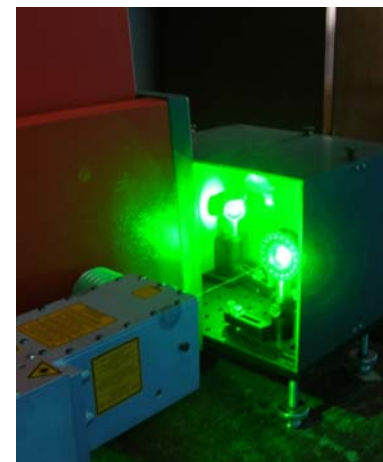
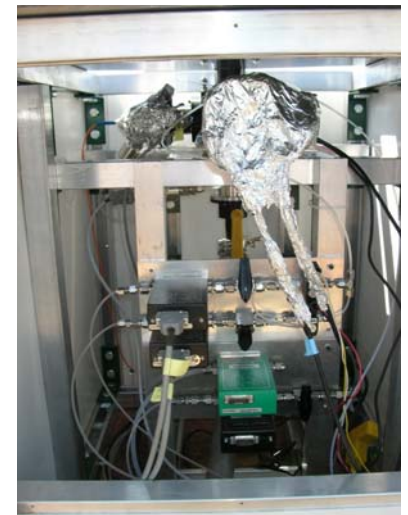
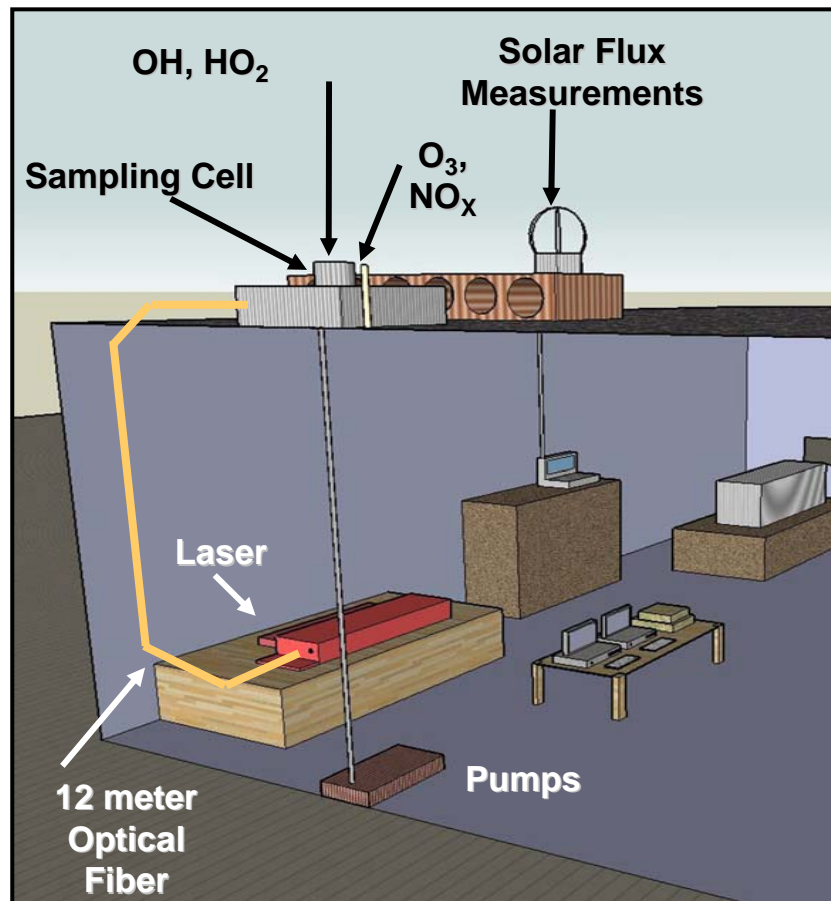


