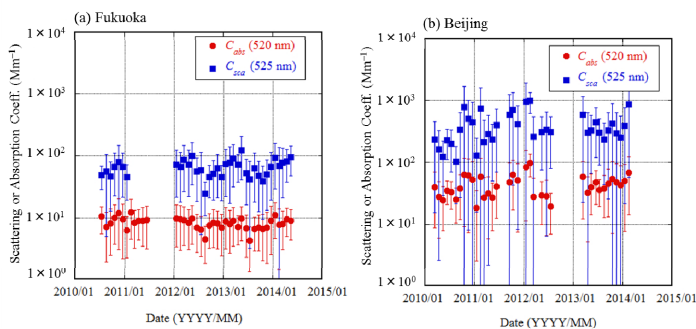
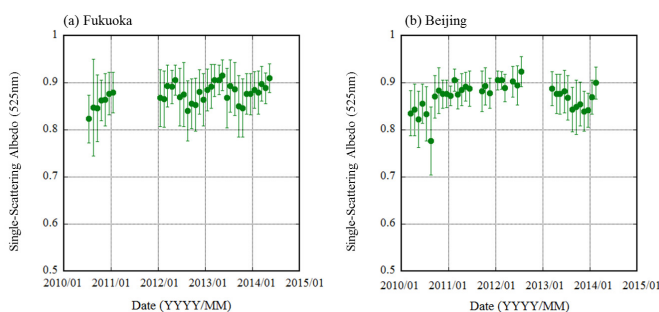


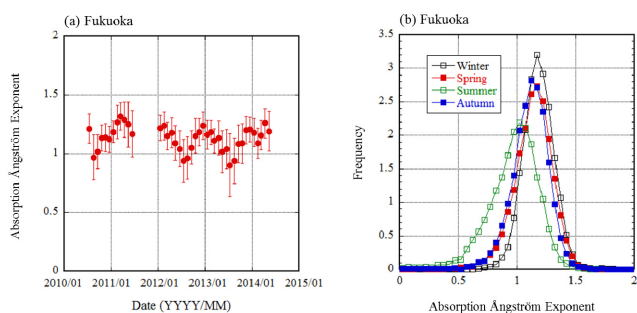
Uchiyama, A., B. Chen, A. Yamazaki, G. Shi, R. Kudo, C. Nishita-Hara, M. Hayashi, A. Habib, and T. Matsunaga, 2018: Aerosol optical characteristics in Fukuoka and Beijing measured by integrating nephelometer and aethalometer: Comparison of source and downstream regions. *J. Meteor. Soc. Japan*, **96**, 215-240.
<https://doi.org/10.2151/jmsj.2018-026>



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 Figure 1. Time series of monthly mean scattering and absorption coefficients with standard deviations in (a) Fukuoka and (b) Beijing.



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 Figure 2. Same as Fig. 1 for the Single Scattering Albedo ω at a wavelength of 525 nm.



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 Figure 3. (a) Time series of monthly mean absorption Ångström exponent α_{abs} with standard deviations in Fukuoka. (b) Normalized frequency distributions of α_{abs} for every season in Fukuoka.

- The aerosol optical characteristics in the East Asian cities of Fukuoka and Beijing were measured from 2010 to 2014. Previously, few long-term, season-crossing observations have been reported.
- In Fukuoka, the annual means of the extinction, scattering, and absorption coefficients C_{ext} (525 nm), C_{sca} (525 nm), and C_{abs} (520 nm) were 74.6, 66.1, and 8.1 Mm^{-1} , respectively, whereas those in Beijing were 412.1, 367.2, and 42.4 Mm^{-1} , respectively (Fig. 1). The single-scattering albedos ω_0 (525 nm) in the two cities were 0.877 and 0.868, respectively (Fig. 2). The asymmetry factors G (525 nm) in the two cities were 0.599 and 0.656, respectively. The extinction Ångström exponents α_{ext} in the two cities were 1.555 and 0.855, respectively. The absorption Ångström exponents α_{abs} in the two cities were 1.106 and 0.977, respectively.
- C_{ext} , C_{sca} , and C_{abs} showed a seasonal variation in both cities. Some aerosol properties also showed a seasonal variation. In particular, the seasonal variation in α_{abs} was clear in both cities; it tended to be small in summer and large in winter (Fig. 3).