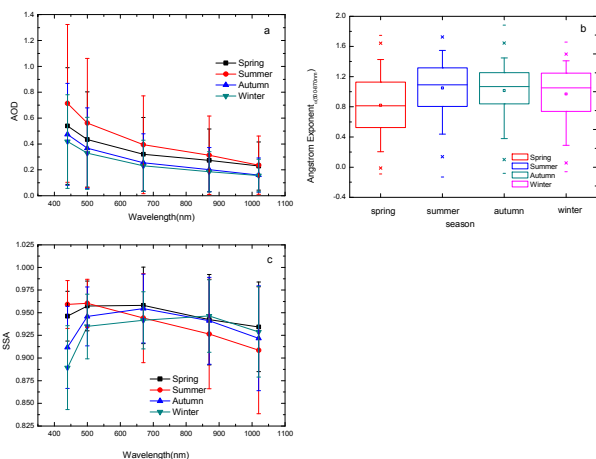
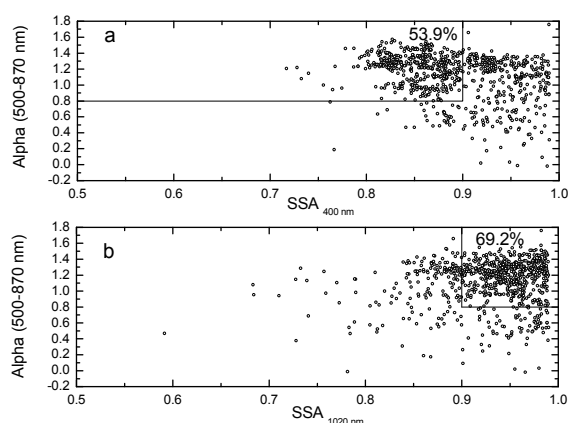


Che, H., G. Shi, H. Zhao, T. Nakajima, P. Khatri, T. Takamura, H. Wang, Y. Wang, J. Sun, and X. Zhang, 2013: Aerosol optical properties retrieved from a Prede sky radiometer over an urban site of Beijing, China. *J. Meteor. Soc. Japan*, **92A**, <http://dx.doi.org/10.2151/jmsj.2014-A02>.



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Figure 1. Seasonal variations in AOD (a), Alpha (b) and SSA (c) for Beijing for the period June 2008 to May 2010.



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Figure 2. Seasonal scatter graphs of SSA values at 400 (a) and 1020 (b) nm versus Alpha values (500-870 nm).

- The AOD decreases depending on wavelength during every season in Beijing. Higher and lower AOD values occur in summer and winter. This seasonal AOD pattern may be related to weather conditions (Fig. 1a). Alpha values are higher in summer and lower in spring. Alpha values in summer are commonly higher than in other seasons, indicating that fine particles predominate during the summer season in Beijing (Fig. 1b). Average SSA values shows that the aerosol scattering ability is stronger in the spring and summer while in autumn and winter there is more absorption component in the atmosphere of Beijing (Fig. 1c).
- The frequency of Alpha > 0.80 and SSA < 0.90 at 400 nm is 53.9% (Fig. 2a) and the frequency of Alpha > 0.80 and SSA > 0.90 at 1020 nm is about 69.2% in Beijing. This means that the absorption of fine particles occurs with a greater intensity at short wavelengths and becomes more scattered over infrared wavelengths in the atmosphere of Beijing (Fig. 2b).