OH and HO₂ at T0

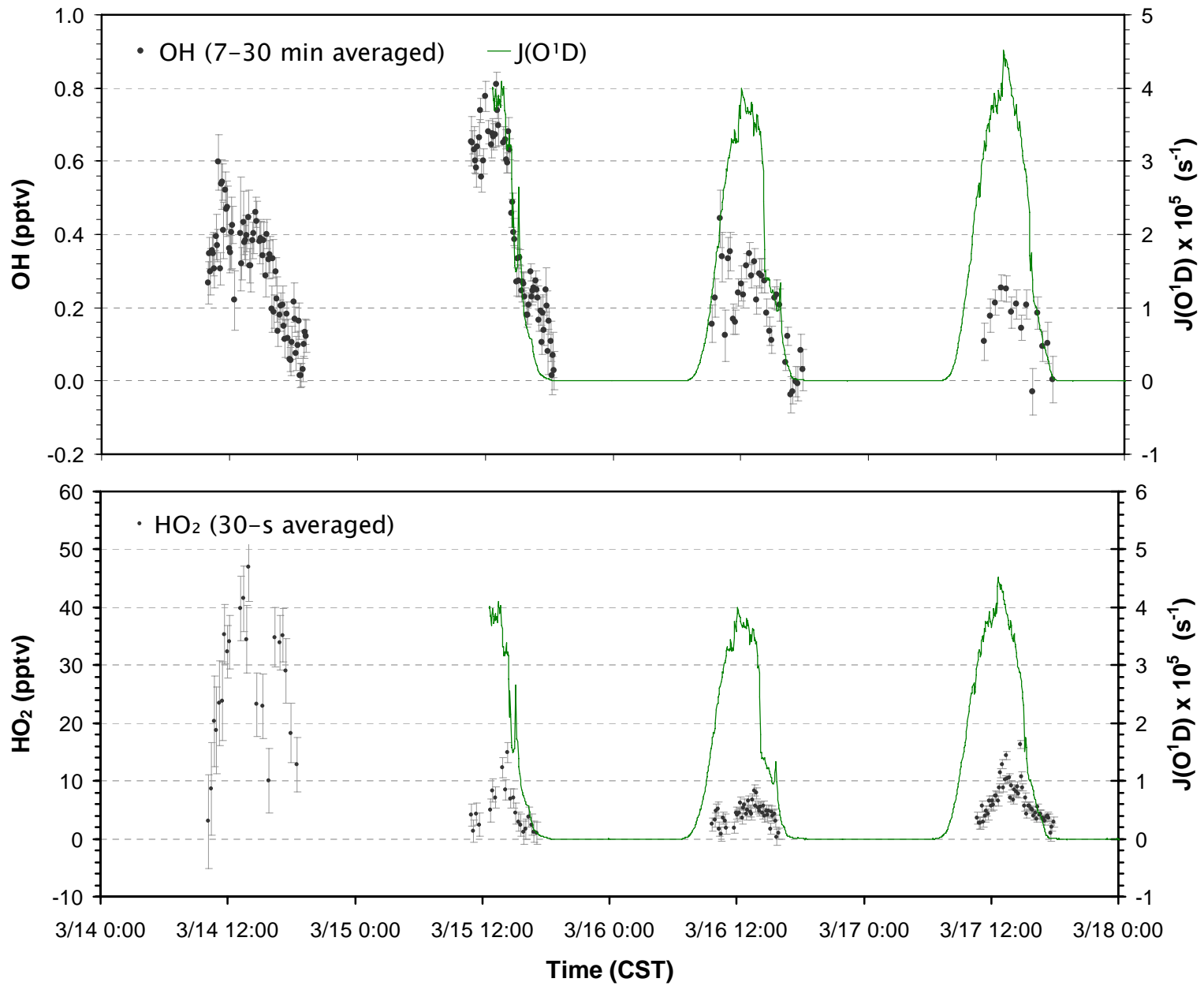
Sebastien Dusanter, Deepali Vimal, and Philip S. Stevens
Indiana University, Bloomington

