# **Accepted Manuscript**

An ozone episode over the Pearl River Delta in October 2008

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PII: \$1352-2310(15)00260-5

DOI: 10.1016/j.atmosenv.2015.03.036

Reference: AEA 13710

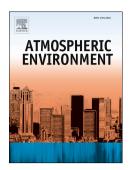
To appear in: Atmospheric Environment

Received Date: 24 December 2014

Revised Date: 13 March 2015
Accepted Date: 18 March 2015

Please cite this article as: Shen, J., Zhang, Y., Wang, X., Li, J., Chen, H., Liu, r., Zhong, L., Jiang, M., Yue, D., Chen, D., Lv, w., An ozone episode over the Pearl River Delta in October 2008, *Atmospheric Environment* (2015), doi: 10.1016/j.atmosenv.2015.03.036.

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### ACCEPTED MANUSCRIPT

# 1 An ozone episode over the Pearl River Delta in October 2008

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#### Abstract

- 11 The north and east Pearl River Delta (PRD) is usually a clean, upwind area in autumn.
- 12 Serious ozone pollution there in mid-late October 2008 was first discovered and then
- analyzed. Trajectory analysis, process analysis, ozone source apportionment
- technology, and sensitivity analysis were used to study this episode. Under the
- influence of a weak south wind, the precursors emitted in Guangzhou and Foshan
- were transported to the north and northeast PRD and formed ozone there, which
- 17 resulted in high ozone concentration (>100 ppb). As the wind direction later transited
- to northerly, the precursors in the northeast PRD that originated from the central and
- west PRD were transported to the south, and caused severe ozone pollution in the
- southeast PRD. The ozone contributed by chemical processes reached >20 ppb/h in
- 21 Jinguowan. More than 40 ppb ozone was contributed by the precursor emission in the

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