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Comment on acp-2020-1014

Anonymous Referee #3

Referee comment on "Quantification of CH_4 coal mining emissions in Upper Silesia by passive airborne remote sensing observations with the Methane Airborne MAPper (MAMAP) instrument during the CO_2 and Methane (CoMet) campaign" by Sven Krautwurst et al., Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2020-1014-RC1, 2021

Quantification of CH4 coal mining emissions in Upper Silesia by passive airborne remote sensing observations with the MAMAP instrument during CoMet

Sven Krautwurst et al.

The authors describe the methods and the results of methane emissions measurements from coal mines in the Upper Silesian Coal Basin in Poland. The paper provides a detailed description of measurement methods used and results of emissions measurement. The study is well-designed, and the paper is deserved to be published in Atmospheric Chemistry and Physics.

Tree minor recommendations:

- The authors should better describe the key findings of the study. The article provides a lot of technical detail and, as a result, the reader cannot see the "forest" behind the "trees." The authors provide too many peculiarities, so the article could benefit from adding general conclusions about methane emissions in the basin. The article is quite long, so part of the technical material can be moved to a supplement.
- It would be great to have some information about coal production in the Upper Silesian Coal Basin. What is the annual coal production? What is the rank of the coal? What is the methane content of the coal? How do the mines report emissions?
- The key novelty of the article is the comparison of measured data with emission inventories. What can be done to improve the accuracy of emission inventories? How the result of the study can help?