Comment on acp-2022-103

Anonymous Referee #1

Referee comment on "Enviro-HIRLAM model estimates of elevated black carbon pollution over Ukraine resulted from forest fires" by Mykhailo Savenets et al., Atmos. Chem. Phys. Discuss., https://doi.org/10.5194/acp-2022-103-RC1, 2022

This is a modelling study about black carbon particles but without any validation from measurements, at least some ground measurements of BC are required. The modelling setup is too rough. Not just that, but all the presentation throughout the texts shows the authors have not really performed any meaningful data analysis.

Is the unit of BC concentration in ppbm? What is ppbm by the way.

There are a number of places using quotation marks when referencing. You need to extract the key relevant information and write down in your own way rather than using the original words and quotation marks.

The quality of figures needs large improvement.

What is the size fraction of PM10, did you use the mass concentration of PM10 or PM10 minus PM2.5. The measurement needs to be explicitly given. Also how you have defined the PM10 is necessarily dust.

For modelling, a description of anthropogenic emission inventory you used is needed.

Fig. 7 is simply part of the open biomass burning emission inventory used (the burn area fraction), not footprint.

Overall, this manuscript is not qualified for commenting in details.