

***Interactive comment on “Peroxyacetyl nitrate (PAN) and peroxypropionyl nitrate (PPN) in urban and suburban atmospheres of Beijing, China” by J. B. Zhang et al.***

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I am very excited to see ambient data of PAN and PPN in Beijing, made as a part of the CAREBEIJING campaign. The study looks a nice piece of work, contributing to better understanding of air pollution in east Asia, one of important regions of the world. I would like to have some comments on the manuscript to contribute to improvement of the paper.

In Introduction, page 8175, the authors state:

"To date, PPN (Grosjean, 2003) has been reported in fewer studies than that for PAN. Only a few studies have reported PAN and PPN in east Asia concurrently (Lee et al., C2923

2008; Sun and Huang, 1995; Zhang and Tang, 1994; Zhang et al., 2009)..... No previous in situ simultaneous study of PAN and PPN in Asia has been reported ever before."

Indeed, measurements of PPN have been much fewer than of PAN. This is the same in east Asia, as the authors already cited several papers, including measurements in Korea and Taiwan. Here I would like to point out that these references are not enough, and hence that the authors' statement is not proper. The authors missed other previous publications, in particular, measurements made in/around Japan, both at remote and urban sites. For example, Tanimoto et al. (1999) reported measurements of PAN, PPN, PiBN, and PnBN, and discussed PPN/PAN ratios in Tokyo, followed by identification of APAN (Tanimoto and Akimoto, 2001). Kondo et al. (2008) characterized wintertime and summertime PAN (and NO<sub>y</sub>) in Tokyo more comprehensively. Tanimoto et al. (2002) reported seasonal cycle of PAN(s) at Rishiri Island, a remote site in Japan. There were publications from NASA aircraft campaigns over east Asian Pacific rim region, made as a part of PEM-West A/B and TRACE-P (e.g., Singh et al., 1996, 1998; Watanabe et al., 1998).

I would encourage the authors to take a look at these publications and add them to their paper for discussion. This would greatly merit the paper. For example, Table 1 will enable the authors to compare data in east Asia in more comprehensive manner.

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