Atmos. Chem. Phys. Discuss., 14, C3142–C3144, 2014
www.atmos-chem-phys-discuss.net/14/C3142/2014/
© Author(s) 2014. This work is distributed under
the Creative Commons Attribute 3.0 License.

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Non-agricultural ammonia emissions in urban China" *by* Y. H. Chang

Y. H. Chang

changy13@fudan.edu.cn

Received and published: 3 June 2014

Dear Editor,

Thank you for your acceptance of my work being published as a discussion paper in ACPD. The purpose of this paper, as I stated in the summary, is to initiate wider discussion on the methodologies for the estimation of non-agricultural NH3 emissions. Therefore, no words can fully express my gratitude to Dr. John Worden and two other anonymous referees for their insightful comments. Specifically, I totally agree with Dr. Worden that we can make use of satellite retrievals to constrain our bottom-up emission estimates. However, given that much of the NH3 is close to the surface, I have a long believe that NH3 cannot be accurately detected from space in the near term

(Clarisse et al., Nature Geoscience, 2009). I am glad to know that that the Aura TES is able to resolve spatial and temporal gradients in surface NH3 concentrations, what an achievement! I also agree with the overall judgment made by Referee 1 that this manuscript merely provides a general idea about non-agricultural ammonia emissions in urban area in China and there is not enough information to support a range of my justiïňĄcations/assumptions/choices. The contribution to the discussion by Referee 2 is of highest quality since it presented in such a gory, technical detail, which ïňĄrmly convince me that Referee 2 is without any doubt serious and high-level scientist, despite some of the questions have been mentioned (if not been addressed) in "3.4 Future recommendation and outlook". Although have realized for a long time that of paramount importance is the question that the emissions are based on existing emission factors from the literature, I felt it's extremely difficult to adjust the emission factors from Europe and the US to Chinese conditions (technologies, practices, climate). When I discussed with my colleague and other experts with sophisticated expertise in the use of emission inventory, they also pointed out that most of the emission factors used in my work derived from foreign studies, which could definitely lead to a wrong result. This is particularly true for the EFs of on-road traffic since the auto emission standards applied in China is very complex. Unfortunately, I have made such a big mistake and proposed a wrong emission estimate of on-road traffic in my current manuscript. Accordingly, I think that my work regarding the emission inventory of non-agricultural NH3 in urban China should not be published.

As a layman in the field of atmospheric chemistry, I am lack of critical thinking and reasoning skills as well as serious and rigorous attitude towards scientific research, and this is why I rush to publish such erroneous manuscript. Overall, I think this paper is less than helpful, even harmful to the scientific community. Here I request you to withdraw my work from ACPD ASAP in order to prevent potential misleading to other relative researches, and my decision is irrevocable. Thanks and sorry for any inconvenience may occur!

Best regards,

Yunhua Chang

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 8495, 2014.