



Intercomparison of Measurement Nitrous Acid by IBBEAS and LOPAP

Yucun Liu (1), Meng Wang (1), Shuaishuai Yu (1), Mingzhi Li (1), Shengrong Lou (2), and Jun Chen (1)

(1) Shanghai Key Laboratory of Multiphase Flow and Heat Transfer in Power Engineering School of Energy and Power Engineering University of Shanghai for Science and Technology, Shanghai, China, (2) Shanghai Academy of Environmental Science, Shanghai, China

Nitrous acid (HONO) is an important source of the OH radical, the primary oxidant in the atmosphere that participates in the formation of ozone, which can lead to the so-called "photochemical smog" in polluted regions. The chemistry of HONO in the atmosphere is not well understood knowledge of its role as source of OH radicals is desirable difficulty in being measured.

The measurement of Nitrous Acid with good time resolution and sensitivity is important for understanding OH source in Atmosphere. Incoherent broadband cavity-enhanced absorption spectroscopy (IBBCEAS) and Long Path Absorption Photometer (LOPAP) hold much promise in this regard. We present the deployment of the field instrument both of IBBCEAS and LOPAP in urban Shanghai. Intercomparison of online HONO measurements was carried out during Winter Campaign (Shanghai, China, Winter, 2017-2018).