OBSERVATIONS OF FORMALDEHYDE AND RELATED ATMOSPHERIC SPECIES USING MULTI-AXIS SPECTROSCOPY

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Formaldehyde and the related photo-oxidant species ozone and nitrogen dioxide were monitored using multi-axis differential spectroscopy within the urbanized region of Central Ohio. These data were used to determine source strengths, vertical profiles, and seasonal variation of NOx/VOC driven photochemistry in the region. Previous studies of VOC emissions in the Central Ohio area have shown a strong correlation between VOC concentrations and automobile emissions. Model results and developed statistical analysis methods will be discussed.