

Interactive comment on “Air quality during the 2008 Beijing Olympics: secondary pollutants and regional impact” by T. Wang et al.

Anonymous Referee #1

Received and published: 1 June 2010

The manuscript Air quality during the 2008 Beijing Olympics: secondary pollutants and regional impact by Wang et al., present a detailed evaluation of secondary pollutants (Ozone, sulphate and nitrate) during 2008 Beijing Olympic Games. It revealed that after the full controls were in action, the primary pollutants decreased while the secondary pollutants showed somehow episodic increase. The whole manuscript is well structured and well-written. I would like to suggest acceptance after minor revision. (1) The evaluation was done based on measurements at three sites, due to the spatial variation of ground-level ozone, I suggest that the authors to mention explicitly in the abstract and conclusion section that all the remarks were from only the three sites, not for the whole city of Beijing; (2) In section 3.1, the authors could compare the measurements of SO₂, NO₂ and PM₁₀ at the three sites to the API of the whole city, to illustrate somehow the representativeness of their sites; (3) In line 5-25 on page 12441, the tracers

C3438

for vehicular exhaust needs to be more specific, and in the discussion on the changes of sources, the gasoline evaporation source will need to be mentioned, the municipal government put great efforts addressing VOCs emissions from storage, transport and gasoline stations. (4) As to the discussion of regional transport of ozone, I suggest the possible transport of ozone precursors need to be mentioned. (5) In conclusion, again, the episodic 190 ppbv ozone were found, the reviewer suggest the authors put together the site.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 12433, 2010.