R. Volkamer, P. Sheehy, L. Molina, J. Zheng, R. Zhang,
A. Aiken, J. Jimenez

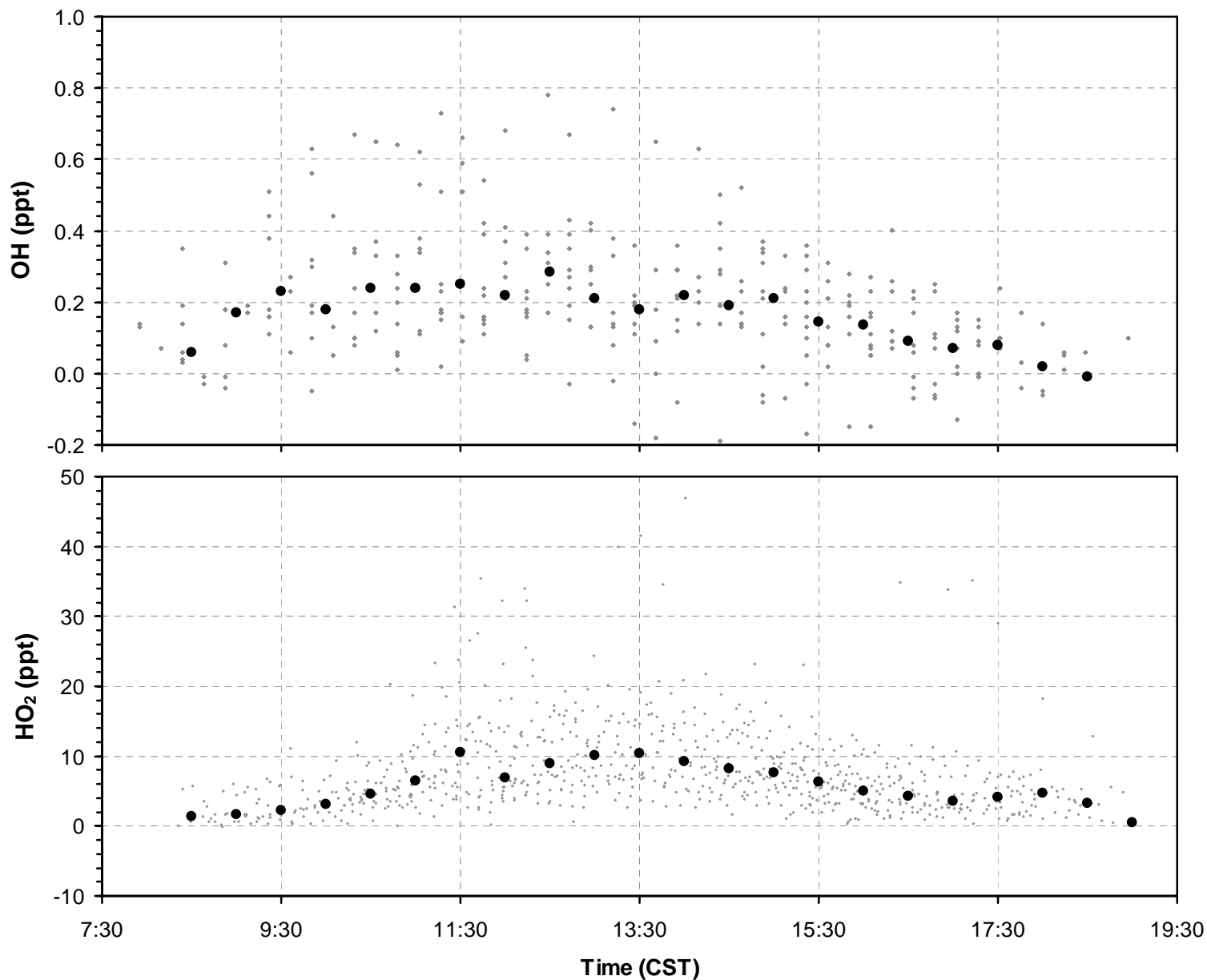
Measuring OH and HO₂ at T0



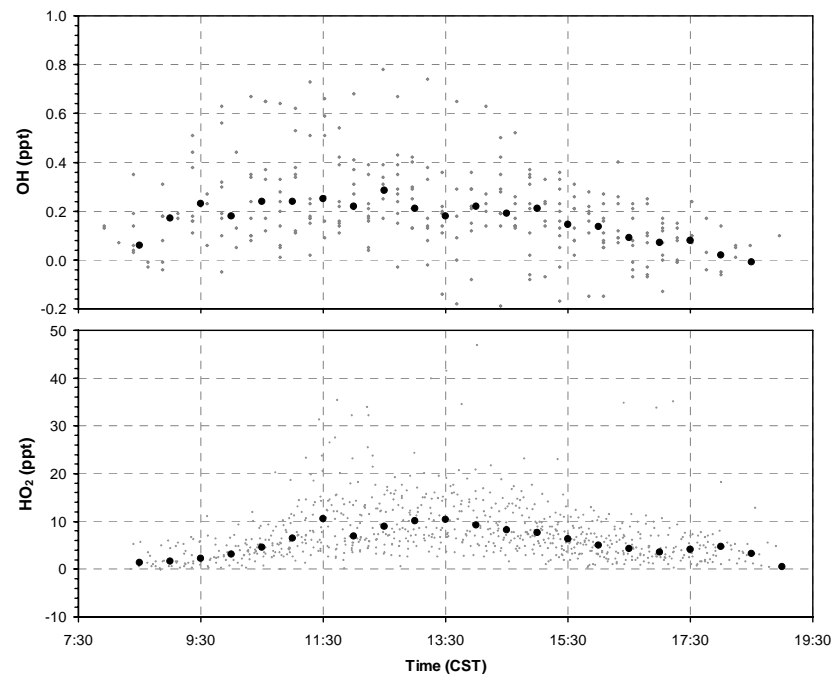
