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An ozone episode over the Pearl River Delta in October 2008

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

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9

10 ***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

13 analyzed. Trajectory analysis, process analysis, ozone source apportionment

14 technology, and sensitivity analysis were used to study this episode. Under the

15 influence of a weak south wind, the precursors emitted in Guangzhou and Foshan

16 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

18 to northerly, the precursors in the northeast PRD that originated from the central and

19 west PRD were transported to the south, and caused severe ozone pollution in the

20 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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