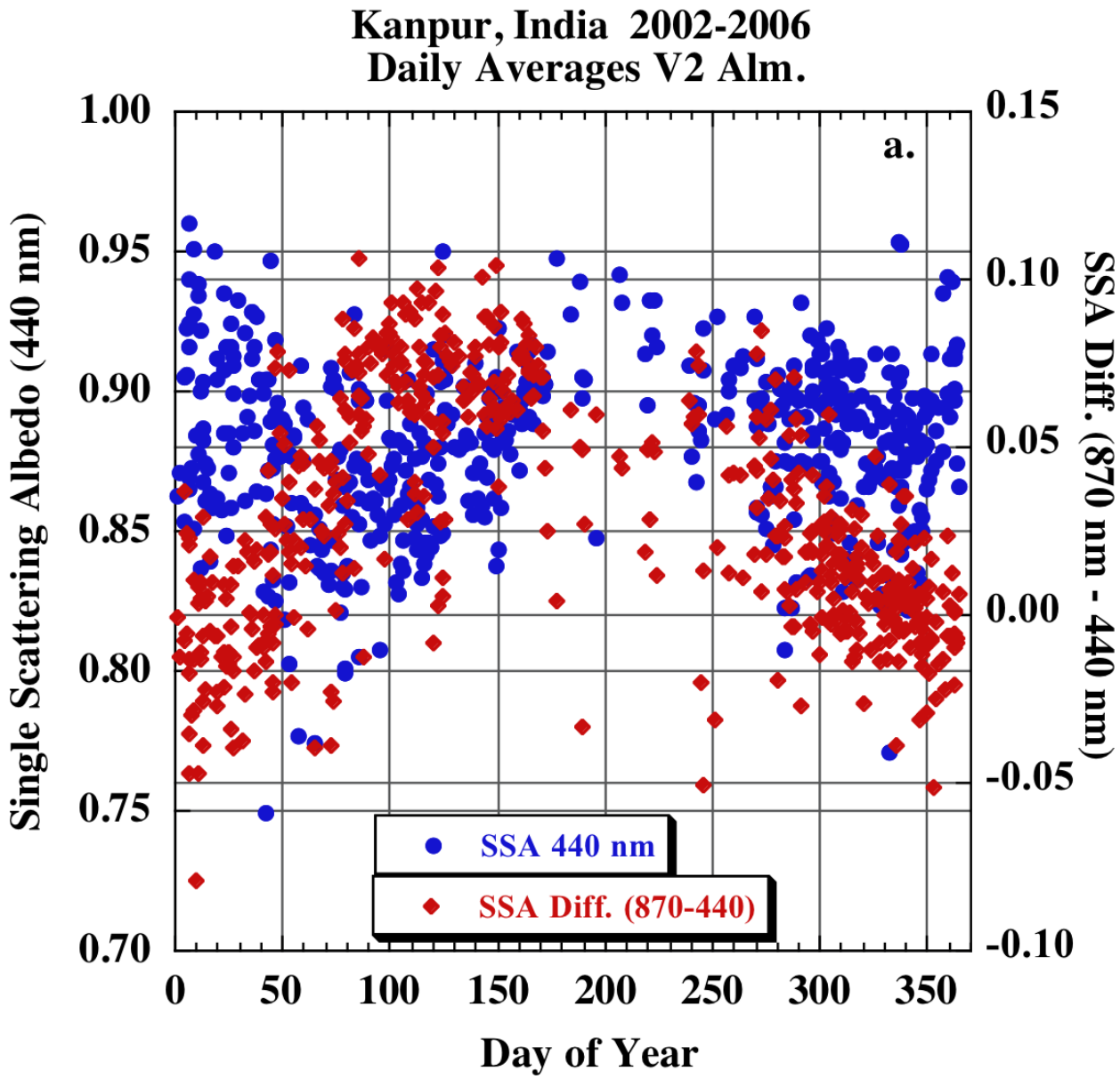
Micrographs of soot coating and aggregate on mineral dust from Asian dust (courtesy of J. Anderson)

T. Eck et al 2004

Ground-based and satellite aerosol (AOD) measurements
AOD values are related to the particle concentration, size and type of particle



Sources of Aerosols


Kanpur, India 2002-2006
Daily Averages V2 Alm.
a.
Single Scattering Albedo (440 nm)
SSA Diff. (870 nm - 440 nm)
Day of Year
1.00
0.95
0.90
0.85
0.80
0.75
0.70
0.15
0.10
0.05
0.00
-0.05
-0.10
0
50
100
150
200
250
300
350
SSA 440 nm
SSA Diff. (870-440)