



## **PTR-MS measurements of non-methane volatile organic compounds during an intensive field campaign at the summit of Mount Tai, China, in June 2006**

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Owing to recent industrialization, Central East China has become a significant source of air pollutants. To examine the processes controlling the chemistry and transport of tropospheric ozone, we continuously measured non-methane volatile organic compounds (NMVOCs) as part of an intensive field campaign at Mount Tai, China, in June 2006 (MTX2006), using proton transfer reaction mass spectrometry (PTR-MS). Temporal variations of NMVOCs were recorded in mass-scan mode from  $m/z$  17 to  $m/z$  300 during 12–30 June 2006. More than thirty kinds of NMVOCs were detected up to  $m/z$  160, including alkenes, aromatics, alcohols, aldehydes, and ketones. Oxygenated VOCs were the predominant NMVOCs. During the night of 12 June, we observed an episode of high NMVOCs concentrations attributed to the burning of agricultural biomass. The  $[U+F044] \text{NMVOCs} / [U+F044] \text{CO}$  ratios derived by PTR-MS measurements for this episode are compared to emission ratios from various types of biomass burning as reviewed by Andreae and Merlet (2001) and to ratios recently measured by PTR-MS in tropical forests (Karl et al., 2007) and at urban sites (Warneke et al., 2007).