Authors' response to comments are highlighted in **red.**

Editor

5 **The authors thank the editor for their feedback.**

Based on the latest comments from RC2, I would like to ask the authors to further revise the paper:
1) Please shorten the abstract and leave out less important details.

The abstract has been shortened from 513→335 words and is much more concise.

10 2) Please include a quantitative assessment of MAGARA retrievals, which I believe it is critical for algorithm papers.

In the paper, we have performed the following assessment of the MAGARA retrievals:
Section 3 & Figs. 5-9. Three wildfire cases analyzed in detail.
Section 4 & Figs. 10-14. Quantitative statistical comparison of AOD and particle properties with AERONET.
This represents a comprehensive validation against essentially all available data; there are no other data sources that
15 **can serve as validation for the MAGARA retrievals.**

3) In the conclusion, please describe the future work (satellite validations, algorithm improvement, etc.).

We have added the following to the end of our conclusions:

Future work for MAGARA includes the ingestion of high-resolution column water vapor and ozone, which will allow
20 **us to better account for trace gas absorption. Additionally, ABI 1.37-micron and thermal infrared channels will be**
utilized to improve cloud screening, allowing for the algorithm to be run in regions where cloudiness is more
pervasive. Depending on the level of interest from the community, we may also consider extending MAGARA to
other geostationary imagers in the future.