

Atmos. Chem. Phys. Discuss., author comment AC3 https://doi.org/10.5194/acp-2021-866-AC3, 2022 © Author(s) 2022. This work is distributed under the Creative Commons Attribution 4.0 License.

Reply on CC1

Xueli Liu et al.

Author comment on "Measurement report: Variations in surface SO_2 and NO_x mixing ratios from 2004 to 2016 at a background site in the North China Plain" by Xueli Liu et al., Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2021-866-AC3, 2022

Response to comments by community # 1

1.What causes the difference in the diurnal variation of NOx and SO₂?

Response: The differences in diurnal cycle of SO_2 and NOx were attributed to emissions, meteorological and chemical processes. However, the major reason for the differences in all seasons in this study should be ascribed to apparent different emission sources of these two trace gases.

Please also note the supplement to this comment: <u>https://acp.copernicus.org/preprints/acp-2021-866/acp-2021-866-AC3-supplement.pdf</u>