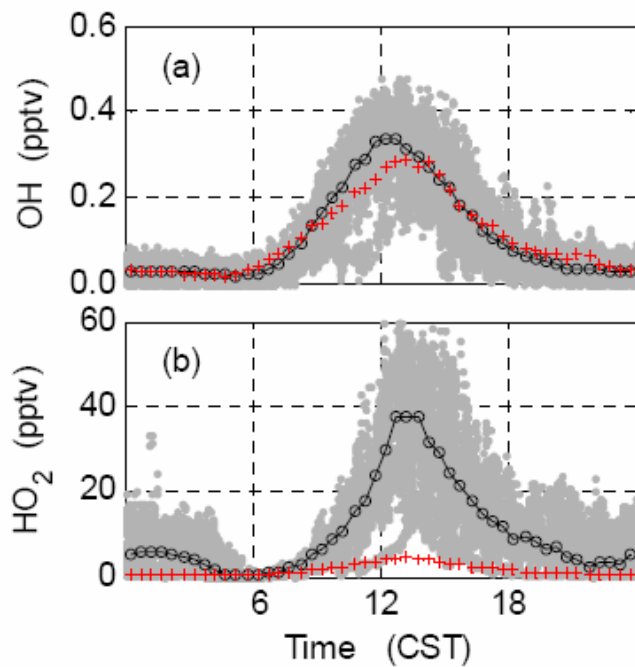
OH and HO₂ MCMA 2006



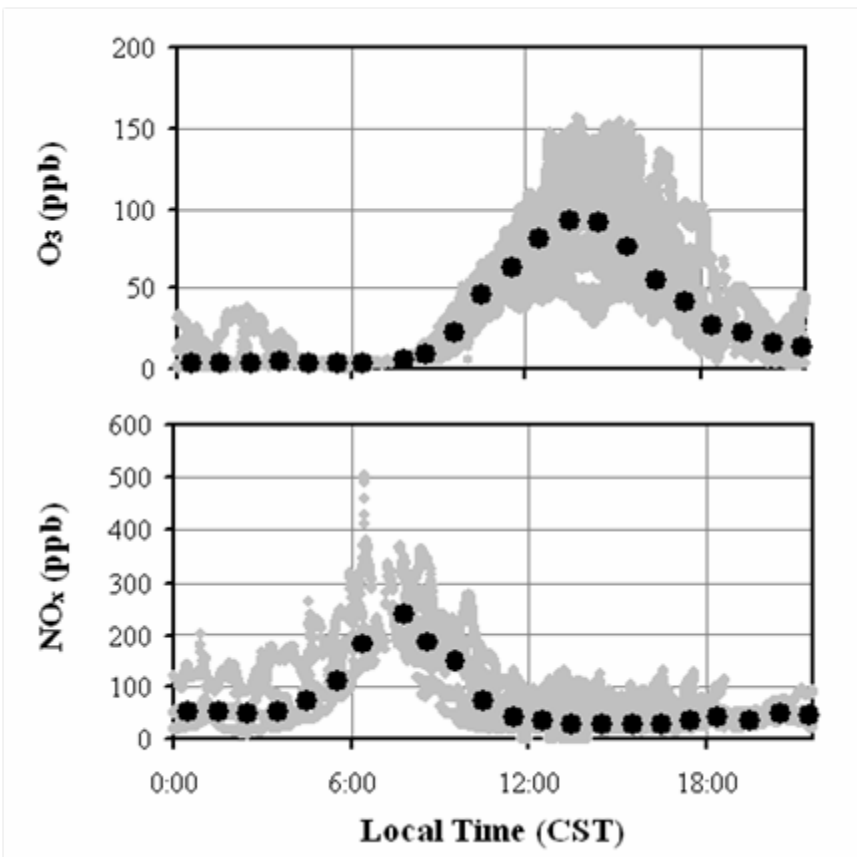
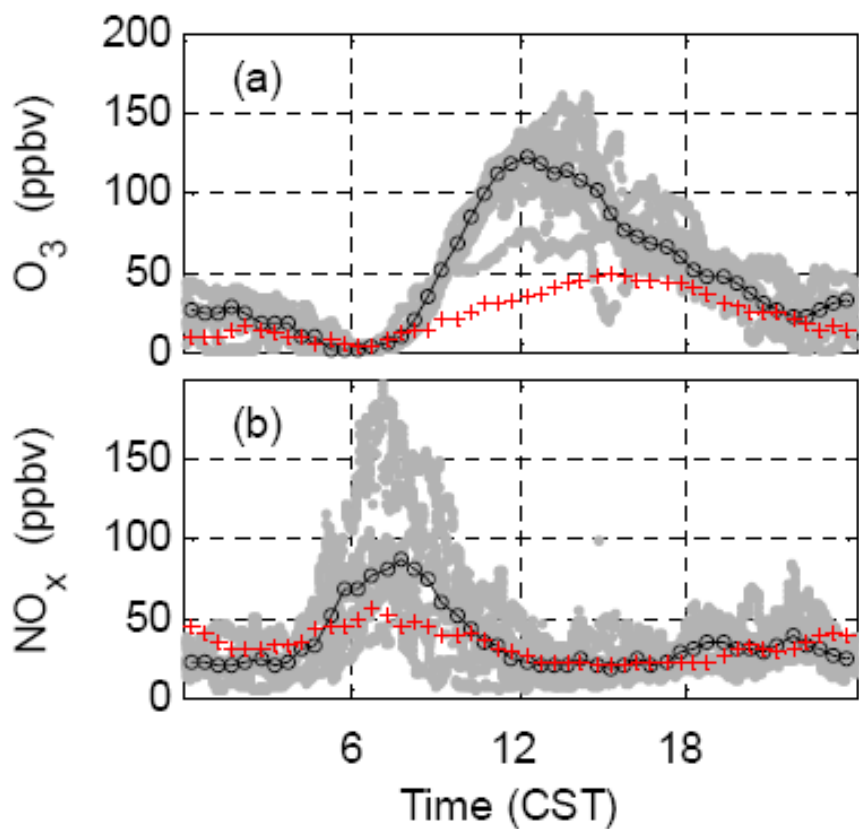
Diurnal profiles of OH and HO₂ MCMA-2006



