

Interactive comment on “Process analysis of regional ozone formation over the Yangtze River Delta, China using the Community Multi-scale Air Quality modeling system” by L. Li et al.

Anonymous Referee #1

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1. How many vertical layers used in MM5 and CMAQ? In the paper, line 19-20 on page 15054 “Both the MM5 and CMAQ employ 14 vertical layers of varying thickness with denser layers in the lower atmosphere to better resolve the mixing height.” What are the detailed 14 vertical layers? 2. In Table 1, the unit of relative humidity is g/Kg. It is not suitable to use the liquid water content to present the relative humidity, may change to water mixing ratio. 3. Figure 3 on page 15075, the humidity values are around 20g/Kg, are they correct? Also, in the title of this figure, relative humidity is not suitable. 4. How about the distribution of emissions of NO_x over YRD used in CMAQ model? 5. There are no vertical O₃ observations to compare with the simulations. If the vertical simulation results were compared with the measurements, it will be better

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to use process analysis method to understand the different layer results.

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 15049, 2012.