



Studies on the Remote Sensing of the Regional Distribution of Air Pollutants by Mobile Passive DOAS in China

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Mobile differential optical absorption spectroscopy (DOAS) has been successfully applied in the remotes sensing of gaseous pollutants emission flux from volcanic plume and emission source during the past decade. This approach is also very useful for the investigation of the main path of air pollution transportation. It was used to investigate SO_2 and NO_2 distribution of the north China plain (NCP) under different wind direction during June and July, 2013. The closed measurement route across Beijing, Tianjin, Hebei province and Shandong province cover most important areas throughout NCP. The information of the regional distribution of SO_2 and NO_2 measured by mobile DOAS were used to get the information of the transport pathways between Beijing and NCP. The spatial patterns were further proved by comparing variation with Ozone Monitoring Instrument (OMI) data. The work could promote the development and extend the application of mobile DOAS to rapidly capture the regional distribution of air pollutants.