Diurnal profiles of OH and HO₂ MCMA-2003, 2006

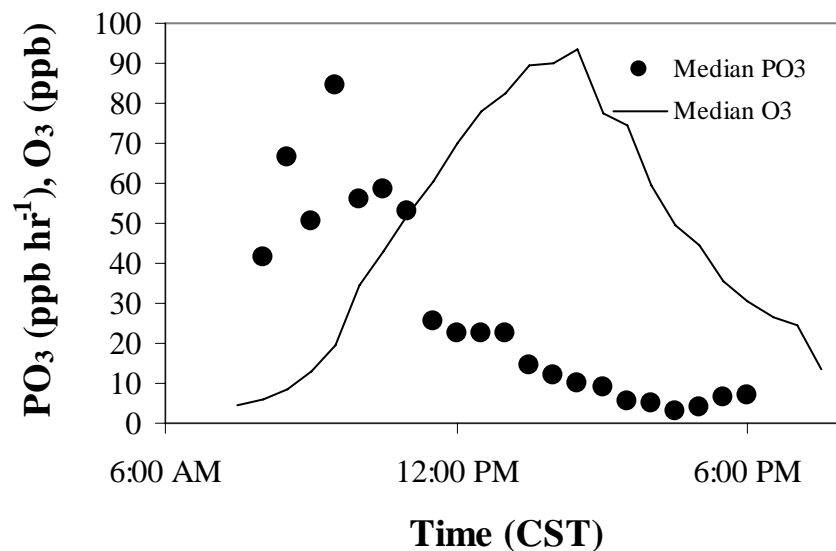
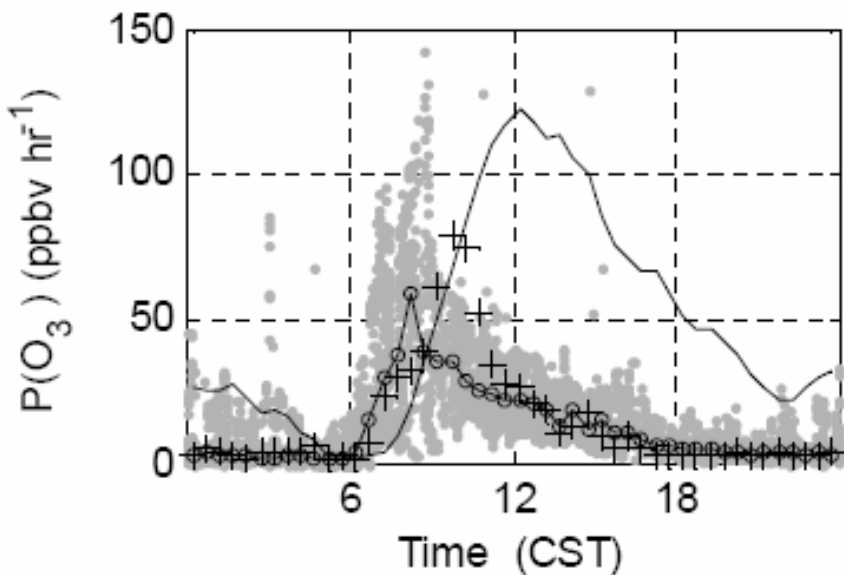


