

15 October 2025

Editor responses to Duren et al

We thank the editor for their helpful comments. We have implemented the corrections requested by the editor as outlined below. Additionally, we made some minor corrections to numerical values in Figure 2 and Table 3 to reflect the latest Tanager satellite specifications. Finally, we confirmed that appropriate credit has been provided for all figures that include images generated by third parties.

Please let us know if there are any follow up questions.

Best regards,

Riley Duren

Figure 16: even if the figure purpose is to illustrate spatial consistency between both plumes, I insist on adding a color bar. One can only assume here that black-to-white corresponds to low-to-high methane enhancement values, but also that the color scale range is identical between both panels, which may not be the case? I would expect that the higher spatial resolution of AVIRIS-3 allows to observe stronger enhancements than with Tanager 30m resolution, but the current grayscale without color bar does not allow to assess that. Also, one has to assume that the spatial extents of both panels are identical in this figure, is this accurate? The caption can be edited to confirm this point.

Response: we replaced Figure 16 with a colorized version including color bar and scale bar.

Internal references: I recommend authors to carefully proof-read their internal references, I could find two discrepancies:

- line 689: "[...] shows the oil and gas facility (panel C)." -> panel D, instead of C currently
- line 936: "Test setup details are described in SI-4." -> SI-5, instead of SI-4

Response: we corrected those issues and carefully proof-read other internal references.

References: added references from Razavi et al. (2009), Wecht et al. (2012) and Worden et al. (2024) are not cited anywhere in the text.

Response: we removed the extraneous references.