

**Manuscript title:** Characteristics, sources, and reactions of nitrous acid during winter at an urban site in the Central Plains Economic Region in China

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The authors have addressed almost all of my concerns from the previous version, as well as those of the other reviewer. I am, however, still concerned with the nighttime concentrations of OH used for the net nocturnal production of HONO by homogeneous reaction. Indeed, the authors now use  $2.5 \times 10^5$  molecule  $\text{cm}^{-3}$  for nocturnal OH concentrations which is still very high. This value is deduced from measurements made in Beijing by Tan et al. (2018). However Tan et al. (2018) declare a limit of detection of  $4 \times 10^5$  molecule  $\text{cm}^{-3}$  for their OH LIF instrument, and quantification below this value during nighttime should be taken with caution especially when you look at the variability of these data at low concentrations for the whole campaign (see Fig. 5 of Tan et al., 2018). Furthermore, the authors support their choice by the nocturnal OH winter concentrations of 3 to  $6 \times 10^5$  molecule  $\text{cm}^{-3}$  estimated by the global model EMAC in the area of the study (Lelieveld et al., 2016), although in the work of Lelieveld et al. (2016) a factor of 0.05 is associated to these values and the nocturnal OH winter concentrations for the area is rather of 1.5 to  $3 \times 10^4$  molecule  $\text{cm}^{-3}$ . I therefore recommend to redo all the calculations that use the erroneous wintertime nocturnal OH concentrations of  $2.5 \times 10^5$  molecule  $\text{cm}^{-3}$  (too high of a factor of 20), and to modify the discussion and conclusion if necessary.