Measured O_3 and NO_x MCMA-2003 and 2006



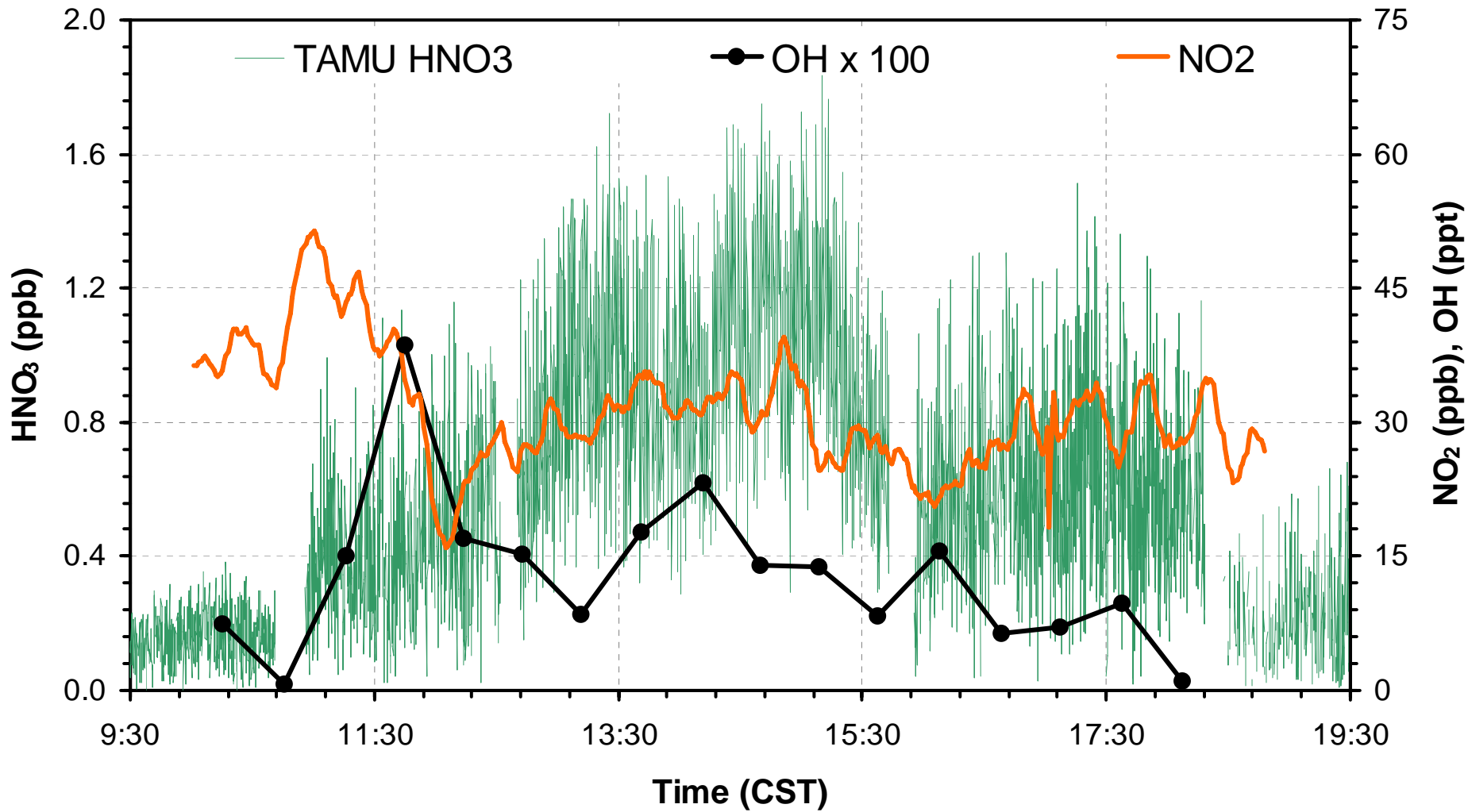
Instantaneous PO_3 (HOx) 2003 and 2006

$$P_{O_3} = k_{HO_2+NO}[HO_2][NO] - k_{OH+NO_2}[OH][NO_2]$$

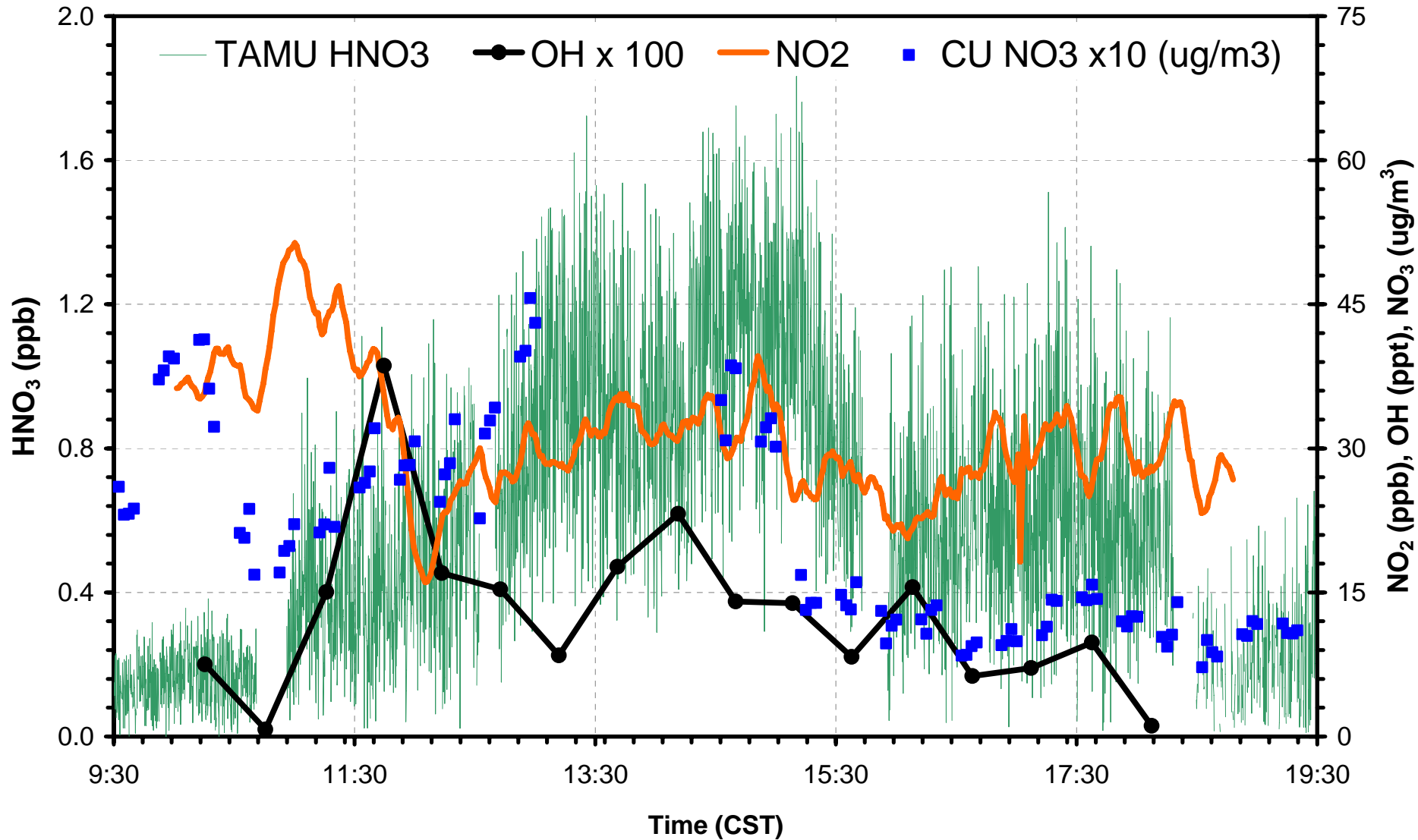


Shirley et al., *Atmos. Chem. Phys.*, **2006**, 6, 2753

