



The Relationship between the Climate Condition and the Surface Ozone Concentration in the Korean Peninsula.

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Recently, the tropospheric ozone concentration increases in East Asia, and the meteorological fields impact on the summer ozone distribution. It is necessary to study about how the long- and short-term climate changes influence the East asian summer monsoon. In this study, we analyze the relationship between seasonal surface ozone and the meteorological fields. We use the model data from GEOS-Chem prescribed by the CAM3. The model well simulates the seasonal climatological 850 hPa wind, precipitation and tropospheric ozone compared to the observation data. The ozone concentration shows the maximum ozone concentration in summer in East Asia, but in late spring and early autumn in the Korean Peninsula. The results of the regression analysis indicate that the increase of ozone in Korea is tied to the westerly wind and cloud condition in spring, the westerly wind, surface warming, and cloud in summer, and the surface warming and cloud in autumn.