

Interactive comment on “Nitric oxide (NO) in the Bohai and Yellow Seas” by Ye Tian et al.

Anonymous Referee #1

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Manuscript title: Nitric oxide (NO) in the Bohai and Yellow Seas

The reviewer found the manuscript acceptable since it provided relevant findings. However, the following observations are pointed out: 1. The last sentence in the abstract seems spurious and unsubstantiated, because there was no part of the manuscript that reported research finds on NO_x emissions from ships 2. Judging from the distribution patterns of NO flux and the wind speed (Figure 5), one would expect an important inference and conclusive statement in the abstract and discussion. Previous investigators (Anifowose AJ, Sakugawa H. 2017. Determination of Daytime Flux of Nitric Oxide Radical (NO[•]) at an Inland Sea-Atmospheric Boundary in Japan. J Aquat Pollut Toxicol., 1:2) reported wind speed as an important factor governing NO flux at the air-sea interface. 3. The analytical methods on the measurements of NO concentration and during irradiation experiments (photoformation rate) are not explicit enough. I understand that the authors referred to Liu et al. (2017), there is need for them to report detailed an-

alytical procedures in the manuscript. 4. In view of comment 3 above, one would ask the precious question as to whether the measured concentration of NO during the irradiation experiment was steady-state concentration, even when the NO scavenging rate constant in the seawater (during the experiment) remained unknown? 5. I think there should be comprehensive correlation plot (and its discussion in the manuscript) of relationship between NO and NO₂⁻ (a major NO source). While it is true that the authors presented Figure 3 to reflect this, we only have very scanty data plotted. 6. Page 2, Line 1: 10 % should be 10%. This should be applicable in other relevant places in the manuscript. 7. Page 3: we have interchangeable use of “h” and “hour(s)”. The authors should stick to “h” preferably. 8. Page 6, Line 29: “0.00 × 10⁻¹¹ molL⁻¹s⁻¹” should be “not detectable” 9. Page 7: The statement between Lines 8 and 9 should read “. . .but would also generate reactive oxygen species like O₂⁻, ROO⁻ and other OH-related radicals, which in turn, would efficiently scavenge NO. . .” 10. Page 7, Line 17: 24h should be 24 h 11. Page 10, Line 19: 13(4), 1-31 were repeated in the reference

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Discussion paper

