

2.114 Variation of Particle Numbers at Fukuoka, Japan in winter, 2018.

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Abstract:

Particle numbers (PN) were measured using a scanning mobility particle sizer (SMPS) at Fukuoka University, Fukuoka, Japan in January - February, 2018. Variation of PN, whose particle diameter are about 25nm (hereafter called PN25), was observed under specific conditions.

When PN25 increased, carbon monoxide (CO) increased, but ozone decreased. When the wind from east prevailed, PN25 tend to be higher than that when the wind from west.

When the wind from west prevailed, the wind speed was higher, CO was higher and ozone was lower comparing with the wind from east.

Within one day (diurnal cycle), PN25 often increased in the morning and in the evening, when the wind blew from east and the wind speed was low. This is probably due to the combination of local emission and meteorological condition, ie, PN25 seems to increase with the low wind speed and the relatively large local emission.