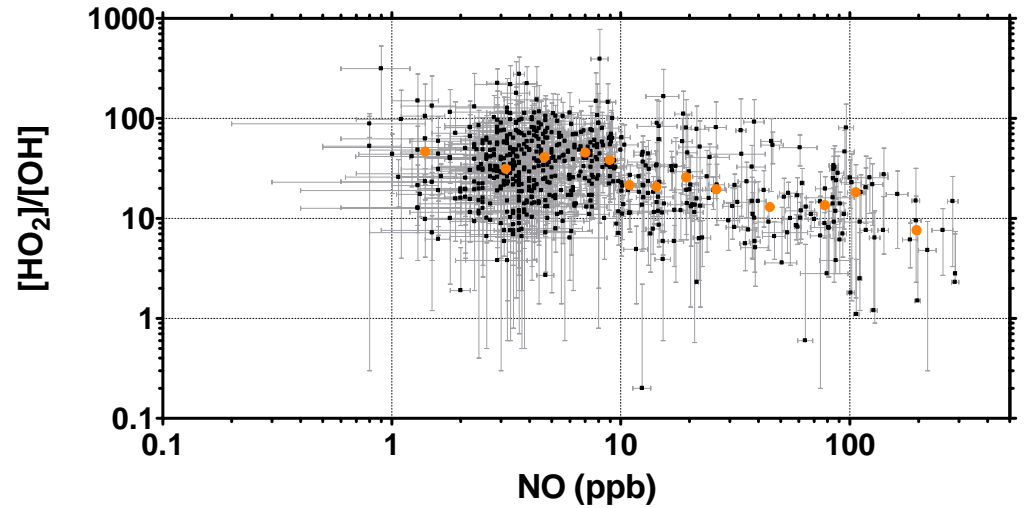
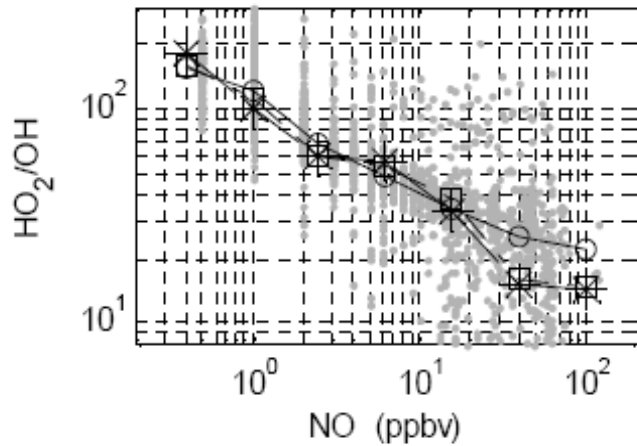
3/20/06



3/20/06



HO₂/OH MCMA 2003, 2006



$$\frac{[HO_2]}{[OH]} \approx \frac{\Sigma \text{Rate of reactions } (OH \rightarrow HO_2)}{\Sigma \text{Rate of reactions } (HO_2 \rightarrow OH)} \approx \frac{k_{OH+VOC}[VOC] + k_{OH+CO}[CO] + k_{OH+O_3}[O_3]}{k_{HO_2+NO}[NO] + k_{HO_2+O_3}[O_3]}$$

Acknowledgments

Dr. Sebastien Dusanter

Ms. Deepali Vimal

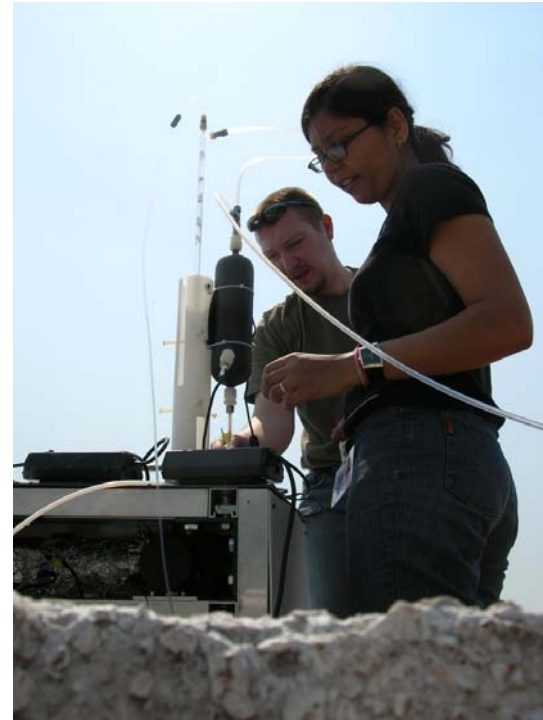
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