

Atmos. Chem. Phys. Discuss., referee comment RC3
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Comment on acp-2022-425

Anonymous Referee #2

Referee comment on "Methane emissions responsible for record-breaking atmospheric methane growth rates in 2020 and 2021" by Liang Feng et al., Atmos. Chem. Phys. Discuss., <https://doi.org/10.5194/acp-2022-425-RC3>, 2022

Feng et al attempts to attribute the stunning increases in the methane growth rate from 2020-2021 using satellite observations of methane in conjunction with surface data. The subject is very timely and worth getting out into the community for further analysis and discussion. However, there are a number of issues that the authors need to address, which are incorporated into the annotated text of the paper. In particular, there are no uncertainty estimates of the fluxes, no real explanation of the Eastern African increase, and an unrealistic description of OH change. Spending more time on these elements will strengthen the paper and adding credibility to the results.

Please also note the supplement to this comment:

<https://acp.copernicus.org/preprints/acp-2022-425/acp-2022-425-RC3-supplement.pdf>