



Measurements of Nitrous acid in a US Urban Center

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Nitrous acid (HONO) is an important OH reservoir species during nighttime and it is readily photolyzed after dawn releasing substantial OH radical into the planetary boundary layer (PBL). $\text{HONO} + h\nu (\lambda < 370 \text{ nm}) \rightarrow \text{OH} + \text{NO}$. Up to the ppb level of HONO has been observed above urban areas. It is still uncertain on the role that HONO chemistry plays in O_3 production in urban areas. Furthermore, the details regarding the HONO production mechanism and the quantification of HONO sources are still not well established, especially for areas enriched with NO_x and VOC emissions. In this presentation measurements of the HONO concentration using chemical ionization mass spectrometry in a US Urban Center, Houston, TX will be reported. Discussions will be made on the implications on HONO formation on the radical production.