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PM10 concentrations in the Gobi of Mongolia

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A ground monitoring of PM10 concentrations in Sainshand and Zamyn-Uud that locate in the Gobi of Mongolia has been carried since September 2007. The monitoring data is used for this study. Analysis on PM10 concentrations is carried and results of the study are demonstrated here.

The study results show that PM10 concentration in the Gobi of Mongolia has clear annual and diurnal variations. The annual and diurnal variations of PM10 concentration in the Gobi were related with sources that are the burning of coals in cold months and dust storms in spring monson. In the annual variation, PM10 concentrations in the Gobi were large in Mnths and April to the higher frequencies of atmospheric cyclones and its cold fronts passing through the area. For a case study, PM 10 concentration was varying from 190 μgm^{-3} to 814 μgm^{-3} during a dust storm originated in the Gobi of Mongolia.