

## ***Interactive comment on “Contribution of the nongrowing season to annual N<sub>2</sub>O emissions from the continuous permafrost region in Northeast China” by Weifeng Gao et al.***

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The authors investigated N<sub>2</sub>O emissions from the permafrost region in Northeast China from June 2016 to June 2018 using the static opaque chamber method, and analyzed the contribution of the nongrowing season to annual N<sub>2</sub>O emissions. The design of the study and interpretation of the results are appropriate. Although the topic might be suitable for publication in Biogeosciences, but the paper contains many fragments that reduplicated from the published paper of the author (Atmospheric Environment, 2019, 214, 116822), and writing/clarity needs additional attention. It is not suitable for publication in Biogeosciences in the present state. I suggest the authors revised the

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paper and submit to another journal.

Detail comments:

1. Please add an aerial photo showing the sampling locations.
2. Line 24, 25, and line 51, “permafrost are thawing” not “permafrost regions are thawing”.
3. Page 6 line 133, investigations?
4. Page 6 line 128, the soil type should be given according to the USDA classification system.
5. Page 8, table 1, the unit of data is missing. The meaning of small letter in the table should be given in footnote.
6. The title of the paper is Contribution of the nongrowing season to annual N<sub>2</sub>O emissions, Page 8 line 181, Gas samples were taken monthly during the winter from October to December, the time interval is too long.
7. Page 11 line 212, mol/L should be mol L<sup>-1</sup>.
8. Page 13 line 265, A and B in the figure title should be a and b.
9. Page 29 line 465, release of N<sub>2</sub>O emissions.
10. Page 29 line 469, nongrowing season and line 271 non-growing seasons.
11. Page 30 line 487, mouths?
12. Page 30 line 488, spring thaw spring?

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